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Mechanical

Addendum No. M-02

Reference: Added Scope and clarification

Issue Date: November 6, 2024

Project: UHN TWH – SEM & Corridor (EXP Project Number MRK-23004289-A0)

This addendum shall form an integral part of the Bid Documents for the above project and shall be read in conjunction therewith. This addendum shall, however, take precedence over all requirements of the previously issued Drawings and Specifications with which it may prove to be at variance, unless otherwise clarified by the Consultant.

This addendum must be signed by the Bidder in the appropriate space and must be attached to the back of the Bid Form for submission at the time of bidding. Bids not including this addendum signed as requested may be rejected as informal.

Revisions / Clarifications

The following changes and clarifications shall be considered when submitting your bid.

1.1. MECHANICAL DRAWINGS

1.1.1. M-001 – MECHANICAL SYMBOL LEGEND, DRAWING LIST AND GENERAL NOTES

- .1 Added new drawing M-004 to drawing list.
- .2 Removed M-905 from drawing list.

1.1.2. M-004 – SNOW MELT SYSTEM – COURTYARD – SEM CENTRE

- .1 Added new drawing to show the snow melt system.

1.1.3. M-100A – CHILLER RELOCATION – DEMOLITION AND NEW WORK – MECHANICAL

- .1 Added drawing notes.

1.1.4. M-101 – UNDERGROUND FLOOR PLAN – DEMO - PLUMBING

- .1 Revised scope of work boundary.
- .2 Added note to verify pipe invert and provide pipe protection for incoming water and fire pipes.

1.1.5. M-111 – UNDERGROUND FLOOR PLAN – NEW WORK – PLUMBING

- .1 Low pressure steam pipe routing revised.
- .2 Added picture reference for the steam tie-in point.
- .3 Added picture reference for the water heater location.
- .4 Added picture reference for the mechanical room.
- .5 Revised locations of thermostatic mixing valve, expansion tank, PP-01, and silver copper ionization.
- .6 Added note for housekeeping pad, and revised note for tunnel space.

1.1.6. M-112 – LEVEL 1 FLOOR PLAN – NEW WORK – PLUMBING

- .1 Added non-plumbed toilet 'WC-3'

1.1.7. M-201 – LEVEL 1 FLOOR PLAN – DEMO – VENTILATION

- .1 Relocated transfer grilles and return grilles.
- .2 Added drawing keynotes.
- .3 Updated the notes.

1.1.8. M-211A – LEVEL 1 FLOOR PLAN – NEW WORK – VENTILATION

- .1 Relocated transfer grilles and return grilles.
- .2 Added airflow of existing VAV boxes.
- .3 Added drawing keynotes.
- .4 Added duct size.

1.1.9. M-211B – LEVEL 1 FLOOR PLAN – CORRIDOR – NEW WORK – VENTILATION

- .1 Updated equipment size.
- .2 Update diffuser tags.

1.1.10. M-300B – BELOW GRADE FLOOR PLAN – NEW WORK – HVAC&PIPING

- .1 Updated the notes.

1.1.11. M-301 – LEVEL 1 FLOOR PLAN – DEMO – HVAC PIPING

- .1 Added the arch background.

1.1.12. M-311A – LEVEL 1 FLOOR PLAN – NEW WORK – HVAC PIPING

- .1 Removed the notes.

1.1.13. M-311B – LEVEL 1 FLOOR PLAN – CORRIDOR – NEW WORK – PIPING

- .1 Updated equipment size.

1.1.14. M-313 – PENTHOUSE & ROOF FLOOR PLAN – NEW WORK – HVAC

- .1 Relocated E-EF5B and provide new ductwork.
- .2 Added structural support
- .3 Added drawing keynotes.

1.1.15. M-411B – LEVEL 1 FLOOR PLAN – CORRIDOR – NEW WORK

- .1 Added fire extinguishers to serve the corridor.
- .2 Removed the floor drain in the janitor room.
- .3 Added note for flushing and scoping of existing hub drain and housekeeping drain.
- .4 Added notes for janitor room sprinkler pipe connections.

1.1.16. M-701 – MECHANICAL SCHEDULES #1

- .1 AHU Schedules revised.
- .2 Air control valve schedule revised.
- .3 Vibration isolation schedule revised.
- .4 VAV boxes with reheat coils schedule revised.

1.1.17. M-703 – MECHANICAL SCHEDULES #3

- .1 Added non-plumbed toilet 'WC-3' to plumbing fixture schedule.

1.1.18. M-904 – TYPICAL DETAILS - 4

- .1 Combined details from M-905 with M-904 and deleted M-905.

1.2. MECHANICAL SPECIFICATIONS (New added sections)

- 1.2.1. 23 21 33 Snow Melting System
- 1.2.2. 23 34 18 Roof Mounted Exhaust Fans
- 1.2.3. 23 36 00 Air Terminal Units

1.3. MECHANICAL SPECIFICATIONS (Revised sections)

- 1.3.1. 23 34 33 Air Curtains
 - .1 Revised as per the attached section
- 1.3.2. 23 73 13 Grilles and Diffusers
 - .1 Revised as per the attached section
- 1.3.3. 22 40 00 Plumbing Fixtures and Fittings for Healthcare Facilities
 - .1 WC-3 added
 - .2 LAV-1 tag revised to L-1

- .3 Zurn brand added
- 1.3.4. **25 05 10 INTEGRATED AUTOMATION NETWORK EQUIPMENT**
 - .1 Revised as per the attached section

----- END OF MECHANICAL ADDENDUM No. M-02 -----

MECHANICAL AIR SIDE SYMBOLS	
SYMBOL	DESCRIPTION
	NEW DUCT (FIRST FIGURE INDICATES DIMENSION SHOWN)
	NEW DUCT (SINGLE LINE)
	SUPPLY AIR DIFFUSER
	SUPPLY AIR LINEAR SLOT DIFFUSER
	RETURN AIR GRILLE
	EXHAUST AIR GRILLE
	DOOR GRILLE
	EXHAUST/RETURN AIR SIDE GRILLE
	SUPPLY AIR SIDE GRILLE
	ACOUSTICALLY LINED DUCT
	SILENCER
	RECTANGULAR ELBOW WITH AIR TURNING VANES
	DUCT TRANSITION FROM RECTANGULAR TO ROUND
	DUCT CONCENTRIC REDUCER
	ROUND DUCT TAKE-OFF FROM RECTANGULAR DUCT
	ROUND DUCT TAKE-OFF FROM ROUND DUCT
	RECTANGULAR DUCT TAKE-OFF FROM RECTANGULAR DUCT
	SUPPLY/ OUTSIDE AIR DUCT UP
	RETURN AIR DUCT UP
	EXHAUST AIR DUCT UP
	SUPPLY/ OUTSIDE AIR DUCT DOWN
	RETURN AIR DUCT DOWN
	EXHAUST AIR DUCT DOWN
	DUCT OFFSET
	ACCESS DOOR
	AIR FLOW DIRECTION
	DUCT MOUNTED REHEAT COIL
	VAV/CAV BOX c/w SILENCER
	VAV/CAV BOX c/w SILENCER AND REHEAT COIL
	VENTURI AIR VALVE
	CONTROL WIRING
	LINE VOLTAGE THERMOSTAT
	THERMOSTAT / TEMPERATURE SENSOR
	HUMIDISTAT / HUMIDITY SENSOR
U/C	UNDERCUT
OED	OPEN-ENDED DUCT
S/A	SUPPLY AIR
R/A	RETURN AIR
E/A	EXHAUST AIR
O/A	OUTDOOR AIR
W/E	WASHROOM EXHAUST AIR
F/H	FUME HOOD
	DUCT REDUCER (SINGLE LINE AND DOUBLE LINE)
	MOTORIZED DAMPER
	COMBINATION FIRE/SMOKE DAMPER
	FIRE DAMPER
	BALANCING DAMPER (VOLUME)
	BACKDRAFT DAMPER
	SUPPLY AIR DUCT RISER
	RETURN AIR DUCT RISER
	EXHAUST AIR DUCT RISER

MECHANICAL PIPING SYMBOLS			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	HEATING WATER SUPPLY		EXISTING HEATING WATER SUPPLY
	HEATING WATER RETURN		EXISTING HEATING WATER RETURN
	CHILLED WATER SUPPLY		EXISTING PERIMETER HEATING WATER SUPPLY
	CHILLED WATER RETURN		EXISTING PERIMETER HEATING WATER RETURN
	GLYCOL WATER SUPPLY		CHILLED GLYCOL SUPPLY
	GLYCOL WATER RETURN		CHILLED GLYCOL RETURN
	REFRIGERANT GAS		
	REFRIGERANT LIQUID		
	REFRIGERANT DISCHARGE		
	LOW PRESSURE STEAM		
	HIGH PRESSURE STEAM		
	LOW PRESSURE CONDENSATE		
	PUMPED CONDENSATE		
	UNION		
	PIPE DOWN		
	PIPE UP		
	COMBINATION VALVE (SHUT-OFF VALVE, CHECK VALVE, & BALANCING VALVE)		
	2-WAY CONTROL VALVE		
	3-WAY CONTROL VALVE		
	PUMP DISCHARGE CONTROL VALVE		
	ISOLATING VALVE		
	CHECK VALVE		
	STRAINER		
	STRAINER WITH DRAIN DOWN VALVE		
	CIRCUIT BALANCING VALVE		
	PRESSURE REDUCING VALVE		
	PUMP		
	THERMOMETER		
	EXPANSION BELLOWS c/w GUIDES		
	PIPE ANCHOR		
	PIPE GUIDE		
	PIPE END CAP		
	BLIND FLANGE		
	FLANGE CONNECTION		
	PRESSURE SENSOR		
	AUTOMATIC DRAIN TRAP (COMPRESSED AIR)		
	STEAM TRAP		
	HUMIDIFIER DISTRIBUTION MANIFOLD		
	FLOW MEASURING ORIFICE		
	FLEXIBLE PIPE CONNECTION		
	QUICK CONNECTOR		
	FLOW DIRECTION		
	DIFFERENTIAL PRESSURE SENSOR		
	PRESSURE SENSOR		
	WALL MOUNTED CONTROL PANEL		

FIRE PROTECTION SPRINKLER LEGEND	
	CONCEALED SPRINKLER HEAD
	UPRIGHT SPRINKLER HEAD
	WINDOW SPRINKLER HEAD
	FIRE HOSE CABINET
	FIRE EXTINGUISHER

PLUMBING SYMBOLS	
SYMBOL	DESCRIPTION
	SANITARY DRAIN (ABOVE FLOOR LEVEL)
	SANITARY DRAIN (UNDERGROUND OR BELOW FLOOR SLAB)
	PUMPED DISCHARGE
	STORM DRAIN (ABOVE FLOOR LEVEL)
	STORM DRAIN (UNDERGROUND OR BELOW FLOOR LEVEL)
	FOOTING DRAIN (WEEPING TILE)
	RADIO ISOTOPE DRAIN
	RADIO ISOTOPE DRAIN (UNDERGROUND)
	PITCH (XX INDICATES SLOPE FOR EACH SYSTEM)
	CONDENSATE DRAIN
	PUMPED CONDENSATE DRAIN
	SANITARY VENT
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RECIRCULATION
	PIPE DOWN
	PIPE UP
	HEAT TRACING C/W INSULATION
	FLOOR DRAIN
	FUNNEL FLOOR DRAIN
	ROOF DRAIN
	TRENCH DRAIN c/w FRAME
	SCUPPER DRAIN
	RAIN WATER LEADER
	VENT THROUGH ROOF
	DRINKING FOUNTAIN
	EMERGENCY SHOWER
	EYE WASH
	FLOOR CLEANOUT

MEDICAL GAS SYMBOLS	
SYMBOL	DESCRIPTION
	MEDICAL AIR
	MEDICAL VACUUM
	OXYGEN

ANNOTATION	
SYMBOL	DESCRIPTION
	KEYNOTE
	EQUIPMENT TAG
	RISER TAG
	REVISION TAG
	RADIANT PANEL TAG - "XX" DENOTES TYPE, "###" DENOTES - ACTIVE LENGTH
	FORCE FLOW HEATER TAG - "XX" DENOTES HEATING SOURCE, "YY" DENOTES SIZE
	UNIT HEATER TAG - "XX" DENOTES HEATING SOURCE, "YY" DENOTES SIZE
	DIFFUSER/GRILLE TAG - "A" DENOTES TYPE, "XX0" DENOTES NECK SIZE (WHERE APPLICABLE), "###" DENOTES AIRFLOW
	BOOSTER COIL TAG - "##" DENOTES AIR FLOW

	VIEW TITLE SCALE	VIEW TITLE
	1 M-101	DETAIL CALLOUT

EXISTING AND DEMOLITION SYMBOLS	
SYMBOL	DESCRIPTION
	EXISTING EQUIPMENT/SERVICES
	EXISTING EQUIPMENT/SERVICES TO BE REMOVED
	EXISTING EQUIPMENT/SERVICES TO BE REMOVED AND RELOCATED
	RELOCATED EQUIPMENT/SERVICES
	CONNECT TO EXISTING
	CAPPED SERVICE

DRAWING LIST		
DWG NO.	DWG NAME	SCALE
M-001	MECHANICAL SYMBOL LEGEND, DRAWING LIST AND GENERAL NOTES	N.T.S.
M-002	KEYPLAN	N.T.S.
M-003	SEPARATE PRICE PLAN	1:250
M-004	SNOW MELT SYSTEM - COURTYARD - SEM CENTRE	1:100
M-100A	CHILLER RELOCATION - DEMOLITION AND NEW WORK - MECHANICAL	1:50
M-100B	BASEMENT & LEVEL 1 - DEMO - MECHANICAL	1:100
M-101	UNDERGROUND FLOOR PLAN - DEMO - PLUMBING	1:50
M-102	LEVEL 1 FLOOR PLAN - DEMO - PLUMBING	1:50
M-111	UNDERGROUND FLOOR PLAN - NEW WORK - MECHANICAL	1:50
M-112	LEVEL 1 FLOOR PLAN - NEW WORK - PLUMBING	1:50
M-113	BELOW GRADE FLOOR PLAN - CORRIDOR - NEW WORK - PLUMBING	1:50
M-114	LEVEL 1 FLOOR PLAN - CORRIDOR - NEW WORK - PLUMBING	1:50
M-115	ROOF PLAN - CORRIDOR - NEW WORK - PLUMBING	1:50
M-201	LEVEL 1 FLOOR PLAN - DEMO - VENTILATION	1:50
M-211A	LEVEL 1 FLOOR PLAN - NEW WORK - VENTILATION	1:50
M-211B	LEVEL 1 FLOOR PLAN - CORRIDOR - NEW WORK - VENTILATION	1:50
M-300A	BELOW GRADE FLOOR PLAN - NEW WORK - PNEUMATIC PIPING	1:50
M-300B	BELOW GRADE FLOOR PLAN - NEW WORK - HVAC & PIPING	1:50
M-301	LEVEL 1 FLOOR PLAN - DEMO - HVAC PIPING	1:50
M-311A	LEVEL 1 FLOOR PLAN - NEW WORK - HVAC PIPING	1:50
M-311B	LEVEL 1 FLOOR PLAN - CORRIDOR - NEW WORK - PIPING	1:50
M-313	PENTHOUSE & ROOF PLAN - NEW WORK - HVAC	1:100
M-400	BELOW GRADE FLOOR PLAN - NEW WORK - FIRE PROTECTION	1:50
M-401	LEVEL 1 FLOOR PLAN - DEMO - FIRE PROTECTION	1:50
M-411A	LEVEL 1 FLOOR PLAN - NEW WORK - FIRE PROTECTION	1:50
M-411B	LEVEL 1 FLOOR PLAN - CORRIDOR - NEW WORK - FIRE PROTECTION	1:50
M-501	LEVEL 1 FLOOR PLAN - NEW WORK - MEDICAL GAS	1:50
M-601	VENTILATION SCHEMATIC DIAGRAMS	N.T.S.
M-602	HYDRONIC & STEAM PIPING SCHEMATIC DIAGRAMS	N.T.S.
M-603	PLUMBING, SANITARY & MEDICAL GAS SCHEMATIC DIAGRAMS	N.T.S.
M-701	MECHANICAL SCHEDULES #1	N.T.S.
M-702	MECHANICAL SCHEDULES #2	N.T.S.
M-703	MECHANICAL SCHEDULES #3	N.T.S.
M-801	MECHANICAL CONTROL DIAGRAMS #1	N.T.S.
M-802	MECHANICAL CONTROL DIAGRAMS #2	N.T.S.
M-803	MECHANICAL CONTROL DIAGRAMS #3	N.T.S.
M-901	TYPICAL DETAILS - 1	N.T.S.
M-902	TYPICAL DETAILS - 2	N.T.S.
M-903	TYPICAL DETAILS - 3	N.T.S.
M-904	TYPICAL DETAILS - 4	N.T.S.
M-1001	PLUMBING SECTIONS	1:50

GENERAL NOTES:		AFTER ANY PARTIAL DEMOLITION.	
1.	ALL SERVICES SHOWN ARE DIAGRAMMATIC ONLY. THE ARRANGEMENTS OF EQUIPMENT SHOWN ARE APPROXIMATE AND MAY BE ALTERED BY THE ENGINEERS TO MEET THE ON-SITE CONDITIONS OF THE PROJECT.	8.	CONTRACTOR SHALL MAINTAIN CONTINUOUS OPERATION OF PLUMBING STACKS AND WATER SUPPLY MAINS THAT REQUIRE OFFSETTING AND MAKING NEW CONNECTIONS RESPECTIVELY DURING CONSTRUCTION PERIOD.
2.	CONTRACTOR TO REVIEW THE EXISTING SERVICES AND DISCUSS WITH THE CLIENT/ENGINEER BEFORE ALTERATIONS	9.	CONTRACTOR SHALL COORDINATE WITH OTHER MECHANICAL AND ELECTRICAL TRADES FOR FINAL PIPE ROUTING ON SITE.
3.	CONTRACTOR TO REROUTE ANY SERVICES IF REQUIRED TO INSTALL NEW SERVICES.	10.	CONTRACTOR TO PROVIDE FOR ANY REQUIRED OFFSETS TO AVOID INTERFERENCE WITH OTHER SERVICES.
4.	COORDINATE WITH ALL CONSULTANT DRAWINGS BEFORE ORDERING ANY NEW EQUIPMENT/GRILLES.	11.	CONTRACTOR TO ALLOW FOR ADDITIONAL PIPE HANGERS AND SUPPORTS ON EXISTING PIPING IF NECESSARY. CONTRACTOR TO MAKE ALLOWANCE FOR 50 FT OF PIPING. IF ALLOWANCE IS NOT USED, CREDIT SHALL BE PROVIDED BACK TO OWNER.
5.	ALL EXISTING PLUMBING SERVICES SHOWN IS APPROXIMATE AND BASED ON VISUAL SITE SURVEY AND ON EXISTING RECORD DRAWINGS. CONTRACTOR SHALL VERIFY ALL CONNECTIONS, PIPE SIZES, LOCATIONS AND INVERTS OF DRAINS ON SITE AND REPORT ANY DISCREPANCY TO THE CONSULTANT FOR RESOLUTION.	12.	CONTRACTOR TO ALLOW FOR FIXING ANY EXISTING SANITARY PIPING WHERE SLOPE HAS NOT BEEN MAINTAINED.
6.	ANY PLUMBING SERVICES THAT ARE NOT SHOWN ON THE DRAWINGS THAT ARE EXPOSED DURING DEMOLITION/CONSTRUCTION SHALL BE VERIFIED BY THE CONTRACTOR TO THE SOURCE. ROUTING SHALL BE REPORTED TO THE CONSULTANT WITH PROPOSED RESOLUTIONS REQUIRED FOR THE SERVICE.	13.	CONTRACTOR TO ALLOW FOR INSULATION ON EXISTING PIPING IF IT IS DAMAGED OR MISSED.
7.	EXISTING DUCT MAINS OR BRANCHES TO BE FINISHED WITH CAPPED CONNECTIONS	14.	THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO CUTTING EXISTING WALLS AND FLOOR SLAB. IF EXISTING SERVICES ARE CUT/DAMAGED, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PATCH AND REPAIR THE SERVICE.

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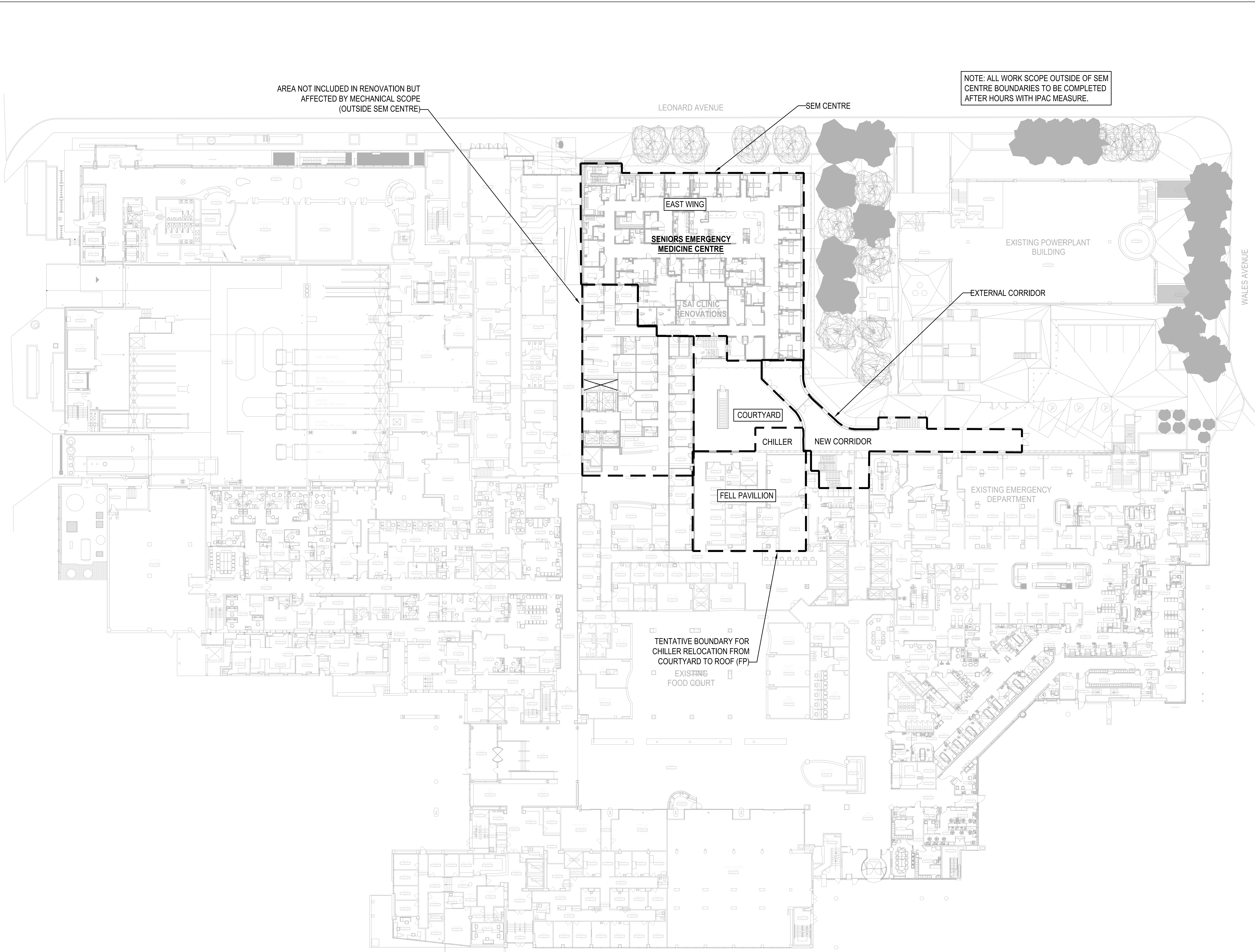
8	Issued for Addendum M-02	2024.11.06
7	Issued for Addendum M-01	2024.10.20
6	Issued for Tender	2024.10.11
5	Issued for 100% CD	2024.09.27
4	Issued for 90% CD	2024.09.09
3	Issued for 50% CD / Permit	2024.08.02
2	Issued for 100 L0	2024.05.10
1	Issued for Design Development Progress	2024.04.05
NO	DESCRIPTION	DATE

PROJECT:
Seniors Emergency Medicine Centre (SEMC) & External Corridor
Toronto Western Hospital
399 Bathurst Street, Toronto, ON, M5T 2S8

TITLE:
MECHANICAL SYMBOL LEGEND, DRAWING LIST AND GENERAL NOTES

PROJECT NO:
MRK-23004289
CHECKED:
S.S

DRAWING NO:
M-001



LEGEND - SEPARATE PRICE

- PATIENT TRANSFER
- FELL REMEDIATION WATERPROOFING
- SAI TOUCHDOWN DAY AREA
- BELOW GRADE CRAWL SPACE
- COURTYARD LANDSCAPING, IRRIGATION & SNOW MELT
- SENIORS EMERGENCY MEDICINE CENTRE & CORRIDOR & CHILLER

CLIENT:

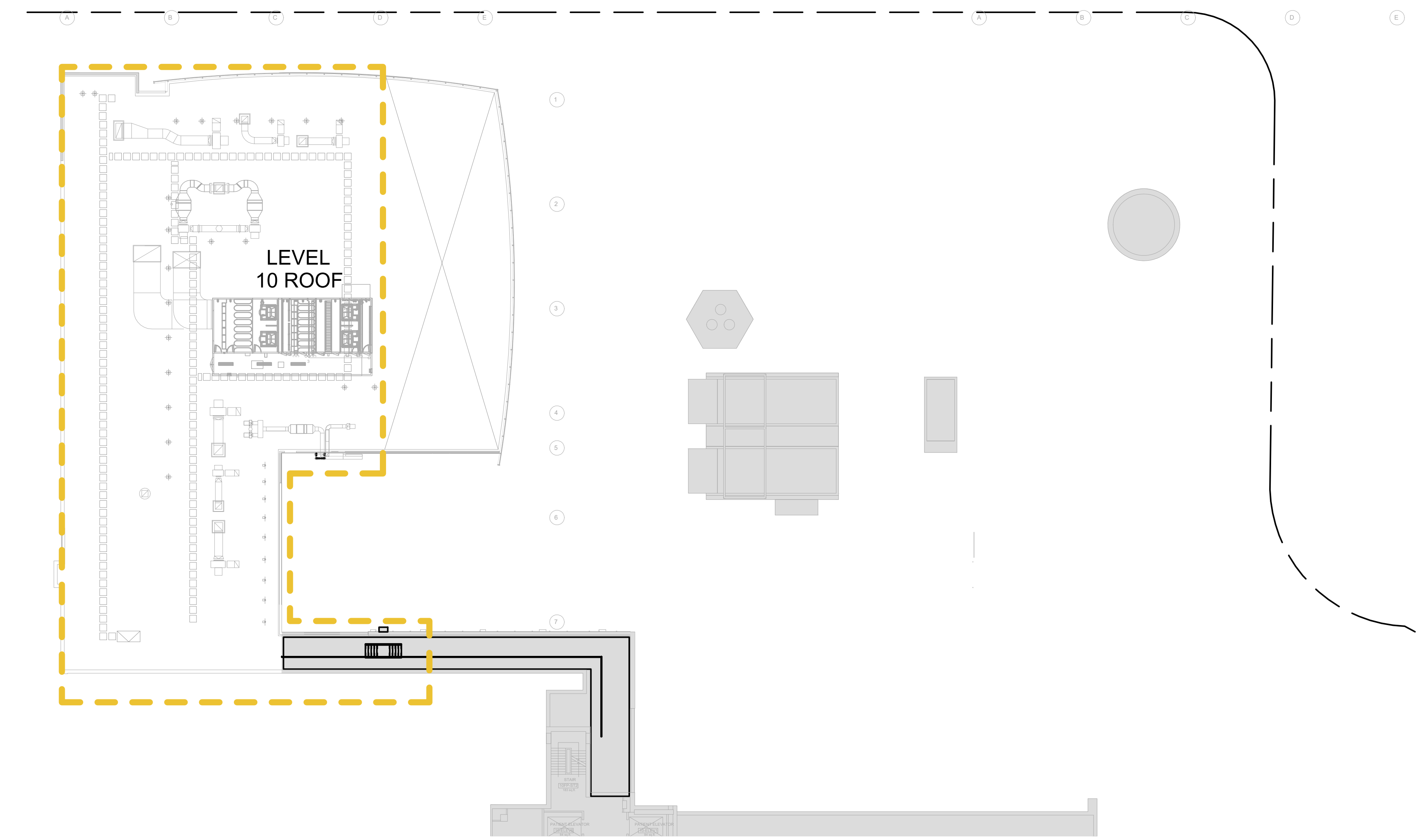
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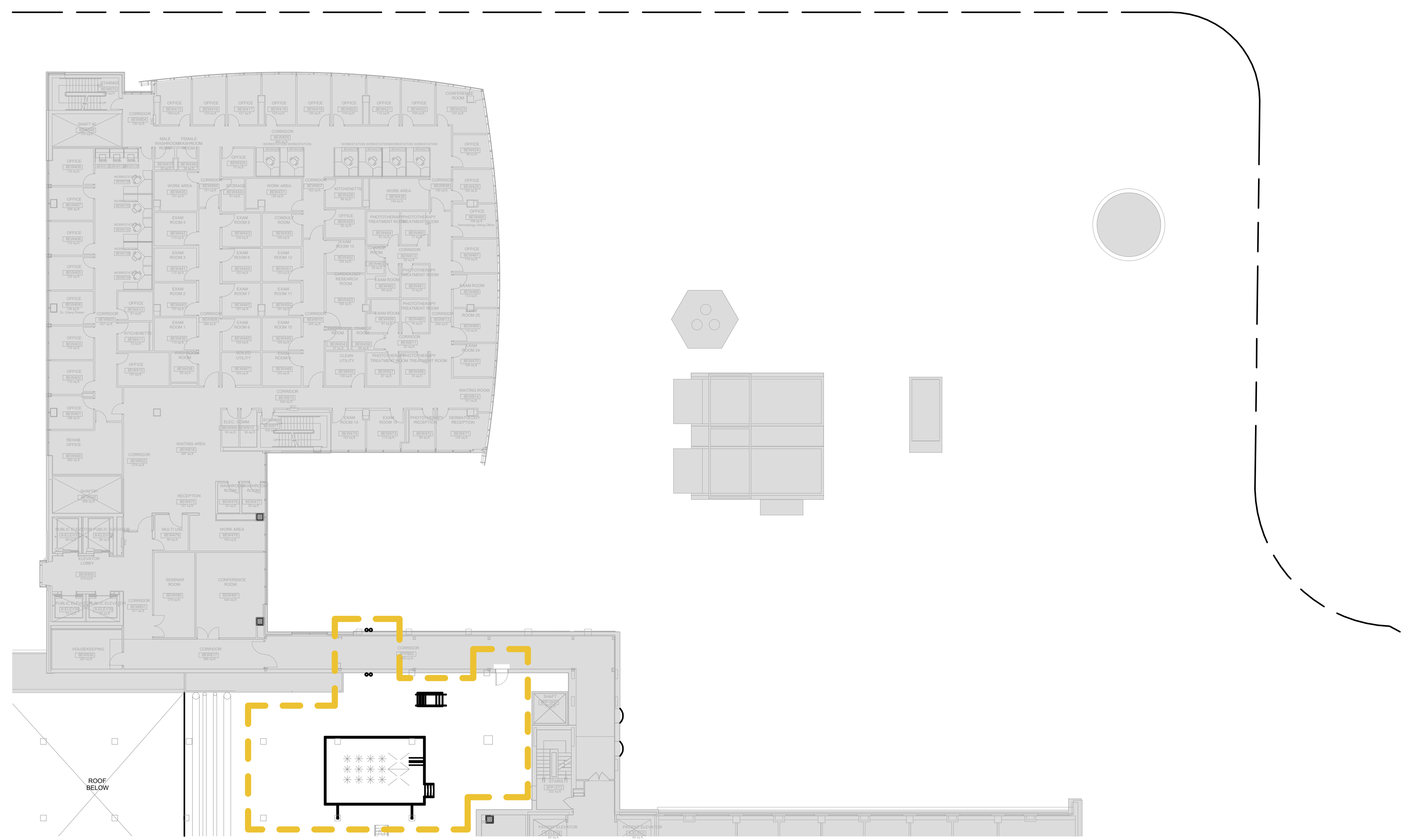
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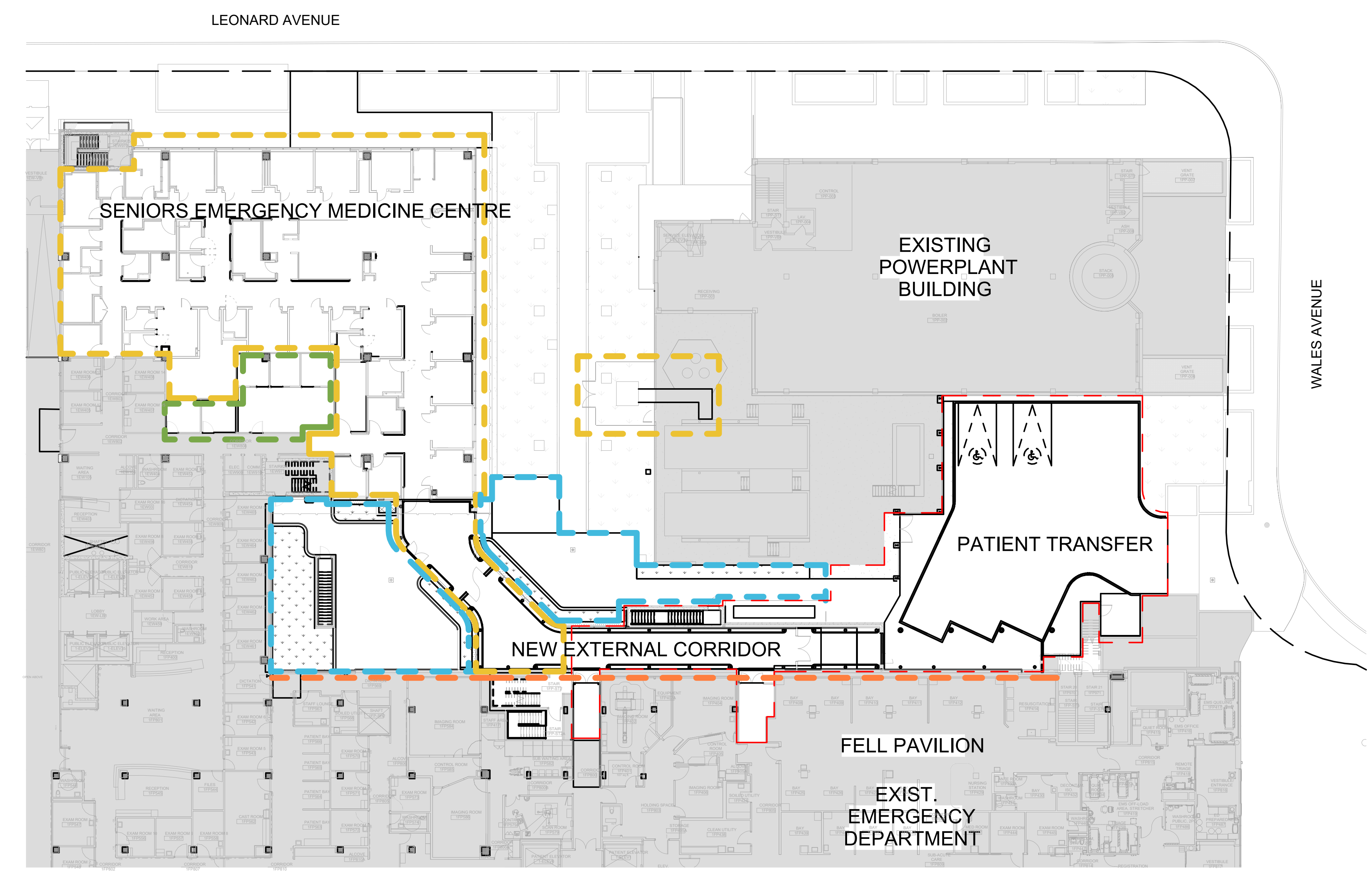
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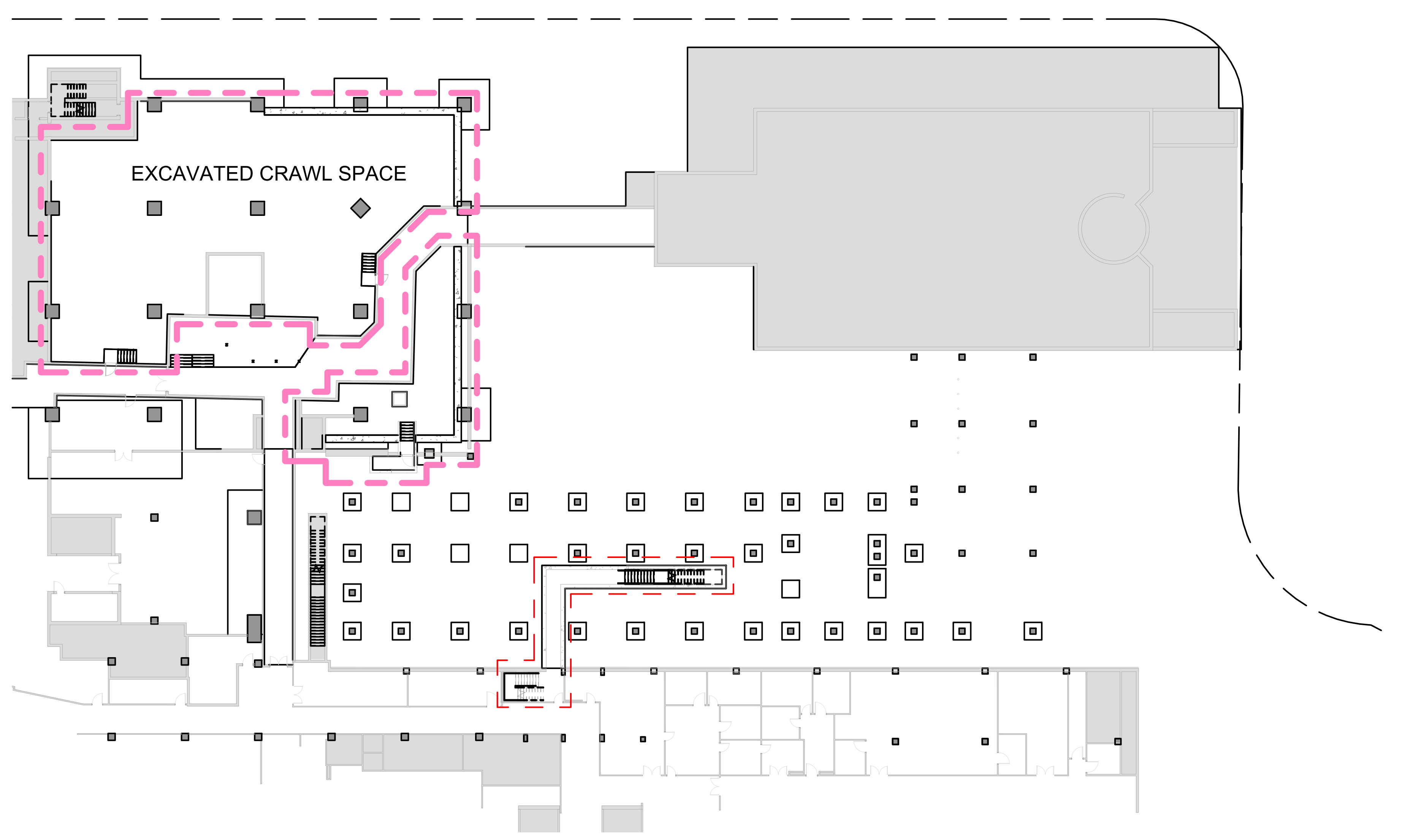
4 Separate Price - Level 10
1:250



3 Separate Price - Level 8
1:250



2 Separate Price - Level 1
1:250



1 Separate Price - Basement Plan
1:250

NOTE: SEPRATE SCOPE IDENTIFICATION DRAWINGS PREPARED BY ARCH.

NO.	REVISION	DATE
8	Issued for Addendum M-02	2024.11.08
7	Issued for Addendum M-01	2024.10.25
6	Issued for Review	2024.10.11
5	Issued for 100% CD	2024.09.27
4	Issued for 90% CD	2024.09.05
3	Issued for 50% CD / Permit	2024.08.02
2	Issued for 100 DD	2024.05.10
1	Issued for Design Development Progress	2024.04.05
NO	DESCRIPTION	DATE
SHEET REVISION		
PROJECT:		
Seniors Emergency Medicine Centre (SEMC) & External Corridor		
Toronto Western Hospital		
399 Bathurst Street Toronto, ON M5T 2S8		
TITLE:		
SEPARATE PRICE PLAN		
PROJECT NO:		
MRK-23004289		
DRAWING NO:		
M-003		
CHECKED:		
S.S.		

LOCATION OF SOIL
EXTRACTION EQUIPMENT

LEONARD AVENUE

PROPERTY LINE

SIDEWALK TO SLOPE
UP TO MEET THE
THRESHOLD OF THE
NEW DOOR

SENIORS EMERGENCY
MEDICINE CENTRE (SEMC)
(EAST WING)

SAI CLINIC
RENOVATIONS

NEW CABINET INCLUDING MANIFOLD,
CONTROL PANEL, HEX & PUMP FOR
SNOW MELT SYSTEM. SUPPLIER SHALL
PROVIDE COMPLETE SYSTEM IN THE
CABINET FOR OUTDOOR DESIGN.

500' UNDERGROUND
GLS/GUR PIPE TO
MANIFOLD CABINET

SNOW MELT SYSTEM

PRESUMED LINE OF
HOARDING. DETAILS TO BE
DETERMINED BY CONTRACTOR

LINE INDICATES
SCOPE OF WORK

EXISTING POWERPLANT
BUILDING

PATIENT
TRANSFER
PARKING

PATIENT
TRANSFER
ZONE

FELL PAVILION EXISTING
EMERGENCY DEPARTMENT

1 SNOW MELT SYSTEM
1:100

CLIENT:

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ARCHITECT:

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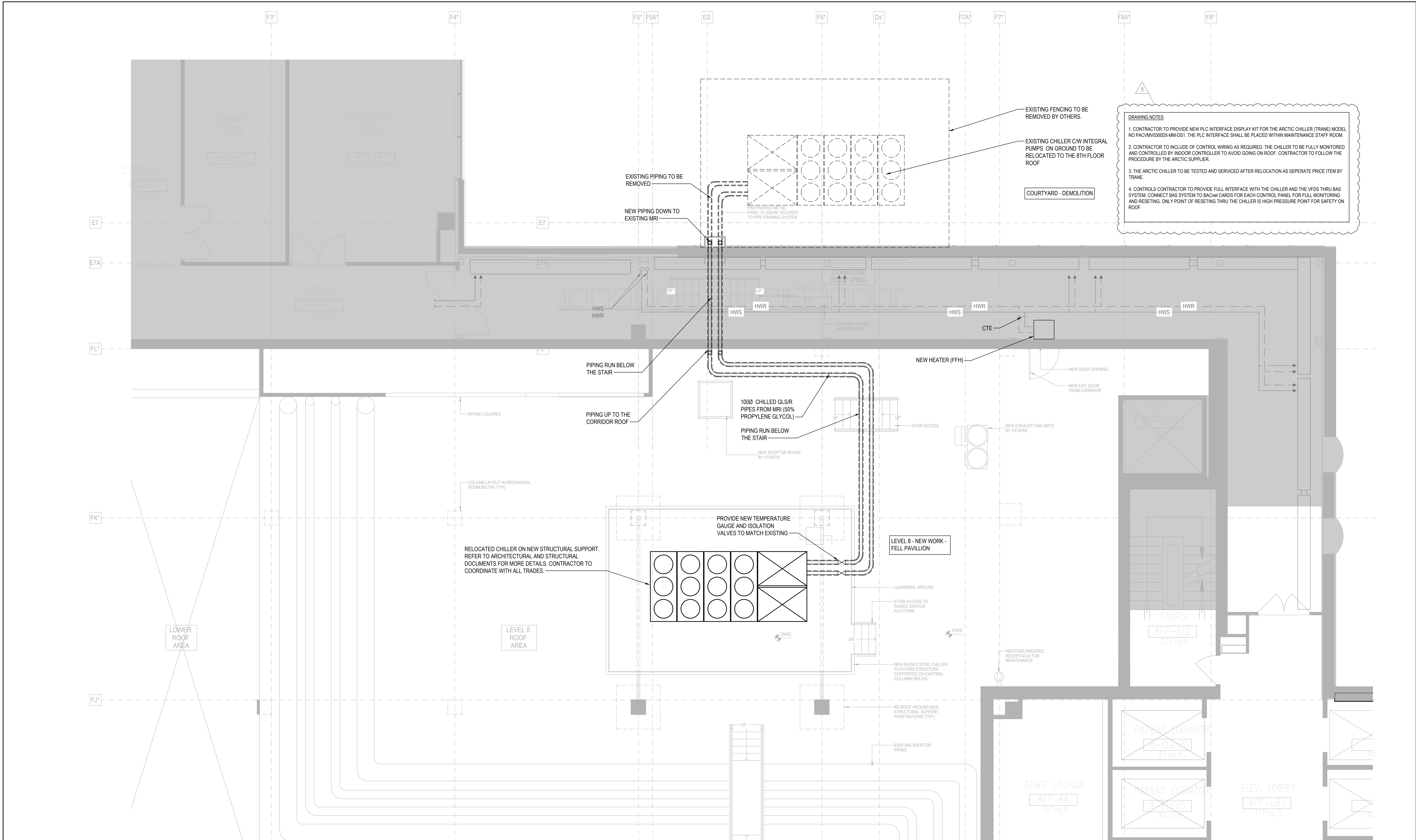
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PROJECT:
Seniors Emergency Medicine Centre (SEMC) &
External Corridor
Toronto Western Hospital
399 Bathurst Street Toronto, ON M5T 2S8
TITLE:
SNOW MELT SYSTEM - COURTYARD -
SEM CENTRE

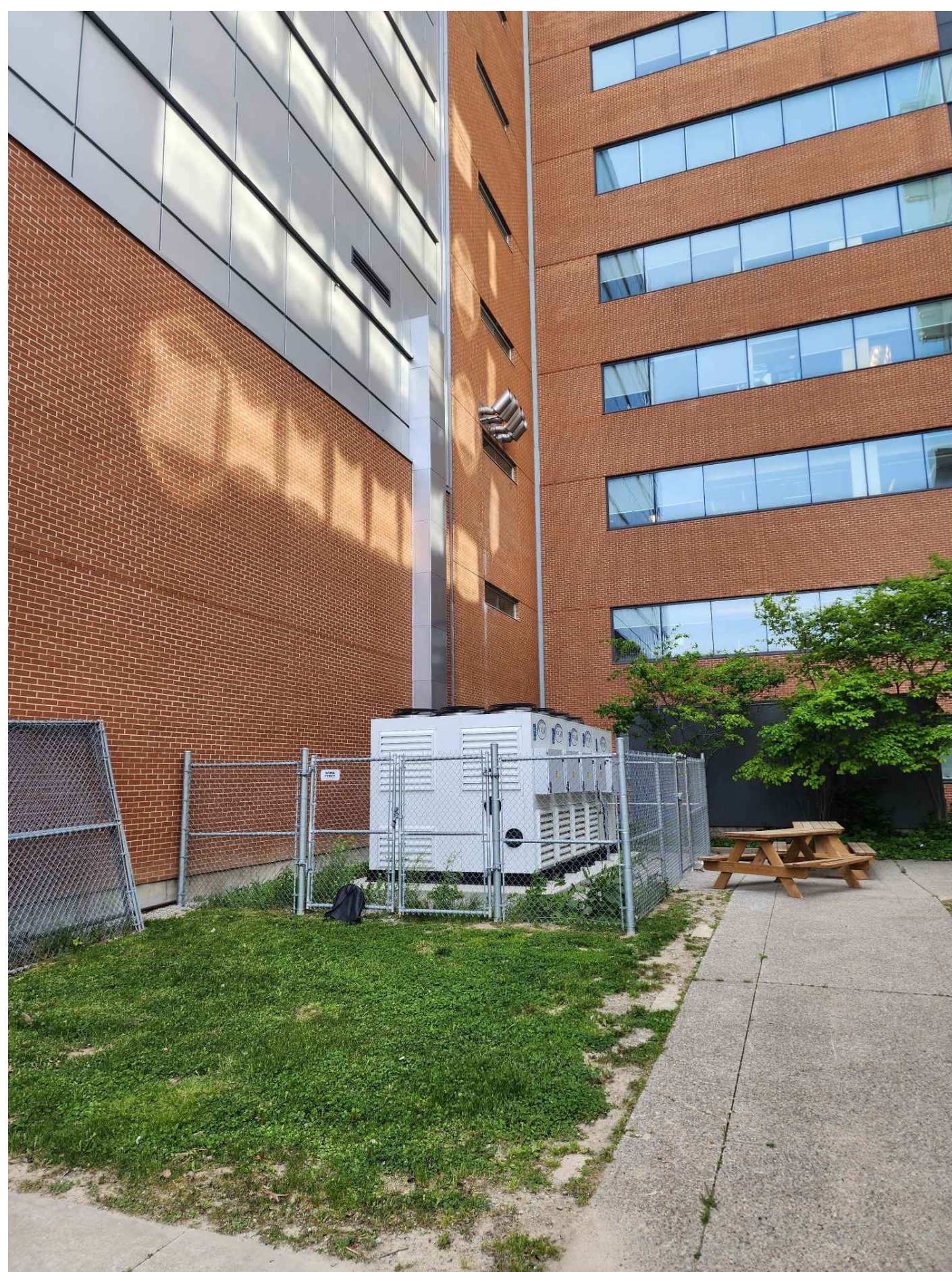
PROJECT NO:
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CHECKED:
S.S.
DRAWING NO:
M-004



1 LEVEL 8 FLOOR PLAN - NEW WORK
1:50



EXISTING CHILLER



EXISTING CHILLER



EXISTING CHILLER ISOLATION VALVES



EXISTING CHILLER TEMPERATURE GAUGE

- GENERAL NOTES
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, MINISTRY OF THE ENVIRONMENT, MINISTRY OF LABOUR, THE MUNICIPALITY AND OTHER AUTHORITIES HAVING JURISDICTION WHICH ARE TO BE CONSIDERED AN INTEGRAL PART OF THE SPECIFICATION.
 - THE EXISTING SERVICES SHOWN ON THIS DRAWING ARE FOR INFORMATION. THIS INFORMATION MUST NOT BE ASSUMED TO BE COMPLETE OR UP-TO-DATE. THE MECHANICAL SHALL CARRY OUT A FULL SURVEY OF ALL EXISTING SERVICES AND EQUIPMENT SIZE BEFORE THE COMMENCEMENT OF ANY WORK.
 - CONTRACTOR TO IDENTIFY ALL SERVICES PRIOR TO DEMOLITION.
 - PROVIDE ALL CUTTING AND PATCHING. REFER TO SPECIFICATIONS.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SCHEDULING FOR ANY REQUIRED SHUT-DOWN WITH FACILITY. CONTRACTOR SHALL INCLUDE FOR AND DETERMINE THE BEST METHOD TO MINIMIZE SERVICE INTERRUPTION AND IMPACT ON FACILITY OPERATION, INCLUDING USE OF HOT TAP/TEMPORARY FREEZING AND AFTER-HOUR WORK AS REQUIRED.
 - THE NEW PIPING AND ASSOCIATED WORK SHALL BE PERFORMED BEFORE THE CHILLER CAN BE MOVED AND SWITCH OVER TO NEW SYSTEM.
 - CONTRACTOR IN INCLUDE CONTROLS SCOPE FOR EXTENSION OF CONTROLS FOR THE CHILLER WITH BASE BUILDING CONTRACTOR.
 - CONTRACTOR IN INCLUDE FOR EXTENSION OF CONTROLS FROM THE CHILLER SUPPLIER (TRANE).

CLIENT:

UHN University Health Network
Toronto Western Hospital
399 Bathurst Street
Toronto, ON M5T 2S8
www.uhn.ca

ARCHITECT:

CUMULUS ARCHITECTS INC. 160 Pears Ave. - Suite 300
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1-800-695-3217 (F: 800-695-0167)
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NO.	REVISION	DATE
8	Issued for Addendum M-02	2024.11.06
7	Issued for Addendum M-01	2024.10.29
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5	Issued for 100% CD	2024.09.27
4	Issued for 90% CD	2024.09.09
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2	Issued for 100 DD	2024.05.10
1	Issued for Design Development Progress	2024.04.05

PROJECT:
Seniors Emergency Medicine Centre (SEMC) &
External Corridor
Toronto Western Hospital
399 Bathurst Street, Toronto, ON, M5T 2S8

TITLE:

CHILLER RELOCATION -
DEMOLITION AND NEW WORK -
MECHANICAL

PROJECT NO:
MRK-23004289
CHECKED:
S.S.

DRAWING NO:

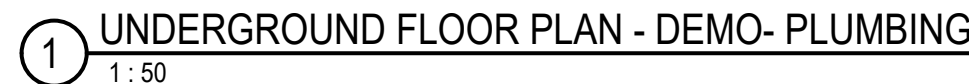
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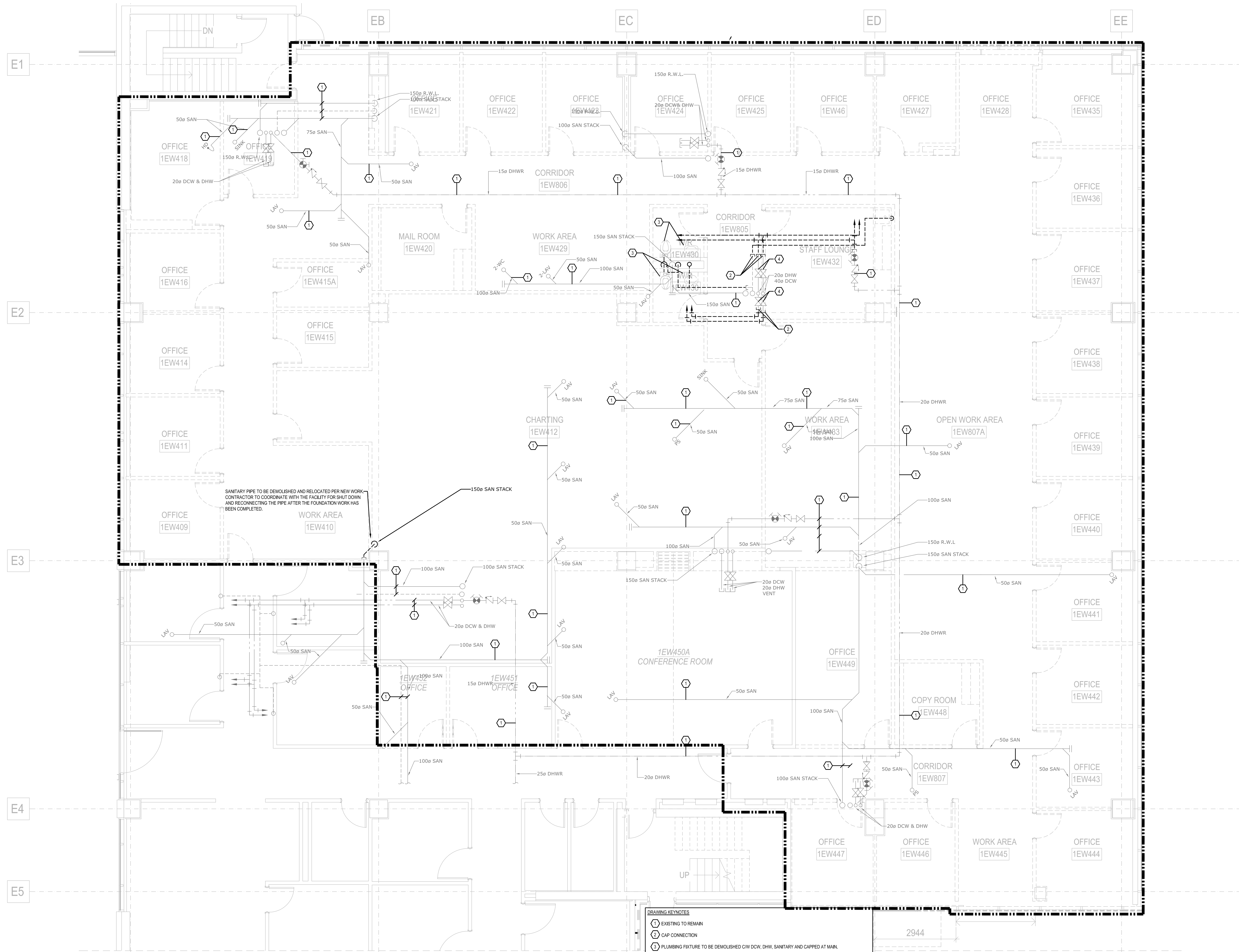


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PROJECT NO: MRK-23004289	DRAWING NO: M-100B
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M-100B





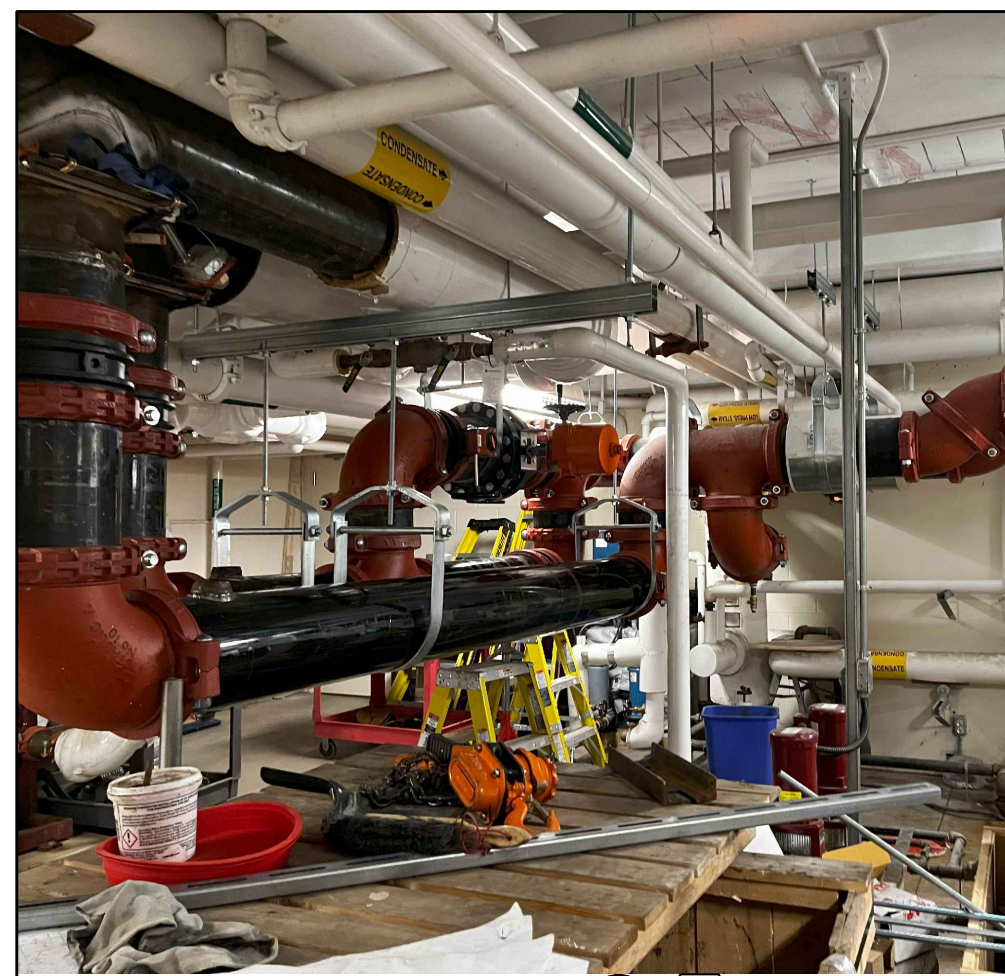
- DRAWING KEYNOTES**
- EXISTING TO REMAIN
 - CAP CONNECTION
 - PLUMBING FIXTURE TO BE DEMOLISHED CW DCW, DHW, SANITARY AND CAPPED AT MAIN.
 - ASSUME ALL EXISTING VALVES NOT HOLDING AND INCLUDE FOR PIPE FREEZING AND NEW VALVES.

