



# Corporation of the Municipality of Calvin

## Council Resolution

Date: July 30, 2024

Resolution Number: 2024-260

Moved By: Councillor GRANT

Seconded By: Councillor MANSON

**NOW THEREFORE BE IT RESOLVED THAT:**

The Council for the Corporation of the Municipality of Calvin has received and approves the draft 2024 Non-Core Asset Management Plan as presented by Mr. John Tarantino, VP Marmak Information Technologies,

Results: CARRIED

**Recorded Vote:**

| <u>Member of Council</u> | <u>In Favour</u>         | <u>Opposed</u>           |
|--------------------------|--------------------------|--------------------------|
| Grant                    | <input type="checkbox"/> | <input type="checkbox"/> |
| Latimer                  | <input type="checkbox"/> | <input type="checkbox"/> |
| Manson                   | <input type="checkbox"/> | <input type="checkbox"/> |
| Moreton                  | <input type="checkbox"/> | <input type="checkbox"/> |
| Mayor Gould (Absent)     | <input type="checkbox"/> | <input type="checkbox"/> |



## ***2024 Non-Core Asset Management***

Prepared for:

---

**The Municipality of Calvin**

---

This document contains information proprietary to MARMAK. (Marmak). Transmittal, receipt, or possession of this document does not express license, or imply rights to use, sell, design, manufacture, or have manufactured from this information. No reproduction, publication, or disclosure of this information, in whole or in part, electronic or otherwise, shall be made without the prior written authorization from an officer of Marmak. Authorized transfer of this document from the custody and control of MARMAK constitutes a loan for limited purposes, and this document must be returned to MARMAK upon request, and in all events upon completion of the purpose of the loan.

Copyright © 2024 MARMAK.

All Rights Reserved

All trademarks referred to in this document belong to their licensed and/or registered owners

30 Intermodal Drive, Suite 204, Brampton Ontario Tel: (905) 458-6686

**APPROVED BY COUNCIL JULY 30. 2024 RESOLUTION #2024-260**

|  |           |
|--|-----------|
| <b>Ontario Regulation 588/17 .....</b>                             | <b>4</b>  |
| Phase-in schedule.....   | 4         |
| <b>Council Responsibility.....</b>                                 | <b>5</b>  |
| <b>Societal Trends .....</b>                                       | <b>5</b>  |
| <b>Accessibility for Ontarians with Disability Act (AODA).....</b> | <b>5</b>  |
| <b>Asset Management Components.....</b>                            | <b>6</b>  |
| Time frames.....   | 7         |
| <b>Non-Core assets .....</b>                                       | <b>8</b>  |
| <b>Data Collection structure.....</b>                              | <b>9</b>  |
| Land Related Assets .....  | 9         |
| Construction pricing .....   | 9         |
| Building Geometry .....  | 9         |
| Data Collection structure .....                                    | 9         |
| Asset attributes.....  | 10        |
| Asset breakdown.....   | 10        |
| Land Inventory.....  | 11        |
| Municipal owned facilities .....                                   | 11        |
| Fleet and Equipment.....   | 11        |
| <b>Lifecycle Activities.....</b>                                   | <b>12</b> |
| Accurate lifecycle .....   | 12        |
| Asset Condition Information .....                                  | 12        |
| <b>Inspections .....</b>   | <b>13</b> |
| Routine inspections.....   | 13        |
| Work orders .....  | 13        |
| <b>Level of Service Overview.....</b>                              | <b>14</b> |
| Level of Service (LoS) Policies.....                               | 14        |
| The Process.....   | 14        |
| Financial investment.....  | 15        |
| Level of Service Matrix.....                                       | 15        |

|                                   |           |
|-----------------------------------|-----------|
| <b>Risk .....</b>                 | <b>17</b> |
| Prioritization Matrix .....       | 17        |
| Probability of Failure (PoF)..... | 17        |
| PoF Matrix.....                   | 17        |
| Consequence of Failure (CoF)..... | 17        |
| Risk lookup.....                  | 17        |
| Asset Risk .....                  | 18        |
| <b>Climate change .....</b>       | <b>19</b> |
| Energy Demands.....               | 19        |
| <b>Citizen engagement .....</b>   | <b>20</b> |
| Occupiers liability act .....     | 20        |
| Patron feedback .....             | 20        |
| Incident reporting.....           | 20        |
| <b>Financial .....</b>            | <b>21</b> |
| Optimized Asset replacement ..... | 21        |
| Budget forecasting .....          | 21        |
| Equipment Utilization.....        | 21        |



## **Ontario Regulation 588/17**

---

Objectives as defined by the Ontario reg. 588/17

A municipality's asset management plan must include for each asset category, the current levels of service being provided, determined in accordance with qualitative descriptions and technical metrics based on data from at most the two calendar years prior to the year in which all information required under this section is included in the asset management plan.

For each asset category, a summary of the assets in the category, the replacement cost of the assets in the category, the average age of the assets in the category, determined by assessing the average age of the components of the assets, the information available on the condition of the assets in the category, and a description of the municipality's approach to assessing the condition of the assets in the category, based on recognized and generally accepted good engineering practices where appropriate.

For each asset category, the lifecycle activities that would need to be undertaken to maintain the current levels of service for each of the 10 years following the year for which the current levels of service are determined and the costs of providing those activities based on an assessment of the following: The full lifecycle of the assets, the options for which lifecycle activities could potentially be undertaken to maintain the current levels of service and the risks associated with the options.

### **Phase-in schedule**

July 1, 2019: Date for municipalities to have a finalized strategic asset management policy that promotes best practices and links asset management planning with budgeting, operations, maintenance, and other municipal planning activities.

July 1, 2022: Date for municipalities to have an approved asset management plan for core assets (roads, bridges and culverts, water, wastewater, and stormwater management systems) that identifies current levels of service and the cost of maintaining those levels of service.

July 1, 2023: Date for municipalities to have an approved asset management plan for all municipal infrastructure assets that identifies current levels of service and the cost of maintaining those levels of service.

