

PLOT DATE: March 11, 2026

LEGEND – GENERAL			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	ISOLATION VALVE		PIPE UP
	GLOBE VALVE		PIPE DOWN
	LOCKABLE FLOW CONTROL VALVE		CAPPED PIPE
	BALL VALVE		DIRECTION OF FLOW
	CHECK VALVE		PIPE SLEEVE
	FLOAT VALVE		CONTINUOUS PIPE
	HOSE-END DRAIN VALVE		METER
	VALVED AND CAPPED PROVISION		UNION
	GATE VALVE AND FLOW SWITCH		STRAINER
	BACKFLOW PREVENTER		WATER FEEDER ASSEMBLY
	BUTTERFLY VALVE		FLEXIBLE PIPE CONNECTION
	LOOKSHIELD VALVE		PUMP
	PLUG VALVE		PRESSURE GAUGE WITH COCK
	PRESSURE REDUCING VALVE		THERMOMETER
	FLOW SWITCH		STARTER
	FLOW METER, VENTURI		FAN SPEED CONTROLLER
	SOLENOID VALVE		SLEEVE THROUGH BEAM
	CIRCUIT BALANCING VALVE		SLEEVE THROUGH WALL
	BALANCING VALVE (PLUG)		DOWN THROUGH FLOOR
	NEEDLE VALVE		CONNECT TO EXISTING
	PRESSURE DIFFERENTIAL VALVE		ACCESS PANEL
	SAFETY RELIEF VALVE		ACCESS DOOR
	AUTOMATIC CONTROL VALVE		
	3 WAY BUTTERFLY CONTROL VALVE		
	MOTORIZED BUTTERFLY VALVE		
	VALVE IN RISER		
	BACKWATER VALVE IN-LINE		
	BACKWATER VALVE WITH ACCESS		

LEGEND – HVAC			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	REFRIGERANT LIQUID		SINGLE LINE RIGID DUCT
	REFRIGERANT DISCHARGE		SINGLE LINE DUCT WITH ACOUSTIC LINING
	REFRIGERANT SUCTION		SINGLE LINE FLEXIBLE DUCT
	SUPPLY OR OUTSIDE AIR DUCT		DOUBLE LINE FLEXIBLE DUCT
	RETURN OR EXHAUST DUCT		SUPPLY AIR DIFFUSER
	SUPPLY DUCT DOWN		RETURN AIR GRILLE
	RETURN DUCT DOWN		FIRE DAMPER
	ROUND DUCT UP		SMOKE DAMPER
	ROUND DUCT DOWN		MOTORIZED DAMPER
	DUCT WITH ACOUSTIC LINING		MANUAL BALANCING DAMPER
	DOUBLE LINE DUCT		BACK DRAFT DAMPER
	DOOR UNDERCUT		MOTORIZED COMBINATION FIRE AND SMOKE DAMPER
	DOOR GRILLE		FIRE DAMPER (IN RISER)
	OUTDOOR AIR		SMOKE & FIRE DAMPER (IN RISER)
	RETURN AIR		BALANCING DAMPER (IN RISER)
	RELIEF AIR		MOTORIZED DAMPER (IN RISER)
	SUPPLY AIR		THERMOSTAT
			HUMIDISTAT

PLUMBING FIXTURES SIZING TABLE				
FIXTURE DESCRIPTION	DRAIN	VENT	DCW	DHW
WATER CLOSET – FLUSH TANK	80mm 3"	40mm 1 1/2"	15mm 1/2"	
LAVATORY	32mm 1 1/4"	32mm 1 1/4"	15mm 1/2"	15mm 1/2"
SINK – 1 COMPARTMENT	40mm 1 1/2"	32mm 1 1/4"	15mm 1/2"	15mm 1/2"
SINK – 2 COMPARTMENT	40mm 1 1/2"	32mm 1 1/4"	15mm 1/2"	15mm 1/2"
SERVICE SINK	80mm 3"	40mm 1 1/2"	15mm 1/2"	15mm 1/2"
MOP SINK	80mm 3"	40mm 1 1/2"	15mm 1/2"	15mm 1/2"
EMERGENCY EYE/FACE WASH	40mm 1 1/2"	40mm 1 1/2"	15mm 1/2"	15mm 1/2"

LEGEND – PLUMBING & DRAINAGE	
SYMBOL	DESCRIPTION
	SANITARY DRAIN – NEW
	BURIED SANITARY DRAIN
	STORM DRAIN
	BURIED STORM DRAIN
	PUMPED DRAIN
	PUMPED DRAIN UNDER FLOOR
	VENT PIPE
	DRAIN WITH CLEANOUT
	DRAIN WITH CLEANOUT UP TO FLOOR
	DRAIN WITH CLEANOUT UP TO FLOOR
	RUNNING TRAP WITH CLEANOUT
	RUNNING TRAP WITH CLEANOUT
	NON–POTABLE WATER
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RECIRC
	DOMESTIC TEMPERED WATER
	GREY WATER
	GAS PIPE
	COMPRESSED AIR
	CONDENSATE DRAIN
	LIQUID SOAP
	PIPE UP
	PIPE DOWN
	CAPPED PIPE
	DIRECTION OF FLOW
	HOSE BIBB/WALL HYDRANT
	SHOWER HEAD
	FLOOR DRAIN OR ROOF DRAIN
	FLOOR DRAIN (PARKING)
	SCUPPER DRAIN
	CATCHBASIN
	MANHOLE
	SOIL STACK
	WASTE STACK
	VENT STACK
	VENT THROUGH ROOF
	RAINWATER LEADER
	GREASE TRAP

DIFFUSER/GRILLE SCHEDULE			
TAG	TYPE	MODEL	REMARKS
S1	LOUVERED FACE SUPPLY	5200/S/B12	SIZE AS INDICATED ON DRAWINGS.
S2	600mm x 600mm SQUARE PLAQUE DIFFUSER	SPD/P1/B12	NECK SIZE AS INDICATED ON DRAWINGS.
S3	600mm x 600mm 4 WAY PANEL MOUNTED DIFFUSER	51400–04–XX–F23–24x24–00–44/B12	NECK SIZE AS INDICATED ON DRAWINGS.
S4	300mm x 300mm 4 WAY PANEL MOUNTED DIFFUSER	51400–04–XX–F23–24x24–00–44/B12	NECK SIZE AS INDICATED ON DRAWINGS.
R1	LOUVERED FACE RETURN	5300/S/B12	SIZE AS INDICATED ON DRAWINGS.
R2	EGGCRATE RETURN GRILLE	80/F/B12	SIZE AS INDICATED ON DRAWINGS.
E1	EGGCRATE RETURN GRILLE	80/F/B12	NECK SIZE AS INDICATED ON DRAWINGS.

NOTES:
1. SPECIFICATIONS BASED ON EH PRICE

DOMESTIC WATER HEATER SCHEDULE												
TAG	LOCATION	MANUFACTURER	MODEL	CAPACITY		RECOVERY		ELECTRICAL		WEIGHT		REMARKS
				L	USG	LPH	GPH	VOLTAGE	MOCP	KG	LBS	
EW1-1	UTILITY-109	BRADFORD WHITE	AEROTHERM RE2H80T10	303	80	68.1	18.0	208/1/60	30.0	407.8	899.0	NOTES 1, + 2
NOTES:												
1. ACCEPTABLE ALTERNATES, SUBJECT TO SHOP DRAWING REVIEW -- A.O. SMITH.												
2. COMPLETE WITH TEMPERATURE AND PRESSURE RELIEF VALVE, DUCTING KIT, AND 4.5KW BACK-UP ELECTRIC HEATING ELEMENTS.												

NOTES:
1. ACCEPTABLE ALTERNATES, SUBJECT TO SHOP DRAWING REVIEW – A.O. SMITH
2. COMPLETE WITH TEMPERATURE AND PRESSURE RELIEF VALVE, DUCTING KIT, AND 4.5KW BACK-UP ELECTRIC HEATING ELEMENTS.