- GENERAL NOTES**
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, MINISTRY OF THE ENVIRONMENT, MINISTRY OF LABOUR, THE MUNICIPALITY AND OTHER AUTHORITIES HAVING JURISDICTION WHICH ARE TO BE CONSIDERED AN INTEGRAL PART OF THE SPECIFICATION.
 - THE EXISTING SERVICES SHOWN ON THIS DRAWING HAVE BEEN TAKEN FROM THE ORIGINAL CONSTRUCTION DRAWINGS. THIS INFORMATION MUST NOT BE ASSUMED TO BE COMPLETE OR UP-TO-DATE. THE MECHANICAL SHALL CARRY OUT A FULL SURVEY OF ALL EXISTING SERVICES AND STRUCTURE TO CONFIRM THE SIZE AND LOCATION OF THESE SERVICES BEFORE THE COMMENCEMENT OF ANY WORK.
 - CONTRACTOR TO IDENTIFY ALL SERVICES PRIOR TO DEMOLITION.
 - CONTRACTOR TO FIELD VERIFY ALL PIPE CONNECTION LOCATIONS AND ROUTING WITH BUILDING SERVICES PRIOR TO COMMENCEMENT OF WORK. NOT ALL PIPING AND DUCTWORK SHOWN FOR CLARITY.
 - FOR DUST CONTROL, CAP EXISTING DUCTS IN THE CONSTRUCTION AREA, CONNECTION TO EXISTING AIR DUCTS TO BE DONE AFTER COMPLETION OF ALL DUST PRODUCING TASKS.
 - PROVIDE ALL CUTTING AND PATCHING. REFER TO SPECIFICATIONS.
 - REMOVE ALL REDUNDANT PIPES, CONDUITS, INCLUDING LOOSE WIRES AND DUCTWORK, CAP AT MAIN.
 - PROVIDE CORING OF FLOOR SLAB SCAN OR X-RAY SLAB BEFORE CORING TO INVESTIGATE EXISTING REBAR LOCATION (TOP & BOTTOM) CUTTING EXISTING REBARS IN THE SLAB IS NOT PERMITTED.
 - THE DRAWINGS AND SPECIFICATIONS ARE PROVIDING THE MINIMUM PERFORMANCE REQUIREMENTS. FIRE PROTECTION SYSTEM SHALL BE PREPARED, COMPLETE, STAMPED, SIGNED, AND APPROVED BY A LICENSED FIRE PROTECTION CONTRACTOR.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE CURRENT FLOW TEST INFORMATION PRIOR TO PREPARATION OF DRAWINGS AND HYDRAULIC CALCULATIONS.
 - PROVIDE GUARDS ON ALL UPRIGHT SPRINKLERS SUBJECT TO DAMAGE, AND ON SPRINKLER HEADS IN STORAGE ROOMS, ELECTRICAL ROOMS, IT ROOMS.
 - REFER TO ARCHITECTURAL CODE COMPLIANCE PLANS FOR ALL FIRE RATED WALL PARTITIONS. PROVIDE "FIRE WRAP" TO ALL VERTICAL AND HORIZONTAL STANDPIPE THAT IS "NOT" ENCLOSED IN 2HR RATED ASSEMBLY AS PER NFPA REQUIREMENTS.
 - CONTRACTOR TO PROVIDE FIRE WATCH AS REQUIRED TO MAINTAIN FIRE SAFETY OF THE CONSTRUCTION SITE SCOPE AREA.
 - COORDINATE WITH BUILDING SUPERVISOR FOR APPROVAL TO SWITCH OFF VALVES FEEDING THE AREA PRIOR TO DEMOLISHING WORK.
 - DRAIN THE FIRE PIPE LINE PRIOR TO COMMENCING WORK, COORDINATE ON SITE.
 - REMOVE OBSOLETE SPRINKLER HEADS AND REPLACE THEM WITH PENDANT SPRINKLERS.
 - RE-ROUTE THE EXISTING PIPES TO SUIT NEW LOCATION, ADD NEW PIPES WHERE NECESSARY. CAP ANY UNUSED PIPES.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SCHEDULING FOR ANY REQUIRED SHUT-DOWN WITH FACILITY. CONTRACTOR SHALL INCLUDE FOR AND DETERMINE THE BEST METHOD TO MINIMIZE SERVICE INTERRUPTION AND IMPACT ON FACILITY OPERATION, INCLUDING USE OF HOT TAP/TEMPORARY FREEZING AND AFTERNOON WORK AS REQUIRED.
 - CONTRACTOR SHALL PROVIDE FIRE-STOPPING ON ALL NEW PIPING AND CONDUIT PENETRATIONS THROUGH A FIRE-RATED WALL OR FLOOR AND ANY HOLES THAT RESULT FROM REMOVAL OF EXISTING SERVICES THROUGH A FIRE-RATED WALL OR FLOOR. FIRE STOPPING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
 - CONTRACTOR SHALL CUT BACK AND CAP ALL INACTIVE/DECOMMISSIONED PIPING BRANCHES TO THE NEAREST ACTIVE MAIN ON THIS FLOOR/BELOW SLAB. REPAIR/FILL FLOOR SLAB PENETRATIONS AND MAKE GOOD. REMOVE ALL REDUNDANT PIPES, CONDUITS INCLUDING LOOSE WIRES AND DUCTWORK COMPLETE. CAP AT MAIN.
 - RELOCATE OR REROUTE EXISTING MECHANICAL EQUIPMENT AS REQUIRED TO ACCOMMODATE NEW WORK.

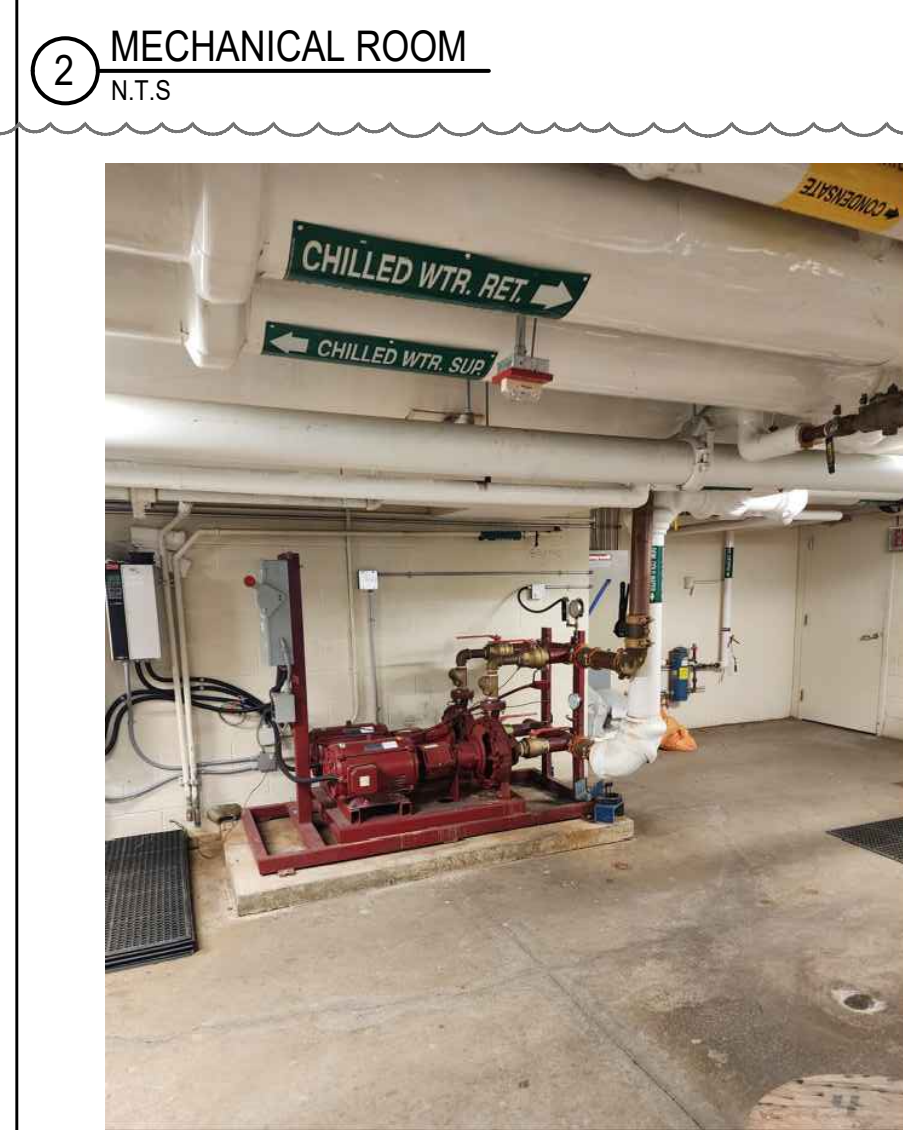
NO.	DESCRIPTION	DATE
8	Issued for Addendum M-20	2024.11.06
7	Issued for Addendum M-21	2024.10.29
6	Issued for Review	2024.10.11
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1	Issued for Design Development Progress	2024.04.05
NO.	DESCRIPTION	DATE

PROJECT:
Seniors Emergency Medicine Centre (SEMC) & External Corridor
Toronto Western Hospital
399 Bathurst Street, Toronto, ON, M5T 2S8

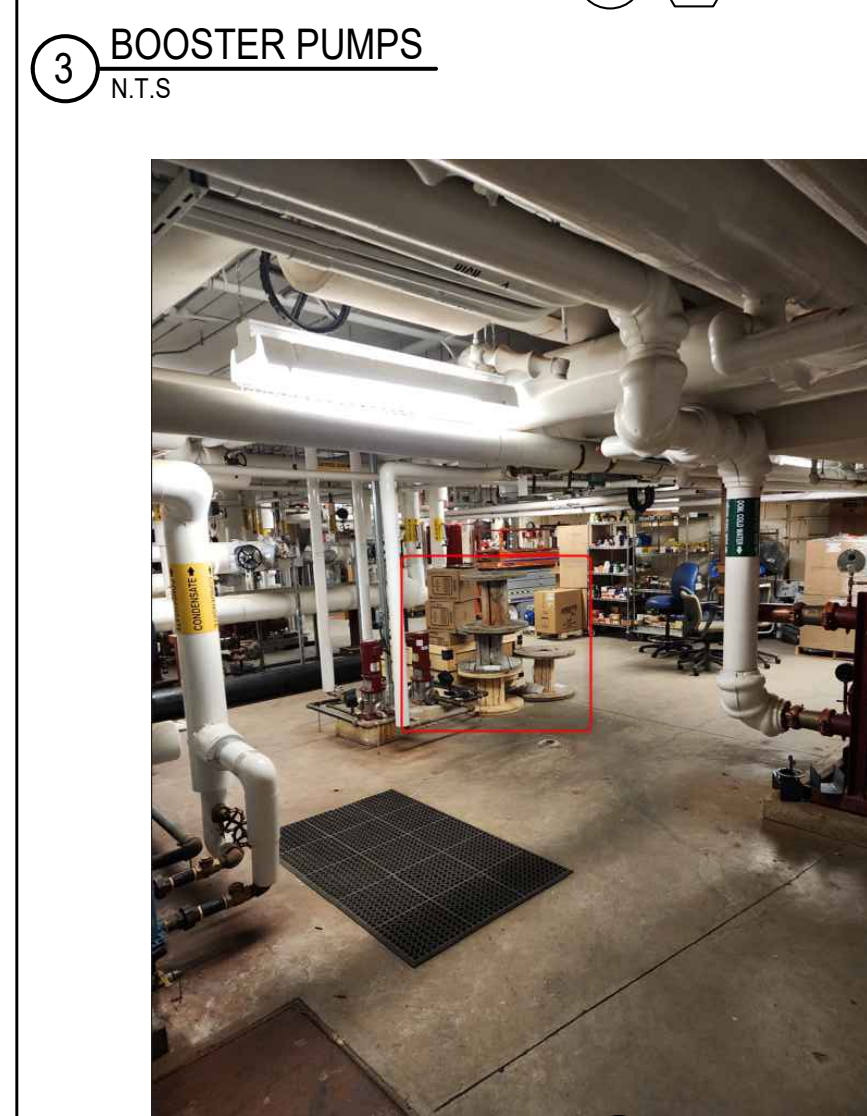
LEVEL 1 FLOOR PLAN - DEMO - PLUMBING



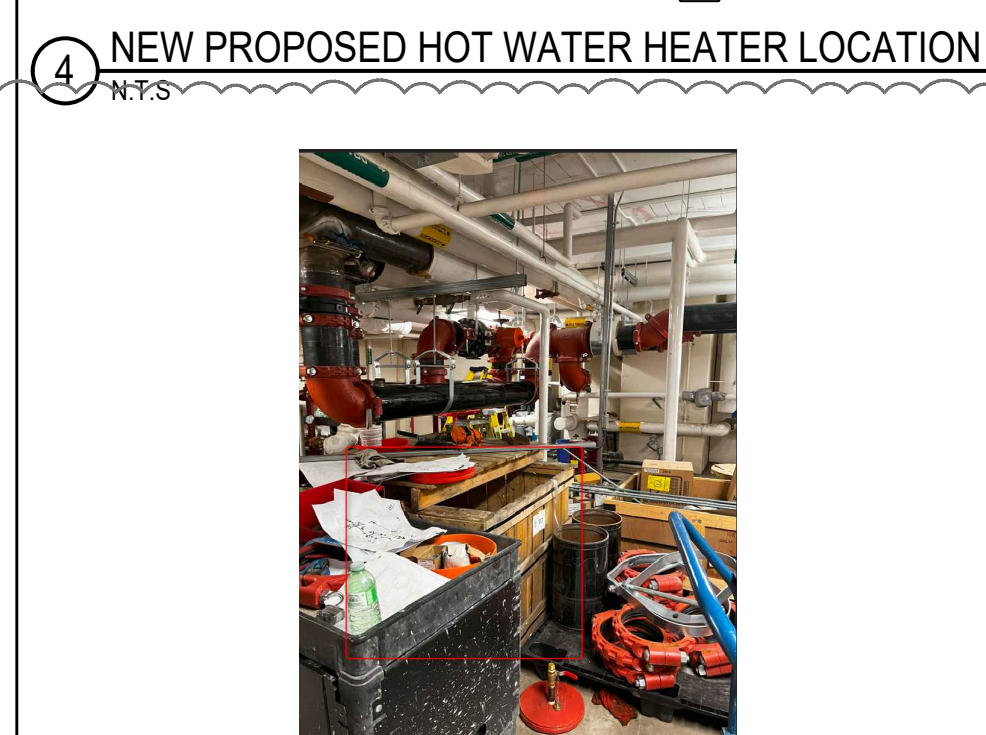
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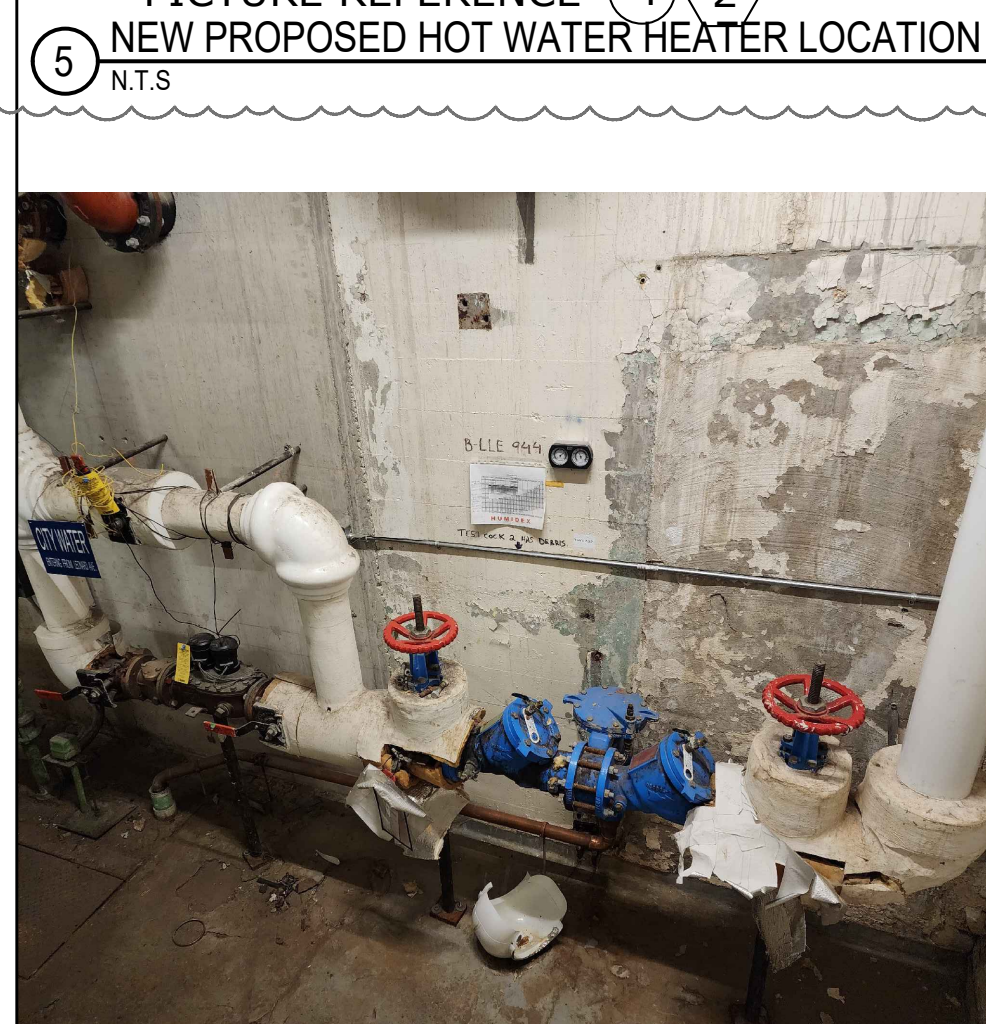
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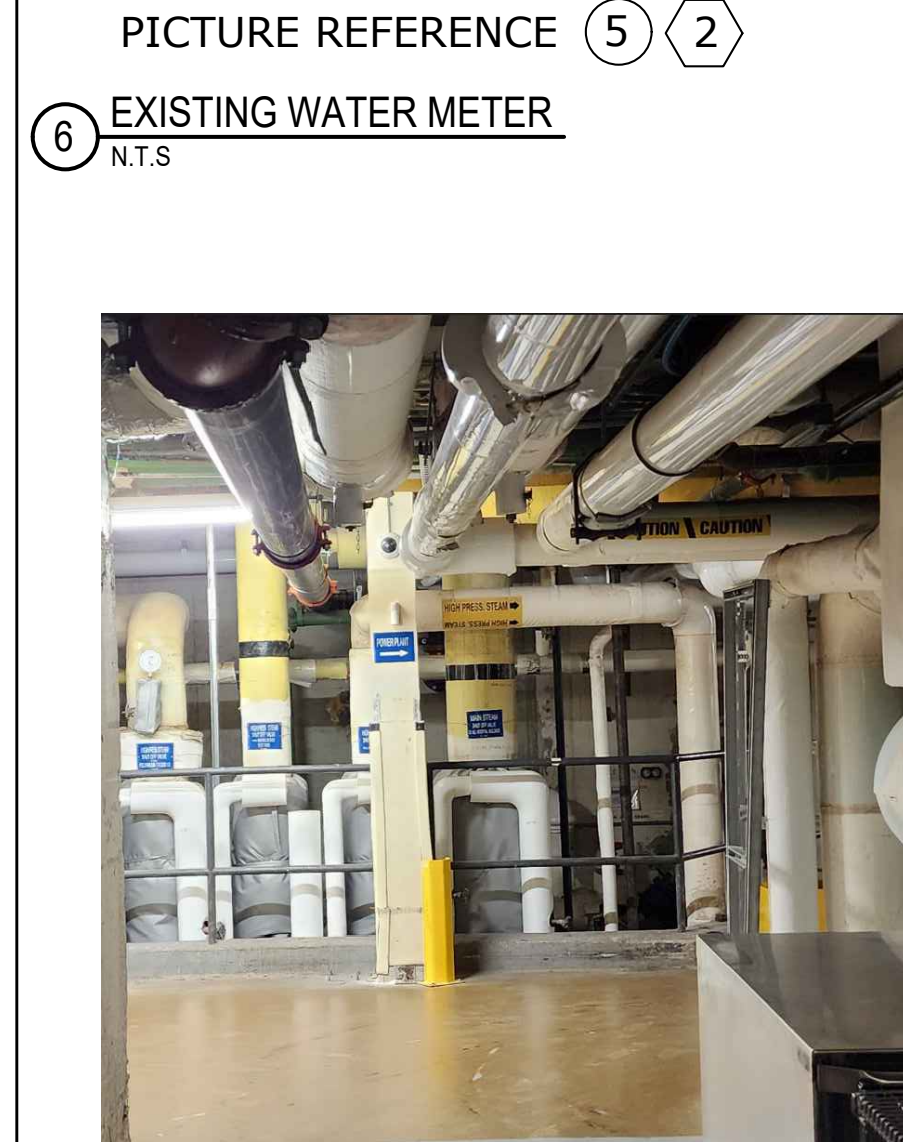
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PICTURE REFERENCE 4 (2)



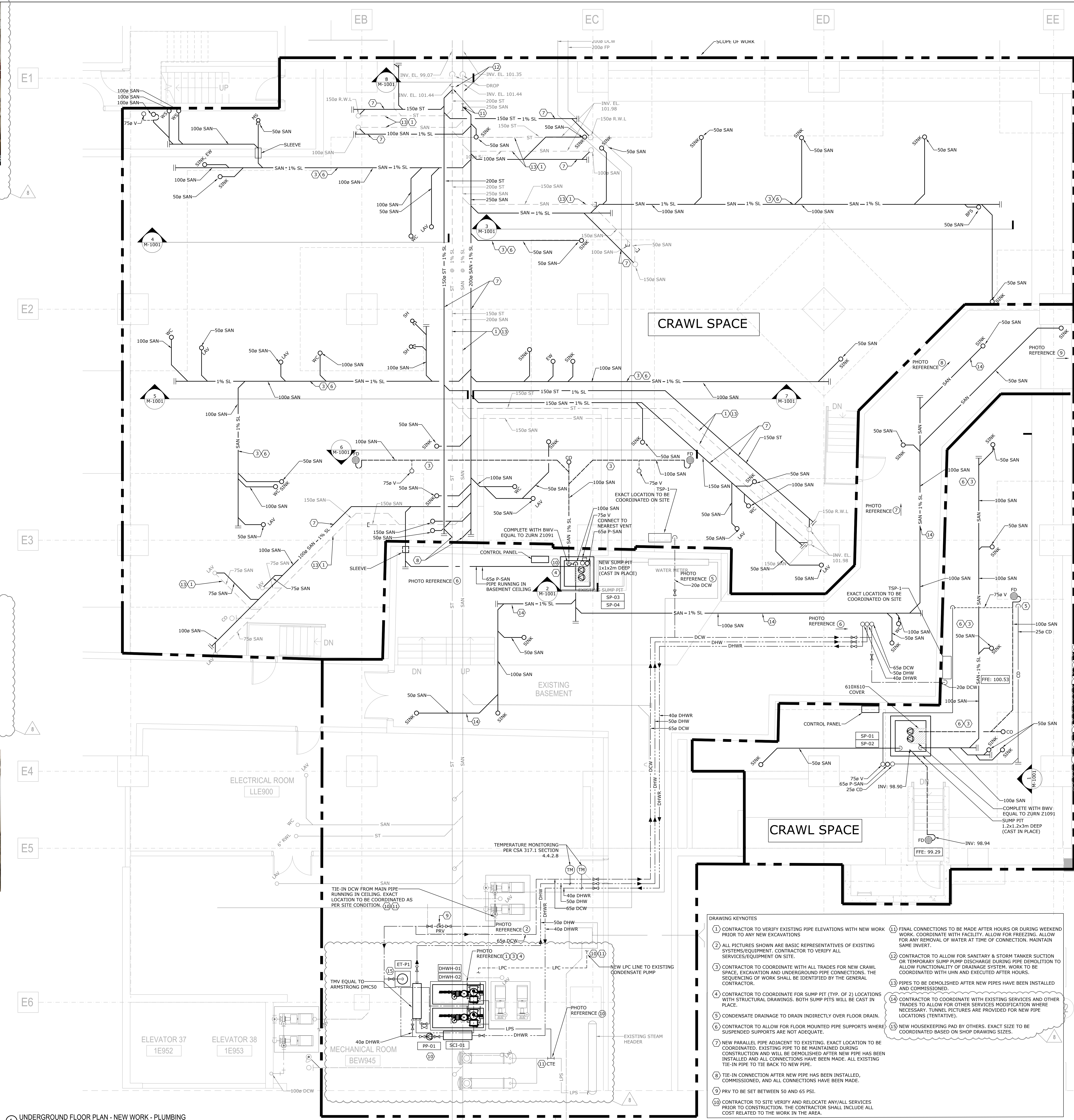
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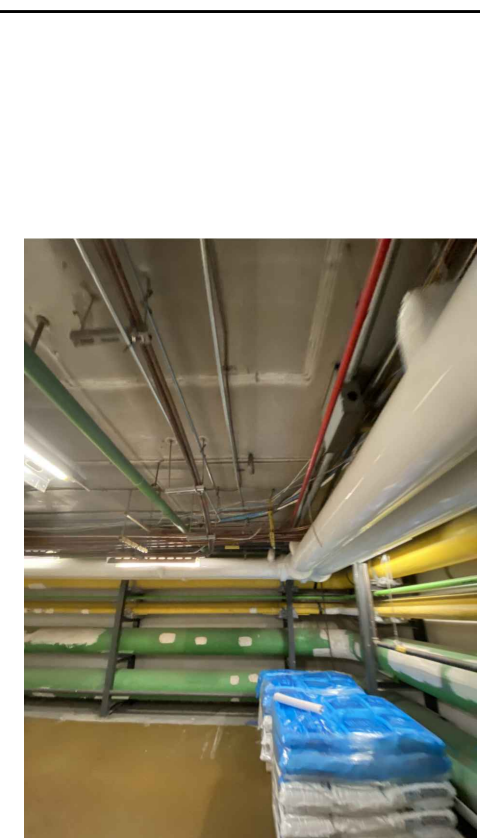
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STEAM

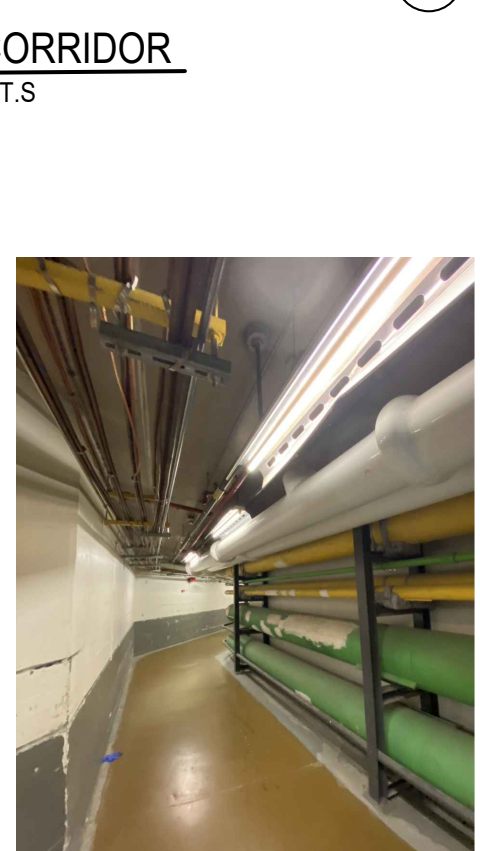
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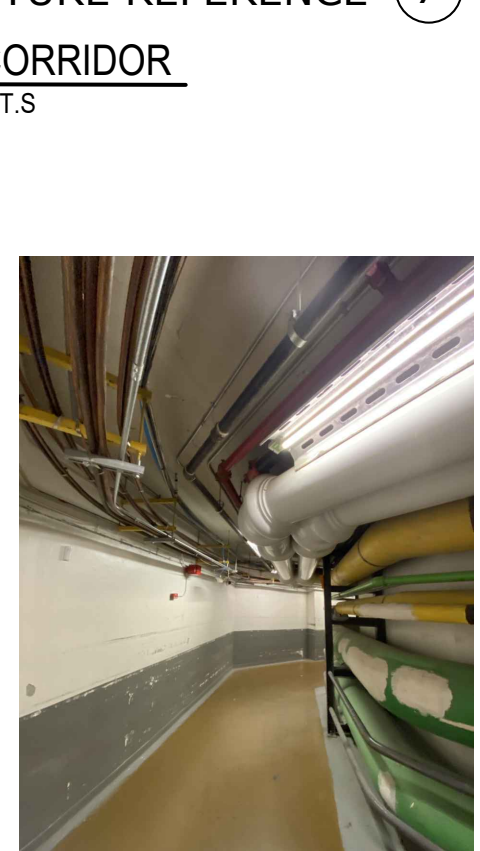
- DRAWING KEYNOTES**
- CONTRACTOR TO VERIFY EXISTING PIPE ELEVATIONS WITH NEW WORK PRIOR TO ANY NEW EXCAVATIONS.
 - ALL PICTURES SHOWN ARE BASIC REPRESENTATIVES OF EXISTING SYSTEMS/EQUIPMENT. CONTRACTOR TO VERIFY ALL SERVICES/EQUIPMENT ON SITE.
 - CONTRACTOR TO COORDINATE WITH ALL TRADES FOR NEW CRAWL SPACE, EXCAVATION AND UNDERGROUND PIPE CONNECTIONS. THE SEQUENCING OF WORK SHALL BE IDENTIFIED BY THE GENERAL CONTRACTOR.
 - CONTRACTOR TO COORDINATE FOR SUMP PIT (TYP. OF 2) LOCATIONS WITH STRUCTURAL DRAWINGS. BOTH SUMP PITS WILL BE CAST IN PLACE.
 - CONDENSATE DRAINAGE TO DRAIN INDIRECTLY OVER FLOOR DRAIN.
 - CONTRACTOR TO ALLOW FOR FLOOR MOUNTED PIPE SUPPORTS WHERE SUSPENDED SUPPORTS ARE NOT ADEQUATE.
 - NEW PARALLEL PIPE ADJACENT TO EXISTING. EXACT LOCATION TO BE COORDINATED. EXISTING PIPE TO BE MAINTAINED DURING CONSTRUCTION AND WILL BE DEMOLISHED AFTER NEW PIPE HAS BEEN INSTALLED AND ALL CONNECTIONS HAVE BEEN MADE. ALL EXISTING TIE-IN PIPE TO TIE BACK TO NEW PIPE.
 - TIE-IN CONNECTION AFTER NEW PIPE HAS BEEN INSTALLED, COMMISSIONED, AND ALL CONNECTIONS HAVE BEEN MADE.
 - PRV TO BE SET BETWEEN 50 AND 65 PSI.
 - CONTRACTOR TO SITE VERIFY AND RELOCATE ANY/ALL SERVICES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL INCLUDE ALL COST RELATED TO THE WORK IN THE AREA.
 - FINAL CONNECTIONS TO BE MADE AFTER HOURS OR DURING WEEKEND WORK. COORDINATE WITH FACILITY. ALLOW FOR FREEZING. ALLOW FOR ANY REMOVAL OF WATER AT TIME OF CONNECTION. MAINTAIN SAME INVERT.
 - CONTRACTOR TO ALLOW FOR SANITARY & STORM TANKER SUCTION OR TEMPORARY SUMP PUMP DISCHARGE DURING PIPE DEMOLITION TO ALLOW FUNCTIONALITY OF DRAINAGE SYSTEM. WORK TO BE COORDINATED WITH UHN AND EXECUTED AFTER HOURS.
 - PIPES TO BE DEMOLISHED AFTER NEW PIPES HAVE BEEN INSTALLED AND COMMISSIONED.
 - CONTRACTOR TO COORDINATE WITH EXISTING SERVICES AND OTHER TRADES TO ALLOW FOR OTHER SERVICES MODIFICATION WHERE NECESSARY. TUNNEL PICTURES ARE PROVIDED FOR NEW PIPE LOCATIONS (TENTATIVE).
 - NEW HOUSEKEEPING PAD BY OTHERS. EXACT SIZE TO BE COORDINATED BASED ON SHOP DRAWINGS SIZES.



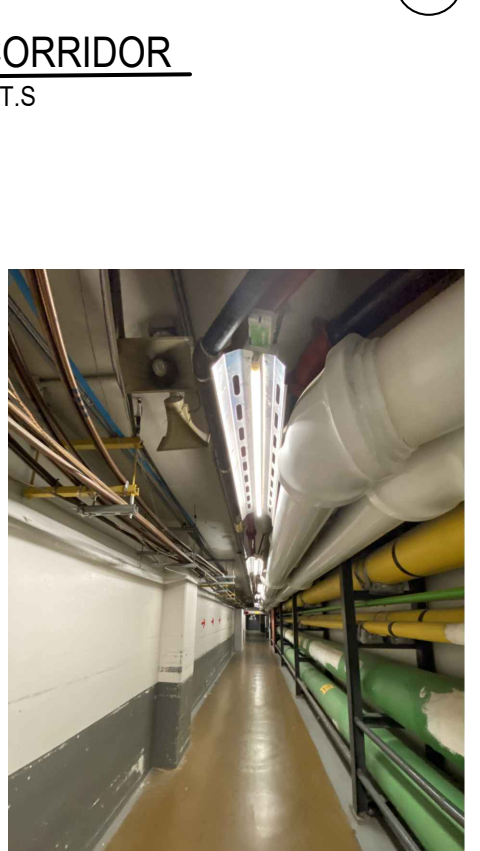
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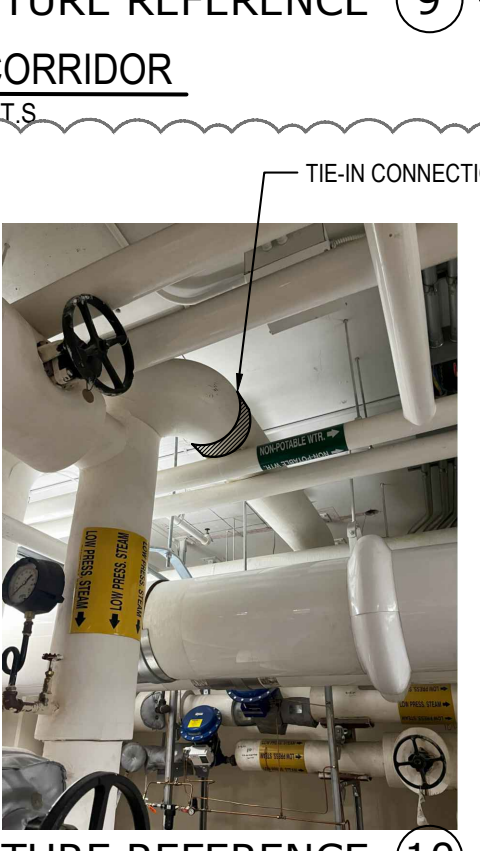
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PICTURE REFERENCE 8 (2)



PICTURE REFERENCE 9 (2)



PICTURE REFERENCE 10 (2)



PICTURE REFERENCE 11 (2)



PICTURE REFERENCE 12 (2)

UNDERGROUND FLOOR PLAN - NEW WORK - PLUMBING

1:50

CLIENT:
University Health Network
Toronto Western Hospital
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ARCHITECT:
CUMULUS ARCHITECTS INC.
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1000 Bloor Street West, Suite 1110
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PROJECT:
Seniors Emergency Medicine Centre (SEMC) &
External Corridor
Toronto Western Hospital
399 Bathurst Street, Toronto, ON, M5T 2S8

TITLE:
UNDERGROUND FLOOR PLAN - NEW WORK - MECHANICAL

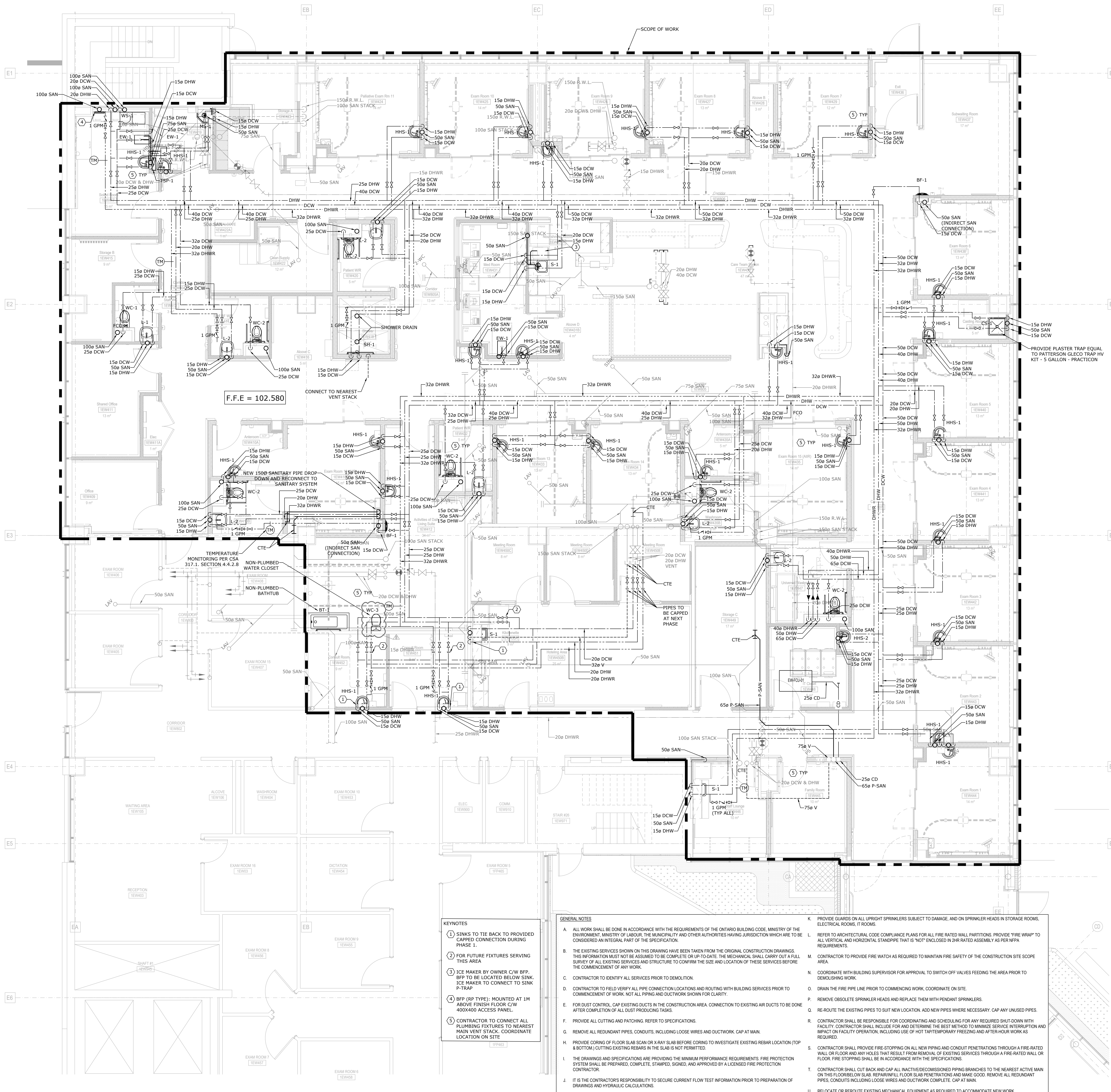
PROJECT NO:
MRK-23004289

DRAWING NO:
M-111

CHECKED:
P.R.

SHEET REVISION:

NO.	DESCRIPTION	DATE
1 <td>Issued for Addendum M-02</td> <td>2024.11.08</td>	Issued for Addendum M-02	2024.11.08
2 <td>Issued for Addendum M-01</td> <td>2024.10.29</td>	Issued for Addendum M-01	2024.10.29
3 <td>Issued for Tender</td> <td>2024.10.11</td>	Issued for Tender	2024.10.11
4 <td>Issued for 100% CD</td> <td>2024.09.27</td>	Issued for 100% CD	2024.09.27
5 <td>Issued for 90% CD</td> <td>2024.09.06</td>	Issued for 90% CD	2024.09.06
6 <td>Issued for 90% CD - Permit</td> <td>2024.08.02</td>	Issued for 90% CD - Permit	2024.08.02
7 <td>Issued for 100 DD</td> <td>2024.05.10</td>	Issued for 100 DD	2024.05.10
8 <td>Issued for Design Development Progress</td> <td>2024.04.05</td>	Issued for Design Development Progress	2024.04.05
9 <td>DESIGN IN PROGRESS</td> <td>DATE</td>	DESIGN IN PROGRESS	DATE



1 LEVEL 1 FLOOR PLAN - NEW WORK - PLUMBING

KEYNOTES

- 1 SINKS TO BE TIED BACK TO PROVIDED CAPPED CONNECTION DURING PHASE 1.
- 2 FOR FUTURE FIXTURES SERVING THIS AREA
- 3 ICE MAKER BY OWNER C/W BFP. BFP TO BE LOCATED BELOW SINK. ICE MAKER TO CONNECT TO SINK P-TRAP
- 4 BFP (RP TYPE): MOUNTED AT 1M ABOVE FINISH FLOOR C/W 400X400 ACCESS PANEL
- 5 CONTRACTOR TO CONNECT ALL PLUMBING FIXTURES TO NEAREST MAIN VENT STACK. COORDINATE LOCATION ON SITE

GENERAL NOTES

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, MINISTRY OF THE ENVIRONMENT, MINISTRY OF LABOUR, THE MUNICIPALITY AND OTHER AUTHORITIES HAVING JURISDICTION WHICH ARE TO BE CONSIDERED AN INTEGRAL PART OF THE SPECIFICATION.
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- CONTRACTOR TO IDENTIFY ALL SERVICES PRIOR TO DEMOLITION.
- CONTRACTOR TO FIELD VERIFY ALL PIPE CONNECTION LOCATIONS AND ROUTING WITH BUILDING SERVICES PRIOR TO COMMENCEMENT OF WORK. NOT ALL PIPING AND DUCTWORK SHOWN FOR CLARITY.
- FOR DUST CONTROL, CAP EXISTING DUCTS IN THE CONSTRUCTION AREA. CONNECTION TO EXISTING AIR DUCTS TO BE DONE AFTER COMPLETION OF ALL DUST PRODUCING TASKS.
- PROVIDE ALL CUTTING AND PATCHING. REFER TO SPECIFICATIONS.
- REMOVE ALL REDUNDANT PIPES, CONDUITS, INCLUDING LOOSE WIRES AND DUCTWORK, CAP AT MAIN.
- PROVIDE CORING OF FLOOR SLAB SCAN OR X-RAY SLAB BEFORE CORING TO INVESTIGATE EXISTING REBAR LOCATION (TOP & BOTTOM) CUTTING EXISTING REBARS IN THE SLAB IS NOT PERMITTED.
- THE DRAWINGS AND SPECIFICATIONS ARE PROVIDING THE MINIMUM PERFORMANCE REQUIREMENTS. FIRE PROTECTION SYSTEM SHALL BE PREPARED, COMPLETE, SIGNED, AND APPROVED BY A LICENSED FIRE PROTECTION CONTRACTOR.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE CURRENT FLOW TEST INFORMATION PRIOR TO PREPARATION OF DRAWINGS AND HYDRAULIC CALCULATIONS.
- PROVIDE GUARDS ON ALL UPRIGHT SPRINKLER HEADS SUBJECT TO DAMAGE, AND ON SPRINKLER HEADS IN STORAGE ROOMS, ELECTRICAL ROOMS, IT ROOMS.
- REFER TO ARCHITECTURAL CODE COMPLIANCE PLANS FOR ALL FIRE RATED WALL PARTITIONS. PROVIDE "FIRE WRAP" TO ALL VERTICAL AND HORIZONTAL STANDPIPE THAT IS "NOT" ENCLOSED IN 2HR RATED ASSEMBLY AS PER NFPA REQUIREMENTS.
- CONTRACTOR TO PROVIDE FIRE WATCH AS REQUIRED TO MAINTAIN FIRE SAFETY OF THE CONSTRUCTION SITE SCOPE AREA.
- COORDINATE WITH BUILDING SUPERVISOR FOR APPROVAL TO SWITCH OFF VALVES FEEDING THE AREA PRIOR TO DEMOLISHING WORK.
- DRAIN THE FIRE PIPE LINE PRIOR TO COMMENCING WORK. COORDINATE ON SITE.
- REMOVE OBSOLETE SPRINKLER HEADS AND REPLACE THEM WITH PENDANT SPRINKLERS.
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- CONTRACTOR SHALL PROVIDE FIRE STOPPING ON ALL NEW PIPING AND CONDUIT PENETRATIONS THROUGH A FIRE RATED WALL OR FLOOR AND ANY HOLES THAT RESULT FROM REMOVAL OF EXISTING SERVICES THROUGH A FIRE RATED WALL OR FLOOR. FIRE STOPPING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- CONTRACTOR SHALL CUT BACK AND CAP ALL INACTIVE/DECOMMISSIONED PIPING BRANCHES TO THE NEAREST ACTIVE MAIN ON THIS FLOOR/BELOW SLAB. REPAIR/INFILL FLOOR SLAB PENETRATIONS AND MAKE GOOD. REMOVE ALL REDUNDANT PIPES, CONDUITS INCLUDING LOOSE WIRES AND DUCTWORK COMPLETE. CAP AT MAIN.
- RELOCATE OR RE-ROUTE EXISTING MECHANICAL EQUIPMENT AS REQUIRED TO ACCOMMODATE NEW WORK.

CLIENT:

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7	Issued for Addendum M-01	2024.10.29
8	Issued for Tender	2024.10.11
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3	Issued for 50% CD / Permit	2024.08.02
2	Issued for 100 DD	2024.06.10
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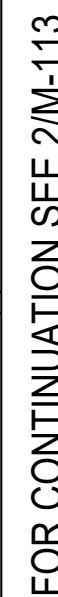
PROJECT:
Seniors Emergency Medicine Centre (SEMC) & External Corridor
Toronto Western Hospital
399 Bathurst Street, Toronto, ON, M5T 2S8

LEVEL 1 FLOOR PLAN - NEW WORK - PLUMBING

PROJECT NO: MRK-23004289
DRAWING NO: M-112
CHECKED: P.R.



2 BELOW GRADE FLOOR PLAN - PATIENT TRANSFER - NEW WORK - PLUMBING
1 : 50

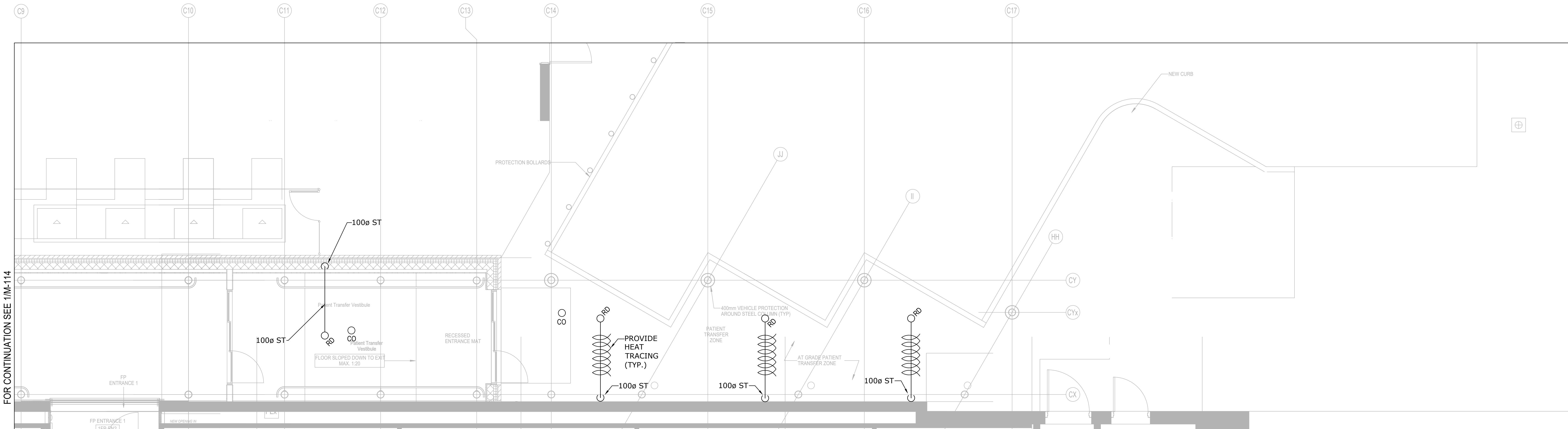


1 BELOW GRADE FLOOR PLAN - CORRIDOR - NEW WORK - PLUMBING
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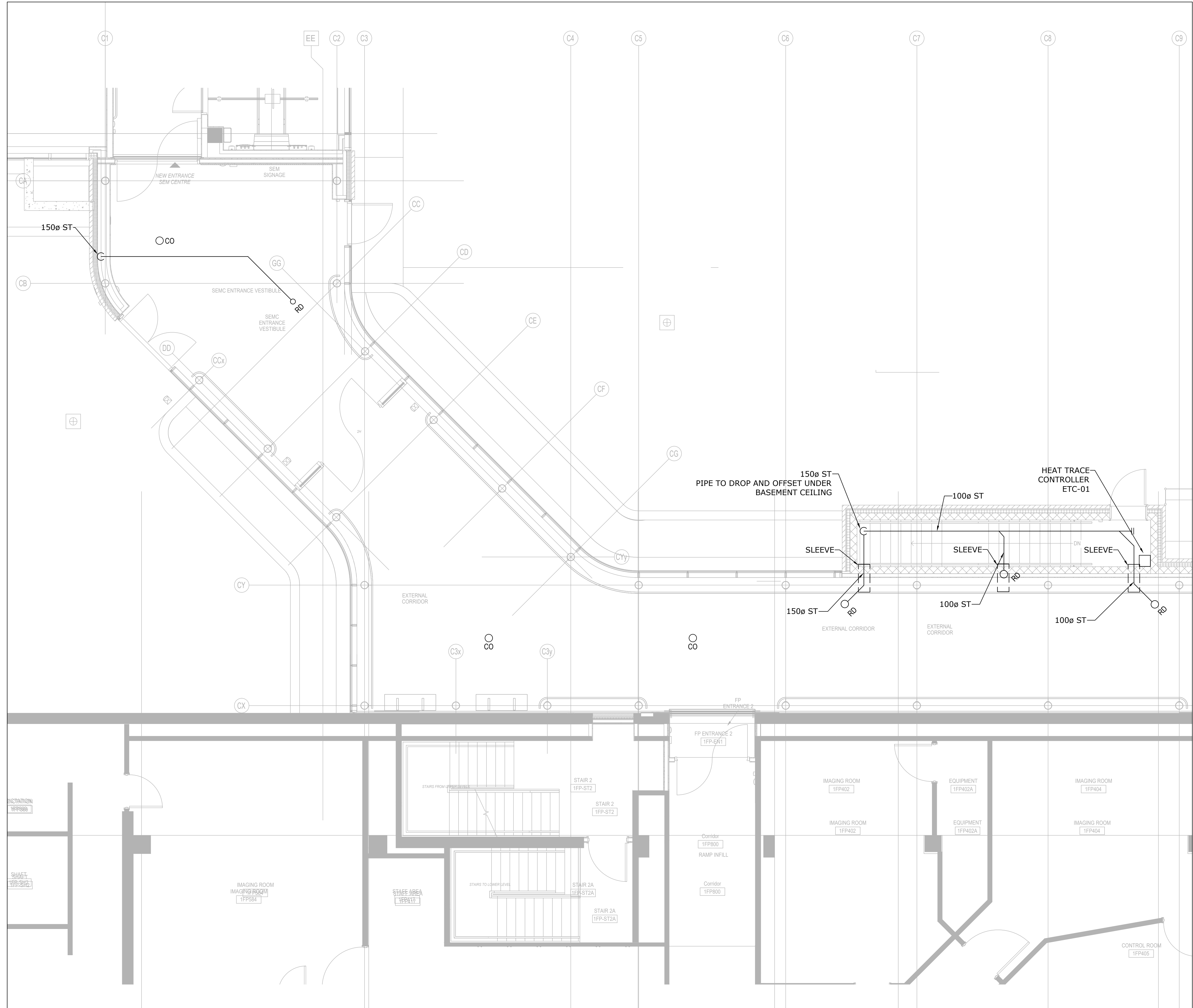
- ① CONTRACTOR TO ALLOW FOR UNDERGROUND SERVICES COORDINATION WITH OTHER TRADES. ALLOW FOR SUFFICIENT CONTINGENCY COST ALLOWANCE FOR ANY ADDITIONAL FINDINGS.
- ② CONTRACTOR TO COORDINATE TIE-IN CONNECTION AND ALLOW FOR PUMPED DISCHARGE AS REQUIRED. COORDINATE WITH UHN.
- ③ PROVIDE 50MM RIGID INSULATION AROUND CAST-IRON PIPE.

