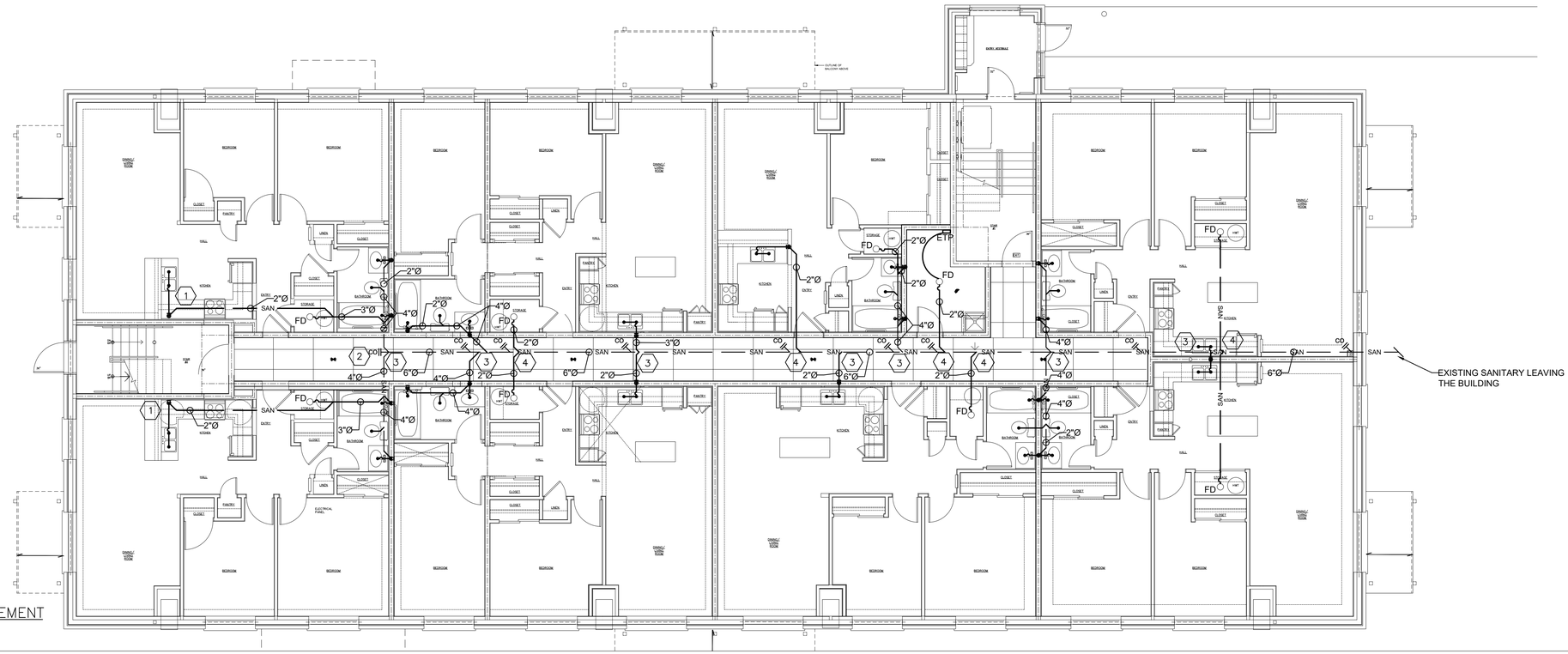
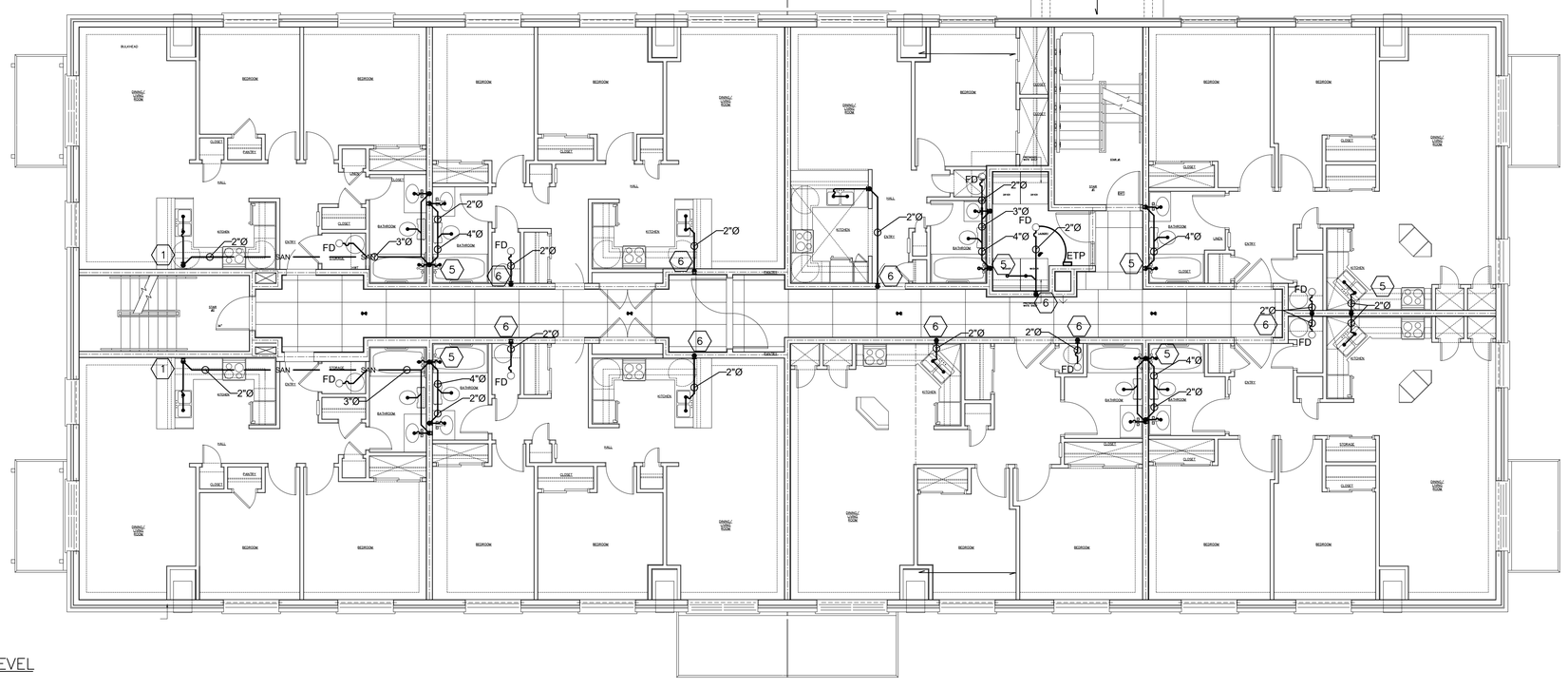


1 M1 SANITARY BASEMENT
SCALE: 1:75



2 M1 SANITARY FIRST LEVEL
SCALE: 1:75

GENERAL NOTES

1. BASEMENT SANITARY BELOW GROUND IS EXISTING AND TO BE RE-USED. CONTRACTOR TO THOROUGHLY INSPECT EXISTING SANITARY RISERS FOR ANY DEFECT AND PROVIDE NEW RISER IF REQUIRED. IF PIPING IS FREE OF DEFECT CONTRACTOR MAY TIE NEW PLUMBING FIXTURES IN TO EXISTING SANITARY RISER.
2. IN SUITE FLOOR DRAINS TO CONNECTED TO PRESSURE DROP TRAP PRIMER (TP-2) AT NEAREST SINK. MAXIMUM DISTANCE FROM DRAIN TO TRAP PRIMER IS 20 FT.
3. COORDINATE VENTING THROUGH ROOF FOR EACH SANITARY RISER

DRAWING NOTES

1. SANITARY TO CONTINUE DROP BELOW GROUND IN MILLWORK. COORDINATE EXACT LOCATION OF DROP WITH ARCHITECTURAL DRAWINGS.
2. APPROXIMATE LOCATION OF EXISTING BELOW GROUND MAIN SANITARY PIPE SHOWN. CONTRACTOR TO CONFIRM EXACT LOCATION ON SITE.
3. APPROXIMATE LOCATION OF EXISTING CONNECTION BELOW GROUND FROM IN SUITE SANITARY TO MAIN SANITARY LINE IN CORRIDOR. CONTRACTOR TO CONFIRM EXACT LOCATION ON SITE.
4. NEW CONNECTION TO EXISTING SANITARY REQUIRED. APPROXIMATE LOCATION SHOWN, CONTRACTOR TO CONFIRM ON SITE AND ADJUST AS REQUIRED
5. NEW SANITARY RISER TO CONNECT FROM EXISTING RISER IN BASEMENT LEVEL UP TO SECOND LEVEL. CONFIRM EXACT LOCATION ON SITE. COORDINATE VENTING THROUGH ROOF
6. NEW SANITARY RISER TO CONNECT FROM NEW RISER IN BASEMENT LEVEL UP TO SECOND LEVEL. COORDINATE VENTING THROUGH ROOF

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR PERMIT	2020.11.11	CSM

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I.M.KIRKLAND
2020.11.11
PROVINCE OF ONTARIO
ELECTRICAL BCIN 23395

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f. (705) 741-1526
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PROJECT
24 UNIT APARTMENT RECONSTRUCTION
48 WELLINGTON STREET

