



Department of
Veterans Affairs

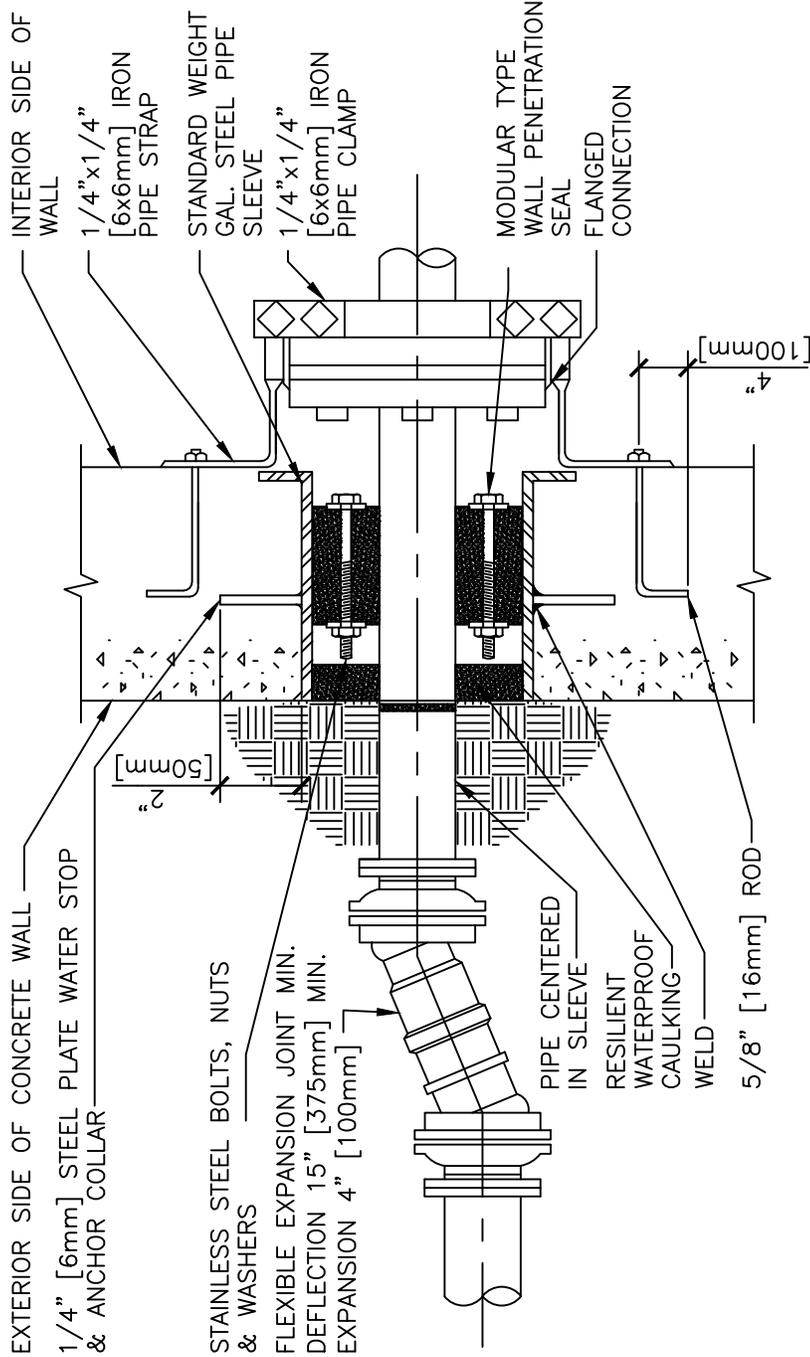
DETAIL TITLE / PIPE PENETRATION THROUGH WALLS BELOW GRADE

SCALE : NONE

DATE ISSUED: JULY 2014

CAD DETAIL NO.:

SD220511-01.DWG



PIPE PENETRATION THROUGH WALLS BELOW GRADE

#

NTS

PLUMBING ABBREVIATIONS

A/E	ARCHITECT / ENGINEER	EL	ELEVATION
AD	AREA DRAIN/ACCESS DOOR	EMCS	ENERGY MONOSERRAT AND CENTRAL SYSTEM
AFF	ABOVE FINISH FLOOR	EPA	ENVIROMENTAL PROTECTION AGENCY
AFG	ABOVE FINISH GRADE	EPACT	ENERGY POLICY ACT
AG	AIR GAP	ESC	ESCUTCHEON
AP	ACCESS PANEL	ESH	EMERGENCY SHOWER
AS	AUTOMATIC SPRINKLER	ET	EXPANSION TANK
ASD	ADJUSTABLE SPEED DRIVES	EWH	ELECTRIC WATER HEATER
ASD	AUTOMATIC SPRINKLER DRAIN	EWS	EYE WASH STATION
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION, AIR CONDITIONING ENGINEERS	EWS/SH	EYE WASH/DRENCH SHOWER
ASME	AMERICAN SOCIETY OF ECHANICAL ENGINEERS	EX	EXISTING
ASPE	AMERICAN SOCIETY OF PLUMBING ENGINEERS		
ASR	AUTOMATIC SPRINKLER RISER		
AV	ACID VENT		
AW	ACID WASTE		
		F	FAHRENHEIT
BFP	REDUCED PRESSURE BACKFLOW PREVENTER	FCO	FLOOR CLEANOUT
BHP	BREAK HORSEPOWER	FCW	FILTERED COLD WATER
BSP	BLACK STEEL PIPE	FD	FLOOR DRAIN
BT	BATHTUB	FDC	FIRE DEPARTMENT (HOSE) CONNECTION
BTU	BRITISH THERMAL UNIT	FM	FLOW METER
BTUH	BRITISH THERMAL UNIT PER HOUR	FOP	FUEL OIL PUMP
		FOR	FUEL OIL RETURN
C	CELSIUS	FOS	FUEL OIL SUPPLY
CA	COMPRESSED AIR	FOV	FUEL OIL VENT
CGA	COMPRESSED GAS ASSOCIATION	FS	FLOOR SINK
CFM	CUBIC FEET PER MINUTE	FS	FLOW SWITCH
CI	CAST IRON	FU	FIXTURE UNITS
CO	CLEANOUT		
CS	CLINICAL SINK		
CV	CONTROL VALVE		
DCW	DOMESTIC COLD WATER		
DFU	DRAINAGE FIXTURE UNITS		
DHW	DOMESTIC HOT WATER		
DHWR	DOMESTIC HOT WATER RETURN		
DHWS	DOMESTIC HOT WATER SUPPLY		
DI	DEIONIZED WATER		
DN	DOWN		
DOE	DEPARTMENT OF ENERGY		
DS	DOWNSPOUT		
DW	DISHWASHER		
DWG	DRAWING		
DWH	DOMESTIC WATER HEATER		
DWR	DRINKING WATER RETURN		
DWS	DRINKING WATER SUPPLY		
DWV	DRAIN WASTE VENT		



Department of
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DETAIL TITLE / PLUMBING
ABBREVIATIONS

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PLUMBING ABBREVIATIONS

GAL	GALLON	M	METER
GCO	GRADE CLEANOUTS	MA	MEDICAL AIR
GPD	GALLONS PER DAY	MAV	MANUAL AIR VENT
GPH	GALLONS PER HOUR	MBH	1000 BTUH
GPM	GALLONS PER MINUTE	MED	MEDICAL
GPR	GAS PRESSURE REGULATOR	MER	MECHANICAL EQUIPMENT ROOM
GRS	GAS REGULATOR STATION	MH	MANHOLE
GT	GREASE TRAP	MOU	MEMORANDUM OF UNDERSTANDING
GVTR	GAS VENT THROUGH ROOF	MSB	MOP SERVICE BASIN
GWH	GAS FIRED WATER HEATER	MV	MEDICAL VACUUM
H&CW	HOT AND COLD WATER	N2	NITROGEN
HB	HOSE BIBB	N2O	NITROUS OXIDE
HD	HUB DRAIN	NC	NORMALLY CLOSED
HEX	HEAT EXCHANGER	NG	NATURAL GAS
HP	HORSEPOWER	NIC	NOT IN CONTRACT
HS	HAND SINK	NO	NORMALLY OPEN
HST	HOT WATER STORAGE TANK (DOMESTIC)	NOM.	NOMINAL
HWB	HOT WATER BOILER	NPW	NON POTABLE WATER
HWCP	HOT WATER CIRCULATING PUMP	NTS	NOT TO SCALE
HWP	HOT WATER PUMP		
HYD	HYDRANT	O2	OXYGEN
ID	INSIDE DIAMETER	OC	ON CENTER
IE	INVERT ELEVATION	OD	OUTSIDE DIAMETER
ICW	INDUSTRIAL COLD WATER	OFD	OVERFLOW DRAIN
IHW	INDUSTRIAL HOT WATER	OR	OPERATING ROOM
INV	INVERT	OVFL	OVERFLOW
IPC	INTERNATIONAL PLUMBING CODE		
IRW	IRRIGATION WATER		
IW	INDIRECT WASTE		
IWH	INSTANTANEOUS WATER HEATER		
IWR	INDUSTRIAL WATER RETURN		
IWS	INDUSTRIAL WATER SUPPLY		
KW	KILOWATT		
KWH	KILOWATT-HOUR		
L/S	LITER PER SECOND		
LA	LABORATORY AIR		
LAV	LAVATORY		
LBS/HR	POUNDS PER HOUR		
LCW	LABORATORY COLD WATER		
LHW	LABORATORY HOT WATER		
LNG	LIQUID NATURAL GAS		
LOX	LIQUID OXYGEN		
LV	LABORATORY VACUUM		
LW	LOW WATER		



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PLUMBING ABBREVIATIONS

IPC	INTERNATIONAL PLUMBING CODE	V	VENT
PA	PASCAL	VAC	VACUUM
PD	PRESSURE DROP OR DIFFERENCE	VB	VACUUM BREAKER
PDI	PLUMBING AND DRAINAGE INSTITUTE	VCO	VACUUM CLEANER OUTLET
PG	PRESSURE GAGE	VP	VACUUM PUMP
PP	PLUMBING PUMP	VS	VENT STACK
PPM	PARTS PER MILLION	VSD	VARIABLE SPEED DRIVE
PRS	PRESSURE REDUCING STATION	VTR	VENT THROUGH ROOF
PRV	PRESSURE REDUCING VALVE	W	WASTE
PSI	POUNDS PER SQUARE INCH	WC	WATER CLOSET
PSIA	POUNDS PER SQUARE INCH ATMOSPHERE	WCO	WALL CLEANOUT
PSIG	POUNDS PER SQUARE INCH GAGE	WG	WATER GAGE
PTRV	PRESSURE TEMPERATURE RELIEF VALVE	WH	WALL HYDRANT
PW	POTABLE WATER	WH	WATER HEATER
RD	ROOF DRAIN	WHA	WATER HAMMER ARRESTER
RDL	ROOF DRAIN LEADER	WL	WATER LINE
RL	ROOF LEADER	WM	WATER METER
RP	RECIRCULATION PUMP	WPD	WATER PRESSURE DROP
RO	REVERSE OSMOSIS WATER	WS	WASTE STACK
RWL	RAIN WATER LEADER	WSFU	WATER SUPPLY FIXTURE UNITS
SAN	SANITARY SEWER	YCO	YARD CLEANOUT
SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION	YH	YARD HYDRANT
SCFM	STANDARD CUBIC FOOT/MINUTE		
SCW	SOFTENED COLD WATER		
SDMH	STORM DRAIN MANHOLE		
SMH	SANITARY MANHOLE		
SP	SUMP PUMP		
SPR	SPRINKLER LINE		
SQFT/SF	SQUARE FEET		
SS	STAINLESS STEEL		
ST	STORAGE TANK		
SW	STORM WATER		
TCV	TEMPERATURE CONTROL VALVE		
TD	TEMPERATURE DIFFERENCE		
TD	TRENCH DRAIN		
TDH	TOTAL DYNAMIC HEAD		
TEMP	TEMPERATURE		
TMV	THERMOSTATIC MIXING VALVE		
TP	TRAP PRIMER		
TSTAT	THERMOSTAT		
TWR	TEMPERED WATER RETURN		
TWS	TEMPERED WATER SUPPLY		
TYP	TYPICAL		



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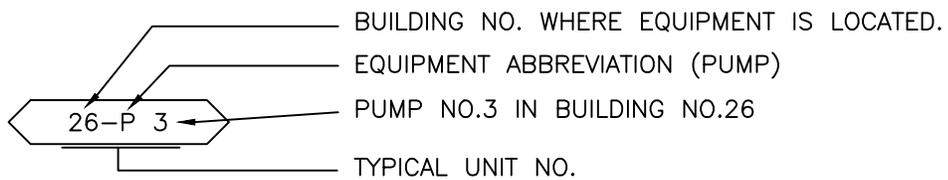
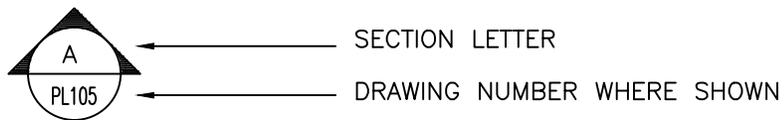
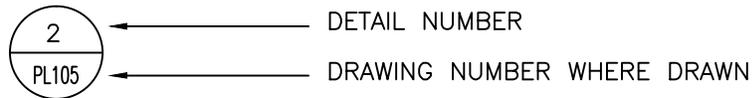
DETAIL TITLE / PLUMBING
ABBREVIATIONS

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DRAWING SYMBOLS



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DETAIL TITLE / DRAWING SYMBOLS

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PLUMBING PIPING SYMBOLS

-----	DOMESTIC COLD WATER, COLD WATER
-----	DOMESTIC HOT WATER, HOT WATER
-----	DOMESTIC HOW WATER RETURN, HOT WATER RETURN
---- MA ---- MA ---- MA ----	MEDICAL AIR
— MV — MV — MV —	MEDICAL VACUUM
---- LA ---- LA ---- LA ----	LABORATORY AIR
— LV — LV — LV —	LABORATORY VACUUM
— OA — OA — OA —	ORAL EVACUATION
---- IA ---- IA ---- IA ----	INDUSTRIAL AIR
— D — D — D —	DRAIN
-----	VENT (SANITARY)
— SS — SS — SS —	SOIL, WASTE, OR SANITARY SEWER
---- SAN ---- SAN ---- SAN ----	SANITARY SEWER, BELOW GRADE
— SD — SD — SD —	STORM WATER
---- SD ---- SD ---- SD ----	STORM WATER, BELOW GRADE
— SCW — SCW — SCW —	SOFTEN COLD WATER
— FCW — FCW — FCW —	FILTERED COLD WATER
— DWS — DWS — DWS —	DRINKING WATER SUPPLY
---- DWR ---- DWR ---- DWR ----	DRINKING WATER RETURN
— TWS — TWS — TWS —	TEMPERED WATER SUPPLY
---- TWR ---- TWR ---- TWR ----	TEMPERED WATER RETURN
— N ₂ O — N ₂ O — N ₂ O —	NITROUS OXIDE
— O — O — O —	OXYGEN
— N ₂ — N ₂ — N ₂ —	NITROGEN
— NG — NG — NG —	NATURAL GAS
---- NG ---- NG ---- NG ----	NATURAL GAS, BELOW GRADE
— FOD — FOD — FOD —	FUEL OIL DISCHARGE
— FOS — FOS — FOS —	FUEL OIL SUPPLY
— FOV — FOV — FOV —	FUEL OIL VENT
---- FOR ---- FOR ---- FOR ----	FUEL OIL RETURN



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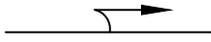
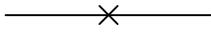
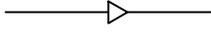
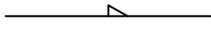
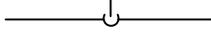
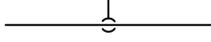
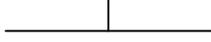
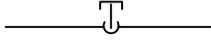
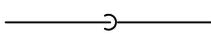
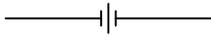
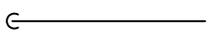
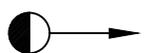
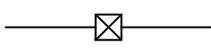
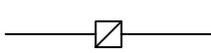
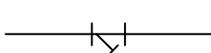
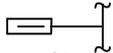
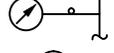
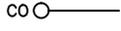
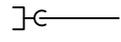
DETAIL TITLE / PLUMBING PIPING SYMBOLS

SCALE :NONE

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GENERAL PLUMBING SYMBOLS

	DIRECTION OF PIPE PITCH (DOWN)
	DIRECTION OF FLOW
	ANCHOR
	REDUCER OR INCREASER
	ECCENTRIC REDUCER
	TOP CONNECTION, 45° OR 90°
	BOTTOM CONNECTION, 45° OR 90°
	SIDE CONNECTION
	CAPPED OUTLET
	RISE OR DROP IN PIPE
	UNION
	PIPE UP
	PIPE DOWN
	POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
	LIMIT OF DEMOLITION
	INVERTED BUCKET TRAP SET INCLUDING PIPING ACCESSORIES
	FLOAT & THERMOSTATIC TRAP SET INCLUDING PIPING ACCESSORIES
	STRAINER
	THERMOMETER
	PRESSURE GAGE
	FLOW ELEMENT
	CLEAN OUT
	HOSE BIB



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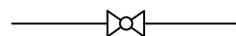
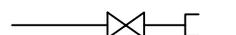
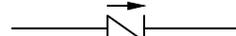
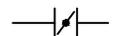
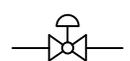
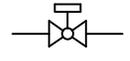
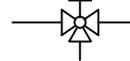
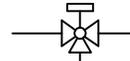
DETAIL TITLE / GENERAL PLUMBING
SYMBOLS

