






















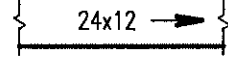
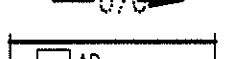



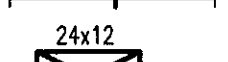
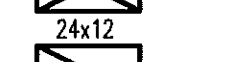

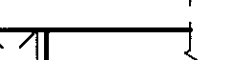



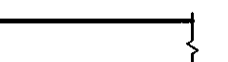


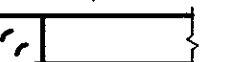








MECHANICAL ABBREVIATIONS

@ ABV ALUM & ACU AD ADJ AFF AFMS AHU AS ATC AP APD AV B BDD BFP BOD BTUH CA CAP CD CFH CFM CH CLG CMU CO CRU CUH CV CW D DB dB DECOR DEG F, °F DIA DN DWH DX	AT ABOVE ALUMINUM AND AIR CONDITIONING UNIT ACCESS DOOR ADJUSTABLE ABOVE FINISHED FLOOR AIR FLOW MONITORING STATION AIR HANDLING UNIT AIR SEPARATOR AUTOMATIC TEMPERATURE CONTROL ACCESS PANEL AIR PRESSURE DROP AUTOMATIC AIR VENT BOILER BACK DRAFT DAMPER BACKFLOW PREVENTER BOTTOM OF DUCT BRITISH THERMAL UNIT PER HOUR COMPRESSED AIR CAPACITY CONDENSATE DRAIN CUBIC FEET PER HOUR CUBIC FEET PER MINUTE CHILLER CEILING CONCRETE MASONRY UNIT FLOOR CLEANOUT COMPUTER ROOM UNIT CABINET UNIT HEATER FLOW COEFFICIENT COLD WATER, POTABLE DEPTH DRY BULB DECIBELS DECORATIVE DEGREE FAHRENHEIT DIAMETER DOWN DOMESTIC WATER HEATER DIRECT EXPANSION	EA EAT, LAT EF EFF EH EG EGT EL ER ESP, TSP ET EVAP EWC EWH EWT, LWT EX, EXIST EXH FD FCU FIN FLA FLR FM FPVAV FPM FS FT G GAL GALV GPM H HB HC HD HP HT HWR, HWS HW HWC HV HX	EACH ENTERING/LEAVING AIR TEMPERATURE EXHAUST FAN EFFICIENCY EXHAUST HOOD EXHAUST GRILLE ENTERING GLYCOL TEMPERATURE ELEVATION EXHAUST REGISTER EXTERNAL/TOTAL STATIC PRESSURE EXPANSION TANK EVAPORATOR ELECTRIC WATER COOLER ELECTRIC WATER HEATER ENTERING/LEAVING WATER TEMPERATURE EXISTING EXHAUST FLOOR DRAIN FAN COIL UNIT FINISHED FULL LOAD AMPERES FLOOR FACTORY MUTUAL FAN POWERED VAV BOX FEET PER MINUTE FLOW SWITCH FEET NATURAL GAS GALLONS GALVANIZED GALLONS PER MINUTE HIGH HOSE BIBB HEATING COIL HEAD HORSEPOWER HEIGHT HEATING WATER RETURN, SUPPLY HOT WATER, POTABLE HOT WATER CIRCULATING, POTABLE HEATING AND VENTILATING UNIT HEAT EXCHANGER	HZ HERTZ IH IN INV KW L LBS/HR MAU MAX MBH MFR MIN M.O. MOD MTD MV N NC NF NIC NO No NTS OA OC OED OPNG OS&Y P PCW PD PH PRV PS PSI PSIG PTHP RA RAF RG RH RL RP RPBFP	RPM REVOLUTIONS PER MINUTE RTU ROOFTOP UNIT SA SUPPLY AIR SD SUPPLY AIR DIFFUSER SAF SUPPLY AIR FAN SAR, SR SUPPLY AIR REGISTER SF SUPPLY FAN SAN,W SANITARY, WASTE SENS SENSIBLE COOLING SG SUPPLY GRILLE S/M SHEET METAL SP STATIC PRESSURE SQ SQUARE SR SUPPLY REGISTER S/S STAINLESS STEEL STL STEEL T THICKNESS TG TRANSFER GRILLE TDH TOTAL DYNAMIC HEAD TEMP TEMPERATURE THICK THICKNESS TOD TOP OF DUCT TP TRAP PRIMER TPV TRAP PRIMER VALVE TS TAMPER SWITCH TSP TOTAL STATIC PRESSURE TW THERMOMETER WELL TYP TYPICAL UH UNIT HEATER UON UNLESS OTHERWISE NOTED V VENT VAV VARIABLE AIR VOLUME VB VACUUM BREAKER VEL VELOCITY VFD VARIABLE FREQUENCY DRIVE VTR VENT THROUGH ROOF W WIDTH W/ WITH WB WET BULB W.C. WATER COLUMN WG WATER GAUGE WH WALL HYDRANT WHA WATER HAMMER ARRESTOR	WPD WATER PRESSURE DROP WT WEIGHT WCO WALL CLEANOUT
---	---	---	--	--	--	--

MECHANICAL LEGEND

	THERMOSTAT		SMOKE DUCT DETECTOR		DIFFERENTIAL PRESSURE SWITCH		STATIC PRESSURE SENSOR		ALARM CHECK VALVE		PRESSURE SENSOR		THERMOSTAT SENSOR		TEMPERATURE SENSOR, NIGHT SETBACK		FLOW METER		FLOW SWITCH		LIMIT SWITCH		OUTSIDE AIR SENSOR		ATC CONTROL DAMPER		SMOKE DAMPER		FREEZESTAT		FIRE DAMPER WITH ACCESS DOOR		SMOKE DAMPER WITH ACCESS DOOR		FLEXIBLE CONNECTION		VOLUME DAMPER, HANDLE INDICATES DIRECTION OF FLOW		MOTOR OPERATED DAMPER		ACOUSTICAL LINING		CEILING DIFFUSER, RECTANGULAR ARROWS INDICATE THROW DIRECTIONS		RETURN REGISTER OR GRILLE
	DIRECTION OF FLOW ARROW (FIRST DIMENSION SHOWN IS TOP)		DOOR UNDERCUT		DUCT ACCESS DOOR		RISE IN ELEVATION RELATIVE TO DIRECTION OF FLOW		DROP IN ELEVATION RELATIVE TO DIRECTION OF FLOW		BACK DRAFT DAMPER		SUPPLY OR FRESH AIR DUCT (FIRST DIMENSION SHOWN IS TOP)		RETURN OR EXHAUST DUCT (FIRST DIMENSION SHOWN IS TOP)		DUCT TURNED UP		DUCT TURNED DOWN		FLEXIBLE DUCT (SINGLE LINE)		TRANSITION		TRANSITION, SQUARE (RECTANGULAR) TO ROUND		STANDARD BRANCH		SPIN-IN DUCT FITTING		SQUARE ELBOW WITH TURNING VANES		DOOR LOUVER		AIR DEVICE TYPE SD-1 (UON)		AIR QUANTITY (CFM)		BLANK OFF PORTION OF CEILING DIFFUSERS		AIR DEVICE TYPE RG-1 (UON)		AIR QUANTITY (CFM)		

MECHANICAL GENERAL NOTES

1. GENERAL NOTES ARE DISCIPLINE SPECIFIC, AND APPLY TO EVERY DRAWING IN THAT DISCIPLINE. DRAWING NOTES APPLY TO ALL WORK SHOWN ON A DRAWING. SPECIFIC NOTES APPLY TO INDIVIDUAL SITUATIONS AND EQUIPMENT.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL CODES AND STANDARDS ENFORCED BY THE LOCAL REGULATING AUTHORITIES.
3. THE CONTRACTOR SHALL COMPLETELY EXAMINE THE SITE AND OBSERVE THE CONDITIONS UNDER WHICH THE WORK WILL BE INSTALLED. NO ALLOWANCES WILL BE MADE FOR ERRORS OR OMISSIONS RESULTING FROM THE CONTRACTOR'S FAILURE TO COMPLETELY EXAMINE THE SITE.
4. THE CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL EXISTING SERVICES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ALL DISCREPANCIES THAT EXIST BETWEEN THE CONTRACT DOCUMENTS AND THE EXISTING SERVICES PRIOR TO MAKING ANY CONNECTIONS TO THE EXISTING SERVICE.
5. THE CONTRACTOR SHALL TERMINATE SERVICES AND UTILITIES IN ACCORDANCE WITH LOCAL LAWS, ORDINANCES, RULES AND REGULATIONS.
6. ALL EQUIPMENT TO BE REMOVED SHALL BE DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL LAWS, ORDINANCES, RULES AND REGULATIONS.
7. ALL EQUIPMENT TO BE REUSED OR RETURNED TO THE OWNER SHALL BE REMOVED SO AS TO NOT DAMAGE THE EQUIPMENT, MATERIAL OR AFFECT ITS REUSE. IF ANY EQUIPMENT OR MATERIAL IS DAMAGED BY THE CONTRACTOR, IT SHALL BE REPLACED BY THE CONTRACTOR, WITH NO EXPENSE TO THE OWNER.
8. THE CONTRACTOR SHALL ENSURE THAT ADEQUATE CLEARANCE EXISTS FOR THE INSTALLATION OF ALL WORK SHOWN ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS.
9. THE CONTRACTOR SHALL ENSURE THAT ALL MECHANICAL EQUIPMENT, DUCTWORK, PIPING, VALVES AND ACCESS LOCATIONS HAVE CLEARANCES IN ACCORDANCE TO THE DRAWINGS AND THE MANUFACTURER'S REQUIREMENTS FOR FULL ACCESSIBILITY AND OPERATION OF MECHANICAL SYSTEMS.
10. THE CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING REQUIRED BY THE MECHANICAL WORK, UNLESS OTHERWISE NOTED.
11. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO THE BUILDING OR FURNISHINGS RESULTING FROM THE MECHANICAL WORK. ALL PATCHING AND REPAIR WORK SHALL MATCH THE SURROUNDING SURFACE.
12. ALL MECHANICAL PENETRATIONS THROUGH FIRE RESISTANCE RATED WALLS, FLOORS AND ASSEMBLIES SHALL BE FIRE-STOPPED IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
13. THE CONTRACTOR SHALL PROVIDE ACCESS PANELS, IN WALLS OR CEILING, OR ACCESS DOORS, IN DUCTWORK, AS INDICATED OR REQUIRED FOR ACCESS TO CONCEALED MECHANICAL EQUIPMENT OR DEVICES.
14. CONTRACTOR SHALL COMPLY WITH SMACNA "HVAC DUCT CONSTRUCTION AND STANDARDS" AND OTHER APPLICABLE STANDARDS INCLUDED IN THE SPECIFICATIONS FOR THE CONSTRUCTION AND SUPPORT OF DUCTWORK, UNLESS OTHERWISE NOTED.







