



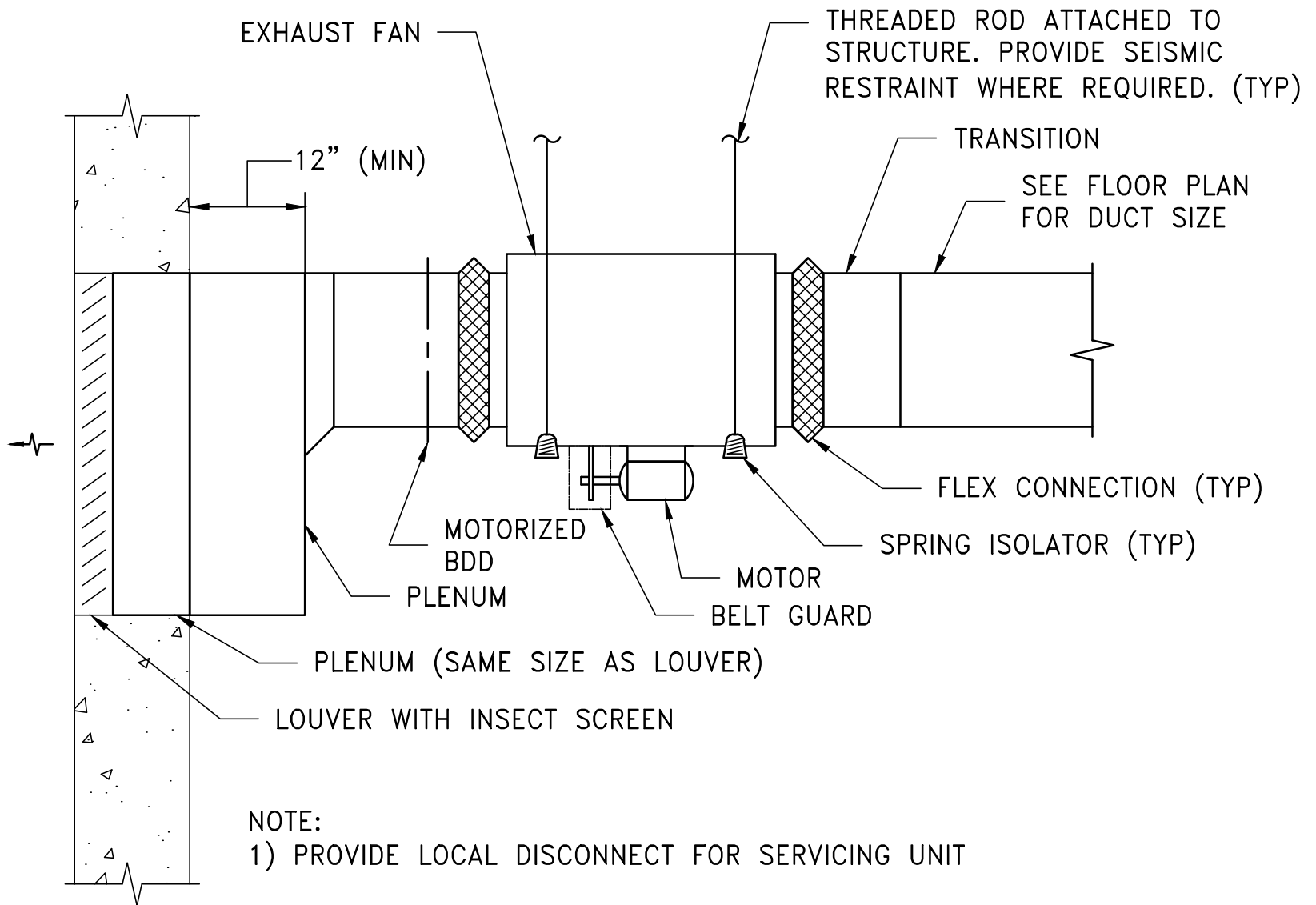
Sea-Tac International Airport

Facilities and Infrastructure System
Mechanical System Standards

APPENDIX E

Mechanical Diagrams and Details

Revised January 1, 2023



DETAIL

IN-LINE FAN
(EXHAUST FAN SHOWN)
SCALE: NONE

1
SD-207

DWG. TITLE:

IN-LINE FAN DETAIL

DATE: NOV, 2022

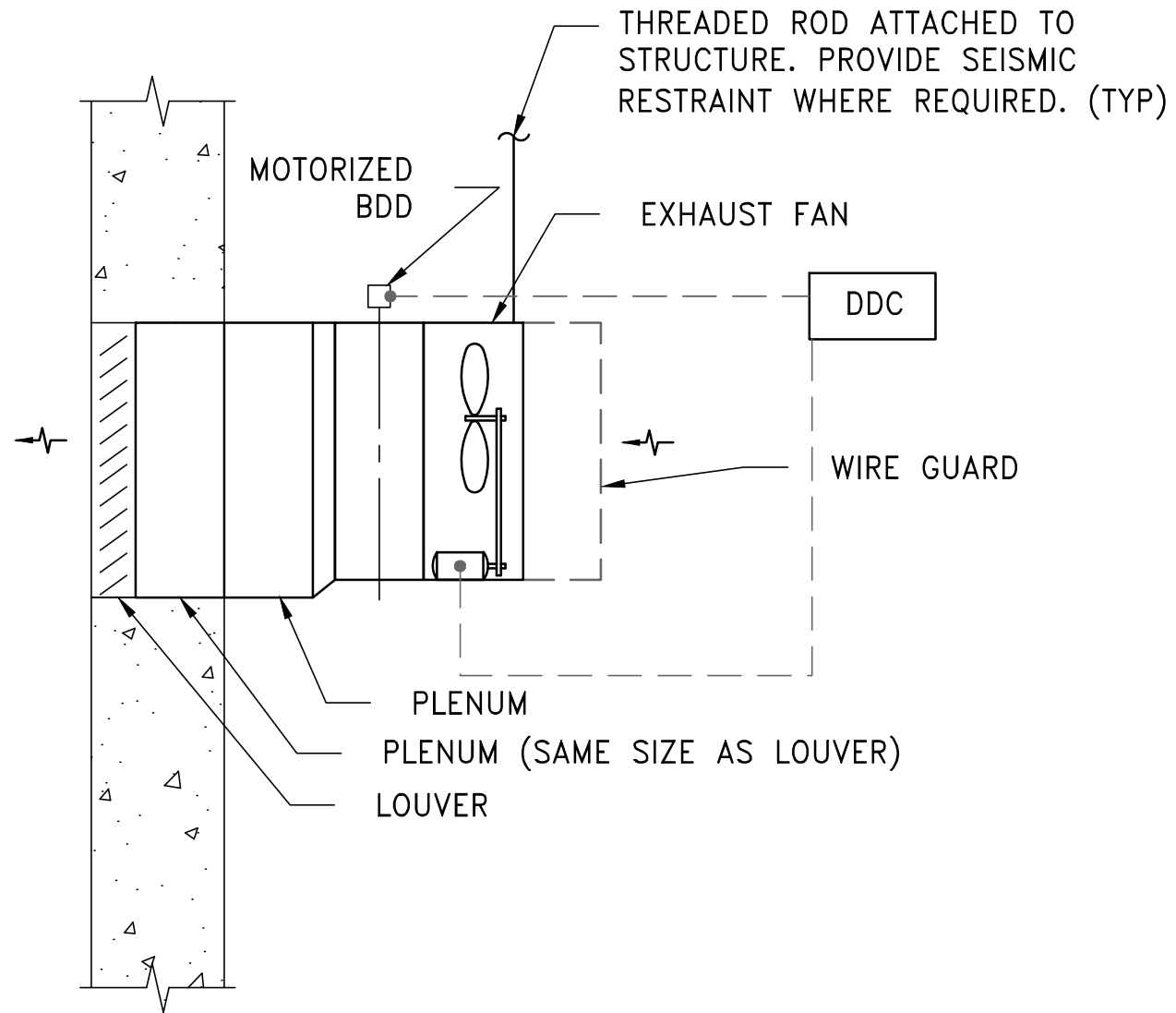
___: ___

LAST REVISION: 3

___: ___

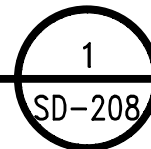
DIAG. NO.

SD-207



DETAIL

PROPELLER WALL FAN
(EXHAUST FAN SHOWN)
SCALE: NONE



DWG. TITLE:

PROPELLER WALL FAN DETAIL

DATE: NOV, 2022

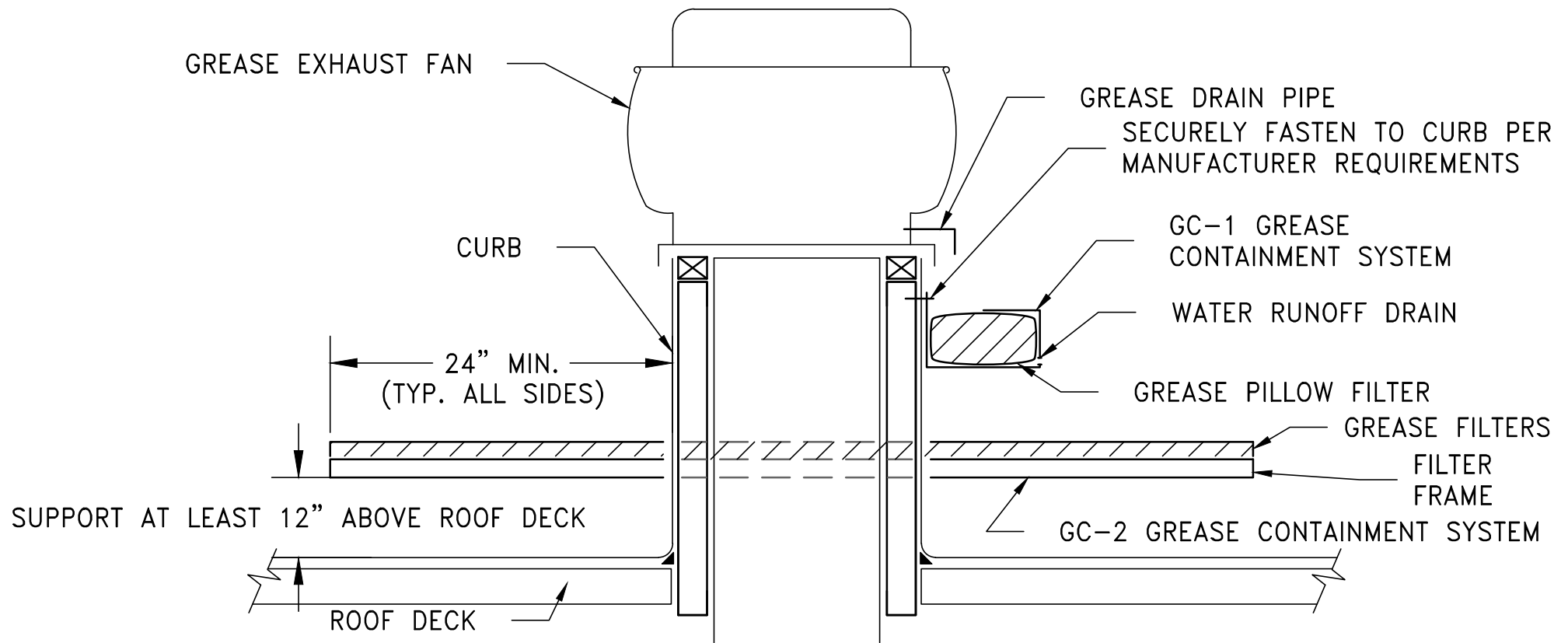
___: ___

DIAG. NO.

LAST REVISION: 3

___: ___

SD-208



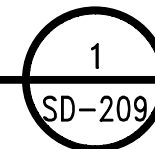
NOTE:

1. COORDINATE LOCATION AND ORIENTATION OF GREASE DRAIN AND GREASE CONTAINMENT GC-1 TO PROVIDE MAXIMUM FEASIBLE MAINTENANCE ACCESS.