July 1, 2024: Date for municipalities to have an approved asset management plan for all municipal infrastructure assets that builds upon the requirements set out in 2023. This includes an identification of proposed levels of service, what activities will be required to meet proposed levels of service, and a strategy to fund these activities

## **Council Responsibility**

---

- Member of council play an important role in validating municipal level of service. Not only through the policies that they adopt, the yearly review and the ongoing involvement when levels are adversely affected.
- The frequency of these reviews should be established and followed by staff as part of the Asset Management Policy
- Council must be educated on the asset management strategies which comprise of an accurate inventory, required inspections, lifecycle events, risk mitigations, citizen engagement and financial sustainability.
- Council's responsibility is to provide direction to staff while supporting qualified staff in their decisions.
- Validate and support the amount of time it will take to reach expected Levels of Service

## **Societal Trends**

---

- Upcoming Governmental trends
- Changes in society
- Technology changes
- Cyber security
- Environmental sustainability

## **Accessibility for Ontarians with Disability Act (AODA)**

---

According to the legislation, the AODA aims to develop, implement and enforce standards related to goods, services, accommodation, employment and buildings before Jan. 1, 2025. The legislation applies to every person in both the public and private sector

The *Accessibility for Ontarians with Disabilities Act, 2005* (AODA) is intended to reduce and remove barriers for people with disabilities so that Ontario can become more accessible and inclusive for everyone. Collaboration among businesses, organizations, communities and all levels of government is key to reaching this goal.

The O. Reg. 191/11, *AODA* is the law that sets out a process for developing, implementing and enforcing accessibility standards that government, businesses, non-profits and public sector organizations must follow to become more accessible. These laws and standards are intended to make Ontario open to everyone by helping to reduce and remove barriers.

**Detailed information can be found on the municipality**

**"ACCESSIBILITY PLAN 2023- 2028"**



## Asset Management Components

---

### Accurate and detailed asset inventory

- a summary of the assets in the category
- condition of the assets in the category
- the average age of the assets in the category
- condition ratings
- collection of minimum data per asset category
- operations, such as increased maintenance schedules

### Lifecycle Management

- When to remediate
- What to remediate
- How to remediate
- When to replace rather than remediate
- The options for which lifecycle activities could potentially be undertaken to maintain the current levels of service.
- The lifecycle activities undertaken for the lowest cost to maintain the current levels of service
- Lifecycle management and financial strategy that sets out the following information with respect to the assets in each asset category for the 10-year period.

### Level of Service

- Establishment and Adoption of Technical Level of service
- Establishment and Adoption of end user Level of service
- Adoption of provincial standards
- Establishment and Adoption of Probability of Failure (PoF)
- Establishment and Adoption of Consequence of Failure (CoF)
- Establishment and Adoption of the risks associated with PoF and CoF

### Financial Controls

- An estimate of the annual costs for each of the 10 years of undertaking the lifecycle activities separated into capital expenditures and significant operating costs.
- The replacement cost of the assets in the category
- If based on the funding projected to be available, the municipality identifies a funding shortfall for the lifecycle activities
- An identification of the annual funding projected to be available to undertake lifecycle activities and an explanation of the options examined by the municipality to maximize the funding projected to be available.

## Climate change

- Energy efficiency
- Climate change adaption
- Climate change mitigation

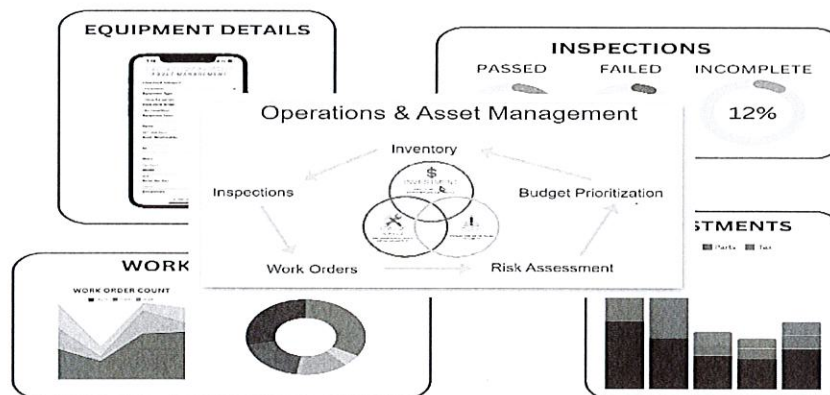
## Citizen Engagement

- Municipal residents and other interested parties to provide input
- Service request associated to location, deficiency type, and actions required. Input deficiency, create work orders, and manage the repairing, the deadlines and follow up comments.

## Corporate Policy

- Adoption of risk matrix
- Adoption of financial strategy
- Create multiple scenarios
- Regular update of plan
- Establish aa asset replacement policy
- Enact a municipal bylaw

Fig 1.0



## Time frames

The AM initiative comprises of several updates which are required at specific intervals.

| Tasks                          | Timelines    | Description   |
|--------------------------------|--------------|---|
| Update AM plan                 | biannual     | Edit the updated document   |
| Update asset repository        | ongoing      | Continuously update the inventory repository  |
| Capital plan                   | yearly       | Create annual capital plans establishing a link between capital, operational and corporate strategic plan |
| Level of Service/financial     | yearly       | Define individual inspection which culminates with LoS  |
| Financial capabilities         | yearly       | Link LoS to financial capabilities.<br>Integrate tax increases, levy's, user fees                         |
| Building Condition Index (BCI) | 5 – 10 years | Buildings constitute the large part of non-core assets. Request BCI for buildings and assets              |



## Non-Core assets

---

The municipality has established the following non-core assets.

- Land
- Buildings
- Fleet

Additionally over time the municipality will based on its capacity choose to expand the list to include,

- Information Technology
- Data Electronic (electronic, paper, documents)
- Purchasing procedures (green compliancy)
- Human Resources (Staffing, recruiting, retention)

The municipality will focus on physical non-core assets which includes

- Land (municipal properties, parks, trails and cemeteries)
- Buildings (community hall, fire department)
- Fleet / Equipment (Trucks, and associated equipment)

| Hierarchy          | Category                                       | Subtype   |
|--------------------|--|---|
| Land (roll number) | administration<br>public works/<br>Recreation/ | <ul style="list-style-type: none"><li>• Easements, Right of ways,</li><li>• Parking lots</li><li>• Vacant properties</li><li>• Cemeteries</li><li>• Community hall; ice rink</li><li>• Emergency; fire, ambulance</li><li>• Salt / Storm shed.</li><li>• Washrooms</li><li>• Septic tanks</li></ul> |
| Building           | Building structure/Outer shell                 | <ul style="list-style-type: none"><li>• Interior/exterior</li><li>• Roof/shell structure/walls</li><li>• Foundations/footings/slabs</li><li>•</li></ul>   |
| Inventory          | Capital assets within building                 | <ul style="list-style-type: none"><li>• Electrical/</li><li>• Mechanical/</li><li>• Structural</li><li>• Emergency</li><li>• Electronic</li><li>• Miscellaneous</li><li>•</li></ul>   |
| Fleet/Equipment    |  | <ul style="list-style-type: none"><li>• Heavy duty</li><li>• Medium duty</li><li>• Light duty</li><li>• Recreational</li><li>• Emergency</li><li>•</li></ul>  |