SCALE :NONE

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PLUMBING VALVE SYMBOLS

	GATE VALVE
	GLOBE VALVE
	GATE VALVE WITH 3/4 " HOSE ADAPTER
	CHECK VALVE
	ANGLE GLOBE VALVE
	BUTTERFLY VALVE
	BALL VALVE
	MODULATING CONTROL VALVE
	TWO POSITION CONTROL VALVE
	THREE-WAY MODULATING CONTROL VALVE
	THREE-WAY TWO POSITION CONTROL VALVE
	PRESSURE REGULATING VALVE
	AUTOMATIC FLOW CONTROL VALVE
	PRESSURE RELIEF VALVE
	MANUAL AIR VENT
	TEST PLUG (PRESSURE/TEMPERATURE)
	AUTOMATIC AIR VENT



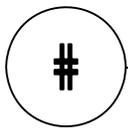
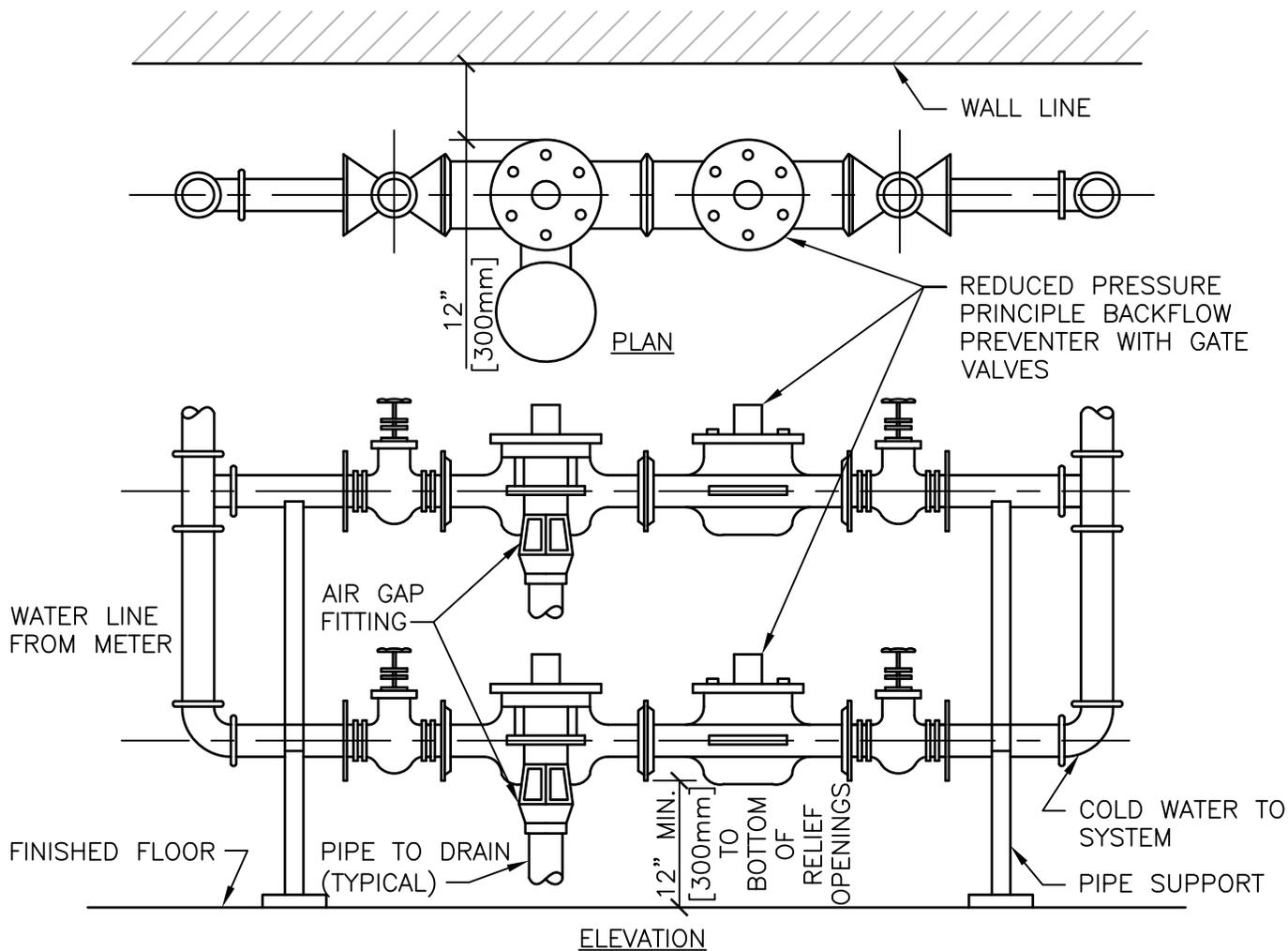
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DETAIL TITLE / PLUMBING VALVE
SYMBOLS

SCALE :NONE

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BACKFLOW PREVENTER PIPING DETAIL

NTS



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DETAIL TITLE / BACKFLOW PREVENTER PIPING DETAIL

SCALE: NONE

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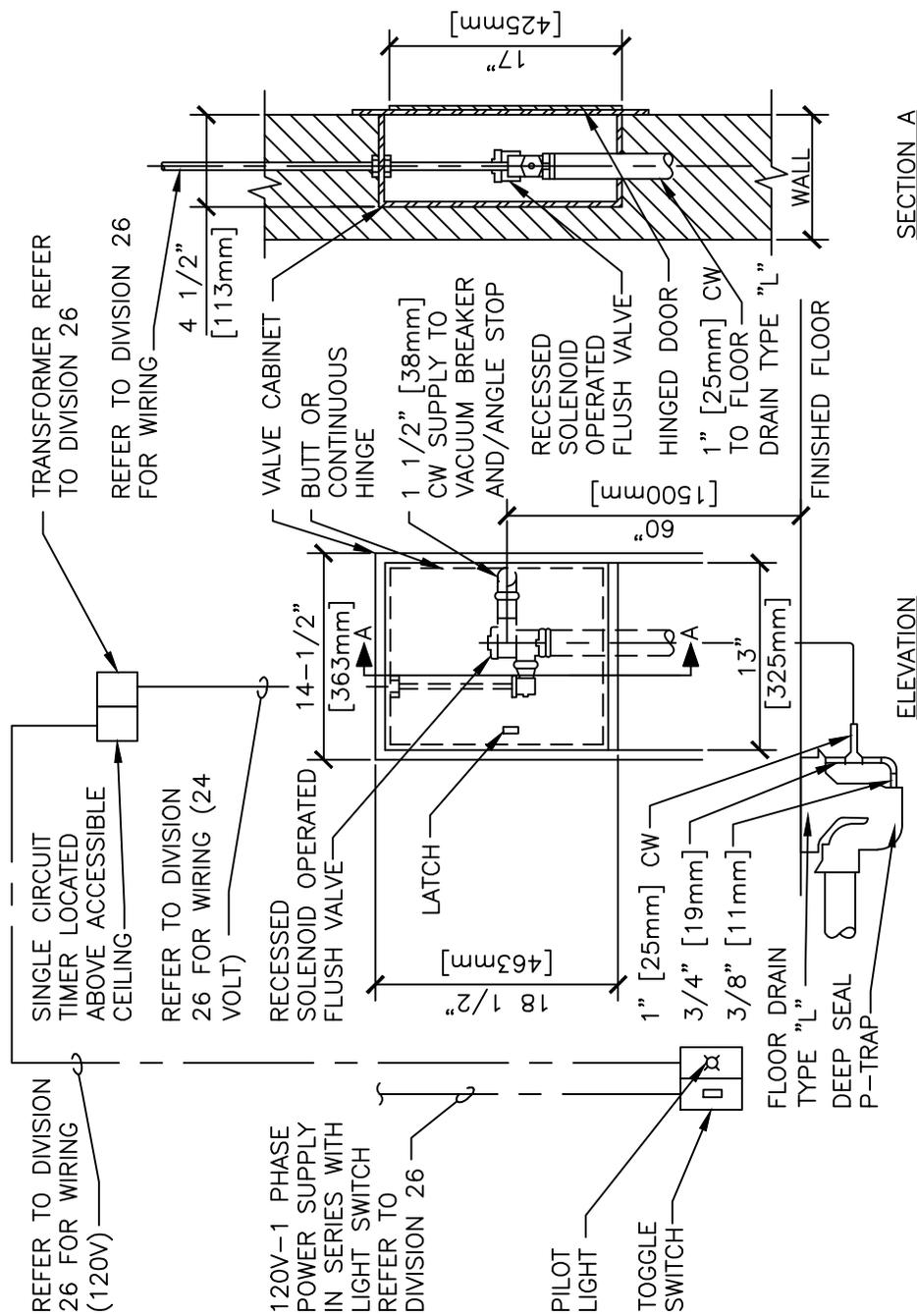
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DETAIL TITLE / FLUSHING RIM FLOOR DRAIN "L" CYSTOSCOPY ROOM

SCALE :NONE

DATE ISSUED: JULY 2014

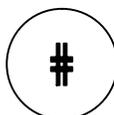
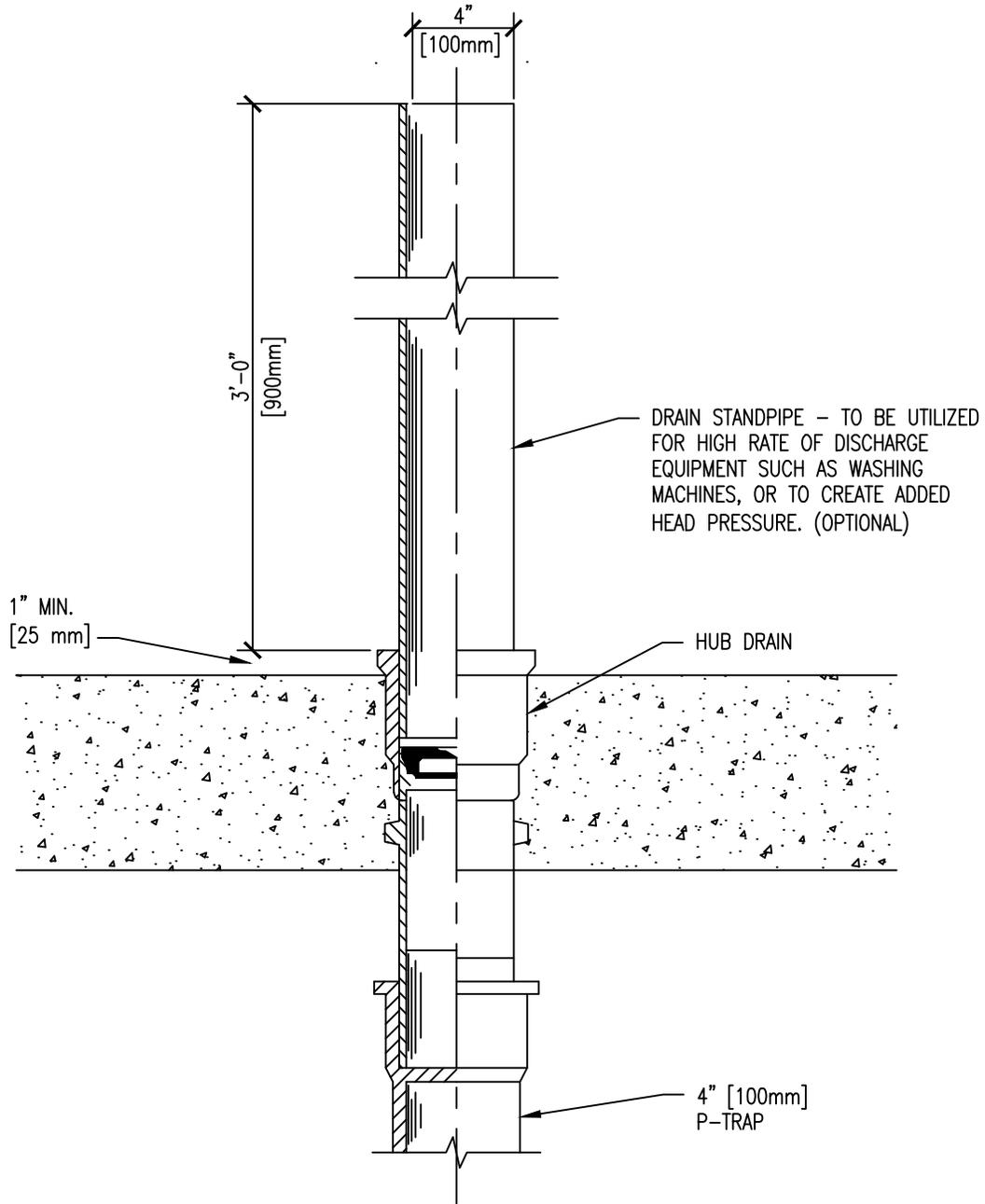
CAD DETAIL NO.: SD221300-01.DWG



FLUSHING RIM FLOOR DRAIN "L" CYSTOSCOPY ROOM

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TYPE "W" HUB DRAIN WITH STANDPIPE

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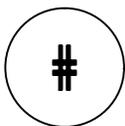
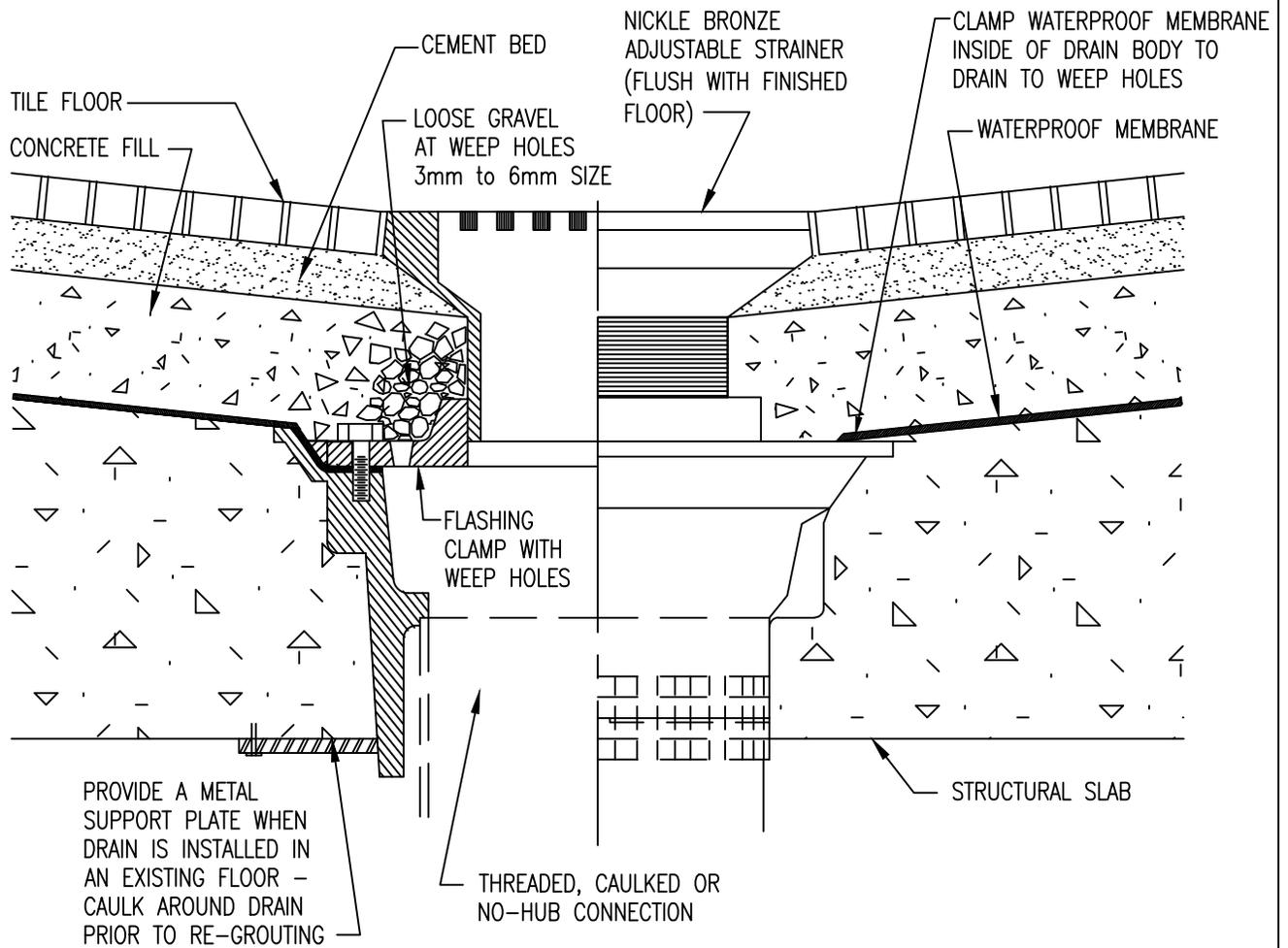
DETAIL TITLE / HUB DRAIN WITH STANDPIPE