IMPERIAL TO METRIC SIZING CONVERSION			
1/8"	3mm	1 1/4"	32mm
1/4"	8mm	1 1/2"	40mm
3/8"	10mm	2"	50mm
1/2"	15mm	2 1/2"	65mm
3/4"	20mm	3"	80mm
1"	25mm	4"	100mm

ENERGY RECOVERY UNIT SCHEDULE																		
TAG	SYSTEM	LOCATION	MODEL #	AIRFLOW		ESP		UNIT EFFICIENCY			POWER CONSUMPTION		ELECTRICAL			WEIGHT		REMARKS
				L/S	CFM	Pg	in. WC	SENSIBLE	WINTER	SUMMER	WATTS		VOLTAGE	MCA	MOCP	KG	LBS	
ERV-1	OUTDOOR AIR	UTILITY-108	EK120HRX-N	50	105	75.0	0.3	72	70	62	207		120/1/60	1.94	15	24	53	
ERV-2	OUTDOOR AIR		E280-SRG	99	210	75.0	0.3	70	68	58	146		120/1/60	2.89	15	28	62	

NOTES:
1. SPECIFICATIONS BASED ON ALDES
2. ALTERNATES: RENEWARE, VENMAR

SPLIT HEAT PUMP SCHEDULE																										
OUTDOOR UNITS											INDOOR UNITS															
TAG	LOCATION	MODEL #	PERFORMANCE		MIN. OPERATING TEMPERATURE		ELECTRICAL			WEIGHT		TAG	AREA SERVED	LOCATION	TYPE	MODEL #	AIRFLOW		PERFORMANCE		ELECTRICAL			WEIGHT		REMARKS
			COOLING	HEATING	°C	°F	VOLTAGE	MCA	MOCP	KG	LBS						L/s	CFM	COOLING	HEATING	VOLTAGE	MCA	MOCP	KG	LBS	
			MBH	MBH @ -20°C (-4°F)															MBH	MBH						
HP-0-1	BACK OF BUILDING AT GRADE	ARUM036GSS5	36.1	31.8	-25.0	-13	208-230/1/60	24	40	136	300	HP-1-1	OFFICE	UTILITY-109	MULTI-POSITION AIR HANDLING UNIT	ARNU363NJA4	467	990	36	40	208-230/1/60	2.8	-	68	150	- OUTDOOR UNIT COMPLETE WITH 24" PRE-FABRICATED STAND, HAIL GUARD AND AIR GUIDE ACCESSORIES

NOTES:
1. SPECIFICATIONS BASED ON LG
2. ACCEPTABLE ALTERNATES: FUJITSU, YORK

LOUVRE SCHEDULE							
TAG	SYSTEM	LOCATION	SIZE	MODEL	AIRFLOW		REMARKS
					L/S	CFM	
L-1	ERV-2 VENTILATION EXHAUST	NORTHWEST	500x300	2420	127	269	
L-2	ERV-2 VENTILATION INTAKE	NORTHWEST	500x300	2430	127	269	
L-3	ERV-1 VENTILATION EXHAUST	NORTHWEST	300x300	2420	55	117	
L-4	ERV-1 VENTILATION INTAKE	NORTHSOUTH	300x300	2430	55	117	

NOTES:
1. SPECIFICATIONS BASED ON VENTEX

ELECTRIC RADIANT HEATER SCHEDULE						
TAG	LOCATION	MODEL #	STYLE	CAPACITY	VOLTAGE	REMARKS
				W		
ERH-1	STORAGE AREA	SW18M12	ELECTRIC	1800	120/1/60	C/W BUILT-IN THERMOSTAT
ERH-2	STORAGE AREA	SW18M12	ELECTRIC	1800	120/1/60	C/W BUILT-IN THERMOSTAT
ERH-3	STORAGE AREA	SW18M12	ELECTRIC	1800	120/1/60	C/W BUILT-IN THERMOSTAT

NOTES:
1. SPECIFICATIONS BASED ON SUPERIOR RADIANT PRODUCTS

ELECTRIC BASEBOARD HEATER SCHEDULE					
TAG	LOCATION	MODEL #	STYLE	CAPACITY	REMARKS
				W	
EBH-1	WASHROOM	OFM0502	ELECTRIC	500	120/1/60 C/W BUILT-IN THERMOSTAT

NOTES:
1. SPECIFICATIONS BASED ON QUELLET

GENERAL NOTES:
1. PERFORM ALL WORK IN ACCORDANCE WITH THE LATEST EDITION OF ALL APPLICABLE CODES, STANDARDS AND BULLETINS, AND TO THE LOCAL AUTHORITIES' REQUIREMENTS.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND CHECK THE EXISTING CONSTRUCTION PRIOR TO AND DURING CONSTRUCTION. ANY CHANGES AND/OR DISCREPANCIES SHALL BE REPORTED AND REVIEWED BY THE ENGINEER AND/OR PROJECT MANAGER PRIOR TO PROCEEDING.
3. THE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND THE DOCUMENTS PERTAINING TO THE WORK OF OTHER TRADES.
4. OBTAIN EXACT DIMENSION FROM SITE MEASUREMENTS. DO NOT SCALE THESE DRAWINGS.
5. PENETRATIONS OF EITHER THE FIRE OR SMOKE BARRIERS SHALL BE SLEEVED/SEALED AGAINST THE PASSAGE OF FLAME AND/OR SMOKE WITH A SUITABLE NON-COMBUSTIBLE MATERIAL EQUAL TO THE CONSTRUCTION PENETRATED.
6. CHECK AND VERIFY THE LOCATIONS OF ALL PIPES, DUCTWORK AND EQUIPMENT WITH THE WORK OF OTHER TRADES TO PREVENT INTERFERENCE. REMOVAL AND RELOCATION OF ANY SUCH WORK INTERFERING WITH THE WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE MECHANICAL TRADES, UNLESS OTHERWISE APPROVED IN WRITING.
7. PROVIDE ACCESS DOORS AS REQUIRED FOR ALL CONCEALED SERVICEABLE COMPONENTS, LOCATED ABOVE, BEHIND OR BELOW INACCESSIBLE CONSTRUCTION.
8. EXISTING EQUIPMENT AND ASSOCIATED COMPONENTS SHALL BE REMOVED AND DISPOSED IN AN APPROPRIATE MANNER.
9. ALL SYSTEMS ARE SHOWN IN DIAGRAMMATIC FORM. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE NEW SYSTEMS ARE CONFIGURED/INSTALLED WITHIN THE EXISTING AVAILABLE SPACE. MODIFY THE NEW SYSTEMS CONFIGURATION AS REQUIRED TO SUIT.

