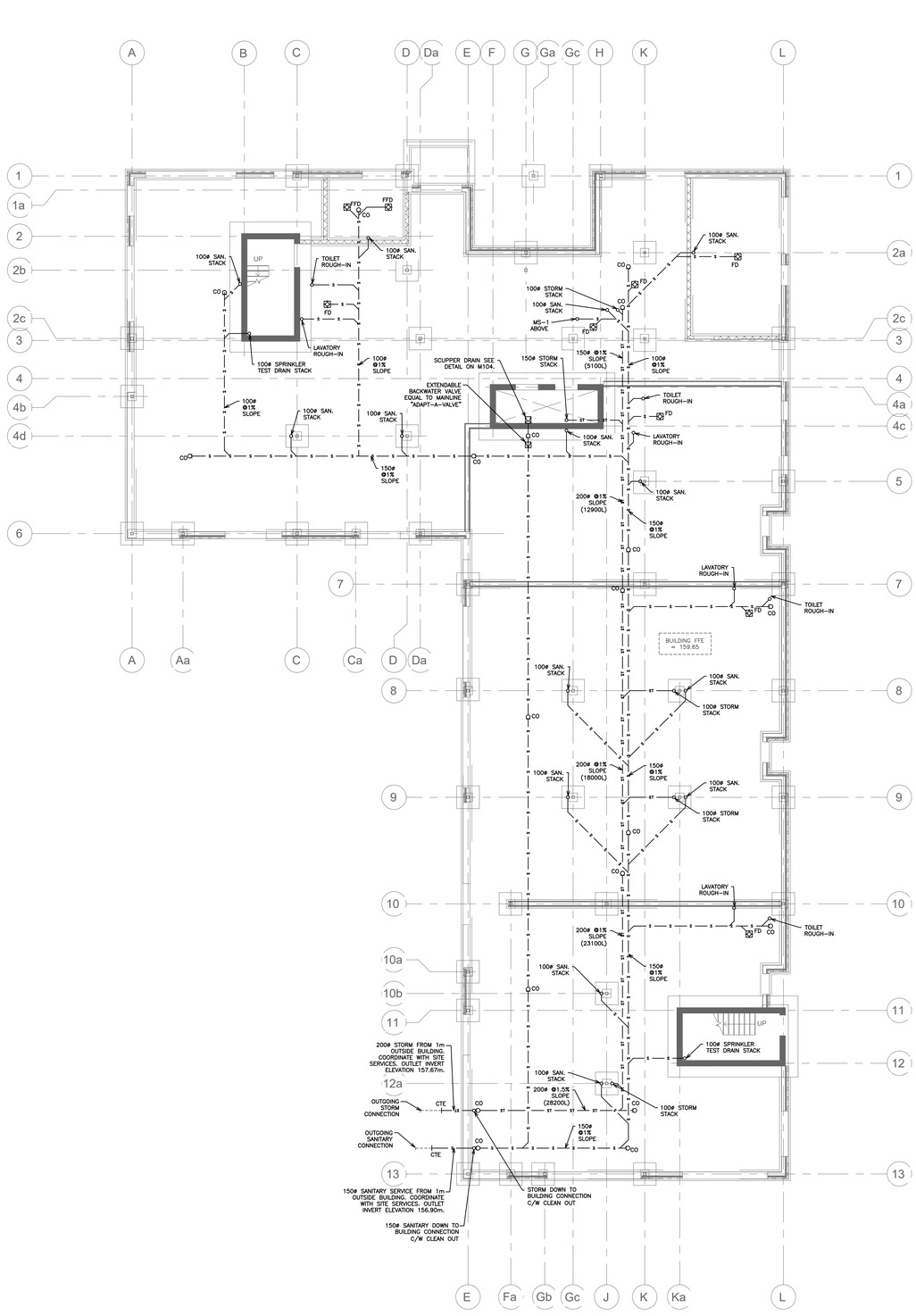
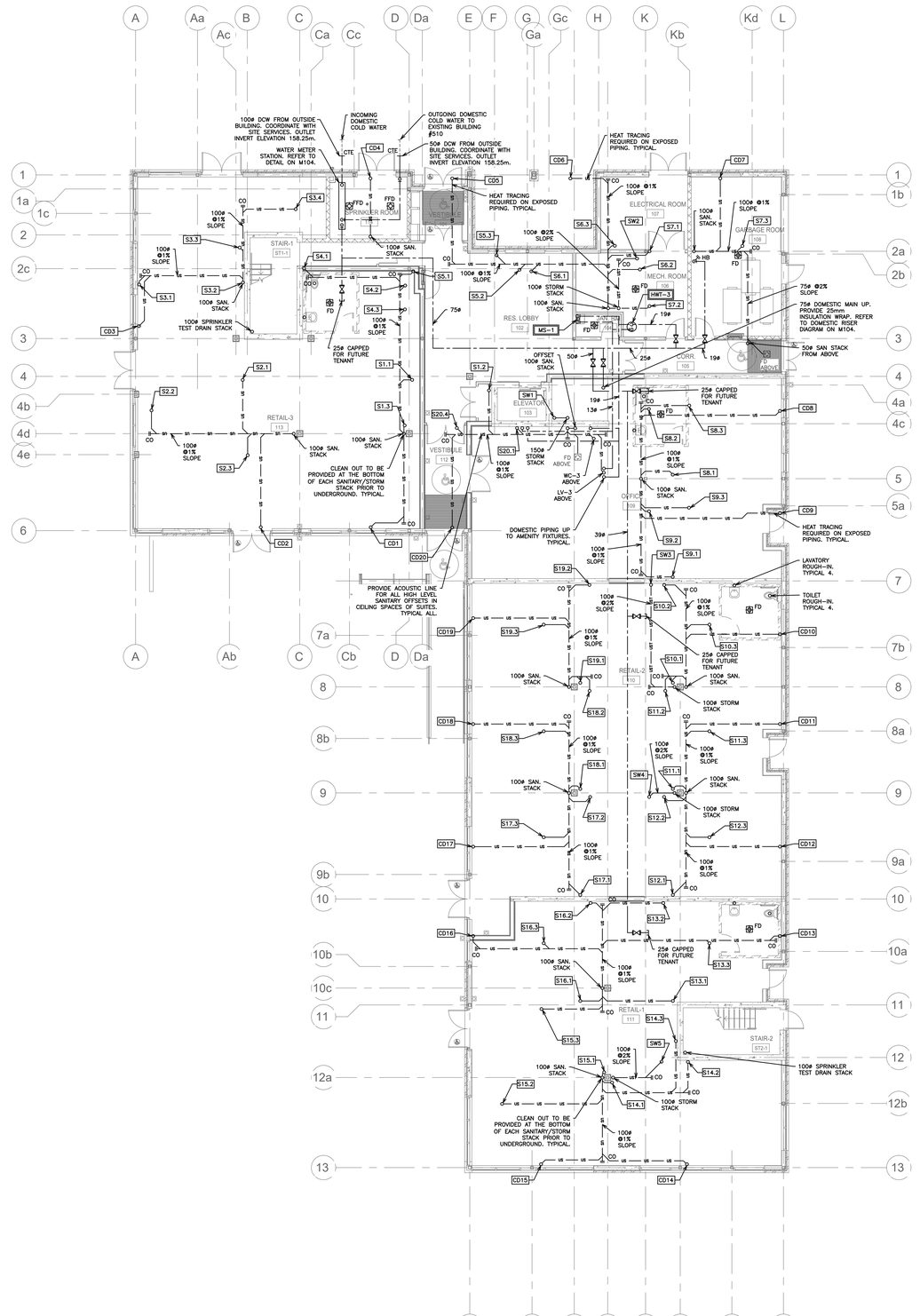


1 FOUNDATION PLUMBING PLAN
M101 SCALE: 1:100



2 GROUND FLOOR PLUMBING PLAN
M101 SCALE: 1:100

PLUMBING CONSTRUCTION AND COORDINATION NOTES:

1. TENDERING OF THESE DOCUMENTS IS DONE UNDER THE MUTUAL UNDERSTANDING THAT ALL CONTRACTORS ARE EXPERIENCED AND LICENSED IN THE WORKS BEING PROVIDED AND THAT ALL COMPONENTS OF A FULLY FUNCTIONING SYSTEM WILL BE INCLUDED WHETHER SHOWN OR NOT SHOWN BUT IMPLIED FOR A COMPLETE SYSTEM.

2. PIPING SHOWN FOR SCHEMATIC AND SCOPE OF WORK PURPOSES IN GENERAL LOCATION OF USE, COORDINATE EXACT ROUTING ON SITE AND WITH BEST PRACTICES.

3. ALL SANITARY AND STORM TO BE RUN AT A MINIMUM SLOPES. ALL HORIZONTAL SANITARY LINES EQUAL TO OR LESS THAN 3"ø TO BE RUN AT MINIMUM 2% SLOPE.

4. RUN ALL DOMESTIC AND SANITARY PIPING TIGHT TO UNDERSIDE OF SLAB

5. ALL PIPING SANITARY, STORM, AND DOMESTIC INCLUDING PEX PIPING BOTH EXPOSED AND CONCEALED SHALL ACCOMMODATE BOTH ACOUSTIC AND/OR INSULATION WRAP. CONTRACTOR TO COORDINATE. NO EXCEPTIONS.

6. COORDINATE SHARED SPACES WITH ELECTRICAL, GAS PIPING, HVAC DUCTWORK AND SPRINKLER PIPING.

7. COORDINATE ALL HOLES THOUGH SLAB AND MASONRY WALLS WITH GENERAL CONTRACTOR PRIOR TO COMMENCEMENT OF WORK.

8. REFER TO DETAIL FOR SUGGESTED FIRE STOPPING OF PIPING THROUGH FIRE SEPARATIONS

9. COORDINATE ACCESS DOORS/PANELS FOR ISOLATION VALVES AND CLEANOUTS WITH GENERAL CONTRACTOR

10. PROVIDE CLEANOUTS AS REQUIRED BY CODE. SIZE OF CLEANOUTS TO BE SAME SIZE AS SANITARY/STORM LINES.

11. PROVIDE CLEANOUT AT THE BOTTOM OF EACH SANITARY/STORM STACK.

12. PROVIDE VENTS THROUGH ROOF AS REQUIRED BY CODE. CONTRACTOR TO SUPPLY VENTING DRAWING TO ENGINEER FOR APPROVAL BASED ON PROPOSED VENT LENGTHS AND BEST ROUTING BASED ON SITE CONDITIONS AND COORDINATION WITH OTHER TRADES. FINAL VENTING LAYOUT AND ROUTING TO BE RESPONSIBILITY OF CONTRACTOR.

13. PROVIDE ISOLATION VALVES AT ALL HOT WATER TANKS AND ALL FIXTURES.

14. COORDINATE BURIED SANITARY LINES WITH STRUCTURAL FOOTINGS.

15. THE CONSULTANT RESERVES THE RIGHT TO MAKE REASONABLE CHANGES REQUIRED TO ACCOMMODATE CONDITIONS ARISING DURING THE PROGRESS OF THE WORK, AT NO EXTRA COST TO THE OWNER.

PLUMBING LEGEND

— — — — —	DOMESTIC COLD WATER (DCW)
——— - - ———	DOMESTIC HOT WATER (DHW)
— us — us —	UNBURIED SANITARY DRAINAGE (US)
— s — s —	BURIED SANITARY DRAINAGE (S)
— ust — ust —	UNBURIED STORM DRAINAGE (UST)
— st — st —	BURIED STORM DRAINAGE (ST)
—o—o—10	PIPE UP, BRANCH DROPPING FROM TEE, PIPE DOWN
⌐	PIPE BREAK/CONTINUATION
FD (F), (R), (H), (FF), (A)	FLOOR (F), ROOF (R), HUB (H), FUNNEL (FF), AREA (A) DRAIN
	BALL VALVE
	CHECK VALVE
	GLOBE VALVE
	PRESSURE REDUCING VALVE (PRV)
	REDUCER
	STRAINER
	UNION
	PRESSURE GAUGE WITH PETCOCK
—CO	CLEAN OUT – EXPOSED
CO—	CLEAN OUT – IN FLOOR
	SANITARY TRAP
WC-1	EQUIPMENT/FIXTURE TAG

NO.	SUBMISSION	DATE
4	ISSUED FOR PERMIT	SEP 2026
3	ISSUED FOR 90% COORDINATION	AUG 2026
2	ISSUED FOR 80% COORDINATION	JULY 2026
1	ISSUED FOR 50% COORDINATION	JULY 2026

