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PROPOSED SOLID WASTE MANAGEMENT PLAN FOR

31 Huron Street, Collingwood
c/o 31 Huron St Inc.

Date: August, 2021

Prepared by: Nikko Stone, CanAm Waste

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1.0 INTRODUCTION

31 Huron St Inc. has made a zoning and site plan application to Simcoe County and the Town of Collingwood for the development of a multi-family property for residential condominium use at 31 Huron Street, Collingwood. There will be one (1), six (6) storey residential condominium building with 130 residential condominium units.

As part of the development review process, Simcoe County's waste management department requests that a solid waste management plan be undertaken to advise on how the development deals with the waste, recycling and organics that will be generated from residential occupancy. In addition, the report must propose a system for separating and collecting recyclable & organics materials.

This report will provide the relevant information to assist 31 Huron St Inc. in meeting Simcoe County and the Town of Collingwood's waste management objectives.

2.0 GENERAL INFORMATION

Person preparing plan:	Nikko Stone, CanAm Waste
Reviewer:	Jason Tower, B.E.S., E.M.P.D
Date prepared:	August, 2021
Address of development:	31 Huron Street, Collingwood
Building use:	Residential condominiums. Proposed six (6) storey, condominium low-rise comprising 130 units

3.0 CONSTRUCTION WASTE

Ontario Regulation 103/94 (O. Reg. 103/94 Source Separation Programs) applies to the industrial, commercial and institutional (IC&I) sector, including construction projects such as the one proposed in this report. The builder of a "construction project" (a person who is undertaking the construction project on their own behalf or on behalf of another) that consists of the construction of one or more buildings with a total floor area of at least 2,000 square metres is subject to *O. Reg. 103/94* and must implement a source separation program.

The builder is responsible for implementing a source separation program or ensuring that a source separation program is implemented. The source separation program must be in place before construction work begins at the site. For the purposes of determining when construction begins at the site, it generally begins at the point foundations for the building(s) is/are being dug. Where, however, a building is going to be constructed in phases (e.g. one builder constructs the outer shell and another contractor constructs the inner shell), construction for the second phase begins when the builder begins construction on the second phase. During the construction period, the incorporation of recycling throughout the site will be promoted through contract documentation.

According to the Regulation, the following items must be incorporated into the construction source separation program:

- Cardboard (corrugated)
- Brick & Portland cement concrete

Additional items that should be considered, but are not mandatory include:

- Wood
- Drywall
- Other relevant materials

It will be the responsibility of the construction project manager to ensure that all local regulations are adhered to and proper separation procedures are in place to maximize recycling of construction waste.

4.0 PROJECTED WASTE GENERATION QUANTITIES & COMPOSITION FOR THE RESIDENTIAL CONDOMINIUMS

4.1 Residential Condominiums

31 Huron St Inc. proposes to have one (1) CanAm Waste TriSorter Recycling System (automated waste, recycling and organics system) installed in each residential to assist residents and property management in handling waste, recyclables and organics using one chute installed as indicated on the architectural drawings, with resident access located on each residential floor of residential condominium occupancy.

Residents will use the control panel located next to, or above the chute intake doors located on each floor, by pressing the corresponding material button. This will activate the TriSorter located in the main garbage room to align under the correct container to accept the materials.

The materials designated for collection include recyclable paper fibres such as newspaper, magazines, household fine paper, telephone directories, cardboard and boxboard containers. Recyclable containers will be collected as a commingled stream. This container stream (commingled) will include glass bottles and jars, ferrous food, beverage, aerosol and empty paint cans, aluminum cans and rigid foil products, poly-coated cartons and aseptic drinking boxes, PET (#1) and HDPE (#2) bottles and jugs.

The system will also accommodate organics collection.

For up to date information on method and type of each collection item, please refer to the sorting guideline documents as published by Simcoe County, and can be accessed by:

https://www.simcoe.ca/SolidWasteManagement/Pages/condo.aspx

Additionally, the Simcoe County also publishes additional information sheets for apartment residents on the following items:

- Oversize and metal items
- Hazardous waste (HHW)
- Electronic waste (E-waste)
- Additional yard waste

These documents can also be accessed on Simcoe County's website, or by:

https://www.simcoe.ca/SolidWasteManagement/Pages/Education%20Materials.aspx

In addition to the required separations of garbage, recyclables, and organic materials required by the Province of Ontario and Simcoe County, it would be highly recommended the building also separate, other items listed above – HHW, E-waste etc. in compliment the waste management program.

