

Request for Proposal

Document Number: 2024-149P

Document Title: SECOND FLOOR EXPANSION, 3190 MAVIS ROAD, CITY OF MISSISSAUGA,

PROJECT 22701

Date Issued: Friday, March 22, 2024

Non-Mandatory site visit date: Tuesday, April 2, 2024, at 10:00 a.m. via Microsoft Teams

ELECTRONIC BID SUBMISSIONS ONLY shall be received by the Agency through the Bidding System

no later than:

12:00 noon local time Tuesday, April 16, 2024

It is the Bidder's sole responsibility to ensure that:

 the submission is received electronically by the Agency through the Bidding System by the date and time specified above

 the submission is accompanied by all required documentation including but not limited to a digital bid bond in the amount of \$200,000

Procurement Representative: Karen McCullough, Senior Procurement Analyst

Telephone Number: (437) 247-7692

For SECOND FLOOR EXPANSION, 3190 MAVIS ROAD, CITY OF MISSISSAUGA, PROJECT 22701, as required, and as specified within this Document.

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Instructions to Bidders

1. **DEFINITIONS**

- (a) "Agency" means The Regional Municipality of Peel, Peel Regional Police, Peel Housing Corporation and any other government or agency or board on behalf of which The Regional Municipality of Peel is acting and for the purposes of the performance of the Contract shall mean the municipality or entity awarding the Contract. For purposes of the Contract, "Agency" shall include "Owner" as defined in the Contract.
- (b) "Bidder" means any proponent, respondent or other person or entity who has obtained official procurement documents for the purpose of submitting, or who has submitted a Bidder Submission in response to the Document. Furthermore, the definition of "Bidder" shall include any entity affiliated or related to the Bidder (including any entity with the same directing mind as the Bidder) as determined in the discretion of the Director of Procurement, in consultation with the Regional Solicitor.
- (c) "Bidder Submission" means the document as completed by the Bidder for the purpose of offering to sell to the Agency the goods and/or services specified in the Document, and includes but is not limited to quotations, tenders and proposals.
- (d) "Bidding System" means the electronic system used by the Agency for its public tenders, bids and request for proposals at the following website: peelregion.bidsandtenders.ca, which is required to be used for all dissemination of information by or on behalf of the Agency and all submissions from Bidders for this Document.
- (e) "Contract" means the undertaking by the parties to perform their respective duties, responsibilities and obligations as prescribed in this Document and represents the entire agreement between the parties.
- (f) "Document" means the document describing the goods and/or services to be purchased and the terms upon which the goods and/or services are to be purchased and includes, without limitation, those documents referenced on the index of the Document and such addenda as may be issued by the Agency from time to time.
- (g) "Operator" means the Owner's operations and maintenance employees, and/or contract operator of the site where the Work is being performed.
- (h) "Procurement Representative" means the person named as the Procurement Representative or designate on the Document.
- (i) "Region of Peel" has the same meaning as the Agency.
- (j) "Vendor" means the successful Bidder and includes the term "Contractor" who enters into the Contract with the Agency for the provision of the goods and/or services set out in this Document.
- (j) "Consultant" means Barry Bryan Associates.

2. INFORMATION AND COMMUNICATIONS

2.1 Any questions or information required regarding this Document must be submitted through the Bidding System via peelregion.bidsandtenders.ca by clicking the 'Submit a Question' button for the selected bid opportunity at least four working days prior to closing. Do not submit your questions via e-mail. No oral communications will be considered binding.

Instructions to Bidders

- 2.2 Any Bidder who requests and/or receives any information, with regards to this Document, by any person(s) other than the Procurement Representative or designate, may be disqualified from further consideration.
- 2.3 It is recommended that vendors add noreply@bidsandtenders.ca to their "safe senders" lists in their e-mail systems and monitor their spam/ clutter/ junk filters to ensure they do not miss automatically generated messages sent by bidsandtenders.ca that relate to this bid opportunity.

3. NON-MANDATORY BIDDERS VIRTUAL MEETING

- A non-mandatory Bidders Meeting has been scheduled in an effort to provide relevant information that may assist Bidders in preparing their Bidder Submission.
- 3.2 The non-mandatory Bidders Meeting will be held online through Microsoft Teams and is scheduled for **Tuesday**, **April 2**nd, **2024**, **at 10:00 a.m.**
- 3.3 The details for the Microsoft Teams meeting are as follows:

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting Meeting ID: 291 669 604 357

Passcode: rDa6Ks

Download Teams | Join on the web

Or call in (audio only)

<u>+1 289-401-3582,,499704261#</u> Canada, Brampton (844) 589-6880,,499704261# Canada (Toll-free)

Phone Conference ID: 499 704 261#

- 3.4 Bidders are reminded that this meeting is NON-MANDATORY. Attendance will be at the discretion of the Bidder, however, Bidders who choose not to attend will be deemed to have received all of the information made available to attendees. A Bidder's failure to attend the non-mandatory Bidders Meeting is at the Bidder's sole risk and responsibility.
- 3.5 During the Bidders Meeting, Bidders may ask questions and seek clarifications pertaining to the Bid Document. Notwithstanding that the Agency may give oral answers at a meeting, such answers shall not be considered final unless issued by way of an Addendum to the Bid Document. Therefore, Bidders are strongly encouraged to submit such questions in writing and in accordance with the instructions contained in the Bid Document.

Instructions to Bidders

3.6 No statement, consent, waiver, acceptance, approval or anything else said or done in any Bidders Meeting by the Agency or any of its respective advisors, employees or representatives shall amend or waive any provision of the Bid Document, or be binding on the Agency or be relied upon in any way by Bidders, except when and only to the extent expressly confirmed in an Addendum to the Bid Document issued in accordance with the process identified in the Bid Document.

4. <u>BIDDER SUBMISSIONS</u>

- 4.1 This Document is available to Bidders at peelregion.bidsandtenders.ca.
- 4.2 Only Bidders that are registered as a Plan Taker for this Document with Bids and Tenders at peelregion.bidsandtenders.ca and have obtained this Document from Bids and Tenders or the Agency, may submit a Bidder Submission.

Should the Agency receive a Bidder Submission that is subsequently found to be from a Bidder that is not a registered Plan Taker with Bids and Tenders at peelregion.bidsandtenders.ca, and the Bidder did not obtain the Document from Bids and Tenders or the Agency, the Agency reserves the right to reject the Bidder Submission as non-compliant and give it no further consideration for contract award.

4.3 Bidders shall not make any changes or alterations to the Document as issued by the Agency on the Region of Peel's website. The Bidder Submission of any Bidder found prior to award to have made such alterations shall be disqualified by the Agency and shall be given no further consideration.

In the event that following an award an alteration is discovered to have been made by the successful Bidder, the Document as issued by the Agency and made available on the Agency's website shall be deemed to contain the governing terms and conditions between the parties, and any alterations made to it by the Bidder shall be of no force or effect. The Agency shall further have the right, at its sole option, to terminate any Contract with a Bidder who, subsequent to award, is found by the Agency to have altered the Agency's Document. This right is in addition to and without prejudice to all other rights, remedies, actions or alternatives that may be available to the Agency.

- 4.4 Any documents forming part of a Bidder Submission uploaded to peelregion.bidsandtenders.ca by the Bidder in response to the Document must:
 - 4.4.1 NOT have a security password.
 - 4.4.2 Not be defective, corrupted or blank.
 - 4.4.3 Be able to be opened and viewed by the Agency.

Instructions to Bidders

- 4.5 The Agency shall disqualify a Bidder Submission that contains documents that cannot be opened and verified by the Agency.
- 4.6 For the purposes of interpretation, all capitalized terms used herein shall have the same meanings ascribed thereto in the Document.

5. <u>DATE AND PLACE FOR RECEIVING BIDDER SUBMISSIONS AND ACCEPTANCE PERIOD</u>

- 5.1 ELECTRONIC BID SUBMISSIONS ONLY shall be received by the Agency through the Bidding System and must be received on or before 12:00 noon local time in Brampton, Ontario on **Tuesday, April 16, 2024**.
- 5.2 The closing date and time shall be determined by the Agency's Bidding System.
- This procurement is being advertised in accordance with the applicable procurement obligations outlined in the Canada-European Union Comprehensive Economic and Trade Agreement (CETA), Canadian Free Trade Agreement (CFTA), and the Ontario-Quebec Trade and Cooperation Agreement (OQTCA).
- 5.4 Bidder Submissions submitted and/or received by any other method will be disqualified by the Agency unless instructed otherwise by published addenda in respect of the Document.
- 5.5 Only documents found on the Region of Peel's website at peelregion.bidsandtenders.ca are to be considered "official" documents. The Region of Peel accepts no responsibility for the accuracy or completeness of information found on other websites. The onus is on the Bidder to check the Region of Peel's website to verify they have received all relevant information. The Bidder risks submitting a non-compliant bid if addenda or other required information is missing, and disqualification could result.
- 5.6 It is the Bidder's sole responsibility to ensure their Bidder Submission is received by the time and date specified in the Agency's Bidding System. The receipt of Bidder Submissions can be delayed due to a number of factors including, but not limited to, "internet traffic", file transfer size, and transmission speed. The Bidder should allow sufficient time to upload its Bidder Submission, including any attachments. Late Bidder Submissions will not be accepted by the Agency's Bidding System.
- 5.7 A Bidder Submission will only be considered to be submitted once it has been RECEIVED by the Agency in its Bidding System, regardless of when the Bidder Submission was submitted by the Bidder.

Instructions to Bidders

- 5.8 Bidders will be sent a confirmation e-mail by the Agency's Bidding System to the e-mail address provided by the Bidder when it registered as a Plan Taker in the Bidding System for the Document advising that its Bidder Submission was submitted successfully. Bidders should not consider its Bidder Submission to have been submitted until it has received the confirmation e-mail.
- 5.9 The Bidder is solely responsible for the delivery of its Bidder Submission in the manner and by the closing date and time prescribed in the Agency's Bidding System. Each Bidder is responsible for the actual delivery of its Bidder Submission prior to the closing time and closing date.
- 5.10 The Agency is not responsible for any incomplete or misdirected Bidder Submissions due to electronic technical problems arising out of the Bidder's use of the Agency's Bidding System.
- 5.11 Bidder Submissions received by the Agency in accordance with the terms and conditions of the Document shall be irrevocable and open for acceptance for a period of 120 days following the date of the Bidder Submission closing.

6. **ADDENDA**

Addenda, if required, issued by the Procurement Representative and related to this Contract shall hereby form part of the Contract.

Any addenda related to this Contract will be posted through the Bidding System at peelregion.bidsandtenders.ca. Although the Bidding System will attempt to notify registered Bidders of when addenda are posted on the Bidding System, the Agency does not guarantee any receipt of notifications by Bidders and waives any responsibility. It is the sole responsibility of Bidders to check the Bidding System often to inform themselves of any posted addenda.

Bidders shall acknowledge receipt of any addenda when submitting their Bidder Submission through the Bidding System. Bidders shall check a box for each addendum and any applicable attachments that have been issued before a Bidder can submit their Bidder Submission online all in accordance with the terms and conditions of the Document and the Bidding System.

The Agency encourages Bidders not to submit their Bid Submission prior to forty-eight hours before the Document closing time and date, in the event that an addendum is issued. If a Bidder submits their Bidder Submission prior to this or at any time prior to the Document closing and an addendum is issued by the Agency, the Bidding System shall WITHDRAW their Bidder Submission and change their Bidder Submission to an INCOMPLETE STATUS (NOT accepted by the Agency) and the withdrawn Bidder Submission can be viewed by the

Instructions to Bidders

Bidder in the "MY BIDS" section of the Bidding System. The Bidder is solely responsible to:

- i) make any required adjustments to their Bidder Submission;
- ii) acknowledge the addendum/addenda; and
- iii) ensure the re-submitted Bidder Submission is RECEIVED by the Agency through the Bidding System no later than 12:00 noon local time on the Document closing date.

NOTES TO BIDDERS: Additional company contacts are recommended for the reasons outlined below:

- Do not invite any additional contacts that you do not want to have access to view, edit, submit and/or withdraw or who may be in direct competition, for example a company may have two divisions that could compete for the same bid opportunity.
- You are strongly urged, when creating or updating a Bidding System Bidder account, to add additional company contacts to create their own login to the Bidding System. This will permit your invited contacts that have created their own login to manage (register, submit, edit and withdraw) Bids which your company is a Registered Plan Taker for. In the event you are on vacation, or due to illness, etc., these additional contacts may act on your company's behalf and have the authority to receive addendum notifications from the Bidding System and where permitted by the terms and conditions of the Document, to submit Bidder Submissions electronically through the Bidding System and/or withdraw and/or edit and/or acknowledge addendum/addenda, on your behalf.
- If you are an invited company contact, it is imperative that you create your login from the link contained in the e-mail invitation. Do NOT go directly to peelregion.bidsandtenders.ca website and create a separate Bidder account.

7. **CONTRACT AWARD**

The Agency reserves the right to award the Contract in its entirety or in part to one or more Vendors in accordance with its requirements. Prior to award, the Agency reserves the right to perform a site visit at the Bidder's facilities for the purpose of evaluating the Bidder Submission.

Without limiting, and in addition to all other rights to which the Agency is entitled pursuant to this Document, the Agency shall be entitled to fully evaluate the Bidder Submission, which evaluation may include, without limitation, a review of references provided by the Bidder and of those that may be obtained by the Agency independently, past performance history of contracts between the Bidder and the Agency and/or between the Bidder and third parties, past completion history (including completion of full contract term, late or extended completion of contract and late delivery of goods or services), litigation and claims history of the Bidder (including previous, existing or potential litigation with the Agency or

Instructions to Bidders

others and construction liens filed by the Bidder or subcontractors), delivery of incorrect services, customer service and responsiveness, or history of bidding unrealistic pricing, any of which may result in higher ultimate costs or other difficulties for the Agency, and to reject a Bidder Submission if the same is, in the Agency's sole opinion, unsatisfactory, or would not provide the best value to the Agency.

8. **QUANTITIES**

Quantities in the Document are approximate only and are based on information available to the Agency at the time of tendering. Final quantities for payment of tender items supplied on a unit price basis shall be based on actual field measurements as determined by the Agency.

9. **BID PRICING CHANGES**

The legislation and regulations governing the workplace in Ontario, including, without limitation, the Canadian Income Tax Act, the Canadian Immigration and Refugee Protection Act, Ontario Employment Standards Act, 2000, Employer Health Tax Act, Labour Relations Act, 1995, Occupational Health and Safety Act and Workplace Safety and Insurance Act, 1997 may change at any time and may impact upon Bidders' pricing and overhead costs. In submitting its Submission, each Bidder hereby acknowledges that it has considered any proposed changes to legislation and regulations, and any impact such changes, if any, may have on its pricing. Bidders are advised that the Agency will not entertain requests to change submitted bid prices for this Document based on changes to the minimum wage or other legislative or regulatory amendments made under any statute. It is each Bidder's obligation to operate according to all applicable law at all times. For clarity, each Bidder takes on all risk and responsibility for cost increases due to legislative and regulatory changes. For further clarity, each Bidder takes on all risks due to health, environmental, social, emergency or other factors which may arise and which may result in unforeseen or otherwise uncalculated costs or legal circumstances to the Bidder in order to complete the Work, to keep its workers or the public safe according to applicable law and government order, or to address other intervening circumstances. The Bidder is required to arrange its own contractual and subcontractor obligations for labour, materials or other matters related to this contract so as to minimize or eliminate extra costs or circumstances which may jeopardize its ability to fulfill its contractual obligations to the Agency under this Document or Contract award.

10. **DIGITAL BID BOND**

To be considered, the Bidder's Submission must include a digitally created and electronically delivered bid bond in the form of bond included in Appendix 8.8 herein, naming the Agency as Obligee, in the amount of **\$200,000**.

The bond must be issued by a surety company licensed to issue surety bonds in the Province of Ontario.

Instructions to Bidders

The bond must be delivered by means of a service or application recognized as meeting in whole or in part the Surety Association of Canada's mandatory requirements for e-bonding solutions. Photocopies, images or scanned facsimiles will not be accepted.

It is to be noted that the digital bid bonds of all Bidders will not necessarily be verified by the Agency. Prior to award of the Contract, the Agency will verify the digital bid bond of the Bidder who is proposed to be awarded the Contract by the Agency. Where the digital bid bond is not verifiable, the bid will be deemed non-compliant and disqualified. In such a case, the Agency will proceed to verify the digital bid bond of the next Bidder proposed to be awarded the Contract, and continue the process as necessary, until a digital bond is verified by a fully compliant Bidder whose bid is proposed to be awarded the Contract by the Agency.

If a digital bid bond and an Agreement to Bond are requested by the Agency and the surety company only provides the Bidder with a merged version, the Bidder is required to upload the merged document in both applicable fields of the online Bidding System forms.

The digital bid bond of the Bidder whose submission is accepted shall be called upon should the Bidder fail to execute a Contract and provide the necessary documents as required within this Document (such as a satisfactory bond, insurance certificate, Workplace Safety and Insurance Board letter of clearance) within seven days after receiving written notice from the Agency of the award of the Contract to the Bidder.

11. FORM OF AGREEMENT AND ELECTRONIC AGREEMENT TO BOND

Upon receipt of written notice from the Agency that it has been awarded the Contract, the successful Bidder shall be required to execute an agreement with the Agency on the terms of the CCDC2 Stipulated Price Contract 2020, as amended by the Agency's Supplementary Conditions as contained herein.

In order to be considered for award, the Bidder shall submit through the Bidding System as part of their Bidder Submission, an Agreement to Bond in the form attached in Appendix 8.1, completed by a Bonding Company permitted to issue performance bonds and labour and material payment bonds in Ontario and with an A.M. Best rating of B+ or better. Any others will not be accepted. Each Bidder must submit the completed Agreement to Bond as part of their Bidder Submission in order to validate their Bidder Submission.

If a digital bid bond and an Agreement to Bond are requested by the Agency and the surety company only provides the Bidder with a merged version, the Bidder is required to upload the merged document in both applicable fields of the online Bidding System forms.

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Upon receipt of written notice from the Agency that it has been awarded the Contract, the successful Bidder shall provide, within seven days of such notice, a digitally created and electronically delivered Performance Bond and a Labour and Material Payment Bond, each for the amount of **50 per cent** of the total lump sum price, substantially in the forms required under the *Construction Act*, to guarantee the performance of all obligations of the Contract.

The Performance Bond and a Labour and Material Payment Bond must be submitted by the successful Bidder in a digital format that meets the following Surety Association of Canada (SAC) criteria:

- 11.1 The version of the bond submitted by the successful Bidder must be verifiable by the Agency with respect to the totality and wholeness of the bond form including: the content, all digital signatures, and all digital seals with the Surety Company, or an approved verification service provider of the Surety Company.
- 11.2 The version of the bond submitted by the successful Bidder must be viewable, printable and storable in pdf format or other standard electronic file format acceptable to the Agency, and in a single file.
- 11.3 Photocopies, images or scanned facsimiles of bonds will not be accepted.
- 11.4 The verification of the successful Bidder's submitted bonds may be conducted by the Agency immediately or at any time during the life of the bond and at the discretion of the Agency, with no requirement for passwords or fees.
- 11.5 The results of the bond verification must provide a clear, immediate and printable indication of pass or fail regarding item 11.1.
- 11.6 Bonds failing the verification process will NOT be considered to be valid and will NOT be accepted by the Agency as satisfying the requirements of the Contract.

12. **INSURANCE**

Within seven days after receiving written notice from the Agency of the award of the Contract, the successful Bidder shall submit to the Agency the completed Certificate of Insurance form with the required coverages and information as stated within the Contract Documents. No other form shall be accepted by the Agency.

The insurance shall be maintained continuously from the commencement of the Contract until such time as established in the Supplementary Conditions to Contract CCDC2-2020, SC.46, GC 11.1 – INSURANCE, as set out herein and established within the Contract Documents.

A deductible clause is only acceptable if the Contractor submits a signed and sealed letter stating the following:

"We (insert Contractor's name) authorize the Region of Peel to appoint an independent adjuster to settle any claims arising from this Contract which are for

Instructions to Bidders

amounts less than our insurance deductible figure. Furthermore, the Region can deduct any amounts of justifiable claims from monies owing to the Contractor."

13. GUIDELINES FOR THE CONTRACTOR WHERE OWNER'S STAFF AND OTHER CONTRACTORS ARE REQUIRED TO PERFORM WORK ON THE PROJECT SITE

Requirements for the contractor where other vendors/contractors or the Owner's staff/other contractors are required to attend the project site to perform work associated with the project are as follows.

The contractor shall:

- (a) Assume and fulfill the responsibility of constructor for all Owner's staff/other contractors attending the project site to conduct required Work.
- (b) Provide orientation to Owner's staff/other contractors prior to Work commencement at the site.
- (c) Identify a site supervisor contact or assistant for all Owner's staff/other contractors.
- (d) Maintain a sign in/out log of all visitors to the site, including owner's staff/other contractors.
- (e) Maintain a signed copy of the Owner's Staff/Other Contractors Project Constructor Coordination Form (Appendix 8.12) for any Owner's staff/other contractors on site, in which all such persons working on the site shall provide a signed acknowledgement that they will comply with the contractor's safety program and safety instructions.
- (f) In order to avoid delays, provide sufficient notice and coordinate Owner's staff/other contractors' work so it does not impact or conflict with any other work happening at the site.
- (g) Schedule Owner's staff/other contractors' work as close as possible to substantial completion to avoid the majority of construction hazards and risk to Owner's staff/other contractors.
- (h) Maintain a log of all Form 1000 provided by each employer on site.

14. **VENDOR PERFORMANCE EVALUATIONS**

The Agency will utilize its Contractor Performance Evaluation Form as per the Performance Evaluations Procedure F35-27 (the "Procedure") to provide a written evaluation and record of the successful Bidder's/ Contractor's performance on this Contract. Evaluation on Contractor performance under this Contract will be used to provide feedback to the Vendor for performance improvements and/or to acknowledge satisfactory performance, to determine the Bidder's eligibility or ineligibility to bid on future Agency Contracts and to justify award or non-award of future Contracts.

The complete Procedure, guidelines and Contractor Performance Evaluation Form can be found on the Agency's website at peelregion.ca/procurement, "Vendor Performance Evaluations" or https://peelregion.ca/procurement/#perf.

Instructions to Bidders

This Procedure and all related information may be amended from time to time and the most up-to-date version shall form part of this Contract. Bidders shall be aware that, if they are awarded this Contract, they shall be evaluated on the basis of the Procedure.

15. **SUBCONTRACTORS**

The Bidder shall provide in the Bidder Submission the name and address of each of its proposed subcontractors to be utilized in this project.

Attention is drawn to Section GC 3.7 of the General Conditions, Section SC19 of the Supplementary Conditions and to the instructions on the List of Suppliers and Subcontractors in the online Bidding System forms.

It is the responsibility of Bidders to ensure any subcontractors they retain are in good standing with the Agency under the Procedure and meet all requirements of this Document and are thus eligible to perform work on Agency contracts. Prior to bidding on this Document, Bidders shall contact the Agency at 905-791-7800 ext. 7538 to obtain a list of Contractors suspended from performing work on any Agency contracts as a subcontractor. Should a Bidder name any subcontractor in its Bidder Submission that is suspended as a subcontractor under the Procedure, the Bidder shall be required to name a replacement satisfactory to the Agency, acting reasonably, at no additional cost to the Agency, failing which the Bidder shall be deemed non-compliant and not given consideration for Contract award. By submitting a Bidder Submission, the Bidder accepts that the Agency has no liability to the Bidder or any subcontractor or third party related to the rejection of a subcontractor who is ineligible to be considered, or otherwise unsatisfactory to the Agency.

The Owner will not require completed Agreement to Bond forms for the subcontractors' bonds mentioned above to be submitted by the Bidder at the time of tendering. The Bidder may decide, at the Bidder's discretion, to obtain Agreements to Bond from the Bidder's subcontractors at the time of tendering.

16. **BIDDER SUBMISSION**

- (a) The Bidder Submission must be submitted electronically using the Bidding System.
- (b) A person or persons with authority to bind the Bidder must electronically declare on the online Bidding System that their Bidder Submission has been made entirely in accordance with the Document.
- (c) All pricing in the Bidder Submission must be expressed in figures, and must be in Canadian Dollars.
- (d) Prices in the Bidder Submission must include all costs necessary to complete the Work in accordance with the Document including customs and duties.
- (e) The Bidder represents, warrants and confirms that no oral or written alterations or variations in the Document and/or Contract have been

Instructions to Bidders

- made by the Bidder and none shall be valid or binding upon the Agency unless authorized by the Agency in writing.
- (f) Bidder Submissions which are qualified or subject to any conditions, limitations or restrictions shall be rejected by the Agency.
- (g) The Bidder acknowledges that it is solely responsible for obtaining and reviewing all Contract documents and all addenda issued by the Agency pertaining to the Document.

Only Bidders that are registered as a Plan Taker for this Document with Bids and Tenders at peelregion.bidsandtenders.ca and have obtained this Document from Bids and Tenders or the Agency, may submit a Bidder Submission.

Should the Agency receive a Bidder Submission that is subsequently found to be from a Bidder that is not a registered Plan Taker with Bids and Tenders at peelregion.bidsandtenders.ca, and the Bidder did not obtain the Document from Bids and Tenders or the Agency, the Agency reserves the right to reject the Bidder Submission as non-compliant and give it no further consideration for contract award.

17. **AGENCY RIGHTS**

The Agency reserves the right, in its sole and absolute discretion to:

- (a) deem a Bidder Submission to be unbalanced and may reject any and all Bidder Submissions, which it so deems, and for this purpose, "unbalanced" shall include, without limitation, a Bidder Submission which does not reflect a realistic breakdown of the costs of each or any portion of the Work;
- (b) adjust the totals in a Bidder Submission where there are errors in extensions, additions or computations. In such cases, the unit prices shown shall govern;
- (c) reject any or all Bidder Submissions, accept a Bidder Submission which is not the lowest price, reject a Bidder Submission even if it is the only one received by the Agency; and cancel or suspend or delay this request for Bidder Submissions at any time either before or after the receipt of Bidder Submissions, following which the Agency may proceed as it determines in its sole discretion, including without limitation, negotiating with any one or more of the Bidders or any other person or entity for the performance of the Work under such terms and conditions as the Agency may decide in its sole discretion, or issuing a new request for Bidder Submissions on the same or modified terms, all without liability to itself;
- (d) if making an award of the Contract in its entirety or in part, to one or more Vendors, make changes to the content of the Contract to address unforeseen circumstances which may have arisen during the bidding period, including but not limited to health, environmental, social or emergency events including but not limited to epidemics and pandemics, which require responses to ensure the health and safety of workers, the health of the public and of Agency staff, and the efficacy of the project are maintained at all times, if in doing so the best interests of the Agency will

Instructions to Bidders

be served, and the Agency will assess the expected costs of such changes and make a contingency allowance for same, which the Vendor may claim costs against on a zero mark-up basis upon proof sufficient to the Agency, unless such changes are expected to be able to be accommodated by the Vendor without change to the Contract Price;

- (e) award the Contract in its entirety or in part, to one or more Vendors, if in doing so the best interests of the Agency will be served;
- inspect and have a demonstration of the goods and/or services offered prior to award of a Contract and request evidence of experience, ability or financial standing;
- (g) waive formalities, technical defects, irregularities and omissions in a Bidder Submission, and may accept a Bidder Submission which does not comply with the formal requirements of the Document, if in doing so the best interests of the Agency will be served;
- (h) remove from the Agency's list of vendors the name of any vendor and/or Bidder for failure to accept a contract or for unsatisfactory performance or non-performance of a contract;
- (i) fully evaluate the Bidder Submission, which evaluation may include, without limitation, a review of references provided by the Bidder and of those that may be obtained by the Agency independently, past performance history of contracts between the Bidder and the Agency and/or between the Bidder and third parties, past completion history (including completion of full contract term, late or extended completion of contract and late delivery of goods or services), litigation and claims history of the Bidder (including previous, existing or potential litigation with the Agency or others and construction liens filed by the Bidder or subcontractors), delivery of incorrect services, customer service and responsiveness, or history of bidding unrealistic pricing, any of which may result in higher ultimate costs or other difficulties for the Agency, and to reject a Bidder Submission if the same is, in the Agency's sole opinion, unsatisfactory, or would not provide the best value to the Agency;
- (j) reject and disqualify any or all Bidder Submissions based on a Bidder's Vendor Performance Rating, status and standing as per the Agency's Vendor Performance Evaluations procedures, as amended from time to time:
- (k) seek further information and/or clarification, including without limitation a detailed price breakdown, from any Bidder after the closing time, for the purposes of assisting the Agency in interpreting and evaluating any Bidder Submission and in interpreting any inconsistencies which may appear in any Bidder Submission, and the Agency shall have the right to consider and rely on such further information and clarifications in evaluating the Bidder Submissions and awarding the Contract;
- (I) verify any Bidder statement or claim in a Bidder Submission by whatever means the Agency deems appropriate, and reject any Bidder Submission containing any such statement or claim if, in the judgment of the Agency, the statement or claim is unwarranted, not credible, or false; and

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(m) either before, after or as a change to the terms of the Contract award, to temporarily suspend or to alter the timelines of the Contract delivery schedule or any other terms of the Contract in its sole discretion, in response to circumstances beyond the Agency's control or legislative changes or orders of a government, related to health (such as public health, occupational health and safety or construction safety), environmental, social or other emergent or unforeseen circumstances such as epidemics and pandemics.

18. CONFIDENTIAL INFORMATION/OWNERSHIP AND DISCLOSURE OF BIDDER SUBMISSIONS

- (a) The Vendor agrees to protect and maintain the confidentiality of all personal or other information, including all personal health information, that the Vendor accesses or of which the Vendor acquires knowledge of as a result of the services in this Contract, and agrees to use, collect, disclose, retain, protect and dispose of the personal (health) information only in accordance with all privacy legislation applicable to the Agency where it is acting on behalf of the Agency. Disclosure of any information shall be done only with the Agency's prior written consent. The provisions of the indemnity clause in this Contract apply to any breach of privacy or confidentiality in this clause. The Vendor shall ensure that its directors, officers, employees, agents, subcontractors and anyone else for whom it is responsible in law all adhere to the requirements of this section regarding privacy and confidentiality.
- The Agency, and the Agency's responsibilities under this Contract, are (b) subject to all applicable privacy legislation including the Municipal Freedom of Information and Protection of Privacy Act, R.S.O. 1990 c.M.56, as amended ("MFIPPA") and/or the Personal Health Information Protection Act, 2004 ("PHIPA") with respect to the collection, use, disclosure, retention and protection of confidential, sensitive or personal (health) information under the Agency's custody and control. Under an MFIPPA request, all documents provided to the Agency by the Vendor pursuant to the procurement process which led to this Contract, and the Contract itself and associated documents, may be required by law to be made available to a requesting member of the public, with the possible exception that the party submitting certain information requests that it be treated as confidential and that there is an appropriate exemption to disclosure in MFIPPA, or a non-disclosure requirement in either MFIPPA or PHIPA.
- (c) The Bidder Submissions, along with all correspondence, documentation and information provided to the Agency by any Bidder in connection with or arising out of the Bidder Submission, once received by the Agency, shall become the property of the Agency and may be appended to any agreement and/or purchase order with the successful Bidder. Bidders must identify in their Bidder Submissions any scientific, technical, proprietary, commercial or other confidential information, the disclosure of which could cause them injury.

Instructions to Bidders

- (d) In public bids, the name of each Bidder and the lump sum price contained in their Bidder Submission shall be published on the Bidding System.
- (e) Where award is to be made by Regional Council, the Peel Police Services Board or the Board of Directors of Peel Housing Corporation, information regarding all Bidder Submissions, including names of each Bidder, lump sum prices and the annual or overall value of the Contract and/or Bidder Submissions shall be included in public reports to Regional Council or the relevant Boards such that the information is released publicly. The Bidder acknowledges that the Agency cannot guarantee it can honour requests to keep Bidder information confidential in light of applicable law requirements, and also in light of the need for transparency and public disclosure where release of Bidder information in public Council reports related to a specific project or procurement process is necessary.

19. COLLUSION AND CONFLICT OF INTEREST

- By submitting a Bidder Submission, each Bidder represents and warrants that no member, officer or employee of the Agency or Council has or will have an interest, directly or indirectly, in the performance of the Contract, or in the supplies, work or business in connection with the said Contract, or in any portion of the profits thereof, or in any monies to be derived therefrom; the Bidder Submission is not made in collusion with any other Bidder making a Bidder Submission for the same goods and services and is, in all respects, fair and without fraud; and that neither it nor any of its subcontractors nor any of their respective representatives has any actual, apparent or potential conflict of interest or existing business or other relationship with the Agency or any or any other party or person providing advice or services to the Agency with respect to the Document or the Work or any of their respective representatives that gives rise or might give rise to an unfair advantage (a "Conflict of Interest"). Each Bidder acknowledges that it is within the Agency's discretion to determine whether a Conflict of Interest exists.
- (b) Should the Bidder give or offer any gratuity to or attempt to bribe any member of the Agency, or to commit collusion or fraud, the Agency shall be at liberty to reject the Bidder Submission or, if a Contract has been awarded, terminate the Contract forthwith, without liability to itself, and to rely upon the sureties as provided for.
- (c) By submitting a Bidder Submission for this Document, each Bidder thereby releases and forever discharges the Agency from any and all liability related to any determination the Agency may make regarding Conflicts of Interest, including any disqualification, prohibition, rejection or contract termination which may result therefrom.
- (d) In addition to all other rights in this Document or otherwise available at law or in equity, the Agency may, in its discretion, immediately disqualify a Bidder Submission or may terminate any contract entered into in connection with or resulting from the Document, without liability, penalty or cost, upon giving notice to the Bidder if the Bidder or any of their

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respective representatives fails to disclose or has failed to disclose any Conflict of Interest.

20. HARMONIZED SALES TAX (HST) INFORMATION

The Agency is subject to the payment of provincial and federal taxes imposed by the Provincial and Federal Governments and, if required, the collection of any withholding tax for non-resident Vendors. All prices within this document shall be quoted exclusive of HST.

21. <u>ACCESSIBILITY FOR ONTARIANS WITH DISABILITIES</u>

The Vendor shall comply with the *Accessibility for Ontarians with Disabilities Act* 2005, and its Regulations thereunder with regard to the provision of goods or services to persons with disabilities. The Vendor acknowledges that pursuant to the *Accessibility for Ontarians with Disabilities Act* 2005, the Region of Peel must, in deciding to purchase goods or services through its procurement process, consider accessibility for persons with disabilities to such goods or services. This legislation can be accessed through the following link to the Government of Ontario's website: ontario.ca/laws/statute/05a11. You may also access this link at peelregion.ca/procurement, "Additional Information for Bidders" and view the accessibility standards.

22. INVOICING AND ELECTRONIC PAYMENT INSTRUCTIONS

- 22.1 All invoices must be sent to the individual ordering the goods/ services or as directed at the time of the order placement. Failure to do so will result in a delay of payment.
- 22.2 The Agency's method of payment is by Electronic Funds Transfer (EFT). The Vendor will be required to provide the Agency with the Application for Vendor Direct Deposit form containing original signatures in ink, by return mail, fax or hand delivered, the following banking information:
 - 22.2.1 Names of two Company Officers, their titles, e-mail addresses, fax numbers, and phone numbers. Note: Both Company Officers must sign off on any subsequent changes to the Vendor's banking information.
 - 22.2.2 Company mailing and remittance addresses.
 - 22.2.3 Banking information including a void cheque.
 - 22.2.4 The Vendor is required to notify the Agency of any changes to this information immediately.

23. **VENDOR AS CONSTRUCTOR**

The Vendor acknowledges that, unless the Agency advises the Vendor of the Vendor's engagement of a safety consultant who will fulfill the role of "constructor" for the project, the Vendor will be the "constructor" and the

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"employer" within the meaning of the *Occupational Health and Safety Act* (Ontario) and the Vendor undertakes to carry out the duties, obligations and responsibilities of the constructor and the employer with respect to the project.

In this project, the Agency may have cause to enter into more than one contract for the project. Additionally, there may be instances where the Agency's staff are required to attend the project site for specified intervals to perform work associated with the project. In such cases, the Vendor is required and agrees to fulfill all of the duties, obligations and responsibilities of the "constructor" and "employer" with respect to the project and on behalf of the owner, in accordance with the terms and conditions set out in SC 42 of the Supplementary General Conditions, and any other requirements are set out in the Contract Documents.

24. EMERGENCY RESPONSE REQUIREMENTS

- 24.1 In addition to the Contractor's obligations to follow all applicable law pursuant to paragraphs A-1.3 and GC 10.2.3 of the CCDC 2-2020, as may be amended by the Supplementary, including but not limited to that applicable to public health, occupational health and safety and to construction safety, the parties acknowledge that there may arise circumstances, such as epidemics and pandemics, where they intend to cooperate in good faith with each other to resolve concerns which may arise related to health, environmental, social or other emergency circumstances, so as to continue the Work and to avoid any increases in Contract Price or delay in progress of the Work wherever possible.
- 24.2 The parties acknowledge the Delay terms in paragraph 6.5.3 of the CCDC 2-2020, as may be amended by the Supplementary Conditions, related to causes beyond the Contractor's control. There may be circumstances which arise after Contract Award, and relate to any contingency allowance which the Region of Peel may have put in place or which a party believes extend beyond or in addition to such contingency allowance terms, but which do not meet those circumstances in paragraph 6.5.3 of the CCDC 2-2020, as may be amended by the Supplementary Conditions, and which the parties wish to discuss. Such topics may include the following non-exhaustive list:
 - .1 stop Work;
 - .2 suspend Work;
 - .3 change Work;
 - .4 change Substantial Performance Date or the date of Ready-for-Takeover:
 - .5 change critical path of Construction Schedule;
 - change subcontractors or suppliers per GC 3.6 of the CCDC 2-2020, as may be amended by the Supplementary Conditions. the parties agree to:
 - .7 use paragraph 8.3.3 of the CCDC 2-2020, as may be amended by the Supplementary Conditions to conduct amicable discussions or negotiations;

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- .8 to work within Part 6 of the CCDC 2-2020, as may be amended by the Supplementary Conditions, wherever possible to agree upon any changes;
- .9 to work together notwithstanding paragraph 6.3.3 of the CCDC 2-2020, as may be amended by the Supplementary Conditions, where needed; and.
- .10 the parties agree that in such circumstances, paragraph. 7.2.2 of the CCDC 2-2020, as may be amended by the Supplementary Conditions, delay prior to termination by the Contractor shall be extended to 120 days or longer.
- 24.3 This section is to be distinguished from paragraph 10.2.7 of the CCDC 2-2020, as may be amended by the Supplementary Conditions, as it is acknowledged that the circumstances for discussion in this regard relate to situations where health, environmental, social or emergency needs or government regulation related to same may dictate the Contractor's response to, within the terms of the Contract, request changes which will not result in a change to Contract Price if they are discussed early and promptly or where a change to Contract Price may be agreed between the parties on a zero mark-up basis, and where it is the preference of both parties that the Work continue, even though subject to differing or extra health or safety obligations.
- 24.4 In such discussions or negotiations, the following is applicable:
 - 24.4.1 changes in the Work would preferably be made by agreement;
 - 24.4.2 if changes are requested by the Contractor, there shall be no extra cost to the Owner or costs on a zero mark-up basis as may be agreed upon with the Owner; and
 - 24.4.3 if changes are requested by the Owner, there shall be no extra cost to the Owner unless the Contractor provides records as may be necessary to support a claim on a zero-mark-up basis to which the Owner could agree.

Evaluation Process

1. **EVALUATION COMMITTEE**

Bidder Submissions will be evaluated by an evaluation committee comprised of Regional staff members through consensus evaluation meetings. Failure to provide a response to any of the requested information may deem the submission non-responsive and subsequently no points will be assigned during the evaluation process. Information submitted is subject to verification, and further pertinent information may be obtained from references. Reference checks by the Agency may not be limited to those listed in the Respondent's Submission.

By responding to this Document, Bidders agree to accept the decision of the evaluation committee as final. Bidders are required to submit their Technical and Pricing Proposals in the Online Bidding System Forms.

2. **EVALUATION METHODOLOGY**

This Document will be evaluated in two phases:

Each Bidder Submission will be evaluated in two stages, as follows. The evaluation of all Bidder Submissions will be based on a cumulative total score of 100 points, composed of 70 points being allocated to the Bidder's Technical Proposal and 30 points being allocated to the Financial Proposal.

Phase I - Request for Information - Pre-qualification of Bidders

Phase I requires that Bidders provide information on their company and related experience in providing HVAC system upgrades, electrical power and lighting system, structural fabrication and installation, sprinkler and fire alarm system, BAS upgrades and other building components in institutional/Multi residential and /or ICI environment. Based on the information received, an evaluation committee will evaluate all responses. Bidders that receive an evaluation score of less than 65% (45.5 of the 70 available points) for their Technical Proposal submission will not be eligible to move to Phase II — Pricing Evaluation, and they will be given no further consideration for award.

Phase II - Pricing Evaluation

Only those Bidders who have met or exceeded the minimum technical score in Phase I will enter into Phase II and the separate pricing file of the Bidder Submission evaluated as part of Phase II and for Contract award.

3. **EVALUATION CRITERIA PROCESS**

Bidder Submissions will be evaluated by an evaluation committee based on the categories below. The disclosure of the allocated weightings for each category is provided to assist Bidders in preparing a proposal that best meets the requirements of the Agency.

Evaluation Process

Category	Weighting
1.3 Company Profile	9 Points
1.3.1 Explain in detail your Organization's philosophy, background and areas of expertise.	3
1.3.2 Provide details of your firm's Quality Management program.	2
1.3.3 Provide details of your firm's Health and Safety program.	2
1.3.4 Provide details of your approach to selecting subcontractors and your subcontractor management plan	2
1.4 Experience Leading Similar Projects CCDC-11	35 Points
1.4.1 Provide and complete in full a Contractor's Qualification Statement CCDC-11 version 2019.	5
1.4.2 Provide and complete in full a Contractor's Qualification Statement CCDC-11 version 2019. Regarding CCDC-11 Appendix B, please ensure you provide a description of a minimum of three recently completed projects within the years 2013 to 2023 which demonstrate the relevant capabilities of your firm in providing contracting services in an Institutional/Multi Residential and/or ICI environment.	30 (10 Points for each project reference)
1.5 Project Team and Experience	8 Points
1.5 Project Team and Experience 1.5.1 Propose your Team as referenced in item 4 of the Terms of Reference, Contractors Team. Provide an organization chart identifying all Key Personnel to be assigned and show the reporting relationships among these individuals.	8 Points 3
1.5.1 Propose your Team as referenced in item 4 of the Terms of Reference, Contractors Team. Provide an organization chart identifying all Key Personnel to be assigned and show the reporting relationships among these	
 1.5.1 Propose your Team as referenced in item 4 of the Terms of Reference, Contractors Team. Provide an organization chart identifying all Key Personnel to be assigned and show the reporting relationships among these individuals. 1.5.2 For the Project Manager and Site Supervisor provide a brief curricula vita describing the following: Years of experience specifically related to this type of work. Work history / years with the firm Completed project listing. Education and professional affiliations 1.6 Subtrade Team 	3
 1.5.1 Propose your Team as referenced in item 4 of the Terms of Reference, Contractors Team. Provide an organization chart identifying all Key Personnel to be assigned and show the reporting relationships among these individuals. 1.5.2 For the Project Manager and Site Supervisor provide a brief curricula vita describing the following: Years of experience specifically related to this type of work. Work history / years with the firm Completed project listing. Education and professional affiliations 	3 5
 1.5.1 Propose your Team as referenced in item 4 of the Terms of Reference, Contractors Team. Provide an organization chart identifying all Key Personnel to be assigned and show the reporting relationships among these individuals. 1.5.2 For the Project Manager and Site Supervisor provide a brief curricula vita describing the following: Years of experience specifically related to this type of work. Work history / years with the firm Completed project listing. Education and professional affiliations 1.6 Subtrade Team 1.6.1 Please confirm your subtrade team and explain your rationale for choosing these subtrade's and why they are 	3 5 2 Points

Evaluation Process

1.7.2 Please confirm the manufacturer and lead time for Radiant Panels.	2
1.7.3 Own Structural fabrication facility or structural work will be done by sub-vendor.	2
1.8 Proposed Work Plan	10 Points
1.8.1 Provide a schedule detailed to the subtrades activities (Level 3 Gantt chart or other graphic schedule) that demonstrate your understanding of the projects.	10

By responding to this Document, Bidders agree to accept the decision of the evaluation committee as final.

2 PRICING – MANDATORY REQUIREMENT

Pricing information will be entered by Bidders in the pricing tables provided in the Bidding System and included with the Bidder submission in order for the Bidder submission to be considered. Upon completion of the technical evaluation stage, only those Bidder Submissions that are deemed to meet the needs of the Agency will move on to the pricing evaluation stage and have their submitted pricing considered as the final phase of this call.

Important:

The intent of the two-phase evaluation process is to ensure that Bidder Submissions are evaluated initially on the basis of the Agency's criteria only, without regard to pricing. If Bidders attempt to indicate pricing outside of the process indicated above, the Bidder shall, at the Agency's sole discretion, be deemed non-compliant and given no further consideration.

Financial Proposal Score = (Lowest Priced Financial Proposal / Financial Proposal Price) x 30 (assigned weighting for Financial Proposal)

Terms of Reference

1. Introduction

- 1.1 The Region of Peel's Real Property Asset Management (RPAM) Division manages Agency owned and leased properties. RPAM leads the effective acquisition and disposal of real property assets, ensuring they retain their value and integrity through property management, operations, maintenance, and lifecycle renewals.
- 1.2 The focus of this call is to retain an experienced Contractor to undertake upgrades of HVAC system, electrical power and lighting system, structural fabrication and installation, sprinkler and fire alarm system, BAS upgrades and other major building components.

2. <u>Site Context and High-Level Scope of Work</u>

- 2.1 The existing building/project is located at 3190 Mavis Road, Mississauga and completed in 2018. The total approximate site area is approximately 11,630 m² and the Gross Floor Area (GFA) is 3,132 m². Notable existing building elements include: office, meeting rooms, washrooms, lunchroom and other support rooms such as equipment room, mechanical and electrical rooms, IT room, HVAC system, sound masking system in open office area and meeting rooms, mechanics garage, fuel island etc. The building is served by one elevator. There is no underground parking.
- 2.2 Approximately 450.4m² of new construction of a second story addition for the Agency to be occupied by Accessible Transportation (TransHelp) and Peel Regional Paramedic Services (PRPS) Satellite Station complete with mechanical, electrical, lighting, communication, security, sound masking, fire protection systems, BAS Upgrades etc. as indicated in the Contract Drawings and Specified in the Specifications.
- 2.3 Relocate existing condensing unit, extend electrical wiring, control wiring and refrigerant piping as shown on the Contract Drawing. Supply, install, test and commission new mechanical and electrical units as shown on Contract Drawings complete with electrical wiring, control wiring and refrigerant piping. Other mechanical equipment such as radiant panel, energy recovery ventilator, electric duct heater, electric heater, HVAC fans, and diffuser shall be supplied, installed, test and commission as per the Contract Documents.
- 2.4 Provide electrical distribution systems, communications, conduit systems, grounding systems, lighting, lighting control system, fire alarm system, security and access control and CCTV, lightning protection and other building services. The Building Automation System (BAS) will be modified and recommissioned to accommodate the new and existing equipment.
- 2.5 The electrical service to site comes from a pad mounted transformer. The utility owned transformer is rated at 1,000 KVA. Emergency power to the building is provided by a 750 KVA standby gas fired generator.

Terms of Reference

- 2.6 Protect and maintain including watering all the existing landscape work including bioswale in the construction area. Repair damaged landscape work after construction work to the satisfaction of the Consultant/Agency.
- 2.7 Detailed scope of work including Contract Drawings and Specifications can be referenced in Appendix 8.2 and Appendix 8.3.

3. Critical Milestones:

- 3.1 Start of Construction: Immediately upon award- May 2024.
- 3.2 Substantial Performance no later than April 30, 2025
- 3.3 Ready-for-Takeover of Project: June 30, 2025.

4. Contractors Team

- 4.1 The Contractors Project Team is to be led by a senior Project Manager with a minimum of 10 years' experience with projects of similar size, scope, and complexity. The Project Manager is to serve as the single point of contact between the Contractor and the Agency.
- 4.2 The Site Supervisor must have a minimum of 10 years' experience with projects of similar size, scope, and complexity.
- 4.3 Any Identified Sub Trades noted in the Request for Information section must have a minimum of 10 years' experience in projects of similar scope, scale, and complexity.
- 4.4 Agency prior approval is required if a change to any assigned personnel or subtrade is required.

5. Monthly Status Report

As part of the Scope of Work, the Contractor is required to provide a monthly status update report that is to accompany the monthly payment draw request. The report is to provide an update in the following areas:

Monthly Summary of Work

- 5.1 Four Week Look ahead of the Work.
- 5.2 Schedule Update and Commentary
- 5.3 Submittal Updates
- 5.4 Cash Flow Update
- 5.5 Risks / Issues / Concerns

6. Meetings

The Contractor will allow for the following meetings:.

- 6.1 One Pre-construction meeting upon award of the Contract.
- 6.2 Bi-weekly construction meetings.
- 6.3 Meetings are to be held on-site or at an alternate location, if approved by the Agency.

Terms of Reference

- 6.4 Meetings are to be attended by the Contractor's Project Manager and Site Supervisor.
- 6.5 Prepare minutes of the meeting and circulate within 3 days of the meeting.

7. Form of Contract

The work under this contract is to be delivered through a CCDC2 2020 Stipulated Price/Sum contracts as modified by the Agency's Supplementary Terms and Conditions.

8. **Contingency Allowance**

- A Contingency Allowance has been established to address aspects of the work that is either unknown or was not contemplated at the time of this Proposal issuance. This includes but is not limited to scope changes and/or unforeseen work or site conditions.
- 8.2 All Contingency work is to be approved in advance by the Agency. The Agency is under no obligation to pay the awarded Contractor for any unused contingency funds or for unapproved contingency work.
- 8.3 Unexpended portion of Contingency Allowance will be deducted from the Contract Price.

9. Cash Allowance

- 9.1 Cash Allowance has been established for items of the Work which could not be fully qualified prior to tendering. Unexpended portion of cash allowance will be deducted from the Contract Price.
- 9.2 Contractor will not charge any overhead and profit, supervision and coordination fee, administration fee on cash allowance work/items. All cash allowance will be paid at actuals.
- 9.3 Where the amount expended for a Cash Allowance item is less than the specified amount of the Cash Allowance, the Agency will be credited for the unexpended amount as a credit Change Order.
- 9.4 No Statutory Holdback and Warranty Security Holdback deductions will be applied only on Cash Allowance items.

Request for Information

1. REQUEST FOR INFORMATION – PROPOSAL SUBMISSION

- 1.1 The Bidders are required to provide a comprehensive point-by-point response in the electronic bidding system for each of the items listed in this section. The information is to be uploaded in the appropriate upload area in the online Bidding System. Each of the uploaded information should clearly identify each item to which it is responding (by number and heading, i.e. 1.1, 1.2.1, 1.2.2, etc.).
- 1.2 The evaluation committee will review and evaluate the information provided by Bidders in response to the items listed below. Failure to provide a response to any of these requirements may deem the submission non-responsive and subsequently no points will be assigned during the evaluation process. Information submitted is subject to verification, and further pertinent information may be obtained from references. Reference checks by the Agency may not be limited to those listed in the Respondent's Submission.

1.3 **Company Profile**

- 1.3.1 Explain in detail your Organization's philosophy, background, and areas of expertise.
- 1.3.2 Provide details of your firm's Quality Management program.
- 1.3.3 Provide details of your firm's Health and Safety program.
- 1.3.4 Provide details of your approach to selecting subcontractors and your subcontractor management plan.

1.4 Experience Leading Similar Projects CCDC-11

- 1.4.1 Please provide and complete in full a Contractor's Qualification Statement CCDC-11 version 2019.
- 1.4.2 Regarding CCDC-11 Appendix B, please ensure you provide a description of a minimum of **three** recently completed projects within the years 2013 to 2023 which demonstrate the relevant capabilities of your firm in providing contracting services in an Institutional/Multi Residential and/or ICI environment.
- 1.4.3 Projects referenced in CCDC-11 Appendix B shall be similar in scope, scale and complexity to the Scope of Work referenced in item 2 of the Terms of Reference and Appendix 8.2 and 8.3. For each project listed, provide the following information:
 - .1 Role played by your firm and services provided.
 - .2 The total value of the project.
 - .3 Project start and substantial performance date.
 - .4 The name, title, address and telephone number of the client and Consultant contact for reference purposes.

1.5 **Project Team and Experience**

1.5.1 Please propose your Team as referenced in item 4 - Contractors Team in Terms of Reference section and provide an organization

Request for Information

chart identifying all Key Personnel to be assigned and show the reporting relationships among these individuals.

- .1 Identify personnel assigned.
- .2 Provide duties and responsibilities of all Key Personnel.
- 1.5.2 For the Project Manager and Site Supervisor, provide a brief curricula vita or resume describing the following:
 - .1 Years of experience specifically related to this type of work.
 - .2 Work history / years with the firm.
 - .3 Completed project listing.
 - .4 Education and professional affiliations.

1.6 **Subtrade Team**

- 1.6.1 Please confirm your subtrade team and explain your rationale for choosing these subtrades and why they are most suited for this project.
- 1.6.2 If any of the scope disciplines are to be completed without utilizing a subtrade, please indicate "Own Forces" and those disciplines will be evaluated against the experience provided in CCDC-11, item 1.4.

1.7 Equipment Supply and Structural Fabrication Facility

Referencing to the Specification and Contract Drawings, please confirm the following:

- 1.7.1 Please confirm the manufacturer and lead time for H.P Unit.
- 1.7.2 Please confirm the manufacturer and delivery lead time for Radiant Panels.
- 1.7.3 Please confirm that structural fabrication and installation work on this project will be done by own forces or by sub-vendors.

1.8 **Proposed Work Plan**

- 1.8.1 Provide a schedule detailed to the subtrades activities (Level 3 Gantt chart or other graphic schedule) that demonstrate your understanding of the projects.
- 1.8.2 The schedule must reflect a contract start date of May, 2024 and either meet or exceed the Critical Milestones referenced in item 3 in Terms of Reference. If certain Critical Milestones cannot be achieved as specified in item 3, then identify those milestones with a revised date and explanation.
- 1.8.3 The schedule shall include all details required to successfully deliver the Projects. The Contractor shall make their own determination as to the sequence of the below items; the list is not intended to restrict the Contractor, but rather to be coordinated with the milestone dates listed elsewhere in these documents.
 - .1 Identification of critical path, predecessors, successors activities, lags (negative and positive) floats, merge bias, constraints (hard and preferential).
 - .2 Project Kick-off Meetings with Owner/Consultant

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SECOND FLOOR EXPANSION, 3190 MAVIS ROAD, CITY OF MISSISSAUGA, PROJECT 22701

Request for Information

.3	Preparation and submission of documents	to
	Consultant/Owner	
.4	Submission of shop drawings and samples.	
.5	Order and delivery of materials and equipment on site.	
.6	Mobilizing on site.	
.7	List relevant construction activities for each scope of work	۲.
.8	Commissioning of the System.	
.9	Substantial Performance of the Project.	
.10	Project Closeout/Demobilization	
.11	Final Completion of Contract	

Document 2024-149P Regional Municipality of Peel-Procurement Division

SECOND FLOOR EXPANSION, 3190 MAVIS ROAD, CITY OF MISSISSAUGA, PROJECT 22701

Supplementary Conditions to Contract CCDC2 - 2020

SCHEDULE 1

Supplementary Conditions for Standard Construction Document CCDC2 2020 Stipulated Price Contract

SC.1 GENERAL

These Supplementary Conditions presuppose the use of the Standard Construction Document CCDC2 - 2020 Stipulated Price Contract. These "Supplementary Conditions" void, supersede or amend the "Agreement", "Definitions" and "General Conditions" as hereinafter provided, as the case may be.

SC.2 ARTICLE A-1 – THE WORK

- 1. Amend Article A-1 THE WORK as follows:
 - (a) **add** "diligently" to the beginning of paragraph 1.1.
 - (b) **delete** everything after "Contract Documents," in paragraph 1.3 and **replace** with the following:
 - "attain *Substantial Performance of the Work*, by the day of 30th April, in the year 2025, and *Ready-for-Takeover*, by the day of 30th June in the year 2025."
 - (c) **add** new paragraph 1.4 as follows:
 - "1.4 provide all the labour, materials, equipment, machinery, Products and work including, without limitation, all Commissioning services required by the Contract Documents in order to fully complete and construct the Work and in accordance with, and satisfaction of, all applicable federal, provincial, municipal and local laws, regulations, rules, by-laws, guidelines, standards, permits, statutes, ordinances, and codes including, without limitation, those relating to occupational health and safety and any and all obligations, responsibilities and duties required by or set out in any site plan agreement or approval, attributable to the Place of the Work and/or the proposed development therein, and furnish efficient business and construction administration and superintendence consistent with the interests of the Owner."

SC.3 ARTICLE A-3 – CONTRACT DOCUMENTS

- 1. **Add** the following documents to the existing list of Contract Documents set out in Article A-3 CONTRACT DOCUMENTS:
 - Addenda, as issued
 - Instructions to Bidders
 - Supplementary General Conditions to CCDC2-2020
 - Agreement to Bond
 - Specifications

Division 01 – General Requirements

- 01 00 00 General Requirements
- 01 26 15 Requests for Information

Supplementary Conditions to Contract CCDC2 - 2020

ry Conditions to Contract CCDC2 - 2020			
•	01 31 00	Project Management and Coordination	
•	01 32 00	Construction Progress Documentation	
•	01 33 00	Submittal Procedures	
•	01 35 29	Health and Safety Requirements	
•	01 35 43	Environmental Procedures	
•	01 41 00	Regulatory Requirements	
•	01 45 00	Quality Control	
•	01 51 00	Temporary Utilities	
•	01 52 00	Construction Facilities	
•	01 56 00	Temporary Barriers and Enclosures	
•	01 61 00	Common Product Requirements	
•	01 71 00	Examination and Preparation	
•	01 74 19	Cleaning, Waste Management and Disposal	
•	01 77 00	Closeout Procedures	
•	01 78 00	Closeout Submittals	
•	01 79 00	Demonstration and Training	
•	01 91 00	Commissioning	
		Existing Conditions	
•	02 41 00	Demolition	
	Division 03 –		
•	03 10 00	Concrete Forming and Accessories	
•	03 20 00	Concrete Reinforcing Cast-in-Place Concrete	
•	03 30 00 Division 05 –		
	05 12 23	Structural Steel for Buildings	
	05 12 23	Structural Joist Framing	
•	05 31 00	Steel Decking	
•	05 41 00	Structural Metal Stud Framing	
•	05 50 00	Metal Fabrications	
-		Wood, Plastics, And Composites	
•	06 10 00	Rough Carpentry	
•	06 20 00	Finish Carpentry	
•	06 40 00	Architectural Woodwork	
•	06 61 16	Solid Surfacing	
		Thermal and Moisture Protection	
•	07 21 13	Building Insulation	
•	07 21 19	Foamed-in-Place Insulation	
•	07 26 00	Vapour Retarders	
•	07 27 00	Vapour Permeable Air Barriers	
•	07 42 43	Composite Wall Panels	
•	07 46 13	Preformed Metal Siding	
•	07 54 19	Polyvinyl Chloride Roofing	
•	07 62 00	Sheet Metal Flashing and Trim	
•	07 81 16	Cementitious Fireproofing	
•	07 81 23	Intumescent Fireproofing	

Supplementary Conditions to Contract CCDC2 - 2020

ry Conditions to Contract CCDC2 - 2020						
•	07 84 00	Firestopping				
•	07 92 00	Joint Sealing				
	Division 08 – Openings					
•	08 11 00	Metal Doors and Frames				
•	08 44 13	Glazed Aluminium Curtain Walls				
•	08 71 10	Door Hardware				
•	08 80 05	Glazing				
	Division 09 -	- Finishes				
•	09 21 16	Gypsum Board Assemblies				
•	09 22 16	Non-Structural Metal Framing				
•	09 30 13	Ceramic Tiling				
•	09 51 13	Acoustic Panel Ceilings				
•	09 65 19	Resilient Tile Flooring				
•	09 65 43	Linoleum Flooring				
•	09 68 13	Carpet Tile				
•	09 69 00	Access Flooring				
•	09 91 23	Interior Painting				
	Division 10 -	- Specialties				
•	10 28 10	Toilet and Bath Accessories				
	Division 21 -	Fire Suppression				
•	21 05 00	Common Work Results for Fire Suppression				
•		Wet Pipe Sprinkler Systems				
	Division 22 -	<u> </u>				
•	22 05 00	Common Work Results for Plumbing				
•	22 05 29	Hangers and Supports for Plumbing Piping and				
		Equipment				
•	22 07 19	Plumbing Piping Insulation				
•	22 11 16	Domestic Water Piping				
•	22 11 19	Domestic Water Piping Specialist				
•	22 13 16	Sanitary Waste and Vent Piping				
•	22 14 13	Facility Storm Drainage Piping				
•	22 14 19	Sanitary Waste Piping Specialist				
•	22 14 26	Facility Storm Drains				
•	22 42 00	Commercial Plumbing Fixtures				
		Heating, Ventilating and Air-Conditioning				
	(HVAC)	0 14 15 14 1 15 14 0				
•	23 05 00	Common Work Results for HVAC				
•	23 05 01	Installation of Pipe Work				
•	23 05 13	Common Motor Requirements for HVAC				
	00.05.40	Equipment				
•	23 05 16	Expansion Fittings and Loops for HVAC Piping				
•	23 05 19	Meters and Gauges for HVAC Piping				
•	23 05 23	General Duty Valves for HVAC Piping				
•	23 05 29	Hangers and Supports for HVAC Piping and				
	Equipment	Identification for LIVAC Division and Equipment				
•	23 05 53	Identification for HVAC Piping and Equipment				

Supplementary Conditions to Contract CCDC2 - 2020

tions to Contra	CT GGDG2 - 2020
23 05 93	Testing, Adjusting and Balancing for HVAC
23 07 13	Duct Insulation
23 07 19	HVAC Piping Insulation
23 08 00	Commissioning of HVAC
23 09 33	Electric and Electronic Control System for HVAC
23 21 16	Hydronic Piping Specialties
23 23 00	Refrigerant Piping
23 31 13	Metal Ducts
23 33 00	Air Duct Accessories
23 33 16	Dampers
23 33 46	Flexible Ducts
23 33 53	Duct Liners
23 34 00	HVAC Fans
23 37 13	Diffusers, Registers and Grilles
	Air Source Unitary Heat Pumps
	Radiant Heating Units
	Integrated Automation
	EMCS: General Requirements
	EMCS: Submittals and Review
	EMCS: Start-Up and Check-Out
	EMCS: Training
	EMCS: Field Installation
	EMCS: Warranty and Maintenance
	EMCS: Local Area Network (LAN)
	EMCS: Operator Workstation (OWS)
	EMCS: Building Controllers Family of Controllers
	General Conditions Electrical
	Common Work Results- Electrical
	Wire and Box Connectors (0-1000V)- Electrical
	Wire and Cables (0-1000V) Electrical
	Grounding - Primary – Electrical
	Hangers and Supports for Electrical Systems
	Splitters, Junction Boxes, Pull Boxes and Cabinets
	Outlet and Conduit Boxes and Fittings
	Conduits, Conduit Fastening and Conduit Fittings
	Wiring Devices Electrical
	Fuses – Low Voltage Electrical Disconnect Switches – Fused and Non-Fused
	Lightning Protection Electrical
	Interior Lighting Electrical
	Electrical Identification Electrical
	Testing and Commissioning of Electrical Systems
	Communications
21 00 00	Communications
	23 05 93 23 07 13 23 07 19 23 08 00 23 09 33 23 21 16 23 23 00 23 31 13 23 33 00 23 33 16 23 33 46 23 33 53 23 34 00 23 37 13 23 81 43 23 83 00

Supplementary Conditions to Contract CCDC2 - 2020

Division 28 - Electronic Safety and Security

- 28 13 00 Access Control Electrical
- 28 31 02 Multiplex Fire Alarm System Electrical

Drawings

Architectural Drawings:

- A000 Cover Page, Drawing List & OBC Matrix
- A101 Site Plan
- A201 Ground Floor / Fire Separation Plan
- A202 Second Floor / Fire Separation Plan
- A203 Roof Plan
- A204 Part Ground Floor Demolition Plan
- A205 Part Second Floor Demolition Plan
- A206 Part Ground Floor Plan
- A207 Part Second Floor Plan
- A208 Part Second Floor Reflected Ceiling Plan
- A209 Part Second Floor Finishing Plan
- A210 Enlarged Plan Barrier Free Washroom
- A301 Building Demolition Elevations
- A302 Building Elevations
- A401 Building Sections
- A402 Building Sections
- A403 Wall Sections
- A404 Wall Sections
- A405 Wall Sections
- A406 Wall Sections
- A501 Ladder Plan, Section & Details
- A601 Section Details
- A602 Section Details
- A603 Section Details
- A604 Section Details
- A605 Section Details
- A610 Plan Details
- A611 Plan Details
- A612 Plan Details
- A613 Plan Details
- A801 Millworks
- A802 Millwork Details
- A901 Room Schedule & Door and Frame Schedule
- A902 Window Schedule

Structural Drawings:

- S101 General Notes, Schedules, Abbreviations & Drawing List
- S102 Typical Details
- S201 Demolition & New Foundation Plans
- S202 Part Second Floor & Low Roof Framing Plans
- S203 Part High Roof Framing Plan

Supplementary Conditions to Contract CCDC2 - 2020

- S301 Framing Elevations
- S501 Sections
- S502 Sections
- S503 Sections
- S504 Foundation Sections

Mechanical Drawings:

- M-0 Title Sheet
- M-1.1 Mechanical Legend
- M-1.2 Mechanical Schedules
- M-1.3 Mechanical Details I
- M-1.4 Mechanical Details II
- M-2.1 Part Roof Plan Mechanical Demolition
- M-2.2 Part Roof Plan Mechanical New
- M-2.3 Part Second Floor Plan HVAC Demolition
- M-2.4 Part Second Floor Plan HVAC New
- M-2.5 Part Second Floor Plan Hydronic Piping System
- M-2.6 Part Ground Floor Plan Refrigerant Piping Demolition
- M-2.7 Part Ground Floor Plan Refrigerant Piping New
- M-2.8 Part Second Floor Plan Refrigerant Piping
- M-2.9 Part Ground Floor Plan Mechanical New for Concrete Columns
- M-3.1 Part Ground Floor Plan Drainage
- M-3.2 Part Second Floor Plan Drainage New
- M-3.3 Part Second Floor Plan Plumbing
- M-4.1 Part Second Floor Plan Fire Protection New

Electrical Drawings:

- E-1.0 Electrical Legend and Details
- E-1.1 Electrical Details
- E-1.2 Electrical Details
- E-1.3 Electrical Details
- E-1.4 Electrical Details
- E-1.5 Electrical Details
- E-2.0 Electrical Plan Roof
- E-2.1 Electrical Plan Ground Floor
- E-2.2 Electrical Plan Second Floor
- E-3.2 Reflected Ceiling Plan Second Floor
- E-4.1 Electrical Grounding System Details
- E-4.2 Electrical Grounding System Riser Details
- E-5.2 Electrical Demolition Plan Second Floor/Roof
- E-6.2 Reflected Ceiling Demolition Plan Second Floor/Roof
- E-7.1 Electrical Single Line Diagram
- E-7.2 Electrical Panel Schedules
- E-9.1 Electrical Plans

Communications Drawing:

C-1.1 Communications Legend and Details

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- C-1.2 Communications Details
- C-2.1 Communications Plan Ground Floor
- C-2.2 Communications Plan Second Floor
- C-3.1 Communications Riser Diagram

Security Drawings:

- ES-1.1 Security Legend and Details
- ES-1.2 Security Details
- ES-2.1 Security Plan Ground Floor
- ES-2.2 Security Plan Second Floor
- ES-5.2 Security Demolition Plan Second Floor
- ES-11.1Access Control System Riser Diagram
- Site Photographs 3190 Mavis Road, Project #22701
- Access to PRPS Temporary Office During Construction Commissioning Plan, authored by CFMS Consulting Inc., dated November 2023 CCDC2 Stipulated Price Contract 2008 - This is not attached but
 - forms part of the Contract
 Digital Bid Bond
- Form of Release at Substantial Performance of the Work
- Performance Bond substantially in the form required under the Construction Act - This is not attached but forms part of the Contract
- Labour and Material Payment Bond substantially in the form required under the *Construction Act* This is not attached but forms part of the Contract
- Owner's Staff/Other Contractors Project Construction Coordination Form
- Owner's Staff/Other Contractors Anticipated to Attend Site for Contractor Coordination
- Online Bidding System forms
- 2. **Add** new paragraphs 3.2 and 3.3 to Article A-3 CONTRACT DOCUMENTS, as follows:
 - "3.2 If either the Specifications or the Request for Tender (or other procurement document issued by the Owner) provide for more than one improvement to be made under the Contract, and such improvements are to be made to lands that are not contiguous (each, a "Non-Contiguous Improvement"), then each such improvement is deemed to be made and performed under a separate contract for the purposes determining Substantial Performance of the Work, Ready-for-Takeover, completion of the contract, and for any other purpose under section 2 of the Payment Legislation, and the relevant provisions of this Contract will be deemed amended accordingly.
 - 3.3 Paragraph 3.2 will apply to all of the Contractor's contracts with its Subcontractors and Suppliers working on each such improvement on a pass through basis. The Contractor shall include in all of its contracts with

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Subcontractors and Suppliers notice of such deeming of separate contracts for such purposes, and shall ensure that it separates the Work and the supply of Products for each improvement."

SC.4 ARTICLE A-5 PAYMENT

1. **Delete** ARTICLE A-5 PAYMENT in its entirety and **replace** with the following:

"ARTICLE A-5 PAYMENT

- 5.1 Subject to, and in accordance with, the provisions of the Contract Documents and the Payment Legislation the Owner shall:
 - .1 make monthly progress payments to the Contractor on account of the Contract Price when due in the amount certified by the Consultant together with such Value Added Taxes as may be applicable to such amount certified by the Consultant;
 - .2 on the 61st Day following Substantial Performance of the Work, pay the Contractor the unpaid balance of the basic holdback amount when due together with such Value Added Taxes as may be applicable to such payment; and
 - .3 upon the issuance of the final certificate for payment, pay to the Contractor the unpaid balance of the Contract Price when due together with such Value Added Taxes as may be applicable to such payment.
- 5.2 As such payments become due, the Contractor shall, in accordance with the terms of its agreements with any Subcontractors, Suppliers and workmen, pay all of its Subcontractors, Suppliers and workmen in full on account of work properly performed or Products properly supplied, as applicable, less any holdback monies retained in compliance with the Payment Legislation.
- In the event of loss or damage occurring where payment becomes due under the property and boiler and machinery insurance policies, payments shall be made to the Contractor in accordance with the provisions of GC 11.1 INSURANCE of the General Conditions.

5.4 Interest

- .1 Should either party fail to make payments as they become due under the terms of the Contract or in an award by arbitration or court, interest at the greater of one per cent per annum above the bank rate and the minimum rate required under the Payment Legislation on such unpaid amounts shall also become due and payable until payment. Such interest shall be compounded on a monthly basis. The bank rate shall be the rate established by the Bank of Canada as the minimum rate at which the Bank of Canada makes short term advances to the chartered banks.
- .2 Interest shall apply at the rate and in the manner prescribed by paragraph 5.4.1 of this Agreement on the amount of any claim

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advanced and for which the Contractor is thereafter entitled to payment, either pursuant to Part 8 - Dispute Resolution of the General Conditions, or otherwise, from the date the amount would have been due and payable under the Contract, had it not been in dispute, until the date it is paid."

SC.5 ARTICLE A-6 RECEIPT OF AND ADDRESSES FOR NOTICES IN WRITING

- 1. In paragraph 6.2, **delete** "or by other form of electronic communication during the transmission of which no indication of failure of receipt is communicated to the sender."
- 2. Add new paragraph 6.6 to Article A-6 RECEIPT OF AND ADDRESSES FOR NOTICES IN WRITING, as follows:
- "6.6 In addition to the addresses, requirements and timelines set out in this paragraph 6.6, the following applies:
 - .1 for the purposes of Part I.1 the *Construction Act* (Prompt Payment) and Part 5 PAYMENT,
 - (i) applications for payment and Proper Invoices will be considered given or delivered by the Contractor to the Owner when they are received by the Owner and such receipt can be verified; and
 - (ii) notices of non-payment will be considered to have been given or delivered by the Owner to the Contractor when they have been sent by the Owner and such delivery can be verified, and
 - .2 for the purposes of Part II.1 of the *Construction Act* (Adjudication), any notices, communications or delivery of documents to be given under the Payment Legislation will:
 - (i) in the case of the Owner, be given by the Contractor, by electronic mail, to adjudication@peelregion.ca and to the individuals and locations indicated in the Owner's Notice in Writing delivered to the Contractor prior to the commencement of the Work; and
 - (ii) in the case of the Contractor, be given by the Owner to individuals and locations indicated in the Contractor's Bidder Submission."

SC.6 ARTICLE A-7 LANGUAGE OF THE CONTRACT

- 1. **Delete** paragraph 7.1 and **replace** with the following:
 - "7.1 When the Contract Documents are prepared in both English and French languages, it is agreed that in the event of any apparent discrepancy between the English and French versions, the English language shall prevail."

SC.7 ARTICLE A-9 ASSIGNMENT OF SUBCONTRACTS

Add new ARTICLE A-9 - ASSIGNMENT OF SUBCONTRACTS, as follows:

"ARTICLE A-9 ASSIGNMENT OF SUBCONTRACTS

Supplementary Conditions to Contract CCDC2 - 2020

- 9.1 The Owner shall not be deemed by virtue of the Contract or for any other reason to have any contractual relationship with or obligation to any Subcontractor or Supplier but the Contractor hereby agrees that in the event that:
 - .1 the Contract is terminated; or
 - .2 the Contractor's right to continue the Work is terminated;

and at the sole and absolute option of the Owner, any or all subcontracts for Work or Products as may be selected by the Owner, in its sole and absolute discretion, shall, upon notice to the Contractor and the affected Subcontractors and Suppliers from the Owner, be assigned to the Owner, without any further action being necessary from the Contractor or the affected Subcontractors and Suppliers and in order to ensure the Owner's rights, the Contractor shall:

- .3 contractually obligate each of its Subcontractors and Suppliers to agree that each such subcontract shall be assignable, at the Owner's option, to the Owner, upon delivery of the notice described above, in the event that:
 - (i) the Contract is terminated; or
 - (ii) the Contractor's right to continue the Work is terminated.
- 9.2 The Contractor shall provide satisfactory evidence to the Owner that this obligation has been fulfilled."

SC.8 DEFINITIONS

- 1. In the definition of "Change Directive" **delete** the words "within the general scope of the Contract Documents".
- 2. In the definition of "Consultant" **add** the following sentence after the last sentence:
 - "The words 'Engineer', 'Architect' or 'Consultant' wherever used in the Contract Documents shall be regarded as synonymous."
- 3. In the definition of "Contractor" add the following sentence after the second sentence:
 - "For the purpose of the Contract, the words 'Contractor', 'Vendor' or 'General Contractor' shall be regarded as synonymous."
- 4. In the definition of "Drawings" **add** "and approved, in writing, by the Owner" after the word "issued," in the second line.
- 5. In the definition of "Place of the Work" **add** the following sentence:
 - "The term 'Place of the Work' and 'Site' wherever used in the Contract Documents shall be regarded as synonymous."
- 6. In the definition of "Ready-for-Takeover" delete everything after "when" and replace with "when the Owner confirms in writing that the Contractor has achieved Ready-for-Takeover in accordance with paragraph 12.1.4".8.

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- 7. In the definition of "Shop Drawings" **delete** "which the Contractor provides" and **replace** with "to be provided by the Contractor".
- 9. In definition "Specifications" **add** "and approved, in writing, by the Owner" after "issued," in the first line.
- 10. In definition "Work" **add** ", Products, installation, Commissioning and Testing, checkout, start-up, testing" after "total construction".
- 11. **Delete** definition "26. Working Day" in its entirety and **replace** with the following:

"Working Day

Working Day means a day when the Regional Municipality of Peel is open, Monday to Friday, and does not include weekends or statutory holidays."

12. **Add** the following new definitions in the appropriate order alphabetically:

"Authorities Having Jurisdiction

The phrase Authorities Having Jurisdiction or the term Authorities means those authorities having jurisdiction under law over the Work or parts thereof.

Commission and Test

Commission and Test means, and Commissioning and Testing refers to, the procedure which includes testing, reviewing, inspecting, checking, testing, adjusting and measuring Work performed by the Contractor to demonstrate and verify the installation, operation and performance of all components and the entire system, including certification of any such Commissioning and Testing.

Contractual Milestone

Contractual Milestone means the phases or milestones of the Work as described in the Specifications which are intended by the Parties to constitute phases for the purposes of a phased release of holdback in accordance with the Payment Legislation.

Construction Schedule

Construction Schedule means the schedule indicating the timing of major activities of the Work submitted by the Contractor and approved in writing by the Owner including attaining Substantial Performance of the Work by the Substantial Performance Date as described in GC 3.5 - CONSTRUCTION SCHEDULE.

Excess Soil

Excess Soil includes "excess soil" within the meaning of the Excess Soil Regulation.

Excess Soil Legislation

Excess Soil Legislation means any laws, ordinances, rules, regulations or codes, which are or become in force during the performance of the Work dealing with the excavation, management, handling, storage, removal, disposal and transportation of Excess Soil including, the Excess Soil Regulation.

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Excess Soil Regulation

Excess Soil Regulation means the On-Site and Excess Soil Management Regulation (O. Reg. 406/19).

Hazardous Material

Hazardous Material means, collectively, any contaminant, designated substance, waste, hazardous waste or subject waste (as defined in the Ontario Environmental Protection Act and any associated regulations as amended from time to time (the "EPA") or the Ontario Occupational Health & Safety Act and any associated regulations, as amended from time to time (the "OHSA")), toxic substance (as defined in the Canadian Environmental Protection Act and any associated regulations, as amended from time to time (the "CEPA")), dangerous goods (as defined in the Transportation of Dangerous Goods Act (Canada) and any associated regulations, as amended from time to time ("TDGA")), or pollutant (as defined in the EPA), or any other substance or material which, when released to the natural environment, is likely to cause harm, injury, loss, damage, impairment or degradation to the natural environment or a risk or harm, injury, loss, damage, or impairment to human health and safety, including asbestos, "PCBs", arsenic, silica and any other contaminant, substance, or material defined or regulated in, or for purposes of, any applicable law. Whenever the terms "toxic and hazardous substances" is used in the Contract, it shall be deemed amended to read "Hazardous Material".

Install

Install means the placement of materials, equipment, or components, including receiving, unloading, transporting, storage, uncrating and installing, and performance of such testing and finish work as is compatible with the degree of installation specified.

Other Contractor

Other Contractor means an individual, firm, partnership or corporation having a separate contract with the Owner for work other than that required by the Contract Documents.

Project Leader

Project Leader means the "project leader" within the meaning of the Excess Soil Regulation."

Proper Invoice

Proper Invoice means an application for payment in the form of invoice provided by the Owner to the Contractor, if applicable, containing the information that may be required for the application for payment to constitute a "proper invoice" under the Payment Legislation, including the following:

- 1. All of the information specified to be included in a proper invoice as set out in section 6.1 of the *Construction Act*, namely:
 - a. the Contractor's name and address:

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- b. the date of the application for payment and the period during which the Work was performed;
- c. information identifying the authority, whether in the Contract or otherwise, under which the Work was performed;
- d. a description, including quantity where appropriate, of the Work performed and Products supplied;
- e. the amount payable for the Work performed, and the payment terms: and
- f. the name, title, telephone number and mailing address of the person to whom payment is to be sent;
- 2. an original statutory declaration in the form of CCDC 9A, or other form of statutory declaration that includes the same unqualified declaration, certifying that all accounts of the Contractor, including for the subcontracts, construction machinery and equipment, materials, Products, labour and other indebtedness which may have been incurred by the Contractor and for which the Owner might in any way be held responsible have been paid in full, except for amounts properly retained as holdback or as an identified amount in dispute;
- 3. the total amount of expenditures to date and the total estimated expenditures to be made for the remaining balance of the Work;
- 4. after the first application for payment, evidence of compliance with the applicable worker's compensation legislation at the Place of the Work, including payments due thereunder;
- 5. any certificates, inspection reports, or data resulting from Commissioning and Testing required under the Contract Documents confirming the satisfactory completion of such Commissioning and Testing;
- 6. payment receipts for Products and materials purchased under conditional sales contracts;
- 7. a breakdown of approved Change Orders and percentage completed of each shall be included, in a form satisfactory to the Owner;
- 8. all documents evidencing that the Work complies with the Excess Soil Legislation and such other documents as required by the Excess Soil Legislation; and
- 9. any additional information that the Owner or the Consultant may reasonably require."

Provide

Provide means to supply and install or supply, install and connect as applicable, complete and in place, including accessories, finishes, tests, and services required to render each item so specified complete and ready for use.

Release

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Release means a release by the Contractor substantially in the form set out in the Contract Documents or as the Owner may prescribe.

Reports

Reports means the Reports set out in Article A-3 - CONTRACT DOCUMENTS.

Rules of Mediation and Arbitration

Rules of Mediation and Arbitration mean the rules as provided in CCDC 40 in effect at the time of bid close."

Substantial Performance Date

Substantial Performance Date means the date by which the Contractor shall attain Substantial Performance of the Work as specified in Article A-1 - THE WORK, or, if there are Non-Contiguous Improvements, the dates by which the Contractor shall attain Substantial Performance of the Work for a given improvement as specified in Article A-1 - THE WORK.

Supply or Furnish

Supply or Furnish means fabrication or procurement of materials, equipment, or components, or performance of services to the extent specified and shown. Where used with respect to materials, equipment, or components, the term includes crating and delivery to the Place of the Work but is not intended to include installation of items, either temporary or final."

SC.9 GC 1.1 CONTRACT DOCUMENTS

- 1. **Delete** the first sentence in paragraph 1.1.1 and **replace** it with the following:
 - "1.1.1 The intent of the Contract Documents is to include the construction, labour, Products, Construction Equipment and other services necessary, complementary or ancillary, for the performance and completion of the Work by the Contractor in accordance with the Contract Documents or properly inferable from them."
- 2. **Delete** paragraphs 1.1.3 and 1.1.4 and **replace** them with the following:
 - "1.1.3 The Contractor shall review the Contract Documents and shall report promptly to the Owner and the Consultant any error, inconsistency, or omission the Contractor may discover. If the Contractor does discover any error, inconsistency, or omission in the Contract Documents, the Contractor shall not proceed with the Work affected until the error, inconsistency or omission has been addressed and in dealing with such error, inconsistency or omission the Contractor shall co-operate with the Owner in good faith to resolve such errors, inconsistency or omission so as to avoid any increase in the Contract Price or delay in the progress of the Work. Notwithstanding the foregoing, inconsistencies and omissions shall not include lack of reference on the Drawings or in the Specifications to labour and/or Products that are required or normally recognized within respective trade practices as being necessary for the complete execution of the Work.

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- .1.4 The Contractor declares and represents that in entering into the Contract with the Owner for the performance of the Work, it has reviewed any and all documentation including, without limitation, the Reports provided by the Owner and has either visually investigated for itself the character of the Work to be done and all local conditions including, without limitation, the position of all pole lines, conduits, watermains, sewers and other underground and overground utilities and structures, or that, not having so reviewed or visually investigated, the Contractor has assumed and does hereby assume all risk of conditions now existing or arising in the course of the Work which could have been reasonably identified by a visual inspection or which are identified or inferred in any information provided by the Owner including, without limitation, the Reports, which might or could make the Work, or any items thereof more expensive in character, or more onerous to fulfill, than was contemplated or known when the Contract was signed."
- 3. In paragraph 1.1.5.1 add after "from highest to lowest, shall be:"
 - Addenda, as issued
 - Instructions to Bidders
 - Supplementary General Conditions to CCDC2-2008
 - Agreement to Bond
 - Specifications

Division 01 – General Requirements

- 01 00 00 General Requirements
- 01 26 15 Requests for Information
- 01 31 00 Project Management and Coordination
- 01 32 00 Construction Progress Documentation
- 01 33 00 Submittal Procedures
- 01 35 29 Health and Safety Requirements
- 01 35 43 Environmental Procedures
- 01 41 00 Regulatory Requirements
- 01 45 00 Quality Control
- 01 51 00 Temporary Utilities
- 01 52 00 Construction Facilities
- 01 56 00 Temporary Barriers and Enclosures
- 01 61 00 Common Product Requirements
- 01 71 00 Examination and Preparation
- 01 74 19 Cleaning, Waste Management and Disposal
- 01 77 00 Closeout Procedures
- 01 78 00 Closeout Submittals
- 01 79 00 Demonstration and Training
- 01 91 00 Commissioning

Division 02 – Existing Conditions

- 02 41 00 Demolition
 - Division 03 Concrete
- 03 10 00 Concrete Forming and Accessories

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ry Conditions to Contract CCDC2 - 2020						
•	03 20 00	Concrete Reinforcing				
•	03 30 00	Cast-in-Place Concrete				
	Division 05 – Metals					
•	05 12 23	Structural Steel for Buildings				
•	05 21 00	Structural Joist Framing				
•	05 31 00	Steel Decking				
•	05 41 00	Structural Metal Stud Framing				
•	05 50 00	Metal Fabrications				
	Division 06 -	· Wood, Plastics, And Composites				
•	06 10 00	Rough Carpentry				
•	06 20 00	Finish Carpentry				
•	06 40 00	Architectural Woodwork				
•	06 61 16	Solid Surfacing				
		Thermal and Moisture Protection				
•	07 21 13	Building Insulation				
•	07 21 19	Foamed-in-Place Insulation				
•	07 26 00	Vapour Retarders				
•	07 27 00	Vapour Permeable Air Barriers				
•	07 42 43	Composite Wall Panels				
•	07 46 13	Preformed Metal Siding				
•	07 54 19	Polyvinyl Chloride Roofing				
•	07 62 00	Sheet Metal Flashing and Trim				
•	07 81 16	Cementitious Fireproofing				
•	07 81 23	Intumescent Fireproofing				
•	07 84 00	Firestopping				
•	07 92 00	Joint Sealing				
	Division 08 -					
•	08 11 00	Metal Doors and Frames				
•	08 44 13	Glazed Aluminium Curtain Walls				
•	08 71 10	Door Hardware				
•	08 80 05	Glazing				
	Division 09 -					
•	09 21 16	Gypsum Board Assemblies				
•	09 22 16	Non-Structural Metal Framing				
•	09 30 13	Ceramic Tiling				
•	09 51 13	Acoustic Panel Ceilings				
•	09 65 19	Resilient Tile Flooring				
•	09 65 43	Linoleum Flooring				
•	09 68 13 09 69 00	Carpet Tile				
•	09 69 00	Access Flooring				
•	09 91 23 Division 10 -	Interior Painting				
•	10 28 10	Toilet and Bath Accessories				
•		Fire Suppression				
•	21 05 00	Common Work Results for Fire Suppression				
•	210000	Common work results for the Supplession				

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y Conditions to Contract CCDC2 - 2020				
•	21 13 13	Wet Pipe Sprinkler Systems		
	Division 22 -	Plumbing		
•	22 05 00	Common Work Results for Plumbing		
•	22 05 29	Hangers and Supports for Plumbing Piping and		
		Equipment		
•	22 07 19	Plumbing Piping Insulation		
•	22 11 16	Domestic Water Piping		
•	22 11 19	Domestic Water Piping Specialist		
•	22 13 16	Sanitary Waste and Vent Piping		
•	22 14 13	Facility Storm Drainage Piping		
•	22 14 19	Sanitary Waste Piping Specialist		
•	22 14 26	Facility Storm Drains		
•	22 42 00	Commercial Plumbing Fixtures		
	Division 23 -	Heating, Ventilating and Air-Conditioning		
	(HVAC)			
•	23 05 00	Common Work Results for HVAC		
•	23 05 01	Installation of Pipe Work		
•	23 05 13	Common Motor requirements for HVAC		
		Equipment		
•	23 05 16	Expansion Fittings and Loops for HVAC Piping		
•	23 05 19	Meters and Gauges for HVAC Piping		
•	23 05 23	General Duty Valves for HVAC Piping		
•	23 05 29	Hangers and Supports for HVAC Piping and		
		Equipment		
•	23 05 53	Identification for HVAC Piping and Equipment		
•	23 05 93	Testing, Adjusting and Balancing for HVAC		
•	23 07 13	Duct Insulation		
•	23 07 19	HVAC Piping Insulation		
•	23 08 00	Commissioning of HVAC		
•	23 09 33	Electric and Electronic Control System for HVAC		
•	23 21 16	Hydronic Piping Specialties		
•	23 23 00	Refrigerant Piping		
•	23 31 13	Metal Ducts		
•	23 33 00	Air Duct Accessories		
•	23 33 16	Dampers		
•	23 33 46	Flexible Ducts		
•	23 33 53	Duct Liners		
•	23 34 00	HVAC Fans		
•	23 37 13	Diffusers, Registers and Grilles		
•	23 81 43	Air Source Unitary Heat Pumps		
•	23 83 00	Radiant Heating Units		
		Integrated Automation		
•	25 05 01	EMCS: General Requirements		
•	25 05 02	EMCS: Submittals and Review		
•	25 05 11	EMCS: Start-Up and Check-Out		

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ry Conditions to Contract CCDC2 - 2020					
•	25 05	12	EMCS: Training		
•	25 05	60	EMCS: Field Installation		
•	25 08	20	EMCS: Warranty and Maintenance		
•	25 10	01	EMCS: Local Area Network (LAN)		
•	25 10	02	EMCS: Operator Workstation (OWS)		
•	25 30	01	EMCS: Building Controllers Family of Controllers		
	Division 26 – Electrical				
•	26 05	00	General Conditions Electrical		
•	26 05	01	Common Work Results- Electrical		
•	26 05	20	Wire and Box Connectors (0-1000V)- Electrical		
•	26 05	21	Wire and Cables (0-1000V) Electrical		
•	26 05	27	Grounding - Primary – Electrical		
•	26 05	29	Hangers and Supports for Electrical Systems		
•	26 05	31	Splitters, Junction Boxes, Pull Boxes and Cabinets		
•	26 05	32	Outlet and Conduit Boxes and Fittings		
•	26 05	34	Conduits, Conduit Fastening and Conduit Fittings		
•	26 27	26	Wiring Devices Electrical		
•	26 28	14	Fuses – Low Voltage Electrical		
•	26 28	23	Disconnect Switches – Fused and Non-Fused		
•	26 41	13	Lightning Protection Electrical		
•	26 50	00	Interior Lighting Electrical		
•	26 60	01	Electrical Identification Electrical		
•	26 60	02	Testing and Commissioning of Electrical Systems		
	Divisi	on 27 –	Communications		
•	27 00	00	Communications		
	Divisi	on 28 –	Electronic Safety and Security		
•	28 13	00	Access Control Electrical		
•	28 31	02	Multiplex Fire Alarm System Electrical		
	Drawi	ngs			
	Archit	ectural	Drawings:		
•			Page, Drawing List & OBC Matrix		
•		Site Pl			
•			d Floor / Fire Separation Plan		
•	A202	Secon	d Floor / Fire Separation Plan		
_	V 202	Doof D	llon		

- A203 Roof Plan
- A204 Part Ground Floor Demolition Plan
- A205 Part Second Floor Demolition Plan
- A206 Part Ground Floor Plan
- A207 Part Second Floor Plan
- A208 Part Second Floor Reflected Ceiling Plan
- A209 Part Second Floor Finishing Plan
- A210 Enlarged Plan Barrier Free Washroom
- A301 Building Demolition Elevations
- A302 Building Elevations
- A401 Building Sections

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- A402 Building Sections
- A403 Wall Sections
- A404 Wall Sections
- A405 Wall Sections
- A406 Wall Sections
- A501 Ladder Plan, Section & Details
- A601 Section Details
- A602 Section Details
- A603 Section Details
- A604 Section Details
- A605 Section Details
- A610 Plan Details
- A611 Plan Details
- A612 Plan Details
- A613 Plan Details
- A801 Millworks
- A802 Millwork Details
- A901 Room Schedule & Door and Frame Schedule
- A902 Window Schedule

Structural Drawings:

- S101 General Notes, Schedules, Abbreviations & Drawing List
- S102 Typical Details
- S201 Demolition & New Foundation Plans
- S202 Part Second Floor & Low Roof Framing Plans
- S203 Part High Roof Framing Plan
- S301 Framing Elevations
- S501 Sections
- S502 Sections
- S503 Sections
- S504 Foundation Sections

Mechanical Drawings:

- M-0 Title Sheet
- M-1.1 Mechanical Legend
- M-1.2 Mechanical Schedules
- M-1.3 Mechanical Details I.
- M-1.4 Mechanical Details II
- M-2.1 Part Roof Plan Mechanical Demolition
- M-2.2 Part Roof Plan Mechanical New
- M-2.3 Part Second Floor Plan HVAC Demolition
- M-2.4 Part Second Floor Plan HVAC New
- M-2.5 Part Second Floor Plan Hydronic Piping System
- M-2.6 Part Ground Floor Plan Refrigerant Piping Demolition
- M-2.7 Part Ground Floor Plan Refrigerant Piping New
- M-2.8 Part Second Floor Plan Refrigerant Piping
- M-2.9 Part Ground Floor Plan Mechanical New for Concrete

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Columns

- M-3.1 Part Ground Floor Plan Drainage
- M-3.2 Part Second Floor Plan Drainage New
- M-3.3 Part Second Floor Plan Plumbing
- M-4.1 Part Second Floor Plan Fire Protection New Electrical Drawings:

E-1.0 Electrical Legend and Details

- E-1.1 Electrical Details
- E-1.2 Electrical Details
- E-1.3 Electrical Details
- E-1.4 Electrical Details
- E-1.5 Electrical Details
- E-2.0 Electrical Plan Roof
- E-2.1 Electrical Plan Ground Floor
- E-2.2 Electrical Plan Second Floor
- E-3.2 Reflected Ceiling Plan Second Floor
- E-4.1 Electrical Grounding System Details
- E-4.2 Electrical Grounding System Riser Details
- E-5.2 Electrical Demolition Plan Second Floor/Roof
- E-6.2 Reflected Ceiling Demolition Plan Second Floor/Roof
- E-7.1 Electrical Single Line Diagram
- E-7.2 Electrical Panel Schedules
- E-9.1 Electrical Plans

Communications Drawing:

- C-1.1 Communications Legend and Details
- C-1.2 Communications Details
- C-2.1 Communications Plan Ground Floor
- C-2.2 Communications Plan Second Floor
- C-3.1 Communications Riser Diagram

Security Drawings:

- ES-1.1 Security Legend and Details
- ES-1.2 Security Details
- ES-2.1 Security Plan Ground Floor
- ES-2.2 Security Plan Second Floor
- ES-5.2 Security Demolition Plan Second Floor
- ES-11.1Access Control System Riser Diagram
- Site Photographs 3190 Mavis Road, Project #22701
- Access to PRPS Temporary Office During Construction
- Commissioning Plan, authored by CFMS Consulting Inc., dated November 2023
- CCDC2 Stipulated Price Contract 2008 This is not attached but forms part of the Contract
- Digital Bid Bond
- Form of Release at Substantial Performance of the Work

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- Performance Bond substantially in the form required under the Construction Act - This is not attached but forms part of the Contract
- Labour and Material Payment Bond substantially in the form required under the *Construction Act* This is not attached but forms part of the Contract
- Owner's Staff/Other Contractors Project Construction Coordination Form
- Owner's Staff/Other Contractors Anticipated to Attend Site for Contractor Coordination
- Online Bidding System forms
- 4. In paragraph 1.1.9 **add** the following at the end of the provision:

"or in establishing the extent of the work to be performed by a trade."

5. In the first sentence of paragraph 1.1.10 **delete** "and shall remain the Consultant's property" and **replace** with "not the Contractor's property".

SC.10 GC 1.4 ASSIGNMENT

- 1. **Delete** paragraph 1.4.1 in its entirety and **replace** with the following:
 - "1.4.1 The Contractor may not assign, subcontract, or otherwise transfer the Agreement or any of its rights, benefits, and/or obligations, without the Owner's prior written consent.
 - 1.4.2 The Owner may assign, transfer, convey, or otherwise dispose of the Agreement or any of its rights, benefits, warranties, and/or obligations, in whole or in part, without the prior written consent of, but with written notice to the Contractor in the following circumstances:
 - a) to one or more municipalities;
 - b) to a municipal service board;
 - c) to a municipal business corporation; or
 - d) if an assignment, transfer, conveyance or other disposition is required for any other reason, including as a result of, or pursuant to, a court order or a legislative act, including the "Hazel McCallion Act (Peel Dissolution), 2023," as well as any regulations made thereunder; (collectively the "Assignee").
 - 1.4.3 Upon assignment, transfer, conveyance or other disposition to the *Assignee* of the Owner's obligations under the Agreement, the Owner shall be released from its obligations arising thereunder.
 - 1.4.4 In the event of an assignment, transfer, conveyance or other disposition in accordance with section 1.4.2 above, the Contractor shall be responsible to immediately transfer any insurance, warranties, securities, or other similar obligations to the Assignee, or to make alternative arrangements for such obligations to the satisfaction of the Assignee."

SC.11 GC 1.5 TIME IS OF THE ESSENCE OF THE CONTRACT

1. Add new GC 1.5 TIME as follows:

"GC 1.5 TIME

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1.5.1 All time limits stated in the Contract Documents are of the essence of the Contract."

SC.12 CONFIDENTIALITY

Add new GC 1.6 CONFIDENTIAL INFORMATION as follows:

"GC 1.6 CONFIDENTIAL INFORMATION

- 1.6.1 The Contractor agrees to protect and maintain the confidentiality of all personal or other information, including all personal health information, that the Contractor accesses or of which the Contractor acquires knowledge of as a result of the performance of its obligations under this Contract, and agrees to use, collect, disclose, retain, protect and dispose of the personal (health) information only in accordance with all privacy legislation applicable to the Owner where it is acting on behalf of the Owner. Disclosure of any information shall be done only with the Owner's prior written consent. The provisions of the indemnity clause in this Contract apply to any breach of privacy or confidentiality in this clause. The Contractor shall ensure that its directors, officers, employees, agents, subcontractors and anyone else for whom it is responsible in law all adhere to the requirements of this section regarding privacy and confidentiality.
- 1.6.2 The Owner, and the Owner's responsibilities under this Contract, are subject to all applicable privacy legislation including the Municipal Freedom of Information and *Protection of Privacy Act*, R.S.O. 1990 c.M.56, as amended ("MFIPPA") and/or the *Personal Health Information Protection Act*, 2004 ("PHIPA") with respect to the collection, use, disclosure, retention and protection of confidential, sensitive or personal (health) information under the Owner's custody and control. Under an MFIPPA request, all correspondence, documentation and information provided to the Owner by the Contractor, including the Contract itself and associated documents, may be required by law to be made available to a requesting member of the public, with the possible exception that the party submitting certain information requests that it be treated as confidential and that there is an appropriate exemption to disclosure in MFIPPA, or a non-disclosure requirement in either MFIPPA or PHIPA.
- 1.6.3 All correspondence, documentation and information provided to the Owner by the Contractor in connection with or arising out of the Contract, once received by the Owner, shall become the property of the Owner. The Contractor must identify to the Owner in writing if the disclosure of any such correspondence, documentation or information, any scientific, technical, proprietary, commercial or other confidential information, could cause the Contractor injury.
- 1.6.4 The Contractor acknowledges that the Owner cannot guarantee it can honour requests to keep Contractor information confidential in light of applicable law requirements, and also in light of the need for transparency

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and public disclosure where release of the Contractor's information in public Council reports related to a specific project is necessary."

SC.13 GC 1.7 CO-OPERATION, CONSULTATION AND CO-ORDINATION

1. **Add** new GC 1.7 CO-OPERATION, CONSULTATION AND CO-ORDINATION as follows:

"GC 1.7 CO-OPERATION, CONSULTATION AND CO-ORDINATION

- 1.7.1 The Contractor shall, at all times and as part of the Work, fully assist, cooperate, consult and coordinate with the Consultant and any other consultants, Other Contractors, the Owner's own forces and other entities retained or identified by the Owner which are related to the Project (each, an "Other Entity" and collectively, the "Other Entities"). The objective of such assistance, co-operation, consultation and co-ordination is to make certain the Work is properly coordinated with and integrated with the work and services of the Other Entities.
- 1.7.2 Without limiting the generality of any other provision in the Contract, the Contractor shall attend all design, construction, general co-ordination and progress meetings relating to the Work between the Consultant, the Owner and Other Entities and any other meeting relating to the Project as requested by the Owner to discuss and resolve all matters and issues relating to the Project. The Contractor shall, on a timely basis, prepare and distribute detailed minutes to the Owner of the construction and progress meetings which it attends, if requested by the Owner."

SC.14 GC 2.2 ROLE OF THE CONSULTANT

- 1. **Add** the following sentence to paragraph 2.2.3 "The presence of such project representatives at the Place of the Work will not abrogate any of the Contractor's responsibility to perform the Work as required by the Contract Documents."
- 2. In paragraph 2.2.5 **add** "to the Contractor" after the words "the Consultant will not be responsible" in each of the first two sentences.
- 3. In paragraph 2.2.6 **delete** "Except with respect to GC 5.1 FINANCING INFORMATION REQUIRED OF THE OWNER, the" and **replace** with "The".
- 4. In paragraph 2.2.16 **add** "to the Contractor" after the words "the Consultant does not guarantee".
- 5. In paragraph 2.2.18 **delete** "against whom the Contractor makes no reasonable objection and".

SC.15 GC 2.3 REVIEW AND INSPECTION OF THE WORK

- 1. In the second sentence of paragraph 2.3.1 **delete** "the Consultant" and **replace** with "Consultant and Owner".
- 2. **Amend** paragraph 2.3.2 as follows:
 - (a) **delete** "tests" and **replace** with "Commissioning and Testing";

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- (b) **add** "regulations, rules, by-laws, standards, guidelines, permits, statutes, codes," before "laws or ordinances";
- (c) **add** ", and any applicable Commissioning and Testing" at the end of the first sentence; and
- (d) **add** "and of any applicable Commissioning and Testing" at the end of the second sentence.
- 3. In paragraph 2.3.6 **delete** "designated in" and **replace** with "required by" and **add** "or required by the Consultant" after "Contract Documents".
- 4. In paragraph 2.3.7 **delete** "designated in" and **replace** with "required by".

SC.16 GC 2.4 DEFECTIVE WORK

1. In paragraph 2.4.1 **delete** "Consultant" in the first instance and **replace** with "Consultant and/or Owner" and **add** ", at the Contractor's expense," after "Contract Documents."

SC.17 GC 3.2 CONSTRUCTION BY THE OWNER OR OTHER CONTRACTORS

- 1. In paragraph 3.2.2.3, **add** the words "as the Owner considers appropriate" after the words "GC 11.1 INSURANCE" in the second line.
- 2. In paragraph 3.2.3.4 **add** "Failure by the Contractor to so report shall invalidate any claims against the Owner by reason of deficiencies in the work of the Other Entities except those deficiencies not then reasonably discoverable."
- 3. Add new paragraph 3.2.3.5 as follows:
 - ".5 coordinate and perform the Work with care and diligence so as to ensure that the Owner and the Other Entities will be in a position to proceed according to schedule with the delivery, installation and testing of the equipment and other components to be incorporated into the Project and allow the Owner and the Other Entities reasonable opportunity to receive and store materials and products on site and to perform their work."

SC.18 GC 3.4 CONSTRUCTION SCHEDULE

- 1. **Delete** paragraph 3.4.1 and **replace** with the following:
 - "3.4.1 The Contractor shall:
 - owner and the Consultant for their review and acceptance a construction schedule indicating the critical path for the Project, using Microsoft Project (mpp format) or equivalent, demonstrating that the Work will be performed in conformity with the Contract Time, and shall conform to the phasing and sequencing requirements for the Work as set out in the Contract Documents or as otherwise required by the Consultant or the Owner including, without limitation, a Products delivery schedule with respect to the Products whose delivery is critical to the schedule of the Work. The Contractor shall provide the schedule information required by this paragraph 3.4.1.1 in both electronic format and hard copy.

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Once approved by the Owner and the Consultant, the construction schedule submitted by the Contractor under this paragraph 3.4.1.1, as updated by the Contractor and approved by the Owner, shall become the "Construction Schedule";

- .2 monitor the progress of the Work on a weekly basis relative to the Construction Schedule and update the Construction Schedule on a monthly basis;
- .3 perform the Work in accordance with the Construction Schedule;
- .4 advise the Consultant of any revisions required to the Construction Schedule as a result of extension of the Contract Time in accordance with PART 6 - CHANGES IN THE WORK; and
- .5 identify potential variances between scheduling and scheduled completion dates and implement necessary adjustments in the Construction Schedule in order to attain Substantial Performance of the Work by the Substantial Performance Date and to attain the date set out for Ready-for-Takeover in the Construction Schedule.
- 2. **Add** new paragraph 3.4.2 and new paragraph 3.4.3 as follows:
 - "3.4.2 On request of the Consultant, the Contractor shall provide information regarding the progress of the Work or any part of it, or, copies, schedules and orders covering materials, components and services. The Contractor shall cooperate fully with the Consultant, and shall ensure that all Subcontractors and Suppliers and anyone for whom the Subcontractors and Suppliers may be responsible also cooperate and make available on request the same documents.
 - 3.4.3 Without limiting the other obligations of the Contractor under GC 3.4, the Contractor shall not amend the Construction Schedule (including, without limitation, any changes to the critical path) without the prior written approval of the Owner."

SC.19 GC 3.5 CONTRACTOR'S PERSONNEL COMMITMENT

1. **Delete** GC 3.5 - SUPERVISION in its entirety and **replace** it with the following:

"GC 3.5 CONTRACTOR'S PERSONNEL COMMITMENT

- 3.5.1 The Contractor shall furnish a competent and adequate staff, who shall be in attendance at the Place of the Work at all times, as necessary, for the proper administration, co-ordination, supervision and superintendence of the Work; organize the procurement of all materials and equipment so that they will be available at the time they are needed for the Work; and keep an adequate force of skilled workmen on the job to complete the Work in accordance with all requirements of the Contract Documents.
- 3.5.2 Prior to commencement of the Work, the Contractor shall select a competent and experienced full time project manager (the "**Project Manager**"), and a competent and experienced full time site supervisor

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(the "Site Supervisor") who shall be in attendance at the Place of the Work at all times. The Project Manager shall have full responsibility for the prosecution of the Work, with full authority to act in all matters as may be necessary for the proper co-ordination, supervision, direction and technical administration of the Work, who shall attend site meetings in order to render reports on the progress of the Work and who shall have authority to bind the Contractor in all matters related to this Contract. The Project Manager and the Site Supervisor shall be satisfactory to the Owner and shall not be changed except for good reason and with the prior written approval of the Owner.

- 3.5.3 The Project Manager and Site Supervisor shall represent the Contractor at the Place of the Work and notices and instructions given to the Project Manager and/or the Site Supervisor shall be held to have been received by the Contractor.
- 3.5.4 The Contractor may not change its Project Manager or its Site Supervisor without the Owner's prior written approval which shall not be unreasonably withheld. Further, the Contractor shall not employ or continue to employ on the Work anyone to whom the Owner may reasonably object.
- 3.5.5. The Contractor shall provide the Owner and the Consultant with the names, addresses and telephone numbers of the Project Manager, the Site Supervisor and other responsible field persons who may be contacted for emergency and other reasons during non-working hours."

SC.20 GC 3.6 SUBCONTRACTORS AND SUPPLIERS

- 1. In paragraph 3.6.4 **add** "or anyone else performing the Work" after "Supplier".
- 2. Add new paragraph 3.6.7 as follows:
 - "3.6.7 The Contractor shall not change any of the Subcontractors or Suppliers proposed by it in writing and accepted by the Owner at the signing of the Contract without the Owner's prior written consent or execute any subcontracts for the performance of the Work without the Owner's prior written consent."

SC.21 GC 3.7 LABOUR AND PRODUCTS

- 1. **Delete** paragraph 3.7.1 and **replace** it with the following:
 - "3.7.1 The Contractor shall:
 - .1 maintain good order and discipline among all personnel engaged on the Work;
 - .2 not employ any persons on the Project whose labour affiliation (or lack thereof) is incompatible with other labour employed in connection with this Project or at the Place of the Work; and
 - .3 act promptly on all problems of labour relations including grievances and jurisdictional disputes. The Contractor shall not employ on the Work anyone not skilled in the task assigned to it

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and the Owner has the right to require the Contractor to remove from the workforce for the Work any employee, representative or other personnel deemed by the Owner, acting reasonably, to be incompetent, careless or otherwise objectionable, or whose actions are contrary to public interest or inconsistent with the best interest of the Owner."

- 2. **Amend** paragraph 3.7.3 as follows:
 - (a) add "and free from defects" after "new"; and
 - (b) **delete** the second sentence of paragraph 3.7.3 and **replace** it with the following:

"All Products and workmanship shall be in every respect of the best quality and the Work shall be performed in accordance with the best modern practice. Whenever the Contract Documents, or directions of the Consultant, admit of a reasonable doubt about what is permissible, and when they fail to state the quality of any Work, the interpretation that requires the quality be consistent with the quality of similar Products specified is to be followed."

- 3. Add new paragraph 3.7.4 as follows:
 - "3.7.4 The cost for overtime required beyond the normal working day to complete individual construction operations of a continuous nature, such as pouring or finishing of concrete or similar work, or work that the Contractor elects to perform at overtime rates without the Owner or the Consultant requesting it shall not be chargeable to the Owner and shall be at the sole cost and expense of the Contractor."
- 4. **Add** new paragraph 3.7.5 as follows:
 - "3.7.5 The Owner and the Contractor acknowledge and agree that the beneficial ownership of any portion of the Products required by the Contract Documents to be incorporated and form part of the Work shall pass to the Owner immediately upon payment therefore or upon incorporation thereof as part of the Work, whichever first occurs. For greater certainty, title to Products delivered, but not installed, shall pass to the Owner when paid for (subject to any applicable holdback). The Contractor agrees to promptly execute and deliver to the Owner, from time to time as the Owner may require, any further documentation required to identify, evidence, perfect or protect the Owner's beneficial, or registered, interest in the Products, including, without limitation, any registrations pursuant to the Personal Property Security Act (Ontario). Notwithstanding the foregoing, the Contractor acknowledges and agrees that it shall continue to bear the risk of loss or damage with respect to the Work until the date of acceptance of the Work by the Owner in accordance with the Contract Documents."

SC.22 GC 3.8 SHOP DRAWINGS

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1. In paragraph 3.8.1 **add** "or as the Consultant may reasonably request" at the end of the paragraph.

SC.23 OPERATIONAL RISKS

1. Add new GC 3.9 - OPERATIONAL RISKS as follows:

"GC 3.9 OPERATIONAL RISKS

- 3.9.1 The position of all pole lines, conduits, water mains, sewers and other underground and overground utilities and structures is not necessarily shown on the Contract Drawings, and, where shown, the accuracy of the position of such utilities and structures is not guaranteed. Before starting Work, the Contractor shall inform itself of the exact locations of such utilities and structures, and shall be liable for damages, as a result of any act or omission, to any utilities identified or reasonably to have been identified, whether or not the result of negligence, by those for whom he is responsible. Unless otherwise specified, the Contractor shall temporarily support or relocate such utilities and structures, or temporarily remove them, and restore them, to the satisfaction of the owners of the utilities and structures. The Contractor waives any claim and releases the Owner and the agents of the Owner from all liability for damages suffered as a result of such Contract Drawings or any operation required under this paragraph.
- 3.9.2 Permanent relocation of underground or overhead utilities will be performed and paid for by the Owner, if necessitated by coincidence of lines or grades, or both unless such relocation has been specifically included within the Work by the drawings or specifications. The Contractor shall be responsible for scheduling permanent relocations of utilities with the Work.
- 3.9.3 The Consultant will provide the Contractor in writing with benchmarks and points of reference to be used by it in setting out the Work. The Owner will be responsible only for the correctness of the information so supplied. From these benchmarks and points of reference the Contractor will do its own setting out. The setting out by the Contractor shall include but shall not be limited to the preparation of grade sheets, the installation of centre lines stakes, grade stakes, offsets and site rails."

SC.24 GC 5.1 FINANCING INFORMATION REQUIRED OF THE OWNER

1. **Delete** GC 5.1 - FINANCING INFORMATION REQUIRED OF THE OWNER in its entirety and **replace** it with the following:

"GC 5.1 ESTIMATES

5.1.1 On the 25th day of each month during the Contract Time, the Contractor will deliver to the Consultant a draft of the Contractor's proposed application for payment for all of the Work performed by the Contractor in that month (a "Draft Application"), in order to facilitate and expedite payments under GC 5.2 - APPLICATIONS FOR PAYMENT, GC 5.3 – PAYMENT, GC 5.5 - FINAL PAYMENT, including an estimate of the

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Work to be performed and Products to be delivered at the date of such application for payment but before the end of that month and including any reports or certificates confirming the satisfactory completion of any Commissioning and Testing of any part of the Work that the Contractor will include in its final and proper application for payment pursuant to paragraph 5.2.1.

- 5.1.2 The Contractor shall review with the Consultant and the Owner, at a scheduled time, the Draft Application and the percentage of the Work completed for each item indicated in the schedule of values. This procedure shall be complied with for each Draft Application for payment.
- 5.1.3 Nothing in GC 5.1 ESTIMATES is intended to condition, pre-condition, prevent or delay the Contractor's right to submit its final and proper applications for payment in accordance with paragraph 5.2.1 of this Contract and the Payment Legislation."

SC.25 GC 5.2 APPLICATIONS FOR PAYMENT

- 1. **Delete** paragraphs 5.2.1 and 5.2.2 and **replace** with the following:
 - "5.2.1 Notwithstanding GC 5.1 ESTIMATES and the submission of a Draft Application, the Contractor shall submit two copies of its final and proper application for payment to the Consultant and the Owner, in a form satisfactory to the Owner, monthly as the Work progresses on the first Working Day after the end of the month to which the application for payment relates. Deviation or incomplete submissions with respect to the form will require resubmission of the application for payment. Applications for payment not submitted on that day may be deferred by the Owner to the next following month. Applications for payment submitted after the 180th day after the end of the month to which the application for payment relates will not be accepted or paid for by the Owner.
 - The Contractor shall ensure that each application for payment for Work 5.2.2 complies with the requirements set out in this Contract, and will include as part of it application for payment of all the documents and information required in this Part 5 - PAYMENT and required for a Proper Invoice. including any reports or certificates confirming the satisfactory completion of any Commissioning and Testing of any completed part of the Work. The Owner may, in its discretion, reject any application for payment that does not comply with GC 5.2 - APPLICATIONS FOR PAYMENT, or the Owner may withhold up to 100 per cent of the amounts otherwise payable in relation to that application for payment until such application for payment includes all of the documents and information required under this Part 5 - PAYMENT and for a Proper Invoice. Without limiting the foregoing, authorization for payment of products and materials purchased under conditional sales contracts shall not be made by the Owner until evidence of payment is submitted."
- 2. **Delete** paragraph 5.2.7 in its entirety.

SC.26 GC 5.3 PAYMENT

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- 1. In paragraph 5.3.1.1 **delete** "10 calendar days" and **replace** with "5 Working Days"
- 2. **Delete** paragraph 5.3.1.2 in its entirety and **replace** with the following:
 - "subject to the certifications set out in the Consultant's certificate for payment and to the Payment Legislation, including the delivery of a notice of non-payment under the Payment Legislation, the Owner shall make payment to the Contractor on account as provided in Article A-5 of the Agreement PAYMENT on or before 28 days after the date that the Consultant or the Owner receives the Contractor's application for payment and Proper Invoice in accordance with this Contract."
- 3. Add new paragraphs 5.3.2 and 5.3.3 as follows:
 - "5.3.2 If the Contractor fails to comply with paragraph 5.2 APPLICATIONS FOR PAYMENT or paragraph 10.4 WORKERS' COMPENSATION, the Owner shall not be required to make payments to the Contractor until the obligation has been complied with.
 - 5.3.3 Payment by the Owner pursuant to the Contract shall not preclude the Owner from thereafter disputing any of the items involved and shall not be construed as acceptance of any part of the Work."

SC.27 GC 5.4 SUBSTANTIAL PERFORMANCE OF THE WORK AND PAYMENT OF HOLDBACK

- 1. **Add** "Subject to paragraph 3.2 of Article A-3 CONTRACT DOCUMENTS," at the beginning of paragraph 5.4.1.
- 2. **Delete** paragraphs 5.4.2 through 5.4.6, inclusive, in their entirety and replace them with the following:
 - "5.4.2 At the time of issuance by the Consultant of the certificate of Substantial Performance of the Work, the Consultant shall:
 - .1 notify the Contractor of the value of the Warranty Holdback required by paragraph 12.4 WARRANTY SECURITY HOLDBACK, hereof.
 - .2 prepare a separate certificate (the "Substantial Performance Payment Certificate") showing:
 - (i) the value of work completed to date,
 - (ii) the value of outstanding or uncompleted work,
 - (iii) the value of the required Warranty Holdback,
 - (iv) the amount of the holdback being held in accordance with the Payment Legislation (allowing for any previous release of holdback to the Contractor in respect of completed Subcontractors, Suppliers and deliveries of pre-selected equipment),
 - (v) the amount due the Contractor, and

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- .3 prepare a payment certificate releasing to the Contractor the holdback held in accordance with the Payment Legislation in respect of Work performed up to the date of Substantial Performance of the Work which will certify, among other matters, that all documents and information have been delivered by the Contractor that are required under GC 5.4 SUBSTANTIAL PERFORMANCE OF THE WORK AND PAYMENT OF HOLDBACK.
- 5.4.3 After the issuance of the certificate of Substantial Performance of the Work, the Contractor shall:
 - .1 submit an application for payment of the holdback amount containing all of the information and documents required under this Contract and of a Proper Invoice;
 - an original statutory declaration in the form of CCDC 9A, or other form of statutory declaration that includes the same unqualified declaration, that all liabilities incurred by the Contractor and its Subcontractors and Suppliers in carrying out the Contract have been discharged, and that all liens in respect of the Contract and subcontracts thereunder have expired or have been satisfied, discharged or provided for by payment into court, to state that all accounts for materials, labour, subcontracts, Products, Construction Equipment, and other indebtedness which may have been incurred by the Contractor, or by any Subcontractor or Supplier, up to the date of Substantial Performance of the Work and for which the Owner might in any way be held responsible have been paid in full, except for amounts properly retained as a holdback or as an identified amount in dispute;
 - .3 submit a written undertaking by the Contractor to complete expeditiously any outstanding Work and to discharge all unfulfilled obligations under the Contract;
 - .4 submit the Contractor's final claim for all amounts incurred before and on the date of Substantial Performance of the Work;
 - .5 submit a Release by the Contractor;
 - .6 submit any certificates, inspection reports, or data resulting from Commissioning and Testing required under the Contract Documents confirming the satisfactory completion of such Commissioning and Testing; and
 - .7 submit all manuals, as-built drawings and other turnover documents required under the Contract Documents.
- 5.4.4 Notwithstanding the foregoing, if the Contractor has not provided the documents required by the General Conditions by the 30th day after the publication of the certificate of Substantial Performance of the Work, the Owner, at its discretion, shall be entitled to withhold an amount equal to up to 100 per cent of the amount of statutory holdback as security for the

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Contractor's delivery of the outstanding document(s). In the event of a withholding under this GC 5.4.4, the Owner shall pay the withheld amount to the Contractor upon the earlier of (a) the Contractor's delivery of such documents, (b) the end of the limitation period related to any claim that could arise from the Contractor's non-delivery, and (c) a determination by the Consultant that such withheld amount should be released to the Contractor.

- 5.4.5 Subject to the requirements of any Payment Legislation and the delivery by the Owner of a notice of non-payment under the Payment Legislation, the statutory holdback amount and any other holdback amount authorized by the certificate for payment of the holdback, shall become due and payable to the Contractor on the day following the expiration of the holdback period stipulated in the lien legislation applicable to the Place of the Work."
- 5.4.5 Subject to paragraphs 5.4.6 and 5.4.7 and subject to the Payment Legislation, when the Contractor considers that it has completed a Contractual Milestone, the Contractor may apply for the payment of holdback that has accrued under the Contract for the performance of the Work for that Contractual Milestone by delivering to the Owner an application for payment that includes all of the following:
 - .1 a statutory declaration signed by the Contractor affirming (i) the amount of the Contract Price paid during that Contractual Milestone, (ii) the amount of the Contract Price remaining under the Contract (including amounts of all Change Orders and Change Directives), (iii) the amount of the statutory holdback accrued for that Contractual Milestone, (iv) that there are no adjudications or claims (including lien claims) outstanding between the Contractor and any of its Subcontractors or Suppliers. (v) that there are no liens registered against title or claims to lien to the Place of the Work or given to the Owner, (vi) that the Contractor has not received any notice in writing of a lien claim, (vii) that the Contractor has provided to each applicable Subcontractor and Supplier a notice that the Contractor has submitted an application for early payment of accrued holdback that includes holdback that will be paid to them after receipt of holdback from the Owner;
 - a copy of the notice supplied to each applicable Subcontractor and Supplier as set out in paragraph 5.4.5.1(vii);
 - .3 evidence substantiating the amount of the accrued holdback for that Contractual Milestone claimed in the Contractor's application for payment, if requested by the Owner or the Consultant;
 - .4 the name, title, telephone number and mailing address of the person to whom payment is to be sent;
 - .5 the Contractor's HST number;

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- a statutory declaration in the most current form of CCDC 9A, or other form of statutory declaration that includes the same unqualified declaration, that all liabilities incurred by the Contractor and its Subcontractors and Suppliers in carrying out the Contract have been discharged, and that all liens in respect of the Contract and subcontracts thereunder have expired or have been satisfied, discharged or provided for by payment into court;
- .7 a statutory declaration in the most current form of CCDC 9B from each applicable Subcontractor or Supplier and a declaration from the Subcontractor or Supplier that it has been paid in full as required by the applicable contract up to and including the latest progress payment as at the signing of the declaration
- .8 a Certificate of Clearance from the Workplace Safety and Insurance Board (WSIB) confirming that all assessments or compensation to the WSIB have been paid at the time the application for payment is submitted;
- .9 Certificate of the Consultant certifying the full completion of the applicable Contractual Milestone; and
- .10 any other information as the Owner or the Consultant may reasonably request.
- 5.4.6 Subject to the requirements of any Payment Legislation, the delivery by the Owner of a notice of non-payment under the Payment Legislation, and, without duplication, the payments of progressive releases of holdback made pursuant to paragraph 5.4.5, this paragraph 5.4.6, and paragraph 5.4.7, the statutory holdback amount and any other holdback amount authorized by the certificate for payment of the holdback, the Owner may pay such holdback to the Contractor on the date that is the day after all liens that may be claimed against the statutory holdback accruing for the applicable Contractual Milestone have expired or have been satisfied, discharged or otherwise provided for under the Payment Legislation (the "Contractual Milestone Holdback Payment Date").
- 5.4.7 The Owner shall not be obliged to release any accrued holdback on a phased basis or on the Contractual Milestone Holdback Payment Date unless and until all of the following conditions have been satisfied:
 - .1 the Contract Price is greater than \$10,000,000 (or such higher amount as set out in the Regulations under the Payment Legislation), and the subcontract price for any Subcontractor or Supplier whose holdback is included in the Contractor's application for payment of accrued holdback is greater than \$5,000,000;
 - .2 the Contract provides a description of the applicable Contractual Milestone;
 - .3 the Contractor has included similar provisions for the release of accrued holdback upon the completion of a Contractual Milestone

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in its subcontracts with applicable Subcontractors and Suppliers. The Owner will not be obliged to release holdback in respect of subcontracts with applicable Subcontractors and Suppliers if the applicable subcontract does not include an acknowledgement that holdback will be released on a phased basis in accordance with the Payment Legislation and this Contract, and a requirement for the Contractor to pay the Subcontractor or Supplier the holdback within 7 days of receipt of same from the Owner, and the Contractor will provide evidence of such terms upon request by the Owner;

- .4 the Contractor is not in default at the time of its application for payment or on the Contractual Milestone Holdback Payment Date; and
- as of the Contractual Milestone Holdback Payment Date, (i) there are no liens registered against title or claims to lien to the Place of the Work or any claims for lien given to the Owner, (ii) all liens in respect of the Contract have been satisfied, discharged or otherwise provided for under the Payment Legislation, (iii) the Owner has not issued to the Contractor a notice of non-payment of holdback, (iv) there are no adjudications or claims (including lien claims) outstanding between the Contractor and any of its Subcontractors or Suppliers, and (v) the Contractor has not received any written notice of lien.
- 5.4.8 the Contractor agrees to defend, indemnify and hold harmless the Owner from and against all actions, claims, demands, losses, costs (including fees and disbursements), damages, suits or proceedings whatsoever which may be brought against or made upon the Owner and against all loss, liability, judgments, claims, suits, demands or expenses which the Indemnified Parties may sustain, suffer or be put to resulting from or arising out of the payment of holdback pursuant to paragraphs 5.4.5, 5.4.6, or 5.4.7."
- Add new paragraph 5.4. as follows:
 - "5.4. If there are Non-Contiguous Improvements, then, pursuant to the Payment Legislation, the Owner shall release holdback in accordance with this GC 5.4 upon the issuance of a certificate of Substantial Performance of the Work for each such improvement. The parties acknowledge and agree that, notwithstanding any release of holdback pursuant to this paragraph 5.4., the Owner shall be entitled to withhold amounts for the purposes of and pursuant to GC 12.4 WARRANTY HOLDBACK as if the Owner had not made any release of holdback pursuant to this GC 5.4."

