

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	DETAIL NUMBER DRAWING NUMBER		SECTION NUMBER DRAWING NUMBER
	REVISION NUMBER		REVISION BUBBLE
	ELBOWS		PIPING SERVICE CONTINUES
	TEE		REFER TO STANDARD DETAIL DRAWINGS FOR ADDITIONAL REQUIREMENTS OF EQUIPMENT NOTED
	BRANCH OFF BOTTOM OF MAIN		AIR QUANTITY C.F.M. (L/s)
	BRANCH OFF TOP OF MAIN		
	DIRECTION OF FLOW		
NOTE: EXISTING EQUIPMENT, PIPING, VALVES, DUCTWORK SHOWN LIGHT TO REMAIN			
	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
NOTE: EXISTING EQUIPMENT SHOWN HATCHED TO BE REMOVED AND/OR RELOCATED.			
	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
NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS			

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TM00.00

GENERAL SYMBOLS AND ABBREVIATIONS
(MSD-012.12)

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	

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TM00.00

GENERAL SYMBOLS AND ABBREVIATIONS
(MSD-012.13)

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 RATED ENCLOSURE
	ROUND DUCT UP OR FROM ABOVE		DUCT WITH SLEEVE, INSULATION AND DAMPER
	ROUND DUCT DOWN OR FROM BELOW		CAPPED CONNECTION
	ACOUSTIC LINED DUCT		RISE IN DUCT
	FLEXIBLE CONNECTION		DROP IN DUCT
	SQUARE ELBOW DUCT WITH TURNING VANE		SOUND BAFFLE
	RADIUS ELBOW WITH TURNING VANES		PROPELLER FAN
	AXIAL FAN/INLINE FAN MIXED FLOW OR CENTRIFUG		
	CENTRIFUGAL FAN		
DIFFUSER GRILLE OR REGISTER TYPE IMPERIAL: CFM,[INS.] METRIC: L/s,[mm]		LINEAR SLOT DIFFUSER IMPERIAL: CFM,[INS.] METRIC: L/s,[mm] NECK OR FACE SIZE (MM) AIR FLOW (L/S)	
	ROUND SUPPLY DIFFUSER		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
	NON DUCTED RETURN OR EXHAUST GRILLE		DUCT MOUNTED SUPPLY OR RETURN GRILLE
	NON DUCTED ROUND RETURN OR EXHAUST GRILLE		LINEAR SUPPLY OR RETURN GRILLE
	SQUARE PLAQUE DIFFUSER		SPIN-IN CONNECTION C/W BALANCING DAMPER AND FLEX DUCT
	DIFFUSERS WITH BLANK-OFF PORTION (QTY SHOWN)		SPIN-IN CONNECTION C/W BALANCING DAMPER AND RIGID DUCT
NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS			

3
TM00.00

AIR HANDLING SYMBOLS
(MSD-012.09)

17516.001

COUNCILLORS OFFICE

100 CHARLIE RODGERS PLACE
BASEMENT
OTTAWA, ONTARIO

MECHANICAL DRAWING LIST

Drawing Number	Drawing Title
MECHANICAL: GENERAL	
TM00.00	DRAWING LIST AND LEGENDS
TM00.01	MECHANICAL DETAILS
TM00.02	MECHANICAL SPECIFICATION
MECHANICAL: FLOOR PLANS	
TM00.03	MECHANICAL EXISTING, DEMOLITION AND NEW PLANS

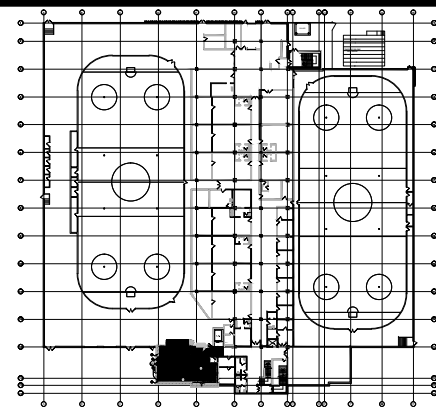
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TM00.00

DRAWING LIST
N.T.S.

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	FIRE DAMPER		SMOKE DAMPER
	MOTOR OPERATED DAMPER		POSITIVE SEAL DAMPER
	MANUAL DAMPER		GRAVITY OR BACKDRAFT DAMPER
	BALANCING DAMPER		SPLITTER DAMPER
	COMBINATION SMOKE AND FIRE DAMPER		
	VOLUME EXTRACTOR		
V.A.V. AND F.P.V.A.V. TAG V.A.V. BOX TYPE MIN. FLOW (L/s) IMPERIAL: CFM,[INS.] MAX. FLOW (L/s) METRIC: L/s,[mm]			
MIN. PRIMARY FLOW MAX. PRIMARY FLOW (L/s) IMPERIAL: CFM,[INS.] FAN POWERED V.A.V. SECONDARY FLOW (L/s) METRIC: L/s,[mm] BOX TYPE REHEAT COIL CAPACITY (kW)			
	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		INDUCTION V.A.V. BOX
	V.A.V. BOX WITH REHEAT COIL		PNEUMATIC AIR VALVE (LAB)
	V.A.V. BOX WITH REHEAT COIL AND ATTENUATOR		
HEATING ELEMENT TAG HEATING CAPACITY 1944 ACTIVE ELEMENT LENGTH ENCLOSURE TYPE			
	REHEAT COIL IN DUCT (RHC) WATER		REHEAT COIL IN DUCT (ERHC) ELECTRIC
	HORIZONTAL UNIT HEATER		RADIATION HEATING RISER NUMBERS (S=SUPPLY AND R=RETURN)
	DOWN BLAST UNIT HEATER		WALL FIN ELEMENT IN CONTINUOUS ENCLOSURE
	RADIANT HEATING PANEL		
NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS			

2
TM00.00

AIR HANDLING SYMBOLS
(MSD-012.08)



Key Plan

04	Issued for Tender	2018-01-18	
03	Issued for Permit and Tender	2018-01-03	
02	Issued for 90% Client Review	2017-12-19	
01	Issued for 66% Client Review	2017-12-06	
NUMBER/ NUMERO	MILESTONE / FAIT SAILLANT	DATE: (YMD) (ANN.)	INITIALS INITIALES
DESIGNED BY: CONQU PAR		CHECKED BY: VÉRIFIÉ PAR	
DRAWN BY: DÉSSINÉ PAR		SCALE: ÉCHELLE AS SHOWN	

DETAIL NUMBER 1 DRAWING TITLE SCALE SHEET NUMBER	
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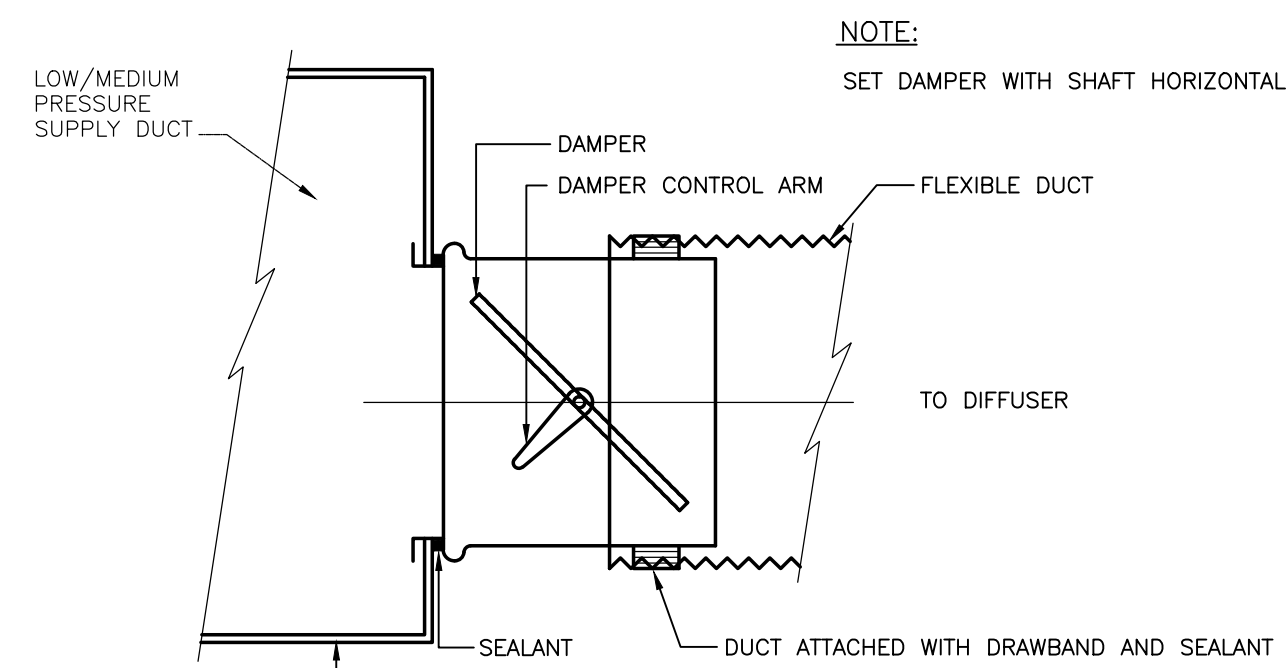
CONSULTANT / EXPERT-CONSEIL	CONSULTANT / EXPERT-CONSEIL

