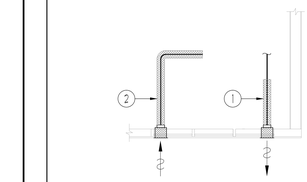
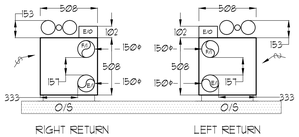


1. EXHAUST DUCTWORK TO BE C/W 25mm THICK THERMAL INSULATION 6FT. FROM EXTERNAL WALL. (TYPICAL)
2. F/A INTAKE DUCTWORK TO BE C/W 25mm THICK THERMAL INSULATION FOR ENTIRE LENGTH FROM EXTERIOR WALL TO ERV FCU. (TYPICAL)

TYPICAL DETAIL INSULATION FOR INTAKE/EXHAUST DUCTWORK — NTS



NOTE:
- ALL DIMENSIONS IN MM.
- HEIGHT OF FCU IS 2,023.

INSUITE FCU DIMENSIONS — NTS

UNIT	NAME	AREA (SQ. FT.)	# OF WR	# OF POWDER	SIZE (T)	FIXTURE UNITS	BR	SQ. FT/T
814	1C-D1	590	2	0	1	16	1	590
815	1C-DC1	590	2	0	1	16	1	590
816	1C-DF1	605	2	0	1	16	1	605
817	1D3	480	1	0	1	10	1	480
819	2E	675	2	0	1.5	16	2	450
821	2C3	670	2	0	1.5	16	2	447
823	1C-DD1	605	2	0	1	16	1	605
824	1C-DG1	620	2	0	1	16	1	620
826	1C-D1	590	2	0	1	16	1	590
827	2K4	730	2	0	1.5	16	2	487

GRILLE SIZING TABLE

DESIGNATION	SIZE	L/s (UNLESS SPECIFIED ELSEWHERE)
SG-A	300x100	47-70
SG-B	300x150	71-93
SG-C	400x150	94-140
SG-D	450x150	141-188
EG-A	150x150	35
W-1	225x200	210mm(L)
W-2	425x200	INSULATED
W-3	625x200	WALL BOX

VERTICAL FAN COIL SIZE

DESIGNATION	MODEL	W x D
FCU-1T	450	500x660
FCU-1.5T	600	500x660
FCU-2T	800	500x660
FCU-2.5T	1000	559x660
FCU-3T	1200	559x660

NOTE:
A MIN. OF 125mm IS REQUIRED ON THE SIDE OF PIPE RISER.

DUCT SIZING TABLE
(4.06 m/s, 800 FPM)

DESIGNATION	L/s	DUCT SIZE	DESIGNATION	L/s	DUCT SIZE
A	47	100x150	G	188	350x150
B	71	150x150	H	236	450x150
C	94	200x150	J	283	500x150
D	118	200x150	K	330	600x150
E	141	250x150	L	377	500x200
F	165	300x150			

GENERAL NOTES:

1) CONTRACTOR SHALL CO-ORDINATE ARCHITECTURAL, STRUCTURAL, LIGHTING, HVAC, SPRINKLER DRAWINGS TO AVOID AREAS OF CONFLICT AND TO MAINTAIN CEILING HEIGHTS.
2) CONTRACTOR SHALL REPORT ALL DISCREPANCIES AND AREA OF CONFLICTS TO THE ENGINEER PRIOR TO WORK BEGINS.
3) PROVIDE EXPANSION CHAMBERS FOR ALL KITCHEN SINKS.
4) SEE INSTALLATION DETAILS DRAWING FOR WASHER DOM. H+C WATER, SANITARY CONNECTION DETAILS.
5) SUPPLY AND INSTALL COMPLETE DOMESTIC HOT AND COLD WATER LINES, SANITARY AND VENT LINES TO EACH FIXTURE /EQUIPMENT INCLUDING WATER CLOSETS, LAVATORIES, BATHS, SHOWERS, KITCHEN SINK, WASHING MACHINES, DISHWASHERS, AND FLOOR DRAINS. KITCHEN SINK, LAVATORIES, WATER CLOSETS AND WASHING MACHINE TO BE C/W LOCALIZED SHUT-OFF VALVES.
6) ALL VENT PIPE INSTALLATION TO COMPLY WITH PLUMBING CODES.
7) FOR D.H.+C. W. RISER SIZES, REFER TO RISER DIAGRAM
8) FIRE DAMPERS ARE REQUIRED TO BE LISTED AND ARE TO HAVE FIRE PROTECTION RATING OF THE PENETRATED FIRE SEPARATION.
9) THE PIPING PENETRATING THE VARIOUS FIRE SEPARATION IS REQUIRED TO BE FIRESTOPPED WITH A LISTED FIRESTOPPING MATERIAL IN ACCORDANCE WITH OBC ARTICLE 3.1.9.1
10) THE FIRE HOSE CABINET THAT ARE RECESSED INTO THE EXIT STAIR SHAFTS ARE REQUIRED TO BE SEPARATED FROM THE EXIT STAIR BY A 2 HR. FIRE SEPARATION.
11) NO FLEXIBLE DUCT SHALL BE USED FOR ANY IN-SUITE DUCTWORK.
12) PROVIDE 25MM EXTERNAL INSULATION TO ENTIRE FRESH AIR DUCT FROM EXTERIOR WALL TO ERV FAN COIL UNIT.
13) DRYER EXHAUST DUCT SHALL BE SMOOTH AND CORROSION-RESISTANT MATERIAL (FLEXIBLE CONNECTION IS NOT ACCEPTABLE.)

