THE CORPORATION OF THE TOWNSHIP OF NORTH STORMONT

REQUEST FOR QUOTATION

FOR

FORMER BERWICK SCHOOL - CONVERSION TO MUNICIPAL OFFICE

57 COCKBURN STREET, BERWICK, ON K0C 1G0

CONTRACT NO. **RFQ-Administration-HVAC-Mechanical-04-2024**

EEG FILE NO. 11,200

The Tenderer is advised that the following **CHECK LIST** is provided to assist in the completion of an accurate and acceptable Tender Form. While every effort has been made to include all information necessary, this **CHECK LIST** may not be complete, therefore the Tenderer is reminded to check all the requirements outlined in Section A, General Special Provisions, prior to delivery of the completed Tender Form.

TENDERER'S CHECK LIST

- Tenderer's name and address (page 2) completed
- Addenda numbers inserted in page 4 (as applicable)
- All tender items bid
- Unit price(s) inserted
- Mathematical extension(s) complete with total(s)
- Mathematical summation complete with TOTAL TENDER AMOUNT
- TOTAL TENDER AMOUNT BID indicated on page 5
- List of Sub-contractors provided
- Erasures, over-writing or strike-outs initialled by person signing on behalf of the Tenderer
- Tender Form dated, signed and witnessed on last page
- Bid Bond Included.
- Agreement to Bond.
- Deliver Tender to Township of North Stormont, 15 Union Street, Berwick, ON K0C 1G0, **mailing address** Township of North Stormont, P.O. Box 40, Finch, ON K0C 1K0 on Friday, April 12th, 2024 before 2:00 o'clock, p.m., (Local Time).
- During the preparation of tenders, all site visits are to be submitted in writing. Send all visit requests to Mr. Andre Brisson, North Stormont Township, by e-mail to abrisson@northstormont.ca no later than Thursday March 28th, 2024.
- During the preparation of tenders, all queries are to be submitted in writing. Send all written questions to Mr. B. Campbell, P.Eng. by e-mail to bcampbell@easteng.com Last day for queries is Thursday, March 28th, 2024.

THE CORPORATION OF THE TOWNSHIP OF NORTH STORMONT

FORMER BERWICK SCHOOL - CONVERSION TO MUNICIPAL OFFICE

CONTRACT NO. RFQ-Administration-HVAC-Mechanical-04-2024

TABLE OF CONTENTS

TENDER FORM

THE CORPORATION OF THE TOWNSHIP OF NORTH STORMONT

CONTRACT FOR

FORMER BERWICK SCHOOL - CONVERSION TO MUNICIPAL OFFICE

CONTRACT NO. RFQ-Administration-HVAC-Mechanical-04-2024

The Corporation of the Township of North Stormont
57 Cockburn Street
Berwick, ON K0C 1G0

TENDER FOR: FORMER BERWICK SCHOOL
CONVERSION TO MUNICIPAL OFFICE

CONTRACT NO.: RFQ-Administration-HVAC-Mechanical-04-2024

_____

NAME OF TENDERER (Firm or Individual)

_____

ADDRESS OF TENDERER (Telephone Number)

_____

NAME OF PERSON SIGNING FOR TENDERER

_____

OFFICE OF PERSON SIGNING FOR TENDERER

NOTE: If the Tender is submitted by or on behalf of any Corporation, it must be signed in the name of such Corporation by some duly authorized officer or agent thereof. The said officer or agent shall subscribe his own name and office and affix the seal of the Corporation thereto.

Sealed Tenders, duly completed on the loosely bound Tender Form, complete with attached statements and information requested in the Tender Form, will be received as follows:

Tender for: The Corporation of the Township of North Stormont
57 Cockburn Street
Berwick, ON K0C 1G0
Contract No. **RFQ-Administration-HVAC-Mechanical-04-2024**

TENDERS TO BE RECEIVED BY:

Township of North Stormont
15 Union Street,
Berwick, ON K0C 1G0
Mailing Address
P.O. Box 40
Finch, ON K0C 1K0

BEFORE: 2:00 o'clock, p.m. (local time) on Friday, April 12th, 2024

Deposit Required with Tender: as specified in General Special Provisions

Time for Completion of Work and Delivery of Materials Under This Contract:

.1 Start Date of project: Monday, May 6th, 2024
.3 Total project to be completed by: Friday, November 1st, 2024

The Township reserves the right to reject any Tender if it is deemed advisable to do so, and the lowest or any tender will not necessarily be accepted.

The Corporation of the Township of North Stormont
57 Cockburn Street
Berwick, ON K0C 1G0

Attention:

The Tenderer has carefully examined and understands and accepts the Provisions, Specifications, Conditions and Drawings referred to in the Schedule of Provisions, Specifications, Conditions and Drawings and Addenda Nos. __ to __* attached hereto as part of this Tender, and has carefully examined the site, including the nature of the utilities and location of the work to be done under this Contract and, for the prices set forth in this Tender, hereby offers to furnish all labour, materials, machinery, tools, apparatus and other means of construction necessary to complete the work in strict accordance with the Provisions, Specifications, Conditions and Drawings referred to in the said Schedule.

Notification of acceptance and delivery of the Form of Agreement shall be made by the Township by prepaid and registered post, addressed to the Tenderer at the address contained in the Tender and, upon such notification of acceptance, the Tenderer shall complete the form of Agreement between the parties and execute the Contract and furnish necessary proof of insurance, within 14 days of mailing of said notification to the Tenderer.

Attached to this Tender is a Bid Bond in the amount required by the General Special Provisions and made payable to: The Township of North Stormont. If the Tenderer fails to file with the Township the Form of Agreement duly executed, together with proof of insurance and proof of Workplace Safety and Insurance Board coverage, all as specified.

* The Tenderer will insert the numbers of the Addenda received by him/her during the tendering period and taken into account by him/her in his/her Tender.

In accordance with the first paragraph of this Tender the Contractor hereby offers to complete the work specified in the Contract for the following prices:

DESCRIPTION	**CONTRACTOR'S TOTAL BID IN FIGURES**
CONSTRUCTION	
Former Berwick School Conversion to New Municipal Office	$_____
TOTAL BID **(HST NOT INCLUDED)**	$_____

EXTRA WORK

The Contractor further agrees that all extra work not provided for in the bid shall be based on actual cost of labour or on negotiated prices.

The Contractor further agrees to provide credit for deletions of work based on the actual cost used to determine the total tender bid without any provisions for profit and overhead.

HOURLY RATES

The following labour rates shall be used for additions and deletions to the contract.

Apprentice/Hr. _____

Plumber/Hr. _____

Electrician/Hr. _____

Labourer/Hr. _____

Carpenter/Hr. _____

Note: Labour rates are to be calculated based on hourly rates paid plus fringe benefits.

CERTIFICATION RESPECTING COMPLETION OF WORK

The Township requires completion of the work as follows:

.1 Total project to be complete by Friday, November 1, 2024.

Please indicate whether you can guarantee completion of the work in accordance with the aforesaid dates.

Yes _____ No _____

If the answer is "No" please insert the date of completion that you can guarantee and for which the Liquidated Damages Provisions of this Contract would apply.

a) Final completion date of the work _____, 2024.

The Township reserves the right to award a contract based on both tender bid and dates of completion whichever is in the Township's best interests.

The following form or an acceptable alternative must be completed and attached to the tender submitted.

AGREEMENT TO BOND

Bond No. _____

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

_____

(Name of Tenderer)

in a bond totaling One Hundred Percent (100%) of the Contract Amount and conforming to the Instruments of the Contract attached hereto, for the full and due performance of the work shown as described herein if the Tender for Contract No. RFQ-Administration-HVAC-Mechanical-04-2024 is accepted by the Township.

It is a Condition of this Agreement, that, if the above-mentioned Tender is accepted, application for the required Performance Bond shall be made to the undersigned within ten (10) days of acceptance of the Tender related thereto, otherwise this Agreement shall be null and void.

Dated this _____ day of _____, 2024.

_____

Name of Bonding Company

(Company Seal)

_____

Signature of Authorized Person
Signing for Bonding Company

_____

Position

SCHEDULE OF PROVISIONS, SPECIFICATIONS, CONDITIONS AND DRAWINGS

The work specified in the Contract will be performed in strict accordance with the following:

SECTION A	General Special Provisions
SECTION B	Item Special Provisions - N/A
SECTION C	Standard Specifications
SECTION D	General Conditions of Contract (CCDC 2, 2020)
SECTION E	Standard Drawings
SECTION F	Soils Report - N/A
SECTION G	Contract Drawings
SECTION H	Shop Drawings

The Tenderer, by this Tender, offers to complete this Contract in accordance with the terms and conditions contained herein.

Dated at _____ this _____ day of _____, 2024.

Witness _____

_____
Signature of Authorized Person
Signing for Tenderer

_____
Position

This is the 10th and last page of 10 pages of the Tender Form to be submitted.

SECTION A

GENERAL SPECIAL PROVISIONS

1. TENDER REQUIREMENTS

a) The correct Tender Form, as supplied by the Township, for the Contract being bid on, must be used and must be delivered to:

Township of North Stormont
15 Union Street,
Berwick, ON K0C 1G0
Mailing Address
P.O. Box 40
Finch, ON K0C 1K0

Attention: Craig Calder

before: 2:00 o'clock, p.m., (Local Time), Friday, April 12th, 2024.

Bids received after closing time will not be considered.

b) The entire work is to be awarded to (1) one Contractor and therefore ALL ITEMS must be included in the bid price on the tender form.

c) When so required by the Township, the Contractor shall produce evidence as to his qualifications and previous experience in the types of work contemplated by this Contract.

d) All unit prices must be clearly indicated. Erasures, over-writing or strike-outs must be initialled by the person signing on behalf of the Contractor.

e) The total bid must not be restricted by a statement added to the Tender Form, or a covering letter, or alterations to the Tender Form provided by the Township. Adjustments by e-mail or letter to a Tender already submitted will not be considered. A bidder wishing to make any adjustments to a Tender must withdraw the Tender and/or supersede it with a later submission.

f) The Tender Form must be signed and witnessed in the spaces provided on the form, with the signature of the bidder or of a responsible official of the organization bidding.

g) Each amount in the Tender shall be a reasonable price for each item. Unbalanced Tenders will not be considered. The Consultant shall be the sole judge of such matters, and should any Tender be considered, to be unbalanced, it may be rejected.

h) The Tender must be accompanied by a 10% Bid Bond, or a certified cheque made payable to "Township of North Stormont."

(i) Each amount in the Tender shall be a reasonable price for each item. Unbalanced Tenders will not be considered. The Township Engineer shall be the sole judge of such matters and should any Tender be considered to be unbalanced it may be rejected.

(j) The Tender Deposits of the three (3) lowest acceptable bidders shall be retained until the successful bidder has executed the Contract documents. All remaining Tender Deposits shall be returned to the respective bidders on the next business day following the Tender opening.

The Tender Deposit of the successful bidder will be returned when he has fully complied with the conditions outlined in the Contract documents.

2. PERFORMANCE BOND

A Performance Bond is not required for this project. The deposit cheque shall be retained as surety until substantial completion of the project.

3. EXECUTION OF CONTRACT

Tenders shall be open for acceptance for a period of 60 calendar days after closing date. After this time, the Tender may only be accepted with the consent of the successful bidder.

Failure by the selected bidder to meet the Contract criteria will entitle the Township to rescind the acceptance of the Contract and to retain the Tender Deposit as compensation for damages sustained due to the successful bidder's default. The Township may then award the Contract to one of the other bidders or take other action as the Township may choose.

4. LIABILITY INSURANCE

Sub-section GC 11.1.1.1 of General Conditions of Contract, is hereby amended by the following provisions:

The Certificate of Insurance required under this Section shall be submitted to the Consultant as soon as practical after notification of acceptance of the Tender. The liability insurance coverage shall specifically include coverage to the limit of not less than five million dollars ($5,000,000.00), exclusive of interest and cost, in respect of any one accident.

Sub-section GC11.1.1.2, General Conditions of Contract, is hereby amended by the following:

The automobile liability insurance coverage shall include coverage of not less than five million dollars ($5,000,000.00), inclusive per occurrence.

Contractor's Pollution Liability

Sub-section GC11.1.1.2, General Conditions of Contract, is hereby amended by the following:

The Contractor shall carry a Contractor's Pollution Liability Policy for a limit of not less than $5,000,000. Coverage shall include bodily injury, property damage, clean-up and remediation costs. If such insurance is issued on a claims made basis, such insurance shall contain a 24 months extended reporting period or be maintained for a period of two years subsequent to conclusion of services provided under this agreement.

Crane Operators/Hook Liability

Sub-section GC11.1.1.2, General Conditions of Contract, is hereby amended by the following:

If booms or cranes are involved in moving any materials or installing equipment (HVAC), the contractor will require Hook or Crane Operators Liability. The Limit of this coverage should equal the cost of the most expensive piece to be moved or installed.

The Certificate of Insurance shall name the following as additional insured:

a) Township of North Stormont
b) Eastern Engineering Group Inc.

5. OCCUPATIONAL HEALTH AND SAFETY

The Contractor's attention is drawn to Sub-section GC3.6, General Conditions of Contract.

In order to avoid any misunderstanding as to the nature of the work to be performed herein, the Contractor, by executing this Contract, acknowledges that he is the Constructor within the meaning of the Occupational Health and Safety Act and Regulation.

6. SCOPE OF WORK

Work on this contract consists of the supply of all materials, equipment, and labour to construct the Former Berwick School Conversion to Municipal Office and complete all site works as prescribed in the Eastern Engineering Group Inc. Drawings File No. 11,200.

The contractor will not be responsible for civil/sites works beyond the limit of 1m outside the building. All services and utilities extending beyond 1m shall be stubbed and will be tied into the building system by the site works contractor.

General

The contractor shall complete all work in accordance with the permit drawings and provisions made by the building department having jurisdiction and consulting engineers for the project. All work shall be performed to good practice and craftsmanship.

7. CONTRACTOR'S SCHEDULE OF WORK

Forthwith upon acceptance of this Contract, the Contractor shall provide a "Contractor's Schedule of Work" to the Consultant. The Contractor must prepare and submit his Schedule to the Consultant within ten (10) calendar days of Contract acceptance and prior to start of construction.

8. PROGRESSION OF WORK AND COMPLETION TIME

Time shall be of the essence of this Contract.

The Contractor shall diligently prosecute his work on this Contract to completion.
The Contractor shall schedule the work for progression of same in a continuous and orderly manner to prevent the least amount of delay in completing the total works.
The Contractor shall start work on this Contract within 15 days from receipt of written notice from the Township to commence and shall work continuously to the completion of the Contract.

The total work shall be completed by the Contractor by Friday, November 1, 2024.

If the time limit specified above is not sufficient to permit completion of the work by the Contractor working a normal number of hours each day or week on a single daylight shift basis, it is expected that additional and/or augmented daylight and night shifts will be required throughout the life of the Contract to the extent deemed necessary by the Contractor to insure that the work will be completed within the time limit specified. Any additional costs occasioned by compliance with these provisions will be considered to be

included in the prices bid for the various items of work and no additional compensation will be allowed, therefore.

Working time shall be charged until the date of acceptance of the work by the Township, at which time all work required in the Contract, including all final clean-up and trimming, shall be completed.

1. PAYMENT:

Payment to be made based on monthly progress billing, less a 10% holdback for substantial completion. All progress billing must be balanced and approved by the contract administrator prior to releasing payment. A copy of the contractor's valid WSIB and certificate of insurance shall be accompanied with each billing statement.

10. SALES TAX

a) Harmonized Sales Tax (HST)

The Harmonized Sales Tax (HST) is not to be considered an applicable tax for the purposes of this Contract. The Tenderer shall not include any amount in his bid prices for the said HST. The Township is subject to payment of the Harmonized Sales Tax, therefore the HST will be shown on each payment certificate and will be paid to the Contractor in addition to the amount certified for payment and will therefore not affect the Contract prices.

c) Changes To Government Taxes

Where a change in Canadian federal or provincial taxes occurs after the tender closing date for this Contract, and this change could not have been anticipated at the time of bidding, the Township will increase or decrease contract payments to account for the exact amount of tax change involved.

Claims for compensation for additional tax cost shall be submitted by the Contractor to the Consultant. Such claims for additional tax costs shall be submitted not later than 30 days after the date of acceptance of the work.

Where the Contractor benefits from a change in Canadian federal or provincial taxes, the Contractor shall submit to the Consultant a statement of such benefits. This statement shall be submitted no later than 30 days after the date of acceptance of the work.

The Consultant reserves the right to make deductions from regular progress payments to compensate for the estimated benefit from decreased tax costs. Such deductions will be set-off from Contract payments pending receipt of the statement itemizing the benefits which have resulted from a decrease in tax costs, at which time the final payment adjustment will be determined.

11. EMPLOYMENT

The Contractor and any Sub-contractor of the Contractor will, irrespective of the construction to be carried out under this Contract:

a) Employ only residents of Canada, and

b) In employing persons, refrain from discrimination against any person by reason of race, colour, religious views, or political affiliations.

c) Give preference to local labour if it is necessary to augment his regular forces.

12. USE OF SUB-CONTRACTORS

The Township has the right to reject any of the Sub-contractors so named. In this event the Contractor shall arrange to have the proposed work done by such other Sub-contractor as may be approved by the Township.

Should the Contractor cease operations, under no circumstances shall Sub-contractors be allowed to continue the work on the site unless an authorized representative of the Contractor is present on the site at all times. The Contractor shall notify the Consultant, in writing, of the names and positions of the person or persons so representing the Contractor.

13. DUST CONTROL

The Contractor will be solely responsible for controlling dust nuisance resulting from his operations, within the work area.

Should the Contractor refuse or neglect to carry out proper dust control, the Consultant may authorize the work to be carried out by other persons, and the cost of such work shall be deducted from any payments to the Contractor.

14. EMERGENCY MEASURES

General Conditions of Contract is amended by the addition of the following.

Whenever the construction site is unattended by the general superintendent, the name, address and telephone number of a responsible official of the Contractor shall be given to the Consultant. This official shall be available at all times and have the necessary authority to mobilize workers and machinery and to take any action as directed by the Consultant in case emergency measures are required.

15. SPILLS REPORTING

Spills or discharges of pollutants or contaminants under the control of the Contractor, and spills or discharges of pollutants or contaminants that are a result of the Contractor's operations, that cause or are likely to cause adverse effects shall forthwith be reported to the Consultant. Such spills or discharges and their adverse effects shall be as defined in

the Environmental Protection Act.

All spills or discharges of liquid, other than accumulated rainwater, from luminaries, internally illuminated signs, lamps and liquid type transformers under the control of the Contractor, and all spills or discharges from this equipment that are a result of the Contractor's operations, shall, unless otherwise indicated in the Contract, be assumed to contain PCB's and shall forthwith be reported to the Consultant.

This reporting will not relieve the Contractor of his legislated responsibilities regarding such spills or discharges.

16. SAFETY ON SITE

The Contractor is solely responsible for safety on site.

Public access to the area of work shall be restricted by use of a construction fence with lock and key. All equipment and materials stored on site shall be retained within the protected area. A detour route will be mapped by the contractor and the routes shall be provided with clear signage which are clear and legible.

The selected detour route to be provided shall be required to have final approval from both the Operations Director for the Township of North Stormont and/or the Consulting Firm.

SECTION B

ITEM SPECIAL PROVISION

NOT APPLICABLE

SECTION C

STANDARD SPECIFICATIONS

1. GENERAL

The following Standard Specifications apply to and form part of this Contract:

ACI	- American Concrete Institute
AISC	- American Institute of Steel Construction
ANSI	- American National Standards Institute
ASTM	- American Society for Testing and Materials
CEC	- Canadian Electrical Code (published by CSA)
CEMA	- Canadian Electrical Manufacturer's Association
CGSB	- Canadian General Standards Board
CISC	- Canadian Institute of Steel Construction
CLA	- Canadian Lumberman's Association
CPCA	- Canadian Painting Contractor's Association
CPCI	- Canadian Prestressed Concrete Institute
CRCA	- Canadian Roofing Contractors Association
CSA	- Canadian Standards Association
FM	- Factory Mutual Engineering Corporation
IEEE	- Institute of Electrical and Electronic Engineers
IPCEA	- Insulated Power Cable Engineers Association
NAAMM	- National Association of Architectural Metal Manufacturers
NBC	- National Building Code
NEMA	- National Electrical Manufactures Association
OBC	- Ontario Building Code
TTMAC	- Terrazzo, Tile and Marble Association of Canada
ULC	- Underwriters' Laboratories of Canada

*Most current editions apply.

2. SUPPLY OF MATERIALS

All materials necessary for the proper completion of the work shall be supplied by the Contractor and the payment provided in the Contract shall be deemed to include full compensation for the supply of such materials, unless specifically stated otherwise.

EXCEPTION: Carpentry work materials will be provided by Township of North Stormont.

SECTION D

GENERAL CONDITIONS OF CONTRACT

GENERAL CONDITIONS OF THE STIPULATED PRICE CONTRACT

CCDC 2, 2020

(COPY IS AVAILABLE FOR VIEWING AT THE OFFICE OF EASTERN ENGINEERING GROUP INC.)

SECTION E

STANDARD DRAWINGS

NOT APPLICABLE

SECTION F

SOILS REPORT

NOT APPLICABLE

SECTION G

CONTRACT DRAWINGS

Drawing No.	Title
Structural	
S0	Construction Notes
S1	Demolition Plan – Proposed Plan
S2	Roof Framing Plan and Stage Construction Details
S3	Construction Details
Architectural	
A000	Cover Page/Architectural Drawing List/Material Specs/OBC Matrix
A001	Site Plan
A100	Overall Floor Plan and Details
A101	Roof Plan – Demo and New Work
A200	Demo Plans
A300	New Floor Finish Plan & RCP
A301	Ceiling Details
A500	Interior Elevations
A600	Millwork Details
A601	Millwork Details
A700	Door Schedule
A701	Window and Room Finish Schedule
A702	Material Finish Board
Mechanical and Electrical	
M001	Mechanical Notes and Legends
M002	Mechanical Schedules & Details
M100	Mechanical Plumbing Demolition
M101	Mechanical HVAC Demolition
M201	Mechanical Plumbing
M202	Mechanical HVAC
E001	Electrical Notes & Legends
E002	Electrical Schedules
E003	Electrical Details
E100	Electrical Main Floor Plan Demolition
E101	Electrical Power & Systems Roof Plan
E102	Electrical Lighting

Hazardous Building Materials Assessment

CONTRACTOR'S SCHEDULE OF WORK

DIVISION 1 – GENERAL REQUIREMENTS

SECTION H

SHOP DRAWINGS

NOT APPLICABLE

Part 1 General

1.1 RELATED SECTIONS

.1 All

1.2 WORK COVERED BY CONTRACT DOCUMENTS

.1 Work of this Contract comprises general construction of the Former Berwick School conversion to Municipal Office located in Berwick, ON.

1.3 CONTRACT METHOD

.1 Construct Work under a single stipulated price contract, additional cost allowances may be issued upon contractor selection at the Owners discretion.

.2 Employ suppliers and subcontractors authorized by the Owner for required work.

.3 Relations and responsibilities between the Contractor and subcontractors authorized by the Owner are as defined in Conditions of Contract. Assigned Subcontractors must, in addition:

.1 Furnish to the Contractor, bonds covering faithful performance of subcontracted work and payment of obligations there under when the Contractor and subcontractors are required to furnish such bonds to the Owner.

.2 Purchase and maintain liability insurance to protect Contractor and subcontractors from claims for not less than limits of liability which the Contractor and subcontractors are required to provide to the Owner.

1.4 WORK BY OTHERS

.1 Co-operate with other Contractors in carrying out their respective works and carry out instructions from the Consultant.

.2 Co-ordinate work with that of other Contractors. If any part of work under this Contract depends for its proper execution or result upon work of another Contractor, report promptly to the Consultant, in writing, any defects which may interfere with proper execution of Work.

.3 Work of Project which will be executed prior to completion of Work in this Contract, and which is specifically excluded from this Contract:

.1 Demolition of existing building.

1.5 CONTRACTOR USE OF PREMISES

.1 Unrestricted use of site until substantial completion.

.2 Limit use of premises for Work, storage, and access, to allow:

.1 Owner occupancy.

.2 Work by other contractors.

.3 Parking.

.4 Daily operations.

.3 Co-ordinate use of premises under direction of the Consultant and Owner.

.4 Obtain and pay for use of additional storage or work areas needed for operations under this Contract.

.5 Remove or alter existing work to prevent injury or damage to portions of existing work which remain.

1.6 OWNER OCCUPANCY

.1 Owner will not occupy premises during entire construction period.

.2 Co-operate with Owner in scheduling removals and storage of vehicles to minimize conflict with the Owner temporary storage solutions.

1.7 EXISTING SERVICES

.1 Notify, the Consultant, Owner and utility companies of intended interruption of services and obtain required permission.

.2 Where Work involves breaking into or connecting to existing services, give the Consultant a minimum 48 hour notice for necessary interruption of mechanical or electrical service throughout course of work. Minimize duration of interruptions. Carry out work at times as directed by governing authorities with minimum disturbance to owner tenant operations.

.3 Provide alternative routes for operational and employee vehicular traffic.

.4 Establish location and extent of service lines in area of work before starting Work. Notify the Consultant of the findings.

.5 Submit schedule to and obtain approval from the Consultant and the Owner for any shut-down or closure of active service or facility including power and communications services. Adhere to approved schedule and provide notice to affected parties.

.6 Provide temporary services when directed by the Consultant to maintain critical building and tenant systems.

.7 Provide adequate bridging over trenches which cross sidewalks or roads to permit normal traffic.

.8 Where unknown services are encountered, immediately advise the Consultant and confirm findings in writing.

.9 Protect, relocate or maintain existing active services. When inactive services are encountered, cap off in manner approved by authorities having jurisdiction.

.10 Record locations of maintained, re-routed and abandoned service lines.

.11 Construct barriers in accordance with Section 015600 - Temporary Barriers and Enclosures.

1.8 DOCUMENTS REQUIRED

.1 Maintain at job site, one copy each document as follows:

.1 Contract Drawings.
.2 Specifications.
.3 Addenda.
.4 Reviewed Shop Drawings.
.5 List of Outstanding Shop Drawings.
.6 Change Orders.
.7 Other Modifications to Contract.
.8 Field Test Reports.
.9 Copy of Approved Work Schedule.
.10 Health and Safety Plan and Other Safety Related Documents. Other documents as specified.

END OF SECTION

Part 1 General

1.1 RELATED SECTIONS

.1 All.

1.2 ACCESS AND EGRESS

.1 Design, construct and maintain temporary "access to" and "egress from" work areas, including stairs, runways, ramps or ladders, and scaffolding; independent of finished surfaces and in accordance with relevant municipal, provincial and other regulations.

1.3 USE OF SITE AND FACILITIES

.1 Execute work with least possible interference or disturbance to normal use of premises. Make arrangements with the Consultant and Owner to facilitate work as stated.

.2 Maintain existing services to building and provide for personnel and vehicle access.

.3 Where security is reduced by work provide temporary means to maintain security.

.4 The Owner will not assign sanitary facilities for use by Contractor's personnel. The contractor shall provide sufficient temporary facilities on site.

.5 Closures: protect work temporarily until permanent enclosures are completed.

1.4 ALTERATIONS, ADDITIONS OR REPAIRS TO EXISTING BUILDING

.1 Execute work with least possible interference or disturbance to building operations and normal use of premises. Arrange with the Consultant and Owner to facilitate execution of work.

1.5 EXISTING SERVICES

.1 Notify, the Consultant, Owner and utility companies of intended interruption of services and obtain required permission.

.2 Where Work involves breaking into or connecting to existing services, give the Consultant a minimum 48 hour of notice for necessary interruption of mechanical or electrical service throughout course of work. Keep duration of interruptions minimum. Carry out interruptions after normal working hours of occupants, preferably on weekends.

.3 Provide for routes for vehicular traffic.

.4 Construct barriers in accordance with Section 015600 - Temporary Barriers and Enclosures.

1.6 SPECIAL REQUIREMENTS

.1 Finishes in normally occupied areas shall be completed Monday to Friday outside hours of normal operation and on Saturdays, Sundays, and statutory holidays. Co-ordinate with Owner for hours of normal operation.

.2 Carry out noise generating Work in accordance with the requirements of the Owner. Noise generating work shall be performed as to not disturb livestock on site.

.3 Submit a short form schedule the Consultant and Owner with expected completion times of the various phases of work. This shall include site work, foundations, steel building erection, partition erection, finishes, mechanical and electrical and commissioning the building.

.4 Ensure that Contractor personnel employed on site become familiar with and obey regulations including safety, fire, traffic, security regulations or facility requirements as specified by the owner.

.5 Keep within limits of work and avenues of ingress and egress.

.6 Ingress and egress of Contractor vehicles at site is limited to normal construction hours.

.7 Deliver materials outside of peak traffic hours unless otherwise approved by the Consultant and/or Owner.

1.7 SECURITY CLEARANCES

.1 Personnel employed on this project will be subject to security check. Obtain clearance, as instructed, for each individual who will require to enter premises.

.2 Personnel will be checked daily at start of work shift and provided with pass which must be worn at all times. Pass must be returned at end of work shift and personnel checked out.

1.8 SECURITY ESCORT

.1 Personnel employed on this project must be escorted when executing work in non-public areas during normal working hours. Personnel must be escorted in all areas after normal working hours.

.2 Submit an escort request to the facility manager at least 5 days before service is needed. For requests submitted within time noted above, costs of security escort will be paid for by the Owner. Cost incurred by late request will be Contractor's responsibility.

.3 Any escort request may be cancelled free of charge if notification of cancellation is given at least 8 hours before scheduled time of escort. Cost incurred by late request will be Contractor's responsibility.

.4 Calculation of costs will be based on average hourly rate of security officer for minimum of 8 hours per day for late service request and of 4 hours for late cancellations.

1.9 BUILDING SMOKING ENVIRONMENT

.1 Comply with smoking restrictions. Smoking is allowed only in areas designated on site and approved by the Owner.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

.1 Applications for payments.

.2 Substantial performance procedures.

.3 Release of holdback procedures.

.4 Schedule of values.

1.2 REFERENCES

.1 Owner/Contractor Agreement.

.2 Canadian Construction Documents Committee (CCDC).

.1 CCDC 2 2020, Stipulated Price Contract.

1.3 APPLICATIONS FOR PROGRESS PAYMENT

.1 Refer to CCDC 2.

.2 Make applications for payment on account monthly as Work progresses.

.3 Date applications for payment last day of agreed monthly payment period and ensure amount claimed is for value, proportionate to amount of Contract, of Work performed and Products delivered to Place of Work at that date.

.4 Submit to Consultant, at least 10 days before first application for payment. Schedule of values for parts of Work, aggregating total amount of Contract Price, so as to facilitate evaluation of applications for payment.

1.4 SCHEDULE OF VALUES

.1 Refer to CCDC 2.

1.5 PROGRESS PAYMENT

.1 Consultant will issue to Owner, no later than 10 days after receipt of an application for payment, certificate for payment in amount applied for or in such other amount as Consultant determines to be properly due. If Consultant amends application, Consultant will give notification in writing giving reasons for amendment.

1.6 SUBSTANTIAL PERFORMANCE OF WORK

.1 Refer to CCDC 2.

1.7 PAYMENT OF HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF WORK

.1 Refer to CCDC 2.

1.8 PROGRESSIVE RELEASE OF HOLDBACK

.1 Refer to CCDC 2.

1.9 FINAL PAYMENT

.1 Refer to CCDC 2, GC 5.7.

Part 2 Products

2.1 NOT USED

.1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

.1 Shop drawings and product data.

.2 Samples.

.3 Certificates and transcripts.

1.2 RELATED SECTIONS

.1 Section 014500 - Quality Control.

.2 Section 017700 - Closeout Procedures.

1.3 REFERENCES

.1 Canadian Construction Documents Committee (CCDC)

.1 CCDC 2 2020, Stipulated Price Contract.

1.4 ADMINISTRATIVE

.1 Submit to Consultant submittals listed for review. Submit with reasonable promptness and in orderly sequence so as to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for an extension of Contract Time and no claim for extension by reason of such default will be allowed.

.2 Work affected by submittal shall not proceed until review is complete.

.3 Present shop drawings, product data, samples and mock-ups in Imperial units.

.4 Where items or information is not produced in Imperial units converted values are acceptable.

.5 **Review submittals prior to submission to Consultant**. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and co-ordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and shall be considered rejected.

.6 Notify Consultant, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.

.7 Verify field measurements and affected adjacent Work are coordinated.

.8 Contractor's responsibility for errors and omissions in submission is not relieved by Consultant's review of submittals.

.9 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Consultant review.

.10 Keep one reviewed copy of each submission on site.

1.5 SHOP DRAWINGS AND PRODUCT DATA

.1 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.

.2 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been coordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.

.3 Allow 10 days for Consultant's review of each submission.

.4 Adjustments made on shop drawings by Consultant are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Consultant prior to proceeding with Work.

.5 Make changes in shop drawings as Consultant may require, consistent with Contract Documents. When resubmitting, notify Consultant in writing of any revisions other than those requested.

.6 Accompany submissions with transmittal letter, containing:

- .1 Date.
- .2 Project title and number.
- .3 Contractor's name and address.
- .4 Identification and quantity of each shop drawing, product data and sample.
- .5 Other pertinent data.

.7 Submissions shall include:

- .1 Date and revision dates.
- .2 Project title and number.
- .3 Name and address of:
  - .1 Subcontractor.
  - .2 Supplier.
  - .3 Manufacturer.
- .4 Contractor's stamp, signed by Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
- .5 Details of appropriate portions of Work as applicable:
  - .1 Fabrication.
  - .2 Layout, showing dimensions, including identified field dimensions, and clearances.
  - .3 Setting or erection details.
  - .4 Capacities.
  - .5 Performance characteristics.
  - .6 Standards.
  - .7 Operating weight.
  - .8 Wiring diagrams.
  - .9 Single line and schematic diagrams.
  - .10 Relationship to adjacent work.

.8 After Consultant's review, distribute copies.

.9 Submit 3 prints of shop drawings for each requirement requested in specification Sections and as consultant may reasonably request, in addition to a digital copy in PDF or JPG format.

.10 Submit 3 copies of product data sheets or brochures for requirements requested in specification Sections and as requested by Consultant where shop drawings will

not be prepared due to standardized manufacture of product, in addition to a digital copy in PDF or JPG format.

.11 Delete information not applicable to project.

.12 Supplement standard information to provide details applicable to project.

.13 If upon review by Consultant, no errors or omissions are discovered or if only minor corrections are made, copies will be returned and fabrication and installation of Work may proceed. If shop drawings are rejected, noted copy will be returned and resubmission of corrected shop drawings, through same procedure indicated above, must be performed before fabrication and installation of Work may proceed.

1.6 SAMPLES

.1 Submit for review samples in triplicate as requested in respective specification Sections. Label samples with origin and intended use.

.2 Deliver samples prepaid to Consultant's business address.

.3 Notify Consultant in writing, at time of submission of deviations in samples from requirements of Contract Documents.

.4 Where colour, pattern or texture is criterion, submit full range of samples.

.5 Adjustments made on samples by Consultant are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Consultant prior to proceeding with Work.

.6 Make changes in samples which Consultant may require, consistent with Contract Documents.

.7 Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified.

1.7 MOCK-UPS

.1 Erect mock-ups in accordance with 014500 - Quality Control.

Part 2 Products

2.1 NOT USED

.1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

.1 Inspection and testing, administrative and enforcement requirements.
.2 Tests and mix designs.
.3 Mock-ups.
.4 Mill tests.
.5 Equipment and system adjust and balance.

1.2 RELATED SECTIONS

.1 Section 013300 - Submittal Procedures.
.2 Section 017700 - Closeout Procedures.

1.3 REFERENCES

.1 Canadian Construction Documents Committee (CCDC)

.1 CCDC 2-20, Stipulated Price Contract.

1.4 INSPECTION

.1 Allow Consultant access to Work. If part of Work is in preparation at locations other than Place of Work, allow access to such Work whenever it is in progress.

.2 Give timely notice requesting inspection if Work is designated for special tests, inspections or approvals by Consultant instructions, or law of Place of Work.

.3 If Contractor covers or permits to be covered Work that has been designated for special tests, inspections or approvals before such is made, uncover such Work, have inspections or tests satisfactorily completed and make good such Work.

.4 Consultant may order any part of Work to be examined if Work is suspected to be not in accordance with Contract Documents. If, upon examination such work is found not in accordance with Contract Documents, correct such Work and pay cost of examination and correction.

1.5 INDEPENDENT INSPECTION AGENCIES

.1 Independent Inspection/Testing Agencies to be engaged by Contractor for purpose of inspecting and/or testing for concrete work, compaction testing and material testing.

.2 Provide equipment required for executing inspection and testing by appointed agencies.

.3 Employment of inspection/testing agencies does not relax responsibility to perform Work in accordance with Contract Documents.

.4 If defects are revealed during inspection and/or testing, agency will request additional inspection and/or testing to ascertain full degree of defect. Correct defect and irregularities as advised by Independent Inspection/Testing Agency.

1.6 ACCESS TO WORK

.1 Allow inspection/testing agencies access to Work, off site manufacturing and fabrication plants.

.2 Co-operate to provide reasonable facilities for such access.

1.7 PROCEDURES

.1 Notify appropriate agency and Consultant in advance of requirement for tests, in order that attendance arrangements can be made.

.2 Submit samples and/or materials required for testing, as specifically requested in specifications. Submit with reasonable promptness and in an orderly sequence so as not to cause delay in Work.

.3 Provide labour and facilities to obtain and handle samples and materials on site. Provide sufficient space to store and cure test samples.

1.8 REJECTED WORK

.1 Remove defective Work, whether result of poor workmanship, use of defective products or damage and whether incorporated in Work or not, which has been rejected by Consultant as failing to conform to Contract Documents. Replace or re-execute in accordance with Contract Documents.

.2 Make good other Contractor's work damaged by such removals or replacements promptly.

.3 If in opinion of Consultant it is not expedient to correct defective Work or Work not performed in accordance with Contract Documents, Owner may deduct from Contract price difference in value between Work performed and that called for by Contract Documents, amount of which shall be determined by Consultant.

1.9 TESTS AND MIX DESIGNS

.1 Furnish test results and mix designs as may be requested.

1.10 MOCK-UPS

.1 Prepare mock-ups for Work specifically requested in specifications. Include for Work of all Sections required to provide mock-ups.

.2 Construct in all locations acceptable to Consultant as specified in specific Section.

.3 Prepare mock-ups for Consultant's review with reasonable promptness and in an orderly sequence, so as not to cause any delay in Work.

.4 Failure to prepare mock-ups in ample time is not considered sufficient reason for an extension of Contract Time and no claim for extension by reason of such default will be allowed.

.5 If requested, Consultant will assist in preparing a schedule fixing dates for preparation.

.6 Remove mock-up at conclusion of Work or when acceptable to Consultant.

1.11 MILL TESTS

.1 Submit mill test certificates as requested.

1.12 EQUIPMENT AND SYSTEMS

.1 Submit adjustment and balancing reports for mechanical, electrical and building equipment systems.

Part 2 Products

2.1 NOT USED

.1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

.1 Temporary utilities.

1.2 RELATED SECTIONS

.1 Section 015200 - Construction Facilities.

1.3 INSTALLATION AND REMOVAL

.1 Provide temporary utilities controls in order to execute work expeditiously.
.2 Remove from site all such work after use.

1.4 DEWATERING

.1 Provide temporary drainage and pumping facilities to keep excavations and site free from standing water.

1.5 WATER SUPPLY

.1 A continuous supply of potable water for construction use shall be accessible on-site from the existing and proposed well systems. Contractor shall coordinate water access schedule with owner prior to commencing with construction schedule.

1.6 TEMPORARY HEATING AND VENTILATION – Managed by Township

.1 Provide temporary heating required during construction period, including attendance, maintenance and fuel.
.2 Construction heaters used inside building must be vented to outside or be non-flameless type. Solid fuel salamanders are not permitted.
.3 Provide temporary heat and ventilation in enclosed areas as required to:

.1 Facilitate progress of Work.
.2 Protect Work and products against dampness and cold.
.3 Prevent moisture condensation on surfaces.
.4 Provide ambient temperatures and humidity levels for storage, installation and curing of materials.
.5 Provide adequate ventilation to meet health regulations for safe working environment.

.4 Maintain temperatures of minimum 10 degrees C in areas where construction is in progress.
.5 Ventilating:

.1 Prevent accumulations of dust, fumes, mists, vapours or gases in areas occupied during construction.

.2 Provide local exhaust ventilation to prevent harmful accumulation of hazardous substances into atmosphere of occupied areas.
.3 Dispose of exhaust materials in manner that will not result in harmful exposure to persons.
.4 Ventilate storage spaces containing hazardous or volatile materials.
.5 Ventilate temporary sanitary facilities.
.6 Continue operation of ventilation and exhaust system for time after cessation of work process to assure removal of harmful contaminants.

.6 Maintain strict supervision of operation of temporary heating and ventilating equipment to:

.1 Conform with applicable codes and standards.
.2 Enforce safe practices.
.3 Prevent abuse of services.
.4 Prevent damage to finishes.
.5 Vent direct-fired combustion units to outside.

.7 Be responsible for damage to Work due to failure in providing adequate heat and protection during construction.

1.7 TEMPORARY POWER AND LIGHT

.1 Contractor will pay for temporary power during construction for temporary lighting and operating of power tools.
.2 Arrange for connection with appropriate utility company. Pay all costs for installation, maintenance and removal.
.3 Provide and maintain temporary lighting throughout project.
.4 Electrical power and lighting systems installed under this Contract may be used for construction requirements only with prior approval of Consultant provided that guarantees are not affected. Make good damage to electrical system caused by use under this Contract. Replace lamps which have been used for more than 3 months.

1.8 TEMPORARY COMMUNICATION FACILITIES

.1 Provide and pay for temporary telephone necessary for own use.

1.9 FIRE PROTECTION

.1 Provide and maintain temporary fire protection equipment during performance of Work required by insurance companies having jurisdiction and governing codes, regulations and bylaws.
.2 Burning rubbish and construction waste materials is not permitted on site.

Part 2 Products – Not Used

Part 3 Execution – Not Used

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

.1 Construction aids.

.2 Office and sheds.

.3 Parking.

.4 Project identification.

1.2 RELATED SECTIONS

.1 Section 015100 - Temporary Utilities.

1.3 REFERENCES

.1 Canadian Construction Documents Committee (CCDC)

.1 CCDC 2-20, Stipulated Price Contract.

1.4 INSTALLATION AND REMOVAL

.1 Provide construction facilities in order to execute work expeditiously.

.2 Remove from site all such work after use.

1.5 SCAFFOLDING

.1 Provide and maintain scaffolding and ladders as required to complete the work.

1.6 HOISTING

.1 Provide, operate and maintain hoists cranes required for moving of workers, materials and equipment. Make financial arrangements with Subcontractors for use thereof.

.2 Cranes shall be operated by qualified operator.

1.7 SITE STORAGE/LOADING

.1 Confine work and operations of employees by Contract Documents. Do not unreasonably encumber premises with products.

.2 Do not load or permit to load any part of Work with a weight or force that will endanger the Work.

1.8 CONSTRUCTION PARKING

.1 Parking will be permitted on site provided it does not disrupt performance of work or access to the existing lab, barns and offices for normal operations.

.2 Provide and maintain adequate access to project site.

.3 Contractor to provide snow removal during period of Work.

.4 Existing roads for access to project site may be used. Maintain such roads for duration of Contract and make good damage resulting from Contractors' use of roads.

1.9 SECURITY

.1 Ensure site is secure after every working day and provide and pay for security if contractor deems necessary.

1.10 OFFICES

.1 Provide office heated to 22 ºC, lighted 750 lx and ventilated, of sufficient size to accommodate site meetings and furnished with drawing laydown table.

.2 Provide a clearly marked and fully stocked first-aid case in a readily available location.

.3 Subcontractors may provide their own offices as necessary. Direct location of these offices.

1.11 EQUIPMENT, TOOL AND MATERIALS STORAGE

.1 Provide and maintain, in a clean and orderly condition, lockable weatherproof sheds for storage of tools, equipment and materials.

.2 Locate materials not required to be stored in weatherproof sheds on site in a manner to cause least interference with work activities.

1.12 SANITARY FACILITIES

.1 Provide sanitary facilities for work force in accordance with governing regulations and ordinances.

.2 Post notices and take such precautions as required by local health authorities. Keep area and premises in sanitary condition.

Part 2 Products – Not Used

Part 3 Execution – Not Used

END OF SECTION

Part 1 General

1.1 RELATED SECTIONS

.1 Section 024117-Structure Demolition-Short Form.

1.2 REFERENCES

.1 Canadian General Standards Board (CGSB)

.1 CGSB 1.59-97, Alkyd Exterior Gloss Enamel.

.2 CAN/CGSB 1.189-00, Exterior Alkyd Primer for Wood.

.2 Canadian Standards Association (CSA International)

.1 CSA-O121-M1978(R2003), Douglas Fir Plywood.

.3 Public Works Government Services Canada (PWGSC) Standard Acquisition Clauses and Conditions (SACC)-ID: R0202D, Title: General Conditions 'C', In Effect as Of: May 14, 2004.

1.3 INSTALLATION AND REMOVAL

.1 Provide temporary controls in order to execute Work expeditiously.

.2 Remove from site all such work after use.

1.4 HOARDING

.1 Erect temporary site enclosures using scaffold type shoring or an approved equal. The design of all shoring and temporary bracing shall furnished and provided by the contractor in accordance with the Occupational Health and Safety Act 2000.

.2 Apply planks and panels for work platforms in accordance with the Occupational Health and Safety Act 2000.

.3 Provide one lockable truck entrance gate and at least one pedestrian door as directed and conforming to applicable traffic restrictions on site. Equip gates with locks and keys.

.4 Erect and maintain pedestrian walkways including roof and side covers, complete with signs and electrical lighting as required by law.

.5 Paint public side of site enclosure in selected colours with one coat primer to CAN/CGSB 1.189 and one coat exterior paint to CGSB 1.59. Maintain public side of enclosure in clean condition.

.6 Erect temporary site enclosure using new 1.2 m high snow fence wired to rolled steel "T" bar fence posts spaced at 2.4 m on centre. Provide one lockable truck gate. Maintain fence in good repair.

.7 Provide barriers around trees and plants designated to remain. Protect from damage by equipment and construction procedures.

1.5 GUARD RAILS AND BARRICADES

.1 Provide secure, rigid guard rails and barricades around deep excavations, open shafts, open stair wells, open edges of floors and roofs, and scaffolding.

.2 Provide as required by governing authorities. WEATHER ENCLOSURES

.3 Provide weather tight closures to unfinished door and window openings, tops of shafts and other openings in floors and roofs.

.4 Close off floor areas where walls are not finished; seal off other openings; enclose building interior work for temporary heat.

.5 Design enclosures to withstand wind pressure as noted on drawing S0.

1.6 DUST TIGHT SCREENS

.1 Provide dust tight screens or air tight partitions to localize dust generating activities, and for protection of workers, finished areas of Work and public.

.2 Maintain and relocate protection until such work is complete.

1.7 ACCESS TO SITE

.1 Provide and maintain access roads, sidewalk crossings, ramps and construction runways as may be required for access to Work.

1.8 FIRE ROUTES

.1 Maintain access to property including overhead clearances for use by emergency response vehicles.

1.9 PROTECTION FOR OFF-SITE AND PUBLIC PROPERTY

.1 Protect surrounding private and public property from damage during performance of Work.

.2 Be responsible for damage incurred.

1.10 PROTECTION OF BUILDING FINISHES

.1 Provide protection for finished and partially finished building finishes and equipment during performance of Work.

.2 Provide necessary screens, covers, and hoardings.

.3 Confirm with the Consultant locations and installation schedule 5 days prior to installation.

.4 Be responsible for damage incurred due to lack of or improper protection.

1.11 WASTE MANAGEMENT AND DISPOSAL

.1 Separate waste materials for reuse and recycling in accordance with laws and bylaws.

Part 2 Products

2.1 NOT USED

.1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

.1 Product quality, availability, storage, handling, protection, and transportation.

.2 Manufacturer's instructions.

.3 Quality of Work, coordination and fastenings.

1.2 REFERENCE STANDARDS

.1 Canadian Construction Documents Committee (CCDC)

.1 CCDC 2 2020, Stipulated Price Contract.

.2 Within text of each specifications section, reference may be made to reference standards.

.3 Conform to these reference standards, in whole or in part as specifically requested in specifications.

.4 If there is question as to whether any product or system is in conformance with applicable standards, Consultant reserves right to have such products or systems tested to prove or disprove conformance.

.5 Cost for such testing will be born by Owner in event of conformance with Contract Documents or by Contractor in event of non-conformance.

.6 Conform to latest date of issue of referenced standards in effect on date of submission of Tenders, except where specific date or issue is specifically noted.

1.3 QUALITY

.1 Products, materials, equipment and articles (referred to as products throughout specifications) incorporated in Work shall be new, not damaged or defective, and of best quality (compatible with specifications) for purpose intended. If requested, furnish evidence as to type, source and quality of products provided.

.2 Defective products, whenever identified prior to completion of Work, will be rejected, regardless of previous inspections. Inspection does not relieve responsibility, but is precaution against oversight or error. Remove and replace defective products at own expense and be responsible for delays and expenses caused by rejection.

.3 Should any dispute arise as to quality or fitness of products, decision rests strictly with Consultant based upon requirements of Contract Documents.

.4 Unless otherwise indicated in specifications, maintain uniformity of manufacture for any particular or like item throughout building.

.5 Permanent labels, trademarks and nameplates on products are not acceptable in prominent locations, except where required for operating instructions, or when located in mechanical or electrical rooms.

1.4 AVAILABILITY

.1 Immediately upon signing Contract, review product delivery requirements and anticipate foreseeable supply delays for any items. If delays in supply of products are foreseeable, notify Consultant of such, in order that substitutions or other remedial action may be authorized in ample time to prevent delay in performance of Work.

.2 In event of failure to notify Consultant at commencement of Work and should it subsequently appear that Work may be delayed for such reason, Consultant reserves right to substitute more readily available products of similar character, at no increase in Contract Price or Contract Time.

1.5 STORAGE, HANDLING AND PROTECTION

.1 Handle and store products in manner to prevent damage, adulteration, deterioration and soiling and in accordance with manufacturer's instructions when applicable.

.2 Store packaged or bundled products in original and undamaged condition with manufacturer's seal and labels intact. Do not remove from packaging or bundling until required in Work.

.3 Store products subject to damage from weather in weatherproof enclosures.

.4 Store cementitious products clear of earth or concrete floors, and away from walls.

.5 Keep sand, when used for grout or mortar materials, clean and dry. Store sand on wooden platforms and cover with waterproof tarpaulins during inclement weather.

.6 Store sheet materials, lumber on flat, solid supports and keep clear of ground. Slope to shed moisture.

.7 Store and mix paints in heated and ventilated room. Remove oily rags and other combustible debris from site daily. Take every precaution necessary to prevent spontaneous combustion.

.8 Remove and replace damaged products at own expense and to satisfaction of Consultant.

.9 Touch-up damaged factory finished surfaces to Consultant's satisfaction. Use touch-up materials to match original. Do not paint over name plates.

1.6 TRANSPORTATION

.1 Pay costs of transportation of products required in performance of Work.

1.7 MANUFACTURER'S INSTRUCTIONS

.1 Unless otherwise indicated in specifications, install or erect products in accordance with manufacturer's instructions. Do not rely on labels or enclosures provided with products. Obtain written instructions directly from manufacturers.

.2 Notify Consultant in writing, of conflicts between specifications and manufacturer's instructions, so that Consultant may establish course of action.

.3 Improper installation or erection of products, due to failure in complying with these requirements, authorizes Consultant to require removal and re-installation at no increase in Contract Price or Contract Time.

1.8 QUALITY OF WORK

.1 Ensure Quality of Work is of highest standard, executed by workers experienced and skilled in respective duties for which they are employed. Immediately notify Consultant if required Work is such as to make it impractical to produce required results.

.2 Do not employ anyone unskilled in their required duties. Consultant reserves right to require dismissal from site, workers deemed incompetent or careless.

.3 Decisions as to standard or fitness of Quality of Work in cases of dispute rest solely with Consultant, whose decision is final.

1.9 CO-ORDINATION

.1 Ensure cooperation of workers in laying out Work. Maintain efficient and continuous supervision.

.2 Be responsible for coordination and placement of openings, sleeves and accessories.

1.10 CONCEALMENT

.1 In finished areas, conceal pipes, ducts and wiring in floors, walls and ceilings, except where indicated otherwise.

.2 Before installation, inform Consultant if there is interference. Install as directed by Consultant.

1.11 REMEDIAL WORK

.1 Refer to CCDC 2-2020.

.2 Perform remedial work required to repair or replace parts or portions of Work identified as defective or unacceptable. Coordinate adjacent affected Work as required.

.3 Perform remedial work by specialists familiar with materials affected. Perform in a manner to neither damage nor put at risk any portion of Work.

1.12 LOCATION OF FIXTURES

.1 Consider location of fixtures, outlets, and mechanical and electrical items indicated as approximate.

.2 Inform Consultant of conflicting installation. Install as directed.

1.13 FASTENINGS

.1 Provide metal fastenings and accessories in same texture, colour and finish as adjacent materials, unless indicated otherwise.

.2 Prevent electrolytic action between dissimilar metals and materials.

.3 Use non-corrosive hot dip galvanized steel fasteners and anchors for securing exterior work, unless stainless steel or other material is specifically requested in affected specification Section.

.4 Space anchors within individual load limit or shear capacity and ensure they provide positive permanent anchorage. Wood, or any other organic material plugs are not acceptable.

.5 Keep exposed fastenings to a minimum, space evenly and install neatly.

.6 Fastenings which cause spalling or cracking of material to which anchorage is made are not acceptable.

1.14 FASTENINGS - EQUIPMENT

.1 Use fastenings of standard commercial sizes and patterns with material and finish suitable for service.

.2 Use heavy hexagon heads, semi-finished unless otherwise specified. Use No. 304 stainless steel for exterior areas.

.3 Bolts may not project more than one diameter beyond nuts.

.4 Use plain type washers on equipment, sheet metal and soft gasket lock type washers where vibrations occur. Use resilient washers with stainless steel.

1.15 PROTECTION OF WORK IN PROGRESS

.1 Prevent overloading of any part of building. Do not cut, drill or sleeve any load bearing structural member, unless specifically indicated without written approval of Consultant.

1.16 EXISTING UTILITIES

.1 When breaking into or connecting to existing services or utilities, execute Work at times directed by local governing authorities, with minimum of disturbance to Work.

.2 Protect, relocate or maintain existing active services. When services are encountered, cap off in manner approved by authority having jurisdiction. Stake and record location of capped service.

Part 2 Products

2.1 NOT USED

.1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

Part 1 General

1.1 RELATED SECTIONS

.1 Section 013300 - Submittal procedures.

1.2 REFERENCES

.1 Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations.

.1 Occupational Health and Safety Act, R.S.A. 2000.

.2 Province of Ontario

.1 Occupational Health and Safety Act and Regulations for Construction Projects, R.S.O. 1990 as amended 213/91.

1.3 SUBMITTALS

.1 Make submittals in accordance with Section 013300 - Submittal Procedures.

