Bill No. 95
2020

By-law No. A.-_____-____

A by-law to approve an Amending Agreement
between The Corporation of the City of London
and Assetic Canada Holdings Inc. to provide
for the ongoing license and support fees for the
Corporate Asset Management Computer
System.

WHEREAS subsection 5(3) of the *Municipal Act, 2001* S.O. 2001, c.25, as amended provides that a municipal power shall be exercised by by-law;

AND WHEREAS section 9 of the *Municipal Act, 2001*, as amended, provides that a municipality has the capacity , rights, powers and privileges of a natural person for the purpose of exercising its authority under the *Municipal Act*, 2001 or any other Act;

AND WHEREAS Municipal Council of The Corporation of the City of London considers it to be in the interests of the municipality to enter into an Amending Agreement with Assetic Canada Holdings Inc. to continue to use the Corporate Asset Management Computer System and to address the license and support fees for Years 4-6 (2020-2022);

NOW THEREFORE the Municipal Council of The Corporation of the City of London enacts as follows:

1.   The Amending Agreement attached as Appendix "A" to this by-law between The Corporation of the City of London and Assetic Canada Holdings Inc. to amend the agreement entered into with Assetic Canada Holdings Inc. on December 1, 2016 (the "Original Agreement") is hereby authorized and approved.

2.   The Mayor and City Clerk are authorized to execute the Amending Agreement authorized and approved in section 1 of this by-law.

3.   This by-law shall come into force and effect on the day it is passed.

PASSED in Open Council on March 2, 2020.

Ed Holder
Mayor

Catharine Saunders
City Clerk

First Reading – March 2, 2020
Second Reading – March 2, 2020
Third Reading – March 2, 2020

AMENDING AGREEMENT

This agreement made the   day of   , 2020.

B E T W E E N:

THE CORPORATION OF THE CITY OF LONDON (the "Corporation")

- and -

ASSETIC CANADA HOLDINGS INC. ("Assetic Canada")

WHEREAS The Corporation of the City of London and Assetic Canada Holdings Inc. (the "parties") entered into an Agreement commencing December 1, 2016 for the acquisition and implementation of a Corporate Asset Management Software Computer System (the "Original Agreement");

AND WHEREAS the Original Agreement did not address licensing fees for years 2020-2022 and the parties wish to enter into an Amending Agreement to provide for annual ongoing license and support fees for years 2020-2022;

AND WHEREAS the parties wish to provide for a termination date of December 31, 2022 for the Original Agreement by executing an Amending Agreement;

NOW THEREFORE THIS AGREEMENT WITNESSES that in consideration of the mutual covenants and agreements, and subject to the terms and conditions contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1   The Original Agreement (underline attached as Schedule 1) shall be continued upon the same terms and conditions as therein set out, except as specifically varied in this Amending Agreement.

2   Assetic Canada Holdings Inc. ("Assetic Canada") acknowledges and agrees that it is the party referred to as Assetic Canada in the Original Agreement and is bound by same.

3   The Corporation will pay Assetic Canada an annual ongoing license and support fee of $113,500 for the next three years. For greater clarity, the total fees the Corporation will pay to Assetic Canada for ongoing license and support from 2020-2022 will be $340,500. The parties therefore agree to delete Schedule B of the Original Agreement and replace it with Schedule B (attached as Schedule 2).

4   This Amending Agreement and the Original Agreement (the "Agreement") together constitute the entire agreement between the parties.

5   The Agreement shall terminate on December 31, 2022.

6   The Agreement may be renewed at the sole discretion of the Corporation upon review of the proposed license and support fees for future years, which shall be submitted to the Corporation no later than July 1, 2022.

7   This Amending Agreement shall enure and be binding upon the parties and their respective successors and assigns.

8   This Amending Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario.

IN WITNESS WHEREOF the parties have duly executed and delivered this Agreement as of the day and year first above written.

SIGNED, SEALED AND DELIVERED

THE CORPORATION OF THE CITY OF LONDON

_____

Ed Holder,
Mayor

_____

Catharine Saunders,
City Clerk

Assetic Canada Holdings Inc.

_____

Ben Moller
Channel Manager
I have authority to bind the corporation.

"SCHEDULE 1"

THIS AGREEMENT made this 22nd December , 2016.

- BETWEEN -

THE CORPORATION OF THE CITY OF LONDON

300 Dufferin Ave, P.O. Box 5035
London, Ontario, Canada
N6A 4L9

Hereinafter called the "City" (of the first part)

- AND -

ASSETIC CANADA
111 Richmond St. W., Suite 500
Toronto, Ontario Canada
M5H 2G4

Hereinafter called the "Consultant" (of the second part)

WHEREAS in **2015,** the City issued Request for Proposal (RFP) #14-72 for **Asset Management Software** in addition to **Addendum # 1 through to 5** (the "RFP");

AND WHEREAS on August 14, 2015 the Consultant submitted a bid in response to the RFP (the "Bid");

AND WHEREAS the City wishes to enter into an agreement with the Consultant for the services, as more particularly described in

Schedule A – Statement of Work

Schedule B –RFP Response and Bid, Updated Cost Proposal

attached hereto as Schedule "A" and Schedule "B" and forming part of this Agreement (the "Services"). In the event of any conflict between the terms of this Agreement and the terms of the Schedules, priority shall be given to the documents in the following order:

This Agreement

Schedule A

Schedule B

NOW THEREFORE THIS AGREEMENT WITNESSED the parties hereto agree with each other as follows:

1. The Consultant shall provide the Services pursuant to all the terms and specifications set out in Schedule "A" and Schedule "B.

2. The term of this Agreement shall commence December 1, 2016.

3. The City shall pay the Consultant for Services as provided for herein.

4. If either party, acting reasonably, determines that the other party has failed to perform its obligations pursuant to this Agreement, then such party may terminate this Agreement upon giving at least thirty (30) days' written notice to the other party.

This Agreement together with its schedule constitutes the entire understanding between the parties. Any change, addition to, or waiver of the terms hereof must be specifically agreed upon, in writing, by both parties.

This Agreement shall not be assigned, in whole or in part, by either party hereto (except as identified in Schedule A) without the prior written consent of the other party. This Agreement, all its covenants, promises and conditions shall ensure to the benefit of and be binding upon the parties hereto and their respective permitted successors and assigns.

Other Terms & Conditions

Timely and Accurate Information

The City agrees to use reasonable skill, care and attention to ensure that all information we may reasonably require is provided on a timely basis and is accurate and complete. The City agrees to notify us if it subsequently learns that the information provided is incorrect or inaccurate or otherwise should not be relied upon.

Changes to Service

Either party may request changes to the Services. The parties shall work with the City co-operatively to consider and, if appropriate, to vary any aspect of the engagement, subject to payment of reasonable additional fees and a reasonable additional period to provide any additional Services. Any variation to the Contract, including any variation to fees, services or time for performance of the Services, shall be set forth in separate documentation which shall form part of the Contract and to which these Terms and Conditions shall apply.

Reliance on Drafts

The City acknowledges that draft reports or advice, whether oral or written, issued by the Consultant may be subject to further work, revisions and other factors which may mean that such drafts are substantially different from any final report or advice issued.

Payment Terms

The Consultant's policy is to bill monthly for milestones completed (see table below) during the previous month, with payment net thirty days. The consultant reserves the right to charge interest at the rate of 1% per month for payment of any invoices not received within 30 days of billing.

Milestone / Stage	Payment	%
Upfront	$25,860	30
1 Planning and Discovery		
2 Assetic Deployment and Installation (Assets, Assessments and Accounting)		
3 Data Import & Validation	$17,240	20
4 Assetic Modelling & Setup		
5 Reporting and Results	$17,240	20
6 Assetic Deployment and Installation (Predictor)		
7 Testing	$8,620	10
8 Training	$8,620	10
9 Post Implementation	$8,620	10

Limitation of Liability

The Consultant's entire liability to the City under this engagement for damages from any cause whatsoever shall not exceed the aggregate of the amounts paid by the City pursuant to this Contract Proposal.

Insurance

The Consultant shall, at its own expense, obtain and maintain until the termination of this Agreement and provide the Corporation with satisfactory evidence of:

(a) Commercial general liability insurance on an occurrence basis for an amount not less than Two Million ($2,000,000.) Dollars and shall include the City as an additional insured with respect to all of the Consultant's operations, acts and omissions relating to its obligations under this Agreement, such policy to include non-owned automobile liability, personal injury, contractual liability, owners' and contractors' protective, contingent employers liability, cross liability and severability of interest clauses;

(b) Automobile liability insurance for an amount not less than Two Million ($2,000,000.) dollars on forms meeting statutory requirements covering all vehicles used in any manner in connection with the performance of the terms of this Agreement and;

c) Professional liability insurance covering the work and services described in this Agreement, such policy to provide coverage for an amount not less than Two Million ($2,000,000.) dollars and shall continue for twelve (12) months following termination of the Agreement.

(d) Data liability/Network Security coverage, underwritten by an insurer licensed to conduct business in the Province of Ontario and in an amount not less than One Million ($1,000,000.) dollars. Coverage is to respond to but not be limited to the following occurrences:

Privacy violations as a result of but not limited to unauthorized access to or dissemination of private information; failure to properly handle, manage, store, destroy or control personal information and include the failure to comply with privacy laws and their respective regulations regarding the collection, access, transmission, use and accuracy. Coverage shall extend to include the costs associated with notification of affected parties, regardless if required by statute as well as any fines or penalties or costs imposed as a result of the breach including defense of any regulatory action involving a breach of privacy.

Network Security to protect against incidents arising from system security failures such as, but not limited to, unauthorized access, theft or destruction of data, electronic security breaches, denial of service, spread of virus within the Contractor's computer network or other third party computer information systems and will further include expenses related to third party computer forensics.

Data Breach Expenses including crisis management and credit monitoring expenses related to electronic and non-electronic breaches.

The coverage under the policy shall be maintained continuously during the term of this Agreement and for an additional (two) years after the termination or expiration of the Agreement. If coverage is to be cancelled or non-renewed for any reason, 90 day notice of said cancellation or non-renewal must be provided to the Customer. The Customer has the right to request an Extended Reporting Endorsement by purchased by the Contractor at the Contractor's sole expense. The term of the Extended Reporting Endorsement will be decided by the Customer and Contractor.

(e) The policies shown in (a), (b) and (c) above will not be cancelled or permitted to lapse unless the insurer notifies the City in writing at least thirty (30) days prior to the effective date of cancellation or expiry.

(f) The Consultant shall not commence work until satisfactory evidence of insurance has been filed with and approved by the City. Evidence of insurance shall be filed on the City forms .0788 and .0888 as appropriate for each type of insurance shown in (a), (b) and (c), above. Prior to the effective date of this Agreement and thereafter on renewal date of the insurance, the Consultant shall further provide that evidence of the continuation of

said insurance is filed at each policy renewal date for the duration of the contract Agreement.

(g) The City reserves the right to request such higher limits of insurance or other types of insurance as it may reasonable require from time to time; failure to procure and maintain said insurance shall constitute a default under this Agreement. If the Client requests to have the amount of coverage increased or to obtain other special insurance for the Consultant's obligations under this Agreement, then the Consultant shall promptly endeavour to obtain such increased or special insurance at the City's expense as a disbursement allowed under the payment terms of this agreement.

Publication

The Consultant agrees to obtain the consent in writing of the City before publishing or issuing any information regarding the Project.

Confidential Data

The Consultant shall not divulge any specific information identified as confidential, communicated to or acquired by it, or disclosed by the City in the course of carrying out the Services provided for herein. These obligations of confidentiality shall not apply to information which is in the public domain, which is provided to the Consultant by a third party without obligation of confidentiality which is independently developed by the Consultant without access to the City's information, or which is required to be disclosed by law or by court order. No such information shall be used by the Consultant on any other project without the approval in writing of the City. This Agreement is subject to all applicable Canadian privacy laws including the Municipal Freedom of Information and Protection of Privacy Act.

Resolving Disputes

If any dispute arises, we will attempt to resolve the dispute in good faith by senior level negotiations. Where both of us agree that it may be beneficial, we will seek to resolve the dispute through alternative dispute resolution.
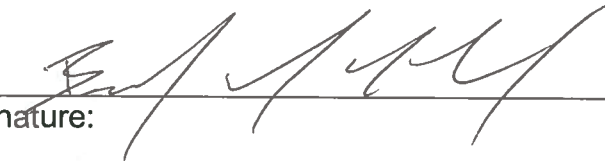
Enurement

The Agreement shall be for the benefit of and be binding upon the parties and their respective successors and assignes.

Confirmation of Terms of Engagement

Having read the above Proposal of Contract dated ___Dec 2016___, the parties agree to acceptance of this proposal and to engage the Consultants upon the terms set out therein. This Agreement shall be construed and interpreted in accordance with the laws of the Province of Ontario, Canada.

IN WITNESS WHEREOF the parties hereto have duly executed this Agreement.

ASSETIC CANADA

Signature: _____

Name: Brad Campbell
Position: General Manager

I have authority to bind the Corporation.

THE CORPORATION OF THE CITY OF LONDON

Signature: _____

Name: Matt Brown
Position: Mayor

Signature: _____
           Catharine Saunders, City Clerk

Name: ~~Cathy Saunders~~
Position: ~~City Clerk~~

we have authority to bind the Corporation.

Schedule A – Statement of Work

Schedule B –RFP Response and Bid, Updated Cost Proposal

CITY SOLICITOR'S
OFFICE
CITY OF LONDON
DATE: Dec. 19/16
APPROVED AS TO FORM ONLY

Schedule A

Statement of Work

City of London

CAM Software Project

London
CANADA

Date: April 6, 2016

Prepared by: Lois Burgess, Khaled Shahata and Jason Davies

Table of Contents

Document Purpose

The purpose of the Statement of Work (SOW) is to define the project-specific activities, deliverables and their respective timelines, to support service agreements pertaining to the purchase and implementation of asset management software, including the following:

▶ the project objectives and outcomes, benefits and scope; and

▶ the project deliverables, schedule and milestones, and estimated costs

1.0 Project Summary

Name	Corporate Asset Management Software System
Description	Purchase and implementation of an asset management software solution.
Sponsor	Anna Lisa Barbon
Project Manager	Lois Burgess, P.Eng, Division Manager, Corporate Asset Management City of London
Project Team Resources	Jason Davies, CPA, CMA, Asset Management Specialist, City of London Khaled Shahata, P.Eng, PhD, Asset Management Specialist, City of London Julia Ponce, Manager II, Information Technology Services, City of London
Assetic	Brad Campbell

2.0 Project Objectives, Outcomes, Benefits

Acquisition and implementation of an asset management software system will support the following objectives:

- Provide an asset data repository for the City's physical assets (as outlined in section 3.0 Project Scope).
- Support the implementation of standardized asset management practices, specifically:
  - Asset Valuation
  - Asset Condition tracking and forecasting
  - Level of Service management
  - Risk management
  - Life cycle costing
  - Project prioritization and selection (between and across service areas), and
  - Long term capital planning
  - PSAB 3150 Reporting
- Integrate, where necessary, with existing City systems (e.g. ESRI ArcGIS, SharePoint, J.D. Edwards, GIS, CMMS, Road Matrix, etc.) to ensure that the City's asset data is current, accurate, and complete.
- Provide a user friendly solution that supports data capture, analysis and transmission of asset information and reports across the corporation.
- Educate and train City staff to use the system in support of future implementation needs of the Corporate Asset Management program.

- Assess and implement where possible, support for the City's PSAB 3150 reporting requirements.
- Minimize impact and reliance on the City's Information Technology staff.

3.0 Project scope

3.1 Project Scope Includes

1. **Project Planning and Discovery**

   The software provider (Assetic) will manage the software implementation process and carry out the necessary coordination with its staff and sub-proponents, and with City staff. It will be the responsibility of Assetic to ensure the overall project is technically sound, will perform as intended, meets the City's requirements and expectations, and is carried out on schedule and within budget.

   Assetic is expected to include detailed information on the resources expected to be provided by the City for the implementation of the software. Although no additional equipment requirements are anticipated, should any needs arise, Assetic will provide explicit information on the additional new hardware required to utilize the software. Conventional City resources exist, but are not unlimited.

2. **The supply of software and licensing for the asset management software**

   Assetic will supply currently equivalent or better software based on the RFP 14-72 response and supporting documents. AsseticAssets and AsseticAccounting will be provided as a web hosted solution (unlimited users) while AsseticPredictor will initially be provided via desktop application (limited to 15 units) transitioning to a web hosted solution for unlimited use when the web-hosted product becomes available. Assetic will be responsible for the original installation and any transitions from temporary use to the final web hosted products. If AsseticPredictor is not available in a web hosted format by the end of 2016, the number of desktop users may be increased to 50 users.

3. **Services to setup and configure the software as per the City's requirements, including custom dashboards where required**

   The following asset classes owned and / or managed by the City of London are included in the scope of this project:
   - Parks and Recreation
     - Parks, Park Amenities & Use Areas, Pathways, Park Facilities, Golf, Stadium
     - Recreation Facilities (Aquatics, Arenas, Community & Senior Centres, Attraction)

- Transportation
  - Roads and Bridges
  - Urban Forestry
  - Traffic
  - Parking

The City of London has many datasets and sources. The City intends to initially populate the Assetic system with Transportation and Parks & Recreation service area data. Additionally, where practical, the population of data in Assetic will include datasets other than the Transportation and Parks & Recreation service areas. For example, all facilities data can be captured in Assetic at the same time recreation facilities data is imported/uploaded from the City's VFA software. Both service areas also have Fleet assets that reside in the J. D. Edwards database and all Fleet asset may be rolled into Assetic in a single event. In the initial stages of the project, completion of each stage will be determined based on meeting the goals for the Transportation and Parks & Recreation service areas. The bulk of the software configuration is expected to occur with the start-up of these service areas.

Although the initial utilization of the Assetic system is for the Transportation and Parks & Recreation service areas, the software must allow for expanded use to all City of London service areas in the future. Tools and templates for all service areas are to be provided as needed or earlier if expeditious to do so. Assetic involvement in future populating activities should be reduced with the City able to undertake the population of the data with minimal assistance once the system is configured and operational for the Transportation and Parks & Recreation service areas.

Appendix-A of RFP 14-72 Corporate Asset Management Software System outlines functional and technical requirements sought in the procurement of a software solution. The requirements have been prioritized into core, highly desired and desired. The initial configuration of the system will seek to fulfill these requirements as best as possible.

4. **Ongoing maintenance and support for the software solution**
   Assetic will provide ongoing maintenance and support per the RFP 14-72 proposal and any relevant agreements.

5. **Training of City staff in the use of the software**

The implementation of the recommendations provided through this project will allow the practices to then be distributed for other asset classes and organizations related to the City. Assetic will produce a training schedule and general suggestions regarding number of trainees and desired skill sets. Assetic will provide training per the RFP and agreements; for the project and recommendations for on-line training into the future.

6. **Software hosting services**

   Assetic will provide ongoing maintenance and support per the RFP 14-72 proposal.

3.2 Project Scope Excludes

The project generally excludes all the remaining City asset classes including those under the control of others, such as the following:

- Corporate Facilities
- Fire
- Fleet
- Information Technology
- Joint Water Board
- Land
- Long Term Care
- Pollution Control Operations
- Solid Waste
- Waste Water (sanitary)
- Waste Water (storm)
- Water
- London Block Parent Program

- London Convention Centre
- London Economic Dev. Corp.
- London Hydro
- London Police Service
- London Public Library
- London Transit
- London Venture Group
- Middlesex-London Health Unit
- Museum London
- Neighborhood Watch London
- Tourism London
- Upper Thames Rivers Con. Auth. and others
- Western Fair Assoc.

The scope of this project does not include the full future expansion to the excluded asset classes. However it is expected that the City may commence population of data from other areas and will seek advice from Assetic as the need arises. It is also expected that there will be discussion surrounding the expansion and the provision of advice, implementation services and possibly recommendations as the project progresses. Any 'off the shelf' tools and templates relevant to all City of London service areas are to be made available on demand. The expectation is that the City will be able, with relative independence, progress the use of Assetic across the corporation once this project is complete.

This project excludes the installation and configuration of AsseticBenchmark, AsseticMaintenance, AsseticAssessment and AsseticMobility. AsseticBenchmark,

AsseticAssessment and AsseticMobility will be discussed for future expansion. Assetic is responsible to ensure that the modules implemented under any agreement regarding this project efficiently meet the goals of the project.

4.0 Project Activities & Deliverables

After the completion of the 'Project Planning and Discovery', section, the City of London will be provided with an implementation strategy for the Assetic system that will identify appropriate and reasonable Asset Management software practices coupled with the identification of resource requirements to implement and sustain these practices.

The project will be considered successful by the degree to which the City of London's key deliverables are met.

To ensure the project meets its objectives, the project is divided into units. Each unit is described through a scope of work (activities) and the unit deliverables (i.e. the measurable criteria which will be used to determine if the objective has been met.).

1. Planning and Discovery

Scope of Work / Activities	• Identify Assetic implementation needs including data collection, equipment, staffing, etc. • Review and clarify GIS interface needs. • Consolidate findings and prepare a project plan
Deliverables	• Detailed project plan.

2. Assetic Deployment and Installation

Scope of Work / Activities	• Install and configure Assetic modules • Setup development & Production environment.
Deliverables	• Access to hosted AsseticAssets, Assetic Accounting module • Locally installed Assetic Predictor modules

3. Data Import & Validation

Scope of Work / Activities	• Connecting Assetic database with City inventory database/system • Collecting available data • Setup Assetic Interfaces (e.g. GIS)
Deliverables	• Populated and validated AsseticAssets, Assetic Accounting and Assetic Predictor modules for Transportation and Parks & Recreation service areas

4. Assetic Modelling & Setup

Scope of Work / Activities	- Identify Modelling parameters and needs - Workshops with Asset Category champion to develop the in house modelling science - Development of Asset Management Frameworks for the purpose of documenting the modelling input parameters and science - Modelling setup and implementation for: - Asset characteristic modelling - Asset condition rating & forecasting modelling (deterioration models) - Asset level of service modelling - Asset intervention modelling - Asset risk management modelling - Asset financial estimates and predictions modelling - Decision making & prioritization modelling - Life cycle management modelling
Deliverables	- System output requirements are shown in Table 1. - Templates and tools relevant to the City's efforts to expand use of the Assetic modules to other service areas.

5. Reporting and Results

Scope of Work / Activities	- Data characteristic reporting - Reports configuration - Custom reporting - Results analysis
Deliverables	System output requirements are shown in Table 1.

6. Assetic Deployment and Installation

Scope of Work / Activities	- Production environment to go live - Development environment to remain for - Testing (integrations, etc.) - Training
Deliverables	Go live with line in sand Production environment

7. Testing

Scope of Work / Activities	• Test in development environment • Test in production environment
Deliverables	• Validated operation in all environments.

8. Training

Scope of Work / Activities	• User training: AsseticAssets, Assetic Accounting & Assetic Predictor • Power user training • System training • Train the trainer / system custodian
Deliverables	• Training plan • City staff trained in the use and operation of all Assetic modules

9. Post Implementation

Scope of Work / Activities	• Model adjustments, support and routine maintenance. • Establish Asset Updates procedures including Disposals and Additions • Integration workshops with relevant stakeholders to determine what integration functions may be required to 3rd party systems. • Support for expansion to other service areas per RFP 14-72
Deliverables	• Ongoing maintenance and support per service agreement.

Table 1 Summarized system output requirements

	Report Name	Report Description
R1	Asset Inventory	Reports for asset inventory for all asset types and sub-types
R2	Overall Asset Condition Grades	Reports for existing condition grades on a (1-5) scale for all asset types and sub-asset types
R3	Detailed Asset Condition Grade	Report showing existing condition grade for any asset type based on the used condition grading scheme for that asset type.

Report Name		Report Description
R4	Asset Valuation	Replacement cost and whole life cycle cost reports based on current reporting date for all asset types and subtypes
R5	Funding Gap Reports	Summary of annual forecasts of discrepancy between planned and required expenditures to maintain system at an acceptable level
R6	Asset Risk Assessment Report	Evaluation of overall existing asset risk score
R7	TCA Reporting	Annual report for all TCA showing depreciation, additions, disposals, betterments and WIP at historical costs
R8	Asset LOS Reports	Report showing existing and historical LOS for any asset type/subtype. Indicators can be reported at the corporate, customer and technical levels
R9	OMBI reporting (KPI)	Considered a specific sub-set of the LOS report. KPIs focusing on this reported as part of the OMBI initiative
R10	Condition Forecasting Reports	Report showing future expected condition for any asset type based on the used condition grading scheme (1-5), 0-100, etc....
R11	Asset Capacity Report	Ability to track actual versus design capacity/use
R12	Capital Project Listings -Multiple Budgets	Report showing listing of all capital projects put forward by service areas
R13	Capital Project Listing - Business Case Evaluation	Report linking capital projects to individual business cases for each project
R14	Asset intervention (reports) (selection tool) multiple reports/analysis	Comparison of cost/benefit of various intervention options at the asset-level, multi criteria analysis, maintenance history and projection, etc.
R15	Lifecycle Costing Report for New or Existing Infrastructure	Report to calculate lifecycle costs (O&M) and asset renewal for any new infrastructure that will be acquired by the City from developer contributions or any existing infrastructure asset
R16	Prioritized Capital Project Listing - Within Service Areas	Report showing a prioritized listing of capital projects based on various decision criteria within a particular service area

	Report Name	Report Description
R17	Prioritized Capital Project Listing - Between Service Areas	Report showing a prioritized listing of capital projects based on various decision criteria among any number of selected service areas
R18	Risk Forecasting Report	Report showing forecasts of overall risk exposure based on various investment scenarios
R19	LOS Forecasting	Report showing forecasts of some LOS indicators based on various investment scenarios
R20	What if scenario simulator	Ability to forecast the impact of various capital projects on risk and LOS
R21	Reporting Custom user generated report	One time reports used to research any area of interest to any user
R22	Capital delivery tracking report	Report to track actual versus planned capital dollars to evaluate the effectiveness of the capital delivery function

5.0 Project Schedule & Milestones

This section identifies the preliminary project schedule and significant points or events in the project (such as the phases, stages, and approval of a deliverable, resource names)

**please see the Ms project file "Indicative Project Plan City of London"

6.0 Glossary and Acronyms

Glossary[1]

Asset

A physical component of a facility which has value, enables services to be provided and has an economic life of greater than 12 months.

