To:	Mayor Evans and Members of Council
From:	Tim Leitch, Director of Public Works Public Works Department
Prepared By:	JF Robitaille, Engineering Manager Public Works Department
Report Number:	PWR-024-24
Meeting Date:	26 Jun 2024
Subject:	**Administrative Centre - Phase 1 Report and Next Steps** Our File No: A19/82863/24

Recommendation

THAT Public Works Report PWR-024-24 regarding the Tiny Township Administrative Centre (TTAC) be received;

AND THAT Council receives the attached Design Report from Unity Design Studio as information.

AND THAT Council proceeds with Option 1, to enter into an OAA 600 contract with Unity Design Studio for phase 2 of the Tiny Township Administrative Centre Project at a rate of 6.63% for a Net Zero Energy, Net Zero Carbon, and post disaster building.

Background/Analysis

In 2023, Township staff put out a request for proposal - PW-RFP-23-06 - for architectural/consulting services for the Tiny Township Administrative Centre. The scope of work of the RFP was split into two phases:

- Phase 1: Work with the Township to develop a new building program for the new facility, consult with staff and Council to determine the requirements of the new building, provide direction and advice to the TTACC, solicit public input on the new facility at a Public Information Centre, and the preparation of schematic design for the new facility and site.

- Phase 2: Provide detailed design for the new building and act as the prime consultant carrying a team of standard sub consultants (mechanical, electrical, structural, civil, landscaping, energy modelling, and interior design), aiding the Township in hiring a Construction Manager, applying for all permits required, acting as contract administrator during construction, reviewing and monitoring construction, and assisting in furniture and equipment layout in the completed building, among other tasks.

Phase 1 was the base scope of work and Phase 2 was contingent on the Township moving forwards with the project.

Following an extensive evaluation by staff and the administrative centre committee, Council awarded Phase 1 of the project to Unity Design Studio (formerly Lett Architects). This was detailed in report PW-034-23.

Unity has completed the majority of the Phase 1 scope of work. The one item remaining is the Public Information Centre's which they are actively planning with the TTACC. These are scheduled for July 16, July 23, and July 31st 2024 to review and seek input/ideas for the public space(s).

Unity has submitted a design report for work they have completed as part of Phase 1 (Appendix 1). This report includes the background, methodology, information, and analysis the architect used to developed their schematic design. The report also includes renderings of the schematic design, outline specifications, the functional program, and a Class D Estimate for the project performed by Marshall & Murray Incorporated, a cost consultant.

The main intent of this report is to seek approval for the Township to start the Phase 2 activities which will include design and budget planning for the balance of the project (2025/6/7). To date, staff and the TTAC Committee have been pleased with the work provided by Unity. What they have provided has exceeded what was required in the Phase 1 scope of work and RFP.

Under the scope of work specified for Phase 2 in PW-RFP-23-06 it was anticipated that the building would have some focus on energy efficiency upgrades over and above what is required in the Ontario Building Code, but no set sustainability metrics or targets had been set. Based on Council's direction following PWR-013-24, the Township is now planning a net-zero energy and carbon facility and is planning on including a large amount of public space.Pursuing this type of environmentally focused facility will make the Township eligible for grants and borrowing options that would otherwise not be available. Based on this directive, additional sub-consultants are needed to be carried by the Architect to do things like additional energy modelling, specialized HVAC designs (geothermal), design of a photovoltaic system, etc. and additional time is required by all consultants.

Unlike the Phase 1 works, the fee structure for Phase 2 is not based on a lump sum, but a percentage of the construction cost of the facility. Unity had originally proposed a fee of 5.63%.

As allowed under the terms of PW-RFP-23-06, they have provided a revised fee of 6.63% for the Council approved increased scope of work as noted above.

They have included a provision that their fee would increase to 6.78% if the construction cost decreases more than 15% below current estimates and would decrease to 6.28% if the construction cost increases more than 15%. For every 15% subsequent change in the construction cost, the fee would be adjusted by 0.25% up or down.

The fee proposals received during PW-RFP-23-06 with the original scope of work ranged from 5.63% to 11%, with an average of 7.49%. In addition, the recommended fee from the Royal Architectural Institute of Canada for a project of this size is 11.32 - 11.53%. Therefore, the proposed revised fee from Unity is still extremely competitive.

The next step to the project, after kicking off phase 2 with the architect/consultants, is to solicit via Request For Proposal (RFP) to hire a Construction Manager at Risk (CM). The CM takes the place of a traditional general contractor in the construction process and hires all the subcontractors to perform the work. Rather than making a profit from marking up work from subcontractors they are paid directly for their time by the owner (Tiny). This creates a collaborative approach. The main goal of the CM is

to advise the Township and architect on the constructability of the project and keeping it on time and within budget while looking for cost saving opportunities through design, materials and supplier performance.

Reviewed By Other Departments
Not applicable.

Options/Alternatives

Option #1:

Enter into an OAA 600 Contract with Unity Design Studio for Phase 2 of the project at the revised fee proposal of 6.63% with provisions for adjustment should the final construction cost vary significantly from the current estimate. This includes the Council directed increased scope of work for a Net Zero Energy, Net Zero Carbon, post disaster facility with additional public space. This is staff's and the TTAC Committee's recommendation.

Option #2:

Enter into an OAA 600 Contract with Unity Design Studio for Phase 2 of the project at the original fee proposal of 5.63%. This would not include the increased scope of work for a Net Zero Energy, Net Zero Carbon, post disaster facility with additional public space. In addition this Option would not support Green Municipal Fund grant opportunities which would entitle the project up to $1.5M in grants as well as preferential interest rates.

Financial Implications
Funds for these services for 2024 are built into the overall Council approved 2024 budget for the administrative centre project (02-300-2610-70502). Once the Construction Manager is in place and firm pricing received an updated report to Council will be provided.

Relationship to Strategic Plan
- Infrastructure Revitalization

Conclusion
Council proceeds with Option 1, to enter into an OAA 600 contract with Unity Design Studio for phase 2 of the Tiny Township Administrative Centre Project at a rate of 6.63% for a Net Zero Energy, Net Zero Carbon, and post disaster building.

Appendices
24.06.13 Township of Tiny Design Report(SM) 1

Tim Leitch, Director of Public Works	Approved - 19 Jun 2024
Haley Leblond, Director of Corporate Services/Deputy CAO	Approved - 19 Jun 2024
Robert Lamb, Chief Administrative Officer	Approved - 19 Jun 2024

Township of Tiny

New Administration Centre

Design Report

April 30, 2024

Public Lobby - New Township of Tiny Administration Centre

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Executive Summary

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Executive Summary

The project is to design and build a new Centre of administration, governance and public engagement of approximately 30,000 sq.ft. and site development of approximately 5 acres. The intent is to replace an existing 57-year-old facility built in 1967, which marked the centenary of Canadian Confederation. The existing facility does not meet accessibility standards, lacks code-compliant mechanical, electrical and communications infrastructure and has been augmented over its life with classroom-type portables to house Township departments. The new Centre will improve and streamline delivery of public services, provide a superior Emergency Operations Centre, promote sustainable development practices, and attract and grow a talented and diverse workforce.

The objective is to achieve Net Zero Energy (NZE) and Net Zero Carbon (NZC) for construction of a new 60+ year Township Administration Centre by incorporating on-site generation of solar PV, geothermal heating, cooling, and employing an all mass-timber structure clad with a high-performance building envelope.

Tiny Township is a rural community devoted to preservation of its natural assets and a leader in sustainable shoreline preservation, farming and forestry practices for its diverse English, French and Indigenous population. This project will put Tiny Township in the forefront of public agencies advocating regenerative design principals in Canada.

The site chosen for the development is adjacent to the Simcoe County Forest, which is the largest and one of the most productive municipal forests in Ontario, totaling over 33,000 acres. Originally established to rehabilitate 'wastelands', these forests provide a multitude of environmental, social, and economic benefits to the County including protection of wildlife habitat and water resources, public education, recreation, scientific research, and the production of wood products. In 2022, Simcoe County celebrated one century of commitment and success, and was recognized as the National Forest Capital of Canada by the Canadian Institute of Forestry.

With the goal of closing material cycles and generating wealth from resources already mobilized in the economy, the circular economy concept is gaining traction in Ontario. This approach seeks to decouple economic growth from environmental degradation by phasing out linear consumption and its waste by-products.

The use of a Glulam and CLT structure promotes a transition to a circular bio-economy across Canada while supporting and maintaining sustainable forestry practices. In addition, the project's utilization of locally produced, recyclable, and low-embodied carbon building assemblies such timber curtainwall and mineral wool insulation in the assembly promotes circular and green procurement practices.

Numerous environmental studies and assessments are underway to determine the optimal placement and orientation of the building and exterior structures. The site development footprint will be kept to a minimum to limit disruption of the natural setting, and three trees will be planted for every tree requiring removal.

The project will employ mass timber sourced from renewable forests to reduce its carbon footprint compared to traditional materials like concrete and steel. Mass timber components will be prefabricated off-site, leading to faster construction timelines, minimized on-site disruptions and less waste.

The requirement for a new Administration Centre is indicative of Tiny Township's community's growth. Meeting the goals of their Energy Conservation and Demand Management Plan, it will serve as a benchmark for the type of development the Township supports and would encourage private developers to emulate.

Mass timber's versatility allows for creative architectural expressions, enabling a distinctive design that reflects the success of the County's Forest management and foster a new identity for a Township that promotes environmental stewardship as a public service.

Introduction

Project Background
Objectives
Scope

02

Project Background

Unity Design Studio was engaged by the Township of Tiny through an RFP process to provide architectural services for a proposed new Township of Tiny Administration Centre (TTAC), specifically:

Phase 1 Feasibility Study: Functional Program, Schematic Design, Renderings, Class D Cost Estimate, and a Schematic Design Report.

The Township had a building program dating from 2017 which details an approximately 21,000 square foot office for Township staff as well as a Council chambers. However, as a result of changes in both senior staff and Council members, changes in staffing levels, and the growth of alternative work arrangements over the pandemic, the Functional Program was updated, attached as Appendix C.

The current municipal office for the Township of Tiny (130 Balm Beach Road West) is an 11,000 square foot building which dates from 1967, with an addition in 1986, and the subsequent provision of three portable offices in 2005, 2009, and 2017. The current portables have a combined area of 2,800 square feet. The office (including the portables) houses all staff except for the Fire Department, Water Department, and Parks and Roads operations staff which are all housed at separate sites.

A Building Condition Assessment was undertaken by R.J. Burnside and Ted Handy Architect in 2014. The Assessment was intended to determine the viability of renovations and additions to the existing building to meet updated OBC and accessibility requirements as well as current Township space needs.

Given various concerns present in the current building including accessibility, functionality, and limitations of the current utilities, the Township of Tiny believes a completely new municipal building is warranted rather than an addition/renovation of the existing office. The possibility of joint use or community space is also being considered as part of this new facility. The Township intends to use the Construction Manager at Risk project delivery method for this project (CCDC 5B).

The site chosen is the Water Complex lands and adjacent parcel off Concession 9 comprising 58.5 hectares. The advantages of this site are it is undeveloped, Township owned, is in close proximity to the Public Works and Water Complexes and has access to municipal water. It is on a well-travelled Township Road and is surrounded by County Forest which gives staff and visitors access to trails.

Objectives

The Township has outgrown its current facility and recognizes the layout of the building does not support departmental needs nor inter-departmental collaboration. There is insufficient space for storage of files and equipment and insufficient spaces for both public and staff meetings of various sizes. The building systems are antiquated and lack integrated modern-day communication and security technologies. It has an outdated customer service interface, is not fully accessible, and lacks the types of spaces that would attract and support a talented and diverse work force.

The objective of the Building Needs Assessment Committee through Phase 1 was to update the 2017 Functional Program to a 25+ year plan and review various development options for a new facility on the Concession 9 property. One option was to be chosen to be costed, modelled, and presented to Council and members of the Public for approval in early Spring 2024 prior to approval to proceed with Phase 2, Construction Documentation.

Scope

Our scope through Phase 1 included the following explorations:

- Develop a Project Charter that aligns with the Township's 2023-2026 Strategic Plan.
- Host and design engagement sessions to identify the needs of the public, senior leadership and departmental staff.
- Review all development options including renovation/addition to the existing facility at 130 Balm Bech Road.
- Develop schematic plans and building design options.
- Provide colour 3-D renderings of the chosen option.
- Provide a Design Report and Class D Cost Estimate for a Q1 2025 construction start and Q4 2026 Occupancy.

Site Selection

Zoning
Services
Assessment & Investigations

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Site Selection

Initially established by Council, the Building Needs Assessment Committee was tasked with guiding decisions regarding the Township's administrative facilities' requirements. The present facility is insufficient in both space and functionality for the existing staff, rendering it an impractical solution for the long term. Following a review of other municipal offices where they opted to renovate and add to their current facilities, The Council instructed the Committee to prioritize new construction over expanding the current building and to adopt the Design-Build approach for construction. This initiative had been temporarily halted in 2020 due to the uncertainties brought about by the pandemic. In early 2023, the Committee reconvened to devise a methodology that would be followed for the site selection process. The Township prioritized Township-owned sites and the baseline requirements for the sites were as follows:

- Have a minimum area of 7,500 square metres
- Not be zoned Environmentally Protected
- In order to be generally central, be located between the 7th and 12 Concessions and between Baseline and line between lots 15 and 16

Of six sites chosen for review, the 58.5-hectare site known as the Water Complex Lands and Adjacent Parcel achieved the highest score. The advantages of this site are it is undeveloped, it is a large parcel of land, it is in close proximity to the Public Works and Water Complexes, it has access to municipal water, it is on a well-travelled Township road, it is surrounded by County Forest which gives staff and visitors access to trails, and it is also in close proximity to the Tiny Trail. The second highest scoring site was the current site of the Municipal Office.

Zoning

The Water Complex Lands stretches between Concessions 8 and 9 having direct access off Concession 9. The parcel is zoned RU (rural), GL (Green Lands) and EP2 (Environmentally Protected). The EP2 zone encompasses a small area at the northeast corner of the site and is thought to constitute an unevaluated wetland, although this needs to be determined through a site investigation.

Services

The site has a municipal water line running north-south through the centre of the property. There is no storm or sanitary sewer line so storm water and sewage will need to be treated on site. A feasibility study undertaken in 1989 for a subsurface sewage treatment system for the site indicates the conditions are suitable for the treatment of domestic sewage. Costs will need to be factored to extend hydro, gas, and a fibre optic line to the site.

Assessments and Investigations

An approximate 5-acre area is earmarked for the total development footprint of the facility. The location is likely to be within the extent of the clearing in the north-west area of the site. Several physical assessments and investigations are required to be undertaken prior to finalizing the location of the building, roadways, parking areas and subsurface collection and treatment areas. These include:

- Archaeological Assessment
- Traffic Impact Study
- Tree Preservation Plan
- Environmental Impact Study
- Hydrogeological and Hydrology Studies
- Wellhead Protection Risk Assessment Report
- Soils Investigation
- Topographic Survey

Methodology

Data Collection
Analysis
Project Charter

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Project Charter

Derived from the aspirations of the Strategic Plan, the Project Charter consists of 6 initiatives against which success of the project will be measured:

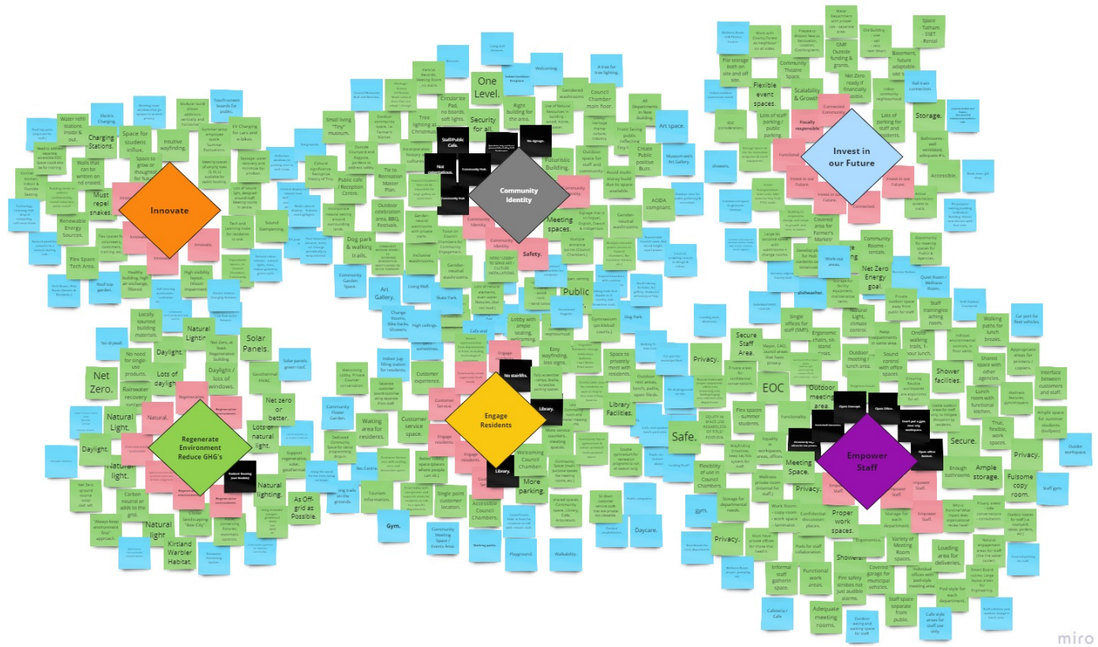
1. Innovate
2. Engage Residents
3. Empower Staff
4. Promote Community Identity
5. Regenerate Environment
6. Invest in our Future!