SC.28 GC 5.5 FINAL PAYMENT

1. In paragraph 5.5.1 **add** "as defined in Section 2(3) of the Construction Act" after the words "Work is completed" and add "containing all of the documents and

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information required under the Contract or of a Proper Invoice and including all final reports and certificates confirming satisfactory completion of all required Commissioning and Testing, to the extent applicable" after the words "final payment".

- 2. **Amend** paragraph 5.5.4 as follows:
 - (a) **add** "and provided that the Contractor has satisfied the requirements of paragraph 5.5.1," after "Place of the Work"; and
 - (b) **delete** "5 calendar days after" and **replace** with "28 calendar days after".
- 3. **Add** new paragraph 5.5.5 as follows:
 - "5.5.5 At the time of issuance by the Consultant of the final certificate of payment, the Consultant shall:
 - .1 Prepare a certificate (the "Completion Payment Certificate") showing:
 - (i) the final Contract Price,
 - the amount of the further 10 per cent holdback (based on the value of further work completed over and above the value of work completed shown in the Substantial Performance Payment Certificate),
 - (iii) the value of the required Warranty Holdback, and
 - (iv) the amount due to the Contractor.
 - Prepare a payment certificate releasing to the Contractor the further 10 per cent holdback. Subject to the provisions of the Payment Legislation, including the Owner's issuance of a notice of non-payment of holdback, and the submission by the Contractor of the documents required by the General Conditions, such further 10 per cent holdback shall become payable after 60 days from the date of completion of the Work as established by the final certificate of payment.

If, at the end of the Warranty Period, any monies are still being retained by the Owner as Warranty Holdback or for other reasons, the Consultant will issue a certificate (the "Warranty Holdback Payment Certificate") releasing the monies due the Contractor."

SC.29 GC 5.6 DEFFERRED WORK

1. In paragraph 5.6.1 **delete** "If" and **replace** with "Subject to applicable lien legislation, if".

SC.30 GC 5.8 LIENS

1. **Add** new GC 5.8 LIENS as follows:

"GC 5.8 LIENS

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- 5.8.1 Notwithstanding any other term or condition in the Contract Documents, the Owner shall not be obligated to make payment to the Contractor, if at any time such certificate or payment was otherwise due:
 - a claim for lien arising from the performance of the Work has been registered against the Place of Work, or given to the Owner,
 - .2 a written notice of lien has been delivered to the Owner in accordance with the Payment Legislation; or
 - .3 the Owner or mortgagee of the Place of Work has received a written notice of lien.
- In the event that a construction lien arising from the performance of the Work is registered against the Place of Work, or given to the Owner, the Contractor shall, within 10 calendar days, at its sole expense, vacate or discharge or otherwise remove the lien from title to the premises. If the lien is merely vacated, the Contractor shall, if requested, undertake the Owner's defence of any subsequent lawsuit commenced in respect of the lien at the Contractor's sole expense.
- 5.8.3 In the event that the Contractor fails or refuses to vacate or discharge a construction lien within the time prescribed above, if the Owner receives a notice of lien, the Owner shall, at its option, be entitled to take all steps necessary to vacate and/or discharge the lien, and all costs and expenses incurred by the Owner in so doing (including, without limitation, legal fees on a full indemnity basis, disbursements, the cost of any security to vacate the lien and any payment which may ultimately be made out of or pursuant to security posted to vacate the lien) shall be for the account of the Contractor, and the Owner may deduct such amounts from amounts otherwise due or owing to the Contractor. If the Owner vacates the lien, it shall be entitled to retain all amounts it would be required to retain pursuant to the Payment Legislation if the lien had not been vacated.
- 5.8.4 Without limiting any of the foregoing, the Contractor shall indemnify the Owner for all costs (including, without limitation, legal fees on a full indemnity basis) it may occur in connection with the claim for lien or subsequent lawsuit brought in connection with the lien, or in connection with any other claim or lawsuit brought against the Owner by any person that provided services or materials to the Place of Work which constituted a part of the Work.
- 5.8.5 This GC 5.8 does not apply to construction liens claimed by the Contractor."

SC.31 GC 6.1 OWNER'S RIGHT TO MAKE CHANGES

- 1. In paragraph 6.1.1.2 **add** "or a Change Directive" after "Change Order"
- 2. **Add** new paragraphs 6.1.3 to 6.1.8 as follows:

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- "6.1.3 The value of a change shall be determined in one or more of the following methods: (a) by estimate and acceptance in a lump sum; (b) by unit prices set out in the Contract or subsequently agreed upon; (c) by cost and a fixed or percentage fee.
- 6.1.4 Where changes in the Work are paid for under method (b) of paragraph 6.1.3, the value of changes is based on the net difference in quantities with the appropriate unit rate applied.
- 6.1.5 Where changes in the Work are to be paid under method (c) of paragraph 6.1.3, the cost to the Owner shall be the actual cost of credits and where additional work is required, the cost to the Owner shall be the actual cost plus a percentage covering overhead and profit, after all credits included in the change have been deducted. Wherein changes in the Work are to be paid under method (c) of paragraph 6.1.3, an allowance covering overhead and profit shall be calculated as follows:
 - .1 on Work performed by the Contractor's own forces, 10 per cent; and
 - .2 on Work performed by Subcontractors or Suppliers, five per cent.
- 6.1.6 If any change in the Work is made by which the amount of Work to be done is decreased, or if the whole or any portion of the Work is dispensed with, the Owner shall, subject to paragraph 6.1.3, not be liable to the Contractor for any costs or damages whatsoever including, without limitation, any indirect, consequential or special damages, such as loss of profits, loss of opportunity or loss of productivity.
- 6.1.7 A Change Order shall be a final determination or adjustment in the Contract Time and Contract Price. There shall be no adjustments to the Contract Time or Contract Price or compensation or payment of any kind whatsoever (including, without limitation, claims for loss of productivity) based on the aggregate number, scope or value of changes in the Work whether resulting from Change Order or Change Directive.
- 6.1.8 It is the express intention of the parties that any claims by the Contractor for a change in the Contract Price and/or Contract Time shall be barred unless there has been strict compliance with the requirements of all of PART 6 CHANGES IN THE WORK and the Contractor has notified the Owner and Consultant, within the earlier of: (i) ten (10) Working Days of any event or circumstance of which Contractor has knowledge which provides the Contractor with a change in the Contract Price and/or Contract Time pursuant to the terms and conditions of the Contract, or (ii) such other period of time expressly allowed for by the Contract. Such notice from the Contractor shall include without limitation, sufficient and adequate information and documentation to allow the Consultant and the Owner to properly consider the claim of the Contractor (including, without limitation, the cause of the change in the Contract Time, a description of the impact on the change in the Contract Time will have on the critical path of the Construction Schedule and a description of the portions of the

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Work affected thereby and a breakdown of the change in the Contract Price, together with all pertinent details and all other backup information and documents). The Contractor has an ongoing obligation to augment the information and documents described in this paragraph as it becomes available. No course of conduct or dealing between the parties, no express or implied acceptance of alterations or additions to the Work, and no claims that the Owner has been unjustly enriched by any alteration or addition to the Work, whether in fact there is any such unjust enrichment or not, shall be the basis of a claim for additional payment under this Contract or a claim for any extension of the Contract Time."

SC.32 GC 6.3 CHANGE DIRECTIVE

- 1. **Delete** paragraph 6.3.2 and **replace** it with "INTENTIONALLY DELETED".
- 2. **Delete** paragraph 6.3.3 and **replace** it with "INTENTIONALLY DELETED".
- 3. In paragraphs 6.3.7.3 and 6.3.7.4, **delete** everything after "hand tools".
- 4. **Add** the following to the end of paragraph 6.3.7.6: ", provided however that the costs included in such amounts shall be limited to the actual costs of the items described in this paragraph 6.3.7 changing 'Contractor' to 'Subcontractor' as necessary".
- 5. In paragraph 6.3.7.7 **add** "reasonable" before "travel".
- 6. At the end of paragraph 6.3.7, **add** the following:

"All other costs attributable to the change in the Work including the costs of all administrative or supervisory personnel are included in overhead and profit calculated in accordance with the provisions of paragraph 6.1.5 of GC 6.1 - OWNER'S RIGHT TO MAKE CHANGES".

SC.33 GC 6.4 CONCEALED OR UNKNOWN CONDITIONS

- 1. In paragraph 6.4.1.1 and paragraph 6.4.1.2 **add** "or the Reports" after "Contract Documents".
- 2. In paragraph 6.4.2 **add** "Having regard to and subject to the liabilities and responsibilities assumed by the Contractor pursuant to GC 3.9 OPERATIONAL RISK," at the beginning of the first and second sentences.
- 3. **Add** the following to the end of paragraph 6.4.4 "or GC 15 EXCESS SOIL, as applicable."
- 4. **Add** new paragraph 6.4.5 as follows:
 - "6.4.5 Without limiting the generality of any other provision in the Contract Documents, during the performance of the Work, the Contractor shall, as a part of the Contract Price and Work, perform any additional geotechnical and subsurface and other investigations, tests and studies beyond those being provided by the Owner, which a reasonable and prudent contractor would conduct to ascertain the nature and extent of subsurface or otherwise concealed physical conditions at the Place of the Work."

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SC.34 GC 6.5 DELAYS

- 1. In paragraph 6.5.1 **delete** "performance of the Work" in the first line and **replace** with "performance of a critical path activity on the Construction Schedule" and **delete** "them" in the second line and **replace** with "the Consultant".
- 2. In paragraph 6.5.1 **add** the following to the end of the paragraph:
 - ", provided that the Owner shall not be liable for any other costs or damages whatsoever including, without limitation, any indirect, consequential, or special damages, such as loss of profits, loss of opportunity or loss of productivity resulting from such delay."
- 3. **Delete** paragraph 6.5.2 in its entirety and **replace** it with "INTENTIONALLY DELETED".
- 4. **Delete** paragraph 6.5.3 in its entirety and **replace** with the following:
 - "6.5.3 If the Contractor is delayed in the performance of the Work by:
 - .1 labour disputes, strikes, lock-outs affecting the Work or the Project,
 - .2 fire, unusual delay by common carriers or unavoidable casualties,
 - .3 abnormally adverse weather conditions,
 - .4 any cause beyond the Contractor's control that would make performance of the Work impossible other than one resulting from a default or breach of Contract by the Contractor, or
 - .5 a stop work order issued by a court or other public authority, including but not limited to an order issued as the result of an act or omission of the Contractor or any person or other entity employed or engaged by the Contractor directly or indirectly,

then the Contract Time shall be extended for such reasonable time as the Consultant may recommend in consultation with the Contractor. The extension of time shall not be less than the time lost as the result of the event causing the delay, unless the Contractor agrees to a shorter extension. The Contractor shall not be entitled to payment for costs incurred by such delays unless such delays result from actions by the Owner, Consultant or anyone employed or engaged by them directly or indirectly provided that the Owner shall, in such instance, only be liable for reasonable costs incurred by the Contractor and shall not be liable for any other costs or damages whatsoever including, without limitation, any indirect, consequential, or special damages, such as loss of profits, loss of opportunity or loss of productivity resulting from such delay. Notwithstanding the foregoing, the Contractor shall use its best efforts to minimize the impact of such event upon the performance of the Work and Contract Time."

5. In paragraph 6.5.4, **add** "and Owner" after "Consultant" and **add** the following to the end:

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"Without limiting the generality of the foregoing, the following shall also apply to the event of delay dealt with by paragraphs 6.5.1 or 6.5.3:

- the notice provided by the Contractor as set out in this paragraph 6.5.4 shall include, without limitation, the information and documentation required by paragraph 6.1.8.
- .2 the Contractor shall take all reasonable steps to minimize the impact of the delay event upon the performance of the Work, the Contract Time and the Contract Price, resume performance of all its obligations under the Contract affected by the delay as soon as practicable and use all reasonable endeavours to remedy any failure to perform.

Failure to adhere strictly to these notice provisions shall constitute a waiver and release of any obligation of the Owner to extend the Contract Time as a result of such delay and of any claim by the Contractor for costs as a result of such delay."

- 6. **Add** new paragraph 6.5.6 as follows:
 - "6.5.6 If the Work should be behind schedule for a reason other than as described in paragraphs 6.5.1 or 6.5.3, or if any of the Subcontractors or Suppliers or anyone for whom they are responsible delay the progress of any portion of the Work necessary to complete the Work on schedule, the Contractor shall not be relieved of its obligations under the Contract Documents and shall use all possible and, if necessary, extraordinary measures to bring the Work back on schedule. The Contractor shall exercise all reasonable means within its discretion, such as directing any Subcontractors or Suppliers creating delays to increase their labour forces and equipment, to improve the organization and expediting of the Work, or to work overtime as may be necessary. The Contractor shall provide any additional supervision, co-ordination and expediting, including overtime by its own personnel as may be required to achieve this end. The costs and expenses incurred by the use of such measures and overtime shall be borne by the Contractor, the Suppliers and/or the Subcontractors."

SC.35 GC 7.1 OWNER'S RIGHT TO PERFORM THE WORK, TERMINATE THE CONTRACTOR'S RIGHT TO CONTINUE WITH THE WORK OR TERMINATE THE CONTRACT

- 1. In paragraph 7.1.1 **add** "or terminate the Contract" after "Work" in the fourth line.
- 2. In paragraph 7.1.2 **add** ", fails or neglects to maintain the latest Construction Schedule provided pursuant to paragraph 3.4" immediately following the word "properly" in the first line and **delete** "to a substantial degree and if the Consultant has given a written statement to the Owner and the which provides the detail of such neglect to perform the Work properly or such failure to comply with the requirements of the Contract to a substantial degree."
- 3. In paragraph 7.1.5 **add** "or terminates the Contract" after "Work" in the first line and **add** "without prejudice to any other right or remedy which is available to the Owner" before "the Owner shall be".

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- 4. In paragraph 7.1.5.2 **delete** "until a final certificate for payment is issued".
- 5. In paragraph 7.1.5.3 **delete** "; however, if such costs of finishing the Work is less than the unpaid balance of the Contract Price, the Owner shall pay the Contractor the difference".
- 6. **Add** paragraphs 7.1.7 to 7.1.11 as follows:
 - "7.1.7 Notwithstanding any other provision in the Contract Documents, the Contract may be terminated by the Owner without cause. Any such termination shall be effected by delivery to the Contractor of a notice of termination, specifying the date upon which such termination becomes effective. The Owner's entitlement to so terminate the Contract shall be absolute and unconditional and exercisable by the Owner in its sole and absolute discretion.
 - 7.1.8 In the event of any termination by the Owner pursuant to paragraph 7.1.7, the Contractor shall only be entitled to payment of the following amounts:
 - .1 that portion of the Contract Price relating to Work performed prior to the termination date, as certified by the Consultant; plus
 - .2 Subcontractor and sub-subcontractor cancellation costs (which costs shall not include loss of profit claims) reasonably incurred by the Contractor as the result of such termination; provided the Contractor has substantiated such costs to the Owner's reasonable satisfaction and after the Owner has reviewed the details thereof; plus
 - .3 subject in all cases to the Owner being informed of all details relating thereto and the prior written approval of the Owner being obtained (which approval may not be unreasonably withheld), reasonable demobilization costs defined to include equipment and office dismantling, transportation to Contractor's storage facility, lease or rental cancellation costs, transportation of the Contractor's employees to their home offices, provided each such demobilization cost shall be reasonable and substantiated (to the Owner's reasonable satisfaction) by the Contractor.
 - 7.1.9 Except as described in paragraph 7.1.8, the Contractor shall not be entitled to any additional reimbursement on account of any such termination including, without limitation, indirect, special, consequential or other damages, including, without limitation, loss of profits, loss of opportunity or loss of productivity, notwithstanding any other provision of the Contract Documents.
 - 7.1.10 The terms of the Contract, which expressly or by their nature are intended to survive the termination or discharge of the Contract, shall survive such termination or discharge including, without limitation, GC 12.3 WARRANTY.
 - 7.1.11 Upon a termination, the Owner may publish a notice of termination in the form and manner prescribed in the Payment Legislation. For greater

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certainty, a termination in accordance with this GC 7.1 will be effective whether or not a notice of termination is published."

SC.36 GC 7.2 CONTRACTOR'S RIGHT TO SUSPEND THE WORK OR TERMINATE THE CONTRACT

- 1. In paragraph 7.2.2 **delete** "20" and **replace** with "60".
- 2. In paragraph 7.2.3 **add** "and instructing the Owner to correct the default in the five (5) Working Days immediately following the receipt of such Notice in Writing" after "contractual obligations".
- 3. **Delete** paragraph 7.2.3.1 in its entirety and **replace** with "7.2.3.1 INTENTIONALLY DELETED".
- 4. In paragraph 7.2.3.2 **add** "subject to the other terms and conditions of the Contract," before "the Consultant".
- 5. In paragraph 7.2.3.4 **delete** "except for GC 5.1 FINANCING INFORMATION REQUIRED OF THE OWNER".
- 6. **Delete** paragraph 7.2.4. in its entirety, **renumber** paragraph 7.2.5 as paragraph 7.2.6 and **add** the following new paragraph 7.2.4 and new paragraph 7.2.5:
 - "7.2.4 If the default cannot be corrected in the 5 Working Days specified, the Owner shall be in compliance with the Contractor's instructions if the Owner:
 - .1 commences the correction of the default within the specified time; and
 - .2 provides the Contractor with an acceptable schedule for such correction, and
 - .3 corrects the default in accordance with such schedule.
 - 7.2.5 If the Owner fails to correct the default in the time specified or subsequently agreed upon, without prejudice to any other right or remedy the Contractor may have, the Contractor may suspend the Work for not more than 90 days or terminate the Contract."

SC.37 GC 8.1 AUTHORITY OF THE CONSULTANT

- 1. **Delete** paragraph 8.1.1 and **replace** with the following:
 - "8.1.1 All differences between the parties to the Contract as to the interpretation, application or administration of the Contract or any failure to agree where agreement between the parties is called for, herein collectively called disputes, shall be referred to the Consultant in the first instance. A dispute which is not resolved by the findings of the Consultant shall only be settled in accordance with the requirements of Part 8 of the General Conditions DISPUTE RESOLUTIONS except if the Owner and the Contractor both agree, in a duly executed agreement in writing otherwise pursuant to paragraph 8.3.9."

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- 2. **Delete** paragraph 8.1.2 and paragraph 8.1.3 in their entirety and **replace** with the following:
 - "8.1.2 If a dispute is not resolved promptly, or the Owner and the Contractor cannot agree where agreement is required, the Consultant shall give such written instructions as in the Consultant's opinion are necessary for the proper performance of the Work and to prevent delays pending settlement of the dispute. The parties shall act immediately according to such instructions, it being understood that by so doing neither party will jeopardize any claim the party may have. If it is subsequently determined that such instructions were in error or at variance with the Contract Documents, the Owner shall pay the Contractor the costs incurred by the Contractor in carrying out such instructions which the Contractor was required to do beyond what the Contract Documents correctly understood and interpreted would have required, including costs resulting from interruption of the Work."

SC.38 GC 8.2 ADJUDICATION

- 1. **Add** new paragraph 8.2.2 and 8.2.3, as follows:
 - "8.2.2 If the Contractor issues a notice of adjudication to the Owner, it will include with such notice a description of the reasons for its dispute that includes a reference to the applicable application for payment and Proper Invoice, all Notices in Writing demanding payment, authority for the claim under the Contract (including copies of any applicable Change Order, Change Directive or written approval of any change).
 - 8.2.3 The parties acknowledge and agree that the adjudication of a payment dispute in accordance with the Payment Legislation will not pause, withdraw, discontinue, or prejudice any mediation, arbitration, or court proceeding that relates to the same matter and that was commenced prior to the delivery of a notice of adjudication under the Payment Legislation unless the parties otherwise agree in writing."

SC.39 GC 8.3 NEGOTIATION, MEDIATION AND ARBITRATION

- 1. In paragraph 8.3.1 **delete** "Rules of Mediation and Arbitration of Construction Industry Disputes' in effect at the time of bid closing" and **replace** with "Rules of Mediation and Arbitration, as applicable".
- 2. In paragraph 8.3.1.2 **delete** "either party by Notice in Writing requests" and **replace** with "both parties agree".
- 3. In paragraph 8.3.4 **delete** "Rules of Mediation of Construction Disputes as provided in CCDC 40 in effect at the time of bid closing" and **replace** with "Rules of Mediation and Arbitration, as applicable".
- 4. In paragraph 8.3.6 **delete** "rules for mediation as provided in CCDC 40 in effect at the time of bid closing" and **replace** with "Rules of Mediation and Arbitration, as applicable".
- 5. **Add** a new paragraph 8.3.9 as follows:

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"8.3.9 This GC 8.3 – NEGOTIATION, MEDIATION AND ARBITRATION, the parties acknowledge that they may, by mutual agreement in writing, agree to refer a particular dispute directly to court."

SC.40 GC 9.1 PROTECTION OF WORK AND PROPERTY

- 1. In paragraph 9.1.1 and paragraph 9.1.3, **delete** "property adjacent to the Place of the Work" and **replace** with "property adjacent to, in the vicinity of or proximate to the Place of the Work".
- 2. **Delete** paragraph 9.1.1.1 in its entirety and **replace** with "9.1.1.1 INTENTIONALLY DELETED"
- 3. **Delete** paragraphs 9.1.4.1 and 9.1.4.2 in their entirety.

SC.41 GC 9.2 TOXIC AND HAZARDOUS SUBSTANCES

- 1. **Add** new paragraphs 9.2.10 to 9.2.14 as follows:
 - "9.2.10 Neither the Contractor nor anyone for whom it is responsible shall bring on to the Place of the Work any toxic or hazardous substances and materials except as needed in order to perform the Work. If such toxic or hazardous substances or materials are required, storage in quantities sufficient to allow work to proceed for fourteen (14) calendar days only shall be permitted. All such toxic and hazardous materials and substances shall be handled and disposed of only in accordance with all Laws that are applicable at the Place of the Work. Without limiting the generality of any other provision in the Contract, the Contractor shall promptly provide the Owner with Material Safety Data Sheets for such toxic or hazardous substances or materials.
 - 9.2.11 The Contractor shall indemnify and hold harmless the Owner and Consultant and their respective officers, directors, agents and employees, independent contractors from and against any and all liabilities, costs, expenses, and claims resulting from bodily injury, including death, harm or damage to the environment, and damage to property of any person, corporation or other entity, that arises from the use by the Contractor or anyone for whom the Contractor is responsible of any toxic or hazardous substances or materials at the Place of the Work.
 - 9.2.12 The Contractor shall be familiar with, and comply with, the workplace hazardous materials information system. The Contractor shall ensure that all employees and Subcontractors and anyone for whom they are responsible who work with or in proximity to hazardous material fully understand all potential hazards and have been thoroughly trained to deal with any emergencies. Without limiting the generality of the foregoing, all employees and Subcontractors and anyone for whom they are responsible shall be able to:
 - a) Recognize and understand the labelling on hazardous materials; and

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- b) Understand material safety data sheets and are knowledgeable on how to safely use, store, handle and dispose of hazardous materials.
- 9.2.13 The Contractor shall ensure all material safety data sheets pertinent to the completion of the Work are at the Place of the Work.
- 9.2.14 For the purposes of GC 9.2 Toxic and Hazardous Substances, the definition of Hazardous Material shall exclude Excess Soil."

SC.42 GC 9.4 CONSTRUCTION SAFETY

- 1. **Add** the following as a new paragraph 9.4.6:
 - "9.4.6 Without restricting the generality of the foregoing, the Contractor acknowledges that the Contractor is the "constructor" and the "employer" within the meaning of the *Occupational Health and Safety Act* (Ontario) and the Contractor undertakes to carry out the duties, obligations and responsibilities of the constructor and the employer with respect to the Project. For clarity, the Contractor, in fulfilling the role of "constructor" and "employer", shall have the right to remove the Other Entities from the Place of the Work should they not comply with the Contractor's safety program and safety instructions. Without restricting the generality of any other term or condition in the Contract, the Contractor shall indemnify and hold harmless the Owner from any liability for claims, damages or penalties, including reasonable legal fees to defend any offences, arising from the Contractor's failure to comply with the duties, responsibilities and obligations of the constructor and the employer under the *Occupational Health and Safety Act* (Ontario)."
 - 9.4.7 The Contractor acknowledges that the Owner may retain the services of a safety consultant (the "Safety Consultant") to serve as the "constructor" for the Project. Notwithstanding any provision to the contrary in this Contract, including paragraphs 9.4.1 and 9.4.4, any Special Provisions, and provisions in Division 1 of the Specifications relating to occupational health and safety, in the event that the Owner advises the Contractor that the Owner has retained a Safety Consultant, the Safety Consultant shall be responsible for fulfilling the role of the "constructor", and the Contractor agrees to comply, and to cause all Subcontractors and Suppliers to comply, with all instructions received from the Safety Consultant."

SC.43 GC 10.1 TAXES AND DUTIES

1. **Delete** GC 10.1 TAXES AND DUTIES in its entirety and **replace** with the following:

"GC 10.1 TAXES AND DUTIES

10.1.1 The Contract Price shall include all taxes, tariffs and customs duties in effect at the time of the bid closing except for Value Added Taxes payable by the Owner to the Contractor as stipulated in Article A-4 of the Agreement - CONTRACT PRICE.

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- 10.1.2 Any increase or decrease in costs to the Contractor due to changes in such included taxes, tariffs and duties after the time of the bid closing shall increase or decrease the Contract Price accordingly.
- 10.1.3 The Contractor shall provide a detailed breakdown of additional taxes, tariffs and duties in a form satisfactory to the Owner. Profit and overhead shall not be included in the increase or decrease in costs incurred by the Contractor due to changes in the aforementioned taxes, tariffs and duties.
- 10.1.4 Where an exemption or recovery of government sales taxes, tariffs, customs duties or excise taxes is applicable to the Contract, the parties agree to cooperate with each other to obtain such exemptions. Refunds that are properly due to the Owner and have been recovered by the Contractor shall be promptly refunded to the Owner. In addition, any reduction or elimination of taxes, tariffs or customs duties that take effect after the date of bid closing resulting in savings to the Contractor shall be due to the Owner in the form of a credit to the Contract Price."

SC.44 GC 10.2 LAWS, NOTICES, PERMITS, AND FEES

- 1. **Delete** paragraph 10.2.2 in its entirety and **replace** with the following:
 - "10.2.2. Without limiting the generality of any other provision in the Contract, the Contractor shall obtain and pay for, at its sole expense and cost, all permits, development approvals, licences, certificates, charges, refundable deposits, and approvals including, without limitation, building permit, site plan approval, water and sanitary sewer permits, water and sewer connection charges, site alteration permits, curb cut and road cut permits, sign permits, hydro approvals, and occupancy permit necessary for the performance of the Work and the use and occupation of the Work by the Owner in accordance with the Contract Documents, the cost of which shall all be included in the Contract Price."
- 2. **Delete** paragraph 10.2.3 in its entirety and **replace** with the following:
 - "10.2.3. The Contractor shall comply, and shall require its employees, agents, Subcontractors, Suppliers and anyone for whom they are responsible to comply, with all laws, ordinances, guidelines, standards, permits, statutes, by-laws, rules, regulations, or codes, and, subject to 9.4, all of the Owner's policies and procedures which are or become in force and are applicable to the performance of the Work including, without limitation, all those relating to the preservation of the public health, occupational health and safety and to construction safety."
- 3. In paragraph 10.2.5 **delete** "The Contractor" and **replace** with "Subject to paragraphs 1.1.3 and 1.1.4, the Contractor".
- 4. **Delete** paragraph 10.2.6 in its entirety and **replace** with the following:

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"10.2.6.

If the Contractor fails to notify the Owner and the Consultant in writing, fails to obtain direction as required in paragraph 10.2.5, and/or performs work that it knows or ought to have known that contravenes any laws, ordinances, guidelines, standards, permits, statutes, by-laws, rules, regulations, or codes, the Contractor shall be responsible for and shall correct the violations thereof, and shall bear the costs, expenses, and damages attributable to the failure to comply with the provisions of such laws, ordinances, guidelines, standards, permits, statutes, by-laws, rules, regulations, or codes."

- 5. **Add** new paragraph 10.2.8 as follows:
 - "10.2.8. Without limiting the generality of any other provision in the Contract Documents, the Contractor shall cause all certificates to be furnished that are required or given by the appropriate governmental or quasi-governmental Authorities as evidence that the Work as installed conforms with the laws and regulations of Authorities Having Jurisdiction, including, without limitation, certificates of compliance for the Owner's occupancy or partial occupancy. The certificates are to be final certificates giving complete clearance of the Work, in the event that such governmental or quasi-governmental Authorities furnish such certificates."

SC.45 GC 10.3 PATENT FEES

- 1. In paragraph 10.3.1 **add** "indemnify and" before "hold the" in the second line.
- 2. In paragraph 10.3.2 **add** "by the Owner" after "supplied to the Contractor."

SC.46 GC 11.1 INSURANCE

1. **Delete** GC 11.1 INSURANCE in its entirety and **replace** with the following:

"GC 11.1 INSURANCE

- 11.1.1 Without restricting the generality of GC 13.1 INDEMNIFICATION, the Contractor shall provide, maintain and pay for the following insurance coverage's:
- 1. Commercial General Liability insurance shall be with limits of not less than \$5,000,000 per occurrence with an annual aggregate limit of not less than \$10,000,000 within any policy year. The policy shall be maintained until the expiration of the Warranty Period.

The insurance shall be in the name of the Contractor, include the Owner as an additional insured(s), and include bodily injury including death, personal injury, property damage including loss of use thereof, hook, hoist and crane liability, contractual liability, non-owned automobile liability, owner's and contractor's protective, products and completed operations, employer's liability, contingent employer's liability with coverage including the operations and activities of the Contractor and those for whom the

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Contractor is in law responsible. The policy shall contain cross liability and severability of interest clauses.

The insurance coverage shall not be less than the insurance provided by IBC Form 2100 or its equivalent replacement (including an extension for a standard provincial or territorial form of non-owned automobile liability policy), provided that IBC form 2100 shall include coverage with respect to sudden and accidental pollution acceptable to the Owner, and IBC Form 2320.

The policy will include but is not limited to the liability of the insureds arising out of their general supervision, if any, or such operations with respect to safety or otherwise, or arising out of the ownership or control of the premises on which such operations are performed.

Liability coverage shall be maintained for completed operations hazards for four (4) years following the expiration of the Warranty Period.

To achieve the desired limit, umbrella or excess liability insurance may be used

All policies of insurance shall be primary and shall not act as co-insurance or as excess coverage to any policies obtained by the Owner for its sole protection.

Prior to commencement of the Work and upon the placement, renewal, amendment or extension of all or any part of the insurance, the Contractor shall promptly provide the Owner with a certified true copy of the policy(ies) by an authorized representative of the insurer together with copies of any amending endorsements or a Certificate of Insurance on the Owner's form evidencing compliance with the policy requirements and endorsed to provide the Owner with not less than 30 days' notice in writing in advance of any cancellation, change or amendment restricting coverage.

- 2. Automobile insurance in respect of vehicles that are required by law to be insured under an Automobile Insurance Policy, shall have limits of not less than \$2,000,000, inclusive per accident or occurrence for bodily injury, death and damage to property, covering all licensed vehicles owned or leased by the Contractor, and endorsed to provide the Owner with not less than 30 days' notice in writing in advance of any cancellation, change or amendment restricting coverage. The policy shall be maintained until the expiration of the Warranty Period. Where the policy has been issued pursuant to a government-operated automobile insurance system, the Contractor shall provide the Owner with confirmation of automobile insurance coverage for all automobiles registered in the name of the Contractor.
- 3. All Risk property insurance shall have limits of not less than the sum of 1.1 times the Contract Price with a deductible not exceeding \$100,000. The insurance coverage shall not be less than the insurance provided by IBC Forms 4042 and 4047 (including flood and earthquake

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endorsements) or their equivalent replacement and include coverage for boiler & machinery testing and commissioning; property in transit and offsite coverage with limits acceptable to the Owner. Subject to satisfactory proof of financial capability by the Contractor, the Owner may agree to increase the deductible amounts.

The policy shall include the Owner as a loss payee and waive subrogation against the Owner. The coverage shall be maintained continuously from the commencement of the Work until the date of fifteen (15) calendar days after Ready-for-Takeover and the Contractor's insurance provider has confirmed with the Owner that the Owner added the Project's infrastructure to the Owner's Property insurance policy.

The insurance policy shall name the Owner, Contractor, Subcontractors, Consultant and Subconsultants as their respective interests may appear and be endorsed to provide the Owner with not less than 30 days' notice in writing in advance of cancellation, change or amendment restricting coverage.

4. Boiler and Machinery insurance shall have limits of not less than the replacement value of the insurable objects (boilers and equipment forming part of the permanent installation). The insurance coverage shall not be less than the insurance provided by a comprehensive Boiler and Machinery policy. The policy shall include the Owner as a loss payee and waive subrogation against the Owner and shall be endorsed to provide the Owner with not less than 30 days' notice in writing in advance of cancellation, change or amendment restricting coverage.

The coverage shall be maintained continuously from the commencement of use or operation of the boiler and machinery objects insured by the policy and until fifteen (15) calendar days after the date of Ready-for-Takeover and the Contractor's insurance provider has confirmed with the Owner that the Owner added the Project's insurable objects (boilers and equipment permanently installed) to the Owner's Boiler and Machinery insurance policy.

5. All Risks Contractors' Equipment Insurance covering construction machinery and equipment used by the Contractor for the performance of the Work shall be in a form acceptable to the Owner and shall not allow subrogation of claims by the insurer against the Owner or any and all other parties engaged in the Project. The policies shall be endorsed to provide the Owner with not less than 30 days' notice in writing in advance of cancellation, change, or amendment restricting coverage.

7. Standard Exclusions

7.1 In addition to the broad form property exclusions identified in IBC 4042 (1995) and 4047 (2000), the Contractor is not required to provide the following insurance coverages:

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Cyber Risk Terrorism

- 11.1.2 Prior to commencement of the Work and upon the placement, renewal, amendment, or extension of all or any part of the insurance, the Contractor shall promptly provide the Owner with confirmation of coverage and, if required, a certified true copy of the policies certified by an authorized representative of the insurer together with copies of any amending endorsements applicable to the Work or Certificate of Insurance on the Owner's form evidencing compliance with the policy requirements and endorsed to provide the Owner with not less than 30 days' notice in writing in advance of any cancellation, change or amendment restricting coverage.
- 11.1.3 The Contractor shall pay all deductibles and damage or loss under a deductible for all required insurance policies, save the All Risk property and boiler and machinery policies' deductibles.
 - The Owner shall pay the All Risk property and boiler and machinery policies' deductibles unless the Contractor or Subcontractors are responsible for having caused, by act or omission, the loss or damage, in which instance the Contractor shall pay the loss, damage or deductible.
- 11.1.4 The All Risk property and boiler and machinery policies shall provide that, in the case of a loss or damage, payment shall be made to the Owner and the Contractor as their respective interests may appear.

In the event of loss or damage:

- .1 the Contractor shall act on behalf of the Owner for the purpose of adjusting the amount of such loss or damage payment with the insurers, subject to the Contractor keeping the Owner and Consultant informed as to the progress of the claim adjustment and the Contractor and Owner being in agreement thereto. When the extent of the loss or damage is determined, the Contractor shall proceed to restore the Work. Loss or damage shall not affect the rights and obligations of either party under the Contract except that the Contractor shall be entitled to such reasonable extension of Contract Time relative to the extent of the loss or damage as the Consultant may recommend in consultation with the Contractor;
- .2 the Contractor shall be entitled to receive from the Owner, in addition to the amount due under the Contract, the amount which the Owner's interest in restoration of the Work has been appraised, such amount to be paid as the restoration of the Work proceeds in accordance with the progress payment provisions. In addition, the Contractor shall be entitled to receive from the payments made by the insurer the amount of the Contractor's interest in the restoration of the Work; and
- .3 to the Work arising from the work of the Owner, the Owner's own forces or Other Contractors, the Owner shall, in accordance with the

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Owner's obligations under the provisions relating to construction by the Owner or Other Contractors, pay the Contractor the cost of restoring the Work as the restoration of the Work proceeds and as in accordance with the progress payment provisions.

- 11.1.5 If the Contractor fails to provide or maintain insurance as required by the Contract Documents, then the Owner shall have the right to provide and maintain such insurance and give evidence to the Contractor and the Consultant. The Contractor shall pay the cost thereof to the Owner on demand or the Owner may deduct the cost from the amount which is due or may become due to the Contractor.
- 11.1.6 All required insurance policies shall be issued by insurers licensed to underwrite insurance in the Province of Ontario and shall be at the approval, not unreasonably withheld, of the Owner.
- 11.1.7 If the Owner or the Consultant requests that any adjudicators, other consultants, experts or administrators attend the Place of the Work in order to inspect or review any part of the Work, the Owner or the Consultant shall provide the Contractor with a Notice in Writing of such attendance. The Contractor shall ensure that the Place of the Work is safe for such attendance, inspection or review, and shall accompany such persons throughout the attendance to ensure any such attendance, inspection or review is completed in a safe manner."

SC.47 GC 12.1 READY-FOR-TAKEOVER

- 1. **Add** a new paragraph 12.1.1.9 as follows:
 - ".9 any other information or documents which the Owner may request, acting reasonably."
- 2. **Delete** GC 12.1.2 in its entirety and **replace** it with "INTENTIONALLY DELETED."
- 3. **Delete** GC 12.1.3 and GC 12.1.4 in their entirety and **replace** them with the following:
 - "12.1.3 When the Contractor considers that the Work has met, and the Contractor has performed, all of the requirements of paragraph 12.1.1, the Contractor shall deliver to the Consultant and to the Owner a comprehensive list of items to be completed or corrected, together with a written application for Ready-for-Takeover for the Consultant and the Owner to review. Failure to include an item on the list does not alter the responsibility of the Contractor to complete the Contract or comply with its obligations under the Contract.
 - 12.1.4 The Consultant shall review the Work to verify the validity of the Contractor's application for Ready-for-Takeover and will promptly advise the Owner whether the Work has met, and the Contractor has performed, all of the requirements of paragraph 12.1.1. After the Consultant has provided its advice to the Owner, the Owner shall, in its sole discretion, in writing, accept the Contractor's application for Ready-for-Takeover or

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reject the Contractor's application for Ready-for-Takeover, with reasons. If the Owner rejects the Contractor's application for Ready-for-Takeover, the Contractor shall promptly address the reasons indicated by the Owner for the rejection of the Contractor's application for Ready-for-Takeover and reapply in accordance with paragraph 12.1.3."

SC.48 GC 12.2 EARLY OCCUPANCY BY THE OWNER

- 1. **Delete** GC 12.2 in its entirety and **replace** it with the following:
 - "12.2.1 Upon the Owner's request, the Owner shall, at any time or times, have the right of occupying and/or using any part or parts of the Work (including, without limitation, for the purposes of installing and testing fittings and equipment), whether partially performed or entirely complete, or whether completed on schedule or not, before the completion of the Work.
 - 12.2.2 In the event the Owner desires to exercise the privilege of occupancy and/or use of the Work as provided above, the Contractor shall cooperate with the Owner throughout in making available for the Owner's use such building services as heating, ventilation, cooling, water, lighting and telephone for the space or spaces to be occupied and/or used, and if the equipment required to furnish such services is not entirely completed at the time the Owner desires to occupy and/or use the aforesaid space or spaces, the Contractor shall make every reasonable effort to complete same as soon as possible to the extent that the necessary equipment can be put into operation and use and any extra cost beyond that originally required to complete the Work arising from such early occupancy and/or use shall be borne by the Owner.
 - 12.2.3 In the event that the Owner exercises the privilege of occupancy and/or use of the Work as provided above, it agrees to do so, so as not to materially interfere with the respective work of the Contractor, Subcontractors or Suppliers and under the understanding that the Owner will be occupying premises within a construction site which will require compliance with all normal construction site requirements including, without limitation, health and safety requirements.
 - 12.2.4 It shall be understood, however, that the Owner's occupancy and/or use of such space or spaces of the Work shall not constitute the Owner's acceptance of any Work, materials or equipment which are not in accordance with the requirements of the Contract Documents, nor affect the warranty period under the Contract, nor relieve the Contractor from its obligations, duties, responsibilities, and liabilities to complete the Work, nor for responsibility for loss or damage due to or arising out of defects in, or malfunctioning of, any Work, material or equipment, nor from any other unfulfilled duties, liabilities, obligations or responsibilities under the Contract nor from any other duty, liability, obligation or responsibility under the Contract including, without limitation, the Contractor's warranty obligations. If, however, damage results from any act by the Owner, the Owner shall assume its share of the responsibility for such damage."

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SC.49 GC 12.3 WARRANTY

- 1. **Delete** paragraph 12.3.1 in its entirety and **replace** it with the following:
 - "12.3.1 The Contractor agrees to remedy, at its costs, any defects in materials and workmanship which are identified by the Owner within a period of 24 months (except where otherwise noted for a longer period of time in the Contract Documents) from Ready-for-Takeover, or, if there are Non-Contiguous Improvements, from the date of Ready-for-Takeover for the last such improvement to achieve Ready-for-Takeover (the "Warranty Period"). This warranty shall cover labour and material, including, without limitation, the costs of removal and replacement of covering materials. This warranty shall not limit extended warranties on any items of equipment or material called for elsewhere in the specifications or otherwise provided by any manufacturer of such equipment or material."
- 2. In paragraph 12.3.3 **delete** "one year" and **replace** with "24 months".
- 3. In paragraph 12.3.4 **delete** "one year" and **replace** with "24 months".
- 4. **Add** the following to paragraph 12.3.5:
 - "The carrying out of the replacement work and making good of defects shall be executed at such times as convenient with the Owner which may entail overtime work on the part of the Contractor. Additional charges for overtime work in this regard must be borne by the Contractor."
- 5. **Delete** paragraph 12.3.6 in its entirety and **add** new paragraphs 12.3.6 to 12.3.9:
 - "12.3.6 Any material or equipment requiring excessive servicing during the Warranty Period (or free maintenance period, if applicable) shall be considered defective and the warranty (or free maintenance period) shall be deemed to take effect from the time that the defect has been corrected so as to cause excessive servicing to terminate.
 - 12.3.7 The final payment certificate shall not relieve the Contractor from its responsibility under this GC 12.3 WARRANTY.
 - 12.3.8 Following Ready-for-Takeover, and without limiting the Contractor's warranty under this GC 12.3, the Contractor shall assign to the Owner, to the extent assignable, the benefit of all warranties and guarantees relating to the Work. The assignment shall expressly reserve the right of the Contractor to make any claims under such warranties and guarantees and such assignment shall in no way prejudice any rights of or benefits accruing to the Contractor pursuant to such warranties and guarantees.
 - 12.3.9 The provisions of the GC 12.3 WARRANTY shall not deprive the Owner of any action, right or remedy otherwise available to the Owner for the Contractor's failure to fulfill its obligations or responsibilities under the Contract and shall not be construed as a waiver of claims in favour of the Contractor or as a limitation on the time in which the Owner may pursue such other action, right or remedy. The warranties set out in the Contract are not supplemental to and do not limit or preclude the application of any

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other conditions and warranties, express or implied, by law or trade usage."

SC.50 GC 12.4 WARRANTY SECURITY HOLDBACK

Add new paragraph GC 12.4 - WARRANTY SECURITY HOLDBACK as follows:

"GC 12.4 WARRANTY SECURITY HOLDBACK"

12.4.1 The Contractor agrees that the Owner may withhold an amount of the payments due by the Owner to the Contractor hereunder as security for the Contractor's performance of its warranty obligations hereunder (the "Warranty Holdback"). The amount of the Warranty Holdback shall be determined based on the contract price in accordance with the following table:

CONTRACT PRICE		VALUE OF WARRANTY HOLDBACK (\$)
FROM (\$)	TO (\$)	
Less than 0	.1M	4 per cent of Final Contract Price
0.1 M	0.5 M	4,000 on first 0.1 M + 3.0 per cent on next 0.4M
0.5 M	1.0 M	16,000 on first 0.5 M + 2.4 per cent on next 0.5M
1.0 M	2.0 M	28,000 on first 1.0 M + 2.2 per cent on next 1.0M
2.0 M	4.0 M	50,000 on first 2.0 M + 2.0 per cent on next 2.0M
4.0 M	6.0 M	90,000 on first 4.0 M + 1.8 per cent on next 2.0M
6.0 M	10.0 M	126,000 on first 6.0M + 1.5 per cent on next 4.0M
Over 10.0 M		186,000 on first 10.0M + 1.0 per cent on balance

For the avoidance of doubt, the Warranty Holdback shall be adjusted from time to time to account for changes to the contract price as a result of approved Change Orders and Change Directives.

- 12.4.2 In order to fund the Warranty Holdback, the Owner may, at its sole discretion, retain the Warranty Holdback progressively as a percentage of some or all progress payment to the Contractor, or retain a lump sum upon the achievement of Ready-for-Takeover or, if insufficient funds have been retained at the time of Ready-for-Takeover, retain a portion of any remaining payment owing to the Contractor, including any remaining progress payment, final or finishing work payment, or the holdback under the Payment Legislation, if any.
- 12.4.3 The Owner shall release the Warranty Holdback, less any amount due to the Owner by the Contractor hereunder, at the end of the Warranty Period. Notwithstanding the foregoing:
 - .1 after the first 12 months of the Warranty Period, the Contractor may apply for a release of 80 per cent of the Warranty Holdback, provided that balance of the Warranty Holdback shall not be below \$5,000 as a result of the release and provided that there are no outstanding deficiencies at the time of the application; and
 - .2 The Contractor may apply in writing to the Owner at the time of Ready-for-Takeover to substitute for the monies retained as the

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Warranty Holdback an alternative warranty security of equivalent or greater value comprising:

- (i) one or more irrevocable letters of credit, or
- (ii) another readily negotiable security.

Acceptance of any such alternative shall be at the sole discretion of the Owner.

Following receipt and acceptance of any such alternative security by the Owner, the Consultant shall release to the Contractor the monies previously retained for warranty security purposes.

The Owner may, at its discretion, allow the total Warranty Holdback to be made up in part of monies retained under the Contract and in part of an alternative warranty security as indicated in (a) and (b) above provided that the total value of such parts, as determined by the Owner, shall be not less than the required value as derived from the table set out above.

Such alternative warranty security or the monies derived therefrom, less any deductions made as provided for in the Contract, shall be released to the Contractor following the issuance by the Consultant of a Warranty Holdback Payment Certificate."

SC.51 GC 13.1 INDEMNIFICATION

- 1. **Delete** paragraph 13.1.1 in its entirety and **replace** with the following:
 - "13.1.1 The Contractor shall indemnify the Owner, the Consultant and their respective officers, council members, chairs, partners, agents, employees, servants, insurers, advisors, consultants, contractors, successors and assigns (collectively the "Indemnified Parties"), and save them harmless from and against any and all claims, demands, losses, costs, damages, actions, causes of action, suits or proceedings and all other liabilities, losses and expenses including bodily injury or death to any Person, harm or damage to the environment, or loss or damage to property, court costs, interest, legal fees, adjusting fees and disbursements (collectively "claims") made against or suffered or incurred by the Indemnified Parties, directly or indirectly and which arise from or are connected with:
 - .1 any failure or alleged failure by the Contractor (or any Subcontractor, Supplier or anyone for whom the Contractor and/or its Subcontractors and Suppliers may be responsible) to comply with the Contract Documents including any applicable Laws or Regulations, including provincial workers' compensation laws or regulations;
 - .2 any infringement or alleged infringement by the Contractor (or any Subcontractor, Supplier or anyone for whom the Contractor and/or its Subcontractors and Suppliers may be responsible) of any intellectual

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property right including without limitation any misuse, passing off or infringement or alleged infringement of trade-marks;

- .3 any defective or potentially hazardous goods used by the Contractor (or any Subcontractor, Supplier or anyone for whom the Contractor and/or its Subcontractors and Suppliers may be responsible);
- .4 any form of theft, fraud, or illegal activity by the Contractor (or any Subcontractor, Supplier or anyone for whom the Contractor and/or its Subcontractors and Suppliers may be responsible) or any of their respective agents, directors, officers, or employees;
- .5 any wilful act, omission or negligence of the Contractor (or any Subcontractor, Supplier or anyone for whom the Contractor and/or its Subcontractors, and Suppliers may be responsible), or any of their respective agents, directors, officers, servants, contractors or employees;
- .6 any negligence by the Contractor (or any Subcontractor, Supplier or anyone for whom the Contractor and/or its Subcontractors, and Suppliers may be responsible) directly or indirectly arising or contributing to or alleged to arise out of the Contractor's performance of or the failure to perform the Work, or out of the conditions of the work, the job site, adjoining land, driveways, streets or alleys used in connection with the performance of the Work under this Contract;
- .7 any negligence, errors or omissions, or monies owing to the Owner for claims payable under this indemnity due to failure of any insurance required of Subcontractors or Suppliers thereof as retained by Contractor, but shall not include any claims arising solely from the active negligence of the party asking to be defended, indemnified or saved harmless; and
- .8 any failure or alleged failure by the Contractor to comply with the requirements of GC 15 EXCESS SOIL (including, the Excess Soil Legislation and the duties and responsibilities of the Project Leader) and any orders, fines, penalties, charges, alleged offences, actions, demands, directions, or proceedings imposed or commenced by a governmental authority or third party, as applicable, and legal fees and disbursements to defend same, arising out of or attributable to the Excess Soil Legislation including, the Owner's failure or alleged failure to comply with any duties or responsibilities it may be found to have, or alleged to have, as a Project Leader."
- 2. **Delete** paragraphs 13.1.2 and 13.1.3 in their entirety and **replace** each with "INTENTIONALLY DELETED."

SC.52 GC 13.2 WAIVER OF CLAIMS

1. **Delete** paragraph 13.2 in its entirety and **replace** with the following:

"GC 13.2 WAIVER OF CLAIMS

13.2.1 Subject to any rights or remedies provided by the Payment Legislation, as of the date of the final certificate for payment, the Contractor expressly waives and releases the Owner from all claims against the Owner

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including, without limitation, those that might arise from the negligence or breach of contract by the Owner except:

- .1 those made in writing in compliance with the Contract Documents prior to the Contractor's application for final payment and still unsettled; and
- .2 those arising from the provisions of GC 9.2 TOXIC AND HAZARDOUS SUBSTANCES AND MATERIALS or GC 10.3 PATENT FEES."

SC.53 MISCELLANEOUS

Add new PART 14 MISCELLANEOUS as follows:

"PART 14 MISCELLANEOUS

GC 14.1 REVIEW BY OWNER AND REVIEW BY CONSULTANT

14.1.1 Neither the Owner's and/or Consultant's receipt, review or approval of any documents or the Work nor the failure of the Owner and/or Consultant's to provide comment shall limit, waive or diminish the Contractor's obligations, responsibilities, duties or liabilities under the Contract. The review or approval by the Owner and/or Consultant is intended only to ascertain that the document or the performance of the Contractor's duties, liabilities, responsibilities or obligations under the Contract including, without limitation, the Work generally meets the intention of the Contract and is not an assurance or confirmation of the adequacy, quality, fitness, suitability or correctness of the Contractor's obligations, responsibilities, duties and liabilities under the Contract including, without limitation, the Work, for which the Contractor is solely responsible in accordance with the Contract.

GC 14.2 CARE AND SKILL

- 14.2.1 The Contractor acknowledges, confirms, represents and warrants to the Owner that:
 - .1 in performing the Work, it shall at all times exercise the degree of care and skill that ought to be exercised by contractors in performing work of the nature contemplated herein; and
 - .2 it has the necessary experience, skill and expertise required to enable it to fulfill its obligations, duties, liabilities, and responsibilities herein.

GC 14.3 NON-INTERFERENCE

14.3.1 The Contractor acknowledges that the Place of the Work is and will continue to be occupied by the Owner and the Owner will continue to carry out its normal operations at the Place of the Work. The Contractor agrees to perform the Work in the least intrusive manner possible. Without limiting the generality of the foregoing, the Contractor acknowledges and agrees that it shall carry out its duties, responsibilities, and obligations under the Contract in such a manner so as not to disrupt

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or interfere with any of the Owner's or any third party's existing facilities and ongoing operations or activities or other operations located in the area adjacent to, in the vicinity of or proximate to the Place of the Work.

GC 14.4 LIQUIDATED DAMAGES

- 14.4.1 It is expressly agreed by the parties that if the date of Substantial Performance of the Work occurs later than the Substantial Performance Date, the Contractor shall pay to the Owner liquidated damages calculated as \$200 for each calendar day that Substantial Performance of the Work extends beyond the Substantial Performance Date. It is expressly agreed that it is difficult to calculate the damages which would result from the Contractor's failure to attain Substantial Performance of the Work by the Substantial Performance Date, and the parties agree that the liquidated damages are not intended to be penalties but rather represent the parties' best estimate of damages resulting from the delay.
- 14.4.2 In the event that the Consultant reasonably determines that the Contractor is not progressing in accordance with the Construction Schedule with the result that the Contractor will not achieve Substantial Performance of the Work by the Substantial Performance Date, the Owner will commence to hold back amounts from payments due to the Contractor totalling an amount sufficient to cover the Consultant's estimate of liquidated damages that may be payable pursuant to paragraph 14.5.1. In the event that the Owner hold backs more than is owed pursuant to paragraph 14.5.1, it shall forthwith pay such excess to the Contractor.
- 14.4.3 The Owner may deduct any amount due under this paragraph from any monies that may be due or payable to the Contractor on any account whatsoever. The liquidated damages payable under this paragraph are in addition to and without prejudice to any other remedy, action or other right that may be available to the Owner.

GC 14.5 DAMAGES AND MUTUAL RESPONSIBILITY

- 14.5.1 If either party to the Contract should suffer damage in any manner because of any wrongful act or neglect of the other party or of anyone for whom the other party is responsible in law, then that party shall be reimbursed by the other party for such damage. The reimbursing party shall be subrogated to the rights of the other party in respect of such wrongful act or neglect if it be that of a third party.
- 14.5.2 Claims for damage under paragraph 14.5.1 shall be made in writing to the party liable within reasonable time after the first observance of such damage and if undisputed shall be confirmed by Change Order. Disputed claims shall be resolved as set out in Part 8 for the General Conditions DISPUTE RESOLUTION.
- 14.5.3 If the Contractor has caused damage to the work of one of the Other Entities, the Contractor agrees upon due notice to settle with such Other Entity by negotiation or arbitration. If the Other Entity makes a claim

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against the Owner on account of damage alleged to have been so sustained, the Owner shall notify the Contractor and may require the Contractor to defend the action at the Contractor's expense. The Contractor shall satisfy a final order or judgement against the Owner and pay the costs incurred by the Owner arising from such action.

13.5.4 If the Contractor becomes liable to pay or satisfy a final order, judgment, or award against the Owner, then the Contractor, upon undertaking to indemnify the Owner against any and all liability for costs, shall have the right to appeal in the name of the Owner such final order or judgment to any and all courts of competent jurisdiction.

GC 14.6 RIGHT OF SET-OFF

14.6.1 The Owner has the right to set-off against the balance due or to become due to the Contractor under the Contract, any reasonable and substantiated amounts due or to become due from the Contractor to the Owner under the Contract.

GC 14.7 SOFTWARE

14.7.1 Without limiting the generality of any other provision in the Contract, the Contractor, as a part of the Work, shall supply and install all software required by the Contract Documents or included with any systems required by the Contract Documents ("Software"). The Contractor shall grant or obtain a perpetual, irrevocable non-exclusive royalty-free license to use the Software sufficient for the Owner's purposes."

GC 14.8 SEVERABILITY

14.8.1 If, in any jurisdiction, any provision of the Contract or its application to any party or circumstance is restricted, prohibited or unenforceable, the provision shall, as to that jurisdiction, be ineffective only to the extent of the restriction, prohibition or unenforceability without: (i) invalidating the remaining provisions of the Contract; (ii) affecting the validity or enforceability of such provision in any other jurisdiction; or (iii) affecting its application to other parties or circumstances."

GC 14.9 CONTRACT SECURITY

- 14.9.1 The Contractor shall, prior to commencement of the Work or within the specified time, provide to the Owner any contract security specified in the Contract Documents.
- 14.9.2 If the Contract Documents require surety bonds to be provided, such bonds shall be issued by a duly licensed surety company authorized to transact the business of suretyship in the province or territory of the Place of the Work and shall be maintained in good standing until the fulfillment of the Contract. The form of such bonds shall be substantially in the forms required under the Payment Legislation and with a surety company deemed acceptable by the Owner.
- 14.9.3 The Contractor shall, as part of the Contract Price, provide a Performance Bond with a face value of 50 per cent of the Contract Price and a Labour

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and Material Payment Bond with a face value of 50 per cent of the Contract Price, substantially in the form required under the Payment Legislation.

The Labour and Material Payment Bond shall be in effect for a period of not less than one year (1) after the date on which the Contractor last performed Work on the Contract, including Work performed under any warranty or guarantees provided in the Contract.

The Performance Bond and a Labour and Material Payment Bond must be submitted by the Contractor in a digital format that meets the criteria of the Surety Association of Canada (SAC) and as stated in the Contract Documents.

GC 14.10 CLEAN UP

14.10 Without limiting GC 12.2, the Owner shall have the right to back charge cleaning to the Contractor if it is not done within 24 hours of written notice to clean and the Owner shall have the right to back charge cost of damage to the Place of the Work caused by Contractor's, Subcontractor's or Supplier's transportation in and out of the Place of the Work if not repaired within 5 Working Days of written notice to repair or before final payment, whichever is earlier."

SC.54 EXCESS SOIL

Add new PART 15 EXCESS SOIL, as follows:

"PART 15 EXCESS SOIL

GC 15 EXCESS SOIL

- 15.1 The Contractor shall determine if the Excess Soil Legislation applies to the Work or the Project and shall provide the Owner with immediate written notice of such determination. For clarity, the Contractor acknowledges and agrees that this is an ongoing obligation of the Contractor during the performance of the Work.
- 15.2 If the Excess Soil Legislation applies to the Work or the Project, the Contractor, at the Contractor's cost and expense, shall:
 - be solely responsible for compliance with the requirements of the Excess Soil Legislation during the performance of the Work; and
 - ii) perform the Work in accordance with, and subject to, the Excess Soil Legislation and the Contract Documents
- 15.3 Without restricting the generality of any other provision in the Contract Documents:
 - for the duration of the Project, until Contract Completion, in respect of the Work, the Project and the Place of the Work, the Contractor shall carry out, and fulfill, the duties and responsibilities of the Project Leader in accordance with the requirements of the Excess Soil Legislation;

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- ii) the Contractor's responsibilities under paragraph 10.2.2 include procuring, and, as a part of the Contract Price, paying for, all permits, approvals, registrations and disposal fees, costs and expenses required by the Excess Soil Legislation; and
- the documents at the Place of the Work referred to in paragraph 3.9.1 include, all documents evidencing that the Work complies with the Excess Soil Legislation and such other documents as required by the Excess Soil Legislation.
- 15.4 For clarity, this GC 15 EXCESS SOIL is applicable to Excess Soil, even when such Excess Soil differs materially from those indicated in the Contract Documents or is of a nature which differs materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents.
- 15.5 This GC 15 EXCESS SOIL does not limit, and is in addition to, any other responsibility or liability of the Contractor in connection with the Contract."

END OF SUPPLEMENTARY CONDITIONS

Appendix 8.1

AGREEMENT TO BOND

We, the undersigned, hereby agree to become bound as Surety for

In a Performance Bond totalling **50 per cent** of the Contract amount and a Labour and Material Payment Bond totalling **50 per cent** of the Contract amount, substantially in the forms required under the *Construction Act* and conforming to the Instruments of Contract attached hereto, for the full and due performance of the Works shown as described herein, if the Tender for

is accepted by the Owner.

It is a condition of the Contract that if the above-mentioned Tender is accepted by the Agency, application for a Performance Bond and a Labour and Material Payment Bond, each in the amount of **50 per cent** of the Contract amount, and each substantially in the forms prescribed by the *Construction Act*, must be completed with the undersigned within 7 days of acceptance of Tender related thereto, otherwise this Agreement shall be null and void.

Dated this	day of	,
		Name of Bonding Company
		Signature of Authorized Person Signing for Bonding Company (Company Seal)
		Position

V-20190315 95

Second Floor Expansion

3190 Mavis Road, Mississauga, Ontario

Regional Municipality of Peel

LIST OF DRAWINGS

ARCHITECTURAL		MECHANICAL MECHANICAL		
		M-0	TITLE SHEET	
4000	COVER PAGE, DRAWING LIST &	M-1.1	MECHANICAL LEGEND	
	OBC MATRIX	M-1.2	MECHANICAL SCHEDULES	
		M-1.3	MECHANICAL DETAILS I	
4101	SITE PLAN	M-1.4	MECHANICAL DETAILS II	
A201	GROUND FLOOR / FIRE	M-2.1	PART ROOF PLAN - MECHANICAL	
	SEPARATION PLAN		DEMOLITION	
A202	SECOND FLOOR / FIRE	M-2.2	PART ROOF PLAN - MECHANICAL NEW	
1202	SEPARATION PLAN	M-2.3	PART SECOND FLOOR PLAN - HVAC DEMOLITION	
4203	ROOF PLAN	M-2.4	PART SECOND FLOOR PLAN - HVAC NEW	
4204	PART GROUND FLOOR	M-2.5	PART SECOND FLOOR PLAN - HYDRONIC	
	DEMOLITION PLAN	W 2.0	PIPING SYSTEM	
4205	PART SECOND FLOOR DEMOLITION	M-2,6	PART GROUND FLOOR PLAN -	
	PLAN	101 2.0	REFRIGERANT PIPING DEMOLITION	
4206	PART GROUND FLOOR PLAN	M-2.7	PART GROUND FLOOR PLAN -	
4207	PART SECOND FLOOR PLAN		REFRIGERANT PIPING NEW	
4208	PART SECOND FLOOR REFLECTED	M-2.8	PART SECOND FLOOR PLAN -	
	CEILING PLAN		REFRIGERANT PIPING	
4209	PART SECOND FLOOR FINISHING	M-2.9	PART GROUND FLOOR PLAN -	
	PLAN		MECHANICAL NEW FOR CONCRETE	
A210	ENLARGED PLAN		COLUMNS	
1210	BARRIER FREE WASHROOM	M-3.1	PART GROUND FLOOR PLAN -	
	DATAMENT INCE WHO INCOM		DRAINAGE	
4301	BUILDING DEMOLITION	M-3.2	PART SECOND FLOOR PLAN -	
-100 i	ELEVATIONS		DRAINAGE NEW	
4302	BUILDING ELEVATIONS	M-3.3	PART SECOND FLOOR PLAN -	
4302	BOILDING ELEVATIONS		PLUMBING	
4401	BUILDING SECTIONS	M-4.1	PART SECOND FLOOR PLAN - FIRE	
			PROTECTION NEW	
4402	BUILDING SECTIONS			
4403	WALL SECTIONS			
4404	WALL SECTIONS			
4405	WALL SECTIONS	ELECTRIC	AL	



-1.0	ELECTRICAL LEGEND AND DETAILS	E
-1.1	ELECTRICAL DETAILS	Е
-1.2	ELECTRICAL DETAILS	E
-1.3	ELECTRICAL DETAILS	E
-1.4	ELECTRICAL DETAILS	E
-1.5	ELECTRICAL DETAILS	E
-2.0	ELECTRICAL PLAN - ROOF	
-2.1	ELECTRICAL PLAN - GROUND FLOOR	
-2.2	ELECTRICAL PLAN - SECOND FLOOR	
-3.2	REFLECTED CEILING PLAN - SECOND	

REFLECTED CEILING DEMOLITION PLAN -

COMMUNICATIONS LEGEND AND DETAILS

COMMUNICATIONS PLAN GROUND FLOOR

COMMUNICATIONS PLAN SECOND FLOOR

COMMUNICATIONS RISER DIAGRAM

ELECTRICAL SINGLE LINE DIAGRAM

ELECTRICAL PANEL SCHEDULES

COMMUNICATIONS DETAILS

SECOND FLOOR/ROOF

ELECTRICAL PLANS

ELECTRICAL GROUNDING SYSTEM ELECTRICAL GROUNDING SYSTEM RISER DETAILS E-5.2 **ELECTRICAL DEMOLITION PLAN -**SECOND FLOOR/ROOF

COMMUNICATIONS

E-9.1

C-1.2

C-2.1

C-2.2

FLOOR

ROOM SCHEDULE & DOOR AND FRAME SCHEDULE WINDOW SCHEDULE

MILLWORK DETAILS

SECTION DETAILS SECTION DETAILS

SECTION DETAILS

SECTION DETAILS SECTION DETAILS

PLAN DETAILS

PLAN DETAILS

PLAN DETAILS

PLAN DETAILS

MILLWORKS

LADDER PLAN, SECTION & DETAILS

STRUCTURAL

A611

S101	GENERAL NOTES, SCHEDULES,
	ABBREVIATIONS & DRAWING LIST
S102	TYPICAL DETAILS

DEMOLITION & NEW FOUNDATION PART 2ND FLOOR & LOW ROOF FRAMING PLANS PART HIGH ROOF FRAMING PLAN

FOUNDATION SECTIONS

FRAMING ELEVATIONS

SECTIONS S502 SECTIONS SECTIONS

ARCHITECTURAL & STRUCTURAL:

ELECTRICAL, COMMUNICATION & SECURITY:

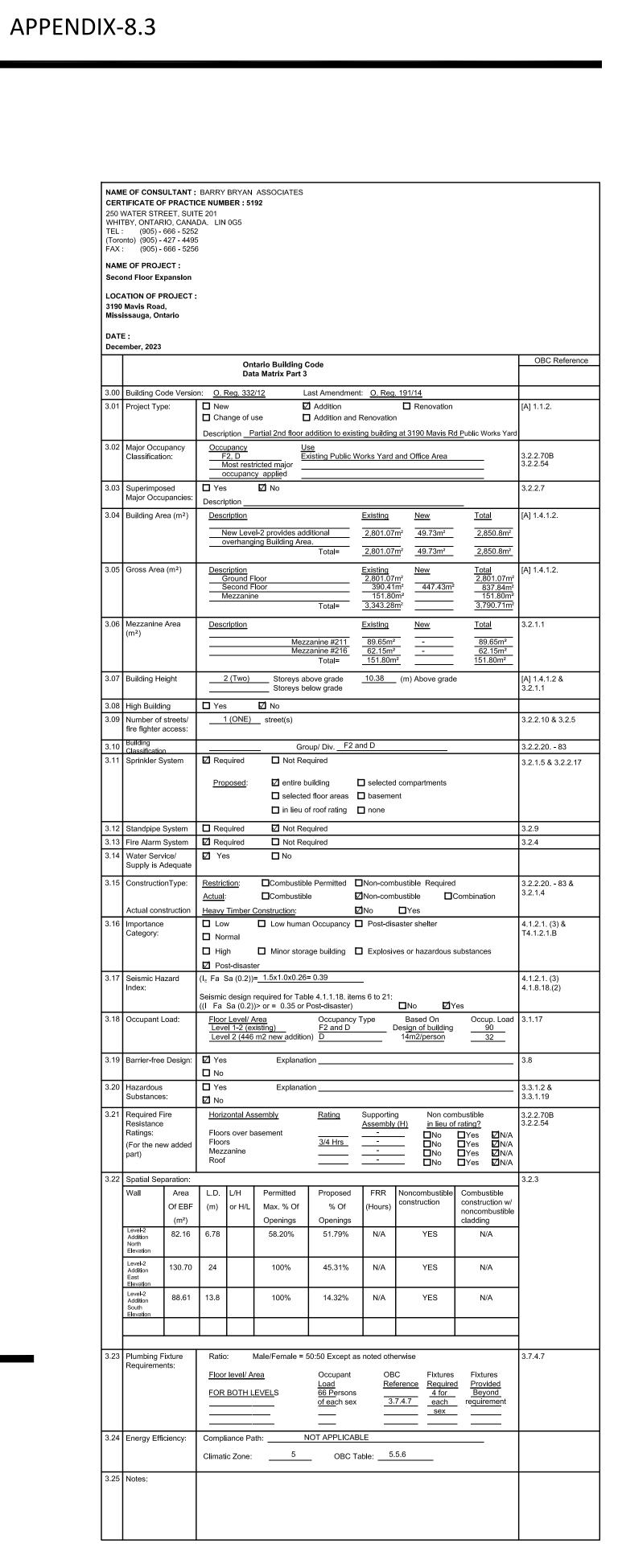


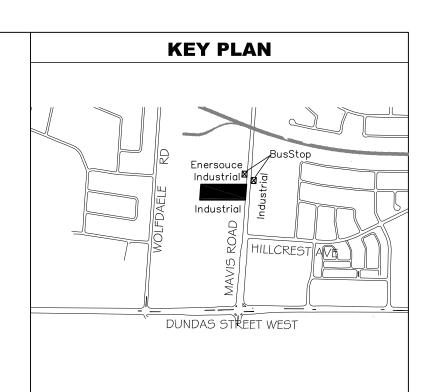
info@giallonardoeng.com



SECURITY

ES-1.1	SECURITY LEGEND AND DETAILS
ES-1.2	SECURITY DETAILS
ES-2.1	SECURITY PLAN - GROUND FLOOR
ES-2.2	SECURITY PLAN - SECOND FLOOR
ES-5.2	SECURITY DEMOLITION PLAN - SECOND FLOOR
ES-11.1	ACCESS CONTROL SYSTEM RISER DIAGRAM





SITE KEY PLAN

NOTES

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Region of Peel

10 PEEL CENTRE DRIVE BRAMPTON, ONTARIO L6T 4B9 TEL: (905) 791-7800

CONSULTANT'S SEAL



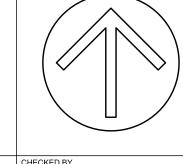
BARRY BRYAN ASSOCIATES Engineers Project Managers 250 Water Street

Whitby, Ontario Tel: (905) 666-5252 Fax: (905) 666-5256

SECOND FLOOR EXPANSION 3190 MAVIS RD., MISSISSAUGA, ON REGIONAL MUNICIPALITY OF PEEL

COVER PAGE DRAWING LIST & OBC MATRIX





CONSTRUCTION NORTH

ĹQ N.T.S. 08/01/2023 CONSULTANT PROJECT NUMBER REGION OF PEEL PROJECT NUMBER

PURCHASING DOCUMENT NUMBER:

A000

Architects, Engineers, Project Managers 201-250 Water Street

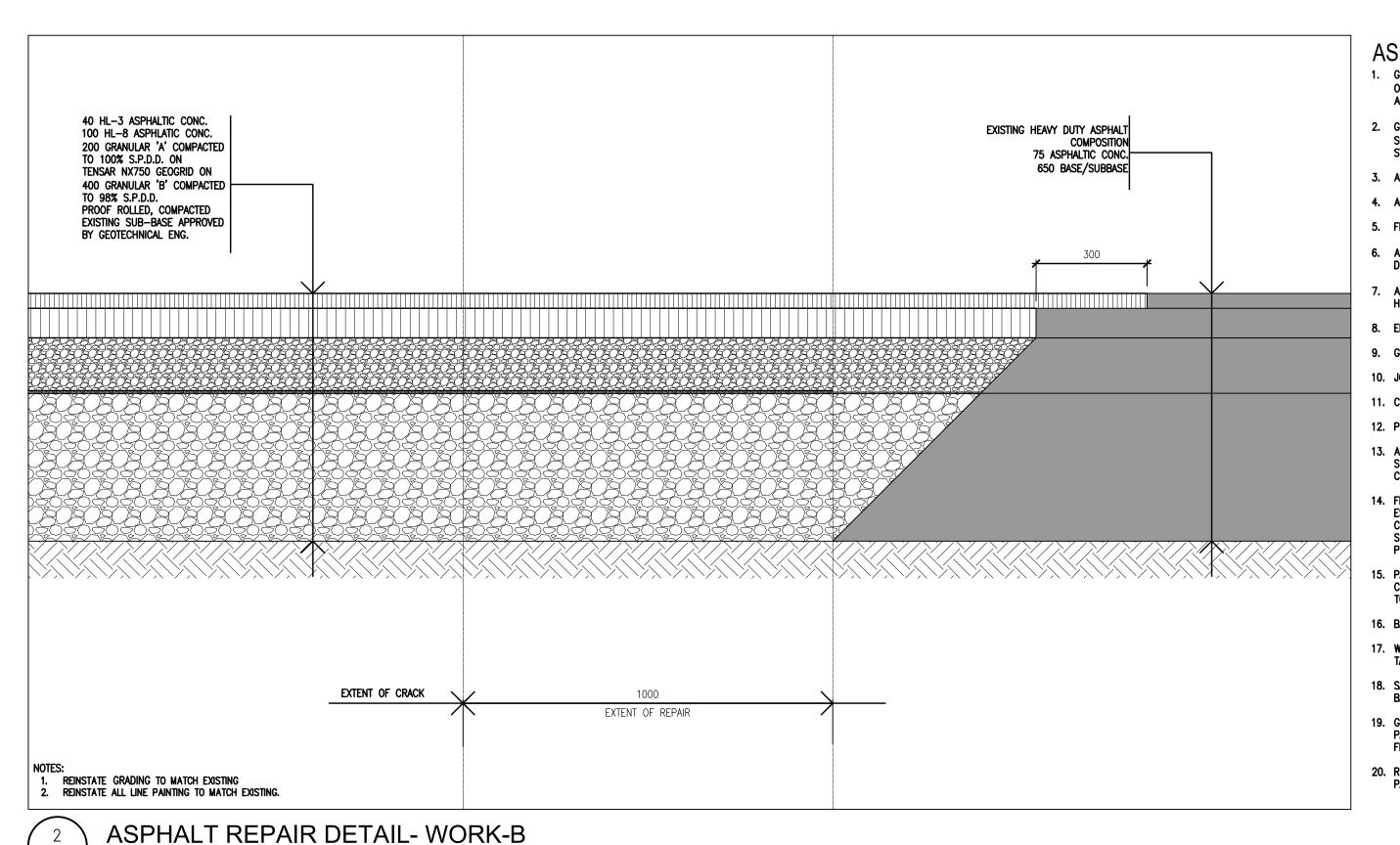
BARRY BRYAN ASSOCIATES

Tel:(905) 666-5252 Fax: (905) 666-5256 e-mail:bba@bba-archeng.com

Whitby, Ontario L1N 0G5







ASPHALT REPAIR NOTES

- 1. GRANULAR 'B' BASE COURSE: CRUSHED OR UNCRUSHED BANK OR PIT GRAVEL OR STONE OBTAINED FROM AN APPROVED SOURCE, CONFORMING TO THE REQUIREMENTS FOR GRANULAR 'B' AGGREGATE, ONTARIO PROVINCIAL STANDARD SPECIFICATIONS FORM NO. 1010.
- 2. GRANULAR 'A' BASE COURSE: CRUSHED GRAVEL OR STONE, OBTAINED FROM AN APPROVED SOURCE CONFORMING TO THE REQUIREMENTS FOR GRANULAR 'A' AGGREGATE, ONTARIO PROVINCIAL STANDARD SPECIFICATIONS FORM NO. 1010.
- 3. ASPHALT CEMENT: OPSS 1101.
- 4. AGGREGATES: OPSS 1001 AND OPSS 1010.
- 5. FILLER: OPSS 1003.
- 6. ASPHALT (H.L.8) CONFORMING TO OPSS FORM 1150, BITUMINOUS FIRST COURSE SHALL BE DENSE GRADED, HOT MIXED, HOT LAID.
- 7. ASPHALT (H.L.3) CONFORMING TO OPSS 1150. ASPHALT SURFACE COURSE SHALL BE HOT MIXED,
- 8. EMULSIFIED ASPHALT OPSS 101 OR MTO PRIMER.
- 9. GEOGRID: TENSAR NX-750 EXTRUDED, COMPOSITE POLYMER SHEET.
- 10. JOINT PAINTING MATERIAL AND ASPHALTIC PRIMER: SS-1 EMULSION TO OPSS 1103.
- 11. COMPACT SUB-BASE AS APPROVED BY GEOTECHNICAL ENGINEER.
- 12. PLACE GRANULAR S BASE AS INDICATED ON DRAWINGS. 13. ASPHALT SURFACING SHALL BE PLACED IN ACCORDANCE WITH ONTARIO PROVINCIAL STANDARD
- SPECIFICATION FOR HOT MIX, HOT LAID ASPHALTIC CONCRETE. MATERIALS, EQUIPMENT AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CURRENT EDITION OF OPSS 1010.
- 14. FINISHED SURFACE SHALL BE SMOOTH OF UNIFORM DENSITY AND TEXTURE AND TRUE TO ESTABLISHED FINISHED ELEVATIONS. PAVING SHALL BE OF THICKNESS SPECIFIED AND WHEN CHECKED WITH A 3m STRAIGHT EDGE SHALL SHOW NO IRREGULARITY EXCEEDING 6mm IN DEPTH. SURFACE SHALL BE SLOPED SO IN ORDER THAT ALL SURFACE WATER WILL BE DRAINED TO
- 15. PAINT CONTACT EDGES OF ABUTTING CONCRETE PAVING WITH A THICK COAT OF HOT ASPHALT CEMENT BEFORE PAVING MIXTURE IS PLACED AGAINST THEM. JOINTS IN ASPHALT SHALL BE KEPT TO A MINIMUM. JOINTS IN BASE AND TOP ASPHALT SHALL BE STAGGERED.
- 16. BASE ASPHALT SHALL BE THOROUGHLY CLEANED PRIOR TO PLACING OF TOP COURSE OF ASPHALT. 17. WHERE ASPHALT DOES NOT ADJOIN CONCRETE PAVING, EDGES SHALL BE TRIMMED AND HAND
- TAMPED TO A CLEAN STRAIGHT LINE. 18. SAW CUT PERIMETERS OF AREAS TO BE PATCHED OR JOINED. REMOVE EXISTING ASPHALT AND
- BASE MATERIAL TO DEPTH REQUIRED.
- 19. GRIND TOP SURFACE OF ASPHALT TO DEPTH OF 38mm FOR WIDTH OF 300mm FROM SAW CUT. PAINT EXPOSED EDGE OF ASPHALTIC JOINTS, EDGE OF MAINTENANCE HOLES AND CATCH BASIN FRAMES, CURBS AND SIMILAR ITEMS WITH SS-1 EMULSIFIED ASPHALT.
- 20. REFER TO THE PROJECT GEOTECHNICAL REPORT FOR ALL OTHER REQUIREMENTS WITH RESPECT TO

SITE STATISTICS

BUILDING COVERAGE

SITE AREA:	11,630.75 m² (1.163 ha)	ZONING: EMPLOYMENT (E2-133)
LOT FRONTAGE :	61.19 m	
	EXISTING	PROPOSED
BUILDING AREA:	2801.07 m2	2,850.8 m2 (NO CHANGE TO GROUND FLOOR AREA)
GROSS AREA:	3,343.28 m2	3,790.71 m2
ADDITIONAL GROSS AREA AT LEVEL-2		447.43 m2
BUILDING COVERAG	∑F	24 DRY NEW ADDITION OVERHANGS

24.08%

(NO CHANGE TO GROUND FLOOR AREA)

74 SPACES TOTAL

24.0 m 13.8 m

(INCLUDES 4 ACCESSIBLE)

UNCHANGED

UNCHANGED

UNCHANGED UNCHANGED

EXISTING ASPHALT AREA: 7,928.09 m² EXISTING CONCRETE AREA: 543.79 m² COVERAGE: 4.68% EXISTING LANDSCAPE AREA: 363.10 m² COVERAGE: 3.12% TOTAL AREA: 11630.75 m² COVERAGE: 100.00%

ZONING REGULATIONS MIN. LANDSCAPE BUFFER TO STREET 4.5m 46 SPACES STANDARD PARKING SPACES (INCLUDES 2 ACCESSIBLE) SETBACK NORTHERLY SIDE YARD (TO BLDG.) FRONT (EAST) SETBACK SOUTHERN SETBACK

PARKING REQUIRED (MIXED USE BUILDING - NON-RESIDENTIAL)

3.2 SPACES/ 100m² OF OFFICE AREA (538m²)= 6 SPACES 1.1 SPACES/ 100m² BALANCE OF THE GFA(3253m²)= 36 SPACES 1.0 SPACES PER EMERGENCY STAFF ON DUTY= 2 SPACES 4% OF 44 SPACES (ACCESSIBLE SPACES)=
TOTAL EXISTING PARKING=

PLAN OF TOPOGRAPHY OF PART OF LOT 21, CONCESSION 1 NORTH OF DUNDAS STREET (ORIGINALLY IN TOWNSHIP OF TORONTO) CITY OF MISSISSAUGA REGIONAL MUNICIPALITY OF PEEL

EXISTING LEGAL BOUNDARIES AND TOPOGRAPHIC INFORMATION ARE BASED ON SURVEY PROVIDED BY TARASICK McMILLAN KUBICHI LIMITED, MISSISSAUGA ONTARIO, (905) 569-8849. DATED OCT. 12, 2011. File No. 5891-T.

ELEVATIONS ARE REFERRED TO THE CANADIAN GEODETIC 1928, AND WERE DERIVED FROM CITY OF MISSISSAUGA BENCHMARK NO. 369, HAVING A PUBLISHED ELEVATION OF 142.841 METRES

OWNERS REGIONAL MUNICIPALITY OF PEEL 10 PEEL CENTRE DR.

SUITE B, 6th FLOOR

BRAMPTON, ONTARIO CONTACT: ASHWANI SINHA P (905) 791-7800 Ext.7690 F (905) 791-0019

APPLICANT REGIONAL MUNICIPALITY OF PEEL 10 PEEL CENTRE DR. SUITE B, 6th FLOOR PROPOSED ADDITION

BRAMPTON, ONTARIO CONTACT: ASHWANI SINHA P (905) 791-7800 Ext.7690 F (905) 791-0019

KEY PLAN Industrial DUNDAS STREET WEST

NOTES

No.	ISSUE OR REVISION TO DRAWING	DATE	B
1	ISSUED FOR PERMIT	12/19/2023	BBA
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Region of Peel

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ISSUES AND REVISIONS

CONSULTANT'S SEAL

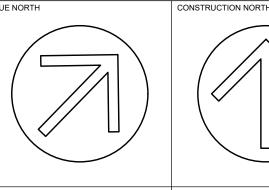


PROJECT TITLE AND ADDRESS

BARRY BRYAN ASSOCIATES Engineers Project Managers 250 Water Street Whitby, Ontario L1N 0G5

SECOND FLOOR EXPANSION 3190 MAVIS RD., MISSISSAUGA, ON REGIONAL MUNICIPALITY OF PEEL

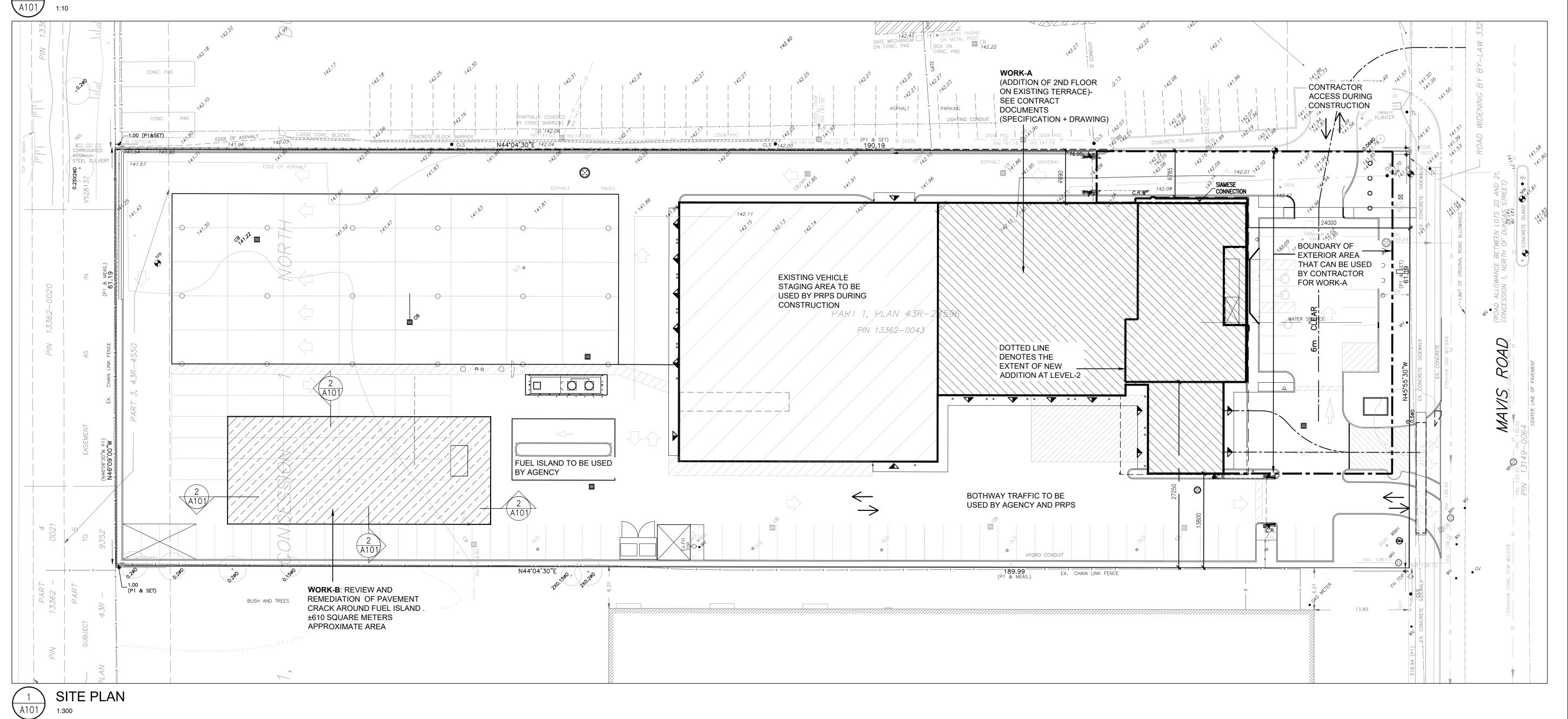
SITE PLAN

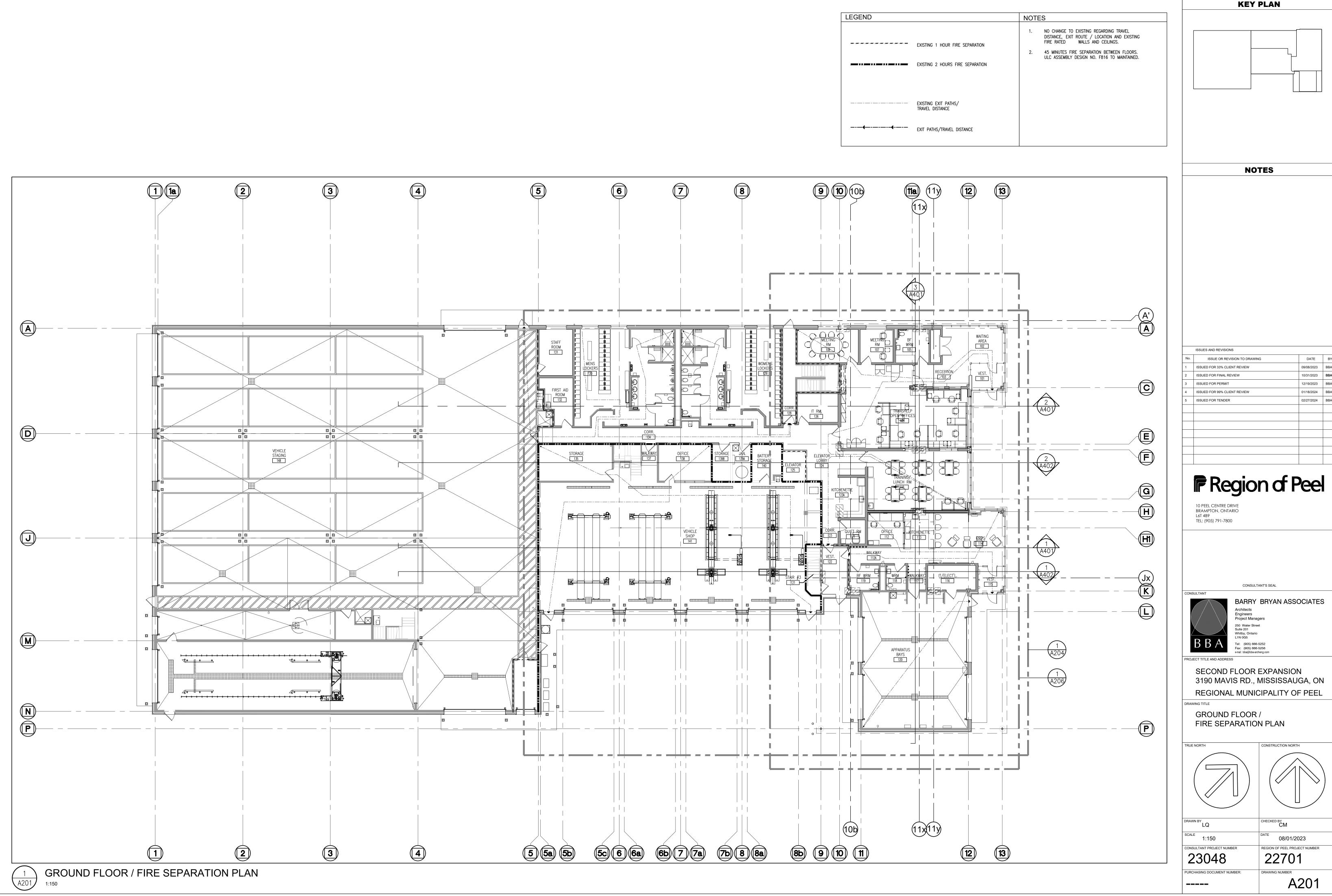


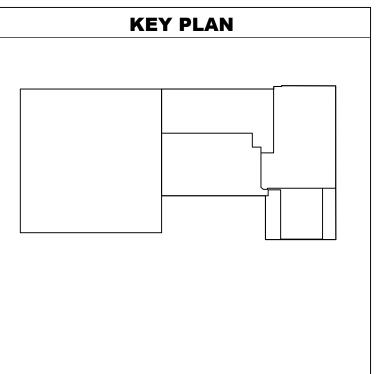
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REGION OF PEEL PROJECT NUMBER CONSULTANT PROJECT NUMBER 23048 22701 PURCHASING DOCUMENT NUMBER:

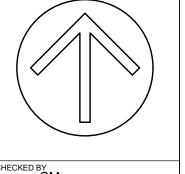
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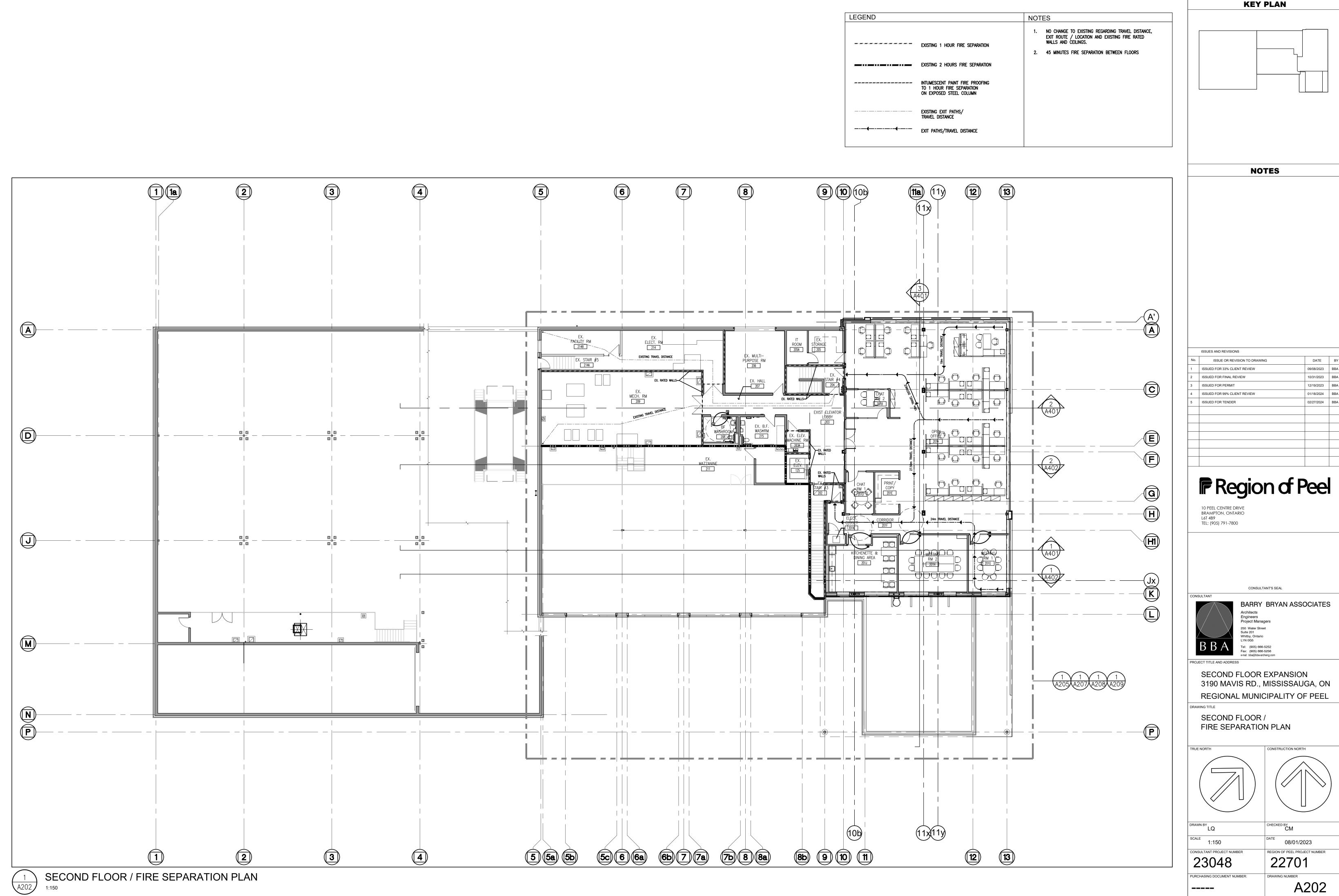


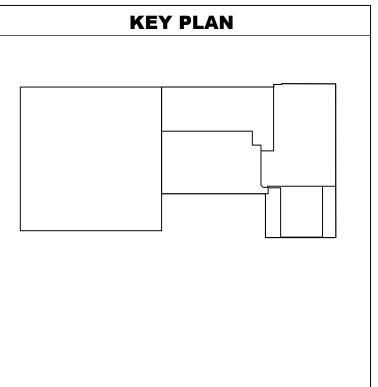




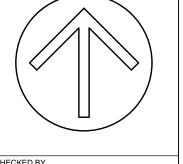
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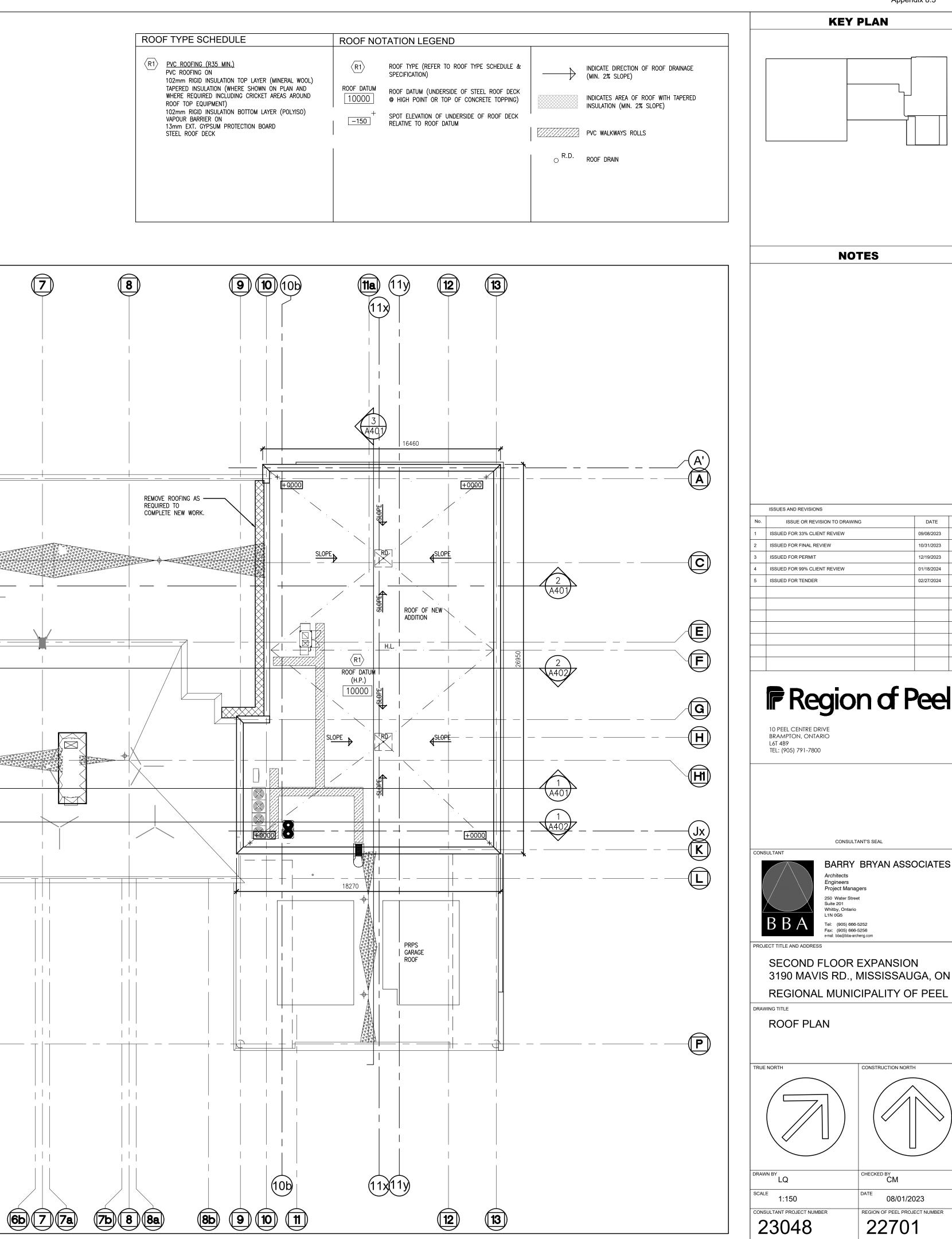






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3	ISSUED FOR PERMIT	12/19/2023	BBA
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5	ISSUED FOR TENDER	02/27/2024	BBA





5

GENERATOR

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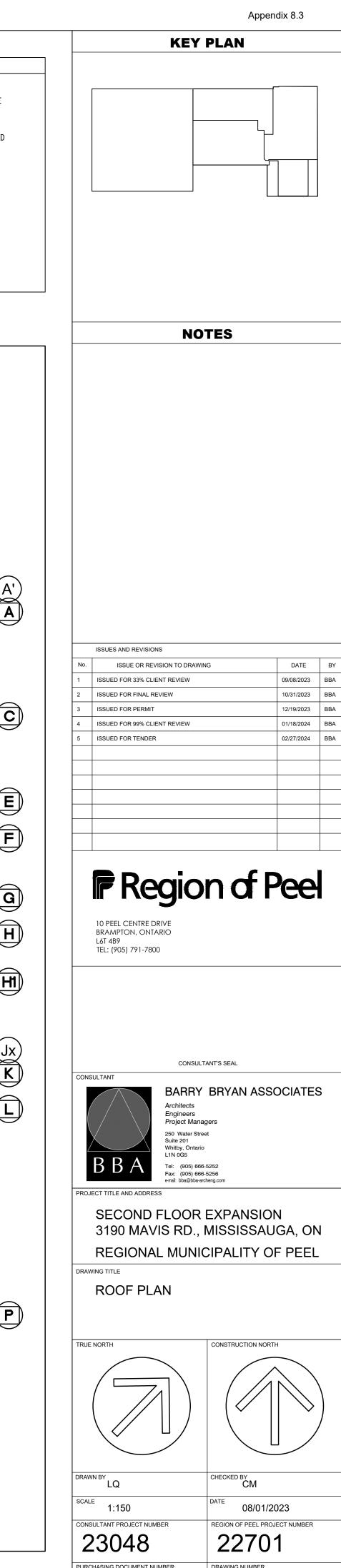
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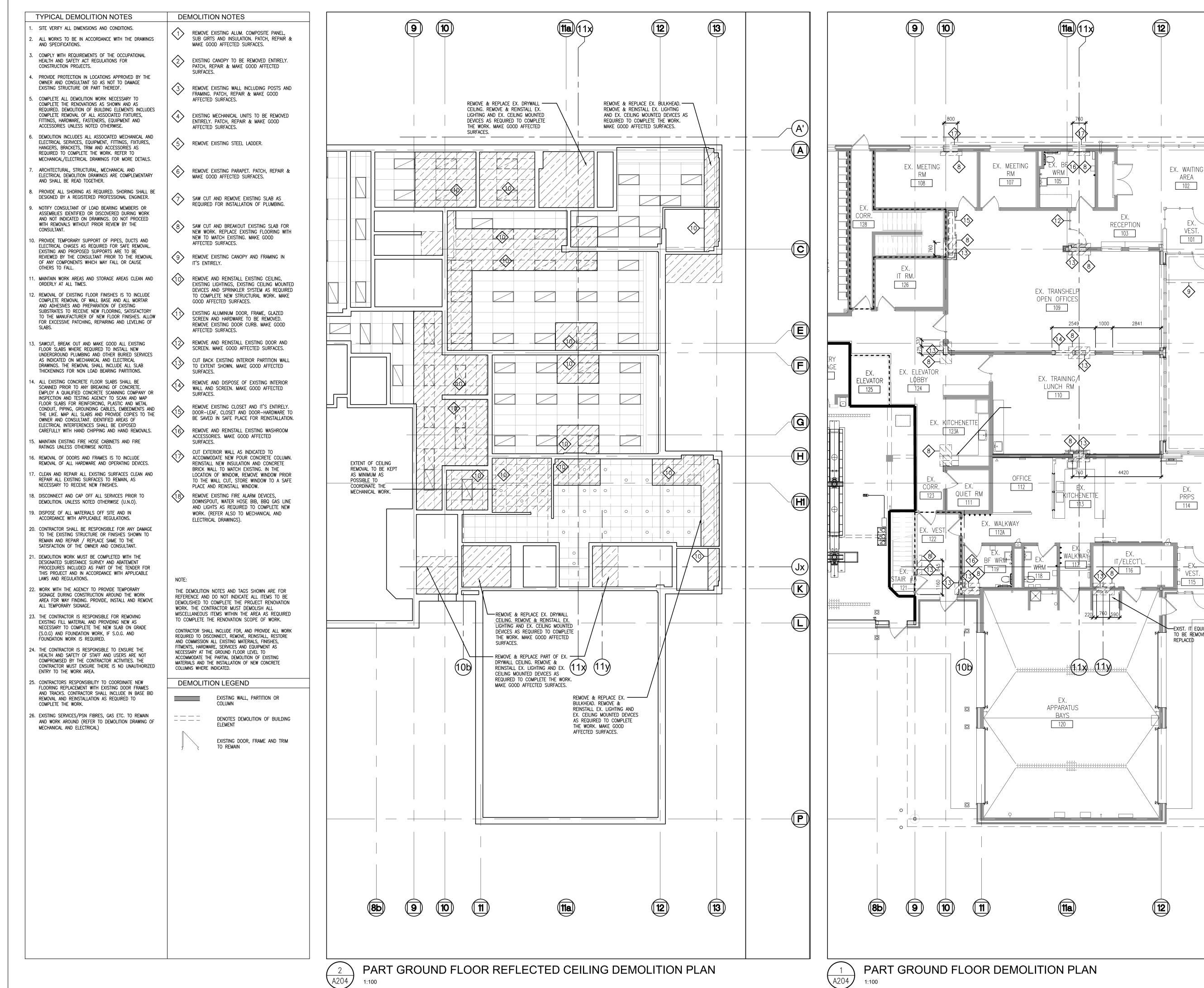
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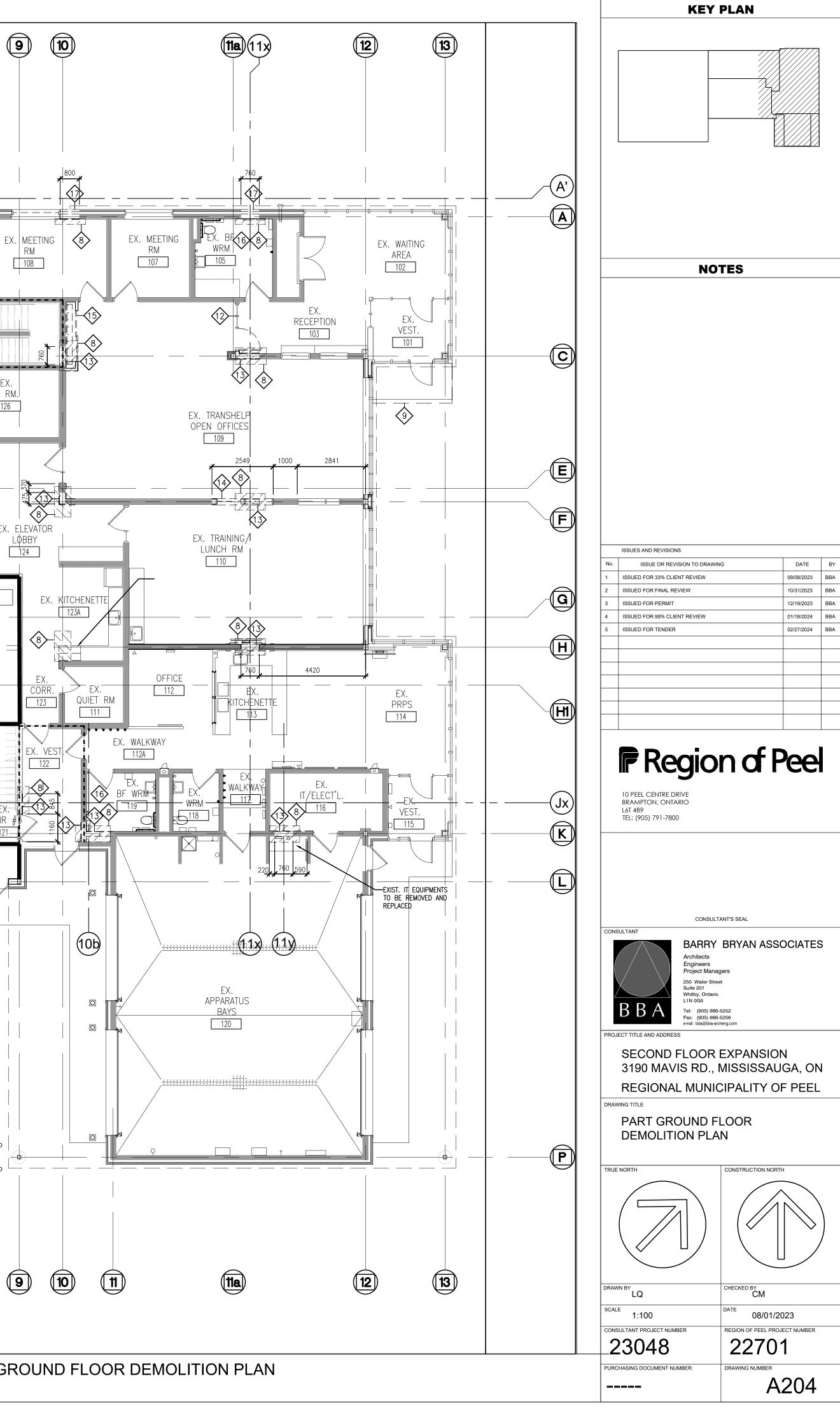
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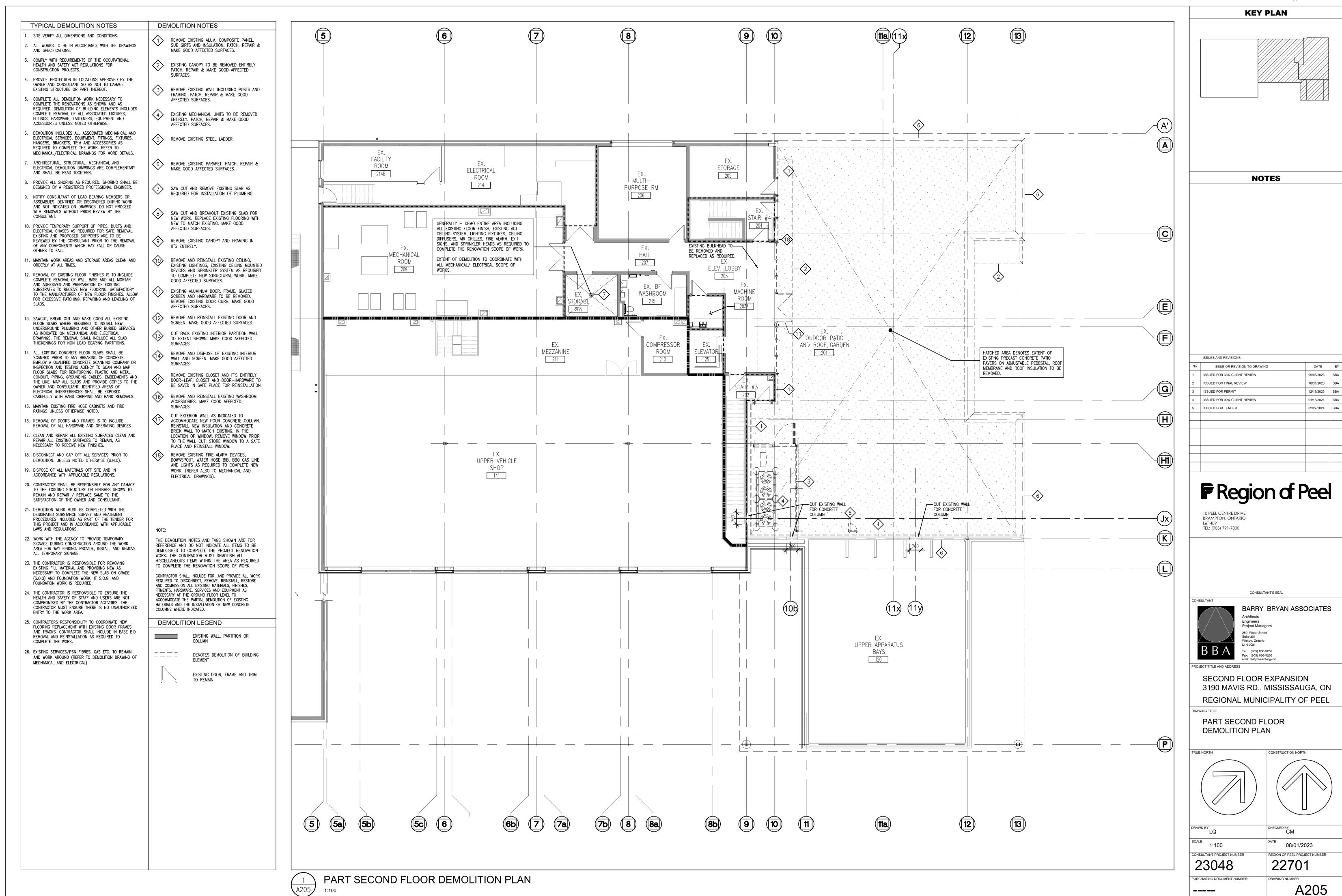
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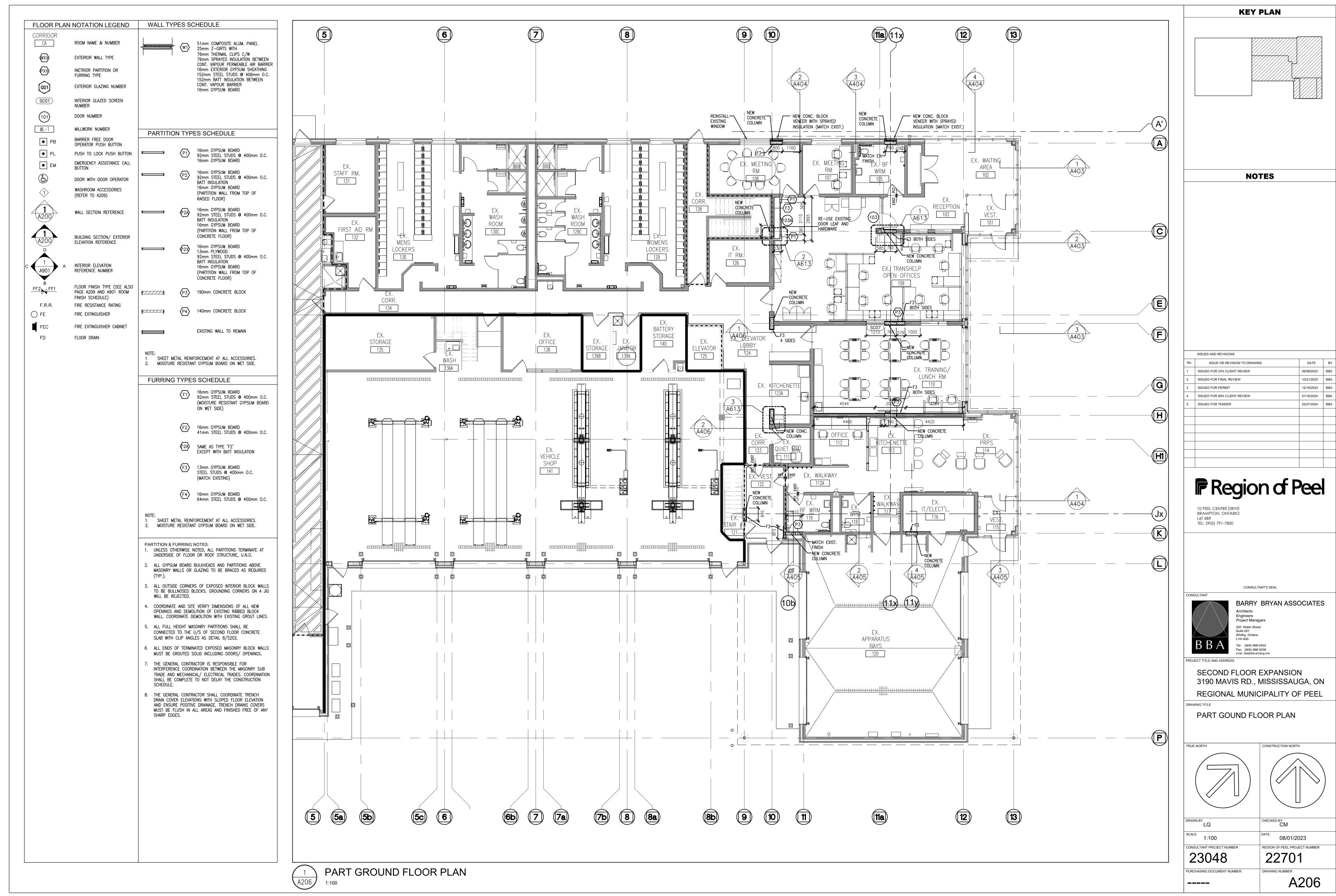


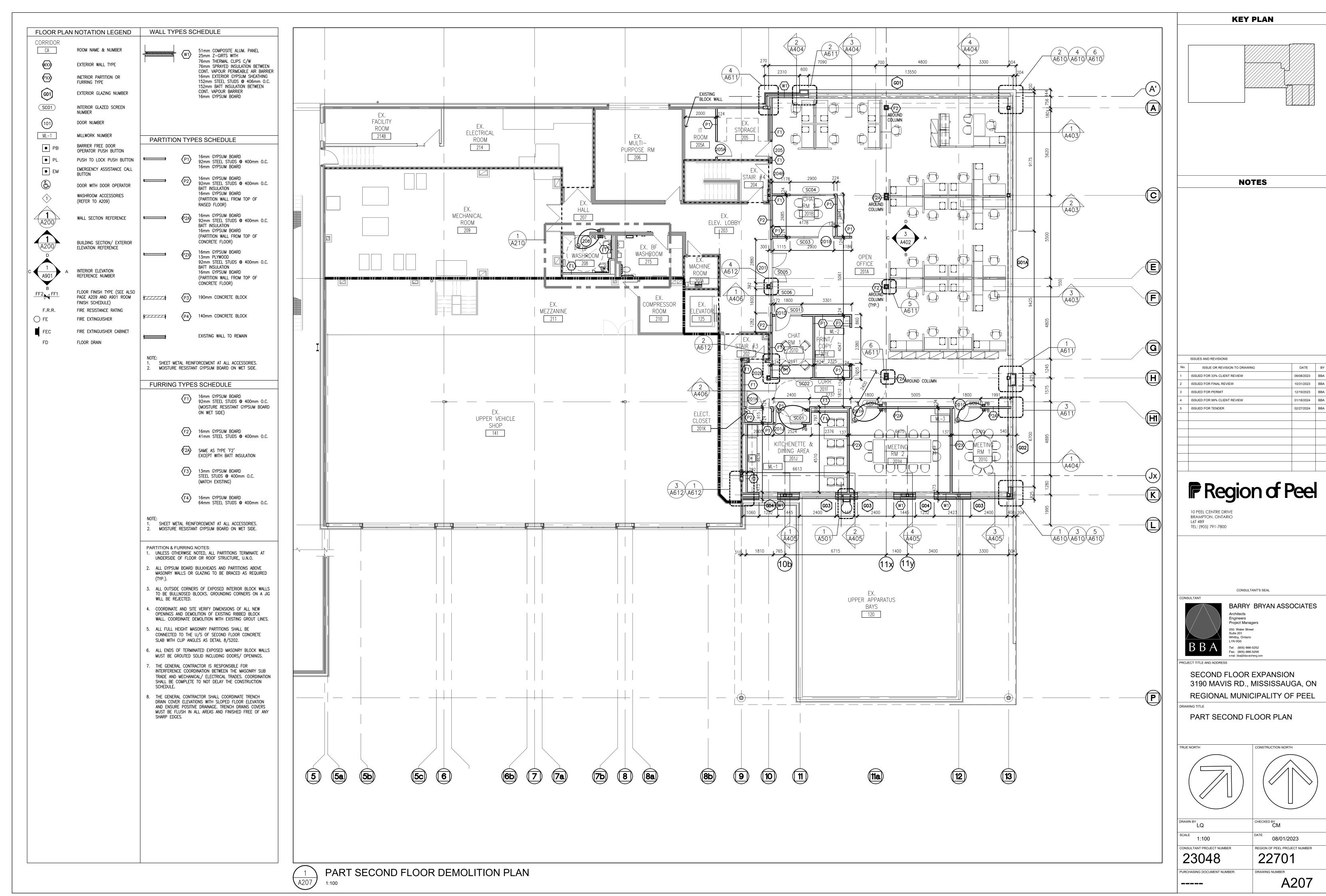
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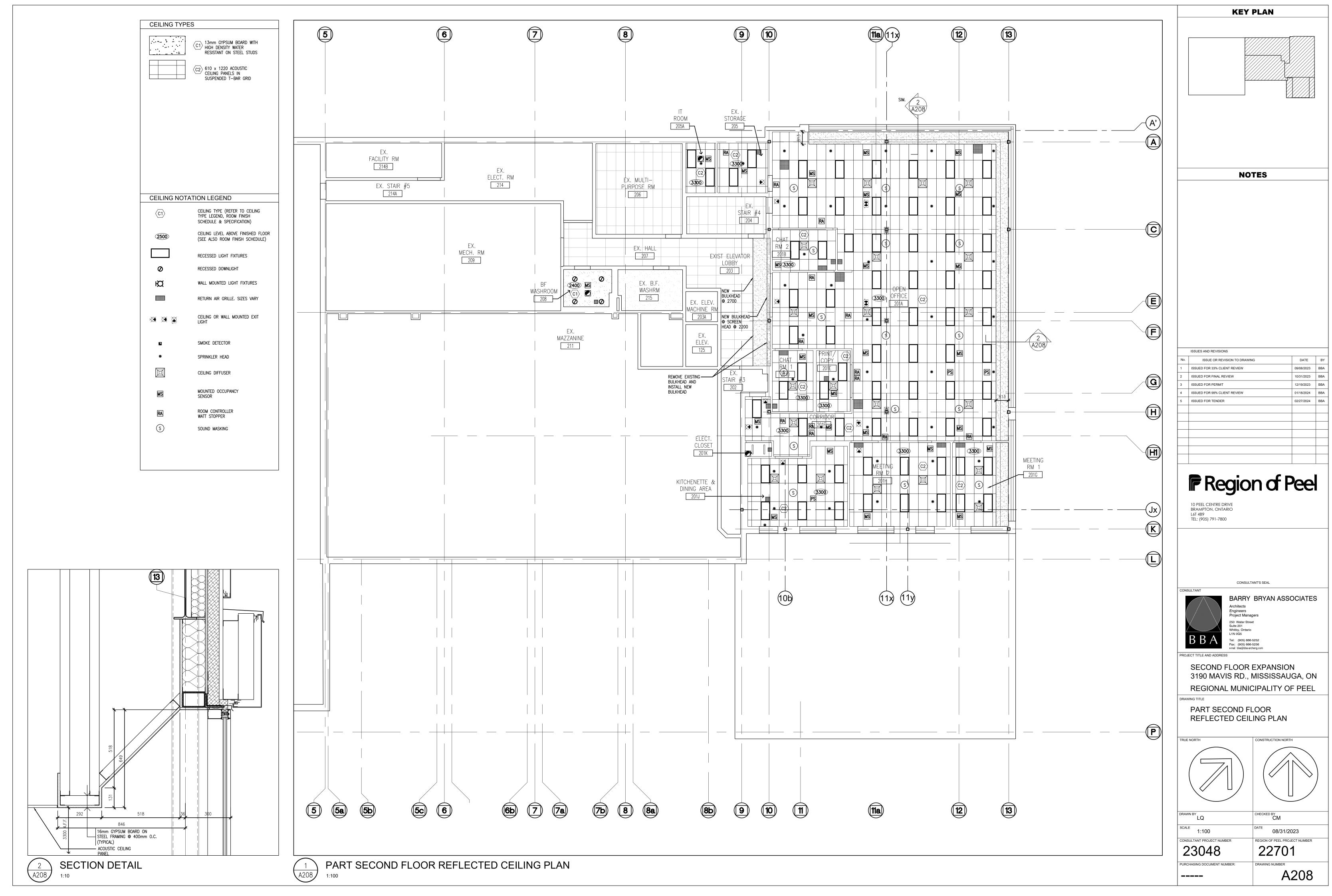