## Data Collection structure

### Land Related Assets

Collection of land related parcel information includes;

- Total number of parcels
- Parcels connected to municipal infrastructure
- Parcels with emergency access within specified timeframe
- Parcels on maintained roads

### Construction pricing

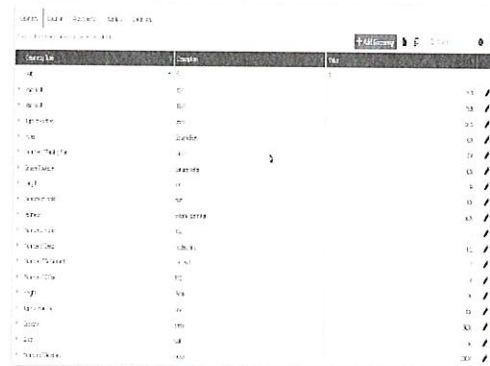
Square footage construction pricing as of 2022

- Maintenance facilities \$450.00 sq. ft.
- Municipal offices \$375.00 sq. ft.

### Building Geometry

Necessary geometry fields associated to each facility including;

- AODA compliancy
- square footage
- number of floors
- year built
- parking lot
- capacity

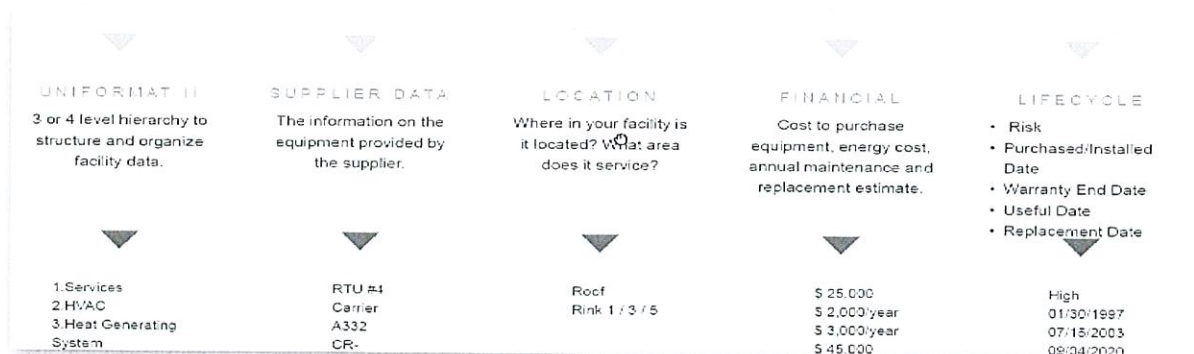


| Field Name        | Value | Unit    | Value |
|-------------------|-------|---------|-------|
| Area              | 100   | Sq. Ft. | 100   |
| Volume            | 100   | Cu. Ft. | 100   |
| Perimeter         | 100   | Feet    | 100   |
| Height            | 100   | Feet    | 100   |
| Area (Total)      | 100   | Sq. Ft. | 100   |
| Volume (Total)    | 100   | Cu. Ft. | 100   |
| Perimeter (Total) | 100   | Feet    | 100   |
| Height (Total)    | 100   | Feet    | 100   |
| Area (Net)        | 100   | Sq. Ft. | 100   |
| Volume (Net)      | 100   | Cu. Ft. | 100   |
| Perimeter (Net)   | 100   | Feet    | 100   |
| Height (Net)      | 100   | Feet    | 100   |
| Area (Gross)      | 100   | Sq. Ft. | 100   |
| Volume (Gross)    | 100   | Cu. Ft. | 100   |
| Perimeter (Gross) | 100   | Feet    | 100   |
| Height (Gross)    | 100   | Feet    | 100   |
| Area (Net)        | 100   | Sq. Ft. | 100   |
| Volume (Net)      | 100   | Cu. Ft. | 100   |
| Perimeter (Net)   | 100   | Feet    | 100   |
| Height (Net)      | 100   | Feet    | 100   |
| Area (Gross)      | 100   | Sq. Ft. | 100   |
| Volume (Gross)    | 100   | Cu. Ft. | 100   |
| Perimeter (Gross) | 100   | Feet    | 100   |
| Height (Gross)    | 100   | Feet    | 100   |

## Data Collection structure

The municipality must begin by adopting a standard and establishing the minimum data fields of information to be collected. It is suggested that the municipality may wish to review the adoption of the UNIFORMAT standard for collection of building data.

In Ontario, municipalities who are members of "Ontario Recreation Facilities association have access to the RFAM inventory module at no cost as part of their member services. RFAM is built on industry



standards through an ecosystem of collaborative municipalities which can share best practices. One such standard is the ASTM UNIFORMAT II level 3 Standard E1557 classification.

## Asset attributes

Collection of all mandatory fields is necessary in order to produce valid reports

Community Centre / Municipal Office - Equipment Inventory

Equipment Category: \*
Finishes (C)

Equipment Type: \*
Doors

Equipment Detail:
Door Hardware

Equipment Item:
Select...

Name:
Automatic Door Arm #1

Asset Relationship:

ID:
Automatic Door Arm\_001

Make:
Ditec

Model:
Auto Swing HA-8

Serial Number:
28473

Department:
Select...

Space Category: \*
Main Entrance

Floor:
---

Room #:

Location Served:

Map:
Map

TCA:

Purchase Price:
1500

Replacement Cost:
1500

Quantity:

Installation Year:

Warranty End Date:

Proposed Replacement Date:

Lifespan:

Actual Replacement Date:

Usage (Hours):

Capacity (Hours):

Condition: \*
Very Good (80-100% Remai...

