# NEW CONSTRUCTION HIGH SCHOOL CENTER II

## VOLUME 2

IFB NO. 2025-IFB-1007262
Albemarle County Public Schools
2775 Hydraulic Rd, Charlottesville, VA 22901
STATE PROJECT NO. 002-88-01-100

## PROJECT TEAM

**QUINN EVANS**
Architect & Landscape Architect

1840 West Broad Street
Suite 400
Richmond, Virginia 23220
v 804.788.4774

**TIMMONS GROUP**
Civil Engineer

608 Preston Ave STE 200
Charlottesville, VA 22903
v 434.295.5624

**2RW**
Mechanical, Electrical, Plumbing Engineer

100 10th St NE
Charlottesville, VA 22902
v. 434.296.2116

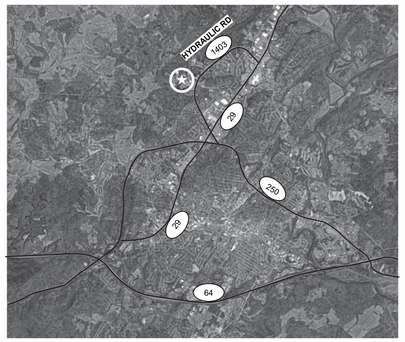
**DUNBAR PLLC**
Structural Engineer

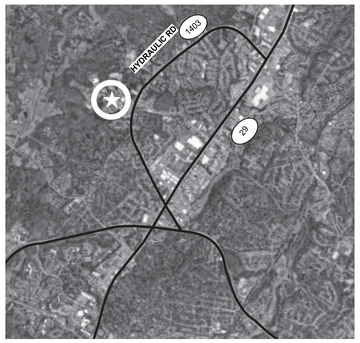
1025 Boulders Parkway
Suite 310
Richmond, Virginia 23225
v. 804.272.3916

**FOODSERVICE CONSULTANTS STUDIO**
Foodservice Consultant

3420 Pump Road #158
Henrico, Virginia 23233
v. 804.550.2090

## VICINITY MAPS




## PROJECT DATA

THIS BUILDING IS DESIGNED TO BE COMPLIANT WITH THE 2018 EDITION OF THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE, THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN.

| | |
|---|---|
| BUILDING USE GROUP: | E |
| CONSTRUCTION TYPE: | IIB |
| SEISMIC DESIGN CATEGORY | B |
| AUTOMATIC FIRE SUPPRESSION | FULLY SPRINKLERED PER NFPA-13 |

FIRE RESISTANCE RATING

| | |
|---|---|
| PRIMARY STRUCTURAL FRAME | 0 HOURS |
| BEARING WALLS (INTERIOR) | 0 HOURS |
| BEARING WALLS (EXTERIOR) | 0 HOURS |
| NON-BEARING WALLS (INTERIOR) | 0 HOURS |
| NON-BEARING WALLS (EXTERIOR) | 0 HOURS |
| FLOOR CONSTRUCTION | 0 HOURS |
| ROOF CONSTRUCTION | 0 HOURS |
| SHAFT ENCLOSURES | 1 HOUR AT ELEVATOR AND EGRESS STAIRS |

BUILDING SQUARE FOOTAGE
TWO STORIES

| | |
|---|---|
| LEVEL 1: | 36,000 GSF |
| LEVEL 2: | 23,000 GSF |
| BASEMENT: | 4,000 GSF |
| TOTAL GSF: | 62,000 GSF |

BUILDING HEIGHT

MAXIMUM CODE ALLOWED: 75'
ACTUAL BUILDING HEIGHT: 47' 10 1/2" (AT LIMITED 3-STORY AREA)

MAXIMUM OCCUPANCY PER LEVEL:

| | |
|---|---|
| LEVEL 1: | 775 |
| LEVEL 2: | 547 |
| BASEMENT: | 12 |
| TOTAL CODE OCCUPANCY: | 1,334 |

PROGRAM OCCUPANCY:

| | |
|---|---|
| STUDENTS: | 500 |
| STAFF: | 34 |
| TOTAL PROGRAM OCCUPANCY: | 534 |

NOTE:
1. EXIT ACCESS STAIRWAYS THAT SERVE ONLY TWO ADJACENT STORIES ARE NOT REQUIRED TO BE ENCLOSED WITH A SHAFT ENCLOSURE PER VCC 1019.3. EXIT ACCESS STAIRWAYS MAY SERVE AS AN EXIT ACCESS COMPONENT IN A MEANS OF EGRESS SYSTEM PER VCC 1019.1.
2. PER VCC 1010.2, GATES SERVING AS A MEANS OF EGRESS SYSTEM SHALL COMPLY WITH THE REQUIREMENTS FOR DOORS. THE GATE AT THE EXTERIOR COURTYARD SHALL INCLUDE ONE LEAF THAT IS A MAX OF 4' WIDE AND WILL BE EQUIPPED WITH A PANIC DEVICE.

QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

COMMONWEALTH OF VIRGINIA
CHARLES W. TILLEY
LIC. No. 010767
10/08/2024
ARCHITECT

Albemarle County Public Schools

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Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS
DRAWN BY: BG, EW, AJ, EC

QEA No.41911390

BID DOCUMENTS
10/8/2024

COVER SHEET - VOLUME 2

**G001B**

## ABBREVIATIONS

**A/C** AIR CONDITIONING
**A/E** ARCHITECT / ENGINEER
**ABV** ABOVE
**ACCESS** ACCESSIBLE
**ACP** ACOUSTICAL CEILING PANEL
**ACST** ACOUSTIC
**AD** AREA DRAIN
**ADA** AMERICANS WITH DISABILITIES ACT
**ADD'L** ADDITIONAL
**ADJ** ADJACENT/ADJUST
**AFF** ABOVE FINISHED FLOOR
**AFG** ABOVE FINISHED GRADE
**AGG** AGGREGATE
**ALT** ALTERNATE
**ALUM** ALUMINIUM
**APPROX** APPROXIMATE(LY)
**ARCH** ARCHITECT(URAL, URE)
**ASPH** ASPHALT(IC)
**ASSOC** ASSOCIATED
**AUTO** AUTOMATIC
**AVG** AVERAGE
**AWP** ACOUSTICAL WALL PANEL

**BBT** BIO-BASED TILE
**BC** BRICK COURSE
**BD** BOARD
**BIT** BITUMINOUS, BITUMEN
**BLDG** BUILDING
**BLKG** BLOCKING
**BLKHD** BULKHEAD
**BLW** BELOW
**BM** BEAM
**BOS** BOTTOM OF STEEL
**BOT** BOTTOM
**BR** BRASS OR BRONZE
**BRG** BEARING
**BTWN** BETWEEN
**BUR** BUILT-UP ROOF

**C-C** CENTER TO CENTER
**CAB** CABINET
**CEM** CEMENT
**CFS** COLD FORMED STEEL
**CFT** CERAMIC FLOOR TILE
**CIP** CAST-IN-PLACE
**CJ** CONTROL JOINT
**CL** CENTER LINE
**CLG** CEILING
**CLO** CLOSET
**CLR** CLEAR(ANCE)
**CMU** CONCRETE MASONRY UNIT
**COL** COLUMN
**COM** COMMUNICATIONS
**CONC** CONCRETE
**COND** CONDITION
**CONFIG(S)** CONFIGURATION(S)
**CONST** CONSTRUCTION
**CONT** CONTINUOUS
**COORD** COORDINATE
**CORR** CORRIDOR
**CPT** CARPET(ED)
**CSWK** CASEWORK
**CT** CERAMIC TILE
**CTR** CENTER
**CWT** CERAMIC WALL TILE

**D** DEEP/DEPTH
**DBL** DOUBLE
**DEG** DEGREE
**DEMO** DEMOLISH, DEMOLITION
**DETER** DETERIORATING, DETERIORATED
**DF** DRINKING FOUNTAIN
**DIA** DIAMETER
**DIAG** DIAGONAL
**DIM(S)** DIMENSION(S)
**DIV** DIVIDE
**DN** DOWN
**DR** DOOR, DRAIN
**DS** DOWNSPOUT
**DTL** DETAIL
**DWG(S)** DRAWING(S)
**DWR** DRAWER

**E** EAST
**E-P** EPOXY PAINT
**EA** EACH
**EG** ENTRANCE GRILLE
**EJ** EXPANSION JOINT
**EL** ELEVATION (TOPO)
**ELEC** ELECTRICAL
**ELEV** ELEVATION (ARCH), ELEVATOR
**EMER** EMERGENCY
**ENCL** ENCLOS(E,URE)
**ENGR** ENGINEER
**ENTR** ENTRANCE
**EOS** EDGE OF SLAB
**EPDM** ETHYLENE PROPYLENE DIENE MONOMER
**EPNT** EPOXY PAINT
**EPS** EXPANDED POLYSTYRENE BOARD
**EPX** EPOXY
**EQ** EQUAL
**EQUIP** EQUIPMENT
**EST** ESTIMATE(D)
**EW** EACH WAY
**EWC** ELECTRIC WATER COOLER
**EXH** EXHAUST
**EXHB** EXHIBIT
**EXIST** EXISTING
**EXP** EXPOSED, EXPANSION
**EXT** EXTERIOR

**F** FABRIC WRAPPED PANEL
**FA** FIRE ALARM
**FAS** FASTEN(ER)
**FD** FLOOR DRAIN
**FDC** FIRE DEPARTMENT CONNECTION
**FDTN** FOUNDATION
**FE** FIRE EXTINGUISHER
**FEC** FIRE EXTINGUISHER CABINET
**FF** FINISH(ED) FACE
**FF&E** FURNITURE, FIXTURES & EQUIPMENT
**FH** FIRE HOSE, FIRE HYDRANT
**FHC** FIRE HOSE CABINET
**FIN(S)** FINISH(ES)
**FIXT** FIXTURE
**FL** FLOOR(ING)
**FLAM** FLAMMABLE
**FLUOR** FLUORESCENT
**FO** FINISHED OPENING
**FOS** FACE OF STUDS
**FP** FIRE PROTECTION
**FR** FRAME(D,ING), FIRE RATING, FIRE RESISTANT
**FT** FEET
**FTG** FOOTING
**FUR** FURR(ED,ING)
**FWC** FABRIC WALL COVERING

**G** NATURAL GAS
**GA** GAUGE
**GALV** GALVANIZED
**GB** GRAB BAR
**GC** GENERAL CONTRACT(OR)
**GEN** GENERATOR
**GF** GLASS FILM
**GFRC** GLASS-FIBER-REINFORCED CONCRETE
**GFRG** GLASS-FIBER-REINFORCED GYPSUM
**GFRP** GLASS-FIBER-REINFORCED POLYESTER, GLASS-FIBER-REINFORCED PLASTIC
**GL** GLASS, GLAZING
**GLU LAM** GLUE LAMINATED WOOD
**GOVT** GOVERNMENT
**GT** GROUT
**GWB** GYPSUM WALLBOARD

