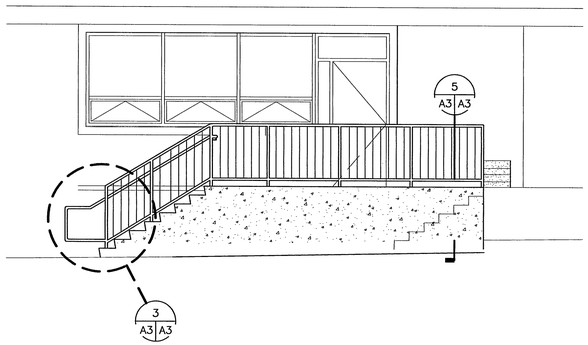
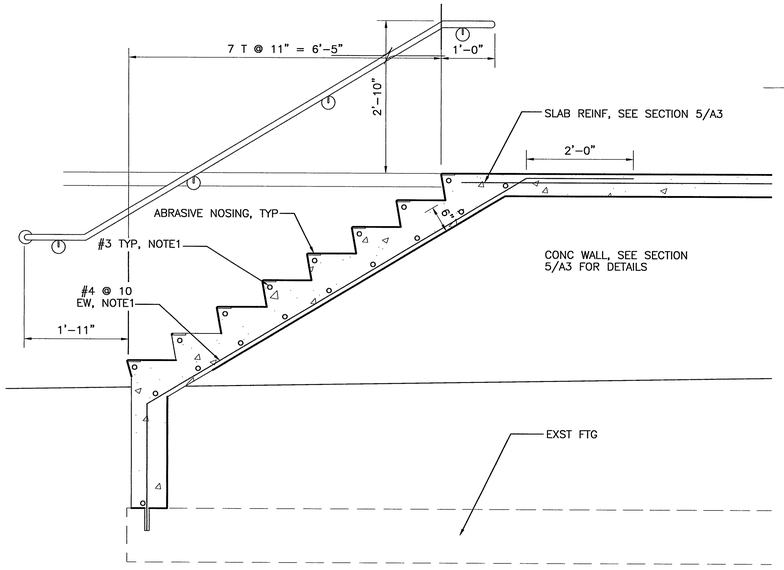


RAIL ELEVATION

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

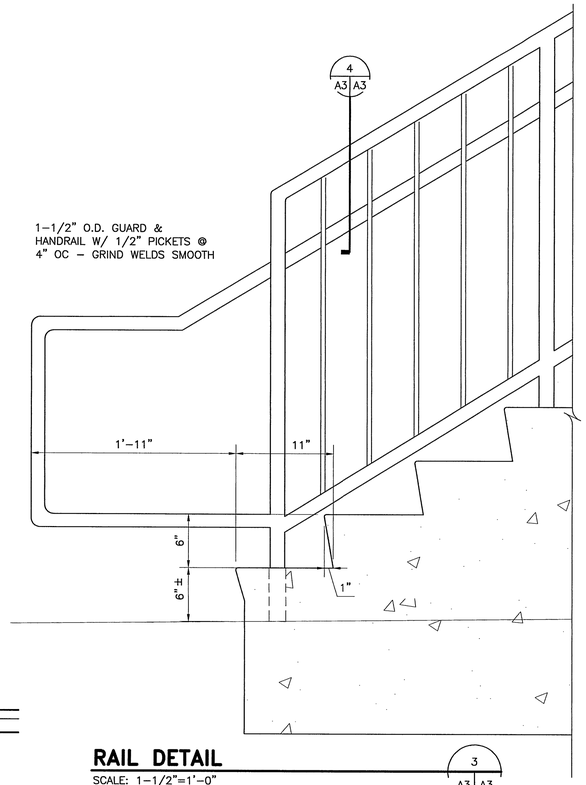
1
A2 A3



STAIR SECTION

SCALE: 3/4"=1'-0"

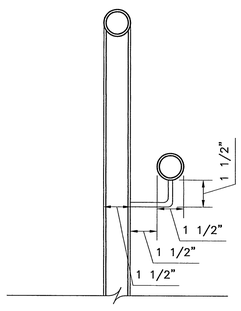
2
A1 A3



RAIL DETAIL

SCALE: 1-1/2"=1'-0"

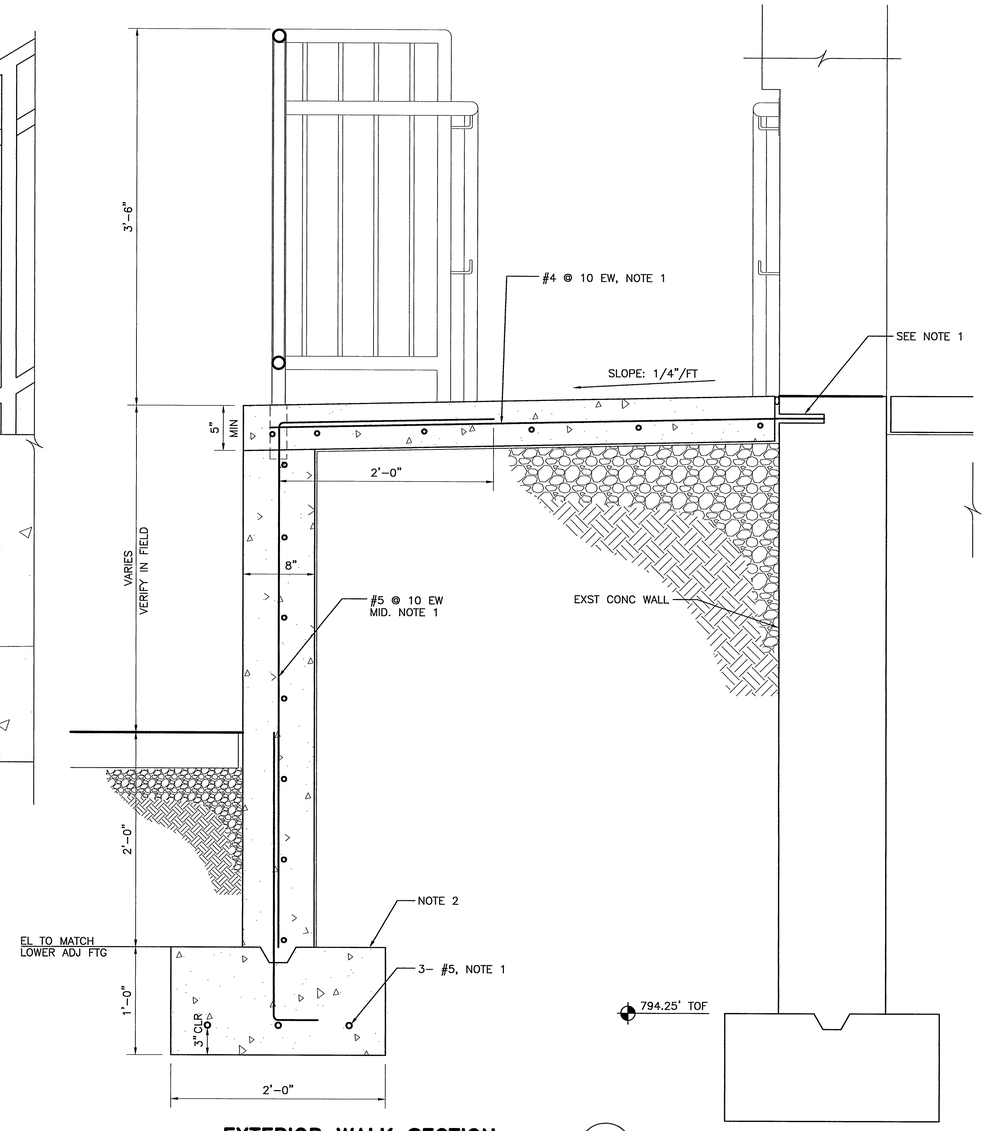
3
A3 A3



RAIL SECTION

SCALE: 3"=1'-0"