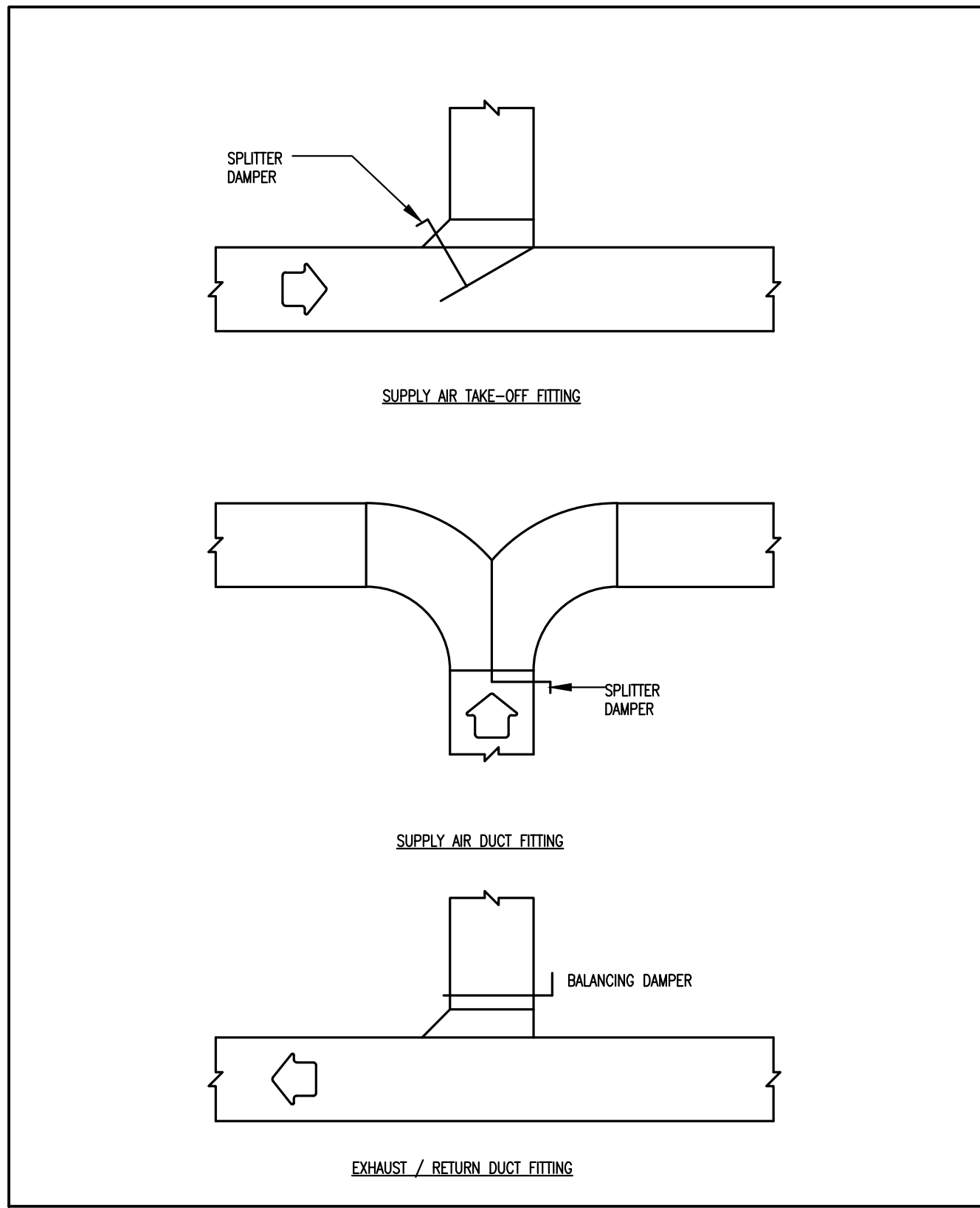
PLUMBING FIXTURE LIST	
ITEM	DESCRIPTION
(WC-01)	TOILET – FLOOR MOUNTED WITH FLOOR OUTLET AMERICAN STANDARD 215A104.020 TOILET – CADET® PRO™, TANK TYPE TOILET, FLOOR MOUNTED WITH FLOOR OUTLET, HIGH EFFICIENCY HET 4.8 LPF (1.28 GPF), VITREOUS CHINA, WHITE FINISH, EVERCLEAN® ANTIMICROBIAL SURFACE, ELONGATED BOWL. CENTROD 8020SS-001 SEAT – OPEN FRONT TOILET SEAT WITH COVER, FOR ELONGATED BOWL, WHITE POLYPROPYLENE PLASTIC, COLOR-MATCHED PLASTIC SELF-SUSTAINING CHECK HINGS WITH ONE SOLID METAL HINGE PIN AND BOLT. MCGUIRE LFBV172 SUPPLY – CONVERTIBLE™ COMMERCIAL TOILET SUPPLY KIT, CONSISTING OF (1) STOP VALVE, (1) RISER, (1) FLANGE, LEAD FREE BRASS BODY, CHROME-PLATED FINISH, CONVERTIBLE LOOSE KEY/TRIANGLE HANDLE, ANGLE STOP, 305 MM (12") C.P. LATVATORY FLEXIBLE COPPER RISER TUBES (STANDARD), 13 MM (1/2") SWEAT INLET X 10 MM (3/8") O.D. OUTLET. MCGUIRE 8872C P-TRAP – HEAVY CAST BRASS, 32 MM (1-1/4") X 32 MM (1-1/4") SIZE, ADJUSTABLE P-TRAP, WITH CLEANOUT PLUG.
(HS-01)	LAVATORY – AMERICAN STANDARD Q355012.020 BASIN – WALL-HUNG LAVATORY, VITREOUS CHINA, WHITE FINISH. CHICAGO FAUCETS 420-T45E2805ARCP FAUCET – MANUAL, SINGLE HANDLE, LAVATORY FAUCET. MCGUIRE L55A FIXTURE DRAIN – STRAIGHT DRAIN, CAST BRASS, CHROME-PLATED FINISH. MCGUIRE LFBV170 SUPPLY – CONVERTIBLE™ COMMERCIAL FAUCET SUPPLY KIT, CONSISTING OF (2) STOP VALVES, (2) RISERS, (2) FLANGES (STANDARD), LEAD FREE BRASS BODY, CHROME-PLATED FINISH, CONVERTIBLE LOOSE KEY/TRIANGLE HANDLE, ANGLE STOP, 305 MM (12") C.P. LAVATORY FLEXIBLE COPPER RISER TUBES (STANDARD), 13 MM (1/2") SWEAT INLET X 10 MM (3/8") O.D. OUTLET. MCGUIRE 8912CB P-TRAP – HEAVY CAST BRASS, 38 X 38 MM (1-1/2" X 1-1/2") SIZE, ADJUSTABLE P-TRAP, WITH CLEANOUT PLUG.
(KS-01)	– COMMERCIAL SINKS FRANKE COMMERCIAL LBS6808P-1-1 SINK – COUNTER MOUNTED, SINGLE COMPARTMENT SINK, CONSTRUCTED FROM 18 GAUGE TYPE 304 STAINLESS STEEL, SINGLE HOLE CENTERSET, WITH OVERALL DIMENSION 508 MM (20") LONGS, 521 MM (20-1/2") WIDE, 203 MM (8") HIGH. GROHE 32860G3 FAUCET – CONNETTO, MANUAL, SINGLE HANDLE, SINK FAUCET. MCGUIRE LFBV170 SUPPLY – CONVERTIBLE™ COMMERCIAL FAUCET SUPPLY KIT, CONSISTING OF (2) STOP VALVES, (2) RISERS, (2) FLANGES (STANDARD), LEAD FREE BRASS BODY, CHROME-PLATED FINISH, CONVERTIBLE LOOSE KEY/TRIANGLE HANDLE, ANGLE STOP, 305 MM (12") C.P. LAVATORY FLEXIBLE COPPER RISER TUBES (STANDARD), 13 MM (1/2") SWEAT INLET X 10 MM (3/8") O.D. OUTLET. MCGUIRE 8912CB P-TRAP – HEAVY CAST BRASS, 38 X 38 MM (1-1/2" X 1-1/2") SIZE, ADJUSTABLE P-TRAP, WITH CLEANOUT PLUG.
(SH-1)	SHOWER – AMERICAN STANDARD TU662SG.213 SHOWER SYSTEM KIT AND R-422 TWO-WAY DIVERTER VALVE. KIT TO INCLUDE: – PRESSURE BALANCING LEVER VALVE – 3 FUNCTION HAND WAND WITH 59" METAL HOSE – WALL SUPPLY – IN-LINE VACUUM BREAKER – SHOWER HEAD – 36" SLIDE BAR – TDM KIT
(FD-1)	FLOOR DRAIN – FOR FINISHED AREA APPLICATION – MEDIUM DUTY (MD) – WATTS FD-102NH-C-A5-1 FLOOR DRAIN – EPOXY COATED CAST IRON, FLOOR DRAIN, ADJUSTABLE ROUND 6 MM (1/4") THICK TOP, 51 MM (2") PIPE SIZE, NO-HUB OUTLET, 127 MM (5") DIAMETER NICKEL BRONZE STRAINER, ANCHOR FLANGE, TRAP PRIMER TAPPING, REVERSIBLE MEMBRANE CLAMP, COLLAR WITH PRIMARY AND SECONDARY WEEPHOLES, 52 CM ³ (8 SQ. IN.) FREE AREA, CERTIFICATION AND COMPLIANCES INCLUDE: ASME A112.21.1M COMPLIANT.
(FD-2)	FLOOR DRAIN – FOR FUNNEL APPLICATION – WATTS FD-102NH-EG-1 FLOOR DRAIN – EPOXY COATED CAST IRON, FLOOR DRAIN, ADJUSTABLE HEEL PROOF NICKEL BRONZE TOP, 51 MM (2") PIPE SIZE, NO-HUB OUTLET, ANCHOR FLANGE, 102 X 229 MM (4" X 9") OVAL NICKEL BRONZE FUNNEL, REVERSIBLE CLAMPING COLLAR WITH PRIMARY AND SECONDARY WEEPHOLES, 28 CM ³ (4 SQ. IN.) FREE AREA.
(BFP-1)	BACKFLOW PREVENTER – DOUBLE CHECK VALVE ASSEMBLY (CITY WATER) – WATTS 757 NRS: 504 (2") DOUBLE CHECK VALVE ASSEMBLY – TWO INDEPENDENT, REMOVABLE AND SERVICEABLE TR-LINK CHECK MODULES WITHIN A SINGLE HOUSING, DRIP TIGHT CLOSURE AGAINST REVERSE FLOW, 304 SCHEDULE 40 STAINLESS STEEL HOUSING AND SLEEVE, REVERSIBLE ELASTOMERIC DISCS, SLEEVED ACCESS PORT, TWO DRIP TIGHT SHUT-OFF VALVES NON-RISING STEM GATE VALVES, 2"Ø (50+ MM) PIPE CONNECTION, FOUR TEST COCKS.
(EE-01)	EMERGENCY EYE/FACE WASH – GUARDIAN 61750-DC-YEL-T-68020 – WALL MOUNTED, CONSTRUCTED FROM ABS PLASTIC, THERMOSTATIC MIXING VALVE PRECISELY BLENDS HOT AND COLD WATER, 2854 (11-1/8") BOWL, CORROSION RESISTANT POWDER COATED FINISH, 2 FS-PLUS SPRAY HEADS WITH FLIP TOP DUST COVER EACH, 134 (5-1/8") CHROME PLATED BRASS STAY OPEN BALL VALVE, 134 (5-1/8") FEMALE INLET SUPPLY, CHROME PLATED BRASS TAILPIECE AND TRAP WITH 384 (1-1/2") CONNECTION AND OUTLET. – LAWLOR 911E7-UNIT 94909 – EMERGENCY MIXING VALVE, THERMOSTATIC HIGH-LOW MASTER WATER MIXING VALVE, COMPLETE WITH STAINLESS STEEL LOCKING CABINET WITH PLEX-GLASS VIEWPORT FOR CLEAR VIEW OF THE DIAL TYPE THERMOMETER.

