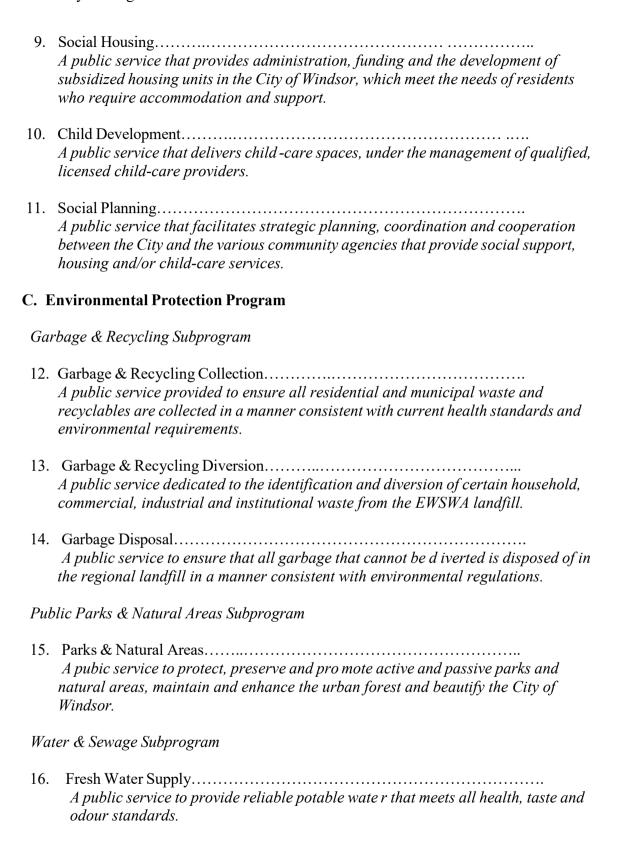
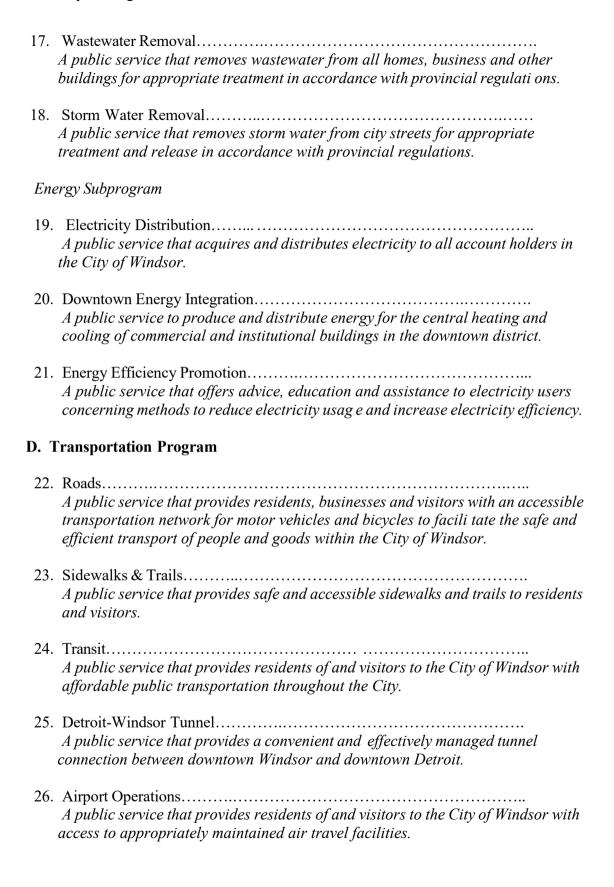


A. Economic Development Program

Property Development Subprogram 1. Development Approval..... A public service that provides professional research, guidance, advice and permissions for the development of privately held property. 2. Building Approval..... A public service that provides building approvals in accordance with the Ontario Building Code. 3. Property Development Incentive..... A public service that provides property owners and/or tenants with financial assistance for the improvement of property in accordance with applicable legislation. Business Development Subprogram 4. New Business Attraction. A public service that provides a Windsor-Essex promotional campaign directed at business decision makers with the aim of attracting investment to Windsor -Essex. 5. Business Retention & Expansion..... A public service that provides decision makers of existing businesses in Windsor -Essex with the necessary information and assistance to rem ain and/or expand in Windsor-Essex. Tourism Development Subprogram 6. Tourism Promotion.... A public service to promote the image of Windsor-Essex as a destination with the cooperation of a united tourism and hospitality industry. 7. Visitor Information..... A public service that provides information and promotional materials concerning attractions, activities and events in Windsor-Essex through direct responses to inquiries made in person, by phone, email, fax, mail or website interaction. **B. Social Development Program** 8. Social Support..... A public service that provides financial and employment assistance for individuals who are in temporary financial need.





