

**Certificate of Property Use**  
**Environmental Protection Act, R.S.O. 1990, c.E.19, s.168.6**

**Certificate of property use number:8733-B5UL2N-A**  
**Risk assessment number: 0503-7PYNVA**

**Client:** River Realty Development (1976) Inc. (Owner)  
PO Box 576 Stn Main  
Niagara Falls, Ontario  
L2E 6V2

**Site:** 104-120 Welland Avenue (Property)  
St. Catharines, Ontario

with a legal description as set out in Schedule "A"  
attached

**The conditions of this Certificate of Property Use (CPU) address the Risk Management Measures in the Risk Assessment noted above and described in detail in Part 1 below (Risk Assessment). In the event of a conflict between the CPU and the Risk Assessment, the conditions of the CPU take precedence.**

**Summary:**

***Refer to Part 1 of the CPU, Interpretation, for the meaning of all the defined capitalized terms that apply to the CPU.***

i) CPU requirements addressed in Part 4 of the CPU, Director Requirements, are summarized as follows:

a. Installing/maintaining any equipment	Yes
b. Monitoring any contaminant	Yes
c. Refraining from constructing any building specified	Yes
d. Refraining from using the Property for any use specified	Yes
e. Prohibition on growing fruits and vegetables	Yes
f. Barrier to site soils.	Yes
g. implementing a soil management plan.	Yes
h. health and safety plan for the Property.	Yes

ii) Duration of Risk Management Measures identified in Part 4 of the CPU is summarized as follows:

- a. The barrier to site soils shall be maintained for as long as Contaminants of Concern are present on the Property.
- b. The site specific health and safety plan for workers exposed to site soils shall be required for as long as the Contaminants of Concern are present on the Property.
- c. A soil management plan for any activities potentially in contact with or exposing site soils shall be required for as long as the Contaminants of Concern are present on the Property.
- d. The prohibition on the growing of plants and vegetables for consumption shall be required for as long as the Contaminants of Concern are present on the Property.
- e. The indoor air monitoring for any building on the Property shall commence upon issuance of the CPU and will be carried out on a quarterly basis (every three months) for the first year, tri annually (every four months) for the second year and thereafter until such time as the Director, upon application by the Owner, has reviewed the data available and either alters or revokes the CPU.
- f. The ground water monitoring program on the Property shall commence upon issuance of the CPU and shall be carried out on a quarterly basis (every three months) for the first year, semi annually (every six months) for the second year and thereafter until such time as the Director, upon application by the Owner, has reviewed the data available and either alters or revokes the CPU.
- g. The other Risk Management Measures shall continue indefinitely until the Director amends or revokes the CPU.

## Part 1: Interpretation

In the CPU the following terms shall have the meanings described below:

“Adverse Effect” has the same meaning as in the Act; namely,

- (a) impairment of the quality of the natural environment for any use that can be made of it;
- (b) injury or damage to property or to plant or animal life;
- (c) harm or material discomfort to any person;
- (d) an adverse effect on the health of any person;
- (e) impairment of the safety of any person;
- (f) rendering any property or plant or animal life unfit for human use;
- (g) loss of enjoyment of normal use of property; and,
- (h) interference with the normal conduct of business.

"Act" means the *Environmental Protection Act*, R.S.O. 1990, c. E. 19, as amended.

"Contaminant" has the same meaning as in the Act; namely any solid, liquid, gas, odour, heat, sound, vibration, radiation or combination of any of them, resulting directly or indirectly from human activities that causes or may cause an Adverse Effect.

"Contaminants of Concern (COC)" has the meaning as set out in section 3.2 of the CPU.

"CPU" means this Certificate of Property Use Number **8733-B5UL2N-A**, as may be altered from time to time.

"Director" means the undersigned Director or any other person appointed as a Director for the purpose of issuing a certificate of property use.

"EBR" means the Environmental Bill of Rights, 1993. S.O. 1993, c. 28, as amended.

"Ministry" means Ontario Ministry of the Environment, Conservation and Parks.

"O. Reg. 153/04" means Ontario Regulation 153/04, "Record of Site Condition – Part XV.1 of the Act" as amended, made under the Act.

"Owner" means the owner(s) of the Property, including the person to whom this CPU is issued, River Realty Development (1976) Inc., the current registered owner of the Property and any future Property Owner.

"OWRA" means the *Ontario Water Resources Act*, R.S.O. 1990, c.O.40, as amended.

"Property" means the property that is the subject of the CPU and described in the "Site" section on page 1 above and illustrated in the attached Plan of Survey dated November 22, 2018.

"Property Specific Standards" means the property specific standards established for the Contaminants of Concern set out in the Risk Assessment and in section 3.2 of the CPU.

"Provincial Officer" means a person who is designated as a provincial officer for the purposes of the Act.

"Qualified Person" means a person who meets the qualifications prescribed in O. Reg. 153/04.

"Risk Assessment" means the Risk Assessment number **0503-7PYNVA** accepted by the Director on October 23, 2018 and set out in the following documents:

- ***"Risk Assessment, 104-120 Welland Ave and 2 North Street, St Catharines, Ontario"***, by Barenco Inc, dated August 21, 2009;
- ***"Addendum 1, Risk Assessment for 104-120 Welland Avenue and 2 North Street, St. Catharines, Ontario"***, by Barenco Inc., dated April 9, 2010;
- ***"Addendum 2, Risk Assessment for 104-120 Welland Avenue and 2 North Street, St. Catharines, Ontario"***, by Barenco Inc., dated January 31, 2011;
- ***"Addendum 2, Risk Assessment, Appendix G – CD Attachments, 104-120 Welland Avenue and 2 North Street, St. Catharines, Ontario"***, by Barenco Inc., dated February 18, 2011;

- **“Addendum 3, Risk Assessment for 104-120 Welland Ave. and 2 North St., St. Catharines, Ontario”, by Barenco Inc., dated November 24, 2011;**
- **“Addendum 4, Risk Assessment for 104-120 Welland Ave. and 2 North St., St. Catharines, Ontario”, by Barenco Inc., dated July 25, 2012;**
- **“Addendum 5, Risk Assessment for 104-120 Welland [Avenue] and 2 North Street, St. Catharines, Ontario”, by Exp Services Inc., dated October 23, 2012;**
- **“Addendum 6, Risk Assessment for 104-120 Welland Ave. and 2 North St., St. Catharines, Ontario”, by Exp., dated September 13, 2013 ;**
- **“Addendum 7, Risk Assessment for 104-120 Welland Ave. and 2 North St., St. Catharines, Ontario”, by Exp., dated July 15, 2014;**
- **“RE: RA for 104-120 Welland Avenue, 2 North St, St Catharines; RA1051-09; IDS# 0503-7PYNVA”, email from Theresa Phillips, exp Services Inc., rec’d by SDB on November 24, 2014, with following attachments:**
  - Phase Two CSM\_Welland Avenue + Figures 1-8.pdf;
  - 10348-CSM Figures Welland Avenue - Figures 16-19.pdf;
  - 10348-CSM Figures Welland Avenue - Figures 9a-15.pdf;
  - Phase Two CSM\_North Street +Figures 1-11.pdf; and,
  - 10348-CSM Figures North Street - Figures 12d-19.pdf
- **“Addendum 8, Risk Assessment for 104-120 Welland Ave. and 2 North St., St. Catharines, Ontario”, by Exp, dated September 18, 2015;**
- **“Risk Assessment Addendum 9, 104-120 Welland Avenue and 2 North Street, St. Catharines, Ontario”, prepared by Exp Services Inc., dated September 19, 2016;**
- **“Risk Assessment Addendum 10, 104-120 Welland Avenue and 2 North Street, St. Catharines, Ontario”, prepared by Exp Services Inc., dated March 26, 2018;**
- **“RE: RA1051-09 RA for 104-120 Welland Avenue and 2 North St, St Catharines; IDS# 0503-7PYNVA”, email from Travis Tan, Exp, received by TASDB on August 17, 2018, with following attachments:**
  - **“Risk Assessment Addendum 11, 104-120 Welland Avenue and 2 North Street, St. Catharines, Ontario”, prepared by Exp Services Inc., dated August 17, 2018, File name: RA1051-09\_Add11\_Aug2018.pdf;**
  - Proposed severance site plan; file name: Proposed Severence.pdf
- **“RE: RA1051-09 RA for 104-120 Welland Avenue and 2 North St, St Catharines; IDS# 0503-7PYNVA”, email from Tara Tait, Exp, received by TASDB on October 15, 2018; and**

- **“RE: RA1051-09 RA for 104-120 Welland Avenue and 2 North St, St Catharines; IDS# 0503-7PYNVA”, email from Tara Tait, Exp, received by TASDB on October 19, 2018, with following attachment:**

- Updated Financial Assurance; file name: 10348\_104 to 120 Welland Ave\_Revised FA.pdf

"Risk Management Measures" means the risk management measures specific to the Property described in the Risk Assessment and/or Part 4 of the CPU.

"Tribunal" has the same meaning as in the Act; namely, the Environmental Review Tribunal.

## **Part 2: Legal Authority**

- 2.1 Section 19 of the Act states that a certificate of property use is binding on the executor, administrator, administrator with the will annexed, guardian of property or attorney for property of the person to whom it was directed, and on any other successor or assignee of the person to whom it was directed.
- 2.2 Subsection 132(1.1) of the Act states that the Director may include in a certificate of property use a requirement that the person to whom the certificate is issued provide financial assurance to the Crown in right of Ontario for any one or more of,
- (a) the performance of any action specified in the certificate of property use;
  - (b) the provision of alternate water supplies to replace those that the Director has reasonable and probable grounds to believe are or are likely to be contaminated or otherwise interfered with by a contaminant on, in or under the property to which the certificate of property use relates; and
  - (c) measures appropriate to prevent adverse effects in respect of the property to which the certificate of property use relates.
- 2.3 Section 168.6 (1) of the Act states that if a risk assessment related to the property has been accepted under clause 168.5 (1) (a), the Director may issue a certificate of property use to the owner of the property, requiring the owner to do any of the following things:
- 1) Take any action that is specified in the certificate and that, in the Director's opinion, is necessary to prevent, eliminate or ameliorate any adverse effect that has been identified in the Risk Assessment, including installing any equipment, monitoring any contaminant or recording or reporting information for that purpose.
  - 2) Refrain from using the property for any use specified in the certificate or from constructing any building specified in the certificate on the property.
- 2.4 Subsection 168.6(2) of the Act states that a certificate of property use shall not require an owner of property to take any action that would have the effect of reducing the concentration of a contaminant on, in or under the property to a level below the level that is required to meet the standards specified for the contaminant in the risk assessment.
- 2.5 Subsection 168.6(3) of the Act states that the Director may, on his or her own initiative or on application by the owner of the property in respect of which a certificate has been issued under subsection 168.6(1),
- (a) alter any terms and conditions in the certificate or impose new terms and conditions; or
  - (b) revoke the certificate.
- 2.6 Subsection 168.6(4) of the Act states that if a certificate of property use contains a provision requiring the owner of property to refrain from using the property for a specified use or from constructing a specified building on the property,

- (a) the owner of the property shall ensure that a copy of the provision is given to every occupant of the property;
  - (b) the provision applies, with necessary modifications, to every occupant of the property who receives a copy of the provision; and
  - (c) the owner of the property shall ensure that every occupant of the property complies with the provision.
- 2.7 Subsection 197(1) of the Act states that a person who has authority under the Act to make an order or decision affecting real property also has authority to make an order requiring any person with an interest in the property, before dealing with the property in any way, to give a copy of the order or decision affecting the property to every person who will acquire an interest in the property as a result of the dealing.
- 2.8 Subsection 197(2) of the Act states that a certificate setting out a requirement imposed under subsection 197(1) may be registered in the proper land registry office on the title of the real property to which the requirement relates, if the certificate is in a form approved by the Minister, is signed or authorized by a person who has authority to make orders imposing requirements under subsection 197(1) and is accompanied by a registrable description of the property.
- 2.9 Subsection 197(3) of the Act states that a requirement, imposed under subsection 197(1) that is set out in a certificate registered under subsection 197(2) is, from the time of registration, deemed to be directed to each person who subsequently acquires an interest in the real property.
- 2.10 Subsection 197(4) of the Act states that a dealing with real property by a person who is subject to a requirement imposed under subsection 197(1) or 197(3) is voidable at the instance of a person who was not given the copy of the order or decision in accordance with the requirement.

### Part 3: Background

- 3.1 The Risk Assessment was undertaken for the Property on behalf of the Owner to assess the human health risks and ecological risks associated with the presence or discharge of Contaminants on, in or under the Property and to identify appropriate Risk Management Measures to be implemented to ensure that the Property is suitable for the intended use: **“commercial” or “community” or “industrial” use**, as defined in O. Reg. 153/04.
- 3.2 The Contaminants on, in or under the Property that are present either above the Industrial/Commercial/Community Property Use Standards within **Table 3** of the **Soil, Ground water and Sediment Standards for Use under Part XV.1 of the Act** published by the Ministry and dated April 15, 2011 or for which there are no such standards, are set out in the Risk Assessment (Contaminants of Concern). The Property Specific Standards for these Contaminants of Concern are set out in Schedule ‘B’ which are attached to and form part of the CPU. Also attached to and forming part of the CPU for reference purposes are:
- o *“Plan of Survey of Part of Lots 273 & 273A, Corporation Plan 2, City of St. Catharines, Regional Municipality of Niagara”*, prepared by Matthews, Cameron, Heywood-Kerry T. Howe Surveying Ltd., dated November 22, 2018;
  - o Figure 1 entitled *“Ground Water Monitoring Program – Monitoring Well Locations 104-120 Welland Avenue St. Catharines, Ontario”*, dated November 2018 prepared by exp;
  - o Figure Q-1 entitled *“Areal Extent of Soil Capping Risk Management Measures 104-120 Welland Avenue St. Catharines, Ontario”*, dated November 2018 prepared by exp;
  - o Figure Q-2 entitled *“Soil Barrier Details 104-120 Welland Avenue and 2 North Street St. Catharines, Ontario”*, dated September, 2013 by exp;

- Figure Q-3 entitled "Soil Vapour Membrane Barrier Details – New Building Construction 104-120 Welland Avenue and 2 North Street St. Catharines, Ontario", dated September, 2013 by exp;
- Figure Q-4 entitled "Conceptual Passive Sub Slab Depressurization System, Slab-On-Grade 104-120 Welland Avenue and 2 North Street St. Catharines, Ontario", dated July 2014 by exp;
- Figure Q-5 entitled "Conceptual Passive Sub-Slab Depressurization System Building with Basement 104-120 Welland Avenue and 2 North Street St. Catharines, Ontario", dated September 2015 by exp;
- Figure Q-6 entitled "Conceptual Active Subslab Depressurization System Building with Basement 104-120 Welland Avenue and 2 North Street St. Catharines, Ontario", dated September 2015 by exp;
- Figure Q-7 entitled "Conceptual Active Sub Slab Depressurization System, Slab-on-Grade 104-120 Welland Avenue and 2 North Street St. Catharines, Ontario", dated July 2014 by exp;
- Figure Q-8 entitled "Sub-Slab Depressurization System Site Plan View 104-120 Welland Avenue St. Catharines, Ontario", dated March 2016 by exp;
- Figure Q-9 entitled "*Plan View of Plenum and Areas for Saw Cut Sub-Slab Depressurization Details 104-120 Welland Avenue St. Catharines Ontario*", dated June 2015 by exp;
- Figure Q-10 entitled "*Vertical Riser and Plenum Connections Cross Section Sub-Slab Depressurization Details 104-120 Welland Avenue St. Catharines Ontario*", dated June 2015 by exp;
- Figure Q-11 entitled "*Plan View of Plenum and Areas for Saw Cut Sub-Slab Depressurization Details 104-120 Welland Avenue St. Catharines Ontario*", dated June 2015 by exp;
- Figure Q-12 entitled "*Vertical Riser and Plenum Connections Cross Section Sub-Slab Depressurization Details 104-120 Welland Avenue St. Catharines Ontario*", dated June 2015 by exp;
- Figure Q-13 entitled "*Horizontal Header Pipe Sub-Slab Depressurization Details 104-120 Welland Avenue St. Catharines Ontario*", dated June 2015 by exp;
- Figure Q-14 entitled "*Sub-Slab Depressurization System Specifications 104-120 Welland Avenue St. Catharines Ontario*", dated June 2015 by exp;
- Figure Q-15 entitled "*Plan View of Plenum and Areas for Saw Cut Sub-Slab Depressurization Details –Cartridge World 104-120 Welland Avenue St. Catharines Ontario*", dated March 2016 by exp;
- Figure Q-16 entitled "*Plan View of Plenum and Areas for Saw Cut Sub-Slab Depressurization Details – Kims Jewelers 104-120 Welland Avenue St. Catharines Ontario*", dated March 2016 by exp;
- Figure Q-17 entitled "*Vertical Rise and Plenum Connections Cross Section Sub-Slab Depressurization System Details- Cartridge World 104-120 Welland Avenue St. Catharines Ontario*", dated March 2016 by exp;
- Figure Q-18 entitled "*Vertical Rise and Plenum Connections Cross Section Sub-Slab Depressurization System Details- Kims Jewelers 104-120 Welland Avenue St. Catharines Ontario*", dated March 2016 by exp;
- Figure Q-19 entitled "*Horizontal Header Pipe Sub-Slab Depressurization System Details- Cartridge World 104-120 Welland Avenue St. Catharines Ontario*", dated March 2016 by exp; and
- Figure Q-20 entitled "*Horizontal Header Pipe Sub-Slab Depressurization System Details- Kims Jewelers 104-120 Welland Avenue St. Catharines Ontario*", dated March 2016 by exp

- 3.3 I am of the opinion, for the reasons set out in the Risk Assessment that the Risk Management Measures described therein and outlined in Part 4 of the CPU are necessary to prevent, eliminate or ameliorate an Adverse Effect on the Property that has been identified in the Risk Assessment.
- 3.4 The Risk Assessment indicates the presence of Contaminants of Concern which require on-going restriction of land use and pathway elimination. As such, it is necessary to restrict the use of the Property and require restrictions on building construction as set out in the Risk Assessment and in Part

4 of the CPU.

