

Township of McNab/Braeside Recreation Department

CONTRACT DOCUMENTS JAG 2023-11 V2 John A. Gillies Recreation Centre Sports Lighting Ball Diamond & Outdoor Rink Pad

Date of Issue: Wednesday November 29, 2023

Tender Closing Date: Wednesday, December 13, 2023, at 12:00 pm

| Tenderer's Name | Total Tender Amount<br>(From Section FT-4) |
|-----------------|--|
|                 | \$   |
|                 | (Not including HST)                        |

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#### PART I TENDER CALL

Sealed Tenders are invited for the execution of the works described herein.

| Contract Number | <u>JAG 2023-11 V2</u>   |
|-----------------|---|
| Described as    | John A. Gillies Recreation Centre<br>Sports Lighting<br>Ball Diamond & Outdoor Rink Pad |

138 Sarah St. E. Braeside ON

Tenders shall be addressed to:

Location

The Township of McNab/Braeside 2473 Russett Drive Arnprior, Ontario K7S 3G8 c/o Lindsey Lee CAO/Clerk

(Hereinafter the Township)

Tenders shall be received until 12:00 p.m. local time, Wednesday, December 13, 2023, at the address given above.

Tenders received by this time, date and at the location specified above, shall be opened and read in public as soon as possible after that time. <u>Public reading of a Tender does not imply any</u> <u>decision by the Township on whether a Tender is or is not irregular.</u>

#### PART II TENDER CONDITIONS

#### TC-1 Completion and Submission of Tenders

- 1.1 The Tenderer shall complete all documents pertaining to this Contract in ink or in type.
- 1.2 If the Tenderer is a Corporation, an authorized officer of the Corporation shall sign the Form of Tender and shall affix the Corporate Seal.
- 1.3 If the Tenderer is a partnership, a minimum of two partners shall sign the Form of Tender and the signatures shall be witnessed.
- 1.4 If the Tenderer is a sole proprietorship, the sole proprietor shall sign the Form of Tender and the signature shall be witnessed.
- 1.5 The Tenderer shall submit their Tender by the date and time specified in Part I of the Tender.
- 1.6 The Tenderer shall submit to the Township:
  - a. the Tender and
  - b. all Addenda issued by the Township, with respect to this Contract.
- 1.7 The Tenderer shall submit the Tender on the forms provided by the Township and the Tenderer shall seal the forms in a clearly labelled envelope.

#### TC-2 Tender Deposit

2.1 A tender deposit in the form of a certified cheque, bank draft or money order payable to the Corporation of the Township of McNab/Braeside, in the amount of \$5,000.00 must accompany each tender.

#### TC-3 Agreement to Bond

3.1 An Agreement to Bond is not required for this Contract.

#### TC-4 Addenda

4.1 The Tenderer shall ensure that its name and address for receipt of Addenda are included on the Township's list of firms to whom Addenda to this Contract, if any, are to be sent. Inclusion on the Township's list does not absolve the Tenderer of its responsibilities set out in Section TC-9.1 of the Tender.

#### TC-5 Irregular Tenders

5.1 The Township shall be the sole judge of whether or not a Tender is irregular.

#### TC-6 Unbalanced Tenders

- 6.1 The Tenderer shall not submit an unbalanced Tender.
- 6.2 The Township shall have the right to:
  - a. deem a Tender to be unbalanced and
  - b. reject a Tender, which it deems to be unbalanced.

#### TC-7 Collusion

- 7.1 The Tenderer shall not engage in collusion of any sort and in particular, shall:
  - a. ensure that no person or other legal entity, other than the Tenderer, has any interest in the Tenderer's Tender, and
  - b. prepare their Tender without any knowledge of comparison of figures with or arrangement with any other person or firm preparing a Tender for the same work.

#### TC-8 Right to Accept or Reject Tenders

- 8.1 Notwithstanding any other provision in this Contract, the Township shall have the right to:
  - a. accept any Tender;
  - b. reject any Tender, and
  - c. reject all Tenders.
- 8.2 The Township reserves the right to reject a Tender of any Bidder who does not furnish satisfactory evidence of sufficient capital, plant and experience to successfully execute and complete the work.
- 8.3 Without limiting the generality of Section TC-8.1 the Township shall have the right to:
  - a. accept an irregular Tender;
  - b. accept a Tender which is not the lowest Tender, and
  - c. reject a Tender even if it is the only Tender received by the Township.
- 8.4 Acceptance of the Tender shall occur at the time the Township awards the Tender and not necessarily at the time the award is communicated to the successful Tenderer.

#### TC-9 Contract Documents

9.1 The Contractor shall obtain and review all Contract Documents listed in the Form of Tender and all addenda issued by the Township, pertaining to this Contract.

#### TC-10 Errors, Omissions and Discrepancies in the Contract Documents

- 10.1 If the Tenderer finds any errors or omissions in or discrepancies among the Contract Documents, they shall immediately notify the Township at the address specified in Part I of the Tender.
- 10.2 No oral explanation or interpretation by any person shall modify any of the Contract Documents.

#### TC-11 Irrevocability of Offer

11.1 The Tenderer shall not revoke its offer until after the expiration of sixty (60) days after the opening of the Tenders by the Township.

#### TC-12 Successful Tenderer - Bonds

12.1 Bonds are not a requirement for this Contract.

#### <u>TC-13</u> Successful Tenderer - Workplace Safety & Insurance Board Certificate of Clearance

13.1 The successful Tenderer shall provide the Township with a valid Workplace Safety and Insurance Board Certificate of Clearance, to the satisfaction of the Township's Solicitor.

#### TC-14 Successful Tenderer - Execution of Form of Agreement

- 14.1 Execution of a Form of Agreement is not a requirement of this contract.
- 14.2 The Township shall issue a letter to the successful Tenderer to indicate acceptance of the contract.

#### TC-15 Successful Tenderer - Insurance

- 15.1 The Successful Tenderer shall provide the Township with an original Certificate of Insurance, in a format satisfactory to the Township's Solicitor.
- 15.2 The Contractor shall carry General Liability and Automobile Liability Insurance in the amount of at least **TWO MILLION DOLLARS (\$2,000,000).**
- 15.3 The Contractor shall carry General Liability Insurance, which names the following as an additional named insured:

The Corporation of the Township of McNab/Braeside 2473 Russett Drive, Arnprior, Ontario K7S 3G8

15.4 The Contractors Insurance policy shall have a "cross Liability" clause or endorsement and an endorsement to the effect that the policy of policies will not be altered, cancelled or allowed to lapse without thirty days prior to written notice to the township.

#### TC-16 Successful Tenderer – Period of Contract

16.1 The Contractor shall schedule their work under this contract to comply with the following requirements:

Commencement: not before December 1, 2023 Project Completion: October 1, 2024

- 16.2 The Contractor shall complete the work by the time specified in the Tender, unless an extension of time is granted.
- 16.3 An extension of time may be granted in writing by the Township in the event of the work being delayed beyond the prescribed time for completion. Such extensions shall be set with fixed terms by the Township. An application for an extension of time shall be made in writing by the Contractor to the Township at least fifteen (15) days prior to the above noted date of completion fixed by the Contract.
- 16.4 If the Township of McNab/Braeside grants the Contractor an extension of time, the Contractor shall complete the work by the revised specified time for completion.

#### TC-17 Successful Tenderer - Liquidated Damages

17.1 If the Contractor is obliged to pay liquidated damages, the liquidated damages shall be in the amount of **Five Hundred Dollars (\$500.00)** per day.

#### TC-18 Successful Tenderer - Submission of Documentation

- 18.1 The successful Tenderer shall submit the documentation required by Sections TC-13, TC-14 and TC-15 within seven (7) working days of the day the Township notifies the successful Tenderer that the documentation should be sent to the Township.
- 18.2 If the successful Tenderer fails to comply with Section TC-18.1, the Township may, in its sole discretion, withdraw its acceptance of the Tender and the Tenderer shall have no recourse whatsoever against the Township.

#### TC-19 Prices

19.1 Prices quoted shall be the net cost to the Township and shall include all associated costs (i.e. labour, equipment, material, applicable licences and permits) and all other associated costs required to perform the service to the complete satisfaction of the Township.

#### TC-20 Payment

20.1 Payment will be made following the completion of the contract. A 10% holdback will be retained in accordance with the Construction Lien Act.

#### TC-21 Tax Status

- 21.1 The unit price quoted shall include all applicable taxes and fees except the Harmonized Sales Tax of 13%.
- 21.2 The Harmonized Sales Tax (HST) shall be extra to the unit prices quoted.

#### TC-22 Basis of Award

- 22.1 It is the Township's intent to award on a total aggregate price as Tendered; however, the Township reserves the right to award on a line item basis, to the lowest responsive bidders, if deemed to be in the best interest of the Township.
- 22.2 The Township reserves the right to disqualify any Tender that is incomplete or is otherwise not submitted in strict accordance with the terms and conditions set forth in this Contract. The Township reserves the right to accept or reject any or all Tenders, should it be deemed to be in the best interest of the Township. Should only one (1) Tender be received, the Township reserves the right to reject it.
- 22.3 Due to financial constraints, The Township may be required to reduce the work by eliminating items or by reducing individual scope of items of work. The tenderer agrees that the Township may at any time reduce the improvements and payment will be made for the actual amount of work done and material furnished.

#### TC-23 Inquiries

23.1 Inquires concerning this project are to be directed to:

Andrea Lamontagne Recreation Director (613) 623-5756 ext. 226 andrea@mcnabbraeside.com

Questions of clarification will be answered individually, but response(s) to any question that modifies the scope of the Request for tender will be circulated in writing as a Request for Tender Addendum to all registered document takers who have received the Request for Tender document from the Township.

| TENDER |
|--------|
|--------|

#### PART III FORM OF TENDER FT **Tenderer Information** Company Name: Address: Email<sup>.</sup>

| City/Province/Postal Code: |   |
|----------------------------|---|
| Phone Number:              | Fax Number:   |
| Contractor's Signature     | Business Partner's Signature (only if required by TC-1) |
| Witness's Signature        | Corporate Seal (if applicable)                          |

(only if required by TC-1)

#### FT-1 **Contract Documents**

- 1.1 The Contract Documents for Contract JAG 2023-11 V2 are:
  - Tender a.
    - i. Part I.....Tender Call
    - Part II.....Tender Conditions ii.
    - Part III.....Form of Tender iii.
    - Part IV.....Specifications iv.
  - Contract Drawings (C100 & C101) b.
  - All Addenda Issued Pertaining to this Contract C.