Data Collection

Unity hosted staff engagement sessions from November 7-9 in the Council Chambers in the current Municipal Office. Each department was provided with a 90 minute timeframe to explore the Strategic Plan Themes for the facility and identify what they would classify as “No-go’s, “Non-negotiables”, and “Nice to haves” with respect to spaces and initiatives that would align with them. 35 participants from 8 departments provided 388 responses. The Township Building Committee hosted 2 Public Engagement Sessions on December 11 to showcase and invite input on the project’s 6 overarching goals. The sessions garnered a total of 345 comments.

Analysis

The results were recorded and used in the updating of the Functional Program and in the development of the schematic building plans. The priorities taken from the Township’s Strategic Plan form the basis for a Project Charter through which all design decisions would be assessed.



Current State Analysis

Facilities Overview

Staffing & Space Utilization

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Current State Analysis

The current Tiny Township Administration Building is located at 130 Balm Beach Road West, Perkinsfield. Built in 1967 and expanded in 1985, the main building is a single storey, wood frame structure with a fully occupied basement level. The principal use of the building is an administrative office and place of assembly for Municipal Council meetings, where the Council Chambers also doubles as an Emergency Operations Centre.

A Building Needs Assessment Report was undertaken by R. J. Burnside and Ted Handy & Associates Architects in 2014 and updated in 2017. The purpose of the assessment was to determine the building's ability to meet the current and future needs of the Municipality for meeting and administrative staff space. The evaluation included a visual inspection of the building to identify any components that might need significant repair or replacement within the next five years. Additionally, it involved discussions with Township Administrators to gather details about current and anticipated staffing and how the space is utilized both presently and what changes would need to be undertaken in the future.

Facilities Overview

The facility is composed of a primary structure and three portable units, which currently serve as the workplace for roughly 51 full-time and 17 part-time employees of the Township, along with the mayor, four councilors, and four C.C. Tatham staff members (2 full-time and 2 part-time). Out of these, 13 full-time and 11 part-time employees work within the temporary portable units. The main structure, including its basement, spans an area of about 11,000 square feet. The portable units are 1,300 square feet and 2 x 750 square feet in size, respectively. The total area occupied by all the buildings combined is approximately 13,800 square feet.

Staffing and Space Utilization

The basement comprises the Council Chambers, public washrooms, staff lunchroom and kitchen, records storage, mechanical / electrical services, two By-Law Enforcement offices and a Facilities Manager Office. The first floor comprises offices for the Mayor, Deputy Mayor, Administration and Treasury, Chief By-Law Enforcement, Building and Planning, and Meeting and Staff resource areas. The three portables at the rear of the property house workstations for Public Works, Parks & Recreation and IT.

Future Needs Projection

Staffing Projections
Space & Site Requirements
Existing Building Conditions

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Future Needs Projection

Based on projections developed in discussions with staff in 2013, a Functional Program comprising approximately 21,200 sq.ft. was determined to meet the growth requirements for the foreseeable future. Replacement and upgrading of existing building systems and alterations to the existing building to make it fully accessible were identified as key initiatives of facility renewal.

Staffing Projections

- Fire & Emergency Services: 5 + 1 growth
- Parks & Recreation: 5 + 1 growth
- Public Works: 11 + 2 growth
- Corporate Services: 11
- By-Law enforcement: 4 + 1 growth
- Office of the Mayor: 4
- Planning & Development: 11
- Seasonal: 14
- Spare workstations: 4
- Spare Offices: 2

Space and Site Requirements

A revisiting of the Functional Program in 2023 resulted in approximately 10,000 sq.ft. of additional space being added to account for:

Archival records storage, departmental storage, shipping/receiving, workshop, Emergency Operations Centre, Emergency services Lockers and storage, offices and workstations and a large Community Room with chair and table storage and a Community Kitchen.

Development Options

Scenarios

Renovation/
Addition vs. New Build

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Development Options

Three options which the Township explored for expansion:

1. A one-step initiative to construct a new facility to house all departments. The existing building is re-purposed for a new community amenity or sold.
2. A two-step initiative to construct an addition to, then renovate, the existing building.
3. A three-step initiative to construct a new facility to house administration and public uses, expand and renovate the Operations Complex for Public Works and Parks & Recreation, and upgrade existing Fire & Emergency Services facilities.

Pros and Cons for New Construction are outlined as follows:

Pros of New Construction:

1. Customization maps resources to outcomes.
2. Latest Infrastructure ensures best-in-class through all disciplines.
3. Improved Energy Efficiency reduces operating costs and environmental impact.
4. Enhanced Accessibility ensures everyone can participate.
5. Long-Term Viability demands design for easy retrofitting
6. Technological Integration ensures compatibility of systems.
7. Long-Term Savings where higher quality ensures less need for replacement.
8. Enhanced Opportunities for Public Engagement increases awareness and acceptance.
9. Well-defined and purpose-built Public and Private Spaces result in better utilization and staff satisfaction.
10. Improved Collaboration between Departments facilitates collaboration and sharing of resources to promote connectedness and shared purpose.

Cons of new construction:

1. Higher Initial Cost as new construction is more expensive than renovation.
2. Environmental Impact: site development and loss of habitat.
3. Lost Historical Value if existing facility has heritage or cultural value.

Pros of Renovation /Addition:

1. Cost Savings (approximately 5-10%)
2. Preservation / Historical Value
3. Familiarity / Convenience
4. Enhance Environmental Performance
5. Incremental Improvements
6. Cost Estimation Accuracy

Cons of Renovation / Addition:

1. Space Limitations
2. Functional Limitations
3. Aging Infrastructure
4. Accessibility Challenges
5. Limited Design Flexibility
6. Disruption to Operations
7. Unforeseen Challenges
8. Difficulty in Maintaining Fire Ratings
9. Replacement of Power and Mechanical Systems
10. Replacement of Finishes and Fixtures

Recommendations

Approach to Net-Zero Energy
Approach to Net-Zero Carbon

08

Oakville Firehall No. 8
Net-Zero Ready, LEED Silver Certified

Approach to Net-Zero Energy

A 4-step strategy to achieve Net Zero performance is proposed:

1. Optimize passive design strategies.
2. Design a high-performance building envelope.
3. Employ high-performance building systems.
4. Harness renewable energy on-site.

These strategies work together to significantly lower energy and user loads within the building, thereby reducing the amount of energy that needs to be produced on-site.

1. **Optimize passive design strategies:**
   The building can be designed and oriented to take advantage of natural light and heat, minimizing energy use for lighting and heating. For instance, maximizing southern exposure can increase solar gain, reducing heating requirements. These measures will reduce reliance on artificial lighting and heating, lower energy costs and enhance the quality of the indoor environment. South, east and west exposures can implement shading devices, such as overhangs and louvers, to minimize glare and cooling loads. Landscaping and vegetation can be employed to shade buildings and hard surfaces to reduce the heat island effect loads. These strategies lower ambient temperatures, reduce energy use for cooling, and help to integrate the building with its natural surroundings.

2. **Design a high-performance building envelope:**
   Increasing insulation in walls, roofs, and slabs and placing it outboard of the building structure will minimize heat loss and thermal bridging in winter and heat gain in summer. This will act to stabilize indoor temperatures, reduce the need for heating and cooling, and decrease energy consumption.

3. **Employ high-performance building systems:**
   The case for geothermal: Geothermal heat pumps are known for their high coefficient of performance (COP). For every unit of energy used to power the system, multiple units of heating or cooling are produced. This efficiency can reduce the building's overall energy consumption substantially compared to conventional heating and cooling methods. The operational costs of geothermal systems are typically lower than traditional systems because they use less electricity to achieve the same heating or cooling output.

   Because geothermal systems are so efficient, the total amount of electricity required from solar PV to run these systems is reduced. This efficiency can lead to a smaller solar array requirement, saving space and reducing the initial investment in solar infrastructure. High-efficiency mechanical equipment includes HVAC systems, appliances, and lighting that are designed to use the minimum necessary energy to perform their functions.

   Lower Energy Demand: By choosing high-efficiency mechanical systems, the energy demand of the building is significantly reduced. These systems ensure that less energy is wasted and more is used directly for the intended purpose, whether it's heating, cooling, or lighting.

4. **Harness Renewable Energy onsite:**
   Integration with Renewable Energy: High-efficiency systems require less power to operate, making it easier and more cost-effective to meet their energy needs with renewable sources like solar PV. This synergy means that the solar PV system can be smaller and more affordable while still providing sufficient power for the building's needs.

   Combining geothermal heating and cooling with high-efficiency mechanical equipment can drastically reduce a building's total energy usage. This reduction is achieved through lower electricity consumption for heating and cooling, as well as more efficient use of energy in all mechanical systems. With the overall energy demand significantly lowered, the capacity of solar PV needed to achieve Net Zero Energy or significantly offset the building's energy consumption is also reduced. This efficiency can result in lower upfront costs for solar installation, reduced maintenance costs, and a quicker return on investment.

   Reducing the energy demand and subsequently the size of the solar PV system needed also lessens the environmental footprint associated with manufacturing and installing solar panels. Over the long term, utilizing efficient geothermal systems and mechanical equipment contributes to a decrease in greenhouse gas emissions and supports sustainability goals.

Approach to Net-Zero Carbon

Reduction in Embodied Carbon

Local Manufacturing: By sourcing materials locally, transportation distances are drastically reduced, which lowers the carbon emissions associated with transporting materials from distant locations. This is particularly impactful for heavy materials like timber, insulation, and concrete.

Mass Timber: Mass timber products like glulam and CLT store carbon absorbed by the trees during their growth, effectively removing it from the atmosphere for the lifetime of the building. This carbon sequestration capability is a significant factor in reducing the overall carbon footprint of the building.

Mineral Insulation: Using locally manufactured mineral insulation contributes to the building's energy efficiency by reducing the need for heating and cooling, which in turn decreases the operational carbon emissions. Moreover, the production of mineral insulation can have a lower carbon footprint compared to synthetic alternatives, especially if manufactured locally and efficiently.

Energy Efficiency and Reduced Operational Carbon

Thermal Performance: High-quality insulation and an effective curtainwall system minimize heat loss and gain, improving the building's thermal performance. This reduces the energy required for heating and cooling, which is a substantial component of a building's operational carbon footprint.

Natural Light and Heat: The use of a glass curtainwall maximizes natural daylighting, reducing the need for artificial lighting. When designed intelligently, it can also contribute to passive solar heating, further reducing energy demand.

Exposed Mass Timber: Leaving the CLT structure exposed eliminates the need for additional interior finishes, which not only reduces the materials required (and thus their embodied carbon) but also can enhance the thermal mass effect of the building. This can help to stabilize indoor temperatures and reduce energy consumption.

Environmental Impact

Sustainable Forestry: Assuming the timber is sourced from sustainably managed forests, the use of mass timber supports sustainable forestry practices that enhance biodiversity, soil protection, and water quality. This also ensures a renewable supply of the building material that absorbs CO2 as it grows.

Reduced Waste and Chemical Use: By minimizing the need for interior finishes and avoiding fireproofing chemicals due to CLT's classification as a non-combustible material, the project reduces the use of potentially harmful substances and materials, which often have high carbon footprints associated with their production, transportation, and application.

Long-term Sustainability

Durability and Adaptability: Mass timber buildings are known for their durability and adaptability to future uses, which can extend the building's life and further reduce the carbon footprint over time by minimizing the need for renovations or new construction materials.

Contribution to Net-Zero Goals

Combining these elements contributes to both reducing the embodied carbon associated with construction and lowering the operational carbon emissions throughout the building's life. Achieving a Net-Zero Carbon building footprint requires attention to both these aspects, and the use of locally sourced, sustainable materials like mass timber and mineral insulation, along with efficient designs like a CLT and glass curtainwall, play a crucial role in this effort. Moreover, the aesthetic appeal and comfort provided by these natural and minimally processed materials can create a healthier and more appealing indoor environment for occupants, further enhancing the building's sustainability profile.

Why it's Appropriate for Tiny Township?

A net-zero goal is profoundly appropriate for the Township for several reasons, reflecting both environmental stewardship and the cultural and economic context of the region.

Environmental Harmony

Sustainable Material Use: Utilizing mass timber reflects the natural setting and demonstrates a commitment to sustainable construction practices. Since Simcoe County is a forestry hub, employing wood in construction acts as a direct nod to the local ecosystem and the renewable resources it provides. This approach can help to minimize the ecological footprint of the building, ensuring that it blends harmoniously with its forest surroundings.

Carbon Sequestration: Timber construction, particularly with materials like CLT and glulam, capitalizes on the carbon stored in wood, aligning with the environmental values of a region known for its forests. This carbon sequestration contributes positively to the fight against climate change, a principle likely held in high regard in an area recognized as the Forestry Capital of Canada.

Economic and Social Sustainability

Local Economic Support: By sourcing materials locally, the project supports the regional economy, including the forestry, manufacturing, and construction sectors which is already strong in Simcoe County.

Educational and Inspirational: The building can serve as an educational tool and inspiration for sustainable design and construction practices, showcasing how modern construction techniques can be harmoniously integrated with nature and local industry. It can become a landmark that embodies the principles of sustainability, innovation, and respect for the environment.

Aesthetic and Cultural Integration

Reflecting Local Culture: The use of wood and the design that emphasizes natural materials pay homage to the region's forestry heritage and cultural identity. This approach can foster a stronger connection between the Township's diverse population and their built environment, enhancing the sense of belonging and community pride.

Natural Aesthetics: The design choices, especially the exposed CLT structure and glass curtainwalls, allow the building to visually merge with its forested surroundings, creating a seamless transition between the indoor and outdoor environments. The use of glass maximizes views of the surrounding forest, making the natural setting an integral part of the building's interior experience.

Environmental Education and Awareness

Showcasing Regenerative Practices: Erecting such a building in a region known for its forests serves as a tangible demonstration of how forestry products can be utilized sustainably. It highlights the balance between economic development and environmental conservation, serving as a model for sustainable practices in forestry and construction.

Reducing Environmental Impact

Minimized Transportation Emissions: The local manufacturing and sourcing of materials reduce transportation distances, thereby minimizing the carbon emissions associated with long-haul transportation of construction materials. This local focus underscores a commitment to reducing the project's overall environmental impact.
In summary, constructing a building with these characteristics in Simcoe County is not only an homage to the region's forestry heritage but also a bold statement on the viability and importance of sustainable, locally-focused construction practices. It represents a convergence of environmental stewardship, economic sustainability, cultural respect, and innovative design, making it a fitting tribute to its setting within the National Forest Capital of Canada as recognized by the Canadian Institute of Forestry in 2022.

Features & Design Considerations

Space Planning & Organization

09

Features & Design Considerations

The environmental goals of the project will be reflected in the building in several ways. A curated palette of locally sourced materials will be utilized for cost and construction efficiencies with the exposed glulam and CLT structure taking centre stage.

Walls and Ceilings: The exposed timber structure will impart a warmth and forest-like smell to the interior environment. Due to its inherent fire resistance, the timber will not require additional assemblies or chemicals to protect it. This results in less interior finishes needing to be employed resulting in a cost saving due to less material and associated maintenance and replacement costs.

Where suspended ceilings are desirable (Lobby, EOC/Records storage, wet areas), wood, acoustic ceiling tile and moisture resistance gypsum board is proposed.

Services: All mechanical and electrical distribution and devices will be exposed but integrated within the timber structure. This enables ease of future retrofits.

Floors: most of the floor surface will be polished concrete. This will impart a low-maintenance, low-slip but high shine benefit to the interior. Where acoustic mitigation or aesthetic quality demands an alternative, carpet planks made from recycled nylon fibres will be used.

Interior light fixtures: will be all LED, dimmable, and equipped with vacancy sensors and daylight harvesting as mandated by the Ontario Building Code.

Mechanical and sprinkler distribution: will be exposed and so will need to be coordinated with the exposed structure. Plumbing distribution will be integrated within partitions as required and fixtures will be of a low-flow type to achieve maximum water savings.

All interior doors: will be solid core stain-grade FSC-certified wood veneer in factory-finished anodized aluminum frames with the exception where fire separations require rated hollow metal doors and frames.

Millwork / case goods: will be provided by local sources utilizing materials that are locally available and recyclable at the end of their life.

