

State of Infrastructure Report for the Facilities, Fleet and Equipment Asset Classes

Prepared for

Town of Oakville

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CH2M HILL Canada Limited
245 Consumers Road, Suite 400
Toronto, Ontario M2J 1R3
T: 416.499.9000
F: 416.499.4687

Contents

Section	Page
Acronyms and Abbreviations	vii
Introduction	1-1
Data Sources and Data Confidence	2-1
State of Infrastructure	3-1
3.1 Asset Inventory	3-1
3.1.1 Facilities and Related Equipment	3-1
3.1.2 Transit	3-2
3.1.3 Fleet	3-3
3.2 Asset Valuation	3-5
3.2.1 Facilities and related Equipment	3-5
3.2.2 Transit and related equipment including Facilities.....	3-8
3.2.3 Fleet Services	3-10
3.3 Asset Age and Useful Life.....	3-15
3.3.1 Facilities	3-16
3.3.2 Transit	3-16
3.3.3 Fleet	3-21
3.4 Asset Condition	3-25
3.4.1 Facilities	3-27
3.4.2 Transit	3-30
3.4.3 Fleet	3-33
3.4.4 Summary Asset Condition.....	3-37

Tables

Table 2-1. Data Sources	2-1
Table 2-2. Data Confidence Scale	2-2
Table 3.1-1. Types of Assets in the Three Asset Classes	3-1
Table 3.1-2. Asset Inventory for Facilities Assets and Equipment Asset Classes.....	3-1
Table 3.1-3. Asset Inventory in Transit	3-2
Table 3.1-4. Asset Inventory for Fleet.....	3-3
Table 3.2-1. Asset Inventory in Facilities	3-5
Table 3.2-2. Asset Inventory for Transit.....	3-8
Table 3.3-1. Facilities Assets by Condition Rating.....	3-16
Table 3.3-2. Data Confidence in Useful Lives for Facilities Assets	3-18
Table 3.3-3. Age and Useful Life of Assets for Transit	3-19
Table 3.3-4. Data Confidence in Useful Lives for Transit Assets.....	3-20
Table 3.3-5. Age and Useful Life of Assets in the Fleet.....	3-21

Section	Page
Table 3.3-6. Data Confidence in Useful Lives for the Fleet Assets.....	3-25
Table 3.4-1 CIRC 5- Point Scale for Rating Asset Condition	3-25
Table 3.4-2. Summary of the Distribution of the Condition Grades within each of the Three Asset Classes.....	3-27
Table 3.4-4. Data Confidence in Facilities Asset Condition Data	3-29
Table 3.4-5. Transit Assets by Condition.....	3-30
Table 3.4-6. Data Confidence in Transit Asset Condition Data.....	3-32
Table 3.4-7. Fleet Assets Condition Summary	3-33
Table 3.4-13. Data Confidence in Fleet Asset Condition Data	3-37

Figures

Figure 2-1. Data Confidence Bar Example	2-2
Figure 3.2-1. Distribution of Asset Replacement Values Facilities Network excluding Parks, Recreation and Libraries Major Buildings.	3-7
Figure 3.2-2. Distribution of Asset Replacement Values Facilities and related equipment by Customer type.	3-8
Figure 3.2-3. Distribution of Asset Replacement Values in Transit	3-9
Figure 3.2-4. Distribution of Asset Replacement Values in Transit	3-10
Figure 3.2-5. Distribution of Asset Replacement Values of Fleet Assets	3-13
Figure 3.2-6. Distribution of Asset Replacement Values of Fleet Assets Excluding Heavy Trucks.....	3-14
Figure 3.2-7. Distribution of Asset Replacement Values of Fleet Assets by Customer.	3-15
Figure 3.3-1. Ranked Useful Lives of Facilities Assets.	3-17
Figure 3.3-2. Distribution of Average Age relative to Oldest Age for Facilities.	3-18
Figure 3.3-3. Ranked Useful Lives of Transit Assets.....	3-20
Figure 3.3-4. Ranked Useful Lives of Fleet Assets.....	3-23
Figure 3.3-5. Distribution of Average Age relative to Oldest Age for Fleet Assets	3-24
Figure 3.4-1. Average Overall Condition of the Three Asset Networks on the CIRC Scale	3-26
3-26	
Figure 3.4-2. Average Condition of each of the Three Asset Classes on the CIRC Scale.....	3-26
Figure 3.4-3. Distribution of Condition Grades by TCA Replacement Value of Facilities Assets	3-27
Figure 3.4-4. Distribution of the CIRC Condition Grades for Facilities by Customer Level.	3-28
Figure 3.4-5. Value of Assets in “Poor” and “Very Poor” Condition in Facilities	3-29

Section	Page
Figure 3.4-6. Distribution of Condition Grades in Transit	3-30
Figure 3.4-7. Distribution of the CIRC Condition Grades for the Transit Assets.	3-31
Figure 3.4-8. Ranked Value of Assets in “Poor” and “Very Poor” Condition for Transit Assets	3-31
Figure 3.4-9. Distribution of Condition Grades in for Fleet Assets	3-33
Figure 3.4-10. Distribution of the CIRC Condition Grades for Fleet by Customer	3-35
Figure 3.4-11 Distribution of Condition Grades in for Fleet Assets by Customer Type	3-36
Figure 3.4-12. Ranked Value of Assets in “Poor” and “Very Poor” Condition for Fleet	3-36
Figure 3.4-14. Relative Value of Assets in Overall “Poor” and “Very Poor” Condition in Each Asset Network	Error! Bookmark not defined.
Figure 3.4-15. Benchmarking Oakville against the CIRC 2016 Results for Recreation, Culture, and Library Assets	3-37
Figure 3.4-16. Benchmarking Oakville against the CIRC 2016 Results for Sports and Recreation Assets ...	3-38

Acronyms and Abbreviations

ATV	All-Terrain Vehicle
CIRC	Canadian Infrastructure Report Card
CIS	Corporate Information System
CMMS	Computerized Maintenance Management System
FCM	Federation of Canadian Municipalities
GIS	Geographical Information System
JDE	J.D. Edwards (work management system)
O&M	Operations and Maintenance
PSAB	Public Sector Accounting Board
QRS	Quality Rating System
SOIR	State of Infrastructure Report
TCA	Tangible Capital Assets
the Town	Town of Oakville

Introduction

The Town of Oakville (the Town) owns a sizable portfolio of assets, which vary significantly in terms of their function, age, durability, and many other factors. The purpose of this State of Infrastructure Report (SOIR) is to provide a summary of the key physical attributes and current physical state of the asset portfolio relating to three of the following three asset classes - Facilities, Equipment and Fleet (with a breakdown on Transit). **Please keep in mind that this only provides information about the physical asset and not whether it is meeting service provision.**

The following sections present the Town's available data on the assets within the Facilities, Equipment and Fleet (with a breakdown on Transit) including data of asset inventory, asset valuation, asset age and useful life, and asset condition. The data presented represents a snapshot in time and is current to 2016.

Data Sources and Data Confidence

Table 2-1 summarizes the data sources/IT systems that were used for the basis of this SOIR.

Table 2-1. Data Sources

Information System	Types of Asset Data	Limitations of Data	Use of Data in SOIR
Capital Asset Management System (CIS, ERP System)	Tag Number Type/Size Age Expected Service Life Replacement Value Work Order History	All operational maintenance tasks are captured in the CIS, with the following exceptions: capital maintenance is not entirely captured; and failure mode is not consistently and accurately utilized and captured. Pooled assets need to be componentized into individual assets in both GIS and CAM systems. The Asset Management Office is currently in the process of componentizing pooled assets. The Towns's current Work Order practice varies by asset groups. Fleet including Transit have Work order history and cost is available to support the asset whole life cycle. This includes <ul style="list-style-type: none"> • On selected assets, tracking all hours and material costs associated with work order; • Indicating cause of failure on corrective work orders; and • Documenting resolution/intervention applied. 	CAM data was used and selected work order data was utilized in this SOIR.
Condition Assessment (CIS, CAM)	Age Expected Service Life Condition Risk Remediation Cost	Captures a full inventory of assets, their condition and expected service life; some asset subclasses do not have a physical condition assessment completed so in this case the condition was calculated using remaining useful life. The goal is to have physical conditions completed on all assets that are within the 5 to 7 year forecast.	Condition data was used, where available.
Financial System (CIS)	Depreciated Value for Tangible Capital Assets (TCA)	Depreciated value of assets is not directly used for infrastructure renewal planning since many long-lived assets will have been fully depreciated, yet remain in use across the system. Rather, market replacement value is used.	2016 market replacement costs were used.

The quality of data used in this SOIR varies depending on the source(s) for the data. To aid in the interpretation of this SOIR, a data confidence rating in terms of reliability and accuracy of the data is used throughout.

The data confidence rating scales, defined in Table 2-2, are used to support the rating, with confidence based on the lower of the reliability and accuracy ratings.

Table 2-2. Data Confidence Scale

Measure	Description	Rating		
		High	Moderate	Low
Reliability	Can be trusted to be accurate or to provide a correct result	Based upon sound records, procedures, or analyses that have been acceptably documented and are recognized as the best method of assessment	Based upon known reasonable procedures or analyses that have been acceptably documented	Based upon expert verbal opinion or cursory inspections/ observations
Accuracy	Probable difference between a recorded parameter and its true value	+/- 1%	+/- 10%	+/- 50%

Figure 2-1 shows an example of a data confidence bar used in this SOIR, where accuracy is denoted on the top of the bar and reliability is denoted on the bottom.



Figure 2-1. Data Confidence Bar Example

State of Infrastructure

The Town of Oakville owns a sizable portfolio of assets, which vary significantly in terms of their function, attributes, age, durability, and condition. This report provides a summary of the key attributes and current physical state of the Town’s assets for Facilities, Transit, and Fleet.

3.1 Asset Inventory

Table 3.1-1 includes a summary breakdown of the asset types covered by this SOIR.

Table 3.1-1. Types of Assets in the Three Asset Classes

Asset Classes	Asset Types	Data Confidence
Facilities and Related Equipment Asset Class	Major and Minor Buildings and Services, fitness equipment, library collections, large, generators, and small equipment.	Medium - High
Transit Assets	Transit equipment, transit service vehicles, heavy trucks, care-a-vans, and conventional busses, bus shelters, and transit facilities.	High
Fleet Asset Class	Fire Trucks, Heavy Trucks, All Terrain Vehicles (ATV), Tractor, Light Auto/ Trucks, Heavy Trucks, Ice Resurfacers, boats, small tools small equipment, heavy construction equipment, specialized municipal equipment, blowers and vacuums, sanders, portable generators, trailers, small equipment, vehicle attachments, road sweepers, chippers, mowers, trailers, and cranes.	High

The overall data confidence for the asset inventory used in the SOIR is considered to be “high” since the asset inventory has been fully articulated for TCA reporting purposes and has been audited.

Facilities and fleet have the most variety of assets, providing services for different departments within the Town of Oakville. Because of this the asset types are summarized into service categories.

3.1.1 Facilities and Related Equipment

Facilities and related equipment include 23 different asset types, with five different customer categories; Fire, Support Facilities (Operation Depots, Town hall), Parking, Parks and Open Spaces, and Recreation, Culture, and Libraries. Parks and Open Spaces include the Town of Oakville’s Greenhouses and Harbours. Recreation, Culture, and Libraries include the Town’s arenas, community centers, art galleries, museums, heritage facilities, pools, and recreation complexes.

Table 3.1-2. Asset Inventory for Facilities Assets and Equipment Asset Classes

Category	Asset Type	Unit of Measure	Quantity (2016)
Fire Services			
	Major Buildings and Services	sq. ft.	5,708
	Minor Buildings and Services	sq. ft.	69,530
	Fire Equipment	Each	564
	Bunker Gear	Each	757
	Other Equipment	Each	48
	Small Tools	Pooled	10
Support and Operations Facilities			
	Major Buildings and Services	sq. ft.	136,008

Table 3.1-2. Asset Inventory for Facilities Assets and Equipment Asset Classes

Category	Asset Type	Unit of Measure	Quantity (2016)
	Minor Buildings and Services	sq. ft.	41,138
	Hoists and Cranes	Each	7
Parking Services			
	Minor Buildings and Services	sq. ft.	89,165
	Pay and Display Machines	Each	44
Parks and Open Spaces (including Harbours)			
	Dockage and Ramp System ²	Pooled	8
	Major Buildings and Services	sq. ft.	13,589
	Minor Buildings and Services	sq. ft.	32,017
	Hoists and Cranes	Each	2
Recreation, Culture, and Libraries			
	Fitness Equipment	Mixed units	110
	Library Collections ²	Pooled	10
	Major Buildings and Services	sq. ft.	1,204,533
	Minor Buildings and Services	sq. ft.	33,675.00
	Performing Arts Equipment	Each	30
	Facility Maintenance Equipment	Each	9

Note:

¹ Minor Buildings are classified as any buildings under 12,000 feet.

² All Pooled items are pooled on a yearly basis

3.1.2 Transit

Table 3.1-3 provides a list of the 9 different asset types, with 4 categories.

Table 3.1-3. Asset Inventory in Transit

Category	Asset Type	Unit of Measure	Quantity (2016)
Passenger Vehicles			
	Care-A-Van	Each	18
	Conventional Bus	Each	97
Support Vehicles			
	Transit Supervisor Vehicle	Each	2
	Transit Service Vehicle	Each	4
	Heavy Truck	Each	3
Equipment			
	Fitness Equipment	Mix unit	14
	Transit Equipment	Each	100
Structures			
	Major Buildings and Services	sq. ft.	265,109

Table 3.1-3. Asset Inventory in Transit

Category	Asset Type	Unit of Measure	Quantity (2016)
	Transit Shelters	Each	189

3.1.3 Fleet

Table 3.1-4 provides a list of the 63 asset types that are captured in the Town’s asset inventory for Fleet, categorized by the department who uses the asset. Fleet customers include; Fire Services, Parking Services, Parks and Open Spaces, Recreation, Culture, and Libraries, and Works Operations.