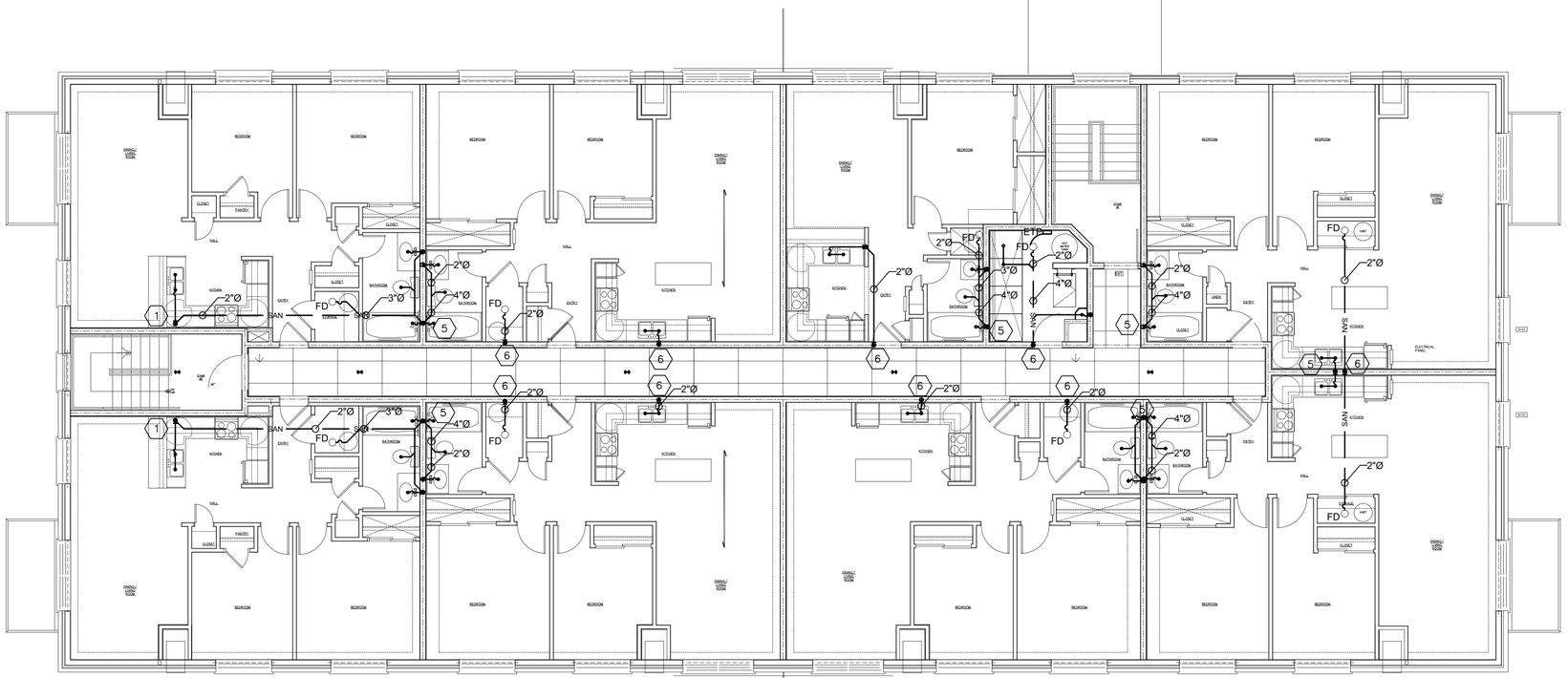
PORT HOPE, ONTARIO

TITLE
SANITARY LAYOUT

DESIGN	CSM
DRAWN	CSM
CHECKED	IMK
APPROVED	IMK
PROJECT	6709

SCALE AS NOTED
DWG NO. M1

CADD FILE NO. 6709M1



1 / M2 SANITARY SECOND LEVEL
SCALE: 1:75

GENERAL NOTES

1. BASEMENT SANITARY BELOW GROUND IS EXISTING AND TO BE RE-USED. CONTRACTOR TO THOROUGHLY INSPECT EXISTING SANITARY RISERS FOR ANY DEFECT AND PROVIDE NEW RISER IF REQUIRED. IF PIPING IS FREE OF DEFECT CONTRACTOR MAY TIE NEW PLUMBING FIXTURES IN TO EXISTING SANITARY RISER.
2. IN SUITE FLOOR DRAINS TO CONNECTED TO PRESSURE DROP TRAP PRIMER (TP-2) AT NEAREST SINK. MAXIMUM DISTANCE FROM DRAIN TO TRAP PRIMER IS 20 FT.
3. COORDINATE SANITARY VENTING THROUGH ROOF FOR EACH SANITARY RISER.

DRAWING NOTES

1. SANITARY TO CONTINUE DROP BELOW GROUND IN MILLWORK. COORDINATE EXACT LOCATION OF DROP WITH ARCHITECTURAL DRAWINGS.
2. APPROXIMATE LOCATION OF EXISTING BELOW GROUND MAIN SANITARY PIPE SHOWN. CONTRACTOR TO CONFIRM EXACT LOCATION ON SITE.
3. APPROXIMATE LOCATION OF EXISTING CONNECTION BELOW GROUND FROM IN SUITE SANITARY TO MAIN SANITARY LINE IN CORRIDOR. CONTRACTOR TO CONFIRM EXACT LOCATION ON SITE.
4. NEW CONNECTION TO EXISTING SANITARY REQUIRED. APPROXIMATE LOCATION SHOWN, CONTRACTOR TO CONFIRM ON SITE AND ADJUST AS REQUIRED
5. NEW SANITARY RISER TO CONNECT FROM EXISTING RISER IN BASEMENT LEVEL UP TO SECOND LEVEL. CONFIRM EXACT LOCATION ON SITE. COORDINATE VENTING THROUGH ROOF.
6. NEW SANITARY RISER TO CONNECT FROM NEW RISER IN BASEMENT LEVEL UP TO SECOND LEVEL. COORDINATE VENTING THROUGH ROOF

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR PERMIT	2020.11.11	CSM

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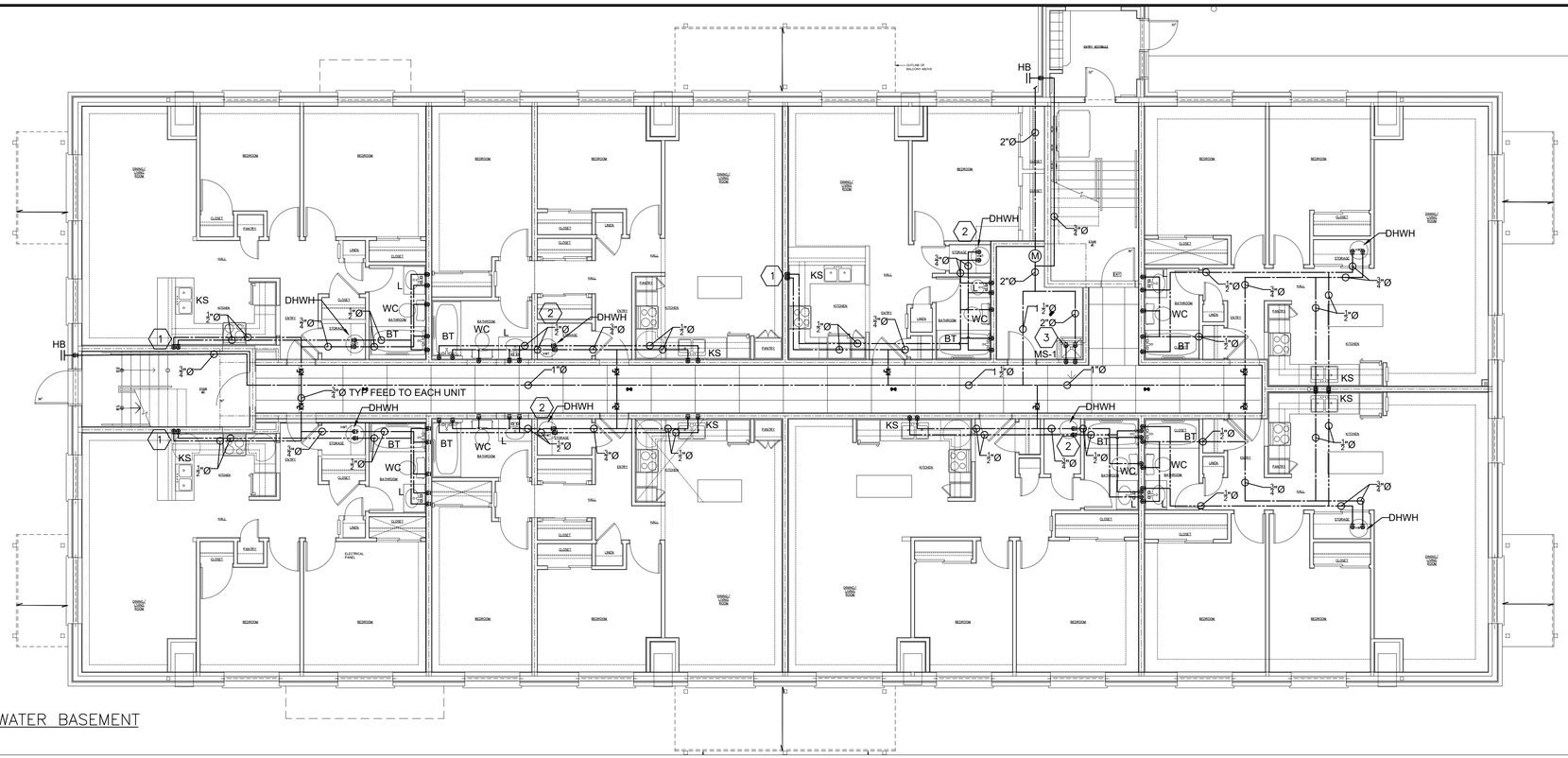
PROJECT
24 UNIT APARTMENT
RECONSTRUCTION
48 WELLINGTON STREET

