GENERAL NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY OF HIS OWN PERSONAL AND SURROUNDINGS OF THE WORK AREA. THIS INCLUDES PROVIDING ALL NECESSARY BARRICADES, SIGNS, FIRE EXTINGUISHERS, ETC. ALL APPLICABLE OSHA REGULATIONS SHALL APPLY TO THIS WORK. COMPLY WITH ALL OWNER'S SITE SAFETY CONDITIONS.
2. ALL WORK SHALL BE IN CONFORMANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS ADOPTED BY MUNICIPAL, COUNTY, STATE AND FEDERAL AUTHORITIES, UTILITY COMPANIES, INSURANCE AGENCIES AND OTHER AUTHORITIES HAVING JURISDICTION OF AUTHORITIES.
3. THE CONTRACTOR SHALL APPLY FOR, SECURE AND PAY FOR ALL PERMITS AND/OR CERTIFICATES OF INSPECTION REQUIRED IN THE PERFORMANCE OF THE WORK BY ALL AUTHORITIES HAVING JURISDICTION.
4. THESE DOCUMENTS ARE SHOWN DIAGRAMMATICALLY. CONTRACTOR SHALL VERIFY ALL ROUTING FOR POSSIBLE INTERFERENCES BEFORE FABRICATION AND INSTALLATION. CONTRACTORS SHALL INCLUDE LABOR, MATERIAL AND EQUIPMENT TO RESOLVE INTERFERENCES.
5. ALL COMPONENTS REQUIRED FOR A COMPLETE INSTALLATION ARE NOT SHOWN ON THE DRAWINGS. REFER TO EQUIPMENT INSTALLATION INSTRUCTIONS FOR ADDITIONAL REQUIREMENTS, INCLUDING REQUIRED CONNECTION LOCATIONS, TYPES, & SIZES.
6. ALL WORK SHALL BE SCHEDULED AND COORDINATED WITH THE OWNER SO THAT DISRUPTION TO THE AREAS INVOLVED IS KEPT TO A MINIMUM. ANY ACCIDENTAL INTERRUPTIONS TO SERVICES SHALL BE REPAIRED IMMEDIATELY.
7. THE DRAWINGS GENERALLY INDICATE MAJOR ITEMS OF EXISTING MATERIALS AND EQUIPMENT THAT SHALL BE REMOVED, RELOCATED, REROUTED OR ABANDON BY EACH TRADE. IT IS NOT POSSIBLE TO INDICATE ALL RELATED ACCESSORIES, SPECIALTIES AND OTHER MINOR ITEMS: HOWEVER, THEIR REMOVAL, RELOCATIONS, REROUTING OR ABANDONMENT SHALL ALSO BE INCLUDED IN THIS CONTACT AND SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
8. ALL DEMOLITION SHALL BE COMPLETED IN A SAFE AND ORDERLY MANNER. CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORTS. BRACING, ETC. AS MAY BE REQUIRED DURING DEMOLITION.
9. VERIFY ALL FIELD CONDITIONS, ACCESS WAYS, DIMENSIONS AND DETAILS IN THE FIELD PRIOR TO CONSTRUCTION AND PRIOR TO FABRICATION.
10. IN ADDITION TO SPECIFICS AS MAY BE DEFINED HEREINAFTER THE CONTRACTOR SHALL PROTECT THE WORK SITE AND ALL HIS WORK AGAINST DAMAGE FROM ANY SOURCE (INCLUDING BUT NOT LIMITED TO WATER, DUST, HEAT, FREEZING ETC.) UNTIL FINAL COMPLETION AND ACCEPTANCE BY THE OWNER.
11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AND PERFORM ALL LABOR, MATERIAL, EQUIPMENT, INCIDENTALS, METHODS AND SERVICES REQUIRED TO INSTALL ALL WORK INDICATED COMPLETELY AND IN FULL OPERATION. CONTRACTOR SHALL PROVIDE ALL HANGERS, SUPPORTS, NUTS, BOLTS, AND GASKETS AS REQUIRED FOR PROPER SYSTEM INSTALLATION.
12. EACH CONTRACTOR SHALL REVIEW "ALL" PROJECT DOCUMENTS OF "ALL" TRADES REVIEWING ALL OF THE PROJECT REQUIREMENTS.
13. ALL WORK, EQUIPMENT AND MATERIALS SHALL BE PROTECTED AT ALL TIMES. ALL PIPE, DUCT AND EQUIPMENT OPENINGS SHALL BE PROPERLY CAPPED OR PLUGGED DURING INSTALLATION.
14. UNLESS OTHERWISE NOTED, ALL PARTS, EQUIPMENT AND MATERIALS SHALL BE NEW AND SHALL BE ASME AND/OR UL APPROVED.
15. CONTRACTOR SHALL COMPLETE ALL CUTTING AND PATCHING REQUIRED FOR THE INSTALLATION OF THE WORK. CUTTING AND PATCHING SHALL BE COMPLETED IN A NEAT AND WORKMANLIKE MANNER. PATCHING MATERIALS SHALL MATCH EXISTING MATERIALS TO THE GREATEST EXTENT POSSIBLE. PROVIDE TOUCH-UP PAINT TO MATCH EXISTING SURROUNDING AREAS OF CUTTING AND PATCHING WORK.
16. ALL SYSTEMS SHALL BE TESTED, BALANCED AND OPERATED TO DEMONSTRATE TO THE OWNER OR HIS DESIGNATED REPRESENTATIVE THAT THE INSTALLATION AND PERFORMANCE OF THESE SYSTEMS AND/OR PARTS THEREOF ARE OPERATIONAL.
17. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ANY & ALL CEILING & FLOOR TILES AND GRID-WORK REQUIRED FOR WORK. AFTER INSTALLATION OF WORK IS COMPLETE, GRID AND TILES SHALL BE RE-INSTALLED. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ANY & ALL DAMAGED TILES AND GRID WITHIN THE WORK AREA. CONTRACTOR SHALL INSPECT EXISTING CEILING CONDITION BEFORE WORK.
18. CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY LIGHTING AND POWER DURING SHUT-DOWN. CONTRACTOR SHALL ENSURE ACCESSIBILITY TO LIFE SAFETY EQUIPMENT (SPRINKLERS, EYEWASH, SAFETY SHOWER, ETC.) DURING CONSTRUCTION.
19. CONTRACTOR SHALL COORDINATE WORK WITH ALL TRADES TO MINIMIZE INTERFERENCES. CONTRACTORS SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
20. CONTRACTOR TO SUPPLY ALL HANGERS, NUTS, BOLTS, AND GASKETS.
21. UPON COMPLETION OF THE CONTRACT THE CONTRACTOR SHALL PROVIDE THE OWNER WITH COMPLETE SETS OF MANUFACTURERS' OPERATING, MAINTENANCE AND PREVENTIVE MAINTENANCE INSTRUCTIONS (IN BOUND BOOK FORM) INCLUDING PARTS LISTS AND COMPLETE PROCUREMENT INFORMATION INCLUDING EQUIPMENT NUMBERS AND DESCRIPTIONS. THESE ITEMS SHALL BE INCLUDED WITH THE AS-BUILTS. OPERATING STAFF PERSONS SHALL BE INSTRUCTED IN PROPER OPERATING AND SERVICE REQUIREMENTS OF THE SYSTEMS AND EQUIPMENT.
22. CONTRACTOR SHALL UPON COMPLETION OF THE WORK SUBMIT A SET OF RECORD DRAWINGS TO THE OWNER SHOWING ALL CHANGES FROM THE CONTRACT DRAWING MADE IN THE INSTALLATION AND SHOWING DIMENSIONED LOCATIONS OF BURIED OR CONCEALED EQUIPMENT OR PARTS OF THE WORK.
23. EACH TRADE CONTRACTOR SHALL PROVIDE AND INSTALL AN APPROVED FIRE STOP SEALANT, TOTALLY ENCLOSING ALL PENETRATIONS THROUGH CEILINGS, WALLS, ROOFS AND FLOORS.
24. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH CURRENT ENVIRONMENTAL REGULATIONS.
25. ALL NEW EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS. CONTRACTOR SHALL INSTALL ALL NEW EQUIPMENT TO ADHERE TO MANUFACTURER'S REQUIRED CLEARANCES.