Table 3.1-4. Asset Inventory for Fleet

Asset ID	Asset Type	Unit of Measure	Quantity (2016)
Fire Services			
	ATVs	Each	2
	Generators	Each	1
	Heavy Trucks	Each	7
	Heavy Truck with Specialized Attachment	Each	17
	Light Auto/Trucks	Each	27
	Mowers	Each	1
	Small Equipment	Each	2
	Small Tools	Each	4
	Tractors	Each	4
	Trailers	Each	1
Parking			
	Light Auto/Truck	Each	2
	Small Tools	Each	1
Parks and Open Spaces			
	ATVs	Each	12
	Blower or Vacuum	Each	6
	Boats	Each	5
	Chippers	Each	10
	Cranes	Each	1
	Generators	Each	7
	Heavy Equipment	Each	13
	Heavy Trucks	Each	13
	Heavy Truck with Specialized Attachment	Each	6
	Heavy Truck Specialized	Each	33
	Light Auto/Trucks	Each	32
	Mowers	Each	50
	Sanders	Each	1
	Small Equipment	Each	103
	Small Tools	Each	285

Table 3.1-4. Asset Inventory for Fleet

Specialized Municipal	Each	4
Tractors	Each	19
Trailers	Each	84
Vehicle Attachments	Each	47
Recreation Culture and Libraries		
Scissor Lifts	Each	1
Small Tools	Each	6
Ice Edger	Each	14
Trailers	Each	3
Ice Resurfacers	Each	13
Roads and Works Operations		
ATV	Each	3
Blower or Vacuum	Each	11
Chippers	Each	1
Cranes	Each	2
Generator	Each	17
Heavy Equipment	Each	18
Heavy Truck	Each	15
Heavy Truck with Specialized Attachment	Each	17
Heavy Truck Specialized	Each	20
Light Auto/Truck	Each	34
Sanders	Each	10
Small Equipment	Each	19
Small Tools	Each	100
Specialized Municipal	Each	11
Sweepers, Road	Each	3
Tractor	Each	2
Trailers	Each	27
Vehicle Attachments	Each	36

3.2 Asset Valuation

Under the Public-Sector Accounting Board (PSAB) Standard PS 3150, local governments are required to summarize and present information regarding their tangible capital assets (TCA) and amortization in financial statements based on historical costs.

While the depreciated value does provide an indicator of the extent to which an asset life has been consumed, it is typically not used for asset management planning purposes as it is not representative for all asset types, particularly long-lived assets.

All replacement values are based on the cost to replace the asset with an asset of the same functionality and capacity. Therefore, no growth, technology change, or enhancement assumptions are included in the costs. Market values are based on the cost of the material and the cost to design, build and install. Replacement values include mark-ups such as engineering design and contingency. Actual costs to replace assets may vary from the replacement values used, based on variables such as land acquisition, legal fees and technology changes.

The total replacement value of all assets covered within this SOIR is estimated at \$710,681,694 (2016).

The Facilities and related equipment has the largest replacement value (\$530 million) and represents nearly 75% of the asset value in this SOIR. The replacement value for transit and fleet assets are 18% and 7% respectively.

3.2.1 Facilities and related Equipment

The estimated replacement value of the Facilities and related equipment assets owned by the Town is \$530,001,491 (2016). The breakdown is summarized in Table 3.2-2.

Table 3.2-1. Asset Inventory in Facilities

Asset ID	Asset Type	Unit of Measure	Quantity (2016)	Replacement Value	% of Facilities Services Replacement Value
Fire Services					
	Fire Equipment	Each	482	\$1,981,040	0.37%
	Other Equipment	Each	48	\$2,170,771	0.04%
	Major Buildings and Services	sq. ft.	5708	\$1,730,915	0.33%
	Minor Buildings and Services	sq. ft.	69,530.70	\$16,753,941	3.16%
	Small Tools	Each	10	\$164,121	0.03%
Support and Operations Facilities					
	Major Buildings and Services	sq. ft.	136,008	\$65,605,024	12.35%
	Minor Buildings and Services	sq. ft.	41138	\$5,535,057	1.04%
	Hoists and Cranes	Each	7	\$554,602	0.10%
Parking					
	Minor Buildings and Services	sq. ft.	89,165	\$2,487,408	0.47%
	Pay and Display Machines	Each	44	\$491,212	0.09%

Table 3.2-1. Asset Inventory in Facilities

Asset ID	Asset Type	Unit of Measure	Quantity (2016)	Replacement Value	% of Facilities Services Replacement Value
Parks and Open Spaces					
	Dockage and Ramp System	Each	8	\$1,281,825	0.24%
	Major Buildings and Services	sq. ft.	13,589	\$2,412,883	0.45%
	Minor Buildings and Services	sq. ft.	32017	\$9,565,262	1.80%
	Hoists and Cranes	Each	2	\$15,475	0.00%
Recreation, Culture, and Libraries					
	Fitness Equipment	Each	110	\$754,961	0.14%
	Library Collections	Pool/Each	10	\$7,776,480	1.46%
	Major Buildings and Services	sq. ft.	1,204,533	\$401,372,107	75.59%
	Minor Buildings and Services	sq. ft.	33,675.00	\$10,212,277	1.92%
	Performing Arts Equipment	Each	30	\$ 733,334	0.14%
	Small Equipment	Each	37	\$ 106,263	0.02%

The reliability of the replacement value data is currently considered “high”, since the replacement values represent up-to-date cost estimates based on current market conditions (i.e., values are not based on inflated historical costs).

Major buildings for the Recreation, Culture and Libraries Facilities represent the greatest replacement cost at over \$400 million dollars. Figure 3.2.1 shows the distribution of assets excluding the Recreation, Culture, and Libraries Facilities to better represent the value of the other assets.

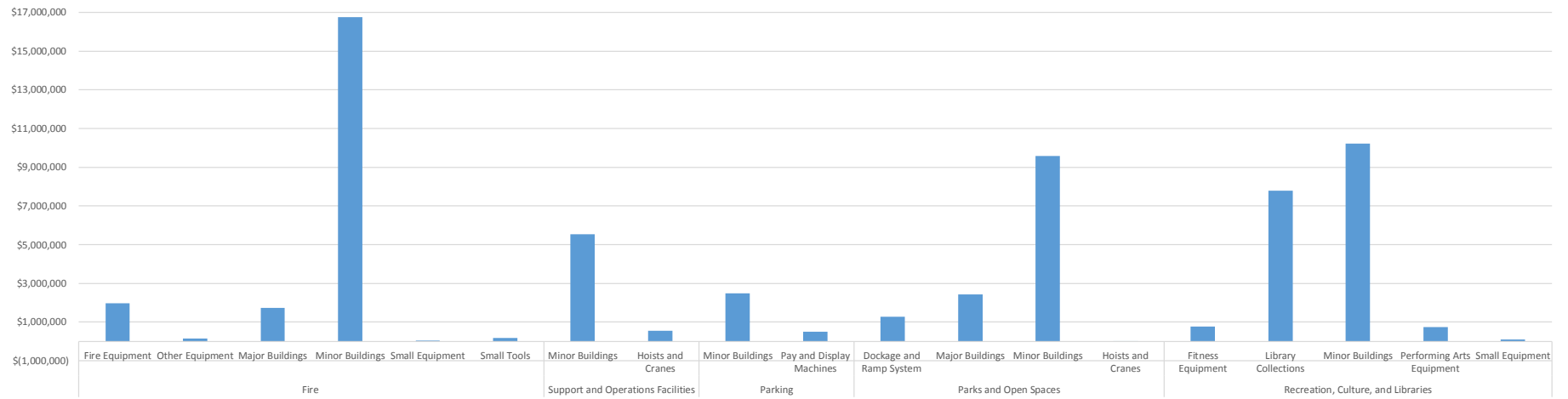


Figure 3.2-1. Distribution of Asset Replacement Values Facilities Network excluding Parks, Recreation and Libraries Major Buildings.

Figure 3.2.2 Identifies the asset replacement value by customer type. As illustrated Recreation, Culture, and Library Facilities represent the largest replacement cost for Facilities.

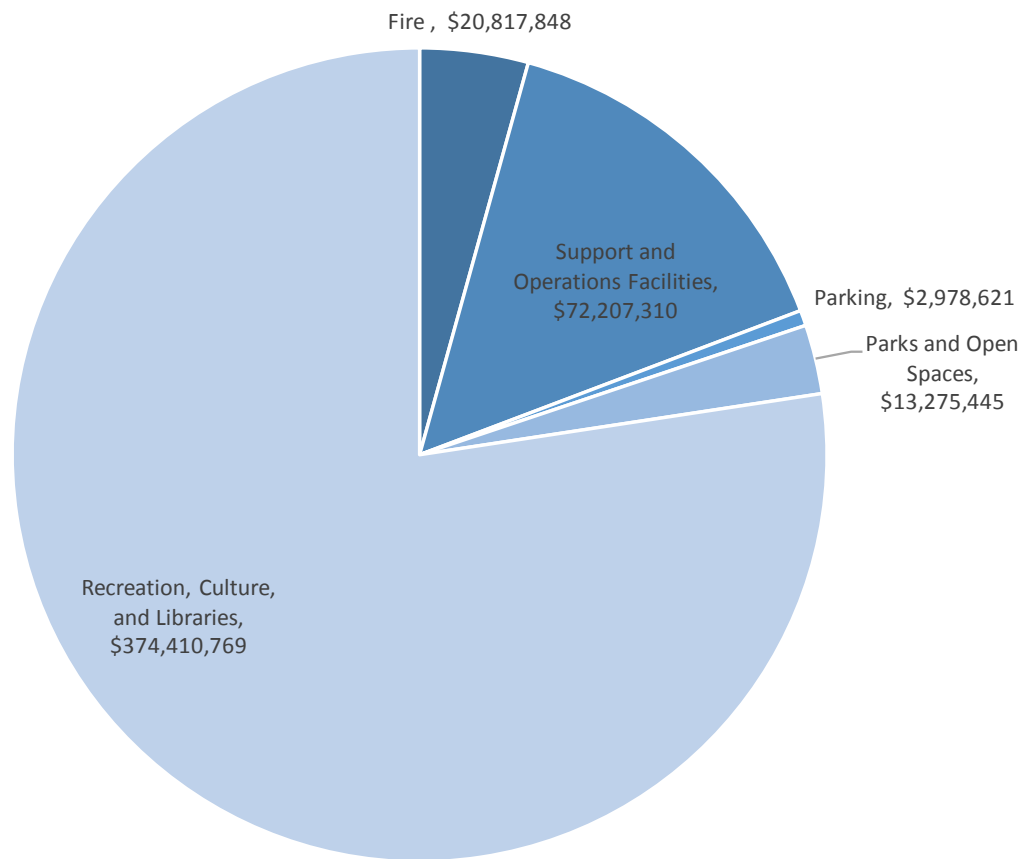


Figure 3.2-2. Distribution of Asset Replacement Values Facilities and related equipment by Customer type.

3.2.2 Transit and related equipment including Facilities

The estimated replacement value of assets in Transit owned by the Town is \$127,885,191 (2016). The breakdown is summarized in Table 3.2-2.

Table 3.2-2. Asset Inventory for Transit

Category	Asset Type	Unit of Measure	Quantity (2016)	Replacement Value	% of Transit Assets Replacement Value
Passenger Vehicles					
	Care-A-Van	Each	18	\$4,041,396	3.16%
	Conventional Bus	Each	97	\$49,201,213	38.47%
Support Vehicles					
	Transit Supervisor Vehicle	Each	2	\$61,160	0.05%
	Transit Service Vehicle	Each	4	\$237,000	0.19%

Table 3.2-2. Asset Inventory for Transit

Category	Asset Type	Unit of Measure	Quantity (2016)	Replacement Value	% of Transit Assets Replacement Value
	Heavy Truck		3	\$225,000	0.18%
Equipment					
	Fitness Equipment	Each	14	\$58,287	0.05%
	Transit Equipment	Each	100	\$3,214,666	2.51%
Structures					
	Major Buildings and Services	sq. ft.	265,109	\$47,740,417	37.33%
	Transit Shelters	Each	189	\$23,106,049	18.07%

The reliability of the replacement value data is currently considered “high”, since the replacement values represent up-to-date cost estimates based on current market conditions (i.e., values are not based on inflated historical costs).

Conventional buses and major transit facilities represent the greatest portion of Transit’s asset replacement value at 38% and 37% respectively.