#### Part 4: Director Requirements

Pursuant to the authority vested in me under section 168.6(1) of the Act, I hereby require the Owner to do or cause to be done the following:

##### Risk Management Measures

- 4.1 Implement, and thereafter maintain or cause to be maintained, the Risk Management Measures.
- 4.2 Without restricting the generality of the foregoing in Item 4.1, carry out or cause to be carried out the following key elements of the Risk Management Measures:
  - (a) The Property shall be covered by a barrier to the site soils designed, installed and maintained so as to prevent exposure to the Contaminants of Concern. The barrier to site soils shall consist of existing building slab, existing building foundation, existing asphalt areas, or a new building slab, new building foundation, new asphalt areas, and/or soil cap as specified below:
    - i. Building slab, or a building foundation and floor slab consisting of concrete to a minimum depth of 75 mm of concrete followed by 150 mm of Granular "A";
    - ii. Asphalt areas to consist of a minimum of 75 mm asphalt mix followed by 150 mm of Granular "A";
    - iii. Placement of a minimum depth of 0.50 m of soil meeting the Commercial/Industrial/Community Property use criteria in Table 3 of the ***Soil, Ground water and Sediment Standards for Use under Part XV.1 of the Act*** published by the Ministry and dated April 15, 2011 in landscaped areas with shallow rooting plants having a rooting depth no greater than 0.50 metres;
    - iv. Placement of a minimum depth of 1.0 m of soil meeting the Commercial/Industrial/Community Property use criteria in Table 3 of the ***Soil, Ground water and Sediment Standards for Use under Part XV.1 of the Act*** published by the Ministry and dated April 15, 2011 in landscaped areas with rooting plants having a rooting depth greater than 0.50 metres; and
    - v. Where use or development commences on portion(s) of the Property, those portions of the Property not under development or in use need not be covered with a barrier, provided that exposure to the Contaminants of Concern is prevented by a fence barrier to prevent the general public from accessing the site and a dust control plan to prevent surface soil from impacting the adjacent properties.
  - (b) Inspection and maintenance program shall be prepared and implemented to ensure the continuing integrity of the existing and new barrier risk management measures. The inspection program shall include, at a minimum, semi-annual (spring and fall) inspections of the barriers to site soil and/or any fencing. Where there is evidence that the soil barrier has been compromised by perturbation or erosion, soil testing may be required to ensure site soils has not been exposed and that soil barriers remain at a minimum of 0.50 m thickness for protection of ecological and human health. If a compromise is detected at any of the barrier risk management measures, these barriers shall be repaired immediately to the original standards as specified in section 4.2 (a) of the CPU. Results of all inspections, including any analytical test results if applicable, and any maintenance and repairs of the barrier shall be recorded in a log book maintained by the Owner and made available upon request by a Provincial Officer.



- (c) The Owner shall refrain from planting fruit and vegetables for consumption on the Property unless planted in above ground containers such that they are isolated from subsurface conditions.
- (d) The ground water monitoring program shall commence upon issuance of the CPU and be carried out on a quarterly basis (every three months) for the first year, semi-annually (every six months) for the second and third year and each year thereafter until such time as the Director, upon application by the Owner, has reviewed the data available and either amends or revokes the CPU. The monitoring shall be carried out as follows:
- i. The ground water monitoring program shall consist of the sampling of wells MW501, MW502, MW503, MW205 and MW405 as shown on Figure 1 of the CPU;
  - ii. Samples shall be taken for tetrachloroethylene;
  - iii. Water from all monitoring wells shall be sampled according to Ministry's Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (MOE, 2011) as amended from time to time;
  - iv. The Owner shall keep a copy of all sampling data available for inspection by a Provincial Officer upon request;
  - v. Should there be a reason to change the selected ground water monitoring wells, the Owner shall immediately notify the Director in writing;
  - vi. Should the measured ground water concentrations of tetrachloroethylene exceed its respective standard in the All types of Property use criteria in Table 3 of the **Soil, Ground water and Sediment Standards for Use under Part XV.1 of the Act** published by the Ministry and dated April 15, 2011 at any of the wells - MW501, MW502 or MW503, the Owner shall immediately notify the Director and re-sample the monitoring well(s) within 30 days of receipt of the analytical data;
  - vii. Should the measured ground water concentrations of tetrachloroethylene at MW205 or MW405 exceed the risk based concentration of 268 ug/L, the Owner shall immediately notify the Director and re-sample the monitoring well(s) within 30 days of receipt of the analytical data;
  - viii. Should the resampling program confirm that COC concentrations are elevated above its respective trigger criteria at any of the wells, the Owner shall provide the Director with a plan to mitigate the elevated concentrations within 30 days of receipt of the second set of analytical results;
  - ix. Should the resampling program confirm that the COC concentrations are below its respective trigger criteria at any of the wells, no further action will be taken until the next scheduled monitoring event;
  - x. Should any monitoring well be destroyed during construction or site activities, the well shall be replaced with a similarly constructed well proximate to the same location as the destroyed well; and,
  - xi. All monitoring wells that are no longer required as part of the groundwater monitoring program and have been approved by the Director for abandonment, shall be decommissioned in accordance with good standard practice that will prevent contamination through the abandoned well and in accordance with Ontario Regulation 903 as amended. A report on the decommissioning shall be provided in the annual monitoring report for the period during which the well was decommissioned.
- (e) Indoor air monitoring shall be carried out upon issuance of the CPU for the existing building on the Property and will continue on a quarterly basis (every three months) for the first year, tri-annually (every four months) for second year and each year thereafter until such time as the Director, upon application by the Owner, has reviewed the data available and either amends or revokes the CPU. The air monitoring shall be for an eight (8) hour period and in accordance to

US EPA Method TO-15 and the Ministry's "Operations Manual for Air Quality Monitoring in Ontario", dated March 2008 for the contaminants of concern listed in Schedule 'C':

- i. Sampling locations are as follows:
    - a) Dollar Mart, Kim Jewelers, The Den Barber, Linwell X-Ray, Cartridge World, Cash 4 U, Physio Therapy and Buckners Sports as shown on Figure Q-8 as attached;
    - b) Giant Tiger, Pharmacy, Rac Rent-A-Car and the Beer Store as shown on Figure Q-8 as attached shall be sampled on a semi-annual basis for a one year period;
  - ii. For each sampling location, at least one event per year shall be conducted between December and March inclusive;
  - iii. Each sampling event shall include the collection and submission of one travel blank, one outdoor air sample and one blind duplicate sample;
  - iv. The monitoring program shall include analysis of the contaminants listed in Schedule "C" of the CPU;
  - v. If the air concentration for any Contaminants of Concern exceeds Schedule "C" (air trigger levels), the Owner shall notify the Director in writing of the exceedance(s) within ten (10) days of receipt of the analytical results and collect a second sample at the same location(s) within thirty (30) days of receipt of the analytical results which is to be analyzed for all the contaminants that pose an unacceptable risk to indoor receptors and were included in the indoor air monitoring program ;
  - vi. If the second sample(s) meets the applicable trigger value(s), no further action will be taken until the next scheduled monitoring event;
  - vii. If the second sample has concentrations above the applicable trigger value for the Contaminant of Concern in question, the Owner shall provide a contingency plan to the Director within thirty (30) days of receipt of the analytical results;
  - viii. The contingency measures must be designed, stamped and sealed by a Professional Engineer licensed to practice in Ontario and include but not be limited to the following:
    - a) Engineered measures to improve building ventilation;
    - b) Enhancement of the sub-slab depressurization or vapour extraction systems or implementation of other engineered measures to redirect sub-slab vapours from entering the building;
    - c) Conversion to an active system which generally involves the installation of a roof level fan with required sensors, and a control panel with alarm notification; and/or
    - d) Soil and/or ground water remediation on-site with the objective of reducing indoor air COC concentrations to below the trigger levels.
  - ix. For the units labelled Giant Tiger, Pharmacy, Rac Rent-A-Care and the Beer Store, the Owner may submit an application any time after the first year of monitoring to review the available data and amend the air monitoring requirements for the above units. Any such application must include a report from a Qualified Person regarding the air monitoring results obtained to that date, an opinion that the proposed amendment is consistent with the Risk Assessment and represents an appropriate change to the Risk Management Measures and such other supporting documentation as required by the Director.
  - x. For the other units not identified in item 4.2 (e) ix, the Owner may apply to the Director, anytime after the second year of monitoring to review the available data and amend the air monitoring requirements for the building. Any such application must include a report from a Qualified Person regarding the air monitoring results obtained to that date, an opinion that the proposed amendment is consistent with the Risk Assessment and represents an appropriate change to the Risk Management Measures and such other supporting documentation as required by the Director.
- (f) Indoor air monitoring shall be carried out upon completion of any future building on the Property and will continue on a quarterly basis (every three months) for the first year, tri-annually (every

four months) for second year and each year thereafter until such time as the Director, upon application by the Owner, has reviewed the data available and either amends or revokes the CPU. The air monitoring shall be for an eight (8) hour period and in accordance to US EPA Method TO-15 and the Ministry's "Operations Manual for Air Quality Monitoring in Ontario", dated March 2008 for the contaminants of concern listed in Schedule 'C':

- i. Sampling locations shall be identified by an industrial hygienist or a person who has demonstrated the knowledge, experience and expertise in areas related to soil vapour and indoor air monitoring and sampling to be protective of human health for any persons using or occupying the buildings on the Property;
  - ii. For each sampling location, at least one event per year shall be conducted between December and March inclusive;
  - iii. Each sampling event shall include the collection and submission of one travel blank, one outdoor air sample and one blind duplicate sample;
  - iv. The monitoring program shall include analysis of the contaminants listed in Schedule "C" of the CPU;
  - v. If the air concentration for any Contaminants of Concern exceeds Schedule "C" (air trigger levels), the Owner shall within ten (10) days of receipt of the analytical results, notify the Director in writing of the exceedance(s) and collect a second sample at the same location within thirty (30) days of receipt of the analytical results which is to be analyzed for all the contaminants that pose an unacceptable risk to indoor receptors and were included in the indoor air monitoring program ;
  - vi. If the second sample meets the applicable trigger value, no further action will be taken until the next scheduled monitoring event;
  - vii. If the second sample has concentrations above the applicable trigger value for the Contaminant of Concern in question, the Owner shall provide a contingency plan to the Director within thirty (30) days of receipt of the analytical results;
  - viii. The contingency measures must be designed, stamped and sealed by a Professional Engineer licensed to practice in Ontario and include but not be limited to the following:
    - a) Engineered measures to improve building ventilation;
    - b) Enhancement of the sub-slab depressurization or vapour extraction systems or implementation of other engineered measures to redirect sub-slab vapours from entering the building;
    - c) Conversion to an active system which generally involves the installation of a roof level fan with required sensors, and a control panel with alarm notification; and/or
    - d) Soil and/or ground water remediation on-site with the objective of reducing indoor air COC concentrations to below the trigger levels.
  - ix. The Owner may apply to the Director, any time after the second year of monitoring to review the available data and amend the air monitoring requirements for the building. Any such application must include a report from a Qualified Person regarding the air monitoring results obtained to that date, an opinion that the proposed amendment is consistent with the Risk Assessment and represents an appropriate change to the Risk Management Measures and such other supporting documentation as required by the Director.
- (g) A soil management plan shall be prepared and implemented for the Property during any activities potentially in contact with or exposing site soils. A copy of the plan shall be made available for review by the Provincial Officer upon request. The plan shall be overseen by a Qualified Person and comply with the requirements of sections 30 to 39 of Schedule "E" of O. Reg. 153/04 as amended and shall include, but not be limited to, provisions for soils excavation, stockpiling, sorting, characterization, disposal and record keeping specified below:

- i. Dust control measures and prevention of soil tracking by vehicles and personnel from the Property, including wetting of soil with potable water, reduced speeds for on-site vehicles, tire washing stations and restricting working areas in high wind conditions;
  - ii. Management of excavated materials including cleaning equipment, placement of materials for stockpiling on designated areas lined and covered with polyethylene sheeting, bermed and fenced to prevent access, runoff control to minimize contact and provisions for discharge to sanitary sewers or other approved treatment;
  - iii. Sampling of soil to be received at the Property shall be undertaken in accordance with Section 34 of Schedule "E" of O. Reg. 153/04;
  - iv. Characterization of excavated material to determine if materials exceed the Property Specific Standards. Excavated materials requiring off-site disposal shall be disposed of in accordance with the provisions of O. Reg. 347, as amended, made under the Act. Excavated material meeting the Property Specific Standards may be placed on-site below the barrier if deemed suitable by a Qualified Person and in accordance with the Risk Assessment; and
  - v. Record keeping including dates and duration of work, weather and site conditions, location and depth of excavation activities, dust control measures, stockpile management and drainage, all materials characterization results, names of the Qualified Person, contractors, haulers and receiving sites for any materials removed from the Property and any complaints received relating to site activities.
- (h) The Owner shall ensure that a health and safety plan which takes into account the presence of the Contaminants of Concern is prepared and implemented prior to any excavation work including the work described in item 4.2 (g) being done on the Property in order to protect workers from exposure to the Contaminants of Concern. The health and safety plan shall be prepared in accordance with applicable Ministry of Labour health and safety regulations, along with all potential risks identified in the Risk Assessment and include, but not limited to, occupational hygiene requirements, personal protective equipment, contingency plans and contact information. Prior to initiation of any project (as defined in the Occupational Health and Safety Act, as amended) on the Property, the local Ministry of Labour office shall be notified of the proposed activities and that the Property contains contaminated soils. The health and safety plan shall be overseen by an appropriately qualified person to review the provisions of the plan with respect to the proposed site work and conduct daily inspections. A copy of the plan shall be made available for review by a Provincial Officer upon request.
- (i) The Owner shall submit a site plan prepared and signed by a Qualified Person within three (3) months of completion of site development which will describe the Property and placement and quality of all of the barriers to site soils. The site plan will include a plan and cross section drawings specifying the vertical and lateral extent of the barriers. This site plan shall be submitted to the Director and the Owner shall retain one copy for inspection upon request by a Provincial Officer. The site plan shall be revised and resubmitted to the Director following the completion of any alteration to the extent of the barriers.
- (j) The Owner shall ensure that the sub-slab depressurization system in the current building is maintained and operated in accordance with the Risk Assessment and Figures Q-8 to Q-14 attached to this CPU. No alterations or additions to the existing building may be made unless an assessment of the risk to human receptors is provided to the Director and the Director approves the alterations or additions to the existing building.
- (j) The Owner shall prepare by March 31 each year, annual reports documenting activities relating to the Risk Management Measures undertaken during the previous calendar year. A copy of

this report shall be kept at the Property for inspection and available upon request by a Provincial Officer. The report shall include as a minimum the following information:

- i. a copy of all inspection logs of the barrier and fence risk management measures and any deficiency repairs carried out as a result of the inspections along with any analytical test results of the soil;
  - ii. a copy of all groundwater monitoring results;
  - iii. a copy of all indoor air monitoring results;
  - iv. an update on the financial assurance cost estimate;
  - v. a copy of all records relating to the soil management plan; and
  - v. a copy of all records relating to the health and safety plan.
- 4.3 Refrain from using the Property for any of the following use(s): Type of property use specified in O. Reg. 153/04, other than "industrial use", "commercial use" or "community use."
- 4.4 Refrain from constructing the following building(s): Any new buildings on the property that do NOT have
- a) a soil vapour membrane; and
  - b) a sub-slab passive venting system with the flexibility to convert to an active venting system or an active sub-slab venting system.
- 4.5 All new buildings must be designed and built with a vapour mebrane barrier and sub-slab venting system designed by a Professional Engineer licensed to practice in Ontario and shall be consistent with Figures Q-3 to Q-7 inclusive attached to this CPU. Upon completion of the final design, a copy shall be provided to the Director.
- 4.6 The Owner shall retain a copy of all vapour barrier and vapour extraction systems as-built drawings signed by a Professional Engineer along with the proposed testing and performance requirements for the vapour barrier and vapour extraction system of any building on the Property for inspection by a Provincial Officer. The Owner shall submit to the Director within three (3) months of the completion of any building on the Property, the as-built drawings of the vapour barrier and vapour extraction system.
- 4.7 An inspection and maintenance program shall be prepared and implemented to ensure the continuing integrity of the above Risk Management Measure if implemented. With regards to the vapour barrier, inspections of the inside surface of the below grade exterior walls and floors will be made for potential breaches where visually accesible. With regard to the Vapour extraction System, inspections of the venting system, where visually accessible, will be made for potential breaches. The inspection program shall include semi annually (spring and fall) inspections of all barriers and any barrier deficiencies shall be repaired forthwith. The inspection results shall be recorded in a log book maintained by the Owner and available upon request by a Provincial Officer.
- 4.8 The Owner shall ensure that every occupant of the Property is given notice that the Ministry has issued this CPU and that it contains the provisions noted above in sections 4.3 and 4.4, unless noted. For the purposes of this requirement, an occupant means any person with whom the Owner has a contractual relationship regarding the occupancy of all or part of the Property.