DETAIL

ROOFTOP GREASE CONTAINMENT SYSTEM

SCALE: NONE



DWG. TITLE:

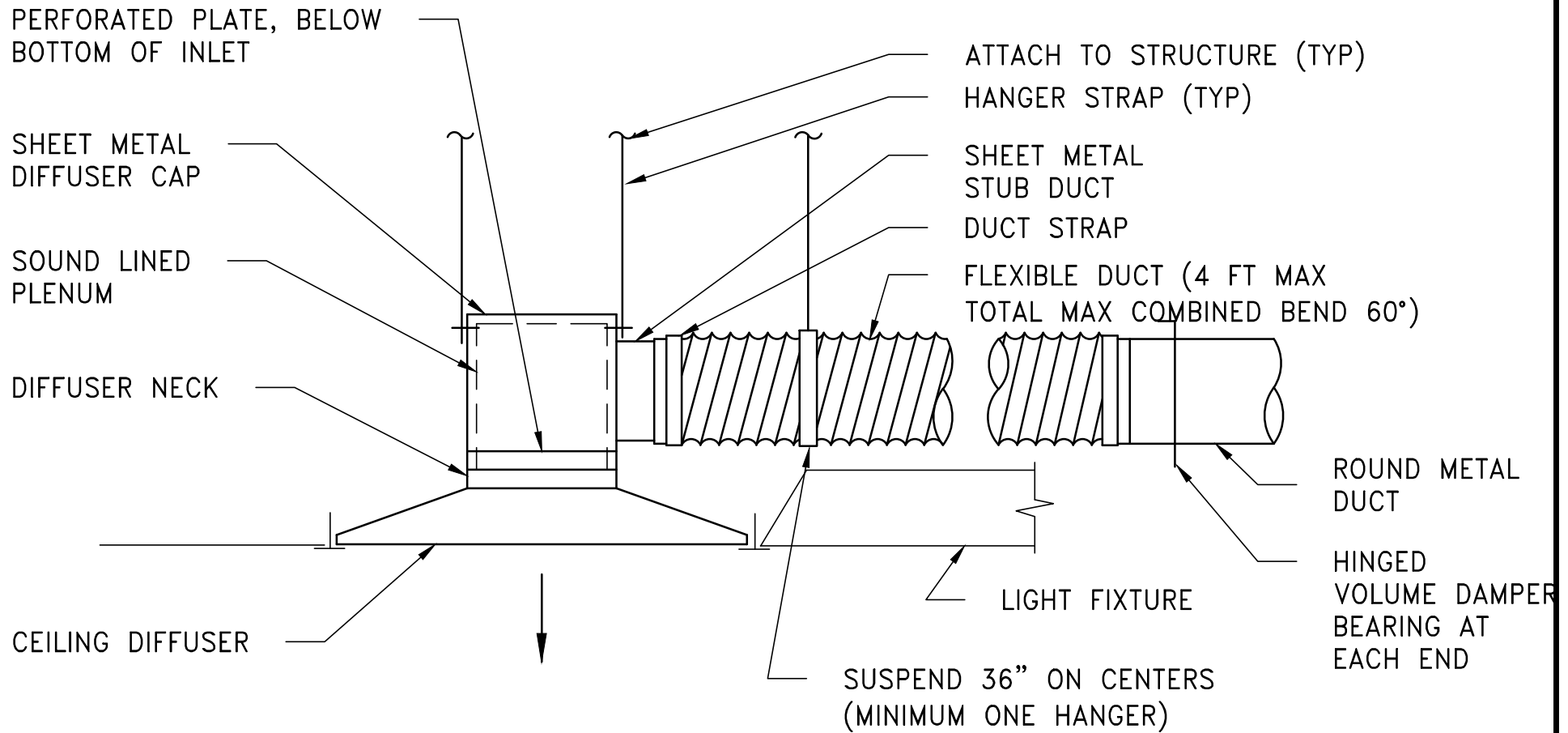
ROOFTOP GREASE CONTAINMENT

DATE: **NOV, 2018**

LAST REVISION: **0**

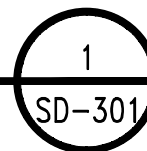
DIAG. NO.

SD-209



DETAIL

CEILING DIFFUSER
SCALE: NONE



DWG. TITLE:

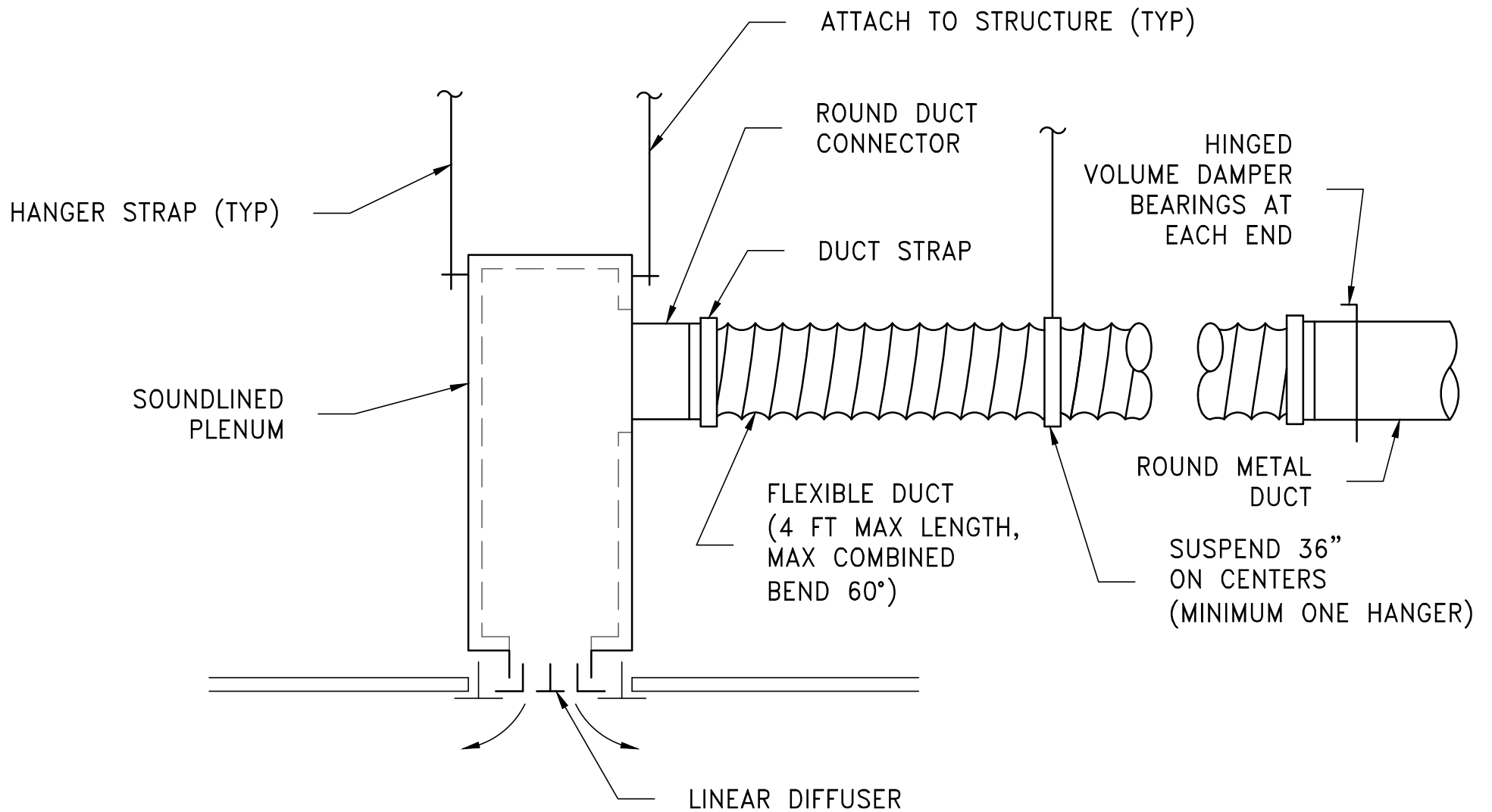
CEILING DIFFUSER DETAIL

DATE: NOV, 2022

LAST REVISION: 3

DIAG. NO.

SD-301



DETAIL

LINEAR DIFFUSER
SCALE: NONE

1

SD-302

DWG. TITLE:

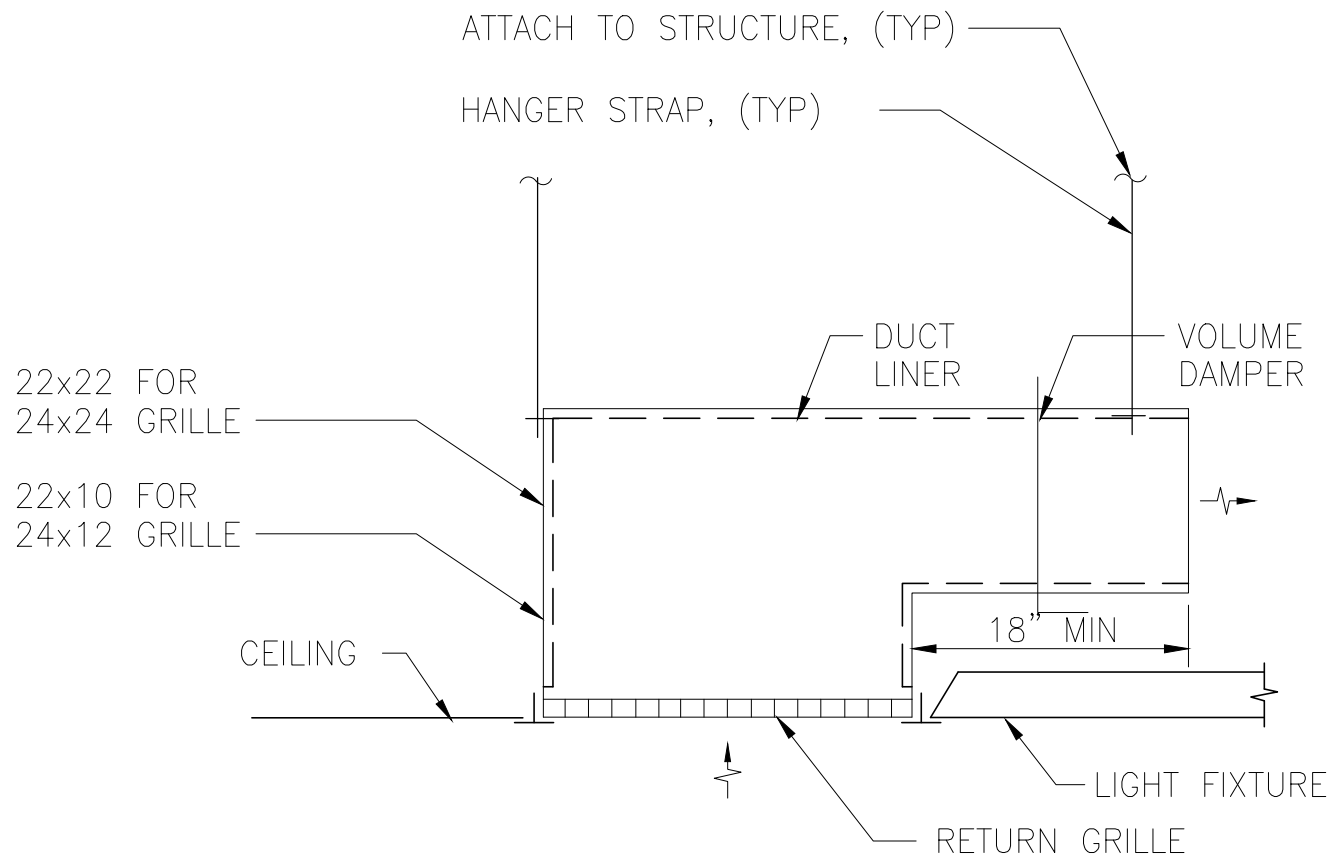
LINEAR DIFFUSER DETAIL

DATE: SEP, 2018

LAST REVISION: 2

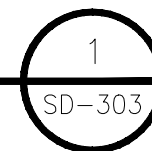
DIAG. NO.

SD-302



DETAIL

RETURN AIR GRILLE PLENUM
RETURN APPLICATION SHOWN
SCALE: NONE



DWG. TITLE:

RETURN AIR GRILLE DETAIL

DATE: Dec, 2001

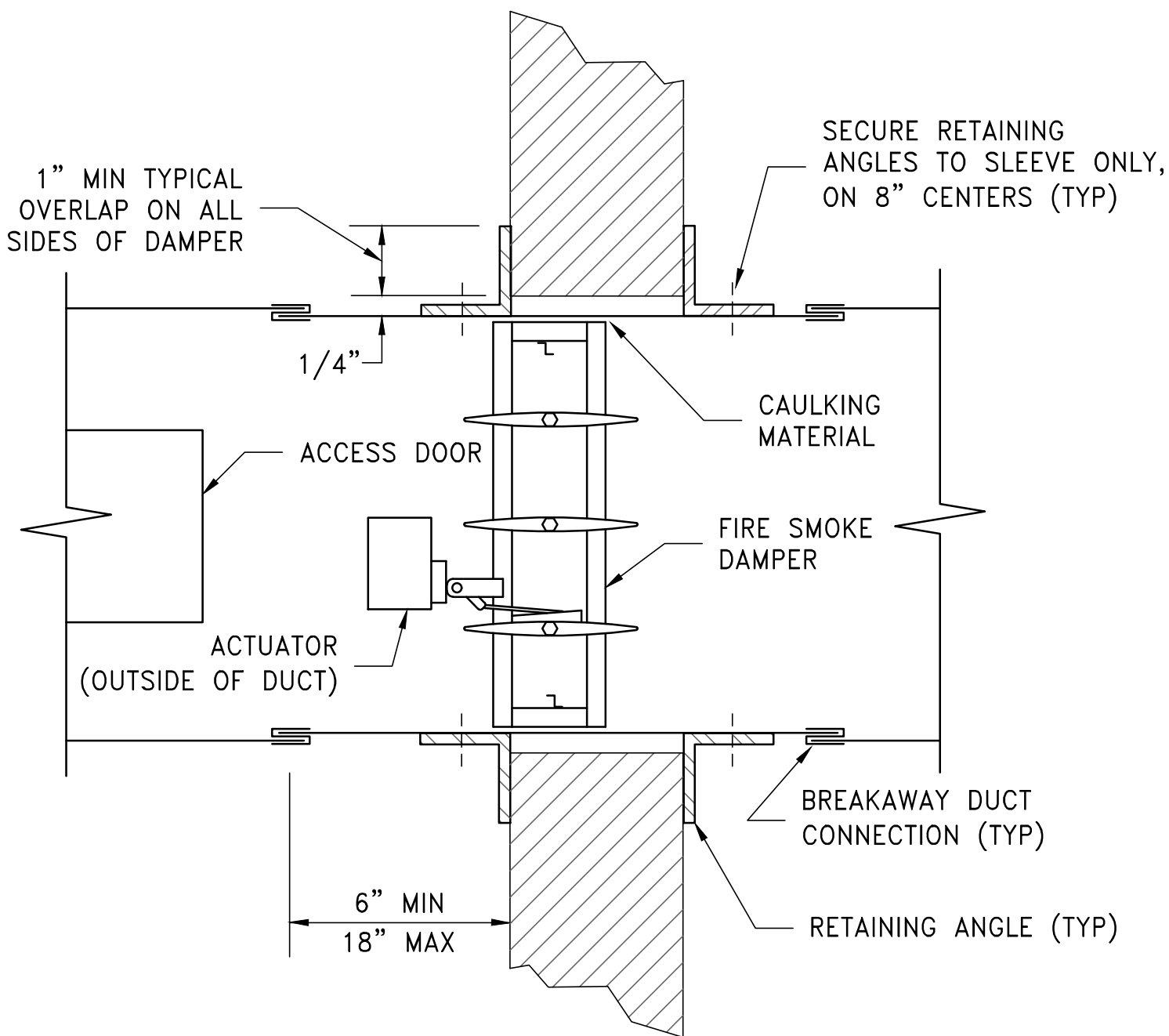
___: _

DIAG. NO.

