

BUILDING PERMIT

This card must be kept posted in a conspicuous place on site of construction.

25 159679 BLD 00 BA

Site Address 330 PROGRESS AVE

Project Description Police Station with Detention;

Interior Alterations

Date Issued Friday July 18, 2025

Kamal Gogna, P. Eng.
Interim Chief Building
Official & Executive Director

Anthony De Francesca
Deputy Chief Building Official and
Director

THIS IS YOUR PERMIT TO CONSTRUCT
PERMIT NUMBER: 25 159679 BLD 00 BA

Owner:

CITY OF TORONTO

CITY OF TORONTO

Address:

C/O ENERGY MANAGEMENT, CORPORATE SERVICES
55 JOHN ST 2FL
TORONTO, ON M5V 3C6
CAN

C/O ATEF BOULOS
55 JOHN ST
TORONTO ON

Project Description: Police Station with Detention; Interior Alterations

Project Location: 330 PROGRESS AVE

Ward:

The issuance of this permit is based on the drawings, specifications, details and information submitted with the application. The submitted documents have been reviewed for compliance with the Ontario Building Code, Zoning By-laws, applicable regulations and legislation.

The referenced permit number listed above and on your permit placard also appears on all plans reviewed for this building permit application. The validity of this permit is restricted to the person/company named as owner. Permit ownership cannot be transferred unless prior written authorization is given by the Chief Building Official.

The extent of construction authorized under this permit is limited to the description contained herein as follows:
Proposal for BAS control and air handling unit replacement and related new roof opening

Stated work and use must be in accordance with the plans, specifications, building permit notes and other information issued with this building permit. Changes to any documents submitted are not to be made unless prior authorization is obtained from the Chief Building Official or designate. False information may be grounds for revocation of the building permit.

Notwithstanding, it is the responsibility of the owner to comply with requirements of the Ontario Building Code and applicable laws as well as to ensure compliance ..

The permit placard must be posted in a conspicuous place on the construction site.

Anthony De Francesca
Deputy Chief Building Official
Scarborough District

Issued by: Toronto Building Issuance Te
Date Issued: July 18, 2025

Please see the second page of this letter for additional requirements and inspection information.

WHEN YOU BEGIN DEMOLITION/CONSTRUCTION ...

Site Fencing

As soon as construction or demolition starts, your site must be entirely surrounded by a fence which is in compliance with the City of Toronto Municipal Code Chapter 363, Article III. The minimum requirement is plastic mesh fencing, 1.2 metres high, tied to posts spaced no more than 1.2 metres apart with an 11 gauge top and bottom wire threaded through the mesh and looped around each post. The Municipal Code is available on the City website at:

http://www.toronto.ca/legdocs/municode/1184_363.pdf

Construction Noise

Any construction which generates noise is prohibited in residential areas between the hours of 7:00 p.m. one day to 7:00 a.m. the next day, 9:00 a.m. on Saturdays, and all day Sunday and Statutory holidays.

When To Call For Inspection

You are required by Division C, Part 1, Article 1.3.5.1. of the Ontario Building Code, to notify the building inspection office at several prescribed stages of construction. Please contact the building inspection office at the telephone number listed below, when each of the following stages are substantially complete:

Inspection Stages

- | | | |
|-----------------------------|-----------------------------|--------------------------------|
| * Structural Framing | * Insulation/Vapour Barrier | * Fire Separations |
| * Fire Protection Systems | * Fire Access Routes | * Interior Final Inspection |
| * Exterior Final Inspection | * Site Grading Inspection | * Pool Suction/Gravity Outlets |
| * Pool Circulation System | * Occupancy | |

To Schedule your Next Mandatory Inspection

When you are ready to book your inspection, you may request an inspection online from your computer or smart phone using Toronto Building's Inspection Request web application at www.toronto.ca/building-inspection-request.

Alternatively, you may contact your local building inspection office by telephone at 416-338-0700, by fax 416-696-4166 or by email to SCBldgInsp@toronto.ca.

Inspections will take place within two days commencing at the start of business on the day following your notification (Inspection Request).

Please leave a telephone number where you can be reached or a message can be left.

The inspector assigned to your project is Dan Voikos (416) 396-7305

PERMIT PLANS MUST BE ON SITE

Your permit plans and specifications must be on site at all times. Inspections are conducted with your copy of the plans.

BULLETIN - CONSTRUCTION SAFETY

The responsibilities of the City of Toronto under the Occupational Health and Safety Act apply to all our employees regardless of the location at which they are working.

Responsibilities for the Construction Safety Regulations on construction sites are clearly spelled out in the Act under the definitions of constructor, employer, supervisor and worker.

The City of Toronto believes that the goal of safe and injury free construction sites is a priority for all parties involved in building construction.

Safety training for the City of Toronto Building Inspectors is mandatory. However the delivery of a safe working environment on construction sites must include the compliance of individual builders with the Occupational Health and Safety Act.

Safety measures include the following:

1. Temporary guards on all openings,
2. Correct use of ladders,
3. Temporary or permanent stairs above or below grade by the time the sub floor is complete,
4. Clear and safe access to the site,
5. Protection of trenches and excavation below four feet deep, and
6. Correct use of fall prevention equipment where required.

As the employer responsible for the safety of building inspectors, the City of Toronto has instructed its Building Inspectors not to conduct inspections on sites where conditions exist that could jeopardize their health and safety.

The following are examples of conditions which may jeopardize the health and safety of inspectors:

1. Guards are missing,
2. Ladders do not meet regulations,
3. Temporary or permanent stairs, above or below grade, to all floor levels are not provided as required.
4. Access to the site has impediments or hazards, or
5. Trenches or excavations lack required shoring or slope of bank.

Prior to calling for an inspection the appropriate safety measures shall be in place as a site inadequately provided with these measures is not ready for inspection. The City of Toronto Building Inspectors will cooperate with builders regarding the timing of making provision for these safety measures. However, if the measures are not provided, an Order Not To Cover could be issued and the Ministry of Labour informed.

We look forward to working with you toward the goal of a safe environment for all workers.

Notice of Project - Please be advised that the Ministry of Labour requires a Notice of Project be filed with them before starting any project costing \$50,000 or more.

For more information about the Notice of Project form and construction information please visit Ministry of Labour website at: <https://www.labour.gov.on.ca/english/hs/forms/>

Report an Incident

Notify the ministry of fatalities, critical injuries, work refusals, reprisals and unsafe work practices.

Ministry of Labour Health & Safety Contact Centre

Toll-free: 1-877-202-0008

TTY: 1-855-653-9260

Fax: 905-577-1316

Construction of the work approved in this building permit must be carried out with reasonable care to ensure protection for everyone on the construction site from the hazards associated with all overhead and underground power lines. Obtain further information at: <http://www.torontohydro.com/powerlinesafety>

TORONTO MUNICIPAL CODE 441
FEES AND CHARGES
Appendix C - Schedule 8, Toronto Building

25 159679 BLD 00 BA
330 PROGRESS AVE

Total Permit Fee **\$1,330.00**

Work Proposed *Interior Alterations* **Sub** *Police Station with Detention*

Building Classification	Service	Index	Value in Square Meters	Fee
	<i>Dollars per Square Meter</i> <i>unless otherwise indicated</i>		<i>(unless otherwise indicated)</i>	
B. Alterations and Renovations:				
Interior Alterations (Partitions, Finishings, Etc.):				
Groups A, B and D		5.32	250	1,330.00

Total Permit Fee **\$1,330.00**

Permit Advisory Notes

Building permits issued under subsection 8(2) of the Building Code Act, 1992 (the "BCA") have been reviewed for compliance with the BCA, the Ontario Building Code 2012, and "applicable law", as that term is defined in Sentence 1.4.1.3(1) of Division A of the Ontario Building Code. There may be other approvals that you require to carry out the construction and/or demolition authorized by the building permit. The following advisory notes flag for you some of the other approvals that are frequently required to proceed with construction and/or demolition like that authorized by the building permit. These advisory notes are not meant to provide you with an exhaustive list of other approvals that may be required, and you must therefore satisfy yourself that you have obtained all other applicable approvals prior to commencing the construction and/or demolition authorized by the building permit.

- ☐ This building permit is separate and distinct from any approval required in association with the removal of a tree(s) or any work associated with either private or public utility infrastructure, as identified in the documentation submitted to Toronto Building by the permit applicant. As such, this building permit does not relieve the permit holder of the need to seek approvals from the appropriate City Division or external agency, as applicable, prior to carrying out any construction authorized by this permit.

- ☐ Permit issuance does not include the authority to enter on adjacent property. Refer to City of Toronto Municipal Code, Chapter 363 - Building Construction and Demolition, Article V, Right of Entry, for requirements to allow access onto adjacent property.

Building Permit 332_12

The reviewed plans and specifications must be available on site during construction/demolition. Changes to these plans and specifications are not to be made unless prior written approval is obtained from the Chief Building Official.

The owner/permit holder is required to comply with the following Permit Notes, which are part of the reviewed permit documents:

- ☐ For demolition work, the Ontario Fire Code Demolition Requirements, see attached.
- ☐ Standards referenced in Section 1.3 of Division B shall be complied with Table 1.3.1.2.:
 - a) Wood - CAN/CSA- O86-09
 - b) Plain and Reinforced Masonry - CSA-S304.1
 - c) Plain, reinforced and Pre-stressed Concrete - CAN/CSA-23.3, CAN/CSA A23.1, CAN/CSA A23.2
 - d) Structural Steel - CAN/CSA-S16-09
 - e) Parking Structures - CSA-S413
- ☐ In buildings of combustible construction, except for exit closures, flame-spread rating of all interior wall and ceiling finishes (including glazing) shall not exceed 150.
- ☐ In buildings of non-combustible construction, except for exit closures, flame-spread rating of all interior wall and ceiling finishes (including glazing) shall not exceed 150 and 25 respectively.
- ☐ The City has Relied upon the plans and drawings prepared and submitted by the qualified architects and/or engineers on this project.

The issuance of a permit does not imply a complete design review of this project has been performed and does not relieve the owner and designers from the need to comply with the Ontario Building Code and referenced standards where contravention are subsequently noted.

- ☐ Ravine Protection By-law

The Ravine Protection By-law, Chapter 658 of the City of Toronto Municipal Code regulates the injury and destruction of trees, dumping of refuse and changes to grade within protected areas defined in Schedule A.

No grade change, storage of materials or equipment is permitted within the ravine protection zones identified on plans approved under the Ravine Protection By-law.

A person convicted of an offence respecting the regulations in the Ravine Protection By-law are subject to a fine of up to \$20,000 and may be ordered by the court to restore the area to the satisfaction of the City.
- ☐ Separate HVAC Permit is Required
- ☐ Separate PLUMBING Permit is Required
- ☐ Sprinkler Systems shall comply with NFPA 13 Standard

Additional Permit Notes

This project reviewed with the understanding that there is no change in performance as permitted by 11.3.1.1. Material Alterations and Repairs. Changes resulting in work that exceeds the scope of 11.3.1.1, require a resubmission or revision to permit

This project reviewed with the understanding that there is no change in performance under:

11.4.2.1. Structural Live load

11.4.2.2. Change in Occupant Load

11.4.2.3. Change in Major Occupancy.

Changes resulting in work that require compensating construction under 11.4.3., or otherwise reduce the early warning, evacuation or life safety building systems, require building department approval.

City of Toronto Building Department notes apply to the entire project. Notes are not a complete list of applicable legislation and do not exempt the applicant from complying with all aspects of the Ontario Building Code latest edition.

Structural Engineer to review impact of demolition on existing structure prior to start of construction.

Maintain the integrity, continuity and fire resistance rating of all existing fire separations and fire protection subject to OBC compliance requirements for new construction and/or change in use.

New construction must not reduce performance, i.e., fire resistance rating, of existing fire separations/protection.

Ensure penetrations in existing suspended slabs are reviewed by a structural engineer prior to drilling. Firestop all penetrations in all fire separations. Maintain/replace existing fire protection that has been removed with a material/assembly tested/approved by a recognized testing agency.

Interior materials and surface finishes used in the project, including, but not necessarily limited to, fabric cladding, exposed/concealed wood construction, acrylics, etc shall meet all applicable requirements of OBC 2012 including latest amendments.

Applicable requirements include but are not necessarily limited to those listed in 3.1.4.

Combustible Construction or 3.1.5, Non-Combustible Construction (depending on whether construction classification is combustible or non-combustible), 3.1.11 Fire Blocks in Concealed Spaces and 3.1.12 Flame-Spread Rating and Smoke Developed Classification.

The OBC portion of review for this permit is for new openings in roof only.

All loadbearing walls, columns, and arches in the storey immediately below a floor or roof assembly shall have a fire-resistance rating of not less than that required for the supported floor or roof assembly.

Demolition work shall comply with the following Ontario Fire Code requirements:

SECTION 8.1 GENERAL

Subsection 8.1.1. Application

Application

8.1.1.1. This Part applies to the prevention or control of fire during any demolition and the protection from fire of adjacent occupied spaces and adjoining properties.

Subsection 8.1.2. Requirements

Building services 8.1.2.1.

Existing building services that may be affected by demolition so as to cause a fire hazard shall be protected or be shut off and capped.

Firewatch 8.1.2.2.

(1) During periods when demolition operations will create a fire hazard to neighbouring properties or partially occupied spaces, a firewatch shall be provided.

(2) Where a firewatch is required, the demolition site shall be toured at least once each hour.

(3) The firewatch personnel shall be provided with a means of communication with the fire department, and be equipped with portable illumination and protective equipment.

(4) Prior to commencement of demolition, a plan conforming to Sentence (5) shall be prepared and implemented for the demolition site.

(5) The plan required by Sentence (4) shall include

- (a) the designation and organization of site personnel to carry out fire safety duties, including firewatch if applicable,
- (b) the emergency procedures to be used in case of fire, including
 - (i) sounding the alarm throughout the building ,
 - (ii) notifying the fire department , and
 - (iii) instructing site personnel on procedures to be followed when the fire alarm sounds,
- (c) the control of fire hazards in and around the building , and
- (d) the maintenance of fire fighting facilities.

Storage of combustible salvage 8.1.2.3.

(1) Combustible salvage, combustible waste material and rubbish shall not be permitted to accumulate on site in such quantity or such location as to cause a fire hazard.

(2) Where temporary chutes are installed on the exterior of a building they shall

- (a) be of noncombustible material, or
- (b) be installed a distance of at least 3 m from any opening in the building face.

Removal of combustible waste 8.1.2.4.

Rubbish shall not be burned on the premises unless permitted in accordance with Article 2.6.3.4.

Welding and cutting 8.1.2.5.

Electric or gas welding and cutting equipment and the installation, operation and maintenance of electric or gas welding and cutting equipment shall be carried out in conformance with the requirements of Section 5.17.

Standpipe systems 8.1.2.6.

(1) During the demolition of any building with a standpipe system, the standpipe system complete with fire department connections, valves, couplings and hose, shall be maintained two floors below the level of the floor being demolished.

(2) Where no fire department standpipe connections exist in buildings 4 storeys or more in building height in buildings under demolition, a temporary connection shall be provided.

(3) In buildings not equipped with a standpipe system and over 8 storeys in building height, a temporary standpipe shall be provided.

(4) Standpipe systems shall be kept in such condition that they may be connected near street level, to a fire department pump, so as to supply water to every outlet on each floor.

(5) In buildings over 84 m in height, primary water supplies serving standpipe systems, including fire pumps, shall be maintained in operating condition in buildings under demolition.

Access 8.1.2.7.

(1) Fire fighting access routes shall be maintained in conformance with Section 2.5.

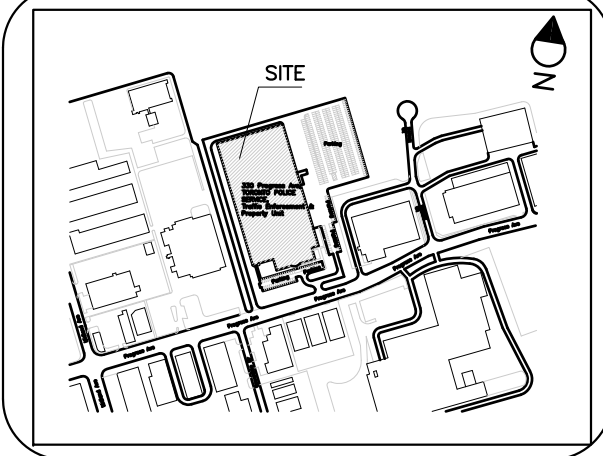
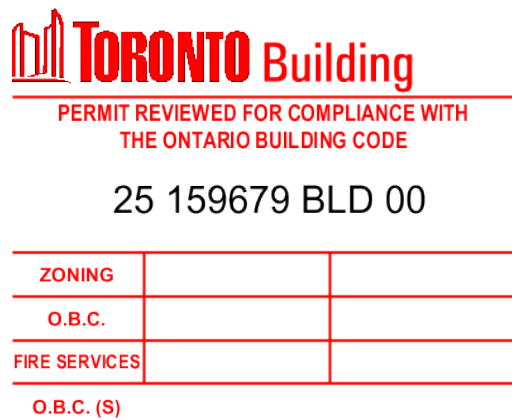
(2) Elevating devices shall be accessible for the use of firefighters for buildings more than 36 m in building height, measured between grade and the floor level of the top storey.

Portable extinguishers 8.1.2.8.

(1) Portable extinguishers shall be provided in buildings under demolition in conformance with Subsection 6.2.6. as if the building were graded for ordinary hazard under Subsection 6.2.5.

(2) Portable extinguishers required under Sentence (1) shall be maintained in conformance with Section 6.2.

CITY OF TORONTO - CORPORATE REAL ESTATE MANAGEMENT
TPS POLICE WAREHOUSE AND OFFICE BUILDING
BAS CONTROLS & AIR HANDLING UNIT REPLACEMENT
330 PROGRESS AVENUE, TORONTO, ON



KEY PLAN



1 KEY PLAN
A1 N.T.S.

DRAWING INDEX:

ARCHITECTURAL:

- A1 - KEY PLAN, OBC MATRIX & DRAWING INDEX
A2 - SITE PLAN

STRUCTURAL:

- S1 - STRUCTURAL FRAMING- PLAN & NOTES
S2 - STRUCTURAL FRAMING - SECTIONS & DETAIL
S3 - STRUCTURAL FRAMING - SNOW LOAD DIAGRAM

MECHANICAL:

- M1 - LEGEND AND ABBREVIATION, DRG. LIST, KEY MAP SHOWING
EXISTING LAYOUT OF HVAC EQUIPMENT ON ROOF
M2 - EXISTING HVAC ROOFTOP PACKAGED AIR CONDITIONER SCHEDULE
M3 - NEW HVAC ROOFTOP EQUIPMENT SCHEDULE
M4 - HVAC DEMOLITION LAYOUT - ROOF
M5 - HVAC AND BAS CONTROLS - NEW INSTALLATION LAYOUT - GROUND FLOOR
M6 - HVAC LAYOUT - SECOND FLOOR
M7 - HVAC NEW INSTALLATION LAYOUT - ROOF
M8 - BAS CONTROL SCHEMATICS - BAS ARCHITECTURE AND NOTES
M9 - BAS CONTROL SCHEMATICS AND CONTROL - SEQUENCE - UNITARY EQUIPMENT
M10 - BAS CONTROL SCHEMATICS- ROOFTOP HVAC PACKAGES UNITS
M11 - BAS CONTROL SCHEMATICS - ROOFTOP HVAC PACKAGED UNITS
M12 - BAS CONTROL SCHEMATICS AND CONTROL - SEQUENCE - EXHAUST FANS
M13 - HVAC ROOFTOP UNIT ZONING DETAILS + BAS SCOPE OF WORK + TESTING AND
BALANCING SCOPE OF WORK
M14 - EXHAUST FANS AND UNITARY HVAC UNITS - BAS SCOPE OF WORK

3 DRAWING INDEX
A1 N.T.S.

	ONTARIO BUILDING CODE DATA MATRIX PARTS 11 - RENOVATION OF EXISTING BUILDING		
	EXISTING BUILDING CLASSIFICATION	DESCRIBE EXISTING USE: <u>WAREHOUSE & OFFICE BUILDING</u>	11.2.1
		LOW RISE: (<u>COMBUSTIBLE AND NON-COMBUSTIBLE</u>)	T 11.2.1.1A T 11.2.1.1B TO N
		CONSTRUCTION INDEX: <u>EIGHT (8)</u>	
		HAZARD INDEX: <u>FIVE (5)</u>	
11.2	ALTERATION TO EXISTING BUILDING IS	BASIC RENOVATION: ☒ EXTENSIVE RENOVATION: ☐	11.3.3.1 11.3.3.2
11.3	REDUCTION IN PERFORMANCE LEVEL	STRUCTURAL: ☒ NO ☐ YES	11.4.2 11.4.2.1
		BY INCREASE IN OCCUPANT LOAD: ☒ NO ☐ YES	11.4.2.2
		BY CHANGE IN MAJOR OCCUPANCY: ☒ NO ☐ YES	11.4.2.3
		PLUMBING: ☒ NO ☐ YES	11.4.2.4
		SEWAGE SYSTEM: ☒ NO ☐ YES	11.4.2.5
11.4	COMPENSATING CONSTRUCTION	STRUCTURAL: ☒ NO ☐ YES	11.4.3 11.4.3.2
		INCREASE IN OCCUPANT LOAD: ☒ NO ☐ YES	11.4.3.3
		CHANGE IN MAJOR OCCUPANCY: ☒ NO ☐ YES	11.4.3.4
		PLUMBING: ☒ NO ☐ YES	11.4.3.5
		SEWAGE SYSTEM: ☒ NO ☐ YES	11.4.3.6
11.5	COMPLIANCE ALTERNATIVES PROPOSED	☒ NO ☐ YES	11.5.1

2 OBC MATRIX
A1 N.T.S.



5		
4		
3	ISSUED FOR PERMIT	APR.25,25
2	ISSUED FOR TENDER	MAR.19,25
1	For Client Review @ 60%	DEC.18,24
NO.	REVISION	DATE

NOTE:
CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING.
LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.
PRINTS ARE NOT TO BE SCALED.

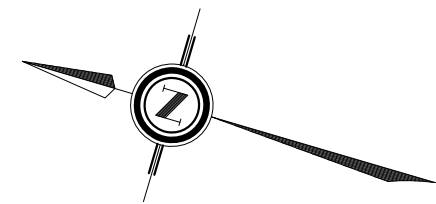


Project Name :
TPS POLICE WAREHOUSE & OFFICE BUILDING
Project Address :
330 PROGRESS AVENUE
TORONTO, ON
Job Descript. :
BAS CONTROLS & AIR HANDLING UNIT REPLACEMENT

KEY PLAN, OBC MATRIX & DRG. INDEX

Design:	A.T
DRAWN:	R.A.
Approv.:	A.T.
Scale:	As Shown
Date:	FEB. 23, 24

Project No.	Dwg.No.
Job No.	A1 OF 2

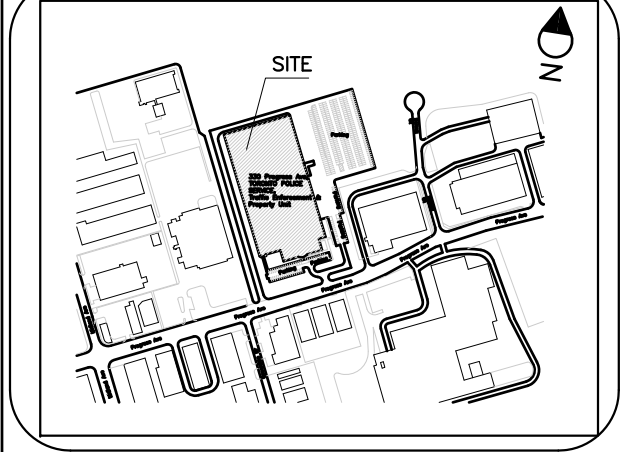




PERMIT REVIEWED FOR COMPLIANCE WITH
THE ONTARIO BUILDING CODE

25 159679 BLD 00

ZONING		
O.B.C.		
FIRE SERVICES		
O.B.C. (S)		



KEY PLAN

5		
4		
3	ISSUED FOR PERMIT	APR.25,25
2	ISSUED FOR TENDER	MAR.19,25
1	For Client Review @ 60%	DEC.18,24

NO.	REVISION	DATE
-----	----------	------

NOTE:
CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING.

LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.

PRINTS ARE NOT TO BE SCALED.



CORPORATE REAL ESTATE MANAGEMENT
METRO HALL, 55 JOHN STREET
2ND FLOOR
TORONTO, ONTARIO, M5V 3C6



TABCON
CONSULTING INC.
494 McNicoll Avenue, Suite # 201
Toronto, Ontario, M2H 2E1
Tel. : (647) 974-7006
Web Site : www.tabcon.com

Project Name :
TPS POLICE WAREHOUSE & OFFICE BUILDING

Project Address :
330 PROGRESS AVENUE
TORONTO, ON

Job Descript. :
BAS CONTROLS & AIR HANDLING UNIT REPLACEMENT

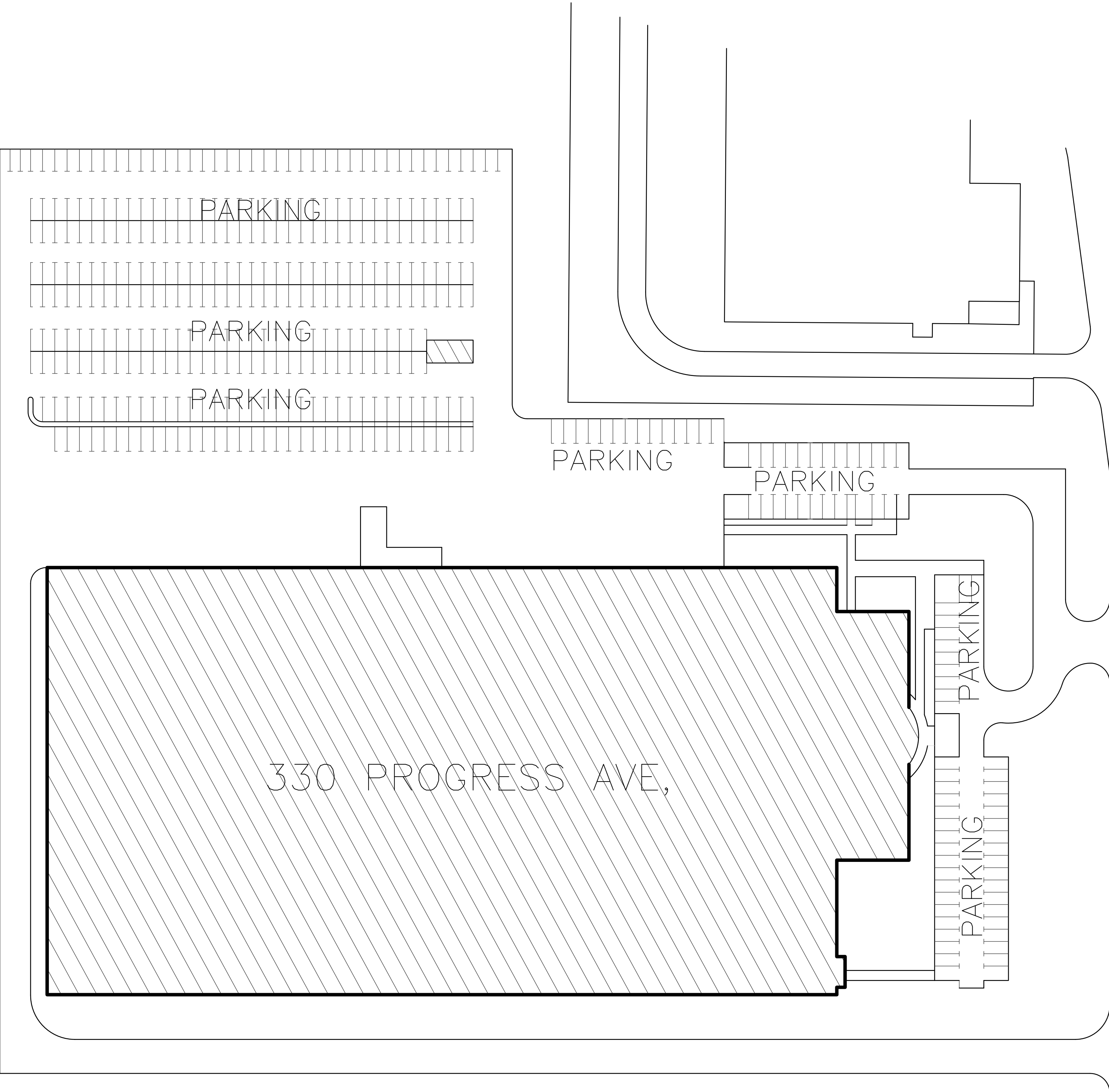
SITE PLAN

Design:	A.T
DRAWN:	R.A.
Approv.:	A.T.
Scale:	As Shown
Date:	FEB. 23, 24

Project No.	
Job No.	

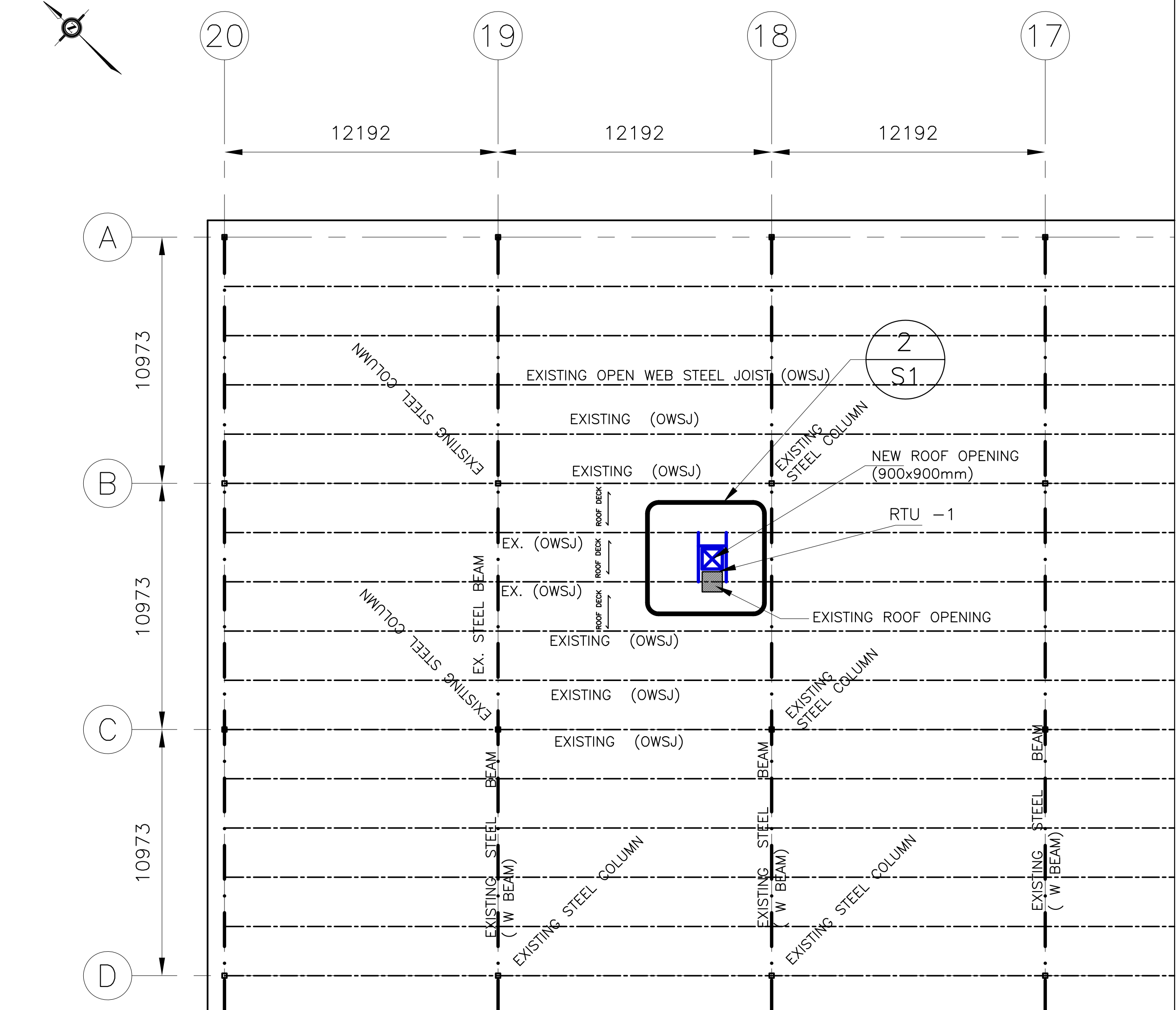
Dwg.No.

A2
OF 2



NOTE:

DRAWINGS (S1 & S2) SHALL BE READ IN CONJUNCTION WITH THE MECHANICAL DRAWINGS



1 S1 PARTIAL ROOF PLAN – PROPOSED ROOF OPENING FOR NEW ROOF UNIT
1:200

GENERAL NOTES

1. THE DESIGN AND CONSTRUCTION OF ALL WORK ON THIS PROJECT IS TO CONFORM TO THE ONTARIO BUILDING CODE – 2012 INCLUDING ALL AMENDMENTS, AND THE RELEVANT LISTED C.S.A. STANDARDS INCLUDING THE LATEST REVISIONS.
2. THE CONTRACTOR SHALL CHECK AND VERIFY ALL CONDITIONS AND MEASUREMENTS AT THE SITE AND REPORT TO THE ENGINEER ANY DISCREPANCIES OR UNSATISFACTORY CONDITIONS WHICH MAY ADVERSELY AFFECT THE PROPER COMPLETION OF THE JOB BEFORE PROCEEDING WITH THE WORK.
3. DO NOT SCALE THE DRAWINGS
4. CONSTRUCTION, FABRICATION, & SHOP DRAWING REVIEW MUST BE PROVIDED AS PER CODE.
5. ALL DIMENSIONS ON DRAWINGS ARE IN MILLIMETERS U.N.O.
6. APPROVED SHALL MEAN APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD.
7. DELIVER, HANDLE AND STORE MATERIALS TO AVOID DAMAGE IN ANY MANNER.
8. MAINTAIN A SET OF DRAWINGS ON SITE & UPDATE AS NECESSARY WITH CONSTRUCTION RECORD INFORMATION.