<p>A. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, MINISTRY OF THE ENVIRONMENT, MINISTRY OF LABOUR, THE MUNICIPALITY AND OTHER AUTHORITIES HAVING JURISDICTION WHICH ARE TO BE CONSIDERED AN INTEGRAL PART OF THE SPECIFICATION.</p>	<p>E. ELECTRICAL RIGGING, TIE ROOMS.</p>
<p>B. THE EXISTING SERVICES SHOWN ON THIS DRAWING HAVE BEEN TAKEN FROM THE ORIGINAL CONSTRUCTION DRAWINGS. THIS INFORMATION MUST NOT BE ASSUMED TO BE COMPLETE OR UP-TO-DATE. THE MECHANICAL SHALL CARRY OUT A FULL SURVEY OF ALL EXISTING SERVICES AND STRUCTURE TO CONFIRM THE SIZE AND LOCATION OF THESE SERVICES BEFORE THE COMMENCEMENT OF ANY WORK.</p>	<p>F. REFER TO ARCHITECTURAL CODE COMPLIANCE PLANS FOR ALL FIRE RATED WALL PARTITIONS. PROVIDE "FIRE WRAP" TO ALL VERTICAL AND HORIZONTAL STRAPINGS THAT IS NOT ENCLOSED IN 2HR RATED ASSEMBLY AS PER NFPA REQUIREMENTS.</p>
<p>C. CONTRACTOR TO IDENTIFY ALL SERVICES PRIOR TO DEMOLITION.</p>	<p>M. CONTRACTOR TO PROVIDE FIRE WATCH AS REQUIRED TO MAINTAIN FIRE SAFETY OF THE CONSTRUCTION SITE SCOPE AREA.</p>
<p>D. CONTRACTOR TO FIELD VERIFY ALL PIPE CONNECTION LOCATIONS AND ROUTING WITH BUILDING SERVICES PRIOR TO COMMENCEMENT OF WORK. NOT ALL PIPING AND DUCTWORK SHOWN FOR CLARITY.</p>	<p>N. COORDINATE WITH BUILDING SUPERVISOR FOR APPROVAL TO SWITCH OFF VALVES FEEDING THE AREA PRIOR TO DEMOLISHING WORK.</p>
<p>E. FOR DUST CONTROL, CAP EXISTING DUCTS IN THE CONSTRUCTION AREA. CONNECTION TO EXISTING AIR DUCTS TO BE DONE AFTER COMPLETION OF ALL DUST PRODUCING TASKS.</p>	<p>O. DRAIN THE FIRE PIPE LINE PRIOR TO COMMENCING WORK. COORDINATE ON SITE.</p>
<p>F. PROVIDE ALL CUTTING AND PATCHING. REFER TO SPECIFICATIONS.</p>	<p>P. REMOVE OBSOLETE SPRINKLER HEADS AND REPLACE THEM WITH PENDANT SPRINKLERS.</p>
<p>G. REMOVE ALL REDUNDANT PIPES, CONDUITS INCLUDING LOOSE WIRES AND DUCTWORK. CAP AT MAN.</p>	<p>Q. RE-ROUTE THE EXISTING PIPES TO SUIT NEW LOCATION. ADD NEW PIPES WHERE NECESSARY. CAP ANY UNUSED PIPES.</p>
<p>H. PROVIDE CORING OF FLOOR SLABS SCAN OR X-RAY SLAB BEFORE CORING TO INVESTIGATE EXISTING REBAR LOCATION (TOP & BOTTOM) CUTTING EXISTING REBARS IN THE SLAB IS NOT PERMITTED.</p>	<p>R. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SCHEDULING FOR ANY REQUIRED SHUT-DOWN WITH FACILITY. CONTRACTOR SHALL INCLUDE FOR AND DETERMINE THE BEST METHOD TO MINIMIZE SERVICE INTERRUPTION AND IMPACT ON FACILITY OPERATION. INCLUDING USE OF HOT TAP/INTERPUMP FREEZING AND AFTER-HOUR WORK AS REQUIRED.</p>
<p>I. THE DRAWINGS AND SPECIFICATIONS ARE PROVIDING THE MINIMUM PERFORMANCE REQUIREMENTS. FIRE PROTECTION SYSTEM SHALL BE PREPARED, COMPLETE, STAMPED, SIGNED, AND APPROVED BY A LICENSED FIRE PROTECTION CONTRACTOR.</p>	<p>S. CONTRACTOR SHALL PROVIDE FIRE STOPPING ON ALL NEW PIPING AND CONDUIT PENETRATIONS THROUGH A FIRE-RATED WALL OR FLOOR AND ANY HOLES THAT RESULT FROM REMOVAL OF EXISTING SERVICES THROUGH A FIRE-RATED WALL OR FLOOR. FIRE STOPPING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.</p>
<p>J. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE CURRENT FLOW TEST INFORMATION PRIOR TO PREPARATION OF DRAWINGS AND HYDRAULIC CALCULATIONS.</p>	<p>T. CONTRACTOR SHALL CUT BACK AND CAP ALL INACTIVE/DECOMMISSIONED PIPING BRANCHES TO THE NEAREST ACTIVE MAIN ON THE FLOOR/LEVEL SLAB. REPAIR/FINISH FLOOR SLAB PENETRATIONS AND MAKE GOOD. REMOVE ALL REDUNDANT PIPES, CONDUITS INCLUDING LOOSE WIRES AND DUCTWORK COMPLETE. CAP AT MAIN.</p>
	<p>U. RELOCATE OR REROUTE EXISTING MECHANICAL EQUIPMENT AS REQUIRED TO ACCOMMODATE NEW WORK.</p>

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2 LEVEL 1 FLOOR PLAN - PATIENT TRANSFER - NEW WORK - PLUMBING
1:50



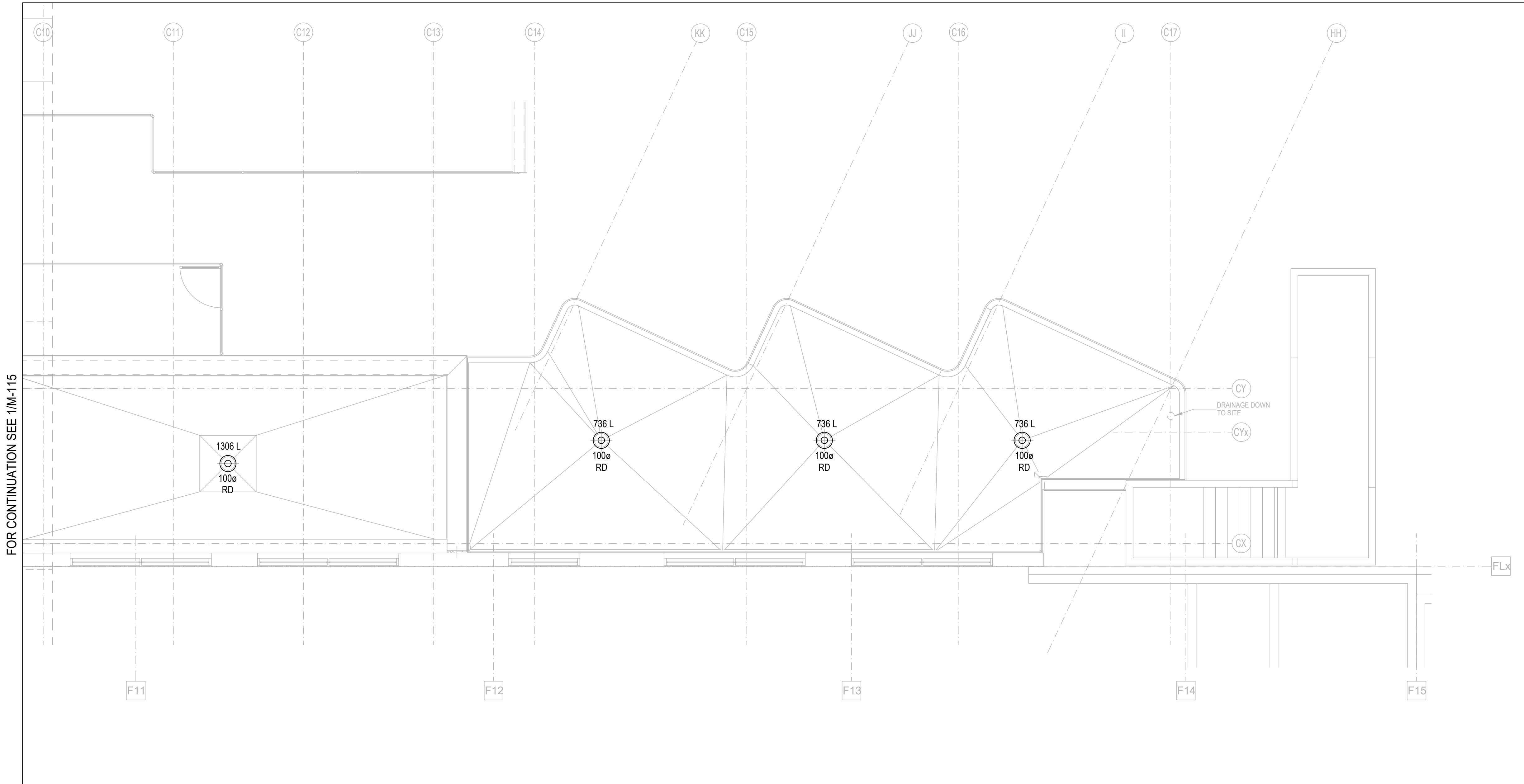
1 LEVEL 1 FLOOR PLAN - CORRIDOR - NEW WORK - PLUMBING
1:50

- GENERAL NOTES**
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, MINISTRY OF THE ENVIRONMENT, MINISTRY OF LABOUR, THE MUNICIPALITY AND OTHER AUTHORITIES HAVING JURISDICTION WHICH ARE TO BE CONSIDERED AN INTEGRAL PART OF THE SPECIFICATION.
 - THE EXISTING SERVICES SHOWN ON THIS DRAWING HAVE BEEN TAKEN FROM THE ORIGINAL CONSTRUCTION DRAWINGS. THIS INFORMATION MUST NOT BE ASSUMED TO BE COMPLETE OR UP-TO-DATE. THE MECHANICAL SHALL CARRY OUT A FULL SURVEY OF ALL EXISTING SERVICES AND STRUCTURE TO CONFIRM THE SIZE AND LOCATION OF THESE SERVICES BEFORE THE COMMENCEMENT OF ANY WORK.
 - CONTRACTOR TO IDENTIFY ALL SERVICES PRIOR TO DEMOLITION.
 - CONTRACTOR TO FIELD VERIFY ALL PIPE CONNECTION LOCATIONS AND ROUTING WITH BUILDING SERVICES PRIOR TO COMMENCEMENT OF WORK. NOT ALL PIPING AND DUCTWORK SHOWN FOR CLARITY.
 - FOR DUST CONTROL, CAP EXISTING DUCTS IN THE CONSTRUCTION AREA. CONNECTION TO EXISTING AIR DUCTS TO BE DONE AFTER COMPLETION OF ALL DUST PRODUCING TASKS.
 - PROVIDE ALL CUTTING AND PATCHING. REFER TO SPECIFICATIONS.
 - REMOVE ALL REDUNDANT PIPES, CONDUITS, INCLUDING LOOSE WIRES AND DUCTWORK, CAP AT MAIN.
 - PROVIDE CORING OF FLOOR SLAB SCAN OR X-RAY SLAB BEFORE CORING TO INVESTIGATE EXISTING REBAR LOCATION (TOP & BOTTOM). CUTTING EXISTING REBARS IN THE SLAB IS NOT PERMITTED.
 - THE DRAWINGS AND SPECIFICATIONS ARE PROVIDING THE MINIMUM PERFORMANCE REQUIREMENTS. FIRE PROTECTION SYSTEM SHALL BE PREPARED, COMPLETE, STAMPED, SIGNED, AND APPROVED BY A LICENSED FIRE PROTECTION CONTRACTOR.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE CURRENT FLOW TEST INFORMATION PRIOR TO PREPARATION OF DRAWINGS AND HYDRAULIC CALCULATIONS.
 - PROVIDE GUARDS ON ALL UPRIGHT SPRINKLERS SUBJECT TO DAMAGE, AND ON SPRINKLER HEADS IN STORAGE ROOMS, ELECTRICAL ROOMS, IT ROOMS.
 - REFER TO ARCHITECTURAL CODE COMPLIANCE PLANS FOR ALL FIRE RATED WALL PARTITIONS. PROVIDE "FIRE WRAP" TO ALL VERTICAL AND HORIZONTAL STANDPIPE THAT IS "NOT" ENCLOSED IN 2HR RATED ASSEMBLY AS PER NFPA REQUIREMENTS.
 - CONTRACTOR TO PROVIDE FIRE WATCH AS REQUIRED TO MAINTAIN FIRE SAFETY OF THE CONSTRUCTION SITE SCOPE AREA.
 - COORDINATE WITH BUILDING SUPERVISOR FOR APPROVAL TO SWITCH OFF VALVES FEEDING THE AREA PRIOR TO DEMOLISHING WORK.
 - DRAIN THE FIRE PIPE LINE PRIOR TO COMMENCING WORK. COORDINATE ON SITE.
 - REMOVE OBSOLETE SPRINKLER HEADS AND REPLACE THEM WITH PENDANT SPRINKLERS.
 - RE-ROUTE THE EXISTING PIPES TO SUIT NEW LOCATION. ADD NEW PIPES WHERE NECESSARY. CAP ANY UNUSED PIPES.
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 - CONTRACTOR SHALL CUT BACK AND CAP ALL INACTIVE/DECOMMISSIONED PIPING BRANCHES TO THE NEAREST ACTIVE MAIN ON THIS FLOOR/BELOW SLAB. REPAIR/INFILL FLOOR SLAB PENETRATIONS AND MAKE GOOD. REMOVE ALL REDUNDANT PIPES, CONDUITS INCLUDING LOOSE WIRES AND DUCTWORK COMPLETE. CAP AT MAIN.
 - RELOCATE OR REROUTE EXISTING MECHANICAL EQUIPMENT AS REQUIRED TO ACCOMMODATE NEW WORK.

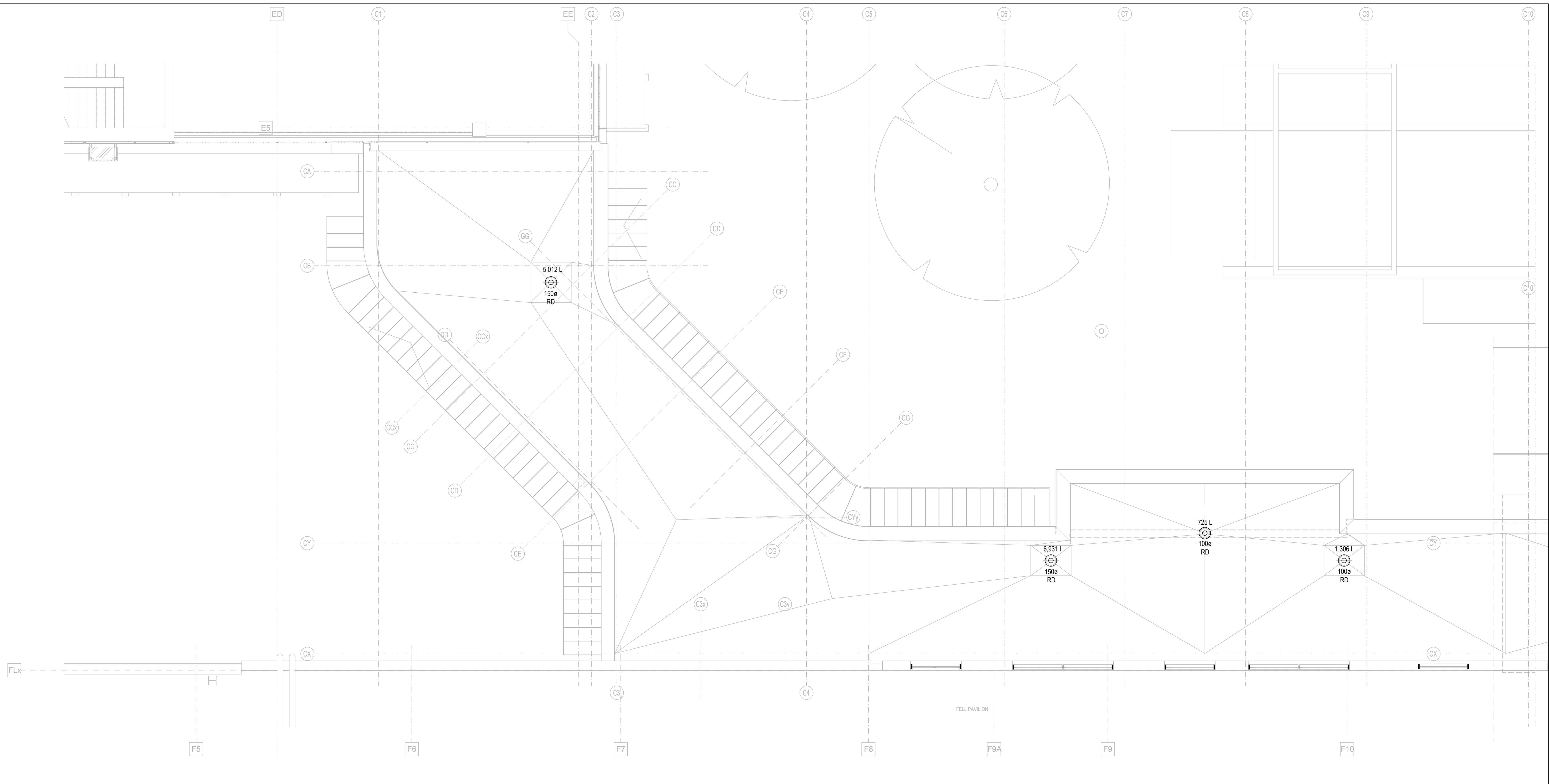
NO.	REVISION	DATE
1	Issued for Design Development Progress	2024.04.05
2	Issued for 100 DD	2024.05.10
3	Issued for 90% CD / Permit	2024.06.02
4	Issued for 90% CD	2024.06.05
5	Issued for 100% CD	2024.06.27
6	Issued for Review	2024.10.11
7	Issued for Addendum M-01	2024.10.29
8	Issued for Addendum M-02	2024.11.06

PROJECT:
Seniors Emergency Medicine Centre (SEMC) & External Corridor
Toronto Western Hospital
399 Bathurst Street, Toronto, ON, M5T 2S8

TITLE:
LEVEL 1 FLOOR PLAN - CORRIDOR - NEW WORK - PLUMBING



2 ROOF PLAN - PATIENT TRANSFER CANOPY - NEW WORK - PLUMBING
1:50



1 ROOF PLAN - CORRIDOR - NEW WORK - PLUMBING
1:50

CLIENT:

UHN University Health Network
Toronto Western Hospital
399 Bathurst Street
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www.uhn.ca

ARCHITECT:

CUMULUS ARCHITECTS INC.
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416-538-0763
www.cumulusarch.com

CONSULTANT:

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+ INDUSTRIAL + INFRASTRUCTURE + SUSTAINABILITY +

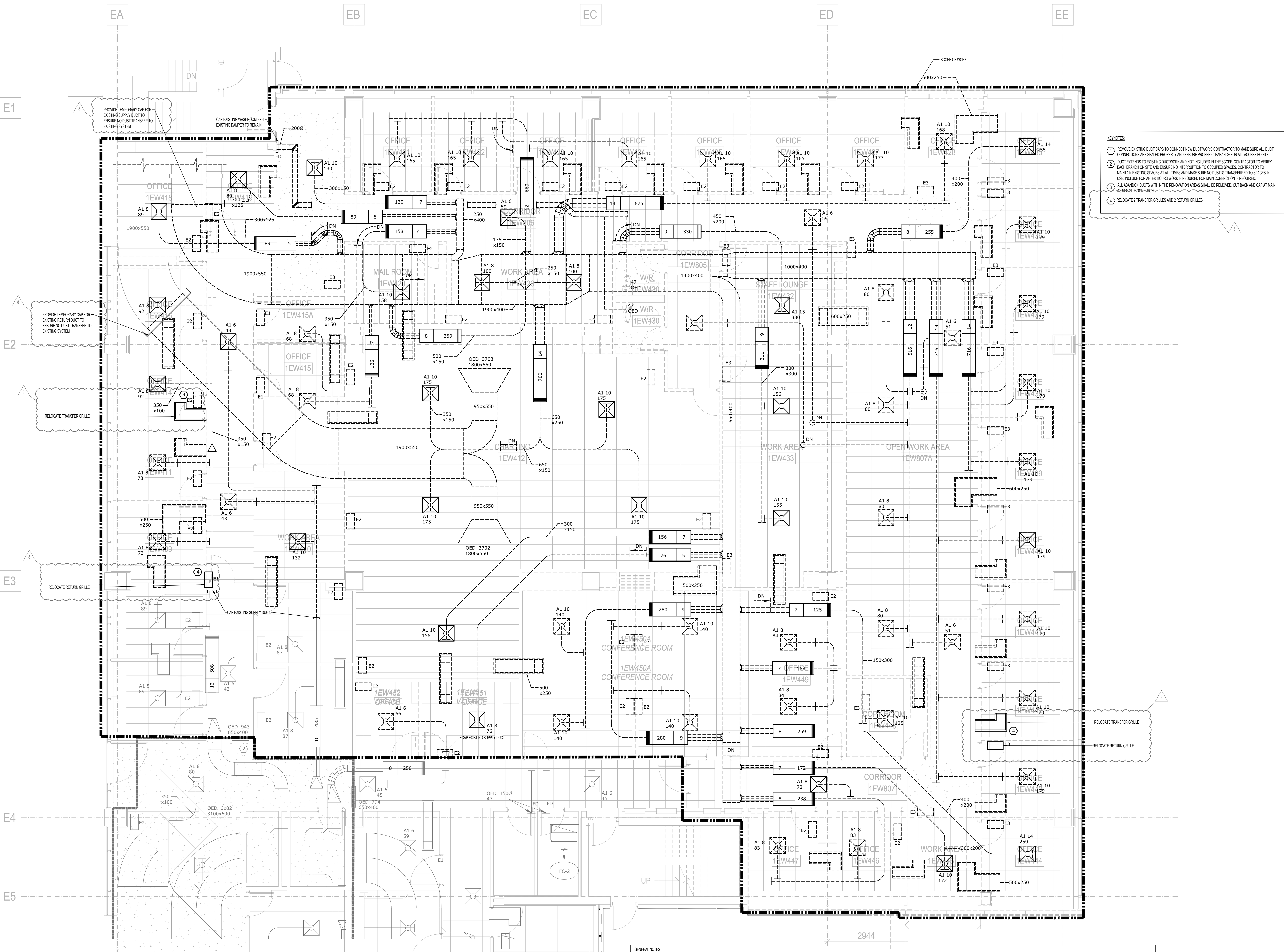
NO.	DESCRIPTION	DATE
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2	Issued for 100 DD	2024.05.10
3	Issued for 90% DD / Permit	2024.06.02
4	Issued for 90% CD	2024.06.06
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8	Issued for Addendum M-02	2024.11.06

PROJECT:
Seniors Emergency Medicine Centre (SEMC) &
External Corridor
Toronto Western Hospital
399 Bathurst Street Toronto, ON, M5T 2S8

TITLE:
ROOF PLAN - CORRIDOR - NEW WORK -
PLUMBING

PROJECT NO:
MRK-23004289
CHECKED:
S.S.

DRAWING NO:
M-115



- KEYNOTES:**
- 1 REMOVE EXISTING DUCT CAPS TO CONNECT NEW DUCT WORK. CONTRACTOR TO MAKE SURE ALL DUCT CONNECTIONS ARE SEALED PROPERLY AND ENSURE PROPER CLEARANCE FOR ALL ACCESS POINTS.
 - 2 DUCT EXTENDS TO EXISTING DUCTWORK AND NOT INCLUDED IN THE SCOPE. CONTRACTOR TO VERIFY EACH BRANCH ON SITE AND ENSURE NO INTERRUPTION TO OCCUPIED SPACES. CONTRACTOR TO MAINTAIN EXISTING SPACES AT ALL TIMES AND MAKE SURE NO DUCT IS TRANSFERRED TO SPACES IN USE. INCLUDE FOR AFTER HOURS WORK IF REQUIRED FOR HAWK CONNECTION IF REQUIRED.
 - 3 ALL ABANDON DUCTS WITHIN THE RENOVATION AREAS SHALL BE REMOVED, CUT BACK AND CAP AT MAIN AS BEARS SITE-GENERATION.
 - 4 RELOCATE 2 TRANSFER GRILLES AND 2 RETURN GRILLES.

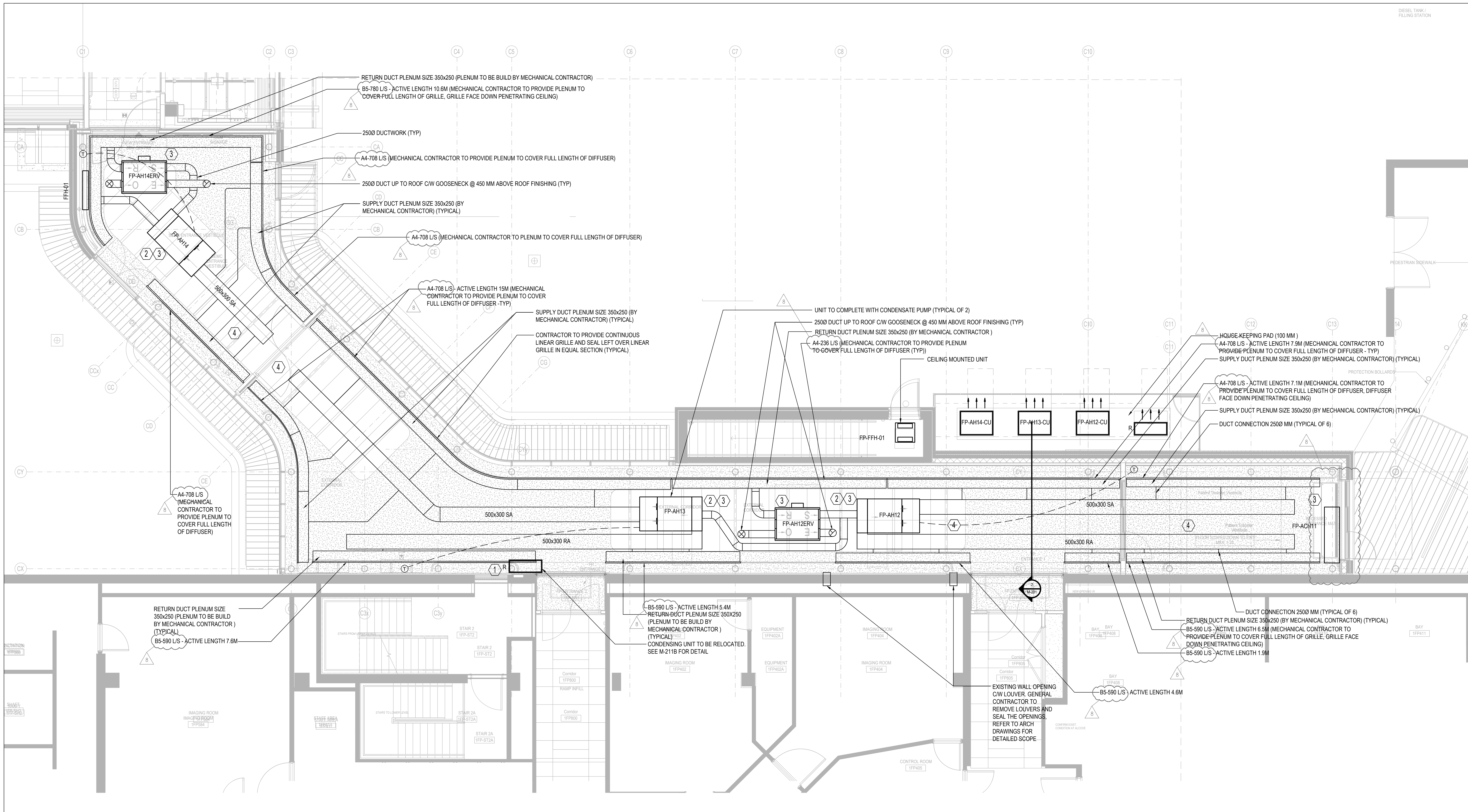
- GENERAL NOTES:**
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 - CONTRACTOR TO FIELD VERIFY ALL PIPE CONNECTION LOCATIONS AND ROUTING WITH BUILDING SERVICES PRIOR TO COMMENCEMENT OF WORK. NOT ALL PIPING AND DUCTWORK SHOWN FOR CLARITY.
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 - CONTRACTOR TO PROVIDE FIRE WATCH AS REQUIRED TO MAINTAIN FIRE SAFETY OF THE CONSTRUCTION SITE SCOPE AREA.
 - COORDINATE WITH BUILDING SUPERVISOR FOR APPROVAL TO SWITCH OFF VALVES FEEDING THE AREA PRIOR TO DEMOLISHING WORK.
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 - RELOCATE OR REMOVE EXISTING MECHANICAL EQUIPMENT AS REQUIRED TO ACCOMMODATE NEW WORK.
 - NOTE THAT ALL WORK SCOPES OUTSIDE OF SEM CENTER BOUNDARIES TO BE COMPLETED AFTER HOURS WITH IPAC CONTROL. MEASURES.

NO.	DESCRIPTION	DATE
8	Issued for Addendum M-02	2024.11.06
7	Issued for Addendum M-01	2024.10.29
6	Issued for Review	2024.10.11
5	Issued for 100% CD	2024.09.27
4	Issued for 90% CD	2024.09.09
3	Issued for 50% CD (Permit)	2024.08.02
2	Issued for 100 DD	2024.05.10
1	Issued for Design Development Progress	2024.04.05

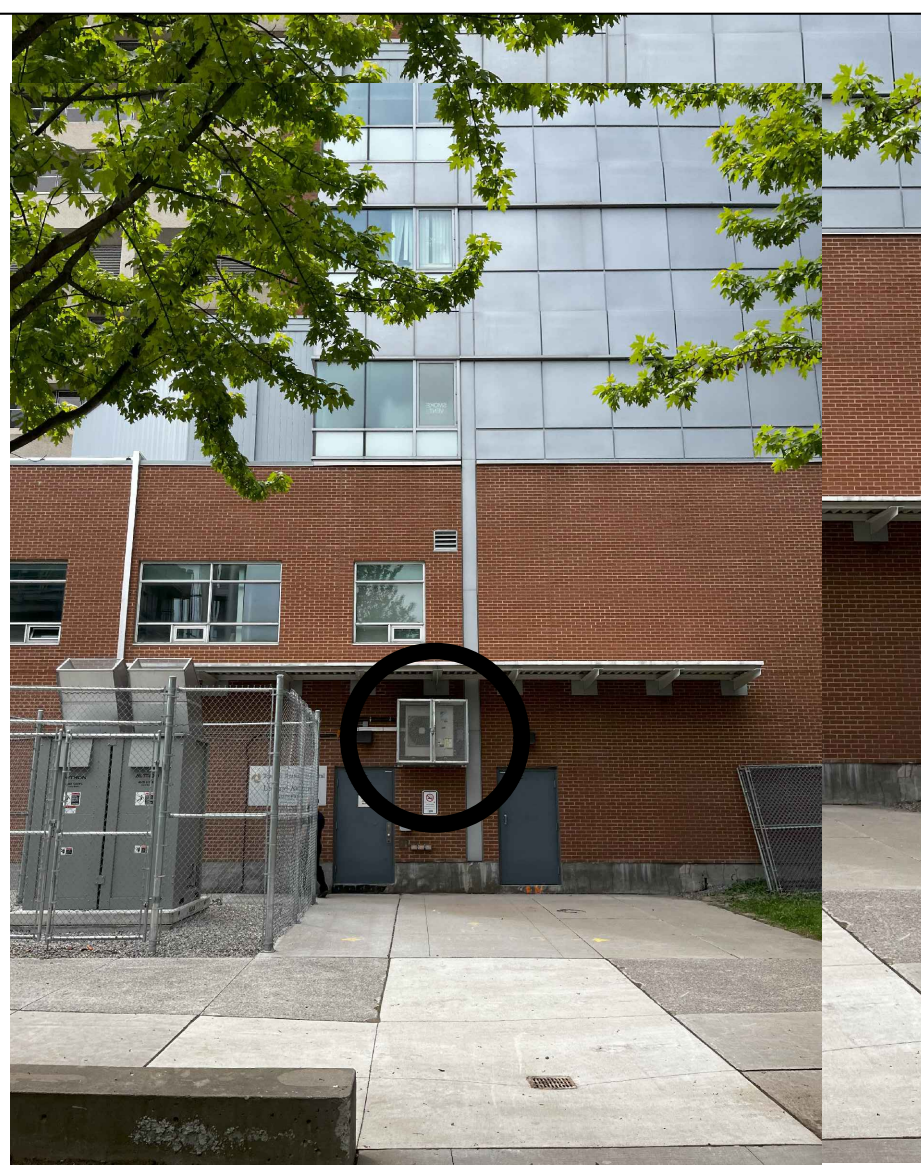
PROJECT:
Seniors Emergency Medicine Centre (SEMC) &
External Corridor
Toronto Western Hospital
399 Bathurst Street, Toronto, ON, M5T 2S8

LEVEL 1 FLOOR PLAN - DEMO - VENTILATION

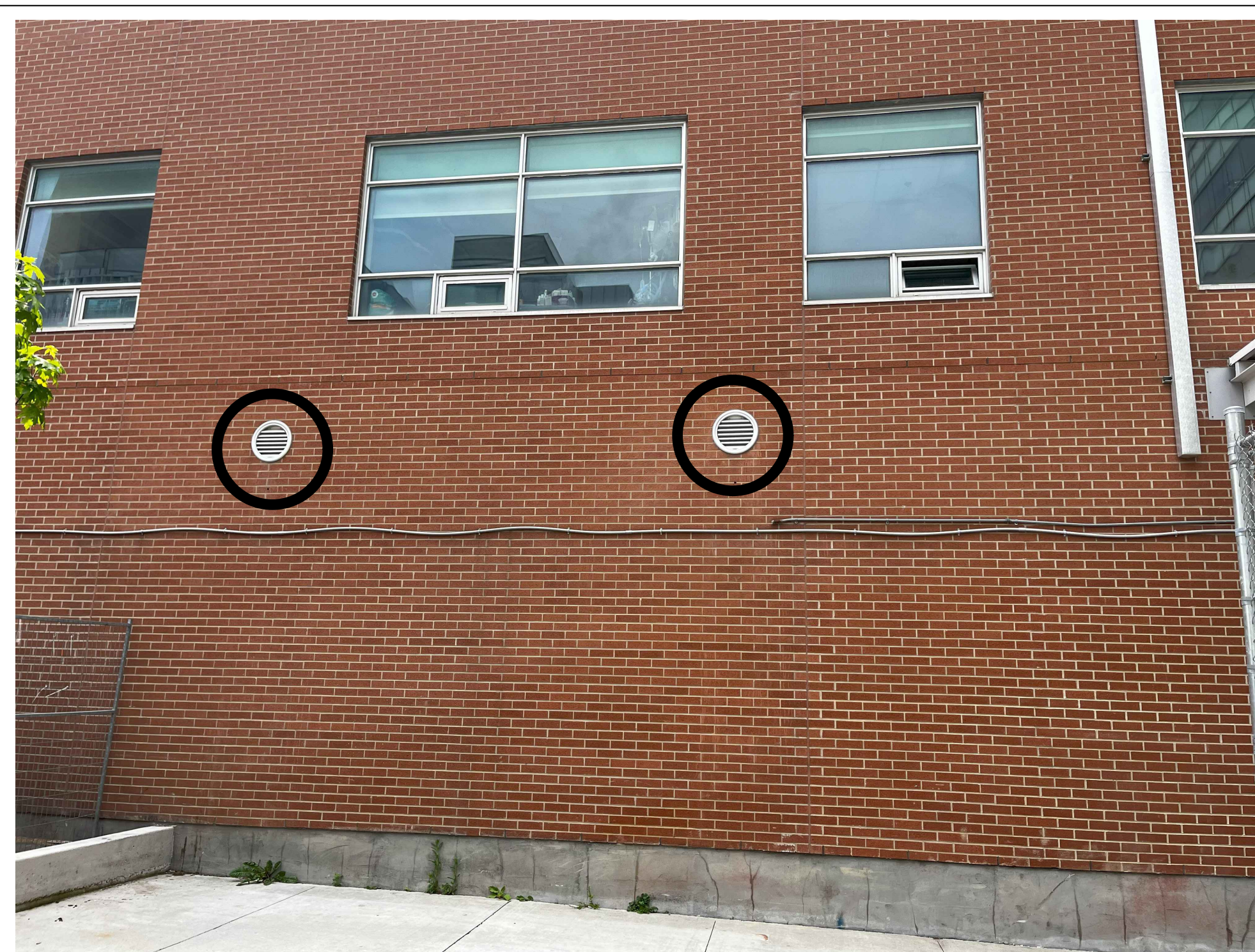




1 LEVEL 1 FLOOR PLAN - CORRIDOR - NEW WORK - VENTILATION
1:50

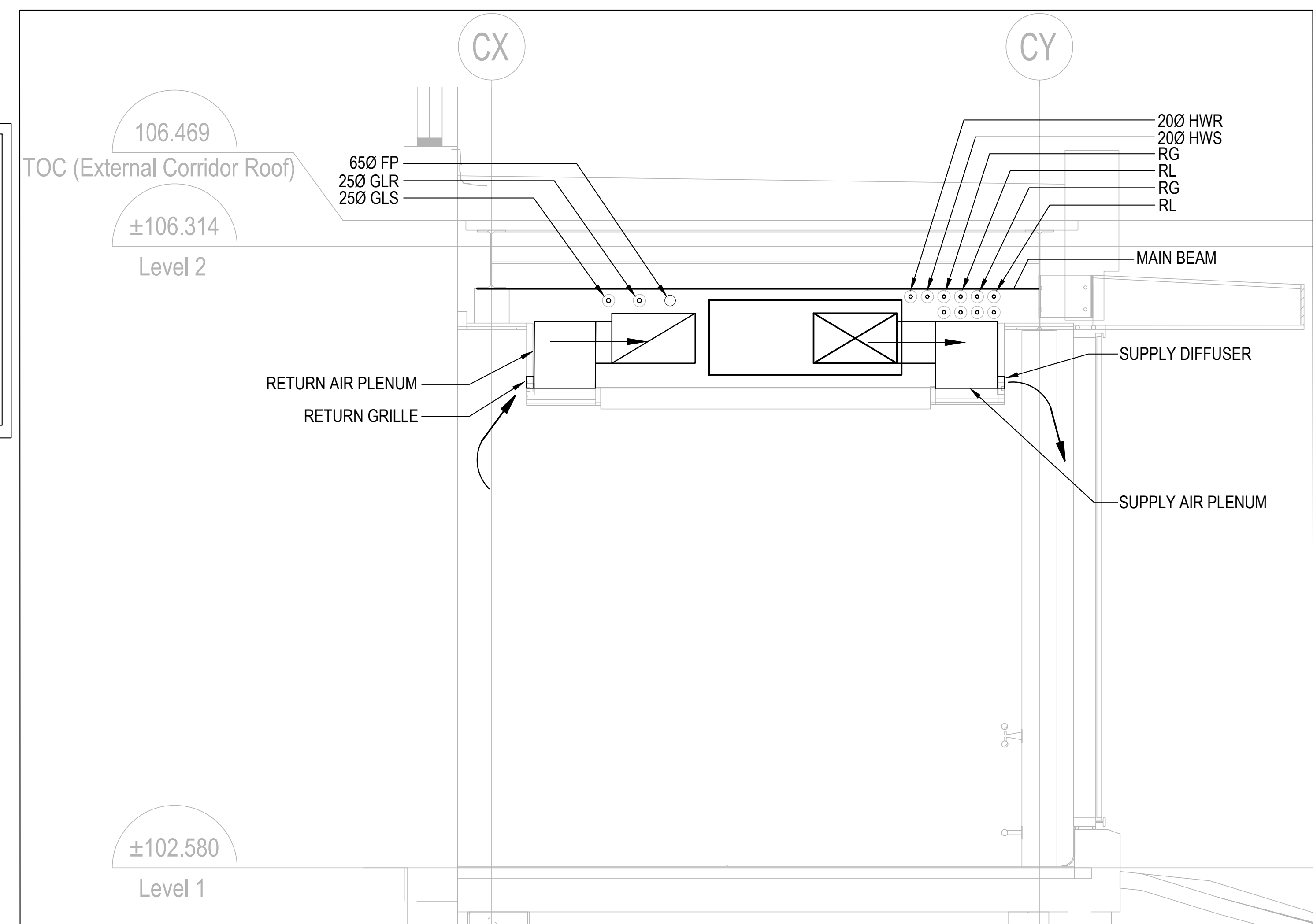


3 DETAIL: CONDENSING UNIT TO BE RELOCATED
N.T.S.



4 DETAIL: EXISTING EXHAUST GRILLES TO BE CAPPED
N.T.S.

- DRAWING NOTES:**
- EXISTING CONDENSING UNIT TO BE RELOCATED (REFER TO DETAIL 3 ON DWG No. M-211B)
 - ALL AHUs TO BE INSTALLED WITH CONDENSATE PUMP (TYPICAL OF 3)
 - ALL SERVICES TO BE INSTALLED IN SUCH A WAY THAT THE MECHANICAL EQUIPMENT CAN BE REMOVED WITHOUT REMOVING ANY SERVICES. DO NOT INSTALL ANY PIPE, CABLE, WIRE, ETC. UNDER THE MECHANICAL UNITS
 - LINEAR GRILLES ARE SIDE AND BOTTOM FACING BASED ON THE ARCH. RCP DRAWING. MECHANICAL CONTRACTOR TO COORDINATE THE INSTALLATION WITH ARCH. RCP BEFORE ORDERING THE GRILLES



2 CORRIDOR SECTION - NEW WORK - VENTILATION
1:20

CLIENT:

UHN University Health Network
Toronto Western Hospital
399 Bathurst Street
Toronto, ON M5T 2S8
www.uhn.ca

ARCHITECT:

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160 Pears Ave. - Suite 300
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www.cumulusarch.com

CONSULTANT:

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Canada
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PROJECT:

Seniors Emergency Medicine Centre (SEMC) &
External Corridor
Toronto Western Hospital
399 Bathurst Street Toronto, ON, M5T 2S8

TITLE:

LEVEL 1 FLOOR PLAN - CORRIDOR - NEW
WORK - VENTILATION

PROJECT NO:

MRK-23004289

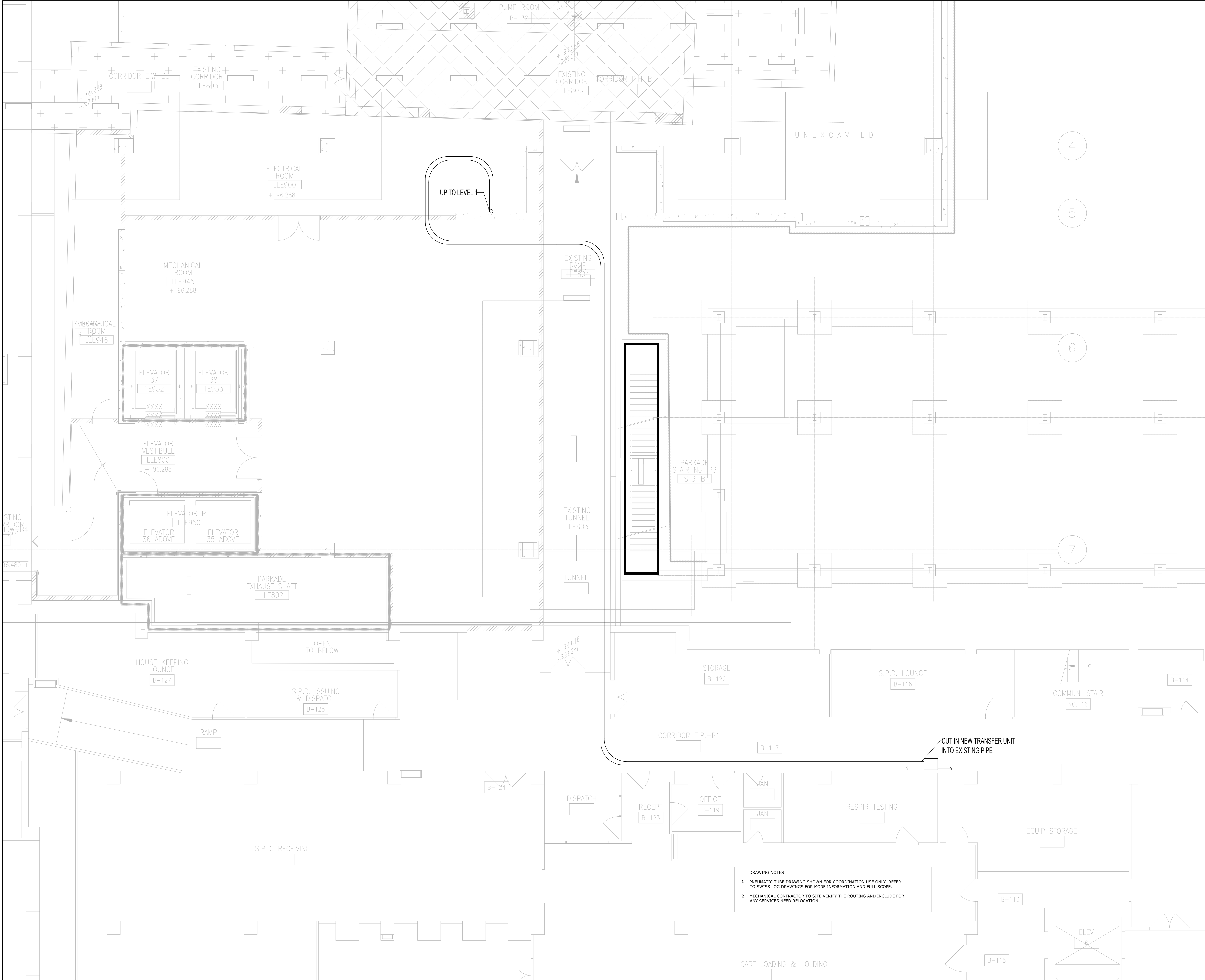
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DRAWING NO:

M-211B

8	Issued for Addendum M-02	2024.11.06
7	Issued for Addendum M-01	2024.10.29
6	Issued for Tender	2024.10.11
5	Issued for 100% CDD	2024.09.27
4	Issued for 90% CDD	2024.09.09
3	Issued for 50% CDD / Permit	2024.08.02
2	Issued for 100 DD	2024.05.10
1	Issued for Design Development Progress	2024.04.05
NO	DESCRIPTION	DATE




DRAWING NOTES

1 PNEUMATIC TUBE DRAWING SHOWN FOR COORDINATION USE ONLY. REFER TO SWISS LOG DRAWINGS FOR MORE INFORMATION AND FULL SCOPE.

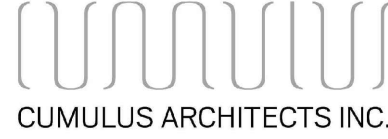
2 MECHANICAL CONTRACTOR TO SITE VERIFY THE ROUTING AND INCLUDE FOR ANY SERVICES NEED RELOCATION

CLIENT:




University Health Network
Toronto Western Hospital
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www.uhn.ca

ARCHITECT:



160 Pears Ave. - Suite 300
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3	Issued for 50% CD / Permit		2024.08.02
2	Issued for 100 DD		2024.05.10
1	Issued for Design Development Progress		2024.04.05

PROJECT:

Seniors Emergency Medicine Centre (SEMC) & External Corridor
Toronto Western Hospital
399 Bathurst Street Toronto, ON, M5T 2S8

TITLE:

BELOW GRADE FLOOR PLAN - NEW WORK
- PNEUMATIC PIPING

PROJECT NO:

MRK-23004289

DRAWING NO:

M-300A

1

BELOW GRADE FLOOR PLAN - NEW WORK - PNEUMATIC PIPING

1/50



A. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, MINISTRY OF THE ENVIRONMENT, MINISTRY OF LABOUR, THE MUNICIPALITY AND OTHER AUTHORITIES HAVING JURISDICTION WHICH ARE TO BE CONSIDERED AN INTEGRAL PART OF THE SPECIFICATION.

B. THE EXISTING SERVICES SHOWN ON THIS DRAWING ARE FOR INFORMATION. THIS INFORMATION MUST NOT BE ASSUMED TO BE COMPLETE OR UP-TO-DATE. THE CONTRACTOR SHALL CARRY OUT A FULL SURVEY OF ALL EXISTING SERVICES AND EQUIPMENT SIZE BEFORE THE COMMENCEMENT OF ANY WORK.

C. CONTRACTOR TO IDENTIFY ALL SERVICES PRIOR TO DEMOLITION.

D. PROVIDE ALL CUTTING AND PATCHING.

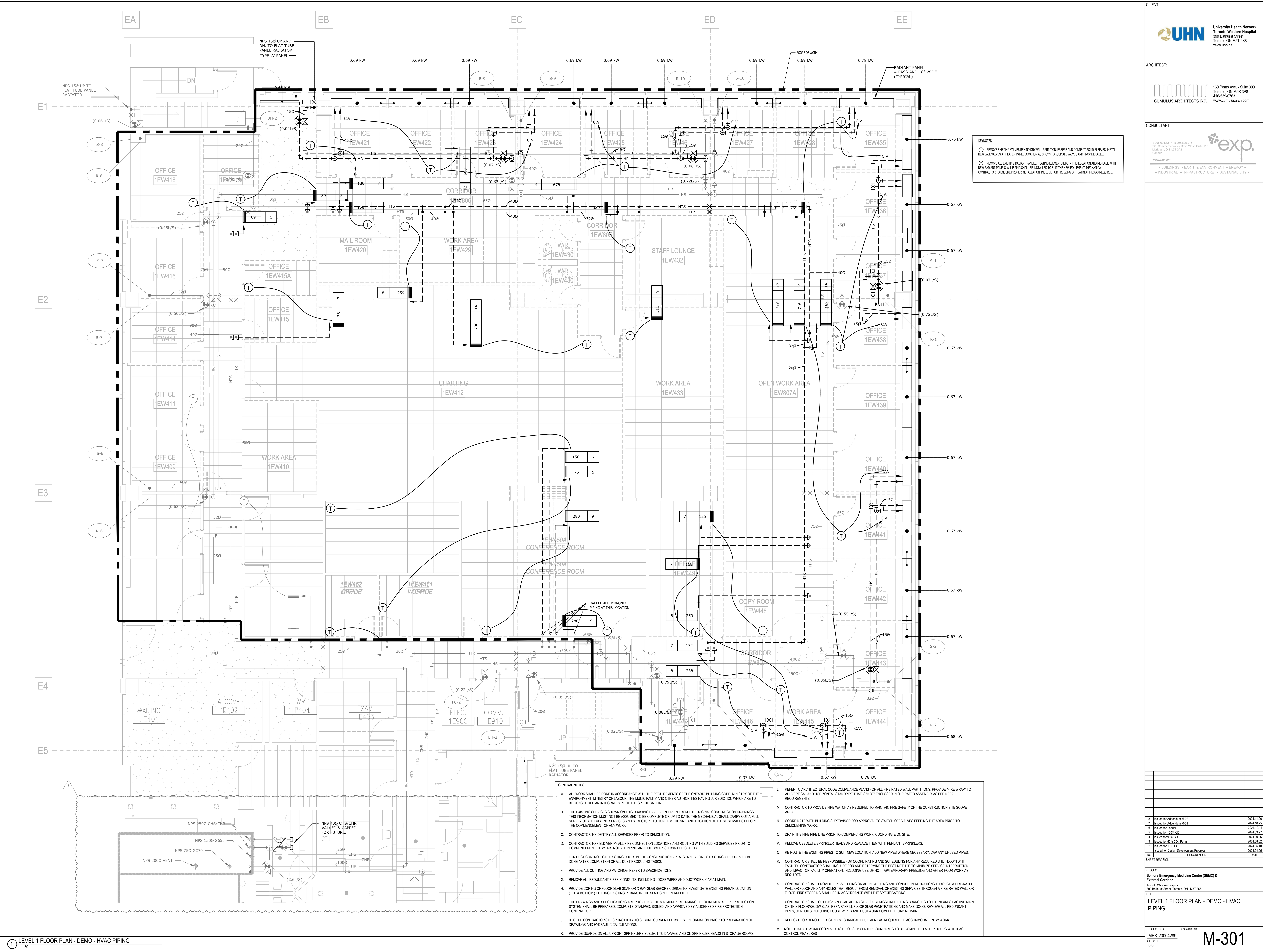
E. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SCHEDULING FOR ANY REQUIRED SHUT-DOWN WITH FACILITY CONTRACTOR AND INCLUDE FOR DETERMINING THE BEST METHOD TO MINIMIZE SERVICE INTERRUPTION AND IMPACT ON FACILITY OPERATION, INCLUDING THE TIME OF THE AFTERNOON FREEZING AND AFTER-HOURS WORK AS REQUIRED.

F. CONTRACTOR TO INCLUDE FOR ALL ANY SERVICES TO BE RELOCATED IN THE CORRIDOR CEILING IN ORDER TO INSTALL THE NEW SERVICES.

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• INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY •

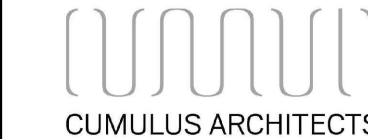
DRAFTING NO.

M-300B






University Health Network
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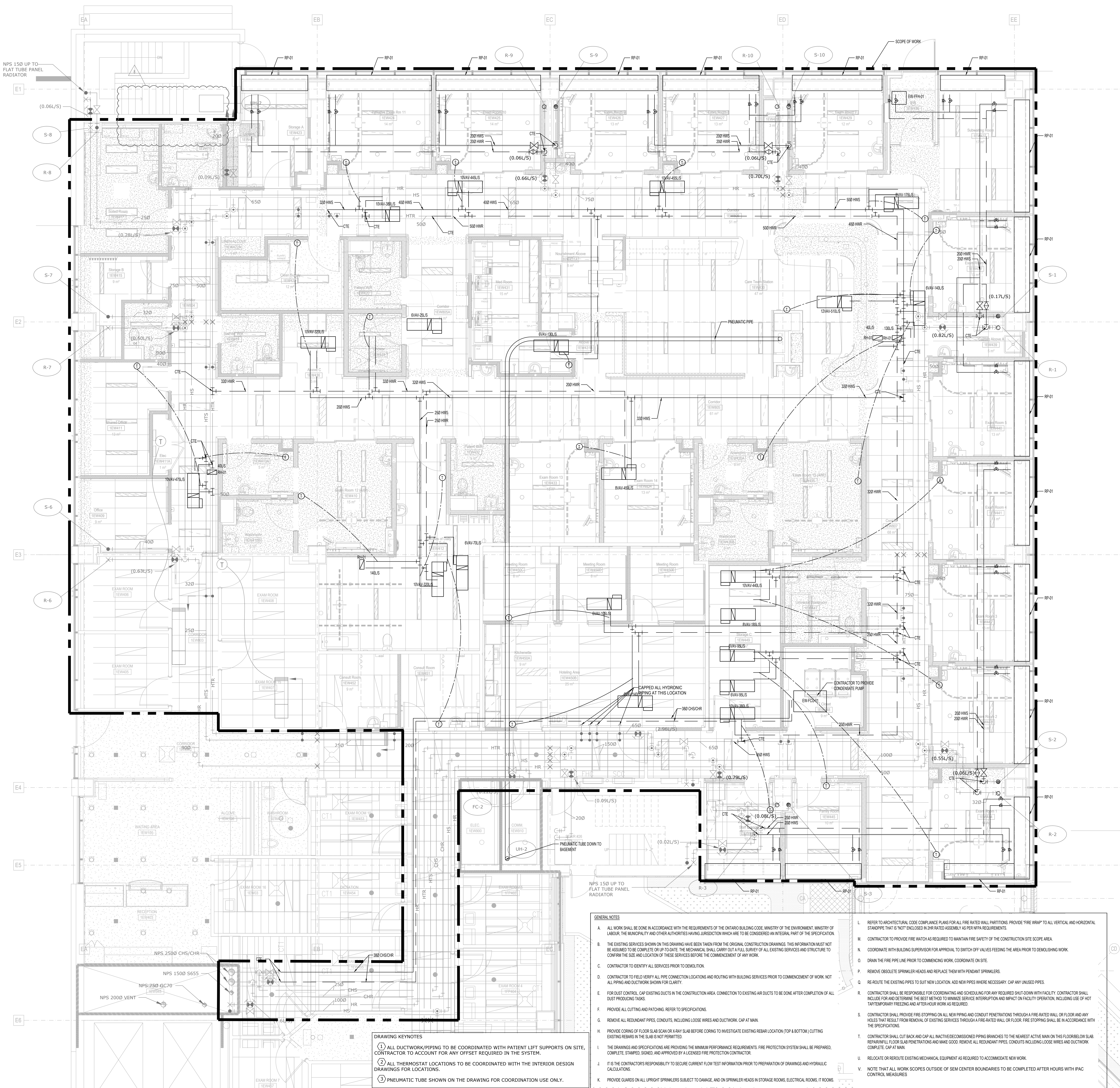
NO.	REVISION	DESCRIPTION	DATE
8	Issued for Addendum M-02		2024.11.06
7	Issued for Addendum M-01		2024.10.29
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5	Issued for 100% CDD		2024.09.27
4	Issued for 90% CDD		2024.09.09
3	Issued for 50% CDD (Prelim)		2024.08.02
2	Issued for 100 DD		2024.05.10
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NO.	DESCRIPTION	DATE	

PROJECT:
Seniors Emergency Medicine Centre (SEMC) &
External Corridor
Toronto Western Hospital
399 Bathurst Street, Toronto, ON, M5T 2S8

LEVEL 1 FLOOR PLAN - DEMO - HVAC PIPING

PROJECT NO:
MRK-23004289

DRAWING NO:
M-301



- DRAWING KEYNOTES**
1. ALL DUCTWORK/PIPPING TO BE COORDINATED WITH PATIENT LIFT SUPPORTS ON SITE, CONTRACTOR TO ACCOUNT FOR ANY OFFSET REQUIRED IN THE SYSTEM.
 2. ALL THERMOSTAT LOCATIONS TO BE COORDINATED WITH THE INTERIOR DESIGN DRAWINGS FOR LOCATIONS.
 3. PNEUMATIC TUBE SHOWN ON THE DRAWING FOR COORDINATION USE ONLY.