PROJECT / LOCATION / PROJET / ENDROIT Councillors Office 100 Charlie Rodgers Place, Basement OTTAWA, ONTARIO
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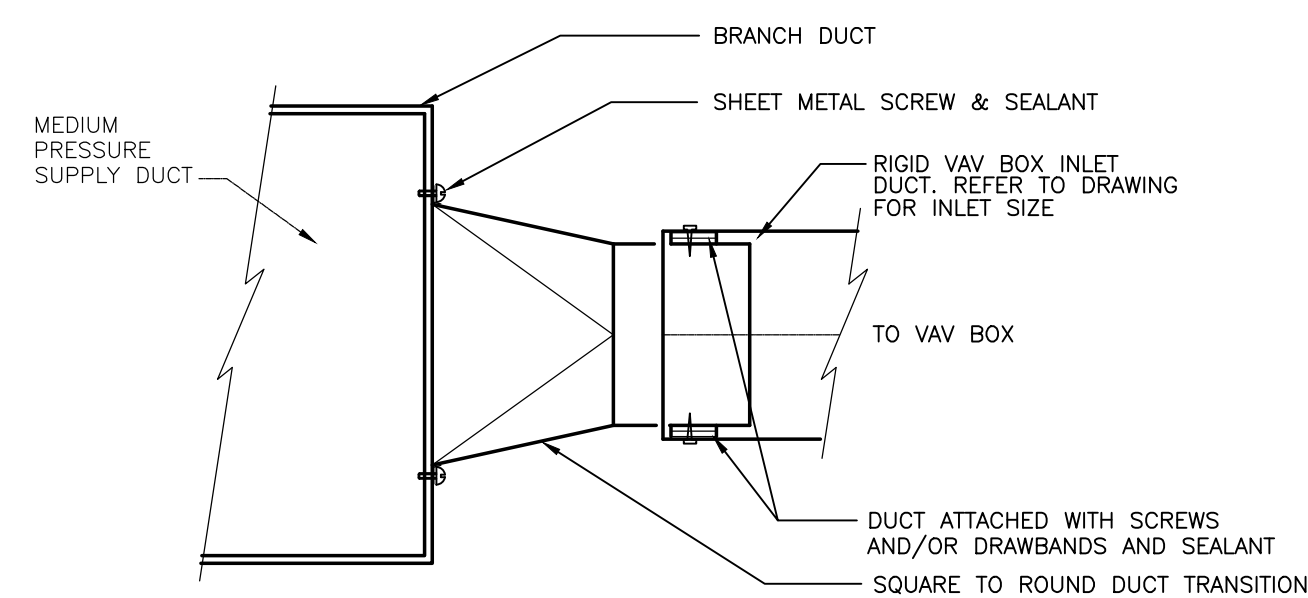
DRAWING / DESSIN DRAWING LIST AND LEGENDS	
FACILITY NO. / NO. DE INSTALLATIONS XXXX	SHEET NO. / FEUILLE No. TM00.00
PROJECT NO. / PROJET NO. 17516.001	

NOTE: INSTALL LINEAR IN NEXT TILE FROM BULKHEAD FOR BETTER AIR DISTRIBUTION ON WINDOW BELOW

5 AIR BOOT IN LAY-IN CEILING
TM00.0

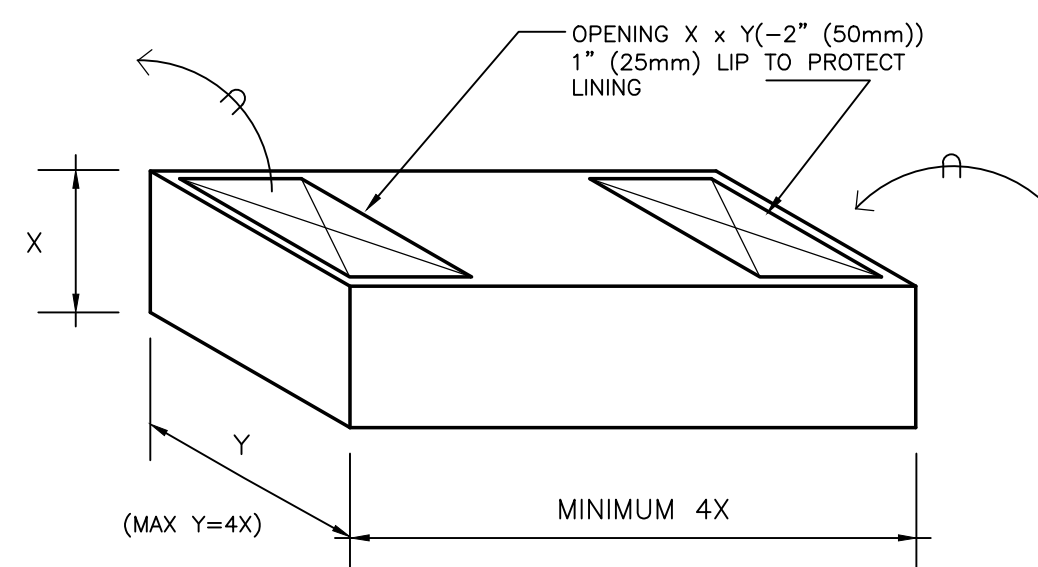
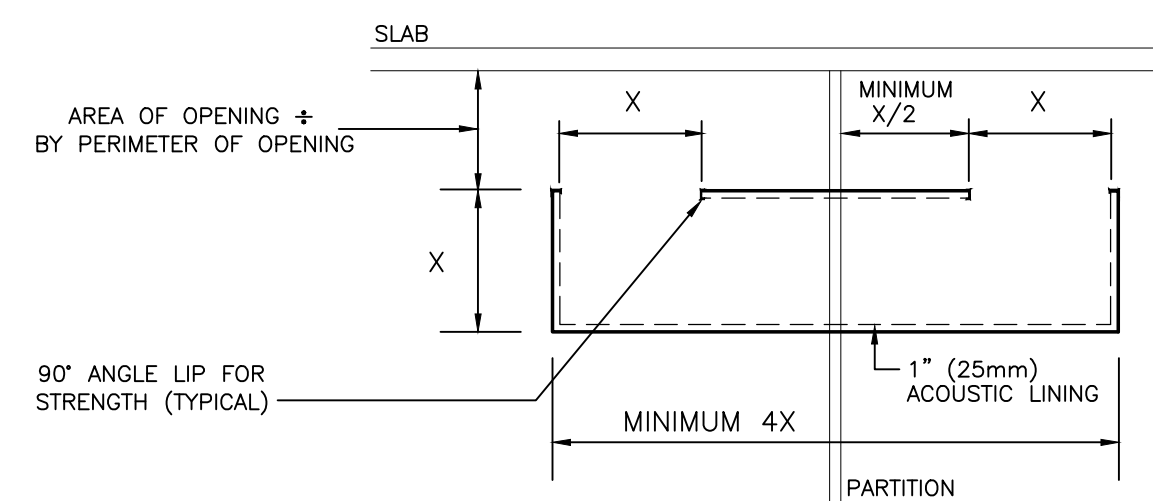


FLEXIBLE DUCT SPIN-IN CONNECTION



VAV BOX INLET

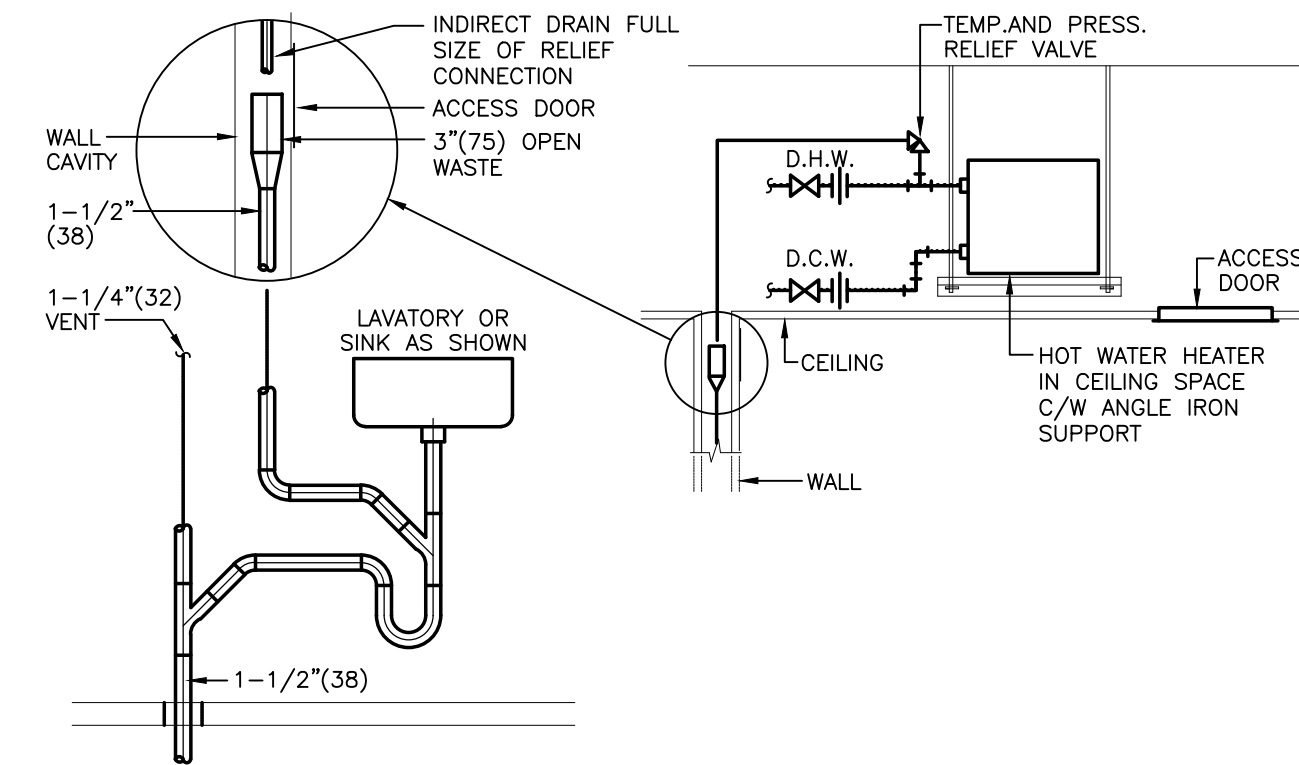
3 FLEXIBLE DUCT CONNECTIONS
TM00.01 (MSD-840.06)