LAST REVISION: 0

___: _

SD-303



DETAIL

FIRE SMOKE DAMPER
SCALE: NONE

1

SD-304

DWG. TITLE:

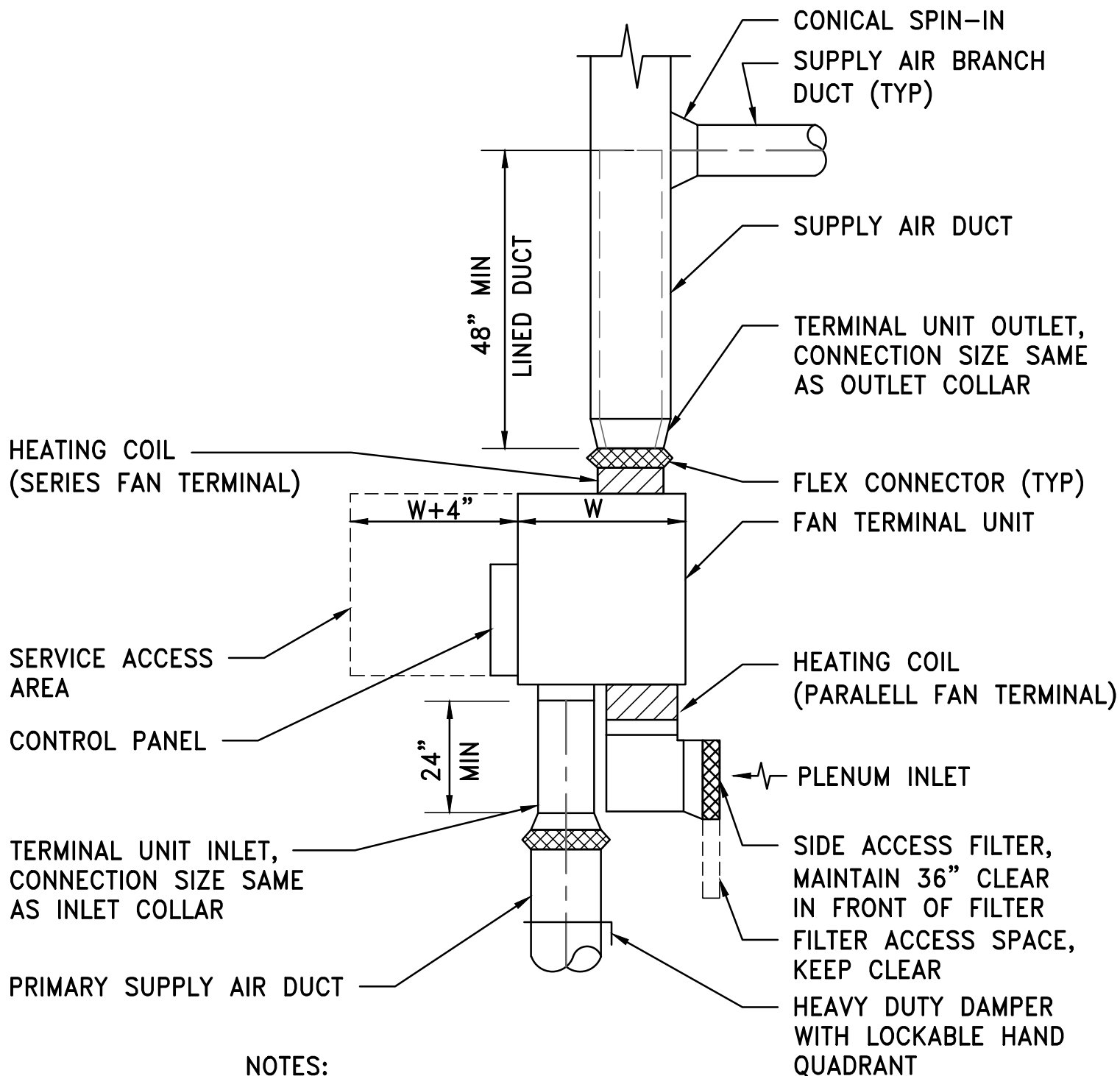
FIRE/SMOKE DAMPER DETAIL

DATE: SEP, 2018

LAST REVISION: 2

DIAG. NO.

SD-304

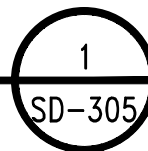


NOTES:

- DDC CONTROLS BY SIEMENS BUILDING TECHNOLOGIES, INC.

DETAIL

TYPICAL FAN TERMINAL UNIT
SCALE: NONE



DWG. TITLE:

FAN TERMINAL UNIT DETAIL

DATE: SEP, 2018

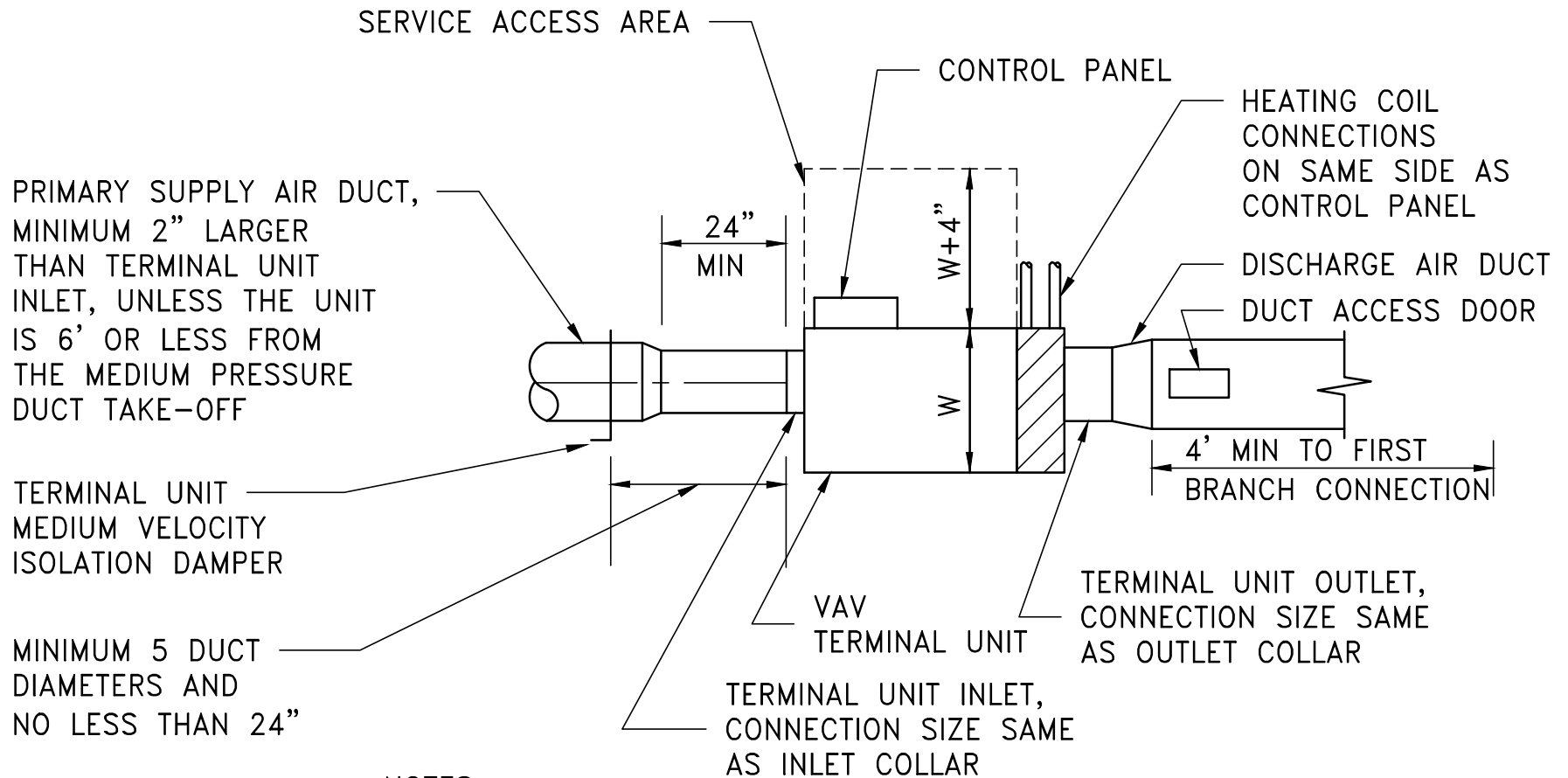
—: —

DIAG. NO.

LAST REVISION: 2

—: —

SD-305

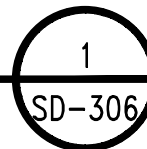


NOTES:

1. DDC CONTROL BY SIEMENS BUILDING TECHNOLOGIES, INC.
2. MAINTAIN 36" CLEAR SPACE UNDER VAV BOX FOR MAINTENANCE.

DETAIL

VAV TERMINAL UNIT DETAIL
SCALE: NONE



DWG. TITLE:

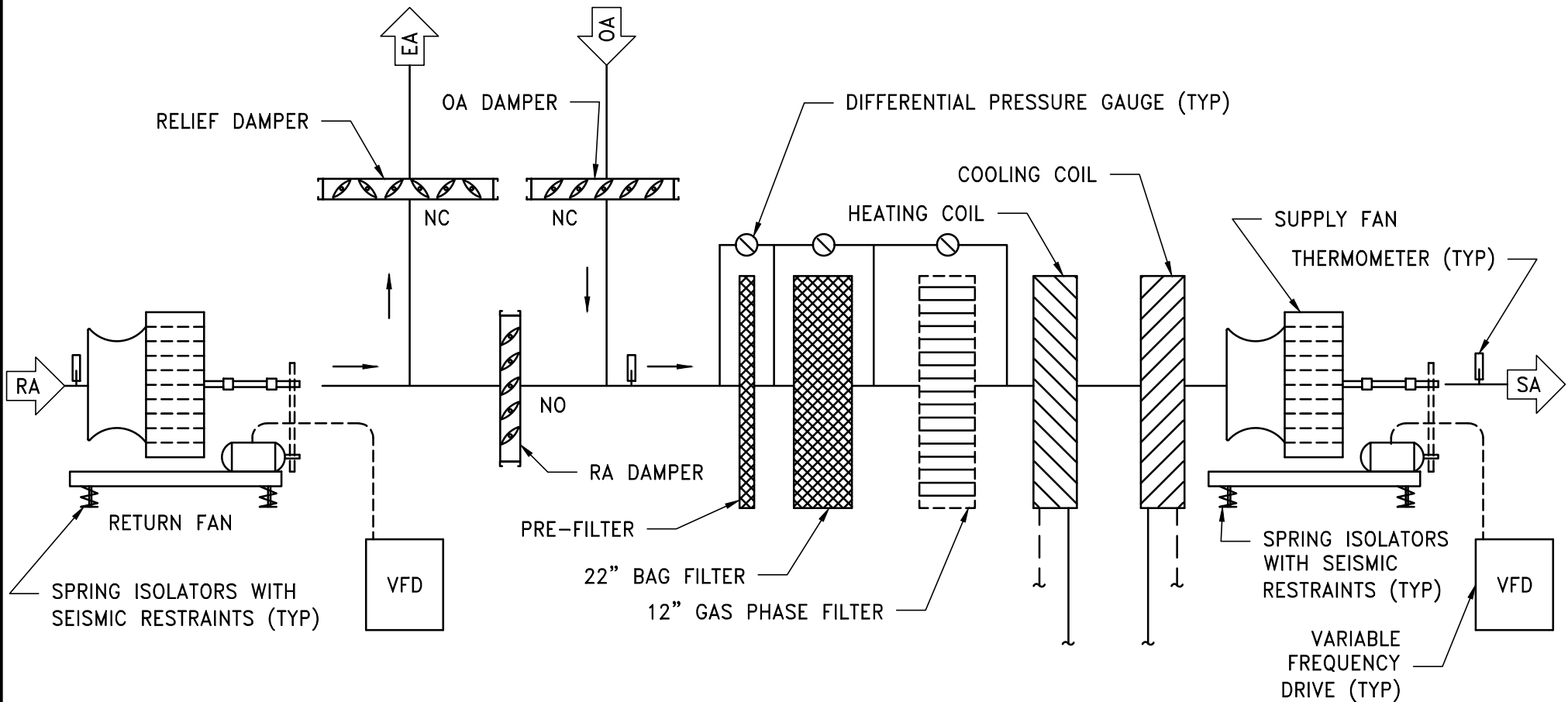
TYPICAL VAV TERMINAL UNIT

DATE: **NOV, 2022**

LAST REVISION: **2**

DIAG. NO.