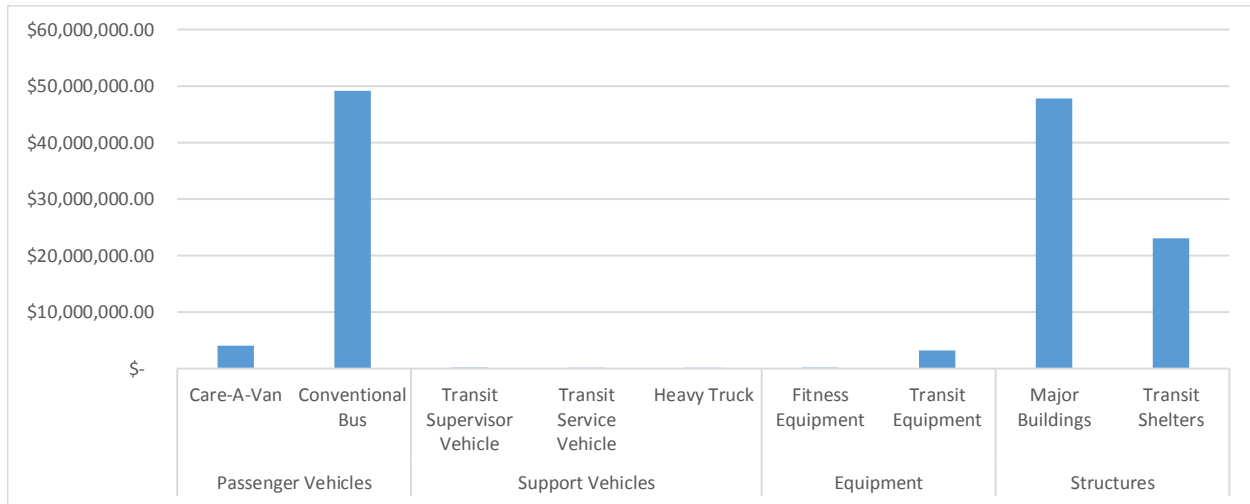


Figure 3.2-3. Distribution of Asset Replacement Values in Transit

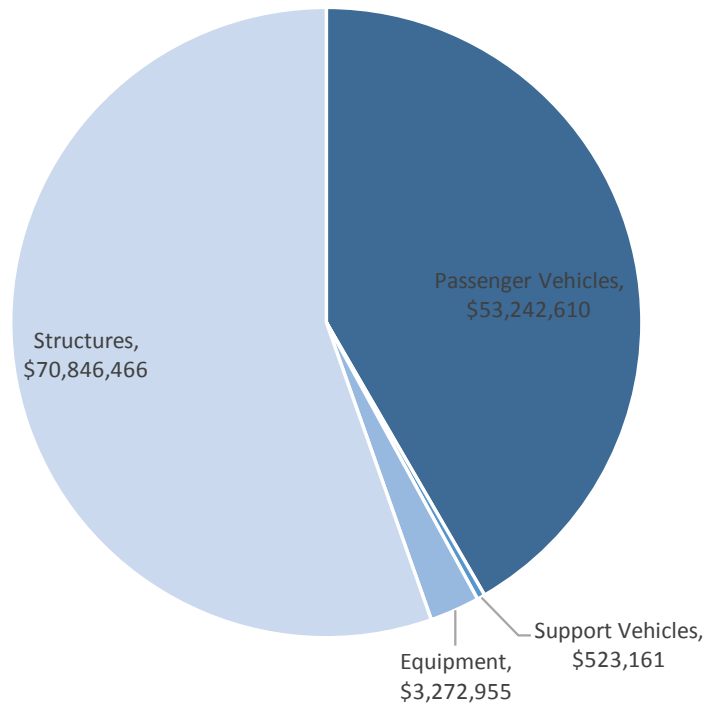


Figure 3.2-4. Distribution of Asset Replacement Values in Transit

3.2.3 Fleet Services

The estimated replacement value of the Fleet assets owned by the Town is \$52,795,012 (2016). The breakdown is summarized in Table 3.2-4.

Table 3.2-3. Asset Inventory and Replacement Value for Fleet and equipment

Asset ID	Asset Type	Unit of Measure	Current Quantity	Replacement Value	% of Fleet Services Replacement Value
Fire Services					
	Special All-Terrain Vehicle	Each	2	\$ 89,000.00	0.17%
	Generator	Each	1	\$ 15,135.00	0.03%
	Heavy Truck	Each	7	\$ 1,553,413.42	2.94%
	Heavy Truck with Specialized Attachment	Each	17	\$ 14,521,856.14	27.51%
	Light Auto/Truck		27	\$ 933,911.26	1.77%
	Small Equipment	Each	2	\$ 7,225.45	0.01%
	Small Tools	Pool/Each		\$ 755,956.90	1.43%
	Tractor	Each	1	\$ 15,000.00	0.03%
	Trailers	Each	2	\$ 16,923.12	0.03%
Parking					
	Light Auto/Truck	Each	6	\$ 179,833.56	0.34%
	Small Tools	Each	1	\$ 500.00	0.00%
Parks and Open Spaces					

ATV	Each	12	\$	463,538.06	0.88%
Blower or Vacuum	Each	6	\$	18,984.90	0.04%
Boat	Each	5	\$	224,893.30	0.43%
Chippers	Each	10	\$	657,107.34	1.24%
Cranes	Each	1	\$	270,000.00	0.51%
Generator	Each	7	\$	15,595.93	0.03%
Heavy Equipment	Each	13	\$	1,013,569.68	1.92%
Heavy Truck	Each	13	\$	933,000.00	1.77%
Heavy Truck with Specialized Attachments		6	\$	1,609,000.00	3.05%
Heavy Truck Specialized	Each	33	\$	2,843,572.29	5.39%
Light Auto/Truck		32	\$	1,351,193.66	2.56%
Mower	Each	50	\$	2,181,803.90	4.13%
Sanders	Each	1	\$	27,933.12	0.05%
Small Equipment	Each	103	\$	479,838.16	0.91%
Small Tools	Each	285	\$	166,808.14	0.32%
Specialized Municipal	Each	4	\$	125,605.65	0.24%
Tractor	Each	19	\$	1,369,590.57	2.59%
Trailers	Each	84	\$	1,303,154.77	2.47%
Vehicle Attachments	Each	47	\$	479,895.52	0.91%
Recreation Culture and Libraries					
Scissor Lift	Each	1	\$	14,163.53	0.03%
Small Tools	Each	6	\$	9,953.39	0.02%
Ice Edger	Each	14	\$	75,651.90	0.14%
Trailers	Each	3	\$	88,738.80	0.17%
Ice Resurfacers	Each	13	\$	1,285,646.80	2.44%
Roads and Works Operations					
ATV	Each	3	\$	56,000.00	0.11%
Blower or Vacuum	Each	11	\$	893,832.12	1.69%
Chippers	Each	1	\$	89,425.86	0.17%
Cranes	Each	2	\$	157,091.37	0.30%
Generator	Each	17	\$	29,865.94	0.06%
Heavy Equipment	Each	18	\$	2,705,887.97	5.13%
Heavy Truck	Each	15	\$	1,985,575.19	3.76%
Heavy Truck with Specialized Attachments	Each	17	\$	4,434,837.95	8.40%
Heavy Truck Specialized	Each	20	\$	1,766,424.31	3.35%
Light Auto/Truck	Each	34	\$	886,894.41	1.68%
Sanders	Each	10	\$	739,866.34	1.40%
Small Equipment	Each	19	\$	92,923.38	0.18%
Small Tools	Each	100	\$	70,963.15	0.13%
Specialized Municipal	Each	11	\$	1,167,219.89	2.21%
Sweepers, Road	Each	3	\$	1,149,668.81	2.18%
Tractor	Each	2	\$	306,000.00	0.58%
Trailers	Each	26	\$	771,391.36	1.46%

Vehicle Attachments	Each	36	\$	393,149.89	0.74%
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The reliability of the replacement value data is currently considered “high”, since the replacement values represent up-to-date cost estimates based on current market conditions (i.e., values are not based on inflated historical costs).

The fire trucks represent the single largest portion (27.51%) of the asset replacement value in Fleet. In order to illustrate the range of values, Figure 3.2-7 provides a graphical summary of the distribution of replacement values of the asset types in Fleet. Figure 3.2-8 shows the same summary excluding the fire trucks for a better illustration of how the other assets are distributed.

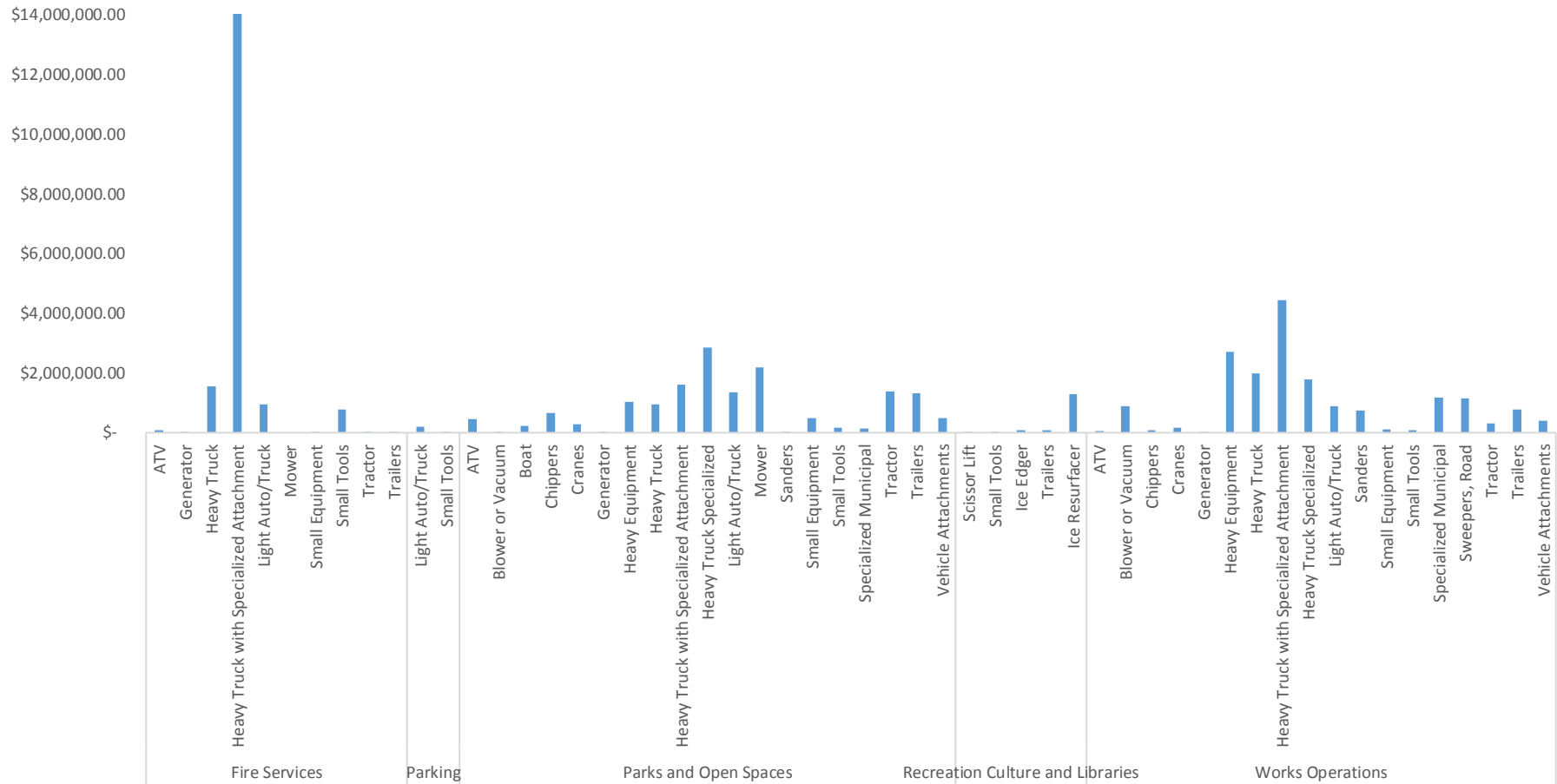


Figure 3.2-5. Distribution of Asset Replacement Values of Fleet Assets

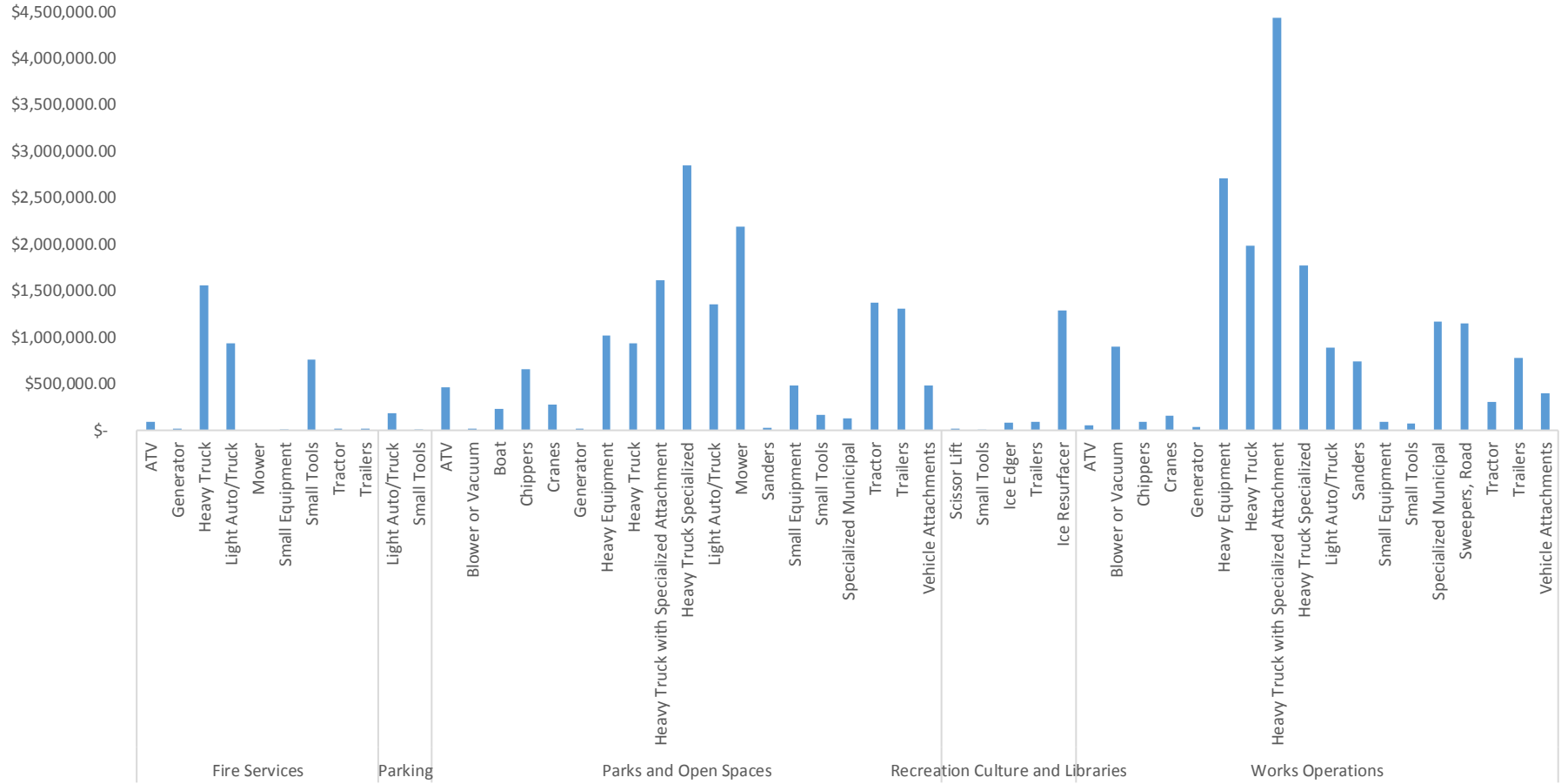


Figure 3.2-6. Distribution of Asset Replacement Values of Fleet Assets Excluding Heavy Trucks

Figure 3.2-9 below outlines the distribution of asset replacement costs for Fleet according to customer type. As illustrated below the customers with the greatest asset value are Fire and Roads and Works Operations.