#### Site Changes

- 4.9 In the event of a change in the physical site conditions or receptor characteristics at the Property that may affect the Risk Management Measures and/or any underlying basis for the Risk Management Measures, forthwith notify the Director of such changes and the steps taken,

to implement, maintain and operate any further Risk Management Measures as are necessary to prevent, eliminate or ameliorate any Adverse Effect that will result from the presence on, in or under the Property or the discharge of any Contaminant of Concern into the natural environment from the Property. An amendment to the CPU will be issued to address the changes set out in the notice received and any further changes that the Director considers necessary in the circumstances.

#### Reports

- 4.10 Retain a copy of any reports required under the CPU, the Risk Assessment and any reports referred to in the Risk Assessment (until otherwise notified by the Director) and within ten (10) days of the Director or a Provincial Officer making a request for a report, provide a copy to the Director or Provincial Officer.

#### Property Requirement

- 4.11 For the reasons set out in the CPU and pursuant to the authority vested in me under subsection 197(1) of the Act, I hereby order you and any other person with an interest in the Property, before dealing with the Property in any way, to give a copy of the CPU, including any amendments thereto, to every person who will acquire an interest in the Property as a result of the dealing.

#### Certificate of Requirement

- 4.12 Within fifteen (15) days from the date of receipt of a certificate of requirement, issued under subsection 197(2) of the Act, register the certificate of requirement on title to the Property in the appropriate land registry office.
- 4.13 Immediately after registration of the certificate of requirement, provide to the Director written verification that the certificate of requirement has been registered on title to the Property.

#### Owner Change

- 4.14 While the CPU is in effect, forthwith report in writing, to the Director any changes of ownership of the Property.

#### Financial Assurance

- 4.15 Within fifteen (15) days of the date of the CPU, the owner shall provide financial assurance to the Crown in the right of Ontario in the amount of one hundred and fourteen thousand and one hundred dollars (\$114,100) in a form satisfactory to the Director and in accordance with Part XII of the Act to cover the costs for the performance of groundwater and indoor air monitoring as identified in Condition 4.2 (d) and 4.2 (e) of the CPU.
- 4.16 In the event any new buildings are constructed on the Property, the Owner shall prepare and submit to the Director for approval a Financial Assurance plan that will cover the cost of any indoor monitoring as identified in Condition 4.2 (f) of the CPU. The Financial Assurance plan shall be submitted to the Director for approval no later than thirty (30) days after completion of construction of the building.
- 4.17 Upon approval of the Financial Assurance plan, the Owner shall provide the amount of Financial Assurance specified by the Director in a form satisfactory to the Director within fifteen (15) days of the Director's approval.

### **Part 5: General**

- 5.1 The requirements of the CPU are severable. If any requirement of the CPU or the application of any requirement to any circumstance is held invalid, the application of such requirement to other circumstances and the remainder of the CPU shall not be affected thereby.
- 5.2 An application under sub section 168.6(3) of the Act to,
- a. alter any terms and conditions in the CPU or impose new terms and conditions; or
  - b. revoke the CPU;
- shall be made in writing to the Director, with reasons for the request.
- 5.3 The Director may amend the CPU under subsections 132(2) or (3) of the Act to change a requirement as to financial assurance, including that the financial assurance may be increased or provided, reduced or released in stages. The total financial assurance required may be reduced from time to time or released by an order issued by the Director under section 134 of the Act upon request and submission of such supporting documentation as required by the Director.
- 5.4 Subsection 186(3) of the Act provides that non-compliance with the requirements of the CPU constitutes an offence.
- 5.5 The requirements of the CPU are minimum requirements only and do not provide relief from,
- a. complying with any other applicable order, statute, regulation, municipal, provincial or federal law; or
  - b. obtaining any approvals or consents not specified in the CPU.
- 5.6 Notwithstanding the issuance of the CPU, further requirements may be imposed in accordance with legislation as circumstances require. In particular, the Director shall alter the CPU where the approval or acceptance by the Director is required in respect of a matter under the CPU and the Director does not grant the approval or acceptance or does not grant it in a manner agreed to by the Owner.
- 5.7 In the event that, any person is, in the opinion of the Director, rendered unable to comply with any requirements in the CPU because of,
- a. natural phenomena of an inevitable or irresistible nature, or insurrections,
  - b. strikes, lockouts or other labour disturbances,
  - c. inability to obtain materials or equipment for reasons beyond their control, or
  - d. any other cause whether similar to or different from the foregoing beyond their control,
- the requirements shall be adjusted in a manner defined by the Director. To obtain such an adjustment, the Director must be notified immediately of any of the above occurrences, providing details that demonstrate that no practical alternatives are feasible in order to meet the requirements in question.
- 5.8 Failure to comply with a requirement of the CPU by the date specified does not absolve any person from compliance with the requirement. The obligation to complete the requirement shall continue each day thereafter.

## **Part 6: Hearing before the Environmental Review Tribunal**

- 6.1 Pursuant to section 139 of the Act, you may require a hearing before the Environmental Review Tribunal (the "Tribunal"), if within fifteen (15) days after service on you of a copy of the CPU, you serve written notice upon the Director and the Tribunal.

6.2 Pursuant to section 142 of the Act, the notice requiring the hearing must include a statement of the portions of the CPU and the grounds on which you intend to rely at the hearing. Except by leave of the Tribunal, you are not entitled to appeal a portion of the CPU or to rely on a ground that is not stated in the notice requiring the hearing.

6.3 Service of a notice requiring a hearing must be carried out in a manner set out in section 182 of the Act and Ontario Regulation 227/07: *Service of Documents*, made under the Act as they may be amended from time to time. The address, email address and fax numbers of the Director and the Tribunal are:

The Secretary  
Environmental Review Tribunal  
655 Bay Street, Suite 1500  
Toronto, ON, M5G 1E5  
Fax: (416) 314-3717  
Email: [ERTTribunalSecretary@ontario.ca](mailto:ERTTribunalSecretary@ontario.ca)

and

Kim Groombridge, Director  
Ministry of the Environment, Conservation and Parks  
301 St. Paul Street, 9<sup>th</sup> Floor, Suite 15  
St. Catharines, Ontario  
L2R 7R4  
Fax: 905-704-4015  
Email: [Kim.groombridge@ontario.ca](mailto:Kim.groombridge@ontario.ca)

6.4 Unless stayed by application to the Tribunal under section 143 of the Act, the CPU is effective from the date of issue.

6.5 If you commence an appeal before the Tribunal, under section 47 of the Environmental Bill of Rights, 1993 (the "EBR"), you must give notice to the public in the EBR registry. The notice must include a brief description of the CPU (sufficient to identify it) and a brief description of the grounds of appeal.

The notice must be delivered to the Environmental Commissioner of Ontario who will place it on the EBR registry. The notice must be delivered to the Environmental Commissioner at 605-1075 Bay Street, Toronto, Ontario M5S 2B1 by the earlier of:

6.5.1 two (2) days after the day on which the appeal before the Tribunal was commenced; and

6.5.2 fifteen (15) days after service on you of a copy of the CPU.

6.6 Pursuant to subsection 47(7) of the EBR, the Tribunal may permit any person to participate in the appeal, as a party or otherwise, in order to provide fair and adequate representation of the private and public interests, including governmental interests, involved in the appeal.

6.7 For your information, under section 38 of the EBR, any person resident in Ontario with an interest in the CPU may seek leave to appeal the CPU. Under section 40 of the EBR, the application for leave to appeal must be made to the Tribunal by the earlier of:

6.7.1 fifteen (15) days after the day on which notice of the issuance of the CPU is given in the EBR registry; and



6.7.2 if you appeal, fifteen (15) days after the day on which your notice of appeal is given in the EBR registry.

Issued at St. Catharines, Ontario this 9<sup>th</sup> day of May, 2019.

  
\_\_\_\_\_  
Kim Groombridge  
Director, section 168.6 of the Act

**Schedule 'A'**  
**Legal Description**  
**104-120 Welland Avenue, St. Catharines, Ontario**

PCL 273-1, SEC CORPORATION PLAN No. 2, ST. CATHARINES, PT LTS 273A & 273, CP PL 2, PTS 1 & 2, LR 40, S/T RIGHT OF WAY OVER PT 2, LR 40; IN FAVOUR OF THOSE ENTITLED TO USE THE SAME; EXCEPT THEREFROM PT 1, LR 56 AS IN LT1436 AND FURTHER EXCEPT PT 1, 30R1390 AS IN LT9970 FROM THE RIGHT OF WAY; ST. CATHARINES AND BEING PIN 46220-0014 (LT).

**Schedule "B"**  
**Property Specific Standards (Soil and Ground Water)**  
**104-120 Welland Avenue, St. Catharines, Ontario**

**Soil (Full depth)**

<b>Contaminants of Concern (COC)</b>	<b>Property Specific Standards (µg/g)</b>
ANTHRACENE	40
ACENAPHTHYLENE	4.4
BENZO(A)ANTHRACENE	57
BENZO(A)PYRENE	52
BENZO(B)FLUORANTHENE	54
BENZO(G,H,I)PERYLENE	40
BENZO(K)FLUORANTHENE	45
CHRYSENE	50
DIBENZO(A,H)ANTHRACENE	14
FLUORANTHENE	825
INDENO(1,2,3-CD)PYRENE	50
NAPHTHALENE	13.3
PHENANTHRENE	805
PYRENE	670
LEAD	656
TETRACHLOROETHYLENE	8.5
ELECTRICAL CONDUCTIVITY (mS/cm)	2.49
SODIUM ADSORPTION RATIO (unitless)	37.5

**Ground Water**

<b>Contaminants of Concern (COC)</b>	<b>Property Specific Standards (ug/L)</b>
CHLOROFORM	24
DICHLOROETHYLENE, cis-1,2	57
TETRACHLOROETHYLENE	880
TRICHLOROETHYLENE	2.8
VINYL CHLORIDE	2.2

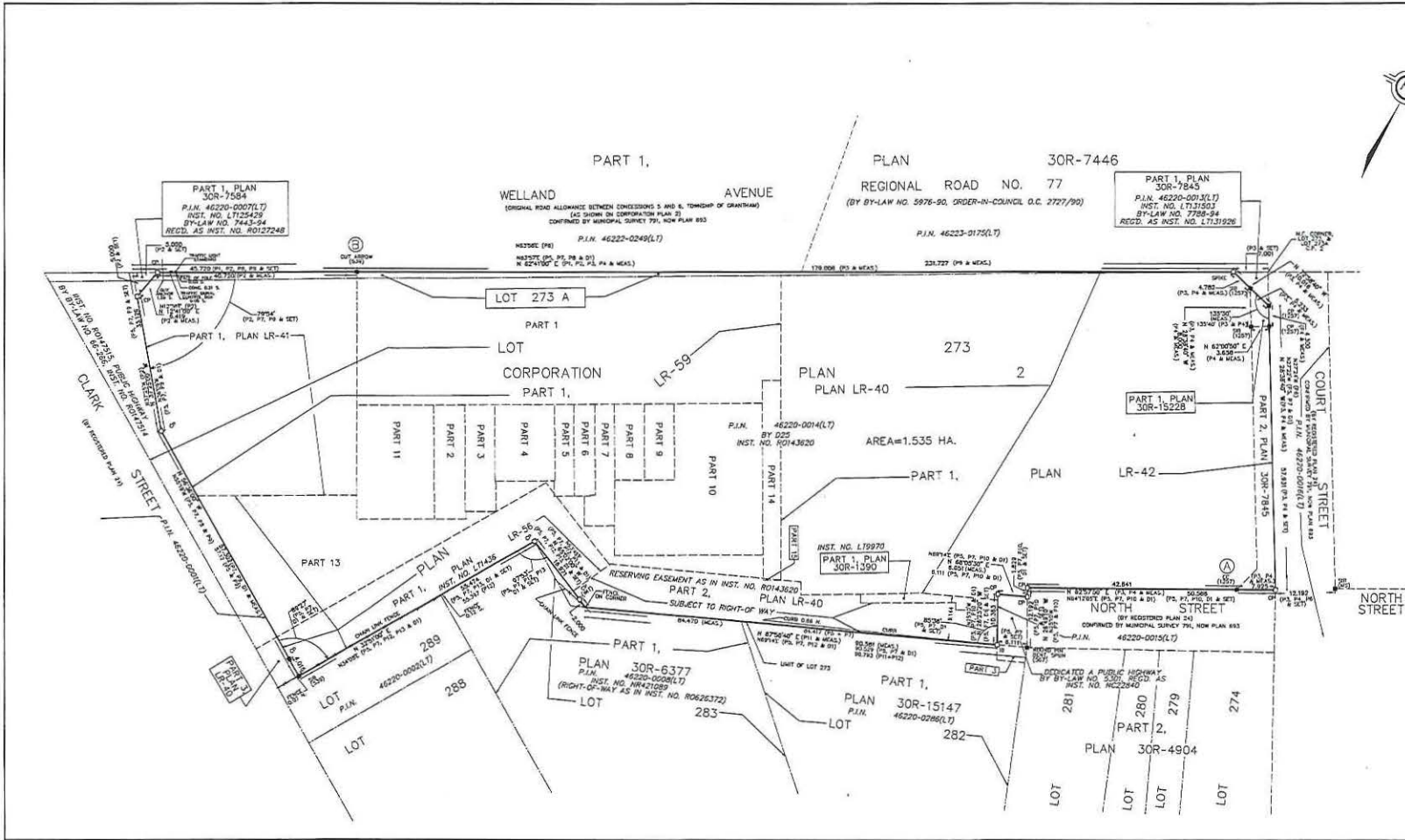
**Schedule "C"**  
**Target indoor air and/or Sub-Slab vapour concentrations**

<b>Contaminant of Concern</b>	<b>Indoor Air Target Concentration (µg/m<sup>3</sup>)</b>	<b>Sub-Slab Vapour Criteria (µg/m<sup>3</sup>)</b>
Tetrachloroethylene (PCE)	13.8	3,450
Trichloroethylene (TCE)	0.872	218
1,1-Dichloroethylene	50.1	12,525
Cis-1,2-Dichloroethylene	107	26,750
Trans-1,2-Dichloroethylene	42.9	10,725
Naphthalene	2.65	662.5
Vinyl Chloride	0.406	101.5