.2 Submit site-specific Health and Safety Plan: Within 7 days after date of Notice to Proceed and prior to commencement of Work. Health and Safety Plan must include:

.1 Results of site specific safety hazard assessment.

.2 Results of safety and health risk or hazard analysis for site tasks and operation found in work plan.

.3 Submit 1 copy of Contractor's authorized representative's work site health and safety inspection reports to Consultant and/or authority having jurisdiction.

.4 Submit copies of reports or directions issued by Federal, Provincial and Territorial health and safety inspectors.

.5 Submit copies of incident and accident reports.

.6 Submit Material Safety Data Sheets (MSDS) to Consultant.

.7 Consultant will review Contractor's site-specific Health and Safety Plan and provide comments to Contractor within 10 days after receipt of plan. Revise plan as appropriate and resubmit plan to Consultant within 10 days after receipt of comments from Consultant.

.8 Consultant's review of Contractor's final Health and Safety plan should not be construed as approval and does not reduce the Contractor's overall responsibility for construction Health and Safety.

.9 Medical Surveillance: Where prescribed by legislation, regulation or safety program, submit certification of medical surveillance for site personnel prior to commencement of Work, and submit additional certifications for any new site personnel to Consultant.

.10 On-site Contingency and Emergency Response Plan: Address standard operating procedures to be implemented during emergency situations.

1.4 FILING OF NOTICE

.1 File Notice of Project with Provincial authorities prior to commencement of Work.

1.5 SAFETY ASSESSMENT

.1 Perform site specific safety hazard assessment related to project.

1.6 MEETINGS

.1 Schedule and administer Health and Safety meeting with Consultant prior to commencement of Work.

1.7 REGULATORY REQUIREMENTS

.1 Do Work in accordance with Regulatory Requirements as prescribed in the Ontario Health and Safety Act for construction projects.

1.8 GENERAL REQUIREMENTS

.1 Develop written site-specific Health and Safety Plan based on hazard assessment prior to commencing any site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address project specifications.

.2 Consultant may respond in writing, where deficiencies or concerns are noted and may request re-submission with correction of deficiencies or concerns.

1.9 RESPONSIBILITY

.1 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.

.2 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.

1.10 UNFORSEEN HAZARDS

.1 Should any unforeseen or peculiar safety-related factor, hazard, or condition become evident during performance of Work, and follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of Ontario having jurisdiction. Advise Consultant verbally and in writing.

1.11 HEALTH AND SAFETY CO-ORDINATOR

.1 Employ and assign to Work, competent and authorized representative as Health and Safety Co-ordinator. Health and Safety Co-ordinator must:

.1 Have minimum 2 years' site-related working experience specific to activities associated with a building.

.2 Have working knowledge of occupational safety and health regulations.

.3 Be responsible for completing Contractor's Health and Safety Training Sessions and ensuring that personnel not successfully completing required training are not permitted to enter site to perform Work.

.4 Be responsible for implementing, enforcing daily and monitoring site-specific Contractor's Health and Safety Plan.

1.12 POSTING OF DOCUMENTS

.1 Ensure applicable items, articles, notices and orders are posted in conspicuous location on site in accordance with Acts and Regulations of Province Territory having jurisdiction, and in consultation with Consultant.

1.13 CORRECTION OF NON-COMPLIANCE

.1 Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by Consultant.

.2 Provide Consultant with written report of action taken to correct non-compliance of health and safety issues identified.

.3 Consultant may stop Work if non-compliance of health and safety regulations is not corrected.

1.14 BLASTING

.1 Blasting or other use of explosives is not permitted.

1.15 POWDER ACTUATED DEVICES

.1 Use powder actuated devices only after receipt of written permission from Consultant.

1.16 WORK STOPPAGE

.1 Give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations for Work.

Part 2 Products

2.1 NOT USED

.1 Not used.

Part 3 Execution

3.1 NOT USED

.1 Not used.

END OF SECTION

Part 1 General

1.1 RELATED SECTIONS

.1 Section 011100-Summary of Work.

1.2 REFERENCES

.1 Canadian Construction Documents Committee (CCDC)

.1 CCDC 2-2020, Stipulated Price Contract.

.2 Owner's identification of existing survey control points and property limits.

1.3 QUALIFICATIONS OF SURVEYOR

.1 Qualified registered land surveyor, licensed to practice in Place of Work, acceptable to the Consultant.

1.4 SURVEY REFERENCE POINTS

.1 Existing base horizontal and vertical control points are designated on drawings.

.2 Locate, confirm and protect control points prior to starting site work. Preserve permanent reference points during construction.

.3 Make no changes or relocations without prior written notice to the Consultant.

.4 Report to the Consultant when reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.

.5 Require surveyor to replace control points in accordance with original survey control.

1.5 SURVEY REQUIREMENTS

.1 Establish two permanent bench marks on site, referenced to established bench marks by survey control points. Record locations, with horizontal and vertical data in Project Record Documents.

.2 Establish lines and levels, locate and lay out, by instrumentation.

.3 Stake for grading, fill and topsoil placement as well as landscaping features.

.4 Stake slopes and berms.

.5 Establish pipe invert elevations.

.6 Stake formwork for foundations.

.7 Stake exterior slab locations and elevations.

.8 Establish foundation column locations and floor elevations.

.9 Establish lines and levels for mechanical and electrical work.

1.6 EXISTING SERVICES

.1 Before commencing work, establish location and extent of service lines in area of Work and notify the Consultant of findings.

.2 Remove abandoned service lines within 2m of structures. Cap or otherwise seal lines at cut-off points as directed by the Consultant.

1.7 LOCATION OF EQUIPMENT AND FIXTURES

.1 Location of equipment, fixtures and outlets indicated or specified are to be considered as approximate.

.2 Locate equipment, fixtures and distribution systems to provide minimum interference and maximum usable space and in accordance with manufacturer's recommendations for safety, access and maintenance.

.3 Inform the Consultant of impending installation and obtain approval for actual location.

.4 Submit field drawings to indicate relative position of various services and equipment when required by the Consultant.

1.8 RECORDS

.1 Maintain a complete, accurate log of control and survey work as it progresses.

.2 On completion of foundations and major site improvements, prepare a certified survey showing dimensions, locations, angles and elevations of Work.

.3 Record locations of maintained, re-routed and abandoned service lines.

1.9 SUBMITTALS

.1 Submit name and address of Surveyor to the Consultant. On request of the Consultant, submit documentation to verify accuracy of field engineering work.

.2 Submit certificate signed by surveyor certifying and noting those elevations and locations of completed Work that conform or do not conform to the Contract Documents.

1.10 SUBSURFACE CONDITIONS

.1 Promptly notify Consultant in writing if subsurface conditions at Place of Work differ materially from those indicated in Contract Documents, or a reasonable assumption of probable conditions based thereon.

.2 After prompt investigation, should Consultant determine that conditions do differ materially, instructions will be issued for changes in Work as provided in Changes and Change Orders.

Part 2 Products

2.1 NOT USED

.1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

.1 Progressive cleaning.

.2 Final cleaning.

1.2 REFERENCE STANDARDS

.1 Canadian Construction Documents Committee (CCDC)

.1 CCDC 2 2020, Stipulated Price Contract.

1.3 PROJECT CLEANLINESS

.1 Maintain Work in tidy condition, free from accumulation of waste products and debris, other than that caused by Owner or other Contractors.

.2 Remove waste materials from site at regularly scheduled times or dispose of as directed by Consultant. Do not burn waste materials on site, unless approved by Consultant.

.3 Clear snow and ice from access to building.

.4 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.

.5 Provide on-site containers for collection of waste materials and debris.

.6 Remove waste material and debris from site and deposit in waste container at end of each working day.

.7 Dispose of waste materials and debris.

.8 Clean interior areas prior to start of finish work, and maintain areas free of dust and other contaminants during finishing operations.

.9 Store volatile waste in covered metal containers, and remove from premises at end of each working day.

.10 Provide adequate ventilation during use of volatile or noxious substances. Use of building ventilation systems is not permitted for this purpose.

.11 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.

.12 Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces nor contaminate building systems.

1.4 FINAL CLEANING

.1 When Work is Substantially Performed, remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.

.2 Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy.

.3 Prior to final review, remove surplus products, tools, construction machinery and equipment.

.4 Remove waste products and debris other than that caused by Owner or other Contractors.

.5 Remove waste materials from site at regularly scheduled times or dispose of as directed by Consultant. Do not burn waste materials on site, unless approved by Consultant.

.6 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.

.7 Clean and polish glass, mirrors, hardware, wall tile, stainless steel, chrome, porcelain enamel, baked enamel, plastic laminate, and mechanical and electrical fixtures. Replace broken, scratched or disfigured glass.

.8 Remove stains, spots, marks and dirt from decorative work, electrical and mechanical fixtures, furniture fitments, walls, and floors.

.9 Clean lighting reflectors, lenses, and other lighting surfaces.

.10 Vacuum clean and dust building interiors, behind grilles, louvres and screens.

.11 Inspect finishes, fitments and equipment and ensure specified workmanship and operation.

.12 Broom clean and wash exterior walks, steps and surfaces; rake clean other surfaces of grounds.

.13 Remove dirt and other disfiguration from exterior surfaces.

.14 Clean and sweep roofs, gutters, areaways, and sunken wells.

.15 Sweep and wash clean paved areas.

.16 Clean equipment and fixtures to a sanitary condition; clean or replace filters of mechanical equipment.

.17 Clean roofs, downspouts, and drainage systems.

.18 Remove debris and surplus materials from crawl areas and other accessible concealed spaces.

.19 Remove snow and ice from access to building.

Part 2 Products

2.1 NOT USED

.1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

.1 Administrative procedures preceding preliminary and final inspections of Work.

1.2 RELATED SECTIONS

.1 Section 018200 – Demonstration and Training

1.3 REFERENCES

.1 Canadian Construction Documents Committee (CCDC)

.1 CCDC 2-20, Stipulated Price Contract.

1.4 INSPECTION AND DECLARATION

.1 Contractor's Inspection: Contractor and all Subcontractors shall conduct an inspection of Work, identify deficiencies and defects, and repair as required to conform to Contract Documents.

.1 Notify Consultant in writing of satisfactory completion of Contractor's Inspection and that corrections have been made.

.2 Request Consultant's Inspection.

.2 Consultant's Inspection: Consultant and Contractor will perform inspection of Work to identify obvious defects or deficiencies. Contractor shall correct Work accordingly.

.3 Completion: submit written certificate that following have been performed:

.1 Work has been completed and inspected for compliance with Contract Documents.

.2 Defects have been corrected and deficiencies have been completed.

.3 Equipment and systems have been tested, adjusted and balanced and are fully operational.

.4 Certificates required by Utility companies have been submitted.

.5 Operation of systems have been demonstrated to Owner's personnel.

.6 Work is complete and ready for Final Inspection.

.4 Final Inspection: when items noted above are completed, request final inspection of Work by Owner, Consultant, and Contractor. If Work is deemed incomplete by Owner and Consultant, complete outstanding items and request reinspection.

.5 Declaration of Substantial Performance: when Consultant consider deficiencies and defects have been corrected and it appears requirements of Contract have been substantially performed, make application for certificate of Substantial Performance. Refer to CCDC 2, General Conditions Article for specifics to application.

.6 Commencement of Lien and Warranty Periods: date of Owner's acceptance of submitted declaration of Substantial Performance shall be date for commencement for warranty period and commencement of lien period unless required otherwise by lien statute of Place of Work.

.7 Final Payment: When Consultant consider final deficiencies and defects have been corrected and it appears requirements of Contract have been totally performed, make application for final payment. Refer to CCDC 2. If Work is deemed incomplete by Consultant, complete outstanding items and request reinspection.

.8 Payment of Holdback: After issuance of certificate of Substantial Performance of Work, submit an application for payment of holdback amount in accordance with CCDC 2.

Part 2 Products

2.1 NOT USED

.1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

.1 Procedures for demonstration and instruction of equipment and systems to Owner's personnel.

1.2 RELATED SECTIONS

.1 Section 017700 - Closeout Procedures.

1.3 DESCRIPTION

.1 Demonstrate operation and maintenance of equipment and systems to Owner's personnel two weeks prior to date of substantial performance.

.2 Owner will provide list of personnel to receive instructions, and will coordinate their attendance at agreed-upon times.

1.4 QUALITY CONTROL

.1 When specified in individual Sections, require manufacturer to provide authorized representative to demonstrate operation of equipment and systems, instruct Owner's personnel, and provide written report that demonstration and instructions have been completed.

1.5 SUBMITTALS

.1 Submit schedule of time and date for demonstration of each item of equipment and each system two weeks prior to designated dates, for Consultant's approval.

.2 Submit reports within one week after completion of demonstration, that demonstration and instructions have been satisfactorily completed.

.3 Give time and date of each demonstration, with list of persons present.

1.6 CONDITIONS FOR DEMONSTRATIONS

.1 Equipment has been inspected and put into operation.

.2 Testing, adjusting, and balancing has been performed.

.3 Provide copies of completed operation and maintenance manuals for use in demonstrations and instructions.

1.7 PREPARATION

.1 Verify that conditions for demonstration and instructions comply with requirements.

.2 Verify that designated personnel are present.

1.8 DEMONSTRATION AND INSTRUCTIONS

.1 Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, and maintenance of each item of equipment at the equipment location.

.2 Instruct personnel in all phases of operation and maintenance using operation and maintenance manuals as the basis of instruction.

.3 Review contents of manual in detail to explain all aspects of operation and maintenance.

.4 Prepare and insert additional data in operations and maintenance manuals when the need for additional data becomes apparent during instructions.

Part 2 Products

2.1 NOT USED

.1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

RESTRICTIONS ON SOURCE OF CONCRETE

O.P.S.S. Form 1350 shall apply for the mixing and transporting of concrete except that all Portland cement concrete supplied by the Contractor in accordance with the requirements of this Contract shall be obtained from a Ready-Mixed Concrete Operation approved by the Engineer.

CORRECTION AFTER COMPLETION

Subject to any Special Provisions in the Contract, the Contractor shall remedy any defects due to faulty materials or workmanship appearing within one year from the date of acceptance of the work, as certified by the Engineer under Section GC 8.02.03.06 of the General Conditions of the Contract, and shall pay for any damage or other work resulting therefrom which appears within such period and neither the final certificate nor payment thereunder shall relieve the Contractor from responsibility thereunder. This Section shall not be deemed to restrict any liability of the Contractor arising out of any law in force in the Province of Ontario.

GRANULAR BACKFILL CULVERTS

This work shall be performed as a distinctly separate operation. No material shall be placed upon the completed backfill until the latter has been approved by the Engineer and the costs of any delays so arising shall be borne by the Contractor.

STORAGE AREAS

The Contractor shall obtain the approval of the Engineer prior to designating areas within the site for storage of his equipment and materials and the erection of offices and sheds.

If additional property outside the site is required for such purposes, the Contractor shall make his own arrangements at no additional cost to the Owner.

COMPACTION EQUIPMENT

Compaction equipment shall be approved by the Engineer before being used for work under this Contract.

DUST CONTROL

The Contractor shall take such steps as may be required to prevent dust nuisance resulting from his operations either within the right-of-way or elsewhere or by public traffic where it is the Contractor's responsibility to maintain a roadway through the work. Such steps may include the supply and placing of water and/or calcium chloride as deemed necessary by the Engineer.

Where the work requires the sawing of asphalt or the sawing or grinding of concrete, blades and grinders of the wet type shall be used with sufficient water to prevent the incidence of dust, wherever dust would affect traffic or wherever dust would be a nuisance to residents of the area where the work is being carried out.

The cost of all such preventative measures shall be borne by the Contractor.

DISPOSAL OF SURPLUS OR UNSUITABLE EXCAVATED MATERIAL FROM GRADING AND ALL OTHER OPERATIONS FOR WHICH EXCAVATION IS REQUIRED

All materials, including rubble and debris resulting from demolitions, excavated in carrying out the work of the various tender items included in this Contract and which is unsuitable for or which is surplus to the requirements for backfill or embankment construction, shall be disposed of at locations arranged for by and at the sole expense of the Contractor. Such sites shall be subject to the approval of the Engineer and the Ministry of the Environment. The Contractor shall provide the Engineer with written confirmation of approval by the Ministry of the Environment.

The price bid for the Contract items requiring such work shall be full compensation for loading, hauling, placing, trimming and for all other work which may be required to dispose of the unsuitable or surplus material.

ENVIRONMENTAL PROTECTION

The Contractor shall conduct his operations in an environmentally acceptable manner, which means a manner which complies with the requirements of the Environmental Protection Act, R.S.O. 1980.

RESTORATION

Restoration of areas unnecessarily damaged by the Contractor's operations shall be at the Contractor's expense.

Prior to restoration of Asphalt or Concrete entrances all loose, broken or disturbed material along the edges shall be removed and all edges of the existing entrances shall be sawed or otherwise cut in straight lines as directed by the Engineer. No additional payment shall be made for this work.

UTILITIES

The Contractor shall be required to co-operate with telephone, cable, hydro, gas or any other utility company where plant may be affected to permit these agencies to maintain services and to re-arrange plant during construction, where required.

The location, depth, type, and configuration of underground utilities and services shown on the Contract Drawings are based on the investigations made by the Engineer, but are not guaranteed. The Contractor shall contact the utility companies to confirm the exact location, type and configuration of these utilities. The Contractor shall exercise the necessary care in construction operations and take such other precautions as are necessary to safeguard the utilities from damage.

No heavy construction equipment will be allowed to operate over the existing gas mains. The Contractor will be responsible for replacing any sand padding, which is removed from around gas mains during excavation operations and no additional payment shall be made as a result of work necessary to satisfy this requirement.

The Contractor shall be responsible for any unauthorized disruptions of service and any damage to utilities arising out of his work. The cost of protective measures, together with the cost of restoring the lines to their original state and location, will be at the expense of the Contractor, and will be billed to him by the utility authority.

The Contractor shall be responsible for supporting existing watermains, gas mains and telephone ducts and concrete conduit structure where they are encountered crossing or adjacent to underground service trenches. The method of support shall be as detailed in the Contract Drawings or as stipulated by the utility companies and, payment for support measures shall be deemed to be included in the Contract prices for the underground services being installed.

No additional compensation shall be made for delay or other alterations to the Contractor's schedule caused by the utility company operations.

It is the Contractor's responsibility as "constructor" under the provisions of the Occupational Health and Safety Act to co-ordinate the activities of all employees and workers operating within the Contract limits to ensure that the requirements of the Occupational Health and Safety Act are satisfied. The Contractor shall ensure that each utility company operating within the Contract limits is included in this process.

CORRUGATED STEEL PIPE

Should the Contractor choose to supply a universal dimple coupler or any other coupler which does not follow the contour of the corrugated steel pipe sections to be joined, he shall, as part of the work at the Contract price for the appropriate tender item, supply and install polyethylene gaskets at all joints where such couplers are used.

Gaskets shall consist of a strip 2 m wide of 150 um polyethylene and shall be folded so as to produce a strip 1 m wide and of sufficient length to equal the circumference of the pipe plus a minimum of 300 mm overlap. This band shall be so placed that it is symmetrical about the pipe joint and shall be placed before installing the coupler.

NO OPEN BURNING

Open fires shall not be located within the limits of this contract.

TRAFFIC CONTROL, FLAGGING

Flagging for traffic control on this Contract shall be in conformance with the procedure outlined in the Ministry of Transportation Temporary Conditions Manual, latest edition.

EMERGENCY AND MAINTENANCE MEASURES

Whenever the construction site is unattended by the general superintendent, the name, address and telephone number of a responsible official of the contracting firm, shall be given to the Engineer. This official shall be available at all times and have the necessary authority to mobilize workmen and machinery and to take any action as directed by the Engineer in case emergency or maintenance measures are required regardless whether the emergency or requirement for maintenance was caused by the Contractor's negligence, act of God, or any cause whatsoever.

Should the Contractor be unable to carry out immediate remedial measures required, the Owner will carry out the necessary repairs, the costs for which shall be charged to the Contractor.

CONTRACTOR'S SUPPLY OF CONSTRUCTION SIGNS

The Contractor is responsible for the supply, erection, maintenance and removal of all temporary traffic controls including signs, lights, barricades, delineators, cones, etc, required on the project.

SPILLS REPORTING

Spills or discharges of pollutants or contaminants under the control of the Contractor, and spills or discharges of pollutants or contaminants that are a result of the Contractor's operations that cause or are likely to cause adverse effects shall forthwith be reported to the Engineer. Such spills or discharges and their adverse effects shall be as defined in the Environmental Protection Act R.S.O. 1980.

All spills or discharges of liquid, other than accumulated rain water, from luminaires, internally illuminated signs, lamps and liquid type transformers under the control of the Contractor, and all spills or discharges from this equipment that are a result of the Contractor's operations shall, unless otherwise indicated in the Contract, be assumed to contain PCB's and shall forthwith be reported to the Engineer.

This reporting will not relieve the Contractor of his legislated responsibilities regarding such spills or discharges.

REVIEW OF SHOP/WORKING DRAWINGS

For the portions of the work to be done under this Contract where detail drawings are to be supplied by the Contractor, six (6) copies of same, together with specifications, plus such additional copies as the Contractor and his sub-contractors may require, shall be submitted to the Engineer for review.

The Contractor or his Sub-contractor shall check and initial all shop drawings before submission to the Engineer so as to intercept and correct any major errors or omissions. Shop drawings will not be reviewed by the Engineer unless they have been previously checked by the Contractor.

The review by the Engineer is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean that the Engineer approves the detail design inherent in the shop drawings, responsibility for which shall remain with the Contractor submitting same, and such review shall not relieve the Contractor of his responsibility for errors or omissions in the shop drawings or of his responsibility for meeting all requirements of the Contract Documents.

The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

Work which relates to the shop drawings shall not be carried out before the Engineer's review of the shop drawings is complete.

LAYOUT BY THE CONTRACTOR

Layout of the work shall be performed by the Contractor in accordance with the requirements of Sub-section GC 7.02 of the General Conditions of the Contract.

MANAGEMENT AND DISPOSAL OF MATERIALS

In accordance with O.P.S.S. 180, Forms O.P.S.F. 1800, 1801 and 1803 shall be completed by the Contractor and forwarded to the Owner.

This form to be used with Ontario Provincial Specification 180

SITE SELECTION NOTIFICATION FOR MANAGEMENT AS DISPOSABLE FILL

Contract Information

Contract No. _____ **Owner** _____

The following describes the notification process between the **Owner** of the Contract and the Contractor, wherein the Contractor formally notifies the **Owner** that agreement has been reached with a third party property **Owner** for the disposition of Contract generated excess material. Such excess material, managed as disposable fill shall be limited to one or a combination of: earth; aggregate; swamp material; rock; natural wood and debris from open fires, provided the conditions on management are satisfied.

Site Information

Property **Owner**(s) for the subject property: _____

The subject property:

Lot _____, Concession _____, Township of _____

County/Region/District of _____, Quantity and type of excess material Used as fill:

_____
_____

This is to notify you, as **Owner**, that permission has been obtained from the property **Owner**(s) named herein for the Management of excess materials from this Contract. The property **Owner** has also been provided with a copy of this form and has been advised that a Property **Owner**'s Release Form, OPSF 1803, will be required. The use of this management site will comply with the following:

Conditions on Management

Bituminous pavement, concrete, masonry, wood which has been treated, coated or glued, and metal, plastic and polystyrene products will not be accepted for management as disposable fill. Swamp material managed as disposable fill will be top covered by a minimum of 300 mm of earth or topsoil. Swamp material managed as disposable fill may be placed:

a) a minimum of 2m above the level of ground water.
b) a minimum of 30m from water bodies;
c) a minimum of 100m from any water wells; and
d) a minimum of 100m from residences.

These condition do not supercede any constraints imposed on this property by Federal, Provincial or Municipal statute or regulations and bylaws made thereto.

Dated this _____ day of _____20__ _____
Print Contractor's Name & Field Representative's Name

_____
Contractor's Field Representative Signature

_____
Property **Owner**(s) Signature(s)

cc: Contract Administrator, Property **Owner**(s), Contractor OPSF 1800

This form to be used with Ontario Provincial Specification 180

SITE SELECTION NOTIFICATION FOR MATERIAL STOCKPILING

Contract Information

Contract No. _____ **Owner** _____

The following describes the notification process between the **Owner** of the Contract and the Contractor, wherein the Contractor formally notifies the **Owner** that agreement has been reached with a third party property **Owner** for the disposition of Contract generated excess material. Such excess material, managed as disposable fill shall be limited to one of or a combination of: earth; aggregate; swamp material; rock; natural wood and debris from open fires, provided the conditions on management are satisfied.

Site Information

Property **Owner** (s) for the subject property: _____
The subject property:

Lot: _____ Concession _____, Township of _____

County/Region/District of _____, Quantity and Type of Excess Material Used as Fill:

_____

_____

This is to notify you, as **Owner**, that permission has been obtained from the property **Owner**(s) named herein for the Management of excess materials from this Contract. The property **Owner** has also been provided with a copy of this form and has been advised that a Property **Owner**'s Release Form, OPSF 1803, will be required. The use of this management site will comply with the following:

Conditions on Management

It is understood that materials are stockpiled to be re-used or held for disposal at a certified waste disposal site. Stockpiles of natural wood, manufactured wood, debris from open fires and swamp material may only be located:

a. a minimum of 2m above the level of ground water.
b. a minimum of 30m from water bodies;
c. a minimum of 100m from residences; and
d. a minimum of 100m from any water wells.

Stockpiles of bituminous pavement, concrete and masonry may only be located:

a. a minimum of 30m from water bodies;
b. a minimum of 100m from residences unless

    1. on property with a boundary common to a right-of-way, within the Contract limits, for a period not exceeding 120 calendar days, or
    2. such stockpiles are located within a provincial or municipal works yard or in a commercially licensed pit or quarry.

These conditions do not supercede any constraints imposed on this property by Federal, Provincial or Municipal statute or regulations and bylaws made thereto.

Dated this _____ day of _____ 20___

_____
Print Contractor's Name and Field Representative's Name

_____
Contractor's Field Representative Signature

_____
Property **Owner**(s) Signature(s)

cc: Contract Administrator, Property **Owner**(s), Contractor

This form to be used with Ontario Provincial Standard Specification 180

PROPERTY OWNER'S RELEASE

Contract No: _____

Work Description:_____

_____

I/We _____ being the **Owner**(s) of Lot _____, Concession _____,

Township of _____, and County/Region/District of _____, verify that

the Contractor for the above-noted work has placed excess material from the above noted Contract on my/our property with my/our permission. I/we have been advised by the Contractor of the "Conditions on Management" described in OPS Forms 1800 or 1801, "Site Selection Notification for Management as Disposable Fill", or "Site Selection Notification for Materials Stockpiling", respectively, or both, and have been assured by the Contractor that these conditions have been met.

Where materials are managed as disposable fill, I/We agree to be responsible for any subsequent relocation and management of the material so placed.

Where materials are to be stockpiled, I/We agree that the stockpile(s) will be removed by the date(s) herein noted.

Dated this _____ day of _____ 20___

_____
Print Contractor's Name and Field Representative's Name

_____
Contractor's Field Representative Signature

_____
Property **Owner**(s) Signature(s)

cc: Contract Administrator, Property **Owner**(s), Contractor

ITEM SPECIAL PROVISIONS FOR SITE WORK

PREPARATION OF SITE – Item No. 1

O.P.S.S. 201 and 510 shall apply to the work under this item except that the Measurement and Basis of Payment provisions thereof shall be amended in that the lump sum price shall be full compensation for the supply of all labour, equipment and material to perform the work.

The Contractor shall base his bid solely on the findings of his site investigation. Any information given hereafter is approximate only.

For the Tendered Price for the above item the Contractor shall perform the following work.

Clearing and Grubbing

Clearing and grubbing shall be done within the right-of-way limits except for those trees indicated on the Contract Drawings which are not to be disturbed or any others designated by the Engineer to be retained.

Where it is impractical to remove tree stumps, the Engineer may direct the Contractor to use a chipping machine in lieu of grubbing. The tree trunks shall be cut off a minimum of 100 mm below adjacent ground level.

All cleared and grubbed material shall be disposed of off site at locations arranged for by and at the expense of the Contractor.

Erosion and Sediment Control

This item shall include all labour, equipment and materials to construct the facilities as shown on the Contract Drawings and to remove and dispose of them upon completion of construction when re-vegetation has been achieved.

EARTH EXCAVATION (GRADING) – Item No. 2

For the tender price bid for the above item, the Contractor shall excavate and dispose of all pavement, granular, earth and concrete materials for the construction of driveways, parking lot, building, septic system and ditches to the lines and grades shown on the Drawings and as directed by the Engineer.

The cost of the removal and disposal of bituminous pavement shall be deemed to be included in the tender price for the above item.

O.P.S.S. 206 and 510 shall apply to the work under this item except that the Measurement and Basis of Payment provisions thereof shall be amended in that the lump sum price shall be full compensation for the supply of all labour, equipment and material to perform the work regardless of actual quantities of excavation.

HOT MIX H.L. 3 – Item No. 3

Recycled Hot Mix

Reclaimed asphaltic concrete may be used provided the resultant mix design conforms to the requirements of O.P.S.S. 1150.

Deletion of Slab as Aggregate

The use of slag as an aggregate in the manufacture and supply of hot mix asphalt is prohibited.

150mm DIA. WATERMAIN – Item No. 4

The tendered price shall include the cost of excavation, complete installation and backfilling of the watermain including installation of all sleeves, bends, tees, reducers, anodes, and any special fittings required to complete the installation. The installation of a fire hydrant as per drawing details to be included in item. The watermain to be installed in accordance with Water Fill Station Detail Figure 8 on Drawing C1.

GRANULAR 'B' TYPE II (MODIFIED) – Item No. 6

The gradation requirements of O.P.S.S. 1010 shall apply to this item except that the maximum size particle shall be 75 mm.

END OF SECTION

GENERAL NOTES
GOVERNING CODE - ONTARIO BUILDING CODE OF CANADA, 2012 EDITION:

1. DESIGN LOADS: **(UNFACTORED)**

GROUND SNOW LOAD: Ss = 2.2 kPa
Sr = 0.4 kPa
Is = 1.0

ROOF: DEAD LOAD = 1.0 kPa
SNOW LOAD = 2.48 kPa * REFER TO DRIFT LOAD

FLOOR LOADS:
DEAD LOAD = 2.87 kPa
LIVE LOAD = 4.78 kPa (INCLUDING EXITS)

WIND LOAD: q (1/50) = 0.41 kPa
Iw = 1.0

SEISMIC: Sa (0.2)= 0.62 Sa (1.0)= 0.14 PGA= 0.31
Sa (0.5)= 0.31 Sa (2.0)= 0.046 Ie = 1.0
SITE CLASS: "C" ASSUMED

DESIGN LIVE LOADS TO INCLUDE POINT LOAD REQUIREMENTS AS PER ARTICLE 4.1.6.10 OF THE 2012 ONTARIO BUILDING CODE. FACTORED LOADS SHOWN ON DRAWINGS USE LOAD FACTORS LL = 1.5 AND DL = 1.25 PER ONTARIO BUILDING CODE.

CONCRETE:

1. DESIGN OF CONCRETE ELEMENTS SHALL CONFORM TO CSA-A23.3-14. PROVIDE CONCRETE AND PERFORM WORK TO CSA A23.3-14.

2. TEST CONCRETE IN ACCORDANCE WITH CSA-A23.3-14.

3. CONCRETE REQUIREMENTS:

LOCATION CONDITION	MIN. DESIGN STR. Mpa = TYPE (DAYS) C = COMPRESSION F= FLEXURAL	CEMENT	AIR (%)	MAX AGG. (mm)	EXP.	SLUMP
INT. SLAB ON GRADE	25C (28)	GU	5-8	20	N	40mm
EXTERIOR EXPOSED CONC.	35C (28)	GU	5-8	20	C-1	80mm +/- 30mm

- WHERE SPECIFIED STRENGTH EXCEED THOSE IMPLIED BY EXPOSURE CLASS, SPECIFIED STRENGTH GOVERNS.
- ALL CONCRETE TO BE NORMAL WEIGHT 2400 KG/CUBIC METER
- WATER CEMENT RATIOS FOR EXPOSURE CLASSES AS PER TABLES 7 - 9, CAN/CSA-A23.1-14.
- DO NOT USE ANY ADMIXTURE CONTAINING CHLORIDE FOR CONCRETE WITH S-2 EXPOSURE.
- NORMAL PORTLAND CEMENT TO BE USED FOR CONCRETE.

4. CONTROL JOINTS FOR SLAB ON GRADE: SAWCUT AT LOCATIONS SHOWN ON DRAWINGS BUT NOT EXCEEDING 15'-0" SPACING. UNLESS OTHERWISE NOTED.

5. NO COLUMN OR WALL FORMS SHALL BE REMOVED BEFORE CONCRETE HAS REACHED 10 Mpa FOR ARCHITECTURAL CONCRETE AND 8 Mpa FOR OTHER COLUMNS OR WALLS.

6. NO SLAB FORMS OR BEAM FORMS SHALL BE REMOVED BEFORE CONCRETE HAS REACHED 17 Mpa.

7. STRENGTH OF CONCRETE FOR STRIPPING TO BE DETERMINED BY FIELD-CURED CYLINDERS. ALTERNATE METHODS, IF ACCEPTABLE TO THE STRUCTURAL DESIGN ENGINEER, MAY BE USED.

8. RESHORING TO BE APPROVED BY THE ENGINEER PRIOR TO STRIPPING.

9. CONCRETE SLABS SHALL BE WET CURED FOR NO LESS THAN 7 DAYS, WET CURING SHALL BE COMPLETED WITH TERRAFIX 240R NON-WOVEN GEOTEXTILE BLANKETS (WHITE). SUBSTITUTIONS ARE NOT PERMITTED.

10. ALL SLABS, BEAMS, GIRDERS, ETC. TO BE SHORED UNTIL CONCRETE REACHES DESIGN STRENGTH.

11. BE RESPONSIBLE FOR THE MIX DESIGN. MIX DESIGN SHALL BE PROPORTIONED WITH DUE CONSIDERATION TO EXTREME TEMPERATURES - WINTER OR SUMMER AND CONSULT GENERAL CONTRACTOR TO DETERMINE REQUIREMENTS. ADMIXTURES AND ADDITIVES SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.

REINFORCING NOTES:

1. REINFORCING STEEL: NEW DEFORMED BARS TO CSA/G30.18-09 (R2014), "BILLET STEEL BARS FOR CONCRETE REINFORCEMENT", GRADE 400R, BARS TO BE WELDED CONFORM TO CAN/CSA G30.18-09, GRADE 400W. ANCHOR BOLTS TO ASTM A307. EPOXY COATED REBAR TO ASTM A775. PLACE REBAR TO CAN/CSA-A23.1-14.

2. PROVIDE CLEAR CONCRETE COVER OVER REBAR AS FOLLOWS:

A) SURFACE POURED AGAINST GROUND 75 mm
B) FORMED SURFACES EXPOSED TO GROUND OR WEATHER 40 mm
C) FORMED SURFACES NOT EXPOSED TO GROUND OR WEATHER:
BEAMS (TO STIRRUPS) 40 mm
COLUMNS (TO VERTICALS) 50 mm
SLABS, WALLS 20 mm
D) PARKING SURFACES AND EXTERIOR TOP OF SLAB: 40 mm

3. REINFORCING WORK TO BE INSPECTED BY THE ENGINEER. NOTIFY THE ENGINEER 24 HOURS IN ADVANCE. CONTRACTOR MUST ENSURE MINIMUM 95% STEEL ARE IN PLACE FOR THE INSPECTION.

4. REBAR LAP SPLICE LENGTHS (UNLESS NOTED ON DRAWINGS)

BAR SIZE	COMP. SPLICES (mm)	TENSION SPLICE "CLASS B" 25 Mpa	30 Mpa	FOR CONCRETE STRENGTHS (mm) 35 Mpa	40 Mpa
10M	330	430 (560)	380 (510)	360 (460)	330 (430)
15M	480	610 (790)	535 (790)	510 (660)	480 (610)
20M	580	740 (940)	660 (865)	610 (815)	580 (760)
25M	740	1170 (1525)	1065 (1400)	990 (1295)	940 (1220)

TOP BAR SPLICE LENGTHS ARE DENOTED IN BRACKETS AND SHOULD BE USED WHEN HORIZONTAL SPLICE BARS ARE PLACED SUCH THAT THERE IS MORE THAN 300mm OF CONCRETE POURED BELOW THE BAR.

REBAR EMBEDMENT LENGTHS (UNLESS NOTED ON DRAWINGS)

BAR SIZE	COMPRESSION EMBEDMENT FOR CONCRETE STRENGTH (mm) 20 Mpa	25 Mpa	30 Mpa	TENSION EMBEDMENT FOR CONCRETE STRENGTH (mm) 25 Mpa	30 Mpa	35 Mpa	40 Mpa
10M	250(330)	230 (280)	200 (250)	330 (430)	305 (380)	80 (360)	50 (330)
15M	360 (450)	300 (400)	275 (360)	460 (610)	430 (530)	80 (510)	360 (480)
20M	430 (535)	380 (485)	360 (450)	560 (735)	510 (660)	80 (610)	60 (585)
25M	535 (710)	485 (635)	450 (585)	915 (1170)	840 (1070)	760 (990)	10 (940)
30M	635 (840)	585 (740)	535 (685)	1070 (1400)	90 (1270)	15 (1170)	40 (1120)
35M	760 (990)	685 (900)	635 (810)	1295 (1675)	170 (1525)	090 (1420)	1015 (1320)

TOP BAR DEVELOPMENT LENGTHS ARE DENOTED IN BRACKETS AND SHOULD BE USED WHEN HORIZONTAL BARS ARE PLACED SUCH THAT THERE IS MORE THAN 300 mm OF CONCRETE POURED BELOW THE BAR.

5. MIN. REINFORCING AROUND OPENINGS LARGER THAN 300 MM: 2 - 15M EACH SIDE OF OPENING, EXTENDED 600 MM PAST CORNERS.

6. DOWELS SHALL BE PLACED BEFORE CONCRETE IS POURED. TEMPLATES SHALL BE USED TO ENSURE CORRECT PLACEMENT OF DOWELS. DOWELS TO MATCH VERTICAL BARS.

7. PROVIDE SUFFICIENT CHAIRS AND SUPPORT BARS TO MAINTAIN CONCRETE COVER AS SPECIFIED.

WOOD

1. ALL LUMBER TO BE MIN. NO. 2 SPF TO CSA 086-14 ENGINEERING DESIGN IN WOOD.

2. NAILING TO ONTARIO BUILDING CODE UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL:

1. FABRICATE AND ERECT STRUCTURAL STEEL TO CAN/CSA S16.1-14. SUBMIT TWO SETS OF PRINTS OF SHOP DRAWINGS SHOWING ALL DETAILS AND MATERIAL SPECS. FOR REVIEW PRIOR TO FABRICATION. SHOP DRAWINGS WILL NOT BE REVIEWED UNLESS SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN ONTARIO, FOR THOSE CONNECTIONS AND COMPONENTS DESIGNED BY THE FABRICATOR. THIS ENGINEER OR HIS REP. SHALL VISIT THE SITE TO SATISFY HIMSELF THAT THESE CONNECTIONS AND COMPONENTS SUBSTANTIALLY COMPLY WITH HIS SEALED SHOP DRAWINGS. THIS ENGINEER SHALL PROVIDE A LETTER TO THE CONSULTANT TO THIS EFFECT. THE ENGINEER SHALL ALSO PROVIDE SEALED SKETCHES FOR ALL FIELD MODIFICATIONS, MADE TO THIS DESIGN.

2. PROVIDE STRUCTURAL STEEL TO CSA G40.21-13 WITH THE FOLLOWING GRADES;

WIDE FLANGE BEAMS & COLUMNS	350 W
CHANNELS	350 W
HSS SECTION (CLASS H)	350 W
ANGLES, BARS & PLATES	300 W
MISCELLANEOUS STEEL	300 W
PIPE COLUMNS	ASTM A35 GR. B

3. PROVIDE ERECTION BOLTS TO ASTM A325, MINIMUM M20. DESIGN BOLTED CONNECTIONS TO ASTM A325 ASSUMING THREADS IN THE SHEAR PLANE.

4. WELD TO CASA W59-18 BY FABRICATORS CERTIFIED TO CSA W47.1-09 WELDING OF REINFORCING BARS SHALL CONFORM TO CSA W186-M1990(R2012).

5. MINIMUM WELDS FOR CONNECTIONS SHALL BE 6mm FILLET WELDS AND WHERE EXPOSED IN FINISHED BUILDING WELDS SHALL BE GROUND SMOOTH.

6. ALL STUD ANCHORS AND DEFORMED BAR ANCHORS SHALL BE FUSION WELDED TO PLATES AS PER MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS.

7. CONNECTIONS NOT DETAILED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGNED BY THE STEEL FABRICATOR. MINIMUM BEAM SHEAR IS 80% OF THE TOTAL BEAM LOAD CAPACITY AS LISTED IN "CISC MANUAL BEAM LOADS TABLES" FOR THE GIVEN SPAN OF THE BEAM U.N.O. UNUSUAL LOADINGS SHOWN ON PLANS ARE SPECIFIED LOADS. SEE LEGEND FOR EXPLANATION OF THESE LOADS.

UNLESS OTHERWISE NOTED, ALL CONNECTIONS SHALL BE SIMPLE CONNECTIONS. FOR BEAMS TO FACE OF HSS COLUMN CONNECTIONS PROVIDE DOUBLE ANGLE OR TEE-TYPE CONNECTIONS PER CISC HANDBOOK.

FOR CONNECTIONS NOT DESCRIBED ABOVE NOR DETAILED ON THE STRUCTURAL DRAWINGS (I.E. SMALL FRAMING MEMBERS) USE ANY TYPE OF SIMPLE CONNECTION AND DESIGN FOR THE SPECIFIED LOAD SHOWN.

SIMPLE BEAM TO COLUMN CONNECTIONS SHALL BE DESIGNED TO DELIVER SHEAR ONLY TO THE FACE OF THE COLUMN. SEISMIC AND DRAG STRUT CONNECTIONS SHALL BE DESIGNED TO DELIVER SHEAR ONLY TO THE CENTER LINE OF THE COLUMN.

UNLESS OTHERWISE NOTED, CONNECTIONS ARE TO BE WELDED OR BOLTED WITH HIGH STRENGTH BOLTS IN BEARING TYPE CONNECTIONS (MIN. 2 - 20 DIA. BOLTS).

BOLTED CONNECTIONS FOR DRAG STRUT LINES ARE TO BE PRE-TENSIONED. THE PRIME STRUCTURAL CONSULTANT SHALL HAVE FINAL APPROVAL ON ALL CONNECTIONS.

8. TEMPORARY BRACING DURING CONSTRUCTION TO BE DESIGNED BY CONTRACTOR (WHOEVER IS RESPONSIBLE FOR ERECTION). CONTRACTOR IS RESPONSIBLE FOR SAFETY ON SITE.

9. COORDINATE WITH MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS TO AVOID CONFLICT WITH STRUCTURAL ELEMENTS.

10. NO BURNING OF HOLES SHALL BE ALLOWED IN STRUCTURAL STEEL ANYWHERE.

11. FOR MISC. STEEL SUCH AS RAILINGS, AWNINGS AND NON-STRUCTURAL ARCH. STEEL NOT DETAILED ON STRUCTURAL DRAWINGS, STRUCTURAL ENGINEER SHALL CHECK SHOP DRAWINGS AND COMMENT ON THE ABILITY OF THE SHOWN MEMBERS AND CONNECTIONS TO RESIST LOADS AND OTHER EFFECTS REQUIRED BY ONTARIO BUILDING CODE 2012. OVERALL DETAILING TO COMPLY WITH ARCHITECTURAL DRAWINGS AND ARE THE SUB-CONTRACTOR'S RESPONSIBILITY. ALL RAILINGS AND STAIR SHOP DRAWINGS TO BE STAMPED BY P.ENG. OF ONTARIO.

12. ALL VISUALLY EXPOSED SURFACES OR SURFACES EXPOSED TO WEATHER AND NOT REQUIRING FIREPROOFING SHALL BE PAINTED WITH ONE COAT OF PRIMER TO CISC/CPMA 1-73A (REFER TO ARCHITECTURAL DRAWINGS). ALL SITE WELD AND WELDING CONNECTIONS TO BE TOUCHED-UP WITH ANTI-RUST PAINT.

13. PROVIDE NAIL HOLES (2 MIN.) IN MISC. STEEL CAST INTO CONC. TO FACILITATE NAILING TO FORM WORK.

14. CHECK MECHANICAL AND ARCHITECTURAL DRAWINGS FOR OPENINGS, MECHANICAL UNITS, HOLES, ETC. TO BE MADE. OPENINGS SHOWN ON STRUCTURAL DRAWINGS FOR MECHANICAL UNITS, DUCTS AND PIPES ARE APPROXIMATE ONLY IN SIZE AND LOCATION. THE MECHANICAL CONTRACTOR MUST PROVIDE CONFIRMATION OF THE LATEST INFORMATION TO THE GENERAL CONTRACTOR AT THE STRUCTURAL STEEL AND METAL DECK SHOP DRAWING APPROVAL STAGE OF THE PROJECT.

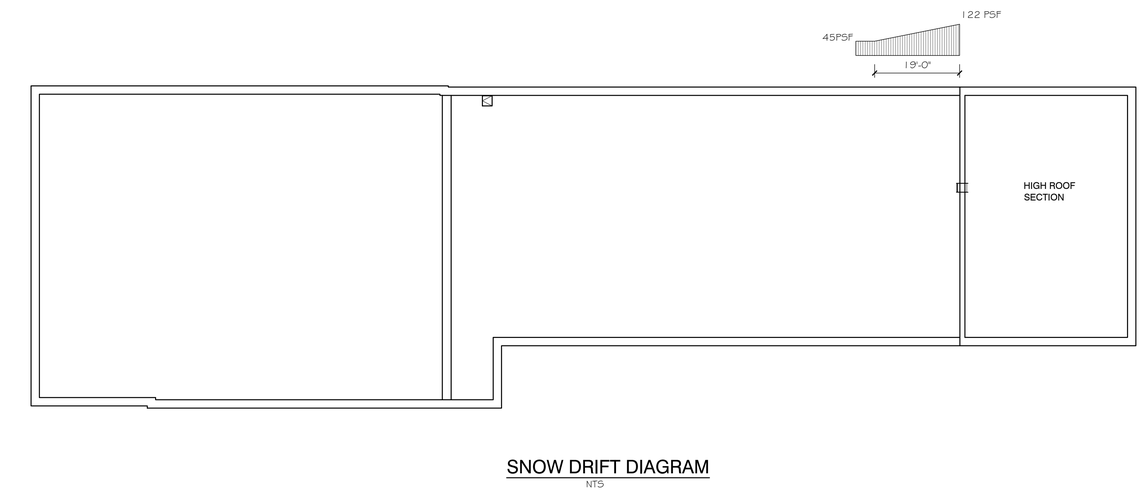
15. THE STEEL STRUCTURE IS A NON-SELF-SUPPORTING STEEL FRAME AND IS DEPENDENT UPON DIAPHRAGM ACTION THE DECK FLOORS AND ATTACHMENT TO THE WALL SYSTEM FOR STABILITY AND FOR RESISTANCE TO WIND AND SEISMIC FORCES. PROVIDE ALL TEMPORARY SUPPORTS REQUIRED FOR STABILITY AND FOR RESISTANCE TO WIND AND SEISMIC FORCES UNTIL THESE ELEMENTS ARE COMPLETE AND ARE CAPABLE OF PROVIDING THIS SUPPORT.

16. THE FABRICATOR IS RESPONSIBLE FOR THE DESIGN OF ALL CONNECTIONS. CONNECTIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE SCHEMATIC AND ARE ONLY INTENDED TO SHOW THE RELATIONSHIP OF MEMBERS CONNECTED. CONNECTION DETAILS INDICATED ON THE DRAWINGS SHALL BE INCORPORATED INTO FABRICATOR'S CONNECTION DESIGN. SEE SPECIFICATIONS. ALL SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY THE FABRICATOR'S ENGINEER WITH THE ENGINEER'S SEAL FOR THE PROVINCE WHERE THE STRUCTURE IS LOCATED. ENGINEER'S SEAL MAY BE QUALIFIED "FOR DESIGN OF CONNECTIONS ONLY".

17. REFER TO SCHEDULE ON DWG FOR NON-BEARING WALL LINTELS NOT SHOWN ON STRUCTURAL DWG. REFER TO ARCH. & MECH. DWG. FOR OPENING SIZES AND LOCATIONS.

18. PROVIDE HOLES IN STEEL MEMBER FOR ATTACHMENT OF OTHER MATERIALS EXCEPT AT CRITICAL TENSILE SECTIONS OF BEAMS.

19. NO SPLICES IN COLUMNS AND BEAMS ARE ALLOWED WITHOUT THE ENGINEER'S APPROVAL. 100% BUTT WELDS IN SPLICES ARE TO BE ULTRASONICALLY TESTED OR EQUAL AND ACCEPTED BY A WELDING INSPECTION COMPANY.