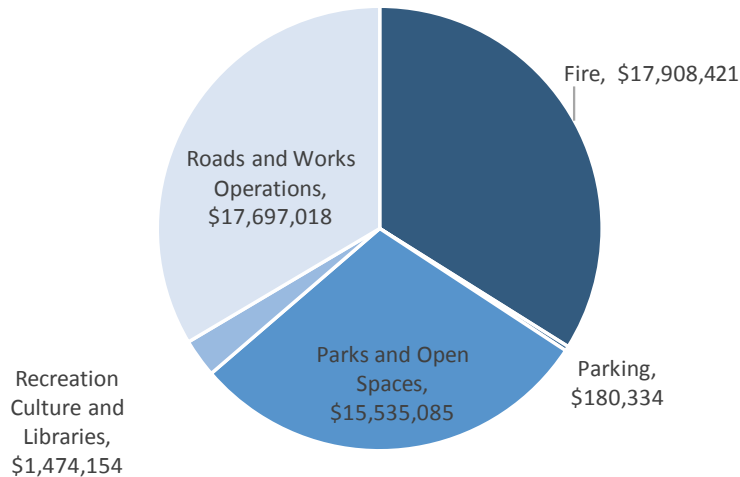


Figure 3.2-7. Distribution of Asset Replacement Values of Fleet Assets by Customer.

3.3 Asset Age and Useful Life

For many assets, the estimated remaining useful life is considered a good starting point to estimate the overall condition of an asset portfolio. However, in many cases, the percentage of useful life consumed, based purely on age, may not be the most suitable indicator of current asset condition. Physical assets undergo a continual process of repair and rehabilitation to achieve their intended level of service (LOS). For example, pumps may undergo a rehabilitation or major overhaul every 20 years with the replacement of specific parts and hence the pump installation date will not be a suitable indicator to use for asset management planning purposes. Accordingly, in many cases, the remaining useful life should be assessed through other information such as physical condition, asset failures, and/or history of refurbishment.

Estimating remaining life through the assets design life and asset age may provide a misleading view of the replacement timing for assets. In many cases, assets that are properly constructed and maintained may outlast their estimated design life and continue providing valuable services. In other cases, due to poor workmanship or lack of proactive maintenance, assets may fail before they fulfill their design life.

For this report a hybrid approach is used that relies on asset age, asset design life, and asset condition rating (where available) to evaluate the condition of the asset types, and therefore their remaining life. For this SOIR, the design life vs. age estimates have been used as a starting point, superseded if there is a condition assessment, and validated based on the history of asset refurbishment. The determination of life of an asset for TCA purposes is the useful life based on the design life.

This SOIR includes a variety of assets of different functions, design and durability. It provides a summary of the average useful life (based on design life) and the average age of the asset portfolio.

It is observed that the Facilities assets are generally the longest-lived assets with an average life span of 17.4 years, whereas the Transit and Fleet assets are under 15 years.

3.3.1 Facilities

Asset useful lives for the Facilities assets were developed as part of the PSAB 3150 TCA project and are used in this version of the SOIR. Table 3.3-1 provides a summary of the useful life estimates and average age for the asset types in Facilities.

Table 3.3-1. Facilities Assets by Condition Rating

Category	Asset Type	Estimated Useful Life	Oldest Age (Years)	Average Age (Years)	Avg % of Life Lived	Average Condition Score
Fire Services						
	Fire Equipment	13.9	14	6.0	45%	1.2
	Other Equipment	11.0	18	10.1	88%	2.4
	Major Buildings	30	30	14.3	55%	2.0
	Minor Buildings	42.85	51	16.8	67%	2.6
	Small Equipment	5.6	4	1.1	18%	1.5
	Small Tools	9.3	10	5.1	57%	1.2
Support and Operations Depots						
	Major Buildings	37.35	117	1.0	10%	1.6
	Major Building Services	27	52	13.0	49%	2.2
	Minor Buildings	45	47	3.0	12%	2.0
	Minor Building Services	29	47	25.1	102%	2.6
	Hoists and Cranes	23.6	16	7.3	60%	2.7
Parking Services						
	Minor Buildings	45	32	20.0	69%	2.0
	Minor Buildings Services	34	32	19.8	69%	2.6
	Pay and Display Machines	12.0	14	4.6	39%	1.1
Parks and Open Spaces						
	Dockage and Ramp System	10.0	15	8.1	81%	3.0
	Major Buildings	44.4	117	43.1	96%	1.6
	Major Building Services	45	5	5	11%	1.0
	Minor Buildings	39.8	117	21.5	70%	2.0
	Minor Building Services	33	117	21.3	69%	2.3
	Hoists and Cranes	41	87	61	141%	4.0
Recreation, Culture, and Libraries						
	Fitness Equipment	12.2	22	5.0	41%	1.7
	Library Collections	9.0	9	4.5	50%	1.5
	Major Buildings	32	117	14.1	55%	1.9

Table 3.3-1. Facilities Assets by Condition Rating

Category	Asset Type	Estimated Useful Life	Oldest Age (Years)	Average Age (Years)	Avg % of Life Lived	Average Condition Score
	Major Building Services	27	55	14.7	55%	2.2
	Minor Buildings	46.25	94	22.8	82%	2.4
	Minor Building Services	30	82	22.4	81%	2.4
	Performing Arts Equipment	7.0	7	7.0	100%	1.8
	Small Equipment	17.7	33	7.8	64%	2.5

Based upon the useful lives in the TCA register, Figure 3.3-1 ranks the assets from those with the longest useful lives to those with the shortest useful lives. This is helpful to illustrate the significant variability in useful life amongst the assets in the same asset class and by customer. As seen in Figure 3.3.1 Major and Minor Buildings have the longest average useful life across all customer levels.

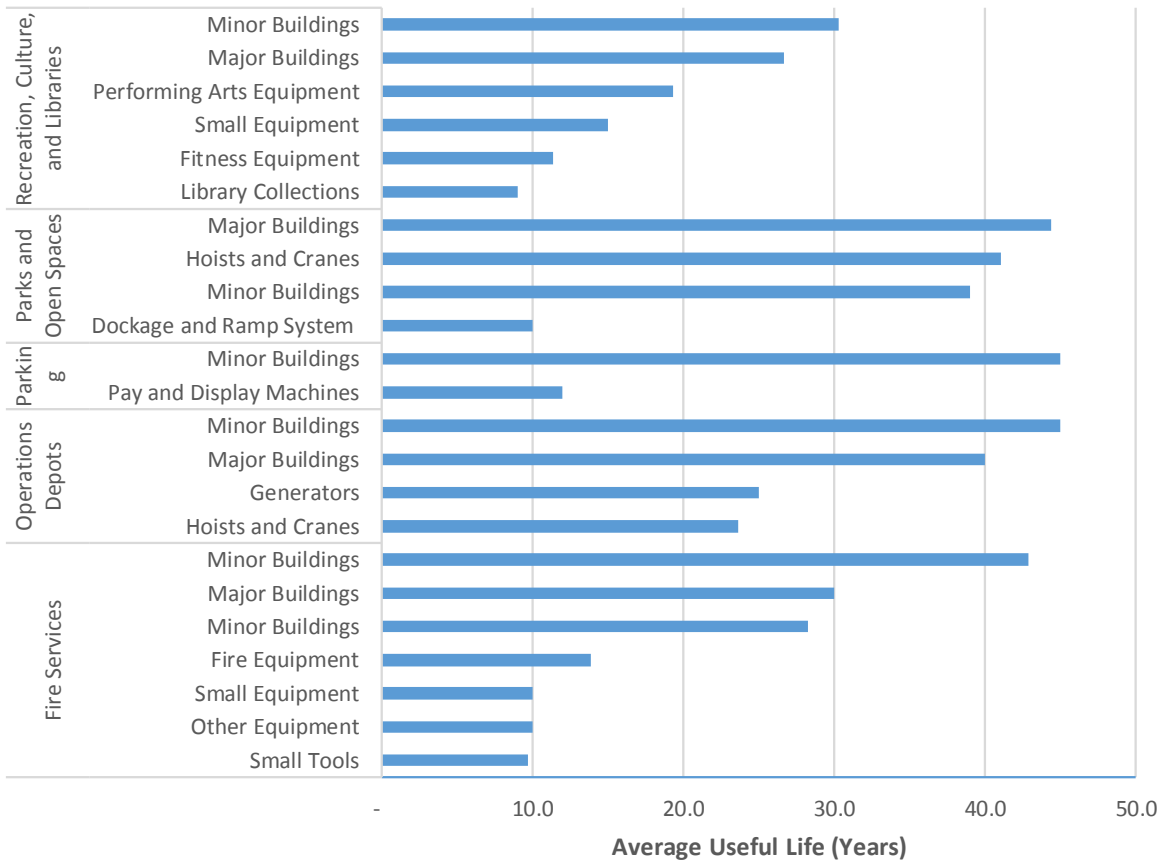


Figure 3.3-1. Ranked Useful Lives of Facilities Assets.

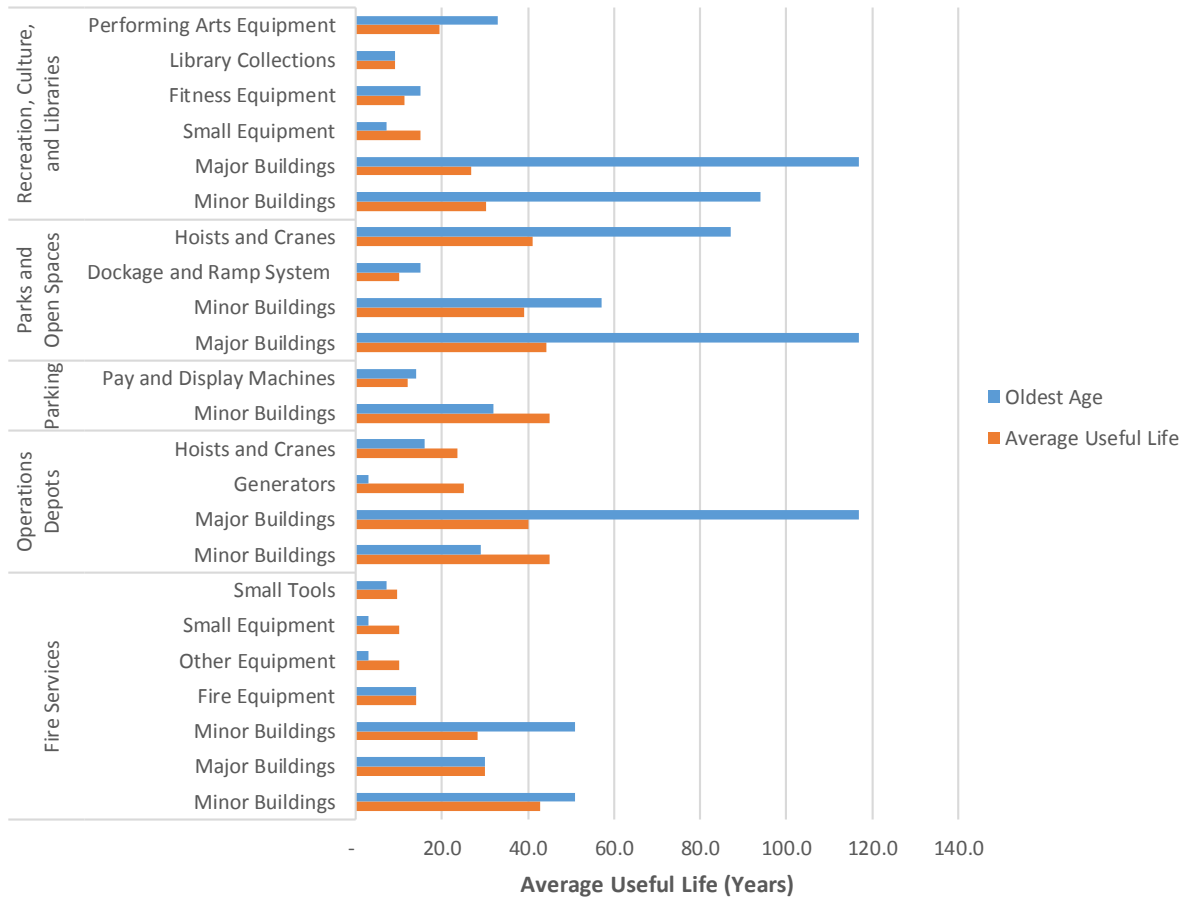


Figure 3.3-2. Distribution of Average Age relative to Oldest Age for Facilities.

Figure 3.3-2 provides a graphical summary of the average ages of each asset type in Facilities, as of 2016, compared to the oldest asset ages.

Table 3.3-2 shows the data confidence bars reflecting the reliability and accuracy of the Facilities useful life data. The data confidence for facilities is not high due to the amount of assets with age based condition ratings which is not a suitable determination of useful life for most of the facilities assets.