**H** HIGH
**HAZ MAT** HAZARDOUS MATERIAL
**HB** HOSE BIBB
**HC** HOLLOW CORE, HOSE CABINET
**HCWD** HOLLOW CORE WOOD DOOR
**HD** HEAVY DUTY
**HDR** HEADER
**HDWD** HARDWOOD
**HDWR** HARDWARE
**HID** HIGH INTENSITY DISCHARGE
**HM** HOLLOW METAL
**HORIZ** HORIZONTAL(LY)
**HP** HIGH POINT
**HSS** HOLLOW STRUCTURAL SECTION
**HT** HEIGHT(S)
**HT** HEIGHT
**HVAC** HEATING, VENTILATION & AIR CONDITIONING
**HW** HOT WATER

**ID** INSIDE DIAMETER
**ILO** IN LIEU OF
**IN** INCH(ES)
**INCAN** INCANDESCENT
**INCL** INCLUDE(S,D,ING)
**INFO** INFORMATION
**INSUL** INSULATION, INSULATED
**INT** INTERIOR
**INV** INVERT
**IRMA** INVERTED ROOF MEMBRANE ASSEMBLY

**J-BOX** JUNCTION BOX
**JAN** JANITOR
**JT(S)** JOINT(S)

**KIT** KITCHEN
**KO** KNOCK OUT

**L** ANGLE
**LAM** LAMINATE(D)
**LAV** LAVATORY
**LBL** LABEL
**LH** LEFT HAND
**LHR** LEFTHAND REVERSE
**LIN** LINOLEUM
**LL** LIVE LOAD
**LLH** LONG LEG HORIZONTAL
**LLV** LONG LEG VERTICAL
**LP** LOW POINT
**LT GA** LIGHT GAUGE
**LTG** LIGHTING
**LV** LOW VOLTAGE
**LVT** LUXURY VINYL TILE
**LW** LIGHT WEIGHT
**LWC** LINEAR WOOD CEILING

**MAS** MASONRY
**MATL** MATERIAL(S)
**MAX** MAXIMUM
**MDO** MEDIUM DENSITY OVERLAY
**MECH** MECHANICAL
**MED** MEDIUM
**MEJ** MASONRY EXPANSION JOINT
**MEMB** MEMBRANE
**MFR** MANUFACTURE(R)
**MIN** MINIMUM
**MISC** MISCELLANEOUS
**MO** MASONRY OPENING
**MOD BIT** MODIFIED BITUMEN
**MR** MLISTURE RESISTANT
**MTD** MOUNTED
**MTG** MOUNTING
**MTL** METAL

**N** NORTH
**NA** NOT APPLICABLE
**NAT** NATURAL
**NC** NOISE CRITERIA, NORMALLY CLOSED
**NIC** NOT IN CONTRACT, NOISE ISOLATION CLASS
**NO('S)** NUMBER(S), NORMALLY OPEN
**NOM** NOMINAL
**NRC** NOISE REDUCTION COEFFICIENT
**NTS** NOT TO SCALE

**O-O** OUT TO OUT
**OC** ON CENTER
**OD** OUTSIDE DIAMETER
**OF/CI** OWNER FURNISHED / CONTRACTOR INSTALLED
**OFC** OFFICE
**OH** OPPOSITE HAND, OVERHEAD
**OPNG** OPENING(S)
**ORIG** ORIGINAL

**PA** PUBLIC ADDRESS
**PAR** PARALLEL
**PART** PARTITION(S), PARTIAL
**PC** PRECAST
**PCNC** POLISHED CONCRETE
**PERF** PERFORATE(D)
**PL** PLATE, PROPERTY LINE
**PLAM** PLASTIC LAMINATE
**PLAS** PLASTER
**PLWD** PLYWOOD
**PNL** PANEL(ED)
**PNT** PAINT
**POL** POLISHED
**POLY** POLYETHYLENE
**PR** PAIR
**PREP** PREPARE (SURFACE)
**PROV** PROVIDE(D)
**PRP** PAPER RESIN PANEL
**PSF** POUNDS PER SQUARE FOOT
**PSI** POUNDS PER SQUARE INCH
**PT** POST-TENSIONED, PRESSURE TREATED
**PTD** PAINTED
**PVC** POLYVINYL CHLORIDE
**PVMT** PAVEMENT
**PWR** POWER

**QT** QUARRY TILE
**QTY** QUANTITY
**QUAD** QUADRANT
**QZ** QUARTZ
**QZT** QUARTZ TILE

**R** RADIUS, RISER, THERMAL RESISTANCE
**RAF** RAISED ACCESS FLOOR
**RB** RUBBER BASE
**RBR** RUBBER
**RCP** REFLECTED CEILING PLAN
**RD** ROOF DRAIN
**REBAR** REINFORCING BAR
**REF** REFERENCE
**REG** REGISTER, REGULATION
**REINF** REINFORCED
**REPL** REPLACE
**REQ** REQUIRED
**RES** RESILIENT
**RET** RETAINING, RETURN
**REV** REVISION(S) / REVISE(D)
**RFG** ROOFING
**RFG** ROOFING
**RH** RIGHT HAND, RELATIVE HUMIDITY
**RHR** RIGHT HAND REVERSE
**RL** RAIN LEADER
**RM** ROOM
**RO** ROUGH OPENING
**RS** RESILIENT SHEET
**RTF** RUBBER TILE FLOOR
**RTU** ROOF TOP UNIT
**RV** ROOF VENTILATOR

**S** SOUTH, SEAL
**SAB** SOUND ATTENUATION BATT
**SACP** SUSPENDED ACOUSITC CEILING PANEL
**SALV** SALVAGE
**SAN** SANITARY
**SB** SPLASH BLOCK
**SC** SOLID CORE
**SCHED** SCHEDULE
**SCT** STRUCTURAL CLAY TILE
**SCWD** SOLID CORE WOOD DOOR
**SDT** STATIC DISSIPATIVE TILE
**SEC** SECURE, SECURITY
**SECT** SECTION
**SF** SQUARE FEET
**SHT** SHEET
**SIM** SIMILAR
**SLD** SEALED
**SLL** SOUND / LIGHT LOCK
**SPEC** SPECIFICATION
**SQ** SQUARE
**SS** STAINLESS STEEL
**SSM** SOLID SURFACE MATERIAL
**ST** STONE
**STD** STANDARD
**STL** STEEL
**STN** STAIN
**STO** STORAGE
**STRUC** STRUCTURAL
**SUB** SUBSTITUTION
**SUSP** SUSPENDED
**SWP** SPECIALTY WALL PANEL
**SYS** SYSTEM

**T** THICK, TREAD, TOILET
**T&G** TONGUE AND GROOVE
**T.O.** TOP OF
**TBB** TILE BACKER BOARD
**TECH** TECHNOLOGY
**TEL** TELEPHONE
**TEMP** TEMPORARY, TEMPERED
**THRS** THRESHOLD
**THRU** THROUGH
**TOC** TOP OF CONCRETE
**TOF** TOP OF FOOTING
**TOJ** TOP OF JOIST
**TOM** TOP OF MASONRY
**TOP** TOP OF PARAPET
**TOS** TOP OF STEEL
**TOW** TOP OF WALL
**TRANS** TRANSPARENT
**TRZ** TERAZZO
**TV** TELEVISION
**TXCP** TEXTILE COMPOSITE FLOORING
**TYP** TYPICAL

**UC** UNDERCUT
**UH** UNIT HEATER
**UIO** UNLESS INDICATED OTHERWISE
**UL** UNDERWRITER'S LABORATORY
**UNFIN** UNFINISHED
**UR** URINAL

**VAR** VARIES
**VAT** VINYL ASBESTOS TILE
**VB** VINYL BASE
**VCT** VINYL COMPOSITION TILE
**VERT** VERTICAL
**VEST** VESTIBULE
**VIF** VERIFY IN FIELD
**VTR** VENT THROUHG ROOF
**VU** VENTILATION UNIT
**VWC** VINYL WALLCOVERING

**W** WEST, WIDE, WIDE FLANGE
**W-W** WALL TO WALL
**W/** WITH
**W/O** WITHOUT
**WC** WATER CLOSET
**WD** WOOD
**WDW** WINDOW
**WH** WALL HEATER
**WOC** WALK-OFF CARPET
**WP** WATERPROOFING, WORK POINT
**WT** WEIGHT
**WWF** WELDED WIRE FABRIC
**WWM** WELDED WIRE MESH

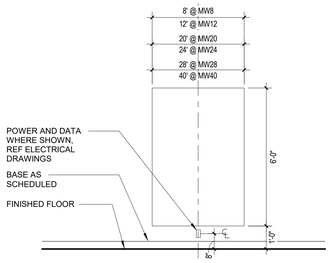
**X BRACE** CROSS BRACING
**XFER** TRANSFER

**YD** YARD, YARD DRAIN

**#** NUMBER, POUND
**&** AND
**@** AT
**±** PLUS / MINUS

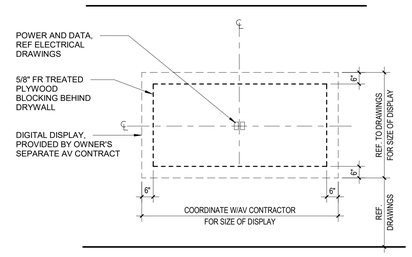
## TYPICAL MARKERWALL ELEVATION

NOTES:
1. REFER TO FLOOR PLANS FOR LOCATIONS AND QUANTITIES
2. REFER TO SPECIFICATION SECTION 101100 VISUAL DISPLAY UNITS
3. WHERE LENGTH OF MARKERWALL REQUIRES JOINING OF PANELS, JOINT SHALL BE CONCEALED SPLINE-TYPE BUTT JOINT CREATING FLUSH SURFACE BETWEEN PANELS WITH NO VISIBLE TRIM AT JOINT.




