

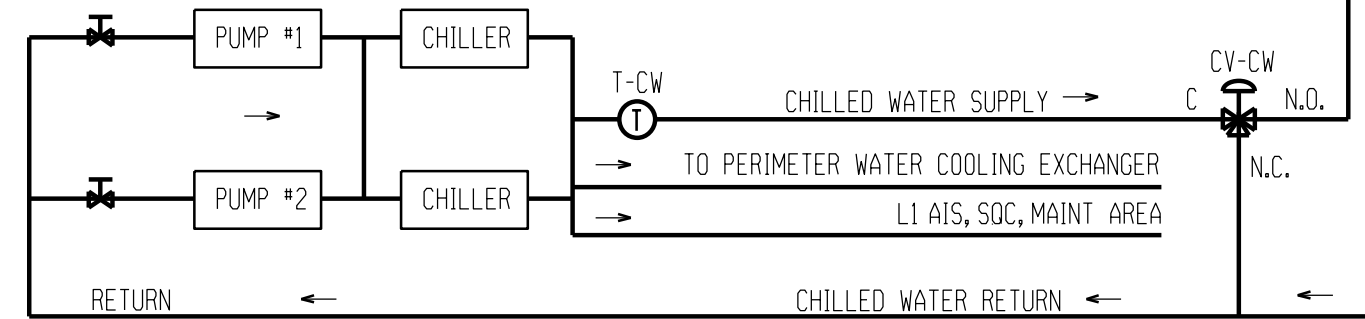
FRONT OFFICE - HVAC AIR DELIVERY SYSTEM LAYOUT

DAMP LOOP
 PV: T-MA
 SP: T-DA SP
 OUT: D-MA (% CLOSED)
 D-OA-OUT, D-OA-IN (% OPEN)

CW LOOP
 PV: T-DA
 SP: T-DA SP
 OUT: CV-CW (% OPEN)

ST LOOP
 PV: T-DA
 SP: T-DA SP
 OUT: CV-ST (% CLOSED)

CV-ST
 REGULATED OUTPUT: 0-100% = 0-15PSI
 100% = NO HEAT (15 PSI)
 0% = MAX HEAT (0 PSI)



DAMPER LOCK-OUT:
 $T-OA < 40 \text{ DEGF}$ OR $T-OA > 75 \text{ DEGF}$
 OPEN D-MA AND CLOSE D-OA-IN AND D-OA-OUT

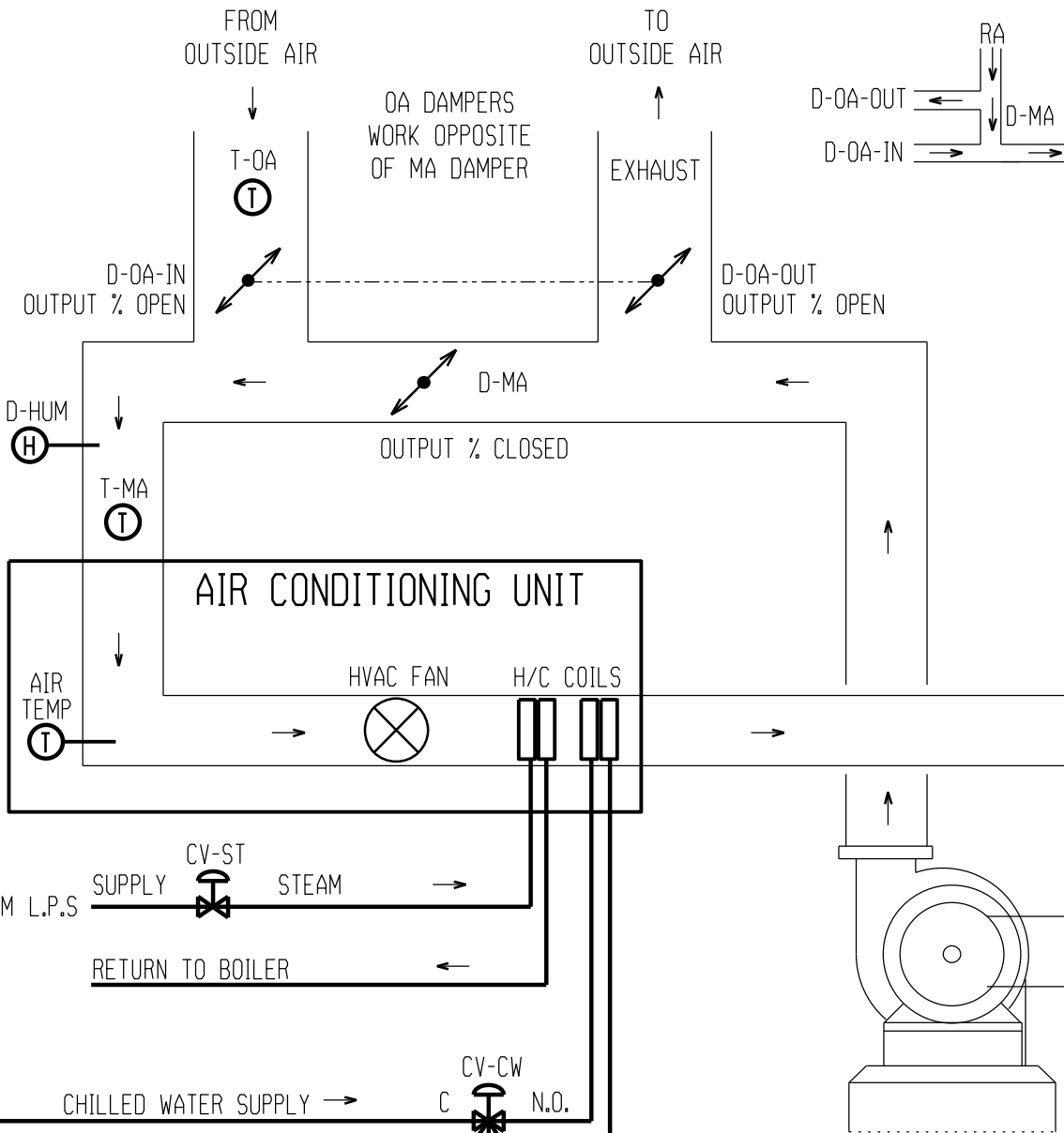
RESET WHEN
 $T-OA \geq 41 \text{ DEGF}$ OR $T-OA \leq 74 \text{ DEGF}$

