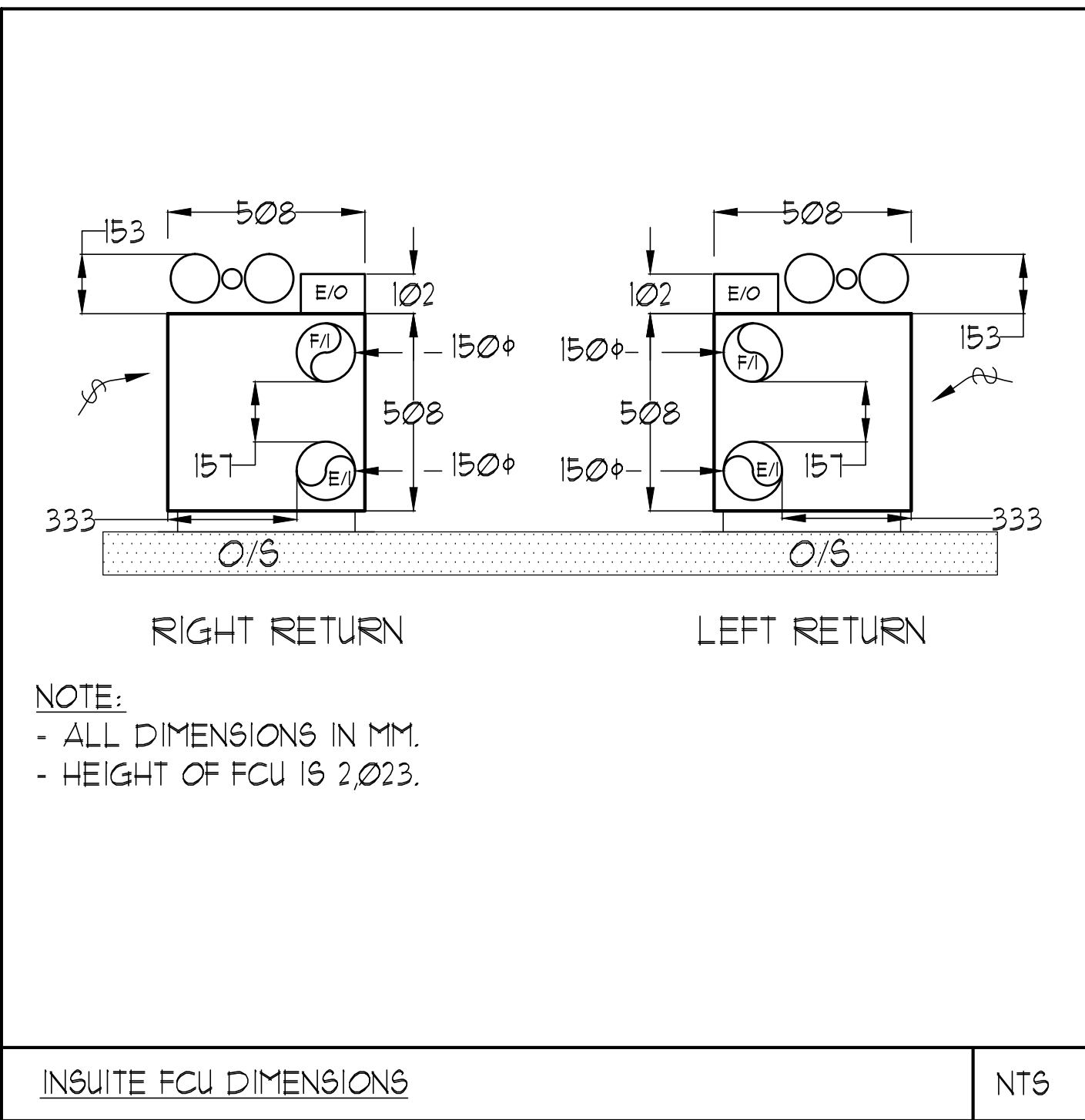
