DRYDEN

City of Dryden
Facilities Master Plan

(Final Report)

EXPLORER SOLUTIONS

Quartek

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1. Project Overview

1.1 Context

The City of Dryden (the City) is expecting significant community growth in the near future. However, many of the City's buildings are aging, and its facilities may require renovation or relocation to support a larger population. To address this issue, the City contracted Explorer Solutions and Quartek Group Inc. (the Project Team) to update the City's Facilities Master Plan (FMP). To supplement the FMP, the Project Team also completed a needs assessment, which examined four of the City's facilities.

Based on the results of the needs assessment, the City should replace the following facilities:

- Public Works Facility
- Dryden & District Museum
- Visitor Information Centre

The Project Team also developed massing plans for buildings which will replace these existing facilities. If the City decides to replace the noted facilities, it can use these massing plans to guide its decision-making process.

1.2 Contents of this Document

This document contains the City's updated FMP, including the results of the needs assessment and the massing plans. It is intended to guide the City's long-term strategic planning and is designed to complement several of the City's recent projects and initiatives. Overall, this document will help the City ensure that its facilities, as well as the services those facilities offer, are efficient, accessible, sustainable, and safe. The City can also use this document to support any future requests for government funding, should it be required to cover construction costs.

Refer to Section 2 for a summary of the Project Team's methodology. (The methodology was approved by the City's Manager of Public Works on 22 June 2022.)

The preparation of this project was carried out with assistance from the Government of Canada and the Federation of Canadian Municipalities. Notwithstanding this support, the views expressed are the personal views of the authors, and the Federation of Canadian Municipalities and the Government of Canada accept no responsibility for them.

1.3 Facilities Surveyed

The Project Team examined the following municipal facilities and prepared building condition reports for each:

- Public Works Building
- Dryden Regional Airport – terminal and maintenance buildings
- City Hall and Dryden Public Library
- Dryden & District Museum
- Dryden Police Service building (former)
- Dryden Recreation Complex (Arena & Pool and Fitness Centre)
- Fire Hall #1
- Fire Hall #2

Construction of the City's Wastewater Treatment Plant was completed in 2014 and the City's Water Treatment Plant underwent a Facility Condition Assessment in 2018. As a result, a Standardized Maintenance Schedule for the Wastewater Treatment Plant is proposed within this FMP and a review of the proposed activities for completion, stemming from the 2018 Facility Condition Assessment of the City's Water Treatment Plant was undertaken and summarized within this FMP.

The Project Team also conducted a needs assessment for the following facilities:

- Public Works Building
- Dryden & District Museum
- Visitor Information Centre
- Dryden Regional Airport – terminal and maintenance buildings

(**Note:** The FMP project coincided with the City's efforts to identify hazardous building materials within the above facilities. Pinchin Ltd. conducted this assessment; the City will develop a proactive plan to eliminate such materials.)

These statements of requirements describe the condition and configuration of the existing components in the noted facilities. Each statement of requirement reflects the industry standard and the "best case scenario" regarding the condition and configuration of a given facility.

During the creation of this FMP, the Project Team used these statements of requirements to identify areas of improvement for each assessed building. If the City decides to replace the assessed buildings with new facilities, it can use the statements of requirements to guide the planning and pre-design process.

The Building Condition (Evaluation) studies provide a list of potential repair/replacement events based on assessment of component condition and/or on the age of each component. Each of the Building Condition studies are predicated on a collective estimate of repair/replacement events (such as those provided in each of the supporting Building Condition Studies). The assessment team utilized best practise methods to help predict a very high-level likelihood of a component failure to assist with building owner asset management but it is by no means intended to be a direct budgeting recommendation to allocate funds without weighing risk. Refer to Appendix 2 for a series of points to consider in establishing annual budgets.

The Project Team also created a statement of requirements for a facility to replace the Visitor Information Centre and the Dryden & District Museum. This combined facility (Museum/Visitor Centre) would serve as a cultural hub for visitors and residents alike and would allow the City to offer its programs and services more efficiently. If the City decides to proceed with the development of the Museum/Visitor Centre, the Project Team recommends using the Johnston's Park location.

1.4 Proposed Facilities

A massing plan provides the overall configuration and layout of a proposed building. If the building is constructed, the plan can be used to inform blueprints and cost estimates.

The Project Team created a massing plan for a new facility that will house the City of Dryden Public Works Department (Public Works). This proposed facility (Public Works Facility) would replace the current Public Works Building. The City can use this massing plan to determine which of the following options allows Public Works to meet its obligations in the most cost-effective and efficient manner. The three options are as follows:

- improving the existing Public Works Building (constructing new additions as needed)
- demolishing the Public Works Building and constructing the Public Works Facility on the existing site
- constructing the Public Works Facility on a new site

The Project Team also created a massing plan for a combined Museum/Visitor Centre.

2. Methodology

The Project Team used the following methodology to complete the FMP.

2.1 On-Site Inspections

The Project Team conducted a week-long site visit to assess all applicable municipal facilities in the City. (Key City staff members also participated in these inspections.) The Project Team thoroughly examined the following components in each building it assessed:

- building interior
- building exterior
- mechanical/electrical infrastructure
- overall building layout
- general movement of staff and visitors in the building
- other components as required

During the on-site inspections, the Project Team took photos to document its findings. The Project Team also interviewed staff members from assessed facilities and reviewed various technical drawings with them.

Additionally, the Project Team considered the outcomes of such recent studies as the City of Dryden Community Capacity Study (2022), the Dryden Regional Airport Strategic Plan (2021), the Water Treatment Plant Facility Condition Assessment (2018), among others.

The work scope of the Community Capacity Study involved a high-level examination of the state of the City's municipal facilities where the gaps and recommendations identified served as the foundational basis for this Facilities Master Plan.

2.2 Hazardous Building Materials Inspection

After the Project Team completed its on-site inspections, the consulting firm Pinchin Ltd. assessed various municipal facilities in the City for hazardous building materials. The following facilities underwent assessment:

- Public Works Building
- Dryden & District Museum
- Dryden Regional Airport – Terminal Building
- City Hall

- Dryden Public Library
- Dryden Recreation Complex - Arena
- Dryden Recreation Complex - Pool and Fitness Centre
- Fire Hall #1
- Fire Hall #2

The assessment's goals were as follows:

- Identify which municipal facilities contain hazardous building materials.
- Evaluate the condition of the facilities containing hazardous building materials.
- Develop proactive, detailed action plans (as required) that the City can use for the long-term management of its municipal facilities.

2.3 Needs Assessment

As the FMP project progressed, the Project Team prepared a repair and replace assessment. This assessment identified which actions the City must prioritize to navigate its budget planning process. The assessment included costing figures and rationale to support its conclusions.

While preparing the repair and replace assessment, the Project Team also developed a needs assessment. A needs assessment identifies a facility's requirements and compares them to its current functionality, capacity, and design.

The needs assessment focused on the following buildings:

- Public Works Department
- Visitor Information Centre
- Dryden & District Museum
- Dryden Regional Airport – Terminal Building

After drafting the needs assessment, the Project Team provided the document to the City's municipal staff to validate its completeness and accuracy.

Overall, the needs assessment allowed the Project Team to develop a statement of requirement (SOR) for the following three facilities:

- Public Works Building
- Dryden & District Museum
- Visitor Information Centre

An SOR provides a pre-design description of a given room (or component). This description includes:

- spatial requirements
- size
- location
- function
- equipment

Each SOR describes the condition and configuration of the relevant facility's components as they currently exist. An SOR compares these details to the industry standard and the "best case scenario".

To prepare these statements of requirements, the Project Team conducted extensive research to identify industry standards, industry trends, and best practices at similar facilities across Canada. The Project Team conducted several rounds of engagement with key City staff to validate the requirements and to understand any needs unique to the City.

During the creation of this FMP, the Project Team used these statements of requirements to identify areas of improvement for each assessed building.

If the City decides to replace the assessed buildings with new facilities, the statements of requirements can be used as guiding documents for pre-design and planning purposes. For this purpose, this document also contains a statement of requirements for the proposed Museum/Visitor Centre.

2.4 Massing Plans

After validating the SORs, the Project Team prepared a massing plan for the Public Works Department building and the combined facility proposed for the Visitor Information Centre and the Dryden & District Museum. As part of the massing plan for the proposed facility, the Project Team selected a preferred site for the building (170 Government Street) and prepared a high-level site plan as a complementary document.

3. Existing Facilities

3.1 Public Works Building

3.1.1 Overview of the Public Works Department

The City's Public Works Department is responsible for the maintenance, planning, design, and construction of the City's streets, sanitary sewers, water mains, storm sewers, and sidewalks. The Public Works Department also oversees the following:

- waste management
- parks
- city properties (such as parking lots)
- drainage
- bridges (both road and pedestrian)
- trails
- streetlights
- traffic lights
- citywide fleet
- store services
- winter maintenance

3.1.2 Site Locations

The City's Public Works Department's primary site is located at 159 King Street. The secondary site is located at 234 Wilde Street.

The secondary site is approximately 1.3 kilometres from the primary site. This location provides secured access to enclosed and open-air storage. Figure 1 shows an aerial view of the primary site, and Figure 2 shows an aerial view of the secondary location. Figure 3 illustrates the distance between both sites, indicating the most common travel route between the locations.

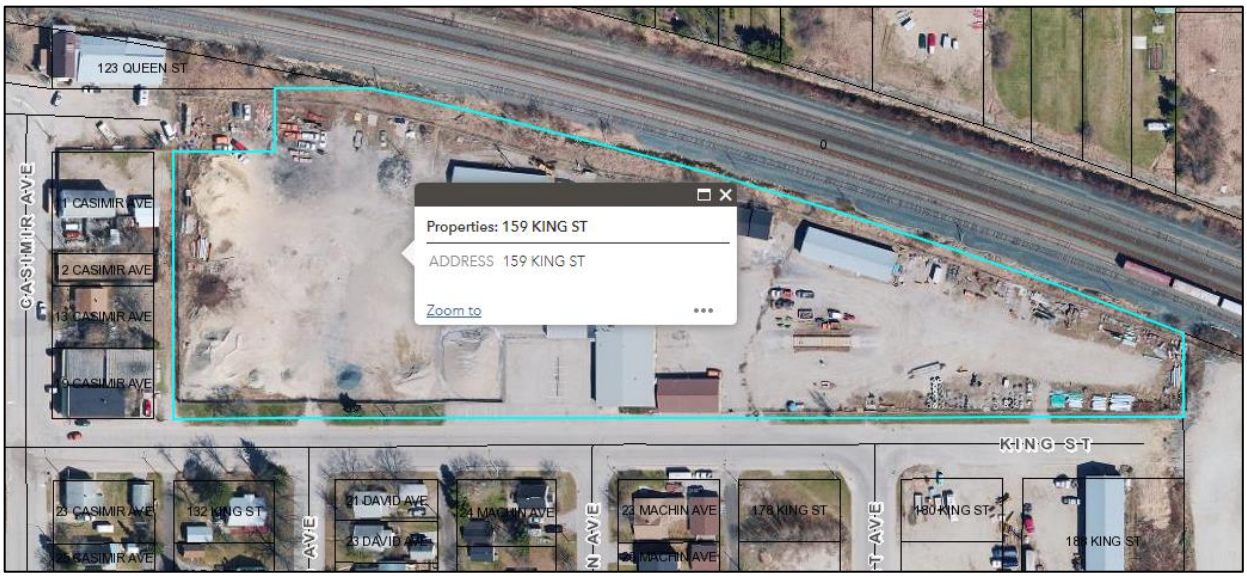

Figure 1. Aerial view of Public Works Primary Location (159 King Street).

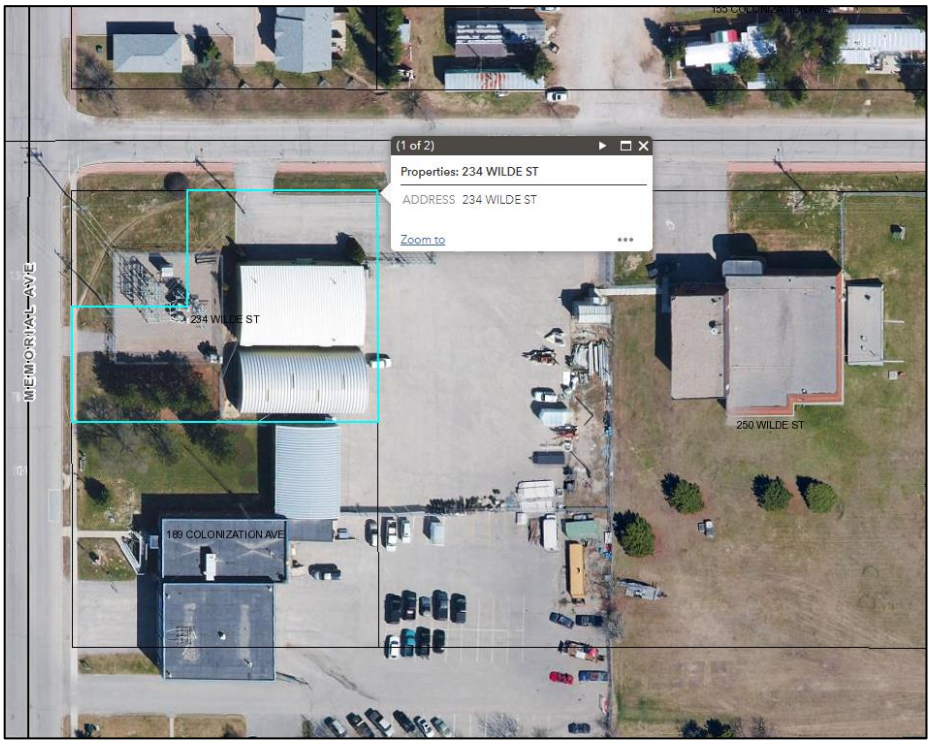

Figure 2. Aerial of Public Works Secondary Location (234 Wilde Street).

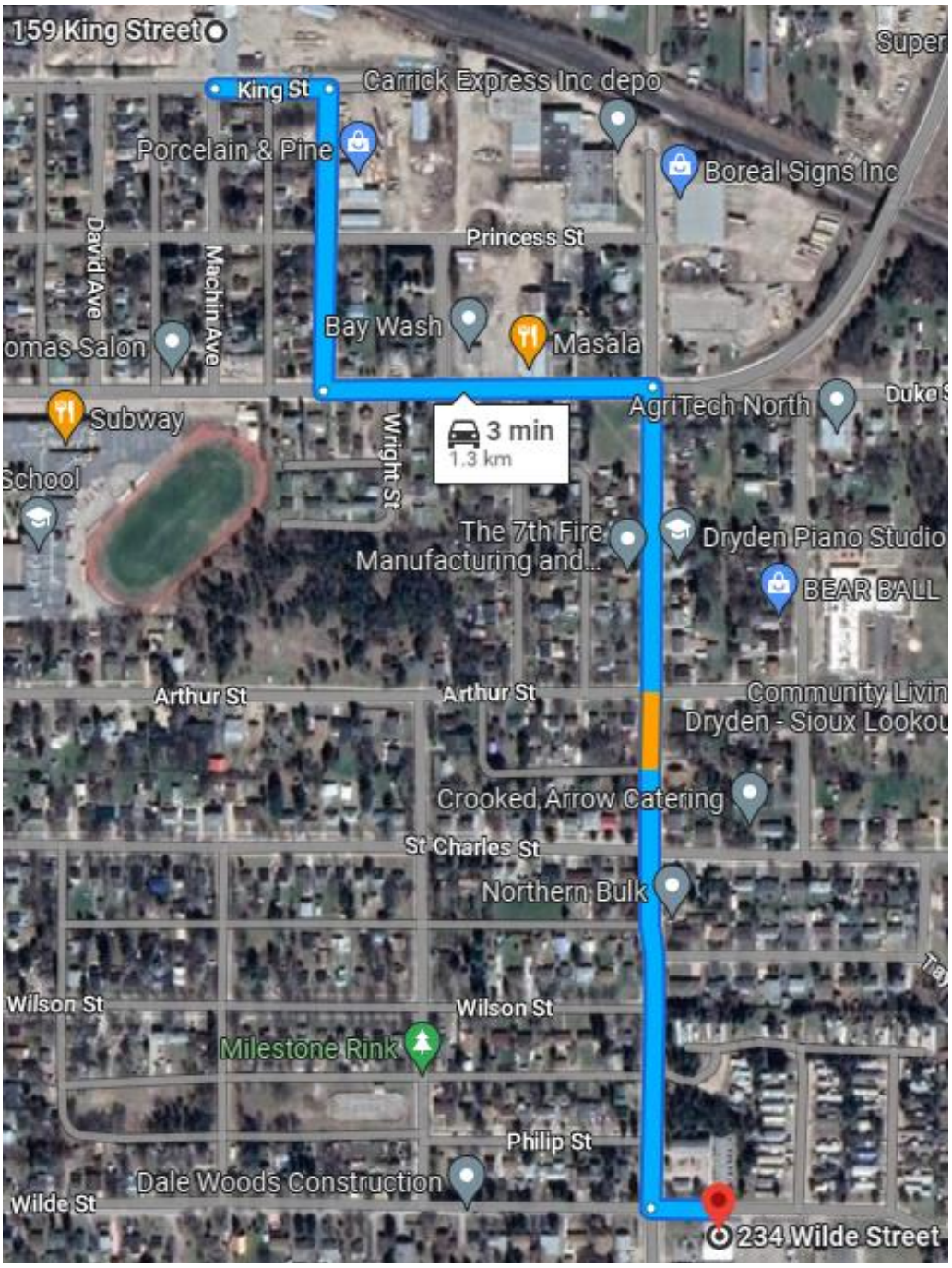

Figure 3. Distance between both Public Works Building sites.

3.1.3 Building Condition Summary

General Summary

The Public Works Building comprises its original stores building as well as two blocks of expansions. The newest addition to this building was completed in 1986. Each addition has used a pre-engineered structure and shell. There are inherent performance issues that arise when this type of structure is used as an office.

Overall, the Public Works Building is an older building that is in a poor state due to years of hard use and deterioration from the elements. That said, the City has invested in select repairs and replacements to maintain the building. Most recently, the City commissioned repairs to the building's HVAC equipment. Older repairs were made to the roof, which was patched with an asphalt membrane. However, due to the age of the building and how long ago some of the repairs took place, various parts of the exterior wall will need to be replaced over the next 20 years. Such work will have a considerable cost and cause significant disruptions. The mechanical and electrical systems in the Public Works Building also require major repairs and renovations. It is likely that the unheated buildings and various equipment also need to be repaired or replaced, but further study is required to determine when such events will be needed.

Structural Summary (Superstructure)

The foundation of the Public Works Building appears sound, and the overall frame structure appears solid, with no indication of movement or distortion. However, some areas of the superstructure present structural concerns regarding corrosion and the integrity of connections between base anchors. Also, several haunched beams and footings require remediation within the next five years. Other structural concerns include slab cracks in the service bays and the deterioration of the wash bay masonry surfaces.

Envelope Summary (Shell)

The inherent efficiencies of a pre-engineered building, with its long spans and rapid assembly, also come with certain limitations. Often, these limitations affect factors such as air infiltration and super-imposed load limitations/tolerances.

In the Public Works Building, it is difficult to maintain separation between the pressurized, climate-controlled zone used by staff and the areas where equipment is stored and serviced.

Due to the building's many additions over the years, the building has various envelope configurations. Compared to a modern facility, the building's insulation value is low. The main roof systems will require replacement to preserve/improve water protection. Most other materials, particularly the windows, require immediate replacement. The City should conduct a study to schedule repairs to the envelope and determine the budget needed.

Interior Summary

The interior surfaces in the Public Works Building have not undergone any recent renovations. As such, there are several items requiring immediate replacement. Some replacements have been deferred to the budgeting period six-to-ten years in the future. The City should conduct a study in advance of these replacements.

Mechanical Summary

The Public Works Building has many newly replaced furnaces and fan coil units, as well as new tube heaters in heavy equipment bays. However, there are areas where these units are reliant upon dated infrastructure for supply or distribution. This infrastructure, as well as certain fixtures in the building, will need replacement within the next 20 years.

Due to the overall age of the installation, various mechanical systems (such as piping, drains, or ducting) will reach the end of their expected lifespan within the next 20 years. These systems are likely to require partial or whole replacement.

Electrical Summary

Due to the concealment of most electrical wiring within the maintenance building, the Project Team could not fully determine the wiring age or its overall condition, although noted the following:

- Various panel boards are due for replacement within the next five-to-ten years.
- The emergency lighting batteries will require routine replacement.
- Due to the overall age of the system installation, various electrical systems are likely to require partial or whole replacement in the next 20 years. This should be reflected in the building’s budget.

Site Drainage

The building condition report does not identify nor cost-out a solution for the chronic overflow (flooding) from a backed-up catch basin near the receiving door of the stores building. The City should conduct a study to investigate possible solutions. This may mean raising the floor level of the stores building, raising the stores building itself, or significantly redesigning the storm drainage system in the area of King Street.

Summary of Estimated Costs Over Time

Table 1 summarizes the estimated costs required to maintain the Public Works building over the next 20 years.

Table 1. Public Works Building – estimated maintenance cost.

Area Requiring Investment	0-5 Year Cost	6-10 Year Cost	11-20 Year Cost
Substructure	$105,000	$0	$0
Shell	$82,500	$861,000	$158,720
Interiors	$113,480	$386,178	$26,880
Services	$35,000	$215,460	$49,000
Equipment & Furnishings	$0	$0	$0
Special Construction	$600,500	$0	$150,000
Building Siteworks	$3,000	$0	$0
Total	**$939,480**	**$1,462,638**	**$384,600**

3.1.4 Needs Assessment

The needs assessment conducted for the City's Public Works Facility was organized into sub-departments. By structuring the assessment in this way, the Project Team gained a more detailed understanding of the facility's waterworks, fleet, stores, and engineering/technology components. Although organized by sub-departments, the needs assessment also yielded comments regarding the Public Works Facility as a whole. While the needs assessment was intended to evaluate the facility alone, it also identified various constraints and obstacles hindering how the facility's staff operate within the building and move about the property. Table 2 presents the overall results of the needs assessment.

Table 2. Summary of Public Works needs assessment (non-department specific).

Area	Observations	Constraints	Recommendations
Offices	• The building has a busy work environment. Staff plan, problem-solve, and manage expected and unforeseen circumstances regularly. As a result, staff often work and communicate with one another in each other's offices. • Lead hands are constantly arriving and departing from the building. These staff members require continued easy access to the parking lot and compound areas. • The personnel who work in assigned offices report that the size of their offices are sufficient.	• Offices are connected within a single building. This layout makes it easy for dust and dirt to circulate throughout the building, which raises issues regarding cleanliness and air quality. • The limited space in the facility cannot accommodate staff growth. The limited space also affects equipment, shop floors, and related areas	• The City should install any additional air purification systems in areas where air quality continues to be an issue. • If the PWF were to be rebuilt, refer to section 3.1.7 for the recommended increase in room and building size requirements. In preparing the massing drawing for a plausible layout of a future facility (see Figure 10), an additional room, identified as an additional office was included in the conceptual design with the room measurements denoted within Table 40. While the SOR was prepared through consideration of the PWF's current office needs, consideration was also made to account for future growth and as such, the room could be designated an office or serve another purpose.

Area	Observations	Constraints	Recommendations
	• No unique observations were noted during this inspection.	• There is limited space to set up workstations in quieter areas.	• If the PWF were to be rebuilt, some workstations may need to be set up in areas that see low foot traffic. (This recommendation applies to the workstations where individual computer work is performed.) • Additional office space is required for external consultants or Public Works staff (who are reassigned to office duties resulting from a physical limitation).
	• No unique observations were noted during this inspection.	• There is limited space between offices and the crew room, which can lead to noise disruptions for those working in their offices.	• Additional sound proofing may be required for offices that are adjacent to crew room to minimize noise levels during staff breaks.
	• No unique observations were noted during this inspection.	• There is considerable walking distance required to access archives for blueprints and then finding adequate space to lay them out for review.	• If the PWF were to be rebuilt, the archives room should be in a centralized or easily accessible location with sufficient desk space for review of stored documents.
Employee Areas (Crew Room)	• As the department expands its workforce, the crew room may need to be resized appropriately.	• The crew room becomes easily crowded when multiple staff members enter the room to input their hours on the computer workstation	• Some extra computers and/or tablets onsite could be helpful to alleviate staff congestion when multiple staff are logging their hours.

Area	Observations	Constraints	Recommendations
Washrooms and Locker Rooms	• The existing shower facilities (in the womens locker room) are not utilized by female staff.	• There is not enough storage space in the women's locker room to accommodate their articles of clothing and the existing shower stall is even used as a storage option as a result.	• If the PWF were to be rebuilt, the women's locker facilities should be expanded to allow for additional storage to allow for an operational shower if/when required.
	• Waterworks staff use the shower facilities at the wastewater sites, which also have on-site laundry facilities.	• No constraints were noted during this inspection.	• The Project Team has no recommendations.
	• No unique observations were noted during this inspection.	• The men's washroom is often crowded. Toilets/wash stations are located in the middle of the locker room and staff often have lots of articles of clothing to handle which often end up lying around to dry.	• If the PWF were to be rebuilt, the men's locker room could be larger to avoid congestion during breaks or when all/many staff are onsite simultaneously. • The City could consider a locker room for personal clothing and a second set of lockers for work attire with shower facilities separating the two sets of lockers. This suggestion may be ideal if space allows. • If toilets were off to the side, it may allow for more room to change

Area	Observations	Constraints	Recommendations
	• No unique observations were noted during this inspection.	• There is not a well-ventilated area with a drying rack for boots and mitts in the men's locker room.	• A proper wall mounted 24+ pair boot and glove dryer is required to help prevent staff from having these items lying around the change room and other areas within the building. It will also ensure they are in optimum condition for the following days' work shift. • There may be a need to consider an enhanced exhaust system in the locker room to accelerate the drying process of work clothes (if they are split up from personal clothing lockers).
Overall Building	• Refer to section 3.1.5 for a list of technical observations.	• The building is not wheelchair accessible. • The path from the offices to the shop area is not user friendly. • The building is full of aging infrastructure. As a result, staff must spend time reacting to building emergencies (despite having contractors to address many of those issues). • Contractors who utilize the crew room or require access to the onsite washrooms, tend to enter through the rear of the building or via the fleet garage. There are instances where this can lead to occasional bottlenecks in high pedestrian traffic areas within the building.	• The City should consider an alternate site for the development for the construction of a more efficiently designed and laid out PWF if/when future services exceed the capacity of the current building. • If the PWF were to be rebuilt, the shop should be separated from the office area. • If the PWF were to be rebuilt, the washrooms should be in close proximity to the building's exterior doors to minimize the risk of any congestion when contractors are accessing the building's washroom facilities.

Area	Observations	Constraints	Recommendations
Staffing	• There are 42 FTEs, 5 seasonal, 6 students and 2 casual employees. • Included within the 42 employees, 12 and a half people work from other locations (such as water and sewage plants, city hall, etc.) • Maximum staff complement is required to address unexpected issues. • Record keeping is evolving as jobs are changing.	• The building is at/beyond capacity and is not able to easily accommodate FTE growth in the future.	• The Project Team recommends that the City plan for the development of a new PWF either on the existing site or at an alternative site.
Interior Storage	• There is a multitude of shelving units and filing cabinets placed along many of the hallway walls in the building to store historical documents, files and other project/industry related materials. Many of these files and documents are not stored securely.	• Some offices have multiple filing cabinets which are completely utilized and additional documents are stored on desks and other areas which can lead to delays in having to locate certain files, reports, etc.	• If the PWF were to be rebuilt, it is recommended that a dedicated room, library or a designated area be incorporated into the building design where documents can be stored, spread out and reviewed in a single location.
Exterior Storage	• Outside old oil storage is considered to be in a contained area.	• No constraints were noted during this inspection.	• The Project Team has no recommendations.
	• There is concern for contamination near the fuel tank and where salt and sand piles are located (pickled sand). • Salt shed is not in a good shape.	• No constraints were noted during this inspection.	• Proper salt and sand storage is required (to adhere with salt management plan for run-off controls) • Yard management and storage could utilize more covered space.

Area	Observations	Constraints	Recommendations
Garage and Vehicle Storage	• Two separate geographical locations were observed for the storage of the fleet.	• Fleet stored at the Wilde Street location must be brought to the primary facility for maintenance and upkeep. Staff time is lost due to having to move these vehicles from one site to another and then back again	• If the PWF building were to be rebuilt, it is recommended that adequate garage and vehicle storage space be accounted for so that all fleet can be stored at a single location to minimize staff time from moving fleet between their primary and secondary locations.
Public Parking	• The existing parking spaces on the property are reported to be sufficient during the winter season due to less frequent activity. • There is an accessible parking space out front of the PWF. • There are no dedicated visitor parking spots because the building is not open to the public, however, it is acknowledged that a visiting consultant may require a visitor parking spot.	• Allocated staff parking is too small causing some staff to park on the street. Street parking is limited to along King Street to the road shoulder near the PWF building - mostly during the summer season.	• If the PWF were to be rebuilt, it is recommended that sufficient parking be accounted for to accommodate the parking requirements of staff, contractors, consultants and others who frequent the building.
Compound Parking	• No private vehicles are permitted to be parked in the compound. • Fleet parking is not permitted near the sand/salt shed and drivers must always be mindful of providing ample room on the compound for trucks to move around	• There are wintertime concerns with rooftop ice buildup and the potential for ice sliding off the roof.	• If the PWF were to be rebuilt, a specialized roof top design will be required to minimize the risk of ice build-ups sliding off the roof, otherwise, in the interim, the City should consider a solution that minimizes the risk of snow and ice runoff from the building’s roof.

Area	Observations	Constraints	Recommendations
		• There is a limited number of and location of plugins on the compound. Special configuration in the covered building is required to maximize the space.	• If the PWF were to be rebuild, the new facility should allow for a sufficient number of plugins based on the fleet it has at the time along with consideration to accommodate additional fleet in the future.
General Grounds	• No unique observations were noted during this inspection.	• There is a pinch point at the back at the yard for larger vehicles to turn around (behind the weigh station). • Configuration of scales is an issue and not conducive of the location of the gate	• If the PWF were to be rebuilt, the correct placement of the weigh station (with sufficient turnaround space for larger vehicles and trucks) will be required.
		• At the end of PWF building, there is only room for two trucks to pass one another. As a result, drivers must move slowly and cautiously – especially if they are approaching from opposite directions. There is a mirror to spot-check, but it still remains a tight squeeze and a potential safety hazard – especially if there are staff walking near the area at the same time.	• If the PWF were to be rebuild, adequate space should be provided at any corner of the PWF which leads to a blind spot; has frequent movements of vehicles, and/or has large vehicles travelling in these areas. • The City may wish to investigate the benefits of installing additional mirrors to increase the viewing angle of vehicle drivers.
Equipment	• Wi-Fi access in the lunchroom is requested for staff to access emails, internet, etc. over lunch and breaks.	• There is no guest Wi-Fi within the PWF.	• The City should establish a guest Wi-Fi which staff can use to access their emails and the internet during staff breaks.

Area	Observations	Constraints	Recommendations
	• Seasonal employees can use the public computer in the gathering room - there is a table chair and computer.	• Some staff must walk long distances to access the multifunction printer / scanner / copy machine.	• If the PWF is rebuilt, the building layout should allow for a centralized multifunction printer to minimize staff from walking long distances (throughout the building) to access the unit. This would eliminate the department from having to purchase a second printer.
		• Staff report low lighting levels throughout the building, in offices and the crew room.	• The City should upgrade the existing lights throughout the building, offices and crew room.
		• The PA system does not currently reach the entire facility. This could pose an issue in an emergency situation.	• They City should invest in a PA system that reaches the entire facility. • In the interim, the City should verify the reach of its current PA system and determine which areas within the building are not properly serviced.

Table 3 summarizes the key takeaways more specifically associated with the Water Works department.

Table 3. Summary of Water Works department needs assessment.

Area	Observations	Constraints	Recommendations
Offices	• No unique observations were noted during this inspection.	• The interior workspace may not be set up in a way that maximizes the space. • Due to the area's room configuration, it is difficult to keep water and sewer-related equipment and supplies separate.	• If the PWF were to be rebuilt, it is recommended that Water Works room be split into two distinct rooms: a) Water Shop; and b) Sanitation Shop
Interior Storage	• Equipment is stored in the water works office. The office is double-door accessible and has enough space to move equipment in/out of the building. • Some items are stored at the Wilde Street facility. • A service trailer that contains tools and parts (required by water works staff) is brought to digs (the jobsite) as required. The trailer is part of Stores.	• Items are in multiple locations. Retrieving items can lead to delays.	• If the PWF were to be rebuilt, the City should consolidate all of their Water Works interior storage needs to a single area.
Exterior Storage	• Documentation that gives instructions for ideal or mandatory storage requirements of Water Works equipment and/or parts should be maintained and verified between seasons.	• Prolonged sun exposure is affecting the piping stored outside, as pipes deteriorate due to its exposure to UV light.	• Pipes, manholes, and other items should be covered, as they can become filled with water and crack in colder weather. • Piping should be stored out of sunlight.
Garage and Vehicle Storage	• Trucks can back up to the Water Works doors to load/unload any equipment as required.	• No constraints were noted during this inspection.	• The Project Team has no recommendations.

Area	Observations	Constraints	Recommendations
Equipment	• No separate rooms for contaminated or cleaned equipment.	• Limited workspace is causing staff to leave water and sanitation equipment in the same area, and in some cases on the same workstation. Therefore, there are concerns regarding contamination.	• If the PWF were to be rebuilt, it is recommended that Water Works room be split into two distinct rooms: a) Water Shop; and b) Sanitation Shop • There should be adequate space to allow for civilian and work clothing to be stored separately.

Table 4 summarizes the key takeaways more specifically associated with Fleet.

Table 4. Summary of Fleets needs assessment.

Area	Observations	Constraints	Recommendations
Offices	• The lead hand mechanic requires an office and workstation to make parts, complete calls, and perform other duties.	• It is difficult for the lead hand to monitor activity on the shop floor from the small non-windowed office in the fleet area.	• The City should install a window to allow for monitoring by the lead hand mechanic between the office and shop floor or should install a camera monitoring system. • If the PWF were to be rebuilt, the City should ensure that the lead hand mechanic's office allows for ease of monitoring the shop floor as required.
Overall Building	• There are nine bays for all fleet repair and maintenance. Currently, one full-time mechanic uses this space (in addition to	• Due to the number of vehicles stored in the service bays, a bottleneck scenario is often experienced during the winter months. This issue makes it difficult to	• If the PWF were to be rebuilt, the City should consider a heated equipment building (separate from the shop) with an aisle between the service bays would

Area	Observations	Constraints	Recommendations
	operators conducting minor maintenance on other equipment). • Each drain goes into one system supported by two grease traps behind the building. Some pre-treatment is applied before going into the sanitary system. There are no grease traps; all drains have separators. • There are lines in a few stalls tied into the air compressor for tires and clean-up efforts. • One garage door is taller to accommodate Vactor trucks and fire trucks. • The wash bay could be used for cleaning most items, including the tandem and sweeper (but not the grader).	move around the fleet when performing maintenance work.	create a larger and more efficient working environment when personnel are servicing the fleet. • If the PWF were to be rebuilt, three drive-throughs are needed. Each two-door drive-through should have two stalls (one for vehicles/trucks and one for large equipment). This setup would allow six stalls for the maintenance work of vehicles and equipment. Two stalls should have vehicle hoists, and one should have an underground pit.
	• There is no treatment to protect the walls in the wash bay.	• No constraints were noted during this inspection.	• The City should invest in a treatment system that provides the required wall protection within the wash bay.
	• No unique observations were noted during this inspection.	• There is currently no shielded welding area on the shop floor.	• The City should designate a shielded welding area on the existing shop floor.
	• Due to the fact that the shop floor is sloped, it is difficult to move the primary toolbox.	• Staff must either carry the tools they think they'll need or make multiple trips to the primary toolbox for the required tools.	• If the PWF were to be rebuilt, the reconfiguration of the shop floor layout is required to ensure that the placement of

Area	Observations	Constraints	Recommendations
		• The toolbox is not close to the grader.	the primary toolbox is in the optimum location for its use.
	• Storm sewer on the street (right in front of the building) can't handle the volume of water runoff.	• Water backs up onto the Public Works property during heavy rainfalls and enters the building from the shop floor.	• The City should conduct a study to investigate possible solutions necessary to significantly redesign the storm drainage system in the area of King Street.
Interior Storage	• It was reported that fleet mechanics have adequate tool storage space. • Minor maintenance and repair work requires tools; however, it was observed that tools are not always returned to their correct place in the large shop. With multiple workbenches, it was understood that tools are commonly shared, and some specialty tools are available in stores.	• With no tool storage management practices in place, non-mechanic staff who require access to various tools, experience difficulty in accessing the specific tools they require at any given time.	• If the PWF were to be rebuilt, additional tool storage should be accounted for. • The City should seek improvement in its tool storage management practices.
Garage and Vehicle Storage	• The big snowblower, blades, and sander are stored at the unheated location on Wilde Street. • The sweeper and other vehicles used during the summer months are parked outside.	• No constraints were noted during this inspection.	• If the PWF were to be rebuilt, additional interior space should be considered to accommodate these attachments and vehicles to prolong their life cycles.
	• The Vactor truck does not have an option for covered parking on the compound.	• No constraints were noted during this inspection.	• The Vactor truck should be stored under cover.