4
A3 A3



EXTERIOR WALK SECTION

SCALE: 1-1/2"=1'-0"

5
A3 A3

NOTES:

1. AT ALL LOCATIONS WHERE NEW REINFORCEMENT MEETS EXISTING CONCRETE, ANCHOR BARS USING HILTI HY150 EPOXY SYSTEM OR EQUAL WITH 5" MINIMUM EMBEDMENT.
2. PROVIDE FOOTING WHERE EXISTING FOOTING IS NOT PRESENT. OTHERWISE, ANCHOR VERTICAL BARS INTO EXISTING FOOTING ACCORDING TO NOTE 1.

3"=1'-0" 12" 9" 6" 3" 0
1 1/2"=1'-0" 12" 9" 6" 3" 0 1'
3/4"=1'-0" 12" 6" 0 1' 2' 3'
1/4"=1'-0" 4' 2' 0 4' 8'

SEALS

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FIRST FLOOR RENOVATIONS COLLEGE HILL FILTRATION PLANT

CITY PROJECT NUMBER 05074-W

CITY OF LYNCHBURG, VIRGINIA

HSMM

ARCHITECTS ENGINEERS PLANNERS

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ARCHITECTURAL

STAIR & RAIL SECTIONS & DETAILS

A3

PIPING SYMBOLS

- (E) — EXISTING PIPING TO REMAIN
- EXISTING PIPING TO BE REMOVED
- HWS — HEATING–HOT WATER SUPPLY
- HWR — HEATING–HOT WATER RETURN
- CWS — CHILLED WATER SUPPLY
- CWR — CHILLED WATER RETURN
- RS — REFRIGERANT SUCTION
- RL — REFRIGERANT LIQUID

- PA — PIPE ANCHOR
- PG — PIPE GUIDE
- EXPANSION JOINT
- VENTURI
- GATE VALVE
- GLOBE VALVE
- HOSE VALVE WITH CAP
- BUTTERFLY VALVE
- CHECK VALVE
- BALANCING VALVE
- CALIBRATED BALANCING VALVE
- BALL VALVE
- PLUG VALVE
- S — SOLENOID VALVE
- SAFETY OR PRESSURE RELIEF, ANGLE VALVE
- SAFETY OR PRESSURE RELIEF, STRAIGHT THRU VALVE
- PRESSURE REDUCING VALVE (PRV)
- AUTOMATIC CONTROL VALVE, 2 WAY
- AUTOMATIC CONTROL VALVE, 3 WAY
- ELECTRICALLY OPERATED VALVE
- BLIND FLANGE
- LATERAL Y
- CAP
- ELBOW, 90°
- ELBOW, 90° TURNED UP
- ELBOW, 90° TURNED DOWN
- ELBOW, 45°
- TEE
- TEE, OUTLET TURNED UP
- TEE, OUTLET TURNED DOWN
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER (STRAIGHT INVERT)
- UNION
- FLEXIBLE PIPE CONNECTION
- * — PRESSURE GAGE
- T — TEMPERATURE GAGE
- THERMOMETER
- PT — PRESSURE/TEMPERATURE TEST PORT

* PROVIDE SHUT OFF COCK WITH SIPHON OR PULSATION DAMPENER.

- SANITARY DRAIN
- VENT
- D — DRAINLINE
- DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- FIRE DEPARTMENT CONNECTION
- WFD — WATERFLOW DETECTOR
- OS&Y VALVE
- PLUG
- FD — FLOOR DRAIN W/TRAP
- CO — CLEAN OUT
- WHA — WATER HAMMER ARRESTER
- HB — HOSE BIBB
- WH — WALL HYDRANT
- DOUBLE CHECK VALVE BACKFLOW PREVENTER
- REDUCED PRESSURE BACKFLOW PREVENTER
- Y–TYPE STRAINER
- Y–TYPE STRAINER WITH HOSE DRAIN VALVE
- UPRIGHT FIRE SPRINKLER HEAD
- PENDANT FIRE SPRINKLER HEAD
- SIDEWALL FIRE SPRINKLER HEAD
- V * — VACUUM GAGE

* PROVIDE SHUT OFF COCK WITH SIPHON OR PULSATION DAMPENER.

DOUBLE LINE DUCTWORK SYMBOLS

- 12x6 — RECTANGULAR DUCT (FIRST FIGURE IS FOR SIDE SHOWN, SECOND FIGURE IS FOR SIDE NOT SHOWN)
- 12"ø — ROUND DUCT
- 12x6 — FLAT OVAL DUCT (FIRST FIGURE IS FOR SIDE SHOWN, SECOND FIGURE IS FOR SIDE NOT SHOWN)
- FLEXIBLE ROUND DUCT
- FLEXIBLE DUCT CONNECTION
- VD — MANUAL OPPOSED BLADE VOLUME DAMPER
- M — MOTORIZED DAMPER
- BDD — BACK DRAFT DAMPER
- FD — FIRE DAMPER, 1 1/2 HOUR FIRE RATED
- 3FD — FIRE DAMPER, 3 HOUR FIRE RATED
- FSD — COMBINATION FIRE/SMOKE DAMPER
- SD — SMOKE DAMPER
- DUCT TRANSITION, ROUND OR FLAT OVAL TO RECTANGULAR
- DUCT TRANSITION, RECTANGULAR TO ROUND OR FLAT OVAL
- DUCT TRANSITION, RECTANGULAR, ROUND, OR FLAT OVAL
- R — INCLINED RISE W/RESPECT TO AIR FLOW, RECTANGULAR
- D — INCLINED DROP W/RESPECT TO AIR FLOW, RECTANGULAR
- R — INCLINED RISE W/RESPECT TO AIR FLOW, ROUND OR FLAT OVAL
- D — INCLINED DROP W/RESPECT TO AIR FLOW, ROUND OR FLAT OVAL
- 90° ELBOW, RECTANGULAR
- 45° ELBOW, RECTANGULAR
- 90° ELBOW, ROUND OR FLAT OVAL (SMOOTH OR 5 PIECE ELBOWS)
- MITERED 90° ELBOW, ROUND OR FLAT OVAL
- 45° ELBOW, ROUND OR FLAT OVAL (SMOOTH OR 3 PIECE ELBOWS)
- VD — DIVIDED FLOW FITTING
- VD — TAP–IN BRANCH, RECTANGULAR
- BRANCH DUCT, CONICAL LATERAL FITTING, ROUND OR FLAT OVAL
- BRANCH DUCT, CONICAL TEE FITTING, ROUND OR FLAT OVAL
- BRANCH DUCT, "Y" FITTING, ROUND OR FLAT OVAL
- SUPPLY DUCT SECTION, RECTANGULAR
- EXHAUST OR RETURN DUCT SECTION, RECTANGULAR
- 90° ELBOW TURNED UP, RECTANGULAR
- 90° ELBOW TURNED DOWN, RECTANGULAR
- 90° ELBOW TURNED UP, ROUND; FLAT OVAL SIMILAR
- 90° ELBOW TURNED DOWN, ROUND; FLAT OVAL SIMILAR
- CEILING DIFFUSER (ARROWS INDICATE THROW DIRECTIONS)
- CEILING DIFFUSER (ARROWS INDICATE THROW DIRECTIONS)
- CEILING REGISTER OR GRILLE (RETURN OR EXHAUST)
- CEILING REGISTER OR GRILLE (SUPPLY)
- REGISTER OR GRILLE
- CEILING DIFFUSER WITH FLEXIBLE DUCT CONNECTION (ARROWS INDICATE THROW DIRECTIONS)
- S–000 — LIGHT TROFFER WITH FLEXIBLE DUCT CONNECTION. "S" INDICATES SUPPLY, NUMBER INDICATES CFM
- CEILING LINEAR SLOT OR INTEGRATED CEILING DIFFUSER (CLSD) WITH FLEXIBLE DUCT CONNECTION (ARROWS INDICATE THROW DIRECTIONS)
- SPS — STATIC PRESSURE SENSOR
- H — HUMIDIFIER