#### FT-2 **Tenderer's Declarations**

- 2.1 The Tenderer declares that it has obtained and read the Contract Documents.
- 2.2 The Tenderer declares that it understands and agrees to be bound by the Contract Documents.
- 2.3 Without limiting the generality of Section FT-2.2, the Tenderer declares that it has, at the time of Tendering, fulfilled all of those obligations under the Contract, which are required to be fulfilled by the time of Tendering.

#### FT-3 Tenderer's Offer

- 3.1 The Tenderer offers to do the work in accordance with the Contract Documents.
- 3.2 The Tenderer offers to do the work and to accept payment at the unit prices specified in the Schedule of Prices in Section FT-4 of the Tender, in accordance with the Contract Documents.
- 3.3 The Tenderer's total Tender Price, based on the estimated quantities in the Schedule of Prices is:

\$\_\_\_\_

(price in words)

(\$\_\_\_\_\_)

(price in numbers)

#### FT-4 Schedule of Prices

| Item<br>No. | Description                            | Estimated<br>Quantity | Unit Price               | Amount |
|-------------|--|-----------------------|--------------------------|--------|
| 1           | Ball Diamond                           |                       | Lump Sum                 | \$     |
| 2           | Outdoor Rink                           |                       | Lump Sum                 | \$     |
| 3           | ESA Work Permit and<br>Inspection Fees |                       | Lump Sum                 |        |
|             |  |                       | SUB TOTAL                | \$     |
|             |  |                       | TOTAL<br>TENDER<br>PRICE | \$     |

#### FT-5 Sub-Contractors

The following is a list of Sub-Contractors which I/We propose to employ for this work:

| NAME OF SUB-CONTRACTOR | SCOPE OF WORK |
|------------------------|---------------|
|                        |               |
|                        |               |
|                        |               |

#### FT-6 Submitted Documentation

- 6.1 Derivide product information for all proposed light fixtures. All fixtures are to be LED
- 6.3 
  Provide light distribution analysis for proposed lighting.
- 6.4  $\square$  Proposed work schedule.

#### **Bidder's Comments:**

#### Item 1 – Ball Diamond Lighting

Lighting Specifications – should meet an average of 200 Lux.

Works to include all labour, material and equipment required to remove existing lamp heads and install new LED lighting.

There are 7 existing wooden poles that can be re-used, any poles deemed unusable are to be replaced.

The breaker box is located outdoors on a pole next to the diamond. The box was replaced in 2022- (not the electrical).

The ball diamond is used May through September, ideally work would not conflict with this time frame.

#### Item 2 – Outdoor Rink Lighting

Lighting Specifications – should meet an average of 250 Lux.

Works to include all labour, material and equipment for removal of existing fixtures and poles and installation of LED lighting, new steel poles, trenching and infrastructure.

Currently there are 9 lamp heads and 12 existing wooden poles that must be removed, disposed of and replaced with new steel poles that meet minimum requirements.

The breaker box is located indoors with an outdoor access panel to operate the lights.

The outdoor rink is used as an ice surface December through March, ideally work would not conflict with this time frame.

#### Applicable to Items 1 & 2

Disposal / recycling of old materials to be included in tender price.

Areas where topsoil is to be placed shall be fine graded to a uniform surface. It shall be free of all vegetation, debris, and stones.

Site works are to proceed in a manner that maintains positive drainage.

All areas disturbed throughout the course of construction are to be repaired to their original condition. Material stockpile areas are to be cleaned up on completion of the works.



Ariel view - John A. Gillies Recreation Centre, 138 Sarah St. E. Braeside ON





Ball Diamond Breaker Box



Ball Diamond Breaker Box





| 2 |  |  |  |
|---|--|--|--|
|   | Mage: 1         Margin: 1         Data Angel         Description           Mage: 2         Margin: 2         Margin: 2         Margin: 2         Margin: 2           Mage: 2         Margin: 2         Margin: 2         Margin: 2         Margin: 2         Margin: 2           Margin: 2         Margin: 2         Margin: 2         Margin: 2         Margin: 2         Margin: 2           Margin: 2         Margin: 2         Margin: 2         Margin: 2         Margin: 2         Margin: 2           Margin: 2         Margin: 2         Margin: 2         Margin: 2         Margin: 2         Margin: 2           Margin: 2         Margin: 2         Margin: 2         Margin: 2         Margin: 2         Margin: 2           Margin: 2         Margin: 2         Margin: 2         Margin: 2         Margin: 2         Margin: 2           Margin: 2         Margin: 2         Margin: 2         Margin: 2         Margin: 2         Margin: 2           Margin: 2         Margin: 2         Margin: 2         Margin: 2         Margin: 2         Margin: 2           Margin: 2         Margin: 2         Margin: 2         Margin: 2         Margin: 2         Margin: 2           Margin: 2         Margin: 2         Margin: 2         Margin: 2         Margin:   | 0  |  |
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|   | Image: Sector     Imag |  |  |

|               | DRAPER E           | LECTR                                  | RIC LTD.             |
|---------------|--------------------|--|----------------------|
|               | 613-3              | 25-58                                  | 27                   |
| 1             | HRV RECEPTACLE     |  | CONDENSING UNIT      |
|               | AHU-1              | 1                                      | CONDENSING UNIT 1    |
|               | AHU-1              |  | CONDENSING UNIT 2    |
|               | PUMP-1             | -                                      | CONDENSING UNIT 2    |
|               | PUMP-1             |  | BOILER               |
|               | WELL PUMP          |  | OZONATOR             |
|               | WELL PUMP          |  | SEPTIC PUMP          |
|               | HAND DRYER         |  | SEPTIC PUMP          |
|               | HAND DRYER         |  | CEILING FANS         |
|               | HAND DRYER         |  | GFCI RECEPTACLE      |
|               | HAND DRYER         |  | GFCI RECEPTACLE      |
|               | ASSEMBLY FLOOR BOX |  | REFRIGERATOR         |
| 1.11.11.11.11 | FREEZER            |  | REFRIGERATOR         |
|               | RINK LIGHTS        |  | RECEPTACLES          |
|               | RINK LIGHTS        |  | IT SHELF             |
|               | ELECTRIC RANGE     |  | DOOR OPERATORS       |
| 33            | ELECTRIC RANGE     |  | LIGHTING             |
|               | DRINKING FOUNTAIN  |  | RECEPTACLES          |
| 37            | RECEPTACLES        |  | RECEPTACLES          |
| 39            | RECEPTACLES        |  | EXT. RECEPTACLES     |
| 41            | GFI RECEPTACLES    | S & Manuscreation                      | RECEPTACLES          |
| 43            | RECEPTACLES        |  | RECEPTACLES          |
| 45            | RANDGE HOOD        |  | KITCHEN RECEPTACLES  |
| 47            | MECHANICAL CNTRLS  |  | KITCHEN RECEPTACLES  |
|               | MECHANICAL CNTRLS  |  | KITCHEN RECEPTACLES  |
| 51            | LIGHTING           |  | KITCHEN RECEPTACLES  |
| 53            | ASSEMBLY LIGHTING  | Statement of the local division of the | SECURITY RECEPTACLES |
| 55 :          | SPARE              |  | MECHANICAL CNTRLS    |
| 57 1          | RINK LIGHTS        | Statistics and states and              | PUMP 2               |
| 591           | RINK LIGHTS        | 60                                     | PUMP 2               |
| 61 8          | ENTRANCE HEATER    | 62                                     | PUMP 3               |
|               | ENTRANCE HEATER    | 64                                     | PUMP 3               |
| _             | ENTRANCE HEATER    | 66                                     | HEATER MECH. RM      |
| COLUMN DESIGN | INTRANCE HEATER    | Colorest and the second second         | HEATER MECH. RM      |
|               | NTRANCE HEATER     |  | URGE SUPRESSOR       |
| 71 E          | NTRANCE HEATER     |  | URGE SUPRESSOR       |

#### ELECTRICAL GENERAL SPECIFICATION

- DIVISION OF WORK AND SUPPLY OF MATERIALS AT SOLE DISCRETION OF CONTRACTOR, ASIDE FROM WORK REQUIRING REGULATED TRADES PERSONS. ALL TRADES REQUIRED TO COORDINATE UNDER DIRECTION OF CONTRACTOR. CONTRACTOR TO SUBMIT QUERIES TO ENGINEER ON BEHALF OF TRADES, AS THE SOLE PARTY RESPONSIBLE FOR TOTAL COMPLETION OF THE CONTRACT
- SUPPLY AND INSTALL AII ITEMS, ARTICLES, MATERIAL OPERATIONS INCLUDING ALL LABOUR, EQUIPMENT, MATERIALS AND TOOLS NECESSARY TO COMPLETE ALL SYSTEMS SHOWN ON THE DRAWINGS RENDERING A COMPLETE INSTALLATION
- OBTAIN ALL PERMITS REQUIRED. ARRANGE FOR INSPECTION OF THE WORK BY INSPECTION AUTHORITY HAVING JURISDICTION AND PAY ALL FEES. PROVIDE THE FINAL CERTIFICATE TO THE OWNER.
- CONTRACT DRAWINGS ARE IN PART DIAGRAMMATIC, INTENDED TO CONVEY THE SCOPE OF WORK AND GENERAL ARRANGEMENT FOR SYSTEMS AND EQUIPMENT. CONTRACTOR TO COORDINATE LAYOUT OF ALL SYSTEMS WITH ALL OTHER DIVISIONS, PROVIDE ADDITIONAL PIPING, MATERIALS, FITTINGS. SUPPORTS, ETC., REQUIRED TO FACILITATE THE WORK FOR COMPLETE INSTALLATION
- CONFORM TO THE LATEST REQUIREMENTS OF THE ONTARIO ELECTRICAL SAFETY CODE (OESC) AND ALL RULES, BY-LAWS AND AUTHORITIES HAVING JURISDICTION
- . ALL MATERIALS AND EQUIPMENT SHALL BE NEW, CANADIAN SAFETY AUTHORITY (CSA) APPROVED, BEAR THE CSA STAMP AND BE OF COMMERCIAL GRADE
- IDENTIFY ALL EQUIPMENT WITH LAMACOID PLATE. PROVIDE TYPE WRITTEN CIRCUIT DIRECTORIES FOR PANEL BOARDS.
- PROVIDE A CERTIFICATE OF GUARANTEE OF WORKMANSHIP AND MATERIAL FOR ONE YEAR FROM DATE OF ACCEPTANCE.
- VISIT SITE AND THOROUGHLY REVIEW THE DRAWINGS. COORDINATE WITH ARCHITECTURAL DRAWINGS PRIOR TO PRICING AND INSTALLATION.
- 10. FIXTURE OR EQUIPMENT SUBSTITUTIONS, IF INITIATED BY THE CONTRACTOR, SHALL BE MADE SO AS TO ENSURE OPERATING PERFORMANCE IS NOT REDUCED. REVIEW OF SPECIFICATIONS FOR SUBSTITUTED EQUIPMENT MAY RESULT IN ADDITIONAL CHARGES BY THE ENGINEER. ALL CORRESPONDENCE FOR CLARIFICATION OF DESIGN FEATURES, SPECIFICATIONS, AND EQUIPMENT SUBSTITUTIONS SHALL BE MADE IN WRITING INCLUDING APPROVED SHOP DRAWINGS OF NEW PRODUCTS ALLOW FOR A ONE WEEK RESPONSE TIME FROM THE ENGINEER. ANY ADDITIONAL COSTS RELATED TO EQUIPMENT SUBSTITUTIONS TO BE ABSORBED BY THE CONTRACTOR.