Asset Management

The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost-effective manner.

Disposal

Activities necessary to dispose of decommissioned assets.

Gap

The term used for long term planning of revenues versus expense. Also used for infrastructure needs versus availability. A prediction of future need. Also used for an absence of data or information.

Key Performance Indicators (KPI)

A qualitative or quantitative measure of a service or activity used to compare actual performance against standard or other target. Performance indicators commonly relate to statutory limits, safety, responsiveness, cost comfort, asset performance, reliability, efficiency, environmental protection and customer satisfaction.

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[1] *International Infrastructure Management Manual (IIMM).* & Ontario Ministry of Municipal Affairs and Housing (www.mah.gov.on.ca)

Level of Service (LOS)

The defined service quality of a particular activity (i.e. pavement surface condition) or service area (i.e. street lighting) against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental acceptability and cost.

Lifecycle

The cycle of activities that an asset (or facility) goes through while it retains an identity as a particular asset i.e. from planning and design through useful life to decommissioning or disposal.

Lifecycle Costing

The total cost of an asset throughout its life including, planning, design, construction, acquisition, operations, maintenance, rehabilitation and disposal costs.

PSAB-Public Sector Accounting Board[2]

The Public Sector Accounting Board (PSAB) comprises senior government executives and experts in government financial reporting. PSAB serves the public interest by setting standards and providing guidance for financial and other performance information reported by the public sector.

PSAB 3150

In June 2006, PSAB approved PS3150, which requires municipalities to report Tangible Capital Assets (TCA) on their Statement of Financial Position (i.e. balance sheet) effective January 1, 2009. It also requires a new format for municipal financial statements and requires that tangible capital assets be amortized on the Statement of Operations (i.e. income statement). All municipalities across Canada must comply.

Renewal

Works to upgrade refurbish or replace existing facilities with facilities of equivalent capacity or performance capability.
Replacement

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[2] PSAB Manual *Who we are and what we do*

The complete replacement of an asset that has reached the end of its life, so as to provide a similar or argued alternative, level of service.

Replacement cost

The complete replacement cost of an asset with a substantially identical new asset.

Risk Management

The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

Useful Life

May be expressed as either:
a) The period over which a depreciable asset is expected to be used or
b) B) The number or production or similar units (i.e. intervals, cycles) that is expected to be obtained from an asset.

Acronyms

CAM- Corporate Asset Management

EOI- Expression of Interest

KPI- Key Performance Indicators

LOS-Levels of Service

PSAB-Public Sector Accounting Board

QA/QC-Quality Assurance/Quality Control

RFP- Request for Proposal

TCA- Tangible Capital Assets

Schedule B

RFP Response and Bid,

Updated Cost Proposal

Request for Proposal 14-72:
Corporate Asset Management Software System

Contact:
Brad Campbell, General Manager – Assetic Canada
111 Richmond St W, Suite 500
Toronto ON M5H 2G4

(416) 316-1718
bcampbell@assetic.ca

Prepared for City of London
December 16, 2014

11.0 FORM OF PROPOSAL

AT LEAST ONE SIGNED ORIGINAL OF THIS FORM OF PROPOSAL MUST BE INCLUDED IN YOUR SUBMISSION

11.1 Please state terms of payment (Note: Early payment discounts will be considered in the award of the contract, and will apply **after** taxes):

NET 30 DAYS

11.2 I/WE, the undersigned authorized signing officer of the Proponent, HEREBY DECLARE that no person, firm or corporation other than the one represented by the signature (or signatures) of proper officers as provided below, has any interest in this proposal.

11.3 I/WE further declare that all statements, schedules and other information provided in this proposal are true, complete and accurate in all respects to the best knowledge and belief of the Proponent.

11.4 I/WE further declare that this proposal is made without connection, knowledge, comparison of figures or arrangement with any other company, firm or persons making a proposal and is in all respects fair and without collusion for fraud.

11.5 I/WE further declare that the undersigned is empowered by the Proponent to negotiate all matters with the Corporation representatives, relative to this proposal.

11.6 WE further declare that the agent listed below is hereby authorized by the Proponent to submit this proposal and is authorized to negotiate on behalf of the Proponent.

11.7 I/WE have allowed for Addenda numbered as follows: #_1__ through to #_5__ .
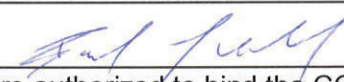
Failure to acknowledge all addenda will result in your proposal being rejected.

COMPANY NAME:_____ASSETIC CANADA HOLDINGS_____

ADDRESS:_____111 RICHMOND ST W , SUITE 500_____

CITY/PROVINCE:_____TORONTO ONTARIO_____

POSTAL CODE/ZIP CODE: _____M5H 2G4_____

AUTHORIZED SIGNATURE:_____[signature]_____TITLE:__GENERAL MANAGER__
I/WE are authorized to bind the COMPANY/CORPORATION

NAME (Please print or type):_____BRAD CAMPBELL_____

TELEPHONE NUMBER: _(416)_ 316 1718____ FAX NUMBER: _(___)_____

HST REGISTRATION NUMBER:_____801159039 BC0001_____

EMAIL ADDRESS: _____bcampbell@assetic.com_____

DATE OF PROPOSAL:_____16 DEC 2014_____

NOTE: Please return your written submission and USB flash drive, CD or DVD in addition with **page 23** complete with an original signature in ink on or before **2:00 pm, Tuesday, December 16, 2014.**

FAILURE TO DO SO SHALL RESULT IN THE PROPOSAL SUBMISSION BEING REJECTED.

December 15, 2014

Geoff Smith, Procurement Officer
City of London
Purchasing and Supply
267 Dundas Street, 4th Floor
London, Ontario N6A 1H2

Dear Mr Smith,

Assetic in association with Watson & Associates Economists Ltd. (Watson) is pleased to submit this Request for Proposal for a Corporate Asset Management Software System.

This proposal is based on Assetic's appreciation of the City of London (hereafter referred to as the City) requirements as set out in the specification Request For Proposal 14-72 Corporate Asset Management Software System.

We believe the recommended solution best suits the City's requirements by providing the supply and implementation of a solution which meets the needs of the City as outlined in the RFP. Allied with these are standard and/or customised interfaces with the City's existing systems to provide the outcomes required.

If given the opportunity to provide the Assetic solution to the City, we will commit asset management practitioners to your onsite training and implementation who understand and are experienced in implementation and asset management services.

I would be delighted to provide further information as requested. In the meantime if you have any queries about this proposal, please contact Brad anytime, and he will be most happy to answer those for you.

Yours sincerely,

Joel Brakey
Chief Operating Officer

Document Control

Assetic/Watson Representatives

Name	Organization	Role	Reason	Contact Details
Brad Campbell	Assetic	General Manager Canada	Drafting/Final	*bcampbell@assetic.ca* 416 316 1718
Dan Wilson	Watson	Director	Drafting/Final	*Wilson@watson-econ.ca* 905 272 3600
Andrew Grunda	Watson	Principal	Final	*grunda@watson-econ.ca* 905 272 3600

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Limitation

Table of Contents

1. Project Understanding

The driver for the acquisition of a Corporate Asset Management Software System for the City of London is to support the City's Asset Management Program by providing a core asset repository and analytical support to the city's asset management business processes.

The City has a current infrastructure gap of $50-60 million dollars with a projected infrastructure gap in the year 2022 $466.1 million dollars, Assetic has extensive experience working with local governments in helping to assess, manage and reduces infrastructure spending gaps. In the case of City of London the Assetic implementation will be configured to support the recommendations from the State of the Infrastructure Report in the following ways:

1. Allowing the city to review the impact of current and future investment priorities and there effect on both condition of assets and the infrastructure gap, through optimised Level of Service (LoS) modelling.
2. Support the ongoing improvement and review of Corporate and 20 year Asset Management Plans, through the maintenance of a corporate asset register with advance reporting, predicting and valuation (both historical and replacement values (RV)) modules.
3. Help to drive the corporate asset management program with experienced consultants and asset management practitioners implementing an integrated asset management 'solution' customized to help the city's business processes
4. Provide best practise Asset Data Management processes through software and experienced implementation and consultancy services
5. Provides out of the box public consultation and state of the assets (now and future) reports that engages both Councillors and the Public, to help lobby for infrastructure funding.

Assetic provides pre-packaged asset management software and associated implementation, training, support and maintenance services to local government and other major infrastructure organizations. The company has a range of innovative asset management products installed at over 120 sites across Australia and New Zealand - principally in local government but with a growing client base in water authorities, universities, and social housing agencies. Assetic have 60 staff based in Melbourne, Sydney, Brisbane, Perth and Toronto.

Our approach to implementations is geared to make asset management the focus of system deployment not the software itself that is we work with our Clients to ensure that our software is support for the Client's business processes and we never commence with a blank sheet of paper. Experience on hundreds of templates has meant that the Assetic consultants can hit the ground running with any implementation.

Our consultants understand the science of asset management as portrayed below and will transfer this knowledge to the city through training, mentorship and working side by side with staff.
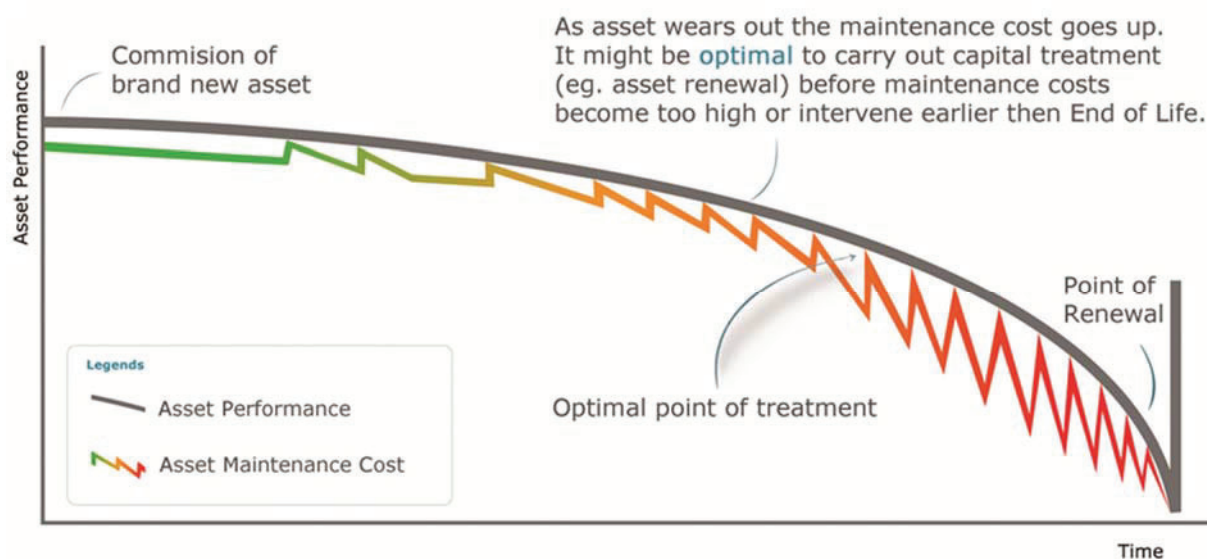
Assetic has a long track record in providing specialist Asset Management Solutions specific to local government and other authorities' needs and requirements.

Assetic products are implemented in various tiers, and departments are provided solutions that are specific to their needs. The initial engagement should we be selected as the system of choice will consist of not only analysing existing asset spreadsheets, data silos, and walking databases (long term staff members) but also identifying resourcing gaps and likely system champions. These system champions are involved throughout the implementation and are often key to a successful implementation. The City's own Data input Analysis in Appendix B of the RFP shows the extent of the data silos across the city. Assetic's staff has extensive experience and expertise in working with internal staff to pull this information together and quickly populate the Assetic solutions, therefore concrete outcomes are seen in weeks not months and years.

Assetic appreciates that every organization is at a different phase of Asset Management and has different requirements and priorities. We therefore refer to our products as 'solutions' as they offer unique outcomes specific to local needs.

Our system caters for every aspect of asset management i.e., asset registry, condition analysis, valuations and depreciations, maintenance management, level of service analysis, risk management, life cycle costing, financial forecasting and capex program development. Assetic also provides a track record and ability to interface with

- Finance Systems
- GIS systems,
- EDRMS
- CMMS systems

Making it easy for the departments in the future to link to various third party specialist systems.

2. Approach and Methodology

2.1. System Capability

Our solutions align leading-edge technologies and software design to modern asset management standards and organizational objectives.

Assetic's solutions are widely adopted due to their scalability; we meet the needs of an organization, independent of size or industry. Rapid deployment and ongoing improvement enables your asset management journey, and provides a ROI in the shortest time possible.

With over 120 customers, Assetic has developed a streamlined approach, which can be either deployed locally or cloud-based. Preloaded intelligence allows the Assetic system to focus on client outcomes, and eliminates the intensive design and configuration common to other systems. Our solutions are also flexible, and can adapt to your current processes to ensure organisational needs are met throughout implementation.

Watson is considered a financial leader in the municipal industry. Specializing in both asset management and Long Term Financial Planning services, the company has years of experience in assisting municipalities with compliance need and financial planning needs. Partnering Assetic and Watson provides a strong team with the needed expertise to help the City achieve its Asset Management Vision

The key outputs of Assetic are:

- Prediction modelling financial and capital works based on service level scenarios;
- Long-term financial planning;
- PSAB 3150 compliance reporting;
- Asset management valuations based on Provincial Guidelines; and
- Alignment to industry asset management standards and guidelines which enable organizations to establish an asset management framework or start / continue the journey towards ISO55001, PAS55, IIMM, TEFMA compliance.

Our 100+ clients describe the key advantages of Assetic as:

1. A complete suite of civil infrastructure asset classes for local governments, i.e. seven infrastructure classes across 40+ specific asset categories, including roads, bridges, drainage, facilities, open space, buildings, water/sewerage. Each class has fields, algorithms and service criteria that are specific from a Strategic Asset Management (SAM) delivery aspect

2. Out of the box functionality that has been proven and tested within other local governments and allows accelerated implementation, as opposed to a solution that requires extreme levels of configuration and design

3. A customisable solution where individual fields can be added/re-labelled, depending on your specific needs, but Assetic's pre-loaded functionality means there is no need to start from scratch or re-invent proven wheels

4. A single source for asset registry, condition analysis, valuations and depreciations, strategic maintenance management, document management, risk management, financial forecasting, strategic planning and capital expenditure programming

5. Assetic provides a proven track record and ability to interface with finance, GIS and other third party systems

2.2. myData

myData standard module is designed to support asset management business processes relating to core asset register, condition tracking and forecast reporting, replacement and historic cost valuation, level of service management and risk reporting detailed in the REOI.

myData is a central asset register for all local government asset classes, it includes comprehensive data storage capability including:

- Flexible hierarchies;
- Descriptive & location information;
- Technical details;
- Financial information for valuations and costing;
- Condition, risk and other assessments;
- Relationships to other assets;
- Record treatment history; and
- The ability to link photographs and other documents to asset records.

Other features of myData include:

- Simple data import utility that facilitates rapid data population;
- Flexible user defined navigation panel;
- Comprehensive data analysis and reporting capability;
- Pre-configured standard reports as well as a custom report facility;

2.3. myData Specific Features

Data integration

myData has in built data import functionality to facilitate easy data transfer of:

- Microsoft Excel, Microsoft Access, Microsoft SQL, ESRI Shape files, MapInfo TAB files, Etc.

Condition Assessment

- Setup strategic levels of service in line with AM policy/strategy.
- Software deployment of City's specific asset condition assessment, capacity assessment and functionality assessment methodologies.
- Software deployment of Star rating criteria for buildings and customising scaling and indexing of measurement matrices.

Assetic system allows users the flexibility to record:

- Raw data – Probability of pipe failure based on CCTV camera assessment;
- Convert raw data to rating score (see Appendix C);
- Combine various rating scores to API (Average Performance Index) and ACI (Average Condition Index); and
- Combine API and ACI into an OCI (Overall Condition Index).

Asset Valuation

The Assetic System can report on both Historical and Replacement Cost and includes:

- Componentization of complex assets – fields are pre-packaged;
- Computes amortization based on a date of report;
- Accounts for new asset additions and disposals;
- Provides valuation adjustment figures for in-year changes to condition, life, and unit rates; and
- Amortization can be straight-line pattern or degradation profile based on class of infrastructure.

Advanced Reporting

There are over 50 standard reports included within the Assetic products based on Australian and international standards and reporting requirements. See Appendix F.

All system reports detailed can be printed directly to hardcopy, exported in a range of common formats (PDF, Word, Excel, CSV, JPG etc.) and can also be automatically attached in an email.

The myData reporting system is very powerful and easy to use. It caters for administrative, operational and power users through user and group permissions and also through the ease of use of the reporting.

Users and group permissions can be assigned on an asset-class basis (e.g. pipes, treatment plants, plant, fleet etc.) as well as a functional basis (e.g. read only and reporting only).

myData also includes a query-based report building tool 'Advanced Search'. Advanced searches make creating custom reports that entail complex cross-table relationships (e.g. valuations, customer requests, maintenance, works, documents etc.) very simple for end users. The asset data can be manipulated very easily, including grouping and filtering results. All assets displayed in the results can be pinpointed spatially within the embedded GIS interface.

Risk Management

Produce a Risk Register of all outstanding events and rank by priority (see Appendix C). Assetic can record risk management documents, photos, videos and events against individual assets. The framework is based on AS4360 for risk management and users have the flexibility to:

- Assign likelihoods based on operational framework;
- Assign consequence of identified risk;
- Setup the risk algorithm and compute a risk score; and
- Assign status of event – in progress or active or completed.

2.4. Asset Cloud

AssetCloud is a field accessibility product from Assetic. It is a cloud-based service designed to connect field activity and compliment myData by delivering access via the web. AssetCloud harnesses web service technology, and can be accessed from any internet-enabled device. Viewing MyData has been optimized for tablet devices, providing a mobility solution that allows live access for the viewing and editing of asset data.

Key Functionality

- Works in both online and offline mode
- Access to all inventory and condition data
- Access to Condition Inspections
- Access to Asset related documents and photos
- Access to Maintenance Requests and Work tickets
- Uses City's existing GIS layers
- Search Assets by location or lists
- Add photos to MMS items or Assets
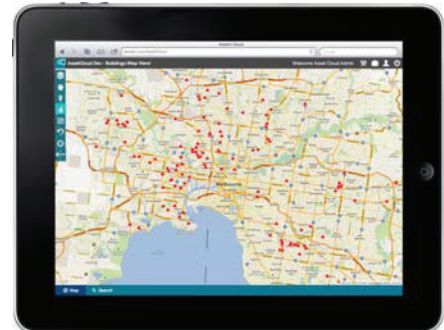
2.5. myPredictor

myPredictor is an analytical performance modelling tool that is designed to enable and assist asset management business processes such as Life cycle costing, asset condition tracking and forecasting, project prioritization and decision support, and long term capital planning of infrastructure assets. Modelling enables the evaluation of typical long term (20yrs plus) scenarios including:

- The cost to deliver a service level over time
- The service level that will result from increases/ decreases in funding
- The potential impact of an alternative treatment strategy

- Scenarios can include as well as capital costs, operating and maintenance costs and therefore incorporate true life cycle costing.
- Modelling also includes the production of year by year capital works plans.

2.6.   System Integration

Assetic have an extensive web services platform in place that we have used for full, real time integration of all myData's underlying data, calculations and workflow with a range of GIS, finance, document management, mobility and finance systems. Assetic's web services provide access to full system integration with 3rd party systems, including:

- Access to asset register, condition and valuation attributes, calculations and system workflows
- Access to all works and maintenance management attributes, calculations and workflows
- Ability to export predictive condition and treatment data to external GIS systems for visualization.

There are over 40 system method calls available for the various system integration modules.

Please refer to Appendix C for more details of the specific technical requirements.

2.7.   Specific Functional and Technical Requirements

See Appendix A.

2.8.   City Required Resources

See Appendix B.

2.9.   Support Procedures Outline

Assetic run a help desk Monday-Friday 9am and 5pm AEST and provide phone, email and 24 online support.

Details can be provided for several out of hours points of contact, who will then coordinate for an appropriate team member to get in touch to resolve the query – this is required for support on weekends, public holidays or outside business hours. There is a minimum 2 hour support fee out of hours ($100-200/hr depending on the nature of the enquiry - basic support v/s specialist query). A Service Level Agreement (SLA) would also normally be put in place for Agencies requiring out of hours support.

Technical Support (General)

- We provide a Customer Support Portal that is accessible from our website. This provides a range of resources, including product manuals, release notes, Asset Management and Technical whitepapers, knowledge base and a support ticket system.

- We offer a range of software updating methodologies, including automatic updates and site-wide rollouts.

- We use remote access server deployment techniques to install software on client sites.

- We use Windows technology to log into client machines for remote support and investigation of user issues.

- We use a web based defect register logging system where our implementation managers can log and check progress of defects.

- We use our website for secure file transfers to clients.

Methods of Contacting Support

Support issues can be registered by any of the following methods:

- Logging an issue request within the 'Tools' menu of the Assetic software application being used

- Logging a support request via the Customer Support Portal on our website

- Calling/emailing the project services team directly

- By emailing support@assetic.com or calling our help desk on (03) 9026 0555 9am to 5pm AEST – ex Victorian Public Holidays.

Support Tracking and Processes

1. Customer lodges the support issue by any of the above methods. Any Critical/Urgent/High priority defects should be reported by phone.

2. Assetic responds according to the Service Levels set out below (counted between 9am – 5pm AEST, ex Victorian public holidays) to determine the validity and urgency of the request. Assetic may request further information, e.g. screenshots, error reports, steps to reproduce the issue etc. for technical queries or sample datasets, planning/process documentation etc. for project issues.

3. Assetic will provide a response to the customer on the action to be taken. Depending on nature of the request, possible actions are:

    a. Configuration changes – offer technical assistance such as KB articles or RDC support.

    b. Software patches

        i. Critical issues – to be released in specific time frame

        ii. Feature requests – to be released in next minor/major software update

    c. Other

        i. Asset Management related queries – delegate to relevant consultant

        ii. Issue cannot be reproduced

Assetic's Customer Support Portal is utilized for lodging and managing customer requests. It is a web-based system that can be accessed remotely. Requests are lodged including a description of the specific issue and Agency point of contact. Internally the issue is assigned and escalated if not resolved within intervention levels (1-4 days for fatal/major issues affecting business functions). Other feature requests are retained for review and assigned to the release schedule (as appropriate). All historical requests are retained in the system, but are marked as closed upon resolution and can be viewed at any time through the Customer Support Portal.

Service Levels and Response Times

Service Levels	Definition	Required Response Time	Required Resolution Time
1 – Critical Defects	An Assetic Product is unavailable for critical business activities.	30 minutes	1 Business Day
2 – Urgent Defects	A part of the system is unavailable or is not operating effectively for critical business activities. No viable workaround available.	1 Business Hour	2 Business Days
3 – High	A part of the system is unavailable or is not operating effectively for important business activities.	4 Business Hours	4 Business Days
4 - Medium	A part of the system is unavailable or is not operating effectively.	1 Business Day	Future Maintenance Release.
5 - Low	A problem with part of the system which has very little or no impact to efficiency of users.	2 Business Days	Future Maintenance Release.

Note: the above only pertains to the setup and operation of Assetic's software, i.e. it does not cover support for the setup and operation of council's physical/virtual server(s), their operating systems, network connectivity, backup related procedures and other general IT administrative tasks. Critical and Urgent defects should be reported by phone during our support hours.