ELECTRICAL GENERAL NOTES

1. INSTALLATION OF ALL ELECTRICAL WORK SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA 70), AND ALL APPLICABLE LOCAL CODES.
2. CONDUIT RUNS ARE SHOWN DIAGRAMMATICALLY ONLY AND SHALL BE INSTALLED IN A MANNER TO PREVENT CONFLICTS WITH EQUIPMENT AND STRUCTURAL CONDITIONS. EXPOSED CONDUITS ABOVE SUSPENDED CEILING AND IN FURRED WALLS SHALL BE INSTALLED PARALLEL TO THE BEAMS AND WALLS.
3. PROVIDE ALL REQUIRED PULL BOXES AND JUNCTION BOXES FOR INSTALLATION OF THE WIRING IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.
4. PROVIDE ALL NECESSARY COMPONENTS REQUIRED FOR MAKING FINAL CONNECTION OF ALL EQUIPMENT INSTALLED AS PART OF THIS CONTRACT.
5. ALL ELECTRICAL EQUIPMENT INSTALLED AGAINST CONCRETE OR MASONRY WALLS SHALL BE INSTALLED WITH A 1/4" SPACE BETWEEN THE EQUIPMENT AND THE MOUNTING SURFACE. SPACERS SHALL BE STAINLESS STEEL, PVC OR NYLON.
6. ALL JUNCTION AND PULL BOXES SHALL BE LABELED WITH THEIR VOLTAGE AND USAGE.
7. DRAWINGS ARE DIAGRAMMATIC, ACTUAL LOCATION OF EQUIPMENT TO BE DETERMINED IN THE FIELD. NEW EQUIPMENT SHALL FIT INTO AVAILABLE SPACE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE EQUIPMENT WHICH MEETS THE SPACE REQUIREMENT.
8. COORDINATE WORK SCHEDULE WITH OWNER. WORK WILL BE GOVERNED BY EXISTING SECURITY REGULATIONS AT THE FACILITY. WORK SHALL ALLOW FOR DAILY OPERATION OF THE FACILITY WITHOUT INTERRUPTION.
9. ALL CONDUITS SHALL RUN EXPOSED UNLESS OTHERWISE NOTED.
10. ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT ARE BASED ON EQUIPMENT SPECIFIED, COORDINATE EXACT REQUIREMENTS WITH MECHANICAL SHOP DRAWINGS PRIOR TO ORDERING AND INSTALLING EQUIPMENT.
11. WHERE ELECTRICAL INSTALLATIONS DEPEND UPON WORK OF OTHER TRADES, THE ELECTRICAL CONTRACTOR SHALL ENSURE THAT NECESSARY INSTRUCTIONS, TEMPLATES, MATERIALS, ETC. ARE PROVIDED AND SUPERVISE THE WORK OF THE OTHER TRADES FOR QUALITY AND CODE COMPLIANCE.
12. CONTRACTOR SHALL VISIT THE JOB SITE AND EXAMINE THE EXISTING CONDITIONS THAT MAY AFFECT HIS WORK.
13. CONTRACTOR SHALL OBTAIN A WRITTEN PERMISSION FROM THE OWNER TO DEENERGIZE ANY ENERGIZED BUILDING EQUIPMENT OR DISRUPT ANY COMMUNICATION LINE.
14. OPENINGS AND PASSAGE OF CONDUITS OR WIREWAYS THROUGH FLOOR SLABS AND FIRE RATED WALLS OR PARTITIONS SHALL BE PROVIDED WITH UL LISTED FIRE RATED SLEEVING SYSTEMS AS MANUFACTURED BY PROSET SYSTEMS INC.
15. ALL WORK SHOWN ON THE DRAWINGS SHALL BE NEW UNLESS OTHERWISE NOTED.
16. CONDUITS SHALL BE GALVANIZED RIGID STEEL.
17. ALL MATERIALS SHALL BE U.L. LISTED.

ELECTRICAL ABBREVIATIONS

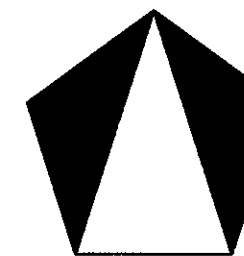
A	AMPERES	P	POLE
C	CONDUIT	V	VOLTS
FVNR	FULL VOLTAGE NON-REVERSING	PH, Ø	PHASE
G	GROUND		
EX	EXISTING		

ELECTRICAL LEGEND

	EXPOSED CONDUIT WITH WIRES, H5 = PANEL DESIGNATION		COMBINATION MAGNETIC STARTER, NEMA SIZE 1 AND 3 P-30A NONFUSED DISCONNECT SWITCH, NEMA 12 ENCLOSURE, UNLESS OTHERWISE NOTED
	ELECTRICAL PANELBOARD (480/277V, 3 PH, 4W)		MOTOR
	SWITCH - MANUAL ON/OFF		CONNECT TO EXISTING WORK

REVISIONS	

NEWPORT NEWS
WATERWORKS

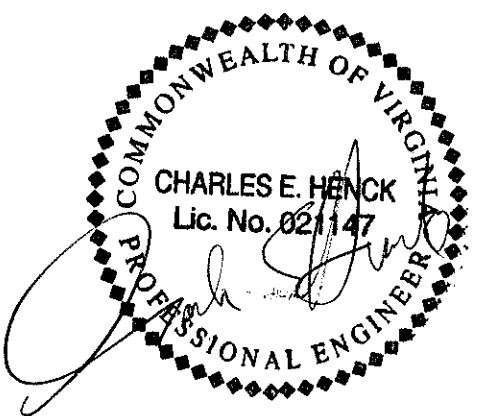


CITY OF NEWPORT NEWS
DEPARTMENT OF PUBLIC
UTILITIES
NEWPORT NEWS, VIRGINIA

LEE HALL
MAINTENANCE AND
OPERATIONS CENTER

GRAPHIC SCALES	

SIGNATURE



CHARLES E. HENCK
Lic. No. 021147
PROFESSIONAL ENGINEER

4/10/08

WHITMAN, REQUARDT & ASSOCIATES, LLP
11870 MERCHANTS WALK, SUITE 100, NEWPORT NEWS, VA 23606



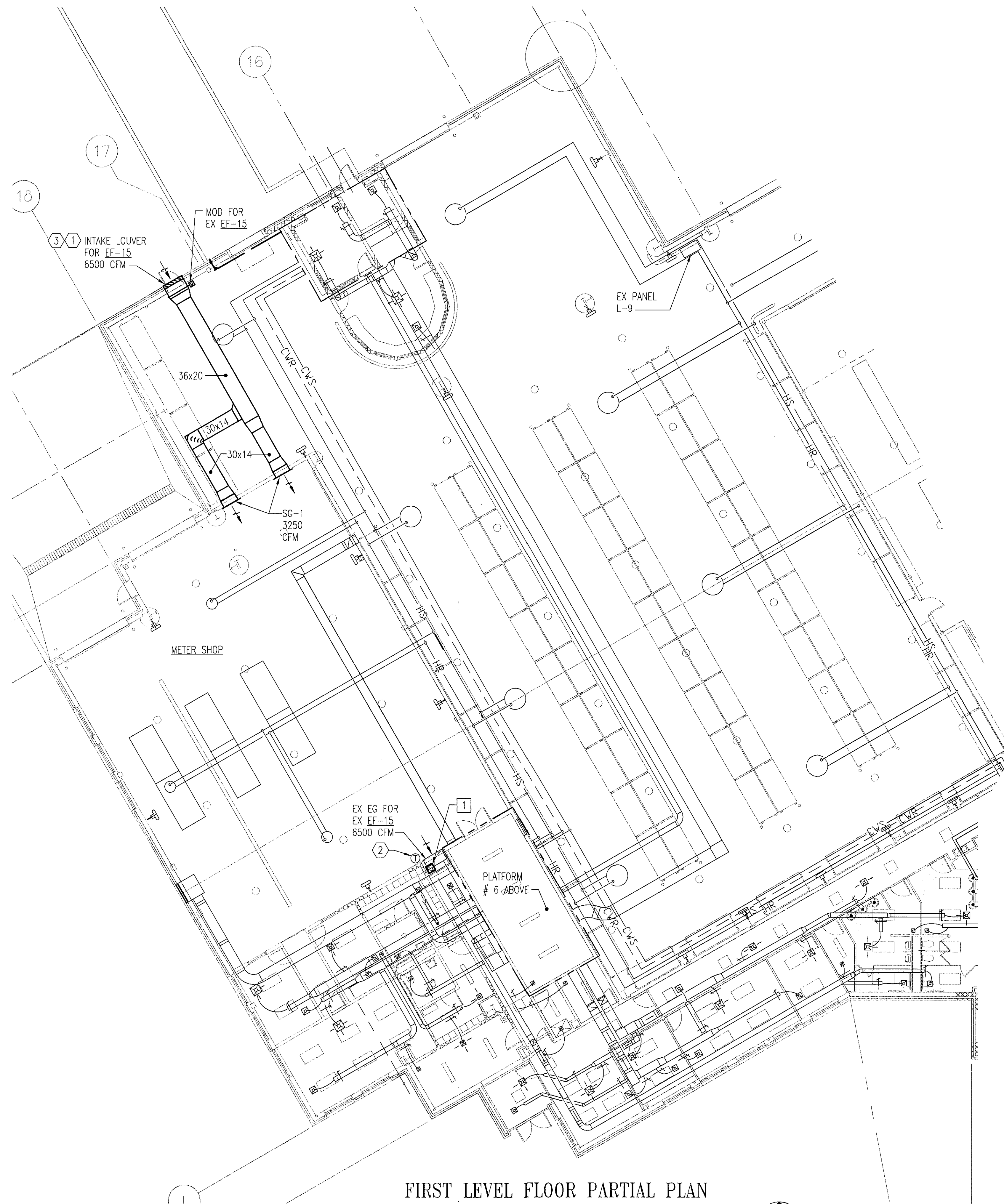
LEGEND AND
ABBREVIATIONS

Drawing No.
ME-1

Scale: NONE

Date: NOVEMBER 2008	Sheet 1 of 6
Des: SPR	Drawn: PBF
Check: CEH	

100% SUBMISSION



1
M-2 FIRST LEVEL FLOOR PARTIAL PLAN
PART B - DEMOLITION AND NEW WORK
SCALE: 3/32" = 1'-0"

DEMOLITION SPECIFIC NOTES

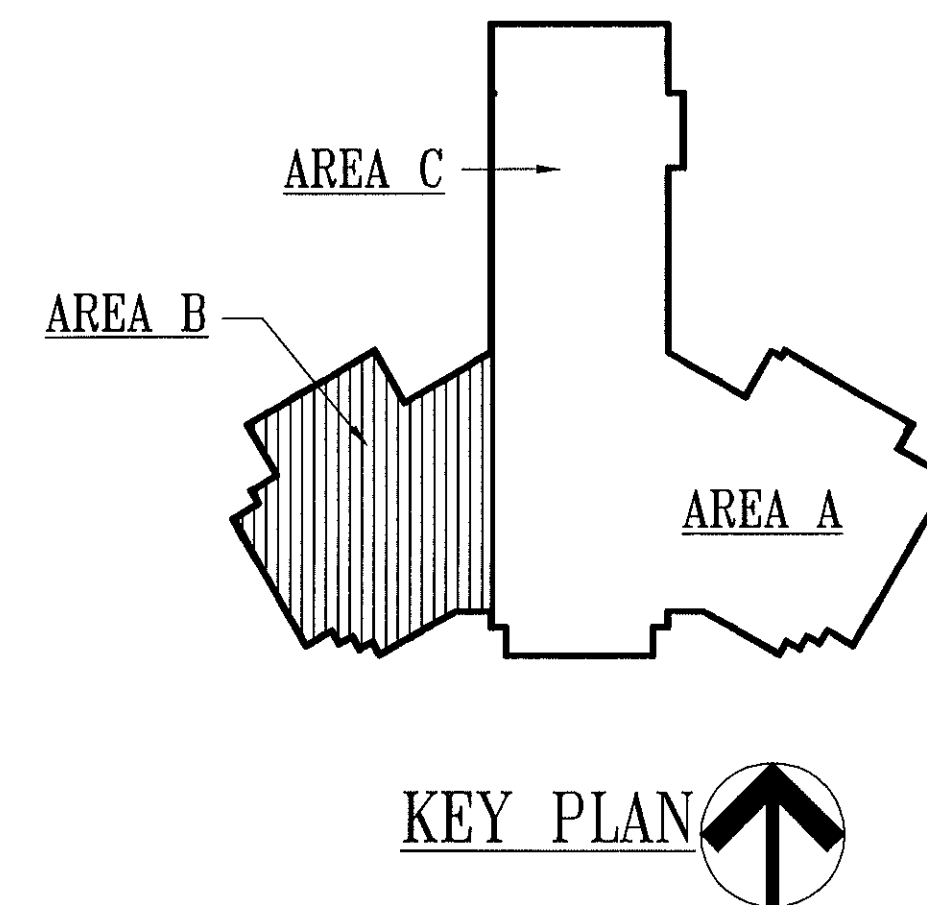
- 1 MANUAL ON/OFF SWITCH FOR EF-15. REMOVE SWITCH AND DISCONNECT FROM EF-15.