ACOUSTIC NOTES:

FOR FLOORS WITH ERV'S:

XX) ERV'S SHALL BE ISOLATED USING ISOLATORS INCORPORATING BOTH A SPRING ELEMENT AND A SECONDARY NEOPRENE-IN-SHEAR ELEMENT IN SERIES. DUCTWORK SHALL BE DE-COUPLED FROM FAN BY FLEXIBLE CONNECTORS. ASSOCIATED DUCTWORK SHALL BE SUSPENDED ON HANGERS WITH NEOPRENE PADS.

FOR TRANSITION FLOORS:

XX) ALL HORIZONTAL SUPPLY AIR DUCTWORK SHALL BE C/W 25MM INTERNAL ACOUSTIC LINING AND SHALL BE SUSPENDED ON RUBBER PADS IN THE HANGERS. ELBOWS SHALL BE COMPLETE WITH TURNING VANES.

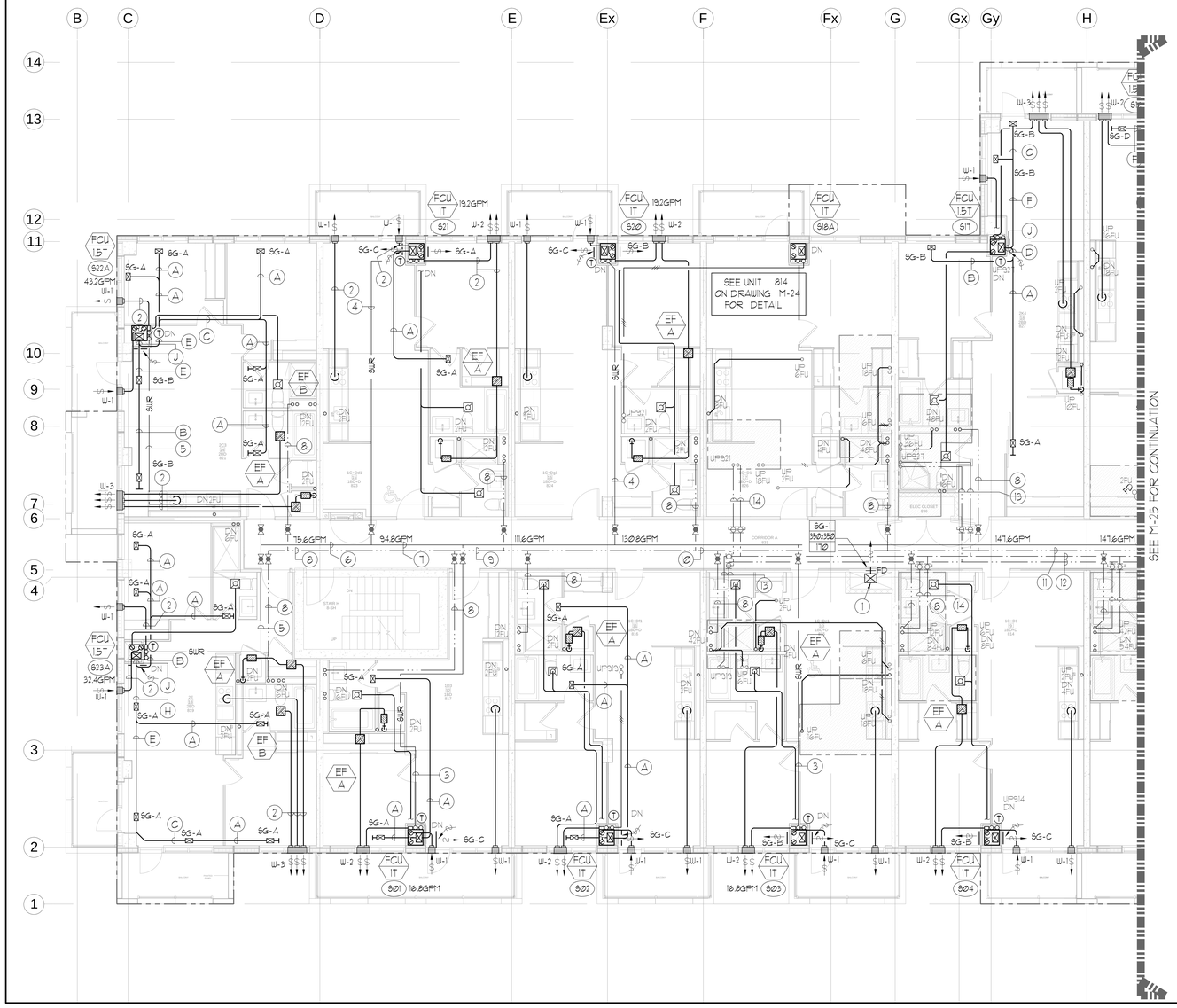
XX) ALL SYSTEM/DOMESTIC PIPE LOOPS OR OFFSETS WHICH ARE LARGER THAN 75 MM SHALL BE ISOLATED USING NEOPRENE-IN-SHEAR HANGERS, AND ADDITIONAL 25 MM THICK RIBBED OR WAFFLED NEOPRENE PADS IN THE SADDLES OF CLEVIS HANGERS.