SINGLE LINE DUCTWORK SYMBOLS

- 12x6 — RECTANGULAR DUCT (FIRST FIGURE IS FOR SIDE SHOWN, SECOND FIGURE IS FOR SIDE NOT SHOWN)
- 36"ø — ROUND DUCT
- 36x18 — FLAT OVAL DUCT (FIRST FIGURE IS FOR SIDE SHOWN, SECOND FIGURE IS FOR SIDE NOT SHOWN)
- FLEXIBLE ROUND DUCT
- FLEXIBLE DUCT CONNECTION
- VD — MANUAL OPPOSED BLADE VOLUME DAMPER
- M — MOTORIZED DAMPER
- BDD — BACK DRAFT DAMPER
- FD — FIRE DAMPER, 1 1/2 HOUR FIRE RATED
- 3FD — FIRE DAMPER, 3 HOUR FIRE RATED
- FSD — COMBINATION FIRE/SMOKE DAMPER
- SD — SMOKE DAMPER
- DUCT TRANSITION
- R — INCLINED RISE W/RESPECT TO AIR FLOW, RECTANGULAR
- D — INCLINED DROP W/RESPECT TO AIR FLOW, RECTANGULAR
- R — INCLINED RISE W/RESPECT TO AIR FLOW, ROUND OR FLAT OVAL
- D — INCLINED DROP W/RESPECT TO AIR FLOW, ROUND OR FLAT OVAL
- 90° ELBOW, RECTANGULAR
- 90° ELBOW, ROUND OR FLAT OVAL (SMOOTH OR 5–PIECE ELBOWS)
- 45° ELBOW, RECTANGULAR
- 45° ELBOW, ROUND OR FLAT OVAL (SMOOTH OR 3–PIECE ELBOWS)
- DF — DIVIDED FLOW FITTING, RECTANGULAR
- RECTANGULAR TAP–IN BRANCH OR ROUND OR FLAT OVAL CONICAL TEE
- INCLINED CONICAL TAKE–OFF, ROUND OR FLAT OVAL
- "Y" FITTING, ROUND OR FLAT OVAL
- 90° ELBOW TURNED UP, RECTANGULAR
- 90° ELBOW TURNED DOWN, RECTANGULAR
- 90° ELBOW TURNED UP, ROUND; FLAT OVAL SIMILAR
- 90° ELBOW TURNED DOWN, ROUND; FLAT OVAL SIMILAR
- CEILING DIFFUSER (ARROWS INDICATE THROW DIRECTIONS)
- CEILING REGISTER OR GRILLE, EXHAUST OR RETURN
- CEILING REGISTER OR GRILLE, SUPPLY
- SPS — STATIC PRESSURE SENSOR
- END OF DUCT RUN

MISC SYMBOLS

- 0000 — ROOM NUMBER
- ø — ROUND DUCT
- POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
- POINT BETWEEN EXISTING WORK TO REMAIN AND EXISTING WORK TO BE REMOVED
- EXISTING WORK TO BE REMOVED
- EXISTING WORK TO REMAIN
- WATER SENSOR (LOCATED BELOW ACCESS FLOOR)
- HD — HEAT DETECTOR
- SD — SMOKE DETECTOR
- INTERVAL TIMER
- H — HUMIDISTAT
- T — THERMOSTAT
- N — NIGHT THERMOSTAT
- S — WALL SWITCH

GENERAL NOTES

1. SEE SHG1 FOR ABBREVIATIONS. CHARACTER IDENTIFIERS IN LINES ON PIPING LEGEND ARE ALSO USED FOR ABBREVIATIONS.
2. MECHANICAL LAYOUTS ARE SCHEMATIC. PROVIDE ANY ADDITIONAL DROPS, RISES, OR OFFSETS REQUIRED FOR A COMPLETE INSTALLATION. COORDINATE EXACT ROUTING OF WORK WITH ALL OTHER TRADES AND OBSTRUCTIONS. COORDINATE EXACT LOCATIONS OF CEILING MOUNTED WORK WITH LIGHTS, CEILING GRID, AND OTHER OBSTRUCTIONS.
3. UNLESS OTHERWISE INDICATED, ROUTE ALL DUCTWORK AND PIPING ABOVE CEILINGS. ROUTE ALL DUCTWORK AND PIPING AS HIGH AS POSSIBLE IN AREAS WITHOUT CEILINGS.
4. DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE SHEETMETAL DIMENSIONS ON LINED DUCTWORK TO MAINTAIN THE INSIDE CLEAR DIMENSIONS INDICATED.
5. SIZE FLEXIBLE DUCT RUNOUTS TO TERMINAL AIR DEVICES AS FOLLOWS:

SIZE	CFM
5"ø	0–65
6"ø	70–110
7"ø	115–160
8"ø	165–240
9"ø	245–320
10"ø	325–420
12"ø	425–700

7. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF DIFFUSERS, LINEAR SLOT DIFFUSERS, REGISTERS, AND GRILLES.
8. ALL WORK INDICATED IS NEW UNLESS INDICATED AS EXISTING.
9. RELOCATE ALL EXISTING HANGERS, CONDUITS, WIRING, PIPING, AND DUCTWORK AS NECESSARY TO PROVIDE PIPING AND DUCTWORK AS INDICATED.
10. VERIFY EXACT SIZES AND LOCATIONS OF EXISTING WORK BEFORE PURCHASING OR FABRICATING NEW WORK FOR CONNECTION TO OR INSTALLATION IN EXISTING WORK.
11. SOME SYMBOLS INDICATED ON THIS LEGEND SHEET MAY NOT APPEAR ON THE DRAWINGS.
12. DO NOT LOCATE MECHANICAL WORK IN ELECTRICAL OR COMMUNICATION ROOMS, EXCEPT FOR RUNOUTS SPECIFICALLY SERVING THE RESPECTIVE ROOM.