PORT HOPE, ONTARIO

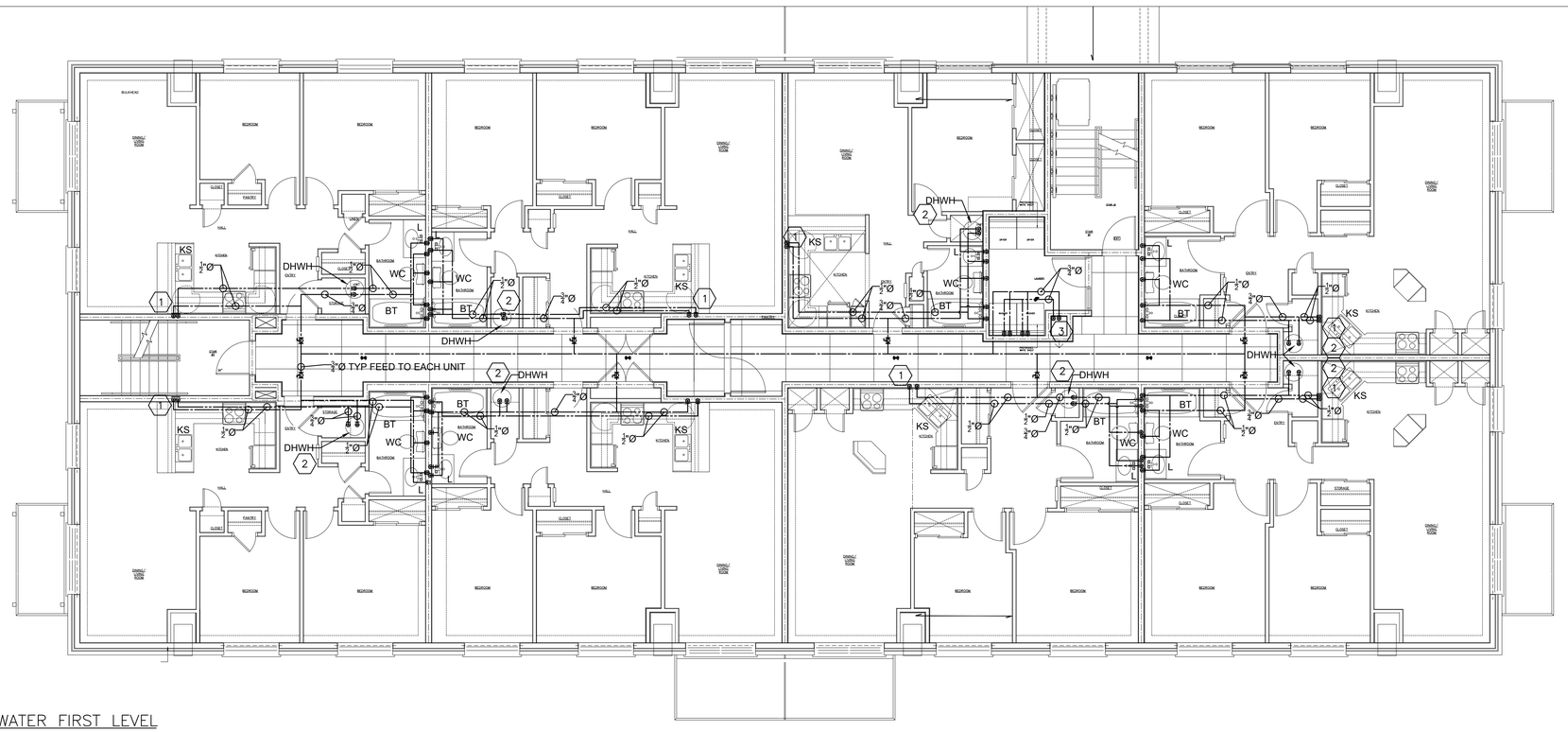
TITLE
SANITARY LAYOUT

DESIGN	CSM	SCALE AS NOTED	
DRAWN	CSM	DWG NO.	M2
CHECKED	IMK		
APPROVED	IMK		
PROJECT	6709		

CADD FILE NO. 6709M2



1 M3 DOMESTIC WATER BASEMENT
SCALE: 1:75



2 M3 DOMESTIC WATER FIRST LEVEL
SCALE: 1:75

GENERAL NOTES

1. COORDINATE PRESSURE DROP TRAP PRIMER (TP-2) CONNECTION FROM NEAREST SINK TO IN SUITE FLOOR DRAINS. REFER TO SANITARY DRAWINGS M1 AND M2 FOR FLOOR DRAIN LOCATIONS
2. SUPPLY ISOLATION VALVES AT EACH IN SUITE FIXTURE

DRAWING NOTES

(1) DOMESTIC HOT AND COLD WATER DROPS IN WALL. COORDINATE ROUTING TO KS IN MILLWORK.

(2) HWT TO BE LOCATED IN CLOSET. COORDINATE EXACT MOUNTING LOCATION AND HEIGHT WITH ARCHITECTURAL DRAWINGS.

(3) COLD WATER RISER TO CONTINUE FROM BASEMENT LEVEL UP TO SECOND FLOOR. HOT WATER DROP TO CONTINUE FROM SECOND LEVEL TO BASEMENT LEVEL. COORDINATE WITH DUCT DROP AND ARCHITECTURAL DRAWINGS AND PROVIDE ELBOWS AS REQUIRED TO CONTINUE THROUGH PLUMBING CHASE ON NEXT LEVEL

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR PERMIT	2020.11.11	CSM

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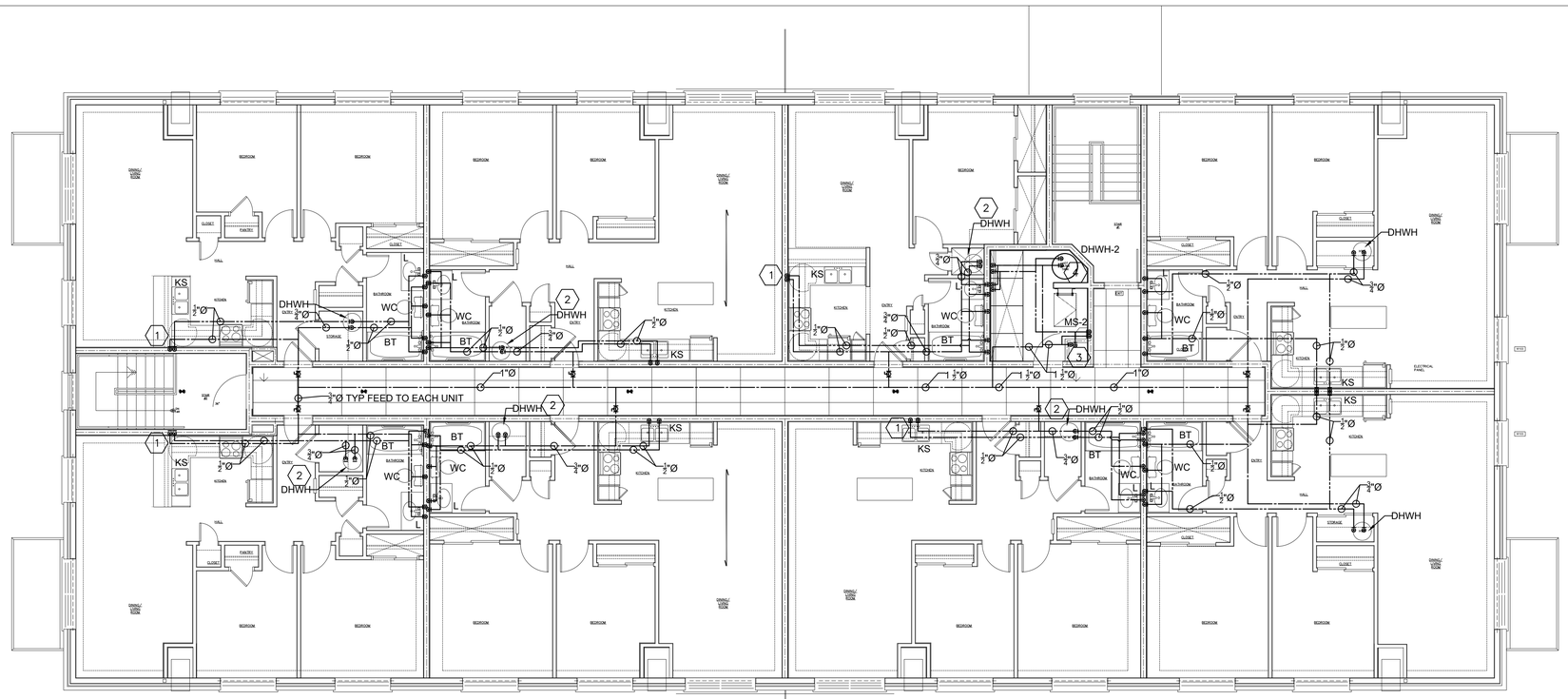
PORT HOPE, ONTARIO

TITLE
DOMESTIC WATER

DESIGN	CSM	SCALE AS NOTED
DRAWN	CSM	DWG NO. M3
CHECKED	IMK	
APPROVED	IMK	
PROJECT	6709	

CADD FILE NO. 6709M3



1 DOMESTIC WATER SECOND LEVEL
M4 SCALE: 1:75

GENERAL NOTES

1. COORDINATE PRESSURE DROP TRAP PRIMER (TP-2) CONNECTION FROM NEAREST SINK TO IN SUITE FLOOR DRAINS. REFER TO SANITARY DRAWINGS M1 AND M2 FOR FLOOR DRAIN LOCATIONS
2. SUPPLY ISOLATION VALVES AT EACH IN SUITE FIXTURE

DRAWING NOTES

1. DOMESTIC HOT AND COLD WATER DROPS IN WALL. COORDINATE ROUTING TO KS IN MILLWORK.
2. HWT TO BE LOCATED IN CLOSET. COORDINATE EXACT MOUNTING LOCATION AND HEIGHT WITH ARCHITECTURAL DRAWINGS.
3. COLD WATER RISER FROM BASEMENT LEVEL AND HOT WATER DROP LOCATED IN CORNER OF CHASE. COORDINATE EXACT LOCATION WITH DUCT AND WITH ARCHITECTURAL DRAWINGS
4. HWT LOCATED IN CORNER, GROUND MOUNTED. CONTRACTOR TO CONFIRM EXACT LOCATION ON SITE