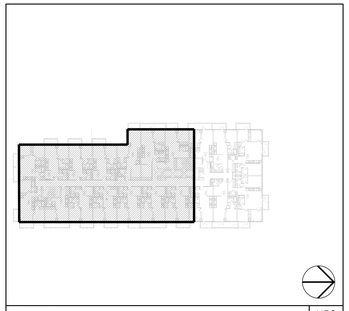
12) ALL PIPES 50MM DIA. AND SMALLER SHALL BE ISOLATED WITH NEOPRENE PADS.

CLEAR FLOOR TO UNDERSLAB = 3050mm
CLEAR PRODUCT= 2700mm
COMPLETE DROP CEILING = 350mm
UNITS 816/817/819/821/823/824: DRAINS FROM AMENITY TERRACE ON 9/F

NOTES:

1. SOUTH F/A SHAFT A FROM G/F TO 8/F DUCT SERVING CORRIDOR FROM G/F TO 8/F. SEE VENTILATION RISER DIAGRAM FOR DETAILS.
2. 150ø KITCHEN / DRYER / W/R / FCU INTAKE / FCU EXHAUST DUCT. (TYPICAL UNLESS OTHERWISE NOTED)
3. 32ø SWR.
4. 38ø SWR.
5. 50ø SWR.
6. 63ø SWR.
7. 75ø SWR.
8. 19ø DHWR.
9. 25ø DHWR.
10. 32ø DHWR.
11. 38ø DHWR.
12. 50ø DCW & 38ø DHW.
13. 32ø DCW & 25ø DHW.
14. 38ø DCW & 32ø DHW.





KEY PLAN — N.T.S.