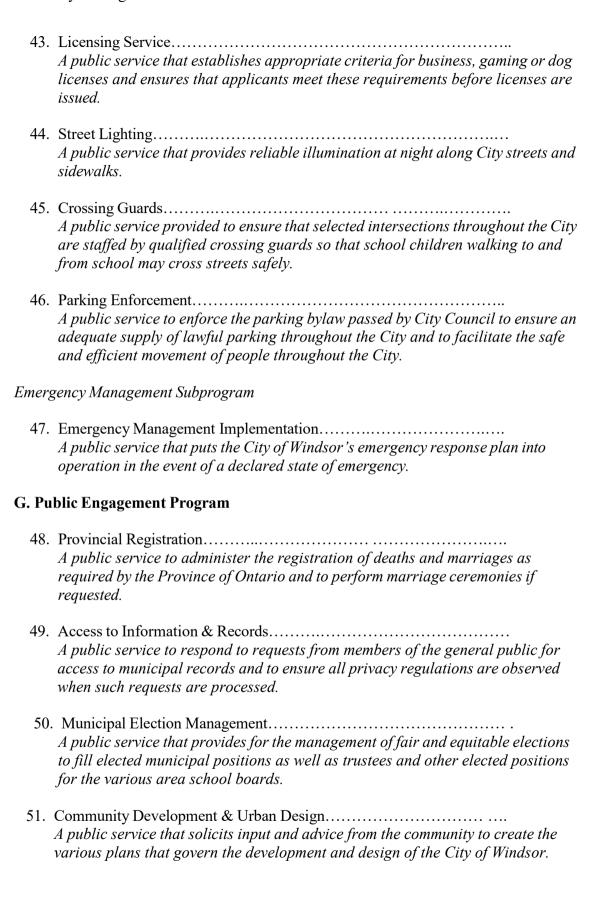
E. Health, Recreation and Cultural Development Program

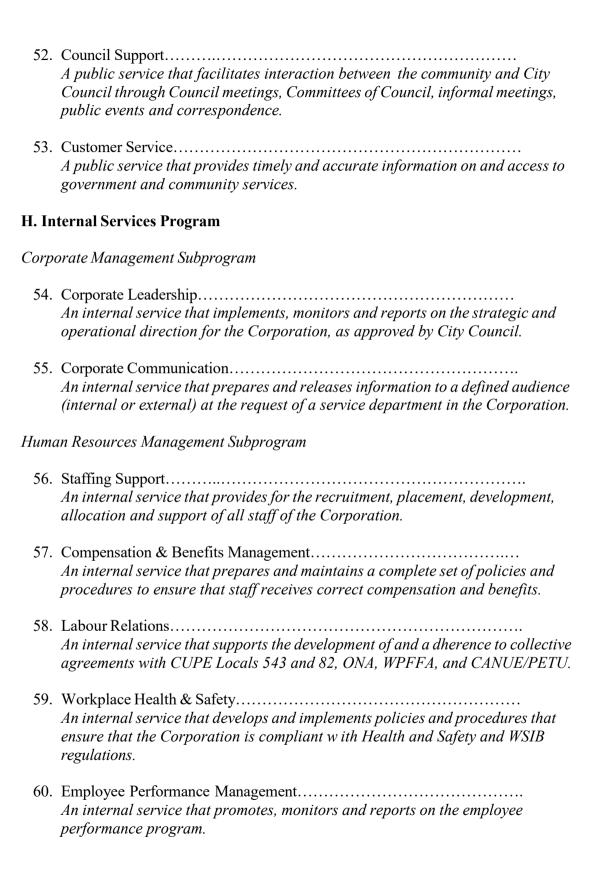
Recreation Subprogram 27. Recreation Programming. A public service provided to residents of the City of Windsor offering participation in structured, accessible and affordable recreation and sports programming. 28. Recreation Facility Access..... A public service providing members of the general public and community groups the opportunity to make use of recreational and sports facilities for independent use. Health Subprogram 29. Public Health Monitoring and Promotion..... A public service that provides the latest information on the state of public health in Windsor and Essex County and best practices for good health and illness and disease prevention. 30. Public Health Protection..... A public service that provides a profess ional response to infectious disease outbreaks and enforces violations of public health regulations. 31. Long Term Care Facility..... A public service to provide 24 hour nursing and personal care for eligible residents. Arts and Culture Development Service 32. Arts & Culture Development..... A public service providing professional advice and information on cultural matters to culture-based community groups. 33. Public Library & Community Archives..... A public service offered to all residents of and visitors to the City of Windsor that provides access to information resources, reference materials, the preservation of local history and programming to enrich lives through learning and recreation. 34. Community Museum..... A public service offering attractions of art, culture and historical interest (both local and general).