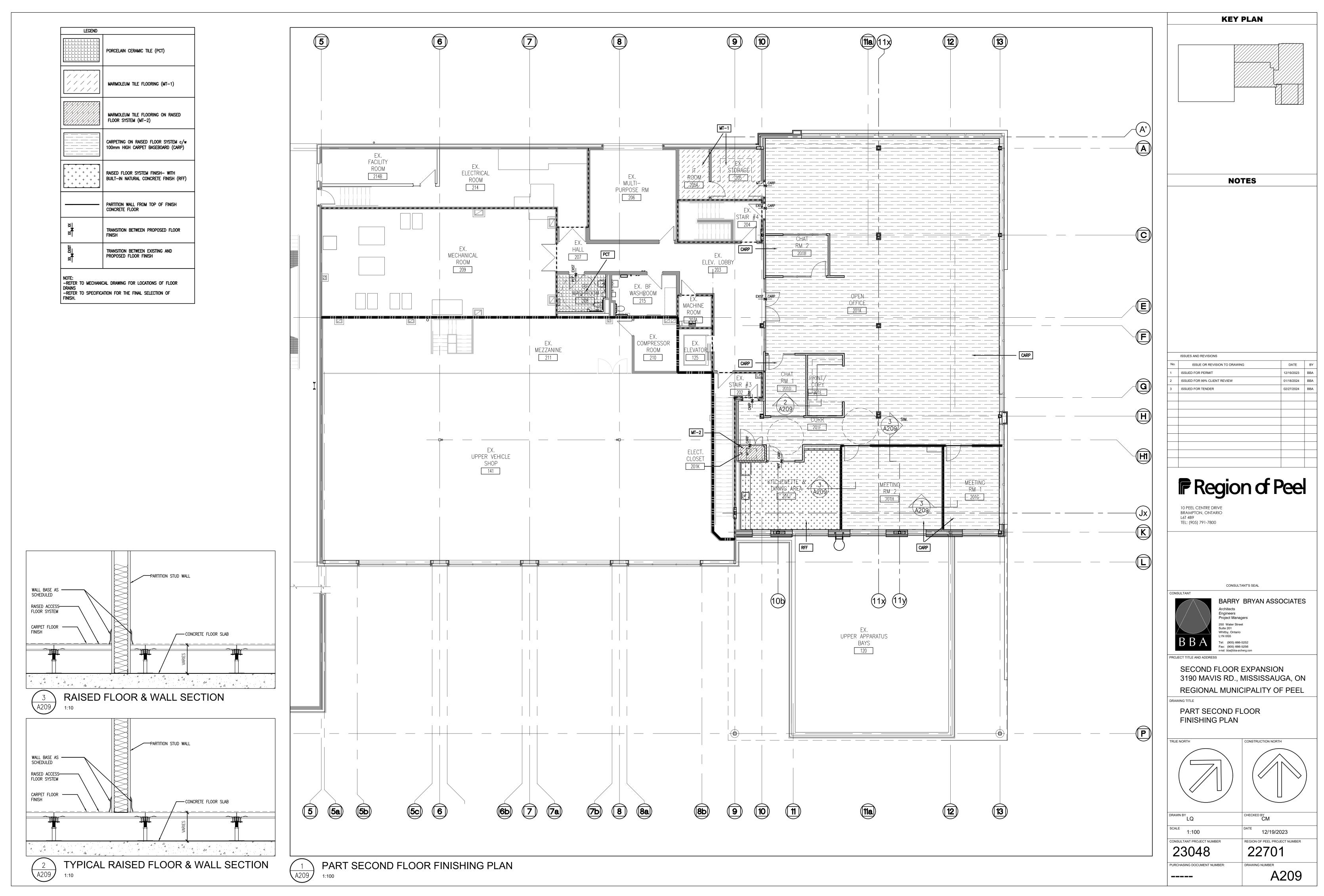




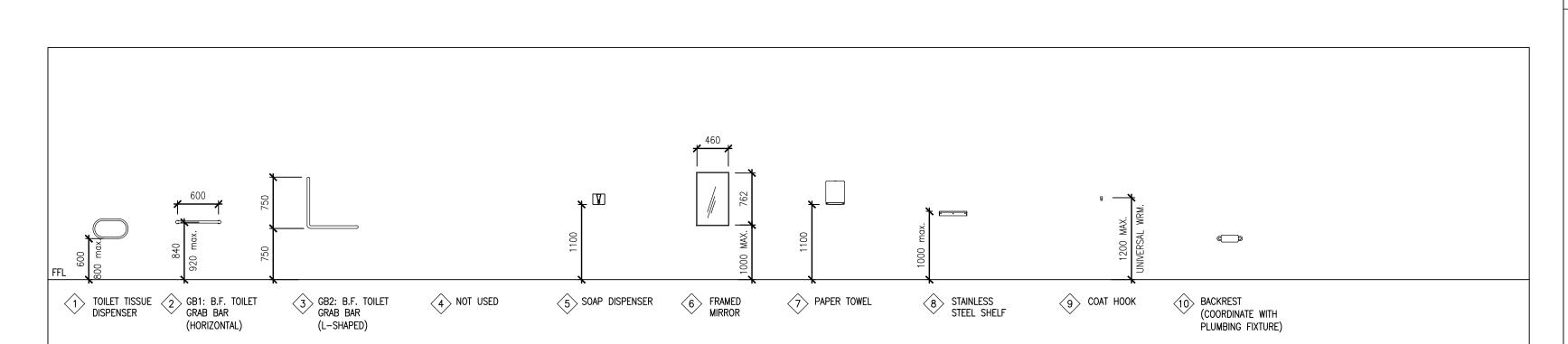




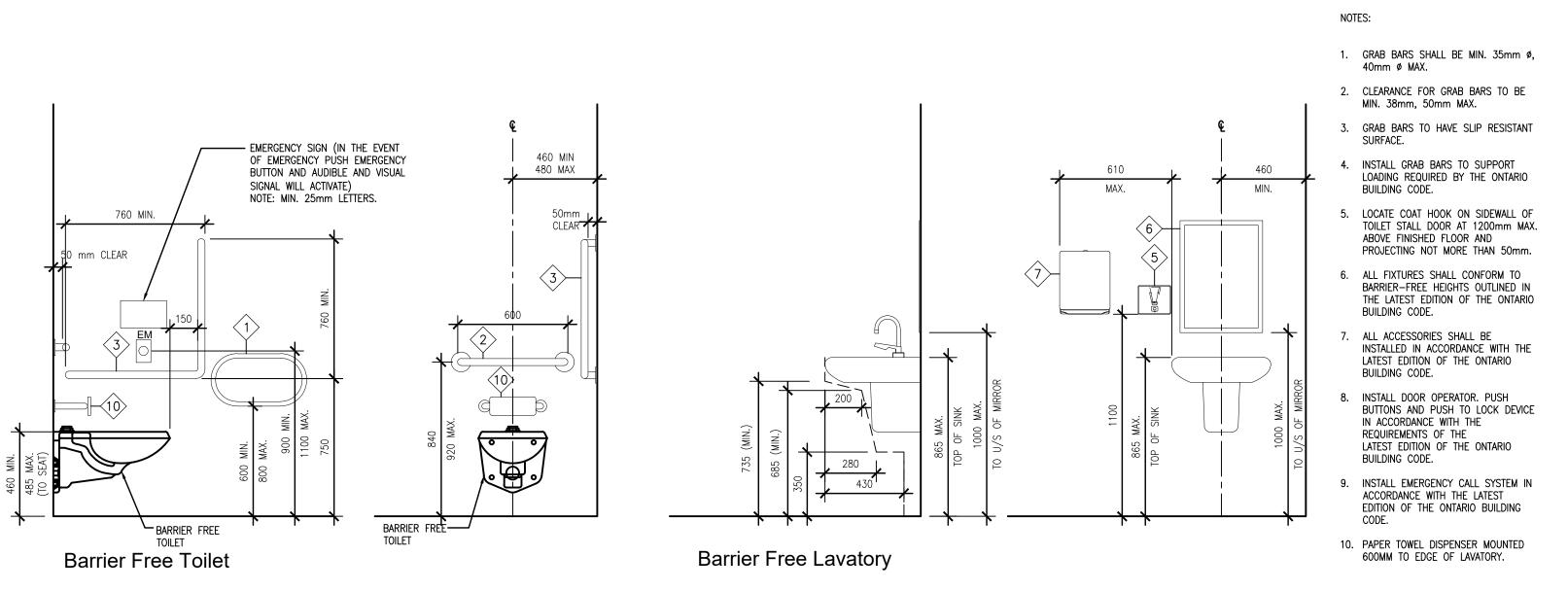




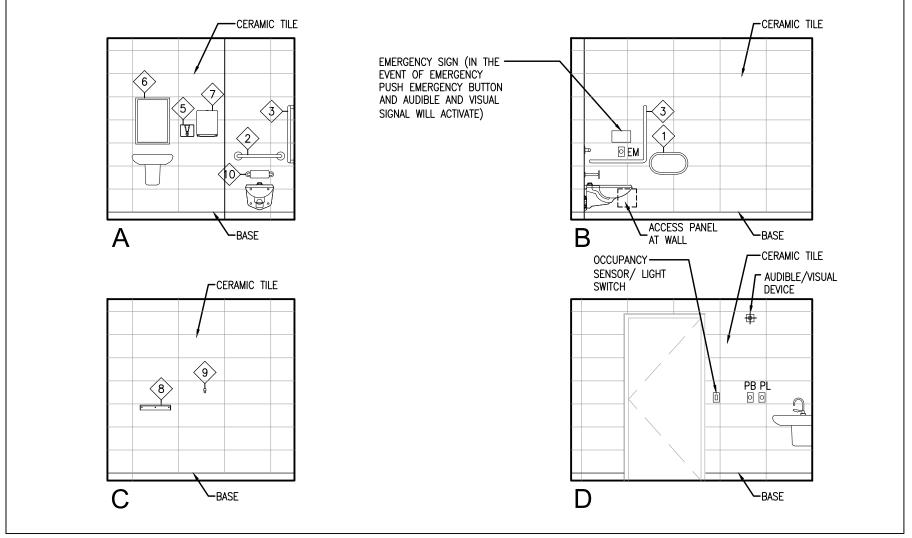
KEY PLAN



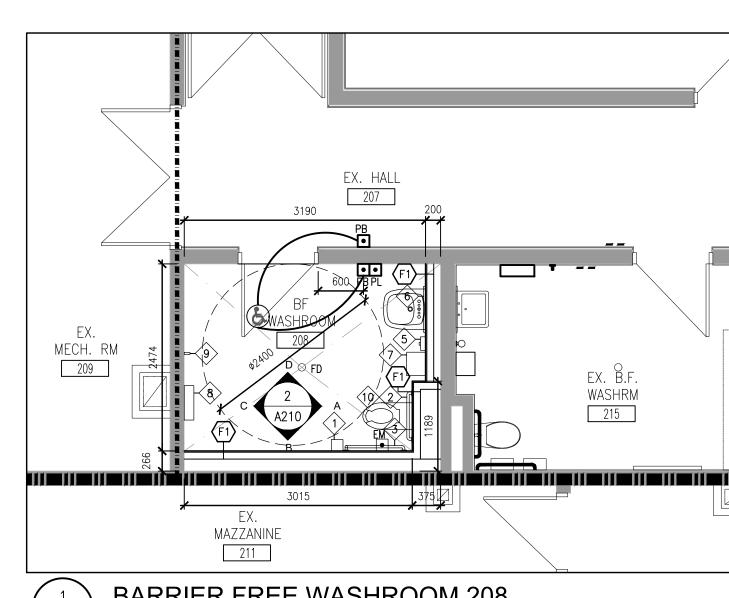
WASHROOM ACCESSORY LEGEND & SCHEDULE
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2 INTERIOR ELEVATION - BF WASHROOM 208



BARRIER FREE WASHROOM 208

NOTES

ISSUES AND REVISIONS

No.	ISSUE OR REVISION TO DRAWING	DATE	BY
1	ISSUED FOR 33% CLIENT REVIEW	09/08/2023	ВВА
2	ISSUED FOR FINAL REVIEW	10/31/2023	вва
3	ISSUED FOR PERMIT	12/19/2023	ВВА
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-			

Region of Peel

10 PEEL CENTRE DRIVE BRAMPTON, ONTARIO L6T 4B9 TEL: (905) 791-7800

CONSULTANT'S SEAL



BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5

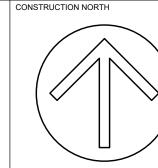
Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.com

SECOND FLOOR EXPANSION 3190 MAVIS RD., MISSISSAUGA, ON REGIONAL MUNICIPALITY OF PEEL

DRAWING TITLE

ENLARGED PLAN BARRIER FREE WASHROOM





CHECKED BY CM

SCALE 1:50

CONSULTANT PROJECT NUMBER

23048

CHECKED BY CM

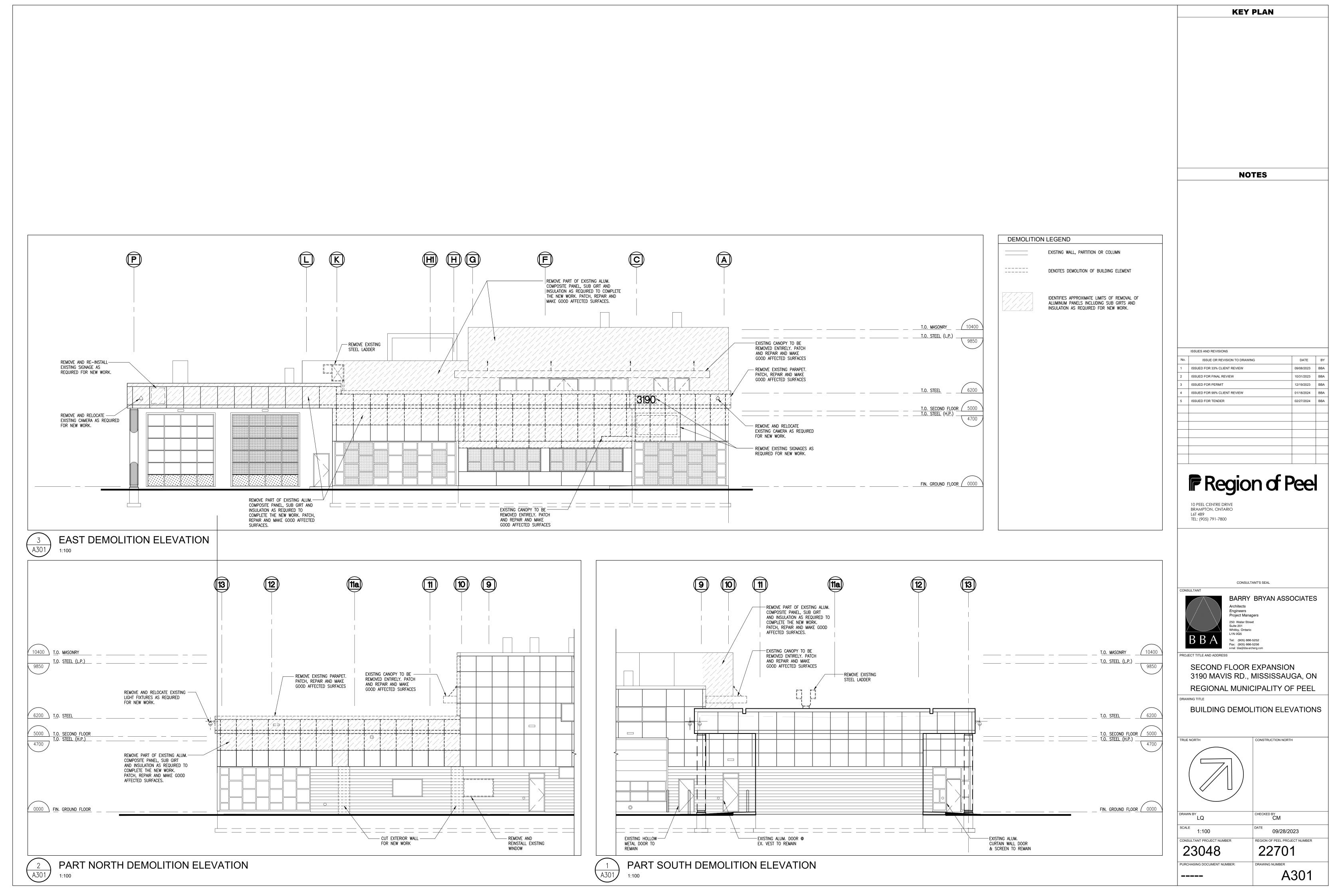
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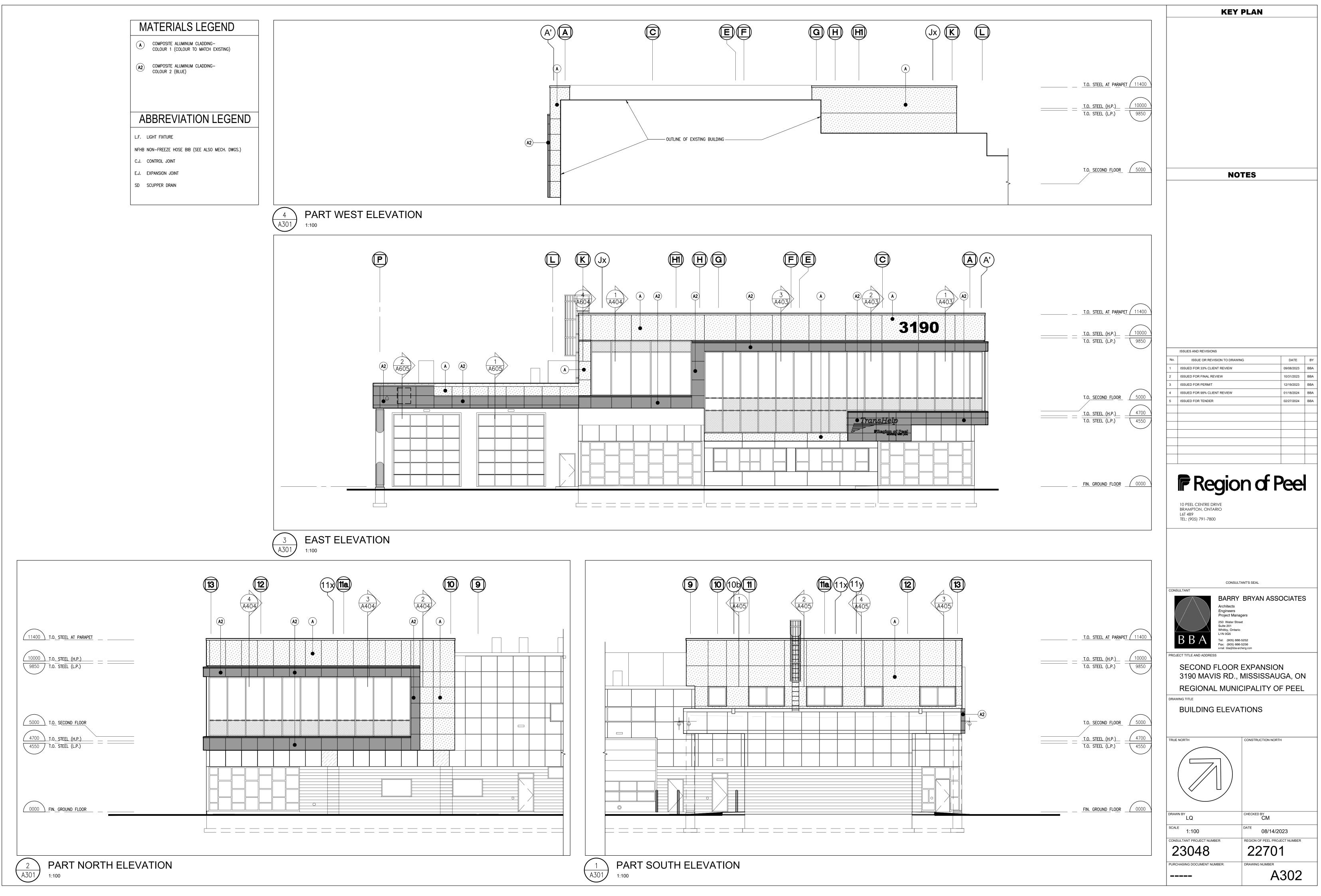
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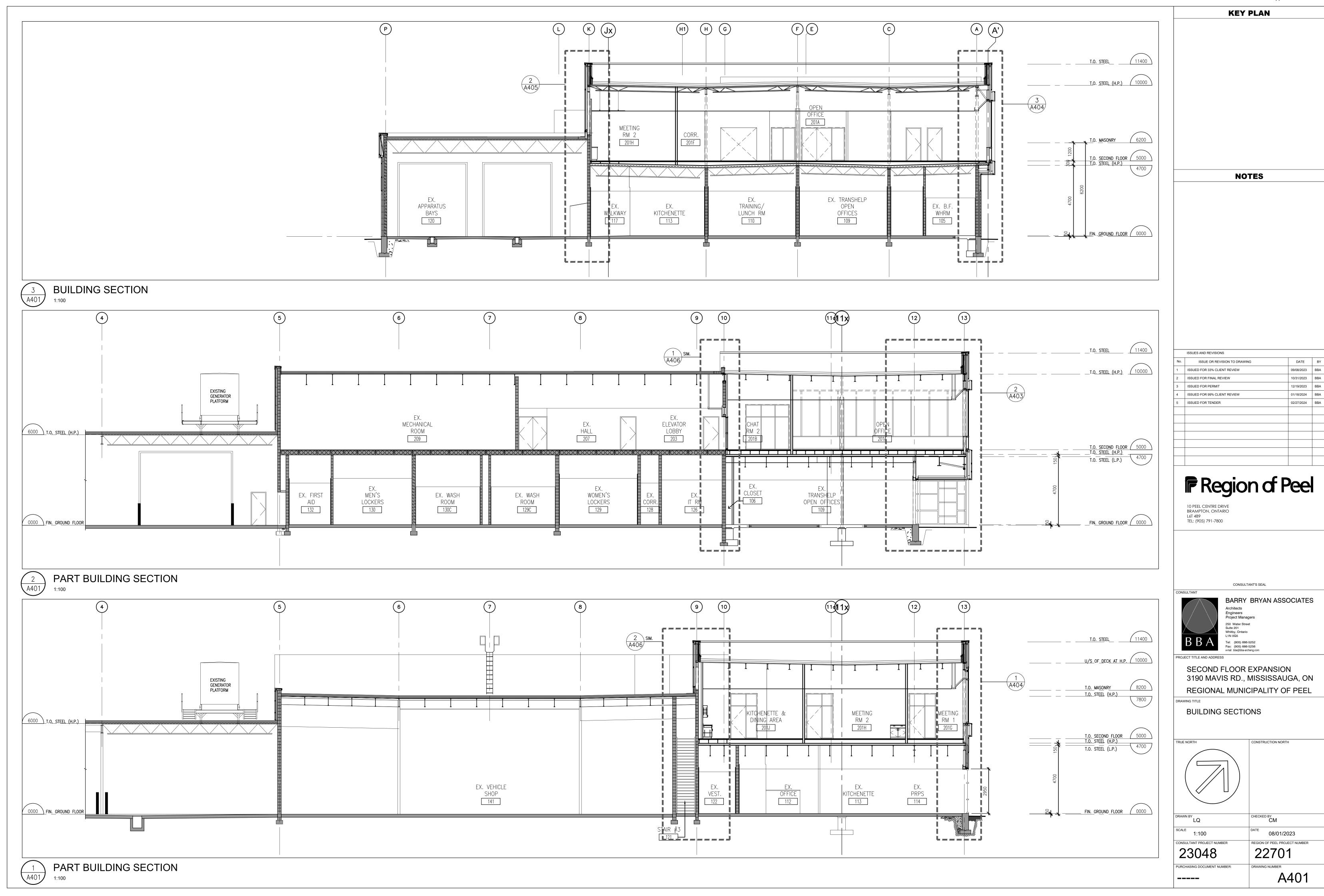
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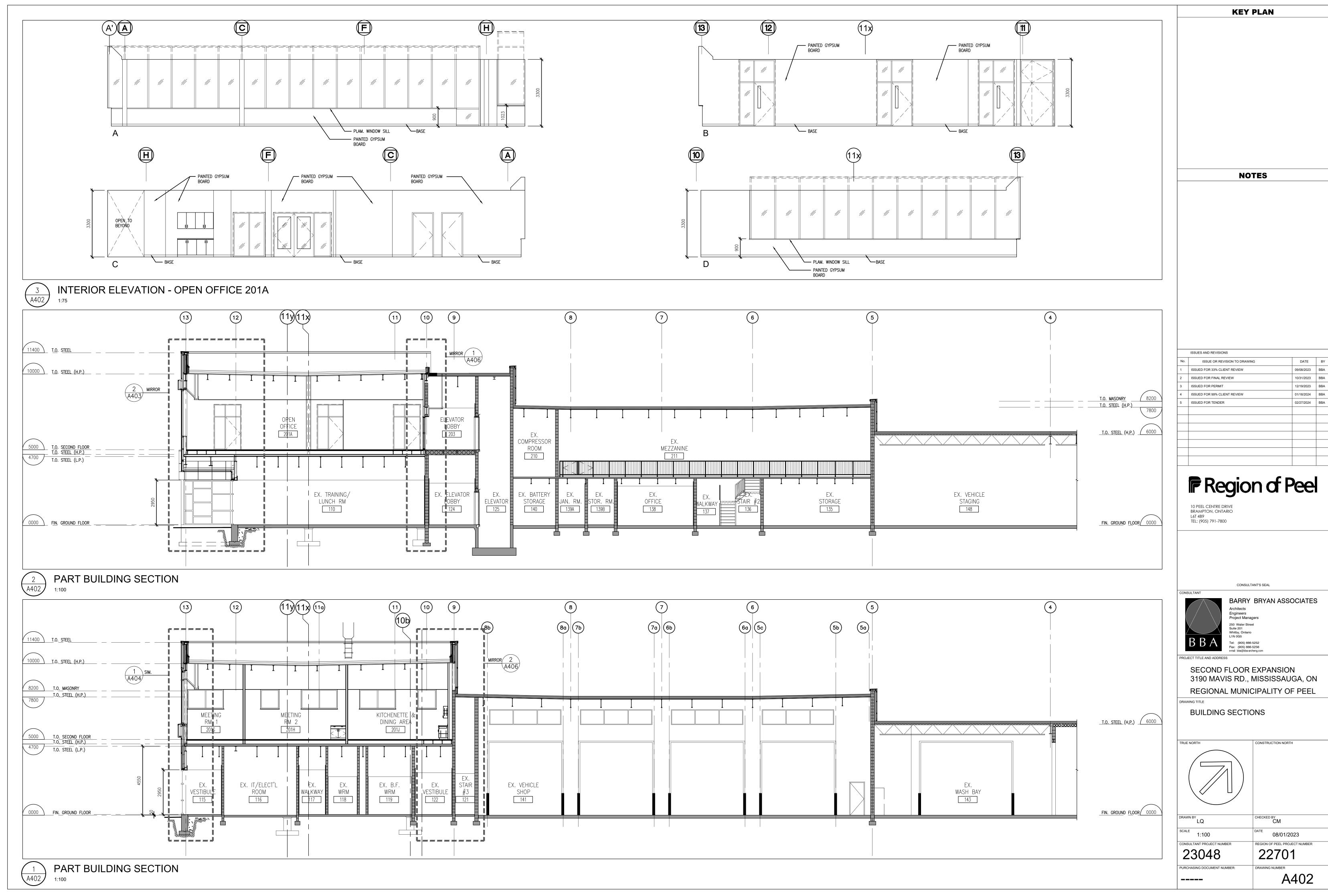
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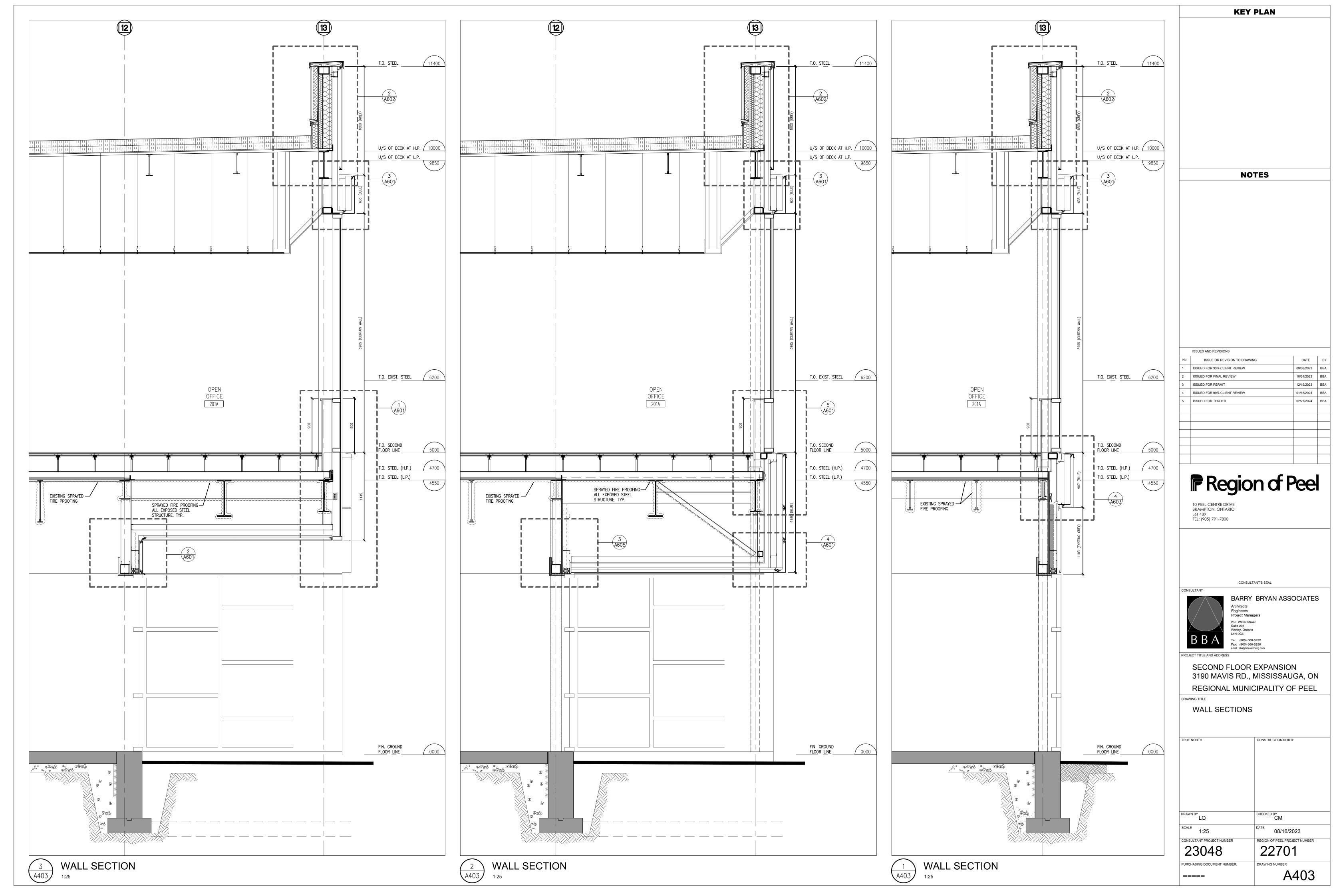
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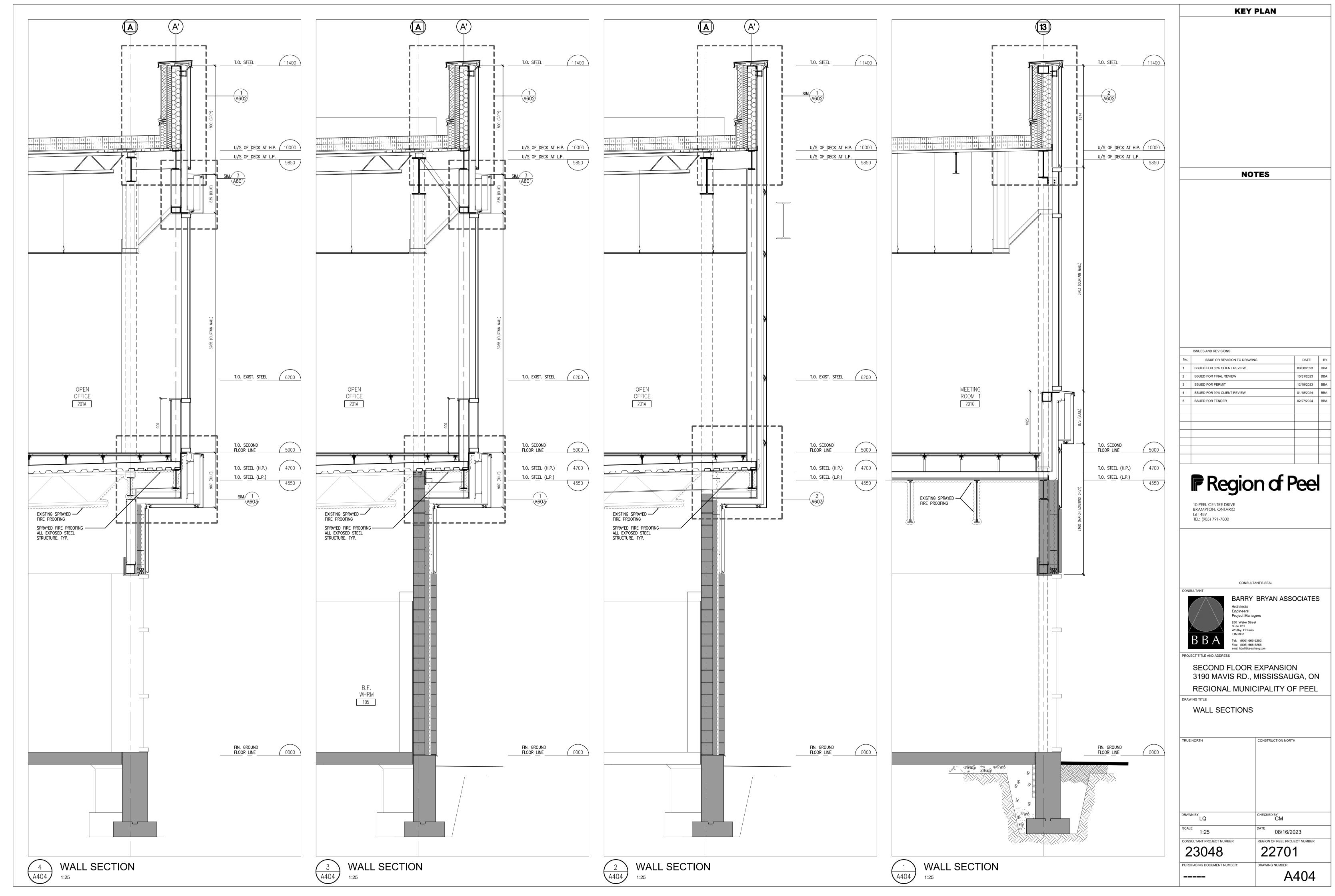


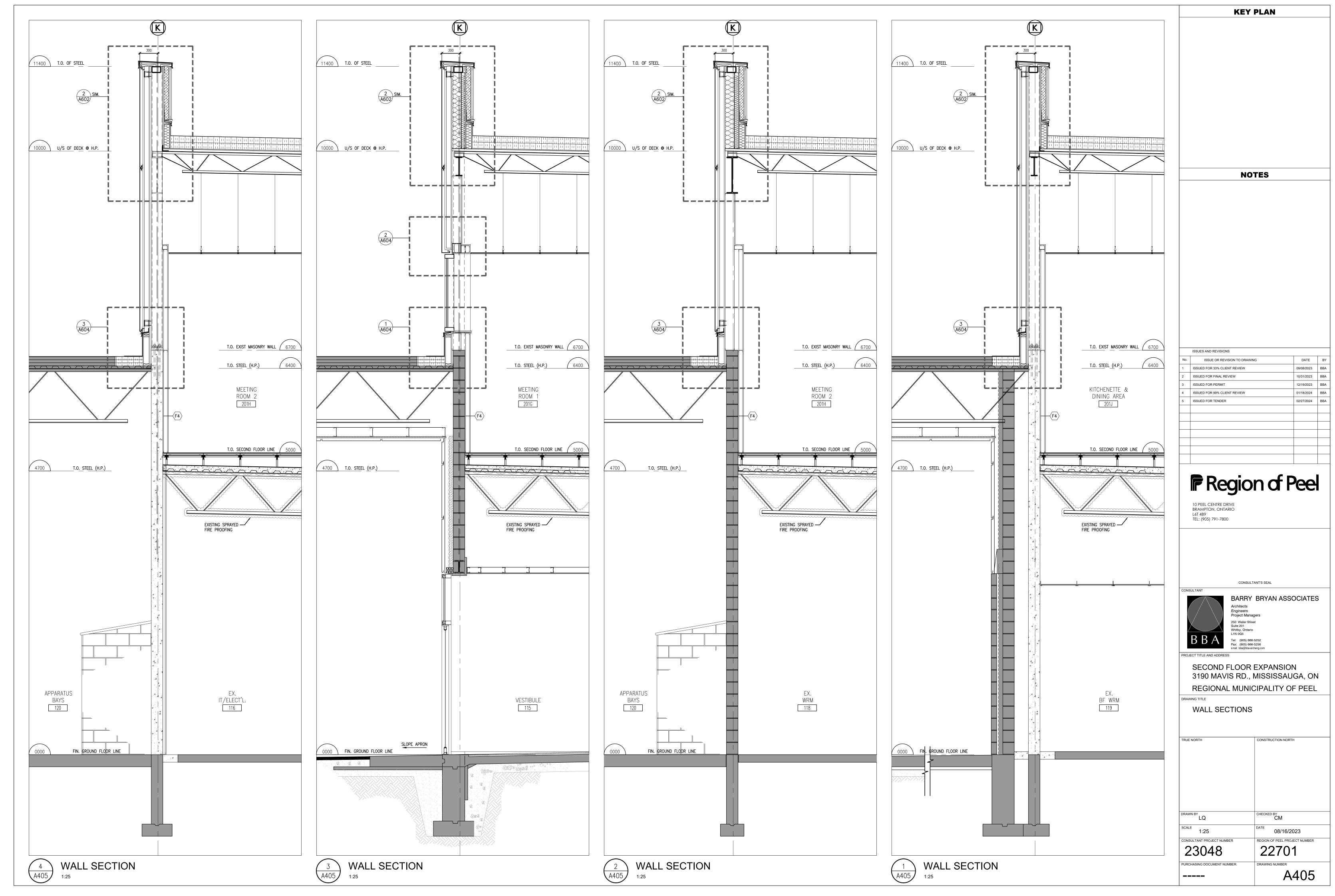


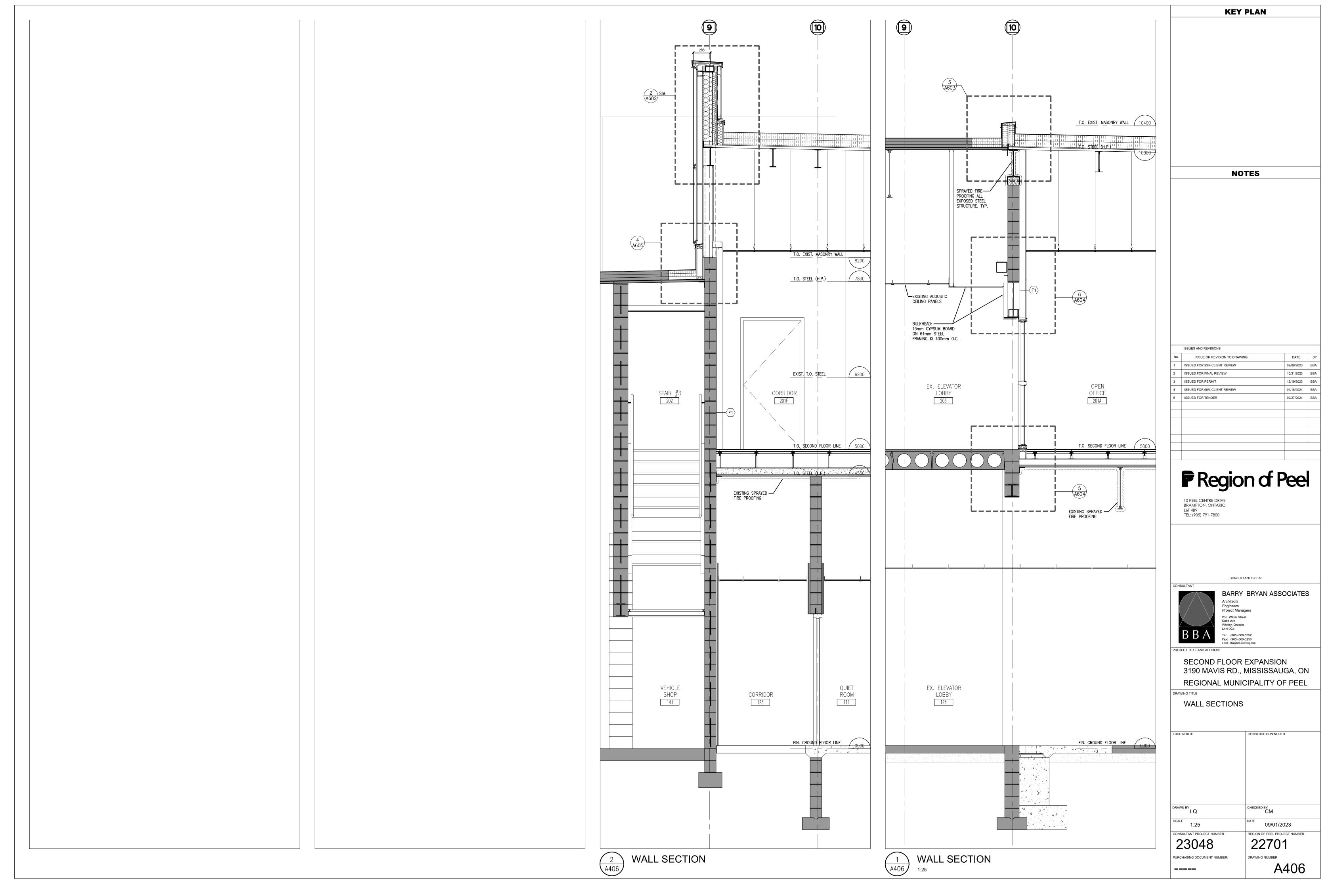


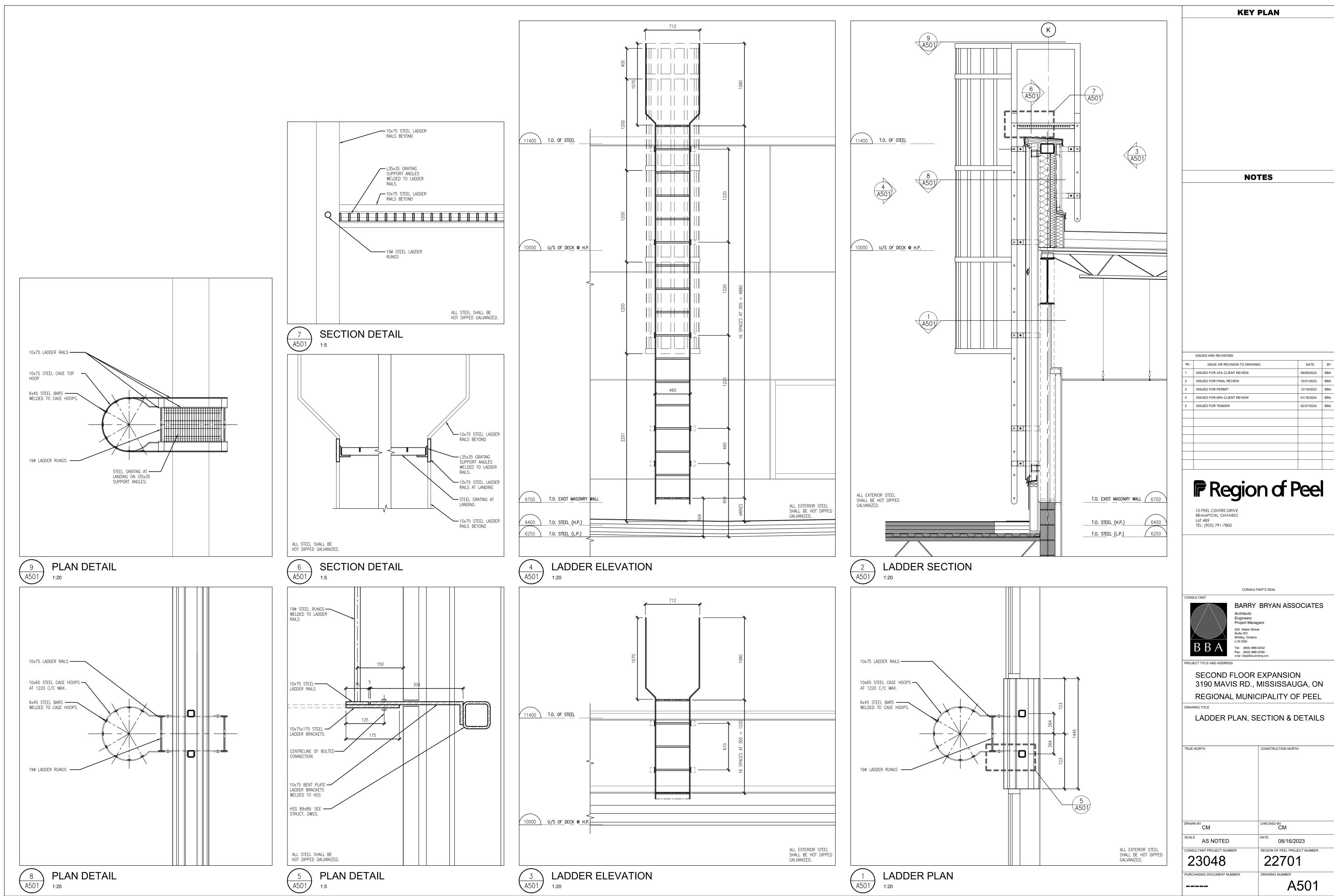




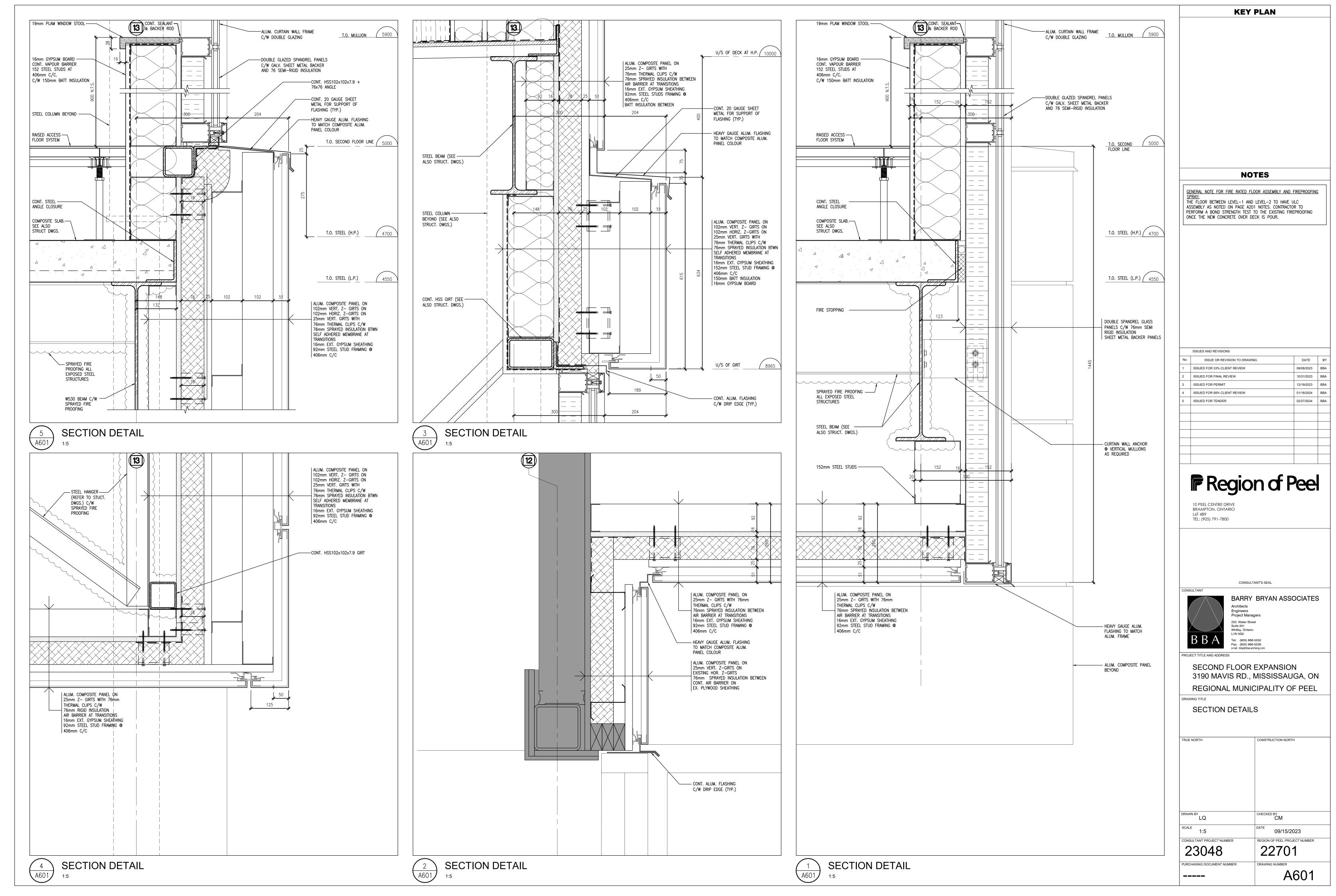


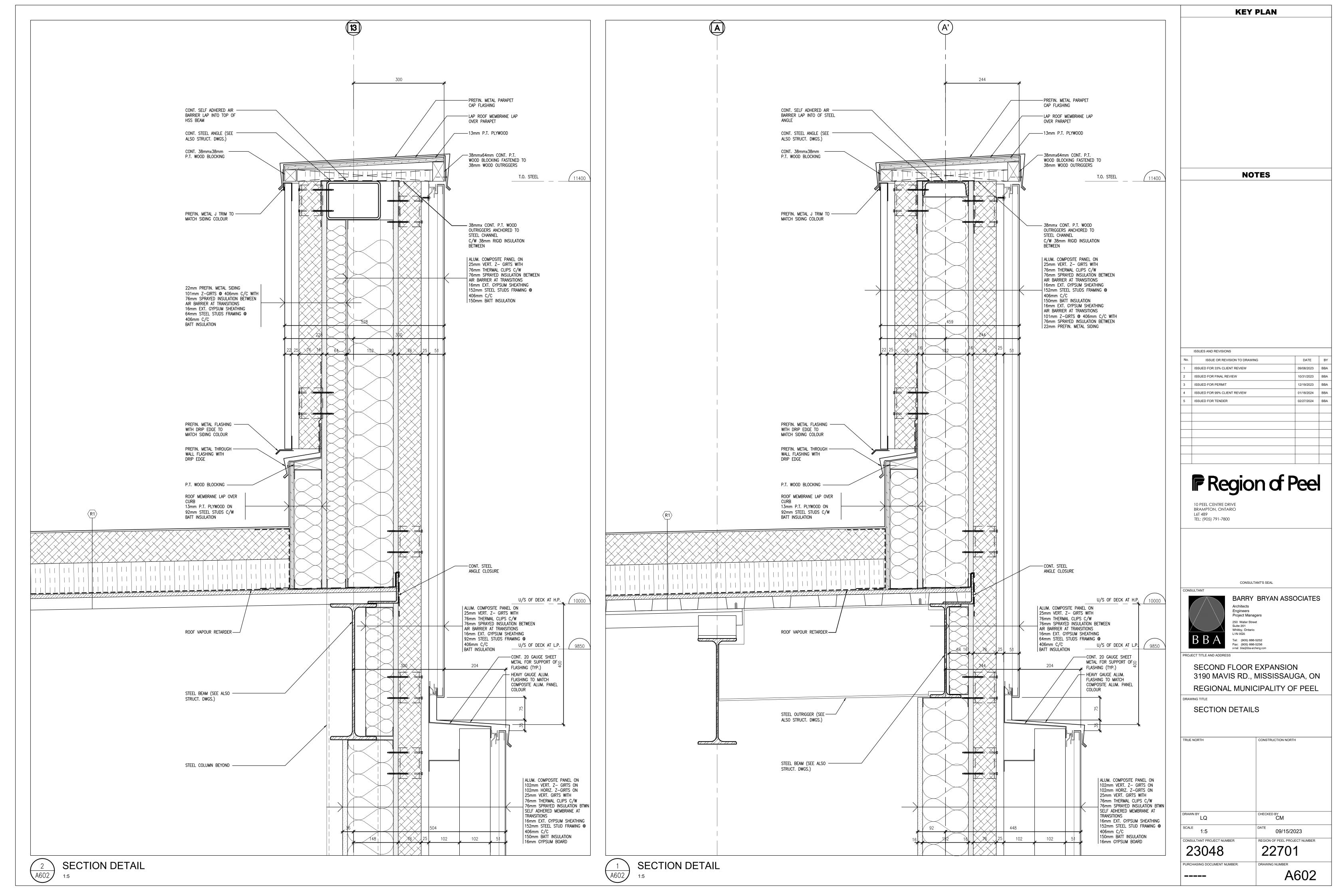


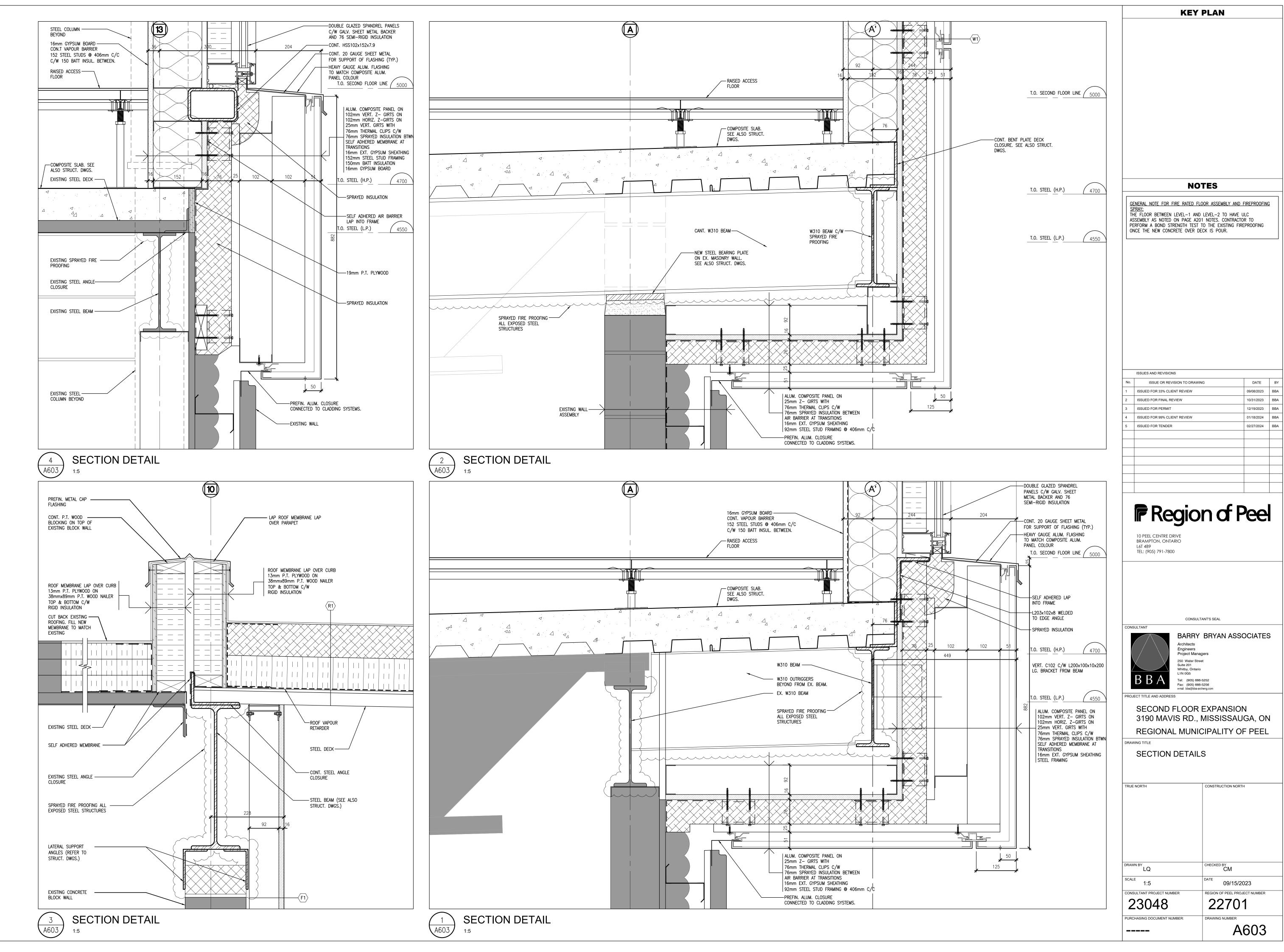


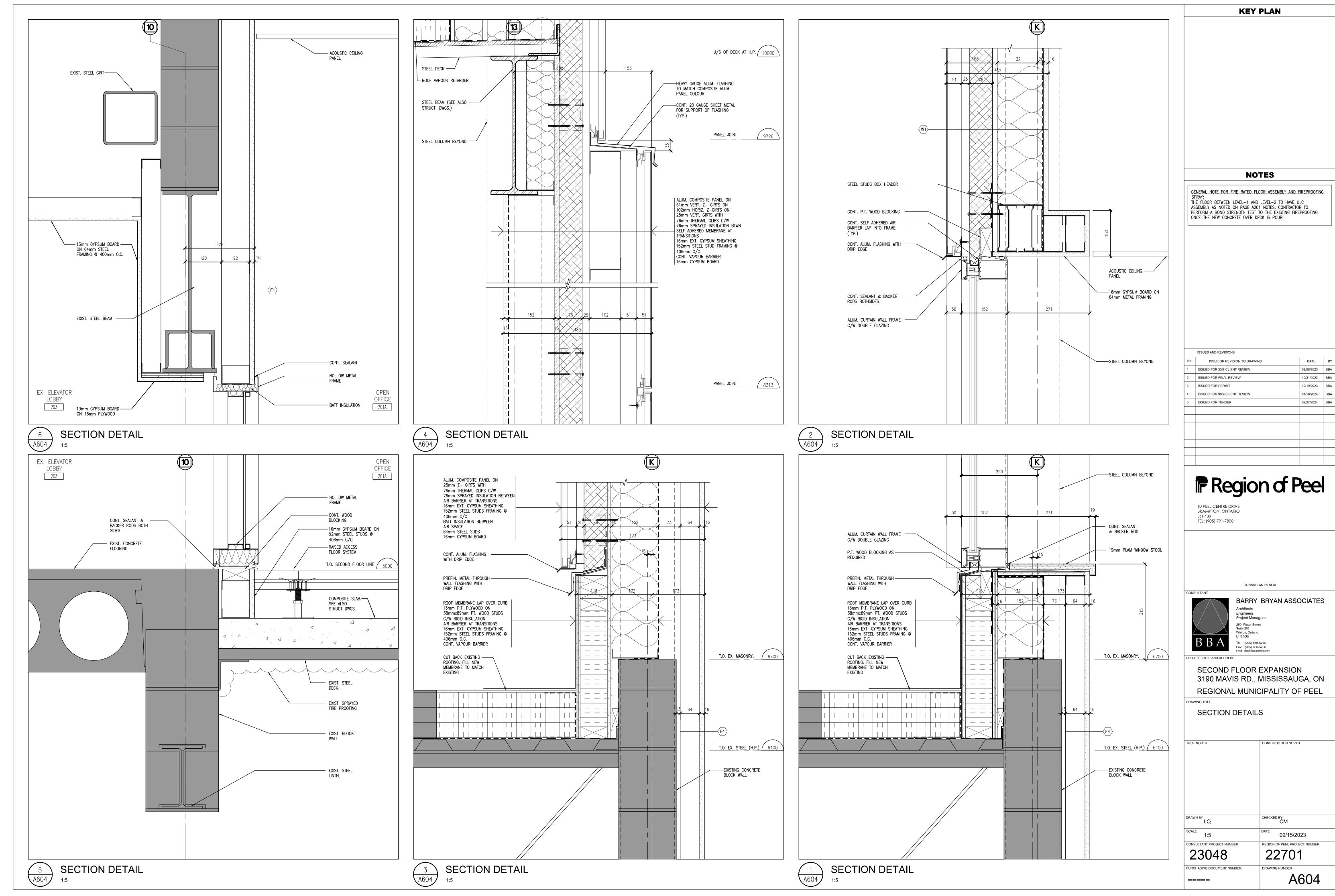


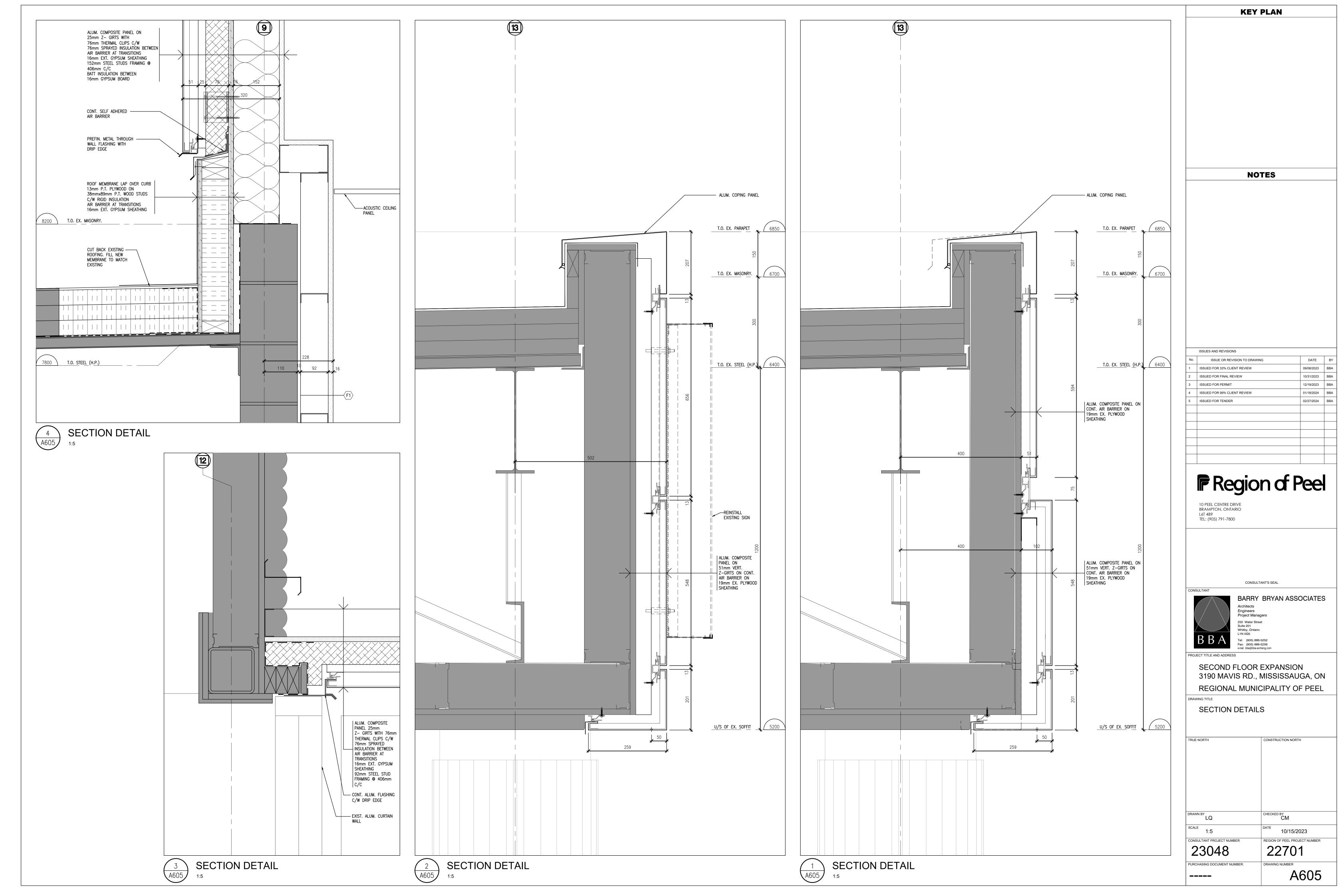
Appendix 8.3

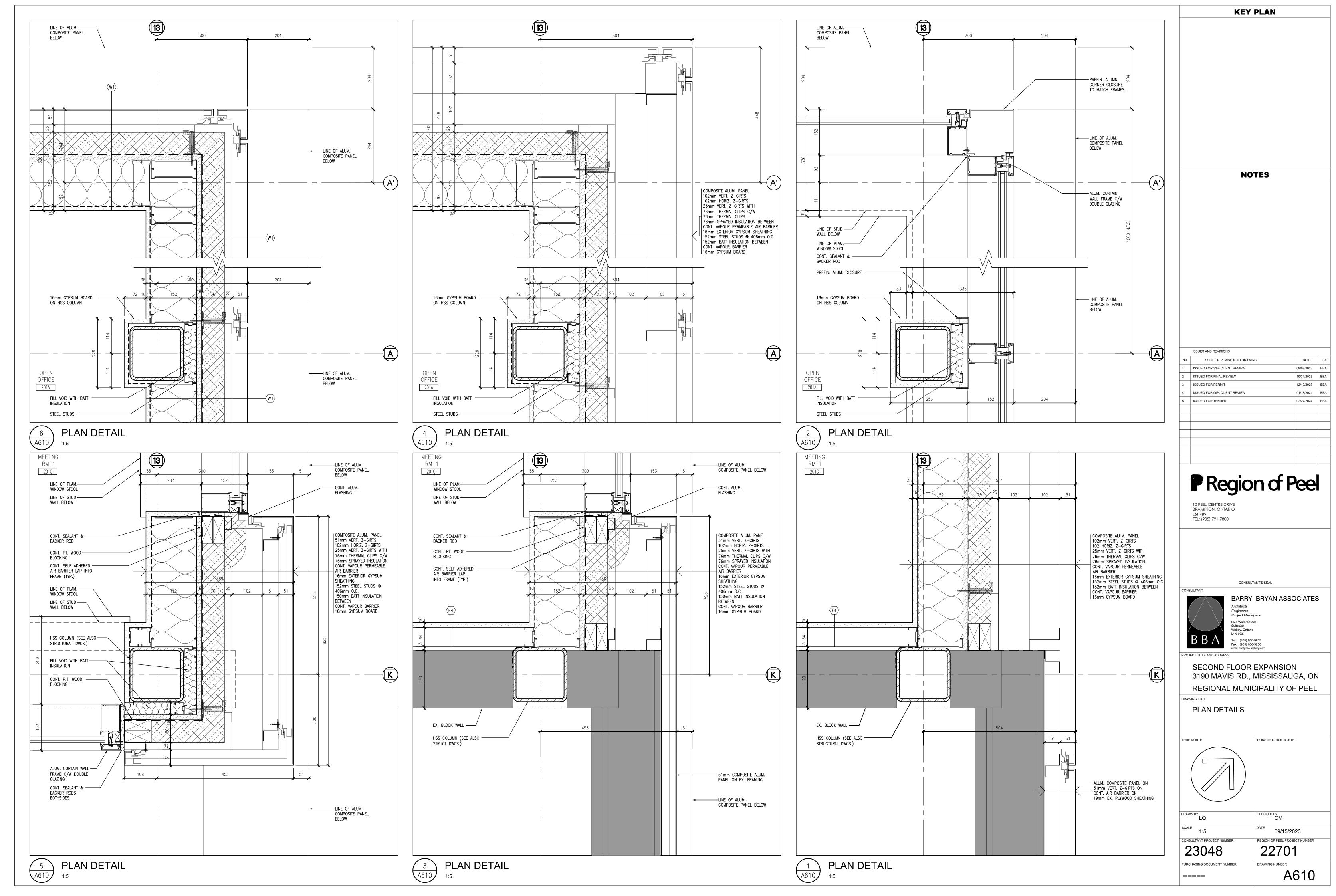


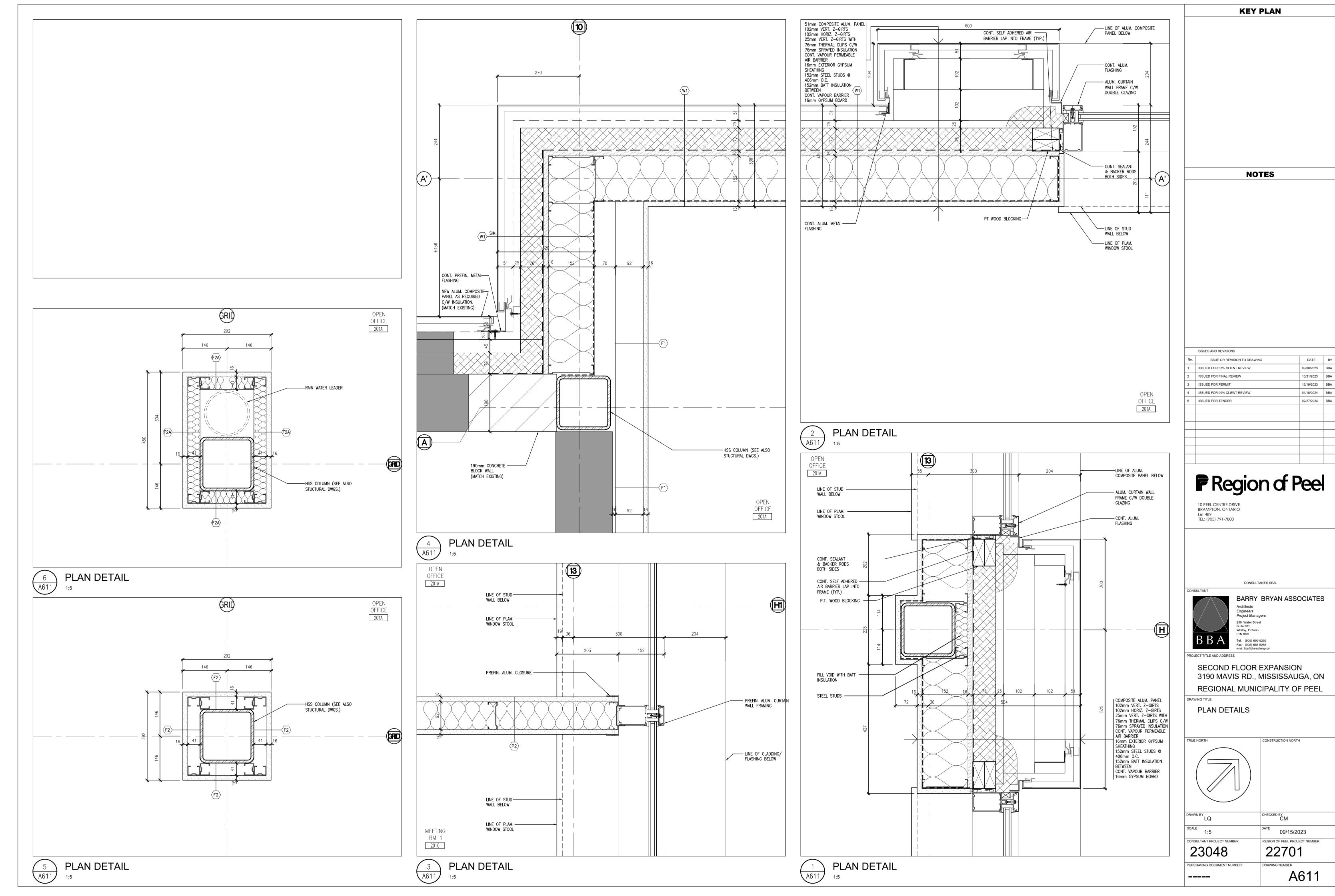


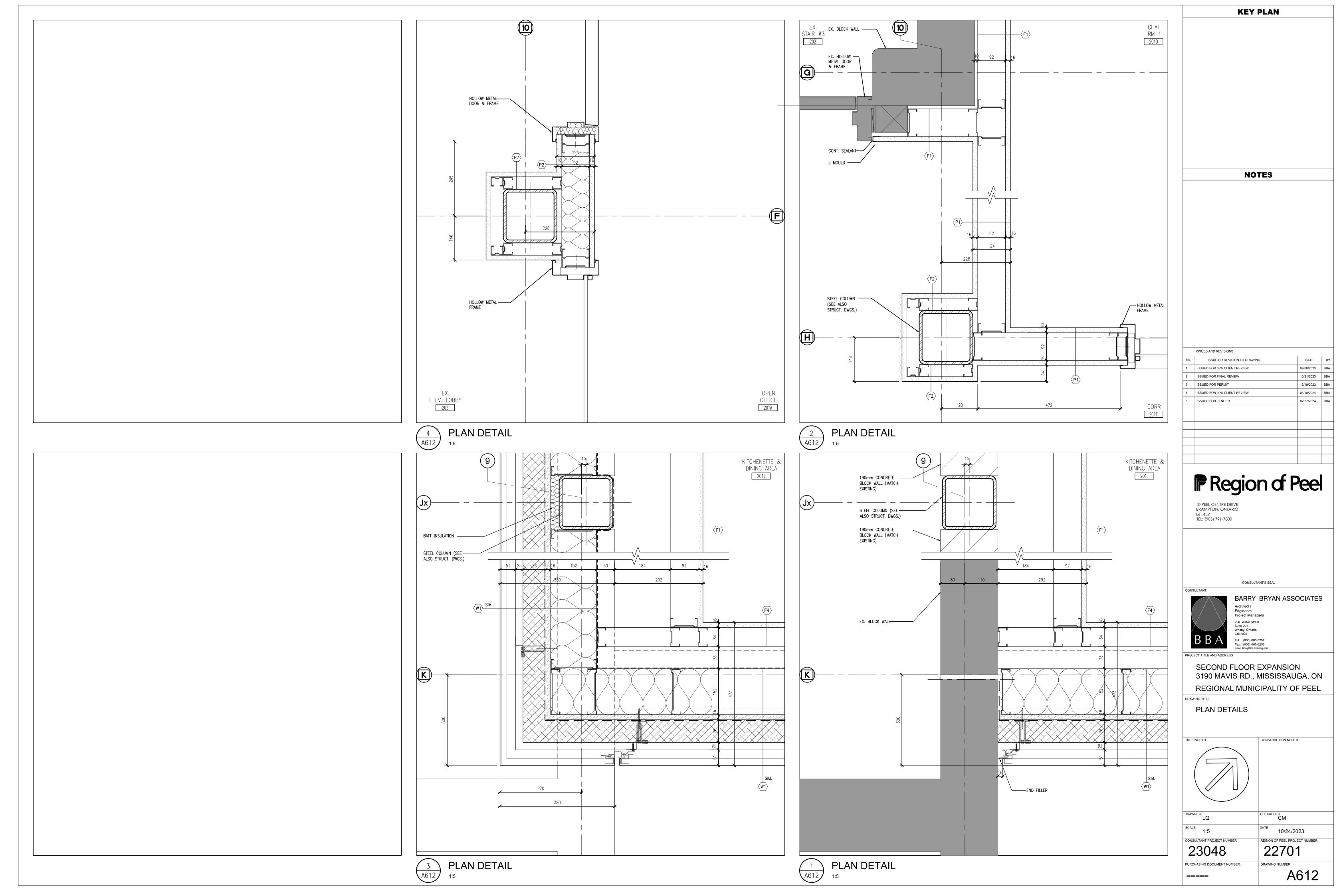


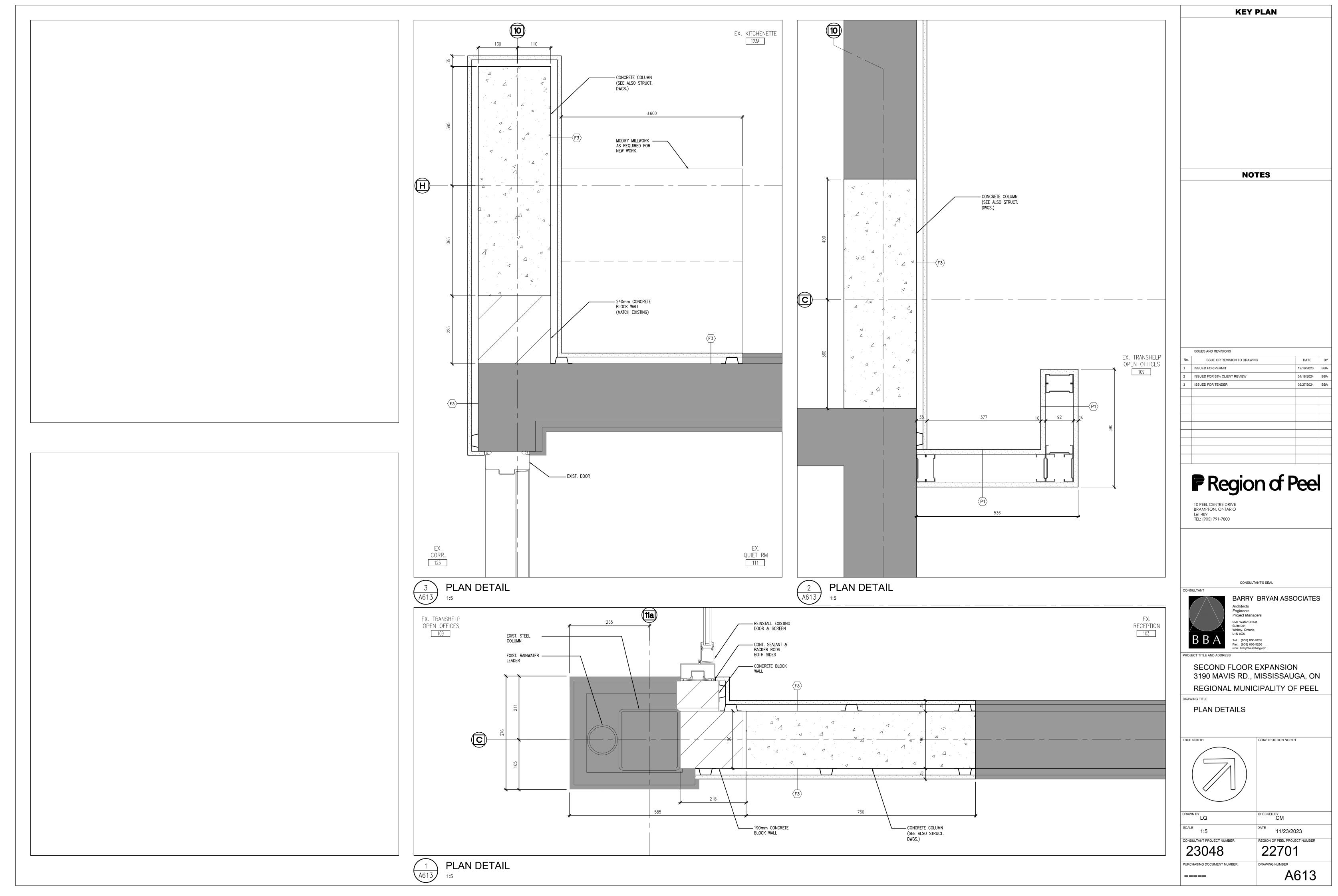


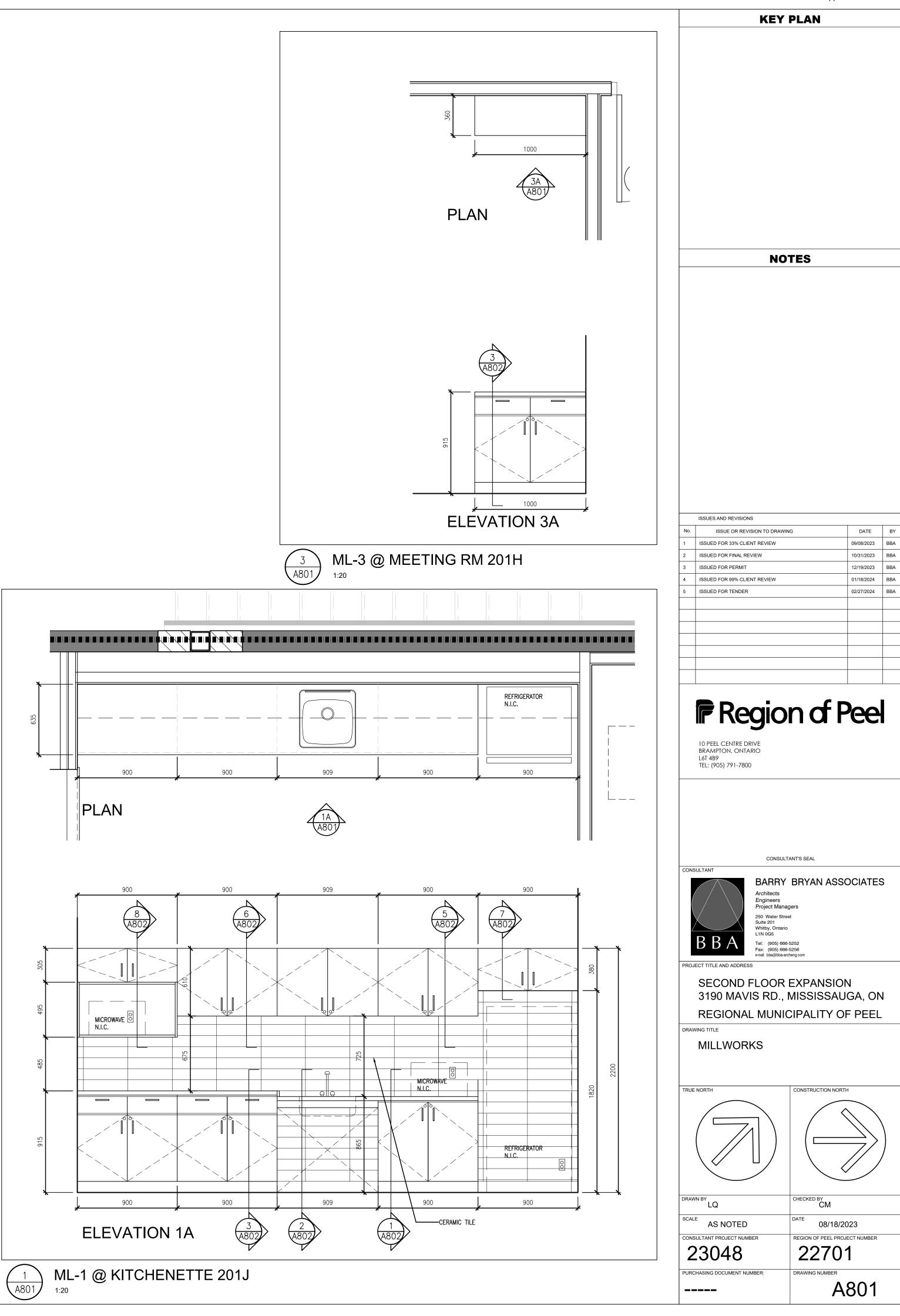


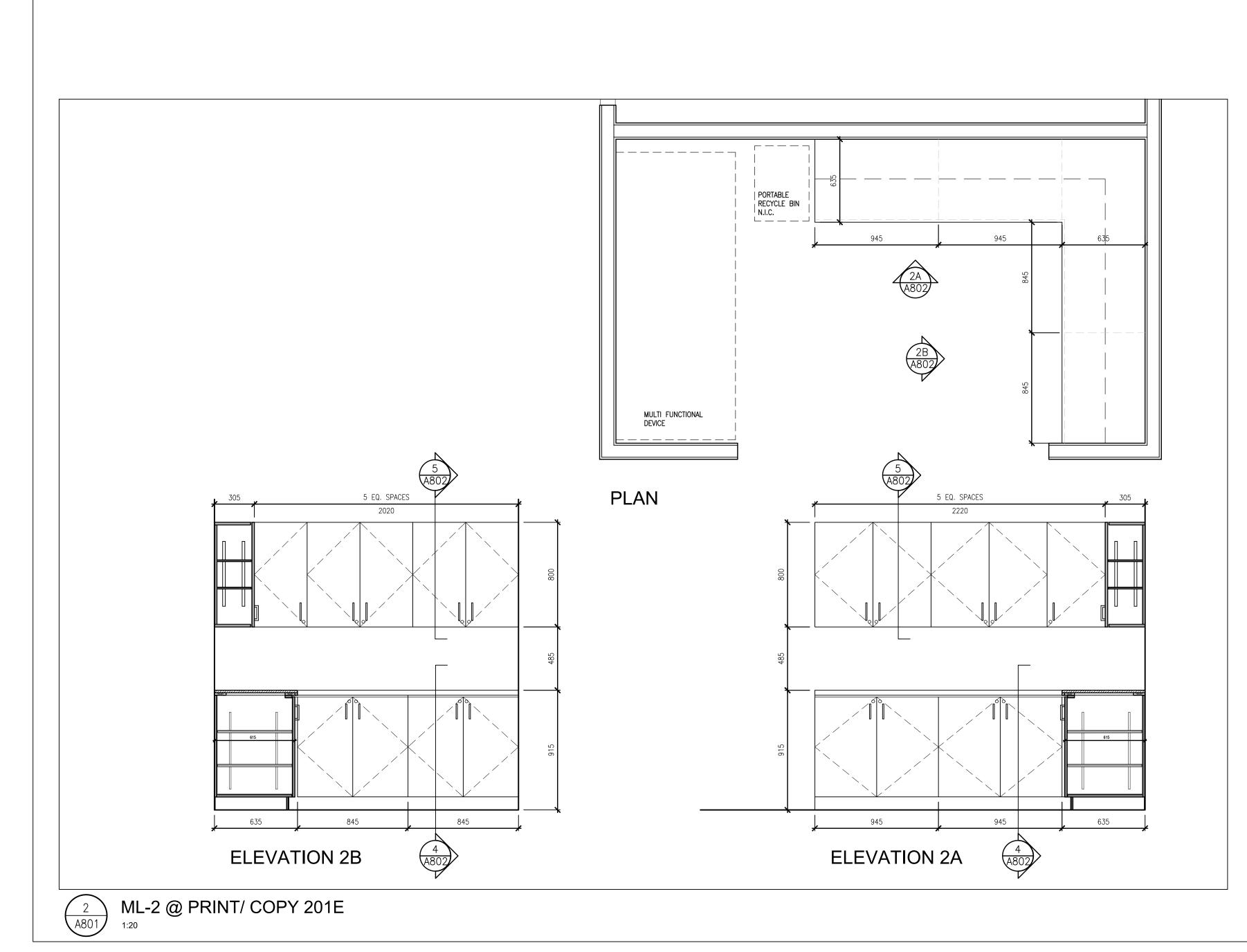


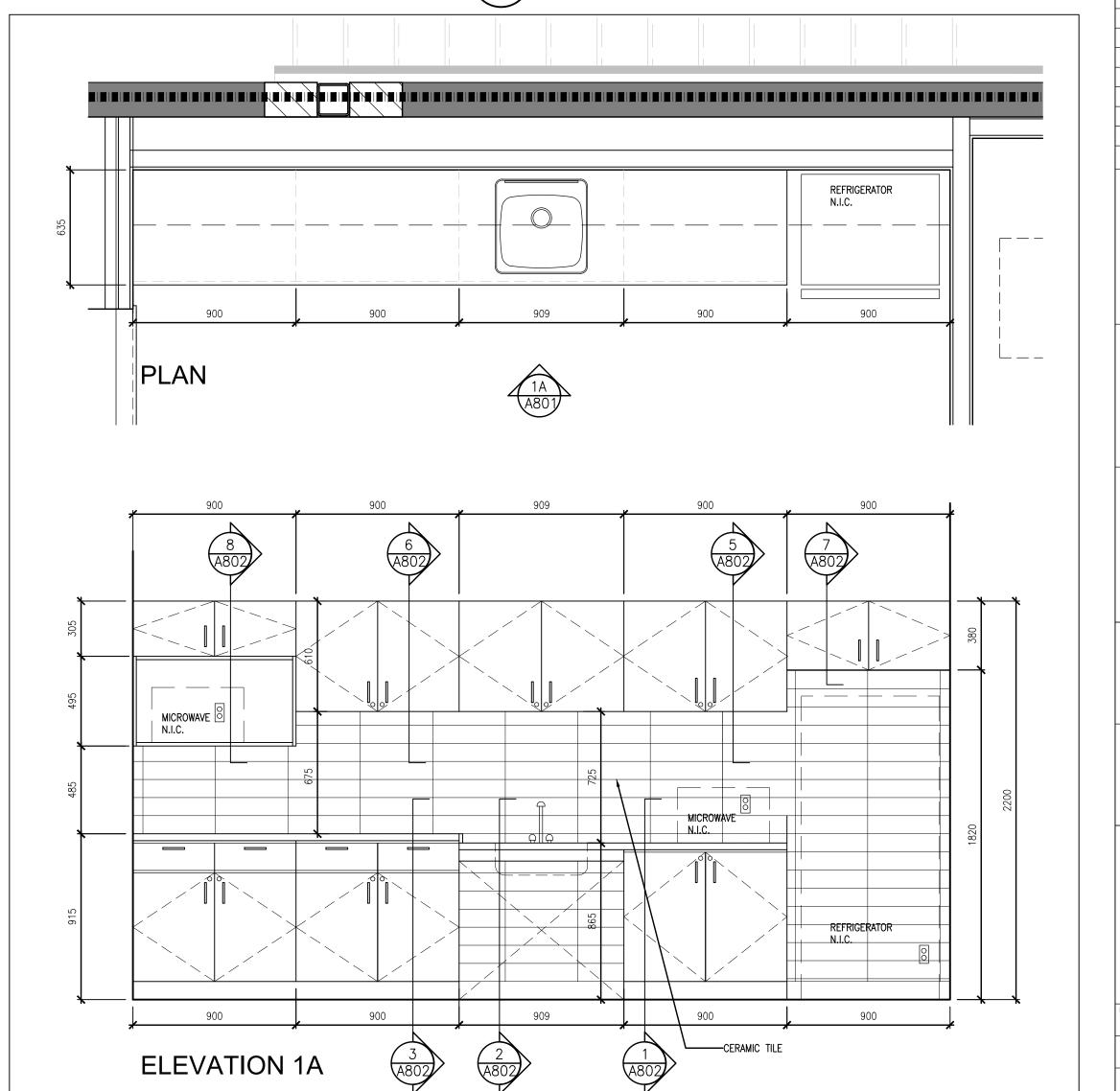


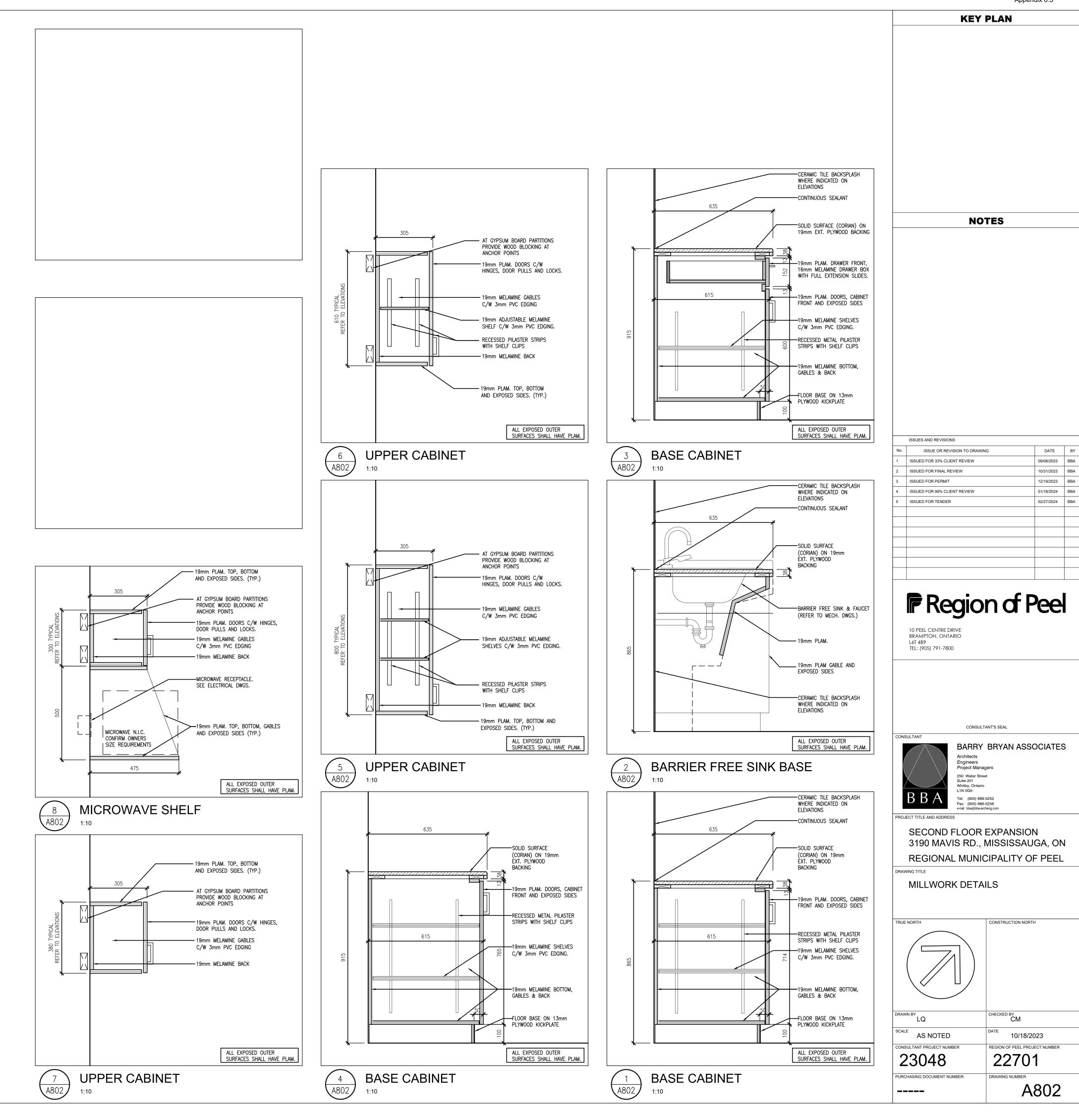


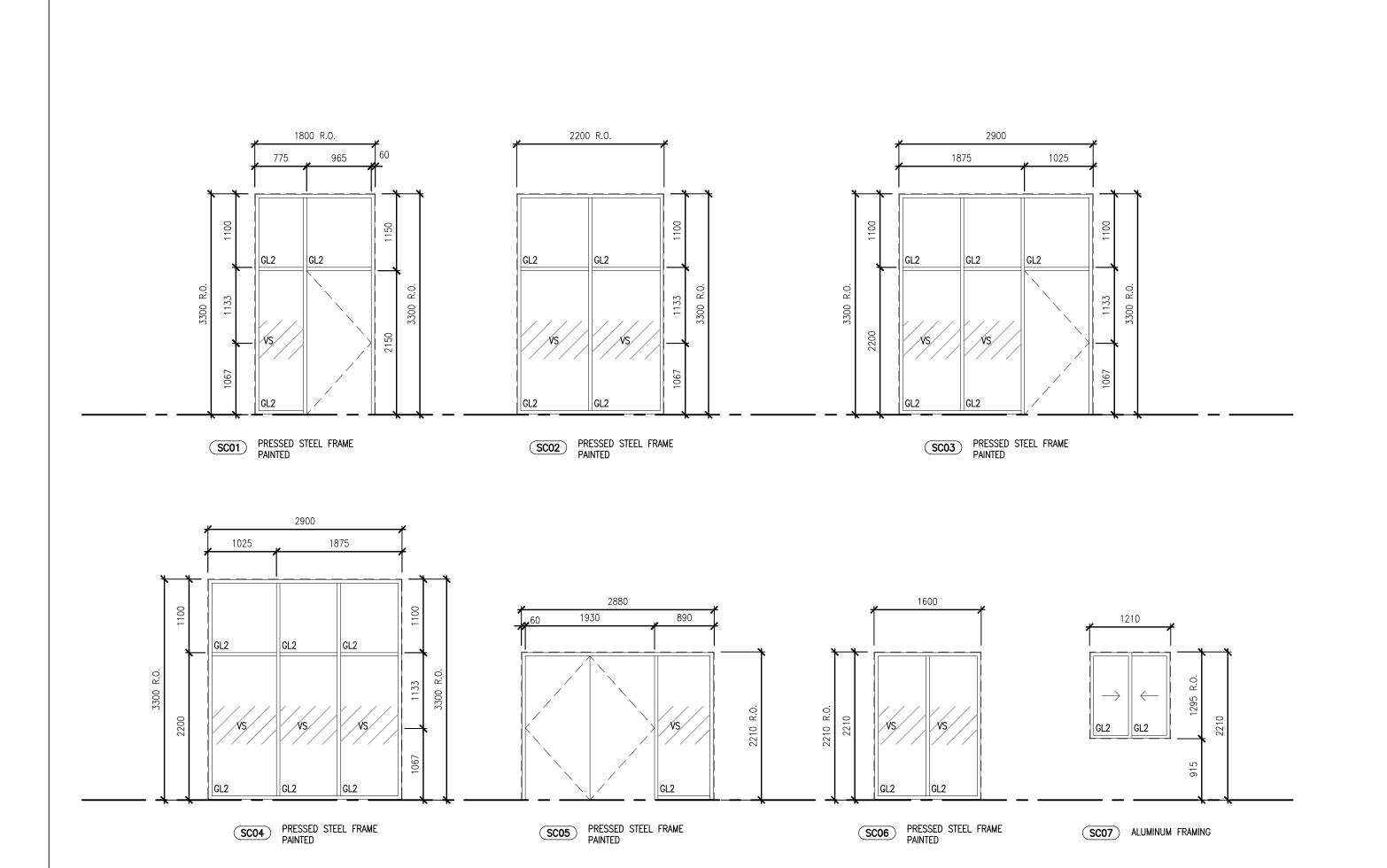






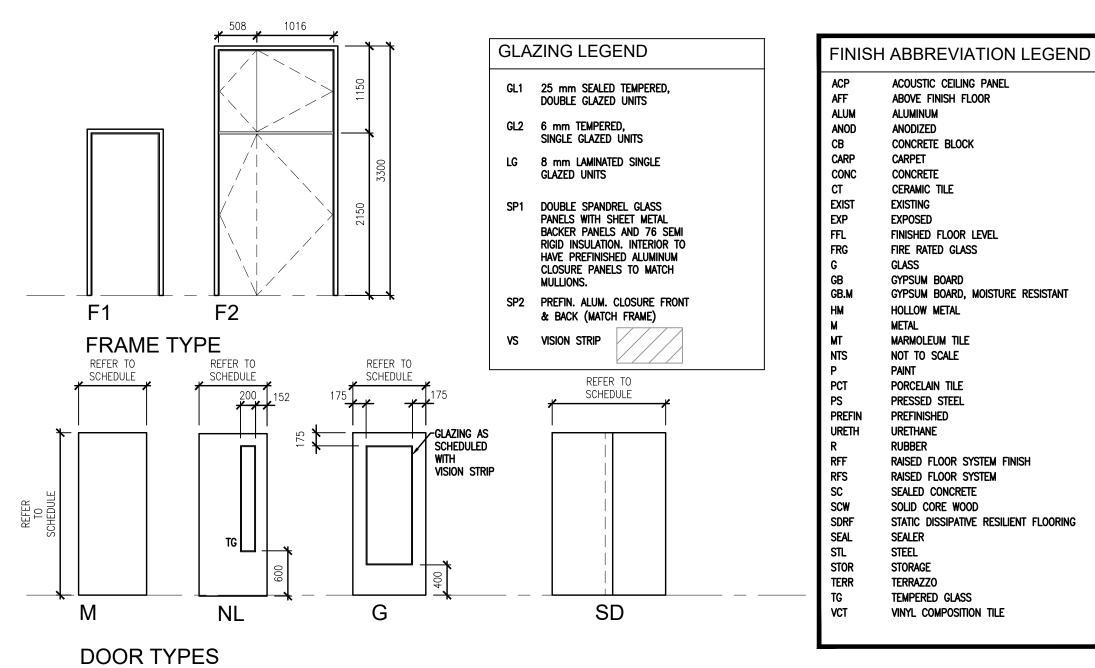






						1100	M FI		301				T
	NO.	ROOM NAME	1	FLOOR	BASE	NORTH	WA EAST	SOUTH	WEST	CEILING	CEILING HEIGHT	REV.	REMARKS
	NO.	ROOM NAME	MAT.	EXIST	EXIST		EXIST/GB		EXIST	GB	2500		
FLOOR	105	EX. B.F. WASHROOM	FIN.	PCT	CT	CT	CT	CT	CT	P	2000	-	
\subseteq			MAT.	EXIST	EXIST	EXIST	EXIST/GB	EXIST	EXIST	EXIST/GB	_	_	
	122	EX. VESTIBULE	FIN.	PCT	СТ	Р	P	Р	Р	Р		-	
GROUND	119	EX. B.F. WASHROOM	MAT. FIN.	EXIST PCT	EXIST	EXIST CT	EXIST CT	EXIST/GB CT	EXIST/GB CT	GB P	2500	-	
GF							20.40	22.42					
	201A	OPEN OFFICE	MAT. FIN.	RFS CARP	GB R	— Р	GB/G P	GB/G P	exist/gb/g P	ACP -	3300		
	201B	CHAT ROOM 2	MAT. FIN.	RFS CARP	GB R	GB/G P	GB P	GB/G P	GB/G P	ACP -	3300		EAST WALL TO HAVE ACCENT COLOR.
	201C	NOT USED	MAT. FIN.										
	201D	CHAT ROOM 1	MAT. FIN.	RFS CARP	GB R	GB/G P	GB P	GB/G P	GB/G P	ACP	3300		SOUTH WALL TO HAVE ACCENT COLOR
.00R	201E	PRINT/ COPY	MAT. FIN.	RFS CARP	GB R	GB P	GB P	GB P	GB P	ACP	3300		
급	201F	CORRIDOR	MAT. FIN.	RFS CARP	GB R	GB/G P	GB/G P	GB/G P	GB P	ACP	3300		
SECOND	201G	MEETING ROOM 1	MAT. FIN.	RFS CARP	GB R	GB/G P	GB/G P	GB/G P	GB P	ACP	3300		
SE	201H	MEETING ROOM 2	MAT. FIN.	RFS CARP	GB R	GB/G P	GB P	GB/G P	GB P	ACP	3300		EAST WALL TO HAVE ACCENT COLOR.
	201J	KITCHENETTE & DINING AREA	MAT. FIN.	RFS RFF	GB R	GB/G P	GB P	GB/G P	GB P	ACP	3300		
	201K	ELECTRICAL CLOSET	MAT. FIN.	RFS MT	GB R	GB P	GB P	GB P	GB P		-		
	205	EX. STORAGE	MAT. FIN.	CONC	EXIST R	EXIST P	EXIST P	EXIST P	GB P	ACP	2400		
	205A	IT ROOM	MAT. FIN.	CONC	EXIST R	GB P	EXIST P	EXIST P	GB P	ACP	2400		
	208	BARRIER FREE WASHROOM	MAT.	EXIST	EXIST PCT	EXIST PCT	EXIST PCT	EXIST PCT	EXIST _	GB P	2400		

	DOOR AND FRAME SCHEDULE																					
													OOF	R H	ARDW	/ARE						
												RING	٩	щ	<u>~</u>		2		DER T	.		
]	DOOR						FRAME			FIRE		S STC	M.	SET SET	HSE.	1 P	J A	BOL B	. AGE	AGA	DEMARKO.
NO.	SIZE AND THICKNESS	TYPE	MATERIAL	FINISH	GLASS	TYPE	DET HEAD	AIL JAMB	MATERIAL	FINISH	RATING	BALL	900	X S		LATC ELEC STRII	PUSF		CARD REAL DEAD BOLT	SURF	ASTR	REMARKS
103	EXISTING						HEAD	O) TIVID														
103A	2-1050x2300x45	SD	SCW	URETH	_	_	_	-	-	PAINT												WOOD DOOR AND DOOR FRAME. EXISTING DOOR LEAF AND HARDWARE TO BE RE USED.
201	2-965x2150x45	G	НМ	PAINT	LG	SC06	H1	J1	PS	PAINT		• •		•			•	•			•	EXISTING CARD READER AND DOOR OPERATOR TO BE RE USED ON LOBBY SIDE.
																						Ga. 16 HOLLOW METAL FRAME. WITH 1070mm STAINLESS STEEL HANDLE.
201B	965x2150x45	NL	НМ	PAINT	TG	SC03	H1	J1	PS	PAINT		•	•			•						
201D	965x2150x45	NL	НМ	PAINT	TG	SC01	H1	J1	PS	PAINT		•	•			•						
201G	965x2150x45	NL	НМ	PAINT	TG	SC01	H1	J1	PS	PAINT		•	•		•	• •						WITH WALL MOUNT SWITCH BUTTON
201H	965x2150x45	NL	НМ	PAINT	TG	SC01	H1	J1	PS	PAINT		•	•		•	• •						WITH WALL MOUNT SWITCH BUTTON
201J	965x2150x45	NL	НМ	PAINT	TG	SC01	H1	J1	PS	PAINT		•	•		•	• •						WITH WALL MOUNT SWITCH BUTTON
201K	1016-508x2150x45	M	НМ	PAINT	-	F2	H1	J1	PS	PAINT		•				•					•	WITH ELECTRIC HINGE, CARD READER
202B	EXISTING DOOR			PAINT						PAINT	EX. 45 MIN.											CARD READER AT STAIR SIDE
204B	EXISTING DOOR			PAINT						PAINT	EX. 45 MIN.											CARD READER AT STAIR SIDE
205	EXISTING DOOR			PAINT						PAINT	EX. 45 MIN.					•						CARD READER
205A	965x2150x45	M	НМ	PAINT		F1	H1	J1	PS	PAINT		• •	•		•	•						CARD READER
208	EXISTING DOOR	•		PAINT					•	PAINT					• •	•						EXISTING HARDWARE TO BE RE USED



ACP	ACOUSTIC CEILING PANEL
AFF	ABOVE FINISH FLOOR
ALUM	ALUMINUM
ANOD	ANODIZED
СВ	CONCRETE BLOCK
CARP	CARPET
CONC	CONCRETE
СТ	CERAMIC TILE
EXIST	EXISTING
EXP	EXPOSED
FFL	FINISHED FLOOR LEVEL
FRG	FIRE RATED GLASS
G	GLASS
GB	GYPSUM BOARD
GB.M	GYPSUM BOARD, MOISTURE RESISTANT
НМ	HOLLOW METAL
М	METAL
MT	MARMOLEUM TILE
NTS	NOT TO SCALE
Р	PAINT
PCT	PORCELAIN TILE
PS	PRESSED STEEL
PREFIN	Prefinished
URETH	URETHANE
R	RUBBER
RFF	RAISED FLOOR SYSTEM FINISH
RFS	RAISED FLOOR SYSTEM
SC	SEALED CONCRETE
SCW	SOLID CORE WOOD
SDRF	STATIC DISSIPATIVE RESILIENT FLOORING
SEAL	SEALER
STI	STEFI

STORAGE TERRAZZO

TEMPERED GLASS

VINYL COMPOSITION TILE

GENERAL NOTES

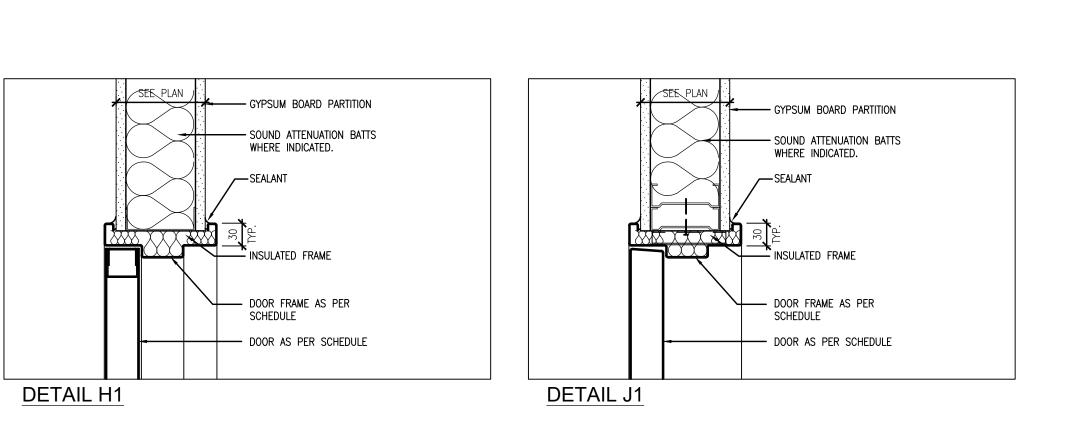
- ALL EXPOSED METAL IN INTERIOR TO BE PAINT
- 2. UNLESS OTHERWISE INDICATED, ALL WALLS
- SHALL HAVE PAINT FINISH. 3. PAINT GYPSUM BOARD WALLS AND BULKHEADS.
- 4. ALL EXPOSED DUCTWORK AND PIPING SHALL RECEIVE PAINT FINISH.
- 5. REFER TO INTERIOR ELEVATIONS AND FINISH PLANS FOR DETAILS ON EXTENTS AND ADDITIONAL INFORMATION.
- 6. GLASS PANELS IN DOORS TO COMPLY WITH BARRIER FREE VISIBILITY REQUIREMENTS.
- 7. ALUMINUM EXTERIOR DOORS TO HAVE INSULATED FRAMES.
- 8. PREPARE DOORS AND FRAMES FOR ELECTRONIC HARDWARE WHERE INDICATED CONDUITS SHALL BE CONCEALED IN FRAMES.
- 9. ALL DOORS IN FIRE SEPARATION LOCATIONS SHALL HAVE LATCHING DEVICE.
- 10. REFER TO HARDWARE SCHEDULE FOR ADDITIONAL INFORMATION.
- 11. ALL NEW DOORS TO COMPLY TO O.B.C. 3.8.3.3.
- 12. KICK PLATE TO BE STAINLESS ST
- 13. PROVIDE VISION STRIPS AT THE IN GLAZING TO BE CODE COMPLIANT.

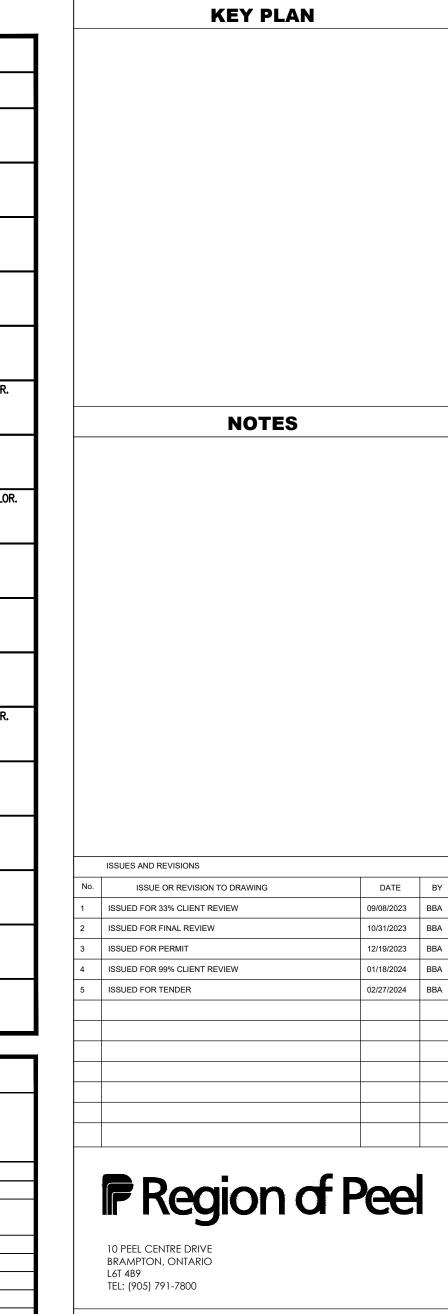
STEEL.	
INTERIOR IT.	
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08/18/2023

CONSULTANT PROJECT NUMBER

PURCHASING DOCUMENT NUMBER: A901 _____





CONSULTANT'S SEAL



PROJECT TITLE AND ADDRESS

BARRY BRYAN ASSOCIATES Engineers Project Managers

250 Water Street Suite 201 Whitby, Ontario L1N 0G5 Tel: (905) 666-5252 Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

SECOND FLOOR EXPANSION 3190 MAVIS RD., MISSISSAUGA, ON REGIONAL MUNICIPALITY OF PEEL

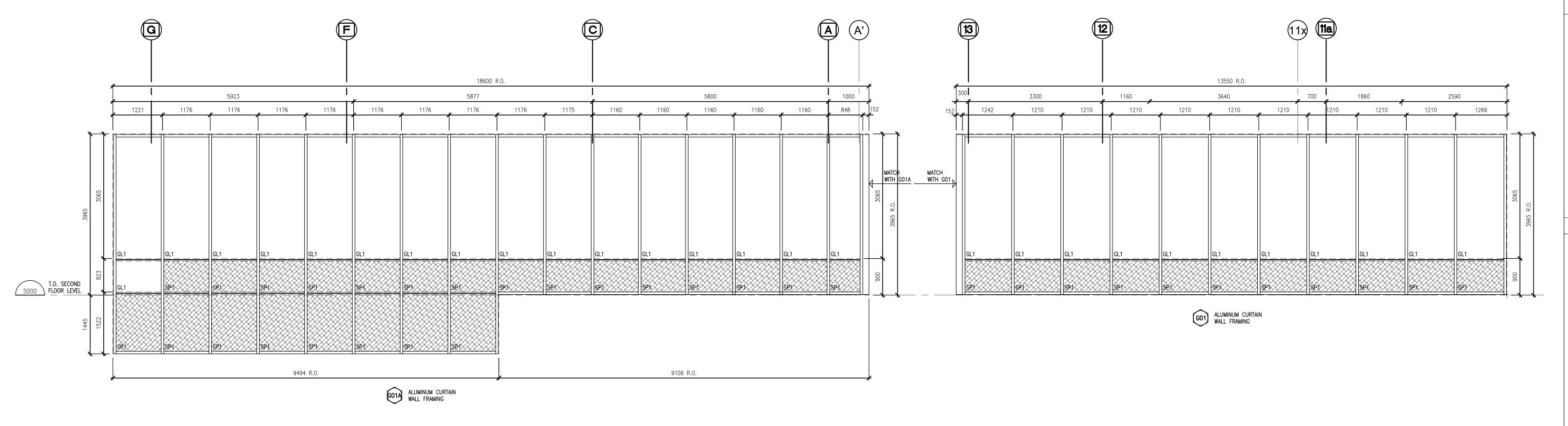
DOOR AND FRAME SCHEDULE

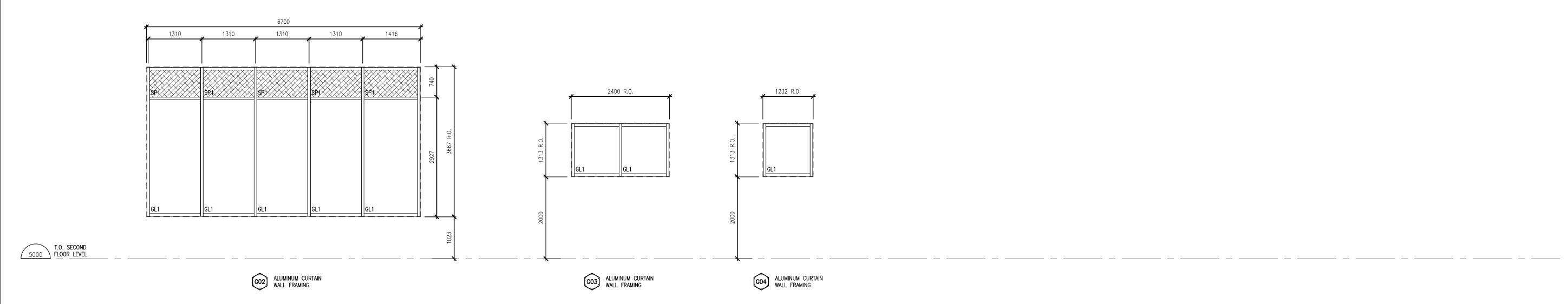
RAWING TITLE **ROOM SCHEDULE &**

TRUE NORTH CONSTRUCTION NORTH

DRAWN BY LQ N.T.S.

> REGION OF PEEL PROJECT NUMBER 22701





NOTES REFER TO LEGEND ON DRAWING A901 **KEY PLAN**

NOTES

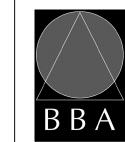
No.	ISSUE OR REVISION TO DRAWING	DATE	BY
1	ISSUED FOR 33% CLIENT REVIEW	09/08/2023	BBA
2	ISSUED FOR FINAL REVIEW	10/31/2023	BBA
3	ISSUED FOR PERMIT	12/19/2023	BBA
4	ISSUED FOR 99% CLIENT REVIEW	01/18/2024	BBA
5	ISSUED FOR TENDER	02/27/2024	BBA

Region of Peel

10 PEEL CENTRE DRIVE BRAMPTON, ONTARIO L6T 4B9 TEL: (905) 791-7800

ISSUES AND REVISIONS

CONSULTANT'S SEAL



BARRY BRYAN ASSOCIATES Architects Engineers Project Managers 250 Water Street Suite 201 Whitby, Ontario L1N 0G5

Tel: (905) 666-5252 Fax: (905) 666-5256 e-mail: bba@bba-archeng.com PROJECT TITLE AND ADDRESS SECOND FLOOR EXPANSION 3190 MAVIS RD., MISSISSAUGA, ON REGIONAL MUNICIPALITY OF PEEL

WINDOW SCHEDULE

CONSTRUCTION NORTH

SCALE N.T.S.

10/05/2023

CONSULTANT PROJECT NUMBER 23048

22701

A902

REGION OF PEEL PROJECT NUMBER

PURCHASING DOCUMENT NUMBER:

GENERAL NOTES

- 1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITIONS OF ALL RELEVANT CODES AND STANDARDS.
- 2. CONFORM TO OWNER'S GENERAL SPECIFICATIONS INCLUDING ALL SAFETY REQUIREMENTS.
- 3. SITE VERIFY ALL DIMENSIONS AND LEVELS.
- 4. KEEP THE SITE THROUGHOUT THE WORK AREA IN A CLEAN AND ORDERLY CONDITION AT ALL TIMES TO THE SATISFACTION OF THE OWNER.
- 5. ALL STRUCTURAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH OTHER CONSULTANTS DRAWINGS.

DESIGN NOTES:

- 1. LATERAL FORCE RESISTING SYSTEM: MASONRY BLOCK WALLS. IMPORTANCE CATEGORY = POST DISASTER NEW MOMENT FRAMES E-W AND N-S FROM L2 TO ROOF NEW ADDITION. NEW STEEL VERTICAL BRACING N-S FROM GROUND TO L2. EXISTING STRUCTURAL BLOCK WALLS E-W FROM GROUND TO L2.
- 2. DESIGN HOURLY WIND PRESSURES:
- 0.34 kPa 0.44 kPa
- DESIGN SNOW LOADS: Ss: 1.1 kPa (MISSISSAUGA)
- Sr: 0.4 kPa Is= 1.25 (POST DISASTER)
- S=1.60 kPa4. SEISMIC DESIGN NOTES:
- DESIGN SPECTRAL RESPONSE ACCELERATIONS:
- Sa(0.2) = 0.219Sa(0.5) = 0.115
- Sa(1.0) = 0.058Sa(2.0) = 0.0280
- Sa(5.0) = 0.0068Sa(10.0)=0.0027PGA = 0.141

PGV = 0.090

- SFRS Rd AND Ro FACTORS:
- EAST-WEST: Rd=1.5: Ro=1.3
- NORTH-SOUTH: Rd=1.5; Ro=1.3
- SITE CLASS: C
- BASE SHEARS: UNFACTORED WIND: NORTH-SOUTH: 105kN EAST-WEST:
- EQ. NORTH-SOUTH: 200kN EQ. EAST-WEST: 200kN

FOUNDATIONS

1. REVIEW OF FOUNDATIONS IS BASED ON SOIL CAPACITIES OF SLS=500 kPa AND ULS=750 kPa. THESE VALUES WERE EXTRACTED FROM DRAWINGS PREPARED BY REINDERS-RIENDER LTD. FOR THIS PROJECT DATED 2014 REFERENCING "GEOTECHNICAL INVESTIGATION REPORT PREPARED BY SPL CONSULTANTS LIMITED DATED JULY 25, 2014, REF. No. 10000612."

CONCRETE

1. CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF CAN/CSA-A23.1 AND CAN/CSA-A23.3 WITH THE FOLLOWING PROVISION:

LOCATION	DESIGN STRENGTH (28 DAYS)	SLUMP	EXPOSURE CLASS
INTERIOR COLUMNS	35 MPa	80± 30	N
ALL OTHER INTERIOR CONCRETE	25 MPa	80± 30	N
ALL EXTERIOR REINFORCED CONCRETE	35 MPa U.N.O.	80± 30	C-1
EXTERIOR UN-REINFORCED CONCRETE	35 MPa U.N.O.	80± 30	C-2

- 2. NO ADDITIONAL WATER SHALL BE ADDED AT THE JOB SITE. CONCRETE WHICH HAS BEEN WATERED OR DOES NOT MEET SPECIFICATIONS SHALL BE REJECTED. 3. DURING WINTER WEATHER BELOW 5 °C PROVIDE TEMPORARY HEATING OF CONCRETE IN
- 4. WHEN PIPES, CONDUITS, OR SLEEVES ARE REQUIRED TO PENETRATE CONCRETE ASSEMBLIES, THE FOLLOWING SHALL BE OBSERVED: - SPACING OF SUCH ITEMS SHALL BE 3 DIAMETERS ON CENTER. - CONCRETE SHALL NOT BE PENETRATED WITHIN 600mm (24") OF CONCENTRATED

ACCORDANCE WITH THE REQUIREMENTS OF CSA A23.1.