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 - PROVIDE CORING OF FLOOR SLAB AS SCAN OR RAY SLAB BEFORE CORING TO INVESTIGATE EXISTING REBAR LOCATION (TOP & BOTTOM). CUTTING EXISTING REBAR IN THE SLAB IS NOT PERMITTED.
 - THE DRAWINGS AND SPECIFICATIONS ARE PROVIDING THE MINIMUM PERFORMANCE REQUIREMENTS. FIRE PROTECTION SYSTEM SHALL BE PREPARED, COMPLETE, STAMPED, SIGNED, AND APPROVED BY A LICENSED FIRE PROTECTION CONTRACTOR.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE CURRENT FLOW TEST INFORMATION PRIOR TO PREPARATION OF DRAWINGS AND HYDRAULIC CALCULATIONS.
 - PROVIDE GUARDS ON ALL UPRIGHT SPRINKLERS SUBJECT TO DAMAGE, AND ON SPRINKLER HEADS IN STORAGE ROOMS, ELECTRICAL ROOMS, IT ROOMS.
 - REFER TO ARCHITECTURAL CODE COMPLIANCE PLANS FOR ALL FIRE RATED WALL PARTITIONS. PROVIDE "FIRE WRAP" TO ALL VERTICAL AND HORIZONTAL STANDOFFS THAT IS NOT ENCLOSED IN 2HR RATED ASSEMBLY AS PER NFPA REQUIREMENTS.
 - CONTRACTOR TO PROVIDE FIRE WATCH AS REQUIRED TO MAINTAIN FIRE SAFETY OF THE CONSTRUCTION SITE SCOPE AREA.
 - COORDINATE WITH BUILDING SUPERVISOR FOR APPROVAL TO SWITCH OFF VALVES FEEDING THE AREA PRIOR TO DEMOLISHING WORK.
 - DRAIN THE FIRE PIPE LINE PRIOR TO COMMENCING WORK. COORDINATE ON SITE.
 - REMOVE OBSOLETE SPRINKLER HEADS AND REPLACE THEM WITH PENDANT SPRINKLERS.
 - RE-ROUTE THE EXISTING PIPES TO SUIT NEW LOCATION. ADD NEW PIPES WHERE NECESSARY. CAP ANY UNUSED PIPES.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SCHEDULING FOR ANY REQUIRED SHUT-DOWN WITH FACILITY. CONTRACTOR SHALL INCLUDE FOR AND DETERMINE THE BEST METHOD TO MINIMIZE SERVICE INTERRUPTION AND IMPACT ON FACILITY OPERATION, INCLUDING USE OF HOT TAP/TEMPORARY FREEZING AND AFTER-HOURS WORK AS REQUIRED.
 - CONTRACTOR SHALL PROVIDE FIRE STOPPING ON ALL NEW PIPING AND CONDUIT PENETRATIONS THROUGH A FIRE-RATED WALL OR FLOOR AND ANY HOLES THAT RESULT FROM REMOVAL OF EXISTING SERVICES THROUGH A FIRE-RATED WALL OR FLOOR. FIRE STOPPING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
 - CONTRACTOR SHALL CUT BACK AND CAP ALL UNWANTED/COMMISSIONED PIPING BRANCHES TO THE NEAREST ACTIVE MAIN ON THIS FLOOR/BELOW SLAB. REPAIR/FULL FLOOR SLAB PENETRATIONS AND MAKE GOOD. REMOVE ALL REDUNDANT PIPES, CONDUCITS INCLUDING LOOSE WIRES AND DUCTWORK. COMPLETE. CAP AT MAIN.
 - RELOCATE OR REROUTE EXISTING MECHANICAL EQUIPMENT AS REQUIRED TO ACCOMMODATE NEW WORK.
 - NOTE THAT ALL WORK SCOPES OUTSIDE OF SEM CENTER BOUNDARIES TO BE COMPLETED AFTER HOURS WITH IPAC CONTROL MEASURES.

CLIENT:

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NO.	DESCRIPTION	DATE

PROJECT:

Seniors Emergency Medicine Centre (SEMC) & External Corridor
Toronto Western Hospital
399 Bathurst Street, Toronto, ON, M5T 2S8

TITLE:

LEVEL 1 FLOOR PLAN - NEW WORK - HVAC PIPING

PROJECT NO:

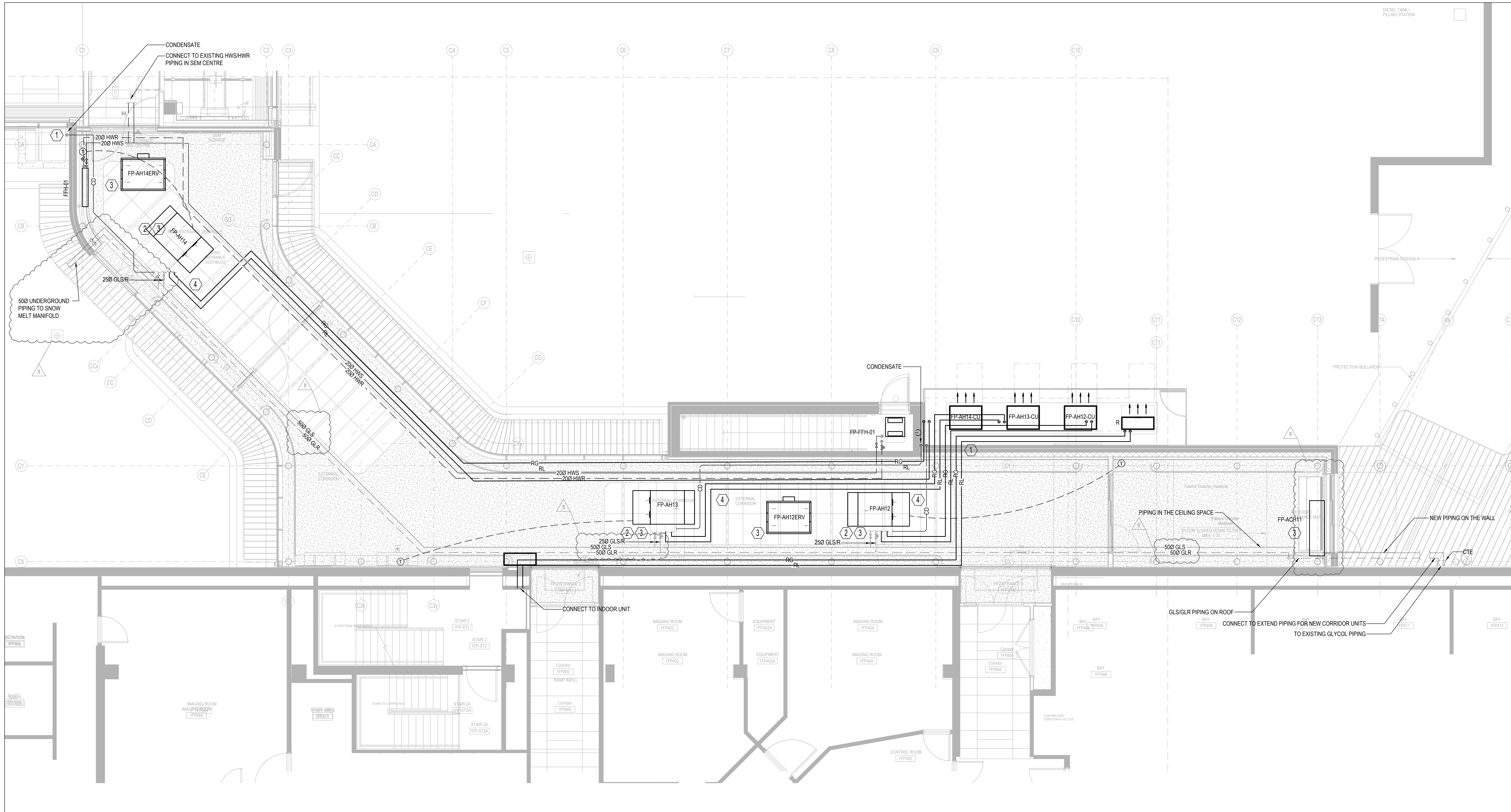
MRK-23004289

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DRAWING NO:

M-311A



1 LEVEL 1 FLOOR PLAN - CORRIDOR - NEW WORK - PIPING
1:50

- DRAWING NOTES:
- 1 CONTRACTOR TO INSTALL ALL PIPING TO CONDENSER UNIT CLOSE TO THE WALL. PIPES SHOWN FOR SCOPE CLARIFICATION
 - 2 ALL AHUs TO BE INSTALLED WITH CONDENSATE PUMP (TYPICAL OF 3)
 - 3 ALL SERVICES TO BE INSTALLED IN SUCH A WAY THAT THE MECHANICAL EQUIPMENT CAN BE REMOVED WITHOUT REMOVING ANY SERVICES. DO NOT INSTALL ANY PIPE, CABLE, WIRE, ETC. UNDER THE MECHANICAL UNITS
 - 4 THE PIPING SHALL BE COORDINATED WITH EQUIPMENT LOCATION AND INSTALL AROUND THE UNITS

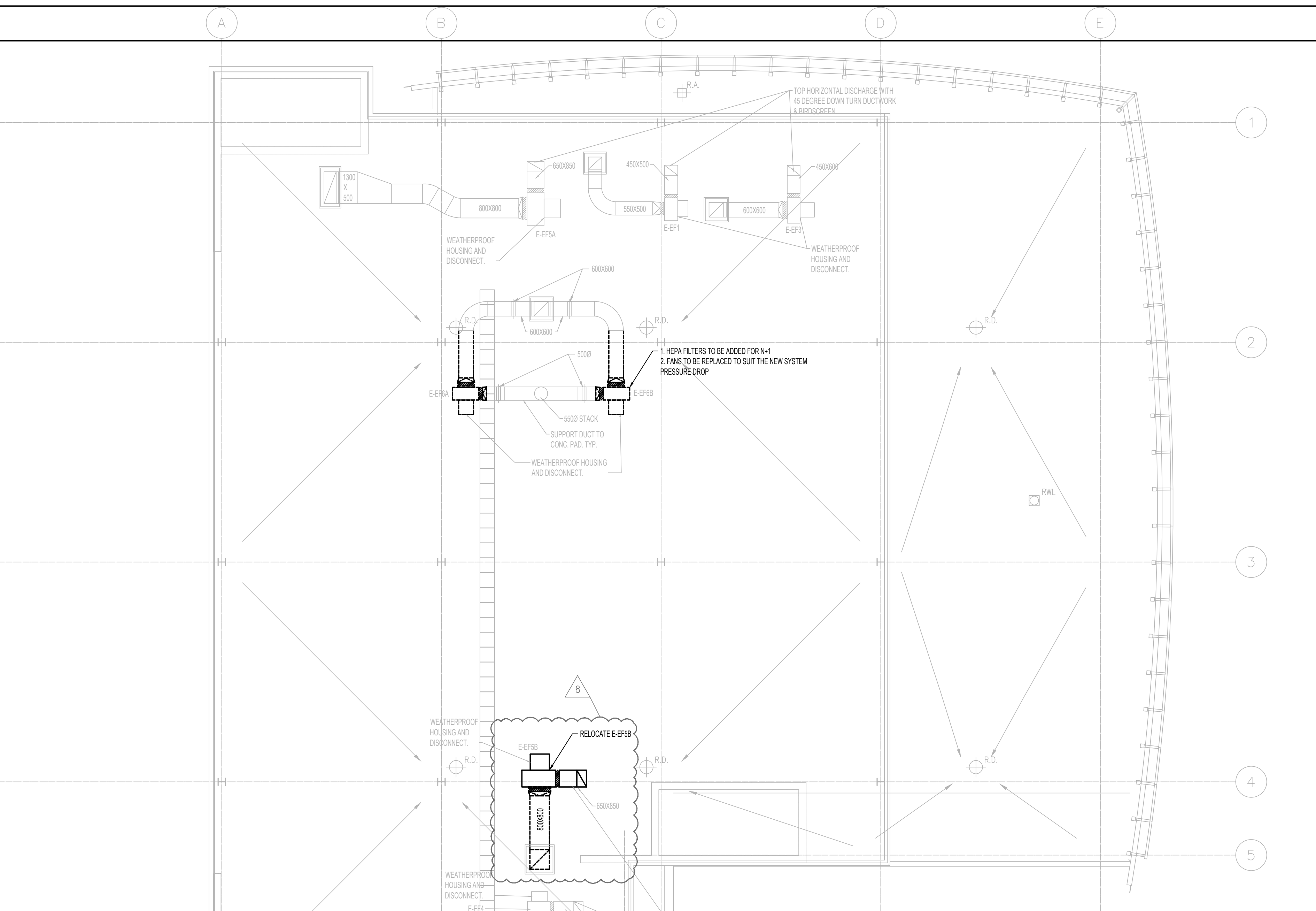
NO.	DESCRIPTION	DATE
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PROJECT:
Seniors Emergency Medicine Centre (SEMC) &
External Corridor
Toronto Western Hospital
399 Bathurst Street Toronto, ON, M5T 2S8

TITLE:
LEVEL 1 FLOOR PLAN - CORRIDOR - NEW
WORK - PIPING

PROJECT NO:
MRK-23004289
CHECKED:
S.S.

DRAWING NO:
M-311B



3D FLOOR PLAN - NEW WORK - HVAC

1: 100

CONTRACTOR TO PROVIDE NEW SUPPORT AND DUCT WORK TO MATCH EXISTING DISCONNECT AND RELOCATE THE FAN DUCT WORK AND SUPPORTS AS READY TO MINIMIZE THE DOWN TIME INCLUDE FOR AFTER HOUR/WEKEND TIME FOR RELOCATION CONTRACTOR TO COORDINATE FOR DOWN TIME

HEPA FILTER ASSEMBLY (STACKED WITH 2N CONFIGURATION)

1 BELOW GRADE FLOOR PLAN - NEW WORK - FIRE PROTECTION

NOTE: CONTRACTOR TO SUBMIT SPRINKLER SHOP DRAWINGS WITH THE ENGINEER'S STAMP AND THE HYDRAULIC LOAD CALCULATIONS TO THE CITY AS PART OF PERMIT SUBMISSION.

FIRE PROTECTION SYSTEM SHALL BE IN ACCORDANCE WITH AND SUBJECT TO NFPA AND OBC REGULATIONS.

FIRE PROTECTION NOTES

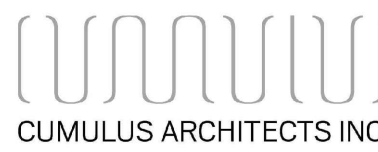
1. CONTRACTOR TO INCLUDE FOR ALL OFFSETS REQUIRED FOR COORDINATION WITH MECHANICAL AND ELECTRICAL SERVICES. THE OFFSETTING INCLUDES ALL HVAC, HYDRONICS, PLUMBING AND FIRE PROTECTION SERVICES.
2. THE DRAWINGS AND SPECIFICATIONS ARE PROVIDING THE MINIMUM PERFORMANCE REQUIREMENTS. THE FIRE PROTECTION SYSTEM SHALL BE PREPARED, COORDINATE, STAMPED, SIGNED AND APPROVED BY A LICENSED SPRINKLER CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY FOR THE FLOW TEST INFORMATION PRIOR TO PREPARATION OF DRAWINGS AND HYDRAULIC CALCULATIONS.
3. CONTRACTOR TO PROVIDE FIRE WATCH AS REQUIRED TO MAINTAIN FIRE SAFETY OF THE CONSTRUCTION SITE SCPE AREA.
4. THE CONTRACTOR SHALL PROVIDE FIRE STOPPING ON ALL NEW PIPING AND CONDUIT PENETRATIONS THROUGH A FIRE-RATED WALL, OR FLOOR AND ANY HOLES THAT RESULT FROM REMOVAL OF EXISTING SERVICES THROUGH A FIRE-RATED WALL OR FLOOR.
5. COORDINATE WITH HOSPITAL OF SHUTTING DOWN AND DRAINING FIRE LINE PRIOR TO COMMENCING NEW WORK. PROVIDE FIRE WATCH AS REQUIRED FOR ALL BUILDING SAFETY DURING SPRINKLER MAIN PIPE REMOVAL.
6. SPRINKLER PIPES SHALL NOT BE INSTALLED BENEATH CEILING MOUNTED MECHANICAL EQUIPMENT.

CLIENT:



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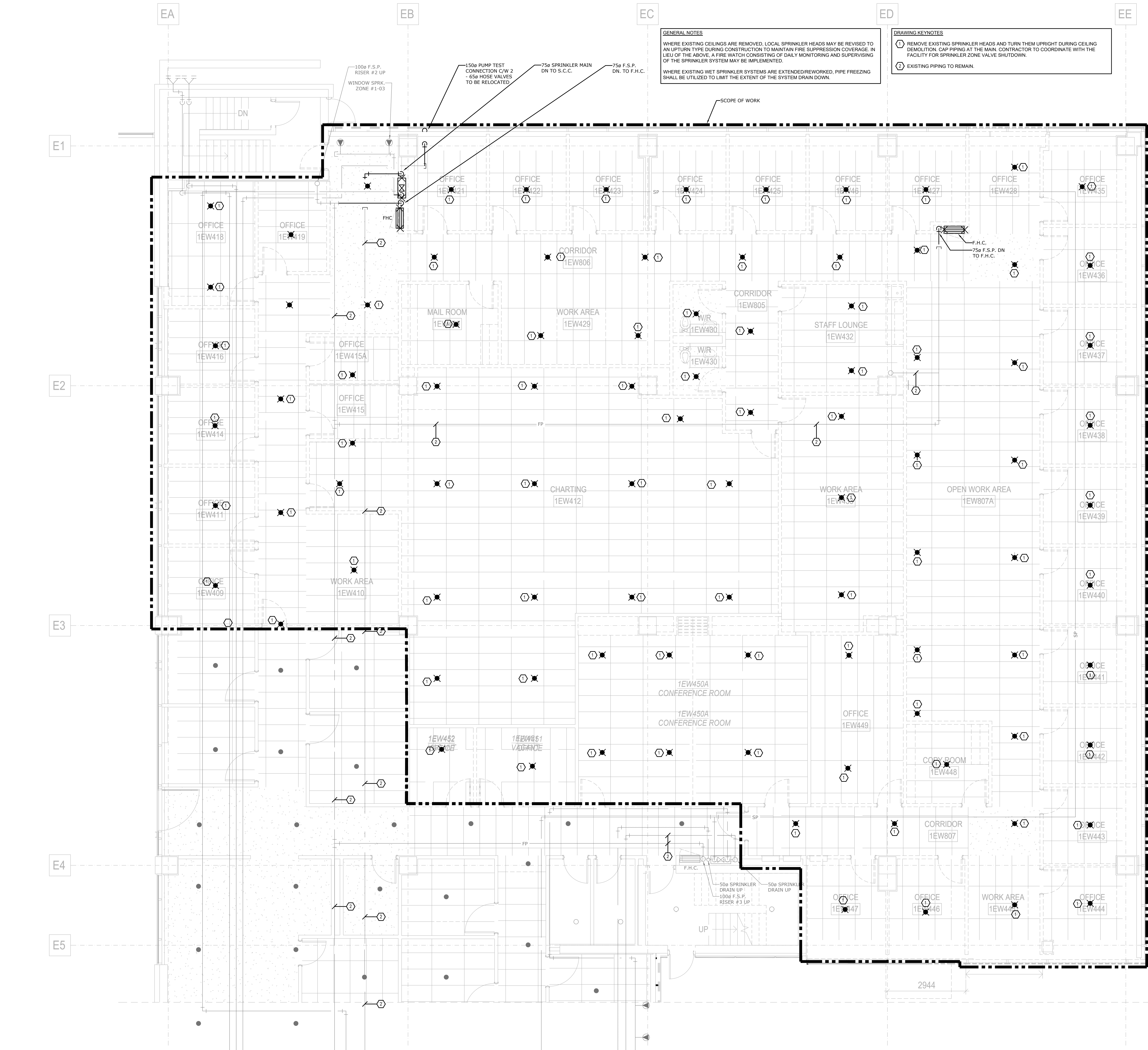
PROJECT:
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External Corridor**
Toronto Western Hospital
359 Bathurst Street Toronto, ON. M5T 2S8

BELOW GRADE FLOOR PLAN - NEW WORK
- FIRE PROTECTION

PROJECT NO:
MRK-2300
CHECKED:
S.S

DRAWING NO.

M-400



GENERAL NOTES

WHERE EXISTING CEILINGS ARE REMOVED, LOCAL SPRINKLER HEADS MAY BE REVISED TO AN UPTURN TYPE DURING CONSTRUCTION TO MAINTAIN FIRE SUPPRESSION COVERAGE. IN LIEU OF THE ABOVE, A FIRE WATCH CONSISTING OF DAILY MONITORING AND SUPERVISING OF THE SPRINKLER SYSTEM MAY BE IMPLEMENTED.

WHERE EXISTING WET SPRINKLER SYSTEMS ARE EXTENDED/REWORKED, PIPE FREEZING SHALL BE UTILIZED TO LIMIT THE EXTENT OF THE SYSTEM DRAIN DOWN.

DRAWING KEYNOTES

① REMOVE EXISTING SPRINKLER HEADS AND TURN THEM UPRIGHT DURING CEILING DEMOLITION. CAP PIPING AT THE MAIN. CONTRACTOR TO COORDINATE WITH THE FACILITY FOR SPRINKLER ZONE VALVE SHUTDOWN.

② EXISTING PIPING TO REMAIN.

① LEVEL 1 FLOOR PLAN - DEMO - FIRE PROTECTION
1:50

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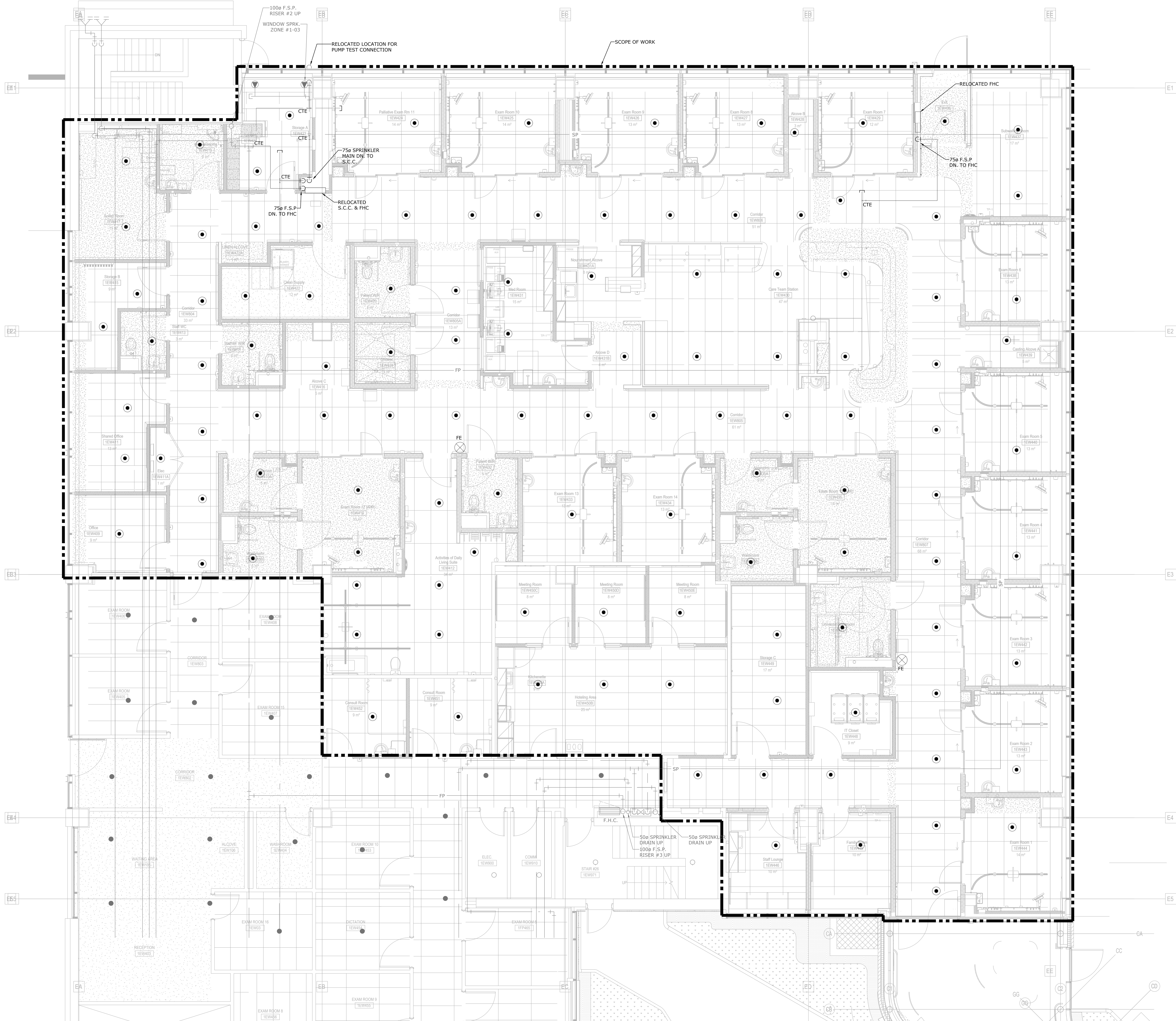
PROJECT:
Seniors Emergency Medicine Centre (SEMC) &
External Corridor
Toronto Western Hospital
399 Bathurst Street, Toronto, ON, M5T 2S8

TITLE:
LEVEL 1 FLOOR PLAN - DEMO - FIRE PROTECTION

PROJECT NO:
MRK-23004289

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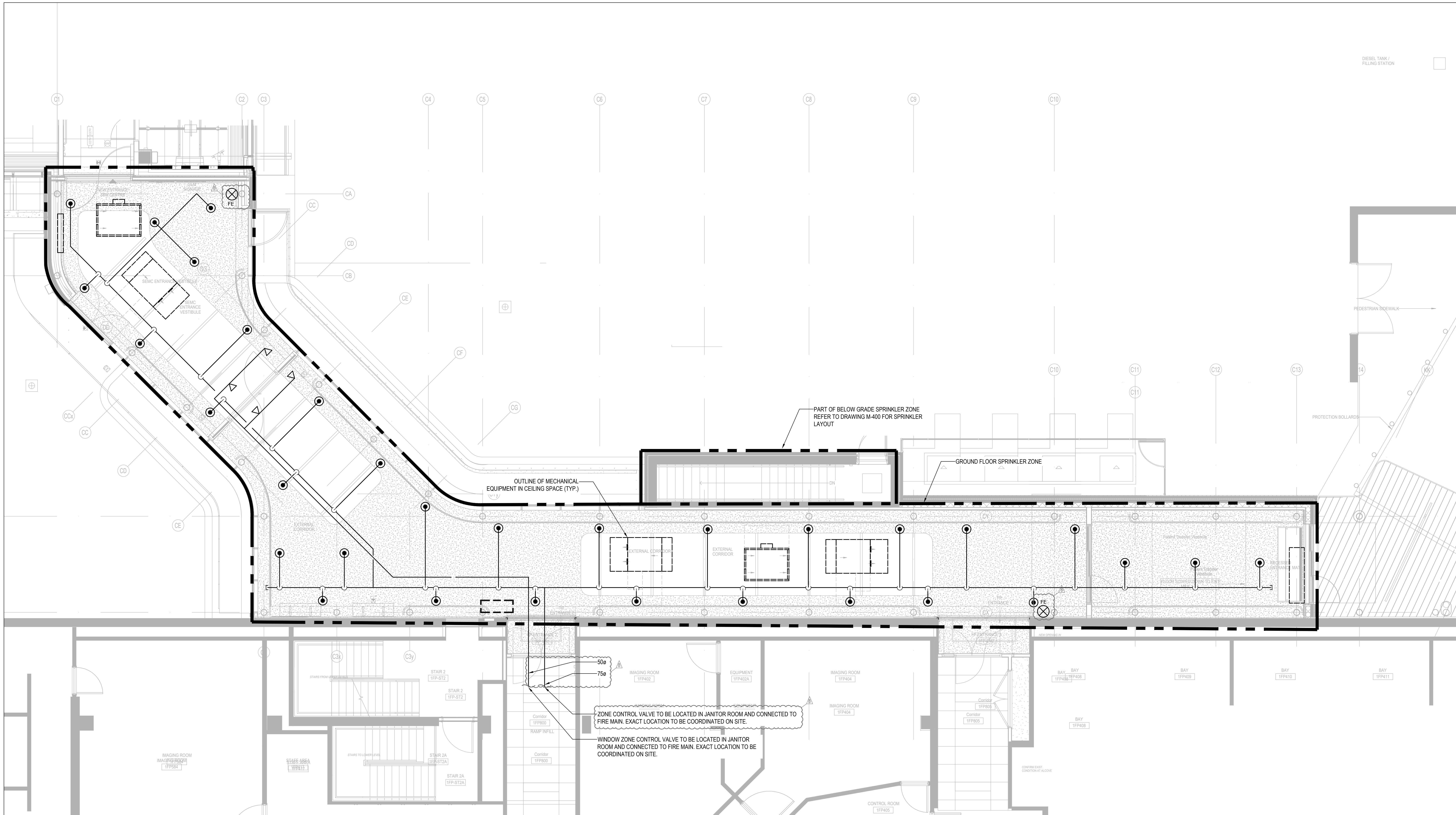
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PROJECT:
Seniors Emergency Medicine Centre (SEMC) &
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Toronto Western Hospital
399 Bathurst Street Toronto, ON M5T 2S8

LEVEL 1 FLOOR PLAN - NEW WORK - FIRE PROTECTION



1 LEVEL 1 FLOOR PLAN - CORRIDOR - NEW WORK - FIRE PROTECTION
1:50

NOTE: CONTRACTOR TO SUBMIT SPRINKLER SHOP DRAWINGS WITH THE ENGINEER'S STAMP AND THE HYDRAULIC LOAD CALCULATIONS TO THE CITY AS PART OF PERMIT SUBMISSION.

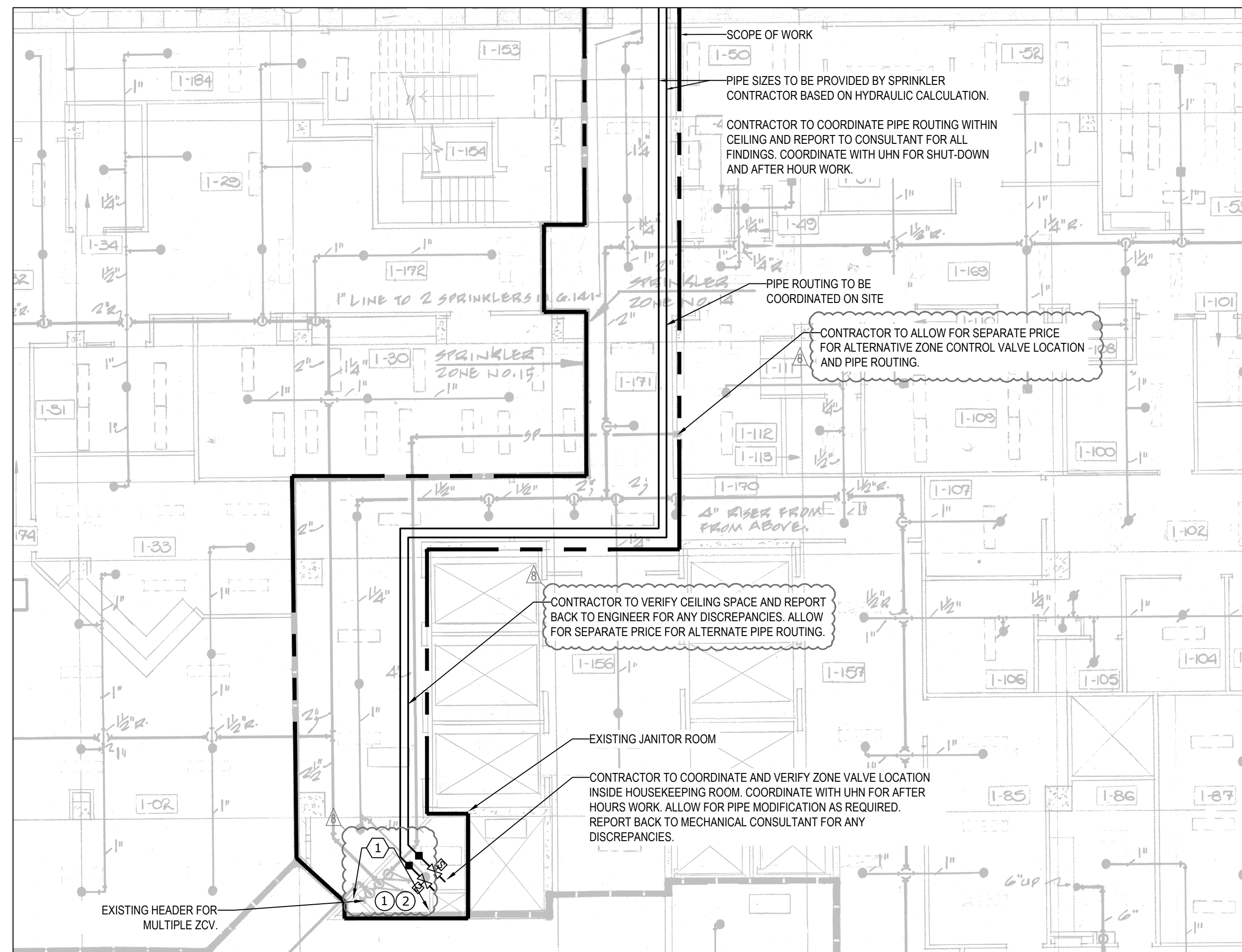
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FIRE PROTECTION NOTES

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- SPRINKLER PIPES SHALL NOT BE INSTALLED BENEATH CEILING MOUNTED MECHANICAL EQUIPMENT.

KEYNOTES

- CONTRACTOR TO INCLUDE FOR FLUSHING AND SCOPING OF EXISTING HUB DRAIN AND HOUSEKEEPING DRAIN (MIN 30" Ø) AND PROVIDE THE UPDATED REPORT C/W PICTURES FOR THE DRAINAGE SYSTEM.



2 EXISTING AS-BUILT DRAWING - SPRINKLER FIRST FLOOR PLAN
1:100



PHOTO REFERENCE 1
3 JANITOR ROOM HEADER
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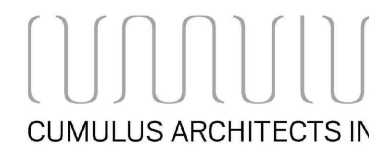
PHOTO REFERENCE 2
4 JANITOR ROOM HEADER
N.T.S.

CLIENT:



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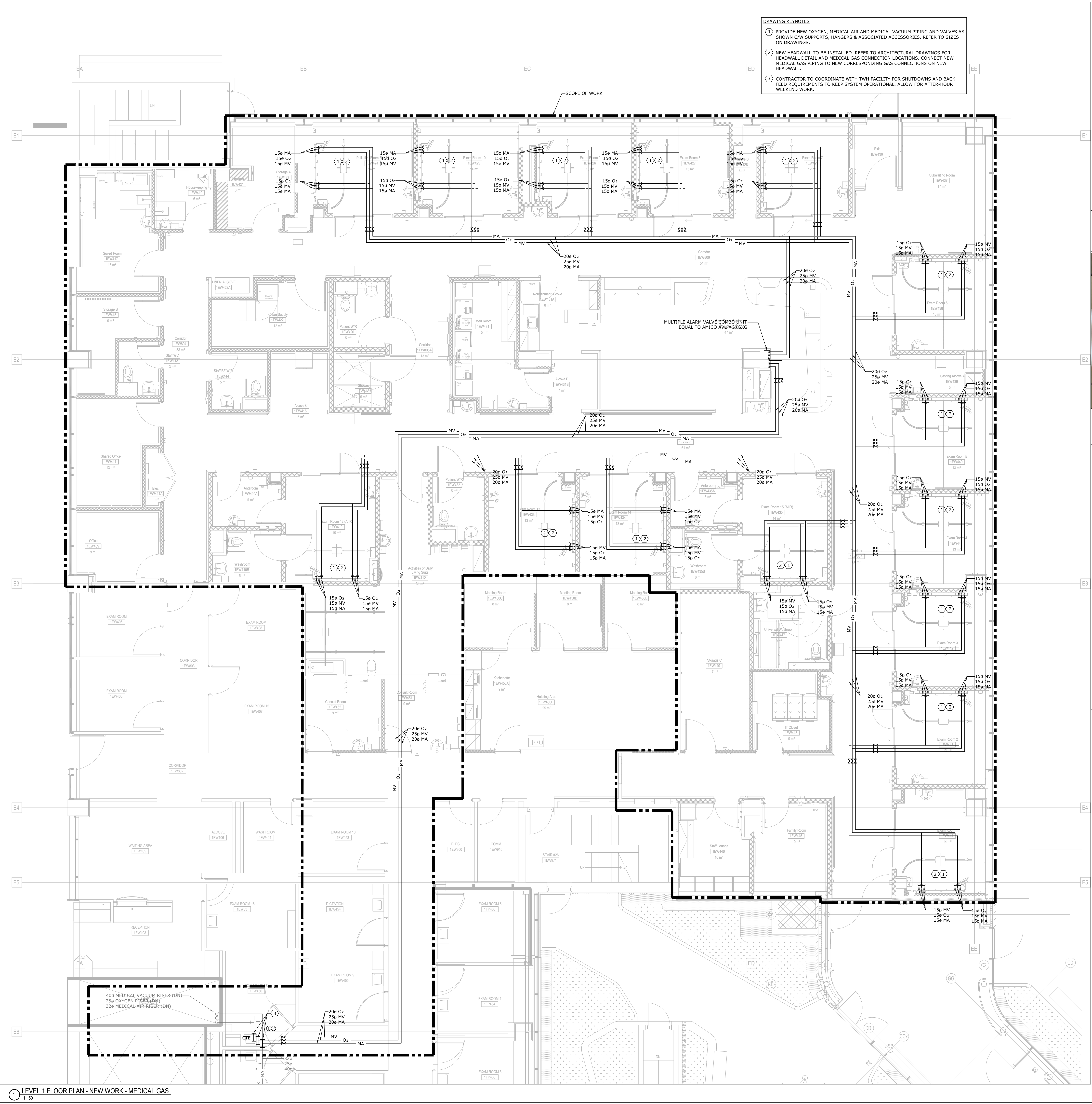
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Toronto Western Hospital
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LEVEL 1 FLOOR PLAN - CORRIDOR - NEW
WORK - FIRE PROTECTION

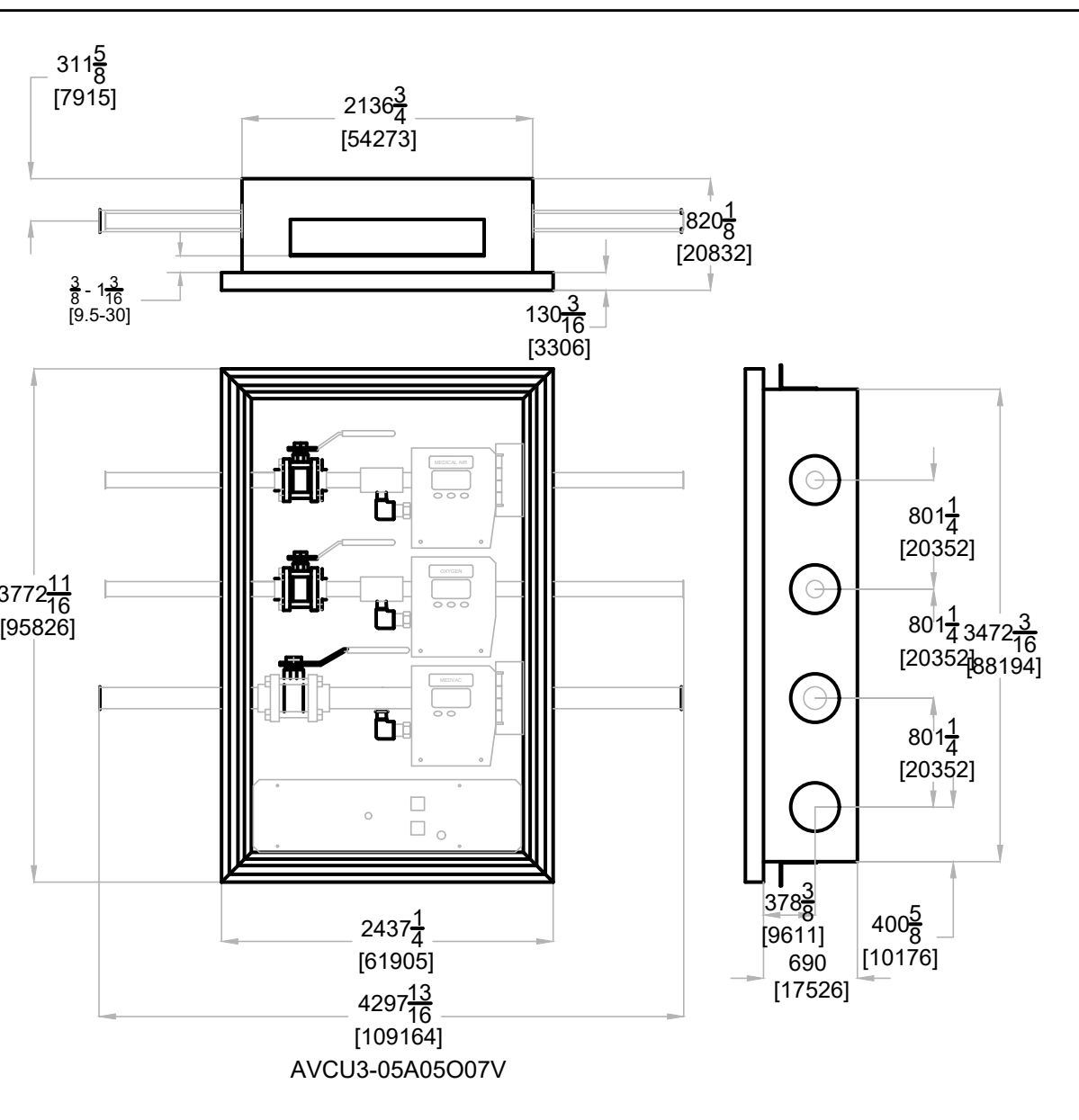
PROJECT NO:
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M-411B



- DRAWING KEYNOTES**
- 1 PROVIDE NEW OXYGEN, MEDICAL AIR AND MEDICAL VACUUM PIPING AND VALVES AS SHOWN C/W SUPPORTS, HANGERS & ASSOCIATED ACCESSORIES. REFER TO SIZES ON DRAWINGS.
 - 2 NEW HEADWALL TO BE INSTALLED. REFER TO ARCHITECTURAL DRAWINGS FOR HEADWALL DETAIL AND MEDICAL GAS CONNECTION LOCATIONS. CONNECT NEW MEDICAL GAS PIPING TO NEW CORRESPONDING GAS CONNECTIONS ON NEW HEADWALL.
 - 3 CONTRACTOR TO COORDINATE WITH TWH FACILITY FOR SHUTDOWNS AND BACK FILL REQUIREMENTS TO KEEP SYSTEM OPERATIONAL. ALLOW FOR AFTER-HOUR WEEKEND WORK.



2 MEDICAL GAS ZONE VALVE BO2 DETAIL

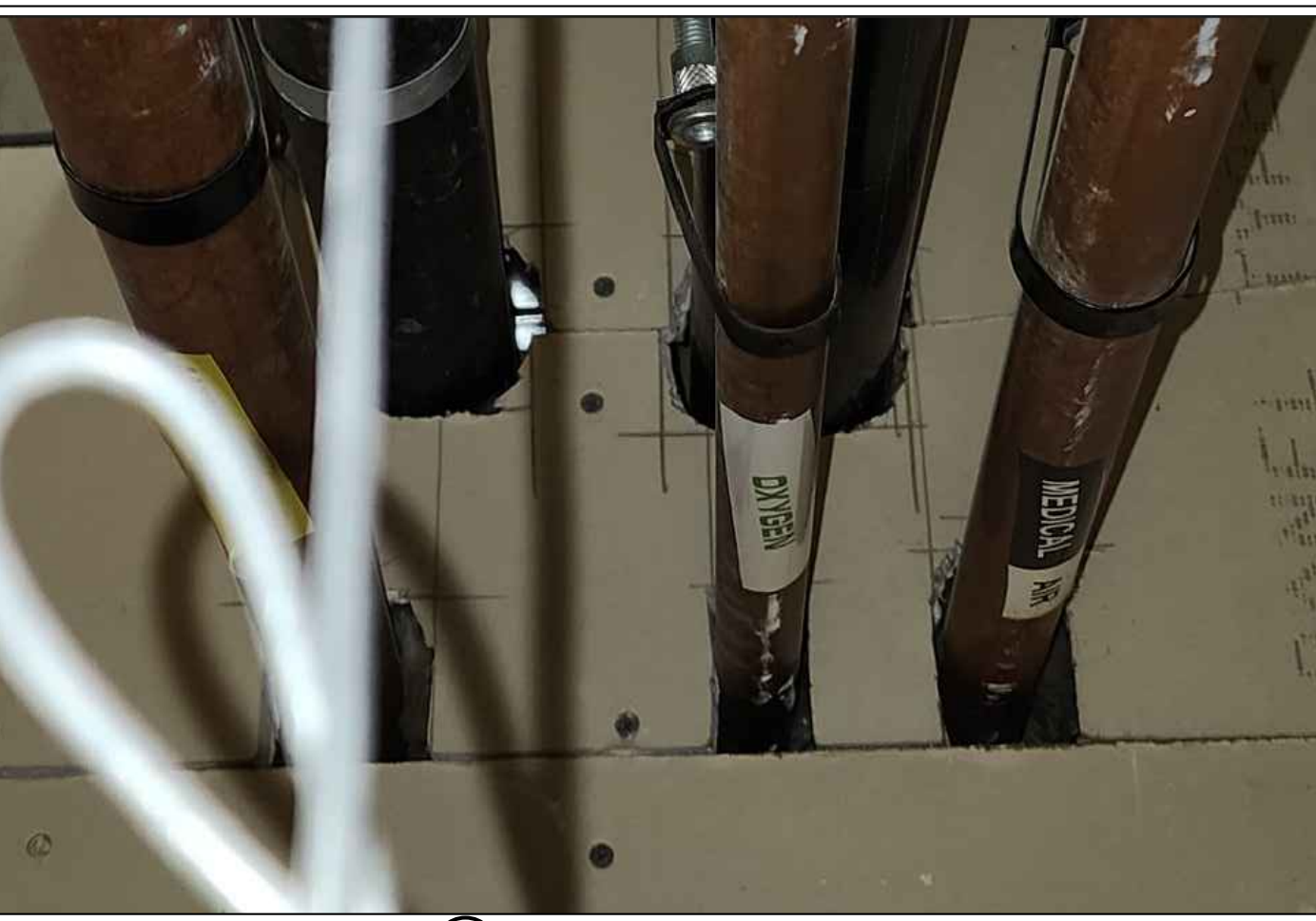


PHOTO REFERENCE 1

3 EXISTING MEDICAL GAS PIPING



PHOTO REFERENCE 2

4 EXISTING MEDICAL GAS PIPING LOCATION

CLIENT:
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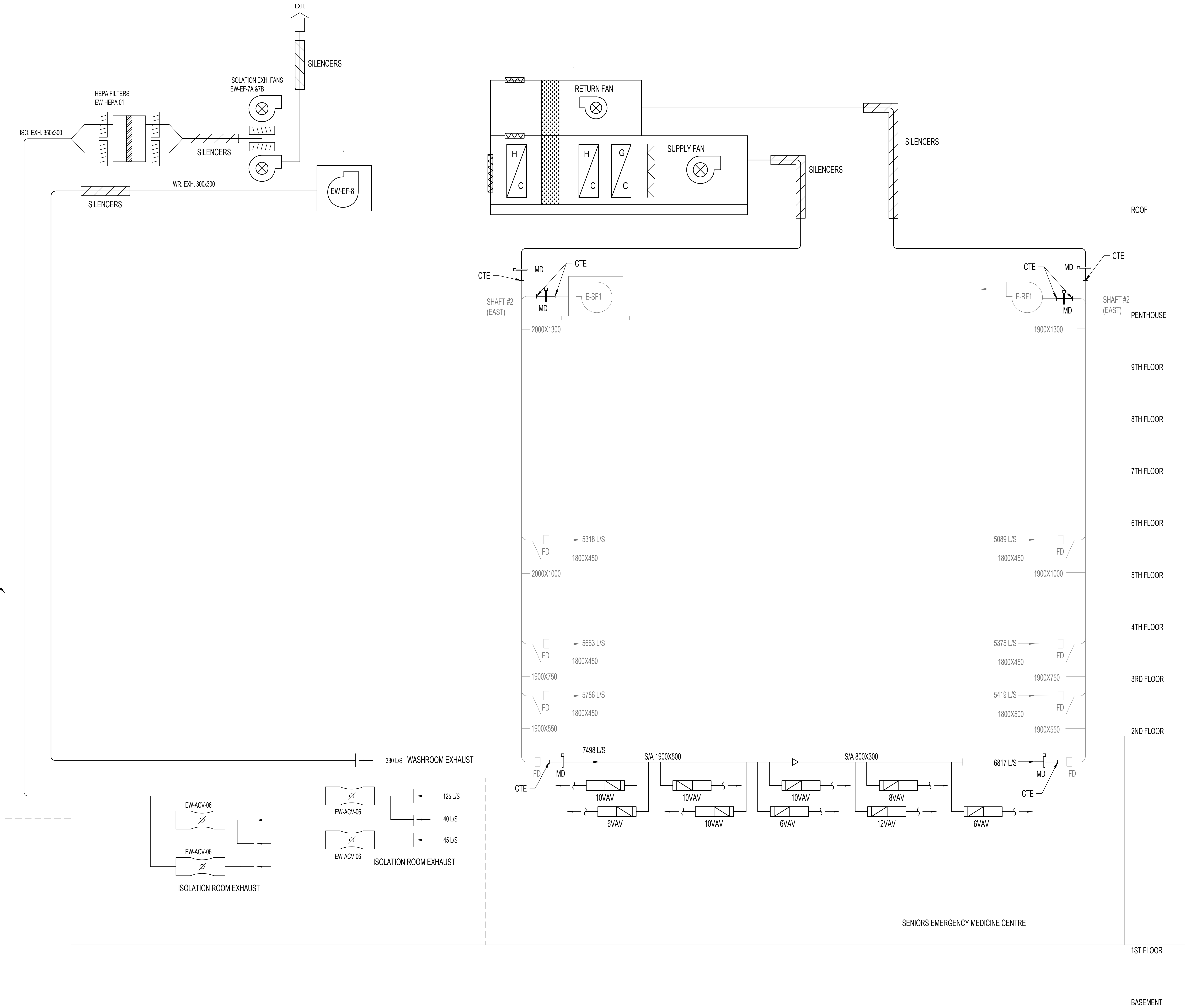
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PROJECT:
Seniors Emergency Medicine Centre (SEMC) &
External Corridor
Toronto Western Hospital
399 Bathurst Street Toronto, ON M5T 2S8

LEVEL 1 FLOOR PLAN - NEW WORK - MEDICAL GAS

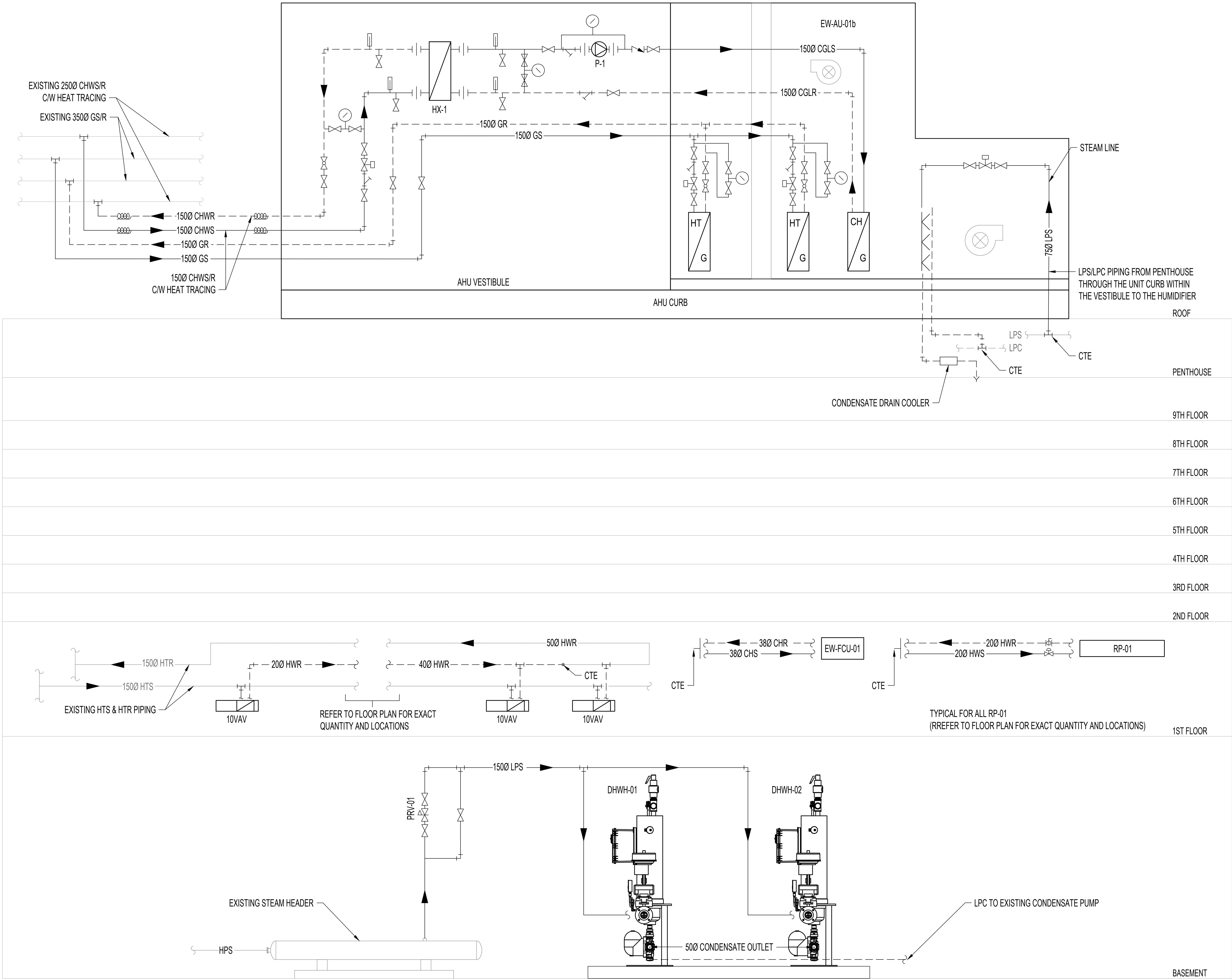
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PROJECT:
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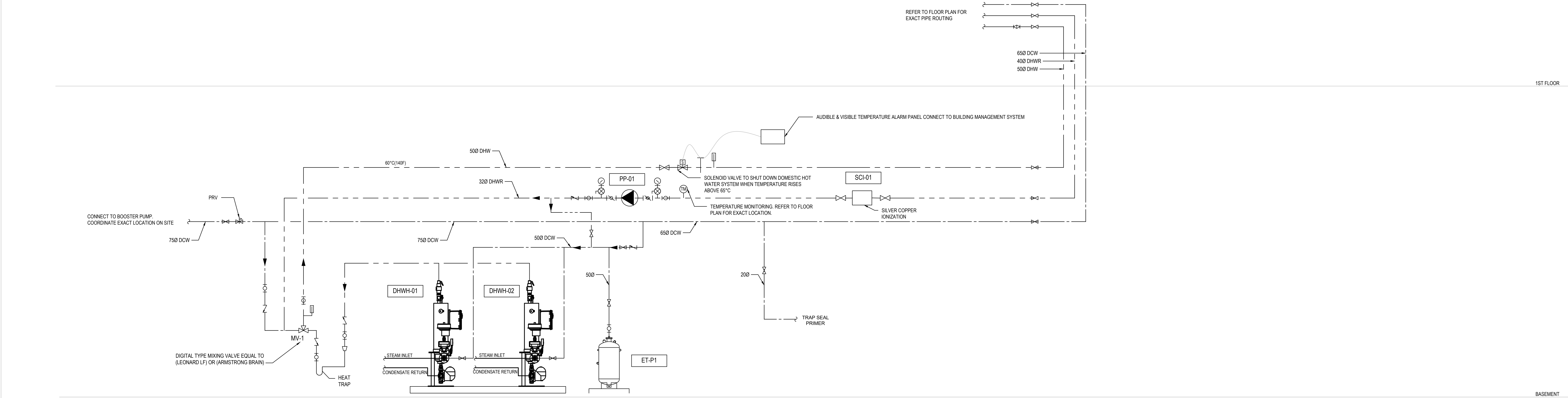
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VENTILATION SCHEMATIC DIAGRAMS



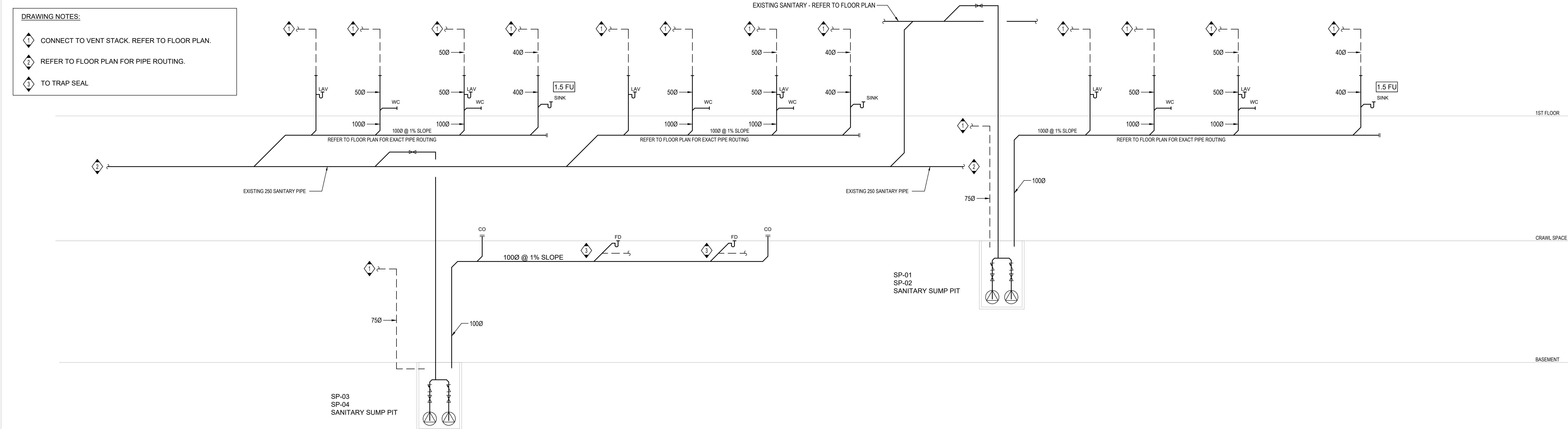
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PROJECT:
Seniors Emergency Medicine Centre (SEMC) &
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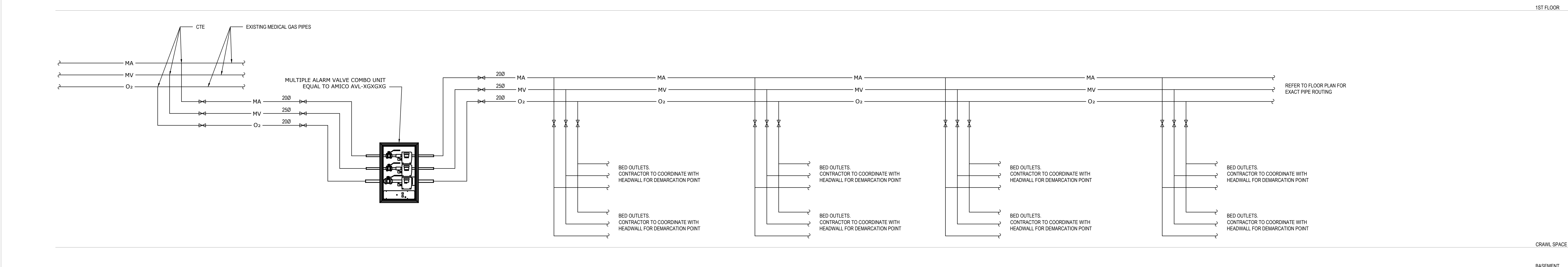
TITLE:
HYDRONIC & PIPING SCHEMATIC DIAGRAMS



1 PLUMBING SCHEMATIC DIAGRAM



2 SANITARY SCHEMATIC DIAGRAM



3 MEDICAL GAS SCHEMATIC DIAGRAM

CLIENT:

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Seniors Emergency Medicine Centre (SEMC) &
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Toronto Western Hospital
399 Bathurst Street, Toronto, ON, M5T 2S8

TITLE:
PLUMBING, SANITARY & MEDICAL GAS
SCHEMATIC DIAGRAMS

PROJECT NO:
MRK-23004289

CHECKED:
S.S.