Exterior cladding materials will be locally sourced from low embodied carbon options. Priority will be given to materials that are robust, have a long-life cycle and require minimal maintenance. Illustrated in the exterior rendering is the use of a grey wood-veneered phenolic panel applied as vertical cladding, referencing the weathered driftwood along the shores of Georgian Bay.

Space Planning and Organization

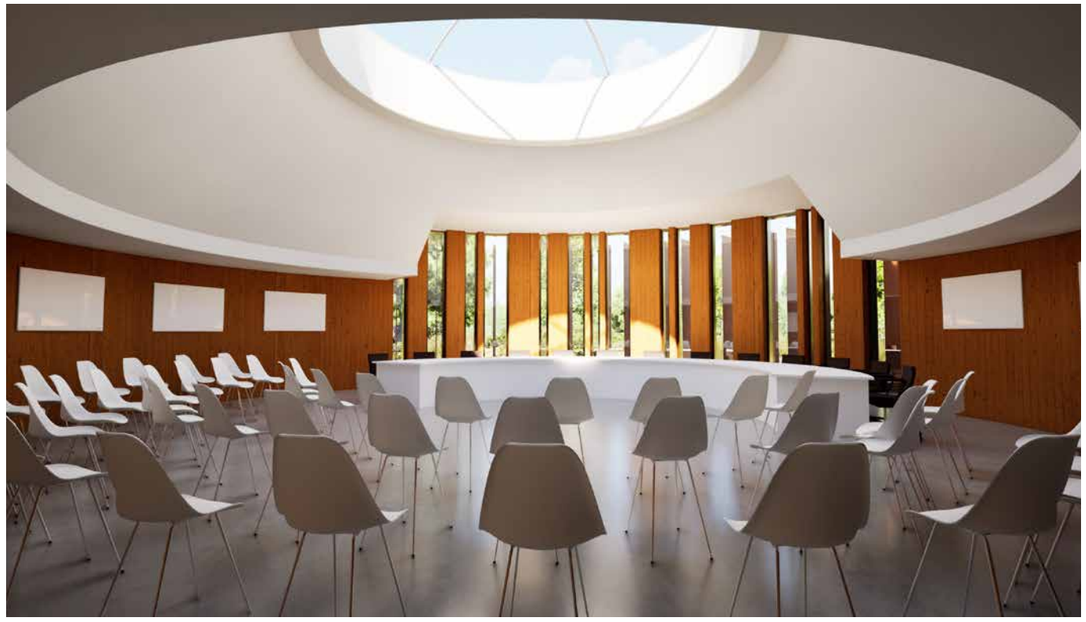
5 schematic layouts were devised, each having unique allocation of spaces devoted to public uses, staff uses, and shared resources. These layouts are included with this Report as **Appendix E**.

All layouts are based on the December 2023 Ontario Public Service OPS Modern Office Space version 2.0. This guideline embraces a new way of working called Activity-based working that is shifting away from the traditional model of one dedicated workspace per person. this new way of working allows for more flexibility in how we work, and aligns people, space and technology. It supports the office- as -a-destination offering better resources for in-person collaboration.

Option 1 Schematic Design

- Space Organization
- Equity & Diversity
- Public Art
- Site Development
- Funding

10



Council Chambers

Option 1 Schematic Design

The Township has chosen Option 1 as their preferred layout for the building, comprising approximately 29,000 sq.ft. on the ground floor with a 4,000 sq.ft. basement. Schematic Plans, Elevations and Sections are attached to this report as Appendix B.

OBC Classification:

3.2.2.26. Group A, Division 2, up to 2 Storeys, Increased Area, Sprinklered

Space Organization

The layout of the Administration Centre is driven by an arced geometry that is modular, allowing for future retrofits within the structure to accommodate for future workstations or offices whose sizes align with the OPS Workspace 2.0 Guidelines.

Departmental workstations are organized into 8-person pods to promote collaboration but minimize distractions that result from an “open-office” environment. Each pod is glass-facing, but staff desks are not oriented to face windows directly. The pods are aligned in an arc to offer views of the forest. That portion of the roof has a generous overhang and gently slopes to allow rainwater to fall in a continuous curtain around the curve of the building and collected in a stone recharge gallery that runs the perimeter of the base of the building.

A circulation corridor connects all workstation pods and gives access to a continuous band of enclosed offices that have acoustic glazing also oriented toward forest views. The workstation pods and offices within a pie-shaped structural bay can be reconfigured in future to accommodate a different mix of offices, workstations, or meeting spaces.

Along the front of the building are all the public-facing spaces: vestibules, lobby, Council Chambers, Community Room, support spaces and a centrally located Customer Service area highlighted below a tall roof window featuring CLT trusses. The Lobby is designed as a social space having direct access to the Council Chambers, Community Room, Catering Kitchen and a seating area in front of a double-sided wood-burning fireplace. The curved stone-faced wall that encapsulates the lobby is intended to display art and artifacts.

The Council Chambers will function as a multi-use space for programming concerts, events, and lectures in addition to its use for council and public meetings. It will be equipped with A/V and lighting that allows for multiple configurations. The Chambers will have a retractable metal storefront type curtain to close it off from the Lobby. The Community Room will have tall acoustic central-pivoting doors to separate it from the Lobby. An attached catering kitchen and table and chair storage allows for various types of events to be serviced. The room opens to a front-facing terrace.

10 Option 1 Schematic Design

The band of internal spaces that occur between the Lobby and Administration spaces comprise all shared uses and resources: staff and public washrooms, meeting spaces, building services, IT and mail rooms, storage areas and a first aid room. Security between the Public and Administration areas occurs in this zone with four entrances having access control. The building plan is capped with a shipping/receiving area having access to a freight elevator on one side, and a Staff kitchen and lunchroom/event space on the opposite side.

There is a partial basement below the Shipping/Receiving area that is served by stairs and a freight elevator that contains staff washrooms and lockers, general building storage, a records archive, and an Emergency Operations Centre.

Workstation Pods

Equity and Diversity

The building will be fully accessible for all persons no matter their age or abilities. Intuitive wayfinding will be supported by materials and lighting, and signage will be multi-lingual and include Braille. Both staff and public washrooms will be designed to be gender-neutral to promote hygiene and privacy.

Public art: given the abundance of artists and artisans working in Tiny Township we see 8 opportunities for their contributions to the material fabric of the building, specifically:

1. Council Chambers exterior enclosure and customer service portals: imagined as fins of Corten steel to reference the Townships farming heritage.
2. Bronze maple leaves embedded into the concrete floor of the Lobby in acknowledgment of Simcoe County's recognition as Forestry Capital of Canada.
3. CLT tree sculptures to mark public entrances and act as a wrap for rainwater piping.
4. Landscape plots of beach grasses that tie the building's concrete apron to a naturalized perimeter. This is in support of recognizing the historic connections between settlement, farming, and forestry.
5. Landscape features or seat walls made with cordwood or local stone.
6. Decorative panels that serve as privacy screens at the customer service desk.
7. The curved wall of the public lobby is stone faced to provide a natural backdrop for display of artifacts, photos or local art and crafts.

Site Development

The development footprint will account for:

- Vehicle parking in accordance with the Zoning requirements,
- Loading
- Charging stations for 20%
- Covered bicycle parking
- E-bike charging
- Exterior CCTV
- Full cut-off solar cell LED pole and building fixtures
- Site and building signage
- 4 flag poles
- Exterior weather-enclosure diesel-fueled generator

The Option 1 layout can be oriented to maximize passive strategies to reduce energy loads and optimize the interior environment.

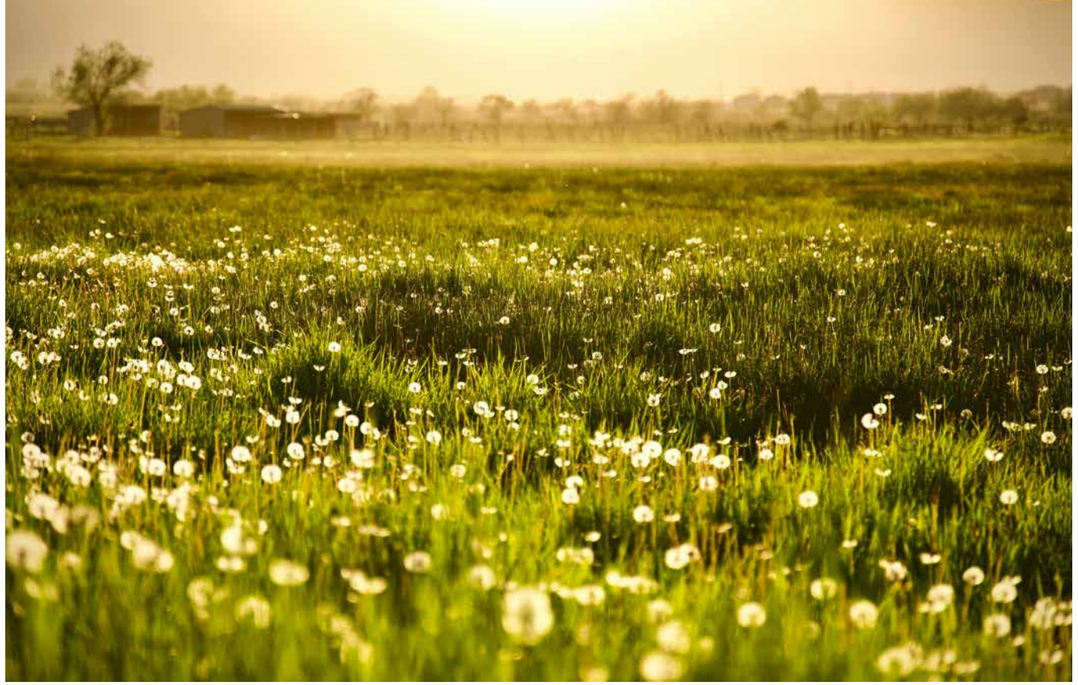
Funding

The new Township of Tiny Administration Centre would be eligible for government funding. The Federation of Canadian Municipalities, through their Green Municipal Fund, offers combined loan and grant funding to support new building construction projects for sustainable municipally-owned buildings. This funding helps Canadian cities and communities of all sizes undertake sustainability projects with the goal of reducing emissions, accelerating energy savings and keeping energy dollars in the community.

The new Administrative Centre will be designed to meet best practice energy targets as defined in the Program's requirements, and achieve zero operational GHGs, with the exception of emergency back-up energy and grid electricity emissions which are excluded. This would result in a Facility that meets an energy threshold of 25 percent below National Energy Code of Canada for Buildings (NECB) 2020 reference building.

GMF seeks to fund the very best examples of municipal innovation that achieves a multitude of benefits for the environment, communities and local economies. Higher application evaluation scores are given to projects that demonstrate additional environmental benefits (water conservation, sustainable materials management, biodiversity considerations), that are among the project's goals as outlined in the Executive Summary.

The Program offers low-interest loans, in combination with grants, to implement capital projects. Funding is provided for up to 80 per cent of eligible project costs. For municipal governments, the Program offers loans at competitive rates that are typically lower than other municipal financing sources, for the respective terms. Applicants with high-ranking projects may be eligible for a loan of up to $10 million, combined with a grant for 15 per cent of the loan amount, to a maximum of $1.5 million.



The Program requires the preparation of an assessment of the technical and financial feasibility, as well as the anticipated environmental, social, and economic impacts of the project on the municipality. The feasibility study would contain the following:

- Models that support the expected environmental performance.
- Analysis of the recommended option from a life cycle perspective (e.g., construction, operation, renewal and end of life).
- Financial or business case for the recommended option.
- Methodology that will be used to measure the actual results/project performance.

The costs associated with the preparation of the Feasibility Study is also eligible to be covered under the Program.

Aerial View - New Township of Tiny Administration Centre

Appendices

A: TTAC Outline Specifications
B: A1 Schematic Design
C: 2024 Functional Program
D: Class D Cost Estimate
E: Schematic Design

11

The following outline specifications is preliminary only for the purpose of order of magnitude costing and is subject to change

Building Description:

Use: One-storey 2700 m2 municipal administration building having offices, meeting rooms and staff facilities, Council Chambers and Public-use function rooms. The building has a partial basement of 375 m2 for archival records storage, emergency operations centre, laundry room and staff showers and lockers, with hydraulic freight elevator access.

The building is intended to meet net-zero energy performance and net-zero carbon footprint. The project is not intended to be certified under any green building program.

OBC Classification:

3.2.2.26. Group A, Division 2, up to 2 Storeys, Increased Area, Sprinklered
(1) A building classified as Group A, Division 2 is permitted to conform to Sentence
(2) provided,
(a) except as permitted by Sentence 3.2.2.7.(1), the building is sprinklered,
(b) it is not more than 2 storeys in building height, and
(c) it has a building area not more than,
(i) 4 800 m2 if 1 storey in building height, or
(ii) 2 400 m2 if 2 storeys in building height.
(2) The building referred to in Sentence (1) is permitted to be of combustible construction or noncombustible construction used singly or in combination, and,
(a) floor assemblies shall be fire separations and, if of combustible construction, shall have a fire-resistance rating not less than 45 min,
(b) mezzanines shall have, if of combustible construction, a fire-resistance rating not less 45 min, and
(c) loadbearing walls, columns and arches supporting an assembly required to have a fire-resistance rating shall,
(i) have a fire-resistance rating not less than 45 min, or
(ii) be of noncombustible construction.

Site Services & Features: (5 acre development footprint) $ 3.5 million allowance for:

New municipal water service to provide domestic water and sprinkler service to the building.

- Septic field.
- Geothermal Plant: Est. 75 boreholes @ 60m .
- Solar PV array (rooftop or ground mount) : 150kW plant.
- Irrigation / Greywater: Rainwater harvesting.

Stormwater:

- On-site infiltration galleries.

Site Features:

- Vehicle parking.
- 20% parking charging stations.
- Covered bicycle parking.
- E-bike charging.
- Exterior CCTV.
- Drought-resistant landscaping.
- Full cut-off solar cell LED pole and building fixtures.
- Site and Building Signage.
- Exterior weather-enclosure generator.
- 4 flag poles.

Mechanical / Electrical Systems:

Ventilation:

- Dedicated Outdoor Air System with 70% energy recovery (ERV), MERV 13 filtration.
- ERVs will provide washroom exhaust as well as provide outdoor air to the water-to-air heat pumps. Settings will be activated by occupancy sensors in the washrooms and CO2 sensors in working spaces.
- AHU's Energy Efficiency Ratio of 11.5 or greater.

Heating and Cooling:

- Ground source heat pump with hydronic fan coil units (all electric boilers, heat pumps).

Energy Metering:

- Direct digital controls building automation system (BAS) to automate major building components (e.g. HVAC, lighting) and the following components:
- Unoccupied setback.
- Outdoor air temperature reset.
- Demand control ventilation.
- Scheduling (for HVAC and lighting).
- Economizer control.

Plumbing Fixtures:

- Toilets: 3.9 / 1.9 Lpf/dual flush.
- Lavatory faucets: 1.3 Lpm.
- Showerheads: 5.7 Lpm.
- Kitchen faucets: 5.7 Lpm.

Electrical:

System for the facility will consist of a new electrical service, 600A supplied by a pad mount transformer with an underground feed from the pad to the electrical room. Electrical system to consist of main disconnect, utility metering and distribution. Entire building to be maintained on standby emergency diesel generator to maintain full building operation in the event of power system failure. System to be equipped with fully automatic transfer switch that is equipped with a single bypass on normal power to allow maintenance of equipment.

A Solar PV system is proposed to offset the cost of energy to achieve Net Zero Energy for the facility. A distribution of panels on shade structures above the parking areas (with integrated charging stations) and/or a roof-mounted array on the building as required by energy modelling. The PV system would be interlocked with the standby generator system to be disengaged when the building is on generator power. Distribution panels would be complete with circuit breakers capable of individual metering of connected loads. The metering data is to be accessible to end user for their analysis and usage via non-proprietary portal access.

Lighting Power Density: 60% of OBC SB-10:

- Lighting controls for LED's throughout the facility will be vacancy sensors and local low voltage switches to allow dimmable user override function for each space. System to be wireless and programmed as per sequence of operation for each space. When unoccupied the building lighting will be off or minimized to minimize energy usage. Perimeter spaces to be equipped with daylight harvesting per OBC.

Security

- Card Access Control at 15 doors.
- Emergency Communications at 2 Universal washrooms.
- Exterior CCTV.
- Security system - motion sensor, glass breaks.

Structure

- Ground Floor 104 mm concrete slab on grade on strip footings to 1200 mm below grade, (except at basement) with 50mm EPS rigid insulation below entire footprint.
- CLT (mass timber) column/beam structure 5400mm x 9600 bay size typical, 5-ply 180mm CLT roof deck panels.
- 200mm reinforced poured concrete foundation walls will have 50mm EPS rigid insulation around perimeter footings w. waterproofing and drainage layer.