RH GAY HOLDINGS CO.
510–520 TAUNTON RD EAST, OSHAWA, ON

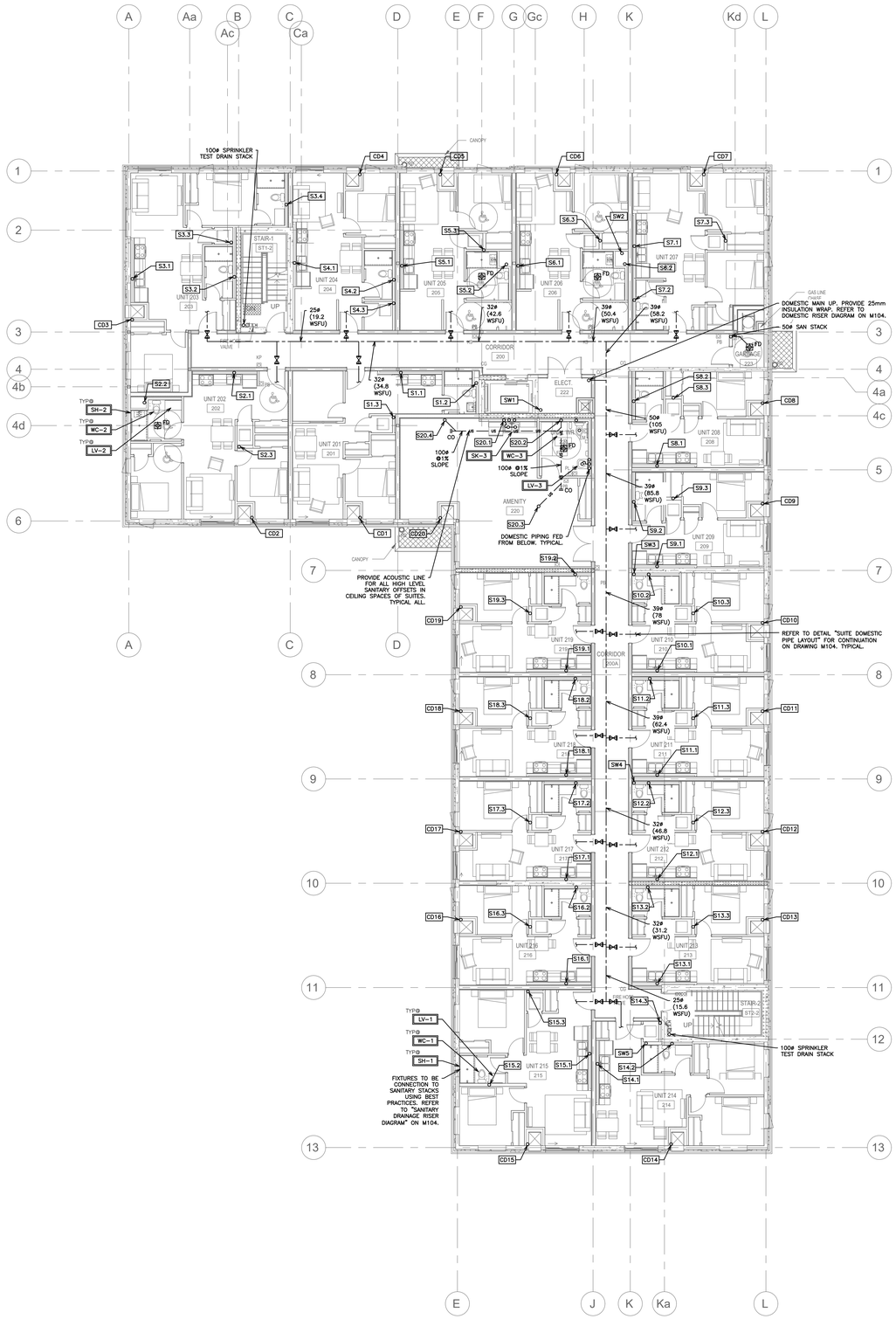
MECHANICAL PLUMBING FOUNDATION & GROUND

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
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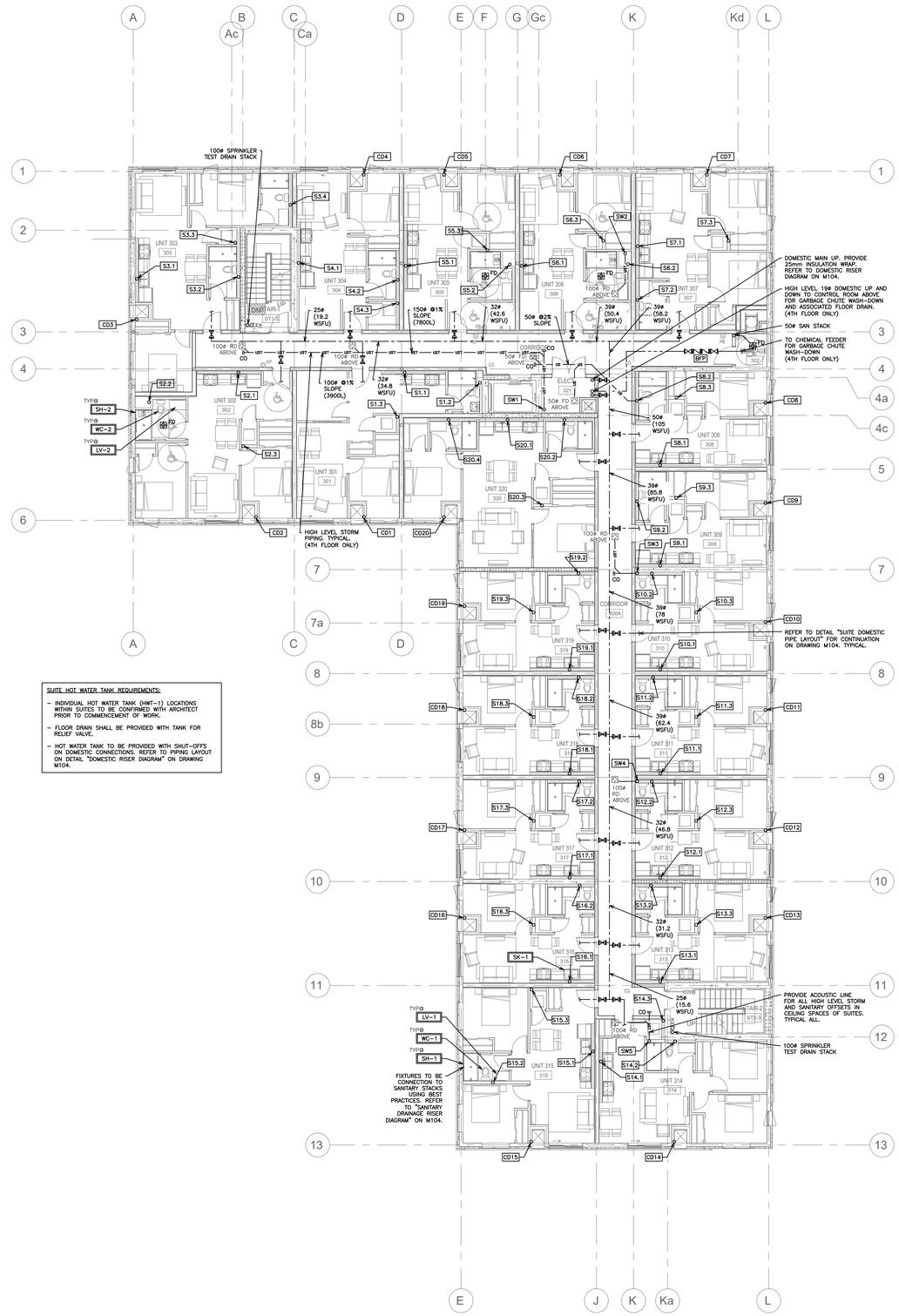
LICENSED PROFESSIONAL ENGINEER
G.V.W. OSBORNE
100138545
Sep 25/2026
PROVINCE OF ONTARIO

SCALE:	1:100
DESIGNED BY:	B.C.A
CHECKED BY:	G.V.W.O
PROJECT NO.:	125724
DRAWING NO.:	M101

25/09/2026
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1 SECOND FLOOR PLUMBING PLAN
M102 SCALE: 1:100



2 TYPICAL 3RD TO 4TH PLUMBING PLAN
M102 SCALE: 1:100

SUITE HOT WATER TANK REQUIREMENTS:

- INDIVIDUAL HOT WATER TANK (HWT-1) LOCATIONS WITHIN SUITES TO BE CONFIRMED WITH ARCHITECT PRIOR TO COMMENCEMENT OF WORK.
- FLOOR DRAIN SHALL BE PROVIDED WITH TANK FOR RELIEF VALVE.
- HOT WATER TANK TO BE PROVIDED WITH SHUT-OFFS ON DOMESTIC CONNECTIONS. REFER TO PIPING LAYOUT ON DETAIL "DOMESTIC RISER DIAGRAM" ON DRAWING M104.

PLUMBING CONSTRUCTION AND COORDINATION NOTES:

1. TENDERING OF THESE DOCUMENTS IS DONE UNDER THE MUTUAL UNDERSTANDING THAT ALL CONTRACTORS ARE EXPERIENCED AND LICENSED IN THE WORKS BEING PROVIDED AND THAT ALL COMPONENTS OF A FULLY FUNCTIONING SYSTEM WILL BE INCLUDED WHETHER SHOWN OR NOT SHOWN BUT IMPLIED FOR A COMPLETE SYSTEM.
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4. RUN ALL DOMESTIC AND SANITARY PIPING TIGHT TO UNDERSIDE OF SLAB
5. ALL PIPING SANITARY, STORM, AND DOMESTIC INCLUDING PEX PIPING BOTH EXPOSED AND CONCEALED SHALL ACCOMMODATE BOTH ACOUSTIC AND/OR INSULATION WRAP. CONTRACTOR TO COORDINATE. NO EXCEPTIONS.
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13. PROVIDE ISOLATION VALVES AT ALL HOT WATER TANKS AND ALL FIXTURES.
14. COORDINATE BURIED SANITARY LINES WITH STRUCTURAL FOOTINGS.
15. THE CONSULTANT RESERVES THE RIGHT TO MAKE REASONABLE CHANGES REQUIRED TO ACCOMMODATE CONDITIONS ARISING DURING THE PROGRESS OF THE WORK, AT NO EXTRA COST TO THE OWNER.

PLUMBING LEGEND

— – — – —	DOMESTIC COLD WATER (DCW)
——— – – ———	DOMESTIC HOT WATER (DHW)
— UE — UE —	UNBURIED SANITARY DRAINAGE (US)
— S — S —	BURIED SANITARY DRAINAGE (S)
— UST — UST —	UNBURIED STORM DRAINAGE (UST)
— ST — ST —	BURIED STORM DRAINAGE (ST)
—o —o —to	PIPE UP, BRANCH DROPPING FROM TEE, PIPE DOWN
⌣	PIPE BREAK/CONTINUATION
XD	FLOOR (F), ROOF (R), HUB (H), FUNNEL (FF), AREA (A) DRAIN
	BALL VALVE
	CHECK VALVE
	GLOBE VALVE
	PRESSURE REDUCING VALVE (PRV)
	REDUCER
	STRAINER
	UNION
	PRESSURE GAUGE WITH PETCOCK
— S —CO	CLEAN OUT – EXPOSED
— S —CO	CLEAN OUT – IN FLOOR
	SANITARY TRAP
WC-1	EQUIPMENT/FIXTURE TAG

NO.	SUBMISSION	DATE
4	ISSUED FOR PERMIT	SEP 2026
3	ISSUED FOR 90% COORDINATION	AUG 2026
2	ISSUED FOR 80% COORDINATION	JULY 2026
1	ISSUED FOR 50% COORDINATION	JULY 2026

RH GAY HOLDINGS CO.
510–520 TAUNTON RD EAST, OSHAWA, ON

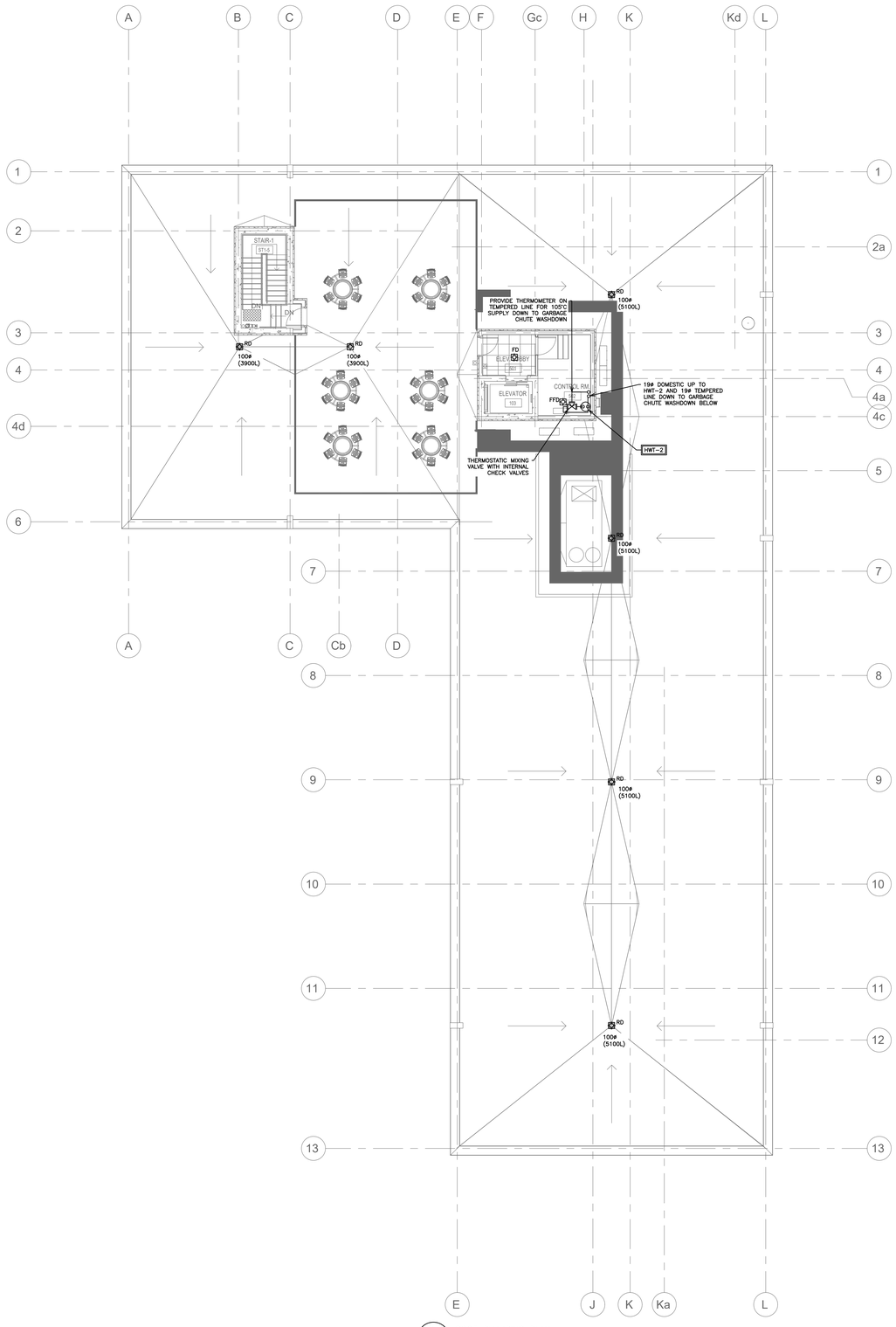
MECHANICAL PLUMBING 2ND & TYPICAL FLOOR

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
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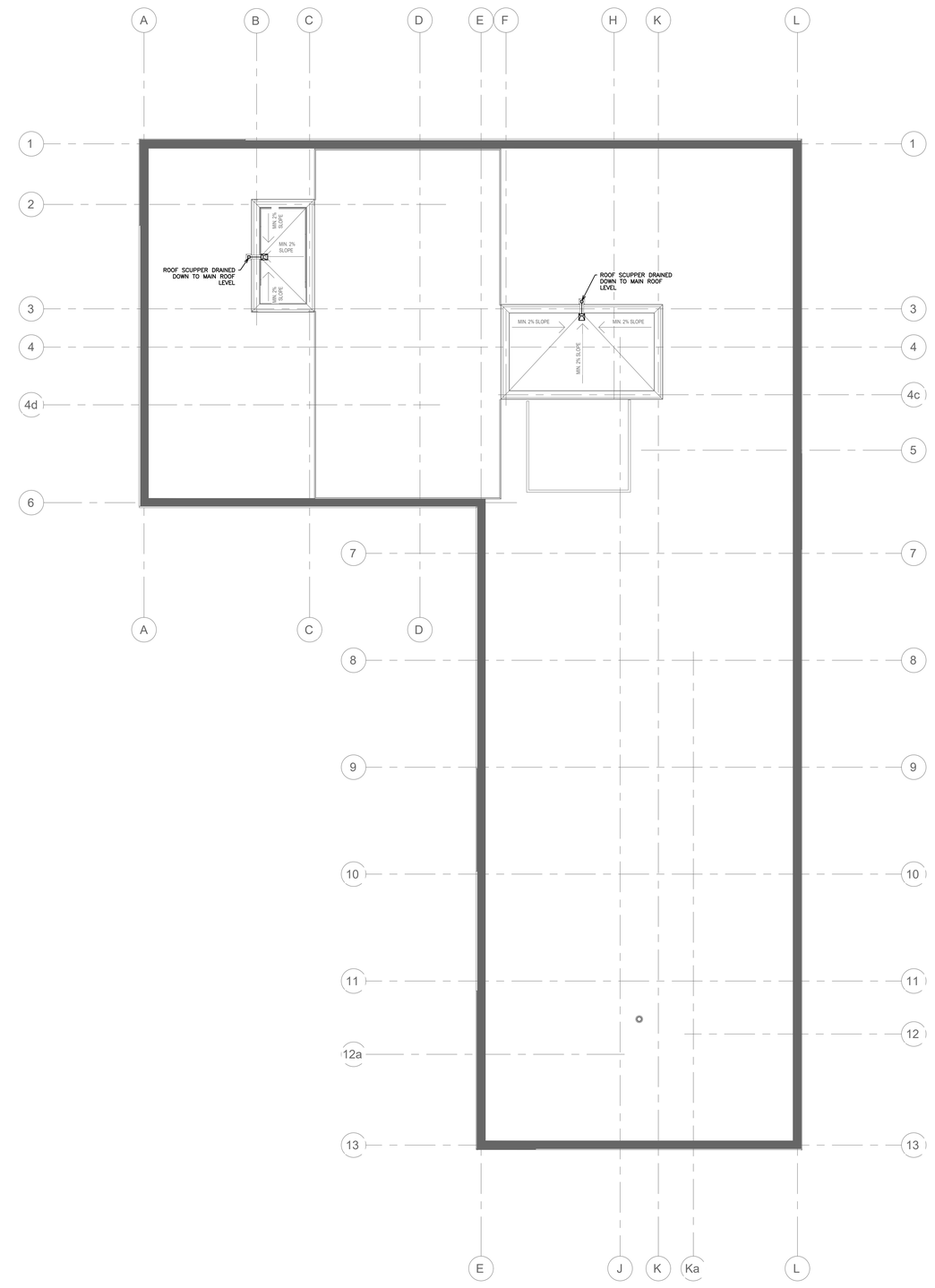
LICENSED PROFESSIONAL ENGINEER
G.V.W. OSBORNE
100138549
Sep 25/2026
PROVINCE OF ONTARIO

SCALE:	1:100
DESIGNED BY:	B.C.A
CHECKED BY:	G.V.W.O
PROJECT NO.:	125724
DRAWING NO.:	M102

25/09/2026
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1 M103 ROOF PLUMBING PLAN
SCALE: 1:100



2 M103 UPPER ROOF PLUMBING PLAN
SCALE: 1:100

PLUMBING CONSTRUCTION AND COORDINATION NOTES:

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PLUMBING LEGEND	
DCW	DOMESTIC COLD WATER (DCW)
DHW	DOMESTIC HOT WATER (DHW)
US	UNBURIED SANITARY DRAINAGE (US)
S	BURIED SANITARY DRAINAGE (S)
UST	UNBURIED STORM DRAINAGE (UST)
ST	BURIED STORM DRAINAGE (ST)
VD	PIPE UP, BRANCH DROPPING FROM TEE, PIPE DOWN
	PIPE BREAK/CONTINUATION
FD	FLOOR (F), ROOF (R), HUB (H), FUNNEL (FF), AREA (A) DRAIN
	BALL VALVE
	CHECK VALVE
	GLOBE VALVE
PRV	PRESSURE REDUCING VALVE (PRV)
	REDUCER
	STRAINER
	UNION
P	PRESSURE GAUGE WITH PETCOCK
CO	CLEAN OUT – EXPOSED
CO	CLEAN OUT – IN FLOOR
	SANITARY TRAP
WC-1	EQUIPMENT/FIXTURE TAG

NO.	SUBMISSION	DATE
4	ISSUED FOR PERMIT	SEP 2026
3	ISSUED FOR 90% COORDINATION	AUG 2026
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1	ISSUED FOR 50% COORDINATION	JULY 2026

RH GAY HOLDINGS CO.
510–520 TAUNTON RD EAST, OSHAWA, ON

MECHANICAL PLUMBING ROOF PLAN

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

LICENSED PROFESSIONAL ENGINEER
G.V.W. OSBORNE
100138545
Sep 25/2026
PROVINCE OF ONTARIO

SCALE:	1:100
DESIGNED BY:	B.C.A
CHECKED BY:	G.V.W.O
PROJECT NO.:	125724
DRAWING NO.:	M103

25/09/2026
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DOMESTIC HOT WATER HEATER SCHEDULE

TAG	UNIT LOCATION	SERVICE SYSTEM	WATTAGE	STORAGE CAPACITY	VOLTAGE	MAKE MODEL
HWT–1	SUITES	ELECTRIC WATER HEATER	4500W	74 GAL	208V	GIANT SUPER CASCADE 172E–2F8M
HWT–2	ELEVATOR CONTROL ROOM	ELECTRIC WATER HEATER	3000W	36 GAL	208V	GIANT STANDARD 142STE–2F7M
HWT–3	MECHANICAL ROOM	ELECTRIC WATER HEATER	3000W	49 GAL	208V	GIANT SUPER CASCADE 152E–2F8M

MINIMUM PIPE INSULATION THICKNESS – HEATING AND HOT WATER SYSTEMS BASED ON ASHRAE 90.1 TABLE 6.8.3A

FLUID OPERATING TEMPERATURE RANGE (°F) AND USAGE	INSULATION CONDUCTIVITY		NOMINAL PIPE OR TUBE SIZE (in)				
	CONDUCTIVITY Btu*in./(h*ft²*°F)	MEAN RATING TEMPERATURE, °F	<1	1 TO <1–1/2	1–1/2 TO <4	4 TO <8	≥8
105°F–140°F	0.22–0.28	100	1.0	1.0	1.5	1.5	1.5

PLUMBING FIXTURE SCHEDULES

*ALL SPECIFICATIONS TO BE CONFIRMED WITH OWNER AND ARCHITECT PRIOR TO ORDERING. SPECIFICATIONS TO BE PROVIDED TO ENGINEER FOR REVIEW/APPROVAL.