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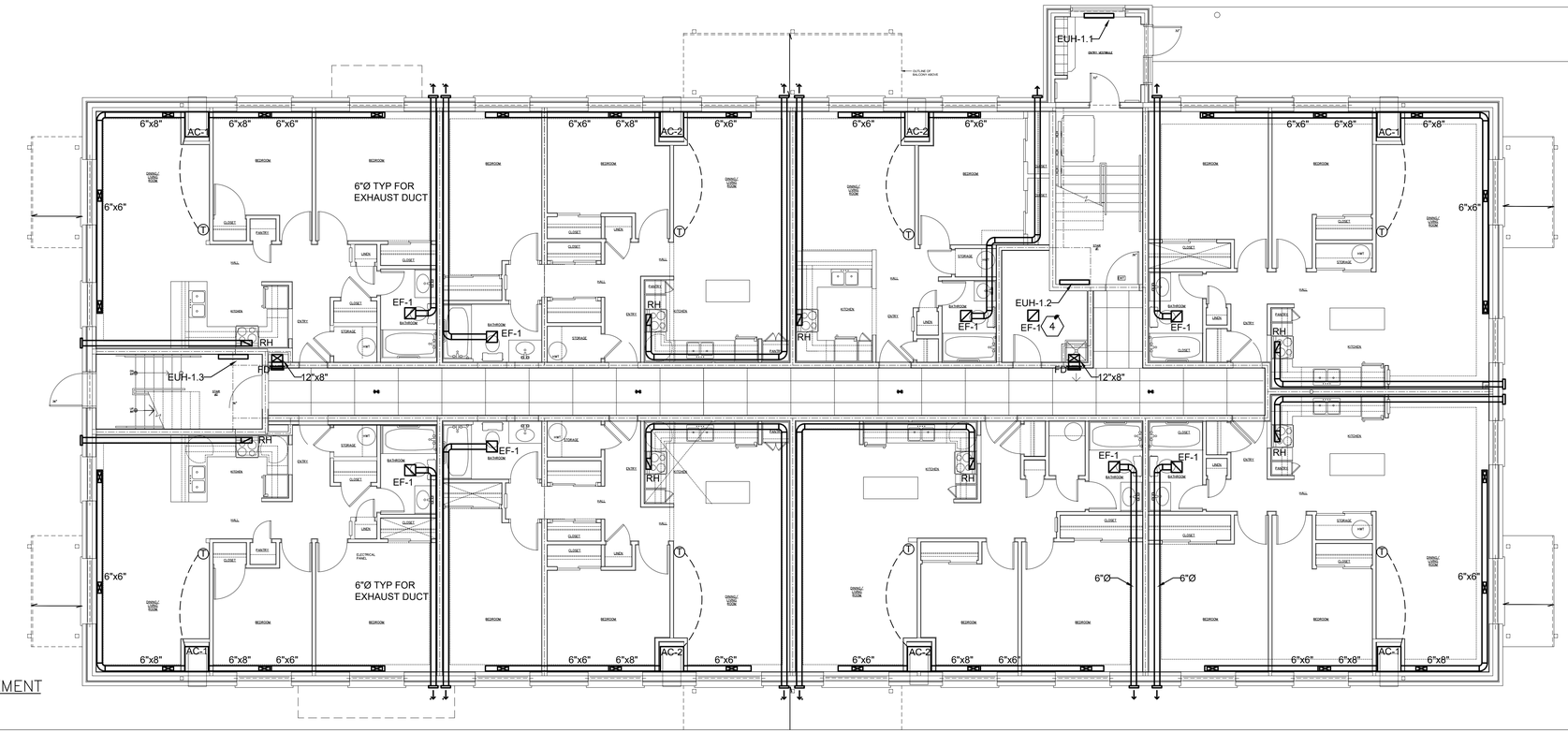
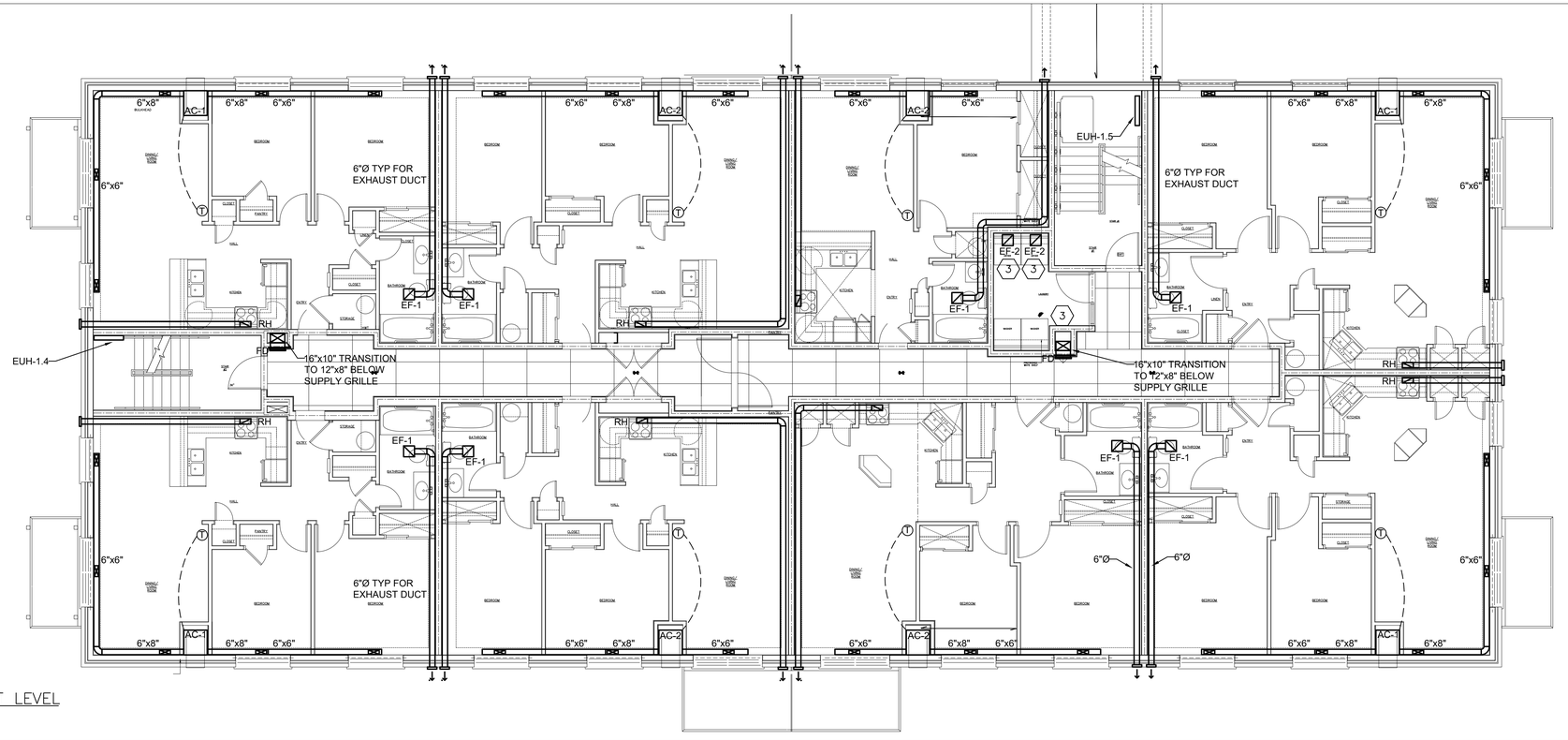
TITLE
DOMESTIC WATER

DESIGN	CSM	SCALE AS NOTED
DRAWN	CSM	DWG NO.
CHECKED	IMK	M4
APPROVED	IMK	
PROJECT	6709	

CADD FILE NO. 6709M4



1 M5 HVAC BASEMENT
SCALE: 1:75



2 M5 HVAC FIRST LEVEL
SCALE: 1:75

GENERAL NOTES

1. 3/4" UNDERCUT ON ALL BEDROOM DOORS
2. STANDARD RESIDENTIAL GRADE SUPPLY GRILLES IN SUITE. COORDINATE COLOUR WITH ARCHITECT
3. RANGE HOOD COMPLETE WITH EXHAUST FAN (RH) TO BE STANDARD RESIDENTIAL GRADE, SELECTED BY CONTRACTOR IN COORDINATION WITH ARCHITECT

DRAWING NOTES

1. FRESH AIR SUPPLY DUCT UP THROUGH ROOF
2. MUA DUCTING TO DROP IN DUCT CHASE TO LOWER FLOORS. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS
3. DRYER BOOSTER FAN, COORDINATE DUCT ROUTING THROUGH DUCT CHASE WITH MUA DUCT AND DOMESTIC PIPING
4. EF-1 IN ELECTRICAL ROOM, COORDINATE DUCT ROUTING IN DUCT CHASE UP TO ROOF. COORDINATE WITH MUA DUCTING AND DRYER DUCTING. ACTIVATED BY REVERSE ACTING THERMOSTAT.

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR PERMIT	2020.11.11	CSM

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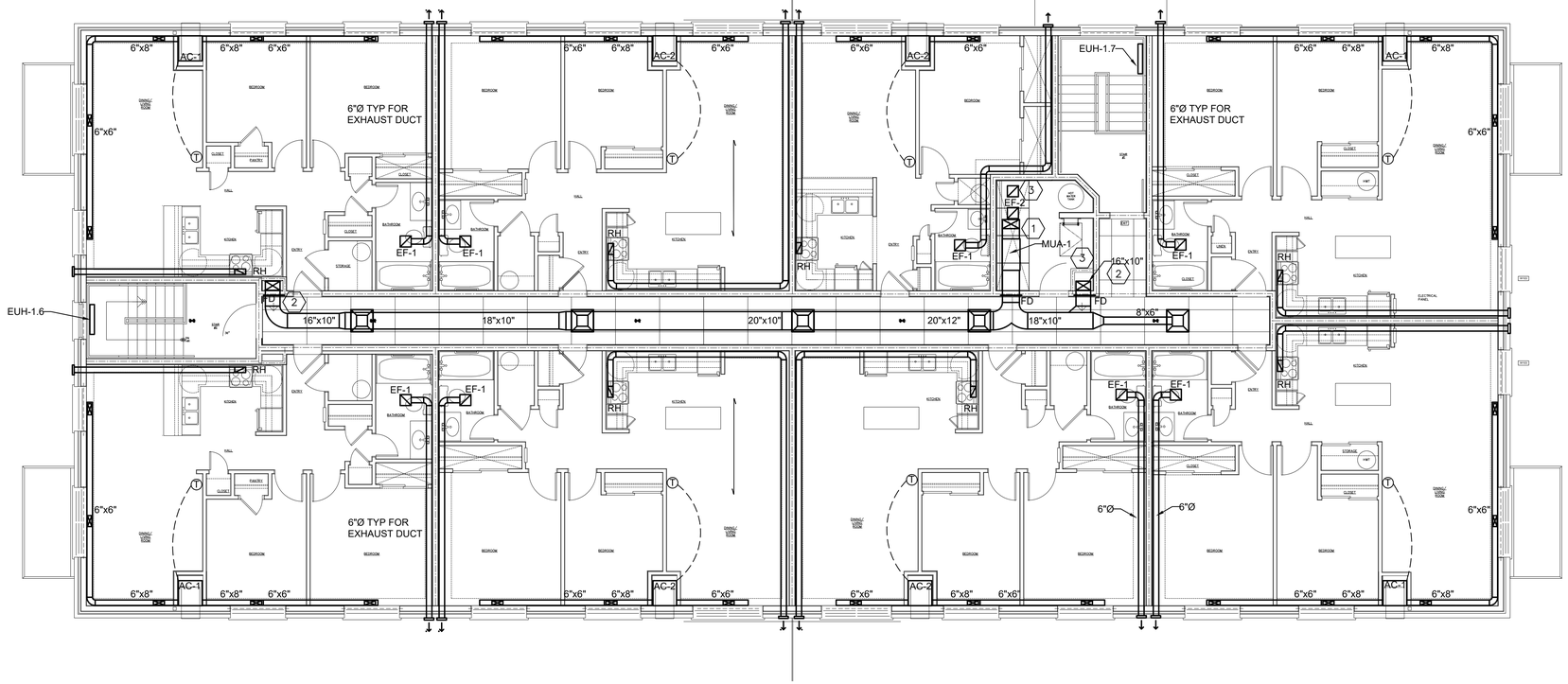
PROJECT
24 UNIT APARTMENT RECONSTRUCTION
48 WELLINGTON STREET