Area	Observations	Constraints	Recommendations
Compound Parking	• There is the capacity to handle an increased fleet, as telephone and police vehicles are no longer stored at this location.	• No constraints were noted during this inspection.	• The garbage truck should have a dedicated parking space.
	• No unique observations were noted during this inspection.	• Vehicles parked on the compound must travel around the entire building to exit the property.	• If the PWF were to be rebuilt, fleet parking should be positioned near the property's entrance/exit.

Table 5 summarizes the key takeaways more specifically associated with stores.

Table 5. Summary of Stores needs assessment.

Area	Observations	Constraints	Recommendations
Offices	• No unique observations were noted during this inspection.	• The Storekeeper's office is raised and is accessible by a single step as the Stores main area is often subject to flooding during peak rain falls.	• The Storekeeper requires an accessible office for people entering and exiting the office.
Overall Building	• The layout of Stores allows the Storekeeper to speak with staff before accessing materials, items, and equipment. • Stores is furthest away from the washrooms and crew room and is the department that frequently works with front desk staff.	• There are leakage and drainage problems where Stores is connected to the primary building. As a result, on-site staff must address immediate visible water issues as they arise, which prevents the staff members from performing their core duties.	• To address the issue of the slope to the drainage grate by stores, this part of the existing building complex should be replaced and the floor datum line be elevated to eliminate drainage concerns and to reduce the net levels of the building for better accessibility. • There is a need to minimize steps in areas where equipment, product and parts are entering/departing Stores. • All areas within the stores should be on the same level
Interior Storage	• There is a separate fobbed access room for mechanics which houses spare vehicle parts. Mechanics are to report in if accessing Stores.	• Stores is running out of interior storage space, however, many items in storage are rarely utilized. • Due to more frequent supply chain shortages, additional quantities are being ordered to have onsite for emergency situations.	• If the PWF were to be rebuilt, the City should allocate ample room to ensure that there is sufficient space to accommodate the interior storage needs for stores.

Area	Observations	Constraints	Recommendations
	• No unique observations were noted during this inspection.	• Should a decision be made to pour a new floor to eliminate the rainfall/flooding issue, depending on the increase in height of the new floor, this will have a negative impact on the overall height available for interior storage.	• Given that the existing ceiling measures 12 ft. (3.7 m.) and the shelving system is 7 ft. (2.1 m.), depending on the increase in height of the new poured floor, the lighting system may have to be retrofitted in order to accommodate items stored on the top shelf.
Exterior Storage	• Fuel tanks, scales and some areas of the compound can be seen from the Stores' windows, however the office windows are far from those locations.	• Stores is unable to monitor any of the materials being picked through its current office window configuration. • The laydown area (within the compound) is visible from Stores, but the bulk storage area cannot be seen from Stores. • The sand pile is large and is kept close to the building based on its frequent usage. It does infringe on some parking areas. • Special equipment is brought in for a week (sometimes longer) to prepare sand area and causes disruption for existing fleet. Current location is not ideal. • Currently, surveillance cameras are affixed to the building, entrances and near gated areas. There is the potential to expand the camera system, but existing equipment is attached to the building versus being better positioned within the yard.	• If the PWF were to be rebuilt, the position of the fuel tanks, scales and other key areas must be easily accessible by the Storekeeper – both direct line of sight and better configuration of surveillance cameras within the yard.

Area	Observations	Constraints	Recommendations
		• Their orientation of the weigh scales are not in the most ideal location (bad angle to access for larger vehicles). • Stores cannot see all items on the property and pay attention to what's being used and who is taking what (and how).	
Garage and Vehicle Storage	• Stores does not require a regular vehicle, rather, shared access to a vehicle	• No constraints were noted during this inspection.	• The Project Team has no recommendations.
	• No unique observations were noted during this inspection.	• Stores is located immediately on the compound side of the gate. It is possible for staff to block the entrance if stopped and wanting to quickly pick up or drop off items.	• The City should place no stopping signs in high traffic areas and should the PWF be rebuilt, the City should construct a designated short-term stopping area to better accommodate those who require temporary access to Stores.
	• No unique observations were noted during this inspection.	• Bigger trucks often drop off supplies and where they temporarily park is likely to cause issue with the general flow of fleet past Stores. • It doesn’t take a lot of vehicles to create congestion around the Stores’ area.	• If the PWF were to be rebuilt, special consideration should be made to the types of vehicles (and their movements) in proximity to Stores.

Table 6 summarizes the key takeaways more specifically associated with the Engineering/Technology.

Table 6. Summary of engineering/technology needs assessment.

Area	Observations	Constraints	Recommendations
Offices	• This office is close to the fleet vehicle parking area which is convenient for staff who transfer heavy equipment. • This staff person deals primarily with consultants, contractors, and managers and is the position who is most likely to be called to the front counter. • Locating, survey, and metal detecting equipment is kept in this office.	• No constraints were noted during this inspection.	• If the PWF is rebuilt, either an appropriately-sized office (capable of storing locating, survey and metal detecting equipment) must be designed or a storage area that is in proximity to the office and the location of the parking should be configured.
	• No unique observations were noted during this inspection.	• The office is near the employee area (crew room), which results in excessive noise levels and unnecessary disruptions to the individual working in this office.	• If the PWF were to be rebuilt, this office should be located: in a quieter location within the building; in proximity to a vehicle; close to the archive room, the library and the senior management team.
Interior Storage	• No unique observations were noted during this inspection.	• There currently is no mud room and debris is being tracked into and throughout the building.	• If the PWF were to be rebuilt, a mud room should be installed to limit debris tracked though the building. Additionally, the mud room could be used to store equipment.
	• No unique observations were noted during this inspection.	• The on-site staff person routinely reviews drawings but must walk to different parts of the building to access relevant materials.	• All archived plans/drawings should be digitized and stored in a shared records management system. Each department in the PWF should have its own folder within the records management system.

Area	Observations	Constraints	Recommendations
		• Documents are not stored safely. The current storage is not fire-resistant, nor is it digitized.	Eventually, a fully digitized records management system should be considered. • A fire-resistant storage solution should be considered for sensitive, brittle documents, drawings, and files.
Compound Parking	• There is an assigned parking spot, and the staff vehicle is easily accessible.	• No constraints were noted during this inspection.	• The Project Team has no recommendations.
Equipment	• A budget has been submitted for a large-format printer/scanner for oversized documents that all staff can access (such as in the archives room or library) and use.	• No constraints were noted during this inspection.	• The Project Team has no recommendations.

3.1.5 Further Technical Observations

The following represent a series of technical observations observed during the site engineering site inspection.

HVAC

- Conditional to the mechanical design of HVAC, the term HVAC shall refer to comfort control heating and cooling with ventilation requirements per OBC as needed. Zoning of HVAC would be determined by the mechanical engineer in consultation with the City. Conditional to the mechanical design of Heating, the term Heating shall refer radiant (tube) heaters for large equipment storage bays and Services bays unless specifically noted in the room otherwise. Ventilation for exhaust shall comply with OBC requirements in the wash bays.
- There are temperature fluctuations throughout the building.
- Controls and furnaces appear pieced together.
- The garage is heated with radiant heating.
- A number of offices use electric heaters in the winter. Baseboard heating is used in the front offices.
- There is no heating in the men’s washroom.
- Unit heaters and tube heaters are placed throughout the building.
- Two rooftop condensing systems feed into the air handling systems.
- There are various smells travelling through the ventilation system. The odours are especially noticeable in the front office area

Roof System

- Staff have reported multiple leaks in the roof system. The leaks have affected the electrical room, the stores, the offices near the kitchen, the garage, and other areas.
- The PWF building has a combination of roof types. There is metal over the newest part of the roof and there is low-rolled roofing for the rest of the roof.
- The roof is sloped and there are no flat areas.
- Eroded insulation has been observed within the attic/mezzanine area of the workshop.

Other

- Building envelope – storage/stores is wood frame, comprised of a concrete skirting and then wood frame.
- There is insultation in the block walls.
- There is one girder in very poor condition that touches the ground and is showing evidence of rusting out - mostly at the bottom. May have been fixed, but another has been identified by the Manager. The girt is right on the floor – letting in moisture.
- Bolts on the concrete plate are exposed.
- Plumbing may be copper or cast iron.
- Electrical – staff haven't seen any aluminum wiring.
- There are multiple panels throughout the building that are single metered.
- Slope to drainage grates is an issue as the stores’ receiving door is below grade, the catch basin is located just outside the door, coupled with inadequate storm sewer drainage at the street during heavy rainfall

3.1.6 Statement of Requirements – Schedule of Rooms

Each of the tables in this section represents a room or component of the Public Works Building.

(**Note:** Unless otherwise stated, all ceilings are 8’ in height with a Suspended Acoustic Tile (SAT) finish. Storage rooms, utility rooms, and other specialty rooms may require a drywall ceiling finish to comply with the Ontario Building Code. All concrete floors in the shop/garage area must be salt (calcium chloride) resistant.)

Table 7. Public Works Building: summary of vestibule.

Category	Information
Identified User(s)	Staff and visitors
Function	• A small room leading into the reception area • Important division between the inside and outside • Prevents snow, wind, rain, and cold temperatures from coming in with visitors • Wheelchair accessible
Existing Room Size	26.6 sq. ft.
Required Room Size	202.1 sq. ft. across multiple vestibules: • Vestibule 1 (near reception): 82.2 sq. ft. • Vestibule 2 (near men's locker room): 60.6 sq. ft. • Vestibule 3 (near shop): 59.3 sq. ft.
Flooring	Commercial tile
Ceiling	8' ceiling height with SAT finish
Lighting	LED lighting
Power	1 outlet
Mechanical	• Connect to HVAC (System A) • Industrial air curtain
IT/Technology	• Security camera • Automatic doors • Telephone to grant access to the building, reception, or a specific individual.
Placement	Needs to be visible from the reception area
Notes	Minor vestibules are not currently wheelchair-friendly due to door configuration.

Table 8. Public Works Building: summary of reception.

Category	Information
Identified User(s)	Staff and visitors
Function	• Provides primary access into and out of the building • First point of contact for all deliveries unless advised to drop off at stores • Check-in area for all guests • Front reception staff are situated here
Existing Room Size	304.7 sq. ft.
Required Room Size	503.3 sq. ft. Option included for an additional waiting room (212.4 sq. ft.)
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	4 outlets.
Mechanical	Connect to HVAC (System A)
Millwork	• Require customer-facing (wheelchair accessible) counter (possibly with COVID protection screen) • May require counter gate to grant access into the building
IT/Technology	• 1 ethernet port per cubicle/workstation • Additional ethernet required if printer is located this area
Placement	Needs to be near multifunction printer / scanner / copy machine and adjacent to vestibule
Notes	• Ensure ample space at entrance to accommodate the number of deliveries and people entering/exiting throughout the day • Required access to building PA system

Table 9. Public Works Building: summary of office #1.

Category	Information
Identified User(s)	Manager, Public Works
Function	Provides dedicated office space for the manager to conduct their daily office duties, store files, meet with staff, contractors, etc.
Furniture	• 1 office desk • 2 filing cabinets • 1 employee chair, 2 visitor chairs
Existing Room Size	154.5 sq. ft.
Required Room Size	160.4 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	4 outlets
Mechanical	Connect to HVAC (System A)
IT/Technology	1 ethernet port
Placement	• Not a priority to be adjacent to other managers • This manager frequently visits reception/finance area • Near printer/scanner • Not required to be close to crew (no direct oversight of staff)
Notes	This manager spends more time in other staff offices than meeting people in their own.

Table 10. Public Works Building: summary of office #2.

Category	Information
Identified User(s)	Manager, Operations
Function	Provides dedicated office space for the manager to conduct their daily office duties, store files, meet with staff, contractors, etc.
Furniture	• 1 office desk • 1 filing cabinet • 1 employee chair, 2 visitor chairs
Existing Room Size	160.6 sq. ft.
Required Room Size	159.9 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	4 outlets
Mechanical	Connect to HVAC (System A)
IT/Technology	1 ethernet port
Placement	Near the crew room and multifunction printer / scanner / copy machine
Notes	• If this office is near the crew room, additional sound proofing may be required to minimize noise levels during staff breaks. • This is one of the busiest positions. This manager is often coming in and going out of the building.

Table 11. Public Works Building: summary of office #3.

Category	Information
Identified User(s)	Operations Lead Hand, with occasional use by Parks Lead Hand and staff who are responsible for traffic signs (when required)
Function	Provides dedicated office space for the employee to conduct their daily office duties, store files, meet with staff, contractors, etc.
Furniture	• 1 office desk • 2 filing cabinets • 1 employee chair, 2 visitor chairs
Existing Room Size	155.6 sq. ft.
Required Room Size	175.0 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	4 outlets
Mechanical	Connect to HVAC (System A)
IT/Technology	1 ethernet port
Placement	• The Operations Lead Hand directly supervises the crew and should be near the crew room. • Proximity to Operations Manager is more important than proximity to the Manager of Public Works.
Notes	• If the office was slightly larger, it would be better suited as a shared office.

Table 12. Public Works Building: summary of office #4.

Category	Information
Identified User(s)	Manager, Engineer/Technology
Function	Provides dedicated office space for the manager to conduct their daily office duties, store files, meet with staff, contractors, etc.
Furniture	• 1 office desk • 1 filing cabinet • 1 employee chair, 1 visitor chair
Existing Room Size	158.2 sq. ft.
Required Room Size	179.5 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	4 outlets
Mechanical	Connect to HVAC (System A)
IT/Technology	1 ethernet port
Placement	• Near archives, printer/scanner, and large format printer • Not required to be close to crew (the manager has no direct oversight of general staff) • Ideally located near the manager’s assigned vehicle (manager is frequently on the road and moving equipment in/out of the building)
Notes	If this office is near the crew room, additional sound proofing may be required to minimize noise levels during staff breaks.

Table 13. Public Works Building: summary of office #5.

Category	Information
Identified User(s)	Manager, Water Works
Function	Provides dedicated office space for the manager to conduct their daily office duties, store files, meet with staff, contractors, etc.
Furniture	• 1 office desk • 1 filing cabinet • 1 employee chair, 1 visitor chair
Existing Room Size	173 sq. ft.
Required Room Size	170.5 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	4 outlets
Mechanical	Connect to HVAC (System A)
IT/Technology	1 ethernet port
Placement	• Near Water Works area and the multifunction printer / scanner / copy machine • Water Works personnel do not typically use the crew room (other employees work at the plants)
Notes	If this office is near the crew room, additional sound proofing may be required to minimize noise levels during staff breaks.

Table 14. Public Works Building: summary of office #6.

Category	Information
Identified User(s)	Fleet Lead Hand and occasional use by mechanic
Function	Provides dedicated office space for the employee to conduct their daily office duties, store files, meet with staff, contractors, etc.
Furniture	• 1 office desk • 1 filing cabinet • 1 employee chair, 1 visitor chair
Existing Room Size	48.4 sq. ft.
Required Room Size	112.7 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	4 outlets
Mechanical	Connect to HVAC (System A)
IT/Technology	1 ethernet port
Placement	Near shop floor, crew room, and multifunction printer / scanner / copy machine
Notes	• If this office is near the crew room, additional sound proofing may be required to minimize noise levels during staff breaks. • The Fleet Lead Hand requires a quiet place for ordering parts, etc. • The office does not require an exterior window. • Ideally, the office would have a window to oversee the shop floor (though this is not a requirement). • Currently, vehicle and equipment manuals are currently stored in the library. However, this would require an additional shelving unit. • This office is shared with the mechanic, but an available workstation is located outside this office on the shop floor.

Table 15. Public Works Building: summary of office #7.

Category	Information
Identified User(s)	Staff completing engineering and drafting work
Function	A shared office for technical and engineering staff to work on engineering-related projects/matters when required.
Furniture	• 1 office desk • 1 drafting table • 1 employee chair, 4 additional chairs
Equipment	This is the best room for a large format printer/scanner
Existing Room Size	285.3 sq. ft.
Required Room Size	264.1 sq. ft
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	4 outlets
Mechanical	Connect to HVAC (System A)
IT/Technology	1 ethernet port
Placement	• Adjacent to library (with separate door access) and near archives. • Consider a placement off hallway via double doors • Consider a placement near Engineering Technologist
Notes	• If this office is near the crew room, additional sound proofing may be required to minimize noise levels during staff breaks. • Some privacy required but the room should feel inviting. • A place to lay out plans would be beneficial.

Table 16. Public Works Building: summary of office #8.

Category	Information
Identified User(s)	Asset and Facilities Manager
Function	Provides dedicated office space for the manager to conduct their daily office duties, store files, meet with staff, contractors, etc.
Furniture	• 1 office desk • 1 filing cabinets • 1 employee chair, 1 visitor chairs
Existing Room Size	175.0 sq. ft.
Required Room Size	179.5 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	4 outlets
Mechanical	Connect to HVAC (System A)
IT/Technology	1 ethernet port
Placement	Easy access to plans, other managers’ offices, printer/copier room
Notes	If this office is near the crew room, additional sound proofing may be required to minimize noise levels during staff breaks.

Table 17. Public Works Building: summary of file storage/archive.

Category	Information
Identified User(s)	All managers, Engineering Technologist, Fleet Lead Hand, and administrative staff
Function	Safely and securely stores a variety of documents
Furniture	• Lateral filing cabinets • Large format drawing cabinet • Hanging drawing frame • Shelving units for flat-laying documents • Shelving units for rolled documents • Large table to examine documents
Existing Room Size	481.0 sq. ft.
Required Room Size	473.6 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	4 outlets
Mechanical	• Connect to HVAC (System A) • Must be independently temperature/humidity-controlled
IT/Technology	1 ethernet port
Placement	• Central to offices and printing/photocopying • Adjacent to engineering, printing, and drafting room
Notes	All physical archives should be digitized. The City will need to determine if archived documents should be relocated to a central location for proper long-term storage.

Table 18. Public Works Building: summary of copy/printing station.

Category	Information
Identified Use	Copy/printing station
Function	• Central room or open area containing copiers and/or printers • Must have enough standing room/clearance in front of equipment
Furniture	• Lateral filing cabinets • Hanging drawers • Working table available if required
Equipment	• Multifunction printer / scanner / copy machine • Large format printer • Paper shredder • Paper storage
Existing Room Size	49.9 sq. ft.
Required Room Size	26.4 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	4 outlets
Mechanical	Connect to HVAC (System A)
Millwork	Shelving for blank paper, binding supplies, ink cartridges, etc.
IT/Technology	3 ethernet ports
Placement	Central room or open area (TBD)
Notes	This room could be open concept. This would make the equipment easier to access.

Table 19. Public Works Building: summary of IT room.

Category	Information
Identified Use	IT equipment (server) room
Function	Central data communication hub for the building in a secure room or cage conduit or tray systems connecting.
Furniture	• Server rack • UPS system cable management
Existing Room Size	14.3 sq. ft.
Required Room Size	40.8 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	6 outlets
Mechanical	Connect to HVAC (System A)
IT/Technology	Termination for Bell, cable, etc.
Placement	To be placed in a low traffic and secured within the PWF, not close to the shop areas.
Notes	Modems, transfer switches, and other equipment are located in this room. The City’s IT Department brings their own laptop to hook up to the server, instead of having a dedicated computer onsite.

Table 20. Public Works Building: summary of men's locker room.

Category	Information
Identified User(s)	Staff (men)
Function	Provides washroom facilities, changing area, and personal storage.
Furniture	Lockers, bench seating
Existing Room Size	379.5 sq. ft.
Required Room Size	624.3 sq. ft.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Plumbing	2 elongated toilets, 2 urinals, 2 wall-mounted hand sinks, 1 shower
Lighting	LED lighting
Power	GFCI receptacles (as per Ontario Building Code)
Mechanical	• Connect to HVAC (System A) • Exhaust fan
Washroom Accessories	• Washroom partitions • Toilet paper and paper towel dispensers • Soap dispensers and hand sanitizer • Hand dryer • Mirrors, grab bars, door hook, wall-mounted boot/glove drying rack
Placement	Close to staff entrance, to minimize dirt and water tracked in from job sites.
Notes	• This washroom is often congested. Toilets and wash stations are located in the middle of the locker room. If the toilets were off to the side, it would allow staff more room to change. • Staff members leave many articles of clothing lying around to dry. The City should consider having one locker room for personal clothing and another locker room for work attire. These locker rooms would be connected via shower facilities. The City should consider an enhanced exhaust system in the work attire locker room for faster drying. • Some employees come dressed ready to work but many still need locker space for different boot types, coveralls, and winter clothing. • The shower stall is used properly. It is not being used as storage.
Future Growth Requirements	Additional employee lockers and an additional boot/mitt dryer will be required if staff numbers increase.

Table 21. Public Works Building: summary of women's locker room.

Category	Information
Identified User(s)	Staff (women)
Function	Provides washroom facilities, changing area, and personal storage.
Furniture	Lockers, bench seating
Existing Room Size	161.4 sq. ft.
Required Room Size	296.3 sq. ft.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Plumbing	2 elongated toilets, 2 wall-mounted hand sinks, 1 shower
Lighting	LED lighting
Power	GFCI receptacles (as per Ontario Building Code)
Mechanical	• Connect to HVAC (System A) • Exhaust fan
Washroom Accessories	• Washroom partitions • Toilet paper and paper towel dispensers • Soap dispensers and hand sanitizer • Hand dryer • Mirrors, grab bars, door hook, wall-mounted boot/glove drying rack • Sanitary napkin containers
Placement	Close to staff entrance, to minimize dirt and water tracked in from job sites.
Notes	• Currently, the single shower stall is often used as storage. • Sufficient storage options must exist within the women’s washroom. • There are too few lockers for the number of women employed.
Future Growth Requirements	Additional employee lockers and additional boot/mitt dryer will be required if staff numbers increase.

Table 22. Public Works Building: summary of universal washroom.

Category	Information
Identified User(s)	Primarily for staff situated in the reception area, other office staff, and visitors
Function	Provides a toilet and washing station.
Existing Room Size	25.0 sq. ft.
Required Room Size	74.0 sq. ft.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Plumbing	1 elongated toilet and 1 wall-mounted hand sink
Lighting	LED lighting
Power	Single GFCI receptacle
Mechanical	• Connect to HVAC (System A) • Exhaust fan
Washroom Accessories	• Washroom partitions • Toilet paper and paper towel dispensers • Hand dryer • Grab bars • Mirrors • Door hook • Soap dispensers • Hand sanitizer
Placement	Close to or centralized to office staff
Notes	• Should be wheelchair accessible. • AODA now requires in public buildings that there must be one universal washroom for every three floors and one universal washroom in all single-storey buildings.

Table 23. Public Works Building: summary of crew room.

Category	Information
Identified User(s)	All staff
Function	• A location in which employees can take their scheduled breaks or record their daily hours • Also acts as a large meeting space and accommodates meetings with visitors and contractors
Furniture	• 8 tables, 20 chairs, 1 desk for computer workstation • Shelving for MSDS, SOPs, policies, manuals. • Multiple bulletin boards for safety, notices, union. • Extra table for iPads and charging.
Equipment	• Microwave, refrigerator, and toaster • Large TV screen or monitor for wall (showing schedules, training, or special instructions)
Existing Room Size	985.9 sq. ft. (combined crew room and kitchenette)
Required Room Size	1,004.3 (combined crew room and kitchenette) • 887.5 sq. ft. (crew room) • 116.8 sq. ft. (kitchenette)
Flooring	Commercial tile or sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Plumbing	Sink, dishwasher, and drinking fountain
Lighting	LED lighting
Power	• Outlets for dishwasher, refrigerator, including hook-ups • GFCI receptacles (as per Ontario Building Code)
Mechanical	• Connect to HVAC (System A) • Exhaust fan
Millwork	Wall-mounted cupboard
IT/Technology	• Wireless access to network for iPads • 2 ethernet ports
Placement	• Close to compound parking (to minimize dirt tracked in during breaks) • Single doorway to outside
Notes	This room is crowded during events/meetings. Standing room is required.
Future Growth Requirements	As the department expands its workforce, the crew room may need to be resized appropriately.

Table 24. Public Works Building: summary of shop #1.

Category	Information
Identified Use	Water Works – Water Shop
Function	Provides a dedicated clean workshop area for Water Work staff and equipment (**Note:** This room is currently shared with Shop #2 – see next table.)
Furniture	• Storage cabinets for tools and equipment • Workbench • Wash basin for small equipment • Work station • A few lockers
Existing Room Size	429.1 sq. ft.
Required Room Size	240.8 sq. ft.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Plumbing	Wash basin hookup
Lighting	LED lighting
Power	GFCI receptacles (as per Ontario Building Code)
Mechanical	• Connect to HVAC (System A) • Exhaust fan (supply air only, no return)
IT/Technology	1 ethernet port
Placement	Closely situated to compound parking as equipment needs to be transported in and out of this area.
Notes	• Few staff members need access to this room, but there would be a lot of equipment (such as hydrants, big pieces of piping, valves needing to be worked on, etc.) • A single computer workstation (if placed between Shop #1 and Shop #2) would be sufficient. If the computer must be placed in a shop, it should be located in Shop #1.

Table 25. Public Works Building: summary of shop #2.

Category	Information
Identified Use	Water Works – Sanitation Shop
Function	To provide a dedicated clean workshop area for Water Work staff working with sanitary equipment. (**Note:** This room is currently shared with Shop #1 – see previous table)
Furniture	• Storage cabinets for tools and equipment • Workbench • Wash basin for small equipment • Work station • A few lockers
Required Room Size	242.1 sq. ft.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Plumbing	Wash basin hookup
Lighting	LED lighting
Power	GFCI receptacles (as per Ontario Building Code)
Mechanical	• Connect to HVAC (System A) • Exhaust fan (supply air only, no return)
IT/Technology	1 ethernet port
Placement	• Closely situated to compound parking as equipment needs to be transported in and out of this area. • Ideally, this shop will have direct exterior access
Notes	• A single computer workstation (if placed between Shop #1 and Shop #2) would be sufficient. If the computer must be placed in a shop, it should be located in Shop #1. • The City should consider adding a pre-cleaning station, to be used prior to entering the building.

Table 26. Public Works Building: summary of shop #3.

Category	Information
Identified Use	Carpentry shop
Function	Provides a dedicated workshop for carpentry projects.
Furniture	Lockable cabinets (for power tools).
Equipment	Table saw, mitre saw, floor-mounted drill press, combination disc/belt sander.
Existing Room Size	379 sq. ft.
Required Room Size	402.4 sq. ft.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	GFCI receptacles (as per Ontario Building Code)
Mechanical	• Connect to HVAC (System A) • Shop may be used for painting/staining – proper exhaust/ventilation is required
Millwork	• Workbench station • Vice and table
IT/Technology	1 ethernet port
Placement	• Should be near parking as equipment will need to be transported in/out of this area • Should be near stores (which could house all shop tools)
Notes	• A carpentry shop existed at the front of the current building but was converted into a meeting room. This room was used for work on signs, barricades, and benches. • Staff must now travel to the Wilde St. garage or the old parks building to complete carpentry work. It would be ideal to keep staff onsite.

Table 27. Public Works Building: summary of wash bay.

Category	Information
Identified User(s)	Fleet staff
Function	Allows fleet staff to wash the department's fleet and large equipment
Existing Room Size	561.5 sq. ft.
Required Room Size	1,244.9 sq. ft.
Flooring	Concrete floors in the shop/garage area must be salt (calcium chloride) resistant
Ceiling	Clear height of 20'
Plumbing	• Pressure water hose hookup • Water drainage in flooring system • Grease traps
Lighting	LED lighting
Power	GFCI receptacles (as per Ontario Building Code)
Mechanical	• Connect to HVAC (System B) • Exhaust fan
Placement	Adjacent to the shop floor and part of the maintenance bays
Notes	The wash bay can be used for cleaning most items including the tandem truck and the sweeper (but not the grader).

Table 28. Public Works Building: summary of major mechanical bay.

Category	Information
Identified User(s)	Fleet staff
Function	Provides a space for staff to complete all major fleet work
Furniture	Work bench, large mobile toolboxes
Existing Room Size	580 sq. ft.
Required Room Size	697.9 sq. ft.
Flooring	Concrete floors in the shop/garage area must be salt (calcium chloride) resistant
Ceiling	Clear height of 20’
Plumbing	• Emergency wash station is plumbed in • Single wash basin • Floor drain
Lighting	LED lighting
Power	• Minimum 4 GFCI receptacles • 1 600-volt outlet and 1 220-volt outlet
Mechanical	• Tubular radiant heating • Exhaust fan required • 2 bays with vehicle hoist • 1 bay with underground access
Millwork	• Metal cabinets to store specialty tools • Requires storage for shop vac, booster packs • Work bench with vice and shelving
Placement	• Adjacent to the shop floor and part of the maintenance bays • Adjacent to washrooms and directly attached to the locker room • Adjacent to stores so that staff can access specialty products which are under lock and key
Notes	• Flat flooring is required. This will avoid issues with large rolling toolboxes or the handling of transmissions (with a transmission jack) due to their size, weight and shape. • A 125,000 lb. lift PK 125 can handle a grader or heavy loader. It can hoist-lift the vehicle a maximum of 78 inches. The required clearance height would depend on the normal vehicle height and this hoist limit. A clear height of 20’ would likely be sufficient. • The bay is crowded during the winter season as many vehicles are parked inside. • A shielded welding area is required. • Three drive-throughs are required. Each drive-through (two doors) would have two stalls - one for vehicles/trucks and one for large equipment. In total, this would provide six stalls for vehicle/equipment maintenance. Two of these stalls would have vehicle hoists, one would have an underground pit. • One garage door must be taller to accommodate Vactor trucks and fire trucks.

Table 29. Public Works Building: summary of vehicle storage bays.

Category	Information
Identified User(s)	Fleet staff
Function	Provides a space for staff to complete all major fleet work
Furniture	Work bench, large mobile toolboxes
Existing Room Size	4,911.7 sq. ft.
Required Room Size	• 6,722 sq. ft., a total of the following: • Heavy equipment bays: 6,005.6 sq. ft. • Truck storage bay (in front of the wash bay): 716.4 sq. ft.
Flooring	Concrete floors in the shop/garage area must be salt (calcium chloride) resistant
Ceiling	Clear height of 20’
Plumbing	Floor drain
Lighting	LED lighting
Power	• Minimum 4 GFCI receptacles • 1 600-volt outlet and 1 220-volt outlet
Mechanical	• Tubular radiant heating • Exhaust fan required
Millwork	Metal cabinets to store specialty tools
Placement	Adjacent to the shop floor and part of the maintenance bays
Notes	One garage door must be taller to accommodate Vactor trucks and fire trucks.

Table 30. Public Works Building: summary of service bays.

Category	Information
Identified User(s)	Fleet staff
Function	Provides a space for staff to complete all major fleet work
Furniture	Work bench, large mobile toolboxes
Existing Room Size	2,222.7 sq. ft.
Required Room Size	2,428.7 sq. ft..
Flooring	Concrete floors in the shop/garage area must be salt (calcium chloride) resistant
Ceiling	Clear height of 20’
Plumbing	• Emergency wash station is plumbed in • Single wash basin • Floor drain
Lighting	LED lighting
Power	• Minimum 4 GFCI receptacles • 1 600-volt outlet and 1 220-volt outlet
Mechanical	• Connect to HVAC (System B) • Exhaust fan • 2 bays with vehicle hoist • 1 bay with underground access
Millwork	• Metal cabinets to store specialty tools • Requires storage for shop vac, booster packs • Work bench with vice and shelving
Placement	Adjacent to the shop floor and part of the maintenance bays

Table 31. Public Works Building: summary of welding area.

Category	Information
Identified User(s)	Fleet staff
Function	A shielded welding area
Furniture	Work bench with vice and shelving
Required Room Size	149.7 sq. ft.
Flooring	Concrete floors in the shop/garage area must be salt (calcium chloride) resistant
Ceiling	This is a designated area within the shop floor. Ceiling height will comply with the shop floor/maintenance bay ceiling height requirements.
Plumbing	• Emergency wash station is plumbed in • Single wash basin
Lighting	LED lighting
Power	• Minimum 1 receptacle • 1 600-volt outlet and 1 220-volt outlet
Mechanical	• Connect to HVAC (System B) • Exhaust fan • 2 bays with vehicle hoist • 1 bay with underground access
Millwork	Metal cabinets to store welding-related tools
Placement	Adjacent to the shop floor and part of the maintenance bays

Table 32. Public Works Building: summary of janitor's closet.

Category	Information
Identified User(s)	Staff as required
Function	A room or space within a floor area for the storage of janitorial supplies
Existing Room Size	24.3 sq. ft.
Required Room Size	54.9 sq. ft.
Flooring	Commercial tile flooring with cove base with minimum height of 150mm (6”)
Ceiling	8’ ceiling height with SAT finish
Plumbing	• One floor slop sink with hot and cold-water faucets • Floor drain with basket
Lighting	LED lighting
Power	• Electrical duplex receptacles with independent breaker on the electrical panel (GFCI protected within 6’ of sink) • Proper receptacle to provide power to the floor polisher
Mechanical	Should include an exhaust fan
Millwork	A closet organizer/tool holder (at least 5 holders) for each closet
Placement	Close to either crew room or shop floor
Notes	• The City should consider adhering to a minimum of one closet for every 15,000 sq. ft. of floor or a minimum of one closet per floor. • The janitor’s closet requires water-resistant wall partitions.

Table 33. Public Works Building: summary of stores (general).

Category	Information
Identified User(s)	Storekeeper
Function	Storage or parts, tools, signs, and other equipment intended for use by Public Works staff
Furniture	• 1 office desk • 1 employee chair, 2 additional chairs • 2 filing cabinets • Shelving • Lockable cabinets • Hazardous storage (paint, fuel, chemicals)
Existing Room Size	2,022.4 sq. ft., a total of the following: • Storekeeper's office: 121.1 sq. ft. • Stores: 1,901.3 sq. ft.
Required Room Size	2,428.7 sq. ft., a total of the following: • Storekeeper's office: 133.0 sq. ft. • Stores: 2,295.7 sq. ft.
Flooring	Commercial tile or any exposed concrete should be salt (calcium chloride) resistant
Ceiling	Existing height measures at 12 ft. (3.7 m.) with the shelving system measuring 7 ft. (2.1 m.). This would be the minimum height needed if the PWF were to be rebuilt.
Lighting	LED lighting
Power	• Access needed to charge tools, walkie-talkies, etc. • Ideally includes a dedicated charging area
Mechanical	Connect to its own HVAC zoned system
IT/Technology	• 2 ethernet ports (computer and printer) • Intercom to communicate with the yard/fueling station • Industrial air curtain
Placement	Must be easily accessible by people coming and going from the fleet area, weigh scales, aggregate sites and fueling station.
Notes	• Stores uses a mobile rail ladder to access the upper shelves. These shelves are very high and are a potential safety hazard if staff is not trained. • The public cannot access stores unless they are accompanied by stores staff. • An industrial air curtain would be ideal near the loading doors, especially in the winter season.
Future Growth Requirements	Expanding the size of stores would be ideal. By adhering to the required size listed above, the City would increase the size of stores by over 400 sq. ft.