Exterior Envelope

Roof Assembly

Conventional two-ply modified bitumen membrane adhered with SEBS asphalt and elastomeric flashing sheet flashing application. All plies continuously mopped and finished with A SEBS asphalt flood coat and pea-stone.

Roof Assembly:

- CLT deck.
- Underlayment board.
- Vapour retarder.
- 88mm Polyisocyanurate insulation.
- Tapered insulation as required.
- 2 lifts of 62.5mm stone wool insulation.
- Modified bitumen membrane (2 plies in SEBS asphalt).
- SEBS flood coat with aggregate surfacing.

Exterior and interior Aluminum Doors & Frames

Exterior Frames:

- Nominal 51mm x 114mm, extruded aluminum, thermally broken for double glazing; center glazed:
- TRIFAB™ VG 451T, by Kawneer Company Canada Ltd.

Interior Vestibule Frames:

- Nominal 45mm x 114mm, extruded aluminum, for single glazing; center glazed (no sloped stops):
- TRIFAB™ VG 450, by Kawneer Company Canada Ltd.

Interior Frames:

- Nominal 45mm x 114mm, extruded aluminum:
- TRIFAB™ VG 450, by Kawneer Company Canada Ltd.

Exterior Doors:

- Medium stile, extruded aluminum, thermally broken for double glazing:
- Insulclad 360, by Kawneer Company Canada Ltd.

Interior Vestibule Doors:

- Medium stile, extruded aluminum for single.

Glazing:

- Series 350, by Kawneer Company Canada Ltd.
- Permanodic Hardcolour: Class I, anodic colour coating to AA-M12C22A42/44, #29 Black.

Exterior aluminum windows:

- Unicel Architectural THERM+HI triple-glazed Timber Curtain Wall system – 76mm x 208mm spruce pine fur with aluminum caps, or equivalent.

Exterior wall assembly:

- Prodema composite wood-veneered panels w/ exposed fasteners.
- Thermally broken clip and rail system.
- 2 layers 75mm Rockwool Comfortboard 110 continuous insulation mechanically fastened.
- Self-adhered permeable air barrier/water resistant barrier.
- 3-ply CLT wall panel with factory-sealed edges and panel to panel connections.
- Factory applied semi-gloss latex based clear epoxy finish.

Interior Fit and Finish

Elevator and Stair Shafts:

- Poured concrete.
- 1 machine-room-less hydraulic freight elevator.
- 2 steel pan stairs with concrete treads, steel guards & handrails.

Interior partitions:

- Latex paint finish on 16mm gypsum board on 140mm/92mm steel studs with 12.5 resilient channels one side and cavity filled with AFB mineral wool batts to roof deck.
- Meeting room / office fronts: double-glazed acoustic walls and doors (Teknion Focus, PC350) to 2400mm A.F.F.

Interior floor finish:

- Public areas (Lobby, Council Chambers, Function Room & corridors): polished concrete.
- Admin Offices and Meeting rooms: plank Interface carpet tile.
- Public / Staff washrooms, lockers, showers: large-format porcelain tile for walls and floors.

Interior ceilings:

- Suspended slat wood ceiling – Lobby, washrooms, Council Chambers, Function Room.
- Suspended gypsum board – basement wet areas.
- Suspended ACT – storage, EOC.

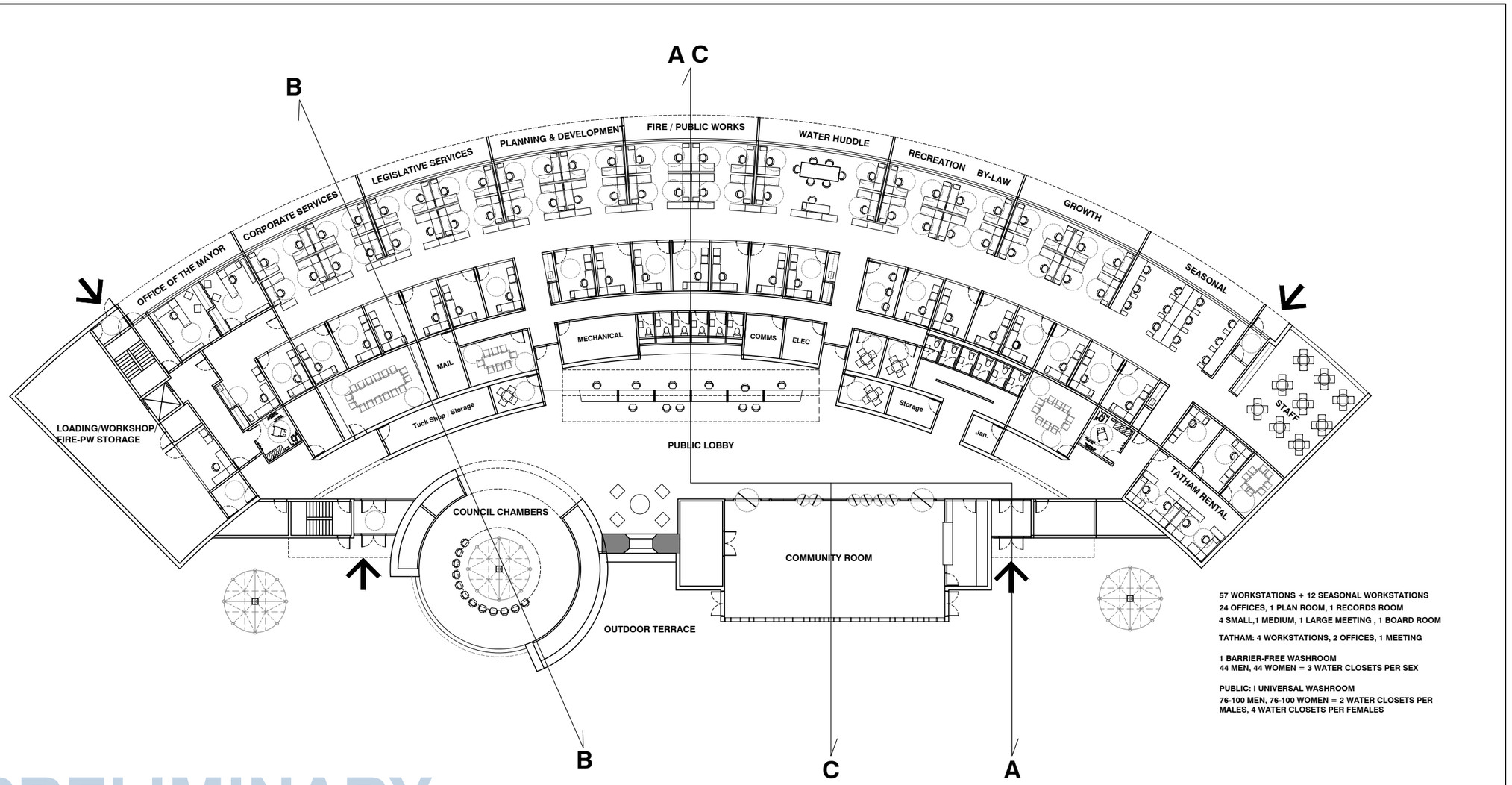
Interior doors:

- Solid core birch veneer stain-grade.

Triple-Glazed CLT Curtain Wall

The Schematic Design drawings are prelimiary only and for the purpose of order of magnitude costing and may have features added or removed.

18" x 36"



57 WORKSTATIONS + 12 SEASONAL WORKSTATIONS
24 OFFICES, 1 PLAN ROOM, 1 RECORDS ROOM
4 SMALL,1 MEDIUM, 1 LARGE MEETING , 1 BOARD ROOM

TATHAM: 4 WORKSTATIONS, 2 OFFICES, 1 MEETING

1 BARRIER-FREE WASHROOM
44 MEN, 44 WOMEN = 3 WATER CLOSETS PER SEX

PUBLIC: I UNIVERSAL WASHROOM
76-100 MEN, 76-100 WOMEN = 2 WATER CLOSETS PER MALES, 4 WATER CLOSETS PER FEMALES

PRELIMINARY

Unity

Unity Design Studio Inc.

138 Simcoe Street
Peterborough Ontario K9H 2H5

t. 705.743.3311
e. studio@lett.ca

PROJECT PHASE
PRELIMINARY

PROJECT No. 23-135

TINY TOWNSHIP ADMINISTRATION CENTRE

SCHEMATIC OPTION 1

CONCESSION 9 EAST
Perkinsfield, ON

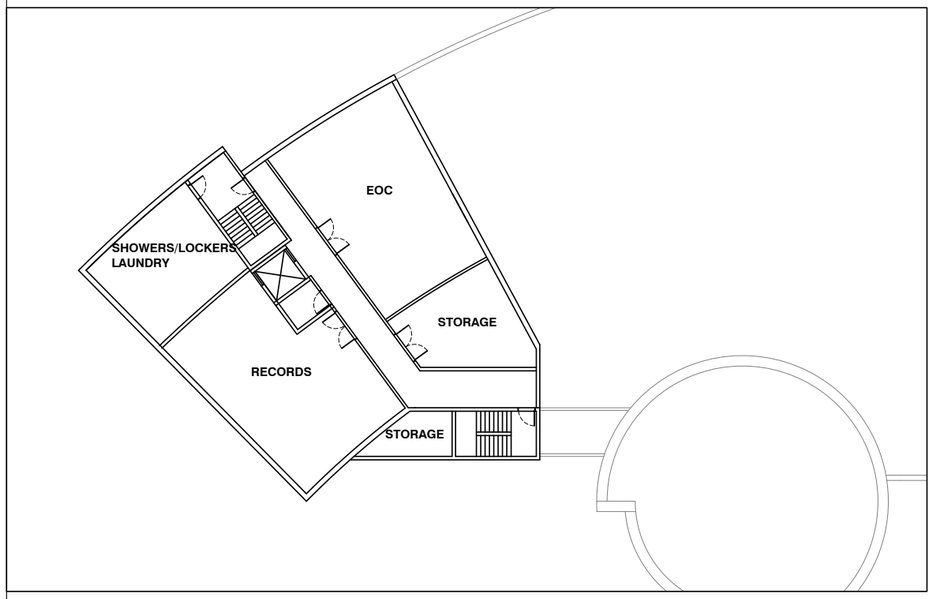
2709 m2
29,160 sq.ft.

FLOOR PLAN

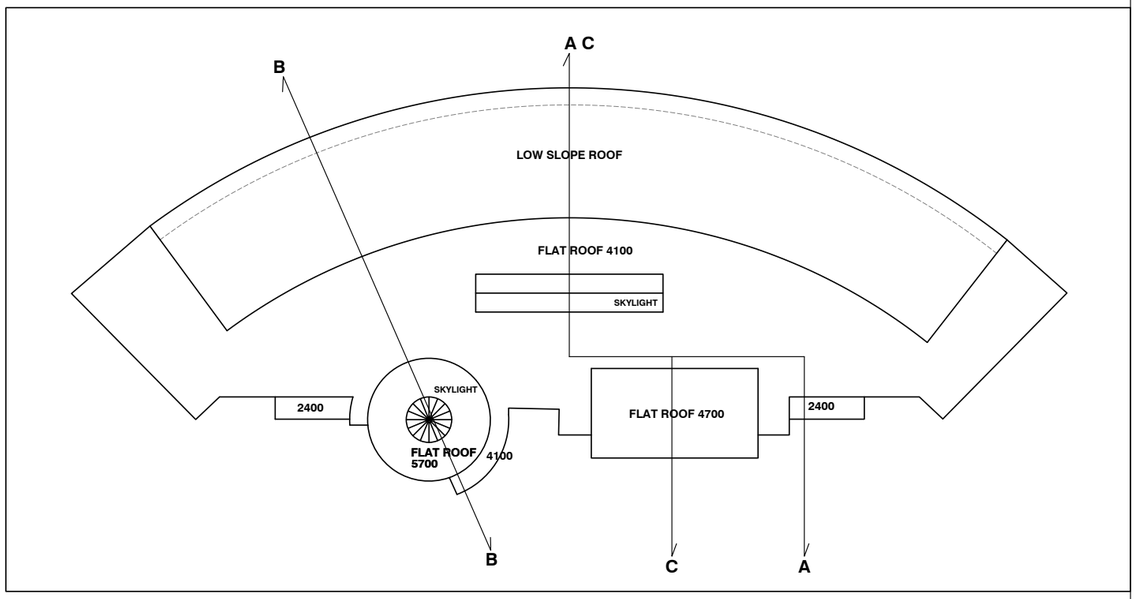
1:150 metric
19 March 2024

A1

18" x 36"



BASEMENT PLAN



ROOF PLAN

Unity

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PROJECT PHASE
PRELIMINARY

PROJECT No. 23-135

TINY TOWNSHIP ADMINISTRATION CENTRE

SCHEMATIC OPTION 1

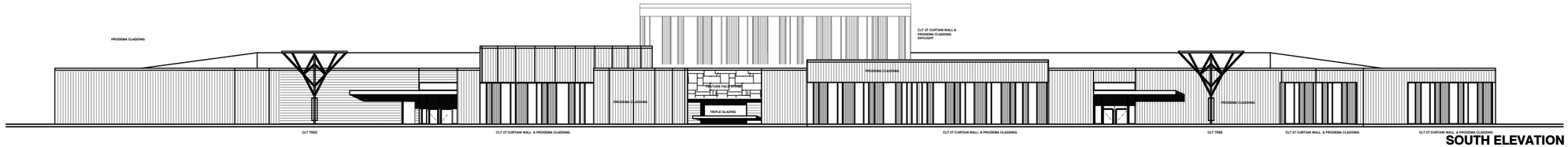
CONCESSION 9 EAST
Perkinsfield, ON

2709 m2
29,160 sq.ft.

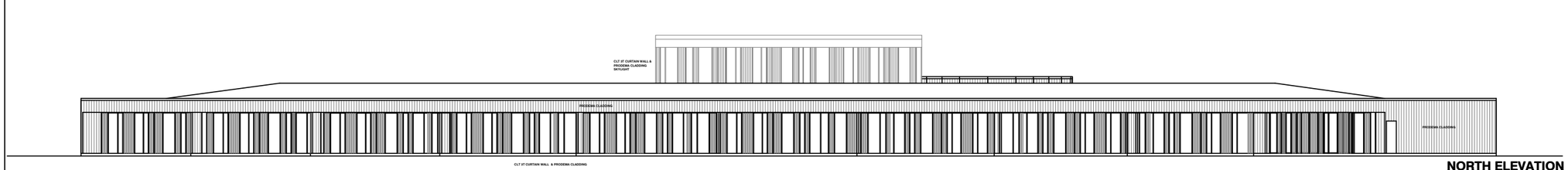
BASEMENT PLAN 1:150
ROOF PLAN: 1:275
As noted metric
19 March 2024

A2

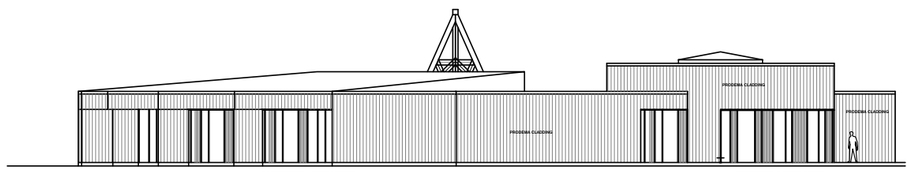
18" x 36"



SOUTH ELEVATION



NORTH ELEVATION



WEST ELEVATION

PRELIMINARY

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PROJECT PHASE
PRELIMINARY

PROJECT No. 23-135

TINY TOWNSHIP ADMINISTRATION CENTRE

SCHEMATIC OPTION 1

CONCESSION 9 EAST
Perkinsfield, ON

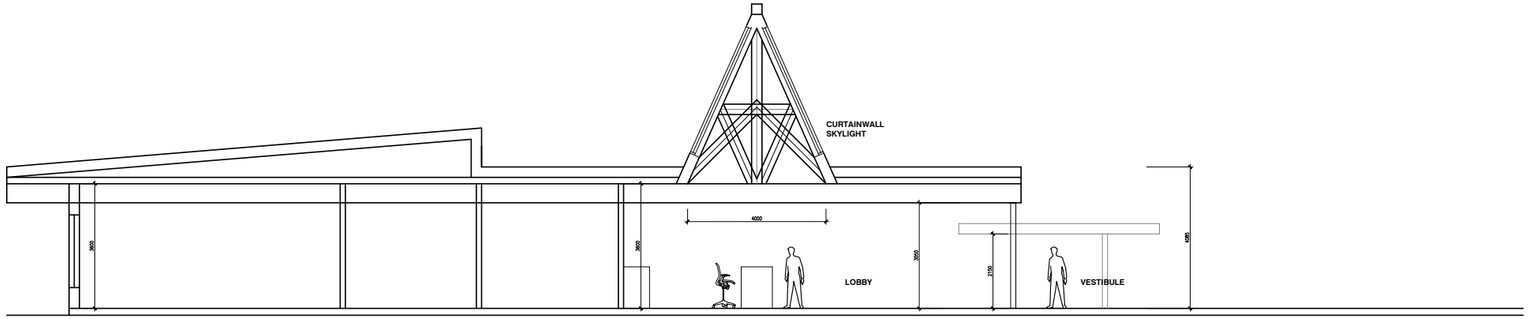
2709 m2
29,160 sq.ft.