The proposed recycling program, with additions or deletions to the program may be included by the time that occupancy occurs as indicated by the contracted waste hauler and/or municipality.

The reviewer is also aware and has incorporated where possible, the design requirements by Simcoe County as well as industry standard practices for collecting multi-family waste, recycling and organics materials developed over the past 20+ years.

Additionally, the primary areas of focus of implementing a successful waste reduction and management strategy at multi-family properties will incorporate the following principles:

- Reduce
- Reuse
- Repurpose
- Redistribute
- Repair

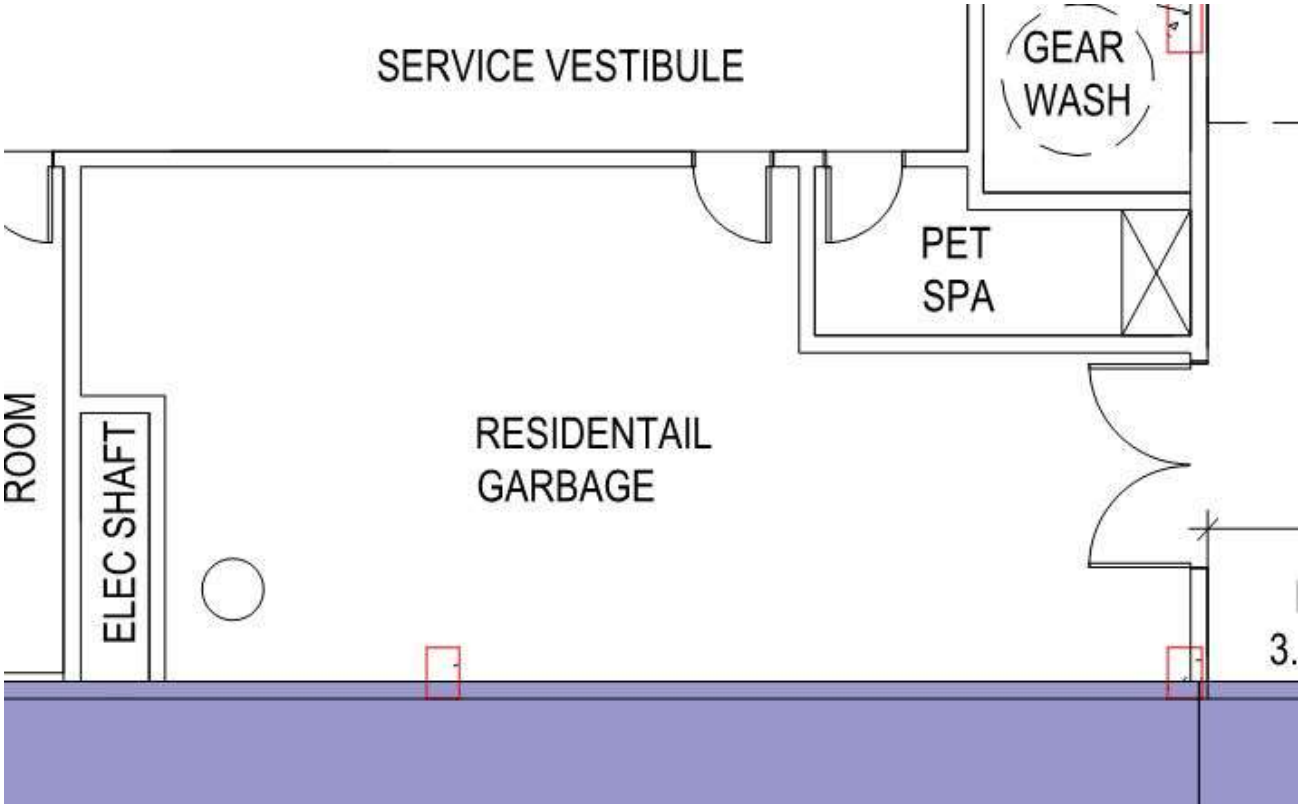
The TriSorter recycling system as installed by CanAm Waste is a specialized garbage chute extension that uses the chute to direct, via a resident controlled keypad located on each floor, materials into one of three containers in the waste handling room – Garbage, commingled recyclables, and organics. Garbage will be deposited into the compactor, while recyclables an organics will be deposited into the respective containers located next to the compactor.