DAMPER CONTROL:
 $T-MA$ OR $T-RA > T-DA_{sp}$ AND $T-MA$ OR $T-RA > T-OA + 1$
 THEN CLOSE D-MA AND OPEN D-OA-IN AND D-OA-OUT

$T-MA$ OR $T-RA > T-DA_{sp}$ AND $T-MA$ OR $T-RA < T-OA + 1$
 THEN OPEN D-MA AND CLOSE D-OA-IN AND D-OA-OUT

$T-MA$ OR $T-RA < T-DA_{sp}$ AND $T-MA$ OR $T-RA > T-OA + 1$
 THEN OPEN D-MA AND CLOSE D-OA-IN AND D-OA-OUT

$T-MA$ OR $T-RA < T-DA_{sp}$ AND $T-MA$ OR $T-RA < T-OA + 1$
 THEN CLOSE D-MA AND OPEN D-OA-IN AND D-OA-OUT



OCCUPY NON-OCCUPY
 T-DA SP: 67 68 DEGF
 OCCUPY TIME: 7AM-5PM
 NON-OCCUPY TIME: 5PM-7AM

T-DA SP RANGE: 60 TO 70 DEGF
 - BOILER RUNNING: 60-65 DEGF
 - BOILER NOT RUNNING: 65-70 DEGF

CV-CW
 REGULATED OUTPUT: 0-100% = 0-15PSI
 N.O. COOLING 100% = MAX COOLING (THROUGH COILS)
 N.C. COOLING 0% NO COOLING (BYPASS COILS)

T-DA: DELIVERED AIR TEMPERATURE
 T-RA: RETURN AIR TEMPERATURE
 T-OA: OUTSIDE TEMPERATURE
 T-MA: MIXED AIR TEMPERATURE
 T-CW: CHILLER WATER TEMP (NEW)

CV-ST: STEAM CONTROL VALVE
 CV-CW: CHILLED WATER CONTROL VALVE

NOTES:
 1. CYCLE PUMP USE EVERY 3 MONTHS.
 2. T-CW NEEDS INSTALLED. ALARM WHEN $>55 \text{ DEGF}$.

DATE PLOTTED \$\$\$DATE\$\$\$

REFERENCE DRAWINGS			
DWG. NO.	TITLE	DWG. NO.	TITLE
008 468100	MASTER DRAWING LIST	-	-
-	-	-	-
SUBJECT INDEX 008 - 00 - E - 76 - 5400			
DO NOT SCALE THIS PRINT			
THIS PRINT SUPERSEDES ALL PRINTS PRIOR TO REVISION			
REV. BY	DATE	REV. BY	DATE
REV. BY	DATE	REV. BY	DATE
REV. BY	DATE	REV. BY	DATE
REV. BY	DATE	REV. BY	DATE
REV. BY	DATE	REV. BY	DATE
DRAWN BY JFA		DATE 7-11-16	MEADVILLE, PA
CHECKED		DATE	FRONT OFFICE
APPROVED		DATE	HVAC SYSTEM - AIR DELIVERY LAYOUT
FRAME NO.		SCALE	NONE
DRAWING NO.		008 HVAC1	