SCALE :NONE

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TYPE "C" FLOOR DRAIN DETAIL

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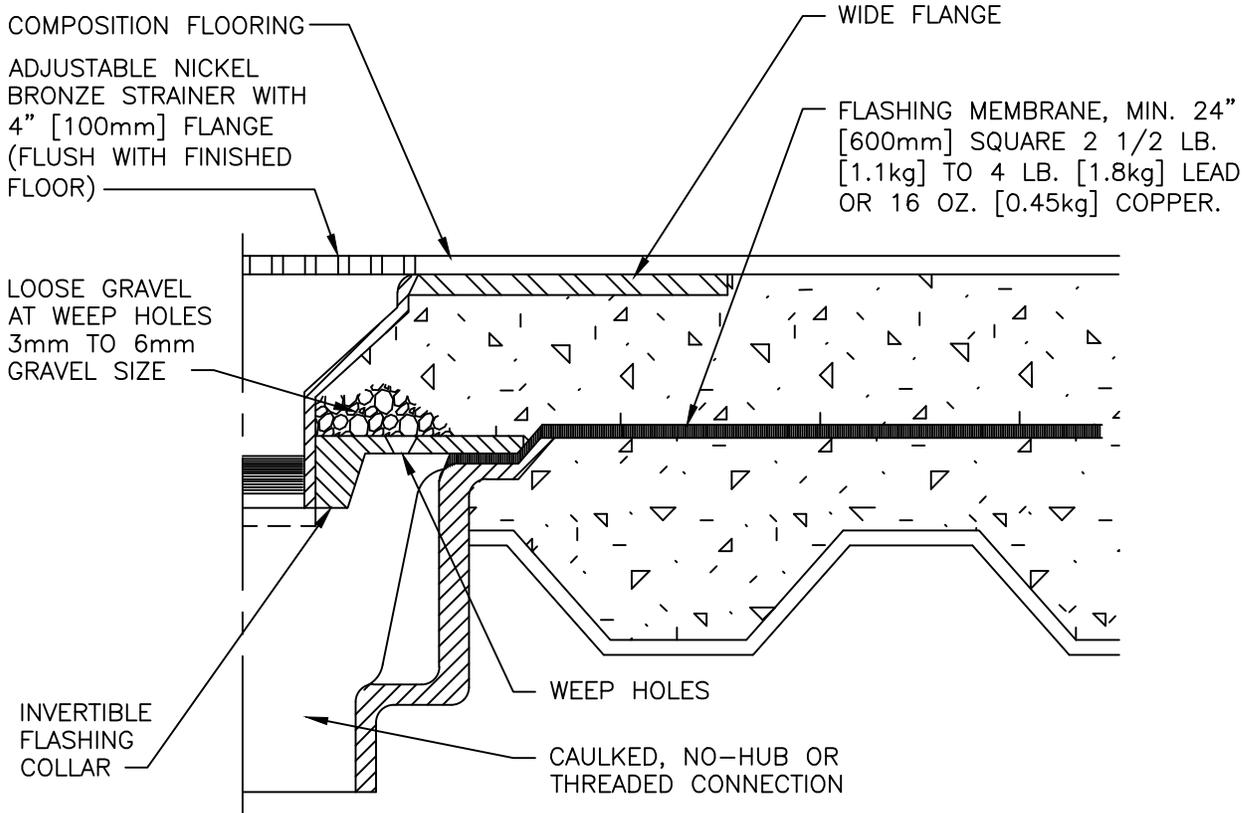
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DETAIL TITLE / TYPE "C" FLOOR DRAIN DETAIL

SCALE :NONE

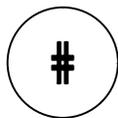
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NOTE:

1. SLOPE MEMBRANE LINER 2% TO DRAIN.
2. PROVIDE FLASHING MEMBRANE WHEN DRAIN IS INSTALLED IN A NON MEMBRANE FLOOR



TYPE "D" FLOOR DRAIN DETAIL

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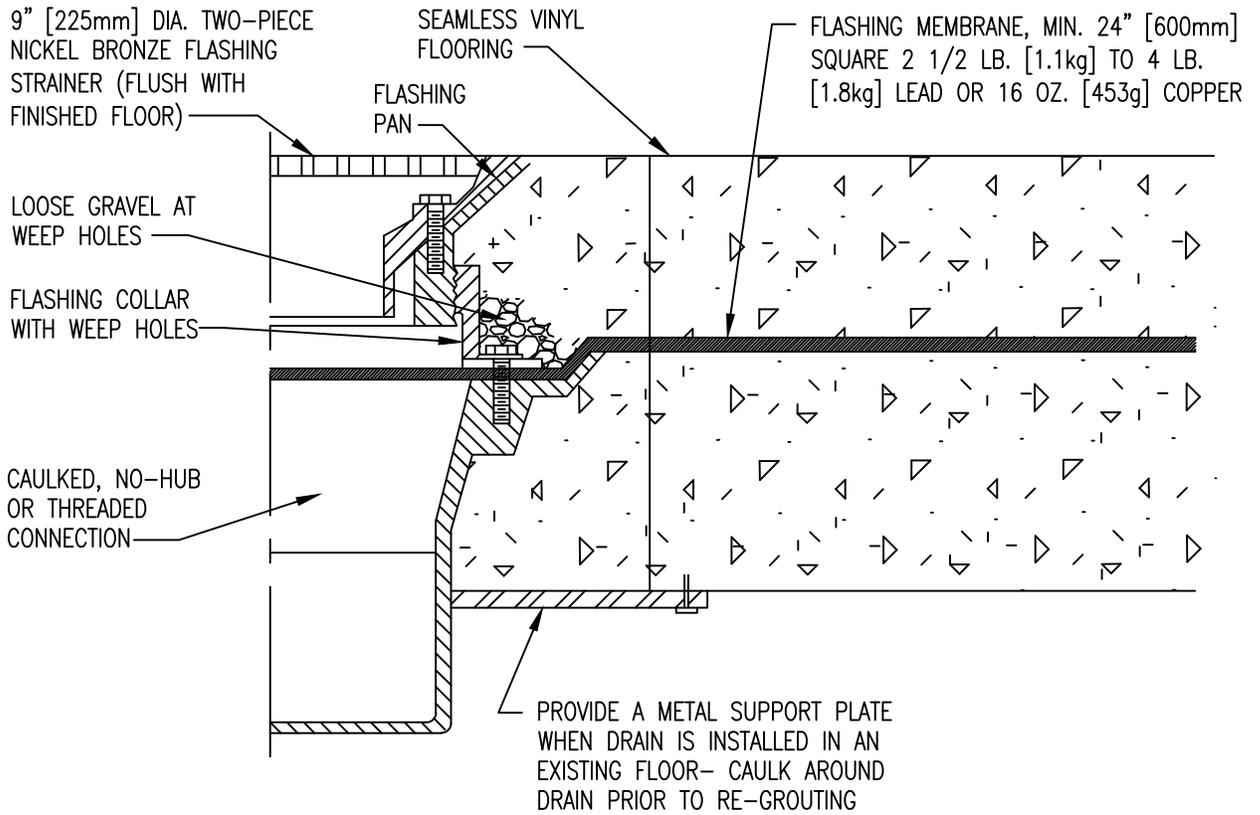
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DETAIL TITLE / TYPE "D" FLOOR DRAIN DETAIL

SCALE :NONE

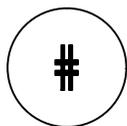
DATE ISSUED: JULY 2014

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NOTES:

1. SLOPE MEMBRANE LINER 2% TO DRAIN.
2. PROVIDE FLASHING MEMBRANE WHEN DRAIN IS INSTALLED IN A NON-MEMBRANE FLOOR.



TYPE "F" FLOOR DRAIN DETAIL

NTS



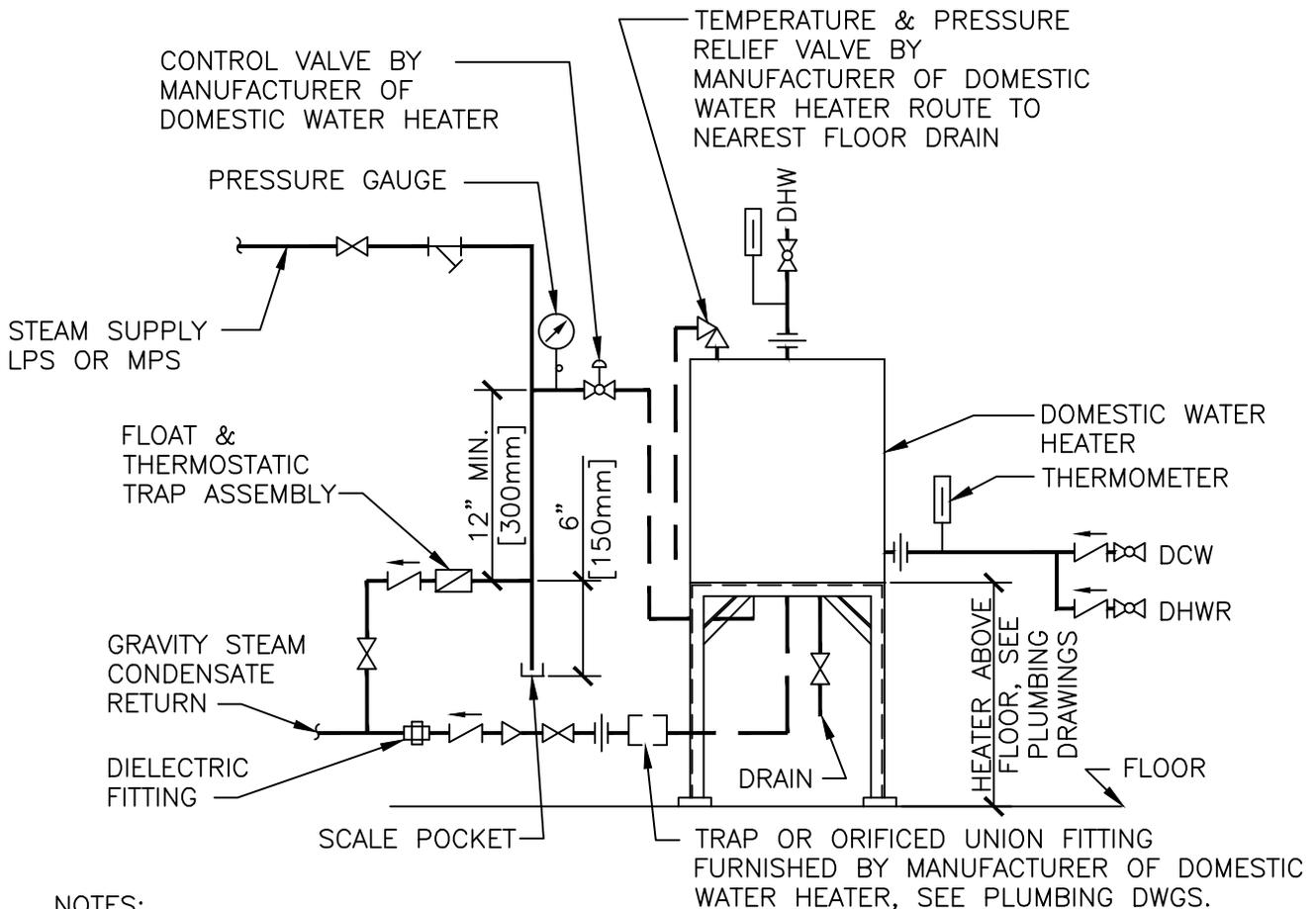
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DETAIL TITLE / TYPE "F" FLOOR DRAIN DETAIL

SCALE :NONE

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NOTES:

1. VERTICAL COIL TYPE DOMESTIC WATER HEATER IS SHOWN. IF HORIZONTAL TUBE BUNDLE TYPE IS FURNISHED, PIPING SHALL BE SIMILAR.
2. SEE PLUMBING DRAWINGS FOR PIPING CONNECTIONS.
3. PIPING TO UPPER HEATER HEAD SHOULD BE PROVIDED WITH UNION OR FLANGES, LOCATED OUTSIDE THE OUTER DIAMETER OF HEAD TO FACILITATE REMOVAL OF HEAD AND SHELL.
4. PIPING BETWEEN CONTROL VALVE AND HEATER CONNECTION SHOULD BE AS SHORT AS POSSIBLE.
5. PROVIDE INTEGRAL OR EXTERNAL HEAT TRAPS.
6. PROVIDE HOSE CONNECTION TO DRAIN.

CONNECTIONS TO DOMESTIC WATER HEATER

NTS

DESIGNER'S NOTES:

MAKE SURE ENOUGH HEIGHT IS PROVIDED SO CONDENSATE CAN RETURN BY GRAVITY. SIZE END OF MAIN TRAP SET ON FLOOR PLANS. IF STEAM PRESSURE IS 5 PSIG [34 kPa] OR LOWER FURNISH CONTROL AIR FOR CONTROLS. WITH 30 PSIG [206 kPa] STEAM CONTROLS ARE PILOT OPERATED.



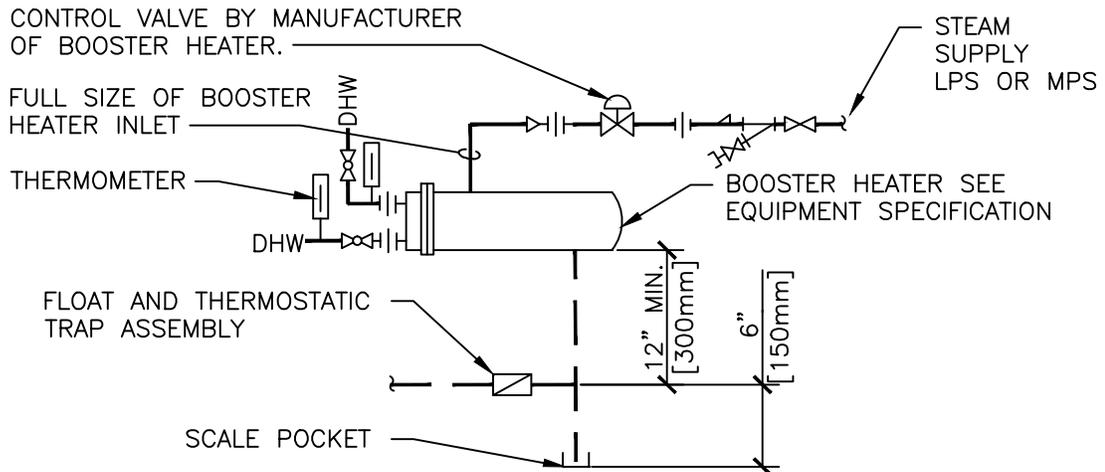
Department of
Veterans Affairs

DETAIL TITLE / CONNECTIONS TO DOMESTIC WATER HEATER

SCALE :NONE

DATE ISSUED: JULY 2014

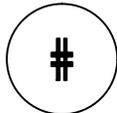
CAD DETAIL NO.: SD223500-01.DWG



NOTES:

1. ALL STEAM BOOSTER HEATERS REQUIRED BY EQUIPMENT SPECIFICATION SHALL BE PIPED AS SHOWN ABOVE.
2. SEE EQUIPMENT SPECIFICATION AND PLUMBING DRAWINGS FOR PIPING CONNECTIONS.

CONNECTIONS TO DOMESTIC WATER BOOSTER HEATERS



NTS



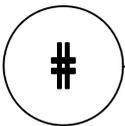
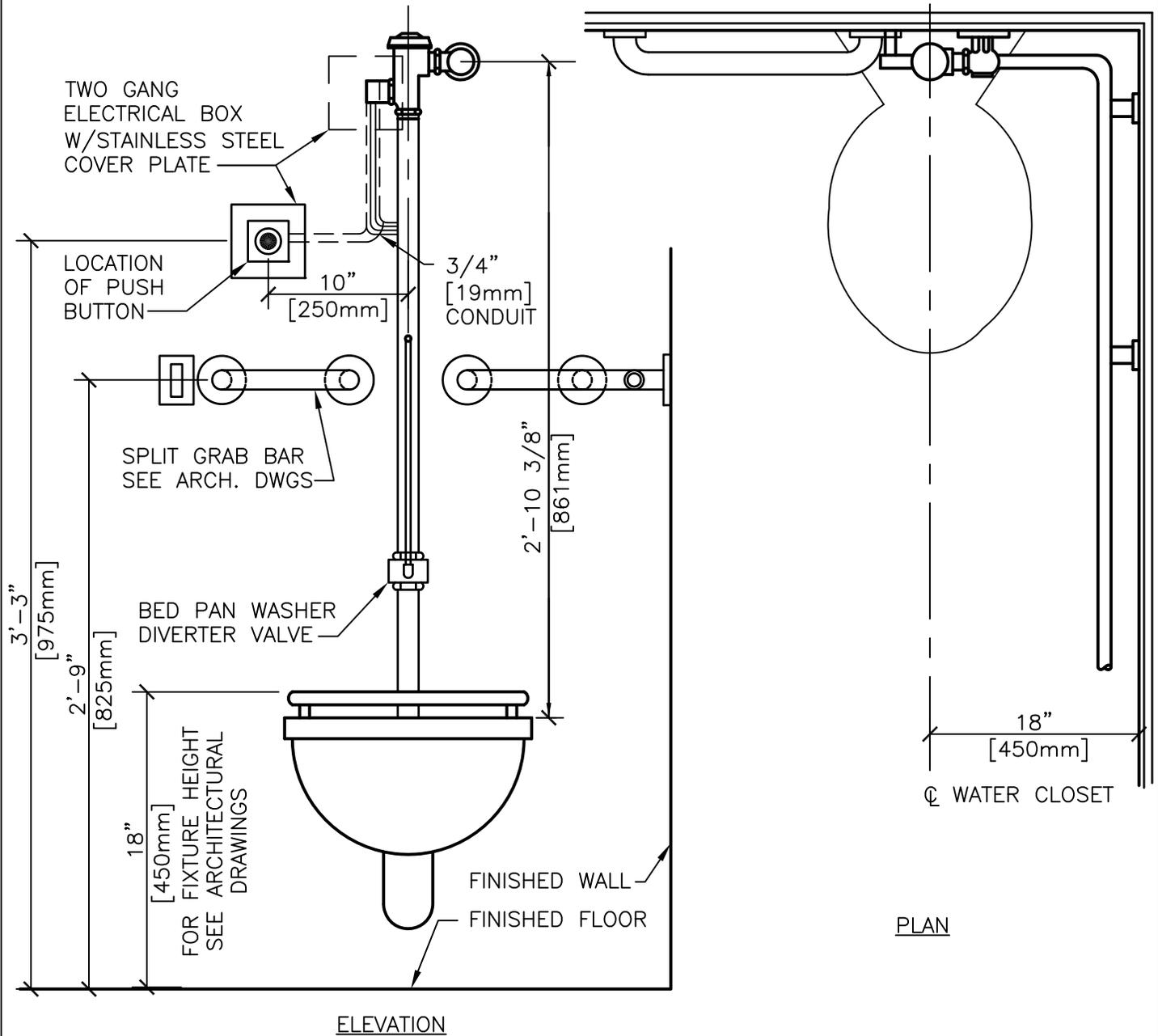
Department of
Veterans Affairs