Building residents have the convenience of garbage, recycling and organics disposal on each floor – making it **AS CONVENIENT** as regular garbage disposal.

Figure 1 - Proposed Floor Panel Configuration for Residential Condominiums – RECYCLABLES / ORGANICS

Figure 2 - Proposed Residential Chute Intake Door for Residential Condominiums

Figure 3 – Proposed Garbage Room – Ground Level



Residential Garbage Room – Ground Floor

Based on the architectural design of the garbage room, there is enough room to install a properly laid out TriSorter with relevant garbage, recycling and organics containers. Shop drawings will be provided by the supplier. The current sizing of the garbage room is adequate for the quantity of units in the project.

5.0 MATERIAL STORAGE & COLLECTION

The installation of the system allows tenants to recycle materials and organics as conveniently as they dispose of garbage. Garbage, recyclable papers & containers (currently collected by the municipality as “commingled”), and organics all go down the chute. Resident control panels for each residential floor will be located next to the chute door and will separate the garbage, recyclables and organics.

A control panel on each floor enables the resident to instruct the system, located at the bottom of the TriSorter chute, to direct materials into the appropriate container below – see illustration above. Labelling on the floor control panel will read “Garbage”, “Recyclables” and “Organics”.

Waste, recycling and organics collection is proposed to take place outside of the building, in front of the retail delivery bay. Staff will move the containers from the equipment (compactor or TriSorter) located in the garbage room on the Ground floor through the double doors and outside the building to the proposed collection point.

Figure 4 – Container Movement Using a Bin Buddy

Based on the recent 2014 memo from the Ontario Ministry of Labour regarding Manual Transfer of Mobile Industrial Waste Containers, it is further recommended that when moving the containers from the garbage room to the collection area that a Bin Buddy be used.

For additional safety of the maintenance staff, it is recommended that the chute will have a manual lock out feature at the bottom of the chute. The “CanAm Chute Blocker”, will allow maintenance staff the added safety and security by providing the ability to “close down” the garbage chute – either when the containers are empty, or during servicing or emergency.

The compactor will have a 3yard front end loading compaction container, while recycling will be received in 95 gallon toters, and organics will also be received in 95 gallon containers underneath that will handle the materials generated by the building and collected by Simcoe County or their designated contractor.

Additionally, the waste handling room shall be equipped with these additional features:

- Garbage chute will be equipped with a wash down system
- Garbage room will be equipped with electrical provisions for serviceability
- Garbage room will be equipped with a hose bib and floor drain
- W.E.E.E. cabinet would be recommended for future collection of Waste and Electronic Equipment
- A textiles cabinet would be recommended for residents to drop-off for collection by a local charity or local business to aid in the diversion of materials from landfill

CONTAINERS

Garbage will be collected in front end loading containers, while recyclables and organics will be collected in 95 gallon toters as provided by the County or hauler. The garbage room is located on the Ground floor.

Based on the residential unit count of 130 units, the appropriate type, size and quantity of containers are proposed as follows:

- Three (3), 3 cubic yard compaction containers (1 per 50 units, rounded up)
- Nineteen (19), 95 gallon toters for recyclables (1 per 7 units, rounded up)
- Six (6), 95 gallon toters for organics (1 per 25 units, rounded up)

A total of twenty-eight (28) containers would be required – three front end loading containers and twenty-five 95 gallon toter containers. This number may change dependant on Simcoe County's collection schedule for multi-family properties. For example, if the County offers 2x per week collection for recycling, then only ten (10) 95 gallon toters for recycling, and three (3) organics toters would be required, reducing the total number of containers from 25 to 13.

The calculations for the quantity of containers also takes into consideration the seasonal fluctuations in garbage & recycling generation rates based on historical performance of similarly performing properties across the Greater Toronto Area (GTA) over the past 20 years, over 20 years of field experience by the author, and additional historical calculations provided by various GTA municipalities.

Property management operations staff will be responsible for moving the recyclables, garbage and organics bins from the garbage room out to the designated collection pad, located on the ground floor, in the designated collection area. Waste, recycling and organic collection frequency will be

based on a schedule by property management and municipality.

A trained on-site staff member will be available to maneuver bins for the collection driver at the loading area and also act as a flagman when the truck is reversing, if required. In the event the on-site staff is unavailable at the time the municipal collection vehicles arrive at the site, the collection vehicle will leave the site and not return until the next scheduled collection day. Containers will be stored inside the building until 7am on collection days and will be returned inside the property immediately following collection.