WC–1 – TOILET, FLOOR MOUNTED WITH FLOOR OUTLET
American Standard 215AA104.020 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.
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. toilet flexible copper riser tube (standard), 13 mm (1/2") Sweat inlet x 10 mm (3/8") O.D. outlet.
Centoco 900–001 Seat – Closed front Toilet seat With cover, For elongated bowl, White Centcore™ polypropylene shell over a composite molded wood core, Without Fire Retardant additive, Length–adjustable color–matched plastic hinges.

WC–2 (BF) – TOILET, FLOOR MOUNTED WITH FLOOR OUTLET
American Standard 215AA104.020 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.
Centoco 900–001 Seat – Closed front Toilet seat With cover, For elongated bowl, White Centcore™ polypropylene shell over a composite molded wood core, Without Fire Retardant additive, Length–adjustable color–matched plastic hinges.
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. toilet flexible copper riser tube (standard), 13 mm (1/2") Sweat inlet x 10 mm (3/8") O.D. outlet.

WC–3 (BF) – TOILET, FLOOR MOUNTED WITH FLOOR OUTLET
American Standard 215AA174.020 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.
Approved Alternatives: Acorn
Centoco 820STSFE–001 Seat – Open front Toilet seat With cover, For elongated bowl, White Polypropylene plastic, Color–matched plastic check hinges with one solid metal hinge pin and bolt.
Approved Alternatives: American Standard
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. toilet flexible copper riser tube (standard), 13 mm (1/2") Sweat inlet x 10 mm (3/8") O.D. outlet.

LV–1 – LAVATORY
American Standard 0614000.020 Basin – STUDIO, Undermount Lavatory, Vitreous china, White finish.
Chicago Faucets 420–T45E2805ABCP Faucet – Manual, Single handle, Lavatory faucet.
McGuire 155A 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 8872C P–Trap – Heavy cast brass, Polished chrome, 32 mm (1–1/4") x 32 mm (1–1/4") size, Adjustable P–Trap, With cleanout plug.

LV–2 (BF) – LAVATORY
DXV D20050000.415 Basin – POP, Undermount Lavatory, Vitreous china, Canvas white finish.
Chicago Faucets 420–T45E2805ABCP Faucet – Manual, Single handle, Lavatory faucet.
McGuire 155WC Fixture Drain – Offset drain, offset lavatory strainer, Lavatory, 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 PW2125WC P–Trap – Lavatory, 17 Gauge, Molded closed cell vinyl (anti–microbial) wrapped cast brass, Glossy white, 32 mm x 38 mm (1–1/4" x 1–1/2") size, Offset grid drain, With cleanout.

LV–3 (BF) – LAVATORY
American Standard 0955001EC.020 0059020EC.020 Basin – MURRO, Wall–hung Lavatory, Vitreous china, EverClean® antimicrobial surface, White finish.
Approved Alternatives: Zurn Z5321–PED
Sloan EFX–200–HLP–0.5GPM–MLM–IR–FCT Faucet – BASYS®, Automatic no–touch, Hardwired less plug adapter, Lavatory faucet, Integral above deck water supply shut off.
Approved Alternatives: American Standard
McGuire 155A Fixture Drain – Straight drain, Cast brass, Chrome–plated finish.
Approved Alternatives: Delta Commercial 33T260
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.
Approved Alternatives: McGuire
McGuire 8872C P–Trap – Heavy cast brass, Polished chrome, 32 mm (1–1/4") x 32 mm (1–1/4") size, Adjustable P–Trap, With cleanout plug.
Approved Alternatives: Delta Commercial 33T311, Kohler K–9018–0
Sloan SL–EAF–70–A Faucet and Flush Valve Power Kit – For faucet.
Approved Alternatives: American Standard
Lawler 570–86820 Mixing Valve – Point of Use and Master controlled fixtures, Thermostatic master water mixing control valve.
Approved Alternatives: American Standard 605XTMV1070.000
Watts WCA–411–CA–481 Carrier – WCA–411/WCA–411–WC, Lavatory carrier, For concealed arm carrier, adjustable arms, epoxy coated cast iron, Wall mounted steel support plate with plated hardware.

SK–1 – COMMERCIAL SINKS
Franke Commercial LBD6408–1–3 Sink – Counter mounted, Double compartment sink, constructed from 20 gauge Type 302 Stainless steel, 203 mm (8") centerset, with overall dimension, 794 mm (31–1/4") long, 521 mm (20–1/2") wide, 203 mm (8") high.
Approved Alternatives: Kohler
American Standard 7077300.002 Faucet – COLONY®, Manual, Single handle, Sink faucet.
Approved Alternatives: Kohler K–77515–CP
McGuire LFCK170 Supply – ICV DEFENDER Faucet Supply kit, consisting of (2) stop valves, (2) risers, (2) flanges (standard), Lead Free Brass body, Chrome–plated finish, Wheel handle (standard), 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 8912C P–Trap – Heavy cast brass, Polished chrome, 38 x 38 mm (1–1/2" x 1–1/2") size, Adjustable P–Trap, With cleanout plug.

SK–2 – COMMERCIAL SINKS
Franke Commercial ALBD6406P–1–1 Sink – Counter mounted, Double compartment sink, constructed from 18 gauge Type 304 Stainless steel, Single hole centerset, with overall dimension, 794 mm (31–1/4") long, 521 mm (20–1/2") wide, 152 mm (6") high.
GROHE 32665003 Faucet – CONCETTO, 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 PW8089 P–Trap – Sink, Molded closed cell vinyl (anti–microbial) wrapped cast brass, Glossy White, 1–1/2" x 1–1/2" (38 x 38 mm), With Cleanout.

SH–1 – SHOWER
MANUFACTURER/MODEL: LONGEVITY 60 IN. ADULT LIVING SHOWER 'AL1660–D', OR APPROVED EQUAL ACRYLIC 2–PIECE UNIT (SIMILAR TO MAAX ALLIA SH–6034 ACRYLIC ALCOVE SHOWER).
CONSTRUCTION: TWO–PIECE ACRYLIC ALCOVE INSULATED SHELL, SMOOTH FINISH.
COLOR: WHITE.

SH–2 – SHOWER (BF)
MANUFACTURER/MODEL: MAAX OUTLOOK 'BFS–6036A' ACRYLIC ALCOVE THREE–PIECE RECEPTACLE WITH CENTER DRAIN AND VERTICAL THRESHOLD.
COMPLIANCE: CSA COMPLIANT AND CERTIFIED.ACCESSIBILITY: ADA COMPLIANT FIXTURE CONFIGURATION.
CONTROLS: WALL–MOUNTED MIXING VALVE LOCATED ON BACK (LONG) WALL, MAXIMUM 27" (685 MM) FROM EDGE OF SHOWER SEAT PER CODE REQUIREMENTS.
ACCESSORIES: INTEGRAL GRAB BARS. SHOWER HEAD ASSEMBLY AND WAND MOUNTED TO BE FULLY ACCESSIBLE AND REACHABLE FROM THE SEATED POSITION.
COLOR: WHITE.

MS–1 – Mop Service Sink
Stern Williams MTB–2424–T–40–SS Sink – Floor mounted, Single compartment sink, constructed from Precast terrazzo, with overall dimension 610 mm (24") long, 610 mm (24") wide, 254 mm (10") high. Splash panels to be provided on walls.
American Standard 8354112.002 Faucet – Manual, Two handles, Mop sink faucet.

RD–1 – Roof Drain
MIFAB Series R1100, **Suffix's to be determined.
Lacquered cast iron roof drain with anchor flange, cast iron waterproofing membrane clamp ring with integral gravel stop, and standard self–locking polyethylene dome strainer with a free area of 43 square inches.

SD–1 – Pit Drain – PIT DRAIN WITH BACKWATER VALVE
Watts BV–603 Backwater Valve – Pit drain, backwater valve, Constructed from epoxy coated cast iron, 76 mm (3") pipe size, no hub outlet, Secured grate, 9677 mm² (15 sq. in.) free area.

Backwater Valve– IN–LINE BACKWATER VALVE WITH ACCESS HOUSING
Watts BV–244 Backwater Valve – Backwater valve, Constructed from Cast iron, 102 mm (4") pipe size, No hub connections, gasketed cover.

FD–1 – FLOOR DRAIN – FOR FINISHED AREA APPLICATION – MEDIUM DUTY (MD)
Watts FD–100–C–A5–1 Floor Drain – Epoxy coated cast iron, Floor drain, Adjustable Round 6 mm (1/4") thick top, No–hub outlet, 127 mm (5") diameter nickel bronze strainer.
Approved Alternatives: Jay R. Smith

WATER HAMMER ARRESTORS – THREADED WATER HAMMER ARRESTORS
PPP SC–500A Water Hammer Arrestor – Barrel–fabricated of type "L" hard drawn copper, NPT Connection, 1/2" (Fixture Units: 1–11) , 60 PSI, UPC Compliant, May be installed in new or existing plumbing systems with a standard pipe tee.
Approved Alternatives: Sioux Chief 652–A

TSP – Electronic – PRIME–TIME ELECTRONIC TRAP PRIMING ASSEMBLY
PPP PT–12–625 Trap Primer – Flush mount, electronic trap priming assembly, 3/4"" NPT female, serving 12 drains (ID Width 14" x height 16" cabinet) , 5/8" or 1/2"" compression fitting.

Trap Primer – FLOW ACTIVATED TRAP PRIMER
PPP PRO1–500–DU–U Trap Primer – flow activated trap primer, C68020 lead freebrass, 0.01 LPM (0.25 GPM) , 1/2" FNPT (12 mm) inlet, PVC body distribution unit with 4 – 3/8" FPT discharge fittings and 13 mm (1/2") male NPT composite inlet. Prime up to 4 floor drain., 1/2" FIP (12 mm) outlet.

BFP (DCVA – up to 2") – DOUBLE CHECK VALVE ASSEMBLY BACKFLOW PREVENTER TO PREVENT BACKFLOW DUE TO BACKPRESSURE AND/OR BACKSIPHONAGE POTABLE WATER SYSTEM FOR NON–HEALTH HAZARD APPLICATIONS
Watts LF007–QT–S 1/2 Backflow Preventer – Double check valve assembly backflow preventer, To prevent backflow due to backpressure and/or backsiphonage, Potable water system, For non–health hazard applications, Straight, Lead Free Cast copper silicon alloy body, Bronze finish, 13 mm (1/2") inlet FNPT inlet x 13 mm (1/2") outlet FNPT outlet, ASSE 1015 compliant.
Approved Alternatives: Ames Fire & Waterworks

BFP (DCVA – 2–1/2" and Above) – DOUBLE CHECK VALVE ASSEMBLY BACKFLOW PREVENTER TO PREVENT BACKFLOW DUE TO BACKPRESSURE AND/OR BACKSIPHONAGE POTABLE WATER SYSTEM FOR NON–HEALTH HAZARD APPLICATIONS
Watts 757–OSY 2 1/2 Backflow Preventer – Double check valve assembly backflow preventer, To prevent backflow due to backpressure and/or backsiphonage, Potable water system, For non–health hazard applications, Straight, Lead Free Type 304 (schedule 40) stainless steel body, Stainless steel finish, 64 mm (2–1/2") inlet Flanged joint inlet x 64 mm (2–1/2") outlet Flanged joint outlet, ASSE 1015 compliant.
Approved Alternatives: Ames Fire & Waterworks

BFP STRAINER – WYE–PATTERN CAST IRON STRAINERS
Watts 77F–DI–FDA–125–2–1/2 Y (Wye) Strainer – Lead free (The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight) Wye Strainer shall be created from Lead free cast iron body and double coated, heat fused FDA approved epoxy coating interior and exterior) for water service only Wye–Pattern cast iron strainers with 64 mm (2–1/2") size Flanged connections, For FDA sanitary applications, Standard screen is 1/16" 304 stainless steel perforated screen, 3/16" 304 stainless steel perforated screen.
Approved Alternatives: Febco

PRESSURE REGULATORS – LEAD FREE WATER PRESSURE REDUCING VALVES
Watts LF223–S–B Pressure Reducing Valve
Approved Alternatives: Watts

PRESSURE REGULATORS – LEAD FREE FLANGED SUPER CAPACITY WATER PRESSURE REDUCING VALVES
Watts LFN223F–S Pressure Reducing Valve
Approved Alternatives: Watts

HB–1– HYDRANT
Watts SC8–3 Hydrant – SC8–3 Lawn faucet, 1/2" or 3/4" regular pattern, dual sweat connection with vacuum breaker, Backsiphonage protection for po–table hoses connected to hose thread faucets, Separate non–removable vacuum breaker (with break–away screw).
Approved Alternatives: Zurn

NFWH – WALL HYDRANT – – NON–FREEZE HYDRANT
Watts HY–725 Hydrant – Wall Hydrant, Non–Freeze hydrant, all bronze head, 19 mm (3/4") female x 25 mm (1") male pipe connection, 19 mm (3/4") hose connection, Integral vacuum breaker.
Approved Alternatives: Zurn

Laundry Box – METAL LAUNDRY BOX (8–1/4" W X 6" H X 3–1/2" D)
PPP MM–500 MLB Laundry Box – Metal construction.
Approved Alternatives: PPP

Funnel Drain – FLOOR DRAIN – FOR FUNNEL APPLICATION
Watts FD–100–C–EG Floor Drain – Epoxy coated cast iron, Floor drain, Adjustable, No–hub outlet.

Floor Cleanout – FLOOR CLEANOUT – UNFINISHED AREA – MEDIUM DUTY (MD)
Watts CO–200–R Cleanout – Adjustable Floor cleanout, Epoxy coated cast iron, Round 130 mm (5–1/8") nickel bronze top Medium duty (MD) 900 – 2250 kg (2000 – 4999 lbs) safe live load.

Wall Cleanout – STACK CLEANOUT – WALL ACCESS
Watts CO–460–RD Cleanout – Non–adjustable Stack cleanout, Cast iron, Round Stainless steel access cover, No–hub outlet.

GENERAL REQUIREMENTS FOR MECHANICAL WORK

1. SCOPE OF WORK
1.1. CONFORM TO THE APPLICABLE PROVISIONS OF THE GENERAL CONDITIONS OF THE CONTRACT.
1.2. THE GENERAL MECHANICAL SPECIFICATIONS SHALL APPLY TO AND BE PART OF EACH OF THE SECTIONS COVERING THE MECHANICAL TRADES WORK.
1.3. COMPLY WITH THE REQUIREMENTS OF THE CURRENT EDITION OF THE O.B.C., ALL OTHER APPLICABLE CODES, REGULATIONS, BY–LAWS AND OFFICIAL STANDARDS ACCORDING TO THE REQUIREMENTS AND INTERPRETATIONS OF THE AUTHORITIES HAVING JURISDICTION. THESE CODES AND STANDARDS CONSTITUTE AN INTEGRAL PART OF THESE SPECIFICATIONS. IN CASE OF CONFLICT, THE CODES TAKE PRECEDENCE OVER THE CONTRACT DOCUMENTS.

2. EXAMINATION OF SITE AND INFORMATION
2.1. EACH SUBCONTRACTOR, BEFORE PRICING, SHALL EXAMINE THE SITE, THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS AND THEY SHALL FAMILIARIZE THEMSELVES WITH THE BUILDING CONSTRUCTION AND FINISH IN ORDER THAT THEIR TENDER MAY INCLUDE EVERYTHING NECESSARY FOR THE PROPER COMPLETION OF THE WORK.