#### METHODS

- GROUND ALL EQUIPMENT TO THE REQUIREMENT OF THE OESC AND INSPECTION AUTHORITIES HAVING JURISDICTION.
- ARMORED CABLE, AC90, REQUIRED BEHIND DRYWALL.
- PROVIDE JUNCTION BOXES WITH COVER PLATES AS REQUIRED BY THE OESC. CONDUIT AND BOXES SHALL BE SIZED ACCORDING TO THE OESC
- REQUIREMENT BASED ON THE NUMBER OF CONDUCTORS. PROVIDE PULL BOXES FOR CONDUIT RUNS GREATER THAN 115 FEET
- ALL CONDUIT SHALL BE FIRMLY FASTENED IN PLACE SO AS TO SUPPORT THE WEIGHT OF CONDUIT AND TO PREVENT ANY STRAIN OR STRESS AT TERMINATIONS ACCORDING TO THE OESC.
- ALL CONDUIT TO BE CONCEALED UNLESS APPROVED BY THE OWNER. WHERE CONDUIT RUNS HORIZONTALLY ACROSS WALL STUDS, NOTCHES SHOULD BE CUT TO RECESS CONDUIT. NOTCHES TO BE PROTECTED BY STEEL PLATES. CONTRACTOR IS REQUIRED TO COORDINATE WITH STRUCTURAL ENGINEER BEFORE PROCEEDING.
- . RECEPTACLES LOCATED WITHIN 10 FEET (3m) OF A DAMP OR WET LOCATION SHALL BE GROUND FAULT CIRCUIT INTERRUPTER TYPE.
- RECEPTACLES, SWITCHES, AND COVER PLATES SHALL BE STANDARD NYLON IN FINISHED AREAS AND STAMPED METAL IN UNFINISHED AREAS. COLOUR OF NYLON COVER PLATES TO BE CONFIRMED WITH OWNER.
- 10. IDENTIFY EACH WIRE AND CABLE AT EVERY TERMINATION POINT. IDENTIFY ALL EMT AND CONDUITS WITH COLOUR BANDS
- 1. NON-CURRENT CARRYING METAL PARTS FOR FIXED EQUIPMENT SHALL BE BONDED TO GROUND. INSTALL SEPARATE BONDING IN LIQUID TIGHT
- 12. WHERE CEILING SPACE IS USED AS A RETURN AIR PLENUM, ALL WIRING SHALL CONFORM TO CODES FOR THIS APPLICATION.
- 13. PROVIDE SEPARATE GROUND WIRE IN ALL PVC (CONCRETE) CONDUITS.
- 14. PROVIDE SEPARATE NEUTRAL FOR EACH LIGHTING CIRCUIT.
- 15. PROVIDE ONE IDENTIFIED, GROUNDED NEUTRAL CONNECTOR FOR EACH SET OF BRANCH CIRCUITS CONNECTED TO DIFFERENT MAINS AT THE PANELS. CHECK TO ENSURE COMMON NEUTRALS ARE CONNECTED TO THE SAME MAIN OR PHASE.
- 16. MINIMUM WIRE SIZE SHALL BE #12 AWG FOR HOMERUNS UP TO 90 FT. AND #10 AWG FOR HOMERUNS OVER 90 FT. UNLESS OTHERWISE NOTED.
- 17. BALANCE THE LOADING ON FEEDERS SO THAT UNBALANCED LOAD IS LESS THAN 10%. 18. LIMIT THE VOLTAGE DROP AT THE END OF FEEDERS AND BRANCH CIRCUITS TO 2% AT THE RATED LOAD OF THE CIRCUIT.
- 19. PROVIDE ALL WIRING DEVICES TO SPECIFICATION GRADE.
- 20. INSTALL ALL WALL OUTLETS FLUSH IN WALL. GROUP DEVICES SHALL BE MOUNTED IN GANGED BOX WITH A COMMON COVER PLATE. PROVIDE BARRIER BETWEEN POWER AND COMMUNICATION OUTLETS.
- 21. ELECTRICAL CONTRACTOR TO REVIEW ALL MECHANICAL DRAWINGS AND SUPPLY AND INSTALL ALL IN-LINE POWER (120V AND ABOVE) TO ALL MECHANICAL EQUIPMENT. CONTROLS WIRING (LESS THAN 120V) SHALL BE INSTALLED BY THE MECHANICAL CONTRACTOR.
- 22. ALL MECHANICAL AND ELECTRICAL EQUIPMENT WHICH REQUIRES ELECTRIC INTERLOCK CONTROLS, SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
- 23. THE CONTRACTOR SHALL PROVIDE TEMPORARY ELECTRICAL LIGHTING AND POWER FOR THE WORK REQUIRED FOR THIS TRADE AS WELL AS FOR OTHER TRADES AS REQUIRED BY THE GENERAL CONTRACTOR OR OWNER.
- 24. THE DISCONNECT SWITCHES SHALL BE OF THE "QUICK-MAKE/QUICK-BREAK" TYPE.
- 25. CONNECT ALL MECHANICAL AND OWNER'S EQUIPMENT AS SHOWN ON THE DRAWINGS. PROVIDE DISCONNECT SWITCHES AS REQUIRED ADJACENT TO THE UNIT.
- 26. ALL GROUNDING SHALL CONFORM TO THE REQUIREMENTS OF THE OESC AND LOCAL AUTHORITIES HAVING JURISDICTION.
- 27. ANY ELECTRIC BASEBOARD OR FORCED FLOW HEATERS SHALL BE SUPPLIED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. ALL ELECTRIC DUCT HEATERS ARE SUPPLIED AND INSTALLED BY THE MECHANICAL CONTRACTOR, BUT WIRED BY ELECTRICAL CONTRACTOR.
- 28. ALL DISTRIBUTION EQUIPMENT SHALL BE MANUFACTURED BY SQUARE D UNLESS OTHERWISE INDICATED ON DRAWINGS.

#### CONDUIT AND FITTINGS

- CONDUIT SIZES SHALL BE AS INDICATED ON THE DRAWINGS AND SHALL NOT BE REDUCED IN SIZE WITHOUT AUTHORIZATION. CONDUIT IN FINISHED AREA SHALL BE CONCEALED. ALL CONDUIT SHALL BE INSTALLED PARALLEL TO BUILDING LINES. MAKE FINAL CONNECTIONS TO VIBRATING EQUIPMENT WITH FLEXIBLE CONDUITS.
- CONDUITS SHALL BE INSTALLED AT A MINIMUM OF 6 INCHES (150mm) FROM UNINSULATED HEATING PIPES.
- CLEAN INTERIOR OF ALL CONDUITS TO REMOVE WATER AND DEBRIS BEFORE PULLING WIRES.
- BX CABLES SHALL BE USED FOR FINAL SHORT CONNECTIONS BETWEEN OUTLET AND OUTLET BOX IN CEILING SPACE TO CEILING MOUNTED

PARTITIONS

- BX CABLES ARE NOT ALLOWED TO RUN IN THE OPEN CEILING AREAS.
- EMPTY FLEXIBLE STEEL CONDUIT 1/2 INCH (13mm) MINIMUM DIAMETER AND A MAXIMUM OF 6 FEET (1830mm) LONG, WITH A FISH WIRE AS INDICATED IN THE DRAWINGS CAN ALSO BE USED.
- FOR FIREPROOFING WHERE HOLES ARE DRILLED THROUGH FLOORS OR WALLS, THEY SHALL BE PACKED AROUND CONDUIT WITH "3M" BRAND FIRE BARRIER CAULK CP25 OR 303 PUTTY COMPOUND. MINIMUM CONDUIT SHALL BE 3/4 INCH (19mm) UNLESS OTHERWISE NOTED.
- CONDUITS AND ARMORED CABLES SHALL BE SUPPORTED INDEPENDENTLY OF THE SUSPENDED CEILING.
- 9. SUPPLY AND INSTALL CONDUIT FOR WIRING AND CABLES WHERE THERE IS NO SUSPENDED CEILING SPACE. 10. ALL EXPOSED CONDUIT IN NON-INDUSTRIAL AREAS, AND SERVICE ROOMS

#### PENETRATIONS

TO BE PAINTED TO MATCH WALLS, ETC.