DETAIL TITLE / CONNECTIONS TO DOMESTIC WATER BOOSTER HEATERS

SCALE :NONE

DATE ISSUED: JULY 2014

CAD DETAIL NO.: SD223500-02.DWG



P-103 WATER CLOSET DETAIL

NTS



Department of Veterans Affairs

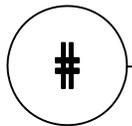
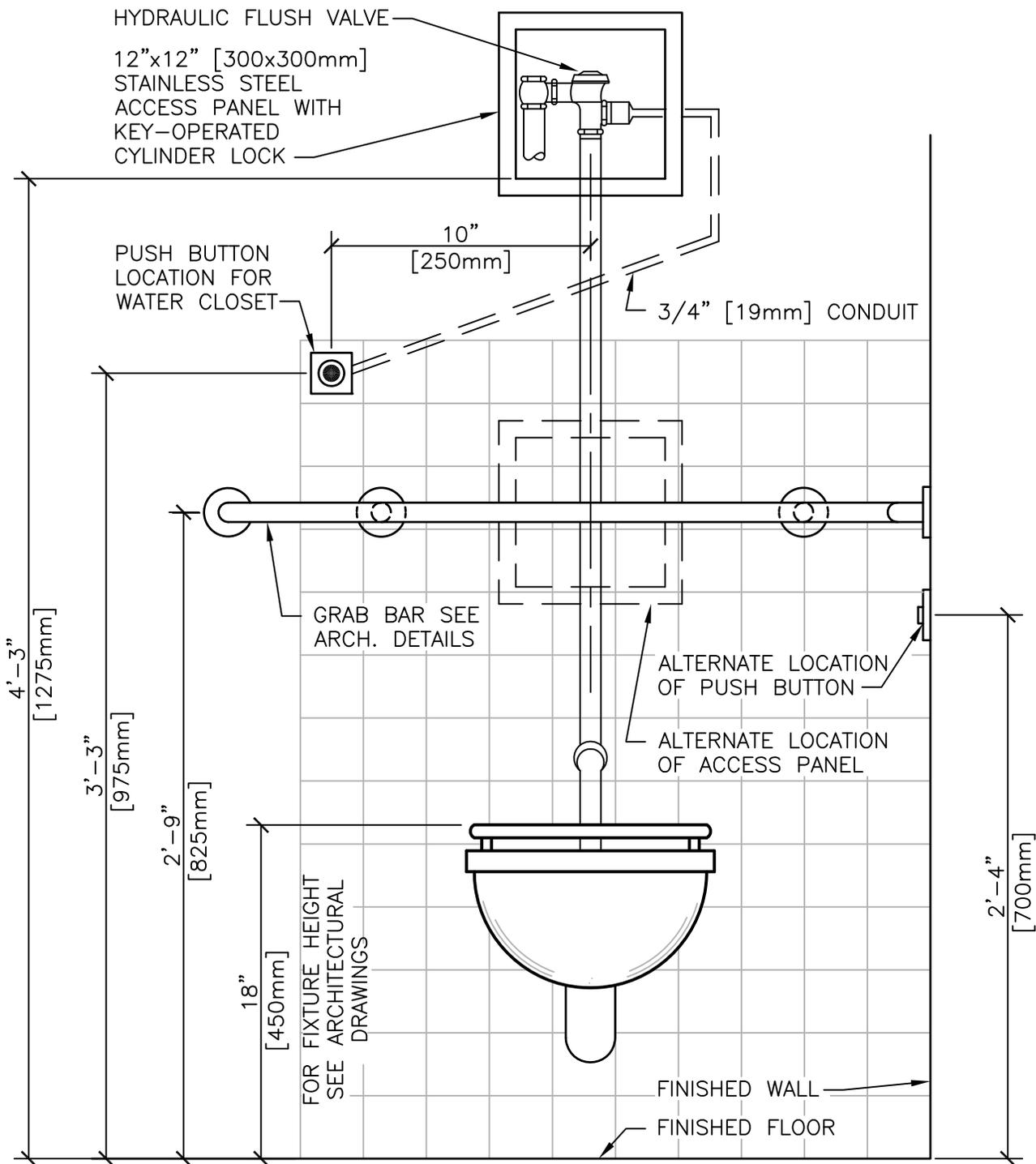
DETAIL TITLE / P-103 WATER CLOSET DETAIL

SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015

CAD DETAIL NO.:

SD224000-01.DWG



P-111 WATER CLOSET

NTS



Department of
Veterans Affairs

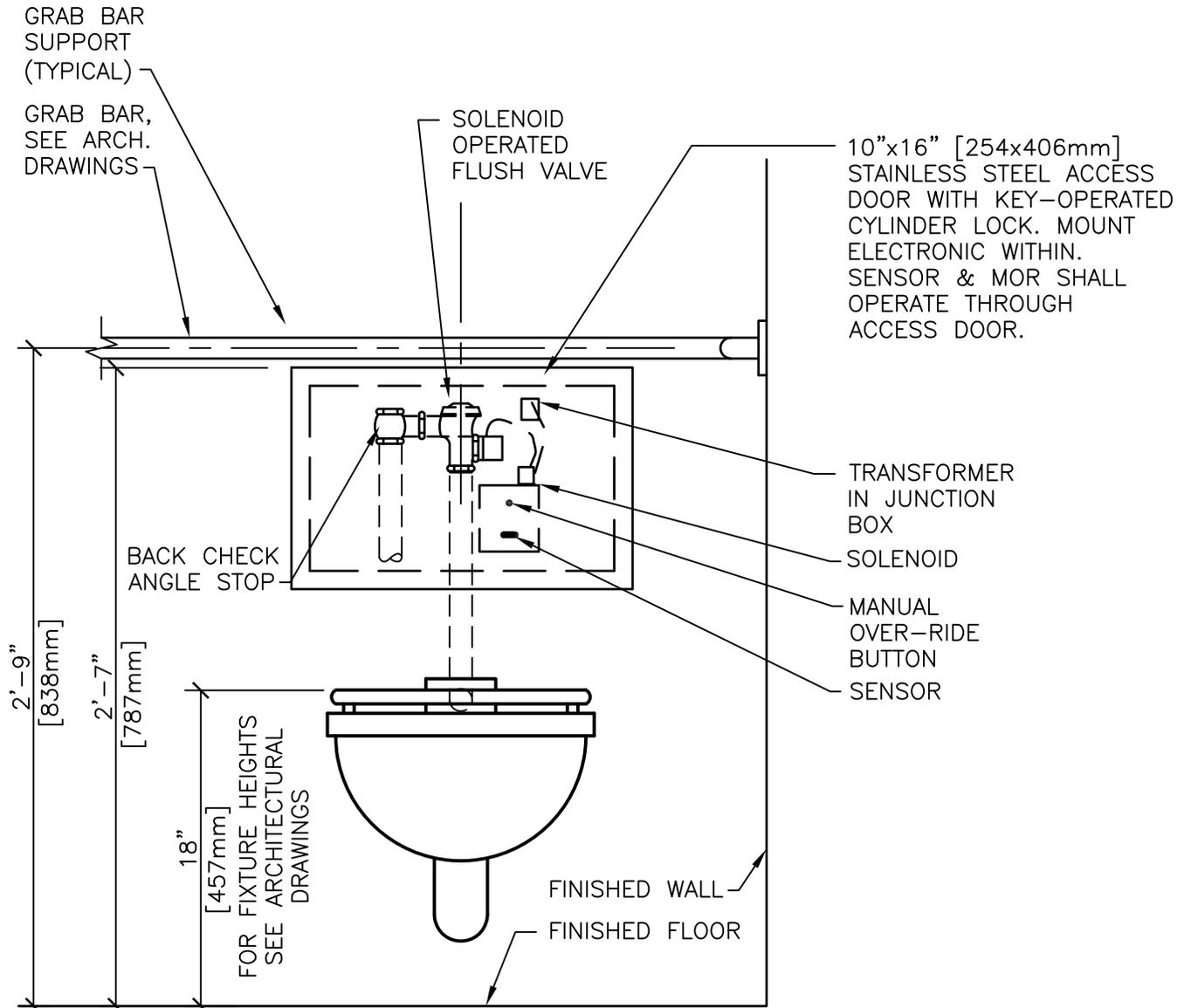
DETAIL TITLE / P-111 WATER CLOSET

SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015

CAD DETAIL NO.:

SD224000-03.DWG



P-112 WATER CLOSET DETAIL - SENSOR OPERATED

NTS



Department of Veterans Affairs

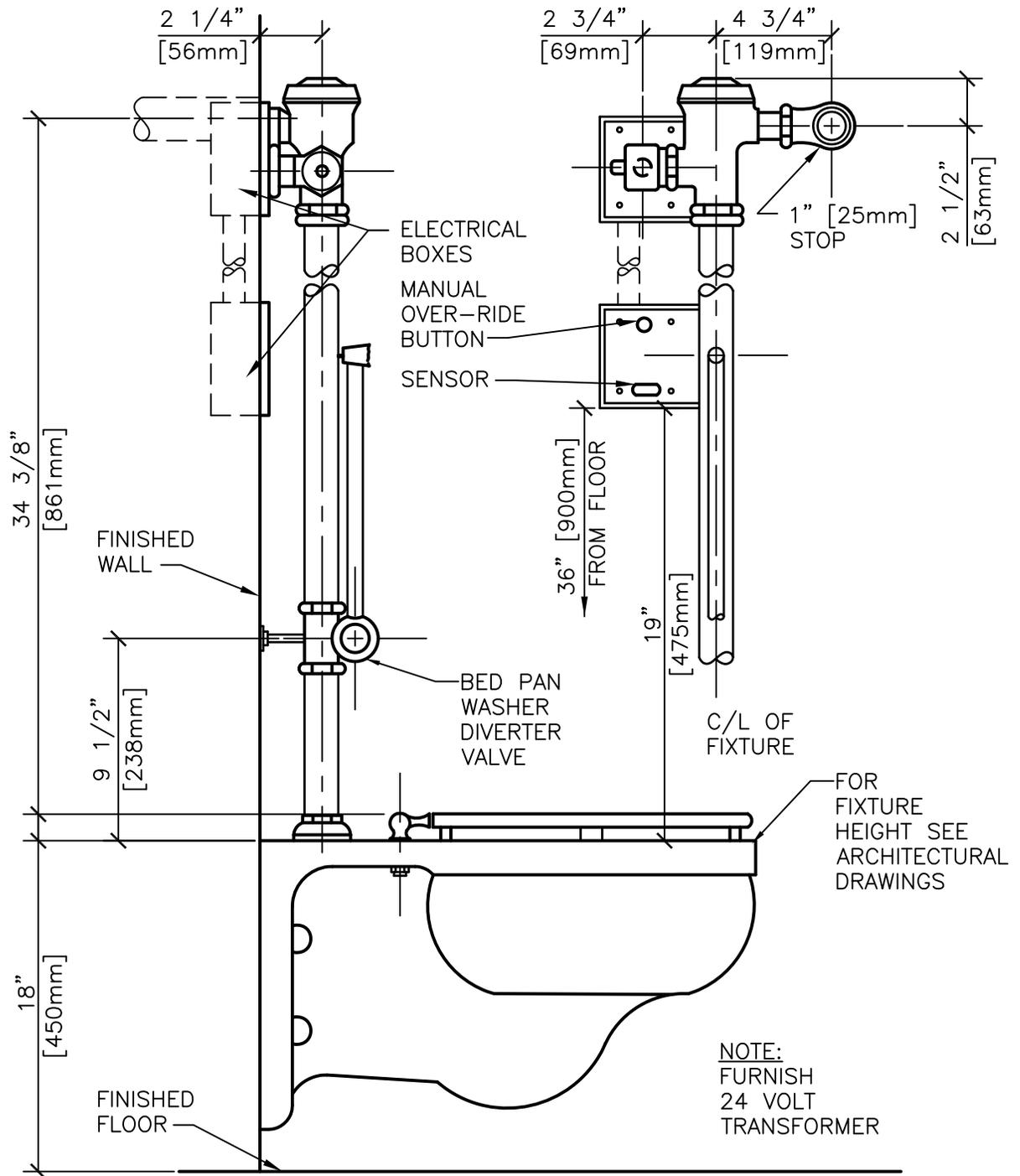
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SCALE: NONE

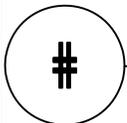
DATE ISSUED: DECEMBER 1, 2015

CAD DETAIL NO.:

SD224000-04.DWG



NOTE:
FURNISH
24 VOLT
TRANSFORMER



P-113 WATER CLOSET DETAIL - SENSOR OPERATED

NTS



Department of
Veterans Affairs

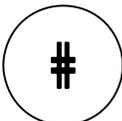
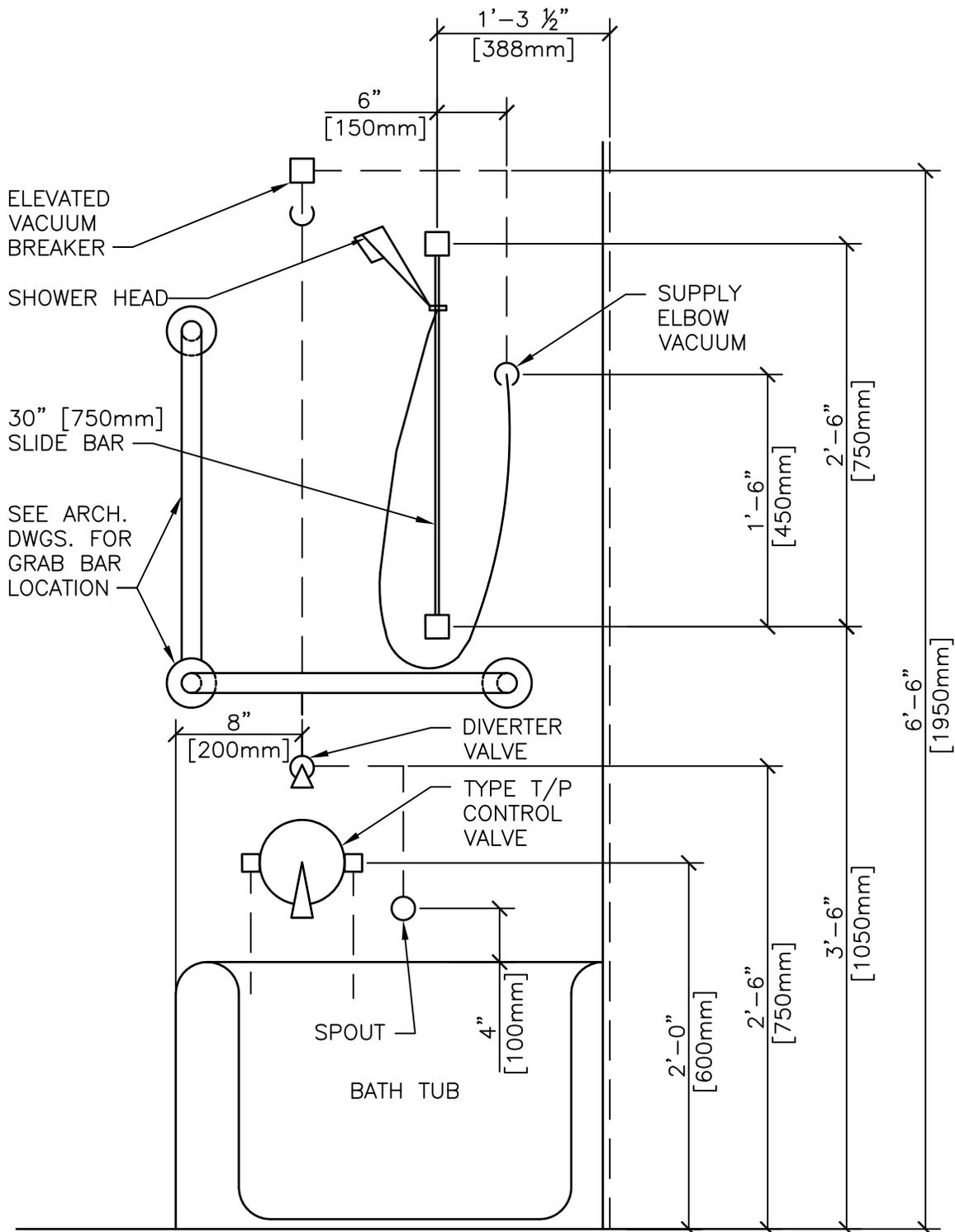
DETAIL TITLE / P-113 WATER CLOSET DETAIL - SENSOR OPERATED

SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015

CAD DETAIL NO.:

SD224000-05.DWG



P-302 PATIENT BATHTUB ROUGH-IN

NTS



Department of
Veterans Affairs

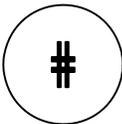
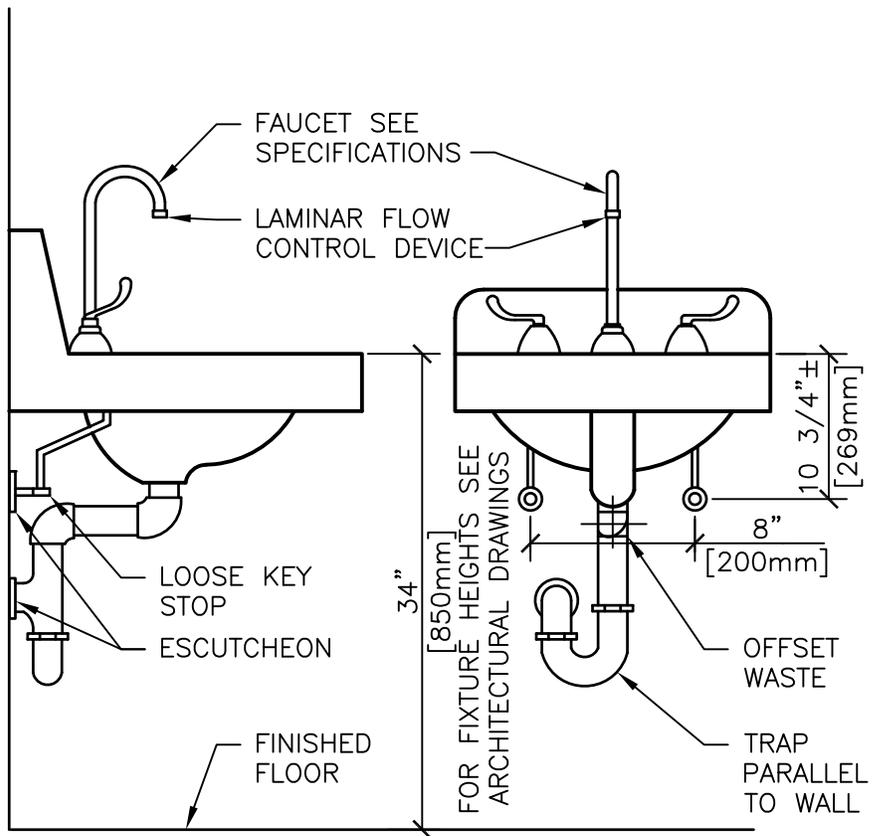
DETAIL TITLE / P-302 PATIENT BATHTUB ROUGH-IN

SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015

CAD DETAIL NO.:

SD224000-06.DWG



TYPICAL WHEELCHAIR LAVATORY DETAIL

NTS

NOTE:
PROVIDE COVER
FOR EXPOSED
PIPING



Department of
Veterans Affairs

DETAIL TITLE / TYPICAL WHEELCHAIR LAVATORY DETAIL

SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015

CAD DETAIL NO.:

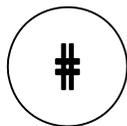
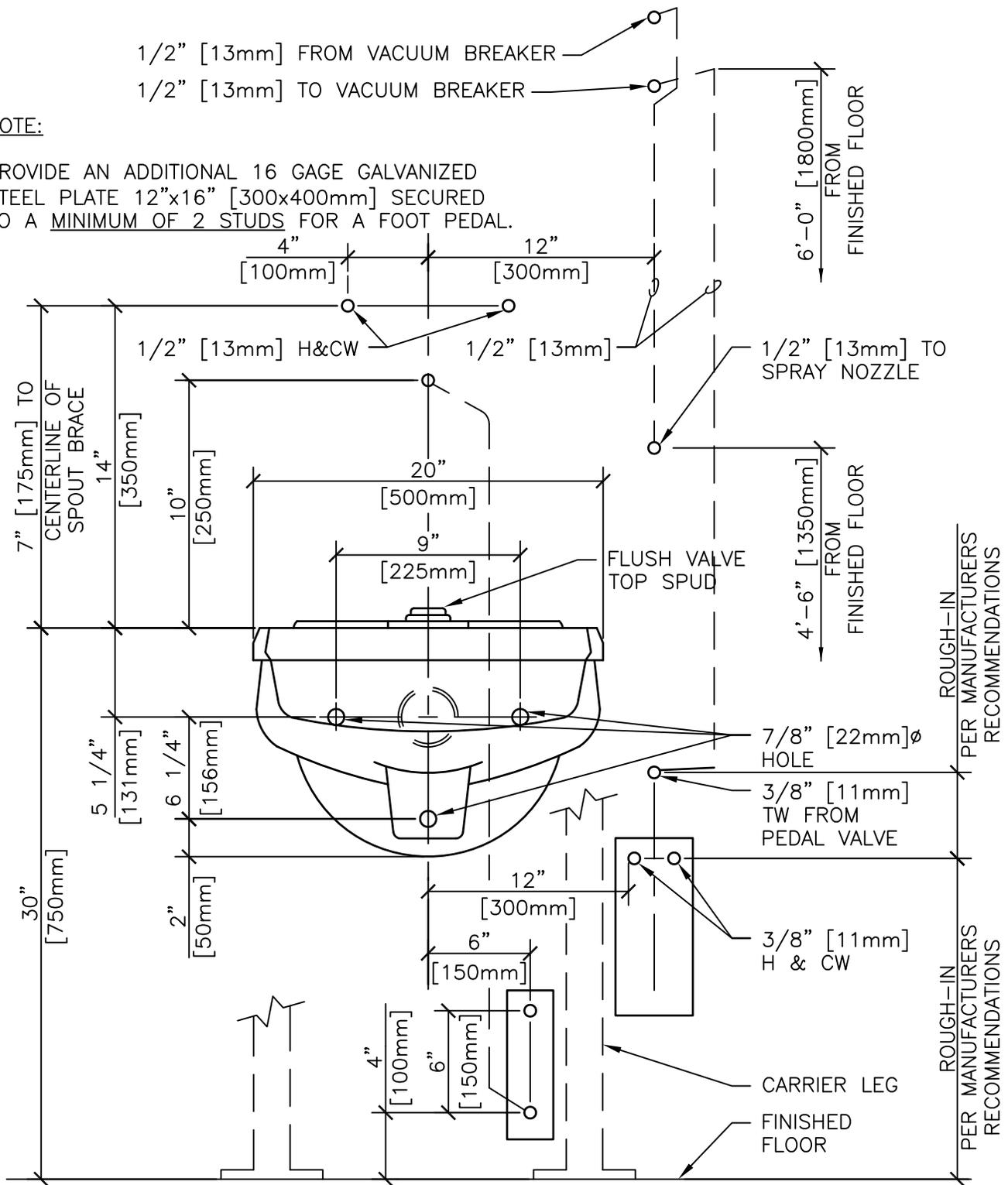
SD224000-08.DWG

1/2" [13mm] FROM VACUUM BREAKER

1/2" [13mm] TO VACUUM BREAKER

NOTE:

PROVIDE AN ADDITIONAL 16 GAGE GALVANIZED STEEL PLATE 12"x16" [300x400mm] SECURED TO A MINIMUM OF 2 STUDS FOR A FOOT PEDAL.



P-505 CLINIC SERVICE SINK ROUGH-IN DETAIL

NTS



Department of
Veterans Affairs

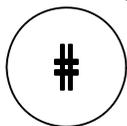
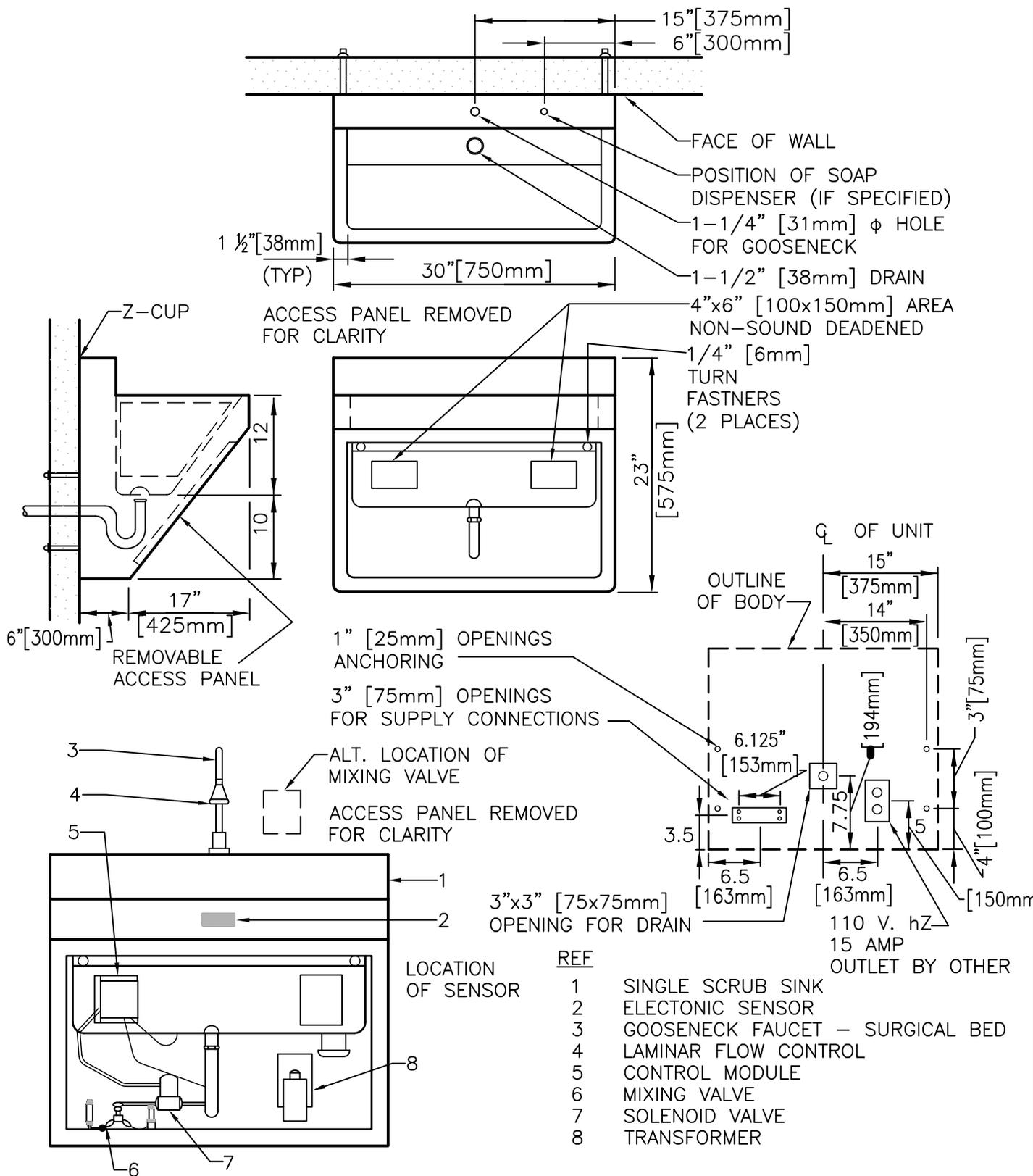
DETAIL TITLE / P-505 CLINIC SERVICE SINK ROUGH-IN DETAIL

SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015

CAD DETAIL NO.:

SD224000-09.DWG



P-519 SCRUB SINK - SINGLE COMPARTMENT

NTS



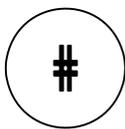
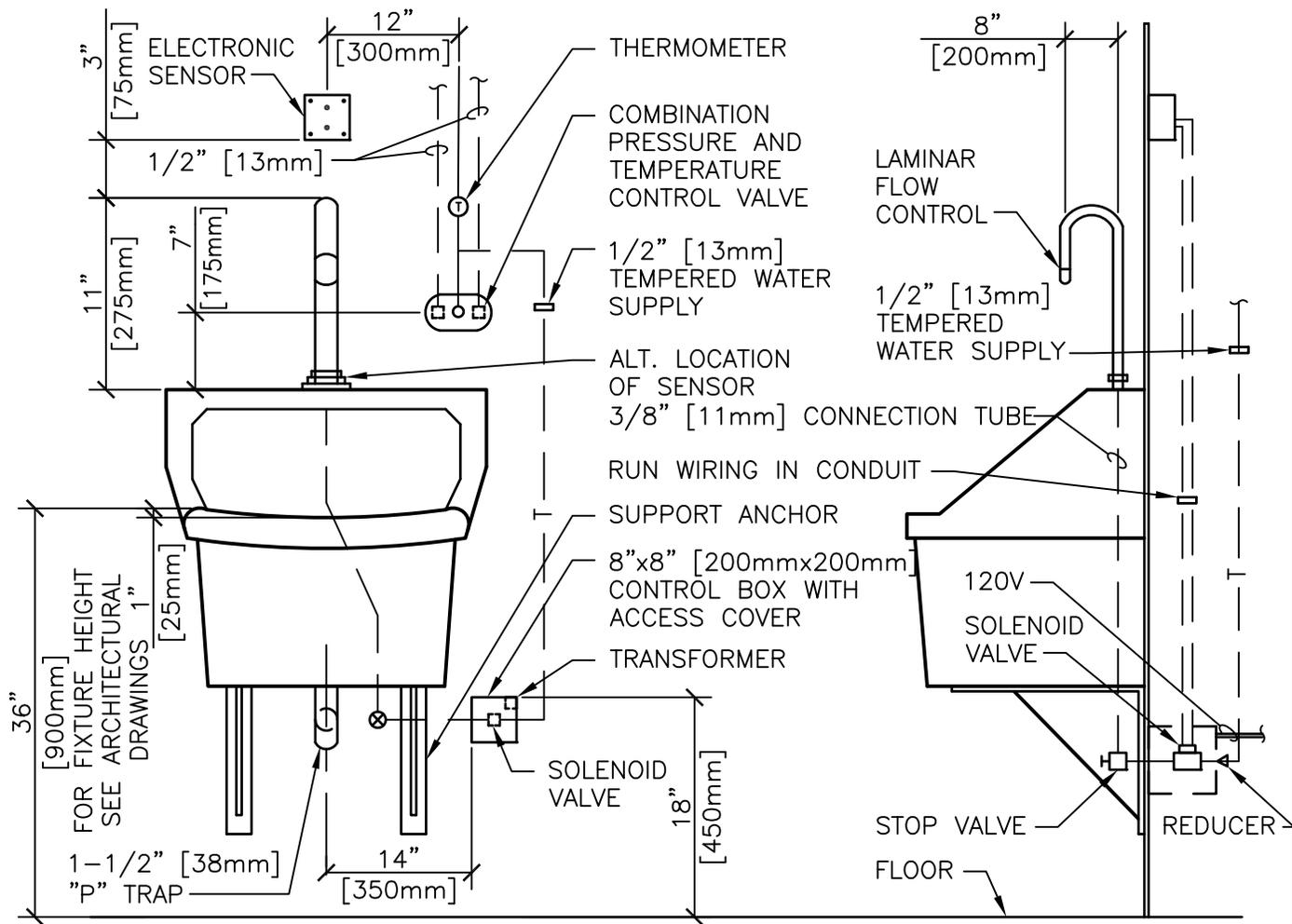
Department of
Veterans Affairs

DETAIL TITLE / P-519 SCRUB SINK - SINGLE COMPARTMENT

SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015

CADD DETAIL NO. : SD224000-10.DWG



P-520 SURGEONS SCRUB SINK DETAIL

NTS



Department of
Veterans Affairs

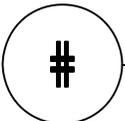
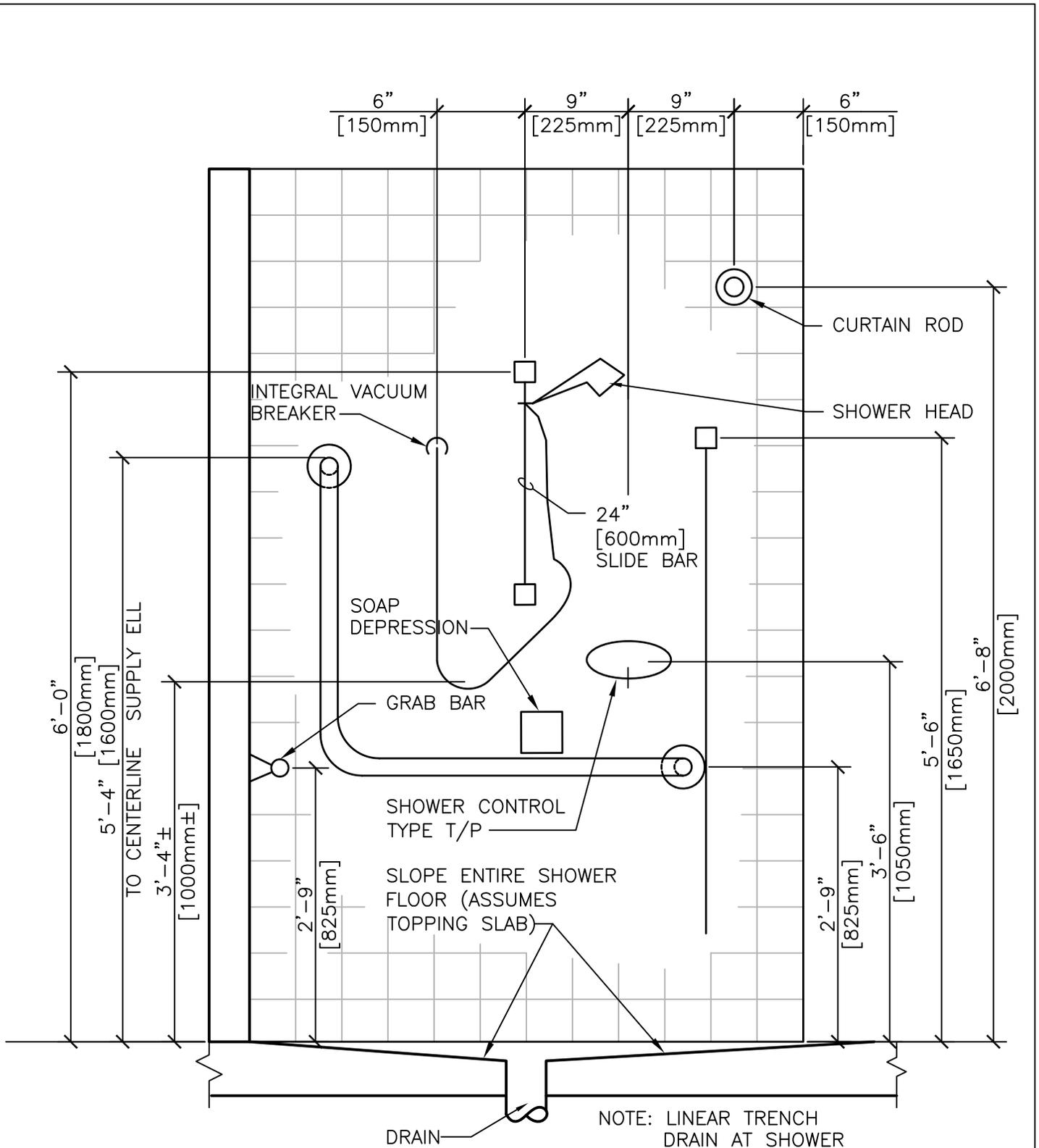
DETAIL TITLE / P-520 SURGEONS SCRUB SINK DETAIL

SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015

CAD DETAIL NO.:

SD224000-11.DWG



P-701 PATIENT SHOWER

NTS



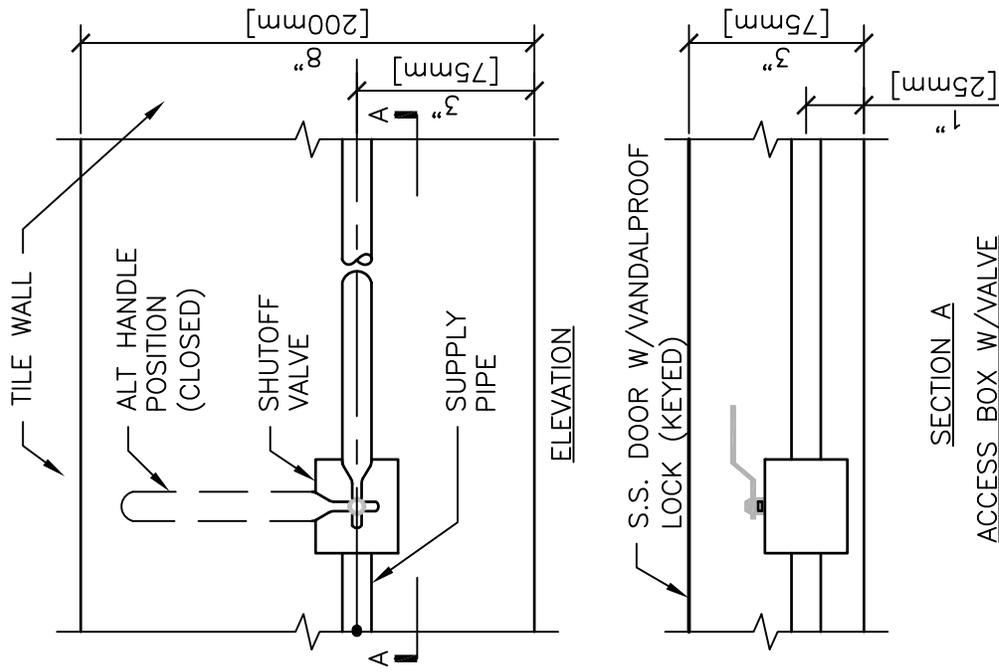
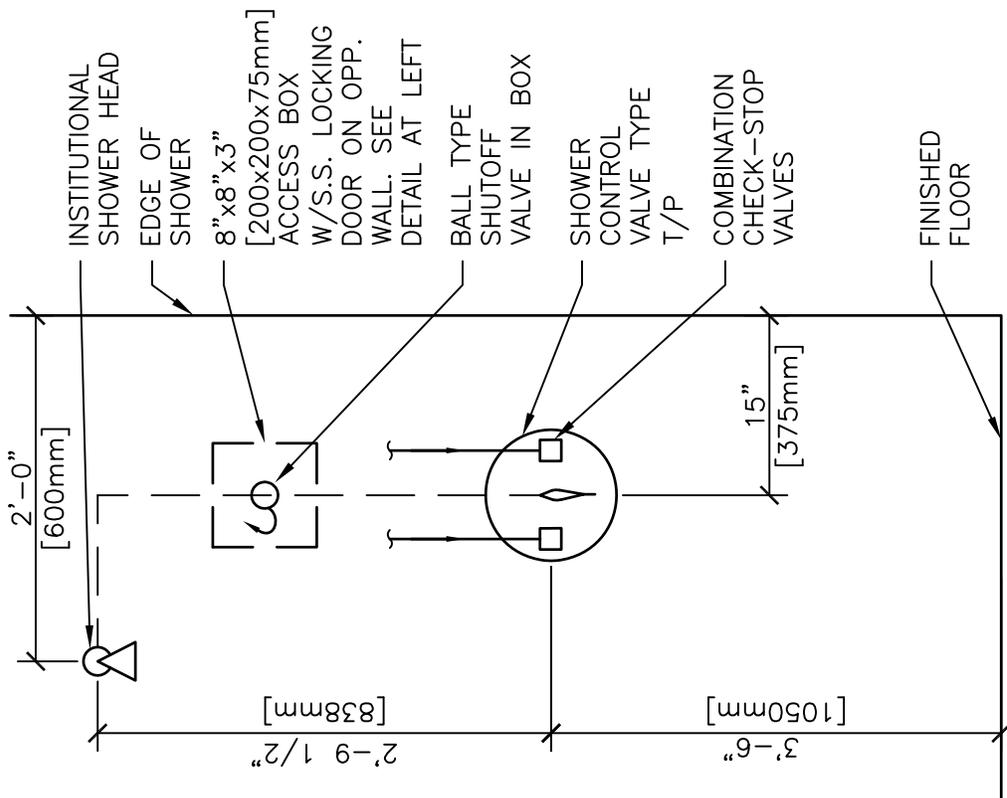
Department of
Veterans Affairs

DETAIL TITLE / P-701 PATIENT SHOWER

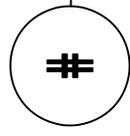
SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015

CADD DETAIL NO. : SD224000-13.DWG



P-702 PATIENT SHOWER



NTS

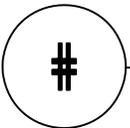
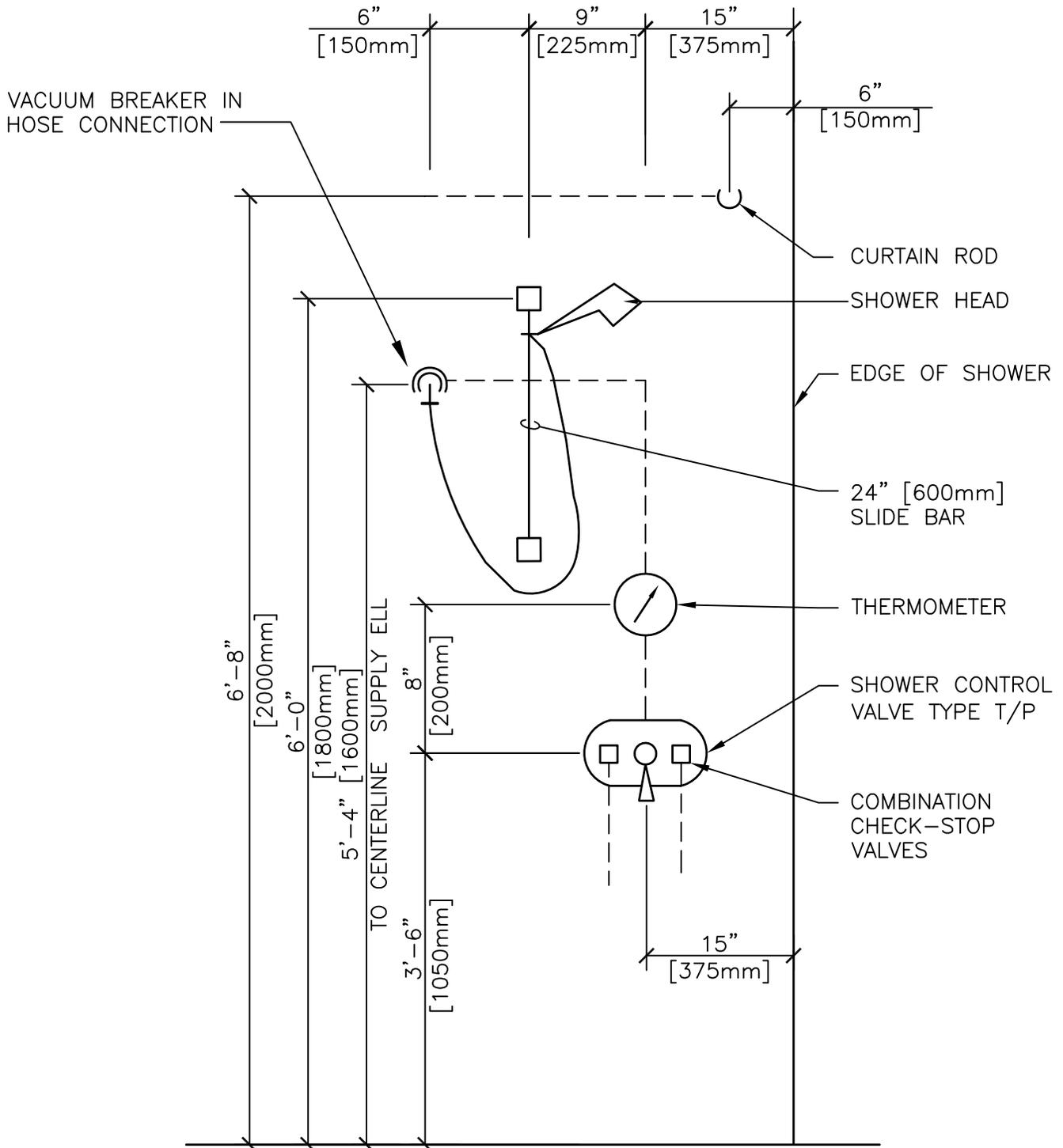


Department of Veterans Affairs

DETAIL TITLE / P-702 PATIENT SHOWER

SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015 CAD DETAIL NO.: SD224000-14.DWG



P-711 SHOWER (SPINAL CORD)

(HAND HELD)

NTS



Department of
Veterans Affairs

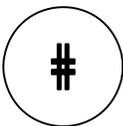
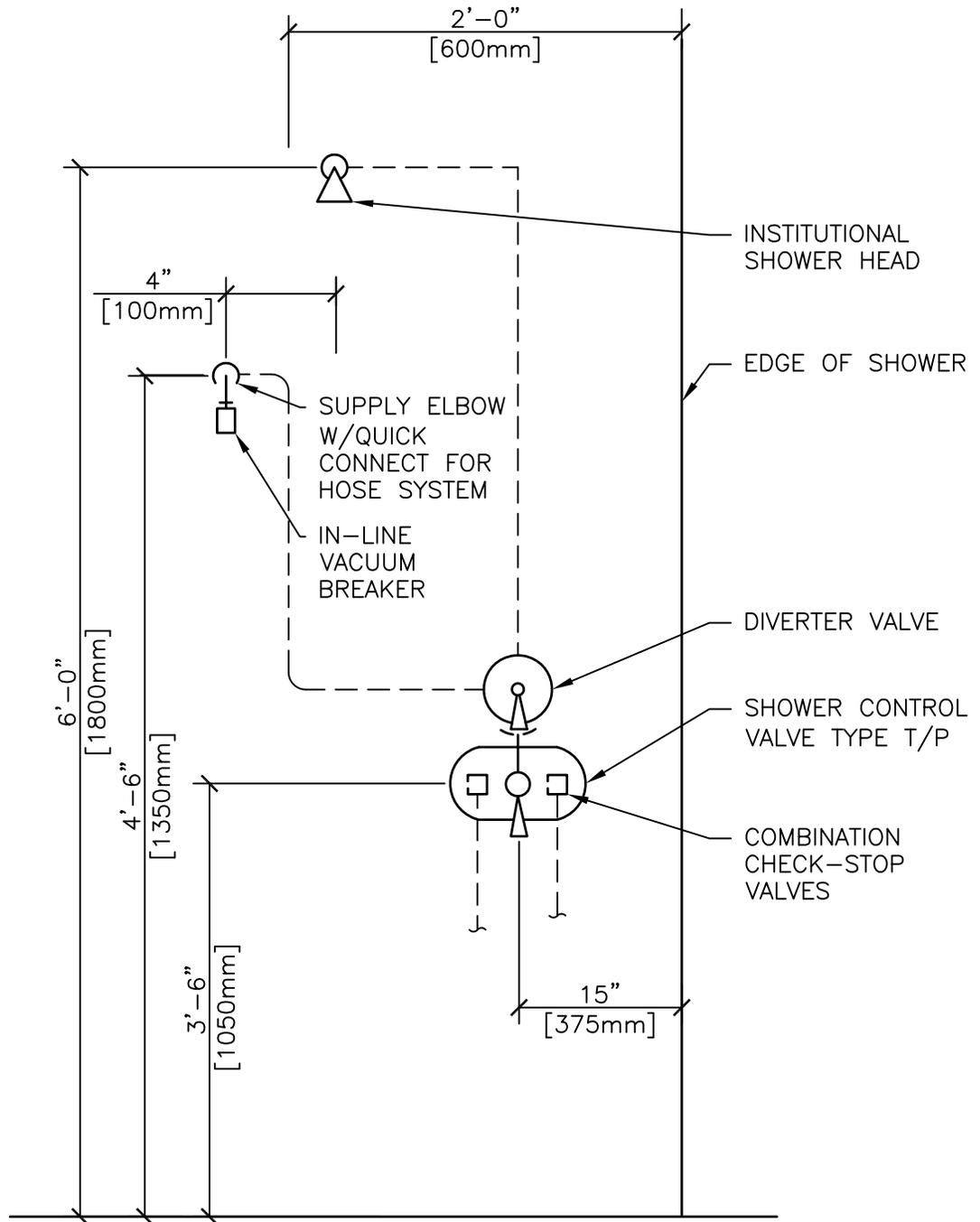
DETAIL TITLE / P-711 SHOWER (SPINAL CORD)

SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015

CAD DETAIL NO.:

SD224000-15.DWG



P-703 SHOWER (SPINAL CORD)

NTS



Department of
Veterans Affairs

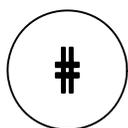
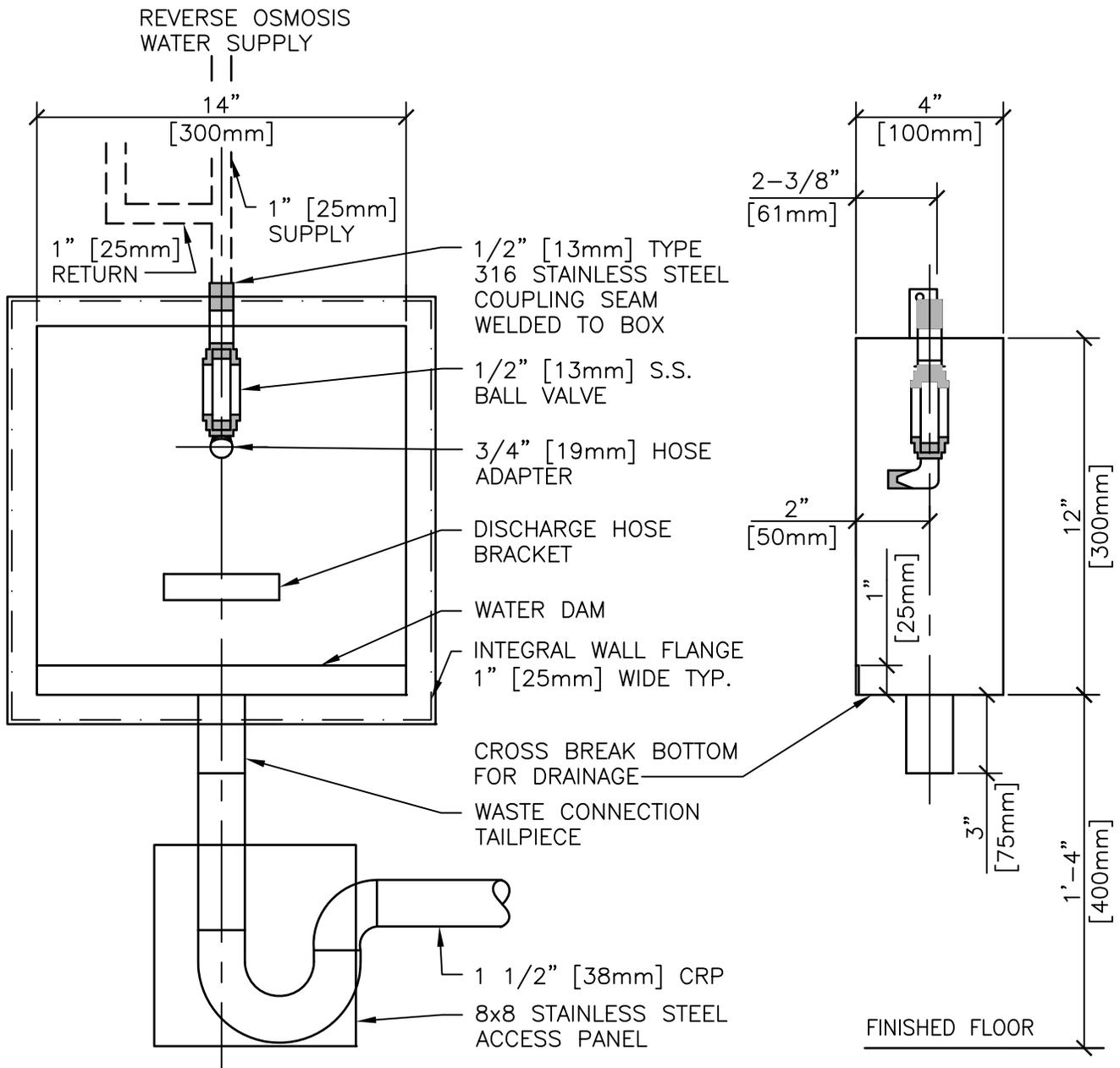
DETAIL TITLE / P-703 SHOWER (SPINAL CORD)

SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015

CAD DETAIL NO.:

SD224000-16.DWG



(P-809) DIALYSIS BOX DETAIL

NTS



Department of
Veterans Affairs

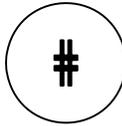
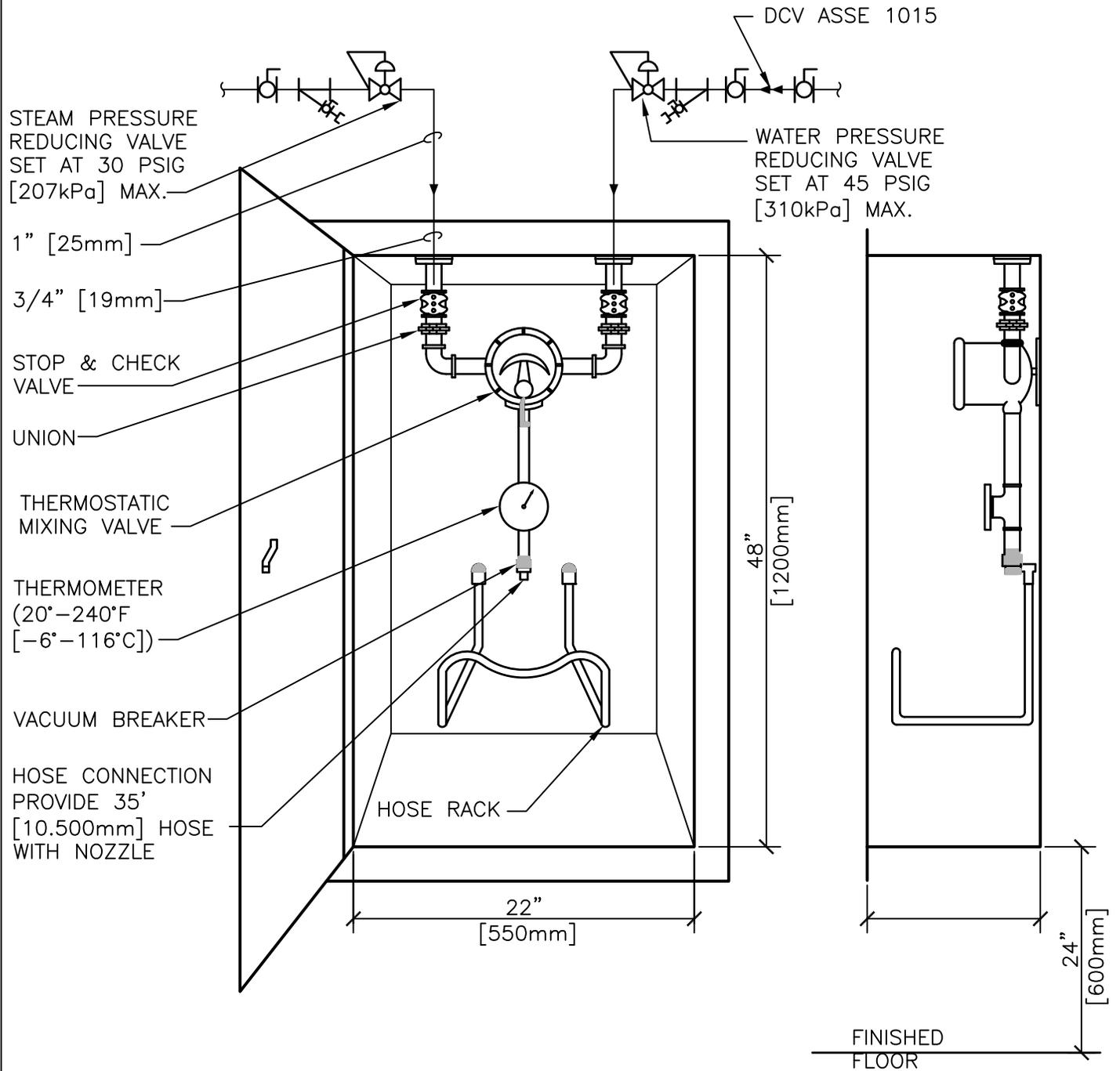
DETAIL TITLE / (P-809) DIALYSIS BOX DETAIL

SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015

CAD DETAIL NO.:

SD224000-17.DWG



P-810 STEAM AND WATER MIXING VALVE DETAIL

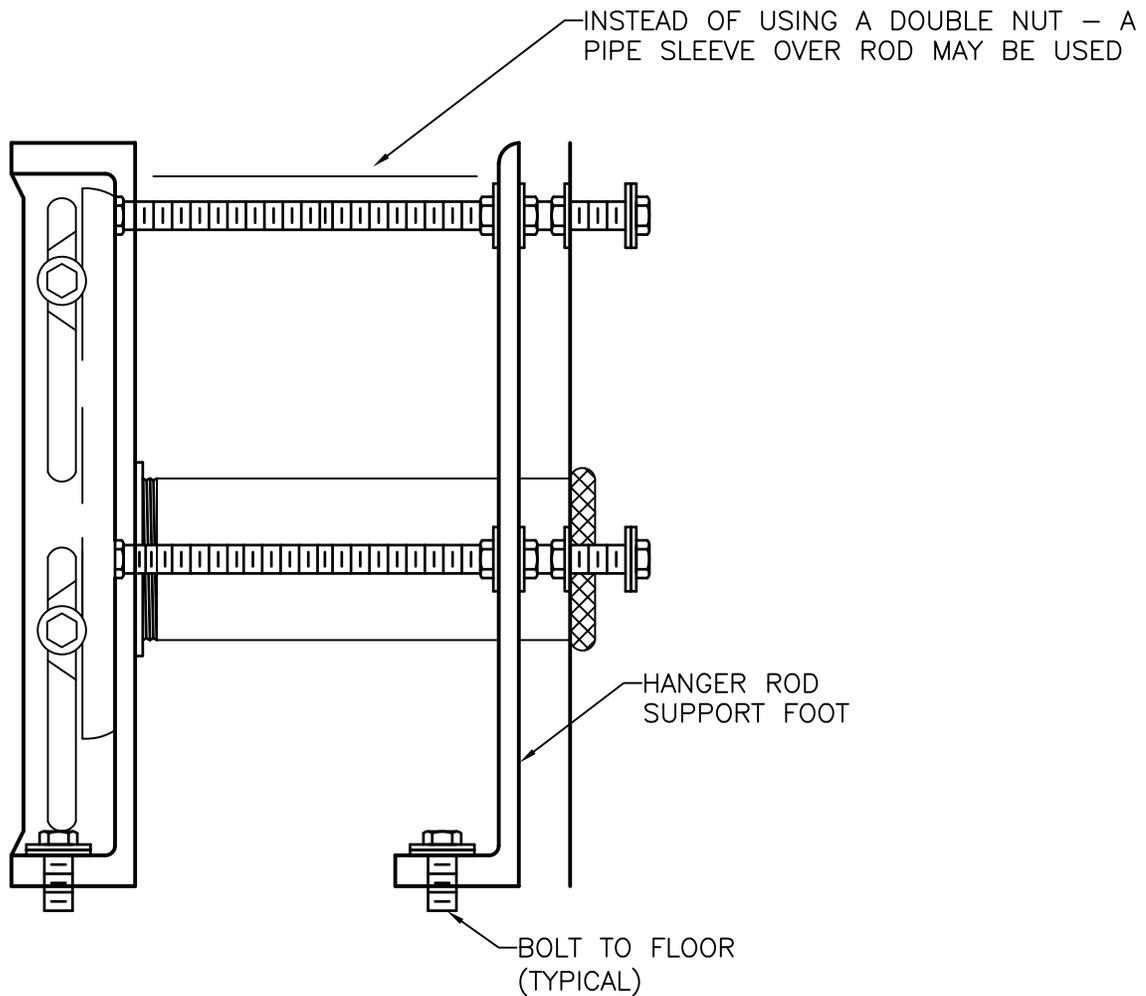
NTS



DETAIL TITLE / P-810 STEAM & WATER MIXING VALVE DETAIL

SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015 CAD DETAIL NO.: SD224000-18.DWG



INSTALLATION OF HANGER SUPPORT FOOT

#

NTS



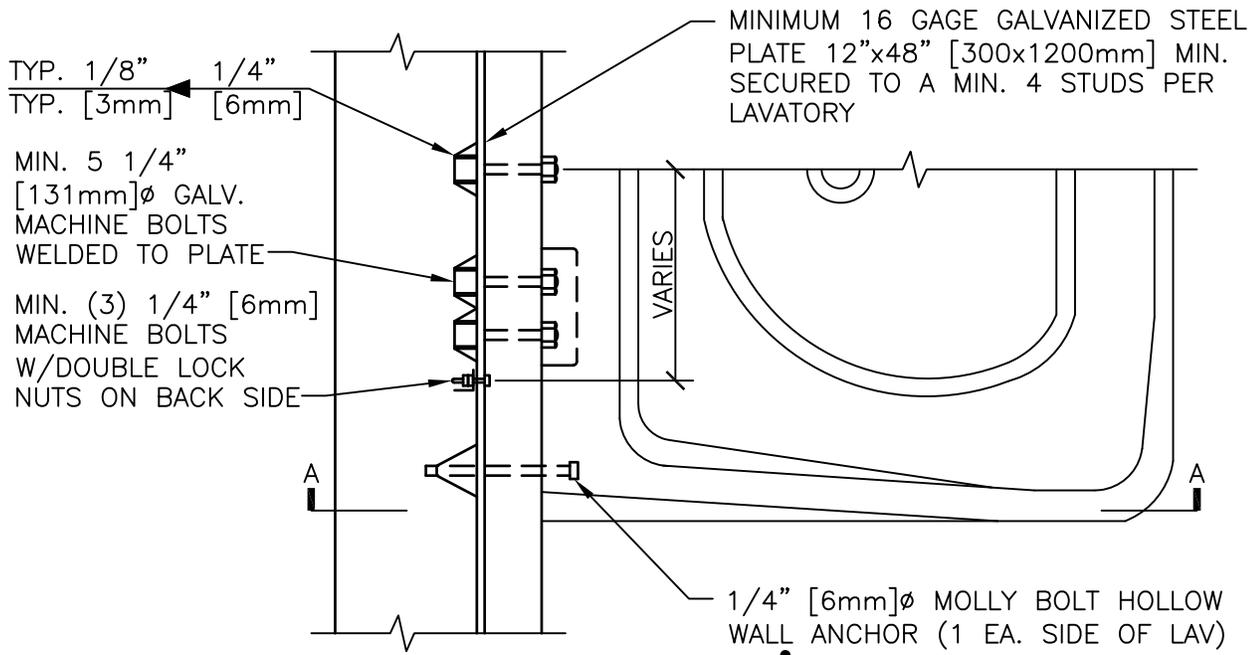
Department of
Veterans Affairs

DETAIL TITLE / INSTALLATION OF HANGER SUPPORT FOOT

SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015

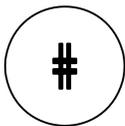
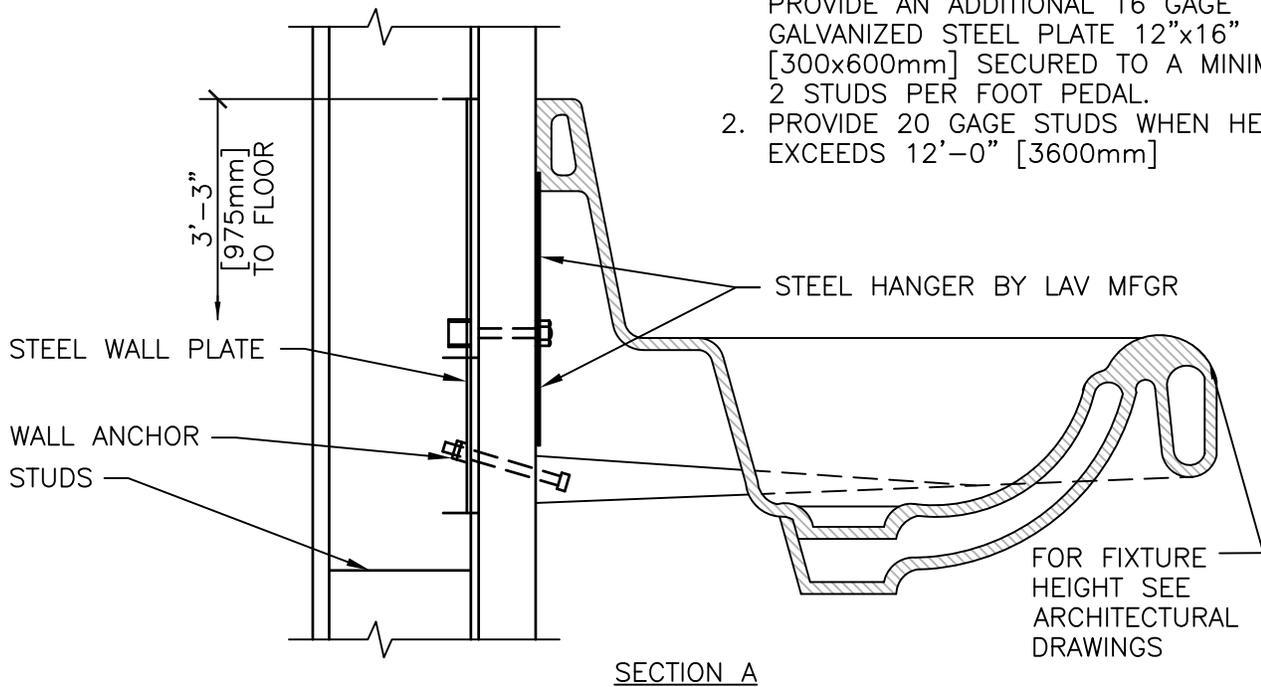
CADD DETAIL NO. : SD224000-20.DWG



PLAN

NOTE:

1. AT LAVS WITH FOOT PEDAL CONTROLS PROVIDE AN ADDITIONAL 16 GAGE GALVANIZED STEEL PLATE 12"x16" [300x600mm] SECURED TO A MINIMUM OF 2 STUDS PER FOOT PEDAL.
2. PROVIDE 20 GAGE STUDS WHEN HEIGHT EXCEEDS 12'-0" [3600mm]



LAVATORY MOUNTING DETAIL

NTS



Department of
Veterans Affairs

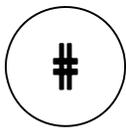
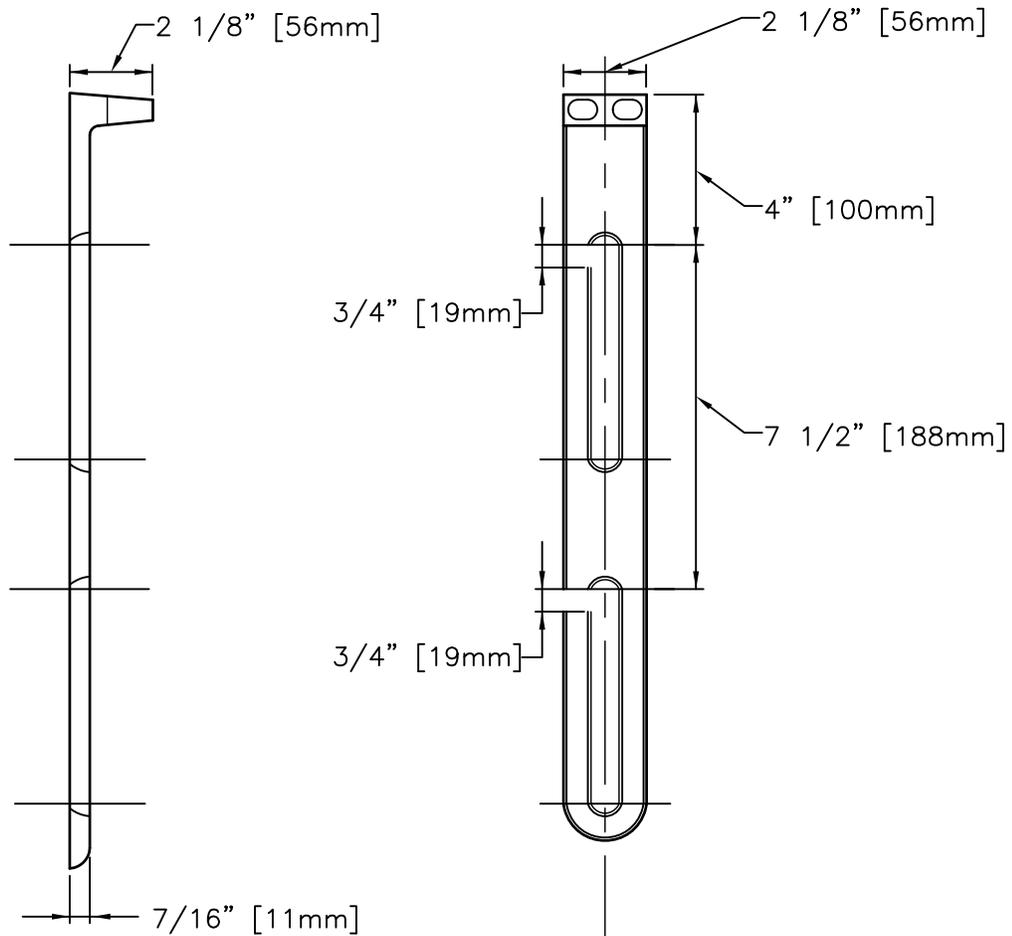
DETAIL TITLE / LAVATORY MOUNTING DETAIL

SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015

CAD DETAIL NO.:

SD224000-21.DWG



HANGER ROD SUPPORT FOOT

NTS



Department of
Veterans Affairs

DETAIL TITLE / HANGER ROD SUPPORT FOOT

SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015

CADD DETAIL NO. : SD224000-22.DWG

DENTAL AIR (DA) ALARM PANEL SCHEDULE

LOCATION	TYPE OF PANEL	GAGES	SERVICE INDICATOR LIGHTS
BOILER PLANT CONTROL OFFICE -OR- ENGINEERING CONTROL CENTER (ECC) -OR- OTHER LOCATION WITH ENGINEERING PERSONNEL SUPERVISION -AND- DENTAL RECEPTION AREA	MASTER (SYSTEM) ALARM PANEL	NO	DENTAL AIR (DA) DEW POINT HIGH DA FILTER PRESS DROP HIGH DA HIGH TEMP SHUTDOWN DA LOW LUBRICANT DA CARBON MONOXIDE LEVEL HIGH DA LINE PRESSURE LOW DA LINE PRESSURE HIGH DESICCANT DRYER MALFUNCTION TEST BUTTON

NOTES TO DESIGNER:

1. LOCATE MASTER ALARM PANELS IN CONFORMANCE WITH INDIVIDUAL MEDICAL CENTER'S OPERATING PRACTICES FOR CRITICAL ALARM LOCATIONS.
2. INDICATE ROOM NUMBERS WHERE PANELS ARE TO BE LOCATED.