F. Public Safety Program

crime prevention.

Investigation & Intervention Subprogram 35. Police Investigation. A public service to gather evidence to be used by courts of law to determine the guilt or innocence of persons accused of offences against the Crown using established police procedures and rules of evidence. 36. Police Patrol & Intervention..... A public service that places police units throughout the City to respond to incidents and offences in progress. 37. Fire & Rescue. A public service provided to victims and/or potential victims of em ergency situations (i.e. fires and vehicular or other accidents) offering relief and assistance. 38. Animal Control. A public service that provides a response to reports of unregistered pit bulls, dogs at large, dog attacks and wild animals at large, which may include bringing such animals under control. 39. Paramedics..... A public service that provides a response to medical emergencies of varying severity that may occur throughout the City of Windsor and provide trans portation to a medical facility, if necessary. 40. Provincial Offences..... A public service to determine the innocence or guilt of persons charged with a provincial offence using rules of evidence and procedure. Inspection & Prevention Subprogram 41. Inspections..... A public service that provides inspections to ensure adherence to various bylaws concerning property standards and the Province of Ontario's building, fire and health codes. 42. Fire & Crime Prevention Education. A public service to provide education to the general public concerning fire and





Finar	ncial Management Subprogram
61.	Financial Planning and Monitoring
62.	Investment and Debt Management
63.	Financial Accounting & Reporting
64.	Billing & Collection
Infor	mation Technology Management Subprogram
65.	Information Technology Design & Planning
66.	Business Solutions Development & Support
67.	Information Technology Infrastructure Operations
Corp	orate Asset Management Subprogram
68.	Corporate Facilities Management
69.	Corporate Fleet Management

70.	Corporate Real Estate Management
Profe	ssional Services Subprogram
71.	Legal
72.	Audit
73.	Purchasing An internal service that provides professional advice and administrative support to ensure the purchasing bylaw, approved by City Council, is observed.
74.	Project Management

Appendix B Windsor Essex Community Housing Corporation Letter



October 29, 2013

Melissa Osborne, Senior Manager Asset Planning The Corporation of the City of Windsor 400 City Hall Square East Suite 402 Windsor, Ontario N9A 7K6

Dear Ms. Osborne:

Re: Overview Of The State of Asset Management At Windsor Essex Community Housing

Windsor Essex Community Housing (CHC) owns and manages 732 buildings in the region of Windsor-Essex consisting of single family homes, townhomes, low-rise, mid- rise and high-rise apartment buildings. The average age of the housing stock is approximately 40 years old and has a 2013 replacement value of \$650M CDN.

Within the past 12 months CHC has transitioned from an Excel based asset management tool to Asset Planner^{TM*}, a web-based asset management software specialized for housing applications. Asset PlannerTM, is used by 25 Service Managers, LHC's and other housing providers to manage over 113,000 units in Ontario. Asset PlannerTM utilizes leading construction estimating software and empirical data to determine the cost of capital repairs and asset replacement value.

The general state of CHC's assets can be referred to as "tired and aging" however, in recent years a higher number of structural issues have surfaced which is indicative of the asset age and are costly to repair. Significant capital funding will be required in the next 30 years in order to reverse the deteriorating trend in our assets. Based on the current funding level of \$3.6M/year, the average FCI for all of CHC's assets will have declined from Good to Fair rating by 2016. Then, with the same annual investment of \$3.6M/year, in 2020 the average FCI for all of CHC's assets will have further declined from Fair to Poor rating. CHC is closely monitoring this issue and working on solutions to mitigate the risk and rate of asset decline.