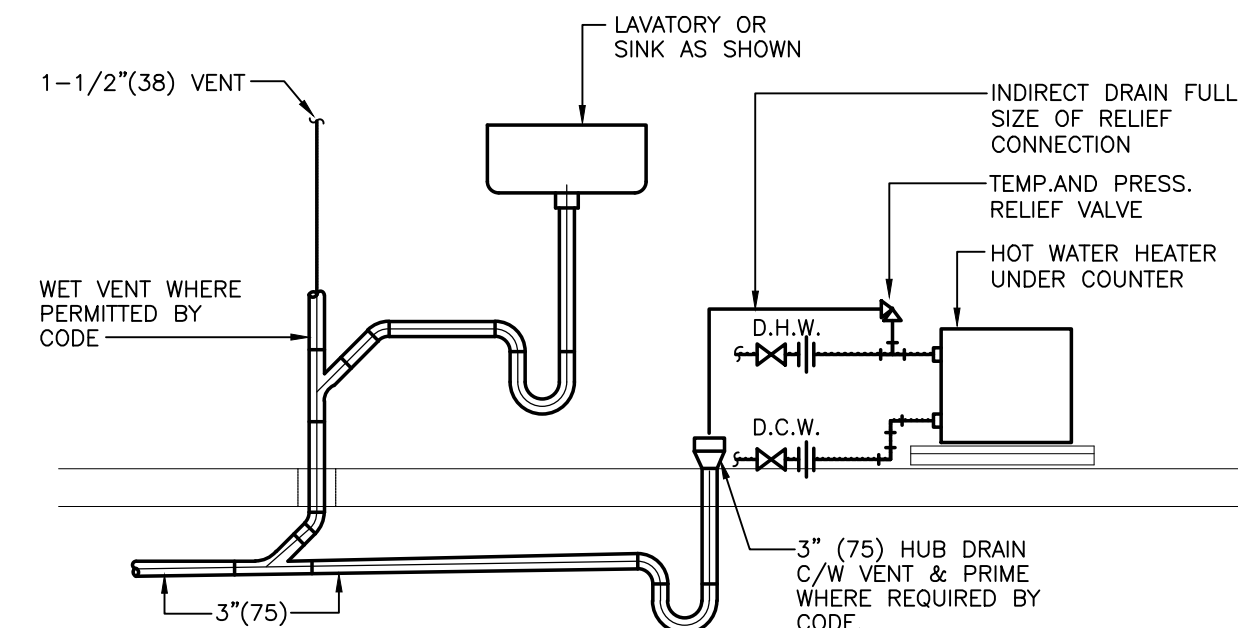
NOTES:

TOTAL FREE AREA NOTED ON DRAWINGS.
CONTRACTOR TO PROVIDE MULTIPLE
TRANSFER AIR DUCTS OF SMALLER
DIMENSIONS TO SUIT SITE CONDITIONS
AS REQUIRED

4 ACOUSTICALLY LINED TRANSFER DUCT
TM00.0 (MSD-840.12)

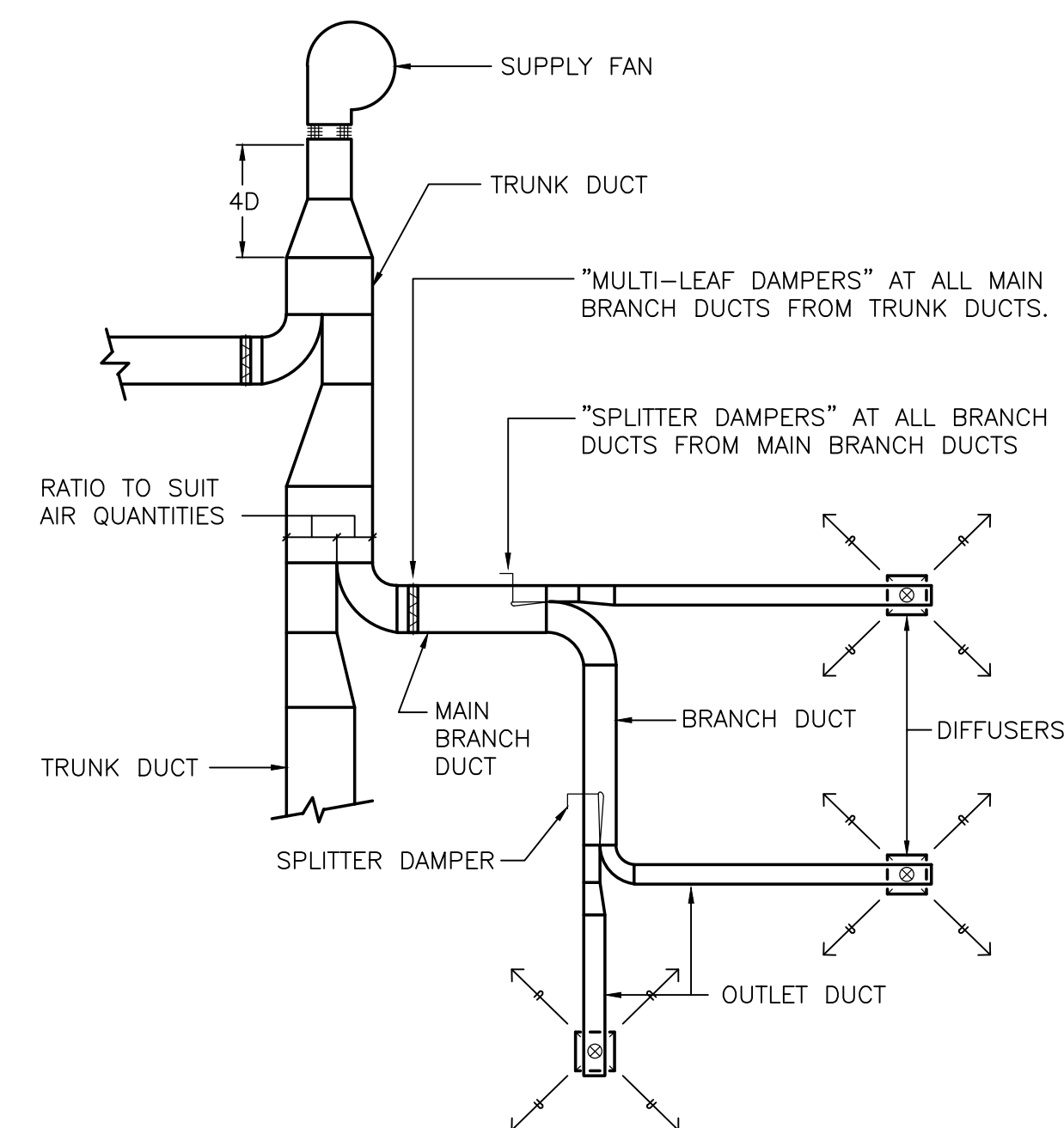


D.H.W.H. IN CEILING SPACE



D.H.W.H. UNDER COUNTER

1 INDIVIDUAL DOMESTIC HOT WATER HEATER
VM00.0 (MSD-425.02)

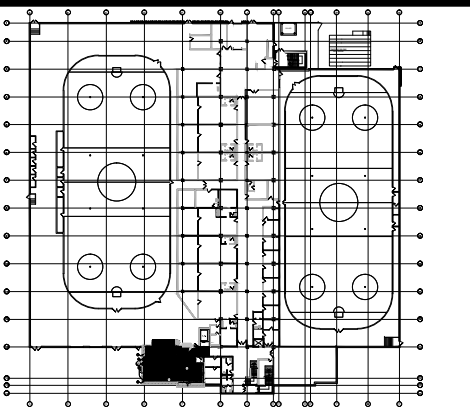


RETURN AND EXHAUST SYSTEMS TO BE AS SUPPLY SYSTEM SHOWN EXCEPT ALL
SPLITTER DAMPERS TO BE REPLACED BY MULTI-LEAF VOLUME CONTROL DAMPERS
IN BRANCH DUCTS

DEFINITIONS

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

2 BALANCING DAMPERS
700.0 (MSD-840.03)



Key Plan

04	Issued for Tender	2018-01-18	
03	Issued for Permit and Tender	2018-01-03	
02	Issued for 90% Client Review	2017-12-19	
01	Issued for 68% Client Review	2017-12-06	
NUMBER (#)	MILESTONE / FAIT SAILLANT	DATE: (Y/M/D) (A.M/D)	INITIALS INITIALES

DESIGNED BY / CONÇU PAR	CHECKED BY / VÉRIFIÉ PAR
DRAWN BY / DESSINÉ PAR	SCALE / ÉCHELLE AS SHOWN

Diagram illustrating the layout of a drawing title block. The title block is divided into four sections:

- DETAIL NUMBER**: Located at the top left, indicated by a line pointing to the top of the circle.
- DRAWING TITLE**: Located at the top right, indicated by a line pointing to the right side of the circle.
- SCALE**: Located at the bottom right, indicated by a line pointing to the bottom of the circle.
- SHEET NUMBER**: Located at the bottom left, indicated by a line pointing to the left side of the circle.

The circle contains the number **1** in the top half and **A1.1** in the bottom half.

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SOUS-CONTRACTANT OU CONSULTANT
DE VÉRIFIER TOUTES LES DIMENSIONS
ET LES CONDITIONS SUR LE CHANTIER.
AVANT D'ENTAMER LES TRAVAUX, NE
PAS ÉCHANGER D'INFORMATIONS FAUSSES
DE TOUTE ERREUR OU OMISSION
AVANT D'ENTAMER LES TRAVAUX. NE
PAS ÉCHANGER D'INFORMATIONS FAUSSES



Smith + Andersen

1600 Carling Avenue, Suite 530 Ottawa Ontario K1Z 1G3
613 230 1186 f 613 230 2598 smithandandersen.com

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PROJECT / LOCATION / PROJET / ENDROIT

Councillors Office

100 Charlie Rodgers Place, Basement
OTTAWA, ONTARIO

DRAWING / DESSIN

MECHANICAL DETAILS

FACILITY NO. / NO. DE INSTALLATIONS	SHEET NO. / FEUILLE No.
XXXX	TM00.01
PROJECT NO. / PROJET No.	
17516.001	

ADJUST ALL DEFLECTION BLADES ON NEW AND EXISTING SUPPLY AIR GRILLES AND DIFFUSERS, TO ENSURE THAT AIR PATTERN IS HORIZONTAL ACROSS THE CEILING.

INCLUDE FOR ONE ADDITIONAL DAY (8 HOURS) OF FIELD TUNING AS MAY BE REQUIRED TO ACCOMMODATE TENANT SPECIFIED REQUIREMENTS. THIS FINAL ADJUSTMENT MAY BE REQUIRED AFTER 90 DAYS OF OPERATION.

THIS WORK SHALL BE PERFORMED BY AN INDEPENDENT TESTING AND BALANCING CONTRACTOR APPROVED BY THE LANDLORD.

INCLUDE ALL COSTS IN THE TENDER PRICE.

INSULATION

COVER ALL DOMESTIC HOT AND COLD WATER PIPING, WITH 1/2 IN. (12MM) FINISHED THICKNESS, PRE-MOULDED LOW PRESSURE GLASS FIBRE INSULATION (5 LBS. DENSITY). FOR DOMESTIC COLD WATER PIPING USE A VAPOUR BARRIER JACKET.

PROVIDE PIPE SIZE HANGERS AND INSULATE OVER HANGERS ON COLD WATER LINES.