## TYPICAL DIGITAL DISPLAY BLOCKING

NOTES:
1. REFER TO FLOOR PLANS FOR LOCATIONS AND APPROXIMATE SIZES OF DISPLAYS.
2. COORDINATE FINAL LOCATIONS, DIMENSIONS AND REQUIREMENTS FOR BLOCKING WITH OWNER'S SEPARATE AUDIOVISUAL CONTRACTOR




## SCIENCE EQUIPMENT SCHEDULE

NOTES:
1. REFER TO SPECIFICATION SECTION 123553
2. REFERENCE MEP DRAWINGS FOR UTILITY AND ROUGHIN INFORMATION
3. ELECTRICAL CORDS EXITS FROM UPPER RIGHT SIDE OF CABINET. LOCATE POWER RECEPTACLE AT TOP CENTER OF CABINET
4. ALL BASE, WALL, AND STORAGE CABINETS EXCEPT SINK CABINETS ARE TO BE FURNISHED WITH LOCKS U.N.O
5. CONTRACTOR SHALL COORDINATE OPENINGS IN CASEWORK WITH APPLIANCE DIMENSIONS PRIOR TO FABRICATION OF CASEWORK
6. ALL MOUNTING HEIGHTS SHALL BE ADA COMPLIANT.
7. INSTALL A DRYING RACK AT EACH SINK IN ROOMS 125, 127, 225, AND 227.

| MARK | DESCRIPTION | LENGTH | WIDTH | HEIGHT | GCF/GCI | OF/GCI | OF/OI | WATER COLD | WATER HOT | ELEC | POWER REQ | GAS | MECH | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EQ01 | FLAMMABLE STORAGE CABINET | 3' - 7" | 1' - 6" | 5' - 5" | X | | | | | | | | | |
| EQ02 | ACID STORAGE CABINET | 3' - 0" | 2' - 1" | 2' - 11" | X | | | | | | | | | ACID STORAGE CABINET MECHANICALLY VENTILATED. REF MEP DRAWINGS |
| EQ03 | FUME HOOD | 4' - 0" | 2' - 0" | 5' - 6" | X | | | X | | X | 120V GFI BOTH SIDES | X | X | |
| EQ04 | SCIENCE DRYING RACK | 2' - 8" | 0' - 1" | 2' - 6" | X | | | | | | | | | WIDTH DIMENSION REPRESENTS DEPTH OF PANEL, REF SPEC FOR ACTUAL DEPTH |
| EQ05 | LAB TABLE | 5' - 0" | 2' - 0" | 3' - 0" | X | | | | | | | | | |
| EQ06 | GOGGLE CABINET | 0' - 9 1/2" | 2' - 0 1/2" | 2' - 8" | X | | | | | X | | | | REF NOTE 3 |
| EQ07 | TABLETOP SERVICE BOX | 1' - 6" | 0' - 6" | 0' - 8" | | | | | | X | | X | | AT EACH LOCATION INDICATED, PROVIDE (2) BOXES, (1) AT EACH TABLE |
| EQ08 | CEILING SERVICE PANEL | 2' - 0" | 2' - 0" | | | | | | | | | | | |
| EQ09 | ADA EMERGENCY SHOWER/EYEWASH COMBO | | | | X | | | X | X | | | | | TEMPERED WATER REQUIRED |

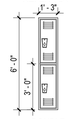
## METAL SHELVING SCHEDULE

NOTES:
1. REFER TO FLOOR PLANS FOR LOCATIONS AND QUANTITIES.
2. REFER TO SPECIFICATION SECTION 105613 METAL STORAGE SHELVING

| TAG | WIDTH | HEIGHT | DEPTH |
|---|---|---|---|
| MS-1 | 2' - 6" | 7' - 3" | 1' - 6" |
| MS-2 | 3' - 0" | 7' - 3" | 1' - 6" |

## METAL LOCKER SCHEDULE

NOTES:
1. REFER TO PLANS FOR LOCATIONS AND QUANTITIES
2. REFER TO SPECIFICATION SECTION 105113 METAL LOCKERS




DOUBLE TIER

| MARK | DESCRIPTION | TOP | BASE |
|---|---|---|---|
| ML-1 | DOUBLE-TIER LOCKER | Sloped | METAL |

## APPLIANCES SCHEDULE

NOTES:
1. REFER TO FLOOR PLANS FOR LOCATIONS AND QUANTITIES.
2. REFER TO SPECIFICATION SECTION 113013 RESIDENTIAL APPLIANCES.
3. CONTRACTOR TO COORDINATE APPLIANCE CLEARANCES WITH CASEWORK.

| TAG | DESCRIPTION | ELEC | GCF/GCI | HOT WATER | COLD WATER | COMMENTS |
|---|---|---|---|---|---|---|
| A-1 | REFRIGERATOR/FREEZER | X | X | | X | WITH ICEMAKER |
| A-2 | UNDERCOUNTER REFRIGERATOR | X | X | | X | |
| A-3 | DISHWASHER | X | X | X | X | HANDICAP ACCESSIBLE |
| A-4 | MICROWAVE | X | X | | | |
| A-6 | CLOTHES WASHER | X | X | X | X | |
| A-7 | CLOTHES DRYER | X | X | X | X | |
| A-8 | STACKED WASHER DRYER COMBINATION UNIT | X | X | X | X | |

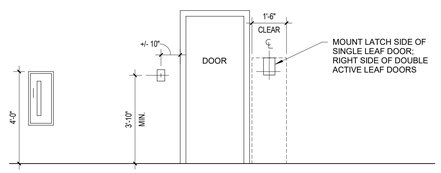
## STOREFRONT TYPES

NOTE: ALL EXT. STOREFRONTS SYSTEM TO BE SF-1 EXCEPT WHERE NOTED OTHERWISE.

| TYPE | DESCRIPTION | LOCATION |
|---|---|---|
| SF-1 | 2"X4" FRONT SET | TYPICAL |
| SF-2 | 2-1/4"X4" CENTER SET (REINFORCED) | AT SUNSHADES |
| SF-3 | 2"X6" FRONT SET | AT COURTYARD & CORRIDOR ENDS (EAST) |
| SF-4 | 2"X4" FRONT SET (STICK) | WELLNESS RM 114 |

## TYPICAL MOUNTING HEIGHTS AND DIMENSIONS

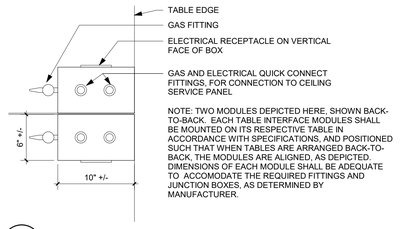
**NOTES:**
1. MOUNTING HEIGHTS SHOWN ARE BASED UPON RECOGNIZED DESIGN STANDARDS AND/OR BARRIER FREE CODE REQUIREMENTS.
2. IT IS INTENDED THAT LIKE DEVICES ALL BE MOUNTED AT THE SAME HEIGHT THROUGHOUT THE ENTIRE PROJECT.
3. RECESSED DEVICES IN MASONRY WALLS MAY DICTATE A DEVIATION (+/- 2") FROM THESE HEIGHTS (WHEN PERMITTED BY CODE) SO AS TO ALLOW THE BOTTOM OR THE TOP OF THE DEVICE RECESS TO ALIGN WITH MASONRY COURSING. COORDINATE THESE DEVIATIONS WITH THE ARCHITECTS/OWNER'S REPRESENTATIVE.
4. MOUNTING HEIGHTS ARE TYPICAL UNLESS NOTED OTHERWISE ON DRAWINGS
5. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR DEVICE LOCATIONS AND MOUNTING HEIGHT VARIATIONS




REF ELEVATIONS FOR MOUNTING HEIGHT WHERE MOUNTED IN CWT

## EXTERIOR METAL WALL PANEL SCHEDULE

FMWP1 - FLUSH SEAM METAL WALL PANEL
FMWP2 - STANDING SEAM




6 / A001 SCI. EQUIP - TABLETOP SERVICE BOX
1 1/2" = 1'-0"


QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM


Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS
DRAWN BY: EW

QEA No.41911390

BID DOCUMENTS
10/8/2024

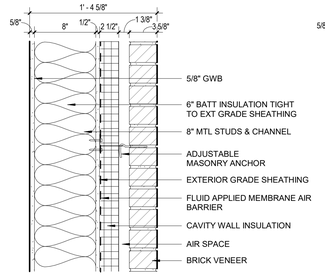
SCHEDULES, DETAILS, ABBREVIATIONS

**A001**


PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/3/2024 7:48:57 PM

# EXTERIOR WALL ASSEMBLIES

1 1/2"=1'-0"

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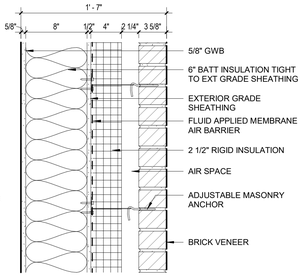


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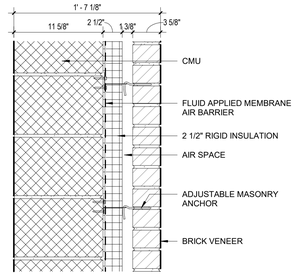


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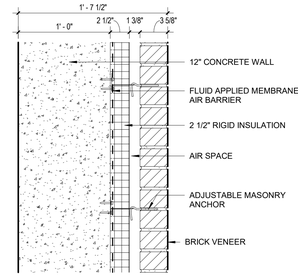


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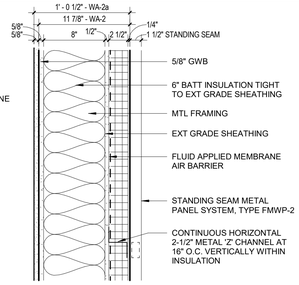


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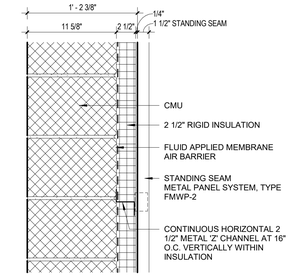


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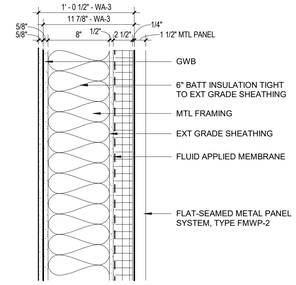


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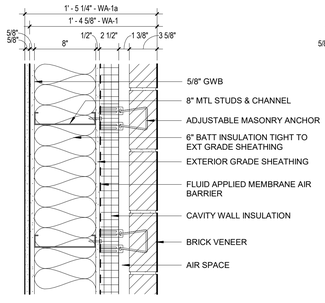
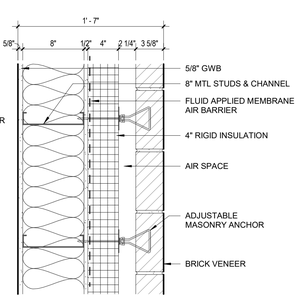


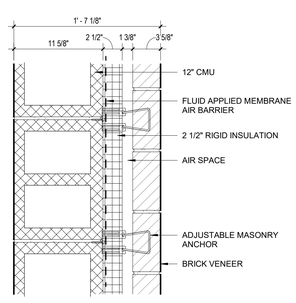

**PLAN**

| | | |
|---|---|---|
| WA-1 | BRICK, MTL STUDS, 1 LAYER GWB | |
| | R-33.28 (R-11.5 CONT INSUL) | |
| WA-1a | BRICK, MTL STUDS, 2 LAYERS GWB | |
| | R-33.28 (R-11.5 CONT INSUL) | |