The garbage room and chute will be cleaned and sanitized on a contract basis as required to reduce odours and build up. To further assist with this process, the residential garbage room on the ground floor will be equipped with an odour control system.

Appropriate signage with educational materials from property management will be prominently displayed on the wall and in the complex common area.

Figure 5 – Garbage collection vehicle

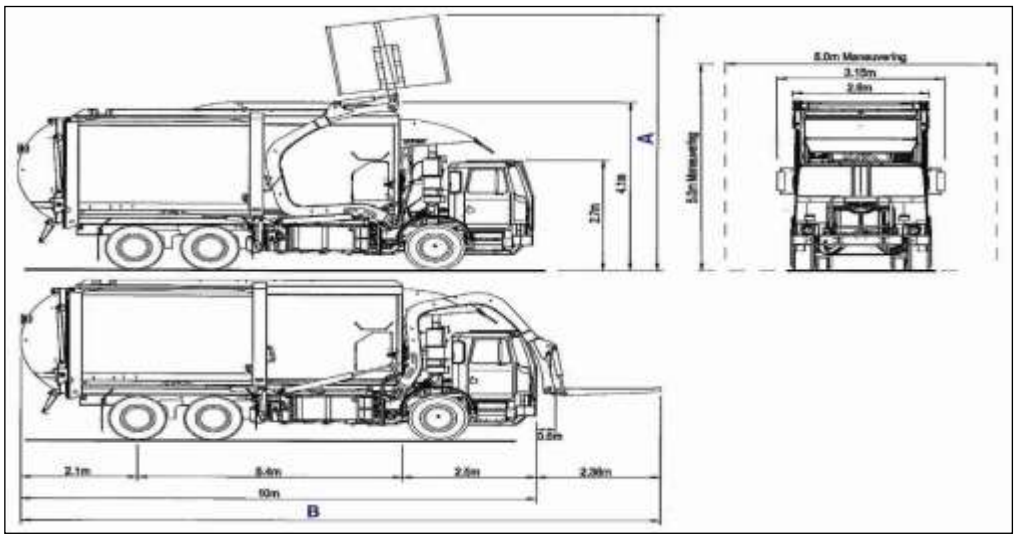
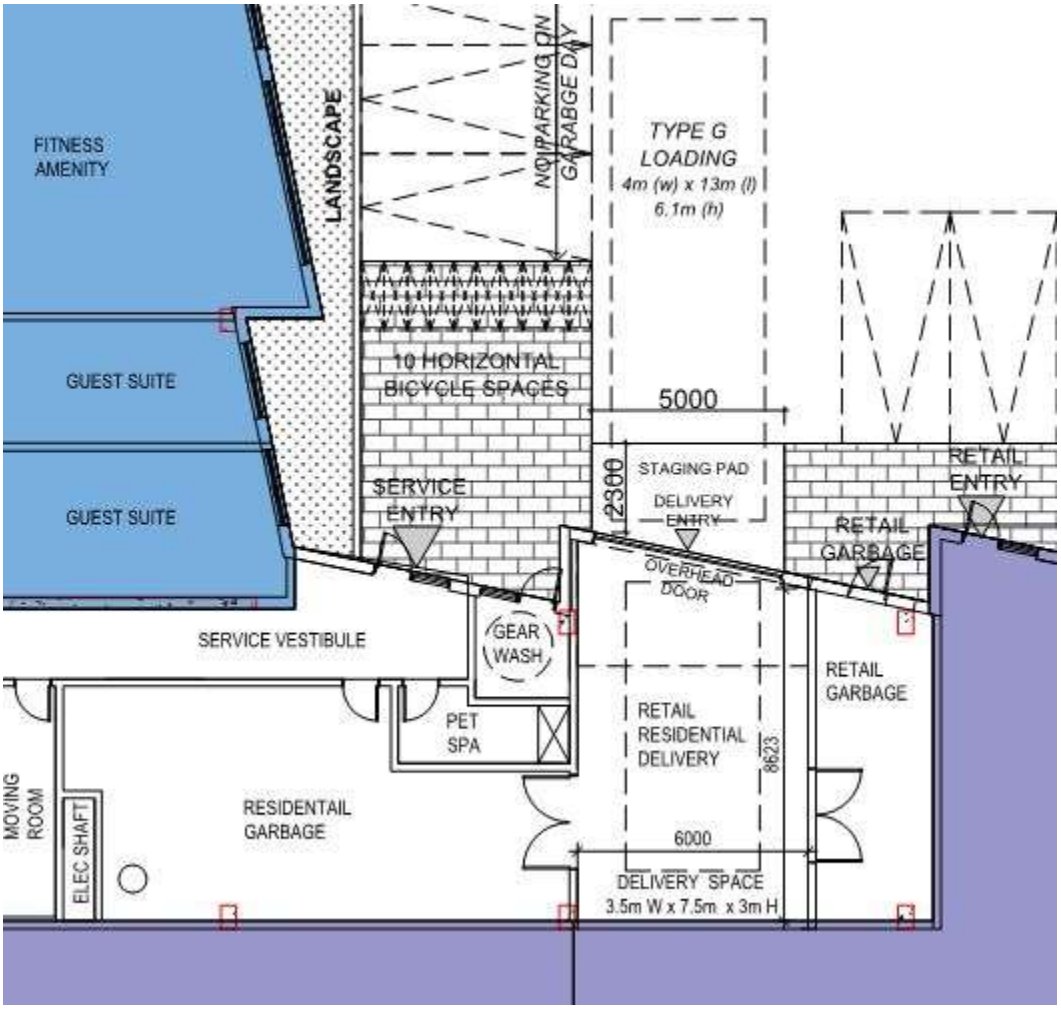