Comments:

Status: \*
Capital

Energy Equipment:

Save
Cancel

## Asset breakdown

| Asset category     | Asset Categories   | Asset Attributes        |
|--------------------|--|-------------------------|
| Land               | Administration,<br>Green space,<br>Public Works<br>Environmental | Roll Number             |
| Buildings          | Envelope<br>Foundations<br>Roof                                  | Uniformat II            |
| Building Inventory | Plumbing<br>HVAC<br>Electrical                                   | Make, model, SN, dates  |
| Fleet              | Heavy duty<br>Medium duty<br>Light duty<br>Environmental         | Make, model, Vin, dates |
| Equipment          | Recreation,<br>Emergency,<br>Public Works<br>Environmental       | Make, model, dates      |



## Land Inventory

| ASSET SUB TYPE           | ASSET ID | ASSET NAME  | TYPE          | CATEGORY          | ROLL NUMBER        | DEPARTMENT   | ASSET<br>DEPARTMENT | LEGAL DESCRIPTION  | CIVIC ADDRESS              | CONSTRUCTION DATE | CONDITION | AREA        |
|--------------------------|----------|---|---------------|-------------------|--------------------|--------------|---------------------|--|----------------------------|-------------------|-----------|-------------|
| Buildings and Facilities | BLDG_001 | COMMUNITY CENTRE/MUNICIPAL OFFICE                         | Occupied Land | Building Envelope | 402200001203010000 | Corporate    | Land_003            |  | 1355 PEDDLERS DRIVE        | 1975-01-01        |           |             |
| Buildings and Facilities | BLDG_010 | PUBLIC WORKS Garage                                       |               | Building Envelope | 402200001203010000 | Public Works | Land_003            |  | 1331 Peddlers Drive        | 1975-01-01        | FAIR      |             |
| Buildings and Facilities | BLDG_020 | CHANGE ROOM / RECREATION STORAGE                          |               |                   | 402200001203010000 |              |                     |  | 1331 PEDDLERS DRIVE        | 1985-01-01        | FAIR      |             |
| Buildings and Facilities | BLDG_030 | SAND DOME   |               |                   | 402200001203010000 |              | Land_003            |  | 1331 PEDDLERS DRIVE        | 2004-01-01        | GOOD      |             |
| Buildings and Facilities | BLDG_040 | FIRE HALL   | Occupied Land | Building Envelope | 402200001140000000 | Emergency    | Land_002            | CON 4 PT LOT 15  | 1238 PEDDLERS DRIVE        | 1976-01-01        | FAIR      | 0.39 acres  |
| Buildings and Facilities | BLDG_050 | OUTDOOR RINK  | Occupied Land |                   | 402200001203010000 |              | Land_003            |  |                            | 2014-01-01        | POOR      |             |
| Buildings and Facilities | BLDG_060 | LANDFILL SITE   |               |                   | 402200001099000000 |              | Land_006            |  | 111 ADAMS ROAD             |                   | POOR      |             |
| Buildings and Facilities | BLDG_070 | QUONSET   |               |                   | 402200001203010000 |              | Land_003            |  | 1331 PEDDLERS DRIVE        | 2004-01-01        |           |             |
| Buildings and Facilities | BLDG_080 | BAND SHELL  |               |                   | 402200001203010000 |              | Land_003            |  |                            | 2004-01-01        |           |             |
| Municipal Land           | LAND_002 | FIRE HALL   | Site          |                   | 402200001140000000 |              |                     | CON 4 PT LOT 15  | 1238 PEDDLERS DRIVE        |                   |           | 0.39 acres  |
| Municipal Land           | LAND_003 | COMMUNITY CENTRE/MUNICIPAL OFFICE/<br>OUTDOOR HOCKEY RINK | Occupied Land | Site              | 402200001203010000 |              |                     | CON 5 PT LOT 17 RP<br>36R3278/PART 1 PCL 23347 RP<br>36R3999/PART 1 PCL 23914 RP | 1331 - 1355 PEDDLERS DRIVE | 1975-01-01        |           | 10 acres    |
| Municipal Land           | LAND_004 | VACANT LAND_004   | Site          |                   | 402200001175500000 | Parks        |                     | CON 5 PT LOT 3 PCL 7009 NIP  |                            |                   |           | 14 acres    |
| Municipal Land           | LAND_005 | 251.837 Acres Unopened Road Allowances                    | Right of Way  | Site              |                    | Public Works |                     |  |                            |                   |           | 251 acres   |
| Municipal Land           | LAND_006 | LANDFILL SITE   |               | Site              | 402200001099000000 | Public Works |                     | CON 3 LOT 21 PCL 27894 NIP   | 111 ADAMS ROAD             | 1991-01-01        |           | 100 acres   |
| Municipal Land           | LAND_007 | CALVIN UNION CEMETERY                                     |               | Site              | 402200001152000000 |              |                     | CON 4 PT LOT 20<br>INCL LINDSAY RD - 1831 Pa PT 1                                | 40 Peacefill Lane          | 1909-01-01        |           | 3.62 acres  |
| Municipal Land           | LAND_008 | Smith Lake Public Access                                  |               | Site              | 402200001309000000 |              |                     | CON 7 PT LOT 19  |                            | 1964-01-01        |           | 13.13 acres |
| Municipal Land           | LAND_009 | 0.5 Acres Vacant Land                                     |               | Site              | 402200001110000000 |              |                     | CON 3 PT LOT 30 PCL 368 NIP  |                            |                   |           | 0.5 acres   |
| Municipal Land           | LAND_010 | 1.54 Acres Vacant Land                                    |               | Site              | 402200001094010000 |              |                     | CON 3 PT LOT 8 PLAN 36R-<br>3326 PART 1 PCL 23379 NIP                            |                            |                   |           | 1.54 acres  |
| Municipal Land           | LAND_011 | 0.41 Acres Vacant Land                                    |               | Site              | 402200001182000000 |              |                     | CON 5 PT LOT 6 PCL 459 NIP   |                            |                   |           | 0.41 acres  |
| Municipal Land           | LAND_012 | 0.30 Acres Vacant Land                                    |               | Site              | 402200001139200000 |              |                     | CON 9 PT LOT 17 RP 36R3752<br>PART 1 REM PCL 24636 NIP                           |                            |                   |           | 0.3 acres   |
| Municipal Land           | LAND_013 | 1.01 Acres Vacant Land                                    |               | Site              | 402200001264500000 |              |                     | CON 1 PT LOT 2 PCL 12017 NIP   |                            |                   |           | 1.01 acres  |
| Municipal Land           | LAND_014 | 2.0 Acres Vacant Land                                     |               | Site              | 402200001172100000 |              |                     | CON 5 PT LOT 2 PCL 12017 NIP   |                            |                   |           | 2 acres     |
| Municipal Land           | LAND_015 | 1.07 Acres Vacant Land                                    |               | Site              | 402200001146115000 |              |                     | CON 1 PT LOT 20<br>R23623901/PART 2 PCL 26648<br>NIP                             | 142 Talbot Lake Rd         |                   |           | 1.07 acres  |