GENERAL NOTES

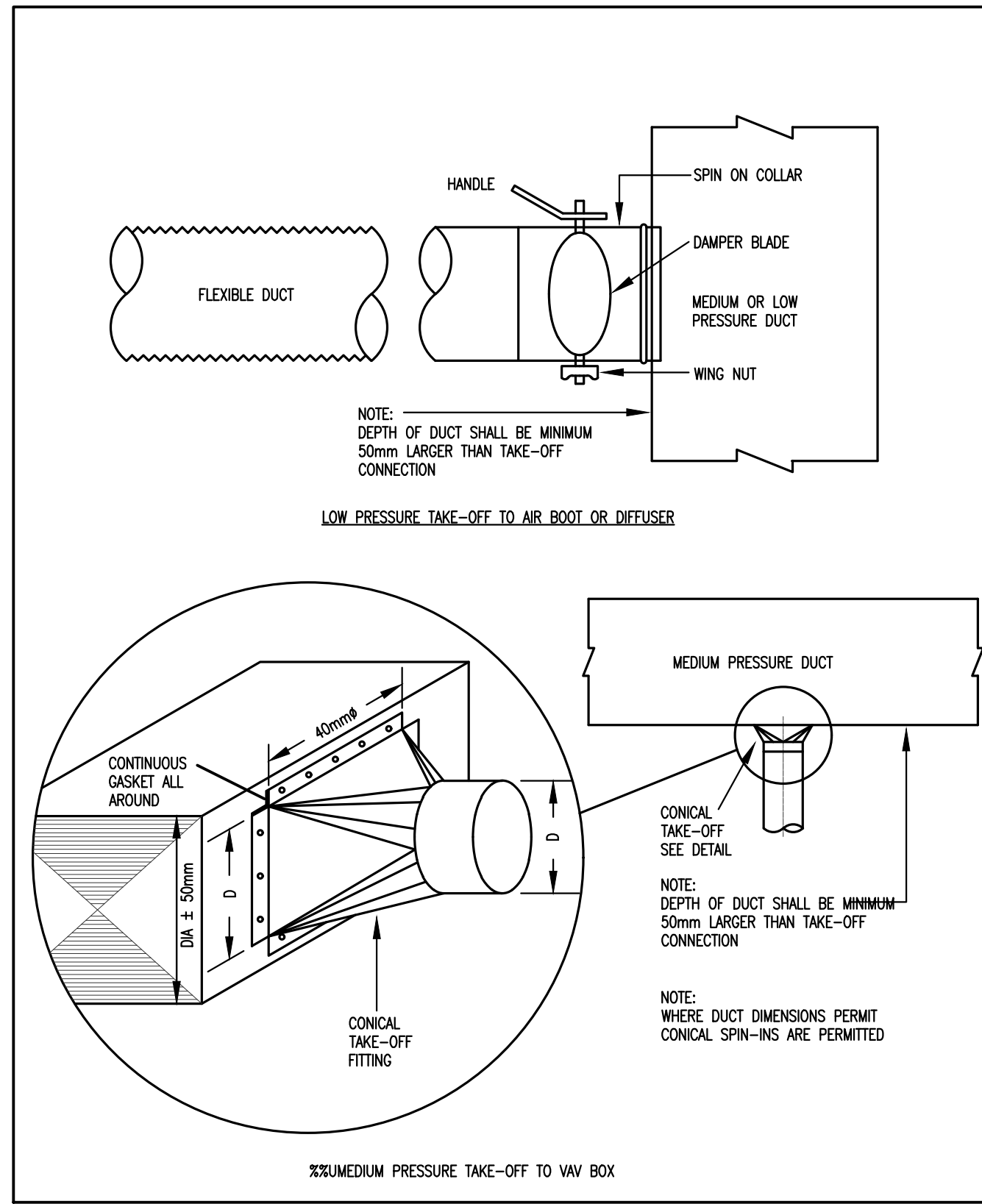


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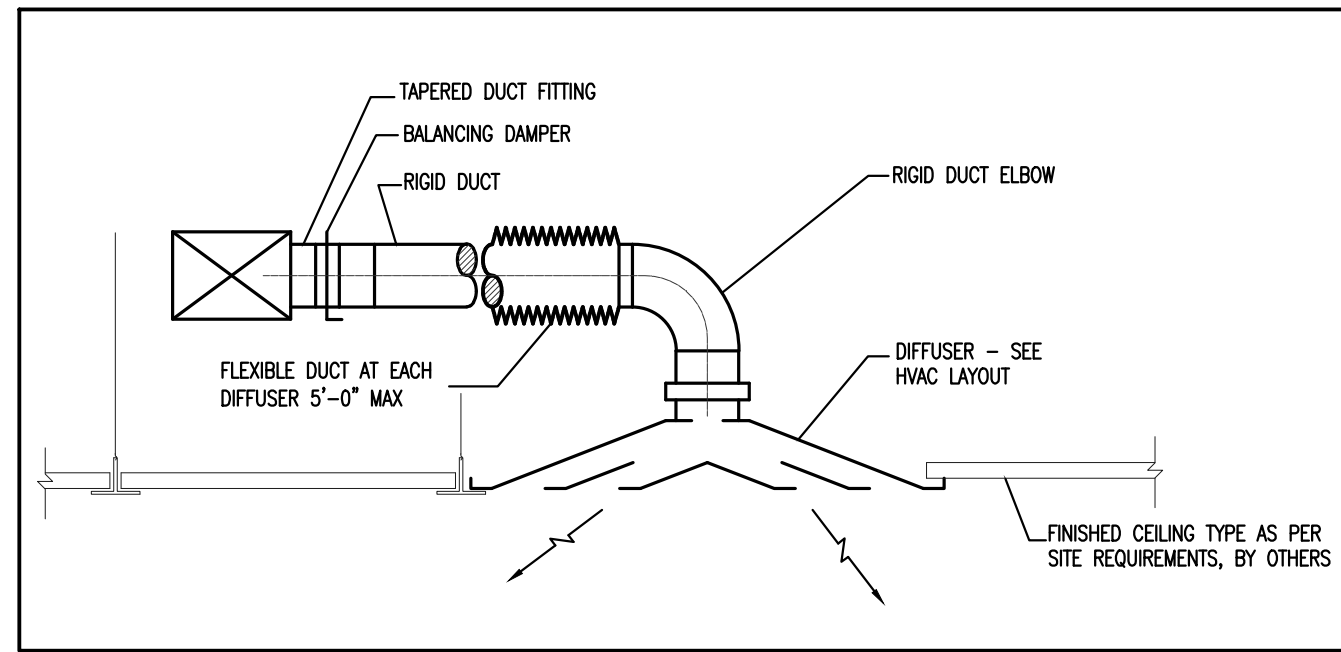
Limited Engineering Licensee
Name: S. B. HOWARD
Number: 100026721
Limitations