DRAWING NO:
M-603

AIR HANDLING UNIT SCHEDULE - 1 of 2																																																									
SYSTEM REFERENCE TAG	DESCRIPTION	LOCATION	MANUFACTURER...	MODEL	AIR FLOW (CFM)	AIR FLOW (L/S)	OPERATION	AIRFLOW FRESH AIR %	SUPPLY FAN E.S.P. (Pa)	RETURN FAN E.S.P. (Pa)	PRE-HEATING COIL (GLYCOL 30% PG)										COOLING COIL										RE-HEATING COIL (GLYCOL 30% P)										HUMIDIFICATION-STEAM			WHEEL ENERGY...		ELECTRICAL			ECONOMIZE R (Y/N)	EMERGENCY POWER (Y/N)	FIRE SHUT DOWN (Y/N)	SILENCER		UNIT WEIGHT (KG)	REMARKS		
											TOTAL CAP.	EAT DB (°C)	LAT DB (°C)	EGT (°C)	LGT (°C)	PD (KPA)	FLOW (L/S)	TOTAL (KW)	SENSIBLE (KW)	EAT DB (°C)	EAT WB (°C)	LAT DB (°C)	LAT WB (°C)	EGT (°C)	LGT (°C)	PD (KPA)	FLOW (L/S)	TOTAL CAP. (KW)	EAT DB (°C)	LAT DB (°C)	EGT (°C)	LGT (°C)	PD (KPA)	FLOW (L/S)	TYPE	PRESSURE (PSI)	CAPACITY (KG/H)	SUMMER (KW)	WINTER (KW)	POWER (V/PHz)	MCA (A)	NOP (A)	INLET (Y/N)	OUTLET (Y/N)													
EW-AHU01B	EAST WING UNIT SERVING SEM CENTRE L1, L2, L3 & L5	ROOF	HAAKON	APK	28605	13500	UNITS RUNNING IN PARALLEL (NORMAL MODE)	33%	672	374	87.0	-20.0	-14.7	51.7	25.3	1.2	0.83	253.3	200.8	24.3	17.7	12.2	12.1	8.3	17.2	12.6	7.6	52.9	10.0	14.1	51.7	32.2	0.3	0.8	LPS	10.0	94.0	258	622	575/360	188	225	Y	N	TO MATCH EXISTING	Y	Y	41364	AHU C/W VESTIBULE IS DESIGNED WITH LADDER PLATFORM FOR ACCESS BY THE MANUFACTURER								
					28605	13500	UNITS RUNNING IN PARALLEL (PANDEMIC MODE)	100%										518.0	518.0	24.3	17.7	12.2	12.1	8.3	17.2	43.6	15.14	125.1	10.0	13.8	51.7	32.2	1.2	1.7																-	-	22.2	12.8	51.7	33.1		
					57210	27000	EXISTING UNIT OUT OF SERVICE (NORMAL MODE)	33%										518.0	518.0	24.3	17.7	12.2	12.1	8.3	17.2	43.6	15.14	125.1	10.0	13.8	51.7	32.2	1.2	1.7																-	-	22.2	12.8	51.7	33.1		
					57210	27000	EXISTING UNIT OUT OF SERVICE (PANDEMIC MODE)	100%										518.0	518.0	24.3	17.7	12.2	12.1	8.3	17.2	43.6	15.14	125.1	10.0	13.8	51.7	32.2	1.2	1.7																-	-	22.2	12.8	51.7	33.1		
					57210	27000	INTERNAL CATASTROPHIC MODE (PANDEMIC MODE)	0%										518.0	518.0	24.3	17.7	12.2	12.1	8.3	17.2	43.6	15.14	125.1	10.0	13.8	51.7	32.2	1.2	1.7																-	-	22.2	12.8	51.7	33.1		
NOTES: 1. OUTDOOR UNIT C/W VESTIBULE SHALL BE SUPPORTED ON STRUCTURAL SUPPORT AND SHALL BE COORDINATED ON SITE 2. VFD TO BE SUPPLIED AND BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR 3. UNIT SIZED WITH ECONOMIZER MODE 4. PROVIDE 25-30MM MINIMUM RUBBERNEOPRENE PADS TO APPROVED BY THE UNIT MANUFATURER 5. PROVIDE MERV 14 MIN. FINAL FILTERS AND MERV 9 PRE-FILTERS 6. PROVIDE 1500 SILENCER FOR AIR INTAKE AND EXHAUST WITH 25% FREE AREA. 7. PROVIDE MIN. 2500MM WIDE VESTIBULE FOR THE AHU.FOR MAINTENANCE C/W LOUVER AND HEATER TO BE SIZED BY THE MANUFACTURER. VESTIBULE SHALL BE HEATED. ELECTRICAL TO PROVIDE SEPARATE POWER FOR THE VESTIBULE. 8. DUAL SUPPLY FANS @50HP EACH. DUAL RETURN FANS @30HP EACH 9. 2HP WHEEL MOTOR WITH VFD 10. DEDICATED POWER FEED FOR AHU INCLUDING WHEEL 11. DEDICATED POWER FEED FOR UNIT LIGHTS 120 V POWER SUPPLY 12. DEDICATED POWER FEED FOR VESTIBULE LIGHTS 120V POWER SUPPLY 13. DEDICATED POWER FEED FOR VESTIBULE HEATER 120V POWER SUPPLY 14. UNIT OPERATION AT 57210 CFM @100% O/A WILL ACCOUNT FOR HEAT WHEEL DESIGN FOR COILS IS FOR 3 MAIN SCENARIOS																																																									

AIR HANDLING UNIT SCHEDULE - 2 OF 2 (Cont'd)																									
SYSTEM	MAXIMUM SOUND POWER LEVEL AT DISCHARGE OF EQUIPMENT								MAXIMUM SOUND POWER LEVEL AT INLET OF EQUIPMENT								MAXIMUM RADIATED SOUND POWER LEVEL								REMARKS
REFERENCE	MAX PWL IN dB RE 10 ⁻¹² W - OCTAVE BAND								MAX PWL IN dB RE 10 ⁻¹² W - OCTAVE BAND								MAX PWL IN dB RE 10 ⁻¹² W - OCTAVE BAND								
TAG	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	
EW-AHU-01b	98	95	101	106	98	96	91	84	94	97	107	110	100	96	91	81	81	74	68	65	60	60	60	60	
	MAXIMUM SOUND POWER LEVEL AT OA OPENING								MAXIMUM SOUND POWER LEVEL AT EA OPENING																
	MAX PWL IN dB RE 10 ⁻¹² W - OCTAVE BAND								MAX PWL IN dB RE 10 ⁻¹² W - OCTAVE BAND																
	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	
	85	78	78	77	63	68	75	66	80	77	79	76	60	64	70	61									

FORCE FLOW HEATER SCHEDULE																		WEIGHT (KG)	REMARKS
EQUIPMENT TAG	LOCATION	DESCRIPTION	MANUFACTURER	MODEL	AIRFLOW (L/S)	HEATING CAPACITY (KW)	FLUID			PRESSURE DROP (kPa)	ELECTRICAL		EMERGENCY POWER (Y/N)	REMOTE THERMOSTAT (Y/N)	DIMENSIONS				
							EW ¹ ("C)	LWT ("C)	FLOW (L/S)		MOTOR (KW)	POWER (V/Ph/Hz)			LENGTH (MM)	WIDTH (MM)	HEIGHT (MM)		
EW-FFH-01	EXIT 1EW436 (SEM CENTRE)	CEILING MOUNTED	SIGMA	SFF-A-02	104	4	66	54	0.1	0.07	0.075	120/160	N	N	660	241	660	34.0	
FP-FFH-01	EXIT DOOR AT FP ROOF & STAIR	CEILING MOUNTED	SIGMA	SFF-A-02	104	4	66	54	0.1	0.07	0.075	120/160	N	N	660	241	660	34.0	
FP-UH0101	LOWER LEVEL	CEILING MOUNTED	SIGMA	015H	132	4	66	54	0.18	2.09	0.037	120/160	N	N	483	368	343	13.2	
NOTES: 1. C/W LOCALISED PACKAGED CONTROLS.																			

ELECTRIC HEAT TRACING SCHEDULE							
TAG	SERVICE	PIPE DIAMETER	PIPE LENGTH		ELECTRICAL V/Ph/Hz	EMERGENCY POWER	COMMENTS
		(mm)	(FT)	(m)			
ETC-01	CHILLED WATER	150	64.0	19.5	208/1/Ø0	(Y/N) Y	
<div>1. PROVIDE CABLE SEGMENTS AS REQUIRED TO COMPLETELY TRACE PIPING RUN AS INDICATED ON DRAWINGS.</div> <div>2. PROVIDE RAYCLIC (OR EQUIVALENT) POWERED AND UN-POWERED CONNECTIONS AND SUPPORTS AS REQUIRED TO PROVIDE COMPLETE SYSTEM.</div> <div>3. PICK-UP DRY CONTACTS AT EACH CONTROLLER TO ALARM BAS ON ANY TROUBLE SIGNAL.</div> <div>4. COMMUNICATIONS CABLE IS REQUIRED TO BE EXTENDED FROM PIPE MOUNTED RTD BACK TO CONTROLLER. ALLOW FOR SUFFICIENT CONTROLS CABLING AND CONDUIT.</div> <div>5. CONTROLS CABLE TO BE IN CONDUIT</div> <div>6. HEAT TRACING AND PIPE SYSTEMS ARE DESIGNED FOR -10°F AMBIENT TEMPERATURE.</div> <div>7. THIS SCHEDULE IS TO BE READ IN CONJUNCTION WITH SPECIFICATION 20 07 00 REGARDING STANDARDS FOR PIPE INSULATION.</div>							

FAN SCHEDULE															REMARKS
SYSTEM REFERENCE TAG	DESCRIPTION	LOCATION	MANUFACTURER	MODEL	AIR FLOW (CFM)	AIR FLOW (US)	FAN E.S.P. (Pa)	MIN OUTLET VELOCITY (M/S)	ELECTRICAL		FAN EFFICIENCY %	EMERGENCY POWER (V/N)	FIRE SHUT DOWN (Y/N)	UNIT WEIGHT (KG)	
EW-EF-14	WASHROOM EXH.	ROOF	PENNBARRY	D10	700	330	374	8	575/603	0.9	1.18	Y	N	13.6	
EW-EF-13A & 13B	ISOLATION EXH.	ROOF	PENNBARRY	D08	850	401	747	8	575/603	2.4	99.00	Y	N	16.8	
EW-EF-6A & 6B	EXISTING TB EXHAUST SYSTEM	ROOF	PENNBARRY	VCR-SWSI-AF 222	7842	3,701	1643	8	575/603	17.0	1.26	Y	N	90.7	EXISTING FANS TO BE REPLACED WITH NEW FANS TO ADD HEPA FILTERS IN THE...
NOTES:	1. ALL ROOF MOUNTED FANS CW 450 MM HIGH ROOF CURB. 2. DIRECT DRIVE WITH EC MOTOR. 3. PROVIDE WEATHER PROOF DISCONNECTS FOR ALL OUTDOOR FANS. 4. PROVIDE LOCAL DISCONNECTS FOR CEILING/ROOF MOUNTED FANS. 5. PROVIDE VFDS FOR ALL FANS IN THE PENTHOUSE AND LOCAL DISCONNECT. COORDINATE EXACT LOCATION ON SITE. 6. EXHAUST STACK SHOULD BE MINIMUM 3M ABOVE ANY NEARBY AIR INTAKE (EW-AHU-01b) 7. FAN/STACK SUPPORTS SHALL BE PROVIDED														

FAN COIL UNIT SCHEDULE (2P CHILLED WATER)																					
SYSTEM REFERENCE TAG	DESCRIPTION	LOCATION	MANUFACTURER	MODEL	AIR FLOW		UNIT E.S.P. (Pa)	COOLING COIL						ELECTRICAL				EMERGENCY POWER (Y/N)	FIRE SHUT DOWN (Y/N)	UNIT WEIGHT (KG)	REMARKS
					CFM)	(L/S)		TOTAL (KW)	SENSIBLE (KW)	EWI (°C)	LWT (°C)	FLOW (L/S)	PD (KPA)	FLA (A)	MCA (A)	MROPD (A)	POWER (V/Hz/PH)				
EW-FCU-01	IT ROOM COOLING UNIT	IT ROOM	IEC	HYL16	1230	581	50	10.79	10.55	5.6	12.2	0.38	13.45	8.4	9.45	15	115/60/1	N	Y	102.06	
<div>NOTES:</div> <div>1. FAN COIL UNIT TO BE COMPLETE WITH 2" (50MM) MERV 13 FILTER SECTION.</div> <div>2. PROVIDE ECM MOTOR.</div> <div>3. FAN COIL UNIT TO HAVE BOTTOM ACCESS FOR SERVICE.</div> <div>4. FCU IS COMPLETE WITH DRAIN PAN AND DRAIN PUMP</div>																					

STEAM PRESSURE REDUCING VALVE (PRV) SCHEDULE									
SYSTEM REFERENCE TAG	DESCRIPTION	MANUFACTURER	MODEL	INLET PRESSURE (KPA)	OUTLET PRESSURE (KPA)	FLOW (KGHR)	BYPASS Y/N	PRESSURE RATING (KPA)	REMARKS
PRV-01	FOR DHW HEATER			345	35			12.5	
NOTES:									

HEPA FILTER SCHEDULE																								
SYSTEM REFERENCE TAG	DESCRIPTION SERVICE	LOCATION	MANUFACTURER	MODEL NO.	AIR FLOW		TOTAL FILTER AREA (SMT)	EFFECTIVE FILTER AREA (N+1) (SMT)	FILTER FACE VELOCITY (M/S)	1st STAGE FILTER (PRE-FILTERS)			2nd STAGE FILTER (HEPA)			FILTER ASSEMBLY			TOTAL PRESSURE DROP (KPA)	TOTAL WEIGHT (KPA)	REMARKS			
					(CFM)	(L/s)				FILTER DESCRIPTION	EFFICIENCY	INITIAL EST.	PRESS. DROP (PA) FINAL (RECOMMENDED)	FILTER DESCRIPTION	EFFICIENCY	INITIAL EST.	PRESS. DROP (PA) FINAL (RECOMMENDED)	WIDTH (MM)				HEIGHT (MM)	LENGTH (MM)	
EW-HEPA-01	ISOALATION EXHAUST	ROOF	CTC	B2-412-21-RCD-M605-B	890	420	0.37	0.37	1.125	600x600x100 (4)	MERV 11	50	188	600x600x300 (4)	99.90%	200	500	762	1676	1905	875	366	N+1 CONFIGURATION DUTY/STANDBY	
EW-HEPA-02 & 03	TB EXHAUST	ROOF	CTC	B2-412-22-TD24M-PG-B	7840	3,700	1.49	1.49	2.479	600x600x100 (4)	MERV 11	50	188	600x600x300 (4)	99.90%	200	500	1397	1626	2514.6	875	500		
NOTES: 1. EACH HEPA FILTER ASSEMBLY SHALL BE COMPLETE WITH BASE 2. MANUAL ISOLATION DAMPER AT THE INLET OF THE FILTER AND MOTORIZED DAMPER AT THE OUTLET OF THE FILTER ASSEMBLY																								

RADIANT PANEL SCHEDULE								
SYSTEM REFERENCE TAG	MANUFACTURER	MODEL	WIDTH (MM)	TUBE PASSES (QTY)	HEATING CAPACITY (KW/M)	MEAN TEMPERATURE (°C)	FLOW (L/S)	REMARKS
RP-01	SIGMA	SLC	457	6	0.222	60	0.0048	
NOTES: 1. REFER TO FLOOR PLANS FOR EXACT QUANTITY AND PANEL LENGTH. 2. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR CEILING TYPE BEFORE ORDERING THE RADIANT PANELS								

SILENCER SCHEDULE																						
SYSTEM REFERENCE TAG	DESCRIPTION	UNITS SERVED	LOCATION	MANUFACTURER	MODEL	AIR FLOW (L/S)	VELOCITY (M/S)	SIZE (MM)			PRESSURE DROP		REQUIRED ATTENUATION (DB)								REMARKS	
								W (mm)	H (mm)	L (mm)	IDEAL (PA)	WITH SYSTEM (PA)	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz		
SL-01	AHU SUPPLY AIR	AHU-01	ROOF DUCT MOUNTED	Kinetics Noise Control	575 KCRS-F-TF	26500	9	2300	1350	1829	37	37	4	8	16	19	17	13	8	4	Tiedar firm-lined silencer. System effect pressure drop assumes turning vanes at outlet side elbow.	
SL-02	AHU RETURN AIR	AHU-01	ROOF DUCT MOUNTED	Kinetics Noise Control	575 KCRS-F-TF	26500	-9	2300	1350	2134	27	37	6	8	18	21	15	12	8	6		Tiedar firm-lined silencer.
SL-03	TOILET EXHAUST	E-EF-08	ROOF DUCT MOUNTED	Kinetics Noise Control	700 KCRS-F-TF	350	3	300	300	914	10	37	2	6	12	11	9	7	5	3		Tiedar firm-lined silencer.
SL-04	ISOLATION EXHAUST	E-EF-07 A & B	ROOF DUCT MOUNTED	Kinetics Noise Control	350 KCRS-F-TF	420	4	350	300	2439	7	37	5	13	21	23	20	11	9	7		Tiedar firm-lined silencer.
NOTES: 1. VELOCITY SHOWN IS + (FORWARD FLOW) OR - (REVERSE FLOW) AS DEFINED BY ASTM E477-13.																						

AIR CONTROL VENTURI FLOW SCHEDULE									
SYSTEM	MANUFACTURER	SIZE	MAX AIR FLOW (L/S)	INLET SIZE (MM)	OUTLET SIZE DIA (MM)	MIN. AIR PD MAX (Pa)	REMARKS		
EW-ACV-6	JCI	6	170	150	150	200	VALVE IS CWY CONTROL PANEL C/W Bagnet.		
EW-ACV-8	JCI	8	400	200	200	150	VALVE IS CWY CONTROL PANEL C/W Bagnet.		

NOTES:


1. REFER TO FLOOR PLANS FOR EXACT QUANTITY OF AIR VALVES
2. CONTRACTOR TO PROVIDE CLEARANCE FOR THE CONTROL PANEL AS PER MANUFACTURER RECOMMENDATION
3. MECHANICAL EQUIPMENT TO BE INSTALLED AS PER MANUFACTURER RECOMMENDATION BY MECHANICAL CONTRACTOR
3. BOX TO BE ALUMINIUM WITH BAKED PHENOLIC COATING FOR EXHAUST SYSTEM

REHEAT COILS SCHEDULE											REMARKS
SYSTEM REFERENCE TAG	MANUFACTURER	MODEL	MAX. AIR FLOW (L/S)	TOTAL CAP. (KW)	AIR SIDE EAT (°C)	LAT (°C)	FLOW (L/S)	WATER SIDE EWT (°C)	LWT (°C)	PD (KPA)	
RAH-01/LUS	DAIKIN	SB5100TC	150	2.59	12.8	25.6	0.107	65.6	54.4	2.989	
RAH-02/XXLS	DAIKIN	SB5090TC	315	4.99	12.8	25.6	0.107	65.6	54.4	2.989	
NOTES: 1. REFER TO PLUMB PLANS FOR EXACT QUANTITY OF REHEAT COILS 2. CONTRACTOR TO PROVIDE ACCESS TO EACH COIL, AS PER MANUFACTURER RECOMMENDATION AND COORDINATE WITH ARCHITECTURAL CEILING PLANS											

VIBRATION ISOLATION SCHEDULE							
SYSTEM REFERENCE TAG	LOCATION	ISOLATION TYPE MODEL	CURB HEIGHT (MM)	STATIC DEFLECTION (MM)	BASE TYPE	SEISMIC RESTRAINT (Y/N)	REMARKS
AHU	ROOF	KIP-RT	REFER TO STR DWGS	50	STRUCTURAL SUPPORT	N	THE EQUIPMENT IS ON EXISTING ROOF
EW-EF-14			FACTORY SUPPLIED SPRING ISOLATORS				
EW-EF-13A & 13B			FACTORY SUPPLIED SPRING ISOLATORS				
EW-EF-6A & 6B			FACTORY SUPPLIED SPRING ISOLATORS				
EW-FCL01	CEILING MOUNTED	SHAA	-	25	-	-	SPRING HANGERS
FP-ACH12	CEILING MOUNTED	SRH-1	-	25	-	-	SPRING HANGERS
FP-ACH13	CEILING MOUNTED	SRH-1	-	25	-	-	SPRING HANGERS
FP-ACH14	CEILING MOUNTED	SRH-1	-	25	-	-	SPRING HANGERS
FP-AH12ERV-1	CEILING MOUNTED	SRH-1	-	25	-	-	SPRING HANGERS
FP-AH4ERV-1	CEILING MOUNTED	SRH-1	-	25	-	-	SPRING HANGERS
DHW HEATERS	HSPK PAD		PAD AS PER MANUFACTURER RECOMMENDATION				
NOTES:	1. SELECTIONS ARE BASED ON KINETICS NOISE CONTROL DESIGN						

VAV BOXES WITH REHEAT COILS SCHEDULE															
SYSTEM REFERENCE TAG	MANUFACTURER	MODEL	SIZE	MAX. AIR FLOW (L/S)	INLET SIZE (MM)	OUTLET		REHEAT COIL							REMARKS
						WIDTH (MM)	HEIGHT (MM)	EAT (°C)	LAT (°C)	NO OF ROWS	FLOW FLOWS (L/S)	EWT (°C)	LWT (°C)	WPD (KPA)	
6/VAV-XOULS	PRICE	SDV	6	160	200	305	203	12.8	25.6	1	0.024	65.6	54.4	0.729	
9/VAV-XOULS	PRICE	SDV	9	315	250	305	254	12.8	25.6	1	0.041	65.6	54.4	0.867	
10/VAV-XOULS	PRICE	SDV	10	515	300	356	318	12.8	25.6	1	0.060	65.6	54.4	0.299	
12/VAV-XOULS	PRICE	SDV	12	735	360	406	381	12.8	25.6	1	0.082	65.6	54.4	0.717	
NOTES:															
1. REFER TO FLOOR PLANS FOR EXACT QUANTITY OF VAV BOXES															
2. EACH UNIT SHALL BE WITH INTEGRAL COILS AND 3FT ATTENUATOR															
3. VAV BOX MIN. POSITION IS 30%															
4. CONTRACTOR TO PROVIDE ACCESS TO EACH VAV BOX AS PER MANUFACTURER RECOMMENDATION AND COORDINATE WITH ARCHITECTURAL CEILING PLANS															
5. CONTRACTOR TO PROVIDE VENT AND DRAIN CONNECTION FOR EVERY COIL CONNECTION															
6. MECHANICAL EQUIPMENT TO BE INSTALLED AS PER MANUFACTURER RECOMMENDATION BY MECHANICAL CONTRACTOR															

CLIENT:



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Toronto Western Hospital
399 Bathurst Street, Toronto, ON, M5T 2S8

TITLE:

MECHANICAL SCHEDULES #1

PROJECT NO:
MRK-23004-289

DRAWING NO:
M-701

CHECKED:

AIR CURTAIN SCHEDULE (ELECTRIC)															
SYSTEM REFERENCE TAG	LOCATION	DESCRIPTION	MANUFACTURER	MODEL	AIRFLOW (L/S)	HEATING CAPACITY (KW)	ELECTRICAL MOTOR (KW)	POWER (V/PH/Hz)	ELECTRICAL EMERGENCY POWER (Y/N)	REMOTE THERMOSTAT	DIMENSIONS			WEIGHT (KG)	REMARKS
											LENGTH (MM)	WIDTH (MM)	HEIGHT (MM)		
FP-ACH11	CORRIDOR EAST DOOR	CEILING MOUNTED	SCHWANK	AC-TE72-60-R	897	10/16	0.254	575/3/60	N	N	2060	535	260	59	
NOTES:	1. CW/LOCALISED PACKAGED CONTROLS. 2. PROVIDE TRANSFORMER AND TIME DELAY DOOR SWITCH. 3. INTERLOCK FAN WITH DOOR SWITCH.														



ENERGY RECOVERY VENTILATOR SCHEDULE (ERV)															
SYSTEM REFERENCE TAG	DESCRIPTION	LOCATION	MANUFACTURER	MODEL	AIR	AIR	HEATING COIL (ELEC)	ELECTRICAL (UNIT AND ELEC. HEATER)				EMERGENCY	FIRE	UNIT	REMARKS
					FLOW (CFM)	FLOW (L/S)	TOTAL (KW)	FLA (A)	MCA (A)	MRODP (A)	POWER (V/HZ/PH)	POWER (Y/N)	SHUT DOWN (Y/N)	WEIGHT (KG)	
FP-AH12ERV-1	ENERGY RECOVERY	CEILING MOUNTED	OXYGEN 8	A16N	500	236	2.00	14.9	18.3	20	208/60/1	N	Y	200.0	
FP-AH14ERV-1	ENERGY RECOVERY	CEILING MOUNTED	OXYGEN 8	A16N	500	236	2.00	14.9	18.3	20	208/60/1	Y	N	200.0	
NOTES: 1. ERV DESIGNED WITH FAN AND ELEC. HEATER FOR PRE HEAT 2. PROVIDE ECM MOTOR 3. ALL UNITS TO HAVE BOTTOM ACCESS FOR SERVICE. 4. MERV 138 FILTERS 5. MAIN POWER WILL FEED THE ELEC. HEATER AND ELECTRICAL CONTRACTOR TO PROVIDE WIRING FROM HEATER TO THE UNIT 6. MAINTAIN CLEARANCE AS REQUIRED, UNIT TO BE INSTALLED SUCH A WAY THAT IT CAN BE DROPPED FOR MAINTENANCE WITHOUT PIPING REWORK.															

CEILING MOUNTED VENTILATION UNIT SCHEDULE																													
SYSTEM REFERENCE	DESCRIPTION	LOCATION	MANUFACTURER	MODEL	AIR FLOW		UNIT E.S.P. (Pa)	COOLING COIL (DX)		HEATING COIL (30% P GLY)										SILENCER		ELECTRICAL		EMERGENCY POWER (Y/N)	FIRE SHUT DOWN (Y/N)	UNIT WEIGHT (KG)	REMARKS		
					(CFM)	(L/S)		TOTAL (KW)	SENSIBLE	EAT DB (°C)	EAT WB (°C)	LAT DB (°C)	LAT WB (°C)	TOTAL (KW)	EAT DB (°C)	LAT DB (°C)	EWI (°C)	LWT (°C)	FLOW (L/S)	PD (KPA)	INLET (Y/N)	DISCHARGE (Y/N)	MCA (A)					MROP (A)	POWER (V/Hz/PH)
FP-ACH12	CORRIDOR VENT.	CORRIDOR CEILING MOUNTED	DAIKIN	BCHD0161	1500	708	124	15.6	13	26.7	18.3	12.0	11.7	5.4	21.10	27.3	50.7	37.8	0.095	0.81	N	N	19.8	25	115/60/1	N	N	216	
FP-ACH13	CORRIDOR VENT.	CORRIDOR CEILING MOUNTED	DAIKIN	BCHD0161	1500	708	124	15.6	13	26.7	18.3	12.0	11.7	5.4	21.10	27.3	50.7	37.8	0.095	0.81	N	N	19.8	25	115/60/1	N	N	216	
FP-ACH14	CORRIDOR VENT.	CORRIDOR CEILING MOUNTED	DAIKIN	BCHD0161	1500	708	124	15.6	13	26.7	18.3	12.0	11.7	5.4	21.10	27.3	50.7	37.8	0.095	0.81	N	N	19.8	25	115/60/1	Y	N	216	
NOTES: 1. UNITS TO BE COMPLETE WITH 2" (50MM) MERV 13 FILTER SECTION. 2. PROVIDE ECM MOTOR. 3. ALL UNITS TO HAVE BOTTOM ACCESS FOR SERVICE AND INSTALLED IN SUCH A WAY THAT THE UNIT CAN BE DROPPED DOWN FOR MAINTENANCE WITHOUT THE PIPING REWORK. 4. REFER TO FLOOR PLANS FOR LOCATIONS AND PROVIDE REQUIRED CLEARANCE AS PER THE MANUFACTURER RECOMMENDATION 5. REFER TO CONDENSING UNIT SCHEDULE FOR OUTDOOR UNITS. 6. FOCUS ARE COMPLETE WITH DRAIN PAN AND LEAK DETECTION																													

AIR COOLED CONDENSING UNIT SCHEDULE											REMARKS
SYSTEM REFERENCE TAG	AC INDOOR UNIT REFERENCE	LOCATION	MANUFACTURER	MODEL	NOMINAL COOLING CAPACITY		ELECTRICAL		EMERGENCY POWER (Y/N)	FIRE ALARM SHUT DOWN (Y/N)	WEIGHT (KG)
					(KW)	MOP AMPS	MCA AMPS	VOLTAGE V/PH/Hz			
FP-AH12-CU	FP-AH12	OUTDOOR	REFPLUS	OEZ-050-1H1-5D	15.94	40	26.38	208/60/3	N	N	172
FP-AH13-CU	FP-AH13	OUTDOOR	REFPLUS	OEZ-050-1H1-5D	15.94	40	26.38	208/60/3	N	N	172
FP-AH14-CU	FP-AH14	OUTDOOR	REFPLUS	OEZ-050-1H1-5D	15.94	40	26.38	208/60/3	Y	N	172

NOTES:

1. REFRIGERANT SHALL BE R410A OR ANY LATEST REF. AVAILABLE AS LONG AS THE UNIT CAPACITY AND SIZING IS MET.
2. CONTRACTOR TO COORDINATE ON SITE FOR THE REFRIGERANT PIPING SIZE AND INSTALLATION BASED ON MANUFACTURER RECOMMENDATION.
3. MECHANICAL CONTRACTOR TO COORDINATE WALL, CEILING AND ROOF PENETRATIONS AND ELECTRICAL REQUIREMENTS ON SITE.
4. REFER TO ASSOCIATED INDOOR UNIT SCHEDULE FOR COMPLETE SYSTEM INFORMATION.
5. UNITS COMPLETE WITH LOW-AMBIENT KIT. FINAL LOCATION AND ENCLOSURE TO BE COORDINATED WITH ARCH. DRAWINGS.

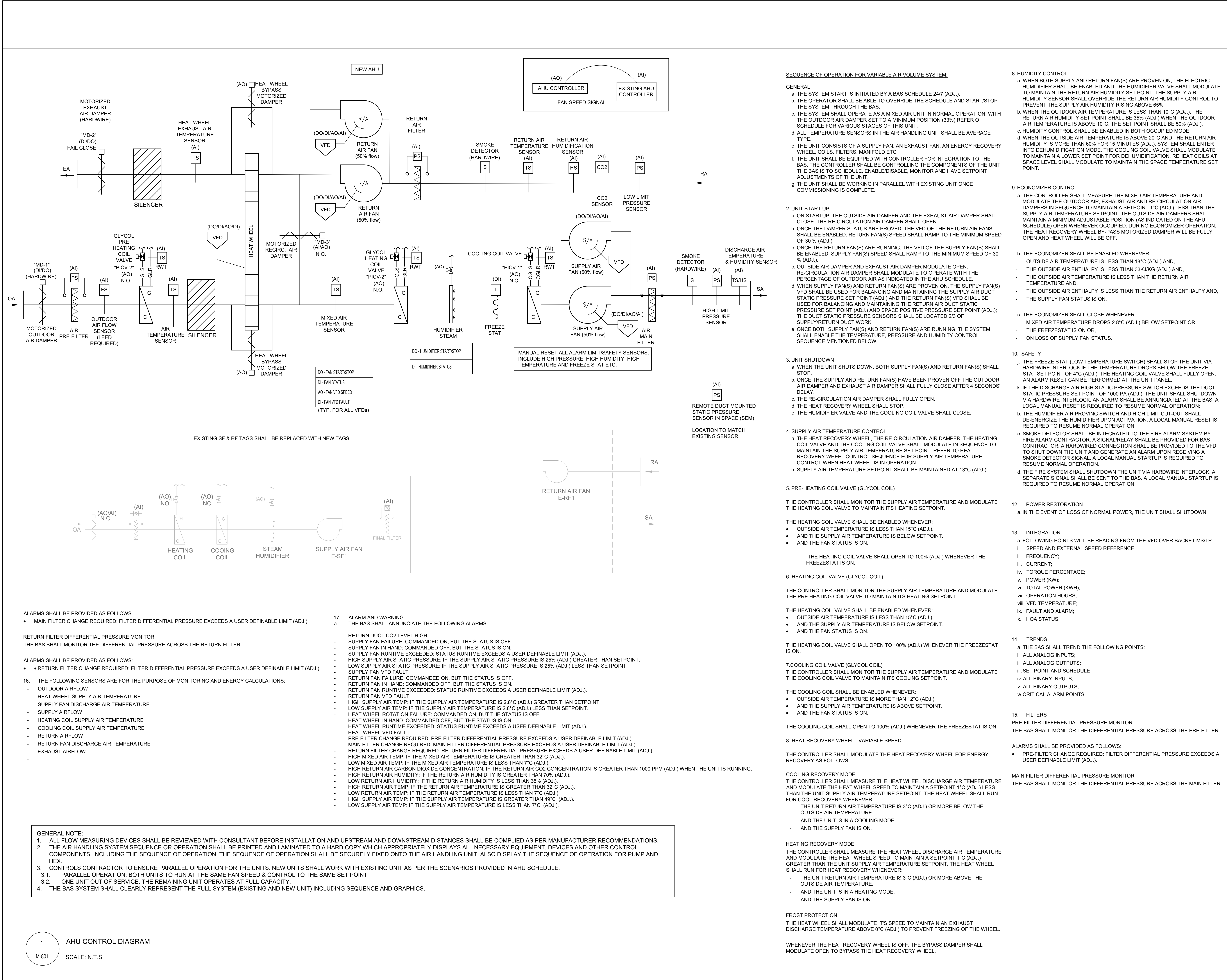
<div>PROJECT:</div> <div><div><div>University Health Network Toronto Western Hospital 399 Bathurst Street Toronto ON M5T 2S8 www.uhn.ca</div></div></div>	
<div>ARCHITECT:</div> <div><div><div>CUMULUS ARCHITECTS INC.</div></div><div>160 Pears Ave - Suite 300 Toronto, ON M5R 3P8 416-539-0763 www.cumulusarch.com</div></div>	
<div>CONSULTANT:</div> <div><div><div>1: 905-695-3217 1: 905-695-0167 220 Commerce Valley Drive West, Suite 110 Markham, ON L3T 0A6 Canada www.asp.com</div><div><div>BUILDINGSINDUSTRIAL</div><div>EARTH & ENVIRONMENTINFRASTRUCTURE</div><div>ENERGYSUSTAINABILITY</div></div></div></div>	
<div>PROJECT:</div> <div><div>Seniors Emergency Medicine Centre (SEMC) & External Corridor Toronto Western Hospital 399 Bathurst Street Toronto, ON M5T 2S8</div></div>	
<div>TITLE:</div> <div>MECHANICAL SCHEDULES #2</div>	
<div>PROJECT NO:</div> <div>MRK-23004289</div> <div>CHECKED:</div>	<div>DRAWING NO:</div> <div>M-702</div>

PLUMBING FIXTURE SCHEDULE												
SYSTEM REFERENCE TAG	TYPE	LOCATION	MANUFACTURER	MODEL	TRIM AND ACCESSORIES						REMARKS	
					FAUCET/VALVE	FLOW	FIXTURE DRAIN AND P-TRAP	VALVES AND SUPPLIES	CARRIER	SEAT		MISC
WC-1	WALL HUNG WATER CLOSET - NON BF	STAFF WRM	AMERICAN STANDARD	3351101.02	SLOAN SL-ROYAL 111-1.28 SG	4.8 LPF				WATTS ISCA-101-LR	CENTOCO AM500STSCSSFE-001	
WC-2	WATER CLOSET - BF	PATIENT UNIVERSEL AND BF WASHROOM	AMERICAN STANDARD	3351101.02	SLOAN SL-ROYAL 111-1.28 SG	4.8 LPF				WATTS ISCA-101-LR	CENTOCO AM500STSCSSFE-001	
WC-3	WATER CLOSET - BF	ACTIVITIES OF DAILY LIVING SUITE	ZURN	Z551-LH								
	LAVATORY - BF	STAFF WRM	AMERICAN STANDARD	3351101.02	CHICAGO FAUCETS - 786-GN8FCABCP (RIGID)	3.8 LPM	MCQUIRE PRODRAIN	MCQUIRE LFC316LK	WATTS CA-411		MIXING VALVE LAWLOR 570-86820	TRANSITION TO 1-1/2" P-TRAP AS PER PAC REQUIREMENTS
L-2	LAVATORY - NON	PATIENT, UNIVERSAL AND BF WASHROOM	AMERICAN STANDARD	0958909EC 020 0062000 020	CHICAGO FAUCETS - 786-GN8FCABCP (RIGID)	3.8 LPM	MCQUIRE PRODRAIN	MCQUIRE LFC316LK	WATTS CA-411-CA-481		MIXING VALVE LAWLOR 570-86820	TRANSITION TO 1-1/2" P-TRAP AS PER PAC REQUIREMENTS
S-1	COUNTER SINK - SINGLE BOWL - HANDS FREE	NOURISHMENT, KITCHENETTE	FRANKE	LBS6808-316P-1-3	CHICAGO FAUCETS - 786-GN8FCABCP (RIGID)	5.7 LPM	MCQUIRE PRODRAIN	MCQUIRE LFC316LK			MIXING VALVE LAWLOR 570-86820	
HHS-1	HAND HYGIENE SINK - FOOT DISPAL	REFER TO DRAWINGS	AMERICAN STANDARD		CHICAGO FAUCET 626-FOABCP	5.7 LPM	MCQUIRE 8902CBSAN	MCQUIRE LFC316LK	WATTS CA-421-M60		MIXING VALVE LAWLOR 570-86820	
HS-2	HAND HYGIENE SINK - HANDS FREE - BARRIER FREE	REFER TO DRAWINGS	WHITEHALL	4151-CSG-H1	CHICAGO FAUCET 116-423 AB.1	5.7 LPM	MCQUIRE P-TRAP 8902CBSAN	MCQUIRE LFC316LK	WATTS CA-421-M60		MIXING VALVE 243.260.00.1/242.340.00.1	HARDWARE CHICAGO FAUCET 243.260.00.1/242.340.00.1
CH-1	CASTING ALCOVE	CASTING ALCOVE A	FRANKE	SL2424-316-1-2-1140F-316	CHICAGO FAUCETS - 631-GN8FCABCP	5.7 LPM					MIXING VALVE LAWLOR 570-86820	COMPLETE WITH PATTERSON GLECO TRAP HV KIT - 5 GALLON - PRACTICON
SH-1	SHOWER	SHOWER ROOM	CHICAGO FAUCETS	HAND SHOWER - 624-LCP	CHICAGO FAUCETS - SH-TP6-00-023	5.5 LPM	WATTS WDS-SQNB (102MM NICKEL BRONZE)					
MS-1	MOP SINK	HOUSEKEEPING ROOM	STERN WILLIAMS	SBC-1700	CHICAGO FAUCETS - 897-317-XKCP							
BT-1	BATHTUB	ACTIVITIES OF DAILY LIVING SUITE	ZARA	ZARA II								
BF-1	BOTTLE FILLING STATION	CORRIDORS	ELKAY	LZW5M8K								
EW-1	EYEWASH STATION	SOILED & HOUSEKEEPING ROOMS	BRADLEY	S19294HB, S19294HBT							MIXING VALVE NAVIGATOR S19-2000 EFX8	
WS-1	WASHER DISINFECTOR	SOILED ROOM	MEIKO	SOILED TOPLINE 10A	CHICAGO FAUCETS 540-LDE35-317ABCP	3.8 LPM						SUPPLIED BY UHN
TSP-1	TRAP SEAL PRIMER	REFER TO DRAWINGS	PPP									COMPLETE WITH DU-4 TO SERVE MULTIPLE FLOOR DRAINS.
FD-1	FLOOR DRAIN	REFER TO DRAWINGS		MP-500-12V								
NOTES: 1. COLOUR OF ALL FIXTURES (EXCEPT STAINLESS STEEL) & WATER CLOSET SEATS SHOULD BE WHITE 2. QUANTITY OF FIXTURES AS INDICATED IN THE DRAWINGS. 3. FIXTURES IN KITCHEN & SERVERY AREAS ARE SUPPLIED BY OTHERS. REFER TO KITCHEN SCHEDULES ON DRAWINGS. 4. ALL FIXTURES TO BE SUPPLIED WITH MIXING VALVES.												

[illegible]

PLUMBING & DRAINAGE PUMPS													
REFERENCE TAG	SERVICE	LOCATION	TYPE	FLOW RATE L/S	HEAD PRESSURE KPA	RPM	MANUFACTURER-MODEL	MOTOR SIZE KW (HP)	ELECTRICAL POWER SUPPLY (V/PH/Hz)	STARTER TYPE	WEIGHT (KG)	EMERGENCY POWER(Y/N)	COMMENTS
PP-01	DHW RECIRCULATION	LEVEL 0	RECIRCULATION	1.30	110	3450	TACO - VR15H	0.9	208/160	-	14	NO	
SP-1	SANITARY	FOUNDATION	SUBMERSIBLE	4.7	105	3450	ZOELLER - 6294	1.11 kW	208/3/60	-	44	YES	DUTY C/W GUIDE RAIL Z-RAIL 39-0129 STEP DOWN TRANSFORMER (600V/208V) TO BE SUPPLIED BY MANUFACTURER.
SP-2	SANITARY	FOUNDATION	SUBMERSIBLE	4.7	105	3450	ZOELLER - 6294	1.11 kW	208/3/60	-	44	YES	STAND-BY C/W GUIDE RAIL Z-RAIL 39-0129 STEP DOWN TRANSFORMER (600V/208V) TO BE SUPPLIED BY MANUFACTURER.
SP-3	SANITARY	FOUNDATION	SUBMERSIBLE	4.7	120	3450	ZOELLER - J6294	1.11 kW	208/3/60	-	44	YES	DUTY C/W GUIDE RAIL Z-RAIL 39-0129 STEP DOWN TRANSFORMER (600V/208V) TO BE SUPPLIED BY MANUFACTURER.
SP-4	SANITARY	FOUNDATION	SUBMERSIBLE	4.7	120	3450	ZOELLER - J6294	1.11 kW	208/3/60	-	44	YES	STAND-BY C/W GUIDE RAIL Z-RAIL 39-0129 STEP DOWN TRANSFORMER (600V/208V) TO BE SUPPLIED BY MANUFACTURER.
NOTES:													

ELECTRIC HEAT TRACING SCHEDULE								
REFERENCE TAG	MANUFACTURER	MODEL	DESCRIPTION	LENGTH (M)	REQUIRED OUTPUT (W/M)	ELECTRIC... VIPH/Hz	EMERGENCY POWER (Y/N)	REMARKS
ETC-01	RAYCHEM	5XLE2-CR	SERVING CORRIDOR CANOPY	32.6	10	208/160	Y	CONTROLLER C910-485 RAYCHEM
NOTES:	1. PROVIDE CABLE SEGMENTS AS REQUIRED TO COMPLETELY TRACE PIPING RUN AS INDICATED ON DRAWINGS.							
	2. PROVIDE RAYCHEM (OR EQUIVALENT) POWERED AND UN-POWERED CONNECTIONS AND SUPPORTS AS REQUIRED TO PROVIDE COMPLETE SYSTEM.							
	3. PICK-UP DRY CONTACTS AT EACH CONTROLLER TO ALARM BAS ON ANY TROUBLE SIGNAL.							
	4. COMMUNICATIONS CABLE IS REQUIRED TO BE EXTENDED FROM PIPE MOUNTED RTD BACK TO CONTROLLER. ALLOW FOR SUFFICIENT CONTROLS CABLEING AND CONDUIT.							
	5. CONTROLS CABLE TO BE IN CONDUIT							
	6. HEAT TRACING AND PIPE SYSTEMS ARE DESIGNED FOR -23°C (-10°F) AMBIENT TEMPERATURE.							
	7. THIS SCHEDULE IS TO BE READ IN CONJUNCTION WITH SPECIFICATION 20 05 25 REGARDING STANDARDS FOR PIPE INSULATION.							



CLIENT:

ARCHITECT:

CONSULTANT:

PROJECT:

Seniors Emergency Medicine Centre (SEMC) & External Corridor

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Toronto, ON M5R 3P8

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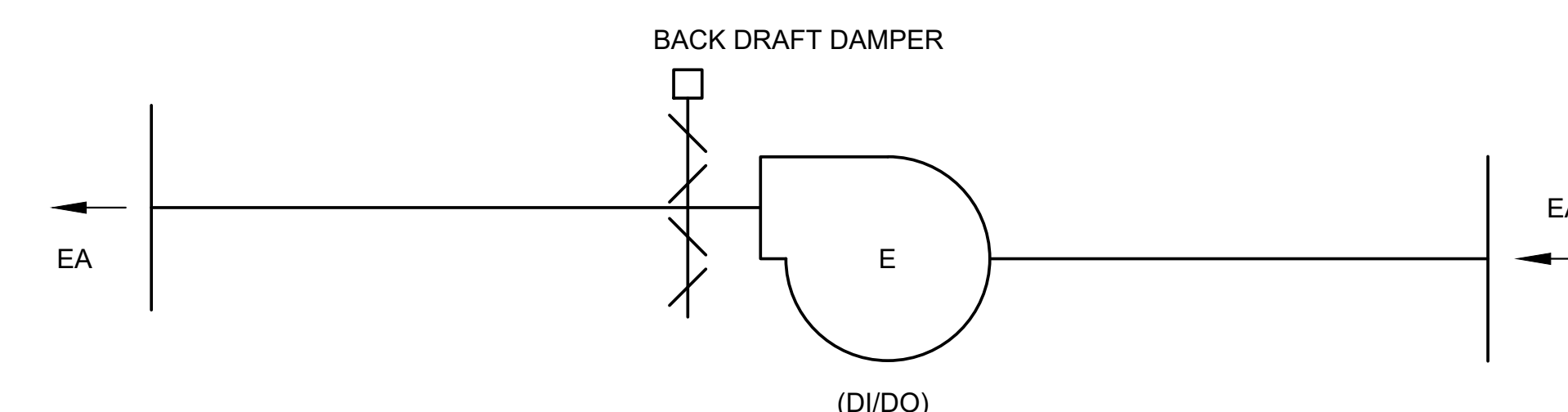
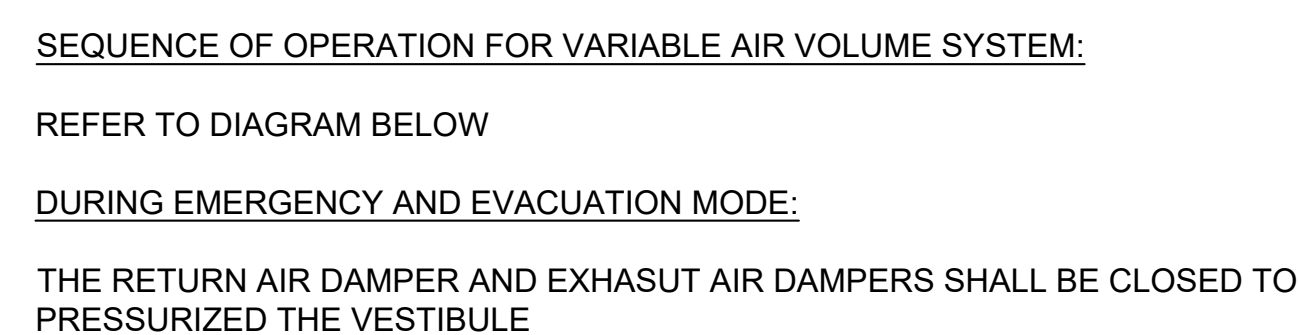
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CONTROL DIAGRAMS #1

PROJECT NO: MRK-23004289

DRAWING NO: M-801

CHECKED: S.S.

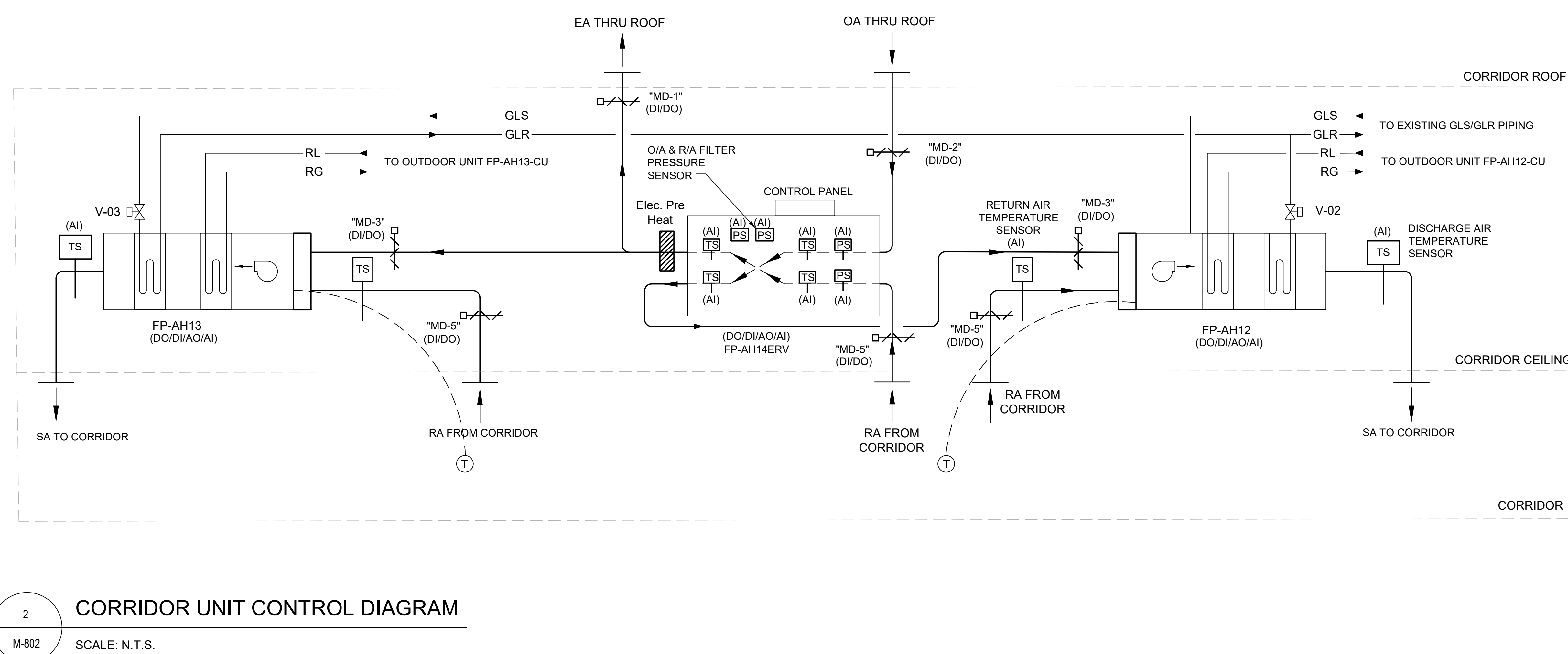


SEQUENCE OF OPERATION:

VENTILATION MODE:

- ① EXHAUST FAN SHALL BE STARTED AND STOPPED THROUGH THE BAS BY EITHER THE OPERATOR OR THE PRE-PROGRAMMED TIME SCHEDULE, AND RUN CONTINUOUSLY.
- ② THE BAS SHALL MONITOR THE STATUS OF EXHAUST FAN AT THE MCC AND PROVIDE TROUBLE ALARM AT BAS
- ③ BAS SHALL START/STOP EXHAUST FANS BASED ON PROGRAMMABLE SCHEDULE.