SD-306



DETAIL

TYPICAL AHU CONFIGURATION
DRAW-THROUGH FAN SYSTEM SHOWN
SCALE: NONE

1
SD-308

DWG. TITLE:

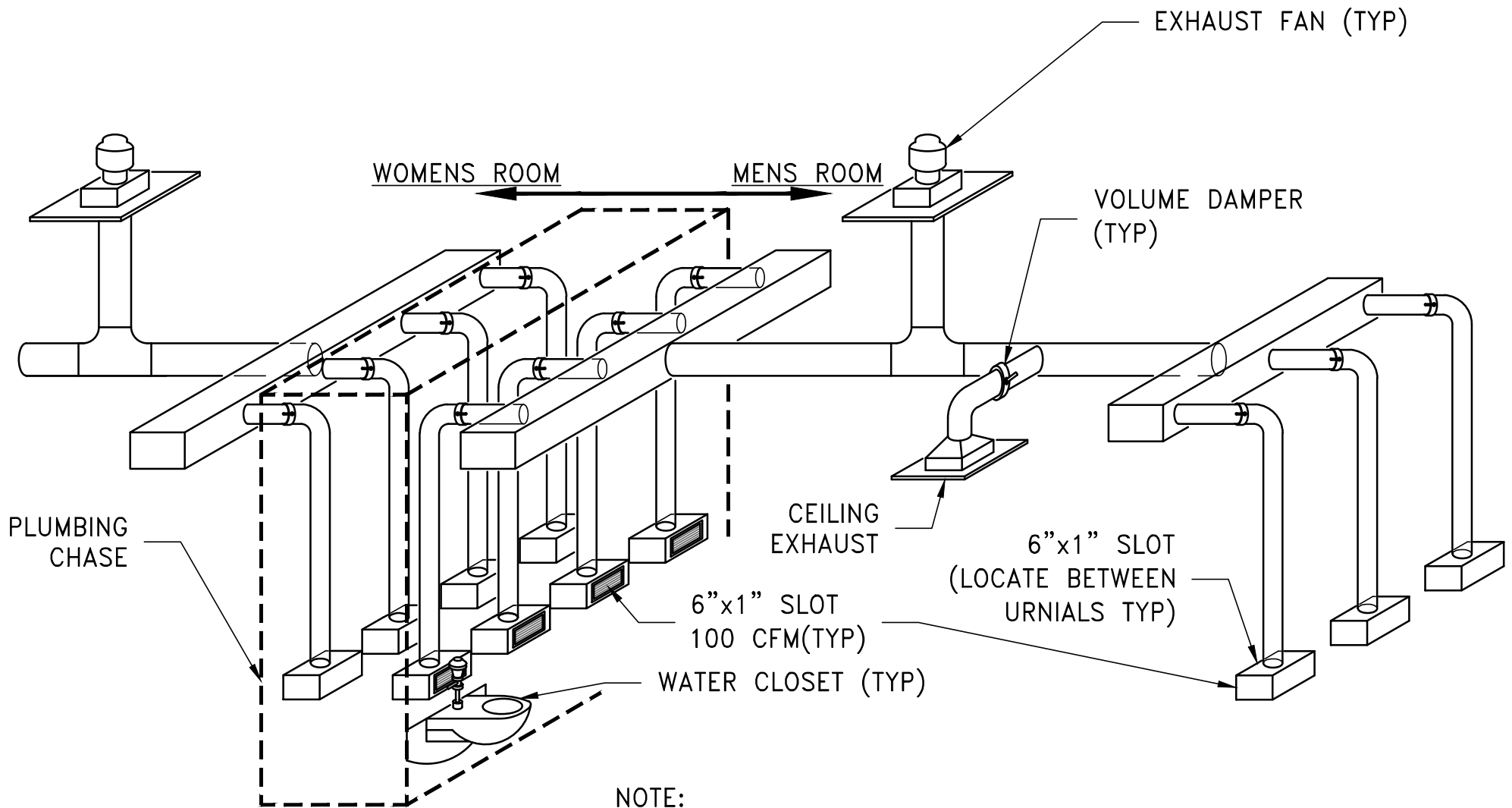
AHU CONFIGURATION DIAGRAM

DATE: NOV, 2022

LAST REVISION: 3

DIAG. NO.

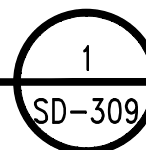
SD-308



NOTE:
RESTROOMS SHALL HAVE 20 AIR
CHANGES PER HOUR EXHAUST RATE.

DETAIL

RESTROOM EXHAUST LAYOUT
SCALE: NONE



DWG. TITLE:

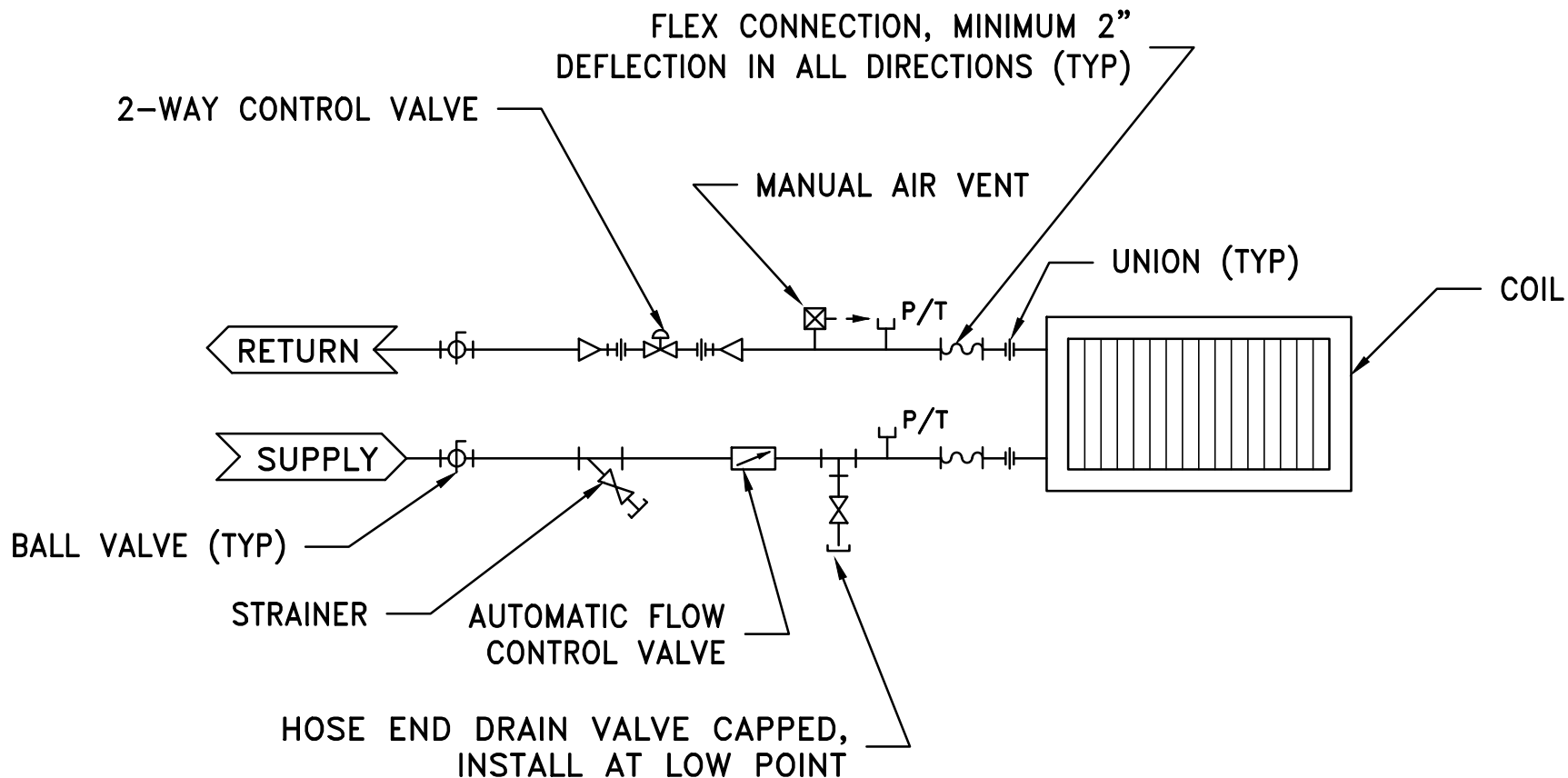
RESTROOM EXHAUST LAYOUT

DATE: SEPT 2018

LAST REVISION: 1

DIAG. NO.

SD-309



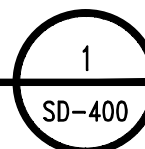
NOTES:

1. COORDINATE CONTROL VALVE INSTALLATION WITH SIEMENS.

INDIVIDUAL COIL PIPE SIZE	
COIL GPM	PIPE SIZE
0.5 – 3.5	3/4"
4.0 – 8.0	1"
8.5 – 12.0	1-1/4"

DETAIL

TERMINAL UNITS, VAV
HEATING COILS
SCALE: NONE



DWG. TITLE:

TYPICAL VAV COIL CONNECTION

DATE: **NOV, 2022**

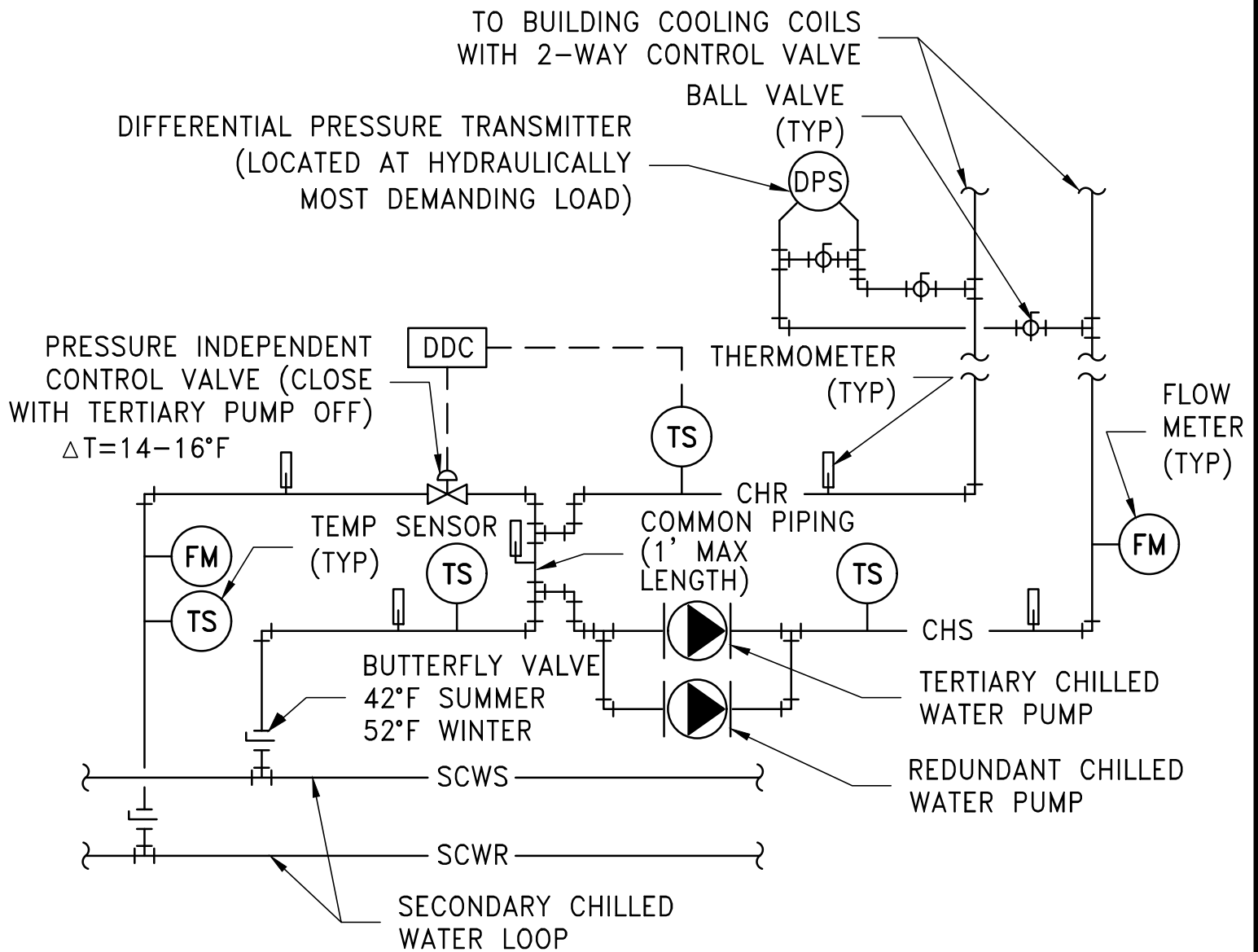
LAST REVISION: **1**

___: ___

___: ___

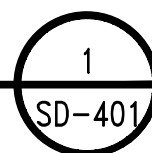
DIAG. NO.