DRAWING NOTES

- 1. THERMOSTATS SHALL BE LINE VOLTAGE ON/OFF SOLID STATE TYPE WITH 55' TO 100' SETPOINT RANGE AND 1" MAXIMUM DIFFERENTIAL.
- 2. LOUVER TO BE FACTORY FINISHED; FLUOROPOLYMER 3-COAT SYSTEM; COLOR TO MATCH OTHER EXISTING LOUVERS. PROVIDE AND INSTALL BIRDSCREEN.


NEW WORK SPECIFIC NOTES

- 1 PROVIDE 48"x48" LOUVER. LOCATE LOUVER 5 FEET ABOVE DOOR. LOUVER SHALL FALL IN CMU COURSING.
- 2 PROVIDE THERMOSTAT & INTERLOCK WITH EXISTING EF-15 (LOCATED ON PLATFORM # 6) AND MOD'S.
- 3 CONNECT TO PANEL L-9 WITH 2#8 & 1#10 G - 3/4" C.

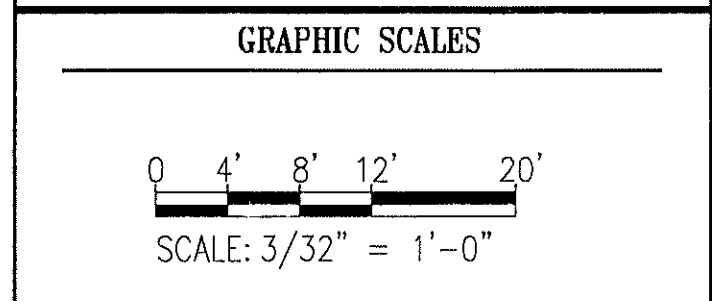
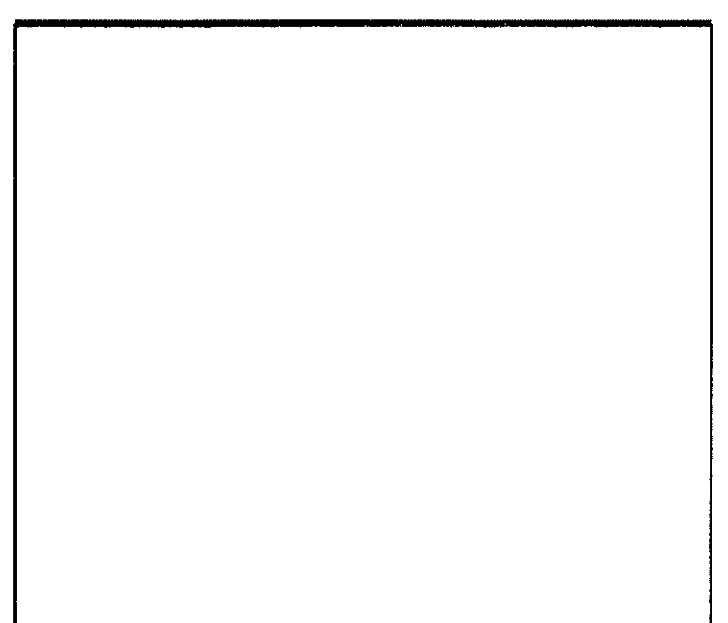


REVISIONS	

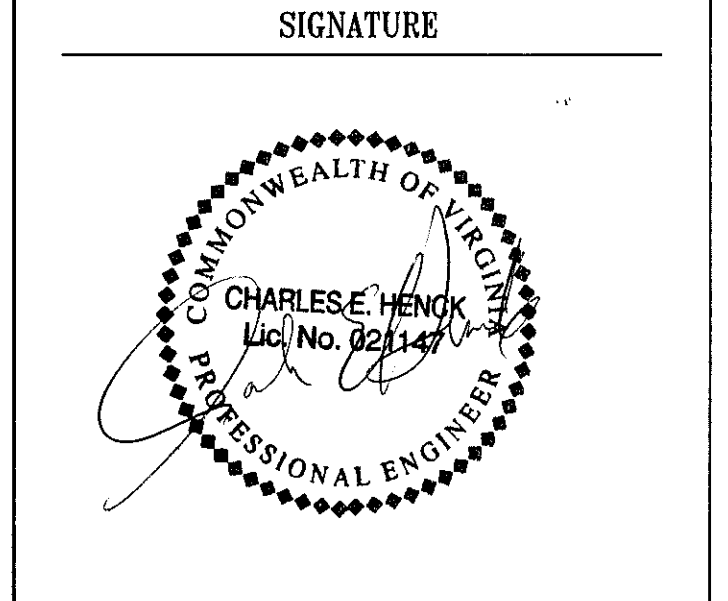
NEWPORT NEWS
WATERWORKS



CITY OF NEWPORT NEWS
DEPARTMENT OF PUBLIC
UTILITIES
NEWPORT NEWS, VIRGINIA
LEE HALL
MAINTENANCE AND
OPERATIONS CENTER



SIGNATURE



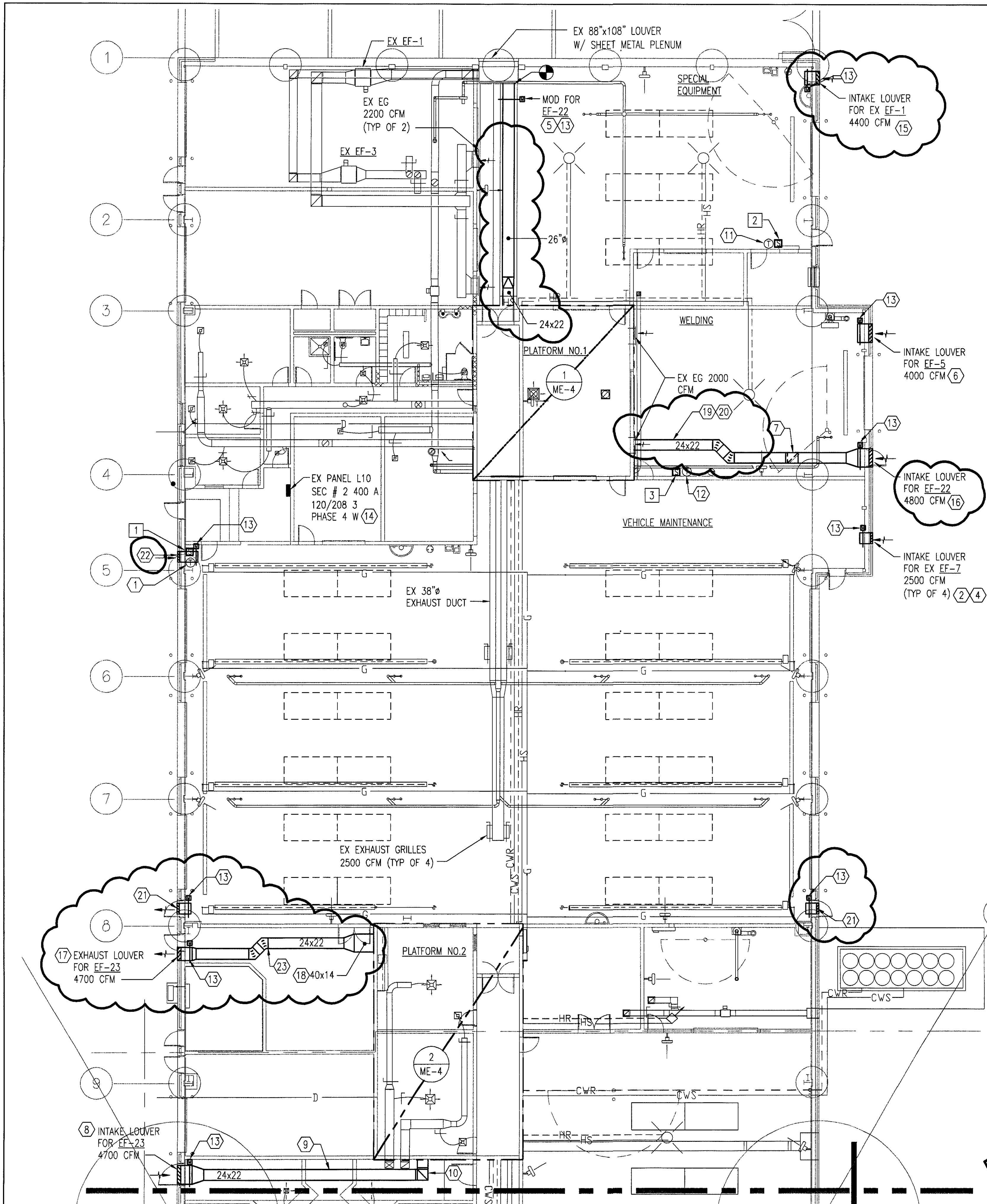
WHITMAN, REQUARDT & ASSOCIATES, LLP
11870 MERCHANTS WALK, SUITE 100, NEWPORT NEWS, VA 23606



FIRST LEVEL FLOOR
PARTIAL PLAN PART B
DEMOLITION AND NEW WORK
Drawing No.
ME-2

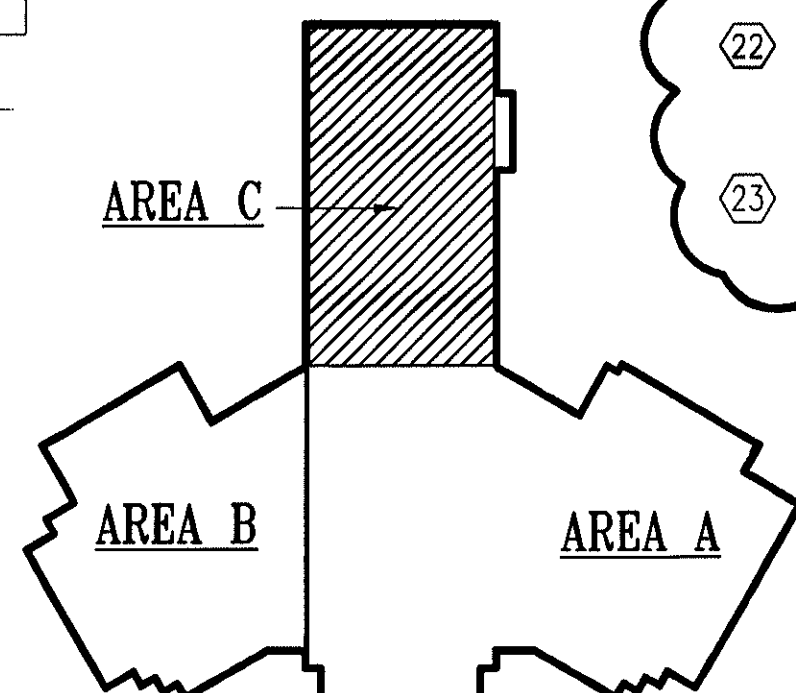
Scale: 1/4"=1'-0"
Date: NOVEMBER 2008 Sheet 2 of 6
Des: SPR Drawn: PBF Check: CEH

100% SUBMISSION



FIRST LEVEL FLOOR PARTIAL PLAN
PART C - DEMOLITION AND NEW WORK

1 M-3 SCALE: 3/32" = 1'-0"



KEY PLAN

DEMOLITION SPECIFIC NOTES

- 1 MANUAL ON/OFF SWITCH FOR EF-7. REMOVE ELECTRICAL DISCONNECT, SWITCH, AND WIRING FROM EF-7.
- 2 MANUAL ON/OFF SWITCH FOR EF-1. REMOVE ELECTRICAL DISCONNECT, SWITCH, AND WIRING FROM EF-1.
- 3 MANUAL ON/OFF SWITCH FOR EF-5. REMOVE ELECTRICAL DISCONNECT, SWITCH, AND WIRING FROM EF-5.

