ABBREVIATIONS

A	AB	ABOVE
	ACFM	ACTUAL CUBIC FEET PER MINUTE
	AD	AREA DRAIN
	AFC	ABOVE FINISH CEILING
	AFF	ABOVE FINISH FLOOR
	AG	AIR GAP
	AGA	ARGA GAS ALARM PANEL
	ANT	ACID NEUTRALIZING TANK
	AP	ACCESS PANEL
B	BFP	BACKFLOW PREVENTER
	BFV	BUTTERFLY VALVE
	BLV	BALL VALVE
	BT	BATH TUB
	BV	BALANCING VALVE
	BWV	BACKWATER VALVE
C	CA	COMPRESSED AIR
	C&V	CAPPED AND VALVED
	CE	CAP EXISTING
	CFH	CUBIC FEET PER HOUR
	CI	CAST IRON
	CONT	CONTINUATION
	CSS	CLINIC SERVICE (FLUSHING RIM) SINK
	CTE	CONNECT TO EXISTING
	CO	CLEANOUT
	CV	CHECK VALVE
	CW	COLD WATER
D	DCVA	DOUBLE CHECK VALVE ASSEMBLY
	DF	DRINKING FOUNTAIN
	D.I.S.S.	DIAMETER INDEX SAFETY SYSTEM
	DN	DOWN THROUGH FLOOR
	DP	DROP
	DWG	DRAWING
	DWH	DOMESTIC WATER HEATER
E	EL	ELEVATION
	ES	EMERGENCY SHOWER
	ETR	EXISTING TO REMAIN
	ETR	EXISTING TO BE REMOVED
	EV	EVACUATION (WAGD) PIPING
	EW	EMERGENCY EYEWASH
	EWC	ELECTRIC WATER COOLER
	EX	EXISTING
	EXPTK	EXPANSION TANK
F	FAI	FRESH AIR INTAKE
	FCO	FLUSH FLOOR CLEANOUT
	FD	FLOOR DRAIN
	FFE	FINISH FLOOR ELEVATION
	FLR	FLOOR
G	GC	GENERAL CONTRACTOR
	GM	GAS METER & REGULATOR SET
	GT	GREASE TRAP
	GV	GATE VALVE
	GVB	FUEL GAS VALVE BOX
H	H&C	HOT & COLD WATER PIPING
	HB	HOSE BIBB
	HW	HOT WATER PIPING
	HWR	HOT WATER RETURN PIPING
I	IE	INVERT ELEVATION
	INV	INVERT
	IW	INDIRECT WASTE
J	JC	JANITOR'S CLOSET
	JSS	JANITOR'S SLOP SINK
K	KEC	KITCHEN EQUIPMENT CONTRACTOR
	KW	KITCHEN WASTE (GREASE)
L	L	LAVATORY
	LAB	LABORATORY
	LGA	LOCAL MEDICAL GAS ALARM PANEL
	LOW	LIMIT OF WORK
	LV	LOCKED MEDICAL VALVE
M	MA	MEDICAL AIR
	MAC	MEDICAL AIR COMPRESSOR
	MGO	MEDICAL GAS OUTLET IDENTIFICATION
	MGA	MASTER MEDICAL GAS ALARM PANEL
	MH	MANHOLE
	MSB	MOP SERVICE BASIN
	MV	MEDICAL VACUUM PIPING
	MVE	MEDICAL VACUUM EXHAUST PIPING
	MVP	MEDICAL VACUUM PUMP
N	N2	NITROGEN PIPING
	N2O	NITROUS OXIDE PIPING
	NC	NORMALLY CLOSED
	NCP	NITROGEN CONTROL PANEL
	NIC	NOT IN CONTRACT
	NO	NORMALLY OPEN
	NPCW	NON-POTABLE COLD WATER
	NPHW	NON-POTABLE HOT WATER
	NTS	NOT TO SCALE
O	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
	OFI	OWNER FURNISHED & INSTALLED
	OX	OXYGEN PIPING
P	PC	PLUMBING CONTRACTOR
	PLGD	PLUGGED
	PRV	PRESSURE REDUCING VALVE
	PRVA	PRESSURE REGULATING VALVE ASSEMBLY
	PS	PRESSURE SWITCH
	PVB	PRESSURE VACUUM BREAKER
	PG	PRESSURE GAUGE
R	RD	ROOF DRAIN
	RP	RECIRC. PUMP
	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
	RV	RELIEF VALVE
	RW	RAIN WATER PIPING
S	SH	SHOWER
	SK	SINK
	SL	SLOPE (1/8" PER FOOT)
	S OR W	SOIL OR WASTE PIPING
	SQ. FT.	SQUARE FEET
	SS	SOIL STACK
	STR	STRAINER
	SP	SUMP PUMP
	SV	SPECIAL VENT
	SVTR	SPECIAL VENT THROUGH ROOF
	SW	SPECIAL WASTE
T	T&P	TEMPERATURE & PRESSURE RELIEF VALVE
	TG	TEMPERATURE GAUGE
	TMV	THERMOSTATIC MIXING VALVE
	TOP	TOP PIPE ELEVATION
	TP	TRAP PRIMER
	TR	THROUGH ROOF
	TYP.	TYPICAL
U	UN	UNION
	UP	UP (THROUGH SLAB ABOVE)
	UP&DN	UP&DN (THROUGH FLOOR SLAB)
	UR	UNRAD
	UW	UNSAFE (NON-POTABLE) WATER PIPING
V	V.	VENT PIPING
	VAC	MEDICAL VACUUM PIPING
	VB	VACUUM BREAKER
	VE	MEDICAL VACUUM EXHAUST PIPING
	VR	VENT RISER
	VS	VENT STACK
	VTR	VENT THROUGH ROOF
W	W&T	WASTE AND TRAP
	W&V	WASTE AND VENT
	WAGD	WASTE ANESTHETIC GAS DISPOSAL
	WC	WATER CLOSET
	WH	WATER HEATER
	WCO	WALL CLEANOUT
	WFA	WATER FILTER ASSEMBLY
	WH	WALL HYDRANT
	WHA	WATER HAMMER ARRESTOR
	WP	WHIRL POOL
Y	YCO	YARD CLEAN OUT
Z	ZVB	MEDICAL GAS ZONE VALVE BOX