ELEVATIONS

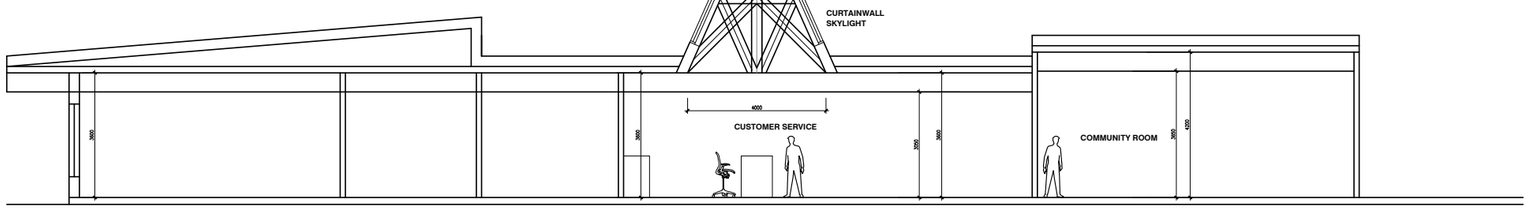
1:150 metric
19 March 2024

A3

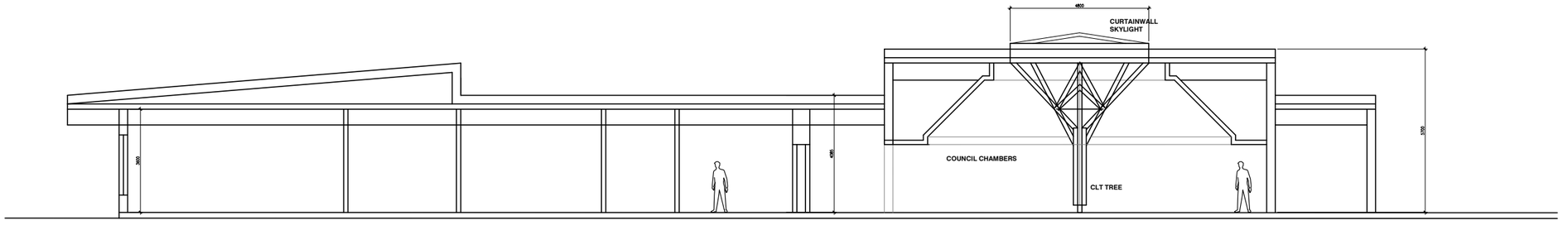
18" x 36"



SECTION A



SECTION C



SECTION B

PRELIMINARY

Unity

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PROJECT PHASE
PRELIMINARY

PROJECT No. 23-135

TINY TOWNSHIP ADMINISTRATION CENTRE

SCHEMATIC OPTION 1

CONCESSION 9 EAST
Perkinsfiled, ON

2709 m2
29,160 sq.ft.

BUILDING SECTIONS
1:75 metric
19 March 2024

A4

Option A1 Functional Program **_Tiny Township Administration Centre_**19 March 2024

A1 Functional Program

	Department	Space	area sq.ft.	Notes
1	**Public Areas**	Vestibule - Public / Staff	118.4	Accessible
		Vestibule - Public / Staff	104.4	Accessible
		Lobby / gallery	2565	Not including customer service and vestibules
		Committee Board Room	463	
		Gender-neutral washrooms	502.7	6 stalls w/ integrated sinks.
		Universal Washroom	121.6	1 required per OBC
	Customer Service	Reception area / customer workstations	853	
		Meeting Rooms - Small	211	2 @105.5
	Council Chambers and Community Room	Council Chambers	1342.3	
		Council Chamber Storage/A/V	762	Could be reduced and added to council chambers
		Community Room	1776	
		Community Room Storage	272.3	
		Catering Kitchen	272.3	
			9364	
	Business Rental	Tatham	904	**1000 program**
	TOTAL A1	**Public & Business Rental**	**10268**	
2	**Fire & Emergency Services**	Director / Fire Chief Office	120	Office
		Deputy Fire Chief	120	Office
		Fire Administrator Coordinator	40	Workstation
		CEMC & Division Chief	40	Workstation
		Fire Prevention Inspector	40	Workstation
		Growth Position	40	Workstation
	1000 basement	**EOC**		**Training, emergency operations**
		Lateral File Storage	38.8	6 x 3 h - **distributed**
	Parks & Recreation	Director Recreation	120	Office
		Community Engagement Coordinator	40	Workstation
		Recreation Services Coordinator	40	Workstation
		Community Recreation Coordinator	40	Workstation

Option A1 Functional Program **_Tiny Township Administration Centre_**19 March 2024

	Recreation Administrative Coordinator	40	Workstaton
	Growth Position	40	Workstation
	Lateral File Storage	38.8	6 x 3h - **distributed**
1000 basement	**Rec program supplies**		
1000 basement	**Rec event environmental supplies**		
Public Works	Director of Public Works	120	Office
	Engineering Manager	120	Office
	Public Works Administrative Coordinator	40	Workstation - sound isolation, near printer/scanner + additional 10 sq.ft. for filing
	Water Compliance Auditor	40	Workstation
	Engineering Technologist CET	40	Workstation
	Water Supervisor	120	Office
	Water Working Lead Hand	40	Workstation
	Water Operator	40	Workstation
	SCADA/Operator	40	Workstation
	Water Administrative Assistant	40	Workstation
	Facility Maintenance	120	Office - In Basement or near repair area
	Facility Maintenance	**500**	**Repair area, equipment and storage.**
	Mudroom/PPE	**250**	**Outdoor equipment, tool storage**
	Water Operations Huddle		**Included in Administration area**
	Water Lab Storage	**300**	**Basement / exterior access**
450 sq.ft. basement	**Chemical Storage area**	**210**	**Basement / exterior access**
100 sq.ft. basement	**Lockers**		**PW Admin - 4, Water - 10**
500 sq.ft.	**Showers/Laundry**		**PW Admin + Water staff**
	PW Growth Position	40	Workstation
	PW Growth Position	40	Workstation
	Engineering Plan Room	120	Office
	Lateral File Storage	38.8	3 x 3h - **distributed**
Corporate Services	Director of Corporate Services / Deputy CAO	120	Office
	Deputy Treasurer	120	Office
	Payroll & Benefits Administrator & AP Clerk	40	Workstation
	Tax & Revenue Clerk	40	Workstation
	Customer Service & Treasury Administrator	40	Workstation

Option A1 Functional Program **_Tiny Township Administration Centre_**19 March 2024

	Asset Management Coordinator	40	Workstation
	Senior Treasury Analyst	120	Office
	Communications Officer	40	Workstation
	IT Coordinator	120	Office
	GIS/IT Technician	40	Workstation
	IT Operations Support Specialist	40	Workstation
	Lateral File Storage	**38.8**	6 x 3h - **distributed**
By-law Enforcement	Chief Municipal Law Enforcement Officer	120	Office
	Municipal Law Enforcement Officer, Supervisor 1	120	Office
	Municipal Law Enforcement Officer, Supervisor 2	120	Office
	By-law Storage	140	Uniforms, tickets, parking machine, etc.
	Licensing Officer	40	Workstation - **needs filing space**
	By-law Growth Position	40	Workstation
	By-law equipment storage	140	
	Lateral File Storage	**38.8**	6 x 3h - **distributed**
Legislative Services	Director of Legislative Services / Clerk	120	Office
	Deputy Clerk	120	Office
	RMS Coordinator	40	Workstation
	Committee Coordinator	40	Workstation
	Seasonal Office Clerk	40	Workstation
	Growth Position	80	Workstations x 2
	Lateral File Storage	**38.8**	6 x 3h - **distributed**
1000 basement	RMS Records Storage		Archive space with tables and adequate storage
Office of the Mayor	Mayor	196	Includes meeting, storage area
	CAO	196	Includes meeting, storage area
	Executive Assistant	120	Private worksation
	Human Resources Specialist	120	Office
Planning & Development	Director of Planning & Development	120	Office
	Senior Planner	120	Office
	Junior Planner	40	Workstation
	Junior Planner	40	Workstation

Option A1 Functional Program **_Tiny Township Administration Centre_**19 March 2024

	Planning Administrative Coordinator	40	**Private Workstation**
	Chief Building Official	120	Office
	Deputy Chief Building Official	40	Workstation
	Building Official	40	Workstation
	Building Official (Contract)	40	Workstation
	Junior Building Official - STR	40	Workstation
	Building Permit Coordinator	40	**Private Workstation**
	Lateral File Storage	38.8	6 x 3h - **distributed**
Seasonal Positions	Building Student	40	Workstation
12 seasonal positions in one pod format.	Building Student	40	Workstation
	Community Event Programmer	40	Workstation
	Environmental Steward	40	Workstation (Recreation)
	Human Resources Student/RMS	40	Workstation
	Municipal Law Enforcement Admin Assistant 1	40	Private Workstation, near Supervisor
	Municipal Law Enforcement Admin Assistant 2	40	Private Workstation, near supervisor
	Municipal Law Enforcement Shift Supervisor 1	40	Private Workstation, mudroom access
	Municipal Law Enforcement Shift Supervisor 2	40	Private Workstation, mudroom access
	Office Clerk (Clerk's Dept.)	40	Workstation
	Planning Student	40	Workstation
	Recreation Programmer Co-op (4 month)	40	Workstation
	Roads Engineering / Labourer (2)	80	Workstation x 2 - **can use PW growth stations**
	Water Dept. Co-op (2)	80	Workstations x 2
	Summer Day Camp Supervisor (2)	80	Workstations x 2
Growth Areas	Growth Workstations	495	Workstations
	Growth Offices	240	2 total
Common Areas	Meeting Room - S (4 person)	172.2	2 total
	Meeting Room - M (6-8 person)	180.3	1 total
	Meeting Room - L (10-12 person)	270	1 total
	Meeting Room -XL (14-20 person)		Shared with Committee Meeting Room

Option A1 Functional Program **_Tiny Township Administration Centre_**19 March 2024

	Fax / Copy / Mail Room	188	Ventilation. Include small printer stations throughout admin area. 180-200
	File Storage Room		In basement
	Storage	304.6	
	First Aid Room	120	**Required**
	B-F Washroom	121.6	Staff use only
	Gender-neutral Staff Washrooms	395	
	Lunchroom/Kitchen	736.25	
	Coffee Nooks	130	4 x 32.5
Building Services	Receiving /storage area	1270	Loading dock for General and Fire.
	Mechanical Room	200	Ground floor
	Electrical Room	100	Ground floor
	Janitor Closets	75	37.5 x 2 in Public and Admin area
	Comms/IT room	100	
	Building Services Storage	215.2	
	Group D/F2 Lobby	90.5	
	Elevator Lobby	157	
	Stairs/elevator	290.6	
Program Total		**13014.85**	
Add A1 Public Area/ Rental:	+ 10268 sq.ft	**23,283**	
A1 Schematic Design Ground Floor Area (GFA)		**29,160**	
Net to Gross Ratio	20%		
3	**Total Basement /A1 design**	**3850 sq.ft. required to satisfy program area requested.**	**4,061**
A1 Total Program GFA - Ground/Basement		**33,221**	
Exterior Structures	Vehicle Storage	**TBD**	**8 covered parking for Water vehicles (5 X 8m).**

MARSHALL & MURRAY INCORPORATED

TINY TOWNSHIP
ADMINISTRATION CENTRE
Perkinsfield, Ontario

"DRAFT" CLASS D ESTIMATE

prepared for:

Unity Design Studio Inc.
138 Simcoe Street
Peterborough, Ontario
K9H 2H5

prepared by:

MARSHALL & MURRAY INCORPORATED
625 Wellington Street
London, Ontario
N6A 3R8

April 9, 2024

L15323/Class D/Tiny Township Admin Bldg.xls

Quantity Surveyors and Development Consultants
625 Wellington Street, London, Ontario N6A 3R8 Tel: (519) 433-3908 Fax: (519) 433-9453
Suite 414, 120 Carlton Street, Toronto, Ontario M5A 4K2 Tel: (416) 928-1993 Fax: (416) 928-0895
1379 Bank Street, Suite 301, Ottawa, Ontario K1H 8N3 Tel: (613) 230-3115 Fax: (613) 230-4091
E-mail: main@marshallmurray.com Website: www.marshallmurray.com

MARSHALL & MURRAY INCORPORATED

April 9, 2024

Unity Design Studio Inc.
138 Simcoe Street
Peterborough, Ontario
K9H 2H5

Attention: Mrs. Janet Stewart

Re: TINY TOWNSHIP - ADMINISTRATION CENTRE - Perkinsfield, Ontario

Dear Janet,

Please find enclosed a copy of our "Draft" Class D Estimate for the above note project for your review and comment. use.

If you have any questions or require further information, please do not hesitate to contact our office.

Yours truly,

MARSHALL & MURRAY INC.

Clare Croghan
Senior Cost Consultant

Quantity Surveyors and Development Consultants
625 Wellington Street, London, Ontario N6A 3R8 Tel: (519) 433-3908 Fax: (519) 433-9453
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TINY TOWNSHIP
ADMINISTRATION CENTRE
Perkinsfield, Ontario

April 9, 2024

"DRAFT" CLASS D ESTIMATE

Table of Contents

SECTION 1

PROJECT OVERVIEW

TINY TOWNSHIP
ADMINISTRATION CENTRE
Perkinsfield, Ontario

April 9, 2024
"DRAFT" CLASS D ESTIMATE

a) EXECUTIVE SUMMARY

This report prepared by Marshall & Murray Inc. is classified as a "Draft" Class D Estimate.

Marshall & Murray Inc. were retained to provide a realistic **Total Projected Construction Cost** budget for the redevelopment at Tiny Township.

The project is located in Perkinsfield, Ontario.

The proposed redevelopment would consist of a new build administration building for Tiny Township.

The proposed redevelopment is being designed by Unity Design Studio Inc..

The estimate presented here is based on the drawings received from the design team, meetings, and oral information.

The **Total Projected Construction Cost** is estimated at: **$25,066,667**

This estimate is priced in April 2024 dollars. Escalation during construction has been included in the estimate.
Projected escalation to time of tender is identified separately if requested.

We are currently experiencing a very active construction market which could result in bids varying greatly from our indicated amount due to lack of bidders and escalating material costs.

This estimate has been priced, based on a standard CCDC 2 – Stipulated Sum Contract. It does not include for any additional costs associated with the Alternate Financing Procurement method adopted by Infrastructure Ontario.

The construction cost includes all labour, materials, plant, sub-contractors' overheads and profit, and the general contractor's overheads and profit.

Please review the exclusions as noted in Section 1 k) Exclusions to Construction Cost.

If you have any questions or require further information, please do not hesitate to contact our office.

Clare Croghan
Email: clarecroghan@bty.com
Ph: 519-433-3908

TINY TOWNSHIP
ADMINISTRATION CENTRE
Perkinsfield, Ontario

April 9, 2024
L:15323/Class D/Tiny Township Admin Bldg.xls

b) TOTAL PROJECT SUMMARY

	DESCRIPTION	GFA	COST/SF	AMOUNT
A.	**ADMINISTRATION CENTRE**			
1.0	NEW BUILD	33,304	*752.67*	25,066,667
	NEW BUILD	33,304	753	25,066,667
2.0	OTHER ASSOCIATED COSTS			0
	ABNORMAL SOIL CONDITIONS / CONTAMINATED SOIL			*excluded*
	HAZARDOUS MATERIAL ABATEMENT			*excluded*
	PREMIUM TIME / AFTER-HOURS WORK			*excluded*
	CONSTRUCTION PHASING			*excluded*
	LEED PREMIUM			*excluded*
	SIGNAGE & WAYFINDING			*excluded*
	MOVING COSTS			*excluded*
	LAND ACQUISITION COSTS			*excluded*
TOTAL	**NEW BUILD**	**33,304**	*752.67*	**$25,066,667**
	ANCILLARY COSTS (PROFESSIONAL FEES, PERMITS, TAXES, ETC.)			EXCLUDED
	SUB-TOTAL			**25,066,667**
	FURNISHINGS AND EQUIPMENT		0.0%	-
	SUB-TOTAL			**25,066,667**
	ANTICIPATED ESCALATION TO TIME OF TENDER			EXCLUDED
	TOTAL PROJECT COST			***25,066,667***

c) METHOD OF MEASUREMENT

This estimate has been prepared by measurement of quantities from the drawings received from the design team, Unity Design Studio Inc..