Table 3.3-2. Data Confidence in Useful Lives for Facilities Assets

Measure	Confidence Bars	Comments
Accuracy of useful life data in the Facilities		Low – Data that is accurate to +/- 50% High – Data that is accurate to +/- 1%
Reliability of useful life data in the Facilities		Low – Based only upon unconfirmed verbal reports or cursory inspections/analysis High – Sound textual records, procedures or analysis that has been properly document, and is recognized as the best method of assessment.

The correlation of the useful life data to the asset condition data is provided in Section 3.4.

3.3.2 Transit

Asset useful lives developed as part of the PSAB 3150 TCA project are used in this version of the SOIR. Table 3.3-3 provides a summary of the useful life estimates and average age for the Transit asset types.

Table 3.3-3. Age and Useful Life of Assets for Transit

Category	Asset Type	Estimated Useful Life	Oldest Age (Years)	Average Age (Years)	Avg % of Life Lived	Average Condition Score
Passenger Vehicles						
	Care-A-Van	7.00	8	3.22	46%	1.4
	Conventional Bus	12.54	13	6.68	54%	1.5
Support Vehicles						
	Transit Supervisor Vehicle	7.00	7	1.00	14%	1.0
	Transit Service Vehicle	7.00	10	6.25	89%	2.3
	Heavy Truck	7.00		5.33	76%	1.3
Equipment						
	Fitness Equipment	11.79	6	6.00	53%	1.0
	Transit Equipment	18.57	16	6.83	48%	1.9
Structures						
	Major Buildings	45	6	5.50	12%	1.1
	Major Building Services	36	14	6.89	23%	2.0
	Transit Shelters	20	14	7.85	39%	2.0

Based on the current data, the transit assets are within well within their useful service life and are in good condition.

Based upon the useful lives in the TCA register, Figure 3.3-3 ranks the assets from those with the longest useful lives to those with the shortest.

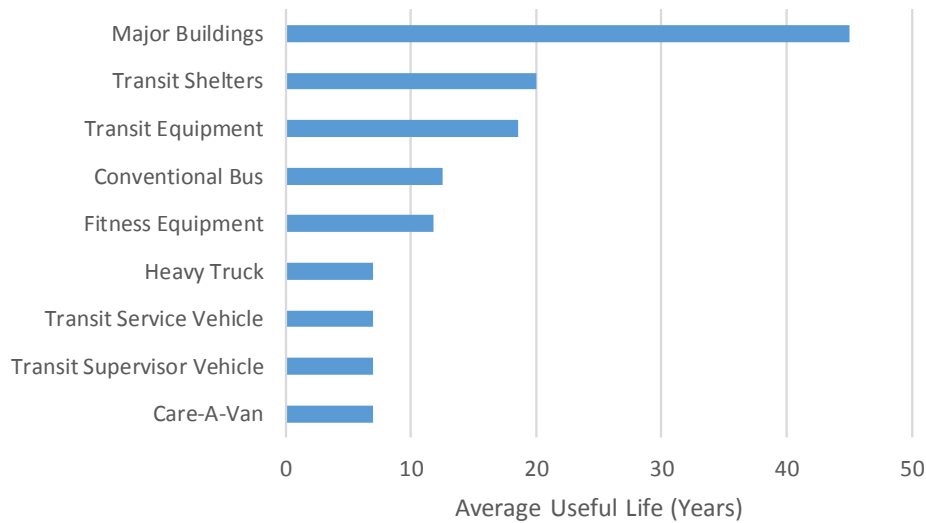


Figure 3.3-3. Ranked Useful Lives of Transit Assets

All assets within Transit have relatively short life spans in comparison to the other asset classes and have low variability excluding major buildings which has the longest lifespan of 45 years.

Table 3.3-4 shows the data confidence bars reflecting the reliability and accuracy of the Transit Assets. The Transit assets are inspected on a regular basis for condition and the useful life of the transit assets are well known.

Table 3.3-4. Data Confidence in Useful Lives for Transit Assets

Measure	Confidence Bars	Comments
Accuracy of useful life data in Transit		Low – Data that is accurate to +/- 50% High – Data that is accurate to +/- 1%
Reliability of useful life data in the Transit		Low – Based only upon unconfirmed verbal reports or cursory inspections/analysis High – Sound textual records, procedures or analysis that has been properly document, and is recognized as the best method of assessment.

The correlation of the useful life data to the asset condition data is provided in Section 3.4.

3.3.3 Fleet

Asset useful lives for the Fleet developed as part of the PSAB 3150 TCA project are used in this version of the SOIR. Table 3.3-5 provides a summary of the useful life estimates and average age for the asset types for Fleet.

Table 3.3-5. Age and Useful Life of Assets in the Fleet

Asset ID	Asset Type	Estimated Useful Life	Oldest Age (Years)	Average Age (Years)	Avg % of Life Lived	Average Condition Score
Fire Services						
	ATV	8.50	7	7.0	83%	2.0
	Generator	15.00	7	7.0	47%	1.0
	Heavy Truck	9.14	6	6.0	70%	1.4
	Heavy Truck with Specialized Attachment	11.00	8.4	8.4	78%	1.6
	Light Auto/Truck	7.74	5.1	5.1	71%	1.7
	Mower	10.00	3	3.0	30%	1.00
	Small Equipment	8.50	9	8.5	102%	3.00
	Small Tools	5.75	15	10.5	220%	4.00
	Tractor	10.00	5	5.0	50%	2.00
	Trailers	15.00	6.5	6.5	43%	1.00
Parking						
	Light Auto/Truck	4.17	6	1.8	41%	1.00
	Small Tools	3.00	4	4.0	133%	1.00
Parks and Open Spaces						
	ATV	10.00	13	4.8	48%	1.8
	Blower or Vacuum	5.33	2	0.3	3%	1.0
	Boat	16.00	27	11.0	60%	1.8
	Chippers	9.40	7	3.6	45%	1.9
	Cranes	25.00	12	12.0	48%	2.0
	Generator	10.00	24	14.4	144%	3.9
	Heavy Equipment	11.92	17	7.5	63%	1.9
	Heavy Truck	8.08	9	6.7	85%	1.7
	Heavy Truck with Specialized Attachment	10.00	12	8.2	82%	1.7
	Heavy Truck Specialized	8.00	10	4.4	55%	1.6
	Light Auto/Truck	7.72	9	2.5	32%	1.2
	Mower	6.84	8	3.7	54%	1.8
	Sanders	9.00	1	1.0	11%	1.0
	Small Equipment	6.47	27	6.3	141%	2.6
	Small Tools	3.08	31	6.4	206%	3.6
	Specialized Municipal	8.75	10	3.8	40%	1.8
	Tractor	13.95	13	8.1	56%	1.6
	Trailers	14.75	34	9.6	68%	1.9
	Vehicle Attachments	11.35	30	11.3	98%	2.7

Table 3.3-5. Age and Useful Life of Assets in the Fleet

Asset ID	Asset Type	Estimated Useful Life	Oldest Age (Years)	Average Age (Years)	Avg % of Life Lived	Average Condition Score
Recreation Culture and Libraries						
	Scissor Lift	10.00	11	11.0	110%	3.0
	Small Equipment	6.80	19	6.7	149%	2.6
	Small Tools	5.00	6	3.7	120%	3.7
	Specialized Municipal	9.50	32	7.8	82%	2.4
	Trailers	15.00	21	9.5	80%	2.0
	Ice Resurfacer	10.62	9	5.0	49%	1.9
Road and Works Operations						
	ATV	10.00	11	7.7	77%	2.3
	Blower or Vacuum	9.82	13	6.6	70%	1.9
	Chippers	8.00	0	0.0	0%	1.0
	Cranes	10.00	21	11.5	100%	3.0
	Generator	10.00	37	19.2	192%	4.3
	Heavy Equipment	11.56	17	5.4	45%	2.0
	Heavy Truck	8.00	6	2.5	40%	1.2
	Heavy Truck with Specialized Attachment	9.88	9	5.9	59%	1.8
	Heavy Truck Specialized	8.20	10	4.3	53%	1.7
	Light Auto/Truck	7.24	9	4.3	61%	1.5
	Sanders	9.20	10	4.0	42%	1.4
	Small Equipment	7.84	23	8.3	98%	2.5
	Small Tools	3.46	28	6.8	207%	4.2
	Specialized Municipal	8.55	11	5.1	60%	2.0
	Sweepers, Road	8.00	0	0.0	0%	1.0
	Tractor	8.00	2	2.0	25%	1.0
	Trailers	14.31	37	8.9	62%	1.9
	Vehicle Attachments	9.27	22	7.7	81%	2.7

Based upon the useful lives in the TCA register, Figure 3.3-4 ranks the assets from those with the shortest useful lives to those with the longest. This is helpful to illustrate the low variability in useful lives amongst the assets in the Fleet.

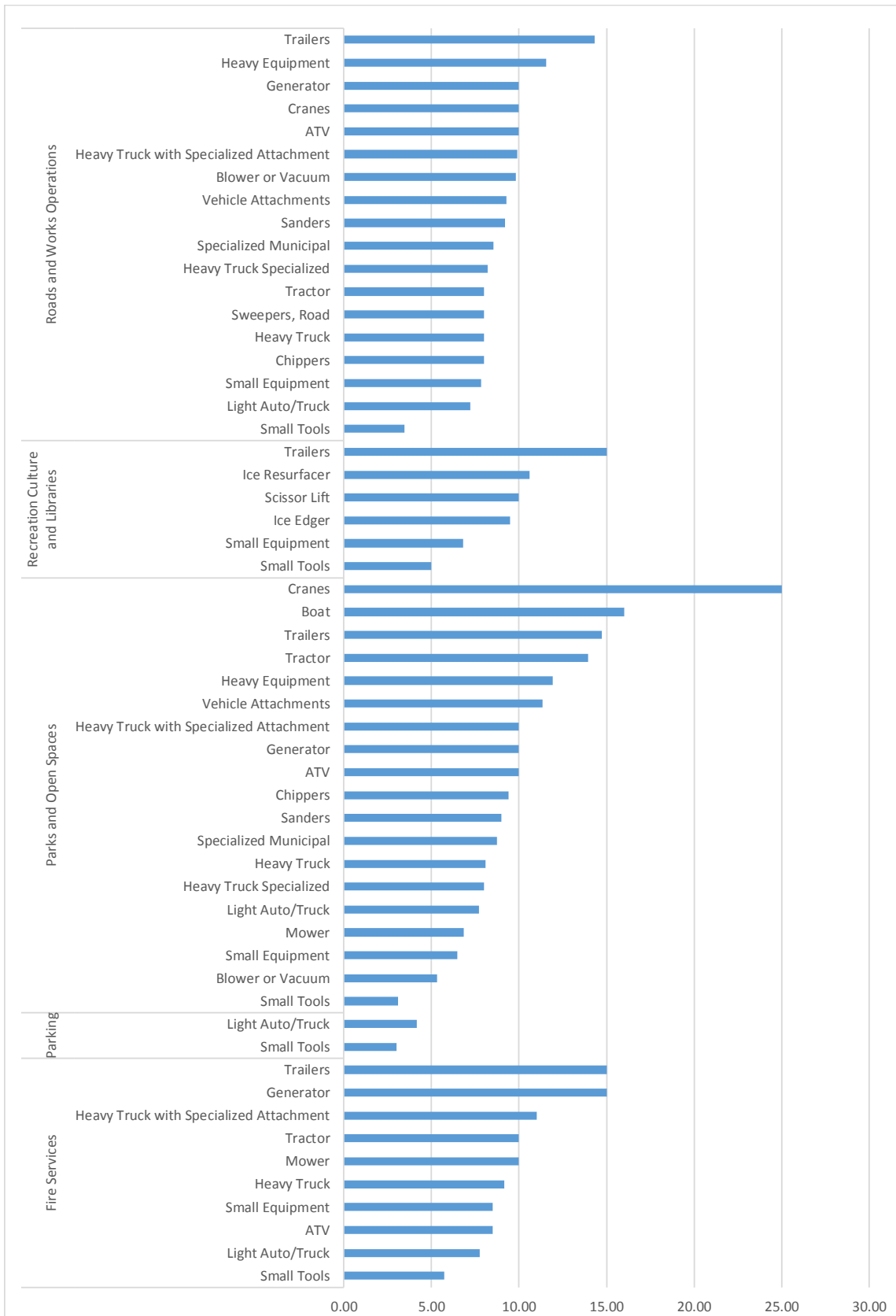


Figure 3.3-4. Ranked Useful Lives of Fleet Assets

As seen in Figure 3.3-4 Cranes, Trailers, and Tractors have the longest services lives.

Figure 3.3-5 provides a graphical summary of the average ages of each Fleet asset type as of 2016, compared to the oldest asset ages.