PORT HOPE, ONTARIO

TITLE
HVAC

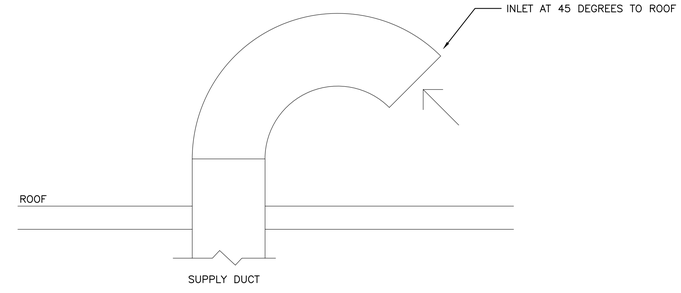
DESIGN	CSM	SCALE AS NOTED	
DRAWN	CSM	DWG NO.	M5
CHECKED	IMK		
APPROVED	IMK		
PROJECT	6709		

CADD FILE NO. 6709M5



1 M6 HVAC SECOND LEVEL
SCALE: 1:75

Minimum Fresh Air Requirements									
Room Name	Occupant Load	Square Footage (mm^2)	Square Footage (ft^2)	Occupancy Category (Ashrae 62.1 Table 6.2.2.1)	People Outdoor Air Rate (cfm/person)	Area Outdoor Air Rate (cfm/ft^2)	Fresh air Required (CFM)	Qty of suites/ corridors	Total Fresh Air (CFM)
Typ corner suites	3	66101303	711.50848	Residential - Dwelling Unit	5	0.06	57.69051	12	692.2861
Typ interior suites	3	67977259	731.7011	Residential - Dwelling Unit	5	0.06	58.90207	12	706.8248
Corridors	0	36595948	393.91549	General - Corridor	0	0.06	23.63493	3	70.90479
			0		0	0	0		
			0		0	0	0		
			0		0	0	0		
					Total		140.2275		1470.016
New MUA supplies 2000 CFM of fresh air which satisfies the fresh air requirements of 1471 CFM									



2 M6 TYPICAL FRESH AIR INTAKE ABOVE ROOF
SCALE: N.T.S.

GENERAL NOTES

1. ¾" UNDERCUT ON ALL BEDROOM DOORS
2. STANDARD RESIDENTIAL GRADE SUPPLY GRILLES IN SUITE. COORDINATE COLOUR WITH ARCHITECT
3. RANGE HOOD COMPLETE WITH EXHAUST FAN (RH) TO BE STANDARD RESIDENTIAL GRADE, SELECTED BY CONTRACTOR IN COORDINATION WITH ARCHITECT

DRAWING NOTES

1. FRESH AIR SUPPLY DUCT UP THROUGH ROOF. REFER TO 2–M6 FOR DETAILS
2. MUA DUCTING TO DROP IN DUCT CHASE TO LOWER FLOORS. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS
3. DRYER BOOSTER FAN, COORDINATE DUCT ROUTING THROUGH DUCT CHASE WITH MUA DUCT AND DOMESTIC PIPING

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TITLE
HVAC

DESIGN	CSM	SCALE	AS NOTED
DRAWN	CSM	DWG NO.	M6
CHECKED	IMK		
APPROVED	IMK		
PROJECT	6709		

CADD FILE NO. 6709M6

TRAP PRIMER SCHEDULE

IDEN.	MANUFACTURER	TYPE	MODEL	INLET & OUTLET	REMARKS
ETP–1	ZURN	ELECTRONIC TRAP PRIMER	Z1020–10	1/2"	ELECTRONIC TRAP PRIMER, 24VAC, 13mm INLET, PROGRAMMED ELECTRONIC TIMER, MANUAL OVERRIDE, 10 OUTLET c/w 120:24VAC TRANSFORMER
TP–2	WADE	PRESSURE DROP TRAP PRIMER	4402	1/2"	PRESSURE DROP ACTIVATED TRAP PRIMER. MOUNTING RANGE 20–80 PSIG. SUITABLE FOR CONNECTION TO ½" UP TO 1–1/2" COLD WATER PIPE.

EXHAUST FAN SCHEDULE

IDENT.	AREA SERVED	MAKE AND MODEL	POWER	CFM/STATIC PRESSURE	REMARKS
EF–1	APARTMENT WASHROOMS	REVERSOMATIC QCF–95	120/1/60 0.35A	85 CFM @ 0.15 ESP	COMPLETE WITH MOUNTING BRACKETS, GRILLE, ALUMINUM BACKDRAFT DAMPER. COMPLETE WITH REVERSOMATIC LOUVRE
EF–2	LAUNDRY ROOM	REVERSOMATIC TLD200L	120/1/60 1A	241 CFM @ 0.15 ESP	DRYER BOOSTER FAN, COMPLETE WITH LINT TRAP, REMOVABLE BY WING NUT. SEE–THRU PLEXIGLASS DOOR C/W LINT SCREEN. ORDERED COMPLETE WITH REVERSOMATIC PRESSURE SENSOR TO ACTIVATE FAN AT DETECTION OF POSITIVE PRESSURE FROM OPERATING DRYER. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PRESSURE SENSOR WIRING DIAGRAM

ELECTRIC UNIT HEATER SCHEDULE

IDENT.	AREA SERVED	QUANTITY	MAKE AND MODEL	POWER	HEATING CAPACITY (kW)	REMARKS
EUH–1.1 THRU EUH–1.7	ENTRIES AND STAIRWELLS	7	OUELLET OAC03000–T	208/1/60	3.0	3 kW ELECTRIC FAN FORCED UNIT HEATER, COMPLETE WITH KIT–OAC–BS1, SURFACE MOUNTING BOX, SINGLE UNIT. TAMPER PROOF INTEGRAL THERMOSTAT

IN SUITE AC SCHEDULE

IDENT.	AREA SERVED	QUANTITY	MANUFACTURER AND MODEL #	TYPE	POWER	HEATING CAPACITY	COOLING CAPACITY (MBH)	SEER	REMARKS
AC–1	CORNER APARTMENT SUITES	12	TOTAL HVAC SOLUTIONS 18SPXA–8	ELECTRIC CONDO PACK UNIT	208/1/60 AMPS: 34.2	8 kW	1.5 TONS	12	ELECTRIC CONDO PACK UNIT. ORDER COMPLETE WITH LOUVRE–ACCESS PANEL COMBINATION
AC–2	INTERIOR APARTMENT SUITES	12	TOTAL HVAC SOLUTIONS 12SPXA–5	ELECTRIC CONDO PACK UNIT	208/1/60 AMPS: 19.5	4.5 kW	1 TON	12	ELECTRIC CONDO PACK UNIT. ORDER COMPLETE WITH LOUVRE ACCESS PANEL COMBINATION.

MUA SCHEDULE

IDENT.	AREA SERVED	MANUFACTURER AND MODEL #	TYPE	POWER	CFM FRESH AIR @ ESP	COOLING CAPACITY (MBH)	REMARKS
MUA–1	CORRIDORS	MODINE MDB–112	GAS FIRED MAKE UP AIR	208/3/60 MOCP 20A	2000 CFM @ 0.15 ESP	NA	GAS FIRED, CEILING HUNG INDOOR MAKE UP AIR UNIT, DUCTED TO OUTSIDE THRU ROOF.

DHWH SCHEDULE

IDENT.	MANUFACTURER	MODEL	QUANTITY	STORAGE CAPACITY	ELECTRICAL	DESCRIPTION
DHWH	BRADFORD WHITE	M–1–20L6DS	24	19 USG	208V/1/60 2x1.5 kW	BRADFORD WHITE LOWBOY WATER HEATER. COORDINATE EXACT MOUNTING LOCATION WITH ARCHITECT.
DHWH–2	BRADFORD WHITE	M–2–40L6DS	1	40 USG	208V/1/60 2x3kW	BRADFORD WHITE LOWBOY WATER HEATER. COORDINATE EXACT MOUNTING LOCATION WITH ARCHITECT.

PLUMBING/GENERAL SCHEDULE

IDENT.	ITEM	MANUFACTURER	MODEL	DESCRIPTION
FD	FLOOR DRAIN	MIFAB	F1100	2" CAST IRON FLOOR DRAIN WITH POLISHED NICKEL BRONZE STRAINER
CO	CLEAN OUT	MIFAB	C1100	CAST IRON CLEANOUT, SIZE TO SUIT PIPE
HB	EXTERNAL HOSE BIBB	WATTS	HY–725	FREEZELESS HOSE BIBB. LENGTH SHALL BE SELECTED BY CONTRACTOR TO SUIT WALL THICKNESS.