Unit costs, allowances, and contingencies were applied to these quantities to reflect market conditions and provide a realistic budget based on comparable projects with similar size and scope of works.

d) GROSS FLOOR AREA

Basement	380	M2	4,090	SF
Ground Floor	2,714	M2	29,213	SF
Total	**3,094**	**M2**	**33,304**	**SF**

e) PRICING

This estimate is priced in April 2024 dollars expecting 3-6 qualified competitive General Contractors and Sub-Contractors. Bids will vary due to fluctuating market conditions, proprietary product vendors, lack or surplus bidders and bidder's perception of risk.

We are currently experiencing a very active construction market which could result in bids varying greatly from our indicated amount due to lack of bidders and escalating material costs.

f) TAXES

The Harmonized Sales Tax (H.S.T.) is excluded.

g) MECHANICAL AND ELECTRICAL COSTS

Mechanical and Electrical Costs included in this estimate were based on information provided by the Consultants.

h) SITE SERVICES

This includes allowances for mechanical, electrical, civil site services, soft, and hard landscaping.

i) CONTINGENCY

At this stage of the project, a 15.0% design contingency has been allowed. This is to cover unknown details in design and construction, layout variations and material selections but excludes any scope increases.

j) GENERAL REQUIREMENTS AND FEES

General Requirements - General Contractors Overhead is taken at:	12.0%
Fee - General Contractors Profit is taken at:	6.0%

k) EXCLUSIONS TO CONSTRUCTION COST

- Phasing
- Price Escalation
- Soft Costs
- Professional and Design Fees
- Furniture and Loose Equipment
- Development Charges and Levies
- Financing Costs
- Relocation Costs
- Asbestos Abatement
- Abnormal Soil Conditions
- COVID-19 / Pandemic Impact Costs
- Contaminated Soil
- Project Management
- Harmonized Sales Tax (H.S.T.)
- Inspection and Testing
- Post Contract Contingencies
- Window Drapes/Curtains, and Art Work
- Premium Labour
- LEED Costs
- Project Scope Contingency
- Winter heat to shell construction

l) STATEMENT OF PROBABLE COSTS

This estimate represents a professional opinion of the probable costs for this project. Marshall & Murray Incorporated cannot guarantee that the actual project cost will not vary from this opinion.

m) ONGOING COST CONTROL

The project is still within the early stages of design and thus the full scope and design specifications have not been clearly determined. The estimate makes assumptions for all elements not clearly defined on the drawings. These assumptions are listed within the detailed estimate.

To alleviate a portion of the risk, a design and pricing contingency allowance has been included to accommodate for future design tweaks. However if there is a significant amount of design changes as the project progresses, they could result in an increase in cost that cannot be covered by the design and pricing contingency allowance. At this stage we consider the risk high, and would request that the design team review and provide comment with regards to the design detail included within the estimate.

We recommend that the estimate contained herein be reviewed thoroughly by the project team. Any comments or suggestions should be forwarded as soon as possible. We also recommend that further estimates be prepared once a firm design has been established.

TINY TOWNSHIP
ADMINISTRATION CENTRE
Perkinsfield, Ontario

April 9, 2024
"DRAFT" CLASS D ESTIMATE

n) DOCUMENTS LIST

The following list of drawings was received from Unity Design Studio Inc..
The noted drawings were used to complete Marshall and Murray's "Draft" Class D Estimate.

	Printed / Revision Date	Date Received
Outline Specification		
A1 - Floor Plan	March 5, 2024	
A2 - Basement + Roof Plan	March 5, 2024	
A3 - Elevations	March 5, 2024	
A4 - Building Sections	March 5, 2024	

SECTION 2

DETAILED ESTIMATE

TINY TOWNSHIP
ADMINISTRATION CENTRE
Perkinsfield, Ontario

FILE: L15323/Class D/Tiny Township Admin Bldg.xls

ELEMENTAL COST SUMMARY
DETAILED ESTIMATE

April 9, 2024
"DRAFT" CLASS D ESTIMATE

GFA : 3,094 m²

ELEMENT/Sub Element	Ratio to GFA	Elemental Cost Quantity		Unit Rate	Elemental Amount Sub-total	Total	Rate/m² Sub-Total	Total	%
A SHELL						**$5,298,686**		**$1,712.57**	**21.14%**
A1 SUBSTRUCTURE						$1,129,175		$364.96	4.50%
A11 Foundations	0.12	380	m²	2,176.78	$827,175		$267.35		
A112 Special Foundations	0.00	0	m³	0.00	$0		$0.00		
A12 Basement Excavation	0.58	1,800	m³	167.78	$302,000		$97.61		
A2 STRUCTURE						$1,295,330		$418.66	5.17%
A21 Lowest Floor Construction	1.00	3,089	m²	157.50	$486,518		$157.25		
A22 Upper Floor Construction	0.12	375	m²	535.50	$200,813		$64.90		
A222 Stair Construction	0.00	2	flts	19,200.00	$38,400		$12.41		
A23 Roof Construction	0.12	380	m²	1,498.95	$569,600		$184.10		
A3 EXTERIOR ENCLOSURE						$2,874,181		$928.95	11.47%
A31 Walls Below Grade	0.09	292	m²	669.75	$195,300		$63.12		
A32 Walls Above Grade	0.27	827	m²	1,063.34	$879,811		$284.36		
A33 Windows & Entrances	0.09	282	m²	2,875.07	$810,770		$262.05		
A34 Roof Covering	0.88	2,714	m²	355.53	$964,900		$311.86		
A35 Projections	0.01	24	m²	975.00	$23,400		$7.56		
B INTERIORS						**$1,959,251**		**$633.24**	**7.82%**
B1 PARTITIONS & DOORS						$988,616		$319.53	3.94%
B11 Partitions	0.00	0	m²	0.00	$736,966		$238.19		
B12 Doors	0.03	78	#	3,226.28	$251,650		$81.33		
B2 FINISHES						$676,165		$218.54	2.70%
B21 Floor Finishes	1.00	3,094	m²	48.25	$149,295		$48.25		
B22 Ceiling Finishes	1.00	3,094	m²	106.08	$328,220		$106.08		
B23 Wall Finishes	1.61	4,995	m²	39.77	$198,650		$64.20		
B3 FITTINGS & EQUIPMENT						$294,470		$95.17	1.17%
B31 Fittings & Fixtures	0.00	0	m²	0.00	$174,470		$56.39		
B32 Equipment	0.00	0	m²	0.00	$0		$0.00		
B33 Conveying Systems	0.00	2	stp	60,000.00	$120,000		$38.78		
C SERVICES						**$4,745,765**		**$1,533.86**	**18.93%**
C1 MECHANICAL						$2,939,330		$950.01	11.73%
C11 Plumbing & Drainage	1.00	3,094	m²	176.98	$547,590		$176.98		
C12 Fire Protection	1.00	3,094	m²	42.25	$130,720		$42.25		
C13 HVAC	1.00	3,094	m²	655.31	$2,027,520		$655.31		
C14 Controls	1.00	3,094	m²	75.47	$233,500		$75.47		
C2 ELECTRICAL						$1,806,435		$583.85	7.21%
C21 Service & Distribution	1.00	3,094	m²	125.32	$387,750		$125.32		
C22 Lighting, Devices & Heating	1.00	3,094	m²	169.86	$525,550		$169.86		
C23 Systems & Ancillaries	1.00	3,094	m²	288.67	$893,135		$288.67		
NET BUILDING COST - EXCLUDING SITE & ANCILLARY WORK					**$12,003,702**	**$12,003,702**		**$3,879.67**	**47.89%**
D SITE & ANCILLARY WORK						**$4,789,134**		**$1,547.88**	**19.11%**
D1 SITE WORK						$882,134		$285.11	3.52%
D11 Site Development	0.00	0	m²	0.00	$0		$0.00		
D12 Mechanical Site Services	0.00	0	m²	0.00	$0		$0.00		
D13 Electrical Site Services	0.00	0	m²	0.00	$882,134		$285.11		
D2 ANCILLARY WORK						$3,907,000		$1,262.77	15.59%
D21 Demolition	0.00	0	m²	0.00	$0		$0.00		
D22 Alterations	0.00	0	m²	0.00	$0		$0.00		
D23 Cash Allowances	1.00	3,094	m²	1,262.77	$3,907,000		$1,262.77		
NET BUILDING COST - EXCLUDING GENERAL REQUIREMENTS					**$16,792,836**	**$16,792,836**		**$5,427.55**	**66.99%**
Z GENERAL REQUIREMENTS						**$3,022,711**		**$976.96**	**12.06%**
Z1 GENERAL REQUIREMENTS & FEE						$3,022,711		$976.96	12.06%
Z11 General Requirements (%)		12.0%			$2,015,140		$651.31		
Z12 Fee (%)		6.0%			$1,007,570		$325.65		
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING ALLOWANCES					**$19,815,547**	**$19,815,547**		**$6,404.51**	**79.05%**
Z2 ALLOWANCES						$5,251,120		$1,697.19	20.95%
Z21 Design & Pricing (%)		15.0%			$2,972,332		$960.68		
Z22 Escalation Allowance (%)		0.0%			$0		$0.00		
Z23 Construction Allowance (%)		10.0%			$2,278,788		$736.52		
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING TAXES					**$25,066,667**	**$25,066,667**		**$8,101.70**	**100.00%**
HARMONIZED SALES TAX						$0			
Harmonized Sales Tax		0.0%			$0		$0.00		
TOTAL CONSTRUCTION ESTIMATE						**$25,066,667**		**$8,101.70**	
							Area (sf)	33,304	
							/sf	$752.67	

TINY TOWNSHIP
ADMINISTRATION CENTRE
Perkinsfield, Ontario

April 9, 2024
"DRAFT" CLASS D ESTIMATE

DETAILED ESTIMATE

FILE: L15323/Class D/Tiny Township Admin Bldg.xls

Description	Qty	Unit	Rate	Amount
A1 SUBSTRUCTURE				
A11 Foundations				
1.0 Basement reinforced concrete foundation walls & columns; - concrete supply and placing - formwork - reinforcing - waterproofing - insulation - perimeter drainage - normal soil condition, no special foundation required	380	m²	639.00	242,820
2.0 Building strip footings and pad footings; - concrete supply and placing - formwork - reinforcing - normal soil condition, no special foundation required	2,714	m²	67.00	181,838
3.0 Building reinforced concrete foundation walls & columns; - concrete supply and placing - formwork - reinforcing - insulation - perimeter drainage - normal soil condition, no special foundation required	2,714	m²	122.00	331,108
4.0 Allowance for elevator pit construction - formwork - concrete - reinforcing	1	sum	56,840.00	56,840
5.0 Inserts, steps, tie-ins, etc.		allow		14,569
Total A11 Foundations	**380**	**m²**		**827,175**
A12 Basement Excavation				
1.0 Basement mass excavation, assume; - bulk excavation by machine - surplus material haul	1,800	m³	50.00	90,000
2.0 Basement footing excavation, assume; - bulk excavation by machine - surplus material haul	196	m³	50.00	9,800
3.0 Basement backfill with imported material	500	m³	75.00	37,500
4.0 Building footing excavation, assume; - bulk excavation by machine - surplus material haul	1,584	m³	50.00	79,200
5.0 Building backfill with imported material	1,080	m³	75.00	81,000
6.0 Dewatering, accessibility, inserts, etc.		allow		4,500
Total A12 Basement Excavation	**1,800**	**m³**		**302,000**

TINY TOWNSHIP
ADMINISTRATION CENTRE
Perkinsfield, Ontario

April 9, 2024
"DRAFT" CLASS D ESTIMATE

DETAILED ESTIMATE

FILE: L15323/Class D/Tiny Township Admin Bldg.xls

Description		Qty	Unit	Rate	Amount
A2 STRUCTURE					
A21 Lowest Floor Construction					
1.0	Basement, slab on grade, 104mm thick; - excavation - concrete supply and placing - wire mesh - granular fill - vapour barrier barrier - screed & finish - perimeter/columns, flexel - sawcuts	375	m²	150.00	56,250
2.0	Ground floor, slab on grade, 104mm thick; - excavation - concrete supply and placing - wire mesh - granular fill - vapour barrier - screed & finish - perimeter/columns, flexel - sawcuts	2,714	m²	150.00	407,100
3.0	Inserts, slab thickening, equipment bases, misc. reinforcing		allow		23,168
Total A21 Lowest Floor Construction		**3,089**	**m²**		**486,518**
A2 STRUCTURE					
A22 Upper Floor Construction					
1.0	Floor construction (partial ground floor), CLT structure	375	m²	510.00	191,250
2.0	Inserts, curbs, equip. bases, misc. reinforcing		allow		9,563
Total A22 Upper Floor Construction		**375**	**m²**		**200,813**
A2 STRUCTURE					
A222 Stair Construction					
1.0	Fire exit stair, basement to ground, assume metal pan with concrete filled, 700mm wide	2	No	16,000.00	32,000
6.0	Miscellaneous supports, railings, finishes, etc.		allow		6,400
Total A222 Stair Construction		**2**	**flts**		**38,400**
A2 STRUCTURE					
A23 Roof Construction					
1.0	Roof construction and structure, CTL column and beam structure	380	m²	1,450.00	551,000
2.0	Premium for lobby skilight	24	m²	450.00	10,800
3.0	Premium for chamber skylight	5	m²	1,500.00	7,800
4.0	Inserts, curbs, misc. reinforcing, etc.		allow		0
Total A23 Roof Construction		**380**	**m²**		**569,600**

TINY TOWNSHIP
ADMINISTRATION CENTRE
Perkinsfield, Ontario

April 9, 2024
"DRAFT" CLASS D ESTIMATE

DETAILED ESTIMATE

FILE: L15323/Class D/Tiny Township Admin Bldg.xls

Description		Qty	Unit	Rate	Amount
A3 EXTERIOR ENCLOSURE					
A31 Walls Below Grade					
1.0	Basement concrete walls, 200mm thick - concrete, supply and placing - reinforcement, assume 120 kg/m3 - formwork - waterproofing	292	m²	640.00	186,000
2.0	Stepped foundation, inserts, etc.		allow		9,300
Total A31 Walls Below Grade		**292**	**m²**		**195,300**
A3 EXTERIOR ENCLOSURE					
A32 Walls Above Grade					
1.0	Exterior wall assemlby; - composite wood-veneered panels - 2 layers 75mm insulation - a/v barrier - 3-ply CTL wall panel with clear epoxy finish	827	m²	1,015.00	839,811
2.0	Lintels, caulking, flashing, tie-in to existing		allow		40,000
Total A32 Walls Above Grade		**827**	**m²**		**879,811**
A3 EXTERIOR ENCLOSURE					
A33 Windows & Entrances					
1.0	Curtainwall	282	m²	2,260.00	637,320
2.0	Glazed aluminum double entrance doors & glazing c/w hardware	4	No	12,000.00	48,000
3.0	Glazed aluminum single entrance doors c/w hardware	2	No	2,600.00	5,200
4.0	Double door & frame to community room c/w hardware	2	No	6,000.00	12,000
5.0	Single panel door with frame & hardware (exit doors)	2	No	2,500.00	5,000
6.0	Skylight, central	79	m²	450.00	35,550
7.0	Skylight, chambers	18	m²	1,400.00	25,200
8.0	Extra over; - fire rated door, allow for 50% - specialty door hardware, allow 50% - finish hardware - *included above*	5 5	No No	500.00 1,000.00	2,500 5,000
9.0	Supports, caulking, flashing, etc.		allow		35,000
Total A33 Windows & Entrances		**282**	**m²**		**810,770**

TINY TOWNSHIP
ADMINISTRATION CENTRE
Perkinsfield, Ontario

April 9, 2024
"DRAFT" CLASS D ESTIMATE

DETAILED ESTIMATE

FILE: L15323/Class D/Tiny Township Admin Bldg.xls

Description	Qty	Unit	Rate	Amount
A3 EXTERIOR ENCLOSURE				
A34 Roof Covering				
1.0 Roof assembly (all flat roof areas); - SEBS flood coat with aggregate surfacing - modified bitumen membrane (2-ply) - 2 lifts of 62.5mm stone wool insulation - tapered insulation as required - 88mm polyisocyanurate insulation - vapour retarder - underlayment board - CLT deck (included in structure)	2,714	m²	350.00	949,900
2.0 Flashing, pavers, anchors, tie-in to existing		allow		15,000
Total A34 Roof Covering	**2,714**	**m²**		**964,900**
A3 EXTERIOR ENCLOSURE				
A35 Projections				
1.0 Entrance canopies	24	m²	850.00	20,400
2.0 Flashing, caulking, tie-in, etc.		allow		3,000
Total A35 Projections	**24**	**m²**		**23,400**
B1 PARTITIONS & DOORS				
B11 Partitions				
1.0 Concrete shaft & core walls, 200mm thick - concrete, supply and placing - formwork - reinforcement, assume 80kg/m3	238	m²	640.00	152,320
2.0 Interior glazing & above; - double glazed interior glazing, assume 2400mm high - drywall baffle above	312 156	m² m²	750.00 100.00	234,000 15,600
3.0 Partition walls; - 16mm gypsum board - 92mm steel studs - 12.5mm resilient channel - AFB mineral wood batt insulation - 16mm gypsum board	2,260	m²	135.00	305,046
4.0 Lintels, supports, caulking, firestopping		allow		30,000
Total B11 Partitions	**0**	**m²**		**736,966**