SEALS

COMMONWEALTH OF VIRGINIA
THOMAS W. ORR
No. 0402 029517
PROFESSIONAL ENGINEER

CONSULTANT

FIRST FLOOR RENOVATIONS
COLLEGE HILL FILTRATION PLANT

CITY PROJECT NUMBER 05074–W

CITY OF LYNCHBURG, VIRGINIA

HSMM
ARCHITECTS ENGINEERS PLANNERS
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CHECKED BY: BAW
SUBMITTED BY: RFC

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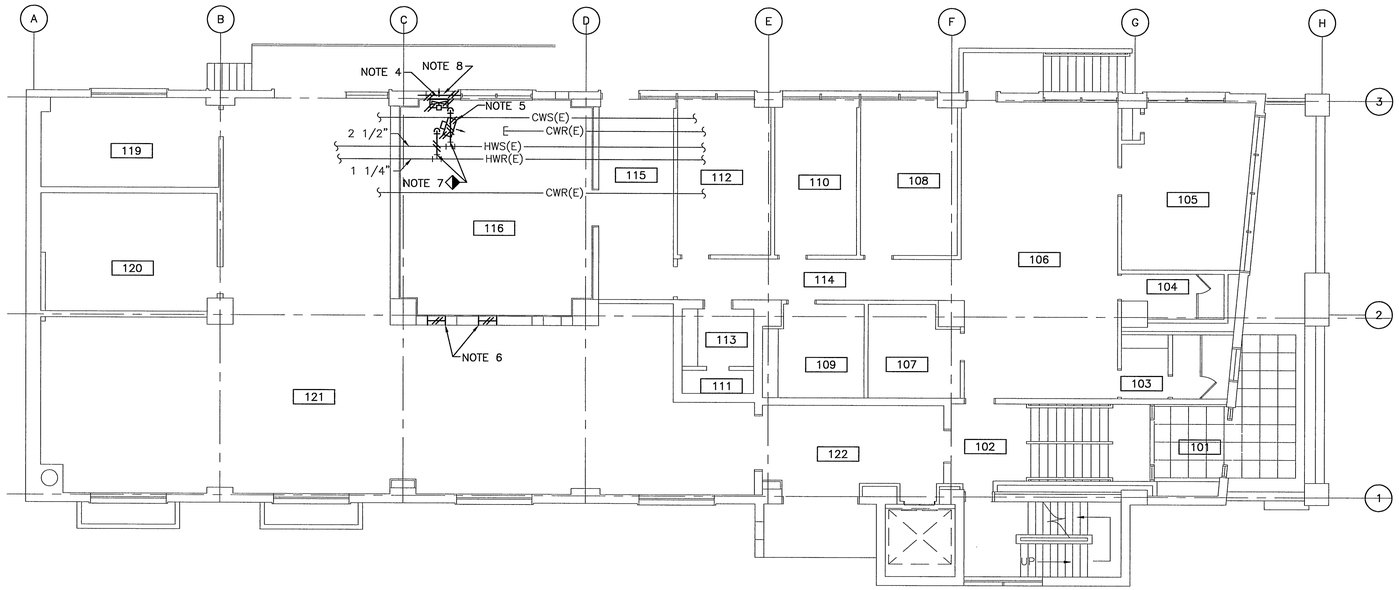
MECHANICAL

LEGENDS AND GENERAL NOTES

M1

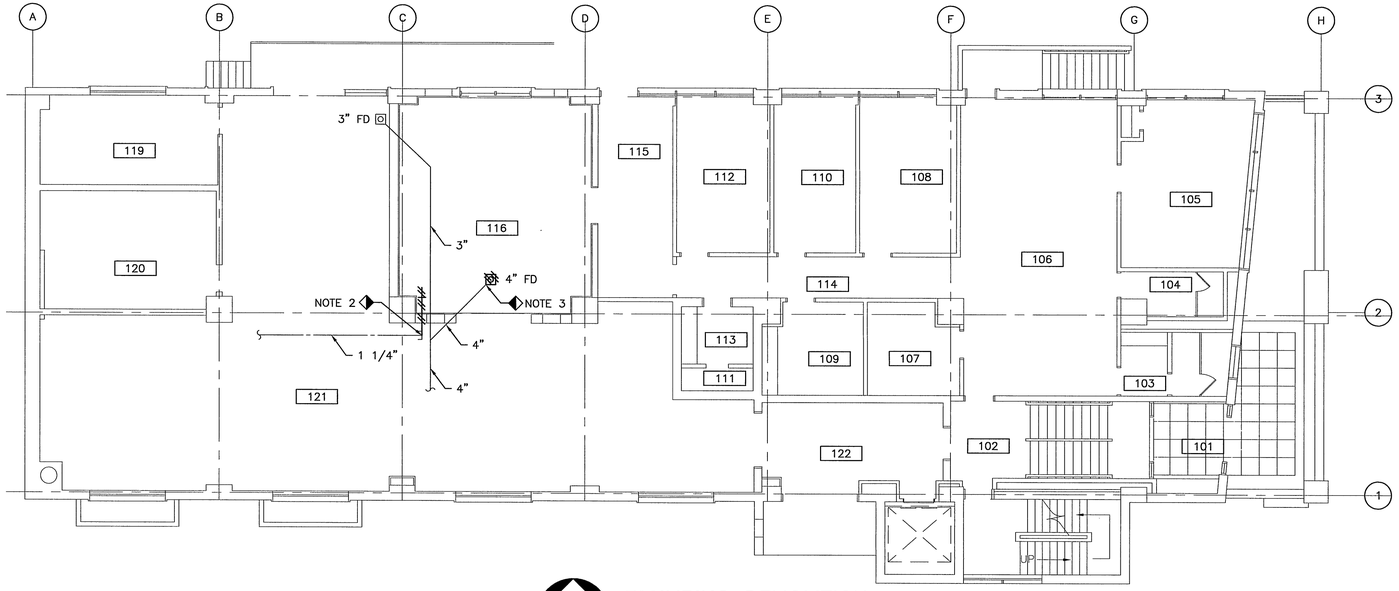


HVAC DEMOLITION FIRST FLOOR PLAN

SCALE: 1/8"=1'-0"

NOTES THIS SHEET:

1. SEE SH M1 FOR LEGEND AND GENERAL NOTES.
2. REMOVE HOSE BIBB AND CAP PIPE AT OUTSIDE WALL.
3. REMOVE FLOOR DRAIN AND REPLACE WITH FLOOR DRAIN.
4. DISCONNECT ANY CONTROL WIRING FROM FAN, AND REMOVE FAN. REPAIR WALL TO MATCH EXISTING CONSTRUCTION.
5. DISCONNECT ANY CONTROL WIRING FROM UNIT HEATER, AND REMOVE UNIT HEATER.
6. REMOVE DAMPERS FROM WALL. REPAIR WALL TO MATCH EXISTING CONSTRUCTION.
7. DISCONNECT HOT WATER SUPPLY AND RETURN, AND CAP AT MAIN.
8. REMOVE DAMPER FROM WALL. REPAIR WALL TO MATCH EXISTING CONSTRUCTION.