Table 34. Public Works Building: summary of stores (mezzanine).

Category	Information
Identified User(s)	Storekeeper
Function	Additional space for storage and bulky items such as festive decorations
Existing Room Size	740.8 sq. ft.
Required Room Size	750.3 sq. ft.
Flooring	• Painted plywood • Optional removal handrail
Ceiling	Minimum 8’ clear height (exposed painted joists)
Lighting	Suspended LED lighting
Power	GFCI receptacles (as per Ontario Building Code)
Mechanical	Part of the general stores HVAC zone
Placement	Above cage area.
Notes	• Cage on the ground floor for additional storage - a self-contained structure. • Removal ladder/lift truck may be required to move large items.

Table 35. Public Works Building: summary of mechanical room.

Category	Information
Identified User(s)	Staff as required
Function	General termination point for utilities and housing of hot water heating and domestic hot water equipment
Existing Room Size	No dedicated room
Required Room Size	187.2 sq. ft.
Flooring	Concrete flooring should be salt (calcium chloride) resistant
Ceiling	Minimum 8’ ceiling height with drywall finish
Plumbing	Rough in for the main distribution system
Lighting	LED lighting
Power	• Dedicated power • GGCI receptacles (as per Ontario Building Code)
Mechanical	Connect to HVAC (System A/B)
Placement	Near to an outside wall and reasonably near the electric room
Notes	Gas fire appliances should be contained in a fire rated room

Table 36. Public Works Building: summary of electrical room.

Category	Information
Identified User(s)	Staff as required
Function	Termination of secondary feeders from utility provider for electric power would house the main disconnect, main switch gear and primary metering of electricity. The electrical room may also contain step-down transformers.
Existing Room Size	37.0 sq. ft.
Required Room Size	91.3 sq. ft.
Flooring	Concrete flooring should be salt (calcium chloride) resistant
Ceiling	Minimum 8’ ceiling height with drywall finish
Lighting	LED lighting
Power	Dedicated power
Mechanical	Connect to HVAC (System A/B)
Placement	Near to an outside wall and reasonably near the electric room
Notes	Panel board backing for the walls

Table 37. Public Works Building: summary of receiving area.

Category	Information
Identified User(s)	Storekeeper
Function	An area to receive parts and equipment for storage within Stores.
Existing Room Size	182.5 sq. ft.
Required Room Size	202.5 sq. ft.
Flooring	Concrete flooring should be salt (calcium chloride) resistant
Ceiling	Minimum 15’ clearance
Lighting	LED lighting
Power	GFCI receptacles (as per Ontario Building Code)
Mechanical	Connect to the stores’ HVAC zoned system
Placement	Adjacent to an exterior wall, with good visibility from the store manager’s office (within stores)
Notes	Could include a locked area which delivery personnel could access without having access to the entire area.

Table 38. Public Works Building: summary of covered car port.

Category	Information
Identified User(s)	Fleet staff
Function	Covered vehicle port for fleet staff (with one side of wall left open)
Existing Room Size	1,408.5 sq. ft.
Required Room Size	1,395.7 sq. ft.
Flooring	Concrete flooring should be salt (calcium chloride) resistant
Ceiling	Minimum 11’ clearance
Lighting	LED lighting
Power	Minimum 6 GFCI outlets Plugs may be suspended (via cab tire connection) from ceiling
Placement	Immediately located near staff entry.

Table 39. Public Works Building: summary of office circulation.

Category	Information
Identified User(s)	All staff
Function	Passageways, including connective hallways, exit routes, minor vestibules, stairwells, etc.
Net Area Required	From a planning and design perspective, a target of 15% of combined building area is calculated
Flooring	Commercial tile or sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	As required by Ontario Building Code
Mechanical	• Connect to HVAC (System A/B) • It is possible that these areas could be serviced by HVAC system A, including the janitor’s closet, stores, receiving, mezzanine, mechanical and electrical rooms (provided the mechanical room is not on the rooftop)—however, it is too early to know all the zones that the mechanical engineer might recommend
Placement	Near the multifunction printer / scanner / copy machine
Notes	• Hallway width can vary in size (minimum 1.2 m in width).

3.1.7 Summary of Existing vs. Required Room Sizes

Table 40. Public Works Building: summary of existing and required room sizes.

Component	Existing Room Size (sq. ft.)	Required Room Size (sq. ft.)
Vestibule (combined)	26.6	202.1
Reception	304.7	503.3
Waiting Room	80.3	212.4
Office #1 (Manager, Public Works)	154.5	160.4
Office #2 (Manager, Operations)	160.6	159.9
Office #3 (Operations Lead Hand)	155.6	175.0
Office #4 (Manager, Engineer/Technology)	158.2	179.5
Office #5 (Manager, Water Works)	173.0	170.5
Office #6 (Fleet Lead Hand)	48.4	112.7
Office #7 (Engineering and Drafting Work)	285.3	264.1
Office #8 (Asset Manager and Facilities)	175.0	175.9
Additional Office	158.7	175.6
Meeting Room	214.0	295.5
File Storage/Archive	481.0	473.6
Copy/Printing Station	49.9	26.4
IT Room	14.3	40.8
Men’s Locker Room	379.5	624.3
Women’s Locker Room	161.4	296.3
Universal Washroom	25.0	74.0
Crew Room	985.9	887.5
Crew Room Kitchenette	N/A	116.8
Shop #1 (Water Works – Water Shop)	429.1	240.8
Shop #2 (Water Works – Sanitary Shop)	N/A	242.1
Shop #3 (Carpentry Shop)	379.0	402.4
Wash Bay	561.5	1,244.9
Major Mechanical Bay	580.0	697.9
Vehicle Storage Bays	4,911.7	6,722.0
Service Bays	2,222.7	2,428.7
Welding Area	N/A	149.7
Janitors’ Closet	24.3	54.9
Stores (General)	1,901.3	2,295.7
Stores Manager’s Office	121.1	133.0
Stores (Mezzanine)	740.8	750.3
Mechanical Room	N/A	187.2
Electrical Room	37.0	91.3
Receiving	182.5	202.5
Covered Car Port	1,408.5	1,395.7
Sub-Total	17,691.4	22,565.7
Office Circulation	1,139.3 (based on 6.44%)	1,466.8 (based on 6.45%)
Total	18,830.7	24,032.5
Recommended Increase in Building Size		**28%**

3.1.8 New Public Works Facility

The Project Team conducted a block planning exercise and a massing plan for a new Public Works Facility. The results of this study are detailed in section 5.1 of this document.

3.2 Dryden & District Museum

3.2.1 Overview of the Dryden & District Museum

The Dryden & District Museum houses artifacts related to the human, cultural, and industrial development of the City and its district. The museum is open to the public and often hosts travelling exhibitions.

The museum is a retrofitted residential dwelling with three levels: a basement, a ground floor, and a second floor. The ground and second floors are open to the public, and each presents different exhibitions for visitors. The ground floor hosts various new and incoming exhibitions, and the second floor houses the museum's standing exhibits.

3.2.2 Site Location

The Dryden & District Museum is located at 15 Van Horne Avenue. This location is across the street from the Dryden Municipal Office. Figure 4 shows an aerial view of the museum.

Figure 4. Aerial view of the Dryden & District Museum.

3.2.3 Building Condition Summary

General Summary

The facility is an original historic house that was renovated and added in 1988 to accommodate a museum operation on three levels. Consequently, the museum was equipped with an elevator to provide barrier-free access on all levels. Certain areas on the upper and lower levels do not meet current accessibility requirements (turning radius, universal washroom, other clearances, etc.) since the updates to the Building Code from 1988. The classification of building would require 3/4 fire resistance of supporting floors and this would require that the supported beams be have a fire rated (gypsum board) enclosure. Other openings in in then basement ceiling need patching.

On the whole the building is sound and most of the noted repair/replacement events are based on age of equipment, fixtures or systems for mechanical and electrical items. The building will likely require re-roofing within the 20-year scope of the study.

Structural Summary (Superstructure)

Aside from some identified leaking in one section of the basement foundation wall (rubble wall) there was no other concern from a structural perspective.

Envelope Summary (Shell)

The brick required some minor restoration work and the roof will require replacement within the study period. A review of glazing performance should be an interim study to monitor the windows and to budget for replacement. An insulation repair event is described to address condensation in the work room.

Interior Summary

The interior is generally well maintained and all fire doors and other closure hardware appeared to be functional. The finishes that are likely to wear out include carpeting in the public areas. A repainting event may be required in the 15-20 year range of use.

Mechanical Summary

The museum area is serviced by a force-air furnace with ducted air distribution. The air handling system includes a split system with cooling coils. Due to the overall age of system installation, the theoretical life of various mechanical systems (piping, drains, ducting, etc.) are likely to require partial or whole replacement within the event horizon of the study (20years) that should be budgeted.

Electrical Summary

Minor repair/replacement events on the whole from an electrical standpoint. Actions are largely due to the overall age of system installation, the theoretical life of various electrical systems are likely to require partial or whole replacement within the event horizon of the study (20 years) that should be budgeted. The main panel will need replacement due to age during this study period. The emergency lighting batteries will require routine replacement.

Summary of Estimated Costs Over Time

Table 41 summarizes the estimated costs required to maintain the Dryden & District Museum building over the next 20 years.

Table 41. Dryden & District Museum – estimated maintenance cost.

Area Requiring Investment	0-5 Year Cost	6-10 Year Cost	11-20 Year Cost
Substructure	$0	$0	$0
Shell	$42,000	$2,100	$88,000
Interiors	$35,480	$77,720	$15,838
Services	$14,000	$9,000	$53,460
Equipment & Furnishings	$0	$0	$0
Special Construction	$0	$0	$4,200
Building Siteworks	$0	$87,200	$7,850
Total	**$91,480**	**$176,020**	**$169,348**

3.2.4 Needs Assessment

The needs assessment of the Dryden & District Museum captures strains, bottlenecks and other obstacles that interfere with the museum's smooth operation and high quality of service delivery. The assessment looked at the daily operation of the Museum, including offices, employee areas, accessibility of the building, storage space, and interaction with residents and visitors. Table 40 summarizes the key takeaways.

Table 42. Summary of Dryden & District Museum needs assessment.

Area	Observations	Constraints	Recommendations
Offices	• The curator's office also serves as the front-desk greeter office. It is managed by one full-time employee. • Volunteers work in separate spaces throughout the museum. • A hardwired emergency button was recently installed in the curator's office.	• The curator's office is mostly full of archives. As a result, the space does not offer enough office or meeting space. • There are a limited number of volunteer workstations. As a result, volunteers may have to work in areas designated as storage spaces designated for the museum's collection. • The curator's office can become noisy if a program is running in the common area. The noise makes it difficult for those in the curator's office to concentrate.	• It is recommended for the museum to continue to explore improvement in storage management. • Should a new building or multi-use facility be constructed in the future, it is recommended that the design captures the needed capacity to handle existing archives, artifacts and storage items, and accommodate any future growth plan of the museum. • Consider the current use, layout and condition of the building, it is not recommended for the City to invest in any further structural changes to the facility, unless they mitigate any unforeseen structural risks associated with the safe operation of the building.
Employee Areas	• The employee area also serves as a volunteer area.	• The kitchen is mostly full of general storage items and museum files. Although it contains a table which employees can sit, the kitchen doesn't have sufficient	• It is recommended for the museum to continue to explore improvement in storage management.

Area	Observations	Constraints	Recommendations
	• There are relevant kitchen appliances on-site.	space to serve as an employee area or breakroom. • Staff and volunteers usually place their personal items in the main office during their shift, as there are no secured lockers for personal items.	• Should a new building or a multi-use facility be constructed in the future, it is recommended that the design captures the needed capacity to handle existing archives, artifacts and storage items, and accommodate any future growth plan of the museum.
Washrooms	• The main floor washroom is accessible.	• No constraints were noted during this inspection.	• The Project Team has no recommendations.
Interior and Exterior Signage	• Some visitors enter designated employee areas throughout the Museum due to lack of proper signage.	• The outside signage (marquee) is difficult to see. • Because the building was not built to house exhibitions, it does not have natural (intuitive) walking paths for visitors. This issue makes it difficult for visitors to navigate the Museum in an efficient manner.	• Considering the current use, layout and condition of the building, it is not recommended for the City to invest in any further exterior changes to the facility, unless they mitigate any unforeseen safety and/or structural issues. • Should a new building or a multi-use facility be constructed in the future, it is recommended that the design includes prominent exterior signage and interior pathfinding signage.
Overall Building	• The on-site security cameras are operational. • The on-site elevator meets accessibility needs. • The EDP membrane over the back-pocket roofing structure helps control humidity.	• Museum visitors must follow a complex self-guided tour to navigate the various spaces within the building. • The wood-beam area in the garden leading up to the front door can be a safety hazard for people who do follow the step configuration to the front door.	• Considering the current use, layout and condition of the building, it is not recommended for the City to invest in any further major changes to the facility, unless they mitigate any unforeseen safety and/or structural issues.

Area	Observations	Constraints	Recommendations
	• Some water comes through the roof as a result of the roof's numerous peaks and valleys. Eavestrough work is planned for 2023 to mitigate water runoff from draining toward the foundation.		• It is recommended that the City explore design and construction options for a new multi-use building that houses both the Museum and the VIC. This would allow for proper design and layout of space and room configuration to ensure the adequate space is incorporated to maximize the visitor experience and optimize the space for those who operate/maintain the facility. A multi-use facility may present some financial cost savings through a consolidation of staffing and other shared services.
Staffing	• There is one full-time employee and 4-6 volunteers. Two volunteers are working at any given time. • The current staffing level has been deemed sufficient for the museum's current capacity.	• No constraints were noted during this inspection.	• The Project Team has no recommendations.
On-site Storage	• Items are stored in the employee area, curator office, broom closets, basement, and stairwell. • There are on-site temperature and humidity readers. The museum collects data from these readers weekly. There are also on-site humidifiers and dehumidifiers, but these are add-on pieces of equipment.	• All storage areas are full. There is little to no room to store new items. • Artifacts stored in the basement are at risk of water damage. • Staff and volunteers cannot connect laptops to the network when working in the basement or other non-docking work station areas.	• Should a new building or a multi-use facility be constructed in the future, it is recommended that additional storage be incorporated into the building's design. • Should a new building or a multi-use facility be constructed in the future, it is recommended that the building be hardwired with ethernet cable to ensure that computer access to the intranet is

Area	Observations	Constraints	Recommendations
	• Laptops require an increased hardwired connection to the intranet to access the internet.	• The current lighting level may not protect certain artifacts in storage due to the brightness level not falling within industry best practices. • There is not enough space in the loading bay to be properly used as intended.	easily available in all proposed working areas (and workstations) throughout the Museum.
Off-site Storage	• Off-site storage space is located at the YHD, the Public Works Wilde Street storage building, the library, and other areas (if/when required). • There is no centralized location for off-site storage. • The museum cannot monitor the temperature or humidity levels at its off-site storage facilities. • There are diesel/gas-powered vehicles coming and going at the Wilde Street storage site.	• The off-site storage space is not properly organized. • The museum has no dedicated vehicle for transporting artifacts between storage sites and the museum.	• Should a new building or a multi-use facility be constructed in the future, it is recommended that the design includes sufficient onsite storage for all museum items that are currently stored at multiple off-site locations.
Public Parking	• There are two parking spots on the far side and four spots on the closer side of the existing parking lot, but the City rents two of those spots out to a nearby business, which is currently seeking an additional parking space from the Museums parking lot.	• There is limited parking at the Museum and some patrons must park on the street. • There is no designated accessible parking spots. • There is no reserved parking spot currently available for staff.	• The City should consider converting an existing parking spot within the Museum's parking lot to become a designated accessible parking spot. • The City should consider converting an existing parking spot within the Museum's parking lot to become a designated staff parking spot.

Area	Observations	Constraints	Recommendations
	• Visitor parking on the street is more convenient to access and also closer to the Museum's front entrance than parking in the Museum's designated parking lot. • Visitors typically park on the street and may not know about the private parking options due to the lack of visible signage. • School groups typically walk to and from the museum. • Discussion is underway to install a ramp/pathway from the front entrance to King Street (pending the results of the applicable needs study).		
Outdoor Displays	• There are some outdoor display items which are stored within the Museum's backyard shed, in addition to the Public Works Wilde Street storage building (that require additional City-staff assistance to bring onsite (when required).	• No constraints were noted during this inspection.	• Should a new building or a multi-use facility be constructed in the future, it is recommended that the design includes sufficient onsite storage to house all outdoor displays.

3.2.5 Further Technical Observations

The building is a tastefully renovated turn-of-the-century two storey brick house with a sympathetic addition added when its use was converted to a museum. It is evident that the existing museum has been well maintained throughout its existence and has served the community for many years. At inception, the museum was appropriately funded to provide a standard level of accessibility and public convenience.

A supplemental building condition evaluation report was prepared and outlines modest repair/replacement events over the next twenty years if the City elects to maintain the facility. The needs study looks beyond the Museum building condition and reveals fundamental limitations for its continued viability at this location. These limitations include the following:

Accessibility Barriers and increased Operation Cost of a Passenger Elevator

By today's standards, the facility falls short of AODA requirements or other modern facility accessibility standards adopted by public buildings and institutions. The existing museum lacks the maneuverability area and physical space for universal washroom facilities now a required part of new buildings as per the Ontario Building Code. The entry vestibule and exterior ramp presents access challenges for a sizeable cross-section of persons with disabilities. The AODA places a great deal of emphasis on engagement and on dignity for visitors with disabilities so they do not need to take alternative paths in their experience when viewing an exhibition. There is a poor path connection between the parking lot and the principal museum entrance. Annual maintenance costs for servicing the elevator equipment, for the licensing and for general power consumption are ongoing expenses that could be better spent on other museum functions. Aside from the cost to maintain a barrier-free passenger elevator only to move through three levels of this relatively small building, there is a reduced operational efficiency to move visitors and to transport displays, artifacts, or other equipment to other parts of the facility.

Sufficient Display, Artifact Storage, Archival Storage and Back-of-House Area

The Needs Study indicates that the existing facility or a new museum, would require a 90 per cent increase in area to meet the operational requirements of the museum. Currently, artifacts are stored off-site in less-than-ideal conditions, and there is very limited space to accommodate travelling exhibits and other event functions typically forming part of a contemporary museum configuration. If the City were to propose an addition to the existing building, the inherent vertical layout would be constrictive to plan efficiently when achieving the spatial objectives. The addition would be functionally tied to using the existing elevator for a stacked addition or alternatively, a horizontal addition would require an extensive ground-level area on the existing corner lot that could encroach into setbacks or into the parking area on the site. In either scenario, its gross area would require a higher ratio of circulation in comparison to a new dedicated building.

Energy Efficiency and Long-Range Sustainability

With a heritage building as is the case with the existing museum, the City inherits a range of operational expenses and repairs that would exceed those encountered with new construction. The existing building exterior wall and roof assembly is not well insulated and is prone to air/vapour infiltration. Exterior windows and doors are not to commercial performance standards of new construction. Many of the domestic materials of the museum's existing construction are not durable or some surfaces already require localized repair/restoration (refer to supplemental facility evaluation report). Portions of the building's existing stone foundation are susceptible to ground water penetration. There is risk of cracking and other damage because the masonry walls (brick and stone) are not reinforced.

3.2.6 Statement of Requirements – Schedule of Rooms

Each of the tables in this section represents a room or component of the Dryden & District Museum.

(**Note:** Unless otherwise stated, all ceilings are 8’ in height with a Suspended Acoustic Tile (SAT) finish. Storage rooms, utility rooms, and other specialty rooms may require a drywall ceiling finish to comply with the Ontario Building Code.

Table 43. Dryden & District Museum: summary of vestibule.

Category	Information
Identified User(s)	Staff, volunteers, and visitors
Function	• A small room leading into the reception area • Allows visitors to enter the museum and get fully inside before asking staff questions, paying for tickets, removing jackets, etc. • Important division between the inside and outside • Prevents snow, wind, rain, and cold temperatures from coming in with visitors • Wheelchair accessible
Required Room Size	• 76.9 sq. ft. • (There must be enough room for two people to assist with wheelchair movement within)
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	Single GFCI outlet
Mechanical	Industrial air curtain as this area must be heated
IT/Technology	Security camera, automatic doors
Placement	The front of the museum
Notes	• There should be a shallow well below the mats to collect sand, salt and water. • A digital information sign needs to be accessible and visible after hours when the building is closed.

Table 44. Dryden & District Museum: summary of visitor services desk.

Category	Information
Identified User(s)	Museum curator and volunteers
Function	• An area for visitors to interact with museum staff/volunteers to purchase tickets, ask questions, select brochures/pamphlets, etc. • Includes a digital information screen which provides scrolling information about museum exhibits (current/future), tourism information, etc.
Furniture	• 1 bench for seating, 1 chair for museum representative. • Accessible desk area, including a main level and a drop-down area (can be movable or two differently-sized desks)
Existing Room Size	96 sq. ft.
Required Room Size	• 88.5 sq. ft. • (**Note:** This does not count the open public hallway that the visitor services desk is adjacent to.)
Flooring	Commercial tile or sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	1 outlet. Additional outlet may be required if laptop and POS is required. May have other items that require power (i.e.: lamp)
Mechanical	Connect to HVAC
Millwork	Reception counter, plexiglass COVID safety screen
IT/Technology	Dedicated laptop, cash register, point-of-sale system, building intercom/PA system, emergency alarm button, Wi-Fi.
Placement	Immediately following vestibule
Notes	• Merchandise to be placed near the desk (4 to 5 books, cards, hand-spun wool items, Dryden T-shirts) • In a potential new development scenario, the reception counter would be designed to function more as a workstation and incorporated into an open area as opposed to an individual office. The area in proximity to the visitors service desk should also consider a series of lockers to house larger/bulky jackets. • The museum should consider a policy to deal with snowy winter boots. • Signage which lists pricing and programming in English and French. Signage may also include information in an Indigenous language.
Future Growth Requirements	Add POS system to support increased usage.

Table 45. Dryden & District Museum: summary of office #1 (curator's office).

Category	Information
Identified User(s)	Museum curator, visitors, museum professionals, community members, exhibit representatives, museum board of directors
Function	• Provides dedicated office space for the curator to conduct their daily office duties, store files, meet with individuals noted above
Furniture	• 1 office desk, 1 employee chair, 2 visitor chairs • 2 large filing cabinets • 1 small safe
Existing Room Size	144 sq. ft.
Required Room Size	111.1 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	4 outlets
Mechanical	Connect to HVAC
IT/Technology	1 ethernet port, Wi-Fi, security camera monitoring station, emergency alarm button, landline connection.
Placement	Close/adjacent to visitor services desk.

Table 46. Dryden & District Museum: summary of office #2 (general office).

Category	Information
Identified User(s)	Visitors, museum professionals, community members, exhibit representatives, museum board of directors, individuals conducting research
Function	• Provides dedicated office space for the above users to conduct their daily office duties, store files, meet with City staff/volunteers, exhibitors, etc. • May double as workplace to cut panels, prepare labels, prepare for programming, etc.
Furniture	• 2 office desks, 2 employee chairs, 2 additional chairs • 1 filing cabinet
Required Room Size	111.7 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish.
Lighting	LED lighting
Power	4 outlets
Mechanical	Connect to HVAC
IT/Technology	1 ethernet port per desk, Wi-Fi, landline connection
Placement	Close/adjacent to curator’s office

Table 47. Dryden & District Museum: summary of office/exhibit preparation room.

Category	Information
Identified User(s)	Staff and volunteers
Function	Dedicated space to facilitate the construction and/or dismantling of exhibits
Existing Room Size	229 sq. ft.
Required Room Size	271.2 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	Minimum 4 outlets
Mechanical	Connect to HVAC
IT/Technology	Wi-Fi
Placement	Close/adjacent to shipping and receiving

Table 48. Dryden & District Museum: summary of copy/printing/IT room.

Category	Information
Identified Use	Copying/printing, IT
Function	• Central data communication hub for building (contains server and IT equipment • Also contains printing/copying/scanning equipment and IT equipment
Equipment	• Multifunction printer / scanner / copy machine
Furniture	• Shelving (or cupboard) for extra paper • Table to store printer
Existing Room Size	18 sq. ft.
Required Room Size	45 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	4 outlets with dedicated circuits (see standby power)
Mechanical	• Connect to HVAC • Possible split system depending on heat generation (TBD)
IT/Technology	• 3 ethernet ports • Termination for Bell, cable, etc.
Placement	• Location close to curator’s office • Not easily accessible by the public, nor close to an exterior doorway

Table 49. Dryden & District Museum: summary of programming area.

Category	Information
Identified User(s)	Staff, volunteers, and museum visitors
Function	Space to be used for the following: • programs/workshops conducted by the museum, local schools, and local organizations • boardroom meetings • rental space
Furniture	6 folding tables (8’), 30 stackable chairs
Existing Room Size	260 sq. ft.
Required Room Size	534.2 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Plumbing	Sink to accommodate the acrylic paints used in painting workshops
Lighting	LED lighting
Power	4 outlets
Mechanical	Connect to HVAC
IT/Technology	• Projection screen • Ceiling-mounted projector • 3-5 ethernet ports • Wall-mounted speakers • Public Wi-Fi • Whiteboard • Smartboard (for virtual conferences)
Placement	• Near the museum entrance (visitors walk through exhibit areas to access the programming area) • Near the curator’s office to allow staff/volunteers to monitor activity if required
Future Growth Requirements	Renting out fob access to the studio space could provide a revenue stream

Table 50. Dryden & District Museum: summary of shipping and receiving area.

Category	Information
Identified User(s)	Staff and volunteers
Function	• Space for staff to receive, box and unbox exhibits (some may arrive on skids). • Space to assemble/disassemble exhibit items (when required).
Existing Room Size	100 sq. ft.
Required Room Size	200 sq. ft.
Flooring	Concrete flooring should be salt resistant
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	4 outlets
Mechanical	• Connect to HVAC • Possible industrial air curtain to keep the area warm if the exterior doors are open for extended periods
Placement	Should be close to general storage area
Notes	• Currently, the double doors open butterfly style • No pump jack onsite but staff can contact facilities if required. • Need to be mindful of larger trucks turning in parking lot/receiving area.

Table 51. Dryden & District Museum: summary of employee area.

Category	Information
Identified User(s)	Staff and volunteers
Function	• To act as a staff/volunteer location for scheduled lunch of employee breaks. • To support food and beverage preparation for some onsite programing/workshops. • To be utilized by staff/volunteers for personal use (i.e. lunch and staff breaks). • To store flatware, cups, cutlery, etc. for Tea events
Furniture	• Kitchen table (x1), chairs (x6) • Range (cook top w/ oven), Refrigerator, microwave.
Existing Room Size	• 10'x12' = 120sq. ft. • Shared with Kitchen Exhibit
Required Room Size	153.5 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Plumbing	Sink and rough-ins for sink and dishwasher
Lighting	LED lighting
Power	4 outlets
Mechanical	Connect to HVAC, exhaust above range
IT/Technology	Wi-Fi access

Table 52. Dryden & District Museum: summary of temporary exhibit gallery.

Category	Information
Identified User(s)	Museum staff, volunteers and visitors
Function	To display temporary exhibits
Furniture	Display cases, display rail/ledge, exhibit explainer signage stand, moveable pony walls (similar to full wall room dividers).
Existing Room Size	990 sq. ft.
Required Room Size	1,250 sq. ft.
Flooring	Sheet Vinyl flooring
Ceiling	14’ ceiling height with SAT finish.
Lighting	• LED Lamp 1620 lumens dimmable 19 Watt. • General lighting all around is required and some wall spot lighting directed on the objects (to remove shadows) will also be required. Wall mounted lights should be moveable. Some could be ceiling mounted, but having ability to alter them would be ideal.
Power	8 outlets (2 per wall)
Mechanical	Temporary exhibits must remain within a temperature range of 20-22 degrees Celsius and a humidity range of 40%-60%.
IT/Technology	Wi-Fi access
Placement	To be accessible before accessing the Permanent Exhibit Area.
Notes	• Windows for emergency exit, but need option to black out. • Black out ability helps to prevent bright natural light from coming in and affecting sensitive displays/artifacts. • Windows will have to have UV protection on them.

Table 53. Dryden & District Museum: summary of permanent exhibit area.

Category	Information
Identified User(s)	Museum staff, volunteers and visitors.
Function	To display permanent exhibits. May include First Nations, historic tools, general store, household living (incl. living room, bedroom, pioneer kitchen and 1950's kitchen).
Furniture	Display cases, display rail/ledge, exhibit explainer signage stand, exhibit protective railing.
Existing Room Size	600 sq. ft.
Required Room Size	900 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	14’ ceiling height with SAT finish
Lighting	LED Lamp 1620 lumens dimmable 19 Watt
Power	Minimum 8 outlets as per OBC
Mechanical	Permanent exhibits to remain within a temperature range of 20-22 degrees Celsius. Humidity range of 40%-60%
Millwork	Half walls to separate some of the permanent exhibits. Can be difficult to move items in/out of space
IT/Technology	Wi-Fi access
Placement	Can be placed further back in the museum building
Notes	• Working on an ongoing memorial exhibit. • The half walls which fully surround permanent exhibits make is difficult for the museum curator to bring items in/out of their assigned area. Perhaps a latchable/retractable gate may be more appropriate.

Table 54. Dryden & District Museum: summary of general storage.

Category	Information
Identified User(s)	Staff and volunteers
Function	Basic tools, programming supplies - items that do not require to be in a temperature/humidity-controlled environment.
Furniture	Office desk (x1) and chair (x1)
Existing Room Size	Approx. 175 sq. ft.
Required Room Size	164.7 sq. ft.
Flooring	Sheet Vinyl flooring, however, concrete flooring in the basement
Ceiling	8’ ceiling height with SAT finish
Lighting	LED Lamp 1620 lumens dimmable 19Watt
Power	8 outlets (two per wall)
Mechanical	Air purification (not needed if just storage, but if a workspace, then it would be ideal to have). Recommendation is to have if building new.
Millwork	Shelving units
IT/Technology	Wi-Fi access
Placement	Situated where contents cannot be exposed to water damage or flooding.
Notes	Mobile Shelving Racking System to be placed in the basement.

Table 55. Dryden & District Museum: summary of office supplies.

Category	Information
Identified User(s)	Staff and volunteers
Function	To store common office supplies
Furniture	Office desk (x1) and chair (x1)
Required Room Size	93.2 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting.
Power	4 outlets
Mechanical	Connect to HVAC
Millwork	Shelving units.
Placement	Close to offices and away from public areas.

Table 56. Dryden & District Museum: summary of collections storage.

Category	Information
Identified User(s)	Staff and volunteers
Function	To provide storage capacity for various permanent and/or temporary collection exhibit items. As this area is temperature and humidity controlled, this storage area can also accommodate dedicated (partitioned) space for Artwork.
Furniture	• Workstation (desk x1, chair x1) • Photography area (table 6’x3’ with white backdrop) • Rolling Cupboards • 1 Flat File: 6.5' (W) x 6.5' (H) x 2' (D) • 7 Adjustable Shelves: 6.5' (W) x 6.5' x 2.4' (D) • 1 Shelf: 2.4' (W) x 5.4' (H) x 2' (D) • Textile Cupboard • 1 Changeable Unit: 9.2' (W) x 6' (H) x 2' (D) • 1 Hanging rack: 3.9' • 1 Hanging rack : 2.4' • 6 Drawers: 2.2' (W) x 2.5” (H) x 2' (D) • 4 Drawers: 2.2' (W) x 5.5" (H) x 2' (D) • 1 Metal Shelf: 2.4' (W) x 5' (H) x 1.8' (D) • 1 Metal Shelf: 9.1' (W) x 5' (H) x 2' (D) • 1 bar along ceiling used for hanging clothes • New Rolling Cupboards: 7' (W) x 5.5' (H) x 1.3' (D) • 2 of the above measurements placed as singles • 6 sets of these as doubles (two back-to-back and on the rolling system) • 2 Built-in Shelves: 2.8' (W) x 5.5' (H) x 2' (D) • 1 Built-in Shelf: 3.9' (W) x 5.5' (H) x 2' (D) • Mobile Shelving Racking System
Existing Room Size	• 23’x9.3’ = 214 sq. ft. • 5.75’x13.2’ = 76 sq. ft. • 22.6’x14.6’ = 330 sq. ft.
Required Room Size	900 sq. ft.
Flooring	Sheet vinyl flooring, however, concrete flooring in the basement
Ceiling	8’ ceiling height with SAT finish
Lighting	LED Lamp 1620 lumens dimmable 19 Watt
Power	Minimum 2 outlet to plug in lighting for workstation
Mechanical	Individual room temperature and humidity controlled. Air purification
Millwork	Shelving units.
IT/Technology	• 1 ethernet port • Wi-Fi access
Placement	Further back to ensure no public access.
Notes	• Must be able to accommodate possible art storage items as well. • No exterior windows/natural lighting required.

Table 57. Dryden & District Museum: summary of art storage.

Category	Information
Identified User(s)	Staff and volunteers
Function	To provide safe storage of artwork and paintings in a temperature/humidity-controlled area.
Existing Room Size	89 sq. ft.
Required Room Size	197.6 sq. ft.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Lighting	LED Lamp 1620 lumens dimmable 19 Watt.
Power	Minimum 2 outlet to plug in lighting for workstation.
Mechanical	• Connect to HVAC. • Independent temperature and humidity controls.
Millwork	Shelving units.
Placement	• Ideally situated in a location that is safeguarded against possible flooding and away from museum visitors. • Can be a designated area within a larger Collections Storage Room if required.

Table 58. Dryden & District Museum: summary of archives.

Category	Information
Identified User(s)	Staff and volunteers
Function	To provide safe storage of sensitive/high valued exhibit items that require temperature and humidity-controlled conditions. Mostly library, archival and research documents.
Furniture	• Workstation requirements (desk x1, chair x1, large table for opening maps and blueprints). • 1 Standard Filing Cabinet Bookshelves • 2 Shelves: 5.9' (W) x 5' (H) x 1' (D) • 1 Shelf: 2' (W) x 2.3' (H) x 1' (D) Metal Shelves • 1 Shelf: 3' (W) x 4' (H) x 1.1' (D) • 1 Shelf: 3' (W) x 4.4' (H) x 1.25' (D) • Flat File: 3.9' (W) x 1.4' (H) x 3' (D) - flat shelf is floating a few feet above floor with a shelf underneath. • 5 Floating Shelves (above flat file): 3.9' (W) x 1" (H) x 3' (D) • Altered Wood Cabinets (2 stacked): 4' (W) x 3.3' (H) x 1.4' (D) • Wood News Paper Shelves: 4.2' (W) x 7.7' (H) x 2.1' (D) • Computer Desk • Small Rolled Document Cart
Existing Room Size	180 sq. ft.
Required Room Size	312.6 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED Lamp 1620 lumens dimmable 19Watt.
Power	1 outlet to plug in lighting for workstation. Power also required for a scanning station.
Mechanical	• HVAC connection with individual temperature and humidity control. • Air purification
Millwork	Floating shelving units.
IT/Technology	• Wi-Fi access • 1 ethernet port • Laptop use would require single ethernet port and an Iris scanner.
Placement	Ideally situated in a location that is safeguarded against possible flooding and away from museum visitors.
Notes	No exterior windows/natural lighting required.

Table 59. Dryden & District Museum: summary of warehouse.