TINY TOWNSHIP
ADMINISTRATION CENTRE
Perkinsfield, Ontario

April 9, 2024
"DRAFT" CLASS D ESTIMATE

DETAILED ESTIMATE

FILE: L15323/Class D/Tiny Township Admin Bldg.xls

Description	Qty	Unit	Rate	Amount
B1 PARTITIONS & DOORS				
B12 Doors				
1.0 Double door with frame;				
- glazing door w/ frame	5	No	4,500.00	22,500
- slab door w/ frame	3	No	2,400.00	7,200
- solid core birch veener stain door w/ frame	1	No	4,400.00	4,400
2.0 Single door with frame				
- glazing door w/ frame	36	No	2,400.00	86,400
- slab door w/ frame	5	No	1,200.00	6,000
- solid core birch veener stain door w/ frame	35	No	2,200.00	77,000
3.0 Community room rolling door	1	No	3,500.00	3,500
4.0 Extra over;				
- fire rated door, allow for 30%	23	No	500.00	11,550
- specialty door hardware, allow 30%	23	No	1,000.00	23,100
- finish hardware				
5.0 Supports, misc. finish hardware		allow		10,000
Total B12 Doors	**78**	**#**		**251,650**
B2 FINISHES				
B21 Floor Finishes				
1.0 Polished concrete (public areas)	1,585	m²	30.00	47,550
2.0 Carpet Tile (admin offices and meeting rooms)	1,419	m²	55.00	78,045
3.0 Tile, large format (public washrooms, lockers & showers)	90	m²	180.00	16,200
4.0 Special finishes, patterns, etc.		allow		7,500
Total B21 Floor Finishes	**3,094**	**m²**		**149,295**
B2 FINISHES				
B22 Ceiling Finishes				
1.0 Suspended slat wood ceiling (lobby, washrooms, council chambers, function room)	808	m²	325.00	262,600
2.0 Suspended gypsum board (basement wet areas)	44	m²	130.00	5,720
3.0 Suspended ACT (storage, EOC)	132	m²	75.00	9,900
4.0 Exposed CTL structure to offices, etc.	2,110	m²	0.00	0
5.0 Special finishes, patterns, etc.		allow		50,000
Total B22 Ceiling Finishes	**3,094**	**m²**		**328,220**

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FILE: L15323/Class D/Tiny Township Admin Bldg.xls

Description		Qty	Unit	Rate	Amount
B2 FINISHES					
B23 Wall Finishes					
1.0	Wall paint	4,561	m²	20.00	91,228
2.0	Ceramic wall tile	434	m²	190.00	82,422
3.0	Special finishes, patterns, etc.		allow		25,000
Total B23 Wall Finishes		**4,995**	**m²**		**198,650**
B3 FITTINGS & EQUIPMENT					
B31 Fittings & Fixtures					
1.0	Gender neutral washroom accessories	12	No	1,000.00	12,000
2.0	Universal washroom accessories	2	No	3,000.00	6,000
3.0	Basement showers/lockers laundry accessories	1	No	15,000.00	15,000
4.0	Reception desk	1	sum	30,000.00	30,000
5.0	Council chambers	1	sum	50,000.00	50,000
6.0	Staff room millwork	1	sum	6,000.00	6,000
7.0	Stone feature wall with double sided fireplace	1	sum	30,000.00	30,000
8.0	Allowance for specialties, corner guards, signage and wayfinding	3,094	m²	5.00	15,470
9.0	Blinds - no provisions made				
10.0	Various fittings, fixtures, millwork and specialty components not specifically detailed on the current drawings		allow		10,000
Total B31 Fittings & Fixtures		**0**	**m²**		**174,470**
B3 FITTINGS & EQUIPMENT					
B33 Conveying Systems					
1.0	Elevator	2	stops	60,000.00	120,000
Total B33 Conveying Systems		**2**	**stp**		**120,000**

TINY TOWNSHIP
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"DRAFT" CLASS D ESTIMATE

DETAILED ESTIMATE

FILE: L15323/Class D/Tiny Township Admin Bldg.xls

Description		Qty	Unit	Rate	Amount
C1 MECHANICAL					
C11 Plumbing & Drainage					
	PLUMBING FIXTURES:				
1.0	Floor mtd toilet c/w dual flush flush tank, seat, and supplies	14	#	900.00	12,600
2.0	Counter mounted lavatory c/w manual faucet	2	#	600.00	1,200
3.0	Wall hung lavatory c/w manual faucet, trap, and hanger	12	#	900.00	10,800
4.0	Single bowl s.s. sink c/w manual faucet & trap	5	#	900.00	4,500
5.0	Double bowl s.s. sink c/w manual faucet & trap, allow	1	#	1,200.00	1,200
6.0	Mop sink	1	#	1,800.00	1,800
7.0	Manual shower valves	4	#	1,000.00	4,000
8.0	Bottle filler/drinking fountain	2	#	3,200.00	6,400
9.0	Eyewash station	1	#	1,000.00	1,000
10.0	Fixture variations	5	#	1,000.00	5,000
	TOTAL - PLUMBING FIXTURES			**$48,500**	
				$15.68 /sf	
	DOMESTIC HOT AND COLD WATER				
11.0	Non frost wall hydrants	4	#	650.00	2,600
12.0	Hose bibbs	2	#	150.00	300
13.0	Water heater - electric	1	#	18,000.00	18,000
14.0	Recirc pump	1	#	1,600.00	1,600
15.0	Temperature mixing valve to water heater	1	#	2,600.00	2,600
16.0	Tempering valves				nil
17.0	Electronic trap seal primer	3	#	1,800.00	5,400
18.0	Make up water station	1	#	2,800.00	2,800
19.0	Backflow preventer	1	#	6,500.00	6,500
20.0	Water meter connection	1	#	3,500.00	3,500
21.0	Domestic water pipe distribution				96,800
22.0	Insulation				24,200
	TOTAL - DOMESTIC HOT AND COLD WATER			**$164,300**	
				$53.10 /sf	
	SANITARY WASTE AND VENT				
23.0	Floor drains	10	#	350.00	3,500
24.0	Funnel floor drains	6	#	450.00	2,700
25.0	Elevator drain	1	#	1,600.00	1,600
26.0	Elevator sump pump	1	#	6,500.00	6,500
27.0	Condensate drains	55	#	1,200.00	66,000
28.0	Sanitary pipe distribution				92,900
	TOTAL - SANITARY WASTE AND VENT			**$173,200**	
				$55.98 /sf	
C1 MECHANICAL					
	STORM				
29.0	Roof drains	15	#	650.00	9,750
30.0	Storm sump pit pumps				nil
31.0	Storm pipe distribution				57,000
32.0	Insulation				12,540
	TOTAL - STORM			**$79,290**	
				$25.63 /sf	
	NATURAL GAS				
33.0	Natural gas pipe distribution		allow		37,100
	TOTAL - NATURAL GAS			**$37,100**	
				$11.99 /sf	

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DETAILED ESTIMATE

FILE: L15323/Class D/Tiny Township Admin Bldg.xls

	Description	Qty	Unit	Rate	Amount
	DEMOLITION				
					nil
	TOTAL - DEMOLITION			**nil**	
				$0.00 /sf	
	MISCELLANEOUS				
34.0	Identification				7,000
35.0	Miscellaneous fitments, as builts, etc				38,200
	TOTAL - MISCELLANEOUS			**$45,200**	
				$14.61 /sf	
	Total C11 Plumbing & Drainage	**3,094**	**m²**		**547,590**
	C1 MECHANICAL				
	C12 Fire Protection				
	SPRINKLERS:				
1.0	Wet sprinklers	3,094	m2	30.00	92,820
2.0	Siamese connection				800
3.0	Dry sprinklers				nil
4.0	Preaction sprinklers				nil
5.0	Window sprinklers				nil
6.0	Mains to zones		allow		25,000
	TOTAL - SPRINKLERS			**$118,620**	
				$38.34 /sf	
	FIRE STANDPIPE				
					nil
	TOTAL - FIRE STANDPIPE			**nil**	
				$0.00 /sf	
	FIRE EXTINGUISHERS				
7.0	Fire extinguishers	10	#	300.00	3,000
	TOTAL - FIRE EXTINGUISHERS			**$3,000**	
				$0.97 /sf	
	MISCELLANEOUS				
8.0	Miscellaneous fitments				9,100
	TOTAL - MISCELLANEOUS			**$9,100**	
				$2.94 /sf	
	Total C12 Fire Protection	**3,094**	**m²**		**130,720**

TINY TOWNSHIP
ADMINISTRATION CENTRE
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April 9, 2024
"DRAFT" CLASS D ESTIMATE

DETAILED ESTIMATE

FILE: L15323/Class D/Tiny Township Admin Bldg.xls

	Description	Qty	Unit	Rate	Amount
	C1 MECHANICAL				
	C13 HVAC				
	AIR HANDLING UNITS AND DUCTWORK				
1.0	DOAS Units	2	#		118,100
2.0	Fans				10,000
3.0	Ductwork c/w equipment installation				471,600
4.0	Grilles and Diffusers	238	#	90.00	21,420
5.0	Linear diffusers	24	#	450.00	10,800
6.0	Insulation				61,300
7.0	Fire dampers				Incl.
8.0	Ventilation to shop area		allow		50,000
9.0	Air source heat pump	1	#	allow	25,000
10.0	Fan powered VAV boxes	2	#	3,500.00	7,000
11.0	Duct vacuuming				nil
	TOTAL - AIR HANDLING UNITS & DUCTWORK			**$775,220**	
				$250.56 /sf	
	EXHAUST AND VENTILATION				
					incl.
	TOTAL - EXHAUST AND VENTILATION			**incl.**	
				$0.00 /sf	
	LIQUID HEAT TRANSFER				
12.0	Electric boiler	1	#	allow	50,000
13.0	Boiler feed pump	1	#	3,600.00	50,000
14.0	Fan coil unit	55	#	4,000.00	220,000
15.0	Unit heaters	10	#	1,800.00	18,000
16.0	Pumps	6	#	8,000.00	48,000
17.0	Plate converters	2	#	10,000.00	20,000
18.0	Converters				nil
19.0	Heating water pumps	4	#	7,000.00	28,000
20.0	Pumps	2	#	15,000.00	30,000
21.0	Variable speed drives	6	#	6,500.00	39,000
22.0	Expansion tanks	2	#	8,000.00	16,000
23.0	Ground source loop and header pipe				see cash allowance
24.0	Glycol fill station	2	#	2,800.00	5,600
25.0	Chemical treatment/glycol		allow		30,000
26.0	Heating water pipe distribution				182,000
27.0	Insulation				1,800
	TOTAL - LIQUID HEAT TRANSFER			**$738,400**	
				$238.66 /sf	

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"DRAFT" CLASS D ESTIMATE

DETAILED ESTIMATE

FILE: L15323/Class D/Tiny Township Admin Bldg.xls

Description		Qty	Unit	Rate	Amount
C1 MECHANICAL					
	STEAM/CONDENSATE				
					nil
	TOTAL - STEAM/CONDENSATE			**nil**	
				$0.00 /sf	
	DIESEL FUEL OIL SYSTEM				
					nil
	TOTAL - DIESEL FUEL OIL SYSTEM			**nil**	
				$0.00 /sf	
	BALANCING				
28.0	Balancing				17,000
29.0	Verification				6,800
30.0	Labour for Mechanical Contractor to coordinate with commissioning agent				13,600
	TOTAL - BALANCING			**$37,400**	
				$12.09 /sf	
	SILENCING/VIBRATION ISOLATION				
31.0	Silencers	4	#	5,000.00	20,000
	TOTAL - SILENCING/VIBRATION ISOLATION			**$20,000**	
				$6.46 /sf	
	MOTOR CONTROL & MECHANICAL WIRING				
					By electrical
	TOTAL - MOTOR CONTROL & MECHANICAL WIRING			**By electrical**	
				$0.00 /sf	
	MISCELLANEOUS				
32.0	Identification				14,100
33.0	Cranage				20,000
34.0	Seismic restraint				34,300
35.0	Freight/travel/lodging				306,100
36.0	Miscellaneous fitments, as builts, etc				82,000
	TOTAL - MISCELLANEOUS			**$456,500**	
				$147.54 /sf	
Total C13 HVAC		**3,094**	**m²**		**2,027,520**
C14 Controls					
1.0	Controls		allow		233,500
Total C14 Controls		**3,094**	**m²**		**233,500**

TINY TOWNSHIP
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"DRAFT" CLASS D ESTIMATE

DETAILED ESTIMATE

FILE: L15323/Class D/Tiny Township Admin Bldg.xls

Description		Qty	Unit	Rate	Amount
C2 ELECTRICAL					
C21 Service & Distribution					
1.0	Normal Power Distribution	1	sum	232,000.00	232,000
2.0	Life Safety Power Distribution	1	sum	28,000.00	28,000
3.0	150kw Stand-by NG Fired Generator Control & Start Wiring	1	sum	16,000.00	16,000
4.0	2stop Gearless Passenger Elevator Control & Start Wiring	1	#	10,000.00	10,000
5.0	Mechanical (motor) Wiring	1	sum	75,000.00	75,000
6.0	Miscellaneous Distribution				
	- digital metering at main LV switchboard c/w commissioning	1	#	10,000.00	10,000
	- non-destructive feeder insulation megger testing before & after cor	2	#	3,000.00	6,000
	- hydro metering cabinet in separate W/P enclosure, wall mounted	1	#	1,250.00	1,250
	- testing, inspection & commissioning	1	sum	2,500.00	2,500
	- arc flash hazard analysis	1	sum	3,500.00	3,500
	- short circuit & co-ordination study	1	sum	3,500.00	3,500
Total C21 Service & Distribution		**3,094**	**m²**		**387,750**
C2 ELECTRICAL					
C22 Lighting, Devices & Heating					
1.0	Lighting including exit & emerg lights, LED	3,094	m²	100.00	309,400
2.0	Switching c/w occupancy sensors	1	sum	40,000.00	40,000
3.0	LV lighting control system for common areas	1	sum	32,000.00	32,000
4.0	Receptacles	1	sum	108,000.00	108,000
5.0	Equipment hard wired power connections	1	sum	20,000.00	20,000
6.0	Electrical resistance heating, connections only				
	- 1.50kw baseboard heater BBH-1 c/w built-in non-programmable electrical thermostat, wall mounted	6	#	400.00	2,400
	- 3.00kw cabinet unit heater UH-2 c/w built-in non-programmable electrical thermostat, wall mounted	3	#	500.00	1,500
	- 5.00kw cabinet forced flow heater FFH-1 c/w built-in non-programmable electrical thermostat, wall mounted	3	#	750.00	2,250
7.0	Heat tracing for roof mounted mechanical piping	1	sum	10,000.00	10,000
8.0	Snow melting system to entrance ramp				nil
Total C22 Lighting, Devices & Heating		**3,094**	**m²**		**525,550**

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"DRAFT" CLASS D ESTIMATE

DETAILED ESTIMATE

FILE: L15323/Class D/Tiny Township Admin Bldg.xls

Description	Qty	Unit	Rate	Amount
C2 ELECTRICAL				
C23 Systems & Ancillaries				
1.0 Two stage addressable fire alarm system c/w 3rd party verification	3,094	m²	30.00	92,820
2.0 Telecommunications, conduit only				
- 1data, wall mounted	12	#	150.00	1,800
- 2data, wall mounted	92	#	150.00	13,800
- 1voice & 2data, wall mounted	4	#	200.00	800
- 1voice, LV switchboard, wall mounted	1	#	150.00	150
- 1voice, meter cabinet, wall mounted	1	#	150.00	150
- 1voice, fire alarm control panel, wall mounted	1	#	150.00	150
- vertical plugmold strip, rack mounted	2	#	150.00	300
- 900x900x19mm fire rated plywood backboard, wall mounted	4	#	200.00	800
- 2034x650x1124mm communications data rack, floor mounted	2	#	2,500.00	5,000
- 2.00kva uninterruptible power supply UPS at above, rack mounted				by others
3.0 Telecommunications, Blue Cat6a FT6 multipair non-plenum rated cabling				
- voice, rack mounted	7	#	375.00	2,625
- data, rack mounted	224	#	375.00	84,000
- 48port patch panel in data rack, rack mounted	8	#	800.00	6,400
- 5' patch cords, rack mounted	270	#	20.00	5,400
- 10' patch cords, rack mounted	270	#	25.00	6,750
- 12pair inside Cat3 UTP copper backbone, ceiling mounted	50	m	35.00	1,750
- 1x72stranded MM multimode fibre backbone, ceiling mounted	50	m	45.00	2,250
- 1x24stranded SM singlemode fibre backbone, ceiling mounted	50	m	30.50	1,525
- fibre & copper terminations at both ends	1	sum	8,000.00	8,000
- PDU unit & UPS equipment, modem, network switch, etc.				by others
- network audit after completion	1	sum	8,000.00	8,000