SNOW DRIFT DIAGRAM
NTS

No.	By	Date	Revisions
4	B.O'B	2023 02 26	FOR TENDER/PERMIT
3	B.O'B	2023 02 14	FINAL REVIEW
2	B.O'B	2023 01 26	FOR COORDINATION
1	B.O'B.	2023 12 12	FOR REVIEW

NORTH
PROJECT

LICENSED PROFESSIONAL ENGINEER
B. D. CAMPBELL
100172021
2024 03 07
PROVINCE OF ONTARIO

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Project Title:
NORTH STORMONT MUNICIPAL OFFICE
57 COCKBURN STREET, BERWICK, ONTARIO

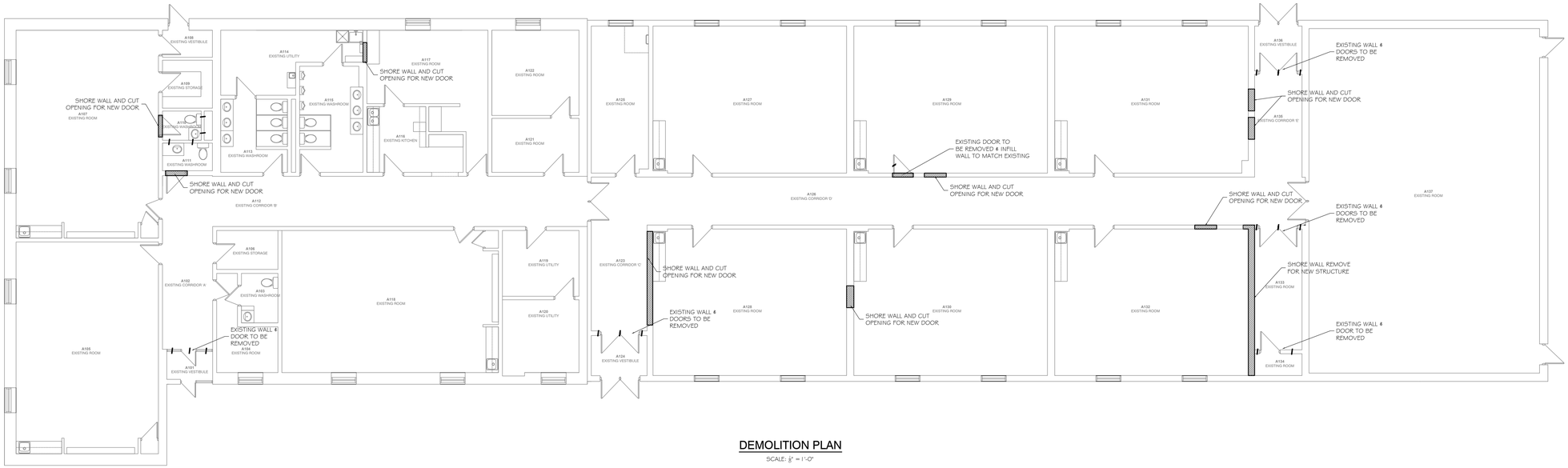
Drawing Title:
CONSTRUCTION NOTES

Design:	Checked:	Approved:	Project No.:
BDC	BDC		11200
Drawn:	Checked:	Date:	Contract No.:
B.O'B.	BDC	2023 12 12	

Scale:
Horizontal: AS SHOWN
Vertical: AS SHOWN

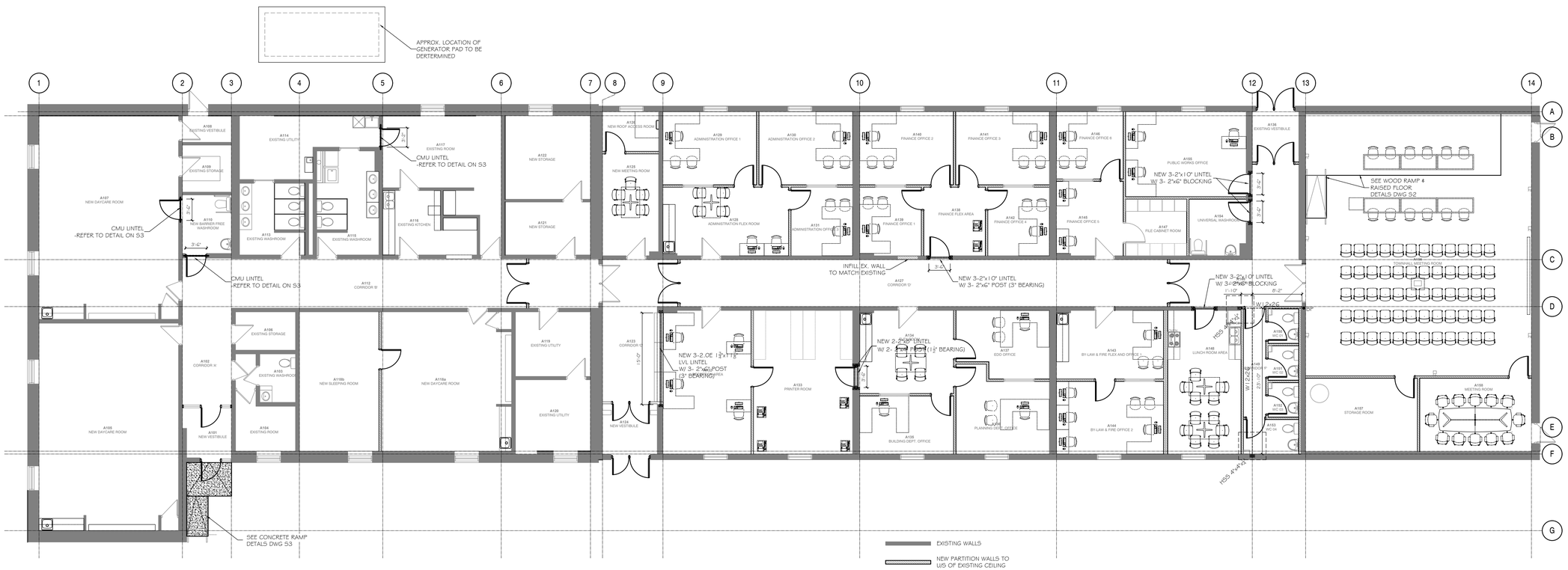
Drawing No.:
S0

REV. DATE3/7/2024



DEMOLITION PLAN

SCALE: 1/8" = 1'-0"



STRUCTURAL FLOOR PLAN

SCALE: 1/8" = 1'-0"

No.	By	Date	Revisions
4	B.O'B	2023 02 26	FOR TENDER/PERMIT
3	B.O'B	2023 02 14	FINAL REVIEW
2	B.O'B	2023 01 26	FOR COORDINATION
1	B.O'B.	2023 12 12	FOR REVIEW

NORTH PROJECT

LICENSED PROFESSIONAL ENGINEER G. D. CAMPBELL 100172021 2024 03 07 PROVINCE OF ONTARIO

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NORTH STORMONT MUNICIPAL OFFICE

57 COCKBURN STREET, BERWICK, ONTARIO

Drawing Title:

DEMOLITION PLAN
PROPOSED PLAN

Design:	Checked:	Approved:	Project No.:
BDC	BDC		11200
Drawn:	Checked:	Date:	Contract No.:
B.O'B.	BDC	2023 12 12	

Scale:
Horizontal: AS SHOWN
Vertical: AS SHOWN

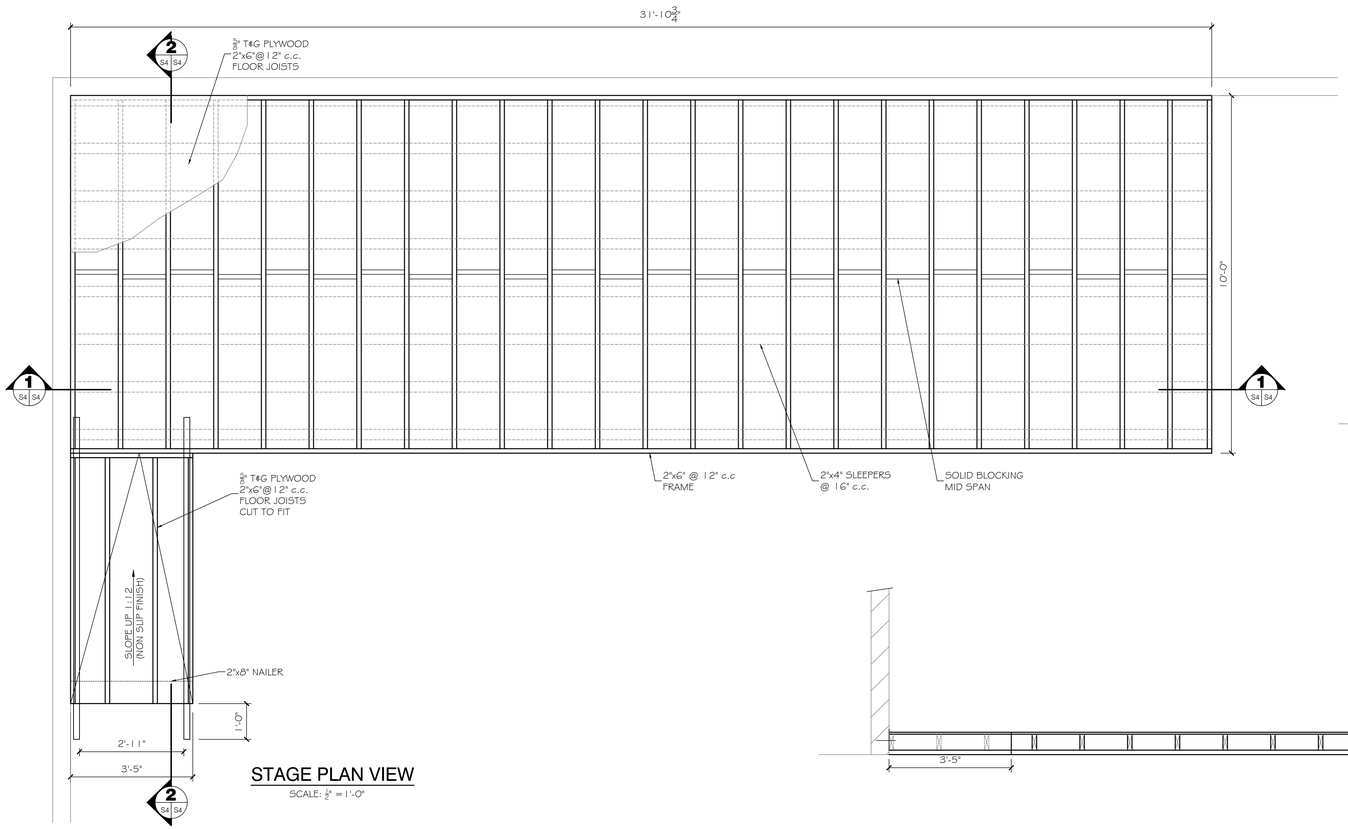
Drawing No.:

S1

REV. DATE3/7/2024

ROOFTOP UNIT FRAMING PLAN

SCALE: $\frac{1}{8}$" = 1'-0"



STAGE PLAN VIEW

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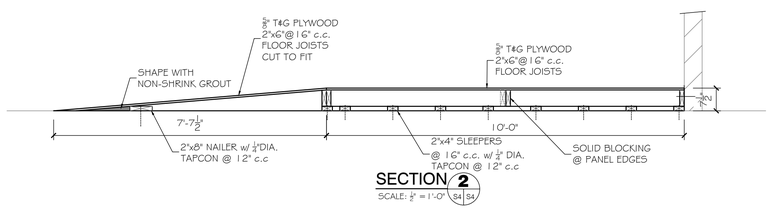

SECTION 2

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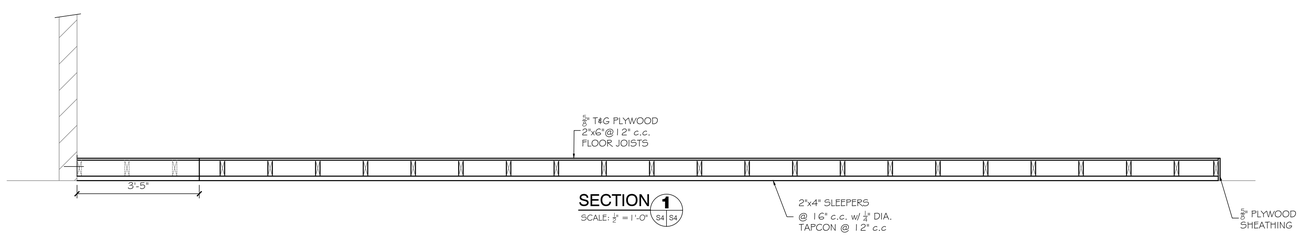

SECTION 1

SCALE: $\frac{1}{4}$" = 1'-0"

No.	By	Date	Revisions
4	B.O'B	2023 02 26	FOR TENDER/PERMIT
3	B.O'B	2023 02 14	FINAL REVIEW
2	B.O'B	2023 01 26	FOR COORDINATION
1	B.O'B.	2023 12 12	FOR REVIEW

PROJECT NORTH

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NORTH STORMONT MUNICIPAL OFFICE

57 COCKBURN STREET,
BERWICK, ONTARIO

Drawing Title:

ROOF FRAMING PLAN AND STAGE CONSTRUCTION DETAILS

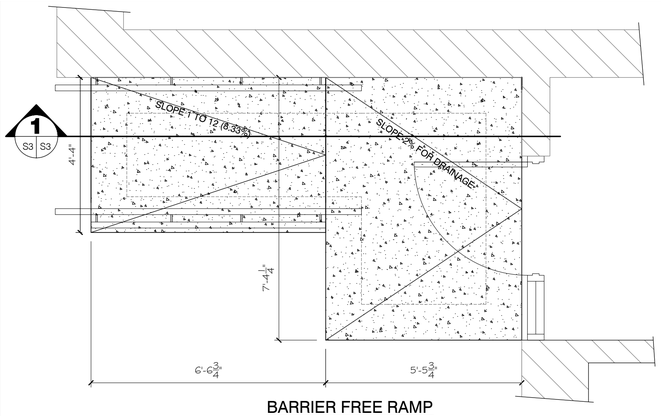
Design:	Checked:	Approved:	Project No.:
BDC	BDC		11200
Drawn:	Checked:	Date:	Contract No.:
B.O'B.	BDC	2023 12 12	

Scale:
Horizontal: AS SHOWN
Vertical: AS SHOWN

Drawing No.:

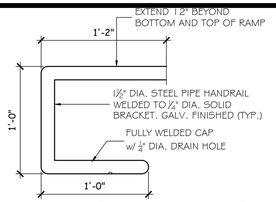
S2

REV. DATE3/7/2024



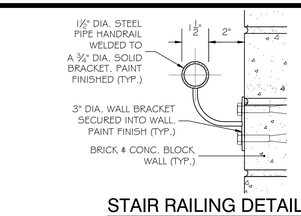
BARRIER FREE RAMP PLAN VIEW

SCALE: ¼" = 1'-0"



HANDRAIL TERMINATION DETAIL AT RAMP

SCALE: 1½" = 1'-0"



STAIR RAILING DETAIL

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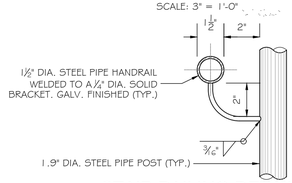

STAIR RAILING DETAIL

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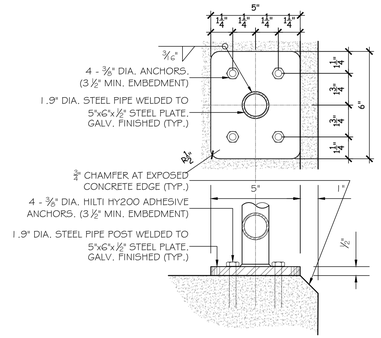

TYP. RAILING BASE PLATE DETAIL

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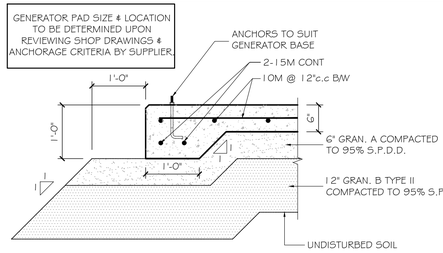
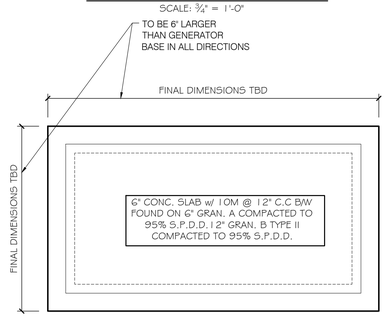


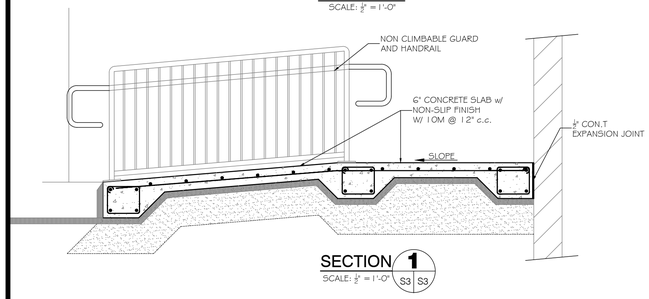
GENERATOR PAD SECTION

SCALE: ¾" = 1'-0"



GENERATOR PAD

SCALE: ¼" = 1'-0"



SECTION 1

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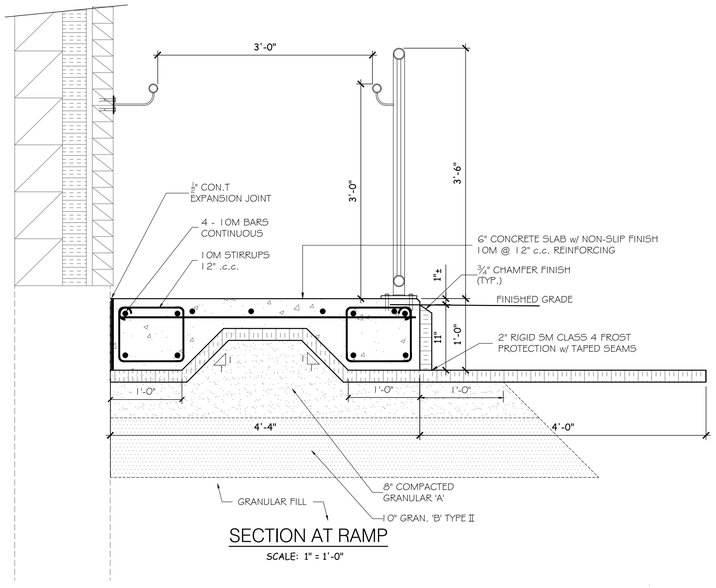
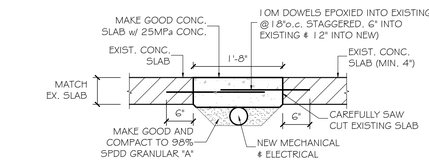


SECTION AT RAMP

SCALE: 1" = 1'-0"



POWER & DATA TRENCH DETAIL

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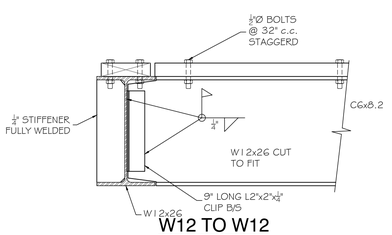

W12 TO W12 CONNECTION

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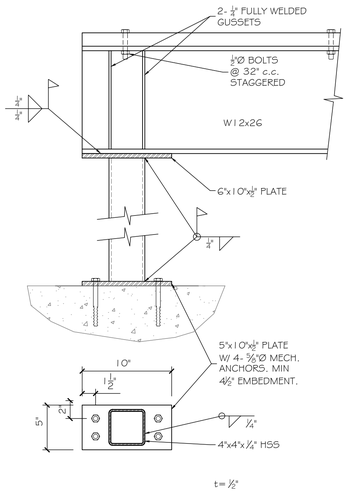
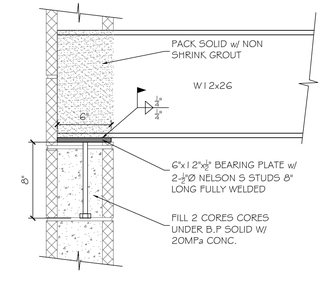


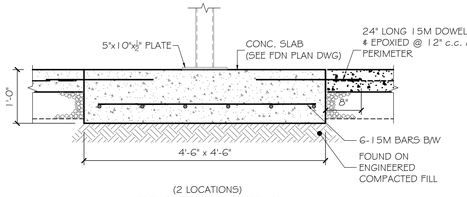
TYP. BASE PLATE

SCALE: 1½" = 1'-0"



MASONRY BEAM POCKET DETAIL

SCALE: 1½" = 1'-0"



(2 LOCATIONS)

FOOTING DETAIL

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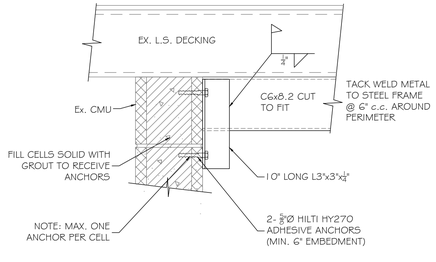
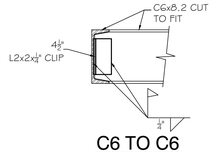


C6 TO MASONRY CONNECTION DETAIL

SCALE: 1½" = 1'-0"



C6 TO C6 CONNECTION

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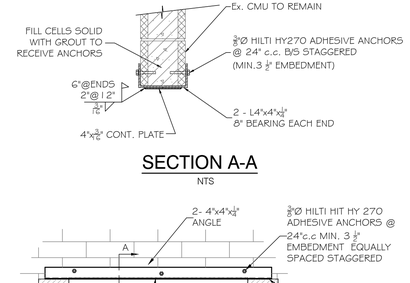
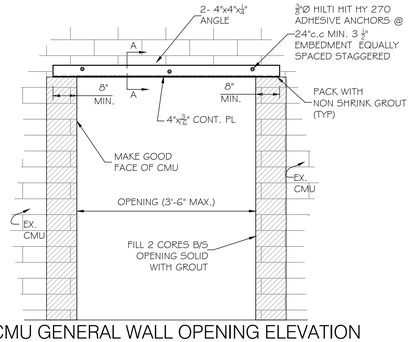


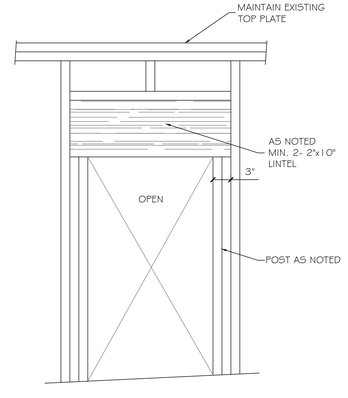
SECTION A-A

NTS



CMU GENERAL WALL OPENING ELEVATION

SCALE: ½" = 1'-0"



GENERAL WOOD WALL OPENING DETAIL

N.T.S.

No.	By	Date	Revisions
4	B.O'B	2023 02 26	FOR TENDER/PERMIT
3	B.O'B	2023 02 14	FINAL REVIEW
2	B.O'B	2023 01 26	FOR COORDINATION
1	B.O'B.	2023 12 12	FOR REVIEW

NORTH PROJECT

LICENSED PROFESSIONAL ENGINEER
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2024 03 07
PROVINCE OF ONTARIO

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Project Title:

NORTH STORMONT MUNICIPAL OFFICE

57 COCKBURN STREET, BERWICK, ONTARIO

Drawing Title:

CONDTRUCTION DETAILS

Design:	Checked:	Approved:	Project No.:
BDC	BDC		11200
Drawn:	Checked:	Date:	Contract No.:
B.O'B.	BDC	2023 12 12	

Scale: Horizontal: AS SHOWN; Vertical: AS SHOWN

Drawing No.: S3

REV. DATE:3/7/2024

MECHANICAL NOTES

MECHANICAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS FOR THIS PROJECT.

1 GENERAL:

.1 CONFORM WITH APPLICABLE REQUIREMENTS OF THE MINISTRY OF LABOUR, AND THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.

.2 DO COMPLETE INSTALLATION IN ACCORDANCE WITH THE FOLLOWING:
- .1 ONTARIO BUILDING CODE (OBC);
- .2 NATURAL GAS AND PROPANE INSTALLATION CODE (GAS CODE);
- .3 ASHRAE;
- .4 SMACNA;
- .5 NFPA;
- .6 ALL OTHER RELEVANT CODES AND STANDARDS, AS APPLICABLE.

.3 OBTAIN ALL PERMITS REQUIRED FOR THE INSTALLATION OF MECHANICAL TRADES WORK, ARRANGE FOR INSPECTIONS AND TESTS, AND PAY ALL FEES AND COSTS FOR THE PERMITS, INSPECTIONS AND FEES. OBTAIN PERMITS IMMEDIATELY AFTER NOTIFICATION OF AWARD OF CONTRACT.

.4 PROVIDE DIGITAL AND HARD COPY OF COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS FOR EQUIPMENT FURNISHED UNDER THIS CONTRACT. BIND INSTRUCTIONS IN 3-RING BINDERS. INCLUDE THE FOLLOWING:
- .1 SCHEMATIC DIAGRAM OF ELECTRICAL SYSTEMS.
- .2 CONTROL SHOP DRAWINGS AND OPERATING SEQUENCE INCLUDING WIRING OF COMPONENTS.
- .3 WIRING DIAGRAM OF CONTROL PANELS.
- .4 OPERATING INSTRUCTIONS, INCLUDING START-UP AND SHUT-DOWN PROCEDURE.
- .5 MAINTENANCE INSTRUCTIONS INCLUDING PREVENTIVE MAINTENANCE INSTRUCTIONS FOR COMPONENTS OF THE EQUIPMENT.
- .6 COMPLETE PARTS LIST OF ASSEMBLIES AND THEIR COMPONENT PARTS, SHOWING MANUFACTURER'S NAME, CATALOGUE NUMBER, AND NEAREST REPLACEMENT SOURCE.
- .7 LIST OF RECOMMENDED SPARE PARTS AND QUANTITY OF EACH ITEM TO BE STOCKED.
- .8 MANUFACTURERS' WARRANTIES AND GUARANTEES.

.5 CLEAN ALL MECHANICAL SYSTEMS AT PROJECT COMPLETION.

.6 COMPLETE AS-BUILT DRAWINGS SHOWING ALL CHANGES AS WORK PROGRESSES.

2 CONTRACTOR QUALIFICATIONS:

.1 ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE "TRADE QUALIFICATION AND APPRENTICESHIP ACT" AND REGULATIONS, BY PERSONS WHO HOLD THE FOLLOWING CERTIFICATES OF QUALIFICATION (AS APPLICABLE):
- .1 RETAIN AND PROTECT ALL EXISTING SANITARY VENTS. RE-ROUTE AS NECESSARY TO SUIT NEW FLOOR PLAN AND CEILINGS. CONNECT NEW SANITARY VENTS TO EXISTING IN CEILING SPACE.
- .2 DISCONNECT AND REMOVE EXISTING PLUMBING FIXTURES, AND ALL OBSOLETE PIPING.
- .3 CONCEAL AND CAP ALL OTHER PLUMBING IN WALLS, CEILINGS AND FLOORS WHICH ARE TO BE RETAINED.
- .4 DISPOSE OF ALL OBSOLETE PLUMBING FIXTURES AND EQUIPMENT.

.4 EXISTING SANITARY PIPING:
- .1 PERFORM A CAMERA INSPECTION OF THE EXISTING SANITARY SERVICE TO CONFIRM EXISTING SANITARY PIPE SIZE, LOCATION AND CONDITION. REPORT ANY PIPE BLOCKAGES, INADEQUATE SLOPES, LOW SPOTS, AND POOR CONDITION TO ENGINEER, FOR COMMENT AND DIRECTION.
- .2 FLOOR CUTTING:
  - .1 CONDUCT THERMAL IMAGING OF THE FLOOR IN ALL AREAS OF FLOOR CUTTING AND REMOVAL, TO LOCATE BURIED ELECTRICAL SERVICES (IF ANY).
  - .2 CAREFULLY SAWCUT FLOOR TO PERMIT INSTALLATION OF NEW SANITARY PIPING.
  - .3 REINSTATE FLOOR TO ORIGINAL CONDITION, FOLLOWING INSTALLATION OF NEW PLUMBING.

.5 CUTTING AND PATCHING:
- .1 EXECUTE CUTTING, FITTING AND PATCHING REQUIRED TO MAKE THE WORK FIT PROPERLY TOGETHER. CUT AND PATCH FOR PROCESS, MECHANICAL AND ELECTRICAL WORK.
- .2 COORDINATE WORK WITH OTHER TRADES SO THAT THERE IS A MINIMUM OF CUTTING, FITTING AND PATCHING.
- .3 DRILLING, CUTTING, FITTING AND PATCHING AND MAKING GOOD WHERE NECESSARY DUE TO FAILURE TO DELIVER ITEMS TO BE BUILT IN TIME OR INSTALLATION IN WRONG LOCATION, SHALL BE EXECUTED AS DIRECTED AT NO COST TO THE OWNER.
- .4 DRILLING AND CUTTING OF LOAD BEARING STRUCTURAL MEMBERS SHALL BE DONE ON PRIOR EXPRESS WRITTEN PERMISSION OF THE ENGINEER FOR EACH INSTANCE.
- .5 CUT HOLES ACCURATELY, WITH SMOOTH, TRUE, CLEAN EDGES. FIT UNITS TO TOLERANCES TO BEST STANDARD PRACTICE FOR APPLICABLE WORK.
- .6 HOLES IN BLOCK AND CONCRETE WORK SHALL BE SAWCUT OR CORE-DRILLED, AND SHALL NOT BE MADE WITH A HAMMER GUN.
- .7 PATCHED WORK SHALL BE INVISIBLE, SIZE HOLES AND OPENINGS FOR PIPES SO AS TO ALLOW FOR EXPANSION AND CONTRACTION OF SUCH PIPES.

4 FIXTURES AND EQUIPMENT:

.1 PROVIDE SHOP DRAWINGS AND PRODUCT DATA FOR ALL MECHANICAL FIXTURES AND EQUIPMENT FOR APPROVAL, PRIOR TO PROCUREMENT.

.2 HVAC EQUIPMENT SHALL NOT USED FOR CONSTRUCTION HEATING.

.3 INSTALL ALL MECHANICAL FIXTURES AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

.4 EQUIPMENT AND MATERIAL TO BE CANADIAN GAS ASSOCIATION (CGA) CERTIFIED. WHERE THERE IS NO ALTERNATIVE TO SUPPLYING EQUIPMENT WHICH IS NOT CGA CERTIFIED, OBTAIN TSSA FIELD APPROVAL.

5 EQUIPMENT SUPPLIED BY OTHERS:

.1 GENERAL CONTRACTOR SHALL ASSUME FULL REPONSIBILITY FOR COORDINATING MECHANICAL SERVICES AND CONNECTIONS FOR ALL EQUIPMENT, SUPPLIED BY MECHANICAL OR ANY OTHER TRADES.

.2 MAKE ALL MECHANICAL SERVICE CONNECTIONS TO EQUIPMENT SUPPLIED BY OTHERS.

.3 CONFIRM ALL SERVICE CONNECTIONS WITH MANUFACTURER AND SUPPLIER, PRIOR TO INSTALLATION. THIS SHALL INCLUDE ALL CONNECTION SIZES, LOCATIONS AND DETAILS, AND SHALL TAKE INTO ACCOUNT EQUIPMENT CLEARANCES AND INSTALLATION REQUIREMENTS.

6 PIPING AND ESCUTCHEONS:

.1 PROVIDE DIELECTRIC UNIONS AT ALL PIPING LOCATIONS WHERE DISSIMILAR METALS ARE JOINED.

.2 PROVIDE ESCUTCHEONS ON ALL PIPES PASSING THROUGH WALLS, PARTITIONS, FLOORS AND CEILINGS, CHROME, NICKEL PLATED BRASS OR TYPE 302 STAINLESS STEEL.

7 ACCESS DOORS:

.1 SUPPLY ACCESS DOORS, AS REQUIRED IN DUCTWORK AND WALL/CEILING ASSEMBLIES, TO ALL CONCEALED MECHANICAL EQUIPMENT AND OPERATING DEVICES. ACCESS DOORS IN WALL/CEILING ASSEMBLIES TO BE INSTALLED BY OTHER TRADES.

.2 ACCESS DOORS SHALL BE FIRE-RATED TYPE, WHERE USED IN FIRE-RATED ASSEMBLIES, AND SHALL MATCH THE RATING OF THE ASSEMBLY.

8 PIPE INSULATION:

.1 INSTALL IN ACCORDANCE WITH THERMAL INSULATION ASSOCIATION OF CANADA (TIAC) NATIONAL STANDARDS.

.2 MAX. FLAME SPREAD RATING: 25.

.3 MAX. SMOKE DEVELOPED RATING: 50.

.4 DOMESTIC COLD WATER (DCW):
- .1 1" RIGID MOULDED MINERAL FIBRE WITH VAPOUR RETARDER JACKET.
- .2 INSULATE ALL PIPING IN FLOORS, WALLS AND CEILINGS, TO POINT OF FIXTURE CONNECTIONS.

.5 DOMESTIC HOT WATER (DHW):
- .1 1" RIGID MOULDED MINERAL FIBRE FOR PIPING UP TO 1-1/4" SIZE
- .2 1-1/2" RIGID MOULDED MINERAL FIBRE FOR PIPING 1-1/2" TO 3" SIZE.
- .3 INSULATE ALL PIPING IN FLOORS, WALLS AND CEILINGS, TO POINT OF FIXTURE CONNECTIONS.

.6 OUTER JACKET:
- .1 CONCEALED LOCATIONS: ALL SERVICE JACKET.
- .2 EXPOSED LOCATIONS: PVC JACKET.
- .3 MECHANICAL/SERVICE ROOMS: PVC JACKET.

9 WATER SERVICE AND WATER SUPPLY PIPING:

.1 INSIDE BUILDING: COPPER TUBE, HARD DRAWN, TYPE L. CAN. OR US MANUFACTURE, INCLUDING FITTINGS. LEAD-FREE SOLDER.

.2 WATER SUPPLY PIPING IS SHOWN SCHEMATICALLY. ALL PIPING SHALL BE CONCEALED UNLESS OTHERWISE NOTED.

10 DRAINAGE, WASTE AND VENT PIPING:

.1 APPROXIMATE SUB-FLOOR PIPING ELEVATIONS HAVE BEEN INDICATED ON THE DRAWINGS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING FINAL INVERTS BASED ON SITE CONDITIONS.

.2 BELOW GROUND/FLOOR:
- .1 PVC DWV, TYPE SDR26 SDR35.

.3 ABOVE GROUND:
- .1 PVC DWV SOLID WALL SCHEDULE 40, CERTIFIED TO CAN/CSA STANDARD B181.2, FOR NONCOMBUSTIBLE CONSTRUCTION (FLAME-SPREAD RATING NOT MORE THAN 25 PER CAN/ULC-S102.2).
- .2 PVC DWV SOLID WALL SCHEDULE 40, CERTIFIED TO CAN/CSA STANDARD B181.2, FOR NONCOMBUSTIBLE CONSTRUCTION (FLAME-SPREAD RATING NOT MORE THAN 25 AND SMOKE DEVELOPED CLASSIFICATION NOT MORE THAN 50 PER CAN/ULC-S102.2).

.4 PROVIDE CLEANOUTS AS REQUIRED BY THE ONTARIO BUILDING CODE.

.5 VENT COMPLETE PLUMBING SYSTEM IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.

11 NATURAL GAS PIPING:

.1 COORDINATE NATURAL GAS SERVICE UPGRADE AND INSTALLATION, AS FOLLOWS:
- .1 MECHANICAL CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR COORDINATION OF NATURAL GAS SERVICE WITH THE SUPPLY AUTHORITY;
- .2 INCLUDE DETAILED REVIEW OF EXISTING NATURAL GAS LOADS FOR SUMMATION OF BUILDING TOTAL LOAD;
- .3 COORDINATE ALL SERVICE, METER AND EQUIPMENT PRESSURES AND REGULATORS.

.2 STEEL PIPE, SCHEDULE 40, SEAMLESS, SCREWED FITTINGS.

.3 SUPPLY AND INSTALL:
- .1 EXPANSION CONTROL LOOPS ON PIPES

.4 SLOPE PIPING DOWN IN DIRECTION OF FLOW TO LOW POINTS.

.5 ALL NATURAL GAS PIPING AND FITTINGS SHALL BE:
- .1 CLEANED AFTER ASSEMBLY;
- .2 PAINTED WITH ONE BASE LAYER OF METAL PRIMER;
- .3 PAINTED WITH ONE TOP COAT OF EXTERIOR ENAMEL PAINT;
- .4 COLOUR ON EXTERIOR WALL – TO MATCH WALL
- .5 COLOUR ON ROOF AND INTERIOR OF BUILING - YELLOW.

.6 TEST SYSTEM IN ACCORDANCE WITH NATURAL GAS AND PROPANE INSTALLATION CODE.

12 DUCTWORK:

.1 RECTANGULAR DUCT:
- .1 RIGID GALVANIZED STEEL, LOCK FORMING QUALITY TO ASTM A653/A653M
- .2 THICKNESS, FABRICATION, REINFORCEMENT AND SUPPORT/ATTACHMENT TO ASHRAE OR SMACNA.

.2 ROUND DUCT:
- .1 RIGID GALVANIZED STEEL, LOCK FORMING QUALITY TO ASTM A653/A653M
- .2 THICKNESS, FABRICATION, REINFORCEMENT AND SUPPORT/ATTACHMENT TO ASHRAE OR SMACNA.
- .3 FLEXIBLE BRANCH DUCT (PERMITTED WITHIN 1m/3ft FROM OUTLET):
  - .1 ALL METAL TYPE: TRIPLE LOCK, ALUMINUM CORRUGATED DUCT, MANUFACTURED USING AN ALUMINUM STRIP, WHICH IS SPIRALLY WOUND
- .1 FABRICATION: TO SMACNA.
- .2 RADIUSED ELBOWS.
  - .1 RECTANGULAR: STANDARD WITH CENTRELINE RADIUS 1.5 TIMES DUCT DIMENSION, WITH SINGLE THICKNESS TURNING VANES.
  - .2 ROUND: FIVE PIECE WITH CENTRELINE RADIUS 1.5 TIMES DIAMETER.
- .3 MITRED ELBOWS, RECTANGULAR: WITH DOUBLE THICKNESS TURNING VANES.

.5 BRANCHES:
- .1 RECTANGULAR MAIN AND BRANCH: WITH RADIUS ON BRANCH 1.5 TIMES WIDTH OF DUCT 45 DEGREES ENTRY ON BRANCH.
- .2 ROUND MAIN AND BRANCH: ENTER MAIN DUCT AT 45 DEGREES WITH CONICAL CONNECTION.
- .3 PROVIDE VOLUME CONTROL DAMPER IN BRANCH DUCT NEAR CONNECTION TO MAIN DUCT.
- .4 MAIN DUCT BRANCHES: WITH SPLITTER DAMPER.

.6 TRANSITIONS:
- .1 DIVERGING: 20 DEGREES MAXIMUM INCLUDED ANGLE.
- .2 CONVERGING: 30 DEGREES MAXIMUM INCLUDED ANGLE.

.7 FIRE STOPPING
- .1 RETAINING ANGLES AROUND DUCT, ON BOTH SIDES OF FIRE SEPARATION IN ACCORDANCE WITH SECTION.
- .2 FIRE STOPPING MATERIAL AND INSTALLATION MUST NOT DISTORT DUCT.

.8 DAMPERS:
- .1 MANUFACTURE TO SMACNA STANDARDS.
- .2 SINGLE BLADE DAMPERS:
  - .1 FABRICATE FROM SAME MATERIAL AS DUCT, BUT ONE SHEET METAL THICKNESS HEAVIER. V-GROOVE STIFFENED.
  - .2 SIZE AND CONFIGURATION TO RECOMMENDATIONS OF SMACNA.
  - .3 LOCKING QUADRANT (WITH SHAFT EXTENSION TO ACCOMMODATE INSULATION THICKNESS, IF REQUIRED).
  - .4 INSIDE AND OUTSIDE NYLON END BEARINGS.
  - .5 CHANNEL FRAME OF SAME MATERIAL AS ADJACENT DUCT, COMPLETE WITH ANGLE STOP.

.9 DUCT LEAKAGE: IN ACCORDANCE WITH SMACNA HVAC AIR DUCT LEAKAGE TEST MANUAL.

.10 ALL DUCT AND SEAL MATERIALS TO HAVE A FLAME SPREAD RATING OF LESS THAN 25 AND A SMOKE DEVELOPED CLASSIFICATION OF LESS THAN 50.

.11 PROVIDE FLEXIBLE CONNECTIONS AT ALL EQUIPMENT DUCT CONNECTION POINTS.

13 DUCT INSULATION:

.1 REFER TO DRAWING FOR DUCT THAT IS IDENTIFIED TO BE INSULATED.

.2 INSTALL IN ACCORDANCE WITH THERMAL INSULATION ASSOCIATION OF CANADA (TIAC) NATIONAL STANDARDS.

.3 MAX. FLAME SPREAD RATING: 25.

.4 MAX. SMOKE DEVELOPED RATING: 50.

.5 THERMAL INSULATION - RECTANGULAR DUCT:
- .1 1" (R4.3) RIGID MINERAL FIBRE BOARD WITH VAPOUR RETARDER JACKET.
- .2 ALUMINUM JACKET WITH MOISTURE BARRIER.

.6 THERMAL INSULATION - ROUND DUCT:
- .1 REFER TO ARCHITECTURAL DRAWINGS, TO VERIFY LOCATION OF ALL FIRE SEPARATIONS AND FIRE-RATED MEMBRANES.
- .2 PROVIDE DRAWINGS FROM HILTI AND/OR 3M FOR FIRE PROTECTION OF ALL PIPING, DUCT AND MECHANICAL ITEMS PENETRATING OR PASSING THROUGH A FIRE SEPARATION OR FIRE-RATED ASSEMBLY, FOR REVIEW BY ARCHITECT AND ENGINEER,
- .3 ALL PIPING, DUCT AND MECHANICAL ITEMS SHALL BE TIGHTLY FITTED AND SEALED WITH FIRESTOPPING MATERIAL AT ALL FIRE SEPARATIONS AND FIRE-RATED MEMBRANES.

.2 ALL PIPING SHALL BE TIGHTLY FITTED AND SEALED WITH FIRESTOPPING MATERIAL AT ALL FIRE SEPARATIONS AND FIRE-RATED MEMBRANES.

.3 FIRE DAMPERS:
- .1 FIRE DAMPERS SHALL BE CAN/ULC-S112 (STANDARD METHOD OF FIRE TEST OF FIRE DAMPER ASSEMBLIES) LISTED AND LABELLED.
- .2 FIRE DAMPERS SHALL BE NFPA 80 (STANDARD FOR FIRE DOORS AND OTHER OPENING PROTECTIVES), NFPA 90A (STANDARD FOR THE INSTALLATION OF AIR-CONDITIONING AND VENTILATING SYSTEMS), AND NFPA 101 (LIFE SAFETY CODE) COMPLIANT.
- .3 DUCTWORK SHALL BE FITTED WITH FIRE DAMPERS AT ALL FIRE SEPARATIONS AND FIRE-RATED MEMBRANES.
- .4 SUPPLY AND INSTALL ACCESS DOORS IN ARCHITECTURAL FINISH (WALL, CEILING OR FLOOR) TO ACCESS DUCT, IN COMMON AREA WHERE POSSIBLE.
- .5 SUPPLY AND INSTALL TIGHTLY-FITTED ACCESS DOOR IN DUCT TO ACCESS, INSPECT AND RESET FIRE DAMPER.
- .6 TYPES: DYNAMIC - FOR USE IN AIR HANDLING SYSTEMS THAT DO NOT SHUTDOWN UPON FIRE ALARM.
- .7 RATING: 1-1/2 HR (30MIN TO 2HR FIRE RESISTANCE RATING).

.4 FIRE DAMPER AND DUCT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS, AND SHALL BE SEALED WITH FIRESTOPPING MATERIAL.

.5 ALL MECHANICAL MATERIALS USED WITHIN CEILING RETURN AIR PLENUMS SHALL FLAME-SPREAD RATING NOT MORE THAN 25 AND SMOKE DEVELOPED CLASSIFICATION NOT MORE THAN 50 PER CAN/ULC-S102.2.

.6 MOCK-UPS:
- .1 PREPARE MOCK UPS OF TYPICAL FIRESTOP INSTALLATION OF THE FOLLOWING, FOR REVIEW AND APPROVAL BY THE OWNER, ENGINEER AND MUNICIPAL BUILDING INSPECTOR:
  - .1 SANITARY PIPING – WALL AND CEILING/FLOOR FIRE SEPARATION;
  - .2 DCW AND DHW PIPING – WALL AND CEILING/FLOOR FIRE SEPARATION;
  - .3 FIRE DAMPER INSTALLATION – WALL AND CEILING/FLOOR FIRE SEPARATION.
- .2 ALL FIRESTOP INSTALLATIONS SHALL BE COMPLETED IN ACCORDANCE WITH THE APPROPRIATE PRODUCT INSTALLATION INSTRUCTIONS, AND THE REFERENCED UL/ULC LISTING AND/OR TEST STANDARD.
- .3 SUPPLY A COPY OF THE PRODUCT INSTALLATION INSTRUCTIONS WITH ULC LISTING AND/OR TEST STANDARD REFERENCE, FOR EACH INSTALLATION.
- .4 MOCK-UP MAY REMAIN AS PART OF WORK.

15 MECHANICAL IDENTIFICATION:

.1 IDENTIFY MECHANICAL EQUIPMENT WITH LABEL STATING – NUMBER AND NAME.

.2 LABEL ALL PIPING AT LEAST ONCE IN EVERY ROOM, AND AT NO MORE THAN 25 FT CENTERS.

.2 MECHANICAL ELEMENTS AND COMPONENTS (EQUIPMENT, PIPES, DUCTS, ETC.), AND THEIR CONNECTIONS TO THE BUILDING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SMACNA/ANSI SEISMIC RESTRAINT MANUAL OR OTHER GUIDELINE REFERENCED IN THE ONTARIO BUILDING CODE.

.3 FOLLOWING PROJECT COMPLETION, SEISMIC ENGINEER SHALL PROVIDE A LETTER OF FINAL SITE REVIEW.

.4 CONTRACTOR SHALL CARRY THE COST OF THE SEISMIC ENGINEERING, INCLUDING SITE REVIEWS, DESIGN AND SHOP DRAWING PREPARATION.

17 EQUIPMENT AND MATERIALS SUPPORT:

.1 ALL MECHANICAL EQUIPMENT, PIPING, DUCTWORK, AND RELATED ITEMS SHALL BE SECURELY SUPPORTED, ATTACHED AND FASTENED TO BUILDING STRUCTURE, AND SHALL NOT BE FASTENED TO THE ROOF DECK.

.2 PIPE HANGERS AND SUPPORTS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH MSS STANDARD SP-58, PIPE HANGERS AND SUPPORTS – MATERIALS, DESIGN, MANUFACTURE, SELECTION, APPLICATION, AND INSTALLATION.

.3 PLATFORMS SHALL BE FABRICATED FROM STRUCTURAL GRADE STEEL MEETING THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, INCLUDING CSA STANDARD W59 WELDED STEEL CONSTRUCTION, AND THE REQUIREMENTS OF THE CANADIAN WELDING BUREAU.

18 COORDINATION:

.1 INFORMATION INVOLVING ACCURATE DIMENSIONING OF THE BUILDING SHALL BE TAKEN FROM SITE BY CONTRACTOR.

.2 DRAWINGS ARE IN DIAGRAMMATIC FORM, INTENDED TO CONVEY THE SCOPE OF WORK AND GENERAL ARRANGEMENT FOR EQUIPMENT. COORDINATE PHYSICAL LOCATION OF ALL EQUIPMENT WITH OTHER TRADES AND ALLOW FOR ANY ADDITIONAL PIPING, DUCTING, FITTINGS, SUPPORTS, ETC., IN ORDER TO AVOID INTERFERENCE AND FACILITATE THE WORK.

.3 CONTRACTOR TO MAKE ANY NECESSARY MODIFICATIONS OR ADDITIONS, WITHOUT CHARGE, TO ACCOMMODATE SITE CONDITIONS AND COORDINATION.

.4 COORDINATE ALL MECHANICAL EQUIPMENT WIRING, INCLUDING LOW VOLTAGE CONTROL WIRING, WITH ELECTRICAL TRADES.

19 START-UP, COMMISSIONING AND TRAINING:

.1 COMMISSIONING:
- .1 START-UP AND COMMISSION THE FOLLOWING SYSTEMS:
  - .1 PLUMBING FIXTURES;
  - .2 HVAC.
- .2 PERFORM SYSTEMATIC TESTS, PROCEDURES AND CHECKS ON SYSTEMS, AS FOLLOWS:
  - .1 TO VERIFY OPERATION IN ACCORDANCE WITH CONTRACT DOCUMENTS, DESIGN CRITERIA AND INTENT, AND MANUFACTURER'S REQUIREMENTS;
  - .2 TO ENSURE APPROPRIATE DOCUMENTATION IS PROVIDED;
- .2 TAB PROCEDURE SHALL BE COMPLETED IN ACCORDANCE WITH ASHRAE STANDARD 111, MEASUREMENT, TESTING, ADJUSTING AND BALANCING OF BUILDING HVAC SYSTEMS.
- .3 EXTERNAL STATIC PRESSURES SHALL BE MEASURED AFTER FILTER ON RETURN AIR AND BEFORE AC COIL AND SUPPLY AIR.
- .4 PROVIDE DETAILED REPORT AT END OF TAB, IN ACCORDANCE WITH THE REPORTING PROCEDURES OF ASHRAE STANDARD 111.

.3 DEMONSTRATION AND TRAINING:
- .1 DEMONSTRATE OPERATION AND MAINTENANCE OF EQUIPMENT AND SYSTEMS TO OWNER'S PERSONNEL ONE WEEK PRIOR TO DATE OF FINAL INSPECTION
- .2 PRIOR TO DEMONSTRATION AND TRAINING, ENSURE THAT EQUIPMENT HAS BEEN INSPECTED AND PUT INTO OPERATION, INCLUDING COMPLETION OF COMMISSIONING AND TESTING, ADJUSTING, AND BALANCING.
- .3 DEMONSTRATE START-UP, OPERATION, CONTROL, ADJUSTMENT, TROUBLE-SHOOTING, SERVICING, AND MAINTENANCE OF EACH ITEM OF EQUIPMENT.
- .4 INSTRUCT PERSONNEL IN PHASES OF OPERATION AND MAINTENANCE USING OPERATION AND MAINTENANCE MANUALS AS BASIS OF INSTRUCTION. REVIEW CONTENTS OF MANUAL IN DETAIL TO EXPLAIN ASPECTS OF OPERATION AND MAINTENANCE.

HVAC LEGEND

SA	SUPPLY AIR
RA	RETURN AIR
EA	EXHAUST AIR
OA	OUTDOOR AIR
12x8	DUCT SIZE, RECTANGULAR, FIRST FIGURE IS SIDE SHOWN
8"Ø	DUCT SIZE, ROUND
	DUCT SECTION, SUPPLY
	DUCT SECTION, RETURN OR EXHAUST
12 25	ACOUSTICAL INSULATION LINING
	ACOUSTICAL INSULATION LINING
	FLEXIBLE CONNECTION
	ELBOW, RECTANGULAR(r= 1.5W)
	ELBOW, WITH VANES, RECTANGULAR(r= 1.5W)
	ELBOW, WITH VANES, RECTANGULAR
	TRANSITIONS FOT - FLAT ON TOP, FOB - FLAT ON BOTTOM
	TEE, RECTANGULAR MAIN AND TAP
	TEE, RECTANGULAR MAIN AND TAP, WITH DAMPER
	TEE RECTANGULAR
	WYE, RECTANGULAR
VD	VOLUME DAMPER
FD	FIRE DAMPER
	WALL SUPPLY GRILLE OR REGISTER
	WALL EXHAUST/RETURN GRILLE OF REGISTER
	FLOOR OR CEILING SUPPLY GRILLE OR REGISTER
	FLOOR OR CEILING EXHAUST/RETURN GRILLE OR REGISTER
	CEILING SUPPLY DIFFUSER
	CEILING RETURN GRILLE
24"x24" 9" 100	CEILING OR REGISTER DESIGNATION SIZE CFM TYPE
T	THERMOSTAT
TS	THERMOSTAT REMOTE SENSOR

PLUMBING LEGEND

SYMBOL	ABBREVIATION	DESCRIPTION
	SAN	SANITARY DRAIN ABOVE FLOOR/GRADE
SS	SAN	SANITARY DRAIN BELOW FLOOR/GRADE
	VENT	SANITARY VENT
	STM	STORM DRAIN ABOVE FLOOR/GRADE
SD	STM	STORM DRAIN BELOW FLOOR/GRADE
	WCO	WALL CLEANOUT
	FCO	FLOOR CLEANOUT
SS	LCO	LINE CLEANOUT
	GCO	GRADE CLEANOUT
	DCW	DOMESTIC COLD WATER
	DHW	DOMESTIC HOT WATER
	DHWR	DOMESTIC HOT WATER RETURN
	-	STANDPIPE
GAS	GAS	NATURAL GAS

MORRIS Engineering Ltd.
Brockville, Ontario 613-349-0555

No.	By	Date	Revisions
1	B.O'B.	2024 03 19	FOR PERMIT & TENDER
0	B.O'B.	2024 02 01	FOR REVIEW

LICENSED PROFESSIONAL ENGINEER
M. A. MORRIS
PROVINCE OF ONTARIO
EC24-2-19

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Project Title:
NORTH STORMONT MUNICIPAL OFFICE
57 COCKBURN STREET, BERWICK, ON

Drawing Title:
MECHANICAL NOTES & LEGENDS

Design: MM	Checked: MM	Approved:	Project No.: 11200-M&E
Drawn: B.O'B.	Checked: MM	Date: 2023 11 30	Contract No.:

Scale:
0 10'-0" 20'-0"
Horizontal: 1/16" = 1'-0"
0 10'-0" 20'-0"
Vertical: 1/16" = 1'-0"

Drawing No.:
M001

REV DATE: 3/19/2024

PLUMBING FIXTURE SCHEDULE

UNIT	DESCRIPTION	PIPE SIZE					ACCEPTABLE PRODUCT	NOTES
		TRAP (in) (mm)	WASTE (in) (mm)	VENT (in) (mm)	DCW (in) (mm)	DHW (in) (mm)		
WC-1	WATER CLOSET - TANK	INT	3"	2"	1/2"	-	WATERCLOSET - AMERICAN STANDARD #2462 (CADET)	PRESSURE ASSISTED, ELONGATED WHITE
			75	50	13	-	SEAT - CENTOCO #820STS	HEAVY DUTY, OPEN FRONT SEAT & COVER, SS HINGE
							OR APPROVED EQUAL	MAX. WATER CONSUMPTION - 6.0 Lpf, 1.6 gpf
								DIM L x W x H - 768 x 521 x 743 mm, 30.25 x 20.5 x 29.25 in
								RIM HEIGHT - 381 mm, 15 in
								FLOOR FLANGE, FLANGE BOLTS & GASKET
								ISOLATING VALVE - BRASS W CHROME FINISH,
								WALL-MOUNTED, SCREWDRIVER STOP
WC-2	WATERCLOSET - TANK	INT	3"	2"	1/2"	-	WATERCLOSET - AMERICAN STANDARD #2467 016 (CADET)	PRESSURE ASSISTED, ELONGATED WHITE
	BARRIER FREE		75	50	13	-	SEAT - CENTOCO #820STS	HEAVY DUTY, OPEN FRONT SEAT & COVER, SS HINGE
							OR APPROVED EQUAL	MAX. WATER CONSUMPTION - 6.0 Lpf, 1.6 gpf
								DIM L x W x H - 768 x 521 x 781 mm, 30.25 x 20.5 x 30.75 in
								RIM HEIGHT - 419 mm, 16.5 in
								SEAT HEIGHT - 430 to 485 mm, 17 to 19 in (OBC 3.8.3.9)
								FLOOR FLANGE, FLANGE BOLTS & GASKET
								ISOLATING VALVE - BRASS W CHROME FINISH,
								WALL-MOUNTED, SCREWDRIVER STOP
LA-1	LAVATORY	1-1/2	1-1/2"	1-1/4"	1/2"	1/2"	AMERICAN STANDARD	WHITE, POP-UP DRAIN
	COUNTERTOP	38	38	32	13	13	#9494 LAVATORY	OVERALL DIM - W x FTB x D - 533 x 445 x 165mm, 21 x 17.5 x 6.5 in
							#7385 SINGLE LEVER FAUCET	BOWL DIM - W x FTB x D - 441 x 279 x 133mm, 17.375 x 11 x 5.25 in
								MAX. WATER CONSUMPTION - 8.35 Lpm, 2.2 gpm
							OR APPROVED EQUAL	INSULATE AND COVER ALL SAN, DCW & DHW PIPE
LA-2	LAVATORY	1-1/2"	1-1/2"	1-1/4"	1/2"	1/2"	AMERICAN STANDARD	WHITE, POP-UP DRAIN
	WALL HUNG	38	38	32	13	13	#0954 (MURRO) LAVATORY W EVERCLEAN	OVERALL DIM - W x FTB x D - 540 x 520 x 406mm, 21.25 x 20.5 x 16 in
							#7385 SINGLE LEVER FAUCET	BOWL DIM - W x FTB x D - 394 x 343 x 127mm, 15.5 x 13.5 x 5 in
							WATTS #CA-411 FLOOR-MOUNTED, CONCEALED ARM	MAX. WATER CONSUMPTION - TO OBC
							LAVATORY CARRIER	INSTALLATION DIMENSIONS - TO OBC & ARCH DWGS
							P-TRAP - 1-1/4 (32) TRAP, CHROME PLATED BRASS	
							ISOLATING VALVE - BRASS W CHROME FINISH,	
							WALL-MOUNTED, SCREWDRIVER STOP	
							PORCELAIN SHROUD/KNEE CONTACT GUARD	
							OR APPROVED EQUAL	
LA-3	LAVATORY	1-1/2"	1-1/2"	1-1/4"	1/2"	1/2"	AMERICAN STANDARD	WHITE, POP-UP DRAIN
	WALL HUNG	38	38	32	13	13	#0954 (MURRO) LAVATORY W EVERCLEAN	OVERALL DIM - W x FTB x D - 540 x 520 x 406mm, 21.25 x 20.5 x 16 in
	BARRIER FREE						#7385 SINGLE LEVER FAUCET	BOWL DIM - W x FTB x D - 394 x 343 x 127mm, 15.5 x 13.5 x 5 in
							WATTS #CA-411 FLOOR-MOUNTED, CONCEALED ARM	MAX. WATER CONSUMPTION - TO OBC
							LAVATORY CARRIER	INSTALLATION DIMENSIONS - TO OBC & ARCH DWGS
							P-TRAP - 1-1/4 (32) TRAP, CHROME PLATED BRASS	
							ISOLATING VALVE - BRASS W CHROME FINISH,	
							WALL-MOUNTED, SCREWDRIVER STOP	
							PORCELAIN SHROUD/KNEE CONTACT GUARD	
							OR APPROVED EQUAL	
SK-1	KITCHEN SINK	1-1/2"	1-1/2"	1-1/4"	1/2"	1/2"	FRANKE KINDRED #LB6407 SINK	STAINLESS STEEL, LEVER HANDLES
	SINGLE BOWL WITH LEDGE	38	38	32	13	13	AMERICAN STANDARD #6270 FAUCET	OVERALL DIM - W x FTB x D - 794 x 520 x 178mm, 31.25 x 20.5 x 7 in
								BOWL DIM - W x FTB x D - 355 x 406 x 178mm, 14 x 16 x 7 in
							OR APPROVED EQUAL	MAX. WATER CONSUMPTION - 8.35 Lpm, 2.2 gpm
SK-2	KITCHEN SINK	1-1/2"	1-1/2"	1-1/4"	1/2"	1/2"	FRANKE KINDRED #LBD6407 SINK	STAINLESS STEEL, LEVER HANDLES
	DOUBLE BOWL WITH LEDGE	38	38	32	13	13	AMERICAN STANDARD #6270 FAUCET	OVERALL DIM - W x FTB x D - 794 x 520 x 178mm, 31.25 x 20.5 x 7 in
								BOWL DIM - W x FTB x D - 355 x 406 x 178mm, 14 x 16 x 7 in
							OR APPROVED EQUAL	MAX. WATER CONSUMPTION - 8.35 Lpm, 2.2 gpm
CW	CLOTHESWASHER	2"	2"	1-1/2"	1/2"	1/2"	OATEY OR EQUAL	PROVIDE RECESSED WALL BOX
	FIRE-RATED	50	50	38	13	13		FOR SAN., DCW, DHW
FCO	FLOOR CLEANOUT	-	SIZE	-	-	-	WATTS CO-200	SUIT FLOOR FINISH
	ROUND		PER				ZURN	CAST IRON BODY
			PIPE					NICKEL BRONZE TOP, GASKET
							OR APPROVED EQUAL	BRASS CLEANOUT PLUG, GASKET
WCO	WALL CLEANOUT	-	SIZE	-	-	-	WATTS CO-380	SUIT WALL FINISH
	ROUND		PER				ZURN	CAST IRON FERRULE
			PIPE					BRASS PLUG
							OR APPROVED EQUAL	STAINLESS STEEL COVER

