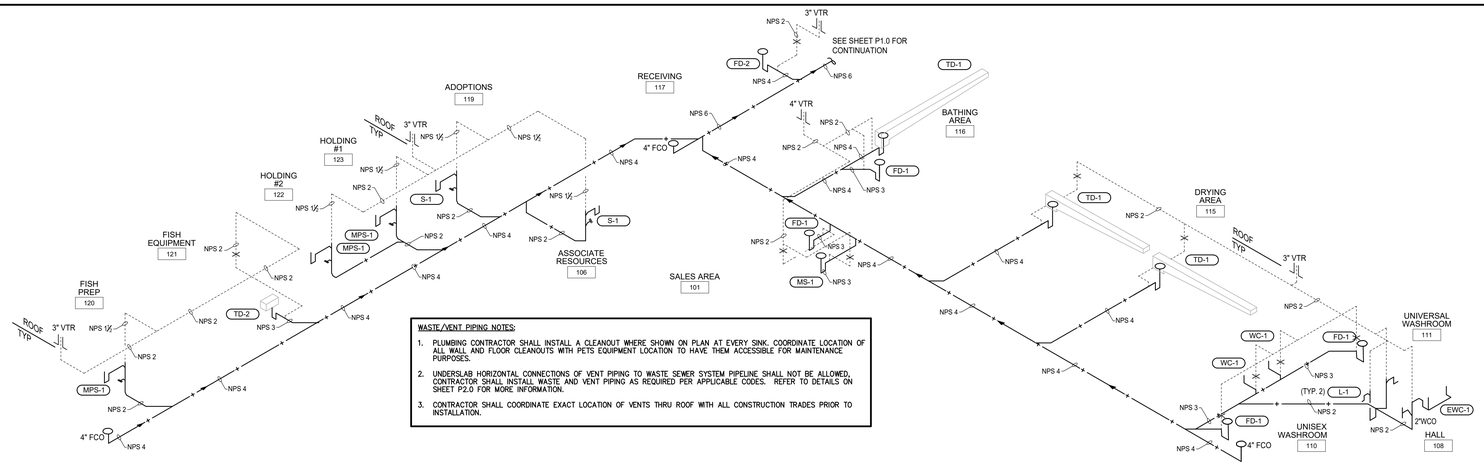
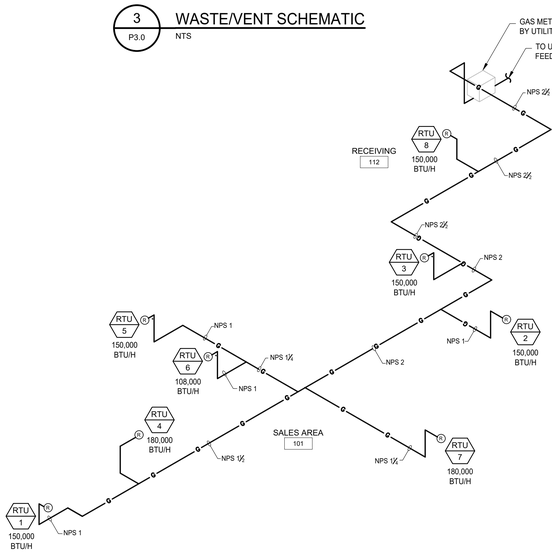


WASTE/VENT PIPING NOTES:

1. PLUMBING CONTRACTOR SHALL INSTALL A CLEANOUT WHERE SHOWN ON PLAN AT EVERY SINK. COORDINATE LOCATION OF ALL WALL AND FLOOR CLEANOUTS WITH PETS EQUIPMENT LOCATION TO HAVE THEM ACCESSIBLE FOR MAINTENANCE PURPOSES.
2. UNDERSLAB HORIZONTAL CONNECTIONS OF VENT PIPING TO WASTE SEWER SYSTEM PIPELINE SHALL NOT BE ALLOWED, CONTRACTOR SHALL INSTALL WASTE AND VENT PIPING AS REQUIRED PER APPLICABLE CODES. REFER TO DETAILS ON SHEET P2.0 FOR MORE INFORMATION.
3. CONTRACTOR SHALL COORDINATE EXACT LOCATION OF VENTS THRU ROOF WITH ALL CONSTRUCTION TRADES PRIOR TO INSTALLATION.