SYMBOLS LEGEND

A1.2 / E — COLUMN LINE DESIGNATION

A — MEDICAL GAS OUTLET DESIGNATION

CONNECT TO EXISTING

WC-1 — PLUMBING FIXTURE DESIGNATION

X — DRAWING NUMBER
XXXX — SHEET NUMBER
DETAIL DESIGNATION

1 / XX — REVISION DESIGNATION

K1 — KITCHEN EQUIPMENT DESIGNATION

GENERAL NOTES

DEMOLITION

1. DISCONNECT AND DISMANTLE EXISTING PLUMBING SYSTEMS AND EQUIPMENT TO BE DEMOLISHED AND LEAVE DEBRIS AND DISCONNECTED EQUIPMENT ON THE FLOOR FOR REMOVAL UNDER SECTION 020070 – SELECTIVE DEMOLITION.
2. REMOVE EXISTING PLUMBING STACKS, MAINS AND BRANCHES WHEN SERVING FIXTURES TO BE DEMOLISHED. REMOVE PIPING BACK TO WITHIN 24" OF THE ACTIVE MAIN AND PROVIDE CAP OR PLUG TO SUIT SYSTEM. OBTAIN EXISTING RECORD DRAWINGS FROM THE OWNER. MAINTAIN EXISTING PLUMBING RISERS AND STACKS SERVING FIXTURES TO REMAIN.
3. AFTER WALLS AND CEILINGS ARE REMOVED AND PIPING IS EXPOSED, VERIFY PIPING SERVES ONLY PLUMBING FIXTURES & EQUIPMENT INDICATED FOR DEMOLITION BEFORE SHUTDOWN FOR DISCONNECTION. IDENTIFY EXISTING PIPING WHICH SERVES FIXTURES & EQUIPMENT TO REMAIN. PROMPTLY NOTIFY ARCHITECT OF ACTIVE PIPING TO BE MAINTAINED WHEN LOCATED IN PARTITIONS TO BE DEMOLISHED.
4. REMOVE EXISTING STACKS AND RISERS LOCATED IN EXISTING PARTITIONS TO BE DEMOLISHED AND PROVIDE NEW OFFSET AT CEILING AND DROP THROUGH THE FLOOR AND RECONNECT TO THE EXISTING SERVICES AT THE FLOOR BELOW.