DESIGN NOTES:

1. ALL STRUCTURAL STEEL MEMBERS HAVE BEEN DESIGNED AS PER CAN/CSA –S16–09

3 S1 GENERAL NOTES

STRUCTURAL STEEL

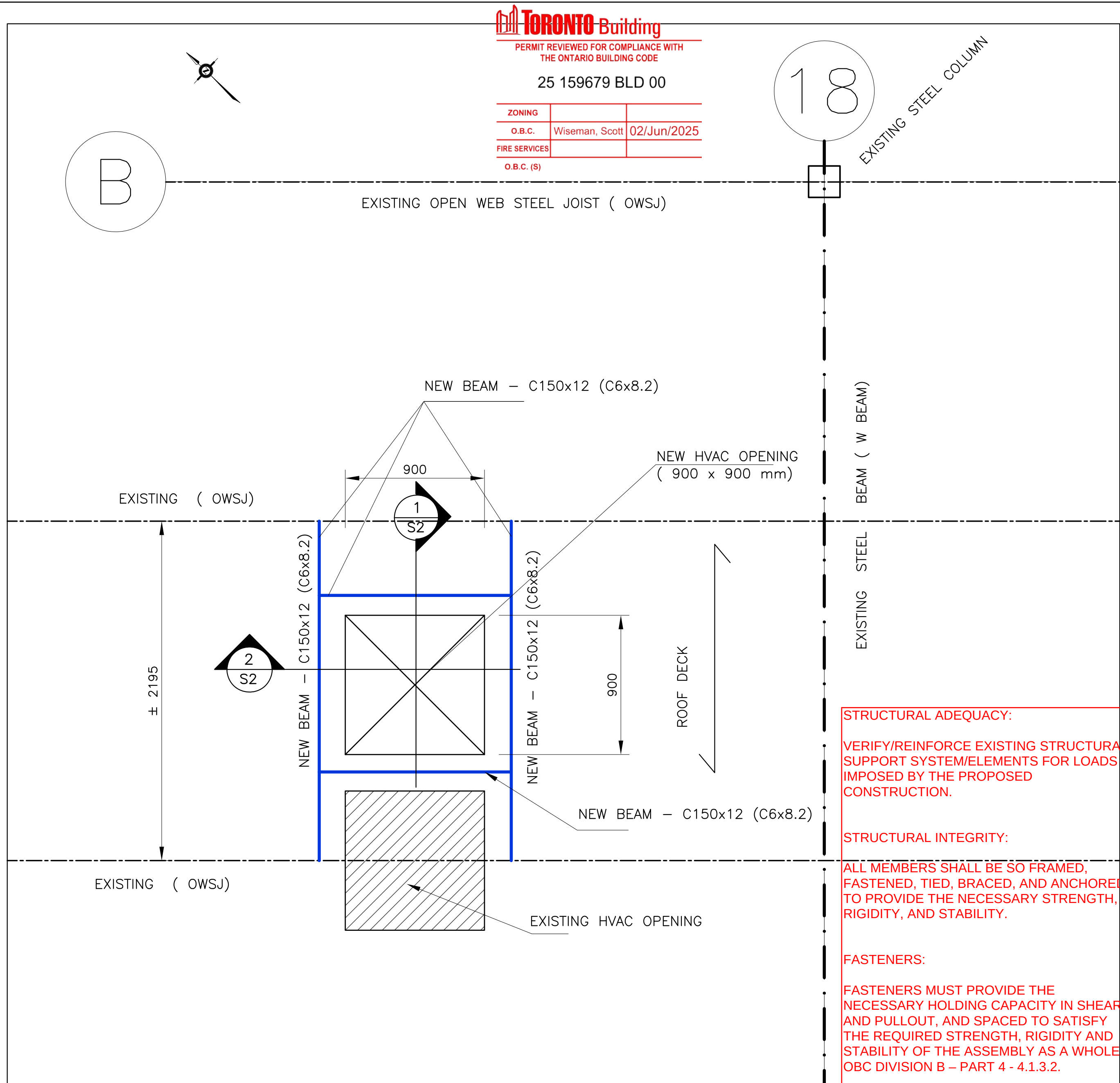
1. ALL STRUCTURAL STEEL SHALL BE DESIGNED TO COMPLY TO THE REQUIREMENT OF CAN/CSA–S16.09 – "LIMIT STATES DESIGN OF STEEL STRUCTURES" AND FOLLOW CISC CODE OF STANDARD PRACTISE FOR STRUCTURAL STEEL.
2. ALL STEEL TO BE SHOP PRIMED WITH AN APPROVED ANTI–CORROSIVE PRIMER (EXCEPT IN THE CONTACT AREAS OF CONNECTIONS) AND TOUCHED UP IN THE FIELD AS REQUIRED.
3. CO–ORDINATE WITH MECHANICAL AND ELECTRICAL CONTRACTORS AND ALL SUB–TRADES WHOSE WORK AFFECTS THE DETAILING, FABRICATION AND ERECTION OF THE STRUCTURAL STEEL. DO NOT CUT OPENINGS IN STRUCTURAL STEEL MEMBERS WITHOUT ENGINEERS APPROVAL.
4. PROVIDE AND REMOVE AFTERWARDS TEMPORARY BRACING NECESSARY TO KEEP THE STRUCTURE TRUE AND PLUMB DURING CONSTRUCTION.
5. ALL CONNECTIONS TO BE DESIGNED BY FABRICATOR U.N.O. ALL CONNECTION TO BE STANDARD FRAME CONNECTIONS OR EQUIVALENT U.N.O.

MATERIALS & STANDARDS

UNLESS NOTED OTHERWISE ON THE DRAWINGS THE FOLLOWING MATERIALS SHALL BE USED FOR CONSTRUCTION:

1. ANCHOR BOLTS, NUTS AND WASHERS: ASTM A307 & A36 OR AS APPROVED BY ENGINEER
2. HIGH STRENGTH BOLTS: ASTM A325 Type 1
3. ANCHOR RODS: CSA G40.20/G40.21 300 W OR ASTM F 1554.
4. HOLLOW STRUCTURAL SECTIONS: CSA G40.20/G40.21, GRADE 350 W– CLASS C
5. CHANNEL, ANGLES & PLATES: CSA G40.20/G40.21–300W, CAN/CSA–S16–09
6. STEEL, SHEET & STRIP, CARBON, HOT ROLLED, STRUCTURAL QUALITY: ASTM A570
7. STRUCTURAL PIPE: ASTM A53, GRADE B
8. WELDING: CSA W59, W55 AND W47. SERIES E480XX ELECTRODES

2 S1 ENLARGED PLAN – PROPOSED ROOF OPENING FOR NEW ROOF UNIT
1:20



STRUCTURAL ADEQUACY:

VERIFY/REINFORCE EXISTING STRUCTURAL SUPPORT SYSTEM/ELEMENTS FOR LOADS IMPOSED BY THE PROPOSED CONSTRUCTION.

STRUCTURAL INTEGRITY:

ALL MEMBERS SHALL BE SO FRAMED, FASTENED, TIED, BRACED, AND ANCHORED TO PROVIDE THE NECESSARY STRENGTH, RIGIDITY, AND STABILITY.

FASTENERS:

FASTENERS MUST PROVIDE THE NECESSARY HOLDING CAPACITY IN SHEAR AND PULLOUT, AND SPACED TO SATISFY THE REQUIRED STRENGTH, RIGIDITY AND STABILITY OF THE ASSEMBLY AS A WHOLE OBC DIVISION B – PART 4 - 4.1.3.2.

ENSURE ALL EXISTING STRUCTURAL ELEMENTS ARE BRACED FOR STABILITY AND CAPABLE OF SUPPORTING ANY LOADS RESULTING FROM TEMPORARY BRACING PRIOR TO DEMOLITION.

APPLICANT TO COORDINATE JOIST REINFORCEMENT WITH SIZES/LOADING OF PROPOSED EQUIPMENT

DESIGN DATA (DEAD LOAD):

1. DEAD LOAD:

ROOFING : UDL = 0.6 kPa
MECHANICAL = 1.00 kPa

LIVE LOAD (SNOW LOAD)

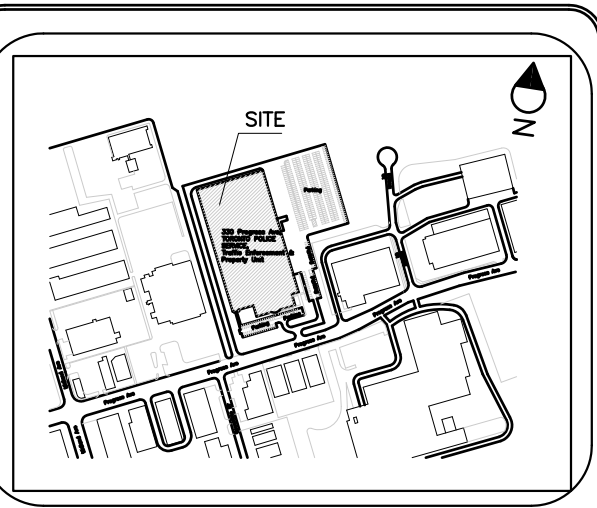
2. LIVE LOAD:

ROOF: UDL = 1.36 kPa + ACCUMULATED SNOW LOAD
(REFER TO SNOW LOAD DIAGRAM ON 1/S3)

3. SNOW LOAD DESIGN COEFFICIENT AS PER OBC 2012:

Cb = 0.8, Cw = 1.0, ULS Is = 1.0, SLS Is = 0.9
Ca = VARIES, Cs = 1.0
Ss = 1.2 kPa, Sr = 0.4 kPa

REFER TO 1/S3 PLAN FOR SNOW ACCUMULATION AROUND NEW ROOF OPENINGS



KEY PLAN

NO.	REVISION	DATE
5		
4		
3		
2	ISSUED FOR PERMIT	APR.25,25
1	ISSUED FOR TENDER	MAR.19,25

NOTE:

CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING.

LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.

PRINTS ARE NOT TO BE SCALED.



CORPORATE REAL ESTATE MANAGEMENT
METRO HALL, 55 JOHN STREET
2ND FLOOR
TORONTO, ONTARIO, M5V 3C6



TABCON
CONSULTING INC.

494 McNicoll Avenue, Suite # 201
Toronto, Ontario, M2H 2E1
Tel. : (647) 974–7006
Web Site : www.tabcon.com

Project Name :
TPS POLICE WAREHOUSE & OFFICE BUILDING

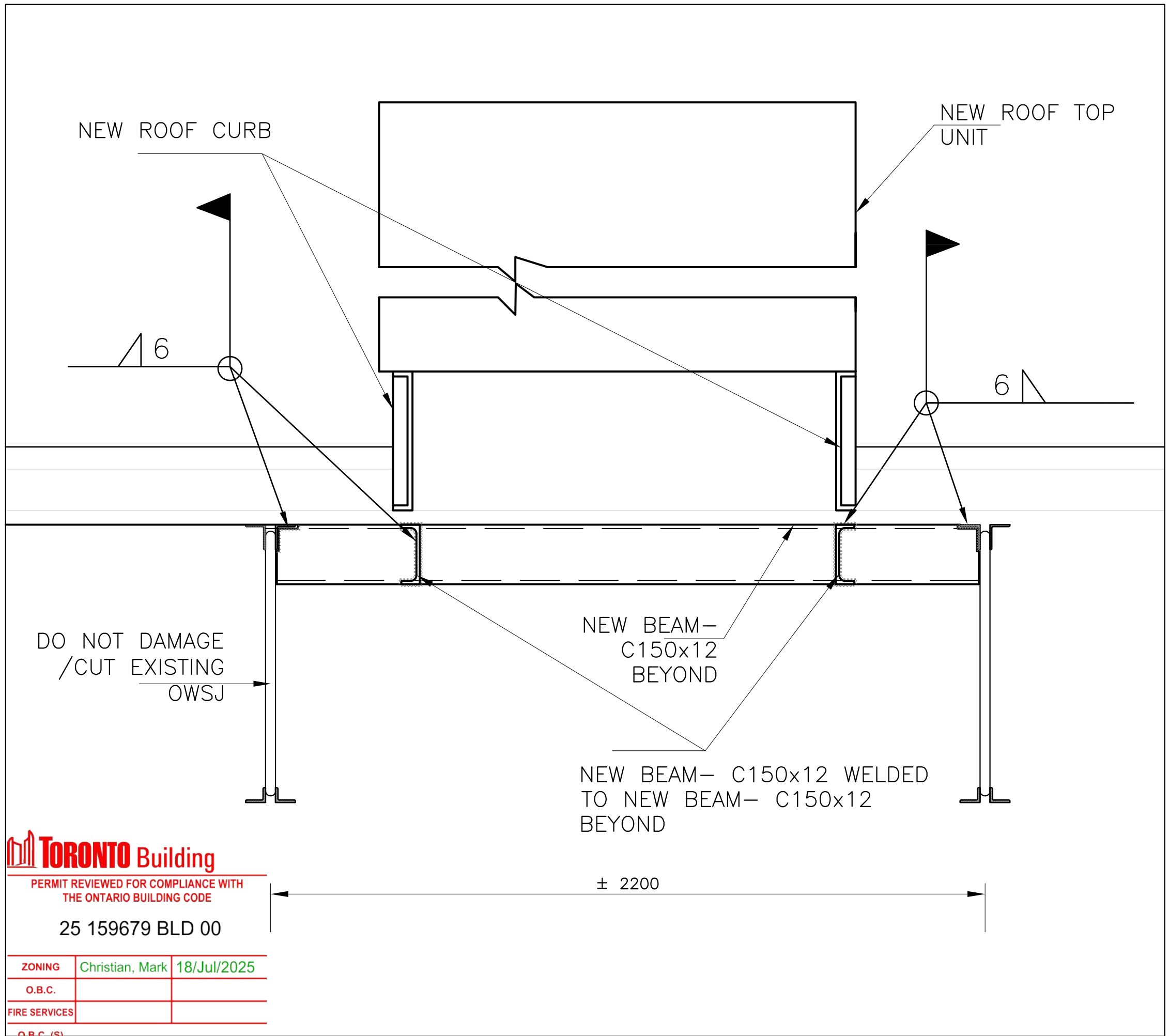
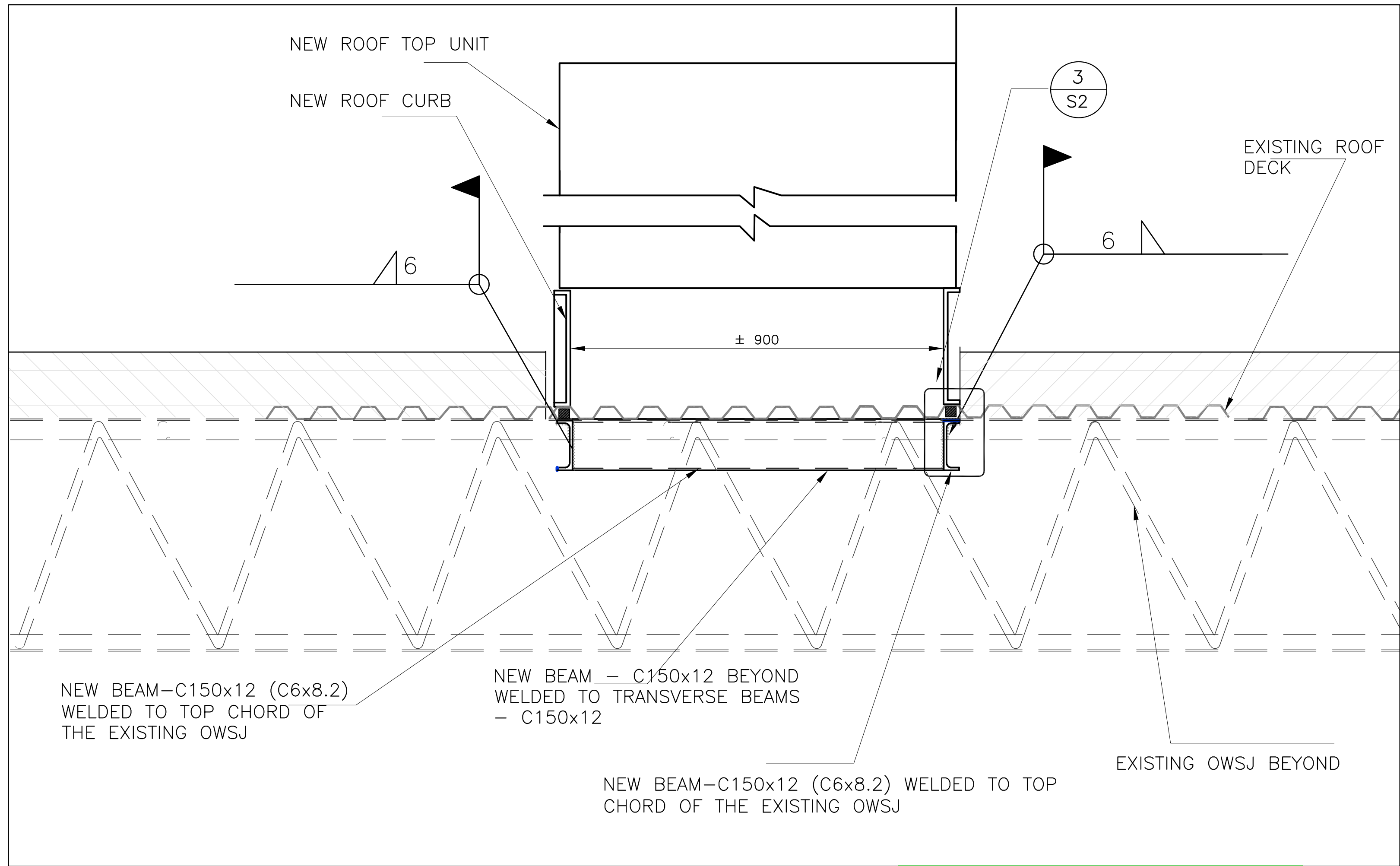
Project Address :
330 PROGRESS AVENUE
TORONTO, ON

Job Descript. :
BAS CONTROLS & AIR HANDLING UNIT REPLACEMENT
NEW ROOF OPENING

STRUCTURAL FRAMING – PLAN & NOTES

Design:	R.A.
DRAWN:	R.A.
Approv.:	A.T.
Scale:	As Shown
Date:	MARCH 19, 25

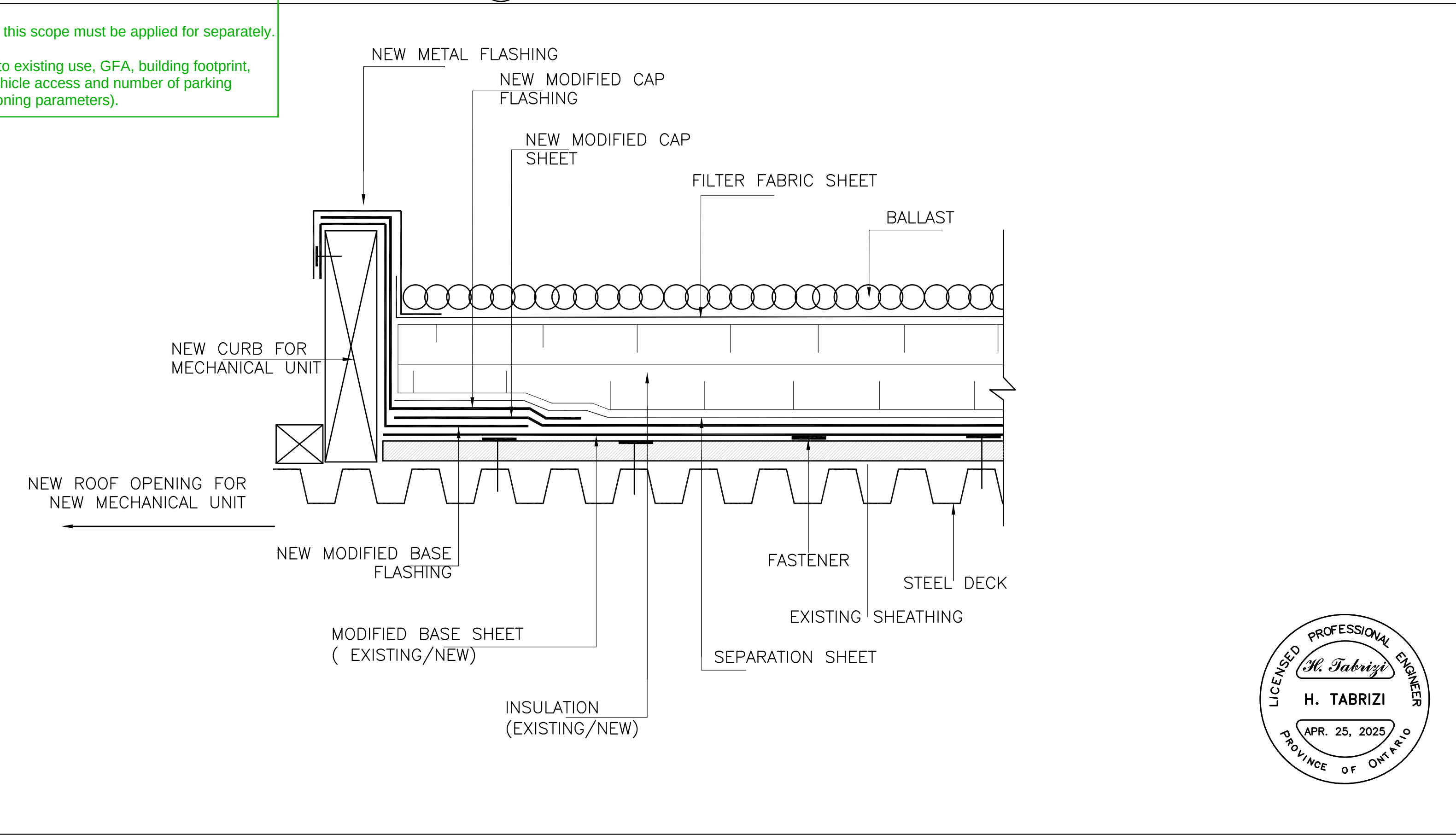
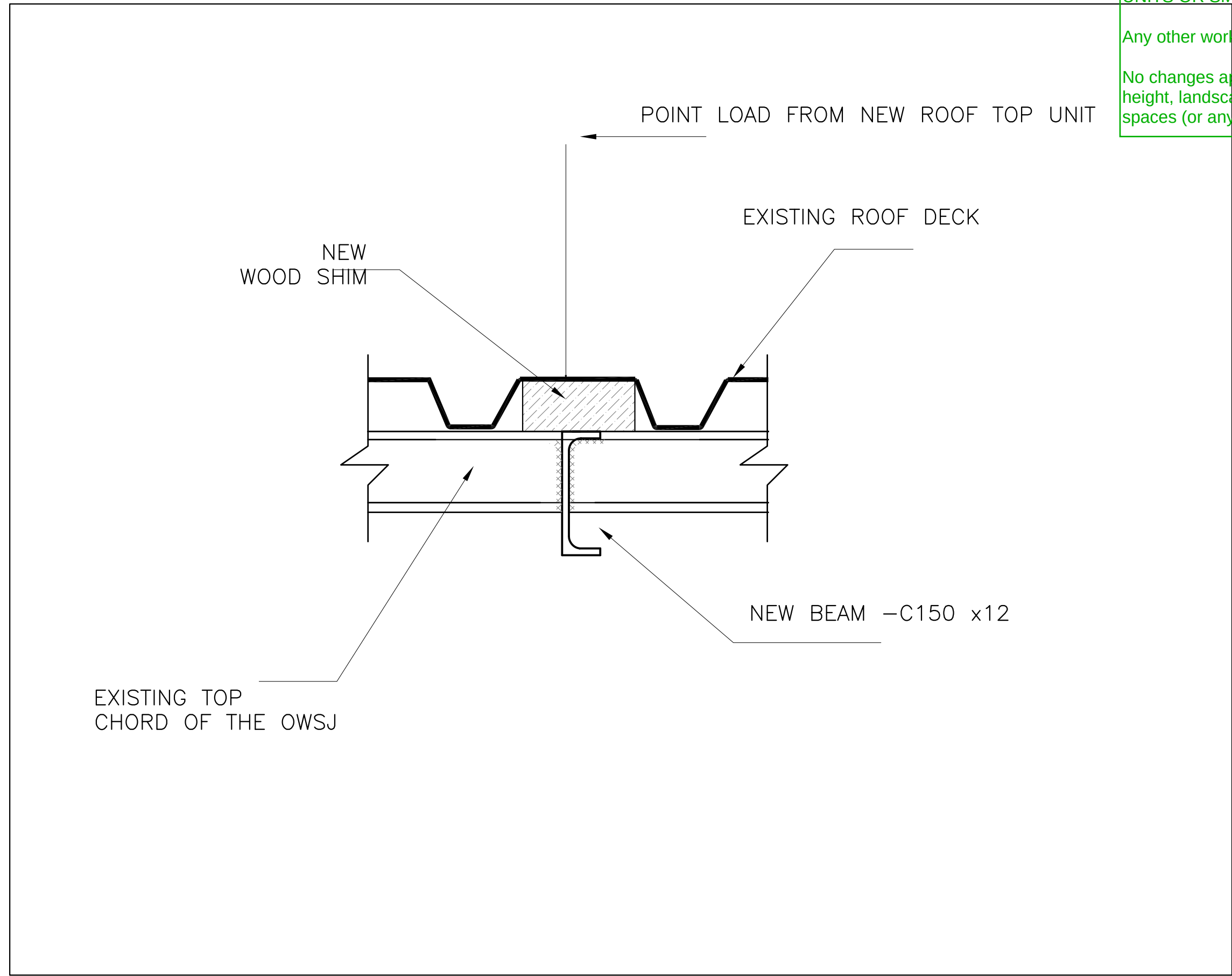
Project No.	Dwg.No.
Job No.	S1 OF 3



1 S2 1:10 NEW ROOF OPENING -STRUCTURAL FRAMING- SECTION 1

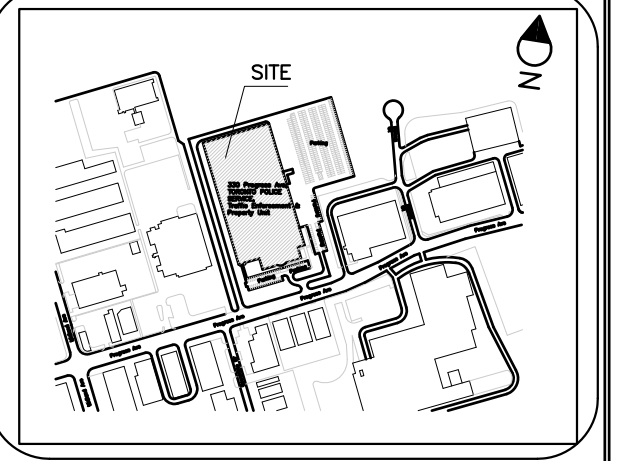
2 S2 1:10 NEW ROOF OPENING -STRUCTURAL FRAMING- SECTION 2

Scope of zoning review for:
- replacing existing HVAC rooftop units
NEW UNITS MUST BE THE SAME HEIGHT AS EXISTING UNITS OR SMALLER.
Any other work outside this scope must be applied for separately.
No changes approved to existing use, GFA, building footprint, height, landscaping, vehicle access and number of parking spaces (or any other zoning parameters).



3 S2 1:5 NEW ROOF OPENING -STRUCTURAL FRAMING- DETAIL

4 S2 1:5 NEW ROOF OPENING -NEW FLASHING & WATERPROOFING DETAIL



NO.	REVISION	DATE
5		
4		
3		
2	ISSUED FOR PERMIT	APR.25,25
1	ISSUED FOR TENDER	MAR.19,25

NOTE:
CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING.
LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.
PRINTS ARE NOT TO BE SCALED.



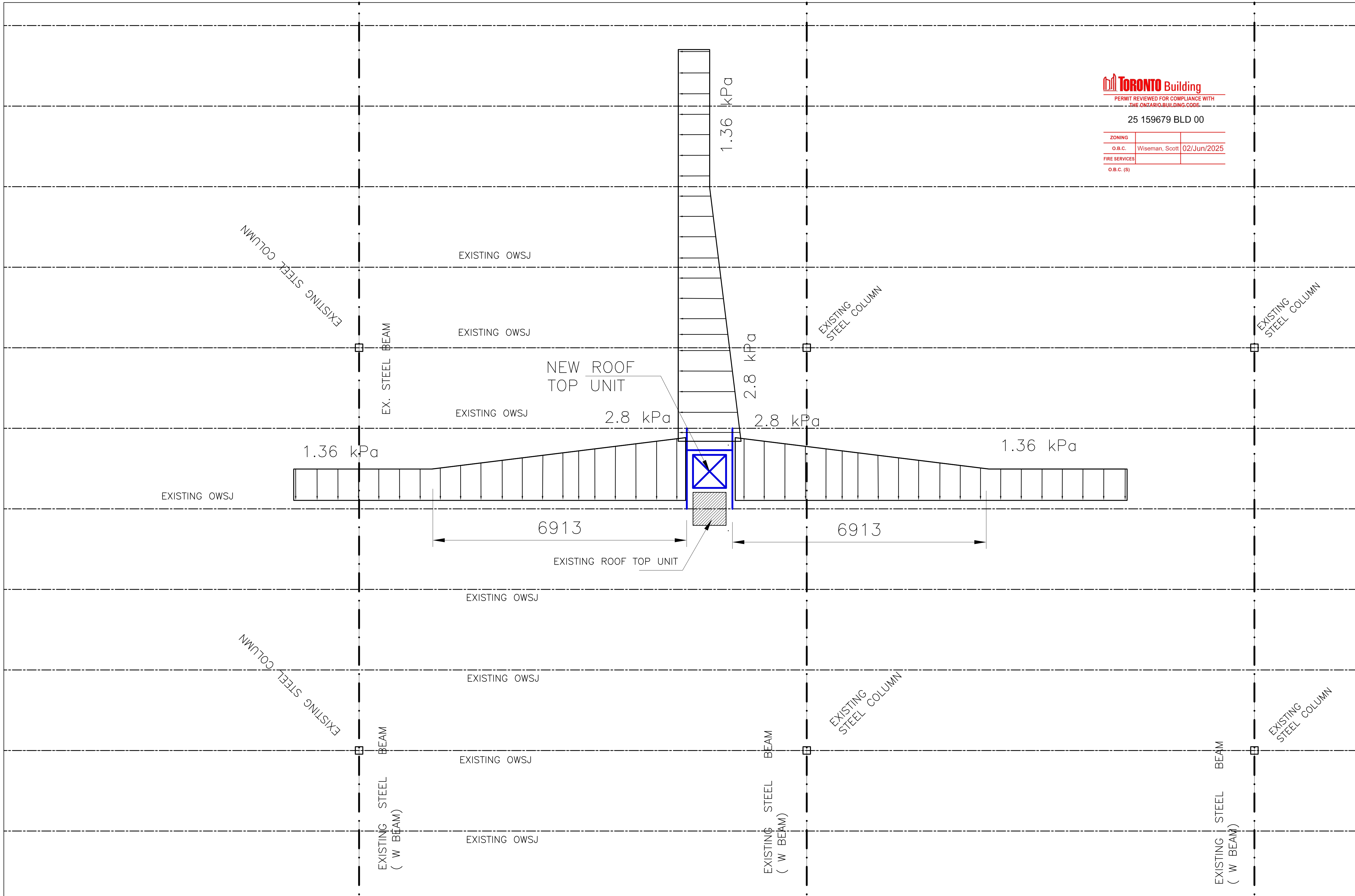
CORPORATE REAL ESTATE MANAGEMENT
METRO HALL, 55 JOHN STREET
2ND FLOOR
TORONTO, ONTARIO, M5V 3C6

TABCON
TABCON CONSULTING INC.
494 McNicoll Avenue, Suite # 201
Toronto, Ontario, M2H 2E1
Tel. : (647) 974-7006
Web Site : www.tabcon.com

Project Name :
TPS POLICE WAREHOUSE & OFFICE BUILDING
Project Address :
**330 PROGRESS AVENUE
TORONTO, ON**
Job Descript. :
**BAS CONTROLS & AIR HANDLING UNIT REPLACEMENT
NEW ROOF OPENING**
STRUCTURAL FRAMING - SECTIONS & DETAILS

Design:	R.A.
DRAWN:	R.A.
Approv.:	A.T.
Scale:	As Shown
Date:	MAR. 19, 2025

Project No.	Dwg.No.
Job No.	S2 OF 3

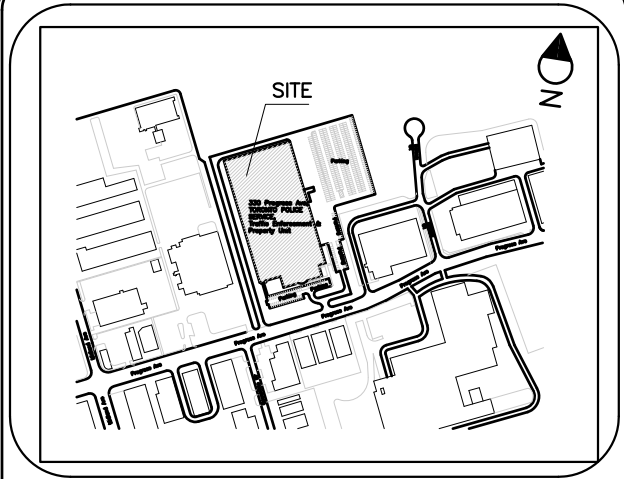




PERMIT REVIEWED FOR COMPLIANCE WITH THE ONTARIO BUILDING CODE

25 159679 BLD 00

ZONING		
O.B.C.	Wiseman, Scott	02/Jun/2025
FIRE SERVICES		
O.B.C. (S)		



KEY PLAN

5		
4		
3		
2		
1	ISSUED FOR TENDER/PERMIT	APR.25.25

NO.	REVISION	DATE
-----	----------	------

NOTE:
CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING.

LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.

PRINTS ARE NOT TO BE SCALED.



CORPORATE REAL ESTATE MANAGEMENT
METRO HALL, 55 JOHN STREET
2ND FLOOR
TORONTO, ONTARIO, M5V 3C6



TABCON
CONSULTING INC.

