




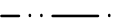

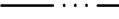


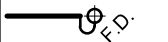
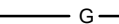
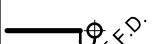

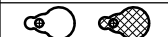





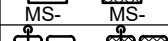

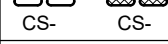







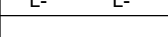

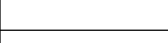

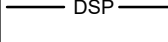



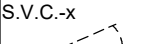

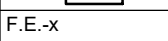
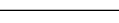



SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	FIRE DAMPER		SMOKE DAMPER
	MOTOR OPERATED DAMPER		POSITIVE SEAL DAMPER
	MANUAL DAMPER		GRAVITY OR BACKDRAFT DAMPER
	BALANCING DAMPER		REMOTE OPERATED BALANCING DAMPER
	COMBINATION SMOKE AND FIRE DAMPER		VOLUME EXTRACTOR
<b>V.A.V., F.A.V., AND A.F.S. TAGS</b>			
V.A.V. BOX TYPE		V.A.V. BOX TYPE	
MIN. PRIMARY FLOW FAN POWERED V.A.V. BOX TYPE		MIN. FLOW (L/s) HEATING/COOLING MAX. FLOW (L/s) HEATING/COOLING REHEAT COIL CAPACITY (KW)	
		IMPERIAL: CFM [INS.] METRIC: L/s [mm]	
	V.A.V. BOX (VARIABLE AIR VOLUME)		FAN POWERED BOX C/W RETURN AIR SILENCER OR ACOUSTICALLY LINED RETURN AIR
	V.A.V. BOX WITH ATTENUATOR		FAN POWERED BOX C/W RETURN AIR SILENCER OR ACOUSTICALLY LINED RETURN AIR WITH REHEAT COIL
	V.A.V. BOX WITH REHEAT COIL		INDUCTION V.A.V. BOX
	V.A.V. BOX WITH REHEAT COIL AND ATTENUATOR		PRESSURE INDEPENDENT AIR VALVE (LAB)
			TERMINAL UNIT (SEE NOTE 2)
<b>HEATING ELEMENT TAG</b>			
	HEATING CAPACITY ACTIVE ELEMENT LENGTH ENCLOSURE TYPE		
	HORIZONTAL UNIT HEATER		DUCT COIL
	DOWN BLAST UNIT HEATER		RADIATION HEATING RISER UNITS (S=SUPPLY AND R=RETURN)
	RADIANT HEATING PANEL		WALL FIN ELEMENT IN CONTINUOUS ENCLOSURE