SD-400



DETAIL

CHILLED WATER CONNECTION
SCALE: NONE



DWG. TITLE:

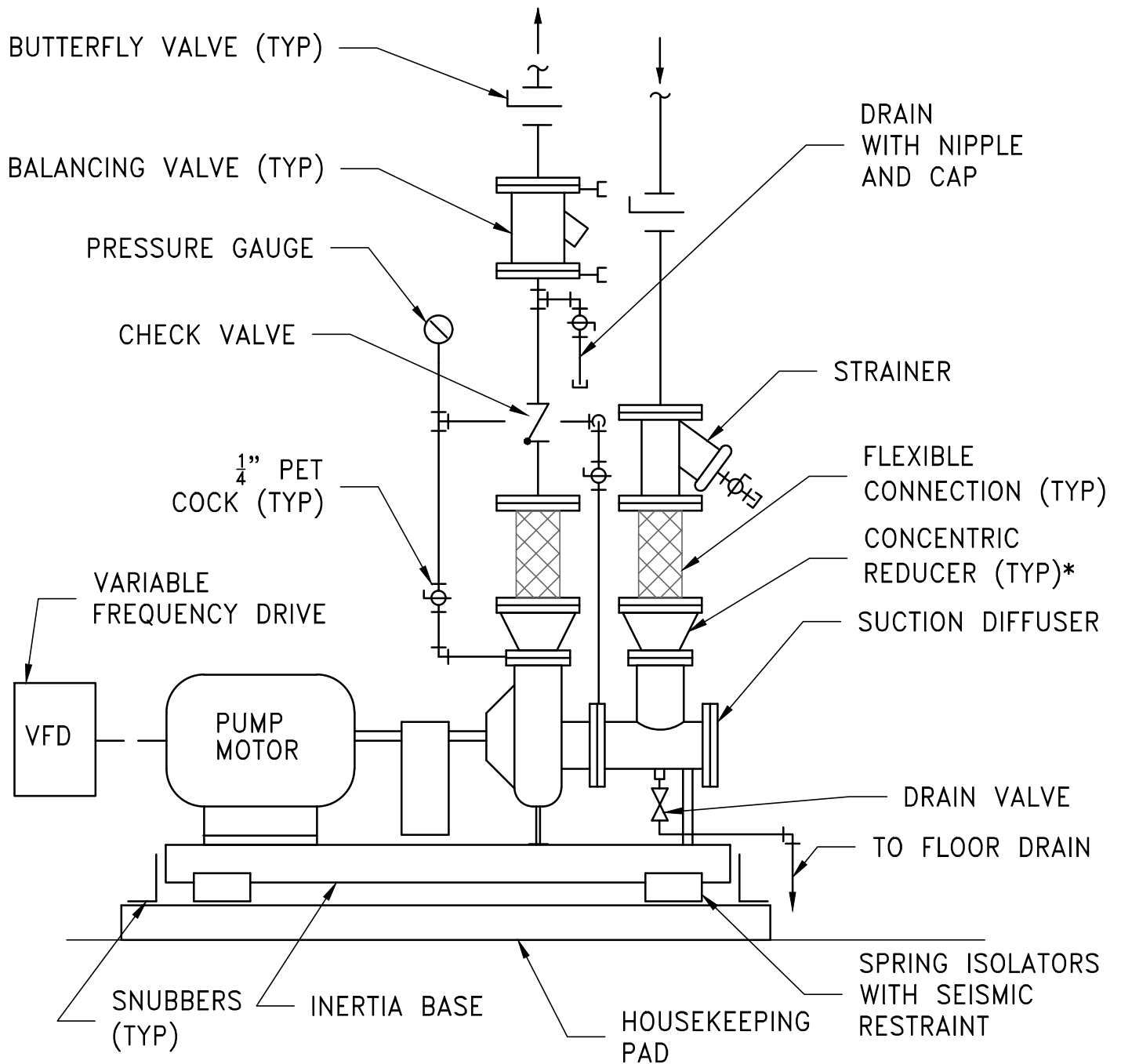
CHILLED WATER CONN. DIAGRAM

DATE: NOV, 2022

LAST REVISION: 3

DIAG. NO.

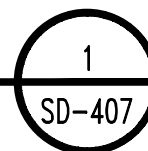
SD-401



*USE ECCENTRIC REDUCER AND FULL RADIUS ELBOW IF NO SUCTION DIFFUSER.

DETAIL

TYPICAL HVAC PUMP
HEATING AND CHILLED WATER
SCALE: NONE



DWG. TITLE:

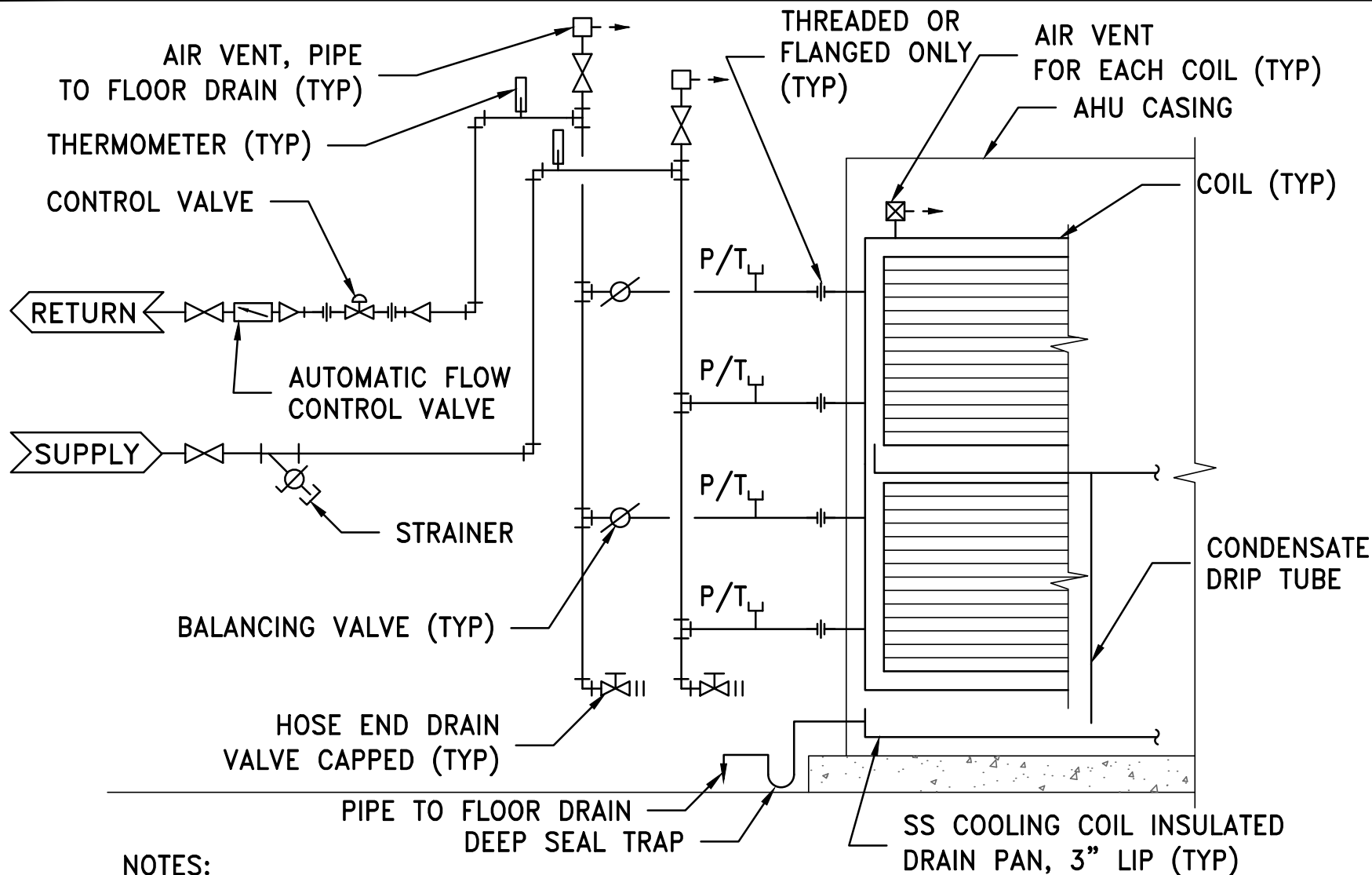
TYPICAL HVAC PUMP DETAIL

DATE: SEP 2018

LAST REVISION: 2

DIAG. NO.

SD-407



NOTES:

1. PROVIDE ACCESSIBLE PLUGGED MANUAL AIR VENT FOR EACH COIL.
2. COORDINATE QUANTITY AND ARRANGEMENT OF COILS W/UNIT MANUFACTURER.
3. COORDINATE CONTROL VALVE PIPING REQUIREMENTS W/ CONTROLS CONTRACTOR.
4. MAINTAIN COIL PULL SPACE ACCESS REQUIREMENTS.
5. CONTROL VALVES SHALL BE LOCATED AT ACCESSIBLE LOCATION, 3' TO 6' ABOVE FINISHED FLOOR.
6. COOLING COILS SHALL BE LOCATED DOWNSTREAM OF HEATING COILS.

DETAIL

TYPICAL AHU COOLING COIL PIPING
SCALE: NONE

1

SD-416

DWG. TITLE:

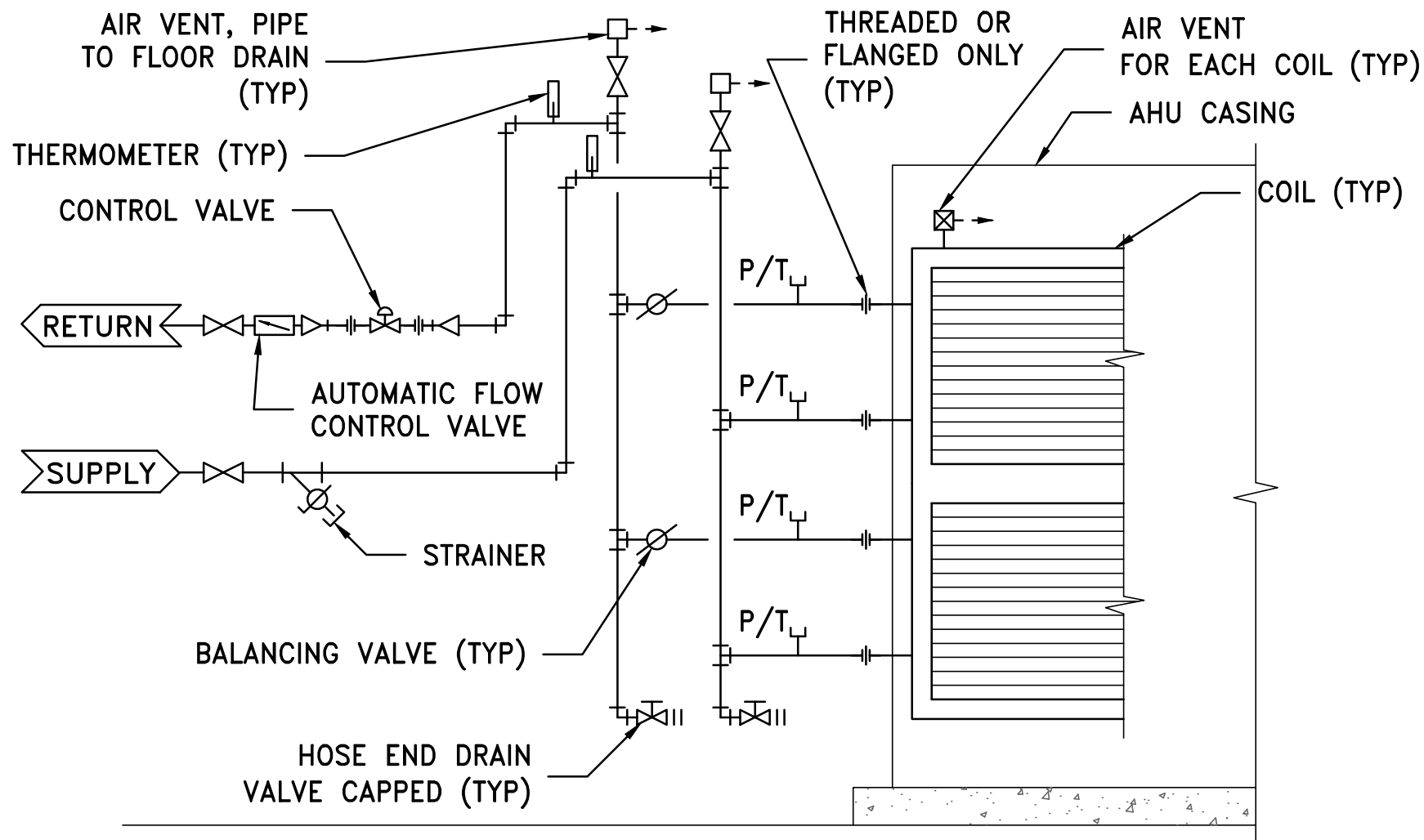
AHU COOLING COIL PIPING

DATE: SEP, 2018

LAST REVISION: 1

DIAG. NO.

SD-416

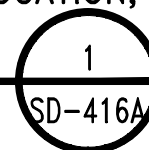


NOTES:

1. PROVIDE ACCESSIBLE PLUGGED MANUAL AIR VENT FOR EACH COIL.
2. COORDINATE QUANTITY AND ARRANGEMENT OF COILS WITH UNIT MANUFACTURER.
3. COORDINATE CONTROL VALVE PIPING REQUIREMENTS WITH CONTROLS CONTRACTOR.
4. MAINTAIN COIL PULL SPACE ACCESS REQUIREMENTS.
5. CONTROL VALVES SHALL BE LOCATED AT ACCESSIBLE LOCATION, 3FT-6FT ABOVE FINISHED FLOOR.