PLAN OF SURVEY OF  
PART OF LOTS 273 AND 273A,  
CORPORATION PLAN 2

CITY OF ST. CATHARINES  
REGIONAL MUNICIPALITY OF NIAGARA  
SCALE 1 : 400

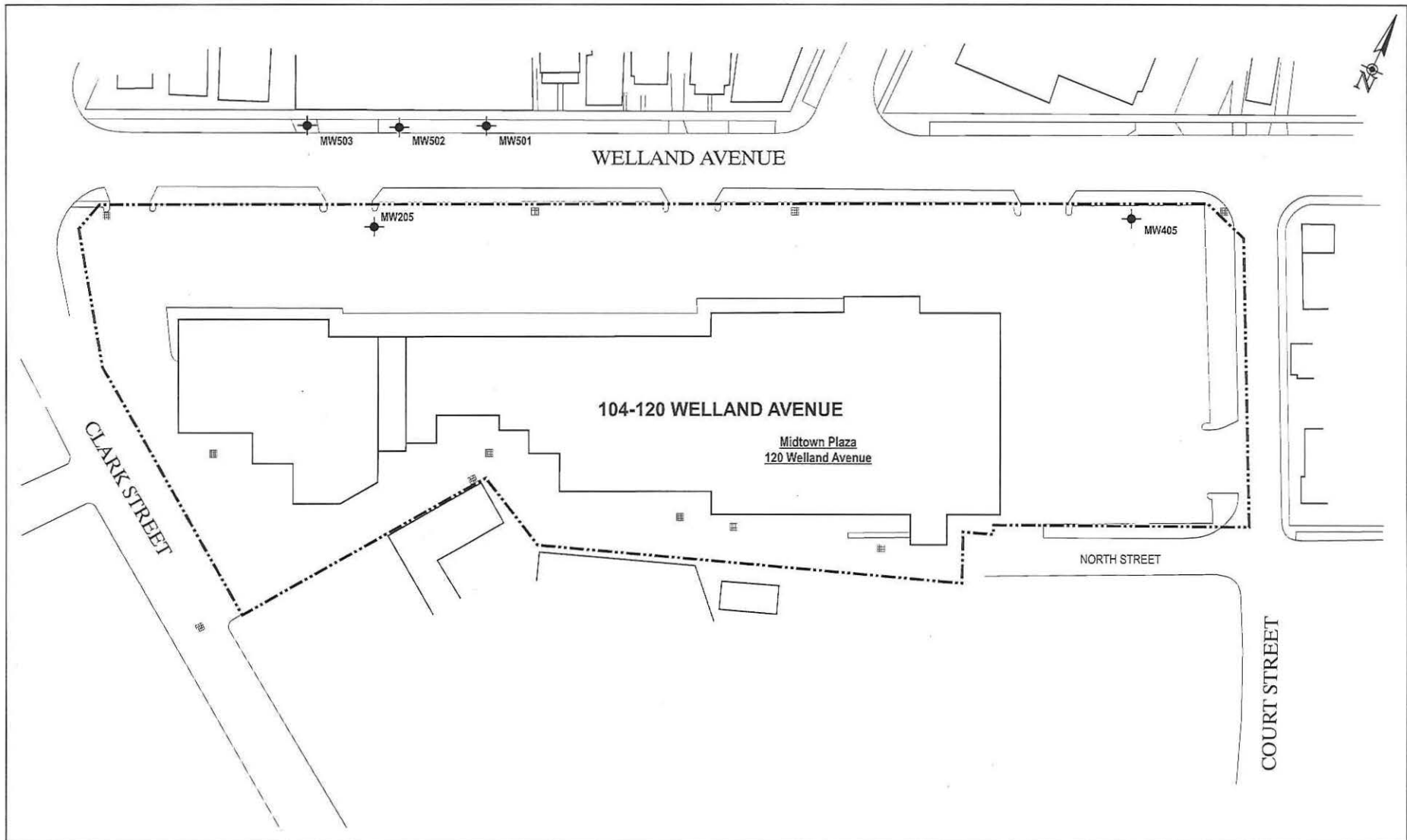
MATTHEWS, CAMERON, HEYWOOD - KERRY T. HOWE SURVEYING LTD.  
© COPYRIGHT 2018  
METRIC DISTANCES AND/OR COORDINATES SHOWN ON THIS PLAN ARE IN METRIC UNITS AND CAN BE CONVERTED TO FEET BY DIVING BY 0.3048.



**NOTES**  
BEARINGS ARE UTM GRID, DERIVED FROM OBSERVED REFERENCE POINTS A AND B, BY REAL TIME NETWORK (RTN) OBSERVATIONS, UTM ZONE 17, NAD83 (CSRS) (2010).  
DISTANCES ARE OBTAINED AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.999945.

INTEGRATION DATA		
OBSERVED REFERENCE POINTS (COORD. UTM ZONE 17, NAD83 (CSRS) (2010))		
COORDINATES TO URBAN ACCURACY PER SECTION 14 (2) OF REG. 216/10		
POINT ID	EASTING	NORTHING
OPP (A)	462779.62	4780476.65
OPP (B)	462465.31	4780533.82
COORDINATES SHOWN IN THIS PLAN, IF THEY DO NOT MATCH THESE COORDINATES, SHOULD BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.		

LEGEND	
■	RENDERED SURVEY MANAGEMENT FOUND
□	RENDERED SURVEY MANAGEMENT SET
▨	RENDERED STAIRS FROM BAR
▩	RENDERED FOUND FROM BAR
○	RENDERED FROM BAR
○	RENDERED OUT CROSS
○	RENDERED CONDUIT, PIPE AND WADDER
○	RENDERED BENCH
P1	RENDERED PLAN 30R-7845
P2	RENDERED PLAN 30R-7846
P3	RENDERED PLAN 30R-7847
P4	RENDERED PLAN 30R-7848
P5	RENDERED PLAN 30R-15228
P6	RENDERED PLAN 30R-15229
P7	RENDERED PLAN 30R-15230
P8	RENDERED PLAN 30R-15231
P9	RENDERED PLAN 30R-15232
P10	RENDERED PLAN 30R-15233
P11	RENDERED PLAN 30R-15234
P12	RENDERED PLAN 30R-15235
P13	RENDERED PLAN 30R-15236
P14	RENDERED PLAN 30R-15237
P15	RENDERED PLAN 30R-15238
P16	RENDERED PLAN 30R-15239
P17	RENDERED PLAN 30R-15240
P18	RENDERED PLAN 30R-15241
P19	RENDERED PLAN 30R-15242
P20	RENDERED PLAN 30R-15243
P21	RENDERED PLAN 30R-15244
P22	RENDERED PLAN 30R-15245
P23	RENDERED PLAN 30R-15246
P24	RENDERED PLAN 30R-15247
P25	RENDERED PLAN 30R-15248
P26	RENDERED PLAN 30R-15249
P27	RENDERED PLAN 30R-15250
P28	RENDERED PLAN 30R-15251
P29	RENDERED PLAN 30R-15252
P30	RENDERED PLAN 30R-15253
P31	RENDERED PLAN 30R-15254
P32	RENDERED PLAN 30R-15255
P33	RENDERED PLAN 30R-15256
P34	RENDERED PLAN 30R-15257
P35	RENDERED PLAN 30R-15258
P36	RENDERED PLAN 30R-15259
P37	RENDERED PLAN 30R-15260
P38	RENDERED PLAN 30R-15261
P39	RENDERED PLAN 30R-15262
P40	RENDERED PLAN 30R-15263
P41	RENDERED PLAN 30R-15264
P42	RENDERED PLAN 30R-15265
P43	RENDERED PLAN 30R-15266
P44	RENDERED PLAN 30R-15267
P45	RENDERED PLAN 30R-15268
P46	RENDERED PLAN 30R-15269
P47	RENDERED PLAN 30R-15270
P48	RENDERED PLAN 30R-15271
P49	RENDERED PLAN 30R-15272
P50	RENDERED PLAN 30R-15273
P51	RENDERED PLAN 30R-15274
P52	RENDERED PLAN 30R-15275
P53	RENDERED PLAN 30R-15276
P54	RENDERED PLAN 30R-15277
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P61	RENDERED PLAN 30R-15284
P62	RENDERED PLAN 30R-15285
P63	RENDERED PLAN 30R-15286
P64	RENDERED PLAN 30R-15287
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P74	RENDERED PLAN 30R-15297
P75	RENDERED PLAN 30R-15298
P76	RENDERED PLAN 30R-15299
P77	RENDERED PLAN 30R-15300
P78	RENDERED PLAN 30R-15301
P79	RENDERED PLAN 30R-15302
P80	RENDERED PLAN 30R-15303
P81	RENDERED PLAN 30R-15304
P82	RENDERED PLAN 30R-15305
P83	RENDERED PLAN 30R-15306
P84	RENDERED PLAN 30R-15307
P85	RENDERED PLAN 30R-15308
P86	RENDERED PLAN 30R-15309
P87	RENDERED PLAN 30R-15310
P88	RENDERED PLAN 30R-15311
P89	RENDERED PLAN 30R-15312
P90	RENDERED PLAN 30R-15313
P91	RENDERED PLAN 30R-15314
P92	RENDERED PLAN 30R-15315
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P95	RENDERED PLAN 30R-15318
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P98	RENDERED PLAN 30R-15321
P99	RENDERED PLAN 30R-15322
P100	RENDERED PLAN 30R-15323
P101	RENDERED PLAN 30R-15324
P102	RENDERED PLAN 30R-15325
P103	RENDERED PLAN 30R-15326
P104	RENDERED PLAN 30R-15327
P105	RENDERED PLAN 30R-15328
P106	RENDERED PLAN 30R-15329
P107	RENDERED PLAN 30R-15330
P108	RENDERED PLAN 30R-15331
P109	RENDERED PLAN 30R-15332
P110	RENDERED PLAN 30R-15333
P111	RENDERED PLAN 30R-15334
P112	RENDERED PLAN 30R-15335
P113	RENDERED PLAN 30R-15336
P114	RENDERED PLAN 30R-15337
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P116	RENDERED PLAN 30R-15339
P117	RENDERED PLAN 30R-15340
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P120	RENDERED PLAN 30R-15343
P121	RENDERED PLAN 30R-15344
P122	RENDERED PLAN 30R-15345
P123	RENDERED PLAN 30R-15346
P124	RENDERED PLAN 30R-15347
P125	RENDERED PLAN 30R-15348
P126	RENDERED PLAN 30R-15349
P127	RENDERED PLAN 30R-15350
P128	RENDERED PLAN 30R-15351
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P144	RENDERED PLAN 30R-15367
P145	RENDERED PLAN 30R-15368
P146	RENDERED PLAN 30R-15369
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P182	RENDERED PLAN 30R-15405
P183	RENDERED PLAN 30R-15406
P184	RENDERED PLAN 30R-15407
P185	RENDERED PLAN 30R-15408
P186	RENDERED PLAN 30R-15409
P187	RENDERED PLAN 30R-15410
P188	RENDERED PLAN 30R-15411
P189	RENDERED PLAN 30R-15412
P190	RENDERED PLAN 30R-15413
P191	RENDERED PLAN 30R-15414
P192	RENDERED PLAN 30R-15415
P193	RENDERED PLAN 30R-15416
P194	RENDERED PLAN 30R-15417
P195	RENDERED PLAN 30R-15418
P196	RENDERED PLAN 30R-15419
P197	RENDERED PLAN 30R-15420
P198	RENDERED PLAN 30R-15421
P199	RENDERED PLAN 30R-15422
P200	RENDERED PLAN 30R-15423
P201	RENDERED PLAN 30R-15424
P202	RENDERED PLAN 30R-15425
P203	RENDERED PLAN 30R-15426
P204	RENDERED PLAN 30R-15427
P205	RENDERED PLAN 30R-15428
P206	RENDERED PLAN 30R-15429
P207	RENDERED PLAN 30R-15430
P208	RENDERED PLAN 30R-15431
P209	RENDERED PLAN 30R-15432
P210	RENDERED PLAN 30R-15433
P211	RENDERED PLAN 30R-15434
P212	RENDERED PLAN 30R-15435
P213	RENDERED PLAN 30R-15436
P214	RENDERED PLAN 30R-15437
P215	RENDERED PLAN 30R-15438
P216	RENDERED PLAN 30R-15439
P217	RENDERED PLAN 30R-15440
P218	RENDERED PLAN 30R-15441
P219	RENDERED PLAN 30R-15442
P220	RENDERED PLAN 30R-15443
P221	RENDERED PLAN 30R-15444
P222	RENDERED PLAN 30R-15445
P223	RENDERED PLAN 30R-15446
P224	RENDERED PLAN 30R-15447
P225	RENDERED PLAN 30R-15448
P226	RENDERED PLAN 30R-15449
P227	RENDERED PLAN 30R-15450
P228	RENDERED PLAN 30R-15451
P229	RENDERED PLAN 30R-15452
P230	RENDERED PLAN 30R-15453
P231	RENDERED PLAN 30R-15454
P232	RENDERED PLAN 30R-15455
P233	RENDERED PLAN 30R-15456
P234	RENDERED PLAN 30R-15457
P235	RENDERED PLAN 30R-15458
P236	RENDERED PLAN 30R-15459
P237	RENDERED PLAN 30R-15460
P238	RENDERED PLAN 30R-15461
P239	RENDERED PLAN 30R-15462
P240	RENDERED PLAN 30R-15463
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P242	RENDERED PLAN 30R-15465
P243	RENDERED PLAN 30R-15466
P244	RENDERED PLAN 30R-15467
P245	RENDERED PLAN 30R-15468
P246	RENDERED PLAN 30R-15469
P247	RENDERED PLAN 30R-15470
P248	RENDERED PLAN 30R-15471
P249	RENDERED PLAN 30R-15472
P250	RENDERED PLAN 30R-15473
P251	RENDERED PLAN 30R-15474
P252	RENDERED PLAN 30R-15475
P253	RENDERED PLAN 30R-15476
P254	RENDERED PLAN 30R-15477
P255	RENDERED PLAN 30R-15478
P256	RENDERED PLAN 30R-15479
P257	RENDERED PLAN 30R-15480
P258	RENDERED PLAN 30R-15481
P259	RENDERED PLAN 30R-15482
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P263	RENDERED PLAN 30R-15486
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P265	RENDERED PLAN 30R-15488
P266	RENDERED PLAN 30R-15489
P267	RENDERED PLAN 30R-15490
P268	RENDERED PLAN 30R-15491
P269	RENDERED PLAN 30R-15492
P270	RENDERED PLAN 30R-15493
P271	RENDERED PLAN 30R-15494
P272	RENDERED PLAN 30R-15495
P273	RENDERED PLAN 30R-15496
P274	RENDERED PLAN 30R-15497
P275	RENDERED PLAN 30R-15498
P276	RENDERED PLAN 30R-15499
P277	RENDERED PLAN 30R-15500
P278	RENDERED PLAN 30R-15501
P279	RENDERED PLAN 30R-15502
P280	RENDERED PLAN 30R-15503
P281	RENDERED PLAN 30R-15504
P282	RENDERED PLAN 30R-15505
P283	RENDERED PLAN 30R-15506



SOURCE:  
 BASED ON SURVEY PLAN BY MACKAY,  
 MACKAY & PETERS LTD, DATED JAN. 2009  
 AND FIELD MEASUREMENTS BY EXP STAFF

exp.	DRAWN BY	CHECKED BY
	K.G.	T.N.T.