494 McNicoll Avenue, Suite # 201
Toronto, Ontario, M2H 2E1
Tel. : (647) 974-7006
Web Site : www.tabcon.com

Project Name :
TPS POLICE WAREHOUSE & OFFICE BUILDING

Project Address :
330 PROGRESS AVENUE
TORONTO, ON

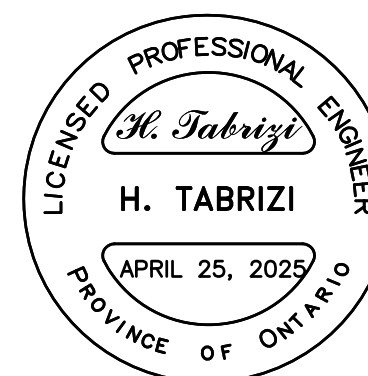
Job Descript. :
BAS CONTROLS & AIR HANDLING UNIT REPLACEMENT
NEW ROOF OPENING

SNOW LOAD DIAGRAM

Design:	R.A.
DRAWN:	R.A.
Approv.:	A.T.
Scale:	As Shown
Date:	APRIL 25, 2025

Project No.	Dwg.No.
Job No.	S3 OF 3

1
S3
NEW ROOF OPENING - SNOW LOAD DIAGRAM
1:50



Not Part of this Permit

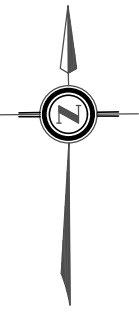
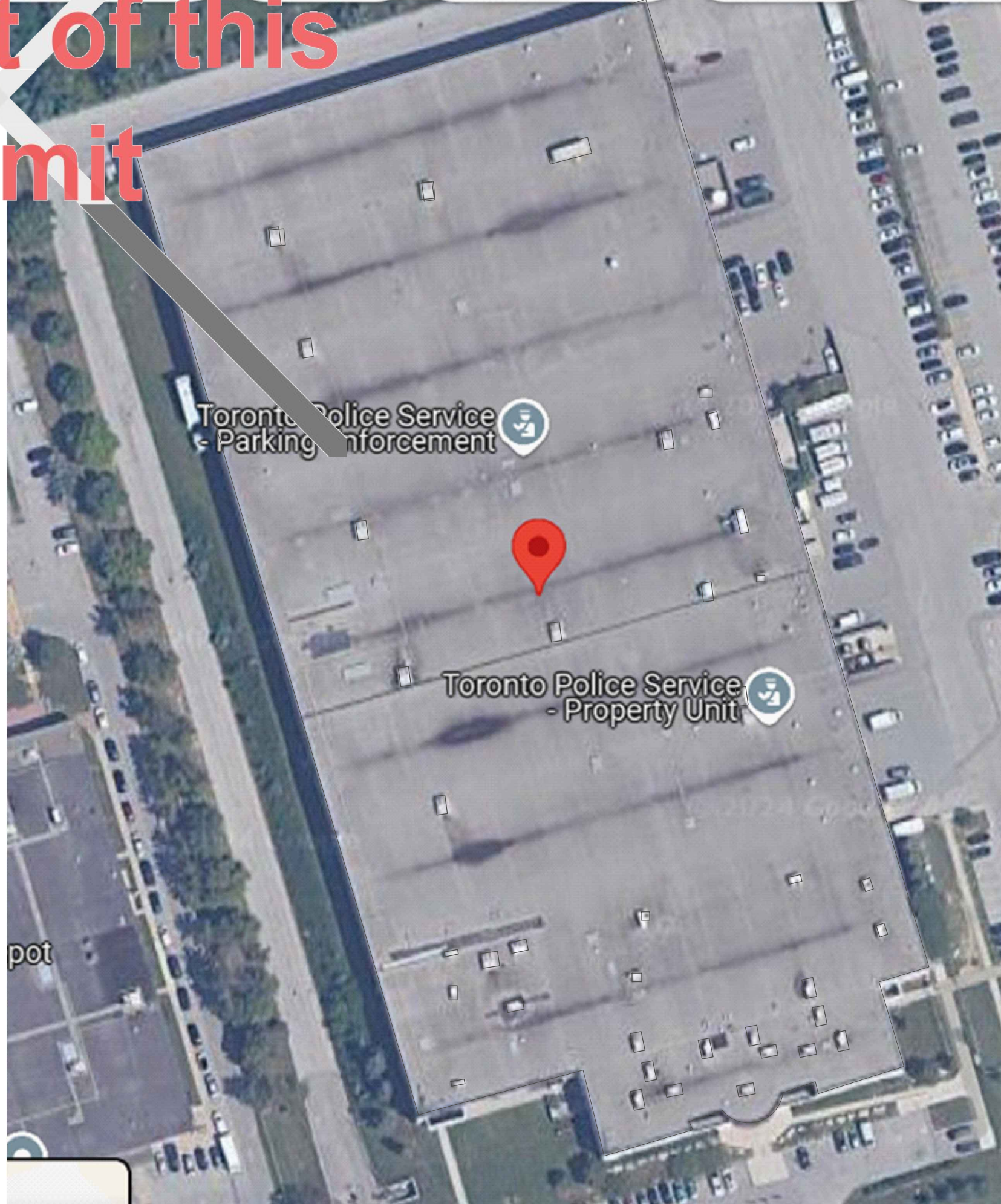


IMAGE COURTESY
GOOGLE MAPS

1
M1 KEY PLAN SHOWING EXISTING EQUIPMENT LAYOUT ON ROOF
NOT TO SCALE

DRAWING LIST	
DRAWING NO	TITLE
M1	LEGEND AND ABBREVIATION, DRG LIST, KEY MAP SHOWING EXISTING LAYOUT OF HVAC EQUIPMENT ON ROOF
M2	EXISTING HVAC ROOFTOP PACKAGED AIRCONDITIONER SCHEDULE
M3	NEW HVAC ROOFTOP EQUIPMENT SCHEDULE
M4	HVAC DEMOLITION LAYOUT - ROOF
M5	HVAC AND BAS CONTROLS - NEW INSTALLATION LAYOUT - GROUND FLOOR
M6	HVAC LAYOUT - SECOND FLOOR
M7	HVAC NEW INSTALLATION LAYOUT - ROOF
M8	BAS CONTROL SCHEMATICS - BAS ARCHITECTURE AND NOTES
M9	BAS CONTROL SCHEMATICS AND CONTROL SEQUENCE - UNITARY EQUIPMENT
M10	BAS CONTROL SCHEMATICS - ROOFTOP HVAC PACKAGED UNITS
M11	BAS CONTROL SCHEMATICS - ROOFTOP HVAC PACKAGED UNITS
M12	BAS CONTROL SCHEMATICS AND CONTROL SEQUENCE - EXHAUST FANS
M13	HVAC ROOFTOP UNIT ZONING DETAILS + BAS SCOPE OF WORK + TESTING AND BALANCING SCOPE OF WORK
M14	EXHAUST FANS AND UNITARY HVAC UNITS - BAS SCOPE OF WORK

ABOVE DRAWINGS TO BE READ IN CONJUNCTION WITH PROJECT SPECIFICATIONS

AS PART OF THIS CONTRACT, THE CONTRACTOR TO CARRYOUT THE FOLLOWING PRIOR TO SUBMISSION OF SHOP DRAWINGS FOR REVIEW AND START OF DEMOLITION WORK. CARRY ALL ASSOCIATED COSTS IN THE TENDER PRICE.

- HIRE SERVICES OF A LICENSED ELECTRICIAN TO REVIEW THE EXISTING POWER FEED FOR ALL NEW HVAC EQUIPMENT (CABLE SIZE, BREAKER SIZE AND DISCONNECT SIZE). PROVIDE A REPORT TO ENGINEER FOR REVIEW
- HIRE AN AIR AUDIT FIRM AND MEASURE THE AIRFLOW / STATIC PRESSURE / OUTDOOR AIR INTAKE AIRFLOW (WHERE POSSIBLE TO MEASURE) FOR THE EXISTING EQUIPMENT WHICH ARE NOTED TO BE DEMOLISHED. PROVIDE REPORT TO ENGINEER FOR REVIEW.

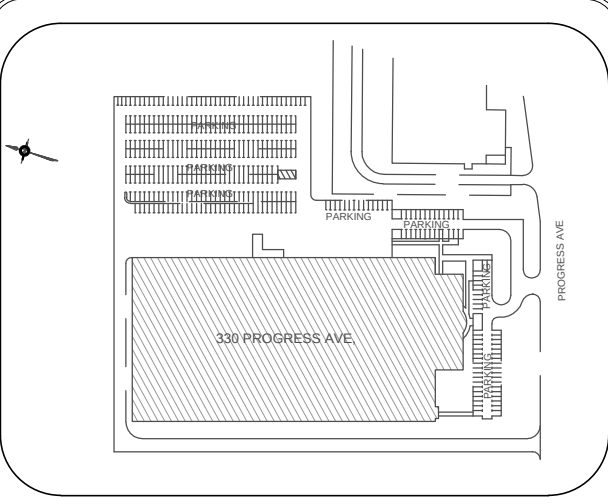
MECHANICAL LEGEND	
SYMBOL	DESCRIPTION
	EXISTING (SHOWN AS THIN LINE)
	NEW INSTALLATION (SHOWN AS THICKER LINE)
	EXISTING TO BE DEMOLISHED
	LOCAL ELECTRIC DISCONNECT
	DUCT MOUNTED TEMPERATURE SENSOR
	DUCT MOUNTED PRESSURE SENSOR
	DIFFERENTIAL PRESSURE SENSOR
	ORIGINAL EQUIPMENT MANUFACTURER
	MOTORIZED DAMPER
	VARIABLE FREQUENCY DRIVE
	INDIRECT GAS FIRED SUPPLEMENTARY HEATER
	DX COIL - HEATING / COOLING
	AIR FILTER
	SPACE TEMPERATURE SENSOR
	SPACE PRESSURE SENSOR
	SPACE CARBON MONOXIDE SENSOR
	SPACE NITROGEN OXIDE(S) SENSOR
	POWER WIRING
	FIELD CONTROL WIRING
	EQUIPMENT CONTROL UNIT
	BUILDING AUTOMATION SYSTEM
	HUMIDITY SENSOR
	USER OPERATED SWITCH

CONTROLS ABBREVIATIONS			
FIRST LETTER		SECOND LETTER	THIRD LETTER
A	AIR	P	PRESSURE
E	EQUIPMENT	SS	START/STOP
D	DAMPER	ST	STATUS
O	OCCUPANCY	T	TEMPERATURE
		X	POSITION
		V	SPEED
		Q	QUALITY
		I	POWER DRAW
		M	MODE
		L	LOADING
		F	FLOW
		H	REL. HUMIDITY

XX-YYYY BMS POINT

POINT ABBREVIATION

POINT TYPE
AI: ANALOG INPUT
AO: ANALOG OUTPUT
DI: DIGITAL INPUT
DO: DIGITAL OUTPUT



NO.	REVISION	DATE
5		
4		
3		
2	ISSUED FOR TENDER / PERMIT	MAR 16, 25
1	For Client Review - 60% DD	DEC 17,24

NOTE:
CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING.

LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.

PRINTS ARE NOT TO BE SCALED.

CORPORATE REAL ESTATE MANAGEMENT
METRO HALL, 55 JOHN STREET
2ND FLOOR
TORONTO, ONTARIO, M5V 3C6

MECHANICAL ENGINEER

A & T CONSULTANTS
ENGINEERS AND PROJECT MANAGERS
7 INVITATIONAL ROAD
BRAMPTON, ON L6P 2H1
PH: 416-841-8869
FAX: 647-367-0412

494 McNicoll Avenue, Suite # 201
Toronto, Ontario, M2H 2E1
Tel. : (647) 974-7006
Web Site : www.tabcon.com

Project Name :
TPS POLICE WAREHOUSE AND OFFICE BUILDING

Project Address :
330 PROGRESS AVENUE
TORONTO, ON

Job Description :
UPGRADE OF BAS CONTROLS AND REPLACEMENT OF EXISTING ROOFTOP HVAC PACKAGED AIRCONDITIONERS

Drawing Title:
LEGEND AND ABBREVIATION, DRG LIST, KEY MAP SHOWING EXISTING LAYOUT OF HVAC EQUIPMENT ON ROOF

Design:	J.T.
DRAWN:	J.T.
Approv.:	J.T.
Scale:	NOT TO SCALE
Date:	DECEMBER 10, 2024

Project No.	Dwg.No.
Job No. 23-1059	M1

TAG NO AS PER BUILDING AUTOMATION SYSTEM		UNIT	RTU-1
ON EQUIPMENT AT SITE			NIL
RED TAG NUMBER (##)		RTU-1	
STATUS	EXISTING	QUANTITY TO BE REPLACED WITH NEW	1
TYPE	100% MAKEUP AIR UNIT - INDIRECT GAS FIRED HEATING-SINGLE ZONE- CURB MOUNTED-DOWNFLOW		INDIRECT HEATING CONSTANT SPEED DR
SERVING		FOR STORAGE GARAGE	AT
ASSOCIATED VARIABLE VOLUME TERMINALS		NIL	
CONTROL SCHEMATICS (#)		REFER TO RTU SCHEMATIC	REFER TO DR
MAKE		DAIKIN-MCQUAY	
MODEL		RAH077YCN	LG
SERIAL NUMBER		N/A	5
APPROX WEIGHT	LBS	9,000 (**)	
APPROX YEAR OF MANUFACTURE (**)		2004	

NOMINAL SUPPLY AIR FLOW		CFM	25,000 (**)	2,000	2,400	6,400	10,000	3,000	5200	10,000	3200	1600	2400	3,000	1,200	3,000	2,000	2,000	2,000	1,200	3,000	2,000	2,000
SUPPLY AIR AIRFLOW TO BE SET BY AIR BALANCER AS NOTED (###)		CFM	REFER TO NEW RTU SCHEDULE	1,900	1,800	6,400	REFER TO NEW RTU SCHEDULE	REFER TO NEW RTU SCHEDULE	3,900	REFER TO NEW RTU SCHEDULE	2,400	1,200	1,800	2,250	1,200	3,000	2,000	1,500	1,500	1,200	3,000	2,000	2,000
EXTERNAL STATIC PRESSURE (**)		INCH	1.25	1.00	1.25	1	0.75	N/A	1.5	0.75	1.5	1	1.25	1.25	0.75	1.20	1.00	1.00	0.75	1.20	1.00	1.00	
EXISTING OUTDOOR AIRFLOW		CFM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
OUTDOOR AIRFLOW TO BE SET BY AIR BALANCER AS NOTED (###)		CFM	REFER TO NEW RTU SCHEDULE	340	160	4,800	REFER TO NEW RTU SCHEDULE	REFER TO NEW RTU SCHEDULE	300	REFER TO NEW RTU SCHEDULE	480	165	240	320	85	100	475	215	105	290	535	110	
BLOWER FAN MOTOR HP		HP	7.50	1	2	7.50	10	2	5	10.00	2	1	3	2.00	0.50	2.00	2.00	2.00	0.50	2.00	1.00	1.00	
DRIVE		HP	N/A	DIRECT	DIRECT	DIRECT	BELT	BELT	DIRECT	BELT	DIRECT	DIRECT	DIRECT	BELT	DIRECT	BELT	BELT	BELT	BELT	BELT	BELT	BELT	
POWER EXHAUST		HP	0.33	1	1	3	2 x 0.33	NIL	1	2 x 0.33	1	1	1	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	
COOLING																							
NOMINAL COOLING CAPACITY		TR	5		6	16	25	7.50	13	25	8	4	6	7.50	3	7.50	5	5	5	3	7.50	5	
STAGES		NO COOLING	1		1	2	4	2	1	4	1	1	1	2	1	2	1	1	1	2	1		
EER			11.00		N/A	12.8	N/A	N/A	12.3	N/A	12.2	14.9	13.0	11.00	12.50	11.00	11.00	11.00	12.50	11.00	11.00		
REFRIGERANT			R-410A		R-410A	R-410A	R-22	R-22	R-410A	R-22	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A		
HEATING																							
TYPE		MBH	INDIRECT FIRED	INDIRECT FIRED	INDIRECT FIRED	INDIRECT FIRED	NO HEATING	INDIRECT FIRED	INDIRECT FIRED	INDIRECT FIRED	INDIRECT FIRED	INDIRECT FIRED	INDIRECT FIRED	INDIRECT FIRED	INDIRECT FIRED	INDIRECT FIRED	INDIRECT FIRED	INDIRECT FIRED	INDIRECT FIRED	INDIRECT FIRED	INDIRECT FIRED	INDIRECT FIRED	
HEATING INPUT			1,875	65	210	540		200	195	210	470	150	60	90	240	108	240	150	150	150	108	240	150
HEATING OUTPUT			1,500	52	165	472		160	156	120	376	120	48.6	73	192	86	192	120	120	120	86	192	120
STAGES		MODULATING	1		MODULATING	MODULATING	N/A	MODULATING		N/A	MODULATING	MODULATING	MODULATING	MODULATING	2	1	2	2	2	1	2	2	
FUEL			NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS		NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS
ELECTRICAL DATA - CONTRACTOR TO SITE VERIFY EXISTING POWER SUPPLY PRIOR TO ORDER OF NEW EQUIPMENT																							
POWER SUPPLY			575 V / 3 PH / 60 HZ	208 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	
MCA		A	12	35	13	38	51	31	17	14	16	9	16	11	11	11	11	11	10	16	11	11	
MFS		A	15	50	15	45	60	20	35	60	25	15	15	20	15	20	15	15	15	20	15	15	
(***) DATA SHOWN IS BASED ON BEST JUDGEMENT																							
(***) DATA SHOWN IS BASED ON FAN PERFORMANCE AT MAX BHP AND NOMINAL AIRFLOW AS SCHEDULED USING BEST INFORMATION																							
N/A OR BLANK CELL - NO DATA AVAILABLE																							
(++) - NO NAMEPLATE - BASED ON BEST ASSUMPTION																							
(###) - AS PART OF THIS PROJECT - RETAG ALL EQUIPMENT AS PER REVISED TAG NUMBER PROVIDED - REFER TO DRAWING M3 - FOR EQUIPMENT LAYOUT - REVISED TAG DETAIL TO BE PROVIDED ON EQUIPMENT - POWER FEED TO THIS EQUIPMENT ON ELECTRICAL PANEL AND BUILDING AUTOMATION GRAPHICS TO BE UPDATED WITH REVISED TAGGING																							
(###) - AS PART OF THIS PROJECT - AIR BALANCER TO SET SUPPLY AIR FLOW AND OUTDOOR AIRFLOW AS SCHEDULED																							
@g) - FOR CONTROL SEQUENCE / MONITORING / TRENDDING / ALARM AND OTHER SPECIFIC REQUIREMENTS - REFER TO RELATED SECTIONS UNDER SPECIFICATIONS																							

EXISTING ROOF TOP PACKAGE UNIT SCHEDULE

TAG NO AS PER BUILDING AUTOMATION SYSTEM

TAG ON EQUIPMENT AT SITE

REVISED TAG NUMBER (##)

UNIT

AC-9

AC-10

AC-11

RTU-106

RTU-8

RTU-101

RTU-105

AC-13

RTU-102

RTU-103

RTU-104

AC-14 (++)

AC-13

AC-15

AC-25

AC-16

AC-17

AC-18

AC-19

AC-9

AC-10

AC-11

RTU-106

RTU-8

RTU-101

RTU-105

13

RTU-102

RTU-103

RTU-104

14

15

25

16

17

18

19

RTU-21

RTU-22

RTU-23

RTU-24

RTU-25

RTU-26

RTU-27

RTU-28

RTU-29

RTU-30

RTU-31

RTU-32

RTU-33

RTU-34

RTU-35

RTU-36

RTU-37

RTU-38

GENERAL DATA

STATUS

EXISTING TO REMAIN

EXISTING TO REMAIN

EXISTING TO REMAIN

EXISTING TO REMAIN

EXISTING TO REMAIN

EXISTING TO REMAIN

EXISTING TO REMAIN

EXISTING TO REMAIN

EXISTING EQUIPMENT TO BE DEMOLISHED AND REPLACED WITH NEW

EXISTING TO REMAIN

EXISTING TO REMAIN

EXISTING TO REMAIN

EXISTING EQUIPMENT TO BE DEMOLISHED AND REPLACED WITH NEW

EXISTING EQUIPMENT TO BE DEMOLISHED AND REPLACED WITH NEW

EXISTING EQUIPMENT TO BE DEMOLISHED AND REPLACED WITH NEW

EXISTING EQUIPMENT TO BE DEMOLISHED AND REPLACED WITH NEW

EXISTING EQUIPMENT TO BE DEMOLISHED AND REPLACED WITH NEW

EXISTING EQUIPMENT TO BE DEMOLISHED AND REPLACED WITH NEW

EXISTING EQUIPMENT TO BE DEMOLISHED AND REPLACED WITH NEW

TYPE

DX COOLING - INDIRECT GAS FIRED HEAT - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

DX COOLING - INDIRECT GAS FIRED HEAT - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

DX COOLING - INDIRECT GAS FIRED HEAT - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

DX COOLING - INDIRECT GAS FIRED HEAT - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

DX COOLING - INDIRECT GAS FIRED HEAT - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

DX COOLING - INDIRECT GAS FIRED HEAT - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

DX COOLING - INDIRECT GAS FIRED HEAT - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

DX COOLING - INDIRECT GAS FIRED HEAT - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

DX COOLING - INDIRECT GAS FIRED HEAT - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

DX COOLING - INDIRECT GAS FIRED HEAT - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

DX COOLING - INDIRECT GAS FIRED HEAT - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

DX COOLING - INDIRECT GAS FIRED HEAT - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

DX COOLING - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

DX COOLING - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

DX COOLING - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

DX COOLING - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

DX COOLING - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

DX COOLING - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

DX COOLING - INDIRECT GAS FIRED HEAT - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

DX COOLING - INDIRECT GAS FIRED HEAT - SINGLE ZONE CONSTANT VOLUME - CURB MOUNTED - DOWNFLOW

SERVING

EMPO OFFICES / BOSS GROUND FLOOR

2ND FLOOR - PARKING ENFORCEMENT OFFICES

GROUND FLOOR

2ND FLOOR PARKING ENFORCEMENT FRONT DESK

GROUND FLOOR - GYM

2ND FLOOR - CHANGE ROOMS

2ND FLOOR PARKING ENFORCEMENT OFFICES

PSRT OFFICE

2ND FLOOR - STORAGE

2ND FLOOR - PARADE ROOM

2ND FLOOR PARKING ENFORCEMENT - SUPERVISORS

WAREHOUSE

WAREHOUSE

WAREHOUSE

WAREHOUSE

WAREHOUSE

WAREHOUSE

WAREHOUSE

WAREHOUSE

ASSOCIATED VARIABLE VOLUME TERMINALS

NIL

NIL

NIL

NIL

NIL

NIL

NIL

NIL

10 BYPASS VAV TERMINALS

NIL

NIL

NIL

NIL

NIL

NIL

NIL

NIL

NIL

NIL

CONTROL SCHEMATICS (@)

REFER DETAIL 2 ON DRAWING M11

REFER DETAIL 2 ON DRAWING M11

REFER DETAIL 2 ON DRAWING M11

REFER DETAIL 2 ON DRAWING M11

REFER DETAIL 3 ON DRAWING M10

REFER DETAIL 2 ON DRAWING M11

REFER DETAIL 2 ON DRAWING M11

REFER DETAIL 2 ON DRAWING M11

REFER TO NEW RTU SCHEDULE

REFER DETAIL 3 ON DRAWING M11

REFER DETAIL 3 ON DRAWING M11

REFER DETAIL 3 ON DRAWING M11

REFER TO NEW RTU SCHEDULE

REFER TO NEW RTU SCHEDULE

REFER TO NEW RTU SCHEDULE

REFER TO NEW RTU SCHEDULE

REFER TO NEW RTU SCHEDULE

REFER TO NEW RTU SCHEDULE

REFER TO NEW RTU SCHEDULE

MAKE

LENNOX

LENNOX

LENNOX

LENNOX

AAON

LENNOX

LENNOX

LENNOX

AAON

LENNOX

LENNOX

LENNOX

LENNOX

LENNOX

LENNOX

LENNOX

LENNOX

LENNOX

MODEL

KGB09254BH1J

KGB09254BH2J

KGB09254BH2J

LGH09214H81J

RN-008-4-4-C-B01-31.9

LGH09214H83J

LC430H81J

LGH0604E3J

LGH0604E3J

LGH0604E3J

LGH0604E3J

LC430H81J

LC430H81J

LC430H81J

LC430H81J

LC430H81J

LC430H81J

LC430H81J

SERIAL NUMBER

5619B04042

5619B04043

5619B04043

5613K03346

201212-ANGH126661

201311-ANGH126630

5600M05728

5619B04042

5613K04429

5619B04047

N/A

5600M05648

5600M05682

N/A

5600M05645

5600M05731

N/A

5600M05731

APPROX WEIGHT

LBS

1,260

1,260

1,260

1,400

2,200

1,650

3,600

1,100

1,100

1,000

3,600

3,600

3,600

3,600

3,600

3,600

3,600

APPROX YEAR OF MANUFACTURE (**)

2019

2019

2019

2013

2012

2013

2013

2013

2000

2019

2013

2019

2000

2000

2000

2000

2000

2000

AIRFLOW

NOMINAL SUPPLY AIR FLOW

CFM

3,000

3,000

3,000

3,000

3,200

6,000

3,000

10,000

2,000

2,000

1,200

10,000

10,000

10,000

10,000

10,000

10,000

10,000

SUPPLY AIR AIRFLOW TO BE SET BY AIR BALANCE AS NOTED (###)

CFM

2,250

3,000

2,250

2,250

2,400

4,500

2,250

1,500

1,500

1,200

EXTERNAL STATIC PRESSURE (***)

INCH

1.2

1.2

1.2

1.2

1.0

1.0

1.2

0.75

1.0

1.0

0.75

0.75

0.75

0.75

0.75

0.75

0.75

OUTDOOR AIRFLOW

CFM

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

OUTDOOR AIRFLOW TO BE SET BY AIR BALANCE AS NOTED (###)

CFM

100

410

220

375

400

750

375

250

250

150

BLOWER FAN MOTOR HP

HP

2.00

2.00

2.00

2

5

5

2

1

1

0.50

10

10

10

10

10

10

10

DRIVE

BELT

BELT

BELT

BELT

DIRECT

DIRECT

BELT

BELT

DIRECT

DIRECT

DIRECT

BELT

BELT

BELT

BELT

BELT

BELT

POWER EXHAUST

HP

0.33

0.33

0.33

0.33

1

1

0.33

0.33

0.33

0.33

0.33

2 x 0.33

2 x 0.33

2 x 0.33

2 x 0.33

2 x 0.33

2 x 0.33

COOLING

NOMINAL COOLING CAPACITY

TR

7.50

7.50

7.50

7.50

8

15

7.50

25

5

5

3

25

25

25

25

25

25

25

STAGES

2

2

2

2

1

2

2

4

1

1

1

4

4

4

4

4

4

EER

11.00

11.00

11.00

N/A

12.20

11.70

11.00

N/A

11.00

11.00

12.50

N/A

N/A

N/A

N/A

N/A

N/A

REFRIGERANT

R-410A

R-410A

R-410A

R-410A

R-410A

R-410A

R-410A

R-410A

R-410A

R-410A

R-410A

R-22

R-22

R-22

R-22

R-22

R-22

HEATING

TYPE

INDIRECT FIRED

INDIRECT FIRED

INDIRECT FIRED

INDIRECT FIRED

INDIRECT FIRED

INDIRECT FIRED

INDIRECT FIRED

INDIRECT FIRED

INDIRECT FIRED

INDIRECT FIRED

INDIRECT FIRED

INDIRECT FIRED

INDIRECT FIRED

INDIRECT FIRED

INDIRECT FIRED

INDIRECT FIRED

INDIRECT FIRED

INDIRECT FIRED

HEATING INPUT

MBH

240

240

240

130

210

390

130

470

65

65

108

HEATING OUTPUT

MBH

192

192

192

104

376

168

104

376

52

52

86

STAGES

2

2

2

2

MODULATING

2

2

N/A

4

4

2

FUEL

NATURAL GAS

NATURAL GAS

NATURAL GAS

NATURAL GAS

NATURAL GAS

NATURAL GAS

NATURAL GAS

NATURAL GAS

NATURAL GAS

NATURAL GAS

NATURAL GAS

NATURAL GAS

NATURAL GAS

NATURAL GAS

NATURAL GAS

NATURAL GAS

NATURAL GAS

ELECTRICAL DATA - CONTRACTOR TO SITE VERIFY EXISTING POWER SUPPLY PRIOR TO ORDER OF NEW EQUIPMENT

POWER SUPPLY

575 V / 3 PH / 60 HZ

575 V / 3 PH / 60 HZ

575 V / 3 PH / 60 HZ

575 V / 3 PH / 60 HZ

575 V / 3 PH / 60 HZ

575 V / 3 PH / 60 HZ

575 V / 3 PH / 60 HZ

575 V / 3 PH / 60 HZ

575 V / 3 PH / 60 HZ

575 V / 3 PH / 60 HZ

575 V / 3 PH / 60 HZ

575 V / 3 PH / 60 HZ

575 V / 3 PH / 60 HZ

575 V / 3 PH / 60 HZ

575 V / 3 PH / 60 HZ

575 V / 3 PH / 60 HZ

575 V / 3 PH / 60 HZ

MCA

A

16

16

16

16

16

32

16

10

51

10

10

51

51

51

51

51

51

MFS

A

20

20

20

20

25

40

20

60

15

15

15

60

60

60

60

60

60

***) DATA SHOWN IS BASED ON BEST JUDGEMENT

***) DATA SHOWN IS BASED ON FAN PERFORMANCE AT MAX BHP AND NOMINAL AIRFLOW AS SCHEDULED USING BEST INFORMATION

N/A OR BLANK CELL - NO DATA AVAILABLE

(++) - NO NAMEPLATE - BASED ON BEST ASSUMPTION

(###) - AS PART OF THIS PROJECT - RETAG ALL EQUIPMENT AS PER REVISED TAG NUMBER PROVIDED - REFER TO DRAWING M3 - FOR EQUIPMENT LAYOUT - REVISED TAG DETAIL TO BE PROVIDED ON EQUIPMENT - POWER FEED TO THIS EQUIPMENT ON ELECTRICAL PANEL AND BUILDING AUTOMATION GRAPHICS TO BE UPDATED WITH REVISED TAGGING

(###) - AS PART OF THIS PROJECT - AIR BALANCE TO SET SUPPLY AIR FLOW AND OUTDOOR AIRFLOW AS SCHEDULED

(@) - FOR CONTROL SEQUENCE / MONITORING / TRENDED / ALARM AND OTHER SPECIFIC REQUIREMENTS - REFER TO RELATED SECTIONS UNDER SPECIFICATIONS

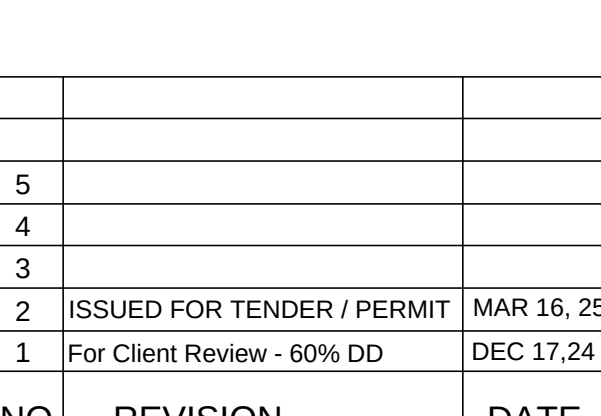
100% PROFESSIONAL ENGINEER

A.J. THINDATHIL

100060782

16-MAR-25

PROVIDE OF OPINION



NO.	REVISION	DATE
<u>NOTE:</u> CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING. LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION. PRINTS ARE NOT TO BE SCALED.		



MECHANICAL ENGINEER

 **A & T CONSULTANTS**
ENGINEERS AND PROJECT MANAGERS
7 INVITATIONAL ROAD
BRAMPTON, ON L6P 2H1
PH: 416-841-6869
FAX: 647-367-0412



Project Name :
TPS POLICE WAREHOUSE AND OFFICE BUILDING

Project Address :
**330 PROGRESS AVENUE
TORONTO, ON**

Job Description :
**UPGRADE OF BAS CONTROLS. AND
REPLACEMENT OF EXISTING ROOFTOP
HVAC PACKAGED AIRCONDITIONERS**

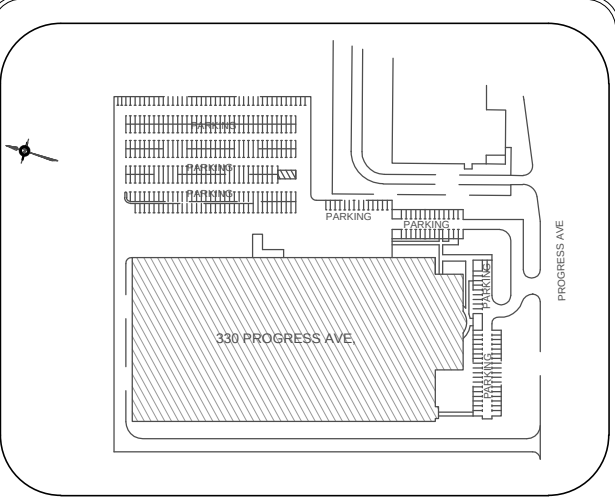
Drawing Title
**EXISTING HVAC ROOFTOP PACKAGED
AIRCONDITIONER SCHEDULE**

Design:	J.T.
DRAWN:	J.T.
Apprv.:	J.T.
Scale:	NOT TO SCALE
Date:	DECEMBER 10, 2024