NOTE: 1. - NOT ALL SYMBOLS APPLY; REFER TO FLOOR PLANS AND DRAWINGS

NOTE: 2. - SYMBOLS ARE DIAGRAMMATIC IN NATURE, REFER TO SPECIFICATION/SCHEDULES FOR EXACT DIMENSIONS/CLEARANCES

5 TM40.1				AIR HANDLING SYMBOLS (MSD-012.09)			
SYMBOL		DESCRIPTION		SYMBOL		DESCRIPTION	
		SUPPLY DUCT UP OR FROM ABOVE				ACOUSTICALLY LINED TRANSFER AIR DUCT	
		SUPPLY DUCT DOWN OR FROM BELOW				SILENCER	
		RETURN OR EXHAUST DUCT UP OR FROM ABOVE				CROSSTALK SILENCER	
		RETURN OR EXHAUST DUCT DOWN OR FROM BELOW				DUCT WITH MINIMUM CLEARANCE FIRE RATE ENCLOSURE	
		ROUND DUCT UP OR FROM ABOVE				DUCT WITH SLEEVE, INSULATION AND DAMPER	
		ROUND DUCT DOWN OR FROM BELOW				CAPPED CONNECTION	
		ACOUSTIC LINED DUCT					
		FLEXIBLE CONNECTION				RISE IN DUCT	
		SQUARE ELBOW DUCT WITH TURNING VANE				DROP IN DUCT	
		RADIUS ELBOW WITH TURNING VANES				SOUND Baffle	
		AXIAL FAN/IN-LINE FAN MIXED FLOW OR CENTRIFUGAL				PROPELLER FAN WITH PROTECTIVE SCREEN	
DIFFUSER GRILLE OR REGISTER TYPE  (IMPERIAL: CFM, [INS.] METRIC: L/s, [mm])		NECK OR FACE SIZE (MM)  AIR FLOW (L/S)		LINEAR SLOT DIFFUSER  AIR FLOW (L/S)		(IMPERIAL: CFM, [INS.] METRIC: L/s, [mm])  1500X1200mm NECK SIZE AND LINEAR DIFFUSER LENGTH (MM)	
		ROUND SUPPLY DIFFUSER				LINEAR SUPPLY AIR DIFFUSER C/W FLEXIBLE DUCT	
		DUCTED RETURN OR EXHAUST REGISTER OR GRILLE				LIGHT TROFFER DIFFUSER TOP INLET C/W FLEXIBLE DUCT	
		SQUARE OR RECTANGULAR DIFFUSER				LIGHT TROFFER DIFFUSER SIDE INLET C/W FLEXIBLE DUCT	
		RETURN OR EXHAUST GRILLE				DUCT MOUNTED SUPPLY OR RETURN GRILLE	
		ROUND RETURN OR EXHAUST GRILLE				LINEAR SUPPLY OR RETURN GRILLE	
		SQUARE DIFFUSER					
		DIFFUSERS WITH BLANK-OFF PORTION (QTY SHOWN)					

NOTE: NOT ALL SYMBOLS APPLY. REFER TO FLOOR PLANS AND DRAWINGS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	FLOOR DRAIN SIZE AS NOTED REFER TO SPECIFICATION FOR TYPES		DOMESTIC COLD WATER (DOM. COLD WATER)
	FUNNEL FLOOR DRAIN SIZE AS NOTED REFER TO SPECIFICATION FOR TYPES		DOMESTIC HOT WATER (DOM. HOT WATER)
	UPTURNED CLEANOUT		DOMESTIC HOT WATER RECIRCULATION (DOM. HOT WATER RECIRC.)
	HORIZONTAL CLEANOUT		TEMPERED DOMESTIC HOT WATER
	FLOOR DRAIN FROM ABOVE WITH TRAP		NATURAL GAS
	FUNNEL FLOOR DRAIN FROM ABOVE WITH TRAP		NATURAL GAS VENT
	WATER CLOSET AS NOTED REFER TO SPECIFICATION FOR TYPES		VENT
	SINGLE COMPARTMENT KITCHEN SINK		SANITARY ABOVE GRADE OR FLOOR
	MOP SINK		SANITARY BELOW GRADE OR FLOOR
	DOUBLE COMPARTMENT SINK		GATE OR ISOLATION VALVE (REFER TO SPECIFICATION)
	DRINKING FOUNTAIN		GLOBE VALVE
	URINAL		BALL VALVE
	WALL HUNG LAVATORY		PENDANT SPRINKLER HEAD
	WET SPRINKLER		DRY PENDANT SPRINKLER HEAD
	DRY SPRINKLER		UPRIGHT SPRINKLER HEAD
	FIRE HOSE CABINET AND TYPE		CONCEALED SPRINKLER HEAD
	SPRINKLER SHUT-OFF VALVE CABINET AND TYPE		NON-FREEZE SPRINKLER HEAD
	FIRE EXTINGUISHER AND TYPE		HIGH TEMPERATURE SPRINKLER HEAD
	FIRE EXTINGUISHER CABINET AND TYPE		CHEMICAL SPRINKLER HEAD
	FIRE REEL		SIDEWALL SPRINKLER HEAD
	WATER METER		WINDOW SPRINKLER HEAD
	BACK FLOW PREVENTOR	NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS	

