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info@matterinc.ca matterinc.ca February 3rd, 2025

to: Chris Traini | Deputy CAO and General Manager Infrastructure Middlesex County
399 Ridout Street North London, ON N6A 2P1

re: New Governance & Administration Centre | Sustainable Update

Dear Mr. Traini,

On behalf of Matter Architectural Studio, we would like to express our ongoing enthusiasm for the development of the new Governance & Administration Centre for Middlesex County. We recognize this as a significant project that will serve as a cornerstone for the County's administrative functions and public services for years to come.

As part of our continued commitment to sustainable architecture, we would like to take this opportunity to discuss the sustainable attributes of the facility, both those that are already incorporated and those that could be considered as the project moves forward. Sustainability is a key focus of our practice, and we believe that the Governance & Administration Centre provides an excellent opportunity to advance the County's environmental goals while creating a functional and welcoming space for staff and the public.

To date, our team has explored multiple solutions for the following sustainable strategies as part of the building design:



- Sensitive Land Protection (Brownfield Remediation, prioritizing the use of an existing site over prime farmland, & densification/diversification of an existing site)
- Optimized Building Position for Solar Orientation (maximize passive solar attributes). The building
 has been located outside the "sensitive" area of Digman Creek to preserve and avoid disrupting the
 natural habitat and ecological function.
- Bicycle Parking provided outside (Consideration for Bike Storage in the Basement to add more)
- Green Vehicle Consideration (4 Level 1 Parking Spaces)
- Daylighting (Maximized based on amount of glazing)
- Quality of Views (Interior spaces provide views of programmed greenspace)
- Windows and Glazing (*Solarban*[®] 65 solar control, low-e glass)
- Natural Ventilation (Operable Windows Provided)
- Reflective Roofing (White)
- High-Performance Insulation (Spray Foam)
- Water Efficient Fixtures (Low Flow)
- Energy Efficiency (the current design is 13% the requirement of the Ontario Building Code)
- Light Pollution (light bleed from building to edge of subject lands is 0)
- LED Lighting (including occupancy sensors) and individual Zoning Controls
- Thermal Control (areas and rooms within are zoned to reduce use)
- Thermal Mass (Stone Walls to store heat on the inside of the building)
- Building Lifecycle Impact (a variety of materials are "Cradle to Cradle", this could be further explored
 if requested)
- Low-VOC Materials (Floor, Wall, Ceiling Finishes, etc.)
- Indoor Environmental Quality
 - o Room Acoustic Studies in Process;
 - o Biophilic Design (interior plants within office spaces to improve occupant well-being)
- Adaptability and Flexibility (several spaces within the building can be easily adapted or repurposed as needs change, promoting longevity)

From our perspective, the following sustainable strategies could be explored further in the design and construction process with potential affect the current building design:

- **Enhanced Energy Efficiency:** Incorporating high-performance building systems, such as passive heating and cooling strategies, to reduce overall energy consumption and lower operational costs.
 - Making ALL Mechanical Units electric (with the exception of back up generators), to align with Net Zero requirements.
 - Purchasing Carbon and Green Power Offsets (https://bullfrogpower.com/)
- Renewable Energy Integration: Exploring the potential for on-site renewable energy solutions such
 as solar panels or geothermal systems to reduce reliance on non-renewable sources and support
 long-term energy independence.





- Material Selection: Using environmentally responsible, locally sourced, and low-impact materials
 that contribute to the building's durability while minimizing environmental impact. (can also include
 sustainable materials which trap carbon such as carpet underlay or theirs paint that does this toohelp to reach low carbon goals)
- **Water Conservation:** Implementing rainwater harvesting systems, drought-resistant landscaping, and water-efficient fixtures to reduce water consumption throughout the building's lifespan.
- Reduction of Heat Island Affect: Provide covered parking areas with Solar Arrays as Roof

Lastly, the following sustainable strategies present valuable opportunities for further exploration during the design and construction phases. However, their integration would require substantial modifications to the current design and construction approach:

- Full LEED Application, Building Commissioning and Designation
- Full Net Zero Application, Building Commissioning and Designation

As the project continues to develop, we would welcome the opportunity to collaborate with your team to explore additional sustainable strategies that align with the County's vision for responsible and forward-thinking growth.

Thank you for your dedication to creating a sustainable and impactful facility for Middlesex County. We look forward to further discussions and the potential to contribute to the success of this important project.

Respectfully submitted,

Steven Cooper

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