CHC's capital needs over the next 30 years averages \$11.5M per year yet the average annual capital funding is \$3.6M per year. Through cost reduction and optimization of the asset management process, CHC believes this need can be reduced to \$6M - \$8M per year to stabilize and perhaps even reverse the trend in physical asset deterioration.

Initiatives CHC is or will be undertaking to reduce costs are as follows:

- 1. Continue to conduct strategic Building Condition Assessments (BCA's) to augment building data in Asset PlannerTM.
- 2. Monitor pitched roofs on a bi-annual basis and flat roofs on an annual basis to ensure maximum life is obtained before repair or replacement.

*Asset Planner™ is an Ameresco product

- 3. Continue to combine like capital work corporate wide in order to maximize purchasing value through increased size of project.
- 4. Develop partnerships with leading architectural and building science schools to strengthen asset management and asset restoration knowledge base.
- 5. Seize opportunities to lower asset operating cost when implementing a capital restoration project. An example of such an initiative is adding insulation to the exterior of a building when replacing the exterior skin.

CHC clearly recognizes the challenges obtaining funding to finance the capital requirements that currently exist and will exist for the foreseeable future. While CHC sees a number of challenges to self-fund 100% of the capital requirements, CHC has started a number of initiatives to minimize the needs for external funding. Capital funding opportunities in addition to the City of Windsor that CHC is currently exploring or plans to explore are as follows:

- 1. Establish a reserve fund for Public Housing Stock using energy retrofit grants received in 2010/2011. Public Housing stock represents approximately 75% of CHC's total stock.
- 2. Increase asset revenue by implementing mixed use models when completing regeneration projects
- 3. Leverage equity in current assets
- 4. Utilize Infrastructure Ontario funding

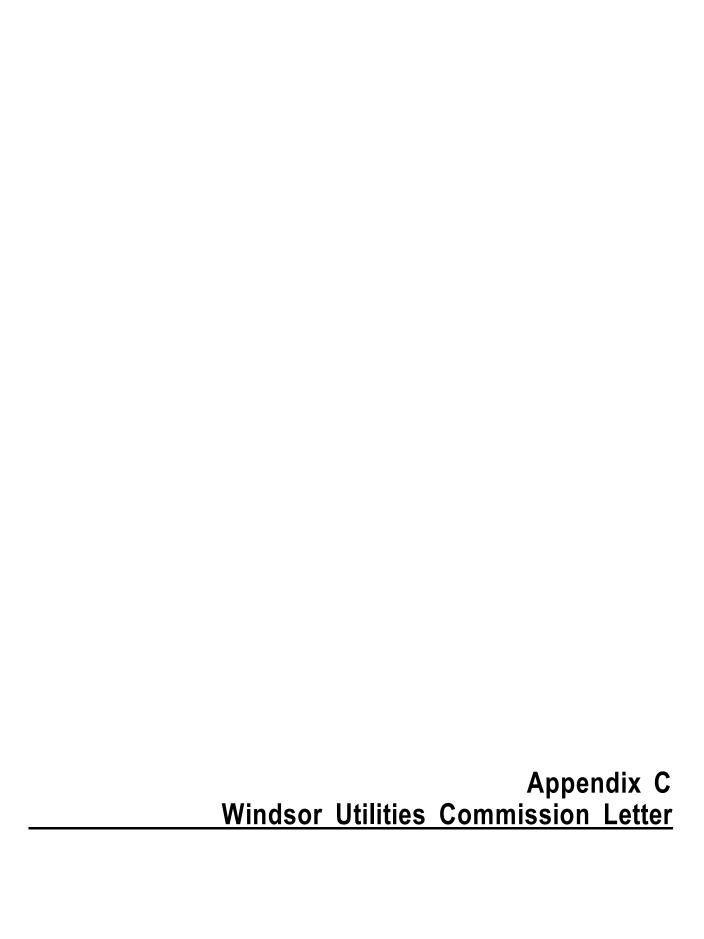
CHC believes that creative solutions can be found through collaborative relationships, working together to address the challenges upon us now and in the coming years. CHC is working with the City of Windsor Asset Planning Department to identify synergies and standardize reporting methodologies to streamline the asset planning process and standardize the reporting information. Similar activities are currently underway with other housing providers within the province which provide opportunities to develop best practices and benchmark buildings all leading to enhanced performance.