- ANY PENETRATION SHALL BE A MINIMUM OF 600mm (24") FROM ALL EDGES SUCH AS ENDS AND TOPS OF WALLS. - FOR ANY PENETRATIONS GREATER THAN 300mm (12"), CONSULT THE ENGINEER FOR REVIEW AND DETERMINATION OF EXTRA REINFORCÈMENT REQUIREMENTS IF

CONDUITS, PIPES AND SLEEVES **EMBEDDED IN CONCRETE**

SEE ALSO CSA-A23.1 - CLAUSE 13.5

EXCEPT WHEN APPROVED BY THE STRUCTURAL ENGINEER, PIPES, CONDUITS, AND SLEEVES EMBEDDED IN CONCRETE SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING GUIDELINES:

A. NOT WITHSTANDING THE SATISFYING OF THESE GUIDELINES, THE CONDUIT, SLEEVES,

- PIPES. ETC. SHALL NOT IMPAIR THE STRUCTURAL STRENGTH AND SHALL BE MOVED IF SO DIRECTED BY THE STRUCTURAL ENGINEER.
- B. CENTRELINE SPACING TO BE NOT LESS THAN 3 DIAMETERS UNLESS NOTED
- C. CENTRELINE SPACING BETWEEN PARALLEL CONDUIT AND REINFORCING BARS TO BE 3 DIAMETERS - UNLESS NOTED OTHERWISE.

CONCRETE REINFORCEMENT

1. THE CLEAR DISTANCE BETWEEN REINFORCING STEEL AND SURFACE OF CONCRETE SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE.

FOOTINGS	75mm(3") UNDERSIDE 50mm(2") TOP AND ENDS
WALLS	50mm(2") AGAINST EARTH (20M BAR OR GREATE 40mm(1½") AGAINST EARTH (15M BAR) 40mm (1½") AGAINST FORM (20M BAR OR GREAT 25mm (1") AGAINST FORM (15M BAR)
SLABS	25mm(1") TOP BARS 25mm(1") BOTTOM BARS
COLUMNS/PIERS	40mm(1½") TO TIES
SURFACE IN CONTACT WITH GROUND	75mm(3")

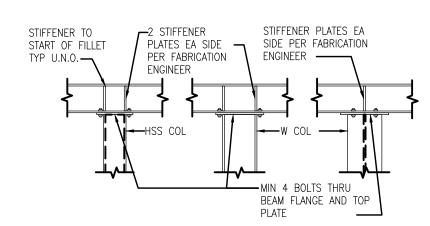
- 2. STRUCTURAL GROUT SHALL BE NON-SHRINK, NON METALLIC M-BED STANDARD PREMIX BY SIKA OR APPROVED EQUAL.
- 3. DETAIL REINFORCING STEEL IN ACCORDANCE WITH "REINFORCING STEEL MANUAL OF STANDARD PRACTICE" LATEST EDITION.
- 4. REINFORCING BAR SPLICES FOR DEFORMED BARS: COLUMNS - COMPRESSION LAP UNLESS NOTED WALLS - CLASS 'B' TENSION SPLICE UNLESS NOTED ALL OTHERS - CLASS 'B' TENSION LAP UNLESS NOTED

CONFORMING TO CSA G30.18 GRADE 400.

- 5. ALL REINFORCING STEEL SHALL BE DEFORMED HARD GRADE BILLET STEEL
- 6. WELDED STEEL WIRE FABRIC, PLAIN TYPE CONFORMING TO ASTM A1064/A1064M-17 IN FLAT SHEETS NOT ROLLED.
- 7. ALL CONCRETE REINFORCEMENT MUST BE PROPERLY CHAIRED WITH APPROVED BAR
- 8. PROVIDE CHAIRS, SPACER BARS, SUPPORT BARS AND OTHER ACCESSORIES TO SUPPORT REINFORCING IN ACCORDANCE WITH THE LATEST EDITIONS OF CSA A23.1 AND CSA A23.3. CHAIRS TO BE PLASTIC, PLASTIC TIPPED OR CONCRETE, ALL TIE WIRE. CHAIRS AND BAR SUPPORTS USED FOR COATED REINFORCING SHALL BE NON-METALLIC OR PROTECTED WITH ACCEPTABLE COATING.
- 9. CHAIRS SHALL BE SPACES AT 1200mm O.C. MAXIMUM.

STRUCTURAL STEEL

- 1. ALL STRUCTURAL STEEL HSS AND W SECTIONS TO BE G40.21M-350W CLASS C. ALL OTHERS TO BE G40.21M-300W.
- 2. DESIGN FORCES INDICATED ON DRAWINGS FOR STRUCTURAL STEEL WORK ARE UN-FACTORED FORCES UNLESS NOTED OTHERWISE.
- 3. ALL CONNECTIONS TO BE DESIGNED BY FABRICATOR UNLESS NOTED OTHERWISE. ALL BEAM CONNECTIONS TO BE STANDARD SHEAR CONNECTIONS IN COMPLIANCE WITH CISC, UNLESS NOTED OTHERWISE.
- 4. PROVIDE SHOP DRAWINGS OF COMPONENTS AND CONNECTIONS DESIGNED BY THE FABRICATOR'S ENGINEER. DRAWINGS SHALL BE SIGNED AND SEALED BY THAT ENGINEER.
- 5. FABRICATOR'S ENGINEER MUST BE LICENSED IN THE PROVINCE OF ONTARIO.
- 6. ALL ERECTION BOLTS SHALL BE ASTM GRADE A325 MINIMUM, AND SHALL BE DESIGNED BY STEEL FABRICATOR'S ENGINEER FOR TRANSFER OF ALL LOADS.
- 7. BOLTED CONNECTIONS SHALL HAVE A MINIMUM OF TWO BOLTS IN EACH CONNECTION PIECE AND DESIGNED AS BEARING CONNECTIONS U.N.O.
- 8. UNLESS NOTED OTHERWISE, WHERE BEAMS FRAME OVER COLUMNS, PROVIDE FULL HEIGHT, FULL WIDTH STIFFENER PLATES ON EACH SIDE OVER COLUMN AS SHOWN BELOW:



- 9. FABRICATOR'S ENGINEER SHALL DESIGN TOP PLATES AND THEIR CONNECTIONS TO FULLY TRANSFER VERTICAL AND HORIZONTAL LOADS AS WELL AS MOMENTS WHEN REQUIRED PER CISC STANDARDS.
- 10. FABRICATION, ERECTION AND WORKMANSHIP SHALL CONFORM TO CSA S16.1.
- 11. ALL WELDING SHALL CONFORM TO CSA W59 AND SHALL BE PERFORMED BY A WELDER QUALIFIED UNDER CSA W47.
- SPOT PRIME ALL WELDED AREAS. 13. REMOVE PAINT FILM FROM ALL STEEL SURFACES TO BE WELDED. SPOT PRIME AS
- REQUIRED. 14. ALL WELDED CONNECTIONS SHALL BE WITH CSA W48 SERIES ELECTRODES. 15. PROVIDE DRAINAGE HOLES TO ARCHITECT'S APPROVAL IN ALL EXPOSED EXTERIOR HSS
- FRAMING. 16. PROVIDE CAP PLATES ON ALL HSS FRAMING MEMBERS UNLESS NOTED OTHERWISE.
- 17. DO NOT CUT OR CORE ANY OPENINGS IN ANY STRUCTURAL STEEL MEMBERS WITHOUT PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER. 18. WHERE A STRUCTURAL STEEL SHAPE SHOWN ON THE DRAWINGS IS UNAVAILABLE, A
- SHAPE OF EQUAL OR GREATER SECTION PROPERTIES AND STRUCTURAL CAPACITY SHALL BE SUBSTITUTED, UPON APPROVAL BY OWNER AND CONSULTANT AT NO EXTRA COST.
- 19. ALL EXPOSED STEEL SHALL BE HOT DIP GALVANIZED.
- 20. ALL STRUCTURAL STEEL SHALL BE PAINTED WITH ONE SHOP APPLIED COAT OF PRIMER. SPOT PRIME ALL WELDED AREAS.

TEMPORARY WORKS

- 1. THE CONTRACTOR SHALL DESIGN, PROVIDE, ERECT, MAINTAIN REMOVE AND ASSUME FULL AND SOLE RESPONSIBILITY FOR ALL TEMPORARY WORKS REQUIRED FOR THE SAFE AND COMPLETE EXECUTION OF THE WORKS.
- 2. IN THE EXECUTION OF THE TEMPORARY WORKS AND FOR THE DURATION OF THE CONTRACT, THE CONTRACTOR SHALL MAKE ADEQUATE PROVISION FOR ALL LIKELY CONSTRUCTION LOADING AND PROVIDE SUFFICIENT BRACING AND PROPS TO KEEP THE WORKS IN PLUMB AND ALIGNMENT AND FREE FROM EXCESSIVE DEFLECTION.
- 3. ACCESS OF HEAVY CONSTRUCTION EQUIPMENT AND ACCUMULATION OF CONSTRUCTION MATERIALS ON THE FLOORS ARE NOT PERMITTED, UNLESS SUCH HAVE BEEN CATERED FOR IN THE CONTRACTOR'S TEMPORARY WORK DESIGN TO THE SATISFACTION OF THE
- 4. SUBMIT SHOP DRAWINGS FOR ALL TEMPORARY WORKS FOR REVIEW BEFORE DEMOLITION COMMENCES. SHOP DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO.

CONDUITS, PIPES AND SLEEVES EMBEDDED IN CONC. CONT'D

- D. ADD REINFORCING AT POINTS OF CONGESTION AS DIRECTED BY STRUCTURAL
- 2. FOR SLABS CONDUITS IN THE PLANE OF THE SLAB.
- A. LOCATE BETWEEN TOP AND BOTTOM REINFORCING.
- B. MAXIMUM SIZE IN ONE LAYER TO BE NOT MORE THAN 1/4 CONCRETE THICKNESS.
- C. THREE LAYERS OR MORE CROSSING WILL NOT BE PERMITTED.
- 3. FOR COLUMNS ELECTRICAL BOXES, CONDUIT, SLEEVES OR EMBEDDED PIPES ARE NOT ALLOWED WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
- 4. FOR BEAMS THE TOTAL MAXIMUM SIZE OF HORIZONTAL CONDUIT PARALLEL TO THE BEAM NOT TO EXCEED 4% OF THE AREA. NO SLEEVES THRU ANY BEAMS OR SLAB BANDS UNLESS APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.
- 5. FOR SHEAR WALLS ELECTRICAL BOXES, CONDUIT, SLEEVES OR EMBEDDED PIPES ARE NOT ALLOWED WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
- 6. FOR NON-SHEAR WALLS CONDUIT, SLEEVES OR EMBEDDED PIPES: MAX. DIAMETER = 1/4 WALL THICKNESS.
- NO HORIZONTAL RUNS PERMITTED. VERTICAL RUNS TO HAVE MINIMUM 50mm CONCRETE COVER AND SHALL HAVE A MINIMUM CLEAR SPACING OF 4 DIAMETERS.
- 7. SPACING OF SLEEVES THROUGH FLAT SLABS TO BE NOT LESS THEN THE FOLLOWING:
- SLEEVES IN FLAT SLABS NOT TO BE LOCATED NEXT TO COLUMNS UNLESS APPROVED BY ENGINEER IN WRITING. CLEAR DIMENSION FOR SLEEVES TO COLUMNS TO BE 1200mm MIN. UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS.

INSPECTIONS AND TESTING

1. THE FOLLOWING ITEMS SHALL BE INSPECTED OR TESTED BY INDEPENDENT INSPECTION/ TESTING AGENCIES DESIGNATED BY THE CONSULTANT AND SHALL BE PAID FROM CASH ALLOWANCES. MATERIALS AND WORKMANSHIP NOT CONFORMING TO THE SPECIFICATIONS SHALL BE REJECTED BY THE CONTRACTOR. REPORTS AND TEST RESULTS SHALL BE PROMPTLY SUBMITTED TO THE ENGINEER FOR REVIEW. TESTING SHALL INCLUDE BUT NOT BE LIMITED TO:

- 1. CONCRETE AND GROUT TESTING IN ACCORDANCE WITH CSA A23.2 LATEST EDITION AND THE SPECIFICATIONS, INCLUDING THE REQUIREMENTS OF SLUMP, AIR AND AGE PRIOR TO BEING USED. CONTRACTOR TO KEEP RECORDS OF POUR DATES, TESTING PERFORMED, CLASS OF CONCRETE USED AND TEST RESULTS FOR ALL ITEMS POURED.
- TESTING TO DETERMINE THE IN-SITU STRENGTH OF CONCRETE FOR EARLY FORM REMOVAL PURPOSES WITH THE TYPE OF TEST BEING DETERMINED ON THE ADVICE OF THE TESTING AGENCY. REPAIRS NECESSARY TO THE STRUCTURE AS A RESULT OF THESE TESTS SHALL BE MADE BY THE CONTRACTOR AT NO
- APPROVAL OF CONCRETE AND MORTAR MIX DESIGNS.
- 4. TESTING AS REQUIRED AND SPECIFIED BY THE ENGINEER TO DETERMINE THE IN-SITU STRENGTH OF CONCRETE WHICH FAILS TO MEET THE SPECIFIED REQUIREMENTS OR WHICH, DUE TO APPEARANCE, DAMAGE OR DEFECTS MAY BE DEEMED REJECTABLE. CORES SHALL BE ACQUIRED AND TESTED BY THE DESIGNATED TESTING AGENCY BUT ANY REPAIRS NECESSARY TO THE STRUCTURE AS A RESULT OF THESE TESTS SHALL BE PERFORMED AT NO COST TO THE

ENGINEERED MASONRY TEST

1. TESTS TO VERIFY STRENGTH OF GROUT AND MORTAR. STRUCTURAL STEEL

- . VISUAL INSPECTION OF ALL WELDS, TORQUE TESTING OF BOLTED CONNECTIONS
- NON-DESTRUCTIVE TESTING TO VERIFY THE QUALITY OF WELDING. WHERE DEEMED QUESTIONABLE BY VISIBLE DEFECTS OR WHERE REQUIRED BY THE ENGINEER. REINFORCING STEEL

AND CHECK ON BEARING, PLUMBNESS AND ALIGNMENT OF STEEL STRUCTURES.

CONTRACTOR SHALL ADVISE AGENCY OF REQUIRED REINFORCING STEEL INSPECTIONS AT LEAST 24 HOURS PRIOR TO CLOSING OF COLLIMN OR WALL FORMS AND 24 HOURS PRIOR TO PLACING OF CONCRETE IN SLABS, FOOTINGS,

- STEEL JOISTS AND BRIDGING TO BE IN ACCORDANCE WITH CAN/CSA S16.1 LATEST EDITION AND CSA-S136 LATEST EDITION WITH BRIDGING DESIGNED AND DETAILED BY THE MANUFACTURER. BRIDGING SHALL EXTEND AND BE CONNECTED TO ABUTTING WALLS
- JOIST DESIGNER SHALL BE RESPONSIBLE FOR CONNECTIONS BETWEEN BRIDGING AND 12. ALL STRUCTURAL STEEL SHALL BE PAINTED WITH ONE SHOP APPLIED COAT OF PRIMER. SUPPORTING AND/OR MASONRY STRUCTURE.
 - MECHANICAL LOADING ALLOWANCES SHOWN ON THE DRAWINGS ARE FOR DESIGN PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THAT THE LOADS USED BY THE JOIST DESIGNER ACCURATELY REFLECT THE ACTUAL UNIT OPERATING WEIGHTS INCLUDING PIPES, DUCTS AND OTHER EQUIPMENT BEING INSTALLED.
 - 4. CAMBER JOISTS FOR DEAD LOAD.
 - 5. LIMIT LIVE LOAD DEFLECTION OF JOISTS TO L/360 FOR LIVE LOAD AND L/240 FOR SERVICE LOADS UNLESS NOTED OTHERWISE ON PLANS.
 - WHERE CONCENTRATED LOADS DO NOT INTERSECT OWSJ PANEL POINTS, PROVIDE ADDITIONAL JOIST WEB DIAGONAL BETWEEN CONCENTRATED LOAD AND NEAREST PANEL POINT. REFER TO TYPICAL DETAILS FOR ADDITIONAL INFORMATION.
 - HANGERS FOR SUSPENSION OF DUCTS, PIPES OR CEILING SHALL BE CONNECTED TO JOIST PANEL POINT ONLY. PIPES 50mm O.D. OR LARGER SHALL BE HUNG FROM TOP CHORD PANEL POINTS. USE APPROVED CLAMPING DEVICE OR U-BOLT TYPE CONNECTION ONLY. NO WELDING, CUTTING OR DRILLING IS PERMITTED ON OWSJ OR BRIDGING.

STEEL DECK

- 1. STEEL SHEET TO CSSB1-10M GRADE A STRUCTURAL QUALITY (fy=230 MPa).
- 2. SPAN DECK OVER AT LEAST 3 SPANS AND PROVIDE INCREASED MATERIAL THICKNESS TO COMPENSATE FOR DISCONTINUITY WHERE LESS THAN 3 SPANS OCCUR.
- 3. DO NOT SUPPORT CEILING, LIGHTS, DUCTS OR PIPE FROM STEEL DECK.
- 4. PROVIDE CELL CLOSURES AT SUPPORTS UNLESS NOTED OTHERWISE. 5. PROVIDE CLEAN FORMED EDGE AT ENDS OF COMPOSITE SLAB OPENINGS.
- 6. GROUT UNDERSIDE OF STEEL FLUTES SOLID WHERE FLOOR DECK SUPPORTS MASONRY
- STEEL DECK SHALL BE SPOT WELDED TO STRUCTURAL STEEL BY 19mm DIA. FUSION WELDS SPACED AT 300mm CENTRE, WITH A WELD ON EACH SIDE OF A SIDE LAPPED JOINT UNLESS OTHERWISE NOTED. SHEET TO BE BUTTON PUNCHED AT 610mm (24")
- 8. STEEL DECK SHALL HAVE ADEQUATE CAPACITY TO SUPPORT LOADS GIVEN ON DRAWINGS.
- 9. STEEL DECK SUB-CONTRACTOR SHALL REINFORCE DECK FOR ROOF OPENINGS 150mm (6") TO 300mm (12") SQUARE ON SITE.

STRUCTURAL DRAWING LIST

PLANS

SECTIONS

SECTIONS

SECTIONS

FRAMING PLANS

FRAMING ELEVATIONS

FOUNDATION SECTIONS

GENERAL NOTES, SCHEDULES,

ABBREVIATIONS & DRAWING LIST

DEMOLITION & NEW FOUNDATION

PART 2ND FLOOR AND LOW ROOF

PART HIGH ROOF FRAMING PLAN

TYPICAL DETAILS & SCHEDULES

S101

S201

S202

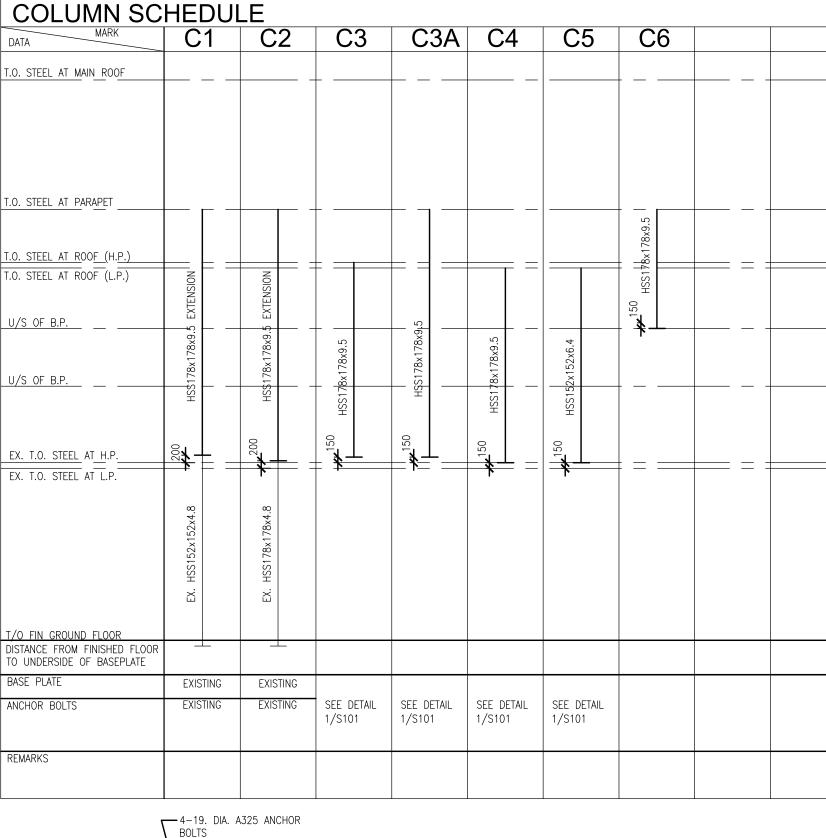
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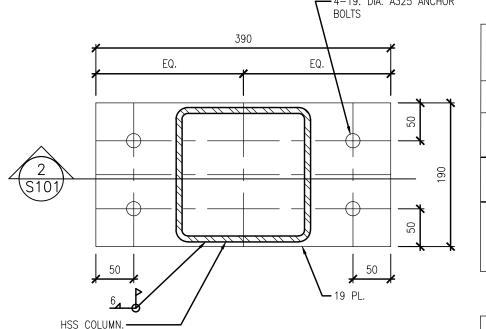
S502

S503

S504

BASE PLATE SECTION \S101/





BASE PLATE DETAIL

—50mm NON<\$HRINK

GROUT LEVELING BED.

ANCHOR BOLTS. MIN.

· L--- △

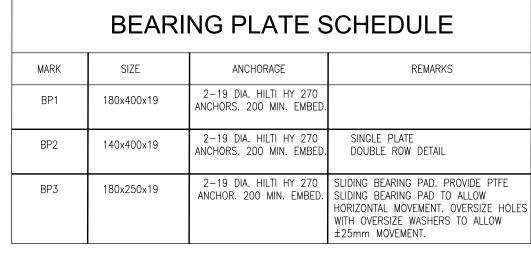
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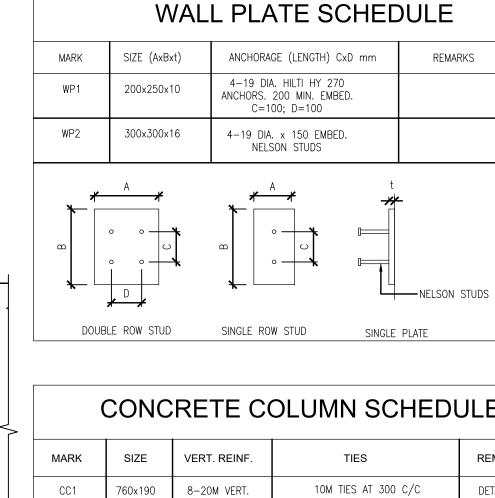
300 EMBED + 50

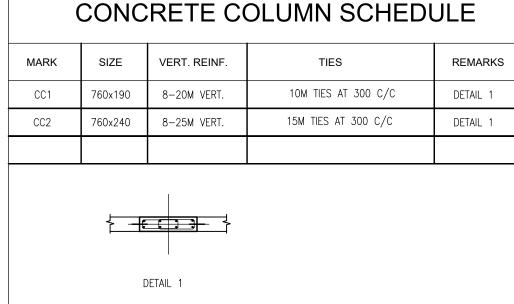
HOOK.

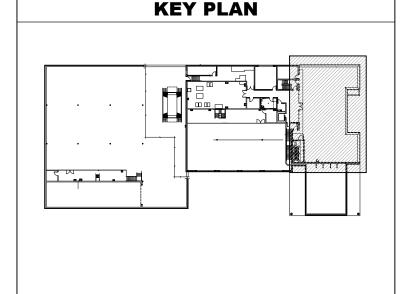
\S101,

CONCRETE COLUMN -









NOTES

ISSUES AND REVISIONS ISSUE OR REVISION TO DRAWING DATE ISSUED FOR 33% CLIENT REVIEW 09/08/2023 BBA 10/31/2023 BBA ISSUED FOR FINAL REVIEW ISSUED FOR PERMIT 12/19/2023 BBA ISSUED FOR 99% CLIENT REVIEW 01/18/2024 BBA ISSUED FOR TENDER 02/27/2024 BBA

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Fax: (905) 666-5256 PROJECT TITLE AND ADDRESS SECOND FLOOR EXPANSION

3190 MAVIS RD., MISSISSAUGA, ON

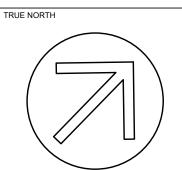
CONSTRUCTION NORTH

REGION OF PEEL PROJECT NUMBER

22701

REGIONAL MUNICIPALITY OF PEEL DRAWING TITLE

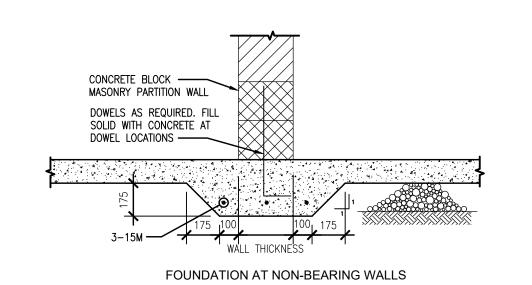
GENERAL NOTES, SCHEDULES, ABBREVIATIONS & DRAWING LIST



LQ/CM 1:100 08/01/2023

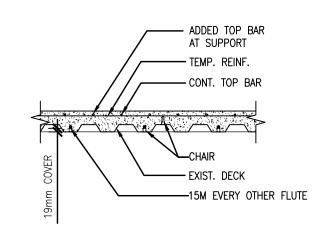
CONSULTANT PROJECT NUMBER PURCHASING DOCUMENT NUMBER

RAWING NUMBER **S101**





TYPICAL SLAB THICKENING



- 1. ONE 15M BOTTOM EVERY SECOND FLUTE 2. 10M @ 300mm C/C TOP CONT. (MIN. LAP
- SPLICE AT MIDSPAN AS REQUIRED. 3. AT DISCONTINUOUS ENDS OF SLABS, OPENINGS,
- ETC. ADD 10M @ 300mm C/C TOP 600mm LG 4. TEMPERATURE REINFORCING 10M @ 400mm C/C
- (MIN LAP 450mm). 5. ÖVER BEAMS PARALLEL TO THE SPAN OF THE
- DECK ADD 10M @ 400mm C/C 1800 LG.



NEW CONCRETE SLAB REINFORCING DETAILS



10M DOWELS AT 600 C/C.

EPOXY INTO EXIST. SLAB

152x152xMW18.7xMW18.7 -

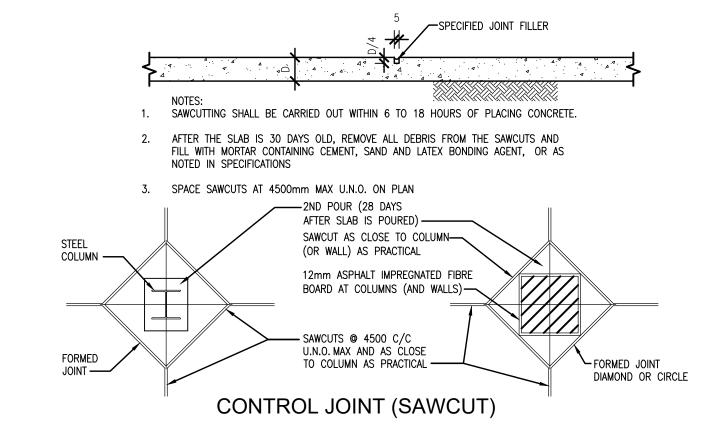
NEW CONC. SLAB (TO MATCH EXISTING)

MIN. 100

TYP. SLAB-TO-SLAB CONNECTION DETAIL

- EXIST. CONC. SLAB

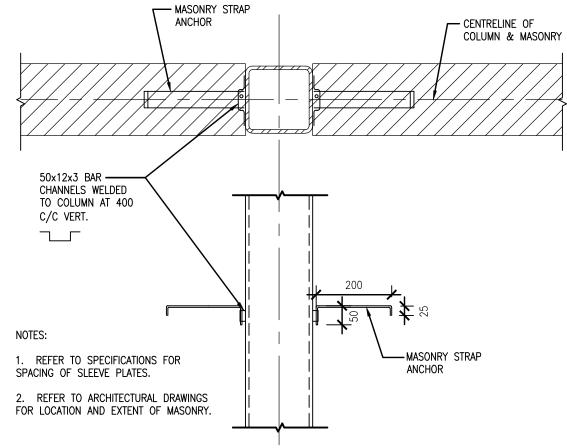
- MIN. 152 GRANULAR 'A' COMPACTED TO 100% SPMDD



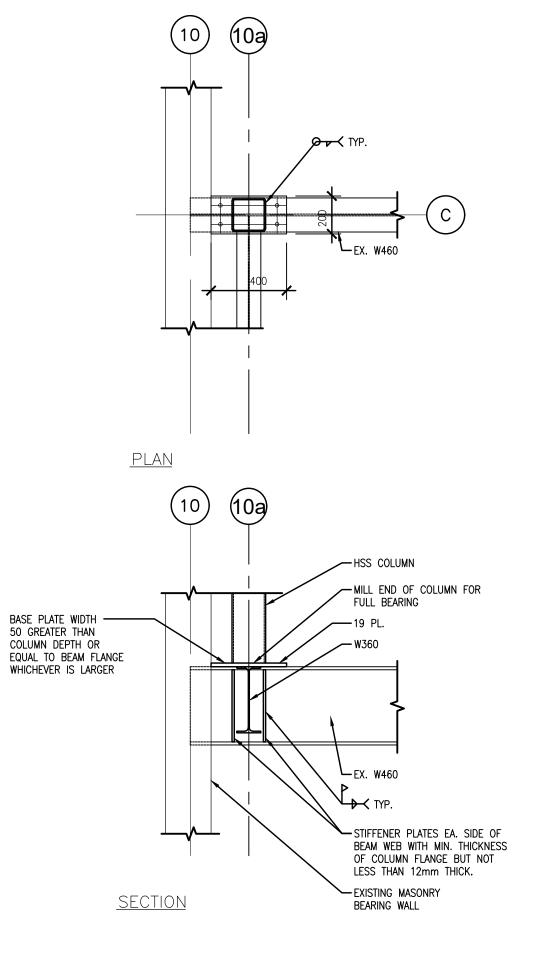


6 S102

CONCRETE SLAB SAWCUTTING



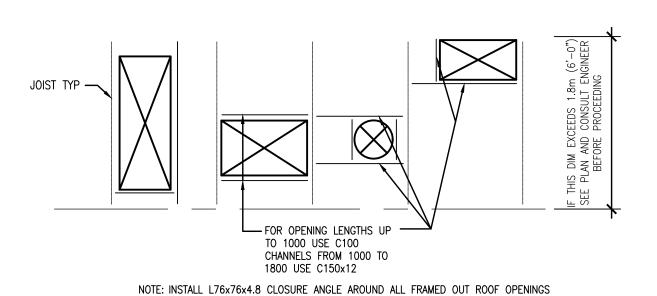




1. CONTRACTOR TO DETERMINE IF BOLTS ARE TO BE SLIP CRITICAL, PRETENSIONED OR SNUG TIGHT BASED ONTHE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND THE FORCES ACTING ON THE CONNECTIONS DURING CONSTRUCTION AND UNDER FULL DESIGN LOADS. 2. DETAILS ARE REPRESENTATIVE ONLY. THE STRUCTURAL STEEL CONTRACTOR IS SOLELY RESPONSIBLE FOR THE =FINAL CONNECTION CONFIGURATION, DESIGN AND DETAILSING OF HE CONNECTION BASED ON THE PROJECT SPECIFIC REQUIREMENTS. IF THE CONTRACTOR WISHES TO ALTER THE BASIC CONFIGURATION OF HTE CONNECTION, DETAILED DESIGN CALCULATIONS ARE TO BE SUBMITTED FOR REVIEW WELL IN ADVANCE OF HTE SUBMISSION OF DETAILED SHOP DRAWINGS.

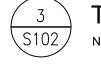


STEEL COLUMN BEARING ON BEAM



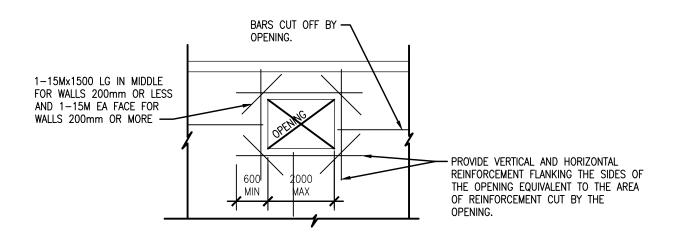
ADD ANGLE MIN. L55x55x6 AS REQUIRED WHERE CHANNEL OR 'W' SECTION IS NOT LOCATED AT TOP CHORD PANEL POINT LINE OF EQUIPMENT — ROOF MOUNTED FRAME BY MECHANICAL CONTRACTOR DIRECTLY ON STRUCTURAL REFER TO DETAILS OR STRUCTURAL DRAWINGS FOR ROOF OPENING JOIST REINFORCING FOR LOAD BETWEEN PANEL POINTS SUPPORT SIZE

- 1. TOP OF ALL TRIMMING STEEL TO BE AT THE UNDERSIDE OF STEEL ROOF DECK, UNLESS OTHERWISE NOTED.
- 2. LOCATION OF ALL MECHANICAL UNITS AND OPENING THROUGH ROOF IS BASED ON INFORMATION SUPPLIED BY MECHANICAL DRAWINGS. THE STRUCTURAL STEEL CONTRACTOR MUST CONFIRM ALL THESE DIMENSIONS AND SIZES WITH THE MECHANICAL CONTRACTOR. OWSJ MUST BE DESIGNED FOR ADDITIONAL LOADS FROM MECHANICAL UNITS. IF LOCATION OR DETAILS VARY FROM THOSE SHOWN THE STRUCTURAL ENGINEER MUST BE INFORMED AND INSTRUCTIONS RECEIVED BEFORE PROCEEDING WITH THE WORK.
- 3. THE STRUCTURAL STEEL CONTRACTOR SHOULD SUBMIT ERECTION DRAWINGS TO THE MECHANICAL ENGINEER AND OR CONTRACTOR FOR APPROVAL OF SIZE AND LOCATION OF OPENINGS FOR MECHANICAL UNITS.



TYPICAL ROOF OPENING FRAMING

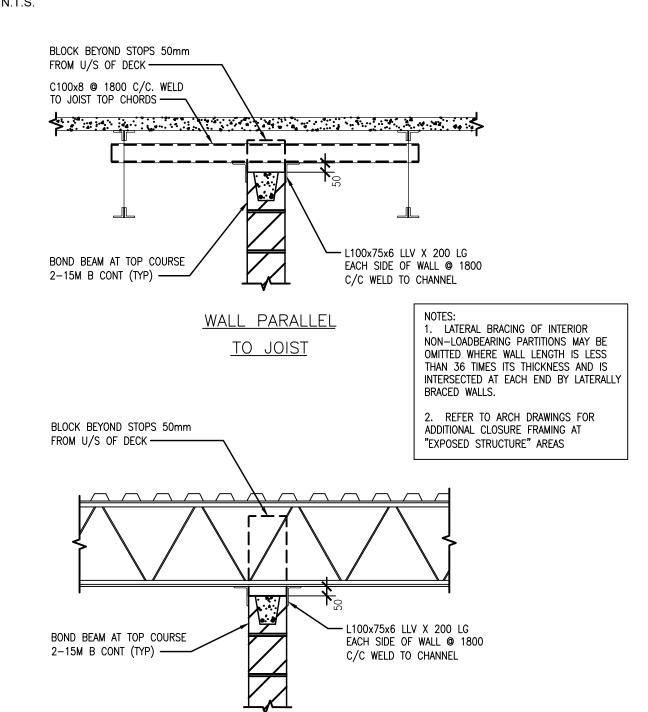
- 1. UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS, REINFORCE AROUND OPENING IN WALL AS PER DETAILS BELOW.
- 2. DO NOT MAKE OPENINGS LARGER THAN THE MAXIMUM DIMENSIONS NOTED BELOW WITHOUT PRIOR APPROVAL FROM THE ENGINEER OR UNLESS NOTED ON STRUCTURAL DRAWINGS.





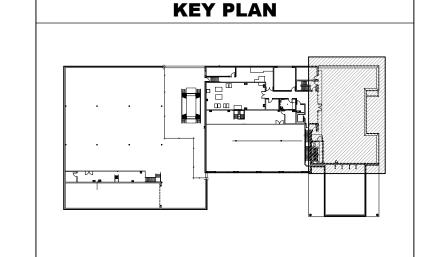
S102

REINFORCING FOR OPENINGS IN CONCRETE WALLS N.T.S.



TO JOIST LATERAL SUPPORT FOR INT. NON-LOAD BEARING WALLS

WALL PERPENDICULAR



NOTES

ISSUES AND REVISIONS		
ISSUE OR REVISION TO DRAWING	DATE	BY
ISSUED FOR 33% CLIENT REVIEW	09/08/2023	BBA
ISSUED FOR FINAL REVIEW	10/31/2023	BBA
ISSUED FOR PERMIT	12/19/2023	BBA
ISSUED FOR 99% CLIENT REVIEW	01/18/2024	BBA
ISSUED FOR TENDER	02/27/2024	BBA

Region of Peel

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CONSULTANT'S SEAL



BARRY BRYAN ASSOCIATES Engineers Project Managers

PROJECT TITLE AND ADDRESS

SECOND FLOOR EXPANSION 3190 MAVIS RD., MISSISSAUGA, ON REGIONAL MUNICIPALITY OF PEEL

Fax: (905) 666-5256

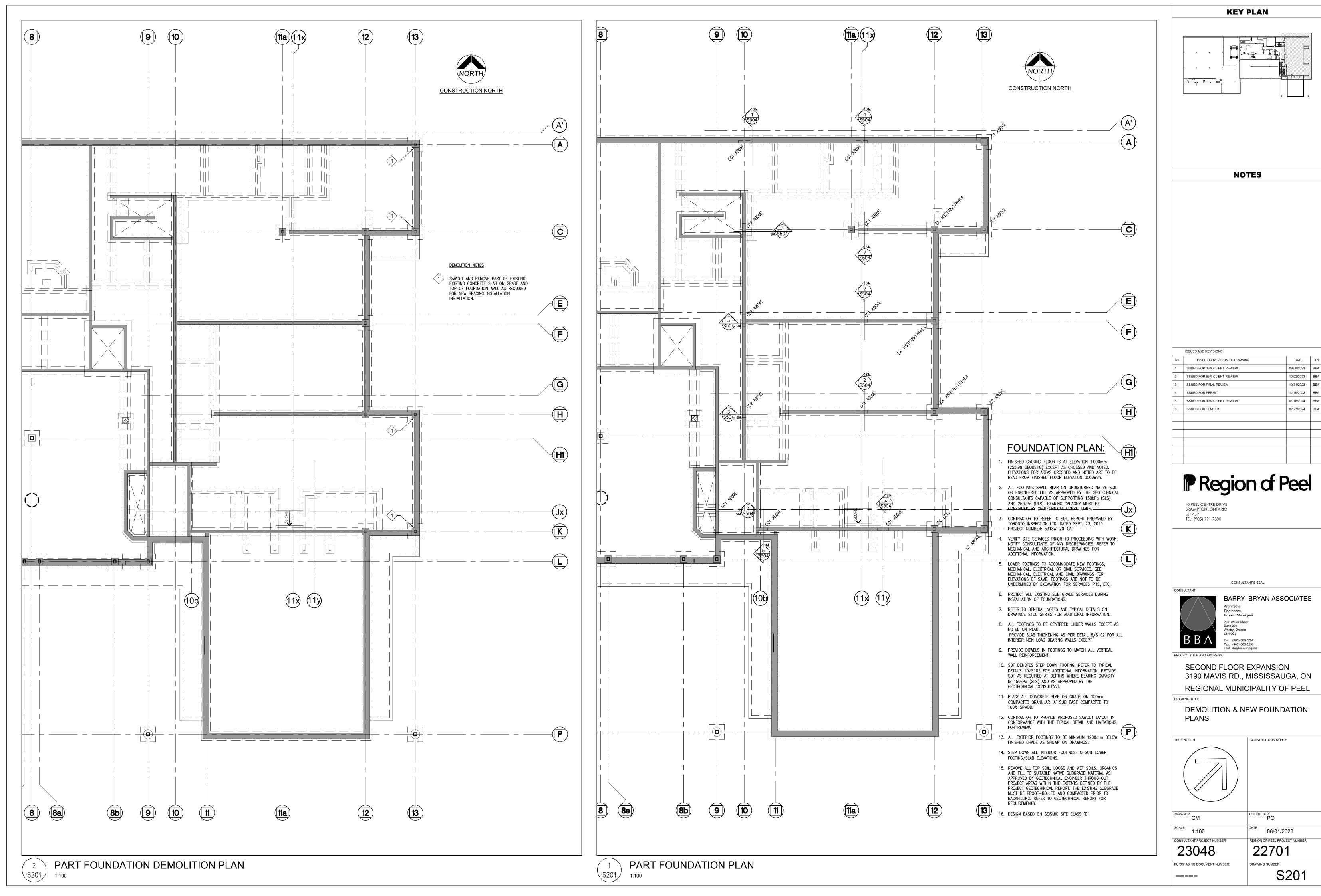
DRAWING TITLE TYPICAL DETAILS

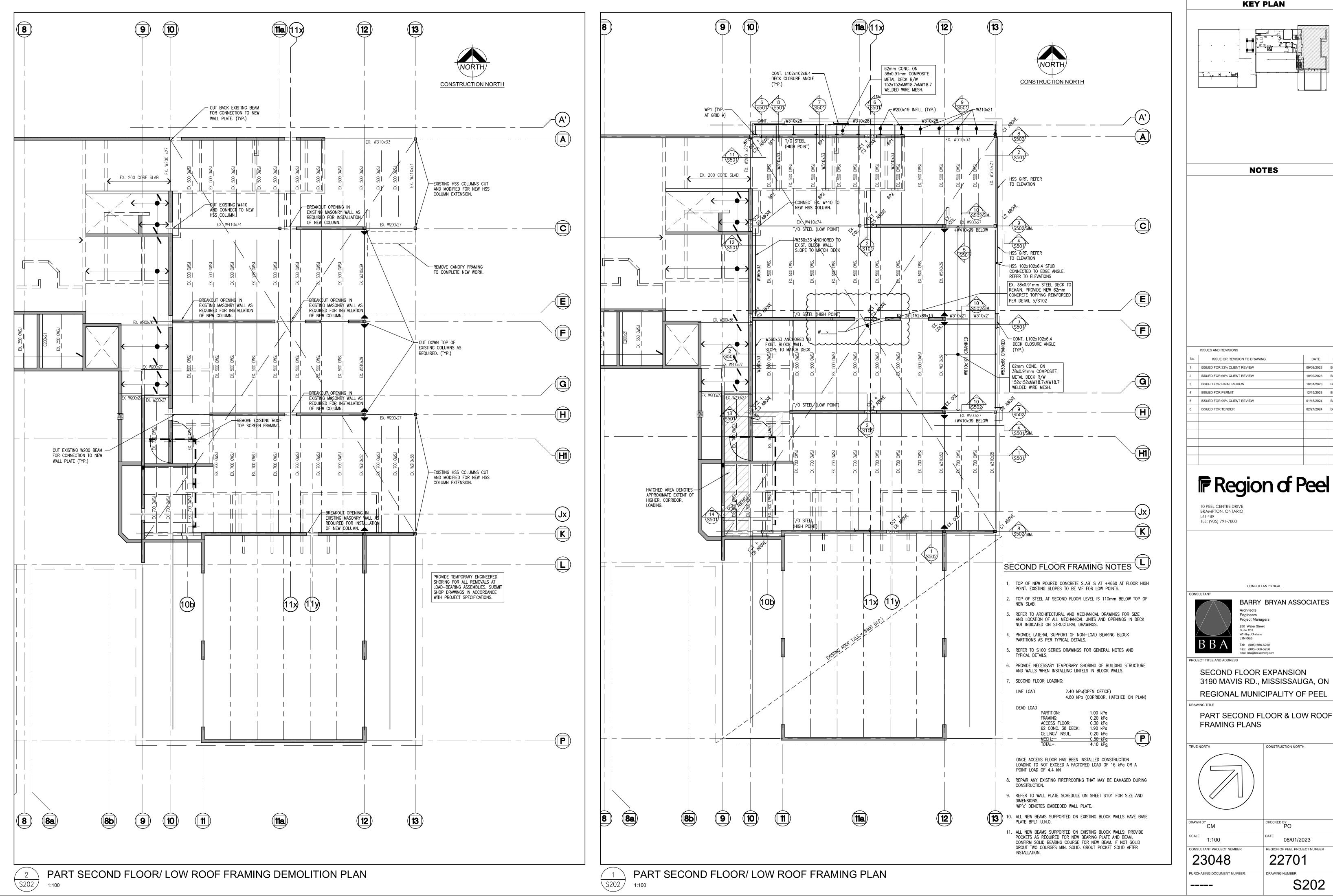
TRUE NORTH CONSTRUCTION NORTH

LQ/CM 08/01/2023 AS NOTED

CONSULTANT PROJECT NUMBER REGION OF PEEL PROJECT NUMBER 22701 23048 PURCHASING DOCUMENT NUMBER:

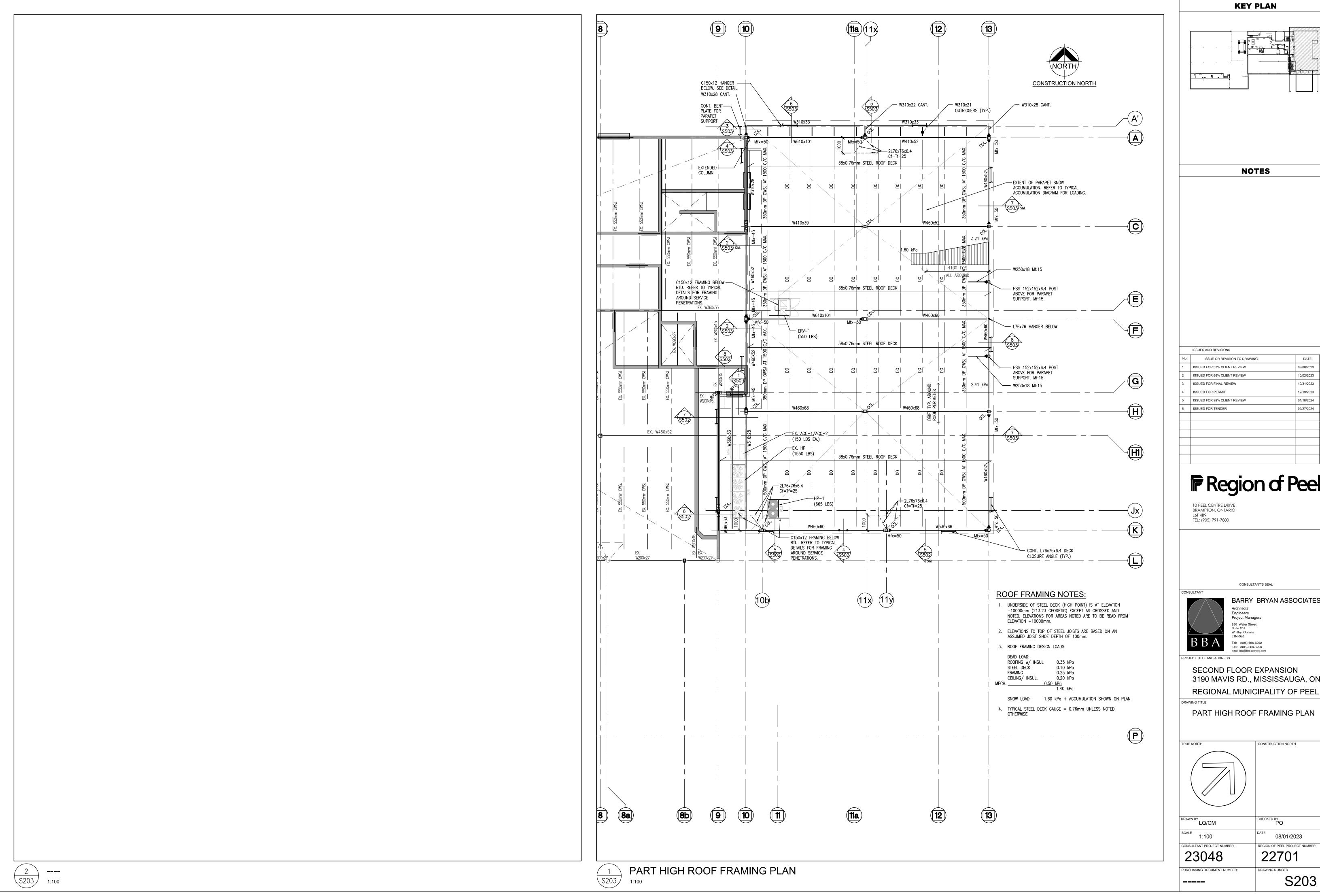
S102





No.	ISSUE OR REVISION TO DRAWING	DATE	E
1	ISSUED FOR 33% CLIENT REVIEW	09/08/2023	ВЕ
2	ISSUED FOR 66% CLIENT REVIEW	10/02/2023	ВЕ
3	ISSUED FOR FINAL REVIEW	10/31/2023	ВЕ
4	ISSUED FOR PERMIT	12/19/2023	ВЕ
5	ISSUED FOR 99% CLIENT REVIEW	01/18/2024	В
6	ISSUED FOR TENDER	02/27/2024	BE

BARRY BRYAN ASSOCIATES



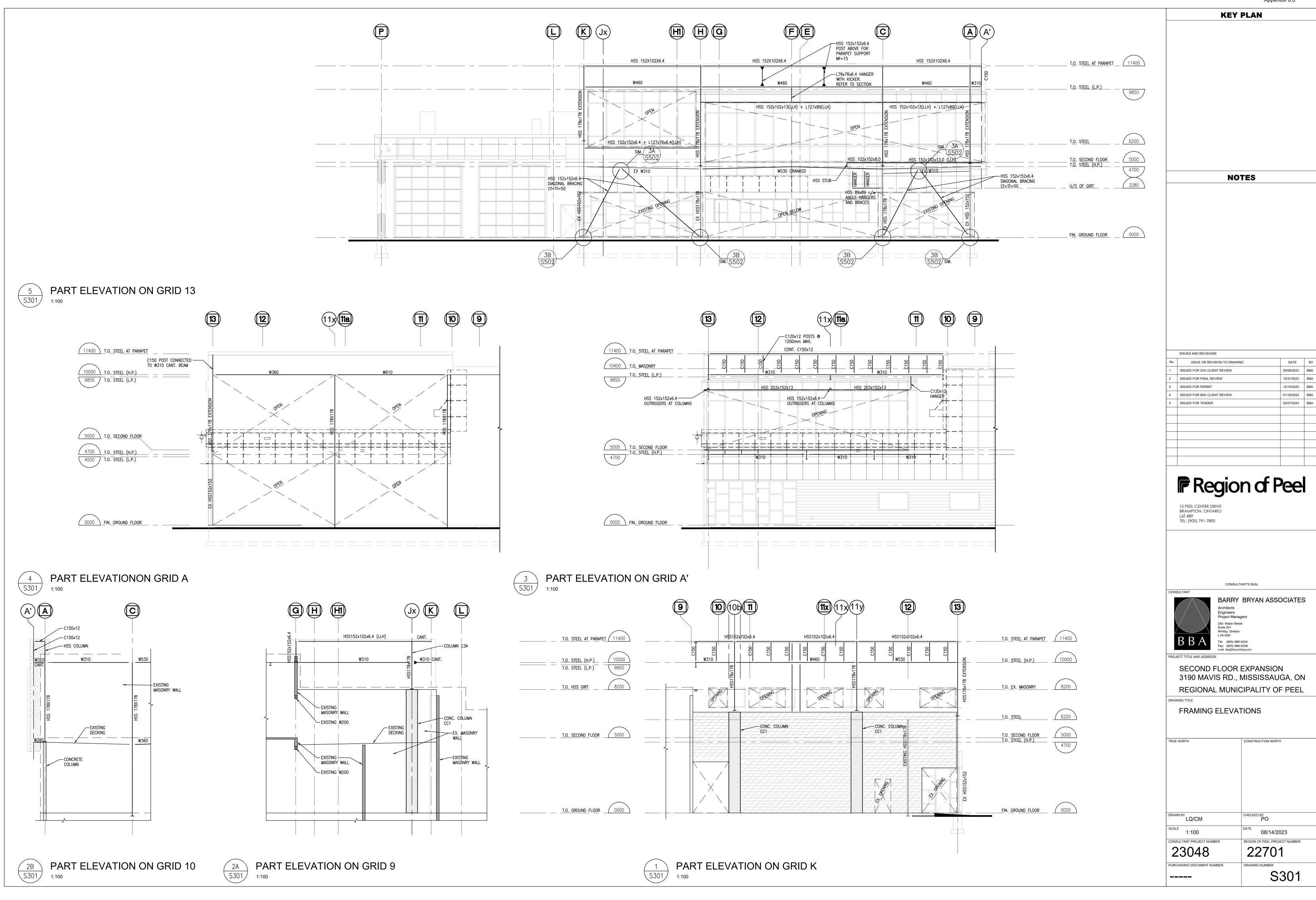
No.	ISSUE OR REVISION TO DRAWING	DATE	ı
1	ISSUED FOR 33% CLIENT REVIEW	09/08/2023	ВІ
2	ISSUED FOR 66% CLIENT REVIEW	10/02/2023	ВІ
3	ISSUED FOR FINAL REVIEW	10/31/2023	ВІ
4	ISSUED FOR PERMIT	12/19/2023	ВІ
5	ISSUED FOR 99% CLIENT REVIEW	01/18/2024	ВІ
6	ISSUED FOR TENDER	02/27/2024	ВІ

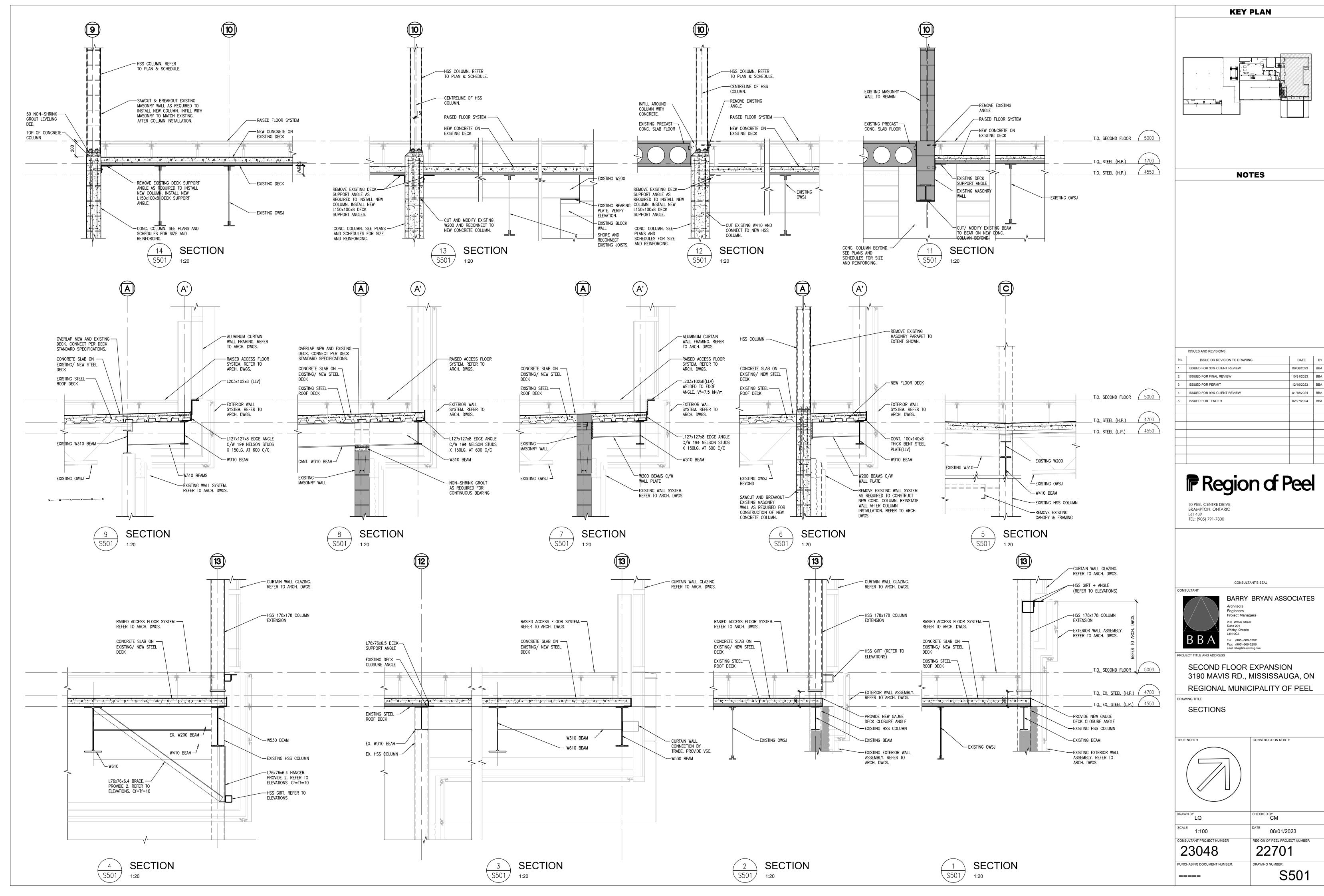
Region of Peel

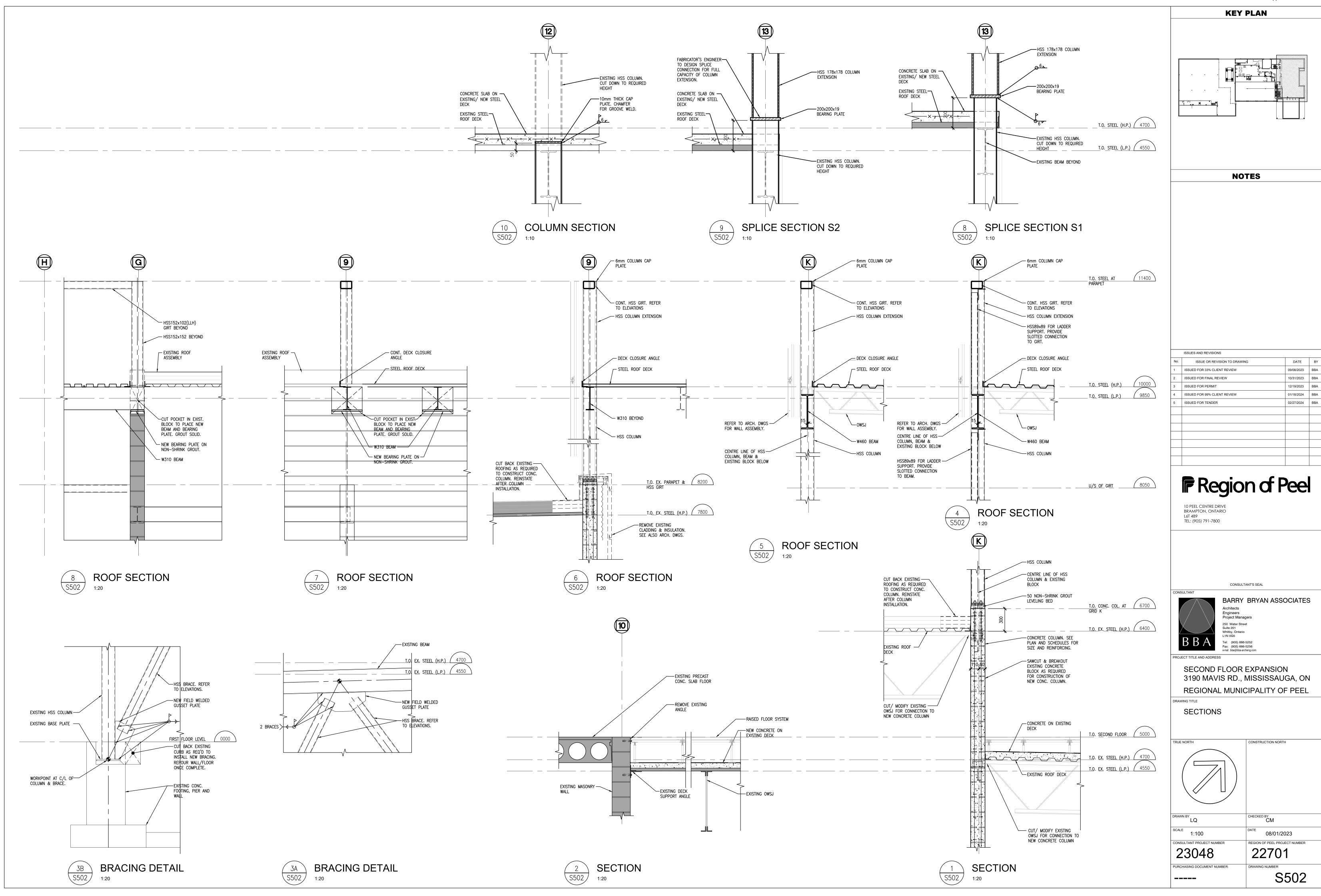
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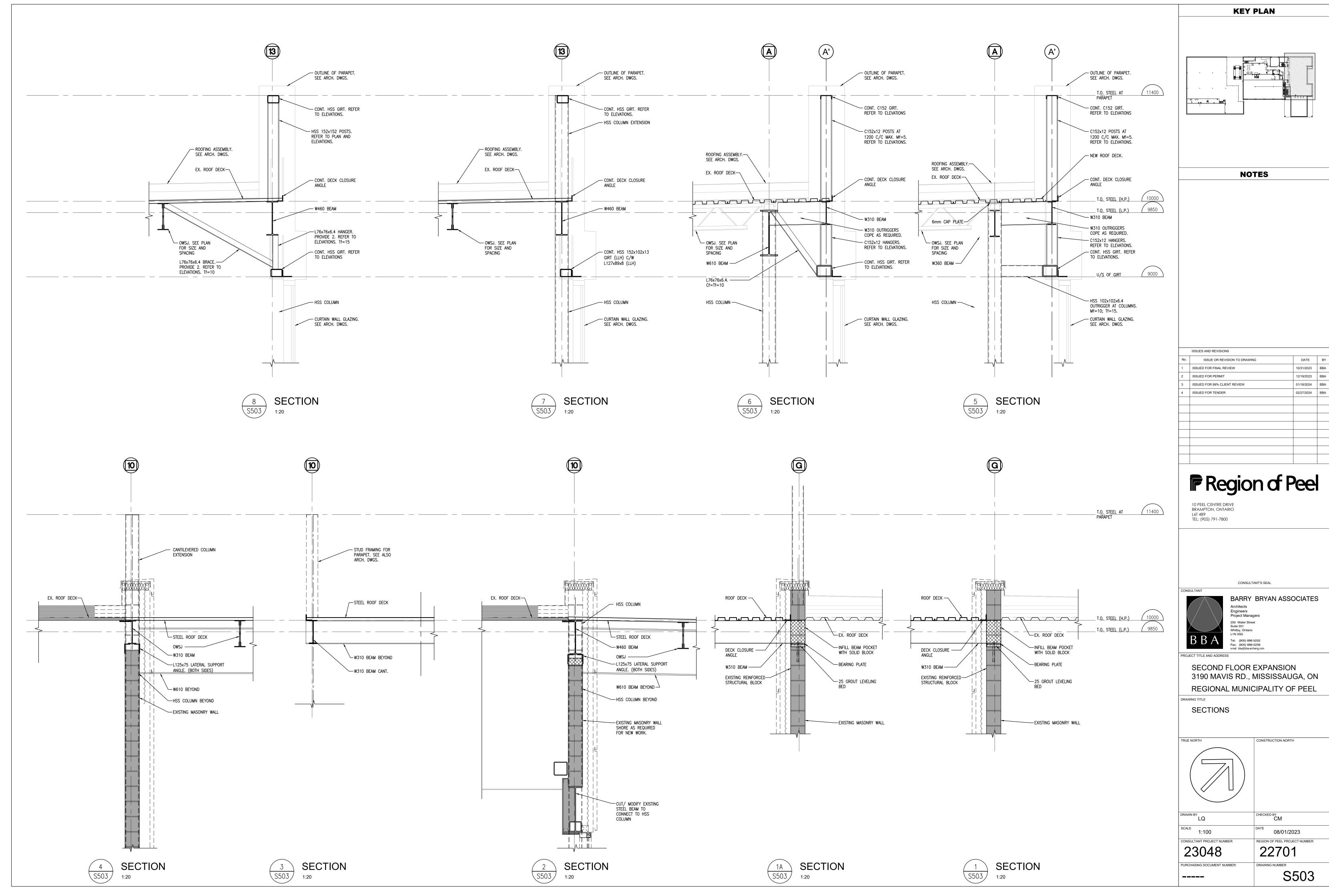
3190 MAVIS RD., MISSISSAUGA, ON

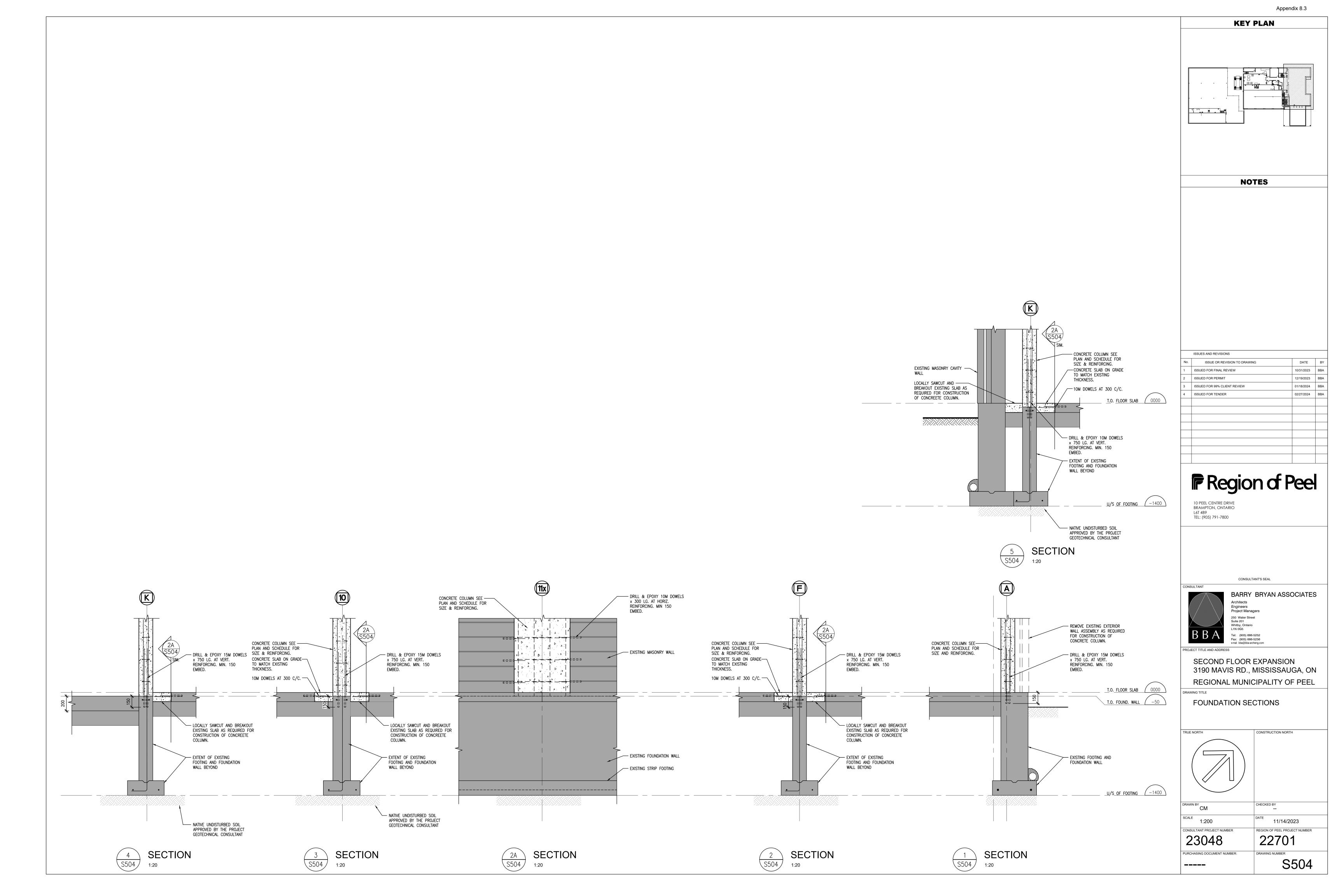
S203







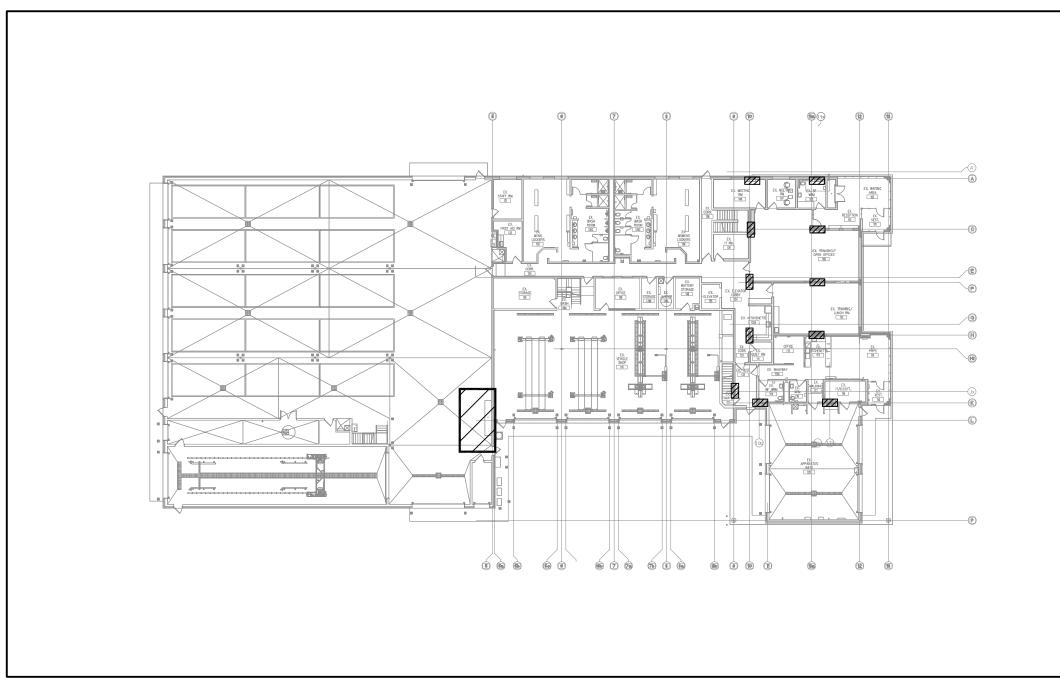




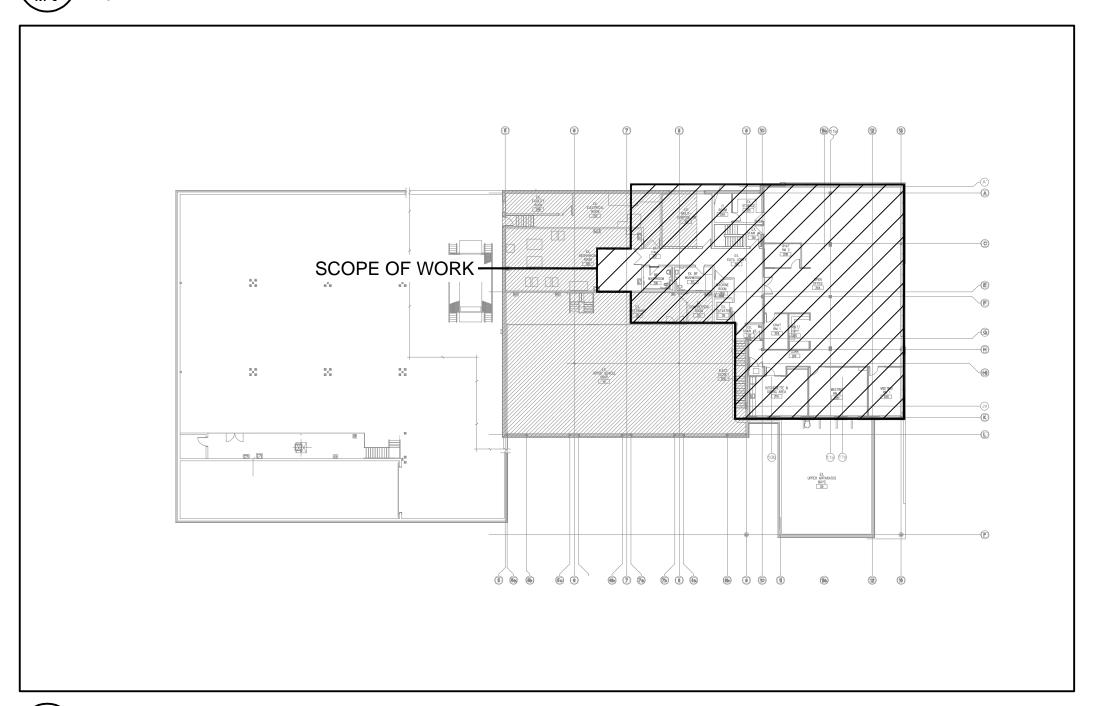
REGIONAL MUNICIPALITY OF PEEL SECOND FLOOR EXPANSION

3190 MAVIS ROAD MISSISSAUGA, ON

MECHANICAL DRAWINGS

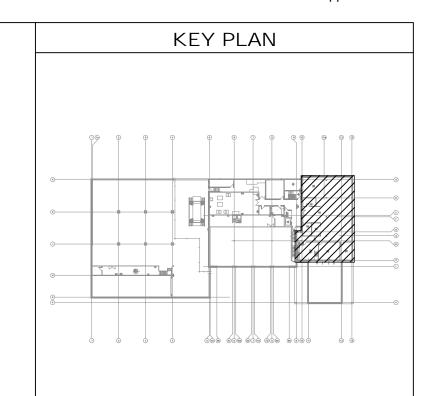


1 KEYPLAN - GROUND FLOOR NTS



KEYPLAN - SECOND FLOOR 2 M-0

	DRAWING LIST
DWG. NO.	DRAWING NAME
M-0	TITLE SHEET
M-1.1	MECHANICAL LEGEND
M-1.2	MECHANICAL SCHEDULES
M-1.3	MECHANICAL DETAILS I
M-1.4	MECHANICAL DETAILS II
M-2.1	PART ROOF PLAN - MECHANICAL DEMOLITION
M-2.2	PART ROOF PLAN - MECHANICAL NEW
M-2.3	PART SECOND FLOOR PLAN - HVAC DEMOLITION
M-2.4	PART SECOND FLOOR PLAN - HVAC NEW
M-2.5	PART SECOND FLOOR PLAN - HYDRONIC PIPING SYSTEM
M-2.6	PART GROUND FLOOR PLAN - REFRIGERANT PIPING DEMOLITION
M-2.7	PART GROUND FLOOR PLAN - REFRIGERANT PIPING NEW
M-2.8	PART SECOND FLOOR PLAN - REFRIGERANT PIPING
M-2.9	PART GROUND FLOOR PLAN - MECHANICAL NEW FOR CONCRETE COLUMN
M-3.1	PART GROUND FLOOR PLAN — DRAINAGE
M-3.2	PART SECOND FLOOR PLAN - DRAINAGE NEW
M-3.3	PART SECOND FLOOR PLAN - PLUMBING
	PART SECOND FLOOR PLAN - FIRE PROTECTION NEW



NOTES

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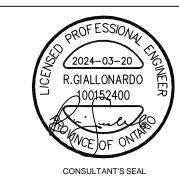
This drawing shall be read in conjunction with the architectural, structural, electrical and all other consultant's drawings prior to proceeding with the work. Do not scale

The contractor is to verify and accept responsibility for all dimensions and conditions on site and must notify GIALLONARDO ENGINEERING INC. of any

	ISSUES AND REVISIONS		
No.	ISSUE OR REVISION TO DRAWING	DATE	BY
1	ISSUED FOR 50% REVIEW	2023-09-08	SW
2	ISSUED FOR COORDINATION	2023-10-27	GG
3	ISSUED FOR 80% REVIEW	2023-10-31	GG
4	ISSUED FOR PERMIT	2023-12-20	GG
5	ISSUED FOR 99% REVIEW	2024-01-12	JH
6	ISSUED FOR FINAL REVIEW	2024-02-14	GG
7	ISSUED FOR TENDER	2024-03-20	RG



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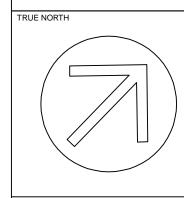
(905)265-1052 info@giallonardoeng.com www.giallonardoeng.com

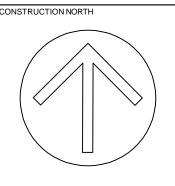
BARRY BRYAN ASSOCIATES



SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON

TITLE SHEET





SW SEPTEMBER 2023 REGION OF PEEL PROJECT NUMBER 22701

23-122

M-0

PURCHASING DOCUMENT NUMBER:

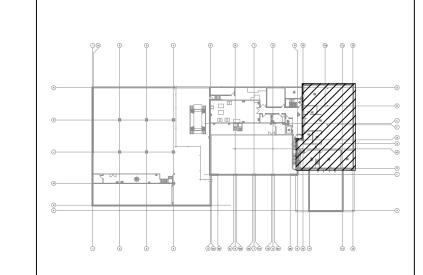
	HVAC LEGEND										
	EXISTING DUCTWORK/EQUIPMENT										
	EXISTING DUCTWORK/EQUIPMENT TO BE REMOVED										
	NEW RIGID DUCTWORK										
	EXISTING FLEXIBLE DUCTWORK										
	NEW FLEXIBLE DUCTWORK										
	SUPPLY AIR DUCTWORK UP										
	SUPPLY AIR DUCTWORK DOWN										
	RETURN AIR DUCTWORK UP										
	RETURN AIR DUCTWORK DOWN										
S/A	'SUPPLY AIR'										
R/A	'RETURN AIR'										
F/D	'FIRE DAMPER'										
L BD	'BALANCING DAMPER'										
BDD	'BACKDRAFT DAMPER'										
₽ м/D	'MOTORIZED DAMPER'										
\square	SQUARE SUPPLY AIR DIFFUSER										
\square	SUPPLY AIR GRILLE										
	RETURN AIR GRILLE										
	SLOT DIFFUSER										
①	THERMOSTAT										
•	HUMIDISTAT										
©	CARBON DIOXIDE SENSOR										
©	CARBON MONOXIDE DETECTOR										
©	ZONE SENSOR										
A-6"ø 150CFM	DIFF TYPE/SIZE AIR CAPACITY										
TYP.	'TYPICAL'										
<u>X–XX</u>	EQUIPMENT TAG										
CTE	'CONNECT TO EXISTING'										
	VAV TERMINAL UNIT										
	CABINET EXHAUST FAN										
H _ H	INLINE EXHAUST FAN										
	BASEBOARD HEATER										
□ →	FORCE FLOW HEATER										
E=====	DUCTWORK WITH ACOUSTIC OR THERMAL INSULATION (SEE SPECS.)										
<u></u>	DUCTWORK WITH ACOUSTIC INSULATION										
<u> </u>	DUCTWORK WITH THERMAL INSULATION										
~	CONTINUATION OF DUCTWORK/PIPING										
	EXISTING CONTROL WIRING										
<u></u>	NEW CONTROL WIRING										
ф	SPIN-ON DUCT CONNECTION WITH BALANCING DAMPER										
7	DRAWING NOTE										
Ü	LOUVERED FACE SUPPLY/RETURN GRILLE										
CAP 🗖	CAP ON DUCTWORK										
▽	BRANCH ON DUCTWORK										
A B C	'A' - VAV INLET SIZE, 'B' - MIN CFM, 'C' - MAX CFM										
D/G	DOOR GRILLE										
OED	OPEN-ENDED DUCT										

	PIPING LEGEND										
EV LIWC	EVICTING LIFATING WATER CURRIEV										
EX.HWS —											
— EX.HWR — —											
—HWS —	HEATING WATER SUPPLY										
– —HWR — —											
— EX.CHWS —											
-EX.CHWR											
—— CHWS ——	CHILLED WATER SUPPLY										
- — CHWR — —	CHILLED WATER RETURN										
— EX.CWS —	EXISTING CONDENSER WATER SUPPLY										
EX.CWR	EXISTING CONDENSER WATER RETURN										
	CONDENSER WATER SUPPLY										
	CONDENSER WATER RETURN										
— REFL —	REFRIGERANT LIQUID LINE										
- - REFS	REFRIGERANT SUCTION LINE										
丛	3-PORT CONTROL VALVE										
丛	2-WAY CONTROL VALVE										
M	GATE VALVE										
M	GLOBE VALVE										
Ñ	CHECK VALVE										
CBV ™	CIRCUIT BALANCING VALVE										
×	BALL VALVE										
焓	SAFETY RELIEF VALVE										
\forall	STRAINER										
ıļı	UNION										
− D−	CONCENTRIC REDUCER										
-0-	ECCENTRIC REDUCER										
N.O.	'NORMALLY OPEN'										
N.C.	'NORMALLY CLOSED'										
 Θ	PRESSURE GAUGE										
<u>·</u> 	THERMOMETER										
<u> </u>	AQUASTAT										
PŖV	PRESSURE REDUCING VALVE										
∨B	VACUUM BREAKER										
FS	BACKFLOW PREVENTER FLOW SWITCH										
AAV Ū	AUTOMATIC AIR VENT										
LWCO	LOW WATER CUT-OFF										
▼	PLUG/COCK VALVE										
~ ~	BUTTERFLY VALVE										
Ų	TEST PORT										
igorplus	PUMP										
	CAP ON PIPING										
CAP n											
CAP 「	DRAWING NOTE										
	DRAWING NOTE ISOLATION VALVE										
7											

	PLUMBING LEGEND
- EX.SAN	EXISTING ABOVE GROUND SANITARY DRAINAGE PIPING
- EX.SAN	
—SAN ——	ABOVE GROUND SANITARY DRAINAGE PIPING
—SAN — —	UNDERGROUND SANITARY DRAINAGE PIPING
- EX.STM	EXISTING ABOVE GROUND STORM DRAINAGE PIPING
EX.STM —	EXISTING UNDERGROUND STORM DRAINAGE PIPING
— STM ——	ABOVE GROUND STORM DRAINAGE PIPING
—STM — —	UNDERGROUND STORM DRAINAGE PIPING
— EX.V ——	
EX.V	EXISTING UNDERGROUND VENT PIPING
V	ABOVE GROUND VENT PIPING
V	UNDERGROUND VENT PIPING
—EX.CD ——	EXISTING CONDENSATE DRAINAGE PIPING
—	CONDENSATE DRAINAGE PIPING
	EXISTING DOMESTIC COLD WATER PIPING
	DOMESTIC COLD WATER PIPING
	EXISTING DOMESTIC HOT WATER PIPING
	DOMESTIC HOT WATER PIPING
	EXISTING DOMESTIC HOT WATER RETURN PIPING
	DOMESTIC HOT WATER RETURN PIPING
— EX.G ——	EXISTING GAS PIPING
G	LOW PRESSURE GAS PIPING
—HPG ——	HIGH PRESSURE GAS PIPING
	EXISTING PIPING/EQUIPMENT TO BE REMOVED
SSSS	HEAT TRACING ON PIPE
₹	CONTINUATION OF DUCTWORK/PIPING
₹	GAS COCK VALVE
FD 🖨 FFD	FLOOR DRAIN/FUNNEL FLOOR DRAIN
HD o	HUB DRAIN
AD 🖸	AREA DRAIN
RD 🖶	ROOF DRAIN
СВ	CATCH BASIN
co a—	BURIED CLEANOUT
co I —	EXPOSED CLEANOUT
ি	SANITARY 'P' TRAP
~	PIPE UP
←	PIPE DOWN
VTR	VENT THROUGH ROOF
CAP n	CAP ON PIPING
7	DRAWING NOTE
×	ISOLATION VALVE
0	PIPING DROPDOWN
M	WATER METER

	FIRE PROTECTION LEGEND
0	UPRIGHT SPRINKLER HEAD
•	PENDENT SPRINKLER HEAD
Ө	RECESSED PENDENT SPRINKLER HEAD
0	CONCEALED SPRINKLER HEAD
Œ	FIRE EXTINGUISHER
FHC	FIRE HOSE CABINET
7	DRAWING NOTE





NOTES

DISCLAIMER This drawing is the property of GIALLONARDO ENGINEERING INC.

This drawing shall be read in conjunction with the architectural, structural, electrical and all other consultant's drawings prior to proceeding with the work. Do not scale

The contractor is to verify and accept responsibility for all dimensions and conditions on site and must notify GIALLONARDO ENGINEERING INC. of any variations from the drawings.

ISSUES AND REVISIONS

No.	ISSUE OR REVISION TO DRAWING	DATE	BY
1	ISSUED FOR 50% REVIEW	2023-09-08	sw
2	ISSUED FOR COORDINATION	2023-10-27	GG
3	ISSUED FOR 80% REVIEW	2023-10-31	GG
4	ISSUED FOR PERMIT	2023-12-20	GG
5	ISSUED FOR 99% REVIEW	2024-01-12	JH
6	ISSUED FOR FINAL REVIEW	2024-02-14	GG
7	ISSUED FOR TENDER	2024-03-20	RG



10 PEEL CENTRE DRIVE BRAMPTON, ONTARIO L6T 4B9 TEL: (905) 791-7800





220-4550 Highway 7 Woodbridge, ON L4L 4Y7

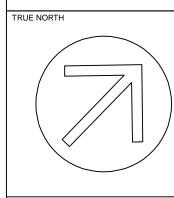
(905)265-1052 info@giallonardoeng.com www.giallonardoeng.com

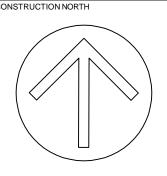


BARRY BRYAN ASSOCIATES

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON.

MECHANICAL LEGEND





SW AS SHOWN CONSULTANT PROJECT NUMBER

SEPTEMBER 2023 REGION OF PEEL PROJECT NUMBER 22701 23-122

PURCHASING DOCUMENT NUMBER:

M-1.1

	CONDENSING UNIT SCHEDULE															
			MODULES		NOM.	RATED COOLING	RATED HEATING CAPACITY (KW)	REFRIG. TYPE	PIPING CONNECTION		N ELECTRICAL CHARACTERISTICS			WEIGHT		
TAG	MANU.	MODEL		LOCATION	(TONS)	CAPACITY (KW)			LIQUID (MM)	SUCTION (MM)	V/PH/HZ	MCA (A)	MOCP (A)	(KG)	REMARKS	
HP-1	MITSUBISHI	PUHY-	PUHY-HP72	ROOF	12.0	21.1	23.5	R410A	10	20	208/3/60	38-35	60-50	276.0	PROVIDE UNIT C/W MANUFACTURER SUPPLIED ECOFOOT STAND AND LOW AMBIENT	
HP-1	ELECTRIC	HP144TSNU-A-TH	PUHY-HP72	ROUF	12.0	21.1	23.5	R410A	12	29	208/3/60	38-35	60-50	276.0	HEATING OPTION. EVAPORATOR AND ASSOCIATED CONDENSING UNIT RECEIVE SEPARATE POWER FEEDS.	
CU-1	MITSUBISHI ELECTRIC	PUY- A18NKA7	N/A	ROOF	1.5	5.3	N/A	R410A	12	6	208/1/60	11	28	44.9	PROVIDE UNIT C/W MANUFACTURER SUPPLIED ECOFOOT STAND AND LOW AMBIENT COOLING KIT WITH WIND SCREENS AND SNOW HOOD. ASSOCIATED EVAPORATOR IS POWERED THROUGH THIS CONDENSING UNIT.	
EX.HP	MITSUBISHI	DUDY DOOD	PURY-P144	D005	24.2	42.2	46.9	R410A			208/3/60	52	80	343.4	EXISTING UNIT AND ASSOCIATED STAND TO BE RELOCATED WHERE SHOWN ON	
(EXISTING)	ELECTRIC	PURY-P288	PURY-P144	ROOF	24.0	42.2	46.9	R410A	- 29	44	208/3/60	52	80	343.4	MECHANICAL DRAWINGS. EXTEND ELECTRICAL WIRING, CONTROL WIRING AND REFRIGERATION PIPING AS REQUIRED OR AS SHOWN ON MECHANICAL DRAWINGS.	
EX.ACCU-1 EX.ACCU-2 (EXISTING)	MITSUBISHI ELECTRIC	PUY- A30NHA7	N/A	ROOF	2.5	8.8	N/A	R410A	10	16	208/1/60	19	26	68.5	EXISTING UNIT AND ASSOCIATED STAND TO BE RELOCATED WHERE SHOWN ON MECHANICAL DRAWINGS. EXTEND ELECTRICAL WIRING, CONTROL WIRING AND REFRIGERATION PIPING AS REQUIRED OR AS SHOWN ON MECHANICAL DRAWINGS	
NOTES:					-						1	1				

ALL MOTORS, STARTERS, CONTACTORS, DISCONNECT SWITCHES AND CONTROL DEVICES SHALL BE PROVIDED BY DIV.23 AND INSTALLED BY DIV.26.

2. ALL LOW VOLTAGE WIRING AND CONDUIT TO BE PROVIDED BY DIV.23. REFER TO SPECIFICATIONS. 3. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

4. CONFIRM EXACT ROUTING AND REFRIGERANT LENGTH ON SITE PRIOR TO CONSTRUCTION; ENSURE LENGTH IS WITHIN THE MANUFACTURER'S PUBLISHED LIMITS.

5. SETUP, TESTING AND COMMISSIONING SHALL BE CARRIED OUT BY THE EQUIPMENT MANUFACTURER AT NO EXTRA COST TO THE CLIENT.

6. SUBMIT ALL REPORTS TO ENGINEER FOR REVIEW. '. CONNECT CONDENSING UNITS TO BAS AND MATCH DEVICES AND CONTROL STRATEGIES TO BASE BUILDING. PROVIDE BACNET ADAPTER FOR CONNECTION OF NEW CONDENSING UNITS TO EXISTING BAS.

	EVAPORATOR SCHEDULE															
T10	AAANII	MODEL	LOCATION	COND.	RATED COOLING	RATED HEATING	BLOWER PERFORMANCE		PIPING CONNECTION			ELECTRICAL CHARACTERISTICS			WEIGHT	DEMARKO
TAG	MANU.	MODEL	LOCATION	UNIT TAG	CAPACITY (KW)	CAPACITY (KW)	L/S	ESP (IN.WC)	LIQUID (MM)	SUCTION (MM)	COND. (MM)	V/PH/HZ	MCA (A)	BREAKER (A)	(KG)	REMARKS
AC-1	MITSUBISHI ELECTRIC	PEFY-P18NMAU -E4	MEETING RM. 2 201H	HP-1	5.5	6.1	283 HIGH	0.28	6	12	32	208/1/60	2.94	15	26.0	PROVIDE UNIT C/W BUILT-IN CONDENSATE PUMP. EVAPORATOR AND ASSOCIATED CONDENSING UNIT RECEIVE SEPARATE POWER FEEDS. PROVIDE WIRED THERMOSTAT.
AC-2	MITSUBISHI ELECTRIC	PEFY-P18NMAU -E4	MEETING RM. 1 201G	HP-1	5.5	6.1	283 HIGH	0.28	6	12	32	208/1/60	2.94	15	26.0	PROVIDE UNIT C/W BUILT-IN CONDENSATE PUMP. EVAPORATOR AND ASSOCIATED CONDENSING UNIT RECEIVE SEPARATE POWER FEEDS. PROVIDE WIRED THERMOSTAT.
AC-3	MITSUBISHI ELECTRIC	PEFY-P48NMAU -E4	OPEN OFFICE 201A	HP-1	14.1	15.8	616 HIGH	0.4	10	16	32	208/1/60	4.38	15	39.0	PROVIDE UNIT C/W BUILT-IN CONDENSATE PUMP. EVAPORATOR AND ASSOCIATED CONDENSING UNIT RECEIVE SEPARATE POWER FEEDS. PROVIDE WIRED THERMOSTAT
AC-4	MITSUBISHI ELECTRIC	PEFY-P48NMAU -E4	OPEN OFFICE 201A	HP-1	14.1	15.8	616 HIGH	0.4	10	16	32	208/1/60	4.38	15	39.0	PROVIDE UNIT C/W BUILT-IN CONDENSATE PUMP. EVAPORATOR AND ASSOCIATED CONDENSING UNIT RECEIVE SEPARATE POWER FEEDS. PROVIDE WIRED THERMOSTAT.
AC-5	MITSUBISHI ELECTRIC	PEFY-P18NMAU -E4	KITCHENETTE 201J	HP-1	5.5	6.1	283 HIGH	0.28	6	12	32	208/1/60	2.94	15	26.0	PROVIDE UNIT C/W BUILT-IN CONDENSATE PUMP. EVAPORATOR AND ASSOCIATED CONDENSING UNIT RECEIVE SEPARATE POWER FEEDS. PROVIDE WIRED THERMOSTAT.
AC-6	MITSUBISHI ELECTRIC	PKA-A18LA-TH	IT ROOM 205A	CU-1	5.0	N/A	212 HIGH	N/A	6	12	16	208/1/60	1	-	12.0	PROVIDE UNIT C/W WIRED THERMOSTAT AND MANUFACTURER SUPPLIED CONDENSATE PUMP. EVAPORATOR UNIT IS POWERED FROM ASSOCIATED CONDENSING UNIT.

1. ALL MOTORS, STARTERS, CONTACTORS, DISCONNECT SWITCHES AND CONTROL DEVICES SHALL BE PROVIDED BY DIV.23 AND INSTALLED BY DIV.26.
2. ALL LOW VOLTAGE WIRING AND CONDUIT TO BE PROVIDED BY DIV.23. REFER TO SPECIFICATIONS.
3. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND CSA B52.

4. CONFIRM EXACT ROUTING AND REFRIGERANT LENGTH ON SITE PRIOR TO CONSTRUCTION; ENSURE LENGTH IS WITHIN THE MANUFACTURER'S PUBLISHED LIMITS. 5. SETUP, TESTING AND COMMISSIONING SHALL BE CARRIED OUT BY THE EQUIPMENT MANUFACTURER AT NO EXTRA COST TO THE CLIENT.

6. SUBMIT ALL REPORTS TO ENGINEER FOR REVIEW.

	RADIANT PANEL SCHEDULE														
					PANEL	ACTIVE	ROWS	HEATING		TING WATE	R	TOTAL			
REF.	TYPE	MANU.	MODEL	CONFIG.	(MM)	LENGTH (MM)		OUTPUT DENSITY (W/M)	FLOW RATE (L/S)	EWT (°C)	LWT (°C)	CAPACITY (KW)	(FT.H2O)	REMARKS	
Α	RH-1 RH-2	ENGINEERED AIR	HEF-2	CEILING MOUNTED	450	7200	4	291	0.049	82.2	71.1	2.1		CEILING MOUNTED RADIANT PANEL HEATER, 450MM WIDE, CONSTRUCTED FROM ALUMINUM EXTRUSIONS EXACT PANEL LENGTH FIELD CUT ON SITE TO SUIT WALL TO WALL INSTALLATION. THERMOSTAT SHAL BE PROVIDED BY CONTROLS CONTRACTOR TO MATCH BASE BUILDING.	
В	RH-3 RH-4 RH-5	ENGINEERED AIR	HEF-2	CEILING MOUNTED	450	6600	4	291	0.045	82.2	71.1	1.9	1.8	CEILING MOUNTED RADIANT PANEL HEATER, 450MM WIDE, CONSTRUCTED FROM ALUMINUM EXTRUSIONS EXACT PANEL LENGTH FIELD CUT ON SITE TO SUIT WALL TO WALL INSTALLATION. THERMOSTAT SHALL BE PROVIDED BY CONTROLS CONTRACTOR TO MATCH BASE BUILDING.	
С	RH-6	ENGINEERED AIR	HEF-2	CEILING MOUNTED	450	8400	4	291	0.058	82.2	71.1	2.4	2.8	CEILING MOUNTED RADIANT PANEL HEATER, 450MM WIDE, CONSTRUCTED FROM ALUMINUM EXTRUSION: EXACT PANEL LENGTH FIELD CUT ON SITE TO SUIT WALL TO WALL INSTALLATION. THERMOSTAT SHAL BE PROVIDED BY CONTROLS CONTRACTOR TO MATCH BASE BUILDING.	
D	RH-7	ENGINEERED AIR	HEF-2	CEILING MOUNTED	450	6300	4	291	0.043	82.2	71.1	1.8	1.6	CEILING MOUNTED RADIANT PANEL HEATER, 450MM WIDE, CONSTRUCTED FROM ALUMINUM EXTRUSION: EXACT PANEL LENGTH FIELD CUT ON SITE TO SUIT WALL TO WALL INSTALLATION. THERMOSTAT SHAL BE PROVIDED BY CONTROLS CONTRACTOR TO MATCH BASE BUILDING.	
E	RH-8	ENGINEERED AIR	HEF-2	CEILING MOUNTED	450	5400	4	291	0.037	82.2	71.1	1.6		CEILING MOUNTED RADIANT PANEL HEATER, 450MM WIDE, CONSTRUCTED FROM ALUMINUM EXTRUSIONS EXACT PANEL LENGTH FIELD CUT ON SITE TO SUIT WALL TO WALL INSTALLATION. THERMOSTAT SHALL BE PROVIDED BY CONTROLS CONTRACTOR TO MATCH BASE BUILDING.	

. CONNECT CONTROL VALVE TO BAS AND MATCH DEVICES AND CONTROL STRATEGIES TO BASE BUILDING.

							ENE	RGY RI	ECOVI	ERY VE	NTILA	TOR S	SCHED	JLE			
TAG	MANUI	AN	EX	HAUST AIR F	AN	\//DLL//LIZ	MCA (A)	MOP (A)	STARTER	WEIGHT (KG)							
IAG	MANU.	MODEL	LOCATION	F/A (L/S)	ESP (IN.WG)	MOTOR (W)	E/A (L/S)	ESP (IN.WG)	MOTOR (W)	V/PH/HZ	WCA (A)	MOP (A)	SIARIER	TILIOITI (NO)	REMARKS		
ERV-1	RENEWAIRE	HE10-RTV	ROOF	HI 375 LOW 200	1.30	480	HI 375 LOW 200	1.30	480	120/1/60	14.6	20	BAS	189	ROOFTOP ENERGY RECOVERY VENTILATOR C/W MOTORIZED DAMPERS IN BOTH AIRSTREAMS, MERV-13 FILTERS, DUAL CONTACTORS FOR INDEPENDENT BLOWER CONTROLS, NON FUSED, ENHANCED CONTROLS, AND FILTER MONITORS. PROVIDE FACTORY SUPPLIED BACNET COMMUNICATION PROTOCOL COMPATIBLE WITH BASE BUILDING CONTROL SYSTEM.		
NOTES:																	

1. ALL MOTORS, STARTERS, CONTACTORS, DISCONNECT SWITCHES AND CONTROL DEVICES SHALL BE PROVIDED BY DIV.23 AND INSTALLED BY DIV.26.
2. ALL LOW VOLTAGE WIRING TO BE PROVIDED BY DIV.23.
3. CONNECT UNIT TO BAS AND MATCH DEVICES AND CONTROL STRATEGIES TO BASE BUILDING.

ELECTRIC DUCT HEATER SCHEDULE														
SERVING	MANU.	MODEL	AIR CAP. (L/S)	DUCT DIM. (MM)	EAT (°C)	LAT (°C)	STEPS	KW	V/PH/HZ	TYPE	REMARKS			
ERV-1 F/A HEATING	RENEWAIRE	EK SERIES	375	400/250	11.0	24	SCR	6.0	575/3/60	OPEN COIL	INCLUDING CONTROL TERMINAL BOARD, GROUNDING LUNGS, AUTOMATIC LIMIT SWITCH FOR PRIMARY OVER—TEMPERATURE PROTECTION, MANUAL RESET LIMIT SWITCH FOR SECONDARY OVER—TEMPERATURE PROTECTION, DISCONNECT SWITCH AND CONTROL TYPE SCR WITH THERMOSTAT AND SENSOR. ELECTRICIAN TO CONFIRM ALL ELECTRICAL REQUIREMENTS ON SITE.			
	ERV-1 F/A	ERV-1 F/A RENEWAIRE	ERV-1 F/A RENEWARE EK SERIES	ERVING MANU. MODEL (L/S)	ERV-1 F/A PENEWAIRE FK SERIES 375 400/250	SERVING MANU. MODEL (L/S) (MM) (°C) ERV-1 F/A RENEWARE FK SERIES 375 400/250 11.0	SERVING MANU. MODEL AIR CAP. (L/S) DUCT DIM. (CC) LAT (CC)	SERVING MANU. MODEL AIR CAP. DUCT DIM. (°C) LAT (°C) STEPS ERV-1 F/A RENEWAIRE EK SERIES 375 400/250 11.0 24 SCR	SERVING MANU. MODEL AIR CAP. (L/S) DUCT DIM. (C°C) LAT (°C) STEPS KW	SERVING MANU. MODEL AIR CAP. (L/S) DUCT DIM. (MM) EAT (°C) LAT (°C) STEPS KW V/PH/HZ	SERVING MANU. MODEL AIR CAP. (L/S) DUCT DIM. (*C) LAT (*C) STEPS KW V/PH/HZ TYPE			

1. PROVIDE ALL ELECTRIC DUCT HEATERS COMPLETE WITH DISCONNECT SWITCH.
2. COORDINATE FINAL SIZE WITH SHEETMETAL CONTRACTOR.

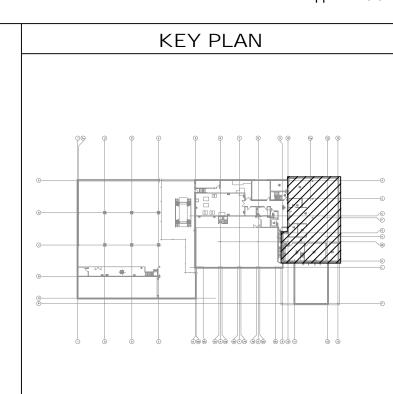
	FAN SCHEDULE														
TAG	MANU.	MODEL	LOCATION	SERVICE	CAP. (L/S)	ESP (IN.WG.)	RPM	DRIVE	TYPE	MOTOR (W)	V/PH/HZ	STARTER	WEIGHT (KG)	REMARKS	
EF-1	CARNES	VCDD020I	KITCHENETTE (201J)	GENERAL EXHAUST	71	0.25	-	DIRECT DRIVE	INLINE CABINET	127	120/1/60	TIMECLOCK	-	INLINE CABINET EXHAUST FAN C/W BACKDRAFT DAMPER, SUPPORTS, HANGERS, VIBRATION ISOLATION AND FLEXIBLE INLET AND OUTLET CONNECTIONS. INTERLOCK WITH DIGITAL TIMECLOCK SET TO BUSINESS HOURS LOCATED IN ELECTRICAL CLOSET 201K.	
EF-2	CARNES	VCDD010I	PRINT/COPY (201E)	GENERAL EXHAUST	47	0.25	-	DIRECT DRIVE	INLINE CABINET	87	120/1/60	LIGHT SWITCH	-	INLINE CABINET EXHAUST FAN C/W BACKDRAFT DAMPER, SUPPORTS, HANGERS, VIBRATION ISOLATION AND FLEXIBLE INLET AND OUTLET CONNECTIONS.	
EF-3	CARNES	VCDD010I	EX.STORAGE (205)	GENERAL EXHAUST	47	0.25	-	DIRECT DRIVE	INLINE CABINET	87	120/1/60	LIGHT SWITCH	-	INLINE CABINET EXHAUST FAN C/W BACKDRAFT DAMPER, SUPPORTS, HANGERS, VIBRATION ISOLATION AND FLEXIBLE INLET AND OUTLET CONNECTIONS.	
EX.EF-20 (EXISTING)	-	-	ROOF	SANITARY EXHAUST	94	0.5	-	-	_	190	120/1/60	BAS	41	EXISTING ROOF MOUNTED EXHAUST FAN C/W BACKDRAFT DAMPER.	

1. ALL MOTORS, STARTERS, CONTACTORS, DISCONNECT SWITCHES AND CONTROL DEVICES SHALL BE PROVIDED BY DIV.23 AND INSTALLED BY DIV.26.
2. ALL LOW VOLTAGE WRING AND CONDUIT TO BE PROVIDED BY DIV.23. REFER TO SPECIFICATIONS.

	ELECTRIC HEATER SCHEDULE									
TAG	MANU.	MODEL	kW	TYPE	V/PH/HZ	COLOUR	WEIGHT (KG)	REMARKS		
BBH-1	OUELLET	OFM1002	1.0	SURFACE MOUNTED BASEBOARD HEATER	120/1/60	-	4.0	SURFACE MOUNTED BASEBOARD HEATER C/W INTEGRAL TAMPERPROOF THERMOSTAT. FINISH TO BE CONFIRMED BY ARCHITECT/CLIENT.		
	<u>NOTES:</u> 1. ELECTRICAL HEATERS TO BE SUPPLIED BY DIV.23 AND INSTALLED BY DIV.26. 2. CONFIRM ALL COLOUR FINISHES WITH ARCHITECT/INTERIOR DESIGNER.									

DIFFUSER SCHEDULE						
TAG	MAKE/MODEL F		REMARKS			
A	EH PRICE MODEL SPD 24/24 SQUARE S/A DIFFUSER	_	STEEL CONSTRUCTION FOR T-BAR LAY IN. SIZE NECK AND BALANCE AS INDICATED ON DRAWINGS.			
В	EH PRICE MODEL 80 EGG CRATE GRILLE	_	CORE ONLY, 1/2"x1/2" ALUMINUM GRID CORE, FOR T-BAR LAY-IN. SIZE AS INDICATED ON DRAWINGS.			
С	EH PRICE MODEL 80 EGG CRATE EXHAUST GRILLE	_	1/2"x1/2"x1/2" ALUMINUM GRID CORE FOR DUCT MOUNTING C/W OPPOSED BLADE DAMPER. SIZE AS INDICATED ON DRAWINGS.			
D	EH PRICE MODEL 80 EGG CRATE R/A GRILLE	-	1/2"x1/2"x1/2" ALUMINUM GRID CORE FOR DRYWALL MOUNTING. SIZE AS INDICATED ON DRAWINGS.			
E	EH PRICE MODEL ATG1 DOOR GRILLE	_	ALUMINUM CONSTRUCTION, SIGHT-PROOF, WITH CONCEALED MOUNTING OF FLANGE FRAME. SIZE AS SHOWN ON DRAWINGS.			

	FIXTURES	PIPE CONNECTION				
TAG	SPECIFICATION	TRAP	COLD WATER	HOT WATER	DRAIN	VEN
FD	FLOOR DRAIN — FINISHED AREA	75ø	_	_	75ø	38ø
	WATTS FD-100NH-C-A5-1 FLOOR DRAIN - EPOXY COATED CAST IRON, FLOOR DRAIN, ADJUSTABLE ROUND 6 MM (1/4") THICK TOP, NO-HUB OUTLET, 127 MM (5") DIAMETER NICKEL BRONZE STRAINER.					
TSP	TRAP SEAL PRIMER	-	12ø	_	-	_
	PPP PRO1-500-DU-4 TRAP PRIMER - FLOW ACTIVATED TRAP PRIMER, C68020 LEAD FREEBRASS, 0.01 LPM (0.25 GPM), 1/2" FNPT (12 MM) INLET, COPPER BODY DISTRIBUTION UNIT WITH 4 - 3/8" FPT BRASS DISCHARGE FITTINGS AND 13 MM (1/2") MALE NPT COMPOSITE INLET. PRIME UP TO 4 FLOOR DRAIN., 1/2" FIP (12 MM) OUTLET.					
WC1	TOILET - WALL-HUNG - FLUSH VALVE - AUTOMATIC - BARRIER FREE	75ø	25ø	_	75ø	38
	AMERICAN STANDARD 2257101.020 TOILET — AFWALLMILLENNIUM FLOWISE, TOILET, WALL—HUNG WITH WALL OUTLET, TOILET OPERATES IN THE RANGE OF 4.2 TO 6.0 LPF (1.1 — 1.6 GPF), WHITE FINISH VITREOUS CHINA, ELONGATED BOWL.					
	CENTOCO 500STSCCFE-001 SEAT - FAST-N-LOCK, FOR ELONGATED BOWL, OPEN FRONT, POLYPROPYLENE, TOILET SEAT, LESS SEAT COVER, AND PLASTIC COMMERCIAL CHECK HINGES, WHITE FINISH, FAST-N-LOCK MOUNTING SYSTEM TAKES THE GUESS WORK OUT WHEN TIGHTENING THE HARDWARE. THE SPECIALLY DESIGNED FASTENERS IN CLICK" WHEN THE APPROPRIATE TORQUE IS REACHED. THE BOLT AND NUT MATERIAL SHALL BE STAINLESS STEEL					
	SLOAN SL-ECOS 8111-1.28 OR FLUSH VALVE - ECOS AUTOMATIC NO-TOUCH EXPOSED WATER CLOSET FLUSHOMETER, BATTERY POWERED, CONSTRUCTED FROM SEMI-RED BRASS, POLISHED CHROME FINISH, HIGH EFFICIENCY 4.8 LPF (1.28 GPF).					
	FRANKE COMMERCIAL CM-16104-WM BACKREST - WALL MOUNTING, BACK REST, SOLID CORE PLASTIC LAMINATE PANEL BACK, ANTIQUE WHITE					
	WATTS ISCA-121 CARRIER - CLOSET CARRIER, ADJUSTABLE FOR STANDARD AND WHEELCHAIR HEIGHT, 102 MM (4") NO HUB WASTE, 51 MM (2") NO HUB VENT CONNECTIONS.					
	CHAMPION MI-XHUB COUPLING - NEOPRENE RUBBER, SHIELDED TRANSITION COUPLING, UNSIZED PIPE, FOUR CLAMPS FOR 2" TO 4" PIPESIZE, SIX CLAMPS FOR 5" TO 15" PIPESIZE, TYPE 304 STAINLESS STEEL CLAMPS, TYPE 304 AISI STAINLESS STEEL EYELETS.					
L1	LAVATORY - WALL-HUNG - AUTOMATIC FAUCET - BARRIER FRFEE	32ø	12ø	12ø	32ø	32
	AMERICAN STANDARD 9024001EC.020 BASIN - DECORUM, WALL-HUNG LAVATORY, VITREOUS CHINA, EVERCLEANANTIMICROBIAL SURFACE, WHITE FINISH.					
	SLOAN EAF-200-0.5-CP-AERGPM-IR-HLT-FCT FAUCET- OPTIMA, AUTOMATIC NO-TOUCH, HARDWIRED (SPECIFY TRANSFORMER SEPARATELY), LAVATORY FAUCET.					
	LAWLER TMM-1070-87500 MIXING VALVE - THE POINT OF USE MECHANICAL MIXING VALVE WITH THERMOSTATIC LIMIT STOP, MECHANICAL MIXING VALVE, 1.8 LPM (0.5 GPM) TEMPERED FLOWRATE @ 5 PSI PRESSURE DROP, 8 LPM (2.1 GPM) FLOWRATE @ 45 PSI					
	MCGUIRE 155WC FIXTURE DRAIN - OFFSET DRAIN, OFFSET LAVATORY STRAINER, LAVATORY, CAST BRASS, CHROME-PLATED FINISH, INORGANIC MICROBIAL COMPOUND					
	MCGUIRE LFBV170 SUPPLY - LEAD FREE, WITH CHROME-PLATED FINISH, CONVERTIBLE QUARTER-TURN SUPPLY, LAVATORY 13 MM (1/2") COPPER SWEAT X 10 MM (3/8") OUTER Ø BRASS BALL VALVE CONNECTION, ONE DEEP BELL FLANGE, CONVERTIBLE LOOSE KEY HANDLE, EXTENSION IS 127 MM (5") LENGTH.					
	MCGUIRE PW2125WC P-TRAP - MOLDED CLOSED CELL VINYL (ANTI-MICROBIAL) WRAPPED CAST BRASS, GLOSSY WHITE, WITH CLEANOUT					
	WATTS WCA-411 CARRIER - WCA-411/WCA-411-WC, LAVATORY CARRIER, FOR CONCEALED ARM CARRIER, ADJUSTABLE ARMS, EPOXY COATED CAST IRON.					
S1	SINK — COUNTER MOUNTED DROP—IN — SINGLE HANDLE FAUCET — BARRIER FREE	38ø	12ø	12ø	38ø	32
	FRANKE COMMERCIAL ALBS4606P-1-1 SINK - COUNTER MOUNTED, SINGLE COMPARTMENT SINK, CONSTRUCTED FROM 18 GAUGE TYPE 304 STAINLESS STEEL, SINGLE HOLE CENTERSET, WITH OVERALL DIMENSION 460 MM (18-1/8") LONG, 478 MM (18-13/16") WIDE, 152 MM (6") HIGH					
	GROHE 32665003 FAUCET - CONCETTO, MANUAL, SINGLE HANDLE, SINK FAUCET.					
	LAWLER TMM-1070-87500 MIXING VALVE - THE POINT OF USE MECHANICAL MIXING VALVE WITH THERMOSTATIC LIMIT STOP, MECHANICAL MIXING VALVE, 1.8 LPM (0.5 GPM) TEMPERED FLOWRATE @ 5 PSI PRESSURE DROP, 8 LPM (2.1 GPM) FLOWRATE @ 45 PSI					
	MCGUIRE LFCK170 SUPPLY — ICV DEFENDER, LEAD FREE, WITH CHROME—PLATED FINISH, INTEGRAL CHECK SUPPLY KIT W/5" SWEAT EXTENSION, FAUCET SWEAT TO COMPRESSION CONNECTION, 1/2" SWEAT W/5" SWEAT EXTENSION X 3/8" O.D CONNECTION, DEEP BELL WALL FLANGE, WHEEL HANDLE.					
	MCGUIRE PW2150WC P-TRAP - MOLDED CLOSED CELL VINYL (ANTI-MICROBIAL) WRAPPED CAST BRASS, GLOSSY WHITE, WITH CLEANOUT					
FFD	FUNNEL FLOOR DRAIN	50ø		-	50ø	38



NOTES

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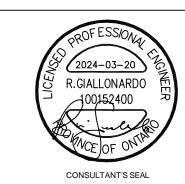
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5	ISSUED FOR 99% REVIEW	2024-01-12	JH
6	ISSUED FOR FINAL REVIEW	2024-02-14	G
7	ISSUED FOR TENDER	2024-03-20	RG



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Giallonardo — Engineering Inc.

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(905)265-1052 info@giallonardoeng.com www.giallonardoeng.com



BARRY BRYAN ASSOCIATES Architects Engineers Project Managers

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON.