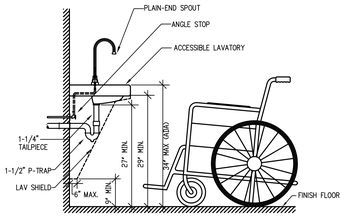
DRAWING LIST

PLUMBING

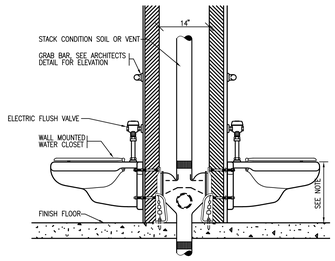
P001 PLUMBING/MEDICAL GAS LEGENDS, NOTES, DETAILS, SCHEDULES. & ABBREVIATIONS
P20B PLUMBING/UNDERSLAB BASEMENT PARTIAL FLOOR PLANS – DEMO/RENO
P30B MEDICAL GAS BASEMENT PARTIAL FLOOR PLANS – RENOVATION

General Notes:

1. THIS IS A STANDARD SYMBOL LIST. ALL SYMBOLS MAY NOT NECESSARILY APPEAR ON THE FLOOR PLANS OR DETAIL SHEETS. ONLY THOSE INDICATED ON THE FLOOR PLANS AND DETAILS SHEETS SHOULD BE USED, AND ALL OTHERS SHOULD BE DISREGARDED.



1 ACCESSIBLE LAVATORY
SCALE: NTS



NOTE:
1. HANDICAPPED WC MOUNTING HEIGHT SHALL BE 17" FROM FINISH FLOOR TO FIXTURE RIM.

2 CHASE CROSS SECTION
SCALE: NTS

PIPING LEGEND

GENERAL

- EXISTING PIPING TO REMAIN
- EXISTING PIPING TO BE REMOVED
- NEW PIPING

WATER

- COLD WATER PIPING
- HOT WATER PIPING
- HOT WATER RETURN PIPING
- HOT WATER PIPING (140°F)
- HOT WATER RETURN PIPING (140°F)
- DEIONIZED WATER PIPE
- DISTILLED WATER PIPE
- COLD WATER PIPING (HIGH PRESSURE)
- HOT WATER PIPING (HIGH PRESSURE)
- HOT WATER RETURN PIPING (HIGH PRESSURE)
- NON-POTABLE COLD WATER PIPING
- NON-POTABLE HOT WATER PIPING
- NON-POTABLE HOT WATER RETURN PIPING
- REVERSE OSMOSIS WATER PIPING
- REVERSE OSMOSIS DEIONIZED WATER PIPING
- TEPID WATER PIPING
- TEPID WATER RETURN

DRAINAGE

- SANITARY OR WASTE PIPING
- UNDER SLAB SANITARY OR WASTE PIPING
- VENT PIPING
- UNDER SLAB VENT PIPING
- GARAGE WASTE PIPING (GAS/OIL WASTE)
- UNDER SLAB GARAGE WASTE PIPING
- GARAGE VENT PIPING
- UNDER SLAB GARAGE VENT PIPING
- INDIRECT WASTE PIPING
- KITCHEN WASTE PIPING (GREASE WASTE)
- UNDER SLAB KITCHEN WASTE PIPING
- PUMPED DISCHARGE PIPING
- RAIN WATER PIPING
- UNDER SLAB RAIN WATER PIPING
- SPECIAL WASTE PIPING
- UNDER SLAB SPECIAL WASTE PIPING
- SPECIAL VENT PIPING
- UNDER SLAB SPECIAL VENT PIPING

GAS

- CARBON DIOXIDE PIPING
- COMPRESS AIR PIPING
- EVACUATION (WAGD) PIPING
- FRESH AIR INTAKE PIPING
- NATURAL GAS PIPING
  GAS HIGH PRESSURE
- NATURAL GAS VENT PIPING
- LABORATORY VACUUM PIPING
- MEDICAL AIR PIPING
  GAS MEDIUM PRESSURE
- MEDICAL VACUUM PIPING
- MEDICAL VACUUM EXHAUST PIPING
- NITROGEN PIPING
- NITROUS OXIDE PIPING
- OXYGEN PIPING
- SPECIAL GAS PIPING

PIPING SYMBOL LEGEND

DRAINS

- AD — AREA DRAIN
- FD — FLOOR DRAIN
- RD — ROOF DRAIN
- TD — TRENCH DRAIN

PIPING

- CAPPED
- CLEANOUT
- DOWN THROUGH FLOOR
- DROP (OR RISE)
- FLEX CONNECTOR
- FLOW ARROW
- FLUSH FLOOR CLEANOUT
- IN-LINE PRESSURE SENSOR
- PIPE GUIDE
- PRESSURE GAUGE
- PRESSURE SWITCH
- SLOPE (1" PER FOOT)
- UNION
- UP (THROUGH SLAB ABOVE)
- UP & DOWN (THROUGH FLOOR SLAB)
- UP & TRAP
- TEMPERATURE GAGE
- WASTE & TRAP