PLUMBING FIXTURE SPECIFICATIONS

WC – FLOOR MOUNTED TOILET – VITREOUS CHINA – TANK TYPE

American Standard Estate Vormax Right Height Elongated #207AA.104.020 Low consumption Toilet, 3070A.101, 4570A.104, 419 mm high, Vitreous china with EverClean antimicrobial surface which inhibits the growth of stain and odor causing bacteria mold and mildew, elongated bowl, White Finish, Floor Mounted, Siphon jet flush action and PowerWash rim siphon flushing system which scrubs bowl with every flush, 4.8 L (1.28 US Gal) per flush, CleanCurve rim eliminates rim area where dirt and buildup hide, 229 mm x 203 mm (9" x 8") water surface, Two (2) piece, Vormax flushing technology, Siphon jet flush action and PowerWash rim siphon flushing system which scrubs bowl with every flush, CleanCurve rim eliminates rim area where dirt and buildup hide, Unlined Tank, Left hand triplever, dual injection flush valves, 305 mm (12") rough–in, elongated bowl, 55 mm (2–3/16") fully glazed internal trapway, floor outlet, bolt caps, Toilet seat not included.
Centoco #800STS.001 Toilet Seat, extra heavy duty, For elongated bowl closed front, Solid plastic, With cover, Stainless steel check hinges, metal flat washers stainless steel posts and nuts. McGuire #LFH172BV Toilet Supply, Chrome plated finish polished brass, commercial duty 1/4 turn ball valve angle stops, 13 mm (1/2") I.D. Inlet x 127 mm (5") long rigid horizontal integral copper sweat tube nipples, combination V.P. Loose key handles, Escutcheon and flexible copper risers. Provide Floor Flange, (Same material as the connecting pipe drain), with all brass bolts and with rubber gasket.

L–1 COUNTER MOUNTED SELF–RIMMING / DROP–IN BASIN – SINGLE HANDLE FAUCET – BELOW DECK MECHANICAL WATER MIXING VALVE

American Standard Cadet Universal Access #9494.001.020 Basin, 3 holes, 4" (102 mm) center, 533 mm x 445 mm x 175 mm (21" x 17–1/2" x 6–7/8") high, Oval, Vitreous china, White Finish, Self–rimming / Drop–in, Side rear overflow, faucet ledge. Provide basin rim sealant. American Standard Colony Soft #2175563.002 Single handle Faucet, Polished Chrome finish, Metal body and color matched underbody, Aerator outlet, 107 mm (4–3/16") projection reach, Speed Connect cable operated non–metallic pop–up drain assembly with tailpiece, pop–up drain. Lawler #TMM–1070, Below Deck Mechanical Water Mixing Valve, Bronze body, temperature adjusting dial, 10 mm (3/8") inlets and outlet compression fittings, high temperature thermostatic limit stop, shut–off with automatic reset when temperature exceeds 120 °F (48.8 °C), Integral checks, offer temperature range from full cold through 46 °C (114.8 °F). Provide tee, adaptors and flex. copper tubing to suit installation. Provide tempered water to hot side of faucet. McGuire #LFH170BV Faucet Supplies, Chrome plated finish polished brass, commercial duty 1/4 turn ball valve angle stops, 13 mm (1/2") I.D. Inlet x 127 mm (5") horizontal extension tubes, convertible 1/4 turn/loose key handles, Escutcheon and flexible copper risers. McGuire #8872C P–Trap, heavy cast brass adjustable body, with slip nut, 32 mm (1–1/4") size, Shallow wall flange and Seamless tubular wall bend.

BT – BATH – ACRYLIC – ALCOVE – PRESSURE BALANCING COMPLETE BATH/SHOWER KIT

American Standard Boulevard #2530.102.020/2530.202.020 Bath, High gloss acrylic capped ABS with fiberglass reinforcement construction, Rectangular, installation dimensions of 1524 mm x 762 mm x 470 mm (60" x 30" x 18–1/2"), Right or left hand outlet (according to plan), Recessed alcove installation, Integral curved apron, Integral lumbar support, integral tiling flange on 3 sides, for below floor rough installation. Provide suitable reinforcement to sub floor for all supports. American Standard #1583.470.002 Universal Bath Drain, Brass tubing and rotary pop–assembly, Polished chrome finish, 38 mm (1–1/2") cast brass fittings. Chicago Faucets #SH–PB1–06–100 Pressure balancing Complete Bath/Shower Kit, Chrome plated finish, Consisting of: Pressure Balancing shower trim and valve 171 mm (6–3/4") dia wall trim faceplate with on/off and temperature control single lever handle, integral service stops and adjustable hot limit safety stop. Multifunction Showerhead, 9.5 LPM (2.5 GPM) max flow rate (@ 80 PSI), pressure compensating flow control, wall mount shower arm and wall flange. 137 mm (5–3/8") long Diverter Tub Spout.

KS – UNDER COUNTER SINK – SINGLE HANDLE FAUCET – BELOW DECK MECHANICAL WATER MIXING VALVE

Franke Commercial #UCD6408P–1 Double Bowl Under counter sink, 794 mm (31–1/4") wide x 460 mm (18–1/8") long x 203 mm (8") high deep, Counter mounted, no ledge, Grade 18–10 18 GA. (1.2 mm) type 304 stainless steel, Satin finish rim and bowls, Mounting kit provided, Fully undercoated to reduce condensation and resonance, 3–1/2" (89 mm) crumb cup waste assembly with 1–1/2" (38 mm) tailpiece.
American Standard Colony Soft #4175561.002 Single handle Faucet, Polished Chrome finish, Metal deck plate, Aerator outlet, 216 mm (8–1/2") projection reach, memory position at preferred temperature settings, Color matched side spray. Lawler #TMM–1070, Below Deck Mechanical Water Mixing Valve, Bronze body, temperature adjusting dial, 10 mm (3/8") inlets and outlet compression fittings, high temperature thermostatic limit stop, shut–off with automatic reset when temperature exceeds 120 °F (48.8 °C), Integral checks, offer temperature range from full cold through 46 °C (114.8 °F). Provide tee, adaptors and flex. copper tubing to suit installation. Provide tempered water to hot side of faucet. McGuire #LFBV170 Faucet Supplies, Chrome plated finish polished brass, commercial duty 1/4 turn ball valve angle stops, 13 mm (1/2") I.D. Inlet x 127 mm (5") horizontal extension tubes, convertible 1/4 turn/loose key handles, Escutcheon and flexible copper risers. McGuire #8912CB P–Trap, heavy cast brass adjustable body, with slip nut, 38 mm (1–1/2") size, Box flange and Seamless tubular wall bend.

MS–1 – SERVICE / MOP SINK – TWO HANDLES FAUCET

Stern Williams #MTB–2424 Square Service / Mop Sink, 610 mm (24") wide x 610 mm (24") long x 254 mm (10") high deep, Floor mounted, terrazzo composed of pearl gray marble chips and Portland cement ground smooth, sealed to resist stain finish, cast brass drain with stainless steel strainer, 3"(75 mm) outlet.
Complete with drain gasket. American Standard Yoke #8344212.004 Wall Mounted Two handles Faucet, Rough Chrome finish, Flexible installation within the range of 7 3/4" (197 mm) to 8 1/4" (210 mm), Cast brass body, Washerless ceramic disc valve cartridges, 22.7 LPM (6.0 GPM) unrestricted hose end outlet, 152 mm (6") projection spout with atmospheric vacuum breaker and bucket hook, 248 mm (9–3/4") from wall to outlet reach, Vandal resistant lever handles, top brace. Stern Williams T–35 Hose and Wall Hook 36" (914 mm) long hose with 3/4" (19 mm) chrome coupling, stainless steel wall bracket. Stern Williams #T–40 Mop Hanger, stainless steel #4 finish, 24" (610 mm) long with 3 rubber spring loaded clips. Stern Williams BP Back Splash Panel 20 GA. (0.9 mm) type 304 stainless steel. Provide P–Trap, Same material as the connecting pipe drain.

MS–1 CORNER SERVICE / MOP SINK – TWO HANDLES FAUCET

Stern Williams #SBC–1700 Corner Service / Mop Sink, 610 mm (24") wide x 610 mm (24") long x 305 mm (12") high deep, Floor mounted, terrazzo composed of pearl gray marble chips and Portland cement ground smooth, sealed to resist stain finish, one piece stainless steel cast integral on threshold, 152 mm (6") drop front, cast brass drain with stainless steel strainer, 3"(75 mm) outlet. Complete with drain gasket. American Standard Yoke #8344212.004 Wall Mounted Two handles Faucet, Rough Chrome finish, Flexible installation within the range of 7 3/4" (197 mm) to 8 1/4" (210 mm), Cast brass body, Washerless ceramic disc valve cartridges, 22.7 LPM (6.0 GPM) unrestricted hose end outlet, 152 mm (6") projection spout with atmospheric vacuum breaker and bucket hook, 248 mm (9–3/4") from wall to outlet reach, Vandal resistant lever handles, top brace. Stern Williams T–35 Hose and Wall Hook 36" (914 mm) long hose with 3/4" (19 mm) chrome coupling, stainless steel wall bracket. Stern Williams #T–40 Mop Hanger, stainless steel #4 finish, 24" (610 mm) long with 3 rubber spring loaded clips. Stern Williams BP Back Splash Panel 20 GA. (0.9 mm) type 304 stainless steel. Provide P–Trap, Same material as the connecting pipe drain.

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR PERMIT	2020.11.11	CSM

REVISIONS

REGISTERED PROFESSIONAL ENGINEER I.M.KIRKLAND 2020.11.11 PROVINCE OF ONTARIO
ELECTRICAL BCIN 23395

NOT TO BE USED FOR CONSTRUCTION UNLESS SIGNED BY THE ENGINEER.