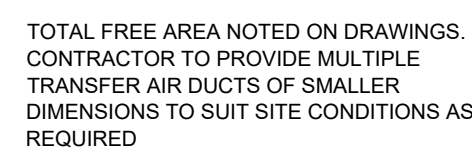
GENERAL SYMBOLS AND ABBREVIATIONS (MSD-012.14)			
SYMBOL		SYMBOL	
DESCRIPTION		DESCRIPTION	
	HEATING WATER SUPPLY		FUEL OIL SUPPLY
	HEATING WATER RETURN		FUEL OIL RETURN
	CHILLED WATER SUPPLY		EMERGENCY FUEL OIL VENT
	CHILLED WATER RETURN		FUEL OIL VENT
	GLYCOL SUPPLY		FUEL OIL FILL
	GLYCOL RETURN		PUMPED STEAM CONDENSATE
	GLYCOL HEATING SUPPLY		REFRIGERATION SUCTION
	GLYCOL HEATING RETURN		REFRIGERATION LIQUID
	GLYCOL COOLING SUPPLY		REFRIGERATION HOT GAS
	GLYCOL COOLING RETURN		DUAL TEMPERATURE SUPPLY
	CONDENSER WATER SUPPLY		DUAL TEMPERATURE RETURN
	CONDENSER WATER RETURN		BUCKET TYPE STEAM TRAP
	LOW PRESSURE STEAM		FLOAT AND THERMOSTAT TYPE STEAM TRAP
	MEDIUM PRESSURE STEAM		STEAM VACUUM BREAKER
	HIGH PRESSURE STEAM		REFRIGERATION THERMAL EXPANSION VALVE
	LOW PRESSURE CONDENSATE		REFRIGERATION SOLENOID LIQUID VALVE
	MEDIUM PRESSURE CONDENSATE		REFRIGERATION FILTER DRYER
	HIGH PRESSURE CONDENSATE		6 WAY CONTROL VALVE ELECTRIC
	PRESSURE INDEPENDENT CONTROL VALVE		6 WAY CONTROL VALVE
	2 WAY CONTROL VALVE		CONTROL VALVE (WHERE SYMBOL NOT SHOWN)
	3 WAY CONTROL VALVE		

NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS

[illegible]

GENERAL AND SITE PLAN SYMBOLS AND ABBREVIATIONS (MSD-012.01)			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	DETAIL NUMBER		SECTION NUMBER
	DRAWING NUMBER		REVISION BUBBLE
	REVISION NUMBER		
	ELBOWS		PIPING SERVICE CONTINUES
	TEE		REFER TO STANDARD DETAIL DRAWINGS FOR ADDITIONAL REQUIREMENTS OF EQUIPMENT NOTED
	BRANCH OFF BOTTOM OF MAIN		VENT PIPE REDUCER
	BRANCH OFF TOP OF MAIN		AIR QUANTITY C.F.M. (L/s)
	DIRECTION OF FLOW		NAMING OF EXISTING EQUIPMENT
			DENOTES EXISTING EQUIPMENT DESIGNATION
			FLOOR NUMBER
			SEQUENTIAL NUMBER
<p>NOTE: EXISTING EQUIPMENT, PIPING, VALVES, DUCTWORK SHOWN LIGHT TO REMAIN</p>			
	EXISTING DUCT, FLEX. DUCT AND AIR SUPPLY TO REMAIN		EXISTING CONCEALED SPRINKLER HEAD & PIPING TO REMAIN
	EXISTING ELECTRIC/PNEUMATIC THERMOSTAT/TEMPERATURE SENSOR AND SPEED CONTROL SWITCH TO REMAIN		EXISTING PENDANT SPRINKLER HEAD & PIPING TO REMAIN
	EXISTING UPRIGHT SPRINKLER HEAD & PIPING TO REMAIN		EXISTING SIDEWALL OR WINDOW SPRINKLER HEAD & PIPING TO REMAIN
<p>NOTE: EXISTING EQUIPMENT SHOWN HATCHED TO BE REMOVED AND/OR RELOCATED.</p>			
	EXISTING DUCT, FLEX. DUCT AND AIR SUPPLY TO BE REMOVED		EXISTING CONCEALED SPRINKLER HEAD TO BE REMOVED/RELOCATED
	EXISTING ELECTRIC/PNEUMATIC THERMOSTAT/TEMPERATURE SENSOR AND SPEED CONTROL SWITCH TO BE REMOVED/RELOCATED		EXISTING PENDANT SPRINKLER HEAD TO BE REMOVED/RELOCATED
	EXISTING UPRIGHT SPRINKLER HEAD TO BE REMOVED/RELOCATED		EXISTING SIDEWALL OR WINDOW SPRINKLER HEAD TO BE REMOVED/RELOCATED
<p>NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS</p>			