3. RELATIONSHIP TO OTHER TRADES
3.1. THIS SUBCONTRACTOR SHALL CONFER WITH ALL OTHER CONTRACTORS INSTALLING EQUIPMENT, PIPING, OTHER WORK, FOUNDATIONS, ETC., WHICH MAY AFFECT THEIR INSTALLATION, AND THEY SHALL ARRANGE THEIR EQUIPMENT, PIPING, ETC., IN PROPER RELATION WITH OTHER APPARATUS, AND WITH THE BUILDING CONSTRUCTION. THIS SUBCONTRACTOR SHALL ALSO CONFIRM THE ELECTRICAL CHARACTERISTICS OF THE PROJECT AND ORDER EQUIPMENT ACCORDINGLY.
3.2. SPECIAL CARE SHALL BE TAKEN IN THE INSTALLATION OF ALL WORK, TO SEE THAT THEY ALL COME WITHIN THE LIMITS ESTABLISHED BY THE FINISH LINES OF ALL WALLS, FLOORS, CEILINGS, ETC.
3.3. THIS SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR AND OTHER SUBCONTRACTORS WHO ARE CONCERNED, OF ALL OPENINGS, FOUNDATION WORK, HANGERS, INSERTS, ANCHORS, OR OTHER PROVISIONS NECESSARY IN THEIR WORK FOR THE INSTALLATION OF THE SUBCONTRACTORS WORK, AND THEY SHALL FURNISH ALL INFORMATION AND NECESSARY MATERIALS IN AMPLE TIME SO THAT PROPER PROVISIONS CAN BE MADE FOR SAME, AND SHALL SUPPLY AND CORRECTLY AND ACCURATELY PLACE ALL INSERTS, SLEEVES, ANCHORS, ETC.
3.4. FAILURE TO COMPLY WITH THESE REQUIREMENTS ON THE PART OF THIS SUBCONTRACTOR WILL RENDER THEM RESPONSIBLE FOR THE COST OF CUTTING OPENINGS, INSTALLING HANGERS AND OTHER PROVISIONS AT A LATER DATE, AND THE SUBSEQUENT PATCHING, ETC., THEREBY REQUIRED.
3.5. NO CUTTING SHALL BE DONE WITHOUT PERMISSION. ALL SUCH WORK SHALL BE DONE BY TRADES–PERSONS SKILLED IN AND CERTIFIED FOR THIS PARTICULAR TRADE.
3.6. EACH SUBCONTRACTOR IS TO BE AN EXPERT IN THEIR TRADE.

4. REQUIREMENTS OF INSPECTION DEPARTMENTS
4.1. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL LAWS AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION IN EACH CASE, PARTICULARLY ALL AFFECTED DEPARTMENTS OF THE MUNICIPALITY AND PROVINCE. ELECTRICAL EQUIPMENT SUPPLIED MUST CONFORM TO THE REGULATIONS OF CSA AND THE LOCAL UTILITY. ANYTHING NECESSARY TO MAKE THE WORK COMPLY WITH THESE REQUIREMENTS SHALL BE PROVIDED BY THIS SUBCONTRACTOR WITHOUT ADDITIONAL COST TO THE OWNERS IF IT REASONABLY COULD HAVE BEEN FORESEEN WHEN TENDERING.
4.2. EACH SUBCONTRACTOR SHALL PREPARE DRAWINGS IN ADDITION TO ENGINEER'S DRAWINGS AS MAY BE REQUIRED BY VARIOUS INSPECTION DEPARTMENTS HAVING JURISDICTION, AND OBTAIN THEIR APPROVAL BEFORE PROCEEDING WITH THE WORK.
4.3. IN THE EVENT THAT THE INSPECTION DEPARTMENT'S REQUEST DEVIATES FROM THE ENGINEER'S LAYOUT, THE SUBCONTRACTOR SHALL CONSULT ENGINEER BEFORE PROCEEDING WITH THE SAME. IT SHALL BE NOTED THAT ENGINEER'S DRAWINGS ARE GENERALLY ACCEPTABLE TO INSPECTION DEPARTMENTS AND MINOR SUPPLEMENTS NEED ONLY BE MADE BY SUBCONTRACTORS.

5. CERTIFICATES, PERMITS, FEES
5.1. SUBCONTRACTORS SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL REQUIRED PERMITS AND PAY ALL FEES INCLUDING PAYMENT FOR STREET CONNECTIONS TO STORM, SANITARY, WATER AND GAS IN ORDER THAT THE WORK HEREIN SPECIFIED MAY BE CARRIED OUT AND THEY SHALL FURNISH ANY CERTIFICATES NEEDED AS EVIDENCE THAT THE WORK INSTALLED CONFORMS WITH THE LAWS AND REGULATIONS OF THE MUNICIPALITY AND PROVINCE.

6. GUARANTEE
6.1. THIS SUBCONTRACTOR SHALL GUARANTEE ALL MATERIAL AND WORKMANSHIP USED IN THE WORK TO BE IN STRICT ACCORDANCE WITH THE SPECIFICATIONS, OF BEST QUALITY AND TYPE OBTAINABLE TO GIVE FIRST–CLASS CONSTRUCTION AND PROPER EFFICIENT OPERATION, AND FREE FROM ANY DEFECTS. ANY SUCH DEFECTS WHICH MAY APPEAR IN ANY OF THE WORK WITHIN ONE YEAR AFTER WRITTEN ACCEPTANCE OF THEIR WORK, SHALL BE REPAIRED AND REPLACED BY THIS SUBCONTRACTOR WITHOUT ADDITIONAL EXPENSE TO THE OWNER. WHERE SUCH DEFECTS OCCUR, THIS SUBCONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL COSTS INCURRED IN MAKING THE DEFECTIVE WORK GOOD. THIS SHALL NOT OBSOLETE ANY LONGER WARRANTIES ON SPECIFIC ITEMS OF EQUIPMENT.
6.2. ALL INJURIES TO ADJACENT WORK, PARTICULARLY PLASTER, WOOD FINISHES OR OTHER MATERIALS, OR DAMAGE TO OTHER EQUIPMENT, CAUSED BY SUCH DEFECTS OF THIS SUBCONTRACTOR'S WORK OR BY SUBSEQUENT REPLACEMENT AND REPAIR, SHALL BE MADE GOOD AT THE EXPENSE OF THIS SUBCONTRACTOR. ALL REPAIR WORK SHALL BE DONE BY TRADES RESPONSIBLE FOR THE ORIGINAL WORK.

7. DRAWINGS
7.1. THE DRAWINGS SHOW THE APPROXIMATE LOCATION FOR SPECIAL APPARATUS AND THE MATERIALS THROUGHOUT THE BUILDING. THE ARRANGEMENT SHOWN ON THE DRAWING IS MORE OR LESS DIAGRAMMATIC AND AS SUCH APPROXIMATE ONLY, AND MAY BE ALTERED, AS APPROVED BY THE ENGINEER, TO MEET REQUIREMENTS OF THE APPARATUS, ETC., AND OF THE BUILDING. EACH SUBCONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL MEASUREMENTS FOR THEIR WORK THROUGHOUT, AND THEY SHALL ARRANGE THEIR PIPING, WIRING AND APPARATUS TO CONFORM TO THE ARCHITECTURAL AND STRUCTURAL DETAILS IN A SATISFACTORY MANNER AND SHALL CO–OPERATE WITH OTHER CONTRACTORS TO ENSURE THAT WORK SHALL MEET ALL REQUIREMENTS OF DIVERSE CONTRACTS.
7.2. ITEMS SHOWN ON THE DRAWINGS BUT NOT SPECIFIED OR SPECIFIED BUT NOT SHOWN SHALL BE INCLUDED.
7.3. ITEMS OBVIOUSLY REQUIRED TO PROVIDE A COMPLETE WORKING SYSTEM BUT NOT SPECIFIED NOR SHOWN SHALL BE INCLUDED.

8. RESPONSIBILITY AND LIABILITY
8.1. EACH SUBCONTRACTOR SHALL SUPERVISE THE LAYING OUT OF THEIR WORK AND SHALL ARRANGE IT IN CO–OPERATION WITH OTHER WHO MAY BE WORKING ON THE PREMISES WHILE THE WORK OF THIS CONTRACT IS IN PROGRESS. THEY SHALL PROTECT FINISHED AND UNFINISHED WORK OF THIS CONTRACT AND/OR WORK OF OTHERS ON THE PREMISES UNTIL THE COMPLETED WORK HAS BEEN ACCEPTED.
8.2. THE SUBCONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES FOUND IN THE DRAWINGS OR SPECIFICATIONS BEFORE SUBMITTING THEIR TENDER. THEY SHALL ABIDE BY DECISIONS GIVEN TO THEM IN WRITING WITH REGARD TO SAME. EACH SUBCONTRACTOR IS CAUTIONED THAT THE WORK AS SHOWN IS INTENDED TO BE COMPLETE IN ALL RESPECTS AND THAT FAILURE ON THEIR PART TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES WILL NOT RELIEVE THEM OF THE RESPONSIBILITY OF COMPLETING THE WORK AS INTENDED AT THE CONTRACT PRICE.

9. CLEAN–UP
9.1. DURING THE COURSE OF CONSTRUCTION, EACH SUBCONTRACTOR SHALL KEEP THEIR WORK TIDY AND NOT ALLOW AN ACCUMULATION OF DEBRIS RESULTING FROM THEIR WORK.
9.2. UPON COMPLETION OF THEIR WORK THEY SHALL LEAVE THE PREMISES IN A BROOM–CLEAN CONDITION.

10. PROTECTION
10.1. SUBCONTRACTORS ARE TO PROTECT THEIR WORK FROM CONSTRUCTION DIRT OR DAMAGE FROM ANY CAUSE. SECURELY PLUG AND CAP ALL OPENINGS IN PIPE, EQUIPMENT AND FIXTURES TO PREVENT OBSTRUCTIONS.

11. ELECTRICAL WIRING AND CONTROLS
11.1. ALL POWER WIRING FOR MECHANICAL EQUIPMENT SHALL BE DONE BY THE ELECTRICAL DIVISION. THE MECHANICAL TRADE INVOLVED SHALL PROVIDE STARTERS, THERMOSTATS, VALVES, CONTROL TRANSFORMERS, RELAYS, ETC. ALL CONTROL WIRING SHALL BE DONE BY THE MECHANICAL CONTRACTOR, UNLESS OTHERWISE NOTED ELSEWHERE IN THIS SPECIFICATION.

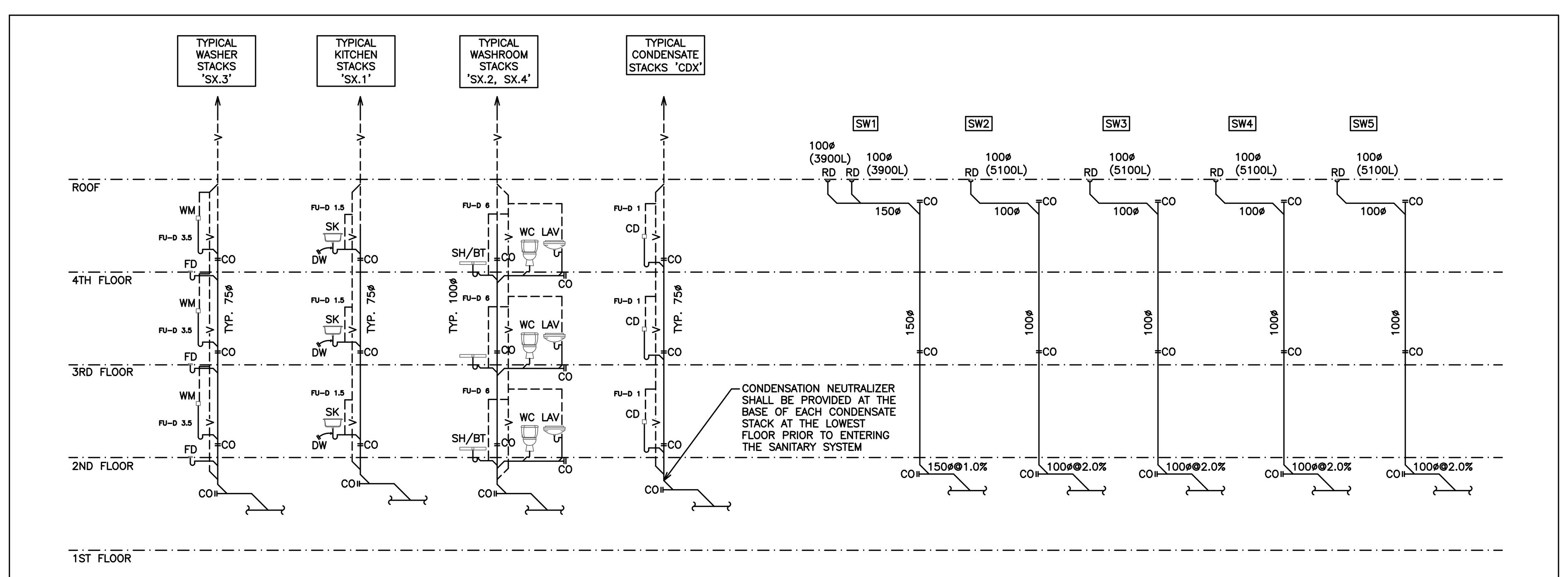
PLUMBING NOTES

1. GENERAL
1.1. FOR CONTINUATION OF SITE SERVICES REFER TO SITE SERVICE DRAWING BY OTHERS. CO–ORDINATE EXACT LOCATION AND INVERTS OF SERVICES.
1.2. PROVIDE CLEANOUTS AND TRAP PRIMING FOR SANITARY AS REQUIRED BY O.B.C. AND LOCAL AUTHORITIES. CLEANOUTS SIZE TO BE SAME AS SANITARY LINES.
1.3. PROVIDE COMPLETE PLUMBING VENT SYSTEM AS REQUIRED BY O.B.C. AND LOCAL AUTHORITIES, INCLUDING MIN. 3"ø VENT AT UPSTREAM END(S) OF SANITARY BUILDING DRAIN.
1.4. ISOLATION VALVES TO BE PROVIDED AT ALL FIXTURES AND HOT WATER TANK.
1.5. PIPE INSULATION TO BE 25mm FOR ALL NEW AND/OR EFFECTED DOMESTIC PIPING. IN EXPOSED AREAS PROVIDE CANVAS WRAP OVER INSULATION.

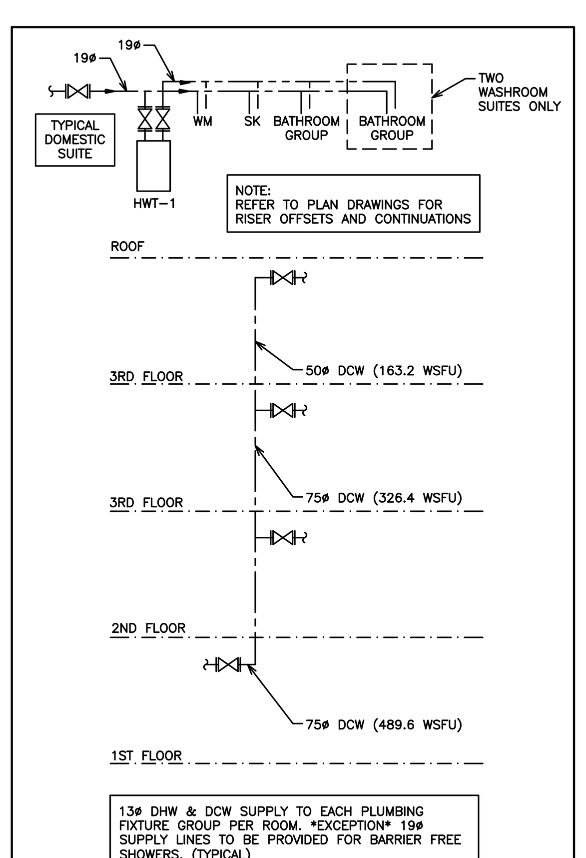
2. MATERIALS
2.1. ALL PVC OR ABS TYPE PIPING TO BE USED ABOVE GROUND SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS AND SHALL BE CONFIRMED TO BE ACCEPTABLE BY THE AUTHORITY HAVING JURISDICTION. IF ACCEPTABLE AND USED, IT SHALL BE PROVIDED WITH U.L.C. LISTED AND APPROVED FIRE STOP DEVICE AT ALL PENETRATIONS OF ANY FIRE SEPARATION.
2.2. ALL ABOVE GROUND DOMESTIC PIPING SHALL BE TYPE 'L' COPPER.
2.3. ALL BURIED DOMESTIC PIPING SHALL BE TYPE 'K' COPPER.
2.4. ALL ABOVE GROUND DRAINAGE PIPING SHALL BE CAST IRON 'MJ' PIPE.
2.5. ALL BURIED DRAINAGE PIPING SHALL BE DR26 PVC WITH CLASS P BEDDING.