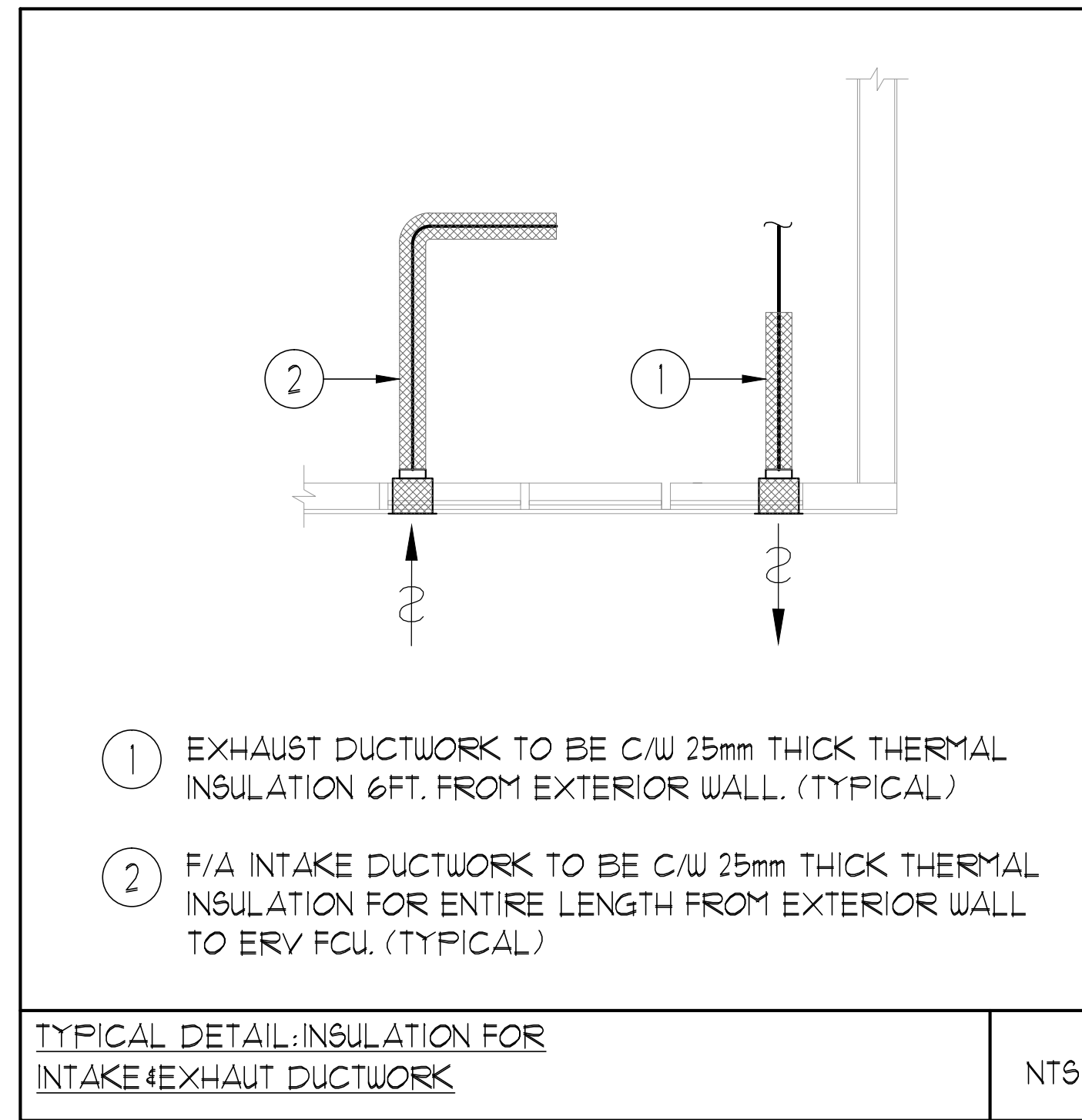