2.10. Project Implementation Methodology – Work Plan

Assetic's normal implementation approach is based on the progressive implementation of asset management based around one or two asset classes at a time, in this case it will be Transportation and Parks & Recreation as per the RFP. Assetic tailors its implementation methodology to suit the specific needs of its clients and Assetic's implementation team will in the City's case develop an implementation plan the allows the Solution to best support and enhance the asset management practises that are currently being developed within the city

The sample Gantt chart supplied at attachment 3 is a first draft / straw man project schedule based on the previous implementations of similar size to City of London. Assetic envisages that this schedule will be reviewed and refined either during final contract discussions or in finalizing the Project Management Plan, or during both.

The Plan also provides for the preparation of data for loading into the Assetic software but not for the collection of data.

Lastly, how fast or slow implementing the Assetic software proceeds is purely up to Council, and Assetic will adjust its resourcing of the implementation accordingly. Our view is that successful implementations of asset management is only achieved as staff learn and embrace asset management, and at times this means some activities are slowed down to allow people to become more comfortable with the processes involved and at other times speed up to maintain momentum.

City of London - AM Implementation Plan (Transportation and Parks & Recreation)			
Item	Assetic Resource Allocation `(Days)	City of London Resource Allocation (Days)	Duration (Weeks)
Project: Project Scoping	4	3	1
Project: Asset Register Development	10-25	25-40	9-12
Project: Predictive Modeling	15-20	20-25	9-12
Project: AssetCloud Installation	4-8	3-5	2-3
Project: PSAB and Replacement Valuation Configuration	10-15	5-10	3-4
Project: Integration Options and Scoping	4	2	1

Note:

- The final Implementation plan will be developed in conjunction with the City of London and configured to account for available resources and data.
- Asset Register development may be significantly reduced depending on the quality of the existing data, pulling the data into myData is a very simple and quick process.

2.11. Project Risk Management

For Asset Management system and data migration projects such as for the City of London the risks are low due to our experience in:

- Populating the system with existing data very rapidly. Assetic consultants have an asset management background, not just software background.

- Training of departmental staff in inspections, data updates, condition monitoring.

- Getting a site up and running in as little as three months if required (accelerated program).

More generally, risk is managed through our Project Management methodology approach. As part of delivering projects, we maintain risk logs and risk profiles for each project, whereby the risks for each project are identified as part of the project plan, given a weighting based on their likelihood and consequences and identify counter measures that will minimise these risks.

These risk logs and profiles are reviewed on a weekly basis, dependent upon their criticality.

The nature of our business with a large number of small to medium sized projects results in risks that are very similar in nature but may have differing levels of likelihood and consequences. Combined this makes the formal preparation of a Risk Assessment uneconomical.

However, we do assess them on an informal basis while preparing the RFP or developing the scope. We adopt the process embodied in the Risk Management Standard ASNZS4360 which includes the following processes:

- Gaining an understanding of the context
- Identifying potential risks
- Rating them in terms of Likelihood and Consequence
- Assessing the resulting risk based on a matrix approach
- Implementing treatments where appropriate to ensure the residual risk is acceptable
- Continuous monitoring of the risk throughout the project.

2.12. Training Philosophy and Methodology

Our standard training philosophy is to train and equip staff to set up the Assetic system. This does not mean Assetic equip your staff and walk away; it is a means of transferring system ownership through a handholding process. There will be some areas on which we concentrate more and some areas in which users will do the bulk of the setup.

All training is completed by working with IT, engineering, finance; depot and HR staff to ensure that system implementation is performed seamlessly across your organisation.

We can also undertake specific agency customisations and can set up links with your internal financial, geospatial and other third party systems.

As the software is modular and can be purchased in tiers, the implementation may also occur in a step-by-step fashion.

The following provides the details of a typical implementation program for the Assetic products.

2.13. Product Training Outline

2.13.1.   myData Standard

- Software set up on agency machines and deployment of database on network.
- Data collation and clean up with assistance from agency staff.
- Cross-linking various available datasets in consultation with agency staff as part of project team.
- Data import, set up of user specific navigation, pick-lists, attributes and all available condition, capacity, functionality data, in consultation with agency staff as part of project team.

- Set up combinations and rules/formulae for asset valuations, risk management, condition assessment scaling in consultation with agency staff as part of project team.

2.13.2. myPredictor

- Setting up agency's established condition rating scales, degradation rankings.
- Analysing available data in consultation with agency staff as part of project team.
- Setting up established life cycle models and degradation profiles consultation with agency staff as part of project team.
- Testing and calibration of models to suit agency requirements.
- Setting up prediction models and running analyses.

3. Consultant Experience

3.1. Assetic

Assetic is an Australian based company that provides pre-packaged asset management software and associated implementation, training, support and maintenance services to local government and other major infrastructure organizations. The company has a range of innovative asset management products installed at over 110 sites across Australia and South East Asia - principally in local government but with a growing client base in water authorities and social housing agencies. Assetic has a long track record in providing specialist asset management solutions, specific to the needs of each client. We have 60 staff based in Melbourne, Sydney, Brisbane, Perth and Toronto. Assetic's company structure, including key management personnel can be found in Appendix A.

Our key Asset Management Staff maintain currency with key industry developments as follows:

Staff are involved in the following industry Asset Management Bodies in Australia and overseas

1. Asia Pacific Institute of Good Asset Management (APIGAM) in the role of Director.
2. Bond University – Adjunct Professor of Advanced Asset Management.
3. Institute of Professional Works Engineers Australia (IPWEA), in the role of members.
4. LGPro, in the role of members.
5. Institution of Engineers Australia, in the role of members as well as on interview panel for Chartered Status.
6. Australian Institute of Environmental Accounting.
7. Waste Management Association of Australia.

Staff regularly delivers lectures, workshops and presentations at peak industry related conferences for the LGMA, CPA, LGFP and Roads Conference. Currently our key staff are delivering master classes to local government financial accountants through the CPA all over Australia, with respect to asset management and asset accounting.

Our staff regularly delivers training sessions to local government from the Councillors to the ground staff, in relation to various aspects of asset management which often includes changes/advances within the industry.

Our staff regularly participate in Asset Management discussion forums.

Our staff also attend regular conferences and deliver 3-5 papers each year to network and keep up to date with industry issues and requirements.

Assetic's core business is asset management solutions based on National Guidelines, Austroads methodologies and core philosophies of the International Infrastructure Manual.

Our technical capability is therefore geared to make asset management the focus of system deployment. We never commence with a blank sheet of paper. The testimonials in Appendix C provides an insight into the experience Assetic can bring to an Asset Management Implementation.

3.2. Watson & Associates Economists Ltd.

Watson & Associates Economists Ltd. is a firm of municipal economists, planners and accountants that has been in operation since 1982. With a municipal client base of more than 250 municipalities and utility commissions and 47 school boards, many of which are long-term repeat clients, the firm is recognized as a leader in the municipal finance/local government field. The firm has a committed twenty-person staff that has worked together for many years. The firm's principals have participated extensively as expert witnesses on municipal finance matters at the Ontario Municipal Board for over 30 years.

A feature of many studies completed by the firm includes the development of a solid information basis, and then working closely with staff and politicians to develop consensus around controversial issues. Further, many of our studies involve public participation, presenting key information to the public in an understandable format, and seeking public input in developing recommendations and future directions as part of a study process.

Our work has involved many aspects of municipal finance and economics, including assisting municipalities across the Province with asset management and fiscal impact related services. Our firm also specializes in development charges, public sector accounting (PSAB), full cost user fee pricing models (i.e. Water & Wastewater Rate Studies), financial feasibility assessments, capital and operating impacts of municipal servicing, demographic forecasts, and local economy impact assessments.

Watson is owned and operated by the firm's senior management group, comprised of one (1) Principal and four (4) Directors.

4. Consultant Team

The consulting project team developed for this assignment has extensive PSAB and asset management experience. For more information on the project implementation team, please refer to Appendix A to this proposal.

Brad Campbell, BSc - General Manager, Assetic Canada, would be the project lead responsible for overall Project Implementation and completion. Brad has over ten years' experience in a variety of asset management related roles, from consulting to local government. He has led teams in over 100 asset management implementations, including systems and framework development to ensure compliance with relevant asset management legislation.

Tony Blefari, BE,MIEAust, is the Practice Director at Assetic, and has over 18 years' experience working in government and private engineering organizations in a variety of engineering and asset management roles. This experience has seen him apply his skills and knowledge across an entire range of infrastructure including buildings, roads, drainage, bridges, water and sewer.

As Practice Director Tony is responsible for the team, which provides specialist direction, support and delivery in the preparation, implementation and management of clients' asset management services. Such services include setting up asset registers, asset valuations, strategic prediction modeling and developing asset management policies, strategies and plans.

Tony has a Bachelor of Civil Engineering from the University of South Australia, and is a member of the Institution of Engineers Australia, Institute of Asset Management and the Asset Management Council.

Dan Wilson, BBA, CPA, CA - Director, Watson & Associates, would be responsible for providing PSAB and asset management expertise to the project. Mr. Wilson has extensive experience in the areas of municipal finance and municipal auditing with seven years of industry practice with municipal governments and public accounting/auditing firms before joining Watson. Since joining Watson in 2006, Dan has led the Asset Management, PSAB Compliance (tangible capital assets and full accrual financial statement preparation) and Water/Wastewater Financial Plan (Ontario Regulation 453/07) services at Watson. He has worked on numerous PSAB 3150 compliance studies, PSAB 1200 financial reporting studies, asset management related studies, water and wastewater rate studies, Ontario Regulation 453/07 water financial plan reporting requirements, development applications approvals process user fee studies and development charge studies. He has also undertaken lectures on PSAB 3150, financial statement reporting, asset management and water financial plans on behalf of numerous organizations including the Association of Municipal Clerks, Treasurers and Municipal Managers of Ontario (AMCTO) and the Municipal Finance Officers Association of Ontario (MFOA). Dan is a Chartered Accountant, a Chartered Professional Accountant and a member of the firm's senior management group,

which develops interpretations of legislative requirements, as well as methodologies and formats and determines alternative policy strategies for all facets of corporate assignments.

Andrew Grunda, MBA, CMA - Principal, Watson & Associates, will provide financial expertise throughout the project. Mr. Grunda has been with the firm since 1996 before which he worked for the former Regional Municipality of Hamilton-Wentworth, Finance Department. He is presently a member of the firm's senior management group, which develops interpretations of legislative requirements, as well as methodologies and formats and determines alternative policy strategies for all facets of corporate assignments. Mr. Grunda has extensive experience related to asset management, development charges, water and wastewater rate studies, development approvals process studies and fiscal impact assessments, authoring numerous studies for municipalities over the last 17 years. He has undertaken numerous lectures and seminars on asset management financing plans, development charges and full cost recovery fees and charges on behalf of numerous organizations including AMCTO and MFOA.

Amy Vesprini, BCom. (Hons.) - Consultant, Watson & Associates, would assist in the data collection and compilation. Since joining the company in 2006, Amy has assisted with data input and analysis in the areas of PSAB compliance projects, asset management studies, water and wastewater rate studies, Ontario Regulation 453/07 financial plans, development charge studies and development applications approval process reserve fee studies. Amy holds a Bachelor of Commerce Honours degree in Business Administration from the University of Windsor along with a Diploma in Business Administration from Conestoga College.

Peter Simcisko, BA (Hons.), MBE – Analyst, specializes in the area of municipal finance. Since joining the firm in the spring of 2013, he has assisted in the preparation of development charge background studies, water and wastewater rate studies, user fee studies, and asset management plans for our municipal clients. Previously he worked as a Research Assistant in the Economics department at Brock University. Peter brings a combination of economics experience and strong analytical and data modelling skills to the organization. His thorough knowledge of MS Excel has helped enhance the functionality and efficiency of the asset management models we offer to our municipal clients.

4.1. Experience and Capacity

The experience of the consultant team is outlined in Appendix D.

5. Schedule

See Appendix E.

6. Costing

See separate envelope.

Appendix A – Specific Questions

Specific Questions

	Question	Yes	No	Partial	Comments (optional)
General System Capabilities					
1.	Is the system able to integrate to multiple systems, specifically J.D. Edwards, Esri, ArcGIS, MS Office?	x			See section 2.5 and technical specifications in Appendix C
2.	Can you provide 2 examples of successful implementations with integration of systems specifically J.D. Edwards, Esri, ArcGIS, MS Office that you propose to use in London?	x			We have a standard finance integration approach that is working with over 130 customers running a wide variety of ERPs including JDE, SAP and TechnologyOne MS Office: Out of the box integration with Excel, Access and Word ESRI: 20% of Assetic sites use ESRI and have our standard integration plugin
3.	Does the software offer dashboard capability that can be customized to particular users?	x			
4.	Can data be entered in user friendly formats? E.g. mobile capability, templates, drag-and-drop, etc.?	x			
5.	Does your software solution provide other 'user-friendliness' elements?	x			
6.	Are there database updating constraints? i.e. live, daily, weekly, monthly, etc.		x		
7.	Can the software be remotely hosted?	x			

	Question	Yes	No	Partial	Comments (optional)
8.	Is the software fully compliant with the city's functional requirements on page 12 of Appendix A? and the technical requirements in Appendix C? Please fill in the table in Appendix C.	x			
Asset Inventory					
9.	Has the software been used for both linear and facility assets in a municipal context?	x			
10.	Has the software been used for all of the following municipal services? (transportation, water, sanitary, stormwater, facilities, parks, recreation (aquatics, arenas, golf, etc.), fleet, fire, long term care, information technology, solid waste, culture, and forestry).	x			
Condition Rating & Forecasting					
11.	Does the tool support various condition rating methods (e.g. discrete/continuous, quantitative/qualitative)?	x			
12.	Does the tool support various condition rating scales (e.g. FCI, BMS, PQI, Very Good to Very Poor, etc.)	x			
13.	Does the tool support various condition rating methods and scales at both asset and network levels?	x			
14.	Does the software support various types of deterioration models? (i.e. straight line, curve- linear, stochastic etc.)	x			
Level of Service (LOS)					
15.	Does the software accommodate the use of user-defined performance indicators and user-defined rating scales?	x			
16.	Does the software accommodate capturing LOS at the individual asset and asset class levels?	x			
17.	Is the tool able to show existing and historical KPI in comparison to LOS targets?	x			

	Question	Yes	No	Partial	Comments (optional)
18.	Is the tool able to forecast impacts on LOS based on proposed capital expenditures?	x			
Risk Management					
19.	Does the tool calculate the expected future overall asset risk score based on probability and consequence of failure?	x			
20.	Does the software offer risk modelling, diagrams and charts?	x			
21.	Does the software accommodate modeling risk at the individual asset and asset class levels?	x			
Life Cycle Management					
22.	Is the tool able to undertake life cycle analysis for any group of assets? (i.e. analysis to consider acquisition, operation, maintenance, repair, rehabilitation, disposal and any other external costs that may occur throughout the asset's lifecycle)?	x			
23.	Does the software offer forecasting/predictive analysis for life cycle management?	x			
24.	Does the tool allow users to fully configure the decision logic used in decision-support analysis?	x			
25.	Does the application allow for prioritization of projects based on user-defined criteria?	x			
Financial Estimates and Predictions					
26.	Does the application allow for prioritization of projects within prescribed budget limits?	x			
27.	Does the tool support and store the information required for the development of business cases (i.e. reduced risk exposure, project alignment with LOS)?	x			
28.	Does the software offer infrastructure gap modelling?	x			

	Question	Yes	No	Partial	Comments (optional)
29.	Has the software been used to generate or support TCA/PSAB 3150 reporting?			x	System is designed to support TCA PSAB 3150 reporting, but has not been used on a live Canadian site yet. Watson & Associates are included on the Assetic team to ensure compliance
Project Selection & Prioritization					
30.	Does the tool support the evaluation and comparison of project options/asset interventions (e.g. rehabilitate vs. replace vs. maintain)?	x			
31.	Can the software prioritize projects based on multi-criteria decision making approaches (i.e. Both within and across City services areas)?	x			
Support, Maintenance and Training					
32.	Are support systems available 24 hours a day?		x		24 hour online support logging
33.	Is support available to travel to client site to resolve an issue?	x			

Technical requirements

		Response (Yes, No, Pending, N/A)	Explanation/Clarification (can be expanded)
A	**Technical Architecture**		
1.	Does the Application provide a web-based software solution that operates in previous version and the latest version of MS Internet Explorer browser, Chrome and Firefox?	**Yes**	AssetCloud supports most recent two major releases of major web browsers.

		Response (Yes, No, Pending, N/A)	Explanation/Clarification (can be expanded)
2.	Does the Application provide the ability to run the Application in four environments: development, production, disaster recovery, and test/training/quality assurance?	Yes	
3.	Is the Application compatible with the latest version of Microsoft Office suite, including Outlook?	Yes	
4.	Does your application support failed login lock-out policies? How many bad attempts before account is locked?	No	Assetic myData application enforces time delay between failed login attempts. This effectively blocks brute force attempts
5.	Do accounts automatically unlock after a specified time-out period? If yes, what is the specified period?	N/A	
6.	If your application supports local authentication how do you store account passwords in the database? Please specify - Clear text, HASH without salt, HASH with Salt, Other. Please indicate the encryption level.	Yes	HASH with Salt
7.	Has your organization performed independent 3rd party (security/vulnerability/penetration) testing by a reputable Information Technology Security vendor? Please indicate date of last test.	Pending	
8.	How often do you contract 3rd party independent security/vulnerability/penetration testing? Please indicate frequency - Quarterly, Semi-Annually, Annually, Other Please indicate date of last test.	Pending	
9.	Does your organization perform in-house (security/ vulnerability/ penetration) testing by an internal Information Security team?	No	

		Response (Yes, No, Pending, N/A)	Explanation/Clarification (can be expanded)
10.	Is your in-house Information Security team certified by a recognized industry standards body? If yes, please specify - ISC2 CISSP, GIAC GSSP, Other	No	
11.	How often does your Information Security team perform in-house security testing? Please indicate frequency - Monthly, Quarterly, Semi-Annually, Annually, Other Please indicate date of last test.	No	
12.	Does your organization adhere-to or is certified by the following standards or frameworks? If yes, please specify - COBIT, PCI, ISO, NIST,ITIL, Other	No	
13.	Does your application rely on Open Source components such as Apache, Tomcat, MySQL or other? If yes, please specify components.	Yes	MapServer for Web Mapping
14.	Does your application rely on 3rd party commercial components that may affect your ability to apply security fixes because the vendor may be slow in addressing known or zero day vulnerabilities? (Java, Oracle DB Server, Adobe, Apple) If yes, please specify components.	No	
15.	Does client access require high risk software dependencies such as Oracle Java, Adobe Flash, Adobe Air, Adobe Shockwave? If yes, please specify components.	No	
16.	If your application requires Oracle Java, is it limited to a specific Java version? If yes, please specify Java version	N/A	

		Response (Yes, No, Pending, N/A)	Explanation/Clarification (can be expanded)
	Does the application provide an on premise solution? **If Yes, please answer the following questions:**		
17.	What type of operating system does your software require? Please specify: - Server operating system - Client operating system - Both	Yes	Client - Windows® Vista, 7 or 8 - Microsoft .NET Framework 4.0 Server - Windows® 2008/2012 Server Editions
18.	Which operating system do you support on the Server side? Please specify all that apply - Windows 2003, Windows 2008/2012, Linux, Mac OS X, N/A - application runs on client OS	Yes	Windows Server platform only
19.	Which operating system do you support on the client side? Please specify all that apply - Windows 7, Linux, Mac OS X, N/A - application runs on Server OS	Yes	Windows Desktop platform only for Desktop application.
20.	Does your application require a database? If so, please specify database type - Microsoft SQL, IBM DB2, Oracle, MySQL, PostgreSQL, Other	Yes	Microsoft SQL 2008 (or later) Standard Edition or above
21.	If your application requires a Microsoft Database connection does it support Windows Integrated Authentication? If no, does your application require an SA account?	Yes	Supports both Windows (preferred) and SQL Authentication.
22.	Does your application require a Web Server? Please specify type - Microsoft IIS, Apache, Other	Yes	IIS 7.5 or above

		Response (Yes, No, Pending, N/A)	Explanation/Clarification (can be expanded)
23.	Does your application offer a traditional thick client? Yes No - application model is strictly browser based Both- a thick client along with browser based access)	Both	
24.	Does your application or associated Windows service require local administrator privileges?	No	
25.	Does your application or associated Windows service require domain administrative privileges?	No	
26.	Does your application support Microsoft Integrated Active Directory authentication? If no, do you support other LDAP authentication or local authentication?	Yes	AD Authentication and/or custom local authentication (item 6)
27.	Does your application support browser based client interface?	Yes	Assetic's AssetCloud product provides a browser based client interface
28.	Does your application support user authentication?	Yes	
29.	Does your application support two-factor authentication?	No	
30.	Does your application require Internet access?	No	
31.	Does your application support internal audit log capability?	Yes	
32.	Is your application capable of forwarding audit log events to external devices?	No	
33.	What logging format does your application support? Please specify SNMP trap, Local or remote Windows event, Other	N/A	

		Response (Yes, No, Pending, N/A)	Explanation/Clarification (can be expanded)
34.	Does the application utilize industry standard PC desktops, laptops? Please specify minimum recommended screen configurations and graphics capabilities	Yes	Minimum 1024*768 screen resolution. Recommend 1280*960.
35.	Does the Application provide a solution that operates with Microsoft Windows 2012 R2 and above for server environments?	Yes	
36.	Does the Application provide a solution that operates with Windows 7 and above for client environments?	Yes	
37.	Does the Application provide a solution that operates with Microsoft SQL-Server 2012 and above database management software?	Yes	
38.	Does the Application provide a solution that is compatible with Microsoft Forefront End Point Protection Antimalware?	Pending	Requires testing but does not expect to have any issues.
39.	Does the Application run on VMWare virtual servers?	Yes	
40.	Does the Application provide a solution that supports latest version of IIS?	Yes	
	Does the Application provide a hosted solution? If Yes, please answer the following questions:		
41.	Does your organization host its own private datacenter on premise? Do you co-locate with other business in the same building?	No	

		Response (Yes, No, Pending, N/A)	Explanation/Clarification (can be expanded)
42.	Does your organization host its own private datacenter off-premise? Do you co-locate with other business?	No	
43.	Does your organization utilize cloud services to supplement your own service offering? Please specify cloud service - Amazon AWS, Google, Rackspace, Microsoft, Other	Yes	Hosted in Amazon Web Services (AWS)
44.	Please specify datacenter location -Canada, USA, Europe, Other	Yes	Australia and Canada
45.	Please indicate all that apply to datacenter security - Monitored alarm system, video surveillance, environmental monitoring, security guard, 24 x 7 staff	N/A	
46.	Does your organization's service or web application utilize browser based access?	Yes	Mixed. AssetCloud for web access. AWS Workspaces for desktop access.
47.	Does your service or web application require user authentication?	Yes	
48.	Does your service or web application utilize two-factor authentication?	No	
49.	Does your service or web application face the public Internet? Do you protect access through VPN?	Yes	Direct Internet
50.	Does your service or web application support Microsoft Integrated Active Directory authentication? If no, do you support other LDAP authentication or local authentication only?	Yes	The host environment has AD but does not integrate with council's internal AD.

		Response (Yes, No, Pending, N/A)	Explanation/Clarification (can be expanded)
51.	Does your service or web application support federated authentication? If yes, specify - SAML 1.1, SAML 2.0, OpenID, Other	Pending	SAML support is in roadmap
52.	Does the Password reset require identity confirmation? Please indicate which method: Phone (Customer service or technical support number), SMS Text Message (Registered mobile phone), Email (Registered email address), Secure web site (Secret password reset questions)	Yes	Phone + Email
53.	Do you have Intrusion Detection/Prevention mechanism in place alerting you to possible attacks against your web service or application?	Yes	Monitoring system in place
54.	Do you review security related audit logs? If yes, please specify frequency - Daily, Weekly, Other	Yes	Weekly
55.	Do you actively monitor web server logs with automated notification or suspect events? If no, do you monitor logs manually?	Yes	
56.	How is privileged access to your servers managed?	Yes	Only operation team has backend access.
57.	Is the Application solution scalable and can it easily adapt to increased demands, while maintaining a high level of system performance. Application needs to accommodate peak usage during registration periods.	Yes	HA + Load balanced
58.	Does the Application provide adequate performance and capacity to support remote display of documents and drawings?	Yes	Minimum bandwidth and latency requirement still applies.