DETAIL

TYPICAL AHU HEATING COIL PIPING
SCALE: NONE



DWG. TITLE:

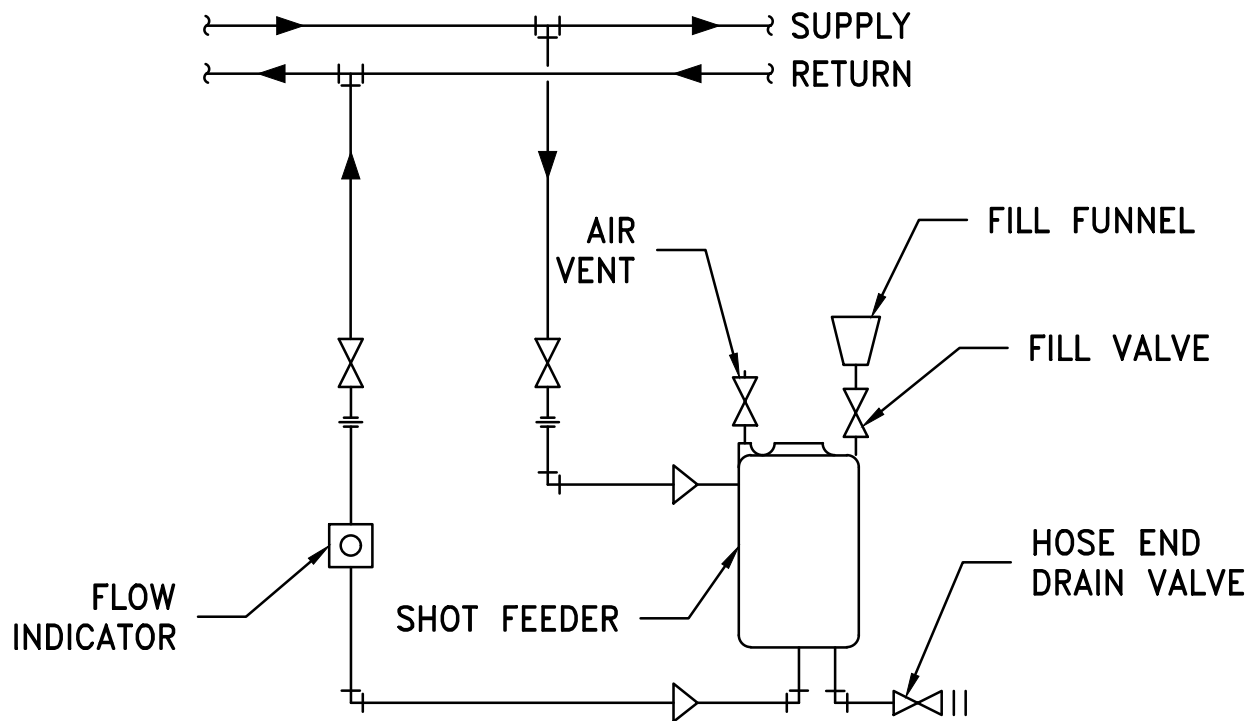
AHU HEATING COIL PIPING

DATE: SEP, 2018

LAST REVISION: 1

DIAG. NO.

SD-416A

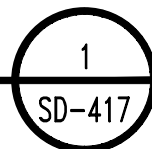


NOTES:

1. FEEDER TO BE CONNECTED ACROSS AND ADJACENT TO PUMPING SYSTEM.

DETAIL

CHEMICAL FEEDER PIPING
SCALE: NONE



DWG. TITLE:

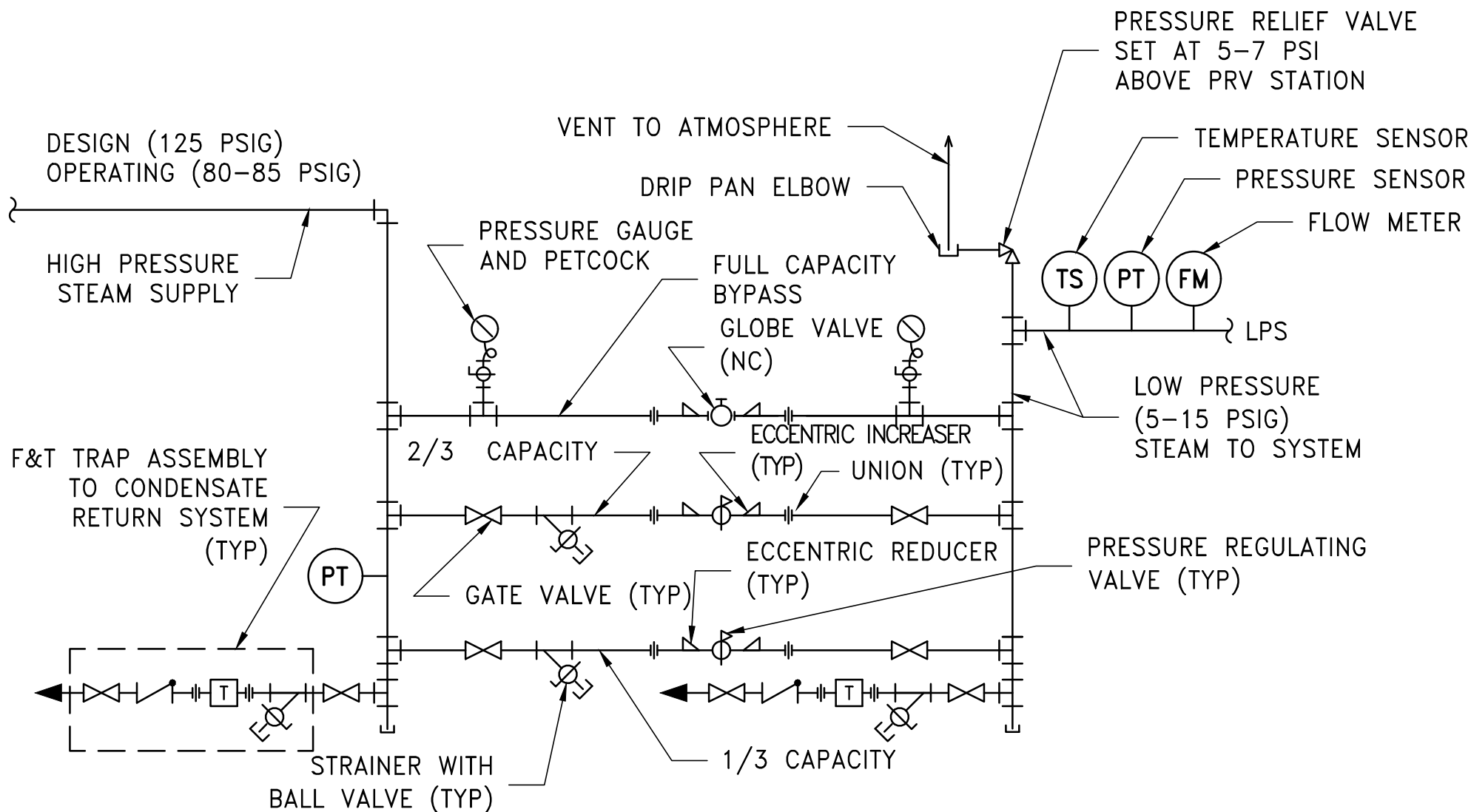
CHEMICAL FEEDER PIPING

DATE: SEP, 2018

LAST REVISION: 1

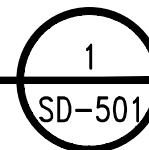
DIAG. NO.

SD-417



DETAIL

STEAM PRESSURE REDUCING STATION
SCALE: NONE



DWG. TITLE:

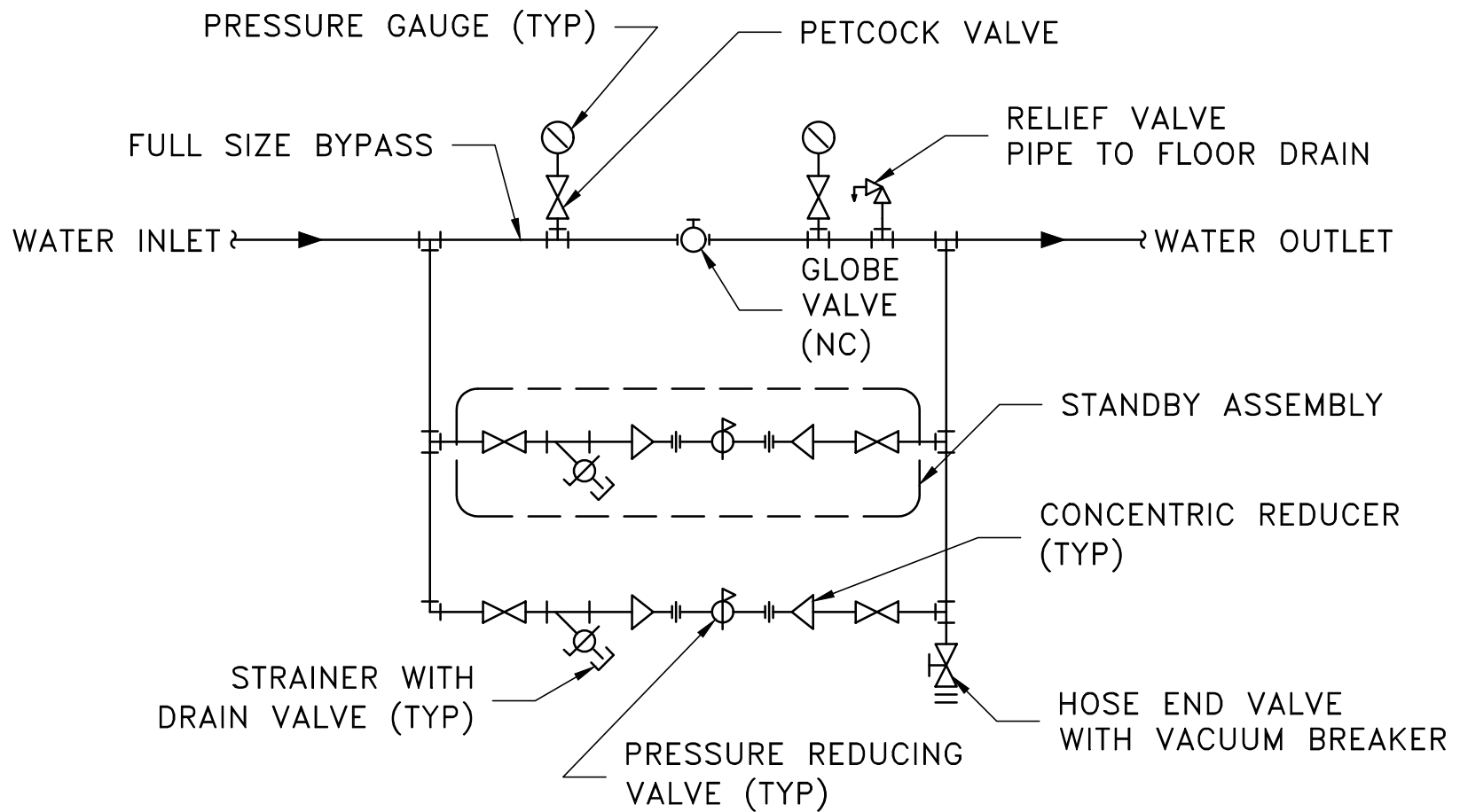
STEAM REDUCING STATION

DATE: SEP, 2018

LAST REVISION: 2

DIAG. NO.

SD-501

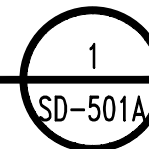


NOTES:

1. USE STAGED AND/OR PILOT OPERATED VALVES FOR HIGH FLOWS.

DETAIL

PRESSURE REDUCING STATION
WATER-ONE STAGE
SCALE: NONE



DWG. TITLE:

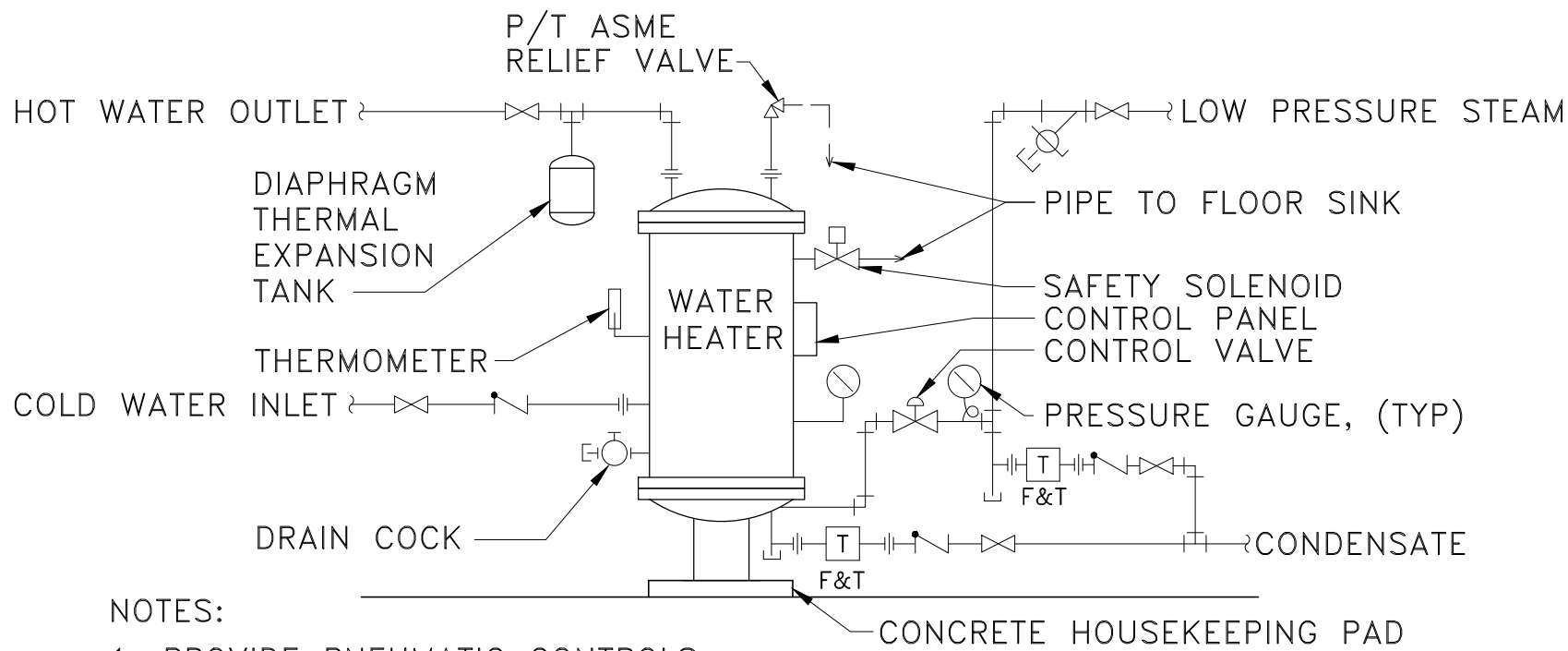
PRESSURE REDUCING STATION

DATE: **SEP, 2018**

LAST REVISION: **2**

DIAG. NO.