Not Part of this Permit

NEW ROOF TOP PACKAGE UNIT SCHEDULE															
		RTU-1	RTU-5	RTU-6	RTU-8	RTU-28	RTU-32	RTU-33	RTU-34	RTU-35	RTU-36	RTU-37	RTU-38		
GENERAL DATA															
STATUS		NEW EQUIPMENT REPLACING EXISTING	NEW EQUIPMENT REPLACING EXISTING	NEW EQUIPMENT REPLACING EXISTING	NEW EQUIPMENT REPLACING EXISTING	NEW EQUIPMENT REPLACING EXISTING	NEW EQUIPMENT REPLACING EXISTING	NEW EQUIPMENT REPLACING EXISTING	NEW EQUIPMENT REPLACING EXISTING	NEW EQUIPMENT REPLACING EXISTING	NEW EQUIPMENT REPLACING EXISTING	NEW EQUIPMENT REPLACING EXISTING	NEW EQUIPMENT REPLACING EXISTING	NEW EQUIPMENT REPLACING EXISTING	
TYPE		INDIRECT GAS FIRED HEATING- SINGLE ZONE- VARIABLE AIR VOLUME - CURB MOUNTED - DOWNFLOW	HEAT PUMP - SINGLE ZONE - CONSTANT AIR FLOW - CURB MOUNTED - DOWNFLOW	100% MAKEUP AIR UNIT WITH POWER EXHAUST - ENERGY RECOVERY - HEAT PUMP - INDIRECT GAS FIRED HEAT AS SUPPLEMENTARY HEAT - SINGLE ZONE CONSTANT AIR FLOW - CURB MOUNTED - DOWNFLOW	HEAT PUMP - INDIRECT GAS FIRED HEAT AS SUPPLEMENTARY HEAT - SINGLE ZONE VARIABLE AIR FLOW - CURB MOUNTED - DOWNFLOW	HEAT PUMP - INDIRECT GAS FIRED HEAT AS SUPPLEMENTARY HEAT - SINGLE ZONE VARIABLE AIR FLOW - CURB MOUNTED - DOWNFLOW	HEAT PUMP - SINGLE ZONE - CONSTANT AIR FLOW - CURB MOUNTED - DOWNFLOW	HEAT PUMP - SINGLE ZONE - CONSTANT AIR FLOW - CURB MOUNTED - DOWNFLOW	HEAT PUMP - SINGLE ZONE - CONSTANT AIR FLOW - CURB MOUNTED - DOWNFLOW	HEAT PUMP - SINGLE ZONE - CONSTANT AIR FLOW - CURB MOUNTED - DOWNFLOW	HEAT PUMP - SINGLE ZONE - CONSTANT AIR FLOW - CURB MOUNTED - DOWNFLOW	HEAT PUMP - SINGLE ZONE - CONSTANT AIR FLOW - CURB MOUNTED - DOWNFLOW	HEAT PUMP - INDIRECT GAS FIRED HEAT AS SUPPLEMENTARY HEAT - SINGLE ZONE VARIABLE AIR FLOW - CURB MOUNTED - DOWNFLOW	HEAT PUMP - INDIRECT GAS FIRED HEAT AS SUPPLEMENTARY HEAT - SINGLE ZONE VARIABLE AIR FLOW - CURB MOUNTED - DOWNFLOW	
SERVING		DRUG STORAGE GARAGE	WAREHOUSE	DRUG ROOM	WAREHOUSE OFFICES	PSRT OFFICE	WAREHOUSE	WAREHOUSE	WAREHOUSE	WAREHOUSE	WAREHOUSE	WAREHOUSE	WAREHOUSE	WAREHOUSE	
CONTROL SCHEMATICS + CONTROL SEQUENCE (++)		REFER TO DETAIL 1 ON DRAWING M10	REFER TO DETAIL 4 ON DRAWING M10	REFER DETAIL 5 ON DRAWING M10	REFER DETAIL 1 ON DRAWING M11	REFER DETAIL 4 ON DRAWING M11	REFER TO DETAIL 4 ON DRAWING M10	REFER TO DETAIL 4 ON DRAWING M10	REFER TO DETAIL 4 ON DRAWING M10	REFER TO DETAIL 4 ON DRAWING M10	REFER TO DETAIL 4 ON DRAWING M10	REFER TO DETAIL 4 ON DRAWING M10	REFER TO DETAIL 1 ON DRAWING M11	REFER TO DETAIL 1 ON DRAWING M11	
MAKE MODEL		AAON RTU-26	AAON RNA-013	AAON RNA-006	AAON RNA-011	AAON RNA-016	AAON RNA-013	AAON RNA-013	AAON RNA-013	AAON RNA-013	AAON RNA-013	AAON RNA-013	AAON RNA-013	AAON RNA-013	
APPROX WEIGHT	LBS	3,575	1,885	1610	1,860	3,095	1,885	1,885	1,885	1,885	1,885	1,885	2,065	2,065	
AIRFLOW															
SUPPLY AIR FLOW	CFM	5,700 - 15,400	5,000	2,250	4,000	6,200	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	
EXTERNAL STATIC PRESSURE	INCH	1.25	0.75	0.75	1	1	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	
OUTDOOR AIRFLOW	CFM	1,250 - 15,400	1,350	2,250	910	1,500	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	
SUPPLY AIR FAN BHP	HP	2 X 4.32 HP	3.06	1.58	2.47	3.63	3.06	3.06	3.06	3.06	3.06	3.06	3.06	3.06	
BLOWER FAN MOTOR HP	HP	2 X 5 HP	5	2	3.00	5	5	5	5	5	5	5	5	5	
BAROMETRIC DAMPER		YES	YES	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	
POWER EXHAUST	HP	NO	NO	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO	NO	
COOLING															
NOMINAL COOLING CAPACITY	TR	NO COOLING	12.50	7.00	10	16	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	
STAGES			2	1	2	2	2	2	2	2	2	2	2	2	
EER			11.9	12.7	12.5	11.3	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	
REFRIGERANT			R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	
PRIMARY HEATING MODE															
TYPE		NIL	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	
HEATING CAPACITY AT 32 DEG F	MBH		108	53	83	158	108	108	108	108	108	108	108	108	
HEATING CAPACITY AT 17 DEG F	MBH		85	41	67	130	85	85	85	85	85	85	85	85	
COP AT 32 DEG F			2.63	5.25	2.33	2	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	
SUPPLEMENTARY HEAT															
TYPE		INDIRECT FIRED	NOT REQUIRED	INDIRECT FIRED	INDIRECT FIRED	INDIRECT FIRED	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	INDIRECT FIRED	INDIRECT FIRED	
HEATING INPUT	MBH	600		210	195	270							293	293	293
HEATING OUTPUT	MBH	486		170	158	219							237	237	237
STAGES		MODULATING		MODULATING	MODULATING	MODULATING							MODULATING	MODULATING	MODULATING
FUEL		NATURAL GAS		NATURAL GAS	NATURAL GAS	NATURAL GAS							NATURAL GAS	NATURAL GAS	NATURAL GAS
ELECTRICAL DATA - CONTRACTOR TO SITE VERIFY EXISTING POWER SUPPLY PRIOR TO ORDER OF NEW EQUIPMENT															
POWER SUPPLY		575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	575 V / 3 PH / 60 HZ	
MCA	A	15	27	18	26	39	27	27	27	27	27	27	27	27	
MFS	A	20	35	25	30	45	35	35	35	35	35	35	35	35	
ACCESSORIES NOT LISTED ABOVE															
		VARIABLE AIRFLOW UNIT WITH TWO SPEED SETTING	100% OUTDOOR AIR REFERENCE ETHALPY ECONOMIZER	100% OUTDOOR AIR REFERENCE ETHALPY ECONOMIZER	100% OUTDOOR AIR REFERENCE ETHALPY ECONOMIZER	100% OUTDOOR AIR REFERENCE ETHALPY ECONOMIZER	100% OUTDOOR AIR REFERENCE ETHALPY ECONOMIZER	100% OUTDOOR AIR REFERENCE ETHALPY ECONOMIZER	100% OUTDOOR AIR REFERENCE ETHALPY ECONOMIZER	100% OUTDOOR AIR REFERENCE ETHALPY ECONOMIZER	100% OUTDOOR AIR REFERENCE ETHALPY ECONOMIZER	100% OUTDOOR AIR REFERENCE ETHALPY ECONOMIZER	100% OUTDOOR AIR REFERENCE ETHALPY ECONOMIZER	100% OUTDOOR AIR REFERENCE ETHALPY ECONOMIZER	
		INTEGRATED BACNET MSTP CONTROLLER	AIR SOURCE HEAT PUMP	AIR SOURCE HEAT PUMP	AIR SOURCE HEAT PUMP	AIR SOURCE HEAT PUMP	AIR SOURCE HEAT PUMP	AIR SOURCE HEAT PUMP	AIR SOURCE HEAT PUMP	AIR SOURCE HEAT PUMP	AIR SOURCE HEAT PUMP	AIR SOURCE HEAT PUMP	AIR SOURCE HEAT PUMP	AIR SOURCE HEAT PUMP	
		18" ROOF CURB - PROVIDE ADAPTER CURB TO SUIT EXISTING SUPPLY DUCTWORK	ECM CONDENSER FAN WITH HEAD PRESSURE CONTROL	ECM CONDENSER FAN WITH HEAD PRESSURE CONTROL	ECM CONDENSER FAN WITH HEAD PRESSURE CONTROL	ECM CONDENSER FAN WITH HEAD PRESSURE CONTROL	ECM CONDENSER FAN WITH HEAD PRESSURE CONTROL	ECM CONDENSER FAN WITH HEAD PRESSURE CONTROL	ECM CONDENSER FAN WITH HEAD PRESSURE CONTROL	ECM CONDENSER FAN WITH HEAD PRESSURE CONTROL	ECM CONDENSER FAN WITH HEAD PRESSURE CONTROL	ECM CONDENSER FAN WITH HEAD PRESSURE CONTROL	ECM CONDENSER FAN WITH HEAD PRESSURE CONTROL	ECM CONDENSER FAN WITH HEAD PRESSURE CONTROL	
		MERV 8 FILTER	INTEGRATED BACNET MSTP CONTROLLER	INTEGRATED BACNET MSTP CONTROLLER	INTEGRATED BACNET MSTP CONTROLLER	INTEGRATED BACNET MSTP CONTROLLER	INTEGRATED BACNET MSTP CONTROLLER	INTEGRATED BACNET MSTP CONTROLLER	INTEGRATED BACNET MSTP CONTROLLER	INTEGRATED BACNET MSTP CONTROLLER	INTEGRATED BACNET MSTP CONTROLLER	INTEGRATED BACNET MSTP CONTROLLER	INTEGRATED BACNET MSTP CONTROLLER	INTEGRATED BACNET MSTP CONTROLLER	
		CLOGGED FILTER SWITCH	18" ROOF CURB - PROVIDE ADAPTER CURB TO SUIT EXISTING SUPPLY / RETURN DUCTWORK	18" ROOF CURB - PROVIDE ADAPTER CURB TO SUIT EXISTING SUPPLY / RETURN DUCTWORK	18" ROOF CURB - PROVIDE ADAPTER CURB TO SUIT EXISTING SUPPLY / RETURN DUCTWORK	18" ROOF CURB - PROVIDE ADAPTER CURB TO SUIT EXISTING SUPPLY / RETURN DUCTWORK	18" ROOF CURB - PROVIDE ADAPTER CURB TO SUIT EXISTING SUPPLY / RETURN DUCTWORK	18" ROOF CURB - PROVIDE ADAPTER CURB TO SUIT EXISTING SUPPLY / RETURN DUCTWORK	18" ROOF CURB - PROVIDE ADAPTER CURB TO SUIT EXISTING SUPPLY / RETURN DUCTWORK	18" ROOF CURB - PROVIDE ADAPTER CURB TO SUIT EXISTING SUPPLY / RETURN DUCTWORK	18" ROOF CURB - PROVIDE ADAPTER CURB TO SUIT EXISTING SUPPLY / RETURN DUCTWORK	18" ROOF CURB - PROVIDE ADAPTER CURB TO SUIT EXISTING SUPPLY / RETURN DUCTWORK	18" ROOF CURB - PROVIDE ADAPTER CURB TO SUIT EXISTING SUPPLY / RETURN DUCTWORK	18" ROOF CURB - PROVIDE ADAPTER CURB TO SUIT EXISTING SUPPLY / RETURN DUCTWORK	
		PHASE AND BROWN OUT PROTECTION	MERV 8 FILTER	MERV 13 FILTER	MERV 13 FILTER	MERV 13 FILTER	MERV 8 FILTER	MERV 8 FILTER	MERV 8 FILTER	MERV 8 FILTER	MERV 8 FILTER	MERV 8 FILTER	MERV 8 FILTER	MERV 8 FILTER	
		NON FUSED DISCONNECT	CLOGGED FILTER SWITCH	CLOGGED FILTER SWITCH	CLOGGED FILTER SWITCH	CLOGGED FILTER SWITCH	CLOGGED FILTER SWITCH	CLOGGED FILTER SWITCH	CLOGGED FILTER SWITCH	CLOGGED FILTER SWITCH	CLOGGED FILTER SWITCH	CLOGGED FILTER SWITCH	CLOGGED FILTER SWITCH	CLOGGED FILTER SWITCH	
			PHASE AND BROWN OUT PROTECTION	PHASE AND BROWN OUT PROTECTION	PHASE AND BROWN OUT PROTECTION	PHASE AND BROWN OUT PROTECTION	PHASE AND BROWN OUT PROTECTION	PHASE AND BROWN OUT PROTECTION	PHASE AND BROWN OUT PROTECTION	PHASE AND BROWN OUT PROTECTION	PHASE AND BROWN OUT PROTECTION	PHASE AND BROWN OUT PROTECTION	PHASE AND BROWN OUT PROTECTION	PHASE AND BROWN OUT PROTECTION	
			STAINLESSS STEEL DRAIN PAN	STAINLESSS STEEL DRAIN PAN	STAINLESSS STEEL DRAIN PAN	STAINLESSS STEEL DRAIN PAN	STAINLESSS STEEL DRAIN PAN	STAINLESSS STEEL DRAIN PAN	STAINLESSS STEEL DRAIN PAN	STAINLESSS STEEL DRAIN PAN	STAINLESSS STEEL DRAIN PAN	STAINLESSS STEEL DRAIN PAN	STAINLESSS STEEL DRAIN PAN	STAINLESSS STEEL DRAIN PAN	
			NON FUSED DISCONNECT	NON FUSED DISCONNECT	NON FUSED DISCONNECT	NON FUSED DISCONNECT	NON FUSED DISCONNECT	NON FUSED DISCONNECT	NON FUSED DISCONNECT	NON FUSED DISCONNECT	NON FUSED DISCONNECT	NON FUSED DISCONNECT	NON FUSED DISCONNECT	NON FUSED DISCONNECT	
				HEAT RECOVERY											
ONLY NEW EQUIPMENT SHOWN IN THIS SCHEDULE. REFER TO EXISTING SCHEDULE FOR EQUIPMENT NOTED TO REMAIN															
(++) - REFER PROJECT SPECIFICATION FOR CONTROL SEQUENCE															



5		
4		
3		
2	ISSUED FOR TENDER / PERMIT	MAR 16, 25
1	For Client Review - 60% DD	DEC 17, 24
NO.	REVISION	DATE

NOTE:
CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING.

LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.

PRINTS ARE NOT TO BE SCALED.

CORPORATE REAL ESTATE MANAGEMENT
METRO HALL, 55 JOHN STREET
2ND FLOOR
TORONTO, ONTARIO, M5V 3C6

MECHANICAL ENGINEER

A & T CONSULTANTS
ENGINEERS AND PROJECT MANAGERS
7 INVIATIONAL ROAD
BRAMPTON, ON L6P 2H1
PH: 416-841-8869
FAX: 647-367-0412

TABCON
CONSULTING INC.
494 McNicoll Avenue, Suite # 201
Toronto, Ontario, M2H 2E1
Tel. : (647) 974-7006
Web Site : www.tabcon.com

Project Name :
TPS POLICE WAREHOUSE AND OFFICE BUILDING

Project Address :
330 PROGRESS AVENUE
TORONTO, ON

Job Description :
UPGRADE OF BAS CONTROLS AND REPLACEMENT OF EXISTING ROOFTOP HVAC PACKAGED AIRCONDITIONERS

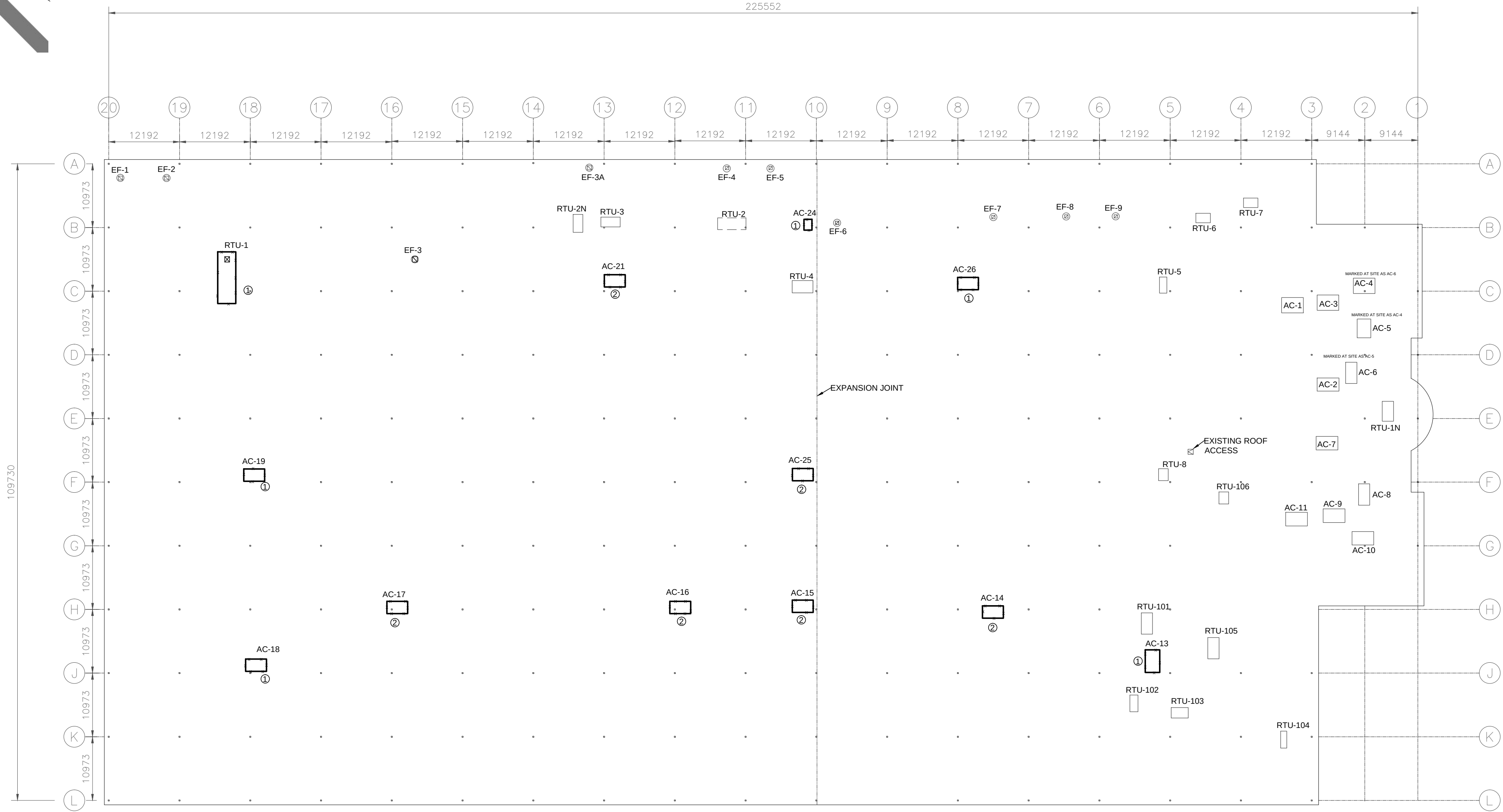
Drawing Title
NEW HVAC ROOFTOP EQUIPMENT SCHEDULE

Design:	J.T.
DRAWN:	J.T.
Approv.:	J.T.
Scale:	NOT TO SCALE
Date:	DECEMBER 10, 2024

Project No.	Dwg.No.
Job No. 23-1059	M3

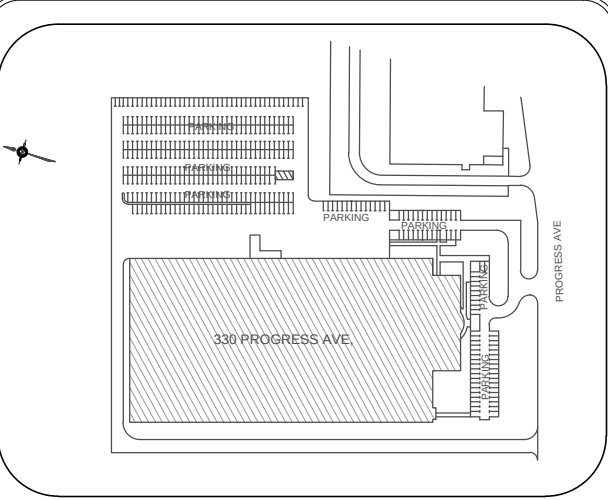


Not Part of this Permit



NOTE:
LOCATION OF THE HVAC ROOFTOP EQUIPMENT SHOWN ON THIS PLAN IS TRACED USING GOOGLE MAPS AND TO BE CONSIDERED AS APPROXIMATE. INSTALLER IS REQUIRED TO SITE COORDINATE
SOME OF THE TAGGING OF EQUIPMENT ON SITE ARE MISSING OR DO NOT RELATE WITH TAG USED ON THE BAS. TAG NUMBERS AS USED IN THE EXISTING BAS HAS BEEN SHOWN FOR IDENTIFICATION OF THE EXISTING EQUIPMENT
ALL EQUIPMENT (BOTH NEW AND THOSE NOTED AS EXISTING TO REMAIN TO BE RE-TAGGED) AS PER TAG NUMBERS NOTED ON DRAWING M5 UPDATE TAGGING DETAIL ON THE POWER FEEDER SERVING THE EQUIPMENT AT THE ELECTRICAL POWER PANEL
UPDATE TAGGING DETAIL ON THE BUILDING AUTOMATION GRAPHICS AND ALL EQUIPMENT CONTROLLERS TIED WITH THE EQUIPMENT

DEMOLITION NOTES	
①	- DEMOLISH EXISTING ROOF TOP UNIT AND ASSOCIATED ROOF CURB - DISCONNECT POWER FEED FROM LOCAL DISCONNECT - DEMOLISH CONTROL WIRING TO THE EQUIPMENT - DEMOLISH SUPPLY AND RETURN AIR DUCT CONNECTION TO EQUIPMENT - DISCONNECT NATURAL GAS CONNECTION AND TEMPORARILY CAP NATURAL GAS FEED AT THE ISOLATION VALVE - ISOLATE POWER AND GAS SERVICE TO THIS EQUIPMENT AND VENT GAS PIPING PRIOR TO DEMOLITION
②	- DEMOLISH EXISTING ROOF TOP UNIT AND ASSOCIATED ROOF CURB - DISCONNECT POWER FEED FROM LOCAL DISCONNECT - DEMOLISH CONTROL WIRING TO THE EQUIPMENT - DEMOLISH SUPPLY AND RETURN AIR DUCT CONNECTION TO EQUIPMENT - ISOLATE POWER TO THIS EQUIPMENT PRIOR TO DEMOLITION



NO.	REVISION	DATE
5		
4		
3		
2	ISSUED FOR TENDER / PERMIT	MAR 16, 25
1	For Client Review - 60% DD	DEC 17, 24

NOTE:
CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING.
LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.
PRINTS ARE NOT TO BE SCALED.

Toronto
CORPORATE REAL ESTATE MANAGEMENT
METRO HALL, 55 JOHN STREET
2ND FLOOR
TORONTO, ONTARIO, M5V 3C6

MECHANICAL ENGINEER
A & T CONSULTANTS
ENGINEERS AND PROJECT MANAGERS
7 INVITATIONAL ROAD
BRAMPTON, ON L6P 2H1
PH: 416-841-6869
FAX: 647-367-0412

TABCON
TABCON
CONSULTING INC.
494 McNicoll Avenue, Suite # 201
Toronto, Ontario, M2H 2E1
Tel. : (647) 974-7006
Web Site : www.tabcon.com

Project Name :
TPS POLICE WAREHOUSE AND OFFICE BUILDING
Project Address :
330 PROGRESS AVENUE
TORONTO, ON
Job Description :
UPGRADE OF BAS CONTROLS AND REPLACEMENT OF EXISTING ROOFTOP HVAC PACKAGED AIRCONDITIONERS
Drawing Title
HVAC DEMOLITION LAYOUT - ROOF

Design:	J.T.
DRAWN:	J.T.
Approv.:	J.T.
Scale:	1 : 500
Date:	DECEMBER 10, 2024

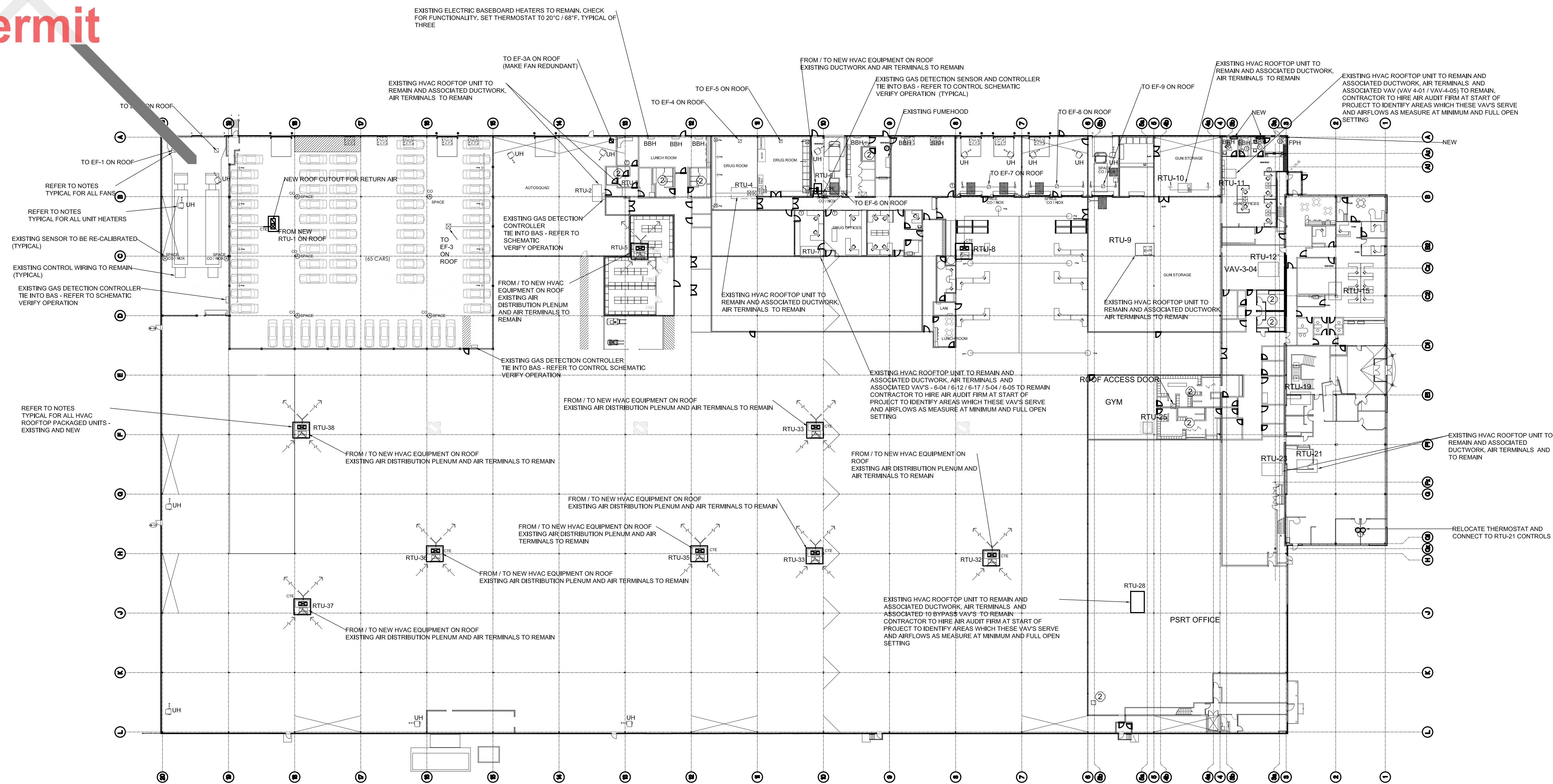
Project No.	Dwg. No.
Job No. 23-1059	M4



Not Part of this Permit

TO EEF-1 ON ROOF

TO EEF-1 ON ROOF



TYPICAL FOR ALL UNIT HEATERS

EXISTING UNIT HEATERS ALONG WITH ASSOCIATED CONTROLS AND THERMOSTAT TO REMAIN

AS PART OF THIS CONTRACT, MECHANICAL CONTRACTOR TO HIRE A MAINTENANCE TECHNICIAN TO CHECK THE UNIT AND PROVIDE AN INSPECTION REPORT TO THE ENGINEER FOR REVIEW

CHECK UNIT OPERATION AND SET SPACE THERMOSTAT TO 20°C / 68°F (MAX)

LOCATION OF THE EQUIPMENT SHOWN ON THE FLOOR PLAN IS APPROXIMATE - INSTALLER TO SITE COORDINATE

NOTES

- ① HEATER OPERATION MONITORED AND CONTROLLED BY BAS
- ② EXISTING EXHAUST FANS TO REMAIN
OPERATION STATUS TO BE MONITORED AND CONTROLLED BY BAS
FANS TO BE RE-TAGGED TO AVOID CONFLICT WITH TAGS AS NOTED IN THIS PLAN

TYPICAL FOR HVAC ROOFTOP PACKAGED / MAKEUP AIR UNITS - EXISTING AND NEW

EXISTING EQUIPMENT SLATED TO REMAIN AND EXISTING EQUIPMENT NOTED TO BE DEMOLISHED IS IDENTIFIED IN THE PLANS AND EQUIPMENT SCHEDULE.

AS PART OF THIS CONTRACT, MECHANICAL CONTRACTOR TO HIRE A MAINTENANCE TECHNICIAN TO CHECK ALL EXISTING ROOFTOP EQUIPMENT AND PROVIDE AN INSPECTION REPORT TO THE ENGINEER FOR REVIEW.

REFER TO CONTROL SCHEMATICS FOR BAS TIE-IN DETAILS.

LOCATION OF EXISTING THERMOSTATS MAY NOT SOMETIMES SHOWN ON THE PLAN. INSTALLER TO LOCATE AND PROVIDE INFORMATION ON AS BUILT PLANS.

SET OCCUPIED COOLING SET POINT AS 77 DEG F AND HEATING SET POINT AS 72 DEG F.

SET UNOCCUPIED COOLING SET POINT AS 80 DEG F AND HEATING SET POINT AS 68 DEG F.

SET OCCUPANCY SCHEDULE IN CONSULTATION WITH USER.

TAG ALL SPACE THERMOSTATS BASED ON THE TAG OF THE HVAC ROOFTOP EQUIPMENT IT IS SERVING

LOCATION OF THE EQUIPMENT SHOWN ON THE FLOOR PLAN AND ROOF PLAN IS APPROXIMATE - INSTALLER TO SITE COORDINATE

REFER TO DRAWING M10 FOR BAS AND TESTING BALANCING REQUIREMENTS FOR EACH HVAC ROOFTOP PACKAGED / MAKEUP AIR UNITS - BOTH EXISTING AND NEW

TYPICAL NOTE FOR ALL EXHAUST FANS

EXISTING FANS TO REMAIN EXCEPT WHERE UPDATES ARE NOTED ON THE PLAN

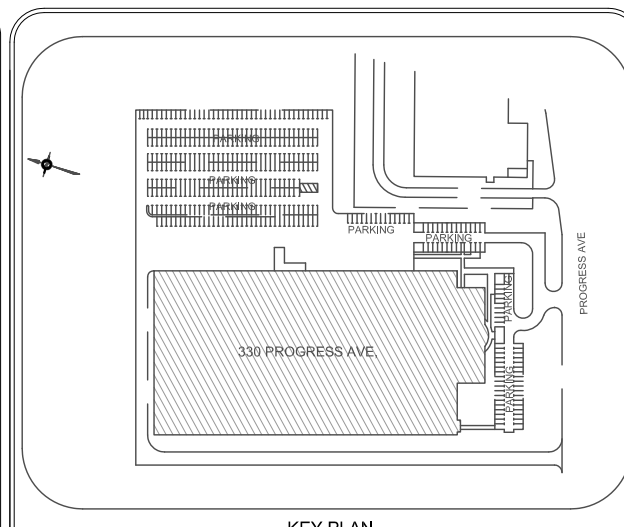
ALL CONTROLS / GAS DETECTION CONTROLS (WHERE APPLICABLE) TO REMAIN

WHERE FANS ARE CONTROLLED BY GAS DETECTION CONTROLS - ALL SENSORS TO BE CALIBRATED AND GAS DETECTION CONTROLS TO BE VERIFIED FOR OPERATION. PROVIDE CALIBRATION AND VERIFICATION REPORT TO ENGINEER FOR REVIEW

AS PART OF THIS CONTRACT, MECHANICAL CONTRACTOR TO HIRE A MAINTENANCE TECHNICIAN TO CHECK THE FAN AND DRIVE AND PROVIDE AN INSPECTION REPORT TO THE ENGINEER FOR REVIEW

PROVIDE IDENTIFICATION TAG ON FAN / POWER FEED AND CONTROLS MATCHING THE TAG AS SHOWN ON THE PLAN. IF TAGGING ON SITE IS DIFFERENT, REPLACE TO MATCH TAG AS NOTED ON THE DRAWING

LOCATION OF THE EQUIPMENT SHOWN ON THE FLOOR PLAN AND ROOF PLAN IS APPROXIMATE - INSTALLER TO SITE COORDINATE



5		
4		
3		
2	ISSUED FOR TENDER / PERMIT	MAR 16, 25
1	For Client Review - 60% DD	DEC 17, 24
NO.	REVISION	DATE

NOTE:

CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING.

LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.

PRINTS ARE NOT TO BE SCALED.



CORPORATE REAL ESTATE MANAGEMENT
METRO HALL, 55 JOHN STREET
2ND FLOOR
TORONTO, ONTARIO, M5V 3C6

MECHANICAL ENGINEER

 **A & T CONSULTANTS**
ENGINEERS AND PROJECT MANAGERS
7 INVITATIONAL ROAD
BRAMPTON, ON L6P 2H1
PH: 416-841-6889
FAX: 647-367-0412



**TABCON
CONSULTING INC.**

494 McNicoll Avenue, Suite # 201
Toronto, Ontario, M2H 2E1
Tel. : (647) 974-7006
Web Site : www.tabcon.com

Project Name :
TPS POLICE WAREHOUSE AND OFFICE
BUILDING

Project Address :
330 PROGRESS AVENUE
TORONTO, ON

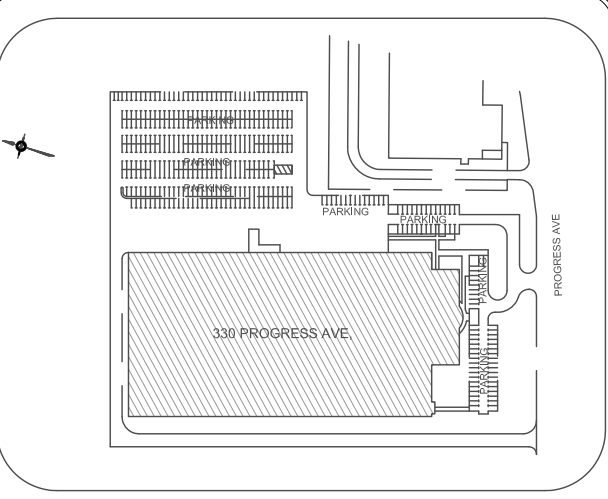
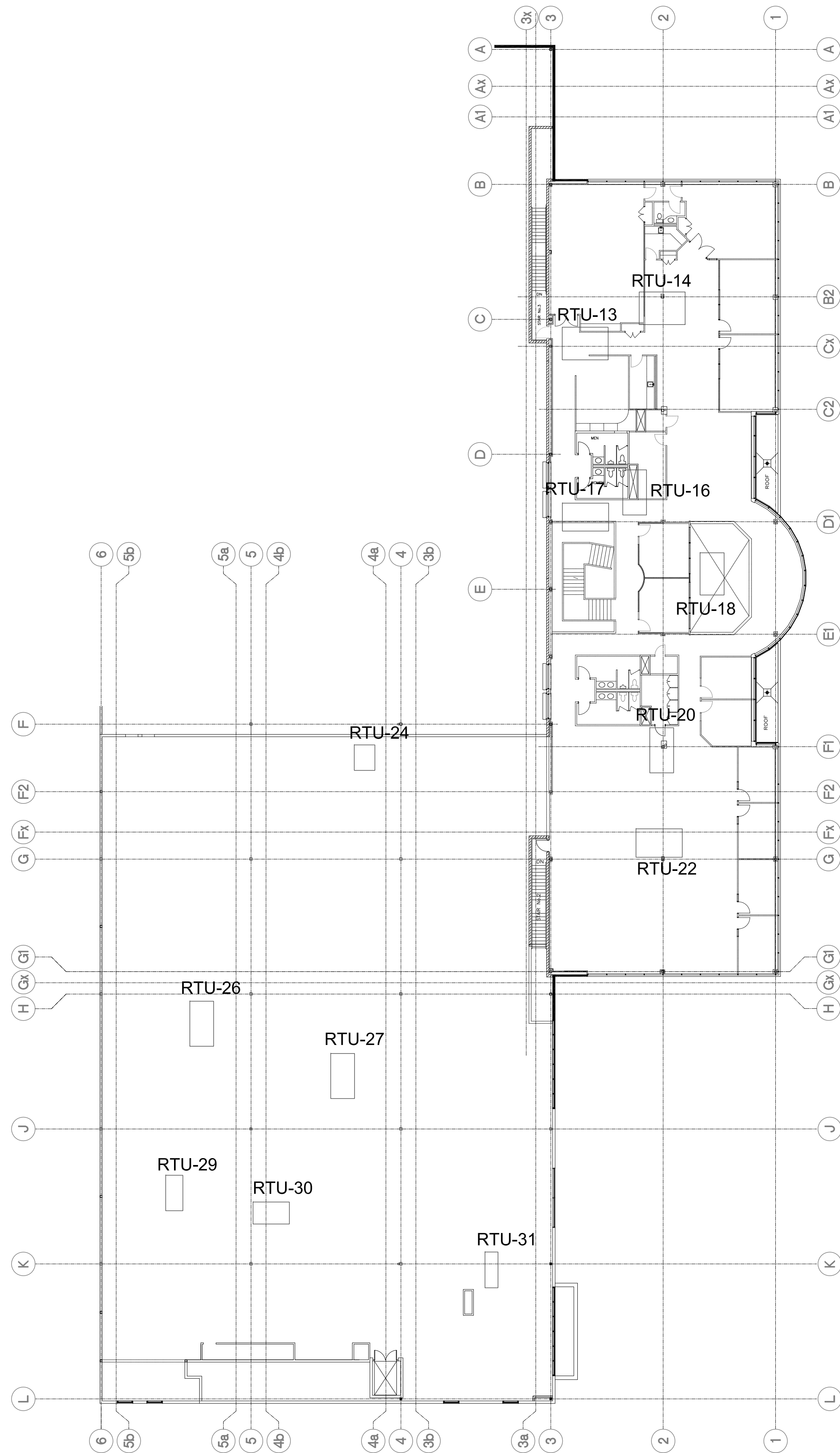
Job Description :
UPGRADE OF BAS CONTROLS AND
REPLACEMENT OF EXISTING ROOFTOP
HVAC PACKAGED AIRCONDITIONERS

Drawing Title
HVAC AND BAS CONTROLS
NEW INSTALLATION LAYOUT
GROUND FLOOR

Design:	J.T.
DRAWN:	J.T.
Approv.:	J.T.
Scale:	1 : 4
Date:	DEC

Project No.	Dwg.No.
Job No. 23-1059	M5

Not Part of this Permit



NO.	REVISION	DATE
5		
4		
3		
2	ISSUED FOR TENDER / PERMIT	MAR 16, 25
1	For Client Review - 60% DD	DEC 17, 24

NOTE:
CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING.

LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.

PRINTS ARE NOT TO BE SCALED.