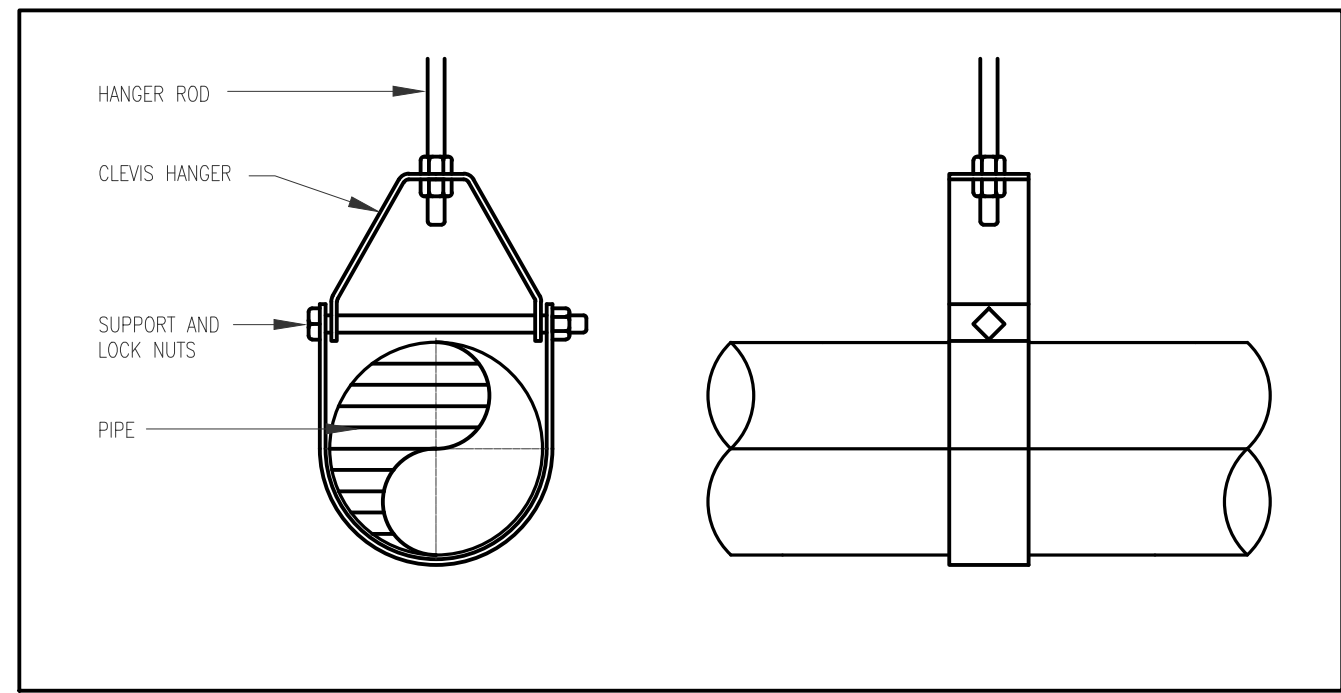
1 DUCT FITTINGS
M-101 SCALE: NTS



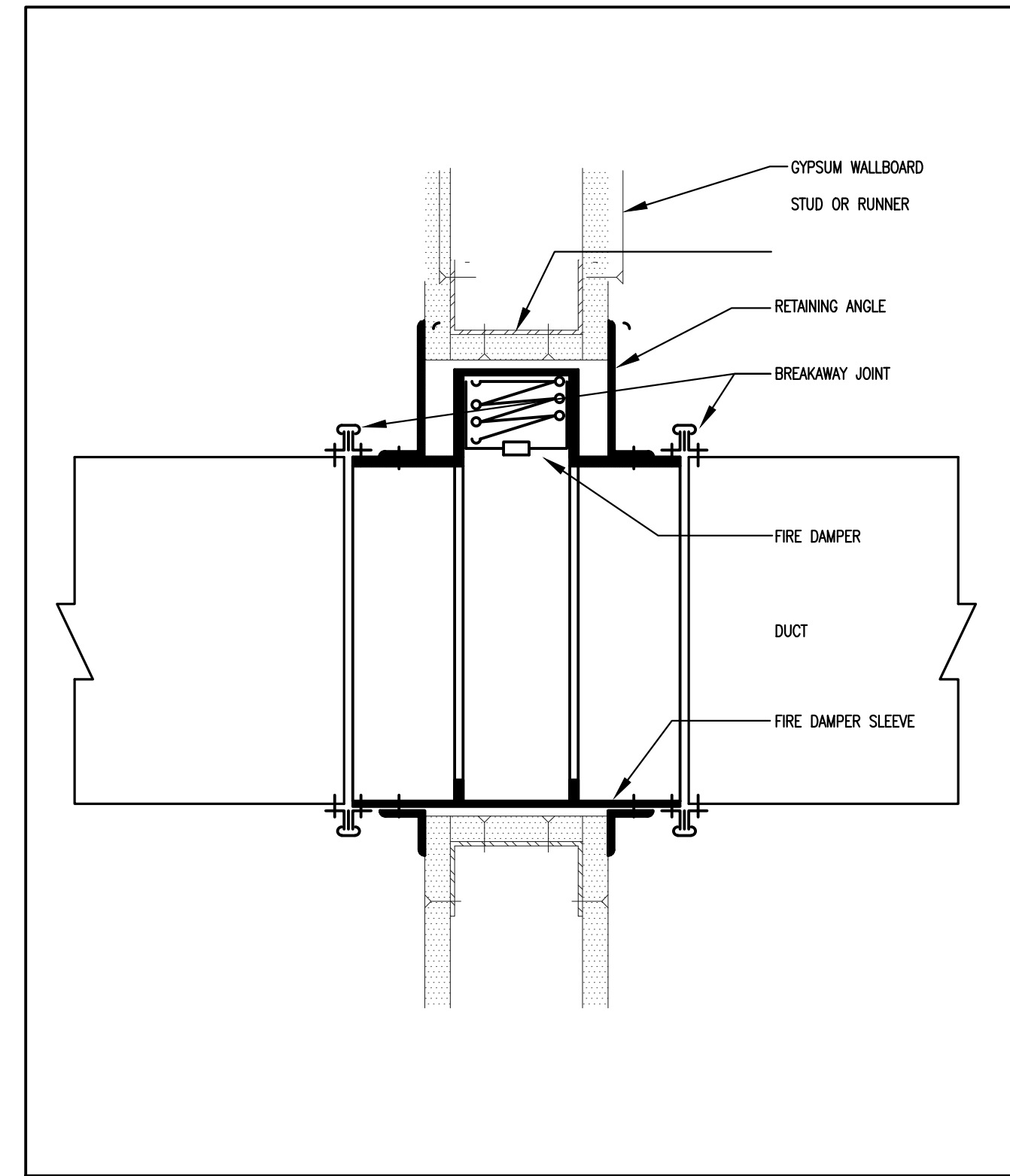
2 DUCT TAKE-OFF
M-101 SCALE: NTS



3 SQUARE DIFFUSER CONNECTION DETAIL
M-101 SCALE: NTS



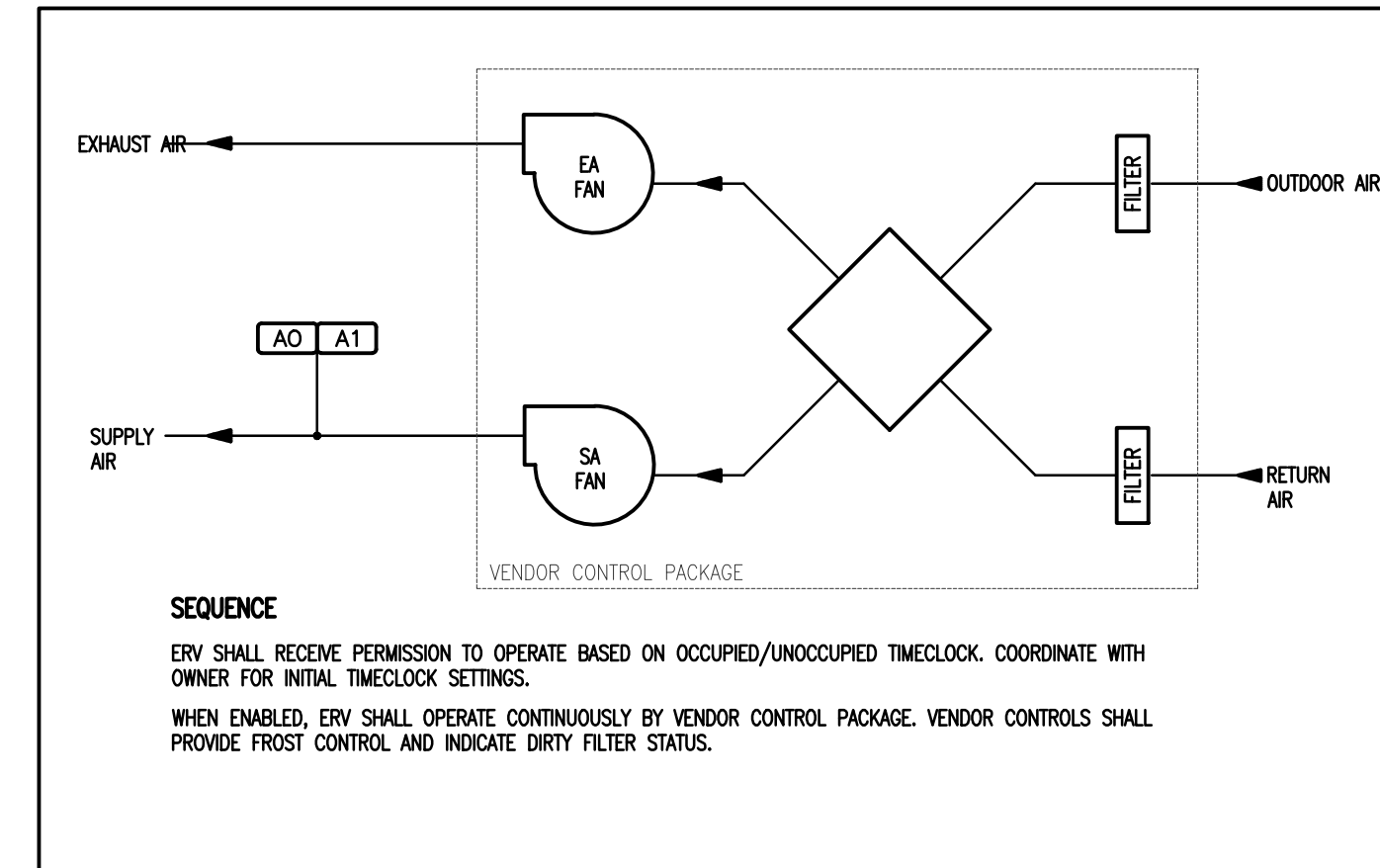
4 PIPE HANGER DETAIL
M-101 SCALE: N.T.S.



