MECHANICAL GENERAL NOTES

1. THE MECHANICAL AND PLUMBING CONTRACT DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO INDICATE SCOPE AND THE GENERAL ARRANGEMENT OF THE SYSTEMS. WHERE APPLICABLE THE FOLLOWING NOTES SHALL APPLY TO ALL MECHANICAL (HVAC, PLUMBING, PIPING AND FIRE PROTECTION) SYSTEMS.
2. THOUGH SOME DUCTWORK AND PIPING OFFSETS AND TRANSITIONS ARE INDICATED, IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW ALL OFFSETS AND TRANSITIONS REQUIRED. THE CONTRACTOR SHALL FULLY COORDINATE THE MECHANICAL WORK WITHIN ITSELF AND WITH THE WORK OF ALL OTHER TRADES TO PROVIDE COMPLETE AND OPERABLE SYSTEMS WITHOUT INTERFERENCES.
3. PROVIDE APPROVED FIRE STOPPING MATERIAL AROUND ALL DUCTWORK AND PIPING PENETRATIONS THROUGH FIRE RATED FLOORS AND WALLS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF FIRE RATED FLOORS AND WALLS. PROVIDE FIRE DAMPERS AT ALL DUCT PENETRATIONS THROUGH FLOORS AND FIRE RATED WALLS AND FIRE/SMOKE DAMPERS AT ALL PENETRATIONS THROUGH SHAFT ENCLOSURES.
4. FLASH AND COUNTER FLASH DUCTWORK PENETRATIONS THROUGH ROOF. COORDINATE ROOFING MATERIALS AND INSTALLATION WITH ARCHITECTURAL DETAILS.
5. SUPPORT ALL EQUIPMENT (I.E. AHU'S, HEATERS, FANS, AIR TERMINAL UNITS, ETC.) FROM STRUCTURE WITH SPECIFIED VIBRATION ISOLATION.
6. PROVIDE ACCESS PANELS WHERE REQUIRED FOR ADEQUATE ACCESS TO ALL CONCEALED EQUIPMENT, VALVES, DAMPERS AND CONTROLS.
7. ALL DUCT SIZES REFER TO INTERNAL FREE AREA. REFER TO DRAWINGS AND SPECIFICATIONS FOR INTERNAL INSULATION AND SOUND LINING PRIOR TO FABRICATION.
8. ALL DUCTWORK SHALL BE CONSTRUCTED OF RIGID SHEET METAL UNLESS OTHERWISE NOTED.
9. REFER TO DOOR SCHEDULE ON ARCHITECTURAL DRAWINGS FOR UNDER CUT DIMENSIONS AND DOOR LOUVER SIZES.
10. COORDINATE DIFFUSER, REGISTER AND GRILLE LOCATIONS AND BORDER TYPES WITH ARCHITECTURAL REFLECTED CEILING PLAN.
11. INSTALL DUCTWORK AND PIPING MAINS TIGHT TO UNDERSIDE OF STRUCTURE UNLESS OTHERWISE INDICATED.
12. REFER TO MECHANICAL DETAILS FOR TYPICAL EQUIPMENT CONNECTIONS.
13. PIPING CONNECTIONS TO HEATING AND COOLING COILS SHALL BE MADE TO PROVIDE COUNTER FLOW BETWEEN WATER AND AIR.