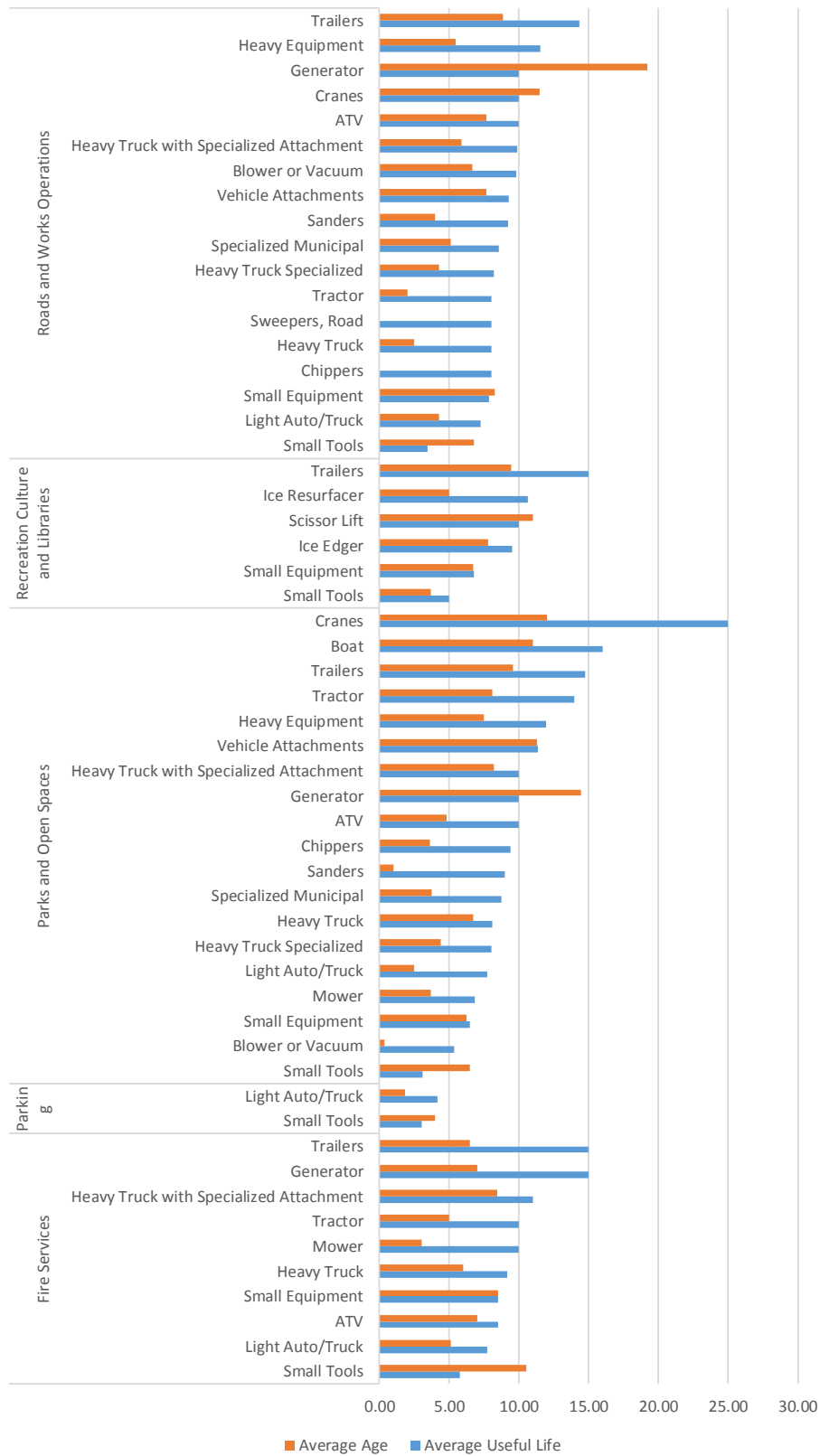


Figure 3.3-5. Distribution of Average Age relative to Oldest Age for Fleet Assets

The Heavy Trucks have the highest average age (18 years), whereas the blowers and vacuums have the lowest average age (1 year).

Table 3.3-6 shows the data confidence bars reflecting the reliability and accuracy of the Fleet useful life data. The Data confidence for fleet assets is considered high for both reliability and accuracy as the majority of fleet assets' useful lives are based on the asset condition.

Table 3.3-6. Data Confidence in Useful Lives for the Fleet Assets

Measure	Confidence Bars	Comments
Accuracy of useful life data in Fleet		Low – Data that is accurate to +/- 50% High – Data that is accurate to +/- 1%
Reliability of useful life data in Fleet		Low - Based only upon unconfirmed verbal reports or cursory inspections/analysis High – Sound textual records, procedures or analysis that has been properly document, and is recognized as the best method of assessment.

The correlation of the useful life data to the asset condition data is provided in Section 3.4.

3.4 Asset Condition

A 5-point rating scale that aligns with the Canadian Infrastructure Report Card (CIRC), produced by the Federation of Canadian Municipalities (FCM), Canadian Construction Association, Canadian Public Works Association and the Canadian Society of Civil Engineering is used to represent the physical condition of the Town's assets. The use of this rating scale allows the Town's asset portfolio to be described using a common approach and enables benchmarking with other municipalities. The rating scale ranges from "Very Good" to "Very Poor", as described in Table 3.4-1 and reflects the physical condition of the asset.

Table 3.4-1 CIRC 5- Point Scale for Rating Asset Condition

Number	Rating	Rating Description
1	Very Good	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.
2	Good	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.
3	Fair	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.
4	Poor	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.
5	Very Poor	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.

Note within Table 3.4-1 that the condition grades do not consider asset performance. The condition grade represents the physical condition of the asset without considering whether the asset is meeting the required levels of service, capacity and/or function.

The inspection regime of the asset types throughout the different service areas vary for each. Facilities assets are not assessed for their condition on a regular basis, either visually, or through non-destructive testing (NDT). The approach taken is to assess the condition of the asset through visual inspection when the asset is on the 10 year forecast. Therefore many assets do not have condition ratings for them. Because of this the condition of the asset has been assessed based on the remaining useful life (and based on design life). Facilities assets are also inspected on an ad-hoc basis following the reporting through work orders of major service interruption events: multiple failure prompting investigation or leading to the asset’s budget replacement year (that is identified on an age basis). In either case an inspection is completed to determine the assets condition, to re-evaluate the year for asset replacement.

The condition of fleet and transit assets are assessed during annual safety inspections. Mechanics inspect the assets and provide a condition rating consistent with the CIRC 5-point scale in Table 3.4-1. Where no physical condition data is available, an age-based rating has been applied based on remaining useful life as described in Section 3.3.

Overall, the condition of the three assets classes covered in this SOIR is “Very Good” to “Good”, with an average overall condition grade score of 2.26, as shown in Figure 3.4-1.

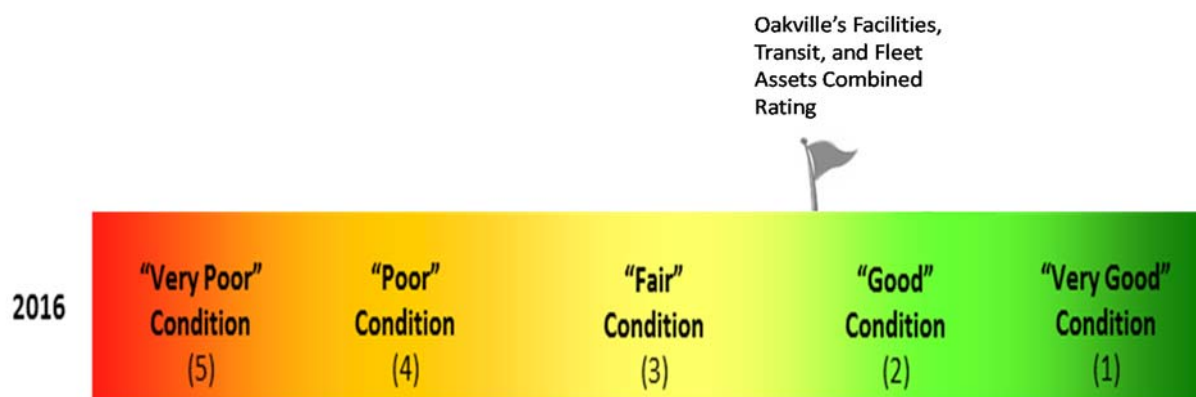


Figure 3.4-1. Average Overall Condition of the Three Asset Networks on the CIRC Scale

Figure 3.4-2 illustrates the average condition scores for each of the three asset classes covered in this SOIR.

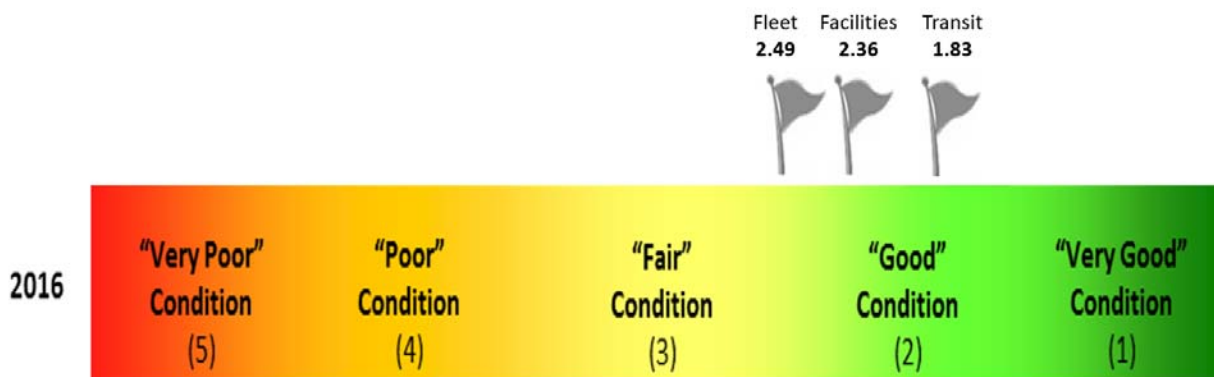


Figure 3.4-2. Average Condition of each of the Three Asset Classes on the CIRC Scale

Table 3.4-2 provides a summary of the distribution of condition grades in each of the three asset networks.

Table 3.4-2. Summary of the Distribution of the Condition Grades within each of the Three Asset Classes

Asset Class	Average Overall Condition Grade	% Very Good (1)	% Good (2)	% Fair (3)	% Poor (4)	% Very Poor (5)	Data Confidence
Facilities	2.36	33.72%	60.80%	6.09%	0.18%	0.20%	Moderate
Fleet	2.49	44.15%	49.01%	5.34%	1.19%	0.30%	High
Transit	1.83	83.10%	8.93%	5.82%	2.12%	0.03%	Moderate to High

3.4.1 Facilities

The average condition score of the various assets that comprise the Facilities is estimated to be 2.37 on the CIRC scale (i.e., “Very Good” to “Good” condition). Figure 3.4-3 provides a summary of the condition of the Facilities Assets.

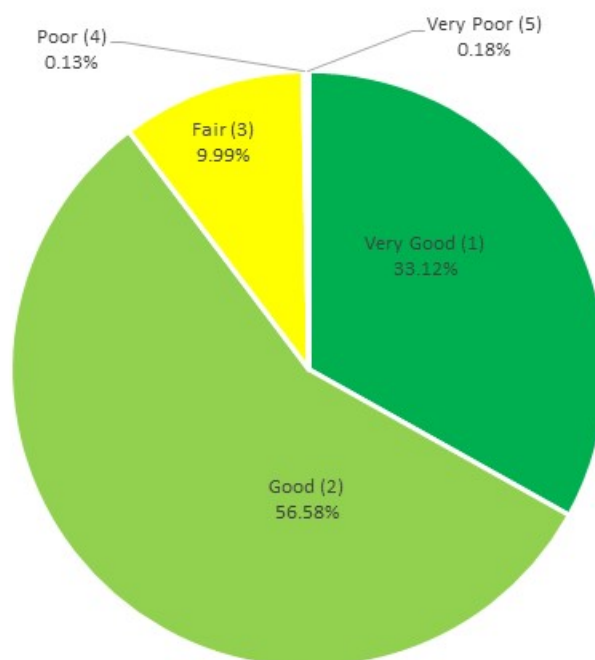


Figure 3.4-3. Distribution of Condition Grades by TCA Replacement Value of Facilities Assets

Table 3.4-3 provides a summary of the condition data associated with each asset type in Facilities.

Table 3.4-3. Facilities Assets by Condition Rating

Asset ID	Asset Type	% of Assets in Condition Grade by Replacement Value					Average Condition Score
		1	2	3	4	5	
Fire Services							
	Fire Equipment	47%	20%	22%	0%	10%	1.2
	Other Equipment	51%	0%	13%	16%	21%	2.4
	Major Buildings	0%	100%	0%	0%	0%	2.0
	Minor Buildings	16%	56%	28%	0%	0%	2.6

Small Equipment	92%	8%	0%	0%	0%	1.1
Small Tools	53%	35%	12%	0%	0%	1.5
Operations Depots						
Major Buildings	48%	34%	18%	0%	0%	1.6
Minor Buildings	0%	100%	0%	0%	0%	2.0
Hoists and Cranes	67%	0%	33%	0%	0%	2.7
Parking						
Minor Buildings	0%	100%	0%	0%	0%	2.0
Pay and Display Machines	95%	0%	2%	3%	0%	1.1
Parks and Open Spaces						
Dockage and Ramp System	44%	0%	0%	0%	56%	3.0
Major Buildings	16%	71%	12%	0%	0%	1.7
Minor Buildings	21%	55%	24%	0%	0%	2.0
Hoists and Cranes	0%	0%	83%	0%	17%	4.0
Recreation, Culture, and Libraries						
Fitness Equipment	61%	8%	20%	9%	2%	1.7
Library Collections	46%	35%	19%	0%	0%	1.5
Major Buildings	33%	59%	8%	0%	0%	1.9
Minor Buildings	2%	92%	0%	7%	0%	2.4
Performing Arts Equipment	60%	18%	18%	4%	0%	1.8
Small Equipment	39%	39%	19%	3%	0%	2.5

Figure 3.4-4 shows a graphical summary of the distribution of the CIRC condition grades across the asset types in Facilities. This information is useful for developing asset management strategies.