3 P3.0 WASTE/VENT SCHEMATIC
NTS



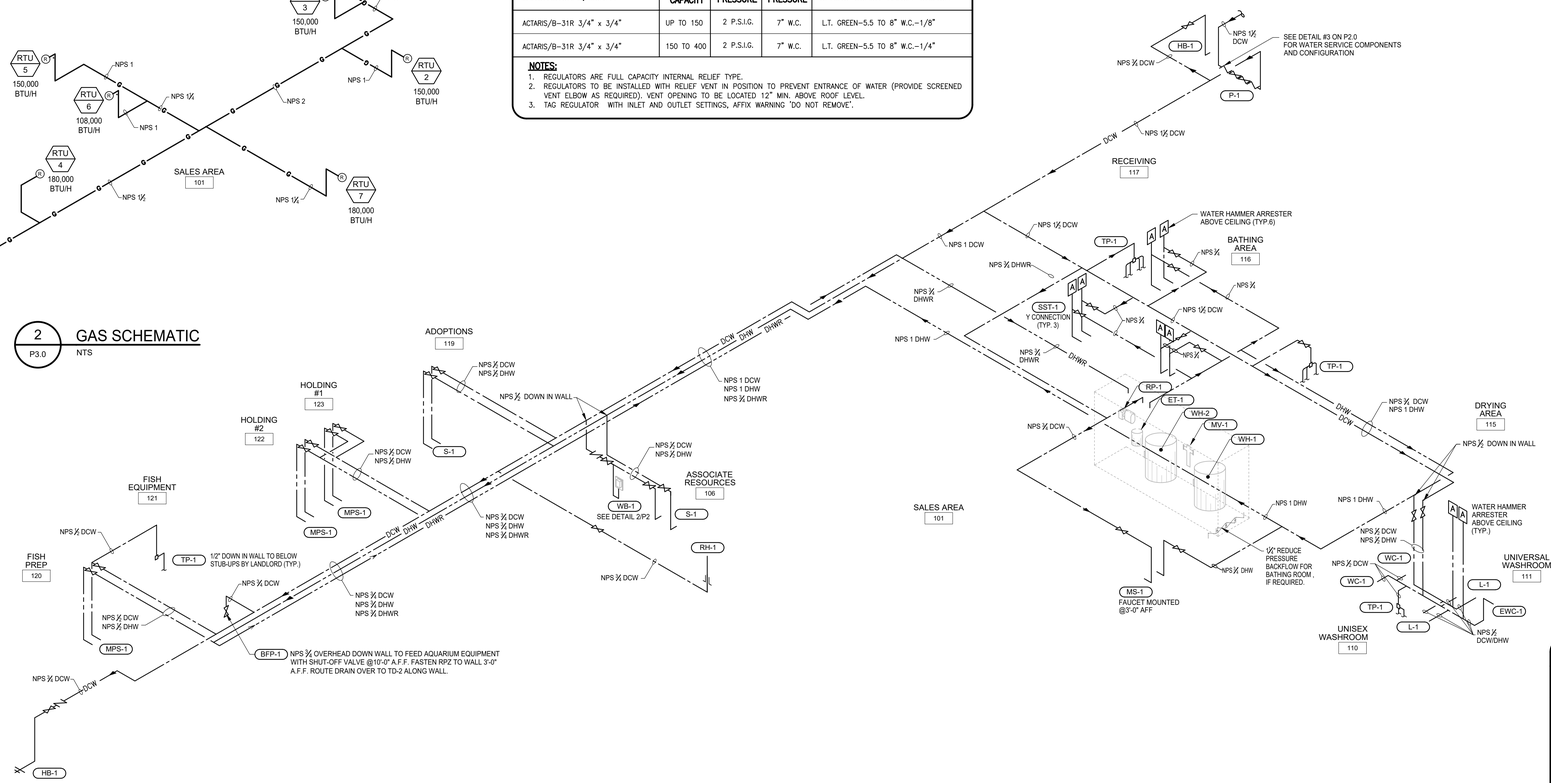
GAS PIPING NOTES:

1. PIPING SIZED PER 2012 INTERNATIONAL FUEL AND GAS CODE, SECTION 402, TABLE 402.4(5), SCH 40 METALLIC PIPE (2.0 PSI) INLET PRESSURE AND A 1.0 PSI PRESSURE DROP, 0.60 SPECIFIC GRAVITY NATURAL GAS. TOTAL GAS DEMAND = 908,000 BTU/H & TOTAL DEVELOPED LENGTH = 300 FEET.
2. CONTRACTOR SHALL VERIFY EXACT GAS DELIVERY PRESSURE AT THE CUSTOMER SIDE OF METER PRIOR TO BID. CONTRACTOR SHALL APPLY FOR GAS SERVICE AND COORDINATE GAS SERVICE IN A TIMELY MANNER. IF THE DELIVERY PRESSURE IS DIFFERENT THAN THE GAS PRESSURE USED TO SIZE THE GAS PIPING, CONTRACTOR SHALL CONTACT THE PROFESSIONAL OF RECORD IMMEDIATELY FOR DIRECTION. IF THE PROFESSIONAL OF RECORD IS NOT CONTACTED, IT IS ASSUMED GAS PRESSURE IS VERIFIED AND ADEQUATE FOR THE SYSTEM DESIGNED ON THE DRAWINGS.