MECHANICAL SCHEDULES



SEPTEMBER 2023

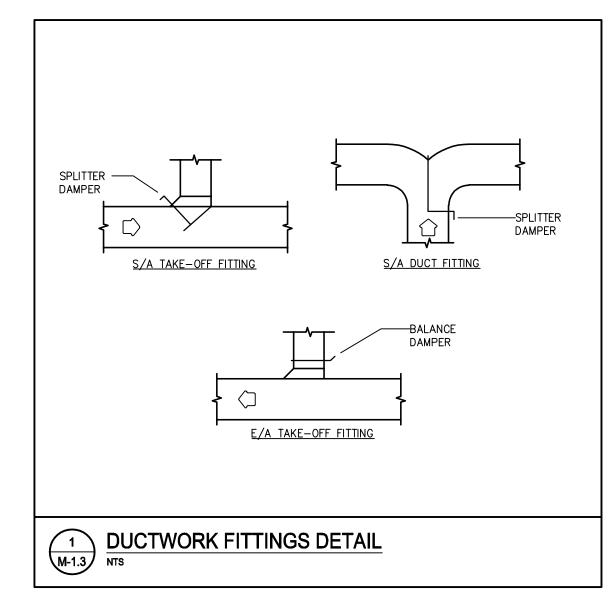
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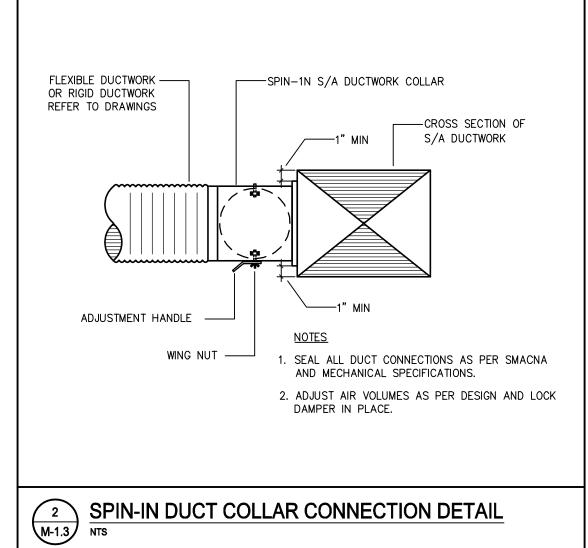
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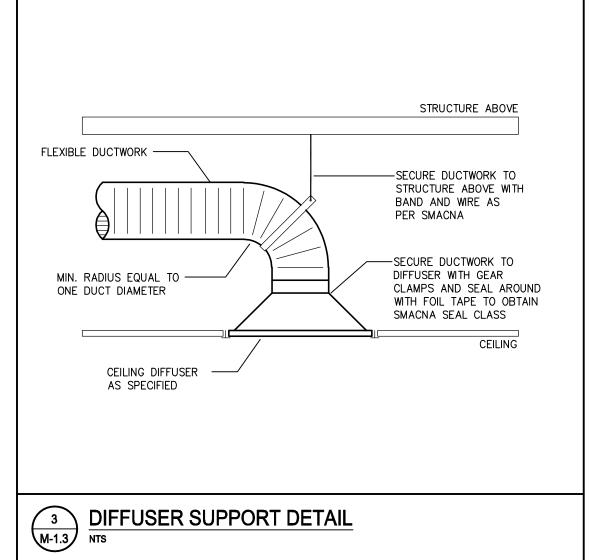
CONSULTANT PROJECT NUMBER 23-122

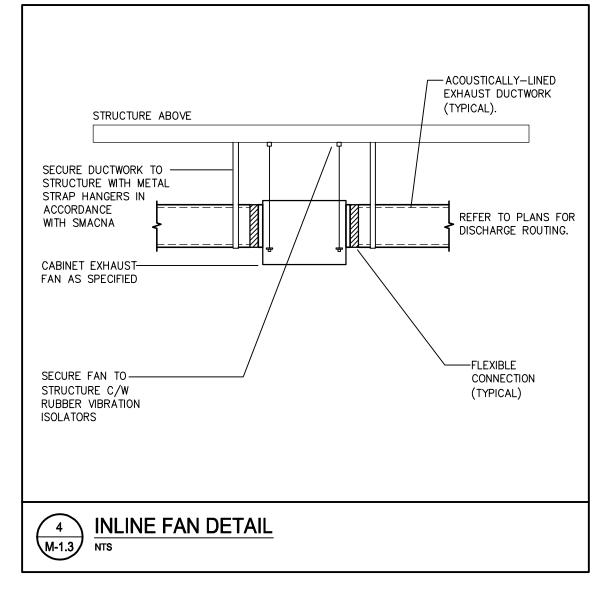
22701 PURCHASING DOCUMENT NUMBER: RAWING NUMBER

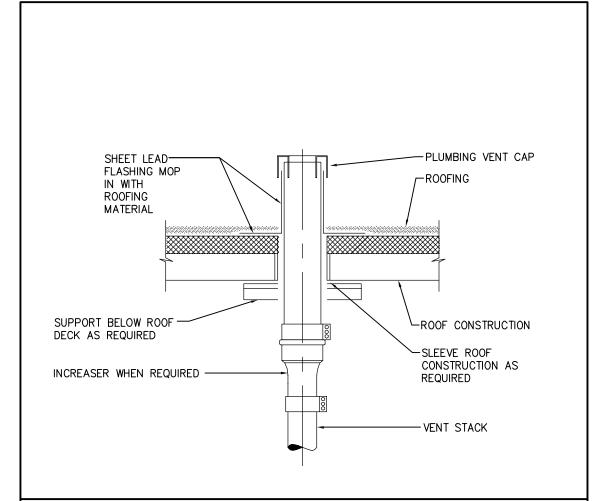
M-1.2





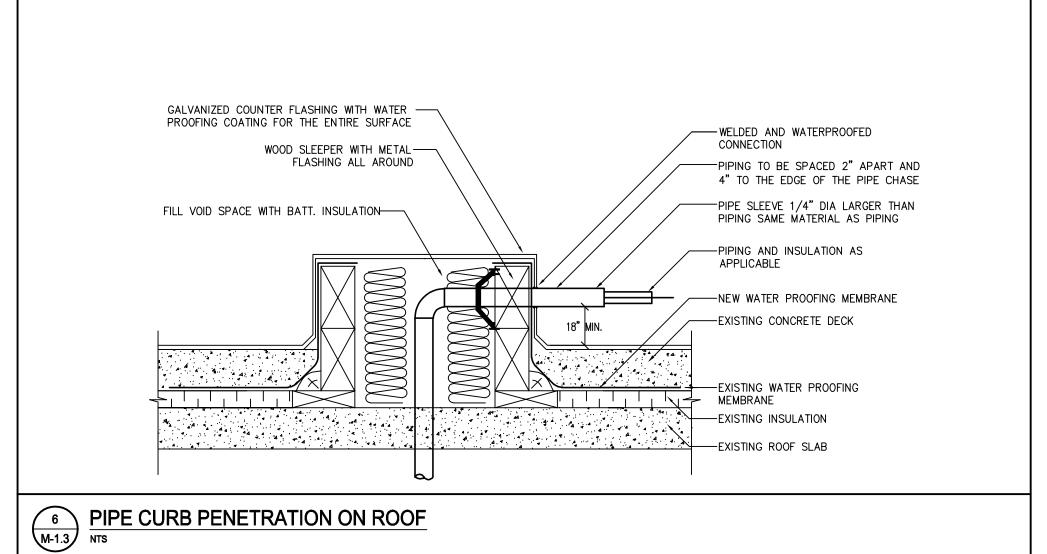


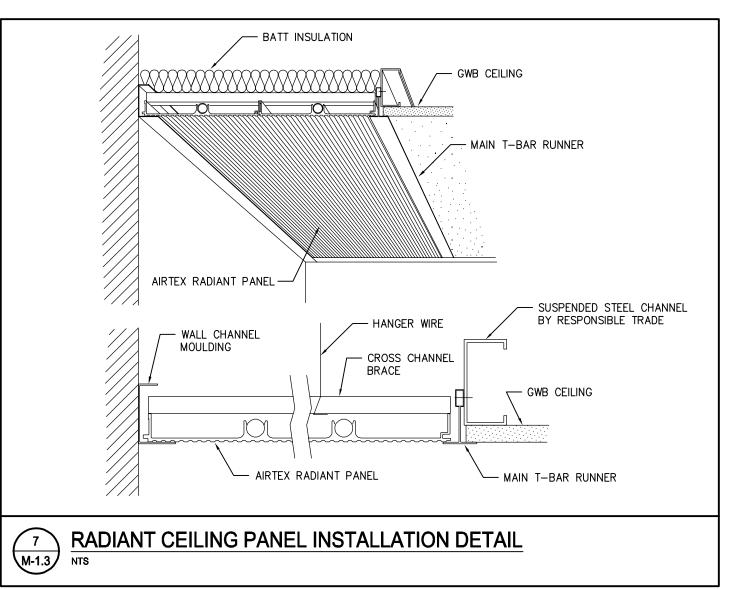


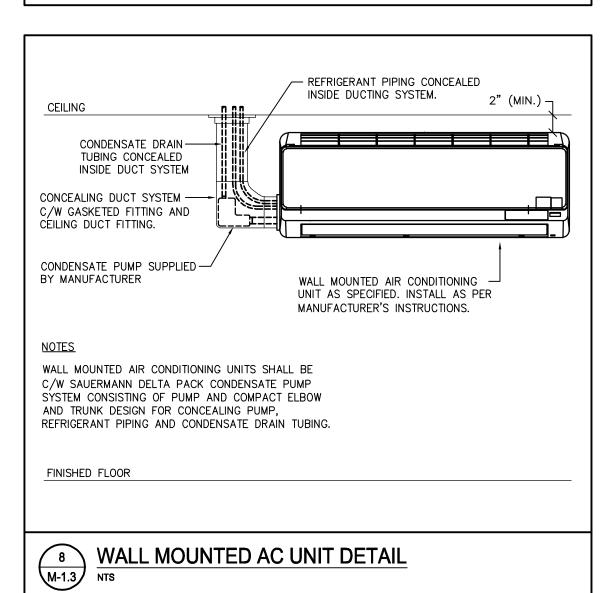


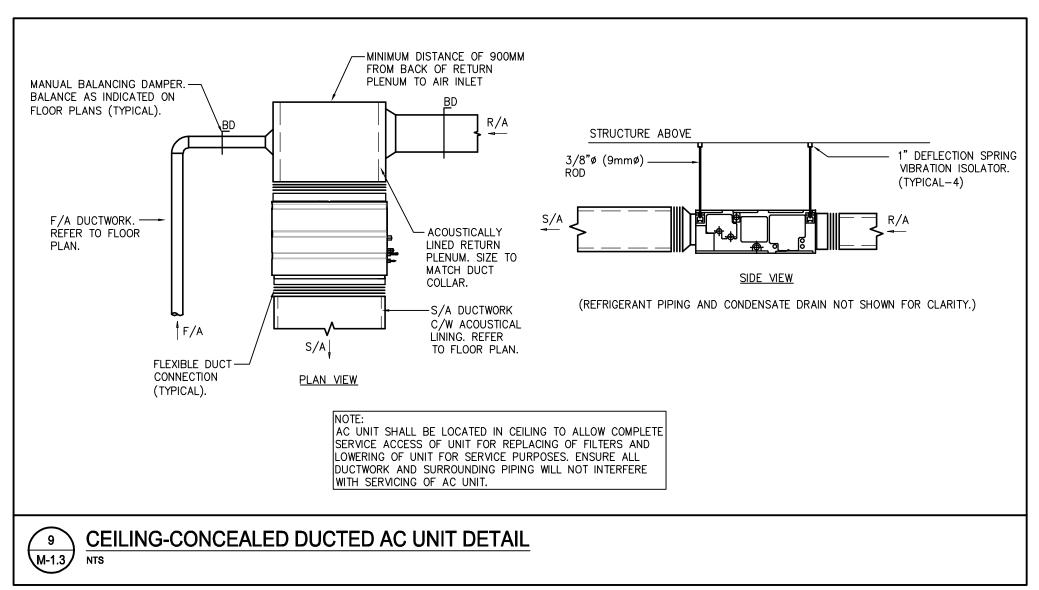
5 PLUMBING VENT THROUGH ROOF DETAIL

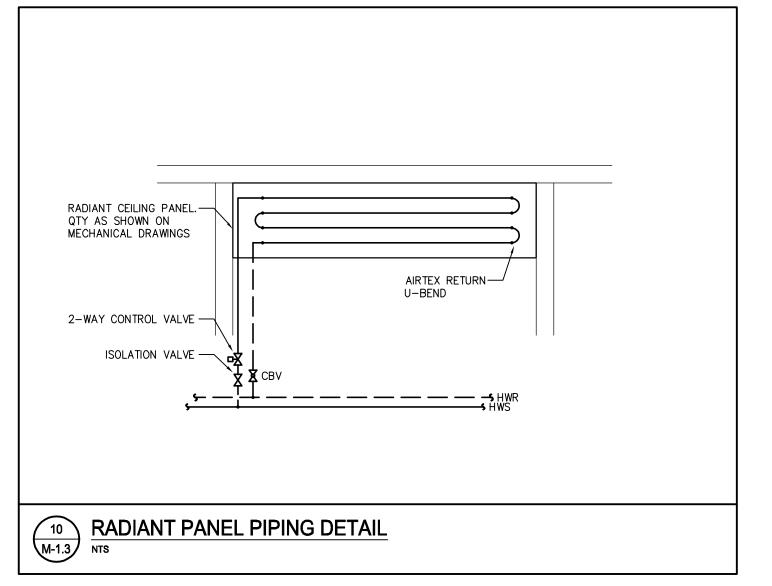
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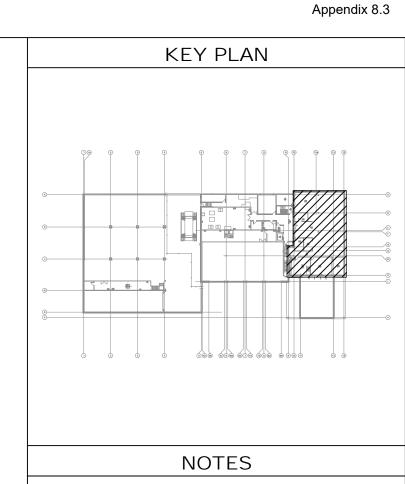












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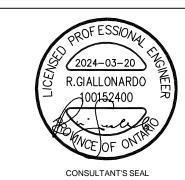
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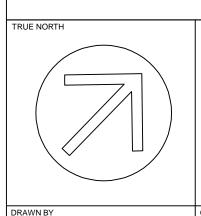
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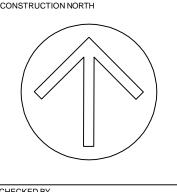
SECOND FLOOR EXPANSION

REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON

DRAWING TITLE

MECHANICAL DETAILS I

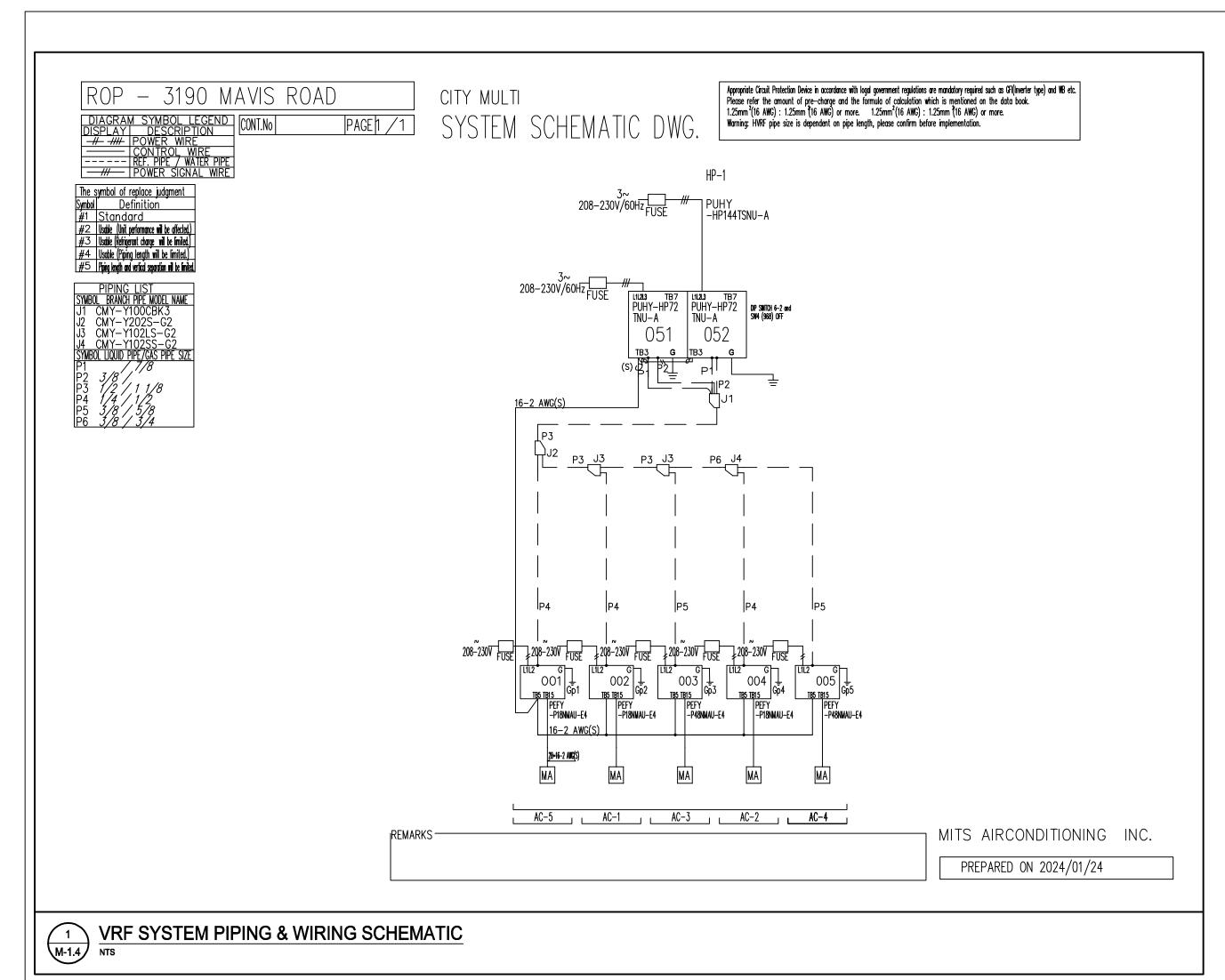


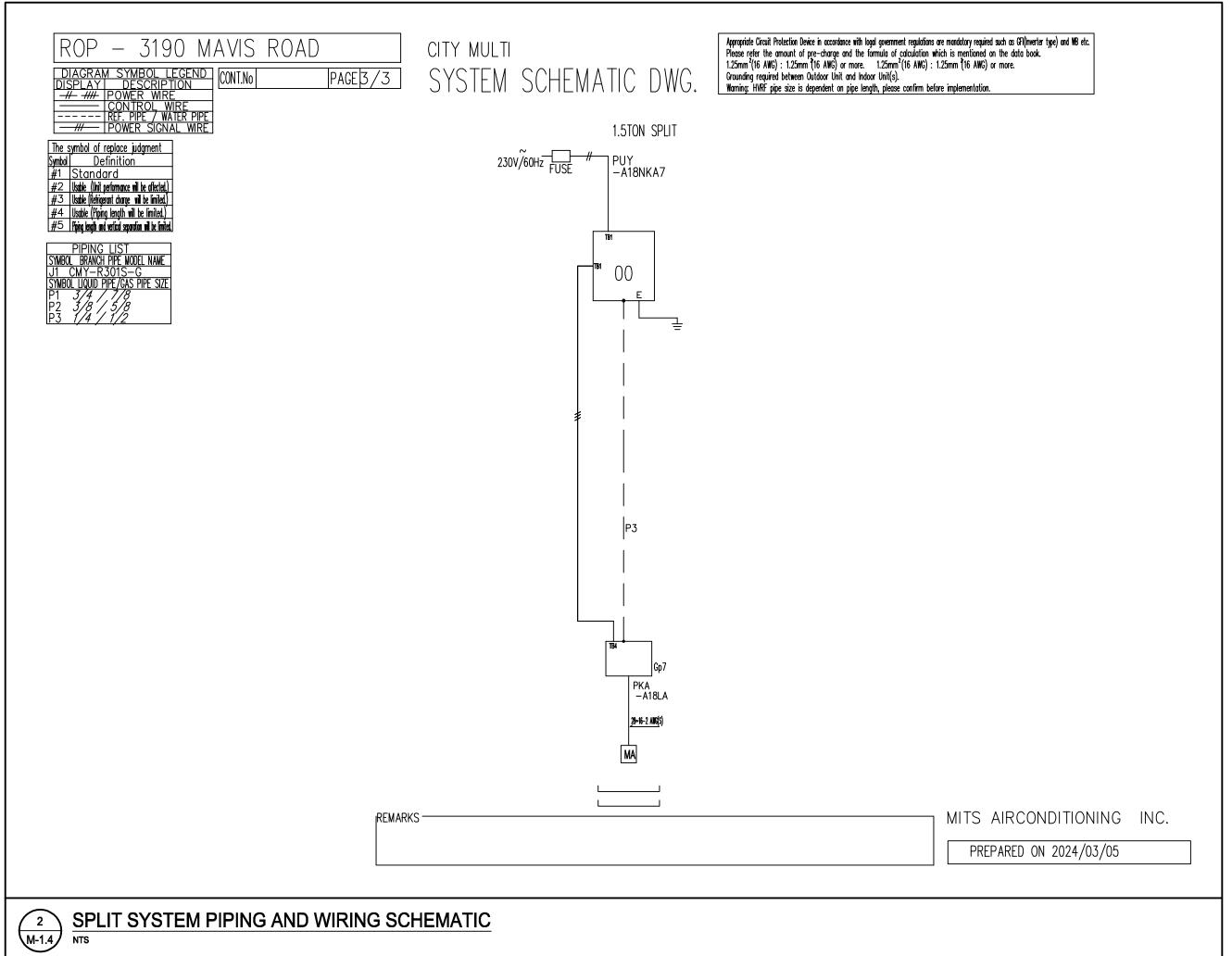


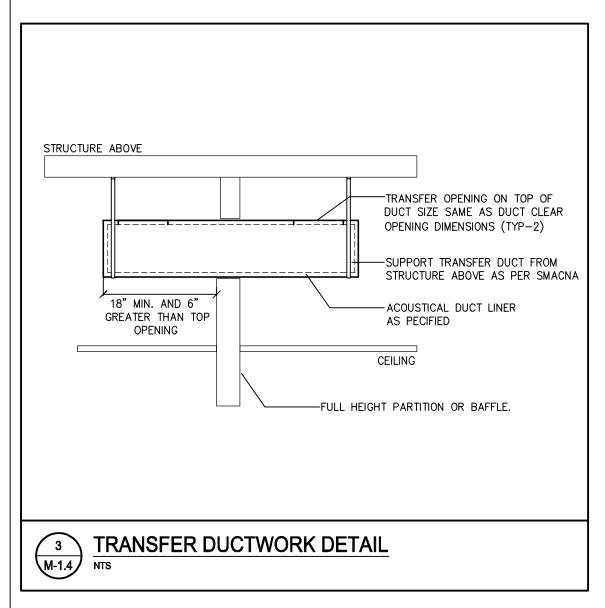
SW RG SEPTEMBER 2023 AS SHOWN CONSULTANT PROJECT NUMBER REGION OF PEEL PROJECT NUMBER 22701 23-122

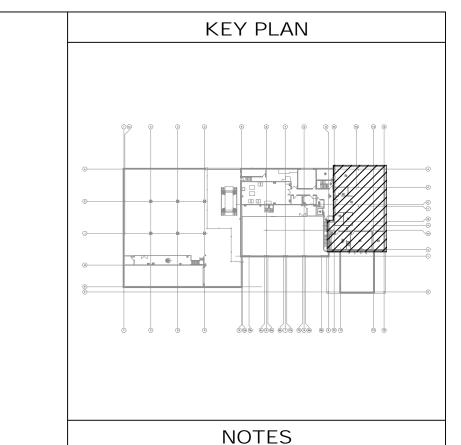
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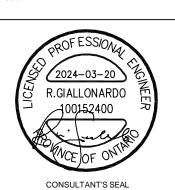
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7	ISSUED FOR TENDER	2024-03-20	R



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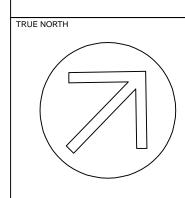
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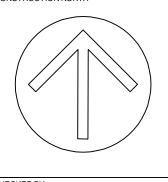
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MECHANICAL DETAILS II



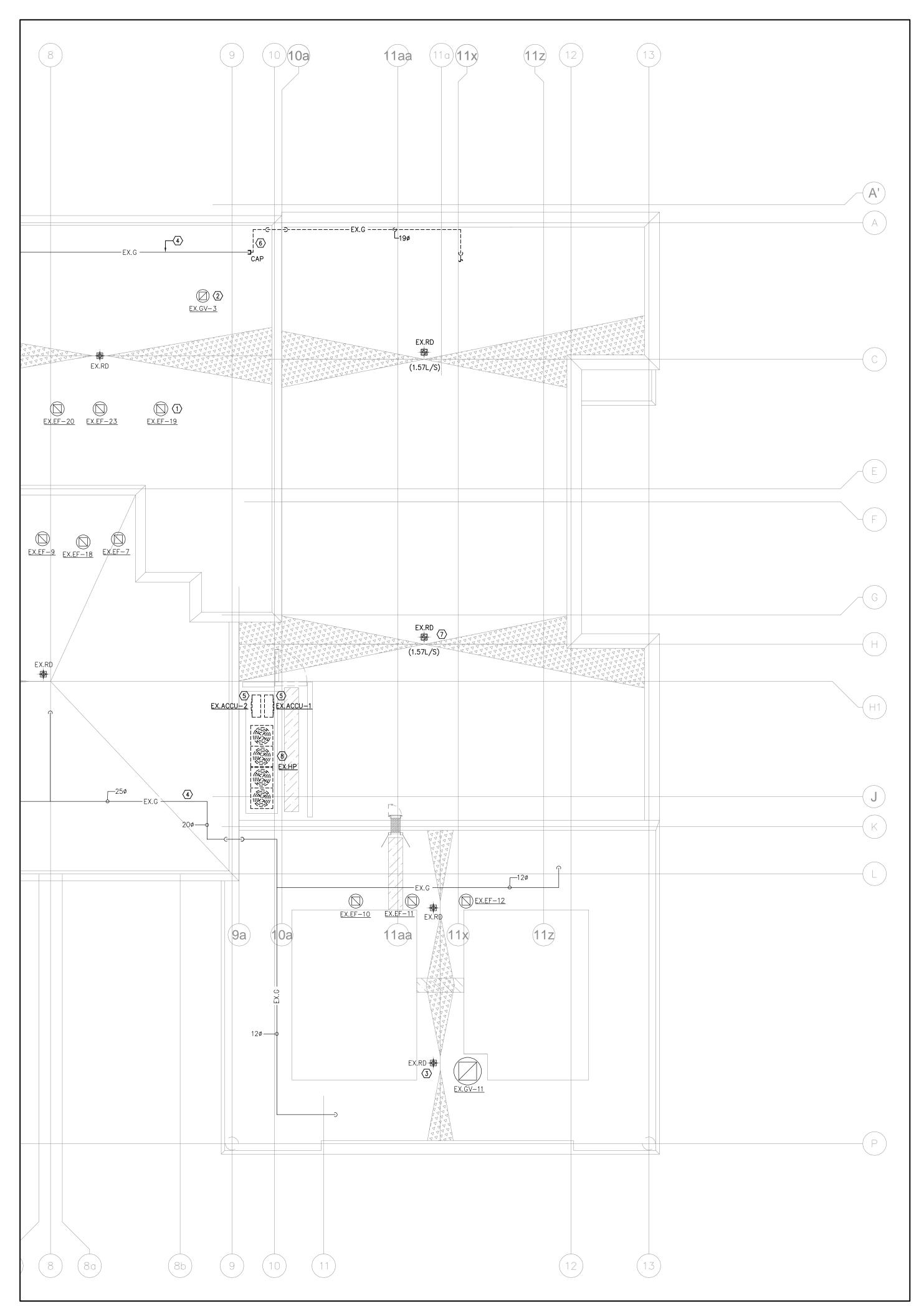


SW RG SEPTEMBER 2023 AS SHOWN CONSULTANT PROJECT NUMBER

23-122

22701

PURCHASING DOCUMENT NUMBER: M-1.4



1 EXISTING ROOF MOUNTED EXHAUST FAN TO REMAIN

(2) EXISTING GRAVITY VENTILATOR TO REMAIN (TYPICAL).

③ EXISTING FLOW CONTROL ROOF DRAIN TO REMAIN (TYPICAL).

(TYPICAL).

CAP WHERE SHOWN.

4 EXISTING GAS PIPING ON ROOF TO REMAIN (TYPICAL).

(5) EXISTING CONDENSING UNIT AND ASSOCIATED STAND TO BE REMOVED AND RETAINED FOR REINSTALLATION WHERE SHOWN ON NEW PLANS. REMOVE REFRIGERANT PIPING BACK

TO GROUND FLOOR SPACE AND PREPARE FOR REWORK.

(6) EXISTING GAS PIPING TO BE REMOVED AND DISPOSED OF.

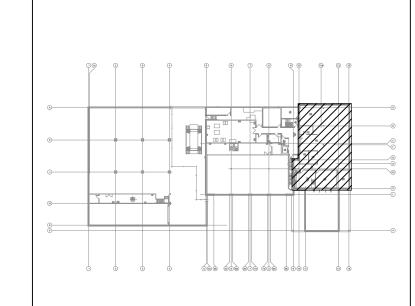
(7) EXISTING ROOF DRAIN TO BE REMOVED AND DISPOSED OF. REMOVE RWL BACK AS REQUIRED FOR CONNECTION OF NEW ROOF DRAIN (TYP-2).

(8) EXISTING HEAT PUMP UNIT AND ASSOCIATED STAND TO BE REMOVED AND RETAINED FOR REINSTALLATION WHERE SHOWN ON NEW PLANS. REMOVE REFRIGERANT PIPING BACK TO GROUND FLOOR CEILING SPACE AND PREPARE FOR

GENERAL HVAC NOTES

- THE MECHANICAL DRAWINGS DISPLAY A GENERAL DESIGN AND INSTALLATION. THEREFORE, IF REQUIRED, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE CONSULTANT PRIOR TO INSTALLATION.
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KEY PLAN



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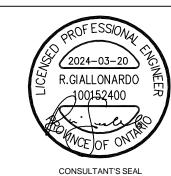
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BARRY BRYAN ASSOCIATES



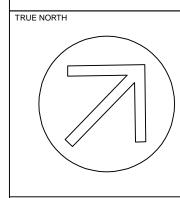
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
11N 0G5
Fel: (905) 666-5252
-ax: (905) 686-5256

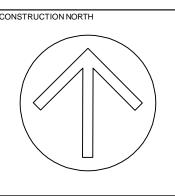
SECOND FLOOR EXPANSION

REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON

DRAWING TITLE

PART ROOF PLAN - MECHANICAL DEMOLITION





SCALE AS SHOWN

CONSULTANT PROJECT NUMBER

23-122

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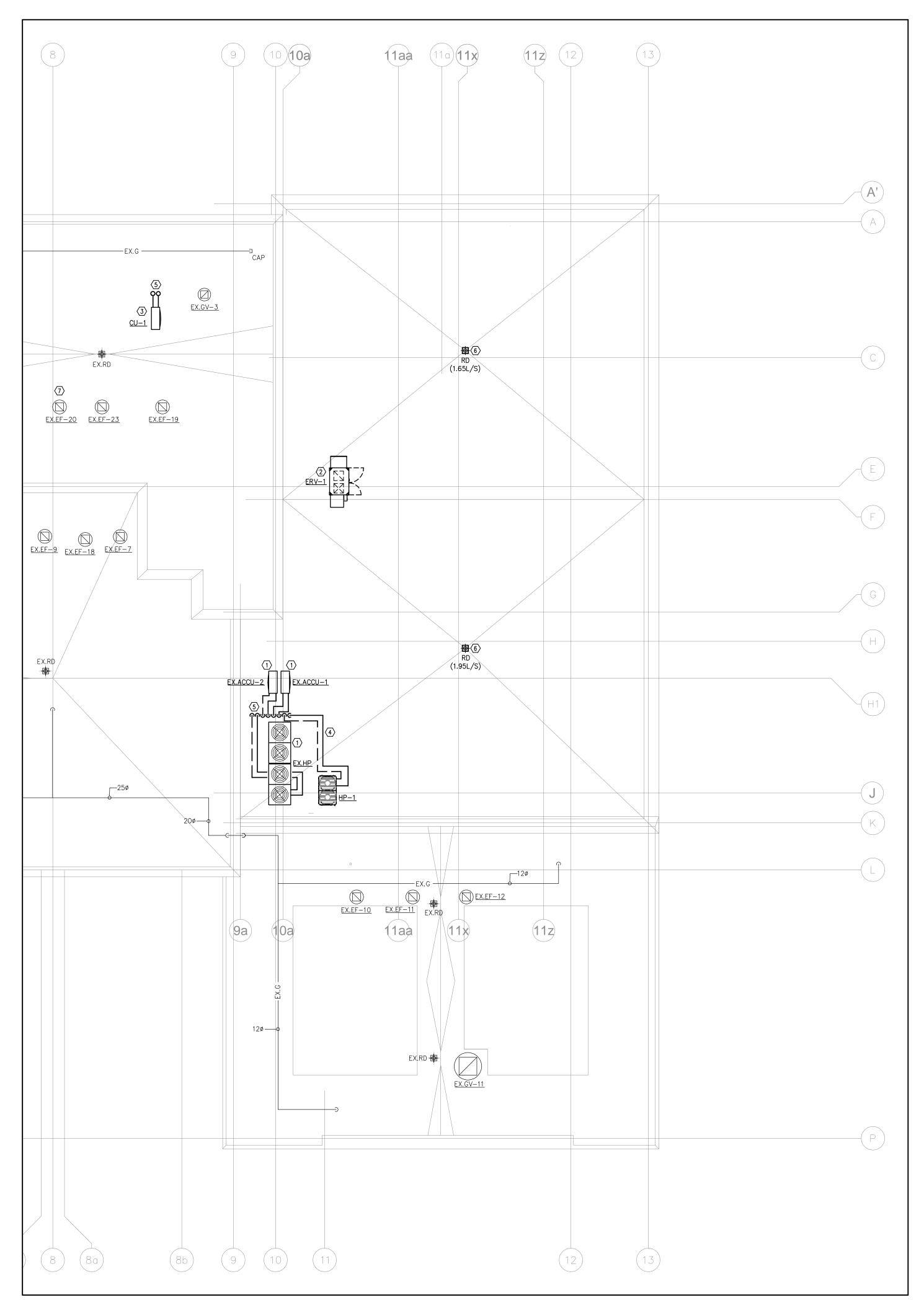
22701

purchasing document number:

Drawing number

M-2.1

PART ROOF PLAN - MECHANICAL DEMOLITION
1:100



(1) NEW LOCATION OF EXISTING CONDENSING UNIT INSTALLED
ON EXISTING STAND. PROVIDE NEW REFRIGERANT PIPING TO
SUIT NEW LOCATION C/W PIPE PENETRATION ROOF CURB.
ENSURE UNIT IS INSTALLED IN STRICT ACCORDANCE OF
MANUFACTURE'S INSTALLATION INSTRUCTIONS C/W VIBRATION
ISOLATION.

2 PROVIDE NEW ROOF MOUNTED ENERGY RECOVERY VENTILATOR AS SPECIFIED C/W 14" ROOF CURB.

3 PROVIDE NEW CONDENSING UNIT AS SPECIFIED C/W FACTORY SUPPLIED STAND. INSTALL UNIT TO MAINTAIN ALL RECOMMENDED CLEARANCES. STAND FEET SHALL BE INSTALLED ON 1" RIGID BOARD INSULATION TOPPED WITH A PATIO PAVER. INSTALL EQUIPMENT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND CSA B52 (TYPICAL).

(4) NEW REFRIGERANT PIPING ON ROOF. PROVIDE PIPING SUPPORTS EQUAL TO EATON DURA-BLOK B-LINE SERIES ROOF SUPPORT SYSTEM INCLUDING H-FRAME AND UNISTRUT SYSTEM C/W GALVANIZED STEEL SADDLES

(5) REFRIGERANT PIPING DOWN THROUGH NEW PIPE CURB AS SPECIFIED. REFER TO DETAILS.

6 PROVIDE NEW FLOW CONTROL ROOF DRAIN TO MATCH BASE BUILDING AND INDICATED FLOW RATE.

(7) EXISTING EXHAUST FAN EF-20 TO BE REPURPOSED FOR SANITARY EXHAUST FOR NEW BARRIER FREE WASHROOM. REFER TO SECOND FLOOR PLANS.

GENERAL HVAC NOTES

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KEY PLAN

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7	ISSUED FOR TENDER	2024-03-20	RG
8	ISSUED FOR PERMIT R1	2024-03-04	RG



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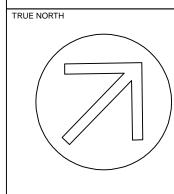


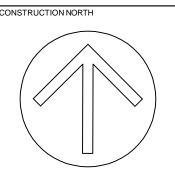
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email: bba@bbe-archeng.com

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DRAWING TITLE

PART ROOF PLAN - MECHANICAL NEW





M-2.2

CHECKED BY
RG

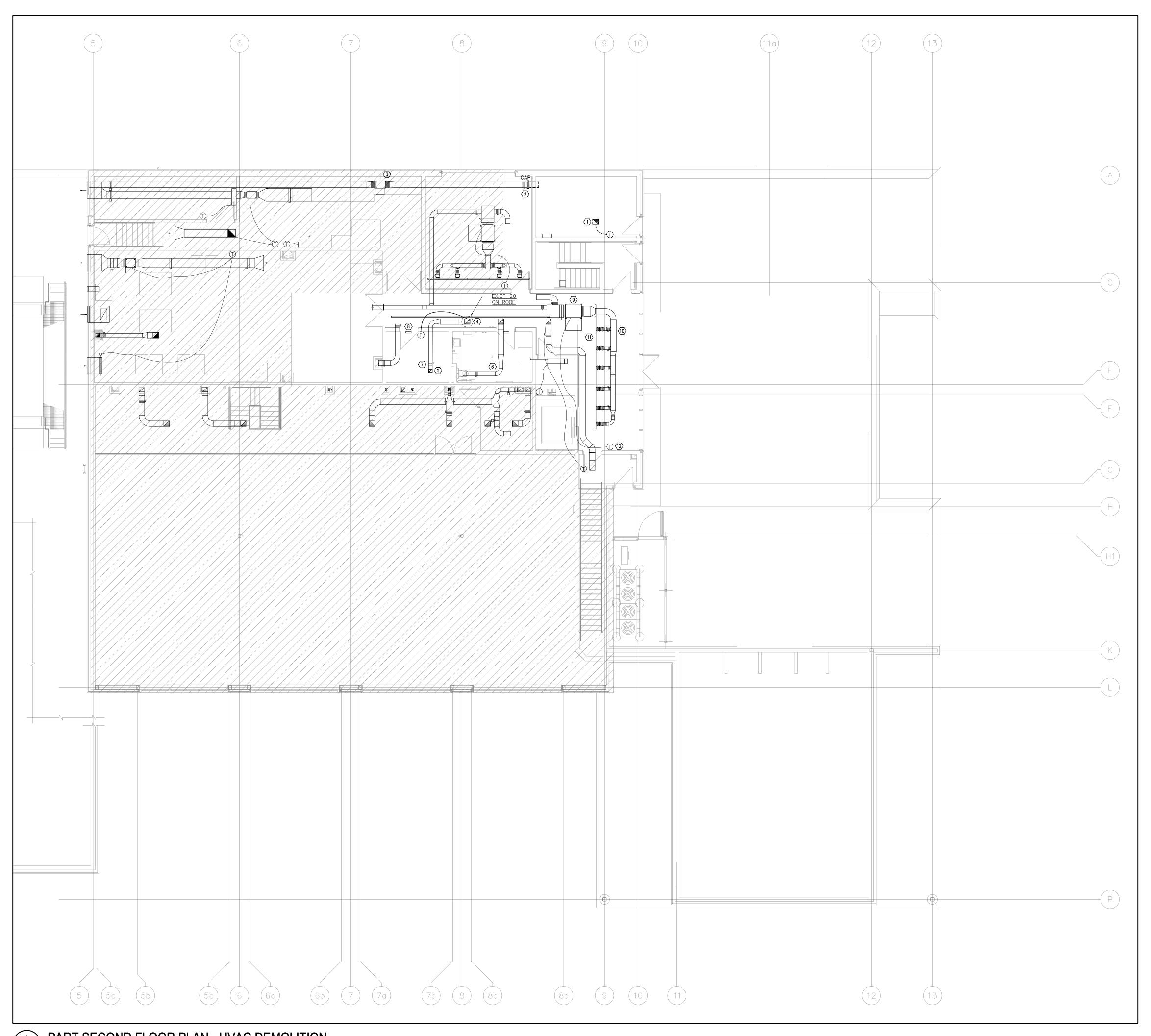
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AS SHOWN
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23-122

PURCHASING DOCUMENT NUMBER:
DATE
SEPTEMBER 2023

REGION OF PEEL PROJECT NUMBER
22701

PURCHASING DOCUMENT NUMBER:
DRAWING NUMBER

1 PART ROOF PLAN - MECHANICAL NEW 1:100



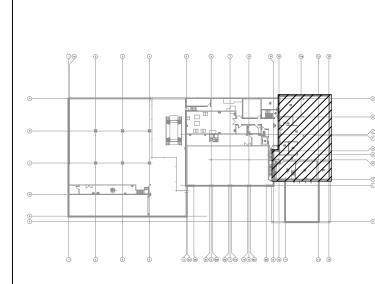
- 1 EXISTING GRAVITY VENTILATOR, MOTORIZED DAMPER, DUCTWORK, GRILLE AND ALL ASSOCIATED CONTROLS TO BE REMOVED AND DISPOSED OF OFF-SITE. CAP EXISTING ROOF CURB WEATHER TIGHT TO BASE BUILDING STANDARDS. PROVIDE MODIFICATIONS TO BAS PROGRAMMING AND GRAPHICS TO SUIT.
 - (2) REMOVE EXISTING EXHAUST GRILLE AND CAP EXISTING EXHAUST DUCTWORK IN CEILING SPACE. PATCH WALL OPENING TO BASE BUILDING STANDARDS.
 - (3) EXISTING INLINE EXHAUST FAN TO BE DISCONNECTED FROM POWER AND LEFT DECOMMISSIONED IN CEILING SPACE. UPDATE BAS PROGRAMMING AND GRAPHICS TO SUIT.
- 4 EXISTING ROOF MOUNTED EXHAUST FAN TO REMAIN. REMOVE ASSOCIATED CONTROLS INCLUDING ZONE TEMPERATURE SENSOR. PROVIDE MODIFICATIONS TO BAS PROGRAMMING AND GRAPHICS TO SUIT. OPERATION SCHEDULE FOR FAN TO BE COORDINATED WITH REGION OF
- 5 REMOVE AND DISPOSE OF EXISTING EXHAUST GRILLE. 6 EXISTING EXHAUST FAN AND ASSOCIATED DUCTWORK TO
- (7) EXISTING BALANCING DAMPER TO BE REMOVED AND DISPOSED OF. PROVIDE NEW SECTION OF DUCTWORK AND CONNECT TO EXISTING. SIZE TO SUIT.
- 8 EXISTING DOOR GRILLE TO REMAIN.
- (9) EXISTING INDOOR SPLIT HEAT PUMP UNIT TO REMAIN (TYPICAL).
- (10) EXISTING S/A DUCTWORK TO REMAIN (TYPICAL). (11) EXISTING S/A LINEAR SLOT DIFFUSER TO REMAIN (TYPICAL). (12) EXISTING ZONE TEMPERATURE SENSOR TO REMAIN

GENERAL HVAC NOTES

TYPICAL).

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KEY PLAN

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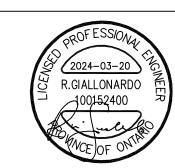
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2	ISSUED FOR COORDINATION	202
3	ISSUED FOR 80% REVIEW	202

ISSUES AND REVISIONS

2023-09-08 SW 2023-10-27 GG 2023-10-31 GG ISSUED FOR 80% F ISSUED FOR PERMIT 2023-12-20 GG 2024-01-12 JH ISSUED FOR 99% REVIEW 2024-02-14 GG ISSUED FOR FINAL REVIEW ISSUED FOR TENDER 2024-03-20 RG

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SECOND FLOOR EXPANSION

REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON

PART SECOND FLOOR PLAN - HVAC **DEMOLITION**



SEPTEMBER 2023

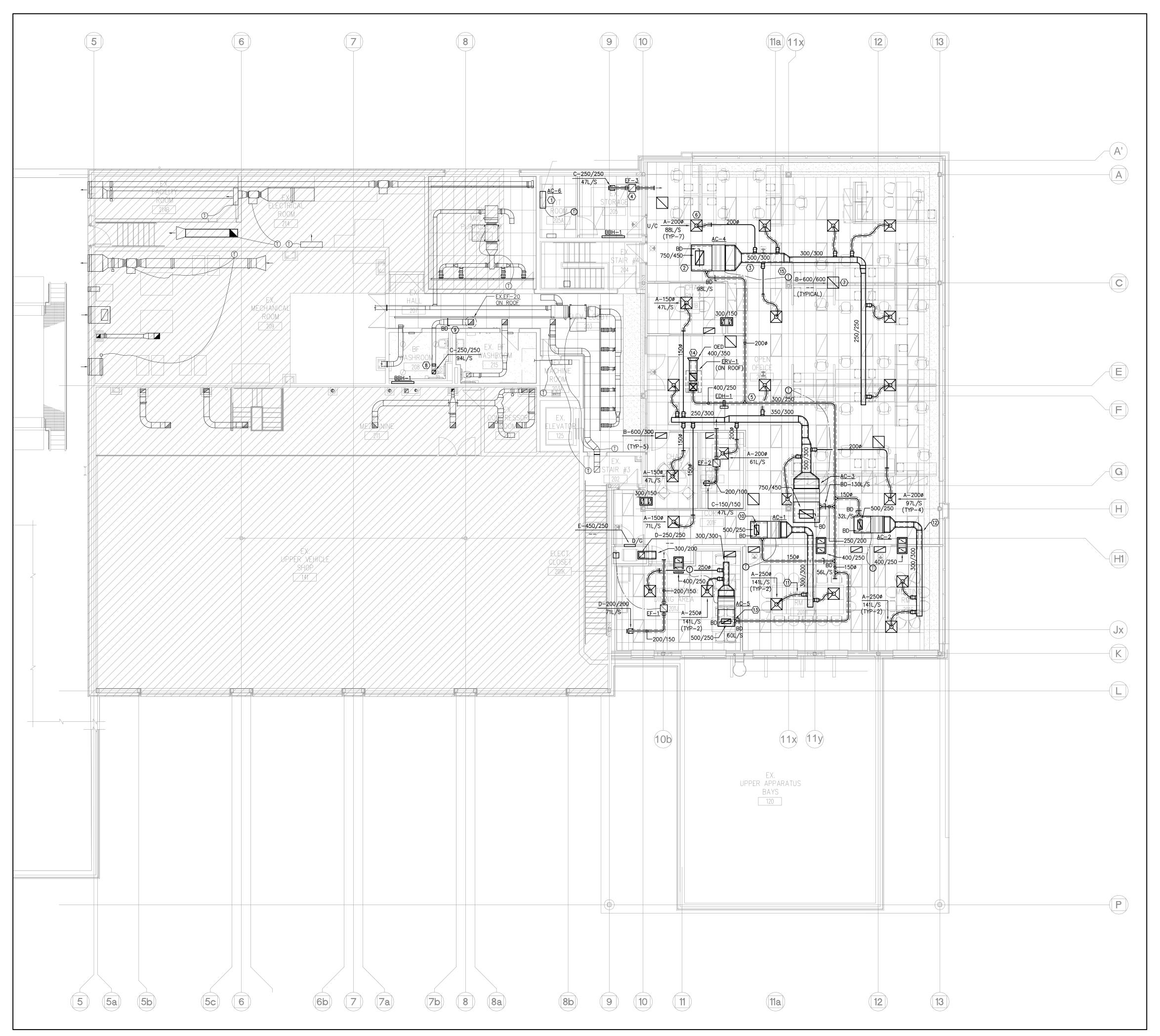
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AS SHOWN

23-122 22701 PURCHASING DOCUMENT NUMBER

M-2.3

PART SECOND FLOOR PLAN - HVAC DEMOLITION 1 M-2.3 PAF 1:100



1) PROVIDE NEW INDOOR SPLIT AC UNIT AS SPECIFIED. ROUTE REFRIGERANT LINE SET TO CONDENSING UNIT ON ROOF.

2 TERMINATE ACOUSTICALLY LINED R/A DUCTWORK OPEN ENDED IN CEILING SPACE. R/A DUCT SIZE TO MATCH UNIT R/A OPENING (TYPICAL).

(3) PROVIDE NEW ACOUSTICALLY LINED S/A DUCTWORK IN

CEILING SPACE (TYPICAL).

4 PROVIDE NEW INLINE CABINET EXHAUST FAN AS SPECIFIED. REFER TO DETAILS. TERMINATE ACOUSTICALLY LINED E/A DUCTWORK OPEN ENDED ABOVE CEILING SPACE (TYP-2).

(5) PROVIDE NEW FRESH AIR DUCTWORK FROM ROOF MOUNTED ERV C/W THERMAL AND ACOUSTIC INSULATION.

(6) PROVIDE NEW SQUARE PLAQUE S/A DIFFUSER AS SPECIFIED. BALANCE AS INDICATED (TYPICAL).

(7) PROVIDE NEW EGG CRATE R/A GRILLE AS SPECIFIED. SIZE AS INDICATED (TYPICAL).

(8) PROVIDE NEW SECTION OF DUCTWORK AND CONNECT TO EXISTING. SIZE TO SUIT.

(9) PROVIDE NEW BALANCING DAMPER FOR EXISTING E/A DUCTWORK IN ACCESSIBLE CEILING.

(10) R/A OPENING ON TOP OF ACOUSTICALLY LINED R/A DUCTWORK C/W BALANCING DAMPER. BALANCE RETURN AIR TO DIFFERENCE OF S/A AND F/A (TYPICAL).

11) PROVIDE INSULATED FLEXIBLE DUCTWORK AS SPECIFIED (TYPICAL).

(12) PROVIDE ACOUSTIC LINING AS SPECIFIED WHERE SHOWN

(13) CONNECT F/A DUCTWORK TO AC UNIT R/A PLENUM C/W BALANCING DAMPER. BALANCE AS INDICATED (TYPICAL).

(14) ACOUSTICALLY LINED ERV R/A DUCTWORK TERMINATED OPEN-ENDED IN CEILING SPACE C/W FLARED END.

(15) ZONE SENSOR TO MATCH BASE BUILDING C/W SPACE TEMPERATURE, RELATIVE HUMIDITY AND CARBON DIOXIDE CONCENTRATION REPORTING BACK TO BAS.

GENERAL HVAC NOTES

THE MECHANICAL DRAWINGS DISPLAY A GENERAL DESIGN AND INSTALLATION. THEREFORE, IF REQUIRED, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE CONSULTANT PRIOR TO INSTALLATION.

> 2. THESE DRAWINGS HAVE BEEN PREPARED FOR DIV.23 AND DO NOT ACCURATELY DISPLAY ALL ELECTRICAL, STRUCTURAL AND ARCHITECTURAL ELEMENTS. REFER TO OTHER DIVISION'S CONTRACT DRAWINGS FOR CLARIFICATION.

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4. UNLESS OTHERWISE NOTED, ALL S/A DUCTWORK TO BE PROVIDED WITH 3.0M OF ACOUSTIC LINING DOWNSTREAM OF HVAC EQUIPMENT.

BAS INTEGRATION/SEQUENCE OF OPERATIONS

SEQUENCE OF OPERATIONS

ERV-1 SHALL RUN AT LOW SPEED BASED ON SCHEDULING SET ON BAS. ERV SHALL BE SCHEDULED TO OPERATE DURING REGULAR BUISNESS HOURS.

2. WHEN CARBON DIOXIDE (CO2) LEVELS EXCEED 700PPM IN ANY ZONE, THE BAS SHALL INITIATE HIGH SPEED FOR ERV-1. WHEN AN ACCEPTABLE CO2 LEVEL IS REACHED ERV-1 SHALL RETURN TO LOW SPEED OPERATION.

3. DUCT HEATER EDH-1 SHALL MODULATE TO MAINTAIN SUPPLY AIR TEMPERATURE SETPOINT IN HEATING MODE.

HEAT PUMP INDOOR UNITS

1. ALL SEQUENCES, PROGRAMMING, GRAPHICS, ETC. TO MATCH BASE BUILDING.

BAS INTEGRATION

<u>ERV-1</u>

CONNECT FACTORY SUPPLIED ERV CONTROLLER TO BAS VIA BACNET CARD. INCLUDE FOR ALL PROGRAMMING, GRAPHICS ETC. AND MATCH ALL BASE BUILDING CONTROL STRATEGIES. AT MINIMUM INCLUDE FOR THE FOLLOWING

DO ENABLE/DISABLE

 DI STATUS Î AO SUPPLY AIR TEMP SETPOINT AI OF S/A TEMP (LOOSE TEMP SENSOR)

 AI F/A TEMP DI DÎRTY FILTER

AI HUMIDITY

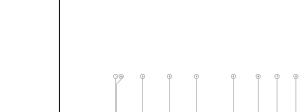
 AI FAN SPEED - AI CO2 LEVEL

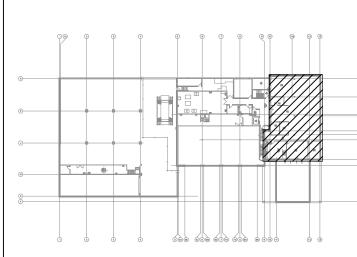
HEAT PUMP INDOOR UNITS

PROVIDE ZONE SENSOR CAPABLE OF REPORTING TEMPERATURE, RELATIVE HUMIDITY AND CARBON DIOXIDE CONCENTRATION TO THE BAS.

2. ZONE SENSOR SHALL PROVIDE INFORMATION TO BAS FOR CONTROL OF RADIANT PANEL SYSTEM, ERV AND HEAT PUMP SYSTEM.

. MITSUBISHI VRF SYSTEM SHALL BE MONITORED AND CONTROLLED VIA BAS TO MATCH BASE BUILDING. PROVIDE ALL CONTROLLERS, WIRING, CONDUIT, ACCESSORIES, TERMINAL STRIPS, ETC. AS REQUIRED TO PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM.





KEY PLAN

NOTES

DISCLAIMER

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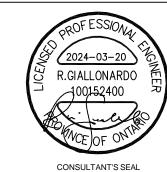
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ISSUED FOR TENDER	2024-03-20	RG



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MECHANICAL CONSULTANT

Giallonardo — Engineering Inc.

220-4550 Highway 7 Woodbridge, ON L4L 4Y7

DRAWING TITLE

(905)265-1052 info@giallonardoeng.com www.giallonardoeng.com



BARRY BRYAN ASSOCIATES Architects Engineers Project Managers 250 Water Street Suite 201 Whitby, Ontario L1N 0G5 Tel: (905) 666-5252

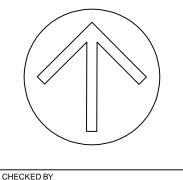
CONSTRUCTION NORTH

Fax: (905) 666-5256 e-mail: bba@bba-archeng.com PROJECT TITLE AND ADDRESS SECOND FLOOR EXPANSION

REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON.

PART SECOND FLOOR PLAN - HVAC

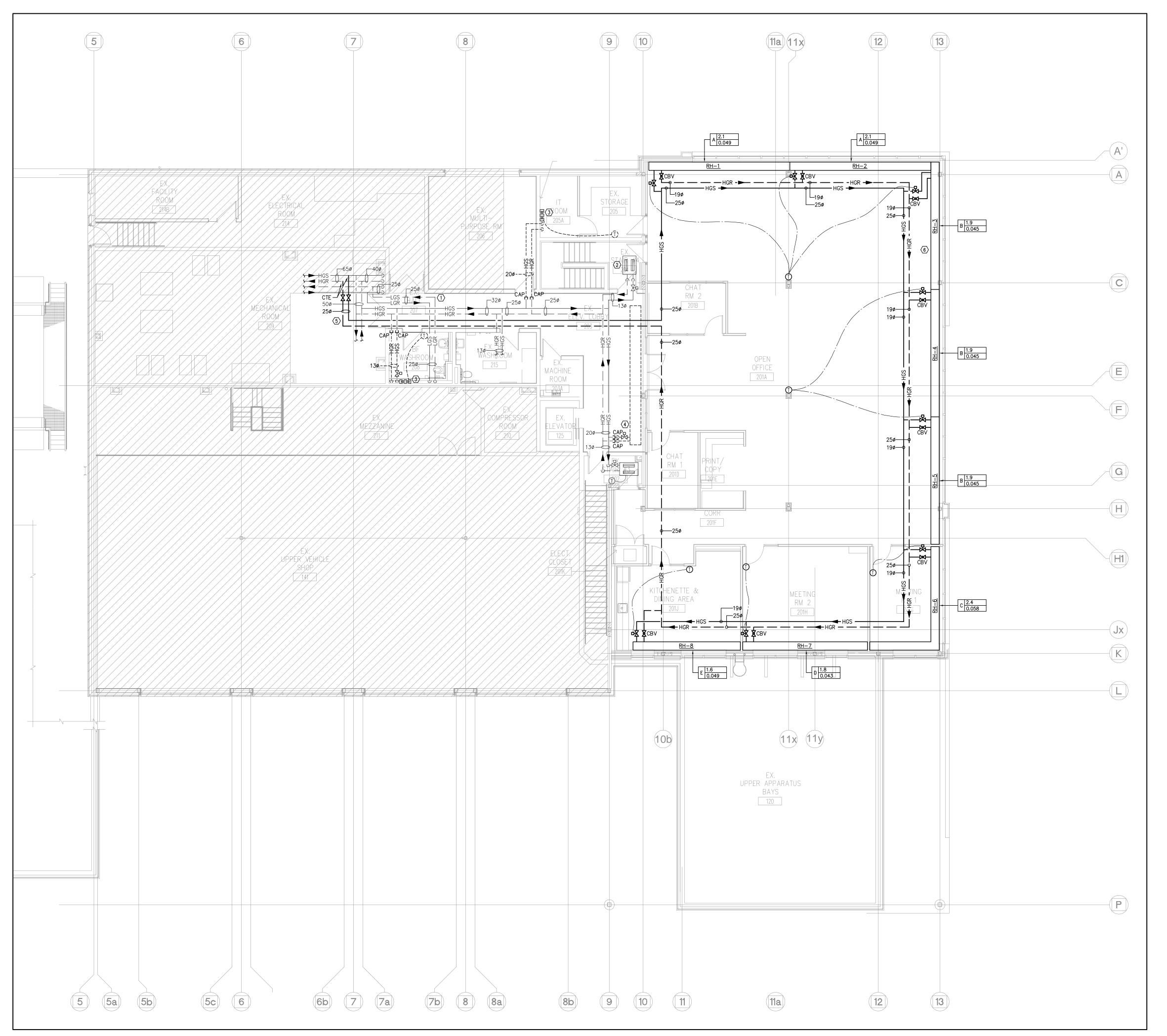




SW RG SEPTEMBER 2023 AS SHOWN CONSULTANT PROJECT NUMBER REGION OF PEEL PROJECT NUMBER

23-122 22701 PURCHASING DOCUMENT NUMBER: RAWING NUMBER M-2.4

PART SECOND FLOOR PLAN - HVAC NEW M-2.4 1:100



(1) EXISTING HYDRONIC PIPING TO REMAIN (TYPICAL).

② EXISTING HYDRONIC HEATER TO REMAIN (TYPICAL). (3) EXISTING HYDRONIC HEATER AND ALL ASSOCIATED CONTROLS TO BE REMOVED AND DISPOSED OF OFF-SITE.

CAP HYDRONIC PIPING IN CEILING SPACE WHERE SHOWN. (4) EXISTING RADIANT CEILING PANEL TO BE REMOVED AND DISPOSED OF OFF-SITE. CAP HYDRONIC PIPING IN CEILING SPACE WHERE SHOWN.

5 PROVIDE NEW HYDRONIC PIPING IN CEILING SPACE SERVING

NEW RADIANT PANELS (TYPICAL). 6 PROVIDE NEW CEILING MOUNTED RADIANT PANEL AS SPECIFIED C/W ALL HANGERS AND SUPPORTS AS

6 PROVIDE IDENTIFICATION FOR RADIANT PANELS TO MATCH BASE BUILDING. 'RH-X' IS PROVIDED FOR UNIT IDENTIFICATION FOR CONSTRUCTION ONLY. COORDINATE UNIQUE PANEL IDENTIFIER OF PANEL WITH BAS CONTRACTOR.

REQUIRED. REFER TO DETAILS (TYPICAL).

GENERAL HVAC NOTES

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BAS INTEGRATION/SEQUENCE OF OPERATIONS

SEQUENCE OF OPERATIONS

RADIANT PANEL HEATING SYSTEM

THE RADIANT CEILING HEATING SYSTEM SHALL BE DE-ENERGIZED WHEN THE OUTDOOR AIR TEMPERATURE IS

. INDIVIDUAL ZONE CONTROL VALVES SHALL BE MODULATED TO MAINTAIN PRE-SET SPACE AIR TEMPERATURE AT 20°C.

3. ALL CONTROL ACTIONS FOR RADIANT PANELS SHALL BE BASED ON A ZONE TEMPERATURE SENSOR TO MATCH BASE

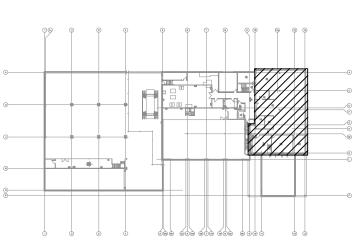
BAS INTEGRATION

RADIANT PANEL HEATING SYSTEM

CONNECT ALL REQUIRED POINTS TO BAS. INCLUDE FOR ALL PROGRAMMING, GRAPHICS ETC. AND MATCH ALL BASE BUILDING CONTROL STRATEGIES. AT MINIMUM INCLUDE FOR THE FOLLOWING

DO VALVE MODULATION DI SPACE TEMPERATURE (ZONE SENSOR) DI RELATIVE HUMIDITY

PROVIDE UNIQUE IDENTIFIER FOR EACH PANEL TO MATCH BASE BUILDING. CONTINUE NUMBERING FROM LAST BASE BUILDING PANEL AS PER EXISTING BAS. COORDINATE UNIQUE IDENTIFIER WITH MECHANICAL CONTRACTOR FOR IDENTIFICATION LABELING OF



KEY PLAN

NOTES

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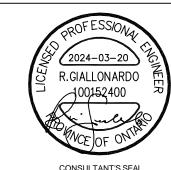
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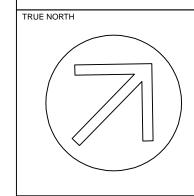
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Architects Engineers Project Managers

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON

PART SECOND FLOOR PLAN -HYDRONIC PIPING SYSTEM

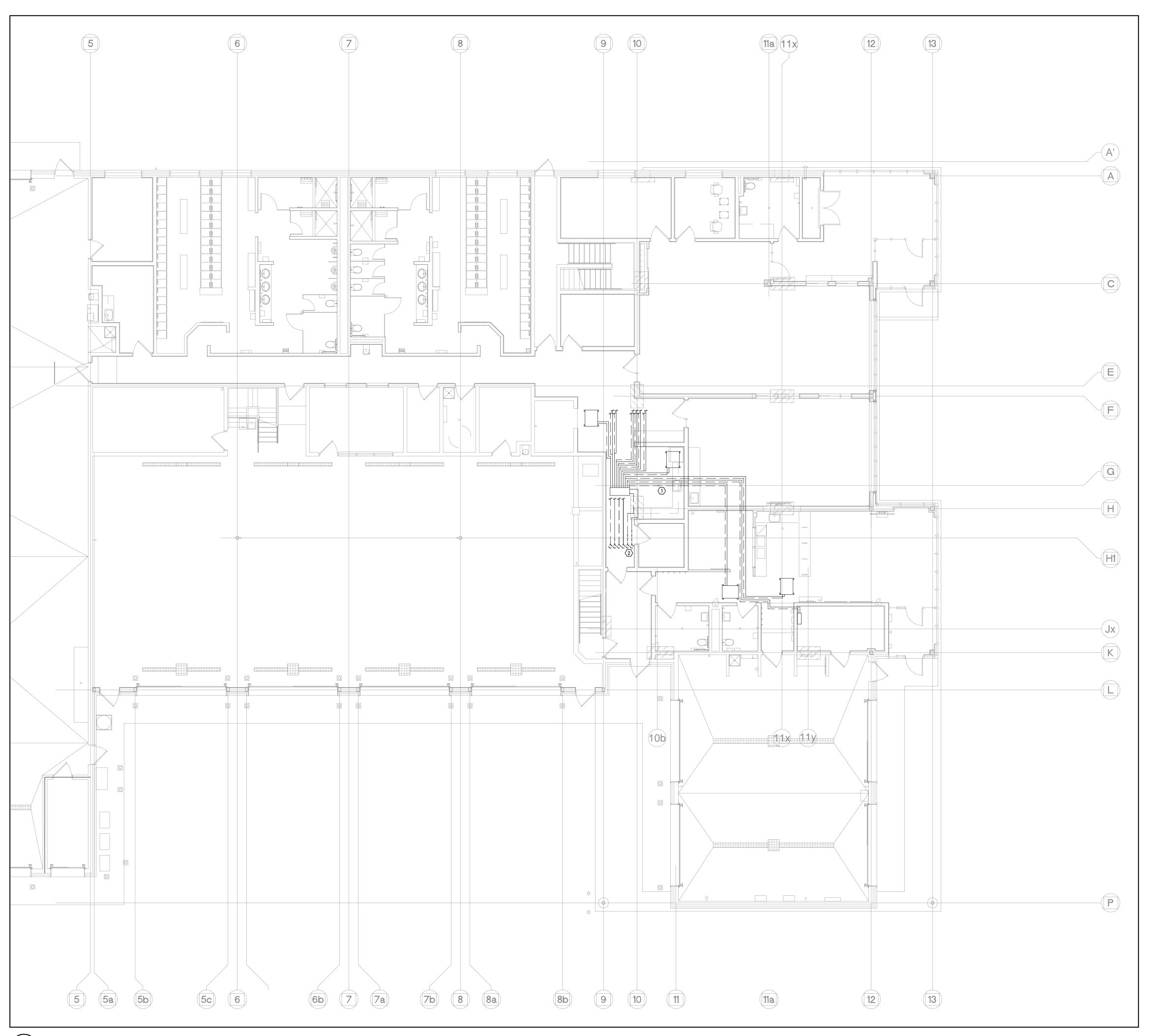


SW AS SHOWN CONSULTANT PROJECT NUMBER

SEPTEMBER 2023 EGION OF PEEL PROJECT NUMBER 23-122 22701

PURCHASING DOCUMENT NUMBER: M-2.5

PART SECOND FLOOR PLAN - HYDRONIC PIPING SYSTEM 1 M-2.5 PAF 1:100



(1) EXISTING REFRIGERANT PIPING IN CEILING SPACE TO REMAIN

2 EXISTING REFRIGERANT PIPING IN CEILING SPACE SERVING EX.HP, EX.ACCU-1 AND EX.ACCU-2 TO BE REMOVED BACK TO WHERE SHOWN. PREPARE FOR CONNECTION OF NEW REFRIGERANT PIPING (TYPICAL).

GENERAL HVAC NOTES

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KEY PLAN

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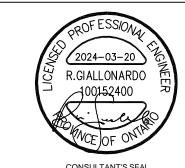
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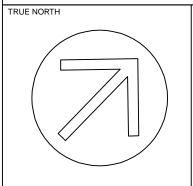
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SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON

PART GROUND FLOOR PLAN -REFRIGERANT PIPING DEMOLITION



SEPTEMBER 2023

GION OF PEEL PROJECT NUMBER

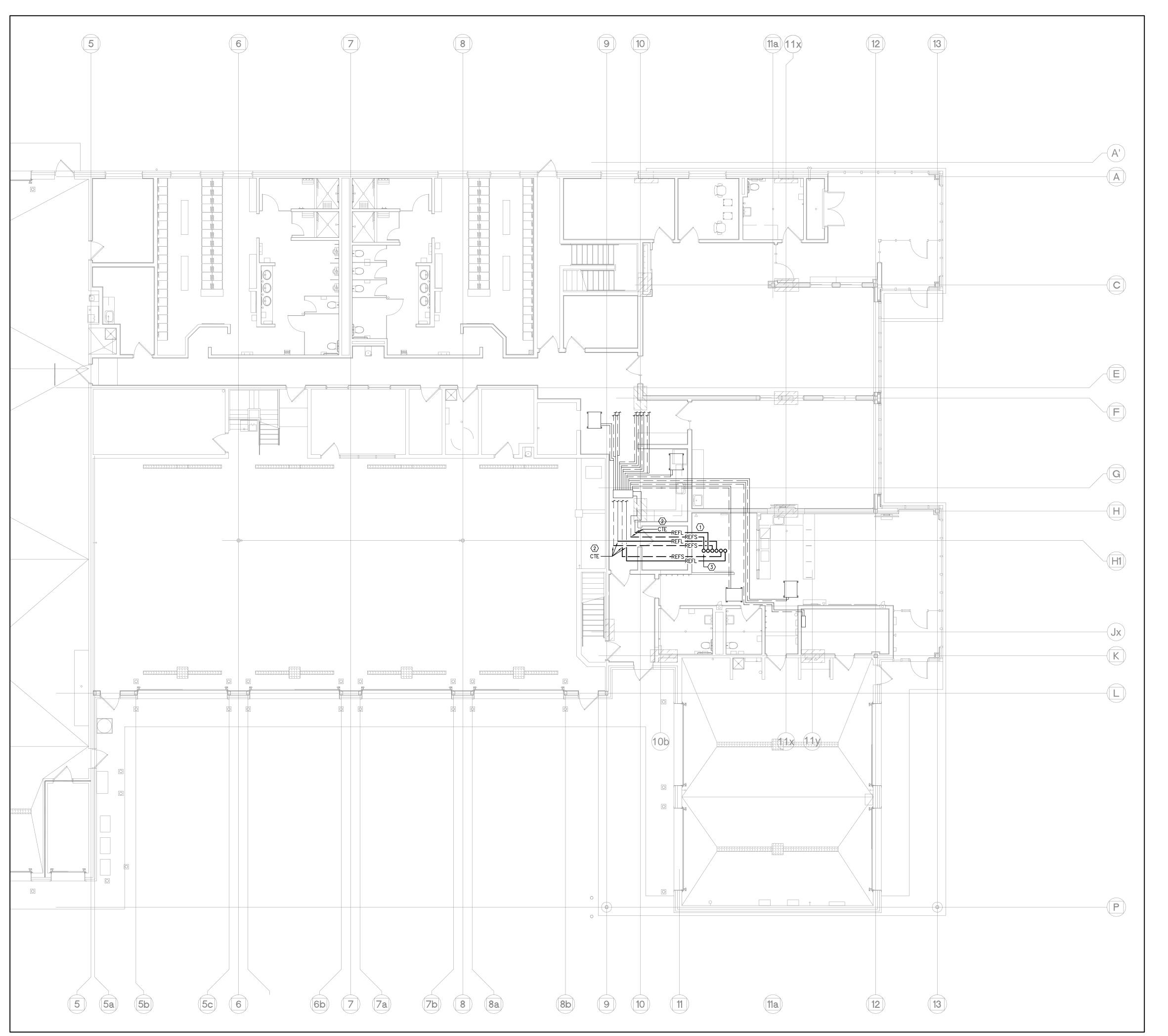
AS SHOWN

PURCHASING DOCUMENT NUMBER

23-122

22701 M-2.6

PART GROUND FLOOR PLAN - REFRIGERANT PIPING DEMOLITION
1:100



(1) NEW REFRIGERANT PIPING IN CEILING SPACE SERVING RELOCATED EX.HP, EX.ACCU-1 AND EX.ACCU-2. EXACT ROUTING OF REFRIGERANT PIPING TO BE COORDINATED ON SITE. SUPPORT PIPING USING A SYSTEM EQUAL TO UNISTRUT SECURED TO STRUCTURE ABOVE. PROVIDE APPROPRIATE PIPE CLAMPS FOR REFRIGERANT PIPING (TYPICAL).

(2) CONNECT NEW REFRIGERANT PIPING TO EXISTING IN CEILING SPACE. CONTRACTOR TO CONFIRM EXACT LOCATION OF EXISTING REFRIGERANT PIPING ON SITE.

3 NEW REFRIGERANT PIPING UP TO FLOOR ABOVE.

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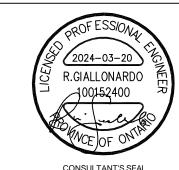
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7	ISSUED FOR TENDER	2024-03-20	RG



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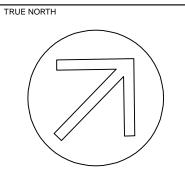
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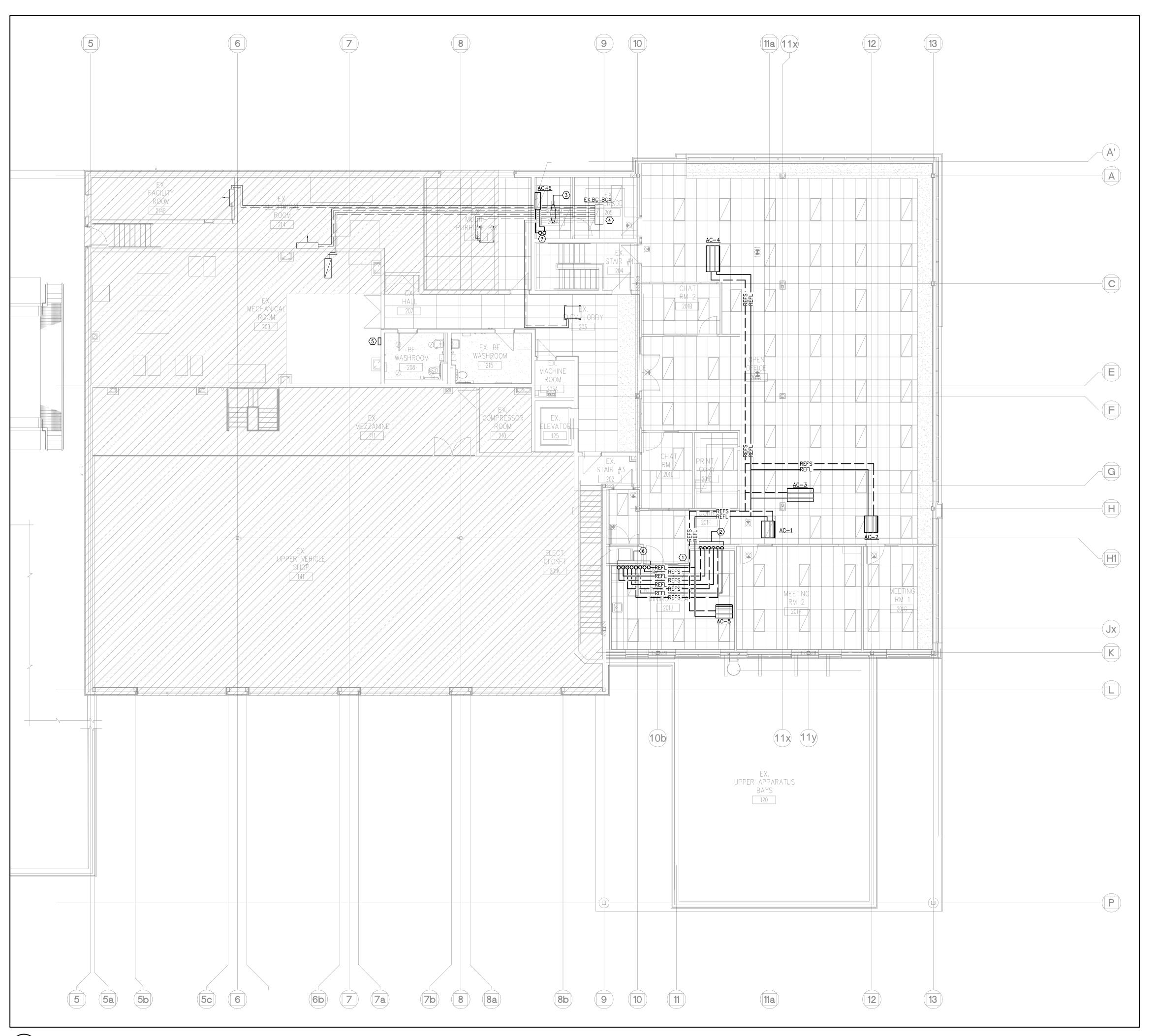
PART GROUND FLOOR PLAN -REFRIGERANT PIPING NEW



AS SHOWN SEPTEMBER 2023 GION OF PEEL PROJECT NUMBER 22701 23-122

PURCHASING DOCUMENT NUMBER M-2.7

PART GROUND FLOOR PLAN - REFRIGERANT PIPING NEW
1:100



(1) NEW REFRIGERANT PIPING IN CEILING SPACE. EXACT ROUTING OF REFRIGERANT PIPING TO BE COORDINATED ON SITE. SUPPORT PIPING USING A SYSTEM EQUAL TO UNISTRUT SECURED TO STRUCTURE ABOVE. PROVIDE APPROPRIATE PIPE CLAMPS FOR REFRIGERANT PIPING (TYPICAL).

(2) REFRIGERANT PIPING SERVING EXISTING RELOCATED EX.HP, EX.ACCU-1 AND EX.ACCU-2 DOWN TO GROUND FLOOR CEILING SPACE. RECONNECT TO EXISTING REFRIGERANT PIPING ON GROUND FLOOR. CONTRACTOR TO CONFIRM EXACT LOCATION OF EXISTING REFRIGERANT PIPING ON SITE.

(3) EXISTING REFRIGERANT PIPING AT HIGH LEVEL TO REMAIN (TYPICAL).

4 EXISTING BC CONTROLLER SERVING EXISTING VRF SYSTEM TO REMAIN.

5 PROVIDE NEW MITSUBISHI SYSTEM CONTROLLER AND CONNECT ALL NEW EQUIPMENT SERVING 2ND FLOOR TO THIS CONTROLLER. CONTROLLER SHALL BE CAPABLE OF CONNECTION TO THE BAS AND ALL GRAPHICS, SEQUENCING, ETC. THIS SYSTEM SHALL BE MONITORED AND CONTROLLED BY THE BAS TO MATCH BASE BUILDING. SHALL BE PROVIDED TO MATCH BASE BUILDING. EXACT LOCATION OF MAIN CONTROLLER TO BE COORDINATED ON SITE WITH

(6) NEW REFRIGERANT PIPING SERVING EXISTING EQUIPMENT ON GROUND FLOOR AND NEW EQUIPMENT ON 2ND FLOOR UP THROUGH ROOF TO ROOF-MOUNTED EQUIPMENT. REFER TO ROOF PLAN FOR CONTINUATION OF PIPING.

(7) NEW REFRIGERANT LINE SET UP THROUGH ROOF. REFER TO ROOF PLAN FOR CONTINUATION OF PIPING.

GENERAL HVAC NOTES

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KEY PLAN

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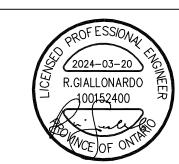
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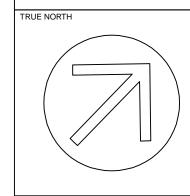
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SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON

PART SECOND FLOOR PLAN -REFRIGERANT PIPING

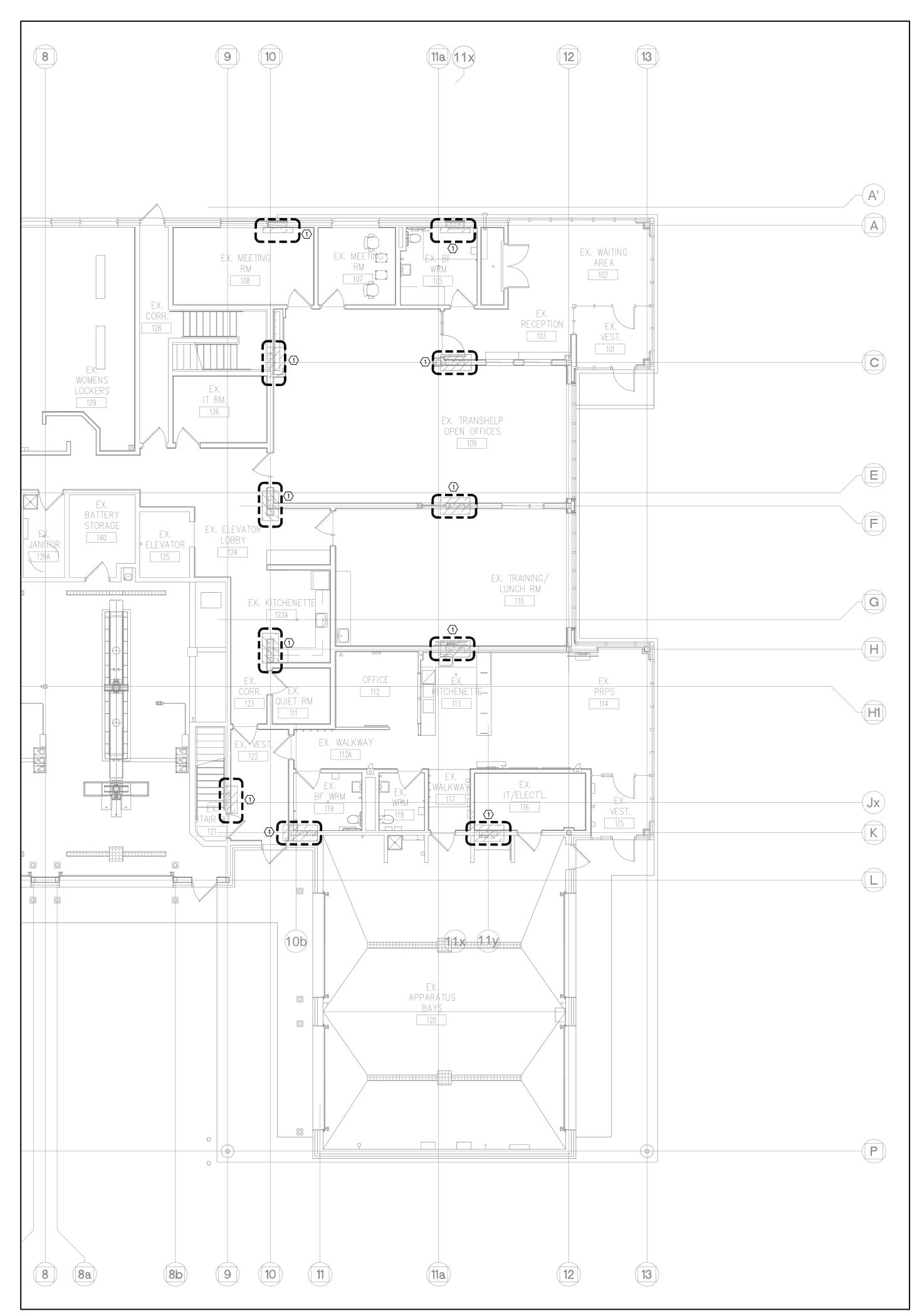


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23-122 PURCHASING DOCUMENT NUMBER

M-2.8

PART SECOND FLOOR PLAN - REFRIGERANT PIPING 1 M-2.8 PAF 1:100

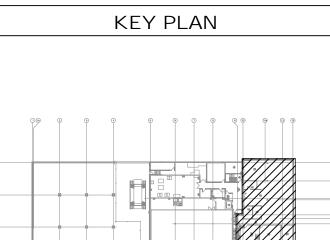


MECHANICAL DRAWING NOTES

(1) LOCATION OF NEW COLUMN. CONTRACTOR TO PROVIDE ALL WORK REQUIRED TO MECHANICAL SYSTEMS INCLUDING, BUT NOT LIMITED TO, HVAC, REFRIGERANT PIPING, DOMESTIC WATER SYSTEMS, PLUMBING FIXTURES, VENT PIPING, HEATING WATER SYSTEMS, UNDERGROUND DRAINAGE PIPING, CONTROLS, SPRINKLER HEADS AND PIPING, ETC. BASE BUILDING MECHANICAL DRAWINGS WILL BE PROVIDED TO THE CONTRACTOR FOR REFERENCE OF EXISTING SYSTEMS.

GENERAL HVAC NOTES

- THE MECHANICAL DRAWINGS DISPLAY A GENERAL DESIGN AND INSTALLATION. THEREFORE, IF REQUIRED, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE CONSULTANT PRIOR TO INSTALLATION.
- 2. THESE DRAWINGS HAVE BEEN PREPARED FOR DIV.23 AND DO NOT ACCURATELY DISPLAY ALL ELECTRICAL, STRUCTURAL AND ARCHITECTURAL ELEMENTS. REFER TO OTHER DIVISION'S CONTRACT DRAWINGS FOR CLARIFICATION.
- 3. THIS CONTRACTOR SHALL VISIT THE SITE DURING THE NON—MANDATORY SITE VISITS AND COMPLETELY INVESTIGATE AND UNDERSTAND THE EXISTING CONDITIONS AND THEIR RELATION TO THE DESIGN DRAWINGS/DOCUMENTS. NO CONSIDERATION WILL BE GIVEN TO THE CONTRACTOR FOR ANY HINDRANCES TO THE MECHANICAL INSTALLATION FROM SITE CONDITIONS WHICH EXISTED PRIOR TO TENDER SUBMISSION. AS SUCH AND WHERE REQUIRED, THE CONTRACTOR SHALL PROVIDE INTERFERENCE DRAWINGS AND SHALL SUBMIT THEM TO THE CONSULTANT FOR REVIEW



NOTES

DISCLAIMER

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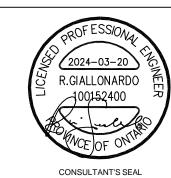
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7	ISSUED FOR TENDER	2024-03-20	RG



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CHANICAL CONSULTANT



220-4550 Highway 7 Woodbridge, ON L4L 4Y7 (905)265-1052 info@giallonardoeng.com www.giallonardoeng.com

BARRY BRYAN ASSOCIATES



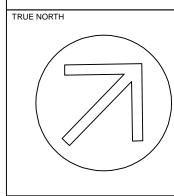
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (805) 686-5252
Fax: (905) 686-5256
e-mil: bba@bbe-archeng.com

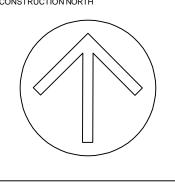
SECOND FLOOR EXPANSION

REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON

DRAWING TITLE

PART GROUND FLOOR PLAN -MECHANICAL NEW FOR CONCRETE COLUMNS





SW
RG

SCALE
AS SHOWN
CONSULTANT PROJECT NUMBER

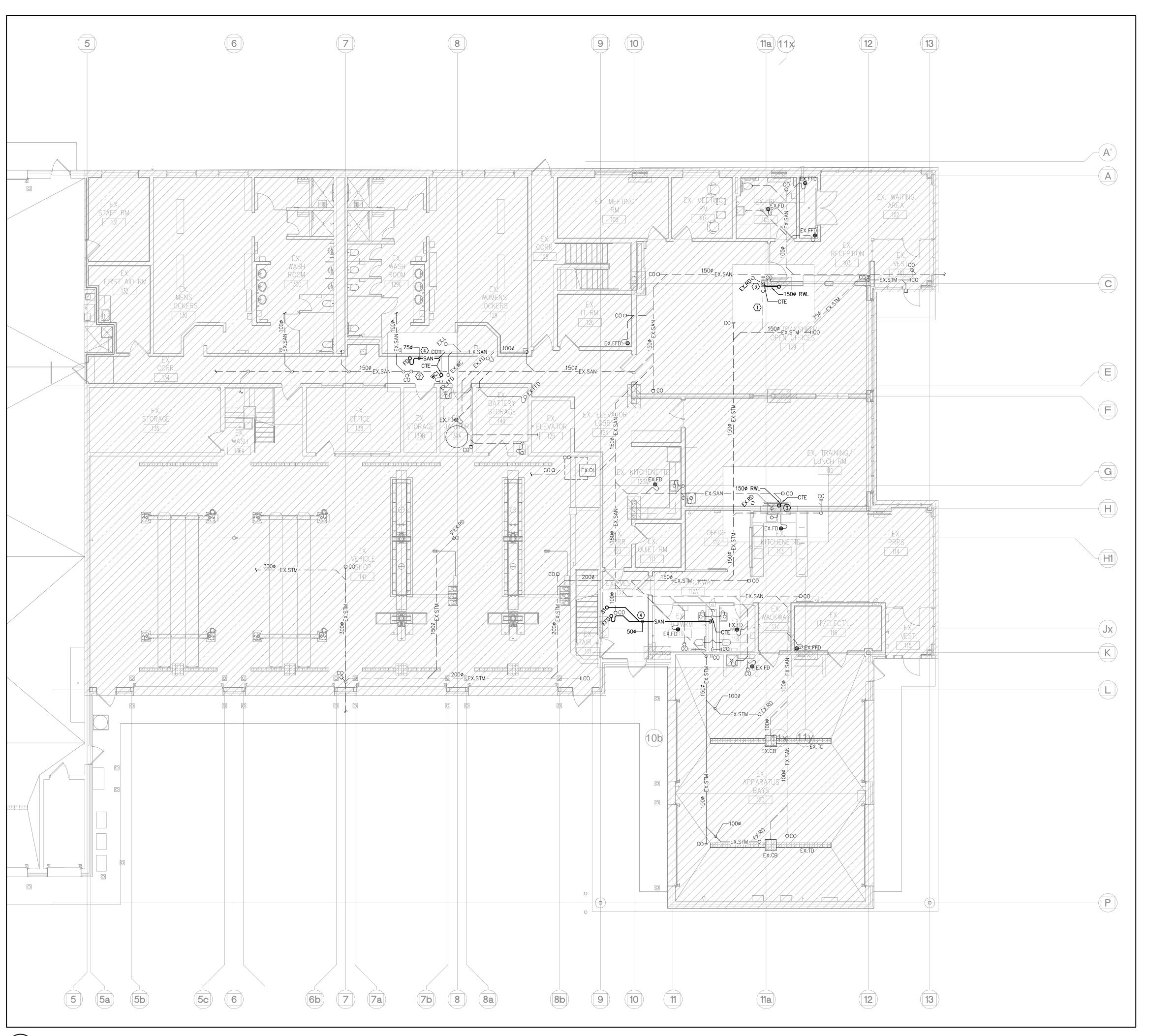
23-122

CHECKED BT
RG
REGION OF PEEL PROJECT NUMBER
22701

purchasing document number:

Drawing number

M-2.9



DRAINAGE DRAWING NOTES

1 EXISTING BURIED STORM DRAINAGE PIPING TO REMAIN

(2) EXISTING BURIED SANITARY DRAINAGE PIPING TO REMAIN

3 REWORK EXISTING STORM DRAINAGE PIPING AS SHOWN. 4 PROVIDE NEW SANITARY DRAINAGE PIPING IN GROUND FLOOR CEILING SPACE SERVING NEW SECOND FLOOR

FIXTURES. CONNECT TO EXISTING SANITARY DRAINAGE PIPING

GENERAL DRAINAGE NOTES

PROVIDE VENTING SYSTEMS IN ACCORDANCE WITH PART 7 OF THE ONTARIO BUILDING CODE.

WHERE SHOWN (TYPICAL).

SPECIFICATIONS.

2. PROVIDE ADEQUATE ACCESS FOR ALL EQUIPMENT, VALVES, ETC. LOCATED BEHIND WALLS AND CEILINGS. REFER TO

3. ALL EXISTING SERVICES SHOWN ARE A GENERAL REPRESENTATION ONLY OF ACTUAL ONSITE CONDITIONS. CONTRACTOR TO VERIFY EXACT LOCATION OF EXISTING SERVICES PRIOR TO CONSTRUCTION AND REPORT ALL DISCREPANCIES TO ENGINEER IN A TIMELY MANNER

KEY PLAN

NOTES

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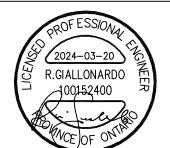
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ISSUES AND REVISIONS



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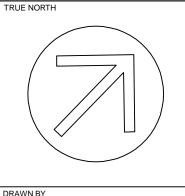
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SECOND FLOOR EXPANSION

REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON

PART GROUND FLOOR PLAN -DRAINAGE



SEPTEMBER 2023

GION OF PEEL PROJECT NUMBER

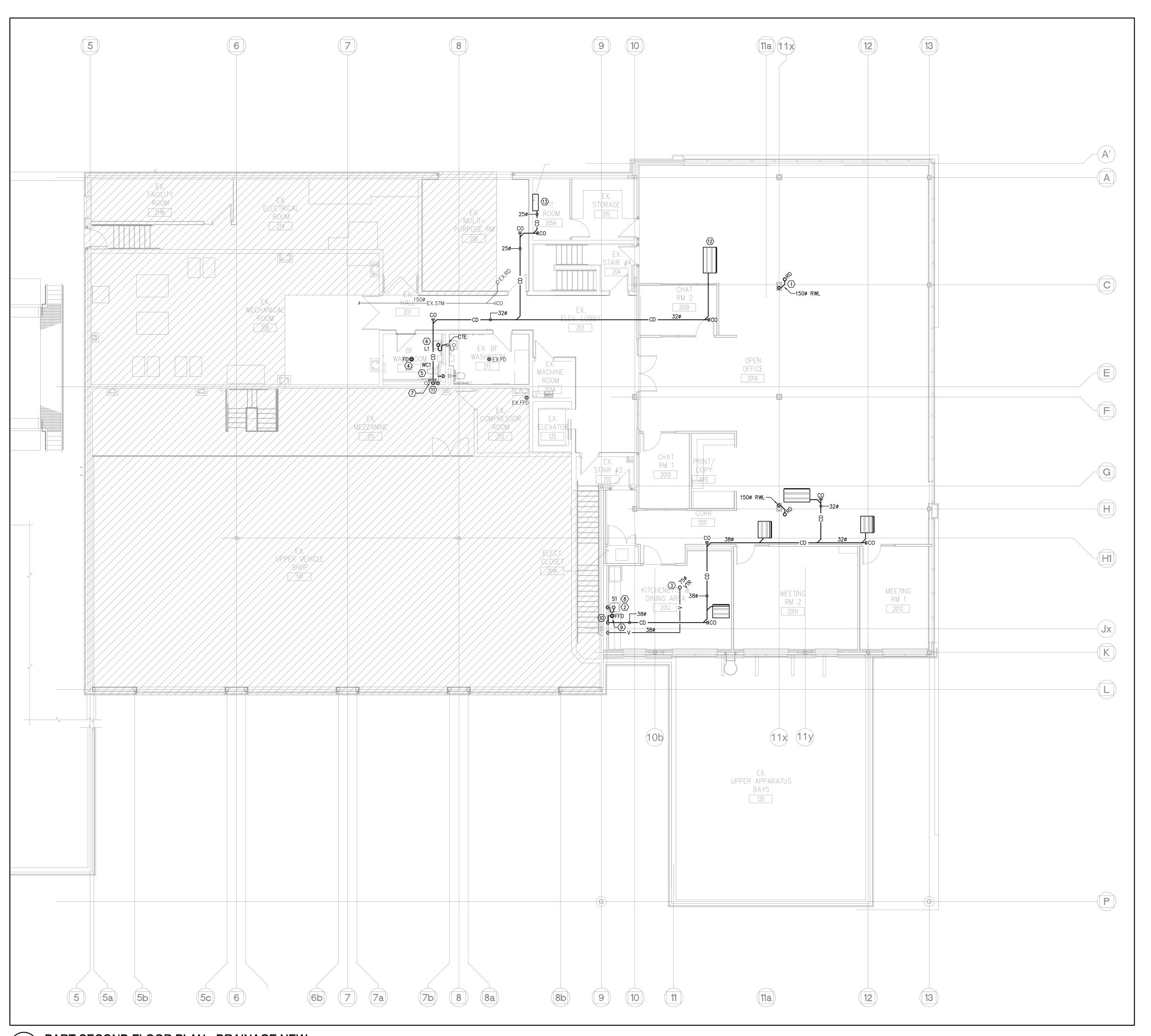
AS SHOWN

23-122 PURCHASING DOCUMENT NUMBER

M-3.1

22701

PART GROUND FLOOR PLAN - DRAINAGE
1:100



DRAINAGE DRAWING NOTES

1) PROVIDE NEW STORM DRAINAGE PIPING IN CEILING SPACE AND DROP DOWN TO GROUND FLOOR CEILING SPACE WHERE SHOWN (TYPICAL).

(2) PROVIDE NEW SINK AS SPECIFIED. PROVIDE NEW SANITARY DRAINAGE PIPING IN WALL SPACE AND DROP DOWN TO GROUND FLOOR CEILING SPACE WHERE SHOWN.

3 PROVIDE NEW 750 VTR. EXACT LOCATION TO BE COORDINATED ON SITE.

4 PROVIDE NEW FLOOR DRAIN AS SPECIFIED.

SPECIFIED. PROVIDE TRAP SEAL PRIMER.

(5) PROVIDE NEW WATER CLOSET AS SPECIFIED. 6 PROVIDE NEW LAVATORY AS SPECIFIED. CONNECT NEW

7 PROVIDE NEW 300/300 ACCESS DOOR. INSTALL DOOR TO ENSURE ADEQUATE ACCESS FOR ALL EXISTING PIPING

SANITARY DRAINAGE PIPING TO EXISTING IN WALL SPACE.

(8) PROVIDE 190 PLUGGED SANITARY UPSTREAM OF P-TRAP

FOR CONNECTION TO DISHWASHER. 9 PROVIDE NEW FUNNEL FLOOR DRAIN IN CABINET SPACE AS

(10) DROP NEW CONDENSATE DRAINAGE IN WALL. TERMINATE NEW CONDENSATE DRAINAGE PIPING INDIRECTLY AT NEW FUNNEL FLOOR DRAIN IN CABINET SPACE. PROVIDE WALL ESCUTCHEON.

(11) DROP NEW CONDENSATE DRAINAGE IN WALL CHASE. TERMINATE NEW CONDENSATE DRAINAGE PIPING INDIRECTLY AT EXISTING FUNNEL FLOOR DRAIN.

(12) NEW SPLIT CONCEALED AC EVAPORATOR UNIT AS SPECIFIED (13) NEW SPLIT WALL MOUNTED AC EVAPORATOR UNIT AS

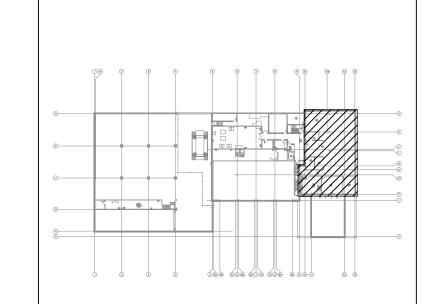
GENERAL DRAINAGE NOTES

SPECIFIED.

PROVIDE VENTING SYSTEMS IN ACCORDANCE WITH PART 7 OF THE ONTARIO BUILDING CODE.

2. PROVIDE ADEQUATE ACCESS FOR ALL EQUIPMENT, VALVES, ETC. LOCATED BEHIND WALLS AND CEILINGS. REFER TO SPECIFICATIONS.

3. ALL EXISTING SERVICES SHOWN ARE A GENERAL REPRESENTATION ONLY OF ACTUAL ONSITE CONDITIONS. CONTRACTOR TO VERIFY EXACT LOCATION OF EXISTING SERVICES PRIOR TO CONSTRUCTION AND REPORT ALL DISCREPANCIES TO ENGINEER IN A TIMELY MANNER



KEY PLAN

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SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON

PART SECOND FLOOR PLAN -DRAINAGE NEW



SW AS SHOWN

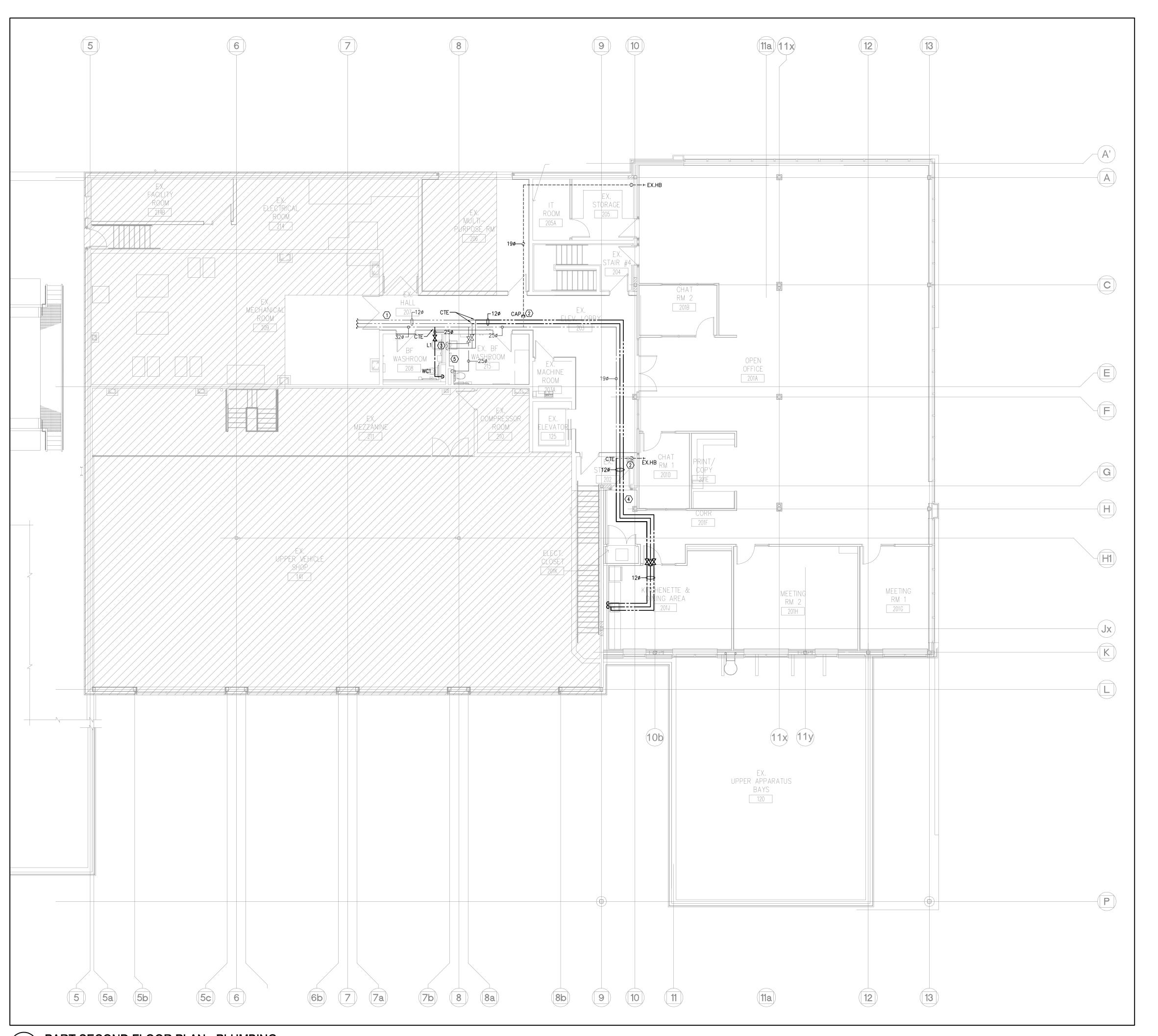
PURCHASING DOCUMENT NUMBER

23-122

SEPTEMBER 2023 GION OF PEEL PROJECT NUMBER 22701

M-3.2

PART SECOND FLOOR PLAN - DRAINAGE NEW 1 M-3.2 PAF 1:100



PLUMBING DRAWING NOTES

1 EXISTING DCW/DHW/DHWR PIPING IN CEILING SPACE TO REMAIN (TYPICAL).

(2) CAP EXISTING DCW PIPING SERVING HOSE BIB AS SHOWN. 3 CONNECT NEW LAVATORY TO EXISTING DCW/DHW IN WALL. 4 PROVIDE NEW DCW/DHW/DHWR PIPING IN CEILING SPACE AND CONNECT TO EXISTING WHERE SHOWN. (5) PROVIDE NEW DCW PIPING SERVING WATER CLOSET. CONNECT TO EXISTING MAIN AS SHOWN.

GENERAL PLUMBING NOTES

PROVIDE VENTING SYSTEMS IN ACCORDANCE WITH PART 7 OF THE ONTARIO BUILDING CODE.

- 2. PROVIDE ADEQUATE ACCESS FOR ALL EQUIPMENT, VALVES, ETC. LOCATED BEHIND WALLS AND CEILINGS. REFER TO SPECIFICATIONS.
- 3. ALL EXISTING SERVICES SHOWN ARE A GENERAL REPRESENTATION ONLY OF ACTUAL ONSITE CONDITIONS. CONTRACTOR TO VERIFY EXACT LOCATION OF EXISTING SERVICES PRIOR TO CONSTRUCTION AND REPORT ALL DISCREPANCIES TO ENGINEER IN A TIMELY MANNER

KEY PLAN

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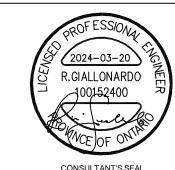
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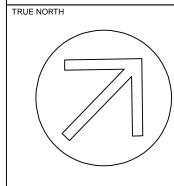


Architects Engineers Project Managers

SECOND FLOOR EXPANSION

REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON

PART SECOND FLOOR PLAN -**PLUMBING**

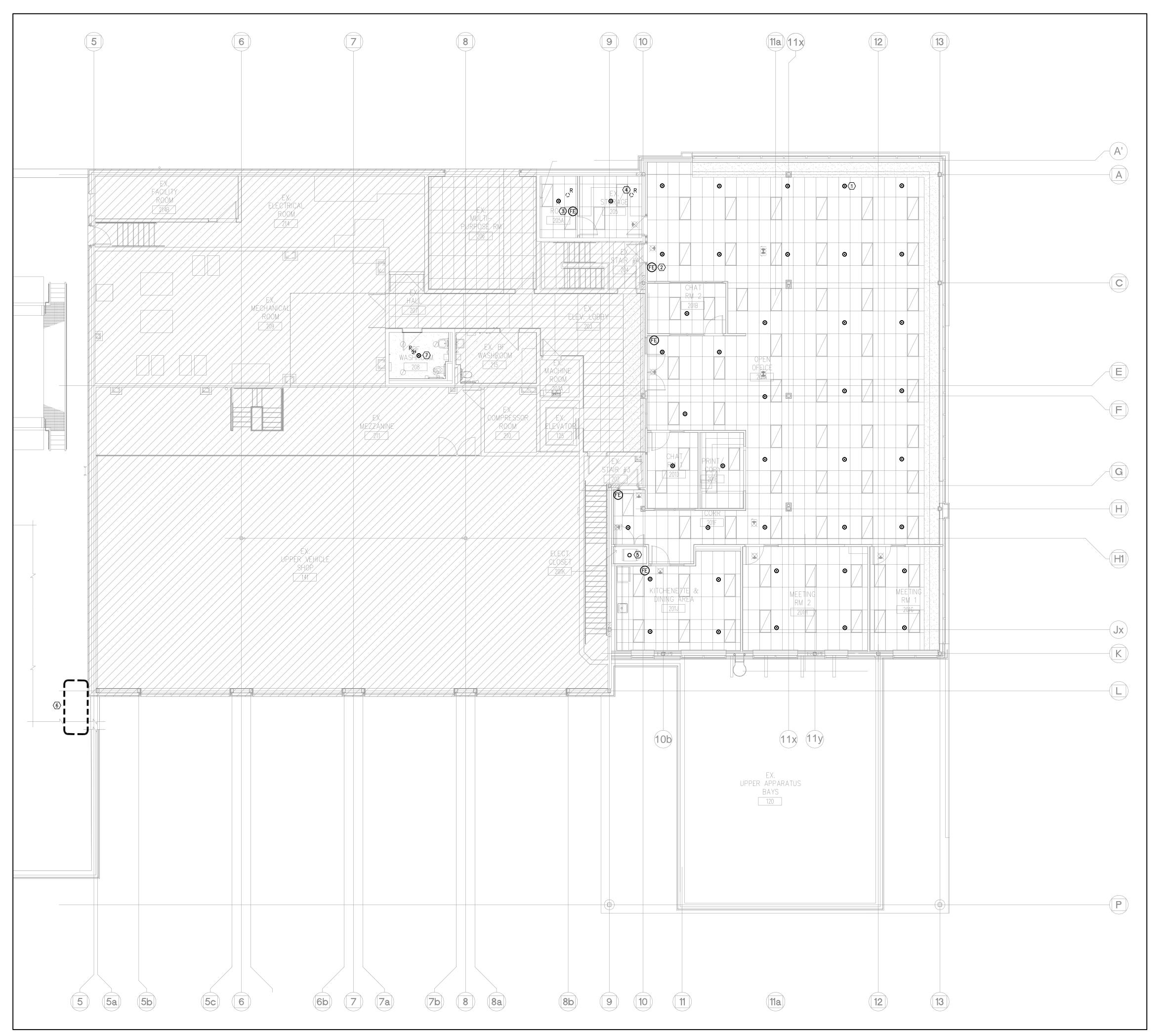


SW SEPTEMBER 2023 AS SHOWN EGION OF PEEL PROJECT NUMBER 22701

23-122 PURCHASING DOCUMENT NUMBER

M-3.3

PART SECOND FLOOR PLAN - PLUMBING
1:100



FIRE PROTECTION NOTES

1) PROVIDE NEW CONCEALED SPRINKLER HEAD IN T-BAR CEILING. FINISH OF CONCEALED COVER PLATE TO BE COORDINATED WITH ARCHITECT/CLIENT (TYPICAL).

2 PROVIDE NEW FIRE EXTINGUISHER EQUAL TO NATIONAL FIRE EQUIPMENT LTD. DIAMOND FIRE EXTINGUISHER MULTI-PURPOSE DRY CHEMICAL EXTINGUISHER C/W WALL HOOK (TYPICAL).

(3) PROVIDE NEW FIRE EXTINGUISHER FOR IT ROOMS EQUAL TO NATIONAL FIRE EQUIPMENT LTD. FE-36 MODEL FE05S 5LB.

CLEAN AGENT EXTINGUISHER C/W WALL HOOK.

(4) EXISTING UPRIGHT SPRINKLER HEAD TO BE REMOVED AND DISPOSED OF OFF SITE (TYPICAL).

(5) PROVIDE NEW UPRIGHT SPRINKLER HEAD TO MATCH BASE

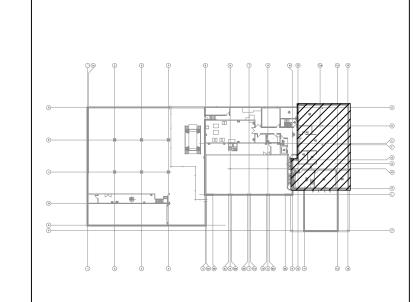
6 EXISTING CONCEALED PENDENT SPRINKLER HEAD TO BE REMOVED AND DISPOSED OF.

7 LOCATION OF EXISTING 6" FIRE SPRINKLER MAIN AND ASSOCIATED WET AND DRY RISERS. CONTRACTOR TO CARRY OUT HYDRAULIC CALCULATIONS TO DETERMINE THE SYSTEM'S ADEQUACY TO SUPPORT THE NEW SECOND FLOOR. FOR CONNECTION OF THE NEW SYSTEM TO THE EXISTING, THE CONTRACTOR SHALL CONNECT TO EXISTING CAPPED 1000 SUPERVISED BUTTERFLY VALVE C/W ALARM VALVE WITH LISTED TRIM AND EXCESS PRESSURE PUMP, ALARM SWITCHES, BUTTERFLY VALVE, FLOW SWITCH, AND 320 TEST & DRAIN. MAKE ALL CONNECTIONS TO FIRE ALARM SYSTEM AS REQUIRED.

THIS CONTRACTOR SHALL ENGAGE THE SERVICES OF A LICENSED PROFESSIONAL ENGINEER IN THE PROVINCE OF ONTARIO TO PROVIDE HYDRAULIC CALCULATIONS AND SHOP DRAWINGS, REVIEW THE CONTRACT DOCUMENTS, SUPERVISE AND APPROVE THE INSTALLATION AS PER THE PERMIT DOCUMENTS. THIS CONTRACTOR SHALL BE RESPONSIBLE SUBMITTING DOCUMENTS FOR BUILDING PERMIT AND MUST CARRY ALL COSTS ASSOCIATED WITH THIS PROCESS.

GENERAL FIRE PROTECTION NOTES

- ALL SPRINKLER HEADS SHALL BE INSTALLED TO PROVIDE COVERAGE IN ACCORDANCE WITH NFPA 13.
- WHERE BEAM POCKETS ARE PRESENT, CONTRACTOR SHALL PROVIDE SPRINKLER HEADS SO AS NOT TO IMPINGE ON THE PROPER COVERAGE, REGARDLESS OF THE SPRINKLER HEAD LOCATIONS ON THE MECHANICAL
- 3. ALL SPRINKLER PIPING SHALL BE FERROUS SCHEDULE 40 IN ACCORDANCE WITH NFPA 13.



KEY PLAN

NOTES

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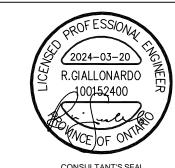
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SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON

PART SECOND FLOOR PLAN - FIRE PROTECTION NEW



SEPTEMBER 2023

GION OF PEEL PROJECT NUMBER

SW AS SHOWN

23-122 PURCHASING DOCUMENT NUMBER

M-4.1

22701

PART SECOND FLOOR PLAN - FIRE PROTECTION NEW 1 M-4.1 PAF 1:100

LEGEND

EXISTING CEILING MOUNTED/SUSPENDED FIXTURE CONNECTED TO UTILITY LIGHTING CIRCUIT.

EXISTING CEILING MOUNTED/SUSPENDED FIXTURE CONNECTED TO BASE BUILDING EMERGENCY LIGHTING CIRCUIT.

CEILING MOUNTED/SUSPENDED FIXTURE. CONNECT TO SWITCHED BASE BUILDING EMERGENCY LIGHTING CIRCUIT. PROVIDE EMERGENCY LIGHTING CONTROL UNIT FOR SWITCHING.

CEILING MOUNTED/SUSPENDED FIXTURE. CONNECT TO NON-SWITCHED BASE BUILDING EMERGENCY LIGHTING CIRCUIT.

CEILING MOUNTED/SUSPENDED FIXTURE. CONNECT TO UTILITY LIGHTING

RECESSED/PENDENT DOWNLIGHT. CONNECT TO SWITCHED UTILITY LIGHTING

RECESSED/PENDANT DOWNLIGHT. CONNECT TO SWITCHED BASE BUILDING EMERGENCY LIGHTING CIRCUIT. PROVIDE EMERGENCY LIGHTING CONTROL UNIT FOR SWITCHING.

RECESSED/PENDANT DOWNLIGHT. CONNECT TO NON-SWITCHED BASE BUILDING EMERGENCY LIGHTING CIRCUIT.

CEILING OR WALL MOUNTED "EXIT" LIGHT.

WHITE DECORA STYLE LIGHT SWITCH, WALL MOUNTED, VOLTAGE AND CURRENT RATINGS AS REQUIRED.

WALL MOUNTED ROOM LIGHT SWITCH WATT STOPPER LMSW-10X. 'OV1' DENOTES ONE (1) DIGITAL PUSH BUTTON.

'OV2' DENOTES TWO (2) DIGITAL PUSH BUTTONS. 'OV3' DENOTES THREE (3) DIGITAL PUSH BUTTONS. 'OV4' DENOTES FOUR (4) DIGITAL PUSH BUTTONS.

WALL MOUNTED AREA LIGHT SWITCH WATT STOPPER LMSW-10X.

'OW2' DENOTES TWO (2) DIGITAL PUSH BUTTONS. 'OW3' DENOTES THREE (3) DIGITAL PUSH BUTTONS. 'OW4' DENOTES FOUR (4) DIGITAL PUSH BUTTONS. 'OW5' DENOTES FIVE (5) DIGITAL PUSH BUTTONS. 'OW6' DENOTES SIX (6) DIGITAL PUSH BUTTONS.

15AMP/120VOLT, U-GROUND DUPLEX RECEPTACLE WALL MOUNTED AT 12" AFF UNLESS INDICATED OTHERWISE. GFI DENOTES OUTLET C/W GROUND FAULT INTERRUPT PROTECTION.

RECEPTACLE, REQUIREMENT AS NOTED.

20A/120V DUPLEX RECEPTACLE, CSA 5-20R (T-SLOT). HUBBELL DR20

20A/120V PLUG LOAD CONTROLLED DUPLEX RECEPTACLE, CSA 5-20R (T-SLOT). HUBBELL DR20C2 SERIES.

DIRECT CONNECTION

STARTER

NON-FUSED HORSEPOWER RATED VISIBLE BLADE HEAVY DUTY DISCONNECT SWITCH C/W PADLOCK PROVISION IN OFF POSITION

VISIBLE BLADE HEAVY DUTY DISCONNECT SWITCH C/W PADLOCK PROVISION IN OFF POSITION FUSED AT '15A' 30/15A/3P

COMBINATION STARTER C/W FUSES, OVERLOAD PROTECTION, CONTROL TRANSFORMER, 2 NO AND 2 NC CONTACTS, PILOT LIGHT AND HOA. FUSED 30/15A/3P

RP-A-X(D) CIRCUIT 'X' FED FROM RECEPTACLE PANEL 'A'. '(D)' DENOTES DESIGNATED CIRCUIT FOR ISOLATED GROUND DUPLEX RECEPTÀCLE.

RP-A-X(D) EXISTING CIRCUIT 'X' FED FROM RECEPTACLE PANEL 'A'. '(D)' DENOTES DESIGNATED CIRCUIT FOR ISOLATED GROUND DUPLEX RECEPTACLE.

CIRCUIT BREAKER. 'M' DENOTES MOTORIZED.

INDICATES EXISTING DEVICE TO REMAIN

INDICATES EXISTING DEVICE TO BE REMOVED. REMOVE CONDUIT AND WIRE BACK TO SOURCE.

DENOTES EXISTING DEVICE IN RELOCATED POSITION. PROVIDE CONDUIT AND DENOTES EXISTING DEVICE TO REMAIN. RECIRCUIT AS SHOWN. REMOVE

EXISTING CONDUIT AND WIRE BACK TO EXISTING SOURCE. PROVIDE NEW CONDUIT AND WIRE BACK TO NEW SOURCE.

CL DENOTES CEILING MOUNTED.

DENOTES ROOF MOUNTED.

INDICATES MOUNTING HEIGHT OF 42".

DENOTES NEMA TYPE 4X ENCLOSURE SUITABLE FOR HOSE DIRECTED WATER

DENOTES ABOVE FINISHED FLOOR

4" SQUARE BACKBOX C/W SINGLE DEVICE COVER (PLASTER RING) AND 3/4" EMPTY ZONE CONDUIT ASSEMBLY FOR COMMUNICATIONS CONTRACTOR'S USE. PROVIDE A PULL STRING IN CONDUIT.

SYSTEMS FURNITURE POWER DISTRIBUTION BAY BOX MOUNTED BENEATH RAISED FLOOR C/W TERMINAL STRIPS AND SIX (6) CIRCUITS.

DENOTES LOCATION OF COLUMN/WALL MOUNTED CABLE ENTRY FOR SYSTEMS FURNITURE. PROVIDE ÉLECTRICAL REQUIREMENTS AND COMMUNICATIONS ROUGH-IN REQUIREMENTS.

DENOTES LOCATION OF RAISED FLOOR MOUNTED CABLE ENTRY FOR SYSTEMS FURNITURE. PROVIDE ELECTRICAL REQUIREMENTS AND COMMUNICATIONS ROUGH-IN REQUIREMENTS. PROVIDE RAISED FLOOR GROMMET - KOLDLOK 4" ROUND UPSITE 40001.

RAISED FLOOR MOUNTED OFFICE GROUP CONSISTING OF RAISED FLOOR BOX, ONE (1) DUPLEX RECEPTACLE, ONE (1) PLUG LOAD CONTROLLED DUPLEX RECEPTACLE AND COMMUNICATIONS MODULE FOR COMMUNICATIONS CONTRACTOR'S USE.

MANUAL PULL STATION. CONNECT TO BASE BUILDING FIRE ALARM

SMOKE DETECTOR. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM.

DUCT MOUNTED SMOKE DETECTOR. CONNECT TO BASE BUILDING FIRE

ISOLATION MODULE. CONNECT TO BASE BUILDING FIRE ALARM

BUILDING FIRE ALARM SYSTEM. FIRE ALARM SYSTEM HORN. CONNECT TO BASE BUILDING FIRE ALARM

INITIATING DEVICE INTERFACE ZONE MODULE. CONNECT TO BASE

FIRE ALARM SYSTEM COMBINATION STROBE LIGHT/HORN. CONNECT TO

SYSTEM. RED IN COLOUR.

BASE BUILDING FIRE ALARM SYSTEM. RED IN COLOUR.

FIRE ALARM SYSTEM STROBE LIGHT. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM. RED IN COLOUR.

END OF LINE RESISTOR. CONNECT TO BASE BUILDING FIRE ALARM EOL

ROOM CEILING MOUNTED OCCUPANCY SENSOR WATT STOPPER LMDC-100. SENSOR PRESET AT 20 MINUTE TIME OUT SETTING C/W MANUAL ON AND AUTO OFF AND DEFAULT DETECTION TECHNOLOGY SETTING.

OPEN OFFICE AREA CEILING MOUNTED OCCUPANCY SENSOR WATT STOPPER LMDC-100. SENSOR PRESET AT 20 MINUTE TIME OUT SETTING C/W MANUAL ON AND AUTO OFF AND DEFAULT DETECTION TECHNOLOGY SETTING.

NON-SWITCHED CORRIDOR CEILING MOUNTED OCCUPANCY SENSOR WATT STOPPER LMDC-100. SENSOR PRESET AT 20 MINUTE TIME OUT SETTING C/W AUTO ON AND AUTO OFF WALK THROUGH MODE ON AND DEFAULT

DIGITAL ON/OFF/DIMMING ROOM CONTROLLER WATT STOPPER LMRC-212/LMRC-212-347 (VOLTAGE RATING AS REQUIRED TO SUIT LIGHTING LOAD)

DIGITAL PLUG LOAD CONTROLLER WATT STOPPER LMPL-101

CEILING MOUNTED PHOTOSENSOR WATT STOPPER LMLS-400. SENSOR PRESET 35FC. 'P' DENOTES PRIMARY SIDE LIGHTED AREA. 'S' DENOTES SECONDARY SIDE LIGHTED AREA

CARD READER ROUGH-IN

DOOR CONTACT ROUGH-IN

ELECTRIC STRIKE ROUGH-IN

AUDIBLE ALARM ROUGH-IN MOTION DETECTOR REQUEST TO EXIT ROUGH-IN

POWER HINGE ROUGH-IN

DOOR OPERATOR INTERFACE DEVICE. CONNECT TO ACCESS CONTROL

ACCESSIBLE WAVE SENSOR ROUGH-IN C/W CONDUIT AND WIRES

UNIVERSAL WASHOOM DURESS SYSTEM COMBINATION STROBE LIGHT/HORN.

UNIVERSAL WASHROOM DURESS SYSTEM STATION.

CCTV CCTV SYSTEM CAMERA ROUGH-IN

4" SQUARE DEEP BACKBOX C/W COVER PLATE AND 1 1/2" ZONE CONDUIT SYSTEM C/W PULLSTRING FOR A/V CONTRACTOR'S USE.

4" SQUARE DEEP BACKBOX C/W COVER PLATE AND 1 1/2" ZONE CONDUIT SYSTEMS C/W PULLSTRING FOR A/V CONTRACTOR'S USE.

LAMACOIDS ID IDENTIFICATION

LAMACOIDS REQUIRED FOR THE FOLLOWING: INCLUDING PANELBOARDS, CONTROL PANELS, CABINETS, LOCAL ISOLATION SWITCHES,

ALL MAIN, TIE AND SUBFEED / BRANCH BREAKERS MOUNTED IN SWITCHBOARDS, POWER

PROVIDE ENGRAVED LAMACOID IDENTIFICATION NAMEPLATES SECURED TO APPARATUS / EQUIPMENT WITH STAINLESS STEEL SCREWS OR RIVETS.

NAMEPLATES SHALL INCLUDE THE FOLLOWING DETAILS:

EQUIPMENT IDENTIFICATION NUMBER

CAPACITY, SOURCE OF POWER AND LOAD SUPPLIED

SHORT CIRCUIT / FAULT CURRENT RATING BASED ON COORDINATION STUDY CALCULATIONS

NAMEPLATES FOR LARGE MULTIPLE CELL OR COMPONENT APPARATUS SUCH AS SUB-STATIONS,

 EQUIPMENT IDENTIFICATION NUMBER VOLTAGE AND PHASE CHARACTERISTICS

SHORT CIRCUIT / FAULT CURRENT RATING BASED ON COORDINATION STUDY CALCULATIONS

NAMEPLATES FOR EACH FEEDER BREAKER AND EACH SUBFEED / BRANCH BREAKER

EQUIPMENT

VOLTAGE AND PHASE CHARACTERISTICS

SHORT CIRCUIT / FAULT CURRENT RATING BASED ON COORDINATION STUDY CALCULATIONS

STANDARD NAMEPLATES TO HAVE ENGRAVED LETTERING WITH BEVELED EDGE AND ADHESIVE

UNLESS OTHERWISE REQUIRED BY LOCAL GOVERNING CODES AND AUTHORITIES' NAMEPLATES

LINE 3 SOURCE 1 LINE 10 MM HIGH LETTERS

LINE 5 ADDITIONAL INFO (AS REQUIRED) 1 LINE 10 MM HIGH LETTERS LINE 6 ADDITIONAL INFO (AS REQUIRED) 1 LINE 10 MM HIGH LETTERS

CIRCUIT NUMBER PERMANENTLY IDENTIFIED ON RECEPTACLES.

LIGHTNING PROTECTION CONTRACTOR BURCHELL LIGHTNING PROTECTION LTD, 613-264-0456

BUILDING IS PROTECTED BY A WET SPRINKLER SYSTEM

INDIVIDUALLY CONTROL (DIM) EACH LIGHT FIXTURE AS PART OF THIS SCOPE OF WORK TO THE FOLLOWING AVERAGE LIGHT LEVELS:

 OFFICE AREAS MEETING ROOMS • CONFERENCE ROOMS AND BOARDROOMS

CORRIDORS

• SERVICE ROOMS

350 LUX AT 30"AFF 500 LUX AT 30"AFF 500 LUX AT 30"AFF 250 LUX AT TREAD LEVEL

350 LUX AT TREAD LEVEL

ALL LAMACOIDS PROVIDED FOR UPS POWERED DISTRIBUTION SHALL BE BLACK LETTERS WITH RED BACKGROUND ALL LAMACOIDS PROVIDED FOR EPS POWERED DISTRIBUTION SHALL BE BLACK LETTERS WITH GREEN BACKGROUND

ALL LAMACOIDS PROVIDED FOR CONTROL AND MISCELLANEOUS PANELS SHALL BE BLACK LETTERS WITH WHITE BACKGROUND PAINT ALL CONDUIT FITTINGS (COUPLINGS AND CONNECTORS) AND ALL BOX COVERS. COLOUR CODING FOR THE CONDUIT FITTINGS AND COVERS AS FOLLOWS:

ALL LAMACOIDS PROVIDED FOR BASE BUILDING POWERED DISTRIBUTION SHALL BE WHITE LETTERS WITH BLACK BACKGROUND

RED - FIRE ALARM YELLOW - LOW VOLTAGE AND INSTRUMENTATION

BLACK - 120/208V BLUE - 300V OR HIGHER

GREEN - DC POWER GREEN WITH YELLOW STRIPE - GROUNDING ORANGE - SECURITY

WHITE - COMMUNICATIONS

BLACK WITH ORANGE SPOTS - 120/208V UPS BLUE WITH ORANGE SPOTS - 300V UPS OR HIGHER

DRAWING SYMBOL / REFERENCE EXISTING FIRE ALARM SYSTEM DEVICES **MANUFACTURER** SERIES / PART # ☑_F / ☑_{FR} MANUAL PULL STATION MS401AD MIRCOM HEAT DETECTOR MIRCOM MIX5251RAPA O_E / O_{ER} SMOKE DETECTOR MIX2251ABA MIRCOM DUCT MOUNTED SMOKE DETECTOR SS HORN/STROBE MGC

ALL ELECTRICAL AND MECHANICAL EQUIPMENT FROM THE SOURCE OF SUPPLY UP TO AND

PANELS, CRITICAL DISTRIBUTION PANELS, DISTRIBUTION PANELS, ETC...

VOLTAGE AND PHASE RATINGS

SWITCHBOARDS AND DISTRIBUTION PANELS SHALL INCLUDE THE FOLLOWING DETAILS:

CAPACITY AND SOURCE OF SUPPLY

 SUB-NAMEPLATES CLEARLY IDENTIFYING EACH CELL OR COMPONENT SOURCE SERVICING RESPECTIVE DISTRIBUTION

TYPICALLY FOR PUMPS, MOTORS, HVAC EQUIPMENT, PANELS AND PANELBOARDS IDENTIFYING

NAME AND SOURCE.

BACKING. NAMEPLATES TO HAVE PROVISIONS FOR MOUNTING WITH SCREWS.

SIZING TO BE AS FOLLOWS. PROVIDE SHOP DRAWING SUBMISSION OF ALL LAMACOID PLATES FOR REVIEW AND APPROVAL.

LINE 1 EQUIPMENT NAME 1 LINE 13 MM HIGH LETTERS

LINE 2 DESCRIPTION 1 LINE 10 MM HIGH LETTERS

LINE 4 ADDITIONAL INFO (AS REQUIRED) 1 LINE 10 MM HIGH LETTERS

PROVIDED AS PART OF THIS SCOPE OF WORK. DO NOT SHARE NEUTRALS. ALL REQUIRED RAISED FLOOR TILE CUTOUTS TO ACCOMMODATE ALL SCOPES

SCOPES OF WORK SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. 20. AS PART OF THIS SCOPE OF WORK PROCURE (COORDINATE AND PAY FOR)

DRAWING LIST

E-1.0 - ELECTRICAL LEGEND AND DETAILS

E-1.1 - ELECTRICAL DETAILS E-1.2 - ELECTRICAL DETAILS

LETTER OF CERTIFICATION.