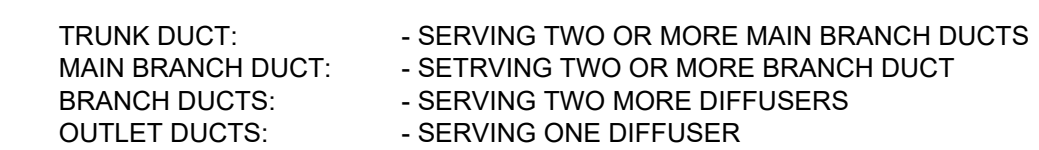
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## TRANSFORMATION

\* MECHANICAL CONTRACTOR TO ROUGH-IN AND CONNECT HOT WATER AND DRAIN FOR DISHWASHER

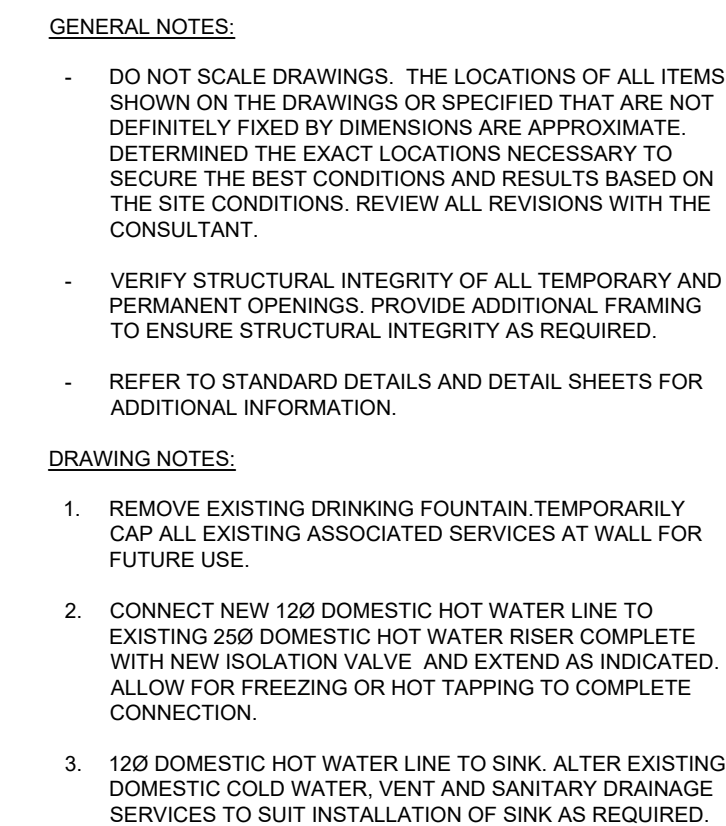
TM-0.2



TRUNK DUCT:	- SERVING TWO OR MORE MAIN BRANCH DUCTS
MAIN BRANCH DUCT:	- SERVING TWO OR MORE BRANCH DUCT
BRANCH DUCTS:	- SERVING TWO MORE DIFFUSERS
OUTLET DUCTS:	- SERVING ONE DIFFUSER

2 BALANCING DAMPERS  
TM-0.2 (MSD-840.03)






117 George Street, Toronto, Ontario Canada M5A 2N4 416-925-4484  
109 Murray Street, Unit 3 Ottawa, Ontario Canada K1N 5M5 613-562-2908

[illegible]

NAME: JONATHAN LUONG  
TEL: 416-487-8151  
EMAIL: jonathan.luong@smithandandersen.com

Keyplan:

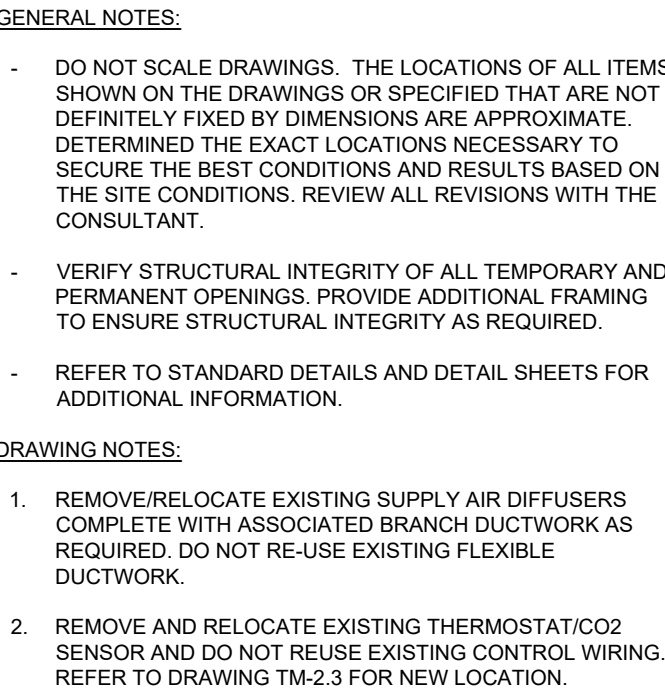
The diagram shows a building footprint with a section labeled 'EXISTING' and another section labeled 'RENOVATION'. A north arrow is located in the top right corner.

<p>North:</p> 	<p>Stamp:</p>
---	---------------

Client:	VICTORIA UNIVERSITY
Project:	Proj. No.: 23501.003.M.001 GOLDRING STUDENT CENTRE RENEWAL 150 Charles St W, Toronto, ON M5S 1K9

Scale: 1:100	Sheet No.:
Drawn By: JL	TM-1.2
Checked By: AV/RC	

TM-1.2



1. REMOVE/RELOCATE EXISTING SUPPLY AIR DIFFUSERS COMPLETE WITH ASSOCIATED BRANCH DUCTWORK AS REQUIRED. DO NOT RE-USE EXISTING FLEXIBLE DUCTWORK.

2. REMOVE AND RELOCATE EXISTING THERMOSTAT/CO2 SENSOR AND DO NOT REUSE EXISTING CONTROL WIRING. REFER TO DRAWING TM-2.3 FOR NEW LOCATION.

No.	Issue	Date
01	ISSUED FOR PERMIT	2023-12-04
02	ISSUED FOR REVIEW	2023-12-19
03	ISSUED FOR REVIEW	2024-01-12
04	ISSUED FOR TENDER	2024-02-02

NAME: JONATHAN LUONG

TEL: 416-487-8151

EMAIL: jonathan.luong@smithandandersen.com

THIS DRAWING SHALL BE READ IN CONJUNCTION WITH MECHANICAL SPECIFICATION SUBMITTED FOR THIS PROJECT.

Site plan showing the existing building footprint and the proposed renovation area. The renovation area is labeled "RENOVATION" and is adjacent to the existing building. A north arrow is present in the top right corner.

1100 - 100 Sheppard Ave. East, Toronto On, M2N 6N6  
416 487 8151 f 416 487 9104 [smithhandandersen.com](http://smithhandandersen.com)