- ANY AND ALL CUTTING, CORING AND PATCHING SHALL BE VERIFIED WITH THE OWNER PRIOR TO PERFORMING WORK. PAYMENT FOR SUCH SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ANY PENETRATION OF STRUCTURAL MEMBERS, FLOORS OR CEILINGS TO BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD.
- PROVIDE SLEEVES, FLASHING AND COUNTER FLASHING WHERE ELECTRICAL SERVICES PENETRATE WALLS, FLOORS AND ROOFS. ANNULAR SPACE BETWEEN SLEEVES AND SERVICES SHALL BE PROVIDED WITH APPROVED FIRE STOPPING DEVICE/METHOD AND SEALED AIR TIGHT.
- THE CONTRACTOR SHALL NOTIFY THE OWNER OR GENERAL CONTRACTOR (AND OTHER CONTRACTORS WHO ARE INVOLVED) OF ALL OPENINGS, FOUNDATION WORK, HANGERS, INSERTS, ANCHORS, OR OTHER PROVISIONS NECESSARY IN THEIR WORK FOR THE INSTALLATION OF THEIR WORK, AND SHALL FURNISH ALL INFORMATION AND NECESSARY MATERIALS IN AMPLE IME SO THAT PROPER PROVISIONS CAN BE MADE FOR SAME, AND SHALL SUPPLY AND CORRECTLY AND ACCURATELY PLACE ALL INSERTS, SLEEVES, ANCHORS, ETC.
- FAILURE TO COMPLY WITH THESE REQUIREMENTS ON THE PART OF THIS CONTRACTOR WILL RENDER THEM RESPONSIBLE FOR THE COST OF CUTTING OPENINGS, INSTALLING HANGERS AND OTHER PROVISIONS AT A LATER DATE, AND THE SUBSEQUENT PATCHING, ETC., THEREBY REQUIRED.
- NO CUTTING SHALL BE DONE WITHOUT PERMISSION. ALL SUCH WORK SHALL BE DONE BY TRADESMEN SKILLED IN AND CERTIFIED FOR THIS PARTICULAR TRADE
- 6. ALL PENETRATIONS TO BE APPROVED BY THE ARCHITECT OR ENGINEER IN WRITING.
- ANY EXTERIOR PENETRATION TO BE APPROPRIATELY FLASHED AND WEATHER PROOFED WITH APPROVED SEALING METHODS.
- 8. ALL PENETRATION OF SERVICES THROUGH RATED FIRE ASSEMBLIES TO BE COMPLETED USING AN APPROVED FIRE STOP MATERIAL AND METHOD. EXAMINATION OF SITE
- THE CONTRACTOR SHALL VISIT THE SITE OF THE PROJECT TO FAMILIARIZE
- WITH THE SPECIFIC SITE CONDITIONS. ANY DEVIATIONS OR CONFLICTS ON-SITE ESPECIALLY CONCERNING THE DISTRIBUTION DIAGRAM(S) AS SHOWN ON THE PLANS, SHALL BE
- REPORTED TO THE ENGINEER PRIOR TO SUBMITTING TENDER. CONSTRUCTION SCHEDULE
- OWNER (OR OWNER'S REPRESENTATIVE) TO PROVIDE THE ENGINEER WITH ACCURATE CONSTRUCTION SCHEDULE AT THE OUTSET OF CONSTRUCTION AND INCLUDE UPDATES AS APPLICABLE.
- 2. THIS CONTRACTOR SHALL SCHEDULE AND PERFORM THEIR WORK TO MEET THE COMPLETION SCHEDULE, NOTED ABOVE, AS SET OUT BY THE CLIENT. **REVISIONS AND EXTRAS**
- NO ADDITIONAL MONEY OVER THE CONTRACT PRICE SHALL BE PAID UNLESS AN APPROVED CHANGE ORDER IS ISSUED BY THE ENGINEER. 2. CLAIMS FOR EXTRAS SHALL BE SUBMITTED WITH A COMPLETE BREAKDOWN
- MATERIAL, LABOUR, HOURLY RATES, ET 3. THERE SHALL BE NO EXTRA CLAIM FOR RELOCATION OF ANY EQUIPMENT WITHIN 10 FEET FROM ORIGINAL LOCATION.

#### LOAD BALANCING

- 1. CONTRACTOR TO MEASURE PHASE CURRENT TO PANELBOARDS WITH NORMAL LOADS OPERATING AT THE TIME OF ACCEPTANCE.
- 2. ADJUST BRANCH CIRCUIT CONNECTIONS AS REQUIRED TO OBTAIN THE BEST BALANCE OF CURRENT BETWEEN PHASES AND RECORD CHANGES.
- SUBMIT, AT COMPLETION OF WORK, A REPORT LISTING PHASE AND NEUTRAL CURRENTS ON PANELBOARDS, AND MOTOR FEEDERS, OPERATING UNDER NORMAL LOAD. STATE HOUR AND DATE ON WHICH EACH LOAD WAS MEASURED, AND VOLTAGE AT TIME OF TEST.

#### DEMONSTRATION OF THE SYSTEM

DEMONSTRATE THE FUNCTION AND OPERATION OF EACH SYSTEM TO THE OWNER

## COORDINATION

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO CO-ORDINATE THE INSTALLATION OF EQUIPMENT, CONDUIT WORK, LIGHTING FIXTURES, ETC. WITH OTHER TRADES AND THE OWNER PRIOR TO THE ACTUAL INSTALLATION.

### ACCESSIBILITY

ALL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIRS.

## RESPONSIBILITY

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THIS WORK UNTIL COMPLETION AND FINAL ACCEPTANCE, FOR REPLACING ANY ITEM THAT MAY BE DEFECTIVE, DAMAGED, LOST OR STOLEN WITHOUT ADDITIONAL COST TO THE OWNER OR DELAY TO THE COMPLETION OF THE PROJECT.

#### ELECTRICAL DRAWINGS

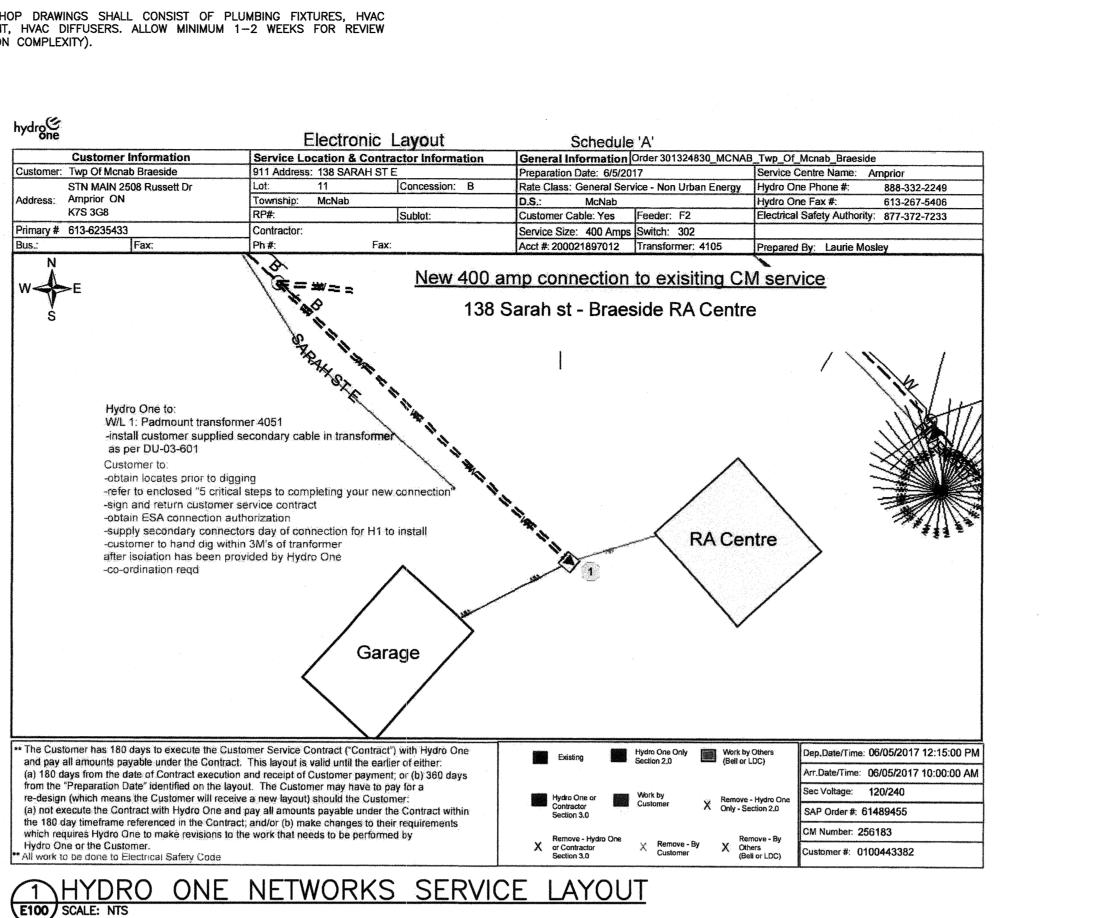
THE CONTRACTOR SHALL PREPARE, AT THEIR OWN EXPENSE, ANY LARGE SCALE WORKING DRAWINGS WHICH MAY BE REQUIRED BY THE EXAMINING AUTHORITIES.