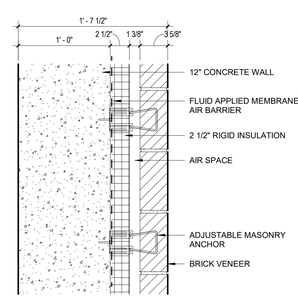

**PLAN**

| | | |
|---|---|---|
| WA-1b | BRICK, MTL STUDS, EXTENDED CAVITY WIDTH | |
| | R-33.29 (R-11.5 CONT INSUL) | |



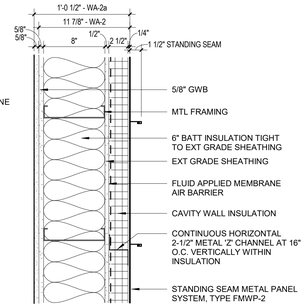

**PLAN**

| | | |
|---|---|---|
| WA-1c | BRICK, 12" CMU | |
| | R-33.28 (R-11.5 CONT INSUL) | |



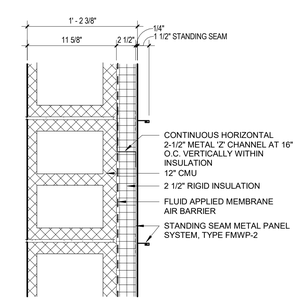

**PLAN**

| | | |
|---|---|---|
| WA-1d | BRICK, 12" CONCRETE | |
| | R-33.29 (R-11.5 CONT INSUL) | |



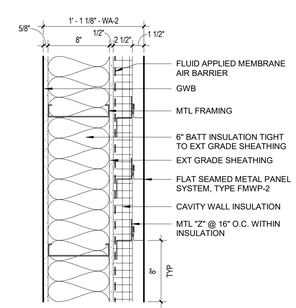

**PLAN**

| | | |
|---|---|---|
| WA-2 | STANDING SEAM MTL PANEL, MTL STUD, 1 LAYER 5/8" GWB | |
| | R-33.29 (R-11.5 CONT INSUL) | |
| WA-2a | STANDING SEAM MTL PANEL, MTL STUD, 2 LAYERS 5/8" GWB | |
| | R-33.29 (R-11.5 CONT INSUL) | |




**PLAN**

| | | |
|---|---|---|
| WA-2b | STANDING SEAM METAL PANEL, 12" CMU | |
| | R-33.29 (R-11.5 CONT INSUL) | |

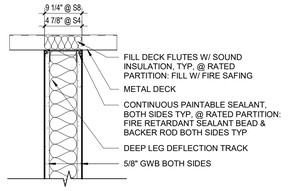



**PLAN**

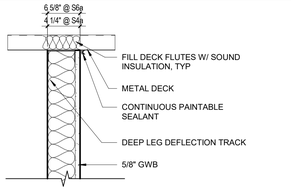
| | | |
|---|---|---|
| WA-3 | FLUSH LOCK MTL PANEL, MTL STUD, 1 LAYER 5/8" GWB | |
| | R-33.29 (R-11.5 CONT INSUL) | |

# INTERIOR PARTITION TYPES

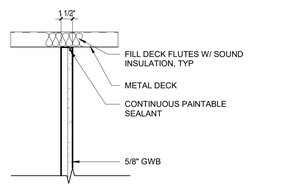
1 1/2"=1'-0"



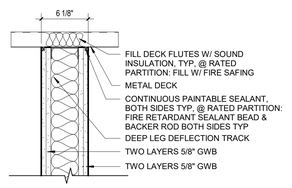

| | | |
|---|---|---|
| S4 | 5/8" GWB (3-5/8" METAL STUDS) | |
| S6 | 5/8" GWB (6" METAL STUDS) | |
| S8 | 5/8" GWB (8" METAL STUDS) | |
| S4-1 | 5/8" GWB (3-5/8" METAL STUDS) - 1 HR - U419 | |
| | | |



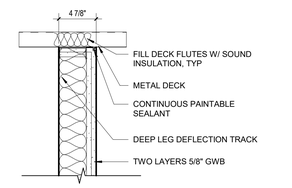

| | | |
|---|---|---|
| S4a | 5/8" GWB (3-5/8" METAL STUDS) | |
| S6a | 5/8" GWB (6" METAL STUDS) | |



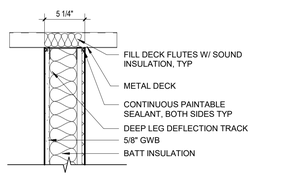

| | | |
|---|---|---|
| S1a | 5/8" GWB (7/8" METAL CHANNEL) | |
| | | |



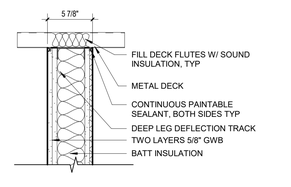

| | | |
|---|---|---|
| S4s | 5/8" GWB (3-5/8" METAL STUDS) | STC-54 |
| | 2 LAYERS GWB BOTH SIDES | |
| S6s | 5/8" GWB (6" METAL STUDS) | STC-54 |
| | 2 LAYERS GWB BOTH SIDES | |
| S8s | 5/8" GWB (8" METAL STUDS) | STC-54 |
| | 2 LAYERS GWB BOTH SIDES | |
| S4s-1 | 5/8" GWB (3-5/8" METAL STUDS) - 1 HR - U419 | STC-54 |
| | 2 LAYERS GWB BOTH SIDES | |



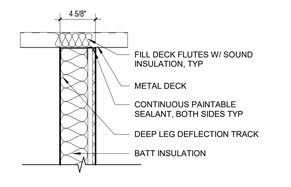

| | | |
|---|---|---|
| S4sa | 2 LAYERS 5/8" GWB (3-5/8" METAL STUDS) | |
| | | |



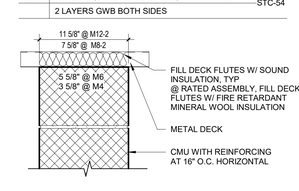

| | | |
|---|---|---|
| S4-T | 5/8" GWB (3-5/8" METAL STUDS) | |
| | CBB + TILE ONE SIDE | |
| S8-T | 5/8" GWB (8" METAL STUDS) | |
| | CBB + TILE ONE SIDE | |




| | | |
|---|---|---|
| S4s-T | 2 LAYERS 5/8" GWB (3-5/8" METAL STUDS) | STC-51 |
| | CBB + TILE ONE SIDE | |
| S8s-T | 2 LAYERS 5/8" GWB (8" METAL STUDS) | STC-51 |
| | CBB + TILE ONE SIDE | |




| | | |
|---|---|---|
| S4a-T | CBB + TILE ONE SIDE (3-5/8" METAL STUDS) | |
| | | |




| | | |
|---|---|---|
| M4 | 4" CMU | |
| M6 | 6" CMU | |
| M4-1 | 4" CMU, 1-HR RATED | |
| | UL ASSEMBLY U905 | |
| M12-1 | 12" CMU, 1-HR RATED | |
| | UL ASSEMBLY U905 | |

# GENERAL PARTITION NOTES

1. METAL STUD WALLS ARE TYPE S4s UNLESS INDICATED OTHERWISE
2. FURRING AND CHASE WALLS TO HAVE GWB ON EXTERIOR FACE ONLY UNLESS INDICATED OTHERWISE
3. INTERIOR MASONRY WALLS ARE TYPE M4 UNLESS INDICATED OTHERWISE
4. ALL PARTITIONS SHEATHING LAYERS TO EXTEND TO STRUCTURE OR DECK ABOVE UNLESS NOTED OTHERWISE
5. SEE PLANS FOR LEGEND & PARTITIONS WITH VARIED EXTENT
6. SEE LIFE SAFETY PLANS FOR LEGEND & FIRE RATING EXTENT/DEFINITION
7. PROVIDE ABUSE RESISTANT GWB TO 8' ABOVE FINISH FLOOR IN ALL CORRIDORS AND STAIRWELLS
8. UTILIZE MOISTURE RESISTANT GYPSUM BOARD AT PARTITIONS (OTHER THAN PLUMBING PARTITIONS) IN THE FOLLOWING SPACE TYPES UNLESS NOTED OTHERWISE:
   A. TOILET ROOMS
   B. CUSTODIAL CLOSETS
9. UTILIZE TILE BACKER BOARD AT PLUMBING PARTITIONS (WET WALLS) AND SHOWER ENCLOSURES UNLESS NOTED OTHERWISE
   A. COORDINATE EXTENT OF BACKER BOARD WITH EXTENT OF TILE FINISH
   B. TRANSITION TO MOISTURE RESISTANT GYPSUM BOARD AT AREAS NOT DESIGNATED TO RECEIVE TILE
10. PARTITION TYPES DO NOT DEPICT FINISHES TYPICALLY
    A. SEE FINISH SCHEDULE AND INTERIOR ELEVATIONS FOR EXTENT OF FINISHES
    B. SEE SPECIFIC PARTITION TYPES INCORPORATING FINISH AND BACKUP
11. FIRE RATED FRAMED PARTITIONS (FIRE RATING IDENTIFIED) ARE TO INCLUDE: PERIMETER FIRE STOP SEALANT FOR FULL DEPTH OF ALL SHEATHING LAYERS EACH SIDE OF FRAMING
    A. BASE: SEALANT OPTIONAL (1/4" MIN TO 3/4" MAX) IN LIEU OF SEALANT EXTEND GYPSUM BOARD TIGHT TO DECK
    B. TOP:
       a. OPTION 1: SEAL TO DECK OR VARIED DECK (1/4"MIN TO 3/4" MAX)
       b. OPTION 2: CLOSE SPACE AT VARIED DECK WITH UL DESIGN APPROVED OR PROJECT DEFINED FIRE RATED CLOSURE ASSEMBLY
12. SOUND ISOLATING FRAMED PARTITIONS (STC RATING IDENTIFIED IN PARTITION TYPES) ARE TO INCLUDE:
    A. PERIMETER ACOUSTIC SEALANT BEAD FOR FULL DEPTH OF SHEATHING LAYER ADJACENT TO FRAMING EACH SIDE
       a. BASE: SEAL BETWEEN BOTTOM OF SHEATHING TO STRUCTURAL DECK
       b. TOP: SEAL BETWEEN TOP OF SHEATHING TO STRUCTURAL DECK OR RATED CEILING SHEATHING WHERE APPLICABLE
    B. FULL FRAMING DEPTH SOUND ATTENUATION BATT FOR FULL HEIGHT OF PARTITION
13. PROVIDE DEFLECTION TRACKS OR CLIPS FOR ALL PARTITIONS ABUTTING STRUCTURE AND DECK ABOVE
14. PROVIDE BLOCKING IN WALL SIZED ADEQUATELY TO SUPPORT CASEWORK AT ALL LOCATIONS WHERE CASEWORK IS INDICATED, REF PLANS