SD-501A

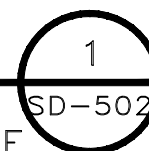


NOTES:

1. PROVIDE PNEUMATIC CONTROLS.
2. PROVIDE SEISMIC SUPPORT.

DETAIL

TYPICAL SEMI INSTANTANEOUS
DOMESTIC WATER HEATER DOUBLE
WALL, STEAM TO HOT WATER
SCALE: NONE



DWG. TITLE:

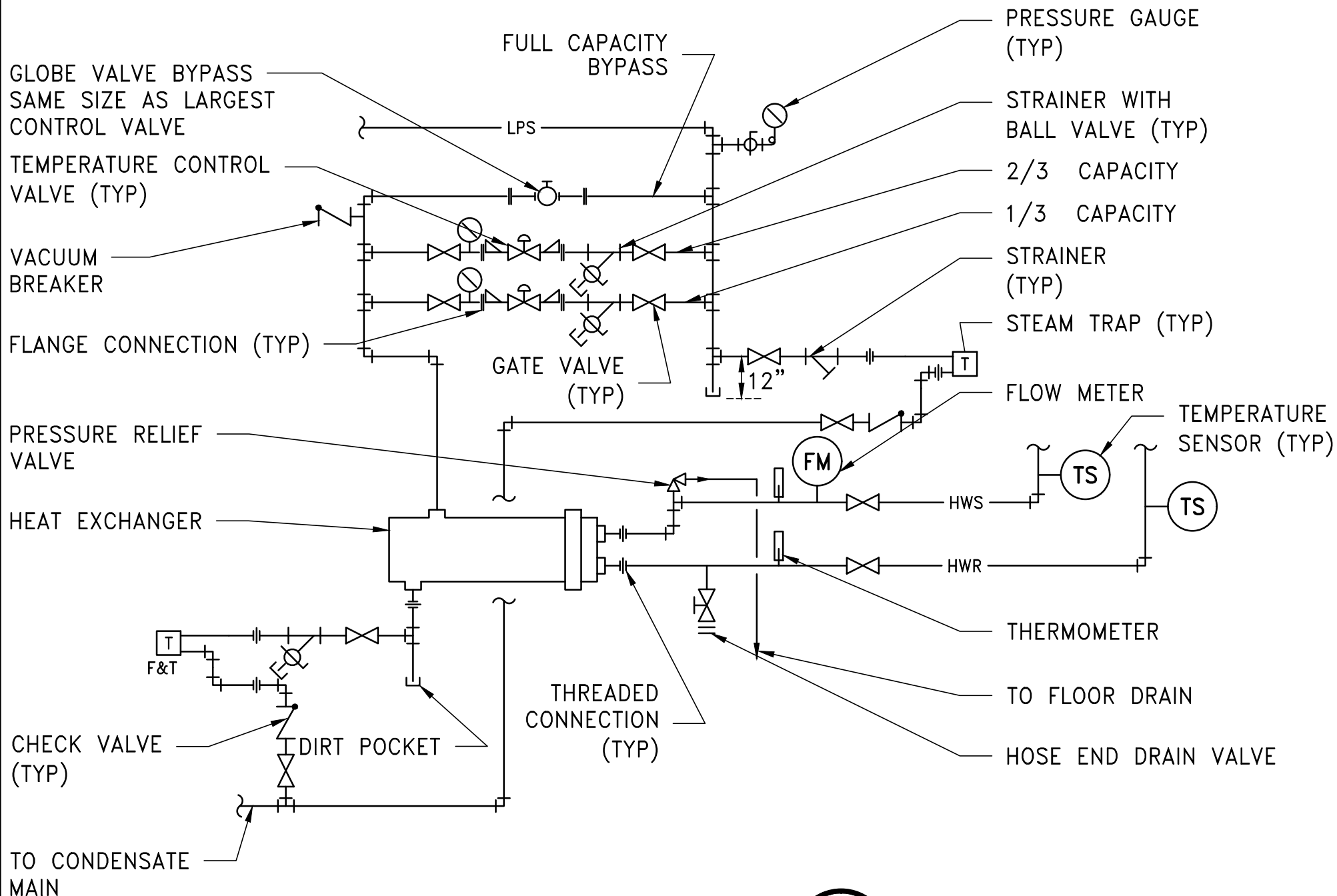
DOMESTIC WATER HEATER

DATE: Dec, 2001

LAST REVISION: 0

DIAG. NO.

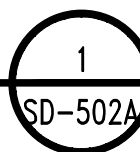
SD-502



DETAIL

HEAT EXCHANGER SYSTEM DIAGRAM

SCALE: NONE



DWG. TITLE:

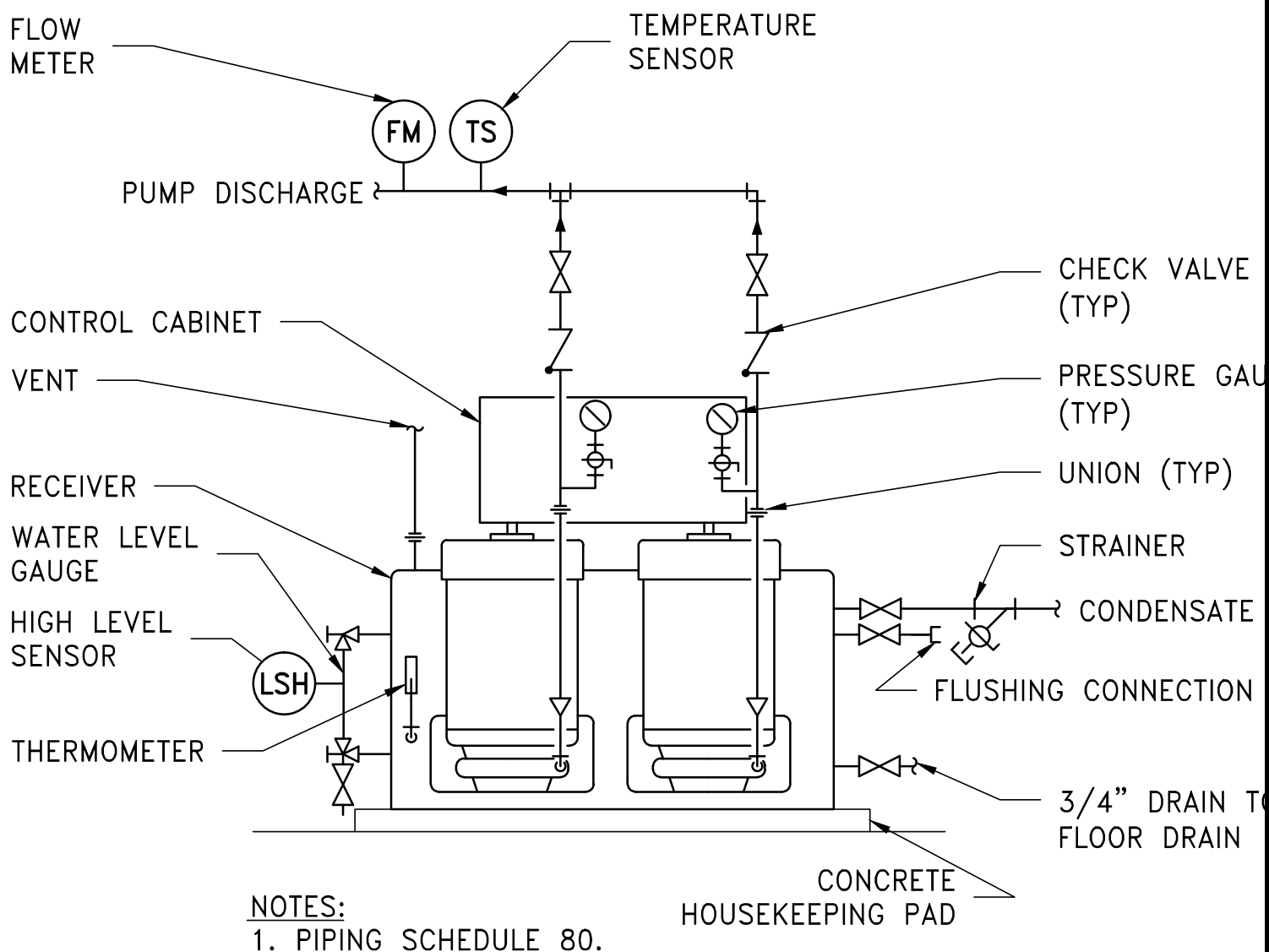
HEAT EXCHANGER

DATE: SEP, 2018

LAST REVISION: 2

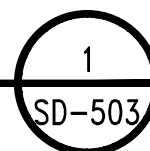
DIAG. NO.

SD-502A



DETAIL

DUPLEX CONDENSATE PUMP
SCALE: NONE



DWG. TITLE:

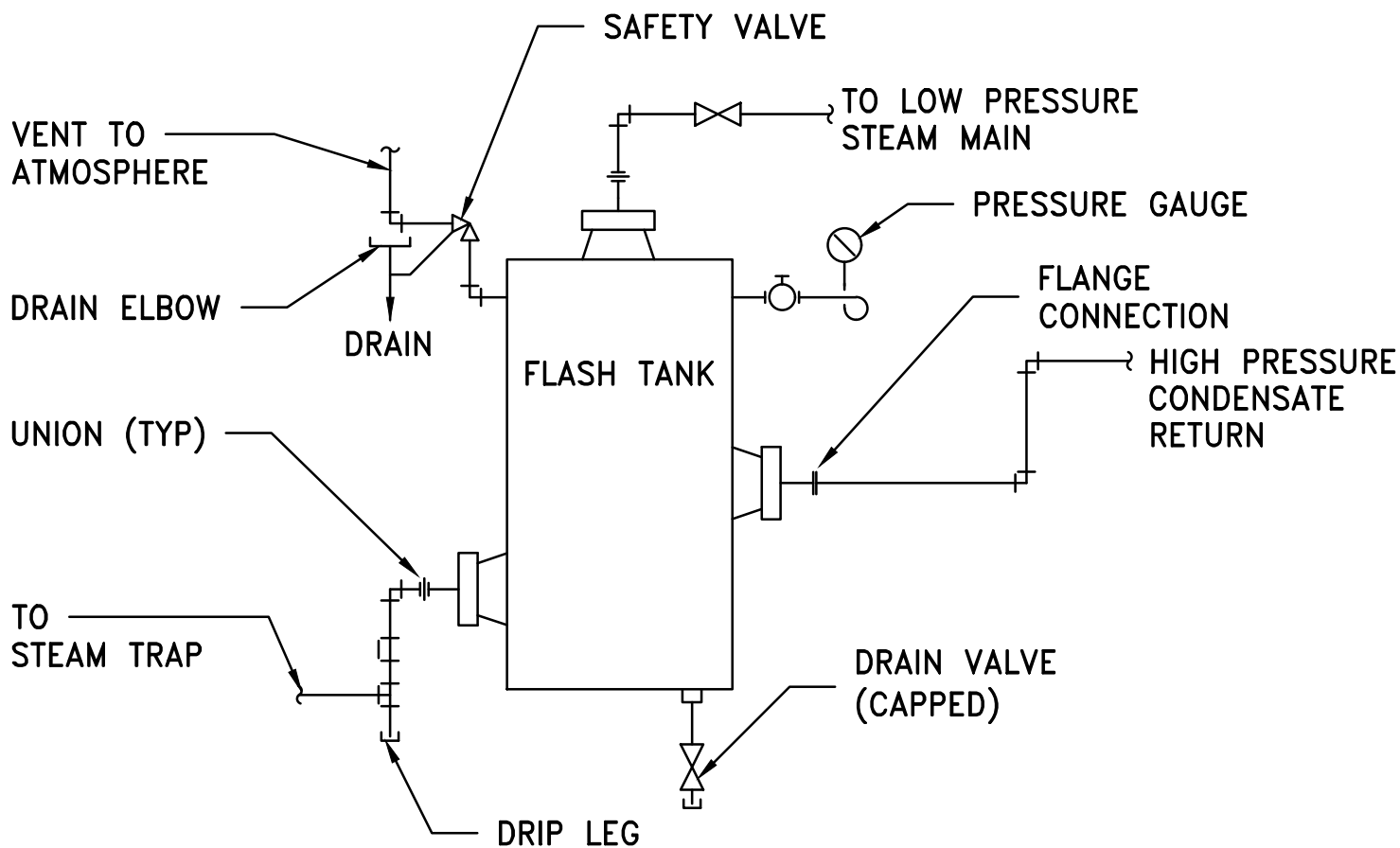
DUPLEX CONDENSATE PUMP

DATE: SEP, 2018

LAST REVISION: 2

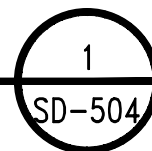
DIAG. NO.