## Municipal owned facilities

| Asset Class | Asset Type                                | Asset Detail        | Asset Name                        | Asset ID | Asset Purpose            |
|-------------|---|---------------------|-----------------------------------|----------|--------------------------|
| Facility    | Recreation                                | Athletics Facility  | Changeroom / Storage              | BLDG_020 | storage of equipment     |
| Facility    | Recreation                                | Community Centre    | Community Centre / Municipal Offi | BLDG_001 |                          |
| Facility    | UNIFORMAT II (English Fire Hall           | Firehall            |                                   | BLDG_040 |                          |
| Facility    | Environmental                             | Landfill            | Landfill Site                     | BLDG_060 |                          |
| Facility    | UNIFORMAT II (English Public Works Garage | Public Works Garage |                                   | BLDG_010 | MAINTENANCE GARAGE       |
| Facility    | Recreation                                | Quonset             |                                   | BLDG_070 | Extra Storage for Public |
| Facility    | Recreation                                | Sand Dome           |                                   | BLDG_030 |                          |

## Fleet and Equipment

| ASSET TYPE | ASSET SUB TYPE      | ASSET ID                  | ASSET NAME                | DEPARTMENT   | LEASE | PURCHASE DATE | PURCHASE PRICE | CONDITION | LICENSED | EMISSION |
|------------|---------------------|---------------------------|---------------------------|--------------|-------|---------------|----------------|-----------|----------|----------|
| Vehicle    | Garden Equipment    | LOADER BACKHOE            | LOADER BACKHOE            | Public Works | NO    | 2003-01-01    | \$102,000.00   | POOR (4)  |          | YES      |
| Vehicle    | Medium Duty Vehicle | 2006 GMC AMBULANCE        | 2006 GMC AMBULANCE        | Emergency    |       | 2016-01-01    | \$13,560.00    |           |          |          |
| Vehicle    | Heavy Duty Vehicle  | 2014 INTERNATIONAL TANKER | 2014 INTERNATIONAL TANKER | Emergency    |       | 2015-01-01    | \$211,200.00   |           |          |          |
| Vehicle    | Heavy Duty Vehicle  | FLT_001                   | INTERNATIONAL 7600        | Public Works | NO    | 2005-01-01    | \$174,400.00   | POOR (4)  | YES      | YES      |
| Vehicle    | Heavy Duty Vehicle  | International 76-05       | International 76-05       | Public Works |       | 2015-01-01    | \$196,000.00   |           |          | YES      |
| Vehicle    | Medium Duty Vehicle | 1985 GMS BRIGADEER        | 1985 GMS BRIGADEER        | Emergency    |       | 2005-01-01    | \$35,000.00    |           | YES      | YES      |
| Vehicle    | Heavy Duty Vehicle  | GRADER                    | GRADER                    | Public Works |       | 1990-01-01    | \$333,041.00   |           |          |          |



## Lifecycle Activities

Asset lifecycle activities consist of the following components.

|                |   |
|----------------|---|
| Rehab          | lifecycle events which may extend the life of the asset                 |
| Replace        | activities once the asset has reach its end of life                     |
| Disposal       | accounting and engineering activities which may have ongoing activities |
| Climate Change | Impact and access to renewable technologies                             |

## Accurate lifecycle

Accurate lifecycle for each asset category is fundamental to establishing proper AM plan. Each lifecycle event is directly attributed to the proper inventory data collection. Each building comprises of various asset categories. Each asset category has a defined life expectancy. Each life expectancy is further defined by the amount of usage. The amount of usage is directly proportional to the efficiency of the unit and overall building.

| Category           | Life Expectancy (years) | Usage /Consumption               |
|--------------------|-------------------------|----------------------------------|
| Land               |                         |                                  |
| Parks              | 50                      | Remaining useful life            |
| Parking lots       | 25                      | Remaining useful life            |
| Cemeteries         | 50                      | Remaining useful life            |
|                    |                         |                                  |
| Building           |                         |                                  |
| Structural         | 50                      | Remaining useful life            |
| Shell              | 40                      | Remaining useful life            |
| Electrical         | 15                      | Condition rating / Run Hours     |
| Mechanical         | 20                      | Condition rating / Run Hours     |
| Inventory          | 10-20                   | Condition rating / Run Hours     |
|                    |                         |                                  |
| Fleet / Equipment  |                         |                                  |
| Emergency services | 20                      | Condition rating / Run Hours/ Km |
| Public Works       | 20                      | Condition rating / Run Hours/ Km |
| Recreation         | 20                      | Condition rating / Run Hours/ Km |
|                    |                         |                                  |

## Asset Condition Information

| Category         | Current Condition rating        | Optimal condition rating        |
|------------------|---------------------------------|---------------------------------|
| Land             | Estimated remaining useful life | Estimated remaining useful life |
| Buildings        | Estimated remaining useful life | BCI                             |
| Inventory        | Estimated remaining useful life | Condition rating                |
|                  |                                 |                                 |
| Fleet /Equipment | Estimated remaining useful life | Inspections                     |
|                  |                                 |                                 |

## Inspections

The Municipality should take a proactive approach to measuring LoS, by adopting the ORFA's RFAM solution and cataloging each piece of inventory as well as the associated inspections. Inspections are classified as Predictive, Preventative and Reactive. These typical Inspections are categorized as regulatory, mandatory, health and safety and occurs daily, weekly, quarterly and annually. Sample of these inspections are;

|           |   |
|-----------|---|
| Fleet     | MTO inspections, Fire truck inspections   |
| Building  | subject to internal building inspections including fire suppression and extinguishers |
| Land      | staff inspection, CSA, play structures  |
| Inventory | subject to regulatory Inspections   |
| Emergency | Personal Preventative Equipment sent to manufacturer                                  |

## Routine inspections

As an integral part of level of service, the municipality has begun to electronically collect and manage inspections to both facilities and individual assets. The municipality will overtime increase and customize the inspection which will translate to proposed level of service and the municipality's ability to financially afford the established levels of service.