COVER ALL FITTINGS, VALVES, WATER METERS AND APPURTENANCES WITH 1 IN. (25 MM) BLANKET INSULATION OR ARMAFLEX - SEAL INSULATION FOR COLD WATER PIPING. PROVIDE ADHESIVE AND REINFORCE WITH GLASS OPEN WEAVE FIBRE TAPE AND FINISH SMOOTH WITH A COAT OF MASTIC.

MAKE GOOD ALL EXISTING INSULATION, WHERE DAMAGED, WHEN CONNECTING TO EXISTING SERVICES. WHERE EXISTING INSULATION HAS BEEN PREVIOUSLY REMOVED, OR IS IN A STATE OF DISPAIR, BRING THIS ITEM TO THE CONSULTANT'S ATTENTION.

THERMALLY INSULATE SUPPLY AIR DUCTWORK UPSTREAM OF THE AIR TERMINAL BOX WITH 1 IN. (25 MM) FINISHED THICKNESS FIREGLASS REINFORCED FOIL FACED RIGID VAPOUR SEAL DUCT INSULATION. FLEXIBLE DUCT INSULATION WITH VAPOUR BARRIER MAY BE USED IN CONCEALED SPACES. WHERE DUCTWORK IS EXPOSED, IT SHALL BE PROTECTED BY A MINIMUM 1/2 IN. (12MM) INSULATION. INSULATION SHALL BE INSTALLED USING BOTH PINS AND ADHESIVE. ADHESIVE TO BE APPLIED COMPLETELY OVER ALL SURFACES OF THE DUCTWORK. PINS SHALL BE ON MAXIMUM 18 IN. CENTRES. PINS SHALL BE TACK WELDED, AND CLIPS SHALL BE SPACED AT MAXIMUM 18 IN. CENTRES.

INSULATE ALL EXHAUST AND OUTSIDE AIR INTAKE PLUMBERS AT LOUVERES OR HOODS. INSULATE ALL DUCTWORK FOR A MINIMUM LENGTH OF 10 FEET ON THE BUILDING SIDE OF THE ASSOCIATED MOTORIZED EXHAUST DAMPERS AND THE ENTIRE LENGTH OF THE OUTSIDE AIR INTAKE DUCT. USE 1 IN. (25 MM) FINISHED THICKNESS RIGID INSULATION AND VAPOUR BARRIER, AND WHERE EXPOSED TO VIEW COVER WITH CANVAS.

INSULATE AND VAPOUR BARRIER SHALL BE CONTINUOUS AT ALL FITTINGS, HANGERS AND THROUGH WALLS OR FLOORS.

TAPE ALL JOINTS AND SEAMS AND BAND AT 16 IN. (350MM) INTERVALS.

STAPLES SHALL NOT BE USED FOR SECURING INSULATION.

TEST ALL PIPING AND SEAL ALL DUCT JOINTS WITH DUCT SEALER BEFORE APPLYING INSULATION. (WHERE DATS ARE NOT 100% AIR TIGHT, INSULATION WILL PRESSURIZE, AND OPEN AT JOINTS AND SEPARATE FROM THE DUCT.)

ALL INSULATION MATERIALS TO BE SUPPLIED BY OWENS-CORNING, OCCUPATIONED-MASON, KNAUF OR PARTEK.

PUMPINGS

ALL DOMESTIC WATER PIPING SHALL BE TYPE "L" HARD DRAWN COPPER WITH CAST BRASS OR WROUGHT COPPER FITTINGS.

THE SANITARY DRAINS AND VENTS 2-1/2 IN. (60 MM) AND LARGER SHALL BE CAST IRON WITH I/J JOINTS. SANITARY DRAINS AND VENTS 2 IN. (50 MM) AND SMALLER SHALL BE HARD DRAWN COPPER.

PROVIDE TRAPPING GATE VALVES ON MAIN AND BRANCH LINES AND FOR ALL EQUIPMENT SERVED. ALL VALVES SHALL BE SUITABLE FOR THE OPERATING PRESSURE OF THE SYSTEM IN WHICH THEY ARE INSTALLED. ALL VALVES SHALL MATCH THE BASE BUILDING VALVES AND BE THE SAME MANUFACTURER, MODEL NUMBER AND RATING.

DISCONNECT AND CAP ALL EXISTING DRAIN, VENT, HOT AND COLD CONDENSATES PERMIT. NO PARTS BE REUSED AS PART OF THIS CONTRACT. CAP SERVICES BEHIND THE FINISHED FACE OF CONTAMINATED WATER IS POSSIBLE. THE BACK FLOW PREVENTER SHALL BE A WAITS NO. 9 OR 909.

REMOVE EXISTING PIPING WHEREVER POSSIBLE AND WHERE CONDITIONS PERMIT. PROVIDE NEW PIPING AS REQUIRED.

PROVIDE DIELECTRIC COUPLINGS UNLESS WHERE COPPER PIPING CONNECTS TO FERROUS METAL EQUIPMENT OR FITTINGS.

ALL PIPING SHALL BE HUNG USING CLEVIS HANGERS AND THREADED ROD, WITH APPROVED INSERTS. USE COPPER HANGERS OR PLASTIC COATED HANGERS FOR AIR COPPER PIPING. HANGERS WITH A "DUCT TAPE" COVERING WILL NOT BE ACCEPTED. HANGER SPACING TO BE AS PER CODE.

PROVIDE CHROME PLATED BRASS ESCUTCHEONS WHERE PIPING PENETRATES WALLS IN FINISHED AREAS.

BACK FLOW PREVENTER SHALL BE PROVIDED WHEREVER DOMESTIC WATER LINE IS CONNECTED TO A PIECE OF EQUIPMENT WHICH IS NOT A PLUMBING FIXTURE, OR WHERE BACK FLOW OF CONTAMINATED WATER IS POSSIBLE. THE BACK FLOW PREVENTER SHALL BE A WAITS NO. 9 OR 909.

WATER METERS LOCATED IN SERVICE ROOMS OR CEILING SPACES SHALL BE NEPTUNE MODEL T-10 DISC TYPE COMPLETE WITH PULSER RM VOLUMING READER-OUT. READ-OUT TO BE LOCATED AS INDICATED ON DRAWINGS OR AS DIRECTED DURING CONSTRUCTION. METER SHALL BE SIZE 5/8 IN. (0.7 TO 1.7 USGPM) OR 3/4 IN. (1.7 TO 3.5 USGPM).

PROVIDE A COMPLETE PLUMBING VENTING SYSTEM FOR ALL PLUMBING FIXTURES AND TRAPS AS REQUIRED IN ACCORDANCE WITH THE OHIO BUILDING CODE. DEMONSTRATE SHOWN ON THE DRAWINGS IS FOR GENERAL INTENT ONLY. CONNECT TO BASE BUILDING VENTING SYSTEM AT AN APPROPRIATE POINT.

DOMESTIC HOT WATER HEATERS

TANK WH-1 SHALL BE COMPLETE WITH A.S.M.E. TEMPERATURE PRESSURE RELIEF VALVE. RELIEF VALVE SHALL BE PIPED TO NEAREST FLUE DRAIN, JANITOR SINK, OR 1-1/2 IN. DRAIN TAIL PIPE CONNECTED TO A SINK WASTE, THROUGH AN AIR VAP. TANKS SHALL BE COMPLETE WITH SIDE CONNECTIONS ONLY.

1.3 GALON EEMAX MINI TANK WATER HEATER. POINT OF USE HEATING 1250W, 1400 Watts @ 110V/220V/60Hz PLUS IN. GLASS LINED TANK (11 IN X 10 IN X 10 IN X 12 IN X 12 IN X 12 IN).

WATER DETECTOR SHUT OFF (FOR DOMESTIC HOT WATER TANK)

1.7 FLOOD DETECTOR SHALL BE WATTS FLOOD SAFE WATER DETECTOR SHUTOFF. MAXIMUM PRESSURE 160PSI, MAXIMUM TEMPERATURE 210°F (99°C), 120V/120V/60HZ CURRENT DRAW 50MA. COMPLETE WITH CONTROL UNIT, WATER DETECTOR PAD, WATER DAM AND POWER CORD MODULE. UNIT SERVING ELECTRIC WATER HEATERS TOGS 2000.

BATTERY BACKUP DEVICE SHALL ALSO BE INSTALLED AND SHALL BE WATTS FLOODSAFE WATER DETECTOR SHUT OFF BATTERY BACKUP WDSS-B.

PLUMBING FIXTURES

OBTAIN NEW PLUMBING FIXTURES WHERE INDICATED ON PLANS OF MAKE AND MODEL, AS SPECIFIED. ALL FIXTURES MUST BE FIRST QUALITY, BEST GRADE OBTAINABLE, CLEANED AND IN PERFECT CONDITION. FIXTURES SHALL BE PIPED COMPLETE WITH ALL REQUIRED SUPPORT AND ACCESSORIES, DRAINAGE, VENT AND DISCHARGE INTO THE STORM DRAIN OR AS SPECIFIED. ALL FIXTURES SHALL BE COMPLETED WITH THE MANUFACTURER'S RECOMMENDATION FOR BEST PRACTICE.

FINAL LOCATION OF ALL NEW PLUMBING FIXTURES SHALL BE CO-ORDINATED, ON-SITE WITH ALL TRADES. REFER TO ARCHITECTURAL INTERIOR DESIGN DRAWINGS AND DETAILS FOR EXACT LOCATION OF ALL PLUMBING FIXTURES.

FIXTURES SHALL BE AS DEFINED BELOW.

FITTINGS AND TRIM SHALL BE AS MANUFACTURED BY AMERICAN STANDARD, CHICAGO FAUCETS EQUIVALENT TO THE TRIM SPECIFIED. ALL EXPOSED VALVES, FITTINGS, ESCUTCHEONS, TRIM, ETC., AT EACH FIXTURE SHALL BE POLISHED CHROME PLATED BRASS FINISH SPECIFIED HEREIN.

ONE COMPARTMENT S.S. SINK SHOWN AS TYPE CS-1 SHALL BE KINDRED ACRYSTALINE ALB56680P. 1 S.S. SINK, 1 HOLE, .30-17.2 X .20 X .67 (211MM X 208MM X 150MM) WITH FRONT MOUNTED, BACK LEGS, GRADE 18-8 TYPE 304 STAINLESS STEEL, SINGLE COMPARTMENT, SATIN FINISHED RIM, BOWL AND SELF, RIMMING WITH CRIMP CUT STRAINER AND SOUND DEADENING. CHICAGO 450-ABCP. CP. 1/2 IN. (27MM) C.N.C. DECK MOUNTED, SOLID CAST BRASS LEAD FREE BODY.