Toronto
CORPORATE REAL ESTATE MANAGEMENT
METRO HALL, 55 JOHN STREET
2ND FLOOR
TORONTO, ONTARIO, M5V 3C6

MECHANICAL ENGINEER
A & T CONSULTANTS
ENGINEERS AND PROJECT MANAGERS
7 INVITATIONAL ROAD
BRAMPTON, ON L6P 2H1
PH: 416-841-6869
FAX: 647-367-0412

TABCON
TABCON
CONSULTING INC.
494 McNicoll Avenue, Suite # 201
Toronto, Ontario, M2H 2E1
Tel. : (647) 974-7006
Web Site : www.tabcon.com

Project Name :
TPS POLICE WAREHOUSE AND OFFICE BUILDING

Project Address :
330 PROGRESS AVENUE
TORONTO, ON

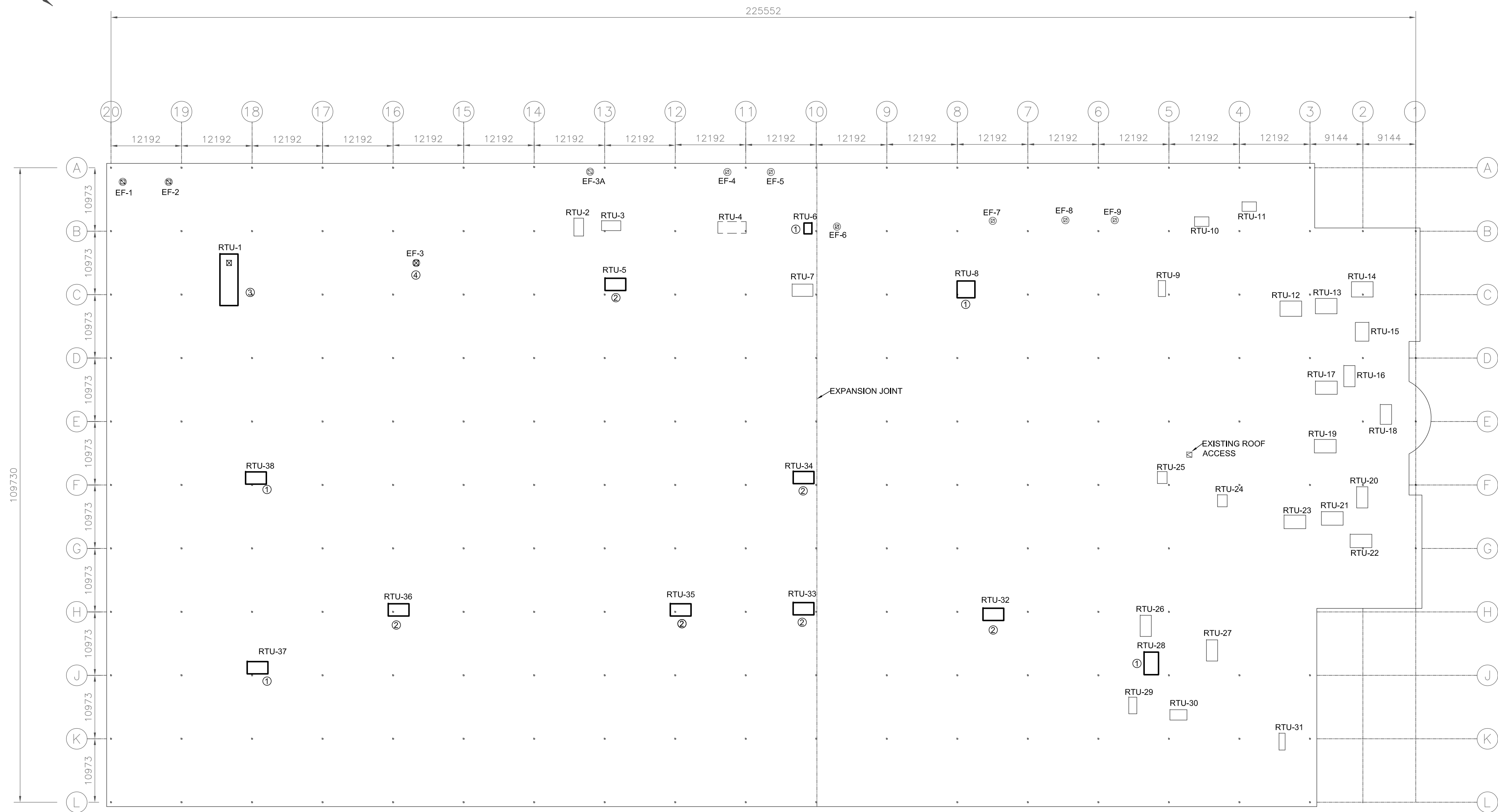
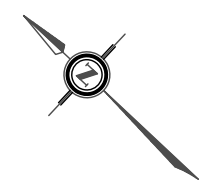
Job Description :
UPGRADE OF BAS CONTROLS AND REPLACEMENT OF EXISTING ROOFTOP HVAC PACKAGED AIRCONDITIONERS

Drawing Title
HVAC LAYOUT
SECOND FLOOR

Design:	J.T.
DRAWN:	J.T.
Approv.:	J.T.
Scale:	1 : 500
Date:	DECEMBER 10, 2024

Project No.	Dwg.No.
Job No. 23-1059	M6

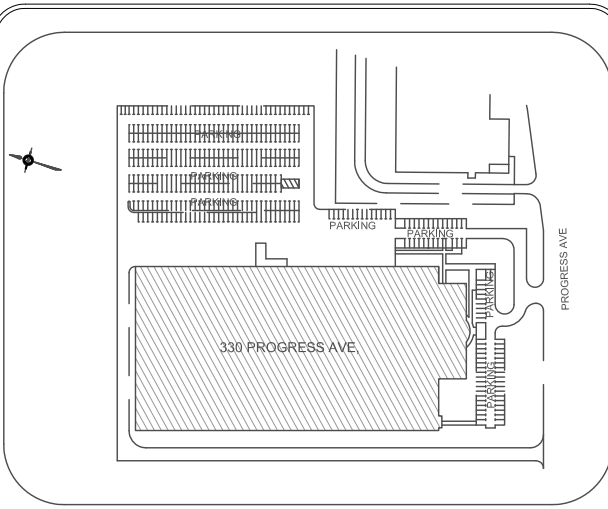
Not Part of this Permit



NOTE:
LOCATION OF THE HVAC ROOFTOP EQUIPMENT SHOWN ON THIS PLAN IS TRACED USING GOOGLE MAPS AND TO BE CONSIDERED AS APPROXIMATE
INSTALLER IS REQUIRED TO SITE COORDINATE
ALL EQUIPMENT (BOTH NEW AND THOSE NOTED AS EXISTING TO REMAIN TO BE RE-TAGGED) AS PER TAG NUMBERS NOTED ON THIS PLAN
UPDATE TAGGING DETAIL ON THE POWER FEEDER SERVING THE EQUIPMENT AT THE ELECTRICAL POWER PANEL
UPDATE TAGGING DETAIL ON THE BUILDING AUTOMATION GRAPHICS AND ALL EQUIPMENT CONTROLLERS TIED WITH THE EQUIPMENT

Scope of zoning review for:
- replacing existing HVAC rooftop units
NEW UNITS MUST BE THE SAME HEIGHT AS EXISTING UNITS OR SMALLER.
Any other work outside this scope must be applied for separately.
No changes approved to existing use, GFA, building footprint, height, landscaping, vehicle access and number of parking spaces (or any other zoning parameters).

NEW INSTALLATION NOTES	
①	- NEW ROOFTOP HVAC UNIT. MOUNTED ON NEW INSULATED 18" HIGH ROOF CURB. PROVIDE ADAPTER CURB IF TO SUIT EXISTING SUPPLY AND RETURN AIR DUCT OPENINGS - CONNECT POWER FEED FROM EXISTING LOCAL DISCONNECT WHICH WAS SERVING THE DEMOLISHED HVAC UNIT. HAVE ELECTRICIAN VERIFY SIZING OF EXISTING SERVICE TO SERVE THE POWER REQUIREMENTS OF THE NEW EQUIPMENT. ADVISE ENGINEER, IF SERVICE UPGRADE IS REQUIRED - INSTALL NEW CONTROL WIRING FROM BUILDING AUTOMATION CONTROLLER - REFER TO DRAWING M6 AND SPECIFICATIONS FOR REQUIREMENTS - CONNECT SUPPLY AND RETURN AIR DUCT TO EQUIPMENT - INSTALL NEW NATURAL GAS PIPING BETWEEN THE ISOLATION VALVE AND EQUIPMENT - PROVIDE U-TRAP ON CONDENSATE DRAIN - COMMISSION EQUIPMENT AND BALANCE EQUIPMENT SUPPLY AIR AND OUTDOOR AIRFLOW TO VALUES AS SCHEDULED
②	- NEW ROOFTOP HVAC UNIT. MOUNTED ON NEW INSULATED 18" HIGH ROOF CURB. PROVIDE ADAPTER CURB IF TO SUIT EXISTING SUPPLY AND RETURN AIR DUCT OPENINGS - CONNECT POWER FEED FROM EXISTING LOCAL DISCONNECT WHICH WAS SERVING THE DEMOLISHED HVAC UNIT. HAVE ELECTRICIAN VERIFY SIZING OF EXISTING SERVICE TO SERVE THE POWER REQUIREMENTS OF THE NEW EQUIPMENT. ADVISE ENGINEER, IF SERVICE UPGRADE IS REQUIRED - INSTALL NEW CONTROL WIRING FROM NEW TEMPERATURE SENSOR AND BUILDING AUTOMATION CONTROLLER - REFER TO DRAWING M6 AND SPECIFICATIONS FOR REQUIREMENTS - CONNECT SUPPLY AND RETURN AIR DUCT TO EQUIPMENT - PROVIDE U-TRAP ON CONDENSATE DRAIN - COMMISSION EQUIPMENT AND BALANCE EQUIPMENT SUPPLY AIR AND OUTDOOR AIRFLOW TO VALUES AS SCHEDULED
③	- NEW ROOFTOP HVAC UNIT. MOUNTED ON NEW INSULATED 18" HIGH ROOF CURB. PROVIDE ADAPTER CURB IF TO SUIT EXISTING SUPPLY AND RETURN AIR DUCT OPENINGS - CONNECT POWER FEED FROM EXISTING LOCAL DISCONNECT WHICH WAS SERVING THE DEMOLISHED HVAC UNIT. HAVE ELECTRICIAN VERIFY SIZING OF EXISTING SERVICE TO SERVE THE POWER REQUIREMENTS OF THE NEW EQUIPMENT. ADVISE ENGINEER, IF SERVICE UPGRADE IS REQUIRED - INSTALL NEW CONTROL WIRING FROM NEW TEMPERATURE SENSOR AND BUILDING AUTOMATION CONTROLLER - CONFIGURE OUTDOOR AIR DAMPER WITH CARBON MONOXIDE SENSOR TO PROVIDE DEMAND VENTILATION - REFER TO DRAWING M6 AND SPECIFICATIONS FOR REQUIREMENTS - CONNECT SUPPLY AND RETURN AIR DUCT TO EQUIPMENT - PROVIDE U-TRAP ON CONDENSATE DRAIN - COMMISSION EQUIPMENT AND BALANCE EQUIPMENT SUPPLY AIR AND OUTDOOR AIRFLOW TO VALUES AS SCHEDULED
④	- EXISTING EXHAUST FAN TO REMAIN. - REPLACE DRIVE MOTOR WITH SIMILAR SIZED INVERTER DUTY DRIVE MOTOR - REPLACE DRIVE SHEAVES AND BELT TO SUIT - INSTALL VFD AND WIRE. REFER TO CONTROL SCHEMATICS FOR DETAILS - COMMISSION EQUIPMENT AND CONFIGURE CONTROLS TO HAVE FAN TO MODULATE TO MAINTAIN SPACE PRESSURE BALANCE. REFER TO CONTROL SEQUENCE



NO.	REVISION	DATE
5		
4		
3		
2	ISSUED FOR TENDER / PERMIT	MAR 16, 25
1	For Client Review - 60% DD	DEC 17, 24

NOTE:
CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING.
LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.
PRINTS ARE NOT TO BE SCALED.



CORPORATE REAL ESTATE MANAGEMENT
METRO HALL, 55 JOHN STREET
2ND FLOOR
TORONTO, ONTARIO, M5V 3C6

MECHANICAL ENGINEER



A & T CONSULTANTS
ENGINEERS AND PROJECT MANAGERS
7 INVITATIONAL ROAD
BRAMPTON, ON L6P 2H1
PH: 416-841-6869
FAX: 647-367-0412



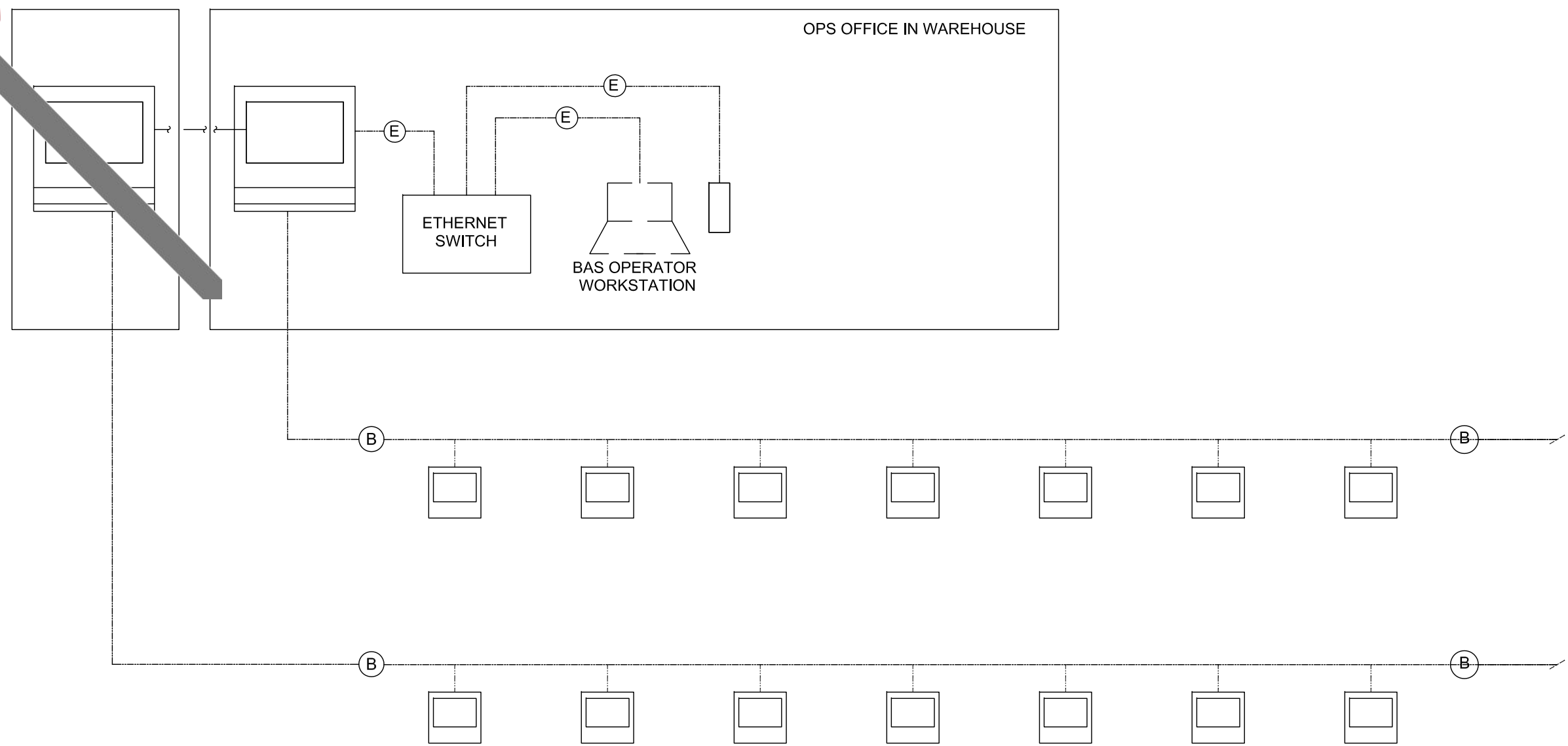
TABCON
CONSULTING INC.
494 McNicoll Avenue, Suite # 201
Toronto, Ontario, M2H 2E1
Tel. : (647) 974-7006
Web Site : www.tabcon.com

Project Name :
TPS POLICE WAREHOUSE AND OFFICE BUILDING
Project Address :
330 PROGRESS AVENUE
TORONTO, ON
Job Description :
UPGRADE OF BAS CONTROLS AND REPLACEMENT OF EXISTING ROOFTOP HVAC PACKAGED AIRCONDITIONERS
Drawing Title:
HVAC NEW INSTALLATION LAYOUT - ROOF

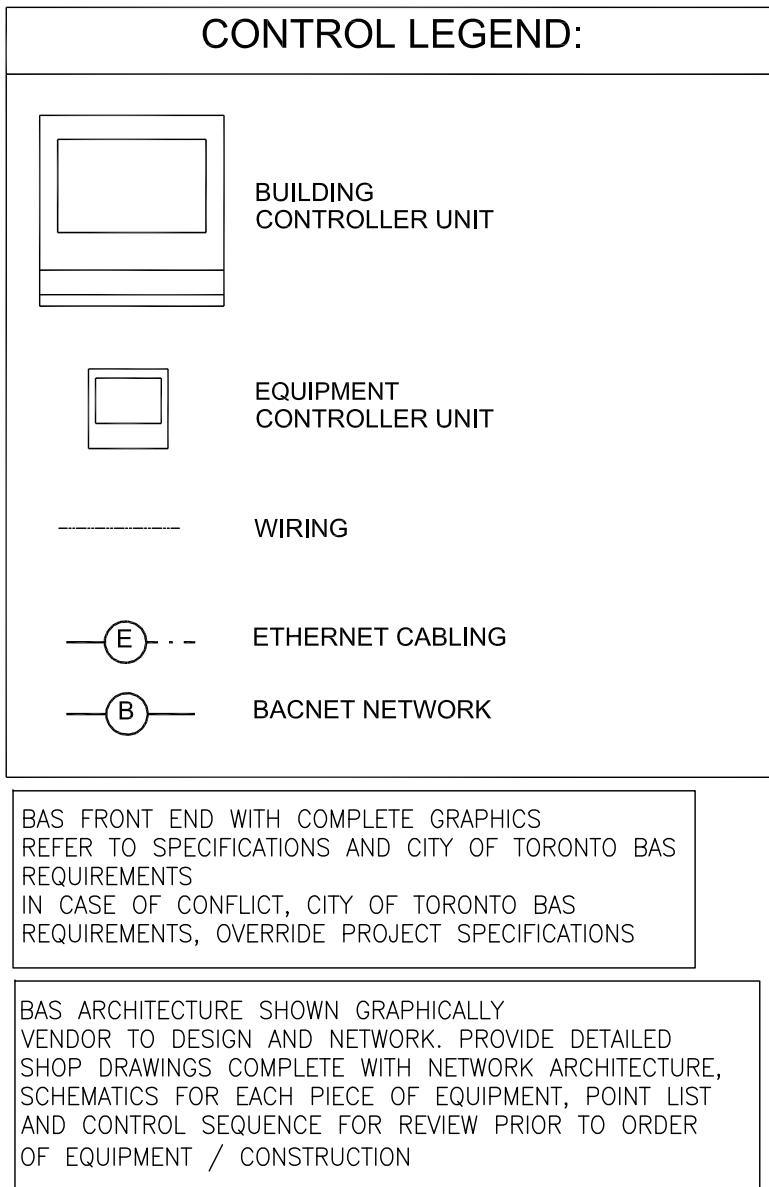
Design:	J.T.
DRAWN:	J.T.
Approv.:	J.T.
Scale:	1 : 500
Date:	DECEMBER 10, 2024

Project No.	Dwg.No.
Job No. 23-1059	M7

Not Part of this
Permit



1
M8
BAS NETWORK ARCHITECTURE SHOWN GRAPHICALLY
NOT TO SCALE



APPLICABLE FOR ALL CONTROL WORK

SCOPE OF WORK OF CONTROLS CONTRACTOR

SUPPLY AND INSTALL EQUIPMENT CONTROLLER (ECU) / BUILDING CONTROLLER (BCU) AND HARDWIRE TO CONTROL TERMINAL STRIP ON EQUIPMENT OEM PANEL TO PICK UP CONTROL AND MONITORING POINTS AS NOTED IN THE CONTROL SCHEMATICS AND PROJECT SPECIFICATIONS

SUPPLY AND INSTALL ALL REQUIRED FIELD DEVICES, IF NOT EXISTING AND CARRYOUT ALL FIELD CONTROL WIRING

SUPPLY AND INSTALL ALL POWER SUPPLY UNITS (FOR POWERING ANY FIELD DEVICES). ALL POWER SUPPLY UNITS SUPPLIED TO BE FUSED ON PRIMARY AND SECONDARY CIRCUITS

CARRYING OUT CONTROL WIRING, TERMINATIONS, CALIBRATION OF ALL FIELD DEVICES AND INTEGRATE THESE TO THE BASE BUILDING BAS.

PROVIDE BAS GRAPHICS WITH REVISED TAGGING COMPLETE WITH MONITORING / CONTROL / TRENDING AND ALARM POINTS FOR EXISTING AND NEW EQUIPMENT. REFER TO DRAWINGS AND SPECIFICATIONS FOR REQUIREMENTS.

PROVIDE CONTROLS VERIFICATION REPORT FOR EACH PIECE OF EQUIPMENT WHICH IS TIED INTO THE BASE BUILDING BAS

WORK WITH MECHANICAL CONTRACTOR, AND TESTING AND BALANCING CONTRACTOR AND CARRYOUT ANY ADJUSTMENTS IN CONTROLS AS NEEDED TO COMMISSION THE NEW HVAC EQUIPMENT AS PER DESIGN INTENT

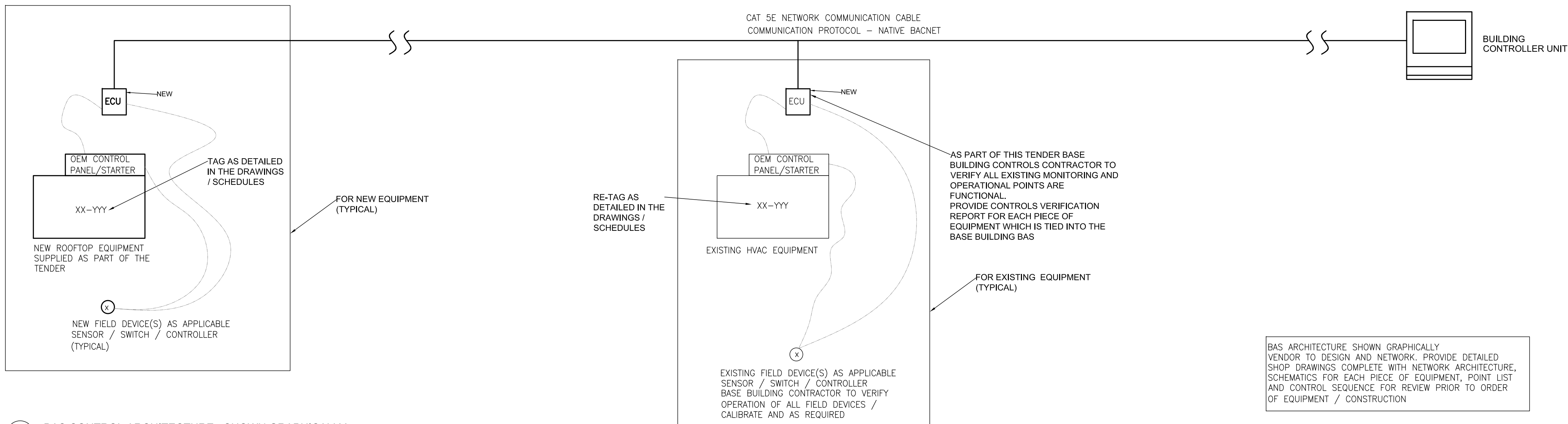
COMMUNICATION PROTOCOL BETWEEN ECU AND BASE BUILDING CONTROLLER TO BE NATIVE BACNET

SUPPLY AND INSTALL ANY FIELD SENSORS - IF NOT EXISTING, IF EXISTING FIELD SENSORS OTHER THAN SPACE TEMPERATURE SENSORS / THERMOSTATS ARE RE-USED - CARRY COST TO VERIFY / CALIBRATE / REPLACE AS REQUIRED

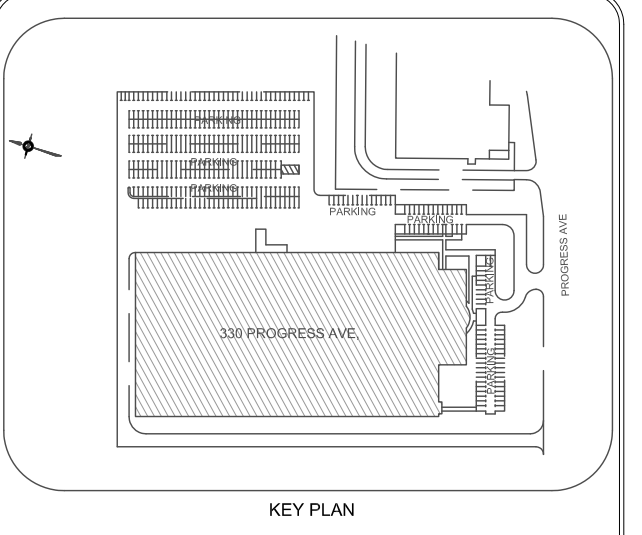
REPLACE ALL EXISTING SPACE TEMPERATURE SENSORS / THERMOSTATS WITH NEW

REFER TO DRAWING M1 FOR CONTROLS LEGEND

THE NOTES ABOVE TO BE CONSTRUED AS ADDITION TO REQUIREMENTS NOTED AS PART OF THE TENDER DOCUMENTATION:



2
M8
BAS CONTROL ARCHITECTURE - SHOWN GRAPHICALLY
NOT TO SCALE



NO.	REVISION	DATE
5		
4		
3		
2	ISSUED FOR TENDER / PERMIT	MAR 16, 25
1	For Client Review - 60% DD	DEC 17, 24

NOTE:

CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING.

LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.

PRINTS ARE NOT TO BE SCALED.



Project Name :
TPS POLICE WAREHOUSE AND OFFICE BUILDING

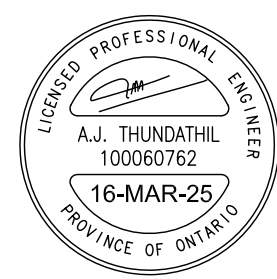
Project Address :
330 PROGRESS AVENUE
TORONTO, ON

Job Description :
UPGRADE OF BAS CONTROLS AND REPLACEMENT OF EXISTING ROOFTOP HVAC PACKAGED AIRCONDITIONERS

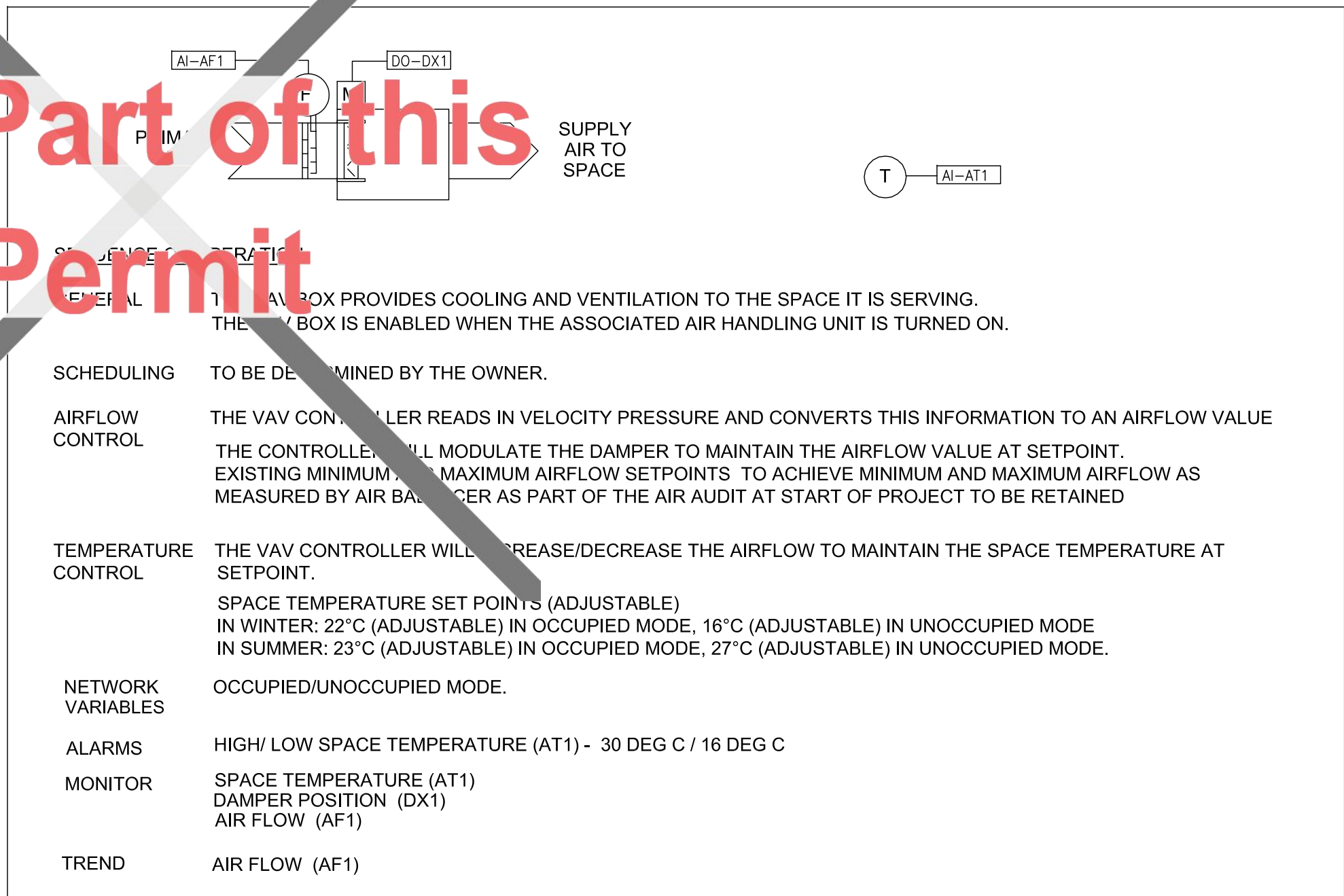
Drawing Title
BAS CONTROL SCHEMATICS
BAS ARCHITECTURE AND NOTES

Design:	J.T.
DRAWN:	J.T.
Approv.:	J.T.
Scale:	NOT TO SCALE
Date:	DECEMBER 10, 2024