SD-503



DETAIL

STEAM FLASH TANK
SCALE: NONE



DWG. TITLE:

FLASH TANK DIAGRAM

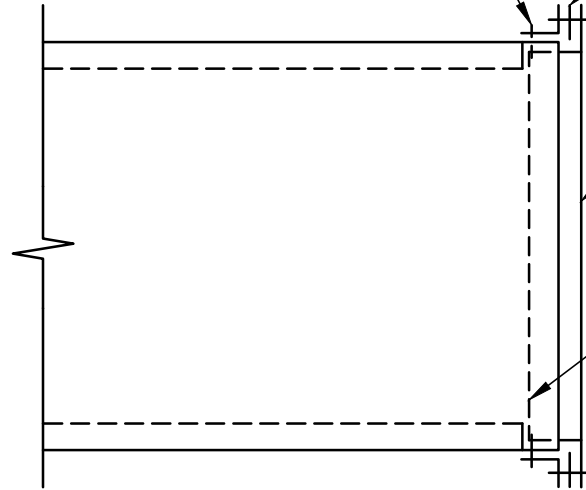
DATE: SEP, 2018

LAST REVISION: 2

DIAG. NO.

SD-504

1x1 CONTINUOUS GALVANIZED
SHEET METAL ANGLE AROUND DUCT;
SECURE TO DUCT AND SEAL CLASS A



1/8"x3/4" WIDE NEOPRENE
GASKET SECURED TO FLANGE
(GLUE OR SELF-ADHESIVE)

REMOVABLE GALVANIZED SHEET METAL END
CAP WITH ROUNDED AND SMOOTH EDGES;
CROSS-BREAK CAP AND SECURE
TO ANGLE AT 6" OC

1" DUCT LINING SHOWN, PROVIDE LINED
CAP ON LINED DUCT ONLY, INSULATE CAP
AND FLANGE ON INSULATED DUCT

DETAIL

DUCT CAP
SCALE: NONE

1

SD-505

DWG. TITLE:

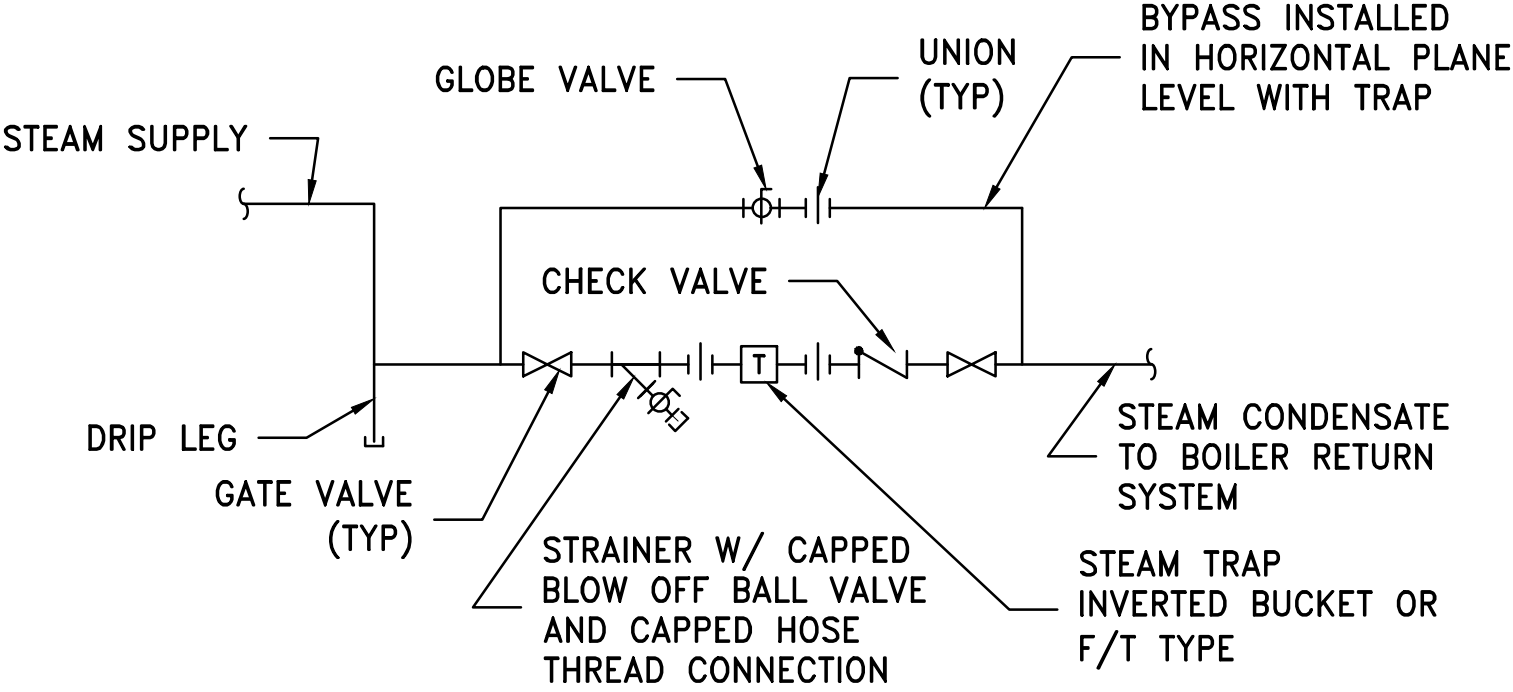
DUCT CAP DETAIL

DATE: SEP, 2018

LAST REVISION: 1

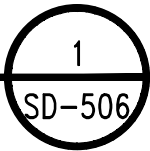
DIAG. NO.

SD-505

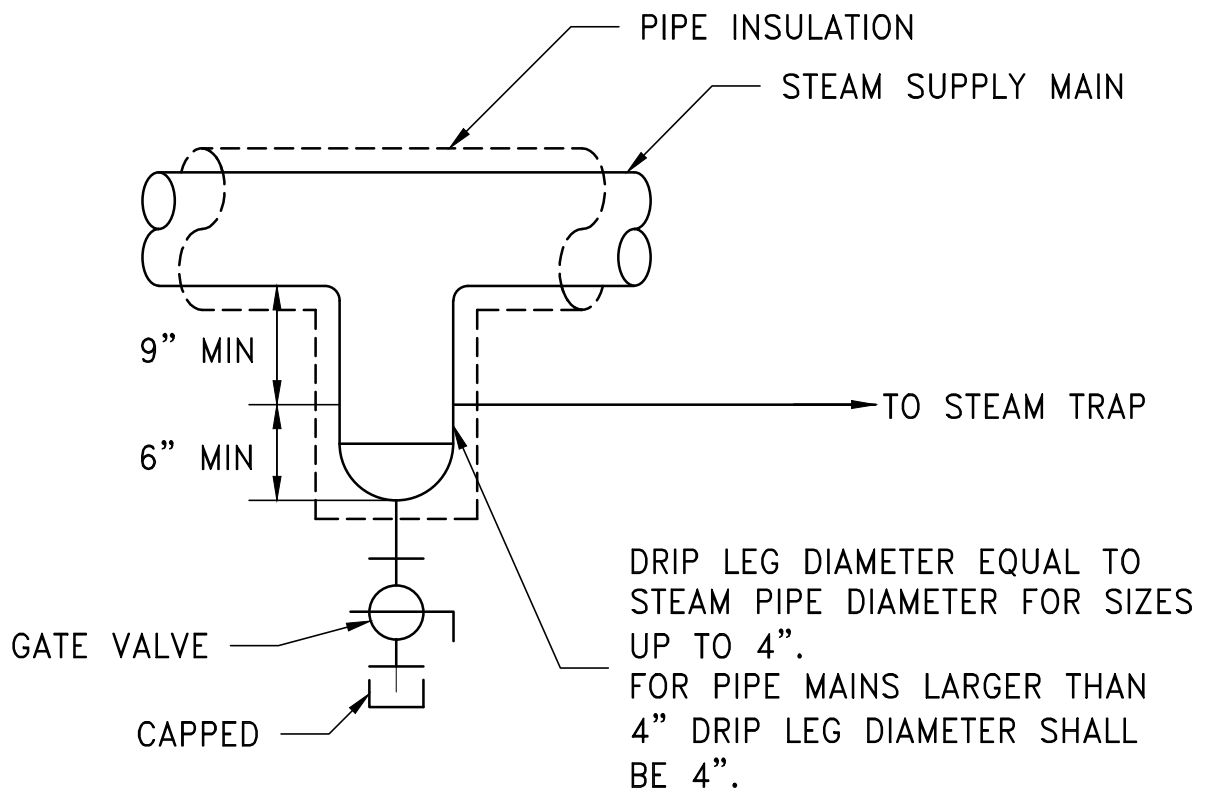


DETAIL

STEAM TRAP DIAGRAM
SCALE: NONE

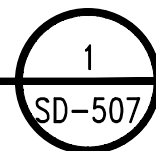


DWG. TITLE:		
STEAM TRAP PIPING DIAGRAM		
DATE: SEP, 2018	___:	DIAG. NO.
LAST REVISION: 2	___:	SD-506



DETAIL

STEAM TRAP DRIP LEG DETAIL
SCALE: NONE



DWG. TITLE:

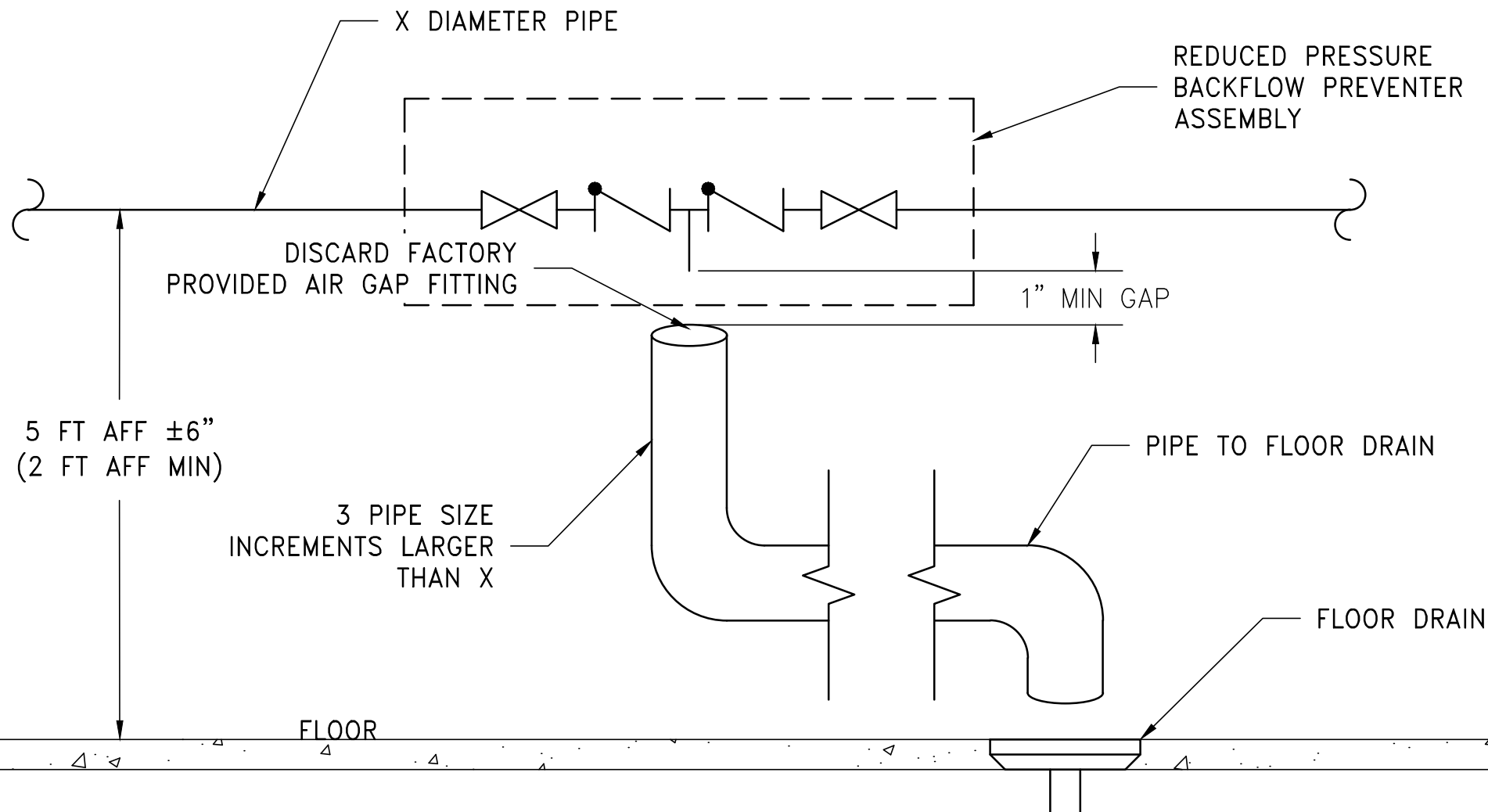
DRIP LEG DIAGRAM

DATE: SEP, 2018

LAST REVISION: 2

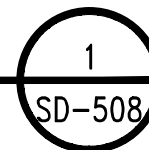
DIAG. NO.

SD-507



DETAIL

TYPICAL REDUCED PRESSURE BACKFLOW PREVENTER
SCALE: NONE



DWG. TITLE:

RPBP DIAGRAM

DATE: NOV, 2022

LAST REVISION: 1

DIAG. NO.

SD-508