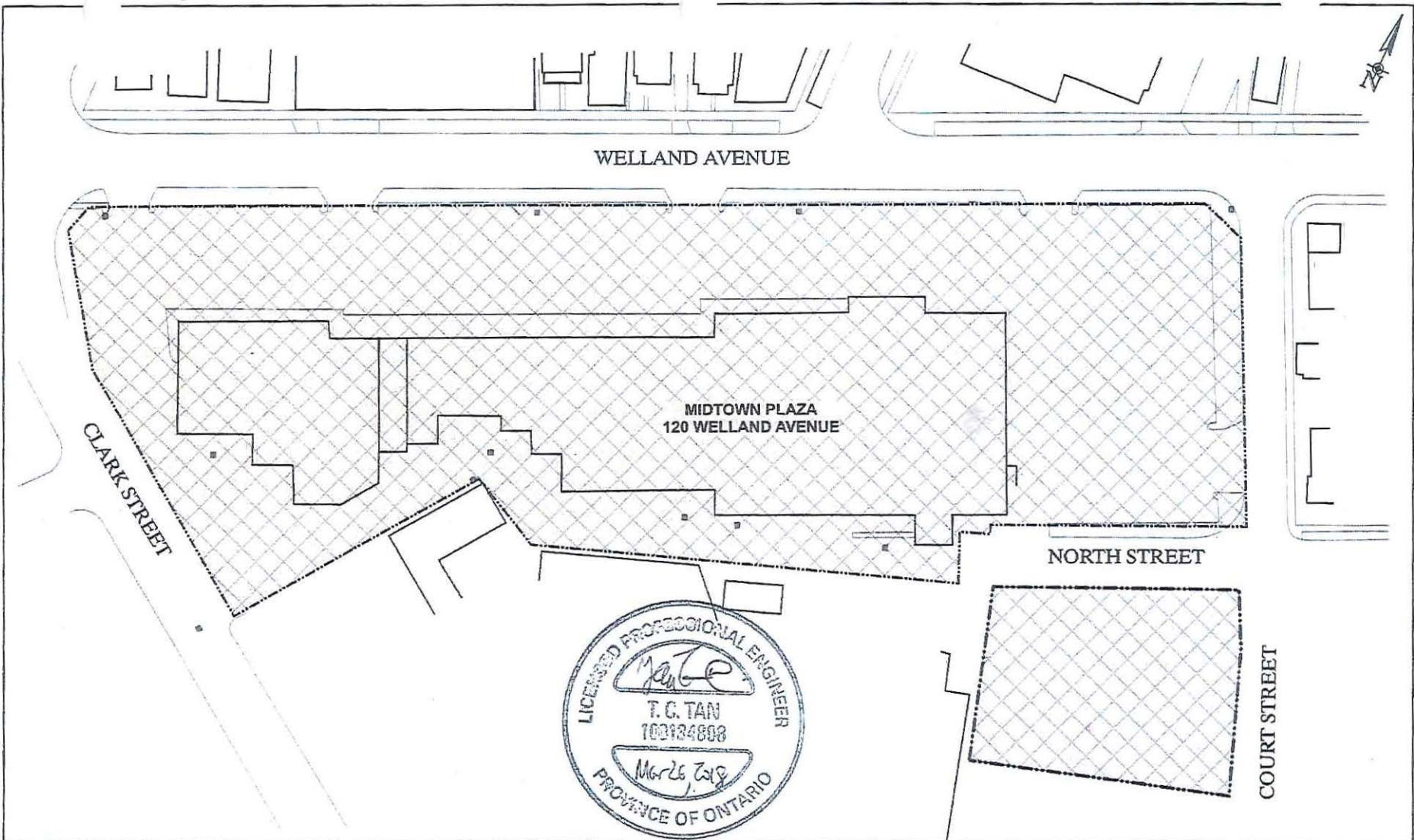
- LEGEND:
- PROPERTY BOUNDARY
  - ▣ CATCH BASIN
  - TEST HOLE WITH MONITOR  
MW SERIES (AMEC 2005, 2006)

GROUND WATER MONITORING  
 PROGRAM - MONITORING WELL  
 LOCATIONS

FIGURE  
 1

104-120 WELLAND AVENUE  
 ST. CATHARINES, ONTARIO

PROJECT NUMBER: 10348      DATE: NOVEMBER 2018



SCALE:



SOURCE:

BASED ON SURVEY PLAN BY  
MACKAY, MACKAY & PETERS LTD.  
DATED JAN. 2009 AND FIELD  
MEASUREMENTS BY EXP STAFF

LEGEND:

- PROPERTY BOUNDARY
- CATCH BASIN
- ▨ AREAL EXTENT OF SOIL CAPPING RISK MANAGEMENT MEASURES

AREAL EXTENT OF SOIL CAPPING  
RISK MANAGEMENT MEASURES

FIGURE

Q-1

104-120 WELLAND AVENUE  
AND 2 NORTH STREET  
ST. CATHARINES, ONTARIO

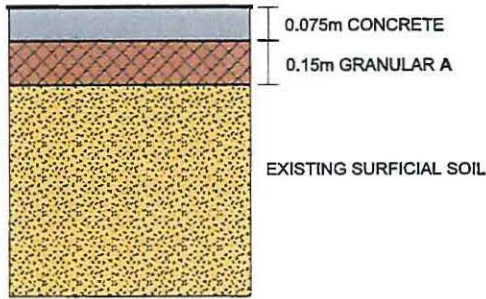
PROJECT NUMBER: 10348

DATE: MARCH 2018

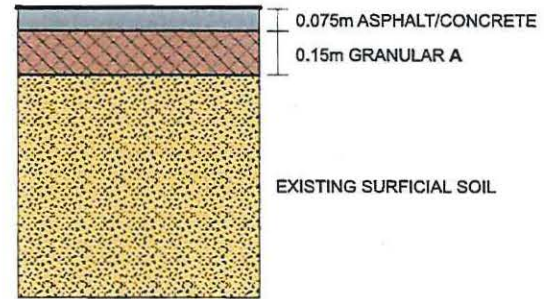


DRAWN BY	CHECKED BY
K.G.	T.N.T.

**BUILDING FLOOR SLAB**

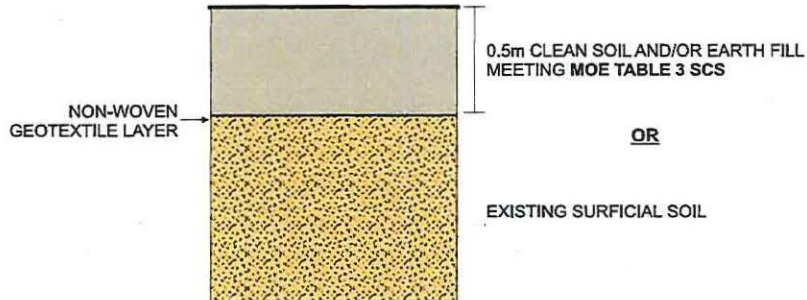


**ROADWAY PARKING AREAS AND SIDEWALKS**

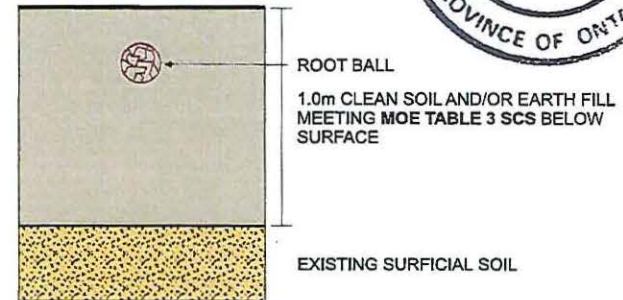


**LANDSCAPED AREAS**

**TYPE I:**  
SUITABLE FOR PLANTS WHOSE  
ROOT EXTEND LESS THAN  
0.5 METRES BELOW GRADE

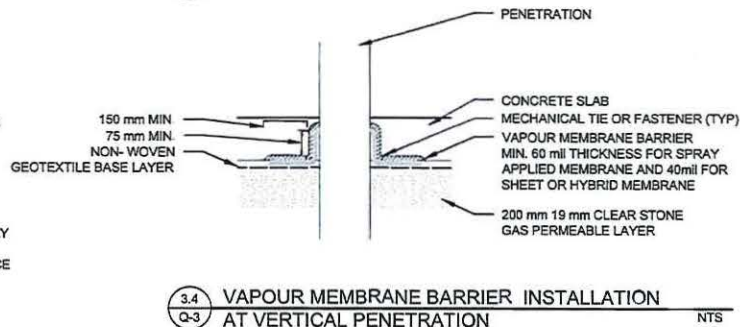
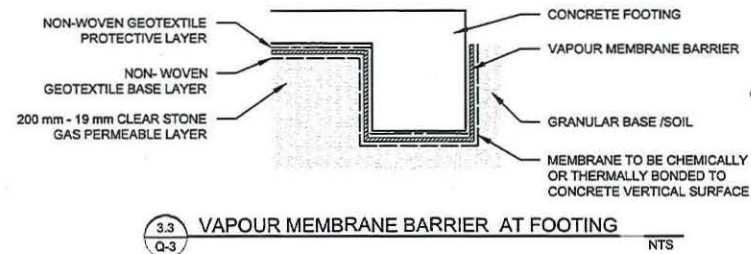
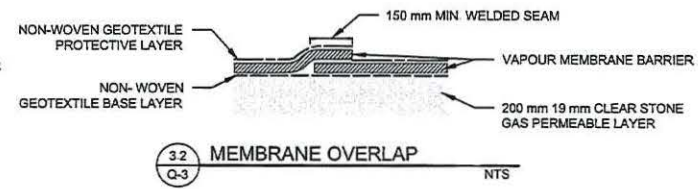
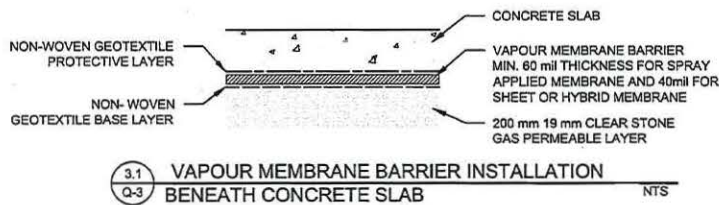


**TYPE II:**  
SUITABLE FOR TREES AND SHRUBS  
WHERE ROOT DEPTH EXCEEDS  
0.15 METRES BELOW GRADE



DRAWN BY	CHECKED BY	<b>NOTES:</b> 1. MOE TABLE 3 (2011) COMMERCIAL/INDUSTRIAL SITE CONDITION STANDARDS (SCS) FOR COARSE TEXTURED SOIL FOR SOIL ENVIRONMENTAL QUALITY GIVEN IN ONTARIO REG. 153/04 (APRIL, 2011) 2. ADDITIONAL CLEAN SOIL MAY BE PLACED ABOVE THE RA BARRIER TO MEET LANDSCAPING REQUIREMENTS 3. CONCRETE SLAB DESIGN SHOULD BE DETERMINED BY STRUCTURAL ENGINEER RESPONSIBLE FOR BUILDING AND/OR ROAD/SIDEWALK CONSTRUCTION AND SHOULD MEET OR EXCEED THE MINIMUM REQUIREMENTS SHOWN IN THIS DRAWING 4. FINAL PAVEMENT DESIGN REQUIREMENT SHOULD BE DETERMINED BY A GEOTECHNICAL ENGINEER WITH PAVEMENT LAYERS EQUALLING OR EXCEEDING THE MINIMUM REQUIREMENTS SHOWN IN THIS DRAWING	SOIL BARRIER DETAILS	FIGURE Q-2
M.W.	B.H.		104-120 WELLAND AVENUE AND 2 NORTH STREET ST. CATHARINES, ONTARIO	
		JOB NUMBER: 10348	DATE: SEPTEMBER 2013	





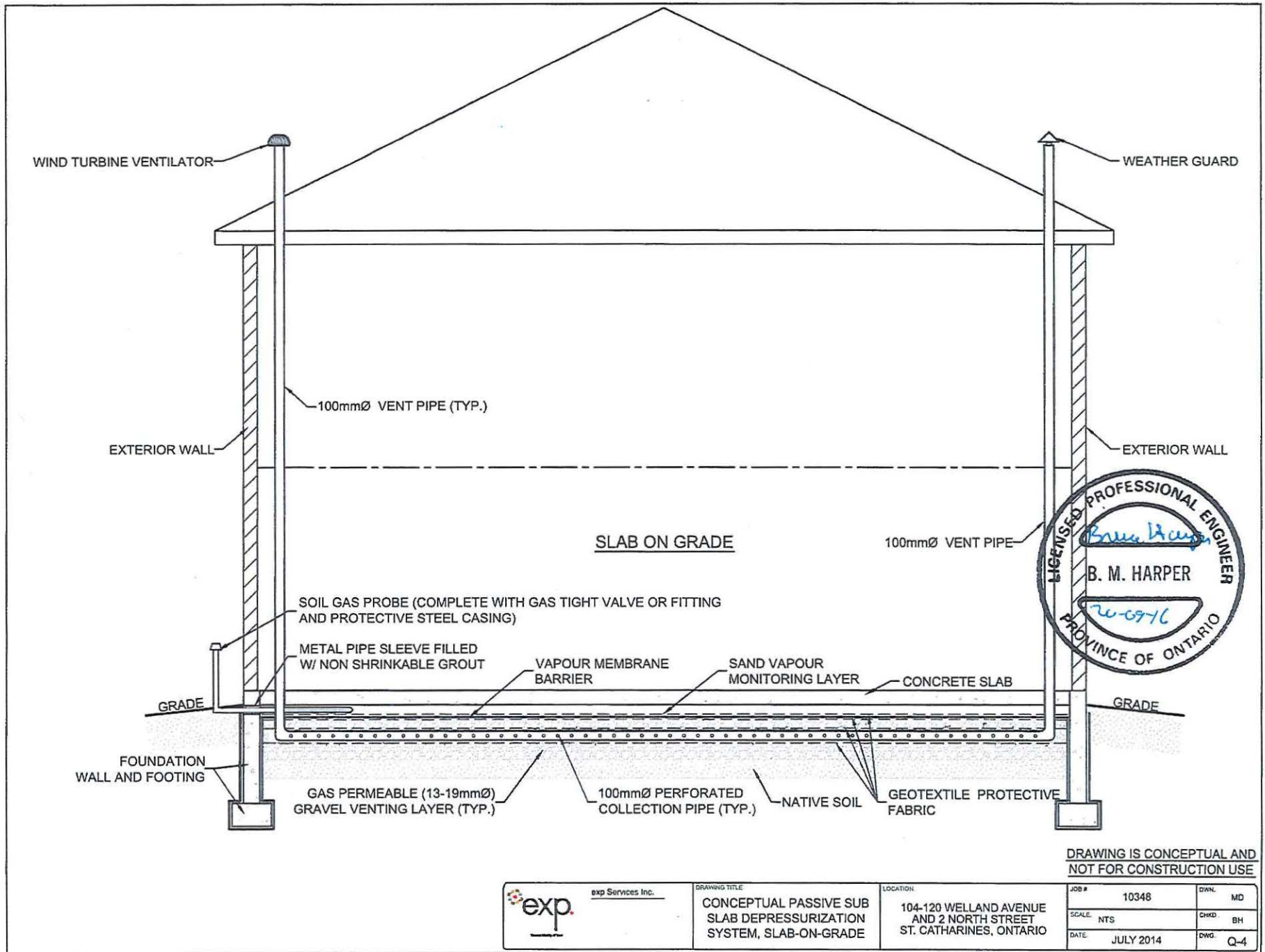
CONCEPTUAL DRAWINGS ONLY  
NOT FOR CONSTRUCTION USE




DRAWING TITLE:  
SOIL VAPOUR MEMBRANE  
BARRIER DETAILS - NEW  
BUILDING CONSTRUCTION

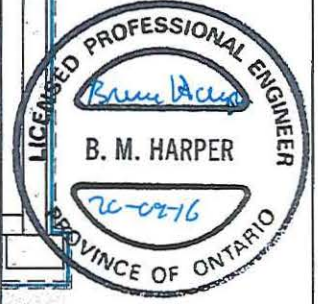
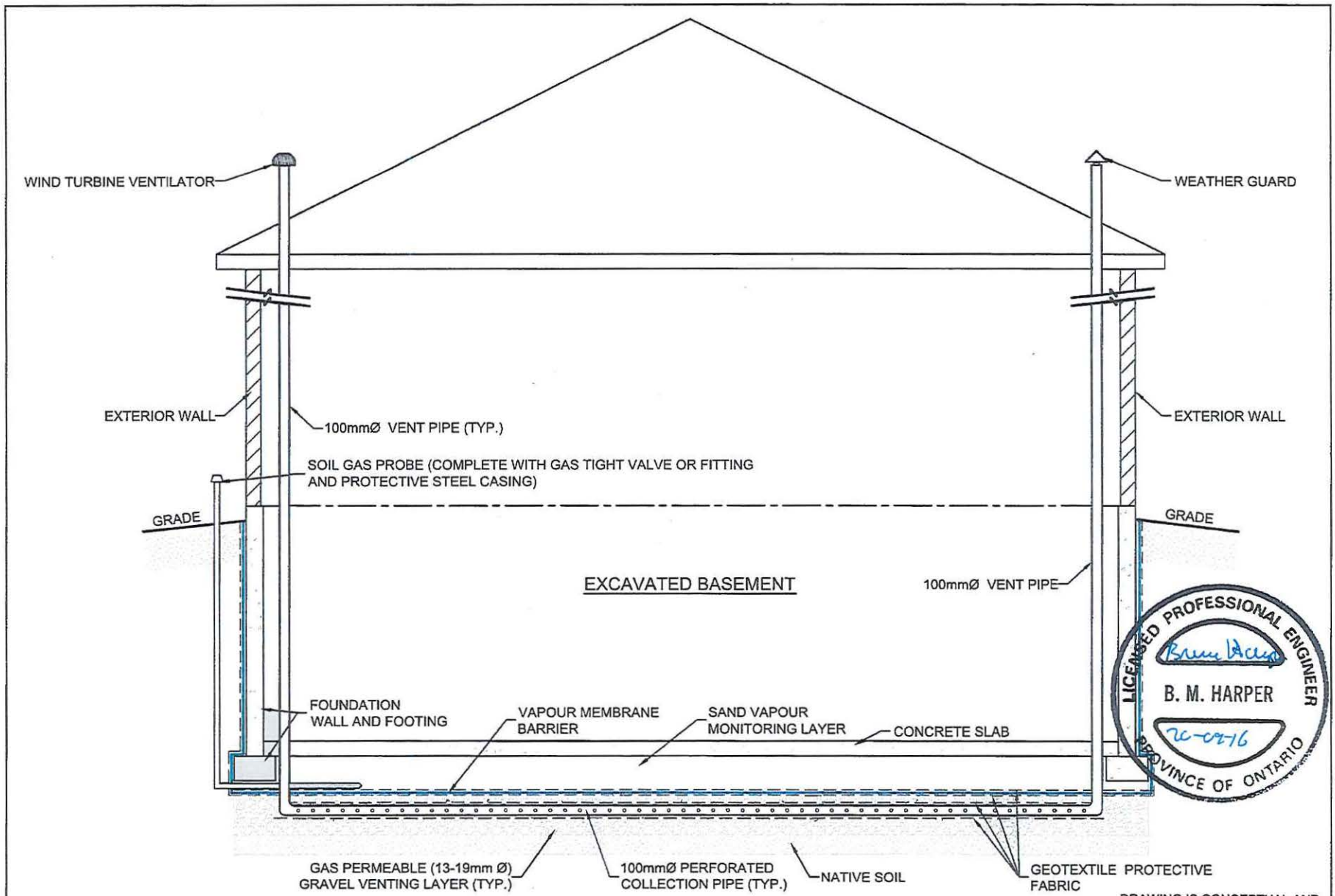
LOCATION:  
104-120 WELLAND AVENUE &  
2 NORTH STREET  
ST. CATHERINES, ON