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DETAILED ESTIMATE

FILE: L15323/Class D/Tiny Township Admin Bldg.xls

Description	Qty	Unit	Rate	Amount
C2 ELECTRICAL				
C23 Systems & Ancillaries (Cont'd)				
4.0 Wireless communications, power only				
- Wi-Fi network access points, ceiling mounted	8	#	275.00	2,200
- Wi-Fi network access points, ceiling mounted	2	#	275.00	550
- PoE wireless router, ceiling mounted	10	#		by others
- wireless RF survey by third party	1	sum	3,000.00	3,000
5.0 CATV system c/w cabling				
- CATV outlet, wall mounted	6	#	150.00	900
- Blue Cat6 FT6 multipair plenum rated, ceiling mounted	6	#	350.00	2,100
- RG59/U coax CATV backbone cable, ceiling mounted	1	sum	1,500.00	1,500
6.0 Two-way talk through intercom system	1	sum	5,000.00	5,000
7.0 Barrier-free universal washroom flashing unit	1	#	2,500.00	2,500
8.0 Intrusion alarm system	1	sum	24,000.00	24,000
9.0 Door access control system, conduit & power only				
- proximity card reader, unsecured side, wall mounted	15	#	150.00	2,250
- proximity card reader, secured side, wall mounted	6	#	150.00	900
- electric strike, door mounted	15	#	150.00	2,250
- electro-magnetic door holder, wall mounted	4	#	150.00	600
- door open-detect contact, door mounted	20	#	150.00	3,000
- door bell c/w step-down transformer, wall mounted	15	#	150.00	2,250
- power assisted pushbutton, wall mounted	15	#	150.00	2,250
- infra-red egress motion detector, wall mounted	15	#	150.00	2,250
- security junction box, wall mounted	15	#	200.00	3,000
- door power & security controller on secure side, wall mounted	15	#	500.00	7,500
10.0 Door access control system, wiring & head-end equipment	1	sum	48,000.00	48,000
11.0 CCTV system, conduit & power only				
- outdoor CCTV camera, PTZ, wall mounted	6	#		see site
12.0 CCTV system, head-end equipment, devices & wiring	1	sum	25,000.00	25,000

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FILE: L15323/Class D/Tiny Township Admin Bldg.xls

Description	Qty	Unit	Rate	Amount
C2 ELECTRICAL				
C23 Systems & Ancillaries (Cont'd)				
13.0 Cable trays, main conduit, hangers & support channels, etc.				
- 105x455mm cable tray in elec & IT rooms, ladder type, ceiling mot	24	m	400.00	9,600
- dual communication cable hanger, wall mounted	132	#	200.00	26,400
- 2compartment raceway, aluminum, wall mounted	32	m	100.00	3,200
- 53mm EMT conduit for security cabling, ceiling mounted	50	m	57.50	2,875
- 53mm EMT conduit for fire alarm cabling, ceiling mounted	50	m	57.50	2,875
- 53mm EMT conduit for comms cabling, ceiling mounted	50	m	57.50	2,875
- 305x305x205mm EMT comms pull box, ceiling mounted	2	#	200.00	400
- 305x305x205mm EMT comms pull box, ceiling mounted, lockable	2	#	250.00	500
- EZ path fire rated pathway, wall mounted	24	#	200.00	4,800
- various conduit, sleeves & channel support, etc.	1	sum	2,000.00	2,000
14.0 Public address & paging system				nil
15.0 Audio & visual system, conduit & power only	1	sum	12,000.00	12,000
16.0 Audio & visual system, devices & head-end equipment				by others
17.0 Lightning protection system				nil
18.0 Secondary grounding & bonding system	3,094	m²	2.75	8,509
19.0 Scanning, core drilling, patching & making good				by general
20.0 Testing & inspection	1	sum	15,000.00	15,000
21.0 Labour for commissioning agent	1	sum	8,000.00	8,000
22.0 Seismic & vibration restraints				nil
23.0 Freight/travel/lodging				167,500
24.0 Miscellaneous, fire stops, rentals, etc.	1	sum	75,000.00	75,000
25.0 Job start-up & close-out	1	sum	168,131.00	168,131
Total C23 Systems & Ancillaries	**3,094**	**m²**		**893,135**
D1 SITE WORK				
D11 Site Development				
Included in site allowance				
Total D11 Site Development	**0**	**m²**		**0**
D1 SITE WORK				
D12 Mechanical Site Services				
				see cash allowances
Total D12 Mechanical Site Services	**0**	**m²**		**0**

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"DRAFT" CLASS D ESTIMATE

DETAILED ESTIMATE

FILE: L15323/Class D/Tiny Township Admin Bldg.xls

Description	Qty	Unit	Rate	Amount
D1 SITE WORK				
D13 Electrical Site Services				
1.0 Hydro charges (500kva TX, HV primary cables c/w terminations)	1	sum	85,000.00	85,000
2.0 Hydro pole c/w pole guys, cross arms & 15kv class insulators				existing
3.0 HV 28kv U/G copper 3#2/0 Cu primary cables, TR-XLPE 90, PVC jacket from existing hydro pole to 500kva primary TX				by hydro
4.0 28kv 600a full loadbreak interrupter switches c/w fused cut-outs & lighting arrestors, pole mounted				existing
5.0 500kva 28kv->347/600v 60hz oil filled pad mounted transformer c/w terminations of primary & secondary cables				by hydro
6.0 4#103mm type DB II PVC primary power ductbank, direct buried, sloped c/w prefabricated spacers, 2x6" yellow warning tape & pullstring, native backfill, bellow & above 150x500mm sand bedding, min 10mpa concrete, from loadbreak switch to 500kva primary TX	80	m	600.00	48,000
7.0 3ph precast chamber c/w bollards for 500kva oil filled padmount primary TX installed on 20/300mm crushed stone extending 300mm beyond all sides	1	sum	12,500.00	12,500
8.0 Primary grounding grid for 500kva primary TX c/w grounding test	1	sum	5,000.00	5,000
9.0 4#103mm type DB II PVC secondary power ductbank, direct buried, sloped c/w prefabricated spacers, 2x6" yellow warning tape & pullstring, native backfill, bellow & above 150x500mm sand bedding, min 10mpa concrete, from 500kva primary TX to 600a main SWBD	20	m	600.00	12,000
10.0 2x4#500mcm + #3g in 103mm type DB II PVC ductbank secondary cables from 500kva oil filled primary TX to 600a main LV SWBD	25	m	750.00	18,750
11.0 2#103mm type DB II PVC comms & CATV ductbank, direct buried sloped c/w prefabricated spacers, 2x6" yellow warning tape & pullstring, native backfill, bellow & above 150x500mm sand bedding, min 10mpa concrete, from existing IT pole to new IT room	75	m	400.00	30,000
12.0 Copper backbone from service pole on street to new IT room	1	sum	16,000.00	16,000
13.0 Housekeeping concrete pad for 150kw outdoor NG fired generator				by others
14.0 Emergency outdoor NG fired stand-by generator - 150kw/187.5kva 347/600v 3ph 4w 60hz outdoor NG generator in weatherproof sound attenuated enclosure mtd on concrete pad c/w battery charger & distribution panel for generator accessories, & 400a 3p 347/600v emerg power main breaker c/w shunt trip in EEMAC1 general purpose enclosure	1	sum	150,000.00	nil 150,000

TINY TOWNSHIP
ADMINISTRATION CENTRE
Perkinsfield, Ontario

April 9, 2024
"DRAFT" CLASS D ESTIMATE

DETAILED ESTIMATE

FILE: L15323/Class D/Tiny Township Admin Bldg.xls

Description		Qty	Unit	Rate	Amount
D1 SITE WORK					
D13 Electrical Site Services (Cont'd)					
15.0	Primary grounding grid for NG fired generator c/w grounding test	1	sum	6,000.00	6,000
16.0	2#103mm & 2x53mm type DB II PVC genset ductbank, concrete encased, sloped c/w prefabricated spacers, 2x6" yellow warning tape & pullstring, native backfill, bellow & above 150x500mm sand bedding, min 10mpa concrete, from NG fired genset to 400a emerg panel	45	m	500.00	22,500
17.0	4#500mcm + #3g in 103mm type DB II PVC genset cables from 150kw NG genset to 400a genset distribution panel	50	m	332.50	16,625
18.0	400a 347/600v 3way Quick Connect panel for connections of Portable Genset/Mobile Loadbank for Generator testing, wall mou	1	sum	18,000.00	18,000
19.0	Light standards c/w base & luminaries, Solar LED - L1, 1x79w 48LEDbar, 6.12m steel pole	8	#	18,000.00	144,000
20.0	Light bollards c/w base, U/G feeder, grounding & luminaries, LED - L2, 1x15w 20LEDbar, 1.02m steel pole	8	#	3,000.00	24,000
21.0	Wall mounted outdoor luminaries - L3, 1x25w 18LEDbar, 155mm dia x 242mm, soffit mounted	18	#	675.00	12,150
	- L4, 1x58w 36LEDbar, 235mm x 461mm, wall mounted	8	#	1,250.00	10,000
22.0	Flag poles up lights c/w base, U/G feeder, grounding & luminaries, LED - L5, 1x42w 20LEDbar, 375mm x 261mm, grade mounted	4	#	2,750.00	11,000
23.0	Exterior lighting & signage controls	1	sum	5,000.00	5,000
D1 SITE WORK					
D13 Electrical Site Services (Cont'd)					
24.0	CCTV system, conduit & power only - outdoor CCTV camera c/w heater, PTZ, wall mounted	6	#	1,500.00	9,000
25.0	Power, data & EMT conduit to monumental signage, wall mounted	1	sum	2,500.00	2,500
26.0	Power, data & U/G type DB II PVC conduit to electronic signage, pyl	1	sum	8,500.00	8,500
27.0	Power & U/G type DB II PVC conduit to E-bike charging, pylon mour	1	sum	24,000.00	24,000
28.0	Power, data & U/G type DB II PVC conduit to Level 2 Dual EV charg	4	#	12,500.00	50,000
29.0	150kw Photovoltaic Array c/w 495 Micro-Inverters & Battery Storage, rooftop mounted				see summary
30.0	Primary grounding grid for main LV equipment c/w grounding test	1	sum	8,000.00	8,000
31.0	Locate & trace existing underground services	1	sum	5,000.00	5,000
32.0	Electrical site demolition				nil
33.0	Testing & inspection	1	sum	8,000.00	8,000
34.0	Site miscellaneous fitments/etc.	1	sum	40,000.00	40,000
35.0	Job start up & close out	1	sum	80,609.00	80,609
Total D13 Electrical Site Services		**0**	**m²**		**882,134**

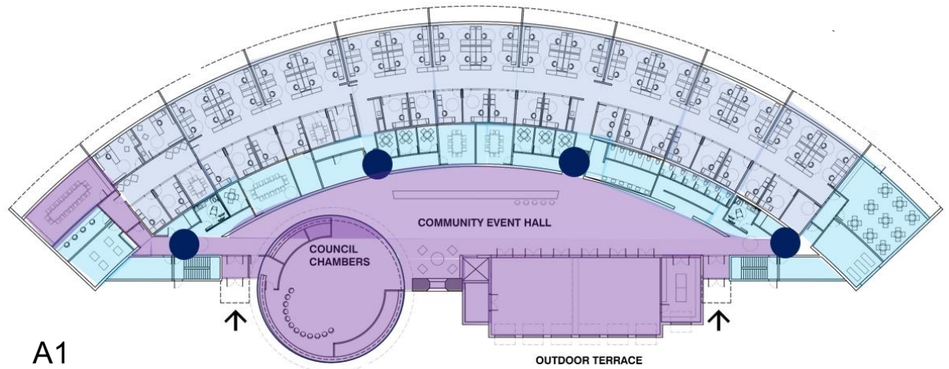
TINY TOWNSHIP
ADMINISTRATION CENTRE
Perkinsfield, Ontario

April 9, 2024
"DRAFT" CLASS D ESTIMATE

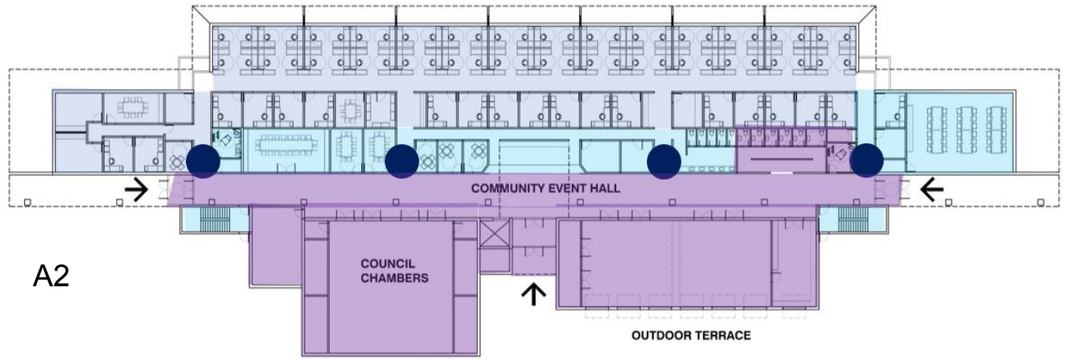
DETAILED ESTIMATE

FILE: L15323/Class D/Tiny Township Admin Bldg.xls

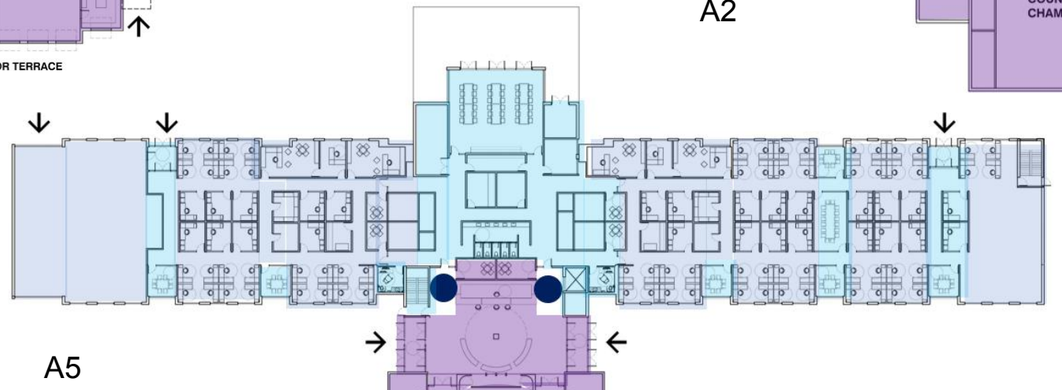
Description		Qty	Unit	Rate	Amount
D2 ANCILLARY WORK					
D23 Cash Allowances					
1.0	Site services & features allowance	1	sum	3,500,000.00	3,500,000
2.0	Allowance for additional location, freight, travel, etc.	1	sum	407,000.00	407,000
Total D23 Cash Allowances		**3,094**	**m²**		**3,907,000**


COMMUNITY EVENT HALL
COUNCIL CHAMBERS
OUTDOOR TERRACE

A1


COMMUNITY EVENT HALL
COUNCIL CHAMBERS
OUTDOOR TERRACE

A2



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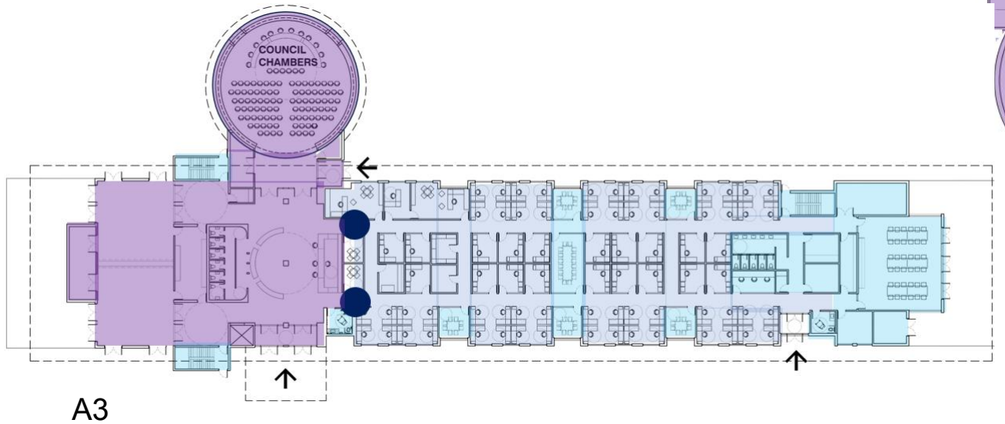
COUNCIL CHAMBERS

A3


FUTURE EXPANSION
COUNCIL CHAMBERS

A4

Unity

Certified B Corporation

Architecture for the human spirit

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