		Response (Yes, No, Pending, N/A)	Explanation/Clarification (can be expanded)
59.	Does the application provide for full recovery and back-up capabilities for all on-line and batch transactions?	Yes	
60.	Does the Application provide the ability to purge a range of data based on a specified retention schedule?	No	
B	**Usability Features**		
1.	Does the Application provide tools for managing user accounts, security settings on data and/or applications?	Yes	
2.	Does the Application provide a full password security process based on roles and groups?	No	For complex password management, use Windows Authentication support
3.	Does the Application provide an audit trail of all system activity, including by user, date and time?	Yes	Yes Many system events are auto-logged, however this is being extended to complete system logging in new product release.
4.	Does the Application provide a flexible and secure security management process for assigning privileges and rights?	Yes	
5.	Does the Application provide an automatic log-off feature after a specified period of inactivity?	Pending	
C	**Data Integrity & Availability**		
1.	Does the Application provide control reports for all data conversion processes including balances and counts?	Pending	
2.	Does the Application provide control and audit reports?	Yes	
3.	Does the Application provide alerts for unauthorized or suspicious activity?	No	

		Response (Yes, No, Pending, N/A)	Explanation/Clarification (can be expanded)
4.	Does the Application provide full back up and restore functions with logging?	No	This process is managed outside of the application
5.	Does the Application (if hosted) guarantee 99.9% uptime?	Yes	
6.	Does the Application ensure all sensitive data is encrypted?	Yes	Data are encrypted on transit
7.	Does the Application provide full application recovery capabilities?	???	
8.	Does the Application allow display or printing of passwords?	No	
9.	Does the Application enable an administrator to suspend an ID from future usage?	Yes	
10.	Does the Application periodically request the user reset their password?	No	For complex password management, use Windows Authentication support
11.	Does the Application set a minimum password length?	No	For complex password management, use Windows Authentication support
12.	Is the Application able to send bi-directional information in a variety of formats including: XML, Stored procedure, web services, etc.?	Yes	
13.	Does the Application provide users an option to retrieve passwords by utilizing a username/password access mechanism?	No	For complex password management, use Windows Authentication support
14.	Does the Application allows self-service password resets?	No	For complex password management, use Windows Authentication support
D	**Integrations**		

		Response (Yes, No, Pending, N/A)	Explanation/Clarification (can be expanded)
1.	Does the Application provide integration to the following Applications, including, but not limited to: - JDE One World - GIS(ESRI) - ArcGIS, - MS Office?	Yes	Export/Import with Excel (.xls and .xlsx) GIS Visualization support with various provider (e.g. ESRI, MapInfo, Openspatial) We have a standard finance integration approach that is working with over 130 customers running a wide variety of ERPs including JDE, SAP and TechnologyOne
2.	Does the application contain an Application Programming Interface (API) or web services interface?	Yes	Web Services (SOAP) module is available
3.	Does the Application provide compatibility with the following mobile platforms: Windows Mobile, iOS, Android, and BlackBerry? Is the application built using open-standard mechanisms such as HTML5, CSS, and jQuery to dynamically adapt content for mobile devices? Please indicate what versions of iOS and Android are supported.	Yes	AssetCloud web interface is built using HTML5, CSS and jQuery. The application is tested with latest iOS, Andriod and Windows tablet.
E	**Maintenance and Support**		
	Does the Application provide maintenance and support contract options, including the following:		
1.	Critical support 24/7 X 365	Yes	For hosted options and critical system failures (requires an additional service level agreement)
2.	User groups meetings.	Yes	
3.	Standard support hours in the Eastern Time Zone (please provide.)		

		Response (Yes, No, Pending, N/A)	Explanation/Clarification (can be expanded)
4.	All major product revisions, upgrades and enhancements.		
5.	Fixes and patch services for problems encountered between releases.	Yes	
6.	Complete help desk service.	Yes	
7.	Online interface with ability to open/track support issues and availability of a knowledgebase.	Yes	
8.	Issue escalation procedures (please describe.).	Yes	See section 2.9 in the main document
9.	Documentation for users, administrators. Application provides updates to documentation with each new version release.	Yes	
10.	Initial and refresher training classes, including training for Application Administrators, technical support staff, and end users.	Yes	We regularly run online training and free webinars for knowledge transfer and refreshers. See *www.assetic.com* for current training schedules.

Functional Requirements.

	Report Name	Compliance	Comment
R1	Asset Inventory	Fully	Over 110 specific Asset Categories covering all Municipal Asset Types and Sub Types. Details can be reported via Standard or advanced user defined reporting tools.

Powerful Search tool to filter and group on asset attributes and save these queries

Current Selected asset details and audit trail

Filter asset-level data and management tabs by operational areas

Flexible navigation structure to intutively group and manage assets

Uncluttered and comprehensive GUI with over 14000 inbuilt fields, formulae and algorithms across 50 asset classes

R2	Overall Asset Condition Grades	Fully	Asset Condition on a 1 – 5 scale. All 100+ asset categories have out of the box Condition Attributes, based on LG best practice and current standards.

| R3 | Detailed Asset Condition Grade | Fully | The software allows any grading system to be used, in addition both Raw and Scaled conditions can also be held, allowing the users access to the condition detail. |
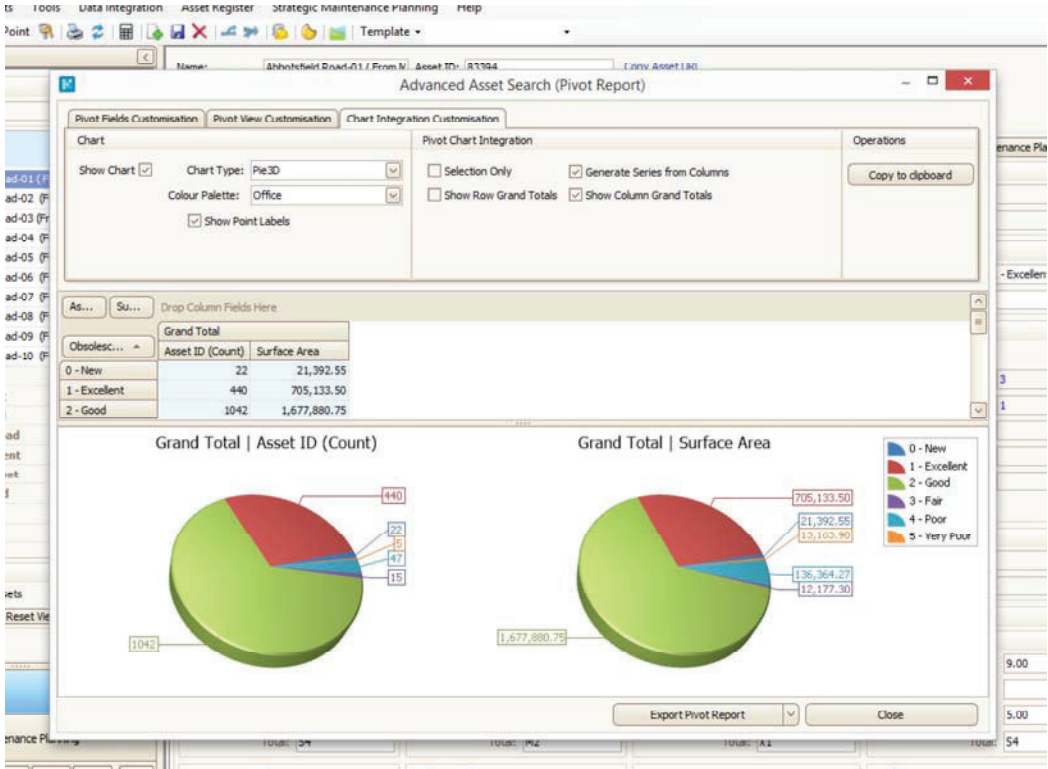
R4	Asset Valuations	Fully	Full componentized Replacement Values (All categories have pre-packaged asset components out of the box for simple system set up)
			Fully customizable valuation patterns (Software comes with pre-packaged 100+ valuation patterns)
			Level of Service Based Life-cycle costing reports.

R5	Funding Gap Report	Fully	Funding GAP reports based on Desired and Current Levels of Service, including condition (service level) forecast.

Year Level Comparison Report 1

Create Date : Friday, October 17, 2014 - 1:11:27 AM

Legend: 2014-2024 10-Year Current Financial Strategy Cost | Unlimited Budget Optimized Cost | 2014-2024 10-Year Current Financial Strategy Score | Unlimited Budget Optimized Score

Data Source

Report Type: ○ Service Level by Asset Quantity   ⊗ Service Level by Network Measure

Funding Distribution

Cost: Rubber Seal 14mm, Rubber Seal 10mm, Spray Seal C170 14mm, Spray Seal C170 10mm, Rejuvenation, 35mm AC Ov...

Cost ($)   Simulation Name ▲

Year ▲	2014-2024 10-Year Current Financial Strategy	Unlimited Budget Optimized
1	3,047,493.90	23,959,177.90
2	2,794,433.30	10,358,878.60
3	3,749,385.90	6,484,923.00
4	3,678,173.50	6,218,699.20
5	3,681,593.30	4,633,691.60
6	3,687,340.90	5,319,566.90
7	3,683,166.30	11,049,062.00
8	3,683,737.70	3,648,294.20
9	3,683,688.00	7,228,959.00
10	3,686,685.60	6,452,655.00
Grand Total	35,375,698.40	85,353,907.40

Service Level

Service: OCI (Service Index)

Average Score...   Simulation Name ▲

Year ▲	2014-2024 10-Year ...	Unlimited Budget Op...
1	1.72	1.50
2	1.86	1.55
3	1.94	1.60
4	1.97	1.58
5	2.05	1.63
6	2.10	1.64
7	2.14	1.59
8	2.21	1.65
9	2.24	1.63
10	2.25	1.62

Gap Anaylsis

Legend: Gap | Actual Budget

Gap values: $7,587,816 (years 1–10)
Actual Budget values: $16,000,000 (years 1–10)

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R6	Asset Risk Assessment Report	Fully	Assetic can record risk management documents, photos, videos and events against individual assets. The framework is based on AS4360 for risk management and users have the flexibility to:

- Assign likelihoods based on operational framework
- Assign consequence of identified risk
- Setup the risk algorithm and compute a risk score
- Assign status of event – in progress or active or completed

| | R7 | TCA Reporting | | Fully | | Assetic's Valuation reporting generates a TCA Report that provides the necessary data for year-end audited financial statement disclosure as per PSAB 3150 such as opening balances, additions & betterments, disposals, write-offs, accumulated amortization and current year amortization. |

Financial Sub Class ▲	Opening Balance	Addition	Disposal	Adjustments	Closing Balance	Post Closing Bal...	Opening Balance	Add...
	$0.00	$48,063,305.40	$0.00	$0.00	$48,063,305.40	$48,063,305.40	$0.00	$
	$443,776.89	$0.00	$0.00	$0.00	$443,776.89	$443,776.89	$238,115.53	
Housing	$0.00	$509,669.36	$0.00	$0.00	$509,669.36	$509,669.36	$0.00	
Art & Sculptures	$0.00	$17,679.00	$0.00	$0.00	$17,679.00	$17,679.00	$0.00	
Buildings	$28,290,694.30	$1,302,091.48	$0.00	$0.00	$29,592,785.78	$29,592,785.78	$15,653,014.50	
Buildings (Market Value)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Buildings Equipment & Furniture	$7,780,890.77	$0.00	$0.00	$0.00	$7,780,890.00	$7,780,890.77	$4,923,571.15	
Buildings Plant & Equipment	$37,338,239.22	$0.00	$0.00	($3,751,739.90)	$33,586,499.32	$33,586,499.32	$22,981,087.65	
	$73,409,824.29	$1,319,770.48	$0.00	($3,751,739.90)	$70,977,854.87	$70,977,854.87	$43,557,673.30	
IT Infrastructure	$0.00	$1,099.00	$0.00	$0.00	$1,099.00	$1,099.00	$0.00	
Stormwater Drainage	$0.00	$11,808.24	$0.00	$0.00	$11,808.24	$11,808.24	$0.00	
	$83,347,218.89	$0.00	$0.00	$0.00	$83,347,218.89	$83,347,218.89	$11,568,917.03	
Parks	$9,662.00	$0.00	$0.00	$0.00	$9,662.00	$9,662.00	$9,662.00	
	$83,356,880.89	$0.00	$0.00	$0.00	$83,356,880.89	$83,356,880.89	$11,578,579.03	
Roads - Unsealed	$0.00	$218,892.00	$0.00	$0.00	$218,892.00	$218,892.00	$0.00	
	$0.00	$181.13	$0.00	$0.00	$181.13	$181.13	$0.00	
Sewer Mains	$0.00	$331,292.45	$0.00	$0.00	$331,292.45	$331,292.45	$0.00	
SEWER NODES	$0.00	$25,460.00	$0.00	$0.00	$25,460.00	$25,460.00	$0.00	
Treatment Plant	$0.00	$1,026,206.00	$0.00	$0.00	$1,026,206.00	$1,026,206.00	$0.00	
	$0.00	$1,383,139.57	$0.00	$0.00	$1,383,139.57	$1,383,139.57	$0.00	$
	$0.00	$331,292.45	$0.00	$0.00	$331,292.45	$331,292.45	$0.00	
Sewer	$0.00	$518,302.98	$0.00	$0.00	$518,302.98	$518,302.98	$0.00	
Sewer Pumps	$0.00	$19,500.00	$0.00	$0.00	$19,500.00	$19,500.00	$0.00	
Sewer Treatment Facility	$0.00	$25,162,967.53	$0.00	$0.00	$25,162,967.53	$25,162,967.53	$0.00	$

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assetic strategic asset management

R8	Asset LOS Reports	Fully	The Advanced Reporting tool allows the user to create custom level of service reports on existing and historical data. Below show the Surface Condition of the Road Network by Area split into its corporate LOS.
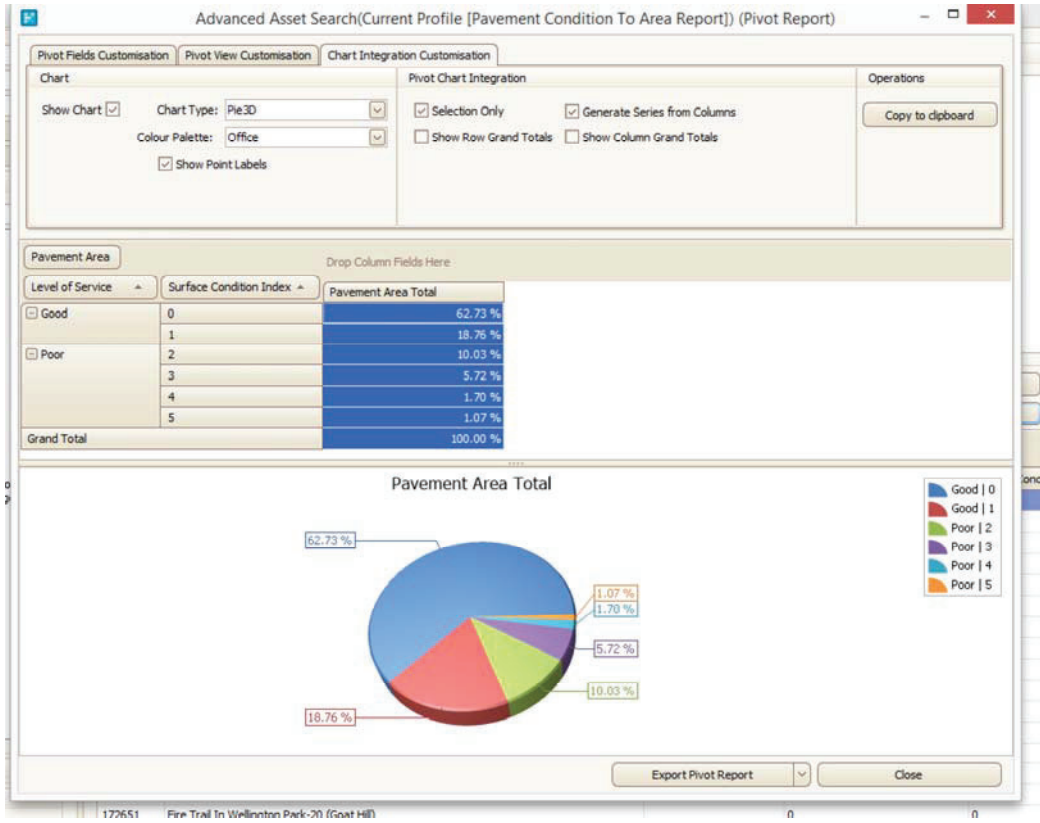
| R9 | OMBI Reporting (KPI) | Fully | The Advanced Reporting tool allows the user to create custom report for existing and future OMBI performance measure. Below is traffic volume example. See R8 for a condition example. |

| R10 | Condition Forecasting Reports | Fully | Condition Forecasting can be done on and individual Asset or Component and at the Asset Type level and can be compared based on multiple scenarios. |
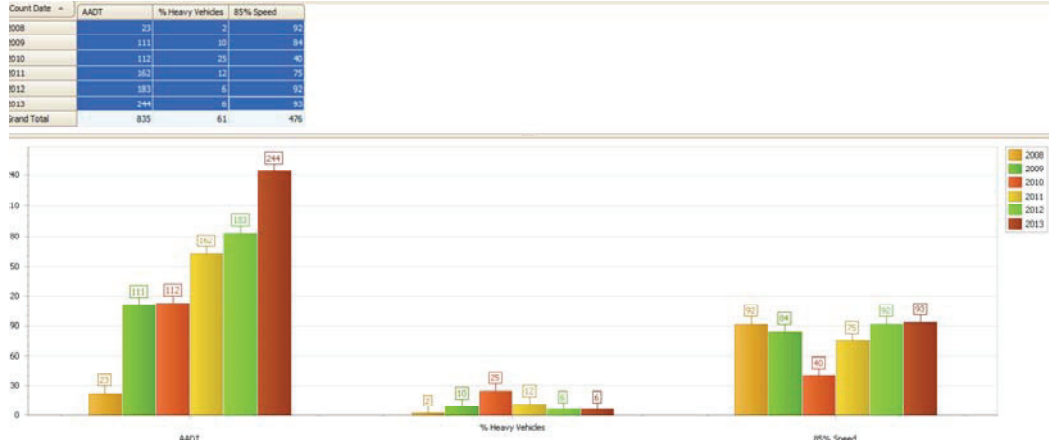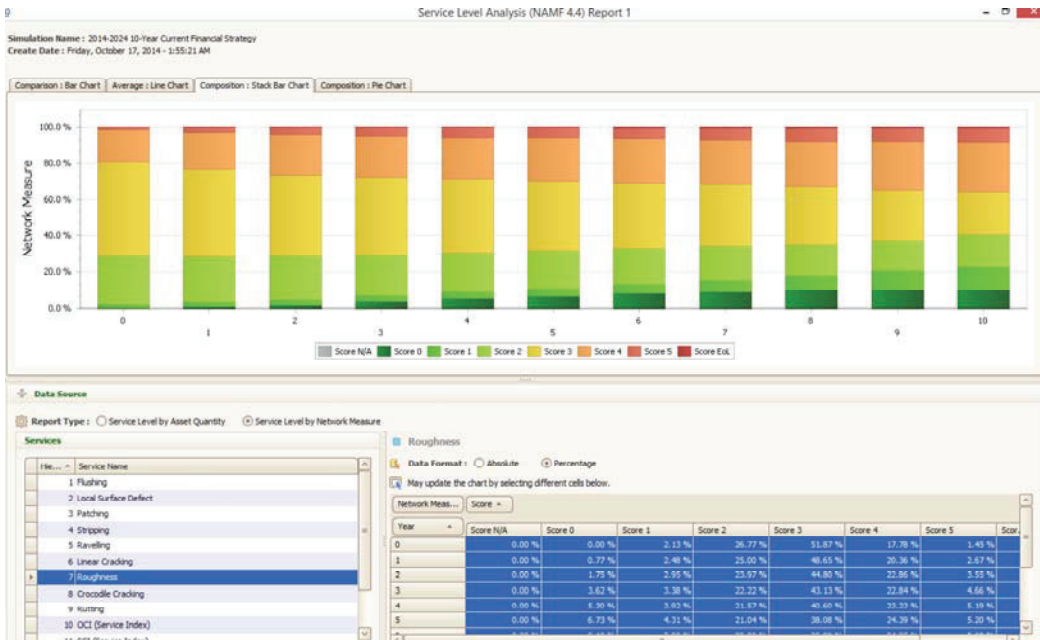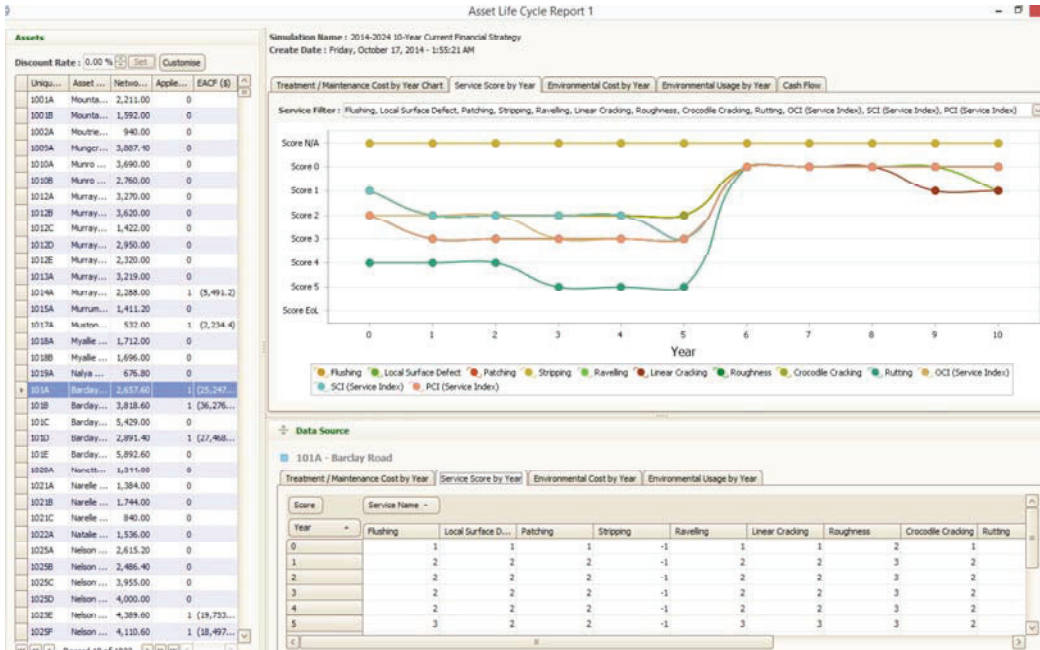
R11	Asset Capacity Report	Fully	Assetic can track Actuals v Design or Target across multiple different Asset Categories, example below is Fleet Utilization.

R12	Capital Project Listings – Multiple Budgets	Fully	Below are the Works Prioritization report, showing both graphical and tabular information (Can also be drilled down to individual Projects) and the Budget Aggregation Report showing multiple budgets across Asset categories. Trade off analysis reports can also be used to assess the effect of moving budget between Asset Types or categories.