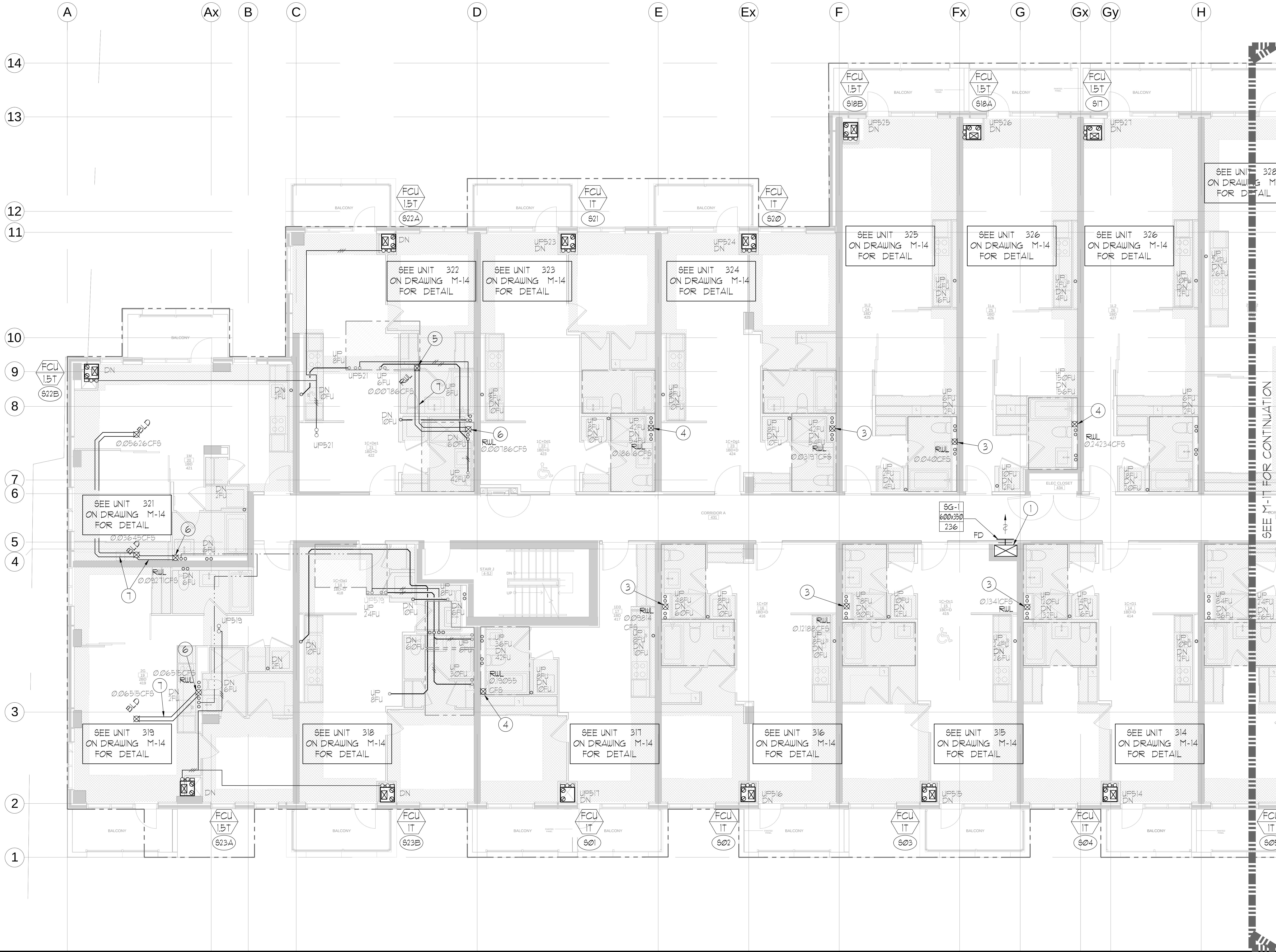