QUINN EVANS

1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

QUINNEVANS.COM


COMMONWEALTH OF VIRGINIA
CHARLES W. TILLEY
LIC. No. 010767
10/08/2024
ARCHITECT

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS

DRAWN BY: EW, BG, AJ

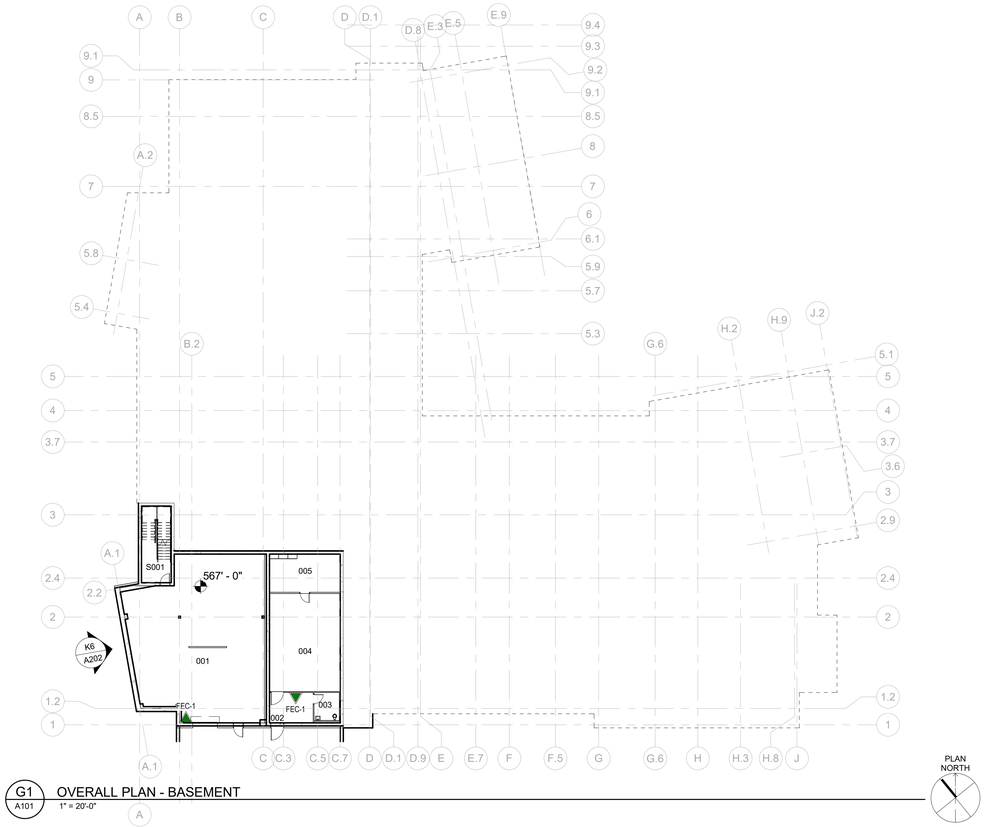
QEA No.41911390

BID DOCUMENTS
10/8/2024

WALL ASSEMBLIES & PARTITION TYPES

**A002**

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:44:28 PM

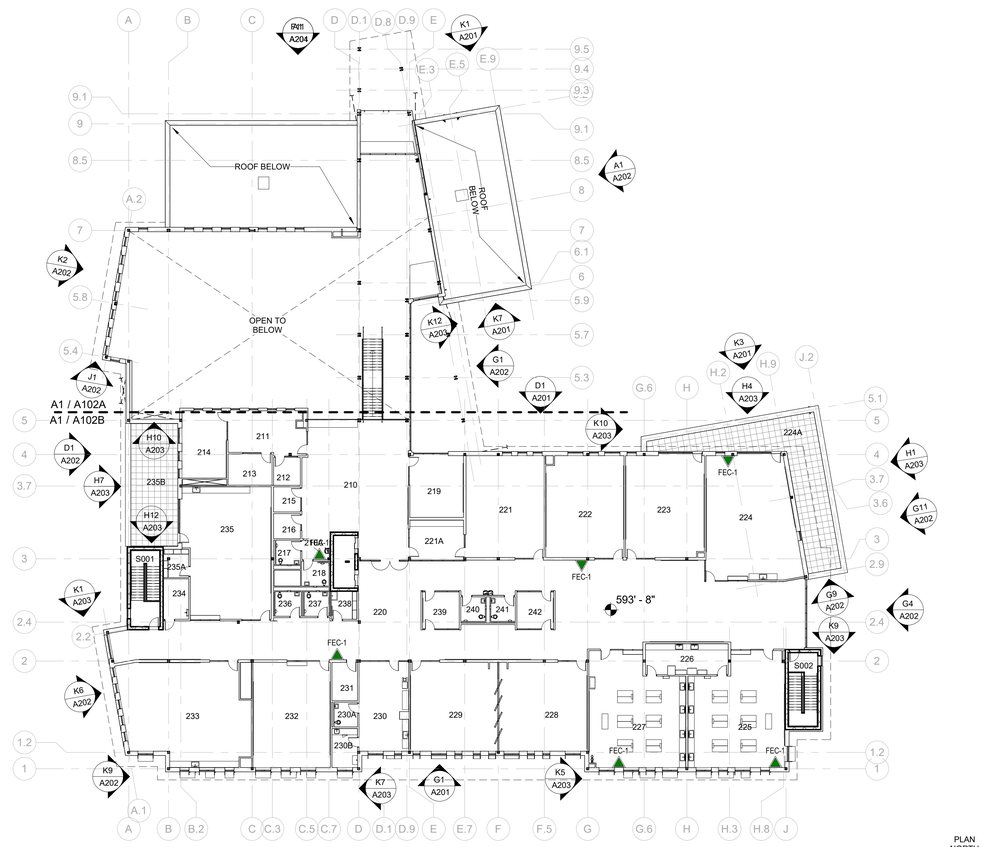



G1 OVERALL PLAN - BASEMENT
A101 1" = 20'-0"

PLAN NORTH

A1 OVERALL PLAN - LEVEL 1
A101 1" = 20'-0"

PLAN NORTH




A7 OVERALL PLAN - LEVEL 2
A101 1" = 20'-0"

PLAN NORTH

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:44:32 PM


QUINN EVANS

1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

QUINNEVANS.COM


COMMONWEALTH OF VIRGINIA
CHARLES W. TILLEY
LIC. No. 010767
10/08/2024
ARCHITECT

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd.
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

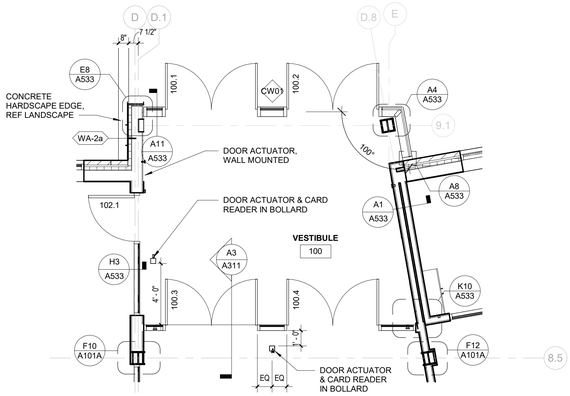
PROJECT MANAGER: KS
DRAWN BY: EW

QEA No.41911390

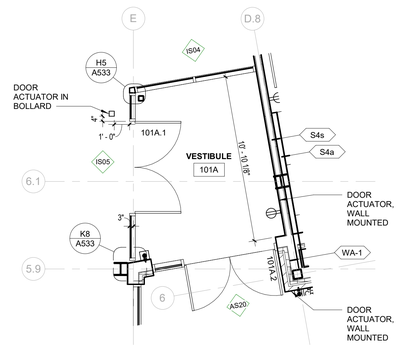
BID DOCUMENTS
10/8/2024

OVERALL FLOOR PLANS

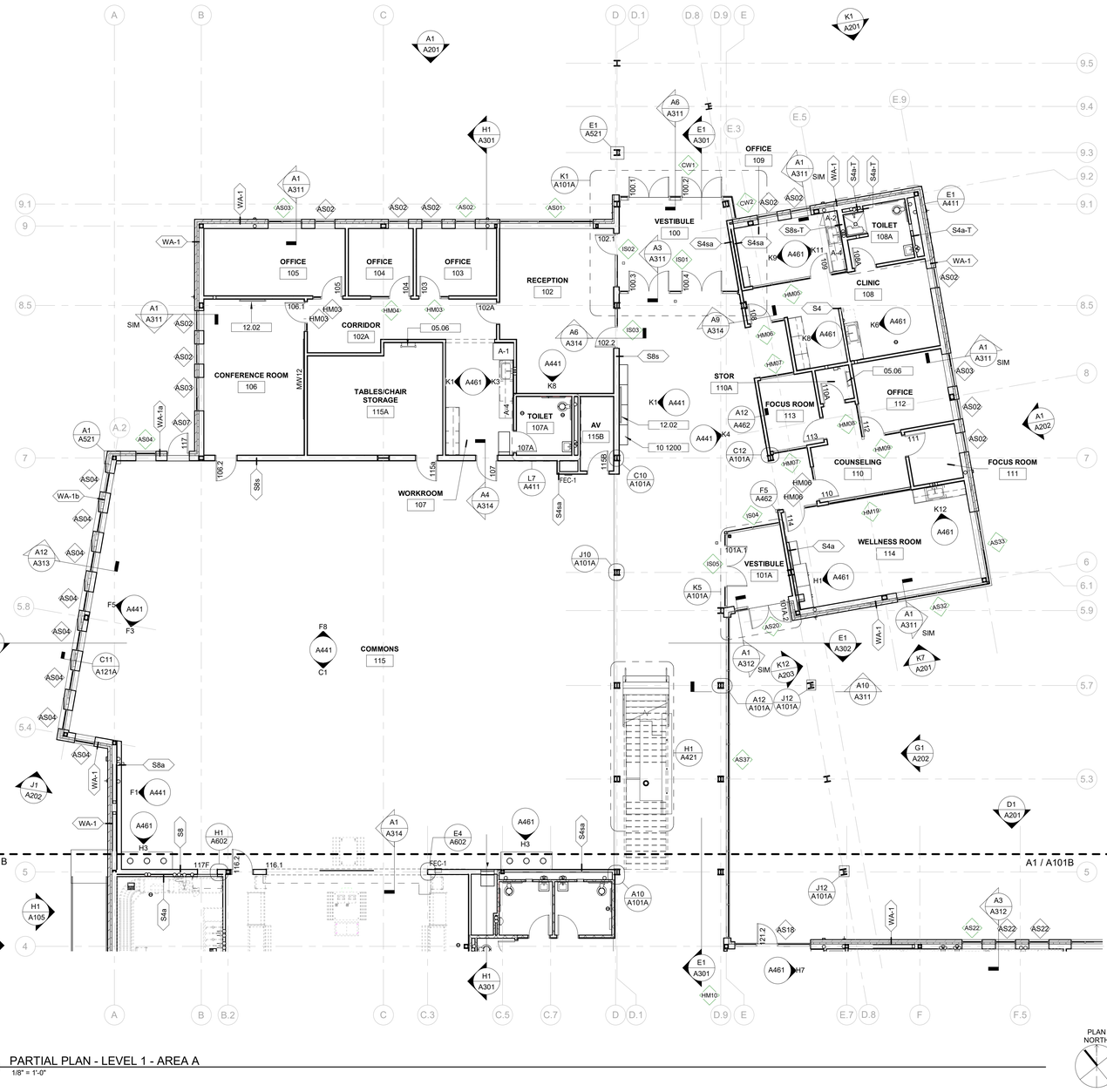
# A101




K1 A101A LEVEL 1 - PLAN - ENLARGED - VESTIBULE 100
1/4" = 1'-0"




K5 A101A LEVEL 1 - PLAN - ENLARGED - VESTIBULE 116
1/4" = 1'-0"

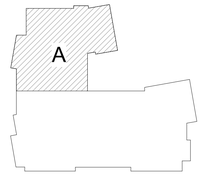



A1 A101A PARTIAL PLAN - LEVEL 1 - AREA A
1/8" = 1'-0"