Figure 6 – Recyclable & Organic collection vehicle

The architectural drawings will sufficiently show a collection area that is suitable for front end and side loading through contracted garbage and recycling vehicles. Please consult traffic analysis report for further details.

Figure 7 – Proposed Collection Area



NON-RESIDENTIAL WASTE

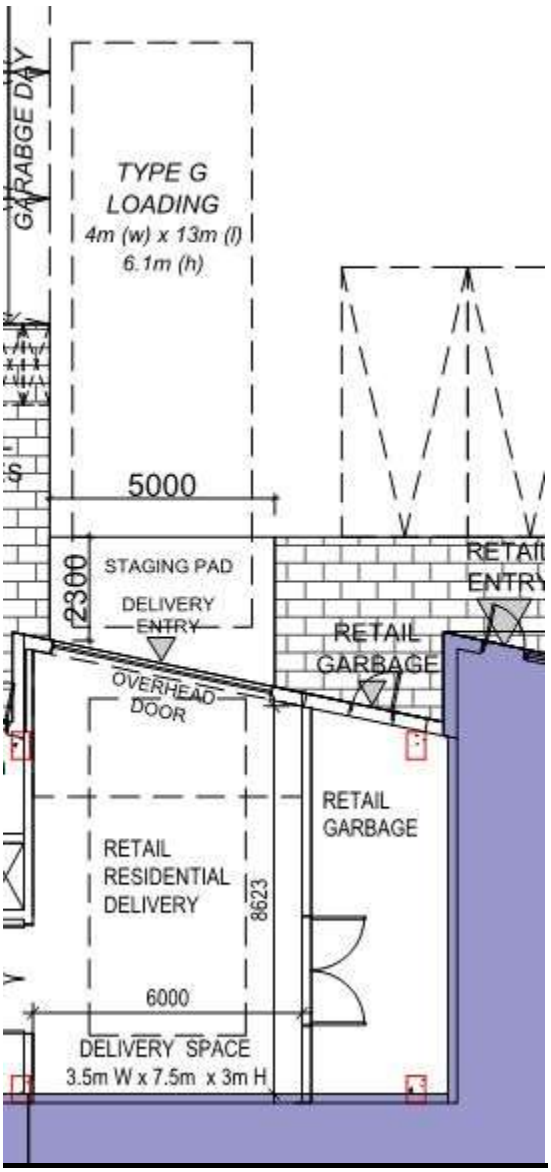
There is also a small component of the complex that comprises retail (non-residential) waste. The tenant mix is currently undetermined at this time, however it estimated based on the proposed tenant that it will not generate significant amounts of waste.

To plan for this tenant, a non-residential waste handling room has been created with its own entrance and exit on the ground floor. It will be accessible to retail staff members using a key-fob or keyed access, with double doors present leading to the retail delivery bay to accommodate easy in-and-out of any container type.

The garbage and recyclable materials, when full, will be transported from the retail waste storage

room to the retail loading area for contracted private disposal on an as-needed basis. The non-residential waste bins will be labelled separately from the bins for residential waste.