Category	Information
Identified User(s)	Staff and volunteers
Function	To provide safe storage of large general exhibit items that may be awkward to move to/from the General Storage area(s) or throughout the museum.
Existing Room Size	~640 sq. ft.
Required Room Size	1,004.9 sq. ft.
Flooring	Concrete flooring should be salt (calcium chloride) resistant.
Ceiling	Recommend minimum 20' ceiling height.[1]
Lighting	LED lighting
Power	Minimum power as per OBC, but nothing specific.
Mechanical	Connect to HVAC.
Millwork	Shelving units
Placement	Items are not intended to be moved in/out on a regular basis, so placement could take place offsite if building footprint is too large for property size.
Notes	Double doors to accommodate larger items.

[1] The recommended minimum ceiling height of 20’ is intended to support a newly constructed facility and that the City may wish to review this recommendation in future should they proceed with the new building as it may support other partnership opportunities in the future.

Table 60. Dryden & District Museum: summary of staff washrooms.

Category	Information
Identified User(s)	Staff and volunteers
Function	To provide a toilet and washing station.
Required Room Size	• 29.3 sq. ft. per single-use washrooms • Two (2) single-use washrooms required.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Plumbing	Elongated toilet (x1), wall-hung accessible hand sink (x1).
Lighting	LED lighting
Power	Single GFCI receptacle as per OBC.
Mechanical	Connect to HVAC
Placement	Close to or adjacent to Employee Area / Kitchen. Out of the way from museum visitors.
Notes	Two single-use washrooms required.

Table 61. Dryden & District Museum: summary of universal public washroom.

Category	Information
Identified User(s)	Visitors and general public
Function	To provide a toilet and washing station that is universally accessible.
Required Room Size	64.1 sq. ft.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Plumbing	• Elongated toilet (x1), urinal (x1), wall-hung accessible hand sink (x1). • Possible two urinals in family washroom (one standard height and one junior height)
Lighting	LED lighting
Power	Single GFCI receptacle (as per Ontario Building Code)
Mechanical	Connect to HVAC
Washroom Accessories	Toilet paper dispenser, paper towel dispenser, hand dryer, grab bars, mirror, door hook, soap dispensers, hand sanitizer, retractable change table, sharps container.
IT/Technology	An emergency call system that consists of audible and visual signal devices inside and outside of the washroom that are activated by a control device inside the washroom.
Placement	Closer to the front of the building to provide immediate access.
Notes	If only there is only the option for one washroom to be accessible, then the preference would be for the public washroom to avoid visitors having to ask staff to utilize their washroom. Universal code indicates that two universal washrooms are not required within 45 metres of one another.

Table 62. Dryden & District Museum: summary of public washroom (men's).

Category	Information
Identified User(s)	Visitors (male) and general public (male).
Function	To provide toilet and hand washing facilities plus a provision for a child/adult change table station.
Required Room Size	160.6 sq. ft.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Plumbing	Elongated toilets (x2), urinal – standard height (x1), urinal – junior height (x1), wall-hung hand sink (x1), and wall-hung accessible hand sink (x1)
Lighting	LED lighting
Power	Single GFCI receptacle (as per Ontario Building Code)
Mechanical	Connect to HVAC
Washroom Accessories	Toilet paper dispenser, paper towel dispenser, hand dryer, grab bars, mirror, door hook, soap dispensers, hand sanitizer, retractable change table, sharps container.
Millwork	Child/adult change table station
Placement	Closer to the front the building to provide immediate access
Notes	• If only there is only the option for one washroom to be accessible, then the preference would be for the public washroom to avoid visitors having to ask staff to utilize their washroom. • Universal code indicates that two universal washrooms are not required within 45 metres of one another.

Table 63. Dryden & District Museum: summary of public washroom (women's).

Category	Information
Identified User(s)	Visitors (female) and general public (female)
Function	To provide toilet and hand washing facilities plus a provision for a child/adult change table station.
Required Room Size	179.3 sq. ft.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Plumbing	Elongated toilet (x2), wall-hung hand sink (x1) and wall-hung accessible hand sink (x1).
Lighting	LED lighting
Power	Single GGCI receptacle (as per Ontario Building Code)
Mechanical	Connect to HVAC
Millwork	Toilet paper dispenser, paper towel dispenser, hand dryer, grab bars, mirror, door hook, soap dispensers, hand sanitizer, retractable change table, sharps container.
IT/Technology	An emergency call system that consists of audible and visual signal devices inside and outside of the washroom that are activated by a control device inside the washroom (as per the Ontario Building Code[2])
Placement	Closer to the front of the building to provide immediate access.
Notes	• If only there is only the option for one washroom to be accessible, then the preference would be for the public washroom to avoid visitors having to ask staff to utilize their washroom. • Universal code indicates that two universal washrooms are not required within 45 metres of one another.

[2] https://www.buildingcode.online/525.html

Table 64. Dryden & District Museum: summary of janitor's closet.

Category	Information
Identified User(s)	Staff as required
Function	A room (or space) within a floor area for the storage of janitorial supplies
Existing Room Size	7.4 sq. ft.
Required Room Size	53.2 sq. ft.
Flooring	Commercial tile flooring with cove base with minimum height of 150 mm (6 inches).
Ceiling	8’ ceiling height with SAT finish
Plumbing	• One floor slop sink with hot and cold-water faucets. • A floor drain with basket.
Lighting	LED lighting
Power	Electrical duplex receptacles with independent breaker on the electrical panel (GFCI protected within 6’ of sink), and proper receptacle for the power of floor polisher.
Mechanical	Should include an exhaust fan.
Millwork	A closet organizer/tool holder (at least 5 holders) for each closet.
Placement	Close to offices or in an easily assessable location by staff. Not close to front entrance or exhibit areas.
Notes	• Consider a minimum of one closet for every 15,000 square feet of floor or a minimum of one closet per floor. • Water-resistant wall partitions

Table 65. Dryden & District Museum: summary of mechanical room.

Category	Information
Identified User(s)	Staff as required
Function	General termination point for utilities and housing of hot water heating and domestic hot water equipment
Existing Room Size	34.7 sq. ft.
Required Room Size	108.2 sq. ft.
Flooring	Concrete flooring should be salt (calcium chloride) resistant
Ceiling	Minimum 8’ ceiling height with drywall finish
Plumbing	Rough in for the main distribution system
Lighting	LED lighting
Power	• Dedicated power • GGCI receptacles (as per Ontario Building Code)
Mechanical	Connect to HVAC (System A/B)
Placement	Near to an outside wall and reasonably near the electric room
Notes	Gas fire appliances should be contained in a fire rated room

Table 66. Dryden & District Museum: summary of electrical room.

Category	Information
Identified User(s)	Staff as required
Function	Termination of secondary feeders from utility provider for electric power would house the main disconnect, main switch gear and primary metering of electricity. The electrical room may also contain step-down transformers.
Existing Room Size	21.5 sq. ft.
Required Room Size	85.5 sq. ft.
Flooring	Concrete flooring should be salt (calcium chloride) resistant
Ceiling	Minimum 8’ ceiling height with drywall finish
Lighting	LED lighting
Power	Dedicated power
Mechanical	Connect to HVAC (System A/B)
Placement	Near to an outside wall and reasonably near the electric room
Notes	Panel board backing for the walls

Table 67. Dryden & District Museum: summary of office circulation.

Category	Information
Identified User(s)	Staff, volunteers, and visitors
Function	• Connective hallways, exit routes, minor vestibules, etc. • Stairwells connecting multi-levels.
Required Room Size	15% of combined building area
Flooring	Commercial tile or sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	As per OBC
Mechanical	Connect to HVAC

3.2.7 Summary of Existing vs Required Room Sizes

Table 68. Dryden & District Museum: summary of required room sizes.

Component	Existing Room Sizes (sq. ft.)	Required Room Size (sq. ft.)
Vestibule	33.6	76.9
Lobby / Seating	N/A	168.2
Visitors Service Desk / reception	96	88.5
Office #1 (Curator's Office)	144	111.1
Office #2 (General Office)	N/A	111.7
Exhibition Preparation Room	229	221.2
Copy / Printing Station / IT Room	18	24.7
Programming Area	260	534.2
Shipping + Receiving	100	189.1
Employee Area	120	153.5
Temporary Exhibit Gallery	990	1,250
Permanent Exhibit Area	600	900
General Storage	N/A	164.7
Office Supplies	N/A	93.2
Collections Storage	620	899.5
Art Storage	89	197.6
Archives	180	312.6
Warehouse	640	1,004.90
Staff Washroom #1	N/A	29.3
Staff Washroom #2	N/A	29.4
Universal Washroom	N/A	64.1
Public Washroom (Mens)	N/A	160.6
Public Washroom (Womens)	N/A	179.3
Janitor's Closet	7.4	53.2
Mechanical (water heater, Furnace)	34.7	108.2
Electrical (electrical / fire panel, alarm system)	21.5	85.5
Sub-Total	**3,543**	**7,211**
Office Circulation	921.2 (Based on 26%)	1,081.7 (Based on target of 15%)
Total	**4,464**	**8,293**
Recommended Increase in Building Size:		**86%**

3.2.8 Combined Museum/Visitor Centre

The Project Team produced an SOR and a block planning exercise for the proposed development of a combined Museum/Visitor Information Centre, which would bring the Dryden & District Museum and the Visitor Information Centre into a single-use facility. The SOR and the results of the block planning exercise are detailed in Section 5.2 of this document.

3.3 Visitor Information Centre

3.3.1 Overview of the Visitor Information Centre

The City's Visitor Information Centre (VIC) is a central location that provides information regarding tourism, promotional activities, and local programs and events. The VIC is open to the public and is staffed by one on-site student who greets visitors and provides information during the summer months (from May until the end of August). A large portion of the ground floor is leased to the Naked North Art Gallery, which uses the space to host local artist exhibitions and a gift shop. The VIC is also the location of the iconic 18-foot moose sculpture known as Max the Moose.

3.3.2 Site Location

The VIC is located at 284 Government Street along Highway 17. The building was retrofitted from a residential dwelling. Figure 5 shows an aerial view of the VIC.

Figure 5. Aerial view of the Visitor Information Centre.

The VIC has the potential to attract visitors travelling on the highway but does not currently stand out enough to draw travellers' attention. Even with the presence of the Max the Moose sculpture (which stands 18-feet high), the property is overshadowed by the nearby railway and fuel silos. The current roadside signage is also difficult to read from a passing vehicle.

To attract visitors, the City would have to invest significant capital to make the VIC more visually appealing.

3.3.3 Needs Assessment

The Needs Assessment of the Visitor Information Centre captures strains, bottlenecks and other obstacles that interfere with its smooth operation and expected/anticipated level of service delivery. The Assessment looked at the daily operations of the VIC, including offices, employee areas, accessibility of the building, storage space, and interaction with tourists. Table 62 summarizes the key takeaways of the assessment.

Table 69. Summary of Visitor Information Centre needs assessment.

Area	Observations	Constraints	Recommendations
Offices	• The downstairs area includes a conference room/multi-purpose room. A small portion of this space is used for tenant storage. • There is no dedicated office for on-site staff.	• The workstation (counter) is not facing the entrance, which makes it difficult for staff to notice tourists and greet them as they enter the building.	• Based on its current use and building layout, it is not recommended for the City to invest in further layout changes. Should a new building or a multi-use facility that includes the VIC be constructed in future, the workstation should become converted into a reception counter and facing the main entrance.
Employee Areas	• Personal belongings are stored at their workstation.	• There is no designated and secured employee area within the building. • With no dedicated lunchroom or kitchen, staff must take breaks and eat lunch at their assigned desk.	• Based on its current use and building layout, it is not recommended for the City to invest in further layout changes. Should a new building or multi-use facility that includes the VIC be constructed in future, the design should contain an employee area that includes a lunchroom and kitchen.
Washrooms	• There are two functioning washrooms on the main floor. • The existing washrooms do not meet accessibility requirements.	• The additional washrooms (located in the basement) are not in service.	• Based on the utilization of the building, no further investment to expand the washroom area is warranted, however, should a new building or a multi-use building that includes the VIC be

Area	Observations	Constraints	Recommendations
			constructed in future, additional washroom capacity would be required as the building is expected to attract increase passersby and users as a result of its combined service offering.
Exterior Signage	• Due to budget constraints, funding for the garden (located next to Max the Moose) was cancelled several years ago. • There is limited interpretive signage outside when the VIC is closed.	• The building's exterior signage is small and inconspicuous. Tourists are likely to drive past the VIC without knowing of the building's existence, location, or function.	• Based on the building's current use and location, it is not recommended for the City to invest in building new signage. Should a new building or a multi-use building that includes the VIC be constructed in future, the design should consider new signages.
Overall Building	• The building has a semi-accessible entrance (with a ramp) on its east side; however, the door opens out and does not have an automatic door opener, which makes building entry difficult for those with accessibility needs.	• The building is retrofitted from a residential house. The original structure was never intended to be a visitor information centre. and, therefore, the site is not a fully effective space for the VIC. • Due to the look of the building's exterior, visitors may mistake the VIC for a gift shop.	• Should the City proceed with developing a new multi-use facility to consolidate some of its municipal assets/amenities, the VIC should be included in this new development. • Should the VIC be relocated to a new multi-use facility, it should be adjacent to a high traffic area with prominent signage to invite tourists and other passersby who may be travelling along Highway 17.
Staffing	• One summer student is responsible for handling all visitors, calls, and emails at the VIC. • The VIC is not staffed year-round and art gallery staff handle in-person inquiries during the off-season.	• The VIC is not open year-round. Staff are employed during the summer months and shoulder seasons. Therefore, the VIC can only handle inquiries during certain times of the year.	• Based on its current use, it is not recommended for the City to invest in additional staffing at the existing location. Should a new building or multi-use facility that includes the VIC be constructed in the future, the City should consider additional innovative resources to handle inquiries,

Area	Observations	Constraints	Recommendations
			such as an interactive kiosk, online FAQ dashboard, etc.
On-site Storage	• Part of the basement is used for tenant storage, but items are unorganized. • There is a small storage shed on the property that tenants use to store seasonal goods and decorations.	• No constraints were noted during this inspection.	• The Project Team has no recommendations.
Public Parking	• Visitors may stop to see Max the Moose but not enter the VIC. • There is the potential for the City to add pull-through parking spots for people hauling a fifth-wheel or RV.	• No constraints were noted during this inspection.	• The Project Team has no recommendations.

3.3.4 Statement of Requirements – Schedule of Rooms

Each of the tables in this section represents a room or component of the Visitor Information Centre.

Note: Unless otherwise stated, all ceilings are 8’ in height with a Suspended Acoustic Tile (SAT) finish. Storage rooms, utility rooms, and other specialty rooms may require a drywall ceiling finish to comply with the Ontario Building Code.

Table 70. Visitor Information Centre: summary of vestibule.

Category	Information
Identified User(s)	Staff and visitors
Function	• A small room leading into the reception area. • Important to have a divide that eliminates snow, wind, rain and cold temperatures from coming in with visitors. • Wheelchair accessible
Required Room Size	• 48 sq. ft. • Ensure room for two people to assist with wheelchair movement within
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	Single GFCI receptacle (as per Ontario Building Code)
Mechanical	Industrial air curtain as this area must be heated.
IT/Technology	Security camera, automatic doors
Placement	The front of the Visitor Information Centre
Notes	• The objective is to allow visitors to enter the TIC and get fully inside before asking staff questions, taking pamphlets, removing jackets, etc. • Need to determine if doors are sliding or swinging in/outwards. • A Digital Information Sign needs to be accessible and visible for after hours when the building is closed. • Well to collect rain and snow off footwear when visitors enter the building.

Table 71. Visitor Information Centre: summary of visitor services desk.

Category	Information
Identified User(s)	Staff and visitors
Function	An area for visitors to interact with TIC staff to ask questions, select brochures/pamphlets, purchase tickets to local attractions, etc. A digital information screen which provides scrolling information about local tourism/historical/programming information, etc.
Furniture	Set of coin operated lockers to store belongings if people are staying inside for programming - recessed into the wall - flush mounted. Bench for seating. Chair for TIC representative. Accessible desk area (main level and a drop down) - can be movable or two separate sized desk.
Existing Room Size	96 sq. ft.
Required Room Size	150 sq. ft.
Flooring	Commercial tile or Sheet Vinyl flooring.
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	Minimum 1 outlet (revisit based on understanding of all technology requirements). Additional outlet may be required if laptop and POS is required. May have other items that require power (i.e.: lamp)
Mechanical	Connect to HVAC
Millwork	Reception counter, COVID plexiglass safety screen.
IT/Technology	• Dedicated laptop, cash register, point-of-sale system, emergency alarm button, Public Wi-Fi. • An interactive counter should be considered to present tourism information to the visitors’ after-hours or during non-staffed off-peak season. May have to be visible from the vestibule for after hours visitors. Interactive screen to have different virtual layers to present different treaties, timeline of when each treaty was signed, Indigenous learning element.
Placement	• Immediately following Vestibule. • Merchandise to be placed near the Visitors Services Desk
Notes	• The Visitors Services Desk is designed to function as a work station and is designed to be more in an open area as opposed to an individual office. • Signage which lists pricing/programming in French. May want also consider Indigenous language. • Merchandise (books, cards, hand spun wood items, Dryden t-shirts, etc.) • Public Wi-Fi to be considered off City network - similar to existing setup at arena. • Hanging coat racks often lead to additional clutter and the unsecure storage of articles of clothing for anyone to access. Coin operated lockers may be a more appropriate solution for people who are onsite for an extended period of time.

Table 72. Visitor Information Centre: summary of programming area.

Category	Information
Identified User(s)	Staff and visitors
Function	To be utilized as rentable space. Potential users may include local schools, local organizations, boardroom utilization, private gatherings, etc.
Furniture	8' folding tables (x6), stackable chairs (x30)
Required Room Size	• 450 – 600 sq. ft. • Think about room size based on a teacher and class of students. • Think about room layout based on standing only, classroom style, boardroom, u-shaped. • What is the size of room based on the type of people/groups we want to attract?
Flooring	Commercial tile or Sheet Vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	• LED lighting. • Focus on leveraging natural lighting. Trying to bring the outdoors in. • Blackout curtains to eliminate light. Consider retractable curtains. • Think about leveraging light from adjacent rooms (maybe through frosted glass walls). Perhaps bottom half glass, top half is a focal point.
Power	Minimum 4 outlets (as per Ontario Building Code)
Mechanical	• Connect to HVAC. Perhaps enhanced air circulation based on high usage of this building and eliminating allergens, odours, etc. between uses. • Think about energy usage to support sustainable building design / development.
IT/Technology	Projection screen, ceiling mounted projector, 3-5 ethernet ports, wall-mounted speakers, public Wi-Fi, whiteboard, smartboard to support virtual conferences.
Placement	Not far from entrance and relatively close to Visitors Services Desk to staff to monitor activity if required.
Notes	• A single closet for general storage related to the function of that room. • Consider this room to be Indigenous friendly/theme.
Future Growth Requirements	Depending on the use/size of programming room and the type of people coming, we need to figure out size of parking lot. If students, they may all show up on a bus, otherwise, there may be a vehicle per participants.

Table 73. Visitor Information Centre: summary of employee area.

Category	Information
Identified User(s)	Staff
Function	• To be utilized by staff for personal use (i.e. lunch and staff breaks). • To store flatware, cups, cutlery, etc.
Furniture	Kitchen table (x1), chairs (x6), refrigerator, microwave and dishwasher (may not be required if only staffed by a single user).
Required Room Size	144 sq. ft.
Flooring	Commercial tile or Sheet Vinyl flooring.
Ceiling	8’ ceiling height with SAT finish
Plumbing	Kitchen sink
Lighting	LED lighting and to leverage natural light wherever possible.
Power	Minimum 4 outlets (as per Ontario Building Code)
Mechanical	Connect to HVAC
Millwork	Kitchen countertop and cupboards.
IT/Technology	Wi-Fi access.
Placement	Not visible or easily accessible by visitors or the public. Keycode access. Away from programming area.

Table 74. Visitor Information Centre: summary of universal washroom (staff).

Category	Information
Identified User(s)	Staff and volunteers
Function	To provide a toilet and washing station
Required Room Size	70 sq. ft.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Plumbing	Elongated toilet (x1), wall-hung accessible hand sink (x1).
Lighting	LED lighting
Power	Single GFCI receptacle (as per Ontario Building Code)
Mechanical	Connect to HVAC
Washroom Accessories	Toilet paper dispenser, paper towel dispenser, hand dryer, grab bars, mirror, door hook, soap dispensers, hand sanitizer, sharps container.
IT/Technology	An emergency call system that consists of audible and visual signal devices inside and outside of the washroom that are activated by a control device inside the washroom (as per the Ontario Building Code[3])
Placement	Close to or adjacent to Employee Area / Kitchen. Out of the way from museum visitors.

[3] https://www.buildingcode.online/525.html

Table 75. Visitor Information Centre: summary of universal public washroom.

Category	Information
Identified User(s)	Visitors and general public
Function	2 single-use/gender-inclusive and accessible washroom and one (1) family/accessible washroom.
Required Room Size	• Single use washroom - 8'x7' = 56sq. ft. • Family washroom - 10-x12' = 120sq. ft.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Plumbing	• Elongated toilet (x1), urinal (x1), wall-hung accessible hand sink (x1). • Possible two urinals in family washroom (one standard height and one junior height)
Lighting	LED lighting
Power	Single GFCI receptacle (as per Ontario Building Code)
Mechanical	Connect to HVAC
Washroom Accessories	Toilet paper dispenser, paper towel dispenser, hand dryer, grab bars, mirror, door hook, soap dispensers, hand sanitizer, retractable change table, sharps container.
IT/Technology	An emergency call system that consists of audible and visual signal devices inside and outside of the washroom that are activated by a control device inside the washroom (as per the Ontario Building Code[4])
Placement	Closer to the front of the building to provide immediate access.
Notes	If only there is only the option for one washroom to be accessible, then the preference would be for the public washroom to avoid visitors having to ask staff to utilize their washroom.
Future Growth Requirements	Increased utilization of the museum, may require multiple single-use, accessible, universal washrooms and more than a single toilet and sink in each washroom

[4] https://www.buildingcode.online/525.html

Table 76. Visitor Information Centre: summary of outdoor signage.

Category	Information
Function	Outdoor signage is used to attract traffic to the TIC. The signage should be visible from Highway 17 and easily identifiable from a distance.
Lighting	Outdoor LED spot lighting and which can be manipulated (such as Orange Shirt Day or Christmas, to be able to change the colour of the lights accordingly)
Power	Outdoor underground power supply
IT/Technology	The outdoor TIC sign could feature an LED screen that presents rolling tourism information. The LED screen should be connected to the existing LED signage through internet connections
Placement	On the property of the TIC but must be visible from both sides of Highway 17 which follows the highway regulation.
Notes	Outdoor Flags (such as Canadian, Provincial, Municipal, Metis, Pride, etc.). Possibility on more than one flagpole.
Future Growth Requirements	Increased utilization of the museum, may require multiple single-use, accessible, universal washrooms and more than a single toilet and sink in each washroom.

3.3.5 Summary of Existing vs. Required Room Sizes

Table 77 provides a summary of the existing and required room sizes for the VIC.

Table 77. Visitor Information Centre: Summary of existing and required room sizes.

Component	Existing Room Size (sq. ft.)	Required Room Size (sq. ft.)
Vestibule	N/A	48
Visitors Services Desk	96	150
Programming Area	300	450
Employee Area	150	144
Universal Staff Washroom	70	70
Universal Public Washroom (single)	70	56
Universal Public Washroom (family)	N/A	120
Utility Room	30	30
Sub-Total	716	1,068
Office Circulation	107	160 (based on target of 15%)
Total	823	1,228
Recommended Increase in Building Size:		**49%**

3.3.6 Combined Museum/Visitor Centre

The Project Team also produced an SOR and a block planning exercise for the proposed Museum/Visitor Centre, which would replace the Visitor Information Centre. The SOR and the results of the block planning exercise are detailed in sections 5.2.6 and 5.2.7 of this document.

3.4 Dryden Regional Airport

3.4.1 Overview of Dryden Regional Airport

Operating since 1969, Dryden Regional Airport (YHD) is a hub for the following:

- regional air passenger/charter services
- medevac operations
- Mag Aerospace
- Northern Youth Programs
- Ministry of Natural Resources and Forestry Fire Management Centre

The terminal building has the following designated spaces:

- There is a passenger area where travellers can check in, check their baggage, and await their flight in a designated passenger waiting area. A vending machine is on-site, and public washrooms are easily assessable. This area is located along the north side of the terminal building.
- There is a pilot's lounge where pilots can rest or complete their flight planning requirements. This area is located along the north side of the terminal building.
- There are two offices for the airport's staff and management personnel, which are adjacent to the pilot's lounge. This area is located along the north side of the terminal building.
- There is an exterior access point to the apron taxiway located along the north side of the terminal building.
- There is a baggage conveyor system located on the west side of the terminal building.
- There is a small open-air office with a secured exterior door located in the southwest corner of the terminal building. This office is currently a storage area.
- There is a secured office area in the southeast corner of the terminal building. The area is currently vacant; however, the airport uses part of the office as a storage space for a commercial tenant, and Nav Canada has a secured area in the office for its operations.
- There are airline check-in counters on the east side of the terminal building. Office space is available behind the counters, but the airport is not currently using that space.
- There is office space in the northeast corner of the terminal. Previously, the Canadian Border Services Agency (CSBA) used the area to monitor international

departures. Because international flights no longer depart from YHD, CSBA does not require that office space, and the area is currently unoccupied.

3.4.2 Site Location

Dryden Regional Airport is located at 1012 ON-601. This location is approximately ten kilometres northeast of the City and provides the airport with direct access to Highway 17. This location also places the airport in a central position in Northwestern Ontario, between Thunder Bay, ON (to the east) and Winnipeg, MB (to the west). Both Thunder Bay and Winnipeg are approximately 350 kilometres on either side of the City.

Views of the airport's location are presented as follows:

- Figure 6 shows an aerial view of the airport's proximity to Highway 17.
- Figure 7 shows an aerial view of the airport's property.
- Figure 8 shows an aerial view of the location of the airport's terminal building.

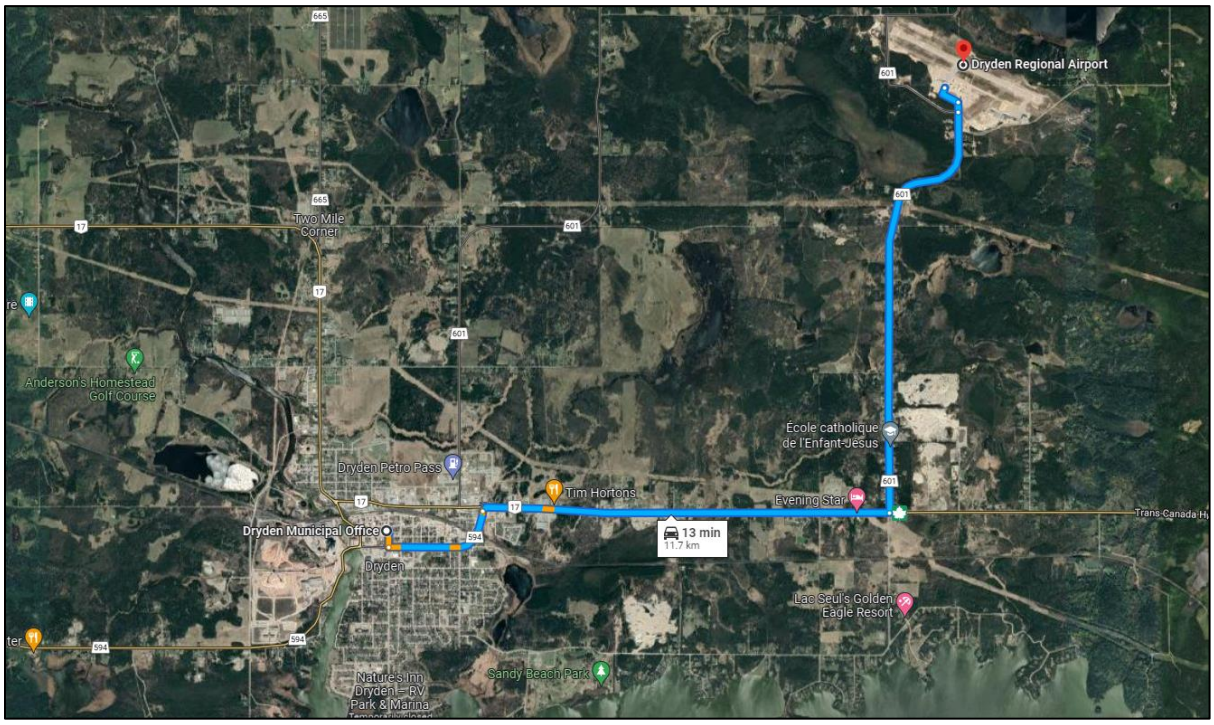

Figure 6. Distance of Dryden Regional Airport to the City of Dryden.

Figure 7. Aerial of Dryden Regional Airport.

Figure 8. Location of Dryden Regional Airport's terminal building.

3.4.3 Terminal Building – Facility Evaluation Summary

General Summary

The facility is a purpose-built quality building with a large public gathering hall and ancillary spaces for offices and air-carrier functions. Since its construction in 1984, the facility has not been fully utilized despite its potential and its condition is therefore excellent for its nearly 40 years of operation. Several major mechanical equipment replacement events have been undertaken by the City prior to our survey. The identified immediate repair events are relatively minor. The long-range events are selective to cause from age or weather.

Structural Summary (Superstructure)

The structure which is a steel framing, concrete and masonry combination, is in very good condition with no indications of foundation movements or other concerns that require remediation within the next 20 years.

Envelope Summary (Shell)

Although not an energy efficient building by today's standards, the envelope is of durable construction and possesses continued function beyond the range of this study. The interlocking metal roof is showing coating erosion and will require replacement within the horizon of our study. Windows and glazing would warrant a study to evaluate the scheduled replacement and budgeting.

Interior Summary

The interior surfaces are in excellent condition and the events only list potential repainting. Although not a repair or replacement event, the building lacks a universal washroom for the public and this would in our opinion, be a good investment.

Mechanical Summary

The terminal building has received a replacement boiler and air-conditioning equipment within the last two years. Aside from some secondary replacement events of some heating units, the building is not likely to require any major partial or whole replacement within the event horizon of the study (20 years).

Electrical Summary

There were no major repair and replacement events in the detailed list supplied from our visual survey. The emergency lighting batteries will require routine replacement. Due to the overall age of system installation, the theoretical life of various electrical systems are likely to require partial or whole replacement within the event horizon of the study (20 years) that should be budgeted.

Summary of Estimated Costs Over Time

Table 78 summarizes the estimated costs required to maintain the YHD terminal building over the next 20 years.

Table 78. Dryden Regional Airport terminal building – estimated maintenance cost.

Area Requiring Investment	0-5 Year Cost	6-10 Year Cost	11-20 Year Cost
Substructure	$0	$0	$0
Shell	$20,200	$2,400	$258,000
Interiors	$37,520	$17,156	$9,200
Services	$21,000	$58,100	$37,100
Equipment & Furnishings	$0	$0	$0
Special Construction	$0	$0	$0
Building Siteworks	$38,500	$258,800	$2,200
Total	**$117,220**	**$336,456**	**$306,500**

3.4.4 Maintenance Building – Facility Evaluation Summary

General Summary

As a pre-engineered system, the framing and method of assembly affords a cost-effective solution for uses that require shelter but only limited comfort control and airtightness. Given the general age of the building, the metal cladding of wall exteriors and in particular as a roof finish material would have well exceeded the manufacturers warranty period by over 20 years, whereby the roofing ought to be replaced or coated to extend water protection.

Note: The survey visit was conducted in fair August weather and this was a high-level visual review only with no intrusive inspection or examination of building equipment and fixtures. The are several repair/replacement events noted in the summary survey.

Structural Summary (Superstructure)

The foundations and the primary structural framing of the storage/repair bay portion of the building appear sound but an independent review of the original loading assumptions, stability to wind and other lateral forces be conducted to assure that the structure meets current standards of a pre-engineered building before investing in renovations such as recladding. Particular focus on the framing around portal openings (overhead doors) should be given. The lean-to crew offices should also be reviewed for integrity of the light-member framing since a history of moisture infiltration has been noted.

Envelope Summary (Shell)

The envelope of the building would provide a generally low insulation values compared to a new facility. From a moisture protection study, the shed and dormer roofs perform well but they are deteriorating and prone to water infiltration under certain climatic conditions. Fasteners get loose and there is exposure at joint lines, around openings, at ridge flashing and at eaves We understand that interim measures have been carried out in 2020-2021 to replace fastening screws on the roof sheathing, which had rusted and lost gasketing effectiveness to the metal.

There has been a history of water leakage causing localized damage; Please review the Pinchin report dated 2022 that describes location of remediation measures for localized areas of the lean-to addition, most likely caused from direct roof leakage and/or condensation events. With the factory coating on the roof sheathing worn to the extent, it is recommended that both the storage/repair bay portion and the lean-to crew offices have metal roofs replaced within the next two or three years to avoid more water damage and to ensure an extended operation life by another 20 years or longer. The metal roof over the lean-to, although newer by comparison to the repair/storage bays, is a very low slope angle and may warrant further study into control of air/vapour infiltration. Such a replacement event would allow for the renewal of insulation roof liners within the storage/repair bay portion of the building. Other insulation methods, such as spray foam or a rubberized membranes may be considerations on the crew office addition and a superior solution.

If the cost of roof replacement is out of reach, the City may consider the option of recoating the roof with an approved liquid sealant designed specifically for renewal of metal roofs, which would typically offer an extension of several years depending on the coating manufacturer claims. Other elements of the envelope are original and will warrant replacement particularly windows. A further study to evaluate the windows and doors is recommended so that scheduled replacement and budgeting.

Interior Summary

The interior of the storage/repair bays are generally in fair to good but there are areas where the interior cladding has rusted at the base and where the wall liners have been torn. Localized repair events would be recommended. The interior surfaces of the crew offices are in good to fair condition. If there will be localized ceiling repair as a function of the mold mitigation, it would be appropriate to undertake repainting of the entire ceiling and walls to coincide. Replace the flooring throughout.

Mechanical Summary

While the facility is reported to have good operational history. Our review of past Stantec report indicates that a 2010 budget of $40K was recommended for Heating equipment to be replaced for this building. Our observations made of the storage/repair bays would support that equipment was replaced and is relatively in good condition at an age of ten-years old or there abouts. Within the next ten years a HVAC /Heating study should be conducted to provide a more precise replacement schedule. The washroom fixtures appeared to be original and therefore are due for replacement due to age with more water-use efficient offerings.

Electrical Summary

Due to the concealment of most electrical wiring, the study could not fully determine the wiring age or its overall condition beyond a sampling of the age of the panel boards and main which are due for replacement within the next 5 to 10 years. The emergency lighting batteries will require routine replacement. Due to the overall age of system installation, the theoretical life of various electrical systems are likely to require partial or whole replacement.

Summary of Estimated Costs Over Time

Table 79 summarizes the estimated costs required to maintain the YHD maintenance building over the next 20 years.

Table 79. Dryden Regional Airport maintenance building – estimated maintenance cost.

Area Requiring Investment	0-5 Year Cost	6-10 Year Cost	11-20 Year Cost
Substructure	$0	$0	$0
Shell	$0	$160,000	$0
Interiors	$0	$44,000	$0
Services	$0	$31,000	$0
Equipment & Furnishings	$0	$0	$0
Special Construction	$0	$0	$0
Building Siteworks	$0	$0	$0
Total	$0	$235,000	$0

3.4.5 Terminal Building – Needs Assessment

The needs assessment conducted for YHD examined the terminal building and the daily operations that take place in the following areas:

- offices
- pilot's lounge
- passenger waiting areas
- washroom facilities
- check-in counters
- storage space
- visitor parking
- baggage check-in counter

Table 80 summarizes the findings of the needs assessment and identifies the constraints that impact terminal building's operations and service delivery.

Table 80. Summary of terminal building needs assessment.