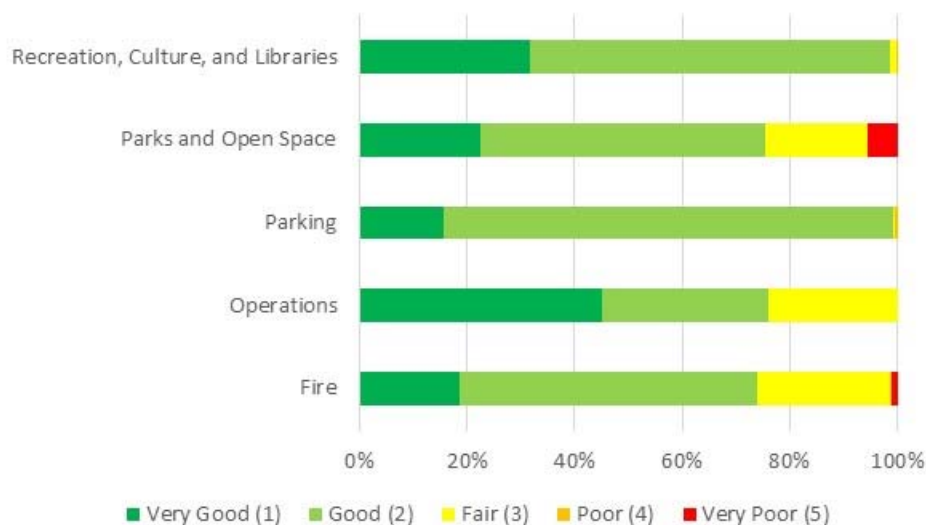


Figure 3.4-4. Distribution of the CIRC Condition Grades for Facilities by Customer Level.

Figure 3.4-5 shows a ranked list of replacement values associated with assets that are identified as falling within CIRC condition grades 4 (“Poor”) and 5 (“Very Poor”). This indicates that Recreation, Culture and

Library Facilities will require additional investigations to determine the true capital investment requirements over the next 10 year period.

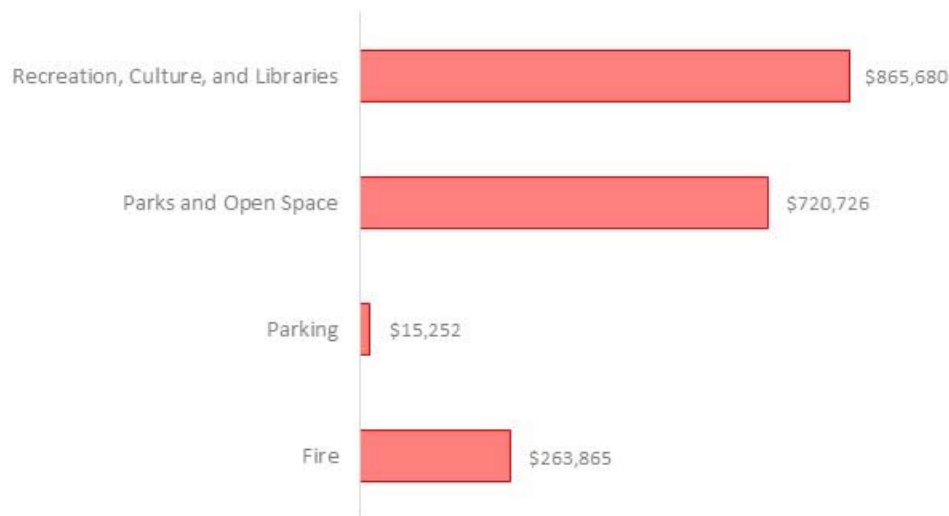


Figure 3.4-5. Value of Assets in “Poor” and “Very Poor” Condition in Facilities

Table 3.4-4 provides a summary of the data confidence for the condition of the Facilities assets.

The condition scores for most of the assets in the Facilities were inferred from asset age and, therefore, the confidence bars reflect the relative accuracy and reliability of this dataset.

Table 3.4-4. Data Confidence in Facilities Asset Condition Data

Measure	Confidence Bars	Comments
Accuracy of Facilities condition data		Low – Data that is accurate to +/- 50% High – Data that is accurate to +/- 1%
Reliability of Facilities condition data		Low – Based only upon unconfirmed verbal reports or cursory inspections/analysis High – Sound textual records, procedures or analysis that has been properly document, and is recognized as the best method of assessment.

Because condition scores for most of the assets in the Facilities were inferred from asset age, and this is not an appropriate representation for these asset types, it has been noted that an improvement in the data collection for asset management analysis is required. A condition based rating should be applied for these asset types and there will be a recommendation in the AMP. This data has been summarised in the SOIR in this way because it is the current data within the asset register, however it is recommended to conduct asset condition assessments prior to documentation of the AMP, and share the updated grades within the publicly available AMP.

3.4.2 Transit

The average condition score of the various assets that comprise Transit is estimated to be 1.83 identifying that nearly all of the transit assets are in good to very good condition. Figure 3.4-6 outlines the distribution of condition grades for Transit assets.

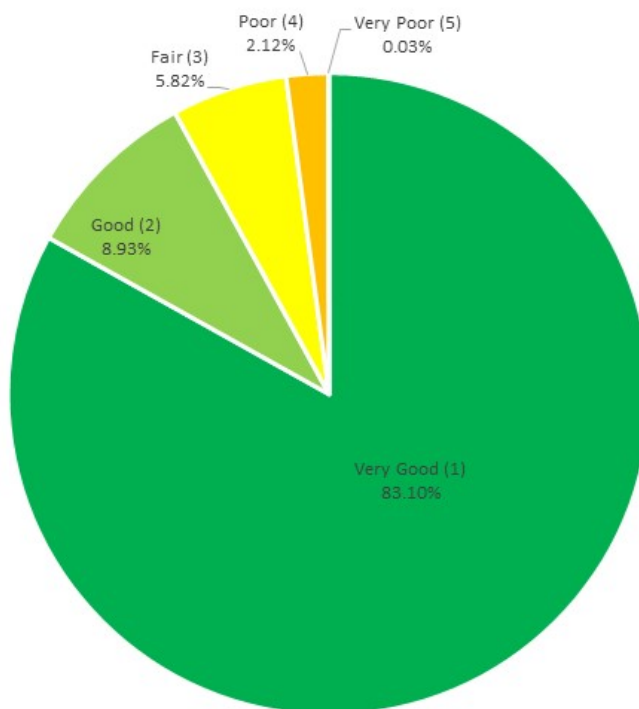


Figure 3.4-6. Distribution of Condition Grades in Transit

All Assets are evaluated on a 5-point scale consistent with the CIRC 1-5 rating system. Table 3.4-5 provides a summary of the condition data associated with each Transit asset type.

Table 3.4-5. Transit Assets by Condition

Category	Asset Type	% of Assets in Condition Grade by Replacement Value					Average Condition Score
		1	2	3	4	5	
Passenger Vehicles							
	Care-A-Van	67%	22%	11%	0%	0%	1.4
	Conventional Bus	71%	14%	11%	4%	0%	1.4
Support Vehicles							
	Transit Supervisor Vehicle	100%	0%	0%	0%	0%	1.0
	Transit Service Vehicle	25%	51%	0%	24%	0%	2.2
	Heavy Truck	67%	33%	0%	0%	0%	1.3
Equipment							
	Fitness Equipment	100%	0%	0%	0%	0%	1.0
	Transit Equipment	42%	46%	11%	0%	1%	1.8
Structures							
	Major Buildings and Services	100%	0%	0%	0%	0%	1.0
	Transit Shelters	22%	73%	4%	0%	0%	2.0

Figure 3.4-7 shows a graphical summary of the distribution of the CIRC condition grades across the asset types in Transit. This information is useful for developing asset management strategies.

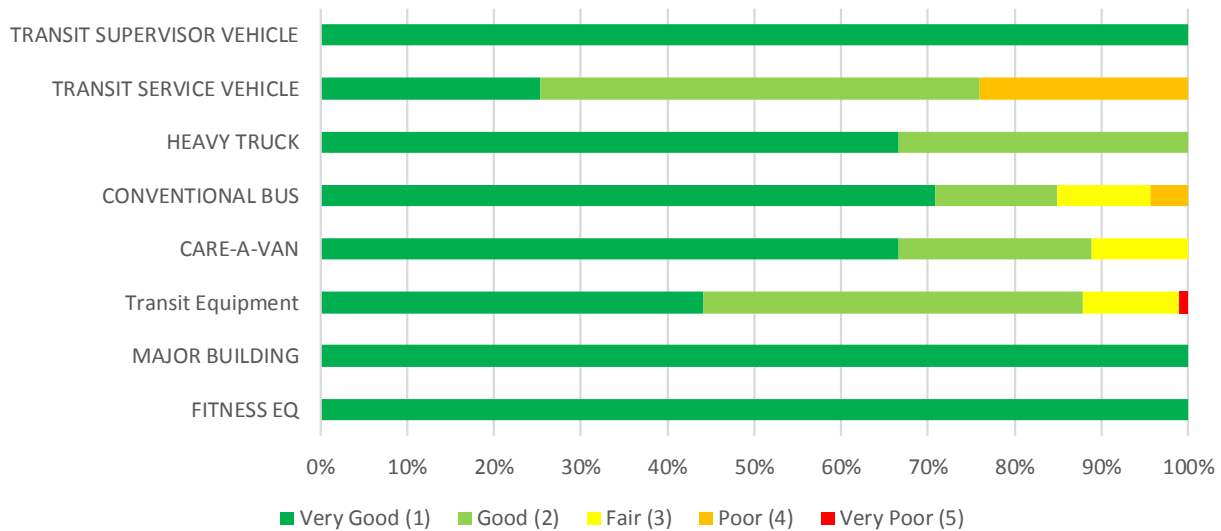


Figure 3.4-7. Distribution of the CIRC Condition Grades for the Transit Assets.

Figure 3.4-8 shows a ranked list of replacement values associated with assets that are identified as failing within CIRC condition grades 4 (“Poor”) and 5 (“Very Poor”). This indicates that conventional busses require the largest capital reinvestment over the 10-year planning horizon (2016-2025).

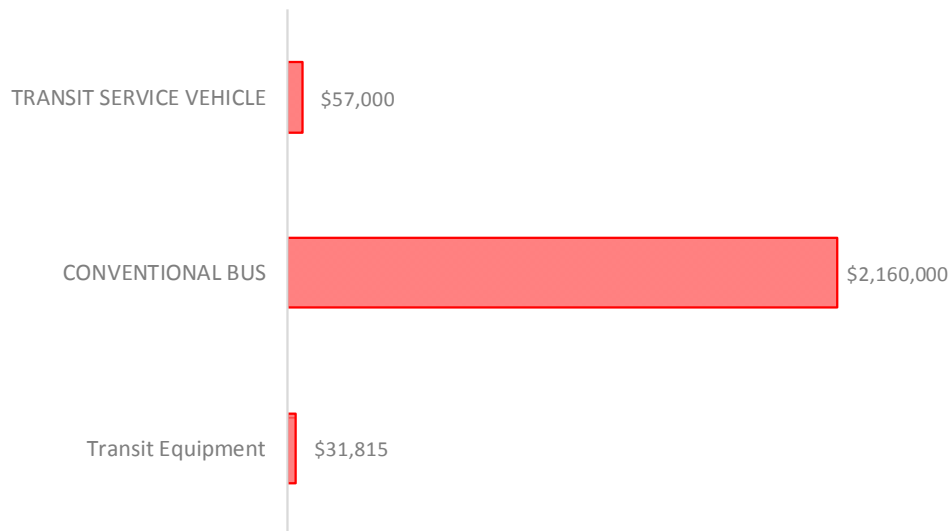




Figure 3.4-8. Ranked Value of Assets in “Poor” and “Very Poor” Condition for Transit Assets

Table 3.4-6 provides a summary of the data confidence for the condition of the Transit assets. The transit assets condition is considered to be high due to regular inspections and updates of the condition ratings for the majority of assets.

Table 3.4-6. Data Confidence in Transit Asset Condition Data

Measure	Confidence Bars	Comments
Accuracy of Transit condition data		Low – Data that is accurate to +/- 50% High – Data that is accurate to +/- 1%
Reliability of Transit condition data		Low – Based only upon unconfirmed verbal reports or cursory inspections/analysis High – Sound textual records, procedures or analysis that has been properly document, and is recognized as the best method of assessment.

3.4.3 Fleet

The average condition score of the various assets that comprise Fleet is estimated to be 2.49 on the CIRC scale (i.e., “Very Good” to “Good” condition). Figure 3.4-9 shows the distribution of condition grades for Fleet Assets as whole.

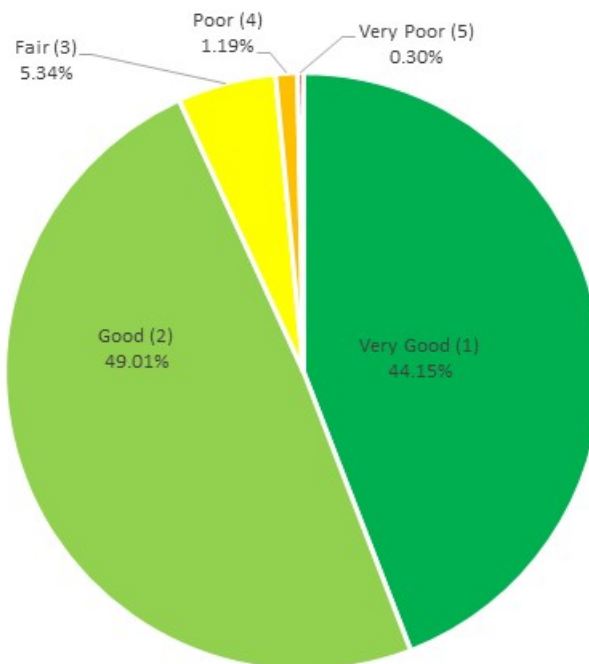


Figure 3.4-9. Distribution of Condition Grades in for Fleet Assets

The majority of the assets in Fleet are in “Very Good” (27%) and “Good” (41%) condition.

Table 3.4-7 provides a summary of the condition data associated with each Fleet asset type.