JOB #:	GOR-0010348-A0	DWN:	MD
SCALE:	NTS	CHKD:	BH
DATE:	SEPTEMBER, 2013	DWG No.:	Q-3



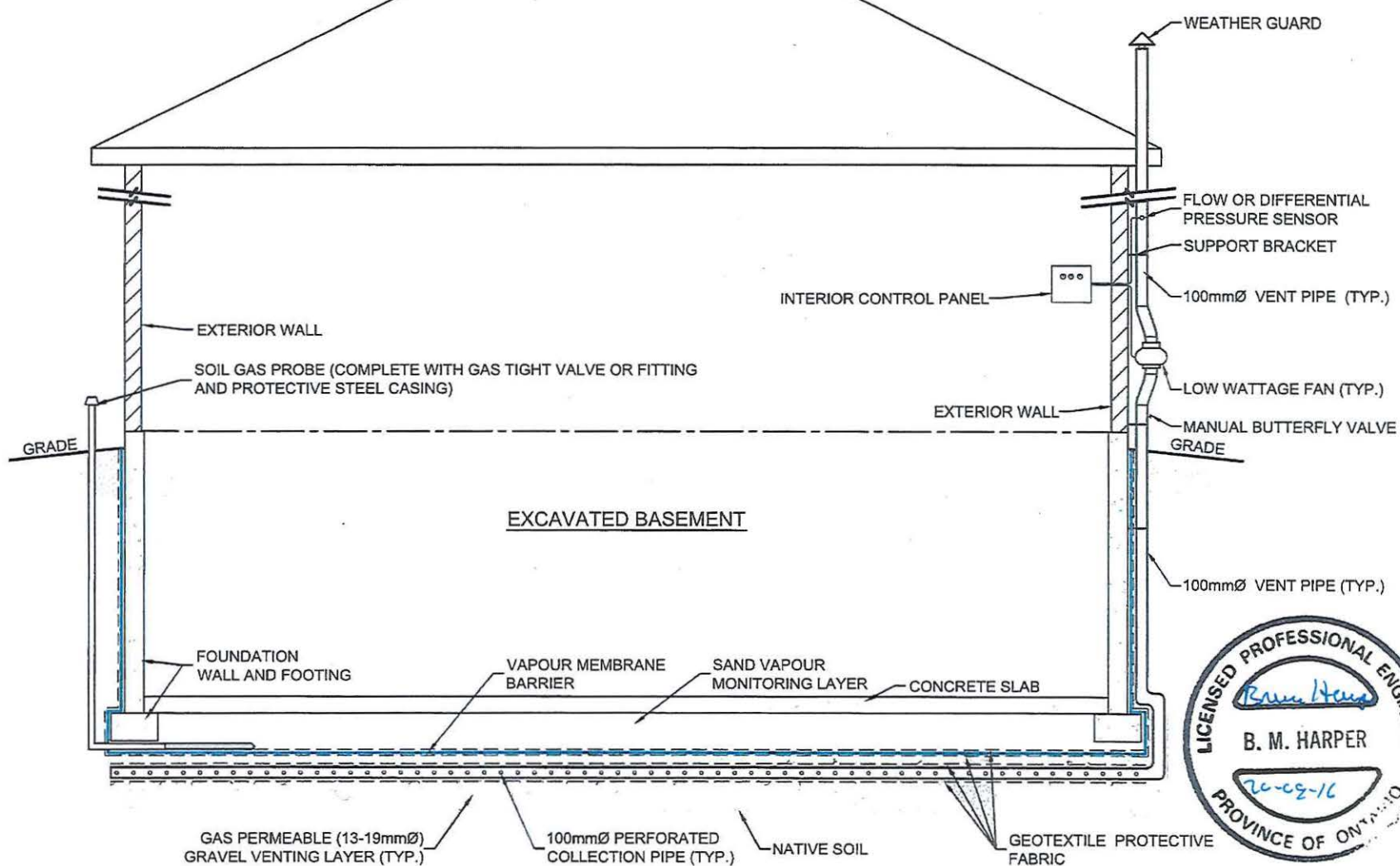
DRAWING IS CONCEPTUAL AND NOT FOR CONSTRUCTION USE

	exp Services Inc.	DRAWING TITLE	LOCATION	JOB #	DWN.
		CONCEPTUAL PASSIVE SUB SLAB DEPRESSURIZATION SYSTEM, SLAB-ON-GRADE	104-120 WELLAND AVENUE AND 2 NORTH STREET ST. CATHARINES, ONTARIO	10348	MD
				SCALE: NTS	CHD: BH
				DATE: JULY 2014	DWG: Q-4



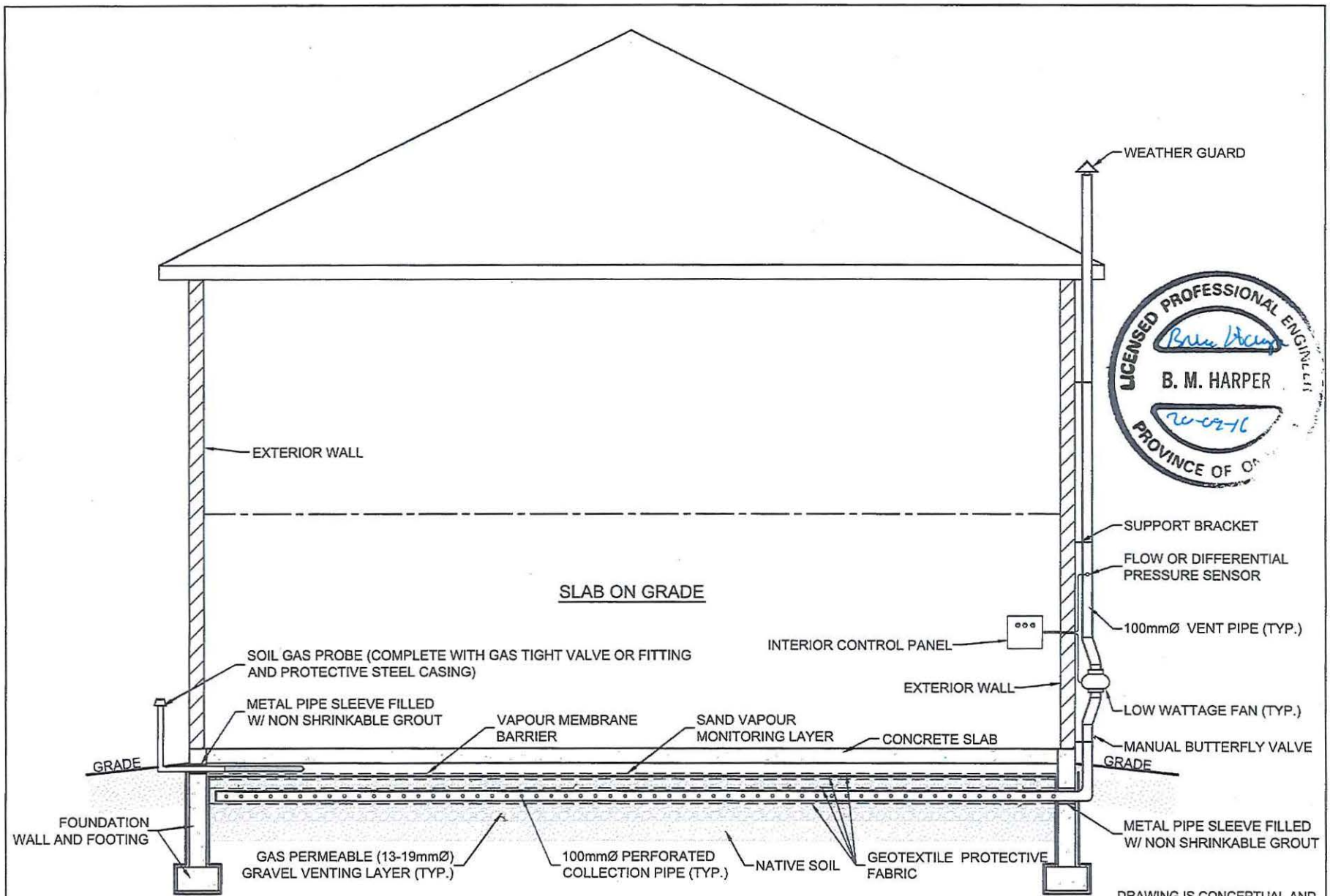
DRAWING IS CONCEPTUAL AND NOT FOR CONSTRUCTION USE

	DRAWING TITLE	LOCATION	JOB #	DWN.	MD
	CONCEPTUAL PASSIVE SUB-SLAB DEPRESSURIZATION SYSTEM BUILDING WITH BASEMENT	104-120 WELAND AVENUE AND 2 NORTH STREET ST. CATHARINES, ONTARIO	10348	CHRD	BH
			SCALE: NTS	DATE: SEPTEMBER 2015	DWG



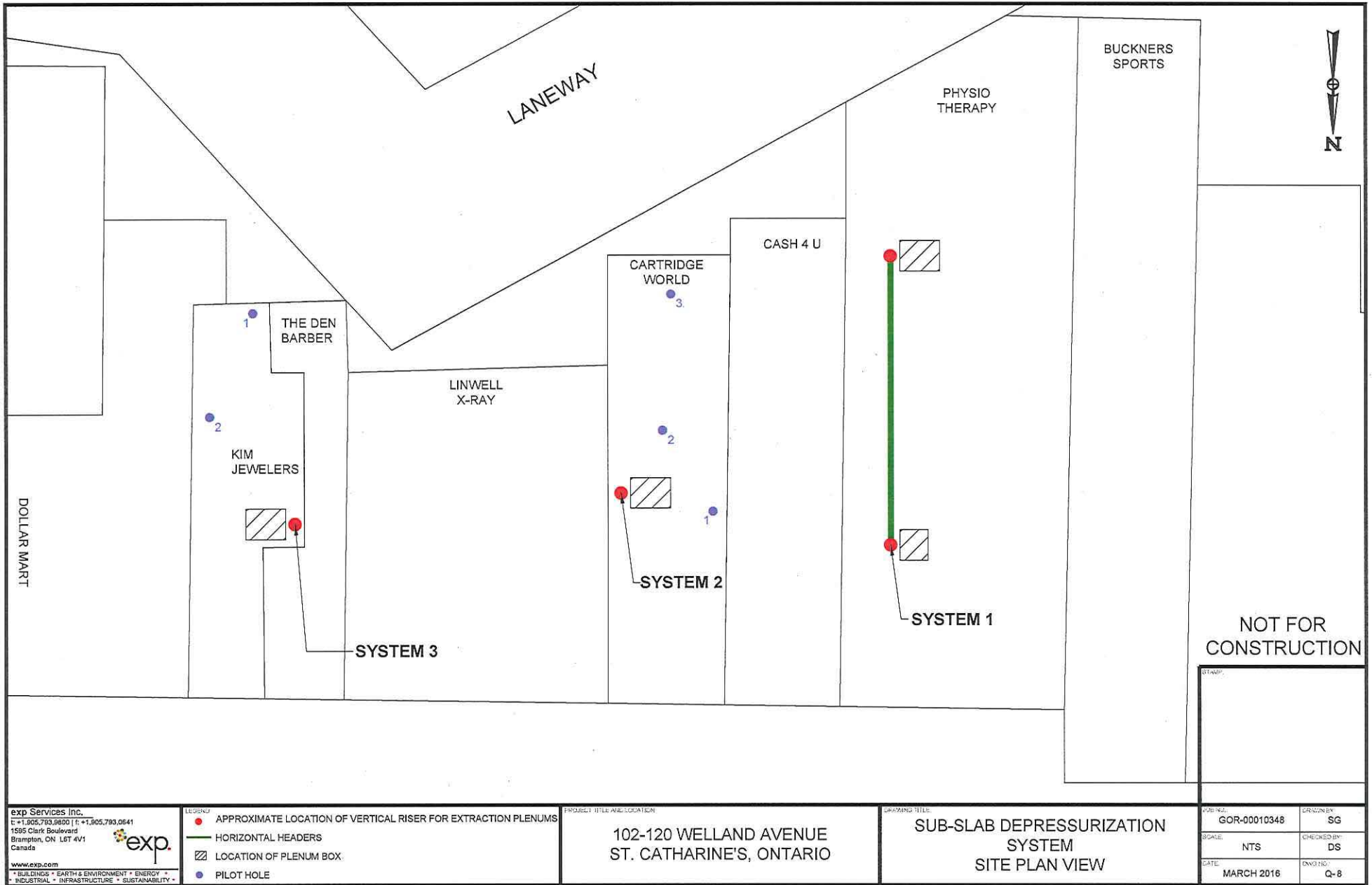
DRAWING IS CONCEPTUAL AND NOT FOR CONSTRUCTION USE

	DRAWING TITLE	LOCATION	JOB #	DWN
	<b>CONCEPTUAL ACTIVE SUBSLAB DEPRESSURIZATION SYSTEM BUILDING WITH BASEMENT</b>	104-120 WELLAND AVENUE AND 2 NORTH STREET ST. CATHARINES, ONTARIO	10348	MD
			SCALE NTS	CHKD BH
			DATE SEPTEMBER 2015	FIGURE Q-6



DRAWING IS CONCEPTUAL AND NOT FOR CONSTRUCTION USE

	DRAWING TITLE	CONCEPTUAL ACTIVE SUB SLAB DEPRESSURIZATION SYSTEM, SLAB-ON-GRADE	LOCATION:	104-120 WELLAND AVENUE AND 2 NORTH STREET ST. CATHARINES, ONTARIO	JOB #	10348	DWNL	MD
	SCALE	NTS	CHKD	BH	SCALE	NTS	CHKD	BH
	DATE	JULY 2014	DWG	Q-7	DATE	JULY 2014	DWG	Q-7