E-1.3 - ELECTRICAL DETAILS E-1.4 - ELECTRICAL DETAILS

E-1.5 - ELECTRICAL DETAILS E-2.0 - ELECTRICAL PLAN - ROOF E-2.1 - ELECTRICAL PLAN - GROUND FLOOR

E-2.2 - ELECTRICAL PLAN - SECOND FLOOR E-3.2 - REFLECTED CEILING PLAN - SECOND FLOOR E-4.1 - ELECTRICAL GROUNDING SYSTEM DETAILS

E-4.2 - ELECTRICAL GROUNDING SYSTEM RISER DETAILS E-5.2 - ELECTRICAL DEMOLITION PLAN - SECOND FLOOR/ROOF

E-6.2 - REFLECTED CEILING DEMOLITION PLAN - SECOND FLOOR/ROOF E-7.1 - ELECTRICAL SINGLE LINE DIAGRAM

E-7.2 - ELECTRICAL PANEL SCHEDULES

E-9.1 - ELECTRICAL PLANS

GENERAL NOTES

SUBSTITUTES ARE NOT PERMITTED FOR ALL SPECIFIED PRODUCTS.

SHOP DRAWINGS ARE REQUIRED FOR ALL PRODUCTS SPECIFIED FOR THIS PROJECT INCLUDING BUT NOT LIMITED TO LIGHTING CONTROL. ELECTRICAL DISTRIBUTION, TRANSFORMERS, RECEPTACLE PANELS, LAMACOID PLATES, CABLE TRAY, LIGHTING FIXTURES, EXIT SIGNS, FIRE ALARM SYSTEM, SWITCHES, RECEPTACLES, COVER PLATES, DIMMERS, FLOOR BOXES AND GROUNDING SYSTEM MATERIALS.

ELECTRICAL CONTRACTOR AND ALL SUBCONTRACTORS MUST READ AND COMPLY WITH ELECTRICAL SPECIFICATIONS (ISSUED AS A SEPARATE

CIRCUITING MUST BE COMPLETED AS SHOWN ON DRAWINGS. DO NOT CHANGE CIRCUIT NUMBERS.

INSTALLATION AND MANUFACTURING OF ALL DEVICES AND SERVICES INCLUDING DISTRIBUTION, LIGHT FIXTURES, FEEDERS, BRANCH CIRCUITS, VARIOUS SYSTEMS, ETC., MUST COMPLY WITH ALL LOCAL SEISMIC RESTRAINT REQUIREMENTS.

THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, MOUNTING HEIGHTS, CONSTRUCTION DETAILS, LOCATION OF LIGHT FIXTURES, FINISHES AND COLOURS. AS PART OF THIS SCOPE OF WORK AND PRIOR TO CONSTRUCTION

ELECTRICAL CONTRACTOR SHALL COORDINATE AND PAY FOR THE SERVICES OF THE FIRE ALARM MANUFACTURER, FIRE INSPECTOR AND BUILDING INSPECTOR TO THOROUGHLY REVIEW THE PROPOSED INSTALLATION LOCATIONS FOR EACH AND EVERY ANCILLARY DEVICE, FIELD DEVICE, ETC., TO ENSURE THAT THE PROPOSED INSTALLATION IS FULLY COMPLIANT WITH CAN/ULC S524:2019 AND ONTARIO BUILDING CODE. COMPLIANCE SHALL INCLUDE INTERFERENCE AND PROXIMITY TO EXISTING DEVICES AND OBSTRUCTIONS (INCLUDING BUT NOT LIMITED TO LIGHT FIXTURES, SUPPLY AIR DUCTS, EXPOSED DUCT WORK, BEAMS, RACEWAYS, ETC.), SPACING BETWEEN FIELD DEVICES PROVIDED AS PART OF THIS SCOPE OF WORK IN PROPOSED INSTALLATION LOCATIONS, ETC..

AS PART OF THIS SCOPE OF WORK AND PRIOR TO CONSTRUCTION. ELECTRICAL CONTRACTOR SHALL COORDINATE AND PAY FOR THE SERVICES OF THE BUILDING INSPECTOR TO REVIEW THE PROPOSED EXIT SIGN ORIENTATION, LOCATIONS, FACES (READ OR PICTOGRAM) AND CHEVRONS.

CONTRACTOR SHALL BE RESPONSIBLE FOR AND MUST INCLUDE IN BASE BID PRICE FOR ALL SCOPES OF WORK DETAILED IN THE ELECTRICAL DRAWINGS AND ELECTRICAL SPECIFICATIONS BOOK.

10. ELECTRICAL CONTRACTOR SHALL PROVIDE A FIRE WATCH THROUGHOUT THE DURATION OF THE PROJECT DURING FIRE ALARM ZONE BYPASSES/TESTING.

FIRE ALARM SYSTEM TESTING AND VERIFICATIONS MUST TAKE PLACE BETWEEN 7AM AND 4PM DURING THE WEEK. 12. AS BUILT DRAWING REQUIREMENTS:

AS BUILT DRAWINGS TO BE PREPARED AND SUBMITTED IN AUTOCAD FORMAT BY THE ELECTRICAL CONTRACTOR. ALL DEMOLITION SCOPES OF WORK ARE TO BE ERASED FROM AS BUILT

 ROUTING OF ALL FEEDERS, BRANCH WIRING (LIGHTING, EMERGENCY LIGHTING, POWER, ETC.), LOW VOLTAGE WIRING, MISCELLANEOUS SYSTEMS WIRING, MISCELLANEOUS CONDUIT SYSTEMS, ETC., TO BE SHOWN ON AS BUILT DRAWINGS.

REFER TO DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

AND FOR COSTS TO OBTAIN CAD FILES. REMOVAL AND REINSTALLATION OF CEILING TILES IN OCCUPIED AREAS TO ACCOMMODATE ALL SCOPES OF WORK SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.

14. ALL PANEL SCHEDULE DIRECTORIES MUST BE UPDATED AND TYPEWRITTEN PANEL SCHEDULE DIRECTORIES MUST BE PROVIDED. SELF-ADHESIVE LABELING TAPE MUST BE USED FOR ALL LABELING AT ALL OUTLETS. LAMACOIDS MUST BE USED FOR LABELING OF ALL ELECTRICAL ENCLOSURES. THE CONTRACTOR MUST ENSURE THAT FIRESTOPPING AND SEALANTS ARE

INSTALLED AT NEW FLOOR OPENINGS IN ACCORDANCE WITH THE CURRENT

FIRE CODE REQUIREMENTS AND TO PREVENT WATER LEAKAGE TO THE FLOORS

BELOW. AREAS PRONE TO WATER LEAKAGE ARE TO BE WATERPROOFED PRIOR TO INSTALLATION OF THE FLOOR COVERINGS. THE ARCHITECT WILL APPROVE THE PROPOSED WATERPROOFING METHOD PRIOR TO PROCEEDING WITH CONSTRUCTION. PROVIDE A REPORT FROM THE MANUFACTURER FOR ALL FIRESTOP ASSEMBLIES

PROVIDED AS PART OF THIS SCOPE OF WORK. REPORT MUST DETAIL

COMPLIANCE WITH ONTARIO BUILDING CODE. PROVIDE A DEDICATED NEUTRAL PER PHASE FOR ALL BRANCH CIRCUITS

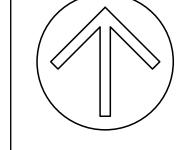
OF WORK SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR. 19. REMOVAL AND REINSTALLATION OF RAISED FLOOR TILES TO ACCOMMODATE ALL

NVENT TO VISUALLY INSPECT ALL MINERAL INSULATED 2 HOUR FIRE RATED

CABLES INSTALLED AS PART OF THIS SCOPE OF WORK AND TO PROVIDE A

3190 MAVIS ROAD, MISSISSAUGA, ON.





AS SHOWN CONSULTANT PROJECT NUMBER

E-1.0

KEY PLAN

NOTES

HCC ENGINEERING

DESIGN AND TECHNOLOGY SERVICES GROUP HCC ENGINEERING LIMITED 40 EGLINTON AVENUE EAST, SUITE 600 TORONTO, ONTARIO, M4P 3A2 Tel: (416) 932-2423

ISSUES AND REVISIONS ISSUE OR REVISION TO DRAWING DATE BY ISSUED FOR 50% REVIEW SEP08/23 KZ ISSUED FOR 80% REVIEW OCT31/23 KZ ISSUED FOR PERMIT DEC18/23 KZ JAN12/24 KZ FEB27/24 KZ



FEB27/24

CONSULTANT'S SEAL

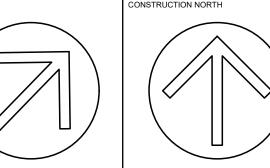
BARRY BRYAN ASSOCIATES Project Managers 250 Water Street Whitby, Ontario

Tel: (905) 666-5252

Fax: (905) 666-5256

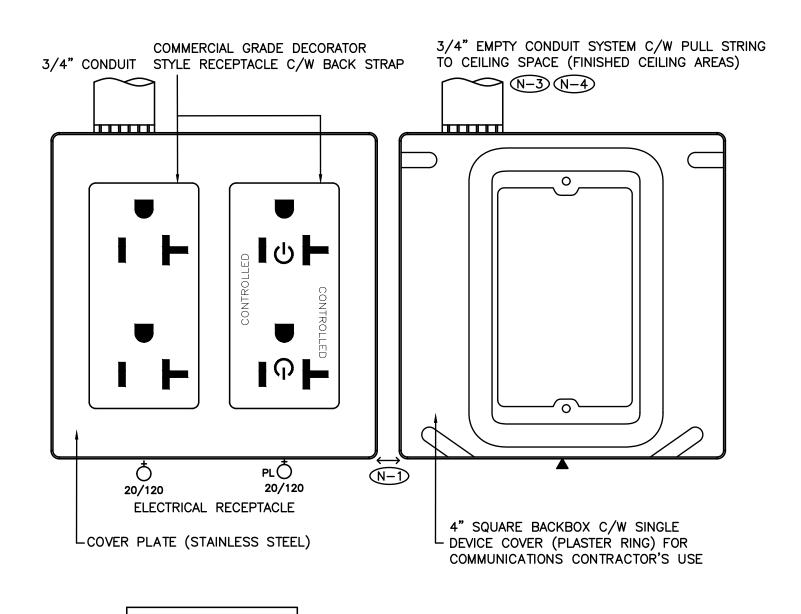
ROJECT TITLE AND ADDRESS SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL

ELECTRICAL LEGEND AND DETAILS



AUGUST, 2023 GION OF PEEL PROJECT NUMBER

PURCHASING DOCUMENT NUMBER: RAWING NUMBER



GROUND PIN UP

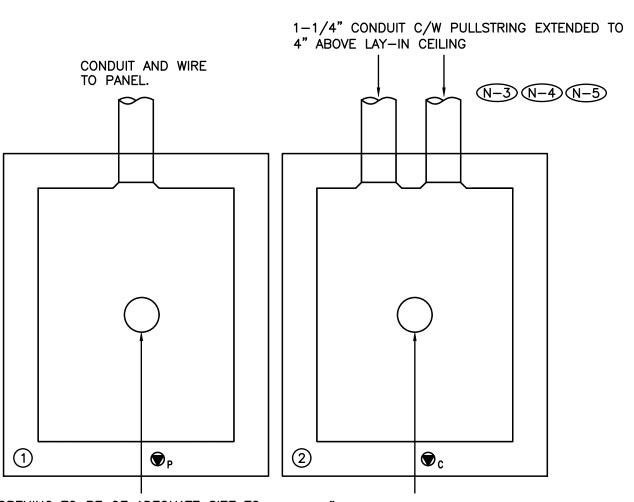
MOUNT RECEPTACLES

DRAWING NOTES

- N-1 MINIMUM CLEARANCE.
- N-2) NEATLY LABEL ALL FLOOR MOUNTED AND WALL DEVICE BOX COVERS WITH CORRESPONDING PANEL NAMES AND CIRCUIT NUMBERS, UTILIZE SELF ADHESIVE MECHANICALLY PRINTED LABELS.
- N-3 PROVIDE PUNCH OUTS IN BACKBOX TO ACCOMMODATE CONDUITS INDICATED.
- N-4) TERMINATE CONDUIT WITH A 90 DEGREE BEND AND PLASTIC BUSHING IN THE ACCESSIBLE CEILING SPACE.

UTILITY CCT - WHITE RECEPTACLE (WALLS)/BLACK RECEPTACLE (DARK MILLWORK)





OPENING TO BE OF ADEQUATE SIZE TO 2" OPENING FOR COMMUNICATION CABLES AND HARNESS. PROVIDE RUBBER GROMMET. HARNESS AND FLEX.

DRAWING NOTES

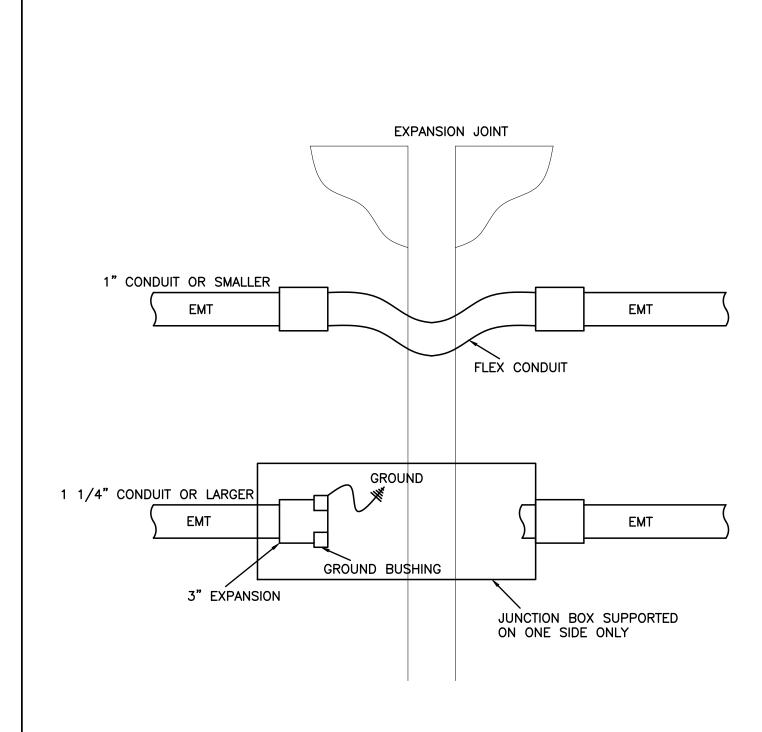
- N-1) FINAL POWER CONNECTION TO FURNITURE PROVIDED BY ELECTRICAL CONTRACTOR.
- N=2) NEATLY LABEL ALL FLOOR MOUNTED AND WALL DEVICE BOX COVERS WITH CORRESPONDING PANEL NAMES AND CIRCUIT NUMBERS, UTILIZE SELF ADHESIVE MECHANICALLY PRINTED LABELS.
- N-3 PROVIDE PUNCH OUTS IN BACKBOX TO ACCOMMODATE CONDUITS INDICATED.
- N-4) TERMINATE CONDUITS WITH A 90 DEGREE BEND AND PLASTIC BUSHING IN THE ACCESSIBLE CEILING SPACE.
- N-5 MINIMUM COMMUNICATIONS CONDUIT SIZE TO SERVICE EACH WALL MOUNTED SYSTEMS FURNITURE CONNECTION AS FOLLOWS:
 - 1 X 1 1/4"C (1 TO 6 WORKSTATIONS)

2 X 1 1/4"C (7 TO 12 WORKSTATIONS)

DRAWING REFERENCES

- (1) TWO GANG BACKBOX FOR POWER C/W WHITE COVERPLATE
- (2) THREE (3) GANG BACKBOX FOR COMMUNICATIONS C/W WHITE SPLIT COVERPLATE

WALL MOUNTED SYSTEMS FURNITURE CONNECTION DETAIL E-1.1 SCALE: NTS



EXPANSION JOINT CROSSING DETAIL E-1.1 SCALE: NTS

DRAWING NOTES

- N-1) SCHEMATIC IS DIAGRAMMATIC ONLY. REFER TO FLOOR PLANS FOR DEVICE QUANTITY AND LOCATIONS AND FOR ADDITIONAL DEVICE TYPES NOT NOTED ON THIS SCHENATIC.
- N-2) PROVIDE DEDICATED ZONE CONDUIT FROM SOURCE PANEL TO EACH SLAB MOUNTED POWER DISTRIBUTION BAY BOX PROVIDED AS PART OF THIS SCOPE OF WORK.
- N-3 PROVIDE LAMACOID PLATE AND LABEL EACH BAY BOX PROVIDED AS PART OF THIS SCOPE OF WORK AS FOLLOWS: 'CAUTION - LIVE TERMINALS. ISOLATE CIRCUITS AT RP-XX PRIOR TO OPENING COVER'.
- N-4 REFER TO FLOOR PLANS FOR ADDITIONAL DETAILS.
- N-5 MINIMUM WIRE SIZE #10AWG FOR BRANCH CIRCUITS.
- N-6 ALL REQUIRED RAISED FLOOR CUTOUTS PROVIDED BY ELECTRICAL CONTRACTOR.
- N-7 ALL CONDUITS TO BE EMT UNLESS INDICATED OTHERWISE.

DRAWING REFERENCES

- 1 TYPICAL PANEL BOARDS PROVIDED AS PART OF THIS SCOPE OF WORK, REFER TO DRAWING NO. E-7.1 AND E-7.2 FOR ADDITIONAL REQUIREMENTS AND QUANTITY OF PANELS. REFER TO FLOOR PLANS FOR PANEL LOCATIONS.
- (2) RAISED FLOOR GROMMET PROVIDED AS PART OF THIS SCOPE OF WORK.

LINETYPE LEGEND

DENOTES NEW PROVIDED BY ELECTRICAL CONTRACTOR ---- DENOTES EXISTING TO REMAIN

* -X -X -X DENOTES EXISTING TO BE REMOVED BY ELECTRICAL CONTRACTOR

KEY PLAN

NOTES

HCC ENGINEERING DESIGN AND TECHNOLOGY SERVICES GROUP HCC ENGINEERING LIMITED 40 EGLINTON AVENUE EAST, SUITE 600

TORONTO, ONTARIO, M4P 3A2 Tel: (416) 932-2423

	ISSUES AND REVISIONS					
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5.	ISSUED FOR TENDER	FEB27/24	KZ			

BRAMPTON, ONTARIO TEL: (905) 791-7800



H.D. COHEN CONSULTANT'S SEAL

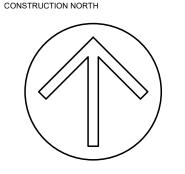


SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL

3190 MAVIS ROAD, MISSISSAUGA, ON

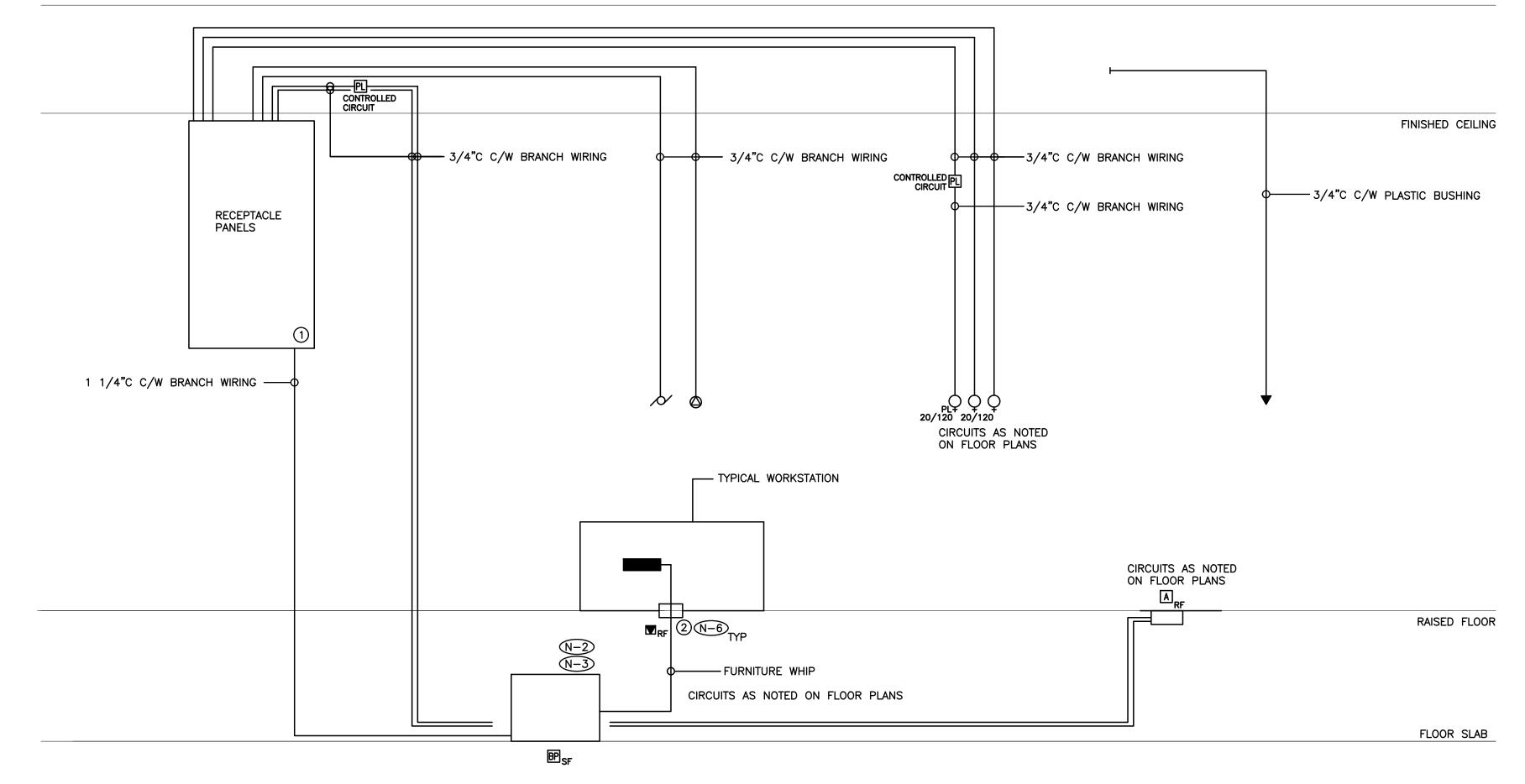
ELECTRICAL DETAILS





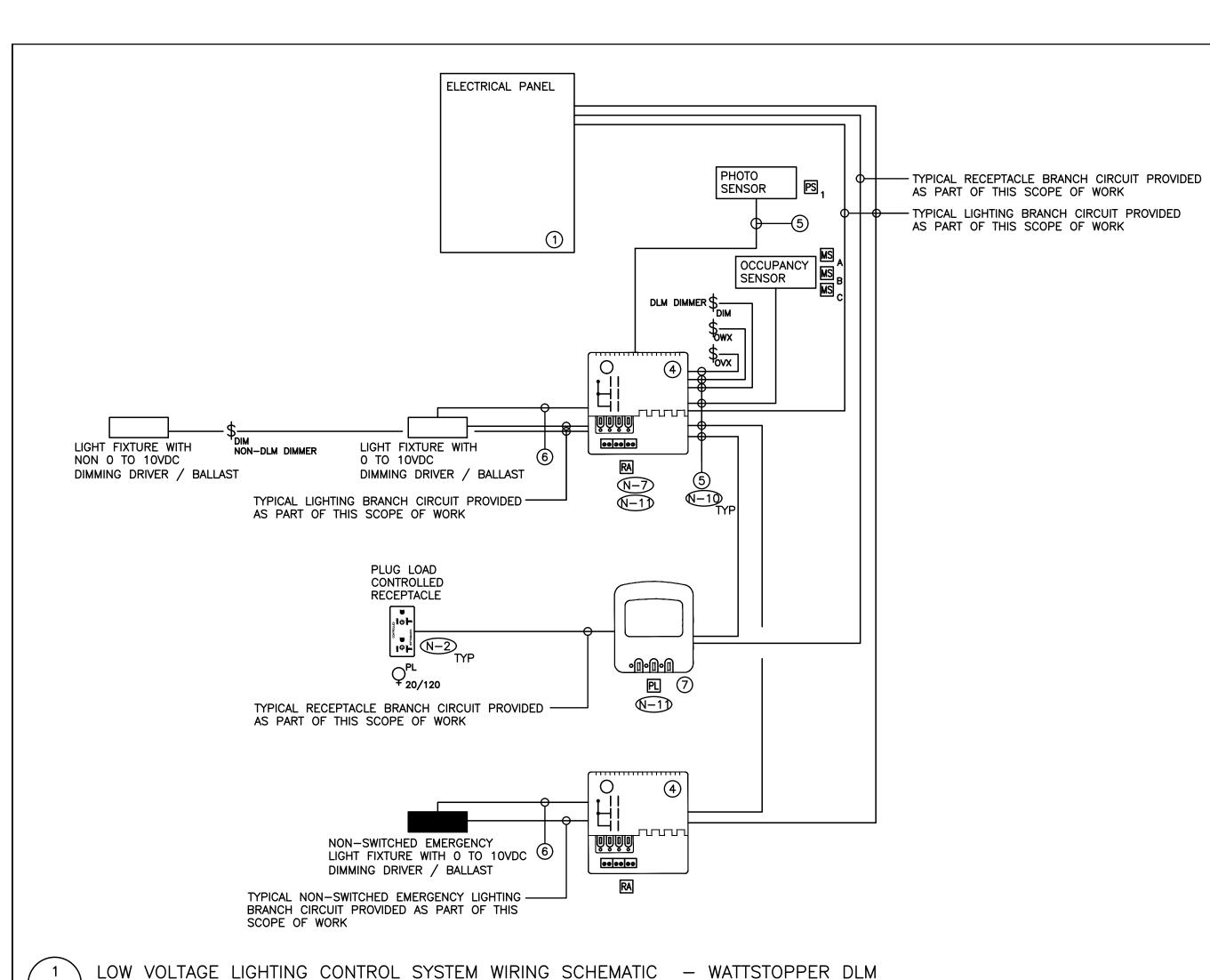
AS SHOWN AUGUST, 2023 CONSULTANT PROJECT NUMBER EGION OF PEEL PROJECT NUMBER

PURCHASING DOCUMENT NUMBER: E-1.1



TYPICAL RAISED FLOOR SERVICES ROUTING SCHEMATIC

SCALE: NTS



- SCHEMATIC IS DIAGRAMMATIC ONLY. REFER TO FLOOR PLANS AND REFLECTED CEILING PLANS FOR DEVICE QUANTITY AND LOCATIONS. PROVIDE QUANTITY OF HARDWARE, ROOM CONTROLLERS, PLUG LOAD CONTROLLERS, SENSORS, DEVICES, CONDUIT, WIRE, CONFIGURATION TOOLS, ETC., TO ENSURE A FULLY OPERATIONAL LOW VOLTAGE LIGHTING CONTROL SYSTEM.
- N-2 ALL CONTROLLED RECEPTACLES SHALL BE PERMANENTLY MARKED BY MANUFACTURER TO VISUALLY DIFFERENTIATE THEM FROM UNCONTROLLED
- NOT USED.
- ALL LOW VOLTAGE WIRING TO BE INSTALLED IN AN ENCLOSED CONDUIT
- N-5 PROVIDE POWER, CONDUIT, BACKBOX AND WIRING IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. MINIMUM CONDUIT SIZE 3/4".
- N-6 PROVIDE DEDICATED CORE DRILLED WALL AND FLOOR PENETRATIONS FOR 2ND FLOOR SLAB. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY SCANNING RESULTS. ALL SCANS MUST BE REVIEWED AND APPROVED BY CONSULTANT PRIOR TO CORE DRILLING.
- (N-7) PROVIDE ROOM CONTROLLERS TO ACCOMMODATE ALL LIGHTING ZONES IN CLOSED ROOMS (IE. OFFICES, MEETING ROOMS, ETC.) PROVIDED AS PART OF THIS SCOPE OF WORK. MAXIMUM OF TWO (2) SWITCH LEGS PER ROOM CONTROLLER.
- NOT USED.
- NOT USED.
- TERMINATE AND TEST ALL LOW VOLTAGE CONTROL CABLES PROVIDED AS PART OF THIS SCOPE OF WORK. PROVIDE TEST RESULTS FOR ALL LOW VOLTAGE CONTROL CABLES PROVIDED AS PART OF THIS SCOPE OF WORK AT THE END OF CONSTRUCTION. TEST RESULTS SHALL BE INCLUDED AS PART OF THE CLOSE OUT DOCUMENTS.
- №-1) REFER TO MANUFACTURE'S INSTALLATION GUIDELINES FOR ADDITIONAL INSTALLATION REQUIREMENTS OVER AND ABOVE THOSE DETAILED ON THIS SCHEMATIC.
- N-12 PROVIDE POWER PACKS, AS REQUIRED FOR A FULLY OPERATIONAL SYSTEM. POWER PACKS NOT SHOWN ON REFLECTED CEILING PLANS.
- (1-13) ELECTRICAL CONTRACTOR'S BASE BID PRICE SHALL INCLUDE FOUR (4) HOURS OF ON SITE COORDINATION TIME WITH WATTSTOPPER PRIOR TO ORDERING LIGHTING SYSTEM COMPONENTS TO CONFIRM DEVICES AND WIRING REQUIREMENTS. ALL CHARGES TO BE INCLUDED IN CONTRACT PRICE.
- (1-1) LIGHT LEVEL OUTPUT (IE., DIMMING LEVEL) FOR EACH AND EVERY FIXTURE PROVIDED AS PART OF THIS SCOPE OF WORK IN ROOMS/AREAS/CORRIDORS/ ETC., WITH DLM CONTROL TO BE FIELD ADJUSTED ON SITE WITH CLIENT POST OCCUPANCY. TARGET LIGHT LEVELS FOR EACH LOW VOLTAGE LIGHTING ZONE TO BE PROVIDED BY THE CLIENT POST OCCUPANCY. PROCURE (COORDINATE AND PAY FOR) THE SERVICES OF WATTSTOPPER TO ADJUST, PROGRAM AND COMMISSION THE LIGHTING CONTROL SYSTEM.

AS PART OF THIS SCOPE OF WORK PROCURE THE SERVICES OF A THIRD PARTY PROFESSIONAL ENGINEER TO MEASURE AND RECORD LIGHTING LEVELS IN FOOT CANDLES THROUGHOUT THE ENTIRE SCOPES OF WORK AREAS WITH A CALIBRATED LIGHT METER, AFTER ALL FIELD ADJUSTMENTS HAVE BEEN COMPLETED. READINGS SHALL BE TAKEN BASED ON A MINIMUM OF ONE (1) READING FOR EVERY 20' CENTER IN OPEN OFFICE AREAS AND CORRIDORS HALLWAYS AND ONE (1) READING IN EACH CLOSED OFFICE, MEETING ROOM, ETC.. ALL LIGHT LEVEL READINGS ARE TO BE TAKEN DURING NON-DAYLIGHT HOURS. PROVIDE A SEALED REPORT IDENTIFYING LIGHT LEVEL READINGS TO CONSULTANT.

DRAWING REFERENCES

- 1 TYPICAL RECEPTACLE / LIGHTING PANEL. REFER TO DRAWING NO. E-7.1 FOR ADDITIONAL REQUIREMENTS
- (2) NOT USED
- (3) NOT USED
- (4) ON / OFF / DIMMING ROOM CONTROLLER
- (5) PLENUM RATED 4 PAIR CAT6 UTP CABLE AS MANUFACTURED BY WATTSTOPPER
- (6) 0 TO 10VDC CONTROL WIRING
- (7) PLUG LOAD CONTROLLER

INSTALL LOW VOLTAGE CONTROL SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, ASHRAE 90.1 2016, ONTARIO BUILDING CODE, ELECTRICAL SAFETY CODE AND THESE DOCUMENTS.

NOTES HCC ENGINEERING DESIGN AND TECHNOLOGY SERVICES GROUP HCC ENGINEERING LIMITED 40 EGLINTON AVENUE EAST, SUITE 600 TORONTO, ONTARIO, M4P 3A2 Tel: (416) 932-2423

KEY PLAN

ISSUES AND REVISIONS

BRAMPTON, ONTARIO TEL: (905) 791-7800

Z. ZHONG 100545750

FEB27/24

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Region of Peel

H.D. COHEN

CONSULTANT'S SEAL

Project Managers

250 Water Street

Tel: (905) 666-5252 Fax: (905) 666-5256

SECOND FLOOR EXPANSION

ELECTRICAL DETAILS

REGIONAL MUNICIPALITY OF PEEL

3190 MAVIS ROAD, MISSISSAUGA, ON

Whitby, Ontario

BARRY BRYAN ASSOCIATES

DENOTES NEW PROVIDED BY ELECTRICAL CONTRACTOR

---- DENOTES EXISTING TO REMAIN

* * * * DENOTES EXISTING TO BE REMOVED BY ELECTRICAL CONTRACTOR

LIGHTING CIRCUIT 120/347V 20A/1P LIGHT FIXTURE LIGHT FIXTURE DIMMER SWITCH LIGHTING CIRCUIT 20A/1P 120/347V

DRAWING NOTES

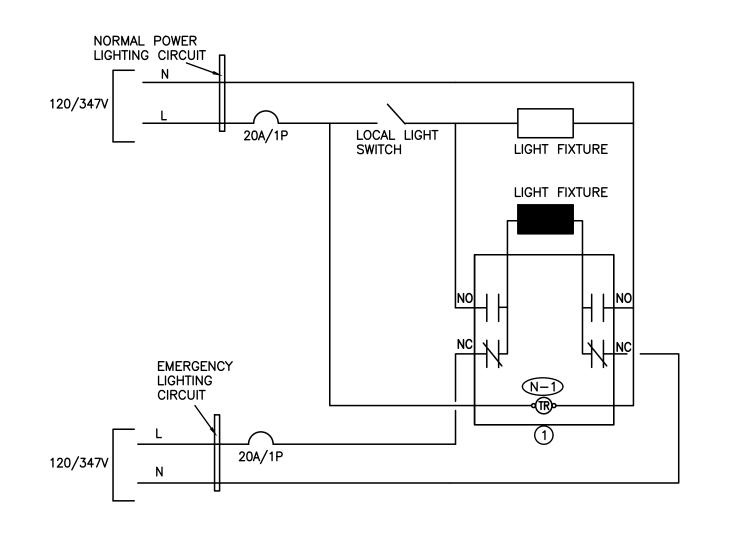
E-1.2 SCALE: NTS

- N-1) 'ON DELAY' TIME DELAY ADJUSTABLE 0-10 SEC. LIGHTING CONTACTOR 20A, 347V, 2-NC, 2-NO CONTACTS MOUNTED IN A CEILING DUST PROOF ENCLOSURE. DE-ENERGIZE HOLDING COIL UPON LOSS OF NORMAL POWER.
- N-2 PROVIDE ADDITIONAL WIRE AND 2ND SET OF CONTACTS FOR DIMMING BALLAST/DRIVER AS REQUIRED. COORDINATE WITH BALLAST/DRIVER MANUFACTURER.
- N-3 MOUNT EMERGENCY LIGHTING CONTROL UNITS PROVIDED AS PART OF THIS SCOPE OF WORK IN ELECTRICAL ROOM. DO NOT MOUNT IN TENANT AREA CEILING SPACE.

DRAWING REFERENCES

1 WATTSTOPPER ELCU-200(120V)/ELCU-200-347(347V)

EMERGENCY LIGHTING CONTROL UNIT WIRING SCHEMATIC E-1.2 SCALE: NTS



DRAWING NOTES

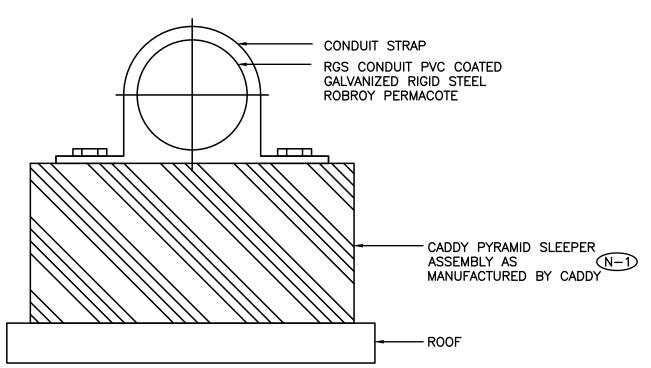
- N-1) 'ON DELAY' TIME DELAY ADJUSTABLE 0-10 SEC. LIGHTING CONTACTOR 20A, 347V, 2-NC, 2-NO CONTACTS MOUNTED IN A CEILING DUST PROOF ENCLOSURE. DE-ENERGIZE HOLDING COIL
- N-2) MOUNT EMERGENCY LIGHTING CONTROL UNITS PROVIDED AS PART OF THIS SCOPE OF WORK IN ELECTRICAL ROOM. DO NOT MOUNT IN TENANT AREA CEILING SPACE.

DRAWING REFERENCES

1) WATTSTOPPER ELCU-200(120V)/ELCU-200-347(347V)

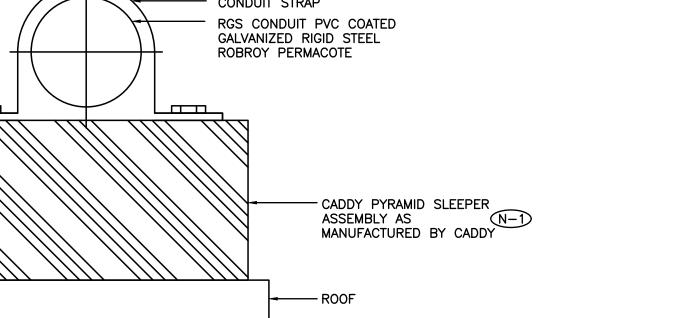
EMERGENCY LIGHTING CONTROL UNIT WIRING SCHEMATIC E-1.2 SCALE: NTS

UPON LOSS OF NORMAL POWER.

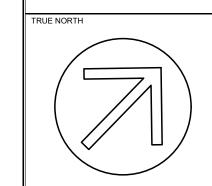


DRAWING NOTES

N-2 PROVIDE SECONDARY MEMBRANES AND FOAMS AS RECOMMENDED BY MANUFACTURER FOR SPECIFIC ROOF TYPES AND APPLICATIONS.



N-1) PROVIDE SLEEPERS AT 5' INTERVALS.



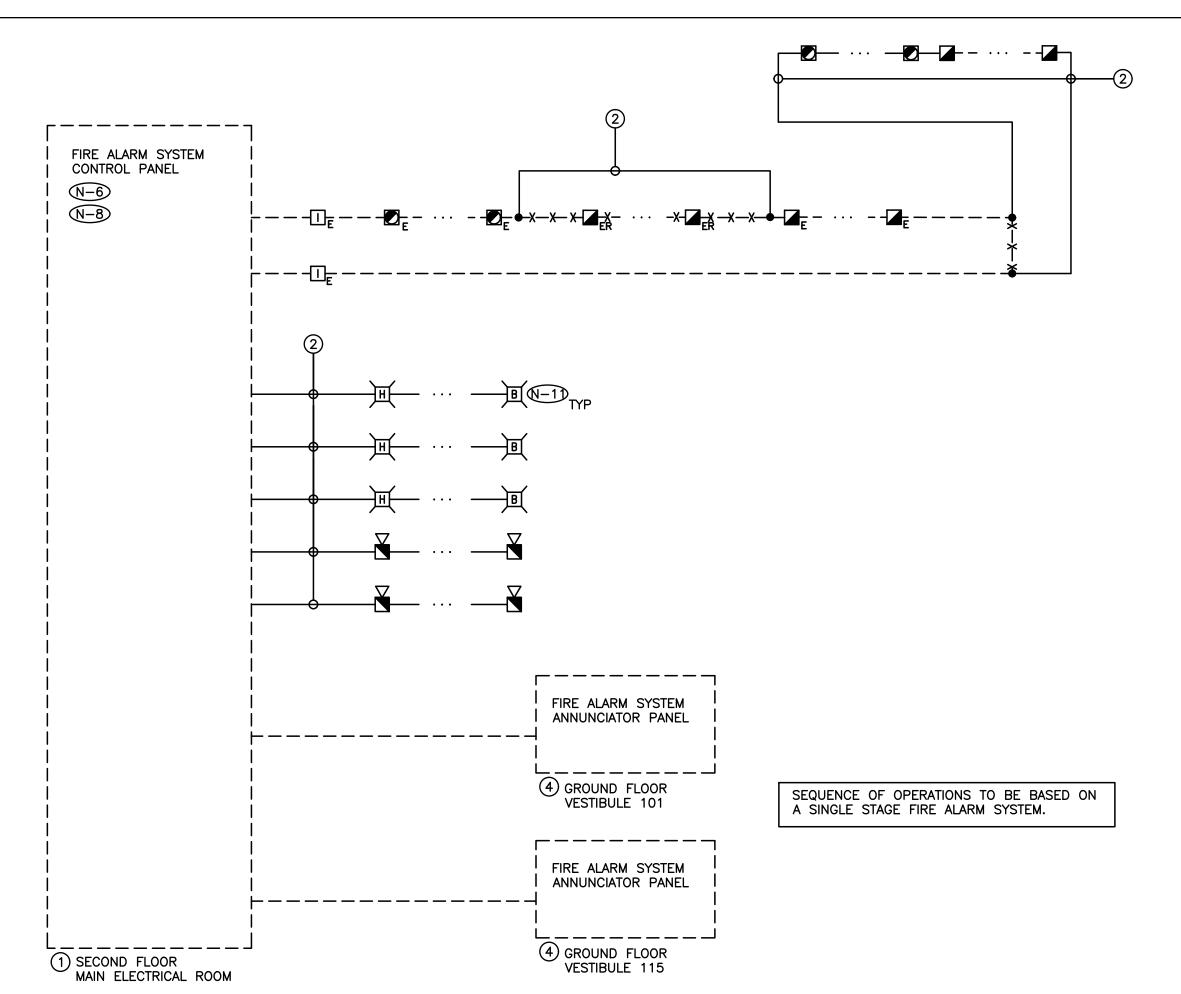
AS SHOWN AUGUST, 2023 CONSULTANT PROJECT NUMBER GION OF PEEL PROJECT NUMBE

PURCHASING DOCUMENT NUMBER:

E-1.2



ROOFTOP CONDUIT MOUNTING DETAIL



DRAWING NOTES

- $\widehat{(N-1)}$ RISER IS DIAGRAMMATIC ONLY. PROVIDE QUANTITY OF STROBE LIGHT CIRCUITS, HORN CIRCUITS, INITIATING DEVICE CIRCUITS, HARDWARE, MODULES, ACCESSORIES, DEVICES, CONDUIT, WIRE, ETC., TO ENSURE A FULLY OPERATIONAL FIRE ALARM SYSTEM.
- N-2) REFER TO FLOOR PLANS AND REFLECTED CEILING PLANS FOR EXACT QUANTITY AND LOCATION OF DEVICES, DEVICE PERIPHERALS AND ACCESSORIES (IE. WIRE GUARD, EXPLOSION PROOF DEVICES, WEATHER PROOF DEVICES, ETC.).
- PROVIDE POWER, CONDUIT, BACKBOX AND WIRING IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. MINIMUM CONDUIT SIZE 3/4".
- N-4) PROVIDE DEDICATED CORE DRILLED FLOOR AND WALL PENETRATIONS ON EVERY FLOOR AS REQUIRED FOR FIRE ALARM SYSTEM CONDUITS/MI CABLE. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY SCANNING RESULTS.
- N-5 PROVIDE LINE ISOLATOR MODULES TO ISOLATE DCLA SEGMENTS ON A PER FIRE ALARM ZONE BASIS, ON A PER FLOOR BASIS AND AS REQUIRED BY THE MANUFACTURER AND BY ONTARIO BUILDING CODE. NOTE: PROVIDE ADDITIONAL LINE ISOLATOR MODULES AS REQUIRED OVER AND ABOVE THOSE SHOWN ON RISER DIAGRAM TO SATISFY ISOLATION REQUIREMENTS.
- N-6 MODIFY, REWORK AND PROVIDE ALL COMPONENTS AND ACCESSORIES FOR CONTROL PANEL AS REQUIRED TO ACCOMMODATE ALL SCOPES OF WORK AS NOTED ON DRAWINGS AND IN
- N-7 DO NOT REUSE EXISTING DEVICES, CONDUIT, WIRE, ETC., REMOVED AS PART OF THIS SCOPE OF
- N-8 PROVIDE ADDITIONAL BATTERIES IN EXISTING CONTROL PANEL AS REQUIRED TO SUPPORT THE TOTAL LOAD REQUIREMENTS AT THE COMPLETION OF THIS PROJECT.
- N-9 PROVIDE 24VDC CIRCUITS FOR STROBES AND OTHER 24VDC DEVICES. MAXIMUM LOAD ON EACH CIRCUIT SHALL NOT EXCEED 70%. CIRCUIT REQUIREMENTS NOT SHOWN ON RISER DIAGRAM.
- №-10 ELECTRICAL CONTRACTOR SHALL PROVIDE A FIRE WATCH THROUGHOUT THE DURATION OF THE PROJECT DURING FIRE ALARM ZONE BYPASSES/TESTING. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- (N-1) PROVIDE STROBE CIRCUIT SYNCHRONIZATION MODULES.
- $\sqrt{1-12}$ DO NOT REUSE EXISTING FIELD WIRING, FIRE ALARM DEVICES, ETC., REMOVED AS PART OF THIS SCOPE OF WORK.

DRAWING REFERENCES

- (1) EXISTING FIRE ALARM SYSTEM CONTROL PANEL MIRCOM FX-2000
- (2) CONDUIT AND WIRE PER MANUFACTURER'S SPECIFICATIONS
- 3 NOT USED.
- (4) EXISTING FIRE ALARM SYSTEM REMOTE ANNUNCIATOR PANEL

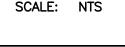
LINETYPE LEGEND

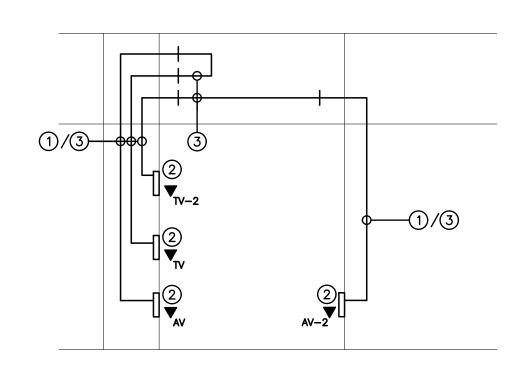
———— DENOTES NEW PROVIDED BY ELECTRICAL CONTRACTOR

---- DENOTES EXISTING TO REMAIN

-X -X -X -X -X DENOTES EXISTING TO BE REMOVED BY ELECTRICAL CONTRACTOR

PARTIAL BASE BUILDING FIRE ALARM SYSTEM RISER DIAGRAM \E-1.3/ SCALE: NTS



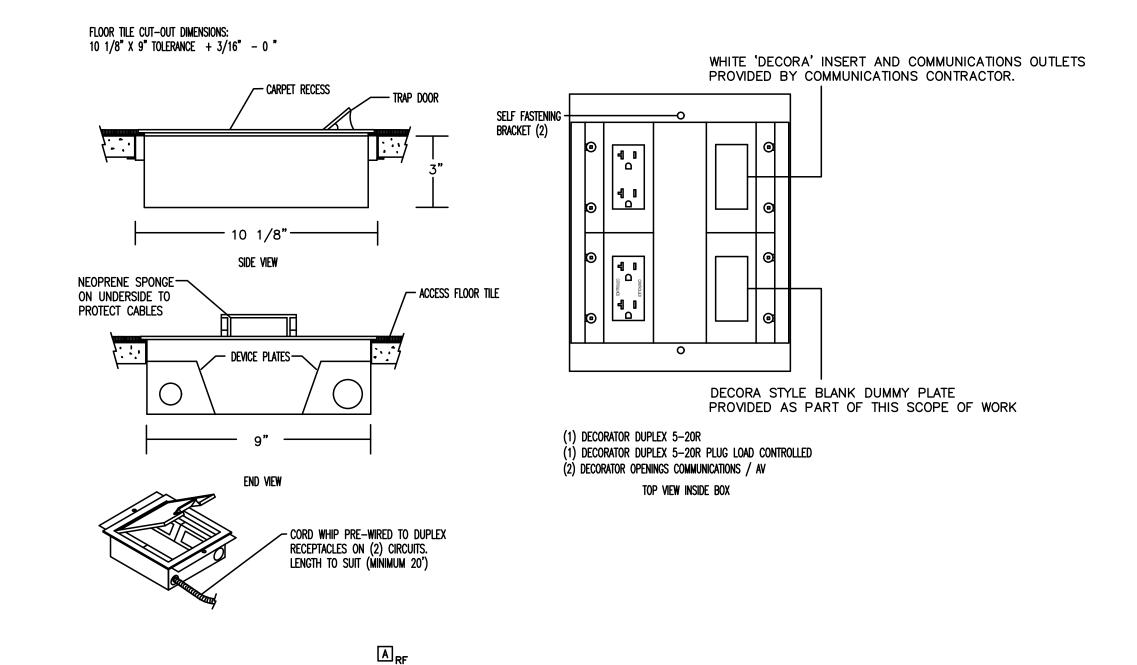


DRAWING NOTES

- N-1 LOW VOLTAGE CABLES AND TERMINATIONS PROVIDED BY A/V
- N-2 PROVIDE NYLON INSULATED THROATS FOR ALL BUSHINGS AND CONNECTORS.
- N-3 PROVIDE DEDICATED CORE DRILLED WALL PENETRATIONS ON EVERY FLOOR. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY SCAN RESULTS. ALL SCANS MUST BE REVIEWED AND APPROVED BY CONSULTANT PRIOR TO CORE DRILLING.
- N-4) COORDINATE CONDUIT TERMINATION REQUIREMENTS ON SITE WITH A/V CONTRACTOR.
- N-5) TV-WALL MOUNTED POWER RECEPTACLES BEHIND TV PANEL AT 2000MM AFF. COORDINATE WITH ARCHITECTURAL DRAWINGS.

DRAWING REFERENCES

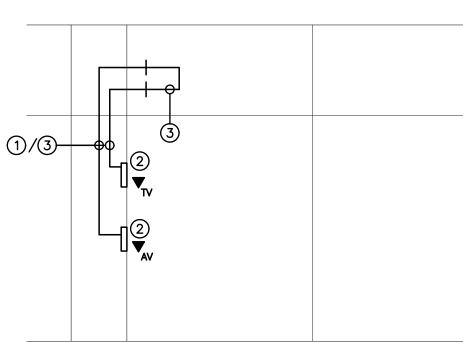
- (1) 1 1/2" CONDUIT C/W PULL STRING
- (2) 4" SQUARE WALL MOUNTED DEEP BACKBOX C/W WHITE COVERPLATE (PUNCHOUT AS DIRECTED ON SITE) FOR A/V CONTRACTOR'S USE
- (3) HDMI CABLE PROVIDED AS PART OF THIS SCOPE OF WORK.
- TV CONDUIT ROUGH-IN DETAIL MEETING ROOM 2 201H \E-1.3/ SCALE: NTS



PART NO.: WELLMARK 300B-1XXXX-CRL

- N-1) PROVIDE NEOPRENE SPONGE ON THE UNDERSIDE OF THE TRAP DOOR TO PROTECT THE CABLES.
- N-2) NEATLY LABEL ALL FLOOR MOUNTED AND WALL DEVICE BOX COVERS WITH CORRESPONDING PANEL NAMES AND CIRCUIT NUMBERS, UTILIZE SELF ADHESIVE MECHANICALLY PRINTED LABELS.

RAISED FLOOR MOUNTED OFFICE GROUP DETAIL - TYPE A (E-1.3) SCALE: NTS



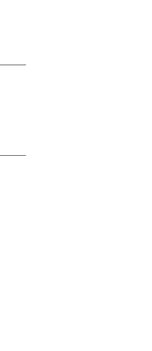
DRAWING NOTES

- N-1) LOW VOLTAGE CABLES AND TERMINATIONS PROVIDED BY A/V
- CONTRACTOR. N-2) PROVIDE NYLON INSULATED THROATS FOR ALL BUSHINGS AND CONNECTORS.
- N-3 PROVIDE DEDICATED CORE DRILLED WALL PENETRATIONS ON EVERY FLOOR. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY SCAN RESULTS. ALL SCANS MUST BE REVIEWED AND APPROVED BY CONSULTANT PRIOR TO CORE DRILLING.
- N-4 COORDINATE CONDUIT TERMINATION REQUIREMENTS ON SITE WITH A/V CONTRACTOR.
- N-5 TV-WALL MOUNTED POWER RECEPTACLES BEHIND TV PANEL AT 2000MM AFF. COORDINATE WITH ARCHITECTURAL DRAWINGS.

DRAWING REFERENCES

- (1) 1 1/2" CONDUIT C/W PULL STRING
- 2 4" SQUARE WALL MOUNTED DEEP BACKBOX C/W WHITE COVERPLATE (PUNCHOUT AS DIRECTED ON SITE) FOR A/V CONTRACTOR'S USE
- (3) HDMI CABLE PROVIDED AS PART OF THIS SCOPE OF WORK.





HCC ENGINEERING

HCC ENGINEERING LIMITED 40 EGLINTON AVENUE EAST, SUITE 600 TORONTO. ONTARIO, M4P 3A2 Tel: (416) 932-2423

DESIGN AND TECHNOLOGY SERVICES GROUP

NOTES

IS	SUES AND REVISIONS		
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3.	ISSUED FOR PERMIT	DEC18/23	k
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5.	ISSUED FOR TENDER	FEB27/24	К

Region of Peel

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H.D. COHEN

250 Water Street Whitby, Ontario

Tel: (905) 666-5252 Fax: (905) 666-5256

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON

DRAWING TITLE

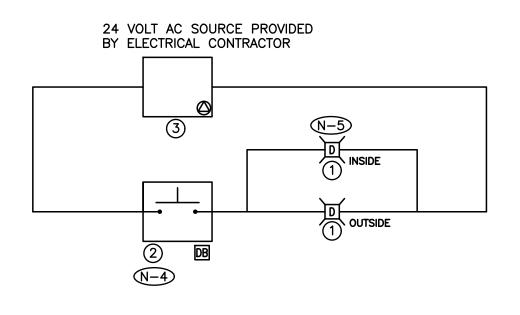
ELECTRICAL DETAILS



ONSTRUCTION NORTH

HDC **AS SHOWN** AUGUST, 2023 EGION OF PEEL PROJECT NUMBER CONSULTANT PROJECT NUMBER 23073 PURCHASING DOCUMENT NUMBER: RAWING NUMBER

E-1.3



DRAWING NOTES

- SCHEMATIC IS DIAGRAMMATIC ONLY. REFER TO FLOOR PLANS FOR LOCATION AND QUANTITY OF DEVICES.
- PROVIDE WIRING, CONTACTORS AND DUAL VOLTAGE RELAYS (DVR'S) AS REQUIRED FOR A FULLY OPERATIONAL SYSTEM.
- N-3 ALL LOW VOLTAGE WIRING TO BE ENCLOSED IN A CONDUIT SYSTEM.
- PROVIDE EDWARDS SIGN-EMERG-PUSH SIGNAGE PER OBC ABOVE THE DURESS SYSTEM STATION.
- WIRE THE APPLIANCE INDICATED FOR VISUAL ALARM ONLY.

DRAWING REFERENCES

3/4"C─┐

— 3/4**"**C

LOCAL AUDIBLE ALARM ---

CONCEALED

CONTACT

3/4"C ——

DETECTOR

- 1 DURESS SYSTEM COMBINATION STROBE LIGHT/HORN -EDWARDS 6536-G5
- 2 DURESS SYSTEM STATION, PUSH BUTTON EDWARDS SS-2001E C/W SUB-102722-R SPACER

___ 1 1/4°C

TRANSFORMER - EDWARDS 592



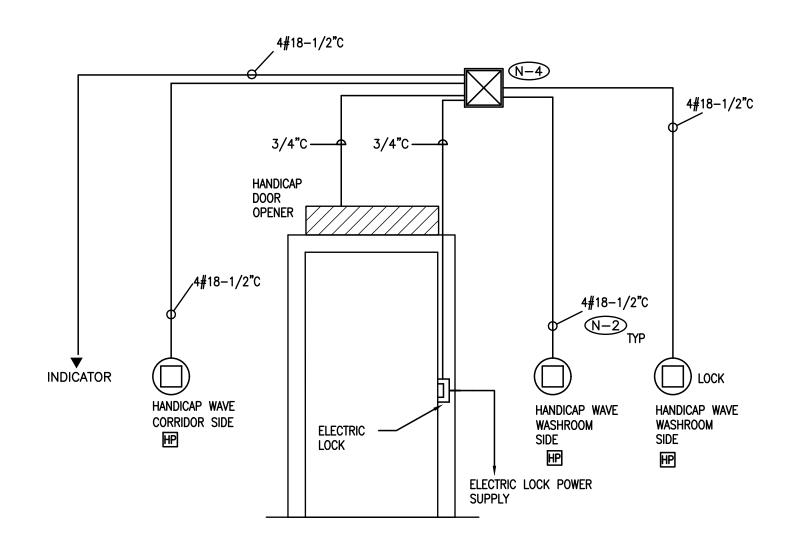
TO GROUND FLOOR

IT ROOM 126

— 3/4**"**C

— CARD

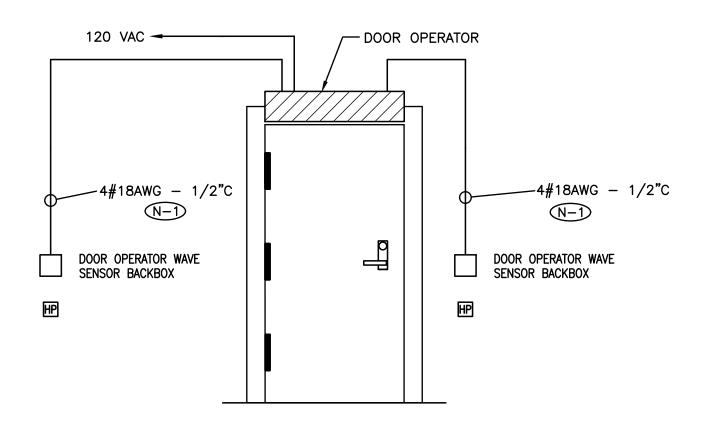
READER



DRAWING NOTES

- N-1 ROUGH-IN DETAILS ARE DIAGRAMMATIC.
- N-2) PROVIDE WIRE, CONDUIT AND BACKBOXES INDICATED.
- COORDINATE THE ROUGH-IN REQUIREMENT WITH DOOR MANUFACTURER AND
- DOOR OPERATOR CONTRACTOR PRIOR TO CONSTRUCTION.
- N-4 PULLBOX INDICATED MUST BE LOCATED AT THE SECURED SIDE OF THE DOOR. MINIMUM PULLBOX SIZE 12" X 12".
- N-5 MOUNTING HEIGHT OF DEVICES TO MATCH EXISTING BUILDING DEVICES.





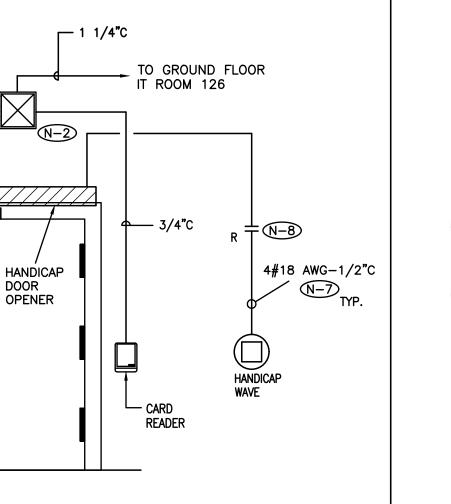
DRAWING NOTES

PROVIDE WIRE, CONDUIT AND BACKBOXES INDICATED.

COORDINATE THE ROUGH-IN REQUIREMENT WITH DOOR MANUFACTURER PRIOR TO CONSTRUCTION.







3/4"C─

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LOCAL AUDIBLE ALARM

CONCEALED CONTACT

3/4"C —

MOTION

3/4"C

HANDICAP WAVE

DETECTOR

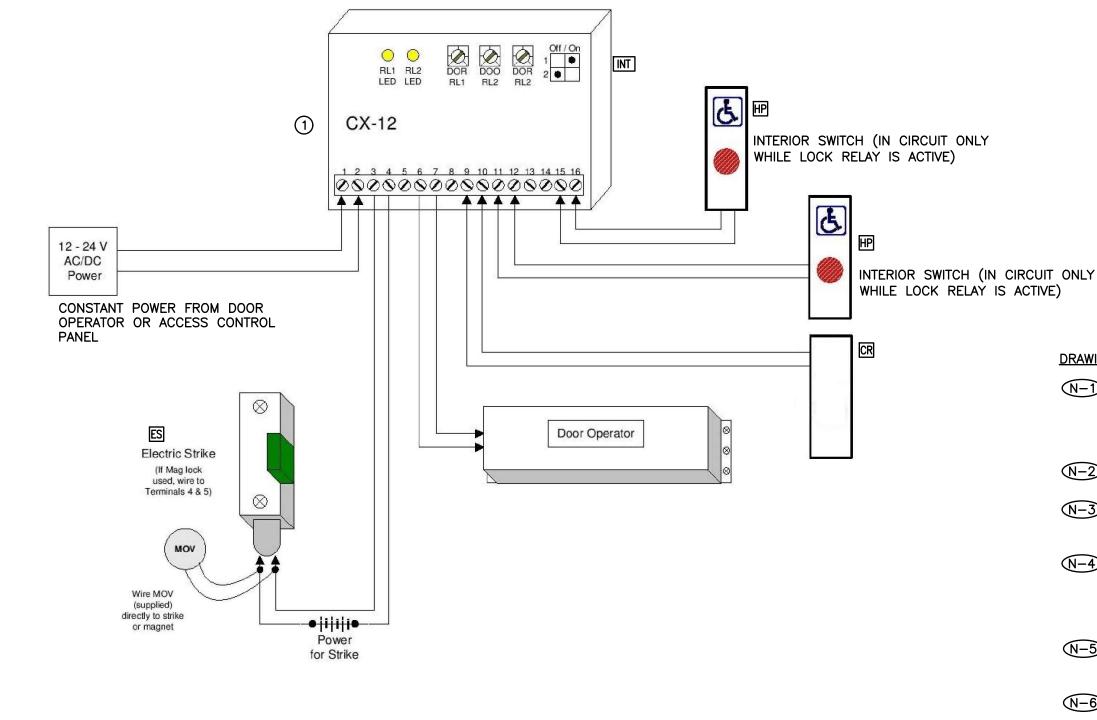
DRAWING NOTES

N-1) ROUGH-IN DETAILS ARE DIAGRAMMATIC. REFER TO FLOOR PLANS FOR ADDITIONAL REQUIREMENTS, DEVICE QUANTITY AND LOCATION.

4#18 AWG-1/2"C

N-8

- N-2 PULLBOX INDICATED MUST BE LOCATED AT THE SECURED SIDE OF THE DOOR. MINIMUM PULLBOX SIZE 10" X 10" C/W FOUR (4) SECURITY SCREWS TYPE SNAKE EYES.
- N-3 ALL ZONE CONDUITS C/W PULL STRING
- N-4 CONTACT SECURITY CONTRACTOR FOR EXACT LOCATION OF SECURITY SYSTEM CABINET, ADDITIONAL CONDUIT AND PULLBOX REQUIREMENTS AND FOR POWER REQUIREMENTS.
- N-5) ALL POWER AND CONDUIT WORK REQUIRED AND/OR SHOWN ON DRAWINGS RELATED TO SECURITY SYSTEM SHALL BE INCLUDED IN ELECTRICAL CONTRACTOR'S PRICE. CONTACT SECURITY CONTRACTOR FOR SPECIFIC REQUIREMENTS.
- (N-6) NOT USED.
- N-7 EQUIP THE HANDICAP DOOR OPENER SYSTEM WITH A CONTROL CIRCUIT TO ALLOW FOR AUTOMATIC DOOR OPENING WHEN A CARD IS BADGED AT THE READER. DEPRESSING OF THE HANDICAP PUSH BUTTON WILL NOT BE REQUIRED.
- N-8 PROVIDE DOOR OPERATOR INTERFACE DEVICE TO PREVENT AUTOMATIC DOOR OPERATION WHILE THE ELECTRIC STRIKE IS ENERGIZED. REFER TO DETAIL NO. 5 ON DRAWING NO. E-1.4 FOR ADDITIONAL REQUIREMENTS.

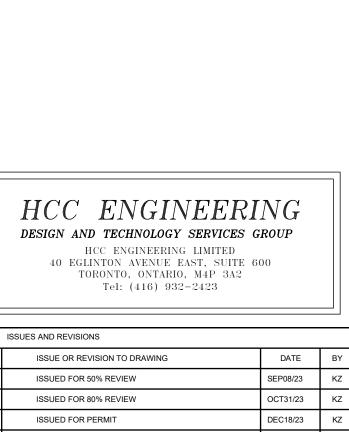


DRAWING NOTES

- N-1) SCHEMATIC IS DIAGRAMMATIC ONLY. PROVIDE QUANTITY OF INTERFACE DEVICES, HARDWARE, DEVICES, POWER CIRCUITS, CONDUIT, WIRE, SECURITY CABLES, ETC, TO ENSURE A FULLY OPERATIONAL SECURITY SYSTEM. REFER TO ROOM LAYOUTS AND FLOOR PLANS FOR ADDITIONAL REQUIREMENTS.
- N-2) PROVIDE CONDUITS AND WIRES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- ALL CONDUITS TO BE EMT. EMT COUPLING AND CONNECTORS SHALL BE T&B STEEL, SET SCREW TYPE. PROVIDE SPARE PULLSTRING IN ALL CONDUITS FOR FUTURE USE.
- N-4 ELECTRICAL CONTRACTOR SHALL NOT USE PULLBOXES AS SUBSTITUTES FOR 90° BENDS. 12" X 12" X 6" PULLBOXES C/W TYPE SNAKE EYE SECURITY SCREWS SHALL BE PROVIDED ON THE BASIS OF NOT MORE THAN TWO (2) RIGHT ANGLE BENDS OR NOT MORE THAN 100' IN STRAIGHT RUNS BETWEEN BOXES.
- N-5 CONTACT SECURITY MANUFACTURER FOR ADDITIONAL WIRE, CONDUIT, PULLBOX AND POWER REQUIREMENTS OVER AND ABOVE THOSE SHOWN ON DRAWING.
- N=6 PROVIDE DEDICATED FLOOR AND WALL PENETRATIONS. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY SCANNING RESULTS. SCANNING MUST BE REVIEWED AND APPROVED BY CONSULTANT PRIOR TO CORE DRILLING.

DRAWING REFERENCES

1 DOOR OPERATOR INTERFACE DEVICE - CAMDEN DOOR CONTROLS CX-12 SWITCHING NETWORK AND BI-DIRECTIONAL DOOR SEQUENCER

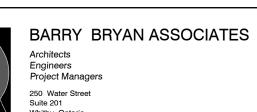


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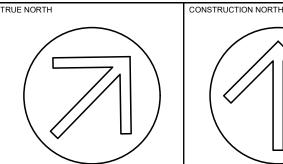


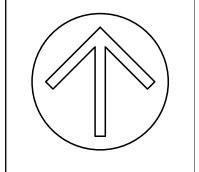
Whitby, Ontario Tel: (905) 666-5252 Fax: (905) 666-5256 PROJECT TITLE AND ADDRESS

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON.

DRAWING TITLE

ELECTRICAL DETAILS





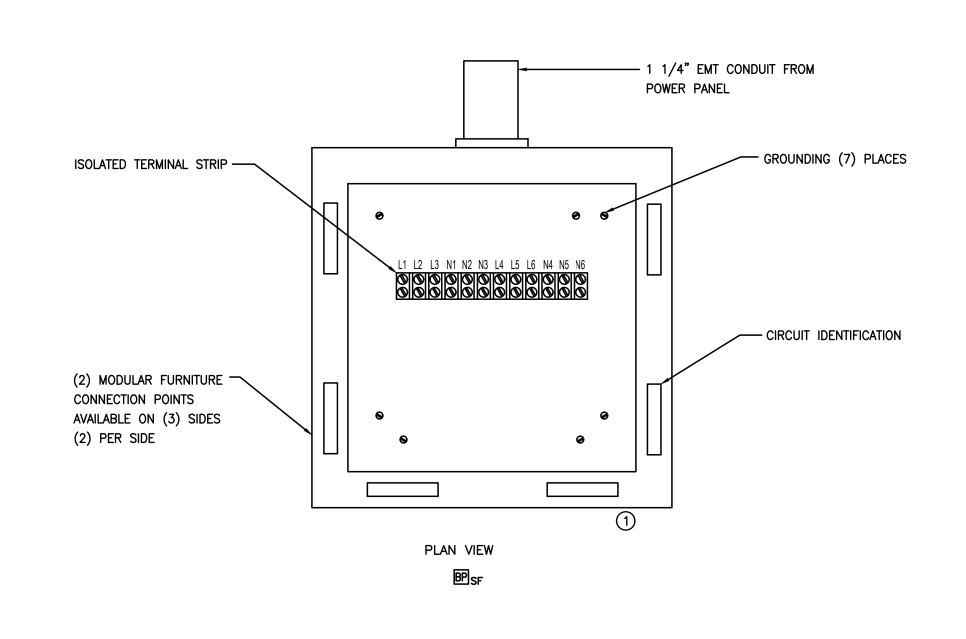
HDC **AS SHOWN** AUGUST, 2023 EGION OF PEEL PROJECT NUMBER CONSULTANT PROJECT NUMBER

PURCHASING DOCUMENT NUMBER: RAWING NUMBER E-1.4

CARD ACCESS CONTROL SYSTEM ROUGH-IN DETAILS E-1.4 SCALE: NTS

E-1.4 SCALE: NTS

DOOR OPERATOR INTERFACE SCHEMATIC



MINIMUM WIRE SIZE #10AWG FOR ALL 6 X 15A/1P 120V CIRCUITS 15A AND 20A CIRCUÏTS. (6)-MODULAR FURNITURE CONNECTION — POINTS (2) PER SIDE (3) SIDES (SIZE TBA) PANEL DESIGNATION & CIRCUIT NO. N-1CONDUIT SURFACE___ MOUNTED (TYPICAL) SECURE POWER DISTRIBUTION — BOX TO SLAB CONCRETE SLAB

MOCK UP - POWER DISTRIBUTION BAY BOX

ELECTRICAL CONTRACTOR'S BASE BID PRICE SHALL INCLUDE FOR PROVIDING MOCK UPS TO CONFIRM POWER DISTRIBUTION BAY BOX INSTALLATION REQUIREMENTS INCLUDING DIMENSIONS TO ACCOMMODATE RAISED FLOOR BUILD DETAILS AND CLEAR HEIGHT WITHIN THE RAISED FLOOR SPACE.

MOCKS UP TO BE PROVIDED AND APPROVED PRIOR TO SHOP DRAWING SUBMITTAL PACKAGE REVIEW.

MEASURE THE CLEAR HEIGHT IN THE RAISED FLOOR SPACE TO CONFIRM DIMENSIONS. 2. REPORT DISCREPANCIES TO HCC ENGINEERING FOR REVIEW.

- 3. BASED ON HCC ENGINEERING'S REVIEW AND DIRECTION PROVIDE SHOP DRAWING SUBMITTAL PACKAGE FOR REVIEW. 4. BASED ON THE APPROVED SHOP DRAWING SUBMITTAL PACKAGE PROVIDE THE FOLLOWING QUANTITY OF RAISED FLOOR BOXES AND POWER DISTRIBUTION BAY BOXES FOR THE MOCK UP.
- 5. PROVIDE ONE (1) TYPE BPSF POWER DISTRIBUTION BAY BOXES FOR SECOND FLOOR OFFICE BUILD OUT STRICTLY FOR THE MOCK UP. MOUNT TO SLAB AND PROVIDE 10' LENGTH OF 1 1/4" CONDUIT FOR EACH POWER DISTRIBUTION BAY
- 6. MOCK UP MUST BE REVIEWED AND APPROVED BY CONSULTANTS AND AGENCY PRIOR TO RELEASING ALL PRODUCT FOR MANUFACTURING.

L-----

7. ONCE MOCK UP IS APPROVED, REMOVE AND DELIVER POWER DISTRIBUTION BAY BOXES TO AGENCY'S ON SITE STORAGE ROOM.

DRAWING NOTES

- N-1) COORDINATE FURNITURE WHIP CONNECTION POINT DIMENSIONS AND SHAPE DURING SHOP DRAWING PROCESS.
- N-2 FINAL POWER CONNECTION TO FURNITURE WHIP PROVIDED BY ELECTRICAL CONTRACTOR.
- N-3 NEATLY LABEL ALL FLOOR MOUNTED AND WALL DEVICE BOX COVERS WITH CORRESPONDING PANEL NAMES AND CIRCUIT NUMBERS, UTILIZE SELF ADHESIVE MECHANICALLY PRINTED LABELS.

DRAWING REFERENCES

(1) WELLMARK 350 SERIES POWER DISTRIBUTION BOX

TYPICAL RAISED FLOOR TYPE SF SYSTEMS FURNITURE POWER DISTRIBUTION BAY BOX DETAIL E-1.5 SCALE: NTS

HCC ENGINEERING DESIGN AND TECHNOLOGY SERVICES GROUP

HCC ENGINEERING LIMITED
40 EGLINTON AVENUE EAST, SUITE 600 TORONTO, ONTARIO, M4P 3A2 Tel: (416) 932-2423

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ISSUES AND REVISIONS

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Region of Peel

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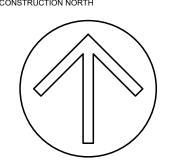


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SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL

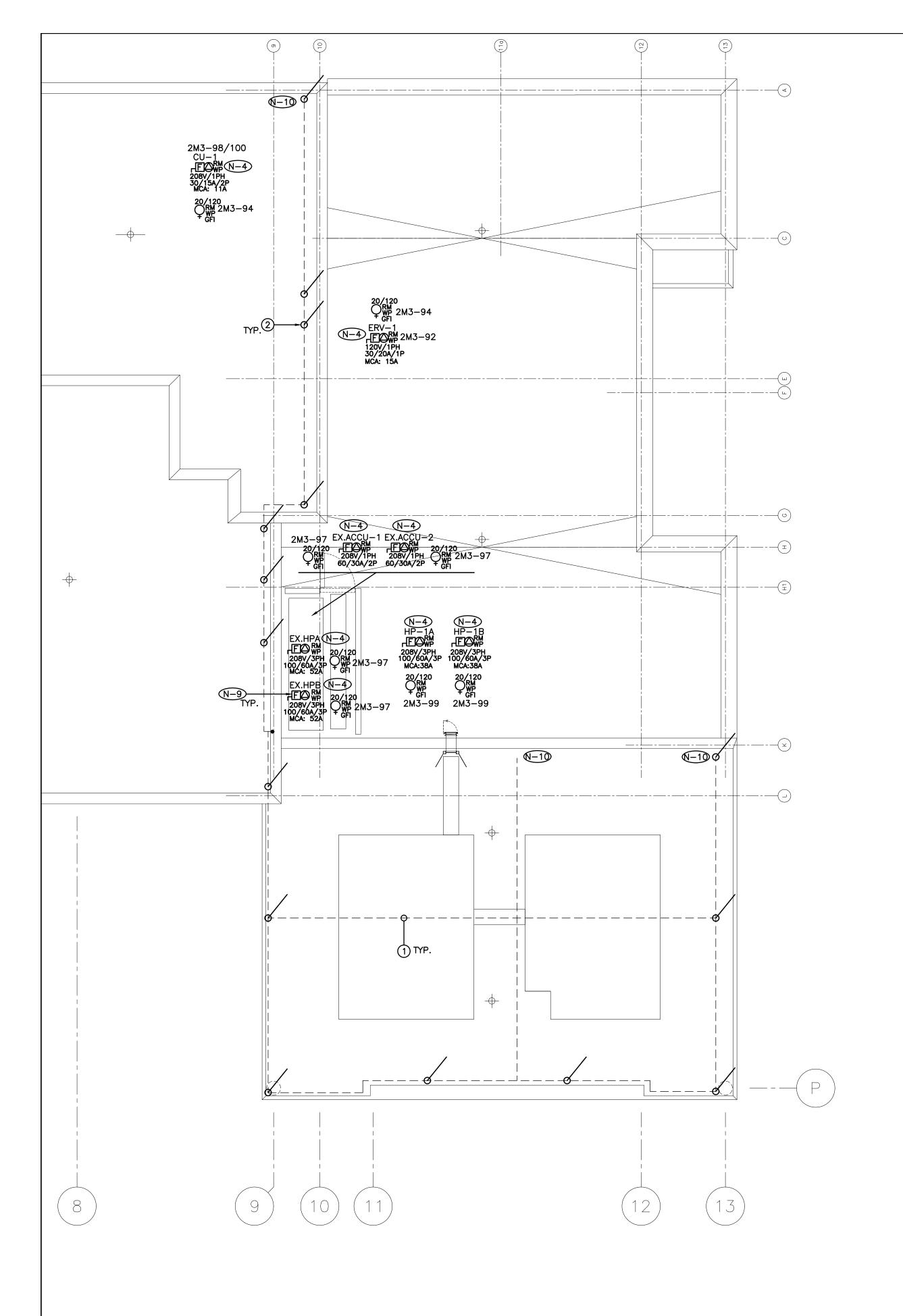
3190 MAVIS ROAD, MISSISSAUGA, ON.

ELECTRICAL DETAILS



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PURCHASING DOCUMENT NUMBER: E-1.5



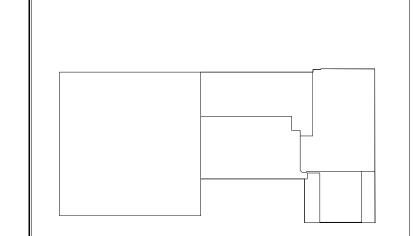
- N-1) EXACT LOCATION OF ALL DEVICES AND RESPECTIVE HEIGHTS TO BE COORDINATED ON SITE WITH ARCHITECT AND
- N-2 NEATLY LABEL ALL FLOOR MOUNTED AND WALL DEVICE BOX COVERS AND UTILITY POLES WITH CORRESPONDING PANEL NAMES AND CIRCUIT NUMBERS. UTILIZE SELF ADHESIVE MECHANICALLY PRINTED LABELS.
- N-3 CIRCUIT NUMBERS MAY NOT BE CHANGED WITHOUT PRIOR APPROVAL FROM THE ELECTRICAL ENGINEER.
- N-4 CONFIRM BREAKER/FUSE AND RECEPTACLE/DISCONNECT REQUIREMENTS PRIOR TO INSTALLATION.
- N-5 COORDINATE WIRING REQUIREMENTS FOR MECHANICAL EQUIPMENT ON SITE WITH MECHANICAL CONTRACTOR.
- N-6) CONFIRM ELECTRICAL REQUIREMENTS AND EXACT LOCATION OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION OF ELECTRICAL SERVICES.
- N-7) ALL FINAL CONNECTIONS TO MECHANICAL EQUIPMENT ARE TO BE IN LIQUID TIGHT FLEXIBLE CONDUIT.
- N-8 ROUTE ALL CONDUIT SYSTEMS AROUND EXISTING DUCT WORK, BEAMS, NEW DUCT WORK AND PIPING AS REQUIRED TO ACCOMMODATE INSTALLATION. REFER TO MECHANICAL DRAWINGS AND DESIGNER DRAWINGS FOR ADDITIONAL DETAILS.
- N-9) PROVIDE NEW FUSIBLE ISOLATION SWITCH FOR EQUIPMENT RELOCATED BY MECHANICAL CONTRACTOR FROM EXISTING GROUND FLOOR ROOF TO NEW SECOND FLOOR ROOF.
- € EXTEND EXISTING LIGHTNING PROTECTION SYSTEM TO PROVIDE COVERAGE OF NEW SECOND FLOOR ROOF, ROOF PARAPET AND ROOF MOUNTED EQUIPMENT. REFER TO ARCHITECTURAL DRAWINGS, DRAWING NO. E-5.2 AND TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. PROVIDE CERTIFICATION.
- € ELECTRICAL CONTRACTOR SHALL PROVIDE (SUPPLY AND INSTALL) AN ADDITIONAL ONE (1) NEMA 5-20R DUPLEX RECEPTACLES EACH C/W GFI PROTECTION AND WEATHERPROOF COVER OVER AND ABOVE THOSE SHOWN ON DRAWING NO. E-2.0 ON AN AD HOĆ BASIS UP TO SUBSTANTIAL COMPLETION. EACH ADDITIONAL RECEPTACLE SHALL BE ON A DEDICATED CIRCUIT COMPLETE WITH BRANCH WIRING (CONDUIT AND WIRE) AND BREAKER. BREAKER REQUIREMENTS NOT INDICATED ON PANEL SCHEDULES.

PROVIDE RECEPTACLES, CONDUIT, WIRE (300' OF 2#10AWG + G (TOTAL OF 600' WIRE PLUS G AND 300' 3/4" GALVANIZED RIGID STEEL CONDUIT) PER RECEPTACLE, BREAKERS, TERMINATION AT PANEL BREAKER END AND AT DEVICE END, ETC. FOR FULLY FUNCTIONAL LIVE DEVICES. EXACT INSTALLATION LOCATION AND PANEL SOURCE TO BE DETERMINED ON SITE BY CONSULTANT DURING CONSTRUCTION. PROVIDE UPDATED TYPED PANEL SCHEDULES FOR ALL PANELS AT THE COMPLETION OF THE PROJECT.

- USE PVC COATED GALVANIZED RIGID STEEL CONDUIT ROBROY PERMACOTE IN ALL OUTDOOR LOCATIONS AND IN AREAS THAT ARE NOT ENVIRONMENTALLY CONTROLLED.
- №—13 MINIMUM WIRE SIZE #10AWG FOR ALL 120 VOLT CIRCUITS EXCEEDING 90 FEET IN LENGTH.
- € MINIMUM WIRE SIZE #8AWG FOR ALL 120 VOLT CIRCUITS EXCEEDING 200 FEET IN LENGTH.
- PROVIDE REQUIRED PENETRATIONS THROUGH BUILDING ENVELOP. COORDINATE WORK AND WEATHERPROOF SEALING REQUIREMENTS WITH CONSULTANT.

DRAWING REFERENCES

- (1) EXISTING LIGHTNING PROTECTION SYSTEM PERIMETER ROOF LOOP TO REMAIN
- (2) EXISTING LIGHTNING PROTECTION SYSTEM ALUMINUM AIR TERMINAL TO REMAIN



KEY PLAN

NOTES

HCC ENGINEERING DESIGN AND TECHNOLOGY SERVICES GROUP HCC ENGINEERING LIMITED

40 EGLINTON AVENUE EAST, SUITE 600 TORONTO, ONTARIO, M4P 3A2 Tel: (416) 932-2423

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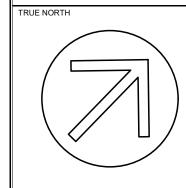


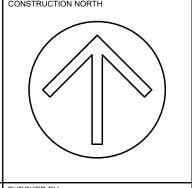




SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON

ELECTRICAL PLAN



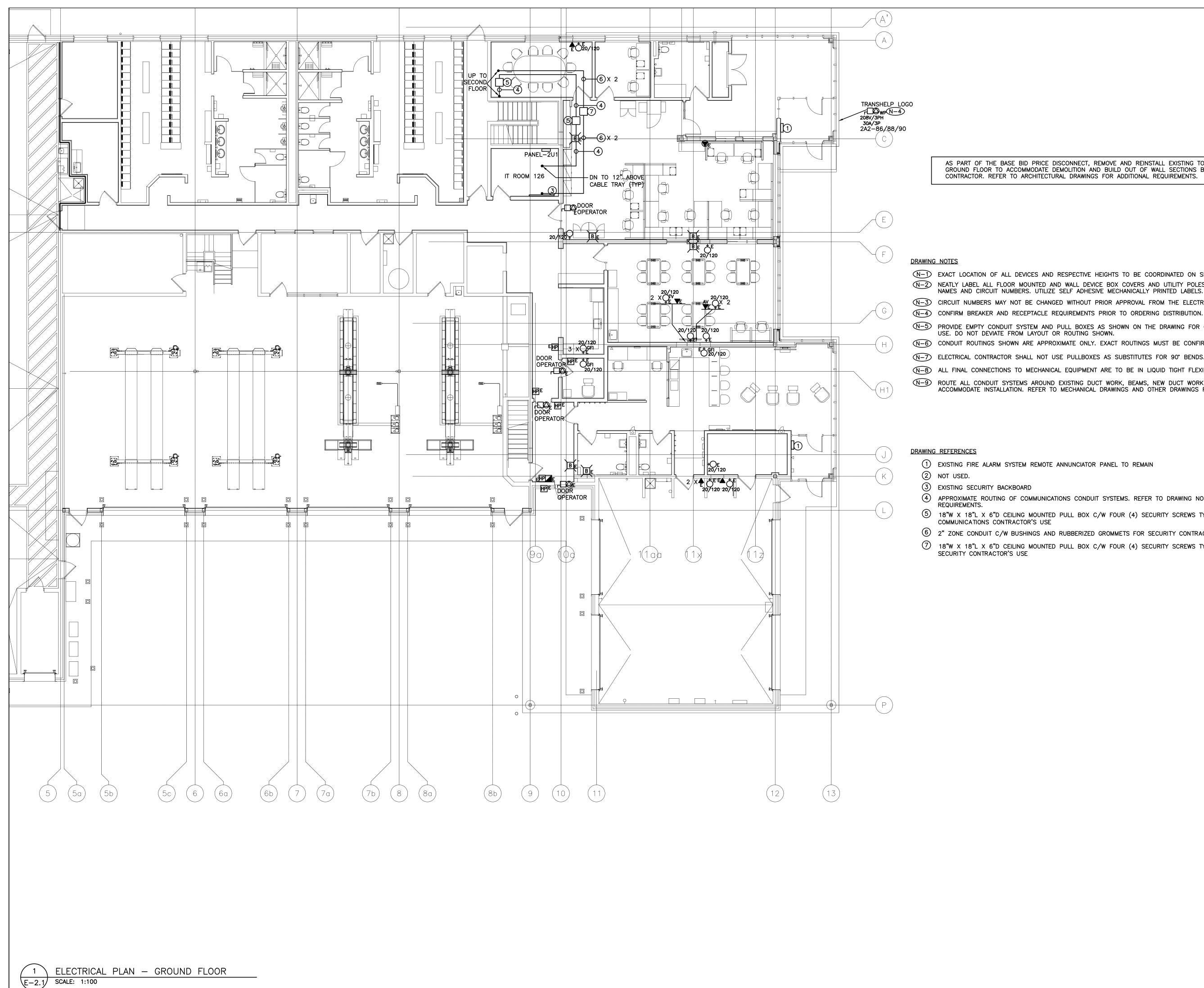


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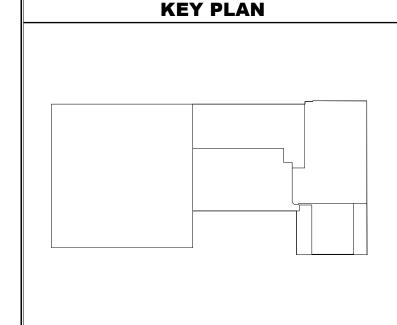
E-2.0

ELECTRICAL PLAN - ROOF E-2.0 SCALE: 1:100



AS PART OF THE BASE BID PRICE DISCONNECT, REMOVE AND REINSTALL EXISTING TO REMAIN DEVICES ON GROUND FLOOR TO ACCOMMODATE DEMOLITION AND BUILD OUT OF WALL SECTIONS BY GENERAL CONTRACTOR. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.

- N-1) EXACT LOCATION OF ALL DEVICES AND RESPECTIVE HEIGHTS TO BE COORDINATED ON SITE WITH CONSULTANT.
- N=2 NEATLY LABEL ALL FLOOR MOUNTED AND WALL DEVICE BOX COVERS AND UTILITY POLES WITH CORRESPONDING PANEL NAMES AND CIRCUIT NUMBERS. UTILIZE SELF ADHESIVE MECHANICALLY PRINTED LABELS.
- N-3 CIRCUIT NUMBERS MAY NOT BE CHANGED WITHOUT PRIOR APPROVAL FROM THE ELECTRICAL ENGINEER.
- N-5) PROVIDE EMPTY CONDUIT SYSTEM AND PULL BOXES AS SHOWN ON THE DRAWING FOR CABLING CONTRACTOR'S USE. DO NOT DEVIATE FROM LAYOUT OR ROUTING SHOWN.
- N-6 CONDUIT ROUTINGS SHOWN ARE APPROXIMATE ONLY. EXACT ROUTINGS MUST BE CONFIRMED WITH CONSULTANT
- N-7 ELECTRICAL CONTRACTOR SHALL NOT USE PULLBOXES AS SUBSTITUTES FOR 90° BENDS.
- N-8) ALL FINAL CONNECTIONS TO MECHANICAL EQUIPMENT ARE TO BE IN LIQUID TIGHT FLEXIBLE CONDUIT.
- N-9 ROUTE ALL CONDUIT SYSTEMS AROUND EXISTING DUCT WORK, BEAMS, NEW DUCT WORK AND PIPING AS REQUIRED TO ACCOMMODATE INSTALLATION. REFER TO MECHANICAL DRAWINGS AND OTHER DRAWINGS FOR ADDITIONAL DETAILS.
- 1 EXISTING FIRE ALARM SYSTEM REMOTE ANNUNCIATOR PANEL TO REMAIN
- 4 APPROXIMATE ROUTING OF COMMUNICATIONS CONDUIT SYSTEMS. REFER TO DRAWING NO. C-3.1 FOR ADDITIONAL
- 5 18"W X 18"L X 6"D CEILING MOUNTED PULL BOX C/W FOUR (4) SECURITY SCREWS TYPE SNAKE EYES FOR COMMUNICATIONS CONTRACTOR'S USE
- 6 2" ZONE CONDUIT C/W BUSHINGS AND RUBBERIZED GROMMETS FOR SECURITY CONTRACTOR'S USE.
- 7 18"W X 18"L X 6"D CEILING MOUNTED PULL BOX C/W FOUR (4) SECURITY SCREWS TYPE SNAKE EYES FOR SECURITY CONTRACTOR'S USE



NOTES

HCC ENGINEERING DESIGN AND TECHNOLOGY SERVICES GROUP

HCC ENGINEERING LIMITED
40 EGLINTON AVENUE EAST, SUITE 600
TORONTO, ONTARIO, M4P 3A2 Tel: (416) 932-2423

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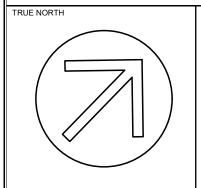


250 Water Street Suite 201 Whitby, Ontario

Tel: (905) 666-5252

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON.

ELECTRICAL PLAN **GROUND FLOOR**



1:100

AUGUST, 2023 23073 22701

PURCHASING DOCUMENT NUMBER: E-2.1



- (N-1) EXACT LOCATION OF ALL DEVICES AND RESPECTIVE HEIGHTS TO BE COORDINATED ON SITE WITH ARCHITECT.
- N-2) NEATLY LABEL ALL FLOOR MOUNTED AND WALL DEVICE BOX COVERS AND UTILITY POLES WITH CORRESPONDING PANEL NAMES AND CIRCUIT NUMBERS. UTILIZE SELF ADHESIVE MECHANICALLY PRINTED LABELS.
- N-3 CIRCUIT NUMBERS MAY NOT BE CHANGED WITHOUT PRIOR APPROVAL FROM THE ELECTRICAL ENGINEER.
- N-4 CONFIRM BREAKER AND RECEPTACLE REQUIREMENTS PRIOR TO ORDERING DISTRIBUTION.
- N-5 COORDINATE WIRING REQUIREMENTS FOR MECHANICAL EQUIPMENT ON SITE WITH MECHANICAL CONTRACTOR.
- N-6 CONFIRM ELECTRICAL REQUIREMENTS AND EXACT LOCATION OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION OF ELECTRICAL SERVICES.
- N-7) ALL FINAL CONNECTIONS TO MECHANICAL EQUIPMENT ARE TO BE IN LIQUID TIGHT FLEXIBLE CONDUIT.
- ROUTE ALL CONDUIT SYSTEMS AROUND EXISTING DUCT WORK, BEAMS, NEW DUCT WORK AND PIPING AS REQUIRED TO ACCOMMODATE INSTALLATION. REFER TO MECHANICAL DRAWINGS AND ARCHITECTUAL DRAWINGS FOR ADDITIONAL DETAILS.
- ELECTRICAL CONTRACTOR SHALL PROVIDE (SUPPLY AND INSTALL) AN ADDITIONAL FOUR (4) CSA 5-20R DUPLEX RECEPTACLES OVER AND ABOVE THOSE SHOWN ON DRAWING NO. E-2.2 ON AN AD HOC BASIS UP TO SUBSTANTIAL COMPLETION. EACH ADDITIONAL RECEPTACLE SHALL BE ON A DEDICATED CIRCUIT COMPLETE WITH BRANCH WIRING (CONDUIT AND WIRE) AND BREAKER. BREAKER REQUIREMENTS NOT INDICATED ON PANEL SCHEDULES.

PROVIDE RECEPTACLES, CONDUIT, WIRE (200' OF 2#10AWG + G (TOTAL OF 400' WIRE PLUS G AND 200' 3/4" CONDUIT) PER RECEPTACLE), BREAKERS, TERMINATION AT PANEL BREAKER END AND AT DEVICE END, ETC., FOR FULLY FUNCTIONAL LIVE DEVICES. EXACT INSTALLATION LOCATION AND PANEL SOURCE TO BE DETERMINED ON SITE BY CONSULTANT DURING CONSTRUCTION. PROVIDE UPDATED TYPED PANEL SCHEDULES FOR ALL PANELS AT THE COMPLETION OF THE PROJECT.

- $(\sqrt{-10})$ FEEDERS FOR ELECTRICAL PANELS SHALL NOT BE ROUTED THROUGH IT ROOM.
- (N-1) COORDINATE CONDUIT TERMINATION WITH LIGHTING INSTALLATION AND MECHANICAL INTERFERENCES TO ENSURE ACCESS FOR COMMUNICATIONS CONTRACTOR.
- №12 MANUAL STARTER SWITCH/THERMOSTAT SUPPLIED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. PROVIDE CONDUIT AND WIRE.
- €-13 ELECTRICAL CONTRACTOR TO ENSURE THAT DEVICES ARE NOT INSTALLED ON WALLS WITH WHITE BOARDS OR ON FEATURE WALLS. CONFIRM ALL WHITE BOARD AND FEATURE WALL LOCATIONS PRIOR TO INSTALLATION.
- PROVIDE TWO (2) DUPLEX RECEPTACLES IN CEILING SPACE ON AN AD HOC BASIS FOR CONTROL CONTRACTOR'S USE. UTILIZE CCTS #RP-2A-81/83. COORDINATE LOCATION OF RECEPTACLES ON SITE WITH CONTROLS CONTRACTOR. BID PRICE SHALL INCLUDE FOR 200' OF 2#10AWG + G (TOTAL OF 400' WIRE PLUS G) AND 200' 3/4" CONDUIT PER CONTROL
- (N-15) MINIMUM WIRE SIZE #10AWG FOR ALL 120 VOLT CIRCUITS EXCEEDING 80 FEET IN LENGTH.
- MINIMUM WIRE SIZE #8AWG FOR ALL 120 VOLT CIRCUITS EXCEEDING 200 FEET IN LENGTH.
- PROVIDE EMPTY CONDUIT SYSTEM AND PULL BOXES AS SHOWN ON THE DRAWING FOR COMMUNICATIONS CONTRACTOR'S USE. DO NOT DEVIATE FROM LAYOUT OR ROUTING SHOWN.
- $\sqrt{18}$ CONDUIT ROUTINGS SHOWN ARE APPROXIMATE ONLY. EXACT ROUTINGS MUST BE CONFIRMED WITH CONSULTANT.
- N-19 ALL COMMUNICATIONS SYSTEM ZONE CONDUITS PROVIDED BY ELECTRICAL CONTRACTOR SHALL BE C/W PULL STRING. ALL CONDUITS SHALL BE C/W BUSHINGS AND RUBBERIZED GROMMETS. ALL CONDUITS TO BE EMT. EMT COUPLING AND CONNECTORS SHALL BÉ T&B STEEL, SET SCREW TYPE.
- 1-20 TV-WALL MOUNTED RECEPTACLE TO BE LOCATED BEHIND TV PANEL AT 2000MM AFF. COORDINATE WITH ARCHITECTURAL
- (N-2) AS PART OF THIS SCOPE OF WORK PROVIDE PUNCHOUTS IN TOP OF CABINETS TO ACCOMMODATE CONDUITS PROVIDED AS PART OF THIS SCOPE OF WORK. COORDINATE PUNCHOUT LOCATIONS WITH CABLING CONTRACTOR.
- N-22 PROVIDE FURNITURE MOUNTED POWER OUTLET AND DATA OUTLET AT EACH WORK STATION. COORDINATE WITH FURNITURE INSTALLATIONS.

DRAWING REFERENCES

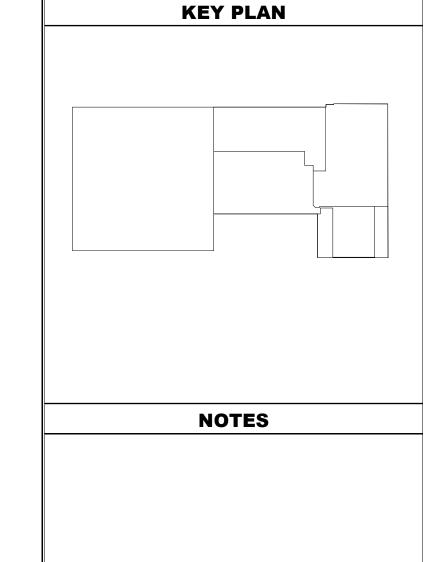
- (1) EXISTING FIRE ALARM SYSTEM CONTROL PANEL
- (2) EQUIPMENT RACK PROVIDED BY COMMUNICATIONS CONTRACTOR
- (3) RAISED FLOOR GRID
- (4) APPROXIMATE LOCATION TO TRANSITION BRANCH CIRCUITS FROM CEILING SPACE TO RAISED FLOOR SPACE
- (5) 2" ZONE CONDUIT C/W BUSHINGS AND RUBBERIZED GROMMETS INSTALLED IN CEILING SPACE FOR COMMUNICATIONS CONTRACTOR'S USE.
- (6) NOT USED.
- (7) 2" ZONE CONDUIT C/W BUSHINGS AND RUBBERIZED GROMMETS FOR COMMUNICATIONS CONTRACTOR'S USE TO TRANSITION SERVICE FROM CEILING SPACE TO RAISED FLOOR SPACE.
- (8) APPROXIMATE ROUTING OF COMMUNICATIONS CONDUIT SYSTEMS. REFER TO DRAWING NO. E-10.1 FOR ADDITIONAL
- (9) 18"W X 18"L X 6"D CEILING MOUNTED PULL BOX C/W FOUR (4) SECURITY SCREWS TYPE SNAKE EYES FOR COMMUNICATIONS CONTRACTOR'S USE
- 10 TYPICAL ZONE CONDUITS FOR SECURITY CONTRACTOR'S USE. REFER TO DETAIL NO. 1 ON DRAWING NO. E-1.4 AND TO DRAWING NO. E-11.1 FOR ADDITIONAL REQUIREMENTS.
- (1) 18"W X 18"L X 6"D CEILING MOUNTED PULL BOX C/W FOUR (4) SECURITY SCREWS TYPE SNAKE EYES FOR SECURITY
- 12 18"W X 18"L X 6"D WALL MOUNTED PULL BOX C/W FOUR (4) SECURITY SCREWS TYPE SNAKE EYES FOR SECURITY CONTRACTOR'S USE
- (13) 2" ZONE CONDUIT C/W BUSHINGS AND RUBBERIZED GROMMETS FOR SECURITY CONTRACTOR'S USE.

PRIOR TO RELEASING BREAKERS AND PROVIDING BRANCH WIRING, COORDINATE ALL HARNESS WIRING REQUIREMENTS ON SITE WITH FURNITURE INSTALLER. DO NOT DEVIATE FROM CIRCUIT DETAILS NOTED ON DRAWINGS WITHOUT APPROVAL. REPORT ANY DISCREPANCIES TO ENGINEER PRIOR TO INSTALLATION.

FIRE ALARM SYSTEM AUDIBILITY TESTING TO BE COMPLETED WITH ALL DOORS OPEN

UTILIZE LAMACOIDS PLATES TO LABEL ALL LOW VOLTAGE JUNCTION BOXES

PLUG LOAD CONTROL NOT SPECIFIED FOR AV EQUIPMENT / TV'S AS THIS CAN DAMAGE EQUIPMENT.



HCC ENGINEERING DESIGN AND TECHNOLOGY SERVICES GROUP

HCC ENGINEERING LIMITED 40 EGLINTON AVENUE EAST, SUITE 600 TORONTO, ONTARIO, M4P 3A2 Tel: (416) 932-2423

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Region of Peel

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ROJECT TITLE AND ADDRESS

CONSULTANT'S SEAL

H.D. COHEN



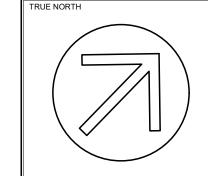
BARRY BRYAN ASSOCIATES Engineers Project Managers 250 Water Street

Tel: (905) 666-5252 Fax: (905) 666-5256

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA. ON.

DRAWING TITLE

ELECTRICAL PLAN SECOND FLOOR



ONSTRUCTION NORTH

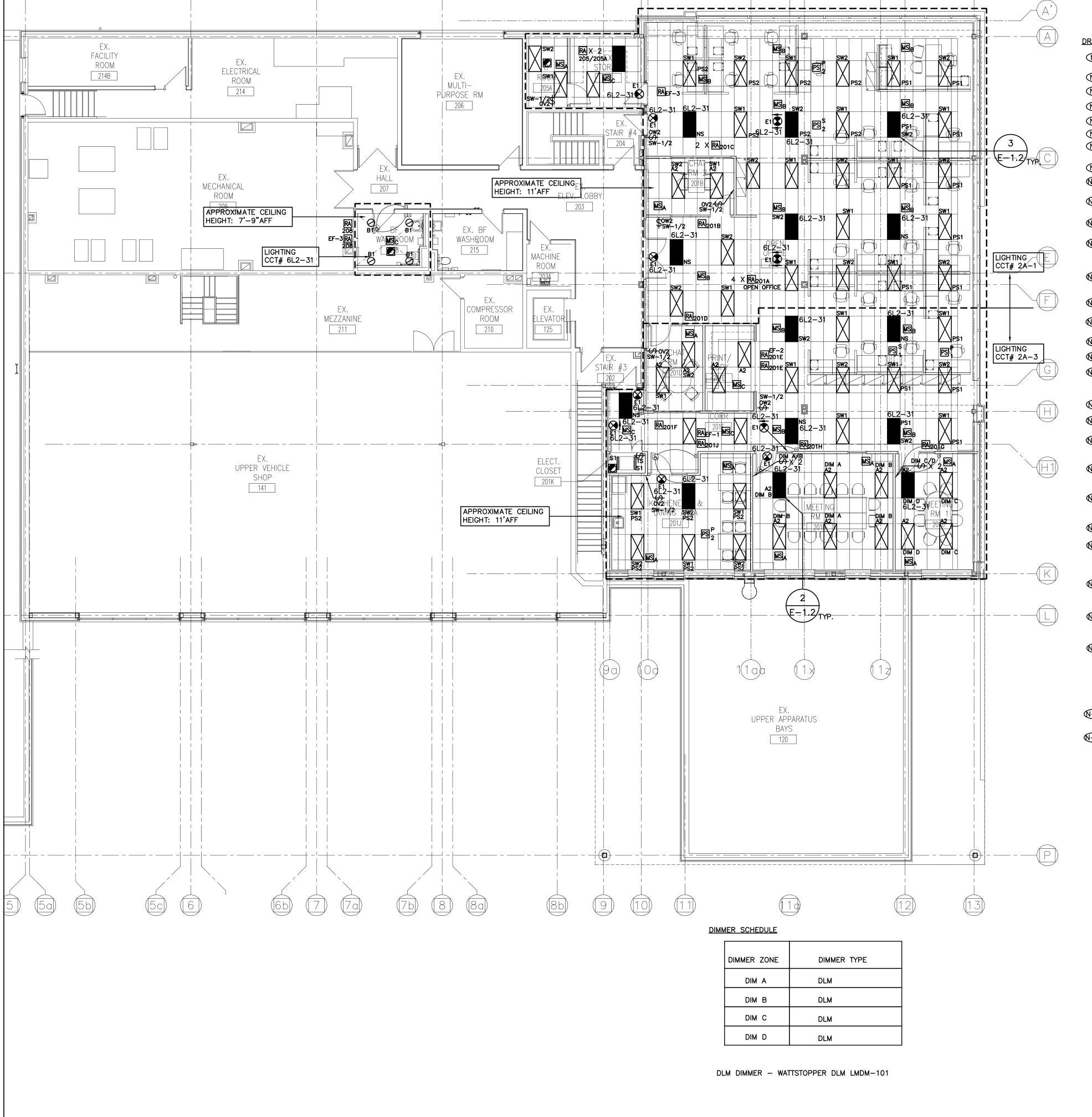
1:100 CONSULTANT PROJECT NUMBER

AUGUST, 2023 GION OF PEEL PROJECT NUMBER 23073 22701

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RAWING NUMBER E-2.2

ELECTRICAL PLAN - SECOND FLOOR E-2.2 SCALE: 1:100



DRAWING NOTES

- N=1) REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND HEIGHTS FOR MOUNTING OF FIXTURES, OCCUPANCY SENSORS, PHOTOCELL SENSORS, LIGHT SWITCHES, ETC.
- N-2) PROVIDE NEW LIGHTING FIXTURES, EXIT SIGNS, SWITCHES, OCCUPANCY SENSORS, ETC., TO SUIT NEW REFLECTED CEILING PLAN.
- N-3 NOT USED.
- N-4 ALL FIXTURES TYPE 'A1' UNLESS INDICATED OTHERWISE

AFFECT OPERATION OF LIGHTING IN RESPECTIVE AREA.

- N-5 NOT USED.
- N-6 COORDINATE INSTALLATION OF FIXTURES WITH MECHANICAL EQUIPMENT, ELECTRICAL EQUIPMENT, SPRINKLERS AND DUCT WORK.

 N-7 CHAIN HANG ALL NEW FIXTURES PROVIDED AS PART OF THIS SCOPE OF WORK IN FINISHED CEILING AREAS FROM SLAB (RETROFIT
- N-8 REMOVE AND REINSTALL EXISTING FIXTURES AS REQUIRED TO ACCOMMODATE BUILD OUT OF PARTITIONS BY GENERAL CONTRACTOR.
- €-10 ELECTRICAL CONTRACTOR TO ENSURE THAT DEVICES ARE NOT INSTALLED ON WALLS WITH WHITE BOARDS OR ON FEATURE WALLS.
- CONFIRM WHITE BOARD AND FEATURE WALL LOCATIONS PRIOR TO INSTALLATION.

 (N-1) LOCATE AND POSITION EXIT SIGNS SUCH THAT THEY DO NOT INTERFERE WITH ADJACENT EXIT SIGNS AND EMERGENCY LIGHTING
- MOUNTING STYLE (CEILING/WALL), HEIGHT AND LOCATION OF EXIT SIGNS TO BE DETERMINED BY CONSULTANT ON SITE. COORDINATE AND REVIEW ALL EXIT SIGN LOCATIONS WITH CONSULTANT PRIOR TO ORDERING EXIT SIGNS.
- AS PART OF THE BASE BID PRICE ELECTRICAL CONTRACTOR SHALL PROVIDE (SUPPLY AND INSTALL) AN ADDITIONAL TWO (2) TYPE E1 EXIT SIGNS EACH COMPLETE WITH 75'-0" OF CONDUIT AND WIRING OVER AND ABOVE THOSE SHOWN ON DRAWING NO. E-3.2 POST CITY FIRE / BUILDING DEPARTMENT INSPECTIONS.
- ELECTRICAL CONTRACTOR SHALL REMOVE AND REINSTALL EXISTING FIXTURES THROUGHOUT THE FLOOR AS REQUIRED TO ACCOMMODATE INSTALLATION OF CONDUITS PROVIDED AS PART OF THIS SCOPE OF WORK.
- N-16 PROVIDE LOCK ON FOR BREAKERS PROTECTING EMERGENCY LIGHTING SYSTEMS / CIRCUITS.
- (1) ALL SWITCHES PROVIDED AS PART OF THIS SCOPE OF WORK TO BE ALIGNED WITH THERMOSTATS.
- N−18 NOT USED.
- №-19 PROVIDE A LOCAL 347V DISCONNECT FOR EACH BALLAST/DRIVER IN EACH FIXTURE PROVIDED AS PART OF THIS SCOPE OF WORK.
- AS PART OF THIS SCOPE OF WORK EMPLOY AND PAY FOR THE SERVICES OF A CERTIFIED WATT STOPPER SERVICE CONSULTANT TO COMMISSION ALL OCCUPANCY SENSORS PROVIDED AS PART OF THIS SCOPE OF WORK. COMMISSIONING AND DOCUMENTATION SHALL BE COMPLETED.
- (N-2) NOT USED.
- DO NOT REUSE EXISTING EXIT SIGNS, OCCUPANCY SENSORS, ROOM CONTROLLERS, PHOTOCELLS, ETC., REMOVED AS PART OF THIS
- SCOPE OF WORK.

 (1-23) SWITCH/DIMMING LEGS SHALL BE WIRED SUCH THAT LEG IS CONTROLLED BY OCCUPANCY SENSORS IN RESPECTIVE SPACE ENCLOSED BY CEILING HEIGHT PARTITIONS. OPERATION OF SAME LIGHT BRANCH CIRCUIT IN ADJACENT AREAS/ROOMS SHALL NOT
- CEILING MOUNTED OCCUPANCY SENSORS PROVIDED AS PART OF THIS SCOPE OF WORK MUST BE INSTALLED AT LEAST 6' AWAY FROM ALL SUPPLY AIR DIFFUSERS AND RETURN AIR GRILLS. COORDINATE EXACT INSTALLATION LOCATION WITH WATTSTOPPER SERVICE CONSULTANT AND MECHANICAL CONTRACTOR PRIOR TO COMMENCING WORK.
- CEILING MOUNTED OCCUPANCY SENSORS IN ROOMS WITH DLM CONTROL TO BE PROGRAMMED SUCH THAT THE FUNCTION OF AUTO—ON IS DISABLED. ALL LIGHT FIXTURES WITHIN RESPECTIVE ENCLOSED SPACES SHALL BE TURNED ON MANUALLY THROUGH LOW VOLTAGE OVERRIDE SWITCHES PROVIDED AS PART OF THIS SCOPE OF WORK UNLESS INDICATED OTHERWISE.
- NOT USED.
- EACH AND EVERY SPACE ENCLOSED BY CEILING HEIGHT PARTITIONS (IE. OFFICES, MEETING ROOMS, ENCLAVES, ETC.) WITH DLM CONTROL TO BE WIRED WITH TWO CONTROLLABLE SWITCH—LEGS SUCH THAT THERE IS ONE CONTROL STEP OF NOT MORE THAN 50% LIGHTING POWER IN ADDITION TO AN AUTO OFF IN THE RESPECTIVE SPACE. REFER TO ASHRAE 90.1 2016 FOR ADDITIONAL REQUIREMENTS.
- M-28 AS PART OF THE BASE BID PRICE ELECTRICAL CONTRACTOR SHALL PROVIDE (SUPPLY AND INSTALL) AN ADDITIONAL TWO (2) TYPE 'A' CEILING MOUNTED OCCUPANCY SENSORS EACH COMPLETE WITH 75'-0" OF CONDUIT AND WIRING AND A LMSW-102 DIGITAL LIGHT SWITCH OVER AND ABOVE THOSE SHOWN ON DRAWING NO. E-3.2 POST SUBSTANTIAL COMPLETION.
- € ELECTRICAL CONTRACTOR SHALL REMOVE AND REINSTALL EXISTING FIXTURES, FIRE ALARM SYSTEM DEVICES, ETC. THROUGHOUT THE FLOOR AS REQUIRED TO ACCOMMODATE INSTALLATION OF DUCT WORK AND MECHANICAL EQUIPMENT, ETC. PROVIDED BY DIVISION
- AS PART OF THE BASE BID PRICE ELECTRICAL CONTRACTOR SHALL PROVIDE (SUPPLY AND INSTALL) AN ADDITIONAL TWO (2) DIGITAL DIMMING ROOM CONTROLLERS OVER AND ABOVE THOSE SHOWN ON DRAWING NO. E-3.2 ON AN AD HOC BASIS UP TO SUBSTANTIAL COMPLETION.

PROVIDE WATT STOPPER LMRC-212-347 C/W CONDUIT, WIRE (50' OF 2#12AWG + G (TOTAL OF 100' WIRE PLUS G, 50' CONDUIT) PER ROOM CONTROLLER), TERMINATIONS, ETC. FOR FULLY FUNCTIONAL LIVE DEVICES. EXACT INSTALLATION LOCATION AND SWITCH LEGS TO BE DETERMINED ON SITE DURING CONSTRUCTION.

- WIRE FIXTURES NOTED TO BE ON 24 HOUR EMERGENCY LIGHTING CIRCUITS THROUGH ROOM CONTROLLERS SUCH THAT LIGHT LEVELS CAN BE FIELD SET. FIXTURES ARE NOT TO BE CONTROLED BY MANUAL ON / AUTO OFF CONTROLS.
- ALL LIGHTING IN EXPOSED CEILING AREAS (NO T-BAR OR DRYWALL) SHALL BE FED BY CONDUITS. BX AND/OR POWER CORDS ARE NOT ACCEPTABLE. SUSPEND FIXTURES FROM SLAB/OWSJ IN A RIGID FASHION (CHAINS ARE NOT ACCEPTABLE).

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TORONTO, ONTARIO, M4P 3A2
Tel: (416) 932-2423

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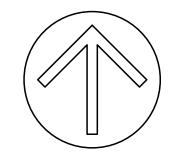
SECOND FLOOR EXPANSION
REGIONAL MUNICIPALITY OF PEEL

3190 MAVIS ROAD, MISSISSAUGA, ON.

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REFLECTED CEILING PLAN SECOND FLOOR





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CONSULTANT PROJECT NUMBER

AUGUST, 2023
REGION OF PEEL PROJECT NUMBER

22701

PURCHASING DOCUMENT NUMBER:

E-3.2

RAWING NUMBER

FIXTURE SCHEDULE

E A1 - 4000 LUMEN 32WATT 2' X 4' RECESSED MOUNTED LED FIXTURE C/W IN-LINE POWER DISCONNECT, 347V 0 TO 10VDC DIMMING DRIVER AND LED LAMP (4000K, 80%CRI). LITHONIA LIGHTING TL SERIES 2TL4-40L-FW-A19-347-EZ1-LP840

TYPE A2 - 4800 LUMEN 39WATT 2' X 4' RECESSED MOUNTED LED FIXTURE C/W IN-LINE POWER DISCONNECT, 347V 0 TO 10VDC DIMMING DRIVER AND LED LAMP (4000K, 80%CRI). LITHONIA LIGHTING VTL SERIES 2VTL4-48L-ADP-347-EZ1-LP840

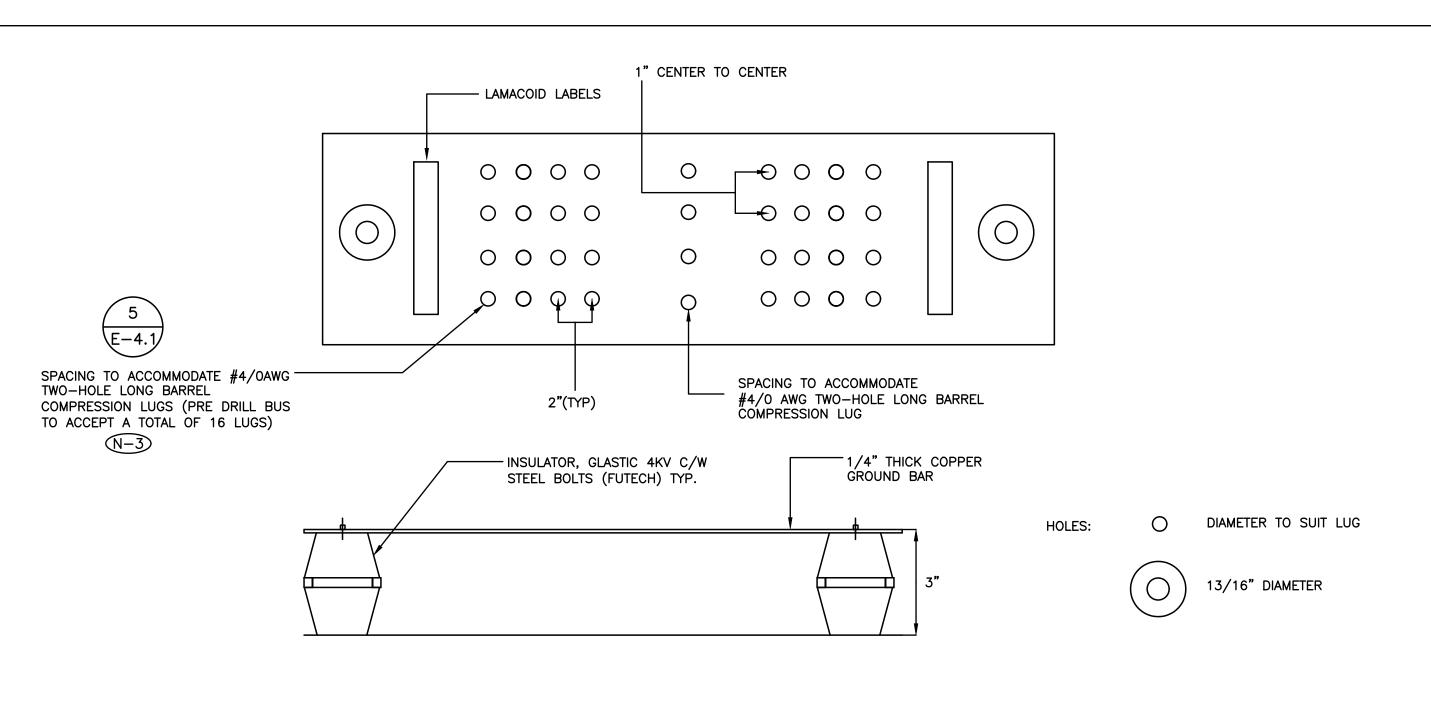
E B1 - 1000 LUMEN 13WATT 4" ROUND RECESSED MOUNTED LED DOWNLIGHT FIXTURE C/W IN-LINE POWER DISCONNECT, 347V 0 TO 10VDC DIMMING DRIVER AND LED LAMP (4000K, 80%CRI). LITHONIA LIGHTING LBR4 SERIES LBR4-10LM-40K-MS-LSS-WD-347-UGZ

TYPE LE2 - 6" ROUND RECESSED CANOPY MOUNTED LED FIXTURE C/W IN-LINE POWER DISCONNECT, 347V DRIVER AND LED LAMP

PE S1 – 2000 LUMENS 2' LINEAR SUSPENDED MOUNTED LED FIXTURE C/W IN-LINE POWER DISCONNECT, 347V 0 TO 10VDC DIMMING DRIVER AND LED LAMP (4000k, 80%CRI). LITHONIA LIGHTING CSS SERIES CSS-L24-2000LM-UVOLT-40K-80CRI.

(PE E1 - PICTOGRAM WHITE LED EXIT SIGN C/W 120/347VAC/24VDC LED. LUMACELL LA-3 SERIES PICTOGRAM EXTRUDED ALUMINUM EXIT SIGN C/W LUMACELL EZ2 CANOPY OR BEGELLI STELLA RM SERIES SL-RM-L-U-OLR-M-120/347-UDC.

TYPE E2 - EXISTING PICTOGRAM TYPE WHITE LED EXIT SIGN



- N-1 COVER TIPS, LUGS AND COPPER GROUND BAR WITH "PENETROX E" FROM "BURNDY" OR "KOPR-SHIELD" FROM "T&B".
- N-2 INSTALL 2-HOLE LONG COMPRESSION LUGS FOR GROUND CONDUCTORS C/W DURIUM BOLTS, NUTS AND WASHERS.
- N-3 BUS BAR SHALL BE PRE-DRILLED BY THE MANUFACTURER TO MATCH PATTERN INDICATED. FIELD DRILLING IS NOT ACCEPTABLE.
- N-4) FASTEN BUS BAR TO WALL MOUNTED FIRE RATED PLYWOOD BACKBOARD (BACKBOARD PROVIDED AND PAINTED AS PART OF THIS SCOPE OF WORK).

IT ROOM GROUND BUS BAR (TGBB) DETAIL SCALE: NTS

- LAMACOID LABELS

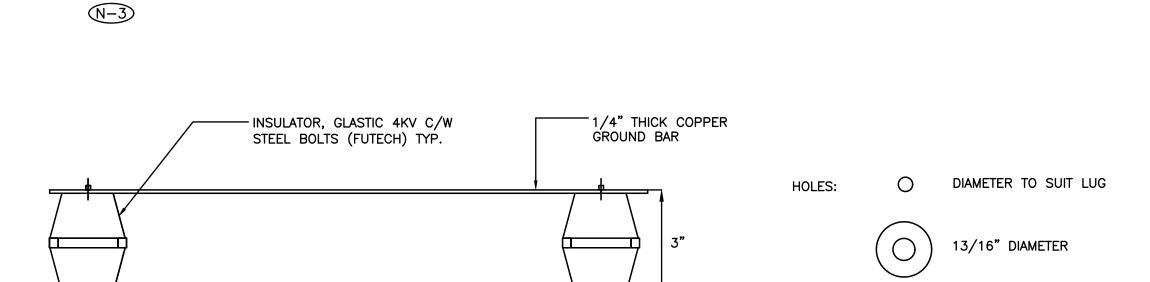
SPACING TO ACCOMMODATE -

BARREL COMPRESSION LUGS

(PRE-DRILL BUS TO ACCEPT A (E-4.1)

#4 AWG TWO-HOLE LONG

TOTAL OF 8 LUGS)



1" CENTER TO CENTER

DRAWING NOTES

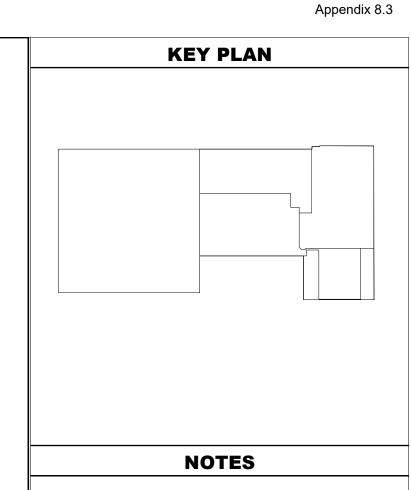
- SPACING TO ACCOMMODATE

COMPRESSION LUG

#2/0 AWG TWO-HOLE LONG BARREL

- N-1 COVER TIPS, LUGS AND COPPER GROUND BAR WITH "PENETROX E" FROM "BURNDY" OR "KOPR-SHIELD" FROM "T&B".
- N-2 INSTALL 2-HOLE LONG COMPRESSION LUGS FOR GROUND
- CONDUCTORS C/W DURIUM BOLTS, NUTS AND WASHERS. N-3 BUS BAR SHALL BE PRE-DRILLED BY THE MANUFACTURER TO MATCH PATTERN INDICATED. FIELD DRILLING IS NOT ACCEPTABLE.
- N-4) FASTEN BUS BAR TO FIRE RATED PLYWOOD BACKBOARD AT HIGH

LEVEL (BACKBOARD PROVIDED AS PART OF THIS SCOPE OF WORK).