Inspections - Municipality of Calvin

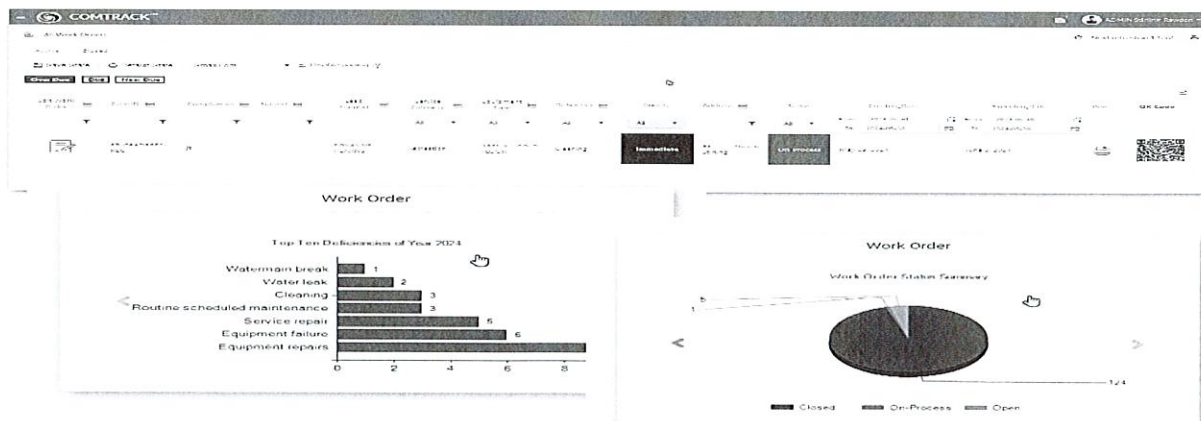
Current inspections Past inspections Upcoming inspections

Tap a column header to sort by that column

|         | Inspection Name               | Asset Name          | Inspector |
|---------|-------------------------------|---------------------|-----------|
|         | weekly                        | (All)               |           |
| Inspect | Weekly Air Compressor Check_4 | Public Works Garage |           |
| Inspect | Weekly Air Compressor Check_3 | Public Works Garage |           |
| Inspect | Weekly Air Compressor Check_2 | Public Works Garage |           |
| Inspect | Weekly Air Compressor Check_1 | Public Works Garage |           |

## Work orders

The municipality has begun adopting an electronic work order system which it intends to deploy during the 2024 calendar year. Failed inspection lead to the creation of work orders. Work orders status is monitored to validate established LoS.



## Level of Service Overview

---

Level of Service (LoS) is a balance between user expectations for overall quality, performance, availability, and safety versus affordability.

LoS requires asset category, performance measurement, a current measurement, a target measurement, an achievement date, an approximate cost, and a priority assigned to each performance measurement.

AMPs typically comprise of theoretical models which need to be vetted against operational models concluding with practical realities. LoS can be considered the practical component of an AMP. Operational and practical data is used to establish and validate LoS which in turn will feed into the financial component. This closed-loop approach will either validate the AMP or indicate required changes to the financial strategy. LoS is a key driver which influences asset management decisions, and depending on asset type can be either condition or age based.

LoS outlines the overall quality, performance, availability and safety of the service being provided. LoS contains a number of distinct categories:

- Service Identification
- Financial
- Municipal risk
- Community Expectations
- Technical component
- Strategic component

## Level of Service (LoS) Policies

---

The core purpose of a Municipality is to provide services to residents and other stakeholders. Physical assets are simply a portion of what is required to deliver the various LoS as determined by the municipality. The Municipality needs to ensure that the infrastructure performs to meet the level of service goals at an affordable and sustainable cost. An objective of LoS analysis is to find a balance between the expected levels of service and the cost of providing that LoS. Determining municipal LoS policies requires first developing a baseline for acceptable and affordable levels of service. This is done by first examining present-day service levels, community needs, regulatory or legal obligations and the cost-of-service delivery. Once present-day service levels have been examined, this baseline can be compared against LoS expectations.

## The Process

---

**Levels of Service analysis may involve:**

1. Developing
  - Customer vs. Technical Levels of Service
  - Current vs. Expected Levels of Service
  - Use of performance measures
  - Financial validation



2. Communication
  - Receive input from staff
  - Receive input from citizens
  - Communicate the Levels of Service to stakeholders
  - Council approval of Levels of Service strategies
3. Update
  - Updating the Levels of Service Analysis on a yearly basis

### Financial investment

---

The management of physical assets, their **selection, maintenance, inspection and renewal** plays a key role in determining the operational performance and viability of organizations that operate assets as part of their core business. Operational data is used to establish and validate LoS which in turn will feed into the financial component. This closed-loop approach will either validate the LoS strategies or indicates required changes to the financial strategy.

### Level of Service Matrix

---

Determining the desired levels of service for asset is achieved with consideration of a number of factors including costs, user expectations and government mandated and minimum requirements. LOS outlines the overall quality, performance, availability, and safety associated to municipal assets and services. Each asset category can have its own Key Performance Indicator, current measurements, target measurements, achievement date, approximate costs associated to each component and a priority listing based on staff and council consensus. There are three (3) distinct categories of LoS:

- Municipal risk
- Asset life cycle cost implications
- Financial options

LoS outlines the overall quality, performance, availability and safety of the service being provided. Technical levels of service (TLS) outline the operating, maintenance, rehabilitation, and renewal strategies.

TLS outline the operating, maintenance, rehabilitation, renewal and upgrade activities expected to occur. TLS must be considered that also look at the risk associated with providing the service. Proposed targets for customer and technical levels of service must be included as part of the asset management strategy. Performance measures should be developed, and the actual results achieved reported and updated annually.

The target levels of service must be reviewed on a regular basis to determine if they are appropriate and achievable. Consideration should be given to risk and cost in the development of target levels of service.