MECHANICAL ABBREVIATION'S:
(NOT ALL ABBREVIATIONS ARE USED)

AC	AIR CONDITIONER
ADJ.	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
BFP	BACKFLOW PREVENTER
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BTWN	BETWEEN
CD	CEILING DIFFUSER
CFM	CUBIC FEET / MINUTE
COND	CONDENSATE
CONT.	CONTINUATION
(D)	TO BE DEMOLISHED
DEMO	DEMOLISH
DN	DOWN
(E)	EXISTING
(ER)	EXISTING RELOCATED
(ETR)	EXISTING TO REMAIN
EA	EXHAUST AIR
EF	EXHAUST FAN
EG	EXHAUST GRILLE
FA	FRESH AIR
FD	FIRE DAMPER
HPC	HIGH PRESSURE CONDENSATE
HPS	HIGH PRESSURE STEAM
LPC	LOW PRESSURE CONDENSATE
LPS	LOW PRESSURE STEAM
LV	LOUVER
MOD	MOTOR OPERATED DAMPER
N.I.C.	NOT IN CONTRACT
NC	NOISE CRITERIA
NK	NECK
(N)	NEW
OA	OUTSIDE AIR
(RE)	RELOCATE EXISTING
RG	RETURN GRILLE
SCR	STEAM CONDENSATE RECEIVER
STM	STEAM
SW	SIDE WALL GRILLE
TYP.	TYPICAL
VD	VOLUME DAMPER
VTR	VENT THRU ROOF
WMS	WIRE MESH SCREEN