Works Prioritisation Summary

Simulation: Hawkston Buildings

Date: Friday, 21 January 2011
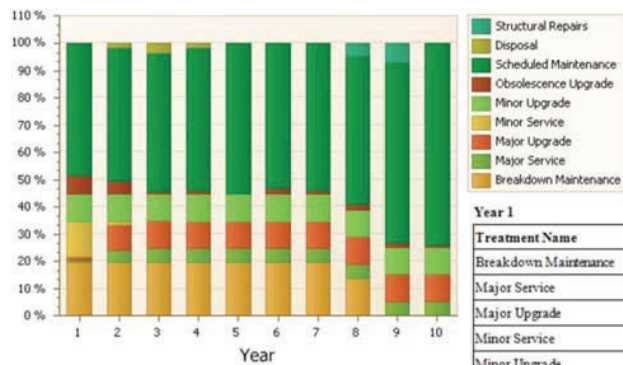
Year 1

Treatment Name	Cost	Percentage
Breakdown Maintenance	$212,500.00	19.68 %
Major Service	$10,000.00	0.93 %
Major Upgrade	$10,000.00	0.93 %
Minor Service	$142,500.00	13.19 %
Minor Upgrade	$110,000.00	10.19 %
Obsolescence Upgrade	$70,000.00	6.48 %
Scheduled Maintenance	$525,000.00	48.61 %
Annual Total	**$1,080,000.00**	**100.0 %**

Year 2

Treatment Name	Cost	Percentage
Breakdown Maintenance	$212,500.00	19.68 %
Disposal	$15,000.00	1.39 %
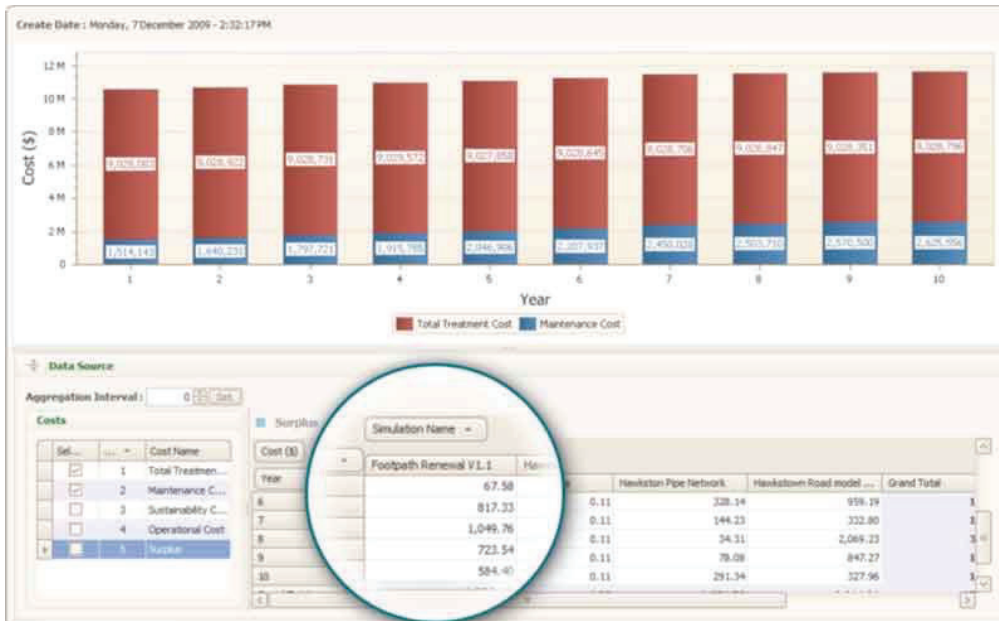
R13	Capital Project Listings -	Fully	Business Case and related documentation can be stored against the predicted treatment or related Asset as shown below

R14	Asset Intervention	Fully	Assetic provides multiple reports, modules and options to drive asset intervention including but not limited to
			*Year Level Comparison Report
			*Treatment Criteria Modeling
			*Life – cycle algorithms
			* Multi Criteria Decision Module
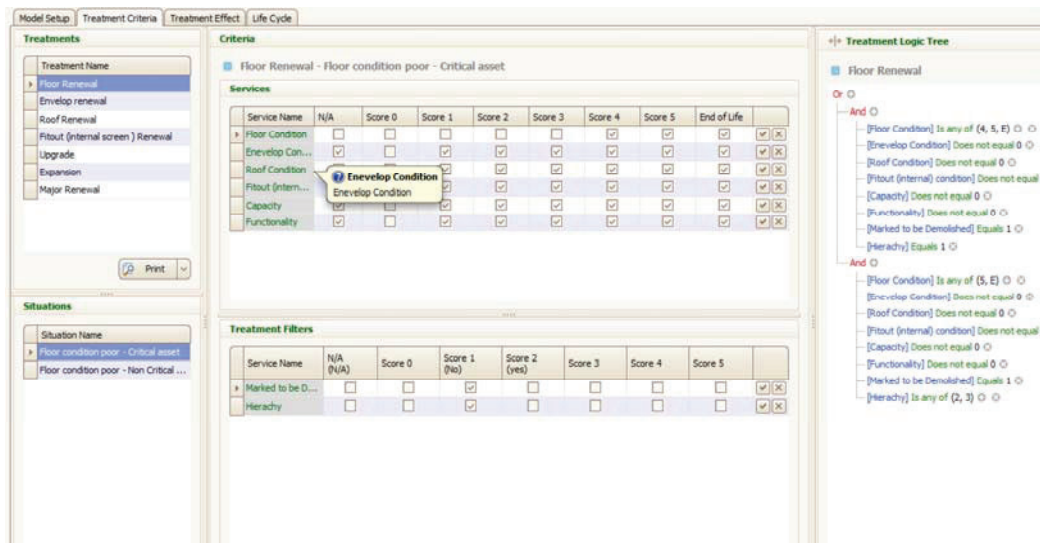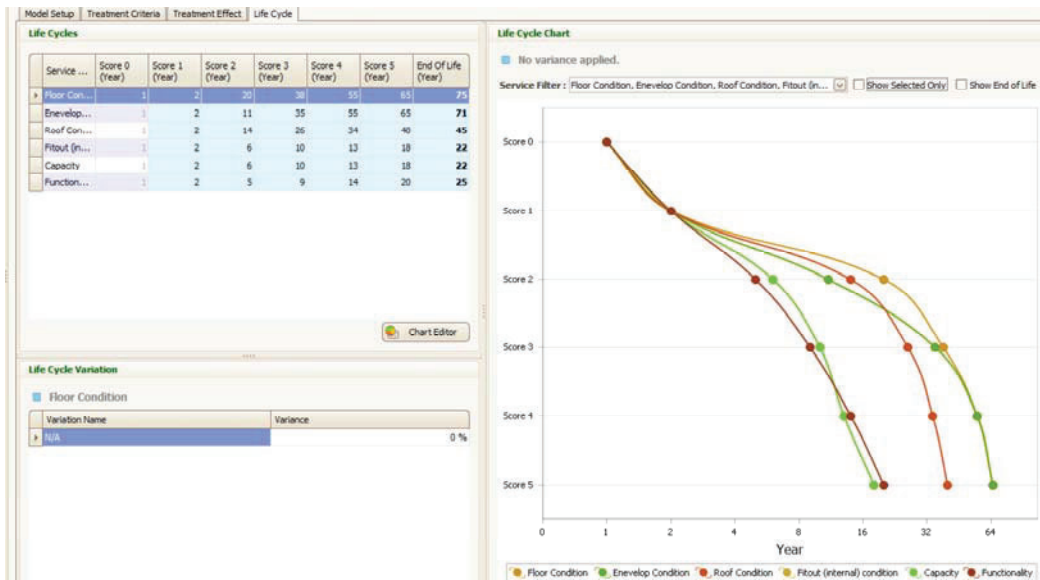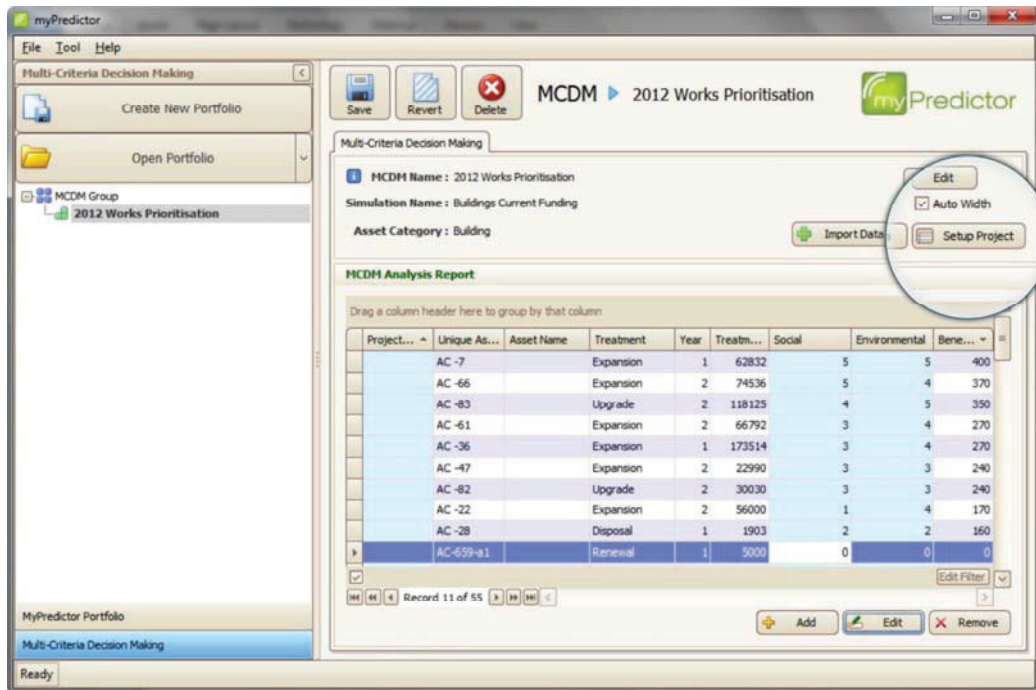
R15	Lifecycle Costing Report	Fully	** see R4

R16	Prioritized Capital Project Listing – within Service Area	Fully	** see R14

| R17 | Prioritized Capital Project Listing - Between Service Area | Fully | ** see R13 plus the Trade off Analysis report below, which gives the user simple tools to Analysis the effect of moving Budget $ across service areas |

Percentage of Budget Distribution for each category out for the total Agency Budget

The currently allocated budget for each scenario and category

Budget distribution for each year and for each selected simulation
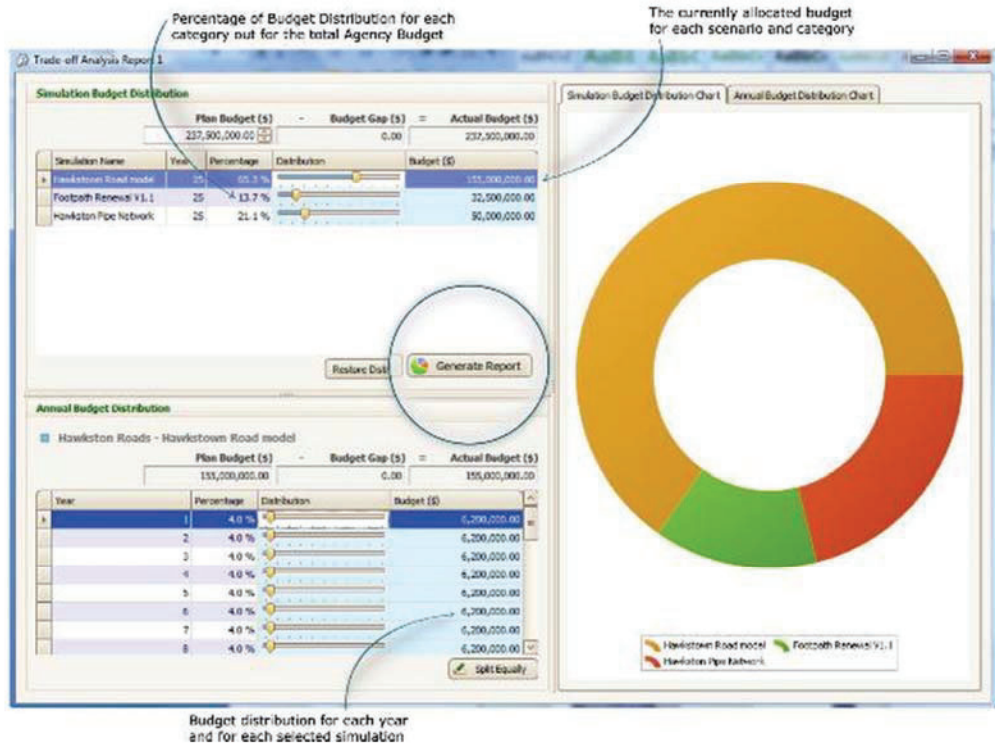
| R18 | Risk Forecasting Report | Fully | *see R6 |

R19	LOS Forecasting	Fully	Assetic allows the user simple and powerful tools to compare multiple LOS based on different funding scenarios. Below you see a report showing the current Service level scores across three scenarios and multiple years all on a one user friendly interface.
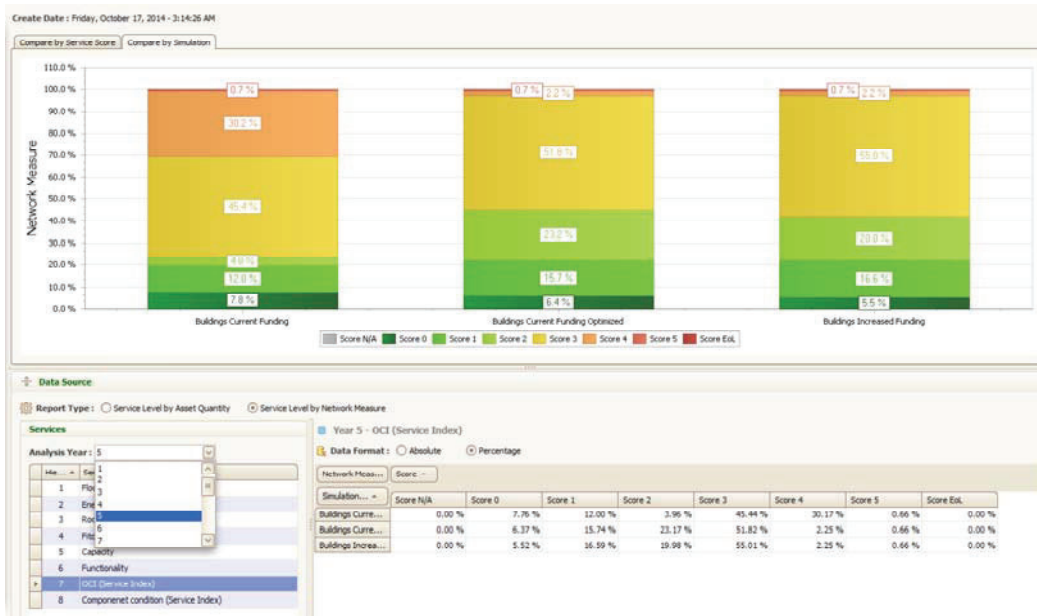
R20	What if scenario simulator	Fully	See R19 and R6

R21	Reporting Custom User generated Report	Fully	Assetic includes a query-based report building tool (Advanced Search). Advanced searches make creating custom reports that entail complex cross-table relationships (e.g. valuations, customer requests, maintenance, works, documents etc.) very simple for end users. The asset data can be manipulated very easily, including grouping and filtering results. All assets displayed in the results can be pinpointed spatially within the embedded GIS interface.
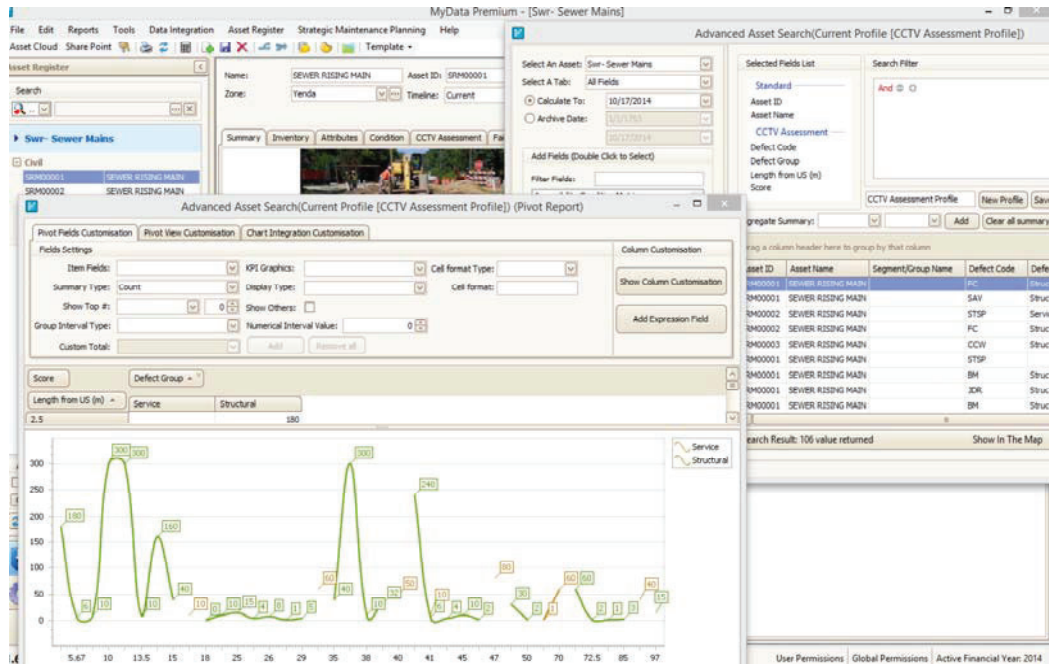
R22	Capital delivery tracking report	Fully	Actual and Planned capital cost can be capture direct or pulled from existing systems and reported using Assetic's advanced reporting tools
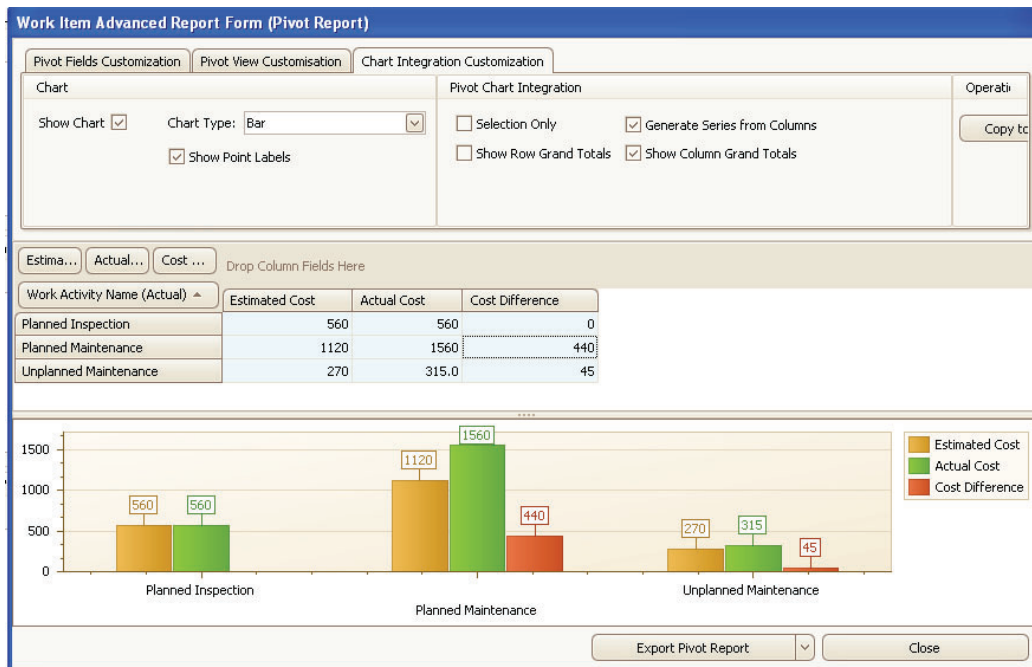
System Analysis and Computation

System Analyses and Computation Tool	Assetic Tool Description
4.2.1 Condition Rating Converter	Condition Matrix tool: Allows the user to scale between any qualitative or quantitative scale, while also maintaining both sets of data

4.2.2 Deterioration Modeling	myPredictor is a performance modelling tool that is designed to cater for long-term planning of infrastructure assets. It is based on the recommendations in the International Infrastructure Management Manual. The key features are: • Produces 5-30 year financial profiles of funding requirements for a range of service levels • Determines the best level of service that can be provided for a given level of funding • Predicts the future levels of service for a network with an increased, reduced or fixed level of funding • Determines the costs of bringing assets up to a satisfactory standard • Determines the future maintenance needs to keep assets at a satisfactory standard • Produces Capital Work Programs by locations and recommends treatments and costings • Models on the basis of asset condition, service capacity, functionality, criticality and asset adequacy • Produces financial and life-cycle reports that can be embedded into asset management plans • Multi Criteria Decision Making tool prioritizes and ranks projects selected for capital works using subjective criteria such as social benefits, stakeholder reward and economic rationality, risk and criticality of service

*see sections R…..

4.2.3 Asset Depreciation Calculator	The Assetic Depreciation Schedules modules allow depreciation of assets at historical cost, using all standard depreciation methods.

4.2.4 Asset Replacement Cost Calculator	The Assetic Fair Value (Replacement Cost) module allow depreciation of assets at Replacement cost, using standard and user-defined Valuation Patterns

*see R4

4.2.5 Life Cycle Calculator	See 4.2.2

4.2.6 Funding Gap Calculator	See 4.2.2 and R5

4.2.7 Asset Risk Assessment Calculator	See R6

4.2.8 Asset Risk Assessment Forecaster	See R6

4.2.9 Cost / Benefit Calculator	See 4.2.2 and R14

4.2.10 Project Prioritization Tool	See 4.2.2 and R14

4.2.11 LOS/Risk Scenario Analyzer	See 4.2.2 and R14

4.2.12 Data Aggregation Tool	See R21

4.2.13 Data Query Tool	See R21

4.2.14 Data QA/QC tools	The Assetic Data Import tools have built in QA functionality, with user friendly tips to help users with data integrity. Data can be imported from Excel, Access, Shape files, TAB files, SQL, etc..
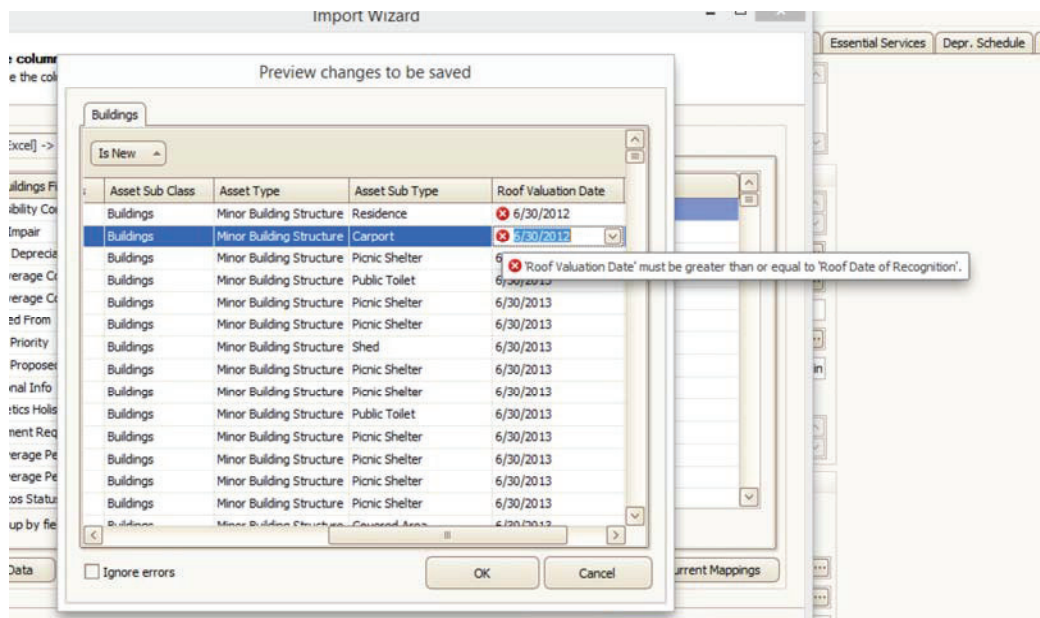
Appendix B – Equipment Resources

Below is an extract from the Assetic Deployment Guide. The full guide is available to all client via the Assetic knowledgebase website.

System Requirements

To deploy the system in a network environment, one or more servers that are running a Windows Server operating system are required. Minimum required specifications include:

Database Server

- SQL Server 2008R2/2012 Standard Edition or above
    - With SQL Server Analysis Services
- Server stored in a secure location, ideally in a dedicated server room with sufficient air conditioning and provision redundancy (UPS, backup power generator)
- Tape drive/network backup and procedures in place
- Windows® 2008/2012 Server Editions
- Intel™ quad core or similar processor
- 8GB of System Memory
- 20GB of Free hard drive space (Additional space required for backups)
- Microsoft .NET Framework 4.0 (Full)

File Server (Shared Directory)

- 20GB of Free hard drive space (Additional space will depend on documents and photos attached)
- Server stored in a secure location, ideally in a dedicated server room with sufficient air conditioning and provision redundancy (UPS, backup power generator)
- Tape drive/network backup and procedures in place
- Windows® 2008/2012 Server Editions
- Intel™ quad core or similar processor
- 8GB of System Memory

Desktop Clients

- Windows® Vista, 7 or 8 (with 100% DPI setting)
- Intel™ I5 or higher processor
- 4GB of System Memory
- 2GB of Free hard drive space
- Microsoft .NET Framework 4.0 (Full)

Appendix C – References

Glenorchy City Council, TAS

When Glenorchy City Council started rolling out its new strategic asset management framework, members of Glenorchy's Asset Management Committee attended an asset management seminar that was held in Hobart by Assetic.

What we learned from that seminar was that we had not considered all aspects involved in asset management to ensure we were putting together a long-term robust framework that would support our future strategies and policies. From that point, we developed an excellent and valued relationship with Assetic. They were able to quickly point out what we were doing well and where and what our deficiencies were.

Assetic have been instrumental in leading and assisting Glenorchy City Council in developing a full asset management framework implementation across all asset and infrastructure groups. Assetic steered the special SAMG team (Strategic AM group), involved all stake holders at all levels, and has empowered the team at Glenorchy to continue to set the AM practice in place.

Assetic has developed an implementation process that takes into account, and helps manage the change process and ensures everyone involved takes full ownership of the outcomes. This was recognised and proved invaluable when the project involved informing and convincing Glenorchy's Aldermen that better planning was required to preserve and maintain council's infrastructure assets. Part of the communication strategy used by Assetic involved work-shopping Aldermen and key staff together periodically, when key milestones were reached. This ensured information flowed freely and effectively from all involved. The communication process and provision of information in practical terms to Aldermen proved to be extremely effective, as detailed in the following quote from Glenorchy City Councils Corporate Accountant, who wrote,

On Monday night Council passed its budget. The budget (based on our new policies) contained a rate rise of 5.38%. Whilst any rate rise is regrettable, considering that 12 months ago the general rate rise was 0.00%, this was quite an achievement. On budget night, many Aldermen spoke strongly in favour of the asset management process and supported such a rise, due primarily to the need to prevent our assets decaying further.

To have Aldermen looking beyond 12 months, well into the future and towards the legacy they may leave was fantastic. I have no doubt that without Assetic assistance such a change would not have been possible.

In my view, our ability (through myPredictor) to clearly illustrate the consequences of under-funding our assets was the pivotal moment in this process.

Overall, I would sum up by saying that the whole process has had a huge impact on the way this council now manages its assets. Assetic's guidance was integral in developing an effective asset management framework, asset assessment and modelling tools, new asset policies and councils service level standards.