Area	Observations	Constraints	Recommendations
Offices	• There are modular open-air offices (near the baggage conveyor and in the former CBSA offices) that are used for storage. • There is unutilized office space within the terminal building which could be leased out as commercial office space. These offices are located in three of the four corners of the terminal building.	• There could be issues with leasing the office next to the airport manager's office, as access to airport manager's office is only available through the secondary office.	• The City, in collaboration with the Airport Manager should target commercial tenants to lease out the remaining office space within the terminal. • The outdated carpet tiles within the offices and the pilot's lounge should be replaced with something of a more modern look.

Area	Observations	Constraints	Recommendations
Pilot's Lounge	• YHD provides free Wi-Fi to pilots for activities related to flight planning. • YHD recently acquired new couches for the pilot's lounge.	• The Pilot's Lounge is located in the corner of the terminal building (facing the apron) and whenever an aircraft is operating on the apron, it can be quite disruptive for a resting pilot. • There is not directional signage on the airside, nor within the terminal building to advise pilots that a Pilot's Lounge exists. • The lack of signage within the terminal building does not prevent passengers from accessing the designated area. • There is no accessible computer for pilots to assist with their flight planning needs. • There is no television within the Pilot's Lounge as a mechanism to help relax or broadcast flight-related information such as weather, latest NOTAM, etc.	• The airport should install on-site signage that a pilot's lounge is available at YHD – both airside and within the terminal building. • YHD should provide a TV in the pilot's lounge (which the pilots can use during downtime). • YHD should consider providing computer access in the pilot's lounge for activities related to flight planning. • The pilot's lounge should be located in a quiet area. • To help pilots relax, the pilot's lounge should have lighting that can be controlled with a dimmer switch.
Check-in Counter	• Airline staff and/or ground handling crew do not use the baggage conveyor because they find it easier to carry the limited number of checked baggage items to the aircraft by hand. • Staff and crew conduct an annual inspection to verify that the baggage conveyer remains operational.	• No constraints were noted during this inspection.	• It is recommended that airport staff proactively inspect and maintain the check-in counter (even unused counters) and the baggage conveyor to ensure its safe operations when required. • It is recommended that the airport understands the remaining life of its baggage conveyor to make an informed decision when to repair versus replace as part of the City's asset management plan.

Area	Observations	Constraints	Recommendations
Employee Areas	• It was reported that YHD does not require an employee area due to the limited number of on-site staff in the terminal building. For reference, Airport Maintenance Staff have their own employee area within the Airport Maintenance Building.	• No constraints were noted during this inspection.	• It is recommended that the City consider adding a shared employee area (for use by airport staff and commercial tenants) as the space within the terminal building nears full capacity.
Washrooms	• The washroom aesthetics are showing signs of visible aging. • There are reported incidences of unpleasant odours originating from the public washrooms.	• Due to the previous patchwork repairs to the women's washroom, further upgrades will require professional plumbing services. • The terminal washrooms are not wheelchair accessible.	• The washrooms need redevelopment to meet current standards and ensure accessibility for all users of the terminal building • Both sets of public washrooms should undergo upgrades to provide them with a more modern look and feel. • Washroom signage should be more prominent and visible from throughout the Terminal Building.
Security	• The terminal security camera system is operational. • The airport does not offer CATSA security screening and it is not an Airport of Entry (AOE), which means that the airport cannot accept inbound international flights.	• No constraints were noted during this inspection.	• The Project Team has no recommendations.
Overall Building	• There are traps on-site to keep mice levels under control.	• No constraints were noted during this inspection.	• YHD should invest in upgrades, including cosmetic touch-ups which lead to a more

Area	Observations	Constraints	Recommendations
	• The customer/passenger path is not clearly defined upon entrance into the terminal. • New public area seating was recently installed. • The vending machine sign is oversized compared to other signage within the Terminal Building. • The building's exterior is in poor condition (refer to the City's Airport Terminal Facility Evaluation Report).		modern and contemporary look and feel within the Terminal Building. • YHD should review and implement the standards for universal access needs within the Terminal Building. • YHD should repaint its exterior doors and replace the signage (representing the airport name) above its front doors. • If the mezzanine level (within the Terminal Building) were developed/furnished, it could add retail, office space and/or act as an employee area.
Interior Storage	• Due to the way YHD displays the museum pieces from the Dryden & District Museum that are not aviation related. • Some of the unused office spaces are currently utilized as storage.	• No constraints were noted during this inspection.	• YHD should develop a plan to relocate its stored items to a designated storage space for when its current location is sought after by an interested commercial tenant.
Public Parking	• Overnight vehicle parking fees are approximately $9 per 24-hour period and parking fees for plug-ins are approximately $7.50/plug-in. • The parking lot is showing signs of deterioration and stress. As a result, YHD should consider resurfacing or crack sealing.	• The existing paid parking sign is too small for people to see when approaching the parking lot. Additionally, there are no clear instructions on how to pay parking fees.	• YHD should repaint the lines in the parking lot. • The City should continue its evaluation to enhance the lighting in the parking lot, including options for automatic paid parking.

Area	Observations	Constraints	Recommendations
Equipment	• Starlink internet is now accessible on-site. • Access to broadband internet is no longer an issue. • It remains costly to tap into the broadband fibre connection that feeds into the Nav Canada office.	• No constraints were noted during this inspection.	• It is recommended that the City actively seek opportunities to bring in affordable broadband fibre internet to the terminal building, which could enhance the attractiveness of the leasable commercial space.
Other	• Many northbound flights in the area choose to depart from Sioux Lookout Airport (which is 70 kilometres north of Highway 17) instead of YHD (which is only five kilometres north of the same highway). • The former YHD airport manager had planned to obtain funding through a grant to support a museum exhibit within the airport terminal building. However, when the former airport manager left, this project was not completed.	• No constraints were noted during this inspection.	• YHD should conduct research to understand why Sioux Lookout Airport sees increased aircraft activity. YHD should then consider if it can offer similar services to increase activity at its own facility.

3.4.6 Maintenance Building – Needs Assessment

Table 81 summarizes needs assessment's findings regarding the maintenance building at YHD.

Table 81. Summary of maintenance building needs assessment.

Area	Observations	Constraints	Recommendations
Offices	• The lead hand has a private office. Other airport staff may access this office when the lead hand is not on-site.	• No constraints were noted during this inspection.	• The Project Team has no recommendations.
Employee Areas	• The employee area also serves as the staff kitchen.	• No constraints were noted during this inspection.	• The Project Team has no recommendations.
Washrooms	• There is one individual private shower stall for all employees (both men and women). No issues have yet been reported regarding this shower stall.	• No constraints were noted during this inspection.	• It is recommended that the City inspect the shared washroom facility and consider repair or renovation when needed.
Interior Storage	• There is a mezzanine at the back of the garage for parts and sweeper brushes.	• No constraints were noted during this inspection.	• The Project Team has no recommendations.
Garage and Vehicle Storage	• No unique observations were noted during this inspection.	• There is limited space to accommodate all vehicles and equipment within the building.	• It is recommended that the Airport continue to explore improvement in storage management. Should additional space become necessary to accommodate the increase of airport services in future, the City should consider building new garage and vehicle storage hangars.
On-site Equipment	• Staff from the Public Works Department service the on-site airport maintenance equipment.	• No constraints were noted during this inspection.	• The Project Team has no recommendations.

3.5 City Hall

3.5.1 Facility Evaluation Summary

General Summary

The facility consists of a series of additions and renovations that define its current configuration, the most recent renovation being an extensive interior alteration to its main floor offices and reception area. The building is classified as Group D, O.B.C. 3.2.2.25 permitting up to two storeys height and un sprinklered. The key immediate actions would include roof repair and any remedial repair to improve fire resistance of the drywall ceiling within the oldest part of the basement. Due to the age and nature of the original former school's wood and timber construction, a focused structural study is warranted for the original building. The collective age of mechanical and electrical equipment, fixtures and systems, the facility will require a schedule of progressive replacement over the next twenty years in order to maintain reliable operation and energy efficiency.

Structural Summary (Superstructure)

Apart from the recommended study of the timber and wood framing in the original building, the foundation in general and the overall structure is generally sound.

Envelope Summary (Shell)

Due the range of construction phases, the building has various envelope configurations and a generally low insulation value compared to a new facility. The general age of the original building at over a hundred years and even the most recent additions all at over 35 years, most materials particularly windows, would warrant a study to evaluate the scheduled replacement and budgeting.

Interior Summary

While the main floor level of the building has received a recent 2022 renovation and therefore has many replaced and resurfaced elements, there are other parts of the building that will require attention over the next ten years. Although generally in good condition the evaluation assumes that there will be renewal of finishes need in 15 to 20 years commensurate to other replacement events and due to simple wear and normal material/coating degradation.

Mechanical Summary

While the facility is reported to have good operational history, there are a number of primary mechanical equipment items noted to be into the normal replacement range when they are likely to fail or lose partial function at some point within the next ten years. Similar comment applies to some fixtures noted. Due to the overall age of

system installation, the theoretical life of various mechanical systems (piping, drains, ducting, etc.) are likely to require partial or whole replacement within the event horizon of the study (20years) that should be budgeted.

Electrical Summary

Due to the concealment of most electrical wiring, the study could not fully determine the wiring age or its overall condition beyond a sampling of the age of various panel boards, some of which are due for replacement within the next 5 to 10 years. The emergency lighting batteries will require routine replacement. Due to the overall age of system installation, the theoretical life of various electrical systems are likely to require partial or whole replacement within the event horizon of the study (20 years) that should be budgeted.

Summary of Estimated Costs Over Time

Table 82 summarizes the estimated costs required to maintain the City Hall building over the next 20 years.

Table 82. Dryden City Hall: summary of estimated costs over time

Area Requiring Investment	0-5 Year Cost	6-10 Year Cost	11-20 Year Cost
Substructure	$0	$0	$0
Shell	$67,650	$277,450	$39,100
Interiors	$27,400	$80,560	$730,210
Services	$234,400	$97,300	$577,200
Equipment & Furnishings	$0	$0	$0
Special Construction	$0	$0	$0
Building Siteworks	$52,100	$74,900	$6,300
Total	**$381,550**	**$530,210**	**$1,352,810**

3.7 Dryden Public Library

3.7.1 Facility Evaluation Summary

General Summary

The facility is a connected part of the City Hall complex and part of the mechanical system is housed in the basement of the City Hall. The Part of the complex containing the library functions is classified as Group D use. The electrical utility service for the entire complex tied into the library and therefore the immediate replacement action is a new service, meter box, disconnect and main switch gear. The collective age of mechanical and electrical equipment, fixtures and systems, the facility will require a schedule of progressive replacement over the next twenty years in order to maintain reliable operation and energy efficiency.

Structural Summary (Superstructure)

The library is a combination of wood and OWSJ roof framing supported on perimeter masonry walls. The east main floor is a slab-on-grade construction with only a partial basement under the main floor mezzanine. This floor appears to be a pre-stress concrete plank floor system. The overall structure is generally sound.

Envelope Summary (Shell)

There are two phases in the library configuration but both envelope treatments are near to identical, being a brick veneer outer material with masonry support. Key components include roofing which is in fair condition but will requirement replacement within the horizon of this study. Localized leaks appear to be confined to strut penetrations requiring repair. Windows and glazing would warrant a study to evaluate the scheduled replacement and budgeting.

Interior Summary

Nearly all the interior is original to the construction with only minor alterations. A power wheelchair lift was added at some juncture to access the upper level of the main floor.

Mechanical Summary

The library area is serviced by a force-air furnace with ducted air distribution. The air handling system includes a split system with cooling coils. Due to the overall age of system installation, the theoretical life of various mechanical systems (piping, drains, ducting, etc.) are likely to require partial or whole replacement within the event horizon of the study (20years) that should be budgeted.

Electrical Summary

With a shared main electrical service, the primary replacement event would be the electrical service as noted in the detailed list of 0-5 years. The emergency lighting batteries will require routine replacement. Due to the overall age of system installation, the theoretical life of various electrical systems are likely to require partial or whole replacement within the event horizon of the study (20 years) that should be budgeted.

Summary of Estimated Costs Over Time

Table 83 summarizes the estimated costs required to maintain the Dryden Public Library building over the next 20 years.

Table 83. Dryden Public Library: summary of estimated costs over time

Area Requiring Investment	0-5 Year Cost	6-10 Year Cost	11-20 Year Cost
Substructure	$0	$0	$0
Shell	$10,500	$73,300	$45,600
Interiors	$8,540	$81,880	$46,390
Services	$73,900	$30,980	$81,880
Equipment & Furnishings	$0	$0	$0
Special Construction	$0	$0	$0
Building Siteworks	$1,100	$70,250	$51,400
Total	**$94,040**	**$256,410**	**$225,270**

3.8 Dryden Police Service Building (Former)

3.8.1 Facility Evaluation Summary

General Summary

The facility was a purpose-built office and policing station constructed in 1978. Over the course of its functions, it has been well-maintained, and the interior finishes are suitable for general office uses with exception of the holding cell area. As a recommendation (no cost carried in the events), it would make sense to demolish the holding cell area and replace the space with more office area.

The findings indicate very few repair replacement events that are immediate. The long-range actions are largely mechanical and electrical replacement events recommended due to theoretic life of these systems/equipment. We have identified studies to be conducted as a standing watch on the roof and exterior glazing.

Structural Summary (Superstructure)

There are only minor events to report or anticipate. The overall frame structure appears to be solid with no indication of movement, distortion, etc.

Envelope Summary (Shell)

Although not an energy efficient building by today's standards, the envelope is of durable construction and possesses continued function beyond the range of this study. The roofing has had repair events recently and the 2017 to 2019 repair events should be monitored. The spray method of roofing repair is not a conventional method and we have therefore recommended a study be undertaken and to possibly address snow drift build-up affect on the integrity of the water seal between roof heights.

Interior Summary

The interior surfaces are in excellent condition and the events only list potential repainting and carpet replacement assuming that the building is utilized as an office with associate wear over a 20-year period.

Mechanical Summary

The facility has several original mechanical equipment components that are recommended for replacement. There are also systematic replacement events listed simply due to age and not necessarily because of the physical condition.

Electrical Summary

There are a small number of listed replacement events in the interim period of operation. The primary observations are based on the original service from the utility and certain switchgear and lighting replacement events. Due to the overall age of system installation, the theoretical life of various electrical systems are likely to require partial or whole replacement within the event horizon of the study (20 years) that should be budgeted.

Summary of Estimated Costs Over Time

Table 84 summarizes the estimated costs required to maintain Dryden's former police services building over the next 20 years.

Table 84. Dryden Police Service Building (former): summary of estimated costs over time.

Area Requiring Investment	0-5 Year Cost	6-10 Year Cost	11-20 Year Cost
Substructure	$0	$0	$39,200
Shell	$0	$8,000	$240,500
Interiors	$0	$35,000	$111,820
Services	$113,000	$213,500	$98,000
Equipment & Furnishings	$0	$0	$0
Special Construction	$0	$0	$0
Building Siteworks	$3,000	$30,000	$0
Total	**$116,000**	**$286,500**	**$489,520**

3.9 Dryden Recreation Complex – Arena

3.9.1 Facility Evaluation Summary

General Summary

The arena complex is a twin ice pack facility originally constructed in 1979 with the north ice pad added in 1988. The facility has a generally been well-maintained with routine repairs and replacement. As listed in the breakout of specific items, there are some action events that will require attention.

Structural Summary (Superstructure)

There were no structural repair events noted in the staff observations. Due to the provincial regulations, the roof will require inspection by a licensed structural engineer on an annual basis.

Envelope Summary (Shell)

The envelope of the building is typical of many other pre-engineered structures. It has limited thermal and air/vapor seal but performs adequately for its function as a twin pad arena of its age. The roof has been included in the schedule of repair replacement events, particularly those related to the flat roof areas, which are more susceptible to leakage and wear. The events also account for window and door repair/replacement.

Interior Summary

Most surfaces within the twin pad are durable, concrete or concrete block, where exposed to public assembly types of abuse such as in the arena, the circulation corridors, change rooms and public washrooms, etc. typical of its use. The listed events outline replacement of various flooring.

Mechanical Summary

This report outlines several repair replacement events, typical for a building of its age and function. Early events propose replacement of various toilet and bathroom fixtures. Long range, there are rink refrigeration and HVAC replacement events.

Electrical Summary

The facility has undergone routine, light fixture replacement, and should continue with schedules to update items in the general electrical distribution system, such as panels and main supply to the building within the event Horizon of this report.

Summary of Estimated Costs Over Time

Table 85 summarizes the estimated costs required to maintain the Dryden Recreational Complex - Arena over the next 20 years.

Table 85. Dryden Recreation Complex – Arena: summary of estimated costs over time.

Area Requiring Investment	0-5 Years	6-10 Years	11-20 Years
Substructure	$0	$0	$0
Shell	$25,000	$1,554,500	$204,000
Interiors	$99,700	$361,400	$753,000
Services	$322,000	$242,500	$1,415,000
Equipment & Furnishings	$357,000	$40,000	$42,000
Special Construction	$0	$1,500,000	$315,000
Building Siteworks	$38,900	$250,000	$104,000
Total	**$842,600**	**$3,948,400**	**$2,833,000**

3.11 Dryden Recreation Complex – Pool and Fitness Centre

3.11.1 Facility Evaluation Summary

General Summary

The aquatic centre is a purpose-built facility constructed in 1982. As such, it is constructed using durable materials and surfaces. The facility has been well-maintained, with only relatively minor improvements. There is a list of resurfacing and renewal events that are largely required as a factor around the age of the building, its constant use and the exceeding of theoretical life of some components described herein.

Structural Summary (Superstructure)

No structural deficiencies were noted in the report and it appears sound. Due to the age of the building, there may be some localized testing and assessment to be considered by the City in the future given the humidity and chemicals involved with the pool environment.

Envelope Summary (Shell)

The facility has received a fairly recent replacement of its flat roofs. Aside from some surface recoating, and routine maintenance events, the building should endure.

Interior Summary

Considering that this is a 40+ year old building, the construction was made using durable materials and surfaces and repair/replacement events bare out this. Along with a routine of maintenance, the interior is remarkably in good condition, with only replacement items noted in the report that come from constant use by the public.

Mechanical Summary

Prior to the preparation of this report, many aspects of the mechanical system, including the pool, filtration system, etc. have underwent major replacement events. The somewhat unique use of solar panels has also been monitored, whereby a plan for replacement is one of the repair events proposed. Other mechanical replacement events related to the age of various fixtures within the building that are exceeding their theoretical life.

Electrical Summary

The building has undergone lighting replacement programs, and they are very few repair replacement events. I then identified in the report aside from the need for some primary panel and distribution events that are due to the age of the building rather than its use.

Summary of Estimated Costs Over Time

Table 86 summarizes the estimated costs required to maintain the Dryden Recreation Complex – Pool and Fitness Centre over the next 20 years.

Table 86. Dryden Recreation Complex – Pool and Fitness Centre: summary of estimated costs over time.

Area Requiring Investment	0-5 Years	6-10 Years	11-20 Years
Substructure	$0	$0	$0
Shell	$7,000	$239,600	$154,000
Interiors	$312,500	$59,870	$259,950
Services	$8,000	$170,000	$231,000
Equipment & Furnishings	$0	$263,000	$0
Special Construction	$0	$0	$16,000
Building Siteworks	$0	$0	$0
Total	**$327,500**	**$732,470**	**$660,950**

3.12 Fire Station #1

3.12.1 Facility Evaluation Summary

General Summary

The facility was a renovation and addition specific to the functions of a fire station. Since its operation in 2004, the facility has been well-maintained. The repair/replacement events are therefore localized minor repairs and routine wear/age events predicated on the type of use and durability of materials, equipment and systems encountered. The facility lacks barrier-free access to the basement.

The report identifies some studies to conduct more investigation into a chronic leak event and for glazing inspection for scheduled replacement. The mechanical and electrical events noted are generally based on theoretic age of equipment or systems

Structural Summary (Superstructure)

There are no structural events to report or anticipate. The overall frame structure appears to be solid with no indication of movement, distortion, etc.

Envelope Summary (Shell)

Although not an energy efficient building by today's standards, the envelope is of durable construction and possesses continued function beyond the range of this study. There is only minor roofing repair noted and to develop a schedule for glazing replacement in the recommendations.

Interior Summary

The interior surfaces are generally in good condition with some localized repair events within the first 5 years to address. Future wear/age events only list potential repainting and flooring replacement assuming that the building is utilized as an active fire station over a 20-year period.

Mechanical Summary

The facility has several original mechanical equipment components that are recommended for replacement later in the study horizon. There are minimal systematic replacement events simply due to the 2004 age of installation.

Electrical Summary

There are a small number of listed replacement events in the interim period of operation. Only minor whole replacement events within the event horizon of the study (20 years) that can be budgeted.

Summary of Estimated Costs Over Time:

Table 87 summarizes the estimated costs required to maintain Dryden's Fire Station #1 building over the next 20 years.

Table 87. Fire Station #1: summary of estimated costs over time.

Area Requiring Investment	0-5 Year Cost	6-10 Year Cost	11-20 Year Cost
Substructure	$0	$0	$0
Shell	$9,000	$3,000	$38,000
Interiors	$24,300	$0	$49,820
Services	$0	$110,810	$98,000
Equipment & Furnishings	$0	$0	$0
Special Construction	$0	$0	$0
Building Siteworks	$0	$3,500	$46,000
Total	**$33,300**	**$117,310**	**$231,820**

3.13 Fire Station #2

3.13.1 Facility Evaluation Summary

General Summary

Fire Station #2 is a former office building. The facility is 30 years old. Due to its age, the building was not constructed with durable materials.

The building survey conducted during the FMP's development identified several issues with Fire Station #2. For example, the second floor presents barriers to accessibility. The survey also noted several repairs and replacements planned within the next five years, including mechanical and electrical work.

Overall, Fire Station #2 does not offer enough inherent value to the City to justify continued investment, unless those investments mitigate any unforeseen safety and/or structural issues. As a result, the City continues to manage Fire Station #2 from an occupational health and safety perspective. If there was an anticipated substantial renovation for Fire Station #2, the City may then budget for it, but as such, there are no planned renovations in the near-term. The onsite assessment did not account for what would be considered as 'improvements' to the existing building as they go beyond the scope of a facilities master plan.

When both fire stations were built, they did not have to meet the requirements of the Accessibility for Ontarians with Disabilities Act (AODA). With the AODA's introduction in 2005, public facilities became required to be accessible to everyone. Many fire departments have challenged the intention of the AODA by stating that a fire station is not a public building, but that is perhaps a naive approach to circumvent the AODA.

Understanding that fire stations are publicly funded facilities, they should conform to the AODA and be inclusive to all community members. While the City follows the minimum legislative requirements, there may be an opportunity to enhance the ramp, office and basement (Station 1) access, and washroom upgrades associated with AODA compliance, however, these are considered to be 'improvements' and a separate design study may be required to support their improvements.

Structural Summary (Superstructure)

The foundations appear to be strip footings with a slab-on-grade floor throughout. The identified structural events were minimal and pertaining to a trench drain repair replacement.

Envelope Summary (Shell)

The envelope would provide a generally low insulation values compared to a new facility. There has been a water leakage causing localized damage; Please review the Pinchin report dated 2022, that describes remediation measures undertaken. Other elements of the envelope are original and will warrant replacement particularly windows. A study to evaluate the scheduled replacement and budgeting is recommended.

Interior Summary

The interior is generally in good to fair condition. There are surfaces that are showing age. We have listed wall repainting and replacement of ceiling tiles after minor remediation work is undertaken.

Mechanical Summary

While the facility is reported to have good operational history, there are a number of primary mechanical equipment items noted to be into the normal replacement range when they are likely to fail or lose partial function at some point within the next ten years. Similar comment applies to some fixtures noted. Due to the overall age of system installation, the theoretical life of various mechanical systems (piping, drains, ducting, etc.) are likely to require partial or whole replacement within the event horizon of the study.

Electrical Summary

Due to the concealment of most electrical wiring, the study could not fully determine the wiring age or its overall condition beyond a sampling of the age of various panel boards, some of which are due for replacement within the next 5 to 10 years. The emergency lighting batteries will require routine replacement. Due to the overall age of system installation, the theoretical life of various electrical systems are likely to require partial or whole replacement.

Summary of Estimated Costs Over Time

Table 88 summarizes the estimated costs required to maintain Dryden's Fire Station #2 building over the next 20 years.

Table 88. Fire Station #2: summary of estimated costs over time.

Area Requiring Investment	0-5 Year Cost	6-10 Year Cost	11-20 Year Cost
Substructure	$25,000	$0	$0
Shell	$6,200	$3,200	$96,568
Interiors	$72,810	$51,963	$0
Services	$35,840	$47,500	$58,100
Equipment & Furnishings	$0	$0	$0
Special Construction	$0	$0	$0
Building Siteworks	$313,200	$0	$29,500
Total	**$453,050**	**$102,663**	**$184,168**

3.14 Water Treatment Plant

3.14.1 Findings from 2018 Study

In 2018, the City commissioned a facility condition assessment of the Dryden Water Treatment Plant. The assessment's goal was to identify the life cycle replacements that the Water Treatment Plant will require over the next ten years (up to 2028).

The Water Treatment Plant contains the following:

- main building
- low-lift pump station

- generator building

The capital needs of the Water Treatment Plant total $3,234,379. These funds are categorized by plan type as follows:

- engineering study ($8,000)
- life cycle replacements ($3,100,979)
- major repairs ($125,400)

Figure 9 shows the Water Treatment Plant's capital needs (by building system) over the evaluation period used during the 2018 assessment.

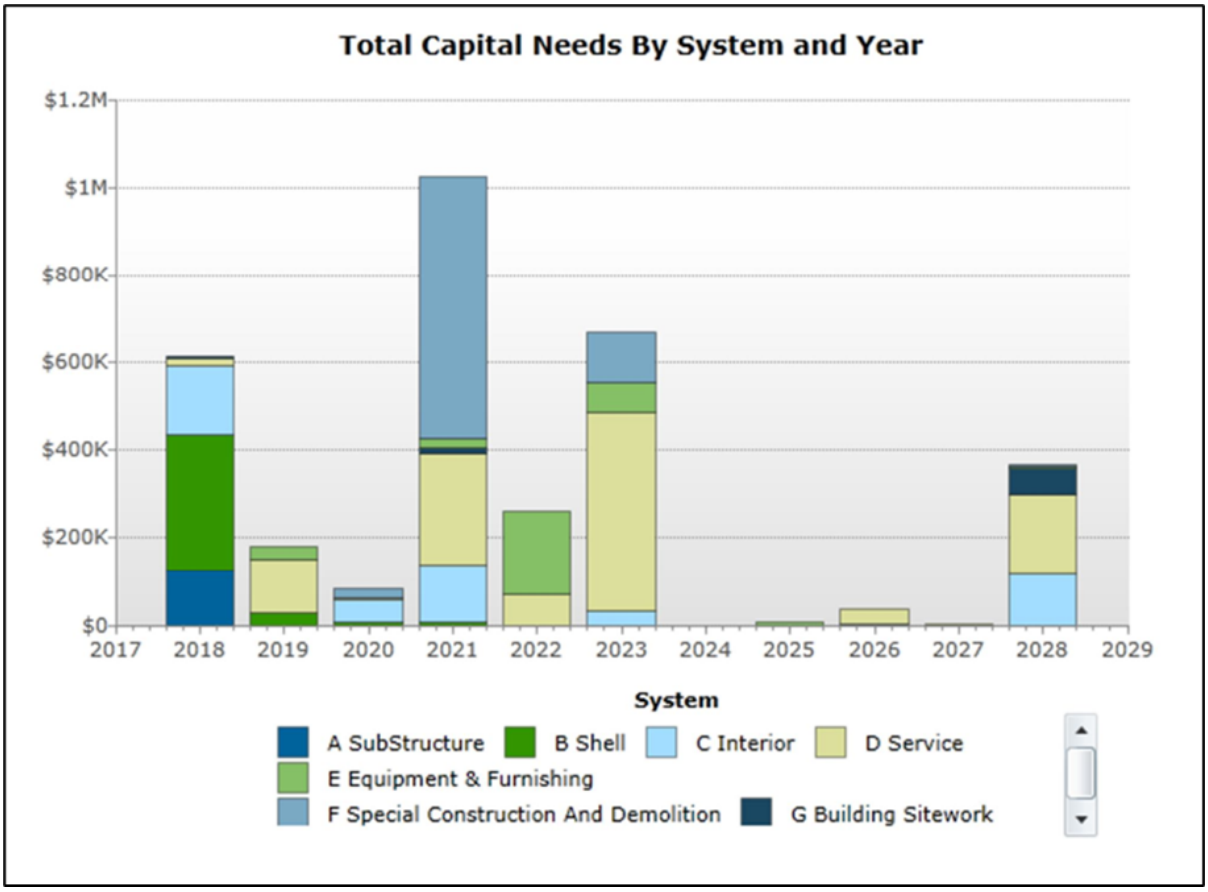

Figure 9. Wastewater Treatment Plan: total capital needs by system and year.

Estimated Replacements and Capital Costs

It is difficult to confidently estimate the replacements and capital costs a water treatment plant will require throughout its life cycle. For example, estimates involve variables such as the corrosion rate of certain parts and the possibility of water tanks breaking down.

Moreover, water treatment plants have fewer in-house personnel, which means there is a different amount of daily wear and tear on their equipment. For these reasons (and others), more intensive studies are needed to provide estimates on replacements and capital costs.

Overall, the City had a preliminary visual inspection at its water treatment plant two years ago (as of the writing of this FMP). The results of the inspection indicated that the facility's equipment is generally in good working condition; however, an internal inspection of the facility's pipes was not completed.

Summary of Estimated and Remaining Capital Investments by Year

The City has begun or completed several of the recommendations from the 2018 report and while the original estimated cost for all identified work was $3,234,379, the remaining estimated cost (accounted for inflation) for the projects that were deferred and those that were projected for implementation between 2023-2028, total $2,604,750. A detailed summary of the remaining work to be performed is provided in Appendix 3.

Table 89. Water Treatment Plant: total estimated costs and remaining costs per year

	2018-2023 Deferred (Adjusted for Inflation)	2023	2024	2025	2026	2027	2028	Total
Substructure	$180,000	-	-	-	-	-	-	$180,000
Shell	-	-	-	-	-	-	-	$0
Interior	$295,000	-	-	-	$2,400	-	-	$297,400
Service	$830,900	-	-	-	$32,400	$1,250	$181,800	$1,046,350
Equipment & Furnishing	$99,000	$69,300	-	$4,800	-	-	$4,200	$177,300
Special Construction & Demolition	$720,000	$113,500	-	-	-	-	$3,000	$836,500
Building Sitework	$7,200	-	-	-	-	-	$60,000	$67,200
General	-	-	-	-	-	-	-	$0
Total	**$2,132,100**	**$182,800**	**$0**	**$4,800**	**$34,800**	**$1,250**	**$249,000**	**$2,604,750**

Table 90 summarizes the remaining costs by category the City should budget for over the next five years (2023 to 2028) to complete all the recommendations in the 2018 report.

Table 90. Water Treatment Plant: summary of estimated costs.

Area Requiring Investment	0-5 Year Cost	6-10 Year Cost	11-20 Year Cost
Substructure	$180,000	$0	$0
Shell	$0	$0	$0
Interiors	$297,400	$0	$0
Services	$1,046,350	$0	$0
Equipment & Furnishings	$177,300	$0	$0
Special Construction	$836,500	$0	$0
Building Siteworks	$67,200	$0	$0
Total	**$2,604,750**	**$0**	**$0**

3.15 Wastewater Treatment Plant

3.15.1 Standardized Maintenance Schedule

The City's wastewater treatment plant opened in January 2014 as a certified Silver Level LEED's building. The building is located at 129 Marguerite Street. It is an insulated metal-siding building approximately 14,542 sq. ft. in size. The new wet well building (also located at 129 Marguerite Street) was constructed using wood frame construction with insulated building metal clad and metal roof. In the fall of 2021, during the development of the City's community capacity study, both buildings underwent a preliminary condition assessment. The study noted that the wastewater treatment building was in "good to excellent condition and that the building's shell has a theoretical life in excess of 50 years, [sic] however, the facility's process / treatment equipment may require periodic replacement." The study noted the same findings regarding the wet well building.

Most maintenance costs associated with the safe and efficient operations of the City's wastewater treatment plant will concern the facility's equipment. The City must also establish a preventive maintenance plan to minimize the risk of certain critical equipment failing, such as air release valves, aeration equipment, lift stations, and headworks structures.

The City must also develop a predictive maintenance plan that goes beyond standard prevention. Predictive maintenance is based on having the facility collect data to determine equipment condition and prioritize repairs. This level of data can be obtained through techniques such as:

- historical data collection
- IR camera inspection
- laser alignment
- vibration analysis
- airborne/structure-borne ultrasound
- motor circuit analysis
- oil analysis

Furthermore, the City should consider adopting the following best practices regarding building maintenance. Doing so can help minimize the risk of too many costly capital investments. For all actions below, the actions have included suggested implementation timelines.

Building Exterior

Building exteriors should be inspected semi-annually and after adverse weather conditions. The following actions should take place during inspections:

- Verify that all walls and surfaces are free from damage.
- Investigate any discolouring or possible leaks/access points.
- Check exterior doors for swelling. Verify that the paint is in good condition.
- Check windows for damage and discolouration.
- Check all attached equipment (such as fire escapes).
- Verify that the shutter door systems are level and working correctly.
- Check all manhole covers and fire points.
- Verify that all external security systems have a clear line of sight.

Roofing

Roofing should be inspected semi-annually and after adverse weather conditions. The following actions should take place during inspections:

- Clear debris from roof drains and guttering.
- Inspect the perimeter. Check for old and new damage to metal and copings.
- Check the roof-to-wall connections and roof flashing for tears and wrinkles.
- Check for splits in the stripping plies (if the roof is made from bitumen).
- Check metal roofs for damage. Take measures to protect metal roofs against corrosion.
- Weed, trim, and irrigate all green roofing.
- Conduct a moisture survey to find leaks.
- Inspect solar panels (if applicable).
- Install protection for the roof membrane.

Water Checks

Water areas and water systems should be inspected weekly. The following actions should take place during inspections:

- Check all water sources for signs of L8 Legionnaires Disease.
- Conduct water temperature checks.
- Check all water systems for damages, leaks, or foreign substances.

Plumbing

Plumbing should be checked monthly checks and undergo full inspections annually. The following actions should take place during inspections:

- Lubricate the water booster and circulation pump systems.
- Inspect couplings to identify any leaks.
- Check water heaters and boilers.
- Check contacts for wear. Perform system tests.
- Check and replace refrigerant and oils where needed.
- Inspect the sump and sewage pumps at least once a year.
- Check the fixtures in the public restrooms to identify any leaks.

Lighting

Emergency lighting systems should be inspected weekly and undergo repairs as needed. The following actions should take place during inspections:

- Check all lights with transformers, control gear, and other accessories.
- Inspect the exterior lights and their cables, screws, gaskets, and hardware.
- Create a relamping schedule.
- Ensure lamps with the same colour temperature are used.
- Clean the lighting surfaces to increase their performance.
- Check for any mercury or lead lights. Handle them with care.

Entry and Exit Points

Entry and exit points should be inspected daily. The following actions should take place during inspections:

- Check all doors to ensure that they open/close correctly.
- Verify that all fire door magnets release correctly.
- Verify that all doors close smoothly.
- Verify that all finger protectors are in place and working correctly (if fitted).
- Check all doors for damage. Ensure the locks on the doors are working correctly.
- Verify that all fire doors can be opened easily with one hand.
- Verify that safety signage is positioned correctly and can light up (if applicable).
- Verify that all fire extinguishers are stored in the correct position in relation to the fire doors.

HVAC

The HVAC system should be inspected monthly. Repairs and servicing should be completed bi-annually or annually. The following actions should take place during inspections:

- Identify any screw issues.
- Recharge P-traps or U-bend water traps.
- Hire a professional to inspect the chillers and boilers.
- Inspect the cooling towers and their components. Log observations.
- Check and lubricate pumps annually.