KIRKLAND ENGINEERING LTD.
570 Water Street
Peterborough, Ontario
K9H 3M8
p. (705) 745–2831
f. (705) 741–1526
www.kirklandeng.com

PROJECT
24 UNIT APARTMENT RECONSTRUCTION
48 WELLINGTON STREET

PORT HOPE, ONTARIO

TITLE
SCHEDULES

DESIGN	CSM	SCALE AS NOTED
DRAWN	CSM	DWG NO. M7
CHECKED	IMK	
APPROVED	IMK	
PROJECT	6709	

CADD FILE NO. 6709M7

GENERAL MECHANICAL SPECIFICATIONS

1. THE MECHANICAL DRAWINGS DO NOT SHOW ALL THE ARCHITECTURAL, STRUCTURAL AND ELECTRICAL DETAILS. INFORMATION INVOLVING ACCURATE DIMENSIONING OF THE BUILDING SHALL BE TAKEN FROM SITE BY CONTRACTOR. CONTRACTOR TO MAKE ANY NECESSARY MODIFICATIONS OR ADDITIONS, WITHOUT CHARGE, TO ACCOMMODATE THE SITE CONDITIONS.

2. EQUIPMENT TO BE AS SPECIFIED OR APPROVED EQUIVALENT. DESIGN BASED ON EQUIPMENT AS SPECIFIED IN EQUIPMENT SCHEDULE. ANY COST ASSOCIATED WITH USING EQUIPMENT OTHER THAN WHAT IS SPECIFIED IS THE FULL RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA WILL BE ALLOWED FOR THESE COSTS.

3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS, THE SPECIFICATION, AND ALL OTHER TENDER DOCUMENTS.

4. ALL EQUIPMENT TO BE INSTALLED PER STANDARDS, CODES, AND MANUFACTURERS INSTRUCTIONS C/W ALL ACCESSORIES, WITHOUT EXTRA COSTS.

5. ALL FLOOR MOUNTED EQUIPMENT TO BE PLACED ON HOUSE KEEPING PAD.

6. ALL PIPING AND DUCT WORK TO BE LABELED INCLUDING DIRECTION OF FLOW EVERY 8' AND EACH CHANGE IN DIRECTION.

7. CONTRACTOR IS RESPONSIBLE TO ENSURE ALL EQUIPMENT AND MATERIALS CAN FIT INTO MECHANICAL ROOM OR ITS PLACE, THROUGH FINISHED OPENINGS, OR THAT MATERIAL IS PLACED IN MECHANICAL ROOM AT APPROPRIATE PHASE OF CONSTRUCTION.

8. PRIOR TO SUBMITTING TENDERS, THE CONTRACTOR SHALL VISIT THE SITE TO DETERMINE ALL EXISTING CONDITIONS. ALLOW FOR ALL COSTS ASSOCIATED WITH COMPLETING THE WORK OF MECHANICAL DIVISION IN ACCORDANCE WITH EXISTING SITE AND BUILDING CONDITIONS. NO ALLOWANCE FOR EXTRA PAYMENTS TO THE CONTRACTOR WILL BE MADE BY THE OWNER FOR FAILING TO VISIT AND EXAMINE SITE CONDITIONS.

9. SUB-CONTRACTOR SHALL MAINTAIN SUCH INSURANCE AS WILL FULLY PROTECT BOTH THE OWNER AND THE SUB-CONTRACTOR FROM ANY AND ALL CLAIMS UNDER THE WORKMEN'S COMPENSATION ACT, ALSO ALL INSURANCE AS NOTED WITHIN ARCHITECTURAL GENERAL CONDITIONS.

10. MAINTAIN A SEPARATE SET OF WHITE PRINTS ON THE SITE AND NOTE ALL CHANGES AND DEVIATIONS FROM THE ORIGINAL DESIGN. TWO SETS OF THESE DRAWINGS SHOWING ALL AS-BUILT CONDITIONS SHALL BE FORWARDED TO THE ARCHITECT AT THE COMPLETION OF THIS CONTRACT AND BEFORE APPLYING FOR FINAL PAYMENT.

11. ADDITIONAL MONEY OVER THE CONTRACT PRICE SHALL NOT BE PAID UNLESS AN APPROVED CHANGE ORDER IS ISSUED BY THE ENGINEER. CLAIMS FOR EXTRAS SHALL BE SUBMITTED WITH A COMPLETE BREAKDOWN OF MATERIAL, LABOUR, HOURLY RATES, ETC.

12. BE RESPONSIBLE TO KEEP THE AREA CLEAN AT ALL TIMES AND TO PERIODICALLY REMOVE ALL DEBRIS.

13. ALL CUTTING AND PATCHING REQUIRED FOR THE WORK OF THIS DIVISION SHALL BE CARRIED OUT BY THIS DIVISION. CUTTING AND DRILLING SHALL BE PERFORMED IN A MANNER SO AS TO CAUSE LITTLE DAMAGE. BE RESPONSIBLE AND PAY FOR ANY DAMAGE TO THE BUILDING INCURRED BY WORK OF THIS DIVISION.

14. BE RESPONSIBLE TO COORDINATE THE INSTALLATION OF EQUIPMENT, DUCTING, PIPING, ETC. WITH OTHER TRADES AND THE OWNER'S REPRESENTATIVE PRIOR TO THE ACTUAL INSTALLATION.

15. BE RESPONSIBLE FOR MECHANICAL WORK UNTIL THE COMPLETION AND FINAL ACCEPTANCE, FOR REPLACING ANY ITEM THAT MAY BE DEFECTIVE, DAMAGED, LOST OR STOLEN WITHOUT ADDITIONAL COST TO THE OWNER OR DELAY TO THE COMPLETION OF THE PROJECT.

16. SHOP DRAWINGS AND PRODUCT DATA. 'SHOP DRAWINGS' MEANS DRAWINGS, DIAGRAMS, ILLUSTRATIONS, SCHEDULES, PERFORMANCE, CHARTS, BROCHURES, AND OTHER DATA WHICH ARE TO BE PROVIDED BY THE CONTRACTOR TO ILLUSTRATE DETAILS OF A PORTION OF THE WORK. INDICATE MATERIALS METHODS OF CONSTRUCTION AND ATTACHMENT OR ANCHORAGE, NECESSARY FOR COMPLETION OF WORK. ADJUSTMENTS MADE ON SHOP DRAWINGS BY OWNER OR ENGINEER ARE NOT INTENDED TO CHANGE CONTRACT PRICE. MAKE CHANGES IN SHOP DRAWINGS AS OWNER OR ENGINEER MAY REQUIRE. SUBMIT 6 HARD COPIES, OR 1 HIGH QUALITY ELECTRONIC COPY OF PRODUCT DATA SHEETS OR BROCHURES FOR ALL MECHANICAL EQUIPMENT. PROVIDE 2 MAINTENANCE MANUALS COMPLETE WITH WARRANTEE, CERTIFICATE OF INSPECTIONS, AND COPY OF ALL PRODUCT LITERATURE AND MAINTENANCE INFORMATION.

17. PRIOR TO FINAL INSPECTION DEMONSTRATE OPERATION OF EACH SYSTEM TO OWNER AND ENGINEER. INSTRUCT PERSONNEL IN OPERATION ADJUSTMENT AND MAINTENANCE OF EQUIPMENT AND SYSTEMS, USING PROVIDED OPERATION AND MAINTENANCE DATA AS BASIS FOR INSTRUCTION.

18. AFTER THE WORK IS COMPLETED, GIVE A WRITTEN GUARANTEE FOR ONE YEAR COVERING WORKMANSHIP AND MATERIALS. REPAIR OR REPLACE, WITHOUT EXPENSE TO THE OWNER, ANY DEFECTS DUE TO WORKMANSHIP OR MATERIALS WHICH IN THE OWNER'S OPINION, ARE NOT DUE TO MISUSE OR NEGLECT.

19. WHERE REQUIRED FOR UNDERGROUND SERVICE THE EXCAVATION, BACKFILL AND CONCRETE WORK SHALL BE BY THE GENERAL CONTRACTOR. THE MECHANICAL TRADE SHALL SUPERVISE THE PROCESSING OF CONCRETE TO ENSURE THEY ARE FREE FROM VOIDS AND SHALL ADVISE THE GENERAL CONTRACTOR OF THIS WORK FOR INCLUSION IN THE GENERAL CONTRACTOR'S TENDER PRICE.

20. THE MECHANICAL CONTRACTOR SHALL ENSURE THAT EVERY FIXTURE, PLUMBING APPLIANCE, INTERCEPTOR, CLEANOUT, VALVE, DEVICE OR PIECE OF EQUIPMENT SHALL BE LOCATED IN A MANNER THAT IT IS READILY ACCESSIBLE FOR USE, CLEANING, MAINTENANCE OR REPAIR. MECHANICAL CONTRACTOR SHALL PROVIDE ACCESS DOORS LARGE ENOUGH TO PERMIT EASY ACCESS TO CONCEALED FIXTURES, PLUMBING APPLIANCES, FIRE DAMPERS, INTERCEPTORS, CLEANOUTS, VALVES, DEVICES OR PIECES OF EQUIPMENT.

21. CONTRACTOR SHALL CARRY THE SERVICES OF AN APPROVED FIRE STOPPING INSTALLER AND SHALL PROVIDE ALL FIRE STOPPING FOR ALL MECHANICAL AND ELECTRICAL PENETRATIONS. PROVIDE SHOP DRAWINGS FOR FIRE STOPPING MATERIALS USED.

GENERAL GAS SPECIFICATIONS

1. INSTALL GAS PIPING IN ACCORDANCE WITH LATEST EDITION OF CAN/CSA B149.1-00, NATURAL GAS & PROPANE INSTALLATION CODE INCLUDING LATEST AMENDMENTS, AND LOCAL AUTHORITY HAVING JURISDICTION.

2. PROVIDE COMPLETE DISTRIBUTION SYSTEM AND CONNECT TO ALL GAS APPLIANCES. PROVIDE UNION SYSTEM & SHUT OFF VALVES AT ISOLATION POINTS, AS INDICATED, AND AT GAS APPLIANCES.