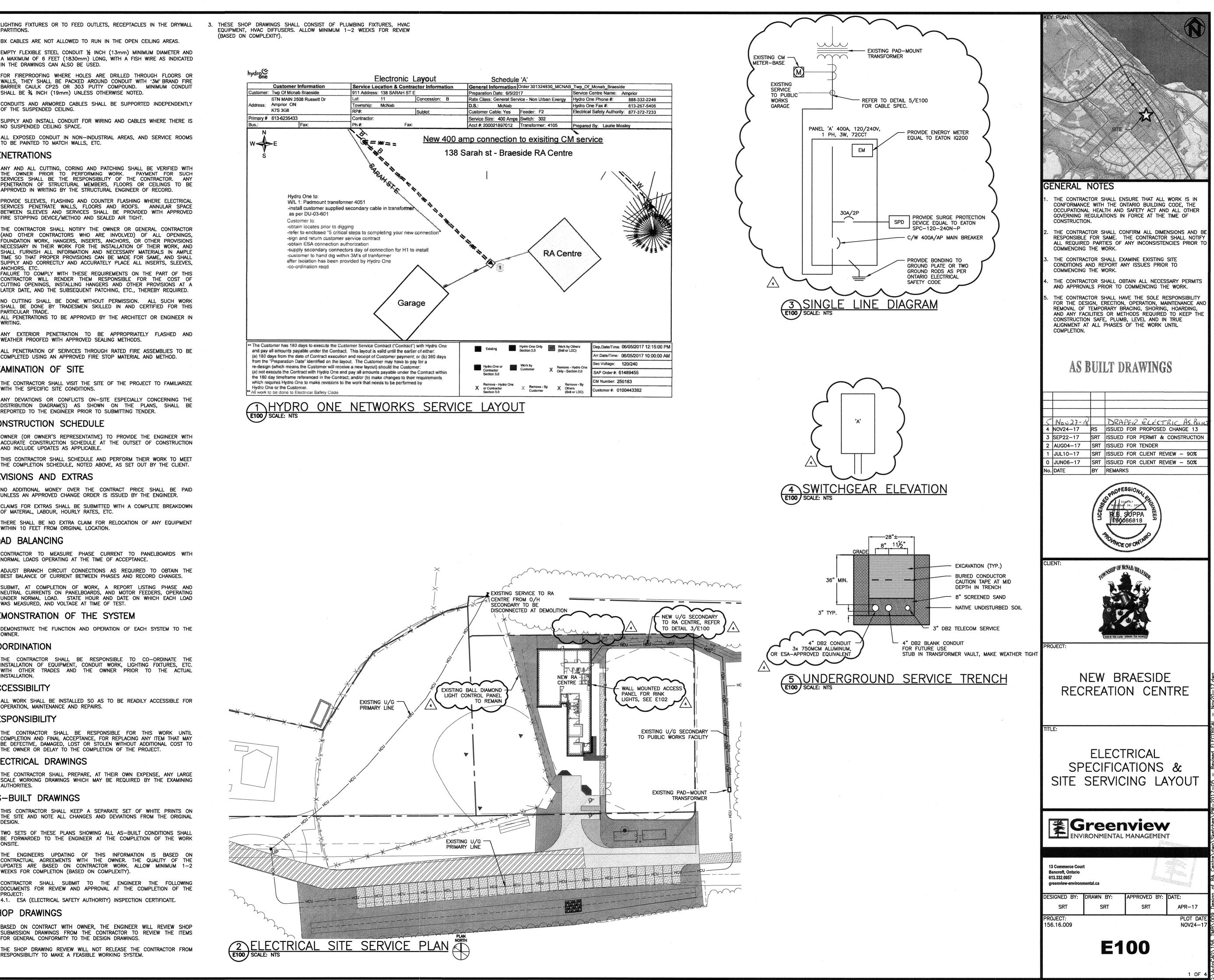
### AS-BUILT DRAWINGS

- THIS CONTRACTOR SHALL KEEP A SEPARATE SET OF WHITE PRINTS ON THE SITE AND NOTE ALL CHANGES AND DEVIATIONS FROM THE ORIGINAL DESIGN
- TWO SETS OF THESE PLANS SHOWING ALL AS-BUILT CONDITIONS SHALL BE FORWARDED TO THE ENGINEER AT THE COMPLETION OF THE WORK
- THE ENGINEERS UPDATING OF THIS INFORMATION IS BASED ON CONTRACTUAL AGREEMENTS WITH THE OWNER. THE QUALITY OF THE UPDATES ARE BASED ON CONTRACTOR WORK. ALLOW MINIMUM 1-2 WEEKS FOR COMPLETION (BASED ON COMPLEXITY).
- CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE FOLLOWING DOCUMENTS FOR REVIEW AND APPROVAL AT THE COMPLETION OF THE PROJECT: 4.1. ESA (ELECTRICAL SAFETY AUTHORITY) INSPECTION CERTIFICATE.

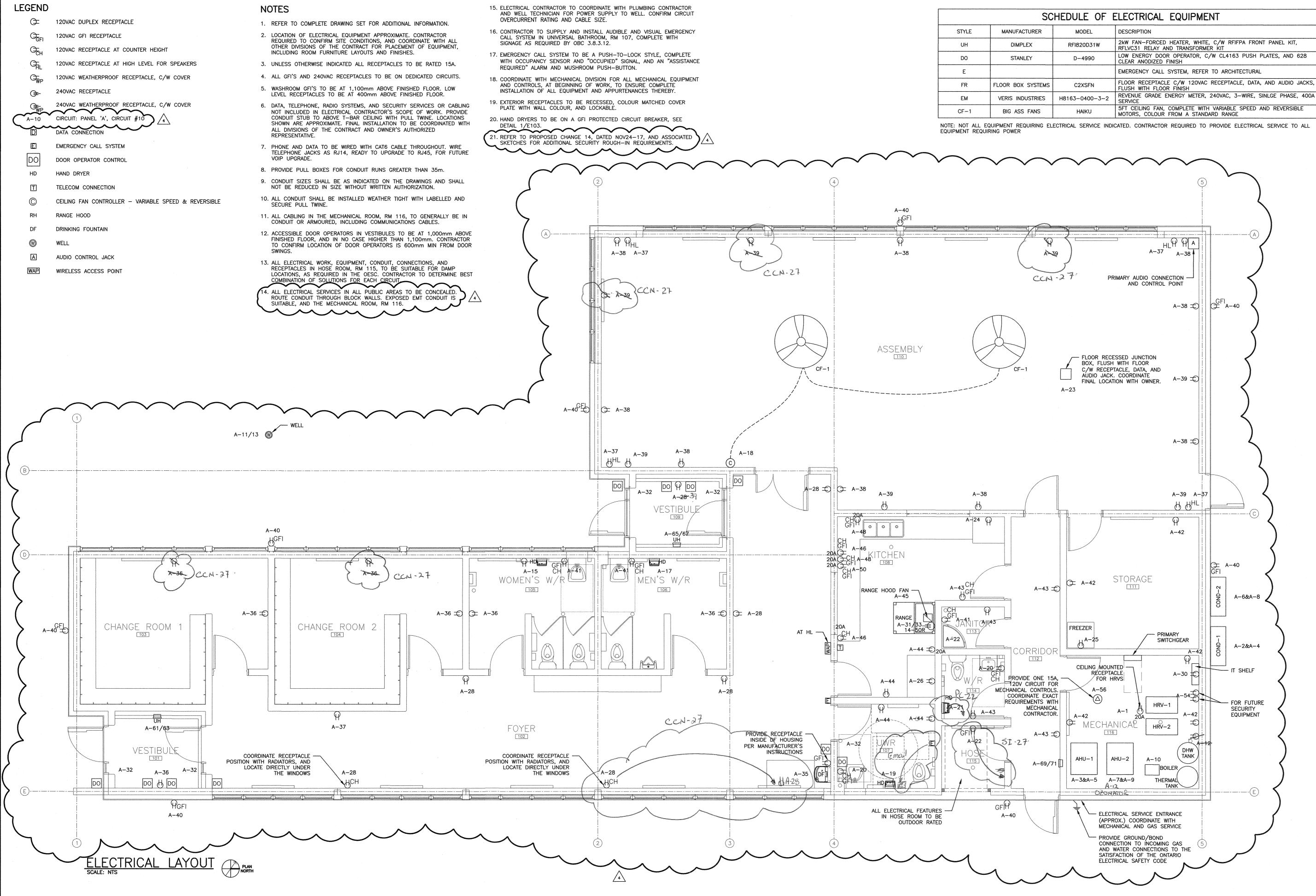
#### SHOP DRAWINGS

- BASED ON CONTRACT WITH OWNER, THE ENGINEER WILL REVIEW SHOP SUBMISSION DRAWINGS FROM THE CONTRACTOR TO REVIEW THE ITEMS FOR GENERAL CONFORMITY TO THE DESIGN DRAWINGS.
- 2. THE SHOP DRAWING REVIEW WILL NOT RELEASE THE CONTRACTOR FROM RESPONSIBILITY TO MAKE A FEASIBLE WORKING SYSTEM.