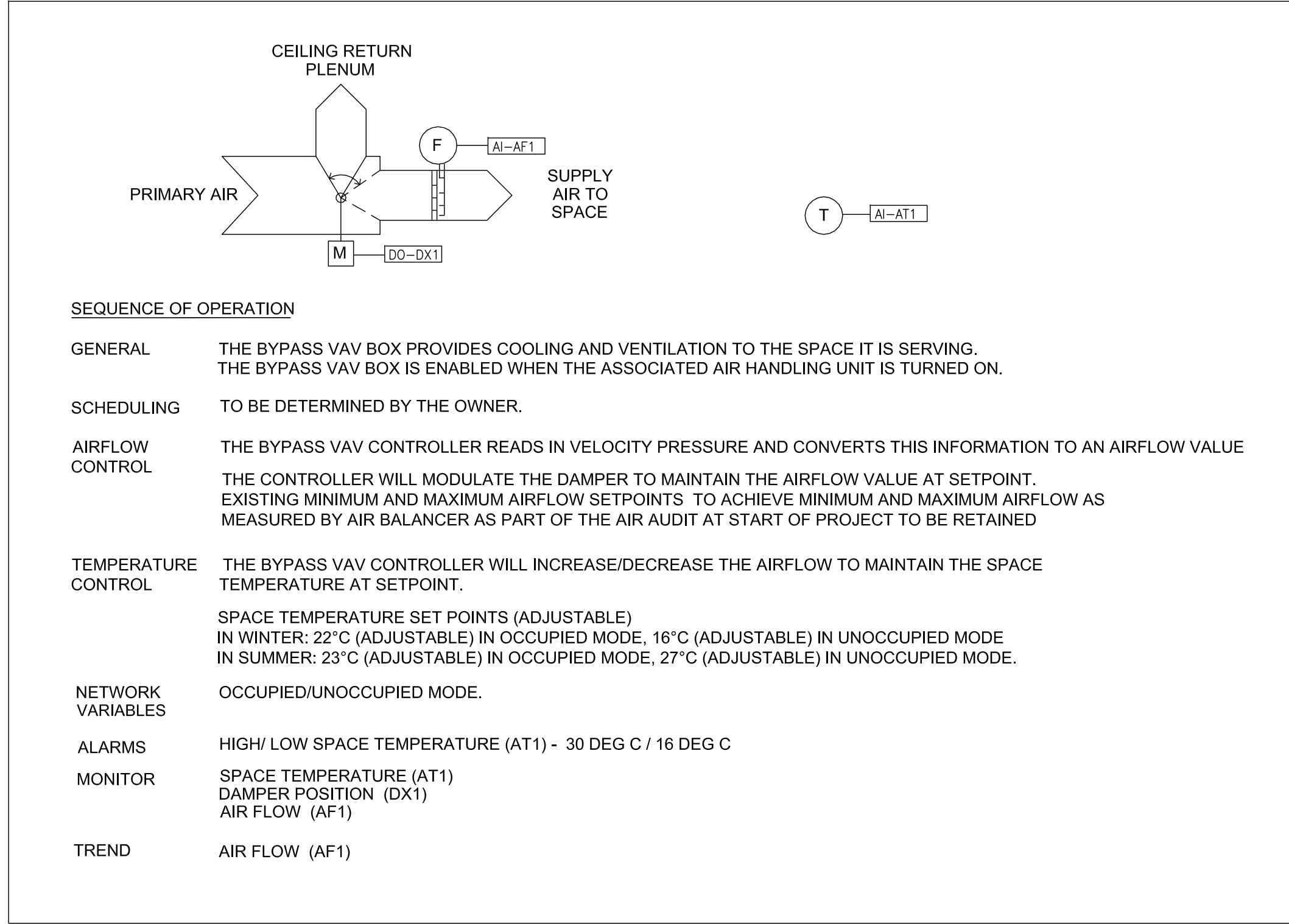
Project No.	Dwg.No.
Job No. 23-1059	M8



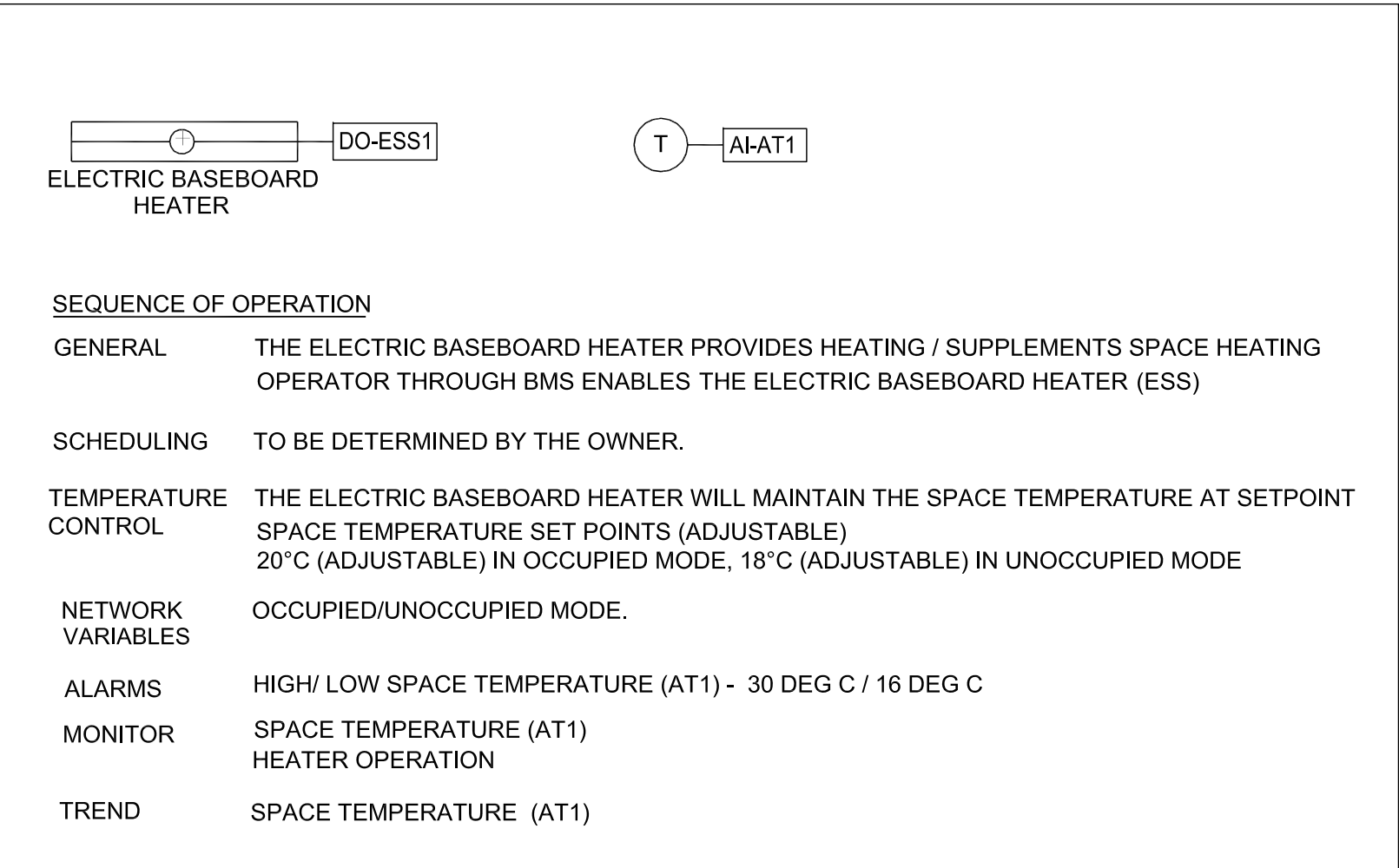
Not Part of this Permit



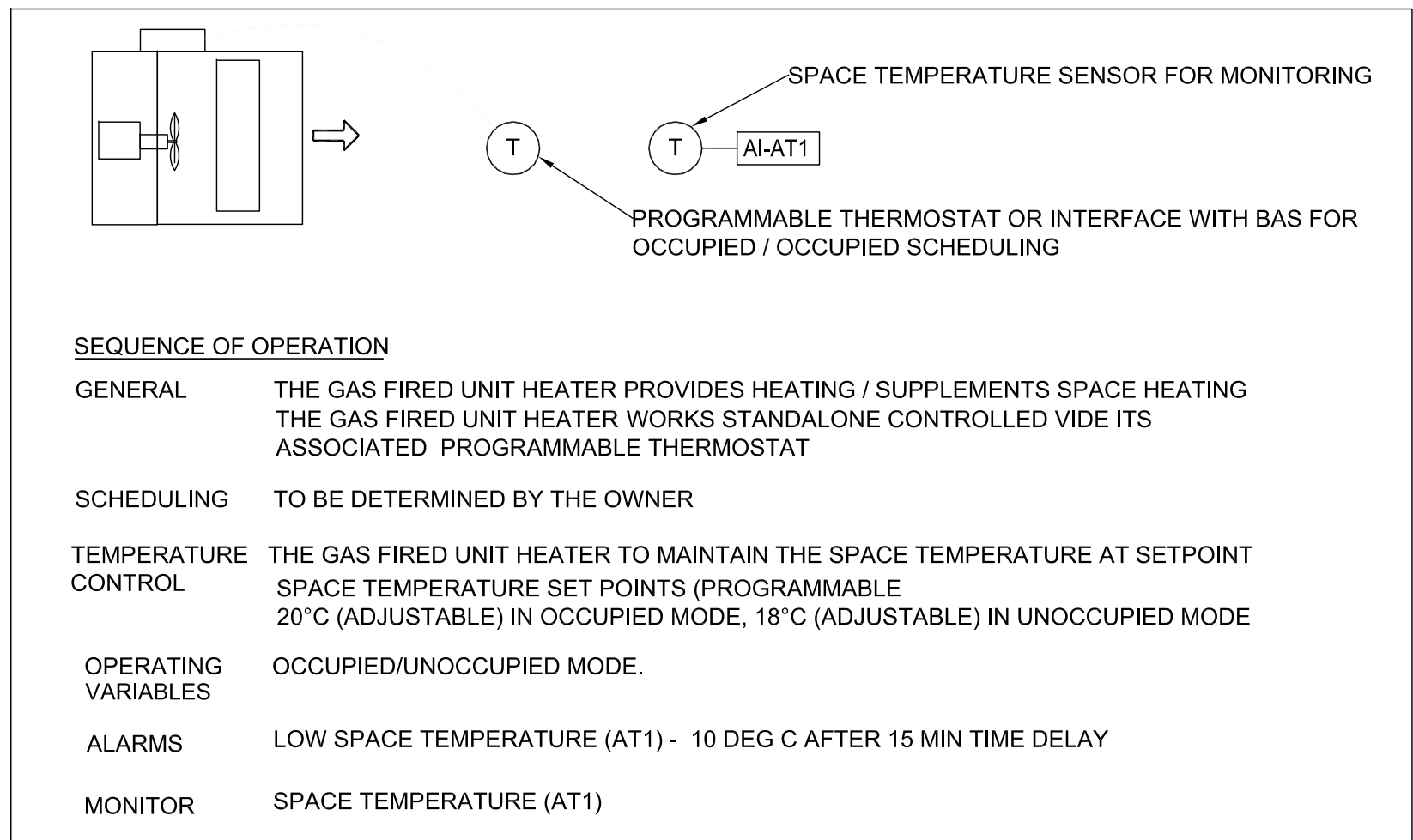
1
M9
TYPICAL VAV CONTROL SCHEMATIC AND CONTROL SEQUENCE
NOT TO SCALE



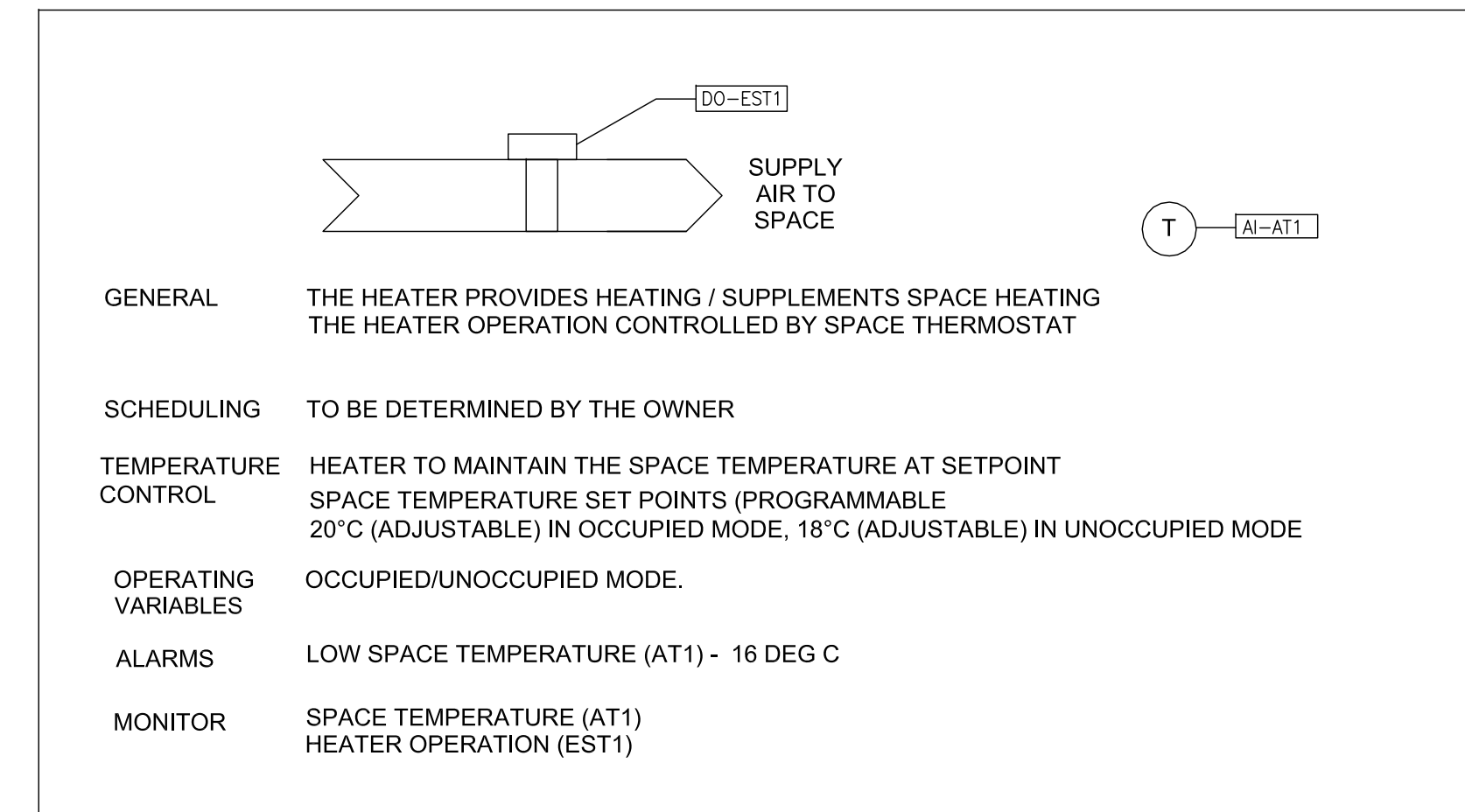
2
M9
TYPICAL BYPASS VAV CONTROL SCHEMATIC AND CONTROL SEQUENCE
NOT TO SCALE



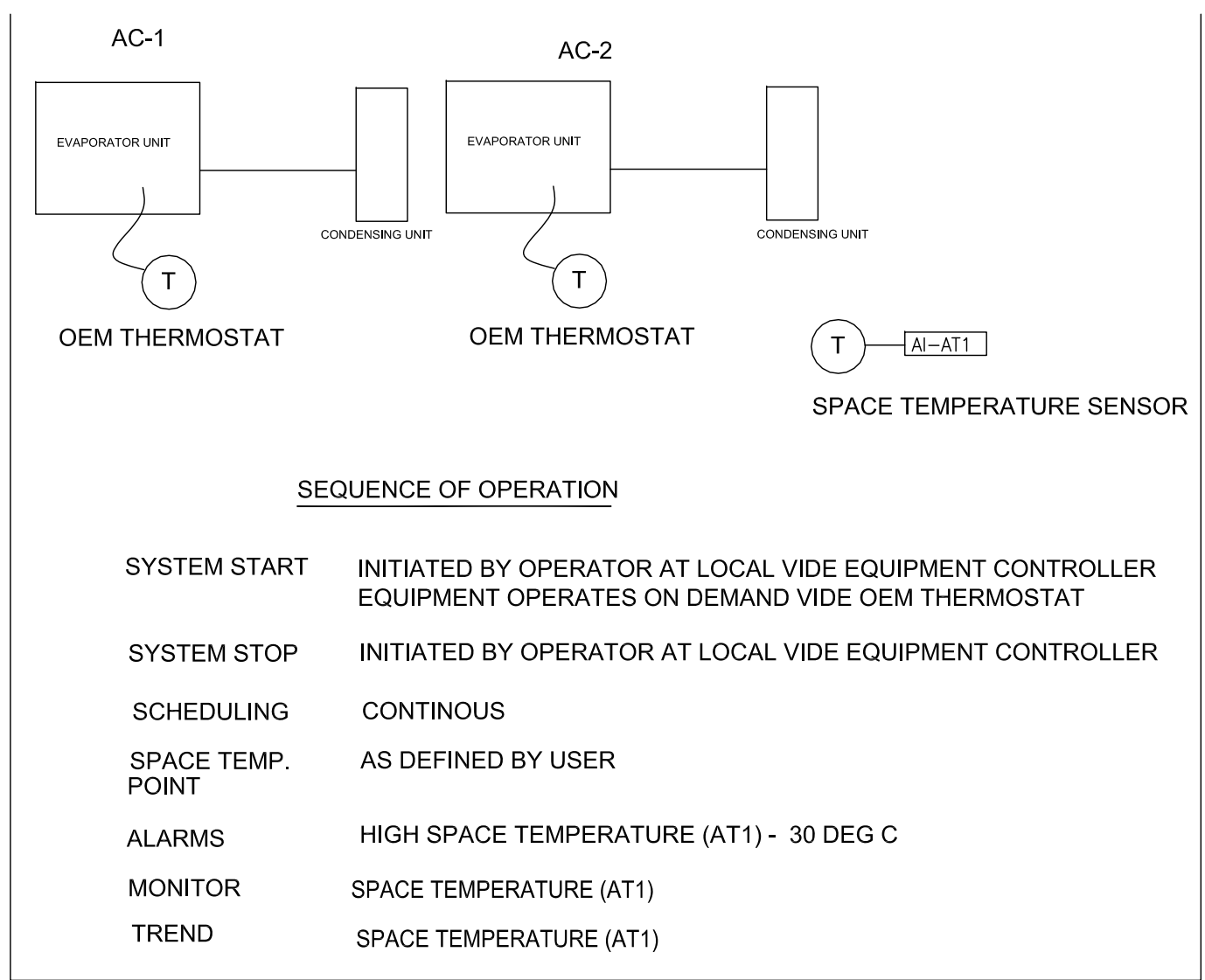
3
M9
ELECTRICAL BASEBOARD HEATER CONTROL SCHEMATIC AND CONTROL SEQUENCE
NOT TO SCALE



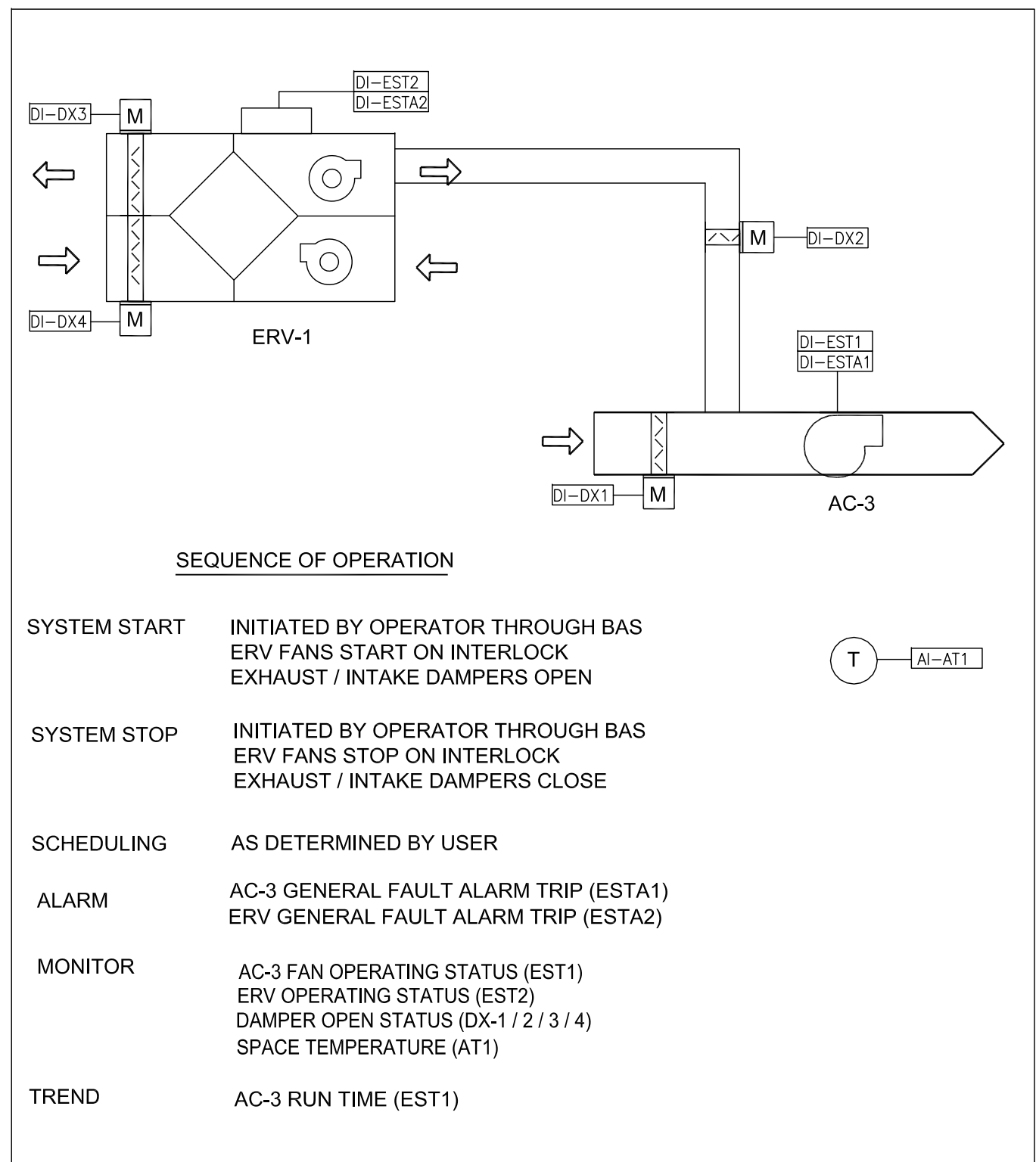
4
M9
GAS FIRED UNIT HEATER CONTROL SCHEMATIC AND CONTROL SEQUENCE
NOT TO SCALE



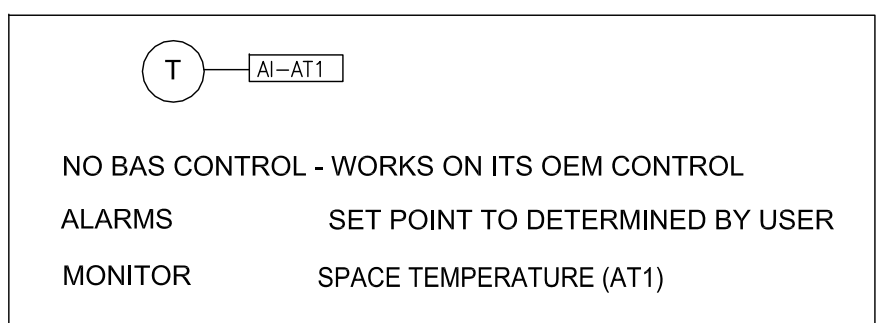
6
M9
ELECTRIC DUCT HEATER CONTROL SCHEMATIC AND CONTROL SEQUENCE
NOT TO SCALE



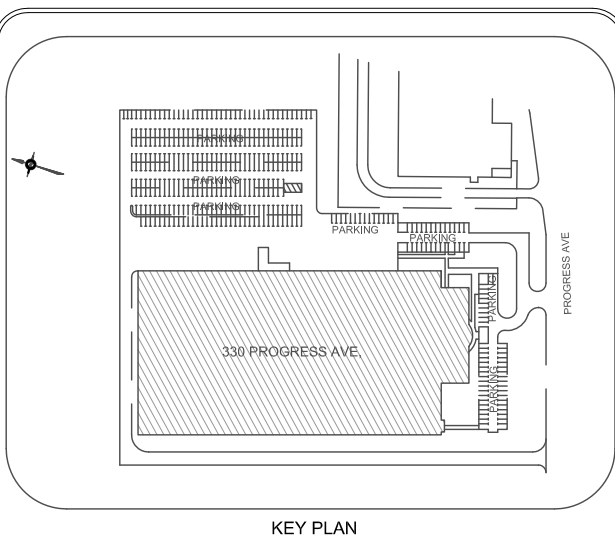
7
M9
AC-1 / AC-2 CONTROL SCHEMATIC AND CONTROL SEQUENCE
NOT TO SCALE



5
M9
ERV-1 / AC-3 CONTROL SCHEMATIC AND CONTROL SEQUENCE
NOT TO SCALE



8
M9
REFRIGERATOR- CONTROL SCHEMATIC AND CONTROL SEQUENCE
NOT TO SCALE



NO.	REVISION	DATE
5		
4		
3		
2	ISSUED FOR TENDER / PERMIT	MAR 16, 25
1	For Client Review - 60% DD	DEC 17, 24

NOTE:
CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING.

LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.

PRINTS ARE NOT TO BE SCALED.

Toronto

CORPORATE REAL ESTATE MANAGEMENT
METRO HALL, 55 JOHN STREET
2ND FLOOR
TORONTO, ONTARIO, M5V 3C6

MECHANICAL ENGINEER

A & T CONSULTANTS
ENGINEERS AND PROJECT MANAGERS
7 INVITATIONAL ROAD
BRAMPTON, ON L6P 2H1
PH: 416-841-8869
FAX: 647-367-0412

TABCON
CONSULTING INC.

494 McNicoll Avenue, Suite # 201
Toronto, Ontario, M2H 2E1
Tel. : (647) 974-7006
Web Site : www.tabcon.com

Project Name :
TPS POLICE WAREHOUSE AND OFFICE BUILDING

Project Address :
330 PROGRESS AVENUE
TORONTO, ON

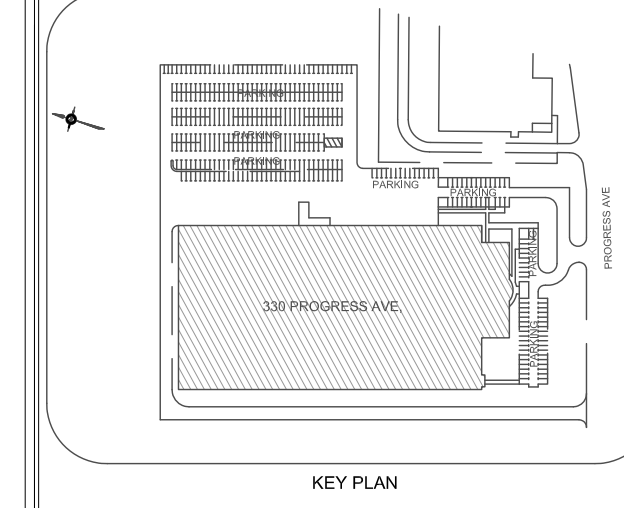
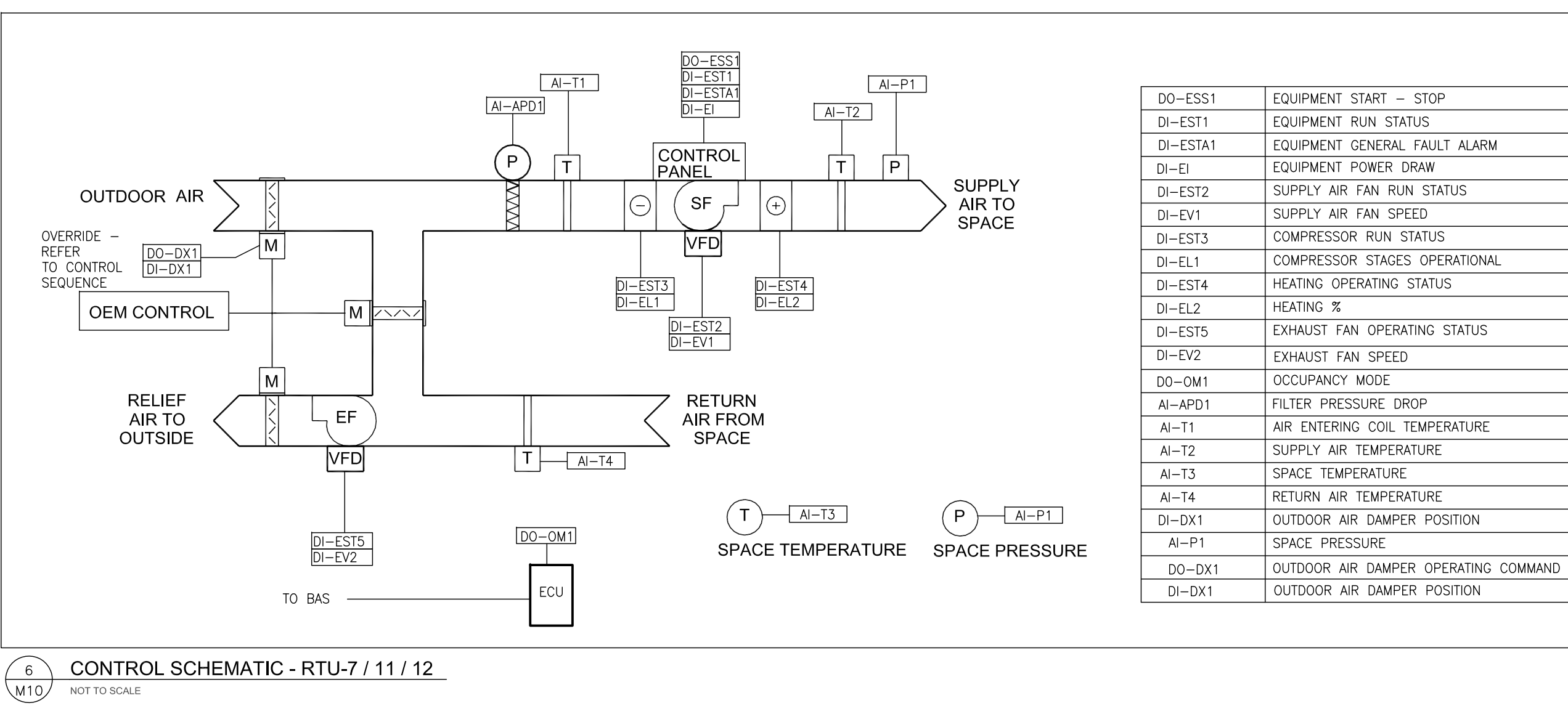
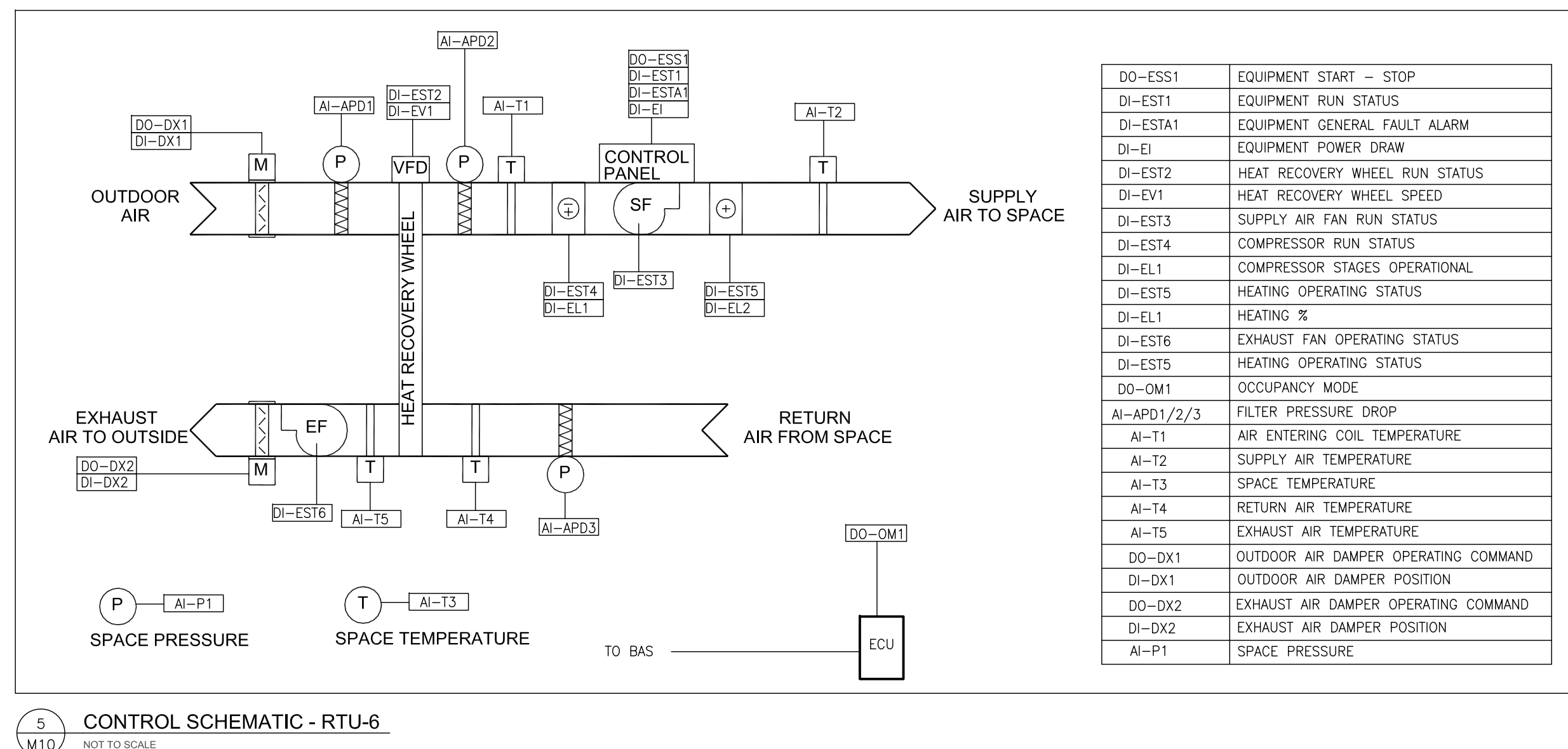
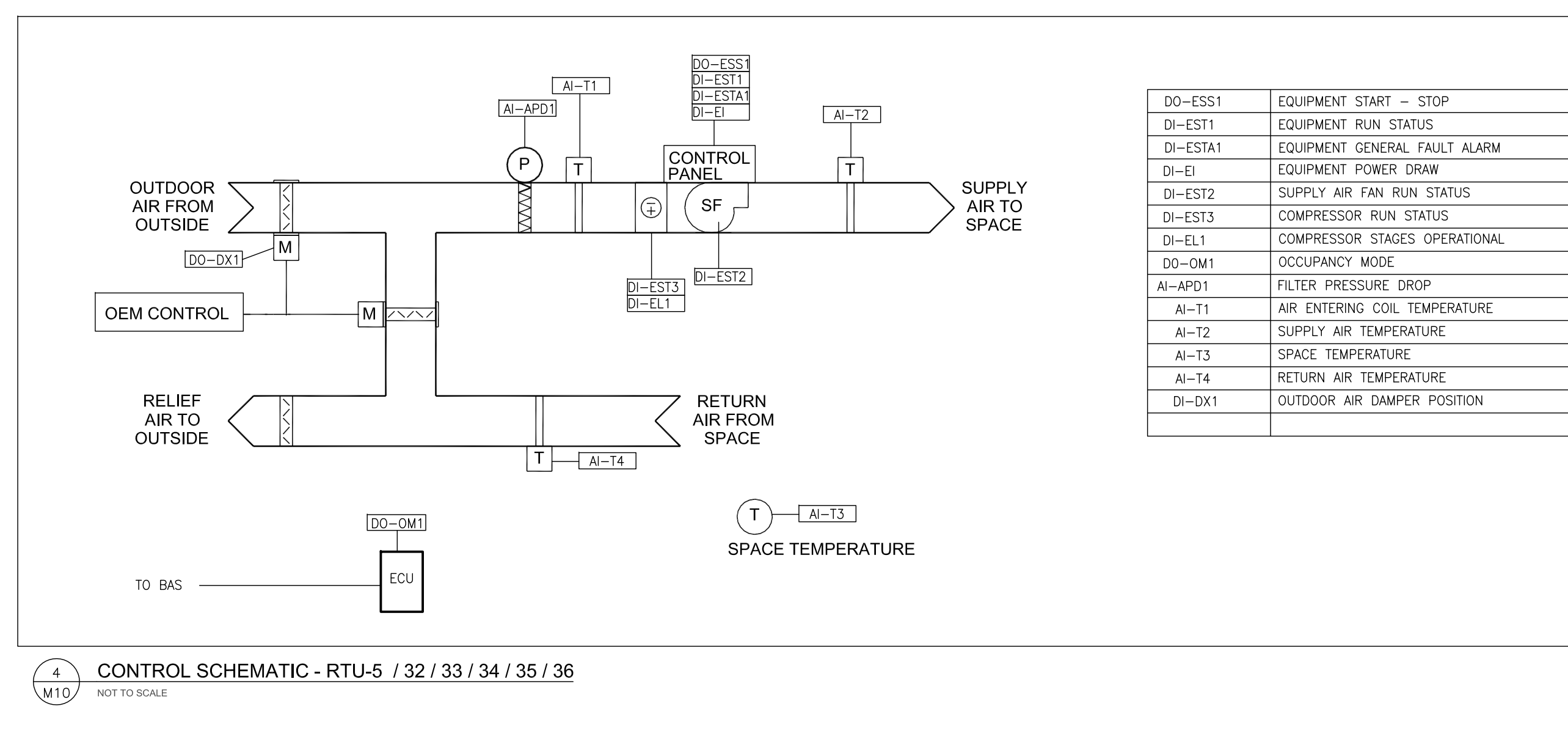
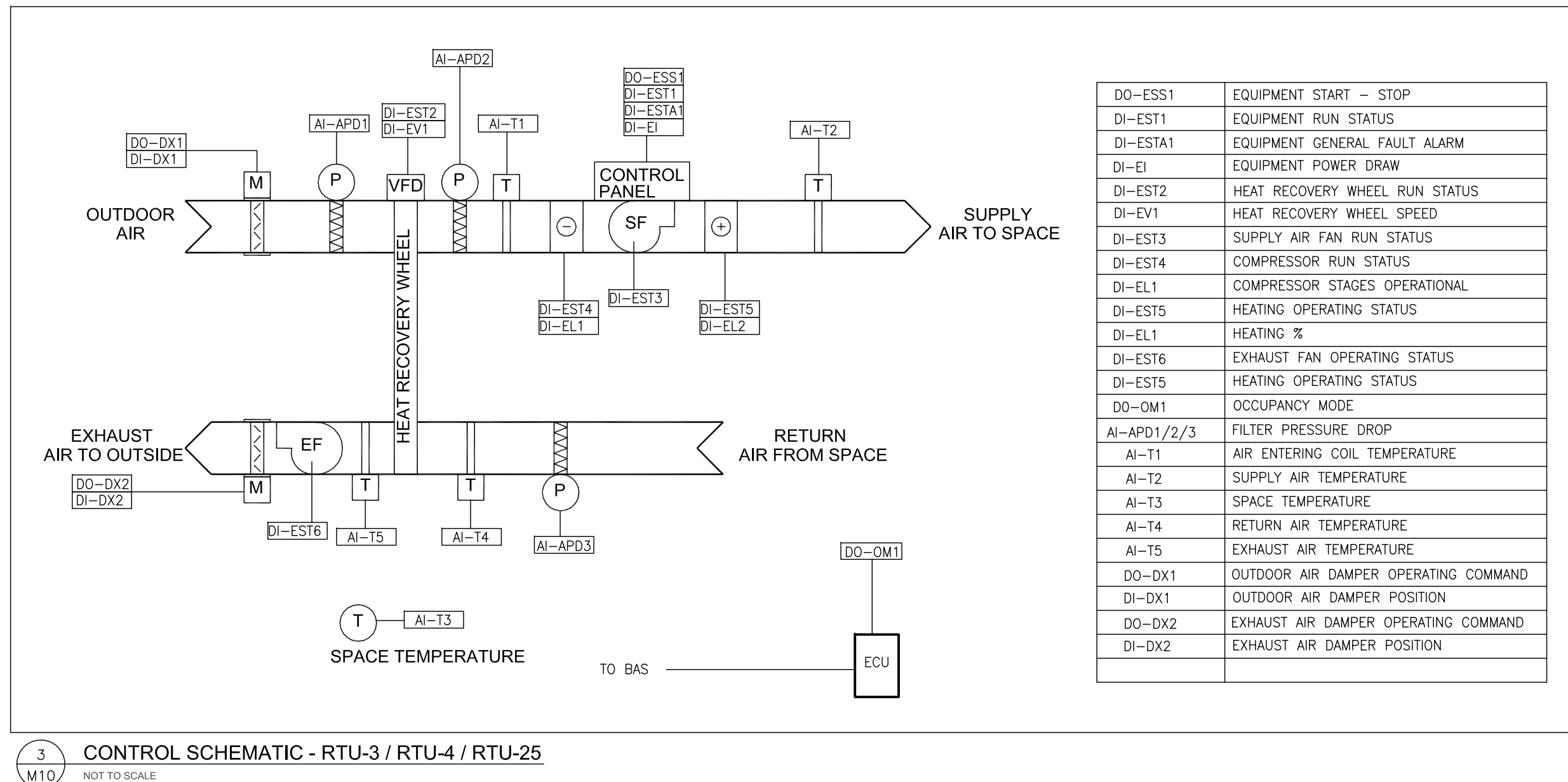
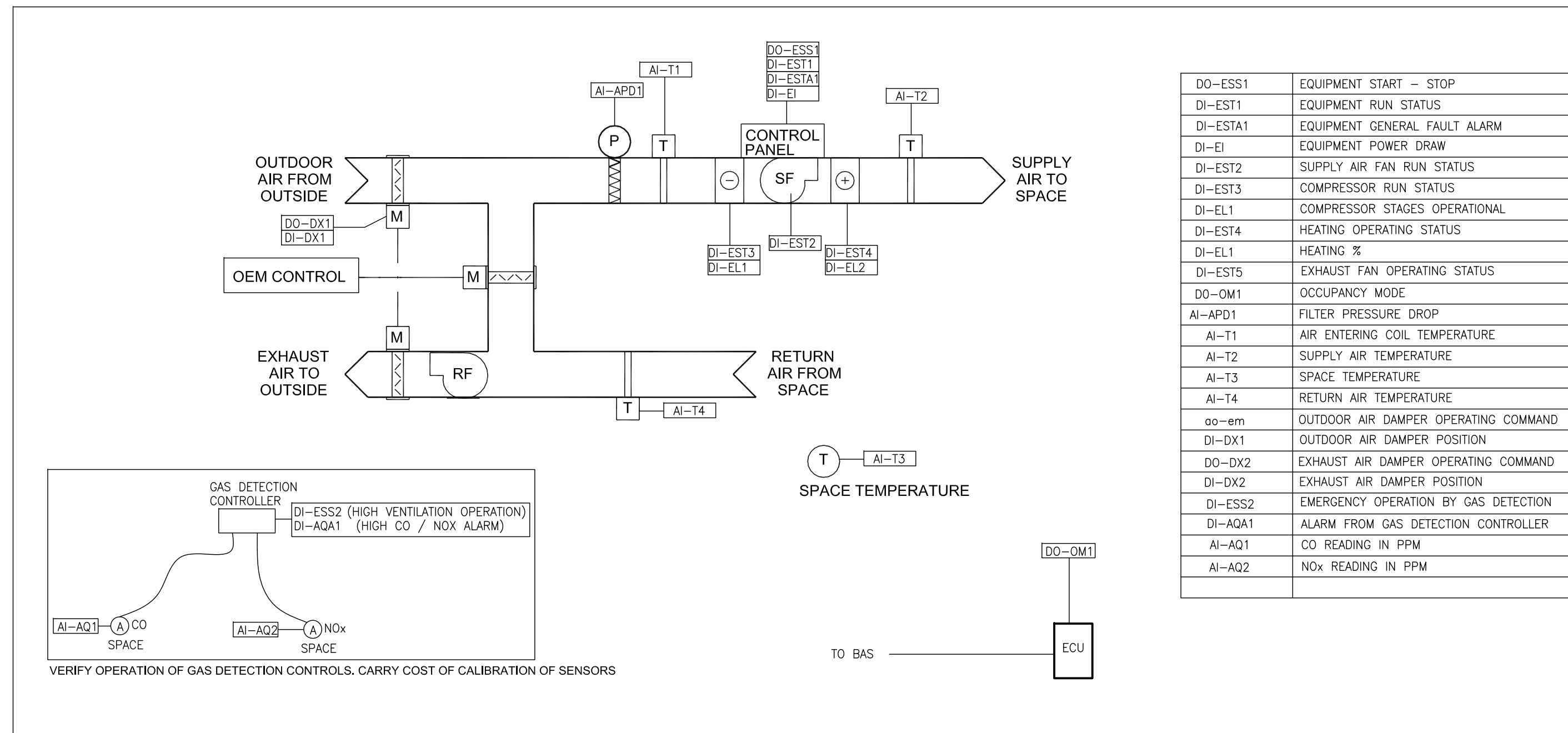
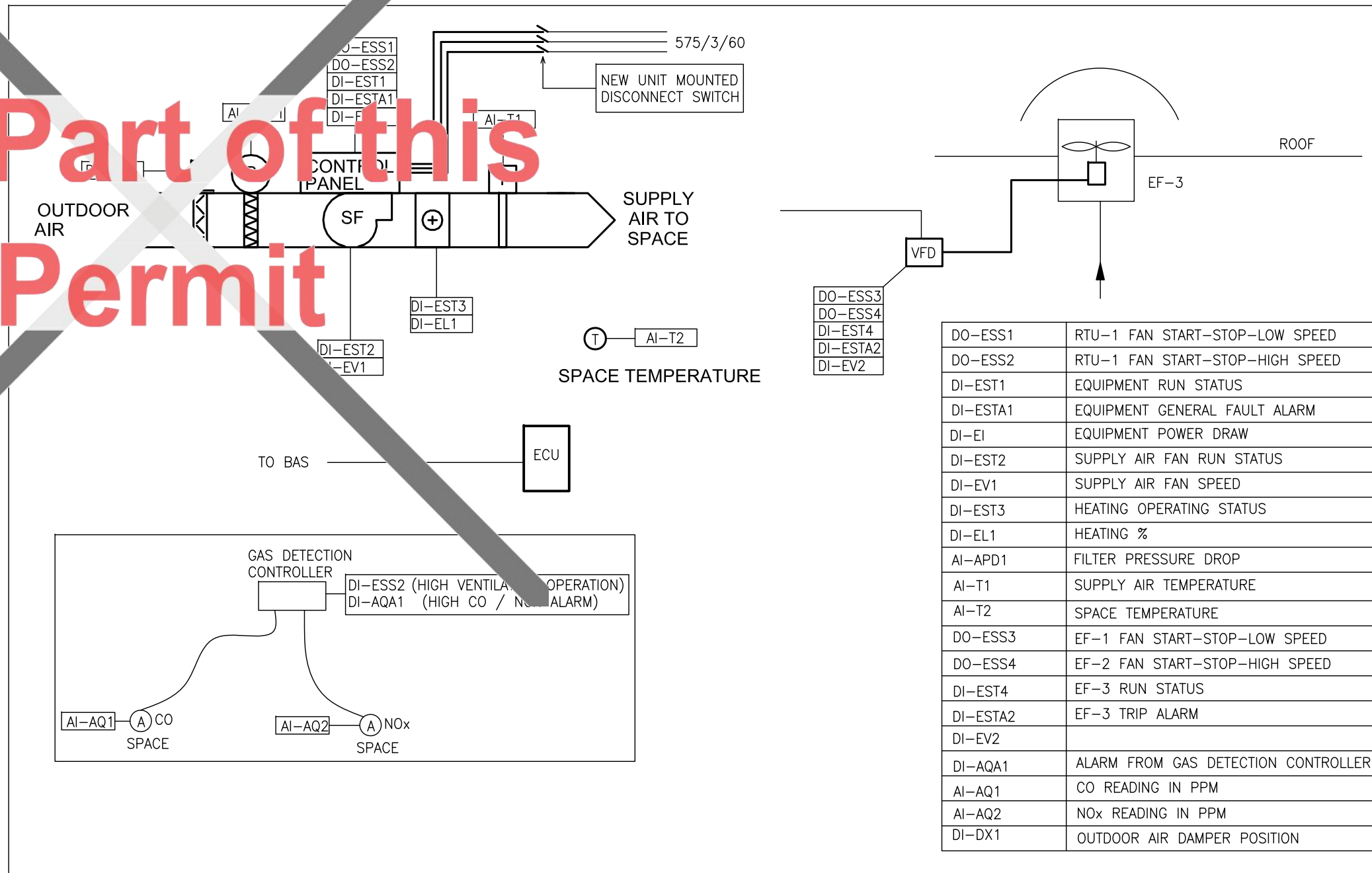
Job Description :
UPGRADE OF BAS CONTROLS AND REPLACEMENT OF EXISTING ROOFTOP HVAC PACKAGED AIRCONDITIONERS