ROOFTOP HVAC UNIT SCHEDULE

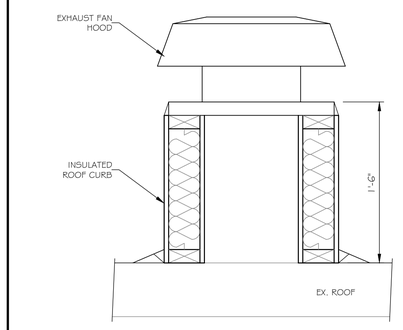
UNIT	DESCRIPTION	SUPPLY AIR		OUTDR AIR	EFF.	COOLING		HEATING			ELECTRICAL				ACCEPTABLE PRODUCT	NOTES
		(cfm)	(ESP)	(cfm)	(SEER)	TEMP (deg.F)	TC (Mbtu/hr)	INPUT (Mbtu/hr)	OUTPUT (Mbtu/hr)	GAS (in)	VOLT	PHASE	MCA	MOCP		
RTU-1	PACKAGED	2200	0.6	300	14	80 DB	60	115	93	1/2	208	3	29	40	CARRIER	BASE UNIT:
RTU-2	ROOFTOP HVAC UNIT					67 WB									LENNOX	SEISMIC ROOF CURB
RTU-3	ELECTRIC COOLING					95 AMB									TRANE	HOT GAS REHEAT DEHUMIDIFICATION
RTU-4	NATURAL GAS HEATING															POWER EXHAUST FAN W BAROMETRIC RELIEF
RTU-5																COIL/HAIL GUARDS
																CORROSION PROTECTION
																COOLING SYSTEM:
																HIGH EFFICIENCY
																TWO-STAGE
																LOW AMBIENT OPERATION THROUGH ECONOMIZER
																CONDENSATE DRAIN TRAP (PVC)
																HEATING SYSTEM:
																TWO-STAGE
																STANDARD HEAT EXCHANGER
																COMBUSTION AIR INTAKE EXTENSION
																BLOWER:
																ECM MOTOR W ELECTRONIC SPEED CONTROL
																SOFT START
																ADJUSTABLE SP
																BLOWER PROVING SWITCH
																INDOOR AIR QUALITY:
																HIGH PERFORMANCE ECONOMIZER W OUTDOOR AIR HOOD
																MERV 8 FILTERS
																CO2 SENSOR
																ELECTRICAL:
																THROUGH BASE WITH WEATHERPROOF DISC. SWITCH
																NEW WEATHERPROOF DISCONNECT SWITCH
																GFCI SERVICE OUTLET WITH WEATHERPROOF COVER
																PHASE/VOLTAGE PROTECTION
																CONTROLS:
																DEMAND CONTROL VENTILATION WITH CO2 SENSOR
																7-DAY DIGITAL PROGRAMMABLE THERMOSTAT
																TO MEET ASHRAE 90.1:
																- 7 DAY SCHEDULE
																- 10 HR POWER LOSS
																- 2 HR MANUAL OVERRIDE
																- SETBACK TO 55F (13C)
																- SETUP TO 90F (32C)
																REMOTE TSTAT WITH ROOM SENSORS
																MICROPROCESSOR CONTROLS
																BACnet COMMUNICATIONS INTERFACE

EXHAUST FAN (CABINET) SCHEDULE

UNIT	DESCRIPTION	FAN				DUCT CONN	ELECTRICAL			ACCEPTABLE PRODUCT	NOTES
		FLOW	ESP	DRIVE	SONES		VOLT (V)	PHASE	POWER (W)		
EF-1	EXHAUST FAN	39 L/s	3 mm	DIRECT	2.3	254 x 83 mm	120	1	39	PENN BARRY	DIM - L x W x D - 318 x 232 x 232 mm, 12.5 x 9.125 x 9.125 in
		83 CFM	0.125 in			10 x 3.25 in				#Z3	GRILLE - 280 x 337 mm, 11 x 13.25 in
										GREENHECK	CONTROL - WALL SWITCH
										OR APPROVED EQUAL	GRILLE - POLYMER
											WALL CAP - STEEL, PAINTED TO MATCH WALL
											LINED HOUSING, BACKDRAFT DAMPER

REGISTER, GRILLE & DIFFUSER SCHEDULE

UNIT	DESCRIPTION	CONSTRUCTION	CONFIGURATION			FRAME	FINISH	ACCEPTABLE PRODUCT	NOTES
			PATTERN	BLADE SPACING	DEFLECTION (deg)				
S1	SA DIFFUSER	STEEL	4 CONE	-	-	LAY-IN INVERTED T	WHITE	EH PRICE	
	CEILING		FIXED			DRYWALL FLANGE		#SCD STEEL	
	SQUARE CONE		AIR PATTERN						
								OR APPROVED EQUAL	
S2	LOUVRED SA GRILLE	STEEL	SINGLE DEFLECTION ADJUSTABLE	19mm, 3/4 in PARALLEL TO LONG DIM	ADJUSTABLE	STANDARD 32mm, 1.25in	WHITE	EH PRICE	
	WALL							#510 STEEL SINGLE	
								OR APPROVED EQUAL	
R1	EGG CRATE RA	ALUMINUM	FIXED GRID	12x12x25mm 1/2x1/2x1in	0	LAY-IN INVERTED T	WHITE	EH PRICE	
	CEILING					DRYWALL FLANGE		#81	
								OR APPROVED EQUAL	
R2	LOUVRED RA GRILLE	STEEL	SINGLE DEFLECTION ADJUSTABLE	19mm, 3/4 in PARALLEL TO LONG DIM	0	STANDARD 32mm, 1.25in	ALUMINUM	EH PRICE	
	CEILING/WALL							#530 STEEL SINGLE	
								OR APPROVED EQUAL	



EXHAUST FAN HOOD DETAIL

SCALE: 1 3/4" = 1'-0"

MORRIS Engineering Ltd.
Brockville, Ontario 613-349-0555

No.	By	Date	Revisions
1	B.O'B.	2024 03 19	FOR PERMIT & TENDER
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LICENSED PROFESSIONAL ENGINEER
2024-3-19
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Project Title:

NORTH STORMONT MUNICIPAL OFFICE

57 COCKBURN STREET, BERWICK, ON

Drawing Title:

MECHANICAL SCHEDULES & DETAILS

Design:	Checked:	Approved:	Project No.:
MM	MM		11200-M&E
Drawn:	Checked:	Date:	Contract No.:
B.O'B.	MM	2023 11 30	

Scale:

0 10'-0" 20'-0"

Horizontal: 1/16" = 1'-0"

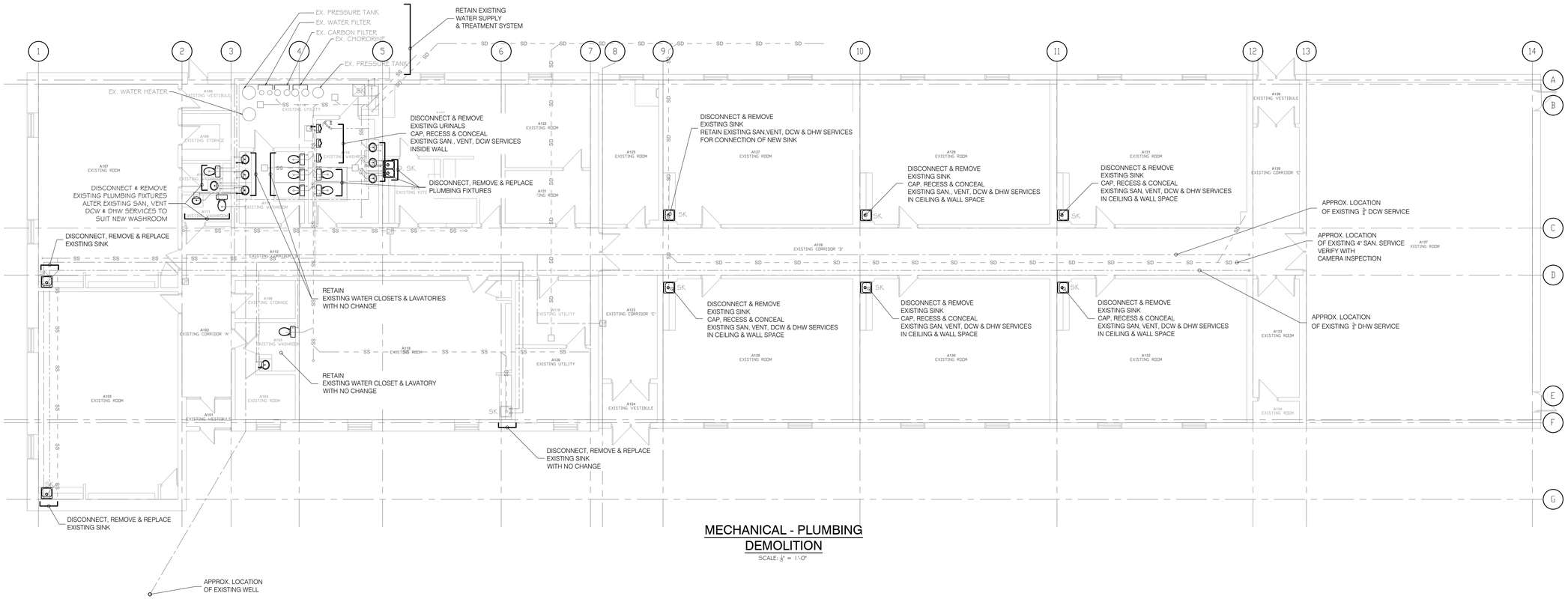
0 10'-0" 20'-0"

Vertical: 1/16" = 1'-0"

Drawing No.:

M002

REV DATE: 3/19/2024



MECHANICAL - PLUMBING DEMOLITION

SCALE: 1/8" = 1'-0"

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Brockville, Ontario 613-349-0555

No.	By	Date	Revisions
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PROJECT NORTH

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2024-3-19
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Drawing Title:
MECHANICAL
PLUMBING DEMOLITION

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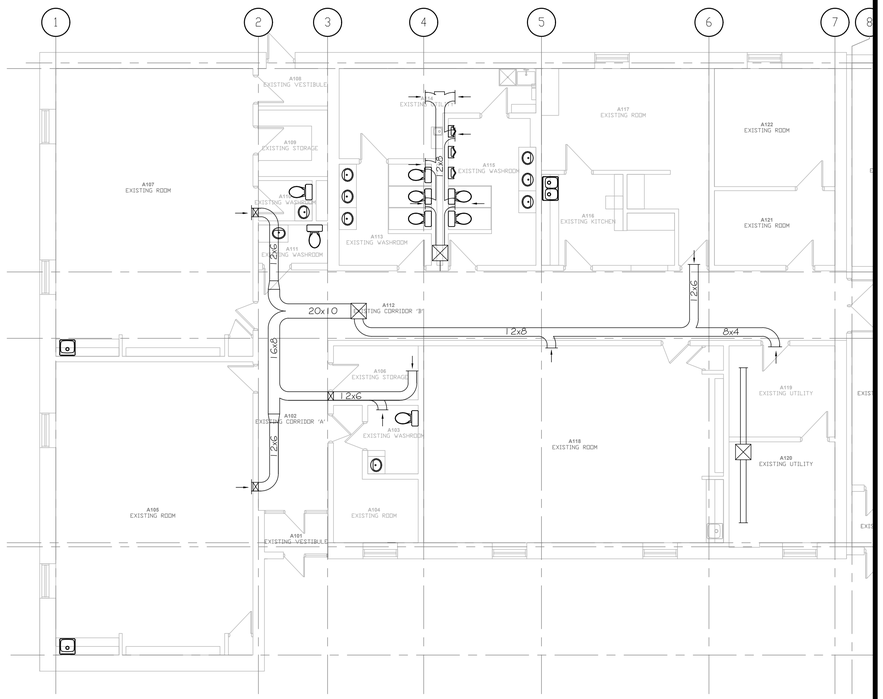
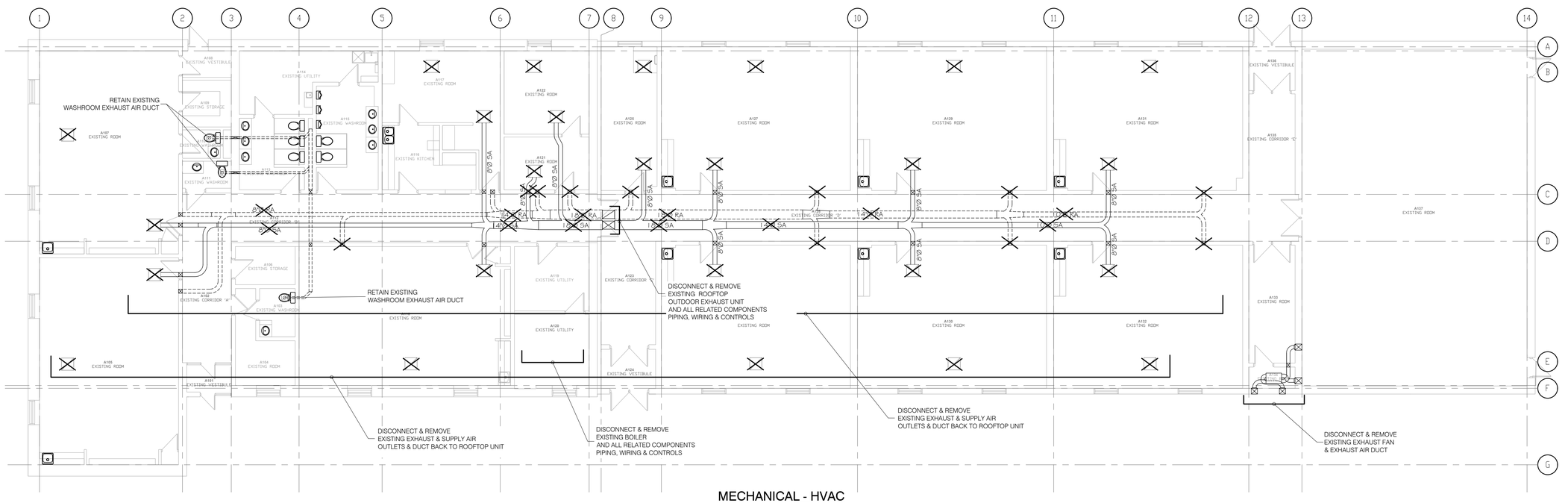
Drawing No.:
M100

REV DATE: 3/19/2024



VENTILATION LAYOUT

SCALE: $\frac{1}{8}$" = 1'-0"



MECHANICAL - HVAC DEMOLITION

SCALE: $\frac{1}{8}$" = 1'-0"

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PROJECT NORTH

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MECHANICAL
HVAC DEMOLITION

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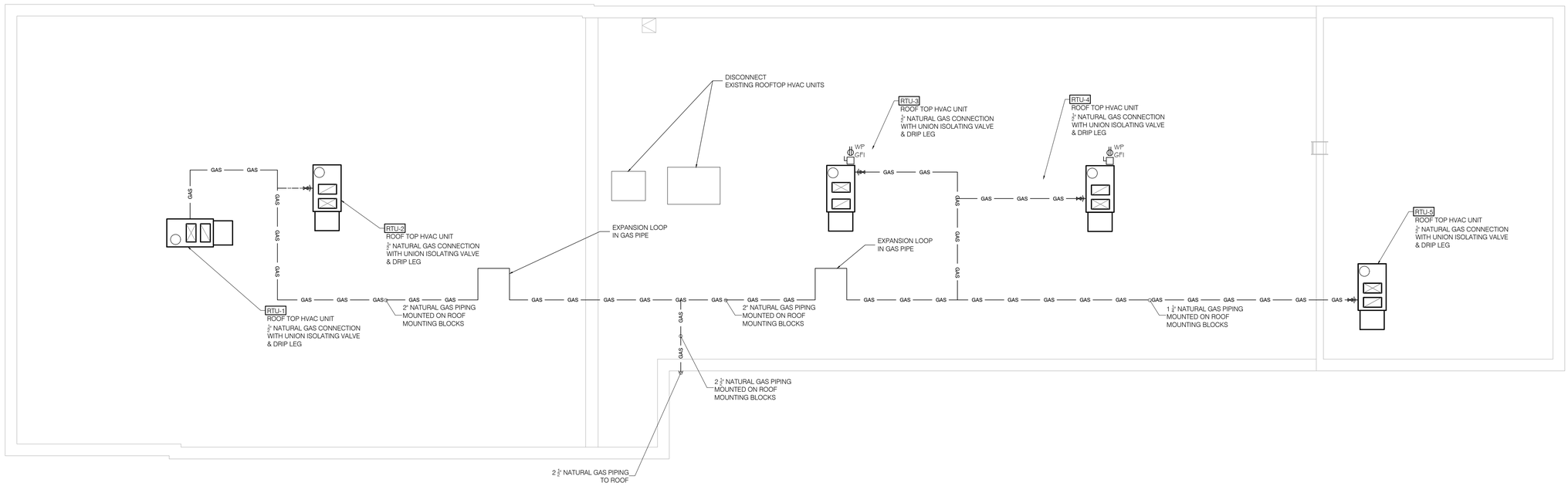
Drawing No.:

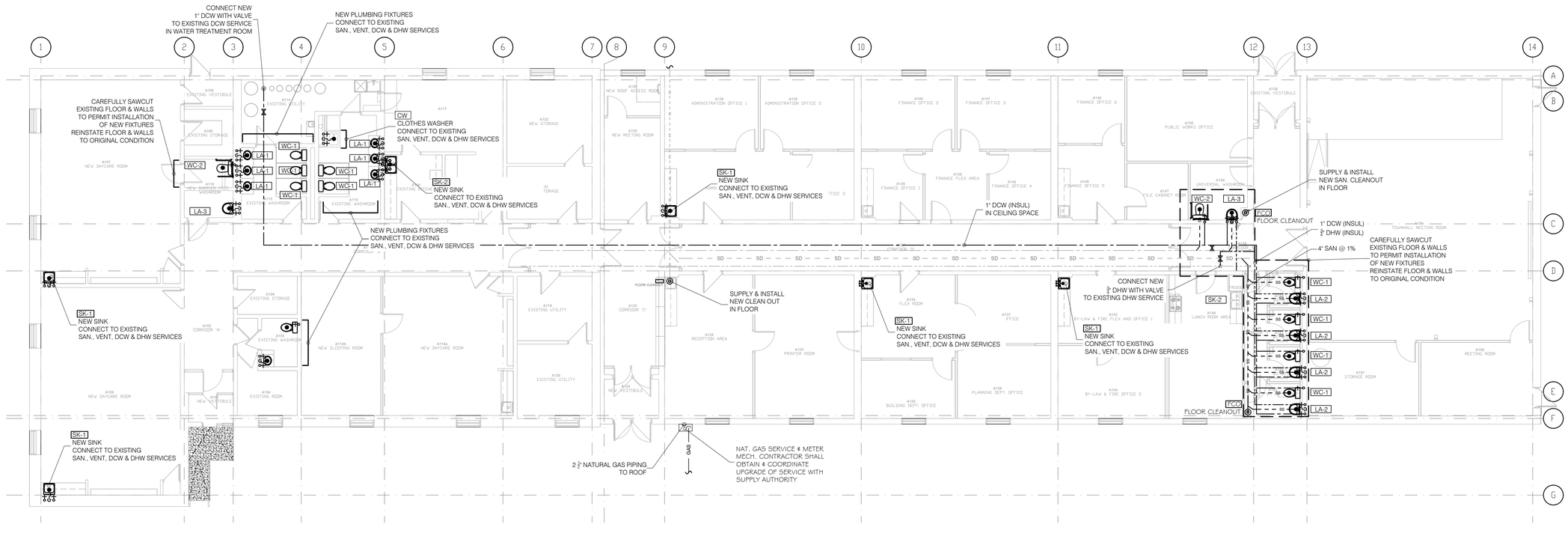
M101

REV DATE: 3/19/2024



MECHANICAL - ROOF PLAN

SCALE: 1/8" = 1'-0"



MECHANICAL - PLUMBING

SCALE: 1/8" = 1'-0"

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Brockville, Ontario 613-349-0555

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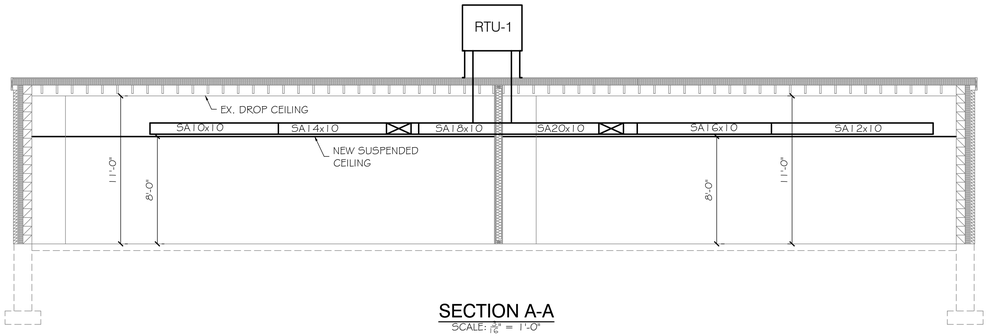
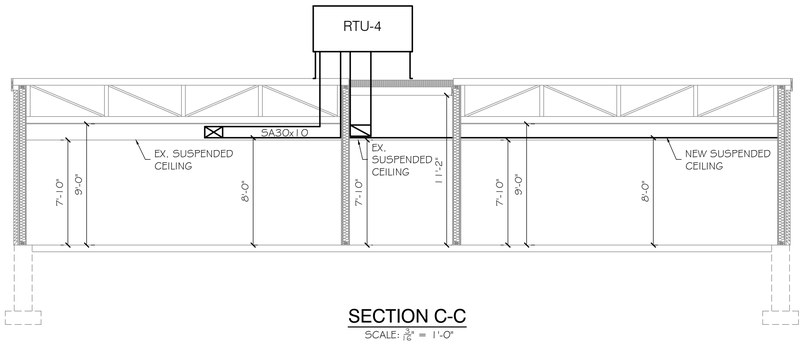
Drawing No.:

M201

REV DATE: 3/19/2024



SECTION A-A
SCALE: 1/16" = 1'-0"



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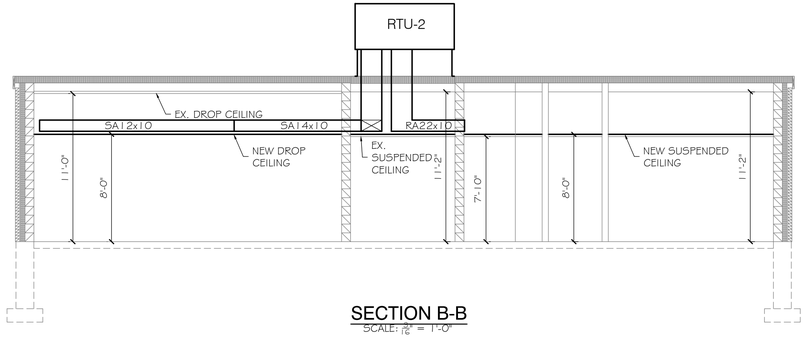

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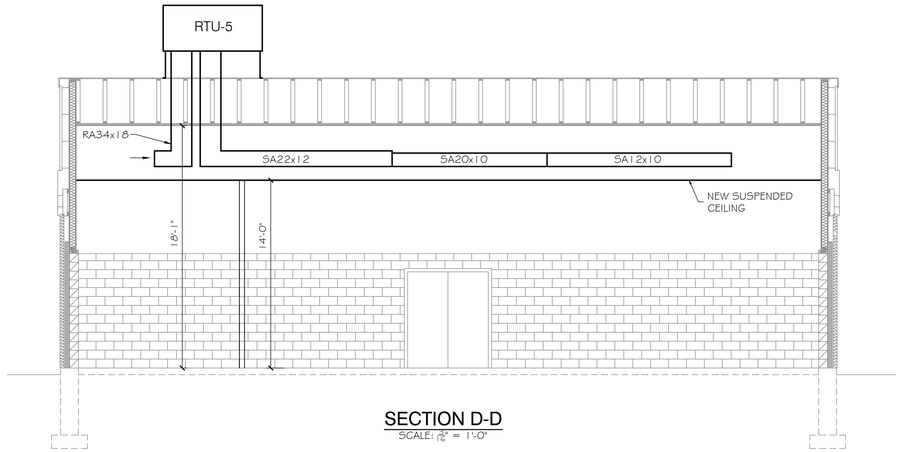
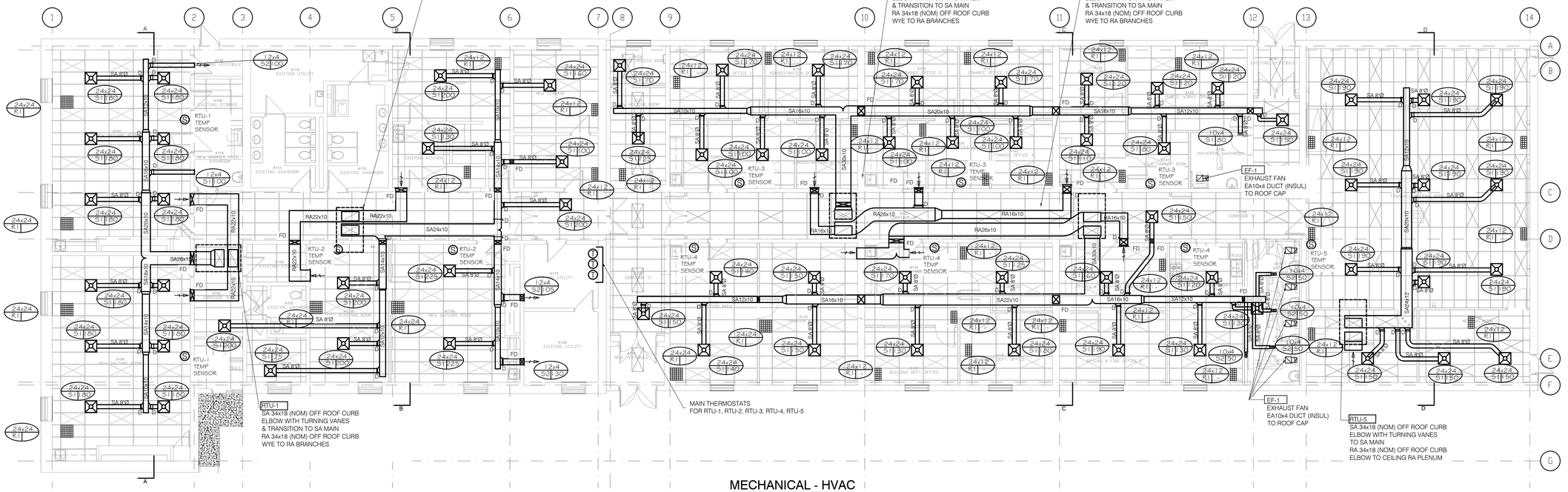


SECTION D-D
SCALE: 1/16" = 1'-0"



MECHANICAL - HVAC
SCALE: 1/8" = 1'-0"

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Engineering Ltd.
Brockville, Ontario 613-349-0555

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PROJECT NORTH

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Drawing Title:
MECHANICAL HVAC

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0 10'-0" 20'-0"
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0 10'-0" 20'-0"
Vertical: 1/16" = 1'-0"

Drawing No.:
M202

REV DATE: 3/19/2024

ELECTRICAL NOTES

ELECTRICAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS FOR THIS PROJECT.

1 GENERAL:

.1 CONFORM WITH APPLICABLE REQUIREMENTS OF THE MINISTRY OF LABOUR, AND THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.

.2 DO COMPLETE INSTALLATION IN ACCORDANCE WITH THE FOLLOWING:
- .1 ONTARIO ELECTRICAL SAFETY CODE;
- .2 ELECTRICAL SAFETY AUTHORITY;
- .3 ELECTRICAL SUPPLY AUTHORITY.

.3 SUBMIT TO ELECTRICAL SAFETY AUTHORITY AND SUPPLY AUTHORITY NECESSARY NUMBER OF DRAWINGS AND SPECIFICATIONS FOR APPROVAL PRIOR TO COMMENCEMENT OF WORK.

.4 GENERAL CONTRACTOR AND ELECTRICAL CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR COORDINATING AND OBTAINING ELECTRICAL SERVICE LAYOUT FROM THE SUPPLY AUTHORITY.

.5 PAY ALL ELECTRICAL PERMIT AND INSPECTION FEES.

.6 GROUND COMPLETE SYSTEM IN ACCORDANCE WITH THE ONTARIO ELECTRICAL SAFETY CODE AND ELECTRICAL SAFETY AUTHORITY.

.7 IDENTIFICATION AND LABELLING:
- .1 IDENTIFY ELECTRICAL EQUIPMENT WITH LAMICOID NAMEPLATES, INCLUDING AMPERAGE, VOLTAGE, PHASE AND POWER SOURCE.
- .2 PROVIDE TYPEWRITTEN PANEL DIRECTORIES.
- .3 PROVIDE ADHESIVE LABEL ON ALL SWITCH, RECEPTACLE AND DEVICE COVER PLATES INDICATING SUPPLY CIRCUIT DESIGNATION.

.8 PROVIDE DIGITAL AND HARD COPY OF COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS FOR EQUIPMENT FURNISHED UNDER THIS CONTRACT. BIND INSTRUCTIONS IN 3-RING BINDERS. INCLUDE THE FOLLOWING:
- .1 SCHEMATIC DIAGRAM OF ELECTRICAL SYSTEMS.
- .2 CONTROL SHOP DRAWINGS AND OPERATING SEQUENCE INCLUDING WIRING OF COMPONENTS.
- .3 WIRING DIAGRAM OF CONTROL PANELS.
- .4 OPERATING INSTRUCTIONS, INCLUDING START-UP AND SHUT-DOWN PROCEDURE.
- .5 MAINTENANCE INSTRUCTIONS INCLUDING PREVENTIVE MAINTENANCE INSTRUCTIONS FOR COMPONENTS OF THE EQUIPMENT.
- .6 COMPLETE PARTS LIST OF ASSEMBLIES AND THEIR COMPONENT PARTS, SHOWING MANUFACTURER'S NAME, CATALOGUE NUMBER, AND NEAREST REPLACEMENT SOURCE.
- .7 LIST OF RECOMMENDED SPARE PARTS AND QUANTITY OF EACH ITEM TO BE STOCKED.
- .8 MANUFACTURERS' WARRANTIES AND GUARANTEES.

.9 CLEAN ALL ELECTRICAL SYSTEMS AT PROJECT COMPLETION.

.10 COMPLETE AS-BUILT DRAWINGS SHOWING ALL CHANGES AS WORK PROGRESSES.

.2 COORDINATE WORK WITH OTHER TRADES SO THAT THERE IS A MINIMUM OF CUTTING, FITTING AND PATCHING.

.3 DRILLING, CUTTING, FITTING AND PATCHING AND MAKING GOOD WHERE NECESSARY DUE TO FAILURE TO DELIVER ITEMS TO BE BUILT IN TIME OR INSTALLATION IN WRONG LOCATION, SHALL BE EXECUTED AS DIRECTED AT NO COST TO THE OWNER.

.4 DRILLING AND CUTTING OF LOAD BEARING STRUCTURAL MEMBERS SHALL BE DONE ON PRIOR EXPRESS WRITTEN PERMISSION OF THE ENGINEER FOR EACH INSTANCE.

.5 CUT HOLES ACCURATELY, WITH SMOOTH, TRUE, CLEAN EDGES. FIT UNITS TO TOLERANCES TO BEST STANDARD PRACTICE FOR APPLICABLE WORK.

.6 HOLES IN BLOCK AND CONCRETE WORK SHALL BE SAWCUT OR CORE-DRILLED, AND SHALL NOT BE MADE WITH A HAMMER GUN.

.7 PATCHED WORK SHALL BE INVISIBLE, SIZE HOLES AND OPENINGS FOR PIPES SO AS TO ALLOW FOR EXPANSION AND CONTRACTION OF SUCH PIPES.

4 FIXTURES AND EQUIPMENT:

.1 PROVIDE SHOP DRAWINGS AND PRODUCT DATA FOR ALL ELECTRICAL FIXTURES AND EQUIPMENT FOR APPROVAL, PRIOR TO PROCUREMENT.

.2 INSTALL ALL ELECTRICAL FIXTURES AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

.3 EQUIPMENT AND MATERIAL TO BE CSA CERTIFIED. WHERE THERE IS NO ALTERNATIVE TO SUPPLYING EQUIPMENT WHICH IS NOT CSA CERTIFIED, OBTAIN SPECIAL APPROVAL FROM ELECTRICAL SAFETY AUTHORITY.

5 EQUIPMENT SUPPLIED BY OTHERS:

.1 GENERAL CONTRACTOR SHALL ASSUME FULL REPONSIBILITY FOR COORDINATING ELECTRICAL SERVICES AND CONNECTIONS FOR ALL EQUIPMENT, INCLUDING EQUIPMENT SUPPLIED BY TRADES OTHER THAN ELECTRICAL.

.2 ELECTRICAL CONTRACTOR SHALL TAKE FULL REPONSIBILITY FOR MAKING ALL ELECTRICAL SERVICE CONNECTIONS TO EQUIPMENT SUPPLIED BY OTHERS, INCLUDING:
- .1 REVIEW OF ALL SHOP DRAWINGS FOR EQUIPMENT SUPPLIED BY OTHERS, WHICH REQUIRE ELECTRICAL CONNECTIONS.
- .2 VERIFY AND CONFIRM ALL SERVICE CONNECTIONS WITH MANUFACTURER, SUPPLIER AND OTHER TRADES, PRIOR TO PROCUREMENT OF ELECTRICAL PANELS, BREAKERS, WIRE/CABLE, DISCONNECT SWITCHES, MOTOR STARTERS, RECEPTACLES AND RELATED EQUIPMENT.
- .3 REVIEW OF EQUIPMENT SUPPLIED BY OTHERS, SHALL INCLUDE ALL CONNECTION SIZES, LOCATIONS AND DETAILS, AND SHALL TAKE INTO ACCOUNT EQUIPMENT CLEARANCES AND INSTALLATION REQUIREMENTS.

6 CONDUITS:

.1 RIGID GALVANIZED STEEL, WITH THREADED FITTINGS, WHERE SUBJECT TO MECHANICAL INJURY, IN SERVICE AREAS ONLY.

.2 ELECTRICAL METALLIC TUBING (EMT), HOT DIPPED GALVANIZED STEEL, WITH THREADED CONNECTORS AND COUPLINGS, WHERE NOT SUBJECT TO MECHANICAL INJURY, IN SERVICE AREAS ONLY.

.3 RIGID PVC CONDUIT BELOW FLOOR AND IN CORROSIVE AREAS.

7 WIRES AND CABLE:

.3 CEILING RETURN AIR PLENUMS – TYPE AC90.

.4 ALL WIRING, CABINETS AND BOXES SHALL BE CONCEALED IN WALLS AND CEILINGS, UNLESS OTHERWISE NOTED OR APPROVED. SURFACE-MOUNTED WIRING IS NOT PERMITTED.

8 SERVICE EQUIPMENT:

.1 ELECTRICAL SERVICE EQUIPMENT, PANELBOARDS AND DISCONNECT SWITCHES SHALL BE PRODUCT OF ONE MANUFACTURER THROUGHOUT PROJECT.

.2 CIRCUIT BREAKERS:
- .1 SUPPLY AND INSTALL GROUND FAULT & ARC-FAULT CIRCUIT PROTECTION, AS REQUIRED BY THE OESC.

.3 WORKING SPACE ABOUT ELECTRICAL EQUIPMENT SHALL BE PROVIDED IN ACCORDANCE WITH THE ONTARIO ELECTRICAL SAFETY CODE, INCLUDING THE FOLLOWING:
- .1 WORKING SPACE OF 3'4" (1m) WITH SECURE FOOTING;
- .2 MINIMUM HEADROOM OF 7'3" (2.2m).

9 WIRING DEVICES:

.1 WIRING DEVICES OF ONE MANUFACTURER THROUGHOUT PROJECT – HUBBELL OR LEVITON:
- .1 OUTLET BOXES:
  - .1 GANG BOXES WHERE WIRING DEVICES ARE GROUPED.
  - .2 BLANK COVER PLATES FOR BOXES WITHOUT WIRING DEVICES.
- .2 SWITCHES:
  - .1 HEAVY DUTY, 20A/120V;
  - .2 SINGLE POLE, AND THREE-WAY, AS APPLICABLE;
  - .3 COLOUR: SELECTED BY OWNER/ARCHITECT.
- .3 DUPLEX RECEPTACLES:
  - .1 EXTRA HARD USE, CSA TYPE 5-15 R, 15A/125V;
  - .2 GFI (GROUND FAULT CIRCUIT INTERRUPTER) WITH DETECT AND TRIP ON GROUND FAULT, STATUS INDICATOR LIGHT AND TEST SWITCH;
  - .3 TAMPER-RESISTANT WHERE REQUIRED BY CODE;
  - .4 COLOUR: SELECTED BY OWNER/ARCHITECT.
- .4 COVER PLATES:
  - .1 STAINLESS STEEL.

10 LIGHTING:

.1 GENERAL LIGHTING:
- .1 SUPPORT ALL LIGHTING IN ACCORDANCE WITH THE ONTARIO ELECTRICAL SAFETY CODE AND BULLETINS.
- .2 LIGHT FIXTURES SUPPORTED BY SUSPENDED CEILING SYSTEMS SHALL HAVE ADDITIONAL SUPPORT TO BUILDING STRUCTURE IN ACCORDANCE WITH ONTARIO ELECTRICAL SAFETY CODE BULLETIN #30-4-11.

.2 FUNCTIONAL TESTING OF LIGHTING CONTROL, IN ACCORDANCE WITH ASHRAE 90.1 (9.4.3):
- .1 LIGHTING CONTROL DEVICES AND CONTROL SYSTEMS SHALL BE TESTED TO ENSURE THAT CONTROL HARDWARE AND SOFTWARE ARE CALIBRATED, ADJUSTED, PROGRAMMED, AND IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS.

.3 EXIT AND EMERGENCY LIGHTING:
- .1 REFER TO ARCHITECTURAL DRAWINGS, TO VERIFY LOCATION OF ALL FIRE SEPARATIONS AND FIRE-RATED MEMBRANES.
- .2 PROVIDE DRAWINGS FROM HILTI AND/OR 3M FOR FIRE PROTECTION OF ALL ELECTRICAL MATERIALS, INCLUDING PANELS, BOXES, CABLE, WIRE, CONDUIT AND OUTLETS PENETRATING OR PASSING THROUGH A FIRE SEPARATION OR FIRE-RATED ASSEMBLY, FOR REVIEW BY ARCHITECT AND ENGINEER,
- .3 ALL ELECTRICAL MATERIALS, INCLUDING PANELS, BOXES, CABLE, WIRE, CONDUIT AND OUTLETS SHALL BE TIGHTLY FITTED AND SEALED WITH FIRESTOPPING MATERIAL AT ALL FIRE SEPARATIONS AND FIRE-RATED MEMBRANES.

.2 ALL CABLING AND CONDUIT SHALL BE TIGHTLY FITTED AND SEALED WITH FIRESTOPPING MATERIAL AT ALL FIRE SEPARATIONS AND FIRE-RATED MEMBRANES.

.3 THE FOLLOWING CONDUCTORS SHALL BE PROTECTED IN ACCORDANCE WITH OBC 3.2.7.10(2), AND SHALL CONFORM TO ULC-S139 "FIRE TEST EVALUATION OF INTEGRITY OF ELECTRICAL CABLES", TO PROVIDE A CIRCUIT INTEGRITY RATING OF NOT LESS THAN 1 HOUR (2 HOUR FOR TALL BUILDINGS OR CONTAINED USE AREAS OR INTERCONNECTED FLOOR SPACES):
- .1 ELECTRICAL FEEDER CONDUCTORS WHICH SERVE THE COMMERCIAL ELECTRICAL PANELS;
- .2 BRANCH CIRCUIT CONDUCTORS WHICH SERVE EXIT AND EMERGENCY LIGHTING.

.4 PLENUMS (OBC 3.6.4.3):
- .1 ALL MATERIALS WITHIN THE PLENUM SHALL A FLAME-SPREAD RATING NOT MORE THAN 25 AND A SMOKE DEVELOPED CLASSIFICATION NOT MORE THAN 50.
- .2 WIRE AND CABLE WITH AN FT6 RATING TO CSA C22.2 NO. 0.3, TEST METHODS FOR ELECTRICAL WIRES AND CABLES.
- .3 NON-METALLIC RACEWAYS WITH AN FT6 RATING TO CAN/ULC- S102.4, FIRE AND SMOKE CHARACTERISTICS OF ELECTRICAL WIRING AND CABLES.

.5 MOCK-UPS:
- .1 PREPARE MOCK-UPS OF TYPICAL FIRESTOP INSTALLATION OF THE FOLLOWING, FOR REVIEW AND APPROVAL BY THE OWNER, ENGINEER AND MUNICIPAL BUILDING INSPECTOR:
  - .1 ELECTRICAL PANELS, BOXES AND OUTLETS – FIRE-RATED WALL;
  - .2 CONDUIT AND CABLING – WALL AND CEILING/FLOOR FIRE SEPARATION.
- .2 ALL FIRESTOP INSTALLATIONS SHALL BE COMPLETED IN ACCORDANCE WITH THE APPROPRIATE PRODUCT INSTALLATION INSTRUCTIONS, AND THE REFERENCED UL/ULC LISTING AND/OR TEST STANDARD.
- .3 SUPPLY A COPY OF THE PRODUCT INSTALLATION INSTRUCTIONS WITH ULC LISTING AND/OR TEST STANDARD REFERENCE, FOR EACH INSTALLATION.
- .4 MOCK-UP MAY REMAIN AS PART OF WORK.

12 EARTHQUAKE LOAD:

.1 ALL ELECTRICAL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE EARTHQUAKE LOAD AND EFFECTS REQUIRED BY THE ONTARIO BUILDING CODE.

.2 ELECTRICAL ELEMENTS AND COMPONENTS (FIXTURES, EQUIPMENT, CONDUIT, ETC.), AND THEIR CONNECTIONS TO THE BUILDING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SMACNA/ANSI SEISMIC RESTRAINT MANUAL OR OTHER GUIDELINE REFERENCED IN THE ONTARIO BUILDING CODE AND ONTARIO ELECTRICAL SAFETY CODE.

.3 PLATFORMS SHALL BE FABRICATED FROM STRUCTURAL GRADE STEEL MEETING THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, INCLUDING CSA STANDARD W59 WELDED STEEL CONSTRUCTION, AND THE REQUIREMENTS OF THE CANADIAN WELDING BUREAU.

14 COORDINATION:

.1 INFORMATION INVOLVING ACCURATE DIMENSIONING OF THE BUILDING SHALL BE TAKEN FROM SITE BY CONTRACTOR.

.2 DRAWINGS ARE IN DIAGRAMMATIC FORM, INTENDED TO CONVEY THE SCOPE OF WORK AND GENERAL ARRANGEMENT FOR EQUIPMENT. COORDINATE PHYSICAL LOCATION OF ALL EQUIPMENT WITH OTHER TRADES AND ALLOW FOR ANY ADDITIONAL CONDUIT, WIRING, FITTINGS, SUPPORTS, ETC., IN ORDER TO AVOID INTERFERENCE AND FACILITATE THE WORK.

.3 CONTRACTOR TO MAKE ANY NECESSARY MODIFICATIONS OR ADDITIONS, WITHOUT CHARGE, TO ACCOMMODATE SITE CONDITIONS AND COORDINATION.

.4 COORDINATE AND VERIFY ALL ELECTRICAL BRANCH CIRCUIT REQUIREMENTS FOR EQUIPMENT SUPPLIED BY OTHERS, PRIOR TO MATERIAL PROCUREMENT OR INSTALLATION.

.5 PROVIDE ALL WIRING TO ALL MECHANICAL EQUIPMENT, INCLUDING WIRING BELOW 50V. COORDINATE ALL MECHANICAL EQUIPMENT WIRING WITH MECHANICAL TRADES.

.6 ALL DEVICE AND OUTLET LOCATIONS SHALL BE CAREFULLY COORDINATED WITH THE GENERAL CONTRACTOR OR OWNER, TO ACCOMMODATE ALL FEATURES, INCLUDING PLUMBING FIXTURES, EQUIPMENT AND MILLWORK.

15 START-UP, COMMISSIONING AND TRAINING:

.1 START-UP AND COMMISSION THE FOLLOWING SYSTEMS:
- .1 MAIN ELECTRICAL SERVICE EQUIPMENT;
- .2 GENERAL LIGHTING;
- .3 EXIT AND EMERGENCY LIGHTING.

.2 PERFORM SYSTEMATIC TESTS, PROCEDURES AND CHECKS ON SYSTEMS, AS FOLLOWS:
- .1 TO VERIFY OPERATION IN ACCORDANCE WITH CONTRACT DOCUMENTS, DESIGN CRITERIA AND INTENT, AND MANUFACTURER'S REQUIREMENTS;
- .2 TO ENSURE APPROPRIATE DOCUMENTATION IS PROVIDED;
- .3 TO EFFECTIVELY TRAIN BUILDING OPERATIONAL STAFF.

.3 SYSTEMS ARE TO BE OPERATED AT FULL CAPACITY, WITH CORRECTION OF ALL DEFICIENCIES AND ADJUSTMENTS TO MEET OPTIMUM PERFORMANCE.

.4 PROVIDE WRITTEN REPORT AT END OF COMMISSIONING OUTLINING EQUIPMENT OPERATIONAL CONDITIONS AND PARAMETERS.

ELECTRICAL LEGEND

NOTE: HEIGHT IS FROM FINISHED FLOOR TOP TO LINE OF EQUIPMENT, UNLESS OTHERWISE NOTED — HEIGHT

DESIGNATIONS

GFCI	GROUND FAULT CIRCUIT INTERRUPTER	
AFCI	ARC FAULT CIRCUIT INTERRUPTER	
AC	ABOVE COUNTER	
AFF	ABOVE FINISHED FLOOR	
WP	WEATHERPROOF	

DISTRIBUTION

	DISTRIBUTION PANEL	72"/1825mm (TOP)
$	SINGLE POLE TOGGLE SWITCH - 20A/120V	35.5" / 900mm
$3	3-WAY TOGGLE SWITCH - 20A/120V	TO
$MS	MOTION SENSOR CONTROL - (SWITCH)	43.3 / 1100mm
MS	MOTION SENSOR CONTROL - (CEILING)	
MS/PC	MOTION SENSOR & DAYLIGHT PHOTOCELL CONTROL - (CEILING)	
	DUPLEX RECEPTACLE (WALL) - 15A/120V	12"/300mm
	DUPLEX RECEPTACLE (SPLIT) - 15A/120V	12"/300mm
	NON-STANDARD RECEPTACLE	AS NOTED
	DIRECT EQUIPMENT CONNECTION	AS NOTED
	NON-FUSED DISCONNECT SWITCH	54"/1370mm
	FUSED DISCONNECT SWITCH	54"/1370mm
	BRANCH CIRCUIT	
	BRANCH CIRCUIT, SWITCHED	
P-1	BRANCH CIRCUIT, HOMERUNS TO PANEL	

LIGHTING

F	FLUORESCENT LIGHT FIXTURE - RECESSED	
F	FLUORESCENT LIGHT FIXTURE - SURFACE	
	LIGHT FIXTURE F - FLUORESCENT H - HIGH INTENSITY DISCHARGE L - INCANDESCENT	

DATA COMMUNICATIONS

	TELEPHONE OUTLET (WALL)	PROVIDE 3/4" CONDUIT FROM BACK BOX TO SUSPENDED CEILING SPACE ROUGH-IN ONLY	12"/300mm
T	TELEPHONE OUTLET (FLOOR)		
D	DATA OUTLET (WALL)		12"/300mm
D	DATA OUTLET (FLOOR)		
T/D	DATA & TELEPHONE OUTLET (WALL)		12"/300mm
TV	TELEVISION OUTLET (WALL)		12"/300mm
TV	TELEVISION OUTLET (FLOOR)		
S	SPEAKER (WALL / CEILING)		
W	WIRELESS TRANSMITTER / RECEVER		

EXIT & EMERGENCY LIGHTING

E	EXIT LIGHT, SURFACE MOUNTED, SINGLE FACE	90"/2300mm
E	EXIT LIGHT, END OR CEILING MOUNTED, SINGLE FACE	90"/2300mm
E	EXIT LIGHT, END OR CEILING MOUNTED, DOUBLE FACE	90"/2300mm
E EL1	EXIT LIGHT, SURFACE MOUNTED, SINGLE FACE	
EL2	EMERGENCY LIGHT, BATTERY PACK	90"/2300mm
EL3	EMERGENCY LIGHT, DOUBLE REMOTE	90"/2300mm
EL4	EMERGENCY LIGHT, SINGLE REMOTE	90"/2300mm

FIRE ALARM

	FIRE ALARM HORN / STROBE	ALL FIRE ALARM DEVICES SHALL BE MOUNTED AND LOCATED IN ACCORDANCE WITH CAN/ULC - S524
S 15cd	FIRE ALARM HORN / BELL WITH STROBE LIGHT	
	FIRE ALARM PULL STATION - (47" / 1200mm)	
	FIRE ALARM HEAT DETECTOR	
	FIRE ALARM SMOKE DETECTOR	

MORRIS Engineering Ltd.
Brockville, Ontario 613-349-0555

No.	By	Date	Revisions
1	B.O'B.	2024 03 19	FOR PERMIT & TENDER
0	B.O'B.	2024 02 01	FOR REVIEW

LICENSED PROFESSIONAL ENGINEER — 2024-3-19 — M. A. MORRIS — PROVINCE OF ONTARIO

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Project Title:
NORTH STORMONT MUNICIPAL OFFICE

57 COCKBURN STREET, BERWICK, ON

Drawing Title:
ELECTRICAL NOTES & LEGEND

Design:	Checked:	Approved:	Project No.:
MM	MM		11200-M&E
Drawn: B.O'B.	Checked: MM	Date: 2023 11 30	Contract No.:

Scale:
0 10'-0" 20'-0"
Horizontal: 1/16" = 1'-0"
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Drawing No.: E001

REV DATE: 3/19/2024

ELECTRICAL LOAD CALCULATION

OTHER TYPES OF OCCUPANCY (OESC 8-210)						
BASIC LOAD	AREA (sq.ft.)	AREA (sq.m)	BASIC LOAD (W/sq.m.)		DEMAND FACTOR	LOAD (W)
OFFICE BUILDING	8700	808	50		0.90	36372
DAYCARE	7560	702	25		1.00	17559

ADDITIONAL LOAD	QTY	LOAD (W)	LOAD (Amp)	VOLTAGE (V)	PHASE FACTOR	DEMAND FACTOR	LOAD (W)
WATER HEATER	1	3000				1.00	3000
AIR CONDITIONING:							
- Library	5		29	208	1.73	1.00	52177

TOTAL LOAD	VOLTAGE (V)	PHASE FACTOR		
TOTAL LOAD			(W)	109108
AMPERAGE	600	1.73	(A)	105
MAIN SERVICE SIZE (DE-RATED TO 80%)			(A)	131

NOTES:
1. ELECTRICAL LOAD CALCULATION IS BASED ON THE CALCULATION PROCEDURES FOR MINIMUM CIRCUIT AMPACITY OF THE SERVICE, AS OUTLINED IN THE ONTARIO ELECTRICAL SAFETY CODE, SECTION 8, SERVICE AND FEEDERS.

LIGHT FIXTURE SCHEDULE

UNIT	DESCRIPTION	NOM. DIM'N (in)	LAMP	COLOUR TEMP (K)	WATTS	MEAN LUMENS	VOLTAGE	ACCEPTABLE PRODUCT	NOTES
F1	LED LINEAR STRIP FIXTURE	W - 3.2 L - 32 (NOM 4FT)	LED	4000	24	3000	120	BJ TAKE #BLSP STANPRO OR APPROVED EQUAL	DIMMABLE
F24	LED RECESSED	W - 24 L - 48	LED	4000	36	4000	120	BJ TAKE #BLR STANPRO OR APPROVED EQUAL	DIMMABLE FLANGE FOR DRYWALL

LIGHTING CONTROL SCHEDULE

UNIT	DESCRIPTION	ELECTRICAL	ACCEPTABLE PRODUCT	NOTES
	WALL SWITCH MOTION SENSOR	120V	LEVITON #OSSMT-MAW	PASSIVE INFRARED (PIR) AND ULTRASONIC (U/S)
	WALL SWITCH MOTION SENSOR AND DIMMER	120V	LEVITON #AW SENSOR SWITCH #WSX-D OR APPROVED EQUAL	
	MOTION SENSOR CEILING MOUNTED		LEVITON #OSC05-M0W (500 SF) #OSC10-M0W (1,000 SF) #OSC20-M0W (2,000 SF)	PASSIVE INFRARED (PIR) AND ULTRASONIC (U/S) 24 VDC INFRARED SENSITIVITY, ULTRASONIC SENSITIVITY AND TIME DELAY CONTROL POWER PACK AS REQUIRED

EXIT & EMERGENCY LIGHT FIXTURE SCHEDULE

UNIT	DESCRIPTION	LAMP	HOUSING	VOLTAGE	ACCEPTABLE PRODUCT	NOTES
E1	EXIT LIGHT SINGLE FACE SELF-POWERED	LED	ALUMINUM WHITE	120VAC 12 VDC	EMERGI-LITE #EA STANPRO OR APPROVED EQUAL	EXTRUDED ALUMINUM HOUSING AND FACE PLATE GREEN PICTOGRAM DIRECTION ARROW (WHERE REQUIRED) END OR CEILING MOUNTED
E2	EXIT AND EMERGENCY LIGHT COMBINATION UNIT BATTERY PACK 2 LAMPHEADS SELF-POWERED	2x6W LED	ALUMINUM WHITE	120VAC IN 12VDC OUT	EMERGI-LITE #EAC STANPRO OR APPROVED EQUAL	LONG LIFE SEALED LEAD LED EXIT PUSH TO TEST SWITCH AC "ON" PILOT LIGHT GREEN PICTOGRAM EXIT SIGN DIRECTION ARROW (WHERE REQUIRED)
EL1	EMERGENCY LIGHT BATTERY PACK WITH WITH 2 LAMPHEADS	2x6W LED	OFF-WHITE STEEL	120VAC IN 12VDC OUT	EMERGI-LITE #ESL STANPRO OR APPROVED EQUAL	LONG LIFE SEALED LEAD AC LINE CORD PUSH TO TEST SWITCH AC "ON" PILOT LIGHT
EL2	EMERGENCY LIGHT DOUBLE REMOTE HEAD	2x6W LED	OFF-WHITE	12VDC	EMERGI-LITE #EF9D STANPRO OR APPROVED EQUAL	
EL3	EMERGENCY LIGHT SINGLE REMOTE HEAD	1x6W LED	OFF-WHITE	12VDC	EMERGI-LITE #EF9 STANPRO OR APPROVED EQUAL	

ELECTRIC HEATER SCHEDULE

UNIT	DESCRIPTION	FAN CFM	DIM'N	ELECTRICAL WATTS	ELECTRICAL VOLT	ELECTRICAL PHASE	ACCEPTABLE PRODUCT	NOTES
EUH-1	FAN FORCED HEATER COMMERCIAL GRADE	160	16.75W 21.5H	1125	208	1	DIMPLEX #RFI STELPRO OR APPROVED EQUAL	WHITE CONTROL: - BUILT-IN TSTAT RECESSED

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Project Title:
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57 COCKBURN STREET, BERWICK, ON

Drawing Title:
ELECTRICAL SCHEDULES

Design:	Checked:	Approved:	Project No.:
MM	MM		11200-M&E
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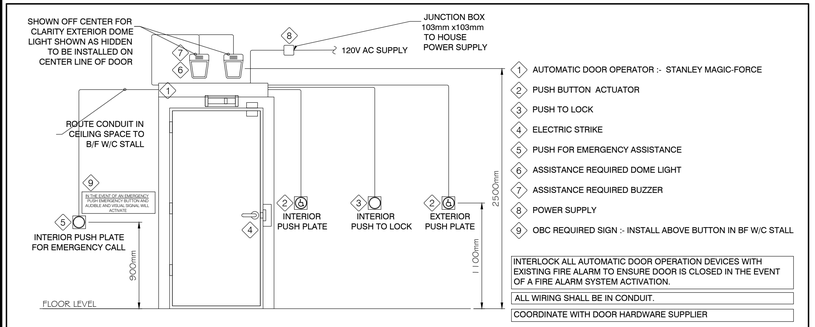
B.O.B.	MM	2023 11 30	

Scale: 0 10'-0" 20'-0" Horizontal: 1/16" = 1'-0"
0 10'-0" 20'-0" Vertical: 1/16" = 1'-0"

Drawing No.: E002

REV DATE: 3/19/2024



NOTES:-

1. POWER SUPPLY TO BE MOUNTED IN THE CEILING.
2. ALL WALL MOUNTED MATERIAL IS TO HAVE WIRING BROUGHT BACK TO THE POWER SUPPLY BOX.
3. LOW VOLTAGE AND HIGH VOLTAGE WIRING ARE NOT TO BE RUN TOGETHER.
4. ONE 15A CIRCUIT IS NEEDED FOR THE POWER SUPPLY BOX.
5. BUTTON LOCATIONS ARE TO BE CENTERED 1100mm FROM FINISHED FLOOR LEVEL.
6. DOME LIGHT AND BUZZER ARE TO BE CENTERED 2500mm FROM FINISHED FLOOR LEVEL.
7. PRIOR TO INSTALLATION CONFIRM LOCATIONS WITH OWNER.
8. DOME LIGHT STANDARD OF ACCEPTANCE:- DUKANE 18A524 (TWO LAMP) CORRIDOR LIGHT WITH ONE LAVATORY CALL LIGHT, FAST FLASHING RED (60ppm) FOR USE AS INSIDE AND OUTSIDE LIGHT, OR APPROVED EQUIVALENT.
   BUZZER STANDARD OF ACCEPTANCE:- MALLORY SONALERT SC628A C/W 103mm x130mm (4"x4") SURFACE MOUNT BACK BOX OR APPROVE EQUIVALENT.
   POWER SUPPLY STANDARD OF ACCEPTANCE:- LAB-PS241F 12-24V DC / 1A POWER SUPPLY C/W BUILT IN GEL CELL BATTERY CHARGER, AUTOMATIC SWITCHOVER TO STANDBY BATTERY IN CASE OF AC POWER FAILURE & JUNCTION BOX, OR APPROVED EQUIVALENT.
   TRANSFORMER STANDARD OF ACCEPTANCE:- TP4016 PLUG-IN TRANSFORMER 120/16V AC 40Va, OR APPROVED EQUIVALENT.
9. BACKBOXES, CONDUITS AND 120V CIRCUIT BY ELECTRICIAN.