UNIT	NAME	AREA (SQ. FT.)	* OF UR	* OF POWDER	SIZE (T)	FIXTURE UNITS	BR	SQ. FT./T
414	IC-DI	590	2	0	1	16	1	590
415	IC-DCI	600	2	0	1	16	1	600
416	IC-DF	610	2	0	1	16	1	610
417	ID3	480	1	0	1	10	1	480
418	IC-DAI	510	1	1	1	16	1	510
419	IG	100	2	0	15	16	2	467
421	IM	550	1	0	15	10	1	367
422	IC-DEI	625	2	0	15	16	1	417
423	IC-DDI	620	2	0	1	16	1	620
424	IC-DGI	620	2	0	1	16	1	620
425	IL2	615	1	0	15	10	1	410
426	ILA	595	1	0	15	10	1	397
427	IL2	615	1	0	15	10	1	410

GRILLE SIZING TABLE			VERTICAL FAN COIL SIZE		
DESIGNATION	SIZE	L/S (UNLESS SPECIFIED ELSEWHERE)	DESIGNATION	MODEL	W X D
SG-A	300x100	47-70	FCU-IT	450	508x660
SG-B	300x150	71-93	FCU-15T	600	508x660
SG-C	400x150	94-140	FCU-21T	800	508x660
SG-D	450x150	141-188	FCU-25T	1000	553x660
EG-A	150x150	35	FCU-31T	1200	553x660
W-1	225x200	210mm(L)	NOTE: A MIN. OF 125mm IS REQUIRED ON THE SIDE OF PIPE RISER.		
W-2	425x200	INSULATED			
W-3	625x200	WALL BOX			
DUCT SIZING TABLE					
(4.06 m/s, 800 FPM)			DESIGNATION	L/S	DUCT SIZE
(A)	47	100x150	(G)	183	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			