In closing, with respect to the state of CHC's assets, the single biggest issue facing CHC is the projected state of decline based on current funding levels. Opportunities have been identified for cost reduction and acquisition of funding. These both need to be further developed in the coming months and years to ensure the sustainability of our housing assets in Windsor-Essex for many years to come.

Sincerely,

Hans Kogel, P. Eng, Director, Asset Engineering

/mz



Ms. Melissa Osborne Senior Manager Asset Planning City of Windsor 400 City Hall Square Suite 402 Windsor, ON N9A 7K6

Dear Ms. Osborne:

Re: Asset Management Program- Windsor Utilities Commission

Introduction

The Windsor Utilities Commission adopted an asset management plan from recommendations made from a study conducted by Eaith Tech/ Watson and Associates in 2007. This plan was developed to satisfy the intent of the Suitable Water and Sewage System Act (SWSSA) and Section 30 of the Safe Water Drinking Act. As part of the repoli a Lifecycle Replacement Plan was adopted to ensure the following objectives:

- Meeting ratepayer demands with focus on water system sustainability
- Establishing water rates based upon sound operational and financial planning
- Budgeting focused on activities critical to sustained performance
- Meeting service level expectations and regulatory requirements
- Maintaining the security and safety of all water distribution infrastructure

As part of the WUC asset management process an asset inventory, condition assessment and rating system were developed which is reviewed each year to assess the remaining life of assets which govern the capital budget forecasts and future replacement programs.

Watermain Program

Watelmain projects are prioritized based upon a scoring algorithm where a point system is applied to the below criteria as follows:

Criteria	Reason	Regulatory Requirement
Low Chlorine Residual	- indicator of colTosion of water piping resulting in disturbed water	- mandated by MOE to achieve and maintain free chlorine residual of 0.2mg/L
Lead Service	- WUC is mandated to have a Lead Community Testing Program performed twice a year	- Maximum Acceptable Concentation (MAC) is 10ug/L as prescribed by O.Reg 169/03, schedule 2
High Break Frequency	- corrosion results in potential contamination and public health risk	- MOE Regulations
Fire Protection	- internal corrosion reduces the internal diameter of piping resulting in reduced flow capacity	- Ontario Fire Code
Life Cycle Replacement	- based upon useful life of assets cast iron piping and other water infrastructure in need of replacement	

In addition to the above, the Water System engineering staff of Enwin Utilities Ltd. work in conjunction with the Public Works Department to coordinate watermain replacement works with road and sewer projects ensures optimal resources utilization.

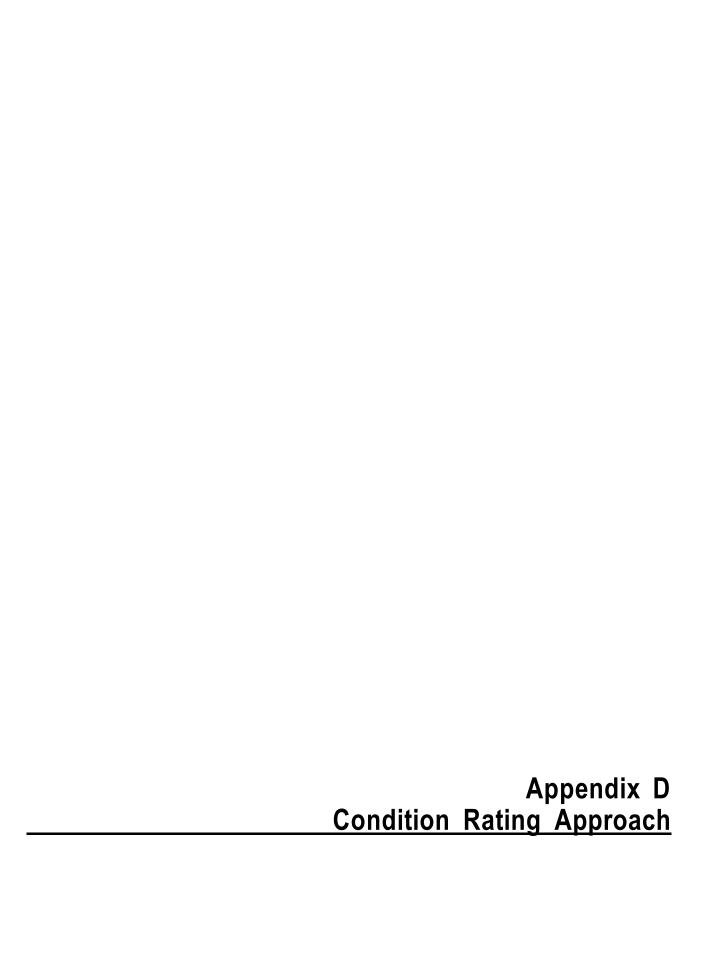
If additional information is required, please advise the undersigned. Thank you.