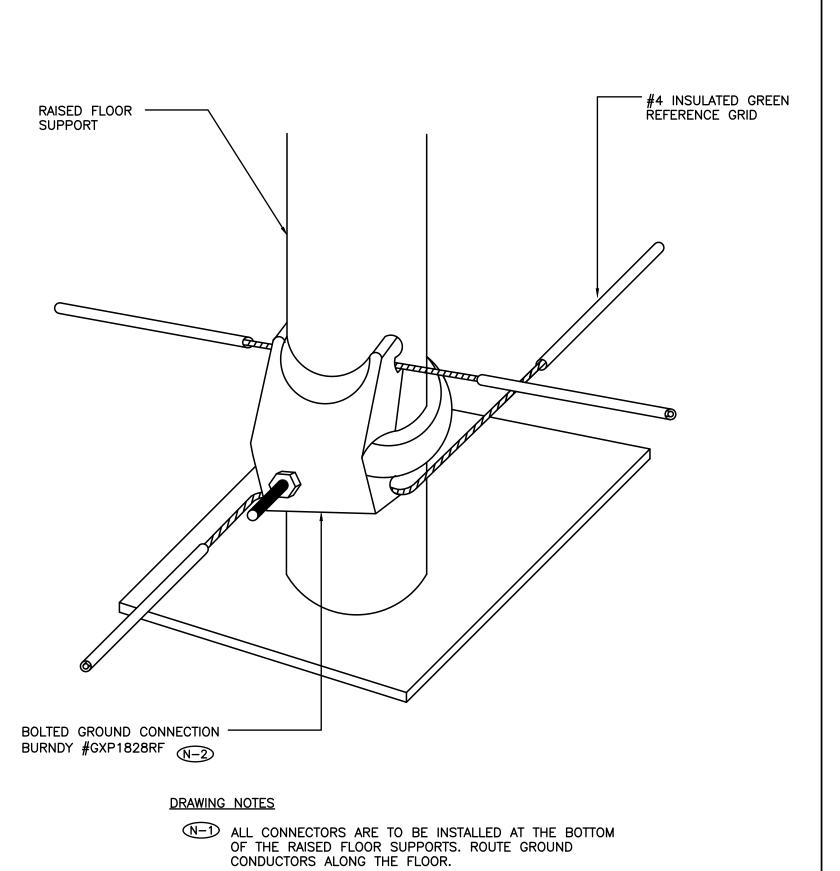


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BUILDING GROUND BUS BAR (BGB) DETAIL E-4.1 SCALE: NTS

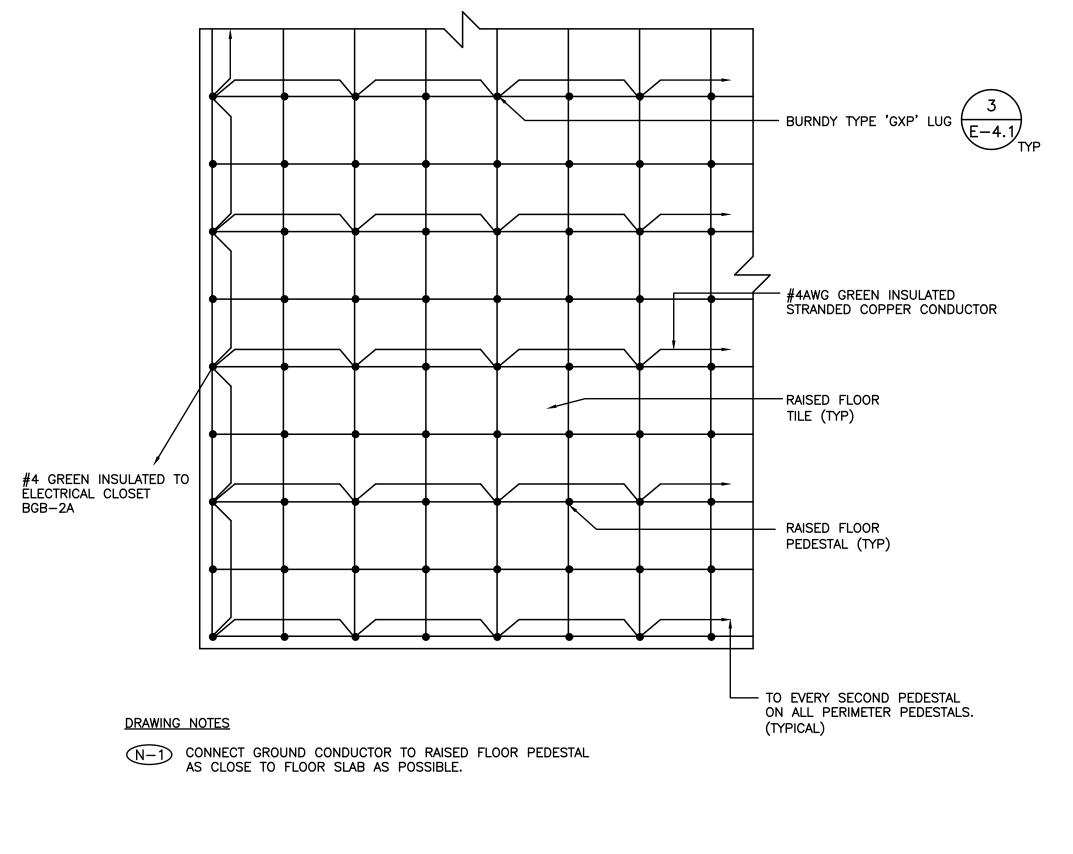


N-2 CONFIRM RAISED FLOOR PEDESTAL DIAMETER PRIOR TO ORDERING LUGS PROVIDED AS PART OF THIS SCOPE OF

WORK.

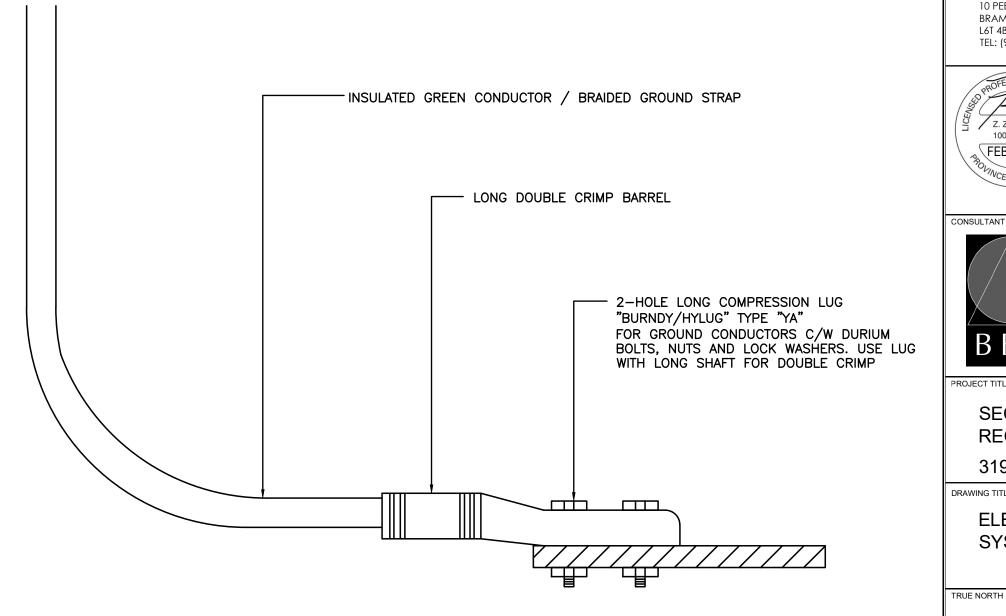
E-4.1 SCALE: NTS

RAISED FLOOR GROUNDING CONNECTION DETAIL



RAISED FLOOR GROUND GRID DETAIL

E-4.1 SCALE: NTS



DRAWING NOTES

N-1 UTILIZE 2-HOLE LONG COMPRESSION LUGS FOR ALL CONNECTIONS TO BUS BARS AND TO ALL EQUIPMENT, CABINETS, RACKS, ETC.

GROUND LUG DETAIL (E-4.1) SCALE: NTS

Region of Peel

BRAMPTON, ONTARIO TEL: (905) 791-7800

ISSUES AND REVISIONS



CONSULTANT'S SEAL BARRY BRYAN ASSOCIATES Engineers Project Managers

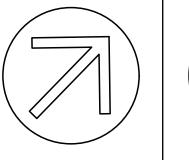


Tel: (905) 666-5252 Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON

DRAWING TITLE

ELECTRICAL GROUNDING SYSTEM DETAILS

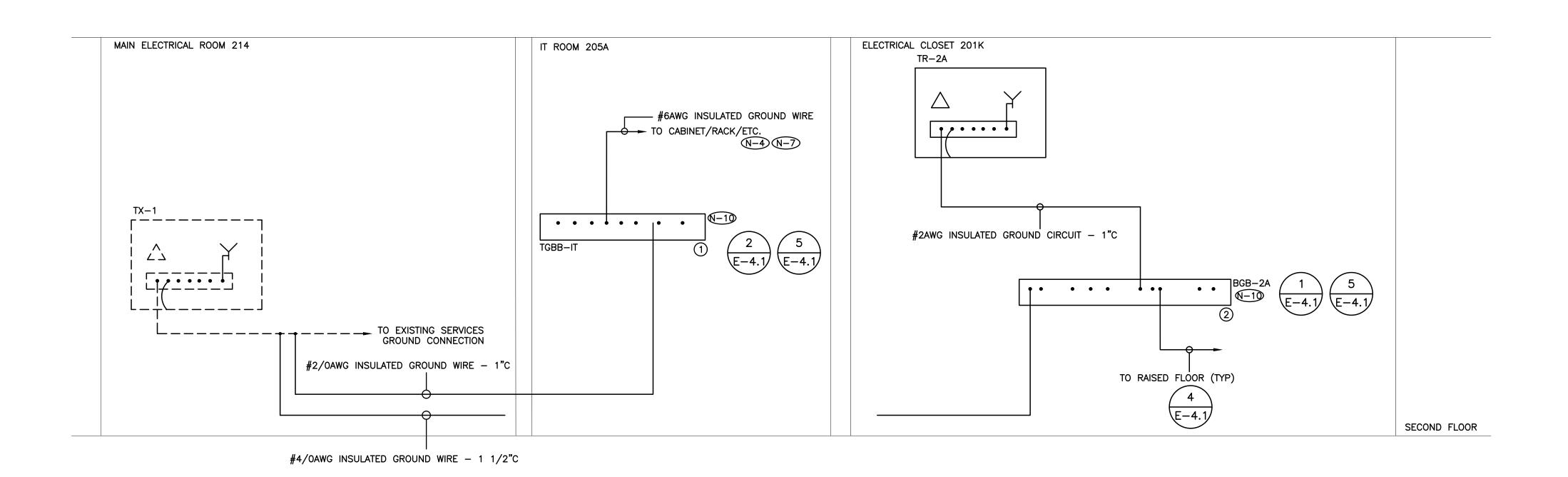


ONSTRUCTION NORTH

HDC CHECKED BY AS SHOWN AUGUST, 2023 CONSULTANT PROJECT NUMBER EGION OF PEEL PROJECT NUMBER 23073

PURCHASING DOCUMENT NUMBER:

E-4.1



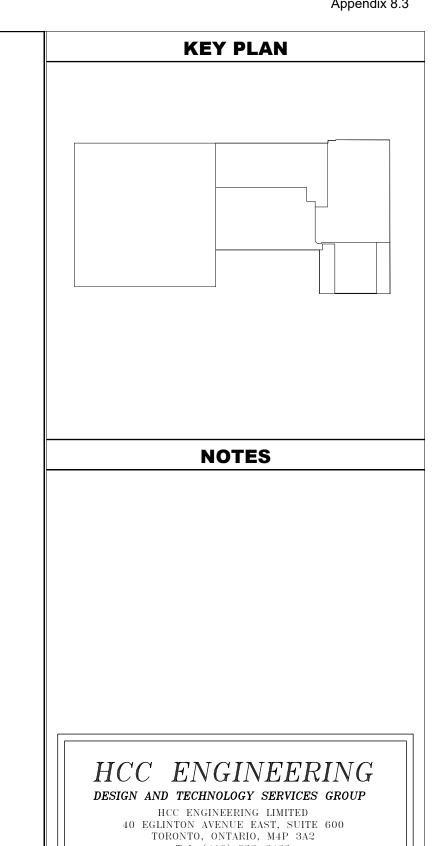
- N-1) RISER IS DIAGRAMMATIC ONLY. REFER TO DRAWING NO. E-2.2 AND E-9.1 FOR QUANTITY AND LOCATION OF ALL BUS BARS AND GROUNDING CONNECTIONS.
- N-2 SIZE ALL NEUTRAL SYSTEM GROUNDS IN ACCORDANCE WITH THE ELECTRICAL SAFETY CODE AND AUTHORITY HAVING JURISDICTION.
- N-3 GROUNDING AND BONDING OF ALL EQUIPMENT NOT SHOWN ON THIS DETAIL SHALL BE COMPLETED IN ACCORDANCE WITH THE ELECTRICAL SAFETY CODE AND AUTHORITY HAVING JURISDICTION.
- N-4) PROVIDE A GROUNDING CIRCUIT TO EACH EQUIPMENT CABINET, RACK, ETC. DO NOT DAISY CHAIN GROUNDING CIRCUITS BETWEEN CABINETS, RACKS, ETC. REFER TO FLOOR PLANS FOR QUANTITY AND LOCATION OF EQUIPMENT CABINETS, RACKS, ETC.
- N-5 NOT USED.
- N-6 PROVIDE DEDICATED CORE DRILLED WALL AND FLOOR PENETRATIONS. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY SCAN RESULTS.
- N-7) SCRAPE OFF PAINT AT RACK/CABINET END PRIOR TO INSTALLING GROUND LUG.
- N-8) PROVIDE REQUIRED PENETRATIONS THROUGH ROOF AND BUILDING ENVELOP. COORDINATE WORK AND WEATHERPROOF SEALING REQUIREMENTS WITH LANDLORD.
- N-9 NOT USED.
- N-10 LABEL EACH AND EVERY GROUNDING CIRCUIT AT GROUND BAR END UTILIZING PANDUIT TELECOMMUNICATIONS GROUNDING AND BONDING CONDUCTOR LABEL KIT LTYK.
- (N-1) ELECTRICAL CONTRACTOR TO REVIEW GROUNDING SYSTEM PROVIDED AS PART OF THIS SCOPE OF WORK AND BASE BUILDING CONNECTION POINTS WITH ESA INSPECTOR PRIOR TO CONSTRUCTION.

DRAWING REFERENCES

- 1 1/4" X 3" X 12" TELECOMMUNICATIONS GROUND BUS BAR (TGBB)
- (2) 1/4" X 6" X 2' BUILDING GROUND BUS BAR (BGB)

LINETYPE LEGEND

- DENOTES NEW PROVIDED BY ELECTRICAL CONTRACTOR
- ———— DENOTES EXISTING TO REMAIN
- X -X -X -X DENOTES EXISTING TO BE REMOVED BY ELECTRICAL CONTRACTOR



	SUES AND REVISIONS	
No.	ISSUE OR REVISION TO DRAWING	DATE
1.	ISSUED FOR 50% REVIEW	SEP08/23
2.	ISSUED FOR 80% REVIEW	OCT31/23
3.	ISSUED FOR PERMIT	DEC18/23
4.	ISSUED FOR 99% REVIEW	JAN12/24
5.	ISSUED FOR TENDER	FEB27/24

Tel: (416) 932-2423

BRAMPTON, ONTARIO TEL: (905) 791-7800







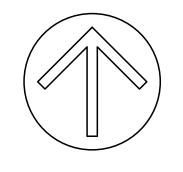
Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON.

DRAWING TITLE

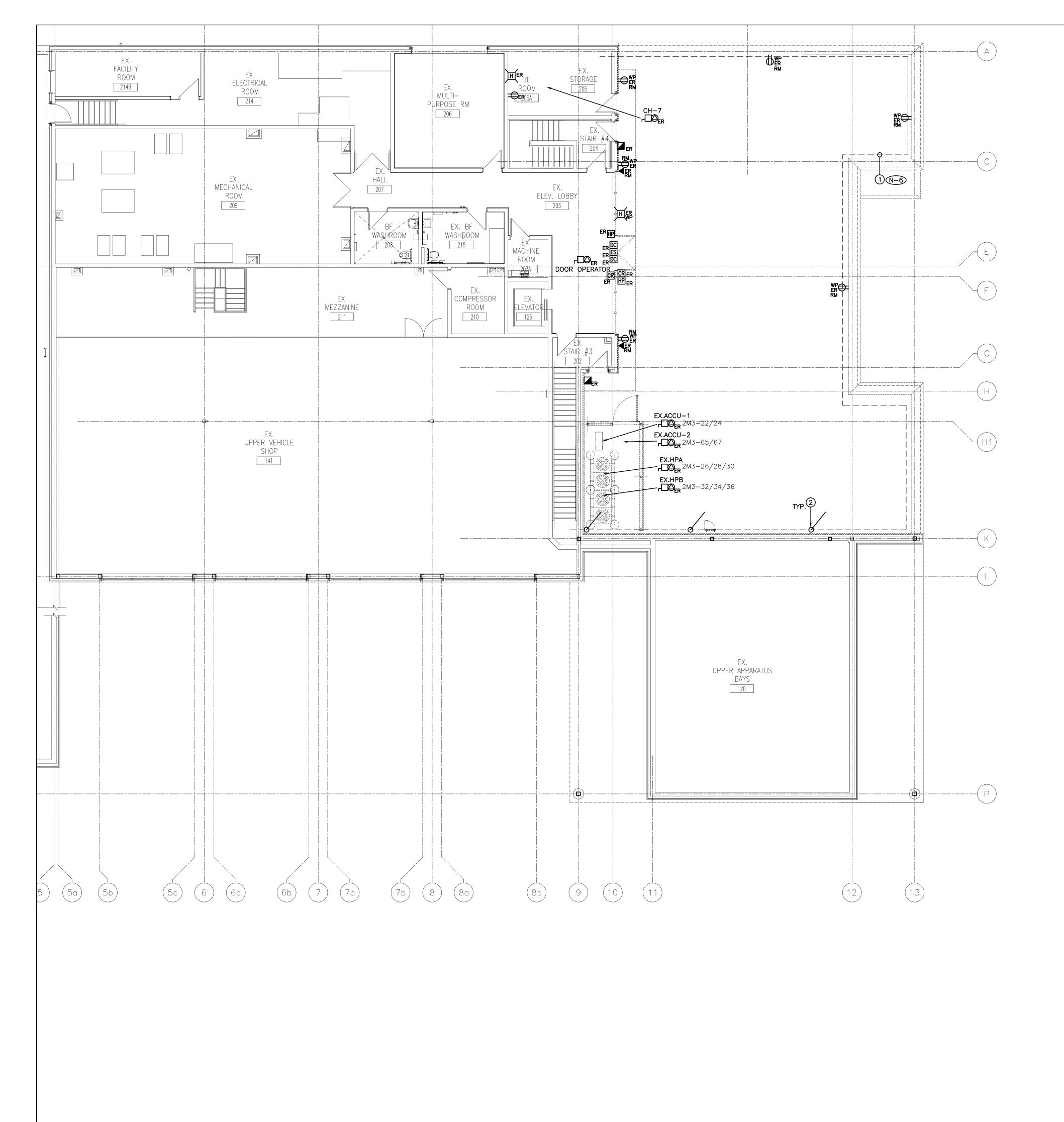
ELECTRICAL GROUNDING SYSTEM RISER DIAGRAM





DRAWN BY KZ	CHECKED BY HDC
SCALE NTS	AUGUST, 2023
CONSULTANT PROJECT NUMBER	REGION OF PEEL PROJECT NUMBER
23073	22701

E-4.2

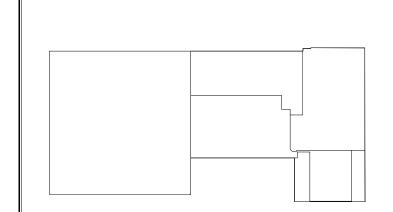


- N-1) ALL EXISTING BRANCH WIRING AND RACEWAYS, INCLUDING THOSE COILED IN CEILING SPACE SHALL BE REMOVED BACK TO SOURCE PANEL. REFER TO SPECIFICATIONS FOR ADDITIONAL DEMOLITION REQUIREMENTS. DO NOT REUSE EXISTING WIRING OR
- N-2) REMOVE ALL ABANDONED ZONE CONDUITS INCLUDING THOSE IN CEILING SPACE. EXISTING ZONE CONDUITS NOT SHOWN ON DRAWING.
- N-3 BASE BID PRICE SHALL INCLUDE FOR THE REMOVAL OF THREE (3) ADDITIONAL RECEPTACLES, COMMUNICATIONS ROUGH-INS, ETC., OVER AND ABOVE THOSE SHOWN ON DRAWING NO. E-5.2. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- N-4 DO NOT REUSE ANY DEVICES, BACKBOXES, CONTROL SYSTEMS, ETC., REMOVED AS PART OF THIS SCOPE OF WORK.
- N-5) REWIRE ALL EXISTING TO REMAIN DEVICES AS REQUIRED TO ENSURE CONTINUITY OF SERVICES. EXISTING TO REMAIN DEVICES NOT SHOWN ON DRAWING.
- N-6 PROCURE (COORDINATE AND HIRE) THE LIGHTNING PROTECTION CONTRACTOR TO DISCONNECT AND REMOVE THE EXISTING LIGHTNING PROTECTION SYSTEM INSTALLED ON THE EXISTING ROOF TO ACCOMMODATE THE BUILD OUT OF THE SECOND FLOOR. PROVIDE NEW LIGHTNING PROTECTION SYSTEM FOR THE NEW SECOND FLOOR ROOF AND TIE INTO EXISTING TO REMAIN LOWER ROOF LIGHTNING PROTECTION SYSTEM. REFER TO DRAWING NO. E-2.0 FOR ADDITIONAL REQUIREMENTS.
- (N-7) NOT USED.
- N-8 CONFIRM DEMOLITION REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO DISCONNECTING MECHANICAL EQUIPMENT.
- N-9 ALL EXISTING CIRCUITS SHOWN ARE FOR REFERENCE PURPOSES ONLY. CONTRACTOR MUST TRACE CIRCUITS AND CONFIRM INFORMATION PRIOR TO DISCONNECTION AND REWORKING / REMOVING OF CIRCUITS.

DRAWING REFERENCES

- 1 EXISTING LIGHTNING PROTECTION SYSTEM PERIMETER ROOF LOOP TO BE REMOVED AS PART OF THIS SCOPE OF WORK
- 2 EXISTING LIGHTNING PROTECTION SYSTEM ALUMINUM AIR TERMINAL TO BE REMOVED AS PART OF THIS SCOPE OF WORK

KEY PLAN



NOTES

HCC ENGINEERING DESIGN AND TECHNOLOGY SERVICES GROUP HCC ENGINEERING LIMITED 40 EGLINTON AVENUE EAST, SUITE 600

TORONTO, ONTARIO, M4P 3A2 Tel: (416) 932-2423

IS	SUES AND REVISIONS		
No.	ISSUE OR REVISION TO DRAWING	DATE	Γ
1.	ISSUED FOR 50% REVIEW	SEP08/23	Γ
2.	ISSUED FOR 80% REVIEW	OCT31/23	Γ
3.	ISSUED FOR PERMIT	DEC18/23	Γ
4.	ISSUED FOR 99% REVIEW	JAN12/24	Γ
5.	ISSUED FOR TENDER	FEB27/24	Γ
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Region of Peel

10 PEEL CENTRE DRIVE BRAMPTON, ONTARIO L6T 4B9 TEL: (905) 791-7800





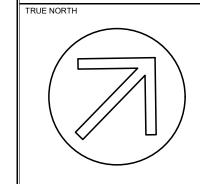
BARRY BRYAN ASSOCIATES Architects Engineers Project Managers 250 Water Street Suite 201 Whitby, Ontario

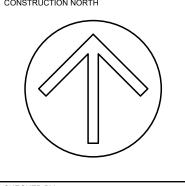
Tel: (905) 666-5252 Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL

3190 MAVIS ROAD, MISSISSAUGA, ON

ELECTRICAL DEMOLITION PLAN SECOND FLOOR/ROOF

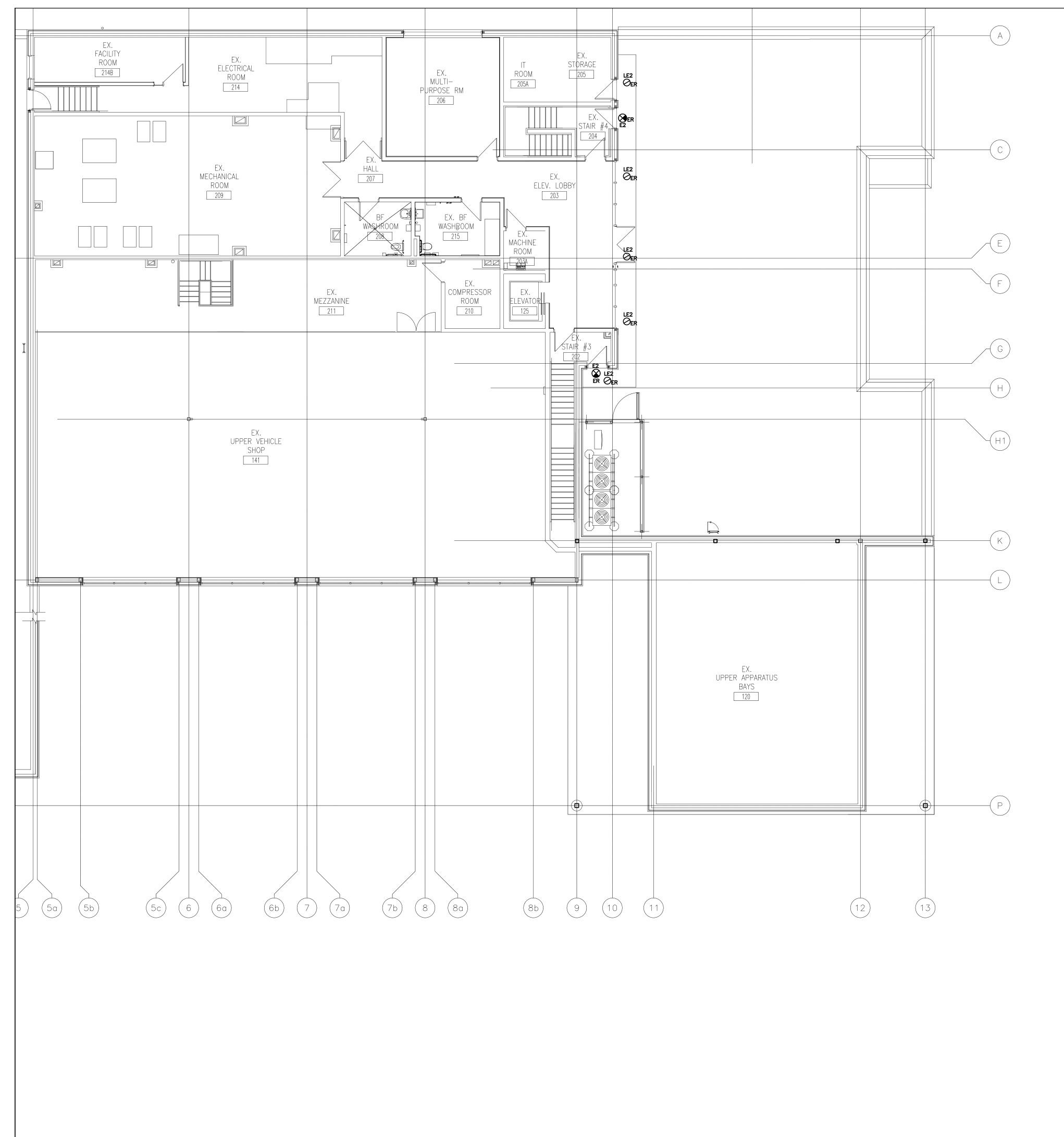




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AUGUST, 2023 23073 22701

E-5.2



N-1 LIGHTING AND FIRE ALARM LAYOUT SHOWS EXISTING REFLECTED CEILING PLAN ONLY. REFER TO DRAWING NO. E-3.2 FOR NEW LAYOUT AND FOR ADDITIONAL DEMOLITION REQUIREMENTS.

N-2 NOT USED.

N-3 BASE BID PRICE SHALL INCLUDE FOR THE REMOVAL OF TWO (2) ADDITIONAL FIXTURES AND FIRE ALARM DEVICES OVER AND ABOVE THOSE SHOWN ON DRAWING NO. E-6.2.

N-4 DISPOSE OF ALL FIXTURES REMOVED AS PART OF THIS SCOPE OF WORK. RECYCLE ALL APPLICABLE COMPOUNDS AS DETAILED IN 'GREEN MEASURES' REQUIREMENTS. PROVIDE DOCUMENTATION SUPPORTING RECYCLING MEASURES.

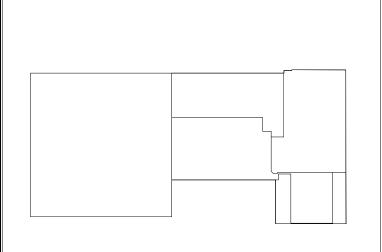
N-5 NOT USED.

N-6 REWIRE ALL EXISTING TO REMAIN FIXTURES TO ENSURE CONTINUITY OF SERVICES.

(N-7) NOT USED.

N-8 DO NOT REUSE EXISTING DIMMERS, SWITCHES, LAMPS, FIRE ALARM DEVICES, OCCUPANCY SENSORS, ROOM CONTROLLERS, ETC., DENOTED AS EXISTING TO BE REMOVED AS PART OF THIS SCOPE OF WORK.

REFER TO DRAWING NO. E-3.2 FOR FIXTURE SCHEDULE



KEY PLAN

NOTES

HCC ENGINEERING DESIGN AND TECHNOLOGY SERVICES GROUP

HCC ENGINEERING LIMITED
40 EGLINTON AVENUE EAST, SUITE 600
TORONTO, ONTARIO, M4P 3A2 Tel: (416) 932-2423

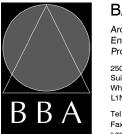
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Region of Peel

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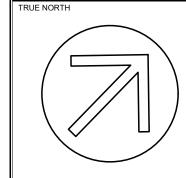


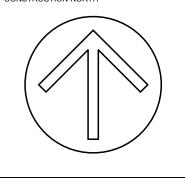
BARRY BRYAN ASSOCIATES Architects Engineers Project Managers 250 Water Street Suite 201 Whitby, Ontario L1N 0G5

Tel: (905) 666-5252 Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON.

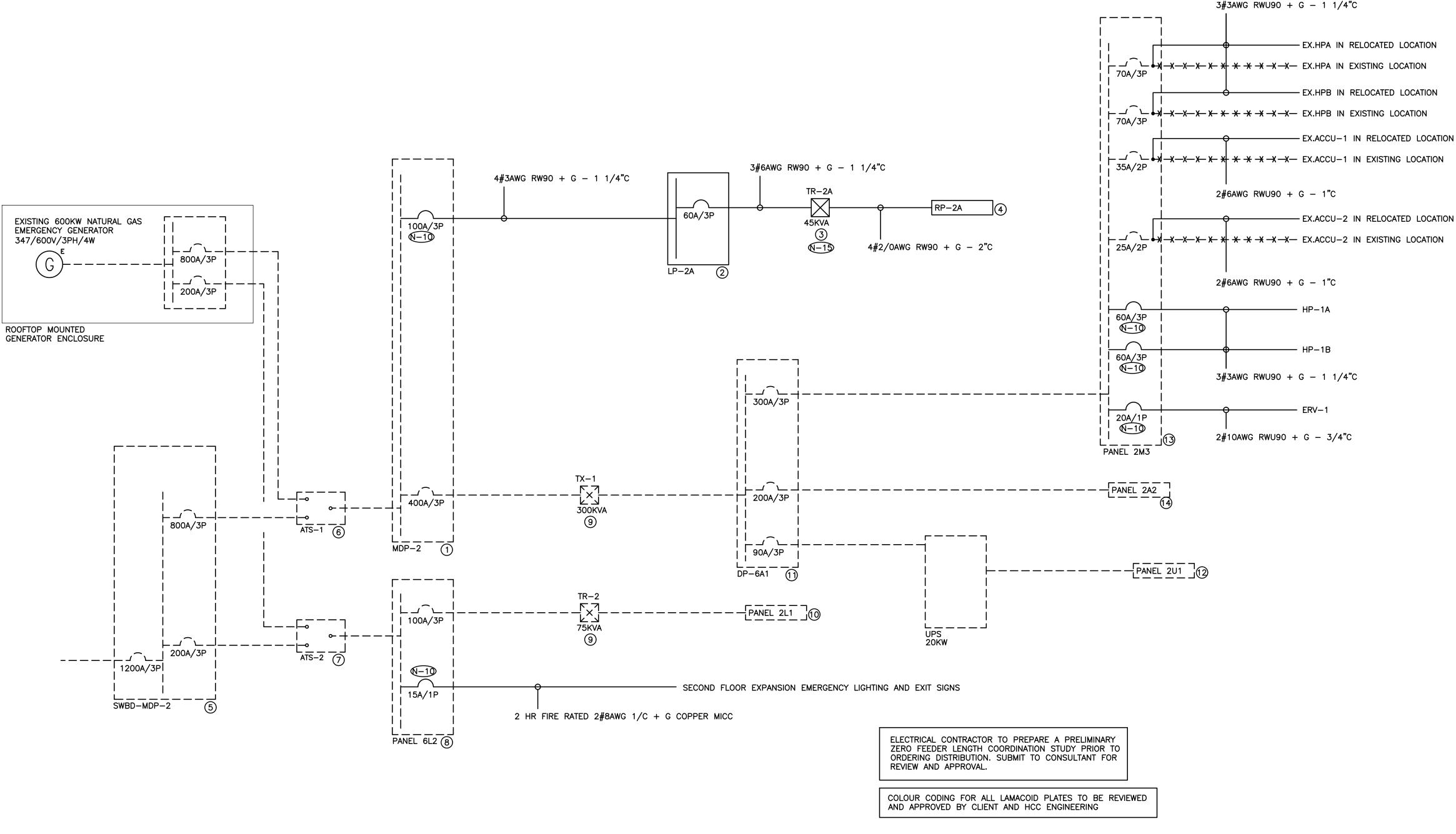
REFLECTED CEILING **DEMOLITION PLAN** SECOND FLOOR/ROOF





1:100 AUGUST, 2023 23073 22701

E-6.2



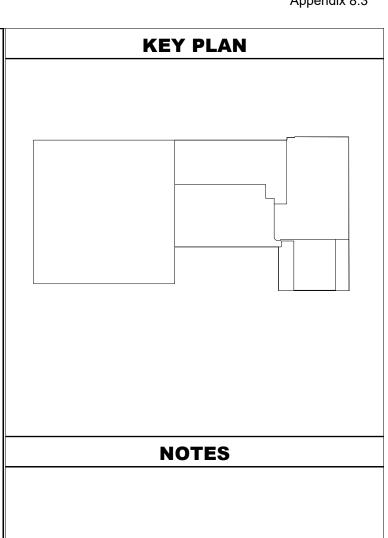
- (N-1) RISER IS DIAGRAMMATIC ONLY. REFER TO FLOOR PLANS FOR DEVICE QUANTITY AND LOCATIONS.
- PROVIDE FIRE RATED PLYWOOD BACKBOARDS FOR ALL ELECTRICAL DISTRIBUTION EQUIPMENT PROVIDED AS PART OF THIS CONTRACT AND FOR ALL PREPURCHASED / PREQUALIFIED DISTRIBUTION. PAINT BACKBOARDS WITH FIRE RETARDANT PAINT (COLOUR AS DIRECTED ON SITE BY AGENCY MANAGER). FIRE RATED STAMP MUST BE ON ALL PIECES PROVIDED AND MUST BE VISIBLE WHEN INSTALLED. DO NOT PAINT OVER STAMP.
- N-3 PROVIDE DEDICATED CORE DRILLED WALL AND FLOOR PENETRATIONS ON EVERY FLOOR. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY SCAN RESULTS. ALL SCANS MUST BE REVIEWED AND APPROVED BY AGENCY PRIOR TO CORE DRILLING.
- N-4 ALL INDOOR DISTRIBUTION PROVIDED AS PART OF THIS SCOPE OF WORK MUST BE TYPE 2 / 3R ENCLOSURE. PROVIDE COMPRESSION FITTINGS FOR SERVICES ENTERING DISTRIBUTION.
- N-5 NOT USED.
- N-6 PROVIDE TEMPORARY POWER AND LIGHTING THROUGHOUT PROJECT TO ACCOMMODATE REQUIREMENTS OF ALL TRADES. REQUIREMENTS INCLUDE PROVIDING EXTENSION CORDS, EXTENSION LIGHTING AND EQUIPMENT REQUIRED FOR THE WORK OF ALL TRADES. ALL COSTS RELATED TO THIS WORK SHALL BE INCLUDED IN THE CONTRACT PRICE.
- N-7 SEAL ALL CONDUITS AT ELECTRICAL ROOM END AND AT TENANT SPACE END.
- N-8 ROUTE ALL CONDUIT SYSTEMS AROUND EXISTING DUCT WORK, BEAMS, NEW DUCT WORK AND PIPING AS REQUIRED TO ACCOMMODATE CONDUIT SYSTEM INSTALLATION. REFER TO MECHANICAL DRAWINGS AND DESIGNER DRAWINGS FOR ADDITIONAL DETAILS.
- N=9 ALL BREAKERS REQUIRED TO COMPLETE ALL SCOPES OF WORK TO BE NEW. DO NOT REUSE EXISTING BREAKERS.
- PROVIDE NEW BREAKER INDICATED. PROVIDE MOUNTING HARDWARE TO ACCOMMODATE EXISTING VERTICAL BUS. PROVIDE LUGS TO ACCOMMODATE WIRE SIZE INDICATED. PROVIDE THE SERVICES OF EATON FIELD SERVICES GROUP TO EXTEND, REWORK, MODIFY AND RECERTIFY EXISTING PANEL BUS AS REQUIRED TO FACILITATE INSTALLATION OF BREAKER PROVIDED AS PART OF THIS SCOPE OF
- PROVIDE AC SYSTEMS' GROUNDS ORIGINATING FROM BASE BUILDING GROUND SOURCE (NOTE: BONDING SOURCE IS NOT ACCEPTABLE) FOR ALL TRANSFORMERS INSTALLED AS PART OF THIS SCOPE OF WORK. AC SYSTEMS GROUND SHALL BE INSTALLED IN DEDICATED CONDUIT SYSTEM. GROUNDING OF ALL OTHER EQUIPMENT SHALL BE COMPLETED IN ACCORDANCE WITH OESC 2021.
- PROVIDE REQUIRED PENETRATIONS THROUGH ROOF AND BUILDING ENVELOP. COORDINATE WORK AND WEATHERPROOF SEALING REQUIREMENTS WITH LANDLORD.
- USE PVC COATED GALVANIZED RIGID STEEL CONDUIT ROBROY PERMACOTE IN ALL OUTDOOR LOCATIONS AND IN AREAS THAT ARE NOT ENVIRONMENTALLY CONTROLLED.
- ALL FEEDERS PROVIDED AS PART OF THIS SCOPE OF WORK TO BE ROUTED THROUGH CEILING
- SUSPEND TRANSFORMER INDICATED FROM ROOF / CEILING STRUCTURE ABOVE. RELOCATE LIGHT FIXTURES AND FIRE ALARM DEVICES AS REQUIRED TO ACCOMMODATE INSTALLATION OF TRANSFORMER PROVIDED AS PART OF THIS SCOPE OF WORK.

DRAWING REFERENCES

- 1 EXISTING DISTRIBUTION PANEL 347/600V/3PH/4W/1000A MAINS/50KA RMS/EATON PRL4
- 2 LIGHTING PANEL 347/600V/3PH/4W/100A MCB/42 CCT/20"W/EATON PRL2A/COPPER BUS/50KA RMS SERIES RATED
- 3 DRY TYPE TRANSFORMER 600/120/208V/3PH/4W/K13 RATED/CSA C802.2/INTEGRATED IR PORT/ENCLOSURE 26"W X 25"D (INCLUDING RAIN SHIELD) X 32"H/SOLID BOTTOM PLATE/SPECTRUM POWER STI 519-653-1847
- RECEPTACLE PANEL 120/208V/3PH/4W/150A MCB/COPPER BUS/84CCT/20"W/EATON PRL1A/COPPER BUS/10KA RMS
- (5) EXISTING SWITCHGEAR 347/600V/3PH/4W/1200A MCB/65KA RMS/EATON PRL-C
- 6 EXISTING AUTOMATIC TRANSFER SWITCH 347/600V/3PH/4W/800A/ASCO 7ATB
- TEXISTING AUTOMATIC TRANSFER SWITCH 347/600V/3PH/4W/200A/ASCO 7ATB
- 8 EXISTING EMERGENCY LIGHTING PANEL 347/600V/3PH/4W/225A MAINS/42 CCT/EATON PRL2A
- 9 EXISTING DRY TYPE TRANSFORMER 600/120/208V/3PH/4W
- ① EXISTING RECEPTACLE PANEL 120/208V/3PH/4W/400A MAINS/42 CCT/EATON PRL1A/10KA RMS
- 1 EXISTING POWER PANEL 120/208V/3PH/4W/1200A MAINS/EATON PRL4B/22KA RMS
- (12) EXISTING RECEPTACLE PANEL 120/208V/3PH/4W/225A MAINS/42 CCT/EATON PRL1A
 (13) EXISTING RECEPTACLE PANEL 120/208V/3PH/4W/400A MAINS/120 CCT/EATON PRL1A
- (4) EXISTING RECEPTACLE PANEL 120/208V/3PH/4W/225A MAINS/120 CCT/EATON PRL1A

LINETYPE LEGEND

- ———— DENOTES NEW PROVIDED BY ELECTRICAL CONTRACTOR
- ---- DENOTES EXISTING TO REMAIN
- -X -X-X-X- X- DENOTES EXISTING TO BE REMOVED BY ELECTRICAL CONTRACTOR



HCC ENGINEERING DESIGN AND TECHNOLOGY SERVICES GROUP HCC ENGINEERING LIMITED 40 EGLINTON AVENUE EAST, SUITE 600 TORONTO, ONTARIO, M4P 3A2

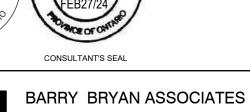
Tel: (416) 932-2423

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Region of Pee

10 PEEL CENTRE DRIVE BRAMPTON, ONTARIO L6T 4B9 TEL: (905) 791-7800





H.D. COHEN



SECOND FLOOR EXPANSION
REGIONAL MUNICIPALITY OF PEEL

3190 MAVIS ROAD, MISSISSAUGA, ON.

RAWING TITLE

ELECTRICAL SINGLE LINE DIAGRAM





CHECKED BY HDC

SCALE NTS

CONSULTANT PROJECT NUMBER

23073

CHECKED BY HDC

DATE AUGUST, 2023

REGION OF PEEL PROJECT NUMBER

22701

PURCHASING DOCUMENT NUMBER: DRAWING NUMBER

E-7.1

Panelboard: LP-2A (NEW)
Voltage (V): 347/600V
Phase/Wire: 3PH/4W
Bus and Lugs Rating (A): 100A MCB
Location: Electrical Closet 201K

CCT	Load	Breaker		Breaker		CCT	Load	Break	(er
NO		Amp	Pole	NO		Amp	Pole		
1	OFFICE LIGHTING	20	1	2		15			
3	OFFICE LIGHTING	20	1	4	EDH-1				
5				6			3		
7				8					
9				10					
11				12					
13				14					
15				16					
17				18					
19				20					
21				22					
23				24					
25				26					
27				28					
29				30					
31		60		32					
33				34					
35			3	36					
	SPARE	20			SPARE	15	•		
	SPARE	20	1		SPARE	15			
41	SPARE	20	1	42	SPARE	15			

1 PANEL SCHEDULE - LP-2A (NEW) E-7.2 SCALE: NTS

Panelboard: PANEL 2M3 (EXISTING)
Voltage (V): 120/208V
Phase/Wire: 3PH/4W
Bus and Lugs Rating (A): 400A
Location: Mechanical Room 209

CCT	Load		cer	CCT	Load	Break	ker
10		Amp	Pole	NO		Amp	Po
1	EXISTING CCT	15	1	2	EXISTING CCT	15	
3	EXISTING CCT	15	1	4	EXISTING CCT	15	
5	EXISTING CH-7	15	1	6	EXISTING CCT	15	
7	EXISTING CCT	15		8	EXISTING CCT	15	
9	EXSTING CCT		2	10	EXISTING CCT	15	
11		15		12	EXISTING CCT	15	
13	EXSTING CCT		2	14	EXISTING CCT	15	_
15	EXISTING CCT	15	1	16	EXISTING CCT	15	
17	EXISTING CCT	15	1	18	EXISTING CCT	20	
19	EXISTING CCT	15	1	20	EXISTING CCT	20	
21	EXISTING CCT	15		22		35	
	EXISTING CCT	15	1	24	EXISTING ACCO-1		
25	EXISTING CCT	15	1	26		70	
27	EXISTING CCT	15		28			
29	EXISTING CCT	15	1	30			
31		15		32		70	
33				34			
35			3	36			
37		15		38	EXISTING CCT	15	
39	EXISTING CCT			40) EXISTING CCT		
41			3	42	EXISTING CCT	15	
43		15			EXISTING CCT	15	
45					EXISTING CCT	15	_
47			3		EXISTING CCT	15	_
49		15			EXISTING CCT	15	_
51	_				EXISTING CCT	15	_
53			3		EXISTING CCT	15	_
55		30		56	EXISTING CCT	15	5
57				58	EXISTING CCT	15	
59			3	60	EXISTING CCT	15	

59			ગ	00	JENSTING CCT	13	I
CCT	Load	Break		CCT	Load	Break	er
NO		Amp	Pole	NO		Amp	Pole
61	EXISTING CCT	15			2 EXISTING CCT	15	
63	EX31110 CC1		2	6	4 EXISTING CCT	15	
65	EXISTING ACCU-2	25		6	EXISTING CCT	15	
67	E/(0111/07/000-2		2	6	8		2
69	EXISTING CCT	29			0 EXISTING CCT	15	
71	27011140 001		2		2 EXISTING CCT	15	
	EXISTING CCT	15			4 EXISTING CCT	15	
	EXISTING CCT	15			6 EXISTING CCT	15	
	EXISTING CCT	15			8 EXISTING CCT	15	
	EXISTING CCT	15			0 EXISTING CCT	15	
	EXISTING CCT	15			2 EXISTING CCT	15	
	EXISTING CCT	15		8	4 EXISTING CCT	15	
	EXISTING CCT	15		8		30	
	EXISTING CCT	15			8 EXISTING CCT		
89	EXISTING CCT	15		9			(
91		60		9	2 ERV-1	20	
93	HP-1A			9	4 MAINTENANCE RECEPTACLE	20	
95			3	9	-		
	MAINTENANCE RECEPTACLE	20	1		8 CU-1	30	
	MAINTENANCE RECEPTACLE	20	1	10	0		2
101					2 MAINTENANCE RECEPTACLE	20	
103		60		10			
105	HP-1B			10			
107			3	10	II.		
109				11			
111				11	2		
113				11			
115				11			
117				11			
119				12	0		

4 PANEL SCHEDULE - PANEL 2M3 (EXISTING) E-7.2 SCALE: NTS Panelboard: RP-2A (NEW)
Voltage (V): 120/208V
Phase/Wire: 3PH/4W
Bus and Lugs Rating (A): 150A MCB
Location: Electrical Closet 201K

CCT	Load	Break	cer	CCT	Load	Break	
NO		Amp	Pole	NO		Amp	Pole
1	RFBP WORKSTATION	15	1	2	WORKSTATION	15	1
3	RFBP	15	1	4	WORKSTATION	15	1
5	RFBP	15	1	6	WORKSTATION	15	1
7	RFBP WORKSTATION	15	1	8	WORKSTATION	15	1
9	RFBP WORKSTATION	15	1	10			
11	RFBP WORKSTATION	15	1	12			
13	RFBP WORKSTATION	15	1	14	PRINT ROOM COPIER	20	1
15	RFBP WORKSTATION	15	1	16	PRINT ROOM PL	20	1
17	RFBP WORKSTATION	15	1	18			
19	RFBP	15	1	20	PRINT ROOM	20	1
21	RFBP WORKSTATION	15	1	22	PRINT ROOM	20	1
23	RFBP WORKSTATION	15	1	24	PRINT ROOM PL	20	1
25	WORKSTATION	15	1	26	DOOR OPERATOR	15	1
27	WORKSTATION	15	1	28	DOOR OPERATOR	15	1
29	MISC RECEPTACLE	20	1	30			
31	ELECTRICAL CLOSET MISC	20	1	32	CHAT ROOM 201B	20	1
33	ELECTRICAL CLOSET SOUND MASKING	20	1	34	CHAT ROOM 201D	20	1
35	ELECTRICAL CLOSET SOUND MASKING	20	1	36	CHAT ROOM 201B/D PL	20	1
	SPARE	20			SPARE	15	
39	SPARE	20	1	40	SPARE	15	1
41	SPARE	20	1	42	SPARE	15	1

CCT	Load	Break	cer	CCT	Load	Break	er
NO		Amp	Pole	NO		Amp	Pole
4	MEETING ROOM 1	20	1	44	FRIDGE	20	1
4	MEETING ROOM 1 TV	20	1	46	KITCHEN COUNTER	20	1
4	MEETING ROOM 1 PL	20	1	48	KITCHEN COUNTER	20	1
4	MEETING ROOM 2	20	1	50	KITCHEN COUNTER	20	1
5	1 MEETING ROOM 2	20	1	52	KITCHEN COUNTER	20	1
5	MEETING ROOM 2 TV	20	1	54	KITCHEN COUNTER	20	1
5	MEETING ROOM 2 PL	20	1	56	DINING AREA MISC	20	1
5	7 MEETING ROOM 2	20	1	58	DINING AREA PL	20	1
5	9			60	EF-1	15	1
6	1			62	DOOR OPERATOR	15	1
6	AC-1/2	15		64	DOOR OPERATOR	15	1
6	5		2	66	DOOR OPERATOR	15	1
6	7 AC-3/4	15		68			
6	9		2	70			
7	A(' b	15		72			
7	3		2	74	EF-3	15	1
7	5 IT ROOM CABINET	20	1	76	BBH	15	1
7	7 IT ROOM CABINET	20	1	78			
7	PIT ROOM MISC	20	1	80	HOUSEKEEPING	20	1
8	1 CONTROL CCT	20	1	82	HOUSEKEEPING	20	1
8	3 CONTROL CCT	20	1	84	IT ROOM CONDENSER PUMP	15	1

2 PANEL SCHEDULE - RP-2A (NEW) E-7.2 SCALE: NTS

Panelboard: PANEL 2A2 (EXISTING)
Voltage (V): 120/208V
Phase/Wire: 3PH/4W
Bus and Lugs Rating (A): 225A
Location: Room 214

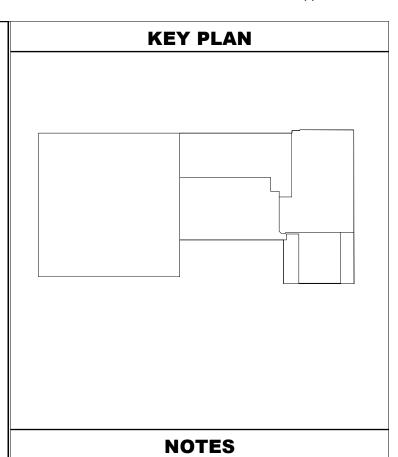
CCT	Load	Break	cer	CCT	Load	Break	er
NO		Amp	Pole	NO		Amp	Pole
1	EXISTING CCT	15	1	2	EXISTING CCT	15	•
3	EXISTING CCT	15	1	4	EXISTING CCT	15	1
5	EXISTING CCT	15	1	6	EXISTING CCT	15	•
7	EXISTING CCT	15	1	8	EXISTING CCT	15	•
9	EXISTING CCT	15	1	10	EXISTING CCT	15	•
11	EXISTING CCT	15	1	12	EXISTING CCT	15	•
13	EXISTING CCT	15	1	14	EXISTING CCT	15	•
15	EXISTING CCT	15	1	16	EXISTING CCT	15	•
17	EXISTING CCT	15	1	18	EXISTING CCT	15	•
19	EXISTING CCT	15	1	20	EXISTING CCT	15	•
21	EXISTING CCT	15	1	22	EXISTING CCT	15	•
23	EXISTING CCT	15	1	24	EXISTING CCT	15	
25	EXISTING CCT	15	1	26	EXISTING CCT	15	
27	EXISTING CCT	15	1	28	EXISTING CCT	15	
29	EXISTING CCT	15	1	30	EXISTING CCT	15	•
31	EXISTING CCT	15	1	32	EXISTING CCT	15	
33	EXISTING CCT	15	1	34	EXISTING CCT	15	
35	EXISTING CCT	15		36	EXISTING CCT	15	
37	EXISTING CCT	15	1	38	EXISTING CCT	15	
39	EXISTING CCT	15	1	40	EXISTING CCT	15	
41	EXISTING CCT	15			EXISTING CCT	15	
43	EXISTING CCT	15		44	EXISTING CCT	15	•
45	EXISTING CCT	15		46	EXISTING CCT	15	
47	EXISTING CCT	15	1		EXISTING CCT	15	
49	EXISTING CCT	15	1	50	EXISTING CCT	15	
	EXISTING CCT	15	1		EXISTING CCT	15	
53	EXISTING CCT	15		54	EXISTING CCT	15	
55	EXISTING CCT	15		56		30	
57	EXISTING CCT	15		58	EXISTING CCT		
59	EXISTING CCT	15	1	60			

CT	Load	Break		CCT	Load	Break	
0		Amp		NO		Amp	Pole
61	EXISTING CCT	15	1	62	EXISTING CCT	20	1
63	EXISTING CCT	30			EXISTING CCT	15	1
65	E/1011110 CC1		2		EXISTING CCT	15	1
67	EXISTING CCT	20			EXISTING CCT	15	1
69			2		EXISTING CCT	15	
71	UNI WASH DOOR OP/DURESS/LOCK	15			EXISTING CCT	15	
	UNI WASH BBH	15			EXISTING CCT	15	1
	UNI WASH RECEPTACLE	20			EXISTING CCT	15	1
	UNI WASH CHANGE TABLE	20	1	78	EXISTING CCT	15	
79				80	E/43/11/43 CC1		2
81				82			
83				84			
85	3190 SIGNAGE 2ND FLOOR	15	1	86			
87	TRANSHELP LOGO GROUND FLOOR	15	1	88			
89				90			
91				92			
93				94			
95				96			
97				98			
99				100			
101				102			
103				104			
105				106			
107				108			
109				110			
111				112			
113				114			
115				116			
117				118			
119				120			

5 PANEL SCHEDULE - PANEL 2A2 (EXISTING) E-7.2 SCALE: NTS Panelboard: PANEL-2U1 (EXISTING)
Voltage (V): 120/208V
Phase/Wire: 3PH/4W
Bus and Lugs Rating (A): 225A
Location: Room 126

CCT	Load	Break	er	CCT	Load	Break	cer
NO		Amp	Pole	NO		Amp	Pole
1		40		2			
3	EXISTING CCT			4	EXISTING CCT	15	
5			3	6	EXISTING CCT	15	
7	EXISTING CCT	15	1	8	EXISTING CCT	15	
9	EXISTING CCT	15	1	10	EXISTING CCT	15	
11	EXISTING CCT	15	1	12	EXISTING CCT	15	
13	EXISTING CCT	15	1	14	EXISTING CCT	15	
15	EXISTING CCT	15	1	16	EXISTING CCT	15	
17	EXISTING CCT	15	1	18	EXISTING CCT	15	
19	EXISTING CCT	15	1	20	EXISTING CCT	15	
21	EXISTING CCT (OFF)	15	1	22	EXISTING CCT (OFF)	15	
23	EXISTING CCT (OFF)	15	1	24	EXISTING CCT	15	
25	EXISTING CCT (OFF)	15	1	26	EXISTING CCT	15	
27	EXISTING CCT (OFF)	15	1	28	EXISTING CCT	15	
29				30	EXISTING CCT	15	
31				32	EXISTING CCT	15	
33	IT ROOM RECEPTACLE	20	1	34			
35	IT ROOM RECEPTACLE	20	1	36			
37				38		30	
39				40	EXISTING CCT		
41				42			

3 PANEL SCHEDULE - PANEL-2U1 (EXISTING) E-7.2 SCALE: NTS



HCC ENGINEERING

DESIGN AND TECHNOLOGY SERVICES GROUP

HCC ENGINEERING LIMITED

40 EGLINTON AVENUE EAST, SUITE 600

HCC ENGINEERING LIMITED
40 EGLINTON AVENUE EAST, SUITE 600
TORONTO, ONTARIO, M4P 3A2
Tel: (416) 932-2423

- 10	SUES AND REVISIONS	
No.	ISSUE OR REVISION TO DRAWING	DATE
1.	ISSUED FOR PERMIT	DEC18/23
2	ISSUED FOR 99% REVIEW	JAN12/24
3	ISSUED FOR TENDER	FEB27/24

Region of Peel

10 PEEL CENTRE DRIVE BRAMPTON, ONTARIO L6T 4B9 TEL: (905) 791-7800







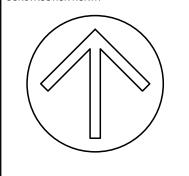
Tel: (905) 666-5252 Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON.

ING TITLE

ELECTRICAL PANEL SCHEDULES





SCALE NTS
CONSULTANT PROJECT NUMBER
23073

CHECKED BY HDC

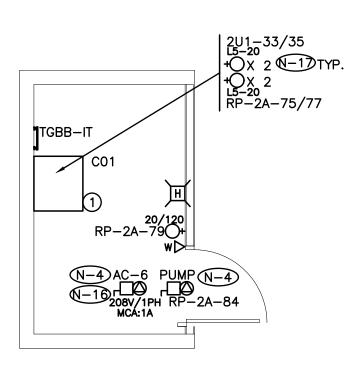
DATE AUGUST, 2023

REGION OF PEEL PROJECT NUMBER

22701

RCHASING DOCUMENT NUMBER:

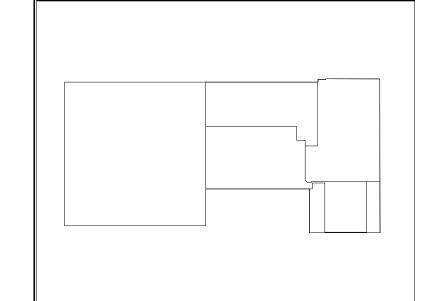
E-7.2



- (N-1) EXACT LOCATION OF ALL DEVICES AND RESPECTIVE HEIGHTS TO BE COORDINATED ON SITE.
- N=2 NEATLY LABEL ALL FLOOR MOUNTED, CEILING MOUNTED, UNISTRUT MOUNTED, WIREWAY MOUNTED AND WALL DEVICE BOX COVERS WITH CORRESPONDING PANEL NAMES AND CIRCUIT NUMBERS, UTILIZE SELF ADHESIVE MECHANICALLY PRINTED LABELS.
- CIRCUIT NUMBERS MAY NOT BE CHANGED WITHOUT PRIOR APPROVAL FROM THE ELECTRICAL
- N-4 CONFIRM BREAKER/FUSE AND RECEPTACLE/DISCONNECT REQUIREMENTS PRIOR TO INSTALLATION.
- N-5 ROUTE ALL CONDUIT SYSTEMS AROUND EXISTING DUCT WORK, BEAMS, NEW DUCT WORK AND PIPING AS REQUIRED TO ACCOMMODATE INSTALLATION. REFER TO OTHER CONTRACT DRAWINGS FOR ADDITIONAL DETAILS.
- N-6 LAYOUT OF DISTRIBUTION EQUIPMENT, GROUND BARS, ETC., MUST BE AS SHOWN ON DRAWING. CONTRACTOR IS NOT TO DEVIATE FROM LAYOUT. CONTRACTOR TO MARK EXACT LOCATION AND LAYOUT OF ALL EQUIPMENT ON SLAB FOR FINAL REVIEW AND APPROVAL FROM CONSULTANTS AND ESA FIELD INSPECTOR. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING LAYOUT WITH MECHANICAL DUCT WORK, PREACTION PIPING, ETC..
- AS PART OF THE BASE BID PRICE ELECTRICAL CONTRACTOR SHALL PROVIDE (SUPPLY AND INSTALL) AN ADDITIONAL ONE (1) WALL MOUNTED CSA 5-20R (T SLOT) DUPLEX RECEPTACLES OVER AND ABOVE THOSE SHOWN ON DETAIL NO. 1 ON DRAWING NO. E-9.1 ON AN AD HOC BASIS UP TO SUBSTANTIAL COMPLETION. EACH ADDITIONAL RECEPTACLE SHALL BE ON A DEDICATED CIRCUIT COMPLETE WITH BRANCH WIRING (CONDUIT AND WIRE) AND BREAKER. BREAKER REQUIREMENTS NOT INDICATED ON PANEL SCHEDULES.
 - PROVIDE RECEPTACLES, CONDUIT, WIRE (200' OF 2#10AWG + G (TOTAL OF 400' WIRE PLUS G) AND 200' 3/4" CONDUIT/RECEPTACLE). BREAKERS, TERMINATION AT PANEL BREAKER END AND AT DEVICE END, ETC. FOR FULLY FUNCTIONAL LIVE DEVICES. EXACT INSTALLATION LOCATION AND PANEL SOURCE TO BE DETERMINED ON SITE BY CONSULTANT DURING CONSTRUCTION. PROVIDE UPDATED TYPED PANEL SCHEDULES FOR ALL PANELS AT THE COMPLETION OF THE PROJECT.
- N-8 COORDINATE WIRING REQUIREMENTS FOR MECHANICAL EQUIPMENT ON SITE WITH MECHANICAL
- N-9 CONFIRM ELECTRICAL REQUIREMENTS AND EXACT LOCATION OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION OF ELECTRICAL SERVICES.
- № ALL FINAL CONNECTIONS TO MECHANICAL EQUIPMENT ARE TO BE IN LIQUID TIGHT FLEXIBLE CONDUIT.
- N-1) PROVIDE EMPTY CONDUIT SYSTEM AND PULL BOXES AS SHOWN ON THE DRAWING FOR CABLING CONTRACTOR'S USE. DO NOT DEVIATE FROM LAYOUT OR ROUTING SHOWN.
- CONDUIT ROUTINGS SHOWN ARE APPROXIMATE ONLY. EXACT ROUTINGS MUST BE CONFIRMED WITH OWNER, LANDLORD AND WITH CONSULTANT.
- € ELECTRICAL CONTRACTOR SHALL NOT USE PULLBOXES AS SUBSTITUTES FOR 90° BENDS.
- №—14 MINIMUM WIRE SIZE #10AWG FOR ALL 120 VOLT CIRCUITS EXCEEDING 90 FEET IN LENGTH.
- $\sqrt{1-15}$ MINIMUM WIRE SIZE #8AWG FOR ALL 120 VOLT CIRCUITS EXCEEDING 200 FEET IN LENGTH.
- N-16 AC UNIT POWERED THROUGH ROOF MOUNTED CONDENSER UNIT CU−1. PROVIDE CONDUIT AND WIRE.
- MOUNT RECEPTACLES INDICATED WITHIN EQUIPMENT CABINET. PROVIDE PUNCH OUTS IN TOP OF CABINET TO ACCOMMODATE BRANCH CONDUIT.

DRAWING REFERENCES

(1) WALL MOUNTED EQUIPMENT RACK PROVIDED BY COMMUNICATIONS CONTRACTOR — CABLE TALK CTCWH-4428-DDSO-B



KEY PLAN

NOTES

HCC ENGINEERING DESIGN AND TECHNOLOGY SERVICES GROUP HCC ENGINEERING LIMITED

40 EGLINTON AVENUE EAST, SUITE 600 TORONTO, ONTARIO, M4P 3A2 Tel: (416) 932-2423

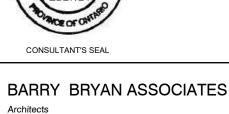
ISSUES AND REVISIONS

No.	ISSUE OR REVISION TO DRAWING	DATE	BY
1.	ISSUED FOR 50% REVIEW	SEP08/23	KZ
2.	ISSUED FOR 80% REVIEW	OCT31/23	KZ
3.	ISSUED FOR PERMIT	DEC18/23	KZ
4.	ISSUED FOR 99% REVIEW	JAN12/24	KZ
5.	ISSUED FOR TENDER	FEB27/24	KZ

Region of Peel

BRAMPTON, ONTARIO TEL: (905) 791-7800





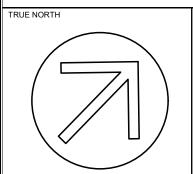


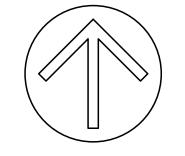
Project Managers 250 Water Street Whitby, Ontario Tel: (905) 666-5252

Fax: (905) 666-5256

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON.

ELECTRICAL PLANS





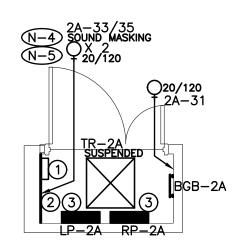
AS SHOWN AUGUST, 2023 CONSULTANT PROJECT NUMBER EGION OF PEEL PROJECT NUMBER

PURCHASING DOCUMENT NUMBER:

E-9.1



ELECTRICAL PLAN - IT ROOM 205A



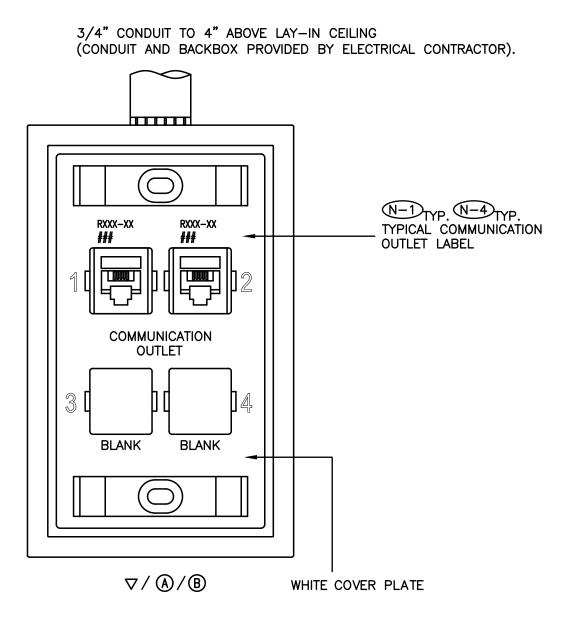
DRAWING NOTES

\E-9.1/ SCALE: 1:50

- N-D EXACT LOCATION OF ALL DEVICES AND RESPECTIVE HEIGHTS TO BE COORDINATED ON SITE WITH ARCHITECT.
- N-2) NEATLY LABEL ALL FLOOR MOUNTED AND WALL DEVICE BOX COVERS AND UTILITY POLES WITH CORRESPONDING PANEL NAMES AND CIRCUIT NUMBERS. UTILIZE SELF ADHESIVE MECHANICALLY PRINTED LABELS.
- N-3 CIRCUIT NUMBERS MAY NOT BE CHANGED WITHOUT PRIOR APPROVAL FROM THE ELECTRICAL ENGINEER.
- N-4 CONFIRM BREAKER AND RECEPTACLE REQUIREMENTS PRIOR TO ORDERING DISTRIBUTION.
- N-5 LOCATION OF OUTLET AND RECEPTACLE REQUIREMENTS TO BE COORDINATED WITH SOUND MASKING CONTRACTOR ON
- N-6 TRANSFORMER TO BE MOUNTED AT HEIGHT SUCH THAT BOTTOM OF TRANSFORMER IS 7'-6" ABOVE RAISED FLOOR LEVEL.
- N-7 MINIMUM WIRE SIZE #10AWG FOR ALL 120 VOLT CIRCUITS EXCEEDING 90 FEET IN LENGTH.
- N-8 MINIMUM WIRE SIZE #8AWG FOR ALL 120 VOLT CIRCUITS EXCEEDING 200 FEET IN LENGTH.

DRAWING REFERENCES

- (1) SOUND MASKING SYSTEM CONTROL PANEL PROVIDED BY OTHERS AS PART OF A SEPARATE SCOPE OF WORK.
- (2) 3'W X 4'H X 3/4"D FIRE RATED PLYWOOD BACKBOARD FOR SOUND MASKING SYSTEM. PAINT BACKBOARDS WITH FIRE RETARDANT PAINT. MATCH TO COLOUR AS DIRECTED ON SITE BY ARCHITECT. FIRE RATED STAMP MUST BE ON ALL PIECES PROVIDED AND MUST BE VISIBLE WHEN INSTALLED. DO NOT PAINT OVER STAMP.
- (3) NEW RECEPTACLE PANELS PROVIDED AS PART OF THIS SCOPE OF WORK. REFER TO DRAWING NO. E-7.1 AND E-7.2 FOR
- ADDITIONAL REQUIREMENTS.

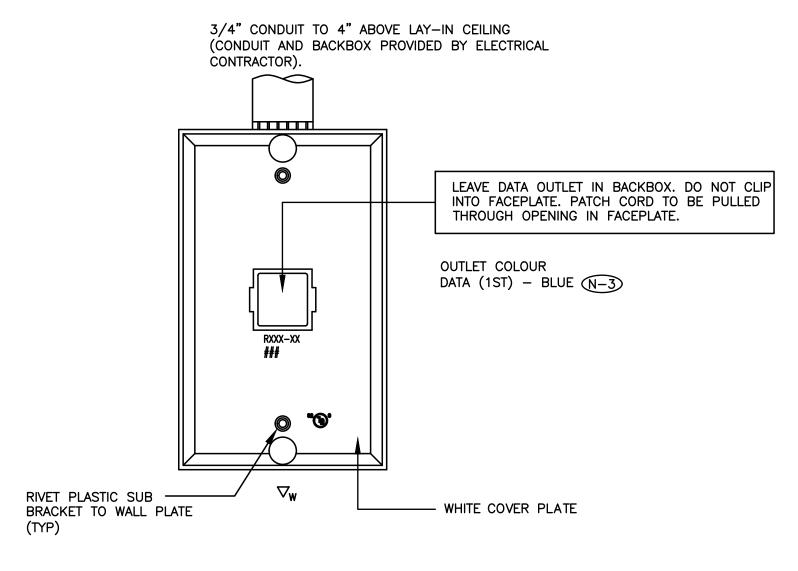


- N-1 PROVIDE BLANK INSERT FOR NON-UTILIZED OPENINGS. REFER TO FLOOR
- PLANS FOR EXACT QUANTITY OF CABLES AND OUTLETS AT EACH LOCATION. N-2 UTILIZE BLUE CABLES FOR DATA, CCTV AND SECURITY.
- N-3 CONFIRM OUTLET COLOUR AND ORIENTATION WITH CONSULTANT PRIOR TO ORDERING MATERIALS.
- N-4 CONFIRM LABELING SCHEME WITH CONSULTANT PRIOR TO PREPARING LABELS.

DEVICE LABEL DETAILS RXXX: ROOM NUMBER OUTLET COLOUR DATA (1ST) - BLUE DATA (2ND) - BLUE

XX: SWITCH NUMBER ###: OUTLET DESIGNATION NUMBER (IE: UNIQUE IDENTIFIER)

TYPICAL WALL MOUNTED OFFICE GROUP OUTLET DETAIL SCALE: NTS

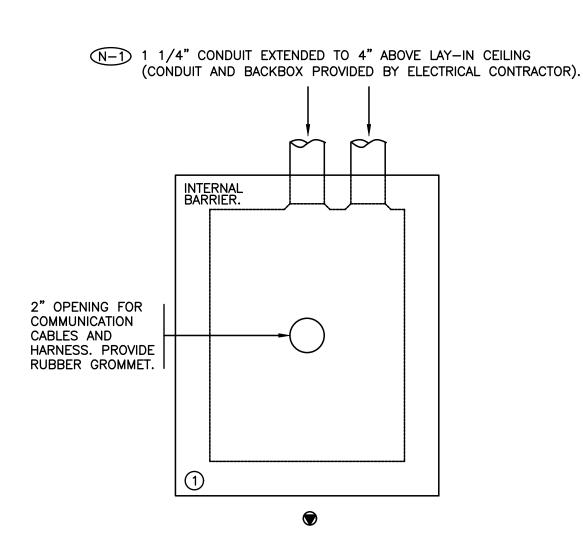


DRAWING NOTES

LABELS.

- N-1 PROVIDE BLANK INSERT FOR NON-UTILIZED OPENINGS. REFER TO FLOOR PLANS FOR EXACT QUANTITY OF CABLES AND OUTLETS AT EACH LOCATION.
- N-2 UTILIZE BLUE CABLES FOR DATA.
- N-3 CONFIRM OUTLET COLOUR AND ORIENTATION WITH CONSULTANT PRIOR TO ORDERING MATERIALS.
- N-4 CONFIRM LABELING SCHEME WITH CONSULTANT PRIOR TO PREPARING

TYPICAL WALL MOUNTED DATA OUTLET WITH PHONE FACEPLATE DETAIL C-1.1SCALE: NTS



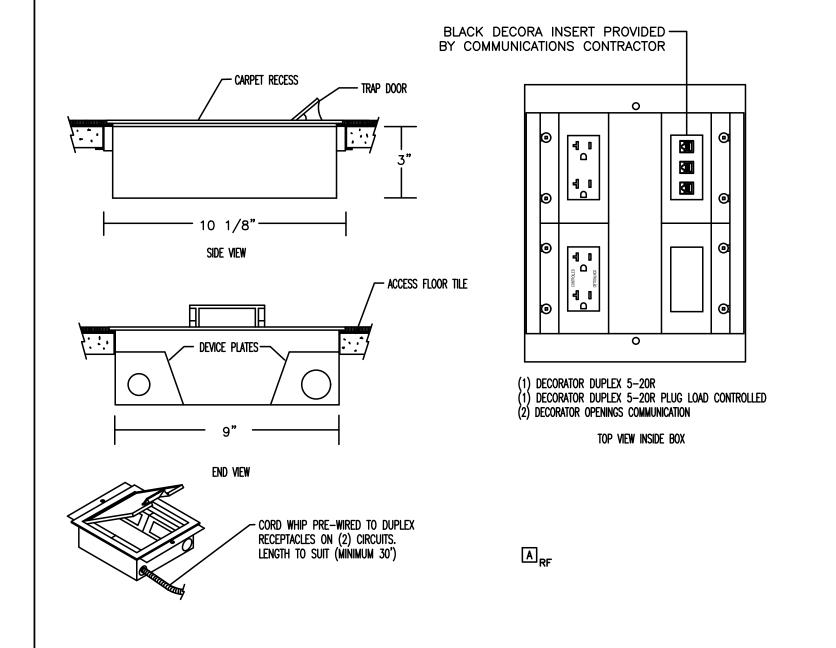
DRAWING NOTES

N-1) CONDUIT, BACKBOXES AND COVERPLATES PROVIDED BY ELECTRICAL CONTRACTOR.

DRAWING REFERENCES

1) THREE (3) GANG BACKBOX FOR DATA C/W COVERPLATE PROVIDED BY ELECTRICAL CONTRACTOR

WALL MOUNTED SYSTEMS FURNITURE CONNECTION C-1.1 SCALE: NTS



N-1) RECEPTACLES AND FLOOR BOX PROVIDED BY ELECTRICAL CONTRACTOR

N-2 UTILIZE BLUE CABLES FOR DATA.

- N-3 PROVIDE BLANK INSERT FOR NON-UTILIZED OPENINGS.
- N-4) CONFIRM LABELING SCHEME WITH CONSULTANT PRIOR TO PREPARING LABELS.
- N-5) RECEPTACLES AND FLOOR BOX PROVIDED BY ELECTRICAL CONTRACTOR
- (1) RECESSED FLOOR BOX WELLMARK 300 SERIES PROVIDED BY ELECTRICAL

RAISED FLOOR BOX DETAIL C-1.1SCALE: NTS

GENERAL NOTES

- SUBSTITUTES ARE NOT PERMITTED FOR ALL SPECIFIED PRODUCTS.
- SHOP DRAWINGS ARE REQUIRED FOR ALL PRODUCTS SPECIFIED FOR THIS PROJECT INCLUDING BUT NOT LIMITED TO EQUIPMENT CABINETS, BACKBONE CABLES, HORIZONTAL CABLES, TERMINATION HARDWARE, LABELS AND FACEPLATES.
- COMMUNICATIONS CONTRACTOR AND ALL SUBCONTRACTORS MUST READ AND COMPLY WITH COMMUNICATIONS SPECIFICATIONS (ISSUED AS A SEPARATE DOCUMENT).
- INSTALLATION OF ALL DEVICES AND SERVICES MUST COMPLY WITH ALL LOCAL SEISMIC RESTRAINT REQUIREMENTS.
- ALL SCOPES OF WORK REQUIRED TO BE COMPLETED IN UNOCCUPIED AREAS, INCLUDING INSTALLATION OF STATION CABLES AND BACKBONE CABLES MUST BE COMPLETED BETWEEN 7AM AND 4PM DURING THE WEEK. REMOVAL AND REINSTALLATION OF CEILING TILES IN THE OCCUPIED AREAS TO ACCOMMODATE ALL SCOPES OF WORK SHALL BE PROVIDED BY THE COMMUNICATIONS CONTRACTOR.
- AS BUILT DRAWING REQUIREMENTS:

SPECIFICATIONS BOOK.

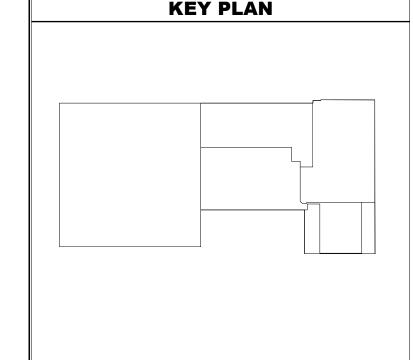
- AS BUILT DRAWINGS TO BE PREPARED AND SUBMITTED IN
- AUTOCAD FORMAT BY THE COMMUNICATIONS CONTRACTOR. ALL DEMOLITION SCOPES OF WORK ARE TO BE ERASED FROM AS BUILT DRAWINGS.
- ROUTING OF MAIN STATION CABLING RUNS, BACKBONE CABLES, ETC., TO BE SHOWN ON AS BUILT DRAWINGS. REFER TO DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL
- CONTRACTOR SHALL BE RESPONSIBLE FOR AND MUST INCLUDE IN BASE BID PRICE FOR ALL SCOPES OF WORK DETAILED IN COMMUNICATIONS DRAWINGS AND COMMUNICATIONS
- REMOVAL AND REINSTALLATION OF CEILING TILES TO ACCOMMODATE ALL SCOPES OF WORK SHALL BE PROVIDED BY THE COMMUNICATIONS CONTRACTOR.
- AT THE COMPLETION OF THIS PROJECT MANUFACTURER MUST PROVIDE A BELDEN CABLING CERTIFICATION PLAQUE FOR EACH AND EVERY LAN ROOM AND MOUNT SAME WITHIN EACH AND EVERY LAN ROOM. FOR ADDITIONAL DETAILS AND REQUIREMENTS CONTACT MARY MELCHIORRE BELDEN CANADA INC. MARY.MELCHIORRE@BELDEN.COM.
- CABLING CONTRACTOR TO PATCH ALL EQUIPMENT INCLUDING WORKSTATIONS, PHONES, LAN ROOM EQUIPMENT, IT ROOM EQUIPMENT, ETC..
- THE CONTRACTOR MUST ENSURE THAT FIRESTOPPING AND SEALANTS ARE INSTALLED AT NEW FLOOR OPENINGS IN ACCORDANCE WITH THE CURRENT FIRE CODE REQUIREMENTS AND TO PREVENT WATER LEAKAGE TO THE FLOORS BELOW. AREAS PRONE TO WATER LEAKAGE ARE TO BE WATERPROOFED PRIOR TO INSTALLATION OF THE FLOOR COVERINGS. THE CONSULTANT WILL APPROVE THE PROPOSED WATERPROOFING METHOD PRIOR TO PROCEEDING WITH CONSTRUCTION. REFER TO SPECIFICATIONS FOR ADDITIONAL FIRESTOPPING
- PROVIDE A REPORT FROM THE CONTRACTOR FOR ALL FIRESTOP ASSEMBLIES PROVIDED AS PART OF THIS SCOPE OF WORK. REPORT MUST DETAIL COMPLIANCE WITH ONTARIO BUILDING CODE.

- (A) WALL MOUNTED OFFICE GROUP CONSISTING OF DATA (1ST) OUTLET C/W ONE (1) 4 PAIR CAT6 UTP CABLE.
- (B) WALL MOUNTED OFFICE GROUP CONSISTING OF DATA (1ST) AND DATA (2ND) OUTLET C/W TWO (2) 4 PAIR
- (M) CEILING MOUNTED WAP GROUP CONSISTING OF DATA (1ST) AND DATA (2ND) OUTLET C/W TWO (2) 4 PAIR CAT6 UTP CABLES. PROVIDE TWO (2) RJ45 TO CEILING
- FURNITURE MOUNTED OFFICE GROUP CONSISTING OF DATA (1ST) OUTLET C/W ONE (1) 4 PAIR CAT6 UTP CABLE.
- RAISED FLOOR MOUNTED UFFICE GROUP CONSISTENCE OF (1ST) AND DATA (2ND) OUTLET C/W TWO (2) 4 PAIR CAT 6
- DENOTES LOCATION OF WALL MOUNTED CABLE ENTRY FOR
- DENOTES LOCATION OF FLOOR MOUNTED CABLE ENTRY FOR SYSTEMS FURNITURE.
- ∇ DATA OUTLET C/W ONE (1) 4 PAIR CAT6 UTP CABLE.
- CL DENOTES CEILING MOUNTED. PROVIDE SURFACE MOUNT
- E INDICATES EXISTING DEVICE TO REMAIN.
- ER DENOTES EXISTING DEVICE TO BE REMOVED BACK TO SOURCE.
- OUTLETS AND PULL CABLES OUT FROM EXISTING DEVICE TO CEILING SPACE. REFEED NEW DEVICE INDICATED. PROVIDE NEW OUTLETS AND FACEPLATES. TERMINATE, LABEL AND TEST ALL CABLES.
- RF DENOTES CABLE ROUTED THROUGH RAISED FLOOR SPACE. W INDICATES MOUNTING HEIGHT TO BE IN LINE WITH LIGHT
- SWITCHES. PROVIDE WALL MOUNTED PHONE FACEPLATE. WP DENOTES NEMA TYPE 4X ENCLOSURE SUITABLE FOR HOSE
- 12MMF DENOTES 12 STRAND MULTIMODE FIBER OPTIC CABLE.

LEGEND

- CATÉ UTP CABLES.
- CONNECTORS.
- SYSTEMS FURNITURE.

- DENOTES RELOCATED OFFICE GROUP. DISCONNECT EXISTING
- DIRECTED WATER.



NOTES

HCC ENGINEERING

DESIGN AND TECHNOLOGY SERVICES GROUP HCC ENGINEERING LIMITED 40 EGLINTON AVENUE EAST, SUITE 600 TORONTO, ONTARIO, M4P 3A2 Tel: (416) 932-2423

ISSUES AND REVISIONS

No.	ISSUE OR REVISION TO DRAWING	DATE	BY
1.	ISSUED FOR 80% REVIEW	OCT31/23	KZ
2	ISSUED FOR 99% REVIEW	JAN12/24	KZ
3	ISSUED FOR TENDER	FEB27/24	KZ

Region of Peel

BRAMPTON, ONTARIO TEL: (905) 791-7800





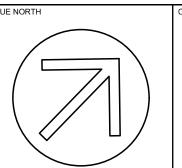
CONSULTANT'S SEAL **BARRY BRYAN ASSOCIATES** Engineers Project Managers 250 Water Street

Whitby, Ontario Tel: (905) 666-5252 Fax: (905) 666-5256

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL

3190 MAVIS ROAD, MISSISSAUGA, ON

COMMUNICATIONS LEGEND AND DETAILS



HDC CHECKED B. AUGUST, 2023

AS SHOWN CONSULTANT PROJECT NUMBER 23073

GION OF PEEL PROJECT NUMBER PURCHASING DOCUMENT NUMBER

C-1.1

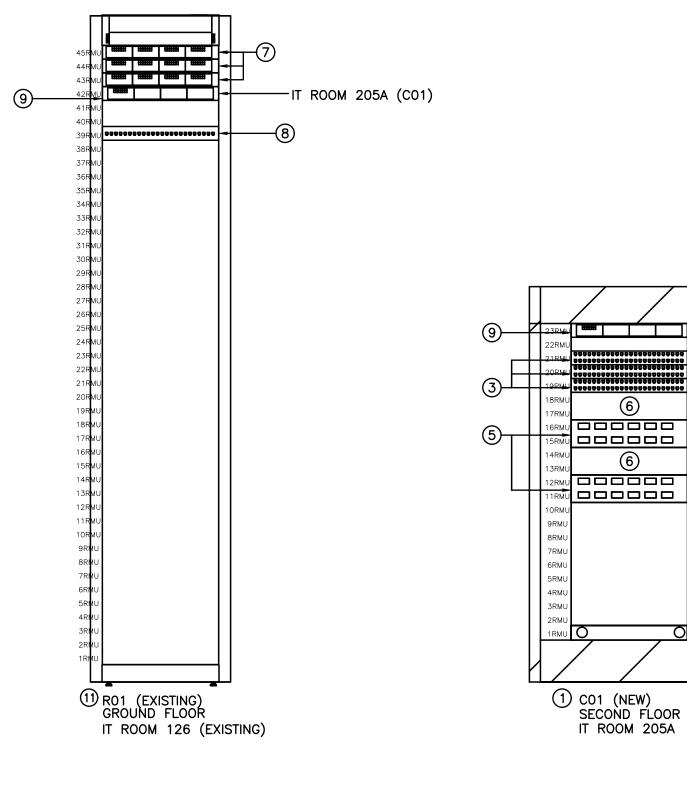
DRAWING LIST

C-1.1 - COMMUNICATIONS LEGEND AND DETAILS

C-1.2 - COMMUNICATIONS DETAILS C-2.1 - COMMUNICATIONS PLAN - GROUND FLOOR

C-2.2 - COMMUNICATIONS PLAN - SECOND FLOOR

C-3.1 - COMMUNICATIONS RISER DIAGRAM



- N-1) DETAIL IS DIAGRAMMATIC ONLY. PROVIDE QUANTITY OF HORIZONTAL CABLING, CROSS CONNECT HARDWARE, PATCH CORDS, ETC., TO ENSURE A FULLY OPERATIONAL PREMISES WIRING SYSTEM.
- N-2) REFER TO FLOOR PLAN DRAWINGS FOR DEVICE QUANTITY AND LOCATIONS.
- N-3 REFER TO SPECIFICATIONS FOR ADDITIONAL EQUIPMENT CABINET BUILD OUT REQUIREMENTS.
- N-4 AS PART OF THIS SCOPE OF WORK COMMUNICATIONS CONTRACTOR SHALL RACK MOUNT ALL AGENCY PROVIDED SWITCHES, SERVERS, POWER SUPPLIES, MODEMS, SPLITTERS, DIN RAILS, AUDIO BRIDGE, ETC., PROVIDE REQUIRED MOUNTING SCREWS.
- N-5 BASE BID PRICE SHALL INCLUDE FOR A TOTAL OF 75 PATCHES WITHIN IT ROOM. REFER TO DETAIL NO. 2 ON DRAWING NO. C-1.2 FOR PATCH CORD QUANTITY AND LENGTHS.
- N-6 NOT USED.
- N-7 PATCH PANEL OUTLET COLOUR SHALL MATCH RESPECTIVE WALL JACK COLOUR. REFER TO DETAIL NO. 1 ON DRAWING NO. C-1.1 FOR COLOUR ASSIGNMENT.
- N-8 NOT USED.
- N-9 ROUTE DATA HORIZONTAL/STATION (FLOOR) CABLES TO RESPECTIVE RACK MOUNTED
- PROVIDE TWO (2) LAMACOID PLATES C/W RACK IDENTIFIER (FRONT: BLUE WITH WHITE SEMI GLOSS LETTERS AND BACK: RED WITH WHITE SEMI GLOSS LETTERS) FOR EACH RACK AND CABINET PROVIDED AND/OR INSTALLED AS PART OF THIS SCOPE OF WORK. UTILIZE RIVETS TO SECURELY FASTEN LAMACOIDS TO CABINETS. PROVIDE A SAMPLE FOR SIGN OFF. CUSTOM VERBIAGE TO BE PROVIDED BY CLIENT DURING CONSTRUCTION.

DRAWING REFERENCES

- WALL MOUNTED 23 RMU ICC EQUIPMENT CABINET C/W EXTENDED DOOR PROVIDED AS PART OF THIS SCOPE OF WORK. DOOR HINGES TO BE COORDINATED ON SITE. CABLE TALK CTCWH-4428-DDSO-B
- 2 HORIZONTAL POWER BAR PROVIDED AS PART OF THIS SCOPE OF WORK
- 3 1RMU 48 PORT CAT6 ANGLED UTP PATCH PANEL
- (4) NOT USED.
- 5 2RMU 48 PORT ACTIVE SWITCH PROVIDED BY AGENCY CISCO
- 6) 2RMU HORIZONTAL CABLE MANAGER
- 7 EXISTING 1RMU 48 PORT FIBER OPTIC PATCH PANEL TII
- 8 EXISTING 1RMU 24 PORT CAT6 FLAT UTP PATCH PANEL
- 9) 1RMU 48 PORT FIBER OPTIC PATCH PANEL
- (10) NOT USED.
- (1) EXISTING EQUIPMENT RACK

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KEY PLAN

	ISSUES AND REVISIONS		
No.	ISSUE OR REVISION TO DRAWING	DATE	BY
1.	ISSUED FOR 80% REVIEW	OCT31/23	KZ
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Region of Peel

10 PEEL CENTRE DRIVE BRAMPTON, ONTARIO L6T 4B9 TEL: (905) 791-7800







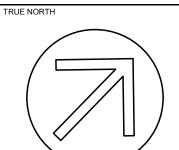
Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5
Tel: (905) 666-5252

Tel: (905) 666-5252
Fax: (905) 666-5256
e-mail: bba@bba-archeng.cc

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON.

DRAWING TITLE

COMMUNICATIONS DETAILS



ONSTRUCTION NORTH

DRAWN BY KZ HDC

SCALE AS SHOWN

CONSULTANT PROJECT NUMBER

23073

CONSULTANT PROJECT NUMBER

22701

URCHASING DOCUMENT NUMBER: DI

PU

DRAWING NUMBER C-1.2

1 HUB ROOM EQUIPMENT RACK ELEVATIONS

C-1.2 SCALE: NTS

			_	
PATCH CORD LENGTH N-1	1'	5'	7'	10'
CAT6 COPPER PATCH CORDS REQUIRED IT ROOM END	0	30	30	O
CAT6 COPPER PATCH CORDS REQUIRED WORKSTATION END	0	0	0	50
CAT6 COPPER PIGTAILS REQUIRED TABLE END	0	0	0	2

PATCH CORD REQUIREMENTS AND LENGTH (N-1) (N-3)	LC TO LC 1 METERS	LC TO LC 2 METERS	LC TO LC 3 METERS
MMF PATCH CORDS REQUIRED	0	4	0
SMF PATCH CORDS REQUIRED FOR DUPLEX PATCHING	0	0	0

—IT ROOM 126 (RO1)

TOATA STATION CABLES

 $(N-7)_{TYP}$, $(N-9)_{TYP}$.

- WAPS/CCTV

EQUIPMENT RACK/ CABINET ID	PDU REQUIREMENTS N-1
C01	1 X APC AP7801B

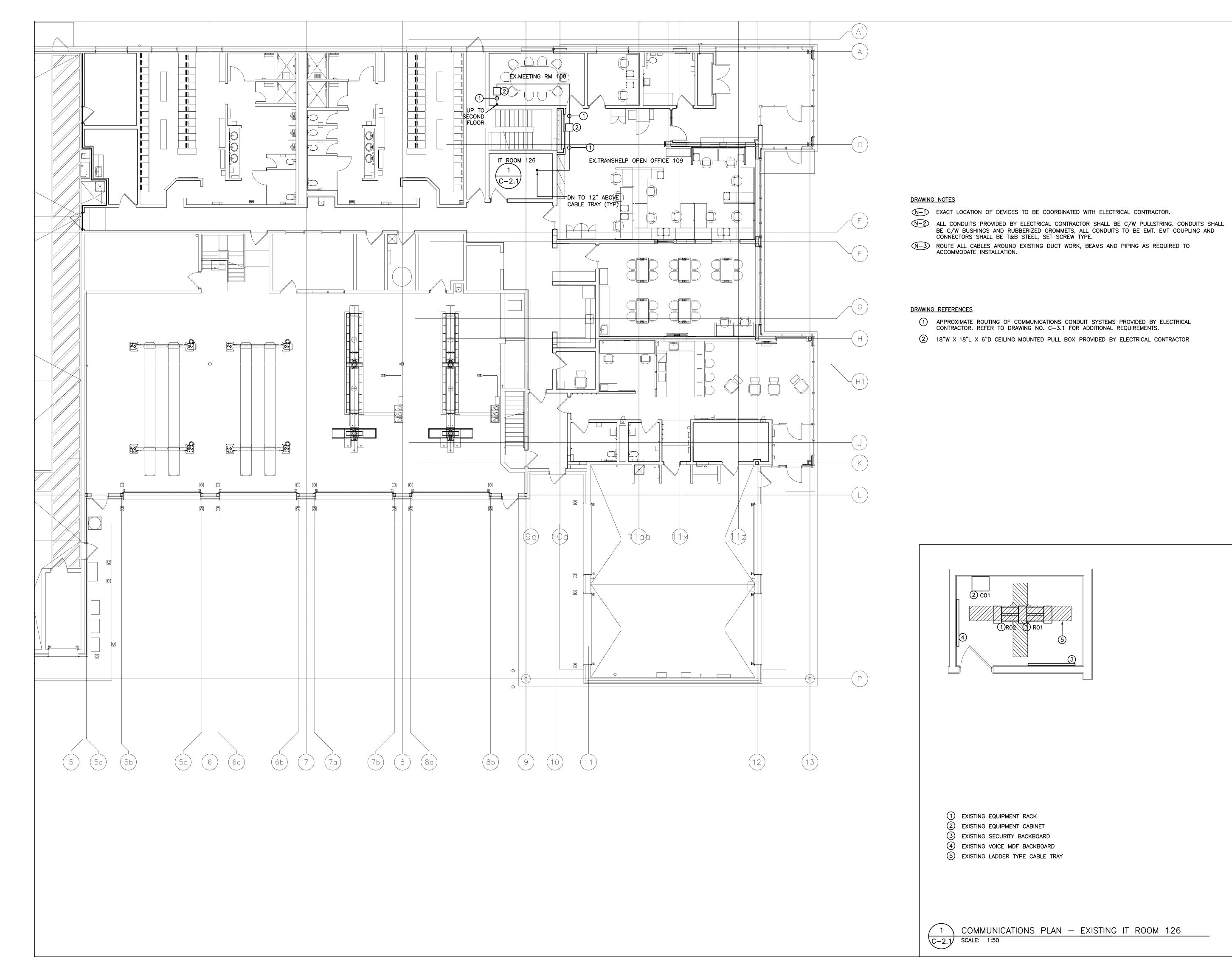
DRAWING NOTES

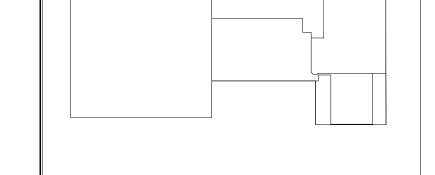
N-1) AS PART OF THIS SCOPE OF WORK COMMUNICATIONS CONTRACTOR TO SUPPLY AND INSTALL ALL PDU'S. PROVIDE ALL REQUIRED MOUNTING AND FASTENING ACCESSORIES.

DRAWING NOTES

- N-1) SUPPLY AND INSTALL QUANTITY OF PATCH CORDS INDICATED IN SCHEDULE. CONFIRM EXACT LENGTH WITH CONSULTANT PRIOR TO ORDERING. AT EQUIPMENT RACK END PATCH CORD LENGTHS SHALL BE SELECTED TO MINIMIZE SLACK.
- N-2 AS PART OF THIS SCOPE OF WORK COMMUNICATIONS CONTRACTOR SHALL PATCH ALL AGENCY SUPPLIED SERVERS, SWITCHES, NETWORK GEAR, GATEWAYS, ETC. PATCHING SCHEDULE TO BE PROVIDED BY AGENCY DURING CONSTRUCTION.
- N-3 CONFIRM TERMINATION REQUIREMENTS WITH CONSULTANT PRIOR TO ORDERING FIBER OPTIC PATCH CORDS.

$\overline{2}$	PATCH CORD SCHEDULE
	SCALE: NTS





NOTES

HCC ENGINEERING DESIGN AND TECHNOLOGY SERVICES GROUP

HCC ENGINEERING LIMITED

40 EGLINTON AVENUE EAST, SUITE 600
TORONTO, ONTARIO, M4P 3A2 Tel: (416) 932-2423

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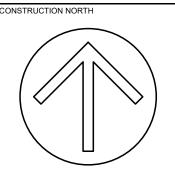


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SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON.

COMMUNICATIONS PLAN **GROUND FLOOR**



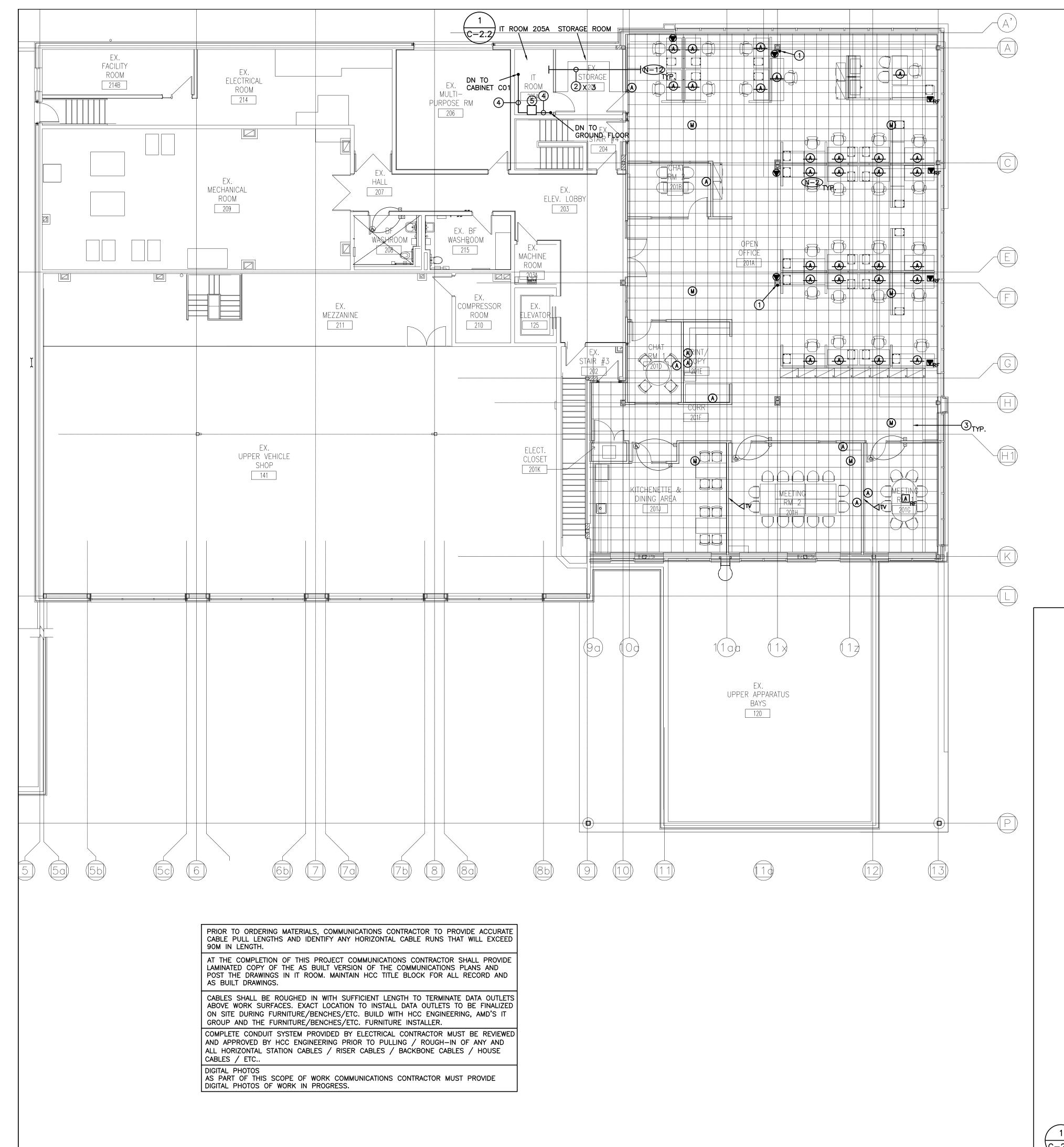


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AUGUST, 2023 22701

CHECKED BY HDC

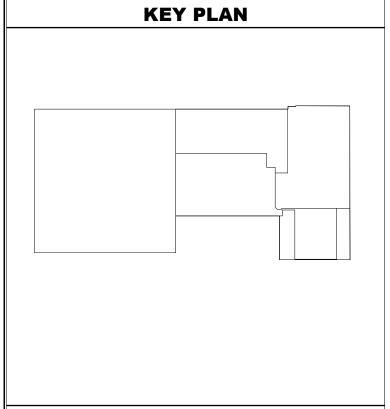
PURCHASING DOCUMENT NUMBER: C-2.1



- N-1) EXACT LOCATION OF DEVICES TO BE COORDINATED WITH ELECTRICAL CONTRACTOR.
- N-2 INSTALL OUTLET IN LOCATION TO ENSURE THAT PATCH CORD LENGTH REQUIRED TO REACH EQUIPMENT DOES NOT EXCEED 2 METRES.
- N-3 AS PART OF THIS SCOPE OF WORK PROVIDE AN ADDITIONAL TWO (2) WALL/FLOOR MOUNTED DATA OUTLETS (250' RUN (TOTAL OF 250' CABLE) PER ADDITIONAL WALL/FLOOR MOUNTED DATA OUTLET) OVER AND ABOVE THOSE SHOWN ON DRAWING NO. C-2.2 ON AN AD HOC BASIS UP TO POST SUBSTANTIAL COMPLETION.
- N-4) ALL CONDUITS PROVIDED BY ELECTRICAL CONTRACTOR SHALL BE C/W PULLSTRING. CONDUITS SHALL BE C/W BUSHINGS AND RUBBERIZED GROMMETS, ALL CONDUITS TO BE EMT. EMT COUPLING AND CONNECTORS SHALL BE T&B STEEL, SET SCREW TYPE.
- N-5) PROVIDE 10' OF SLACK NEATLY COILED IN CEILING SPACE / RAISED FLOOR SPACE AT OUTLET END FOR EACH HORIZONTAL (STATION) CABLE PROVIDED AS PART OF THIS SCOPE OF WORK.
- N-6 ROUTE ALL CABLES AROUND EXISTING DUCT WORK, BEAMS AND PIPING AS REQUIRED TO ACCOMMODATE INSTALLATION.
- N-7 COMMUNICATIONS CONTRACTOR SHALL INSTALL AND CONNECT EIGHT (8) CEILING MOUNTED WIRELESS ACCESS POINTS SUPPLIED BY AGENCY ON AN AD HOC BASIS THROUGHOUT THE FLOOR.
- N-8) PROVIDE 20' OF SLACK NEATLY COILED IN CEILING SPACE FOR EACH HORIZONTAL (STATION) WAP GROUP CABLE PROVIDED AS PART OF THIS SCOPE OF WORK. TOTAL LENGTH OF EACH HORIZONTAL (STATION) CABLE RUN PROVIDED FOR WAP GROUP INCLUDING REDUNDANT SLACK SHALL NOT EXCEED
- N-9 AS PART OF THIS SCOPE OF WORK PROVIDE AN ADDITIONAL ONE (1) CEILING MOUNTED TYPE M WAP GROUPS (250' RUNS (TOTAL OF 500' CABLE) PER ADDITIONAL CEILING MOUNTED WAP GROUP) OVER AND ABOVE THOSE SHOWN ON DRAWING NO. C-2.2 ON AN AD HOC BASIS UP TO POST SUBSTANTIAL COMPLETION.
- NOT USED
- (N-1) NOT USED.
- € ALL STATION CABLES TO BE ROUTED INTO IT ROOM THROUGH ZONE CONDUITS PROVIDED BY ELECTRICAL CONTRACTOR.

DRAWING REFERENCES

- (1) 2" ZONE CONDUIT C/W BUSHINGS AND RUBBERIZED GROMMETS PROVIDED BY ELECTRICAL CONTRACTOR TO TRANSITION SERVICES FROM CEILING SPACE TO RAISED FLOOR SPACE.
- (2) 2" ZONE CONDUIT C/W BUSHINGS AND RUBBERIZED GROMMETS PROVIDED BY ELECTRICAL CONTRACTOR
- (3) RAISED FLOOR TILE
- 4 APPROXIMATE ROUTING OF COMMUNICATIONS CONDUIT SYSTEMS PROVIDED BY ELECTRICAL CONTRACTOR. REFER TO DRAWING NO. C-3.1 FOR ADDITIONAL REQUIREMENTS.
- (5) 18"W X 18"L X 6"D CEILING MOUNTED PULL BOX PROVIDED BY ELECTRICAL CONTRACTOR



NOTES

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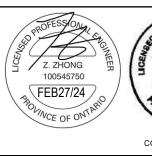
HCC ENGINEERING

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Region of Peel

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CONSULTANT'S SEAL



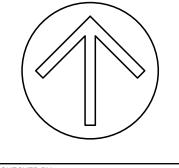
Fax: (905) 666-5256 PROJECT TITLE AND ADDRESS

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL

3190 MAVIS ROAD, MISSISSAUGA, ON. DRAWING TITLE

COMMUNICATIONS PLAN SECOND FLOOR





ONSTRUCTION NORTH

1:100 CONSULTANT PROJECT NUMBER HDC AUGUST, 2023 GION OF PEEL PROJECT NUMBER

RAWING NUMBER C-2.2

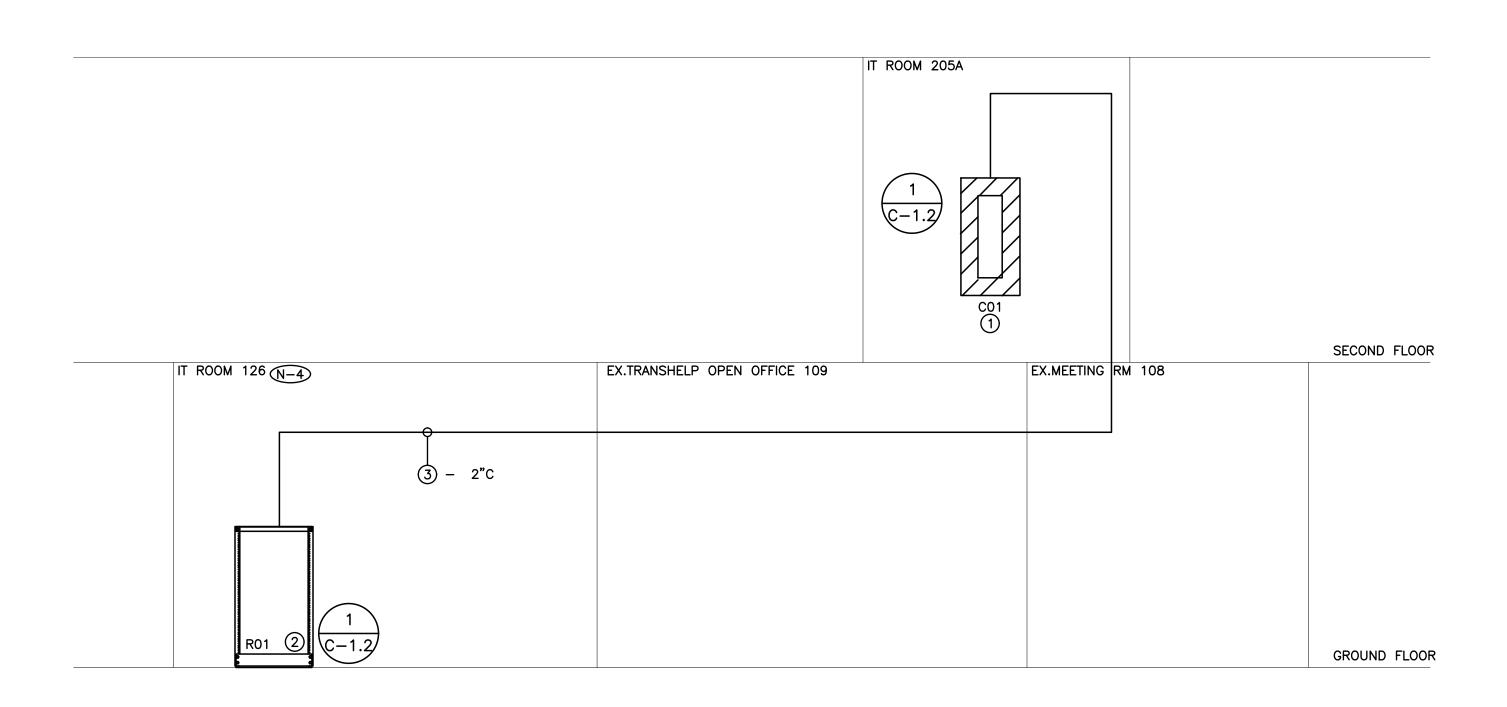
DRAWING NOTES

TGBB-IT

- N-D EXACT LOCATION OF ALL DEVICES, INCLUDING EQUIPMENT CABINETS AND RESPECTIVE HEIGHTS TO BE COORDINATED ON SITE WITH ELECTRICAL CONTRACTOR.
- N-3 ALL CONDUITS PROVIDED BY ELECTRICAL CONTRACTOR SHALL BE C/W PULLSTRING. CONDUITS SHALL BE C/W BUSHINGS AND RUBBERIZED GROMMETS, ALL CONDUITS TO BE EMT. EMT COUPLING AND CONNECTORS SHALL BE T&B STEEL, SET SCREW TYPE.
- N-4 PROVIDE FIRE RATED PLYWOOD BACKBOARDS FOR ALL WALL MOUNTED ICC CABINETS PROVIDED AS PART OF THIS SCOPE OF WORK. PAINT BACKBOARDS WITH FIRE RETARDANT PAINT (COLOUR AS DIRECTED ON SITE BY ARCHITECT). FIRE RATED STAMP MUST BE ON ALL PIECES PROVIDED AND MUST BE VISIBLE WHEN INSTALLED. DO NOT PAINT OVER STAMP.
- N-5 IN ADDITION TO THE BLOCKING SPECIFIED AS PART OF DRAWING NOTE NO. N-4 COMMUNICATIONS CONTRACTOR TO PROVIDE A STAND TO SUPPORT WALL MOUNTED CABINETS PROVIDED AS PART OF THIS SCOPE OF WORK FROM FLOOR.

DRAWING REFERENCES

- (1) EQUIPMENT CABINET PROVIDED AS PART OF THIS SCOPE OF WORK. MOUNT AT 6' AFF FROM TOP OF CABINET. CABLE TALK CTCWH-4428-DDSO-B.
- COMMUNICATIONS PLAN NEW IT ROOM 205A C-2.2 SCALE: 1:50



FUSION SPLICING IS REQUIRED FOR ALL FIBER OPTIC CABLE TERMINATIONS. OM4 CABLE LENGTH LIMITATIONS 1G UP TO 550 M / 1800' 10G UP TO 400 M / 1300'

PROVIDE CABLE CLAMP KIT TO GROUND METALLIC SHEATHS OF ARMORED CABLES AT BOTH ENDS PER MANUFACTURER'S INSTRUCTIONS.

COMPLETE CONDUIT SYSTEM PROVIDED BY ELECTRICAL CONTRACTOR MUST BE REVIEWED AND APPROVED BY HCC ENGINEERING PRIOR TO PULLING / ROUGH-IN OF ANY AND ALL HORIZONTAL STATION CABLES / RISER CABLES / BACKBONE CABLES / HOUSE CABLES / ETC..

ALL INTERIOR CABLES TO BE FT6 RATED, SUITABLE FOR INSTALLATION IN PLENUM CEILING SPACES.

<u>DRAWING NOTES</u>

- N-1) RISER IS DIAGRAMMATIC ONLY.
- N-2) REFER TO COMMUNICATIONS PLANS FOR LOCATION OF EQUIPMENT RACKS AND CABINETS.
- N-3 NOT USED.
- N-4 UTILIZE EXISTING OVERHEAD CABLE TRAY TO ROUTE CABLES WITHIN IT ROOM 126. PROVIDE CSA FT6 RATED 1 1/4" DIAMETER ORANGE INNERDUCT FOR ROUTING OF FIBER OPTIC CABLES PROVIDED AS PART OF THIS SCOPE OF WORK WITHIN CABLE TRAYS.
- N-5 NOT USED.
- N-6 CONDUIT RACEWAYS PROVIDED BY ELECTRICAL CONTRACTOR. ALL CONDUITS SHALL BE C/W BUSHINGS AND RUBBERIZED GROMMETS. ALL CONDUITS TO BE EMT. EMT COUPLING AND CONNECTORS SHALL BE T&B STEEL, SET SCREW TYPE. PROVIDE PULLSTRING IN ALL CONDUITS FOR FUTURE USE.
- N-8 ALL CABLES MUST BE LABELED ON BOTH ENDS.
- N-9 SUPPORT CABLES PULLED FREE AIR TIGHT TO WALLS/CEILING SLAB UTILIZING CABLE TIE MOUNTS AND VELCRO TIE WRAPS.
- N-10 INSTALL HILTI FIRESTOP PLUG CFS-PL REUSABLE INTUMESCENT FIRESTOP SOLUTION TO SEAL ALL CONDUITS, CONDUIT SLEEVES, ETC., PROVIDED BY ELECTRICAL CONTRACTOR FOR COMMUNICATIONS CONTRACTOR'S USE AFTER CABLE PULLING PROVIDED AS PART OF THIS SCOPE OF WORK. CUT FIRESTOPPING AS REQUIRED TO SEAL CONDUITS / OPENINGS WITH CABLES PULLED THROUGH.

DRAWING REFERENCES

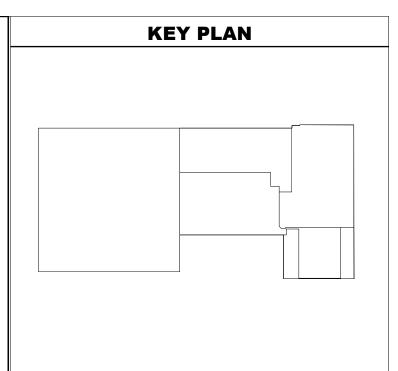
- WALL MOUNTED EQUIPMENT CABINET PROVIDED AS PART OF THIS SCOPE OF WORK. CABLE TALK CTCWH-4428-DDSO-B.
- 2 EXISTING EQUIPMENT RACK
- 3 12MMF OM4 PLENUM RATED NON-ARMORED RISER CABLE

LINETYPE LEGEND

DENOTES NEW PROVIDED BY COMMUNICATIONS CONTRACTOR

---- DENOTES EXISTING TO REMAIN

* * * * DENOTES EXISTING TO BE REMOVED BY COMMUNICATIONS CONTRACTOR



NOTES

HCC ENGINEERING DESIGN AND TECHNOLOGY SERVICES GROUP

HCC ENGINEERING LIMITED
40 EGLINTON AVENUE EAST, SUITE 600
TORONTO, ONTARIO, M4P 3A2 Tel: (416) 932-2423

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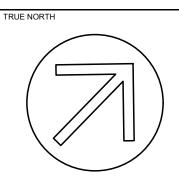
Engineers Project Managers 250 Water Street Suite 201 Whitby, Ontario

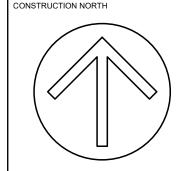
Tel: (905) 666-5252 Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL

3190 MAVIS ROAD, MISSISSAUGA, ON.

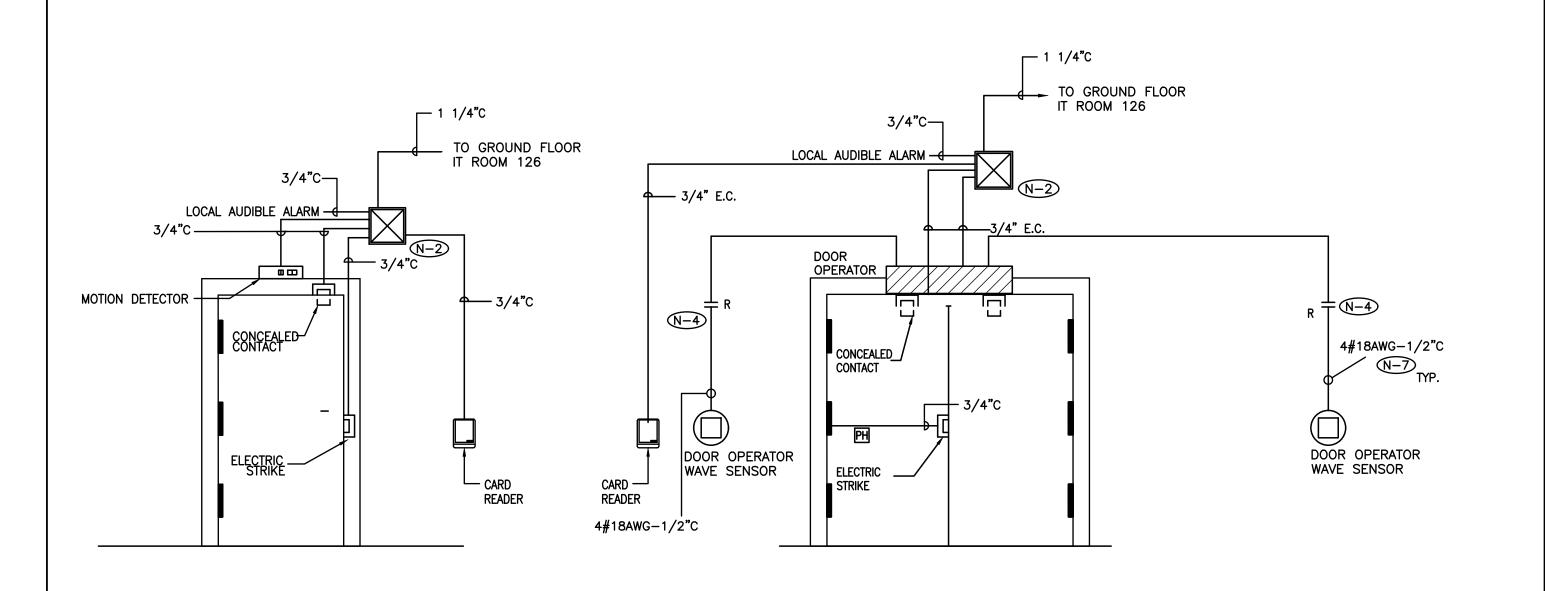
COMMUNICATIONS RISER DIAGRAM





CHECKED BY HDC AUGUST, 2023 CONSULTANT PROJECT NUMBER EGION OF PEEL PROJECT NUMBER 23073 22701

C-3.1



DRAWING NOTES

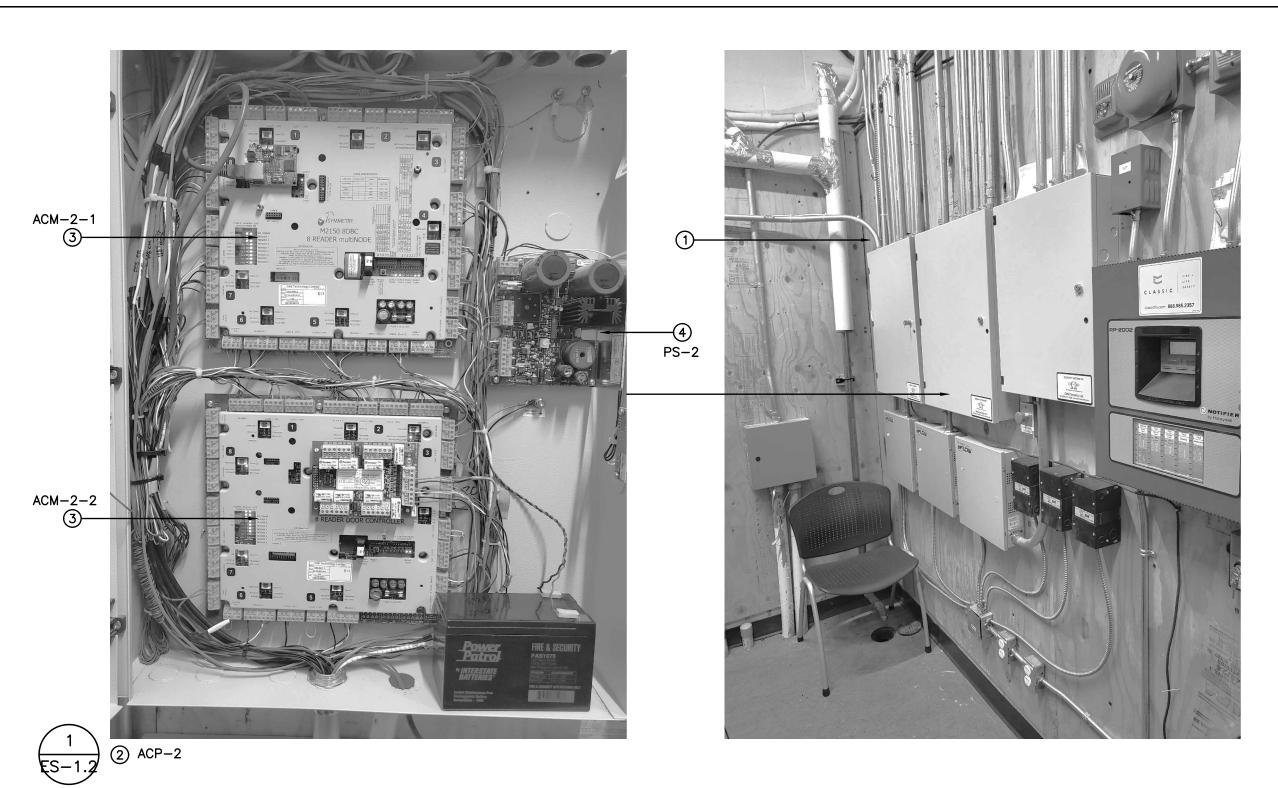
- (N-1) ROUGH-IN DETAILS ARE DIAGRAMMATIC. REFER TO FLOOR PLANS FOR ADDITIONAL REQUIREMENTS, DEVICE QUANTITY AND LOCATION.
- N-2 PULLBOX INDICATED MUST BE LOCATED AT THE SECURED SIDE OF THE DOOR. MINIMUM PULLBOX SIZE 10" X 10" C/W FOUR (4) SECURITY SCREWS TYPE SNAKE
- N-3 ALL ZONE CONDUITS C/W PULL STRING PROVIDED BY ELECTRICAL CONTRACTOR.
- N-4 ELECTRICAL CONTRACTOR TO PROVIDE DOOR OPERATOR INTERFACE DEVICES FOR ACCESSIBLE DOOR OPERATORS TO PREVENT AUTOMATIC DOOR OPERATION WHILE THE ELECTRIC STRIKE IS ENERGIZED. REFER TO DETAIL NO. 2 ON DRAWING NO. ES-1.2 FOR ADDITIONAL REQUIREMENTS.