	EMERGENCY CALL ASSIST SYSTEM	
	SCALE: NTS	

ELECTRICAL DISTRIBUTION PANEL 'DP1' (EXISTING)

Location:	ELECTRICAL ROOM	Mounting:	SURFACE
Rated Amp:	600A	Mains Amp:	400 A MAIN BREAKER
Voltage:	120/208V	Phase, Wire:	1 PH, 3W
Manufacturer:	Square D I-Line	Bus:	Aluminum
Cabinet:	Trim, Lockable Door	Breakers:	Bolt-On
TVSS:	-	Isolated Ground:	-

Load		Description	Breaker			Breaker			Description	Load	
Watts	Description		Amp	Pole	No.	No.	Pole	Amp		Description	Watts
					1	2	3	200	ELECTRICAL PNL P2	NEW	
					3	4				ELEC PNL	
					5	6				P2	
51000	NEW	DISCONNECT BOILER	200	3	7	8	3	60			
	ELEC PNL	CONNECT TO ELEC PNL P1			9	10					
	P1				11	12					
		DISCONNECT	40	3	13	14	3	200	ELECTRICAL PANEL		
		GYM WEST HEAT			15	16			HP-2		
		MARK SPARE			17	18					
		DISCONNECT	40	3	19	20	3	125	ELECTRICAL PANEL		
		GYM EAST HEAT			21	22			LP-2		
		MARK SPARE			23	24					
		ELECTRICAL PANEL	200	3	25	26	3	100	ELECTRICAL PANEL		
		HP-1			27	28			LP-1		
					29	30					
51	kW	CONNECTED LOAD							CONNECTED LOAD	kW	0
									TOTAL CONNECTED LOAD	kW	51

ELECTRICAL PANEL 'P1' (NEW)

Location:	ELEC RM	Mounting:	SURFACE
Rated Amp:	200A	Mains Amp:	-
Voltage:	120/208V	Phase, Wire:	3PH, 4W
Manufacturer:	Square D	Bus:	Aluminum
Cabinet:	Trim, Lockable Door	Breakers:	Bolt-On
TVSS:	-	Isolated Ground:	-

Load		Description	Breaker			Breaker			Description	Load	
Watts	Description		Amp	Pole	No.	No.	Pole	Amp		Description	Watts
400	2REC	RECEP - ROOF	15	1	1	2	1	15	RECEP - ROOF	3REC	600
					3	4					
					5	6					
					7	8					
					9	10					
					11	12					
					13	14					
					15	16					
					17	18					
					19	20					
					21	22					
					23	24					
10000	RTU-1	ROOFTOP HVAC UNIT	40	3	25	26					
					27	28					
					29	30					
10000	RTU-2	ROOFTOP HVAC UNIT	40	3	31	32	3	40	ROOFTOP HVAC UNIT	RTU-4	10000
					33	34					
					35	36					
10000	RTU-3	ROOFTOP HVAC UNIT	40	3	37	38	3	40	ROOFTOP HVAC UNIT	RTU-5	10000
					39	40					
					41	42					
30.4	kW	CONNECTED LOAD							CONNECTED LOAD	kW	20.6
									TOTAL CONNECTED LOAD	kW	51

ELECTRICAL PANEL 'P2' (NEW)

Location:	LUNCH ROOM	Mounting:	RECESSED
Rated Amp:	200A	Mains Amp:	200 A MAIN BREAKER
Voltage:	120/208V	Phase, Wire:	3PH, 4W
Manufacturer:	Square D	Bus:	Aluminum
Cabinet:	Trim, Lockable Door	Breakers:	Bolt-On
TVSS:	-	Isolated Ground:	-

Load		Description	Breaker			Breaker			Description	Load	
Watts	Description		Amp	Pole	No.	No.	Pole	Amp		Description	Watts
560	F1, 13F24	LIGHTS - 123,124,125,126,127	15	1	1	2	1	15	LIGHTS - 128,129,130,131	12F24	480
480	12F24	LIGHTS - 132,133	15	1	3	4	1	15	LIGHTS - 134,135,136,137	12F24	480
480	12F24	LIGHTS - 138,139,140,141,142	15	1	5	6	1	15	LIGHTS - 143,144,148	11F24	440
400	F1,9F24	LIGHTS - 145,146,147,154,155	15	1	7	8	1	15	LIGHTS - 136,149,150,151,152,153	6F1,5F24	440
800	20F24	LIGHTS - 156	20	1	9	10	1	15	LIGHTS - 157,158	8F24	320
		SPARE	15	1	11	12					
1200	6REC	RECEP - 123,124	15	1	13	14	1	15	RECEP - 125,126	5REC	1000
800	4REC	RECEP - 128	15	1	15	16	1	15	RECEP - 129	5REC	1000
400	REC	RECEP - 128 COUNTER	15	1	17	18	1	15	RECEP - 130	5REC	1000
800	4REC	RECEP - 131	15	1	19	20	1	15	RECEP - 133 PRINTER	REC	600
600	3REC	RECEP - 132	15	1	21	22	1	15	RECEP - 133 PRINTER	REC	600
600	3REC	RECEP - 132	15	1	23	24	1	15	RECEP - 133 PRINTER	REC	600
400	2REC	RECEP - 134	15	1	25	26	1	15	RECEP - 133 PRINTER	REC	600
400	REC	RECEP - 134 COUNTER	15	1	27	28	1	15	RECEP - 133	2REC	400
800	4REC	RECEP - 135	15	1	29	30	1	15	RECEP - 136	4REC	800
800	4REC	RECEP - 137	15	1	31	32	1	15	RECEP - 138	REC	200
800	4REC	RECEP - 139	15	1	33	34	1	15	RECEP - 138 PRINTER	REC	200
800	4REC	RECEP - 140	15	1	35	36	1	15	RECEP - 138 PRINTER	REC	200
800	4REC	RECEP - 141	15	1	37	38	1	15	RECEP - 142	4REC	800
800	4REC	RECEP - 143	15	1	39	40	1	15	RECEP - 144	3REC	600
400	REC	RECEP - 143 COUNTER	15	1	41	42	1	15	RECEP - 144	3REC	600
600	3REC	RECEP - 148	15	1	43	44	1	15	RECEP - 149,150,151,152,153	5REC	1000
400	3REC	RECEP - 148 COUNTER	15	1	45	46	1	15	RECEP - 145	4REC	800
400	3REC	RECEP - 148 COUNTER	15	1	47	48	1	15	RECEP - 146	4REC	800
400	3REC	RECEP - 148 COUNTER	15	1	49	50	1	15	RECEP - 147,154	2REC	400
500	REC	RECEP - 148 REFRIG	15	1	51	52	1	15	RECEP - 155	3REC	600
200	RH	RANGE HOOD	15	1	53	54	1	15	RECEP - 155	2REC	400
6000	REC	RANGE	40	2	55	56	1	15	RECEP - CORRIDOR	3REC	600
					57	58	1	15	RECEP - 156 WALL	4REC	800
800	4REC	RECEP - 157	15	1	59	60	1	15	RECEP - 156 WALL	4REC	800
800	4REC	RECEP - 158	15	1	61	62	1	15	RECEP - 156 FLOOR BOX	2REC	400
					63	64	1	15	RECEP - 156 FLOOR BOX	2REC	400
					65	66					
					67	68					
					69	70	1	15	WASHROOM - EMERG CALL		200
					71	72	1	15	WASHROOM - AUTO DOOR		200
23.22	kW	CONNECTED LOAD							CONNECTED LOAD	kW	18.76
									TOTAL CONNECTED LOAD	kW	41.98

ELECTRICAL PANEL NOTES

1.0 DEVICES:
- DEVICE QUANTITIES ARE APPROXIMATE
- DEVICES SHOWN ON FLOOR PLANS SHALL SUPERSEDE.

2.0 IDENTIFICATION:
- PERMANENT PANEL LABEL INDICATING NAME, AMP, VOLT, PHASE, WIRE
- TYPEWRITTEN CIRCUITING DIRECTORY

3.0 EQUIPMENT SUPPLIED BY OTHERS:
- ELECTRICAL CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR SERVICING REQUIREMENTS FOR ALL EQUIPMENT SUPPLIED BY OTHERS
- ELECTRICAL CONTRACTOR SHALL COORDINATE ALL EQUIPMENT WIRING WITH OTHER TRADES.
- **ELECTRICAL CONTRACTOR SHALL VERIFY AND CONFIRM ALL CIRCUITING, AND SHALL PROVIDE A NEW CIRCUITING LEGEND FOR APPROVAL BY OWNER AND ENGINEER, PRIOR TO PROCEEDING WITH WIRING OF PANEL.**
- **THIS CIRCUITING STUDY SHALL INCLUDE ALL NEW CIRCUITS.**

NOTATIONS:
- WP — WEATHERPROOF
- TBD — TO BE DETERMINED AND VERIFIED WITH OTHER TRADES

MORRIS Engineering Ltd.
Brockville, Ontario 613-349-0555

No.	By	Date	Revisions
1	B.O'B.	2024 03 19	FOR PERMIT & TENDER
0	B.O'B.	2024 02 01	FOR REVIEW

LICENSED PROFESSIONAL ENGINEER — M. A. MORRIS — PROVINCE OF ONTARIO — 2024-3-19

EASTERN ENGINEERING GROUP INC.
CONSULTING ENGINEERS
Apex Building
207 - 100 Strowger Blvd.
Brockville, Ont. K6V 5J9
Telephone: (613) 345-0400
Facsimile: (613) 345-0008
www.EastEng.com

Project Title:
NORTH STORMONT MUNICIPAL OFFICE
57 COCKBURN STREET, BERWICK, ON

Drawing Title:
ELECTRICAL DETAILS

Design:	Checked:	Approved:	Project No.:
MM	MM		11200-M&E
Drawn:	Checked:	Date:	Contract No.:
B.O'B.	MM	2023 11 30	

Scale: 0 10'-0" 20'-0" Horizontal: 1/16" = 1'-0"; 0 10'-0" 20'-0" Vertical: 1/16" = 1'-0"

Drawing No.: E003

REV DATE: 3/19/2024

DEMOLITION NOTES – ELECTRICAL

ALL OUTLETS THAT WERE VISIBLE DURING SITE REVIEW HAVE BEEN INDICATED.

ALL OUTLETS IN FLOORS, WALLS & CEILINGS THAT ARE TO BE REMOVED SHALL BE DISCONNECTED & REMOVED, INCLUDING BOX CONDUIT & WIRING, BACK TO SOURCE.

C COMMUNICATIONS SYSTEM:

- C1 RETAIN EXISTING SPEAKER
- C2 DISCONNECT AND REMOVE EXISTING SPEAKER OR SCHOOL BELL INCLUDING BOX, CONDUIT AND WIRING BACK TO SOURCE INFILL AND REPAIR WALL OR CEILING

D DATA AND TELEPHONE:

- D1 RETAIN EXISTING DATA OR TELEPHONE OUTLET
- D2 DISCONNECT AND REMOVE EXISTING ELECTRICAL DATA OR TELEPHONE OUTLET INCLUDING BOX, CONDUIT AND WIRING BACK TO SOURCE INFILL AND REPAIR WALL

F FIRE ALARM DEVICES:

- F1 RETAIN EXISTING FIRE ALARM DEVICE
- F2 DISCONNECT, REMOVE AND RELOCATE EXISTING FIRE ALARM DEVICE TO NEW WALL/CEILING
- F3 DISCONNECT AND REMOVE EXISTING FIRE ALARM DEVICE INCLUDING BOX, CONDUIT AND WIRING BACK TO SOURCE INFILL AND REPAIR WALL WHERE APPLICABLE

H ELECTRIC HEATER:

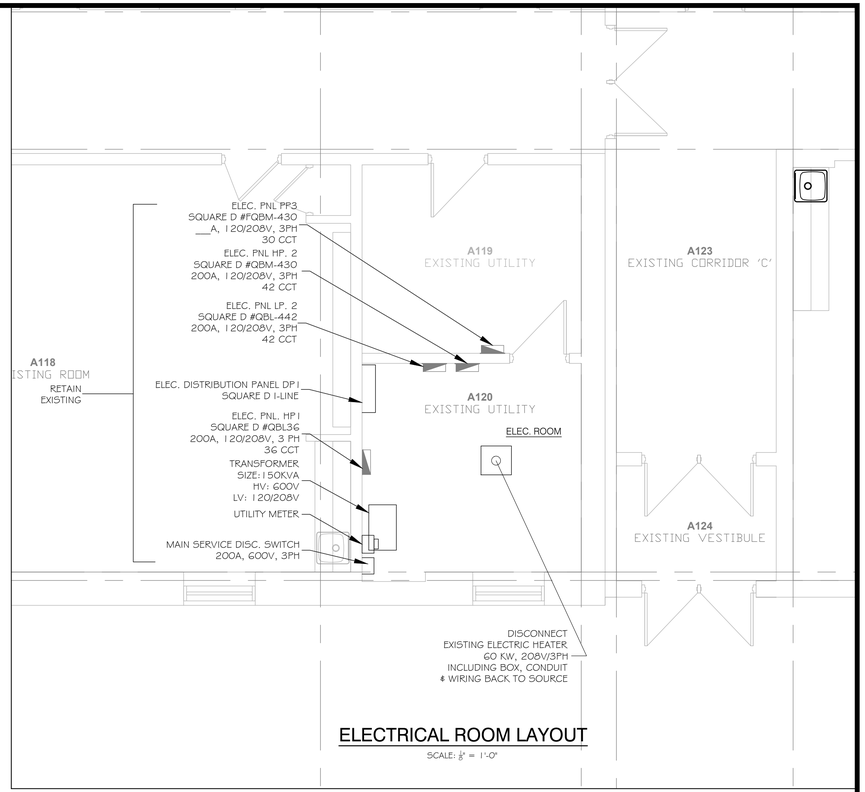
- H1 RETAIN EXISTING ELECTRIC HEATER
- H2 DISCONNECT, REMOVE AND REPLACE EXISTING ELECTRIC HEATER
- H3 DISCONNECT AND REMOVE EXISTING ELECTRIC HEATER INCLUDING BOX, CONDUIT AND WIRING BACK TO SOURCE INFILL AND REPAIR WALL WHERE APPLICABLE

L LIGHT FIXTURES & SWITCHES:

- L1 RETAIN EXISTING LIGHT FIXTURE
- L2 DISCONNECT, REMOVE AND REPLACE EXISTING LIGHT FIXTURE
- L3 DISCONNECT AND REMOVE EXISTING LIGHT FIXTURE INCLUDING BOX, CONDUIT AND WIRING BACK TO SOURCE
- L4 RETAIN EXISTING LIGHT SWITCH LOCATION SUPPLY AND INSTALL A NEW SWITCH AND COVER PLATE
- L5 DISCONNECT, REMOVE AND RELOCATE EXISTING LIGHT SWITCH ALTER BRANCH CIRCUIT WIRING AND SWITCHING TO SUIT OR AS SHOWN
- L6 DISCONNECT AND REMOVE EXISTING LIGHT SWITCH INCLUDING BOX, CONDUIT AND WIRING BACK TO SOURCE INFILL AND REPAIR WALL

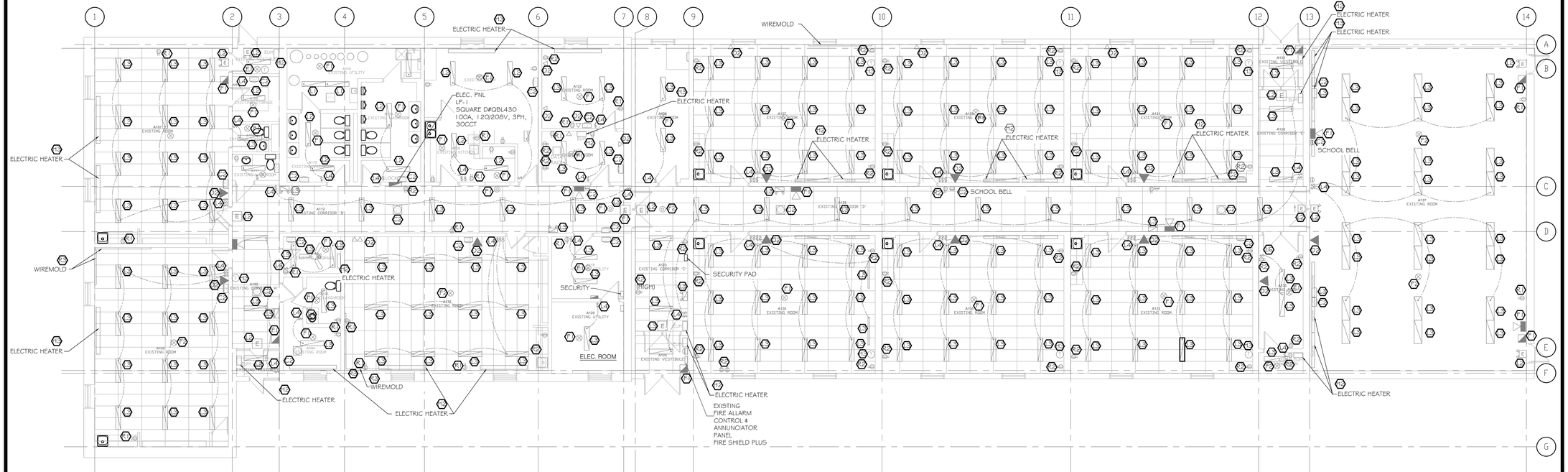
R RECEPTACLES:

- R1 RETAIN EXISTING ELECTRICAL RECEPTACLE SUPPLY AND INSTALL NEW DUPLEX RECEPTACLE AND COVER PLATE
- R2 DISCONNECT, REMOVE AND RELOCATE EXISTING ELECTRICAL RECEPTACLE ALTER BRANCH CIRCUIT WIRING TO RETAIN SERVICE TO RELOCATED RECEPTACLE
- R3 DISCONNECT AND REMOVE EXISTING ELECTRICAL RECEPTACLE INCLUDING BOX, CONDUIT AND WIRING BACK TO SOURCE INFILL AND REPAIR WALL



ELECTRICAL ROOM LAYOUT

SCALE: 3/8" = 1'-0"



ELECTRICAL-DEMOLITION

SCALE: 1/8" = 1'-0"

MORRIS
Engineering Ltd.
Brockville, Ontario 613-349-0555

No.	By	Date	Revisions
1	B.O'B.	2024 03 19	FOR PERMIT & TENDER
0	B.O'B.	2024 02 01	FOR REVIEW

PROJECT NORTH

LICENSED PROFESSIONAL ENGINEER
2024-3-19
M. A. MORRIS
PROVINCE OF ONTARIO

EASTERN ENGINEERING GROUP INC.
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Apex Building
207 - 100 Strowger Blvd.
Brockville, Ont. K6V 5J9
Telephone: (613) 345-0400
Facsimile: (613) 345-0008
www.EastEng.com

Project Title:
NORTH STORMONT
MUNICIPAL OFFICE
57 COCKBURN STREET,
BERWICK, ON

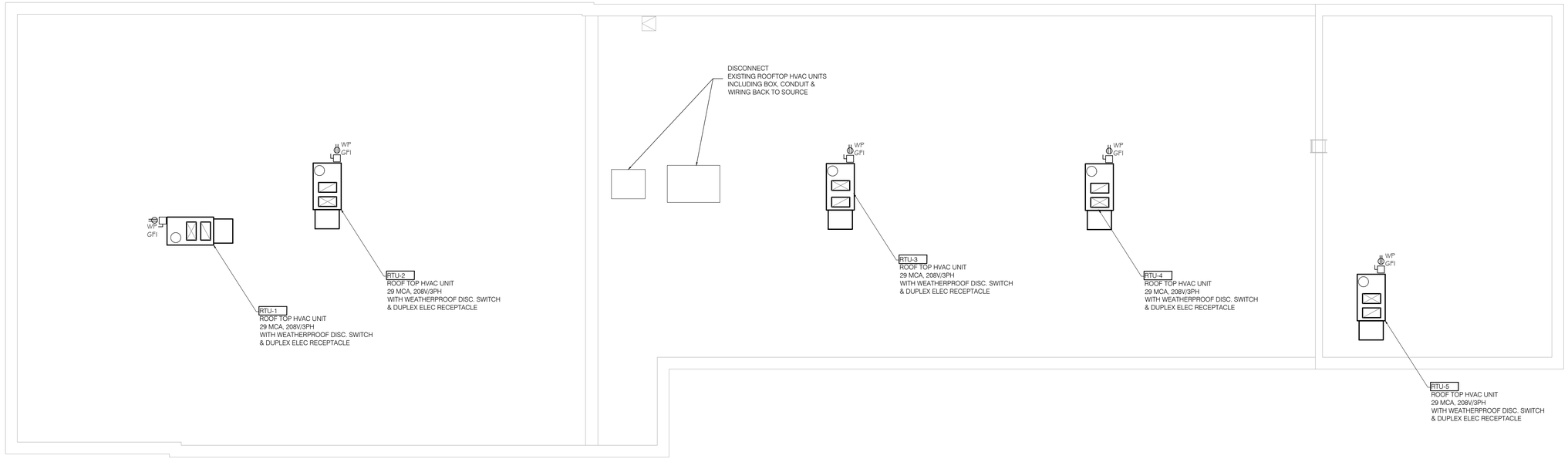
Drawing Title:
ELECTRICAL
MAIN FLOOR PLAN
DEMOLITION

Design:	Checked:	Approved:	Project No.:
MM			11200-M&E
Drawn:	Checked:	Date:	Contract No.:
B.O'B.	MM	2023 11 30	

Scale:
0 10'-0" 20'-0"
Horizontal: 1/16" = 1'-0"
0 10'-0" 20'-0"
Vertical: 1/16" = 1'-0"

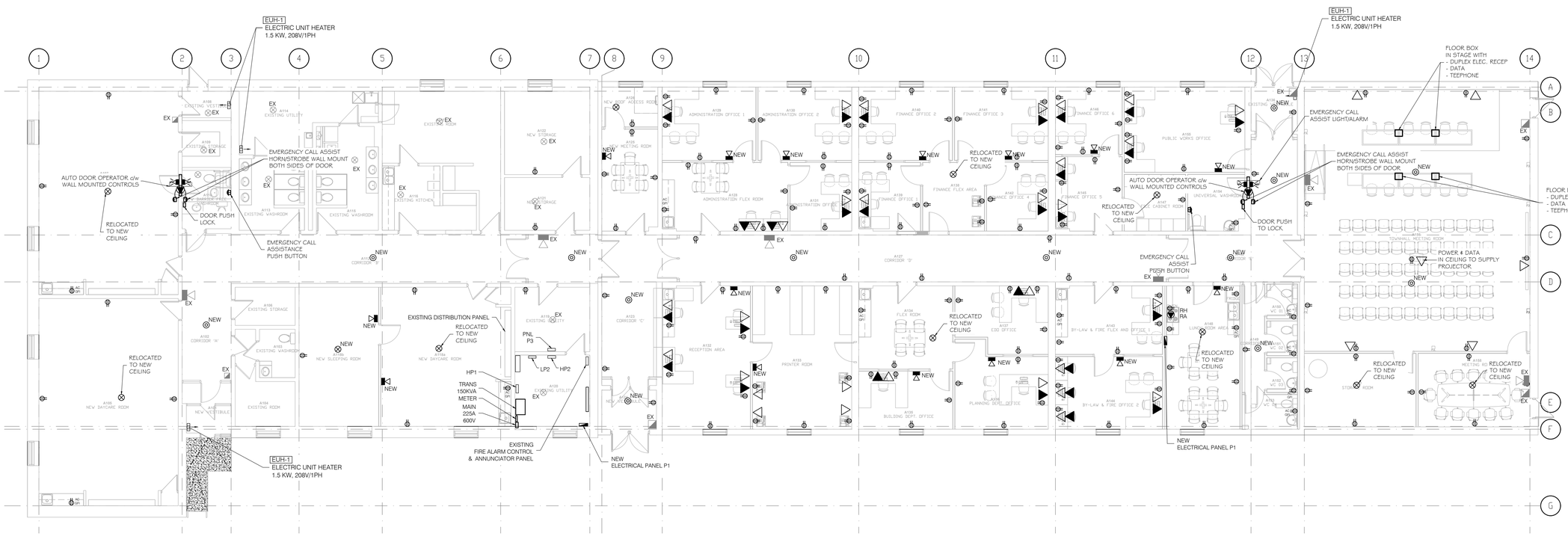
Drawing No.:
E100

REV DATE: 3/19/2024



ELECTRICAL - ROOF PLAN

SCALE: 1/8" = 1'-0"



ELECTRICAL - POWER & SYSTEMS

SCALE: 1/8" = 1'-0"

MORRIS
Engineering Ltd.
Brockville, Ontario 613-349-0555

No.	By	Date	Revisions
1	B.O.B.	2024 03 19	FOR PERMIT & TENDER
0	B.O.B.	2024 02 01	FOR REVIEW

LICENSED PROFESSIONAL ENGINEER
2024-3-19
M. A. MORRIS
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www.EastEng.com

Project Title:

NORTH STORMONT
MUNICIPAL OFFICE

57 COCKBURN STREET,
BERWICK, ON

Drawing Title:

ELECTRICAL
POWER & SYSTEMS
ROOF PLAN

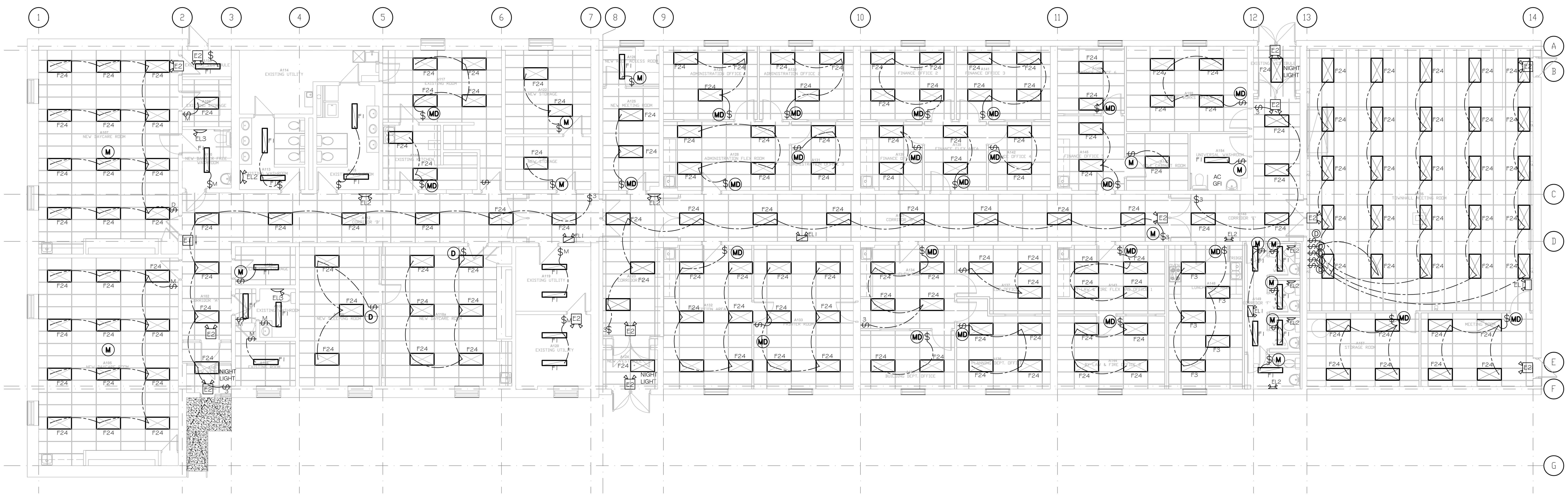
Design:	Checked:	Approved:	Project No.:
MM	MM		11200-M&E
Drawn:	Checked:	Date:	Contract No.:
B.O.B.	MM	2023 11 30	

Scale:
0 10'-0" 20'-0"
Horizontal: 1/16" = 1'-0"
0 10'-0" 20'-0"
Vertical: 1/16" = 1'-0"

Drawing No.:

E101

REV DATE: 3/19/2024



ELECTRICAL - LIGHTING

SCALE: 1/8" = 1'-0"

MORRIS
Engineering Ltd.
Brockville, Ontario 613-349-0555

No.	By	Date	Revisions
1	B.O'B.	2024 03 19	FOR PERMIT & TENDER
0	B.O'B	2024 02 01	FOR REVIEW

LICENSED PROFESSIONAL ENGINEER
2024-3-19
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Telephone: (613) 345-0400
Facsimile: (613) 345-0008
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Project Title:
NORTH STORMONT MUNICIPAL OFFICE
57 COCKBURN STREET, BERWICK, ON

Drawing Title:
ELECTRICAL LIGHTING

Design: MM	Checked: MM	Approved:	Project No.: 11200-M&E
Drawn: B.O'B.	Checked: MM	Date: 2023 11 30	Contract No.:

Scale: Horizontal: 1/16" = 1'-0"; Vertical: 1/16" = 1'-0" (0, 10'-0", 20'-0")

Drawing No.: E102

REV DATE: 3/19/2024

TOWN HALL RENOVATION

TOWNSHIP OF NORTH STORMONT

NO.	DESCRIPTION	DATE
1.	ISSUED FOR TENDER/ PERMIT	2024.03.08

REVISIONS

ALEX WARWICK ARCHITECT
Alex Warwick
Alex@WarwickDesignStudio.com
(416) 697-3008
2118 Valley St, Moose Creek, ON.

PROJECT

TOWNSHIP OF NORTH STORMONT - NEW TOWN HALL RENOVATION

ONTARIO ASSOCIATION OF ARCHITECTS
ALEXANDER W. WARWICK
LICENCE 8226

SHEET TITLE

COVER PAGE/ ARCHITECTURAL DRAWING LIST/ MATERIAL SPECS/ OBC MATRIX

SHEET NO.	DRAWN BY	CHECKED
A000	AW	AW
	SCALE	N.T.S.

Name of Practice:
ALEX WARWICK ARCHITECT
ALEX WARWICK
ALEX@WARWICKDESIGNSTUDIO.COM
(416) 697-3008

Name of Project:
TOWNHALL RENOVATIONS FOR NORTH STORMONT

Location:
57 COCKBURN ST., BERWICK ONTARIO

Item	Ontario Building Code Data Matrix Parts 3 or 9		Building Code Reference: References are to Division B unless noted [A] for Division A or [C] for Division C.		
				☐ Part 3	☐ Part 9
1	Project Description:	☐ New ☐ Addition ☒ Change of Use ☒ Alteration	☒ Part 11 11.1 to 11.4	1.1.2. [A]	1.1.2. [A] & 9.10.1.3.
2	Major Occupancy(s)	ASSEMBLY (A2), BUSINESS (D)		3.1.2.1.(1)	9.10.2.
3	Building Area (m²)	Existing 1365 SQ. M. New 0 SQ. M. Total 1365 SQ. M.		1.4.1.2. [A]	1.4.1.2. [A]
4	Gross Area	Existing 1365 SQ. M. New 0 SQ. M. Total 1365 SQ. M.		1.4.1.2. [A]	1.4.1.2. [A]
5	Number of Storeys	Above grade 1 Below grade 0		1.4.1.2. [A]&3.2.1.1.	1.4.1.2[A] & 9.10.4
6	Number of Streets/Fire Fighter Access	1 - EXISTING TO REMAIN		3.2.2.10. & 3.2.5.	9.10.20.
7	Building Classification	3.2.2.25 GROUP A, DIVISION 2, UP TO 2 STOREYS		3.2.2.20.-.83	9.10.2.
8	Sprinkler System Proposed	☐ entire building ☐ selected compartments ☐ selected floor areas ☐ basement ☐ in lieu of roof rating ☒ not required N/A EXISTING		3.2.2.20.-.83 3.2.1.5. 3.2.2.17. INDEX	9.10.8.2. INDEX
9	Standpipe required	N/A EXISTING	☐ Yes ☐ No	3.2.9.	N/A
10	Fire Alarm required		☒ Yes ☐ No	3.2.4.	9.10.18.
11	Water Service/Supply is Adequate	N/A EXISTING	☐ Yes ☐ No	3.2.5.7.	N/A
12	High Building		☐ Yes ☒ No	3.2.6.	N/A
13	Construction Restrictions Actual Construction	☐ Combustible permitted ☐ Non-combustible required ☒ Both ☐ Combustible ☐ Non-combustible ☒ Both		3.2.2.20.-.83	9.10.6.
14	Mezzanine(s) Area m²	N/A EXISTING		3.2.1.1.(3)-(8)	9.10.4.1.
15	Occupant load based on Basement: Occupancy N/A Load _____ persons 1st Floor Occupancy A2/D Load 166 persons 2nd Floor Occupancy N/A Load _____ persons 3rd Floor Occupancy N/A Load _____ persons **(Additional floor areas continued on last page)**	☐ m²/person ☒ design of building		3.1.17.	9.9.1.3.
16	Barrier-free Design	☒ Yes ☐ No (Explain) _____		3.8.	9.5.2.
17	Hazardous Substances	☐ Yes ☒ No		3.3.1.2. & 3.3.1.19.	9.10.1.3.(4)

18	Required Fire Resistance Rating (FRR)	Horizontal Assemblies FRR (Hours)			Listed Design No. or Description (SG-2)		3.2.2.20.-.83 & 3.2.1.4.	9.10.8. 9.10.9.	
		Floors	N/A	Hours	N/A - EXISTING TO REMAIN				
		Roof	3/4	Hours	N/A - EXISTING TO REMAIN				
		Mezzanine	N/A	Hours	N/A - EXISTING TO REMAIN				
		FRR of Supporting Members			Listed Design No. Or Description (SG-2)				
		Floors	N/A	Hours	N/A - EXISTING TO REMAIN				
		Roof	3/4	Hours	N/A - EXISTING TO REMAIN				
		Mezzanine	N/A	Hours	N/A - EXISTING TO REMAIN				

19 Spatial Separation – Construction of Exterior Walls — 3.2.3. — 9.10.14.

Wall	Area of EBF (m²)	L.D. (m)	L/H or H/L	Permitted Max. % of Openings	Proposed % of Openings	FRR (Hours)	Listed Design or Description	Comb Const	Comb. Constr. Nonc. Cladding	Non-comb. Constr.
North	N/A - EXISTING TO REMAIN									
South	N/A - EXISTING TO REMAIN									
East	N/A - EXISTING TO REMAIN									
West	N/A - EXISTING TO REMAIN									

20 Plumbing Fixture Requirements

		Building Code Reference: ☒ Part 3	☐ Part 9				
Male/Female Count @ 50 %/ 50 %, except as noted otherwise		Occupant Load	BC Table Number	Fixtures Required	Fixtures Provided		
Basement: Occupancy	N/A						
Occupancy	N/A						
1st Floor: Occupancy	DAYCARE (CHILDREN)	49 (DESIGN)	3.7.4.3.I	5	5	3.7.4.3.I	
Occupancy	DAYCARE (STAFF)	14 (DESIGN)	3.7.4.3.A	2	2	3.7.4.3.A	
Occupancy	OFFICE	18 (DESIGN)	3.7.4.7	2	2	3.7.4.7	
Occupancy	TOWNHALL	85 (DESIGN)	3.7.4.3.A	3	3	3.7.4.3.A	
(Adjust as Required for Additional Floors or Occupancies)							

21 Other (describe) _____

15 (Occupant Load - Continued)

_____Floor Occupancy _____ Load_____ persons
_____Floor Occupancy _____ Load_____ persons
_____Floor Occupancy _____ Load_____ persons
_____Floor Occupancy _____ Load_____ persons
_____Floor Occupancy _____ Load_____ persons
_____Floor Occupancy _____ Load_____ persons
_____Floor Occupancy _____ Load_____ persons
_____Floor Occupancy _____ Load_____ persons
_____Floor Occupancy _____ Load_____ persons
_____Floor Occupancy _____ Load_____ persons

ARCHITECTURAL MATERIAL SPECIFICATIONS

1) SELECTIVE DEMOLITION
A) DEMOLITION OPERATIONS: DO NOT DAMAGE BUILDING ELEMENTS AND IMPROVEMENTS INDICATED TO REMAIN. ITEMS OF SALVAGE VALUE, NOT INCLUDED ON SCHEDULE OF SALVAGE ITEMS TO BE RETURNED TO OWNER. STORAGE OR SALE OF ITEMS AT PROJECT SITE IS PROHIBITED.
B) UTILITIES: LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP OFF UTILITIES IN BUILDINGS TO BE DEMOLISHED. WHERE EXISTING UTILITIES ARE REQUIRING MODIFICATION FOR THE NEW WORK, CUT AND PATCH AS REQUIRED FOR THE NEW WORK AND BRING EXISTING UTILITY BACK TO EXISTING CONDITION.
C) SHORING AND BRACING: PROVIDE AND MAINTAIN INTERIOR AND EXTERIOR SHORING AND BRACING.

2) FRAMING (STUDS, TRACKS, BLOCKING), SEE PLAN FOR SIZES
A) **METAL STUDS** - SSMA STUD PROFILE (OR EQUAL), C-SHAPED OR HAT CHANNEL FURRING (SEE DRAWINGS), PUNCHED FOR UTILITY ACCESS.
B) **METAL TRACKS** - SSMA STUD TRACK PROFILE (OR EQUAL), SAME GAGE AND DEPTH AS STUDS, UNPUNCHED.
C) **WOOD STUDS** - SOLID WOOD SPF "2 BY" MATERIAL AS NOTED OR REQUIRED.
D) **WOOD BLOCKING** - SUPPLY AND INSTALL WOOD BLOCKING WITHIN WALLS AS REQUIRED (½" PLYWOOD OR SOLID WOOD BLOCKING WHERE NEEDED)
E) INSTALLATION AND FASTENERS AS PER METAL FRAMING MANUFACTURER GUIDELINES. FRAMING AS REQUIRED AROUND EXISTING BUILDING ELEMENTS FOR NEW WORK.

3) DRYWALL/ INSULATION
A) UNLESS OTHERWISE NOTED ON PLANS USE ½" STANDARD GYPSUM BOARD
B) AS INDICATED FOR ALL FIRE SEPARATIONS, USE ½" TYPE X GYPSUM BOARD
C) AS INDICATED FOR ALL "WET" AREAS INCLUDING BATHROOMS AND KITCHEN, USE ½" WATER RESISTANT DRYWALL (GREEN BOARD)
E) WHERE INDICATED USE ROCKWOOL "SAFE 'N' SOUND" FOR ALL BETWEEN STUD INTERIOR INSULATION (ACOUSTIC AND FIRE RATED)
TAPE/ MUD/ SAND (REPEAT AS NEEDED) ALL JOINTS AND FASTENERS HOLES TO ACHIEVE LEVEL 4 FINISH READY FOR PRIME AND PAINT.

4) FINISHES
A) **ACOUSTIC CEILING TILE CEILING SYSTEM** - SUSPENSION SYSTEM, EXPOSED "T" BAR 24"X48" GRID SYSTEM "PRELUDE" BY ARMSTRONG COMMERCIAL CEILING PANELS - 24"X48"X⅝" BEVELED EDGE "CIRRUS" COLOUR "WHITE" BY ARMSTRONG OR APPROVED EQUAL.
B) **DRYWALL CEILING SYSTEM** - SUSPENDED COLD ROLLED FRAMING (CARRIER CHANNEL, FURRING CHANNEL) BY CGC OR APPROVED EQUAL. SEE DRAWINGS FOR EXTENT.
C) **PORCELAIN FLOOR TILE** - JET BLACK, MATTE, 12"X24", REGAL SERIES, BY OLYMPIA TILE. SUPPLY AND INSTALL UNCOUPLING MEMBRANE BELOW TILE - SCHLUTER DITRA OR APPROVED EQUAL. ALL TILES TO BE INSTALLED WITH LEVELING CLIPS TO ENSURE NO "LIPPAGE" BETWEEN TILES.
D) **PORCELAIN TILE BASE** - JET BLACK, MATTE, 12"X24", REGAL SERIES, BY OLYMPIA TILE.
E) **VINYL COMPOSITE TILE (VCT)** - PATCH TO MATCH EXISTING. FOR PRICING ASSUME SELECTION FROM STANDARD EXCELON IMPERIAL TEXTURE BY ARMSTRONG FLOORING. PROVIDE SAMPLES FOR CLIENT APPROVAL PRIOR TO INSTALLATION.
F) **TERRAZZO** - CEMENT TERRAZZO PATCH TO MATCH EXISTING. GENERAL CONTRACTOR RESPONSIBLE TO VIEW SITE PRIOR TO SUBMITTING A BID TO VERIFY EXISTING TERRAZZO TO ADEQUATELY PRICE COST TO PATCH TO MATCH EXISTING FOR TENDERING PURPOSES. A SKILLED TERRAZZO COMPANY/ INSTALLER IS A REQUIREMENT UNDER THIS CONTRACT FOR THE SUPPLY AND INSTALL DURING CONSTRUCTION. PROVIDE 12" X 12" MOCK-UP FOR CLIENT APPROVAL PRIOR TO INSTALLATION.
G) **HIGH TRAFFIC CARPET TILE** - 106951 CHARCOAL, OPEN AIR 408 BY INTERFACE FULLY ADHERED TO FLOOR
H) **RUBBER BASE** - FLAGSTONE R4195 BY ARMSTRONG FLOORING, 4" HIGH X 1/8" THICK WITH TOE
I) **PAINT** - PREPARE ALL SURFACES (NEW OR EXISTING WALLS) READY FOR PAINT FINISH. REFER TO ROOM FINISH SCHEDULE FOR PAINT COLOURS
- **WALLS,** ONE COAT PRIMER - SEALER, TWO COATS SATIN FINISH
- **CEILINGS,** ONE COAT PRIMER - SEALER, TWO COATS FLAT
- **DOORS AND FRAMES,** ONE COAT SPOT PRIMER, ONE COAT ENAMEL UNDERCOAT, TWO COATS SEMI-GLOSS ENAMEL.
ALL CEILING AND WALL PAINT TO BE BENJAMIN MOORE AURA SERIES (AURA BATH AND SPA FOR ALL WASHROOMS), DOORS AND FRAMES ENAMEL BENJAMIN MOORE.
REFER TO FINISH SCHEDULE FOR PAINT COLOURS AND ACCENT COLOUR WALL LOCATIONS.

ALL FINISHES TO BE SUPPLY + INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND HANDED OVER TO OWNER IN UNBLEMISHED MANNER.

PROVIDE SAMPLES FOR CLIENT APPROVAL PRIOR TO INSTALLATION FOR ALL FINISHES.

5) DOORS AND FRAMES
A) FRAMES - **HOLLOW METAL DOORS** - STANDARD DUTY COMPLETE WITH STANDARD HARDWARE AND THOSE SPECIFIED ON DOOR SCHEDULE. ALL HARDWARE TO BE COMMERCIAL GRADE, LEVER TYPE. EXTERIOR DOORS TO BE INSULATED (RIGID EXTRUDED POLYSTYRENE), THERMALLY BROKEN
B) DOORS - **HOLLOW METAL FRAMES** - 16 GA. AND AS SHOWN ON SCHEDULE. EXTERIOR FRAMES TO BE INSULATED (RIGID EXTRUDED POLYSTYRENE), THERMALLY BROKEN
C) HARDWARE - SUPPLY AND INSTALL COMMERCIAL GRADE HARDWARE AS SPECIFIED.

PROVIDE FIRE RATED DOOR/FRAME WHERE NOTED ON SCHEDULE COMPLETE WITH FIRE RATED TAGS AND RELATED FIRE RATED HARDWARE. ALL ACOUSTIC LISTED DOORS TO HAVE ACOUSTIC SOUND STRIPPING AND HARDWARE TO STC 48 (MIN).

6) WINDOWS
A) FRAMES - **HOLLOW METAL** - 16 GA. AS SHOWN ON SCHEDULES COMPLETE WITH ALL STANDARD COMPONENTS. EXTERIOR TO BE INSULATED, THERMALLY BROKEN.
- ALUMINUM - ALUMINUM RECEPTION WINDOW FRAMING COMPLETE WITH ALL STANDARD COMPONENTS
B) WINDOW - **INTERIOR** - SINGLE PANE TEMPERED GLASS FOR ALL INTERIOR GLASS WINDOWS. CUT-OUTS AND COMPONENTS AS SHOWN ON SCHEDULES AND AS REQUIRED TO EXECUTE WORK AS SHOVN.
- EXTERIOR - DOUBLE PANE INSULATED GLAZING UNIT TEMPERED GLASS FOR ALL EXTERIOR WINDOWS. LOW "E" AND ARGON GAS FILLED. UNITS TO PROVIDE A MAX U FACTOR OF 1.42 (AI) 0.25 (IP)

7) MILLWORK
A) ALL MILLWORK TO BE COMMERCIAL GRADE, PLYWOOD CORE. SEE MILLWORK DETAILS.
B) ALL EXPOSED CABINET FINISH TO BE PRESSURE LAMINATE "BURNT STRANT" 6307 MATTE BY FORMICA
C) ALL INTERIOR CABINET FINISH (INSIDE CABINETS) TO HAVE MELAMINE FINISH.
D) ALL COUNTER-TOPS TO TO BE WHITE COLORCORE 2 LAMINATE MATTE 58 BY FORMICA. BEVEL ALL CHANGES IN SURFACE PLANE, FINISH ALL EXPOSED EDGES. PROVIDE 4" TALL BACKSPLASH (ON ALL ADJACENT WALLS) AROUND ALL SINK COUNTERS TO MATCH COUNTER SPECIFICATION.
E) DOOR PULLS TO BE BRUSHED CHROME "D" TYPE
F) ALL HINGES TO BE FULLY CONCEALED 107 DEGREE, MODULAR OPENING, SELF/ SOFT CLOSING
G) ALL DRAWER GLIDES TO BE BALL BEARING TYPE, FULL EXTENSION, SELF/ SOFT CLOSING.
H) SOLID OAK WOOD WHERE SPECIFIED TO BE SOLID WHITE OAK SANDED AND SEALED WITH ALL FINISHING NAIL/ FASTENING HOLES FILLED TO MATCH.
I) ALL SUPPORTING BRACKETS/ SUPPORTING HARDWARE TO BE BLACK UNLESS OTHERWISE NOTED AND SUITABLE FOR APPLICATION DESIGNED.

8) WASHROOM ITEMS
A) **SOAP DISPENSER** BOBRICK MODEL NO. B-2111 (STAINLESS STEEL)
B) **GRAB BARS** BOBRICK SERIES "**L**" **TYPE** B-6106.99/ **WALL MOUNT SWING DOWN TYPE** B-4998/ **BACK HORIZONTAL** B-6806
C) **TOILET PAPER DISPENSER** SUPPLY BY OWNER, INSTALLED BY CONTRACTOR
D) **WASTE RECEPTACLE** BOBRICK MODEL B-9279 (STAINLESS STEEL) (1 FOR EACH WASHROOM) - WALL MOUNTED
E) **SANITARY NAPKIN DISPOSAL** BOBRICK MODEL B-270 (STAINLESS STEEL) (1 FOR EACH GENDER NEUTRAL WASHROOM, 1 PER FEMALE STALL). CONFIRM EXACT LOCATION BESIDE TOILET WITH CLIENT PRIOR TO BOARDING UP WALL TO ENSURE ADEQUATE BLOCKING
F) **COAT HOOK** BOBRICK MODEL B6707 (SATIN)
G) **SHELF** BOBRICK MODEL B-295 X 18 (STAINLESS STEEL)
H) **PAPER TOWEL DISPENSER** BOBRICK MODEL B-722860
I) **MIRROR (GENERAL WASHROOM)** BOBRICK MODEL B-290 1836 (STAINLESS STEEL)
J) **MIRROR (UNIVERSAL WASHROOM)** BOBRICK MODEL B-293 1836 (STAINLESS STEEL) TILTED MIRROR

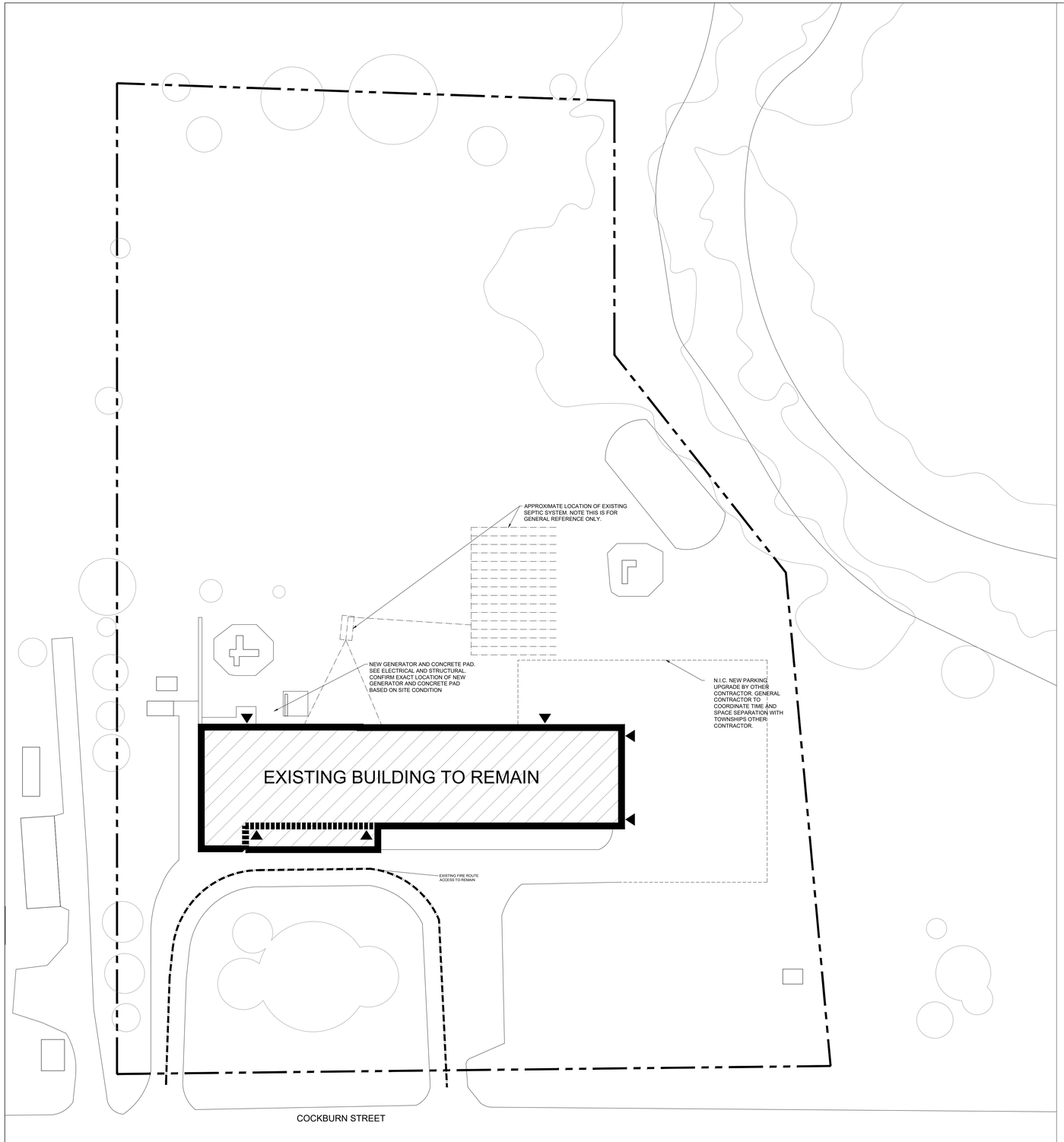
GENERAL CONTRACTOR IS RESPONSIBLE TO PROVIDE ADEQUATE WOOD BLOCKING IN EXISTING AND NEW WALLS AS REQUIRED FOR ALL WALL MOUNTED FIXTURES. COORDINATE ON SITE WITH OWNER FOR EXACT LOCATIONS PRIOR TO BOARDING UP WALLS (REFER TO INTERIOR ELEVATIONS FOR REQUIRED ONTARIO BUILDING CODE MOUNTING HEIGHTS).