5 WASHROOM EXHAUST FAN CONTROL DIAGRAM
M-802 SCALE: N.T.S.



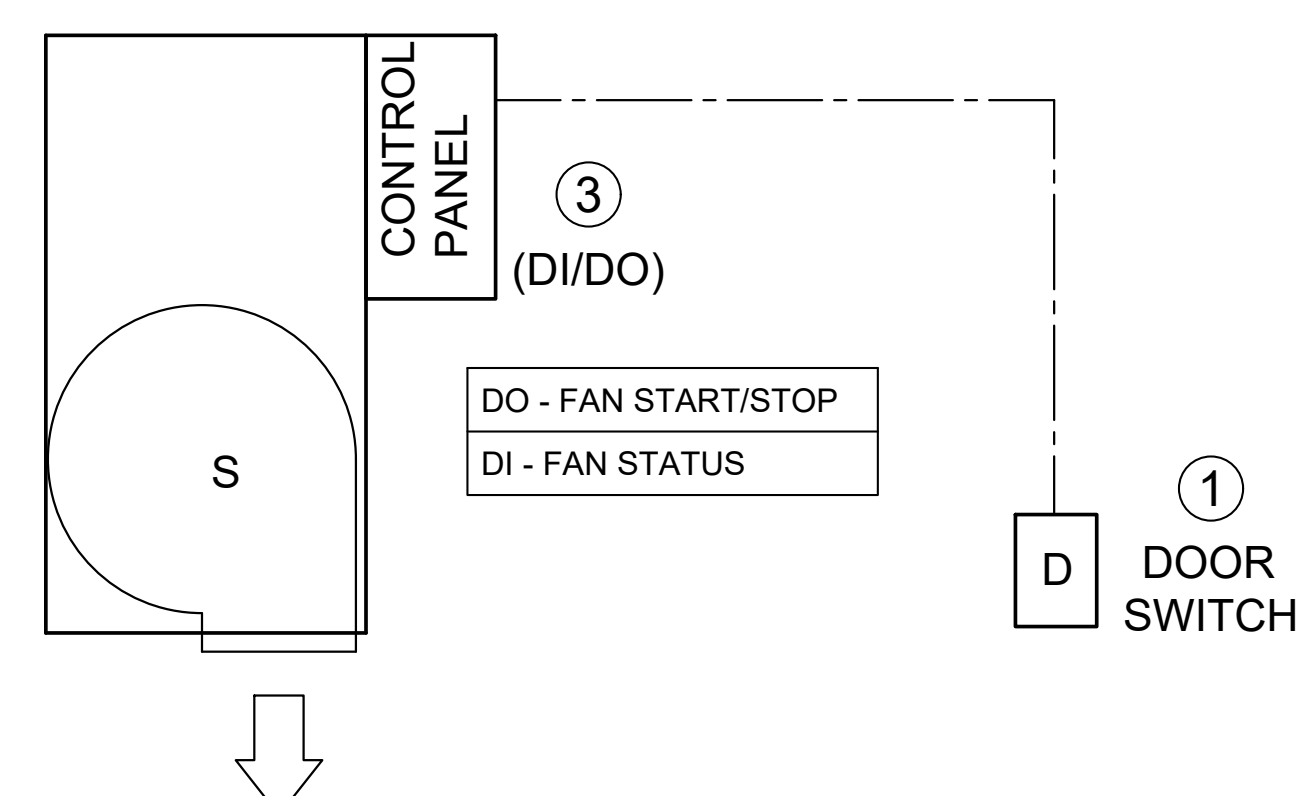
SEQUENCE OF OPERATION FOR VARIABLE AIR VOLUME SYSTEM:

GENERAL

- a. THE SYSTEM START IS INITIATED BY A BAS SCHEDULE 24/7 (ADJ.).
 - b. THE OPERATOR SHALL BE ABLE TO OVERRIDE THE SCHEDULE AND START/STOP THE SYSTEM THROUGH THE BAS.
 - c. THE SYSTEM SHALL OPERATE AS A MIXED AIR UNIT IN NORMAL OPERATION, WITH THE OUTDOOR AIR DAMPER SET TO A MINIMUM POSITION (33%) REFER O SCHEDULE FOR VARIOUS STAGES OF THIS UNIT.
 - d. ALL TEMPERATURE SENSORS IN THE AIR HANDLING UNIT SHALL BE AVERAGE TYPE.
 - e. THE UNIT SHALL BE EQUIPPED WITH CONTROLLER FOR INTEGRATION TO THE BAS. THE CONTROLLER SHALL BE CONTROLLING THE COMPONENTS OF THE UNIT. THE BAS IS TO SCHEDULE, ENABLE/DISABLE, MONITOR AND HAVE SETPOINT ADJUSTMENTS OF THE UNIT.
2. UNIT START UP
- a. ON STARTUP, THE OUTSIDE AIR DAMPER AND THE EXHAUST AIR DAMPER SHALL CLOSE. THE RE-CIRCULATION AIR DAMPER SHALL OPEN.
3. UNIT SHUTDOWN
- a. ONCE THE UNIT(S) HAVE BEEN PROVEN OFF THE OUTDOOR AIR DAMPER AND EXHAUST AIR DAMPER SHALL FULLY CLOSE. AFTER 4 SECONDS' DELAY.
 - b. THE RE-CIRCULATION AIR DAMPER SHALL FULLY OPEN.
4. SUPPLY AIR TEMPERATURE CONTROL
- a. SUPPLY AIR TEMPERATURE SETPOINT SHALL BE MAINTAINED AT 22.22 TO 23.8°C (ADJ.).
5. ELEV UNIT: ALARM SHALL BE GENERATED AT BAS SYSTEM UPON FAILURE AND OUTDOOR AIR INTAKE DAMPER SHALL BE CLOSED.

NOTE: REFRIGERANT VALVES ETC. SHALL PROVIDED AS PER MANUFACTURER RECOMMENDATION

2 CORRIDOR UNIT CONTROL DIAGRAM
M-802 SCALE: N.T.S.



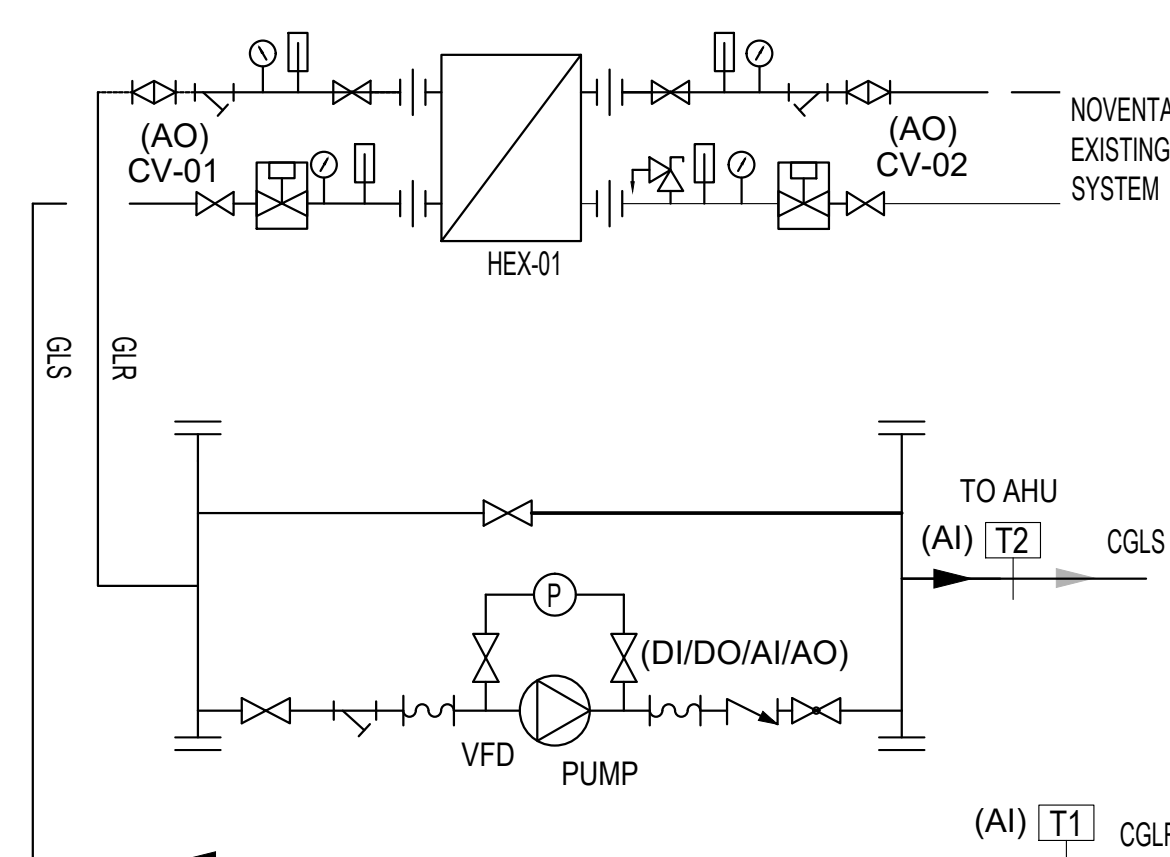
SEQUENCE:

- ① FFH TO BE INTERLOCKED WITH DOOR VIA DOOR SWITCH
- ② FAN SHALL RUN AT HIGH SPEED WHEN DOOR IS OPENED. FAN SHALL REMAIN ON UNTIL SET DELAY TIME EXPIRES.
- ③ CONTROL PANEL TO RELAY GENERAL ALARM TO BAS SYSTEM.
- ④ UNIT CONFIGURATION IS AS PER THE LAYOUTS

3
M-802

CONTROL SCHEMATIC - FORCE FLOW HEATER

SCALE: N.T.S.



SEQUENCE OF OPERATION (NEW SYSTEM)

COOLING

THE CONTROL VALVES AT THE HEAT EXCHANGER WILL BE OPEN
PUMPS WILL TURN ON AS PER AHU COOLING DEMAND

BAS TO PROVIDE ALARM IF PUMP FAILS

4 CONTROL SCHEMATIC - HEX/PUMP
M-802 SCALE: N.T.S.

MISCELLANEOUS CONTROL / MONITOR

FIRE ALARM

1. THE BAS SHALL PICK UP A FIRE ALARM OUTPUT ALARM CONTACT FROM THE FIRE ALARM PANEL AND REPORT TO THE OPERATOR'S WORKSTATION.

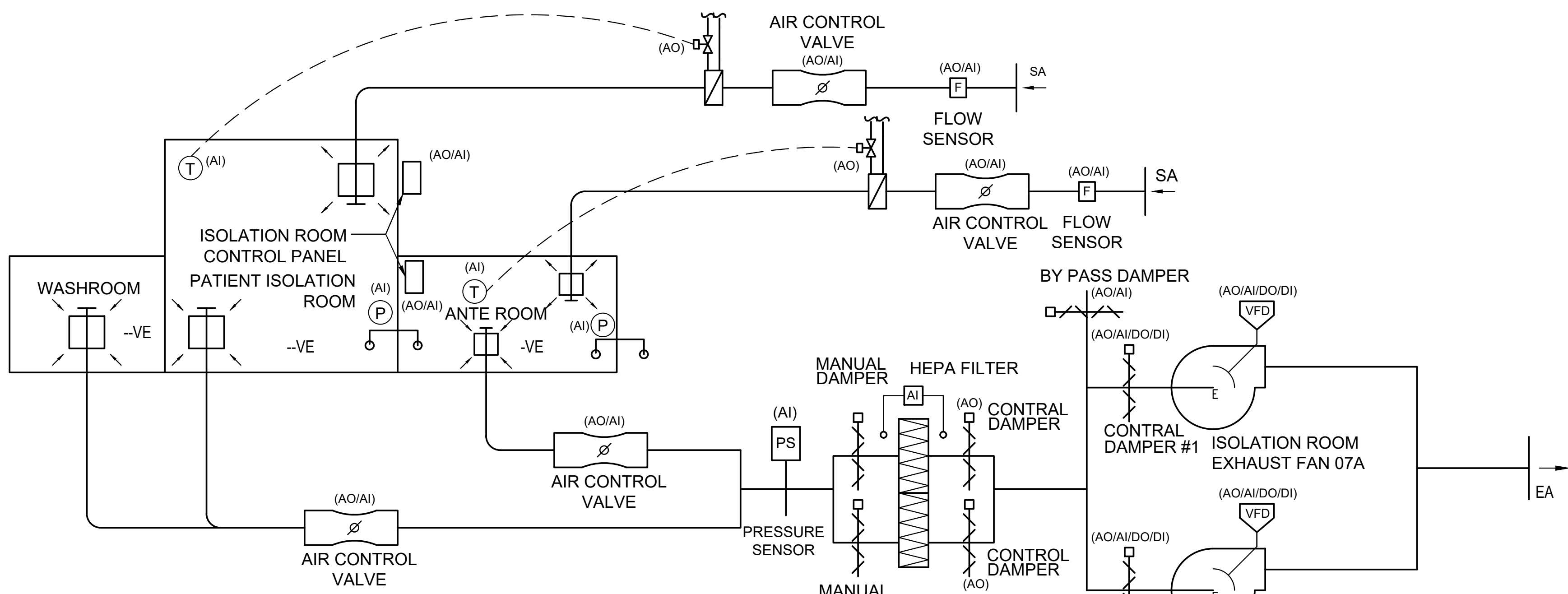
ELECTRICAL ROOM

- | | | |
|----|--|----|
| 1. | BAS TO MONITOR THE FOLLOWING: | |
| | ROOM TEMPERATURE | AI |
| | AC UNITS STATUS | DI |
| | TROUBLE ALARM | DI |
| | WATER LEAK DETECTION ALARM | DI |
| 2. | WHEN ROOM TEMPERATURE EXCEEDS 29.4°C (85°F), AN ALARM SHALL REGISTER AT THE BAS. | |

ELECTRICAL HEAT TRACING

1. BAS TO MONITOR THE ELECTRICAL HEAT TRACING; A BAS ALARM SHALL BE GENERATED FOR ANY FAILURE.

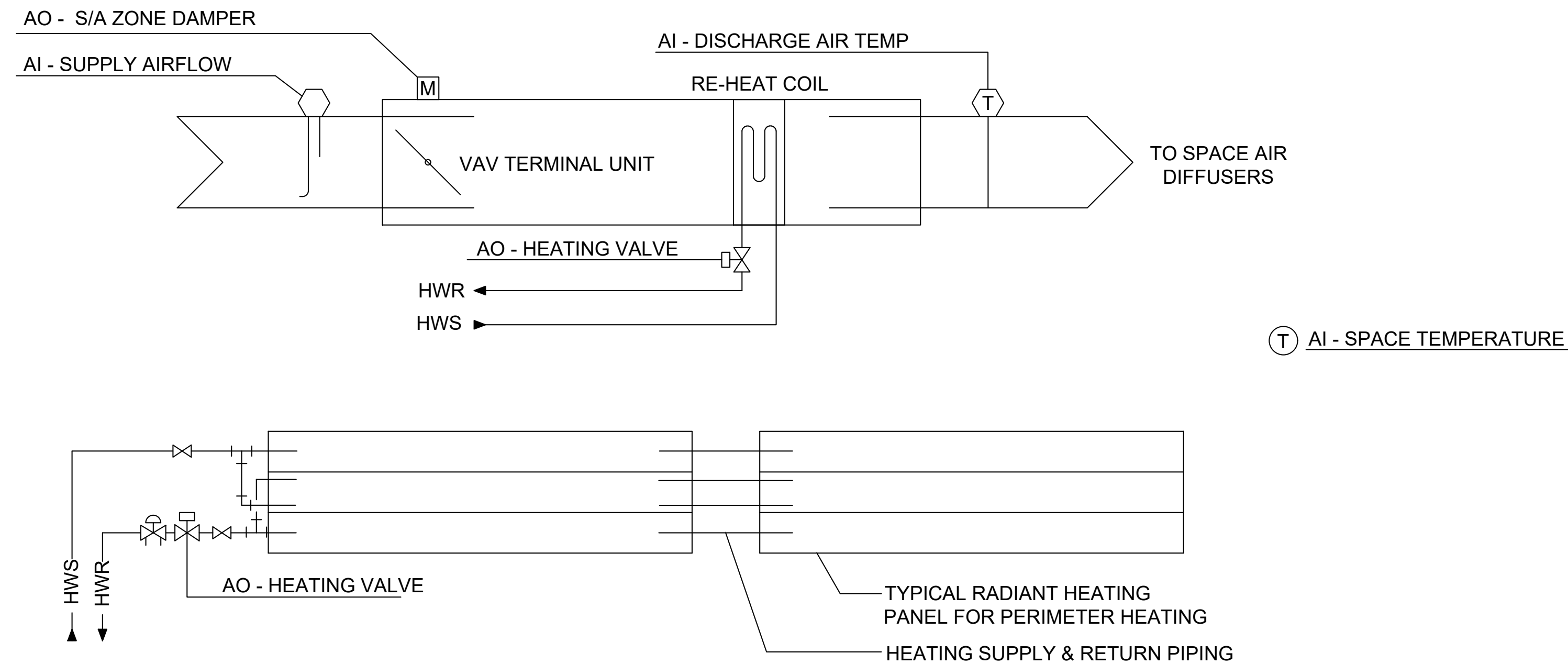
GENERAL NOTE: ALL FLOW MEASURING DEVICES SHALL BE REVIEWED WITH CONSULTANT BEFORE INSTALLATION AND UPSTREAM AND DOWNSTREAM DISTANCES SHALL BE COMPLIED AS PER MANUFACTURER RECOMMENDATIONS



SEQUENCE:

1. THERMOSTAT IN ANTE ROOM AND PATIENT ISOLATION ROOM WILL MAINTAIN SPACE TEMPERATURE BY MODULATING THEIR RESPECTIVE REHEAT COIL CONTROL VALVE.
2. BUILDING AUTOMATION SYSTEM (BAS) SHALL RECEIVE A FLOW SIGNAL FROM FLOW STATIONS FOR RESPECTIVE ANTE ROOM AND PATIENT ISOLATION ROOM SUPPLY DUCTS AND MODULATE THEIR RESPECTIVE CONSTANT SUPPLY AIR VOLUME TO ANTE ROOM AND PATIENT ISOLATION ROOM.
3. DEDICATED SPACE PRESSURE CONTROLLERS SHALL MONITOR THE ANTE ROOM AND PATIENT ISOLATION ROOM PRESSURES, REFERENCE THIS TO THE CORRIDOR PRESSURE AND MODULATE RESPECTIVE AIR CONTROL VALVES TO HOLD SPECIFIED NEGATIVE PRESSURES. PRESSURE DIFFERENTIALS BETWEEN PATIENT ISOLATION ROOM, ANTE ROOM AND CORRIDOR SHALL BE AS FOLLOWS:
 - 3.1 NEGATIVE PRESSURE DIFFERENTIAL BETWEEN ANTE ROOM AND CORRIDOR - 2.5 PA (MINIMUM)
 - 3.2 NEGATIVE PRESSURE DIFFERENTIAL BETWEEN PATIENT ISOLATION ROOM AND ANTE ROOM - 2.5 PA (MINIMUM)
 - 3.3 NEGATIVE PRESSURE DIFFERENTIAL BETWEEN PATIENT ISOLATION ROOM AND CORRIDOR - 7.5 PA (MINIMUM)
 - 3.4 NEGATIVE PRESSURE DIFFERENTIAL BETWEEN PATIENT ISOLATION ROOM AND ADJACENT ROOMS - 7.5 PA (MINIMUM)
 - 3.5 READINGS FOR SPACE PRESSURES FOR BOTH PATIENT ISOLATION ROOM AND ANTE ROOM SHALL BE PROVIDED AT BOTH LOCAL ISOLATION ROOM CONTROL PANELS AND AT BAS. IF NEGATIVE PRESSURE DIFFERENTIAL RISES ABOVE, AN ALARM SHALL BE GENERATED AT THE BAS
4. STATION AND AT THE PANEL IN THE CORRIDOR TO AVOID ANYONE ENTERING THE ROOM.
5. SPECIFIED PRESSURE DIFFERENTIALS, AN AUDIBLE AND VISUAL ALARM SHALL BE INITIATED AT LOCAL ISOLATION ROOM CONTROL PANELS AND AN ALARM SIGNAL SHALL BE INITIATED AT BAS.
6. UPON INITIAL START, WHEN ISOLATION ROOM EXHAUST FANS ARE ENERGIZED, DAMPERS IN AIR CONTROL VALVES, HEPA FILTERS AND EXHAUST FANS ARE FULLY OPEN. IF BOTH EXHAUST FANS ARE DE-ENERGIZED THE DAMPERS IN AIR CONTROL VALVES, HEPA FILTERS AND EXHAUST FANS ARE FULLY CLOSED.
7. DURING NORMAL OPERATION, BOTH ISOLATION ROOM EXHAUST FANS SHALL OPERATE AT 50% SPEED AND EACH EXHAUST FAN SHALL EXHAUST 50% OF THE REQUIRED AIRFLOW FROM THE PATIENT ISOLATION ROOM AND ANTE ROOM. IN THE EVENT OF FAILURE OF EITHER EXHAUST FAN, THE RESPECTIVE DAMPER FOR THE ISOLATION ROOM EXHAUST FAN SHALL FULLY CLOSE, THE RESPECTIVE DAMPER FOR THE OTHER ISOLATION ROOM EXHAUST FAN SHALL FULLY OPEN AND THE OTHER ISOLATION ROOM EXHAUST FAN SHALL RAMP UP TO 100% SPEED TO ENSURE THAT THE REQUIRED EXHAUST AIRFLOW FROM THE SPACES IS MAINTAINED.
8. DURING NORMAL OPERATION, AIR FROM THE PATIENT ISOLATION ROOM AND ANTE ROOM SHALL BE EXHAUSTED THROUGH BOTH HEPA FILTERS. IN THE EVENT OF FAILURE, OR CLOGGING OF ONE HEPA FILTER, THE RESPECTIVE CONTROL DAMPER FOR OTHER HEPA FILTER SHALL FULLY OPEN AND EXHAUST AIR SHALL FLOW FULLY THROUGH OTHER HEPA FILTER.
9. PROVIDE DIFFERENTIAL PRESSURE SENSORS AT FILTERS. PROVIDE READINGS AND ALARMS AT SENSORS.
10. PROVIDE DOOR CONTACT FOR ANTE ROOM AND ISOLATION ROOM. (MECHANICAL CONTROLS CONTRACTOR TO COORDINATE WITH DOOR MANUFACTURER ON SITE)
11. PROVIDE BY PASS DAMPER TO ENSURE AIR VELOCITY ON EXHAUST AIR IN CASE THE AIR VALVES ARE CLOSING.

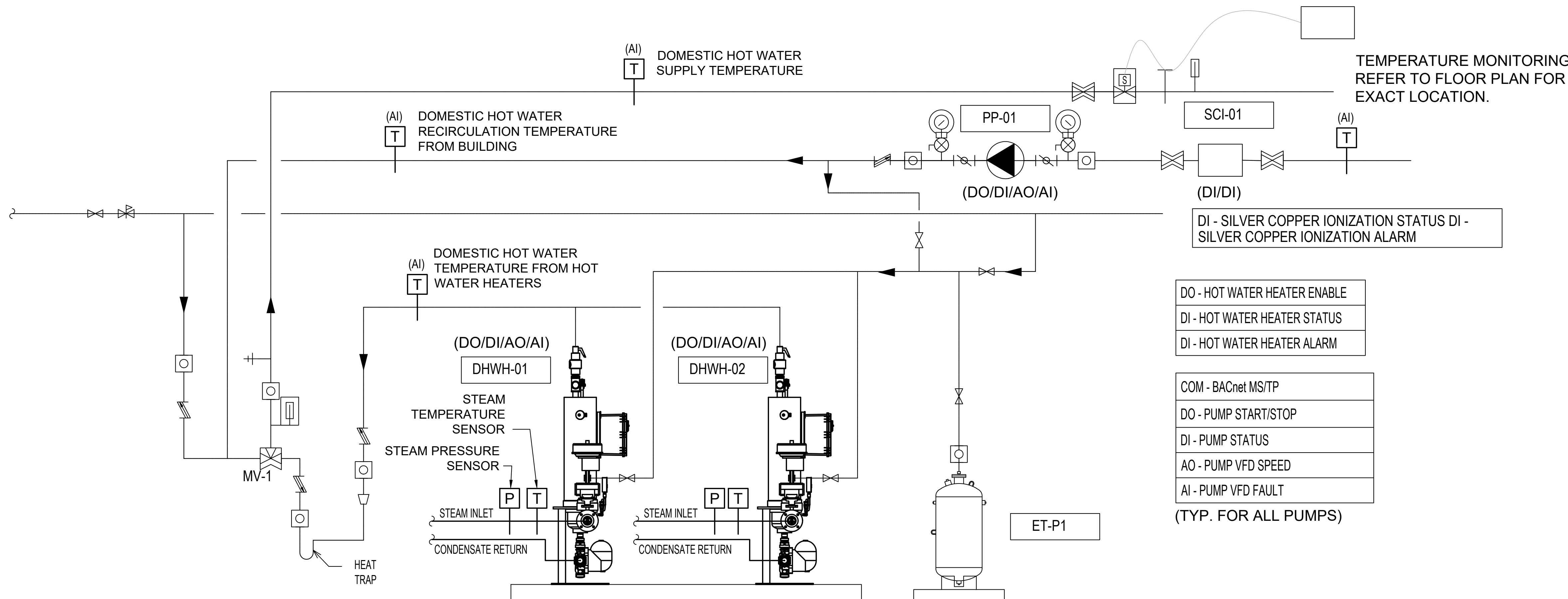
1 ISOLATION ROOM EXHAUST CONTROL DIAGRAM SEQUENCE OF OPERATION
M-803 SCALE: N.T.S.



SEQUENCE OF OPERATION:

1. THE RADIANT PANEL AND VAV BOX ARE CONTROLLED BY A ROOM TEMPERATURE SENSOR COMPLETE WITH LOCAL SET POINT CONTROL. THE ROOM TEMPERATURE SENSOR SHALL MODULATE THE CONTROL VALVES IN SEQUENCE TO MAINTAIN ROOM SET POINT OF 72°F (ADJUSTABLE).
2. THE BAS SHALL CONTROL THE RADIANT PANEL (FIRST STAGE HEATING) AND THE REHEAT COIL (SECOND STAGE HEATING) IN SEQUENCE TO MAINTAIN THE HEATING SET POINT. THE CONTROLS SHALL BE NON-OVERLAPPING.
3. DURING COOLING OPERATION, THE RADIANT PANEL CONTROL VALVES ARE FULLY CLOSED.
4. THE NIGHT SETBACK TEMPERATURE SHALL BE 65°F IF REQUIRED (TO BE ADJUSTED BY FACILITY STAFF).
5. ALL VAVS SHALL BE EQUIPPED WITH DISCHARGE AIRFLOW TEMP SENSOR AND A 24V MODULATING AIRFLOW DAMPER

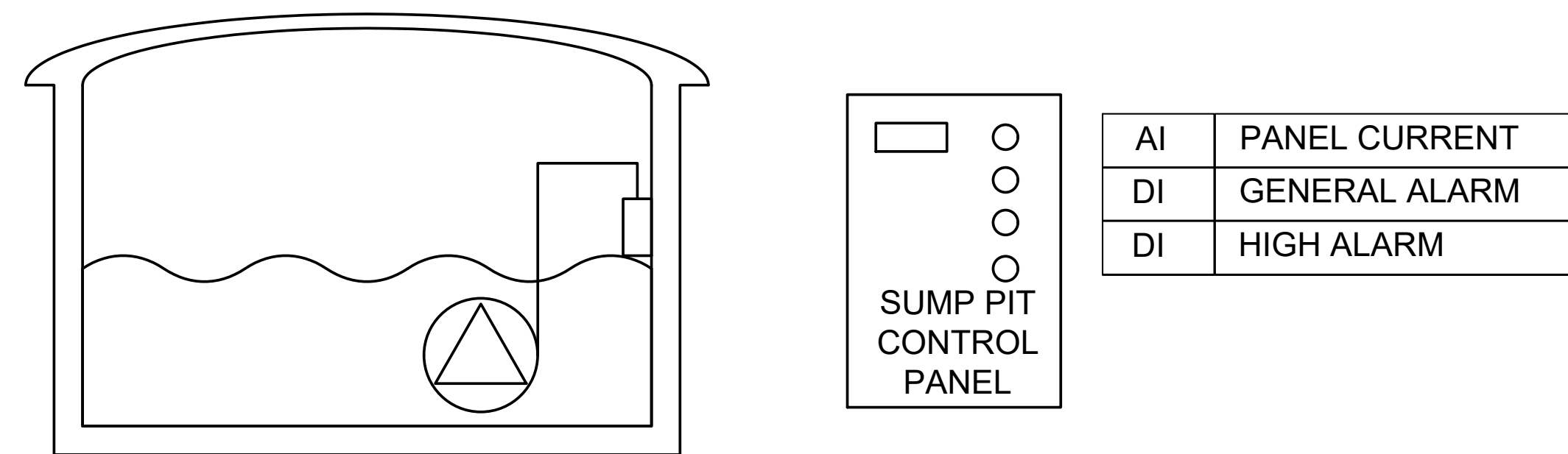
3 CONTROL SCHEMATIC - VAV BOX WITH REHEAT AND RADIANT HEATING PANEL
M-803 SCALE: N.T.S.



SEQUENCE OF OPERATION:

1. THE DOMESTIC HOT WATER RECIRCULATION AND SUPPLY TEMPERATURE SHALL MONITORED BY THE BAS. HIGH OR LOW TEMPERATURES SHALL BE ALARMED AT THE OPERATOR'S WORKSTATION. DHWR PUMP SHALL BE SCHEDULED TO RUN AND ALARMED AT THE OPERATOR'S WORKSTATION.
2. DOMESTIC STEAM HEATERS PANEL SHALL CONTROL THE TEMPERATURE CONTROL VALVE AND MODULATE IT TO MAINTAIN REQUIRED. PANEL TO COMMUNICATE TO BAS VIA BACNET MSTP. (PROCESS VALUE, ALARM, TCV OPENING)
3. MONITOR DHW TEMPERATURE AND INITIATE ALARM IF THIS WATER TEMPERATURE EXCEEDS 65°C (149°F).
4. THE DHW RECIRCULATION PUMP SHALL RUN CONTINUOUSLY WITH THE OPTION OF TEMPERATURE CONTROL AT THE OPERATOR'S WORKSTATION. MONITOR PUMP STATUS.
5. BAS SHALL MONITOR THE DHW SUPPLY, DHW RETURN TEMPERATURES AND ALL TEMPERATURE MONITORING SENSOR.
6. BAS SHALL MONITOR THE SILVER COPPER IONIZATION STATUS AND GENERATE FAULT ALARM

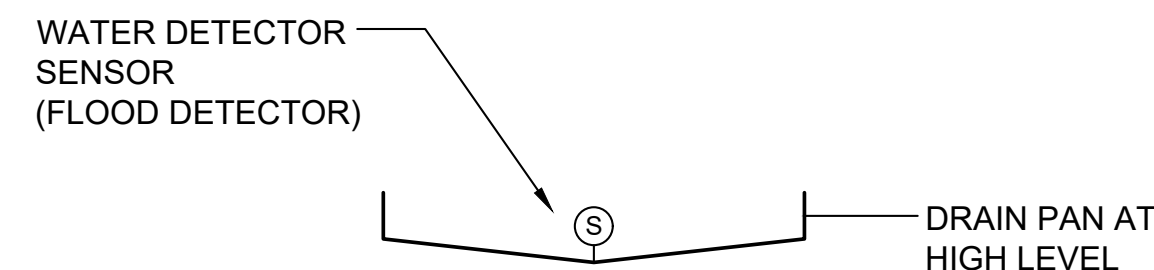
2 CONTROL SCHEMATIC - DOMESTIC HOT WATER HEATERS
M-803 SCALE: N.T.S.



SEQUENCE OF OPERATION:

1. THE BAS SHALL PROVIDE PUMP STATUS AND HIGH LEVEL ALARM INDICATION.

4 CONTROL SCHEMATIC - SUMP PUMP
M-803 SCALE: N.T.S.



SEQUENCE OF OPERATION:

1. A WATER DETECTOR SENSOR SHALL BE PROVIDED TO GENERATE ALARM AT BAS IN THE EVENT OF THE PLUGGED UP DRAIN OF DRIP PAN

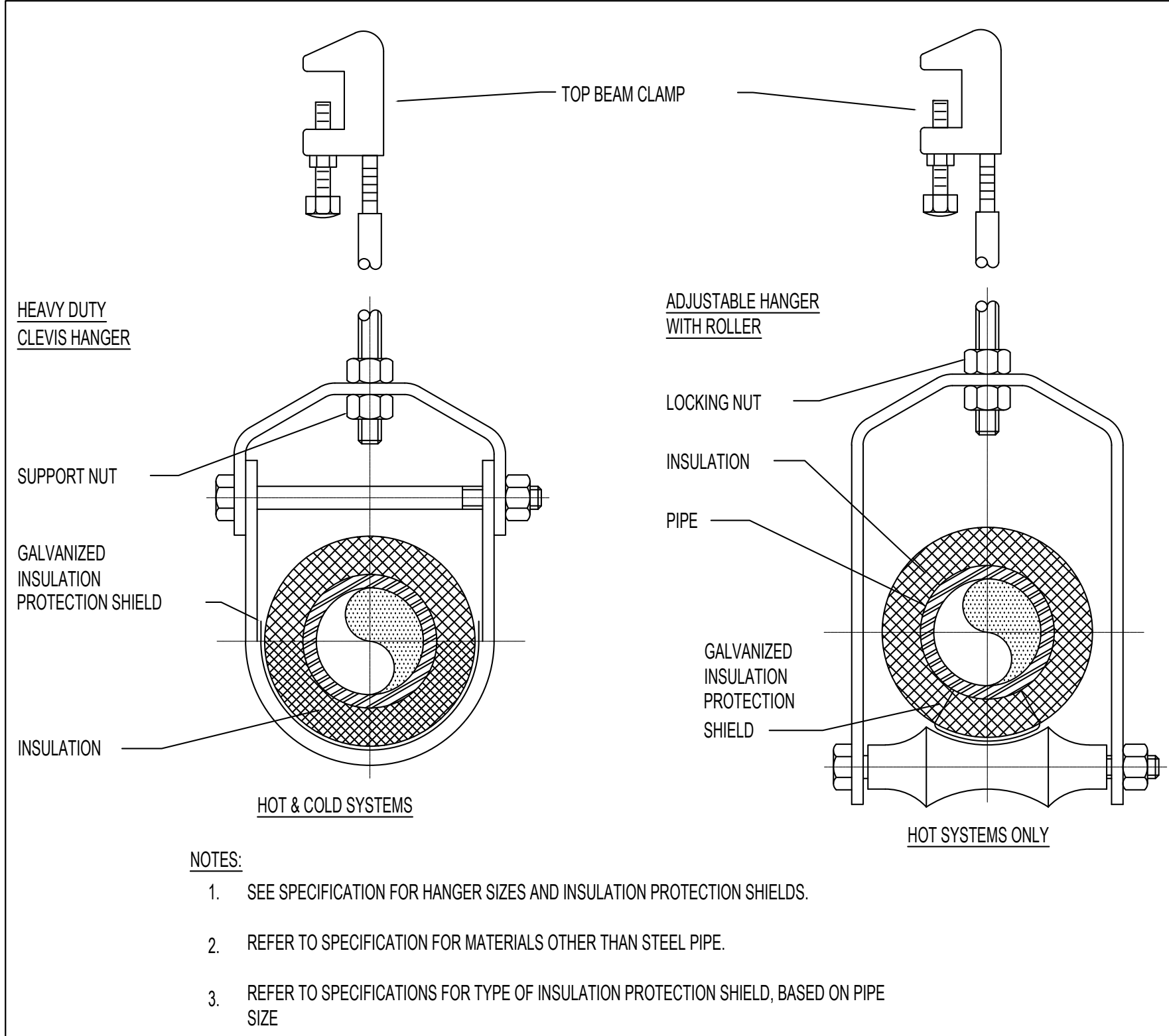
5 DRIP PAN WATER DETECTION - CONTROLS
M-803

GENERAL NOTE: ALL FLOW MEASURING DEVICES SHALL BE REVIEWED WITH CONSULTANT BEFORE INSTALLATION AND UPSTREAM AND DOWNSTREAM DISTANCES SHALL BE COMPLIED AS PER MANUFACTURER RECOMMENDATIONS

NO.	DESCRIPTION	DATE
8	Issued for Addendum M-02	2024.11.06
7	Issued for Addendum M-01	2024.10.29
6	Issued for Tender	2024.10.11
5	Issued for 100% CDD	2024.09.27
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3	Issued for 50% CDD / Permit	2024.08.02
2	Issued for 100 DD	2024.05.10
1	Issued for Design Development Progress	2024.04.05
NO.	DESCRIPTION	DATE

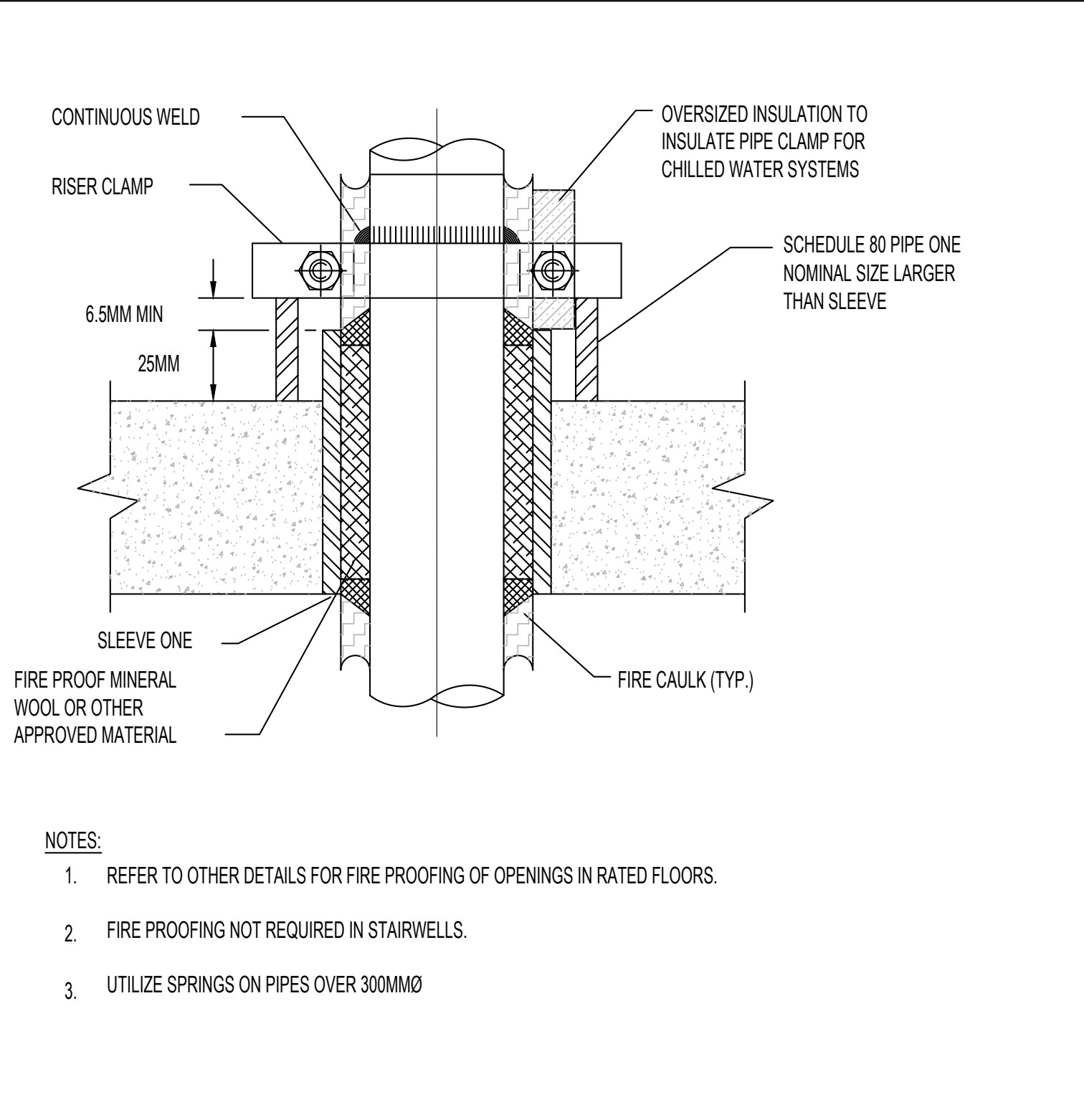
PROJECT:
Seniors Emergency Medicine Centre (SEMC) &
External Corridor
Toronto Western Hospital
399 Bathurst Street, Toronto, ON, M5T 2S8