## KEYNOTES

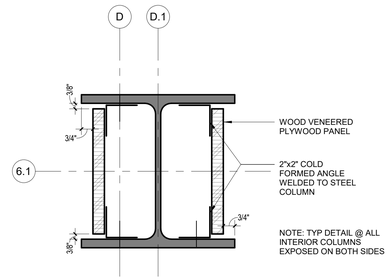
| | |
|---|---|
| 05.06 | ROOF ACCESS LADDER |
| 10 1200 | DISPLAY CASES, REF SPEC |
| 12.02 | DIGITAL DISPLAY BY OWNER'S SEPARATE A/V CONTRACTOR. COORDINATE FINAL LOCATION WITH A/V CONTRACTOR. INSTALL BLOCKING PER TYPICAL BLOCKING DETAIL ON SHEET A001 |

## KEY PLAN

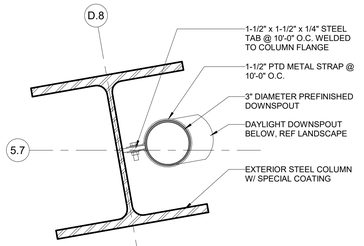



## GENERAL NOTES

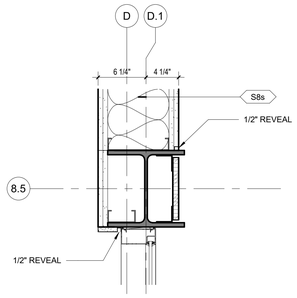
1. REFERENCE LIFE SAFETY PLANS FOR THE FIRE-RESISTANCE RATED ASSEMBLY LOCATIONS.
2. METAL STUD WALLS ARE TYPE S4s UNLESS INDICATED OTHERWISE. FURRING AND CHASE WALLS TO HAVE GWB ON EXTERIOR FACE ONLY UNLESS INDICATED OTHERWISE. REFER TO FINISH PLANS AND ELEVATIONS FOR EXTENTS OF CWT, PRP, VINYL WALL COVERINGS, AND FABRIC WRAPPED WALL PANELS.
3. INTERIOR MASONRY WALLS ARE TYPE M4 UNLESS INDICATED OTHERWISE.
4. REFER TO SHEET A002 FOR SCHEDULES OF EQUIPMENT, SHELVING, APPLIANCES, ETC.
5. REFER TO CASEWORK ELEVATIONS AND INTERIOR ELEVATIOSN FOR APPLIANCES, EQUIPMENT AND OTHER ITEMS NOT SHOWN ON PLANS.



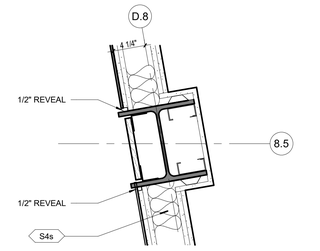

J10 A101A INTERIOR PLAN DETAIL
3" = 1'-0"



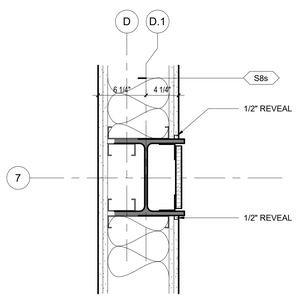

J12 A101A PLAN DETAIL - COLUMN AND DOWNSPOUT
3" = 1'-0"



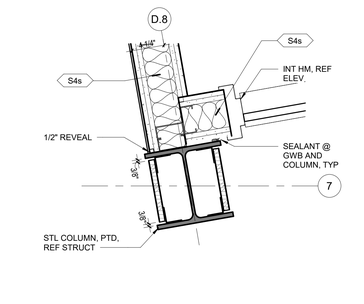

F10 A101A INTERIOR PLAN DETAIL
1 1/2" = 1'-0"



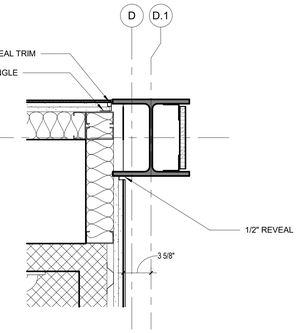

F12 A101A INTERIOR PLAN DETAIL
1 1/2" = 1'-0"



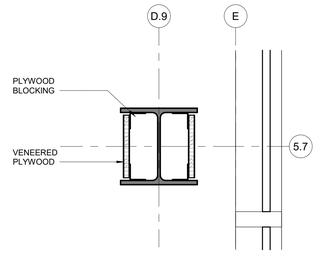

C10 A101A INTERIOR PLAN DETAIL
1 1/2" = 1'-0"




C12 A101A INTERIOR PLAN DETAIL
1 1/2" = 1'-0"




A10 A101A INTERIOR PLAN DETAIL
1 1/2" = 1'-0"




A12 A101A INTERIOR PLAN DETAIL
1 1/2" = 1'-0"

QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

COMMONWEALTH OF VIRGINIA
CHARLES W. TILLEY
LIC. No. 010767
10/08/2024
ARCHITECT

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|
| | | |

PROJECT MANAGER: KS
DRAWN BY: EW

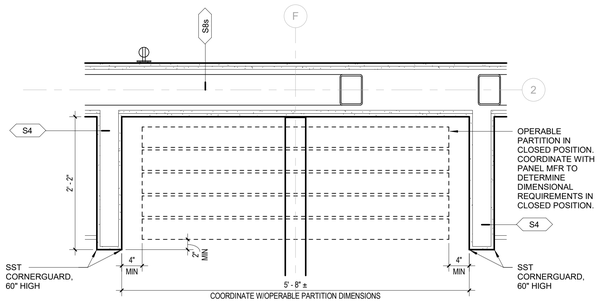
QEA No.41911390

BID DOCUMENTS
10/8/2024

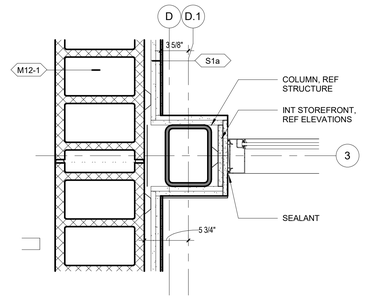
PARTIAL PLAN - LEVEL 1 - AREA A

**A101A**

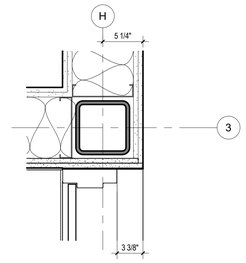
PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:44:34 PM




K1 A101B — ENLARGED PLAN - OPERABLE PARTITION
1" = 1'-0"




K5 A101B — INTERIOR PLAN DETAIL
1 1/2" = 1'-0"

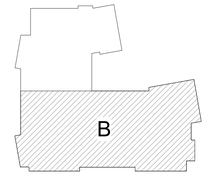



K7 A101B — INTERIOR PLAN DETAIL
1 1/2" = 1'-0"

## KEYNOTES

| | |
|---|---|
| 01.02 | COPY MACHINE, N.I.C. PROVIDED BY OWNER |
| 10 2240 | OPERABLE PARTITION |
| 10 2800 | TA03 ROBE HOOKS MOUNTED TO SIDE OF CABINET, VERIFY EXACT MOUNTING PATTERN WITH ARCHITECT |
| 12.02 | DIGITAL DISPLAY BY OWNER'S SEPARATE A/V CONTRACTOR. COORDINATE FINAL LOCATION WITH A/V CONTRACTOR. INSTALL BLOCKING PER TYPICAL BLOCKING DETAIL ON SHEET A001 |

## KEY PLAN




## GENERAL NOTES

1. REFERENCE LIFE SAFETY PLANS FOR THE FIRE-RESISTANCE RATED ASSEMBLY LOCATIONS.
2. METAL STUD WALLS ARE TYPE S4s UNLESS INDICATED OTHERWISE. FURRING AND CHASE WALLS TO HAVE GWB ON EXTERIOR FACE ONLY UNLESS INDICATED OTHERWISE. REFER TO FINISH PLANS AND ELEVATIONS FOR EXTENTS OF CWT, PRP, VINYL WALL COVERINGS, AND FABRIC WRAPPED WALL PANELS.
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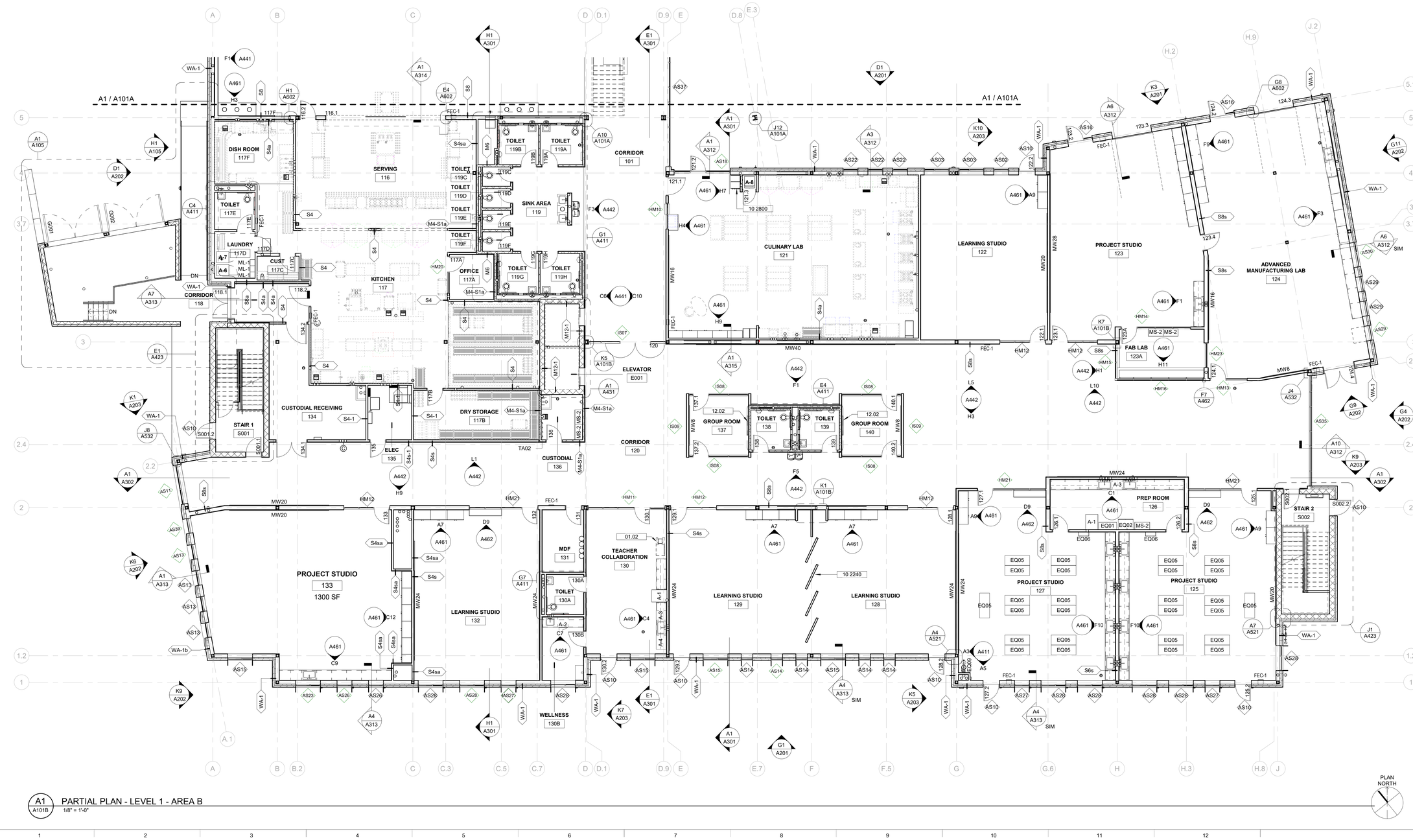