PLUMBING DEMOLITION FIRST FLOOR PLAN

SCALE: 1/8"=1'-0"

1/8"=1'-0" 8' 4' 0 8' 16'

GRAPHIC SCALES

SEALS

COMMONWEALTH OF VIRGINIA
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FIRST FLOOR RENOVATIONS COLLEGE HILL FILTRATION PLANT

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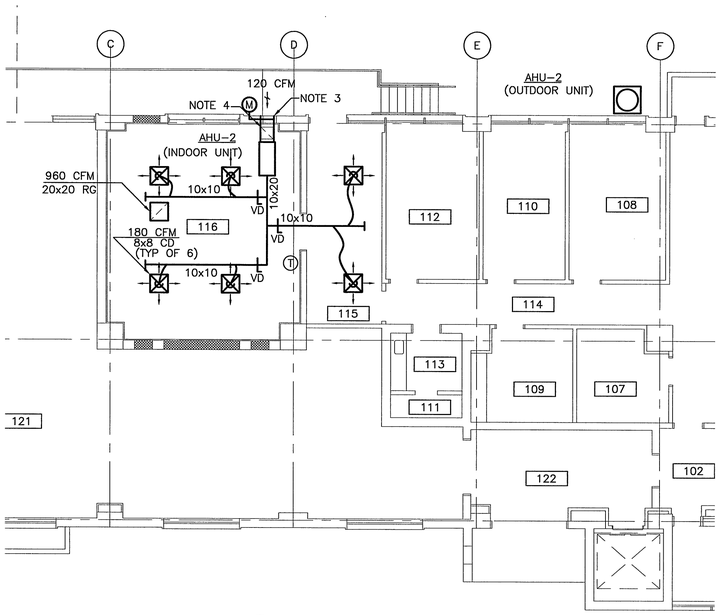
MECHANICAL

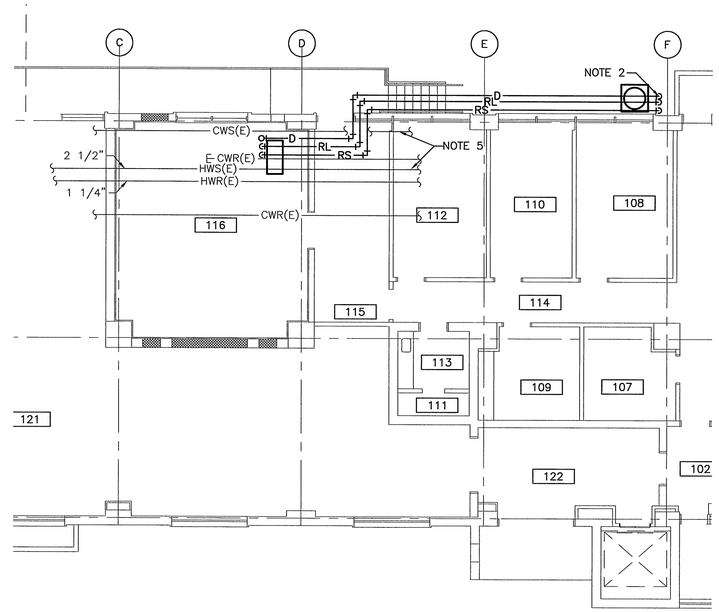
HVAC AND PLUMBING DEMOLITION FIRST FLOOR

M2



HVAC DUCTWORK FIRST FLOOR PLAN

SCALE: 1/8"=1'-0"



HVAC PIPING FIRST FLOOR PLAN

SCALE: 1/8"=1'-0"

NOTES THIS SHEET:

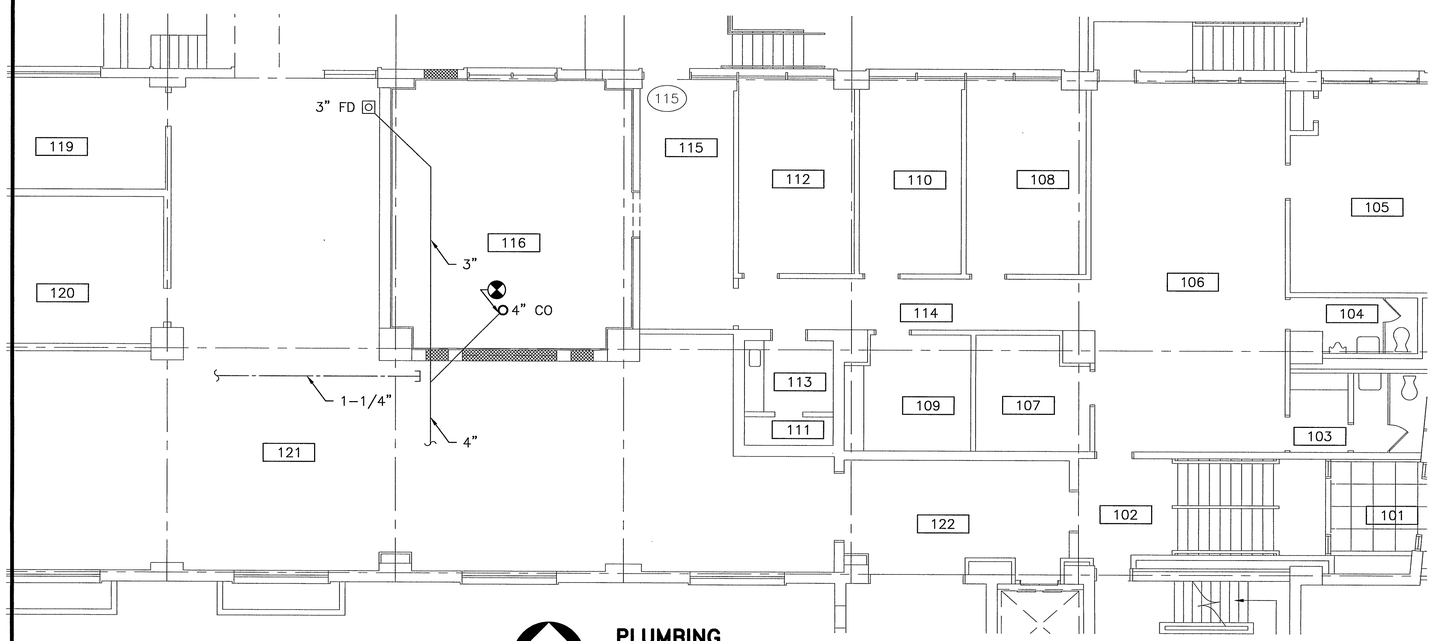
1. SEE SH M1 FOR LEGEND AND GENERAL NOTES.
2. TURN 1" PVC DRAIN LINE DOWN TO SPLASH BLOCK. SEE SPECIFICATIONS FOR SANITARY PVC DESCRIPTION.
3. LOUVER (18"x18") IN OUTSIDE WALL. SEE ARCHITECTURAL FOR SPECIFICATION. MOTORIZED DAMPER SHALL OPEN TO PRE-SET POSITION ON FAN ENERGIZATION, AND CLOSE ON DE-ENERGIZATION.
4. 18"x18" DUCT WITH 16"x16" RETURN REGISTER IN BOTTOM. SEAL DUCT AT WALL USING A PERIMETER FLANGE AROUND THE DUCT.
5. RELOCATE PIPES AS REQUIRED IN ORDER TO ACCOMMODATE NEW AHU-2.
6. ISOLATE EQUIPMENT PER ASHRAE HVAC APPLICATIONS HANDBOOK – "SELECTION GUIDE FOR VIBRATION ISOLATION," AND THE CONTRACT SPECIFICATIONS.