GAS PRESSURE REGULATOR SPECIFICATIONS

MANUFACTURER/MODEL	CFH CAPACITY	INLET PRESSURE	OULET PRESSURE	SPRING COLOR–RANGE–ORIFICE
ACTARIS/B–31R 3/4" x 3/4"	UP TO 150	2 P.S.I.G.	7" W.C.	L.T. GREEN–5.5 TO 8" W.C.–1/8"
ACTARIS/B–31R 3/4" x 3/4"	150 TO 400	2 P.S.I.G.	7" W.C.	L.T. GREEN–5.5 TO 8" W.C.–1/4"

NOTES:
1. REGULATORS ARE FULL CAPACITY INTERNAL RELIEF TYPE.
2. REGULATORS TO BE INSTALLED WITH RELIEF VENT IN POSITION TO PREVENT ENTRANCE OF WATER (PROVIDE SCREENED VENT ELBOW AS REQUIRED). VENT OPENING TO BE LOCATED 12" MIN. ABOVE ROOF LEVEL.
3. TAG REGULATOR WITH INLET AND OUTLET SETTINGS, AFFIX WARNING 'DO NOT REMOVE'.



WATER PIPING NOTE:

1. ALL WATER PIPING SHOULD BE COPPER TYPE 'L'. ALTERNATE PEX PIPING IS ACCEPTABLE. HOWEVER PRIOR TO SUBMITTING THE BID PLUMBING CONTRACTOR SHALL VERIFY WITH LOCAL CODE OFFICIAL THAT PEX PIPING IS APPROVED FOR WATER DISTRIBUTION SYSTEMS. IF PEX PIPING IS APPROVED, ALL WATER PIPING 2" AND SMALLER SHALL BE ZURN PEX POLYETHYLENE TUBING. INSTALL TUBING PER MANUFACTURERS INSTRUCTIONS. DO NOT STORE PEX TUBING AND FITTINGS IN DIRECT OR INDIRECT SUN LIGHT.
2. EXPOSED PIPING AND SHUT–OFF VALVES IN CEILING IN BATHING AREA SHALL BE COPPER, NO EXCEPTIONS.
3. ALL PIPING, FITTINGS AND VALVES FOR WATER HEATERS CONNECTIONS SHALL BE COPPER.

2 P3.0 GAS SCHEMATIC
NTS

1 P3.0 WATER SCHEMATIC
NTS

PLUMBING CALCULATIONS BASED ON 2012 OBC:

WATER		WASTE
SPRAY HOSE	5 x 1.4 WSFU = 7 WSFU	——
WATER CLOSET (FT)	2 x 5 WSFU = 10 WSFU	2 x 4 DFU = 8 DFU
	2 x .25 WSFU = 0.5 WSFU	2 x 0.5 DFU = 1 DFU
LAVATORY	2 x 2 WSFU = 4 WSFU	2 x 1 DFU = 2 DFU
URINAL	0 x 5 WSFU = 0 WSFU	0 x 2 DFU = 0 DFU
SINK	2 x 2 WSFU = 4 WSFU	2 x 2 DFU = 4 DFU
MOP/SERVICE SINK	4 x 3 WSFU = 12 WSFU	4 x 2 DFU = 8 DFU
HOSE BIBB (FIRST)	1 x 3 WSFU = 3 WSFU	——
HOSE BIBB (EACH ADDITIONAL)	2 x 1 WSFU = 2 WSFU	——
FLOOR OR TRENCH DRAIN, 3"	——	2 x 4 DFU = 8 DFU
FLOOR OR TRENCH DRAIN, 4"	——	8 x 6 DFU = 48 DFU
TOTAL FIXTURE UNITS	= 42.5 WSFU	= 79 DFU
42.5 FIXTURE UNITS	27.0 GPM	
HIGHEST ELEVATION	18 FEET	