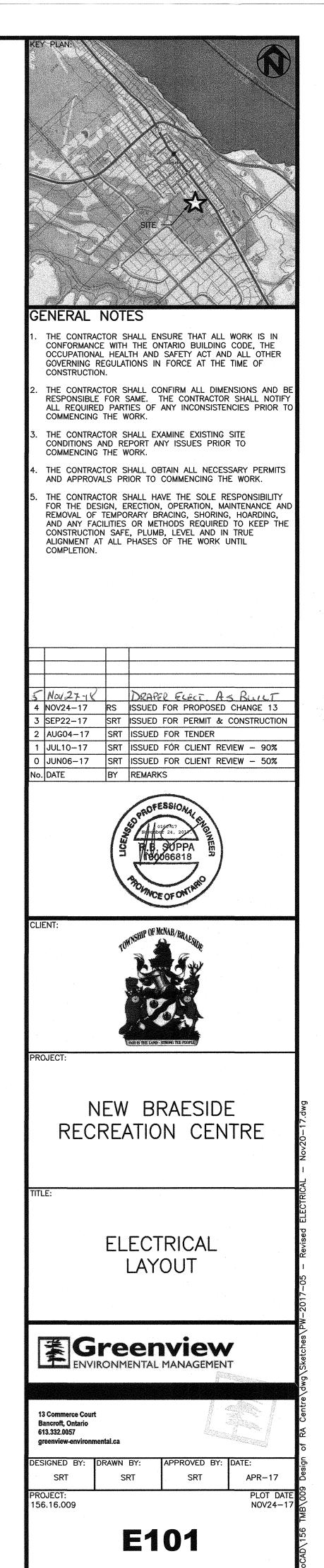




| LEGEND          |  | NOTES  | 15. E      |
|-----------------|--|--|------------|
| Œ               | 120VAC DUPLEX RECEPTACLE                             | 1. REFER TO COMPLETE DRAWING SET FOR ADDITIONAL INFORMATION.   | Ć          |
| GE              | 120VAC GFI RECEPTACLE                                | 2. LOCATION OF ELECTRICAL EQUIPMENT APPROXIMATE. CONTRACTOR<br>REQUIRED TO CONFIRM SITE CONDITIONS, AND COORDINATE WITH ALL  | 16. (      |
| С <sub>сн</sub> | 120VAC RECEPTACLE AT COUNTER HEIGHT                  | OTHER DIVISIONS OF THE CONTRACT FOR PLACEMENT OF EQUIPMENT,<br>INCLUDING ROOM FURNITURE LAYOUTS AND FINISHES.  | 17. E      |
| G               | 120VAC RECEPTACLE AT HIGH LEVEL FOR SPEAKERS         | 3. UNLESS OTHERWISE INDICATED ALL RECEPTACLES TO BE RATED 15A.   | V<br>F     |
| Gwp             | 120VAC WEATHERPROOF RECEPTACLE, C/W COVER            | 4. ALL GFI'S AND 240VAC RECEPTACLES TO BE ON DEDICATED CIRCUITS.   | 18. 0      |
| ()              | 240VAC RECEPTACLE                                    | <ol> <li>WASHROOM GFI'S TO BE AT 1,100mm ABOVE FINISHED FLOOR. LOW<br/>LEVEL RECEPTACLES TO BE AT 400mm ABOVE FINISHED FLOOR.</li> </ol>                                   | A<br>II    |
| Gwp_            | 240VAC WEATHERPROOF RECEPTACLE, C/W COVER            | 6. DATA, TELEPHONE, RADIO SYSTEMS, AND SECURITY SERVICES OR CABLING<br>NOT INCLUDED IN ELECTRICAL CONTRACTOR'S SCOPE OF WORK. PROVIDE                                      | 19. E<br>F |
| A-10            | CIRCUIT: PANEL 'A', CIRCUIT #10                      | CONDUIT STUB TO ABOVE T-BAR CEILING WITH PULL TWINE. LOCATIONS<br>SHOWN ARE APPROXIMATE. FINAL INSTALLATION TO BE COORDINATED WITH   | 20. F      |
|                 | DATA CONNECTION                                      | ALL DIVISIONS OF THE CONTRACT AND OWNER'S AUTHORIZED REPRESENTATIVE.   | 21. F      |
| E               | EMERGENCY CALL SYSTEM                                | 7. PHONE AND DATA TO BE WIRED WITH CAT6 CABLE THROUGHOUT. WIRE TELEPHONE JACKS AS RJ14, READY TO UPGRADE TO RJ45, FOR FUTURE   |            |
| DO              | DOOR OPERATOR CONTROL                                | VOIP UPGRADE.  |            |
| HD              | HAND DRYER   | 8. PROVIDE PULL BOXES FOR CONDUIT RUNS GREATER THAN 35m.   |            |
| Т               | TELECOM CONNECTION                                   | 9. CONDUIT SIZES SHALL BE AS INDICATED ON THE DRAWINGS AND SHALL<br>NOT BE REDUCED IN SIZE WITHOUT WRITTEN AUTHORIZATION.  |            |
| $\bigcirc$      | CEILING FAN CONTROLLER - VARIABLE SPEED & REVERSIBLE | 10. ALL CONDUIT SHALL BE INSTALLED WEATHER TIGHT WITH LABELLED AND SECURE PULL TWINE.  |            |
| RH              | RANGE HOOD   | 11. ALL CABLING IN THE MECHANICAL ROOM, RM 116, TO GENERALLY BE IN CONDUIT OR ARMOURED, INCLUDING COMMUNICATIONS CABLES.   |            |
| DF              | DRINKING FOUNTAIN                                    | 12. ACCESSIBLE DOOR OPERATORS IN VESTIBULES TO BE AT 1,000mm ABOVE   |            |
| $\bigotimes$    | WELL   | FINISHED FLOOR, AND IN NO CASE HIGHER THAN 1,100mm. CONTRACTOR<br>TO CONFIRM LOCATION OF DOOR OPERATORS IS 600mm MIN FROM DOOR<br>SWINGS.                                  |            |
| A               | AUDIO CONTROL JACK                                   | 13. ALL ELECTRICAL WORK, EQUIPMENT, CONDUIT, CONNECTIONS, AND  |            |
| WAP             | WIRELESS ACCESS POINT                                | RECEPTACLES IN HOSE ROOM, RM 115, TO BE SUITABLE FOR DAMP<br>LOCATIONS, AS REQUIRED IN THE OESC. CONTRACTOR TO DETERMINE BEST<br>COMBINATION OF SOLUTIONS FOR EACH CIRCUIT |            |
|                 |  | 14. ALL ELECTRICAL SERVICES IN ALL PUBLIC AREAS TO BE CONCEALED.   |            |

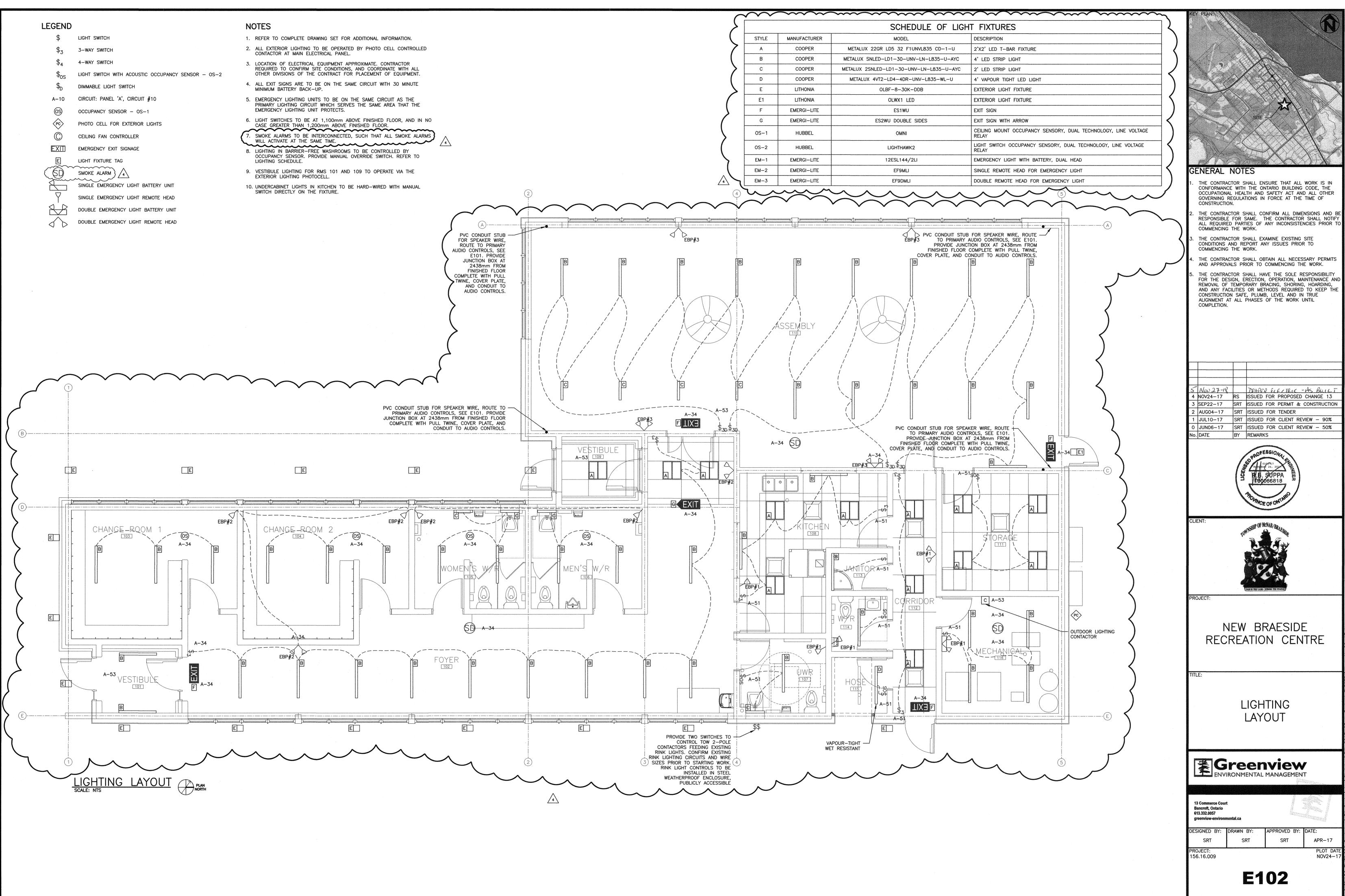


| EDULE OF       | ELECTRICAL EQUIPMENT  |
|----------------|---|
| MODEL          | DESCRIPTION   |
| RFI820D31W     | 2kW FAN-FORCED HEATER, WHITE, C/W RFIFPA FRONT PANEL KIT,<br>RFLVC31 RELAY AND TRANSFORMER KIT    |
| D-4990         | LOW ENERGY DOOR OPERATOR, C/W CL4163 PUSH PLATES, AND 628<br>CLEAR ANODIZED FINISH                |
|                | EMERGENCY CALL SYSTEM, REFER TO ARCHITECTURAL   |
| C2XSFN         | FLOOR RECEPTACLE C/W 120VAC RECEPTACLE, DATA, AND AUDIO JACKS, FLUSH WITH FLOOR FINISH            |
| H8163-0400-3-2 | REVENUE GRADE ENERGY METER, 240VAC, 3-WIRE, SINLGE PHASE, 400A SERVICE                            |
| HAIKU          | 5FT CEILING FAN, COMPLETE WITH VARIABLE SPEED AND REVERSIBLE MOTORS, COLOUR FROM A STANDARD RANGE |