DRAWING NOTES

- 1 ALL MOD'S SHALL BE FED FROM EXISTING PANEL L10.
- 2 THERMOSTATS SHALL BE LINE VOLTAGE ON/OFF SOLID STATE TYPE WITH 55' TO 100' SETPOINT RANGE AND 1' MAXIMUM DIFFERENTIAL.
- 3 LOUVER TO BE FACTORY FINISHED; FLUOROPOLYMER 3-COAT SYSTEM; COLOR TO MATCH OTHER EXISTING LOUVERS. PROVIDE AND INSTALL BIRDSCREEN.

NEW WORK SPECIFIC NOTES

- 1 PROVIDE THERMOSTAT AND INTERLOCK WITH EXISTING EF-7 (LOCATED ON PLATFORM 1) AND MOD'S.
- 2 PROVIDE 48"x24" LOUVER WITH 48"x24"x24" DEEP SHEET METAL PLENUM AND MOD.
- 3 NOTE NOT USED.
- 4 LOCATE BOTTOM OF LOUVER AT 8 FEET ABOVE FINISHED FLOOR. LOUVER SHALL FALL IN CMU COURSING. COORDINATE LOUVER LOCATION WITH CONDUIT IN WALL. RELOCATE CONDUIT AS REQUIRED.
- 5 CONNECT EXHAUST DUCT FROM EF-22 TO EXISTING 88"x108" SHEET METAL PLENUM. DUCT SHALL BE CONNECTED BELOW EXISTING 18"Ø DUCT.
- 6 PROVIDE 48"x48" LOUVER AND LOCATE BOTTOM OF LOUVER AT 8 FEET AFF. LOUVER SHALL FALL IN CMU COURSING.
- 7 DUCT SHALL RISE AFTER CROSSING UNDER EXISTING BEAM. DUCT SHALL RUN DIAGONAL WITH ROOF TO PLATFORM # 1. REFER TO ME-4 FOR SUPPLY GRILLE HEIGHT.
- 8 PROVIDE 48"x48" LOUVER AND LOCATE BOTTOM OF LOUVER 8" ABOVE DOOR. LOUVER SHALL FALL IN CMU COURSING.
- 9 RUN DUCT ABOVE ACOUSTICAL TILE IN CORRIDOR ADJACENT TO PLATFORM # 2.
- 10 DUCT TO RISE TO PLATFORM # 2. REFER TO ME-4 FOR DUCT LOCATIONS & COORDINATION.
- 11 PROVIDE THERMOSTAT AND INTERLOCK WITH EXISTING EF-1 AND MOD'S.
- 12 PROVIDE THERMOSTAT & INTERLOCK WITH EXISTING EF-5 & MOD.
- 13 PROVIDE 2#12 & 1#12 G - 3/4" C FOR DAMPER MOTOR AND CONNECT TO EXISTING PANEL L10.
- 14 PROVIDE 2-1P, 15A CIRCUIT BREAKER IN EXISTING PANEL AND CONNECT TO TWO DAMPER CIRCUITS. CONNECT 5 DAMPER MOTORS IN ONE CIRCUIT.
- 15 PROVIDE 30"x60" LOUVER AND LOCATE BOTTOM OF LOUVER AT 8 FEET AFF. LOUVER SHALL FALL IN CMU COURSING. COORDINATE LOUVER LOCATION WITH EXISTING WATER LINES AND CONDUIT IN WALL. RELOCATE CONDUIT AS REQUIRED.
- 16 PROVIDE 60"x30" LOUVER AND LOCATE BOTTOM OF LOUVER AT 10 FEET AFF (ABOVE INTERIOR EXIT SIGN). LOUVER SHALL FALL IN CMU COURSING. COORDINATE LOUVER WITH EXTERIOR LIGHT AND CONDUIT IN WALL. RELOCATE CONDUIT AS REQUIRED.
- 17 PROVIDE 30"x60" LOUVER AND LOCATE BOTTOM OF LOUVER AT 10 FEET AFF (ABOVE INTERIOR EXIT SIGN). LOUVER SHALL FALL IN CMU COURSING. COORDINATE LOUVER WITH EXTERIOR LIGHT AND CONDUIT IN WALL. RELOCATE CONDUIT AS REQUIRED. LOUVER SHALL AVOID EXISTING STRUCTURAL STEEL.
- 18 TRANSITION DUCT TO RUN BETWEEN CONDUITS IN MECHANICAL ROOM.
- 19 DUCT TO TRANSITION TO AVOID DUCT IN PLATFORM # 1. REFER TO ME-4 FOR EXISTING DUCT LOCATION.
- 20 COORDINATE DUCT LOCATION WITH EXISTING SPRINKLER BRANCH. DUCT LOCATION SHALL NOT INTERFERE WITH SPRINKLER COVERAGE.
- 21 PROVIDE 36"x12" LOUVER AND LOCATE BOTTOM OF LOUVER AT 10 FEET AFF (ABOVE INTERIOR EXIT SIGN). LOUVER SHALL FALL IN CMU COURSING. COORDINATE LOUVER WITH EXTERIOR LIGHT AND CONDUIT IN WALL. RELOCATE CONDUIT AS REQUIRED.
- 22 PROVIDE 24"x48" LOUVER AND LOCATE BOTTOM OF LOUVER AT 8 FEET AFF. LOUVER SHALL FALL IN CMU COURSING. COORDINATE LOUVER WITH EXTERIOR LIGHT, FAN SWITCH, THERMOSTAT AND CONDUIT IN WALL. RELOCATE CONDUIT AS REQUIRED.
- 23 COORDINATE DUCT WITH EXISTING GAS AND FIRE SPRINKLER PIPING.

REVISIONS	

NEWPORT NEWS WATERWORKS

**CITY OF NEWPORT NEWS
DEPARTMENT OF PUBLIC UTILITIES
NEWPORT NEWS, VIRGINIA**

**LEE HALL
MAINTENANCE AND OPERATIONS CENTER**

GRAPHIC SCALES

SCALE: 3/32" = 1'-0"