Referee Name	Council	Phone and Email	Details
Peter Fortune Asset Engineer	Brimbank City (VIC)	*tel.* (02) 92494248 *email.* petergf@brimbank.vic.gov.au	Assetic SAM: Setup and Implementation for one of the most advanced asset management framework for road and facility assets for 12 years. Complete documentation and training in assessments, data corporatisation, valuations and prediction models that have fine-tuned, calibrated, tested and proven for performance. Paper presented at IPWEA Congress 2000 and 2002.
Dominic D'Martino Asset Manager		*tel.* (03) 9249 4351 *email.* dominicDM@brimbank.vic.gov.au	
Andrew Keith Asset Manager	Griffith City Council (NSW)	*tel.* (02) 6969 4836 *email.* andrew.keith@griffith.nsw.gov.au	Assetic SAM: Setup and Implementation for one of the most advanced asset management framework for road and facility assets for 12 years. Complete documentation and training in assessments, data corporatisation, valuations and prediction models that have fine-tuned, calibrated, tested and proven for performance. Paper presented at IPWEA Congress 2000 and 2002.
Graeme Fletcher Asset Engineer	Cardinia Shire (VIC)	*tel.* (03) 5945 4252 *email.* G.Fletcher@cardinia.vic.gov.au	Assetic SAM: Complete documentation and training in road assessments and prediction models that have fine-tuned, calibrated, tested and proven for performance. Asset Management Plans developed. Paper presented at Roads Congress 2005 and IPWEA 2004.
Linda Hasthorpe Asset Engineer	Latrobe City (VIC)	*tel.* (03) 5128 5486 *email.* linda.hasthorpe@latrobe.vic.gov.au	Assetic SAM all asset classes: Complete documentation and training in asset assessments, valuations and prediction models that have fine-tuned, calibrated, tested and proven for performance. Asset Management Plans developed.
Andrew Vermey Asset Engineer	Gosford City Council (NSW)	*tel.* (02) 4325 8222 *email.* andrew.vermey@gosford.nsw.gov.au	Assetic SAM: Setup and Implementation for one of the most advanced asset management framework for road assets. Complete documentation and training in road assessments, data corporatisation, valuations and prediction models that have fine-tuned, calibrated, tested and proven for performance. Data setup and Models were presented to State Road Authority as an example of best practice asset management. Presented paper at IPWEA world congress 2009.
John Miller Asset Management Coordinator	Melton Shire Council (VIC)	*tel.* (03) 9747 5358 *email.* johnm@melton.vic.gov.au	Leading edge modelling and asset registry setup. One of the best national showcase sites.

John Chapman Director of Corporate Services	Oberon Council (NSW)	*tel.* (02) 6336 1100 *email.* chapmanj@oberon.nsw.gov.au	Complete setup of Assetic SAM for sealed and unsealed roads, footpaths, kerbs, bridges, sewer, buildings and water assets. Setup includes inventory, condition data and valuations of infrastructure. Implementation of Assetic SAM including condition assessment logging, modelling and producing long-term scenarios for asset management plans, currently underway.
Marcus Smith Asset Manager	District Council of Mt Barker (SA)	*tel.* (08) 8391 7215 *email.* msmith@dcmtbarker.sa.gov.au	Leading edge modelling and asset registry setup. One of the best national show-case site. Presented paper at IPWEA world congress 2009.
Jan Korek Asset Manager	City of Stirling (WA)	*tel.* (08) 9345 8641 *email.* korek.jan@stirling.wa.gov.au	The best national framework SAM setup for Buildings and Roads including strategic repositories and long term modelling - all used for Council Asset Management Plans.
Kanwal Singh Asset Manager	Kalamunda Shire (WA)	*tel.* (08) 9257 9950 *email.* kanwal.singh@kalamunda.wa.gov.au	Leading edge modelling and asset registry setup. One of the best national show-case site. Presented paper at IPWEA world congress 2011.
Jeff Breen Executive Manager - Engineering	Shire of Ashburton (WA)	*tel.* (08) 9188 4445 *email.* jeffrey.breen@ashburton.wa.gov.au	Currently underway to develop asset models and data for all asset classes and provide a 5 year capex program based on DLG guidelines.
Luke Ertzen Asset Director	City of Geraldton (WA)	*tel.* (08) 9956 6693 *email.* lukeertzen@cgg.wa.gov.au	World-class repository and planning management setup capturing detailed asset data in Assetic for future decision-making.
Nicola Grant Asset Manager	Cessnock City (NSW)	*tel.* (02) 4993 4248 *email.* nicola.grant@cessnock.nsw.gov.au	Leading edge SAM framework, asset repository and modelling in Assetic for all asset classes including asset management plans based on scenario analyses.
Michael Chorlton Manager Financial Services	Tweed Shire Council (NSW)	*tel.* (02) 6670 2431 *email.* mchorlton@tweed.nsw.gov.au	Leading edge modelling and asset registry setup. One of the best national showcase sites.
David Hobson Asset Management Coordinator	Whitsunday Regional Council (QLD)	*tel.* (07) 4945 0655 *email.* david.hobson@whitsundayrc.qld.gov.au	Leading edge modelling and asset registry setup. One of the best national showcase sites.
Martin Terescenko Asset Manager	Lane Cove Council (NSW)	*tel.* (02) 9911 3555 *email.* mterescenko@lanecove.nsw.gov.au	Assetic SAM: Setup and Implementation for one of the most advanced asset management framework for road assets. Complete setup in road assessments, data corporatisation, valuations and prediction models that have fine-tuned, calibrated, tested and proven for performance.

Brenden Quabba Executive Manager – Construction and Maintenance	Townsville City Council (QLD)	*tel.* (07) 4727 8400 *email.* brenden.quabba@townsville.qld.gov.au	Assetic SAM: Setup and Implementation for one of the most advanced asset management framework for road assets. Complete documentation and training in road assessments, data corporatisation, valuations and prediction models that have fine-tuned, calibrated, tested and proven for performance. Data setup and Models were presented at various state conferences by council staff.
John Raymond Asset Manager	Mitcham City (SA)	*tel.* (08) 8372 8843 *email.* jraymond@mitchamcouncil.sa.gov.au	Complete setup of Assetic SAM for sealed and unsealed roads, footpaths, kerbs, bridges, sewer, buildings and water assets. Setup includes inventory, condition data and valuations of infrastructure. Implementation of Assetic SAM including condition assessment logging, modelling and producing long-term scenarios for asset management plans, currently underway.
Alex Green Director	Corangamite Shire (VIC)	*tel.* (03) 5593 7100 *email.* alex.green@corangamite.vic.gov.au	Complete setup of Assetic SAM for sealed and unsealed roads, footpaths, kerbs, bridges, sewer, buildings and water assets. Setup includes inventory, condition data and valuations of infrastructure. Implementation of Assetic SAM including condition assessment logging, modelling and producing long-term scenarios for asset management plans, currently underway.
Warren Reimann Finance Manager	City of Victor Harbor (SA)	*tel.* (08) 8551 0500 *email.* wreimann@victor.sa.gov.au	Complete setup of Assetic SAM for sealed and unsealed roads, footpaths, kerbs, bridges, sewer, buildings and water assets. Setup includes inventory, condition data and valuations of infrastructure. Implementation of Assetic SAM including condition assessment logging, modelling and producing long-term scenarios for asset management plans, currently underway.
Lindsay Tanner Director	City of Wagga Wagga (NSW)	*tel.* (02) 6926 9480 *email.* tanner.lindsay@wagga.nsw.gov.au	Commenced 2011
Kylie White CFO	Westernport Region Water Corporation (VIC)	*tel.* (03) 5956 4121 *email.* kwhite@westernportwater.com.au	SAM water module implementation including long term asset modeling and prediction
Lachlan McGregor Senior Engineer Asset Delivery	Goulburn Valley Water (VIC)	*tel.* (03) 5832 0710 *email.* LachlanM@gvwater.vic.gov.au	SAM water module implementation including long term asset modeling and prediction

John Skinner Asset Manager	Midcoast Water (NSW)	*tel.* 1300 133 455 *email.* *john.skinner@midcoastwater.nsw.com.au*	SAM water module implementation including long term asset modeling and prediction
Sydney Shang IT Manager	Fraser Coast Regional Council (QLD)	*tel.* *email.* sydney.shang@frasercoast.qld.gov.au	Assetic SAM: Setup and Implementation for one of the most advanced asset management framework for road and facility assets for 12 years. Complete documentation and training in assessments, data corporatisation, valuations and prediction models that have fine-tuned, calibrated, tested and proven for performance. Paper presented at IPWEA Congress 2000 and 2002.
Michael Messner Asset Manager	Bankstown City Council (NSW)	*tel.* *email.* Michael.messner@bankstown.nsw.gov.au	Complete setup of Assetic SAM for sealed and unsealed roads, footpaths, kerbs, bridges, sewer, buildings and water assets. Setup includes inventory, condition data and valuations of infrastructure. Implementation of Assetic SAM including condition assessment logging, modelling and producing long-term scenarios for asset management plans, currently underway.

Appendix D - Experience and Capacity

Strategic Asset Management

Element	Experience and Capacity
Asset Hierarchies	Developed hierarchies across all 40+ infrastructure asset sub-classes on over 100 sites.
Cost / Benefit Analysis	Developed cost-benefit prioritisation methods for 12 councils in last two years for Capital Works Prioritisation. Now extending to Investment Logic Mapping and Multi-Criteria Analysis using IIMM methods.
Condition and Level of Service Assessment	Applied industry specific frameworks for assessments of infrastructure and developed over 200 assessment guidelines. Now introducing Star-Rating Concept in WA sites after successful run in NSW, Vic, Qld and SA.
Deterioration Models	Developed over 150 deterioration models, performance models, failure modes, paths of progression and decay curves for various asset classes. Models have been successfully applied to develop long term financial models, seek additional roads to recovery funding; government grants demonstrate impact of current funding and writing AM plans and strategies.
Policies and Strategies	Developed policies and strategies on a range of asset classes and processes for over 40 sites in last five years.
Pricing Models	Currently developing an annuity model for several authorities to determine a pricing model for charging for future services.
Risk Assessment;	Trained over 1500 Council workers in risk assessment in line with legislative needs.
Service Standards	Developed over 100 service level standards across a range of Councils and asset classes over last 4 years.

Tactical Asset Management

Elements	Experience and Capacity
Asset evaluation	Implemented on over 100 sites.
Asset Management Plans	
Asset Valuation	Over 50 Council valuations done in last 4 years including pre-audits and development of valuation methods. Infrastructure assets only – we do not do market valuations of buildings or plant/equipment.

Condition Assessment	Trained over 6 contracting firms in delivering specific condition audits to 15 councils in last 4 years. Trained and accredited Council staff (50 sites) over last six years using a 2 day accreditation process. Trained over 1000 council staff in condition inspections in accordance with Road Management Act.
Custom Agreements	Developed service level agreements for over 100 sites across all asset classes.
Customer Charters	
Maintenance Review / Audit	Undertaken review, assessments, and diagnostics on 60 sites in last four years including a recommendation report on forward planning.
Micro Models	
Operational / Process Audits	
Pavement Management	Developed over 50 pavement management frameworks in Queensland, NSW, Vic, WA and Tas. Setup and developed pavement management systems, performance reporting tools, condition analysis frameworks and pavement reporting methods.
Performance Assessment and Benchmarking	All part of Step-Watch deployment on over 100 sites. We develop a complete framework manual which is Council specific and includes a detailed section on each of these elements. They are developed from ground-up and endorsed by Council as the way forward to practice and measure asset management.
Program Development and Scheduling	
Project Prioritization	
Remaining Life Assessment	
Resource Allocation	

Mr Ashay Prabhu

assetic
strategic asset management

Qualifications	• Bachelor of Engineering with Hons (1992) • Asset Management Systems, Deakin University – Distinction
Summary of Positions Held	• Director – ACEAM Pty Ltd. • Director – Assetic Pty Ltd • Director of Training – Asia Pacific Institute of Good Asset Management. • Founding Director – ACORN Inc • Member of National Interview Panel – I.E(Aust)- Chartered Professional Engineers
Areas of Knowledge and Expertise	• Infrastructure Management • Asset Management Plans and Implementation • Strategic Asset Management • Asset Management Training and Development • Asset Performance Modelling • Asset Management Diagnostics • Asset Life Cycle Analysis • Community Consultation
Professional Awards	• I.E(Aust) – Australian Young Professional Engineer of the Year– 1999 • I.E (Aust) – Tasmanian Young Professional Engineer of the Year – 1998 and 1999 • AMQI – International Asset Management Award – 1999 • I.E(Aust) Young Engineers Public Speaking Awards – 1993,1994,1995,1996 • Channel 9 Television – Young Achiever of the Year Award, Career Achievement 1995
Professional Memberships	• Institution of Engineers Australia M.I.E(Aust) – Chartered Professional Member • National Professional Engineers Register • Civil College – Member • EAROPH Asia Pacific – Invited Life Member
Professional Papers and Publications	• Presented over seventy papers and two hundred training workshops for local and state government agencies and at major national and international conferences
Specialist Skills	• Leading organisational team in implementing Asset Management through a total knowledge transfer process. Over 200 sites and case studies • Systems and Framework development to comply with Asset Management Legislations • Organisational reviews and Change Management for AM implementations • Long Term Financial Planning and Organisational Strategy facilitations • Prediction Modeling and LC Analysis – over 120 case studies

Public Papers and Training Programs Delivered:

(Recent Examples provided)

1. ***Australian Asphalt Pavement Association National and International Conferences:***
    a. 1998 – Life Cycle Costing of Australian Pavement Network.
    b. 1999 – Prediction Modeling and Behaviour of Asset Networks.
    c. 2000 -Probabalistic Methodologies of Network Modeling using Markovian Approach.

2. ***Maintenance Engineering Society of Australia International Conference:***
    a. 2000 – Whole of Life Analysis of a City Council's Asset Management.

3. ***Australian Road Research Board National Conference:***
    a. 1999 – Probabalistic and Deterministic Modeling Systems.
    b. 2000 – Expert Panel for Conference Discussion Session.
    c. 2003 – Condition Based Long-Term Financial Planning for Rural Councils.

4. ***Institution of Public Works Engineering National and International Conferences:***
    a. 2003 – 5 years case study of alternative asset management planning methods using a City Council approach (joint paper).
    b. 2005 – 3 year case study of ACEAM Step-Watch Service Level Criteria in Maintenance Management and Operational Asset Management.
    c. 2005 – Development of Fit for Purpose Data Collection Methods for Asset Modeling (joint paper).
    d. 2006 - 8 year case study of ACEAM Step-Watch program using a rural council example (joint paper).
    e. 2008 – Service Level and KPI measurement for Local Government.
    f. 2009 – Joint Case Study paper – Asset Management or Rocket Science.
    g. 2009 – Joint Case Study Paper – 2 Year Asset Management Journey using a Corporate Framework.

5. ***Road Pavex National Conference:***
    a. 2005 – Key note paper in Road Management Legislation in Victoria and Council adaptation using ACEAM Step-Watch framework.
    b. 2005 – case study analysis of maintenance and risk inspections in 14 local government councils – findings and analysis.
    c. 2006 – Key-note paper in Legal Implications and How to Defend in policy defense against asset management claims.
    d. 2006 – joint case study in life cycle asset management financial modeling.

6. ***Third International CECAR World Congress in Seoul:***
    a. 2004 - Asset Management Planning – Service Centric Framework and deployments in Asia.

7. ***Local Government Accounting Association:***
    a. 2006 – National workshop in asset accounting and modeling life cycle analysis at the National Conference.

b. 2007 – Asset accounting and depreciation methods using Prabhu-Edgerton Life Cycle Model for Infrastructure Assets.

c. 2007 – Fundamentals of Deterioration Modeling (presented by colleaugue as author was unwell).

d. 2008 – Joint Keynote speech on Asset Management Systems and Training, with the CEO and Head of APIGAM and Vice President of EAROPH Malaysia.

e. 2010 – National AM mandates – removing the myths: keynote speech.

f. 2011- Systems approach to Strategic Asset Management.

8. *Local Government Managers Association:*

a. NSW 2007 – Delivered 22 Master Class Workshops in various NSW locations under contract with LGMA to prepare NSW organisations for fair-value asset accounting.

9. *CPA Australia:*

a. 2006 – Delivered 12 Master Class Workshops in Asset Management Frameworks, Financial Modeling and Life Cycle Planning using ACEAM Step-Watch and Assetic myPredictor.

b. 2007 – Delivered 8 Master Class Workshops in Asset Management Frameworks, Financial Modeling and Life Cycle Planning using ACEAM Step-Watch and Assetic myPredictor.

10. *EAROPH/APIGAM (Eastern Regional Organisation of Planning and Housing)*

a. 2002 – National Asset Management Framework Implementation – A Pathway

b. 2003 – Key note paper in Asset Management Tools and Systems.

c. 2003 – Key note Paper – Asset Behaviours and Financial Modeling, ASCI, India.

d. 2003 - Key note Paper Step-Watch Asset Management Framework for Indian Municipalities, Mumbai Municipal Corporation, India.

e. 2003 onwards – several asset management workshops and master-classes, using ACEAM Step-Watch provided to Ministry of Housing Malaysia, Mumbai Municpal Corporation India, Hyderabad Water Board India, Administrative Staff College of India and National Architectural Academy in India.

Brad Campbell

Qualifications	• Bachelor of Surveying (2001)

Summary of Positions Held

- Senior Consultant / Account Manager – Assetic Pty Ltd
- Senior Consultant – ACEAM Pty Ltd
- Manager – Asset and Projects – Corowa Shire Council
- Surveyor – Esler & Ass. Pty Ltd
- Surveyor – Reeds Consulting Pty Ltd.

Areas of Knowledge and Expertise

- Infrastructure Management
- Strategic Asset Management
- Asset Performance Modelling
- Asset Life Cycle Analysis
- Fleet Management and MMS Systems
- Asset Management Plans and Implementation
- Asset Management Training and Development
- Asset Management Diagnostics
- Community Consultation
- Maintenance Management Practise and Implementation

Specialist Skills

- Leading organisational team in implementing Asset Management through a total knowledge transfer process. Over 80 sites and case studies
- Systems and Framework development to comply with Asset Management Legislations.
- Prediction Modeling and LC Analysis – over 120 case studies
- Fleet Management System and Maintenance Management System Development and testing
- Maintenance Management System implementation and Business Process development. Over 25 sites and case studies
- Fleet Management System implementation and Business Process development. Over 25 sites and case studies
- GIS integration
- Mobility Platform integration

Track Record

- Asset Management Plans based on IPR: 20 plans written in last five years
- Asset Valuation Projects: 14 councils – all infrastructure classes supported
- Assetic AMS implementation: Facilitated and delivered on 40 sites
- Condition Assessment Training: 15 sites in last five years

Mr Tony Blefari, MIEAust

Qualifications	• Bachelor of Engineering (Civil Engineering), University of South Australia – 1994 • Diploma in Civil Engineering, University of South Australia – 1992
Summary of Positions Held	• Assetic Pty Ltd, Senior Asset Management Consultant • ACEAM Pty Ltd, Senior Associate • Moreland City Council (VIC), Unit Manager Depot Operations & Fleet • Moreland City Council (VIC), Asset Planning Engineer • Adelaide City Council (SA), Asset Engineer Road Assets • City of Whittlesea (VIC), Assets Engineer • HDS Australia Pty Ltd (SA), Project Engineer / Asset Management Consultant
Areas of Knowledge and Expertise	• Infrastructure Management • Strategic, Tactical and Operational Asset Management, including Asset Performance Modelling, Asset Life Cycle Analysis and day to day Asset Maintenance • Asset Condition Rating / Monitoring • Design and construction of municipal engineering works, including a thorough knowledge of relevant standards and codes of practice • Asset planning and development • Financial procedures as applied to infrastructure assets, with extensive experience in Asset Valuation & Revaluation • Community Consultation • Asset Management Training • Project Management
Further Education / Training	• Qualified Level 2 Bridge Inspector • PRINCE2 Project Management • Fire Warden Training • First Aid
Professional Memberships	• The Institution of Engineers, Australia (IEAust) • Institution of Public Works Engineers Australia (IPWEA) • Institute of Asset Management • Asset Management Council • The Association of Professional Engineers, Scientists and Managers, Australia (APESMA) • Local Government Victoria (LGPro)
Professional Papers and Publications	Presented over 15 papers and several training workshops for local government throughout Australia.
Specialist Skills	• Training of Council staff in implementing Asset Management within their organisation through a knowledge transfer process. • Systems and Framework development to comply with Asset Management Best Practice Principles. • Organisational reviews and Change Management for Asset Management implementations.

Public Papers and Training Programs Delivered:

(Examples of Papers and Training)

1. Conference Papers:

    a. Understanding the Impact of Costing Methodologies, CPA Asset Accounting and Management National Conference – Brisbane, Melbourne, Canberra & Sydney, April 2007

    b. On-ground Implementation of Moreland's Road Asset Management Plan, IPWEA International Public Works Conference – Adelaide, August 2005

    c. Giving Councillor's the Strategic Options to Make Informed Decisions, MAV International Local Government Asset Management Conference – Melbourne, May 2005

    d. On-ground Implementation of a Road Asset Management Plan, Victorian Roads Conference – Melbourne, April 2005

    e. Implementation of Asset Management in Moreland, SMEC Conference – Hunter Valley, March 2005

2. Master Class / Training:

    a. Asset Management Master Class, NSW Local Government Finance Professionals -One Week Intensive Course – Charles Sturt University, Bathurst NSW, 2008

    b. Asset Management Master Class, NSW Local Government Finance Professionals -One Week Intensive Course – Charles Sturt University, Bathurst NSW, 2007

Municipal Asset Management

Municipalities own and manage a substantial asset inventory, from linear assets (e.g. roads, sewers, water mains) to land and facilities (e.g. arenas, fire stations, administrative buildings) to vehicles and equipment (e.g. trucks, plows and ambulances). It is estimated that the level of investment per taxpayer property ranges from $70,000 for small urban/rural municipalities, to in excess of $100,000 per property for large urban centres.

The 1950-1980 period saw considerable investment by Ontario municipalities in acquiring and constructing municipal assets. Today many of these assets have passed the midway point in their useful lives and will need further investment to either extend their usefulness or to be replaced.

Watson & Associates has assisted municipalities in developing long term asset management plans which address the capital expenditure planning, financing and tax rate implications for asset renewal and replacement. Financial plans are normally developed over a minimum 10-year planning horizon (often 20 years or longer) in order to smooth the impacts on tax/ratepayers over time. A well-developed asset management plan, based on solid research and expert analysis provides staff and Council with the information needed to make effective annual reserve fund and investment decisions.

Our specialists in this area include:

Gary Scandlan, Director	Barb O'Connor, Manager, Studies	Amy Vesprini, Consultant
Andrew Grunda, Principal	Nancy Neale, Senior Project Coordinator	Byron Tan, Analyst
Dan Wilson, Director	Greg Beal, Senior Consultant	Peter Simcisko, Analyst
Cam Watson, Corporate Advisor	David Uusitalo, Senior Consultant	Sean-Michael Stephen, Analyst

Planning for growth

Asset Management Plans Client List

<u>Provincial Municipal Infrastructure Strategy (Building Together) Compliant (2013-2014)</u>:

- Aylmer
- Aylmer Secondary Water Supply System
- Belleville
- Centre Wellington
- Central Elgin
- Cobourg
- Collingwood
- Cornwall
- Erin
- Kawartha Lakes
- Malahide
- Mapleton
- Middlesex Centre
- Mono
- Muskoka District
- Perth (Town)
- Petawawa
- Pickering
- Port Burwell Area Secondary Water Supply System
- Southgate
- St. Thomas
- Timmins

<u>Pre-Provincial Municipal Infrastructure Strategy (2009-2013)</u>:

- Bayham
- Brantford
- Clarence-Rockland
- Collingwood
- Kawartha Lakes - Transportation and Fleet
- Kearney
- Lincoln - Facilities
- Malahide
- South Huron

PSAB 3150: Tangible Capital Assets

For years, municipalities have invested significantly in infrastructure and other municipal assets with the objective of maintaining or enhancing community service levels. These assets (referred to as "tangible capital assets") include linear assets (roadways, water and sewer systems), land, facilities, equipment, and vehicles all used by municipalities in their day-to-day operations. In the past, when these assets were acquired or constructed, the funds expended would appear on the municipality's financial statements as an expense for that particular year.

With the introduction of new reporting requirements as per section 3150 of the Public Sector Accounting Board (PSAB) Handbook, municipalities will be required to report tangible capital assets as assets (versus expenses) on the financial statements. In comparison to the previous approach, financial statements will not only show how much has been spent on tangible capital assets, but also how much they have amortized (or decreased in value) since construction/acquisition. PSAB 3150 also requires the disclosure of contributed assets, such as linear assets constructed by developers and dedicated to a municipality as part of a development agreement.

Watson & Associates has been assisting municipalities in becoming compliant with the new PSAB 3150 requirements, which has been labeled as the greatest change in municipal accounting in decades. In conjunction with becoming compliant, it is important for municipalities to ensure a

solid inventory and PSAB 3150 policy is established to ensure that a foundation exists to maintain compliance over the long term. As well and perhaps more importantly, municipalities should consider developing database and financial planning policies which facilitate long-term asset management practices to be used in budgeting and capital forecasting.