- Clean and replace air filters once a month or twice a year (depending on the type of filter).
- Clean the condenser coil.
- Check the energy efficiency settings, including the compressor and the refrigerant.
- Clean the economizer for corrosion and debris. Calibrate sensors.

Fire Safety Equipment

Fire safety equipment should be inspected weekly and serviced semi-annually. The following actions should take place during inspections:

- Check all fire panels and ensure they are maintained.
- Verify that any noted defects or issues have been investigated and recorded correctly.
- Check all extinguishers to ensure they have the correct pressure.
- Verify that all extinguishers are placed correctly around the building. Ensure the proper extinguisher types are in the correct locations.
- Ensure all extinguisher paperwork is up to date and signed.
- Check all fire doors for damage. Verify that the doors can lock and unlock correctly.
- Verify that all fire doors can be opened easily with one hand.
- Verify that emergency exit signage is positioned correctly and can light up (if applicable).
- Ensure the sprinkler systems are checked and maintained correctly.
- Hire a specialist to inspect the fire equipment (such as the server rooms).
- Check the fire hoses and exterior fire equipment.
- Verify that the fire staff’s training is kept current.
- Test the emergency evacuation procedures.
- Verify that the fire access drains are clear and can be accessed easily.

Security Systems

The security systems should be inspected weekly. The following actions should take place during inspections:

- Check all security doors.
- Check all CCTV systems.
- Verify that all security systems work correctly in conjunction with fire doors.
- Verify that the security staff's training is kept current.
- Verify all logbooks to ensure access control points are working correctly.
- Check all entry points for signs of damage. Arrange repairs as needed.

General Checks

The following actions constitute general checks:

- Check all doors and windows for damage. Ensure the locks on the doors and windows are sealed and functioning correctly.
- Arrange for a licensed professional to inspect the electrical system every three to five years.
- Inspect and clean the garage bi-annually.
- Inspect outside surfaces for damage. If damage exists, repair the damage as soon as possible.
- Arrange for the installer of the access control system to complete annual maintenance on the system.
- Check all exterior areas, including manhole covers and drainage covers, for damage and wear and tear.

4. Summary of Total Capital Investment Over Time

As the City plans for its future, it must plan its budget to accommodate the capital investment costs required for the buildings discussed in this FMP. Table 91 lists the estimated capital costs for the City's municipal facilities over the next five years (2023 to 2027). The table indicates that the City can expect to invest an estimated $6,000,970.

Table 91. Summary of total capital investment (0-5 years).

Area Requiring Investment	Public Works Facility	Dryden & District Museum	Airport Terminal	Airport Maintenance Building	City Hall	Dryden Public Library	Former Police Building	Arena	Pool & Fitness Centre	Fire Station 1	Fire Station 2	Water Treatment Plant
Substructure	$105,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$25,000	$180,000
Shell	$82,500	$42,000	$20,200	$0	$67,650	$10,500	$0	$25,000	$7,000	$9,000	$6,200	$0
Interiors	$113,480	$35,480	$37,520	$0	$27,400	$8,540	$0	$99,700	$312,500	$24,300	$72,810	$297,400
Services	$35,000	$14,000	$21,000	$0	$234,400	$73,900	$113,000	$322,000	$8,000	$0	$35,840	$1,046,350
Equipment & Furnishings	$0	$0	$0	$0	$0	$0	$0	$357,000	$0	$0	$0	$177,300
Special Construction	$600,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$836,500
Building Sitewoks	$3,000	$0	$38,500	$0	$52,100	$1,100	$3,000	$38,900	$0	$0	$313,200	$67,200
	$939,480	**$91,480**	**$117,220**	**$0**	**$381,550**	**$94,040**	**$116,000**	**$842,600**	**$327,500**	**$33,300**	**$453,050**	**$2,604,750**

Table 92 lists the estimated capital costs the City can expect for its municipal facilities from 2028 to 2033. The table shows that the City can expect a total planned investment of $8,184,077.

Table 92. Summary of total capital investment (6-10 years).

Area Requiring Investment	Public Works Facility	Dryden & District Museum	Airport Terminal	Airport Maintenance Building	City Hall	Dryden Public Library	Former Police Building	Arena	Pool & Fitness Centre	Fire Station 1	Fire Station 2	Water Treatment Plant
Substructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Shell	$861,000	$2,100	$2,400	$160,000	$277,450	$73,300	$8,000	$1,554,500	$239,600	$3,000	$3,200	$0
Interiors	$386,178	$77,720	$17,156	$44,000	$80,560	$81,880	$35,000	$361,400	$59,870	$0	$51,963	$0
Services	$215,460	$9,000	$58,100	$31,000	$97,300	$30,980	$213,500	$242,500	$170,000	$110,810	$47,500	$0
Equipment & Furnishings	$0	$0	$0	$0	$0	$0	$0	$40,000	$263,000	$0	$0	$0
Special Construction	$0	$0	$0	$0	$0	$0	$0	$1,500,000	$0	$0	$0	$0
Building Sitewoks	$0	$87,200	$258,800	$0	$74,900	$70,250	$30,000	$250,000	$0	$3,500	$0	$0
	$1,462,638	**$176,020**	**$336,456**	**$235,000**	**$530,210**	**$256,410**	**$286,500**	**$3,948,400**	**$732,470**	**$117,310**	**$102,663**	**$0**

Table 93 lists the estimated capital costs the City can expect for its municipal facilities from 2034 to 2044. The table shows that the City can expect a total planned investment of $6,837,986.

Table 93. Summary of total capital investment (11-20 years).

Area Requiring Investment	Public Works Facility	Dryden & District Museum	Airport Terminal	Airport Maintenance Building	City Hall	Dryden Public Library	Former Police Building	Arena	Pool & Fitness Centre	Fire Station 1	Fire Station 2	Water Treatment Plant
Substructure	$0	$0	$0	$0	$0	$0	$39,200	$0	$0	$0	$0	$0
Shell	$158,720	$88,000	$258,000	$0	$39,100	$45,600	$240,500	$204,000	$154,000	$38,000	$96,568	$0
Interiors	$26,880	$15,838	$9,200	$0	$730,210	$46,390	$111,820	$753,000	$259,950	$49,820	$0	$0
Services	$49,000	$53,460	$37,100	$0	$577,200	$81,880	$98,000	$1,415,000	$231,000	$98,000	$58,100	$0
Equipment & Furnishings	$0	$0	$0	$0	$0	$0	$0	$42,000	$0	$0	$0	$0
Special Construction	$150,000	$4,200	$0	$0	$0	$0	$0	$315,000	$16,000	$0	$0	$0
Building Sitewoks	$0	$7,850	$2,200	$0	$6,300	$51,400	$0	$104,000	$0	$46,000	$29,500	$0
	$384,600	**$169,348**	**$306,500**	**$0**	**$1,352,810**	**$225,270**	**$489,520**	**$2,833,000**	**$660,950**	**$231,820**	**$184,168**	**$0**

5. Proposed Facilities

5.1 New Public Works Facility

5.1.1 Preliminary Block Planning

After developing the SOR for the Public Works Building, the Project Team completed a block planning exercise. In this exercise, the Project Team arranged blocks to represent the Public Works Facility and the rooms/spaces required to support the City's objectives.

There are many factors that influence the configuration of the Public Works Building. Aside from architectural considerations, once the City selects a site for the Public Works Building, it will need to consider factors such as the prevailing wind direction and the direction of sunlight. Site-specific factors like these may alter the layout of the building. The Project Team determined that a pinwheel configuration would best suit the City's needs, as this design will accommodate future expansion. Additionally, the building's design must incorporate spaces to allow clearance for the height of heavy equipment, as well as clearance above lifting hoists.

The Project Team then presented the block massing plan to City staff members for their initial review and comments. The proposed design met the SOR objectives. When the Project Team submitted the proposed design, it was understood that the design was preliminary and subject to change.

5.1.2 Concept Site Planning

The first step of the concept site planning process is to assume that an ideal parcel of land is available for the City's desired construction. The next step is considering how to use that land to accommodate your building's needs. When planning for the Public Works Building, the City must consider how to arrange the building in combination with the other required buildings and site features. For example, the City must optimize the flow of vehicle traffic to accommodate bulk material storage. The City must also have a secure compound to store vehicles, equipment, and other assets.

As a way to begin the planning process, the City can consider purchasing bulk storage domes to protect stockpiled salt, sand, and other materials from moisture and wind erosion. These domes come in various framing methods and sizes, although some are more portable than others. For instance, some domes are intended for seasonal shelter only. Other domes have more permanent designs, offering concrete floors and retaining walls. This range of choices means there is a range of capital costs the City must consider. Still, another option to consider is the small dog kennel located behind the existing Public Works garages. In an ideal replacement, the City could upgrade this kennel with a more modern enclosure; however, noise control of a new kennel design would be subject to the location of the ideal site.

The ideal site for the Public Works Building should include surplus land that can accommodate expansions of yard works or other municipal programs. For example, the current site of the Public Works Building maintains a fueling station for coloured diesel, and it may become necessary to install one to serve the City's future needs. Thus, the Public Works Building site should include an area that can accommodate a fuelling station should the need arise.

The results of the concept planning process determined that a relatively square land parcel, roughly 3.5 to 3.8 hectares (8.6 to 9.4 acres) in size, is the ideal site for the Public Works Building.

5.1.3 Comparing the Existing Site with the Ideal Site

The existing site of the Public Works Department is irregular in shape and encompasses roughly 2.2 hectares (5.36 acres) of land. This layout is 37 per cent smaller than the ideal range. Additionally, part of the property falls on an embankment located next to railway lands, which further reduces the amount of useable land.

Approximately 0.78 hectares (1.9 acres) of the existing Public Works site is used for storing bulk materials, such as sand, salt, and granular crushed stone. There is also a covered shed on the property that contains smaller landscaping material stores. The ideal amount of bulk material storage needed by Public Works is in the range of 2.5 to 3.0 acres. As such, the current storage area does not provide the amount of space that Public Works needs for stockpiling bulk materials.

Figure 10 and Figure 11 illustrate what would happen if the City builds the new Public Works Facility on the existing site. The figures show potential constraints that the City would encounter during the construction of the new facility. For example, the fenced-in yard can only function when staff parking is limited to approximately 16 spaces. However, this placement would allow for most of the new construction to be completed before demolishing the existing main Public Works building and the older unheated buildings.

In 1998, the City contracted Gartner Lee Ltd. to conduct a class 1 and 2 ESA report of the current Public Works site. The report indicated no significant on-site contamination. Due to the year in which this report was completed, it would be prudent for the City to redo the testing to obtain updated results. The updated report should gather information about the soil under the existing building and address current guidelines for stormwater run-off quantity and quality.

Regarding stormwater, staff from the Public Works Department advised the Project Team that King Street has poor stormwater drainage. Due to the poor drainage, stormwater can become backed up, which could potentially flood the Stores building. Although it is assumed that the northwest corner of the King Street site has significant elevation, the City must take precautionary steps before making any plans regarding

new buildings or storage. These steps include installing a raised layer of crushed stone with a binding adhesive to elevate the site and reworking the slope-crushed stone surface to drain to catch basins.

Because the City owns the land where the current Public Works facility is located, it may view construction on alternate sites as an unnecessary cost. However, there are several issues with the King Street location that disqualify it as the ideal site for the new Public Works facility.

While arguably the City already owns the site and cost comparison alone to other sites may be attractive, there are several drawbacks to using the King Street site as a works yard. Among those drawbacks are the demolition costs of removing the old Public Works Building and adjacent structures. Additionally, Public Works would be limited by the size of the existing site, rather than benefiting from the potential size of a new location. Public Works would also have to continue operations during construction.

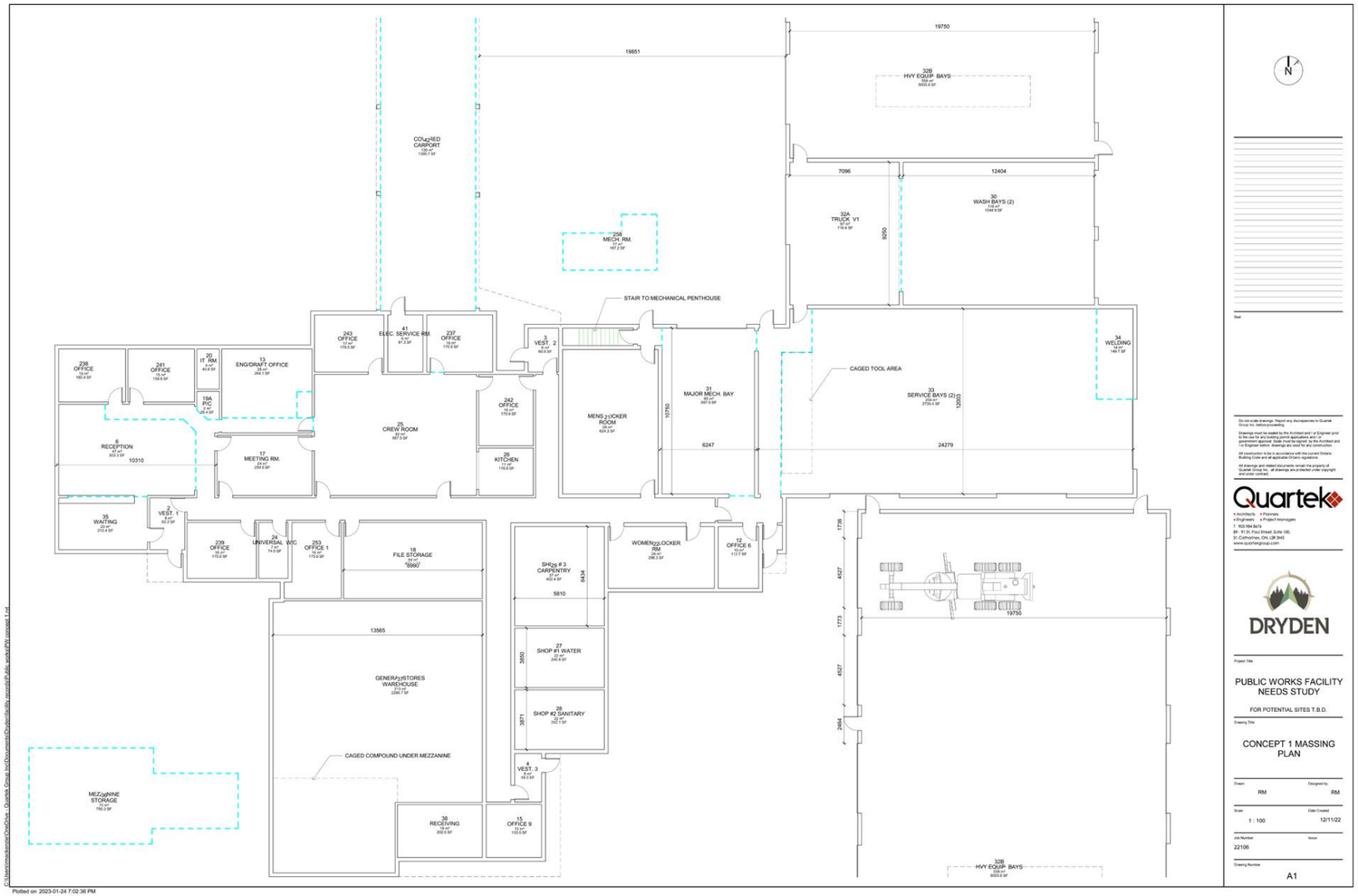

Figure 10. Public Works: massing plan for concept #1.

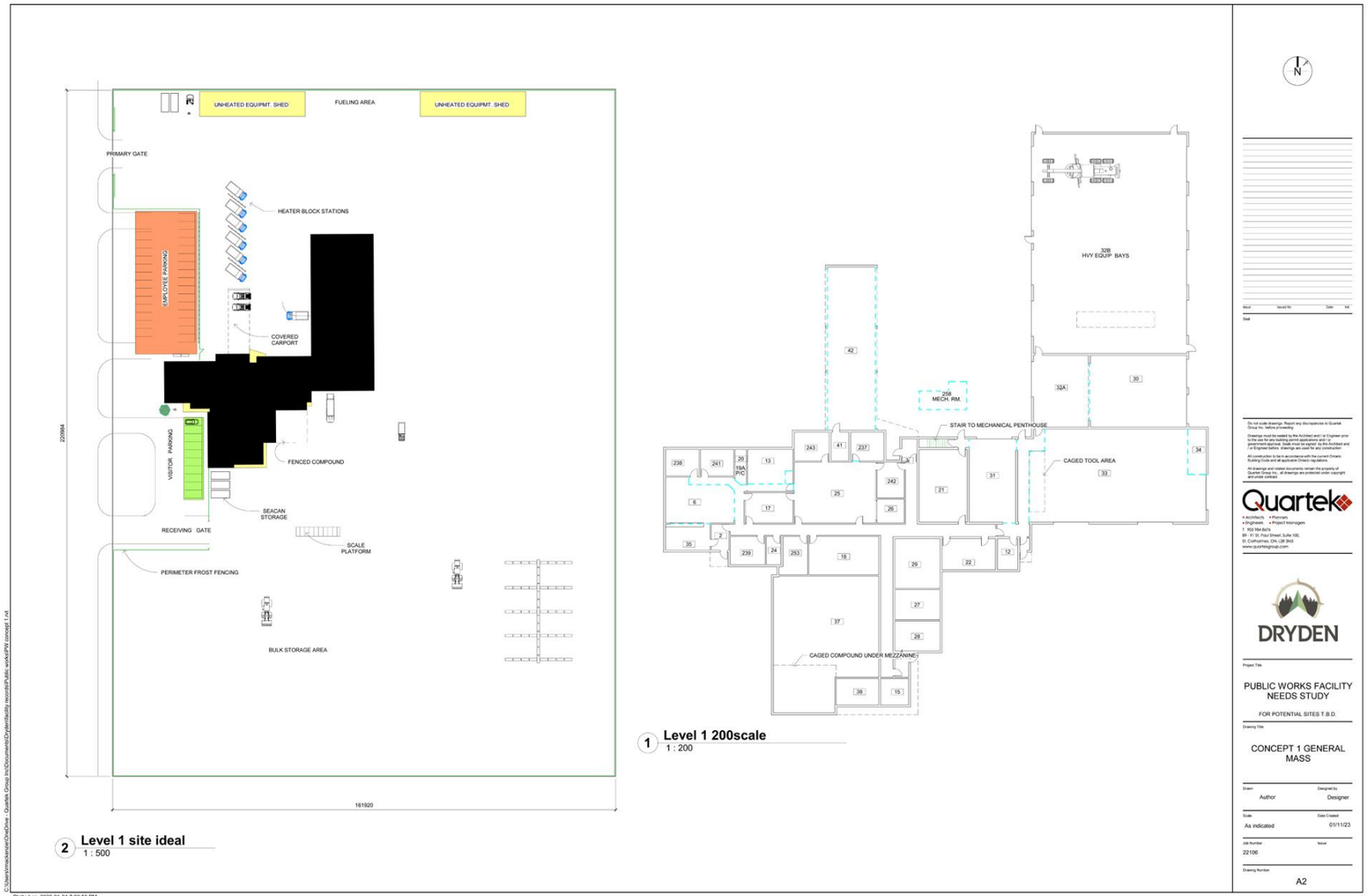

Figure 11. Public Works: general massing plan for concept #1.

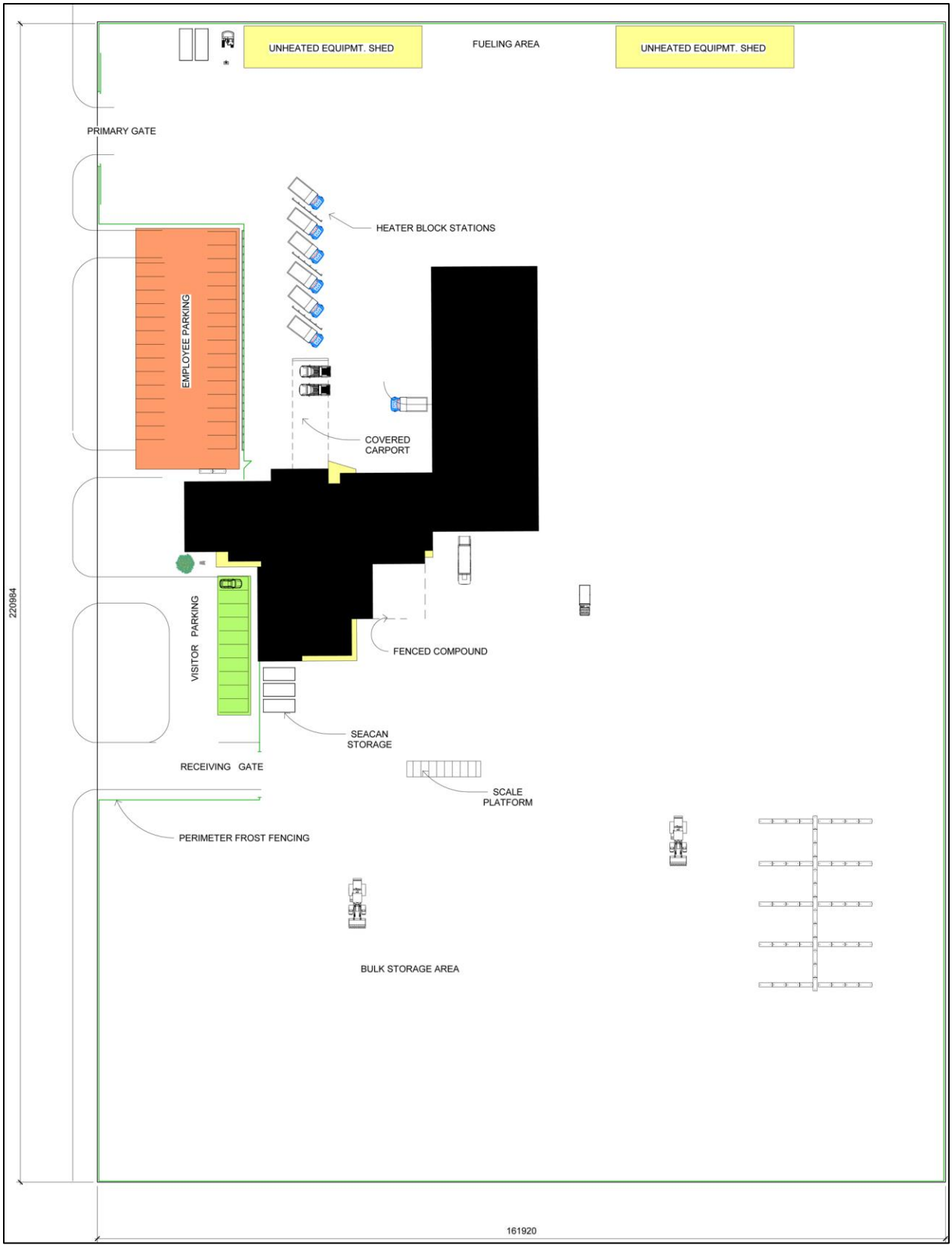

Figure 12. Public Works: ideal site configuration (west).

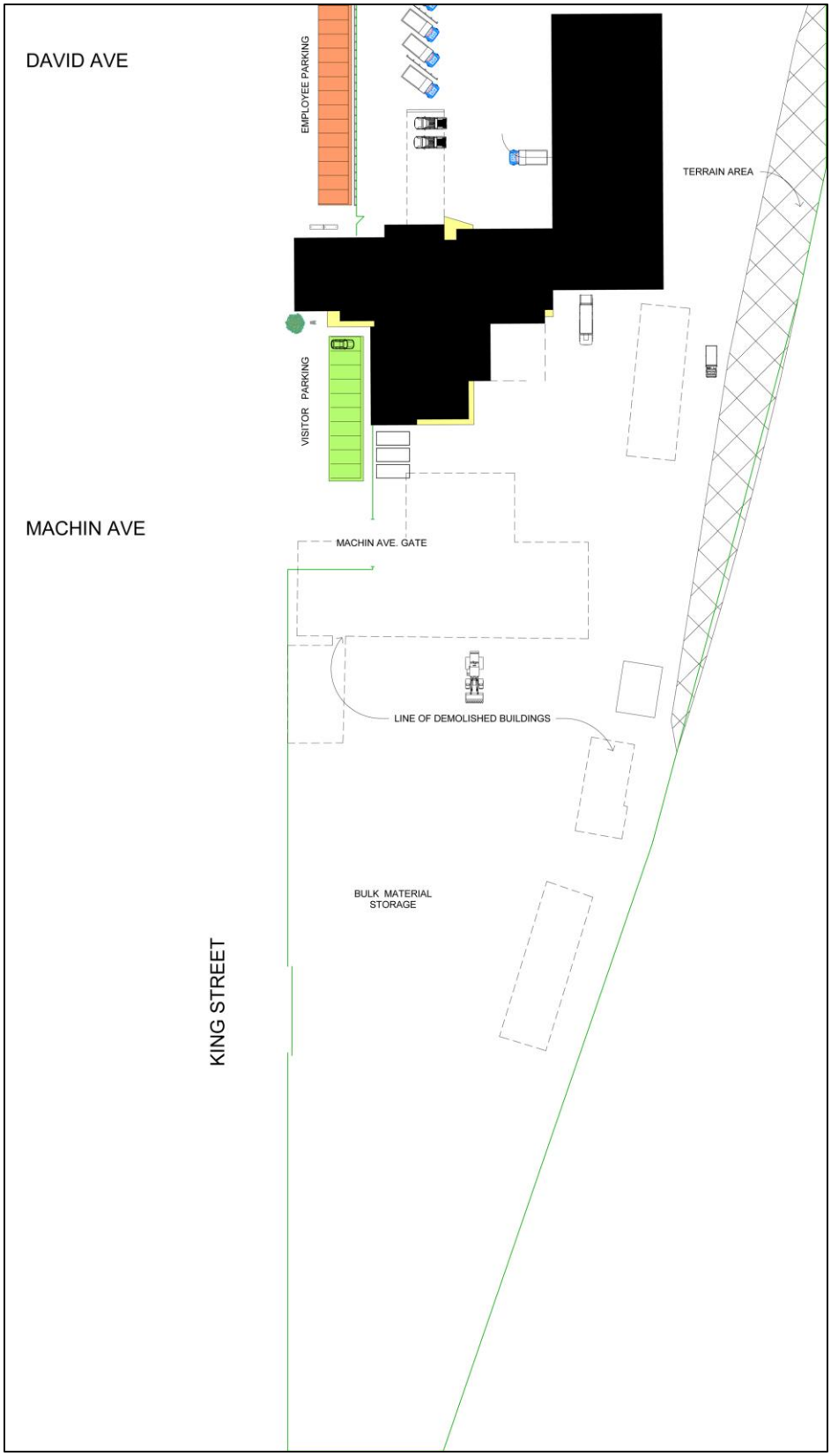

Figure 13. Public Works: ideal site configuration (east).

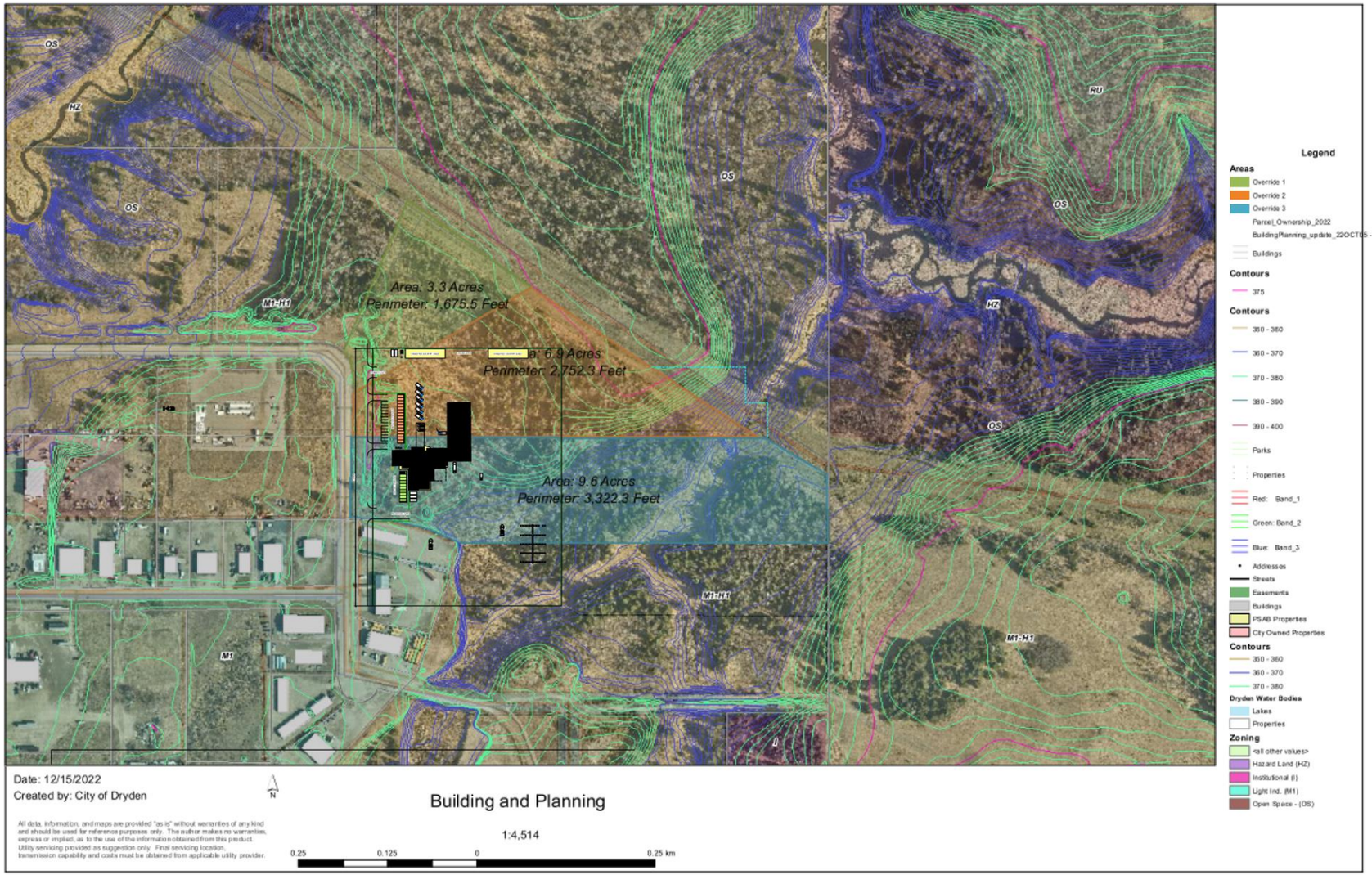

Figure 14. Public Works: ideal site layout and configuration.

5.1.4 Estimated Cost to Reuse the Existing Public Works Site

If the City decides to keep the Public Works Department at the King Street location, it must consider the following:

- The new Public Works Department building should be 2,192 square metres.
- The estimated cost of a new Public Works Department building is $7,600,000.00.
- The reuse cost of the existing King Street location is approximately $177,000.00.
- The estimated cost of the new site features is $2,154,743.
- A contingency of 15% was allocated, representing $1,489,573.71.
- Design fees which included engineering and architectural work was estimated at $970,705.53.
- The total estimated cost, inclusive of HST, is $12,390,770.65. (**Note:** This amount is a base cost and does not include the cost of any furniture or site improvements.)

Table 94 provides a breakdown of the estimated costs listed above.

Table 94. Preliminary estimate of cost to reuse existing King Street site.

	Item	QTY	SM	SF	RSMeansTB	Alternate	Dryden Factor	Net Estimate	Totals
A	Gross ground floor area coverage not including canopies and carports	1	2,191.94	23,593.84					
B									
	Carport area	1	129.66	1,395.65		$135.00	1.3	$244,936.32	
	Entrance Canopy	1	13.41	144.34		$155.00	1.3	$29,085.32	

	Item	QTY	SM	SF	RSMeansTB	Alternate	Dryden Factor	Net Estimate	Totals
	Staff Entrance Canopy	1	12.55	135.09		$155.00	1.3	$27,220.04	
	Mechanic's Door Canopy	1	1.96	21.10		$155.00	1.3	$4,251.10	
	Receiving Door and Weigh Office Canopy	1	17.33	186.54		$155.00	1.3	$37,587.52	
	125k lb. Heavy Equipment 4-Post Lift							$40,000.00	
								$383,080.31	
C	**Enclosure**								
	Heavy Equip. Bays and Wash Bays + Truck Storage	1	769.50	8,282.83	$183.01		1.3	$1,970,592.64	
	Office and Office-Staff related component of building	1	680.51	7,324.95	$230.57		1.4	$2,364,478.69	
	Service Bays (w/ 3 hoists)	1	382.03	4,112.14	$309.15		1.4	$1,779,773.81	
	Stores and PW shops	1	359.90	3,873.93	$210.00		1.3	$1,057,583.22	
	Mechanical Mezzanine	1	17.39	187.18	$165.00		1.4	$43,239.60	

	Item	QTY	SM	SF	RSMeansTB	Alternate	Dryden Factor	Net Estimate	Totals
			2,384.24	**25,663.74**				**$7,215,667.96**	
B+ C									$7,598,748.27
D	**Re-use Costs**								
	Weigh Scale (estimate)	1						$30,000	
	Fencing (Repair/Replacement Allowance)	1						$22,000	
	Demolition (PW bldg. and out bldgs.)	1						$125,000	
								$177,000	
									$177,000
E	**Site Features New**								
	Unheated Equipment Shed	2	272.00	2,927.78	$165.00		1.3	$1,256,019.13	
	Bulk Material Enclosure Large	1	169.00	1,819.10	$21.00		1.3	$49,661.45	

	Item	QTY	SM	SF	RSMeansTB	Alternate	Dryden Factor	Net Estimate	Totals
	Bulk Material Enclosure Medium	2	57.00	613.54	$28.00		1.3	$44,665.92	
	Power Operated Gate	2			$5,500.00		1.3	$14,300.00	
	Granular Fill Lift @400 mm	1	35,802.0	385,369.51	$1.75		1	$674,396.64	
	Site Lighting (poles)	8			$3,400.00		1.3	$35,360.00	
	Charging/Heating Stations (ploughs, trucks, etc.)	6			$2,800.00		1.3	$21,840.00	
	Localized Drainage (catch basins, culvert/piping, storm detention) Allowance	1			$45,000.00		1.3	$58,500.00	
								$2,154,743.14	
									$2,154,743.14
						Net Base Opinion of Cost (B + C + D + E)			**$9,930,491.10**
						Contingency Allowance (15%)			$1,489,573.71
						Design Fees (engineering / architectural)			$970,705.53
						Opinion of Cost +HST			**$12,390,770.65**

5.1.5 Estimated Cost of a New Public Works Building

If the City decides to build a new Public Works Department building, it must consider the following:

- The new Public Works Department building should be 2,192 square metres.
- The estimated cost of a new Public Works Department building is $7,600,000.
- The reuse cost of the existing King Street location is approximately $177,000.
- The estimated cost of the new site features is $2,280,516.
- A contingency of 15% was allocated, representing $1,488,639.
- Design fees which included engineering and architectural work was estimated at $913,032.
- The total estimated cost, inclusive of HST, is $12,325,936.43. (**Note:** This amount is a base cost and does not include the cost of any furniture or site improvements.)

Table 95 provides a breakdown of the estimated costs listed above.

Table 95. Preliminary estimate of costs for a new Public Works Building.