HEAT PUMP SCHEDULE

MARK	TYPE	FAN SECTION (INDOOR UNIT)			MINIMUM OUTSIDE AIR (CFM)	COOLING CAPACITY			AUXILIARY HEATING CAPACITY (KW)	OUTDOOR UNIT (VOLTS/PH/HZ)
		SUPPLY CFM	MIN MOTOR HP	EXTERNAL SP (IN. WG)		TOTAL (MBH)	SENSIBLE (MBH)	COMP (RL A.)		
AHU-2	--	1075	1/3	0.25	120	32.1	26.3	6.8	4.8	230/3/60

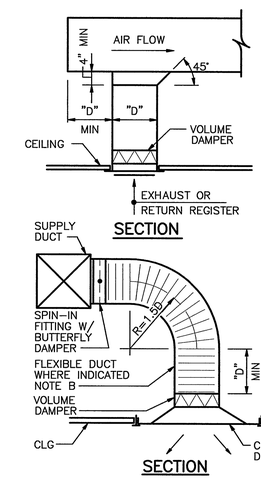
NOTES:

1. CAPACITY BASED ON INDOOR AND OUTDOOR UNITS OPERATING TOGETHER WITH AN OUTSIDE AMBIENT AIR TEMPERATURE OF 90°F. FURNISH STANDARD SIZE UNIT WITH CAPACITY CLOSEST TO, BUT NOT EXCEEDING, INDICATED CAPACITY. HEAT PUMP SHALL HAVE SEER RATING OF 13 OR GREATER.
2. REFRIGERANT PIPING BETWEEN THE INDOOR AND OUTDOOR UNIT SHALL BE SIZED BY AC-UNIT MANUFACTURER. ALL VALVES AND FITTINGS REQUIRED TO COMPLY WITH AC-UNIT MANUFACTURERS INSTALLATION INSTRUCTIONS SHALL BE PROVIDED.
3. EXTERNAL STATIC PRESSURE DOES NOT INCLUDE COILS, FILTERS, OR CASING LOSSES.
4. UNIT SHALL BE HORIZONTAL DISCHARGE TYPE.



PLUMBING FIRST FLOOR PLAN

SCALE: 1/8"=1'-0"

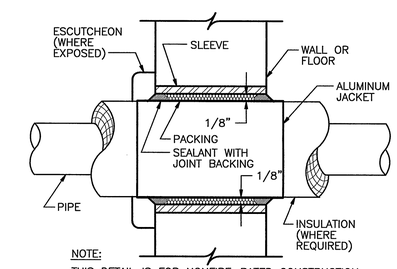


NOTES:

A. "D" IS THROAT DIA OR SIDE DIM. OF SQUARE CONN.
B. MIN LENGTH OF STRAIGHT DUCT ABOVE CD IS "D".
C. ABOVE DETAILS ARE REPRESENTATIVE OF STANDARD DUCT CONNECTIONS, ONLY. THESE DETAILS ARE NOT INTENDED TO SHOW ALL POSSIBLE DUCT CONNECTIONS.

TYPICAL DUCT CONNECTION DETAILS

NO SCALE



NOTE:

THIS DETAIL IS FOR NONFIRE-RATED CONSTRUCTION. PIPE PENETRATIONS IN FIRE-RATED CONSTRUCTION SHALL BE FIRESTOPPED WITH A UL-CLASSIFIED SYSTEM.

TYPICAL PIPE PENETRATION THRU WALLS AND FLOORS

NO SCALE

1/8"=1'-0" 8' 4' 0 8' 16'

GRAPHIC SCALES

SEALS

COMMONWEALTH OF VIRGINIA
THOMAS W. ORR
No. 0402 029517
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MECHANICAL

HVAC AND PLUMBING FIRST FLOOR

M3

M:\60000SERIES\60699B\CADD\DWG\1ST_FLR_REMODEL_PKG\FV9M_N_0101.DWG 60699B 09/13/2006 14:20:59 TOM ORR
RF: fv9a_nxfp01,fv9a_nxfp01,!!fv9xbdr!! IMG: NONE

ELECTRICAL LEGEND

- CONDUIT RUN CONCEALED IN CEILING OR WALL. HATCHED LINES INDICATE NUMBER OF CURRENT–CARRYING CONDUCTORS WHEN OTHER THAN TWO.
- HA–1,3 — HOME RUN, NUMBER OF ARROWS INDICATE NUMBER OF CIRCUITS. LETTERS AND NUMBERS DESIGNATE PANEL AND CIRCUITS.
- FLUORESCENT LIGHTING FIXTURE
- EXIT LIGHT, CEILING MOUNTED, SHADING INDICATES FACES, DIRECTIONAL ARROWS WHERE INDICATED
- EXIT LIGHT, WALL MOUNTED, SHADING INDICATES FACES, DIRECTIONAL ARROWS WHERE INDICATED. MOUNT BOTTOM OF FIXTURE 6" ABOVE TOP OF DOOR UNLESS OTHERWISE NOTED.
- S_3 — THREE–WAY SWITCH, MH 3'–10" EXCEPT AS NOTED
- S_xS_y — TWO SWITCHES FOR CONTROL OF 3 OR 4 LAMP FIXTURES AS INDICATED ON PLANS. Sx SHALL CONTROL THE CENTER LAMP(S) AND Sy SHALL CONTROL THE OUTER LAMPS.
- A — FIXTURE DESIGNATION
- J — JUNCTION BOX
- 150 — TYPICAL ROOM NUMBER
- 60/40 — THREE POLE DISCONNECT SWITCH, MH 6'–0" TO TOP, 60=SWITCH RATING, 40=FUSE RATING (NF=NON–FUSIBLE)
- COMBINATION STARTER OR CONTROLLER AND DISCONNECT SWITCH. MH 6'–0" TO TOP.
- PANELBOARD – 208Y/120 VOLT, MH 6'–0" TO TOP
- 1 — KEY NOTE

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	VOLTAGE	LAMPS TYPE	LAMPS NUMBER	LAMPS WATTS	MOUNTING	MANU.	MODEL #
A	2X4 GENERAL TROFFER	120/277	T8	3	32	RECESSED	LITHONIA *	GT8
B	2X4 PARABOLIC TROFFER	120/277	T8	3	32	RECESSED	LITHONIA *	PM4
X	EXIT SIGN WITH EMERGENCY BATTERY	120/277	LED	–	5	SURFACE	LITHONIA *	SIGNATURE

* MANUFACTURE AND MODEL # ARE LISTED FOR PERFORMANCE ONLY, PROVIDE LISTED MANUFACTURE OR EQUAL.