VICTORIA UNIVERSITY

# GOLDRING STUDENT CENTRE RENEWAL

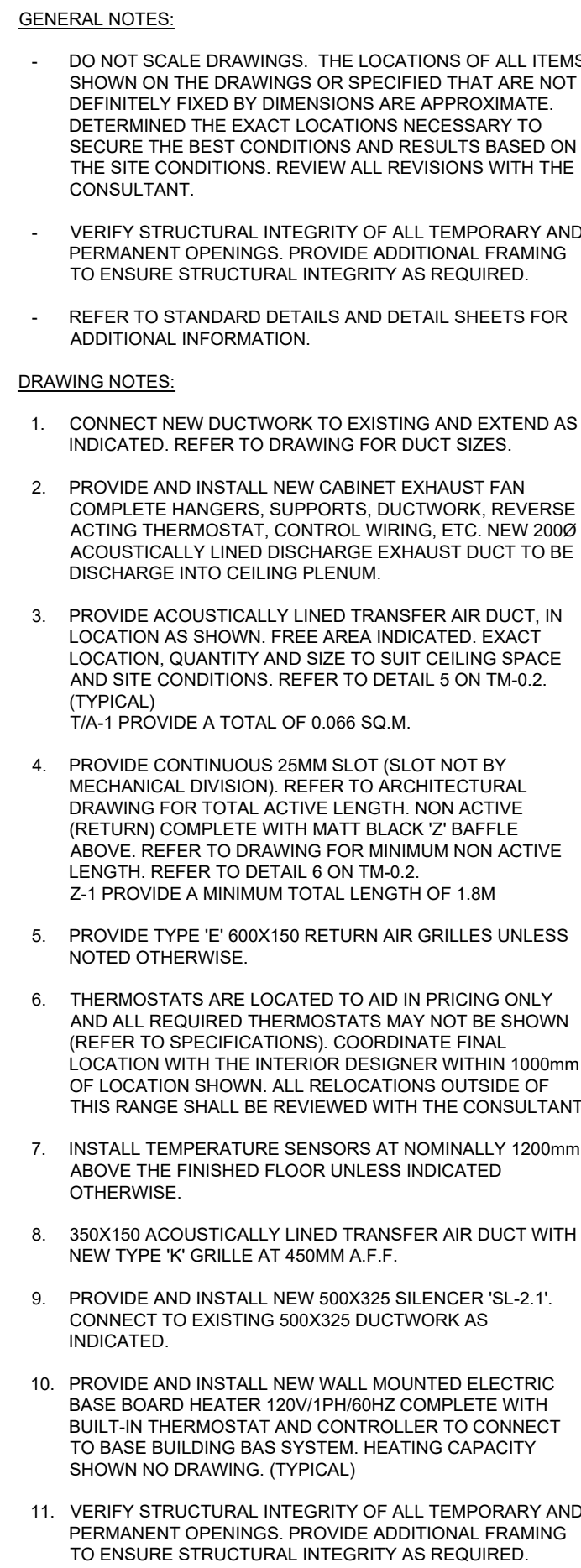
150 Charles St W, Toronto, ON M5S 1K9

Title: 2ND FLOOR - DEMO HVAC LAYOUT

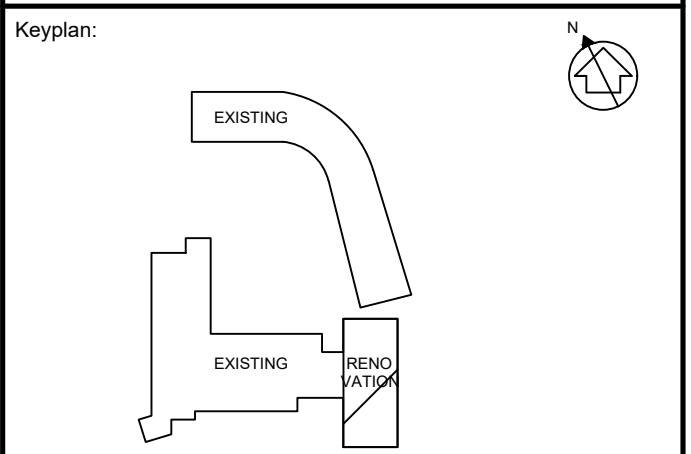
Checked By: AV/R

# TM-2.1.3






PROJECT CONTACT	
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TEL:	<u>416-487-8151</u>
EMAIL:	<u>jonathan.luong@smithandandersen.com</u>
THIS DRAWING MUST BE READ IN CONJUNCTION WITH MECHANICAL SPECIFICATION SUBMITTED FOR THIS PROJECT.	