Table 3.4-7. Fleet Assets Condition Summary

Asset ID	Asset Type	% of Assets in Condition Grade by Replacement Value					Average Condition Score
		1	2	3	4	5	
Fire Services							
	ATV	0%	100%	0%	0%	0%	2.0
	Generator	100%	0%	0%	0%	0%	1.0
	Heavy Truck	83%	17%	0%	0%	0%	1.4
	Heavy Truck with Specialized Attachment	35%	65%	0%	0%	0%	1.6
	Light Auto/Truck	66%	30%	4%	0%	0%	1.7
	Small Equipment	0%	0%	100%	0%	0%	3.0
	Tractor	0%	99%	0%	0%	0%	4.0
	Trailers	0%	100%	0%	0%	0%	2.0
Parking							

Light Auto/Truck	100%	0%	0%	0%	0%	1.0
Parks and Open Spaces						
ATV	24%	76%	0%	0%	0%	1.8
Blower or Vacuum	100%	0%	0%	0%	0%	1.0
Boat	96%	0%	0%	0%	4%	1.8
Chippers	2%	87%	11%	0%	0%	1.9
Cranes	0%	100%	0%	0%	0%	2.0
Generator	38%	0%	0%	0%	62%	3.9
Heavy Equipment	24%	57%	19%	0%	0%	1.9
Heavy Truck	58%	28%	14%	0%	0%	1.7
Heavy Truck with Specialized Attachment	25%	75%	0%	0%	0%	1.7
Heavy Truck Specialized	54%	42%	5%	0%	0%	1.6
Light Auto/Truck	81%	19%	0%	0%	0%	1.2
Mower	24%	66%	9%	0%	0%	1.8
Sanders	100%	0%	0%	0%	0%	1.0
Small Equipment	27%	55%	8%	3%	7%	2.6
Small Tools	28%	4%	8%	13%	48%	3.6
Specialized Municipal	47%	39%	14%	0%	0%	1.8
Tractor	29%	39%	32%	0%	0%	1.6
Trailers	38%	43%	17%	0%	2%	1.9
Vehicle Attachments	55%	15%	13%	1%	16%	2.7
Recreation Culture and Libraries						
Scissor Lift	0%	0%	100%	0%	0%	3.0
Small Equipment	0%	0%	0%	54%	46%	2.6
Small Tools	0%	100%	0%	0%	0%	3.7
Ice Edger	25%	30%	36%	9%	0%	2.4
Trailers	93%	0%	7%	0%	0%	2.0
Ice Resurfacers	38%	62%	0%	0%	0%	1.9
Roads and Works Operations						
ATV	34%	0%	66%	0%	0%	2.3
Blower or Vacuum	40%	31%	17%	12%	0%	1.9
Chippers	100%	0%	0%	0%	0%	1.0
Cranes	89%	0%	0%	0%	11%	3.0
Generator	0%	3%	4%	31%	62%	4.3
Heavy Equipment	60%	31%	9%	0%	0%	2.0
Heavy Truck	82%	18%	0%	0%	0%	1.2
Heavy Truck with Specialized Attachment	36%	52%	6%	6%	0%	1.8
Heavy Truck Specialized	45%	50%	4%	0%	0%	1.7
Light Auto/Truck	55%	42%	4%	0%	0%	1.5
Sanders	73%	0%	27%	0%	0%	1.4

Small Equipment	25%	0%	1%	30%	44%	2.5
Small Tools	10%	18%	5%	12%	55%	4.2
Specialized Municipal	9%	80%	11%	0%	0%	2.0
Sweepers, Road	100%	0%	0%	0%	0%	1.0
Tractor	100%	0%	0%	0%	0%	1.0
Trailers	55%	37%	6%	0%	2%	1.9
Vehicle Attachments	27%	7%	14%	50%	2%	2.7

Figure 3.4-10 shows a graphical summary of the distribution of the CIRC condition grades across the asset types for Fleet. .

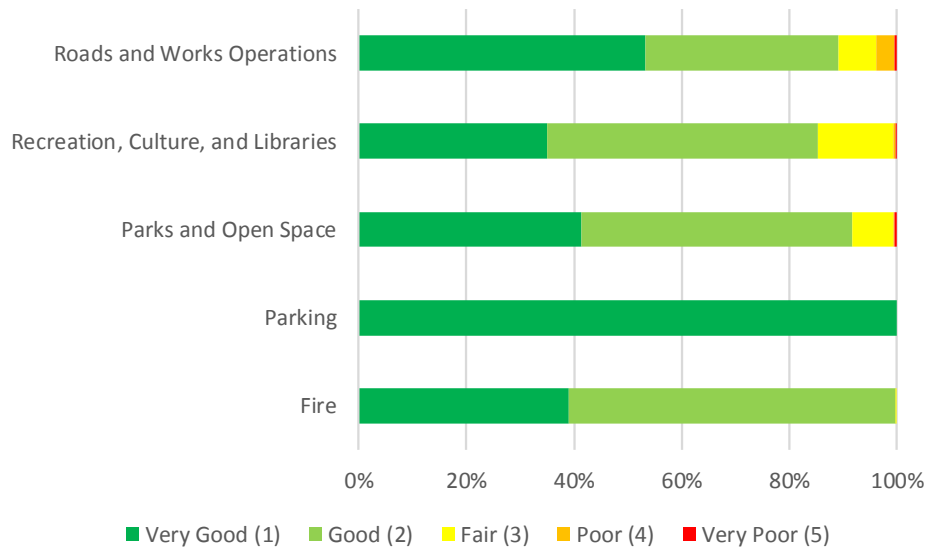
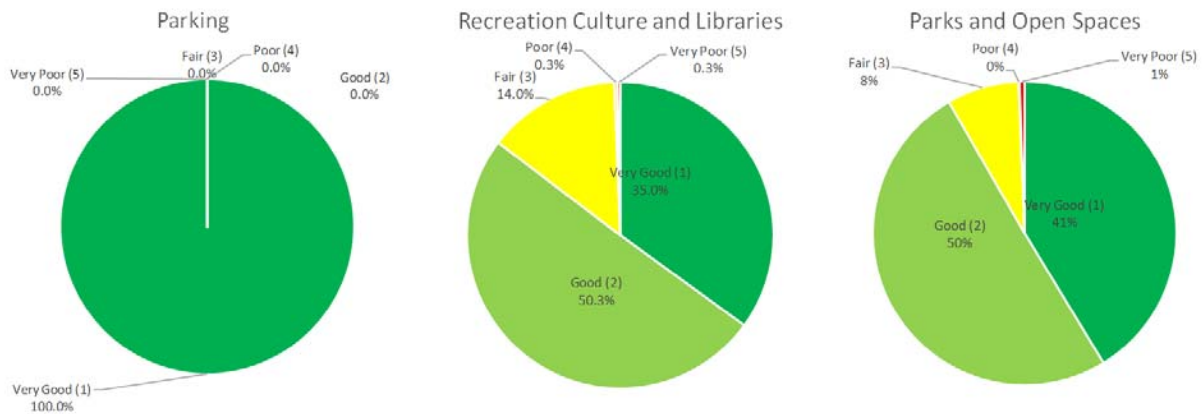


Figure 3.4-10. Distribution of the CIRC Condition Grades for Fleet by Customer



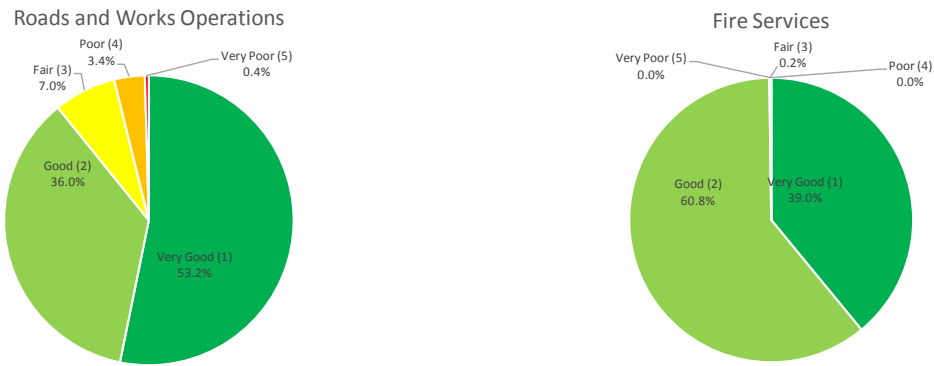


Figure 3.4-11 Distribution of Condition Grades in for Fleet Assets by Customer Type

Figure 3.4-12 shows the replacement values associated with assets that are identified as failing within CIRC condition grades 4 (“Poor”) and 5 (“Very Poor”). This indicates that road and works operations equipment and vehicles require the largest capital reinvestment over the 10-year planning horizon (2016-2025).

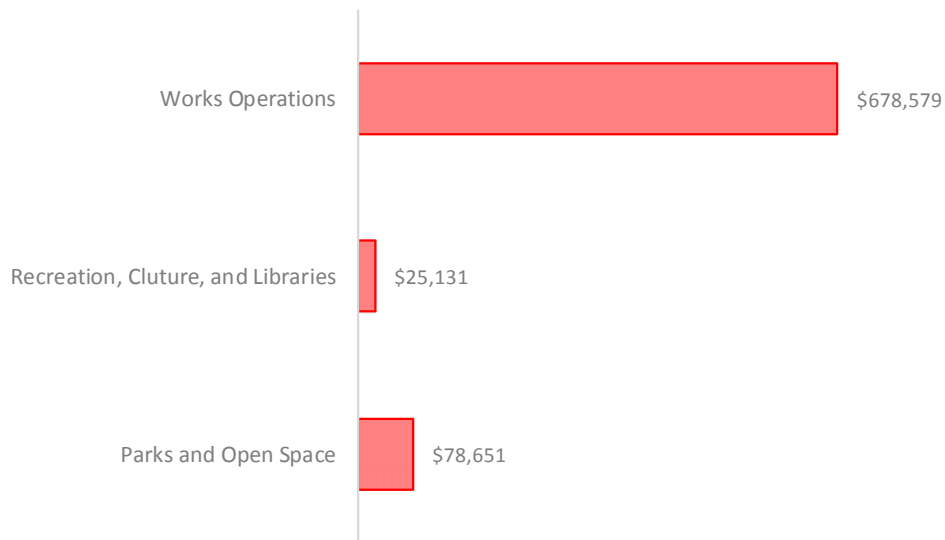


Figure 3.4-12. Ranked Value of Assets in “Poor” and “Very Poor” Condition for Fleet

Table 3.4-13 provides a summary of the data confidence for the condition of the Fleet assets. The transit assets condition is considered to be high due to regular inspections and updates of the condition ratings for the majority of assets

Table 3.4-13. Data Confidence in Fleet Asset Condition Data

Measure	Confidence Bars	Comments
Accuracy of Fleet condition data		Low – Data that is accurate to +/- 50% High – Data that is accurate to +/- 1%
Reliability of Fleet condition data		Low – Based only upon unconfirmed verbal reports or cursory inspections/analysis High – Sound textual records, procedures or analysis that has been properly document, and is recognized as the best method of assessment.

3.4.4 Summary Asset Condition

Drawing a conclusion about the condition of an asset based on useful life can lead to misinterpretation of the replacement time because of the complexity of asset deterioration and the correlation between asset age and asset condition. Furthermore, when drawing a conclusion of asset condition based on visual assessment, the degree to which they are objectively or subjectively rated also leads to misinterpretation of the replacement time. Future iterations of the SOIR will continue to incorporate the most up-to-date objective information available.

3.4.4.1 Benchmarking Oakville to CIRC

This section endeavours to make preliminary benchmarking comparisons of the physical condition of the Town’s assets relative to the asset classes included in the CIRC. The purpose of this is to put the Town’s infrastructure deficit into a national context and to determine whether any of the Town’s asset classes are outliers that may warrant special consideration. Please note that the Town is using the CIRC rating scale in in Table 3.4-1 to allow the Town’s asset portfolio to be described using this common approach. The specific rating scales for each asset type, described within the CIRC, are not being used.

Facilities

Figure 3.4-15 provides a comparison of the average physical condition of the Town’s facilities assets against the average physical condition in the “Recreation and Libraries” category of the 2016 CIRC.

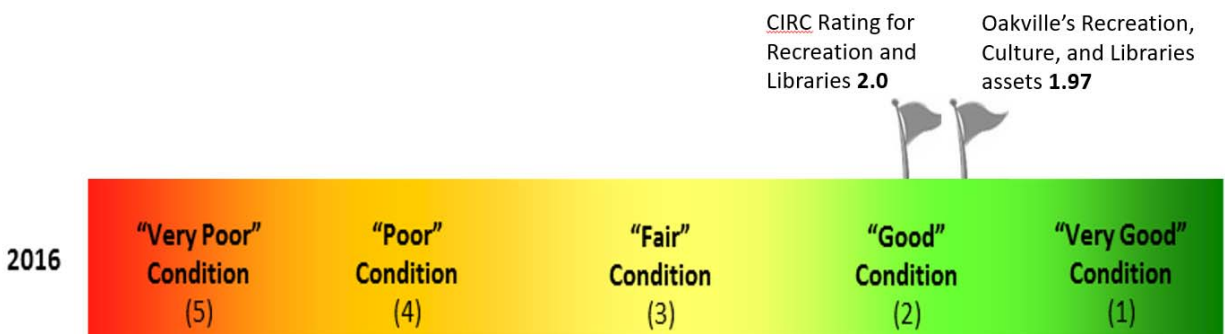


Figure 3.4-15. Benchmarking Oakville against the CIRC 2016 Results for Recreation, Culture, and Library Assets

From this comparison, the Town’s “Recreation Culture and Libraries” assets are in similar condition to the average of the municipalities that were included in the 2016 CIRC.

Transit

Figure 3.4-16 provides a preliminary benchmark comparison of the average physical condition of the Town's Transit assets to the Transit category of the 2016 CIRC.



Figure 3.4-16. Benchmarking Oakville against the CIRC 2016 Results for Sports and Recreation Assets

From this comparison, the Town's transit assets are in similar condition to the average of the municipalities that were included in the 2016 CIRC. It is worth noting that there are no statistical outliers suggesting that extraordinary measures are required.

Fleet

The CIRC does not evaluate fleet assets therefore no benchmarking was able to be established for the Fleet assets.