	Item	QTY	SM	SF	RSMeansTB	Alternate	Dryden Factor	Net Estimate	Totals
A	Gross ground floor area coverage not including canopies and carports	1	2,191.94	23,593.84					
B									
	Carport area	1	129.66	1,395.65		$135.00	1.3	$244,936.32	
	Entrance Canopy	1	13.41	144.34		$155.00	1.3	$29,085.32	

	Item	QTY	SM	SF	RSMeansTB	Alternate	Dryden Factor	Net Estimate	Totals
	Staff Entrance Canopy	1	12.55	135.09		$155.00	1.3	$27,220.04	
	Mechanic's Door Canopy	1	1.96	21.10		$155.00	1.3	$4,251.10	
	Receiving Door and Weigh Office Canopy	1	17.33	186.54		$155.00	1.3	$37,587.52	
	125k lb. Heavy Equipment 4-Post Lift							$40,000.00	
								$383,080.31	
C	**Enclosure**								
	Heavy Equip. Bays and Wash Bays + Truck Storage	1	769.50	8,282.83	$183.01		1.3	$1,970,592.64	
	Office and Office-Staff related component of building	1	680.51	7,324.95	$230.57		1.4	$2,364,478.69	
	Service Bays (w/ 3 hoists)	1	382.03	4,112.14	$309.15		1.4	$1,779,773.81	
	Stores and PW shops	1	359.90	3,873.93	$210.00		1.3	$1,057,583.22	

	Item	QTY	SM	SF	RSMeansTB	Alternate	Dryden Factor	Net Estimate	Totals
	Mechanical Mezzanine	1	17.39	187.18	$165.00		1.4	$43,239.60	
			2,384.24	25,663.74				**$7,215,667.96**	
B+ C									$7,598,748.27
D	**Re-use Costs**								
	Weigh Scale (estimate)	1						$45,000	
									$45,000
E	**Site Features New**								
	Unheated Equipment Shed	2	272.00	2,927.78	$165.00		1.3	$1,256,019.13	
	Fueling Depot	1			$63,000.00		1.4	$88,200.00	
	Bulk Material Enclosure Large	1	169.00	1,819.10	$21.00		1.3	$49,661.45	
	Bulk Material Enclosure Medium	2	57.00	613.54	$28.00		1.3	$44,665.92	
	Frost Fencing at Perimeter (LM)	1	766.00	2,513.25	$11.50		1.3	$37,573.03	

	Item	QTY	SM	SF	RSMeansTB	Alternate	Dryden Factor	Net Estimate	Totals
	Power Operated Gate	2			$5,500.00		1.3	$14,300.00	
	Granular Fill Lift @400mm	1	35,802.00	385,369.51	$1.75		1	$674,396.64	
	Site Lighting (poles)	8			$3,400.00		1.3	$35,360.00	
	Charging/Heating Stations (ploughs, trucks, etc.)	6			$2,800.00		1.3	$21,840.00	
	Localized Drainage (catch basins, culvert/piping, storm detention) Allowance	1			$45,000.00		1.3	$58,500.00	
								$2,280,516.17	
									$2,280,516.17
						Net Base Opinion of Cost (B + C + D + E)			**$9,924,264.43**
						Contingency Allowance (15%)			$1,488,639.66
						Design Fees (engineering / architectural)			$913,032.33
						Opinion of Cost +HST			**$12,325,936.43**

5.2 Combined Museum/Visitor Centre

5.2.1 Preliminary Block Planning

After developing the SOR for the Dryden & District Museum, the Project Team completed a second SOR which took into consideration the required building function and room sizes for incorporating the VIC with the Dryden & District Museum into a single purpose-built development (see section 5.2.4). From this, the Project Team arranged blocks to represent a newly constructed facility and the rooms/spaces required to support the City's objectives of both operations.

The Project Team recognized the importance of ensuring ease of access to public washrooms and an open concept reception/services desk/lobby, visible from the two proposed offices, were important from a safety and security perspective. Furthermore, the ability to maximize room spaces by incorporating retractable walls, would allow certain areas of the new facility, such as the Programming Room to accommodate large site events. Additionally, a combined exhibit room that brings together both permanent and temporary exhibits into a larger open space room would allow the Museum's curator to adjust the room's layout to accommodate different collections.

While the museum's general storage accommodates a number of the museum's items both on and offsite, the new proposed layout attempts to consolidate all of the museum's general storage items into a single general storage room.

Lastly, the potential for additional office spaces creates the potential for the City to either utilize these spaces for additional city-wide staff or lease them out to generate as a way to generate new sources of revenue.

The Project Team then presented the block massing plan to City staff members for their initial review and comments. The proposed design met the SOR objectives. When the Project Team submitted the proposed design, it was understood that the design was preliminary and subject to change.

5.2.2 Concept Site Planning

The first step of the concept site planning process is to assume that an ideal parcel of land is available for the City's desired construction. Currently, the adjoining vacant land parcels located at 170 Government Street and 120 Grand Trunk Avenue, both of which are owned by the City, have been identified as the proposed site for this development.

There are many factors that influence the configuration of a combined Museum/Visitor Centre on this site. Aside from architectural considerations, once the City confirms this site for the proposed facility, it will need to consider such factors as: minimizing disruption of the existing trees onsite; the proximity of building structures to adjacent residential dwellings; easements from Highway 17; overall size of the required parking lot and number of individual spaces, including the ability to accommodate extended RVs and fifth wheel trailers; the placement of Max the Moose, should it be relocated from its existing site; and the full utilization of the land surrounding the proposed facility to maximize the natural environment while providing opportunities for various outdoor spaces.

The ideal site for the combined Museum/Visitor Centre should include surplus land that can accommodate outdoor programming and activities, walking paths and other amenities (see section 5.2.5 for an expanded list of potential uses and outdoor equipment.

The results of the concept planning process determined that the proposed location of the two adjoining land parcels of approximately 1.83 acres in size is sufficient for the proposed development.

5.2.3 Comparing the Existing Site with the Ideal Site

The existing site of the Dryden & District Museum, located at 15 Van Horne Avenue, is square in shape, measuring approximately 127 feet wide by 127 feet deep and encompasses approximately 0.41 acres of land. This land parcel is 346 per cent smaller than the proposed site at 170 Government Street/120 Grand Trunk Avenue. Additionally, the building itself, at its current location, represents a residential dwelling.

The existing proper is situated at the corner of King Street and Van Horne Avenue and is surrounded by a mix of residential and commercial buildings. Dryden's City Hall is located on the opposite side of the intersection. The proposed site is located on Government Street, which doubles as the Trans-Canada Highway and experiences a high number of local and transient traffic, thus making it an ideal site for increased exposure.

While the existing location has a grassed backyard to host small outdoor events and gatherings, the proposed site has a large amount of grassed area with trees spread throughout, capable of accommodating much larger outdoor events, activities and programming. It would also allow for increased walking paths and connects with a trail network that is accessible at the rear of the property. The size and potential this property has would be a competitive advantage to the museum and for visitors who stop into the VIC.

5.2.4 Statement of Requirements

Each of the tables in this section represents a room or component of the proposed Museum/Visitor Centre.

(**Note:** Unless otherwise stated, all ceilings should be 8' in height with a Suspended Acoustic Tile (SAT) finish. Storage rooms, utility rooms, and other specialty rooms may require a drywall ceiling finish to comply with the Ontario Building Code.

Table 96. Museum/Visitor Centre: summary of vestibule.

Category	Information
Identified User(s)	Staff and visitors
Function	• A small room leading into the reception area. • Important to have a divide that eliminates snow, wind, rain and cold temperatures from coming in with visitors. • Wheelchair accessible
Required Room Size	• 76.7 sq. ft. • Ensure room for two people to assist with wheelchair movement within
Flooring	Commercial tile
Ceiling	8' ceiling height, painted drywall.
Lighting	LED lighting
Power	Single GFCI receptacle (as per Ontario Building Code)
Mechanical	• Connect to HVAC (System A) • Industrial air curtain
IT/Technology	Security camera, automatic doors
Placement	The front of the Visitor Information Centre.
Notes	• The objective is to allow visitors to enter the TIC and get fully inside before asking staff questions, taking

pamphlets, removing jackets, etc.
- Need to determine if doors are sliding or swinging in/outwards.
- The Digital Information Sign needs to be accessible and visible for after hours when the building is closed.
- Some kind of well to collect rain and snow off footwear when visitors enter the building.

Table 97. Museum/Visitor Centre: summary of visitor services desk.

Category	Information
Identified User(s)	Museum curator, volunteers
Function	An area for visitors to interact with museum staff/volunteers to purchase tickets, ask questions, select brochures/pamphlets, etc. A digital information screen which provides scrolling information about museum exhibits (current/future), tourism information, etc.
Furniture	Bench for seating. Chair for museum representative. Accessible desk area (main level and a drop down) - can be movable or two separate sized desks.
Existing Room Size	96 sq. ft.
Required Room Size	88.5 sq. ft.
Flooring	Commercial tile or sheet vinyl flooring
Ceiling	8’ ceiling height, painted drywall.
Lighting	LED lighting
Power	1 outlet. Additional outlet may be required if laptop and POS are required. May have other items that require power (i.e.: lamp)
Mechanical	Connect to HVAC.
Millwork	Reception counter, COVID plexiglass safety screen.
IT/Technology	Dedicated laptop, cash register, point-of-sale system, building intercom/PA system, emergency alarm button, Wi-Fi.
Placement	• Immediately following Vestibule. • Merchandise to be placed near the Visitors Services Desk
Notes	• The reception counter is designed to function as a work station and is designed to be more in an open area as opposed to an individual office. • Lockers for larger/bulky jackets to be placed? • May need to develop a policy to deal with snowy winter boots. • Signage which lists pricing/programming in French. May want also consider Indigenous language. • Merchandise (books, cards, hand spun wood items, Dryden t-shirts)
Future Growth Requirements	Add POS system to support increase usage.

Table 98. Museum/Visitor Centre: summary of office #1 (curator's office).

Category	Information
Identified User(s)	Museum Curator, Visitors, Museum Professionals, Community Members, Exhibit Representatives, Museum BOD
Function	To provide dedicated office space for this individual to conduct their daily office duties, store files, meet with individuals as noted above.
Furniture	Office desk (x1), large filing cabinets (x2), employee chair (x1), visitor chair (x2), small safe (x1).
Existing Room Size	144 sq. ft.
Required Room Size	111.1 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	4 outlets
Mechanical	Connect to HVAC
IT/Technology	1 ethernet port, Wi-Fi, security camera monitoring station, emergency alarm button, landline connection.
Placement	Close/adjacent to Visitors Services Desk.

Table 99. Museum/Visitor Centre: summary of office #2 (general office).

Category	Information
Identified User(s)	Visitors, Museum Professionals, Community Members, Exhibit Representatives, Museum BOD, individuals conducting research.
Function	• To provide dedicated office space for Visitors, Museum Professionals, Community Members, Exhibit Representatives, Museum BOD, those conducting research to conduct their daily office duties, store files, meet with City staff/volunteers, exhibitors, etc. • Potential for this office to be leased out.
Furniture	Office desk (x2), filing cabinets (x1), employee chairs (x2), additional chair (x2)
Required Room Size	111.7 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	4 outlets
Mechanical	Connect to HVAC
IT/Technology	1 ethernet port per desk, Wi-Fi, landline connection.
Placement	Close/adjacent to Curator’s Office.

Table 100. Museum/Visitor Centre: summary of office #3 (general office).

Category	Information
Identified User(s)	Visitors, Museum Professionals, Community Members, Exhibit Representatives, Museum BOD, individuals conducting research.
Function	• To provide dedicated office space for Visitors, Museum Professionals, Community Members, Exhibit Representatives, Museum BOD, those conducting research to conduct their daily office duties, store files, meet with City staff/volunteers, exhibitors, etc. • Potential for this office to be leased out.
Furniture	Office desk (x2), filing cabinets (x1), employee chairs (x2), additional chair (x2)
Required Room Size	83.5 sq. ft.
Flooring	Sheet Vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	4 outlets
Mechanical	Connect to HVAC
IT/Technology	1 ethernet port per desk, Wi-Fi, landline connection.
Placement	Close/adjacent to Curator’s Office.

Table 101. Museum/Visitor Centre: summary of office #4 (general office).

Category	Information
Identified User(s)	Visitors, Museum Professionals, Community Members, Exhibit Representatives, Museum BOD, individuals conducting research.
Function	• To provide dedicated office space for Visitors, Museum Professionals, Community Members, Exhibit Representatives, Museum BOD, those conducting research to conduct their daily office duties, store files, meet with City staff/volunteers, exhibitors, etc. • Potential for this office to be leased out.
Furniture	Office desk (x2), filing cabinets (x1), employee chairs (x2), additional chair (x2)
Required Room Size	83.5 sq. ft.
Flooring	Sheet Vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	4 outlets
Mechanical	Connect to HVAC
IT/Technology	1 ethernet port per desk, Wi-Fi, landline connection.
Placement	Close/adjacent to Curator’s Office.

Table 102. Museum/Visitor Centre: summary of exhibition preparation room.

Category	Information
Identified User(s)	Staff and volunteers
Function	Dedicated space to facilitate the construction and/or dismantling of exhibits.
Existing Room Size	229 sq. ft.
Required Room Size	221.2 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	Minimum 4 outlets
Mechanical	Connect to HVAC
IT/Technology	Wi-Fi
Placement	Close/adjacent to shipping and receiving

Table 103. Museum/Visitor Centre: summary of copy/printing station/IT room.

Category	Information
Identified Use	Printing/Copying Scanning Equipment
Function	• Centralized room that is adjacent to circulation areas suitable for size and number of equipment plus standing room/clearance in front of equipment. • IT Equipment (Server) Room – Central data communication hub for building in a secure room or cage conduit or tray systems connecting
Equipment	• Multifunction printer / scanner / copy machine
Furniture	• Shelving (or cupboard) for extra paper • Table to store printer • Server Rack, UPS system cable management.
Required Room Size	24.7 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting.
Power	4 outlets with dedicated circuits (see standby power)
Mechanical	Connect to HVAC. Possible split system depending on heat generation (TBD)
IT/Technology	• 4 ethernet ports. • Termination for Bell, Cable, etc.
Placement	• Location close to Curators office. • Not easily accessible by the public, nor close to an exterior doorway.

Table 104. Museum/Visitor Centre: summary of programming area.

Category	Information
Identified User(s)	Staff, volunteers, and museum visitors
Function	To be utilized to support program development (including workshops) tied to the museum, local schools, local organizations, boardroom utilization and rented out for use.
Furniture	8’ folding tables (x6), stackable chairs (x30)
Existing Room Size	260 sq. ft.
Required Room Size	534.2 sq. ft.
Flooring	Sheet Vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Plumbing	Sink to support the handling of acrylic paints (to support painting workshops).
Lighting	LED lighting.
Power	4 outlets
Mechanical	Connect to HVAC.
IT/Technology	Projection screen, ceiling mounted projector, 1 ethernet port, wall-mounted speakers, public Wi-Fi, whiteboard.
Placement	Not far from entrance to avoid having museum visitors walk through exhibit areas to only access the Programming Area. Close to Curator’s Office would allow Staff/Volunteer to monitor activity if required.
Future Growth Requirements	Rentable fob access studio space could provide a revenue stream.

Table 105. Museum/Visitor Centre: summary of shipping & receiving area.

Category	Information
Identified User(s)	Staff and volunteers
Function	To receive new exhibits and return completed exhibits. Box and unboxing of exhibits (as some may arrive on skids). Assemble/disassemble of exhibit items (when required).
Existing Room Size	100 sq. ft.
Required Room Size	189.1 sq. ft.
Flooring	Concrete flooring should be salt (calcium chloride) resistant.
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting
Power	4 outlets
Mechanical	Connect to HVAC., possible industrial air curtain to keep area warm during the colder season if exterior doors are open for an extended period of time.
Placement	Should be close to General Storage area.
Notes	• Currently double-door opens butterfly style. • No pump jack onsite, but can contact facilities if required. • Need to be mindful of larger trucks turning in parking lot/receiving area.

Table 106. Museum/Visitor Centre: summary of employee area.

Category	Information
Identified User(s)	Staff and volunteers
Function	• To act as a staff/volunteer location for scheduled lunch of employee breaks. • To support food and beverage preparation for some onsite programing/workshops. • To be utilized by staff/volunteers for personal use (i.e. lunch and staff breaks). • To store flatware, cups, cutlery, etc. for Tea events
Furniture	• Kitchen table (x1), chairs (x6) • Range (cook top w/ oven), Refrigerator, microwave.
Existing Room Size	• 120 sq. ft. • Shared with Kitchen Exhibit
Required Room Size	153.5 sq. ft.
Flooring	Commercial tile.
Ceiling	8’ ceiling height with SAT finish
Plumbing	Sink and rough ins for sink and dishwasher, washer and dryer
Lighting	LED lighting
Power	• Minimum 4 outlets • Dedicated 220-volt circuit for range • Dedicated 240-volt circuit for dryer.
Mechanical	Connect to HVAC., Exhaust above range.
Millwork	Kitchen cupboards and countertop.
IT/Technology	Wi-Fi access

Table 107. Museum/Visitor Centre: summary of combined exhibit gallery.

Category	Information
Identified User(s)	Museum staff, volunteers, and visitors
Function	• To display temporary and permanent exhibits. • Permanent exhibits may include First Nations, historic tools, general store, household living (incl. living room, bedroom, pioneer kitchen and 1950's kitchen).
Furniture	Display cases, display rail/ledge, exhibit explainer signage stand, exhibit protective railing, moveable pony walls.
Existing Room Size	• 990 sq. ft. (Temporary Exhibit) • 600 sq. ft. (Permeant Exhibit) • 1,590 sq. ft. (Combined Size)
Required Room Size	2,262.0 sq. ft. (Combined size)
Flooring	Sheet Vinyl flooring
Ceiling	14’ ceiling height with SAT finish.[5]
Lighting	• LED Lamp 1620 lumens dimmable 19 Watt • General lighting all around is required and some wall spot lighting directed on the objects (to remove shadows) will also be required. Wall mounted lights should be moveable. Some could be ceiling mounted, but having ability to alter them would be ideal.
Power	Minimum 8 outlets (two per wall)
Mechanical	Exhibit area to remain within a temperature range of 20-22 degrees Celsius. Humidity range of 40%-60%.
Millwork	Permanent exhibit will require half walls to separate some of its exhibits.
IT/Technology	Wi-Fi access
Placement	• Can be placed further back in the museum building. • Can have a wall (partition) dividing the two different types of exhibit spaces to allow multiple room configurations.
Notes	• Windows for emergency exit, but need option to black out. Prefer to have no windows or few windows with UV protection. • Black out ability helps to prevent bright natural light from coming in and affecting sensitive displays/artifacts. • Windows will have to have UV protection on them. • Working on an ongoing memorial exhibit. • The half walls which fully surround permanent exhibits make is difficult for the museum curator to bring items in/out of their assigned area. Perhaps a latchable/retractable gate may be more appropriate.

[5] The intention of the proposed 14’ ceiling height is to support the requirements for a new proposed facility.

Table 108. Museum/Visitor Centre: summary of general storage.

Category	Information
Identified User(s)	Staff and volunteers
Function	Basic tools, programming supplies - items that do not require to be in a temperature/humidity-controlled environment.
Furniture	Office desk (x1) and chair (x1)
Existing Room Size	• Approx. 175 sq. ft. • Outside shed (8'x10' = 80sq. ft.) • Total: 255 sq. ft.
Required Room Size	164.7 sq. ft.
Flooring	Commercial tile.
Ceiling	8' ceiling height with SAT finish
Lighting	LED Lamp 1620 lumens dimmable 19Watt
Power	8 outlets (two per wall)
Mechanical	Air purification (not needed if just storage, but if a workspace, then it would be ideal to have). Recommendation is the have if building new.
Millwork	Shelving units.
IT/Technology	Wi-Fi access
Placement	Situated where contents cannot be exposed to water damage or flooding.
Notes	Mobile Shelving Racking System to be placed in the basement.

Table 109. Museum/Visitor Centre: summary of office supplies.

Category	Information
Identified User(s)	Staff and volunteers
Function	To store common office supplies
Furniture	Office desk (x1) and chair (x1)
Required Room Size	93.2 sq. ft.
Flooring	Sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Lighting	LED lighting.
Power	4 outlets
Mechanical	Connect to HVAC
Millwork	Shelving units.
Placement	Close to offices and away from public areas.

Table 110. Museum/Visitor Centre: summary of collections storage.

Category	Information
Identified User(s)	Staff and volunteers
Function	To provide storage capacity for various permanent and/or temporary collection exhibit items. As this area is temperature and humidity controlled, this storage area can also accommodate dedicated (partitioned) space for Artwork.
Furniture	• Workstation (desk x1, chair x1) • Rolling Cupboards • 1 Flat File: 6.5' (W) x 6.5' (H) x 2' (D) • 7 Adjustable Shelves: 6.5' (W) x 6.5' x 2.4' (D) • 1 Shelf: 2.4' (W) x 5.4' (H) x 2' (D) • Textile Cupboard • 1 Changeable Unit: 9.2' (W) x 6' (H) x 2' (D) • 1 Hanging rack: 3.9' • 1 Hanging rack : 2.4' • 6 Drawers: 2.2' (W) x 2.5” (H) x 2' (D) • 4 Drawers: 2.2' (W) x 5.5" (H) x 2' (D) • 1 Metal Shelf: 2.4' (W) x 5' (H) x 1.8' (D) • 1 Metal Shelf: 9.1' (W) x 5' (H) x 2' (D) • 1 bar along ceiling used for hanging clothes • New Rolling Cupboards: 7' (W) x 5.5' (H) x 1.3' (D) • 2 of the above measurements placed as singles • 6 sets of these as doubles (two back-to-back and on the rolling system) • 2 Built-in Shelves: 2.8' (W) x 5.5' (H) x 2' (D) • 1 Built-in Shelf: 3.9' (W) x 5.5' (H) x 2' (D) • Mobile Shelving Racking System
Existing Room Size	• 23’x9.3’ = 214 sq. ft. • 5.75’x13.2’ = 76 sq. ft. • 22.6’x14.6’ = 330 sq. ft.
Required Room Size	899.5 sq. ft.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Lighting	LED Lamp 1620 lumens dimmable 19Watt
Power	Minimum 2 outlet to plug in lighting for workstation.
Mechanical	Individual room temperature and humidity controlled. Air purification
Millwork	Shelving units
IT/Technology	• 1 ethernet port • Wi-Fi access
Placement	Further back to ensure no public access.
Notes	• Must also accommodate Art Storage • No exterior windows/natural lighting required.

Table 111. Museum/Visitor Centre: summary of archives.

Category	Information
Identified User(s)	Staff and volunteers
Function	To provide safe storage of sensitive/high valued exhibit items that require temperature and humidity-controlled conditions. Mostly library, archival and research documents.
Furniture	• Workstation requirements (desk x1, chair x1, large table for opening maps and blueprints). • 1 Standard Filing Cabinet Bookshelves • 2 Shelves: 5.9' (W) x 5' (H) x 1' (D) • 1 Shelf: 2' (W) x 2.3' (H) x 1' (D) Metal Shelves • 1 Shelf: 3' (W) x 4' (H) x 1.1' (D) • 1 Shelf: 3' (W) x 4.4' (H) x 1.25' (D) • Flat File: 3.9' (W) x 1.4' (H) x 3' (D) - flat shelf is floating a few feet above floor with a shelf underneath • 5 Floating Shelves (above flat file): 3.9' (W) x 1" (H) x 3' (D) • Altered Wood Cabinets (2 stacked): 4' (W) x 3.3' (H) x 1.4' (D) • Wood News Paper Shelves: 4.2' (W) x 7.7' (H) x 2.1' (D) • Computer Desk • Small Rolled Document Cart
Existing Room Size	180 sq. ft.
Required Room Size	312.6 sq. ft.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Lighting	LED Lamp 1620 lumens dimmable 19Watt
Power	1 outlet to plug in lighting for workstation. Power also required for a scanning station.
Mechanical	• HVAC connection with individual temperature and humidity control • Air purification
Millwork	Floating shelving units.
IT/Technology	• Wi-Fi access • 1 ethernet port • Laptops require single ethernet port and an Iris scanner
Placement	Ideally situated in a location that is safeguarded against possible flooding and away from museum visitors.
Notes	No exterior windows/natural lighting required.

Table 112. Museum/Visitor Centre: summary of art storage.

Category	Information
Identified User(s)	Staff and volunteers
Function	To provide safe storage of artwork and paintings in a temperature/humidity-controlled area.
Existing Room Size	89 sq. ft.
Required Room Size	197.6 sq. ft.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Lighting	LED Lamp 1620 lumens dimmable 19 Watt.
Power	Minimum 2 outlet to plug in lighting for workstation.
Mechanical	• Connect to HVAC. • Independent temperature and humidity controls.
Millwork	Shelving units.
Placement	• Ideally situated in a location that is safeguarded against possible flooding and away from museum visitors. • Can be a designated area within a larger Collections Storage Room if required.

Table 113. Museum/Visitor Centre: summary of warehouse.

Category	Information
Identified User(s)	Staff and volunteers
Function	To provide safe storage of large general exhibit items that may be awkward to move to/from the general storage areas and throughout the museum.
Required Room Size	1004.9 sq. ft.
Flooring	Concrete flooring should be salt (calcium chloride) resistant.
Ceiling	Recommend minimum 20' ceiling height.
Lighting	LED lighting
Power	Minimum, but nothing specific.
Mechanical	Connect to HVAC.
Millwork	Shelving units.
Placement	Items are not intended to be moved in/out on a regular basis, so placement could take place offsite if building footprint is too large for property size.
Notes	Double doors to accommodate larger items.

Table 114. Museum/Visitor Centre: summary of staff washrooms.

Category	Information
Identified User(s)	Staff and volunteers
Function	To provide a toilet and washing station
Required Room Size	• 29.3 sq. ft. per single-use washrooms • Two (2) single-use washrooms required.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Plumbing	Elongated toilet (x1), wall-hung accessible hand sink (x1).
Lighting	LED lighting
Power	Single GFCI receptable as per OBC.
Mechanical	Connect to HVAC.
Placement	Close to or adjacent to Employee Area / Kitchen. Out of the way from museum visitors.
Notes	Two (2) single-use washrooms required.

Table 115. Museum/Visitor Centre: summary of universal public washrooms.

Category	Information
Identified User(s)	Visitors and general public
Function	To provide a toilet and washing station that is universally accessible.
Required Room Size	64.1 sq. ft.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Plumbing	• Elongated toilet (x1), urinal (x1), wall-hung accessible hand sink (x1). • Possible two urinals in family washroom (one standard height and one junior height)
Lighting	LED lighting
Power	Single GFCI receptacle (as per Ontario Building Code)
Mechanical	Connect to HVAC
Washroom Accessories	Toilet paper dispenser, paper towel dispenser, hand dryer, grab bars, mirror, door hook, soap dispensers, hand sanitizer, retractable change table, sharps container.
IT/Technology	An emergency call system that consists of audible and visual signal devices inside and outside of the washroom that are activated by a control device inside the washroom
Placement	Closer to the front of the building to provide immediate access.
Notes	• If only there is only the option for one washroom to be accessible, then the preference would be for the public washroom to avoid visitors having to ask staff to utilize their washroom. • Universal code indicates that two universal washrooms are not required within 45 metres of one another.

Table 116. Museum/Visitor Centre: summary of public washroom (men's).

Category	Information
Identified User(s)	Visitors and general public (men)
Function	To provide toilet and hand washing facilities plus a provision for a child/adult change table station
Required Room Size	160.6 sq. ft.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Plumbing	Elongated toilets (x2), urinal – standard height (x1), urinal – junior height (x1), wall-hung hand sink (x1), and wall-hung accessible hand sink (x1)
Lighting	LED lighting
Power	Single GFCI receptacle (as per Ontario Building Code)
Mechanical	Connect to HVAC
Washroom Accessories	Toilet paper dispenser, paper towel dispenser, hand dryer, grab bars, mirror, door hook, soap dispensers, hand sanitizer, retractable change table, sharps container
Millwork	Child/adult change table station
IT/Technology	An emergency call system that consists of audible and visual signal devices inside and outside of the washroom that are activated by a control device inside the washroom
Placement	Closer to the front of the building to provide immediate access

Table 117. Museum/Visitor Centre: summary of public washroom (women's).

Category	Information
Identified User(s)	Visitors (female) and general public (female)
Function	To provide toilet and hand washing facilities plus a provision for a child/adult change table station.
Required Room Size	179.3 sq. ft.
Flooring	Commercial tile
Ceiling	8’ ceiling height with SAT finish
Plumbing	Elongated toilet (x2), wall-hung hand sink (x1) and wall-hung accessible hand sink (x1).
Lighting	LED lighting
Power	Single GFCI receptacle (as per Ontario Building Code)
Mechanical	Connect to HVAC
Washroom Accessories	Toilet paper dispenser, paper towel dispenser, hand dryer, grab bars, mirror, door hook, soap dispensers, hand sanitizer, retractable change table, sharps container.
Millwork	Child/adult change table station
IT/Technology	An emergency call system that consists of audible and visual signal devices inside and outside of the washroom that are activated by a control device inside the washroom. [6]
Placement	Closer to the front of the building to provide immediate access.

[6] https://www.buildingcode.online/525.html

Table 118. Museum/Visitor Centre: summary of janitor's closet.

Category	Information
Identified User(s)	Staff as required
Function	A room (or space) within a floor area for the storage of janitorial supplies
Existing Room Size	7.4 sq. ft.
Required Room Size	53.2 sq. ft.
Flooring	Commercial tile flooring with cove base with minimum height of 150 mm (6 inches).
Ceiling	8’ ceiling height with SAT finish
Plumbing	• One floor slop sink with hot and cold-water faucets. • A floor drain with basket.
Lighting	LED lighting
Power	Electrical duplex receptacles with independent breaker on the electrical panel (GFCI protected within 6’ of sink), and proper receptacle for the power of floor polisher.
Mechanical	Should include an exhaust fan.
Millwork	A closet organizer/tool holder (at least 5 holders) for each closet.
Placement	Close to either Crew Room or Shop Floor.
Notes	• Consider a minimum of one closet for every 15,000 square feet of floor or a minimum of one closet per floor. • Water-resistant wall partitions

Table 119. Dryden & District Museum: summary of mechanical room.

Category	Information
Identified User(s)	Staff as required
Function	General termination point for utilities and housing of hot water heating and domestic hot water equipment
Existing Room Size	34.7 sq. ft.
Required Room Size	108.2 sq. ft.
Flooring	Concrete flooring should be salt (calcium chloride) resistant
Ceiling	Minimum 8’ ceiling height with drywall finish
Plumbing	Rough in for the main distribution system
Lighting	LED lighting
Power	• Dedicated power • GGCI receptacles (as per Ontario Building Code)
Mechanical	Connect to HVAC (System A/B)
Placement	Near to an outside wall and reasonably near the electric room
Notes	Gas fire appliances should be contained in a fire rated room

Table 120. Dryden & District Museum: summary of electrical room.

Category	Information
Identified User(s)	Staff as required
Function	Termination of secondary feeders from utility provider for electric power would house the main disconnect, main switch gear and primary metering of electricity. The electrical room may also contain step-down transformers.
Existing Room Size	21.5 sq. ft.
Required Room Size	85.5 sq. ft.
Flooring	Concrete flooring should be salt (calcium chloride) resistant
Ceiling	Minimum 8’ ceiling height with drywall finish
Lighting	LED lighting
Power	Dedicated power
Mechanical	Connect to HVAC (System A/B)
Placement	Near to an outside wall and reasonably near the electric room
Notes	Panel board backing for the walls

Table 121. Museum/Visitor Centre: summary of office circulation.

Category	Information
Identified User(s)	Staff, volunteers, and visitors
Function	Connective hallways, exit routes, minor vestibules, etc. Stairwells connecting multi-levels.
Net Area Required	• 9.77% circulation (with Lobby) • 7.8% circulation (not counting lobby)
Flooring	Commercial tile or sheet vinyl flooring
Ceiling	8’ ceiling height with SAT finish
Plumbing	Possible drinking fountain
Lighting	LED lighting
Power	As per Ontario Building Code
Mechanical	Connect to HVAC

5.2.5 Outdoor Uses & Equipment

The following list represent a series of related outdoor uses and equipment that could be situated on the property surrounding the Museum/Visitor Centre.

Identified Uses

- Walking trails
- Air Ontario Flight 1363 memorial
- Mosaic artwork
- Outdoor seating area
- Photo opportunity with Max the Moose
- Grassed area for kids to run around
- Self-guided walking tours

Required Equipment

- Picnic tables
- Gazebo
- Outdoor wildlife proof trashcans

5.2.6 Summary of Required Room Sizes

Table 122. Museum/Visitor Centre: summary of required room sizes.

Component	Existing Room Sizes (sq. ft.)	Required Room Size (sq. ft.)	Concept Drawing Sizes (sq. ft.)
Vestibule	33.6	76.7	76.7
Lobby/ Seating	N/A	168.2	168.2
Visitors Service Desk / Reception	96	88.5	91.5 *
Office #1 (Curator's Office)	144	111.1	109.6 *
Office #2 (General Office)	69.5	111.7	95.0 *
Office #3 (General Office)	N/A	83.5	99.7 *
Office #4 (General Office)	N/A	83.5	106.9 *
Exhibition Preparation Room	229	221.2	221.2
Copy / Printing Station / IT Room	12.2	24.7	30.6 *
Programming Area	260	534.2	534.2
Shipping + Receiving	100	189.1	221.8 *
Employee Area	120	153.5	153.5
Combined Exhibit (Temporary & Permanent Exhibits)	1,590	2,262.0	2,262.00
General Storage	n/a	164.7	164.7
Office Supplies	N/A	93.2	93.2
Collections Storage	620	899.5	899.5
Art Storage	89	197.6	197.6
Archives	180	312.6	312.6
Warehouse	N/A	1,004.9	1,004.90
Universal Washroom	N/A	64.1	64.1
Staff Washroom #1	N/A	29.3	45.6 *

Component	Existing Room Sizes (sq. ft.)	Required Room Size (sq. ft.)	Concept Drawing Sizes (sq. ft.)
Staff Washroom #2	N/A	29.4	N/A *
Public Washroom (Men's)	N/A	160.6	160.6
Public Washroom (Women's)	N/A	179.3	179.3
Janitor's Closet	7.4	53.2	22.5 *
Mechanical (water heater, Furnace)	34.7	108.2	92.6 *
Electrical (electrical/fire panel, alarm system)	21.5	85.5	81.6 *
Sub-Total	**3,607**	**7,490**	**6,492**
Office Circulation	937.8 (based on 26%)	1,123.5 (based on 15%)	506.4 (based on 7.8%)
Total	**4,545**	**8,614**	**6,999**
Recommended Increase in Building Size:		**90%**	**78%**

5.2.7 Preliminary Block Planning

After developing the SOR for the combined Museum/Visitor Centre, the Project Team completed a block planning exercise. In this exercise, the Project Team arranged blocks to represent the Museum/Visitor Centre in a way that supports the City's objectives. This allowed the Project Team to understand how the new building can meet the requirements of both existing facilities.

There are potentially several architectural designs that could accommodate the Museum/Visitor Centre. However, the City must evaluate various internal and external factors before it decides on a design for the building. Internal factors include safety and security, storage for the museum's collections, and the design of staff and public areas. External factors include the prevailing wind direction, the direction of sunlight, and existing treed-in areas. The combination of these internal and external factors will influence – and potentially alter – any designs regarding building layout. Therefore, the City must first select a site for the Museum/Visitor Centre and assess these internal and external factors before it decides on the design of the building.

As shown in Figure 15, the Project Team prepared a high-level building layout of the Museum/Visitor Centre using 170 Government Street as the potential site. In this layout, the Project Team aimed to accommodate the following:

- an increased visibility of the front entrance from staff offices and areas
- an intuitively walkable space for museum visitors
- access to the public washrooms (as a Visitor Information Centre)
- positioning the programming room at the front of the building for easier access

The Project Team then presented the block massing plan to City staff members for their initial reviews and comments. The proposed design met the SOR objectives. That said, when the Project Team submitted the proposed design, it was understood that the design was preliminary and subject to change.