GENERAL DEMOLITION NOTES

1. REMOVE EACH ITEM OF EQUIPMENT, DEVICE, AND FIXTURE INDICATED ON DEMOLITION PLANS AND ASSOCIATED CIRCUITRY BACK TO THE PROTECTIVE DEVICE IN THE PANEL, SWITCHBOARD, OR CONTROLLER, EXCEPT AS OTHERWISE INDICATED.
   a. ASSOCIATED CIRCUITRY SHALL BE DEFINED TO INCLUDE ALL RACEWAYS, CONDUCTORS, BOXES, WIRING DEVICES, COVERPLATES, LAMPS, FIXTURES, SWITCHES, STARTERS, ETC. WHICH ARE ASSOCIATED WITH THE ITEM TO BE REMOVED.
   b. THE PROTECTIVE DEVICE SHALL REMAIN AS AN INTEGRAL PART OF THE EXISTING PANEL OR SWITCHBOARD. LABEL AS SPARE OR USE FOR NEW CIRCUITS AS INDICATED.
   c. CONTROLLERS IN EXISTING MOTOR CONTROL CENTERS SHALL REMAIN. LABEL AS SPARE OR USE FOR NEW CIRCUITS AS INDICATED.
   d. WHERE CONDUIT ASSOCIATED WITH AN ITEM TO BE REMOVED IS IN AN INACCESSIBLE AREA, SUCH AS ENCASED IN CONCRETE, THE INACCESSIBLE CONDUIT ONLY SHALL BE ABANDONED IN PLACE, UNLESS INDICATED TO BE REUSED. ALL CONDUCTORS SHALL BE REMOVED AND CONDUIT SHALL BE CUT OFF FLUSH AND SEALED OR CAPPED.
   e. WHERE SUCH INACCESSIBLE CONDUIT ENDS OR MUST BE TERMINATED IN FINISHED SPACE, REMOVE THE CONDUIT OR BOX TO BELOW THE FINISHED SURFACE OF WALL, CEILING OR FLOOR, FILL VOID WITH NON–SHRINKING GROUT AND FINISH TO MATCH SURROUNDING SURFACES.
2. WHERE A PORTION OF A CIRCUIT'S LOAD IS SCHEDULED TO BE REMOVED, REMOVE ONLY THAT PORTION ASSOCIATED WITH THE DEMOLISHED DEVICE TO A POINT WHERE THE REMAINING LOAD IS ACTIVE; MAINTAIN IN A GOOD OPERATING CONDITION.
3. WHERE EXTENSION OF AN EXISTING CIRCUIT IS REQUIRED, RUN CONDUIT AND WIRE (CONCEALED WHERE INDICATED) FROM THE CIRCUIT'S EXISTING LOCATION TO ITS NEW LOCATION.
4. WHERE AN ITEM OF EQUIPMENT IS INDICATED TO BE REMOVED AND RELOCATED, ANY ASSOCIATED CIRCUITRY, SWITCHES, DEVICES, ETC. SHALL ALSO BE REMOVED WITH THE EQUIPMENT. RELOCATE THE EQUIPMENT TO THE NEW LOCATION AND PROVIDE CONNECTION OF ALL ASSOCIATED ITEMS TO NEW OR EXTENDED CIRCUITRY AS INDICATED.

GENERAL NOTES

1. SEE SHEET G2 FOR ABBREVIATIONS AND GENERAL LEGEND.
2. MOUNTING HEIGHT, UNLESS OTHERWISE NOTED, IS TO CENTER LINE OF EQUIPMENT, EXCEPT MOUNTING HEIGHT OF LIGHTING FIXTURES WHICH IS TO BOTTOM OF FIXTURE.
3. MOUNT OUTLET BOXES SO THAT NONE OCCUR BACK TO BACK IN WALLS.
4. MECHANICAL EQUIPMENT IS SHOWN IN APPROXIMATE LOCATIONS. FOR EXACT LOCATIONS OF MECHANICAL EQUIPMENT AND PIPING, SEE MECHANICAL DRAWINGS.
5. COORDINATE THE LOCATIONS AND MOUNTING HEIGHTS OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL, AND ELEVATOR ROOMS WITH THE FINAL LOCATIONS OF PIPES, DUCTS AND OTHER EQUIPMENT FOR BEST ARRANGEMENT. FIXTURES SHALL BE EASILY ACCESSIBLE FOR RELAMPING.
6. WHERE LIGHT SWITCHES ARE INDICATED TO BE MOUNTED BEHIND DOOR, MOUNT SUCH SWITCHES A MINIMUM OF 3'–9" FROM HINGED SIDE.
7. WHERE MORE THAN ONE SWITCH OCCURS IN HOLLOW METAL FRAMES, MOUNT ONE ABOVE THE OTHER WITH TOP SWITCH MOUNTED AT 4'–0".
8. CONNECT EMERGENCY FLUORESCENT BATTERY UNITS AHEAD OF LOCAL SWITCHING. THE LAMPS SHALL BE CONTROLLED BY LOCAL SWITCH AND THE BATTERY UNIT SHALL BE POWERED AT ALL TIMES.
9. PROVIDE DISCONNECT SWITCHES WHERE NOT INDICATED ON EQUIPMENT PER NEC.
10. GROUNDING CONDUCTORS ARE NOT INDICATED IN BRANCH CIRCUIT RACEWAYS. PROVIDE GROUND CONDUCTORS AS SPECIFIED.
11. IN THE PANELBOARD SCHEDULES, THE ROOM NUMBER INDICATES THE LOCATION ON THE DRAWING OF THE FIRST ITEM TO BE ENERGIZED BY THE CIRCUIT.
12. EXTEND 2–1" EMPTY CONDUITS FROM RECESSED PANELBOARDS TO ABOVE CEILING AND CAP IN AN ACCESSIBLE LOCATION FOR FUTURE USE.
13. REVISE PANELBOARD SCHEDULES ON AS–BUILT–DRAWING AND PANEL DIRECTORIES TO REFLECT FINAL INSTALLATION CONDITIONS.
14. SEAL PENETRATIONS THROUGH FLOORS OR FIRE WALLS TO MAINTAIN THE INTEGRITY OF THE FIRE AND ACOUSTIC RATINGS OF THE WALLS AND FLOORS.
15. LOCATE ALL RACEWAYS TO AVOID INTERFERENCE WITH DUCTS, PIPES, MECHANICAL EQUIPMENT, WITH REMOVAL OF CEILING TILES, OR WITH ACCESS TO EQUIPMENT WHICH REQUIRES PERIODIC ADJUSTMENT OR MAINTENANCE.
16. PROVIDE NAMEPLATES ON THE EXTERIOR OF ALL ELECTRICAL PANELS AND ENCLOSURES AS FOLLOWS:

    LINE 1: DEVICE ID
    LINE 2: DEVICE RATING
    LINE 3: POWER SOURCE
    LINE 4: INSTALLATION DATE

    PANEL LP1
    100A, 120/208V–3ø, 4W
    FEEDS FROM PANEL MDP
    INSTALLED: 1997

    FOR DISCONNECT SWITCHES AND MOTOR STARTERS THE TOP LINE SHALL BE THE NAME/DESIGNATION OF THE EQUIPMENT BEING FED BY THE SWITCH/STARTER.
17. CONDUCTOR QUANTITIES (HASH MARKS) NOT INDICATED ON LIGHTING CIRCUITS. PROVIDE CONDUCTORS AS REQUIRED TO IMPLEMENT SWITCHING CONFIGURATIONS INDICATED.
18. PULL NEW WIRE AND CONDUIT TO EXISTING MOTORS, RECONFIGURE MOTOR TO 480 VOLT, AS INDICATED, CONFIGURATION. COORDINATE CONNECTION TO MOTOR WITH OWNER TO MINIMIZE DOWNTIME. TYPICAL, ALL MOTORS IN BUILDING.