ONE CERAMIC SINK SHOWN AS TYPE CS-1 SHALL BE KINDRED ACRYSTALINE ALB56680P. 1 S.S. SINK, 1 HOLE, .30-17.2 X .20 X .67 (211MM X 208MM X 150MM) WITH FRONT MOUNTED, BACK LEGS, GRADE 18-8 TYPE 304 STAINLESS STEEL, SINGLE COMPARTMENT, SATIN FINISHED RIM, BOWL AND SELF, RIMMING WITH CRIMP CUT STRAINER, METAL LEVER HANDLE, AND 3/8" (10MM) SUPPLY TUBES. SUPPLIES WITH ANGLE STOP; ADAPTORS AND ESCUTCHEONS. CLASS FREE SPRAY. P-TAP: 1.18" (30MM) WITH CLEANOUT, UNION AND ESCUTCHEON.

PORTABLE FIRE EXTINGUISHERS

PORTABLE FIRE EXTINGUISHERS SHALL BE RATED AND IDENTIFIED IN ACCORDANCE WITH CANULC-5500 "RATING AND FIRE TESTING OF FIRE EXTINGUISHERS". ALL RATINGS IDENTIFIED BELOW SHALL BE CONSIDERED AS A MINIMUM.

SPACING OF EXTINGUISHERS SHALL CONFORM TO THE AUTHORITY HAVING JURISDICTION WITH CURRENT SPACING FOR ORDINARY HAZARD SHALL BE 9 M (30 FT.) FOR 10 EXTINGUISHER AND 15 M (50 FT.) FOR 20 CB EXTINGUISHERS, BUT IN NO CASE SHALL THERE BE LESS THAN ONE EXTINGUISHER IN EACH ELECTRICAL ROOM, KITCHEN OR RESTROOM, ROOM. MAXIMUM SPACING FOR TYPE A EXTINGUISHERS IN GENERAL OFFICES SHALL BE 25 M (75 FT.).

SPRINKLERS

ALL SPRINKLER WORK IN THIS CONTRACT SHALL BE PERFORMED BY A SPRINKLER CONTRACTOR APPROVED BY THE LANDLORD, AND ALL COSTS ARE TO BE INCLUDED IN THE TENDER PRICE.

HYDRAULICALLY DESIGN THE MODIFICATIONS TO THE EXISTING WET SPRINKLER SYSTEM, IN ACCORDANCE WITH THE EXISTING BASE BUILDING DESIGN CRITERIA. P.A.P. STANDARDS, MEET THE STANDARDS OF ANY OTHER GOVERNING BODY AS DIRECTED BY THE LANDLORD. EACH SYSTEM IS TO BE COMPLETE WITH TEST AND BRASS CONNECTIONS AS REQUIRED.

SUBMIT HYDRAULIC CALCULATIONS AS APPLICABLE AND LAYOUT DRAWINGS INDICATING ALL PIPING VALVES AND SPRINKLER HEADS.

DRAWINGS TO HAVE CONTRACTOR COMPANY NAME AND P.E.G. STAMP. SUBMIT TO ALL LOCAL GOVERNING AUTHORITIES FOR PERMIT AND THE CONSULTANTS FOR APPROVAL, AND RECEIVE APPROVALS PRIOR TO FABRICATION AND INSTALLATION.

ALL SPRINKLER WORK SHALL BE TO THE APPROVAL OF THE LANDLORDS AND TENANT'S SIGNATURE UNDERWRITER AND SHALL CONFORM TO THE BASE BUILDING SPECIFICATIONS AND ALL GOVERNING AUTHORITIES. THE FABRICATION AND INSTALLATION MUST COMPLY WITH THE REQUIREMENTS OF THE CURRENT PUBLICATION OF NFPA-P-13.

CONFRONT EXISTING SYSTEM PRESSURE, WHERE WORK IS TO BE PERFORMED, AND DESIGN ALL COMPONENTS TO SUIT, ALLOWING A MINIMUM 10% SAFETY MARGIN.

ALL NEW SPRINKLER WORK MUST BE TESTED IN ACCORDANCE WITH THE LANDLORD'S REQUIREMENTS OR AT 200 PSI FOR A MINIMUM OF 2 HOURS. A COPY OF ALL TEST REPORTS, INCLUDING RESULTS, SHALL BE SUBMITTED TO THE LANDLORD AND THE CONSULTANT.

THE LANDLORD AND/OR THE CONSULTANT MUST BE INFORMED WHEN ALL TESTS ARE TO TAKE PLACE.

THE MAIN SPRINKLER SHUT-OFF VALVE, FOR THE FLOOR WHERE SPRINKLER ALTERATIONS ARE BEING MADE, MUST ONLY BE "CLOSED" DURING NORMAL BUSINESS HOURS AND MUST BE RETURNED TO THE OPEN POSITION FOR NIGHTS, HOLIDAYS AND WEEKENDS, UNLESS SPECIAL ARRANGEMENTS HAVE BEEN MADE WITH THE LANDLORD AND THE LOCAL FIRE DEPARTMENT.

IF AREAS OF EXISTING CEILINGS ARE BEING REPLACED, INCLUDE COST TO REMOVE AND REPLACE THE SPRINKLER HEADS OR ESCUTCHEON RINGS AS REQUIRED IN CEILING PANELS ARE BEING CHANGED, BEING COST TO RELOCATE SPRINKLER HEADS TO NEW CEILING LEVEL.

CO-ORDINATE CHANGES OF EXISTING SPRINKLER SYSTEM WITH ALL TRADES. MODIFY EXISTING HYDRAULICALLY DESIGNED SPRINKLER PIPING AS REQUIRED TO SUIT NEW SPRINKLER LAYOUT AND TO AVOID INTERFERENCE WITH DUCTWORK AND EQUIPMENT. ALLOWANCES FOR ADDITIONAL WORK AND MATERIALS REQUIRED TO SUIT SPRINKLER LAYOUT AND THE REROUTING OF EXISTING DUCTS ARE POSSED. ALL DUCTS ARE TO BE WIRED CLEAR OF ANY EXCESS SLACK.

NEW PENDANT, UPRIGHT, CONCEALED OR SEMI-RECESSED SPRINKLER HEADS IN LAY IN TEAR CEILINGS SHALL MATCH EXISTING SPRINKLER HEADS, SHALL CONFORM TO THE BASE BUILDING STANDARDS AND SPECIFICATIONS.

CO-ORDINATE THE LOCATION OF ALL HEADS WITH THE CONSULTANT.

ALL EQUIPMENT AND MATERIAL SHALL BE U.L.C. APPROVED.

ALL NEW SPRINKLER HEADS MUST BE CONNECTED TO THE BASE BUILDING EXISTING SPRINKLER MAINS (LOOP ECT) NOT TO EXISTING BRANCH PIPING.

DUCTWORK, FITTINGS AND EQUIPMENT

ALL DUCTWORK CONSTRUCTION, SUPPORT AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST A.S.H.R.A.E. AND S.M.A.C.N.A. RECOMMENDATIONS AND THE FOLLOWING:

FLEXIBLE DUCTS SHALL BE SPIRAL ALUMINUM FLEXMASTER TRIPLE LOCK MODEL HTI, #7(1-A-Acoustic DUCT) INSTALLED AS ONE CONTINUOUS PIECE. JOINING OF FLEXIBLE DUCTS IS NOT PERMITTED. MAXIMUM LENGTH SHALL NOT EXCEED 10 FT. (3.05 MM). CONNECT TO DUCTWORK WITH DUCT SEALER IN THE JOINTS AND WITHS. DUCT TAPE IS NOT ACCEPTABLE. SIZE OF FLEXIBLE DUCT SHALL BE EQUAL TO THE DIFFUSER NECK SIZE. DUCTING SHALL CONFORM TO NFPA 801 AND UL91.

PROVIDE DUCT SEALER ON ALL NEW DUCT JOINTS.

DUCT SEALER TO BE EQUAL TO PROSEAL AND FIBERSEAL, TO BE APPLIED WITH BRUSH OR FLOW GUN. DUCT SEALER SHALL BE NON-O.V.C., PERMANENTLY FLEXIBLE, LOW SHRINKAGE, AND CLASIFIED FOR SURFACE BURRING CHARACTERISTICS. APPLICATION TO BE MADE WHEN

DIFFUSERS, GRILLES AND REGISTERS

11. ALL DIFFUSERS, GRILLES AND REGISTERS SHALL BE MANUFACTURED BY PRICE, TITUS, NALOR, KRUEGER OR CARNES EQUAL TO THE UNITS SPECIFIED.

12. ALL DIFFUSERS AND REGISTERS TO BE COMPLETE WITH VOLUME DAMPERS. ALL VOLUME AND AIR PATTERN DEVICES SHALL BE FULLY ADJUSTABLE FROM THE FACE OF THE DIFFUSER, REGISTER OR GRILLE.

13. NONE GENERATED BY DIFFUSERS SHALL BE SUCH THAT ROOM SOUND PRESSURE LEVEL DOES NOT EXCEED noise CRITERIA 30 WITH AN 8 DB ROOM ATTENUATION THE SOUND POWER LEVEL REFERENCE TO 10' - 10' POWER WATTS

14. LINEAR CEILING DIFFUSERS SHOW TYPE 'A' SHALL BE 1 SLOT DIFFUSER MODIFIED WITH SQUARE ENDS TO LIMIT SIDE SPREAD, AND OF 1200MM LENGTHS. AS SQUARE DIFFUSER SHALL BE INSTALLED WITH MANUFACTURER PLENUM TO MATCH THE LENGTH OF THE DIFFUSER SHOW, WITH MOUNTING CLIPS TO SUIT. SQUARE DIFFUSER OR BAR OR CEILING OPENING. PATTERN CONTROLLERS SHALL BE SPLIT MID LENGTH TO ALLOW EACH HALF OF DIFFUSER TO BE SET FOR DIFFERENT THROW PATTERNS. THROW PATTERNS SHALL BE FULLY ADJUSTABLE FROM VERTICAL TO HORIZONTAL AND VARIATIONS IN BETWEEN. PROVIDE 'Z' BAFFLE (BLACK-OFF) PANELS BETWEEN CEILING DIFFUSERS AND BETWEEN INACTIVE SECTIONS OF CEILING SLOT OPENINGS (CO-ORDINATE WITH ARCHITECTURAL DRAWINGS). PATTERN CONTROLLERS AND BLACK-OFF PANELS SHALL BE FINISHED MAT BLACK. PLENUM SHALL BE FABRICATED FROM COATED STEEL. REFER TO ARCHITECTURAL DETAILS FOR INSTALLATION OF CONTINUOUS SUPPLY AIR SLOT. E.H.PRICE: TBD3 SERIES, NALOR: 8006, KRUEGER: BT4, CARNES: DASC.