Yours very truly,

tJ

Victoria i"ub Vice Prestctent and Chief Financial Officer

cc: M. Friel, Controller



State of the Infrastructure Report

Mapping of Current Condition Ratings to new Corporate Condition Rating Categories

Road Pavement

Asset: Road Pavement

NOTE: For MPMP, OMBI, and corp KPI annual reporting purposes, Road Adequacy (ie. roads in good to very good condition) has been historically reported using the Adequate Roads (ie. Greater than 10 Year) Category.

For Budget purposes, the NOW Deficient road category is used

Gravel roads included & assumed to be NOW Deficient.

State of the Infrastructure Report

Mapping of Current Condition Ratings to new Corporate Condition Rating Categories

Alley Pavement Asset:

Mapping and rating cut offs areconsistent with mapping used for Road Pavements Excludes gravel alleys (not rated). Note:

Alley Pavement

State of the Infrastructure Report

Mapping of Current Condition Ratings to new Corporate Condition Rating Categories

Bridges

(includes culverts with a greater than 3m span)

Bridges Asset:

(includes culverts with a greater than 3m span)

NOTES: For MPMP & OMBI, the percent of bridges & culverts in good to very good condition is generally reported each year as the current system Excellent category.

MPMP definition for Bridge Adequacy is defined as "A bridge or culvert is rated as good to very good if distress to primary components is minimal, requiring only maintenance."

Overall Condition ratings are based on an internally developed calculation in the Hansen database. They are not based on OGRA's MDW software

The overall rating is a numeric calculated rating from 1-100. (The higher the value the better the overall rating.) The numeric value is then categorized by ranges into the overall categories above (ie. Exc., Good, Fair, Poor OSIM only rates elements into 4 categories (Excellent, Good, Fair, Poor).

Issues with the various uses of the same terminology for various rating systems, definitions, and reporting purposes

State of the Infrastructure Report

Mapping of Current Condition Ratings to new Corporate Condition Rating Categories

Sidewalks (right-of-way only)

Asset: Sidewalks (right-of-way only)

ie. Does not include sidewalks located at city facilities and in recreational areas

NOTES: A formula generated numeric rating scale is not used. The ratings are subjective following the guidelines provided.

A Very Poor category is not used in inspections. The use of Pedestrian Traffic levels is suggested for the further breakdown for Corp SOI purposes and is a measure of Risk.

State of the Infrastructure Report

Mapping of Current Condition Ratings to new Corporate Condition Rating Categories

Storm and Sanitary Sewers

Asset: Storm and Sanitary Sewers

* Subjective ratings were applied to all sewers for which there was no CCTV rating. How subjective ratings were applied is noted below

Objective CCTV Rating Mapping

State of the Infrastructure Report

Mapping of Current Condition Ratings to new Corporate Condition Rating Categories

Asset: All Other Assets

* Subjective ratings were applied to all sewers for which there was no CCTV rating. How subjective ratings were applied is noted below