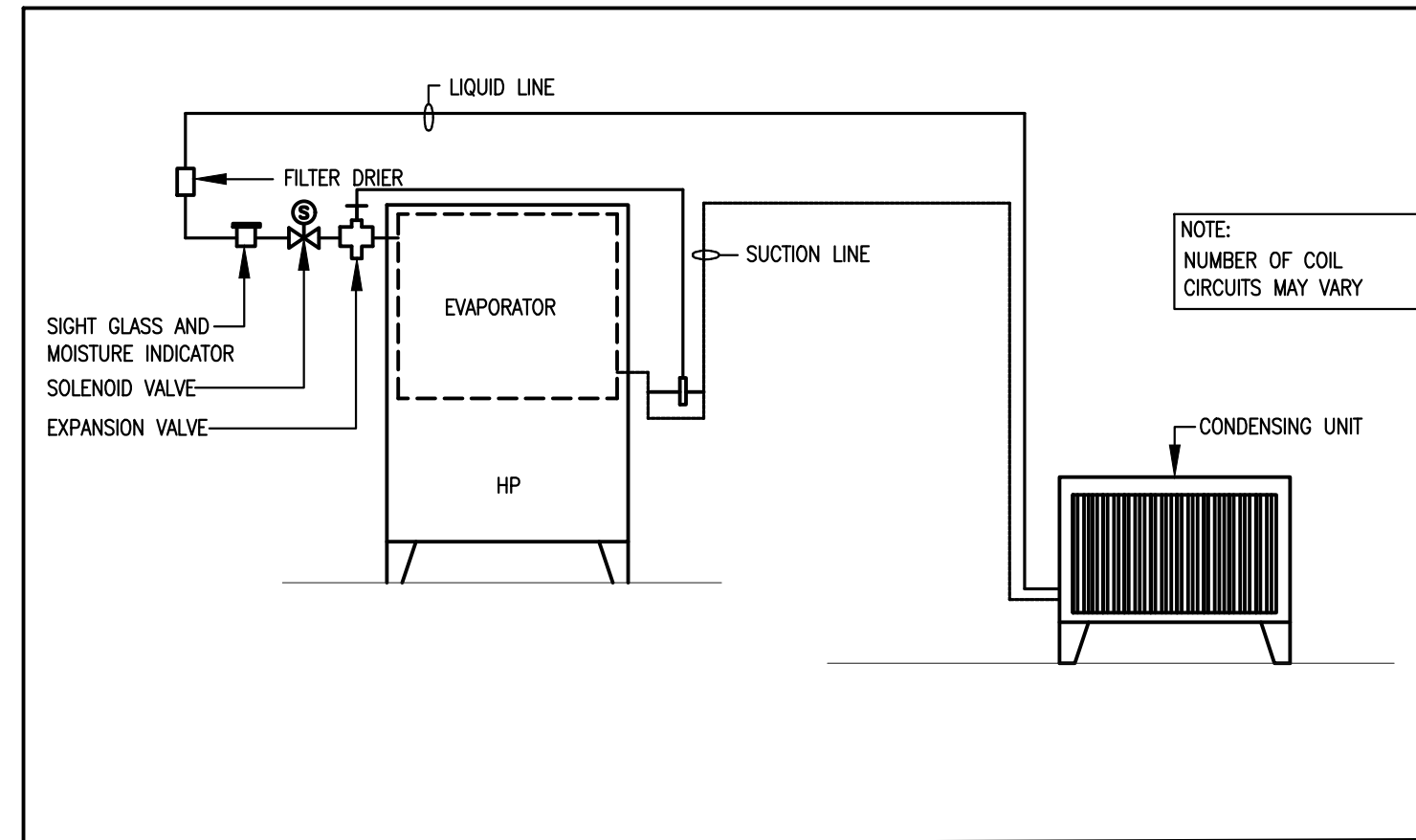
5 FIRE DAMPER
M-101 SCALE: NTS

CONTROL LEGEND	
SENSOR AND INSTRUMENT CODES	ABBREVIATIONS
A1 TEMPERATURE SENSOR, DUCT MOUNTED	ADJ ADJUSTABLE
A2 TEMPERATURE SENSOR, PIPE MOUNTED	AI ANALOG INPUT
A3 TEMPERATURE SENSOR, AVERAGING ELEMENT	AO ANALOG OUTPUT
A4 TEMPERATURE SENSOR, OUTSIDE AIR TYPE	BAS BUILDING AUTOMATION SYSTEM
A5 TEMPERATURE SENSOR, ROOM TYPE	CACF CENTRAL ALARM & CONTROL FACILITY
A6 TEMPERATURE SENSOR, LOW LIMIT	CHWS CHILLED WATER SUPPLY
A7 TEMPERATURE SENSOR, HIGH LIMIT	CHWR CHILLED WATER RETURN
	CLS COOLING
B1 HUMIDITY SENSOR, DUCT MOUNTED	CWS CONDENSER WATER SUPPLY
B2 HUMIDITY SENSOR, ROOM TYPE	CWR CONDENSER WATER RETURN
B3 HUMIDITY SENSOR, OUTSIDE AIR TYPE	DI DIGITAL INPUT
B5 HUMIDITY SENSOR, HIGH LIMIT TYPE	DO DIGITAL OUTPUT
	DP DIFFERENTIAL PRESSURE
C1 DIFFERENTIAL PRESSURE	DS DAMPER END SWITCH
C2 PRESSURE SENSOR	EAT EXHAUST AIR TEMPERATURE
C3 STATIC PRESSURE SENSOR	EF EXHAUST FAN
C4 PRESSURE SWITCH	EWI ENTERING WATER TEMPERATURE
C5 WATERFLO SWITCH	FPWV FAN POWERED VAV TERMINAL
C6 DAMPER STATUS SWITCH	FCS FAN COIL SUPPLY
C7 AIR VOLUME	FCR FAN COIL RETURN
C8 PULSED OUTPUT FROM POWER METER	FCU FAN COIL UNIT
C9 PULSED OUTPUT FROM WATER METER	FS FLOW SENSOR
C10 EMERSON HEATER ON/OFF	HL HIGH LIMIT
C11 CURRENT SENSITIVE RELAY	HWS HEATED WATER SUPPLY
C12 CO2 SENSOR	HWR HEATED WATER RETURN
	HTG HEATING
CO2 CARBON DIOXIDE SENSOR	LL LOW LIMIT
CO CARBON MONOXIDE SENSOR	LWT LEAVING WATER TEMPERATURE
	MAT MIXED AIR TEMPERATURE
D1 MOTOR CONTROL RELAYS, START/STOP/STATUS TYPE	OARH OUTSIDE AIR RELATIVE HUMIDITY
D2 CURRENT TRANSFORMERS AND RELAYS	OAT OUTSIDE AIR TEMPERATURE
D3 MOTOR STATUS CONTACTS	RA RETURN AIR
D4 DIFFERENTIAL PRESSURE SWITCH	RAH RETURN AIR RELATIVE HUMIDITY
D5 LEVEL SWITCH, TANK MOUNTED	RAT RETURN AIR TEMPERATURE
D6 LEVEL SWITCH, FLOAT TYPE	RF RETURN FAN
D7 DIFFERENTIAL PRESSURE TRANSMITTER	RTT RUN TIME TOTALIZATION
D8 CURRENT SENSITIVE RELAY	SA SUPPLY AIR
D9 LEVEL TRANSMITTER	SAH SUPPLY AIR RELATIVE HUMIDITY
	SAT SUPPLY AIR TEMPERATURE
K1 WATERFLOW TRANSMITTER, ANNULAR TYPE	SF SUPPLY FAN
K2 WATERFLOW TRANSMITTER, TURBINE TYPE	SP STATIC PRESSURE
K3 AIRFLOW TRANSMITTER, DIGITRON TYPE	ST SPACE TEMPERATURE
K4 AIRFLOW TRANSMITTER, ANNULAR AIRBAR	STP SETPOINT
K5 ENERGY METER, DELTA T AND FLOW	STS SPACE TEMPERATURE SENSOR
K6 GAS DETECTOR	TUC TERMINAL UNIT CONTROLLER
	VAV VARIABLE AIR VOLUME
F1 INTERFACE CONTACT TO CACF	
F2 VIBRATION DETECTOR	
F3 INTERFACE CONTACT	
F4 INTERFACE CONTACT	
G1 OUTPUT TO VALVE	
G2 OUTPUT TO DAMPER	
G3 START/STOP	
G4 OUTPUT TO VSD	
G5 FAULT INPUT	
G6 STATUS	
G7 VIBRATION CUT-OUT	
G8 ELECTRICAL POWER CONSUMPTION	