15. SQUARE DIFFUSERS SHOW TYPE 'B' SHALL BE SQUARE STEEL, PLAUQUE 600 X 600 X 24 MM X 24 IN FACE SIZE AND SHALL BE SQUARE, CONED METAL. METAL SHALL CONSIST OF A PLENUM, PATTERN CONTROLLER AND ONE PRICE SEAMLESS CONSTRUCTION WHICH SHALL INCORPORATE A ROUND (OR SQUARE) INLET COLLAR OF SUFFICIENT LENGTH FOR CONNECTING RIGID OR FLEXIBLE DUCT AS SHOWN. AN INNER PLATE ASSEMBLY SHALL BE INCORPORATED THAT DROP IN MORE THAN 14" BELOW THE CEILING PLANE TO ASSURE PROPER AIR DISTRIBUTION PERFORMANCE. THE INNER PLATE ASSEMBLY SHALL BE FULLY ADJUSTABLE FROM THE DIFFUSER FACE TO ALLOW FULL ACCESS TO ANY DAMPERS OR OTHER DUCTWORK COMPONENTS LOCATED NEAR THE DIFFUSER. E.H. PRICE: SPO, NALOR: UNI, KRUEGER: PLQ, CARNES: SFA.

16. REGISTER DIFFUSERS SHOW TYPE 'T' SHALL BE STANDARD REGISTER GRILLES WITH HORIZONTAL FIXED BARS SET AT APPROXIMATELY 45 DEG. FOR FLOW RETURN AND SET STRAIGHT FOR CEILING RETURN. KEY OPERATED DAMPER SHALL BE MOUNTED BEHIND. E.H. PRICE: S30, NALOR: SERIES: KRUEGER: S86, CARNES: MOO, RSB4H.

17. REGISTER DEEPS SHOW SHALL BE SIZED AS SHOWN ON DRAWING AND SHALL BE EGGRATE TYPE WITH ALUMINUM CONSTRUCTION. EGGRATE SHALL BE 12 MM (1/2 IN) RING, FORMED OF 12MM (1/2 IN) WIDE ALUMINUM STRIPS ON 12 MM (1/2 IN) CENTERS. STRIPS SHALL BE APPROXIMATELY 0.84 MM (0.025 IN) THICK. GRILLE SHALL BE COLOURED TO MATCH THE COLOUR OF THE CEILING. FOR BAR MOUNTING OR IN A FLANGED FRAME FOR PLASTER OR GYPSUM CEILING MOUNTING. GRILLES SHALL GO ON INVERTED T-BAR CEILING SUSPENSION SYSTEM. COLOUR SHALL MATCH ADJACENT CEILING TILES. E.H. PRICE: SERIES 80, NALOR: ISO SERIES, KRUEGER EGGRATE: 8000, CARNES: RAPA.

18. TRANSFER GRILLES FOR TRANSFER FANS SHALL BE STANDARD SINGLE DEFLECTION FLAED BLADE TYPE. FINISH SHALL MATCH WALL. E.H. PRICE: MODEL 535-FULM, NALOR: 6155H, KRUEGER: S85.

19. COLOUR OF DIFFUSERS SHALL MATCH COLOUR OF CEILING TILE IN LAY-IN CEILINGS. DIFFUSERS TO SUIT CEILING GRAY AS REQUIRED IMPERIAL, OR METRIC.

20. WHERE DIFFUSERS OR GRILLES ARE PROVIDED IN T-BAR CEILINGS, PROVIDE LAY-IN TYPE, AND WHERE LOCATED IN DRYWALL PROVIDE SURFACE MOUNTED. REFER CEILING TYPES WITH THE DESIGNERS REFLECTIONS INCLUDING CEILING PLANE PRIOR TO ORDERING THESE ITEMS.

21. WHERE RIGID DUCT IS CONNECTED TO THE DIFFUSER, GRILLE OR REGISTER ALL DEVICES USED FOR FLOW PATTERN ADJUSTMENT AND FLOW BALANCING SHALL BE ACCESSIBLE FROM THE FACE OF THE DIFFUSER, GRILLE OR REGISTER.

22. REFER TO THE ARCHITECTURAL DRAWINGS FOR ACTUAL LOCATIONS OF DIFFUSERS, GRILLES AND REGISTERS AND INSTALL TO SUIT THESE DRAWINGS. THE ARCHITECTURAL DRAWINGS SHOW INTENT AND NUMBER OF DIFFUSERS, GRILLES AND REGISTERS REQUIRED.

ROOM EXHAUST FANS

23. FANS SHALL AS BE MANUFACTURED BY PENN, REVERSMATIC OR GREENHECK. FANS SHALL BE CENTRIFUGAL TYPE MOUNTED IN A GALVANIZED STEEL SHEET. FANS SHALL BE INSTALLED HORIZONTALLY TO THE BUILDING STRUCTURE. ALL FANS SHALL BE UL LISTED AND I.L. LABELED. CASING SHALL BE ARRANGED IN LINE INSTALLATION. ACCESS SHALL BE PROVIDED THROUGH THE CASING TO SERVICE BOTH FAN AND MOTOR. INLET AND DISCHARGE SHALL BE FLANGED FOR DUCT CONNECTIONS. DISCHARGE SHALL BE COMPLETE WITH BACKDRAFT DAMPER. MOTORS SHALL BE PRE-WIRED TO TERMINAL BOX LOCATED ON THE UNIT. HOOK UP WIRING TO BE DONE BY THE ELECTRICAL CONTRACTOR. IN LINE, LK-TRK, VARIABLE SPEED/300 SOLID STATE CONTROLLER. ALL INLET AND DISCHARGE DUCTWORK SHALL HAVE 1 IN. (25 MM) THICK ACQUAD LINING.

24. SPEED CONTROL SWITCH TO BE SUPPLIED ONLY. THE ELECTRICAL CONTRACTOR (DIVISION 16) TO INCLUDE FOR WALL MOUNTING AND WIRING.

25. FANS SHALL AS BE AS FOLLOWS:

26. INLINE FANS: COMPLETE WITH INLET AND OUTLET DUCT CONNECTIONS) PENN ZEPHYR

27. "T" - MODEL 268-T24, 75LPS @ 0.25 IN ESP

28. "T" - MODEL 268-T24, 20LPS @ 0.25 IN ESP

FORCE FLOW HEATER

29. HEATER SHOWN AS FFH-1 SHALL BE SUPPLIED AND INSTALLED BY ELECTRICAL DIVISION.

CONTROLS (GDO)

30. ALL CONTROLS SHALL BE SUPPLIED AND INSTALLED BY THE BASE BUILDING CONTRACT MANUFACTURER AND APPROVED BY THE LANDLORD.

31. PROVIDE AND INSTALL A COMPLETELY FUNCTIONAL CONTROL SYSTEM THAT INCLUDES SHOP DRAWINGS, OPERATING AND MAINTENANCE MANUALS, MATERIAL AND PARTS LIST, AND ELECTRICAL SCHEDULE.

32. PROVIDE ALL NECESSARY CORD AND WIRE TO PROVIDE A COMPLETE OPERATIONAL SYSTEM.

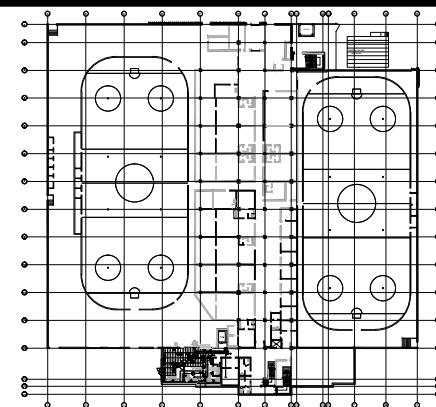
33. ALL WIRING, EXCEPT IN THE CEILING PLENUMS, SHALL BE INSTALLED IN EMT CONDUIT. REFER TO THE DRAWING 16000 SPECIFICATION FOR THE CONDUIT REQUIREMENTS.

34. LOW VOLTAGE WIRING WITH THE CEILING PLENUM MAY BE FTR PLENUM PATCH CABLE, WHERE ACCEPTED BY THE LOCAL AUTHORITIES. THE CABLE SHALL BE NEARLY PARALLEL TO THE CONDUIT MOUNTED TO THE BUILDING STRUCTURE. ALL CABLES MUST BE INSTALLED ON RIGHT ANGLES OR PARALLEL TO THE BUILDING WALLS. LOOSE WIRING SHALL NOT BE ALLOWED OVER A DISTANCE OF 5 FEET BUT MUST NOT PASS OVER LIGHT FIXTURES.

35. NEW LOCATIONS OF TEMPERATURE SENSORS ARE INDICATED ON THE DRAWINGS. CONFIRM FINAL LOCATIONS WITH THE CONSULTANT BEFORE INSTALLATION.

1600 Carling Avenue, Suite 530 Ottawa Ontario K1Z 1G
613 230 1186 f 613 230 2598 smithanddandee.com

CONSULTANT / EXPERT-CONSEIL		CONSULTANT / EXPERT-CONSEIL	
<p>PROJECT / LOCATION / PROJET / ENDROIT</p> <p>Councillors Office</p> <p>100 Charlie Rodgers Place, Basement OTTAWA, ONTARIO</p> <p>DRAWING / DESSIN</p> <p>MECHANICAL SPECIFICATION</p>			
FACTORY NO. / NO. DE INSTALLTIONS		SHEET NO. / FEUILLE No.	
XXXX		TM00.02	
PROJECT NO. / PROJET NO.			
17516.001			



Key Plan

04	Issued for Tender	2018-01-18	
03	Issued for Permit and Tender	2018-01-03	
02	Issued for 90% Client Review	2017-12-19	
01	Issued for 66% Client Review	2017-12-06	

NUMBER/ NUMERO	MILESTONE / FAIT SAILLANT	DATE: (YMD) (ANN.)	INITIALS INITIALES
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DESIGNED BY / CONÇU PAR	CHECKED BY / VÉRIFIÉ PAR
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DRAWN BY / DÉSSINÉ PAR	SCALE / ÉCHELLE
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	AS SHOWN
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THIS DRAWING IS THE PROPERTY OF THE CITY OF OTTAWA AND ALL RIGHTS RESERVED. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE CITY OF OTTAWA. THE CITY OF OTTAWA ACCEPTS NO LIABILITY FOR ANY ERRORS OR OMISSIONS PRIOR TO COMMENCING THE WORK. DO NOT SCALE THE DRAWINGS.