VALVES

- BACKWATER VALVE
- BALANCING VALVE
- BUTTERFLY VALVE
- CAPPED & VALVED
- CHECK VALVE
- DCVA — DOUBLE CHECK VALVE ASSEMBLY
- GAS COCK
- GATE VALVE
- HB — HOSE BIBB
- ISOLATION VALVE
- PRESSURE REDUCING VALVE
- PRESSURE REGULATING VALVE ASSEMBLY
- RPBP — REDUCED PRESSURE BACKFLOW PREVENTER
- RELIEF VALVE
- STRAINER
- TEMPERATURE & PRESSURE RELIEF VALVE
- WH — WALL HYDRANT
- ZVB — MEDICAL GAS ZONE VALVE BOX

PLUMBING FIXTURE ROUGHING SCHEDULE

I.D.	FIXTURE TYPE	USE	CW	HW	S/W	V	REMARKS
WC-1	WATER CLOSET (ACCESSIBLE)	TOILET ROOM	1"	–	4"	2"	WALL HUNG, ADA COMPLIANT
L-1	LAVATORY (ACCESSIBLE)	STAFF TOILET ROOM	1/2"	1/2"	2"	1-1/2"	WALL HUNG W/ELECTRIC INFRARED GOOSENECK SPOUT
SK-1	HAND WASH SINK	PEDI ROOMS	1/2"	1/2"	2"	1-1/2"	WALL HUNG W/ELECTRIC INFRARED GOOSENECK SPOUT
CSS-1	CLINIC SERVICE SINK	SOILED UTILITY	1"	3/4"	4"	2"	WALL HUNG W/FLUSH VALVE & SERVICE FAUCET
EWC-1	ELECTRIC WATER COOLER	CORRIDOR	1/2"	–	2"	1-1/2"	RELOCATED
EEW-1	EMERGENCY EYE WASH	NURSE STATION	*1/2"	*1/2"	–	–	*1/2" TEPID WATER VIA TMV

NOTES: COORDINATE MOUNTING HEIGHTS WITH ARCHITECTURAL ELEVATIONS AND G.C.
ALL EXPOSED WASTE, TRAP, AND SUPPLIES SHALL WRAPPED IN PROTECTIVE INSULATION.

MEDICAL GAS ZONE VALVE BOX SCHEDULE

I.D.	MANUFACTURER	MODEL	LOCATION	OXY.	AIR	VAC	NIT	N2O	EVAC	REMARKS
ZVB-1	REFER TO SPEC	AS SPECIFIED	CORR. DC-B/ER1	1/2"		1"				REFER TO SPECIFICATION

NOTES: 1. MOUNT 66" FROM TOP OF PANEL TO THE FINISHED FLOOR.
2. VALVE BOX SHALL BE LABELED WITH AREA(S) SERVED.

MEDICAL GAS ALARM SCHEDULE

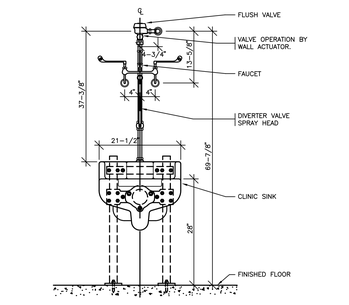
I.D.	LOCATION	OXY. SENSORS	AIR SENSORS	VAC SENSORS	NIT SENSORS	N2O SENSORS	EVAC SENSORS	REMARKS
AGA-1	NURSE STATION B011-ER	*		*				REFER TO SPECIFICATION

NOTES: 1. PROVIDE PRESSURE AND VACUUM SWITCHES WITH BELDEN B451 OR WEST PENN 452, 22 AWG CABLE IN PROTECTIVE CONDUIT.
2. PROVIDE WIRING BETWEEN ALARM PANEL AND PRESSURE SWITCHES.
3. MOUNT 66" FROM TOP OF PANEL TO THE FINISHED FLOOR.

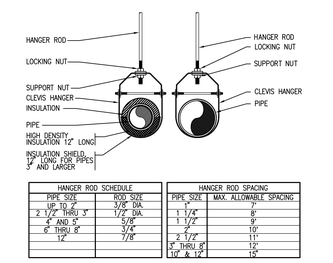
MEDICAL GAS OUTLET SCHEDULE

I.D.	QUANTITY	AREA SERVED	REMARKS
A	OX MV SL	PEDI	REFER TO SPECIFICATION

NOTES: 1. COORDINATE MOUNTING HEIGHTS/LOCATIONS WITH ARCHITECTURAL ELEVATIONS.
2. INCLUDE VACUUM SLIDE BRACKETS.