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 \* INDUSTRIAL \* INFRASTRUCTURE \* SUSTAINABILITY \*

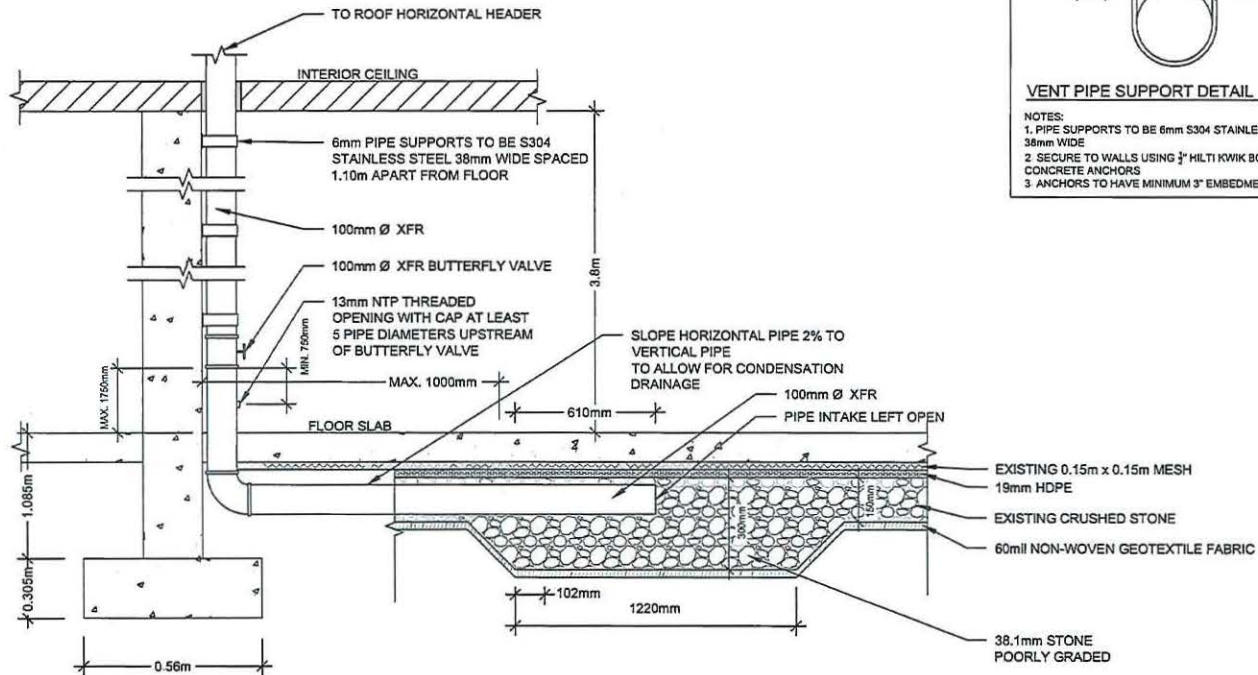
LEGEND  
 ● APPROXIMATE LOCATION OF VERTICAL RISER FOR EXTRACTION PLENUMS  
 — HORIZONTAL HEADERS  
 ▨ LOCATION OF PLENUM BOX  
 ● PILOT HOLE

PROJECT TITLE AND LOCATION  
 102-120 WELLDAND AVENUE  
 ST. CATHARINE'S, ONTARIO

DRAWING TITLE  
 SUB-SLAB DEPRESSURIZATION  
 SYSTEM  
 SITE PLAN VIEW

PROJECT NO:	GOR-00010348	DRAWN BY:	SG
SCALE:	NTS	CHECKED BY:	DS
DATE:	MARCH 2016	ENGR NO:	Q-8





**VENT PIPE SUPPORT DETAIL**

- NOTES:  
 1. PIPE SUPPORTS TO BE 6mm S304 STAINLESS STEEL 38mm WIDE  
 2. SECURE TO WALLS USING 3/4" HILTI KWIK BOLT CONCRETE ANCHORS  
 3. ANCHORS TO HAVE MINIMUM 3" EMBEDMENT

**SUB-SLAB DEPRESSURIZATION SYSTEM NORTH**  
**CROSS SECTION** 1:16

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 INDUSTRIAL " INFRASTRUCTURE " SUSTAINABILITY "

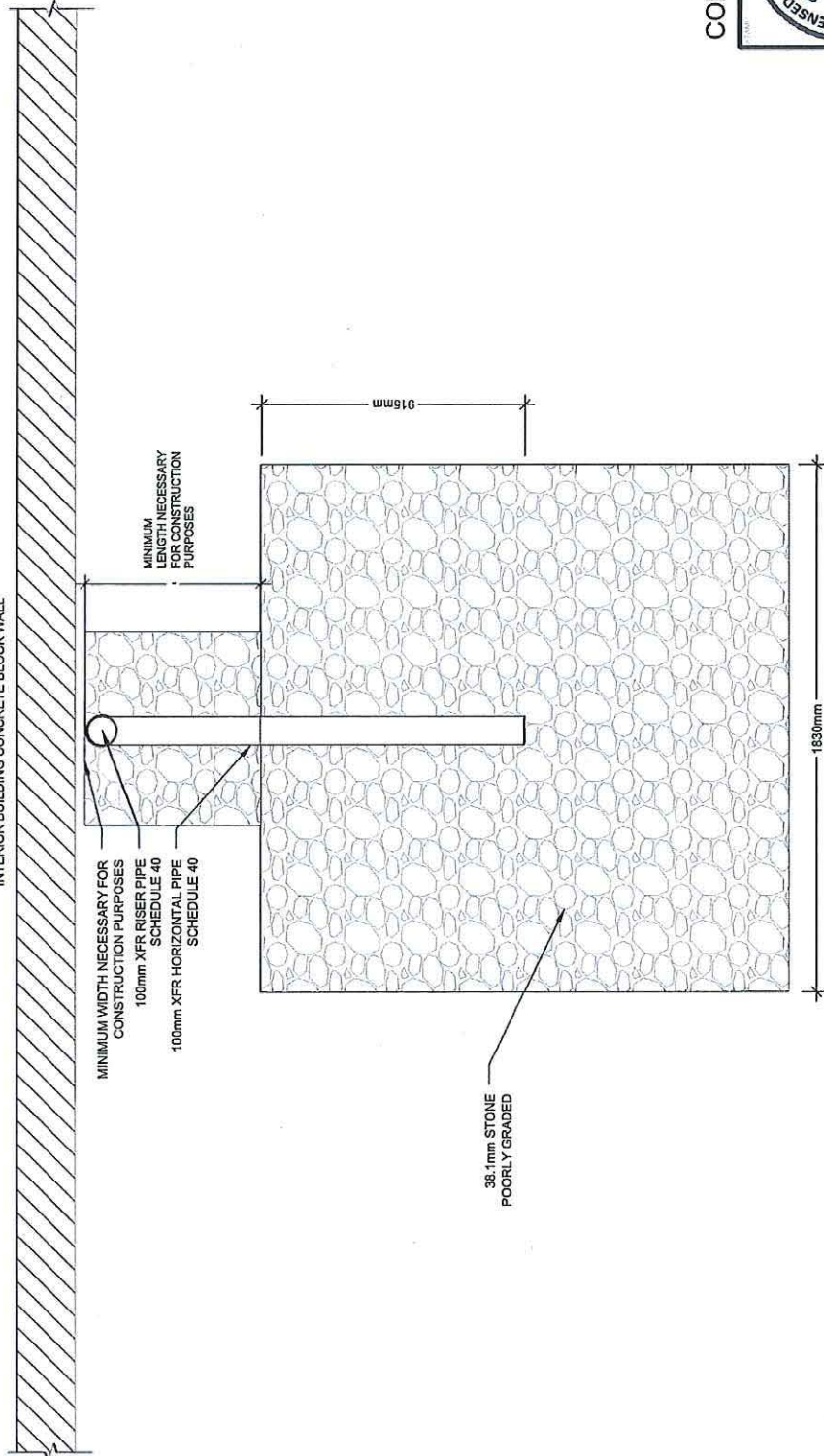
104-120 WELLAND AVENUE  
 ST. CATHARINE'S, ONTARIO

**VERTICAL RISER AND PLENUM CONNECTIONS CROSS SECTION**  
**SUB-SLAB DEPRESSURIZATION SYSTEM DETAILS**

PROJECT NO:	GOR-00010348	REVISION:	SG
SCALE:	AS NOTED	DATE:	DS
DATE:	JUNE 2015	ENGINEER:	Q-10



INTERIOR BUILDING CONCRETE BLOCK WALL



MINIMUM WIDTH NECESSARY FOR CONSTRUCTION PURPOSES  
100mm XFR RISER PIPE SCHEDULE 40  
100mm XFR HORIZONTAL PIPE SCHEDULE 40

MINIMUM LENGTH NECESSARY FOR CONSTRUCTION PURPOSES

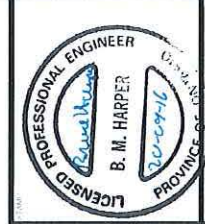
38.1mm STONE POORLY GRADED

915mm

1830mm

SUB-SLAB DEPRESSURIZATION SYSTEM SOUTH  
PLAN VIEW  
1:16

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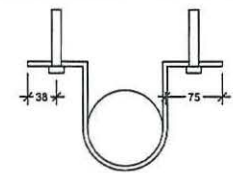
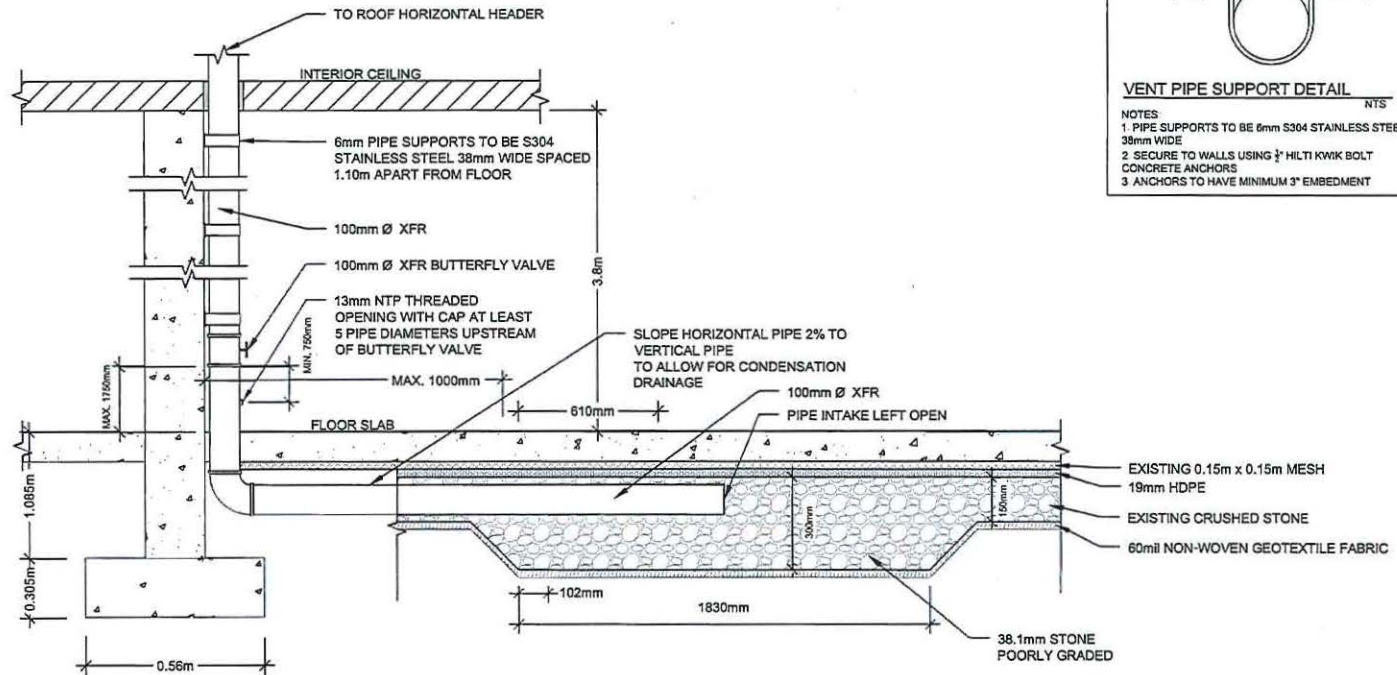
PROJECT NO.	GOR-0010348	SCALE	SG
DRAWN BY	NTS	CHECKED BY	DS
DATE	JUNE 2015	SCALE	C-11

PLAN VIEW OF PLENUM AND AREAS FOR SAW CUT SUB-SLAB DEPRESSURIZATION SYSTEM DETAILS

104-120 WELLAND AVENUE  
ST. CATHARINES, ONTARIO

NOTE: TO BE ADJUSTED AS NECESSARY DEPENDING ON SITE ACCESS

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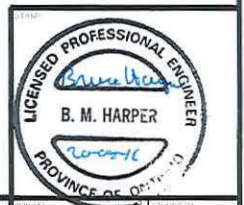


**VENT PIPE SUPPORT DETAIL**  
NTS

NOTES:  
1 PIPE SUPPORTS TO BE 6mm S304 STAINLESS STEEL 38mm WIDE  
2 SECURE TO WALLS USING 3/8" HILTI KWIK BOLT CONCRETE ANCHORS  
3 ANCHORS TO HAVE MINIMUM 3" EMBEDMENT

**SUB-SLAB DEPRESSURIZATION SYSTEM SOUTH**  
**CROSS SECTION** 1:16

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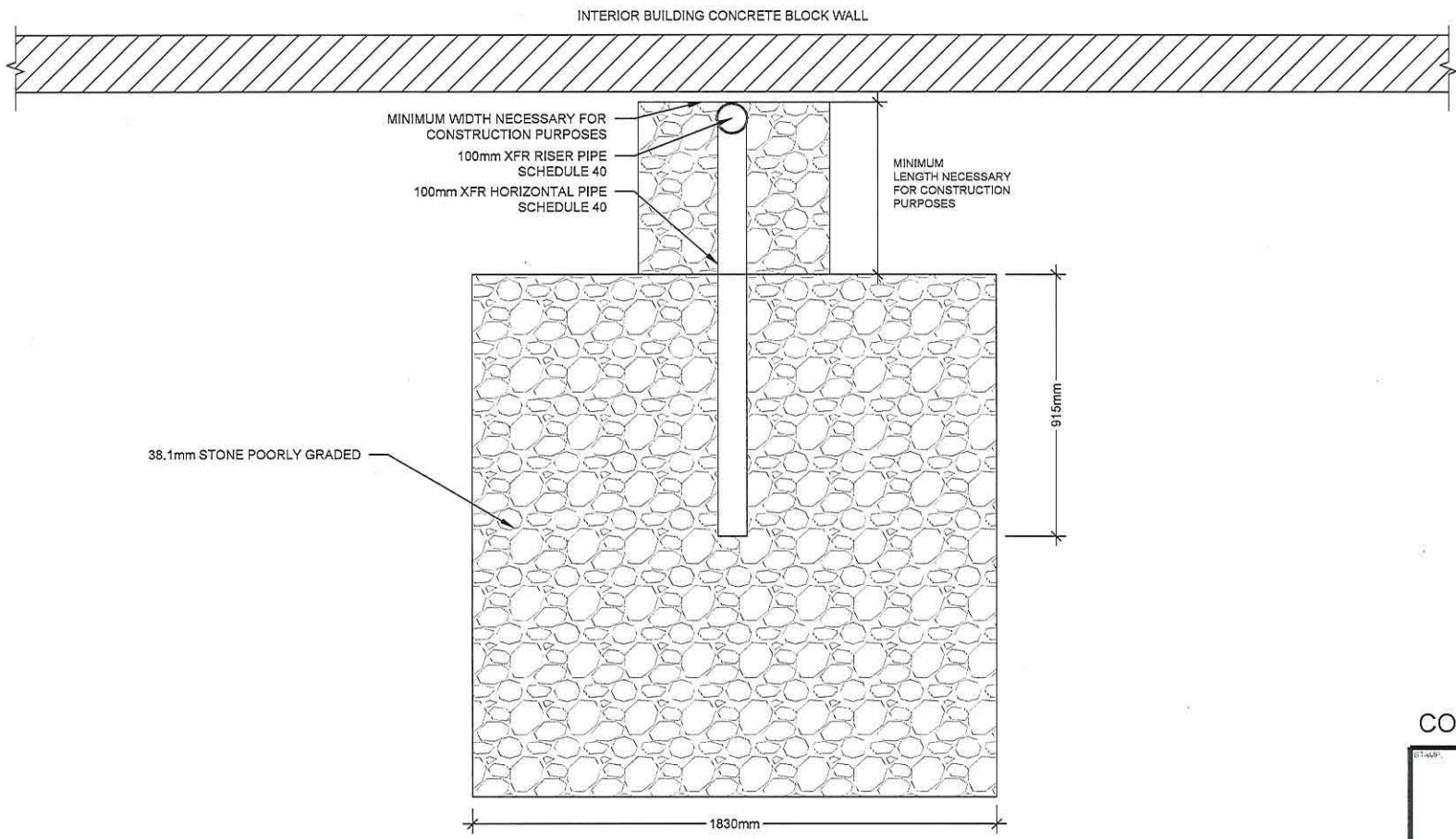
104-120 WELAND AVENUE  
ST. CATHARINE'S, ONTARIO