CE DESSIN CONSTITUE LA PROPRIÉTÉ DE LA VILLE D'OTTAWA ET TOUT DROIT D'AUTEUR EST RÉSERVÉ. AUCUNE PARTIE DE CE DESSIN NE DOIT ÊTRE REPRODUITE NI TRANSMISE, QUEL QUE SOIT LE MOYEN, ÉLECTRONIQUE OU MÉCANIQUE, Y COMPRIS LE PHOTOCOPIAGE, L'ENREGISTREMENT, OU PAR N'IMPORTE QUEL SYSTÈME DE STOCKAGE ET DE RÉTRIBUTION D'INFORMATION, SANS LA PERMISSE ÉCRITE DE LA VILLE D'OTTAWA. LA VILLE D'OTTAWA NE SE REND PAS RESPONSABLE DES ERREURS OU OMISSIONS AVANT D'ENTAMER LES TRAVAUX. NE DRESSÉZ PAS LES PLANS À L'ÉCHELLE.



Smith + Andersen

1800 Carling Avenue, Suite 530 Ottawa Ontario K1Z 1G3
613 230 1186 / 613 230 2098 smithandandersen.com

CONSULTANT / EXPERT-CONSEIL	CONSULTANT / EXPERT-CONSEIL
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PROJECT / LOCATION / PROJET / ENDROIT

Councillors Office

100 Charlie Rodgers Place, Basement
OTTAWA, ONTARIO

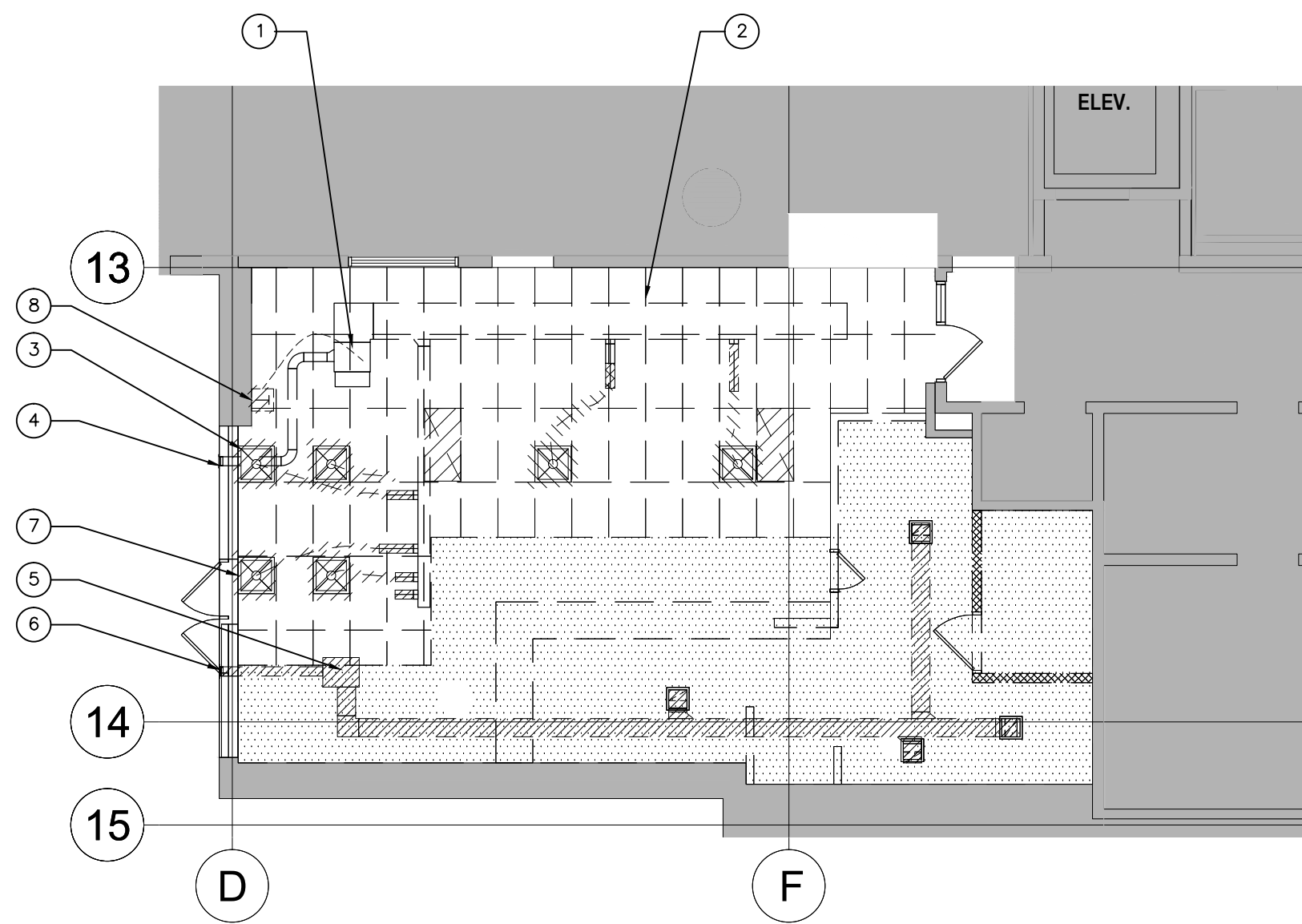
DRAWING / DESSIN
**MECHANICAL EXISTING,
DEMOLITION AND NEW
PLANS**

FACILITY NO. / NO. DE INSTALLATIONS	SHEET NO. / FEUILLE NO.
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PROJECT NO. / PROJET NO.	TM00.03
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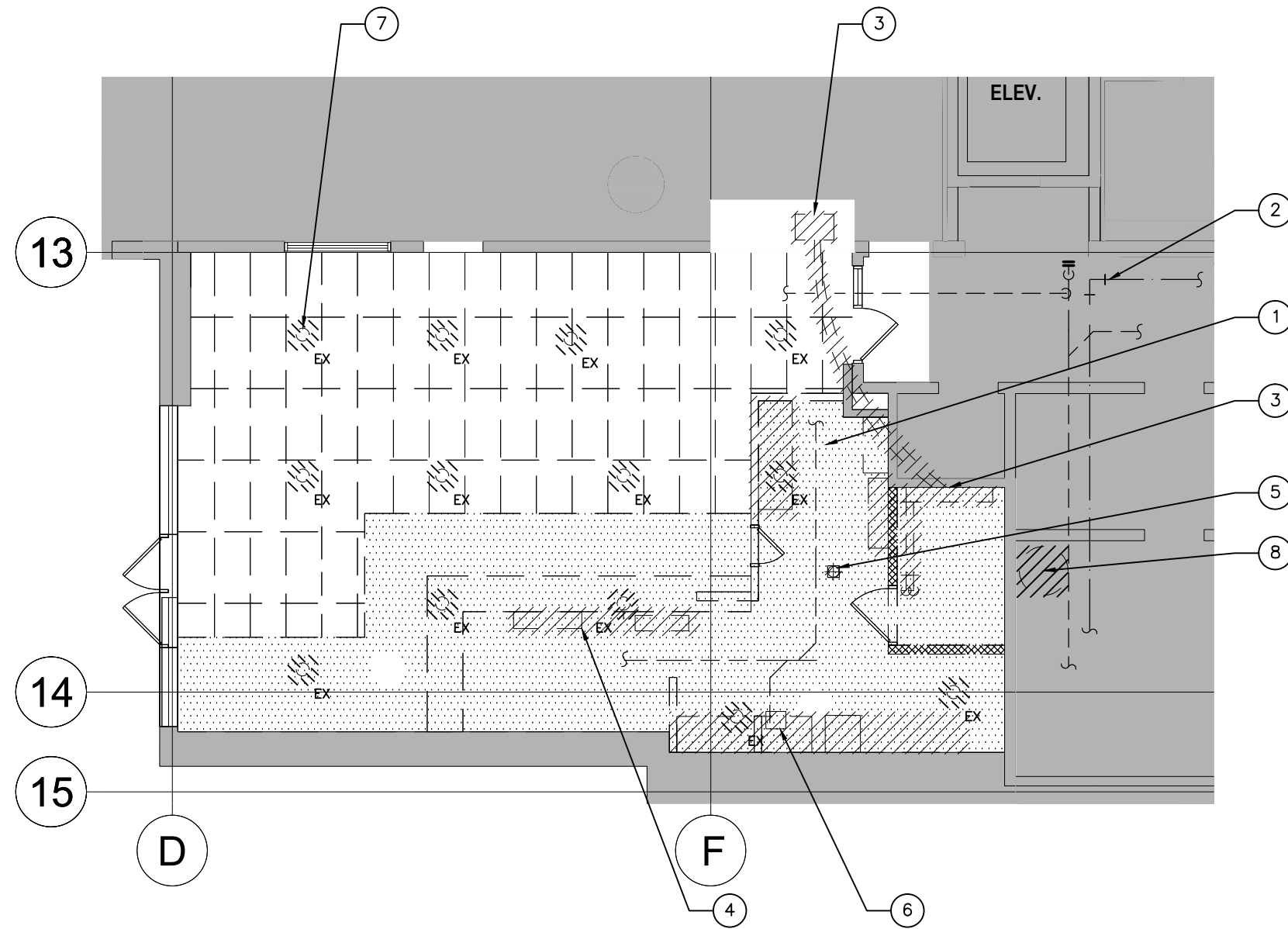
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HVAC EXISTING AND DEMOLITION

- EXISTING TERMINAL UNIT TO REMAIN.
- SUPPLY DUCTWORK TO REMAIN.
- EXISTING OUTDOOR AIR DUCT TO REMAIN.
- EXISTING LOUVRE ON EXTERIOR OF BUILDING TO REMAIN.
- REMOVE EXISTING EXHAUST FAN, DUCTWORK, CEILING GRILLES. REMOVE ALL HANGERS ETC ASSOCIATED WITH THIS DUCTWORK.
- EXISTING LOUVRE ON EXTERIOR OF BUILDING FOR EXHAUST DUCT TO REMAIN. CAP, INSULATE AND SEAL DUCT AT INSIDE OF WALL IN CEILING.
- REMOVE EXISTING DIFFUSER AND FLEX DUCT BACK TO EXISTING RIGID DUCT. RETAIN RIGID DUCT FOR REUSE.
- REMOVE EXISTING THERMOSTAT FOR RELOCATION. REFER TO DETAIL 3 THIS DRAWING FOR NEW LOCATION.