TYPICAL PIPE SIZES (MILLIMETERS)

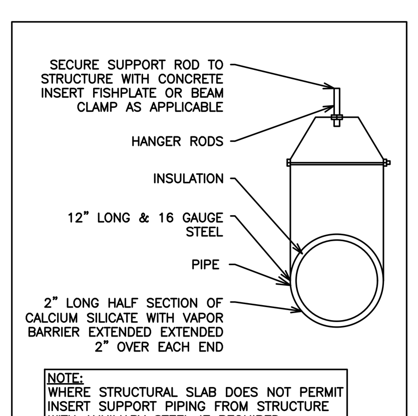
	DCW	DHW	SANITARY	VENT
WATER CLOSET (TANK)	13ø	–	75ø	39ø
LAVATORY	13ø	13ø	32ø	32ø
SHOWER	13ø	13ø	39ø	32ø
SINK	13ø	13ø	39ø	32ø
JANITORS SINK	13ø	13ø	50ø	32ø
CLOTHES WASHER	13ø	13ø	39ø	32ø
DISHWASHER (DOMESTIC)	–	13ø	39ø	–
HOSEBIBB & WALL HYDRANT	13ø	–	–	–
2" FD	–	–	50ø	–
3" FD	–	–	75ø	–



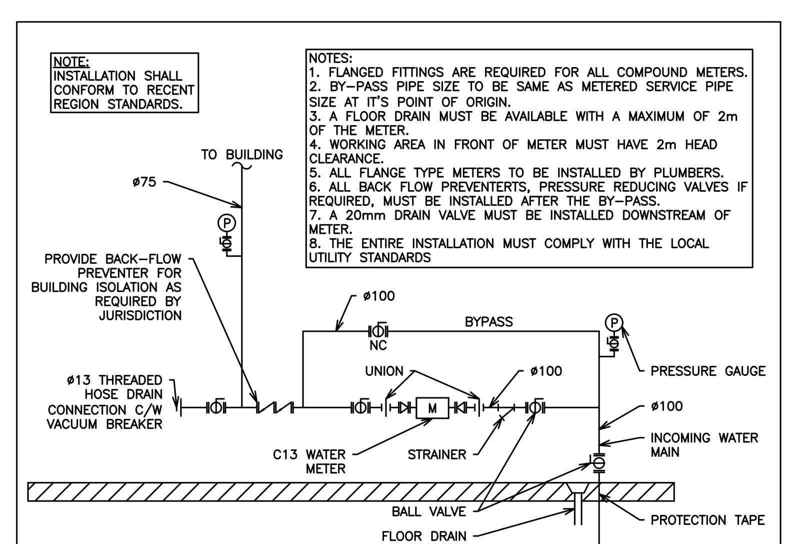
SANITARY AND STORM RISER DIAGRAMS
NTS REV. 1.2026



DOMESTIC RISER DIAGRAM
NTS REV. 1.2026

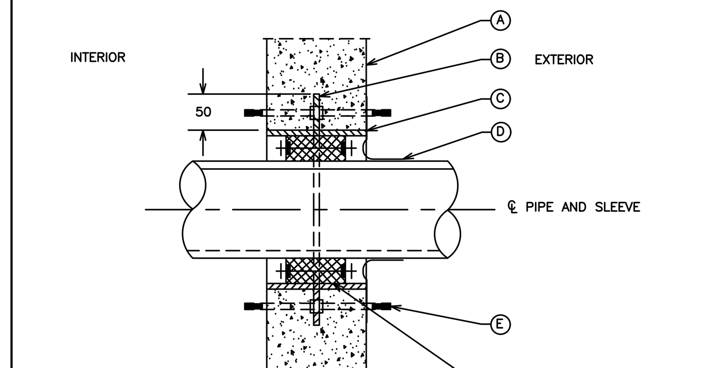


PIPE HANGER DETAIL
NTS REV. 1.2023



DOMESTIC WATER METER STATION DETAIL
NTS REV. 1.2023

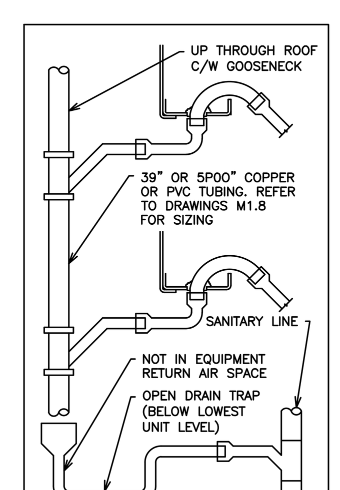
ITEM	DESCRIPTION
A.	EXTERIOR WALL
B.	WATER STOP AND ANCHOR COLLAR
C.	LINK–SEAL TYPE WALL SLEEVE MODEL WS OR CORE BIT DRILL WALL OPENING. DIA. AS REQ'D TO ACCEPT LINK SEAL ASSEMBLY
D.	EXTERIOR SURFACE OF SLEEVE, SEAL AND PIPE SHOULD BE COATED WITH COAL TAR OR OTHER WATERPROOFING MATERIAL
E.	25 DIA. GALVANIZED THREADED RODS FOR STRAPPING WATER MAINS. COORDINATE SPACING WITH FLANGERS AND SOCKET CLAMPS USED FOR TIE RODS
F.	LINK–SEAL TYPE WALL PENETRATION SEAL MODEL –LS– MODULAR MECHANICAL SYNTHETIC RUBBER SEAL



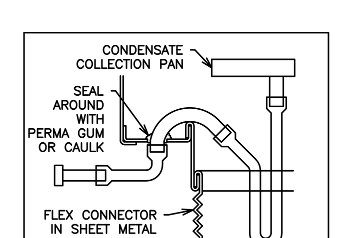
NOTES:

1. THE PIPE TO WALL PENETRATION CLOSURE SHALL BE "LINK–SEAL". SEALS SHALL BE MODULAR MECHANICAL TYPE, CONSISTING OF INTERLOCKING SYNTHETIC RUBBER LINK SHAPED TO CONTINUOUSLY FILL THE ANNULAR SPACE BETWEEN PIPE AND WALL OPENING. EACH LINK SHALL BE PROVIDED WITH PRESSURE PLATE UNDER EACH BOLT HEAD AND NUT. TIGHTENING OF BOLTS SHALL CAUSE THE RUBBER SEALING ELEMENTS TO EXPAND AND PROVIDE AN ABSOLUTELY WATERTIGHT SEAL BETWEEN PIPE AND WALL OPENING.

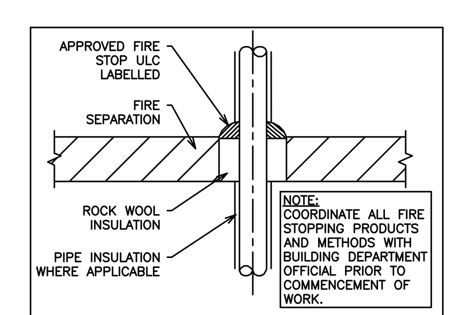
PIPE PENETRATION THROUGH EXTERIOR WALL
NTS



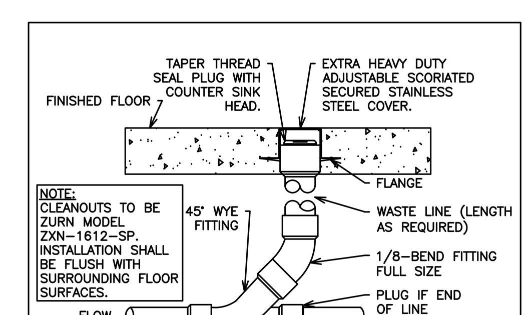
MULTI–STORY CONDENSATE REMOVAL SYSTEM DETAIL
NTS REV. 1.2023



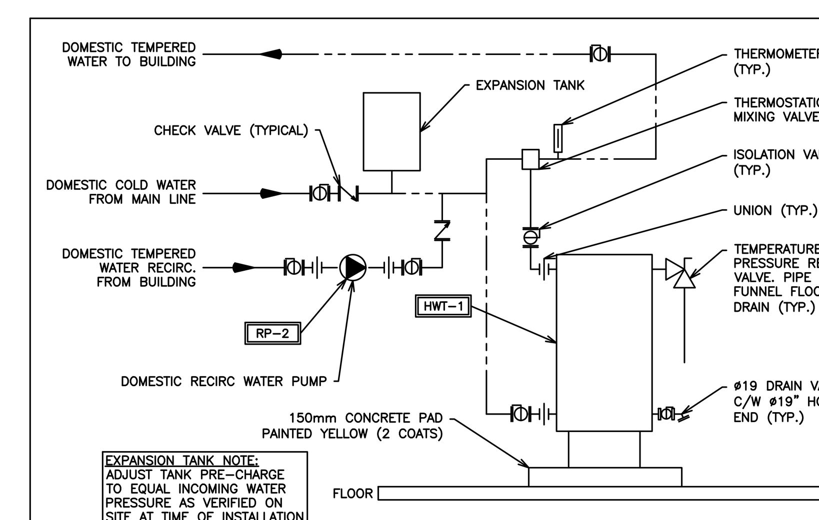
CONDENSATE TUBE EXIT WITH CLOSED DUCT DETAIL
NTS REV. 1.2023



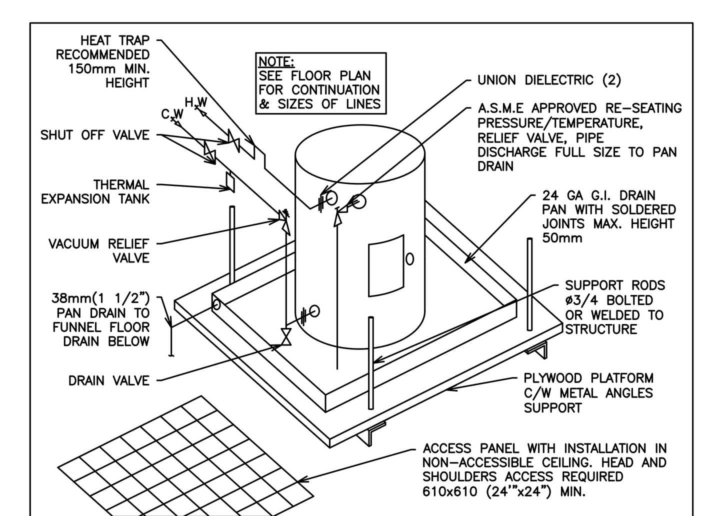
FIRE STOPPING DETAIL
NTS REV. 1.2023



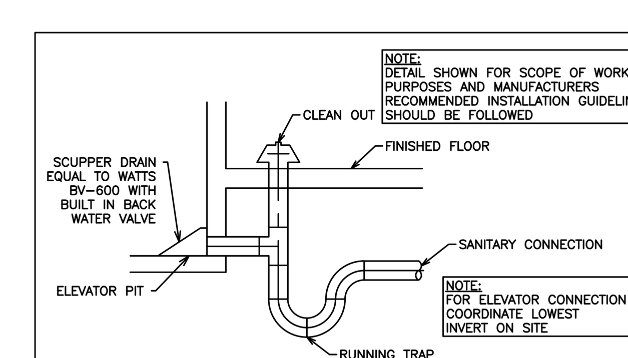
BURIED DRAIN FLOOR CLEAN–OUT DETAIL
NTS REV. 1.2023



DOMESTIC HOT WATER TANK DETAIL
NTS REV. 1.2023



SUSPENDED HOT WATER TANK DETAIL
NTS REV. 1.2023



SCUPPER DRAIN DETAIL
NTS REV. 1.2023

NO.	SUBMISSION	DATE
4	ISSUED FOR PERMIT	SEP 2026
3	ISSUED FOR 90% COORDINATION	AUG 2026
2	ISSUED FOR 80% COORDINATION	JULY 2026
1	ISSUED FOR 50% COORDINATION	JULY 2026

RH GAY HOLDINGS CO.
510–520 TAUNTON RD EAST, OSHAWA, ON

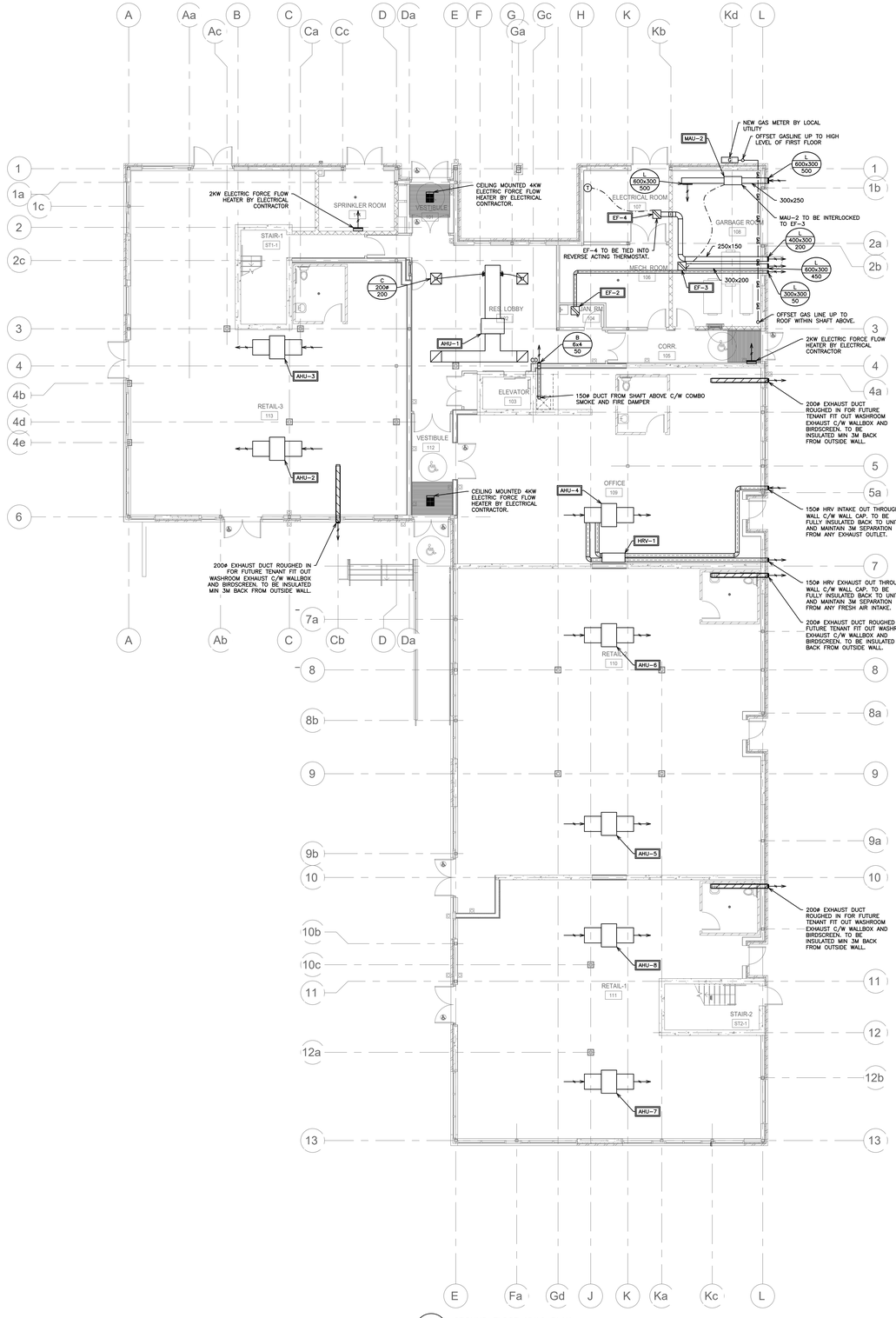
MECHANICAL PLUMBING NOTES & DETAILS

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
481 Taunton Rd W, Oshawa ON
150 King St, Peterborough ON
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