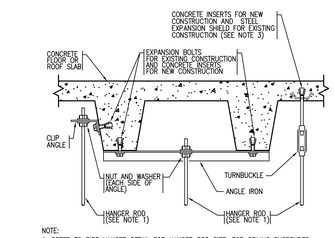
3 CLINICAL SERVICE SINK
SCALE: NTS



HANGER ROD SCHEDULE	
PIPE SIZE	ROD SIZE
UP TO 2"	3/8" DIA.
2 1/2" THRU 3"	1/2" DIA.
4" AND 5"	5/8"
6" THRU 8"	3/4"
10"	7/8"

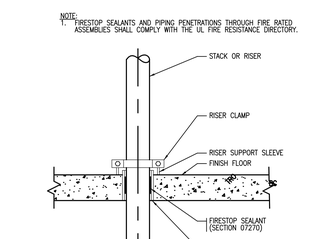
HANGER ROD SPACING	
PIPE SIZE	MAX. ALLOWABLE SPACING
1"	7'
1 1/4"	8'
1 1/2"	9'
2"	10'
2 1/2"	11'
3" THRU 8"	12'
10" & 12"	15'

4 PLUMBING PIPE HANGER INSTALLATION
SCALE: NTS

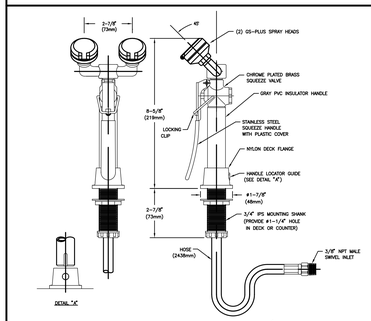


NOTE:
1. REFER TO PIPE HANGER DETAIL FOR HANGER ROD SIZE. FOR CEILING SUSPENDED EQUIPMENT PROVIDE MIN. 3/8" DIA. HANGER ROD (REFER TO MANUFACTURERS INSTALLATION INSTRUCTIONS).
2. FOR PIPES UNDER 2" USE 1-1/2"x1-1/2"x1/4" ANGLE IRON. FOR PIPES 2" AND LARGER USE 3"x3"x1/4" ANGLE IRON.
3. EXPANSION SHIELDS SHALL BE ONLY USED IN SLABS OR BEAMS OF 4" MIN. DEPTH.

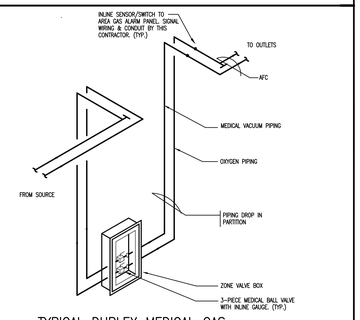
5 METHODS OF SECURING HANGERS TO CONCRETE
SCALE: NTS



6 TYPICAL SLAB PENETRATION AND RISER SUPPORT SLEEVE
SCALE: NTS



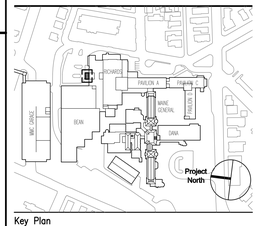
7 DECK MOUNTED DUAL PURPOSE EYE/WASH DRENCH HOSE UNIT WITH TWO GS PLUS SPRAY HEADS
SCALE: NTS



8 TYPICAL DUPLEX MEDICAL GAS ZONE VALVE BOX
SCALE: NTS

MARK	ISSUE DATE	DESCRIPTION

Issue Log



Key Plan

TRO
ARCHITECTURE
PLANNING
ENGINEERING
INTERIOR DESIGN
The Ritchie Organization
80 Bridge Street
Newton, MA 02458-1134
617-969-9400

Maine Medical Center
ED Pediatric Exam Renovation
Portland, Maine

Drawing Title
PLUMBING/MEDICAL GAS LEGENDS, NOTES, DETAILS, SCHEDULES, & ABBREVIATIONS

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Commission No.	4684	Date Issued	JUNE 22, 2004
Scale	NTS	Sheet Number	
Drawn By	SDB		**P001**
Approved By	RMH		
Filename	4684P001		