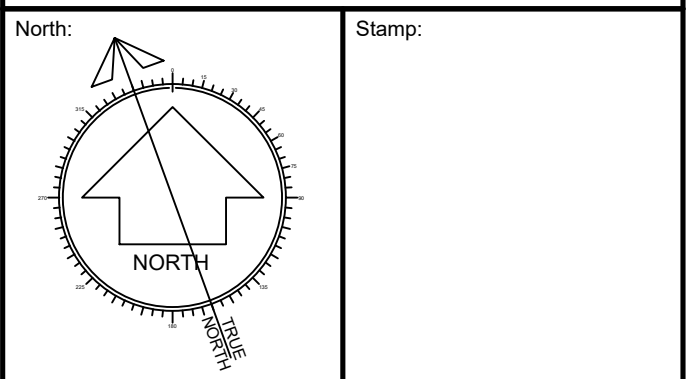


Consultant:



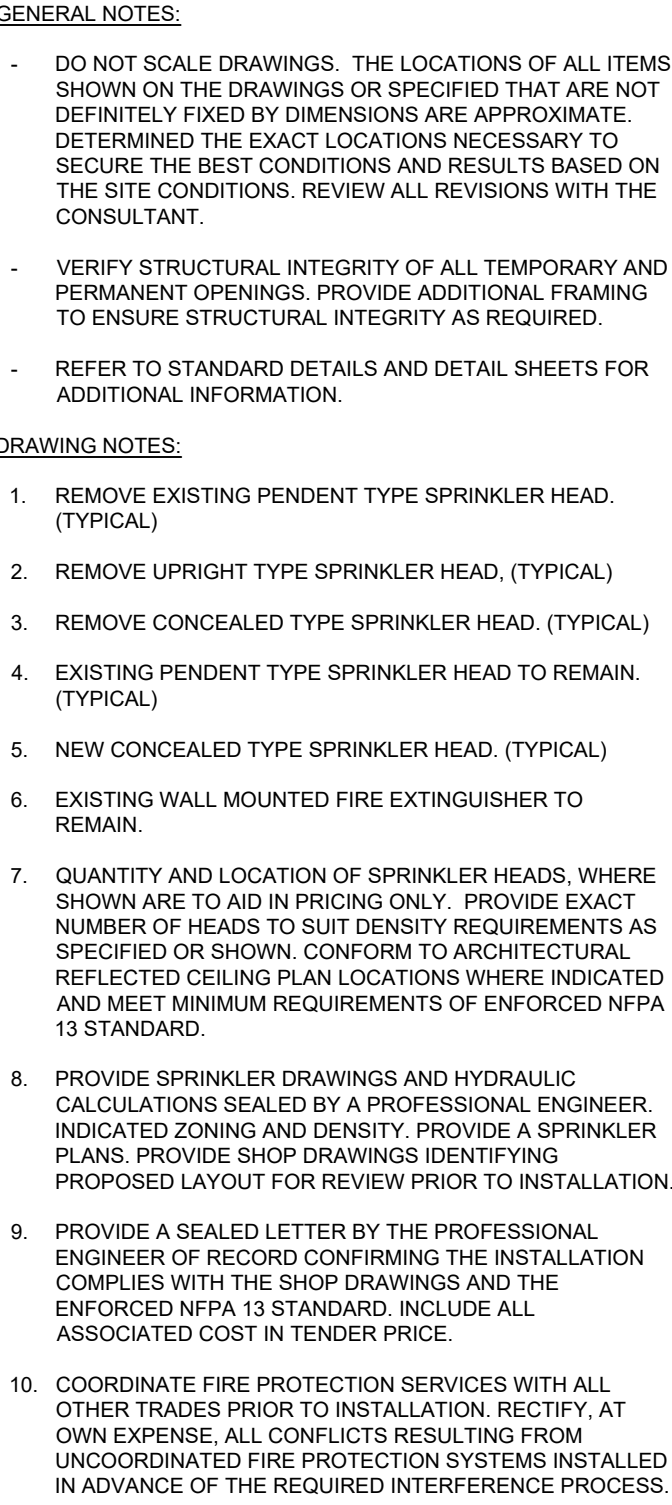
Smith + Andersen

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416 487 8151 f 416 487 9104 [smithandandersen.com](http://smithandandersen.com)