Department of
Veterans Affairs

DETAIL TITLE / DENTAL AIR ALARM PANEL SCHEDULE

SCALE :NONE

DATE ISSUED: JULY 2014

CAD DETAIL NO.: SD226119_74-01.DWG

MEDICAL GAS ALARM PANEL SCHEDULE

LOCATION	TYPE OF PANEL	GAGES	SERVICE INDICATOR LIGHTS
BOILER PLANT CONTROL OFFICE -OR- ENGINEERING CONTROL CENTER (ECC) -OR- OTHER LOCATION WITH ENGINEERING PERSONNEL SUPERVISION -AND- INTENSIVE CARE NURSING -OR- FIRE STATION -OR- PHONE SWITCHBOARD -OR- SECURITY OFFICE	MASTER (SYSTEM) ALARM PANEL	NO	LIQUID OXYGEN LEVEL LOW OXYGEN RESERVE SWITCHOVER OXYGEN RESERVE IN USE OXYGEN RESERVE LOW LIQUID LEVEL OXYGEN RESERVE PRESSURE LOW OXYGEN MAIN LINE PRESSURE LOW OXYGEN MAIN LINE PRESSURE HIGH NITROUS OXIDE CHANGE OVER TO SECONDARY NITROUS OXIDE RESERVE IN USE NITROUS OXIDE MAIN LINE PRESSURE LOW NITROUS OXIDE MAIN LINE PRESSURE HIGH NITROGEN CHANGE OVER TO SECONDARY NITROGEN RESERVE IN USE NITROGEN MAIN LINE PRESSURE LOW NITROGEN MAIN LINE PRESSURE HIGH MEDICAL AIR DEWPOINT HIGH MA COMPRESSOR MALFUNCTION MEDICAL AIR MAIN LINE PRESSURE LOW MEDICAL AIR MAIN LINE PRESSURE HIGH MA SYSTEM CARBON MONOXIDE HIGH DESICCANT DRYER MALFUNCTION DESICCANT DRYER POST FILTER DIRTY DESICCANT DRYER INLET FILTER DIRTY MAIN LINE FILTER BANK DIRTY MA REFRIGERATED DRYER POST FILTER DIRTY AFTER COOLER HIGH AIR TEMPERATURE MEDICAL VACUUM LINE VACUUM LOW MEDICAL VACUUM FILTER BACK PRESSURE TEST BUTTON
SURGERY CONTROL ROOM	AREA ALARM PANEL	YES	OXYGEN LINE PRESSURE ABNORMAL NITROUS OXIDE LINE PRESSURE ABNORMAL NITROGEN LINE PRESSURE ABNORMAL MEDICAL AIR LINE PRESSURE ABNORMAL MEDICAL VACUUM LINE VACUUM LOW TEST BUTTON
RECOVERY ROOMS CRITICAL CARE AREAS EMERGENCY AREAS PATIENT AREAS	AREA (ZONE) ALARM PANEL	YES	OXYGEN LINE PRESSURE ABNORMAL NITROUS OXIDE LINE PRESSURE ABNORMAL NITROGEN LINE PRESSURE ABNORMAL MEDICAL AIR LINE PRESSURE ABNORMAL MEDICAL VACUUM LINE VACUUM LOW TEST BUTTON

DESIGNER'S NOTES:

1. LOCATE MASTER ALARM PANELS IN CONFORMANCE WITH INDIVIDUAL MEDICAL CENTER OPERATING PRACTICES FOR CRITICAL ALARM LOCATIONS.
2. INDICATE ROOM NUMBERS WHERE PANELS ARE TO BE LOCATED.
3. ADD ADDITIONAL MIXED GAS ALARMS AS REQUIRED TO THE MASTER AND AREA ALARM PANELS.



Department of
Veterans Affairs

DETAIL TITLE / MEDICAL GAS ALARM PANEL SCHEDULE

SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015

CAD DETAIL NO.:

SD226200-01.DWG

MEDICAL GAS ALARM PANEL SCHEDULE, CONTINUED

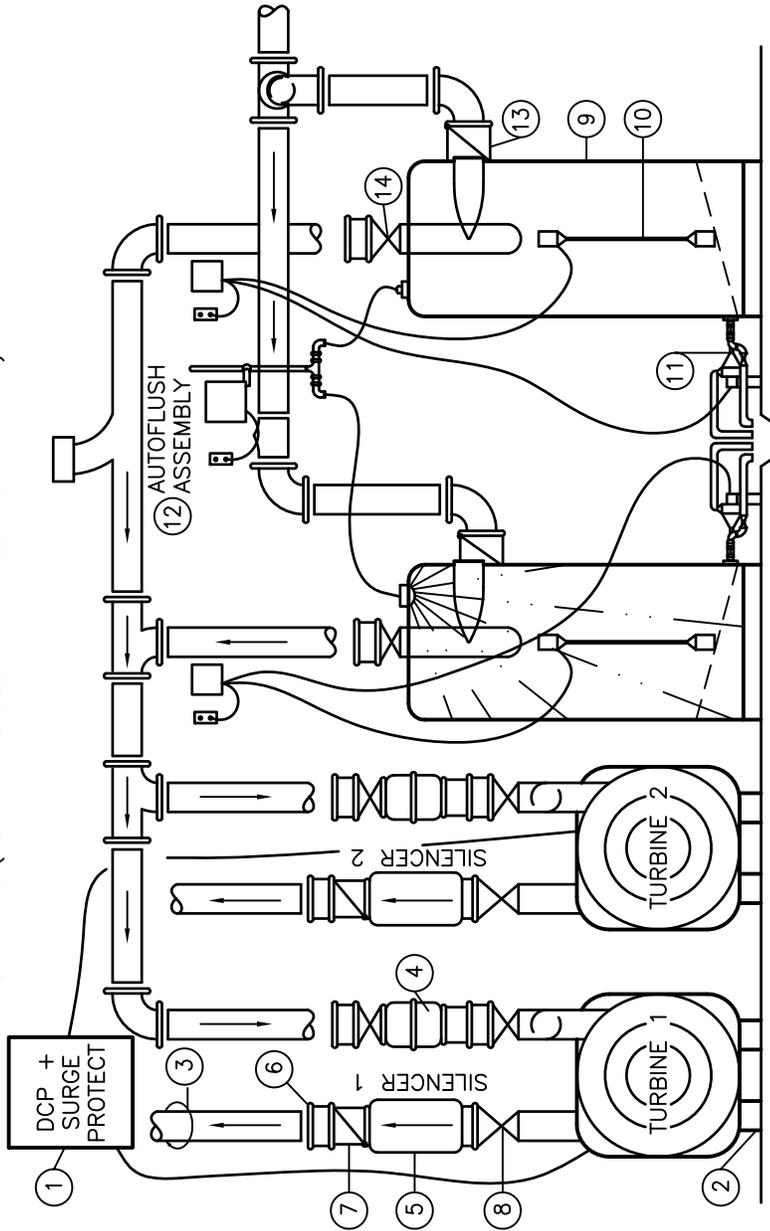
LOCATION	TYPE OF PANEL	GAGES	SERVICE INDICATOR LIGHTS
BOILER PLANT CONTROL OFFICE -OR- ENGINEERING CONTROL CENTER (ECC) -OR- OTHER LOCATION WITH ENGINEERING PERSONNEL SUPERVISION -AND- INTENSIVE CARE NURSING -OR- FIRE STATION -OR- PHONE SWITCHBOARD -OR- SECURITY OFFICE	MASTER (SYSTEM) ALARM PANEL	NO	CARBON DIOXIDE MAIN LINE PRESSURE HIGH CARBON DIOXIDE MAIN LINE PRESSURE LOW CARBON DIOXIDE CHANGEOVER TO SECONDARY SUPPLY CARBON DIOXIDE MAIN SUPPLY LESS THAN 1 DAY (LOW CONTENTS) CARBON DIOXIDE RESERVE IN USE CARBON DIOXIDE RESERVE SUPPLY LESS THAN 1 DAY (LOW CONTENTS) CARBON DIOXIDE RESERVE PRESSURE LOW (NOT FUNCTIONAL) MEDICAL AIR PRODUCTION STOP MEDICAL AIR CHANGEOVER TO SECONDARY SUPPLY OXYGEN CHANGE OVER TO SECONDARY SUP. OXYGEN MAIN SUPPLY LESS THAN 1 DAY (LOW CONTENTS) OXYGEN RESERVE SUPPLY LESS THAN 1 DAY (LOW CONTENTS) NITROUS OXIDE MAIN SUPPLY LESS THAN 1 DAY (LOW CONTENTS) NITROUS OXIDE RESERVE SUPPLY LESS THAN 1 DAY (LOW CONTENTS) NITROUS OXIDE RESERVE PRESSURE LOW (NOT FUNCTIONAL) MEDICAL-SURGICAL MAIN LINE VACUUM LOW WAGD MAIN LINE VACUUM LOW INSTRUMENT AIR CYLINDER RESERVE IN USE INSTRUMENT AIR CYLINDER RESERVE LESS THAN 1 HOUR SUPPLY NITROGEN MAIN SUPPLY LESS THAN 1 DAY (LOW CONTENTS) NITROGEN RESERVE SUPPLY LESS THAN 1 DAY (LOW CONTENTS) NITROUS OXIDE RESERVE PRESSURE LOW

DESIGNER'S NOTES:

1. LOCATE MASTER ALARM PANELS IN CONFORMANCE WITH INDIVIDUAL MEDICAL CENTER OPERATING PRACTICES FOR CRITICAL ALARM LOCATIONS.
2. INDICATE ROOM NUMBERS WHERE PANELS ARE TO BE LOCATED.
3. ADD ADDITIONAL MIXED GAS ALARMS AS REQUIRED TO THE MAIN AND AREA ALARM PANELS.

 Department of Veterans Affairs	DETAIL TITLE / MEDICAL GAS ALARM PANEL SCHEDULE, CONTINUED
SCALE: NONE	
DATE ISSUED: DECEMBER 1, 2015 CAD DETAIL NO.: SD226200-02.DWG	

GALVANIZED STEEL LIQUID SEPARATOR TANKS WITH AUTO PUMP AND ELECTRIC SURGE CONTROL (ALSO AVAILABLE WITH SOLENOID CONTROL)



PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
1	DCP	DUPLEX ELEC. MOTOR CONTROL PANEL	8	ABV	THROTTLING VALVE
2	AIP	ISOLATOR PAD	9	SLG	CYCLONIC LIQUID SEPARATOR
3	TET	TURBO EXHAUSTER	10	FSA	ELECTRONIC LIQUID LEVEL SENSOR (OPT)
4	ASV	MECHANICAL ANTI-SURGE VALVE	11	SV-300	SOLENOID VALVE ELECTRONIC LIQUID LEVEL
5	AEX	AIR DISCHARGE SILENCER	12	AF-300	SOLID STATE AUTO-FLUSH ASSEMBLY
6	RPL	FLEXIBLE PLUMBING ISOLATOR	13	ACV	CHECK VALVE
7	ACV	DIRECTIONAL FLOW CHECK VALVE	14	ACV	DIRECTIONAL FLOW VALVE

PARTS LIST

NTS

ORAL EVACUATION SYSTEM PIPING DETAIL



Department of Veterans Affairs

DETAIL TITLE / ORAL EVACUATION SYSTEM PIPING DETAIL

SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015

CAD DETAIL NO.: SD226219_74-01.DWG

LABORATORY GAS ALARM PANEL SCHEDULE

LOCATION	TYPE OF PANEL	GAGES	SERVICE INDICATOR LIGHTS
BOILER PLANT CONTROL OFFICE –OR– ENGINEERING CONTROL CENTER (ECC) –OR– OTHER LOCATION WITH ENGINEERING PERSONNEL SUPERVISION –AND– FIRE STATION –OR– TELEPHONE SWITCHBOARD –OR– SECURITY OFFICE	MASTER (SYSTEM)	NO	LA AIR DEW POINT HIGH LA AIR CARBON MONOXIDE HIGH LA AIR DESICCANT DRYER MALFUNCTION LA AIR DESICCANT DRYER POST FILTER DIRTY LA REFRIGERATED DRYER POST FILTER DIRTY LA AIR COMPRESSOR MALFUNCTION LA AFTERCOOLER HIGH TEMP LA DESICCANT DRYER INLET FILTER DIRTY LA MAIN LINE FILTER BANK DIRTY LA PRESSURE HIGH LA PRESSURE LOW LA VACUUM FILTER BACKPRESSURE LA VACUUM LINE VACUUM LOW (SPECIAL GAS) LINE PRESSURE LOW (SPECIAL GAS) LINE PRESSURE HIGH TEST BUTTON

NOTES TO DESIGNER:

1. LOCATE MASTER ALARM PANELS IN CONFORMANCE WITH INDIVIDUAL MEDICAL CENTER'S OPERATING PRACTICES FOR CRITICAL ALARM LOCATIONS.
2. INDICATE ROOM NUMBERS WHERE PANELS ARE TO BE LOCATED.



Department of
Veterans Affairs

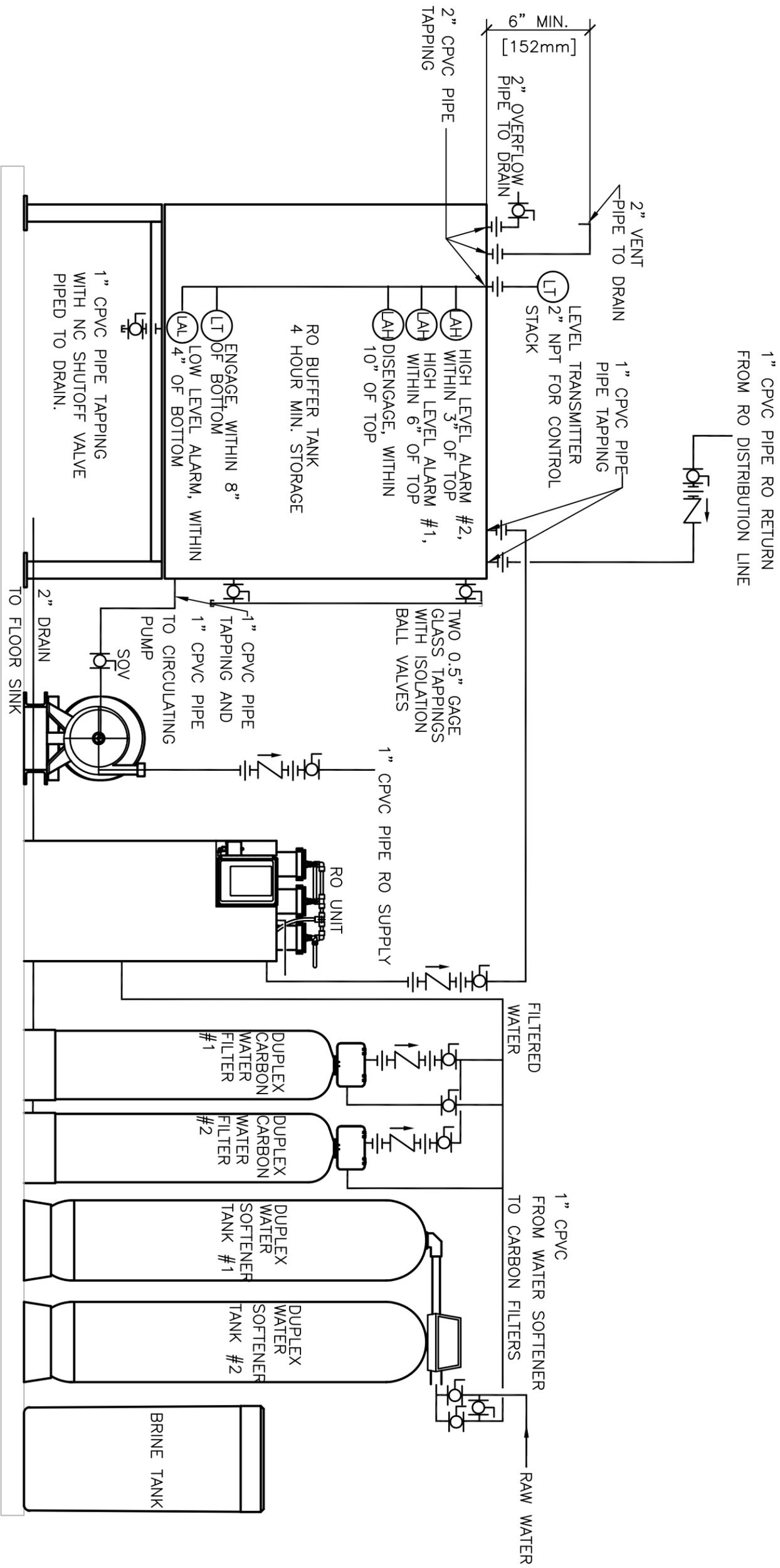
DETAIL TITLE / LABORATORY GAS ALARM PANEL SCHEDULE

SCALE: NONE

DATE ISSUED: DECEMBER 1, 2015

CAD DETAIL NO.:

SD226300-01.DWG



NTS

REVERSE OSMOSIS PACKAGE DETAIL