Drawing Title
BAS CONTROL SCHEMATICS AND CONTROL SEQUENCE - UNITARY EQUIPMENT

Design:	J.T.
DRAWN:	J.T.
Approv.:	J.T.
Scale:	NOT TO SCALE
Date:	DECEMBER 10, 2024

Project No.	Dwg.No.
Job No. 23-1059	M9

Not Part of this Permit



NO.	REVISION	DATE
5		
4		
3		
2	ISSUED FOR TENDER / PERMIT	MAR 16, 25
1	For Client Review - 60% DD	DEC 17, 24

NOTE:
CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING.

LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.

PRINTS ARE NOT TO BE SCALED.

Toronto

CORPORATE REAL ESTATE MANAGEMENT
METRO HALL, 55 JOHN STREET
2ND FLOOR
TORONTO, ONTARIO, M5V 3C6

MECHANICAL ENGINEER

A & T CONSULTANTS
ENGINEERS AND PROJECT MANAGERS
7 INVITATIONAL ROAD
BRAMPTON, ON L6P 2H1
PH: 416-841-6869
FAX: 647-367-0412

TABCON
CONSULTING INC.

494 McColl Avenue, Suite # 201
Toronto, Ontario, M2H 2E1
Tel. : (647) 974-7006
Web Site : www.tabcon.com

Project Name :
TPS POLICE WAREHOUSE AND OFFICE BUILDING

Project Address :
330 PROGRESS AVENUE
TORONTO, ON

Job Description :
UPGRADE OF BAS CONTROLS AND REPLACEMENT OF EXISTING ROOFTOP HVAC PACKAGED AIRCONDITIONERS

Drawing Title
BAS CONTROL SCHEMATICS
ROOFTOP HVAC PACKAGED UNITS

Design: J.T.

DRAWN: J.T.

Approved: J.T.

Scale: NOT TO SCALE

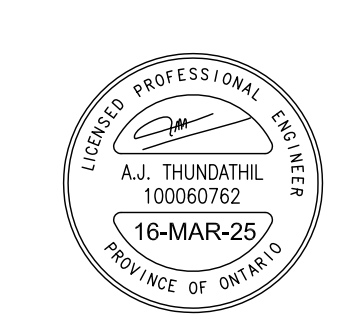
Date: DECEMBER 10, 2024

Project No.

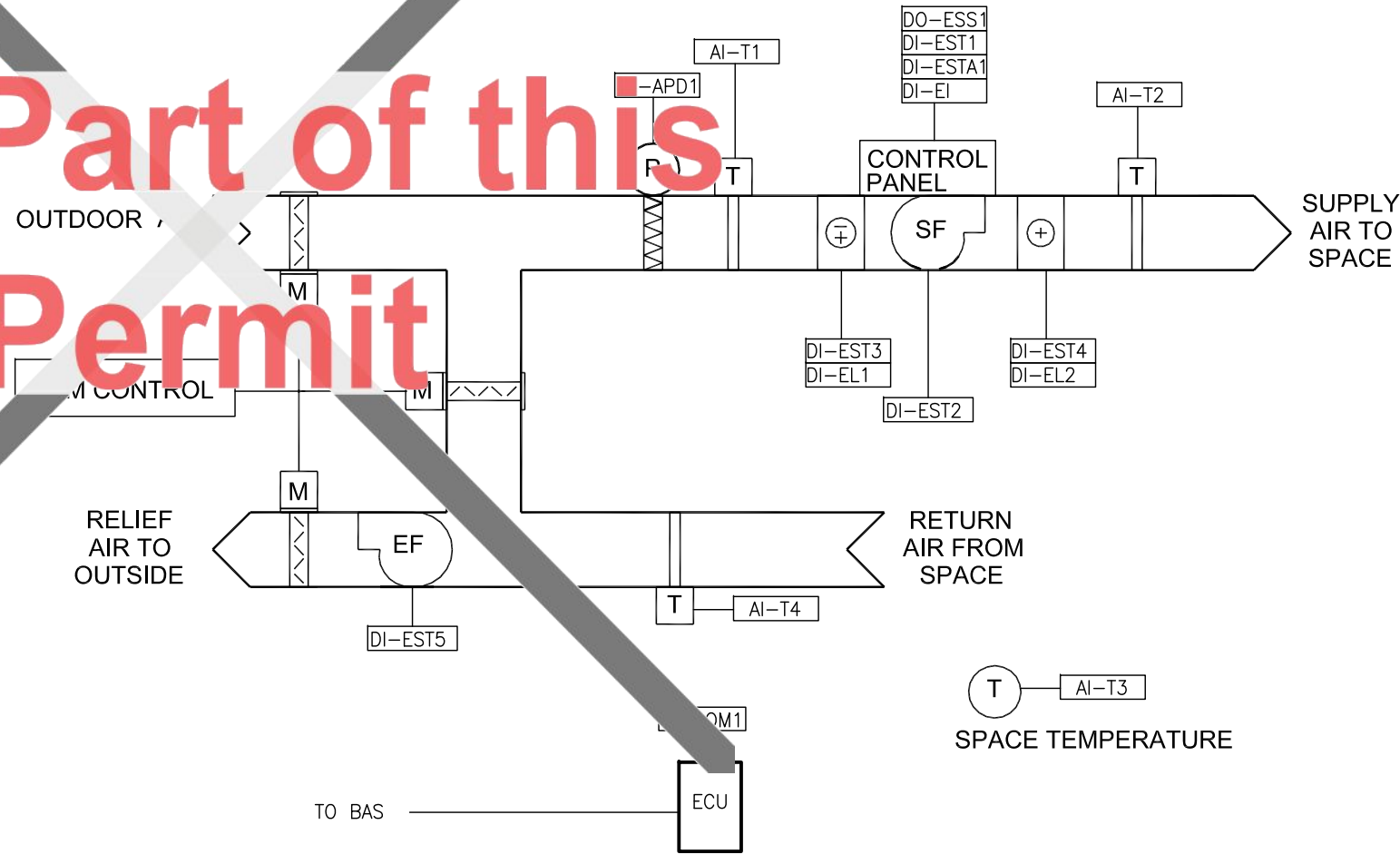
Dwg. No.

Job No.
23-1059

M10

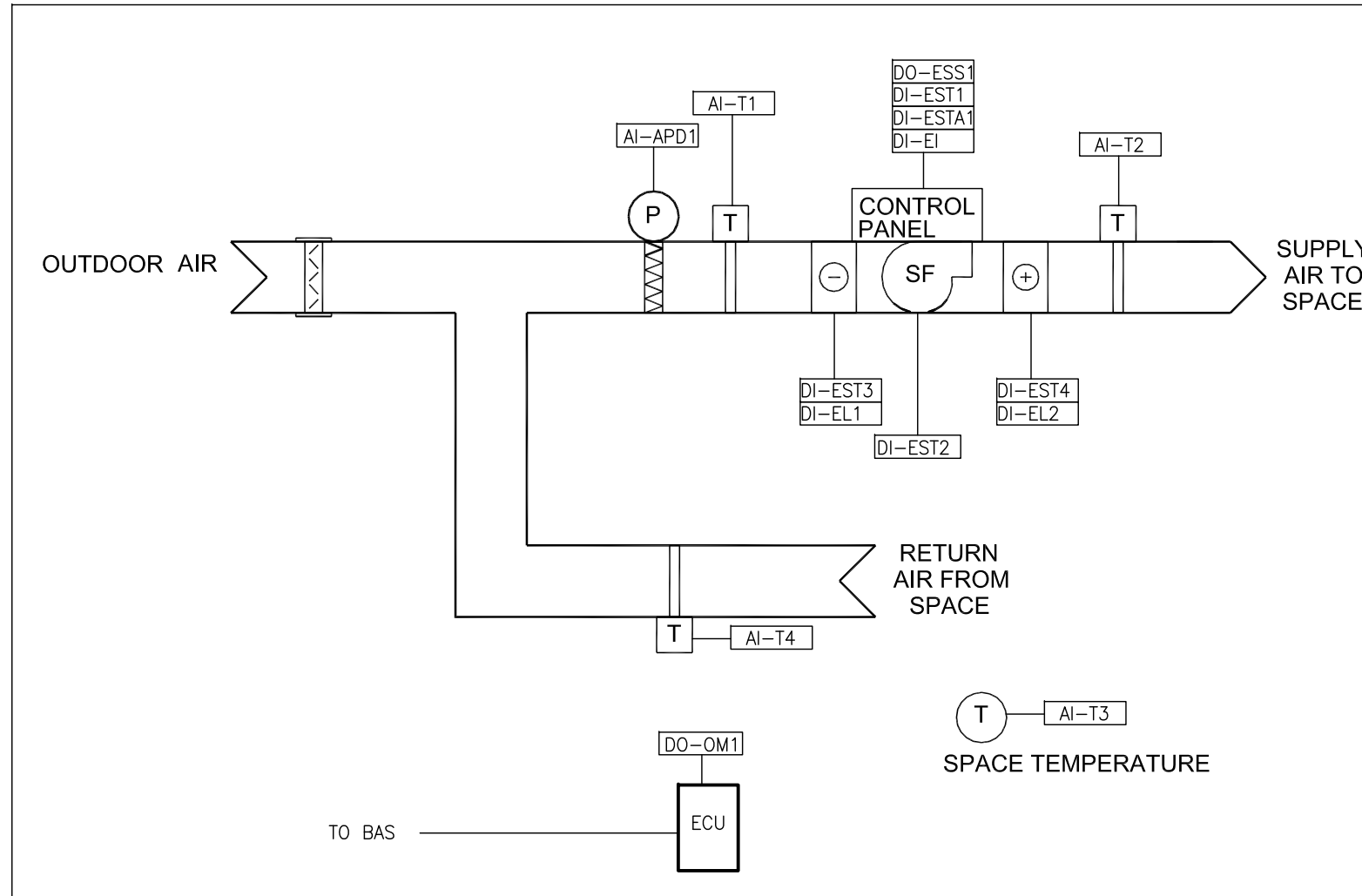


Not Part of this Permit



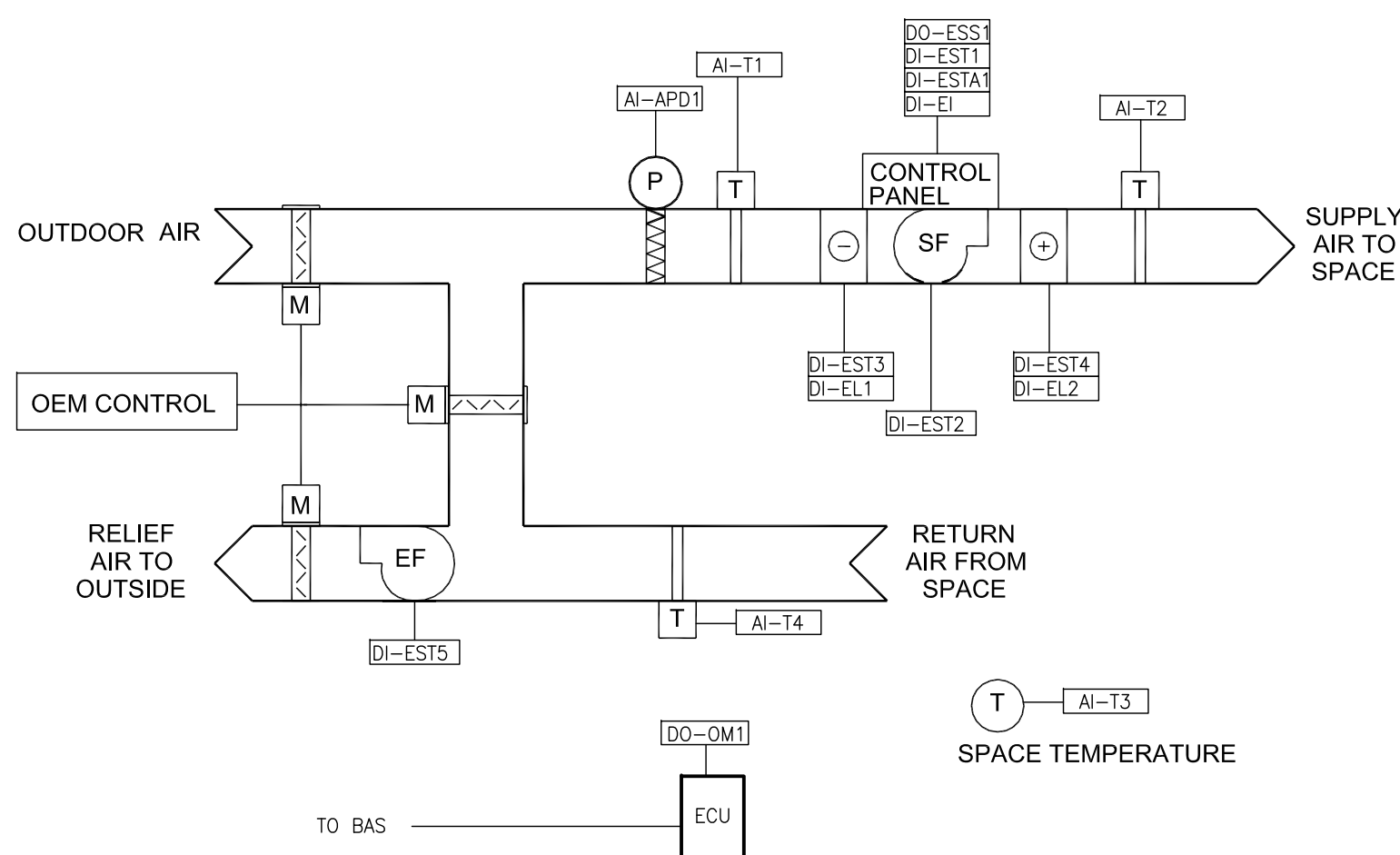
DO-ESS1	EQUIPMENT START -- STOP
DI-EST1	EQUIPMENT RUN STATUS
DI-ESTA1	EQUIPMENT GENERAL FAULT ALARM
DI-EI	EQUIPMENT POWER DRAW
DI-EST2	SUPPLY AIR FAN RUN STATUS
DI-EST3	COMPRESSOR RUN STATUS
DI-EL1	COMPRESSOR STAGES OPERATIONAL
DI-EST4	HEATING OPERATING STATUS
DI-EL2	HEATING %
DI-EST5	EXHAUST FAN OPERATING STATUS
DO-OM1	OCCUPANCY MODE
AI-APD1	FILTER PRESSURE DROP
AI-T1	AIR ENTERING COIL TEMPERATURE
AI-T2	SUPPLY AIR TEMPERATURE
AI-T3	SPACE TEMPERATURE
AI-T4	RETURN AIR TEMPERATURE

1. CONTROL SCHEMATIC - RTU-8 / 37 / 38
M11 NOT TO SCALE



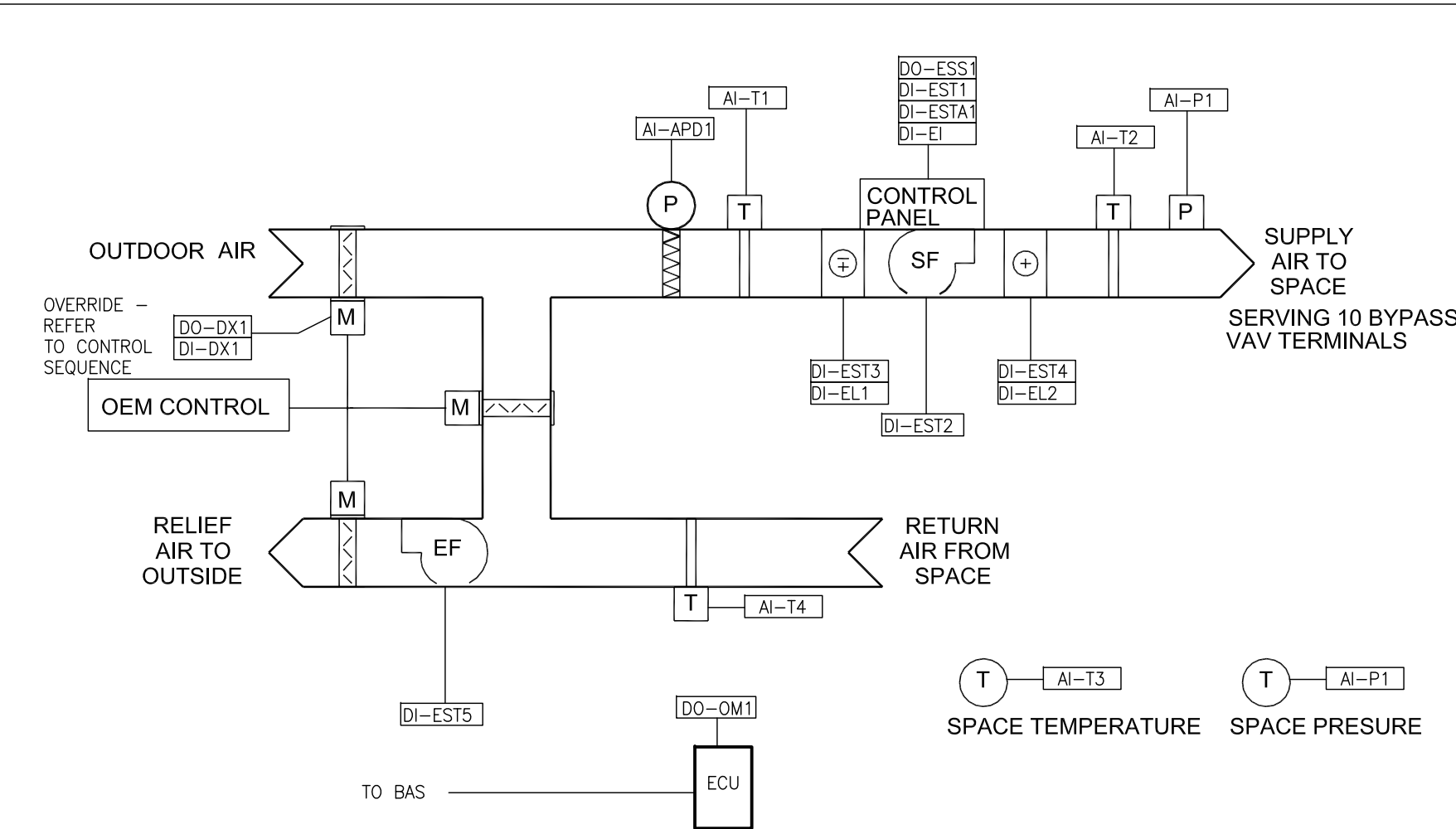
DO-ESS1	EQUIPMENT START -- STOP
DI-EST1	EQUIPMENT RUN STATUS
DI-ESTA1	EQUIPMENT GENERAL FAULT ALARM
DI-EI	EQUIPMENT POWER DRAW
DI-EST2	SUPPLY AIR FAN RUN STATUS
DI-EST3	COMPRESSOR RUN STATUS
DI-EL1	COMPRESSOR STAGES OPERATIONAL
DI-EST4	HEATING OPERATING STATUS
DI-EL2	HEATING %
DO-OM1	OCCUPANCY MODE
AI-APD1	FILTER PRESSURE DROP
AI-T1	AIR ENTERING COIL TEMPERATURE
AI-T2	SUPPLY AIR TEMPERATURE
AI-T3	SPACE TEMPERATURE
AI-T4	RETURN AIR TEMPERATURE

3. CONTROL SCHEMATIC - RTU-10 / 13 / 18 / 29 / 30 / 31
M11 NOT TO SCALE



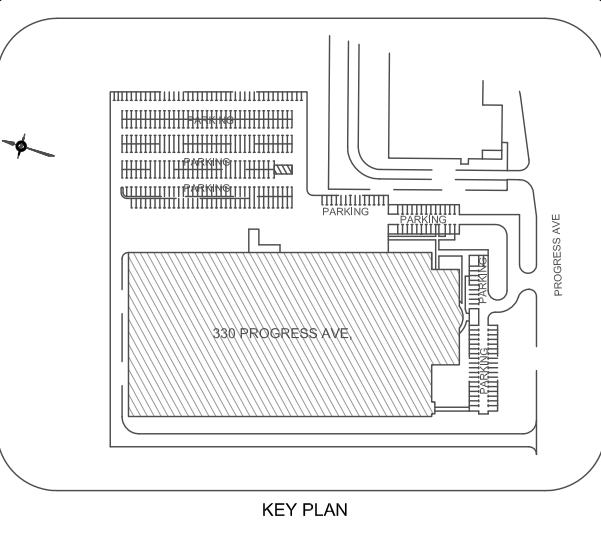
DO-ESS1	EQUIPMENT START -- STOP
DI-EST1	EQUIPMENT RUN STATUS
DI-ESTA1	EQUIPMENT GENERAL FAULT ALARM
DI-EI	EQUIPMENT POWER DRAW
DI-EST2	SUPPLY AIR FAN RUN STATUS
DI-EST3	COMPRESSOR RUN STATUS
DI-EL1	COMPRESSOR STAGES OPERATIONAL
DI-EST4	HEATING OPERATING STATUS
DI-EL2	HEATING %
DI-EST5	EXHAUST FAN OPERATING STATUS
DO-OM1	OCCUPANCY MODE
AI-APD1	FILTER PRESSURE DROP
AI-T1	AIR ENTERING COIL TEMPERATURE
AI-T2	SUPPLY AIR TEMPERATURE
AI-T3	SPACE TEMPERATURE
AI-T4	RETURN AIR TEMPERATURE

2. CONTROL SCHEMATIC - RTU-9 / 14 / 15 / 16 / 17 / 19 / 20 / 21 / 22 / 23 / 24 / 26 / 27
M11 NOT TO SCALE



DO-ESS1	EQUIPMENT START -- STOP
DI-EST1	EQUIPMENT RUN STATUS
DI-ESTA1	EQUIPMENT GENERAL FAULT ALARM
DI-EI	EQUIPMENT POWER DRAW
DI-EST2	SUPPLY AIR FAN RUN STATUS
DI-EST3	COMPRESSOR RUN STATUS
DI-EL1	COMPRESSOR STAGES OPERATIONAL
DI-EST4	HEATING OPERATING STATUS
DI-EL2	HEATING %
DI-EST5	EXHAUST FAN OPERATING STATUS
DO-OM1	OCCUPANCY MODE
AI-APD1	FILTER PRESSURE DROP
AI-T1	AIR ENTERING COIL TEMPERATURE
AI-T2	SUPPLY AIR TEMPERATURE
AI-T3	SPACE TEMPERATURE
AI-T4	RETURN AIR TEMPERATURE
DO-DX1	OUTDOOR AIR DAMPER OPERATING COMMAND
DI-DX1	OUTDOOR AIR DAMPER POSITION
AI-P1	DUCT PRESSURE

4. CONTROL SCHEMATIC - RTU-28
M11 NOT TO SCALE



NO.	REVISION	DATE
5		
4		
3		
2	ISSUED FOR TENDER / PERMIT	MAR 16, 25
1	For Client Review - 60% DD	DEC 17, 24

NOTE:
CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING.

LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.

PRINTS ARE NOT TO BE SCALED.