14. PROVIDE CONDENSATE DRAIN PIPING FROM AIR HANDLING UNIT TO NEAREST ROOF/FLOOR DRAIN. PROVIDE CLEAN OUT AT EACH ELBOW. SIZE PER MANUFACTURER.
15. REFER TO STRUCTURAL DRAWINGS FOR EXACT LOCATION OF DUCT PENETRATIONS THRU ROOF. PROVIDE DUCT TRANSITIONS AT ROOF FOR ALL ROOF MOUNTED EQUIPMENT.
16. PATCH AND SEAL ALL REMAINING OPENINGS THROUGH FLOORS, WALLS, AND ROOF RESULTING FROM DEMOLITION OR NEW WORK WITH MATERIALS AND FINISHES TO MATCH EXISTING CONSTRUCTION AND FIRE RATING.
17. AS AN INTEGRAL PART OF THESE DOCUMENTS, THE CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
18. CONTRACTOR SHALL VISIT THE SITE AND VERIFY EXISTING CONDITIONS PRIOR TO THE BEGINNING OF ANY WORK. FAILURE TO VISIT THE SITE SHALL IN NO WAY RELIEVE THE CONTRACTOR FROM ANY RESPONSIBILITY.
19. CONTRACTOR SHALL USE CARE WHEN PERFORMING SELECTIVE DEMOLITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO BUILDING FINISHES, EQUIPMENT, FURNITURE, STRUCTURE, AND MECHANICAL/ELECTRICAL SYSTEMS AND EQUIPMENT. SHOULD ANY DAMAGE OCCUR THE CONTRACTOR SHALL RESTORE DAMAGED AREA/ITEMS TO ORIGINAL CONDITION TO MEET THE OWNER'S SATISFACTION.
20. CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE OWNER ANY UTILITY OUTAGES. OWNER SHALL BE GIVEN A MINIMUM OF 72 HOURS NOTICE (THREE WORKING DAYS) FOR ANY OUTAGES.
21. HVAC SHALL BE MAINTAINED TO ALL AREAS OUTSIDE OF THE CURRENT PHASE OF THE RENOVATED AREA AT ALL TIMES. PROVIDE TEMPORARY CONNECTIONS AS REQUIRED TO COORDINATE OUTAGES WITH THE OWNER A MINIMUM OF 72 HOURS (THREE WORKING DAYS) IN ADVANCE.
22. DEMOLITION AND NEW WORK THAT WILL RESULT IN DOWN TIME OF SERVICES (HVAC, PLUMBING, ETC.) SHALL BE PERFORMED AT PREMIUM TIME AS REQUIRED TO MINIMIZE DOWN TIME TO ADJACENT SPACES. COORDINATE ALL OUTAGES WITH OWNER.
23. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL PHASING INFORMATION. ALL WORK AND ASSOCIATED OUTAGES SHALL BE COORDINATED WITH THE PHASING SCHEDULE AND THE OWNER.
24. SCHEDULE ALL WORK IN OCCUPIED SPACES WITH OWNER AND CURRENT TENANT AT LEAST TWO (2) WEEKS PRIOR TO CONSTRUCTION.
25. RETURN TO OWNER, AT THEIR DISCRETION, ALL UNUSED MECHANICAL EQUIPMENT (I.E. AHU'S, HEATERS, FANS, PUMPS, AIR DEVICES, THERMOSTATS AND CONTROLS).
26.