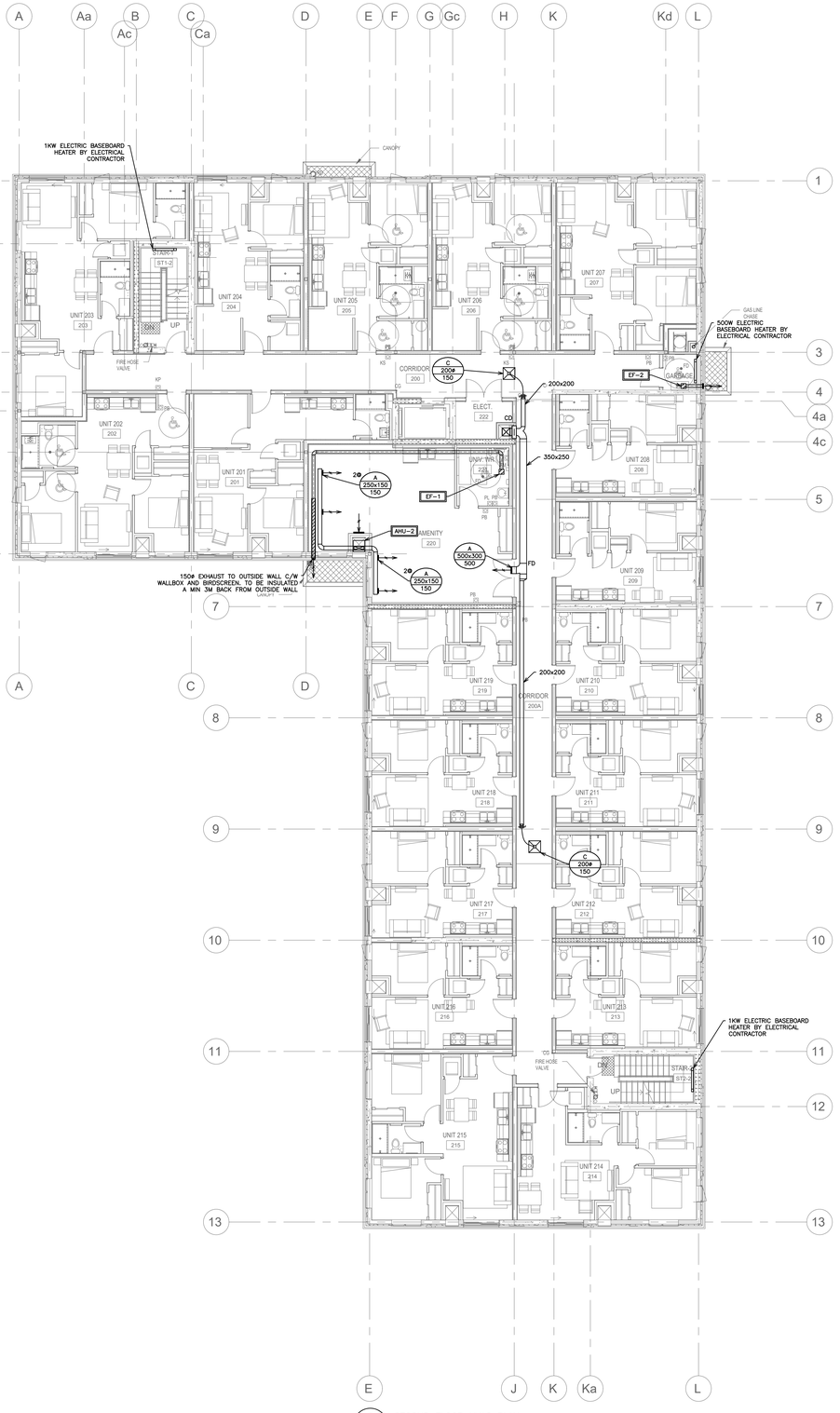
LICENSED PROFESSIONAL ENGINEER
G. V. W. OSBORNE
100136545
Sep 25/2026
PROVINCE OF ONTARIO

SCALE:	1:100
DESIGNED BY:	B.C.A
CHECKED BY:	G.V.W.O
PROJECT NO.:	125724
DRAWING NO.:	M104

25/09/2026
X:\STAFF\JOB FILES\125000\125724 510–520 TAUNTON RD EAST, OSHAWA – MIXED–USE BUILDING\125724 DRAWINGS\125724 MECHELEC DRAWINGS\125724 M1



1 GROUND FLOOR HVAC PLAN
M101 SCALE: 1:100



2 SECOND FLOOR HVAC PLAN
M101 SCALE: 1:100

NOTE:
1. TENDERING OF THESE DOCUMENTS IS DONE UNDER THE MUTUAL UNDERSTANDING THAT ALL CONTRACTORS ARE EXPERIENCED AND LICENSED IN THE WORKS BEING PROVIDED AND THAT ALL COMPONENTS OF A FULLY FUNCTIONING SYSTEM WILL BE INCLUDED WHETHER SHOWN OR NOT SHOWN BUT IMPLIED FOR A COMPLETE SYSTEM.

2. ALL DETAILS SHOWN ARE SCHEMATIC BY NATURE AND ARE TO BE USED FOR SCOPE OF WORK PURPOSES ONLY. COORDINATE WITH ALL TRADES AND MANUFACTURERS BEST PRACTICES AND DIRECTIONS.

3. TENDERING OF THESE DOCUMENTS IS DONE UNDER THE MUTUAL UNDERSTANDING THAT ALL CONTRACTORS ARE EXPERIENCED AND LICENSED IN THE WORKS BEING PROVIDED AND THAT ALL COMPONENTS OF A FULLY FUNCTIONING SYSTEM WILL BE INCLUDED WHETHER SHOWN OR NOT SHOWN BUT IMPLIED FOR A COMPLETE SYSTEM.

HVAC LEGEND	
	SUPPLY, RETURN AIR DUCT UP (RECT)
	SUPPLY, RETURN AIR DUCT DOWN (RECT)
	SUPPLY, RETURN AIR DUCT UP (ROUND)
	SUPPLY, RETURN AIR DUCT DOWN (ROUND)
	EXISTING HVAC TO REMAIN
	EXISTING HVAC TO BE REMOVED
	SUPPLY, RETURN, EXHAUST AIR GRILLE
	SIDE WALL GRILLE
QTY A B C	A– GRILLE/DIFFUSER TYPE B– DIFFUSER NECK SIZE/GRILLE SIZE C– AIR QUANTITY (CFM)
	SENSOR AND ASSOCIATED CONTROL WIRING
HRV-1	EQUIPMENT/FIXTURE TAG
	BALANCE DAMPER
	DIRECTION OF AIR FLOW
	DOOR GRILLE
	TURNING VANES
T	THERMOSTAT EQUAL TO HONEYWELL TB8220U: 7–DAY PROGRAMMABLE C/W AUTO CHANGEOVER
TC	TIME CLOCK
	ACOUSTIC LINED DUCT
CD	COMBINATION FIRE & SMOKE DAMPER
FD	FIRE DAMPER

NO.	SUBMISSION	DATE
4	ISSUED FOR PERMIT	SEP 2026
3	ISSUED FOR COORDINATION	AUG 2026
2	ISSUED FOR COORDINATION	JULY 2026
1	ISSUED FOR 50% COORDINATION	JULY 2026

RH GAY HOLDINGS CO.
510–520 TAUNTON RD EAST, OSHAWA, ON

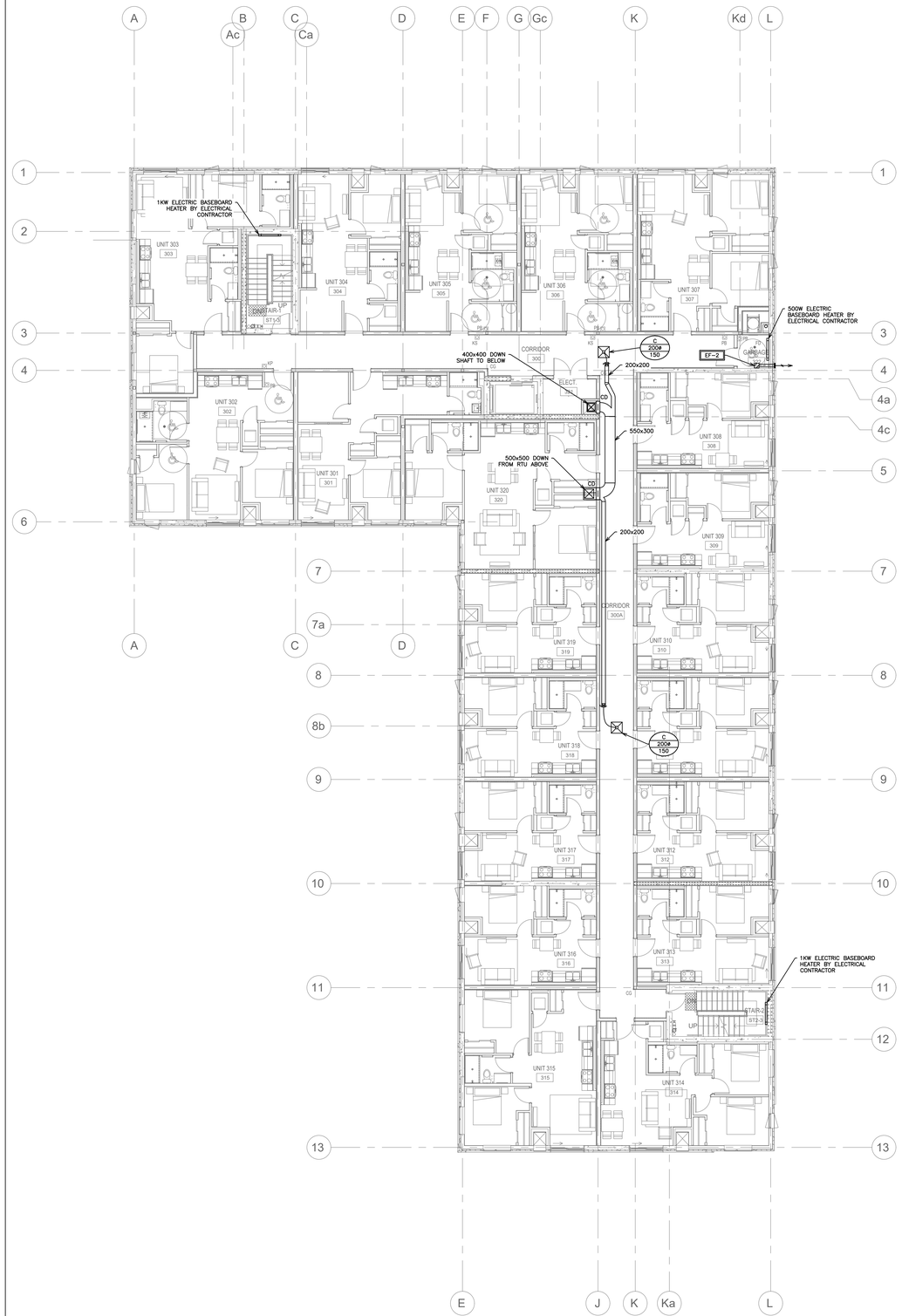
MECHANICAL PLUMBING
MAIN & SECOND FLOOR

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
96 King Street East
Oshawa, Ontario, L1H 1B6
Phone: 905-576-8500
info@dgbiddle.com
dgbiddle.com

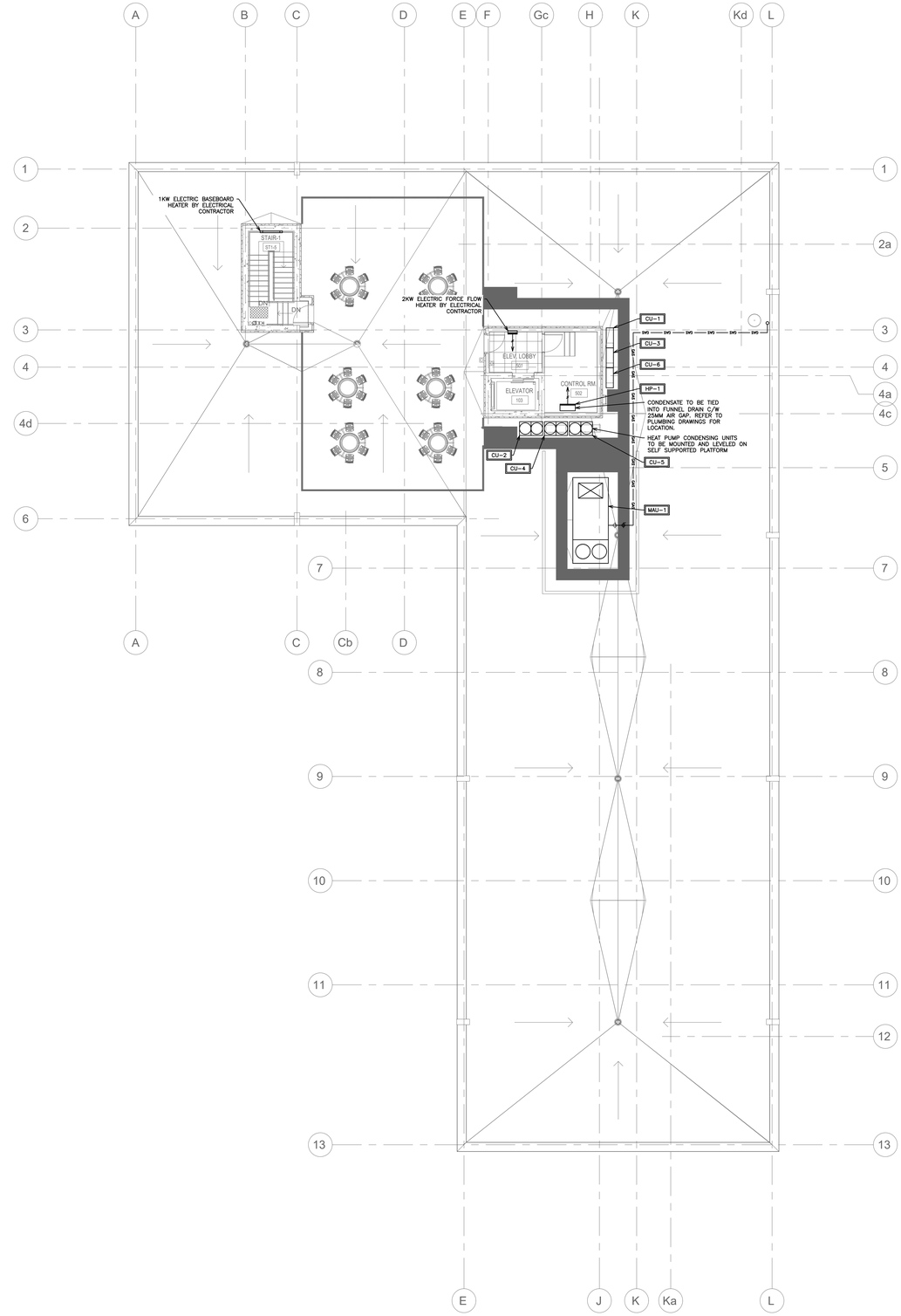
LICENSED PROFESSIONAL ENGINEER
G.V.W. OSBORNE
100138545
Sep 25/2026
PROVINCE OF ONTARIO

SCALE:	1:100
DESIGNED BY:	J.E.C./J.T.C.
CHECKED BY:	G.V.W.O.
PROJECT NO.:	125724
DRAWING NO.:	M201

25/09/2026
X:\CAD\JOB FILES\125000\125724 510-520 TAUNTON RD EAST, OSHAWA - MIXED-USE BUILDING\125724 DRAWINGS\125724 MECHELEC DRAWINGS\125724 M2



1 / M102 TYPICAL 3RD TO 4TH FLOOR HVAC PLAN
SCALE: 1:100



2 / M102 ROOF HVAC PLAN
SCALE: 1:100

NOTE:
1. TENDERING OF THESE DOCUMENTS IS DONE UNDER THE MUTUAL UNDERSTANDING THAT ALL CONTRACTORS ARE EXPERIENCED AND LICENSED IN THE WORKS BEING PROVIDED AND THAT ALL COMPONENTS OF A FULLY FUNCTIONING SYSTEM WILL BE INCLUDED WHETHER SHOWN OR NOT SHOWN BUT IMPLIED FOR A COMPLETE SYSTEM.

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HVAC LEGEND

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	SUPPLY, RETURN AIR DUCT DOWN (RECT)
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	EXISTING HVAC TO BE REMOVED
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	SENSOR AND ASSOCIATED CONTROL WIRING
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TC	TIME CLOCK
	ACOUSTIC LINED DUCT
	COMBINATION FIRE & SMOKE DAMPER
	FIRE DAMPER

NO.	SUBMISSION	DATE
4	ISSUED FOR PERMIT	SEP 2026
3	ISSUED FOR COORDINATION	AUG 2026
2	ISSUED FOR COORDINATION	JULY 2026
1	ISSUED FOR 50% COORDINATION	JULY 2026

RH GAY HOLDINGS CO.
510–520 TAUNTON RD EAST, OSHAWA, ON

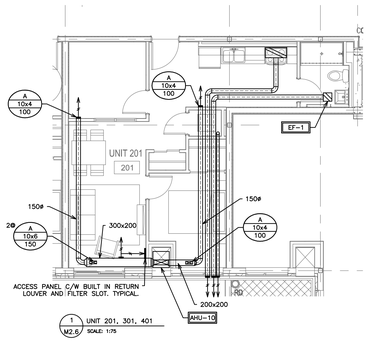
MECHANICAL SPRINKLER TYPICAL FLOOR & ROOF

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
96 King Street East
Oshawa, Ontario, L1H 1B6
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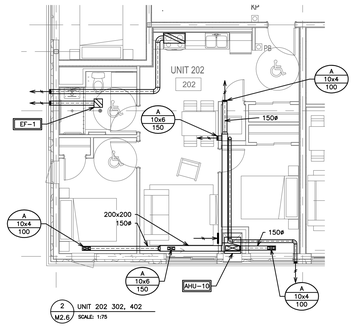
LICENSED PROFESSIONAL ENGINEER
G. V. W. OSBORNE
100136545
Sep 25/2026
PROVINCE OF ONTARIO

SCALE:	1:100
DESIGNED BY:	J.E.C./J.T.C.
CHECKED BY:	G.V.W.O.
PROJECT NO.:	125724
DRAWING NO.:	M202

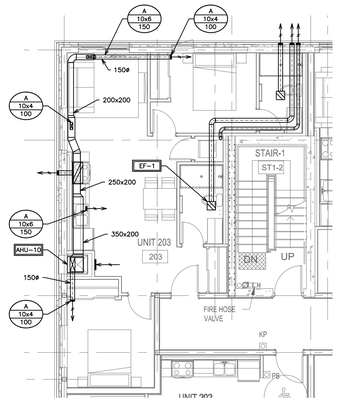
25/09/2026
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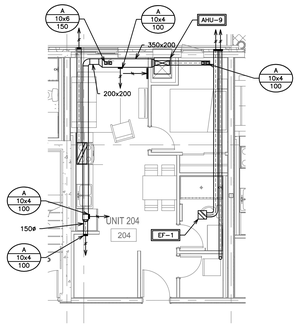
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M2.6 SCALE: 1:75