Figure 8 – Non Residential Waste Storage Room



6.0 RESIDENT COMMUNICATIONS & SPECIAL MATERIALS

Upon occupancy, property management will provide residents an information package that will provide an overview of the waste management program.

The package will include:

- Recycling instruction card that describes what materials are acceptable
- How the system works. This information will be prepared by the recycling system installer
- An information card on how to manage household special wastes such as liquid wastes, paints, solvents and batteries provided by Simcoe County
- Instructions about handling and transporting large volume wastes such as cardboard and used appliances in Simcoe County

6.1 – Household Hazardous Waste (HHW) Collection

Items that are corrosive, flammable, explosive or poisonous are considered Household Hazardous Waste and WILL NOT be collected with the building's regular collection.

Household Hazardous Waste (HHW) must not be put in garbage or Blue Bin recycling, or poured down the drain, toilet or sewer.


Corrosive


Flammable


Explosive


Poisonous

Items such as the list below are considered HHW:

Car and Garage Products

- Antifreeze
- Car batteries
- Brake fluid
- Body filler
- Car wax with solvent
- Motor oil (new and used)

- Fuel (gasoline, diesel, kerosene)
- Oil filters (new and used)
- Windshield washer fluid

Personal Care Products

- Alcohol-based lotions (aftershave, perfume, etc.)
- Medication and vitamins
- Nail polish and remover
- Syringes and medical sharps must be put in a puncture-resistant sealed container
- Non-empty aerosol cans

Household Cleaning Products

- Ammonia-based cleaners
- Abrasive powders
- Bleach
- Drain cleaners
- Floor and furniture polish
- Metal and oven cleaner
- Disinfectants
- Glass and mirror cleaner
- Rug and upholstery cleaner
- Silver polish

Pesticides and Garden Products

- Poisons (ant, rat, bug, etc.)
- Fertilizers
- Fungicides
- Insecticides
- Weed killers (herbicides)

Paints, Solvents, Glue

- Spray paint
- Latex, oil and water-based paint
- Paint strippers
- Primers
- Rust removers
- Stains
- Thinners
- Turpentine
- Wood preservatives
- Glue

Other

- Air freshener
- Batteries (all types)
- Compact florescent lamps (CFLs)
- Cooking oil

- Fluorescent tubes
- Propane/helium tanks
- Swimming pool chemicals
- Mercury thermometers
- Lighter fluid

Figure 9 – Recommended HHW Cabinet for HHW, Battery and E-Waste Collection

Figure 10 – TriSorter Instruction Sheet

A sample of the resident communication poster explaining the use of the system:

Some waste reduction options, which property management should consider includes the following:

- Regular promotion and feedback to residents regarding the recycling program and waste handling issues (e.g. newsletter, notices, and meetings).
- A recycling bin to be placed at the resident's mailbox area to collect unwanted junk mail and flyers. Property management staff will then empty the paper in the recycling carts.
- Property management will encourage the Board of Directors to initiate an annual collection of reusable goods and textiles on a periodic basis (e.g. annual closet cleanup). The materials accumulated could then be collected from a social organization such as The Salvation Army or Goodwill Industries.
- Special wastes such as paints, fluorescent tubes, solvents, batteries that are generated by property management staff will be safely stored in the residential garbage room located

on the ground floor level. As necessary, property management will transport these materials to a Simcoe County operated hazardous waste drop-off center to ensure proper management and disposal, or consult www.regeneration.ca for additional locations.

The proposed waste management system as described in this report is sufficient to accommodate the type, size and method of waste handling that is expected to be generated from a building of this type and size, located in Simcoe County and the Town of Collingwood.

Statement of Limitations

The information presented in this report is based on information gathered and observations made by Jason Tower based on information provided by the client. The report incorporates details and base figures provided during interviews with client representatives; follow-up discussions and materials made available and information available from regulatory authorities and industry associations. The analysis, conclusions and recommendations are based on the knowledge, experience, judgment, and best practices of the author(s) and apply specifically and only to conditions existing at the time of the audit.

There is no warranty expressed or implied that the report uncovers all potential issues associated with the management of waste and recycling at the site. The report has involved the application of a structured methodology and standard of care consistent with industry practices to address the specific project objectives. In providing our analysis and conclusions, we cannot guarantee the completeness or accuracy of information supplied by any third party.

**** END OF REPORT ****