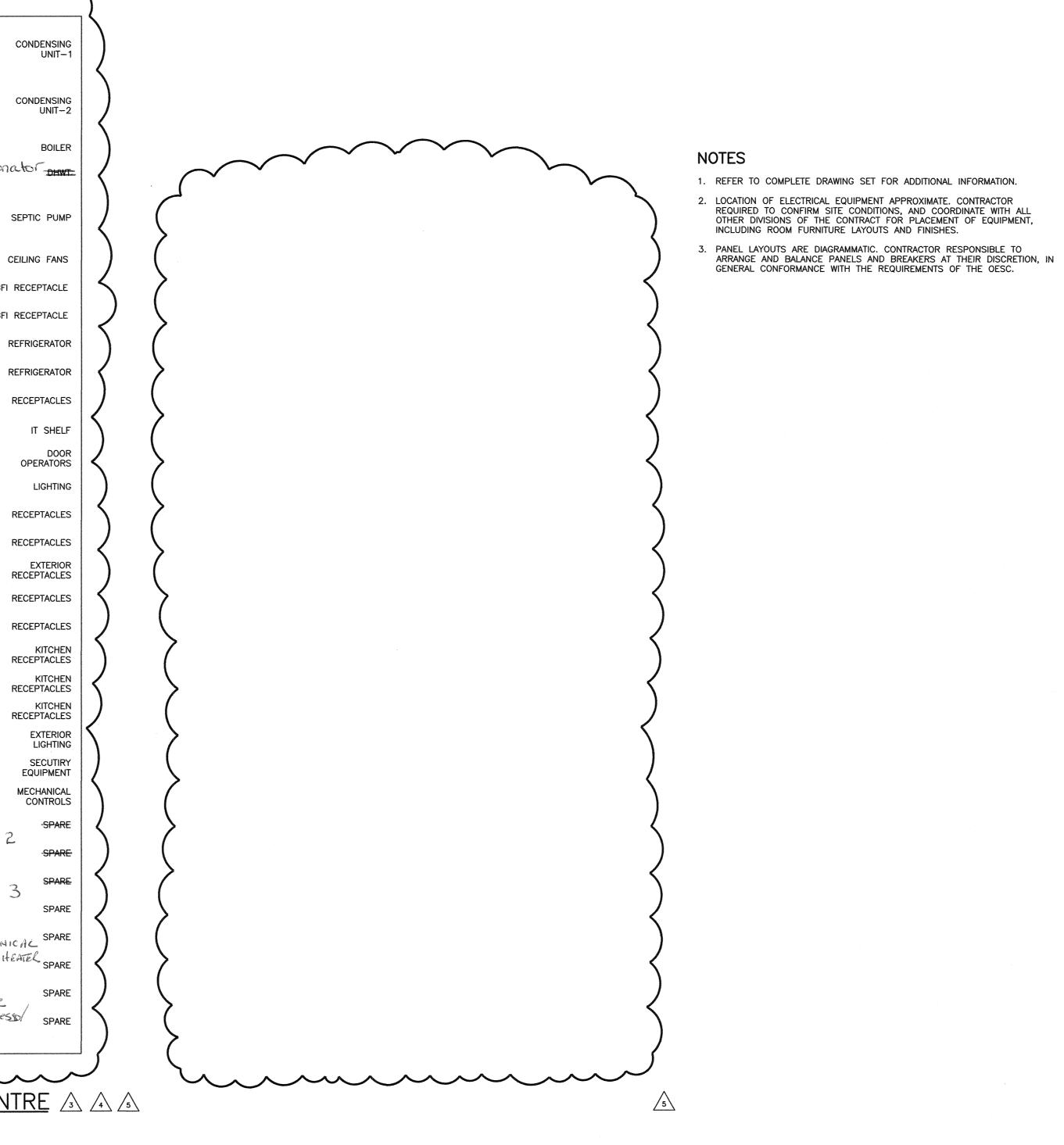
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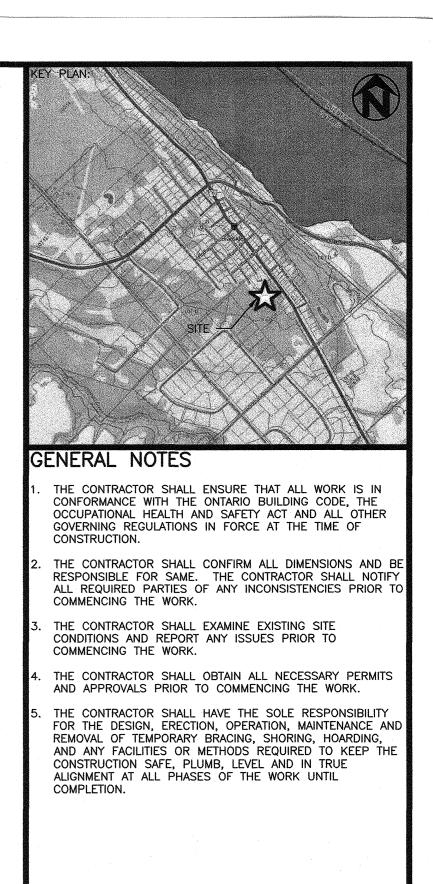
#### LEGEND NOTES LIGHT SWITCH 1. REFER TO COMPLETE DRAWING SET FOR ADDITIONAL INFORMATION. 3-WAY SWITCH \$3 CONTACTOR AT MAIN ELECTRICAL PANEL. 4-WAY SWITCH 3. LOCATION OF ELECTRICAL EQUIPMENT APPROXIMATE. CONTRACTOR ₽4 LIGHT SWITCH WITH ACOUSTIC OCCUPANCY SENSOR - OS-2 ₽os DIMMABLE LIGHT SWITCH MINIMUM BATTERY BACK-UP. CIRCUIT: PANEL 'A', CIRCUIT #10 A-10 EMERGENCY LIGHTING UNIT PROTECTS. (OS) OCCUPANCY SENSOR - OS-1 (PC) PHOTO CELL FOR EXTERIOR LIGHTS CASE GREATER THAN 1,200mm ABOVE FINISHED FLOOR. $\bigcirc$ CEILING FAN CONTROLLER WILL ACTIVATE AT THE SAME TIME. EXIT EMERGENCY EXIT SIGNAGE 8. LIGHTING IN BARRIER-FREE WASHROOMS TO BE CONTROLLED BY LIGHT FIXTURE TAG LIGHTING SCHEDULE. $\sim\sim\sim\sim$ (SD) SMOKE ALARM EXTERIOR LIGHTING PHOTOCELL. $\sim$ SINGLE EMERGENCY LIGHT BATTERY UNIT $\overline{}$ SWITCH DIRECTLY ON THE FIXTURE. SINGLE EMERGENCY LIGHT REMOTE HEAD R DOUBLE EMERGENCY LIGHT BATTERY UNIT



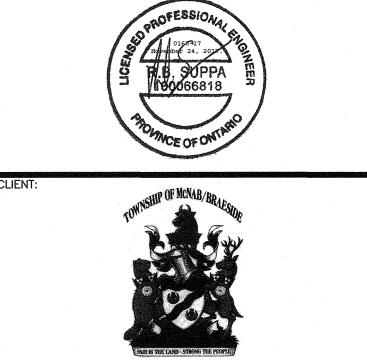
3 OF

|                               | •                           |    | A MAIN BR         | EAKER        |
|-------------------------------|-----------------------------|----|-------------------|--------------|
| HRV RECEPTACLE                | 01                          | 2  | 010               | ]            |
|                               |                             | 4  | <br>              |              |
| AHU-1                         | 5                           | 6  | 0110              |              |
| Alta-2                        | 15A<br>0∏07                 | 8  |                   |              |
| AHU-2- Pump L -               | 9                           | 10 |                   | _            |
|                               | 000-15                      | 12 | -0 <sub>15A</sub> | Č            |
| WELL PUMP -                   | 13                          | 14 | 15A               | _            |
|                               | 15A 15                      | 16 |                   |              |
| HAND DRYER                    |                             | 18 |                   | J            |
| HAND DRYER                    | 20A                         |    |                   | -            |
| HAND DRYER                    | <u></u>                     | 20 |                   | -            |
| HAND DRYER                    | <u>20A</u> 21               | 22 |                   | <del></del>  |
| ASSEMBLY<br>FLOOR BOX         | 0 <u>23</u><br>15A          | 24 | 0_0<br>15A        | <b>-</b>     |
| FREEZER                       | 0 <u>-25</u><br>15A         | 26 |                   | -            |
|                               | 27                          | 28 |                   | -            |
| RINK LIGHTS                   | <u>29</u> 2920A/2P          | 30 | 0_0               | _            |
|                               |                             | 32 |                   | _            |
| ELECTRONIC                    |                             | 34 |                   | -            |
| DRINKING FOUNTAIN             |                             | 36 | 0                 | _            |
| RECEPTACLES                   | 15A<br>0 <u>37</u><br>15A   | 38 | $\frown$          | _            |
| RECEPTACLES                   | 39                          | 40 | 0 <sub>15A</sub>  | _            |
| GFI RECEPTACLES               | 15A                         | 42 | -0_0<br>15A       | _            |
|                               | 0<br>15A<br>43              | 44 | -0_0              | _            |
| RECEPTACLES                   | 0<br>15A<br>45              | 46 | -0_0<br>15A       |              |
| RANGE HOOD                    | -0 $0$ $-13$ $20$ $47$ $47$ | 48 | -0_0<br>20A       | -            |
| SPACE MELITANICAL<br>CONTROLS | IS IX                       |    |                   | -            |
| SPACE MECHANICAL<br>CONTRUS   |                             | 50 |                   |              |
| LIGHTING                      | <u></u>                     | 52 |                   | <b>-</b> .   |
| ASSEMBLY<br>LIGHTING          | <u>53</u>                   | 54 | 0_0<br>15A        | -            |
| SPARE                         |                             | 56 |                   | -            |
|                               | 57                          | 58 | 200-<br>15A       |              |
| RINK LIGHTS                   | <u>59</u>                   | 60 |                   | Pa           |
|                               | <u>61</u>                   | 62 | 15/4              | Т о          |
| ELECTRIC FORCE<br>FLOW HEATER | <u></u>                     | 64 | 20A<br>1571<br>   | Pu           |
|                               | 15A/2P                      | 66 | 20A<br>15A        |              |
| ELECTRIC FORCE                |                             | 68 | 20A<br>15A<br>    | ] Mea<br>Roo |
|                               | 15Ă/ŹP<br><u>69</u> 69      | 70 | 20A<br>1517       | <u>+</u>     |
| ELECTRIC FORCE                | 71                          | 72 | 20A<br>30A        | Su<br>Su     |
|                               | O<br>15A/2P                 |    | -00               |              |
|                               |                             |    |                   |              |
| T PANEL 'A                    |                             |    | - RA              | $\sim$       |





|     |           |     | · · · · · · · · · · · · · · · · · · · |
|-----|-----------|-----|---------------------------------------|
|     |           |     |                                       |
| 6.  | NOU 27-IK |     | SRAPER FLEARIC -AS BUILT              |
| 5   | NOV24-17  | RS  | ISSUED FOR PROPOSED CHANGE 13         |
| 4   | SEP22-17  | SRT | ISSUED FOR PERMIT & CONSTRUCTION      |
| 3   | AUG25-17  | SRT | REVISION                              |
| 2   | AUG04-17  | SRT | ISSUED FOR TENDER                     |
| 1   | JUL10-17  | SRT | ISSUED FOR CLIENT REVIEW - 90%        |
| 0   | JUN06-17  | SRT | ISSUED FOR CLIENT REVIEW - 50%        |
| No. | DATE      | BY  | REMARKS                               |