CONTROL DIAGRAMS #3



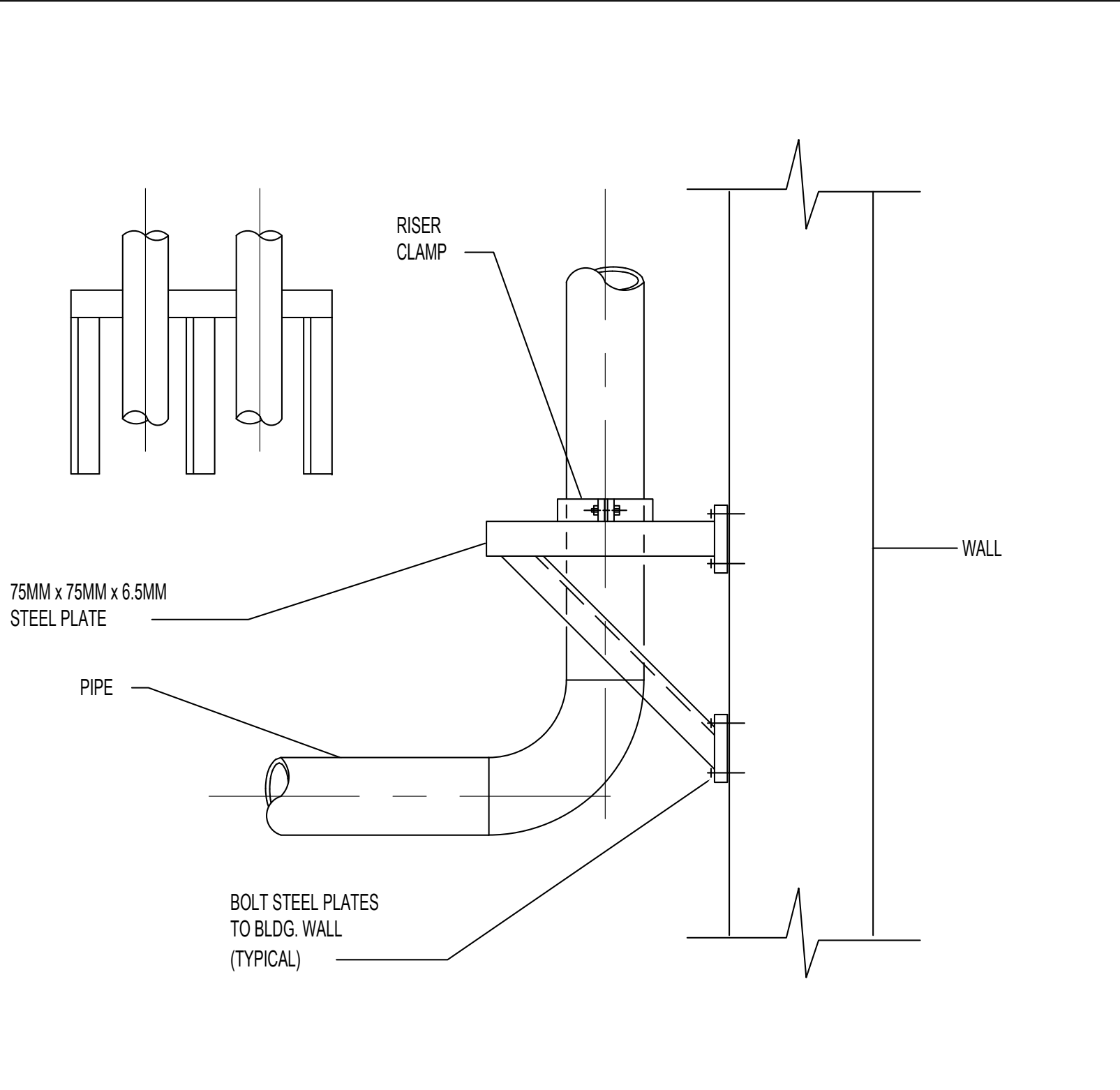
PIPE HANGAR SUPPORT LESS THAN OR EQUAL TO 200MM DIAMETER PIPE DETAIL

SCALE: N.T.S. 01



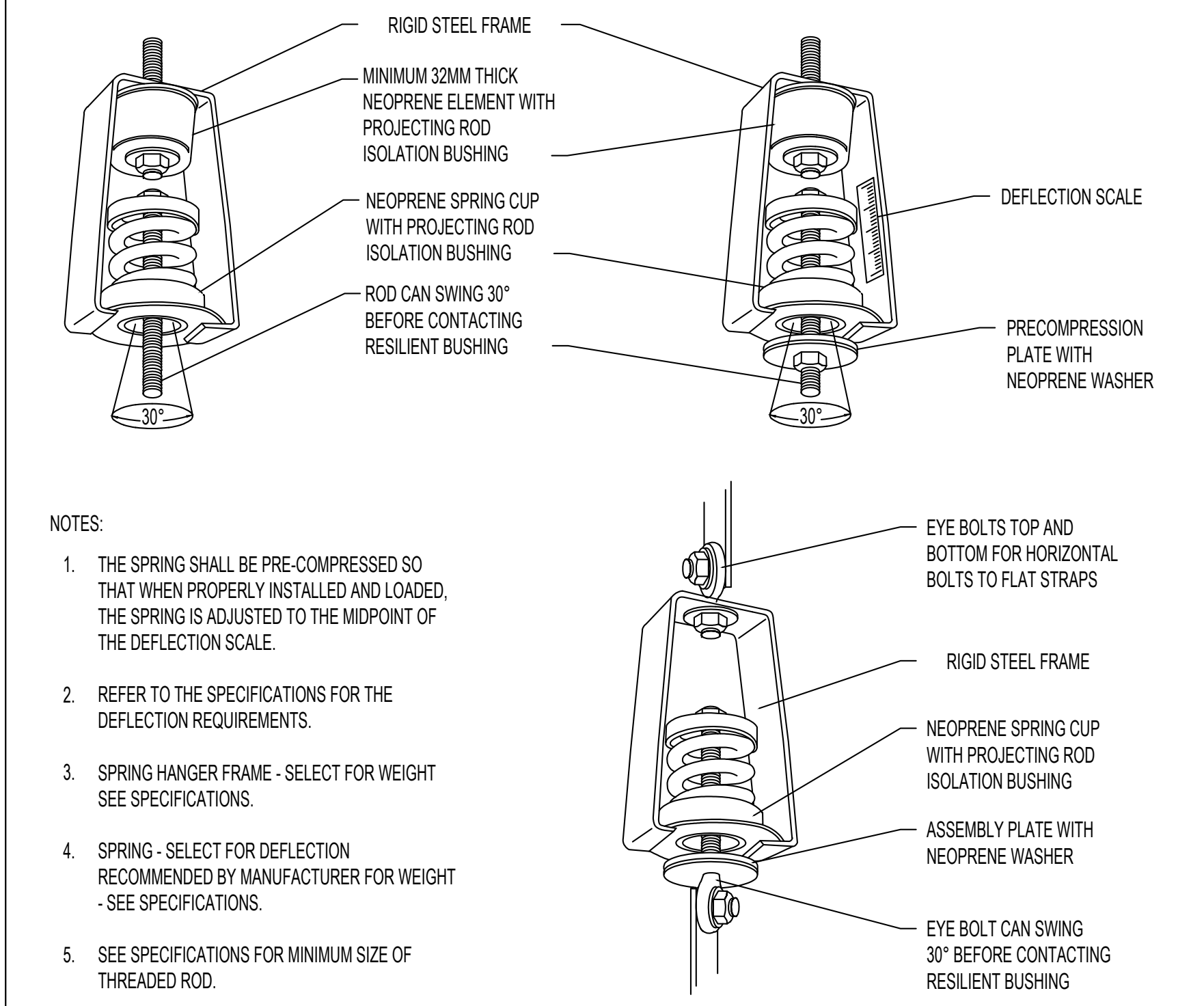
TYPICAL PIPE RISER SUPPORT DETAIL

SCALE: N.T.S. 02



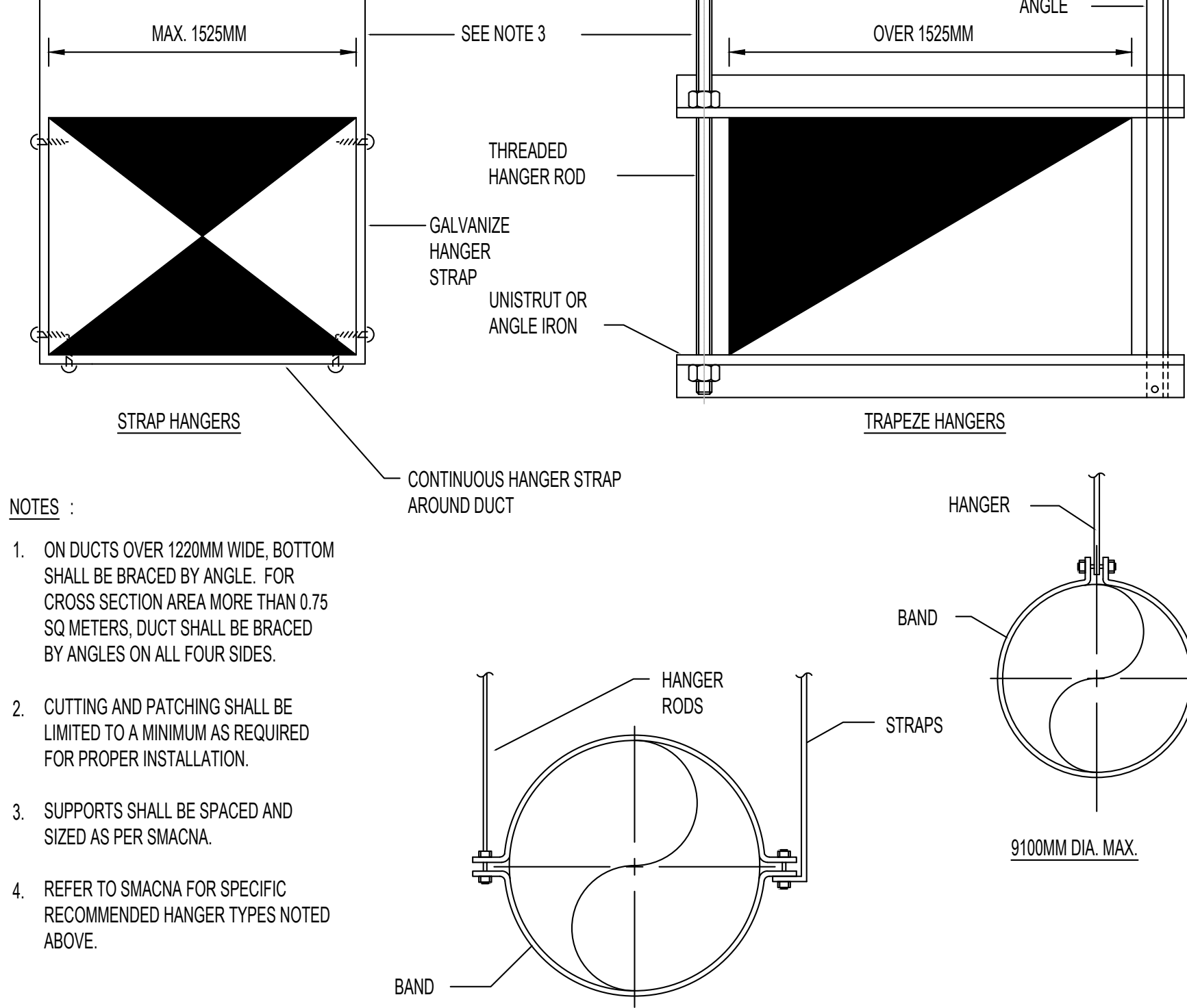
EXTERIOR PIPE RISER SUPPORT DETAIL

SCALE: N.T.S. 03



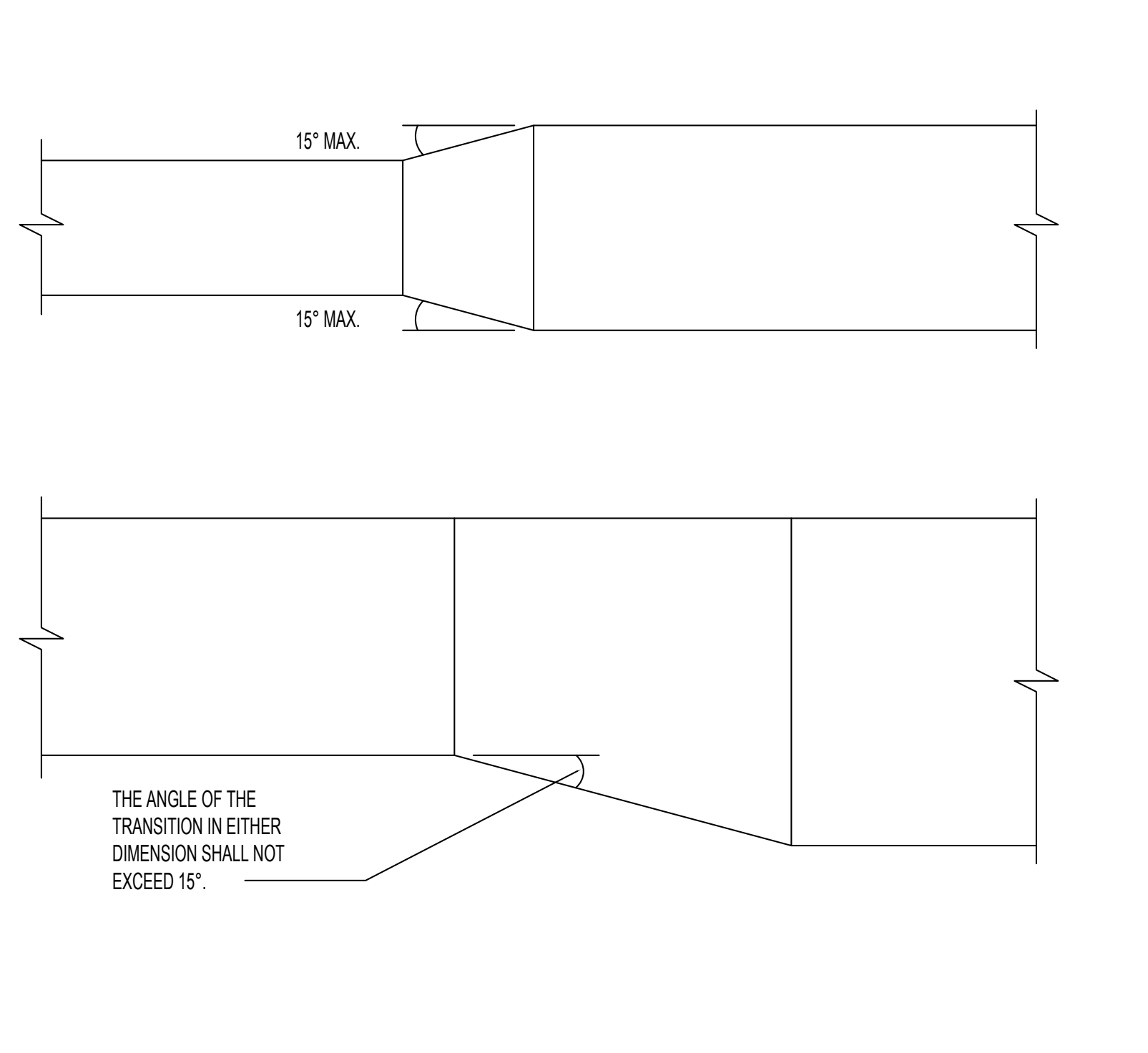
SPRING ISOLATED HANGERS FOR PIPE OR EQUIPMENT DETAIL

SCALE: N.T.S. 04



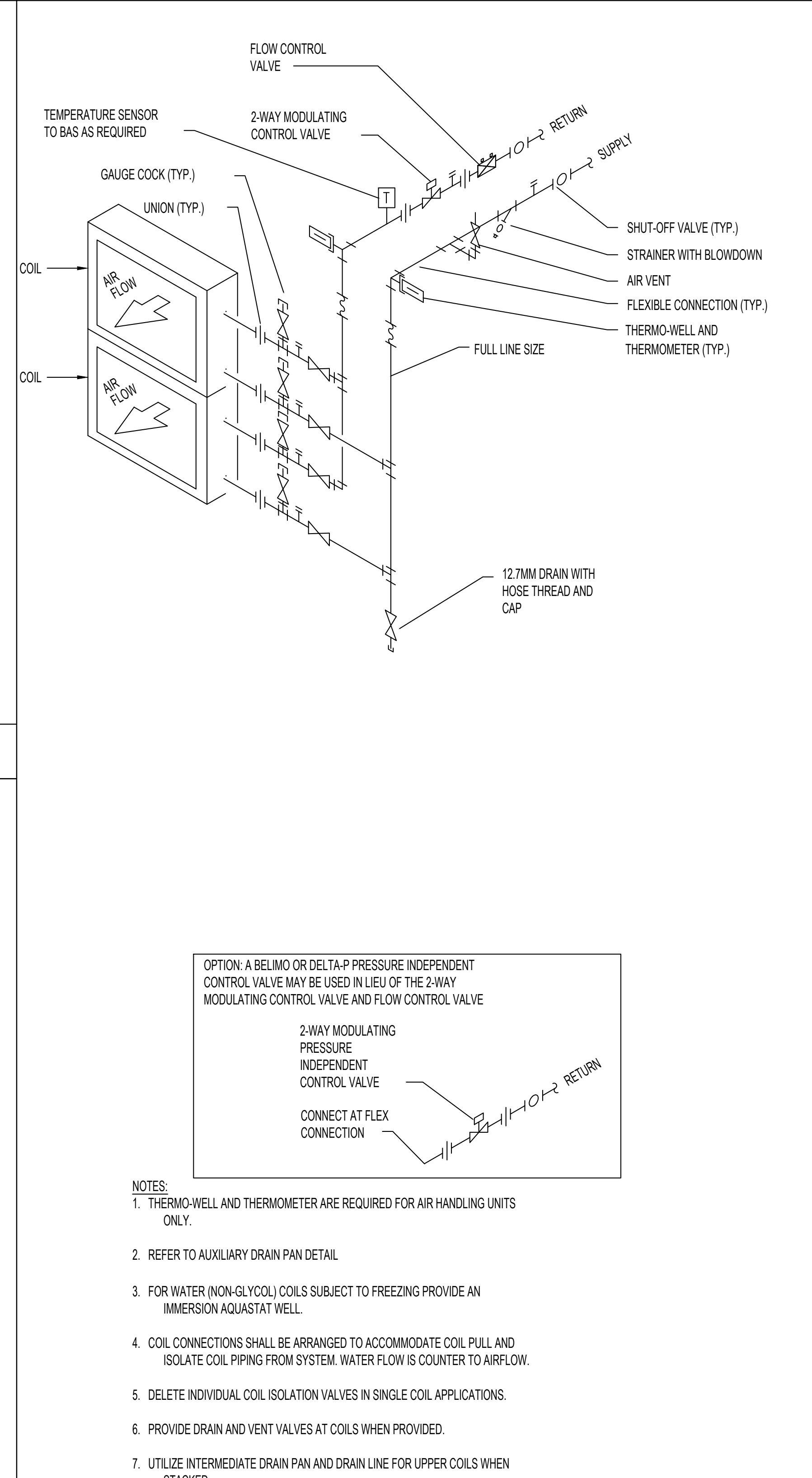
DUCT HANGER SUPPORT

SCALE: N.T.S. 05



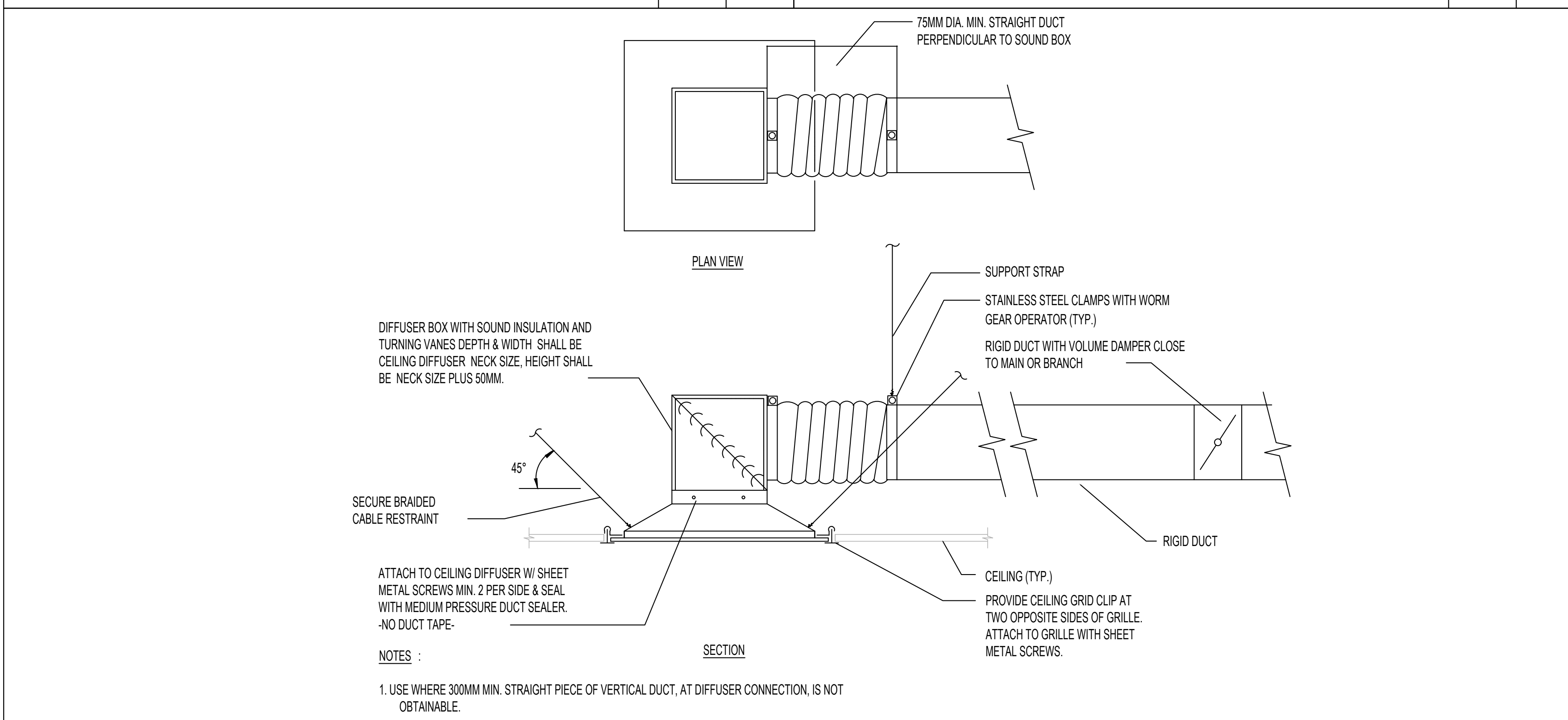
DUCT TRANSITION

SCALE: N.T.S. 06



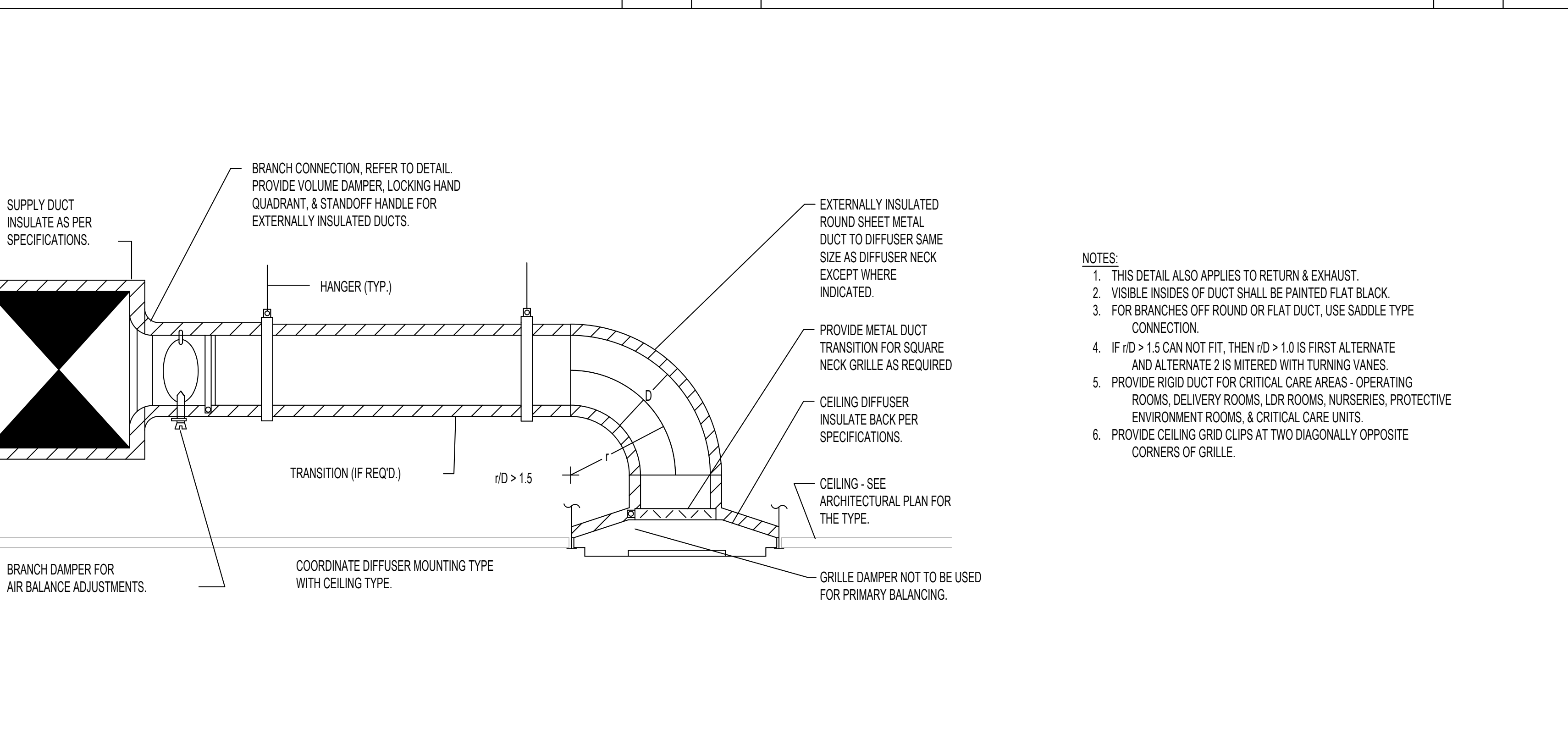
TWO-WAY MODULATING WATER COIL DETAIL

SCALE: N.T.S. 07



LOW CLEARANCE CEILING DIFFUSER

SCALE: N.T.S. 08



CEILING DIFFUSER - RIGID DUCT

SCALE: N.T.S. 09

CLIENT:

UHN University Health Network
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www.uhn.ca

ARCHITECT:

CUMULUS ARCHITECTS INC. 160 Pears Ave. - Suite 300
Toronto, ON M5R 3P6
416-598-0763
www.cumulusarch.com

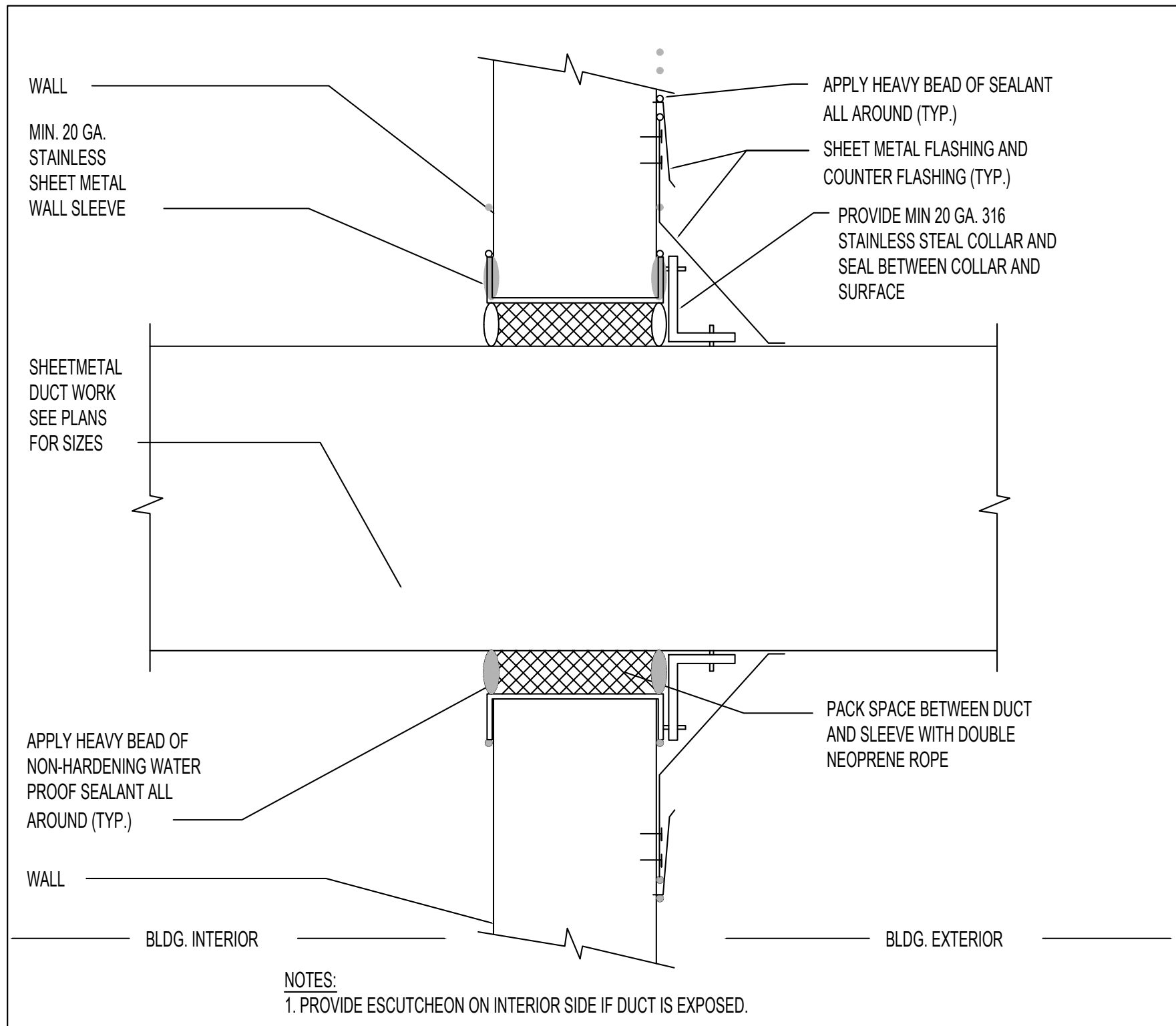
CONSULTANT:

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NO.	REVISION	DATE
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PROJECT:
Seniors Emergency Medicine Centre (SEMC) & External Corridor
Toronto Western Hospital
399 Bathurst Street, Toronto, ON, M5T 2S8
TITLE:
TYPICAL DETAILS - 1

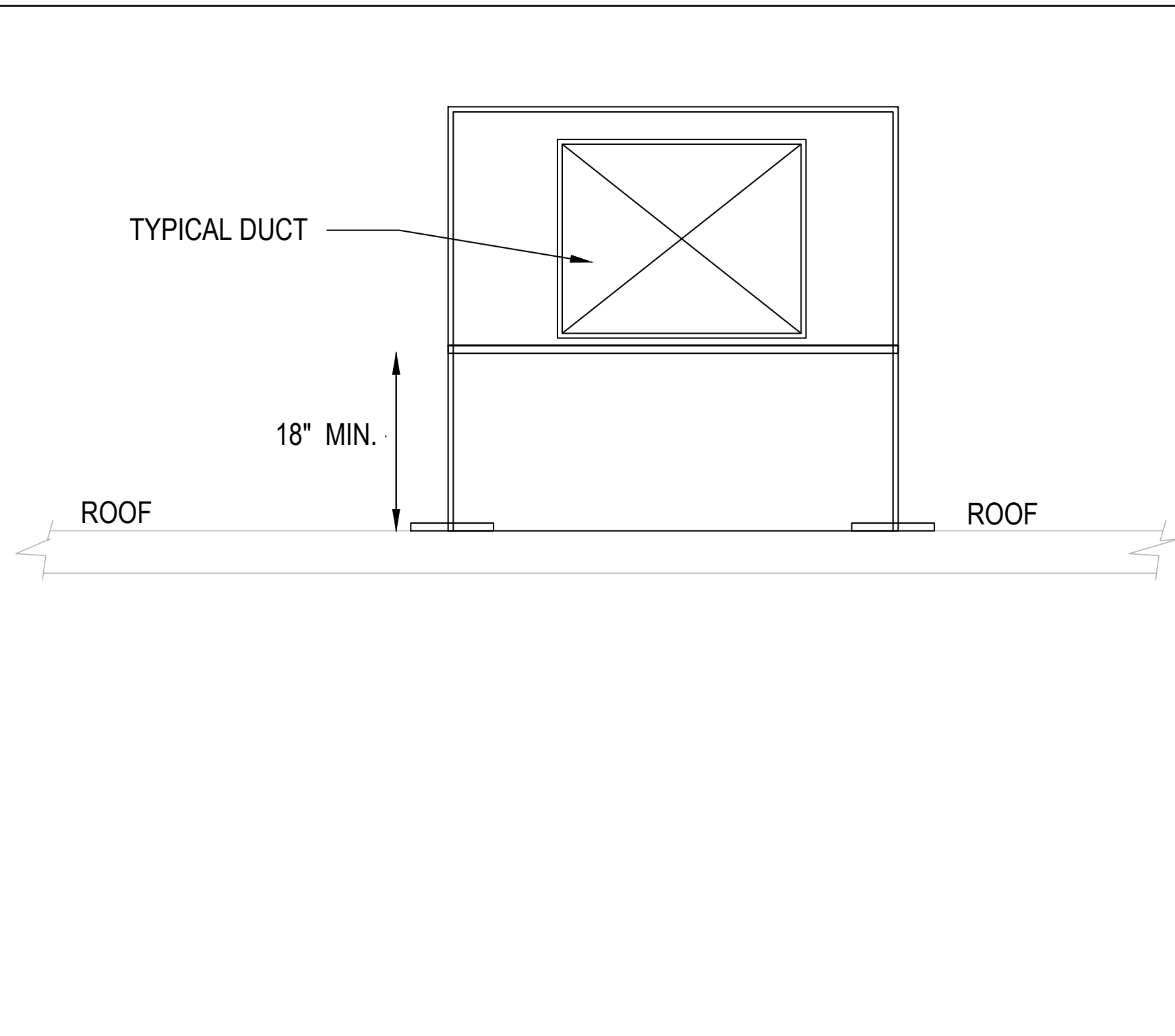
PROJECT NO: MRK-23004289
DRAWING NO: M-901
CHECKED: S.S.



DUCT PENETRATION THROUGH EXTERIOR WALL

SCALE:
N.T.S.

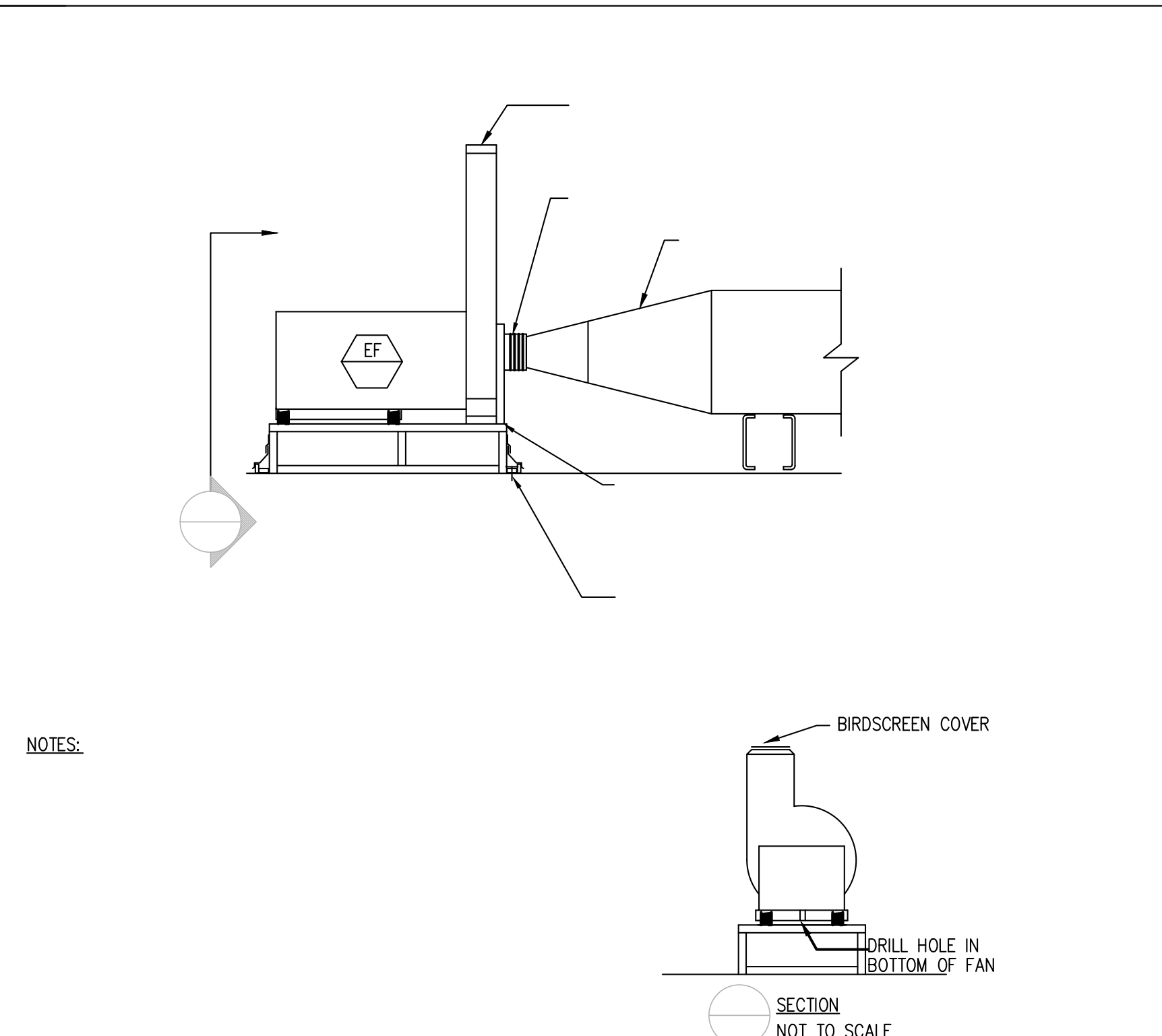
01



ROOF DUCTWORK SUPPORT DETAIL

SCALE:
N.T.S.

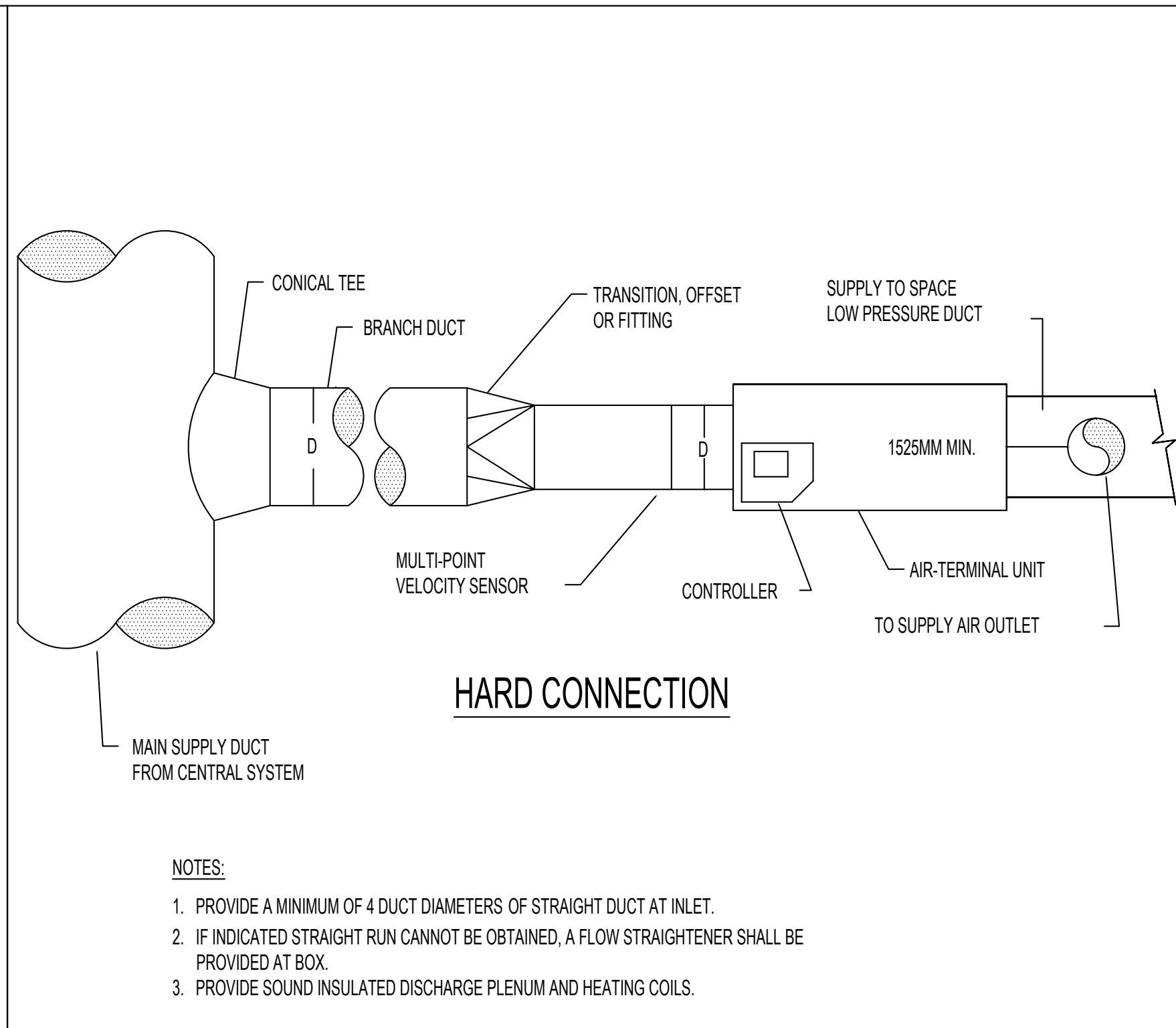
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UTILITY FAN SET DETAIL

SCALE:
N.T.S.

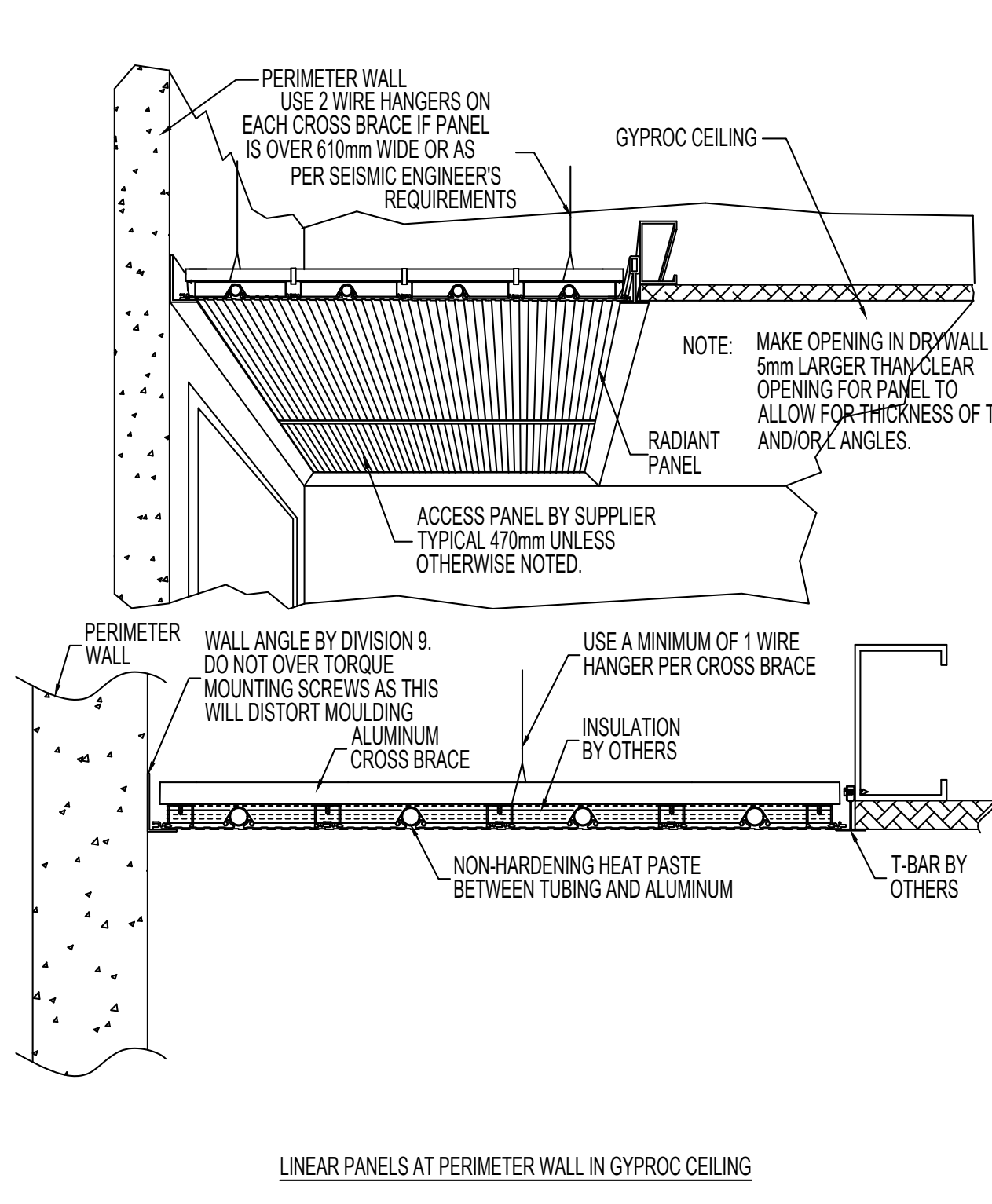
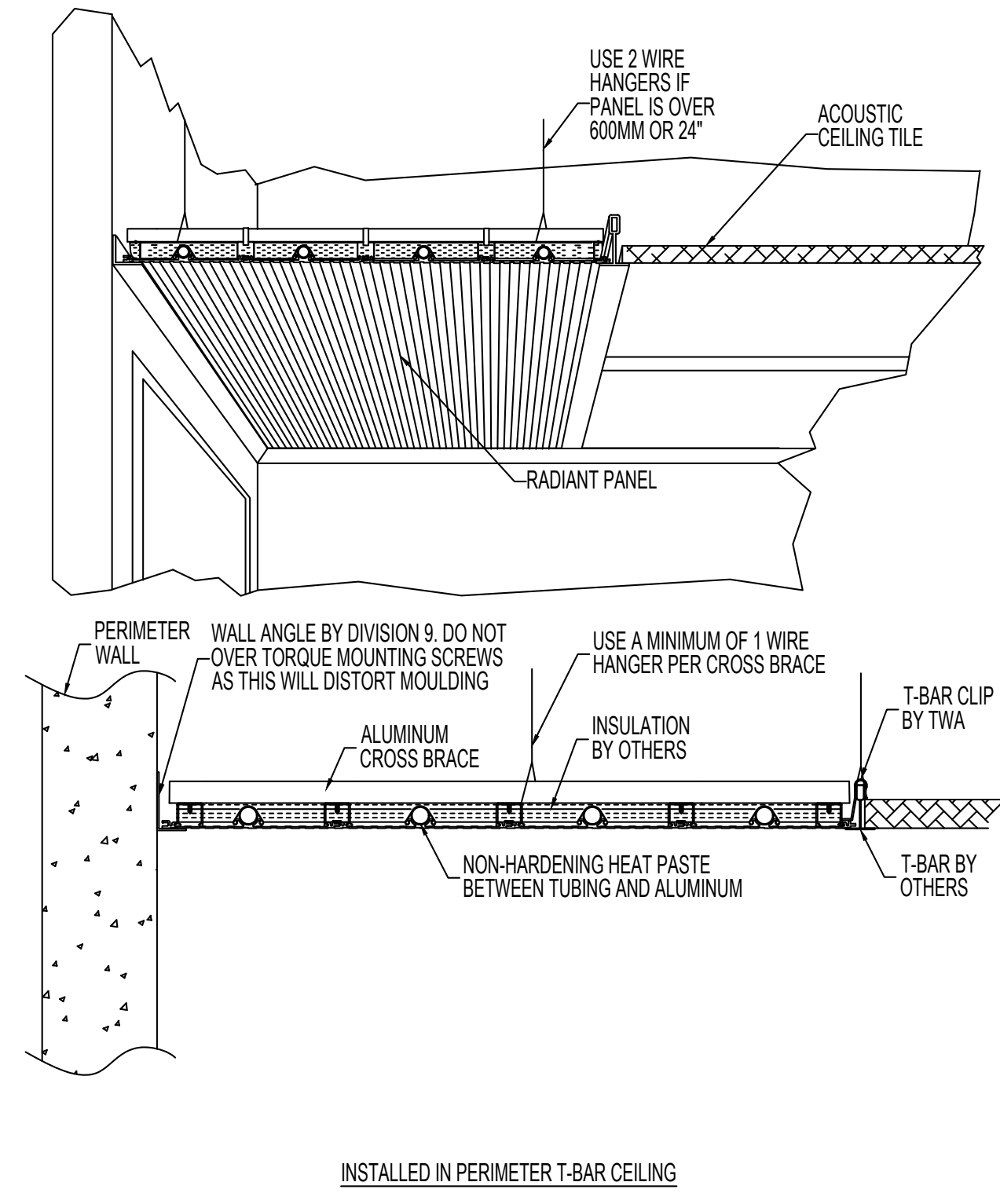
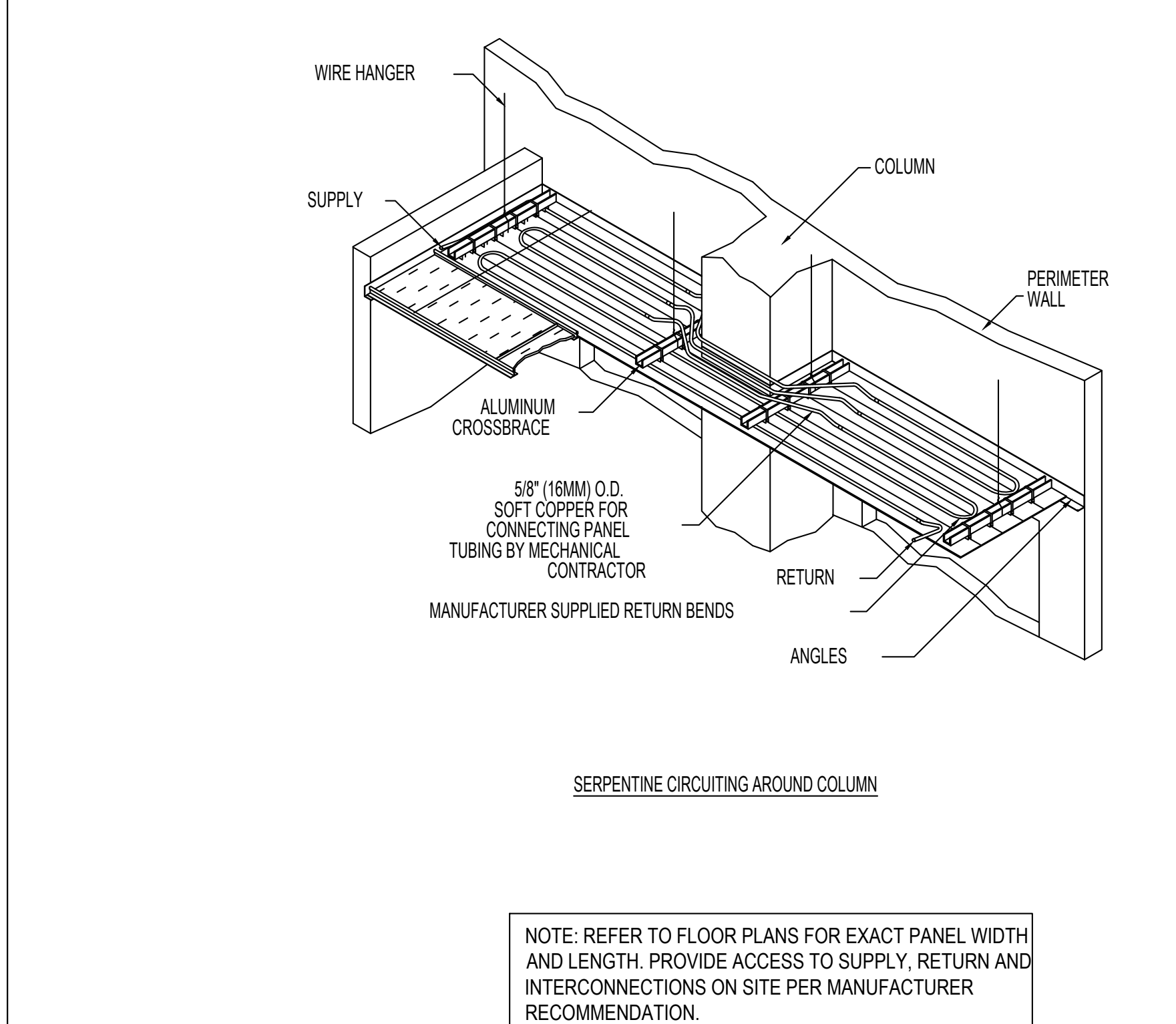
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AIR TERMINAL UNIT CONNECTION

SCALE:
N.T.S.

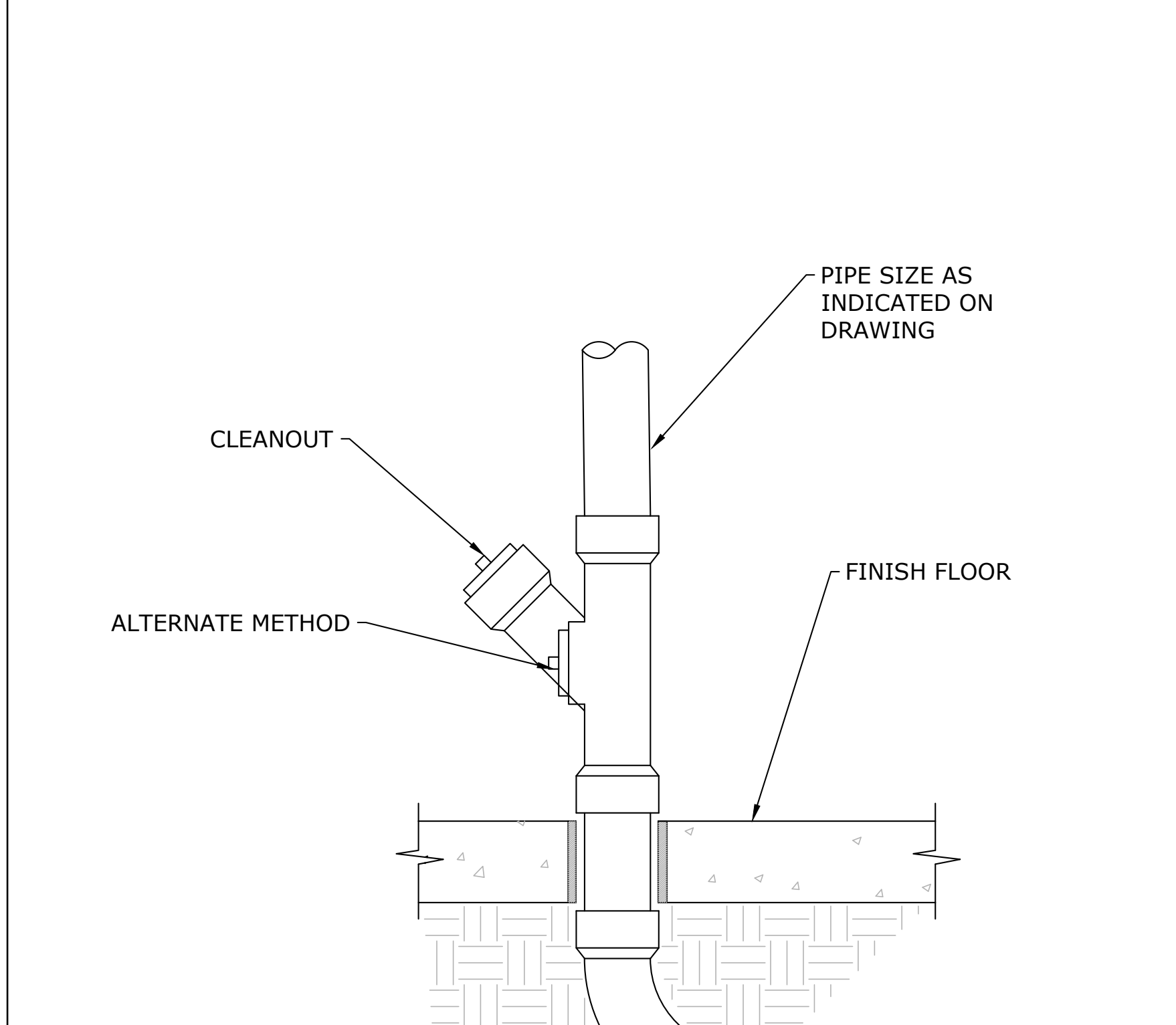
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RADIANT PANEL TYPICAL INSTALLATION DETAILS

SCALE:
N.T.S.

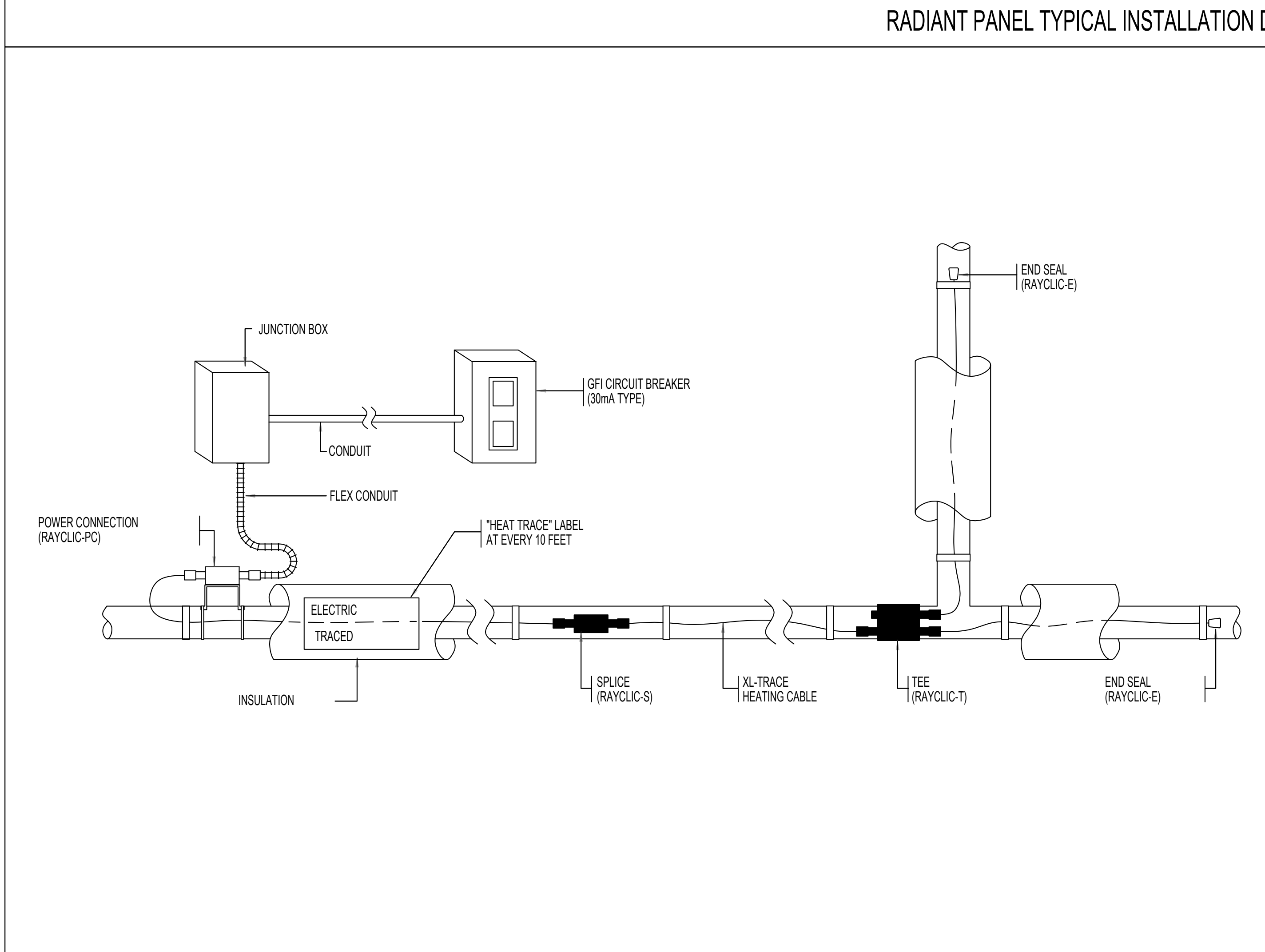
05



CLEANOUT NEAR BASE OF STACK

SCALE:
N.T.S.

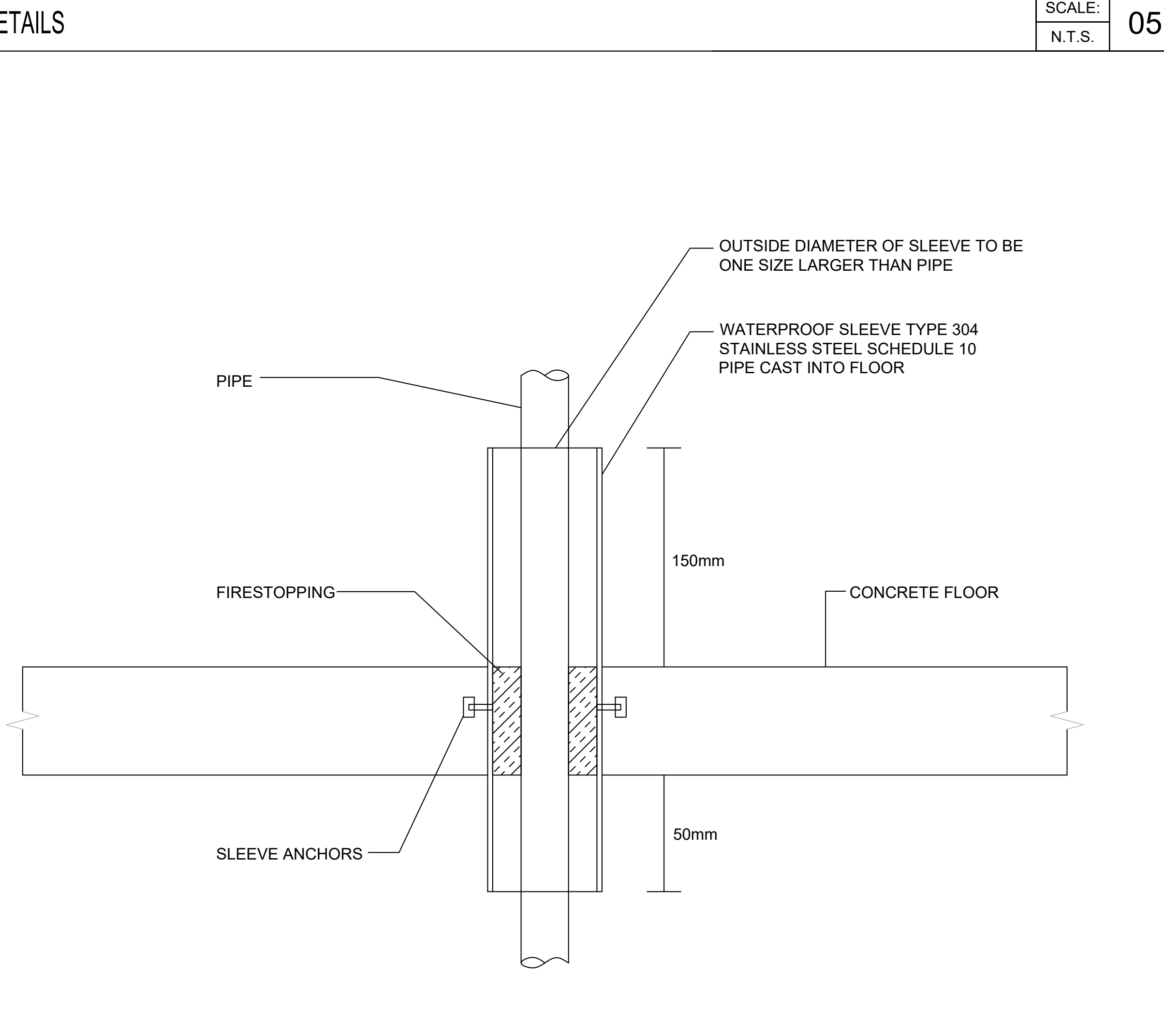
06



ELECTRIC HEAT TRACING INSTALLATION DETAIL - WATER PIPING

SCALE:
N.T.S.

07



WATERSTOP PIPE SLEEVE

SCALE:
N.T.S.

08

CLIENT:

UHN University Health Network
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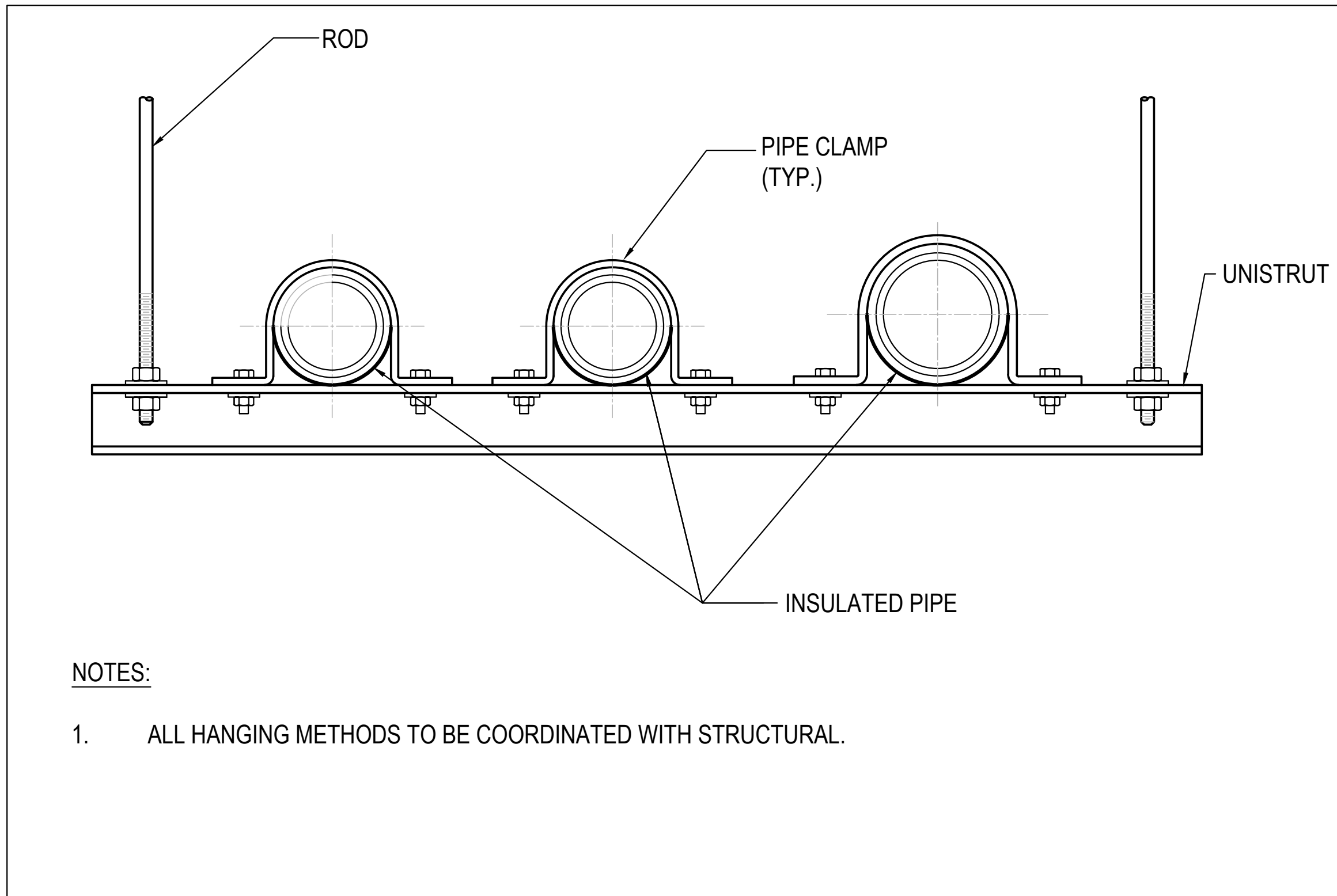
NO.	REVISION	DATE
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7	Issued for Addendum M-01	2024.10.29
6	Issued for Tender	2024.10.11
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2	Issued for 100 DD	2024.05.10
1	Issued for Design Development Progress	2024.04.05
NO.	DESCRIPTION	DATE

PROJECT:
Seniors Emergency Medicine Centre (SEMC) &
External Corridor
Toronto Western Hospital
399 Bathurst Street, Toronto, ON, M5T 2S8

TITLE:
TYPICAL DETAILS - 2

PROJECT NO:
MRK-23004289
CHECKED:
S.S.

DRAWING NO:
M-902



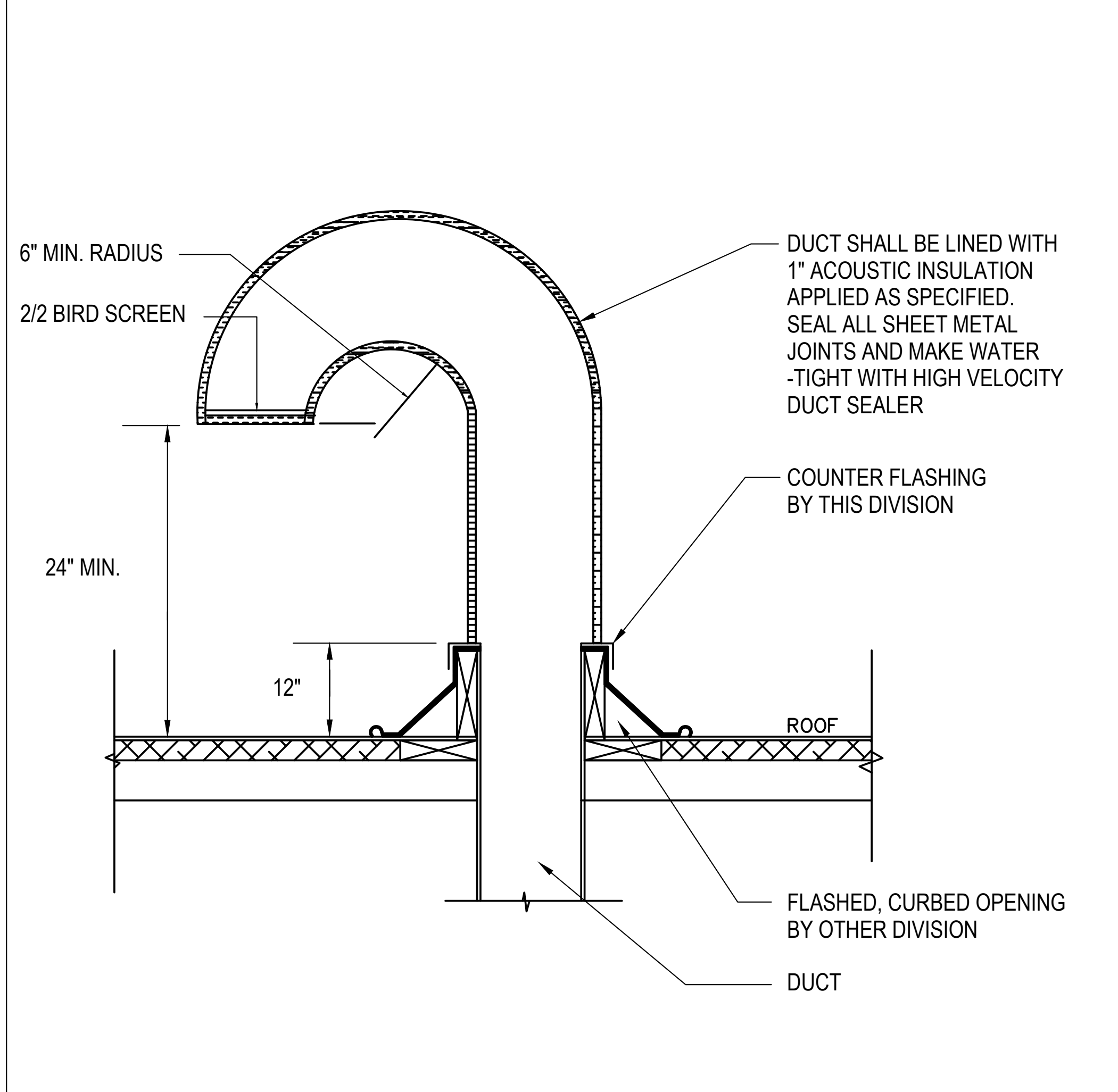
- NOTES:
- ALL HANGING METHODS TO BE COORDINATED WITH STRUCTURAL.

PIPE GROUP HANGER SUPPORT

SCALE: N.T.S.