Project Name :
TPS POLICE WAREHOUSE AND OFFICE BUILDING

Project Address :
330 PROGRESS AVENUE
TORONTO, ON

Job Description :
UPGRADE OF BAS CONTROLS AND REPLACEMENT OF EXISTING ROOFTOP HVAC PACKAGED AIRCONDITIONERS

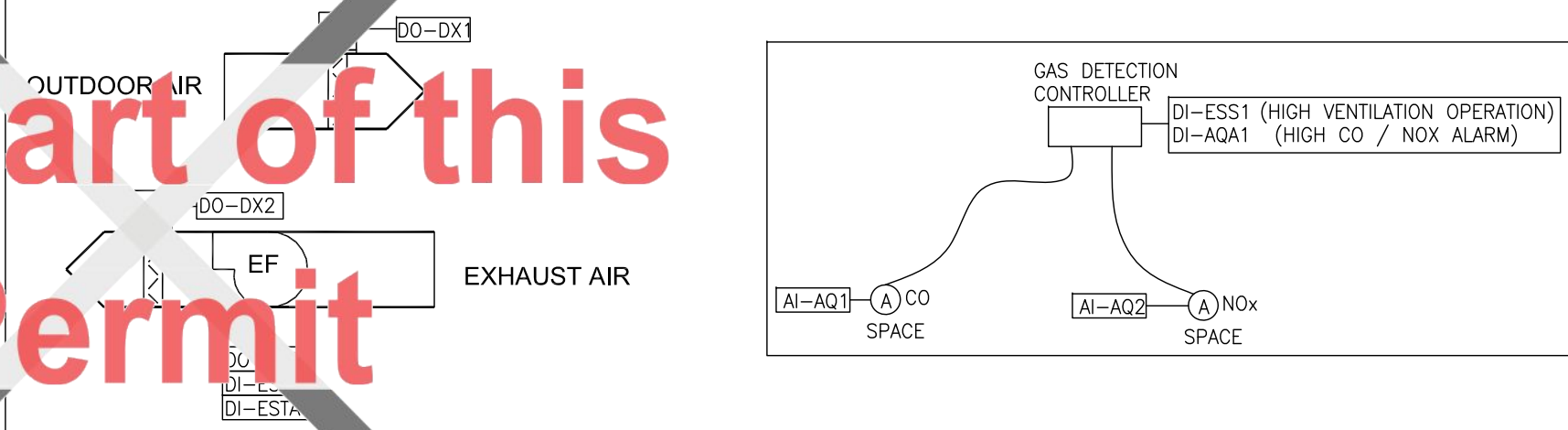
Drawing Title
BAS CONTROL SCHEMATICS
ROOFTOP HVAC PACKAGED UNITS

Design:	J.T.
DRAWN:	J.T.
Approv.:	J.T.
Scale:	NOT TO SCALE
Date:	DECEMBER 10, 2024

Project No.	Dwg.No.
Job No. 23-1059	M11



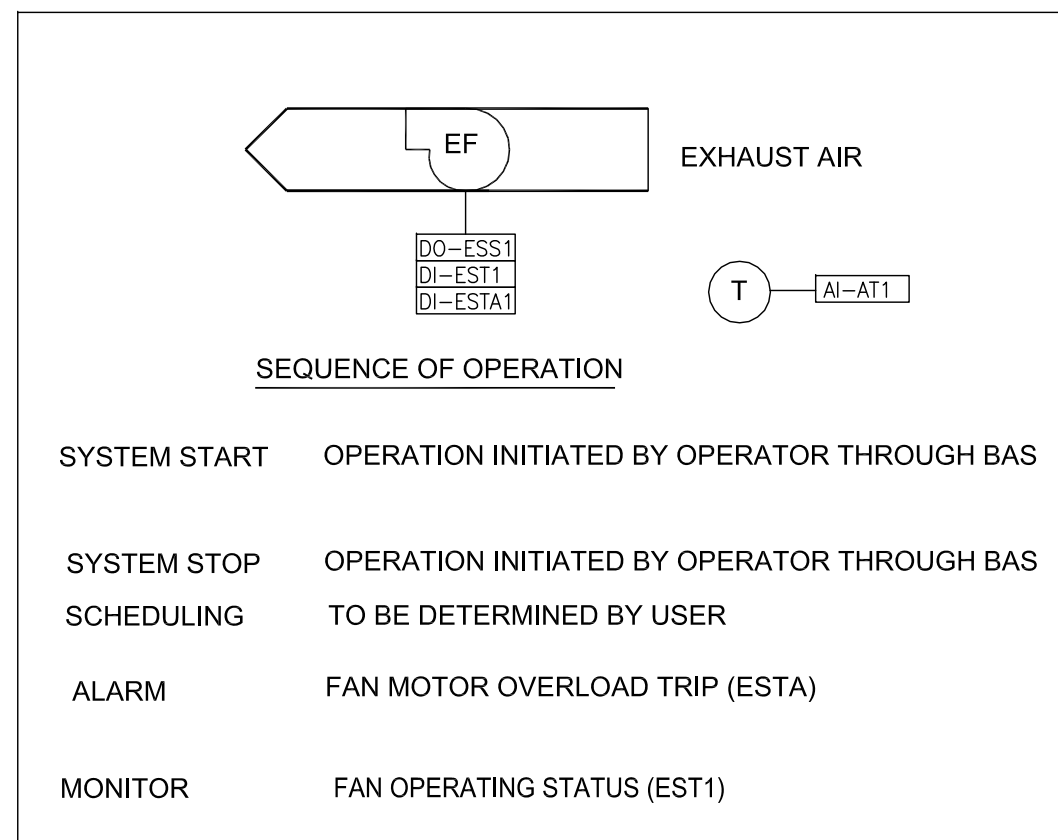
Not Part of this Permit



SEQUENCE OF OPERATION

GENERAL	INITIATED BY EXISTING GAS DETECTION CONTROLLER. WHEN ANY SENSOR DETECTS CO LEVEL ABOVE 25PPM OR NOX - 3PPM, OUTDOOR AND EXHAUST AIR DAMPER OPENS EXHAUST FAN STARTS
ALARM	IF ANY SENSOR SENSES A CO LEVEL OF 100 PPM OR HIGHER OR NOX LEVEL 5 PPM OR HIGHER, THE GAS DETECTION CONTROLLER WILL ACTIVATE AN ALARM SIGNAL WITH THE BUZZER SOUNDING FAN OVERLOAD TRIP (ESTA1)
SYSTEM STOP	WHEN ANY SENSOR DETECTS CO LEVEL BELOW 15 PPM OR NOX - 1 PPM OR BELOW, FAN STOPS
OTHER REQUIREMENTS	AS PART OF THIS TENDER, THE EXISTING GAS DETECTION SENSORS TO BE CALIBRATED AND THE EXISTING GAS DETECTION CONTROLLER TO BE PROGRAMMED AS NOTED ABOVE. PROVIDE SENSOR CALIBRATION REPORT TO ENGINEER FOR REVIEW.
SCHEDULING	NIL
MONITOR	OUTDOOR AIR DAMPER POSITION (DX1) EXHAUST AIR DAMPER POSITION (DX2) FAN OPERATING STATUS (EST1) CO READING IN PPM (AQ1) NOx READING IN PPM (AQ2)

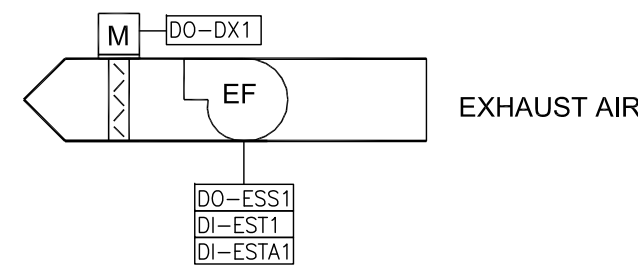
1
M12 CONTROL SCHEMATIC AND CONTROL SEQUENCE - EF-1 / 2 / 6 / 7 / 8 / 9 / 17
NOT TO SCALE



SEQUENCE OF OPERATION

SYSTEM START	OPERATION INITIATED BY OPERATOR THROUGH BAS
SYSTEM STOP	OPERATION INITIATED BY OPERATOR THROUGH BAS
SCHEDULING	TO BE DETERMINED BY USER
ALARM	FAN MOTOR OVERLOAD TRIP (ESTA)
MONITOR	FAN OPERATING STATUS (EST1)

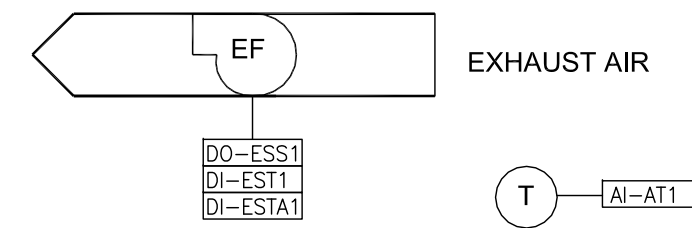
5
M12 CONTROL SCHEMATIC AND CONTROL SEQUENCE - EF- 11 / 12 / 16 / 18 / 20.
NOT TO SCALE



SEQUENCE OF OPERATION

SYSTEM START	INITIATED BY OPERATOR THROUGH BAS
SYSTEM STOP	INITIATED BY OPERATOR THROUGH BAS
SCHEDULING	CONTINUOUS OPERATION
ALARM	FAN MOTOR OVERLOAD TRIP (ESTA)
MONITOR	EXHAUST AIR DAMPER POSITION (DX1) FAN OPERATING STATUS (EST1)

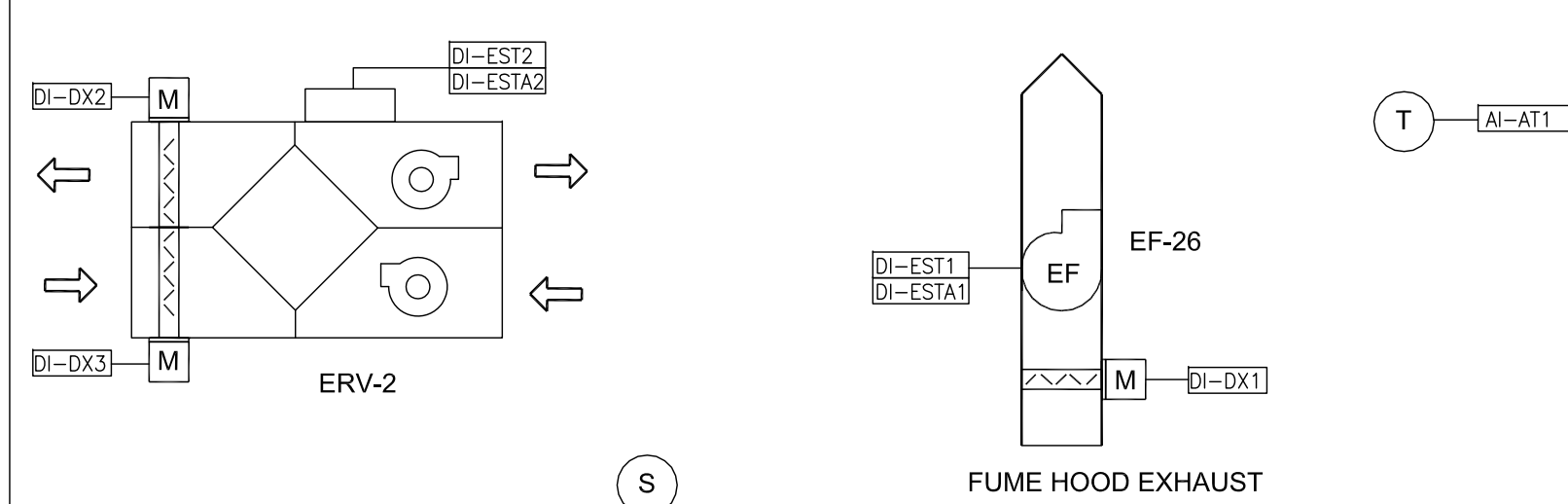
2
M12 CONTROL SCHEMATIC AND CONTROL SEQUENCE - EF- 4 / 5
NOT TO SCALE



SEQUENCE OF OPERATION

SYSTEM START	OPERATION INITIATED BY OPERATOR THROUGH BAS FAN STARTS WHEN SPACE TEMPERATURE >30°C (ADJUSTABLE)
SYSTEM STOP	FAN STOPS WHEN SPACE TEMPERATURE < 28°C (ADJUSTABLE)
SCHEDULING	NIL
ALARM	FAN MOTOR OVERLOAD TRIP (ESTA) SPACE TEMPERATURE (AT1) > 40°C - ADJUSTABLE
MONITOR	SPACE TEMPERATURE (AT1) FAN OPERATING STATUS (EST1)
TREND	SPACE TEMPERATURE (AT1)

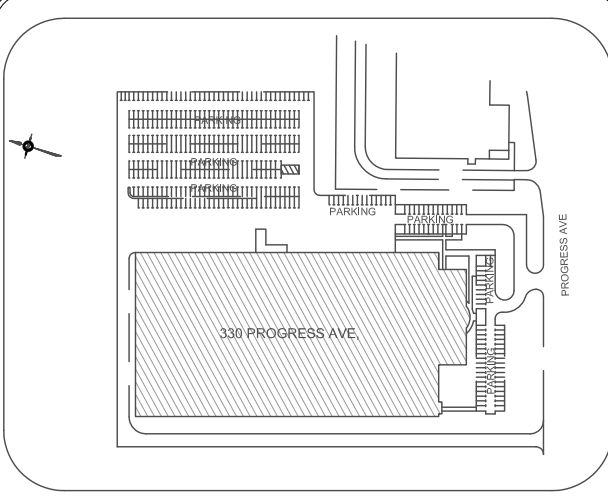
3
M12 CONTROL SCHEMATIC AND CONTROL SEQUENCE - EF- 10 / 13 / 14 / 15 / 19 / 21 / 22 / 23 / 24 / 25
NOT TO SCALE



SEQUENCE OF OPERATION

SYSTEM START	OPERATION INITIATED BY USER BY FLIPPING ON USER SWITCH FUME HOOD EXHAUST FAN STARTS AND ERV FANS START ON INTERLOCK EXHAUST / INTAKE DAMPER ON ERV OPENS AND EXHAUST DAMPER ON FUME HOOD EXHAUST OPENS
SYSTEM STOP	OPERATION INITIATED BY USER BY FLIPPING OFF USER SWITCH FUME HOOD EXHAUST FAN STOPS AND ERV FANS STOP ON INTERLOCK EXHAUST / INTAKE DAMPER ON ERV CLOSES AND EXHAUST DAMPER ON FUME HOOD EXHAUST CLOSES
SCHEDULING	NIL
ALARM	FUME HOOD FAN MOTOR OVERLOAD TRIP (ESTA1) ERV GENERAL FAULT ALARM TRIP (ESTA2)
MONITOR	FUME HOOD EXHAUST FAN OPERATING STATUS (EST1) ERV OPERATING STATUS (EST2) FUME HOOD HOOD EXHAUST DAMPER POSITION (DX1) ERV EXHAUST DAMPER POSITION (DX2) ERV INTAKE DAMPER POSITION (DX3) SPACE TEMPERATURE (AT1)
TREND	FUME EXHAUST RUN TIME (EST1)

4
M12 CONTROL SCHEMATIC AND CONTROL SEQUENCE - EF- 26 AND ERV-2
NOT TO SCALE



KEY PLAN

NO.	REVISION	DATE
5		
4		
3		
2	ISSUED FOR TENDER / PERMIT	MAR 16, 25
1	For Client Review - 60% DD	DEC 17, 24

NOTE:
CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING.
LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.
PRINTS ARE NOT TO BE SCALED.



CORPORATE REAL ESTATE MANAGEMENT
METRO HALL, 55 JOHN STREET
2ND FLOOR
TORONTO, ONTARIO, M5V 3C6

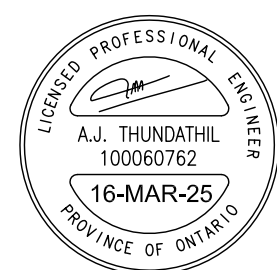
MECHANICAL ENGINEER
A & T CONSULTANTS
ENGINEERS AND PROJECT MANAGERS
7 INVITATIONAL ROAD
BRAMPTON, ON L6P 2H1
PH: 416-841-6869
FAX: 647-367-0412

TABCON
TABCON
CONSULTING INC.
494 McNicoll Avenue, Suite # 201
Toronto, Ontario, M2H 2E1
Tel. : (647) 974-7006
Web Site : www.tabcon.com

Project Name :
TPS POLICE WAREHOUSE AND OFFICE BUILDING
Project Address :
330 PROGRESS AVENUE
TORONTO, ON
Job Description :
UPGRADE OF BAS CONTROLS AND REPLACEMENT OF EXISTING ROOFTOP HVAC PACKAGED AIRCONDITIONERS
Drawing Title
BAS CONTROL SCHEMATICS AND CONTROL SEQUENCE - EXHAUST FANS

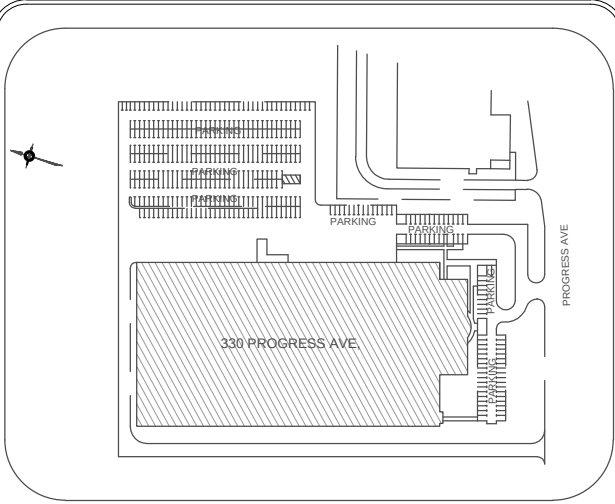
Design:	J.T.
DRAWN:	J.T.
Approv.:	J.T.
Scale:	NOT TO SCALE
Date:	DECEMBER 10, 2024

Project No.	Dwg.No.
Job No. 23-1059	M12



Not Part of this Permit

HVAC ROOFTOP UNIT ZONING DETAILS + BAS SCOPE OF WORK + TESTING AND BALANCING (TAB) SCOPE OF WORK								
RTU TAG		STATUS	SERVING	EQUIPMENT DETAILS	ZONING DETAILS SERVED (DATA SHOWN BASED ON BEST ASSUMPTION)	TESTING AND AND BALANCING SCOPE OF WORK		BAS SCOPE OF WORK
REVISED	AS PER EXISTING BAS					AT START OF PROJECT	AT END OF CONSTRUCTION - PRIOR TO PUTTING INSTALLATION IN OPERATION	
RTU-1	RTU-1	NEW EQUIPMENT	VEHICLE STORAGE GARAGE	VARIABLE AIR VOLUME - DEMAND CONTROL VENTILATION	PERIMETER	NIL	MINIMUM AND MAXIMUM AIRFLOWS TO BE SET AS DETAILED IN DESIGN DRAWINGS - BOTH FOR RTU-1 AND EF-3. MEASURE SUPPLY AIRFLOW AT EACH TERMINAL FOR MAX AND MINIMUM AIRFLOW. BALANCE THE AIRFLOW WHILE OPERATING AT MINIMUM AIRFLOW	
RTU-2	RTU-2N	EXISTING EQUIPMENT TO REMAIN	AUTO SQUAD	SINGLE ZONE - CONSTANT VOLUME HVAC UNIT	PERIMETER	MEASURE SUPPLY AIRFLOW, OUTDOOR AIR FLOW, ESP AND BLOWER FLA	SET SUPPLY AIRFLOW AND OUTDOOR AIR INTAKE AS SCHEDULED AND MEASURE BLOWER FLA AND ESP	
RTU-3	RTU-3	EXISTING EQUIPMENT TO REMAIN	OPS OFFICE / KITCHEN		INTERIOR / PERIMETER ZONE - PERIMETER ZONE HEATING SUPPLEMENTED BY ELECTRICAL BASEBOARD HEATERS		SET SUPPLY AIRFLOW AND OUTDOOR AIR INTAKE AS SCHEDULED, PROPORTIONALLY ADJUST AIRFLOW AT EACH AIR TERMINAL AND MEASURE BLOWER FLA AND ESP	
RTU-4	RTU-2	EXISTING EQUIPMENT TO REMAIN	DRUG ROOM		PERIMETER			
RTU-5	AC-21	NEW EQUIPMENT	WAREHOUSE OFFICES		INTERIOR		SET SUPPLY AIRFLOW AND OUTDOOR AIR INTAKE AS SCHEDULED AND MEASURE BLOWER FLA AND ESP	
RTU-6	AC-24	NEW EQUIPMENT	DRUG ROOM		INTERIOR / PERIMETER ZONE - PERIMETER ZONE HEATING SUPPLEMENTED BY ELECTRICAL BASEBOARD HEATERS			
RTU-7	RTU-4	EXISTING EQUIPMENT TO REMAIN	DRUG OFFICES	ZONE CONTROLS WITH 5 VAV BOXES + VAV HVAC UNIT	INTERIOR	MEASURE SUPPLY AIRFLOW AT EACH AIR TERMINAL TOTAL SUPPLY AIR FLOW, OUTDOOR AIR FLOW, ESP AND BLOWER FLA - IDENTIFY AREAS WHICH THESE VAV'S SERVE AND AIRFLOWS AND MEASURE AT MINIMUM AND FULL OPEN SETTING	SET SUPPLY AIRFLOW AND OUTDOOR AIR INTAKE AS SCHEDULED, ADJUST AIRFLOW AT EACH VAV AND AIR TERMINAL AS PER VALUES PROVIDED BY ENGINEER AFTER REVIEW OF INITIAL AIR AUDIT. MEASURE BLOWER FLA AND ESP	REFER TO CONTROL SCHEMATICS AND CONTROL SEQUENCE DETAILED IN DRAWINGS AND SPECIFICATIONS FOR EACH EQUIPMENT. VERIFY OPERATION AND PROVIDE CONTROLS VERIFICATION REPORT FOR EACH EQUIPMENT
RTU-8	AC-26	NEW EQUIPMENT	WAREHOUSE OFFICES	SINGLE ZONE - CONSTANT VOLUME HVAC UNIT	INTERIOR	MEASURE SUPPLY AIRFLOW, OUTDOOR AIR FLOW, ESP AND BLOWER FLA	SET SUPPLY AIRFLOW AND OUTDOOR AIR INTAKE AS SCHEDULED, PROPORTIONALLY ADJUST AIRFLOW AT EACH AIR TERMINAL AND MEASURE BLOWER FLA AND ESP	
RTU-9	RTU-5	EXISTING EQUIPMENT TO REMAIN	GUN STORAGE		INTERIOR			
RTU-10	RTU-6	EXISTING EQUIPMENT TO REMAIN	GUN STORAGE		PERIMETER			
RTU-11	RTU-7	EXISTING EQUIPMENT TO REMAIN	GUN OFFICES	SINGLE ZONE - CONSTANT VOLUME HVAC UNIT + 2 VAV BOXES FOR LOCAL ZONE CONTROL	INTERIOR / PERIMETER ZONE - PERIMETER ZONE HEATING SUPPLEMENTED BY ELECTRICAL BASEBOARD HEATERS + ZONE CONTROLS	MEASURE SUPPLY AIRFLOW AT EACH AIR TERMINAL TOTAL SUPPLY AIR FLOW, ESP AND BLOWER FLA - IDENTIFY AREAS WHICH THESE VAV'S SERVE AND AIRFLOWS AND MEASURE AT MINIMUM AND FULL OPEN SETTING	SET SUPPLY AIRFLOW AND OUTDOOR AIR INTAKE AS SCHEDULED, ADJUST AIRFLOW AT EACH VAV AND AIR TERMINAL AS PER VALUES PROVIDED BY ENGINEER AFTER REVIEW OF INITIAL AIR AUDIT. MEASURE BLOWER FLA AND ESP	
RTU-12	AC-1	EXISTING EQUIPMENT TO REMAIN	LUNCH ROOM + CORRIDOR	SINGLE ZONE - CONSTANT VOLUME HVAC UNIT + 1 VAV BOX FOR LOCAL ZONE CONTROL	INTERIOR			
RTU-13	AC-3	EXISTING EQUIPMENT TO REMAIN	2ND FLOOR - PARKING ENFORCEMENT - EAST OFFICES	SINGLE ZONE - CONSTANT VOLUME HVAC UNIT	N/A	MEASURE SUPPLY AIRFLOW AT EACH AIR TERMINAL, TOTAL SUPPLY AIRFLOW, PROVIDE A SKETCH IDENTIFYING AREAS SERVED BY EACH EQUIPMENT, OUTDOOR AIR FLOW, ESP AND BLOWER FLA .	SET SUPPLY AIRFLOW AND OUTDOOR AIR INTAKE AS SCHEDULED, ADJUST AIRFLOW AT AIR TERMINAL AS PER VALUES PROVIDED BY ENGINEER AFTER REVIEW OF INITIAL AIR AUDIT. MEASURE BLOWER FLA AND ESP	
RTU-14	AC-4	EXISTING EQUIPMENT TO REMAIN	FRONT OFFICE - PROPERTY		PERIMETER			
RTU-15	AC-5	EXISTING EQUIPMENT TO REMAIN	FRONT DESK - UNIT COMMANDER		PERIMETER + INTERIOR			
RTU-16	AC-6	EXISTING EQUIPMENT TO REMAIN	PARKING ENFORCEMENT OFFICES - 2ND FLOOR		N/A			
RTU-17	AC-2	EXISTING EQUIPMENT TO REMAIN	PARKING ENFORCEMENT COMMANDER - 2ND FLOOR		N/A			
RTU-18	RTU-1N	EXISTING EQUIPMENT TO REMAIN	2ND FLOOR - EAST OFFICES		PERIMETER			
RTU-19	AC-7	EXISTING EQUIPMENT TO REMAIN	GROUND FLOOR - EMPO OFFICES		N/A			
RTU-20	AC-8	EXISTING EQUIPMENT TO REMAIN	2ND FLOOR PARKING ENFORCEMENT - SUPERVISOR OFFICES		INTERIOR			
RTU-21	AC-9	EXISTING EQUIPMENT TO REMAIN	EMPO OFFICES / BOSS - GROUND FLOOR		PERIMETER			
RTU-22	AC-10	EXISTING EQUIPMENT TO REMAIN	2ND FLOOR PARKING ENFORCEMENT - OFFICES		PERIMETER			
RTU-23	AC-11	EXISTING EQUIPMENT TO REMAIN	GROUND FLOOR		INTERIOR			
RTU-24	RTU-106	EXISTING EQUIPMENT TO REMAIN	2ND FLOOR PARKING ENFORCEMENT - FRONT DESK		INTERIOR			
RTU-25	RTU-8	EXISTING EQUIPMENT TO REMAIN	GROUND FLOOR - GYM		INTERIOR			
RTU-26	RTU-101	EXISTING EQUIPMENT TO REMAIN	MEN / WOMEN'S CHANGE ROOM		INTERIOR			
RTU-27	RTU-105	EXISTING EQUIPMENT TO REMAIN	2ND FLOOR PARKING ENFORCEMENT - OFFICES		INTERIOR			
RTU-28	AC-13	NEW EQUIPMENT	PSRT OFFICE	CONSTANT VOLUME RTU WITH 10 BYPASS VAV BOXES	INTERIOR	MEASURE SUPPLY AIRFLOW AT EACH AIR TERMINAL TOTAL SUPPLY AIR FLOW, OUTDOOR AIR FLOW, ESP AND BLOWER FLA - IDENTIFY AREAS WHICH THESE VAV'S SERVE AND AIRFLOWS AND MEASURE AT MINIMUM AND FULL OPEN SETTING	SET SUPPLY AIRFLOW AND OUTDOOR AIR INTAKE AS SCHEDULED, ADJUST AIRFLOW AT EACH VAV AND AIR TERMINAL AS PER VALUES PROVIDED BY ENGINEER AFTER REVIEW OF INITIAL AIR AUDIT. MEASURE BLOWER FLA AND ESP	
RTU-29	RTU-102	EXISTING EQUIPMENT TO REMAIN	STORAGE AREA - 2ND FLOOR	SINGLE ZONE - CONSTANT VOLUME HVAC UNIT	INTERIOR	MEASURE SUPPLY AIRFLOW AT EACH AIR TERMINAL, TOTAL SUPPLY AIRFLOW, PROVIDE A SKETCH IDENTIFYING AREAS SERVED BY EACH EQUIPMENT, OUTDOOR AIR FLOW, ESP AND BLOWER FLA .	SET SUPPLY AIRFLOW AND OUTDOOR AIR INTAKE AS SCHEDULED, ADJUST AIRFLOW AT AIR TERMINAL AS PER VALUES PROVIDED BY ENGINEER AFTER REVIEW OF INITIAL AIR AUDIT. MEASURE BLOWER FLA AND ESP	
RTU-30	RTU-103	EXISTING EQUIPMENT TO REMAIN	PARADE ROOM - 2ND FLOOR		PERIMETER			
RTU-31	RTU-104	EXISTING EQUIPMENT TO REMAIN	2ND FLOOR PARKING ENFORCEMENT - SUPERVISORS		PERIMETER			
RTU-32	AC-14	NEW EQUIPMENT	WAREHOUSE	SINGLE ZONE - CONSTANT VOLUME HVAC UNIT	PERIMETER / INTERIOR	NIL	SET SUPPLY AIRFLOW AND OUTDOOR AIR INTAKE AS SCHEDULED AND MEASURE BLOWER FLA AND ESP. BALANCE ALL AIR TERMINALS EQUALLY AND PROVIDE AIRFLOW MEASUREMENT DETAILS	
RTU-33	AC-15	NEW EQUIPMENT	WAREHOUSE					
RTU-34	AC-25	NEW EQUIPMENT	WAREHOUSE					
RTU-35	AC-16	NEW EQUIPMENT	WAREHOUSE					
RTU-36	AC-17	NEW EQUIPMENT	WAREHOUSE					
RTU-37	AC-18	NEW EQUIPMENT	WAREHOUSE					
RTU-38	AC-19	NEW EQUIPMENT	WAREHOUSE					
EQUIPMENT IDENTIFICATION ON GRAPHICS TO BE REVISED WITH TAGS AS NOTED. THIS INCLUDES EQUIPMENTS NOTED AS NEW AND EXISTING TO REMAIN								
ABOVE DATA HAS BEEN CONSOLIDATED USING INFORMATION GAIN THOROUGH A WALK THROUGH SITE SURVEY + DATA FROM BAS SCREENSHOTS AND USING BEST JUDGEMENT. BAS / TAB CONTRACTOR TO REVIEW AND CONFIRM. ADVISE ENGINEER IN CASE OF ANY MAJOR DEVIATIONS								



5		
4		
3		
2	ISSUED FOR TENDER / PERMIT	MAR 16, 25
1	For Client Review - 60% DD	DEC 17, 24
NO.	REVISION	DATE

NOTE:
CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING.

LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.

PRINTS ARE NOT TO BE SCALED.



Toronto

CORPORATE REAL ESTATE MANAGEMENT
METRO HALL, 55 JOHN STREET
2ND FLOOR
TORONTO, ONTARIO, M5V 3C6

MECHANICAL ENGINEER



A & T CONSULTANTS
ENGINEERS AND PROJECT MANAGERS
7 INVITATIONAL ROAD
BRAMPTON, ON L6P 2H1
PH: 416-841-6869
FAX: 647-367-0412



TABCON
CONSULTING INC.

494 McNicoll Avenue, Suite # 201
Toronto, Ontario, M2H 2E1
Tel. : (647) 974-7006
Web Site : www.tabcon.com

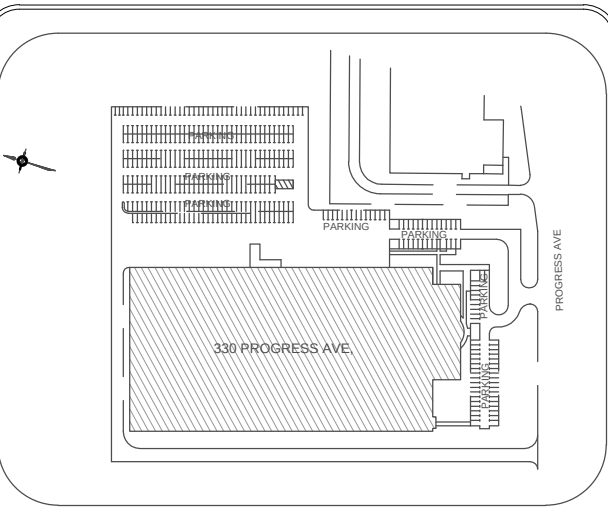
Project Name :
TPS POLICE WAREHOUSE AND OFFICE BUILDING
Project Address :
330 PROGRESS AVENUE
TORONTO, ON
Job Description :
UPGRADE OF BAS CONTROLS AND REPLACEMENT OF EXISTING ROOFTOP HVAC PACKAGED AIRCONDITIONERS
Drawing Title
HVAC ROOFTOP UNIT ZONING DETAILS + BAS SCOPE OF WORK + TESTING AND BALANCING SCOPE OF WORK

Design:	J.T.
DRAWN:	J.T.
Approved:	J.T.
Scale:	NOT TO SCALE
Date:	DECEMBER 10, 2024

Project No.	Dwg.No.
Job No. 23-1059	M13

Not Part of this Permit

EXHAUST FANS AND UNITARY HVAC UNITS						
AS PER EXISTING BAS	RE-TAG	STATUS	SERVING	OPERATION	CONTROL SCHEMATICS AND CONTROL SEQUENCE REFERENCE	
EF-1	EF-1	EXISTING EQUIPMENT TO REMAIN UNLESS OTHERWISE NOTED	TRANSPORT BAY	DEMAND VENTILATION - CO / NOX SENSOR	DETAIL -1 - DRAWING M12	
EF-2	EF-2		TRANSPORT BAY	OPERATOR CONTROLLED VIDE BMS	DETAIL -1 - DRAWING M12	
EF-3	EF-3		PARKING GARAGE	DEMAND VENTILATION - CO / NOX SENSOR	DETAIL -1 - DRAWING M10	
EF-4	EF-4		DRUG ROOM	OPERATOR CONTROLLED VIDE BMS	DETAIL -2 - DRAWING M12	
EF-5	EF-5		DRUG ROOM	OPERATOR CONTROLLED VIDE BMS	DETAIL -2 - DRAWING M12	
EF-6	EF-6		LOADING DOCK	DEMAND VENTILATION - CO / NOX SENSOR	DETAIL -1 - DRAWING M12	
EF-7	EF-7		LOADING DOCK	DEMAND VENTILATION - CO / NOX SENSOR	DETAIL -1 - DRAWING M12	
EF-8	EF-8		LOADING DOCK	DEMAND VENTILATION - CO / NOX SENSOR	DETAIL -1 - DRAWING M12	
EF-9	EF-9		LOADING DOCK	DEMAND VENTILATION - CO / NOX SENSOR	DETAIL -1 - DRAWING M12	
EF-10	EF-10		MAIN ELECTRICAL ROOM	CONTROLLED BY REVERSE THERMOSTAT SENSOR	DETAIL -3 - DRAWING M12	
EF-11	EF-11		CHARGING AREA	OPERATOR CONTROLLED VIDE BMS	DETAIL -5 - DRAWING M12	
EF-101	EF-12		MEN'S WASHROOM	OPERATOR CONTROLLED VIDE BMS	DETAIL -5 - DRAWING M12	
EF-102	EF-13		ROOM 2060	CONTROLLED BY REVERSE THEMOSTAT SENSOR	DETAIL -3 - DRAWING M12	
EF-103	EF-14		ROOM 2047	CONTROLLED BY REVERSE THEMOSTAT SENSOR	DETAIL -3 - DRAWING M12	
EF-104	EF-15		ELEVATOR MACHINE ROOM - ROOM 1009	CONTROLLED BY REVERSE THEMOSTAT SENSOR	DETAIL -3 - DRAWING M12	
EF-105	EF-16		VEHICLE IMPOUND WASHROOM	OPERATOR CONTROLLED VIDE BMS	DETAIL -5 - DRAWING M12	
EF-106	EF-17		VEHICLE IMPOUND	DEMAND VENTILATION - CO SENSOR	DETAIL -1 - DRAWING M12	
EF-1	EF-18		AMMUNITION STORAGE	OPERATOR CONTROLLED VIDE BMS	DETAIL -5 - DRAWING M12	
EF-2	EF-19		ROOM 2018	CONTROLLED BY REVERSE THEMOSTAT SENSOR	DETAIL -3 - DRAWING M12	
EF-3	EF-20		ROOM 2041	OPERATOR CONTROLLED VIDE BMS	DETAIL -5 - DRAWING M12	
EF-4	EF-21		ROOM 2097	CONTROLLED BY REVERSE THEMOSTAT SENSOR	DETAIL -3 - DRAWING M12	
EF-5	EF-22		ROOM 2014	CONTROLLED BY REVERSE THEMOSTAT SENSOR	DETAIL -3 - DRAWING M12	
EF-6	EF-23		ROOM 2004 / 2005	CONTROLLED BY REVERSE THEMOSTAT SENSOR	DETAIL -3 - DRAWING M12	
EF-7	EF-24		ROOM 2012	CONTROLLED BY REVERSE THEMOSTAT SENSOR	DETAIL -3 - DRAWING M12	
EF-8	EF-25		ROOM 2018	OPERATOR CONTROLLED VIDE BMS	DETAIL -3 - DRAWING M12	
EF-12	EF-26		FUME HOOD EXHAUST FAN AND ERV-2	USER CONTROLLED	DETAIL -4 - DRAWING M12	
UNITARY AC AND ERV-1	AC-3 / ERV-1			N/A	SPACE TEMPERATURE SENSOR	DETAIL-5 - DRAWING M9
SPLIT AC-1	AC-1			N/A	CONTROLLED BY OEM SPACE THERMOSTAT	DETAIL -7 - DRAWING M9
SPLIT AC-1	AC-2			N/A	CONTROLLED BY OEM SPACE THERMOSTAT	
ALL UNIT HEATERS			MULTIPLE LOCATIONS	CONTROLLED BY SPACE THERMOSTAT	DETAIL -4 - DRAWING M9	
ELE CTRIC BASEBOARD HEATERS			MULTIPLE LOCATIONS	CONTROLLED BY SPACE THERMOSTAT	DETAIL -3 - DRAWING M9	
ELECTRIC DUCT HEATERS			MULTIPLE LOCATIONS	CONTROLLED BY SPACE THERMOSTAT	DETAIL -6 - DRAWING M9	
REFRIGERATORS			WAREHOUSE	OEM CONTROL	DETAIL -8 - DRAWING M9	
AS PART OF THIS PROJECT, RE-TAG ALL FANS AT EQUIPMENT / POWER FEED AT OUTGOING FEEDER AT ELECTRICAL PANEL AND BAS GRAPHICS AS NOTED . REFER TO CONTROL SCHEMATICS AND CONTROL SEQUENCE DETAILED IN DRAWINGS AND SPECIFICATIONS FOR EACH EQUIPMENT. VERIFY OPERATION AND PROVIDE CONTROLS VERIFICATION REPORT FOR EACH EQUIPMENT						



5		
4		
3		
2	ISSUED FOR TENDER / PERMIT	MAR 16, 25
1	For Client Review - 60% DD	DEC 17, 24
NO.	REVISION	DATE

NOTE:
CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING.

LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.

PRINTS ARE NOT TO BE SCALED.



CORPORATE REAL ESTATE MANAGEMENT
METRO HALL, 55 JOHN STREET
2ND FLOOR
TORONTO, ONTARIO, M5V 3C6

MECHANICAL ENGINEER



A & T CONSULTANTS
ENGINEERS AND PROJECT MANAGERS
7 INVITATIONAL ROAD
BRAMPTON, ON L6P 2H1
PH: 416-841-6869
FAX: 647-367-0412



TABCON CONSULTING INC.

494 McNicoll Avenue, Suite # 201
Toronto, Ontario, M2H 2E1
Tel. : (647) 974-7006
Web Site : www.tabcon.com

Project Name :
TPS POLICE WAREHOUSE AND OFFICE BUILDING

Project Address :
330 PROGRESS AVENUE
TORONTO, ON

Job Description :
UPGRADE OF BAS CONTROLS AND REPLACEMENT OF EXISTING ROOFTOP HVAC PACKAGED AIRCONDITIONERS

Drawing Title
EXHAUST FANS AND UNITARY HVAC UNITS - BAS SCOPE OF WORK

Design:	J.T.
DRAWN:	J.T.
Approv.:	J.T.
Scale:	NOT TO SCALE
Date:	DECEMBER 10, 2024

Project No.	Dwg.No.
Job No. 23-1059	M14