All assets carry a level of risk for their users. Generally, when conducting risk assessment, two key factors that come into consideration are frequency of use and cost of improvement. Acceptable levels of risk may vary depending on their frequency of use.



| Asset category  | LEVEL OF SERVICE               | Compliance   |
|-----------------|--------------------------------|--|
| land            | landscape maintenance          |  |
|                 | Blue/gray recycling            |  |
|                 | Landfill monitor report        |  |
|                 | Geographic Information System  |  |
|                 |                                |  |
| Buildings       | Safe buildings                 | Building Inspections                                 |
|                 | Meet legislative requirements  | AODA Compliant                                       |
|                 | Emergency accessibility        | Distance from fire hall                              |
|                 | Building Condition Index (BCI) | UNIFORMAT II STANDARD                                |
|                 | Inventory                      | TSSA, CSA  |
|                 | Energy Efficiency              | O.Reg. 507/18 broader public Sector energy reporting |
|                 |                                |  |
| Fleet/Equipment | Routine inspections            | MTO regulations                                      |
|                 | Routine maintenance            |  |
|                 |                                |  |

| Asset category  | LEVEL OF SERVICE    | RESPONSE TIME | Tracking Methodology |
|-----------------|---------------------|---------------|----------------------|
|                 |                     |               |                      |
| land            | landscape           |               |                      |
|                 | Maintenance         |               |                      |
|                 |                     |               |                      |
|                 |                     |               |                      |
| Buildings       | Foundation          | 1 Day         | BCI                  |
|                 | Structure           | 1 Day         | BCI                  |
|                 | Roof                | 1 Day         | BCI                  |
|                 | Bylaw infractions   | 1 Day         | COMTRACK             |
|                 | Safety              | ½ Day         | RFAM Inspections     |
|                 | Electrical          | 1 Day         | RFAM Inspections     |
|                 | HVAC                | 1 Day         | RFAM Inspections     |
|                 | Plumbing            | 1 Day         | RFAM Inspections     |
|                 |                     |               |                      |
| Fleet/Equipment | Routine Maintenance | 1 Day         | RFAM Inspections     |
|                 |                     |               |                      |

# Risk

---

## Prioritization Matrix

---

Assigning a base line value from 10 – 100 for each municipal asset category will enable to prioritize and compare various asset categories.

## Probability of Failure (PoF)

---

Not all assets deteriorate at the same level. In some cases the deterioration may be quantitative as 2 Building Condition Index (BCI) per year while others may be based on asset longevity. As the assets deteriorate the probability of failure increases. PoF for an asset category requires a combination of attributes including baseline weight, material, classification, condition rating and useful life. These values are normalized to a value from 1-5. The condition rating and useful life are matched against a desired level of service for a visual representation. The results including percentage weight, produce a PoF rating from 1-5

## PoF Matrix

---

| PoF | Rating    | Remaining useful life | Condition Index |
|-----|-----------|-----------------------|-----------------|
| 1   | Very Good | 0-10% of UL           | 90 – 100        |
| 2   | Good      | 11-30 % of UL         | 75 - 89         |
| 3   | Fair      | 31-50 % of UL         | 50 - 74         |
| 4   | Poor      | 51-65 % of UL         | 35 - 50         |
| 5   | Very Poor | 66 > % of UL          | <34             |

## Consequence of Failure (CoF)

---

Not all assets pose the same Consequence of Failure level. Even within the same category various pieces of equipment pose different risk or consequence of failure. CoF can be derived for each asset category from the calculation of an asset category baseline weight, and 5 criteria including; safety, operational, environment, finance, and legal.

## Risk lookup

---

**Environmental conditions;** Values from 1- 5 with associated description and details outlining the severity of the consequence associated to the environment

**Financial conditions;** Values from 1- 5 with associated description and details outlining the severity of the consequence associated to the financial

**Health and safety conditions;** Values from 1- 5 with associated description and details outlining the severity of the consequence associated to the Health and safety

**Legal;** Values from 1- 5 with associated description and details outlining the severity of the consequence associated to the Legal

**Operational conditions;** Values from 1- 5 with associated description and details outlining the severity of the consequence associated to the Operational

## Asset Risk

| Category  | Type                                      | Data Confidence | PoF | CoF | RISK   |
|-----------|---|-----------------|-----|-----|--------|
| Land      | Municipal owned land                      | good            | 1   | 1   | low    |
| Buildings | Envelopes, Roof, foundations              | good            | 2   | 3   | Medium |
| Inventory | A collection of all capitalized inventory | good            | 2   | 2   | Medium |
| fleet     | Vehicles                                  | good            | 2   | 3   | Medium |
| Equipment | Various machinery                         | good            | 2   | 2   | Medium |

## Climate change

---

### Energy Demands

---

The municipality should begin collecting energy consumption as part of future AM requirements.

- Meter each individual building
- Identify inventory assets which consume energy
- Collect water usage by building and associated various assets

O.Reg. 507/18 broader public Sector energy reporting and conservation and demand management plans include the summary for a year must include the following information for each of the public agency's prescribed operations:

1. The name of the building or facility.
2. The address of the building or facility.
3. The total floor area of the indoor space of the building or facility.
4. The type of the building or facility.
5. A description of the days and hours in the year during which the building or facility is operated and, if the building or facility is operated on a seasonal basis, the period or periods during the year when it is operated.
7. The total amount of each type of energy that was consumed in the year to operate the building or facility and that was purchased by the public agency, regardless of when it was purchased.

The town has posted its energy plan JULY 2023 – JUNE 2028 on its website

## **FIVE YEAR ENERGY CONSERVATION AND DEMAND MANAGEMENT PLAN**



## Citizen engagement

The municipality has made citizen engagement a priority. It has adopted innovative technologies to collect and analyze citizen satisfaction. The municipality is measuring 5 key indicators including, operational, security, amenities, professionalism, accessibility

The municipality's website offers a number of ways to stay informed about what are the Corporation of the Municipality of Calvin's programs and services; who to contact at the Municipal office to obtain those services; when Council is meeting, what are they discussing and what were Council's past meeting results. The town has a YouTube channel

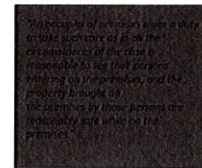
## Occupiers liability act

The municipality will review its property assets to insure that premises are reasonably free of hazards. That entrants are reasonably safe, and establish and maintain a "standard of care"

### Occupiers' Liability Act

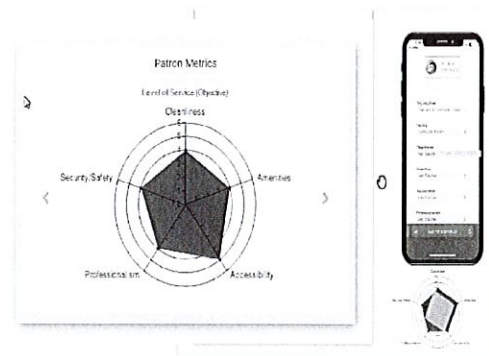
Legislation for Premises Liability

- This important legislation compels the Occupier, often the owner of the property (but not always!), to keep their premises reasonably free of hazards.
- Entrants to the property should expect a reasonably safe premises.
- Creates an important "standard of care."