NEW State of the	ne Infrastructure Corporate Asset Condition Categories	Subjective Ratings
Category	Definition (Canadian Infrastructure Report Card)	
Very Good: Fit for the future	The infrastructure in the system or network is generally in very good condition, typically new or recently rehabilitated. A few elements show general signs of deterioration that require attention.	Greater than 80% remaining useful life - then reviewed by asset experts for validation and or correction based on actual asset performance, inspections where appropriate, reactive maintenance and other available information
Good: Adequate for now	The infrastructure in the system or network is in good condition; some elements show general signs of deterioration that require attention. A few elements exhibit significant deficiencies.	60 - 79.9% remaining useful life - then reviewed by asset experts for validation and or correction based on actual asset performance, inspections where appropriate, reactive maintenance and other available information
Fair: Requires attention	The infrastructure in the system or network is in fair condition; it shows general signs of deterioration and requires attention. Some elements exhibit significant deficiencies.	40 - 59.9% remaining useful life - then reviewed by asset experts for validation and or correction based on actual asset performance, inspections where appropriate, reactive maintenance and other available information
Poor: At risk	The infrastructure in the system or network is in poor condition and mostly below standard, with many elements approaching the end of their service life. A large portion of the system exhibits significant deterioration.	20 - 39.9% remaining useful life - then reviewed by asset experts for validation and or correction based on actual asset performance, inspections where appropriate, reactive maintenance and other available information
Very poor: Unfit for sustained service	The infrastructure in the system or network is in unacceptable condition with widespread signs of advanced deterioration. Many components in the system exhibit signs of imminent failure, which is affecting service.	Less than 20% remaining useful life - then reviewed by asset experts for validation and or correction based on actual asset performance, inspections where appropriate, reactive maintenance and other available information

Confirmed by: Mark Winteron - PW Operations

Appendix E Asset Hierarchy

ASSET HIERARCHY NO. A-1: CITY OF WINDSOR CORPORATE ASSET HIERARCHY FRAMEWORK (LEVELS NO. 1-4)

				City of	Windsor									
Boards, Agencies														
A. Economic Developm ent											н	. Internal Service	s	G. Public Engagemer
	Parks & Natural Areas C.2.0.	Water & Sewage C.3.0.	Energy C.4.0	Transportation Services D1.0.	Recreation E.1.0	Health E.2.0	Arts and Cultural Development E.3.0	Investigation & Intervention	mapecuona a ,	Corporate Management H1.0.	Information Technology H4.0.	Corporate Asset Management H5.0.	Financial Human Management Resources H3.0.	Internal Services
Museums	To Parks	To WW To STM		To TRANS	Recreation & Rec & Cultural Programming Access E.1.1 E.1.3	Long Term Care Facility E.2.3	Public Library & Community Community Museum Archives E.3.3 E.3.2	Fire & Paramec Rescue F.1.3 F.1.5.	Property Inspection & Street Enforcement Services F.2.1.	na Enforcement	Infrastruct Solu	Fleet	Corporate Facilities Management H5.2 Corporate Real Estate Management H5.3	

ASSET HIERARCHY NO. A-1: CITY OF WINDSOR CORPORATE ASSET HIERARCHY FRAMEWORK (LEVELS NO. 5-10)

Draft- Windso	or CAM Asset Hierarchy I	Framework cont'd	
5 Property Type/ Asset Class		Systems (Linear) Assets versus Facilities (Discrete) Type Assets Linear Facilities	
6 Location/ Areas	Areas	Geographical: (Pressure Districts, Sewersheds, Process Areas, Functional, Areas etc.) Definition: The service area is expressed as a combination of the operational area and/or the geographical area. In some instances, This level carries the unique facility name used in communications including correspondence and documentation.	
7 Functional Spaces/ Types	Asset Classes	Asset Classes (For example. Bridges, Forcemains, Watermains, MERF, Pumping Stations, LTC Facility) Definition: The asset category is the functional asset type of facility or class and denotes the operational function of the asset feature.	Sub-Area
8 Divisions/ Classifications	Divisions/ Classifications	Disciplines (For example. I&C, Electrical, HVAC, Process Mechanical, Building Mechanical, Architectural, Health & Safety, Others,) Sub-Asset Classes- Definition: This level represents the unit process or sub-process within a type of infrastructure facility- Existing for City of Windsor there are existing 10 categories- alignment with NMS(future) recommended	Disciplines
9 Systems	Sub-Asset Classes	Equipment (For example. Blower, Fan, Pump, Valve, Door, Roof etc.) Definition: Process, certain non-process related equipment, and instruments (collectively referenced as Devices) are covered under this level including all equipment that is not part of a process system located in a facility	
10 Equipment	Asset (ID)	Equipment (For example. PRV-1, tc.) Definition: Components or Sub-components of the equipment assembly at this level of the asset hierarchy.	
11 Spare Parts	Sub-component	Future Placeholder- Spare Parts (For Example, bearing, impeller, gaskets, etc.) Definition: Spare Parts at this level of the asset hierarchy.	Spare Parts