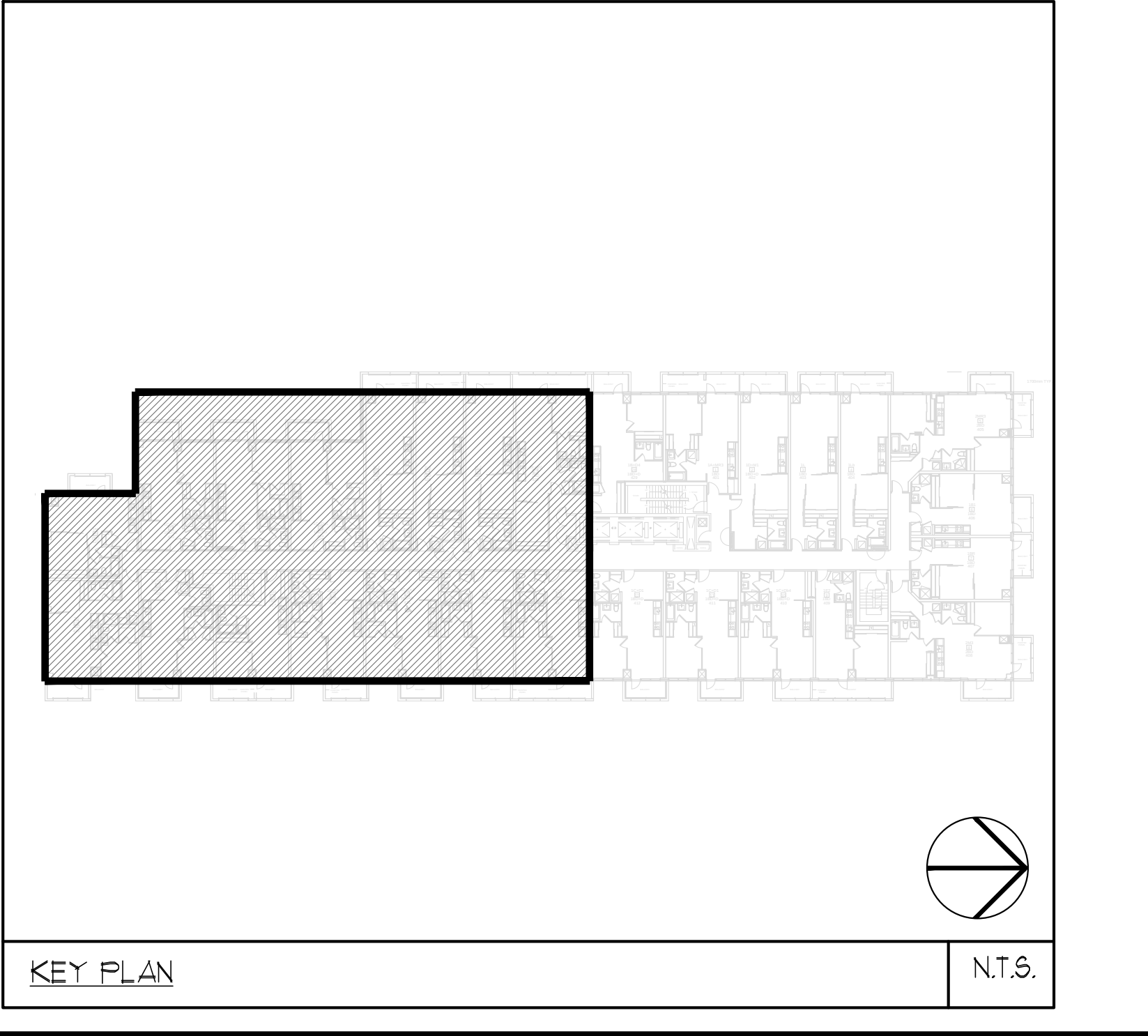


- GENERAL NOTES:
- CONTRACTOR SHALL CO-ORDINATE ARCHITECTURAL, STRUCTURAL, LIGHTING, HVAC, SPRINKLER DRAWINGS TO AVOID AREAS OF CONFLICT AND TO MAINTAIN CEILING HEIGHTS.
 - CONTRACTOR SHALL REPORT ALL DISCREPANCIES AND AREA OF CONFLICTS TO THE ENGINEER PRIOR TO WORK BEGINS.
 - PROVIDE EXPANSION CHAMBERS FOR ALL KITCHEN SINKS.
 - SEE INSTALLATION DETAILS DRAWING FOR WASHER DRYER WATER, SANITARY CONNECTION DETAILS.
 - 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.
 - ALL VENT PIPE INSTALLATION TO COMPLY WITH PLUMBING CODES.
 - FOR DRYER, W. RISER SIZES, REFER TO RISER DIAGRAM
 - FIRE DAMPERS ARE REQUIRED TO BE LISTED AND ARE TO HAVE FIRE PROTECTION RATING OF THE PENETRATED FIRE SEPARATION.
 - THE PIPING PENETRATING THE VARIOUS FIRE SEPARATION IS REQUIRED TO BE FIRESTOPPED WITH A LISTED FIRESTOPPING MATERIAL IN ACCORDANCE WITH OBC ARTICLE 3.13.1
 - 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.
 - NO FLEXIBLE DUCT SHALL BE USED FOR ANY IN-SUITE DUCTWORK.
 - PROVIDE 25MM EXTERNAL INSULATION TO ENTIRE FRESH AIR DUCT FROM EXTERIOR WALL TO ERV FAN COIL UNIT.
 - DRYER EXHAUST DUCT SHALL BE SMOOTH AND CORROSION-RESISTANT MATERIAL (FLEXIBLE CONNECTION IS NOT ACCEPTABLE).

- ACOUSTIC NOTES:
- ALL SYSTEM/DOMESTIC PIPE LOOPS OR OFFSETS WHICH ARE 50MM DIA. AND LARGER SHALL BE ISOLATED USING NEOPRENE IN-SHEAR HANGERS, AND ADDITIONAL 25 MM THICK RIBBED OR WAFFLED NEOPRENE PADS IN THE SADDLES OF CLEVIS HANGERS.
 - ALL PIPES SMALLER THAN 50MM DIA. SHALL BE ISOLATED WITH 5MM THICK RIBBED OR WAFFLED RUBBER PADS IN HANGER SADDLES.

CLEAR FLOOR TO UNDERSLAB = 250mm
CLEAR PRODUCT = 250mm
UNITS 419/421: DRAINS FROM TERRACE ON 5/F

- NOTES:
- SOUTH F/A SHAFT FROM G/F TO 8/F, DUCT SERVING CORRIDOR FROM G/F TO 8/F, SEE PRESSURIZATION / VENTILATION RISER DIAGRAM FOR DETAILS.
 - 150° KITCHEN / DRYER / W/R / FCU INTAKE / FCU EXHAUST DUCT. (TYPICAL UNLESS OTHERWISE NOTED)
 - 100° RUL FROM ABOVE AND DOWN.
 - 150° RUL FROM ABOVE AND DOWN.
 - 100° RUL FROM ABOVE.
 - 100° RUL DOWN.
 - 100° STN 61%.