Watson & Associates Economists Ltd. has developed policies and approaches to address both historic reporting for PSAB and future financial planning for asset management purposes and is involved in their application.

Our specialists in this area include:

Gary Scandlan,
Director

Dan Wilson,
Director

Amy Vesprini,
Consultant

Andrew Grunda,
Principal

Greg Beal,
Senior Consultant

Planning for growth

Experience in PSAB 3150 Studies, 2006-2014

- Ajax – Ad hoc PSAB 3150 Compliance Assistance

- Bayham – 3-Phase PSAB 3150

- Brantford – PSAB 3150 Calculations and Analysis: Water, Wastewater and Storm Assets

- Brantford - PSAB 3150 Calculations and Analysis: Right of Way Assets

- Central Elgin – 3-Phase PSAB 3150

- Centre Wellington – PSAB 3150 for Transportation, Water and Wastewater Assets

- Clarence-Rockland – 3-Phase PSAB 3150

- Cobourg – PSAB 3150 Compliance and Update – 2009, 2010 & 2011

- East Gwillimbury – PSAB 3150 Compliance

- Erin – PSAB 3150 Compliance

- Grimsby – PSAB 3150 Compliance

- Guelph/Eramosa – PSAB 3150 Compliance and Update - 2009

- Halton Region – Facilities Historical Cost Valuation

- Halton Region – PSAB 3150 Strategy and Asset Hierarchy

- Halton Region – Full Accrual Financial Statement Conversion

- Hamilton – Water/Wastewater PSAB 3150 Assistance

- Ingersoll – PSAB 3150 Compliance and Update – 2009

- Kearney – 3-Phase PSAB 3150

- Kincardine – PSAB 3150 Compliance and Policies

- King – PSAB 3150 Compliance

- Lambton Shores – PSAB 3150 Compliance and Updates – 2009, 2010 & 2011

- LAWSS – PSAB 3150 Compliance

- Lincoln – Facility Valuation

- Malahide – 3-Phase PSAB 3150

- Meaford – PSAB 3150 Compliance and Update – 2009 & 2010

- Mono – PSAB 3150 Compliance and Update – 2009

- Municipal Finance Officers Association – Historical Cost Deflator Study

- Niagara Falls – PSAB 3150 Readiness Plan

- Parry Sound – PSAB 3150 Compliance and Update - 2009

Watson
& Associates
ECONOMISTS LTD.

Experience in PSAB 3150 Studies, 2006-2014
(continued)

- Point Edward – PSAB 3150 Compliance and Updates – 2009, 2010 & 2011

- Prince Edward County – PSAB 3150 Policies and Procedures

- Quinte West – PSAB 3150 Policy and Procedures and Ad Hoc Compliance Assistance

- Renfrew – PSAB 3150 Compliance

- Shelburne – PSAB 3150 Compliance

- South Huron – 3-Phase PSAB 3150

- Thames Centre – PSAB 3150 Compliance and Updates – 2009, 2010 & 2011

- Warwick – PSAB 3150 Compliance and Updates – 2009 & 2010

- Wasaga Beach – PSAB 3150 Compliance and Update – 2009

- West Lincoln – PSAB 3150 Compliance and Update – 2009

- Whitchurch-Stouffville – PSAB 3150 Compliance and Update – 2009

- Windsor Water Utilities – PSAB 3150 Calculations and Analysis: Water Assets

- Woolwich – PSAB 3150 Compliance and Updates – 2009, 2010 & 2011

- York Region – PSAB 3150 Policies and Procedures

Staff Resources

DAN WILSON, BBA, CPA, CA
DIRECTOR

EDUCATION

2012   Chartered Professional Accountant (CPA) Designation, Institute of Chartered Accountants of Ontario.

2004   Chartered Accountant (CA) Designation, Institute of Chartered Accountants of Ontario.

2000   Honours Bachelor of Business Administration Degree, Wilfrid Laurier University.

EMPLOYMENT HISTORY

2006   Joined Watson & Associates Economists Ltd. as a Senior Consultant progressing to Manager, Municipal Finance and to his current responsibilities as Director. Participating in a variety of PSAB 3150 compliance, asset management, development charge, municipal finance, water and wastewater rate, and development approvals process user fee studies.

2006   Director of Finance & Treasurer with the Township of Woolwich, Finance Department. Responsible for the day-to-day operation of the Finance Department. Areas of responsibility included property taxation, receivables/payables, payroll, purchasing, budgeting, and financial reporting/analysis, and financial policy setting. A member of the Township's Senior Management Team.

2004–05   Financial Manager/Deputy Treasurer with the Township of Centre Wellington, Finance Department. Responsible for Township budgeting, general ledger activity, year-end procedures, as well as financial analysis, reporting, and policy. Other various duties included the preparation of the annual financial statements and Financial Information Returns (FIR). A member of the Township's Senior Management Team.

2003-04   Budget Analyst with the Township of Centre Wellington, Finance Department. Responsibilities included preparing annual operating and capital budgets, performing multiple year forecasts, year-end audit preparation, and financial reporting and policy setting. A member of the Township's Senior Management Team.

1999-03   Senior Staff Accountant with BDO Dunwoody, Chartered Accountants. Responsible for auditing various public entities (municipalities, school boards, hospitals, co-op housing entities), as well as medium and small sized private corporations (hydro utilities, manufacturing and service corporations). Other responsibilities included preparation of financial statements and corporate tax returns, control and risk testing, and cash flow and budgeting analysis.

Dan Wilson is a Director with Watson & Associates Economists Ltd. and is involved in studies related to Local Government Finance, Financial Operations and Policy, and Long Term Infrastructure Planning.

Currently, he is involved in various water and wastewater studies to provide municipalities with full cost recovery water and wastewater financial plans, as required under Bill 175, *Sustainable Water and Sewage Systems Act.* Mr. Wilson is involved in numerous development applications approvals process user fee studies to provide municipalities with full cost recovery for *Planning Act, Building Code Act*, and *Municipal Act* mandated services. In addition, he is involved in projects relating to municipal financial planning and reporting, including tangible capital assets, as mandated by the Public Sector Accounting Board (PSAB).

Staff Resources

ANDREW GRUNDA, M.B.A., CMA
PRINCIPAL

EDUCATION

2005	Designated Certified Management Accountant (CMA).
2005	Masters of Business Administration from the Wilfrid Laurier University.
1996	Bachelor of Business Administration Degree, from Brock University.

EMPLOYMENT HISTORY

March, 2012	Appointed Principal of Watson & Associates Economists Ltd. and carries co-responsibility for the firm's municipal sector practice.
1996-Feb. 2012	Joined Watson & Associates Economists Ltd. (formerly C.N. Watson and Associates Ltd.) as a Research Analyst progressing to his current responsibilities as Director, participating in a variety of development charge, development applications approvals process user fee, municipal restructuring, municipal finance, water and wastewater rate and market studies.
1995-96	Budget Clerk with the Regional Municipality of Hamilton-Wentworth, Finance Department. Responsibilities included assisting on the Peer Review of the Constituent Assembly's Report on Municipal Reform. Job duties included monitoring of budgetary exception control systems, account analysis and reconciliations.

Andrew Grunda is a Director with Watson & Associates and is involved in studies related to Local Government Finance, Financial Operations and Policy, and Long Term Infrastructure Planning. He is presently a member of the firm's senior management group, which develops interpretations of legislative requirements, as well as methodologies and formats and determines alternative policy strategies for all facets of the corporate assignments.

In his 17-year career at Watson & Associates, he has undertaken numerous development charge studies, development applications approvals process user fee reviews, fiscal impact modelling and life cycle replacement and financing plans for water and sewer infrastructure for several municipalities. With respect to development charge studies, Mr. Grunda has been study director for a number of policy studies in smaller urban municipalities (i.e. Whitchurch-Stouffville, St. Thomas, Port Hope, Cobourg, Woolwich, Mono, etc.).

He has been involved in numerous water and wastewater rate studies, undertaking to provide municipalities with full cost recovery water and wastewater financial plans, as required under Bill 175, *Sustainable Water and Sewage Systems Act.* Mr. Grunda has undertaken workshops with regard to Bill 175 on behalf of ACMTO and other municipal organizations.

Recently, he is involved in numerous development applications approvals process user fee studies, undertaking to provide municipalities with full cost recovery user fees for *Planning Act*, *Building Code Act* and *Municipal Act* mandated services. These studies are being undertaken by municipalities to address the increased cost justification for user fees as required under Bill 124, *Building Code Statute Law Amendment Act*. Mr. Grunda has undertaken workshops on behalf of the AMCTO and MFOA, with regard to Bill 124.

Staff Resources

AMY VESPRINI, B.Comm.(Hon)
CONSULTANT

EDUCATION

2011	First Aid, CPR Level A and AED
2011	WSIB - Certification Parts I and II - Offices
2004	Taking courses towards the attainment of a Certified General Accountant Designation
2002-04	Bachelor of Commerce Honours from the University of Windsor
1999-02	Business Administration – Accounting (3 Yr.) Diploma from Conestoga College

EMPLOYMENT HISTORY

2006	Joined Watson & Associates Economists Ltd. (formerly C.N. Watson and Associates Ltd.) as a Research Analyst progressing to her current responsibilities as Consultant, assisting on both municipal and education-related projects.
2004-06	Administrative Assistant, AMI Business Solutions, Kitchener, Ontario, responsible for the accounting and other office-related duties for AMI Business Solutions and two other companies owned by AMI Business Solutions.

Amy is a Consultant with Watson & Associates Economists Ltd. specializing in Municipal Finance. Since joining the firm in 2006, Amy has participated in numerous PSAB 3150, Ontario Regulation 453/07 Financial Plan, Asset Management Plan, Development Charge, Water and Wastewater Rate and Development Applications Approval Process studies. In addition, Amy has worked on various education-related studies.

Amy has been a member of the firm's Joint Health and Safety Committee since its inauguration in 2010; her term ended August, 2014. With an educational and practical background in business administration and accounting, Amy possesses a strong analytical and detail-oriented skill set.

Staff Resources

PETER SIMCISKO, BA (Hons.), MBE
ANALYST

EDUCATION

2014   Brock University
            Master of Business Economics

2012   Brock University
            Bachelor of Arts (Honours), Economics. Graduated with first-class standing.

EMPLOYMENT HISTORY

2013   Joined Watson & Associates Economists Ltd. as Consulting Support progressing to his current
            responsibilities as an Analyst, participating in various development charge studies, development
            application approval process user fee studies, and asset management plans.

2011-13   Research Assistant to Dr. Mohammed H.I. Dore at Brock University, Department of Economics.
            Contributed to various research projects in the field of municipal water treatment by collecting
            data and performing statistical analyses. Co-authored a published literature review of climate
            change projections for Canada.

Peter is an Analyst with Watson & Associates Economists Ltd. specializing in the area of Municipal Finance.
Since joining the firm in 2013, Peter has participated in numerous development charge studies and assisted with
the preparation of various municipal asset management plans. More recently he has also been involved with the
modelling aspects of development approval process user fee studies.

Coming from a background in economics, Peter possesses a strong analytical skill set. Working in the
environment of academic research helped further enhance his analytical and data modelling skills. He recently
presented one of his projects, which analyzed the economic feasibility of utilizing renewable energy sources at
public water utilities, at the Canadian Energy and Water Efficiency Conference in Calgary.

Appendix E – Schedule

ID	Task Mode	Task Name	Duration	Start	Finish	Predecesso	Resource Names
1	⭐	**City of London Phase One Project Plan**	**97 days**	**Wed 4/1/15**	**Thu 8/13/15**		
2	➡	**Project and Integration Scoping**	**7 days**	**Wed 4/1/15**	**Thu 4/9/15**		
3	➡	Initial workshop to refine plan for stage one	1 day	Wed 4/1/15	Wed 4/1/15		CoL Project Manager,Assetic Project Director,Assetic Project Lead,CoL Asset Data Officer ,CoL Asset Lead ,CoL Finance Manager
4	➡	Consolidate findings and finalise project plan for sign off	4 days	Thu 4/2/15	Tue 4/7/15	3	Assetic Project Lead,Assetic Project Director
5	➡	Project plan review and approved	2 days	Wed 4/8/15	Thu 4/9/15	4	CoL Finance Manager,CoL Project Manager
6	➡						
7	➡	**Stage 1 - Asset Register Development**	**76 days**	**Wed 4/1/15**	**Wed 7/15/15**		
8	➡	**Asset Data Migration**	**31 days**	**Fri 4/10/15**	**Fri 5/22/15**		
9	➡	Inventory Asset data provided for all active assets from CoL	3 days	Fri 4/10/15	Tue 4/14/15	5FF+3 days	Project Manager
10	➡	**Road and Structures Data Migration**	**15 days**	**Wed 4/15/15**	**Tue 5/5/15**		
11	➡	Data Consolidation Into Segment / Component Format for Assetic Templates	10 days	Wed 4/15/15	Tue 4/28/15	9	Assetic Asset Data Specialist 1,CoL Asset Data Officer ,CoL Asset Lead
12	➡	Condition Data consolidation and assignment against new road asset formats	2 days	Wed 4/29/15	Thu 4/30/15	11	Assetic Asset Data Specialist 1,CoL Asset Data Officer ,CoL Asset Lead
13	➡	Pre-Load Data Quality Review - Duplicates / Missing / Asset Values	1 day	Fri 5/1/15	Fri 5/1/15	12	Assetic Asset Data Specialist 1,CoL Asset Data Officer ,CoL Asset Lead
14	➡	Data Load and review in Assetic Test Environment	1 day	Mon 5/4/15	Mon 5/4/15	13	Assetic Asset Data Specialist 1,Assetic Valuations Specialist
15	➡	Initial Inventory in Assetic	1 day	Tue 5/5/15	Tue 5/5/15	14	CoL Project Manager
16	➡	**Traffic Asset Data Migration**	**7 days**	**Wed 5/6/15**	**Thu 5/14/15**		
17	➡	Data Consolidation Into Format Using Assetic Templates	3 days	Wed 5/6/15	Fri 5/8/15	15	Assetic Asset Data Specialist 1,CoL Asset Data Officer ,CoL Asset Lead
18	➡	Condition Data Consolidation and assignment against footpath assets	1 day	Mon 5/11/15	Mon 5/11/15	17	Assetic Asset Data Specialist 1,CoL Asset Data Officer ,CoL Asset Lead
19	➡	Pre-Load Data Quality Review - Duplicates / Missing / Asset Values	1 day	Tue 5/12/15	Tue 5/12/15	18	Assetic Asset Data Specialist 1,CoL Asset Data Officer ,CoL Asset Lead
20	➡	Data Load and review in Assetic Test Environment	1 day	Wed 5/13/15	Wed 5/13/15	19	Assetic Asset Data Specialist 1,Assetic Valuations Specialist
21	➡	Initial Inventory in Assetic	1 day	Thu 5/14/15	Thu 5/14/15	20	CoL Project Manager
22	➡	**Parking Asset Data Migration**	**7 days**	**Wed 4/15/15**	**Thu 4/23/15**		
23	➡	Data Consolidation Into Format Using Assetic Templates	4 days	Wed 4/15/15	Mon 4/20/15	9	Assetic Asset Data Specialist 2,CoL Asset Data Officer ,CoL Asset Lead
24	➡	Pre-Load Data Quality Review - Duplicates / Missing / Asset Values	1 day	Tue 4/21/15	Tue 4/21/15	23	Assetic Asset Data Specialist 2,CoL Asset Data Officer ,CoL Asset Lead
25	➡	Data Load and review in Assetic Test Environment	1 day	Wed 4/22/15	Wed 4/22/15	24	Assetic Valuations Specialist,Assetic Asset Data Specialist 2
26	➡	Initial Inventory in Assetic	1 day	Thu 4/23/15	Thu 4/23/15	25	CoL Project Manager
27	➡	**Recreation Asset Data Migration**	**7 days**	**Fri 4/24/15**	**Mon 5/4/15**		
28	➡	Data Consolidation Into Format Using Assetic Templates	4 days	Fri 4/24/15	Wed 4/29/15	26	Assetic Asset Data Specialist 2,CoL Asset Data Officer ,CoL Asset Lead

ID	Task Mode	Task Name	Duration	Start	Finish	Predecesso	Resource Names
29		Pre-Load Data Quality Review - Duplicates / Missing / Asset Values	1 day	Thu 4/30/15	Thu 4/30/15	28	Assetic Asset Data Specialist 2,CoL Asset Data Officer ,CoL Asset Lead
30		Data Load and testing / valuation review in Assetic Test Environment	1 day	Fri 5/1/15	Fri 5/1/15	29	Assetic Valuations Specialist,Assetic Asset Data Specialist 2
31		Initial Inventory in Assetic	1 day	Mon 5/4/15	Mon 5/4/15	30	CoL Project Manager
32		**Parks Asset Data Migration**	**7 days**	**Tue 5/5/15**	**Wed 5/13/15**		
33		Data Consolidation Into Format Using Assetic Templates	4 days	Tue 5/5/15	Fri 5/8/15	31	Assetic Asset Data Specialist 2,CoL Asset Data Officer ,CoL Asset Lead
34		Pre-Load Data Quality Review - Duplicates / Missing / Asset Values	1 day	Mon 5/11/15	Mon 5/11/15	33	Assetic Asset Data Specialist 2,CoL Asset Data Officer ,CoL Asset Lead
35		Data Load and testing / valuation review in Assetic Test Environment	1 day	Tue 5/12/15	Tue 5/12/15	34	Assetic Valuations Specialist,Assetic Asset Data Specialist 2
36		Initial Inventory in Assetic	1 day	Wed 5/13/15	Wed 5/13/15	35	CoL Project Manager
37		**Urban Forestry Data Migration**	**7 days**	**Thu 5/14/15**	**Fri 5/22/15**		
38		Data Consolidation Into Format Using Assetic Templates	4 days	Thu 5/14/15	Tue 5/19/15	36	Assetic Asset Data Specialist 2,CoL Asset Data Officer ,CoL Asset Lead
39		Pre-Load Data Quality Review - Duplicates / Missing / Values	1 day	Wed 5/20/15	Wed 5/20/15	38	Assetic Asset Data Specialist 2,CoL Asset Data Officer ,CoL Asset Lead
40		Data Load and testing / valuation review in Assetic Test Environment	1 day	Thu 5/21/15	Thu 5/21/15	39	Assetic Valuations Specialist,Assetic Asset Data Specialist 2
41		Initial Inventory in Assetic	1 day	Fri 5/22/15	Fri 5/22/15	40	CoL Project Manager
42		**Facilities Asset Data Migration**	**6 days**	**Fri 5/15/15**	**Fri 5/22/15**		
43		Data Consolidation Into Format Using Assetic Templates	3 days	Fri 5/15/15	Tue 5/19/15	21	CoL Asset Data Officer ,CoL Asset Lead ,Assetic Asset Data Specialist 1
44		Pre-Load Data Quality Review - Duplicates / Missing / Values	1 day	Wed 5/20/15	Wed 5/20/15	43	CoL Asset Data Officer ,CoL Asset Lead ,Assetic Asset Data Specialist 1
45		Data Load and testing / valuation review in Assetic Test Environment	1 day	Thu 5/21/15	Thu 5/21/15	44	Assetic Valuations Specialist,Assetic Asset Data Specialist 1
46		Initial Inventory in Assetic	1 day	Fri 5/22/15	Fri 5/22/15	45	CoL Project Manager
47							
48		**Asset Updates - Disposals and Additions Provided to Assetic**	**44 days**	**Wed 4/1/15**	**Mon 6/1/15**		
49		Extract of all changes processed in CoL systems for ac	3 days	Wed 4/1/15	Fri 4/3/15		CoL Asset Data Officer ,CoL Asset Lead
50		Assetic updates all Asset classes with changes	5 days	Mon 5/25/15	Fri 5/29/15	46	Assetic Asset Data Specialist 1,CoL Asset Data Officer
51		Jan 1 2015 Inventory In Assetic	1 day	Mon 6/1/15	Mon 6/1/15	50	Assetic Asset Data Specialist 1,CoL Asset Data Officer ,Assetic Project Lead
52							
53		**PSAB and Replacement Asset Valuation Update and Register Sign Off**	**22 days**	**Tue 6/2/15**	**Wed 7/1/15**		
54		CoL provides reported asset financial data for 2014	2 days	Tue 6/2/15	Wed 6/3/15	48	CoL Project Manager
55		Asset financial data updates for all asset classes	15 days	Thu 6/4/15	Wed 6/24/15	54	Assetic Valuations Specialist

ID	Task Mode	Task Name	Duration	Start	Finish	Predecesso	Resource Names
56		Review and Sign Off June 2014 Financial Asset Register In Assetic	5 days	Thu 6/25/15	Wed 7/1/15	55	Assetic Valuations Specialist,CoL Project Manager
57							
58		**System Custodian Training in test environment**	**2 days**	**Mon 7/6/15**	**Tue 7/7/15**	**53**	
59		Asset Lead and Data Officer Training in Assetic Asset Data Management	2 days	Mon 7/6/15	Tue 7/7/15	56FS+2 days	Assetic Asset Data Specialist 1,CoL Asset Lead
60							
61		**Migrate Test Environment to Production**	**3 days**	**Fri 7/10/15**	**Tue 7/14/15**		
62		Migrate test environment to production and test data structures and user accesses / permissions	2 days	Fri 7/10/15	Mon 7/13/15	59FS+2 days	Assetic Asset Data Specialist 1,CoL Asset Data Officer ,Assetic Technical Specialist
63		Sign Off and Go - Live - Stage One Asset Structures In Production	1 day	Tue 7/14/15	Tue 7/14/15	62	CoL Project Manager,Assetic Project Lead
64							
65		All Asset Classes Stage One Live in Assetic Production Environment	1 day	Wed 7/15/15	Wed 7/15/15	63	
66							
67		**Stage 2 - AssetCloud Configuration**	**10 days**	**Wed 4/1/15**	**Tue 4/14/15**		
68		Setup Asset Cloud with available Asset Classes	7 days	Wed 4/1/15	Thu 4/9/15		CoL GIS Officers,CoL GIS Team Leader
69		Train the trainer / System Custodian in AssetCloud	3 days	Fri 4/10/15	Tue 4/14/15	68	Assetic GIS Specialist,CoL Project Manager,CoL GIS Officers,CoL GIS Team Leader
70							
71		**Stage 3 - Prediction Modelling Enablement - First Asset Class**	**94 days**	**Wed 4/1/15**	**Mon 8/10/15**		
72		**Long Term Financial Plan & Predictive Modelling**	**94 days**	**Wed 4/1/15**	**Mon 8/10/15**		
73		Initial Strategic asset management Workshop	2 days	Wed 4/1/15	Thu 4/2/15		CoL Operations Team Leader,CoL Operations Officers,Assetic Project Lead,A
74		Clean up of data specific to the Asset Management Strategy (First asset class)	10 days	Thu 7/16/15	Wed 7/29/15	65FF+10 days	CoL Asset Data Officer ,Assetic Project Lead,CoL Asset Lead
75		Draft AM strategy workshop and review of other class data for AM strategy inclusion and modelling	3 days	Thu 7/30/15	Mon 8/3/15	74	Assets Team Leader[40%],Finance Officer[20%],CoL GIS Officers[10%],CoL Finance Manager[10%],Assetic Strategic Specialist[10%]
76		Council workshop : Present the Long Term Financial Planning model and the AM strategy	2 days	Tue 8/4/15	Wed 8/5/15	75	CoL Finance Manager[40%],Assetic Project Lead,Assetic Strategic Specialist[40%],CoL Asset Lead ,CoL Project Manager
77		Training Council staff : myPredictor first asset class	3 days	Thu 8/6/15	Mon 8/10/15	76	Assetic Project Lead,Assetic Migration and Modelling Specialist[40%],CoL As
78							
79		**Integration Options**	**0 days**	**Wed 6/11/14**	**Wed 6/11/14**		
82							