			H. Internal Service	s					
			Corporate Asset Management						
Corporate Flee Management									
	Vehicles				Garaç	ges		Fuel Sites	
				Crawford Yard				Location (Bldg Address/Name)	
Medium	Light	Heavy	Off Road	Tire Shop	Stockroom	Body Shop	Welding		
Cars	Vans	Small Pickups		Specialty Shop Equipment	NMS Divisions such as: Electrical, Instrumentation & Controls, Architectural, Health and Safety, Process Mechanical (i.e. Existing 10 classifications for Windsor facilities with additional specialty equipment unique to Fleet assets)			Specialty Equipment	
Vehicle ID				Tire Balancer			Control Systems	Fuel Pumps	Fuel Tanks

To STM

Water & Sewage
C3.0

Storm Water
Collection
Storm Water
Collection Area
Pumping Station
Name

Collection Area
Basin

Collection Area
Basin

Sewers Forcemains Municipal Drains Roadside Ditchs

Manhole Pump No.1 Aerator Waterfall Pumps

Process Mechanical

Electric Motor Pump ID

Water & Sewage C3.0

> Waster water Removal

WaterSanitary PumpingWaste WaterReclamation PlantStationCollection

Lou Romano Plant Pumping Station Name Sewershed

Main Pump
House

BAF
Sedimentation

Primary
Local Collection
Trunk Sewers
Force mains

Process

Mechanical

Pump No.1

Manhole

NMS Divisions such as: Electrical, Instrumentation & Controls, Architectural, Health and Safety, Process Mechanical

(i.e. Existing 10 classifications for Windsor in addition to Process Mechanical unique to this asset class)

HVAC Unit 1

Exhaust Fan Electric Motor

H. Internal Services

Corporate Asset Management

Corporate Facilities Management

Recreation Complex Community Centre City Hall Fire Police

Building Address/ Name

Pool Arena Gym Meeting Room Restrooms Admin. Offices

Heating, Ventilating, and Air Conditioning (HVAC) – (i.e. NMS Division 22)

NMS Divisions such as: Electrical, Instrumentation & Controls, Architectural, Health and Safety, Process Mechanical
(i.e. Existing 10 classifications for Windsor)

Control Systems HVAC Air
Handling Unit HVAC- Exhaust/
Air Distribution
Equipment HVAC- Other
Equipment HVAC- Other
Equipment HVAC- Other
Equipment Equipment Equipment

Natural Area

ROW

Trees (non ROW)

Trees (ROW)

Tree Classification

Type

Regional

Park Specialty

Parks & Natural Areas

Parks Services

Community

Sidewalk & Trails non Trace (non POW) Trace (POW)

Location (Parks Name & Address)

Neighbourhood

Pool Arena Baseball Tennis Soccer Cricket Splash Pad Picnic Washroom Flora & fauna Multi use Trail Sidewalk Pathways

NMS Divisions such as: Electrical, Instrumentation & Controls, Architectural, Health and Safety, Process Mechanical

(i.e. Existing 10 classifications for Windsor in addition Park Specialty unique to this Parks Services)

Picnic Tables Park Bench Playground Bleachers Lights Sculptures Tree ID

Component

Transportation Services

Roads

Roadway Structures Alleys Signals

Arterial Collector Collector Arterial -Scenic Culverts > Class Expressway - Class Class Pedestrian Local Class 1 Drive 2 2 Bridge

> NMS Divisions such as: Electrical, Instrumentation & Controls, Architectural, Health and Safety, Process Mechanical (i.e. Existing 10 classifications for Windsor)

Detector

Stations

Cameras

Signals

Pavement Structural Pavement (application to all road types)

Surface Base Bridge Deck Surface Base Fibre Cable

Asset Hierarchy No. 6 - Transportation To TRANS

Transportation Services

Roadway

Parking Lot Parking Structure

Location / Name

Specialty Systems in addition to the standard NMS Classifications

> Security System

Cameras

Sidewalks & Trails (ROW)

Sidewalks (ROW) Trails (ROW) Version 3.1 September 4, 2013

H. Internal Services

Information Technology

Business Solutions Development & Support

Information Technology Infrastructure Operations

Personal Computing

Software

Infrastructure Operations

Infrastructure Software

Business Applications

Data Centre/ Wiring Closets

Phone System

Server Systems

Desktop Systems

Digital

Analog

VOIP