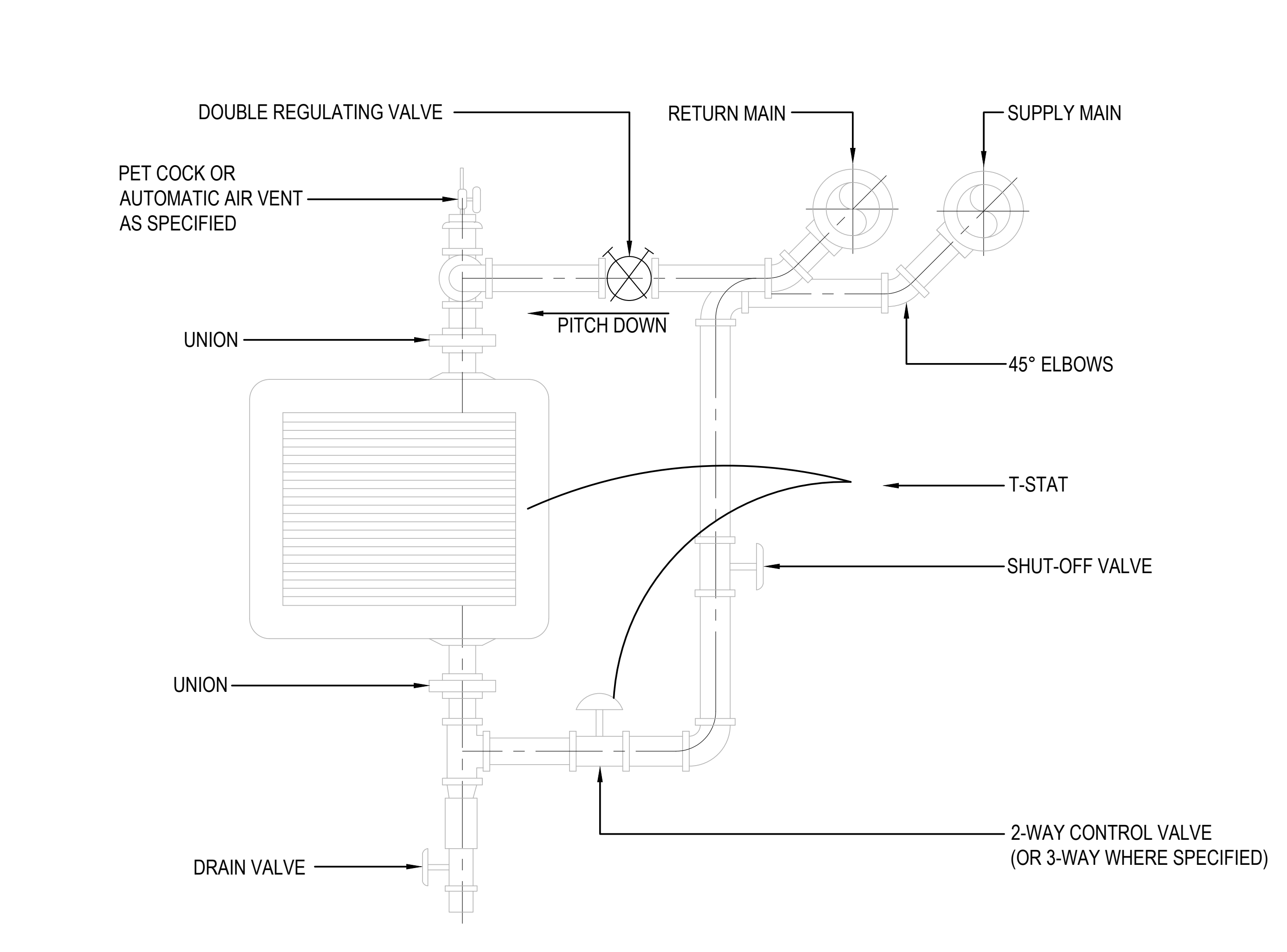
PIPE PENETRATION THROUGH NON-FIRE RATE WALL DETAIL

SCALE: N.T.S.



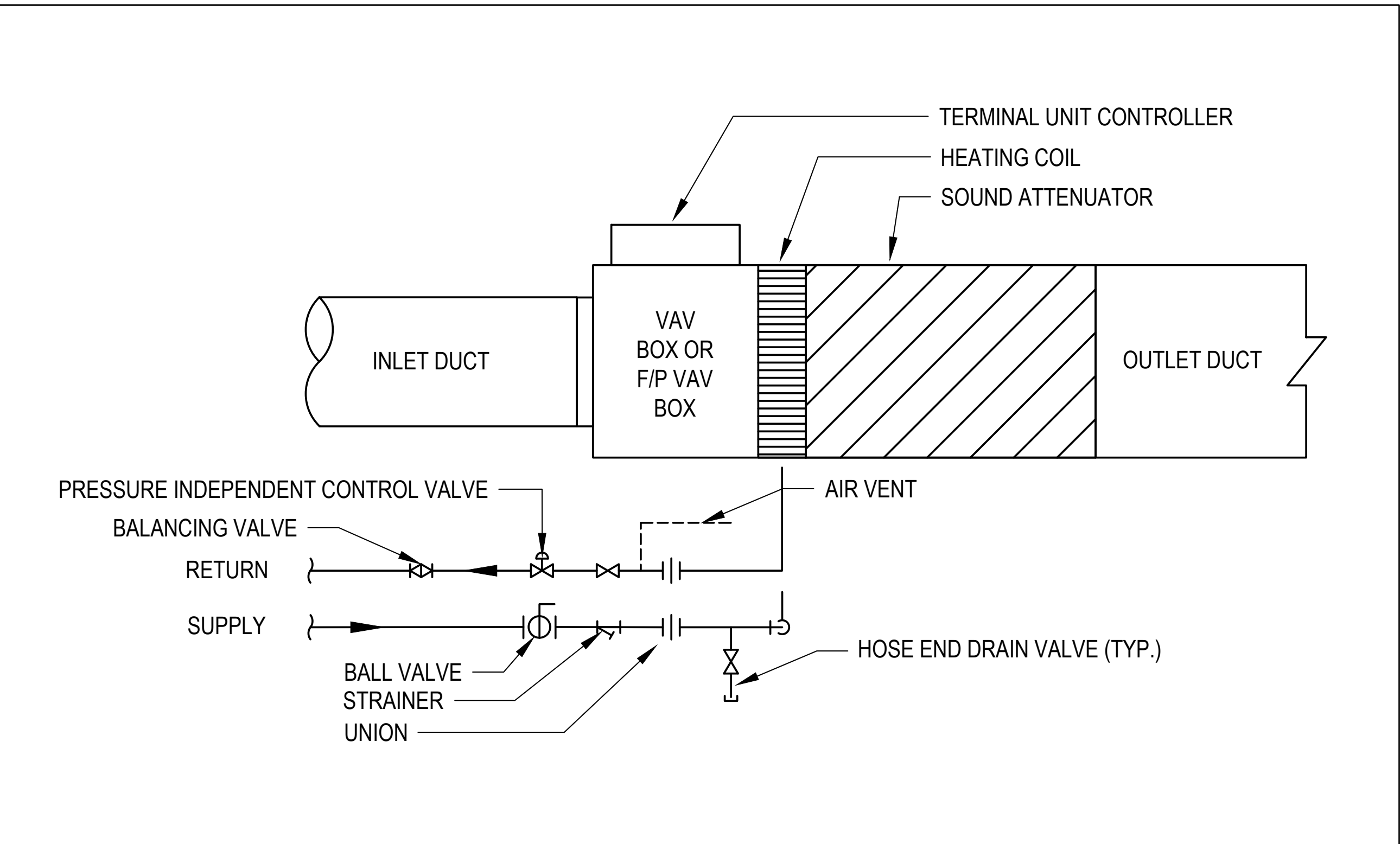
VENT C/W GOOSENECK

SCALE: N.T.S.



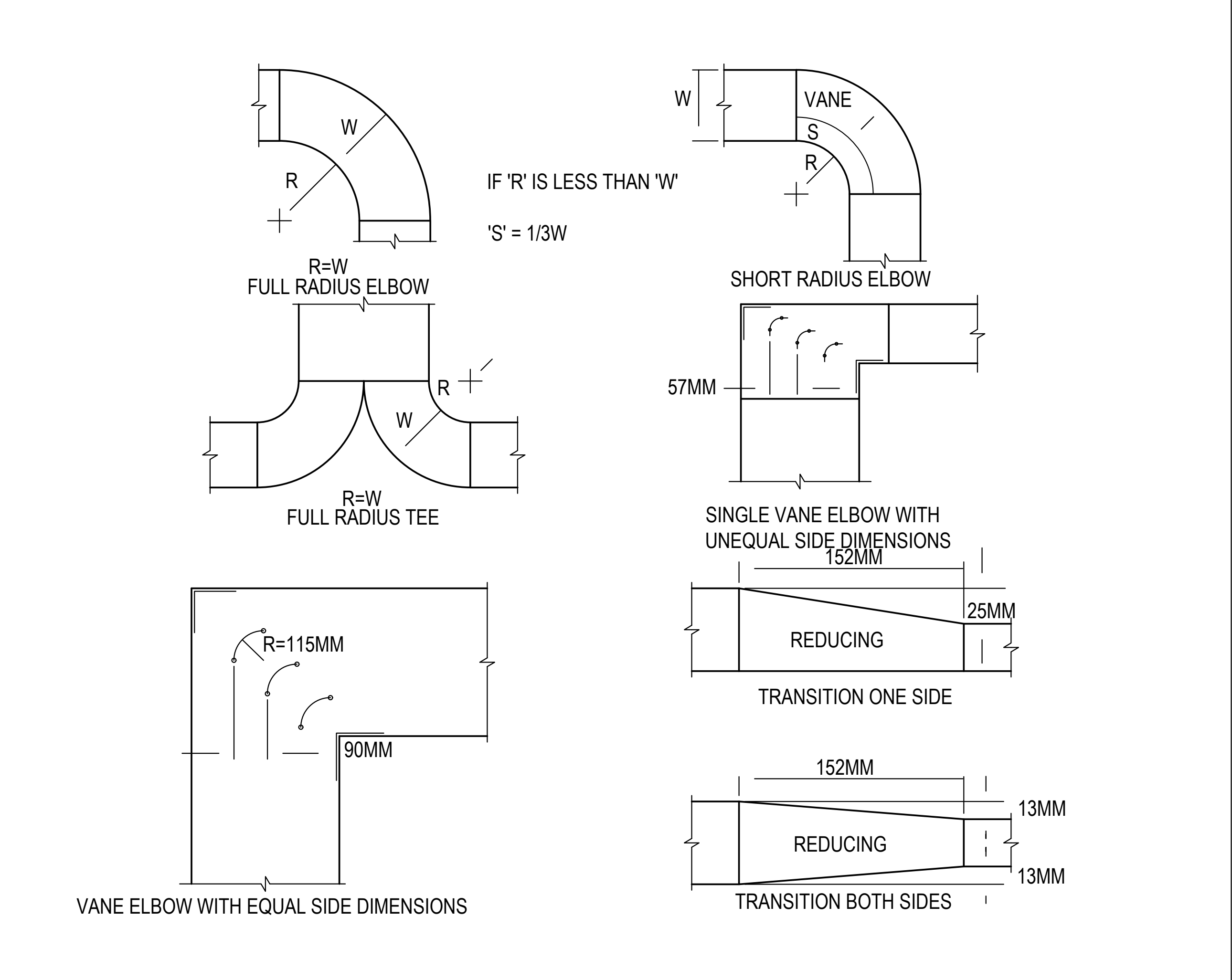
TYPICAL CONNECTIONS TO HOT WATER UNIT HEATER

SCALE: N.T.S.



VAV BOX DETAIL

SCALE: N.T.S.



SQUARE AND RADIUS ELBOW DETAILS

SCALE: N.T.S.

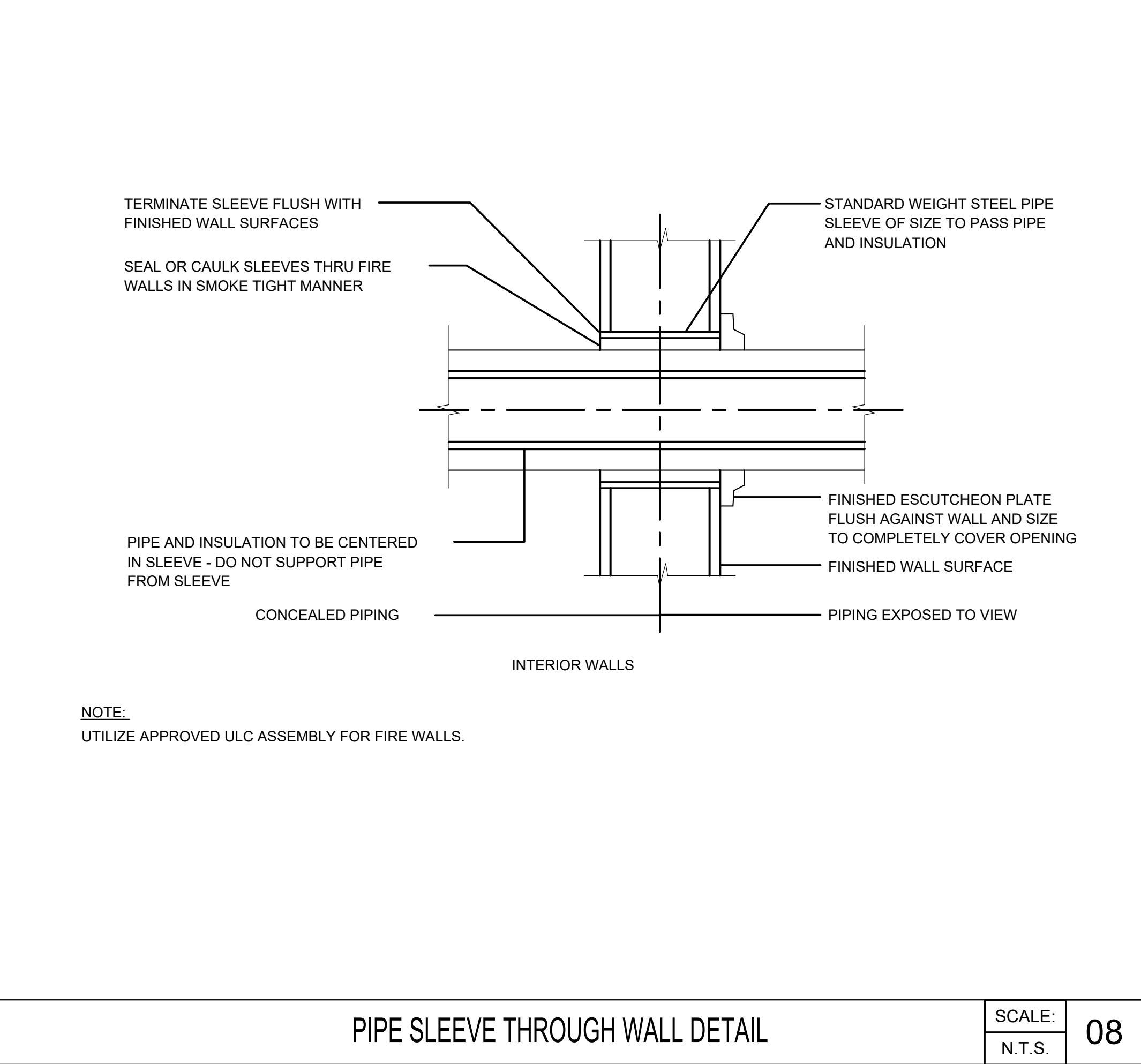
CIRCUIT BALANCING VALVE SCHEDULE (IMPERIAL)				CIRCUIT BALANCING VALVE SCHEDULE (METRIC)			
SIZE	NOM FLOW (GPM)	MAX. GPM		SIZE	NOM FLOW (GPM)	MAX. L/S	
1/2"	UP TO	3.1	4.3	15	UP TO	0.20	0.27
3/4"	3	6.9	9.6	20	0.19	0.44	0.61
1"	6.8	10.1	14.5	25	0.43	0.64	0.91
1 1/4"	10.2	16.2	24	32	0.64	1.02	1.51
1 1/2"	15	24	32	40	0.95	1.51	2.02
2"	25	40	55	50	1.58	2.52	3.5
2 1/2"	40	100	138	65	2.52	6.3	8.70
3"	95	145	200	75	5.99	9.1	13
4"	145	235	310	100	9.15	15	20
5"	230	320	500	125	14.51	20	32
6"	320	490	700	150	20.19	31	44
8"	500	900	1250	200	31.55	57	79

NOTE:

- ABOVE SELECTION BASED ON TOUR & ANDERSSON: 1FT ΔP @ MIN., 1 PSI (6.9kPa) NOMINAL & 2 PSI (13.8 kPa) MAX. AT FULL OPEN.
- MECHANICAL CONTRACTOR MUST SIZE AND PROVIDE WATER CIRCUIT BALANCING VALVE AS PER SCHEDULE AND DETAIL.

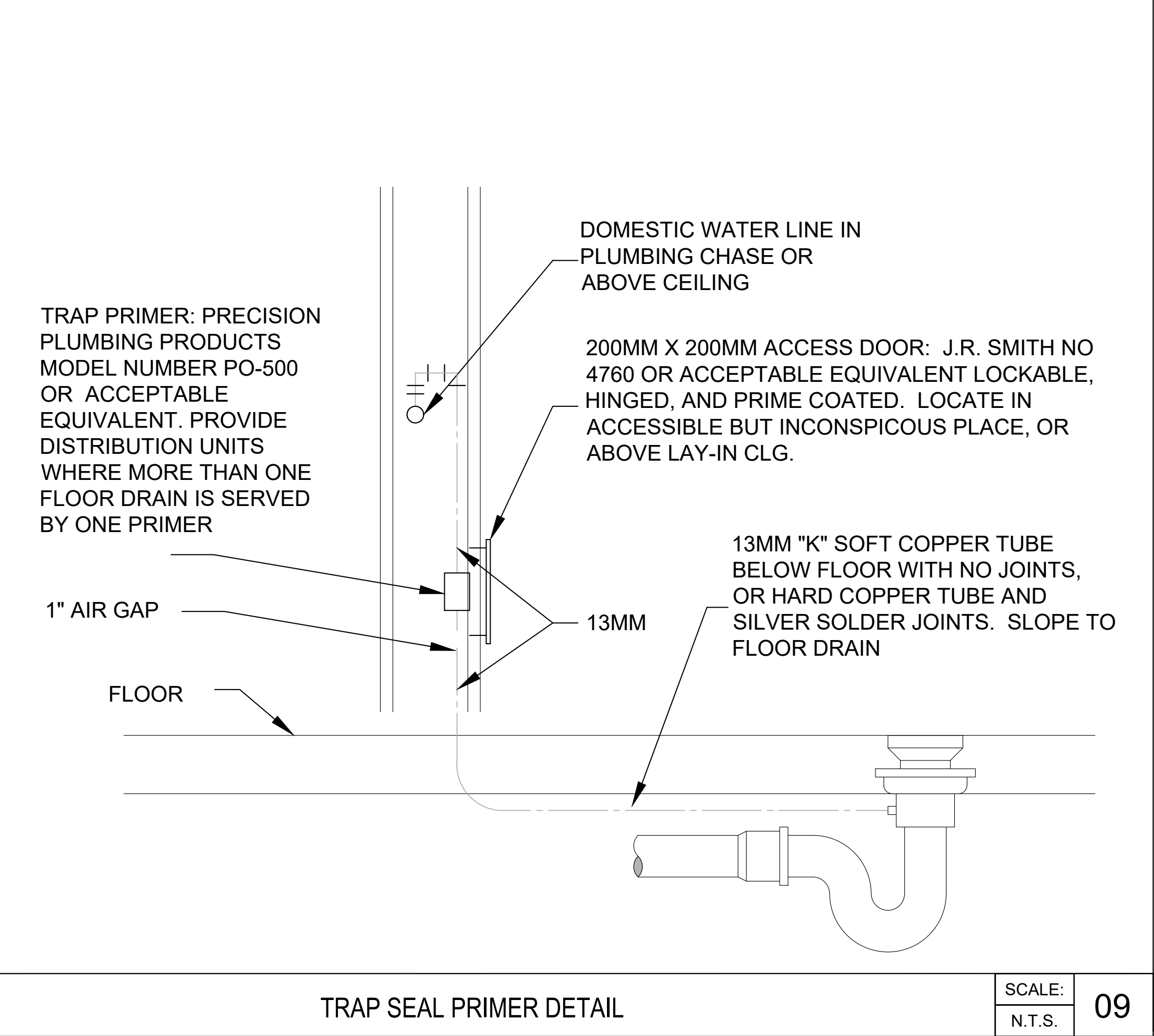
CIRCUIT BALANCING VALVE DETAIL/SCHEDULE

SCALE: N.T.S.



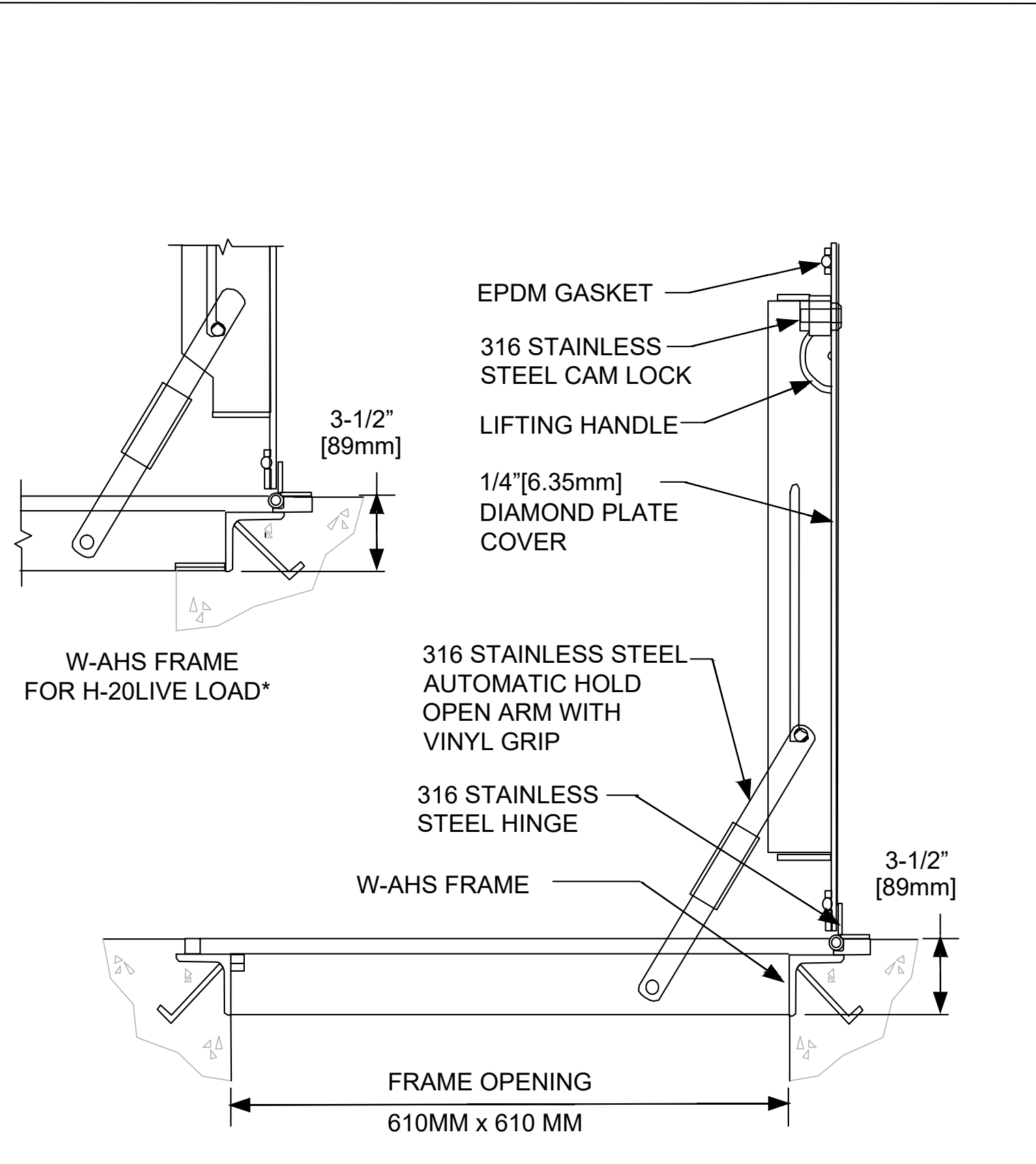
PIPE SLEEVE THROUGH WALL DETAIL

SCALE: N.T.S.



TRAP SEAL PRIMER DETAIL

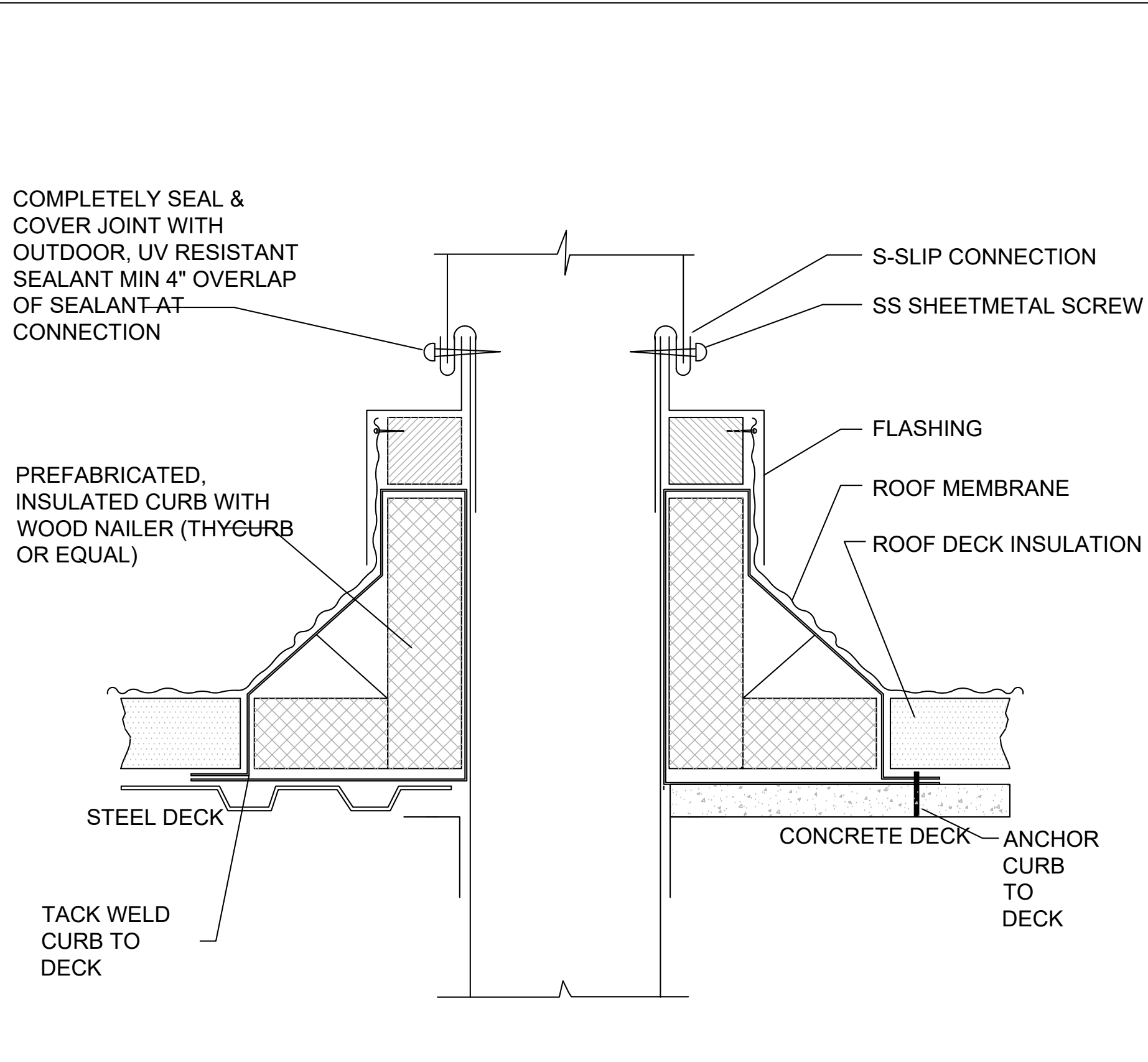
SCALE: N.T.S.



SUMP PITS COVER DETAIL

SCALE:
N.T.S.

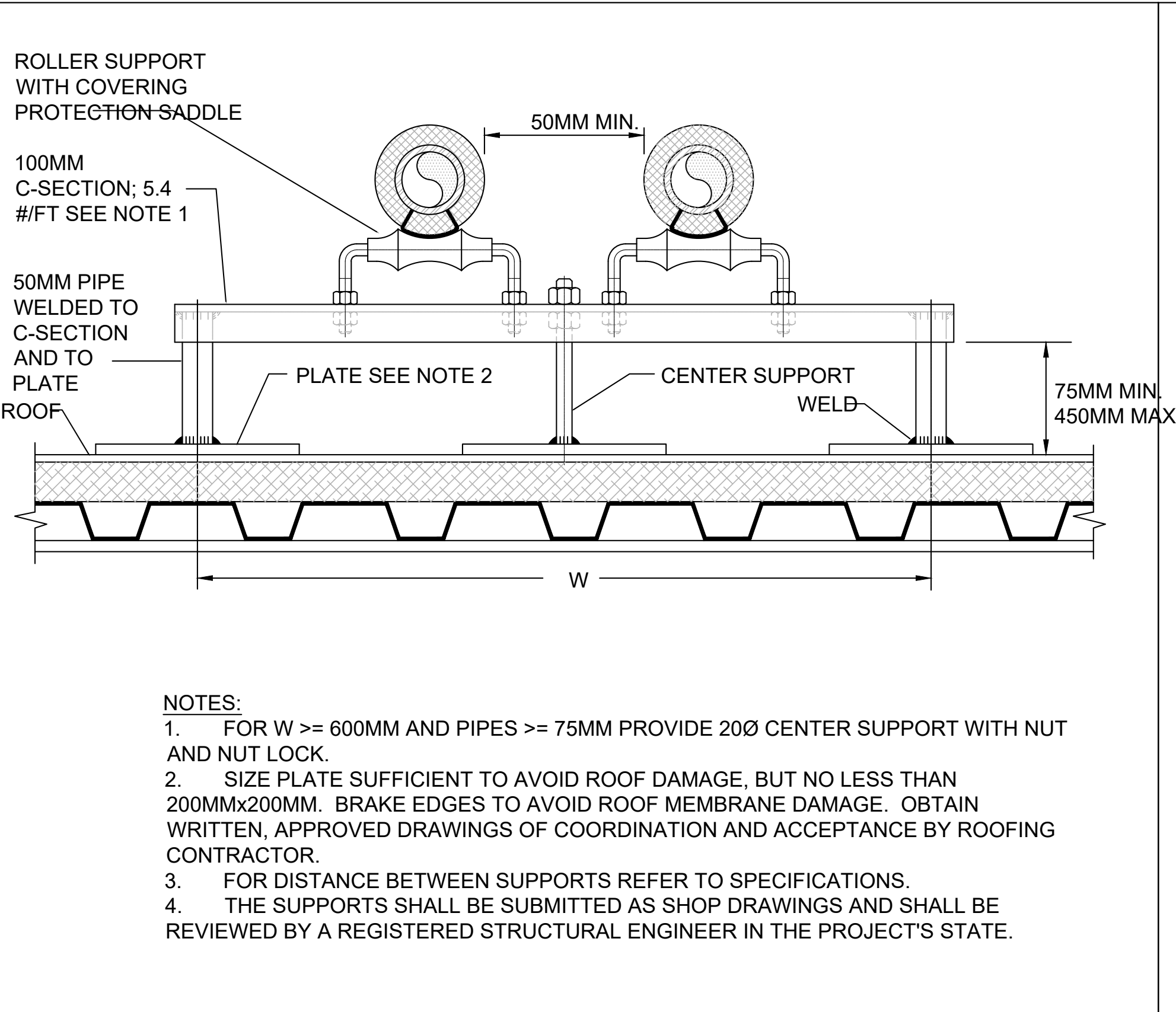
01



DUCT PENETRATION THROUGH ROOF DETAIL

SCALE:
N.T.S.

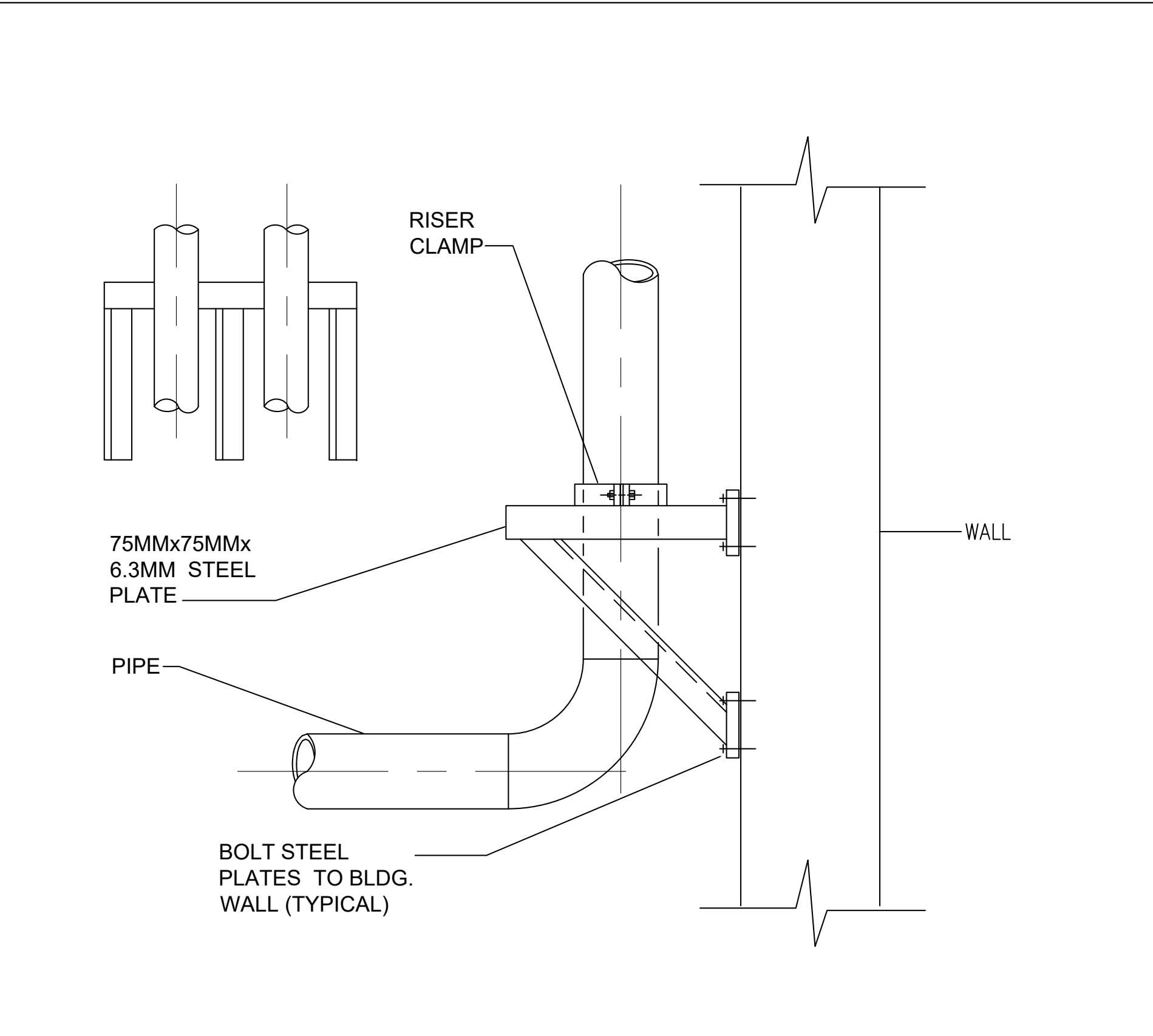
02



ROOF PIPING SUPPORT FOR GREATER THAN 75MM DIAMETER PIPE DETAIL

SCALE:
N.T.S.

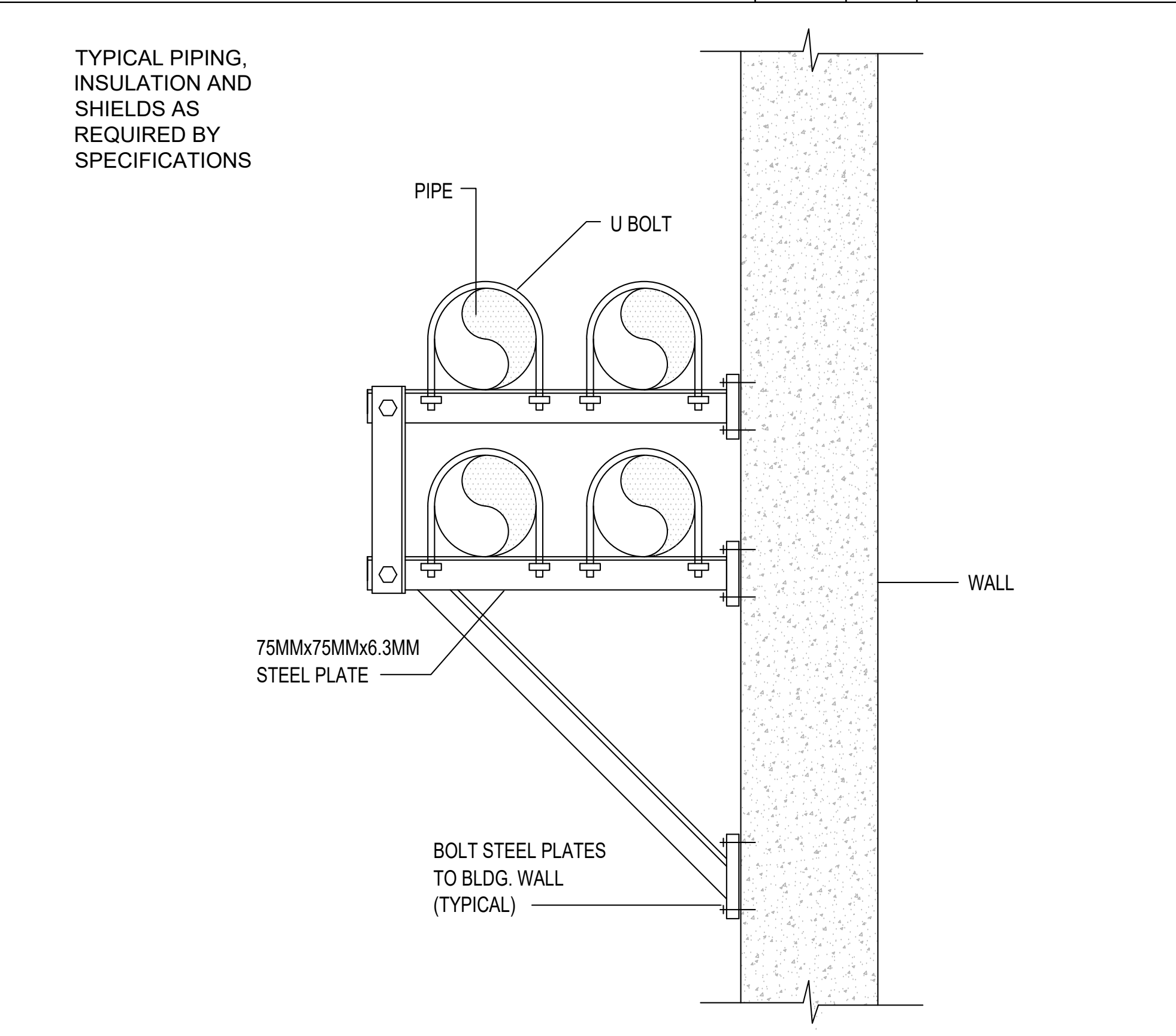
03



EXTERIOR PIPE RISER SUPPORT DETAIL

SCALE:
N.T.S.

04



EXTERIOR PIPE RACK SUPPORT DETAIL

SCALE:
N.T.S.

05

CLIENT:

UHN University Health Network
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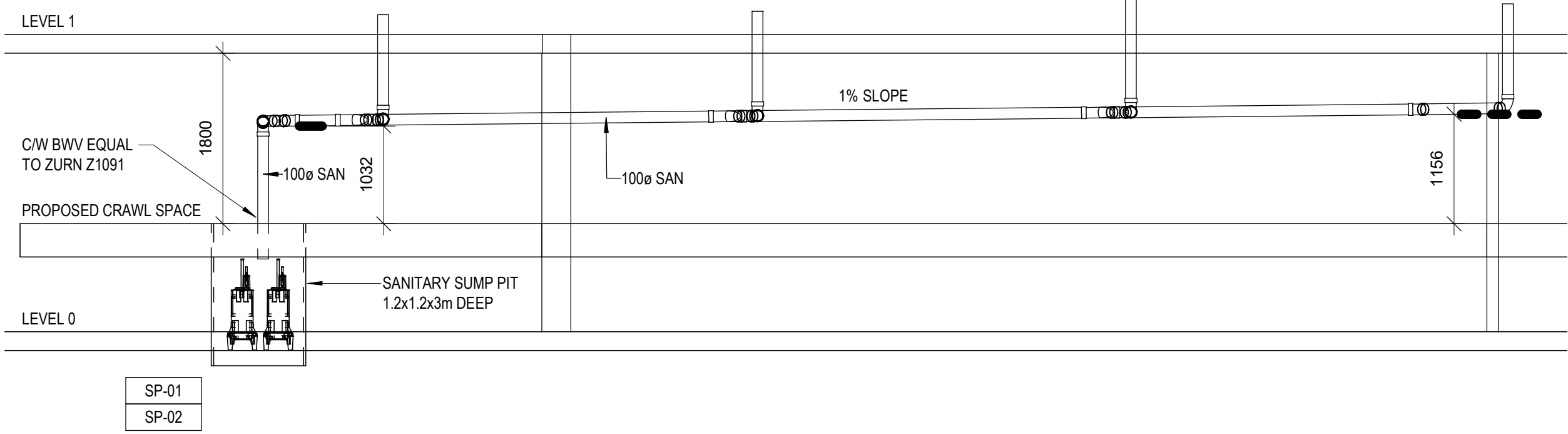
NO	DESCRIPTION	DATE
8	Issued for Addendum M-02	2024.11.06
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1	Issued for Design Development Program	2024.04.05

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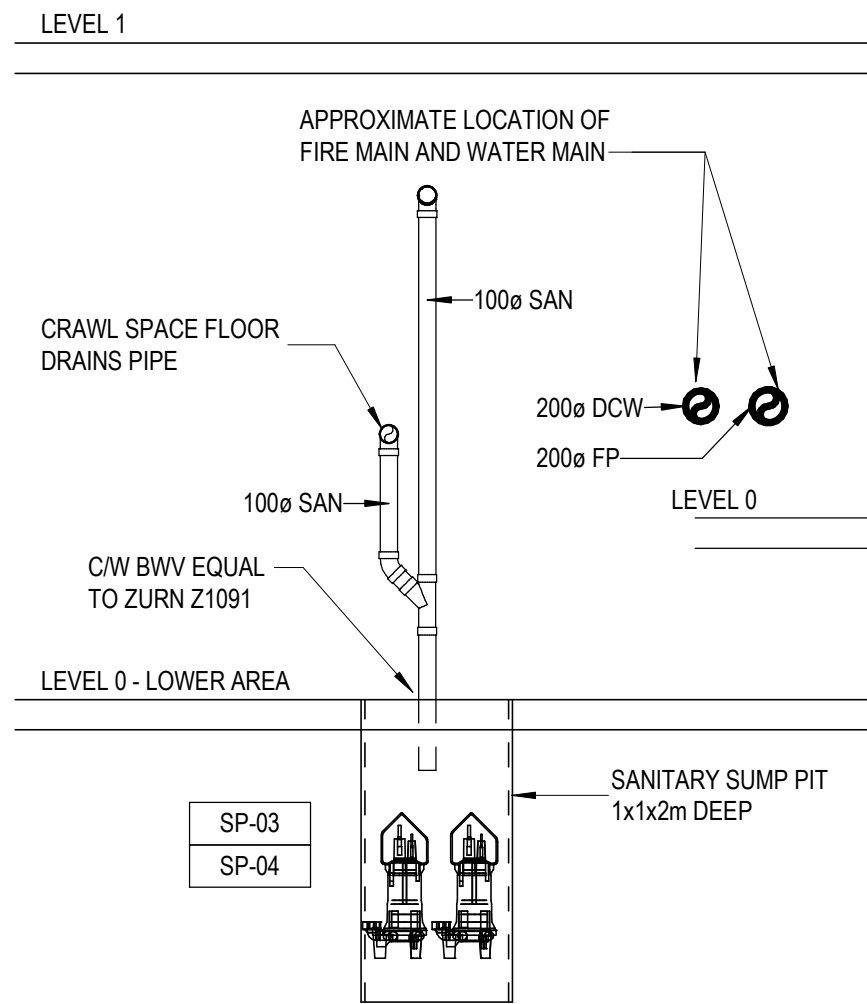
TITLE:
TYPICAL DETAILS - 4

PROJECT NO:
MRK-23004289
CHECKED:
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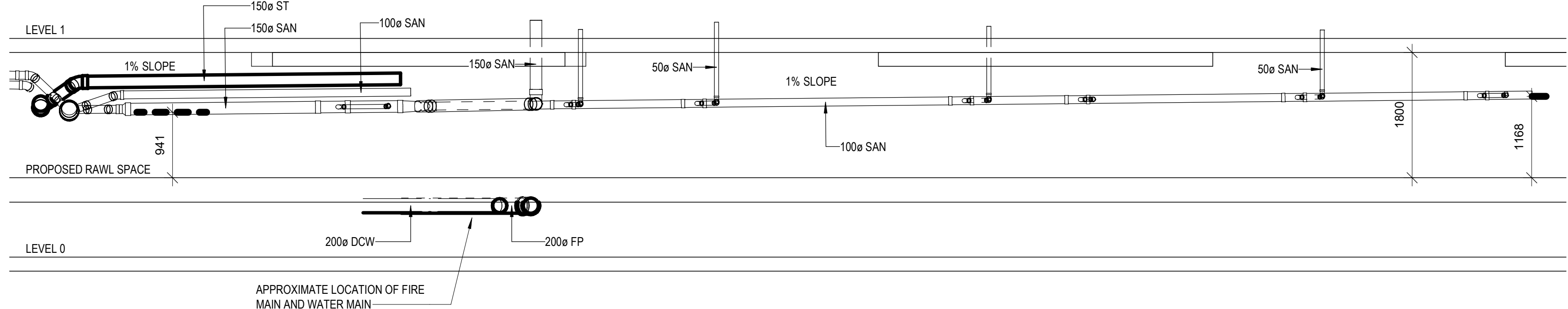
DRAWING NO:
M-904



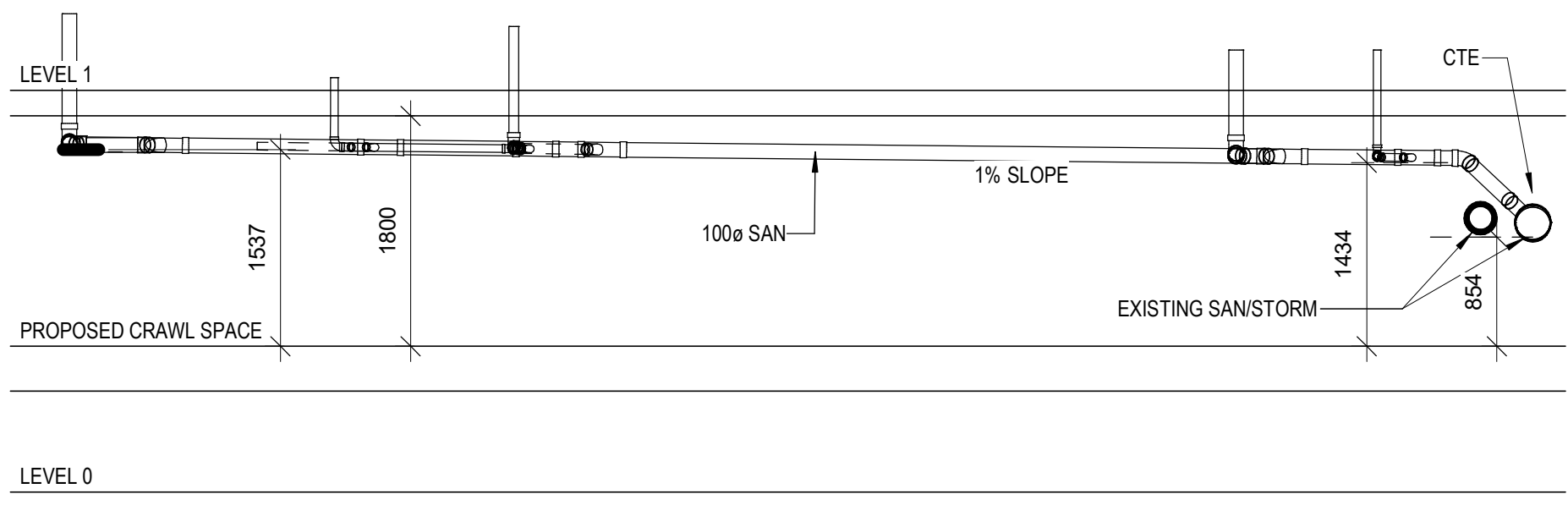
1 SECTION 1
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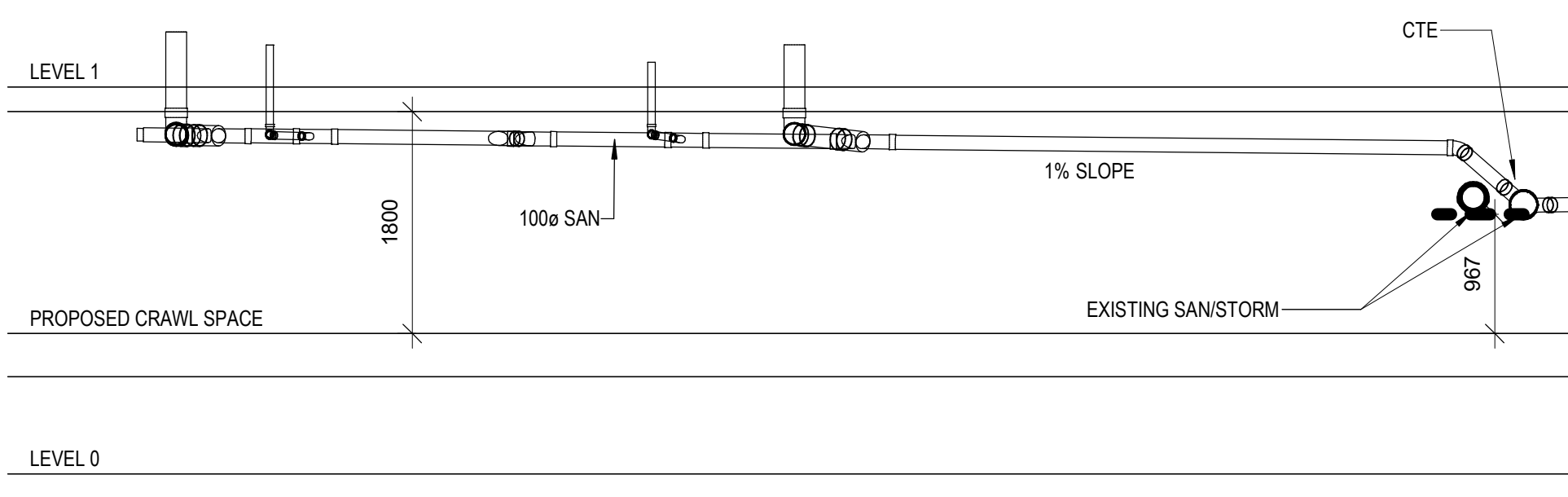
2 SECTION 2
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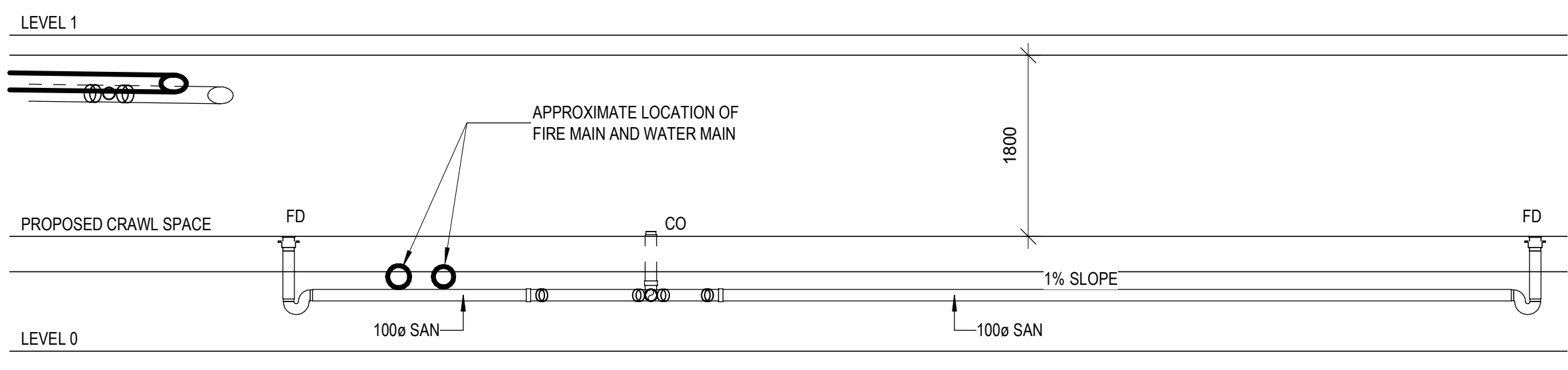
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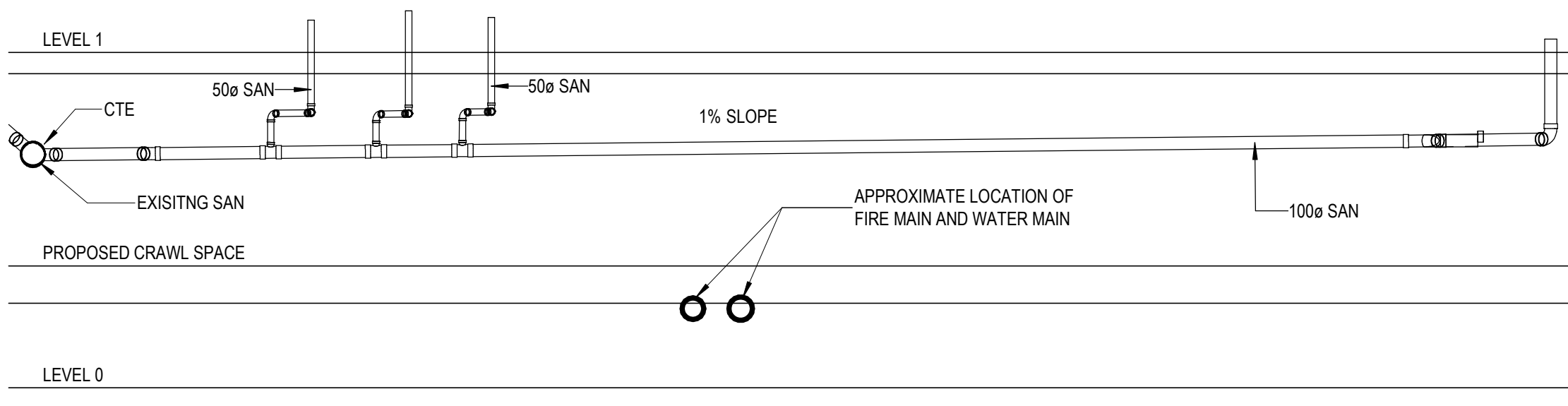
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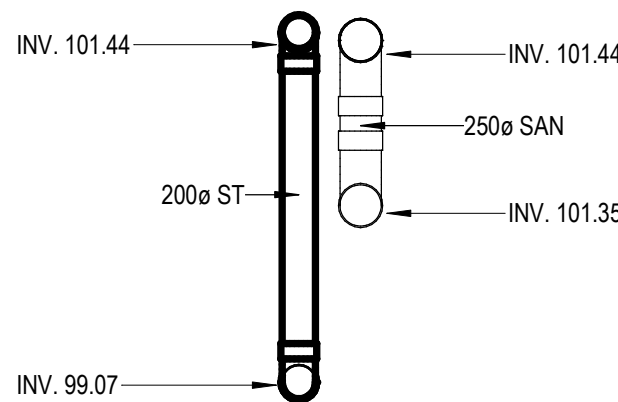
5 SECTION 5
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6 SECTION 6
1:50



7 SECTION 7
1:50



8 SECTION 8
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2	Issued for 100 CD	2024.05.10
1	Issued for Design Development Program	2024.04.05

PROJECT:
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399 Bathurst Street, Toronto, ON, M5T 2S8

TITLE:
PLUMBING SECTIONS

PROJECT NO: MRK-23004289
DRAWING NO: M-1001
CHECKED: PK