A1 A101B — PARTIAL PLAN - LEVEL 1 - AREA B
1/8" = 1'-0"

PLAN NORTH

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:44:37 PM

QUINN EVANS
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SUITE 400
RICHMOND, VA 23220
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COMMONWEALTH OF VIRGINIA
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| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS
DRAWN BY: EW

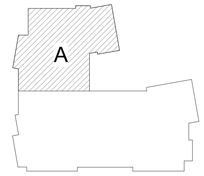
QEA No.41911390

BID DOCUMENTS
10/8/2024

PARTIAL PLAN - LEVEL 1 - AREA B

**A101B**

## KEY PLAN

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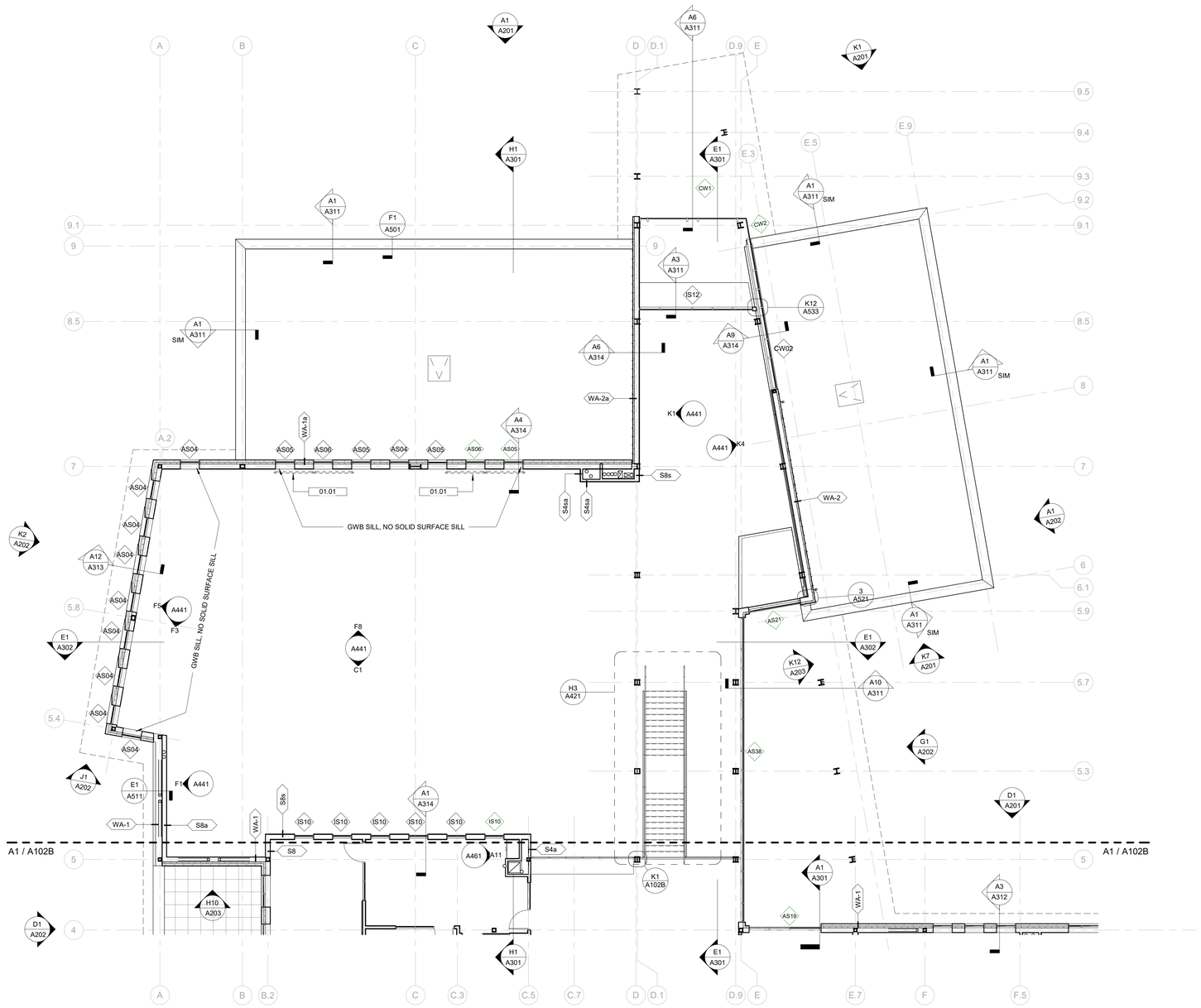


A1 A102A PARTIAL PLAN - LEVEL 2 - AREA A
1/8" = 1'-0"

PLAN NORTH


QUINN EVANS

1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

QUINNEVANS.COM


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| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS
DRAWN BY: EW

QEA No.41911390

BID DOCUMENTS
10/8/2024

PARTIAL PLAN - LEVEL 2 - AREA A

# A102A

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
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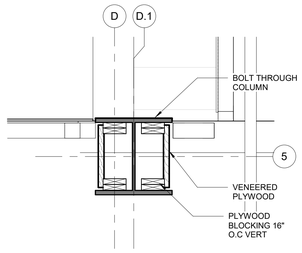
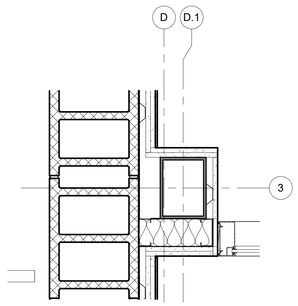
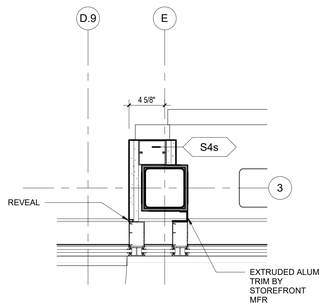


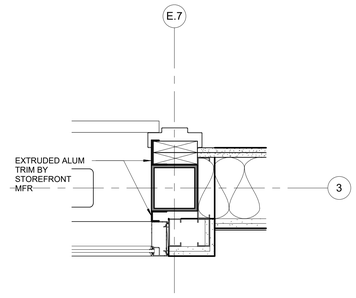

K1 A102B INTERIOR PLAN DETAIL
1 1/2" = 1'-0"




K3 A102B INTERIOR PLAN DETAIL
1 1/2" = 1'-0"



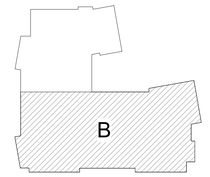

K5 A102B INTERIOR PLAN DETAIL
1 1/2" = 1'-0"




K7 A102B INTERIOR PLAN DETAIL
1 1/2" = 1'-0"

| | |
|---|---|
| 01.02 | COPY MACHINE, N.I.C. PROVIDED BY OWNER |
| 10 2240 | OPERABLE PARTITION |
| 12.02 | DIGITAL DISPLAY BY OWNER'S SEPARATE A/V CONTRACTOR. COORDINATE FINAL LOCATION WITH A/V CONTRACTOR, INSTALL BLOCKING PER TYPICAL BLOCKING DETAIL ON SHEET A001 |
| 26.05 | MOUNT ELECTRICAL RACEWAY BELOW SILL OF WINDOWS |