**VERTICAL RISER AND PLENUM**  
**CONNECTIONS CROSS SECTION**  
**SUB-SLAB DEPRESSURIZATION**  
**SYSTEM DETAILS**

PROJECT	GOR-00010348	DATE	JUNE 2015
ISSUE	AS NOTED	DATE	06/10/2015
SCALE	SG	DATE	06/10/2015
DATE	Q-12	DATE	06/10/2015







NOT FOR  
CONSTRUCTION

STAMP:

SUB-SLAB DEPRESSURIZATION SYSTEM CARTRIDGE WORLD  
PLAN VIEW 1:16

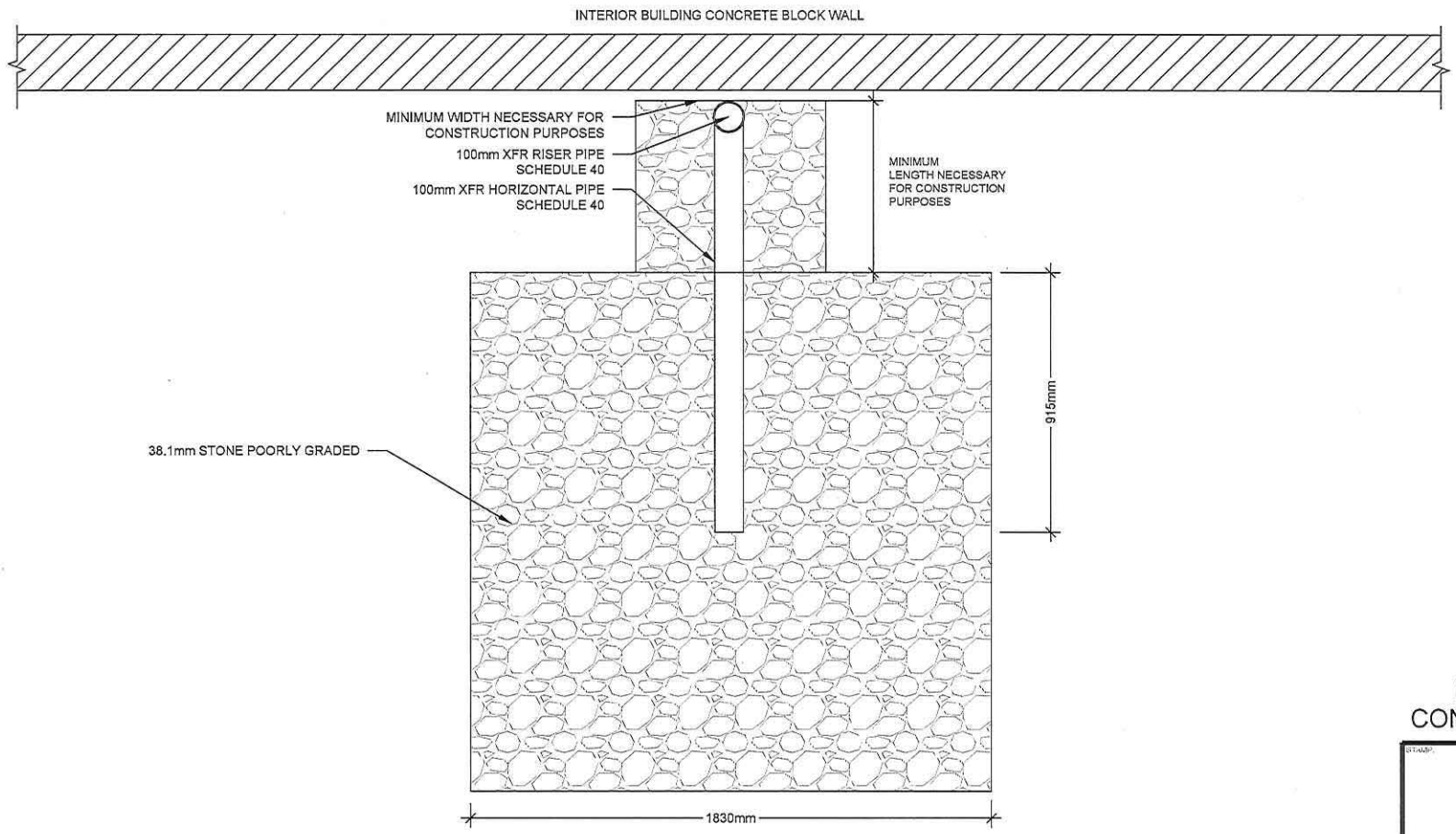
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NOTE: TO BE ADJUSTED AS NECESSARY DEPENDING ON SITE ACCESS

PROJECT TITLE AND LOCATION:  
102-120 WELAND AVENUE  
ST. CATHARINE'S, ONTARIO

DRAWING TITLE:  
PLAN VIEW OF PLENUM AND AREAS  
FOR SAW CUT  
SUB-SLAB DEPRESSURIZATION SYSTEM DETAILS -  
CARTRIDGE WORLD

JOB NO.:	GOR-00010348	DRAWN BY:	SG
SCALE:	NTS	CHECKED BY:	DS
DATE:	MARCH 2016	ENGR. NO.:	Q-15



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CONSTRUCTION

STAMP:

**SUB-SLAB DEPRESSURIZATION SYSTEM KIMS JEWELERS**  
PLAN VIEW 1:16

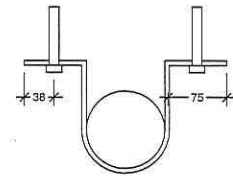
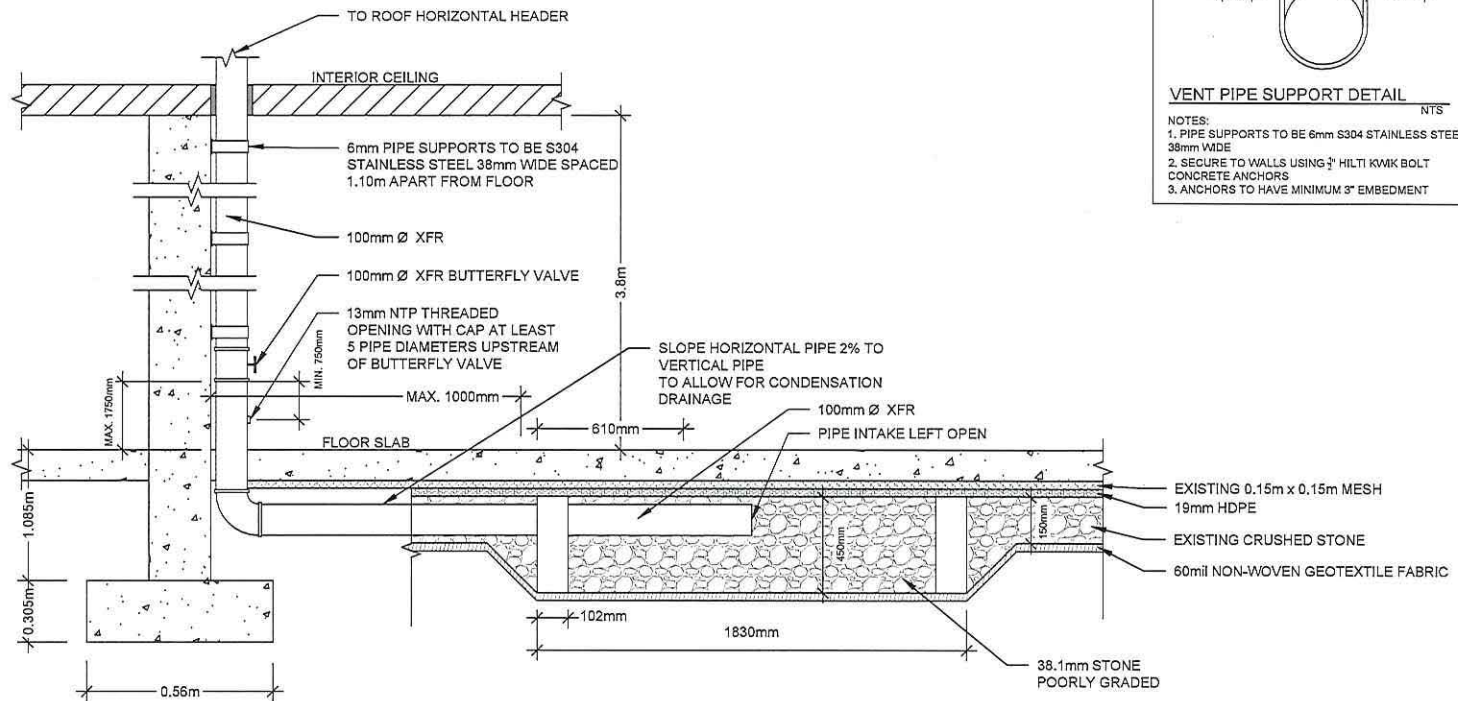
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NOTE: TO BE ADJUSTED AS NECESSARY DEPENDING ON SITE ACCESS

PROJECT TITLE AND LOCATION  
**102-120 WELAND AVENUE  
ST. CATHARINE'S, ONTARIO**

DRAWING TITLE  
**PLAN VIEW OF PLENUM AND AREAS  
FOR SAW CUT  
SUB-SLAB DEPRESSURIZATION SYSTEM DETAILS -  
KIMS JEWELERS**

PROJECT NO:	GOR-00010348	DRAWN BY:	SG
SCALE:	NTS	CHECKED BY:	DS
DATE:	MARCH 2016	DATE PLOTTED:	Q-16



**VENT PIPE SUPPORT DETAIL**

- NTS
- NOTES:
1. PIPE SUPPORTS TO BE 6mm S304 STAINLESS STEEL, 38mm WIDE
  2. SECURE TO WALLS USING 3/8" HILTI KMK BOLT CONCRETE ANCHORS
  3. ANCHORS TO HAVE MINIMUM 3" EMBEDMENT

**SUB-SLAB DEPRESSURIZATION SYSTEM CARTRIDGE WORLD**  
CROSS SECTION 1:16

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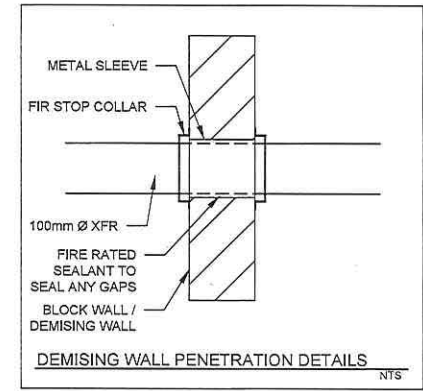
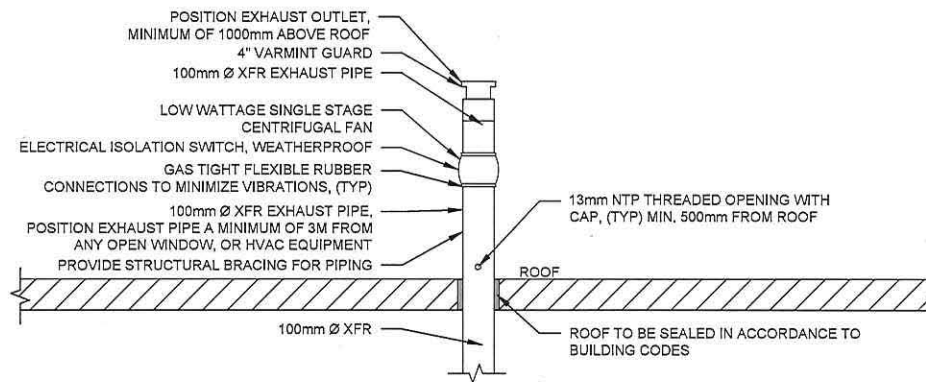
PROJECT TITLE AND LOCATION  
 102-120 WELLAND AVENUE  
 ST. CATHARINE'S, ONTARIO

DRAWING  
 VERTICAL RISE AND PLENUM CONNECTIONS  
 CROSS SECTION  
 SUB-SLAB DEPRESSURIZATION SYSTEM DETAILS -  
 CARTRIDGE WORLD

DWG NO.:	GOR-00010348	DRAWN BY:	SG
SCALE:	AS NOTED	CHECKED BY:	DS
DATE:	MARCH 2016	DWG NO.:	Q-17

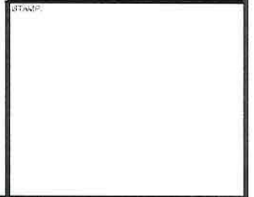






**SUB-SLAB DEPRESSURIZATION SYSTEM- CARTRIDGE WORLD**  
SCALE: 1:16

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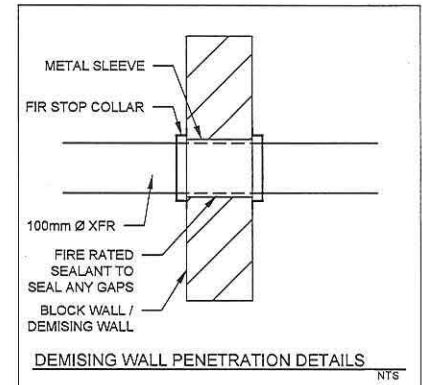
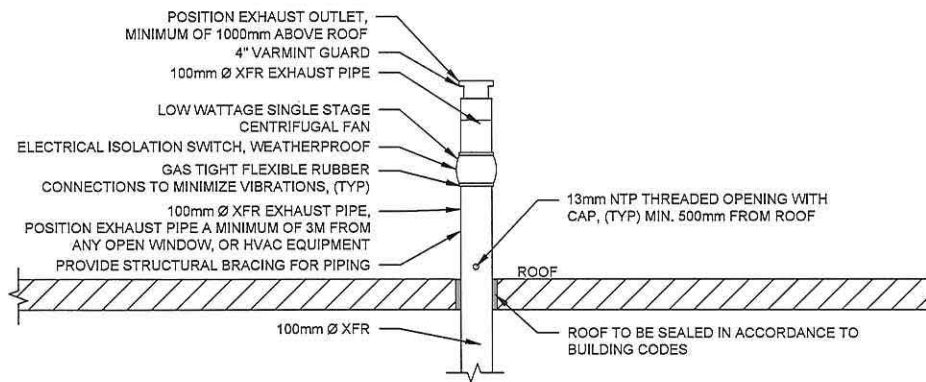
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 \* BUILDINGS \* EARTH & ENVIRONMENT \* ENERGY \*  
 INDUSTRIAL \* INFRASTRUCTURE \* SUSTAINABILITY \*

**NOTE:**  
 A TOTAL OF FOUR BUILDING UNITS REQUIRE DEPRESSURIZATION; DRAWING SHOWS SYSTEM FOR 2 BUILDING UNITS. A SECOND SYSTEM WITH INDEPENDENT FAN BUT COMMON ALARM AND CONTROLS WILL BE REQUIRED FOR THE 2 REMAINING UNITS.

**PROJECT TITLE AND LOCATION**  
 102-120 WELLDAND AVENUE  
 ST. CATHARINE'S, ONTARIO

**DRAWING TITLE**  
 HORIZONTAL HEADER PIPE  
 SUB-SLAB DEPRESSURIZATION SYSTEM  
 DETAILS - CARTRIDGE WORLD

<b>JDS NO.</b>	GOR-00010348	<b>DRAWN BY</b>	SG
<b>SCALE</b>	AS NOTED	<b>CHECKED BY</b>	DS
<b>DATE</b>	MARCH 2016	<b>DNV FIG.</b>	Q-19



SUB-SLAB DEPRESSURIZATION SYSTEM- KIMS JEWELERS  
SCALE: 1:16

NOT FOR  
CONSTRUCTION

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 102-120 WELLAND AVENUE  
 ST. CATHARINE'S, ONTARIO

DRAWING TITLE  
 HORIZONTAL HEADER PIPE  
 SUB-SLAB DEPRESSURIZATION SYSTEM  
 DETAILS - KIMS JEWELERS

JOB NO. GOR-00010348	DRAWN BY SG
SCALE AS NOTED	CHECKED BY DS
DATE MARCH 2016	PNV FIG. Q-20