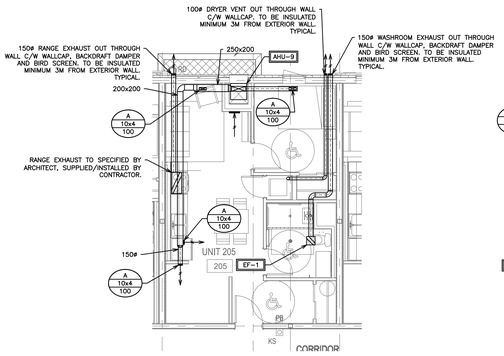
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M2.6 SCALE: 1:75



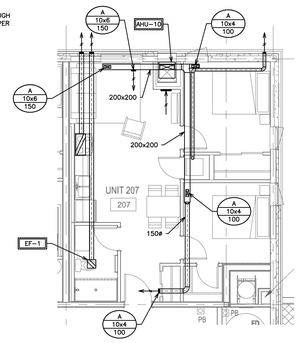
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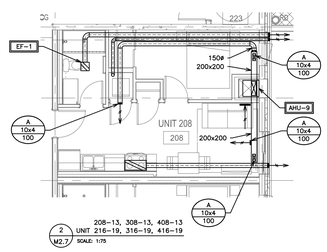
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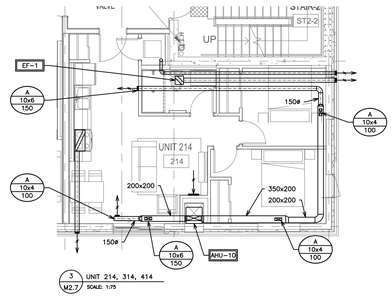
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M2.6 SCALE: 1:75



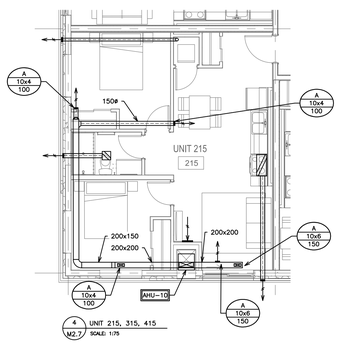
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M2.7 SCALE: 1:75



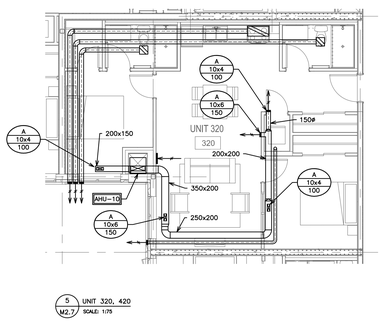
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M2.7 SCALE: 1:75



3 UNIT 214, 314, 414
M2.7 SCALE: 1:75



4 UNIT 215, 315, 415
M2.7 SCALE: 1:75



5 UNIT 320, 420
M2.7 SCALE: 1:75

HVAC LEGEND	
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	SUPPLY, RETURN AIR DUCT DOWN (RECT)
	SUPPLY, RETURN AIR DUCT UP (ROUND)
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	EXISTING HVAC TO REMAIN
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	SUPPLY, RETURN, EXHAUST AIR GRILLE
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	SENSOR AND ASSOCIATED CONTROL WIRING
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T	THERMOSTAT EQUAL TO HONEYWELL TB8220U: 7-DAY PROGRAMMABLE C/W AUTO CHANGEOVER
TC	TIME CLOCK
	ACOUSTIC LINED DUCT
FD	FIRE DAMPER
GAS	GAS LINE
	GAS METER
	PIPE UP, PIPE DOWN
	SHUTOFF VALVE
	UNION
	PIPE BREAK/CONTINUATION

NO.	SUBMISSION	DATE
4	ISSUED FOR PERMIT	SEP 2026
3	ISSUED FOR COORDINATION	AUG 2026
2	ISSUED FOR COORDINATION	JULY 2026
1	ISSUED FOR 50% COORDINATION	JULY 2026

RH GAY HOLDINGS CO.
510–520 TAUNTON RD EAST, OSHAWA, ON

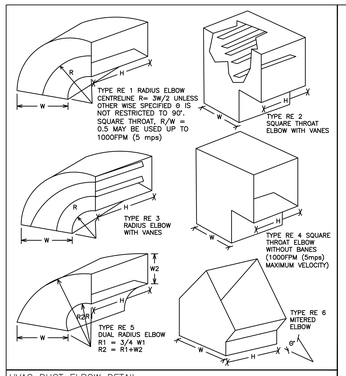
MECHANICAL HVAC TYPICAL SUITES

D.G. BIDDLE & ASSOCIATES
CONSULTING ENGINEERS & PLANNERS
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Oshawa, Ontario, L1H 1B6
Phone: 905-576-8500
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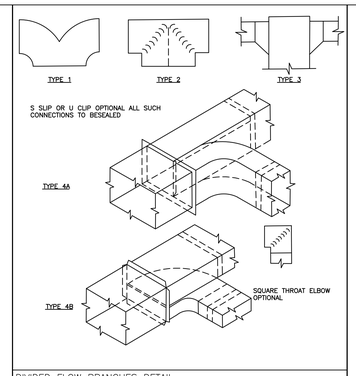
LICENSED PROFESSIONAL ENGINEER
G. V. W. OSBORNE
100138545
Sep 25/2026
PROVINCE OF ONTARIO

SCALE:	1:100
DESIGNED BY:	J.E.C./J.T.C.
CHECKED BY:	G.V.W.O.
PROJECT NO.:	125724
DRAWING NO.:	M203

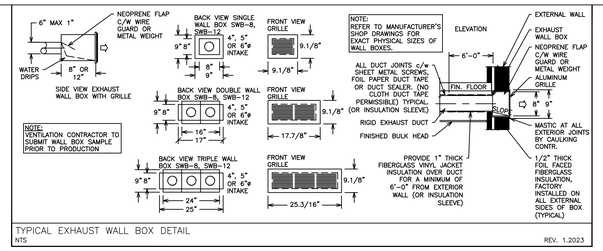
25/09/2026
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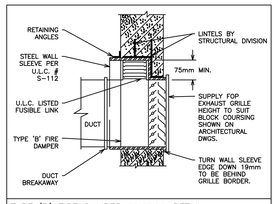
HVAC DUCT ELBOW DETAIL
NTS REV. 1.2023



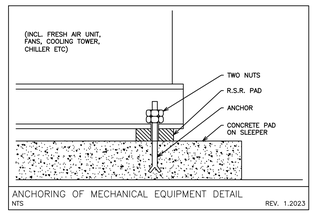
DIVIDED FLOW BRANCHES DETAIL
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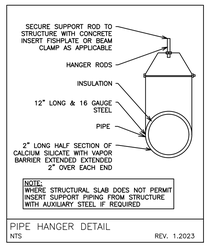
TYPICAL EXHAUST WALL BOX DETAIL
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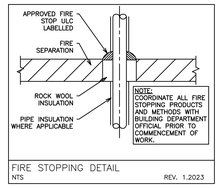
TYPE 'B' FIRE DAMPER IN WALL DETAIL
NTS REV. 1.2023



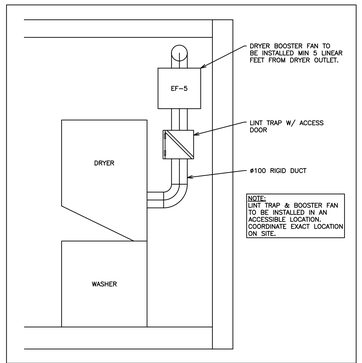
ANCHORING OF MECHANICAL EQUIPMENT DETAIL
NTS REV. 1.2023



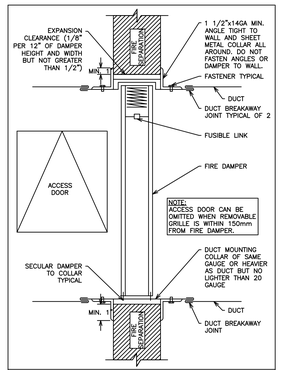
PIPE HANGER DETAIL
NTS REV. 1.2023



FIRE STOPPING DETAIL
NTS REV. 1.2023



DRYER EXHAUST DETAIL
NTS REV. 1.2023



FIRE DAMPER DETAIL
NTS REV. 1.2023

TYPICAL ROOF TOP UNIT DETAIL
NTS REV. 1.2023

GENERAL REQUIREMENTS FOR MECHANICAL WORK

1. SCOPE OF WORK
1.1. CONFORM TO THE APPLICABLE PROVISIONS OF THE GENERAL CONDITIONS OF THE CONTRACT.
1.2. THE GENERAL MECHANICAL SPECIFICATIONS SHALL APPLY TO AND BE PART OF EACH OF THE SECTIONS COVERING THE MECHANICAL TRADES WORK.
1.3. COMPLY WITH THE REQUIREMENTS OF THE CURRENT EDITION OF THE O.B.C., ALL OTHER APPLICABLE CODES, REGULATIONS, BY-LAWS AND OFFICIAL STANDARDS ACCORDING TO THE REQUIREMENTS AND INTERPRETATIONS OF THE AUTHORITIES HAVING JURISDICTION. THESE CODES AND STANDARDS CONSTITUTE AN INTEGRAL PART OF THESE SPECIFICATIONS. IN CASE OF CONFLICT, THE CODES TAKE PRECEDENCE OVER THE CONTRACT DOCUMENTS.

2. EXAMINATION OF SITE AND INFORMATION
2.1. EACH SUBCONTRACTOR, BEFORE PRICING, SHALL EXAMINE THE SITE, THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND THEY SHALL FAMILIARIZE THEMSELVES WITH THE BUILDING CONSTRUCTION AND FINISH IN ORDER THAT THEIR TENDER MAY INCLUDE EVERYTHING NECESSARY FOR THE PROPER COMPLETION OF THE WORK.

3. RELATIONSHIP TO OTHER TRADES
3.1. THIS SUBCONTRACTOR SHALL CONFER WITH ALL OTHER CONTRACTORS INSTALLING EQUIPMENT, PIPING, OTHER WORK, FOUNDATIONS, ETC., WHICH MAY AFFECT THEIR INSTALLATION, AND THEY SHALL ARRANGE THEIR EQUIPMENT, PIPING, ETC., IN PROPER RELATION WITH OTHER APPARATUS, AND WITH THE BUILDING CONSTRUCTION. THIS SUBCONTRACTOR SHALL ALSO CONFIRM THE ELECTRICAL CHARACTERISTICS OF THE PRODUCT AND ORDER EQUIPMENT ACCORDINGLY.
3.2. SPECIAL CARE SHALL BE TAKEN IN THE INSTALLATION OF ALL WORK, TO SEE THAT THEY ALL COME WITHIN THE LIMITS ESTABLISHED BY THE FINISH LINES OF ALL WALLS, FLOORS, CEILINGS, ETC.
3.3. THIS SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR AND OTHER SUBCONTRACTORS WHO ARE CONCERNED, OF ALL OPENINGS, FOUNDATION WORK, HANGERS, INSERTS, ANCHORS, OR OTHER PROVISIONS NECESSARY IN THEIR WORK FOR THE INSTALLATION OF THE SUBCONTRACTORS WORK, AND THEY SHALL FURNISH ALL INFORMATION AND NECESSARY MATERIALS IN AMPLE TIME SO THAT PROPER PROVISIONS CAN BE MADE FOR SAME, AND SHALL SUPPLY AND CORRECTLY AND ACCURATELY PLACE ALL INSERTS, SLEEVES, ANCHORS, ETC.
3.4. FAILURE TO COMPLY WITH THESE REQUIREMENTS ON THE PART OF THIS SUBCONTRACTOR WILL RENDER THEM RESPONSIBLE FOR THE COST OF CUTTING OPENINGS, INSTALLING HANGERS AND OTHER PROVISIONS AT A LATER DATE, AND THE SUBSEQUENT PATCHING, ETC., THEREBY REQUIRED.
3.5. NO CUTTING SHALL BE DONE WITHOUT PERMISSION, ALL SUCH WORK SHALL BE DONE BY TRADES-PERSONS SKILLED IN AND CERTIFIED FOR THIS PARTICULAR TRADE.
3.6. EACH SUBCONTRACTOR IS TO BE AN EXPERT IN THEIR TRADE.

4. REQUIREMENTS OF INSPECTION DEPARTMENTS
4.1. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL LAWS AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION IN EACH PARTICULARLY ALL AFFECTED DEPARTMENTS OF THE MUNICIPALITY AND PROVINCE. ELECTRICAL EQUIPMENT SUPPLIED MUST CONFORM TO THE REGULATIONS OF CSA AND THE LOCAL UTILITY. ANYTHING NECESSARY TO MAKE THE WORK COMPLY WITH THESE REQUIREMENTS SHALL BE PROVIDED BY THIS SUBCONTRACTOR WITHOUT ADDITIONAL COST TO THE OWNERS IF THEY REASONABLY COULD HAVE FORESEEN WHEN TENDERING.
4.2. EACH SUBCONTRACTOR SHALL PREPARE DRAWINGS IN ADDITION TO ENGINEER'S DRAWINGS AS MAY BE REQUIRED BY VARIOUS INSPECTION DEPARTMENTS HAVING JURISDICTION, AND OBTAIN THEIR APPROVAL BEFORE PROCEEDING WITH THE WORK.
4.3. IN THE EVENT THAT THE INSPECTION DEPARTMENT'S REQUEST DEVIATES FROM THE ENGINEER'S LAYOUT, THE SUBCONTRACTOR SHALL CONSULT ENGINEER BEFORE PROCEEDING WITH THE SAME. IF SHALL BE NOTED THAT ENGINEER'S DRAWINGS ARE GENERALLY ACCEPTABLE TO INSPECTION DEPARTMENTS AND MINOR SUPPLEMENTS NEED ONLY BE MADE BY SUBCONTRACTORS.

5. CERTIFICATES, PERMITS, FEES
5.1. SUBCONTRACTORS SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL REQUIRED PERMITS AND PAY ALL FEES INCLUDING PAYMENT FOR STREET CONNECTIONS TO STORM, SANITARY, WATER AND GAS IN ORDER THAT THE WORK HEREIN SPECIFIED MAY BE CARRIED OUT AND THEY SHALL FURNISH ANY CERTIFICATES NEEDED AS EVIDENCE THAT THE WORK INSTALLED CONFORMS WITH THE LAWS AND REGULATIONS OF THE MUNICIPALITY AND PROVINCE.

6. GUARANTEE
6.1. THIS SUBCONTRACTOR SHALL GUARANTEE ALL MATERIAL AND WORKMANSHIP USED IN THE WORK TO BE IN STRICT ACCORDANCE WITH THE SPECIFICATIONS, OF BEST QUALITY AND TYPE OBTAINABLE TO GIVE FIRST-CLASS CONSTRUCTION AND PROPER EFFICIENT OPERATION, AND FREE FROM ANY DEFECTS, ANY SUCH DEFECTS WHICH MAY APPEAR IN ANY OF THE WORK WITHIN ONE YEAR AFTER WRITTEN ACCEPTANCE OF THEIR WORK SHALL BE REPAIRED AND REPLACED BY THIS SUBCONTRACTOR WITHOUT ADDITIONAL EXPENSE TO THE OWNER, WHERE SUCH DEFECTS OCCUR, THIS SUBCONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL COSTS INCURRED IN MAKING THE DEFECTIVE WORK GOOD. THIS SHALL NOT OBSOLETE ANY LONGER WARRANTIES ON SPECIFIC ITEMS OF EQUIPMENT.
6.2. ALL INJURIES TO ADJACENT WORK, PARTICULARLY PLASTER, WOOD FINISHES OR OTHER MATERIALS OR DAMAGE TO OTHER EQUIPMENT, CAUSED BY SUCH DEFECTS OF THIS SUBCONTRACTOR'S WORK OR BY SUBSEQUENT REPLACEMENT AND REPAIR, SHALL BE MADE GOOD AT THE EXPENSE OF THIS SUBCONTRACTOR. ALL REPAIR WORK SHALL BE DONE BY TRADES RESPONSIBLE FOR THE ORIGINAL WORK.

7. DRAWINGS
7.1. THE DRAWINGS SHOW THE APPROXIMATE LOCATION FOR SPECIAL APPARATUS AND THE MATERIALS THROUGHOUT THE BUILDING. THE ARRANGEMENT SHOWN ON THE DRAWING IS MORE OR LESS DIAGRAMMATIC AND AS SUCH APPROXIMATE ONLY, AND MAY BE ALTERED, AS APPROVED BY THE ENGINEER, TO MEET REQUIREMENTS OF THE APPARATUS, ETC., AND OF THE BUILDING. EACH SUBCONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL MEASUREMENTS FOR THEIR WORK THROUGHOUT, AND THEY SHALL ARRANGE THEIR PIPING, WIRING AND APPARATUS TO CONFORM TO THE ARCHITECTURAL AND STRUCTURAL DETAILS IN A SATISFACTORY MANNER AND SHALL CO-OPERATE WITH OTHER CONTRACTORS TO ENSURE THAT WORK SHALL MEET ALL REQUIREMENTS OF DIVERSE CONTRACTS.
7.2. ITEMS SHOWN ON THE DRAWINGS BUT NOT SPECIFIED OR SPECIFIED BUT NOT SHOWN SHALL BE INCLUDED.
7.3. ITEMS OBVIOUSLY REQUIRED TO PROVIDE A COMPLETE WORKING SYSTEM BUT NOT SPECIFIED NOR SHOWN SHALL BE INCLUDED.