LEGEND MECHANICAL

SYMBOL	DESCRIPTION
[Symbol]	SUPPLY AIR DIFFUSER
[Symbol]	SUPPLY AIR TROOPER
[Symbol]	LINEAR SUPPLY DIFFUSER
[Symbol]	THERMOSTAT
[Symbol]	FAN MOTOR
[Symbol]	RETURN AIR GRILLE
[Symbol]	EXHAUST AIR GRILLE
[Symbol]	SUPPLY DUCT UP
[Symbol]	SUPPLY DUCT DOWN
[Symbol]	RETURN DUCT UP
[Symbol]	RETURN DUCT DOWN
[Symbol]	EXHAUST DUCT UP
[Symbol]	EXHAUST DUCT DOWN
[Symbol]	FIRE DAMPER
[Symbol]	BALANCING DAMPER
[Symbol]	MOTORIZED DAMPER
[Symbol]	MOTORIZED FIRE DAMPER
[Symbol]	BACKDRAFT DAMPER
[Symbol]	OPPOSED BLADE VOLUME CONTROL DAMPER
[Symbol]	CSU LOCKING DAMPER
[Symbol]	TUNING VANES
[Symbol]	FLEXIBLE CONNECTION
[Symbol]	ACOUSTIC INSULATION
[Symbol]	TYPE OF EQUIPMENT
[Symbol]	EQUIPMENT CONNECTION
[Symbol]	TYPE OF DIFFUSER OR GRILLE
[Symbol]	SIZE OF DIFFUSER/GRILLE/SHUT-OFF VALVE
[Symbol]	PIPE/DUCT SIZE
[Symbol]	PIPE/DUCT SIZE
[Symbol]	STARTER / 3 PHASE / PHASE
[Symbol]	IN-SUITE EXHAUST MOTOR
[Symbol]	FAN MOTOR / IN-SUITE EXHAUST MOTOR
[Symbol]	CO SENSOR
[Symbol]	GAS LINE
[Symbol]	GAS METER
[Symbol]	GAS COCK
[Symbol]	PRESSURE REDUCING VALVE
[Symbol]	SANITARY ABOVE GRADE
[Symbol]	SANITARY BELOW GRADE
[Symbol]	STORM ABOVE GRADE
[Symbol]	STORM BELOW GRADE
[Symbol]	DOMESTIC COLD WATER
[Symbol]	DOMESTIC HOT WATER
[Symbol]	DOMESTIC HOT WATER RECIRCULATION
[Symbol]	SANITARY VENT
[Symbol]	WATER PETER
[Symbol]	FLOOR DRAIN
[Symbol]	FLOOR DRAIN
[Symbol]	ROOF DRAIN
[Symbol]	SLAB DRAIN
[Symbol]	AREA DRAIN
[Symbol]	BIL LEVEL AREA DRAIN
[Symbol]	CATCH BASIN
[Symbol]	SANITARY TRAP
[Symbol]	ELBOW UP
[Symbol]	ELBOW DOWN
[Symbol]	WALL CLEANOUT
[Symbol]	FLOOR CLEANOUT
[Symbol]	HOSE BIBB
[Symbol]	NON-FREEZE HOSE BIBB
[Symbol]	GATE VALVE
[Symbol]	BALL VALVE
[Symbol]	BUTTERFLY VALVE
[Symbol]	PRESSURE REDUCING VALVE
[Symbol]	CHECK VALVE
[Symbol]	CAP
[Symbol]	COMPRESSED AIR OUTLET
[Symbol]	BACKFLOW PREVENTER
[Symbol]	CIRCUIT BALANCING VALVE
[Symbol]	MULTIPLE PIPES
[Symbol]	DENOTES NO. OF PIPES
[Symbol]	TEMPERATURE SENSOR
[Symbol]	THERMISTOR
[Symbol]	2-WAY MODULATING VALVE
[Symbol]	3-WAY MODULATING VALVE
[Symbol]	C/W 1/2" BUSHING 4 1/2" PLUG
[Symbol]	FLOOR ELEVATION ABOVE LEVEL
[Symbol]	FLOOR ELEVATION THIS LEVEL
[Symbol]	HEADROOM FLOOR TO US LEVEL

REVISIONS

NO.	DATE	DESCRIPTION	BY
1		ISSUED FOR PERMIT	EP
2		RE-ISSUED FOR PERMIT	EP
3		ISSUED FOR PERMIT	EP
4		REVISION	BT

MARK: VOID ALL PRINTS DATED PREVIOUS TO FINAL DATE ABOVE

NOVA ENGINEERING STUDIOS LTD.

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Richmond Hill, Ontario L4B 3M1
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Fax: 905-882-5447

DRAWING TITLE
4/F SOUTH MECHANICAL LAYOUT

PROJECT TITLE
60 ALEXANDRA PARK
BLOCK II
38 CAMERON STREET
TORONTO

DRAWN BY
G.S.

CHECKED BY
E.P.

SCALE
1:50

DATE
FEB. 13

PROJECT NUMBER
1313

DRAWING NUMBER
M-16

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OF 43