PLUMBING ABBREVIATION'S:
(NOT ALL ABBREVIATIONS ARE USED)

AC	AIR COMPRESSOR
ADJ.	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
BFP	BACKFLOW PREVENTER
BLDG	BUILDING
BOP	BOTTOM OF PIPE
BTWN	BETWEEN
CO	CLEAN OUT
CONT.	CONTINUATION
(D)	TO BE DEMOLISHED
DCW/CW	DOMESTIC COLD WATER
DEMO	DEMOLISH
DF	DRINKING FOUNTAIN
DHW/HW	DOMESTIC HOT WATER
DHWR/HWR	DOMESTIC HOT WATER RECIRCULATION
DHWP	DOMESTIC HOT WATER RECIRCULATION PUMP
DN	DOWN
(E)	EXISTING
ET	EXPANSION TANK
(ETR)	EXISTING TO REMAIN
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
JS	JANITOR'S SINK
LAV	LAVATORY
(N)	NEW
N.I.C.	NOT IN CONTRACT
(R)	EXISTING TO BE RELOCATED, RELOCATED
S	SINK
SAN	SANITARY
TYP.	TYPICAL
UG	UNDERGROUND
UTR	UP THRU ROOF
UR	URINAL
V	VENT
VIV	VALVE IN VERTICAL
VTR	VENT THRU ROOF
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WHA	WATER HAMMER ARRESTOR

DUCTWORK LEGEND:
(NOT ALL SYMBOLS ARE USED)

- SUPPLY AIR DIFFUSER
- RETURN AIR GRILLE WITH SQUARE OR ROUND NECK
- EXHAUST AIR GRILLE WITH SQUARE OR ROUND NECK
- EQUIPMENT DESIGNATION
- POINT OF CONNECTION NEW TO EXISTING
- POINT OF DISCONNECTION EXISTING TO DEMOLITION
- EXISTING DUCTWORK TO REMAIN
- NEW DUCTWORK
- TURNING VANES
- DAMPER VD = VOLUME DAMPER BG = BLAST GATE
- DUCT TRANSITION
- SQUARE TO ROUND DUCT TRANSITION
- DUCT CAP
- ROUND DUCT DROP
- ROUND DUCT UP

PIPING LEGEND:
(NOT ALL SYMBOLS USED)

- POINT OF CONNECTION NEW TO EXISTING
- POINT OF DISCONNECTION EXISTING TO DEMOLITION
- EQUIPMENT DESIGNATION
- PIPING TO BE DEMOLISHED
- EXISTING SANITARY PIPING
- NEW SANITARY PIPING
- EXISTING VENT PIPING
- NEW VENT PIPING
- EXISTING DOMESTIC COLD WATER PIPING
- NEW DOMESTIC COLD WATER PIPING
- EXISTING DOMESTIC HOT WATER PIPING
- NEW DOMESTIC HOT WATER PIPING
- EXISTING DOMESTIC HOT WATER RECIRC PIPING
- NEW DOMESTIC HOT WATER RECIRC PIPING
- (UTILITY) EXISTING UTILITY PIPING
- (UTILITY) NEW UTILITY PIPING
- BALL VALVE
- SHUT OFF VALVE
- CLEAN OUT
- PIPE UP OR RISE
- PIPE DOWN OR DROP
- "T" PIPE DOWN
- REDUCER
- CHECK VALVE
- UNION
- CAP
- FLOOR DRAIN
- WATER HAMMER ARRESTER
- COMBINATION SHUT OFF & BALANCING VALVE
- STEAM TRAP
- STRAINER
- HOSE BIB/WALL HYDRANT

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STATE OF MARYLAND — JOHN FARINA — 30332 — PROFESSIONAL ENGINEER
DEDC, LLC
JOHN R. FARINA, PE
MD# 30332
DATE: 6/17/20

ORIGINAL SIZE
0 1" 2" 3" 4"
1/8 3/8 1/2 1/10

NO.	DATE	REVISION DESCRIPTION

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ENGINEERING & CONSTRUCTION DIVISION
ABERDEEN PROVING GROUND, MARYLAND

DESIGNED	DEDC
DRAWN	DEDC
CHECKED	DEDC
DATE	06/17/2020
SPEC. NO.	
BLDG. NO.	4504
SCALE	AS NOTED

TOILET ROOM RENOVATIONS FOR APG BUILDING 4504
ABERDEEN PROVING GROUND, ABERDEEN MARYLAND

MECH. & PLUMB. NOTES, LEGEND, & ABBREV.

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