LEGEND
MECHANICAL

SYMBOL	DESCRIPTION
	SUPPLY AIR DIFFUSER
	SUPPLY AIR TROFFER
	LINEAR SUPPLY DIFFUSER
T	THERMOSTAT
S	FAN SWITCH
	RETURN AIR GRILLE
	EXHAUST AIR GRILLE
	SUPPLY DUCT UP
	SUPPLY DUCT DOWN
	RETURN DUCT UP
	RETURN DUCT DOWN
	EXHAUST DUCT UP
	EXHAUST DUCT DOWN
FD	FIRE DAMPER
BD	BALANCING DAMPER
MD	MOTORIZED DAMPER
MFD	MOTORIZED FIRE DAMPER
BDD	BACKDRAFT DAMPER
OBD	OPPOSED BLADE VOLPE CONTROL DAMPER CLOSING BUDRAY
	TURNING VANES
	FLEXIBLE CONNECTION
	ACOUSTIC INSULATION
XX	TYPE OF EQUIPMENT
XX	EQUIPMENT IDENTIFICATION
XX/XX	TYPE OF DIFFUSER OR GRILLE
XX/XX	NECK SIZE / TYPE OF DIFFUSER NECK SIZE
XXX	AIRFLOW (CFM OR L/s)
S, S1	STARTER / 3 PHASE / 1 PHASE /
S	IN-SUITE ERV MASTER SWITCH
S	FAN SWITCH / IN-SUITE ERV OVERRIDE BUTTON
CO	CO SENSOR
G	GAS LINE
G	GAS METER
G	GAS COCK
PR	PRESSURE REDUCING VALVE
	SANITARY ABOVE GRADE
	SANITARY BELOW GRADE
	STORM ABOVE GRADE
	STORM BELOW GRADE
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RECIRCULATION
	SANITARY VENT
	WATER METER
FD	FLOOR DRAIN
FFD	FLANGE FLOOR DRAIN
HD	HUB DRAIN
RD	ROOF DRAIN
SLD	SLAB DRAIN
AD	AREA DRAIN
BLAD	BI-LEVEL AREA DRAIN
CB	CATCH BASIN
	SANITARY TRAP
	ELBOW UP
	ELBOW DOWN
CO	WALL CLEANOUT
CO	FLOOR CLEANOUT
HB	HOSE BIBB
NFHB	NON-FREEZE HOSE BIBB
	GLOBE VALVE
	GATE VALVE
	BALL VALVE
	BUTTERFLY VALVE
	PRESSURE REDUCING VALVE
	CHECK VALVE
	CAP
CO	COMPRESSED AIR OUTLET
NV	BACKFLOW PREVENTER
	CIRCUIT BALANCING VALVE
	MULTIPLE PIPES / - DENOTES NO. OF PIPES
T	TEMPERATURE SENSOR
T	THERMOMETER
	2-WAY MODULATING VALVE
	3-WAY MODULATING VALVE
	1/2"x4"O/ THERMOWELL C/W 1/2" BUSHING & 1/2" PLUGS
XXX	FLOOR ELEVATION ABOVE LEVEL
XXX	FLOOR ELEVATION THIS LEVEL
XXX	HEADROOM (FLOOR TO U/S HEIGHT)

DATE	NO	DESCRIPTION	BY
07/10/14	2	RE-ISSUED FOR PERMIT	E.P.
05/30/14	1	ISSUED FOR PERMIT	E.P.
DATE	NO	DESCRIPTION	BY

MARK VOID ALL PRINTS DATED PREVIOUS TO FINAL DATE ABOVE

REVISIONS

CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB AND REPORT DISCREPANCIES TO THE ENGINEERS BEFORE PROCEEDING WITH THE WORK. THIS DRAWING IS THE PROPERTY OF THE ENGINEERS AND MUST BE RETURNED UPON COMPLETION OF THE WORK.

DRAWINGS ARE NOT TO BE SCALED

NOVA TREND DEVELOPMENT GROUP LTD.

LICENSED PROFESSIONAL ENGINEER 07/10/14 ERIC PUI KAI AN PROVINCE OF ONTARIO

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DRAWING TITLE:
8/F SOUTH
MECHANICAL LAYOUT

PROJECT TITLE:
ALEXANDRA PARK

XXX
TORONTO ONTARIO

DRAWN BY:	CHECKED BY:	SCALE:
G.S.	E.P.	1:50
DATE: FEB. 13	PROJECT NUMBER: 1313	DRAWING NUMBER: M-24 OF 39

Drawing name: \\CADSERVER\Current Jobs\1313\1313 - Alexandra Park\1313-17-18a - 24-25DF PLAN - SOUTH & NORTH MECHANICAL LAYOUT.dwg Plotted: Jul 09, 2014 - 4:07pm