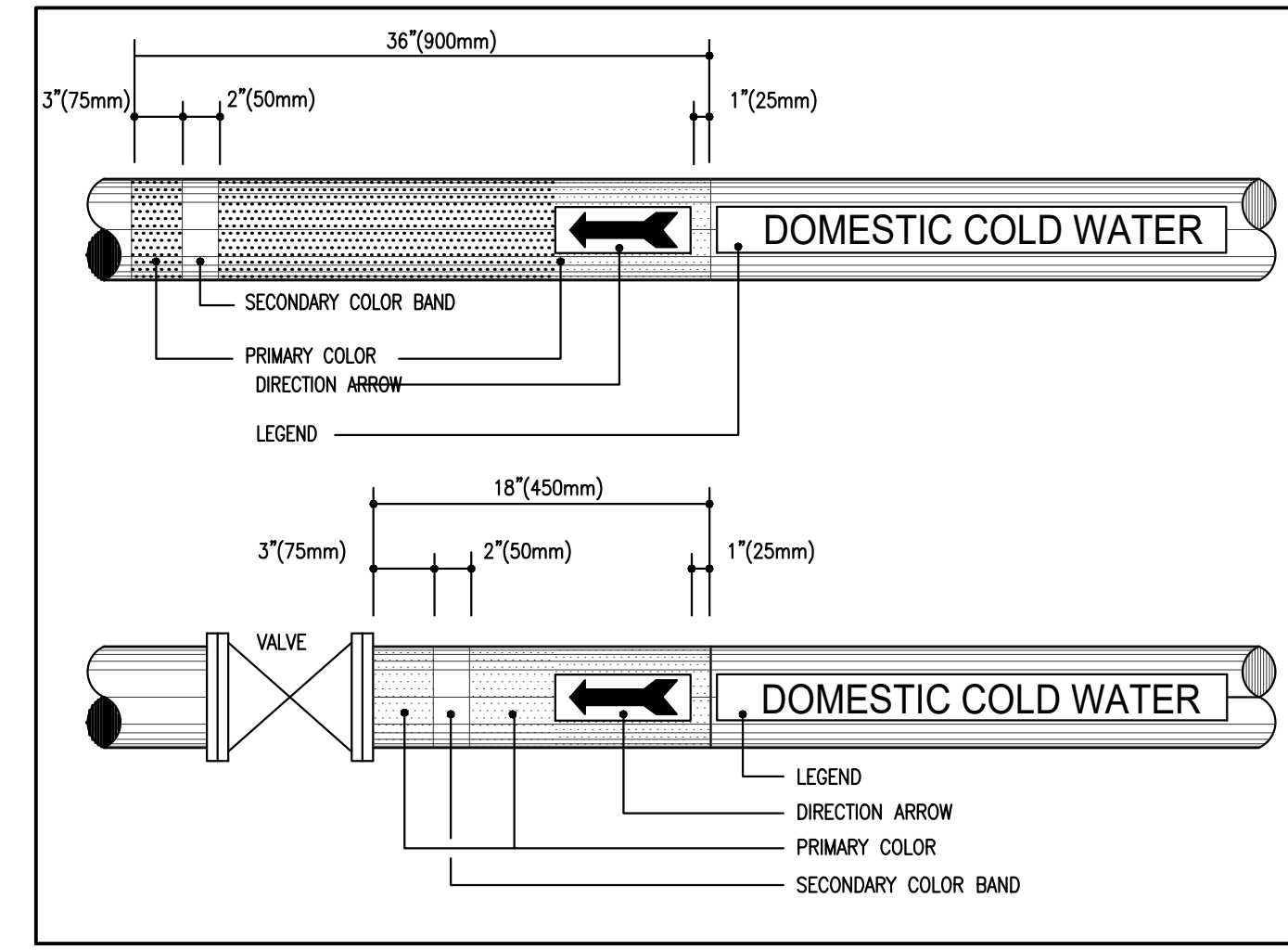
CD-1 CONTROL LEGEND
M-101



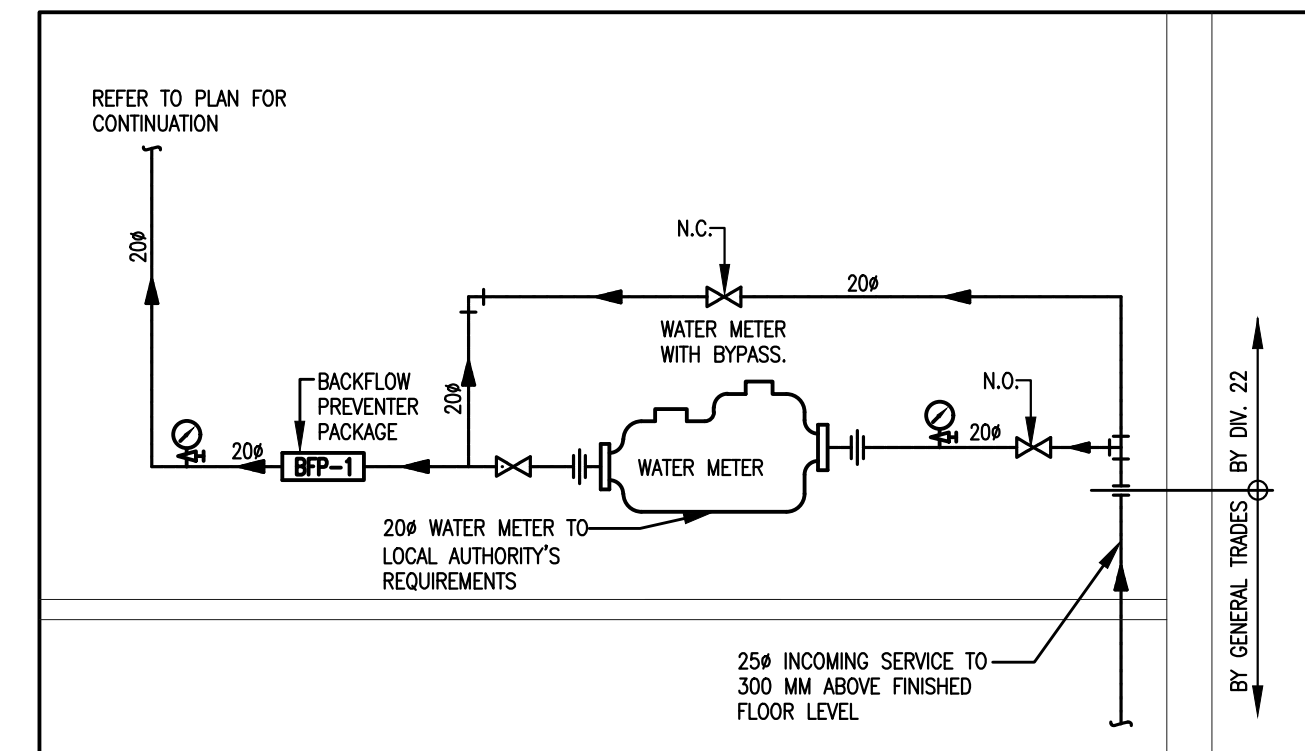
CD-2 ERV SYSTEM
M-101



6 REFRIGERANT PIPING SCHEMATIC
M-101 SCALE: NTS



7 PIPE IDENTIFICATION DETAIL
M-101 SCALE: N.T.S.



8 INCOMING DOMESTIC COLD WATER SCHEMATIC
M-101 SCALE: NTS

GENERAL NOTES

Professional Engineers
Ontario
Limited Engineering Licensee
Name: S. B. HOWARD
Number: 100026721
Limitations: Design for new construction and renovations of heating, ventilating, air conditioning, plumbing, drainage, and fire suppression systems.
Association of Professional Engineers of Ontario
Steven Howard Date: 20260311 Project No: 23-117-110