MECHANICAL LEGEND

COLD WATER (CW)
HOT WATER (HW)
HOT WATER RECIRCULATION (HWR)
CHILLED WATER SUPPLY — CWS
CHILLED WATER RETURN — CWR
HEATING WATER SUPPLY — HS
HEATING WATER RETURN — HR
CONDENSATE DRAIN LINE — CD
SANITARY PIPING
STORM WATER PIPING — SW
VENT PIPING
SPRINKLER PIPING — S
CHECK VALVE
BALL VALVE
GATE VALVE
BUTTERFLY VALVE
GLOBE VALVE
BALANCING VALVE W/ FLOW METER FITTING (VENTURI TYPE)
MULTI-PURPOSE VALVE
3 PORT MODULATING CONTROL VALVE
2 PORT MODULATING CONTROL VALVE
RELIEF VALVE
BACKFLOW PREVENTER
WYE STRAINER W/HOSE END VALVE
FLANGED CONNECTION
GAUGE AND VALVE
INLINE CIRCULATING PUMP
TEMPERATURE/PRESSURE TEST PORT
TEE
WATER HAMMER ARRESTOR — WHA
THERMOMETER
UNION
PIPING CAP

CONCENTRIC REDUCER
ECCENTRIC REDUCER
MANUAL AIR VENT
AUTOMATIC AIR VENT
PIPE GUIDE OR SLEEVE
PIPE ANCHOR
PIPING ELBOW DOWN
PIPING ELBOW UP
PIPE CONNECTION BOTTOM
PIPE CONNECTION TOP
FLOOR CLEANOUT — CO
WALL CLEANOUT — CO
VENT THRU ROOF — VTR
HOSE END VALVE
VALVE IN VERTICAL POSITION
ROOF DRAIN — R.D.
FUNNEL FLOOR DRAIN — F.F.D.
FLOOR DRAIN — F.D.
SUPPLY AIR DUCT UP (DASHED LINES FOR DOWN)
RETURN & EXHAUST AIR DUCT UP (DASHED LINES FOR DOWN)
OUTSIDE AIR DUCT UP (DASHED LINES FOR DOWN)
FLEXIBLE CONNECTION
FLEXIBLE DUCT
DOUBLE THICKNESS TURNING VANES
EXISTING DUCTWORK
DUCTWORK TO BE REMOVED
DUCTWORK WITH SOUND LINING
FLEXIBLE DUCT AND EQUIPMENT CONNECTOR
NEW DUCTWORK
DUCT TRANSITION ROUND TO RECTANGULAR
DUCT TRANSITION
CHANGE IN DUCT ELEV. (R-RISE, D-DROP) — R, D
DUCT SIZE (FIRST FIGURE IS SIDE SHOWN) — 12 x 20

BALANCING DAMPER
MOTOR OPERATED DAMPER — MOD
FIRE DAMPER WITH ACCESS PANEL — FD
COMBINATION FIRE/SMOKE DAMPER WITH SMOKE DETECTORS AND ACCESS PANEL — F/SD
FIRE DETECTOR (FIRESTAT)
SMOKE DETECTOR
THERMOSTAT — T
LIMIT OF DEMOLITION
CONNECT TO EXISTING
FAN SWITCH

ABBREVIATIONS

ABOVE FINISHED FLOOR	AFF
AIR HANDLING UNIT	AHU
AIR PRESSURE DROP	APD
BACKWATER VALVE	BWV
DRY BULB	DB
ENTERING AIR TEMPERATURE	EAT
EXHAUST AIR	EA
EXHAUST FAN	EF
EXISTING TO REMAIN	ETR
EXTERNAL STATIC PRESSURE	ESP
FLEXIBLE CONNECTION	FC
FACE VELOCITY	FV
FINS PER INCH	FPI
FIRE DEPARTMENT VALVE	FDV
HORSEPOWER	HP
LEAVING AIR TEMPERATURE	LAT
NORMALLY CLOSED	NC
NORMALLY OPENED	NO
NOT IN CONTRACT	NIC
OPEN ENDED DUCT	OED
OUTSIDE AIR	OA
REMOVE EXISTING	RX
RETURN AIR	RA
RETURN AIR FAN	RAF
SUPPLY AIR	SA
TOTAL STATIC PRESSURE	TSP
WATER PRESSURE DROP	WPD
WET BULB	WB
UNLESS OTHERWISE NOTED	UON

three inches = one foot
one and one half inch = one foot
one inch = one foot
three-quarters inch = one foot
one-half inch = one foot
three-eighths inch = one foot
one-quarter inch = one foot
one-eighth inch = one foot

Additions: | *Date:*

Revisions:

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Approved: Director, Medical Center:

Project Title: BUILDING 15 RENOVATION
Building No: 15
Checked: JDS
Drawn: REF
Location: VAMHCS MEDICAL CENTER WILMINGTON, DELAWARE

Date: 12-19-2012
Project No: xxx-10-xxx
DRAWING NO: 15-H1
Dwg. – Of xx

DEPARTMENT OF VETERANS AFFAIRS

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