CONDUIT RACEWAYS C/W PULLSTRING AND PULLBOXES PROVIDED BY ELECTRICAL CONTRACTOR

ES-1.1 SCALE: NTS

CARD ACCESS CONTROL SYSTEM ROUGH-IN DETAILS





DRAWING NOTES

N-1) PHOTOS ILLUSTRATE EXISTING SECURITY ACCESS CONTROL PANEL INSTALLATION AND ARE INCLUDED FOR REFERENCES PURPOSES ONLY.

DRAWING REFERENCES

- (1) EXISTING SECURITY BACKBOARD
- (2) EXISTING ACCESS CONTROL PANEL
- (3) EXISTING ACCESS CONTROL MODULE
- 4 EXISTING ACCESS CONTROL CONTINUOUS POWER SUPPLY

EXISTING ACCESS CONTROL SYSTEM PANEL ES-1.1 SCALE: NTS

LEGEND

- MANUAL PULL STATION PROVIDED BY ELECTRICAL CONTRACTOR.
- CARD READER. CONNECT TO ACCESS CONTROL SYSTEM.
- DOOR CONTACT. CONNECT TO ACCESS CONTROL SYSTEM.
- ELECTRIC STRIKE. CONNECT TO ACCESS CONTROL SYSTEM.
- AUDIBLE ALARM. CONNECT TO ACCESS CONTROL SYSTEM.
- DOOR OPERATOR INTERFACE DEVICE PROVIDED BY ELECTRICAL

CCTV CAMERA SUITABLE FOR OUTDOOR APPLICATIONS C/W MOUNTING FISHEYE. 'CX' DENOTES CAMERA DESIGNATION.

- SUBSTITUTES ARE NOT PERMITTED FOR ALL SPECIFIED PRODUCTS.
- SHOP DRAWINGS ARE REQUIRED FOR ALL PRODUCTS SPECIFIED FOR THIS PROJECT INCLUDING BUT NOT LIMITED TO ACCESS CONTROL SYSTEM DEVICES, ACCESSORIES, ETC..
- SECURITY CONTRACTOR AND ALL SUBCONTRACTORS MUST READ AND COMPLY WITH SECURITY SPECIFICATIONS (ISSUED AS A SEPARATE DOCUMENT).
- INSTALLATION AND MANUFACTURING OF ALL DEVICES AND SERVICES MUST COMPLY WITH ALL LOCAL SEISMIC RESTRAINT REQUIREMENTS.
- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS AND ELECTRICAL DRAWINGS FOR DIMENSIONS, MOUNTING HEIGHTS, CONSTRUCTION DETAILS, FINISHES AND COLOURS.
- AS BUILT DRAWING REQUIREMENTS:
- AS BUILT DRAWINGS TO BE PREPARED AND SUBMITTED IN
- AUTOCAD FORMAT BY THE SECURITY CONTRACTOR. ALL DEMOLITION SCOPES OF WORK ARE TO BE ERASED FROM AS BUILT DRAWINGS.
- ROUTING OF MAIN CABLING RUNS, BACKBONE CABLES, ETC., TO BE SHOWN ON AS BUILT DRAWINGS. REFER TO DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- WORK IN UNOCCUPIED AREAS OF THE FACILITY MUST BE COMPLETED BETWEEN 7AM AND 4PM DURING THE WEEK, MONDAY-FRIDAY. REMOVAL AND REINSTALLATION OF CEILING TILES TO ACCOMMODATE ALL SCOPES OF WORK SHALL BE PROVIDED BY THE SECURITY CONTRACTOR.
- REMOVAL AND REINSTALLATION OF CEILING TILES IN OCCUPIED AREAS TO ACCOMMODATE ALL SCOPES OF WORK SHALL BE PROVIDED BY THE SECURITY CONTRACTOR.
- THE CONTRACTOR MUST ENSURE THAT FIRESTOPPING AND SEALANTS ARE INSTALLED AT NEW FLOOR OPENINGS IN ACCORDANCE WITH THE CURRENT FIRE CODE REQUIREMENTS AND TO PREVENT WATER LEAKAGE TO THE FLOORS BELOW. AREAS PRONE TO WATER LEAKAGE ARE TO BE WATERPROOFED PRIOR TO INSTALLATION OF THE FLOOR COVERINGS. THE CONSULTANT WILL APPROVE THE PROPOSED WATERPROOFING METHOD PRIOR TO PROCEEDING WITH CONSTRUCTION.
- PROVIDE A REPORT FROM THE MANUFACTURER FOR ALL FIRESTOP ASSEMBLIES PROVIDED AS PART OF THIS SCOPE OF WORK. REPORT MUST DETAIL COMPLIANCE WITH ONTARIO BUILDING CODE.

DRAWING LIST

ES-1.1 - SECURITY LEGEND AND DETAILS

ES-2.1 - SECURITY PLAN - GROUND FLOOR

ES-2.2 - SECURITY PLAN - SECOND FLOOR

ES-5.2 - SECURITY DEMOLITION PLAN - SECOND FLOOR

ES-11.1 - ACCESS CONTROL SYSTEM RISER DIAGRAM

ES-1.2 - SECURITY DETAILS



NOTES

KEY PLAN

HCC ENGINEERING

DESIGN AND TECHNOLOGY SERVICES GROUP

HCC ENGINEERING LIMITED 40 EGLINTON AVENUE EAST, SUITE 600 TORONTO, ONTARIO, M4P 3A2 Tel: (416) 932-2423

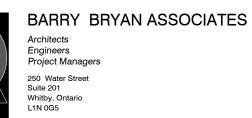
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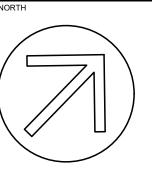


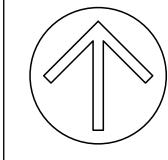
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SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL

3190 MAVIS ROAD, MISSISSAUGA, ON.

SECURITY LEGEND AND DETAILS





HDC CHECKED BY

23073 PURCHASING DOCUMENT NUMBER

AS SHOWN AUGUST, 2023 22701

ES-1.1

MOTION DETECTOR REQUEST TO EXIT. CONNECT TO ACCESS CONTROL

POWER HINGE. CONNECT TO ACCESS CONTROL SYSTEM.

CONTRACTOR. CONNECT TO ACCESS CONTROL SYSTEM AND DOOR

- INDICATES EXISTING DEVICE TO REMAIN
- INDICATES EXISTING DEVICE TO BE REMOVED. REMOVE WIRE BACK TO
- DENOTES EXISTING DEVICE IN RELOCATED POSITION. PROVIDE WIRE BACK TO

CCTV CAMERA SUITABLE FOR INDOOR APPLICATIONS C/W MOUNTING HARDWARE AND BRACKETS. 'PTZ' DENOTES PAN TILT ZOOM. 'FE' DENOTES FISHEYE. 'CX' DENOTES CAMERA DESIGNATION.

HARDWARE AND BRACKETS. 'PTZ' DENOTES PAN TILT ZOOM. 'FE' DENOTES

SECURITY CONTRACTOR AND THE THE SECURITY CONTRACTOR'S TECHNICIANS MUST BE CERTIFIED INSTALLERS OF THE SOFTWARE/HARDWARE COMPONENTS SPECIFIED FOR THIS PROJECT.

ACCESS CONTROL SYSTEM PLATFORM - AMAG SYMMETRY SYSTEM.

BASE BUILDING ACCESS CONTROL CONTRACTOR OHM SECURITY LTD

905-812-9636 EX 102

MAURICE DAOUST MOE@HOMSECURITY.COM

KEY PLAN

NOTES

ACCESS CONTROL SYSTEM PANEL ASSIGNMENT SCHEDULE

ACP ASSIGNMENT	ACM DOOR ASSIGNMENT GROUP	DOOR CONSTRUCTION NUMBER	INPUT 1	INPUT 2	PRIMARY OUTPUT	SECONDARY OUTPUT	WIEGAND	RS485	AUX	REMARKS
	1	EXISTING DEVICE								
	2	EXISTING DEVICE								
	3	EXISTING DEVICE								
	4	EXISTING DEVICE								
	5	EXISTING DEVICE								
ACM-2-1	6	EXISTING DEVICE								
	7	EXISTING DEVICE								
	8	EXISTING DEVICE								
	1	EXISTING DEVICE								
	2	DOOR #201 DOUBLE	DC	MD	ES	Н	CR			ADO interface device is powered from power supply PS-2
	3	DOOK #201 DOOBLE	DC							
	4	DOOR #202B	DC	MD	ES	Н	CR			
	5	DOOR #204B	DC	MD	ES	Н	CR			
ACM-2-2	6	DOOR #205A	DC	MD	ES	Н	CR			
	7	DOOR #205	DC	MD	ES	Н	CR			
	8	DOOR #201K DOUBLE	DC	MD	ES	Н	CR			

DRAWING NOTES

N-1) UPDATE FIRMWARE AND PROVIDE REQUIRED SOFTWARE TO ACCOMMODATE ALL DEVICES AND TECHNOLOGIES (I.E. WEIGAND) PROVIDED AS PART OF THIS SCOPE OF

Door Operator

CARD READER SUMMARY SCHEDULE PER ACCESS CONTROL PANEL

	QUANTITY OF WIEGAN READERS		
ACP ASSIGNMENT			TOTAL (BY ACP)
	EXISTING	NEW	
ACM-2-1	8	0	}
ACM-2-2	1	5	

CARD READER SUMMARY SCHEDULE IS FOR REFERENCE ONLY. CARD READER REQUIREMENTS INCLUDING TECHNOLOGY, ACCESS CONTROL SYSTEM PANEL ASSIGNMENT AND QUANTITY OF CARD READERS SHALL BE BASED ON ACCESS CONTROL SYSTEM PANEL ASSIGNMENT SCHEDULE, FLOOR PLANS AND DRAWING NO. ES-11.1.

DEVICE LEGEND:

- CP CONTROL PANEL
- CR CARD READER
 DC DOOR CONTACT
 ES ELECTRIC STRIKE
 GB GLASS BREAK SENSOR
- H HORN / AUDIBLE ALARM
- MD REQUEST TO EXIT MOTION DETECTOR
- OH OVERHEAD DOOR CONTACT INT AUTOMATIC DOOR OPERATOR INTERFACE

HCC ENGINEERING DESIGN AND TECHNOLOGY SERVICES GROUP

HCC ENGINEERING LIMITED
40 EGLINTON AVENUE EAST, SUITE 600
TORONTO, ONTARIO, M4P 3A2 Tel: (416) 932-2423

ISSUES AND REVISION

No.	ISSUE OR REVISION TO DRAWING	DATE	BY
2	ISSUED FOR 99% REVIEW	JAN12/24	KZ
3	ISSUED FOR TENDER	FEB27/24	KZ

Region of Peel

BRAMPTON, ONTARIO TEL: (905) 791-7800





Engineers Project Managers 250 Water Street Suite 201 Whitby, Ontario Tel: (905) 666-5252

REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON.

CONSTRUCTION NORTH

CHECKED BY AS SHOWN AUGUST, 2023 CONSULTANT PROJECT NUMBER REGION OF PEEL PROJECT NUMBER 23073

PURCHASING DOCUMENT NUMBER: RAWING NUMBER

ES-1.2 SCALE: NTS

Power

PANEL

CONSTANT POWER FROM DOOR

OPERATOR OR ACCESS CONTROL

Electric Strike

(If Mag lock used, wire to

Terminals 4 & 5)

Wire MOV

(supplied) directly to strike

or magnet

H.D. COHEN

Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

SECOND FLOOR EXPANSION

DRAWING TITLE

SECURITY DETAILS



ES-1.2

RL1 RL2 DOR DOO DOR 2 1 CX-12 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 || OOOOOOOOOOOOOO||***** 12 - 24 V AC/DC

•|||||

for Strike

ACCESS CONTROL SYSTEM PANEL ASSIGNMENT SCHEDULE

INTERIOR SWITCH (IN CIRCUIT ONLY WHILE LOCK RELAY IS ACTIVE)

INTERIOR SWITCH (IN CIRCUIT ONLY WHILE LOCK RELAY IS ACTIVE)

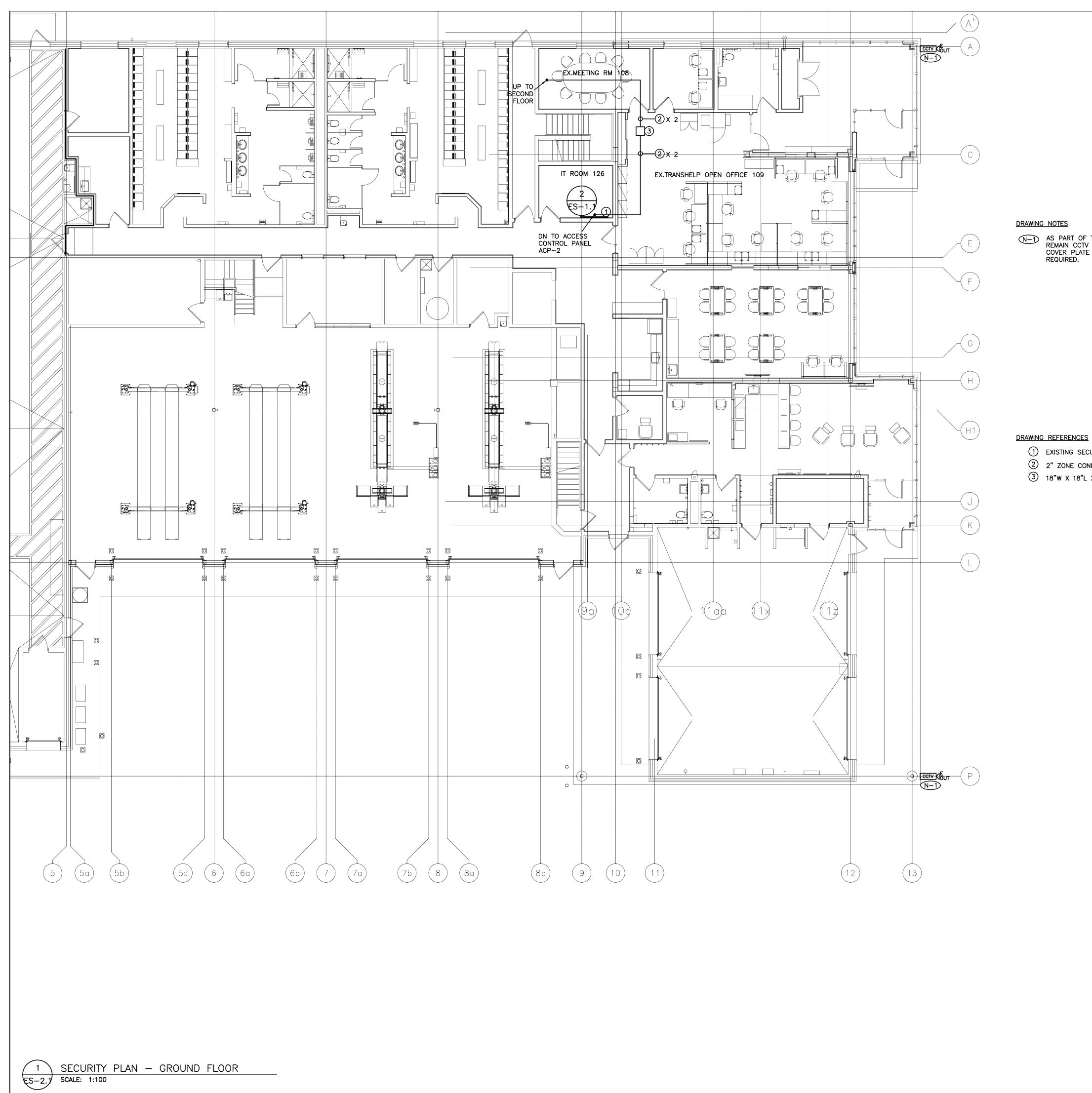
DRAWING NOTES

- N-1) SCHEMATIC IS DIAGRAMMATIC ONLY. PROVIDE QUANTITY OF INTERFACE DEVICES, HARDWARE, DEVICES, POWER CIRCUITS, CONDUIT, WIRE, SECURITY CABLES, ETC, TO ENSURE A FULLY OPERATIONAL SECURITY SYSTEM. REFER TO ROOM LAYOUTS AND FLOOR PLANS FOR ADDITIONAL REQUIREMENTS.
- N-2 PROVIDE CONDUITS AND WIRES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- N-3 ALL CONDUITS TO BE EMT. EMT COUPLING AND CONNECTORS SHALL BE T&B STEEL, SET SCREW TYPE. PROVIDE SPARE PULLSTRING IN ALL CONDUITS FOR FUTURE USE.
- N-4 ELECTRICAL CONTRACTOR SHALL NOT USE PULLBOXES AS SUBSTITUTES FOR 90° BENDS. 12" X 12" X 6" PULLBOXES C/W TYPE SNAKE EYE SECURITY SCREWS SHALL BE PROVIDED ON THE BASIS OF NOT MORE THAN TWO (2) RIGHT ANGLE BENDS OR NOT MORE THAN 100' IN STRAIGHT RUNS BETWEEN BOXES.
- N-5 CONTACT SECURITY MANUFACTURER FOR ADDITIONAL WIRE, CONDUIT, PULLBOX AND POWER REQUIREMENTS OVER AND ABOVE THOSE SHOWN ON DRAWING.
- N-6 PROVIDE DEDICATED FLOOR AND WALL PENETRATIONS. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY SCAN RESULTS. SCANS MUST BE REVIEWED AND APPROVED BY CONSULTANTS PRIOR TO CORE DRILLING.

DRAWING REFERENCES

 DOOR OPERATOR INTERFACE DEVICE - CAMDEN DOOR CONTROLS CX-12 SWITCHING NETWORK AND BI-DIRECTIONAL DOOR SEQUENCER

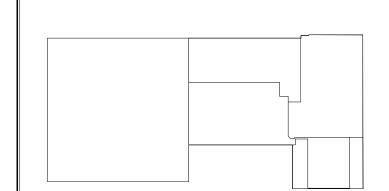
DOOR OPERATOR INTERFACE SCHEMATIC ES-1.2 SCALE: NTS



N-1 AS PART OF THIS SCOPE OF WORK DISCONNECT, REMOVE, STORE, REINSTALL AND RECONNECT EXISTING TO REMAIN CCTV CAMERA INDICATED TO ACCOMMODATE EXTERIOR WALL REWORK BY GENERAL CONTRACTOR. PROVIDE COVER PLATE TO MAKE SAFE EXISTING TO REMAIN CCTV CAMERA CABLES. EXTEND CONDUIT AND CABLE AS

- 1) EXISTING SECURITY BACKBOARD
- 2" ZONE CONDUIT C/W BUSHINGS AND RUBBERIZED GROMMETS FOR SECURITY CONTRACTOR'S USE.
- 3 18"W X 18"L X 6"D CEILING MOUNTED PULL BOX PROVIDED BY ELECTRICAL CONTRACTOR





NOTES

HCC ENGINEERING DESIGN AND TECHNOLOGY SERVICES GROUP

HCC ENGINEERING LIMITED
40 EGLINTON AVENUE EAST, SUITE 600
TORONTO, ONTARIO, M4P 3A2
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Region of Peel

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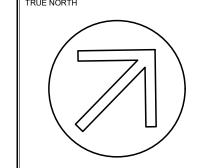
BARRY BRYAN ASSOCIATES Architects Engineers Project Managers 250 Water Street Suite 201 Whitby, Ontario L1N 0G5

Tel: (905) 666-5252 Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL

3190 MAVIS ROAD, MISSISSAUGA, ON.

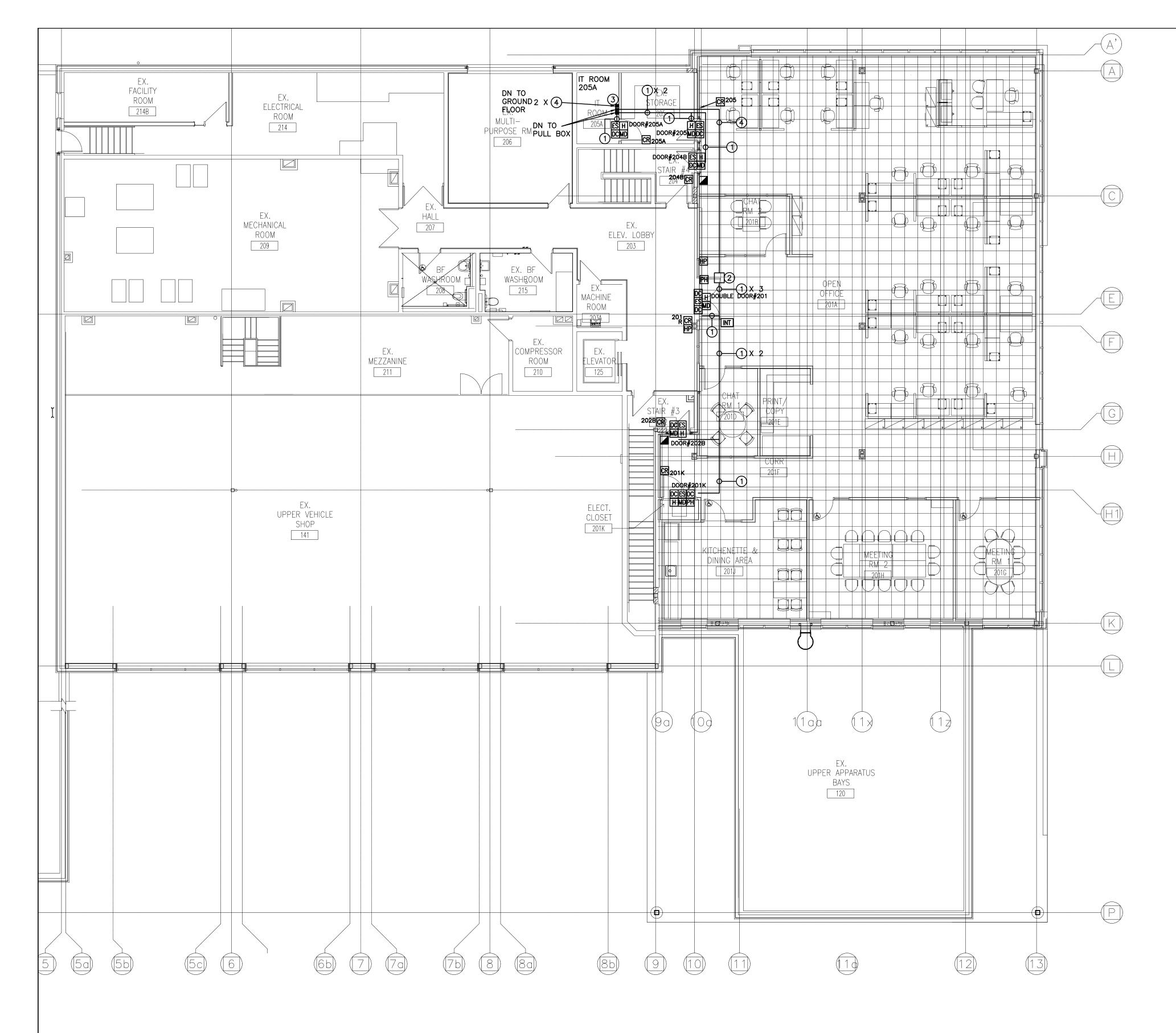
SECURITY PLAN **GROUND FLOOR**



1:100

AUGUST, 2023 23073 22701

ES-2.1



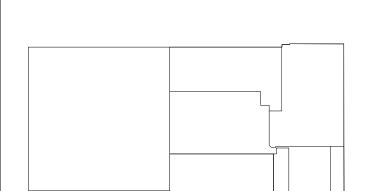
DRAWING NOTES

- N-1 EXACT LOCATION OF ALL DEVICES AND RESPECTIVE HEIGHTS TO BE COORDINATED ON SITE WITH ELECTRICAL CONTRACTOR.
- N-2 ALL CONDUITS PROVIDED BY ELECTRICAL CONTRACTOR SHALL BE C/W PULLSTRING. CONDUITS SHALL BE C/W BUSHINGS AND RUBBERIZED GROMMETS, ALL CONDUITS TO BE EMT. EMT COUPLING AND CONNECTORS SHALL BE T&B STEEL, SET SCREW TYPE.

DRAWING REFERENCES

- 1 TYPICAL ZONE CONDUITS PROVIDED BY ELECTRICAL CONTRACTOR FOR SECURITY CONTRACTOR'S USE. REFER TO DETAIL NO. 1 ON DRAWING NO. ES-1.1 AND TO DRAWING NO. ES-11.1 FOR ADDITIONAL REQUIREMENTS.
- 2 18"W X 18"L X 6"D CEILING MOUNTED PULL BOX PROVIDED BY ELECTRICAL
- 3 18"W X 18"L X 6"D WALL MOUNTED PULL BOX PROVIDED BY ELECTRICAL CONTRACTOR
- 4 2" ZONE CONDUIT PROVIDED BY ELECTRICAL CONTRACTOR. REFER TO DRAWING NO. ES-11.1 FOR ADDITIONAL REQUIREMENTS.

KEY PLAN



NOTES

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DESIGN AND TECHNOLOGY SERVICES GROUP
HCC ENGINEERING LIMITED

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Region of Peel

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ON OF OR OHUM



L1N 0G5

Tel: (905) 666-5252

Fax: (905) 666-5256

e-mail: bba@bba-archeng.com

e-mail: bba@bba-arc

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON.

VING TITLE

SECURITY PLAN SECOND FLOOR



DRAWN BY
KZ

SCALE
1:100

CONSULTANT PROJECT NUMBER

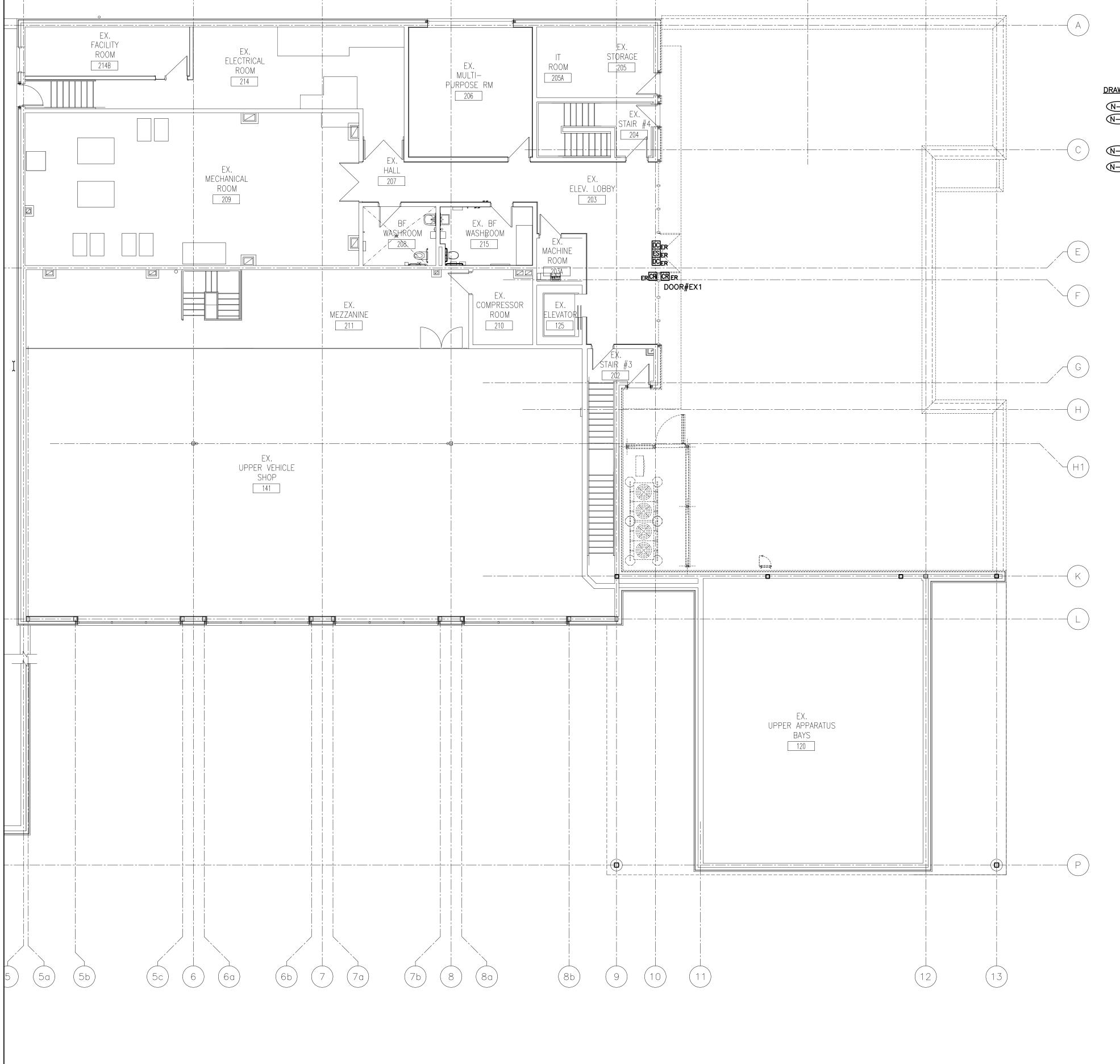
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REGION OF PEEL PROJECT NUMBER

22701

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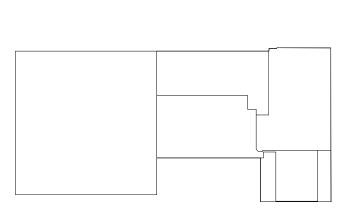
ES-2.2

1 SECURITY PLAN — SECOND FLOOR ES-2.2 SCALE: 1:100



DRAWING NOTES

- N-1) COORDINATE REMOVAL OF EXISTING DEVICES WITH ELECTRICAL CONTRACTOR.
- N-2 REMOVE CAREFULLY ALL SECURITY DOOR DEVICES (CARD READER, ELECTRIC STRIKE, AUDIBLE ALARM AND DOOR CONTACTS) FROM BOTH SIDES OF THE DOUBLE DOOR AND RETURN TO AGENCY. RE-USE/RE-INSTALL DEVICES ON THE NEW DOUBLE DOOR FROM ELEVATOR LOBBY SIDE. SURPLUS DEVICES TO BE RETAINED BY THE AGENCY.
- N-3 WIRES AND CONDUITS TO BE REMOVED END TO END.
- N-4) WORKS NOT DESIGNATED AND NOT SHOWN IN THE DEMOLITION DRAWING SHALL REMAIN AND BE PROTECTED FROM DAMAGE.



KEY PLAN

NOTES

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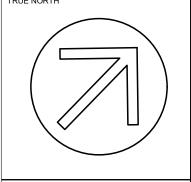
SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL

Architects Engineers Project Managers

250 Water Street Suite 201 Whitby, Ontario L1N 0G5

3190 MAVIS ROAD, MISSISSAUGA, ON.

SECURITY DEMOLITION PLAN SECOND FLOOR



1:100

23073

AUGUST, 2023 22701

PURCHASING DOCUMENT NUMBER: ES-5.2

SECURITY DEMOLITION PLAN - SECOND FLOOR ES-5.2 SCALE: 1:100

KEY PLAN

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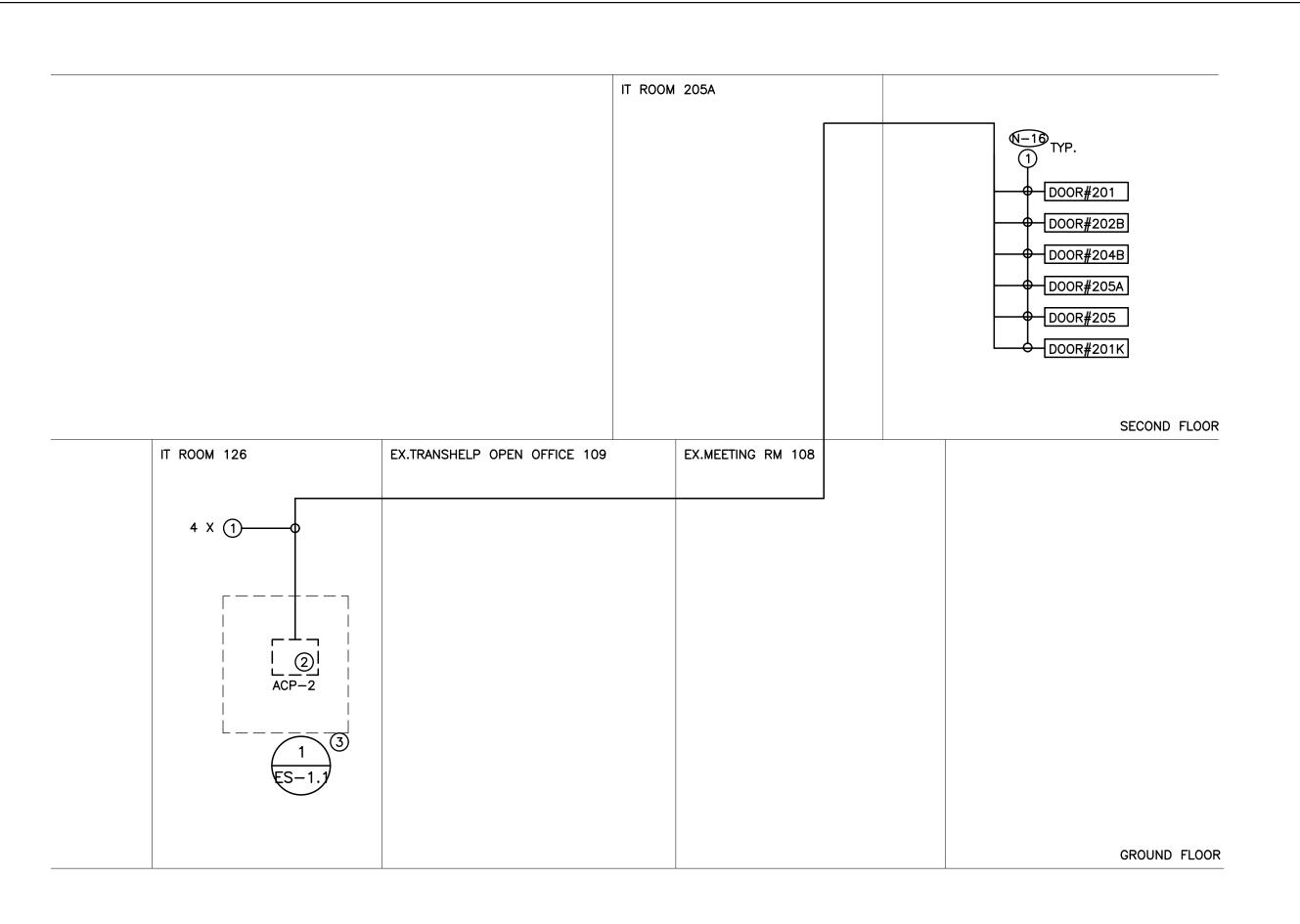
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TORONTO, ONTARIO, M4P 3A2
Tel: (416) 932-2423

DATE BY

JAN12/24 KZ

FEB27/24 KZ



DOOR#201 HAS TWO (2) EXISTING CARD READERS. ONE FROM LOBBY SIDE AND ONE FROM PATIO SIDE, WITH AUTOMATIC DOOR OPERATORS (ADO'S) ON BOTH SIDES. SECURITY CONTRACTOR WILL REMOVE CARD READERS AND ADO'S FROM BOTH SIDES BEFORE START OF CONSTRUCTION. ONE CARD READER AND ADO WILL BE RE—INSTALLED ONTO NEW DOOR (LOBBY SIDE) AND REMAINING ADO AND CARD READER WILL BE RETURNED TO THE AGENCY.

DRAWING NOTES

- N-1 RISER IS DIAGRAMMATIC ONLY. PROVIDE QUANTITY OF POWER CIRCUITS, HARDWARE, MODULES, FIELD DEVICES, ACCESSORIES, WIRE, SECURITY CABLES, POWER SUPPLIES, BATTERIES, SOFTWARE, TESTING, LICENSES, PROGRAMMING, COMMISSIONING, ETC., TO ENSURE A FULLY OPERATIONAL SECURITY SYSTEM. REFER TO FLOOR PLANS FOR ADDITIONAL REQUIREMENTS.
- N-2 REFER TO FLOOR PLAN DRAWINGS FOR DEVICE QUANTITY AND LOCATIONS.
- N-3 PROVIDE WIRES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MINIMUM WIRE REQUIREMENTS AS DETAILED ON RISER.
- N-4) ALL FIELD DEVICE WIRING TO BE PULLED AS HOMERUNS TO RESPECTIVE ACCESS CONTROL PANELS.
- N-5 UPDATE EXISTING CUSTOMER DATABASE AND ACTIVE GRAPHIC MAPS.
- N-6 CONTACT SECURITY MANUFACTURER FOR ADDITIONAL WIRE, CONDUIT, PULLBOX AND POWER REQUIREMENTS OVER AND ABOVE THOSE SHOWN ON DRAWING.
- N-7 PROVIDE DEDICATED FLOOR AND WALL PENETRATIONS. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY SCAN RESULTS. SCANS MUST BE REVIEWED AND APPROVED BY STRUCTURAL ENGINEER PRIOR TO CORE DRILLING.
- N-8) SECURITY CONTRACTOR TO PREPARE DOOR FRAME AND INSTALL ELECTRIC STRIKE
- N-9 ALL ELECTRIC STRIKE SHALL BE PROVIDED AND INSTALLED BY SECURITY CONTRACTOR.
- $\sqrt{-10}$ NOT USED.
- SUPPLY CADDY HANGERS, THREADED ROD EXTENSIONS, CABLE SUPPORTS, TIE—WRAPS AND ANY OTHER MISCELLANEOUS HARDWARE REQUIRED TO SUPPORT CABLING WHERE CONDUIT HAS NOT BEEN SPECIFIED. ANCHORS FOR CADDY HANGERS MUST NOT BE DRILLED INTO POST TENSIONED BEAMS UNDER ANY CIRCUMSTANCES. ALL CABLING MUST BE RUN PARALLEL TO BUILDING LINES AND MUST NOT BLOCK ACCESS TO HVAC EQUIPMENT, PULL BOXES. ETC.
- NOT USED.
- $\sqrt{-13}$ NOT USED.
- AS PART OF THIS SCOPE OF WORK PROVIDE ACTIVE GRAPHIC MAPS C/W ALL REQUIRED SOFTWARE AND LICENSES AND LOAD ONTO EXISTING CLIENT WORKSTATIONS. ACTIVE GRAPHIC DISPLAYS SHALL INCLUDE FULL BUILDOUT FLOOR PLANS (COLOUR GENERATED) GRAPHICS DETAILING THE FOLLOWING REQUIREMENTS:
 - ALL ACCESS CONTROL SYSTEM DEVICES AND STATUS OF EACH DEVICE
 - DISPLAY ALL SECURITY SYSTEM ALARMS, SUPERVISORY TROUBLES AND SECURITY VIOLATIONS.

PROVIDE ALL SOFTWARE, PROGRAMMING, TESTING AND COMMISSIONING. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

- PROVIDE FIRMWARE UPGRADE FOR ALL EXISTING ACCESS CONTROL PANELS.
- PROVIDE A BELDEN 658GFS BANANA PEEL CABLE FOR EACH AND EVERY DOOR. PROVIDE ADDITIONAL CABLES AND / OR OUTDOOR RATED CABLES AS REQUIRED / AS SPECIFIED.

DRAWING REFERENCES

1 ACCESS CONTROL SYSTEM WIRING PROVIDED AS PART OF THIS SCOPE OF WORK. REFER TO FLOOR PLANS FOR QUANTITY AND LOCATION OF ACCESS CONTROL DEVICES.

BELDEN 658GFS BANANA PEEL NO OVERALL JACKET COMPOSITE — LOCK POWER, CARD READER, DOOR CONTACT, REX APPLICATIONS

TYPICAL ACCESS CONTROL SYSTEM DEVICE WIRING
DOOR CONTACT - 2 PAIR #22AWG
MOTION DETECTOR - 1 X 3 PAIR #22AWG SHIELDED
ELECTRIC STRIKE - 2 PAIR #18AWG
POWER HINGE - 1 PAIR #18AWG
AUDIBLE ALARM - 1 PAIR #22AWG
CARD / PROXIMITY READER - 3 PAIR SHIELDED #22AWG
SHIELD PROXIMITY READER - 3 PAIR SHIELDED #22AWG

CARD / PROXIMITY READER — 3 PAIR SHIELDED #22AWG (OVERALL SHIELD) PLUS BELDEN 3107A 4 CONDUCTOR TWISTED PAIR OVER—ALL SHIELD
DOOR OPERATOR INTERFACE DEVICE — 3 PAIR SHIELDED #22AWG (OVERALL SHIELD)

- (2) EXISTING ACCESS CONTROL PANEL
- 3 EXISTING SECURITY BACKBOARD

DEVICE TYPE PROVIDED AS PART OF THIS SCOPE OF WORK	MANUFACTURER	SERIES / PART #	DRAWING SYMBOL / REFERENCE
MULTICLASS SE WIEGAND READER (BLACK)	HID	40NKS00000000 C/W IP65GSKT	CR
REQUEST TO EXIT DETECTOR C/W PIEZO BUZZER	KANTECH	TREX-XL	MD
PIEZO BUZZER 95DB	HONEYWELL	WAVE-2PD	H
ELECTRIC STRIKE N-8 N-9		PROVIDED BY SECURITY CONTRACTOR	ES
FACEPLATE		PROVIDED BY GENERAL CONTRACTOR	
ELECTRIC STRIKE LATCH GUARD		PROVIDED BY GENERAL CONTRACTOR	
ELECTRIC HINGE		PROVIDED BY GENERAL CONTRACTOR	
DOOR CONTACT - 1" DIAMETER	GE	1078	DC

SECURITY CONTRACTOR TO CONFIRM ACCESS CONTROL PANEL ASSIGNMENTS, INCLUDING CAPACITY PRIOR TO CONSTRUCTION.

ELECTRIC STRIKES TO BE PROGRAMMED AS FAIL—SECURED

ALL INTERIOR CABLES TO BE FT6 RATED, SUITABLE FOR INSTALLATION IN PLENUM CEILING SPACES.

ALL CABLES PULLED THROUGH EXTERIOR/OUTDOOR LOCATIONS MUST BE RATED FOR OUTDOOR USE.

REMOTE NETWORK/INTERNET ACCESS FOR VENDOR/MANUFACTURER WILL NOT BE PROVIDED. ALL PROGRAMING, CHANGES, UPDATES, ETC., MUST BE COMPLETED ON SITE DURING THE WEEK.

DENOTES NEW PROVIDED BY SECURITY CONTRACTOR

———— DENOTES EXISTING TO REMAIN

-* -* -* -* DENOTES EXISTING TO BE REMOVED BY SECURITY CONTRACTOR



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ISSUES AND REVISIONS

ISSUE OR REVISION TO DRAWING

ISSUED FOR 99% REVIEW

ISSUED FOR TENDER



PROJECT TITLE AND ADDRESS

CONSULTANT'S SEAL

BARRY BRYAN ASSOCIA

BARRY BRYAN ASSOCIATES

Architects
Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario

H.D. COHEN

Whitby, Ontario
L1N 0G5

Tel: (905) 666-5252

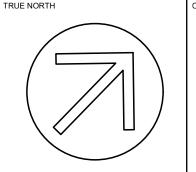
Fax: (905) 666-5256

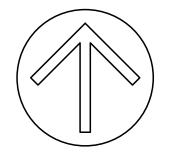
e-mail: bba@bba-archeng.com

SECOND FLOOR EXPANSION REGIONAL MUNICIPALITY OF PEEL 3190 MAVIS ROAD, MISSISSAUGA, ON.

ACCESS CONTROL SYSTE

ACCESS CONTROL SYSTEM RISER DIAGRAM





ONSTRUCTION NORTH

CHECKED BY
HDC

SCALE
NTS

CONSULTANT PROJECT NUMBER

23073

CHECKED BY
HDC

DATE
AUGUST, 2023

REGION OF PEEL PROJECT NUMBER

22701

PURCHASING DOCUMENT NUMBER:

ES-11.1

1 ACCESS CONTROL SYSTEM RISER DIAGRAM

SITE PHOTOGRAPHS - 3190 MAVIS ROAD PROJECT # 22701



Front Elevation of Existing Building



South Drive Aisle-1

Page **1** of **5**



South Drive Aisle-2



Existing Fuel Island on Site





Elevator lobby to 2nd Floor Patio

Page **3** of **5**



Double Door from Patio to Elevator Lobby



Second Floor Patio

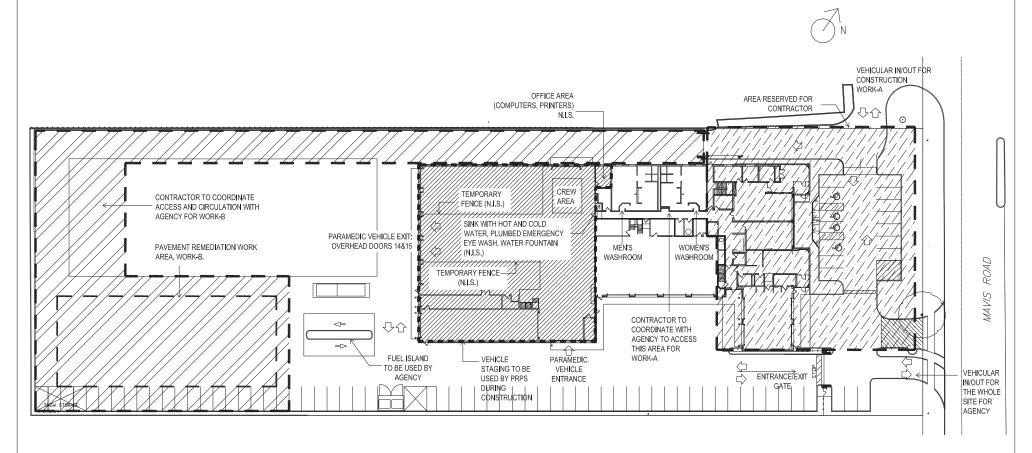
Page **4** of **5**



Ground Floor Existing Office

APPENDIX-8.5

ACCESS TO PRPS TEMPORARY OFFICE DURING CONSTRUCTION



SECOND FLOOR EXPANSION AND TEMPORARY PRPS LOCATION, 3190 MAVIS RD., MISSISSAUGA, ON REGIONAL MUNICIPALITY OF PEEL

PO Box 93310 RPO Yonge Mulock Newmarket, Ontario L3X 1A3 tel 905.787.9449 cfms.ca



Commissioning Plan

Project: 2nd Floor Expansion – Region of Peel **Address:** 3190 Mavis Road, Mississauga, Ontario

Revision 00 Date: November 2023

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Apper Apper Apper Apper	ndix A – Commissioning Progress Management (CPM) Form – Mechanical and A – Commissioning Progress Management (CPM) Form – Electrical and C – Pre-Functional Verification Forms and D – Point to Point Test Forms (To be developed by CFMS) and E – Functional Performance Test Forms (To be developed by CFMS) and E – Training Plan	

Revision Histor	Revision History						
Revision 0	November 2023	- First Draft					

1 INTRODUCTION

The Commissioning Plan document has been prepared for this project by CFMS Consulting Inc., hereby titled the Commissioning Authority (CxA), to provide Region of Peel, hereby titled Owner, with a detailed description of the Mechanical and Electrical commissioning process and the responsibilities of the commissioning team for the project.

The CxA will update this document throughout the commissioning process. The Commissioning Plan will be completed and delivered to the Owner with the Final Commissioning Report.

This final report will contain a summary of all commissioning activities as well as a history of all test results and will provide a valuable reference to Owner.

1.1 Purpose of The Commissioning Plan

This Commissioning Plan provides the details for the implementation of the commissioning process as related to this project.

- This Commissioning Plan outlines and describes the commissioning process that will be used for this project.
- This plan identifies the specific members of the commissioning team.
- This plan describes and assigns the roles and responsibilities of each member of the Commissioning Team.
- This Commissioning Plan includes specific details required to implement the various commissioning activities.

This plan does not include the details of the required testing procedures; rather, it outlines the scope of responsibilities for development and application of the testing. Testing procedures and assignment of responsibilities are clearly presented in the project specifications.

1.2 <u>Abbreviations & Definitions</u>

The following abbreviations may be used within this document:

A/E-	Architect and Design Engineers	FPT-	Functional Performance Test
CxA-	Commissioning Authority	GC-	General Contractor
CC-	Controls Contractor	MC-	Mechanical Contractor
CM-	Construction Manager	PC-	Pre-functional Checklist
Cx-	Commissioning	PM-	Project Manager
EC-	Electrical Contractor	Subs-	Subcontractors to General
ETC.	 Electrical Testing Contractor 	TAB-	Testing Adjusting Balancing
LC-	LEED Consultant		

2 COMMISSIONING OBJECTIVES AND GOALS

2.1 <u>Commissioning Scope</u>

Commissioning is a systematic quality control process to ensure all building systems perform interactively according to the design intent and the Owner's requirements. This is achieved by beginning in the design phase, documenting the design intent and Owner's requirements, and continuing through construction, acceptance and the warranty period with actual verification of performance.

All equipment and systems should be installed according to manufacturer's recommendations and the best practices and standards of the industry.

The overall objectives of the commissioning process are to:

- Ensure that applicable equipment and systems are installed properly and receive adequate operational checkout by installing contractors.
- Verify and document proper performance of equipment and systems.
- Ensure that O&M documentation left on site is complete.
- Ensure that the Owner's operating personnel are adequately trained.
- Assist the A/E in verifying that project turnover has been completed to the requirements of the contract documents.

The overall benefits of the commissioning process are to provide:

- Additional control over construction costs.
- Additional control over the construction schedule.
- Smooth turn over process.
- Building systems that work.
- Well trained operating staff.
- Reduced number of problems and complaints.

2.2 <u>Commissioned Systems</u>

The systems and assemblies included in the commissioning scope of work:

HVAC Systems:

- 1. VRF Fan Coil Units
 - o Condensers, evaporators, refrigerant piping, controls
- 2. Air Distribution Systems
 - Energy Recovery Ventilators, rooftop units, duct systems and air terminals
- 3. Supply and Exhaust Fans
 - Fans and duct systems
- 4. Radiant Panels
- 5. Electric Duct Heaters
- 6. Electric Heaters
- 7. Split AC Units

Plumbing Systems:

- 1. Domestic Hot Water System
- 2. Domestic Cold Water System

Electrical Systems:

- 1. Electrical Power Distribution System
- 2. Lighting Control System
 - Control devices, lighting controls
- 3. Sound Masking
- 4. Lightning Protection

Building Automation Systems:

- 1. Automatic Temperature Control System
 - Control devices, general building controls, energy management and system integration

3 THE COMMISSIONING TEAM AND RESPONSIBILITIES

3.1 The Commissioning Team

The commissioning team consists of representatives from the Owner, the A/E, the construction (contractors) team and the commissioning authority.

3.1.1 The Owner's Team

Owner's Rep Region of Peel

Ashwani Sinha ashwani.sinha@peelregion.ca

3.1.2 The Commissioning Authority (CxA)

Commissioning

CFMS Consulting Inc.

Agent

Jurij Dziuba jdziuba@cfms.ca

3.1.3 The Design Team

Architect Barry Bryan Associates

Ali Aurangozeb aaurangozeb@bba-archeng.com

Mechanical

Consultant

Giallonardo Engineering Inc.

Name e-mail

Electrical

Consultant

HCC Engineering

Name e-mail

3.1.4 The Construction Team

Construction

Manager

Company

Name e-mail

Mechanical

Contractor (MC)

Company

Name e-mail

Electrical

Contractor (EC)

Company

Name e-mail

2nd Floor Expansion – 3190 Mavis Rd. The Commissioning Team and Responsibilities The Commissioning Plan

TAB Contractor Company

Name e-mail

Controls Company

Contractor (CC)

Name e-mail

3.2 Commissioning Responsibilities

3.2.1 The Owner's Team

The Owner's responsibilities in the commissioning process shall include:

- Support the CxA and the commissioning process
- Attend commissioning meetings
- Coordinate the operations and maintenance staff involvement (field observations, testing, training)
- Organize personnel to be demonstrated and trained

3.2.2 The Commissioning Authorities (CxA)

The CxA's responsibilities in the commissioning process shall include:

- Prepare the commissioning plan
- Review the design activities of all commissioned systems prior to the end of design development
- Work with the A/E to integrate Contractors' commissioning responsibilities in the contract documents
- Review Contractor submittals for commissioned equipment
- Chair and minute all commissioning meetings and distribute minutes to the Cx Team
- Assist the Contractors to prepare any required test forms
- Assist the Contractors prepare the commissioning schedule
- Conduct periodic installation reviews and issue reports
- Receive and evaluate the Contractors' test forms and reports
- Catalogue and verify the Contractors' commissioning completion status for each commissioned system
- Review the O & M manuals for completeness and applicability
- Conduct performance tests and issue reports
- Maintain the Commissioning Issues and Benefits Log and update the Log with responses from the CM, A/E and other parties
- Coordinate and verify that the requirements for training are complete
- Submit a 'final' commissioning report
- Issue pertinent documentation required by LEED for certification
- Conduct seasonal performance tests and issuing reports

3.2.3 The Design (A/E) Team

The A/E team consists of the Architect, Mechanical, and Electrical Consultants. Their responsibilities in the commissioning process include:

- Provide the design intent documents
- Provide design intent clarification to CxA as needed.
- Provide written responses to design review comments
- Prepare the Contractors' M&E specifications, including testing and commissioning
- Provide support to ensure adherence to the design intent described in the contract documents
- Review and approve shop drawings
- Receive all test reports from the Contractors and confirm general compliance with the contract documents.
- Inspect the installations and verify that they are in general conformance with the contract documents, Codes and Standards.
- Participate in selected tests conducted by the Contractors and verifying that they
 are in general conformance with the contract documents
- Review performance testing results for general conformance with the contract documents
- Witness functional testing, if desired
- Receive commissioning progress reports from the CxA
- Review operating and maintenance manuals
- Review as-built documentation

3.2.4 The General Contractor (GC)

The GC has the overall responsibility for construction delivery. The GC will direct the Contractors to complete their responsibilities identified in the commissioning plan and the contract documents.

The GC shall provide the following services:

- Prepare and maintain the commissioning schedule
- Process shop drawings
- Coordinate with the Contractors
- Coordinate with the CxA
- Witness Contractor tests as identified in the contract documents
- Receive all test reports from the Contractors
- Issue completed Contractor test forms and reports to the A/E and the CxA
- Coordinate system demonstrations as identified in the contract documents
- Coordinate the training to be provided by the Contractors
- Coordinate systems turn-over
- Coordinate post construction testing

3.2.5 The Contractors Team

The MC and EC have various Sub-Contractors, systems manufacturers and suppliers reporting to them. Their responsibilities associated with the commissioning process include:

- Participate in regular construction meetings and commissioning meetings
- Submit shop drawings
- Assist in preparation of the construction schedule, including commissioning activities
- Prepare testing schedules
- Notify all parties of scheduled test dates
- Arrange for the CxA, the A/E and the Authorities to attend tests
- Conduct tests identified in the contract documents
- Complete test forms as identified in the contract documents
- Issue test forms and reports to the A/E and CxA on a regular basis
- Review the testing schedules and results at regular site meetings
- Coordinate between Contractors and Sub-Contractors
- Coordinate with the CxA
- Conduct dynamic testing as identified in the contract documents
- Prepare systems for the performance tests to be conducted by the CxA
- Participate in the functional testing of the building systems
- Prepare operating and maintenance (O&M) manuals
- Prepare training schedules
- Conduct operator training
- Prepare as-built drawings
- Conduct acceptance/demonstration tests as identified in the contract documents

3.2.6 The TAB Contractor

The TAB Contractor shall balance the mechanical systems to the requirements of the specification. The TAB Contractor will reference "approved" equipment shop drawings during the course of their work.

The TAB Contractor shall prepare a schedule for their work which will be included in the overall Cx schedule.

They shall be on site during the construction stage to review installations relating to air and water balancing. They shall co-ordinate with the MC, the CC and the CxA.

The TAB Contractor will issue site visit reports and preliminary balancing reports as deemed necessary to identify ongoing items of concern. They will submit a 'draft' final balancing report to the Mechanical Consultant and the CxA for their review and comment.

3.2.7 The Controls Contractor

The CC shall install, commission and demonstrate their system to the requirements of the contract documents.

2nd Floor Expansion – 3190 Mavis Rd. The Commissioning Team and Responsibilities

The CC will coordinate with the MC, the TAB Contractor, and the CxA, and prepare a schedule for this work which will be included in the overall Cx schedule.

When the BAS and miscellaneous controls have been commissioned, the CxA will utilize the BAS and portable instrumentation to conduct performance tests on the mechanical systems.

The CC will participate, where requested, in the performance tests and the seasonal performance tests conducted by the CxA.

4 COMMISSIONING PROCESS MANAGEMENT

The CxA is responsible for managing the M&E commissioning process and will report to the Owner.

The managerial process to be provided by the CxA will consist of:

4.1 <u>Commissioning Scoping Meeting and Regular Meetings</u>

A commissioning scoping meeting will be convened by the CxA at the initial stages of the construction phase. In this meeting, the CxA will review the Contractors commissioning process and responsibilities.

During the construction process, commissioning issues, scheduling and results will be discussed at the regular commissioning meetings held and minuted by the CxA.

Attendees at each meeting: The Commissioning Authority (CxA)

The General Contractor (GC)
The Mechanical Contractor (MC)
The Electrical Contractor (EC)

Attendees as required: The Owner's Representative

The Architect

The M&E Consultants (M&E)
The TAB Contractor (TAB)
The BAS Contractor (CC)

4.2 Documentation Management

The CxA will prepare the commissioning progress management (CPM) forms. The forms will identify the tests and the commissioning process required for the equipment and associated system.

The CxA will receive completed test forms and reports from the Contractors. Submitted documentation will be catalogued on the associated CPM form.

4.3 The Commissioning Schedule

The CxA will assist the GC, as required, in their preparation of the commissioning schedule. The schedule will identify equipment and systems and the various commissioning tasks. The schedule will include starting dates for key milestones such as 'permanent power' and 'clean building'.

4.4 Reporting

All reporting will be routed through the GC.

- 1. Documentation from the Contractors will include:
 - Completed test forms and reports.
 - Requests for information (RFI) or contract changes, as required.
 - Testing schedules and updates.
 - Training schedules.
 - Response to A/E and CxA reports.
 - Turnover documentation (O & M manuals & as-builts).
- 2. Documentation from the A/E will include:
 - Response to RFI's.
 - Issuance of 'change to contract' documentation, as required.
 - Installation review reports.
 - Comments with respect to CxA reports.
 - Reviews of turnover documentation.
- 3. Documentation from the CxA will include:
 - Comments on Contractors submittals.
 - Installation reviews to the A/E for comment.
 - Comments on test results to the A/E.
 - Reports on performance testing to the A/E and the Owner.
 - Comments on O & M manual completeness.
 - Comments on training completion.
 - Final commissioning report.

4.5 <u>Deficiencies and Dispute Mechanisms</u>

All deficiencies identified by the CxA are issued to the Owner and A/E for review. They, in turn, will issue the necessary instructions to the Contractors via the GC.

Should the CxA find that systems are not providing the design intent performance as set out in the contract documents, they will:

- Verify that the installation has been completed to the construction documentation.
- Verify that all test results meet the requirements of the construction documentation.
- Conduct re-testing with the Contractors where it is deemed necessary.

Should the system performance still not meet the design intent as set out in the contract documents, then the CxA will work with the A/E to rectify the problem.

5 THE CONSTRUCTION STAGE

The CxA will manage the MC & EC commissioning process during the construction stage. The intent is to verify that all system tests have been completed and the results have been verified.

The various phases of the construction stage are as follows:

5.1 Review of Contractor Submittals

The CxA will review shop drawings related to equipment and systems to be commissioned. This review will not take the place of the A/E submittal review process but will be done in parallel. The review will include:

- Verification that all required shop drawings have been submitted
- Verification that the shop drawing data meets the specification requirements
- Verification that all commissioning, operational and maintenance issues are identified

5.2 Test Forms

Static Test Forms

The CxA will provide test forms for the MC and EC. These will include test forms for each static test specified in the project specifications. Contractors shall complete these forms as tests are conducted and distribute copies to the CxA and A/E for review and record.

Pre-Functional Verification Forms

The CxA will provide Pre-Functional Verification forms for all equipment to be commissioned. Contractors shall complete these forms prior to functional performance testing and distribute copies to the CxA and A/E for review and record.

Functional Performance Test (FPT) Forms

The CxA will develop the Functional Performance Testing (FPT) forms for each of the systems / equipment to be commissioned. FPT forms will be based on the sequence of operation and test requirements. These forms will be reviewed by the commissioning team before being put to use.

When functional testing is scheduled, the CxA will fill in the FPT forms during the functional testing stage.

5.3 Commissioning Issues Log

The CxA will prepare and maintain a commissioning issues log, which will be used to record, track and close any issues, deficiencies, discrepancies identified during the commissioning process.

5.4 Static Testing

The Contractors will conduct static tests identified in the specifications, complete testing documentation and distribute copies through the GC. The tests will be witnessed by the Building Inspector, Plumbing Inspector, the A/E or the GC.

The intent of witnessing tests is to ensure compliance to Codes and Standards and the specification requirements. The CxA will record these test activities on the CPM forms and report on this progress on a regular basis. Any pending issues will be recorded on the 'issues log'.

The following is the expected breakdown of who will witness the various tests:

Mechanical TestsWitnessing AuthorityDrainage & VentsBuilding InspectorDomestic Water PipingBuilding InspectorHVAC PipingConstruction TeamNatural GasBuilding InspectorDuctworkConstruction TeamChemical TreatmentConstruction Team

Electrical TestsWitnessing AuthorityCable TestingConstruction TeamSwitchboardsConstruction TeamPanelboardsConstruction Team

5.5 Equipment and Installation Inspections

The CxA will conduct visual inspections of equipment and system installations and report on issues that affect commissioning and system performance.

5.6 Equipment Start-ups

When scheduled, the Contractors will begin the equipment start-up process. This process is completed by the Contractors to verify that the equipment has been installed correctly, that the equipment meets the specification requirements, and that the equipment operates correctly. When the process is completed, the equipment is turned off until the dynamic testing is scheduled.

The Contractors will complete start-up documentation and distribute copies through the GC.

The CxA will record these test activities on the CPM forms and report on this progress on a regular basis. Any pending issues will be recorded on the 'issues log'.

2nd Floor Expansion – 3190 Mavis Rd. The Construction Stage

Equipment start-up will include:

Mechanical Witnessing Authority

VRF Fan Coil Units

CxA / Mechanical Contractor
Energy Recovery Ventilator

CxA / Mechanical Contractor

<u>Plumbing</u> <u>Witnessing Authority</u>

None

ElectricalWitnessing AuthorityLighting Control SystemElectrical ContractorSound MaskingElectrical Contractor

5.7 Dynamic Testing

This stage consists of equipment manufacturers conducting functional testing and the Contractors operating equipment on a continual basis to conduct dynamic testing. This includes the Controls Contractor's commissioning of system controls. **This stage will begin when the building is clean enough to operate equipment continually.**

It is not necessary for all of the equipment manufacturer's mechanical tests to be witnessed. The completed systems will be performance tested when all the start-up and set-up tests have been completed.

The CxA will receive the completed test forms and document results on the CPM forms. Any pending issues will be recorded for action on the 'issues log'.

5.8 Air and Water Balancing of Mechanical Systems

The TAB Contractor will balance the mechanical systems to the requirements of the contract documents and equipment shop drawings. The CxA will work with this Contractor to review their: balancing methodology, schedule, co-ordination with trades, and reports.

5.9 <u>Preparation for the Performance Verification Stage</u>

When all static testing, equipment start-ups and dynamic testing have been completed, the Contractors will have prepared the building for the performance verification stage, to be conducted by the CxA.

THE PERFORMANCE VERIFICATION STAGE

The intent of this stage is to verify that the mechanical and electrical systems are operating to the specification and the design performance requirements, based on the building space loads and environmental conditions at the time.

This stage will require co-ordination and co-operation with all the commissioning team members. The CxA will co-ordinate with the Contractors to schedule the testing of each system and will be involved with the testing process as described in this section of the commissioning plan.

Performance verification of the various HVAC and lighting control systems will be conducted using the Functional Performance Testing forms. Functional testing will commence when the pre-functional checklists have been submitted by the Contractors and their subs confirming that the systems are ready for FPT. This also applies to Controls and TAB work. The systems will include:

6.1 Mechanical (HVAC and Plumbing) Systems

The MC and equipment manufacturers will demonstrate to the CxA that the various mechanical systems are operating to the requirements of the specification. The CxA will verify that results are recorded and that the design requirements are being achieved.

6.2 Building Automation System (BAS)

The CC shall demonstrate to the CxA the functional operation of the BAS. This will include point-to-point verification, all programs in regular and alarm modes, interlocks, lock-outs, alarm management, reporting management, and dynamic graphics. The BAS Contractor will also provide a complete set of their testing documentation for review by the CxA.

The CxA will conduct a review of all BAS graphics to ensure they are accurate and that all relevant BAS points have been mapped.

In addition, the CxA will conduct a complete (as contracted), and independent, test on the BAS and local controls when the CC's portion of the functional verification stage is complete. This will include verification the following:

<u>System</u>	% Tested by the CxA
VRF Fan Coil Units	100%
Energy Recovery Ventilator	100%
Radiant Heating Panels	100%
Electric Duct Heaters	100%
Fans	100%
Electric Heaters	100%

6.3 <u>Electrical Systems</u>

6.3.1 Medium and Low Voltage Switchgear, Normal and Emergency Distribution system, and Transformers

The electrical distribution systems will be tested by the Electrical Contractor and their testing contractor.

The CxA will receive test results and record the action in the commissioning progress forms.

6.3.2 Low Voltage Lighting Control System

The EC shall demonstrate to the CxA the operation of the following:

Low voltage (LV) lighting system

The Contractor and manufacturers will conduct their final tests. This will include coordination with other trades where systems are integrated.

The CxA will receive the Contractors' test forms, verify completion of the documentation, and record the action in the commissioning progress forms.

7 DOCUMENTATION REQUIREMENTS

7.1 Test Results and Reporting

The MC & EC shall submit test forms and reports to the GC, the A/E, and the CxA on a regular basis, as outlined in Sections 4, 6 & 7 of the commissioning plan.

7.2 <u>Systems Manual / Operating and Maintenance Manuals</u>

The Contractors will prepare the O & M manuals as identified in the contract documents. The CxA will receive these manuals at least four (4) weeks prior to the substantial performance date and will conduct a detailed review, along with the M&E Consultants, to ensure all specification requirements have been provided.

The final manuals should be issued at least two (2) weeks prior to the start date of training.

7.3 As-built Record Drawings

The requirements for as-built record drawings have been identified in the contract documents. The methodology for quality control during the preparation of these documents must be followed.

The general intent is to have the as-built construction drawings available at the substantial performance date. They must be completed and approved by the A/E prior to total completion.

7.4 Commissioning Record

The CxA will compile, organize and index the commissioning plan, commissioning data, progress reports, issues log and commissioning reports (including the final report) in binders, to be delivered to the Owner. Some documentation will only be available for turnover during the post construction (occupancy) stage.

8 TRAINING REQUIREMENTS

Training the building's facilities staff in the correct operation and maintenance of the various mechanical and electrical systems is an essential component of the commissioning process. The Owner's facilities personnel are an essential part in the process of delivering the design intent conditions as set out in the contract documents throughout the new building and protecting the life expectancy of the equipment. To achieve the necessary level of training, the CxA will co-ordinate the training. A detailed training plan is included in the Appendices.

The training will be provided by the Contractors and manufacturers.

8.1 Contractors and Manufacturers Training

The training to be provided by the Contractors and manufacturers has been detailed in the various specification sections.

The CxA will co-ordinate with the facility staff to develop an understanding of their current skills and training requirements. These requirements will be addressed in the training sessions.

The schedule will address the facility staff requirements and the Contractor's specification responsibilities. The schedule shall be prepared at least two (2) weeks prior to the starting date for training and issued for review.

The CxA will co-ordinate with the Contractors and manufacturers to develop the agenda for each training session and ensure presentations are professional.

The Contractors and manufacturers training sessions will take place at the equipment. Each trainer will cover all aspects of operation and maintenance. The operating and maintenance manuals shall be made available at these sessions.

Training will be provided for the following systems and equipment to ensure all aspects of operation and maintenance are covered:

Mechanical

- General Mechanical Walkthrough
- VRF Fan Coil Units
- Split AC Unit
- Energy Recovery Ventilator
- Fans
- Building Automation System

Electrical

- General Electrical Walkthrough
- Lighting Control System
- Sound Masking

9 POST CONSTRUCTION COMMISSIONING

The post construction commissioning process normally has three goals:

- 1. To verify that the building systems continue to provide the design intent performance during the four seasons and under building load conditions.
- 2. To verify that any warranty repairs meet the requirements of the contract documents.
- 3. To review space operations and develop a plan to resolve outstanding issues.

To achieve these goals the CxA will implement the following post construction commissioning process.

9.1 <u>Summer and Winter Mechanical Systems Performance Testing</u>

The CxA will verify that mechanical systems are continuing to provide the design intent performance, in the season opposite to the one used during the initial performance testing. The CxA will issue a report at the completion of this testing process, which will also include for any outstanding commissioning deficiencies from the initial performance testing.

9.2 Performance Testing Final Report

At the end of the first year of operation the CxA will complete the final performance testing report. This report will include the results of the testing process, identification of any non-conformance issues and any recommendations that they have provided.

9.3 Post Construction Commissioning Schedule

The post construction commissioning process will begin when substantial completion has been provided and building areas are occupied. The CxA will continue to provide the services identified in the Performance Verification Phase, Documentation Phase, and Training Phase, if the services have not been completed due to circumstances beyond their control.

10 TOTAL COMPLETION EVALUATION

Prior to the end of the warranty period, which is one year after substantial completion, the CxA will have completed this commissioning process. They will compile all of the test forms, commissioning progress forms, reports, and recommendations into an 'indexed' commissioning record.

The Final Fundamental Commissioning and Verification report will include the following:

- Executive summary of the commissioning process and results, system deficiencies identified, resolutions achieved and outstanding issues
- Project directory
- Commissioning process overview
- Design review log
- · List of systems commissioned
- Installation verification checklists
- Functional performance tests
- Issues log, detailing open and closed items

<End of Plan>

Appendix A

Commissioning Progress Management (CPM) Form - Mechanical

OMMISSIONING PROGRESS MANAGEMENT	(CPM) FORM - MEC	HANICAL																				CF	TING
ROJECT: 2nd Floor Expansion - 3190 Mavis Rd.																					Nov 21,	2023	_
				D							1										_	_	<u> </u>
					Cocument Review Static Testing Installation Review Piping / Ductwork Piping / Ductwo					Functional Performance Testing								Turnover Post-Construction					
				Revie CF	ew by MS	Press	ping / Di sure Te: Recei	st Repor	ts leaning	nent red	Instal Inspe		NO re	ed st Form	Bala	ncing	or Point	plete	plete		sgu	ance	1
System / Equipment	Tag Number	Location	Area Served	IFC Spec/Dwgs	Shop Drawings	Domestic HW/CW/R	Building Heating & Cooling	Refrigeration	HVAC Duct Pipe Flushing & C	Report Receiv Chemical Treati Report Receiv	CFMS Reports	Contractor Response	Permanent Power	Report Receiver Pre-Functional Ter	Air	Water	Controls Contract	Verification Com	Procedure Comp	Training	As Built Drawi	Winter Perform Testing Summer Perform	Testing
Energy Recovery Ventilator																							
Energy Recovery Ventilator	ERV-1	Roof	Addition - Outside Air to VRF Fan Coils	1																			_
VRF Fan Coil System																							+
Condensing Unit	HP-1	Roof	VRF Fan Coil Units	1																			7
Evaporator Unit	AC-1	Open Office 201A	Meeting Room 2 - 201H	1																	++	\dashv	+
Evaporator Unit	AC-2	Open Office 201A	Meeting Room 1 - 201G	1										1	1		_		-	1	++	+	+
Evaporator Unit	AC-3	Open Office 201A	Open Office 201A	1																		+	_
Evaporator Unit	AC-4	Collab Space 201C	Collab Space 201C	1																			\exists
Evaporator Unit	AC-5	Kitchenette 201J	Kitchenette 201J	1																		+	\dashv
Split AC Unit																							
Condensing Unit	CU-1	Roof	IT Room 205A	1																	\blacksquare		_
Evaporator Unit	AC-6	IT Room 205A	IT Room 205A	1																		+	\dashv
Radiant Panels																							
Radiant Panel	RH-1	Collab Space 201C	Collab Space 201C	1																			
Radiant Panel	RH-2	Open Office 201A	Open Office 201A	1																			
Radiant Panel	RH-3	Meeting Room 1 - 201G	Meeting Room 1 - 201G	1																			
Radiant Panel	RH-4	Meeting Room 2 - 201H	Meeting Room 2 - 201H	1																			
Radiant Panel	RH-5	Kitchenette 201J	Kitchenette 201J	1																			
Electric Duct Heaters																							
Electric Duct Heater	EDH-1	Open Office 201A	ERV-1 Supply Air	1																			
Exhaust Fans																							
Exhaust Fan	EF-1	Kitchenette 201J	Kitchenette 201J	1																			
Exhaust Fan	EF-2	Print / Copy	Print / Copy	1																			
Exhaust Fan	EF-3	Existing Storage 205	Existing Storage 205	1																			
Electric Heaters																							
Electric Heater	BBH-1	Existing Storage 205	Existing Storage 205	1																			
Connections to Existing																							
Hot Water Piping - HVAC		2nd Floor Expansion	Radiant Heating Panels	1																			1
Hot / Cold / Recirc Piping - Domestic		2nd Floor Expansion	Domestic Water	1																			
Existing Equipment Relocation																							
Heat Pump	Ex. HP	Roof		1																			
Condensing Unit	ACCU-1	Roof		1																			
Condensing Unit	ACCU-2	Roof		1																			1
																							T

Appendix B

Commissioning Progress Management (CPM) Form - Electrical

COMMISSIONING PROGRESS MANAGEMENT (CPM) FORM - ELECTRICAL

CPMS CONSULTING INC.

PROJECT: 2nd Floor Expansion - 3190 Mavis Rd. 2023-11-21

			Document I	Review Stage	Static Te	sting Stage		ormance Testing	Tu	ırnover S	tage		
System / Equipment	Tag Number	Location	Co-ordination Study	Sample Commissioning Forms Reviewed	Contractor Testing Complete (Megger Testing) & Document Provided	Manufacturer Inspection / Testing Complete & Document Provided	Power ON	Contractor Functional Performance Testing	Deficiencies Corrected	O & M Manual Review & Acceptance	Training	As Built Drawings	Closeout Report
Power Distribution		2nd Floor Expansion										\Box	
Lighting Control System		2nd Floor Expansion											
Lightning Protection		Roof											
Sound Masking		2nd Floor Expansion											

Appendix C

Pre-Functional Verification Forms



Pre-functional Checklist Energy Recovery Ventilator (ERV):

Project:				
Date:				
ERV Tags:				
Building:				
Floor Location:				
Submittal / Approvals	·			
testing. This construction	on checklist is su d under commer	ubmitted for ap	gral to them are complete and reactoproval, subject to outstanding ite one of the outstanding items prece	ems yet to be
			N/A	
Mechanical Contracto	r	Date	Controls Contractor	Date
Electrical Contractor		Date	Sheet Metal Contractor	Date
TAB Contractor		Date	General Contractor	Date

Construction checklist items are to be completed as part of startup and initial checkout, preparatory to performing test procedures.

- This checklist does not take the place of the manufacturer's recommended checkout and startup procedures or report.
- If this form is not used for documenting, one of similar rigor shall be used.
- Contractors assigned responsibility for sections of the checklist shall be responsible to see that checklist items by their subcontractors are completed and checked off.

Approvals. This filled-out checklist has been reviewed. Its completion is approved with the exceptions noted below.

Commissioning Authority	Date	Owner's Representative	Date



		ERV-	Information	
Manufacturer			Model Number	
Serial Number			Function	
Fresh Air S	ide		Exhaus	st Air Side
Flow (CFM – I/s)			Flow (CFM – I/s)	
OA Temp In/Out (°F - °C)			EA Temp In/Out (°F - °C)	
OA Pressure Drop		-	EA Pressure Drop	
(in/wc - Pa) OA Capacity (MBH)			(in/wc - Pa) EA Capacity (MBH)	
Comments:			LA Capacity (inibit)	
Comments.				
		ERV-	Information	
Manufacturer			Model Number	
Serial Number			Function	
Fresh Air S	ide			st Air Side
Flow (CFM – I/s)			Flow (CFM - I/s)	
OA Temp In/Out (°F - °C)			EA Temp In/Out (°F - °C)	
OA Pressure Drop			EA Pressure Drop	
(in/wc - Pa) OA Capacity (MBH)			(in/wc - Pa) EA Capacity (MBH)	
Comments:			EA Capacity (WIDT)	
Comments.				
		ERV-	Information	
Manufacturer			Model Number	
Serial Number			Function	
Fresh Air S	ide		Exhaus	st Air Side
Flow (CFM – I/s)			Flow (CFM – I/s)	
OA Temp In/Out (°F - °C)			EA Temp In/Out (°F - °C)	
OA Pressure Drop			EA Pressure Drop	
(in/wc - Pa)			(in/wc - Pa)	
OA Capacity (MBH)			EA Capacity (MBH)	
Comments:				
	As	ssociated Chec	cklists / Documentation	
ECMS		Other		
Comments:		_1		



IIISta	llation Ch	necks			
Check if acceptable (Y), provide comment if		Y/N/N	AA		Comment
unacceptable / incomplete (N), N/A if 'not applicable'.	ERV	ERV_	_ ER\	' _	
	General	I.	I	I	
General appearance good, no apparent damage					
Adequate maintenance clearance is provided					
Equipment label permanently affixed					
Vibration isolation equipment installed					
Connection between ducts and unit flexible, aligned and in good condition					
Thermal insulation properly installed and according to specification					
Final filters installed, construction filters removed (as applicable)					
Supply / exhaust fan and motors aligned					
Filters / HE pressure differential measuring devices installed and functional (as applicable)					
Electri	cal and C	ontrols			
Power disconnect labeled and located within site of the unit it controls					
All electric connections tight					
Grounding installed for components and unit					
Safeties installed and operational					
Starter overload breakers installed and correct size					
All control devices and wiring complete (as applicable)					
Control system interlocks connected and functional (as applicable)					
	TAB				
Installation of air balancing devices allows balancing to be completed following specified NEBB or AABC procedures and contract documents					
Opera	ational Cl	hecks			
Check if acceptable (Y), provide comment if	L		I / NA		Comment
unacceptable / incomplete (N), N/A if 'not applicable'.	. ERV	ER	V E	ERV	
Supply / exhaust fan rotation correct					
Fans have no unusual noise or vibration					
1 and have no unusual noise of vibration					



Pre-functional Checklist Fan Coil Units:

Project:				
Date:				
FCU Tags:				
Building:				
Floor Location:				
Submittal / Approvals	i			
testing. This construction	on checklist is submitted under comments sec	ed for appr	to them are complete and ready foval, subject to outstanding items of the outstanding items preclude Lis	yet to be
Mechanical Contracto	r D:	ate	Controls Contractor	Date
Electrical Contractor	D:	ate	Sheet Metal Contractor	Date
TAB Contractor	D	ato	General Contractor	Data

Construction checklist items are to be completed as part of startup and initial checkout, preparatory to performing test procedures.

- This checklist does not take the place of the manufacturer's recommended checkout and startup procedures or report.
- If this form is not used for documenting, one of similar rigor shall be used.
- Contractors assigned responsibility for sections of the checklist shall be responsible to see that checklist items by their subcontractors are completed and checked off.

Approvals. This filled-out checklist has been reviewed. Its completion is approved with the exceptions noted below.

Commissioning Authority	Date	Owner's Representative	Date



Fan Coil Unit Information / Verification

Eqpmt. Tag	Manufacturer	Model Number	Serial Number	Cooling Capacity (MBH)	Heating Capacity (MBH)	Supply Fan Capacity (CFM – I/s)	ESP (in/wc – Pa)
FCU-							
FCU-							
FCU-							
FCU-							
FCU-							
FCU-							
FCU-							
FCU-							
FCU-							
FCU-							
The equip	ment installed m	atches the	specifications	YES	s	o	
		Asse	ociated Checklists	s / Document	ation		
FCU Start-	up Reports		CMS		Other		
Comments); ;						_



Installation Che	cks									
Check if acceptable (Y), provide comment if unacceptable /					Y/N	/ NA				
incomplete (N), N/A if 'not applicable'.	FCU	FCU	FCU	FCU	FCU	FCU	FCU	FCU	FCU	FCU
General										
Equipment label permanently affixed										
Casing condition good: no dents, door gaskets installed, no leaks										
Connection between duct and unit flexible, aligned and in good condition										
Vibration isolation equipment installed										
Maintenance access acceptable										
Thermal insulation properly installed and according to specification										
Final filters installed and replacement type and efficiency permanently affixed to housing – construction filters removed										
Supply fan and motor aligned										
Piping, fittings, valves and equipment properly supported										
Piping insulation installed per requirements										
Isolation valves and piping specialties installed (check against specs and details)										
No leaking apparent around fittings										
Condensate drain pan clean and slopes to drain										
Electrical and Con	trois		l				l		1	
All electric connections tight Grounding installed for components and unit										
Power disconnect labeled and located within site of the unit it controls										
Safeties installed and operational										
Starter overload breakers installed and correct size										
All control devices and wiring complete (as applicable)										
Control system interlocks connected and functional (as applicable)										
TAB										
Installation of system and balancing devices allows balancing to be completed following specified NEBB or AABC procedures and contract documents										



Operational Ch	ecks									
Check if acceptable (Y), provide comment if unacceptable /					Y/N	/ NA				
incomplete (N), N/A if 'not applicable'.	FCU	FCU	FCU	FCU	FCU	FCU	FCU	FCU	FCU	FCU
Supply fan rotation correct										
Supply fan has no unusual noise or vibration										
Record voltages										
Record full-load amps										
Cooling and/or heating mode operating correctly										
Start-up report completed with this checklist and includes for water pressure drops and temperatures across both source side and load side										

Additional Comments:		



Pre-functional Checklist Split A/C Units:

Duningt				
Project:				
Date:				
A/C Unit Tag:				
Building:				
Floor Location:				
Submittal / Approvals	;			
testing. This construction	on checklist is d under comm	submitted for a ents section. N	gral to them are complete and read pproval, subject to outstanding iten one of the outstanding items preclo	ms yet to be
Mechanical Contracto	r	Date	Electrical Contractor	Date
General Contractor		Date		
Construction checklist in performing test procedures. This checklist does procedures or report of this form is not used to contractors assigned the checklist items by the performance of the checklist items.	ures. not take the prt. sed for docume ed responsibili heir subcontra	e completed as lace of the mar enting, one of s ty for sections o ctors are comp	part of startup and initial checkout nufacturer's recommended checko similar rigor shall be used. Of the checklist shall be responsible leted and checked off.	ut and startup

AC/CU-

Information



Manufacturer		Model Number			
AC / CU		Sensible		Refrigerant	
Serial Number	1	Cooling Capacity		Туре	
		(MBH – kW)			
AC/CU	- / -	AC / CU	1	Low Ambient	YES ☐ NO ☐
Volts - Phase	·	Motor HP		Control	1 - 2 - 3 - 13 - 2
Comments:					
	A	C / CU - Infor	mation		
Manufacturer		Model Number			
AC / CU		Sensible		Refrigerant	
Serial Number	1	Cooling Capacity		Type	
		(MBH – kW)			
AC/CU	- / -	AC / CU	1	Low Ambient	YES 🗌 NO 🗀
Volts - Phase	•	Motor HP	,	Control	1.20 [] .10 [
Comments:					
	Δ	C / CU - Infor	mation		
Manufacturer	-	Model Number			
Manufacturer				T=	1
AC / CU		Sensible		Refrigerant	
Serial Number	1	Cooling Capacity		Туре	
AC / CU		(MBH – kW)		Law Ambiant	
Volts – Phase	- / -	Motor HP	1	Low Ambient Control	YES 🗌 NO 🗌
Comments:		WOLOT HE		Control	
Comments.					
	Associ	ated Checklists / Docu	ımentation		
A/C Start-up Re	oort				
Comments:					



Installa	tion Ch	ecks		
Check if acceptable (Y), provide comment if		Y/N/N	IA AI	Comment
unacceptable / incomplete (N), N/A if 'not applicable'.	AC	AC	AC	
G	eneral	•		
Unit condition good: no dents, fins not damaged				
Equipment labels permanently affixed (AC / CU)				
Vibration isolation equipment installed (as applicable)				
Maintenance access acceptable for unit and components				
Final filters installed and clean (as applicable)				
Piping, fittings, valves and equipment properly supported				
Piping insulation installed per requirements				
Piping labeled per specification with flows indicated in right direction				
Condensate drain pan clean and slopes to drain. P-trap installed. Drain line pitched.				
Piping leak-checked, evacuated and charged (as required)				See start-up report
Electrica	and Co	ntrols		
Supply voltage and phase matches equipment nameplate				
Power disconnects labeled and located within site of the unit it controls				
All electric wiring complete and connections tight				
Grounding installed for components and unit				
Safeties installed and operational (as applicable)				
Starter overload breakers / fuses installed and correct size				
Control devices (eg. digital controller) and wiring complete				
Rotates in correct direction				
	•	•		

Operational Checks							
Check if acceptable (Y), provide comment if unacceptable / incomplete (N), N/A if 'not applicable'.		Y/N/N	A	Comment			
		AC	AC				
Fan rotation correct							
Fan has acceptable noise and vibration							
Fan speed and directional vanes operational (as applicable)							
Unit provides cooling							

Additional Comments:		



Pre-functional Checklist Exhaust Fans:

Project:								
Date:								
Fan Tags:								
Building:								
Floor Location:								
Submittal / Approvals								
Submittal. The above equipment and systems integral to them are complete and ready for functional testing. This construction checklist is submitted for approval, subject to outstanding items yet to be completed, as indicated under comments section. None of the outstanding items preclude safe and reliable functional tests being performed. List Attached								
Mechanical Contractor	Date	Controls Contractor	Date					
Electrical Contractor	Date	Sheet Metal Contractor	Date					
TAB Contractor	Date	General Contractor	Date					
 Construction checklist items are to be completed as part of startup and initial checkout, preparatory to performing test procedures. This checklist does not take the place of the manufacturer's recommended checkout and startup procedures or report. If this form is not used for documenting, one of similar rigor shall be used. Contractors assigned responsibility for sections of the checklist shall be responsible to see that checklist items by their subcontractors are completed and checked off. 								
Approvals. This filled-out checklist I noted below.	ias been review	ed. Its completion is approved with	the exceptions					
Commissioning Authority	Date	Owner's Representative	Date					



		EF-	Information			
Make			Model Number			
Serial Number			Capacity		Air PD	
Volts/Phase		Motor HP		RPM		
Comments:				1		
		EF-	Information			
Make			Model Number			
Serial Number			Capacity		Air PD	
Volts/Phase		Motor HP		RPM		
Comments:						
		EF-	Information			
Make			Model Number			
Serial Number			Capacity		Air PD	
Volts/Phase		Motor HP		RPM		
Comments:						
	Ass	sociated Che	cklists / Documer	ntation		
ECMS						
Comments:						



Installation Checks								
Check if acceptable (Y), provide comment if		Y / N / N/		Comment				
unacceptable / incomplete (N), N/A if 'not applicable'.	EF	EF	EF					
	eneral	1	T					
Permanent labels affixed								
Casing condition good: no dents, leaks, access doors tight								
Connection between duct and unit flexible, aligned and in good condition								
Vibration isolation equipment installed								
Maintenance access acceptable								
Thermal insulation properly installed and according to specification								
Final filters installed tight and clean, construction filters removed (as applicable)								
Exhaust fan and motor aligned								
Exhaust fan belt tension and condition good (as applicable)								
Exhaust fan protective shrouds for belts in place and secure								
Exhaust fan and motor lube lines installed and lubed (as applicable)								
Filter pressure differential measuring device installed and functional (as applicable)								
Smoke and/or fire dampers installed properly per contract docs (proper location, access doors)								
Actuators installed and dampers close tightly								
	•	.	1					
Electrica	I and Co	ntrols						
Power disconnect labeled and located within site of the unit it controls								
All electric connections tight								
Grounding installed for components and unit								
Safeties installed and operational								
Starter overload breakers installed and correct size								
All control devices and wiring complete (as applicable)								
Control system interlocks connected and functional (as applicable)								
		•						
VFD Applicable ☐ Non-App	licable [VFD	Report A	Attached				
Installation per manufacturer's requirements and operation checked in Hand, Off, Auto and Bypass								
Grounding installed for components and units								
Drive location not subject to excessive moisture, dirt or temperature								
Cooling air flow path clean and unobstructed								
Drive size matches motor size								
Permanent label affixed and ULC stamp approved								



Installation Checks								
Check if acceptable (Y), provide comment if	Y/N/NA			Comment				
unacceptable / incomplete (N), N/A if 'not applicable'.	EF	EF	EF					
VFD Applicable Non-App	licable 🗌	VFD	Report A	ttached 🗌				
Signal isolated from power source								
VFD interlocked to control system and programmed								
Minimum speed set to and max speed set to								
Accel time set to and Decel time set to								
Drive response to loss of signal set to								
Restart on Power Failure parameter set to Auto								
Input voltage checked with drive disconnected								
Input of motor FLA represents 100% to 105% of motor FLA rating								
Upper frequency limit set at 100%, unless explained otherwise								
	TAB							
Installation of system and balancing devices allows balancing to be completed following specified NEBB or AABC procedures and contract documents								
Operation	onal Ch	ecks						
Check if acceptable (Y), provide comment if		/		Comment				
unacceptable / incomplete (N), N/A if 'not applicable'.	EF	EF	EF					
Fan rotation correct (If VFD, check rotation in bypass and VFD Inverter mode)								
Fan has no unusual noise or vibration								
Dampers (SA, RA, EA, etc) stroke fully without binding and end switches (for position status) site verified								
Additional Comments:								



Pre-functional Checklist Electric Heating Coils:

Project:						
Date:						
EHC Tags:						
Building:						
Floor Location:						
Submittal / Approvals	;					
Submittal. The above equipment and systems integral to them are complete and ready for functional testing. This construction checklist is submitted for approval, subject to outstanding items yet to be completed, as indicated under comments section. None of the outstanding items preclude safe and reliable functional tests being performed. List Attached						
Mechanical Contracto	r	Date	Controls Contractor	Date		
Electrical Contractor		Date	Sheet Metal Contractor	Date		
TAB Contractor		Date	General Contractor	Date		
Construction checklist i	tems are to be c	ompleted as	part of startup and initial checkou	ut, preparatory to		

Construction checklist items are to be completed as part of startup and initial checkout, preparatory to performing test procedures.

- This checklist does not take the place of the manufacturer's recommended checkout and startup procedures or report.
- If this form is not used for documenting, one of similar rigor shall be used.
- Contractors' assigned responsibility for sections of the checklist shall be responsible to see that checklist items by their subcontractors are completed and checked off.

Approvals. This filled-out checklist has been reviewed. Its completion is approved with the exceptions noted below.

Commissioning Authority	Date	Owner's Representative	Date



Electric Coil Information / Verification

Eqpmt. Tag	Manufacturer	Model Number	Serial Number	Heating Capacity (kW/MBH)	Minimum Airflow Capacity (CFM - L/s)	Maximum Airflow Capacity (CFM - L/s)	ESP (in/wc – Pa)		
EDH-									
EDH-									
EDH-									
EDH-									
EDH-									
EDH-									
EDH-									
EDH-									
EDH-									
EDH-									
The equipment installed matches the specificationsYESNO									
FHC Start	-up Reports	Associa	ated Checklist	s / Document	tation Other				
Comments			<u> </u>	<u> </u>					



Installation Checks										
Check if acceptable (Y), provide comment if unacceptable /	Y/N/NA									EDH
incomplete (N), N/A if 'not applicable'.	EDH	EDH	EDH	EDH	EDH	EDH	EDH	EDH	EDH	EDH
General	1		1						1	
Equipment nameplates permanently affixed										
Casing condition good: no dents, door gaskets installed, no leaks										
Equipment properly supported										
Connection between duct and unit aligned and in good condition										
Maintenance access acceptable										
Airflow sensor installed										
Pilot lights (Power 'On' and 'Overheating') installed										
Electrical and Con	trols									
All electric connections tight										
Grounding installed for components and unit										
Disconnect switch labeled and located within site of the unit it controls										
Manual & automatic 'cutouts' installed										
Airflow sensor wired										
Starter overload breakers installed and correct size										
All control devices and wiring complete (as applicable)										
Control system interlocks connected and functional (as applicable)										
TAB										
Installation of system and balancing devices allows balancing to be completed following specified NEBB or AABC procedures and contract documents										

Operational Checks										
Check if acceptable (Y), provide comment if unacceptable / incomplete (N), N/A if 'not applicable'.		Y/N/NA								
		EDH	EDH	EDH	EDH	EDH	EDH	EDH	EDH	EDH
Electric coil energized										
Manual & automatic 'cutouts' operational										
Airflow sensor operational										
Record voltages and full-load amps										
Heating mode operating correctly										
Start-up report completed with this checklist										

Additional Comments:					

Appendix D

Point-to-Point Test Forms - For CFMS Verification

Test Forms to be populated for future revision of Cx Plan.

Appendix E

Functional Performance Test Forms

Test Forms to be populated for future revision of Cx Plan.

Appendix F

Training Plan

OPERATING & MAINTENANCE INSTRUCTION / TRAINING OUTLINE MECHANICAL



Project:	2 nd Floor Addition – 3190 Mavis Rd.
Owner:	Region of Peel

1.0	System:	Mechanical Systems Overview and Walkthrough
	Representative:	

The Mechanical Trade Contractor(s) shall conduct a detailed review of the plumbing, air distribution, and HVAC systems and systems installed as part of their contract on this project. During the walkthrough(s), the Mechanical Trade Contractor(s) shall, as a minimum, cover the following topics:

- Provide general overview of the equipment and systems
- Review mechanical schematic drawings
- Identify equipment & piping
- Identify starters associated with equipment
- Identify isolation & balancing valves
- Review drain locations in piping systems
- Identify balancing dampers
- Identify access doors
- Identify maintenance items

2.0	System:	Equipment Specific Training	
	Representative:	Various – See Training Schedule	

The respective Trade / Manufacturer / Supplier shall provide individual training for the equipment and/or systems listed in the Training Schedule. The following course outline topics shall be covered as a minimum for each equipment / system:

- Review of the general intent of each equipment / system
- Use of the O&M Manuals
- Operating procedures
- Maintenance procedures
- Scheduled maintenance requirements
- Troubleshooting procedures
- Spare parts required
- Seasonal changeover (as required)
- Manual/Emergency operation
- Relevant health and safety issues
- Warranty details

Notes:

Copy of the mechanical O & M manuals and As-Built drawings shall be available and used during the training sessions.

3.0	System:	Building Automation System (BAS)
	Representative:	
		nall provide a detailed review of the entire BAS on this project. During contractor shall, as a minimum, cover the following topics:
	 Review of Review of Identify de controlled Operation Operation Custom A Point obje Sequence operation, programm Day-to-Da administra Alarm ma Report ma Trend log Creating a Data base System m Control de 	ay BAS operations, advanced operations, and system management / ation including using software and tools nagement – set-up, modify, delete, retrieve alarm logs and export anagement – set-up, modify, delete, retrieve reports and export management – set-up, modify, delete, retrieve and export and modifying graphics a modification, deletion and back-up and restore operations halfunction diagnostics and maintenance evices, operation and maintenance int and optimizing methods for energy conservation (as applicable)

4.0 Additional Notes:

training sessions.

Notes:

Selected Owner / Tenant representatives shall be sufficiently trained so as to be qualified in identifying potential / current problems, their limits in rectifying operational issues, and the process for reporting, without affecting in any way, the warranty coverage provided.

1. BAS must be fully operational prior to commencing final BAS training.

2. Copy of the BAS controls shop drawings shall be available and used during the

Please note that this agenda does not outline the Contractor's complete scope of work and contractual obligations in regards to O&M training. For complete requirements, refer to the contract documentation.

OPERATING & MAINTENANCE INSTRUCTION / TRAINING OUTLINE ELECTRICAL



Project:	2 nd Floor Addition – 3190 Mavis Rd.
Owner:	Region of Peel

1.0	System:	Electrical Systems Overview and Walkthrough
	Representative:	

The Electrical Trade Contractor(s) shall conduct a detailed review of the entire electrical distribution system and systems installed as part of their contract on this project. During the walkthrough(s), the Electrical Trade Contractor(s) shall, as a minimum, cover the following topics:

- Review single line diagram
- Review riser diagrams
- Review As-builts / O&M's and identify maintenance schedule reference
- Identify equipment & wiring
- Identify electrical distribution panels, transformers & breaker panels
- Review the electrical power distribution, emergency power distribution
- Review the lighting power distribution
- Review emergency lighting
- Review lighting control systems
- Review general maintenance of equipment and identify maintenance items

2.0	System:	Equipment Specific Training
	Representative:	Various – See Training Schedule

The respective Trades / Manufacturer / Supplier shall provide individual training for the equipment and/or systems listed in the Training Schedule. The following course outline topics must be covered as a minimum for each equipment / system:

- Review of the general intent of each equipment / system
- Use of the O&M Manuals
- Operational Requirements and Criteria: Requirements and criteria are to include but not be limited to equipment function, stopping and starting, safeties, operating standards, operating characteristics, and limitations.
- Troubleshooting: Troubleshooting is to include but not be limited to diagnostic instructions, test and inspection procedures.
- Documentation: Documentation is to include but not be limited to equipment/ system warranties, and manufacturer's supplier's parts and service facilities, telephone numbers, email addresses, and the like.
- Maintenance: Maintenance requirements are to include but not be limited to inspection instructions, types of cleaning agents to be used as well as cleaning methods, preventative maintenance procedures, and use of any special tools.

- Repairs: Repair requirements are to include but not be limited to diagnostic instructions, disassembly, component removal and repair instructions, instructions for identifying parts and components, and review of any spare parts inventory.
- Scheduled maintenance requirements
- Relevant health and safety issues
- Warranty details

Notes:

Copy of the electrical O & M manuals and As-Built drawings shall be available and used during the training sessions.

3.0 Additional Notes:

Selected Owner / Tenant representatives shall be sufficiently trained so as to be qualified in identifying potential/current problems, their limits in rectifying operational issues, and the process for reporting, without affecting, in any way, the warranty coverage provided.

Please note that this agenda does not outline the Contractor's complete scope of work and contractual obligations in regards to O&M training. For complete requirements, refer to the contract documentation.



2nd Floor Addition - 3190 Mavis Rd - Training Schedule

System / Equipment	Manufacturer / Supplier	Duration	Session Date / Time	Notes			
	MECHANICAL						
Mechanical General Walkthrough		30 Minutes					
Energy Recovery Ventillator		30 Minutes					
VRF Fan Coil System		1 Hour					
Split AC Unit		30 Minutes					
Exhaust Fans		30 Minutes					
Electric Duct Heater		15 Minutes					
Electric Heater		15 Minutes					
Radiant Panels		15 Minutes					
	ELECTRICA	L					
Electrical General Walkthrough		30 Minutes					
Lighting Controls		1 Hour					
Sound Masking		1 Hour					
Lightining Protection		30 Minutes					

* NOTE:

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OPERATING & MAINTENANCE INSTRUCTION RECORD SHEET MECHANICAL

2nd Floor Addition – 3190 Mavis Rd.

Project:



Date:								
Syste	em / E	quipment:	MECHANICAL SYSTEMS WALKTHROUGH					
	The following personnel have been provided a detailed review of the plumbing, air distribution,							
	HVAC				the plumbing, air distribution, intractor covered the following			
		Provide general overview of the equipment and systems						
		Review mechan	ical schematic drawings					
		Identify equipme	ent & piping					
		Identify starters	associated with equipmer	nt				
[Identify isolation	& balancing valves					
[Review drain lo	cations in piping systems					
[Identify balancir	ng dampers					
[Identify access	doors					
	□ Identify maintenance items							
Own		Representatives						
	Comp	oany	Name (print)		Signature			
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								

Cont	Contractor's Representative					
	Company	Name (print)	Signature			
1						
2						

Commissioning Consultant's Representative			
	Company	Name (print)	Signature
1			
2			

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OPERATING & MAINTENANCE INSTRUCTION RECORD SHEET MECHANICAL



Project:		2 nd Floor Addition – 3190 Mavis Rd.	
Date	:		
		1	
Syste	em / Equipment:		
The	following personnel ha	ave been instructed on:	
[Review of the	general intent of the equipmer	nt / system
[Use of the O&I	M Manuals	
[□ Operating prod	edures	
[□ Maintenance p	rocedures	
	□ Scheduled mai	intenance requirements	
[□ Troubleshootin	g procedures	
]	□ Spare parts red	quired	
[□ Seasonal chan	geover (as required)	
]	□ Manual/Emerg	ncy operation	
]	□ Relevant healt	and safety issues	
[□ Warranty detai	3	
Own	er's Representatives		la.
	Company	Name (print)	Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
11			

Manufacturer's Representative				
	Company Name (print) Signature			
1				
2				

Contractor's Representative			
	Company	Name (print)	Signature
1			
2			

Commissioning Consultant's Representative				
	Company Name (print) Signature			
1				
2				

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OPERATING & MAINTENANCE INSTRUCTION RECORD SHEET MECHANICAL



Project:		2 nd Floor Addition – 3190 Mavis Rd.	
Date:			
System /	Equipment:	BUILDING AUTOMATION SYSTEM	
The follo	wing personnel ha	ave been instructed on:	
	Review of the g	general intent of this system	
	Review of the s	chematic / riser diagrams	
	Review of the o	perating and maintenance manual	
	,	s, power sources, conduit and wire installation, the operation of ces and how they interface with the mechanical systems.	
	Operation and	maintenance of Operator Interfaces	
	Operation and	maintenance of controllers	
	Custom Applica	Custom Application Programming software	
	Point objects addressing and commanding		
	•	Sequences of operation – start-up, normal operation, shutdown, unoccupied operation, seasonal changeover, manual operation, control set-up and programming	
		Day-to-Day BAS operations, advanced operations, and system management / administration including using software and tools	
	Alarm manager	ment – set-up, modify, delete, retrieve alarm logs and export	
	Report manage	ement – set-up, modify, delete, retrieve reports and export	
	Trend log mana	Trend log management – set-up, modify, delete, retrieve and export	
	Creating and modifying graphics		
	Data base modification, deletion and back-up and restore operations		
	System malfun	System malfunction diagnostics and maintenance	
	Control devices	s, operation and maintenance	
	Adjustment and	d optimizing methods for energy conservation (as applicable)	
	Warranty details		

Company	Name (print)	Signature
1		
2		
3		
4		
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6		
7		
8		
9		
10		
11		

Building Automation System Representative				
	Company Name (print) Signature			
1				
2				

Cont	Contractor's Representative			
	Company	Name (print)	Signature	
1				
2				

Commissioning Consultant's Representative				
	Company Name (print) Signature			
1				
2				

PO Box 93 Appendix & 6g Mulock Newmarket, Ontario L3X 1A3 tel 905.787.9449 cfms.ca

OPERATING & MAINTENANCE INSTRUCTION RECORD SHEET ELECTRICAL



Project: Date:		2 nd Floor Addition – 3190 Mavis Rd.			
System / E	quipment:	ELECTRICAL SYSTEMS WALKTHROUGH			
	U 1	ve been provided a detailed review of the plumbing, air distribution, the walkthrough(s), the Mechanical Contractor covered the following			
	Review single li	ne diagram			
	Review riser dia	agrams			
	Review As-built	Review As-builts / O&M's and identify maintenance schedule reference			
	Identify equipment & wiring				
	Identify electrical switchgear, switch boards, distribution panels, transformers & breaker panels				
	Review the elec	etrical power distribution, emergency power distribution			
	Review the lighting power distribution				
	Review emerge	ncy lighting			
	Review the low voltage distribution				
	Review lighting control systems				
	Review solar PV system				
	Review CCTV,	fire alarm and access control system			
	Review general	maintenance of equipment and identify maintenance items			

Owi	Owner's Representatives					
	Company	Name (print)	Signature			
1						
2						
3						
4						
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6						
7						
8						
9						
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11						

Cont	Contractor's Representative						
	Company	Name (print)	Signature				
1							
2							

Com	Commissioning Consultant's Representative					
	Company	Name (print)	Signature			
1						
2						

PO Box 93 Appendix & 6g Mulock Newmarket, Ontario L3X 1A3 tel 905.787.9449 cfms.ca

OPERATING & MAINTENANCE INSTRUCTION RECORD SHEET ELECTRICAL



Project:		2 nd Floor Addition – 3190 Mavis Rd.		
Date:				
System /	Equipment:			
The follow	wing personnel ha	ave been instructed on:		
	Review of the g	general intent of each equipment / system		
	Use of the O&N	// Manuals		
	but not be limite	quirements and Criteria: Requirements and criteria are to include ed to equipment function, stopping and starting, safeties, operating rating characteristics, and limitations.		
		Troubleshooting: Troubleshooting is to include but not be limited to diagnostic instructions, test and inspection procedures.		
	Documentation: Documentation is to include but not be limited to equipment/ system warranties, and manufacturer's supplier's parts and service facilities, telephone numbers, email addresses, and the like.			
	Maintenance: Maintenance requirements are to include but not be limited to inspection instructions, types of cleaning agents to be used as well as cleaning methods, preventative maintenance procedures, and use of any special tools.			
	Repairs: Repair requirements are to include but not be limited to diagnostic instructions, disassembly, component removal and repair instructions, instruction for identifying parts and components, and review of any spare parts inventory.			
	Scheduled main	ntenance requirements		
	Relevant health and safety issues			
	Warranty details			

Own	Owner's Representatives					
	Company	Name (print)	Signature			
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
Man	ufacturer's Representative					
	Company	Name (print)	Signature			
1						
2						
Cont	tractor's Representative	I , , ,				
	Company	Name (print)	Signature			
1						
2						
Com	umicolonina Concultantia B	onrecentative				
Com	missioning Consultant's R		0'			
4	Company	Name (print)	Signature			
1						
2						

DIGITAL BID BOND

Appendix 8.8

BOND NUMBER	
KNOW ALL MEN BY THESE PRESENTS TH	IAT
	AATas Principal, hereinafter called the Principal, and
	a corporation o, and duly authorized to transact the business of Suretyship urety, are held and firmly bound unto The Regional alled the Obligee, in the amount of
	Dollars,
(\$) lawful truly to be made, the Principal and the Surety successors and assigns, jointly and severally	money of Canada, for the payment of which sum, well and bind themselves, their heirs, executors, administrators, firmly by these presents.
WHEREAS, the Principal has submitted a wri	tten Bid to the Obligee, dated the day of
20,	
for:	
DESC	RIPTION OF WORK
shall have the Bid accepted within ninety (90) within the time required, enter into a formal condition of the terms and conditions of the otherwise the Principal and the Surety will pay amount of the Bid of the said Principal and the another party to perform the work if the latter	
The Principal and the Surety shall not be liable	e for a greater sum than the specified penalty of this Bond.
Any suit under this Bond must be instituted be Bond.	efore the expiration of seven months from the date of this
IN WITNESS WHEREOF, The Principal and t	the Surety have signed and sealed this Bond this
day of 20	
SIGNED, SEALED AND DELIVERED	
SIGNATURE OF WITNESS (if not signed under corporate seal)	By (Seal) SIGNATURE AND SEAL OF PRINCIPAL I/We have the authority to bind the Corporation
NAME OF WITNESS (PRINTED)	(Seal)
	ByATTORNEY-IN-FACT
	ADDRESS AND PHONE NUMBER OF SURETY

Date:	
Owner:	
Contractor:	
Document Number:	
Project:	
Project: Applicable Invoice:	

Context

- A. The Contractor identified above (the "Contractor") and the Regional Municipality of Peel entity, government, agency, or board identified above as the Owner (the "Owner") entered into a contract dated ______ (the "Contract") pursuant to the procurement document number identified above for the Contractor to provide certain work and services in respect of the project identified above (the "Project").
- B. Capitalized terms used but not defined in this Release have the meanings given to them in the Agreement.
- C. Pursuant to the Contract, the Contractor is providing this Release to the Owner in support of its application for payment of holdback upon Substantial Performance of the Work.

Release

- 1. Except for the claims set out in section 2, as of the date set out above, the Contractor on its own behalf and on behalf of its successors and assigns hereby irrevocably waives, releases, and forever discharges the Owner and its directors, officers, Region of Peel council members, representatives, employees, contractors, agents, and their respective successors and assigns (the "Released Group") from any and all claims, changes, disputes, complaints, liabilities, obligations, damages, actions, causes of action, proceedings, debts, demands, losses, and expenses whatsoever, at law and in equity, which it may have had, may now have, or may have arising out of or in connection with the Contract ("Claims").
- 2. The Contractor does not release the Released Group from the following Claims:
 - a. Claims for any sums retained by the Owner for the Warranty Holdback;
 - b. Claims arising from Work which remains to be completed by the Contractor on the Project as at the date of this Release;
 - c. Claims which cannot be waived under the Construction Act (Ontario); and
 - d. the following Claims (including any outstanding Claims about which the Contractor has previously notified the Owner and attach additional page if necessary):

The Contractor acknowledges and agrees that if it leaves Section 2.d. blank or responds "none" in Section 2.d., the Contractor is deemed not to have reserved any Claims other than those in Sections 2.a., 2.b., and 2.c.

- 3. Except for the Claims set out in Section 2.d., Contractor's managerial or senior supervisory personnel do not know, or have reason to know based on good and prudent industry practices, of any potential or actual claims that are required to be notified to Owner according to the requirements of the Contract as of the date of this Release.
- 4. This Release is freely and voluntarily given and the Contractor acknowledges and represents that it has fully reviewed the terms and conditions of this Release and that it is fully informed with respect to the legal effect of this Release.

General

- 5. No provision of this Release which may be deemed unenforceable shall in any way invalidate any other provision hereof, all of which shall remain in full force and effect.
- This Release shall be binding upon, and shall inure to the benefit of, the Contractor, the 6. Owner, and their respective heirs, successors, legal representatives and assigns.
- This Release and the Contract constitute the entire agreement between the parties with 7. respect to the subject matter hereof and supersedes all prior and contemporaneous agreements. No change or waiver shall be valid unless in writing and signed by an authorized representative of the party against whom such change or waiver is sought to be enforced.
- 8. This Release may be executed and delivered electronically.
- 9. This Release is governed by the laws of Ontario and the federal laws of Canada applicable therein. Any dispute arising out of this Release shall be governed by the terms of the Contract.

[INSERT FUL	L CORPORATE NAME OF CONTRACTOR]
By:	·
Name:	
Title:	
I have authori	ty to hind the cornoration

I have authority to bind the corporation.





Owner's Staff/Other Contractors Project Constructor Coordination Form

This coordination document must be completed and signed by the General Contractor (GC) and the Region of Peel (ROP) Project Manager. The Owner's Staff/Other Contractors Project Constructor Coordination Form is intended to seek the GC's approval to allow Owner's Staff/Other Contractors to access a construction site while the GC maintains the overall responsibility of the project site as the Constructor on the project site. By signing below, the GC will maintain Constructor designation and site responsibility including the coordination of Owner's Staff/Other Contractors as approved to complete work on site.

PART A: To be completed by Region of Peel Project Manager or staff requesting access

Request to attend	Request to attend Construction Site to complete work:						
Location:	Location:			Description of work and site interaction:			
From date:	Tin	ne:	То	Date:	Time:		
Owner's Staff/Othe (by signing below, C health and safety ru identified sign-in pro	Owner's Sta lles and ins	aff/Other Contructions on t	tractors agr	ree to follow the G0 site at all times, inc	C/Constructors' established luding following the		
Name:		Title:		Signature:			
Name:		Title:		Signature:			
Name:		Title:		Signature:			
Name:		Title:		Signature:			
Name:		Title:		Signature:			
Name:		Title:		Signature:			
Name:		Title:		Signature:			
Name:		Title:		Signature:			
Name:		Title:		Signature:			
Owner's Staff/Other Contractors Supervisor or Assistant (required whenever more than five staff are expected on site at a time):							
Name:	Title	: 		Signature:			

Owner's Staff/Other Contractors will follow the GC/Constructors' established health and safety rules on the project site at all times, including following the identified sign-in process whenever attending the project site.



Peel Region Project Manager:

Name:

Owner's Staff/Other Contractors Project Constructor Coordination Form

PART B: To be completed by the General Contractor and Region of Peel Project Manager

Communication and Site Responsibility - This coordination document must be completed and signed by the GC and the ROP Project Manager. It is intended to assist everyone involved to understand who will be working on the project site on behalf of the Region of Peel, when the work will take place, and that the Constructor designation and site responsibility will be maintained by the GC identified within this document while this work is being completed.

By signing you acknowledge commitment to the roles and responsibilities as described in this coordination document.

Signature:

					Date:		
GC Representative:							
Representative Name:	Title:				Signature:		
					Date:		
PART C: To be completed	l by Site Co	onstructo	r/Genera	l Contractor	at the	time of orie	ntation
The general contractor/con been reviewed with the Ow				entering the	project	site the follo	wing items have
Activity	Completed	Date	Activity			Completed	Date
Owner's Staff/Other Contractors have received orientation on project site and constructor emergency process has been reviewed.			ROP wo been co review o electrica	assessment rk area on si nducted alon f potential I hazards, ph , chemical, e	ite has ag with		
Protective equipment has been provided to Owner's staff/ Other Contractors.			Additional hazards or ris have been identified in swork area (list below).		in site		
Comments:							
Project Site Supervisor/C Contractors while on site to			ontractor F	Representativ	ve to su	pervise Own	er's Staff/Other
GC Representative:	Title:			Signature:	Signature:		
	•						

Copies of the completed document must be provided to the construction project manager for distribution to the employee's direct supervisor. Original to be maintained by the general contractor at the construction site.



Appendix 8.13 Owner's Staff/Other Contractors Anticipated to Attend Site for Contractor Coordination

Owner's staff/Other contractors' information (i.e. ISTS staff or XYZ Vendor)	Description of work	Anticipated stage of construction and duration of work



2024-149P - Second Floor Expansion, 3190 Mavis Road, City of Mississauga, Project 22701

Date Issued: March 22, 2024 12:00 PM

Schedule of Prices

*Denotes a "MANDATORY" field

Do not enter \$0.00 dollars unless you are providing the line item at zero dollars to the Owner.

If the line item and/or table is "**NON-MANDATORY**" and you are not bidding on it, leave the table and/or line item blank.Do not enter a \$0.00 dollar value.

Stipulated Contract Price for Second Floor Expansion, 3190 Mavis Road, City of Mississauga, Project 22701

Prices are all inclusive of the cost of labour, materials and equipment required to complete the Work, including but not limited to all applicable taxes, overheads, profits and all other associated Vendor's expenses except HST. The stated prices include fully for all increases, for whatever cause, in cost or price of labour, materials, products, equipment or consumables. Escalation shall not apply for the duration of the Contract.

No allowance or extra consideration on behalf of the Contractor will be allowed by the Agency by reason of additional costs, damages, or other difficulties incurred by the Vendor for failure to have fully investigated and determined conditions affecting the Work.

Unit Prices shall be exclusive of HST.

Line Item	Description	Unit of Measure	Unit Price *
1	Submission of Insurance and Bonding	Lump Sum	
2	Shop drawings submission and approval.	Lump Sum	
3	Site Mobilization, Demobilization, Site Protection and Final Cleaning.	Lump Sum	
4	Demolition	Lump Sum	
5	Concrete, forming and reinforcing	Lump Sum	
6	Structural steel, steel joists and Metal deck	Lump Sum	
7	Metal fabrications	Lump Sum	
8	Architectural woodwork	Lump Sum	
9	Exterior wall assemblies	Lump Sum	
10	Aluminum curtain wall, glass and glazing	Lump Sum	
11	Roofing and accessories	Lump Sum	
12	Metal doors and frames	Lump Sum	
13	Drywall, acoustics and Painting	Lump Sum	
14	Ceramic tiling/Resilient floor	Lump Sum	
15	Carpetting	Lump Sum	
16	Access flooring	Lump Sum	
17	Toilet and bath accessories	Lump Sum	
18	Exterior pavement crack remediation work.	Lump Sum	
19	Plumbing	Lump Sum	
20	HVAC	Lump Sum	
21	Inegrated Automation	Lump Sum	
22	Electrical	Lump Sum	
23	Communication	Lump Sum	
24	Safety and Security	Lump Sum	
25	Lightning protection	Lump Sum	
26	Project Close-Out documents including as-builts and closure of building permit	Lump Sum	
27	All other item of work not covered above but are noted on the Contract Drawings and/ or Specification or required to provide fully operational systems and project completion.	Lump Sum	
		Subtotal:	

Cash Allowance

A Cash Allowance has been established to address aspects of the work that are required, but the scope will be determined or finalized after award of the contract.

All Cash Allowance work is to be approved in advance by the Agency. The Agency is not committed to any work under the Cash Allowance and is under no obligation to pay the awarded Contractor for any portion of the Cash Allowance funds or for unapproved Cash Allowance work.

Any approved cash allowance work will require an updated schedule.

The Agency reserves the right to undertake separate proposals from alternate vendors for cash allowance work if it is in the best interest of the Agency to do so.

Line Item	Description	Unit	Lump Sum Price
1	Cash Allowance	Lump Sum	\$375,000.0000
		Subtotal:	

Contingency

Contingency Allowances included are for additional work which could not be fully identified or quantified during the bid period. The Bidder shall, when requested, provide to the Agency estimates to complete any additional work. The Bidder shall not proceed with any additional work unless pre-approved by the Agency. Contingency Allowances shall be expended only as directed and approved by the Agency for actual cost of additional work. The Contract Price shall be adjusted by Change Order to provide for any difference between the actual costs and each estimated cost where so authorized by the Agency. The non-expended portion of Contingency allowance will be deducted from the Contract Price.

Line Item	Description	Unit of Measure	Unit Price	Total
1	Contingency Allowance	Lump Sum	\$450,000.0000	\$ 450,000.0000
			Subtotal:	\$ 450,000.0000

Summary Table

Bid Form	Amount
Stipulated Contract Price for Second Floor Expansion, 3190 Mavis Road, City of Mississauga, Project 22701	
Cash Allowance	\$ 375,000.0000
Contingency	\$ 450,000.0000
Grand Total (exclusive of taxes):	

Bid Questions

Please provide in the space below your GST/HST	
Registration Number. Please note that all invoices	
provided to the Agency must show the GST/HST	
Registration Number and show this tax on a separate	•
line.	

Specifications

CONTACT INFORMATION

In the space provided please list the contact names and numbers during the times indicated below.

Line Item	Description	After Hours Service (5:00 p.m 7:00 a.m.) *	Saturdays, Sundays and Holidays *
1	Name		
2	Phone Number		
3	Cell Number		
4	Email Address		

Sub-Contractors

LIST OF SUPPLIERS AND SUBCONTRACTORS

The Bidder also agrees that the following is a complete list of suppliers and subcontractors that will be required in the performance of the Work and that no additions, deletions or changes to this list will be permitted without the approval of the Agency. As per the Subcontractors clause in the Instructions to Bidders section of the document, should a Bidder name a subcontractor which is suspended from performing work on any Agency contracts as a subcontractor under the Agency's Vendor Performance Evaluation Procedure, the Bidder shall subsequently be required to name an acceptable replacement subcontractor at no additional cost to the Bidder's total submitted price. If the vendor fails to meet this mandatory requirement, the Bidder shall be deemed non-compliant and not given consideration for Contract award.

Line Item	Supplier and/or Subcontractor	Name *	Address *	Subcontractor/Own Forces *
1	Mechanical			Select A Value
2	Electrical			Select A Value
3	Structural			Select A Value
4	Communication			Select A Value
5	Sprinkler System			Select A Value
6	Access Control/CCTV System			Select A Value
7	Fire Alarm System			Select A Value
8	Sound Masking System			Select A Value
9	Lightening Conductor			Select A Value

Documents

It is your responsibility to make sure the uploaded file(s) is/are not defective or corrupted and are able to be opened and viewed by the Owner. If the attached file(s) cannot be opened or viewed, your Bid Call Document may be rejected.

It is the sole responsibility of the Bidder to ensure the uploaded file(s) is/are not defective or corrupted in any way, and are able to be opened and viewed by the Agency. If the attached file(s) cannot be opened or viewed, your Bid Call Document may be rejected and no longer considered.

- 1.3 Company Profile * (mandatory)
- 1.4 Experience Leading Similar Projects CCDC-11 * (mandatory)
- 1.5 Project Team and Experience * (mandatory)
- 1.6 Subtrade Team * (mandatory)
- 1.7 Equipment Supply & Structural Fabrication Facility * (mandatory)
- 1.8 Proposed Work Plan * (mandatory)

BONDING UPLOAD SECTION

- Digital Bid Bond * (mandatory)
- Agreement to Bond * (mandatory)

Declarations & Addenda

This Bidder Submission is made entirely in accordance with the Document. By completing the information below and by submitting an online response to the Document, it is deemed that the Bidder has read and agreed to abide by all of the terms and conditions contained in the Document and that you have the authority to bind the Bidder and submit this Bidder Submission on behalf of the Bidder.

I acknowledge in my acceptance of the terms and conditions below the following requirements for Accessibility for Ontarians with Disabilities, <u>Health & Safety Compliance Certificate & Appendix A</u> and <u>Code of Conduct</u>:

Contracted employees, third party employees, agents and others who deal with members of the public on behalf of the Region of Peel or participate in the development of policies, practices and procedures governing the provision of goods or services to members of the public must meet the requirements of the Accessibility for Ontarians with Disabilities Act 2005 and its Regulations with regard to training and the provision of goods or services to persons with disabilities. A document describing the training policy, a summary of the contents of the training and details of training dates and attendees must be submitted to the Region of Peel upon request. If a training policy is not yet in place, complete the training module at the following website: accessforward.ca.

П

I/WE agree to be bound by the terms and conditions in the Document and have authority to bind the Bidder and submit this Bidder Submission on behalf of the Bidder.

The bidder shall declare any potential conflict of interest as defined in the Standard Terms and Conditions that could arise from submitting a bidder submission for this document. Do you have a potential conflict of interest?

Yes
No

The Bidder acknowledges and agrees that the addendum/addenda below form part of the Bid Document

Please check the box in the column "I have reviewed this addendum" below to acknowledge each of the addenda.

File Name

File Name

Pages

attachments (if applicable)

There have not been any addenda issued for this bid.