Client:	
VICTORIA UNIVERSITY	
Project:	Proj. No.: 23501.003.M.001
GOLDRING STUDENT CENTRE RENEWAL	
150 Charles St W, Toronto, ON M5S 1K9	

Scale: 1:100	Sheet No.:  <b>TM-2.3</b>
Drawn By: JL	
Checked By: AV/RC	

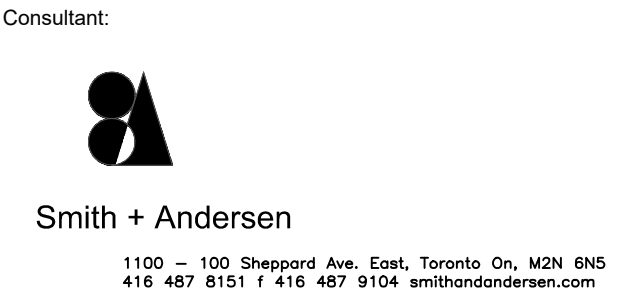
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NAME: JONATHAN LUONG

TEL: 416-487-8151

E-MAIL: jonathan.luong@smithandandersen.com

THIS DRAWING SHALL BE READ IN CONJUNCTION WITH MECHANICAL SPECIFICATION SUBMITTED FOR THIS PROJECT.



Client:

VICTORIA UNIVERSITY

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Project: Proj. No.: 23501.003.M.001

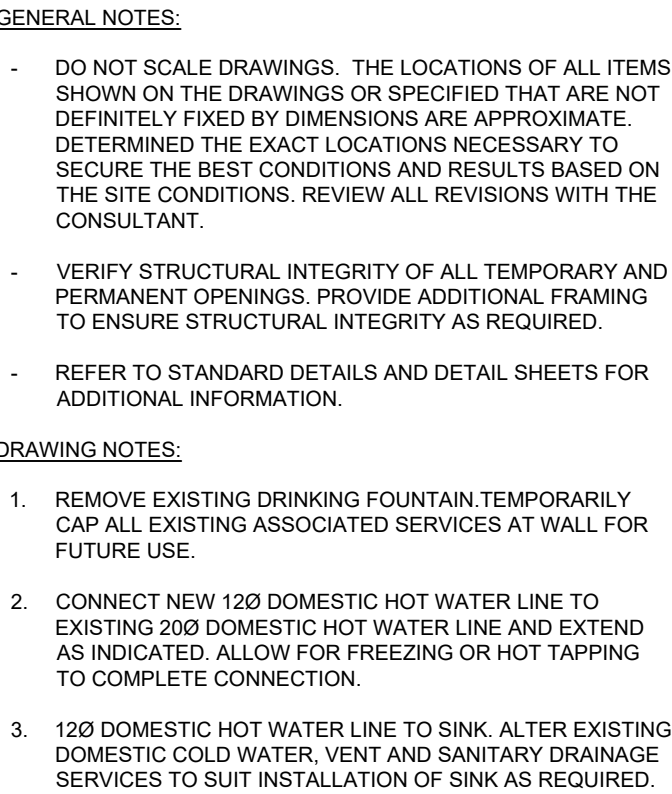
**GOLDRING STUDENT CENTRE  
RENEWAL**

150 Charles St W, Toronto, ON M5S 1K9

Scale:	1:100	Sheet No.: <b>TM-2.4</b>
Drawn By:	JL	
Checked By:	AV/RC	

## TM-2.4






PROJECT CONTACT	
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EMAIL:	jonathan.luong@smithandandersen.com

Keyplan:

The keyplan shows a site layout with three main areas: 'EXISTING' (top left), 'EXISTING' (bottom left), and 'RENOVATION' (bottom right). A north arrow is located in the top right corner.

North: 

Client:

VICTORIA UNIVERSITY

---

Project: Proj. No.: 23501.003.M.001

**GOLDRING STUDENT CENTRE  
RENEWAL**

150 Charles St W, Toronto, ON M5S 1K9

Title:

3RD FLOOR - PLUMBING &  
DRAINAGE LAYOUT

Scale: 1:100	Sheet No.:
Drawn By: JL	TM-3.2
Checked By: AV/RC	