3	ISSUED FOR TENDER	MAR. 11, 2026	S.H.
2	RE-ISSUED FOR PERMIT	SEPT. 11, 2025	S.H.
1	RE-ISSUED FOR PERMIT	APR. 15, 2025	J.C.
0	ISSUED FOR PERMIT	OCT. 11, 2024	J.C.
No.	DESCRIPTION	DATE	BY

REVISIONS

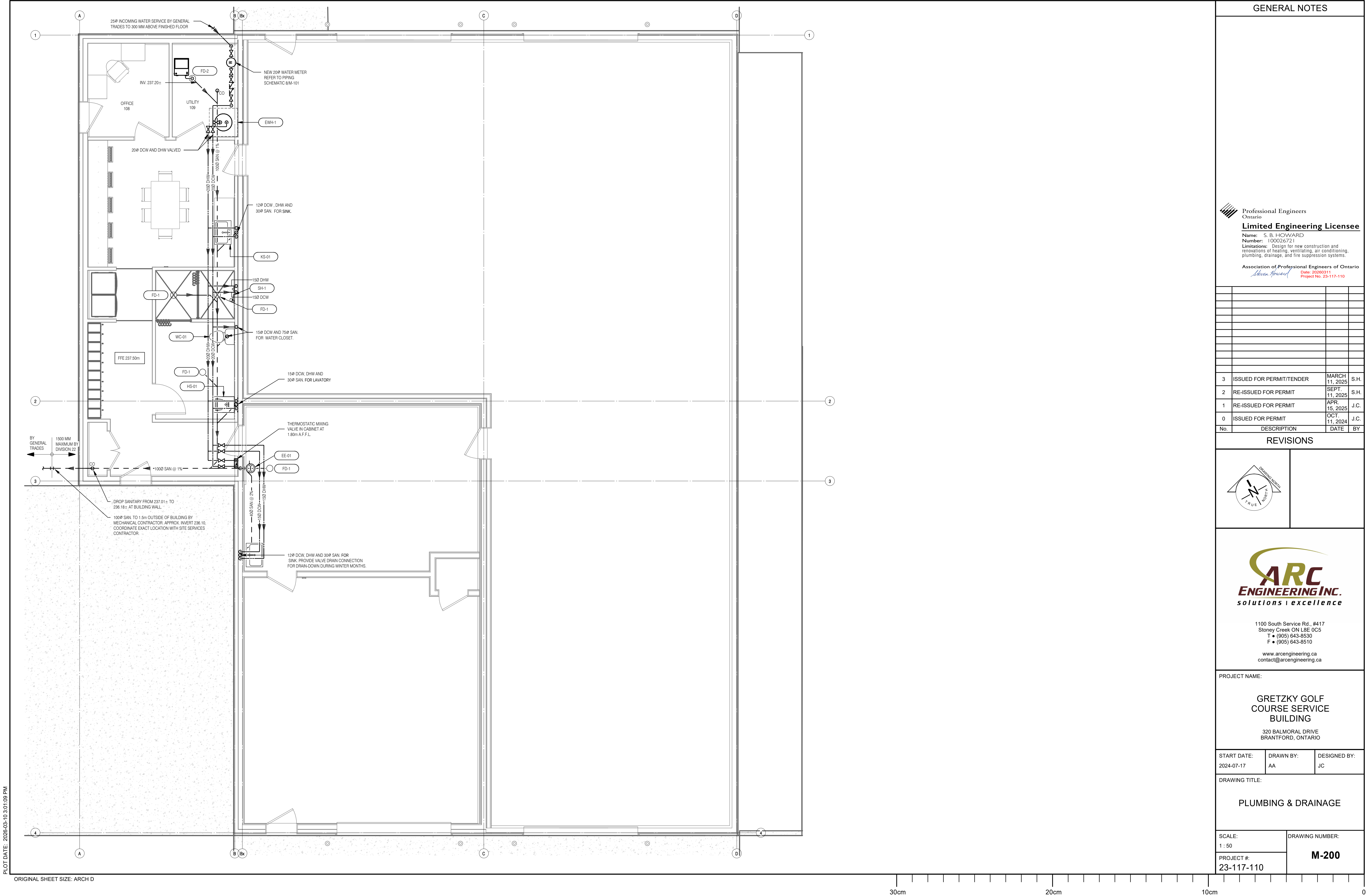
ARC
ENGINEERING INC.
solutions | excellence
1100 South Service Rd., #417
Stoney Creek ON L8E 0C5
T • (905) 643-8530
F • (905) 643-8510
www.arcengineering.ca
contact@arcengineering.ca

PROJECT:
**GRETZKY GOLF COURSE
SERVICE BUILDING**
320 BALMORAL DRIVE
BRANTFORD, ONTARIO

START DATE: 2024-07-17
DRAWN BY: A.A.
DESIGNED BY: S.H.

DRAWING TITLE:
DETAILS

SCALE: N/A
DRAWING No.:
M-101
PROJECT: 23-117-110

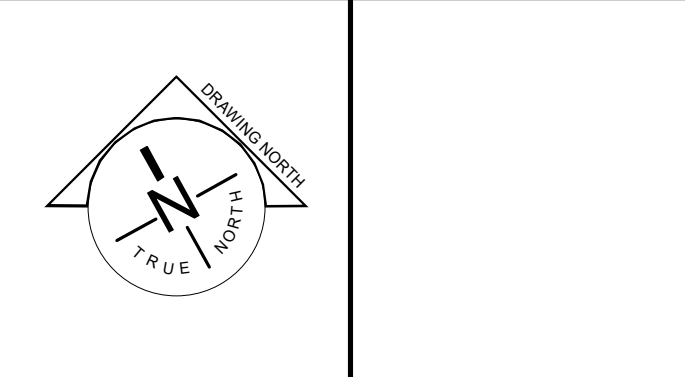


GENERAL NOTES

Professional Engineers
Ontario
Limited Engineering Licensee
Name: S. B. HOWARD
Number: 10002672.1
Limitations: Design for new construction and renovations of heating, ventilating, air conditioning, plumbing, drainage, and fire suppression systems.
Association of Professional Engineers of Ontario
Date: 20250311
Project No. 23-117-110

3	ISSUED FOR PERMIT/TENDER	MARCH 11, 2025	S.H.
2	RE-ISSUED FOR PERMIT	SEPT. 11, 2025	S.H.
1	RE-ISSUED FOR PERMIT	APR. 15, 2025	J.C.
0	ISSUED FOR PERMIT	OCT. 11, 2024	J.C.
No.	DESCRIPTION	DATE	BY

REVISIONS



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Stoney Creek ON L8E 0C5
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F • (905) 643-8510
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PROJECT NAME:

GRETZKY GOLF
COURSE SERVICE
BUILDING
320 BALMORAL DRIVE
BRANTFORD, ONTARIO

START DATE: 2024-07-17	DRAWN BY: AA	DESIGNED BY: JC
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DRAWING TITLE:

PLUMBING & DRAINAGE

SCALE: 1 : 50	DRAWING NUMBER: M-200
PROJECT #: 23-117-110	



30cm

20cm

10cm

0

Professional Engineers
Ontario

Limited Engineering License

Name: S. B. HOWARD

Number: 100026721

Limitations: Design for new construction and renovations of heating, ventilating, air conditioning, plumbing, drainage, and fire suppression systems.

Association of Professional Engineers of Ontario

Steven Howard Date: 20200311 Project No: 2317-110

3	ISSUED FOR PERMIT/TENDER	MARCH 11, 2025	S.H
2	RE-ISSUED FOR PERMIT	SEPT. 11, 2025	S.H
1	RE-ISSUED FOR PERMIT	APR. 15, 2025	J.C.
0	ISSUED FOR PERMIT	OCT. 11, 2024	J.C.
No.	DESCRIPTION	DATE	BY

A diagram showing a circle with a vertical line and an 'N' inside, representing True North. A second line, labeled 'DRAWING NORTH', is tilted to the right of the vertical line. The angle between the two lines is labeled 'MAGNETIC DECLINATION'.



www.arcengineering.ca
contact@arcengineering.ca

PROJECT NAME:

320 BALMORAL DRIVE
BRANTFORD, ONTARIO

START DATE:

2024-07-17

A.A

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LIVAC

SCALE:

1:50

PROJECT #:
23-117-110

DRAWING NUMBER:

M-300