(18 FT.) x 0.43 = 7.74 PSI STATIC LOSS

HORIZ. PIPE LENGTH METER TO BUILDING (PRV) *	10 FEET
HORIZ. PIPE LENGTH BLDG. (PRV) TO LAST FIXTURE	270 FEET
VERT. PIPE LENGTH BLDG. RISE TO HIGHEST FIXTURE	18 FEET
TOTAL PIPE LENGTH (FROM PRV TO LAST FIXTURE)	360 FEET

(360 FT.) x 1.25 (FITTING LOSS) = 450 FEET TOTAL DEVELOPED LENGTH

SIZE	DEVICE	PSI LOSS
1-1/2"	BACKFLOW PREVENTOR	10.0
1-1/2"	METER	5.0
	STATIC	7.74
	FIXTURE	25.00
TOTAL BUILDING LOSS		47.74 PSI

PRESSURE AT BLDG	70.00 PSI
PRESSURE REGULATOR SETTING	NA
BUILDING LOSS	47.74 PSI
DIFFERENCE	27.26 PSI

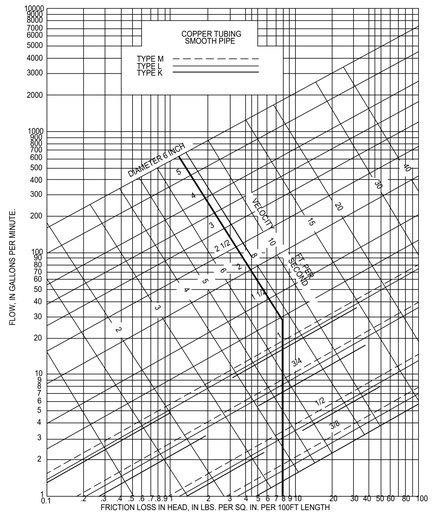
(27.26/360) x 100 = 7.6 — MAX. PSI DROP ALLOWABLE PER 100 FT. PIPE LENGTH

BRANCH PIPE SIZING CHART - PSI LOSS

PIPE SIZE	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
GPM	3	8.5	18	30	45	78
FU (F.T.)	1	4	16	55	110	260

* THIS PIPE LENGTH SHALL NOT BE INCLUDED WHEN/IF PRESSURE REGULATOR IS PROVIDED/REQUIRED.

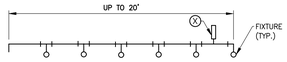
** METER LOSSES SHALL NOT BE INCLUDED WHEN/IF PRESSURE REGULATOR IS PROVIDED/REQUIRED AND METER IS INSTALLED OUTSIDE THE BUILDING.



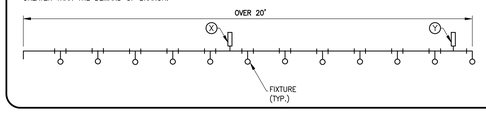
WATER HAMMER ARRESTOR SCHEDULE

P.D.I. SYMBOL	MANUFACTURER	MODEL NO.	CONNECTION SIZE	FIXTURE UNIT RATING	REMARKS
"A"	J.R. SMITH	5005	3/4"	1–11	THREADED NIPPLE CONNECTION
"B"	J.R. SMITH	5010	1"	12–32	THREADED NIPPLE CONNECTION
"C"	J.R. SMITH	5020	1"	33–60	THREADED NIPPLE CONNECTION

RULE 1:
THE PREFERRED PLACEMENT LOCATION IS AT THE END OF THE BRANCH LINE BETWEEN THE LAST TWO FIXTURES IN A BRANCH LESS THEN 20 FEET.



RULE 2:
IN LINES THAT EXCEED 20 FT. IN LENGTH, THE SUM OF THE FIXTURE UNIT RATINGS OF UNITS (X) & (Y) SHALL BE EQUAL TO OR GREATER THAN THE DEMAND OF BRANCH.



CLIENT:
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CLIENT REF #: 1234

PROJECT:
14K 2025 CANADIAN INSTRUCTION SET
FEBRUARY 12, 2025

CONSULTANT:

ARCHITECT:

SEAL:

CITY SEAL:

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THIS DRAWING IS NOT TO BE SCALED.

ISSUED FOR:

NUMBER	ISSUE	DATE

PROJECT NO: CA0045886.0146
DATE: 02.12.25
ORIGINAL SCALE: AS NOTED
DESIGNED BY:
DRAWN BY:
CHECKED BY:
PAGE #: 43 OF: 53
IF THIS BAR IS NOT 1" LONG, ADJUST YOUR PLOTTING SCALE.
1"

DISCIPLINE: MECHANICAL

TITLE: PLUMBING SCHEMATICS & SCHEDULES

SHEET NUMBER: P3.0