3. TEST PIPING BEFORE APPLIANCES ARE CONNECTED AS REQUIRED BY THE GAS AUTHORITY.

4. VENTING FOR DIRECT VENT APPLIANCES SHALL CONFORM TO CSA 149.1 AND VLC S636 NATURAL GAS AND PROPANE INSTALLATION CODE.

GENERAL HVAC SPECIFICATIONS

1. PROVIDE DUCTWORK IN ACCORDANCE WITH A.S.H.R.A.E. AND S.M.A.C.N.A., LATEST EDITION. ALL DUCTS SHALL BE FABRICATED FROM PRIME QUALITY GALVANIZED STEEL AS PER A.S.H.R.A.E. STANDARDS. DUCTS SHALL BE INSTALLED AS HIGH AS POSSIBLE. PROPER ANGLE IRON SUPPORTS, HANGERS, ETC., SHALL BE PROVIDED FOR ALL DUCTS. SEAL ALL JOINTS OF DUCTS WITH HIGH PRESSURE SEALER. APPLY SEALANT TO OUTSIDE OF JOINTS AS PER MANUFACTURERS RECOMMENDATIONS. CONSTRUCT DUCTS IN ACCORDANCE WITH THE FOLLOWING:

MAX DUCT DIMENSION	U.S. GAUGE
UP TO 12"	26
13" TO 30"	24
31" TO 54"	22

CONSTRUCT ROUND DUCTS IN ACCORDANCE WITH THE FOLLOWING:

4" TO 8" DIAMETER – 26 GAUGE
9" TO 24" DIAMETER – 24 GAUGE

2. EQUIVALENT DUCT SIZES MAY BE SUBSTITUTED IN LIEU OF THOSE SHOWN, IN ORDER TO AVOID INTERFERENCE WITH STRUCTURE AND OTHER MECHANICAL SERVICES. CONTRACTOR TO PROVIDE DRAWINGS OF ANY PROPOSED CHANGES TO ENGINEER FOR APPROVAL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN DESIGN AIR FLOW WITH DUCT INSTALLATION. ALL SUPPLY & RETURN BRANCHES SHALL BE AT 45° TAKE OFFS.

3. THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF EQUIPMENT PRIOR TO FABRICATION AND INSTALLATION OF DUCTWORK. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED ELBOWS, DUCT ACCESSORIES, ETC. TO COMPLETE THE INTENT OF THE MECHANICAL DRAWINGS. NO EXTRA WILL BE ALLOWED FOR THIS WORK.

4. HVAC EQUIPMENT MUST NOT BE USED DURING CONSTRUCTION. DUCT OPENINGS SHALL BE COVERED TO KEEP OUT DUST AND DEBRIS. COMMISSIONING MUST NOT BE PERFORMED UNTIL ALL INTERIOR FINISHES ARE COMPLETE.

5. INSULATE ALL DUCTS IN ACCORDANCE WITH ASHRAE 90.1, LATEST EDITION.

6. MECHANICAL EQUIPMENT TO BE ISOLATED FROM DUCT WORK USING 6" FLEXIBLE DUCT CONNECTORS ON BOTH THE SUPPLY AND RETURN DUCTS.

7. ALL MITERED ELBOWS TO BE COMPLETE WITH DOUBLE THICKNESS AIR VANES. ALL RADIUSED ELBOWS TO BE COMPLETE WITH SPLITTER VANES PER SMACNA DUCT CONSTRUCTION STANDARDS.

8. PROVIDE VOLUME DAMPERS AT ALL DUCT BRANCHES AND TAKE-OFFS.

9. PROVIDE AN INDEPENDENT FIRM CERTIFIED BY NEBB TO CONDUCT TESTING, ADJUSTING AND BALANCING OF ALL MECHANICAL SYSTEMS AND COMPONENTS, INCLUDING ALL DUCTS AND HYDRONIC PIPING WITH NO EXTRA COST. SUBMIT WRITTEN REPORT IN TRIPLICATE TO MECHANICAL ENGINEER UPON COMPLETION.

10. MAXIMUM LENGTH OF FLEX DUCT PERMITTED IS 5' PER DIFFUSER. NO FLEX DUCT IS PERMITTED ON EXPOSED DUCT WORK.

11. PROVIDE FIRE DAMPERS IN DUCTS AT FLOOR, WALL, CEILING, AND ROOF PENETRATIONS WHERE FIRE SEPARATIONS ARE CROSSED, AND WHERE REQUIRED BY LOCAL AUTHORITIES AND CODES. FIRE DAMPERS SHALL MAINTAIN 100% FREE AREA OF DUCTWORK (TYPE 'B' FIRE DAMPERS). RATE FIRE DAMPERS TO MATCH THE FIRE RATING OF SEPARATION CROSSED. PROVIDE ONLY ULC LABELED DAMPERS AND INSTALL AS SPECIFIED IN NFPA/CUA 90A AND NO EXTRA WILL BE ALLOWED FOR THESE COSTS.

12. SUPPLY AND RETURN DUCTS SHALL BE CONNECTED TO THE HVAC UNIT THROUGH A FLEXIBLE NON METALLIC DUCT.

13. 10' OF ACOUSTIC SOUND INSULATION SHALL BE PROVIDED TO THE DUCTS AT THE BEGINNING NEAR THE HVAC UNIT WITH NO EXTRA COSTS.

14. SMOKE DETECTORS AT BOTH SUPPLY AND RETURN DUCTS SHALL BE PROVIDED TO AUTOMATICALLY SHUT DOWN UNITS UPON DETECTION OF SMOKE.

GENERAL PLUMBING SPECIFICATIONS

1. ALL HOT AND COLD WATER PIPING AFTER THE MAIN BUILDING CWS ISOLATION VALVE SHALL BE HARD COPPER TYPE L PIPING WHICH SHALL CONFORM TO ASTM B42 AND ASTM B88.

2. ALL DOMESTIC WATER PIPING & HOT WATER RECIRCULATING PIPING TO BE INSULATED c/w VAPOUR BARRIER. PIPE INSULATION TO CONFORM O.B.C. TABLE 12.3.4.5.

3. ALL DRAINAGE, WASTE, AND VENT PIPES 2" AND UNDER TO BE PVC DWV WITH FLAME SPREAD RATING < 25. PIPES ABOVE 2" DIAMETER TO BE METALLIC (STEEL, CAST IRON, COPPER).

4. WATER HAMMER ARRESTORS TO BE STAINLESS STEEL BELLOWS TYPE; WATTS SS-A OR APPROVED EQUIVALENT.

5. ROUTE ABOVE GROUND PIPING IN CEILING SPACE OF WALL INTERIORS FOR CONCEALMENT WHERE EVER POSSIBLE UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS. COORDINATE PIPE INSTALLATION IN WALLS WITH MASON AND OR DRYWALLER OR APPROPRIATE TRADE INVOLVED.

6. INSTALL ISOLATION VALVES IN EACH BRANCH LINE FROM MAINS AND AT BASE OF EACH RISER. PROVIDE A FIRE RATED ACCESS DOOR AT EACH CONCEALED VALVE.

7. INSTALL FLANGES OR UNIONS TO PERMIT REMOVAL OF EQUIPMENT WITHOUT DISTURBING PIPING SYSTEMS.

8. PROVIDE COMPLETE DRAINAGE AND VENT SYSTEMS TO SERVE FIXTURES AND ITEMS SPECIFIED AND AS SHOWN ON PLANS.

9. WHERE EXPOSED PIPES PASSES THROUGH FINISHED FLOORS, WALLS, OR CEILINGS, PROVIDE CHROME PLATED ESCUTCHEON WITH SET SCREW.

10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY MATERIALS & LABOUR TO MAINTAIN ALL FIRE SEPARATIONS AFFECTED BY THE WORK PERFORMED.

11. GRADE HORIZONTAL SANITARY DRAINAGE AND VENT PIPING AT MINIMUM 1:50.

12. ALL FAUCET AND TOILET SUPPLY LINES SHALL BE STAINLESS BRAIDED HOSE.

13. ALL FLOOR DRAINS TO BE TRAPPED, PRIMED, AND VENTED WITH STRAINER INSTALLED FLUSH WITH FINISHED FLOOR. SUPPLY AND INSTALL PRIMER AND TUBING FROM CLOSEST COLD WATER BRANCH, C/W SPECIALTY BLEED VALVE (P.P.P. OR EQUAL).

14. EXPOSED P-TRAPS SHALL BE CHROME PLATED BRASS.

15. SIZE OF DRAINAGE PIPE SERVING FIXTURES:

DISHWASHER	1-1/2"	FLOOR DRAIN	2"
LAVATORY	1-1/2"	SINK	1-1/2"
SHOWER	1-1/2"	WC	3"
URINAL	2"		

16. SIZE OF EITHER CWS & HWS ISOLATION VALVES SERVING FIXTURES:

DISHWASHER	1/2"	LAVATORY	1/2"
SINK	1/2"	SHOWER	1/2"
SERVICE SINK	1/2"	URINAL	3/4"
WC	1/2"	WF	1/2"

17. ALL PIPING FITTINGS WITH TERMINAL EQUIPMENT SHALL BE LEAD FREE.

18. THE CONTRACTOR IS RESPONSIBLE FOR THE INSULATION OF THE STORM PIPES INSIDE THE BUILDING AS REQUIRED BY CODES AND STANDARDS.

19. ALL PIPING IS TO BE STRAIGHT, PARALLEL AND PERPENDICULAR TO THE BUILDING STRUCTURE. SLOPE ALL PIPING TO DRAIN POINTS.

20. WHEN PIPE LAYING NOT IN PROGRESS, CLOSE OFF OPEN ENDS OF PIPE WITH WATER TIGHT PLUG OR CAP.

21. INSTALL CLEANOUTS AS PER THE PLUMBING CODE AND OR AS SHOWN ON DRAWINGS. ENSURE CLEAN OUTS ARE MADE ACCESSIBLE.

22. CONNECT FIXTURES COMPLETE WITH SUPPLIES AND DRAINS, TRAPPED, SUPPORTED, SANITARY LEVEL AND SQUARE WITH HOT WATER FAUCETS ON THE LEFT.

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR PERMIT	2020.11.11	CSM

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
I.M.KIRKLAND
2020.11.11
PROVINCE OF ONTARIO
ELECTRICAL BCIN 23395

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KIRKLAND ENGINEERING LTD.
570 Water Street
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f. (705) 741-1526
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PROJECT
24 UNIT APARTMENT RECONSTRUCTION
48 WELLINGTON STREET

PORT HOPE, ONTARIO

TITLE
SPECIFICATIONS

DESIGN	CSM	SCALE	AS NOTED
DRAWN	CSM	DWG NO.	M8
CHECKED	IMK		
APPROVED	IMK		
PROJECT	6709		

CADD FILE NO. 6709M8