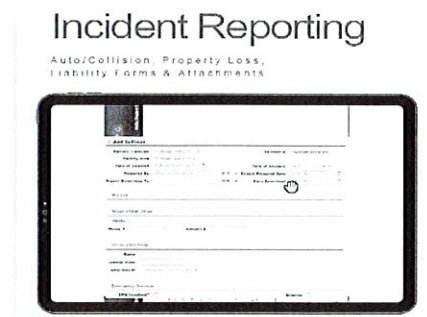
## Patron feedback

The same QR code technology used for inventory can be implemented within the municipal facilities to gather pertinent user satisfaction.



## Incident reporting

From both a liability and LoS perspective, the municipality may wish to begin to electronically collect and manage incident occurrences with municipal owned properties.



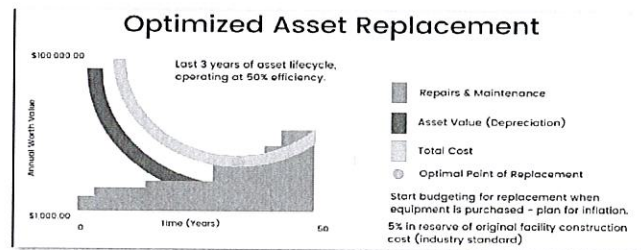
## Financial

Application for any OCIF funding, the municipality is required to provide Current Replacement Value. Where possible the municipality will record current replacement value on a per inventory record basis.

| Asset Replacement Schedule |            |            |                           |                               |                           |                               |                           |                               |                           |
|----------------------------|------------|------------|---------------------------|-------------------------------|---------------------------|-------------------------------|---------------------------|-------------------------------|---------------------------|
| Asset ID                   | Asset Name | Asset Type | Current Replacement Value | Estimated Useful Life (Years) | Current Replacement Value | Estimated Useful Life (Years) | Current Replacement Value | Estimated Useful Life (Years) | Current Replacement Value |
| 100                        | Water Main | Water Main | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                |
| 101                        | Water Main | Water Main | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                |
| 102                        | Water Main | Water Main | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                |
| 103                        | Water Main | Water Main | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                |
| 104                        | Water Main | Water Main | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                |
| 105                        | Water Main | Water Main | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                |
| 106                        | Water Main | Water Main | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                |
| 107                        | Water Main | Water Main | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                |
| 108                        | Water Main | Water Main | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                |
| 109                        | Water Main | Water Main | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                |
| 110                        | Water Main | Water Main | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                | 50                            | 100,000.00                |

## Optimized Asset replacement

The municipality will begin to collect the financial investment for each asset, and establish a policy to determine cost remediation versus cost replacement



## Budget forecasting

Through the collection of proper inventory and appropriate data fields the municipality will begin the process of creating 10 - 50 years dynamic capital plan

| LIFECYCLE STRATEGY REPORT |            |            |             |           |            |            |            |             |            |
|---------------------------|------------|------------|-------------|-----------|------------|------------|------------|-------------|------------|
| ASSET ID                  | ASSET NAME | ASSET TYPE | ASSET VALUE | ASSET AGE | ASSET LIFE | ASSET COST | ASSET DEPR | ASSET MAINT | ASSET REPL |
| 100                       | Water Main | Water Main | 100,000.00  | 50        | 100,000.00 | 100,000.00 | 100,000.00 | 100,000.00  | 100,000.00 |
| 101                       | Water Main | Water Main | 100,000.00  | 50        | 100,000.00 | 100,000.00 | 100,000.00 | 100,000.00  | 100,000.00 |
| 102                       | Water Main | Water Main | 100,000.00  | 50        | 100,000.00 | 100,000.00 | 100,000.00 | 100,000.00  | 100,000.00 |
| 103                       | Water Main | Water Main | 100,000.00  | 50        | 100,000.00 | 100,000.00 | 100,000.00 | 100,000.00  | 100,000.00 |
| 104                       | Water Main | Water Main | 100,000.00  | 50        | 100,000.00 | 100,000.00 | 100,000.00 | 100,000.00  | 100,000.00 |
| 105                       | Water Main | Water Main | 100,000.00  | 50        | 100,000.00 | 100,000.00 | 100,000.00 | 100,000.00  | 100,000.00 |
| 106                       | Water Main | Water Main | 100,000.00  | 50        | 100,000.00 | 100,000.00 | 100,000.00 | 100,000.00  | 100,000.00 |
| 107                       | Water Main | Water Main | 100,000.00  | 50        | 100,000.00 | 100,000.00 | 100,000.00 | 100,000.00  | 100,000.00 |
| 108                       | Water Main | Water Main | 100,000.00  | 50        | 100,000.00 | 100,000.00 | 100,000.00 | 100,000.00  | 100,000.00 |
| 109                       | Water Main | Water Main | 100,000.00  | 50        | 100,000.00 | 100,000.00 | 100,000.00 | 100,000.00  | 100,000.00 |
| 110                       | Water Main | Water Main | 100,000.00  | 50        | 100,000.00 | 100,000.00 | 100,000.00 | 100,000.00  | 100,000.00 |

## Equipment Utilization

The municipality has adopted an equipment Utilization index strategy to more accurately define assets which require immediate attention. This approach will indicate which similar assets have a shorter lifespan as a result of their daily usage, and thereby provide a more accurate replacement and lifecycle dates.

| EQUIPMENT UTILIZATION INDEX |                           |                 |           |                      |             |         |             |             |             |
|-----------------------------|---------------------------|-----------------|-----------|----------------------|-------------|---------|-------------|-------------|-------------|
| ASSET NAME                  | EQUIPMENT DETAIL          | EQUIPMENT TYPE  | RISK      | CONDITION            | UTILIZATION | RATINGS | REPLACEMENT | REPLACEMENT | REPLACEMENT |
| Public Works Garage         | Concrete Equipment (p11q) | Water           | No Defect | Per (45%) Remaining  | 100.0%      | 1.00%   | 1.00%       | 1.00%       | 100.0%      |
| Public Works Garage         | Concrete Equipment (p11q) | Pressure Washer | No Defect | Per (20%) Remaining  | 100.0%      | 1.00%   | 1.00%       | 1.00%       | 100.0%      |
| Public Works Garage         | Fuel Distribution (p11q)  | Water Tank      | No Defect | Good (50%) Remaining | 100.0%      | 1.00%   | 1.00%       | 1.00%       | 100.0%      |