9) ROOFING
A) PATCH AND REPAIR ALL EXISTING ROOF ASSEMBLIES IMPACTED BY NEW WORK AND CONSTRUCTION. SUPPLY AND INSTALL NEW ROOFING CURBS FOR ALL NEW ROOF TOP UNITS. ALL NEW ROOFING TO PROVIDE ADEQUATE SLOPE TO EXISTING DRAINS, CONTINUITY OF VAPOUR BARRIER, INSULATION. MISC. BLOCKING, ROOF STRUCTURE, AND WATER TIGHT HOT APPLIED MODIFIED BITUMEN ROOFING MEMBRANE LAPPING OVER EXISTING ROOFING AT ALL JUNCTIONS. ALL ROOFING INSTALLATION TO BE COMPLETED UNDER INDUSTRY STANDARD DUTY OF CARE.

10) MISC.
A) CAST-IN-PLACE COLOUR CONTRAST INSERT - SUPPLY AND INSTALL A COLOUR CONTRASTING INSERT CAST INTO NEW CONCRETE ALONG EDGES OF LANDINGS AND THE TOP AND BOTTOM OF RAMP. PRODUCT TO BE KINESIK ECOGLO S SERIES CAST IN PLACE INSERTS CLEAR ANODIZED ALUMINUM STANDARD BLACK NON-SLIP S1071

10) EXECUTION OF THE WORK
A) ALL OF THE WORK TO BE COMPLETED AS PER MANUFACTURER GUIDELINES AND INDUSTRY STANDARD INSTALLATION PRACTICES UNLESS OTHERWISE NOTED. SUPPLY AND INSTALL ALL REQUIRED BLOCKING, FASTENERS, ADHESIVES, TEMPORARY MEASURES, EQUIPMENT, TOOLS, LABOUR AND MATERIALS AND ALL OTHER ITEMS REQUIRED TO COMPLETE THE WORK. IT IS THE GENERAL CONTRACTORS RESPONSIBILITY TO PROVIDE SITE SECURITY AND SAFETY FROM START OF CONSTRUCTION TO SUBSTANTIAL PERFORMANCE "HAND-OVER". DURING ANY DEFICIENCY RECTIFICATION AFTER HAND-OVER, THE GENERAL CONTRACTOR IS TO CONFIRM AND RECEIVE APPROVAL FROM OWNER THE WORK AREA LOCATION AND TIMEFRAME WHEN WORK WILL BE COMPLETED AND ENSURE SITE SPECIFIC SAFETY AND SECURITY IS ALSO BEING MAINTAINED.
B) GENERAL CONTRACTOR IS RESPONSIBLE TO SUBMIT WRITTEN QUESTION(S) DURING TIME OF TENDERING/ BIDDING IF IT IS BELIEVED THAT THERE IS/ARE MISSING INFORMATION PREVENTING A PROPER AND COMPLETE BID. IT WILL NOT BE ACCEPTABLE FOR THE GENERAL CONTRACTOR TO ADVISE THE CONSULTANT TEAM/ OWNER THAT INFORMATION WAS NOT PROVIDED DURING TIME OF TENDER/ BID THAT DURING CONSTRUCTION IS RESULTING IN AN ADDITIONAL CHANGE TO CONTRACT PRICE OR TIME.
C) GENERAL CONTRACTOR TO NOTE THE EXISTING BUILDING IS COMPOSED OF 2 DIFFERENT STRUCTURES/ BUILDINGS THAT BOTH HAVE DIFFERENT SITE CONDITIONS AS IT RELATES WITH THE NEW WORK. THE ORIGINAL BUILDING IS NOTED AS "NORTH BUILDING" AND THE LATER EXISTING ADDITION IS NOTED AS "SOUTH BUILDING". REFER TO FLOOR PLAN FOR EXTENT. SOUTH BUILDING HIGH CEILING IS 456MM FIRE RATED AND ANY WORK PENETRATING THAT HIGH CEILING MUST BE SMOKE SEALED AND FIRE STOPPED - PATCH AND REPAIR EXISTING 45MIN FIRE RATED HIGH CEILING AS REQUIRED TO COMPLETE NEW WORK WITH 2 LAYERS OF ⅝" TYPE X DRYWALL.

ARCHITECTURAL DRAWING LIST



1
A001
SITE PLAN
SCALE: 1/32" = 1'-0"

LEGEND

EXISTING BUILDING TO REMAIN

EXISTING BUILDING ENTRANCE TO REMAIN

EXISTING PROPERTY LINE TO REMAIN (APPROXIMATE - FOR REFERENCE ONLY)

EXISTING FIRE ACCESS ROUTE TO REMAIN

EXISTING TREE(S) TO REMAIN

NOTES

- THIS DRAWING IS FOR GENERAL REFERENCE ONLY AND IS NOT TO BE CONFUSED WITH A SURVEY PLAN
- GENERAL CONTRACTOR IS RESPONSIBLE TO SUPPLY, INSTALL AND MAINTAIN ADEQUATE CONSTRUCTION FENCE PERIMETER AROUND ALL CONSTRUCTION WORK SITE ACTIVITIES. GENERAL CONTRACTOR TO VISIT SITE PRIOR TO SUBMITTING A BID AND ALLOW FOR CONSTRUCTION LAY-DOWN AREA/ SECURE HOARDING FENCE AREA SIZED AS THEY DEEM REQUIRED TO COMPLETE THE WORK AND CARRY ALL COSTS IN BASE BID.
- GENERAL CONTRACTOR IS RESPONSIBLE TO PATCH, REPAIR, MODIFY, REPLACE ALL EXISTING PROPERTY DAMAGED/ IMPACTED BY CONSTRUCTION AND RETURN PROPERTY BACK TO STATE PRIOR TO CONSTRUCTION STARTING.

ALL INFORMATION SHOWN ON THIS SITE PLAN IS FOR GENERAL REFERENCE ONLY AND SHOULD NOT BE CONFUSED WITH A SURVEY DRAWING.

NO.	DESCRIPTION	DATE
1.	ISSUED FOR TENDER/ PERMIT	2024.03.08

REVISIONS

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PROJECT

TOWNSHIP OF NORTH STORMONT - NEW TOWN HALL RENOVATION

ONTARIO ASSOCIATION OF ARCHITECTS
ALEXANDER W. WARWICK
LICENCE
8226

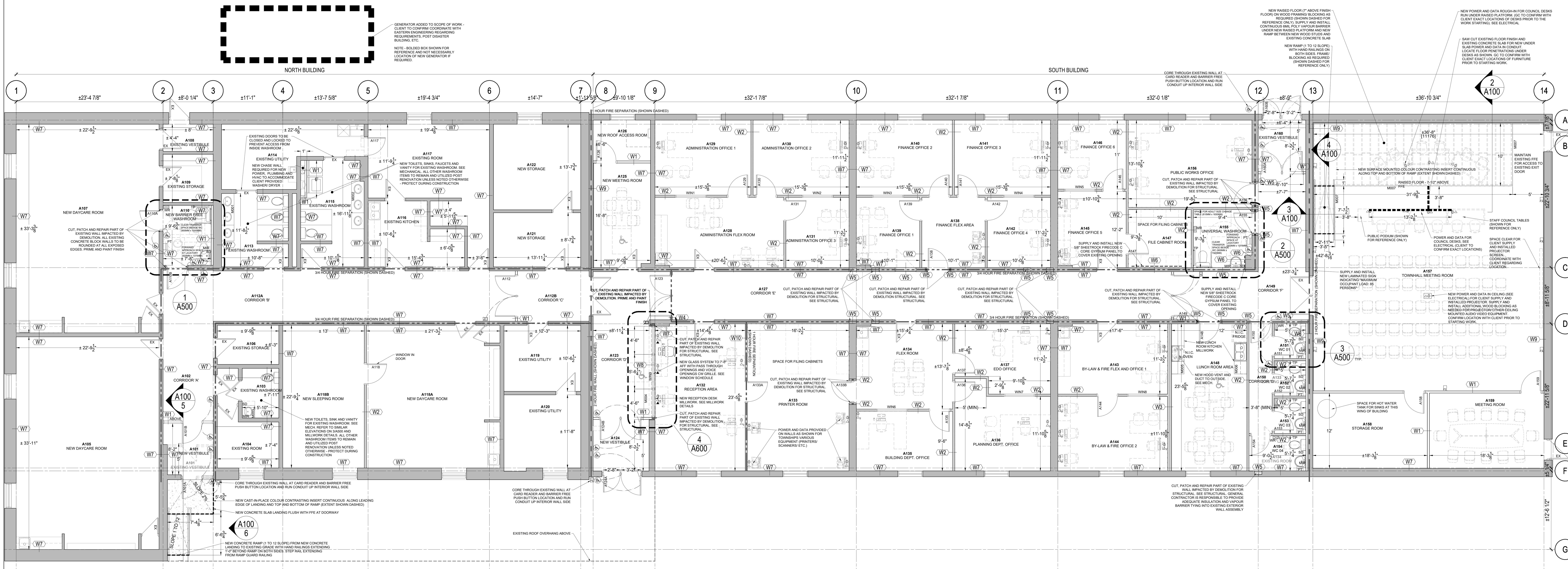
NORTH

ISSUED FOR CONSTRUCTION DATE

SHEET TITLE

SITE PLAN

SHEET NO.	DRAWN BY	CHECKED
A001	AW	AW
	SCALE	1/32" = 1'-0"



1 A100 OVERALL FLOOR PLAN

SCALE: 1/8" = 1'-0"

LEGEND

- NEW DOOR AND FRAME. SEE DOOR TAG AND REFER TO DOOR SCHEDULE
- EXISTING DOOR AND FRAME TO REMAIN. EXISTING DOOR AND FRAMES TO BE HAVE SURFACE PREPARATION AND RECEIVE NEW PRIME AND PAINT
- EXISTING WALL TO REMAIN. PATCH AND REPAIR READY FOR NEW PRIME AND PAINT FINISH. MODIFY EXISTING WALLS AS REQUIRED TO PROVIDE WOOD BLOCKING WITHIN WALLS AS REQUIRED FOR ALL SPECIFIED WALL MOUNTED ITEMS, TYPICAL.
- WX — NEW WALL - SEE WALL TYPE SCHEDULE FOR ASSEMBLY. PROVIDE WOOD BLOCKING WITHIN WALLS AS REQUIRED FOR ALL SPECIFIED WALL MOUNTED ITEMS, TYPICAL.
- WIN6 — NEW WINDOW - PROVIDE ROUGH-OPENING BLOCKING WITHIN WALL FOR NEW WINDOW. SEE WINDOW SCHEDULE.
- LOCATION OF NEW CARD READER TIED TO DOOR SECURITY SYSTEM - SEE ELECTRICAL
- NEW AUTOMATIC DOOR OPERATOR WITH BARRIER FREE PUSH BUTTONS. SEE ELECTRICAL
- ACCESSIBLE CLEAR SPACE
- EXISTING FURNITURE TO BE RELOCATED BY TOWNSHIP SHOWN DASHED FOR REFERENCE AND DESIGN COORDINATION.
- NEW OR EXISTING FIRE SEPARATION (SEE PLAN)
- NEW TOILET (SEE MECHANICAL). PROVIDE OBC COMPLIANT GRAB BARS AS SHOWN FOR ALL UNIVERSAL/ ACCESSIBLE WASHROOMS - SEE INTERIOR ELEVATIONS FOR LOCATIONS.
- NEW SINK (SEE MECHANICAL). PROVIDE BLOCKING/ CARRIER SYSTEM AS REQUIRED FOR SINK SPECIFIED BY MECHANICAL. PATCH AND REPAIR ANY EXISTING WALLS IMPACTED, PAINT FINISH.

M00X - NEW MILLWORK ITEM, SEE MILLWORK DETAILS

WINX - NEW WINDOW AND FRAME SYSTEM, SEE WINDOW SCHEDULE

PT - SUPPLY AND INSTALL NEW PAPER TOWEL DISPENSER. COORDINATE WITH OWNER ON MAKE AND MODEL.

SD - SUPPLY AND INSTALL NEW SOAP DISPENSER. COORDINATE WITH OWNER ON MAKE AND MODEL

MIR - SUPPLY AND INSTALL NEW MIRROR. TILTED MIRROR FOR UNIVERSAL AND ACCESSIBLE WASHROOMS

TP - SUPPLY AND INSTALL NEW TOILET PAPER DISPENSER. COORDINATE WITH OWNER ON MAKE AND MODEL.

WR - SUPPLY AND INSTALL NEW WASTE RECEPTACLE

N.I.C.- NOT IN CONTRACT

LEGEND - ELECTRICAL ITEMS SHOWN FOR INITIAL COORDINATION PURPOSES

- LOCATION OF NEW DUPLEX POWER OUTLET - SEE ELECTRICAL.

  NOTE ADDITIONAL POWER OUTLETS REQUIRED ALONG WALLS AS TYPICALLY SHOWN AND TO POWER VARIOUS EQUIPMENT. SPECIFIC LOCATION FOR WORK STATIONS AND/ OR OFFICE EQUIPMENT SHOWN ON THIS DRAWING FOR COORDINATION BUT DOES NOT REPRESENT ALL REQUIRED OUTLET LOCATIONS.
- LOCATION OF NEW DATA OUTLET - SEE ELECTRICAL
- LOCATION OF NEW DOUBLE DATA OUTLET - SEE ELECTRICAL
- LOCATION OF NEW TELEPHONE OUTLET - SEE ELECTRICAL
- LOCATION OF NEW CARD READER TIED TO DOOR SECURITY SYSTEM - SEE ELECTRICAL
- LOCATION OF PA SPEAKER (LOCATION ON PLAN FOR REFERENCE ONLY - FINAL LAYOUT TO BE CONFIRMED BE QUALIFIED CONSULTANT). COORDINATE WITH TOWNSHIP REGARDING UTILIZATION OF EXISTING EQUIPMENT AND ROUGH-IN REQUIREMENT - SEE ELECTRICAL

WALL TYPE SCHEDULE

W1
- ⅝" DRYWALL TO 6" ABOVE CEILING
- 2" x 4" STEEL STUDS @ 16" C.C. TO UNDERSIDE OF EXISTING FIRE RATED DRYWALL HIGH CEILING (SOUTH BUILDING) OR EXISTING ROOF DECK (NORTH BUILDING)
- ⅝" DRYWALL TO 6" ABOVE CEILING

W2
- ⅝" DRYWALL TO UNDERSIDE OF EXISTING FIRE RATED DRYWALL HIGH CEILING (SOUTH BUILDING) OR EXISTING ROOF DECK (NORTH BUILDING)
- 2" x 4" STEEL STUDS @ 16" C.C. TO UNDERSIDE OF EXISTING FIRE RATED DRYWALL HIGH CEILING (SOUTH BUILDING) OR EXISTING ROOF DECK (NORTH BUILDING)
- 3 ½" SOUND BATT INSULATION
- ⅝" DRYWALL TO UNDERSIDE OF EXISTING FIRE RATED DRYWALL HIGH CEILING (SOUTH BUILDING) OR EXISTING ROOF DECK (NORTH BUILDING)

NOTE - USE WATER RESISTANT DRYWALL IN ALL BATHROOM AND LUNCH ROOM AREA'S

W3
- ⅝" DRYWALL TO UNDERSIDE OF EXISTING FIRE RATED DRYWALL HIGH CEILING (SOUTH BUILDING) OR EXISTING ROOF DECK (NORTH BUILDING)
- 2" x 4" STEEL STUDS @ 16" C.C. TO UNDERSIDE OF EXISTING FIRE RATED DRYWALL HIGH CEILING (SOUTH BUILDING) OR EXISTING ROOF DECK (NORTH BUILDING)
- 3 ½" SOUND BATT INSULATION
- 2" x 4" STEEL STUDS STAGGERED @ 16" C.C. TO UNDERSIDE OF EXISTING FIRE RATED DRYWALL HIGH CEILING (SOUTH BUILDING) OR EXISTING ROOF DECK (NORTH BUILDING)
- 3 ½" SOUND BATT INSULATION
- ⅝" DRYWALL TO UNDERSIDE OF EXISTING FIRE RATED DRYWALL HIGH CEILING (SOUTH BUILDING) OR EXISTING ROOF DECK (NORTH BUILDING)

NOTE - USE WATER RESISTANT DRYWALL IN LUNCH ROOM AREA'S

W4 — 1 HOUR FIRE RATED CONSTRUCTION - ULC DES W301 (NOTE, ¾ HR FIRE RATING REQUIRED BY CODE)
- 5/8" SHEETROCK FIRECODE C CORE GYPSUM PANELS TO UNDERSIDE OF EXISTING FIRE RATED DRYWALL HIGH CEILING (SOUTH BUILDING) OR EXISTING ROOF DECK (NORTH BUILDING)
- 2" x 6" WOOD STUDS @ 16" C.C. TO UNDERSIDE OF EXISTING FIRE RATED DRYWALL HIGH CEILING (SOUTH BUILDING) OR EXISTING ROOF DECK (NORTH BUILDING)
- 5/8" SHEETROCK FIRECODE C CORE GYPSUM PANELS TO UNDERSIDE OF EXISTING FIRE RATED DRYWALL HIGH CEILING (SOUTH BUILDING) OR EXISTING ROOF DECK (NORTH BUILDING)

PATCH AND MAINTAIN 45MIN CEILING FIRE SEPARATION AT TOP OF SOUTH BUILDING NEW FIRE RATED WALLS

W5 — 1 HOUR FIRE RATED CONSTRUCTION - ULC DES W327 (NOTE, ¾ HR FIRE RATING REQUIRED BY CODE) — TO MATCH EXISTING
- 5/8" SHEETROCK FIRECODE C CORE GYPSUM PANELS TO UNDERSIDE OF EXISTING FIRE RATED DRYWALL HIGH CEILING (SOUTH BUILDING) OR EXISTING ROOF DECK (NORTH BUILDING)
- 2" x 6" WOOD STUDS @ 16" C.C. TO UNDERSIDE OF EXISTING FIRE RATED DRYWALL HIGH CEILING (SOUTH BUILDING) OR EXISTING ROOF DECK (NORTH BUILDING)
- 3" MINERAL WOOL BATT BETWEEN STUDS
- RESILIENT CHANNEL ONE SIDE (CORRIDOR FACING SIDE) TO MATCH EXISTING CORRIDOR WALL THICKNESS
- 5/8" SHEETROCK FIRECODE C CORE GYPSUM PANELS TO UNDERSIDE OF EXISTING FIRE RATED DRYWALL HIGH CEILING (SOUTH BUILDING) OR EXISTING ROOF DECK (NORTH BUILDING)

PATCH AND MAINTAIN 45MIN CEILING FIRE SEPARATION AT TOP OF SOUTH BUILDING NEW FIRE RATED WALLS

W6
- EXISTING WALL TO REMAIN (SHOWN SHADED)
- NEW ⅝" DRYWALL ON EXISTING STUDS TO 6" ABOVE CEILING

NOTE - USE WATER RESISTANT DRYWALL IN ALL BATHROOM AND LUNCH ROOM AREA'S

W7
- EXISTING WALL TO REMAIN (SHOWN SHADED)
- PATCH EXISTING INTERIOR WALL AS REQUIRED TO ACHIEVE FLAT, UNIFORM WALL READY FOR FINISH FROM FLOOR TO NEW CEILING LOCATION

NOTE - EXISTING HOLES IN EXISTING WALL TO BE PATCHED AND REPAIRED. CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXTENT OF PATCHING PRIOR TO SUBMITTING BID.

THIS NOTE APPLIES TO ALL TYPES OF EXISTING WALL FINISHES IN EXISTING BUILDING - EXAMPLES; DRYWALL, PLASTER, CONCRETE BLOCK, BRICK, ETC.

W8
- ⅝" DRYWALL TO 6" ABOVE NEW CEILING
- 2" x 6" STEEL STUDS @ 16" C.C. TO UNDERSIDE OF EXISTING FIRE RATED DRYWALL HIGH CEILING (SOUTH BUILDING) OR EXISTING ROOF DECK (NORTH BUILDING)
- ⅝" DRYWALL TO 6" ABOVE NEW CEILING

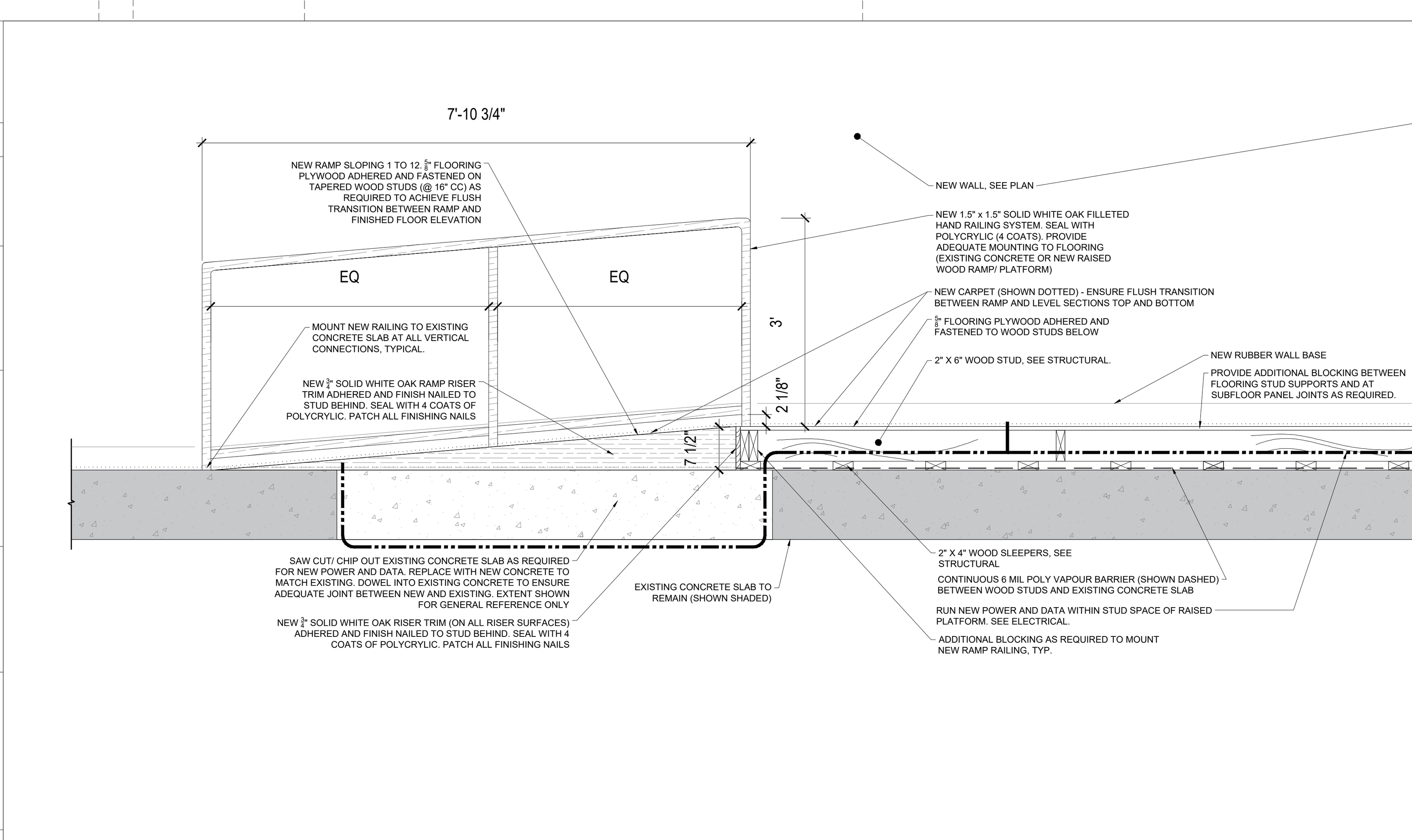
W9
- ⅞" FURRING HAT CHANNEL @ 16" C.C. FASTENED TO EXISTING WALL
- ⅝" DRYWALL TO 6" ABOVE NEW CEILING

W10 — 1 HOUR FIRE RATED CONSTRUCTION - UL DES U407 (NOTE, ¾ HR FIRE RATING REQUIRED BY CODE)
- 5/8" SHEETROCK FIRECODE C CORE GYPSUM PANELS TO UNDERSIDE OF EXISTING FIRE RATED DRYWALL HIGH CEILING (SOUTH BUILDING) OR EXISTING ROOF DECK (NORTH BUILDING)
- 2" x 4" STEEL STUDS @ 16" C.C. TO UNDERSIDE OF EXISTING FIRE RATED DRYWALL HIGH CEILING (SOUTH BUILDING) OR EXISTING ROOF DECK (NORTH BUILDING)
- 3" MINERAL WOOL BATT BETWEEN STUDS
- 5/8" SHEETROCK FIRECODE C CORE GYPSUM PANELS TO UNDERSIDE OF EXISTING FIRE RATED DRYWALL HIGH CEILING (SOUTH BUILDING) OR EXISTING ROOF DECK (NORTH BUILDING)

PATCH AND MAINTAIN 45MIN CEILING FIRE SEPARATION AT TOP OF SOUTH BUILDING NEW FIRE RATED WALLS

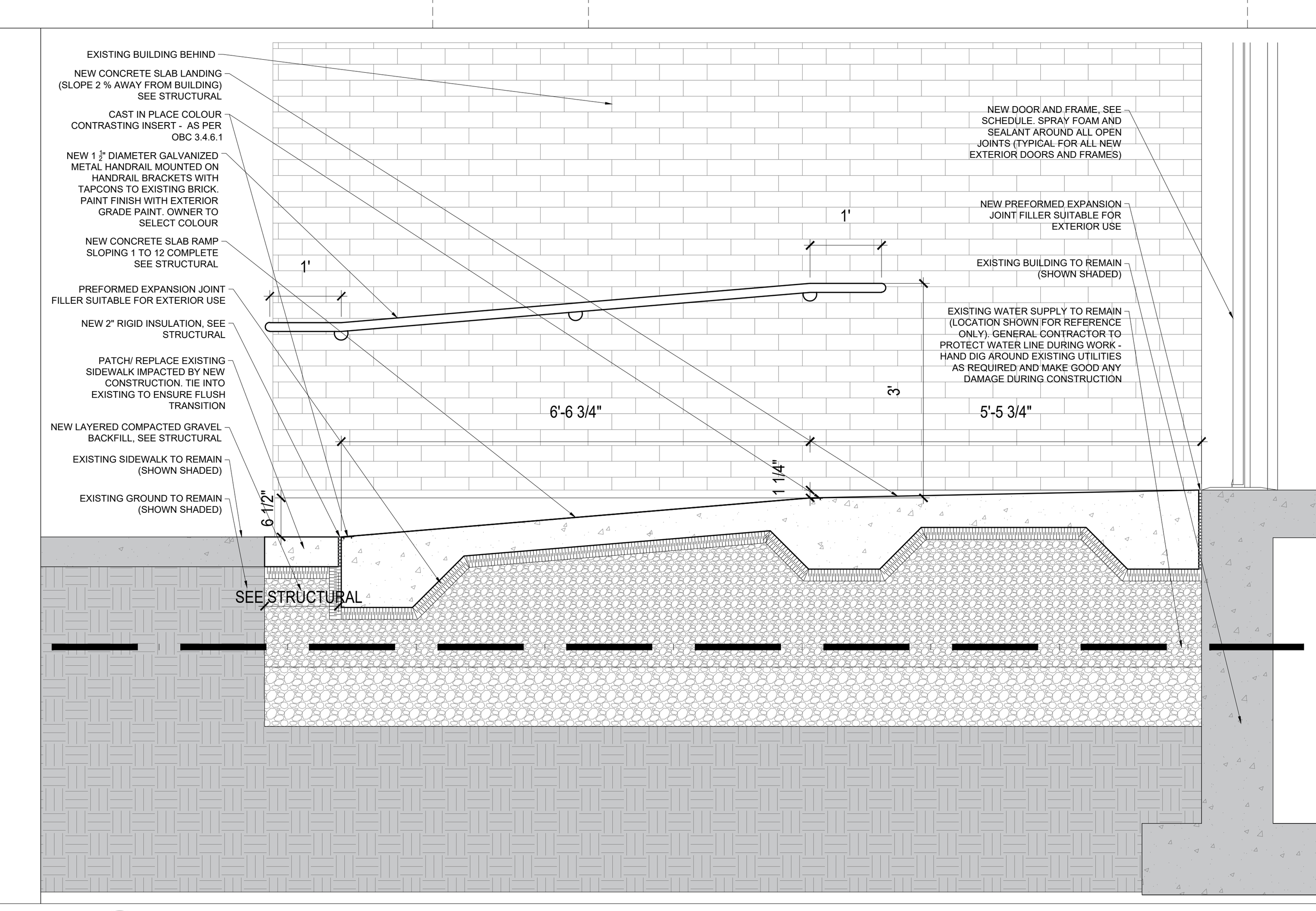
GENERAL NOTES

PATCH AND REPAIR EXISTING FIRE RATED CEILING AS REQUIRED. FRAME AROUND DUCTWORK/ OTHER BUILDING ITEMS AS REQUIRED. SEE DETAILS ON DRAWING A301.
COORDINATE WITH ENGINEERING DRAWINGS FOR ADDITIONAL DEMOLITION AND PATCHING OF EXISTING BUILDING AS REQUIRED TO COMPLETE NEW WORK.



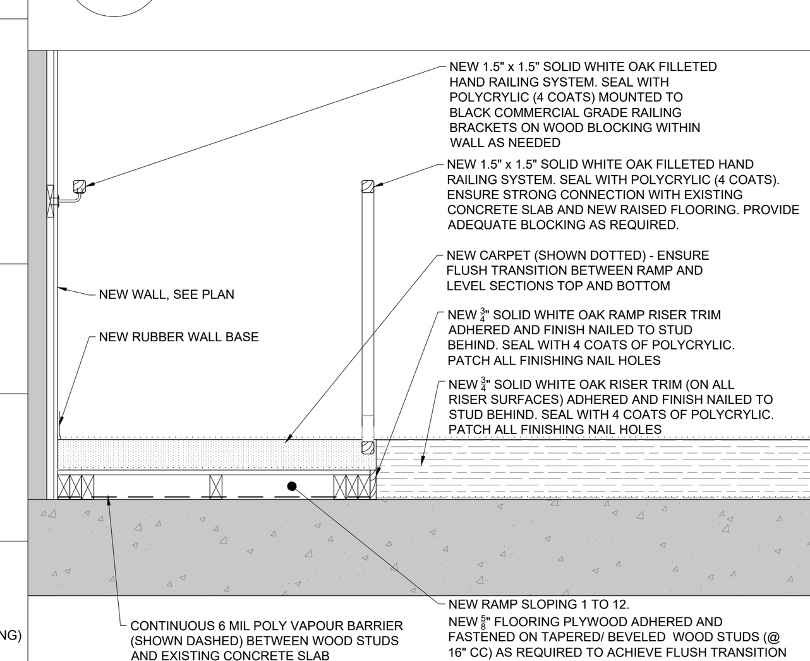
2 A100 RAISED PLATFORM SECTION DETAIL

SCALE: 1/2" = 1'-0"



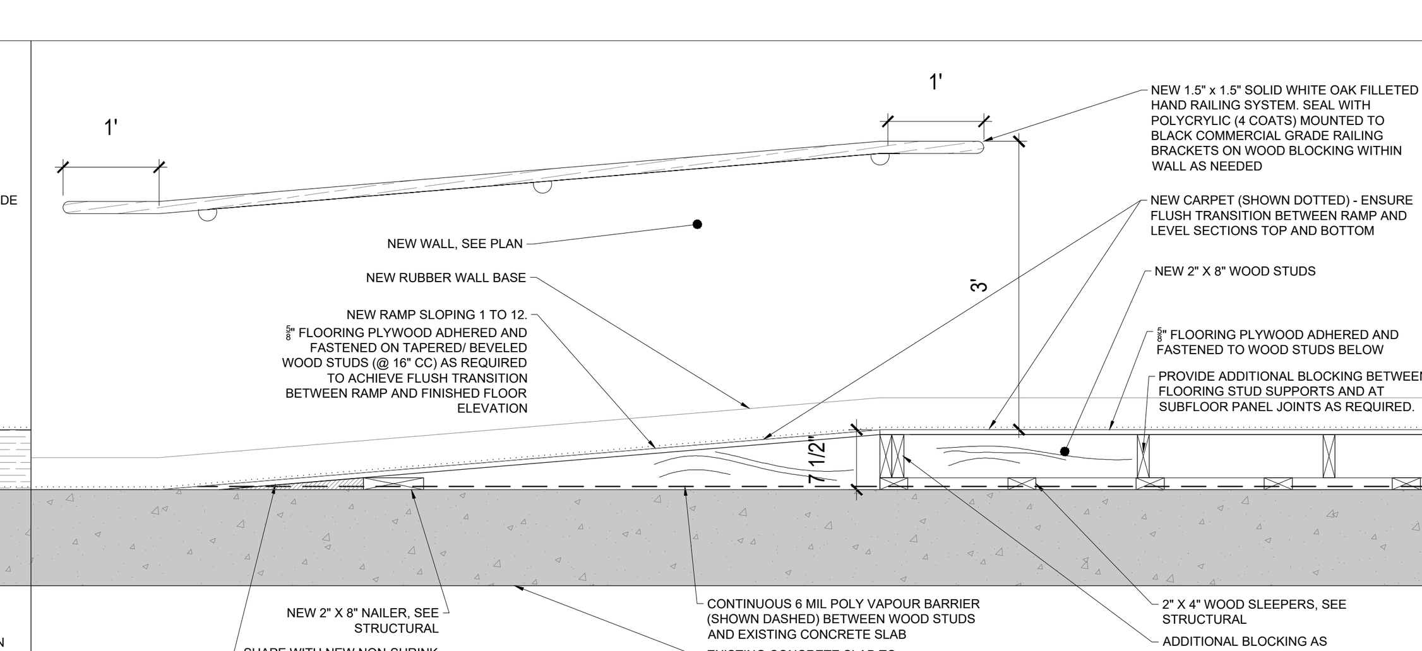
5 A100 EXTERIOR RAMP SECTION DETAIL

SCALE: 1/2" = 1'-0"



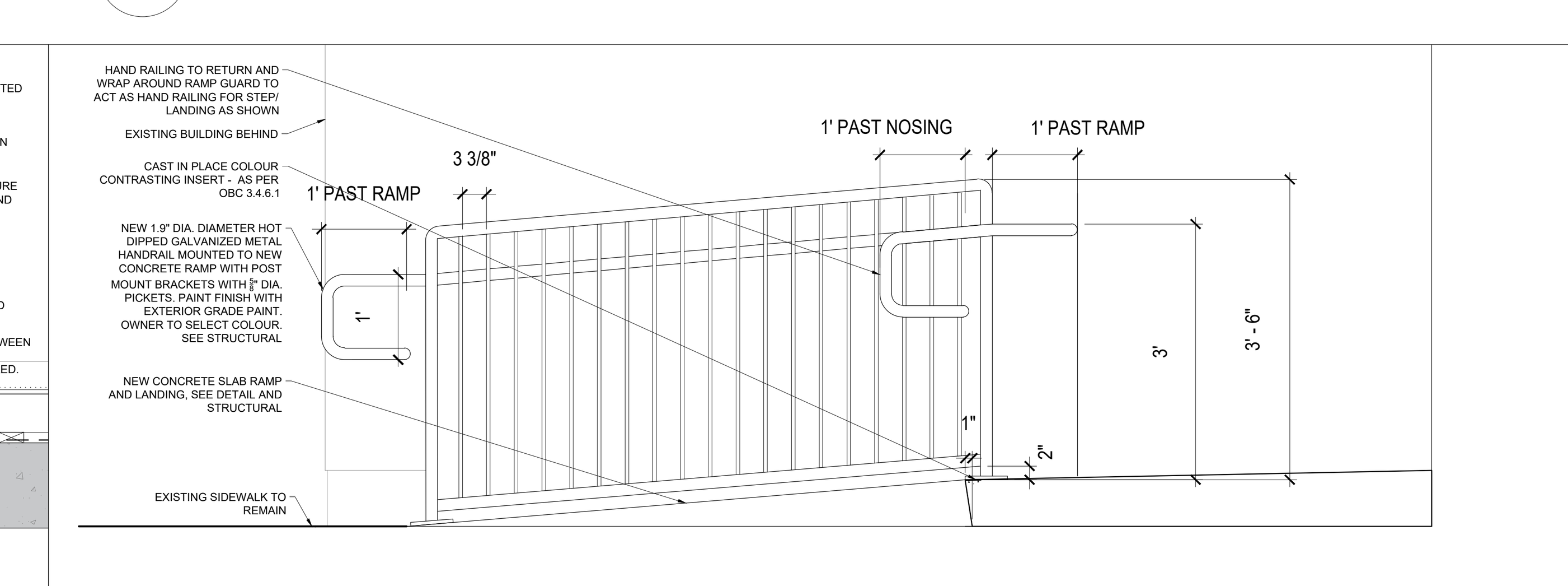
3 A100 RAMP CROSS SECTION DETAIL

SCALE: 1/2" = 1'-0"



4 A100 RAMP LONGITUDINAL SECTION DETAIL

SCALE: 1/2" = 1'-0"



6 A100 EXTERIOR RAMP RAILING ELEVATION

SCALE: 1/2" = 1'-0"

NO.	DESCRIPTION	DATE
5.	ISSUED FOR TENDER/ PERMIT	2024.03.08
4.	ISSUED FOR CLIENT REVIEW	2024.01.11
3.	ISSUED FOR CLIENT REVIEW	2023.12.14
2.	ISSUED FOR CLIENT REVIEW	2023.12.08
1.	ISSUED FOR CLIENT REVIEW	2023.12.01

REVISIONS

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2118 Valley St. Moose Creek, ON.

PROJECT

TOWNSHIP OF NORTH STORMONT - NEW TOWN HALL RENOVATION

ONTARIO ASSOCIATION OF ARCHITECTS — ALEXANDER W. WARWICK — LICENCE 8226

NORTH

The contractor shall check and verify all dimensions and report all errors and ommisions to the architect and the design professional whose seal is affixed to this drawing. Do not scale the drawings.

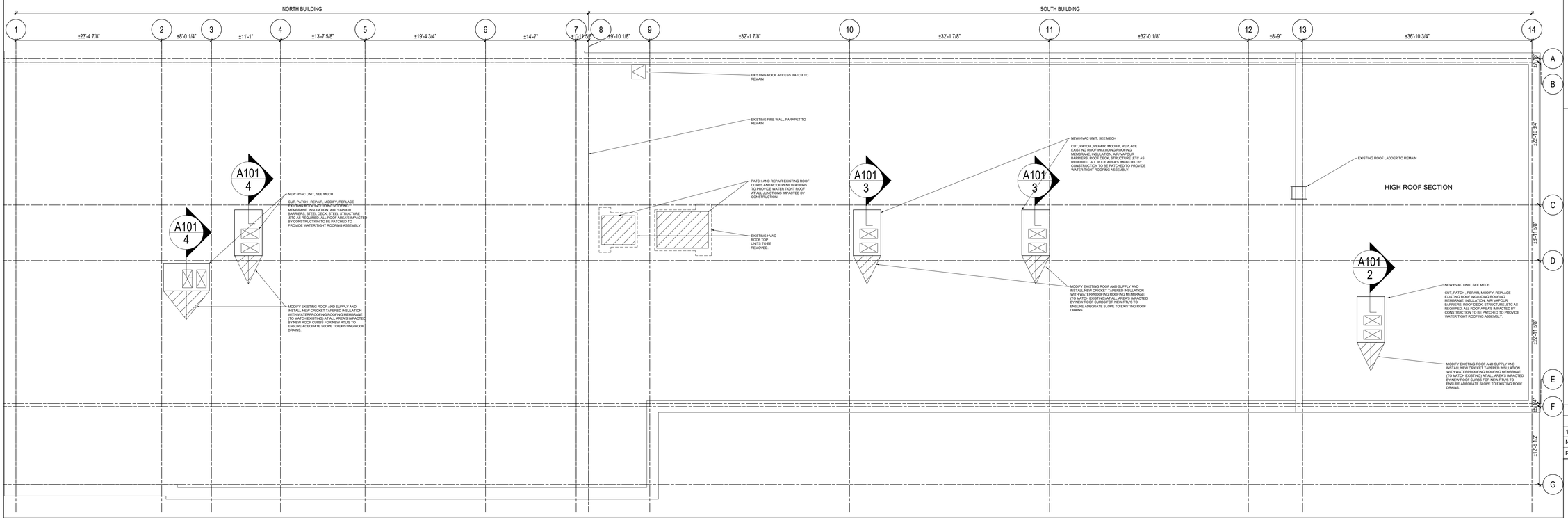
This drawing shall not be used for construction purposes until issued for construction by the design professional whose seal is affixed to this drawing and whose signature is below.

ISSUED FOR CONSTRUCTION — DATE

SHEET TITLE

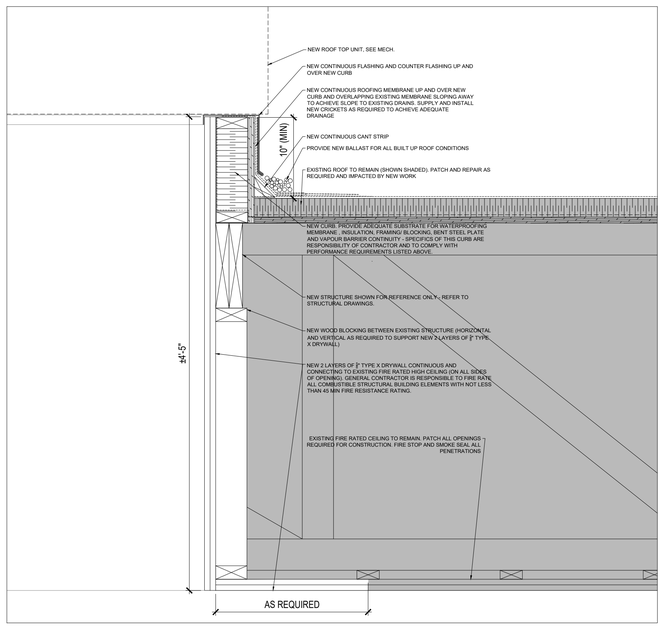
OVERALL FLOOR PLAN AND DETAILS

SHEET NO.	DRAWN BY	CHECKED
A100	AW	AW
	SCALE	1/8" = 1'-0"



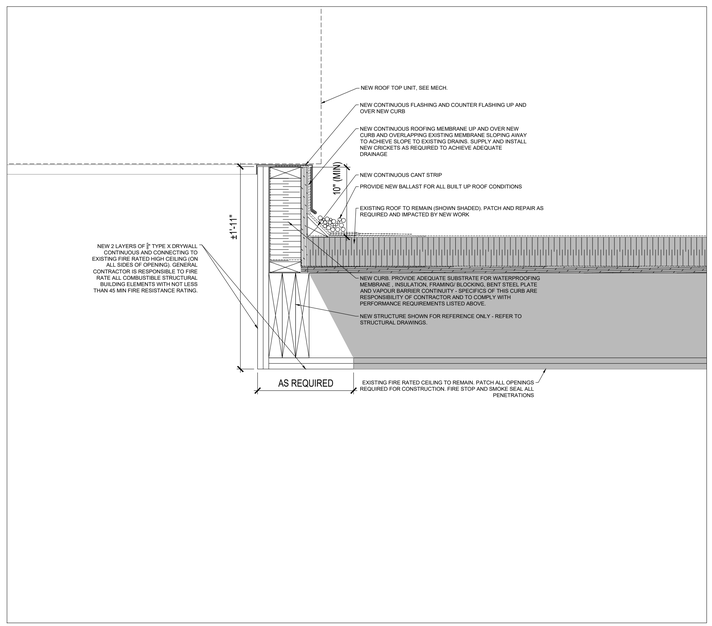
1 A101 — ROOF PLAN - DEMO AND NEW WORK

SCALE: 1/8" = 1'-0"



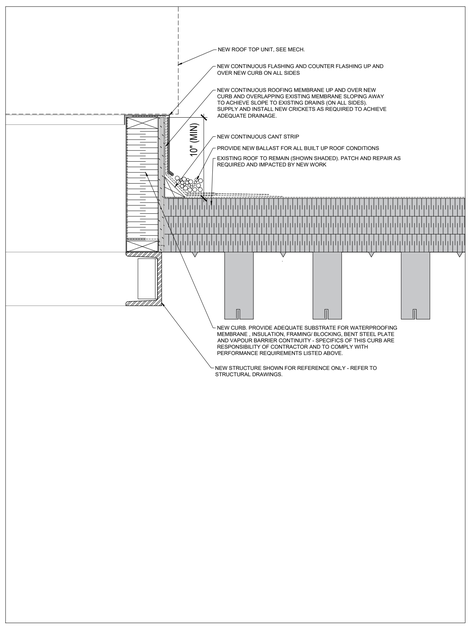
2 A101 — TYPICAL DETAIL - NEW CURB FOR NEW RTU @ SOUTH BUILDING

SCALE: 1-1/2" = 1'-0"



3 A101 — TYPICAL DETAIL - NEW CURB FOR NEW RTU @ SOUTH BUILDING

SCALE: 1-1/2" = 1'-0"



4 A101 — TYPICAL DETAIL - NEW CURB FOR NEW RTU @ NORTH BUILDING

SCALE: 1-1/2" = 1'-0"

ROOF PLAN GENERAL NOTES

1. ALL EXISTING BUILDING ELEMENTS DAMAGED/ IMPACTED BY DEMOLITION TO BE REPAIRED, PATCHED AND MADE GOOD READY FOR FINISH
2. THIS DRAWING IS TO BE COORDINATED WITH STRUCTURAL, MECHANICAL & ELECTRICAL DRAWINGS. ANY DISCREPANCIES IN THE DRAWINGS ARE TO BE REPORTED TO CONSULTANT TEAM.
3. CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY PROTECTION FOR ALL EXISTING BUILDING COMPONENTS/ EQUIPMENT FOR DURATION OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT/ REPAIR OF ANY EQUIPMENT DAMAGED DUE TO CONSTRUCTION.
4. ALL DIMENSIONS SHOWN ARE APPROXIMATE AND FOR GENERAL REFERENCE.
5. GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY SHORING/ SUPPORT FOR STRUCTURAL LOAD BEARING WALLS OR NEW OPENINGS IN ROOF ASSEMBLY PRIOR TO PERMANENT STRUCTURE BEING IN PLACE.
6. DEMOLITION/ REMOVAL NOTED ON THIS DRAWING REFERS TO THE CAREFUL DEMOLITION OF IDENTIFIED BUILDING COMPONENTS AND REMOVAL FROM PROPERTY TO DESIGNATED DISPOSAL LOCATION.
7. COORDINATE EXACT LOCATION BASED ON STRUCTURAL, MECHANICAL, ELECTRICAL DRAWINGS AND ON-SITE CONDITIONS TO SUIT DESIGN INTENT. NOTIFY CONSULTANT TEAM OF ANY DISCREPANCY BETWEEN DRAWINGS AND SITE CONDITION RESULTING IN A CHANGE TO THE DESIGN INTENT.
8. GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY ROOFING MEMBRANE/ BUILDING PROTECTION DURING THE ROOF WORK AS REQUIRED TO ENSURE SECURE AND WATER TIGHT ROOF CONDITION.
9. ALL ROOF PATCHING TO MATCH EXISTING ROOF ASSEMBLY AND ENSURE WATER TIGHT ROOF ASSEMBLY SUPPLY AND INSTALLED BY QUALIFIED ROOFING CONTRACTOR.

NO.	DESCRIPTION	DATE
1.	ISSUED FOR TENDER/ PERMIT	2024.03.08

REVISIONS

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PROJECT

TOWNSHIP OF NORTH STORMONT - NEW TOWN HALL RENOVATION

ONTARIO ASSOCIATION OF ARCHITECTS
ALEXANDER W. WARWICK
LICENCE
8226

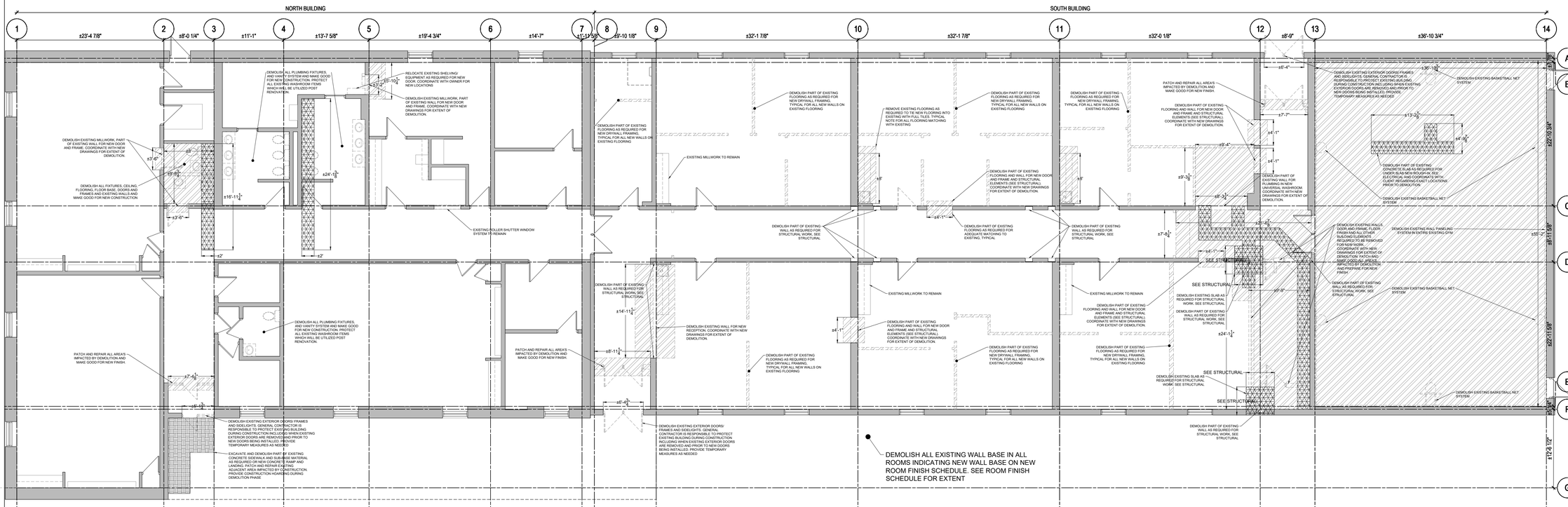
NORTH

ISSUED FOR CONSTRUCTION DATE

SHEET TITLE

ROOF PLAN - DEMO AND NEW WORK

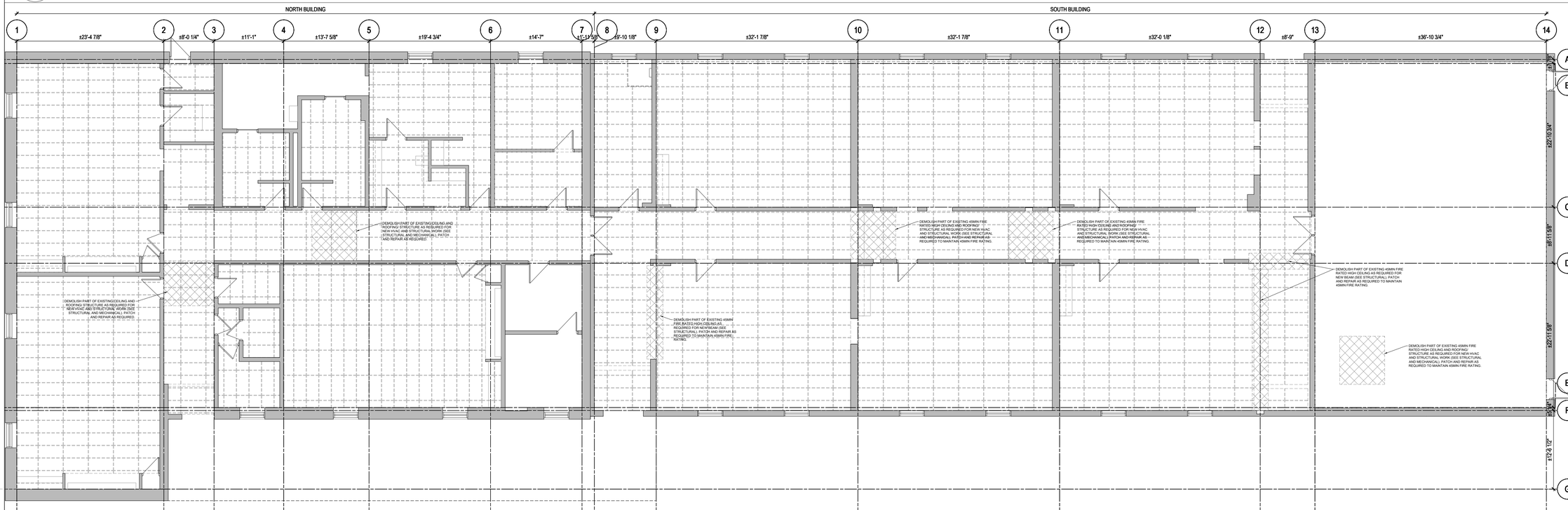
SHEET NO.	DRAWN BY	CHECKED
A101	AW	AW
	SCALE	1/8" = 1'-0"



1 A200

DEMO PLAN - GENERAL AND FLOOR

SCALE: 1/8" = 1'-0"



2 A200

DEMO PLAN - CEILING

SCALE: 1/8" = 1'-0"

GENERAL DEMO AND FLOOR DEMO LEGEND

EXISTING DOOR, DOOR FRAME, SIDELITE, WALL MILLWORK, FIXTURE, EQUIPMENT, ALL OTHER EXISTING BUILDING MATERIAL ETC TO BE DEMOLISHED AND REMOVED FROM SITE. MAKE GOOD ALL TRADES TO AFFECTED AREAS AFTER DEMOLITION IN PREPARATION OF THE NEW WORK

EXISTING FLOORING SYSTEM TO BE REMOVED AND MADE GOOD TO RECEIVE NEW FLOOR FINISH. DEMOLISH EXTENT AS REQUIRED TO TIE INTO EXISTING FLOORING WITH A FULL FLOORING TILE
SOUTH BUILDING - EXISTING VCT
NORTH BUILDING - EXISTING TERRAZZO

EXTENT OF EXISTING FLOOR FINISH AND CONCRETE SLAB TO BE CUT, REMOVED AND DISPOSED AS REQUIRED FOR MECHANICAL AND ELECTRICAL UNDER SLAB ROUGH-IN CONNECTIONS. SEE MECHANICAL AND ELECTRICAL
SOUTH BUILDING - EXISTING ±12" THICK CONCRETE SLAB AND EXISTING VCT
NORTH BUILDING - EXISTING ±7" CONCRETE SLAB AND TERRAZZO.

REPLACE WITH NEW CONCRETE TO MATCH EXISTING. MAKE GOOD READY FOR NEW FLOOR FINISH. SAW CUT EXISTING CONCRETE FOR ADEQUATE NEW CONCRETE SLAB JOINING TO EXISTING

EXISTING CONCRETE SIDEWALK AND SUB-BASE MATERIAL TO BE EXCAVATED AND REMOVED AS REQUIRED FOR NEW FROST SLAB AND RAMP.