SIGNATURE

5/14/09

WHITMAN, REQUARDT & ASSOCIATES, LLP
11870 MERCHANTS WALK, SUITE 100, NEWPORT NEWS, VA 23606

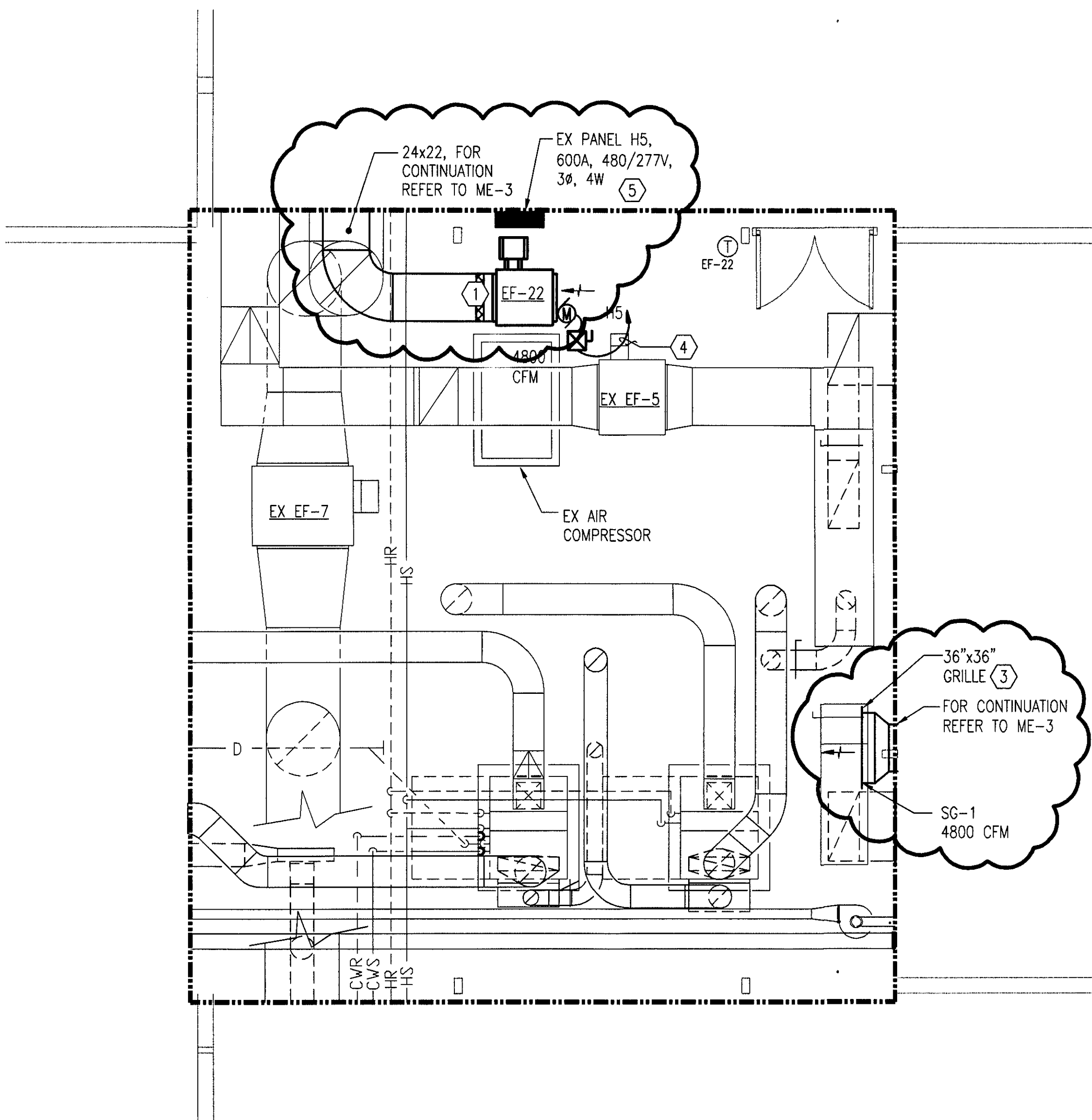
**FIRST LEVEL FLOOR
PARTIAL PLAN PART C
DEMOLITION AND NEW WORK**

Drawing No.
ME-3

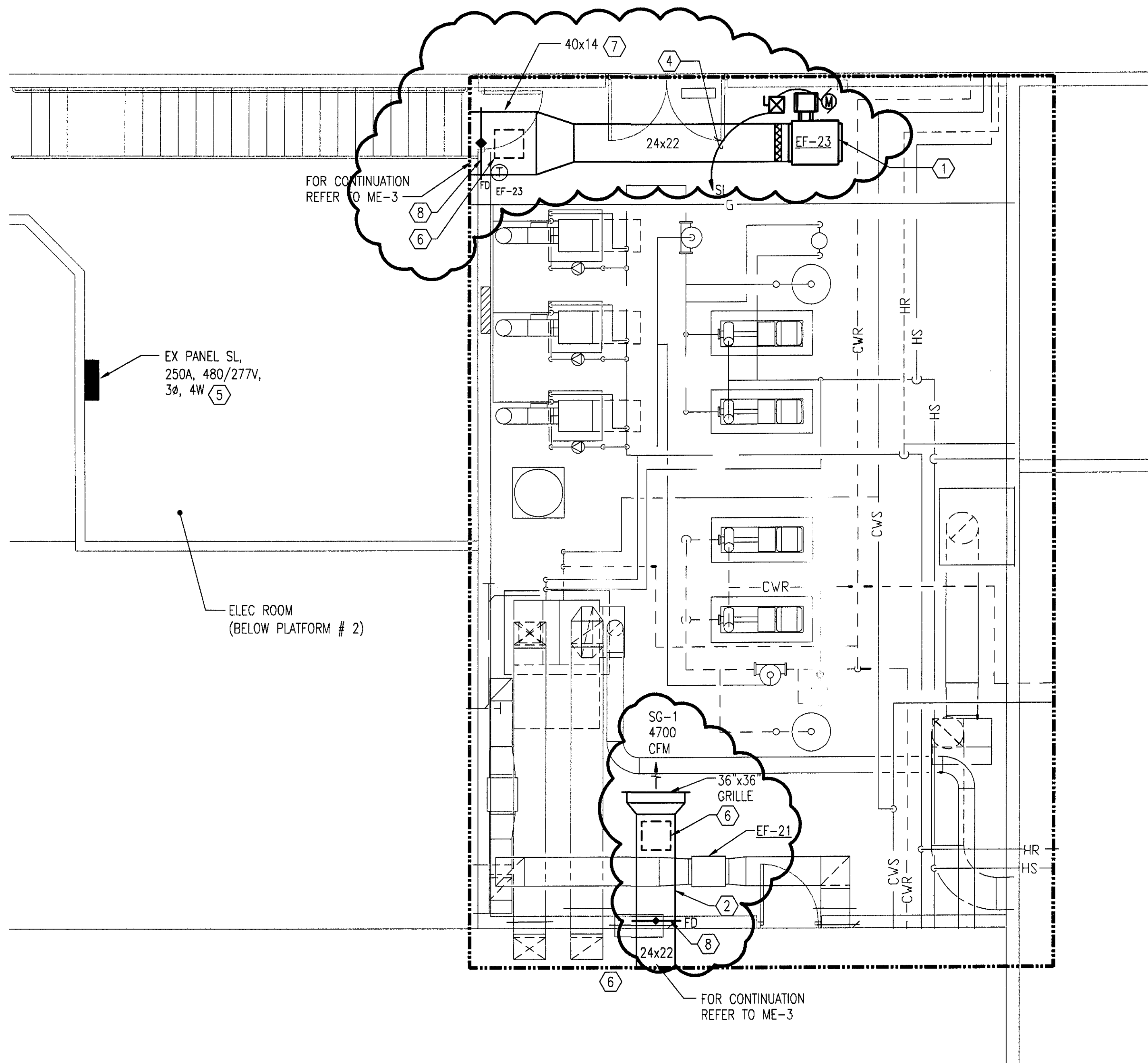
Scale: 1/4" = 1'-0"

Date: APRIL 2009 Sheet 4 of 7

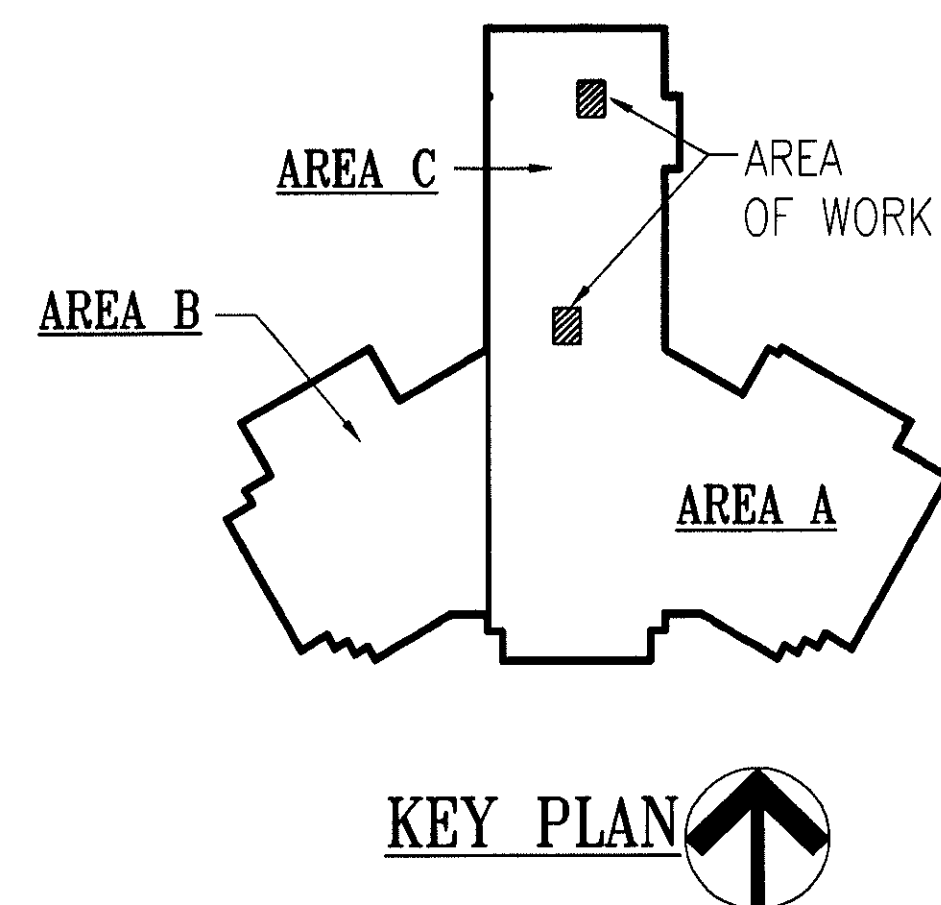
Des: SPR Drawn: PBF Check: CEH



1
ME-4
SECOND LEVEL PARTIAL FLOOR PLAN
PLATFORM 1 - NEW WORK
SCALE: 1/4" = 1'-0"



2
ME-4
SECOND LEVEL PARTIAL FLOOR PLAN
PLATFORM 2 - NEW WORK
SCALE: 1/4" = 1'-0"



SPECIFIC NOTES

- 1 PROVIDE IN-LINE EXHAUST FAN AND LOCATE 9 FEET AFF.
- 2 DUCT SHALL RUN ABOVE EF-21. LOCATE GRILLE AND DUCT TO AVOID EF-21 AND HANGERS.
- 3 SUPPLY AIR GRILLE SHALL BE LOCATED 9 FEET AFF.
- 4 3#12 & 1#12 G - 3/4" C.
- 5 PROVIDE 3P-15A CIRCUIT BREAKER IN EXISTING PANEL AND CONNECT TO NEW CIRCUIT, CIRCUIT BREAKER SHALL MATCH EXISTING.
- 6 PROVIDE 18"x18" DUCT ACCESS FOR FD ACCESS. MAINTAIN CLEARANCE BELOW DOOR FOR ACCESS.
- 7 TRANSITION DUCT TO RUN BETWEEN CONDUITS IN MECHANICAL ROOM.
- 8 FIRE DAMPER SHALL BE 1 1/2 HOUR RATED CURTAIN TYPE AS MANUFACTURED BY RUSKIN MODEL D1BD OR EQUAL.

DRAWING NOTES

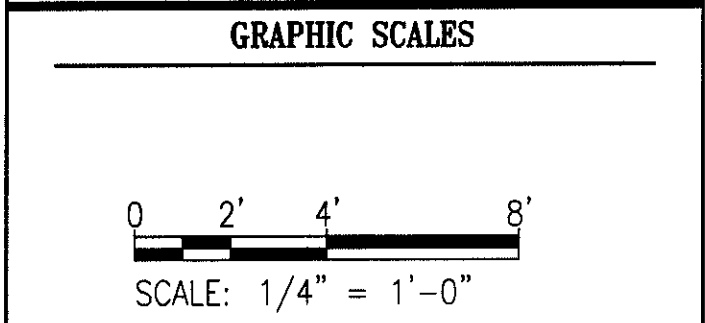
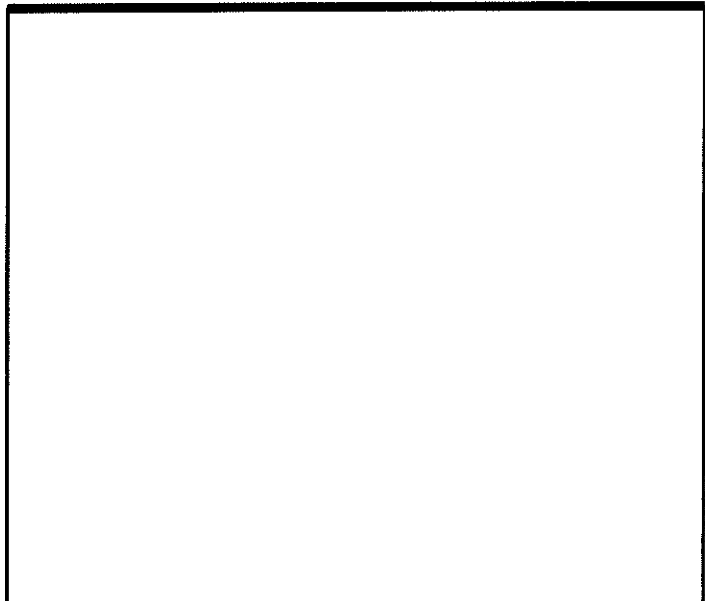
- 1. THERMOSTATS SHALL BE LINE VOLTAGE ON/OFF SOLID STATE TYPE WITH 55° TO 100° SETPOINT RANGE AND 1° MAXIMUM DIFFERENTIAL.
- 2. LOUVER TO BE FACTORY FINISHED; FLUOROPOLYMER 3-COAT SYSTEM; COLOR TO MATCH OTHER EXISTING LOUVERS. PROVIDE AND INSTALL BIRDSCREEN.