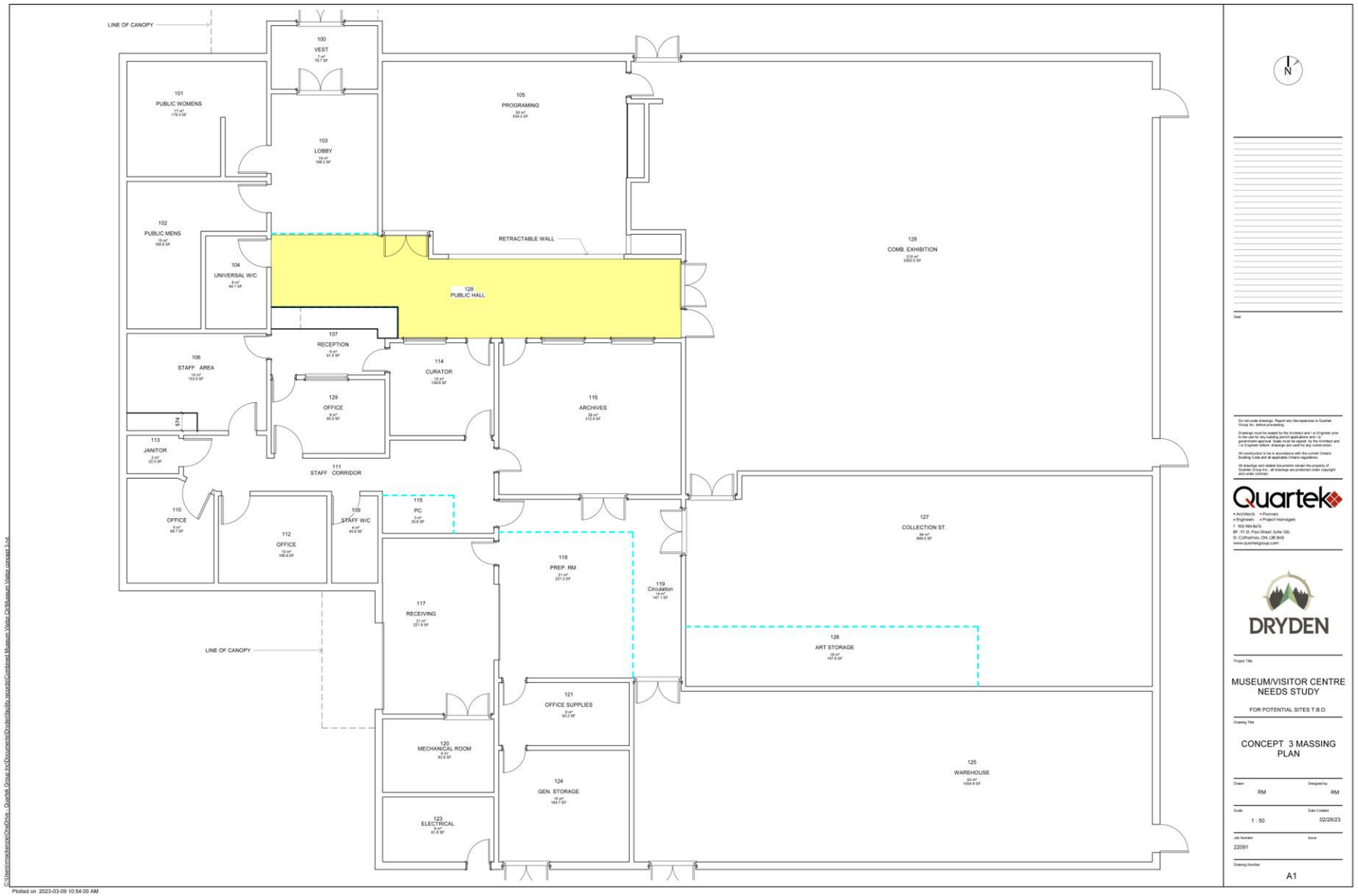

Figure 15. Museum/Visitor Centre: general massing plan for concept #1.

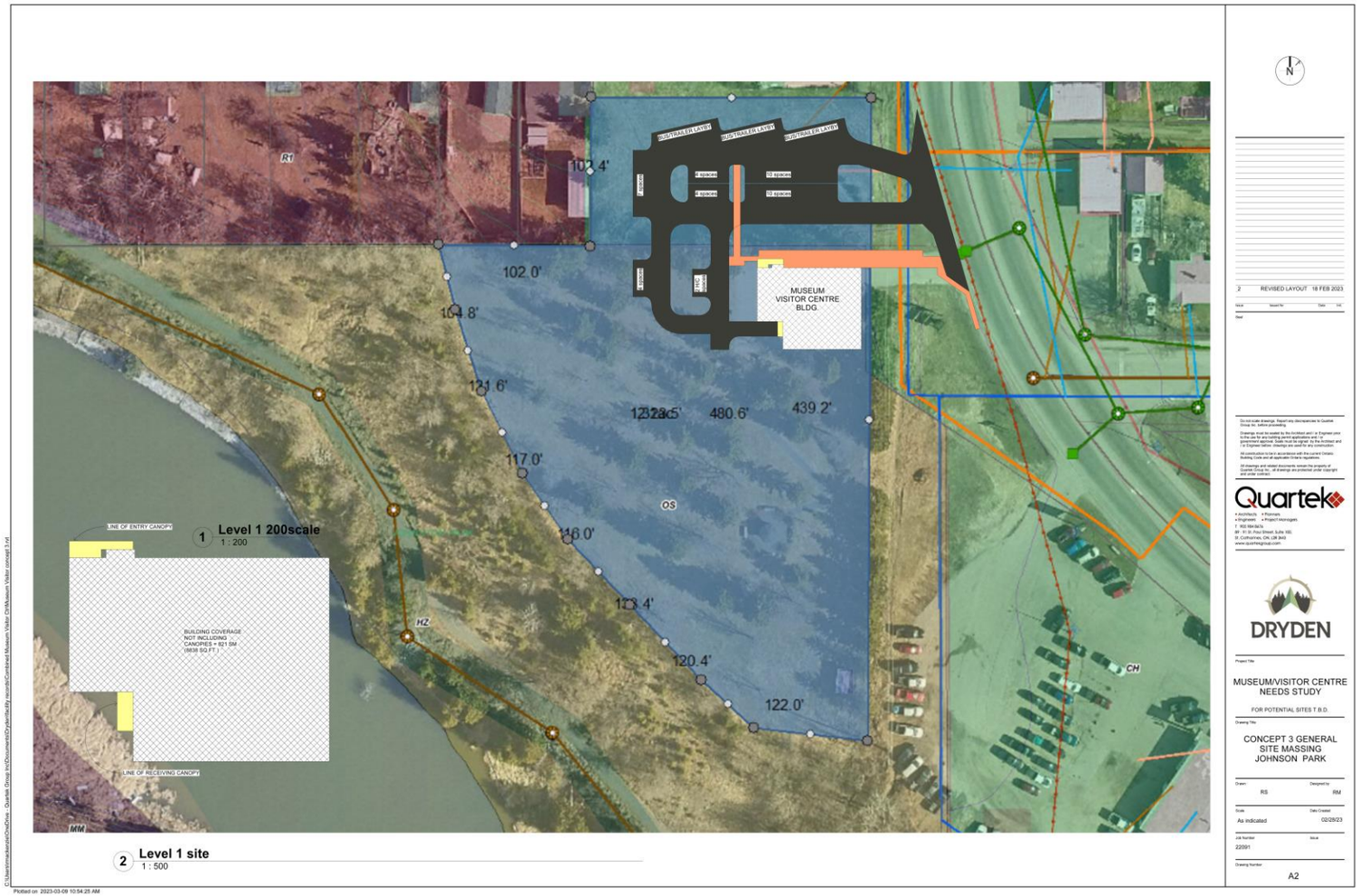

Figure 16. Museum/Visitor Centre Ideal Site Layout and Configuration.

5.2.8 Estimated Cost of the Museum/Visitor Centre

If the City decides to build the Museum/Visitor Centre, it must consider the following:

- The Museum/Visitor Centre should be 821 square metres.
- A contingency of 15% was allocated, representing $817,957.19.
- Design fees which included engineering and architectural work was estimated at $564,390.46
- The estimated cost of the Museum/Visitor Centre is $6,835,395.61. (**Note:** This amount is a base cost and does not include the cost of any furniture or site improvements.)

Table 123. Preliminary estimate of the cost for a combined Museum/Visitor Centre.

	Item	QTY	SM	SF	RSMeansTB	Alternate	Dryden Factor	Net Estimate	Totals
A	Gross ground floor area coverage	1	821	8,837.6					
B									
	Trellis /entry feature	1	20	215.28		$135.00	1.3	$37,781.32	
	Entrance Canopy	1	13.5	145.6		$155.00	1.3	$29,347.76	
	Receiving Door Canopy	1	9.7	104.2		$155.00	1.3	$20,999.56	
								$88,128.65	
C	**Enclosure**								

	Item	QTY	SM	SF	RSMeansTB	Alternate	Dryden Factor	Net Estimate	Totals
	Gallery Space (Programing, public hall, Lobby and Gallery)	1	379.6	4,086.2	$315.77		1.3	$1,806,402.94	
	Office and Office-Staff related component of building	1	135.2	1,455.8	$410.00		1.4	$835,602.97	
	Back of House Utility/workshops	1	3.6.2	3,296.2	$295.00		1.4	$1,361,312.82	
			864.3	**9,303.2**				**$4,003,318.72**	
B+C									**$4,091,447.37**
D	**Site Features New**								
	Asphalt area (Parking and lanes)	1	3,457.0	37,210.8	$165.00		1.3	$741,526.50	
	Decorative Concrete Walkways	1	435.76	4,690.48	$220.00		1.4	$134,214.08	
	Landscaping Budget		Allowance	1	$175,000.00		1.2	$210,000.00	

	Item	QTY	SM	SF	RSMeansTB	Alternate	Dryden Factor	Net Estimate	Totals
	Other Decorative Site Features		Allowance	1	$25,000.00		1.3	$25,000.00	
	Signage		Allowance	1	$40,000.00		1.3	$40,000.00	
	Site Lighting (poles)	8			$3,400.00		1.3	$35,360.00	
	Localized Drainage (catch basins, culvert/piping, storm detention) Allowance	1			$135,000.00		1.3	$175,500.00	
								$1,361,600.58	
									$1,361,600.58
							Net Base Opinion of Cost (B + C + D)		**$5,453,047.95**
							Contingency Allowance (15%)		$817,957.19
							Design Fees (engineering / architectural)		$564,390.46
							Opinion of Cost +HST		**$6,835,395.61**

6. Policy Recommendations

The following subsections present recommendations to help the City implement this FMP. Each recommendation considers the following factors:

- the current capacity of the City's municipal facilities
- the current service levels of the City's municipal facilities
- the potential growth the City may experience

6.1 Future Planning and Adaptation

Context

Due to several major economic development opportunities in the region, the City is poised for substantial growth over the next 20 years. Based on these prospective projects, the 2022 City of Dryden Community Capacity Study forecasts an increase in Dryden's population from the 7,388 residents reported in 2021 to 9,582 residents by 2041 should both Treasury Metals and NWMO projects proceed (see Figure 17).

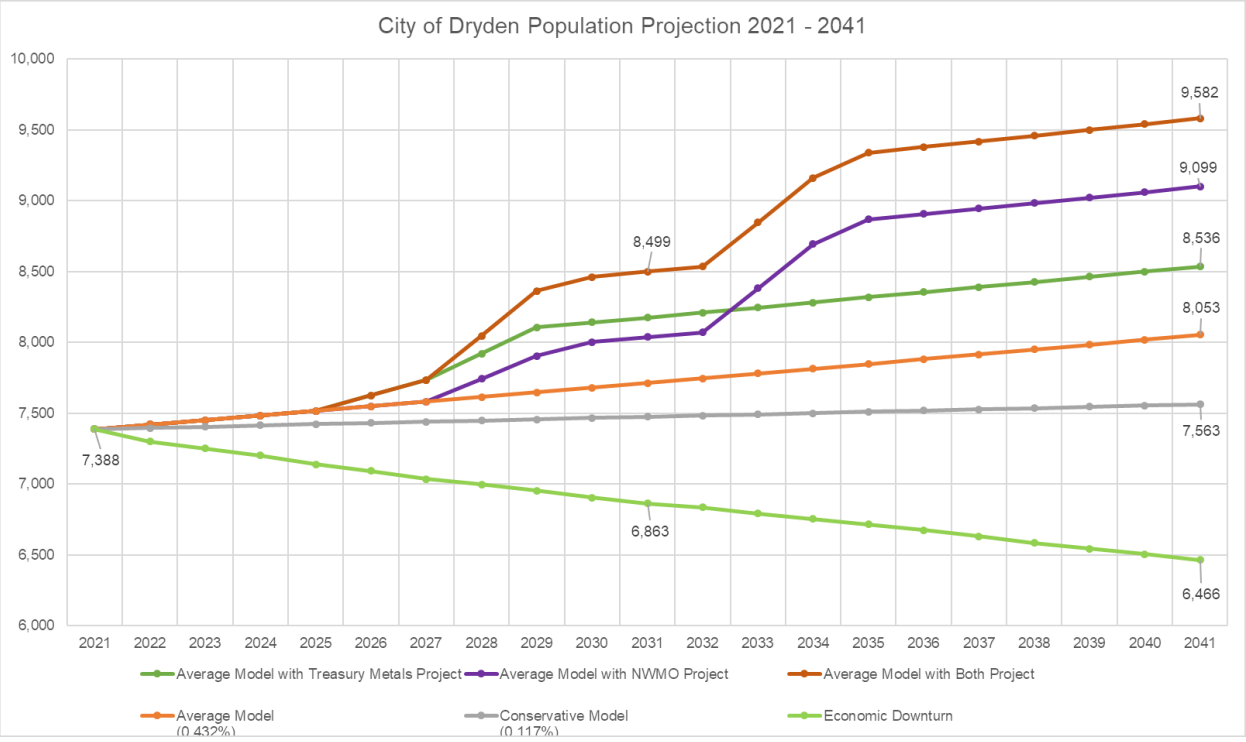

Figure 17. Population forecast from the 2022 Dryden Community Capacity Study.

As the City's population grows, the demands on the City's existing facilities, such as the Public Works Facility, will increase. Therefore, the City must prepare itself to accommodate the community's changing needs. By regularly reviewing the results of

the analyses and assessments in this FMP, the City can act upon regional economic opportunities as they become available.

Recommendations

1. Use the recommendations in this Facilities Master Plan to guide future decision-making.
2. Gather data and monitor the City's changing economic conditions and socio-demographics.
3. Evaluate the capacity of the facilities assessed during the development of this Facilities Master Plan to identify potential constraints. Repeat the evaluations every five years.
4. Work with existing and prospective major regional employers to accommodate population growth resulting from large-scale economic development.

6.2 Collaboration and Stakeholder Engagement

Context

The needs assessment conducted for the FMP yielded recommendations for enhancing the management of the City's municipal facilities. Before implementing those recommendations, the City must form collaborative partnerships and conduct stakeholder engagement. The following groups may be affected by the outcomes of the recommendations and, therefore, must understand the implementation process as it occurs:

- elected officials
- municipal staff
- partner agencies
- the public

Recommendations

1. Develop ways to engage the City's residents and its business community, partner agencies, and municipal staff in the FMP's implementation.
2. Use the information in the FMP to guide decisions about future major capital projects. Ensure community stakeholder engagement is part of the decision-naming process.
3. Develop a business case for each future major capital project requiring construction to explore joint-use opportunities (such as the combined museum and VIC building proposed in the SOR). Develop the business cases based on the City's demographics, socio-economic data, and local needs.

4. Engage with community stakeholders on a regular basis to proactively maintain partnership-building throughout the FMP's implementation.

6.3 Improving the Accessibility and Standards of the Facilities

Context

Municipal facilities must be accessible spaces for everyone. Although new facilities tend to comply with current accessibility standards, many older facilities do not. For example, the needs assessment identified that some of the City's existing facilities are not accessible for those with disabilities or those in wheelchairs.

As its community grows, the City must completely overhaul or replace its aging facilities. Doing so will help the City meet accessibility requirements. The City can use the recommendations in this FMP to guide the decision-making process for future capital projects.

Recommendations

1. Make the City's municipal facilities more accessible by enhancing the following (where possible):
    a. washrooms (incorporating a gender-inclusive design)
    b. lighting
    c. physical comfort
    d. signage
    e. acoustics (for seniors and people with hearing disabilities)
2. Review building standards and guidelines on a continuing basis. Incorporate the latest designs into facility renovations, replacements, or rebuilding processes where applicable.

6.4 Sustainability and Environmental Leadership

Context

Sustainability and environmental leadership are vitally important topics. Many levels of government recognize this importance and devote significant time and resources to these areas.

There are several ways new municipal facilities can incorporate environmental leadership, such as using energy-saving designs and sustainable construction. Existing facilities can enhance sustainability by reducing energy consumption and refining their operating practices. In order to bolster sustainable and environmentally friendly initiatives in its community, the City should examine the financial efficiencies,

environmental benefits, and health improvements it can achieve through building upgrades and replacements.

Recommendations

1. Ensure all future building upgrades and replacements consider environmental impacts and energy conservation. Doing so will help the City protect its natural environment and demonstrate its commitment to sustainability.

6.5 Financial Management and Funding Strategies

Context

Securing adequate funding and managing finances effectively are critical to successful facility management. Therefore, the City should explore various funding sources and adopt sound financial management practices to ensure the long-term sustainability of its municipal facilities.

As of the time of FMP's development, the City is eligible to apply for funding from the following sources:

- The Ontario Community Infrastructure Fund (offered by the Ontario Ministry of Infrastructure) provides funding to municipalities for critical infrastructure projects. The fund supports projects such as roads, bridges, water and wastewater infrastructure, public transit, and capital maintenance. The program has two streams: the "rural and northern stream" and the "urban stream." The rural and northern stream provides funding for municipalities with populations of less than 100,000 and is therefore applicable to the City.
- The Community Building Fund – Capital Stream (offered by the Ontario Trillium Foundation) provides funding to strengthen communities by supporting the repair, renovation, or retrofitting of existing sports and recreation facilities. The fund aims to extend the life cycle and maximize the use of existing facilities, such as playgrounds and splash pads. The program is open to municipalities, Indigenous communities, not-for-profit organizations, and other community groups.
- The Community Economic Development program (offered by FedNor) provides funding to support community economic development projects. The program aims to help communities create jobs and improve their economic prospects. The program provides funding for projects such as business development, tourism development, and community infrastructure. The program is open to municipalities, Indigenous communities, not-for-profit organizations, and other community groups.

Section 5 of the 2022 City of Dryden Community Capacity Study also identifies various funding programs that may support the City's long-term facility management. However, as the economy continues to recover from the COVID-19 pandemic, several of these funding programs are undergoing renewal at the provincial and federal levels. Due to the changes, the City should persistently explore funding opportunities from those sources to facilitate implementing this FMP.

The City should collaborate with the private companies conducting (or potentially conducting) major projects in the region. Those projects could significantly impact the City's socioeconomic landscape and demographics. By adapting to changes in its community and addressing the growing demands on municipal services and facilities, the City may discover opportunities to secure financial support from those private companies.

Recommendations

1. Explore alternative funding sources to supplement the municipal funds needed to manage facilities. Doing so will help reduce the financial burden on taxpayers. Possible sources of funding include grants, public-private partnerships, and community sponsorships.
2. Work with neighbouring municipalities, regional organizations, and other stakeholders to leverage shared resources, knowledge, and expertise in facility management and financing.

Appendix 1. List of Facility Evaluation Reports

The City of Dryden has received facility evaluation reports for the following facilities:

1. Public Works Facility
2. Dryden & District Museum
3. Dryden Regional Airport – terminal and maintenance buildings
4. City Hall
5. Dryden Public Library
6. Dryden Police Service building (former)
7. Dryden Recreation Complex (Arena & Pool and Fitness Centre)
8. Fire Station #1
9. Fire Station #2
10. Water Treatment Plant (completed in 2018)

The City received each of the above reports as a standalone document. To obtain a copy of any of these reports, please contact the City's CAO.

Appendix 2. Considerations for Establishing Budgets

The facility evaluation reports provide a list of potential repair/replacement events based on assessment of component condition and/or on the age of each component. Each of the Facility Evaluation Reports are predicated on a collective estimate of repair/replacement events (such as those provided in each of the supporting Facility Evaluation Reports). The assessment team utilized best practice methods to help predict a very high-level likelihood of a component failure to assist with building owner asset management but it is by no means intended to be a direct budgeting recommendation to allocate funds without weighing risk. The following represents a series of considerations to assist the City in establishing budgets to support the identified repair/replacement events identified in this study:

Is each event likely to occur and within the period timeframe? According to the Probability of Cataclysmic Scenario - meaning all buildings and all predicted repair/replacement events occurring within the same period - this likelihood is less than five per cent. To budget for this expenditure is unrealistic.

Normal probability of event scenarios across a range of buildings means that a likelihood of some buildings will experience some predicted repair/replacement events within the same period. This is in a range between 60 and 70 per cent and on 60 to 70 per cent of some buildings. Therefore, the range of predicted repair/replacement events is more likely 36 to 49 per cent when combining these probabilities if a property owner was taking the higher risk approach to deferred maintenance.

It would be up to the City to decide what level of risk they would choose to assume for what purpose. If the City is applying for funding than they may elect to choose a low-risk position of 60 to 70 per cent of condition cost per period. If the City is looking at tax impact of operational cost, they might choose to take a higher risk position of 50 to 60 per cent (or lower).

The other factor in a City-led budgeting exercise for asset management planning is in determining the indexing of future values. What can the cost of work ten years from now be? As the Facility Evaluation Reports state, there are factors that will drive costs up or down from the current estimate of a repair/replacement event. These factors are typically inflation indexing, regional changes in labour or material availability in the construction industry.

Appendix 3. Water Treatment Plant: Summary of Estimated and Remaining Capital Investment

Element No.	Component Description	Asset	Project Name	Estimated Useful Life or Replace	Remaining Useful Life (Yrs)	Quantity	Unit of Measurement	Unit Cost ($)	Plan Type	Priority	Estimated Cost
A. SUBSTRUCTURE											
A10	**FOUNDATIONS**										
A1011	A1011 Wall Foundations	1976 WTP Main	Parging repairs on	0	0	1.00	EA	$15,000	Major	Priority 3	$20,000
A20	**BASEMENT**										
A2020	A2020 Basement Walls	1976 WTP Main	Engineering study of the	0	-1	1.00	EA	$8,000	Engineering	Priority 2	$10,000
	A2020 Basement Walls	1976 WTP Main	Repair	0	0	1.00	EA	$100,000	Major	Priority 3	$150,000
									A. SUBSTRUCTURE SUB-TOTALS		**$180,000**

Element No.	Component Description	Asset	Project Name	Estimated Useful Life or Replace	Remaining Useful Life (Yrs)	Quantity	Unit of Measurement	Unit Cost ($)	Plan Type	Priority	Estimated Cost
B. SHELL											
B20	**EXTERIOR ENCLOSURE**										
B30	**ROOFING**										
									B. SHELL SUB-TOTALS		**$0**

Element No.	Component Description	Asset	Project Name	Estimated Useful Life or Replace	Remaining Useful Life (Yrs)	Quantity	Unit of Measurement	Unit Cost (S)	Plan Type	Priority	Estimated Cost
C. INTERIOR											
C10	**INTERIOR**										
C1021	C1021 Interior Doors	1976 WTP Main	Replace interior doors	40	2	15.00	EA	$3,000	Lifecycle	Priority 3	$50,000
C1031	C1031 Fabricated Toilet	1976 WTP Main	Replace washroom	15	8	2.00	per	$1,200	Lifecycle	Priority 4	$2,400
C1037	Replace Classroom	1976 WTP Main	Replace millwork	40	5	3.00	EA	$10,200	Lifecycle	Priority 4	$50,000
C20	**STAIRS**										
C30	**INTERIOR FINISHES**										
C3012	Paint Wall Covering	1976 WTP Main	Repaint interior walls of	10	0	21,780.00	SF	$5	Lifecycle	Priority 3	$135,000
C3012	Paint Wall Covering	1976 LLPS_Paint Wall	Repaint interior walls of	10	2	640.00	SF	$5	Lifecycle	Priority 4	$5,000
C3024	Painted/Sealed	1976 WTP Main	Repaint and re-seal	15	0	10,000.00	SF	$4	Lifecycle	Priority 3	$40,000
C3024	Painted/Sealed	1976 LLPS_Painted	Repaint and re-seal	15	0	640.00	SF	$6	Lifecycle	Priority 3	$5,000
C3031	Suspended Acoustic	1976 WTP Main	Replace suspended	25	3	505.00	SF	$12	Lifecycle	Priority 4	$10,000
										C. INTERIOR SUB-TOTALS	**$297,400**

Element No.	Component Description	Asset	Project Name	Estimated Useful Life or Replace	Remaining Useful Life (Yrs)	Quantity	Unit of Measurement	Unit Cost ($)	Plan Type	Priority	Estimated Cost
D. SERVICE											
D10	**CONVEYING SYSTEMS**										
D1093	D1093 Hoists & Cranes	1976 WTP Main	Replace the block chain	20	3	2.00	EA	$7,200	Lifecycle	Priority 3	$16,000
D20	**PLUMBING**										
D2013	D2013 Lavatories	1976 WTP Main	Lifecycle replacement	25	5	3.00	EA	$1,800	Lifecycle	Priority 4	$6,000
D2017	D2017 Showers	1976 WTP Main	Replace change room	25	2	1.00	Per	$2,400	Lifecycle	Priority 3	$3,000
D2017	D2017 Showers	1976 WTP Main	Replace change room	25	10	2.00	Per	$4,800	Lifecycle	Priority 4	$9,600
D2020	D2020 Domestic Water	1976 WTP Main	Lifecycle Replacement	15	9	1.00	EA	$1,250	Lifecycle	Priority 4	$1,250
D2022	Domestic Water Heater	1976 WTP Main	Replace DHW heater	10	10	1.00	EA	$14,400	Lifecycle	Priority 4	$14,400
D2022	Domestic Water Heater	1976 WTP Main	A lifecycle replacement	10	5	2.00	EA	$4,200	Lifecycle	Priority 4	$10,000
D2023.4	D2023.4 Plumbing	1976 WTP Main	Domestic water	37	5	21,780.00	SF of Building	$7	Lifecycle	Priority 4	$200,000
D30	**HVAC**										
D30	D30 HVAC	1976 WTP Main Bldg_Chlorine Room Air	Lifecycle replacement ventilation system	25	10	1.00	Per	$6,000	Lifecycle Replacement	Priority 4	$6,000
D3022.3	D3022.3 Space Heaters	1976 WTP Main Bldg_Terminal and	Lifecycle replacement space heaters	15	8	6.00	EA	$5,400	Lifecycle Replacement	Priority 4	$32,400

Element No.	Component Description	Asset	Project Name	Estimated Useful Life or Replace	Remaining Useful Life (Yrs)	Quantity	Unit of Measurement	Unit Cost ($)	Plan Type	Priority	Estimated Cost
D3022.3	D3022.3 Space Heaters	1976 WTP Main Bldg_Space Heaters	Replace suspended space heaters	15	3	4.00	EA	$1,200	Lifecycle Replacement	Priority 3	$5,500
D3041	Distribution Systems - Duct System	1976 WTP Main Bldg_Air Distribution	Replace ducting and insulation	30	5	21,780.00	SF of Building	$13	Lifecycle Replacement	Priority 3	$300,000
D3042	Exhaust Fans - Centrifugal	1976 WTP Main Bldg_Lime Room	Replace lime room exhaust system	35	1	1.00	EA	$12,000	Lifecycle Replacement	Priority 3	$13,000
D3042	Exhaust Fans - Centrifugal	1976 WTP MainBldg_Exhaust Fans	Replace exhaust fans	35	3	6.00	EA	$2,400	Lifecycle Replacement	Priority 3	$16,000
D3090	D3090 Other Special HVAC Systems and	1976 WTP-Main Bldg_Dryer vent	Replace duct dryer vent to the outside	35	0	1.00	Per	$2,400	Major Repair	Priority 3	$3,000
D3091	D3091 Special Cooling Systems & Devices	1976 WTP-Main Bldg_AC Units	Replace air-conditioning unit	30	10	2.00		$3,000	Lifecycle Replacement	Priority 4	$6,000
D40	**FIRE PROTECTION SYSTEMS**										
D4031	D4031 Fire Extinguishers	1976 WTP-MainBldg_Extinguishers	Lifecycle replacement fire extinguishers	6	4	10.00		$180	Lifecycle Replacement	Priority 3	$3,600
D50	**ELECTRICAL SYSTEMS**										
D5010	D5010 Electrical Service and Distribution	1976 WTP Main Bldg_Motor Control	Replace motor control centres	40	3	1.00	EA	$36,000	Lifecycle Replacement	Priority 3	$40,000

Element No.	Component Description	Asset	Project Name	Estimated Useful Life or Replace	Remaining Useful Life (Yrs)	Quantity	Unit of Measurement	Unit Cost ($)	Plan Type	Priority	Estimated Cost
D5010	D5010 Electrical Service and Distribution	1976 WTP-MainBldg_Main	Replace the main switchgear	40	3	1.00	EA	$96,000	Lifecycle Replacement	Priority 3	$125,000
D5012	D5012 Low Tension Service & Dist.	1976 WTP Main Bldg_Distribution	Replace the electrical distribution system	25	3	1.00	EA	$60,000	Lifecycle Replacement	Priority 3	$70,000
D5037	D5037 Fire Alarm Systems	1976 WTP Main Bldg_Fire Alarm Control	Lifecycle replacement of the fire alarm panel	25	10	1.00	EA	$144,000	Lifecycle Replacement	Priority 4	$144,000
D5092	Emergency Lighting - battery backups	1976 WTP Main Bldg_Exit Signs	Replace exits signs	20	4	15.00	EA	$1,440	Lifecycle Replacement	Priority 3	$21,600
										D. SERVICE SUB-TOTALS	**$1,046,550**

Element No.	Component Description	Asset	Project Name	Estimated Useful Life or Replace	Remaining Useful Life (Yrs)	Quantity	Unit of Measurement	Unit Cost ($)	Plan Type	Priority	Estimated Cost
E. EQUIPMENT & FURNISHING											
E10	**EQUIPMENT**										
E1090	E1090 Other Equipment	1976 WTP Main Bldg_Panel B(Starters fed from wireway)	Lifecycle Replacement	30	5	1.00	EA	$1,500	Lifecycle Replacement	Priority 4	$1,500
E1090	E1090 Other Equipment	1976 WTP Main Bldg_VFD Cabinet - High Lift Pumps	Lifecycle Replacement	20	5	4.00	EA	$7,200	Lifecycle Replacement	Priority 4	$28,800
E1090	E1090 Other Equipment	1976 WTP Main Bldg_Atlas Copco Air Compressor	Replace air compressor	25	3	1.00	EA	$6,000	Lifecycle Replacement	Priority 3	$7,500
E1090	E1090 Other Equipment	1976 WTP_Low Level Relay Panels	Lifecycle Replacement	20	5	2.00	EA	$1,500	Lifecycle Replacement	Priority 4	$3,000
E1090	E1090 Other Equipment	1976 LLPS_Low Lift Pump Motors	Replace the LLPS pumps	30	4	3.00	EA	$8,400	Lifecycle Replacement	Priority 4	$30,000
E1090	E1090 Other Equipment	1976 WTP Main Bldg._Devilbiss ProAir Compressor	Lifecycle Replacement	25	5	1.00	EA	$6,000	Lifecycle Replacement	Priority 4	$6,000
E1090	E1090 Other Equipment	1976 WTP Main Bldg_Motor - High Lift Pumps	Lifecycle Replacement	30	1	3.00	EA	$6,000	Lifecycle Replacement	Priority 3	$25,000
E1090	E1090 Other Equipment	1976 WTP Main Bldg_Motor Control Centre	Lifecycle Replacement	30	5	1.00	EA	$20,000	Lifecycle Replacement	Priority 4	$20,000

E1090	E1090 Other Equipment	1976 LLPS_Low Lift Pump_VFD	Lifecycle Replacement	15	10	1.00	EA	$4,200	Lifecycle Replacement	Priority 4	$4,200
E1090	E1090 Other Equipment	1976 WTP Main Bldg_Motor - Backwash Pump	Lifecycle Replacement	30	5	1.00	EA	$10,000	Lifecycle Replacement	Priority 4	$10,000
E1090	E1090 Other Equipment	1976 WTP Main	Lifecycle Replacement	20	7	4.00	EA	$1,200	Lifecycle Replacement	Priority 4	$4,800
E1090	E1090 Other Equipment	1976 WTP Main	Replace air compressor	25	3	1.00	EA	$9,600	Lifecycle Replacement	Priority 3	$15,000
E1099	E1099 Other Equipment	1976 WTP Main Bldg_Valves_Influent	Replace valves	20	3	4.00	EA	$1,500	Lifecycle Replacement	Priority 3	$10,000
E1099	E1099 Other Equipment	1976 WTP Main	Replace diesel pump	25	4	1.00	EA	$3,600	Lifecycle Replacement	Priority 4	$5,000
E1099	E1099 Other Equipment	1976 WTP Main	Replace valves	20	4	4.00	EA	$1,440	Lifecycle Replacement	Priority 4	$6,500
E. EQUIPMENT & FURNISHING SUB-TOTALS											**$177,300**

Element No.	Component Description	Asset	Project Name	Estimated Useful Life or Replace	Remaining Useful Life (Yrs)	Quantity	Unit of Measurement	Unit Cost (S)	Plan Type	Priority	Estimated Cost
F. SPECIAL CONSTRUCTION AND DEMOLITION											
F10	**SPECIAL CONSTRUCTION**										
F1051	F1051 Recording Instrumentation	1976 WTP Main Bldg_SCADA System	Lifecycle Replacement	15	5	1.00	EA	$20,000	Lifecycle Replacement	Priority 4	$20,000
F1051	F1051 Recording Instrumentation	1976 WTP Main Bldg_SCADA System	Lifecycle Replacement	5	5	1.00	EA	$1,000	Lifecycle Replacement	Priority 4	$2,000
F1051	F1051 Recording Instrumentation	1976 WTP Main Bldg_PLC/SCADA	Lifecycle Replacement	5	5	1.00	EA	$2,000	Lifecycle Replacement	Priority 4	$4,000
F1059	F1059 Other Special Controls &	1976 WTP Main Bldg_Operator Control	Lifecycle Replacement	25	5	1.00	EA	$40,000	Lifecycle Replacement	Priority 4	$40,000
F1059	F1059 Other Special Controls &	1976 WTP Main Bldg_Operator Control	Replace/update the main controls	30	3	1.00		$600,000	Lifecycle Replacement	Priority 4	$720,000
F1059	F1059 Other Special Controls &	1976 WTP Main Bldg_Reservoir Level	Lifecycle Replacement	25	5	1.00	EA	$2,500	Lifecycle Replacement	Priority 4	$2,500
F1059	F1059 Other Special Controls &	1976 WTP Main Bldg_Operator Control	Lifecycle Replacement	25	5	1.00	EA	$48,000	Lifecycle Replacement	Priority 4	$48,000
									F. SPECIAL CONSTRUCTION AND DEMOLITION SUB-TOTALS		**$836,500**

Element No.	Component Description	Asset	Project Name	Estimated Useful Life or Replace	Remaining Useful Life (Yrs)	Quantity	Unit of Measurement	Unit Cost (S)	Plan Type	Priority	Estimated Cost
G. BUILDING SITEWORK											
G20	**SITE IMPROVEMENTS**										
G2030	G2030 Pedestrian Paving	1976 WTP Main Bldg_Concrete	Repair stairs at the main entrance of the main	0	-1	1	EA	$5,000	Major Repair	Priority 3	$7,200
G2050	G2050 Landscaping	1976 WTP Main Bldg_Landscaping	Refurbish landscaping at the main building	10	10	1	EA	$60,000	Lifecycle Replacement	Priority 4	$60,000
G. BUILDING SITEWORK SUB-TOTALS											**$67,200**
Z. GENERAL											
Z. GENERALSUB-TOTALS											**$0**
									Estimated Expenditure Totals		**$2,604,750**