GENERAL DEMO AND FLOOR DEMO NOTES

1. ALL EXISTING WALLS DAMAGED/ IMPACTED BY DEMOLITION TO BE REPAIRED, PATCHED AND MADE GOOD READY FOR FINISH.
2. THIS DRAWING IS TO BE COORDINATED WITH STRUCTURAL, MECHANICAL & ELECTRICAL DRAWINGS. ANY DISCREPANCIES IN THE DRAWINGS ARE TO BE REPORTED TO CONSULTANT TEAM.
3. CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY PROTECTION FOR ALL EXISTING BUILDING COMPONENTS/ EQUIPMENT FOR DURATION OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT/ REPAIR OF ANY COMPONENT DAMAGED DUE TO CONSTRUCTION.
4. CONTRACTOR IS RESPONSIBLE TO REMOVE ANY LOOSE FURNITURE/ SHELVING/ ETC. THAT IS CURRENTLY LOCATED ON SITE BUT NOT NECESSARILY SHOWN ON DRAWINGS.
5. ALL DIMENSIONS SHOWN ARE APPROXIMATE AND FOR GENERAL REFERENCE.
6. GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY SHORING/ SUPPORT FOR STRUCTURAL LOAD BEARING WALLS/ STRUCTURAL ELEMENTS.
7. DEMOLITION/ REMOVAL NOTED ON THIS DRAWING REFERS TO THE CAREFUL DEMOLITION OF IDENTIFIED BUILDING COMPONENTS AND REMOVAL FROM PROPERTY TO DESIGNATED DISPOSAL LOCATION.
8. ALL FLOOR AREAS WHERE EXISTING FLOOR FINISH HAS BEEN REMOVED TO ACCOMMODATE NEW PLUMBING FIXTURES AND CONNECTIONS TO BE PROPERLY PREPARED FOR NEW FINISH WITH LEVELING COMPOUND, SMOOTH AND CLEAN TO RECEIVE NEW FLOORING.
9. CONTRACTOR IS RESPONSIBLE FOR X-RAY STUDY OF EXISTING CONCRETE FLOOR SLAB BEFORE CUTTING TO ENSURE STRUCTURAL INTEGRITY OF THE FLOOR SLAB AND NO EXISTING UNDERGROUND SERVICE TO BE AFFECTED
10. REFER TO FLOOR FINISH PLAN, ROOM FINISH SCHEDULE AND STRUCTURAL/ ELECTRICAL/ MECHANICAL DRAWINGS AND SPECIFICATIONS TO MAKE NECESSARY ALLOWANCES FOR DEMOLITION, REMOVAL AND INSTALLATION OF NEW STRUCTURAL/ MECHANICAL / ELECTRICAL MODIFICATIONS AND CONNECTIONS.

CEILING DEMO LEGEND

SOUTH BUILDING - EXISTING T-BAR SYSTEM AND ACOUSTIC CEILING TILES TO BE DEMOLISHED AND MADE GOOD FOR NEW CEILING SYSTEM. EXISTING UPPER DRYWALL CEILING TO REMAIN. PATCH AND REPAIR AS REQUIRED TO MAINTAIN EXISTING 45 MIN FIRE RATING.

NORTH BUILDING - EXISTING CEILING TO BE REMOVED AS REQUIRED - GENERAL CONTRACTOR CAN ABANDON EXISTING HIGH CEILING AS ALLOWED FOR NEW WORK.

EXISTING 45MIN DOUBLE LAYER TYPE X DRYWALL TO BE REMOVED FOR NEW FIRE RATED WALL. PATCH AND REPAIR EXISTING FIRE RATED HIGH CEILING AS REQUIRED TO MAINTAIN 45MIN FIRE RATING.

CEILING DEMO NOTES

1. THIS DRAWING IS TO BE COORDINATED WITH STRUCTURAL, MECHANICAL & ELECTRICAL DRAWINGS. ANY DISCREPANCIES IN THE DRAWINGS ARE TO BE REPORTED TO CONSULTANT TEAM.
2. REFER TO REFLECTED CEILING PLAN TO MAKE NECESSARY CHANGES OR DEMOLITION TO MATCH NEW DESIGN INTENT.

NO.	DESCRIPTION	DATE
1.	ISSUED FOR TENDER/ PERMIT	2024.03.08

REVISIONS

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PROJECT

TOWNSHIP OF NORTH STORMONT - NEW TOWN HALL RENOVATION

ONTARIO ASSOCIATION OF ARCHITECTS
ALEXANDER W. WARWICK
LICENCE
8226

NORTH

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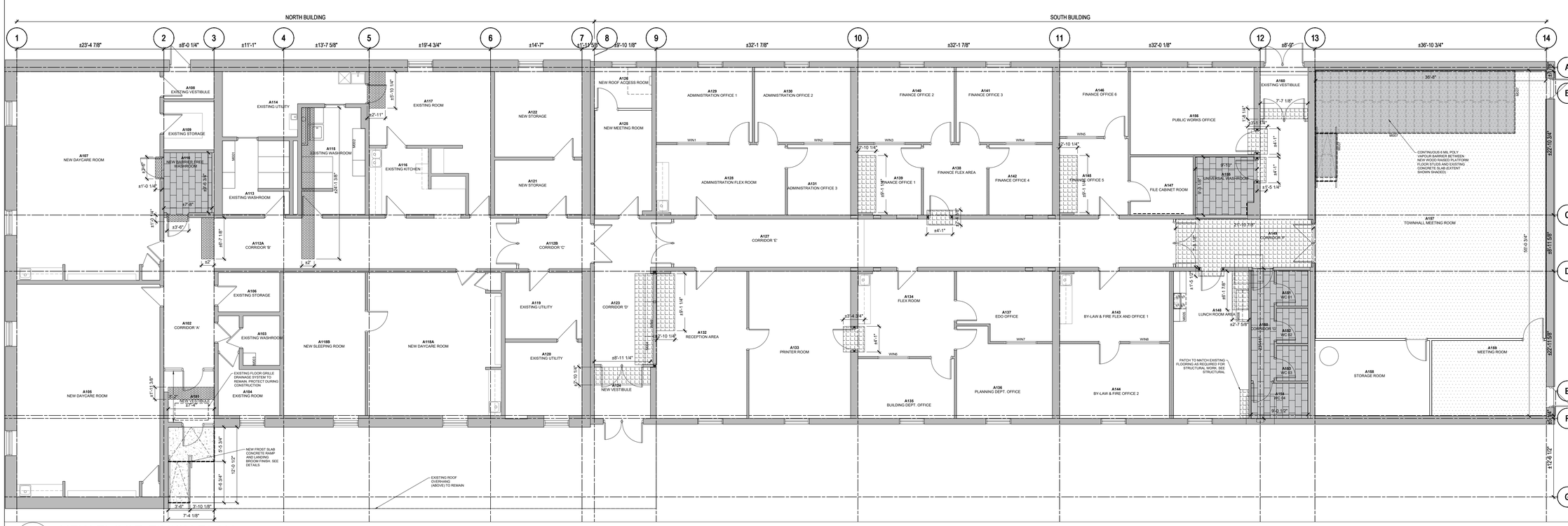
ISSUED FOR CONSTRUCTION — DATE

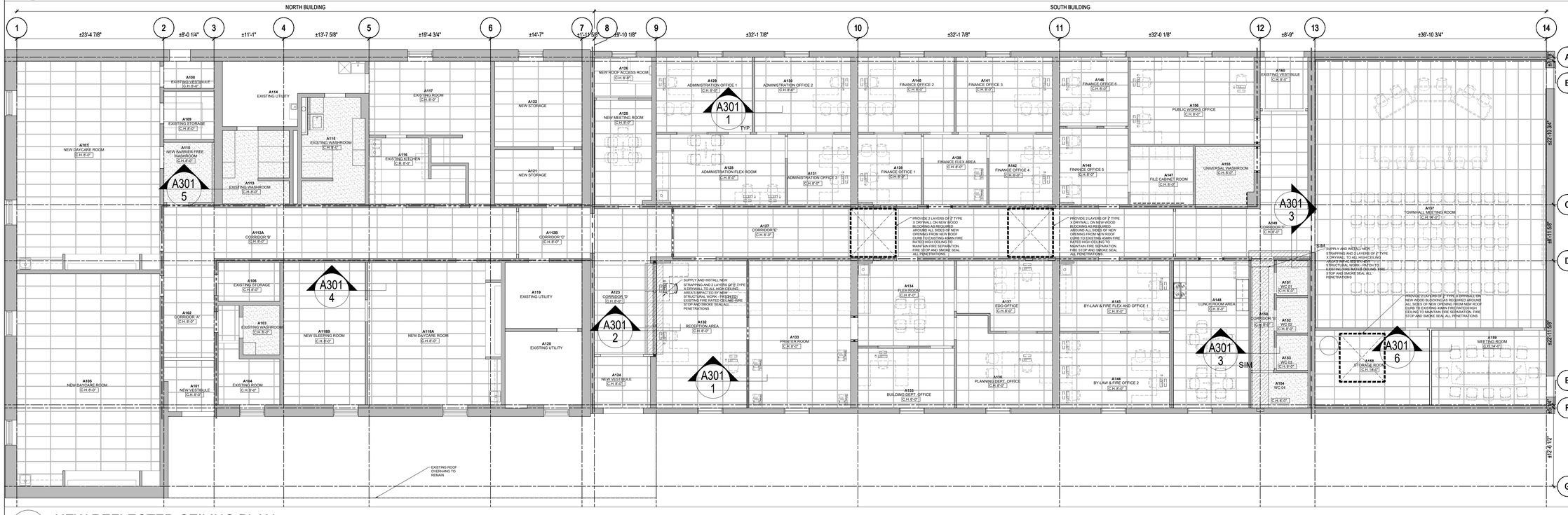
SHEET TITLE

DEMO PLANS

SHEET NO.	DRAWN BY	CHECKED
A200	AW	AW
	SCALE	1/8" = 1'-0"



1 / A300 NEW FLOOR FINISH PLAN
SCALE: 1/8" = 1'-0"



2 / A300 NEW REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"

FLOOR FINISH LEGEND

- NEW VCT FLOORING (TO MATCH EXISTING)
- NEW HIGH TRAFFIC CARPET FLOORING
- NEW PORCELAIN TILE FLOORING
- NEW TERRAZZO FLOORING (TO MATCH EXISTING)

FLOOR FINISH NOTES

PROVIDE NEW FLOOR TRANSITION STRIPS BETWEEN ALL CHANGES IN FINISH FLOOR THICKNESS. JOINTS BETWEEN DIFFERENT FLOOR FINISHES AT DOORWAYS TO OCCUR UNDER MIDDLE OF DOOR WHEN DOOR IS CLOSED.

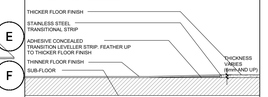
REFLECTED CEILING PLAN LEGEND

- NEW 24" X 48" ACOUSTIC CEILING TILE ON NEW T-BAR GRID SYSTEM
  SOUTH BUILDING - SUSPENDED FROM EXISTING FIRE RATED HIGH CEILING ABOVE (LOCATE AND MOUNT NEW BLOCKING TO EXISTING WOOD STRAPPING/ FRAMING).
  NORTH BUILDING - SUSPENDED FROM EXISTING ROOF DECK.
  REFER TO ENGINEERING DRAWINGS FOR LOCATIONS OF LIGHT FIXTURES, ELECTRICAL DEVICES, HVAC SYSTEM AND FIXTURES, ETC.
- NEW WATER RESISTANT DRYWALL CEILING
  SOUTH BUILDING - SUSPENDED FROM EXISTING FIRE RATED HIGH CEILING ABOVE (LOCATE AND MOUNT TO EXISTING WOOD STRAPPING/ FRAMING/ NEW BLOCKING, WITH STEEL STUD CARRIERS AND HAT CHANNEL FRAMING AS REQUIRED.
  NORTH BUILDING - SUSPENDED FROM EXISTING ROOF DECK.
  PRIME AND PAINT FINISH. REFER TO ENGINEERING DRAWINGS FOR LOCATIONS OF LIGHT FIXTURES, ELECTRICAL DEVICES, HVAC SYSTEM AND FIXTURES, ETC.
- NEW 2 LAYERS OF 5/8" TYPE X DRYWALL ON NEW STRAPPING AS REQUIRED TO MAINTAIN EXISTING 45MIN FIRE RATING AT EXISTING HIGH CEILING. PATCH AND REPAIR AS NEEDED FOR NEW WORK PENETRATING EXISTING 45MIN FIRE RATED HIGH CEILING

REFLECTED CEILING PLAN NOTES

EXISTING FIRE RATED DRYWALL ATTACHED TO EXISTING WOOD STRUCTURE IN SOUTH BUILDING TO REMAIN. PATCH AND REPAIR AS REQUIRED DURING CONSTRUCTION FOR NEW WORK (BUT NOT LIMITED TO) - MAINTAIN 45 MIN FIRE SEPARATION, SMOKE SEAL AND FIRE STOP ALL PENETRATIONS.

NOTE:
THIS DETAIL TO BE USED AT ALL JUNCTIONS BETWEEN VINYL COMPOSITE FLOORING OR CARPET TILE AGAINST PORCELAIN TILE OR OTHER THICKER FLOOR FINISH



TYPICAL FLOOR TRANSITION DETAIL

NO.	DESCRIPTION	DATE
1.	ISSUED FOR TENDER/ PERMIT	2024.03.08

REVISIONS

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PROJECT

TOWNSHIP OF NORTH STORMONT - NEW TOWN HALL RENOVATION

ONTARIO ASSOCIATION OF ARCHITECTS
ALEXANDER W. WARWICK
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8226

NORTH

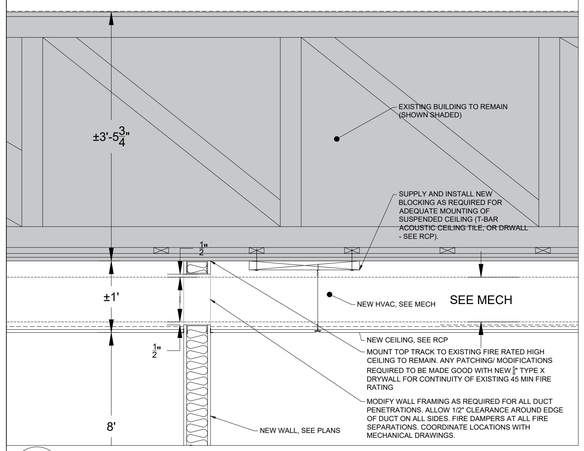
ISSUED FOR CONSTRUCTION — DATE

SHEET TITLE

NEW FLOOR FINISH PLAN + RCP

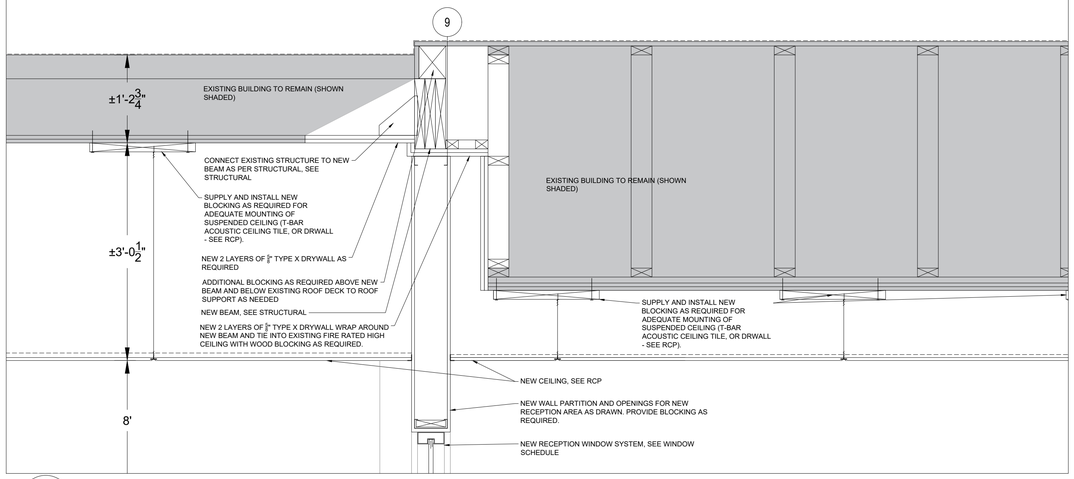
SHEET NO.	DRAWN BY	CHECKED
A300	AW	AW

SCALE 1/8" = 1'-0"



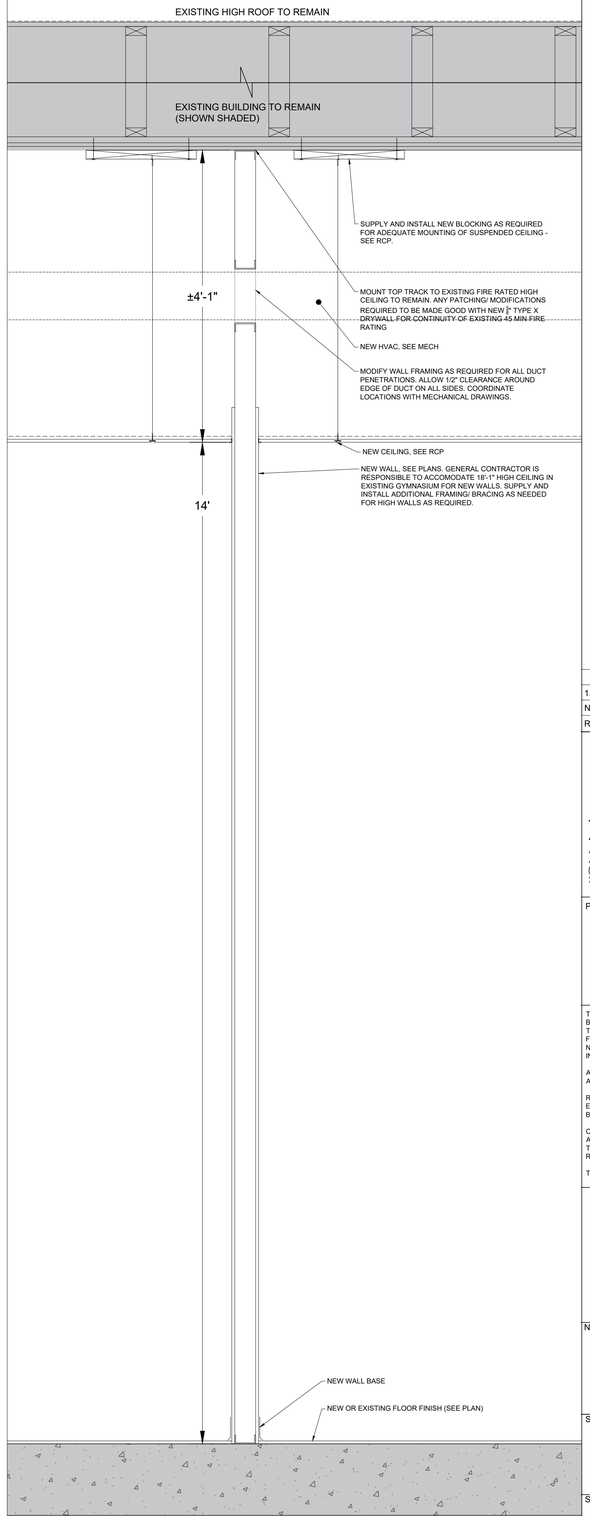
1 A301 TYP. NEW WALLS @ SOUTH BUILDING

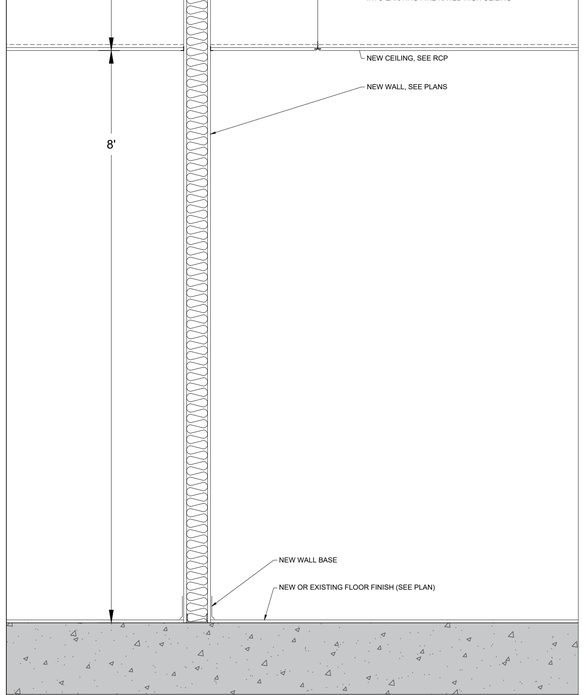
SCALE: 1" = 1'-0"



2 A301 CEILING DETAIL AT RECEPTION AREA

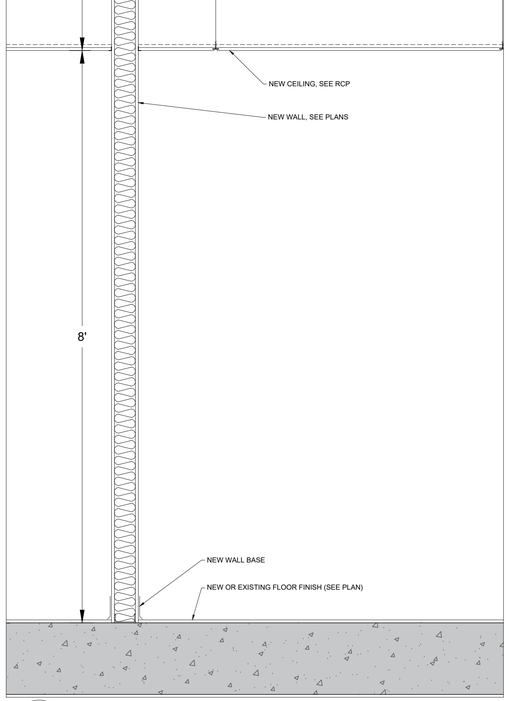
SCALE: 1" = 1'-0"





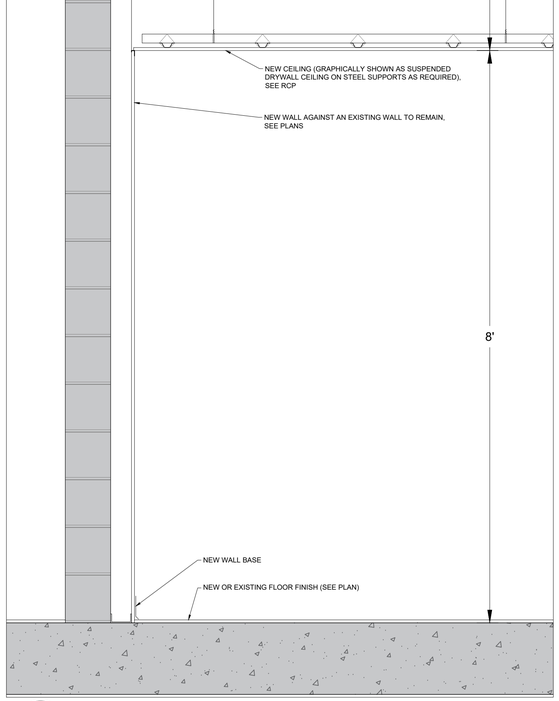
3 A301 NEW WALL AND BEAM @ SOUTH BUILDING

SCALE: 1" = 1'-0"



4 A301 TYP. NEW WALL @ NORTH BUILDING

SCALE: 1" = 1'-0"



5 A301 TYP. NEW FURRING WALL @ NORTH BUILDING

SCALE: 1" = 1'-0"

6 A301 TYP. NEW WALL @ HIGH CEILING AREA

SCALE: 1" = 1'-0"

NO.	DESCRIPTION	DATE
1.	ISSUED FOR TENDER/ PERMIT	2024.03.08
REVISIONS		

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PROJECT

TOWNSHIP OF NORTH STORMONT - NEW TOWN HALL RENOVATION

ONTARIO ASSOCIATION OF ARCHITECTS
ALEXANDER W. WARWICK
LICENCE
6226

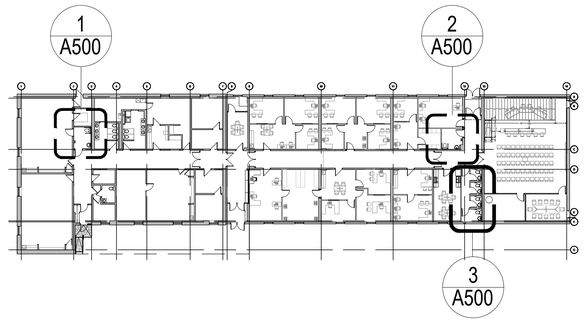
NORTH

ISSUED FOR CONSTRUCTION DATE

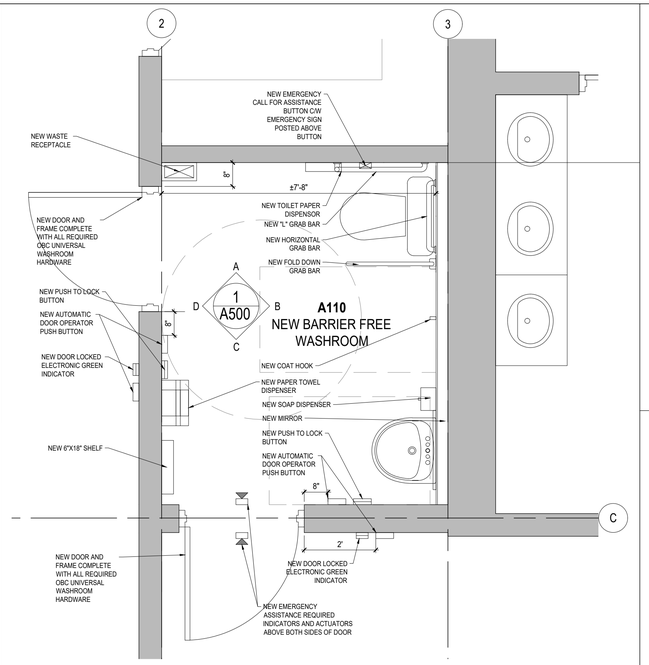
SHEET TITLE

CEILING DETAILS

SHEET NO.	DRAWN BY	CHECKED
A301	AW	AW
	SCALE	1" = 1'-0"



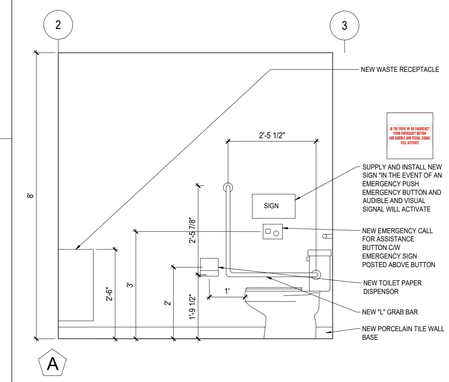
KEY PLAN

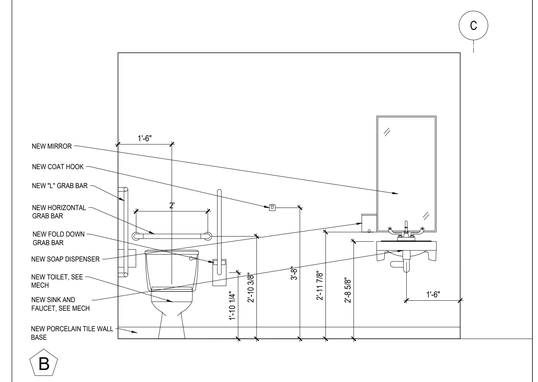


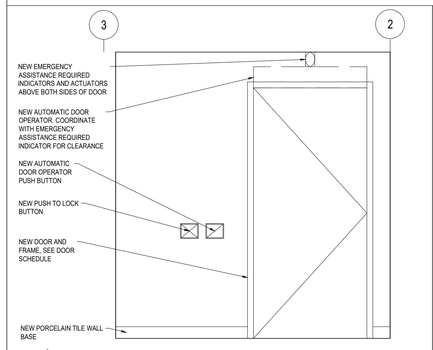
NOTE - PROVIDE WOOD BLOCKING AS REQUIRED FOR ALL WALL MOUNTED ITEMS. PATCH AND REPAIR ALL EXISTING WALLS AS REQUIRED

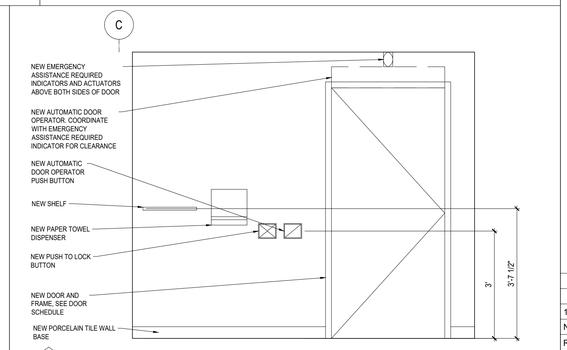
1 A500 BARRIER FREE WASHROOM (A110)

SCALE: 1/2" = 1'-0"









1.	ISSUED FOR TENDER/ PERMIT	2024.03.08
NO.	DESCRIPTION	DATE

REVISIONS

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ONTARIO ASSOCIATION OF ARCHITECTS
ALEXANDER W. WARWICK
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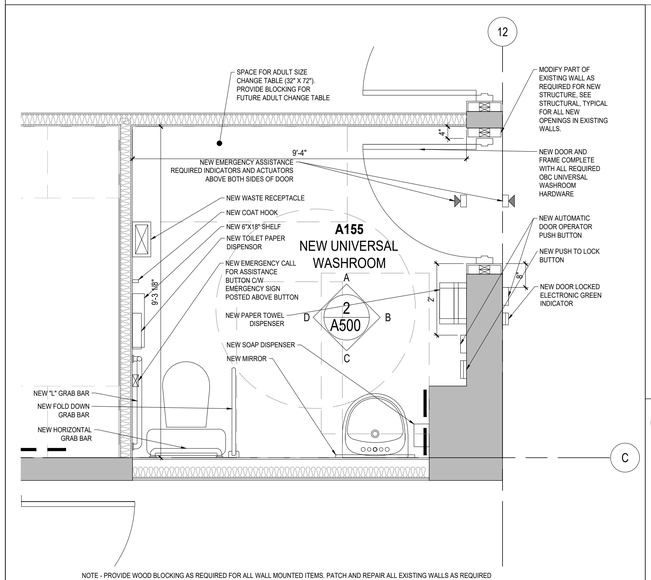
8226

NORTH

SHEET TITLE

INTERIOR ELEVATIONS

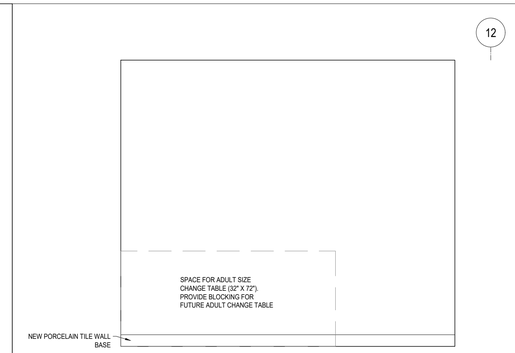
SHEET NO.	DRAWN BY	CHECKED
A500	AW	AW
	SCALE	N.T.S.

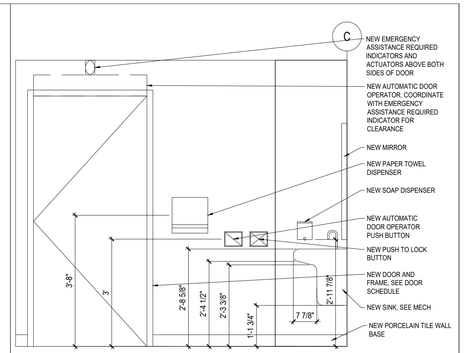


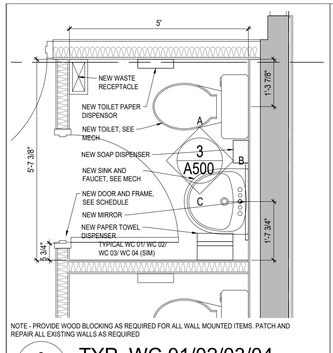
NOTE - PROVIDE WOOD BLOCKING AS REQUIRED FOR ALL WALL MOUNTED ITEMS. PATCH AND REPAIR ALL EXISTING WALLS AS REQUIRED

2 A500 NEW UNIVERSAL WASHROOM (A155)

SCALE: 1/2" = 1'-0"



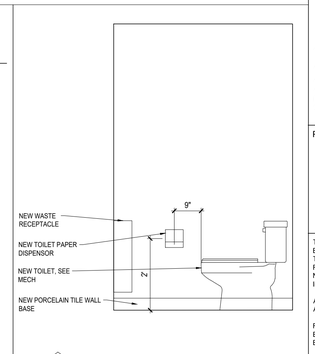


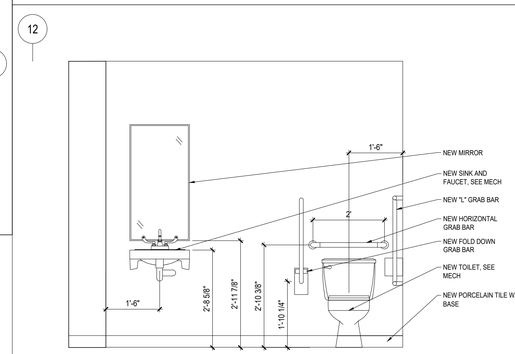


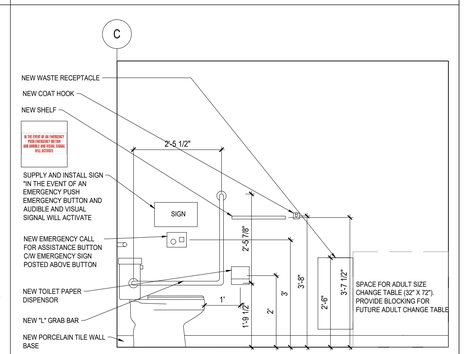
NOTE - PROVIDE WOOD BLOCKING AS REQUIRED FOR ALL WALL MOUNTED ITEMS. PATCH AND REPAIR ALL EXISTING WALLS AS REQUIRED

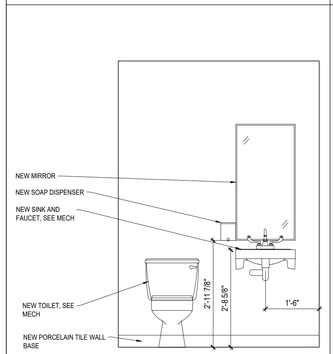
3 A500 TYP. WC 01/02/03/04

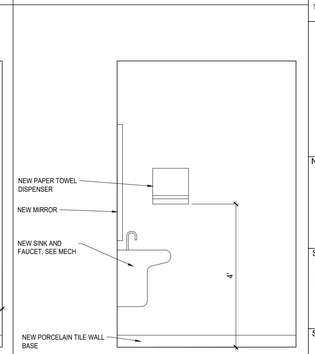
SCALE: 1/2" = 1'-0"

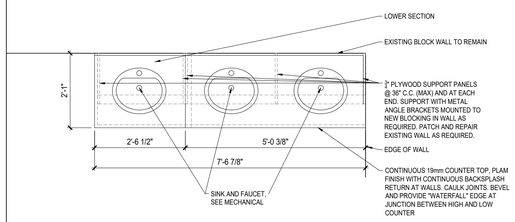




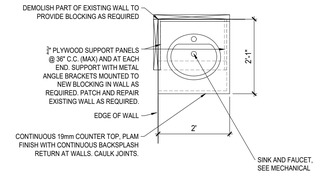








M001 PLAN



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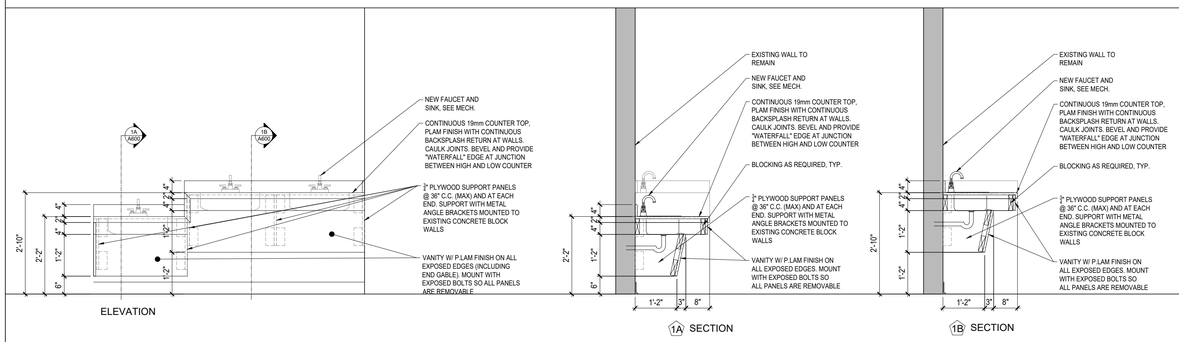
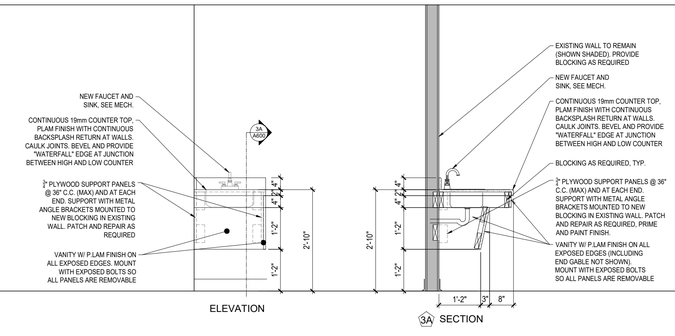


1 A600 MILLWORK UNIT M001
SCALE: 1/2" = 1'-0"



3 A600 MILLWORK UNIT M003
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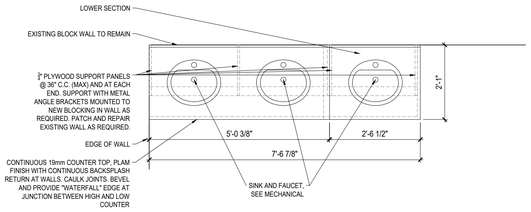
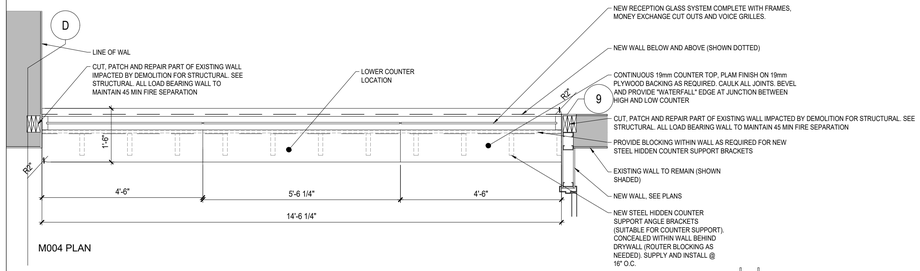
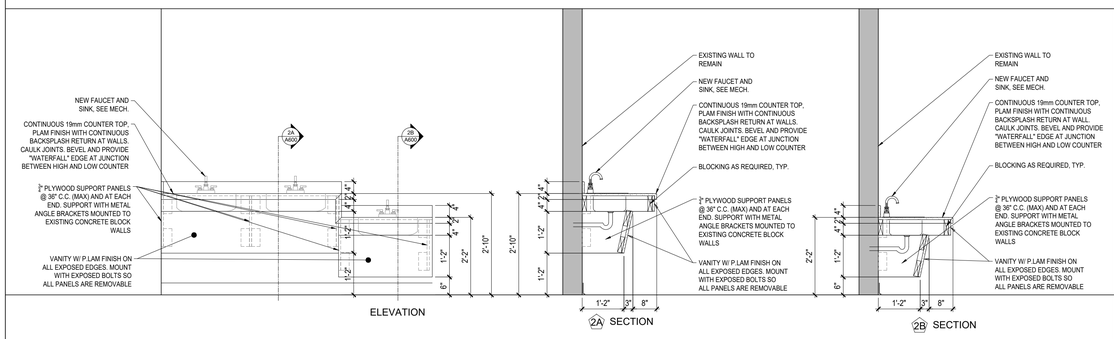


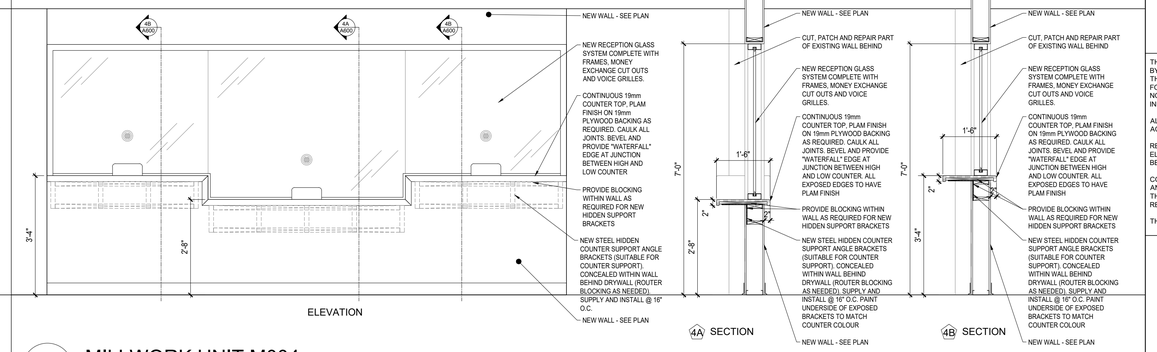
M002 PLAN



M004 PLAN



2 A600 MILLWORK UNIT M002
SCALE: 1/2" = 1'-0"



4 A600 MILLWORK UNIT M004
SCALE: 1/2" = 1'-0"

NO.	DESCRIPTION	DATE
1.	ISSUED FOR TENDER/ PERMIT	2024.03.08

REVISIONS

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PROJECT

TOWNSHIP OF NORTH STORMONT - NEW TOWN HALL RENOVATION

ONTARIO ASSOCIATION OF ARCHITECTS
ALEXANDER W. WARWICK
LICENCE
8226

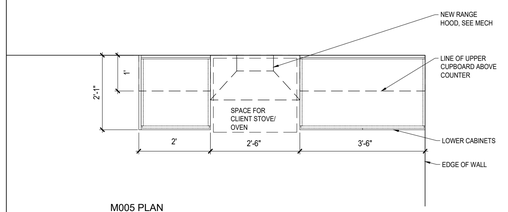
NORTH

ISSUED FOR CONSTRUCTION DATE

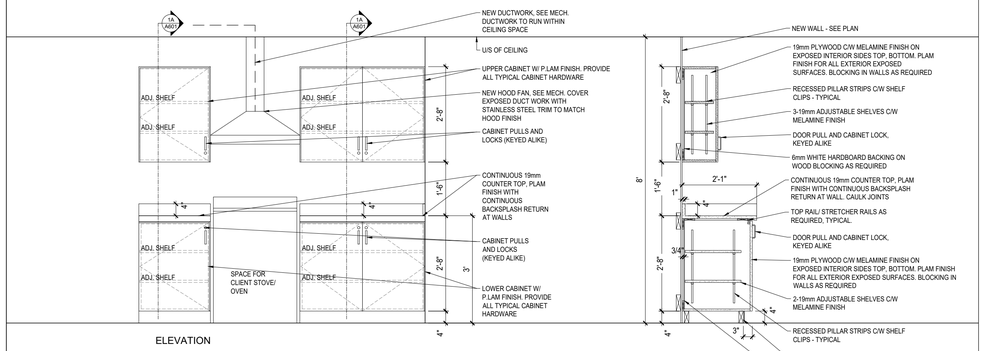
SHEET TITLE

MILLWORK DETAILS

SHEET NO.	DRAWN BY	CHECKED
A600	AW	AW
	SCALE	N.T.S.



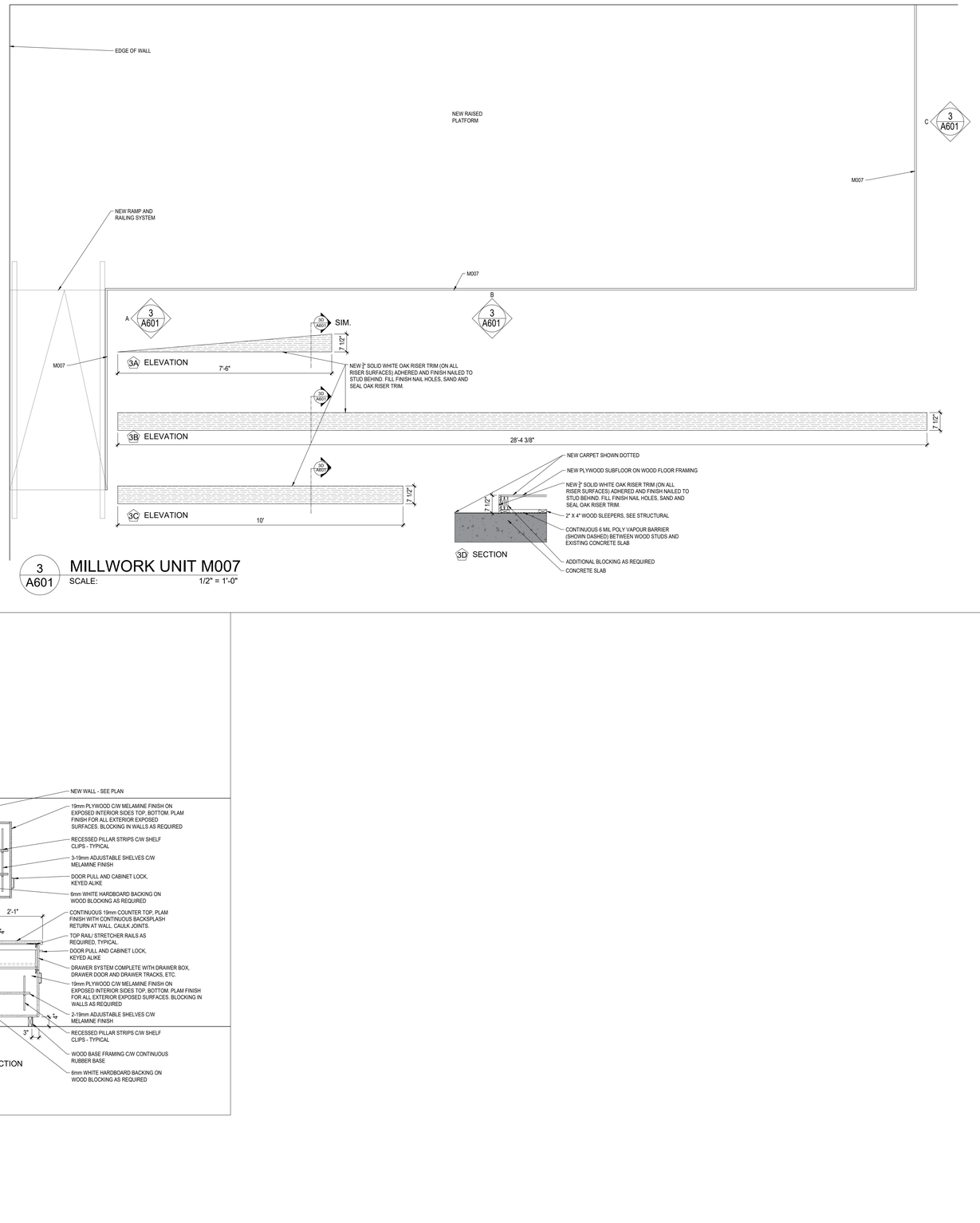
M005 PLAN



ELEVATION

1A SECTION

1 A601 MILLWORK UNIT M005
SCALE: 1/2" = 1'-0"



3D SECTION

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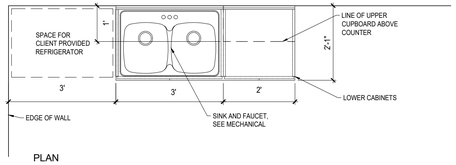
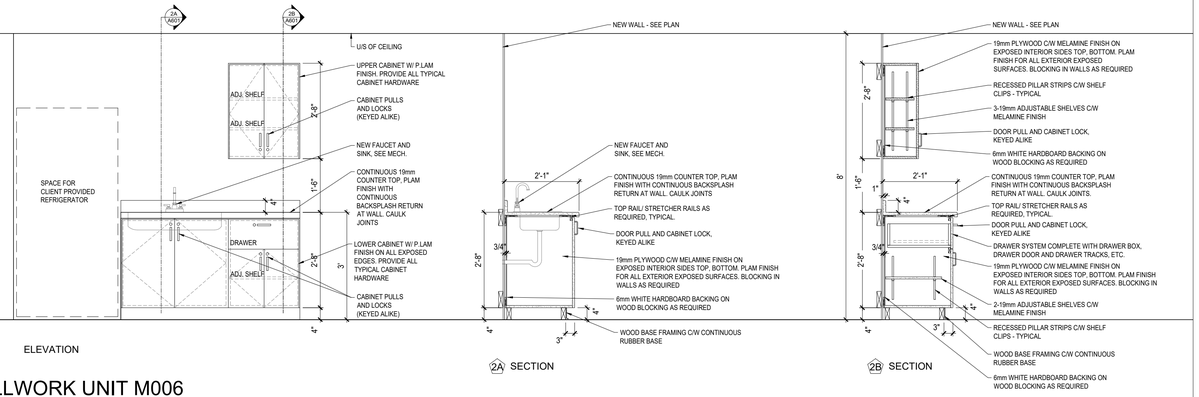
SCALE: 1/2" = 1'-0"



PLAN



ELEVATION

2A SECTION

2B SECTION

2 A601 MILLWORK UNIT M006
SCALE: 1/2" = 1'-0"

NO.	DESCRIPTION	DATE
1.	ISSUED FOR TENDER/ PERMIT	2024.03.08

REVISIONS

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PROJECT

TOWNSHIP OF NORTH STORMONT - NEW TOWN HALL RENOVATION

ONTARIO ASSOCIATION OF ARCHITECTS
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SHEET TITLE

MILLWORK DETAILS

SHEET NO.	DRAWN BY	CHECKED
A601	AW	AW
	SCALE	N.T.S.