8. RESPONSIBILITY AND LIABILITY
8.1. EACH SUBCONTRACTOR SHALL SUPERVISE THE LAYING OUT OF THEIR WORK AND SHALL ARRANGE IT IN CO-OPERATION WITH OTHER WHO MAY BE WORKING ON THE PREMISES WHILE THE WORK OF THIS CONTRACT IS IN PROGRESS. THEY SHALL PROTECT FINISHED AND UNFINISHED WORK OF THIS CONTRACT AND/OR WORK OF OTHERS ON THE PREMISES UNTIL THE COMPLETED WORK HAS BEEN ACCEPTED.
8.2. THE SUBCONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES FOUND IN THE DRAWINGS OR SPECIFICATIONS BEFORE SUBMITTING THEIR TENDER. THEY SHALL ABIDE BY DECISIONS GIVEN TO THEM IN WRITING WITH REGARD TO SAME. EACH SUBCONTRACTOR IS CAUTIONED THAT THE WORK AS SHOWN IS INTENDED TO BE COMPLETE IN ALL RESPECTS AND THAT FAILURE ON THEIR PART TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES WILL NOT RELIEVE THEM OF THE RESPONSIBILITY OF COMPLETING THE WORK AS INTENDED AT THE CONTRACT PRICE.

9. CLEAN-UP
9.1. DURING THE COURSE OF CONSTRUCTION, EACH SUBCONTRACTOR SHALL KEEP THEIR WORK TIDY AND NOT ALLOW AN ACCUMULATION OF DEBRIS RESULTING FROM THEIR WORK.
9.2. UPON COMPLETION OF THEIR WORK THEY SHALL LEAVE THE PREMISES IN A BROOM-CLEAN CONDITION.

10. PROTECTION
10.1. SUBCONTRACTORS ARE TO PROTECT THEIR WORK FROM CONSTRUCTION DIRT OR DAMAGE FROM ANY CAUSE. SECURELY PLUG AND CAP ALL OPENINGS IN PIPE, EQUIPMENT AND FIXTURES TO PREVENT OBSTRUCTIONS.

11. ELECTRICAL WIRING AND CONTROLS
11.1. ALL POWER WIRING FOR MECHANICAL EQUIPMENT SHALL BE DONE BY THE ELECTRICAL DIVISION. THE MECHANICAL TRADE INVOLVED SHALL PROVIDE STARTERS, THERMOSTATS, VALVES, CONTROL TRANSFORMERS, RELAYS, ETC. ALL CONTROL WIRING SHALL BE DONE BY THE MECHANICAL CONTRACTOR, UNLESS OTHERWISE NOTED ELSEWHERE IN THIS SPECIFICATION.

HVAC NOTES

1. GENERAL
1.1. COORDINATE EXACT LOCATION OF GRILLES AND DIFFUSERS WITH REFLECTED CEILING PLAN OR LIGHTING PLAN IF AVAILABLE. LIGHTING LOCATIONS TAKE PRIORITY.
1.2. CONFIRM EXACT LOCATION OF THERMOSTATS/SENSORS WITH OWNER. MOUNT THERMOSTATS/SENSORS AT 4' ABOVE FINISHED FLOOR. ENSURE THERMOSTAT/SENSOR LOCATIONS WILL NOT BE AFFECTED BY DIRECT SUNLIGHT, COLD WALLS OR MILLWORK.
1.3. PROVIDE 4" FLEXIBLE CONNECTIONS AT ALL DUCT CONNECTIONS TO AIR HANDLING UNITS.
1.4. PROVIDE ACOUSTIC INSULATION IN FIRST 5' OF SUPPLY AND RETURN AIR DUCTS OFF AIR HANDLING UNITS AND AS INDICATED ON DRAWINGS.
1.5. PROVIDE EXTERNAL INSULATION ON ALL SUPPLY AIR DUCTS AND ON ALL EXHAUST DUCTS WITHIN 10' OF OUTSIDE WALLS AND ROOF.
1.6. BRANCH DUCTWORK TO DIFFUSERS TO BE SAME SIZE AS DIFFUSER NECK.
1.7. PROVIDE TURNING VANES IN ALL SQUARE ELBOWS FOR SUPPLY AIR DUCTS.
1.8. FLEXIBLE DUCT SHALL BE MAXIMUM 10' IN LENGTH AND SHALL BE SECURELY FASTENED TO DUCTS AND DIFFUSERS. PROVIDE HANGERS AND FLEXIBLE DUCTWORK WITHOUT SHARP 90'S, SAGGING, OR CRUSHING OF DUCT.
1.9. PROVIDE TRAP AT OUTLET OF DRAIN FOR ROOFTOP HVAC EQUIPMENT.
1.10. PROVIDE FIRE STOPPING AROUND OPENINGS THROUGH FIRE SEPARATIONS.

2. FIRE DAMPERS
2.0. PROVIDE FIRE DAMPERS AT ALL FIRE SEPARATIONS. FIRE DAMPERS SHALL BE C/W LINKAGE OUT OF THE AIR STREAM. FIRE DAMPER RATING TO MATCH THE RATING OF THE SEPARATION CROSSED.

3. TESTS AND BALANCING
3.1. BALANCING DAMPERS SHALL BE INSTALLED AT ALL TAKE-OFFS FROM BRANCH DUCTS, AND ALL BRANCH DUCT CONNECTIONS TO MAIN DUCTS. BALANCING DAMPERS SHALL BE MANUALLY OPERATED OPPOSED BLADE TYPE, SPLITTER TYPE OR BUTTERFLY TYPE, COMPLETE WITH LOCKING QUADRANT OPERATOR.
3.2. AIR TEST AND BALANCE SHALL BE PERFORMED BY AN INDEPENDENT AIR BALANCING COMPANY. THE AIR BALANCING COMPANY SHALL BE APPROVED BY THE ENGINEER.
3.3. SCOPE OF BALANCING WORK:
3.3.1. ALL LISTED AIR HANDLING SYSTEMS SHALL BE BALANCED TO WITHIN 5% OF THE NOTED DESIGN AIR VOLUMES AS PER PLANS AND SPECIFICATIONS.
3.3.2. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING THE HVAC SYSTEM FULLY OPERATIONAL TWO WEEKS BEFORE TURNOVER TO THE OWNER. THIS WILL INCLUDE THE REQUIREMENT TO INSTALL CLEAN FILTERS IN ALL RELATED HVAC EQUIPMENT BEFORE TIME OF AIR TESTING AND TO MAKE ALL AIR SYSTEMS FULLY OPERATIONAL.

4. MATERIALS
4.1. DUCTWORK
4.1.1. IN CONFORMANCE WITH SMACNA, ASHRAE, OBC, NFPA 90A
4.1.2. SHEET METAL SHALL BE BEST QUALITY LOCK FORMING GALVANIZED SHEET METAL, GALVANIZING SHALL BE TO ASTM A525 (G90), HAVING A THICKNESS OF 0.054mm AND WEIGHING NOT LESS THAN 0.31kg/m² ON EACH SURFACE.
4.1.3. PROVIDE INSTRUMENTATION TEST PORTS IN DUCTS FOR PILOT TUBE INSERTION WITH CAM-ACTION HANDLE, MOULDED NEOPRENE GASKET AND EXPANSION PLUG, ZING COATED STEEL CONSTRUCTION.
4.2. FLEXIBLE CONNECTIONS
4.2.1. PROVIDE FLEXIBLE CONNECTIONS AT AIR HANDLING UNITS WITH UL APPROVED FABRIC OF 6" MINIMUM WIDTH AND WEIGHING NOT LESS THAN 0.813Kg/m².
4.3. INSULATION
4.3.1. PROVIDE 1" INTERNAL ACOUSTIC INSULATION ON:
4.3.1.1. THE FIRST 5' OFF SUPPLY AND RETURN DUCTS OFF ALL AIR HANDLING UNITS.
4.3.2. PROVIDE 1" EXTERNAL INSULATION ON:
4.3.2.1. ALL INDOOR & OUTDOOR REFRIGERATION PIPING
4.3.2.2. ALL SUPPLY AIR DUCTS WHICH ARE NOT LOCATED IN A RETURN AIR PLENUM.
4.3.2.3. EXHAUST DUCTS THROUGH ATTICS AND 10' BACK FROM WALL
4.3.3. PROVIDE 2" EXTERNAL INSULATION ON:
4.3.3.1. ALL SUPPLY AND RETURN AIR DUCTS THROUGH ATTICS OR UN-INSULATED AREAS

5. CONTROL WIRING
5.1. ALL CONTROL WIRING SHALL BE RUN PARALLEL TO BUILDING LINES AND TIGHT TO ROOF DECK OR WALLS.
5.2. ALL CONCEALED INDOOR CONTROL WIRING SHALL BE RUN IN LVT.
5.3. ALL EXPOSED INDOOR CONTROL WIRING IN UNFINISHED AREAS, T-BAR CEILING SPACES, ATTICS AND CRAWL SPACES SHALL BE RUN IN EMT CONDUIT WITH FINAL CONNECTION IN BX TO EQUIPMENT/COMPONENTS.
5.4. ALL OUTDOOR CONTROL WIRING SHALL BE RUN IN LIQUIDTIGHT.
5.5. FLEXIBLE CABLE MUST BE STRAPPED TO SUPPORT WITHIN 12" OF TERMINATION BOX OR EQUIPMENT.

MAKE-UP AIR UNIT SCHEDULE

TAG	LOCATION	MANUFACTURER	MODEL	AIR FLOW	HEATING IN/OUT	COOLING	VOLTAGE	CONTROLS
MAU-1	ROOF	DAIKIN	DPSC07B	1600 CFM	200/162 MBH	72 MBH	208/3PH	7 DAY PROGRAMMABLE THERMOSTAT
MAU-2	WASTE ROOM	THERMOLEC	FER-12-16-208/3	600 CFM	16 KW	N/A	208/3PH	7 DAY PROGRAMMABLE THERMOSTAT

AIR HANDLING UNIT SCHEDULE

TAG	LOCATION	MANUFACTURER	MODEL	AIR FLOW	HEATING	COOLING	VOLTAGE	CONTROLS
AHU-1	FL1 – LOBBY	MITSUBISHI	SEZ-AD12NL	400 CFM	12 MBH	12 MBH	208V/1PH	7 DAY PROGRAMMABLE THERMOSTAT
AHU-2	FL1 – RETAIL 3	MITSUBISHI	PEFY-P48NMAU	1200 CFM	48 MBH	54 MBH	208V/1PH	7 DAY PROGRAMMABLE THERMOSTAT
AHU-3	FL1 – RETAIL 3	MITSUBISHI	PEFY-P48NMAU	1200 CFM	48 MBH	54 MBH	208V/1PH	7 DAY PROGRAMMABLE THERMOSTAT
AHU-4	FL1 – OFFICE	MITSUBISHI	PEAD-AA36NL	1400 CFM	40 MBH	37 MBH	208V/1PH	7 DAY PROGRAMMABLE THERMOSTAT
AHU-5	FL1 – RETAIL 2	MITSUBISHI	PEFY-P48NMAU	1200 CFM	48 MBH	54 MBH	208V/1PH	7 DAY PROGRAMMABLE THERMOSTAT
AHU-6	FL1 – RETAIL 2	MITSUBISHI	PEFY-P48NMAU	1200 CFM	48 MBH	54 MBH	208V/1PH	7 DAY PROGRAMMABLE THERMOSTAT
AHU-7	FL1 – RETAIL 1	MITSUBISHI	PEFY-P48NMAU	1200 CFM	48 MBH	54 MBH	208V/1PH	7 DAY PROGRAMMABLE THERMOSTAT
AHU-8	FL1 – RETAIL 1	MITSUBISHI	PEFY-P48NMAU	1200 CFM	48 MBH	54 MBH	208V/1PH	7 DAY PROGRAMMABLE THERMOSTAT
AHU-9	FL2-4 – SUITES	FIRST CO.	EHE12205D	400 CFM	11.8 MBH	11.9 MBH	208V/1PH	7 DAY PROGRAMMABLE THERMOSTAT
AHU-10	FL2-4 – SUITES	FIRST CO.	EHE18205D	600 CFM	17.3 MBH	17.5 MBH	208V/1PH	7 DAY PROGRAMMABLE THERMOSTAT
AHU-11	ROOF- CONTROL ROOM	MITSUBISHI	PKA-A12HA	400 CFM	N/A	12 MBH	208V/1PH	7 DAY PROGRAMMABLE THERMOSTAT

REGISTER, DIFFUSER AND GRILLE SCHEDULE

TAG	MANUFACTURER	MODEL	DESCRIPTION	FINISH/COLOUR	NOTES
A	PRICE	5200-F-S-A	LOUVERED FACE SUPPLY C/W DAMPER	TO BE DETERMINED BY ARCHITECT	SHOWN ON DRAWINGS
B	PRICE	SCD-31-3C	600x600 SQUARE CONE DIFFUSER	TO BE DETERMINED BY ARCHITECT	SHOWN ON DRAWINGS
C	PRICE	5350-F-L-A	LOUVERED FACE RETURN	TO BE DETERMINED BY ARCHITECT	SHOWN ON DRAWINGS
L	VENTEX	2420	STORMPROOF LOUVER	TO BE DETERMINED BY ARCHITECT	SHOWN ON DRAWINGS

CONDENSING UNIT SCHEDULE

TAG	MANUFACTURER	MODEL	COOLING	HEATING @-25C	ELECTRICAL	INDOOR UNIT(S)	NOTES
CU-1	MITSUBISHI	SUZ-AK36NLHZ	12 MBH	9 MBH	208V/1PH	AHU-1	ULTRA-LOW AMBIENT KIT
CU-2	MITSUBISHI	PUHY-HP96TNU	96 MBH	36 MBH	208V/1PH	AHU-2,3	ULTRA-LOW AMBIENT KIT
CU-3	MITSUBISHI	SUZ-AK36NLHZ	37 MBH	31 MBH	208V/1PH	AHU-4	ULTRA-LOW AMBIENT KIT
CU-4	MITSUBISHI	PUHY-HP96TNU	96 MBH	41 MBH	208V/3PH	AHU-5,6	ULTRA-LOW AMBIENT KIT
CU-5	MITSUBISHI	PUHY-HP96TNU	96 MBH	36 MBH	208V/3PH	AHU-7,8	ULTRA-LOW AMBIENT KIT
CU-6	MITSUBISHI	PUY-A12NHA3	12 MBH	N/A	208V/3PH	AHU-11	ULTRA-LOW AMBIENT KIT

EXHAUST FAN SCHEDULE

TAG	MANUFACTURER	MODEL	AIR FLOW	MOUNTING	VOLTAGE	CONTROLS	ACCESSORIES
EF-1	GREENHECK	SP-A90	90 CFM	CEILING	120V	SWITCH	BACKDRAFT DAMPER
EF-2	GREENHECK	SP-LP-0511	50 CFM	CEILING	120V	TIME CLOCK	BACKDRAFT DAMPER
EF-3	GREENHECK	CSP-A700	450 CFM	CEILING	120V	TIME CLOCK	BACKDRAFT DAMPER
EF-4	GREENHECK	SP-B200	200 CFM	CEILING	120V	TIME CLOCK	BACKDRAFT DAMPER

NOTES: ADDITIONAL COSTS INCURRED AS A RESULT OF ANY ALTERNATIVE MODELS ARE AT THE EXPENSE OF THE CONTRACTOR

HRV SCHEDULE

TAG	MANUFACTURER	MODEL	AIR FLOW	VOLTAGE	CONTROLS
HRV-1	LIFEBREATH	MAX XTR	178 CFM	120V	INTERLOCKED TO AHU-4

NO.	SUBMISSION	DATE
4	ISSUED FOR PERMIT	SEP 2026
3	ISSUED FOR COORDINATION	AUG 2026
2	ISSUED FOR COORDINATION	JULY 2026
1	ISSUED FOR 50% COORDINATION	JULY 2026

RH GAY HOLDINGS CO.
510-520 TAUNTON RD EAST, OSHAWA, ON

MECHANICAL HVAC NOTES & DETAILS

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LICENSED PROFESSIONAL ENGINEER
G.V.W. OSBORNE
100136545
Sep 25/2026
PROVINCE OF ONTARIO

SCALE:	1:100
DESIGNED BY:	J.E.C./J.T.C.
CHECKED BY:	G.V.W.O.
PROJECT NO.:	125724
DRAWING NO.:	M204

25/09/2026
X:\JOBFILES\125000\125724 510-520 TAUNTON RD EAST, OSHAWA - MIXED-USE BUILDING\125724 DRAWINGS\125724 MECHELIC DRAWINGS\125724 M2