REVISIONS	

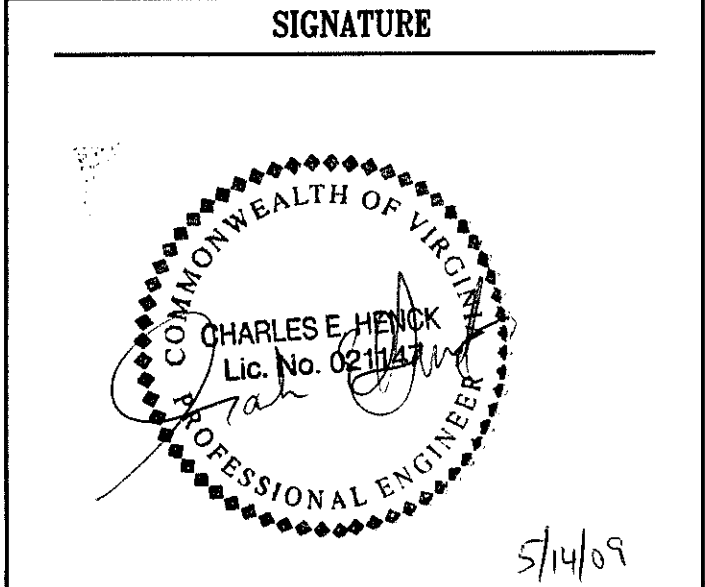
NEWPORT NEWS
WATERWORKS

CITY OF NEWPORT NEWS
DEPARTMENT OF PUBLIC
UTILITIES
NEWPORT NEWS, VIRGINIA

LEE HALL
MAINTENANCE AND
OPERATIONS CENTER



SIGNATURE



WHITMAN, REQUARDT & ASSOCIATES, LLP
11870 MERCHANTS WALK, SUITE 100, NEWPORT NEWS, VA 23606



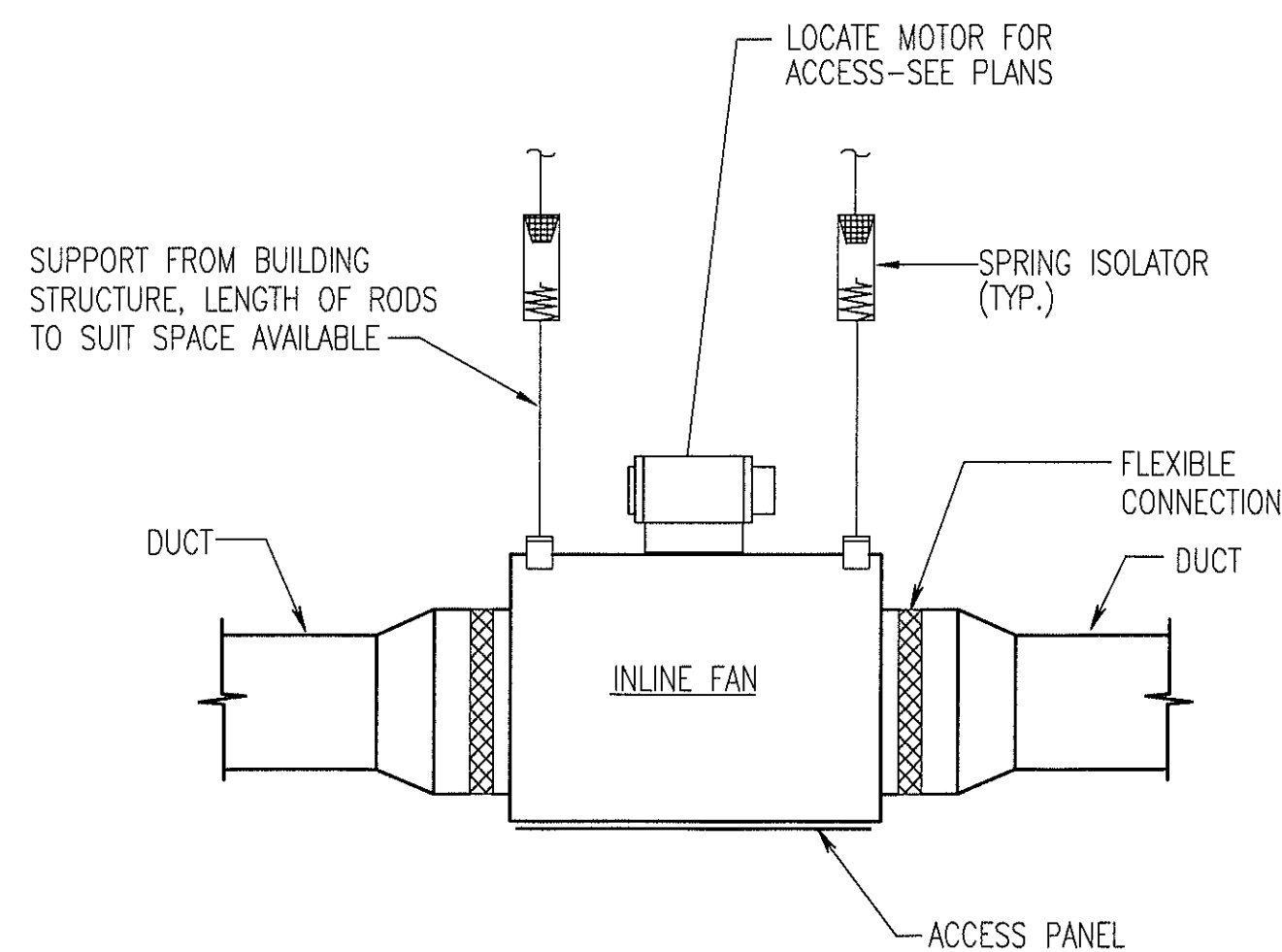
SECOND LEVEL FLOOR
PARTIAL PLAN PART C
NEW WORK
Drawing No.
ME-4

Scale: 1/4"=1'-0"
Date: APRIL 2009 Sheet 5 of 7
Des: SPR Drawn: PBF Check: CEH

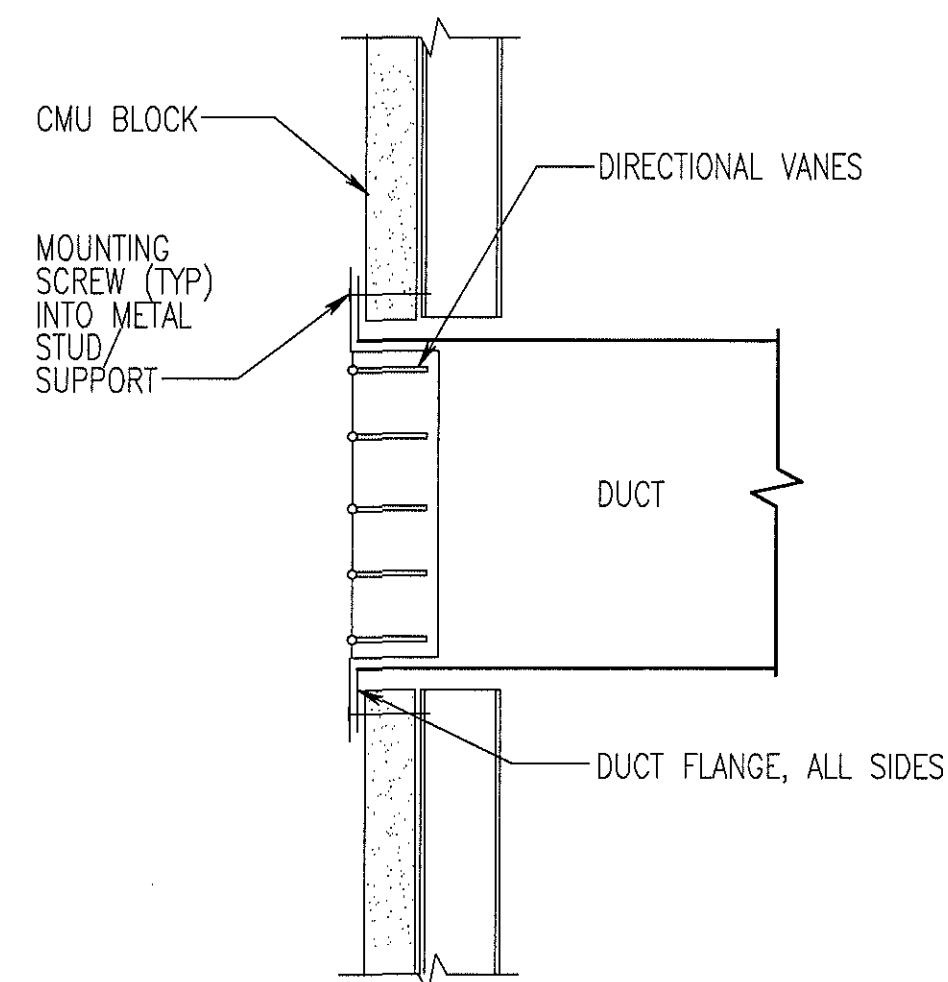
DUCT CONSTRUCTION SCHEDULE					
SYSTEM ID	SYSTEM DESCRIPTION	DUCT PRESSURE CLASS (IN. WG)	DUCT SEAL CLASS	DUCT PRESSURE TEST (%)	REMARKS
LOW PRESSURE OA INTAKE	TYPICAL THROUGHOUT	1	C	100	
NEGATIVE PRESSURE EXHAUST	TYPICAL THROUGHOUT	2	C	100	

AIR DEVICE SCHEDULE									
UNIT ID	SERVICE	MOUNTING	NECK SIZE (IN)	FACE SIZE (IN)	CFM RANGE	MAX. APD (IN. WG)	MAX. NC	BASIS OF DESIGN	DESCRIPTION
SG-1/TG-1	SUPPLY GRILLE	SURFACE	36x36	38x38	3000-4800	0.10	50	TITUS 3 FL	3/4" SPACING, LONG FRONT BLADES AT 45 DEGREES

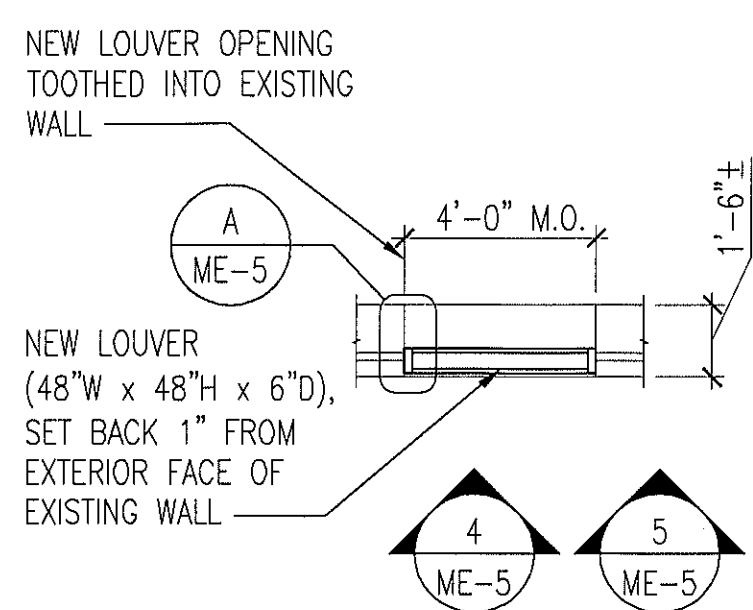
FAN SCHEDULE												
UNIT ID	TYPE	SERVICE	LOCATION	CFM	ESP (IN. WG)	FAN RPM	DRIVE TYPE	METHOD OF CONTROL	ELECTRICAL DATA		BASIS OF DESIGN	NOTES
									HP	VOLTS/PH		
EF-22	INLINE CENTRIFUGAL	PLATFORM 1	PLATFORM 1	4,800	0.50	1291	BELT	INTERLOCK W/ THERMOSTAT	1.50	480/3	GREENHECK BSO	
EF-23	INLINE CENTRIFUGAL	PLATFORM 2	PLATFORM 2	4,800	0.50	1291	BELT	INTERLOCK W/ THERMOSTAT	1.50	480/3	GREENHECK BSO	



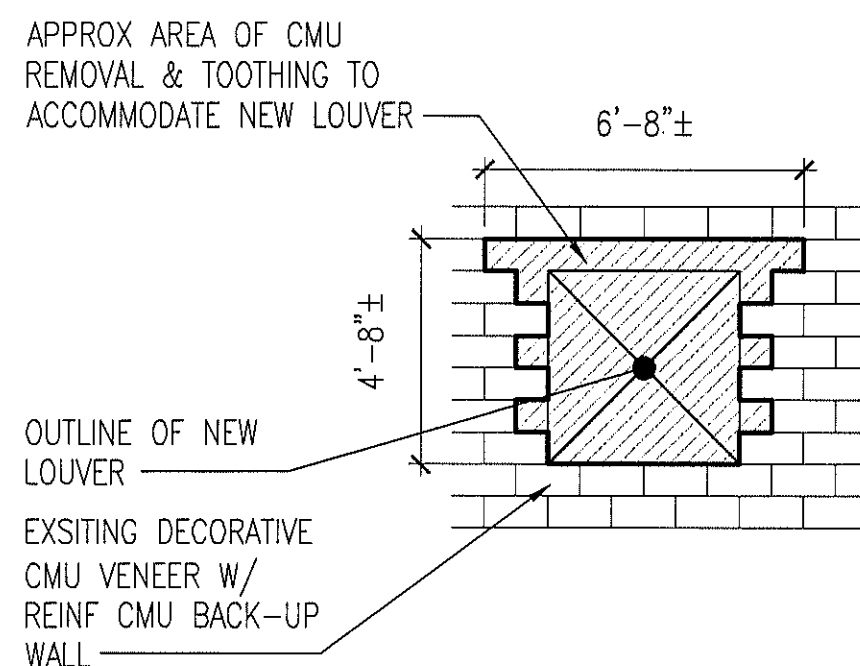
1 IN-LINE FAN DETAIL
ME-5 SCALE: NONE REF:



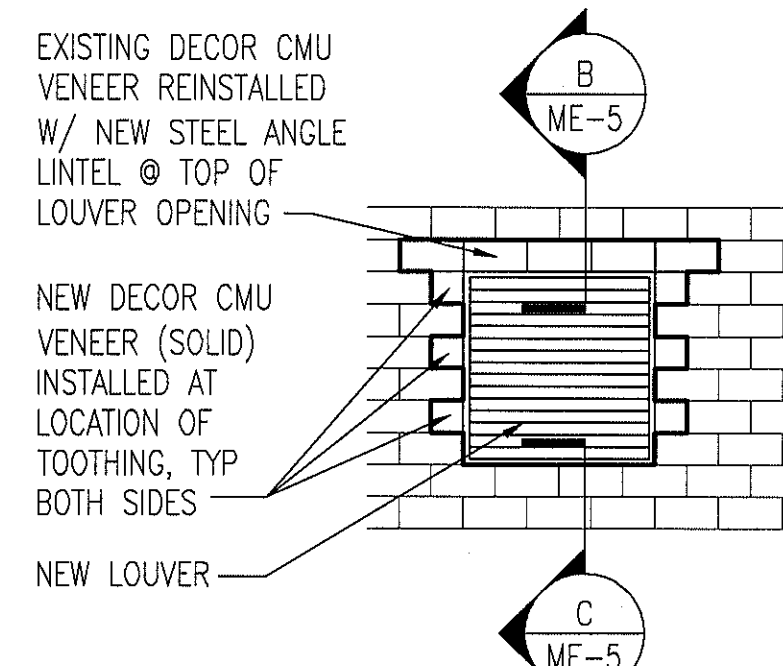
2 GRILLE/REGISTER DUCT CONNECTION DETAIL
ME-5 SCALE: NONE REF:



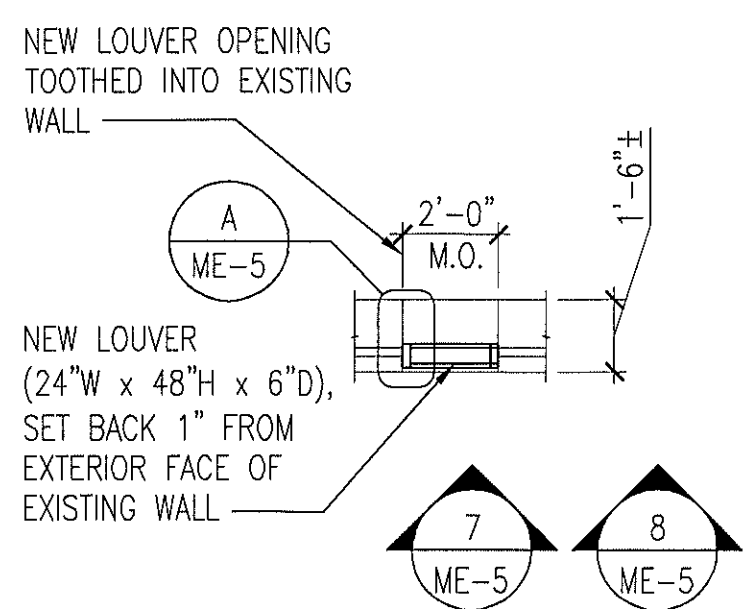
3 48X48 LOUVER ENLARGED PLAN
ME-5 SCALE: 1/4" = 1'-0" REF:



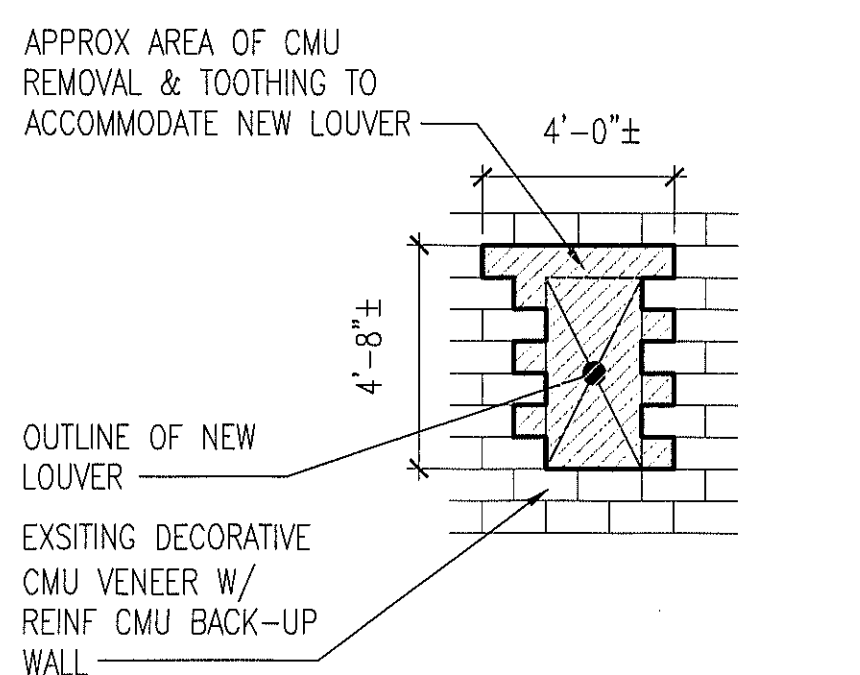
4 48X48 LOUVER ENLARGED ELEVATION
ME-5 SCALE: 1/4" = 1'-0" REF: 3/ME-5



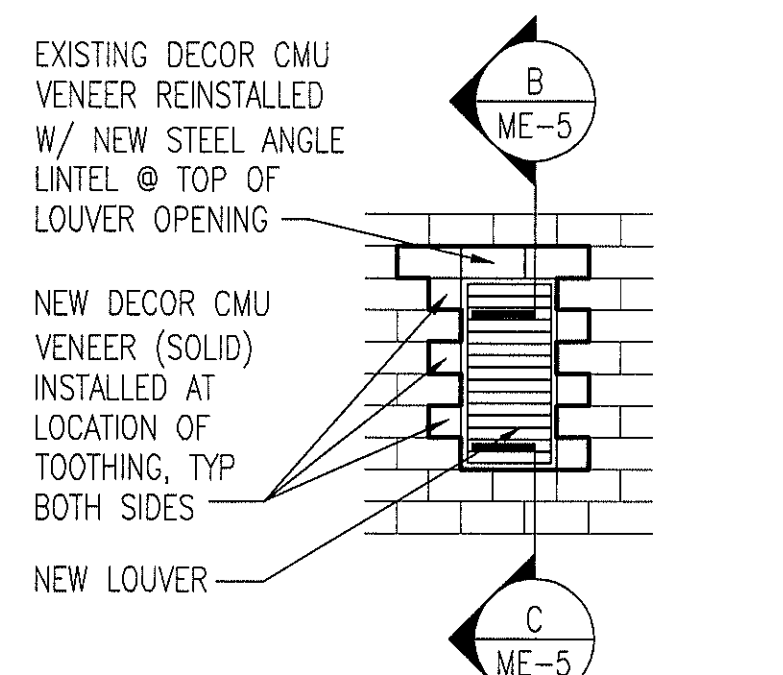
5 48X48 LOUVER ENLARGED ELEVATION
ME-5 SCALE: 1/4" = 1'-0" REF: 3/ME-5



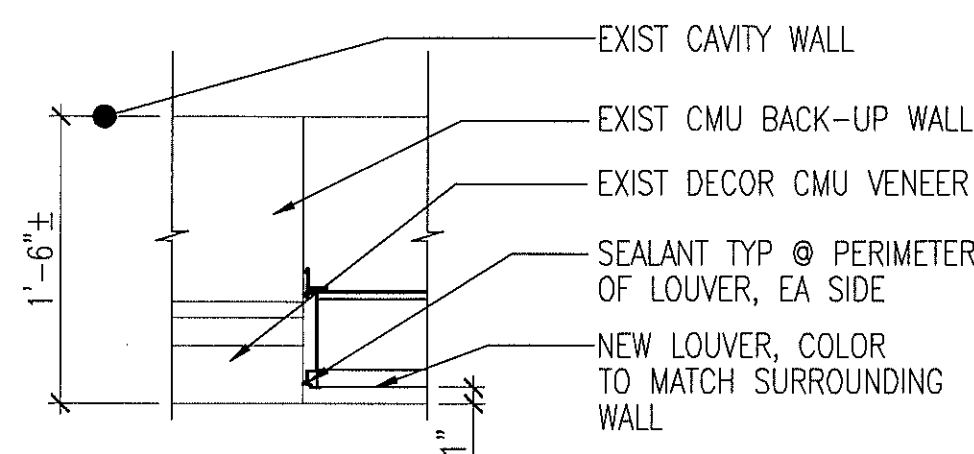
6 24X48 LOUVER ENLARGED PLAN
ME-5 SCALE: 1/4" = 1'-0" REF:



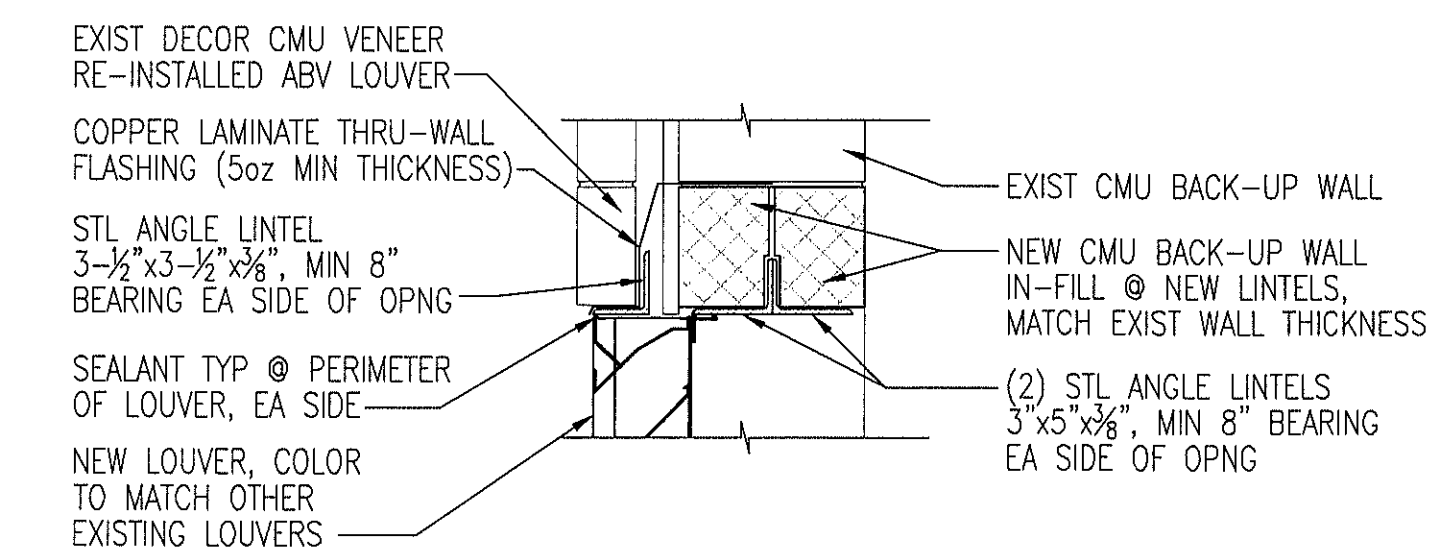
7 24X48 LOUVER ENLARGED ELEVATION
ME-5 SCALE: 1/4" = 1'-0" REF: 6/ME-5



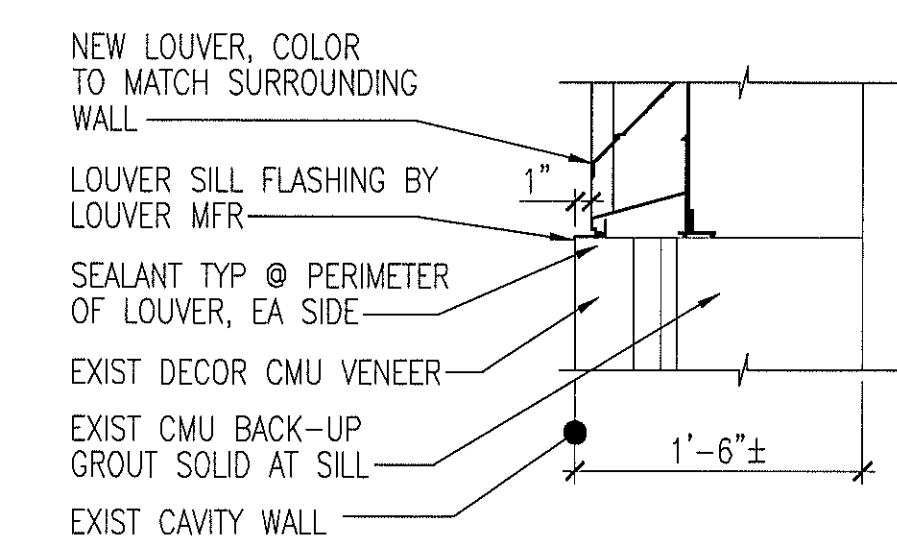
8 24X48 LOUVER ENLARGED ELEVATION
ME-5 SCALE: 1/4" = 1'-0" REF: 6/ME-5



A LOUVER JAMB DETAIL
ME-5 SCALE: 1" = 1'-0" REF: 3/ME-5 & 6/ME-5



B LOUVER HEAD DETAIL
ME-5 SCALE: 1" = 1'-0" REF: 5/ME-5 & 8/ME-5



C LOUVER SILL DETAIL
ME-5 SCALE: 1" = 1'-0" REF: 5/ME-5 & 8/ME-5

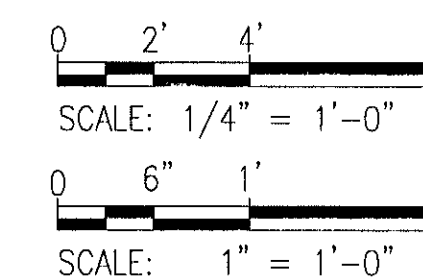
GENERAL NOTES

- FIELD VERIFY EXISTING CONDITIONS PRIOR TO START OF WORK.
- COORDINATE FINAL LOCATION OF LOUVER AS REQUIRED WITH MECHANICAL WORK.
- LOUVER TO BE FACTORY FINISHED; FLUOROPOLYMER 3-COAT SYSTEM; COLOR TO MATCH OTHER EXISTING LOUVERS. PROVIDE AND INSTALL BIRDSCREEN.
- THERMOSTATS SHALL BE LINE VOLTAGE ON/OFF SOLID STATE TYPE WITH 55° TO 100° SETPOINT RANGE AND 1' MAXIMUM DIFFERENTIAL.
- ALL MASONRY CUTS SHALL BE SAW CUTS.
- WHERE EXISTING MASONRY CAN NOT BE REUSED, CONTRACTOR SHALL PROVIDE AND INSTALL NEW MASONRY TO MATCH EXISTING. MORTAR COLOR SHALL MATCH EXISTING.
- ALL COLOR SELECTIONS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO APPLICATION.
- AREA OF TOUCH-UP PAINTING AT INTERIOR SIDE OF WALL WILL BE SUCH THAT NEWLY PAINTED SURFACES BLEND EVENLY WITH EXISTING PAINTED SURFACES. PAINT SHALL BE A MINIMUM OF TWO COATS AND SHALL BE COMPATIBLE WITH SURFACE TO BE PAINTED.
- LOUVER ANCHORAGE TO EXISTING WALL SHALL BE PER LOUVER MANUFACTURER'S REQUIREMENTS.
- ITEMS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED IN KIND.
- EXPOSED PORTIONS OF STEEL ANGLES TO BE PAINTED TO MATCH SURROUNDING WALL.

REVISIONS

NEWPORT NEWS WATERWORKS
CITY OF NEWPORT NEWS DEPARTMENT OF PUBLIC UTILITIES
NEWPORT NEWS, VIRGINIA
LEE HALL MAINTENANCE AND OPERATIONS CENTER

GRAPHIC SCALES



SIGNATURE

COMMONWEALTH OF VIRGINIA
CHARLES E. HENCH
Lic. No. 021147
PROFESSIONAL ENGINEER

WHITMAN, REQUARDT & ASSOCIATES, LLP
11870 MERCHANTS WALK, SUITE 100, NEWPORT NEWS, VA 23606

WR&A

MECHANICAL DETAIL AND SCHEDULES

Drawing No.

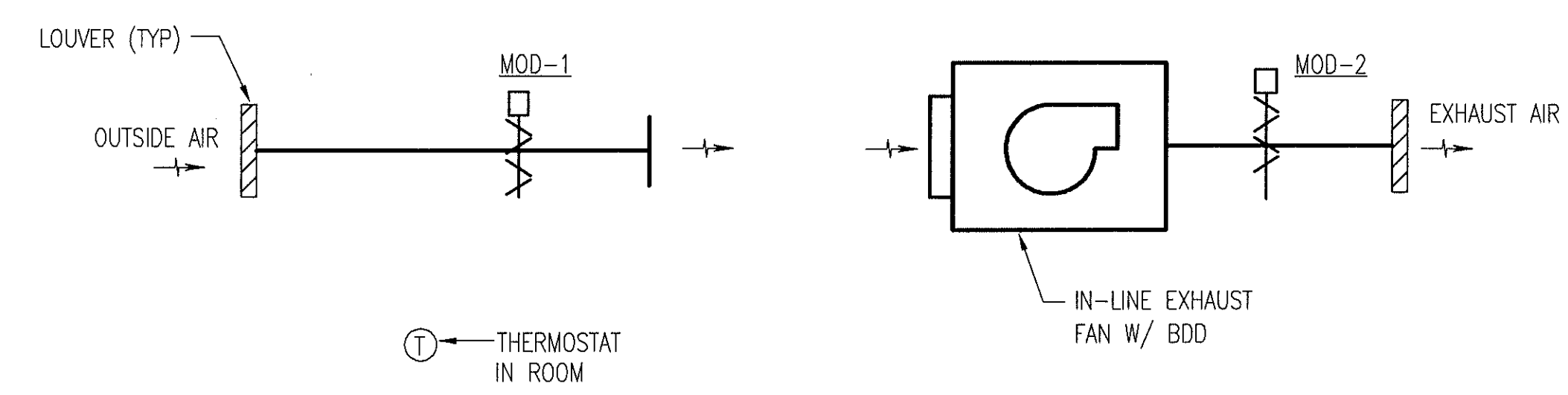
ME-5

Scale: NONE

Date: NOVEMBER 2008 Sheet 5 of 6

Des: SPR Drawn: PDF Check: CEH

100% SUBMISSION



VENTILATION EXHAUST FAN SCHEMATIC
 SCALE: NONE

EXHAUST FAN (EF-1, EF-5, EF-7, EF-15, EF-22 AND EF-23) - SEQUENCE OF OPERATION

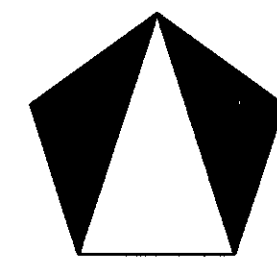
GENERAL:

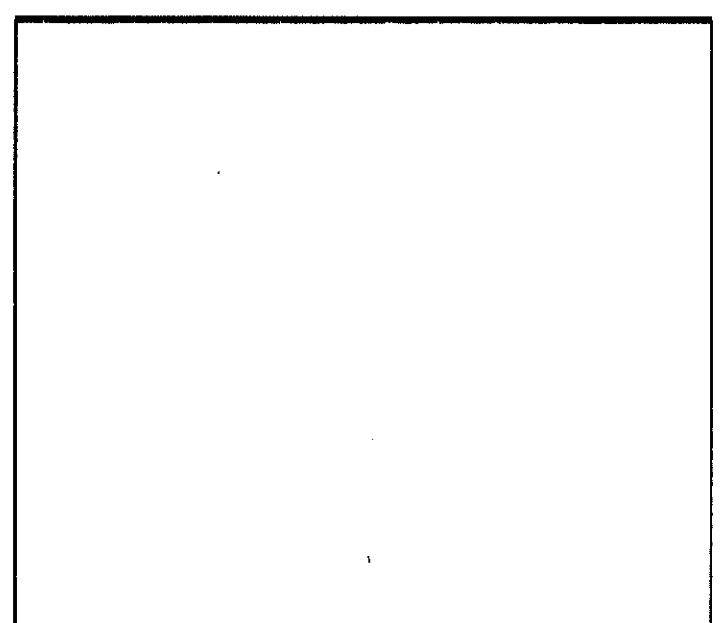
1. UNIT DESCRIPTION: INLINE EXHAUST FAN FOR SUMMER VENTILATION IN VEHICLE MAINTENANCE, METER SHOP, WELDING, SPECIAL EQUIPMENT, PLATFORM #1 AND PLATFORM #2.
2. METHOD OF CONTROL: WALL MOUNTED THERMOSTAT
3. THE TEMPERATURE SETPOINTS ARE AS FOLLOWS:
 SUMMER: 85 F

OCCUPIED MODE:

1. WHEN THE TEMPERATURE IN THE SPACE RISES ABOVE THE DESIGN SETPOINT, OPEN THE OUTSIDE AIR DAMPER MOD-1, OPEN THE EXHAUST DAMPER MOD-2 AND ENERGIZE THE EXHAUST FAN.
2. WHEN THE DESIGN SETPOINT IS REACHED, DE-ENERGIZE EXHAUST FAN AND CLOSE THE OUTSIDE AIR AND EXHAUST DAMPERS.

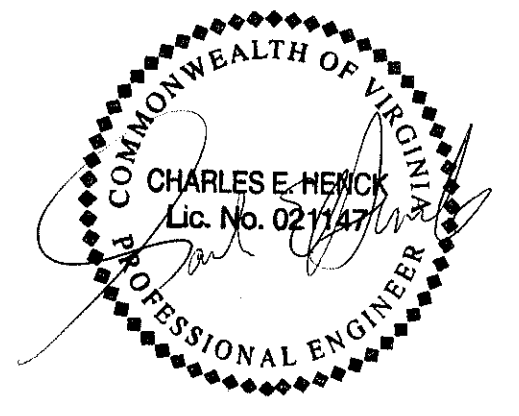
REVISIONS	

NEWPORT NEWS WATERWORKS

CITY OF NEWPORT NEWS
DEPARTMENT OF PUBLIC UTILITIES
NEWPORT NEWS, VIRGINIA
LEE HALL
MAINTENANCE AND OPERATIONS CENTER



GRAPHIC SCALES

SIGNATURE



WHITMAN, REQUARDT & ASSOCIATES, LLP
 11870 MERCHANTS WALK, SUITE 100, NEWPORT NEWS, VA 23606



MECHANICAL CONTROL DIAGRAMS
 Drawing No.
ME-6

Scale: NONE		
Date: NOVEMBER 2008	Sheet 6	of 6
Des: SPR	Drawn: PDF	Check: CEH

100% SUBMISSION