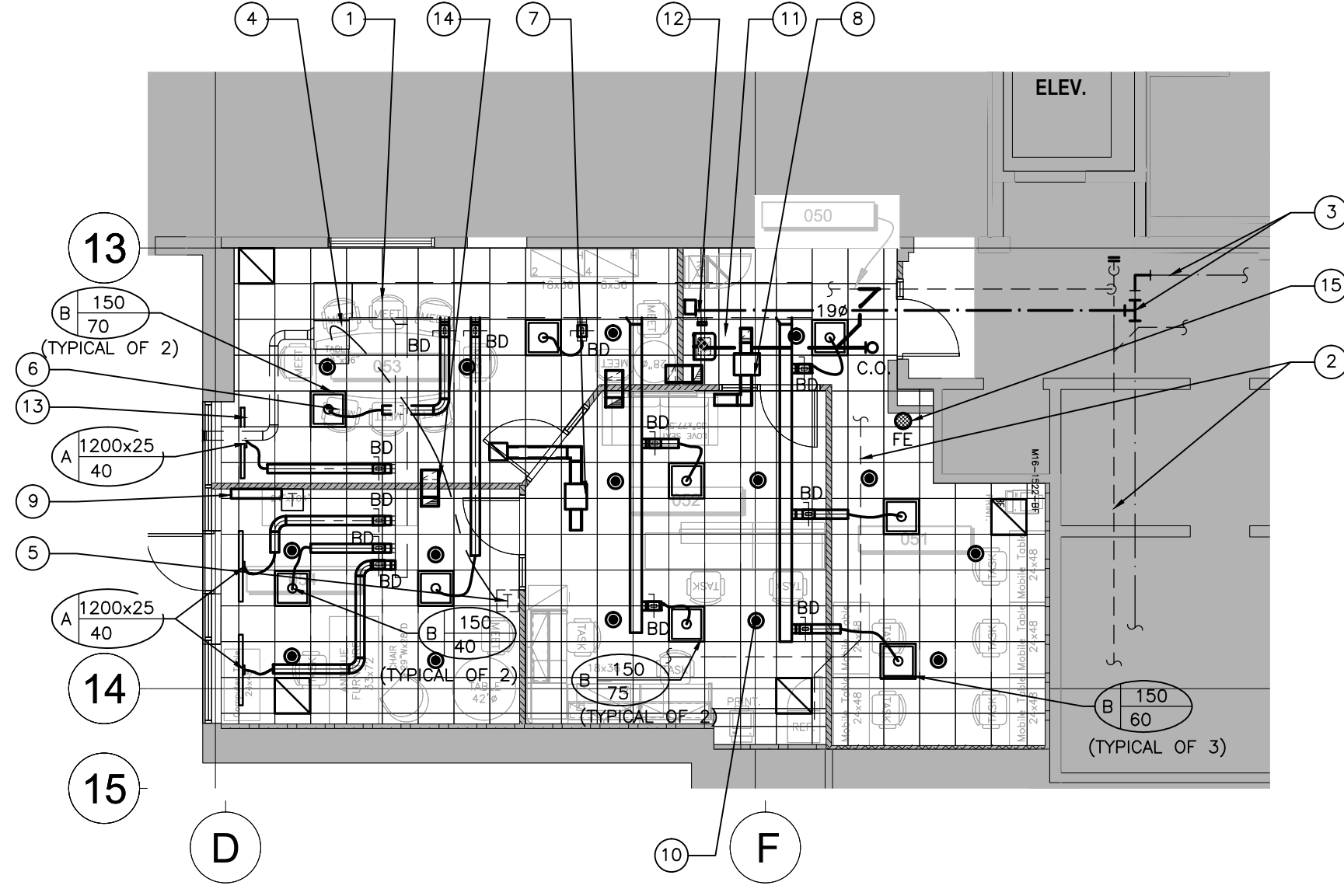
1 HVAC EXISTING AND DEMOLITION
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PLUMBING AND FIRE PROTECTION EXISTING AND DEMOLITION

- APPROXIMATE LOCATION OF EXISTING SANITARY UNDER SLAB PIPING TO REMAIN.
- APPROXIMATE LOCATION OF EXISTING DOMESTIC COLD WATER TO REMAIN.
- REMOVE EXISTING COMPRESSOR, INTERIOR COOLING UNIT, PIPING ETC FOR WALK IN COOLER. TURN ALL EQUIPMENT OVER TO BUILDING OPERATIONS.
- REMOVE EXISTING BAR AND KITCHEN EQUIPMENT THROUGHOUT SPACE, REMOVE ALL SUPPLY PIPING BACK TO SOURCE AND CAP. CAP SANITARY PIPING BELOW FLOOR SLAB. TURN ALL EQUIPMENT OVER TO BUILDING OPERATIONS.
- REMOVE FLOOR DRAIN, CAP FLUSH WITH EXISTING FLOOR.
- REMOVE AND DISPOSE OF GREASE INTERCEPTOR. CAP PIPING BELOW FLOOR SLAB. REFER TO STRUCTURAL CONSULTANTS' DRAWINGS FOR INFILL INSTRUCTIONS.
- REMOVE ALL SPRINKLER HEADS.
- REMOVE EXISTING ELECTRIC HOT WATER TANK. REMOVE PIPING BACK TO SOURCE AND CAP.

2 PLUMBING AND FIRE PROTECTION EXISTING AND DEMOLITION
1:100



NEW WORK HVAC, PLUMBING AND FIRE PROTECTION

- EXISTING DUCTWORK TO REMAIN.
- APPROXIMATE LOCATION OF EXISTING SANITARY UNDER SLAB PIPING TO REMAIN.
- APPROXIMATE LOCATION OF EXISTING DOMESTIC COLD WATER TO REMAIN. CONNECT NEW 19# TO EXISTING MAIN AT THIS APPROXIMATE LOCATION.
- EXISTING TERMINAL UNIT TO REMAIN.
- NEW LOCATION OF EXISTING THERMOSTAT FOR TERMINAL UNIT.
- SUPPLY AND INSTALL NEW SQUARE PLAQUE DIFFUSERS, DUCTWORK, BALANCING DAMPERS ETC.
- SUPPLY AND INSTALL NEW 75L/S TRANSFER FAN TF-1 SHALL BE PEN ZEPHYR Z6S (TDA) COMPLETE WITH SPEED SWITCH FOR MEETING ROOM. 150X150 LINED DUCTWORK AND 150X150 CEILING GRILL.
- SUPPLY AND INSTALL NEW 20L/S TRANSFER FAN TF-2 SHALL BE PEN ZEPHYR Z6S (TDA) COMPLETE WITH SPEED SWITCH FOR KITCHENETTE. 150X150 LINED DUCTWORK AND 150X150 CEILING GRILL.
- NEW ELECTRIC FORCE FLOW HEATER WITH EXTERNAL THERMOSTAT SUPPLIED AND INSTALLED BY ELECTRICAL. INSTALL THERMOSTAT ON WALL ABOVE HEATER. REFER TO ELECTRICAL DRAWINGS FOR DETAILS. CONTRACTOR TO COORDINATE EXACT LOCATION OF THERMOSTAT ON SITE WITH DESIGNER.
- SUPPLY AND INSTALL NEW FULLY RECESSED SPRINKLER HEADS. COLOUR OF CAP TO MATCH CEILING TILE. MODIFY/EXTEND EXISTING SPRINKLER PIPING TO ACCOMMODATE LOCATION AND NEW CEILING HEIGHT.
- SUPPLY AND INSTALL NEW CS-1 SINK AND TRIM. CONNECT 38mm DRAIN TO EXISTING UNDER SLAB SANITARY AND 19mm DOMESTIC COLD WATER PIPING TO EXISTING DOMESTIC COLD WATER. CONNECT 12mm DOMESTIC HOT WATER PIPING TO NEW WATER HEATER.
- SUPPLY AND INSTALL NEW WH-1 ELECTRICAL WATER HEATER, DRIP TRAY AND WATER LEAK PROTECTION UNIT UNDER COUNTER IN CABINET BESIDE SINK PROVIDE ALL PIPING REQUIRED. CONFIRM WITH ARCHITECTURAL FOR EXACT LOCATION. ENSURE EASY ACCESS FOR SERVICING AND REPLACEMENT IS MAINTAINED.
- SUPPLY AND INSTALL NEW LINEAR DIFFUSERS, DUCTWORK, BALANCING DAMPERS ETC. INSTALL LINEAR IN NEXT TILE AWAY FROM BULKHEAD AND ADJUST AIR DEFLECTOR FOR BETTER AIR DISTRIBUTION ON WINDOW BELOW.
- SUPPLY AND INSTALL NEW 300X250 LINED TRANSFER DUCTS (TYPICAL OF 3).
- SUPPLY AND INSTALL NEW FIRE EXTINGUISHER WALL MOUNTED C/W BRACKET.

NOTE:
1. SPRINKLER CONTRACTOR TO PROVIDE ENGINEER STAMPED SPRINKLER DRAWINGS AND HYDRAULIC CALCULATIONS.
2. SPRINKLER SYSTEM TO BE DESIGNED TO NFPA 13 STANDARD, LATEST EDITION.
3. AT THE COMPLETION OF THE PROJECT, SPRINKLER CONTRACTOR TO PROVIDE AN ENGINEER STAMPED REPORT CONFIRMING INSTALLATION OF SEISMIC BRACING.
4. AT THE COMPLETION OF PROJECT SPRINKLER CONTRACTOR TO PROVIDE AN ENGINEERED SIGNED AND SEALED LETTER OF CONFIRMATION.

3 HVAC, PLUMBING AND FIRE PROTECTION NEW
1:100