DOOR SCHEDULE

DOOR NO.	DOOR TYPE	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR MATERIAL	DOOR FIRE RATING	DOOR FINISH	FRAMES TYPE	FRAMES MATERIAL	FRAMES FIRE RATING	FRAMES FINISH	DOOR THRESHOLD	WEATHER-STRIPPING	OBC REQUIREMENT BARRIER FREE HARWARE (AUTOMATIC DOOR OPERATOR AND PUSH BUTTONS)	OBC REQUIREMENT DOOR CLOSER	DOOR STOP (CONFIRM LOCATION ON SITE)	REMARKS
A101A	A	3' - 2"	7' - 2 1/2" (EXISTING)	HM	-	PT	1	HM	-	PT	●	●	●	●	●	INSULATED, THERMALLY BROKEN. CARD READER, PANIC SET, LEVER HARDWARE
A101B	B	3' - 2"	7' - 0"	HM	-	PT	2	HM	-	PT			●	●	●	PUSH PLATE / DOOR PULL - NON-LATCHING DOOR
A110A	C	3' - 2"	7' - 0"	HM	-	PT	3	HM	-	PT			●	●	●	UNIVERSAL WASHROOM HARDWARE
A110B	C	3' - 2"	7' - 0"	HM	20 MIN	PT	3	HM	20 MIN	PT			●	●	●	UNIVERSAL WASHROOM HARDWARE
A112	C	2 X 3' - 2"	7' - 0"	HM	-	PT	4	HM	-	PT				●	●	CARD READER, PANIC SET, LEVER HARDWARE
A117	C	2' - 10"	7' - 0"	HM	0 HR	PT	3	HM	0 HR	PT				●	●	LOCKSET, LEVER HARDWARE, 0 HR FIRE SEPARATION (SMOKE SEAL)
A118	B	3' - 2"	7' - 0"	HM	-	PT	3	HM	-	PT					●	LEVER PASSAGE HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A123	C	2 X 3' - 2"	7' - 0"	HM	20 MIN	PT	4	HM	20 MIN	PT				●	●	CARD READER, PANIC SET, LEVER HARDWARE
A124A	A	3' - 2" / 2'-8"	7' - 1 1/2" (EXISTING)	HM	-	PT	5	HM	-	PT	●	●	●	●	●	INSULATED, THERMALLY BROKEN. CARD READER, PANIC SET, LEVER HARDWARE
A124B	A	2 X 3' - 2"	7' - 0 "	HM	-	PT	4	HM	-	PT			●	●	●	PUSH PLATE / DOOR PULL - NON-LATCHING DOOR
A126	C	3' - 2"	7' - 0"	HM	-	PT	3	HM	-	PT				●	●	LOCKSET, LEVER HARDWARE
A129	D	3' - 2"	7' - 0"	HM	-	PT	3	HM	-	PT					●	LOCKSET, LEVER HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A130	D	3' - 2"	7' - 0"	HM	-	PT	3	HM	-	PT					●	LOCKSET, LEVER HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A131	D	3' - 2"	7' - 0"	HM	-	PT	3	HM	-	PT					●	LOCKSET, LEVER HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A133A	C	3' - 2"	7' - 0"	HM	20 MIN	PT	3	HM	20 MIN	PT				●	●	LOCKSET, LEVER HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A133B	C	3' - 2"	7' - 0"	HM	-	PT	3	HM	-	PT				●	●	LOCKSET, LEVER HARDWARE
A135	D	3' - 2"	7' - 0"	HM	-	PT	3	HM	-	PT					●	LOCKSET, LEVER HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A136	D	3' - 2"	7' - 0"	HM	-	PT	3	HM	-	PT					●	LOCKSET, LEVER HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A137	D	3' - 2"	7' - 0"	HM	-	PT	3	HM	-	PT					●	LOCKSET, LEVER HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A138	F	3' - 2"	7' - 0"	HM	20 MIN	PT	3	HM	20 MIN	PT				●	●	LOCKSET, LEVER HARDWARE
A139	D	3' - 2"	7' - 0"	HM	-	PT	3	HM	-	PT					●	LOCKSET, LEVER HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A140	D	3' - 2"	7' - 0"	HM	-	PT	3	HM	-	PT					●	LOCKSET, LEVER HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A141	D	3' - 2"	7' - 0"	HM	-	PT	3	HM	-	PT					●	LOCKSET, LEVER HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A142	D	3' - 2"	7' - 0"	HM	-	PT	3	HM	-	PT					●	LOCKSET, LEVER HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A144	D	3' - 2"	7' - 0"	HM	-	PT	3	HM	-	PT					●	LOCKSET, LEVER HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A146	D	3' - 2"	7' - 0"	HM	-	PT	3	HM	-	PT					●	LOCKSET, LEVER HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A147	D	3' - 2"	7' - 0"	HM	-	PT	3	HM	-	PT					●	LOCKSET, LEVER HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A148	F	3' - 2"	7' - 0"	HM	20 MIN	PT	3	HM	20 MIN	PT				●	●	LOCKSET, LEVER HARDWARE
A149	C	2 X 3' - 2"	7' - 0"	HM	-	PT	4	HM	-	PT				●	●	CARD READER, PANIC SET, LEVER HARDWARE
A150	F	3' - 2"	7' - 0"	HM	20 MIN	PT	3	HM	20 MIN	PT			●	●	●	LOCKSET, LEVER PRIVACY HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A151	C	3' - 0"	7' - 0"	HM	-	PT	3	HM	-	PT				●	●	LOCKSET, LEVER PRIVACY HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A152	C	3' - 0"	7' - 0"	HM	-	PT	3	HM	-	PT				●	●	LOCKSET, LEVER PRIVACY HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A153	C	3' - 0"	7' - 0"	HM	-	PT	3	HM	-	PT				●	●	LOCKSET, LEVER PRIVACY HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A154	C	3' - 0"	7' - 0"	HM	-	PT	3	HM	-	PT				●	●	LOCKSET, LEVER PRIVACY HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A155	C	3' - 2"	7' - 0"	HM	20 MIN	PT	3	HM	20 MIN	PT			●	●	●	UNIVERSAL WASHROOM HARDWARE, ACOUSTIC SWEEP/ SOUND STRIPPING (ALL SIDES)
A156	F	3' - 2"	7' - 0"	HM	20 MIN	PT	3	HM	20 MIN	PT				●	●	LOCKSET, LEVER HARDWARE
A158	C	3' - 2"	7' - 0"	HM	-	PT	3	HM	-	PT				●	●	LOCKSET, LEVER HARDWARE
A159	D	3' - 2"	7' - 0"	HM	-	PT	3	HM	-	PT				●	●	LOCKSET, LEVER HARDWARE
A160A	A	2 X 3' - 2"	7' - 0 "	HM	-	PT	4	HM	-	PT			●	●	●	PUSH PLATE / DOOR PULL - NON-LATCHING DOOR
A160B	A	3' - 2" / 2'-8"	7' - 1 1/2" (EXISTING)	HM	-	PT	5	HM	-	PT	●	●	●	●	●	INSULATED, THERMALLY BROKEN. CARD READER, PANIC SET, LEVER HARDWARE
EX	EX	EX	EX	EX	EX	PT	EX	EX	EX	PT	EX	EX	EX	EX	●	EXISTING DOOR/ FRAME/ HARDWARE TO REMAIN - SAND, PATCH, PREPARE AND MAKE GOOD TO PRIME AND PAINT DOORS AND FRAMES

DOOR SCHEDULE GENERAL NOTES

1. ALL DOORS INCLUDING FRAMES REQUIRING A FIRE PROTECTION RATING SHALL COMPLY WITH OBC SUBSECTION 3.1.8
2. ALL FIRE RATED DOORS, INCLUDING DOORS WITH 0HR RATING, TO BE SELF LATCHING AND SELF CLOSING DEVICES
3. ALL DOORS INCLUDING FRAMES REQUIRING A FIRE PROTECTION RATING SHALL BE LABELLED INDICATING FIRE RATING AND BE EQUIPPED WITH A LISTED SELF CLOSING DEVICE, A LISTED POSITIVE LATCHING MECHANISM, AND LISTED HARDWARE
4. DOORS WITH TEMPERATURE RISE RATINGS INDICATING THAT THE DOOR HAS A MAXIMUM TEMPERATURE RISE OF 250°C AFTER 1HR OF EXPOSURE [OBC TABLE 3.1.8.15] ARE TO BE PROVIDED IN DOORS TO EXIT STAIRS FROM PARKING GARAGE, DOORS LOCATED IN FIRE WALLS, AND DOORS THAT ARE LOCATED WITHIN MEASURE-N VESTIBULES
5. ALL FRAMES OF DOORS WITHIN FIRE SEPARATIONS SHALL BE FIRE STOPPED AND SEALED WITH SAME RATING AS FIRE SEPARATION
6. ALL FRAMES WITH EITHER POWER DOOR OPERATOR, OR CARD READER TO ALSO HAVE ELECTRIC STRIKE FOR PROPER USE. PROVIDE ALL APPROPRIATE HARDWARE AND MODIFICATIONS TO DOORS AND FRAMES TO SUIT PROPER OPERATION.
7. PROVIDE DOOR STOPS AS REQUIRED TO PREVENT DAMAGE TO INTEGRITY OF A WALL OR FIRE SEPARATION IF A DOOR SWING IS UNRESTRICTED [OBC 3.1.8.5 (3)]
8. ALL DOORS IN AN ACCESS TO EXIT, MEANS OF EGRESS OR EXIT SHALL COMPLY WITH OBC 3.4.6.10 TO 3.4.6.19 INCLUSIVE
9. ALL DOORS THAT OPEN INTO A CORRIDOR OR OTHER FACILITY PROVIDING ACCESS TO EXIT FROM A SUITE, OR ROOM NOT LOCATED WITHIN A SUITE SHALL COMPLY WITH ARTICLES 3.3.1.10, 3.3.1.12 AND 3.3.1.18 OF THE OBC
10. ALL EXIT DOORS FROM STAIRS AT GRADE LEVEL TO BE PROVIDED WITH EXIT DEVICES
11. ALL EXIT DOORS AT GRADE OTHER THAN FROM STAIRS SHALL BE EXIT ONLY
12. DOORS LOCATED WITHIN 2 METERS FROM EXTERIOR GRADE TO CONFORM TO OBC 3.3.4.10, 9.7.5.2 & 9.7.5.3 "RESISTANCE TO FORCED ENTRY". THIS INCLUDES SUITE ENTRANCE DOORS. DOORS TO HAVE DEADBOLT LOCK AND SOLID BLOCKING AT LOCK HEIGHT BETWEEN JAMBS FOR DOOR AND FRAMING TO RESIST SPREADING BY FORCE.
13. ALL DOORS EQUIPPED WITH A HOLD OPEN DEVICE SHALL COMPLY WITH OBC 3.1.8.12
14. ALL DOORS EQUIPPED WITH AN ELECTRIC STRIKE REQUIRED FOR SECURITY SHALL COMPLY WITH OBC 3.3.1.12
15. ALL DOORS EQUIPPED WITH AN ELECTROMAGNETIC LOCK SHALL COMPLY WITH ARTICLE OBC 3.3.1.12 & 3.4.6.16
16. ALL STEEL DOORS EQUIPPED W/AN ELECTROMAGNETIC LOCK TO BE 18 GA. STEEL AND TACK WELD AND FILL EDGES
17. ALL EXTERIOR DOORS TO BE WEATHER STRIPPED AND TESTED TO RESIST OR ACCOMMODATE ALL ENVIRONMENTAL LOADS AND EFFECTS OF THESE LOADS DETERMINED ACCORDING TO SB-1 OF OBC.
18. ALL GLAZING WITHIN EXTERIOR DOORS TO BE DOUBLE GLAZED, INSULATED GLAZING UNITS
19. ALL GLASS IN DOORS AND SIDELITES TO BE MADE OF TEMPERED OR LAMINATED SAFETY GLASS CONFOMING TO CAN/CGSB-12.1-M, LATEST ADDITION [OBC 3.3.1.18]
20. ALL THRESHOLDS IN A BARRIER-FREE PATH OF TRAVEL TO BE MAXIMUM 13MM IN HEIGHT c/w 1:2 BEVELED SLOPE [OBC 3.8.1.3]
21. ALL THRESHOLDS TO BE ALUMINUM UNLESS OTHERWISE NOTED
22. DOOR RELEASE HARDWARE TO BE INSTALLED NOT MORE THAN 1200MM ABOVE FINISH FLOOR AND NOT LESS THAN 865MM [OBC 3.3.1.12 (5)]
23. ALL SINGLE USE PUBLIC WASHROOM/BATHROOM DOORS TO BE EQUIPPED WITH A PRIVACY LOCK
24. EXCEPT FOR GLASS DOORS, ALL EXTERIOR DOORS TO HAVE MIN THERMAL RESISTANCE OF RSI 0.7 (R4) AS PER OBC SB-10, CHAPTER 2, 1.1.1.2 (4)
25. UNIVERSAL WASHROOM HARDWARE - PRIVACY LOCK/ LEVER HARDWARE, PUSH TO LOCK, EMERGENCY CALL BUTTON SYSTEM / RELEASE/ INDICATOR ABOVE BOTH SIDES OF DOOR, DOOR LOCKED INDICATOR

ABBREVIATIONS

ALUM= ALUMINUM	KP = KICK PLATE
BR = BUZZER RELEASE	LG = LAMINATED GLASS
CMP = COMPOSITE METAL PANEL	MDH = MAGNETIC DOOR HANDLE
CR = CARD READER (OVERIDE LATCH OR LOCK)	MH = MAGNETIC HOLD
DO = POWER DOOR OPERATOR	ML = MAGNETIC LOCK
DSC = DOOR SECURITY CONTACT	PD = POWER DOOR
ES = ELECTRIC STRIKE	PFG = PATTERNED GLASS WITH VISUAL MARKERS (BIRD FRIENDLY) REFER ALSO TO ELEV.
FG = FIXED GLASS	
FLG = FIRE LITE GLASS	PG = PLATE GLASS
FRG = FROSTED GLASS	PT = PRIME AND PAINT
GWG = GEORGIAN WIRE GLASS	PS = PRESSED STEEL
HC = HOLLOW CORE	SC = SOLID CORE
HCP = HOLLOW CORE MOLDED PANEL	SCL = SOLID CORE WOOD - LAMINATE FINISH
HCW = HOLLOW CORE WOOD	SCP = SOLID CORE MOLDED PANEL
HM = HOLLOW METAL	SCW = SOLID CORE WOOD
HMF = HOLLOW METAL FRAME	SG = SHEET GLASS
HMI = HOLLOW METAL INSULATED	SS = STAINLESS STEEL
HMP = HOLLOW METAL PANEL	ST = STAINED
IDD = INTERIOR DESIGN DWGS	TG = TEMPERED GLASS
IGU = INSULATED GLAZING UNIT	VN = VINYL
IM = INSULATED METAL	WD = WOOD
IMP = INSULATED METAL PANEL	

CLOSURE FRAMING IN RATED GYPSUM FIRE SEPARATIONS

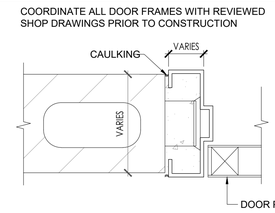
DOOR FRAMES INTENDED FOR DRYWALL INSTALLATION SHALL BE OF THE WRAP-AROUND TYPE. ANCHORS SHALL BE APPROPRIATELY SECURED TO VERTICAL WALL STUDS AND FLOOR, PROVIDE BLOCKING/ ADDITIONAL SUPPORTS AS REQUIRED

INSTALLATION OF CLOSURES

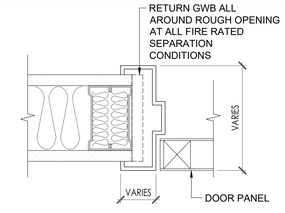
EXCEPT AS OTHERWISE SPECIFIED IN THIS PART, EVERY FIRE DOOR, WINDOW ASSEMBLY OR GLASS BLOCK USED AS A CLOSURE IN A REQUIRED FIRE SEPARATION SHALL
A) BE INSTALLED IN CONFORMANCE WITH CHAPTERS 219 OF NFPA 80, "FIRE DOORS AND WINDOWS" AND
B) WHERE REQUIRED TO HAVE A FIRE-RESISTANCE RATING HAVE LABELS OR CLASSIFICATIONS MARKS TO IDENTIFY THE TESTING LABORATORY.

WHERE A DOOR IS INSTALLED SO THAT IT MAY DAMAGE THE INTEGRITY OF A SEPARATION IF ITS SWING IS UNRESTRICTED, DOOR STOPS SHALL BE INSTALLED TO PREVENT SUCH DAMAGE [OBC 3.1.8.5 (3)]

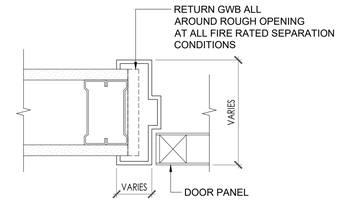
DOOR FRAME DETAILS



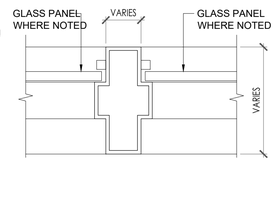
F1 TYPICAL DOOR FRAME JAMB DETAIL AT CONCRETE OR CONCRETE BLOCK PARTITION (SEE PLANS FOR LOCATIONS). EXISTING WALL ANCHORS FOR ALL EXISTING WALLS



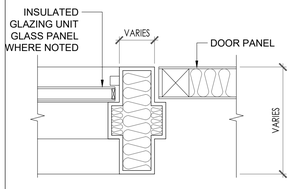
F2 TYPICAL DOOR FRAME JAMB DETAIL AT GWB INSULATED PARTITION (SEE FLOOR PLANS FOR LOCATIONS)



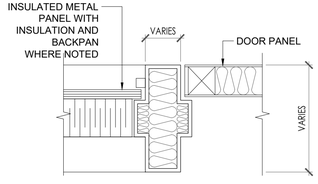
F3 TYPICAL DOOR FRAME JAMB DETAIL AT GWB PARTITION (SEE FLOOR PLANS FOR LOCATIONS)



F4 TYPICAL CENTER MULLION AT GLAZED SCREEN FRAMING SYSTEM (SEE PLANS FOR LOCATIONS)

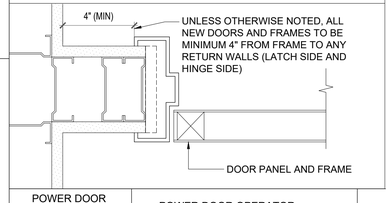


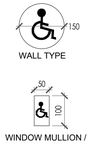
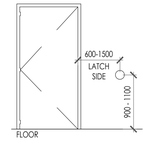
F5 TYPICAL EXTERIOR DOOR FRAME JAMB DETAIL AT GLAZED SCREEN FRAMING SYSTEM (SEE PLANS FOR LOCATIONS)

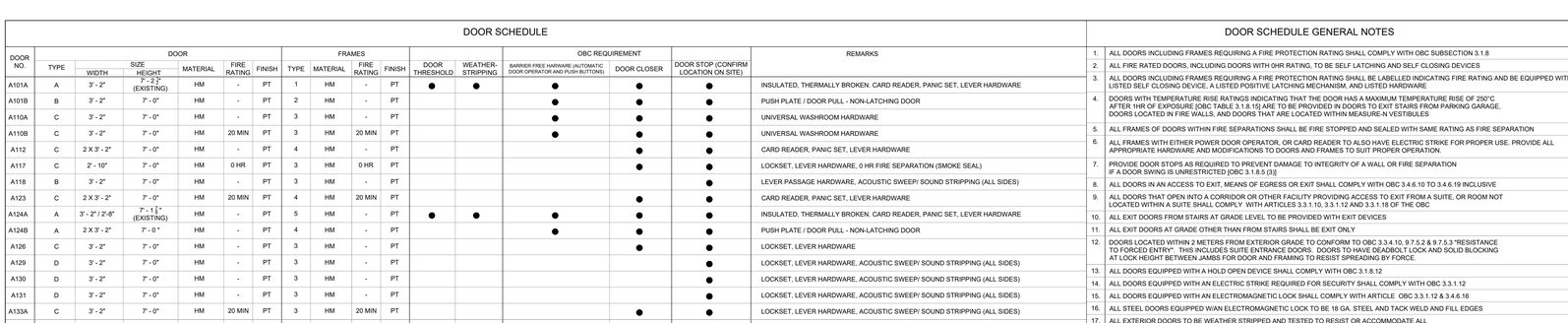


F6 TYPICAL EXTERIOR DOOR FRAME JAMB DETAIL AT INSULATED METAL PANEL FRAMING SYSTEM (SEE PLANS FOR LOCATIONS)

NEW DOORS INSTALLATION LOCATION



POWER DOOR OPERATOR MIN SIZE	POWER DOOR OPERATOR	DOOR RELEASE HARDWARE
	 SEE OBC 3.8.3.3 (17)	 DOOR RELEASE NOT TO PROJECT MORE THAN 100mm INTO CLEAR OPENING SEE OBC 3.3.1.12 (5)



ALL DOORS AND FRAMES WITHIN ACOUSTIC INSULATED WALLS TO BE ACOUSTIC HOLLOW METAL DOORS AND FRAMES (STC 48 MIN) COMPLETE WITH ALL APPROPRIATE ACOUSTIC RATED HARDWARE

FRAME TYPE A
INSULATED, THERMALLY BROKEN HOLLOW METAL SINGLE DOOR WITH INSULATED GLAZING UNITS

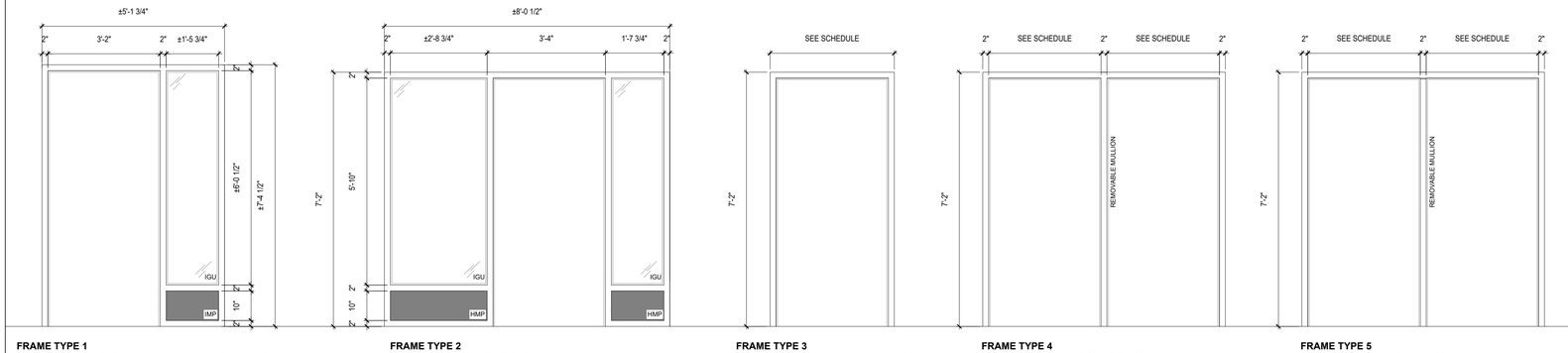
FRAME TYPE B
HOLLOW METAL SINGLE DOOR WITH GLAZING

FRAME TYPE C
HOLLOW METAL SINGLE DOOR WITH NO GLAZING. FIRE RATED WHERE NOTED ON SCHEDULE

FRAME TYPE D
HOLLOW METAL SINGLE DOOR WITH NARROW GLAZING

FRAME TYPE E
HOLLOW METAL SINGLE DOOR WITH NARROW GLAZING

FRAME TYPE F
20 MIN FIRE RATED HOLLOW METAL SINGLE DOOR WITH NARROW GEORGIAN WIRED GLAZING



FRAME TYPE 1
INSULATED, THERMALLY BROKEN HOLLOW METAL FOR SINGLE DOOR WITH SIDELITE

FRAME TYPE 2
HOLLOW METAL FOR SINGLE DOOR WITH SIDELITES

FRAME TYPE 3
HOLLOW METAL FOR SINGLE DOOR FIRE RATED FRAME WHERE SPECIFIED

FRAME TYPE 4
HOLLOW METAL FOR DOUBLE DOOR

FRAME TYPE 5
INSULATED, THERMALLY BROKEN HOLLOW METAL FOR DOUBLE DOORS WITH REMOVABLE MIDDLE MULLION

NO.	DESCRIPTION	DATE
1.	ISSUED FOR TENDER/ PERMIT	2024.03.08

REVISIONS

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PROJECT

TOWNSHIP OF NORTH STORMONT - NEW TOWN HALL RENOVATION

ONTARIO ASSOCIATION OF ARCHITECTS
ALEXANDER W. WARWICK
LICENCE 8226

NORTH

ISSUED FOR CONSTRUCTION DATE

SHEET TITLE

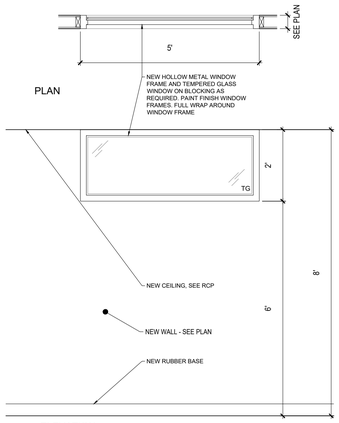
DOOR SCHEDULE

SHEET NO.	DRAWN BY	CHECKED
A700	AW	AW

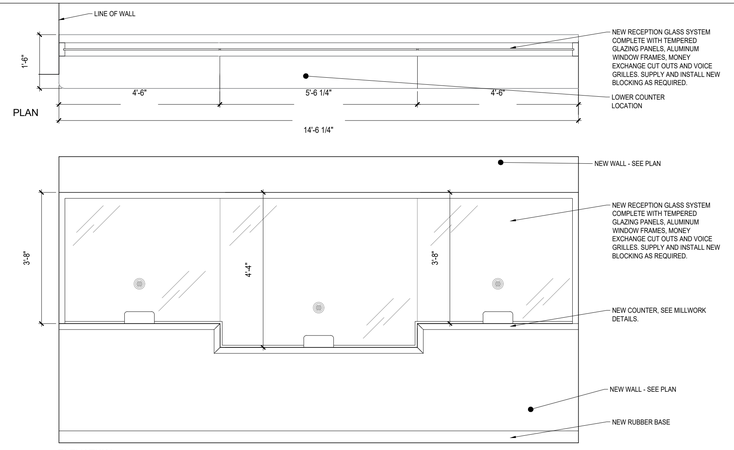
SCALE N.T.S.

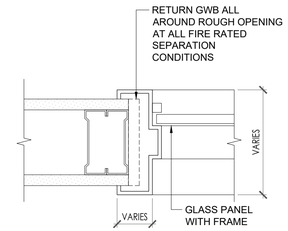
WINDOW SCHEDULE

WIN1 / WIN2 / WIN3 / WIN4 / WIN5 / WIN6 / WIN7 / WIN8



WIN9





WF1 TYPICAL WINDOW FRAME JAMB DETAIL AT GWB PARTITION (SEE FLOOR PLANS FOR LOCATIONS)

ROOM FINISH SCHEDULE NOTES

1. ALL WET AREA'S TO HAVE WATER RESISTANT DRYWALL FOR WALLS AND CEILING
2. ALL EXISTING WALLS TO HAVE ADEQUATE SURFACE PREPARATION PRIOR TO PRIME AND PAINT TO ENSURE PROPER ADHESION OF NEW PRIME AND PAINT
3. PROVIDE PAINT DRAW DOWNS, FINISH SAMPLES, ETC., FOR CLIENT REVIEW AND CONFIRMATION PRIOR TO INSTALLATION.
4. ALL EXISTING DOORS, DOOR FRAMES AND HALLOW METAL WINDOW FRAMES TO HAVE SURFACE PREPARATION AND PRIME AND PAINT (PAINT COLOUR AS SPECIFIED.)
5. REFER TO PLANS FOR GENERAL DESIGN INTENT REGARDING EXTENT OF NEW FINISHES. ALL AREA'S TO BE PATCHED TO MATCH EXISTING IS SHOWN FOR REFERENCE ONLY AND EXACT EXTENT WILL DEPEND ON SPECIFIC SITE CONDITIONS.
6. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING AND CONFIRMING ALL SUBSTRATE CONDITIONS WHERE NEW MATERIALS ARE APPLIED. SUBSTRATE SHALL BE SMOOTH, FREE OF DEFECTS AND SHALL CONFORM TO THE REQUIREMENTS OF THE FINISH MATERIAL MANUFACTURER RECOMMENDATIONS
7. ALL FINISHES TO BE INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS INCLUDING ALL ADHESIVES, MORTARS, GROUT, UNDERLAYMENT MEMBRANES, ETC. GENERAL CONTRACTOR TO CARRY INCLUSIVE COST FOR ALL INSTALLATION LABOUR, EQUIPMENT, AND MATERIALS TO SUPPLY AND INSTALL THE FINISHES AS SPECIFIED.
8. PROVIDE TRANSITION STRIP AT DOORWAY FOR ALL JUNCTIONS BETWEEN DIFFERENT FLOOR FINISH THICKNESS. WHERE NEEDED, PROVIDE FEATHERING UNDER FLOOR FINISH TO SLOPE THINNER FLOOR FINISH TO ALIGN WITH THICKER FLOOR FINISH.

ABBREVIATIONS

ACT -	ACOUSTIC CEILING TILE	
CBL -	CONCRETE BLOCK	
EX -	EXISTING	
DWW -	DRYWALL (WATER RESISTANT)	CERTAINTEED M2TECH (TYPE X WHERE INSTALLED IN FIRE SEPARATIONS)
DW -	DRYWALL	COMMERCIAL GRADE DRYWALL (TYPE X WHERE INSTALLED IN FIRE SEPARATIONS)
POR -	PORCELAIN TILE	JET BLACK, MATTE, 12" X 24", REGAL SERIES, BY OLYMPIA TILE. GROUT TO MATCH TILE
PORB-	PORCELAIN TILE BASE	JET BLACK, MATTE, 12" X 24", REGAL SERIES, BY OLYMPIA TILE. GROUT TO MATCH TILE
PT01 -	PAINT - COLOUR 1	MAIN WALL COLOUR - SIMPLY WHITE OC-117 BY BENJAMIN MOORE
PT02 -	PAINT - COLOUR 2	ACCENT WALL - AEGEAN TEAL 2136-40 BY BENJAMIN MOORE
PT03 -	PAINT - COLOUR 3	ACCENT WALL - VAN DEUSEN BLUE HC-156 BY BENJAMIN MOORE
PT04 -	PAINT - COLOUR 4	ACCENT WALL - WYTHE TAN CW-415 BY BENJAMIN MOORE
PT05 -	PAINT - COLOUR 5	ACCENT WALL - SAYBROOK SAGE HC-114 BY BENJAMIN MOORE
PT05 -	PAINT - COLOUR 6	ACCENT WALL - BOSTON BRICK 2092-30 BY BENJAMIN MOORE
RB -	RUBBER BASE	FLAGSTONE R41FS BY ARMSTRONG FLOORING
VCT -	VINYL COMPOSITE TILE	PATCH TO MATCH EXISTING (PROVIDE SAMPLES FOR CLIENT APPROVAL)
P.LAM-	HIGH PRESSURE LAMINATE ¾" PLYWOOD	BURNT STRAND 6307 MATT BY FORMICA (EXPOSED KITCHENETTE CABINETS)
P.LAM-	HIGH PRESSURE LAMINATE ¾" PLYWOOD	WHITE COLORCORE 2 LAMINATE MATTE 58 BY FORMICA (ALL COUNTERTOPS)
SDP -	STATIC DISSIPATIVE TILE	
TER -	TERRAZO	PATCH TO MATCH EXISTING. PROVIDE MOCK-UP FOR CLIENT APPROVAL
CPT -	HIGH TRAFFIC CARPET TILE	106951 CHARCOAL, OPEN AIR 408 BY INTERFACE
DOOR AND HM WINDOW FRAMES		FRAMES - JET BLACK 2120-10 BY BENJAMIN MOORE
DOORS		DOORS - JET BLACK 2120-10 BY BENJAMIN MOORE

ROOM FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR		BASE		NORTH WALL		SOUTH WALL		WEST WALL		EAST WALL		CEILING			REMARKS
		MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	HEIGHT	
A101	NEW VESTIBULE	EX/TER	-	EX/RB	-	EX	PT01	EX	PT01	EX	PT01	DW	PT01	ACT	-	8'-0"	
A102	CORRIDOR "A"	EX/TER	-	EX/RB	-	EX	PT01	EX	PT01	DW	PT01	EX	PT01	ACT	-	8'-0"	
A103	EXISTING WASHROOM	EX	-	EX	-	EX	PT01	EX	PT01	EX	PT01	EX	PT01	ACT	-	8'-0"	
A104	EXISTING ROOM	EX	-	EX	-	EX	PT01	EX	PT01	EX	PT01	EX	PT01	ACT	-	8'-0"	
A105	NEW DAYCARE ROOM	EX	-	EX	-	EX	PT02	EX	PT01	EX	PT01	EX	PT01	ACT	-	8'-0"	
A106	EXISTING STORAGE	EX	-	EX	-	EX	PT01	EX	PT01	EX	PT01	EX	PT01	ACT	-	8'-0"	
A107	NEW DAYCARE ROOM	EX/TER	-	EX/RB	-	EX	PT03	EX	PT01	EX	PT01	EX	PT01	ACT	-	8'-0"	
A108	EXISTING VESTIBULE	EX	-	EX	-	EX	PT01	EX	PT01	EX	PT01	EX	PT01	ACT	-	8'-0"	
A109	EXISTING STORAGE	EX	-	EX	-	EX	PT01	EX	PT01	EX	PT01	EX	PT01	ACT	-	8'-0"	
A110	NEW BARRIER FREE WASHROOM	POR	-	POR	-	DWW	PT01	DWW	PT01	DWW	PT01	DWW	PT04	DWW	-	8'-0"	
A112A	CORRIDOR "B"	EX/TER	-	EX/RB		EX	PT01	DW	PT01	EX	PT01	EX	PT01	ACT	-	8'-0"	
A112B	CORRIDOR "C"	EX	-	EX	-	DW	PT01	EX	PT01	EX	PT01	EX	PT01	ACT	-	8'-0"	
A113	EXISTING WASHROOM	EX	-	EX	-	EX	PT02	EX	PT01	EX	PT01	EX	PT01	DWW	-	8'-0"	
A114	EXISTING UTILITY	EX	-	EX	-	EX	-	EX	-	EX	-	EX	-	EX	-	EX	
A115	EXISTING WASHROOM	EX/ TER	-	EX/RB	-	EX	PT01	EX	PT05	EX	PT01	EX	PT01	DWW	-	8'-0"	
A116	EXISTING KITCHEN	EX	-	EX	-	EX	PT01	EX	PT01	EX	PT01	EX	PT01	ACT	-	8'-0"	
A117	EXISTING ROOM	EX/ TER	-	EX/RB	-	EX	PT01	EX	PT01	EX	PT01	EX	PT01	ACT	-	8'-0"	
A118A	NEW DAYCARE ROOM	EX	-	EX/ RB	-	DW	PT04	EX	PT01	EX	PT01	EX	PT01	ACT	-	8'-0"	
A118B	NEW SLEEPING ROOM	EX	-	EX/ RB	-	EX	PT04	DW	PT01	EX	PT01	EX	PT01	ACT	-	8'-0"	
A119	EXISTING UTILITY	EX	-	EX	-	EX	-	EX	-	EX	-	EX	-	EX	-	EX	
A120	EXISTING UTILITY	EX	-	EX	-	EX	-	EX	-	EX	-	EX	-	EX	-	EX	
A121	NEW STORAGE	EX	-	EX	-	EX	-	EX	-	EX	-	EX	-	ACT	-	8'-0"	
A122	NEW STORAGE	EX	-	EX	-	EX	-	EX	-	EX	-	EX	-	ACT	-	8'-0"	
A123	CORRIDOR "D"	VCT/EX	-	RB	-	EX	PT01	DW	PT01	DW	PT01	EX	PT01	ACT	-	8'-0"	
A124	NEW VESTIBULE	VCT/EX	-	RB	-	EX	PT01	EX	PT01	EX	PT01	DW	PT01	ACT	-	8'-0"	
A125	NEW MEETING ROOM	EX	-	RB	-	DW	PT02	EX	PT01	EX	PT01	DW	PT01	ACT	-	8'-0"	
A126	NEW ROOF ACCESS ROOM	EX	-	RB	-	EX	PT01	EX	PT01	DW	PT01	EX	PT01	ACT	-	8'-0"	
A127	CORRIDOR "E"	VCT/EX	-	RB	-	DW	PT01	DW	PT01	EX	PT01	EX/DW	PT01	ACT	-	8'-0"	
A128	ADMINISTRATION FLEX ROOM	VCT/EX	-	RB	-	EX	PT01	DW	PT01	EX	PT01	DW	PT02	ACT	-	8'-0"	
A129	ADMINISTRATION OFFICE 1	EX	-	RB	-	EX	PT01	DW	PT02	DW	PT01	EX	PT01	ACT	-	8'-0"	
A130	ADMINISTRATION OFFICE 2	EX	-	RB	-	DW	PT02	EX	PT01	DW	PT01	EX	PT01	ACT	-	8'-0"	
A131	ADMINISTRATION OFFICE 3	EX	-	RB	-	DW	PT02	EX	PT01	EX	PT01	DW	PT01	ACT	-	8'-0"	
A132	RECEPTION AREA	VCT/EX	-	RB	-	EX/DW	PT01	DW	PT03	EX	PT01	DW	PT01	ACT	-	8'-0"	
A133	PRINTER ROOM	VCT/EX	-	RB	-	DW	PT01	EX	PT01	EX	PT03	EX	PT01	ACT	-	8'-0"	
A134	FLEX ROOM	VCT/EX	-	RB	-	EX	PT01	DW	PT01	DW	PT04	EX	PT01	ACT	-	8'-0"	
A135	BUILDING DEPT. OFFICE	EX	-	RB	-	EX	PT01	DW	PT04	EX	PT01	DW	PT01	ACT	-	8'-0"	
A136	PLANNING DEPT. OFFICE	EX	-	RB	-	DW	PT04	EX	PT01	EX	PT01	DW	PT01	ACT	-	8'-0"	
A137	EDO OFFICE	EX	-	RB	-	DW	PT04	EX	PT01	DW	PT01	EX	PT01	ACT	-	8'-0"	
A138	FINANCE FLEX AREA	VCT/EX	-	RB	-	DW	PT01	DW	PT01	EX	PT01	DW	PT05	ACT	-	8'-0"	
A139	FINANCE OFFICE 1	VCT/EX	-	RB	-	EX	PT01	DW	PT05	EX	PT01	DW	PT01	ACT	-	8'-0"	
A140	FINANCE OFFICE 2	EX	-	RB	-	EX	PT01	DW	PT05	DW	PT01	EX	PT01	ACT	-	8'-0"	
A141	FINANCE OFFICE 3	EX	-	RB	-	DW	PT05	EX	PT01	DW	PT01	EX	PT01	ACT	-	8'-0"	
A142	FINANCE OFFICE 4	EX	-	RB	-	DW	PT05	EX	PT01	EX	PT01	DW	PT01	ACT	-	8'-0"	
A143	BY-LAW FLEX AND OFFICE 1	EX	-	RB	-	EX	PT01	DW	PT01	DW	PT02	EX	PT01	ACT	-	8'-0"	
A144	BY-LAW AND FIRE OFFICE 2	EX	-	RB	-	EX	PT02	DW	PT01	EX	PT01	DW	PT01	ACT	-	8'-0"	
A145	FINANCE OFFICE 5	VCT/EX	-	RB	-	EX	PT01	DW	PT01	EX	PT01	DW	PT05	ACT	-	8'-0"	
A146	FINANCE OFFICE 6	EX	-	RB	-	EX	PT01	DW	PT05	DW	PT01	EX	PT01	ACT	-	8'-0"	
A147	FILE CABINET ROOM	EX	-	RB	-	DW	PT01	DW	PT05	DW/EX	PT01	DW	PT01	ACT	-	8'-0"	
A148	LUNCH ROOM AREA	VCT/EX	-	RB	-	DWW	PT01	DWW	PT01	EX	PT03	EX	PT01	ACT	-	8'-0"	
A149	CORRIDOR "F"	VCT/EX	-	RB	-	DW	PT01	EX	PT01	EX/DW	PT01	EX/DW	PT01	ACT	-	8'-0"	
A150	CORRIDOR "G"	POR	-	PORB	-	DW	PT06	DW	PT01	DW	PT01	DW	PT01	DWW	-	8'-0"	
A151	WC 01	POR	-	PORB	-	DWW	PT01	DWW	PT01	DWW	PT01	DWW	PT06	DWW	-	8'-0"	
A152	WC 02	POR	-	PORB	-	DWW	PT01	DWW	PT01	DWW	PT01	DWW	PT06	DWW	-	8'-0"	
A153	WC 03	POR	-	PORB	-	DWW	PT01	DWW	PT01	DWW	PT01	DWW	PT06	DWW	-	8'-0"	
A154	WC 04	POR	-	PORB	-	DWW	PT01	DWW	PT01	DWW	PT01	DWW	PT06	DWW	-	8'-0"	
A155	UNIVERSAL WASHROOM	POR	-	PORB	-	DWW	PT01	DWW	PT01	DWW	PT01	DWW	PT06	DWW	-	8'-0"	
A156	PUBLIC WORKS OFFICE	VCT/EX	-	RB	-	DW	PT05	EX	PT01	DW	PT01	EX	PT01	ACT	-	8'-0"	
A157	TOWNHALL MEETING ROOM	CPT	-	RB	-	DW	PT01	DW	PT01	DW	PT01	DW	PT02	ACT	-	14'-0"	
A158	STORAGE ROOM	EX	-	RB	-	EX	PT01	DW	PT01	EX	PT01	DW	PT01	ACT	-	14'-0"	
A159	MEETING ROOM	CPT	-	RB	-	DW	PT02	EX	PT01	EX	PT01	DW	PT01	ACT	-	14'-0"	
A160	EXISTING VESTIBULE	VCT/EX	-	RB	-	EX	PT01	EX	PT01	DW	PT01	EX	PT01	ACT	-	8'-0"	

NO.	DESCRIPTION	DATE
1.	ISSUED FOR TENDER/ PERMIT	2024.03.08

REVISIONS

ALEX WARWICK ARCHITECT
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PROJECT

TOWNSHIP OF NORTH STORMONT - NEW TOWN HALL RENOVATION

ONTARIO ASSOCIATION OF ARCHITECTS
ALEXANDER WARWICK
LICENCE
8226

NORTH

ISSUED FOR CONSTRUCTION DATE

SHEET TITLE

WINDOW AND ROOM FINISH SCHEDULE

SHEET NO.	DRAWN BY	CHECKED
A701	AW	AW

SCALE N.T.S.

PAINT

P1
MAIN WALL COLOUR - SIMPLY WHITE OC-117 BY BENJAMIN MOORE

P2
ACCENT WALL - AEGEAN TEAL 2136-40 BY BENJAMIN MOORE

P3
ACCENT WALL - VAN DEUSEN BLUE HC-156 BY BENJAMIN MOORE

P4
ACCENT WALL - WYTHE TAN CW-415 BY BENJAMIN MOORE

P5
ACCENT WALL - SAYBROOK SAGE BY BENJAMIN MOORE

P6
ACCENT WALL - BOSTON BRICK 2092-30 BY BENJAMIN MOORE

DOORS AND FRAMES JET BLACK 2120-10 BY BENJAMIN MOORE

BUILDING MATERIAL FINISHES

RUBBER WALL BASE - FLAGSTONE R41FS BY ARMSTRONG FLOORING

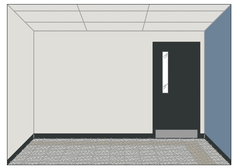
CARPET TILE - 106951 CHARCOAL, OPEN AIR 408 BY INTERFACE

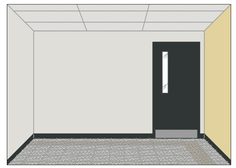
PORCELAIN FLOOR TILE AND BASE JET BLACK, MATTE, 12" X 24", REGAL SERIES, BY OLYMPIA TILE

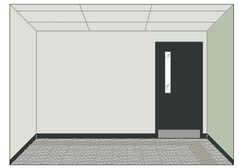
LUNCHROOM CABINET FINISH - BURNT STRAND 6307 MATT BY FORMICA

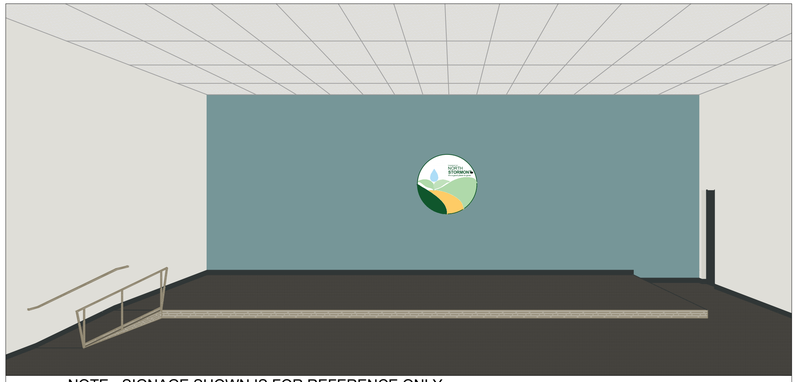
ALL COUNTER-TOP - WHITE COLORCORE 2 LAMINATE MATT 58 BY FORMICA

WHITE OAK RISER AND RAILINGS









NOTE - SIGNAGE SHOWN IS FOR REFERENCE ONLY

NO.	DESCRIPTION	DATE
1.	ISSUED FOR TENDER/ PERMIT	2024.03.08

REVISIONS

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PROJECT

TOWNSHIP OF NORTH STORMONT - NEW TOWN HALL RENOVATION

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NORTH

The contractor shall check and verify all dimensions and report all errors and ommisions to the architect and the design professional whose seal is affixed to this drawing. Do not scale the drawings.

This drawing shall not be used for construction purposes until issued for construction by the design professional whose seal is affixed to this drawing and whose signature is below.

ISSUED FOR CONSTRUCTION DATE

SHEET TITLE

MATERIAL FINISH BOARD

SHEET NO.	DRAWN BY	CHECKED
A702	AW	AW
	SCALE	N.T.S.

FINAL

Hazardous Building Materials Assessment

North Stormont Public School
57 Cockburn Street, Berwick, Ontario

Prepared for:

Upper Canada District School Board
225 Central Avenue West
Brockville, Ontario, K6V 5X1

March 9, 2023

Pinchin File: 302783.058

Issued to:	**Upper Canada District School Board**
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EXECUTIVE SUMMARY

Upper Canada District School Board (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment at North Stormont Public School located at 57 Cockburn Street, Berwick, Ontario. Pinchin performed the assessment on July 28, 2022.

The objective of the assessment was to document the locations of specified hazardous building materials, evaluate their condition and develop corrective action plans as required for the purposes of long-term management. The results of this assessment can be used for construction, renovation, demolition or project tendering purposes conditional that additional intrusive investigations are completed and excluded materials are sampled prior to disturbance, if required.

SUMMARY OF FINDINGS

Asbestos:

- Hard brown window caulking
- All asbestos-containing materials were observed to be in good condition

Lead:

- Low levels of lead in paints is present as follows:
  - Beige on concrete block walls (Phase A)
- Lead within batteries of emergency lights and fire alarm control panels

Silica: Crystalline silica is present in concrete, mortar, masonry, ceramics, grout, drywall, terrazzo and ceiling tiles.

Mercury: Mercury vapour is present in lamp tubes.

Polychlorinated Biphenyls (PCBs): PCBs are not present.

Mould and Water Damage: Visible mould growth and water damage was not observed.

SUMMARY OF RECOMMENDATIONS

The following is a summary of significant recommendations; refer to the body of the report for detailed recommendations.

1. Assess and/or sample materials listed as excluded or as presumed prior to disturbance.
2. Prepare an Asbestos Management Program (AMP).
3. Perform a re-assessment of ACM on an annual basis.
4. Perform a pre-construction assessment and remove all ACM prior to alteration or maintenance work if ACM may be disturbed by the work.
5. Recycle mercury-containing lamp tubes.
6. Follow appropriate safe work procedures when handling or disturbing asbestos, lead and silica.

This Executive Summary is subject to the same standard limitations as contained in the report and must be read in conjunction with the entire report.

3.2 Existing Reports

Pinchin previously prepared the following reports, which have been reviewed as part of this assessment:

- *"Hazardous Building Materials Assessment, North Stormont Public School, 57 Cockburn Street, Berwick, Ontario",* prepared by Pinchin Ltd. Dated October 13, 2011, File No. 70594.005.

4.0 FINDINGS

The following section summarizes the findings of the assessment and provides a general description of the hazardous materials identified and their locations. For details on approximate quantities, condition, friability, accessibility and locations of hazardous materials; refer to the Hazardous Material Summary Report and All Data Report in Appendix V and VI.

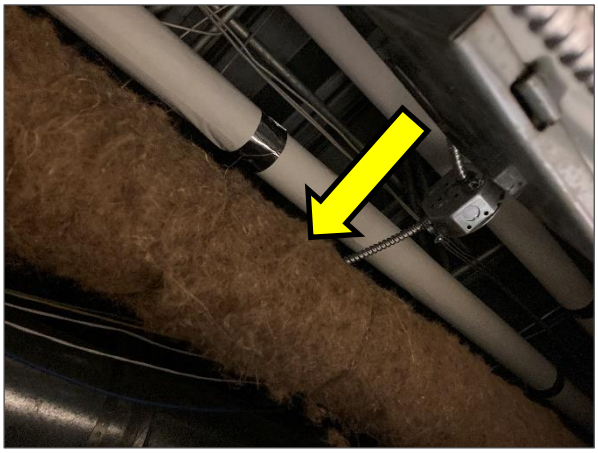
Any quantities listed in this report or data tables are estimated based on visual approximations only and are subject to variation.

4.1 Asbestos

4.1.1 Pipe Insulation

Horsehair insulation present on rain water leaders in the Central Corridor (Loc.3) does not contain asbestos (previous Pinchin samples S0004A-C).

Remaining pipes are either uninsulated or insulated with non-asbestos fibreglass.



Non-asbestos horsehair insulation.

Pipes insulated with non-asbestos fibreglass.

4.1.2 Duct Insulation and Mastic

Ducts are either uninsulated or insulated with non-asbestos fibreglass (foil-faced or canvas).

4.1.3 Mechanical Equipment Insulation

Mechanical equipment (e.g. furnace, hot water tank, fan unit) is either uninsulated or insulated with non-asbestos fibreglass.

Furnace insulated with non-asbestos fibreglass.

Hot water tank insulated with non-asbestos fibreglass.

4.1.4 Vermiculite

Destructive testing of concrete block walls to investigate for loose fill vermiculite was not conducted due to the current building use.

Loose fill vermiculite debris was not observed in the spaces/areas inspected.

4.1.5 Acoustic Ceiling Tiles

Acoustic ceiling tiles are present in the assessed area, as follows:

Size, Type, Pattern	Sample Locations	Sample Number	Asbestos Type
2'x4' lay-in, small pinholes, small fissures	Boiler Room (Loc.1)	Previous Pinchin samples S0001A-C	None Detected
2'x4' lay-in, small and medium pinoles	Classroom (Loc.4)	Previous Pinchin samples S0005A-C	None Detected

Ceiling tiles present throughout Building Phase B are presumed to be non-asbestos based on the age of the materials determined from the age of the building phase construction (1989). The tiles were manufactured after asbestos stopped being used in acoustic ceiling tiles.

Non-asbestos lay-in ceiling tiles with small pinholes, small fissures.

Non-asbestos lay-in ceiling tiles with small and medium pinholes.

4.1.6 Drywall Joint Compound

Drywall joint compound present on wall and ceiling finishes throughout Building Phase A (previous Pinchin samples S0003A-G) and Building Phase B (previous Pinchin samples S0010A-G) does not contain asbestos.

4.1.7 Vinyl Sheet Flooring

Vinyl sheet flooring is present as follows:

Pattern, Colour	Sample Locations	Sample Number	Asbestos Type
Blue and white specks	Maintenance (Loc.10)	Previous Pinchin samples S0006A-C	None Detected
Grey squares	Maintenance (Loc.10)	Previous Pinchin samples S0007A-C	None Detected

Non-asbestos vinyl sheet flooring with blue and white specks.

Non-asbestos vinyl sheet flooring with grey squares.

4.1.8 Vinyl Floor Tiles, Baseboard, and Stair Flooring

Vinyl floor products are present as follows:

Size, Pattern, Colour	Sample Locations	Sample Number	Asbestos Type (tile)	Asbestos Type (mastic)
12”x12” large white and beige streaks	Custodial Room (Loc.2)	Previous Pinchin samples S0002A-C	None Detected	None Detected
12”x12” large white and beige streaks (Abated Material)	*Central Corridor (Loc.17)*	*Previous Pinchin samples S0008A-C*	*None Detected*	*None Detected*
12”x12” large white and grey streaks	Storage Room (Loc.18) Gym (Loc.23)	Previous Pinchin samples S0009A-C and sample S0009D	None Detected	None Detected
12”x12” blue and light blue with fleck	Not sampled	N/A	None*	None*
12”x12” grey and beige with fleck	Not sampled	N/A	None*	None*

*Vinyl floor tiles were presumed to be non-asbestos based on historical knowledge of the date of installation (after 1992) based on information provided by the Client.

Mastic present under non-asbestos vinyl floor tiles installed after 1992 does not contain asbestos (samples S0016A-C).

Non-asbestos vinyl floor tiles with large white and beige streaks.

Non-asbestos vinyl floor tiles with large white and grey streaks.

Non-asbestos blue and light blue vinyl floor tiles with fleck.

Non-asbestos grey and beige vinyl floor tiles with fleck.

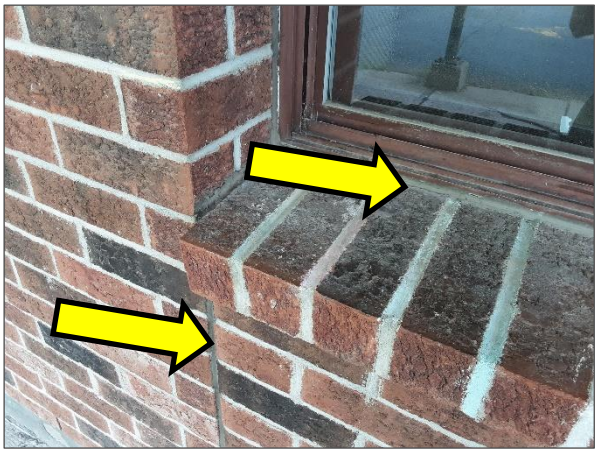
4.1.9 Sealants, Caulking, and Putty

The following table presents a summary of caulking, sealants and putties present:

Material and Colour	Application	Sample Locations	Sample Number	Asbestos Type
Caulking, light brown	Exterior window and door frames and expansion joints (Phase A)	Exterior – Phase A (Loc.100)	S0011A-C	None Detected
Caulking, brown	Exterior window frames and expansion joints (Phase B)	Exterior – Phase B (Loc.101)	S0012A-C	None Detected
Caulking, light grey	Exterior window frames (Phase B)	Exterior – Phase B (Loc.101)	S0013A-C	None Detected

Material and Colour	Application	Sample Locations	Sample Number	Asbestos Type
Caulking, hard brown	**Interior window frames (Phase A)**	**Classroom (Loc.4) Classroom (Loc.7) Classroom (Loc.8)**	**S0015A-C**	**Chrysotile**
Butyl sealant, black	Interior window liner (Phase A)	Vestibule (Loc.33)	S0017A-C	None Detected
Caulking, dark brown	Interior window frames (Phase B)	Classroom (Loc.21) Classroom (Loc.25) Classroom (Loc.26)	S0018A-C	None Detected
Caulking, silicone	Interior door frames	Not sampled	N/A	None*
Butyl sealant, rubber	Exterior window liners	Not sampled	N/A	None*

*Presumed to be non-asbestos based on the composition of the material (e.g. rubber, silicone).



Non-asbestos light brown caulking.

Non-asbestos brown caulking.

Non-asbestos light grey caulking.

Asbestos-containing hard brown caulking.

Non-asbestos black butyl sealant.

Non-asbestos dark brown caulking.

4.1.10 Other Building Materials

Paint present on concrete block walls throughout Building Phase A does not contain asbestos (samples S0014A-G).

Paint present on concrete block walls throughout Building Phase B is presumed to be non-asbestos based on the age of the materials determined from the age of the building phase construction (1989).

4.1.11 Excluded Asbestos Materials

The following is a list of materials which may contain asbestos and was excluded from the assessment. These materials are presumed to contain asbestos until otherwise proven by sampling and analysis:

- Roofing felts and tar, mastics
- Ceramic tile setting compound
- Electrical components
- Vermiculite
- Baseboard adhesives
- Adhesives and duct mastics
- Fire resistant doors
- Terrazzo
- Sealants on pipe threads
- Firestopping sealants
- Materials concealed or outside the assessed area

4.2 Lead

4.2.1 Paints and Surface Coatings

The following table summarizes the analytical results of paints sampled:

Sample Number	Colour, Substrate Description	Sample Location	Lead (%)
L0001	**Beige, concrete block walls (Phase A)**	**Classroom (Loc.4) Classroom (Loc.7) Kitchen (Loc.14)**	**0.0529**
L0002	Beige, drywall (Phase A)	Classroom (Loc.4) Classroom (Loc.8) Staff Room (Loc.13)	0.0031
L0003	Pink, drywall (Phase A)	Administration (Loc.16)	0.0020
L0004	Beige, drywall (Phase B)	Gym Storage (Loc.22) Classroom (Loc.24) Classroom (Loc.26)	0.0015
L0005	Beige, concrete block walls (Phase B)	Storage Room (Loc.18) Gym (Loc. 23)	0.0059

Results less than or equal to 0.1% (1,000 mg/kg), but equal to or greater than 0.009% (90 mg/kg), are considered low-level lead paints or surface coatings in accordance with the EACC guideline.

Paints containing less than 0.009% (90 mg/kg) lead is assumed to be insignificant.

4.2.2 Lead Products and Applications

Lead-containing batteries are present in emergency lighting and fire control panels.

Lead-containing batteries in emergency lighting.

Lead-containing batteries in fire alarm control panel.

4.2.3 Excluded Lead Materials

Lead may be present in a number of materials which were not assessed and/or sampled. The following materials, where found, should be considered to contain lead:

- Electrical components, including wiring connectors, grounding conductors, and solder
- Solder on pipe connections
- Glazing on ceramic tiles

4.3 Silica

Crystalline silica is a presumed component of the following materials:

- Poured or pre-cast concrete
- Masonry and mortar
- Ceramic tiles and grout
- Drywall
- Terrazzo
- Ceiling tiles

4.4 Mercury

4.4.1 Lamps

Mercury vapour is present in fluorescent lamp tubes.

4.4.2 Mercury-Containing Devices

Thermostats inspected did not contain liquid mercury ampules.

Non-mercury digital thermostat.

4.5 Polychlorinated Biphenyls

4.5.1 Caulking and Sealants

The following table presents a summary of caulking sampled:

Material, Colour	Sample Location (Location #)	Sample Number	PCB concentration mg/kg
Various caulking and butyl sealants	Windows and door frames, window liners and expansion joints (Loc.4, Loc.33 and Loc.100)	P0001	<5
Caulking, silicone	Interior door frames	N/A	None*
Butyl sealant, rubber	Exterior window liners	N/A	None*

*Presumed to be a non-PCB solid based on the composition of the material (e.g. rubber, silicone).

Caulking in the table above is considered a non-PCB solid based on the threshold (50 mg/kg).

PCBs were banned in 1980; however, are found to be present in caulking and sealants until 1985. Caulking and sealants present in Building Phase B were installed after 1989 and is not suspected to contain PCBs.

4.5.2 Lighting Ballasts

Based on visual observations (evidence of T-8 fixtures) Building Phase A has been comprehensively re-lamped and will not contain PCB ballasts.

Based on date of construction (1989) and confirmed by visual observations (evidence of T-8 fixtures) Building Phase B will not contain PCB ballasts.

4.5.3 Transformers

All transformers in the building are dry type transformers and do not contain PCB-containing dielectric fluids; however, may contain capacitors, which could not be assessed for PCBs as the equipment was in service.