SEALS

COMMONWEALTH OF VIRGINIA
MILTON H. COBBS
No. 27915
PROFESSIONAL ENGINEER

CONSULTANT

FIRST FLOOR RENOVATIONS
COLLEGE HILL FILTRATION PLANT

CITY PROJECT NUMBER 05074–W

CITY OF LYNCHBURG, VIRGINIA

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REV	DATE	DESCRIPTION	APP

COMM NO: 60699B
ISSUE DATE: SEPTEMBER 15, 2006
DESIGNED BY: DWG
DRAWN BY: DWG
CHECKED BY: LSM
SUBMITTED BY: RFC

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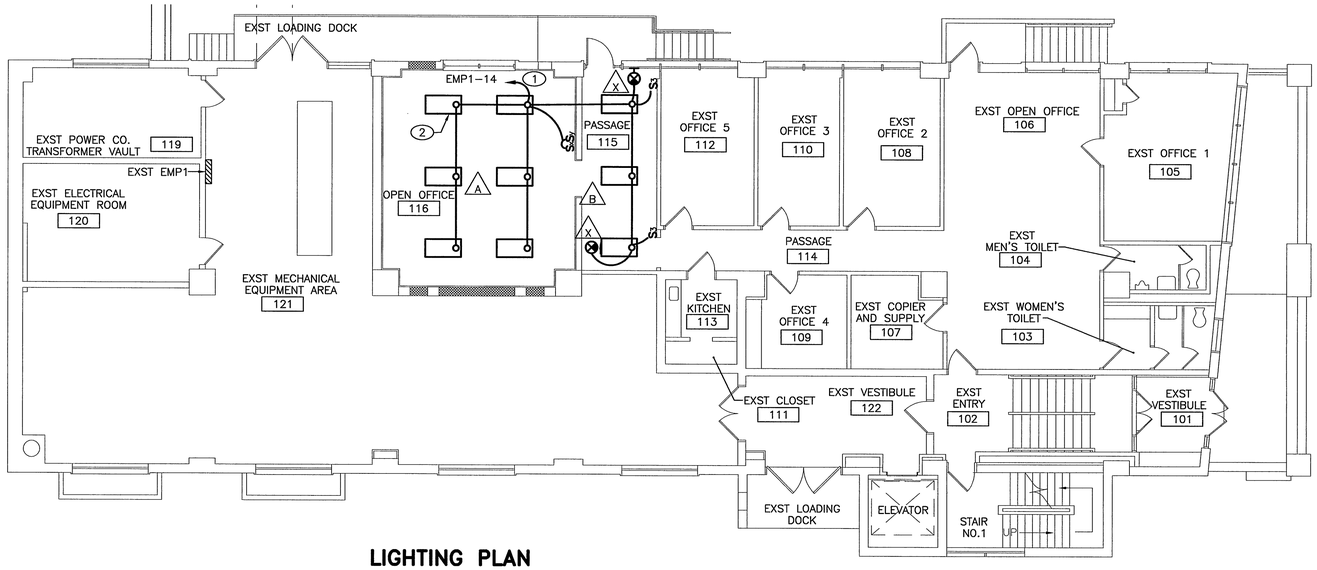
ELECTRICAL

LEGEND, GENERAL NOTES, AND LIGHTING FIXTURE SCHEDULE

E1

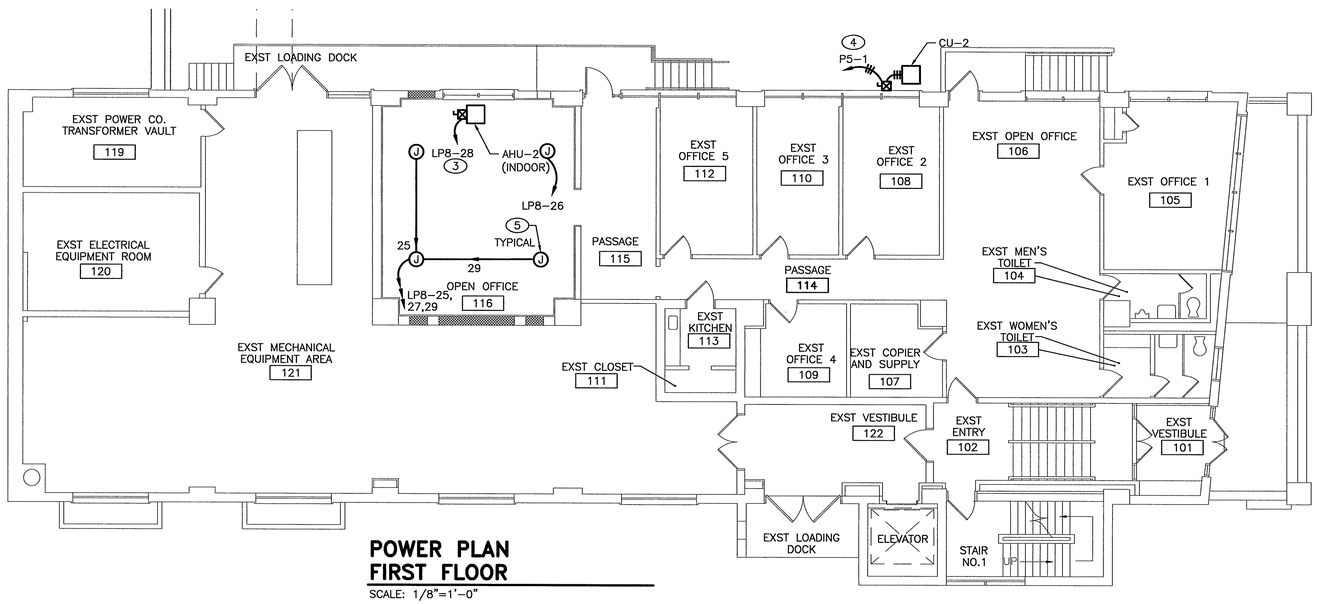


LIGHTING PLAN
FIRST FLOOR

SCALE: 1/8"=1'-0"

SHEET KEYNOTES:

1. PROVIDE SINGLE PHASE 20A BREAKER IN EXISTING SPACE IN PANEL EMP1, LOCATED IN ROOM 121. CONNECT CIRCUIT USING 2#10, 1#10G IN 3/4" CONDUIT.
2. PROVIDE DUAL VOLTAGE (120/277) LIGHTING BALLAST WITH FIXTURE IN ROOMS 115 AND 116.
3. PROVED A 2 PHASE, 30 AMP BREAKER IN EXISTING SPACE IN PANEL LP8 LOCATED IN ROOM 212. CONNECT CIRCUIT USING 2#10, 1-#10G IN 3/4" CONDUIT.
4. PROVIDE A 3 PHASE, 15 AMP BREAKER IN EXISTING SPACE IN PANEL P5 LOCATED IN ROOM 212. CONNECT CIRCUIT USING 3#12, 1-#12G IN 3/4" CONDUIT.
5. PROVIDE JUNCTION BOXES ABOVE CEILING FOR CONNECTION OF OFFICE FURNITURE. PROVIDE 20A BREAKERS IN EXISTING SPACES IN PANEL LP8 AS INDICATED AND CONNECT CIRCUITS. PANELBOARD LOCATED IN ROOM 212. USE #12 WIRE AND 3/4" CONDUIT. TYPICAL.



POWER PLAN
FIRST FLOOR

SCALE: 1/8"=1'-0"

PLAN NORTH

1/8"=1'-0" 8' 4' 0 8' 16'

GRAPHIC SCALES

SEALS

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MILTON H. COBBS
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ELECTRICAL

FIRST FLOOR
LIGHTING AND POWER
PLAN

E2