# NEW BRAESIDE RECREATION CENTRE

PROJECT:

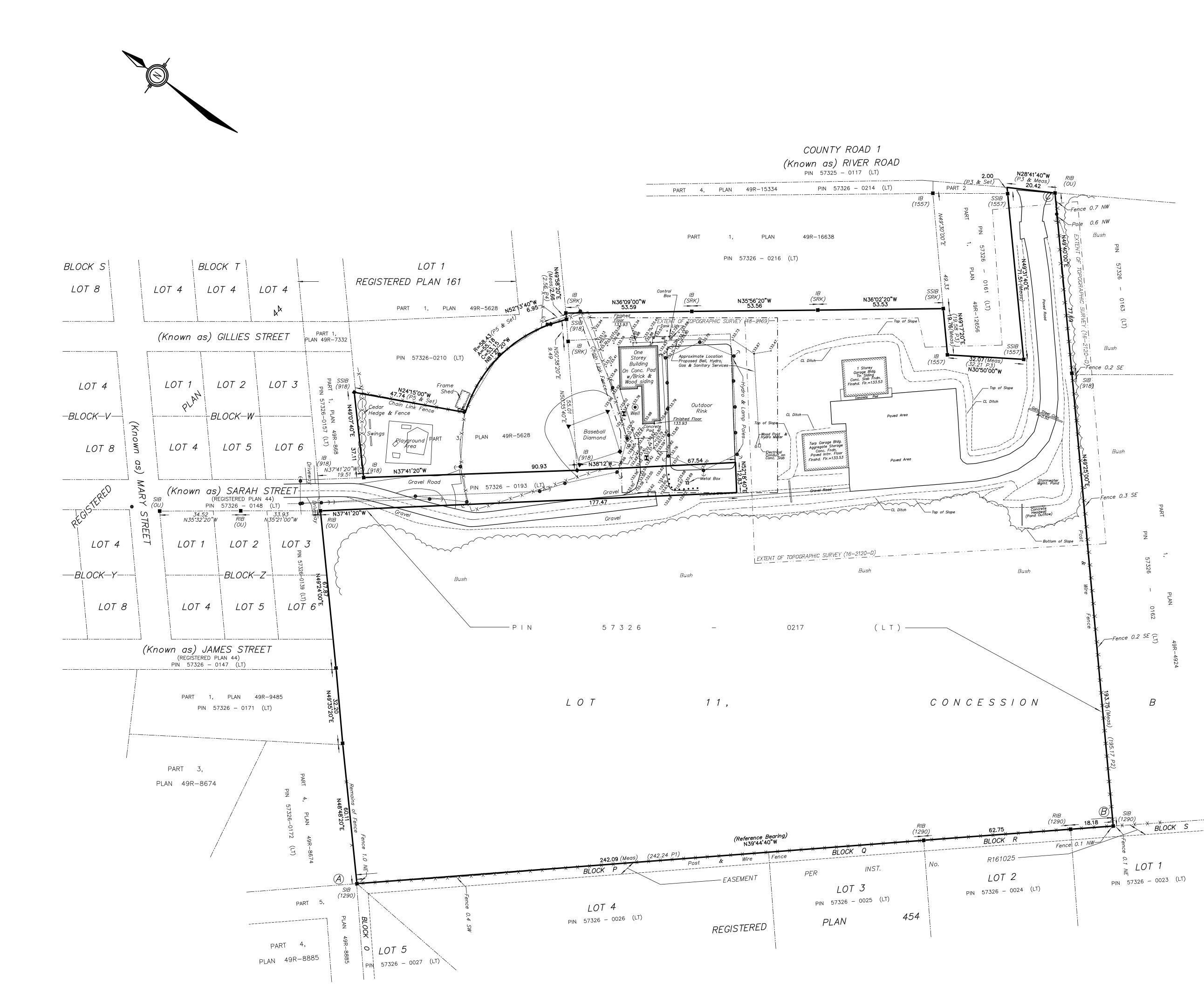
# ELECTRICAL DETAILS

**Greenview** ENVIRONMENTAL MANAGEMENT

| 13 Commerce Cour<br>Bancroft, Ontario<br>613.332.0057<br>greenview-environr |           |              |                       |
|---|-----------|--------------|-----------------------|
| DESIGNED BY:  | DRAWN BY: | APPROVED BY: | DATE:                 |
| SRT   | SRT       | SRT          | APR-17                |
| PROJECT:<br>156.16.009  |           |              | PLOT DATE<br>NOV24-17 |

E103

4 OF 4



|  | (Reference Bearing)<br>N39*44'40"W     |                               | RIB<br>(1290)<br>X X X X | RIB<br>(1290<br><del>62.75 × × × ×<br/>BLOCK R<br/>Fe</del> |
|--|--|-------------------------------|--------------------------|---|
| 242.09 (Meas) (242.24 P1)<br>X X X X X X X X X X X X X X X X X X X | Post & X X X X<br>Fence Fence EASEMENT | PER INST.                     | No.                      | R161025<br>LOT 2<br>PIN 57326 - 0024 (LT)                   |
| <i>LOT 4</i><br>PIN 57326 - 0026 (LT)                              | REGISTERED                             | ріл 57326 – 0025 (lt)<br>PLAN | 454                      |   |

TOPOGRAPHIC PLAN OF SURVEY OF PART OF LOT 11 CONCESSION B GEOGRAPHIC TOWNSHIP OF McNAB TOWNSHIP OF MCNAB BRAESIDE COUNTY OF RENFREW SCALE 1 : 750 50 METRES ----ADAM KASPRZAK SURVEYING LTD.

#### BEARING NOTE:

BEARINGS ARE UTM GRID, DERIVED FROM SIMULTANEOUS GPS OBSERVATIONS ON MONUMENTS A AND B, SHOWN HEREON, HAVING A GRID BEARING OF N39°43'40"W, NAD83 AND ARE REFERRED TO THE CENTRAL MERIDIAN OF UTM ZONE 18, 75° WEST.

ASTRONOMIC BEARINGS CAN BE CALCULATED BY ROTATING THE GRID BEARINGS COUNTER CLOCKWISE 0°59'48" AS REFERRED TO REGISTERED PLAN 454.

# DISTANCE NOTE:

DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

#### DISTANCE NOTE:

DISTANCES SHOWN ON THIS PLAN ARE GROUND DISTANCES AND CAN BE CONVERTED TO GRID DISTANCES BY MULTIPLYING BY A COMBINED SCALE FACTOR OF 0.999732.

#### ELEVATION NOTE:

ELEVATIONS SHOWN ON THIS PLAN ARE OF GEODETIC ORIGIN AND ARE REFERRED TO VERTICAL CONTROL POINT 0011915U74G GEODETIC SURVEY OF CANADA, HAVING A PUBLISHED ELEVATION OF 91.302 METRES.

#### NOTE:

SSIB PLANTED DUE TO INSUFFICIENT OVERBURDEN.

#### INTEGRATION DATA:

| COORDINATES ARE DERIVED FROM GPS OBSERVATIONS USING THE<br>PRECISE POINT POSITIONING (PPP) SERVICE AND ARE REFERRED<br>TO UTM ZONE 18 (75' WEST) NAD83 (CSRS) (1997)            |               |             |
|---|---------------|-------------|
| POINT ID  | NORTHING      | EASTING     |
| Α   | 5 034 967.261 | 390 111.357 |
| В   | 5 034 718.836 | 390 317.818 |
| С   | 5 034 895.179 | 390 524.182 |
| COORDINATE VALUES ARE TO RURAL ACCURACY PER<br>SEC. 14 (2) OF O. REG. 216/10 AND CANNOT, IN<br>THEMSELVES, BE USED TO RE-ESTABLISH CORNERS<br>OR BOUNDARIES SHOWN ON THIS PLAN. |               |             |

#### BASE TOPOGRAPHIC SURVEY NOTE:

THE TOPOGRAPHIC SURVEY FROM PROJECT 12-2075-E BY ADAM KASPRZAK SURVEYING LTD. USED AS A BASE TO ILLUSTRATE RELATIVE LOCATION OF THE INFORMATION COLLECTED FOR THIS PROJECT.

BOUNDARY INFORMATION PERTAINS TO PROJECT 12-2075-E. TITLE INFORMATION HAS BEEN UPDATED FOR THIS DRAWING.

### SURVEYOR'S CERTIFICATE

I CERTIFY THAT: 1. THE SURVEY WAS COMPLETED ON DECEMBER 11th, 2018.

DECEMBER 18, 2018 DATE:

## ADAM KASPRZAK ONTARIO LAND SURVEYOR

| LEGEND  | (If Applicable)   |
|---|---|
| IB<br>SIB<br>SSIB<br>□<br>CP<br>(OU)<br>(918)<br>(1290)<br>(1557)<br>(SRK)<br>(P1)<br>(P2)<br>(P3)<br>(P4)<br>(P5)<br>•<br>•<br>•<br>•<br>•<br>•<br>• | <ul> <li>IRON BAR</li> <li>STANDARD IRON BAR</li> <li>SHORT STANDARD IRON BAR</li> <li>MONUMENT FOUND</li> <li>MONUMENT SET</li> <li>CONCRETE PIN</li> <li>ORIGIN UNKNOWN</li> <li>ANDREW GIBSON, O.L.S.</li> <li>D. W. PATTERSON, O.L.S.</li> <li>SURY, ROWE &amp; KASPRZAK LTD.</li> <li>SURY &amp; ROWE LTD.</li> <li>REGISTERED PLAN 454</li> <li>PLAN 49R-4924</li> <li>PLAN 49R-12656</li> <li>PLAN 49R-15334</li> <li>PLAN 49R-5628</li> <li>BOLLARD</li> <li>HYDRO POLE</li> <li>ANCHOR</li> <li>WELL</li> <li>CATCH BASIN</li> </ul> |
|   | ADAM KASPRZAK SURVEYING LTD   |

| ADAM KASPRZAK SURVEYING LTD.   |              |  |  |  |
|--|--------------|--|--|--|
| 113 ARGYLE ST. S., P.O. BOX 633<br>RENFREW ONTARIO K7V 4E7<br>PHONE (613) 432-3048 |              |  |  |  |
| SCALE: 1 : 750   | REF: 18–2169 |  |  |  |

FILE No :