Appendix F – Assetic Standard Reports

Assetic in-built reporting facility

Assetic in-built reporting facility

Annual Financial Reconciliation Report

Asset Funding Distribution report
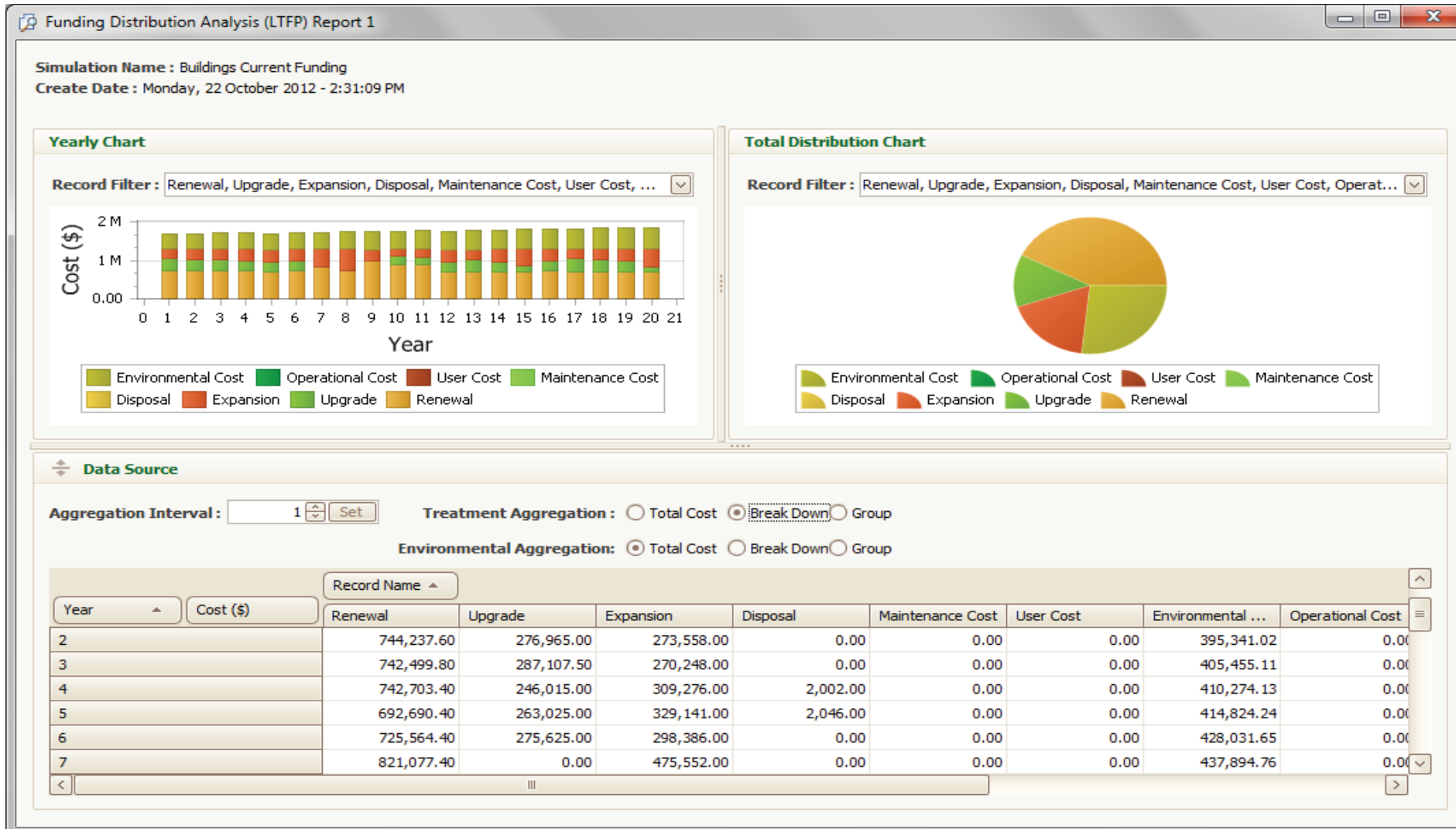
Community Consultation report
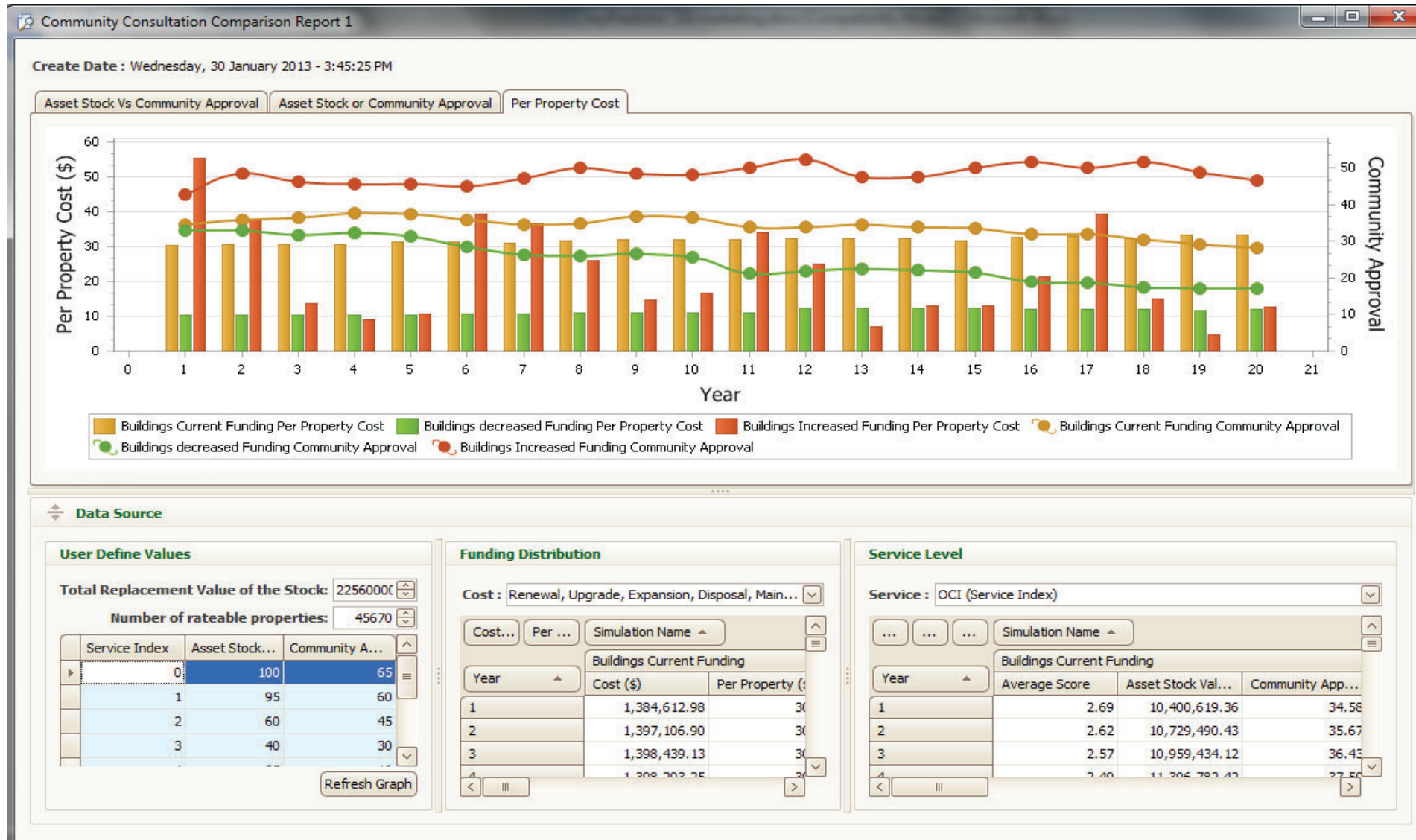
Risk Register report

NAMF Ratio report

NAMF Ratio Report (30/06/2010)

	Valuation					User Inputs			Ratios					
Asset Category	Replacement Value	Depreciable Amount	Annual Depreciation	Written Down Value	Average Annual Planned Renewal	Average Annual Planned Upgrade	Average Annual Desired Renewal	Asset Sustain... Ratio	Asset Renewal Funding...	Remaining Service Potential Index	Average Annual Asset Consum...	Average Annual Renewal Ratio	Average Annual Upgrade Ratio
Sealed Roads	$521,492,006.95	$521,492,00...	$12,654,074.43	$251,352,183...	$13,909,00...	$9,500,000...	$15,300,000...	109.92 %	90.91 %	48.20 %	2.43 %	2.67 %	1.82 %
Bridges	$14,521,644.75	$14,521,644.75	$167,204.17	$10,642,216.46	$90,000.00	$75,000.00	$123,000.00	53.83 %	73.17 %	73.29 %	1.15 %	0.62 %	0.52 %

Edit Expression Conditions

Export

Close

assetic

Detailed Level 2 condition assessment reporting of an asset component

Level 2 condition assessment of assets

Level 2 Detailed annual works program

Level 2 buildings works program reporting

Condition reporting of sewer mains

WSA complaint CCTV structural and service condition assessment reporting of sewer mains
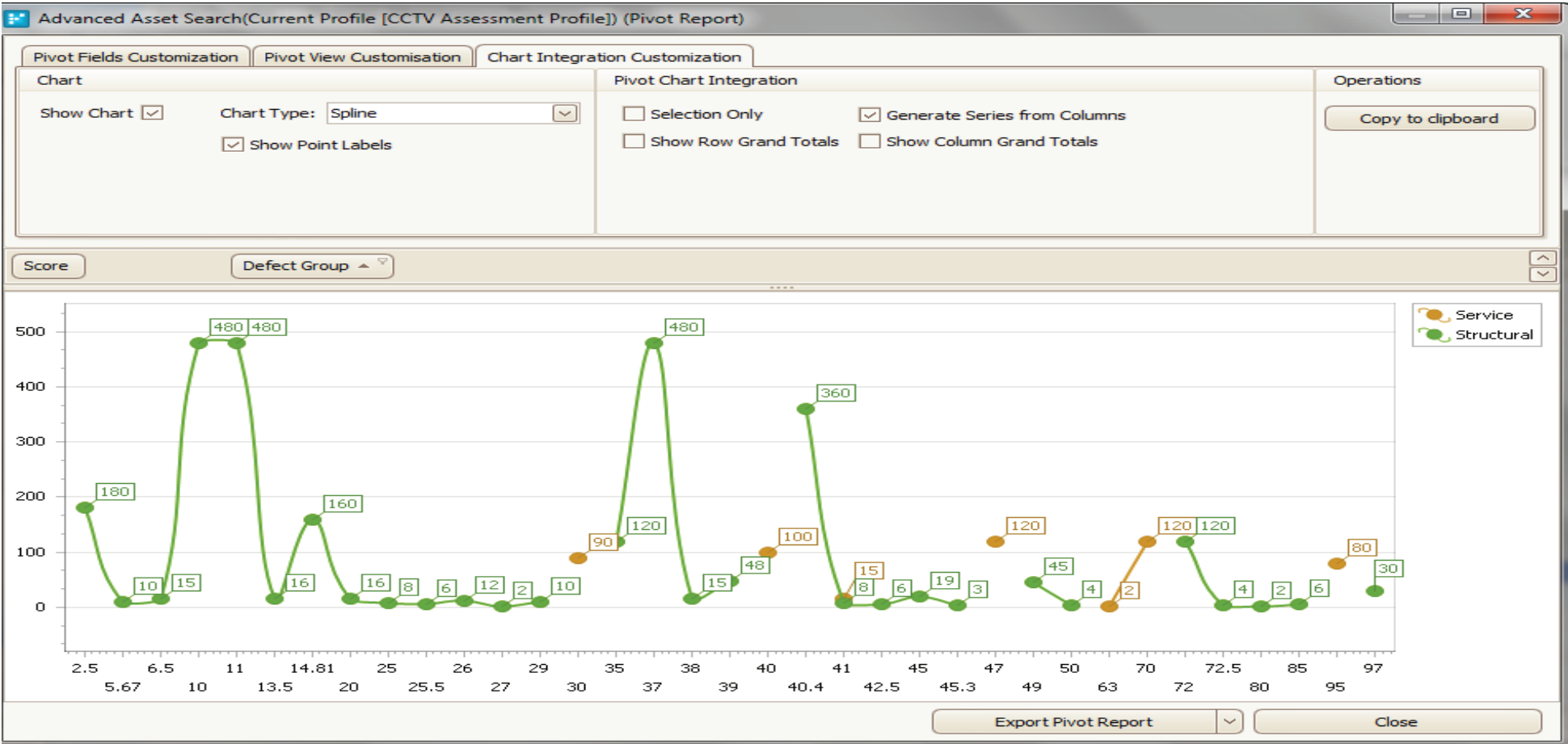
Average condition reporting of sewer network
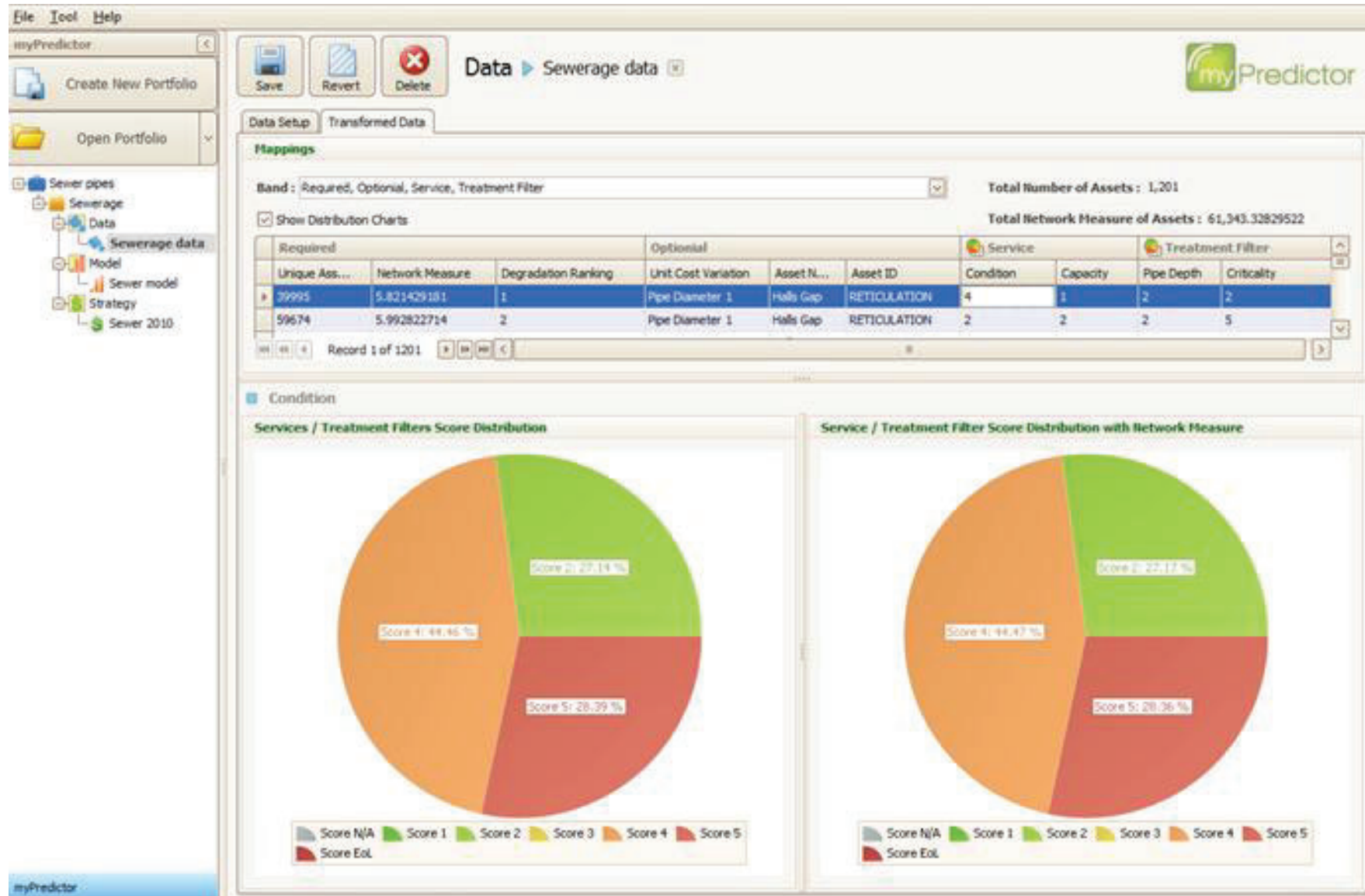
Useability condition Index reporting of Parks

Average useability condition score of council managed parks by suburb
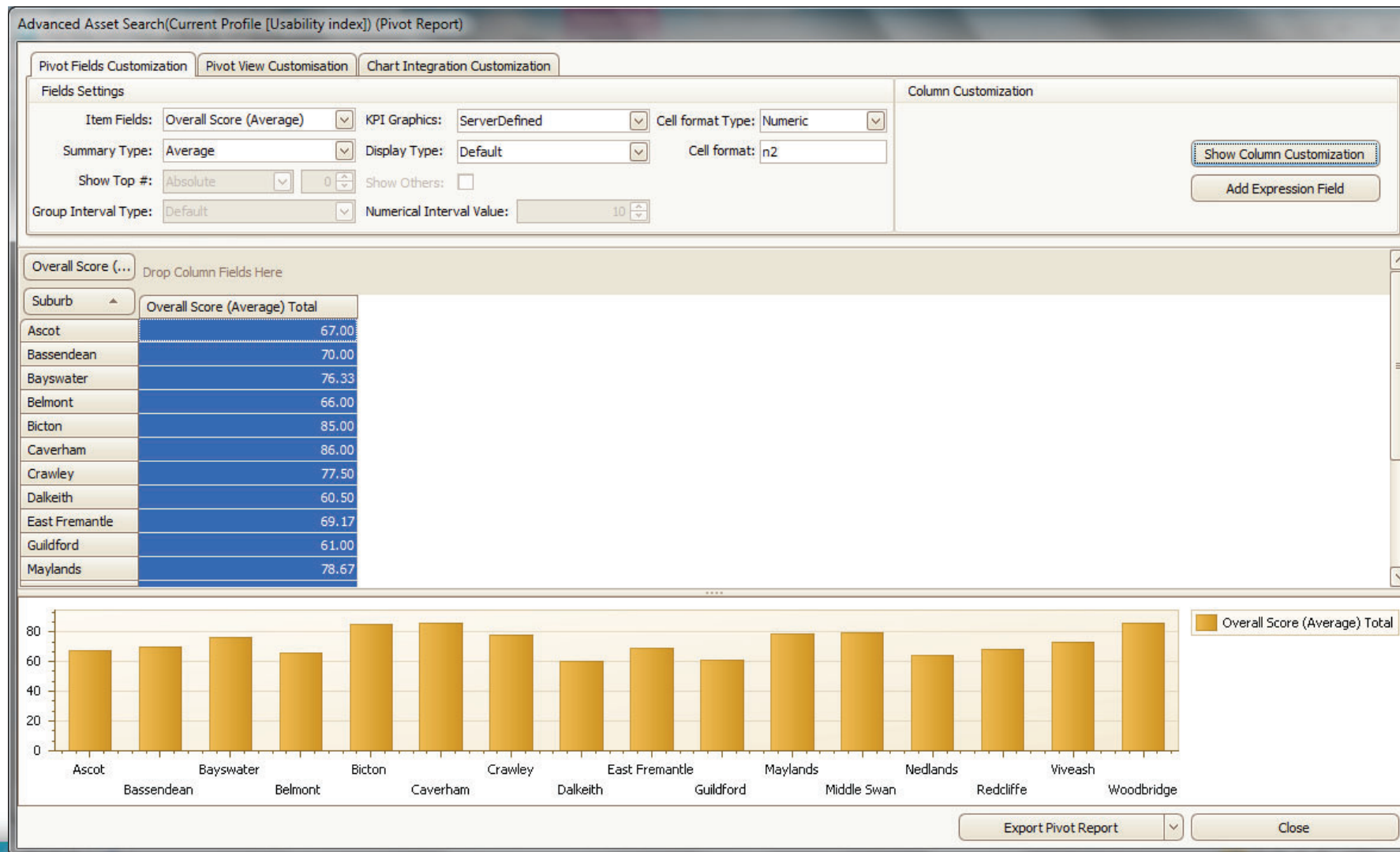
iconCUR property assessment reporting

Roads Condition assessment report

Grants Commission report

Project Cost Estimate Update

Re: Statement of Work in Brad Campbell email to Lois Burgess June 27, 2016

Project Cost Summary

Description	Cost
Software Cost & Professional Services (two service areas)	$ 153,300
Annual Ongoing license & Support (Year 2 & 3: $113,500x2)	$ 227,000
Total cost over the 3 year Agreement	**$ 380,300**

Project Cost Estimate

Year 1	

Software Subscription Cost:
   • Assetic Modules
      o asseticAssets (15 Users)
      o asseticAccounting
      o asseticPredictor
   • ESRI plugin (standard)
   • Asset Categories
      o Transportation Class (all categories)
      o Parks and Recreation (all categories)
      o Buildings and Facilities all categories
	$67,100

Implementation and training two (2) asset classes, Transportation and Parks & Recreation
   • Project Scoping
   • Asset Register Development
   • Predictive Modelling
   • Reporting development and configuration
   • PSAB and Replacement Value Configuration
   • Staff Training (*training also included in the above work)
	$6,300
	$23,100
	$28,350
	$6,400
	$15,750
	$6,300
	$86,200

Sub Total	**$153,300**
Year 2	Cost (excl. HST)

Software Subscription Cost:
   • Assetic Modules
      o Assetic Assets Standard (50 users) o Assetic Predictor Premium
      o Asset Cloud Standard (Unlimited)
      o ESRI plugin (standard)
   • Asset Categories
	$113,500

Implementation and training additional asset classes * to be determined after year 1 if required		$-
	Sub Total	**$113,500**
Year 3		**Cost (excl. HST)**

Software Subscription Cost:
 	
• Assetic Modules
   o Assetic Assets Standard (50 users)
   o Assetic Predictor Premium
   o Asset Cloud Standard (unlimited)
   o ESRI plugin (standard)
• Asset Categories
   o All Asset Classes
		$113,500

Implementation and training		$-
	Sub Total	**$113,500**
	Project Total	**$380,300**

- Standard Support and Maintenance included
- Standard Software upgrades included
- User restrictions have been applied to keep cost down during the initial phases of the implementation.
- Integration to JDE is not included as part of the annual subscription, pricing can be obtain after scoping of specific requirements.
- Assetic Fleet module is not included in the above pricing. The Standard Fleet category used for inventory and condition storage and valuation is included.

Schedule B - Project Cost Estimate Update

Re: Statement of Work in Brad Campbell email to Lois Burgess June 27, 2016
Modified December 10, 2019 by Ben Moller

Project Cost Summary

Description	Cost
Software Cost & Professional Services (two service areas)	$ 153,300
Annual Ongoing license & Support (Year 2 & 3: $113,500x2)	$ 227,000
Total cost over the initial 3 year Agreement	**$ 380,300**
Annual Ongoing license& Support (Years 4-6: $113,500 x 3)	$340,500

Project Cost Estimate

Year 1	

Software Subscription Cost:
• Assetic Modules
   o   asseticAssets (15 Users)
   o   asseticAccounting
   o   asseticPredictor
• ESRI plugin (standard)
• Asset Categories
   o   Transportation Class (all categories)
   o   Parks and Recreation (all categories)
   o   Buildings and Facilities all categories
	$67,100

Implementation and training two (2) asset classes, Transportation and Parks & Recreation • Project Scoping • Asset Register Development • Predictive Modelling • Reporting development and configuration • PSAB and Replacement Value Configuration • Staff Training (*training also included in the above work)	$6,300 $23,100 $28,350 $6,400 $15,750 $6,300 $86,200
Sub Total	**$153,300**

Year 2	Cost (excl. HST)

Software Subscription Cost:
• Assetic Modules
   o   Assetic Assets Standard (50 users) o   Assetic Predictor Premium
   o   Asset Cloud Standard (Unlimited)
   o   ESRI plugin (standard)
• Asset Categories
	$113,500

Implementation and training additional asset classes * to be determined after year 1 if required	$-
Sub Total	**$113,500**

Year 3	Cost (excl. HST)

Software Subscription Cost:
• Assetic Modules
   o   Assetic Assets Standard (50 users)
   o   Assetic Predictor Premium
   o   Asset Cloud Standard (unlimited)
   o   ESRI plugin (standard)
• Asset Categories
   o   AllAssetClasses
	$113,500

Implementation and training	$-
Sub Total	**$113,500**

Year 4	Cost (excl. HST)

Software Subscription Cost:
 	
   • Assetic Modules
      o Assetic Assets Standard (50 users)
      o Assetic Predictor Premium
      o Asset Cloud Standard (unlimited)
      o ESRI plugin (standard)
   • Asset Categories
      o All Asset Classes
	$113,500

Implementation and training	$-
Sub Total	**$113,500**

Year 5	Cost (excl. HST)

Software Subscription Cost:
 	
   • Assetic Modules
      o Assetic Assets Standard (50 users)
      o Assetic Predictor Premium
      o Asset Cloud Standard (unlimited)
      o ESRI plugin (standard)
   • Asset Categories
      o All Asset Classes
	$113,500

Implementation and training	$-
Sub Total	**$113,500**

Year 6	Cost (excl. HST)

Software Subscription Cost:
 	
   • Assetic Modules
      o Assetic Assets Standard (50 users)
      o Assetic Predictor Premium
      o Asset Cloud Standard (unlimited)
      o ESRI plugin (standard)
   • Asset Categories
      o All Asset Classes
	$113,500

Implementation and training	$-
Sub Total	**$113,500**
Project Total	**$720,800**

- Standard Support and Maintenance included
- Standard Software upgrades included
- User restrictions have been applied to keep cost down during the initial phases of the implementation.
- Integration to J DE is not included as part of the annual subscription, pricing can be obtain after scoping of specific requirements.
- Assetic Fleet module is not included in the above pricing. The Standard Fleet category used for inventory and condition storage and valuation is included.