## KEY PLAN

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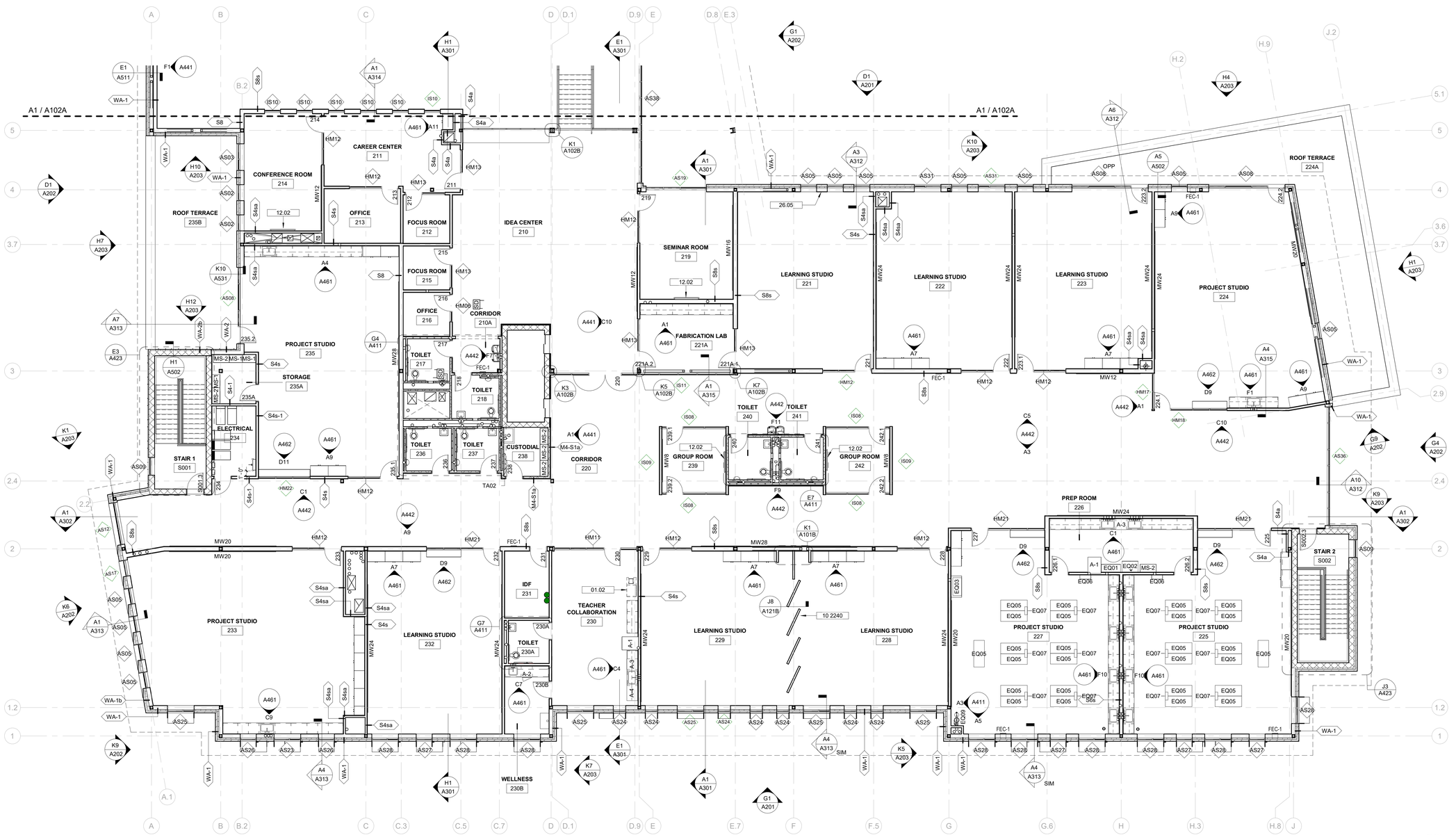
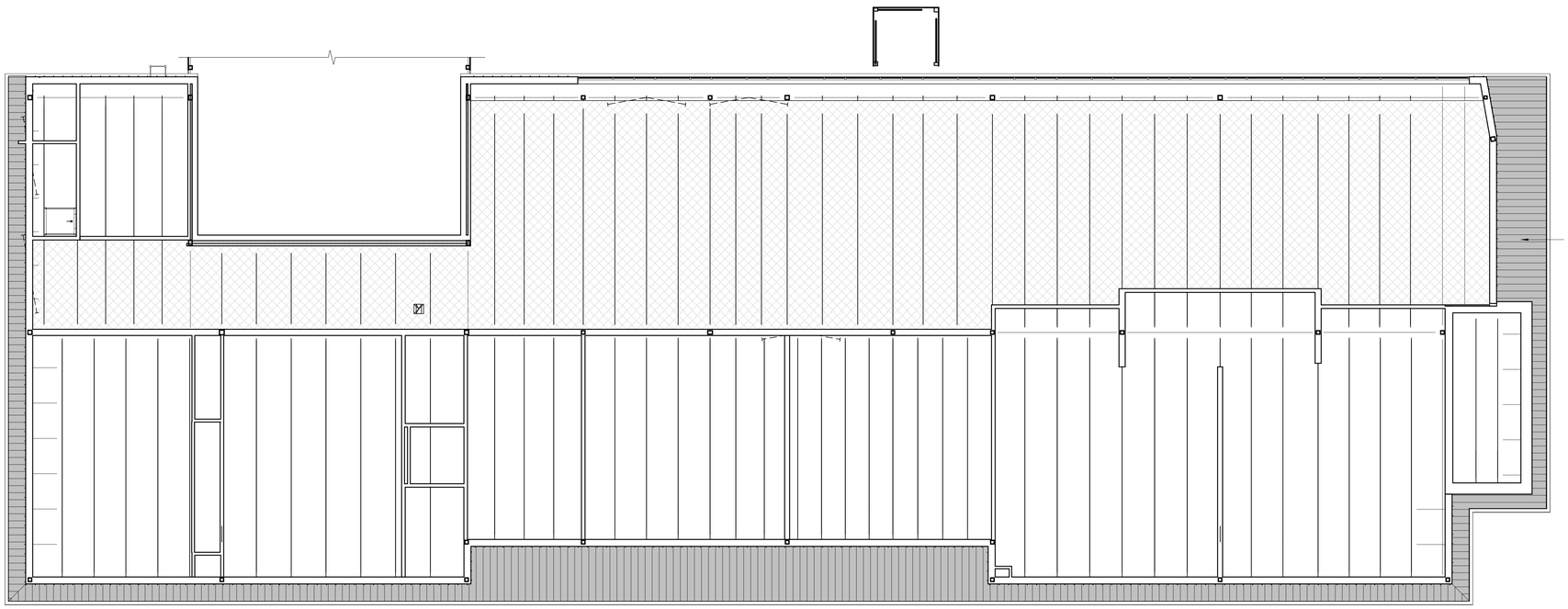
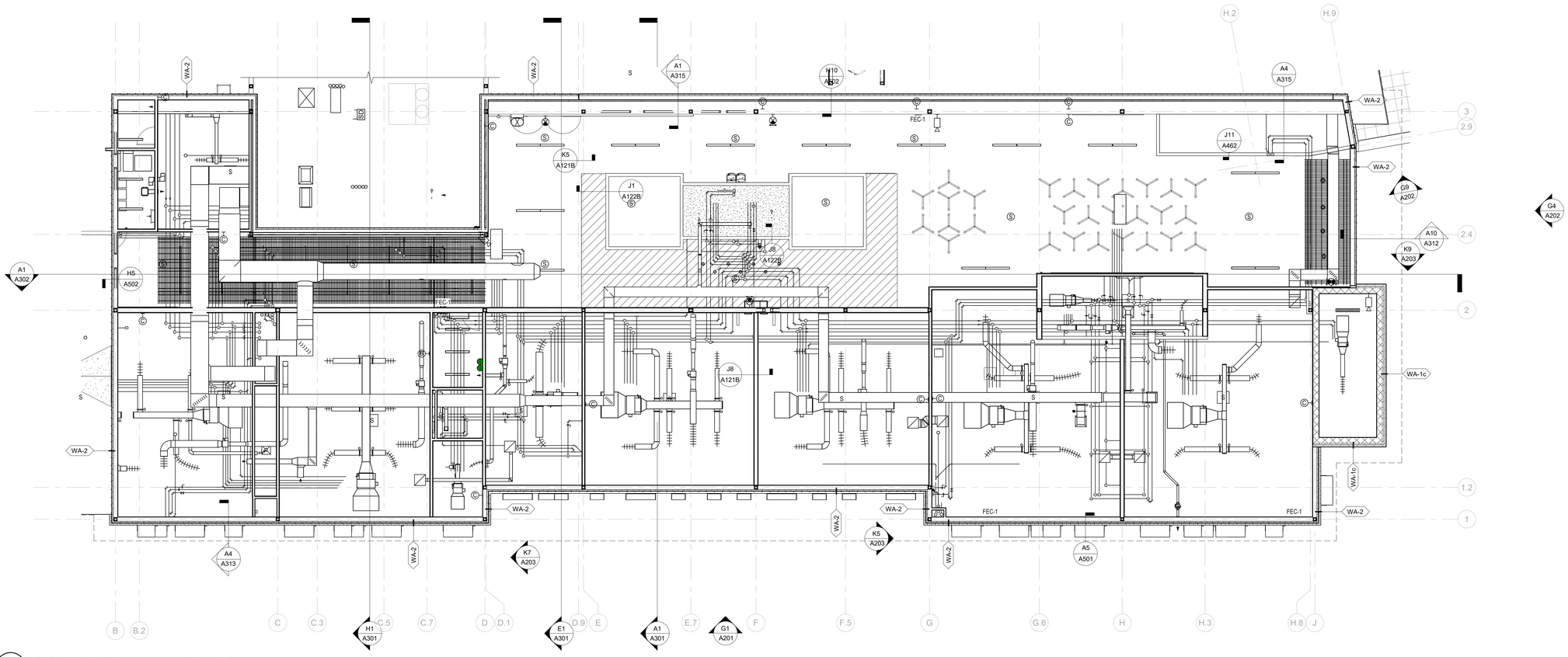

A1 / A102A
A1 / A102A
CAREER CENTER
211
CONFERENCE ROOM
214
ROOF TERRACE
235B
OFFICE
213
FOCUS ROOM
212
FOCUS ROOM
215
IDEA CENTER
210
OFFICE
216
CORRIDOR
210A
PROJECT STUDIO
235
STORAGE
235A
ELECTRICAL
234
STAIR 1
S001
TOILET
217
TOILET
218
TOILET
236
TOILET
237
CUSTODIAL
238
CORRIDOR
220
SEMINAR ROOM
219
FABRICATION LAB
221A
GROUP ROOM
239
GROUP ROOM
242
TOILET
240
TOILET
241
LEARNING STUDIO
221
LEARNING STUDIO
222
LEARNING STUDIO
223
PROJECT STUDIO
224
ROOF TERRACE
224A
PROJECT STUDIO
233
LEARNING STUDIO
232
IDF
231
TEACHER COLLABORATION
230
TOILET
230A
WELLNESS
230B
LEARNING STUDIO
229
LEARNING STUDIO
228
PREP ROOM
226
PROJECT STUDIO
227
PROJECT STUDIO
225
STAIR 2
S002
OPP
A1 A1 A1 




G1 / A103 RCP - CLERESTORY AREA B
1/8" = 1'-0"




A1 / A103 PARTIAL PLAN - CLERESTORY - AREA B
1/8" = 1'-0"

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:44:45 PM

QUINN EVANS
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SUITE 400
RICHMOND, VA 23220
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2775 Hydraulic Rd,
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| No | Date | Description |
|---|---|---|

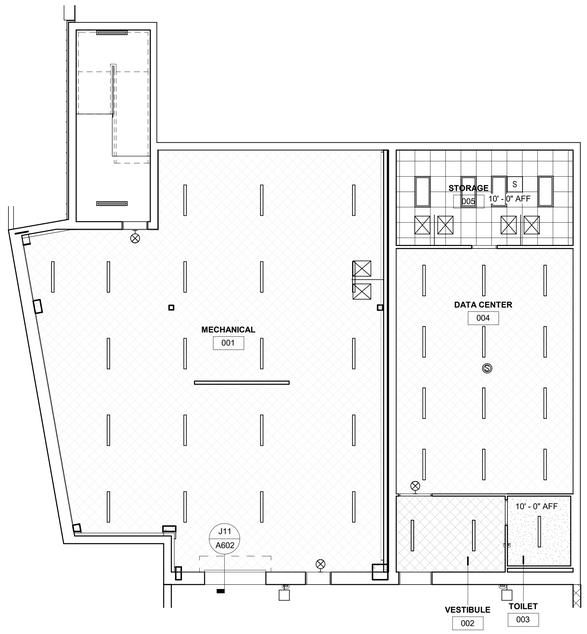
PROJECT MANAGER: KS
DRAWN BY: AJ

QEA No.41911390

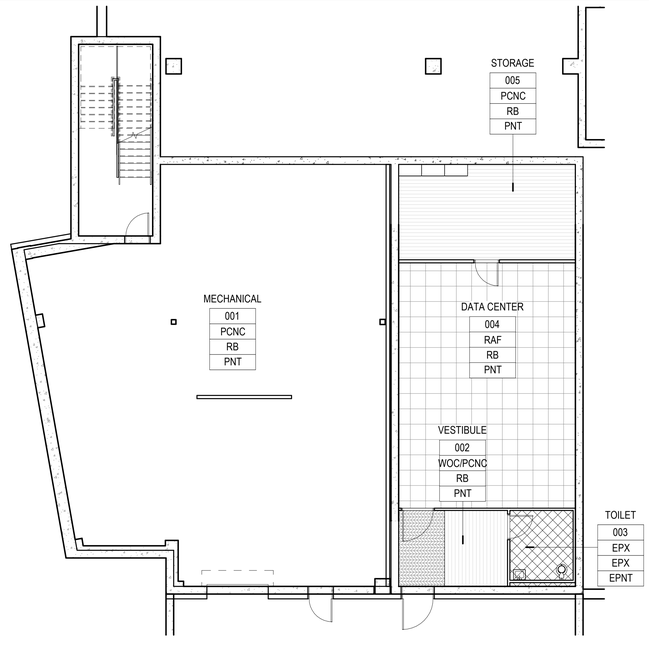
BID DOCUMENTS
10/8/2024

CLERESTORY PLAN & RCP

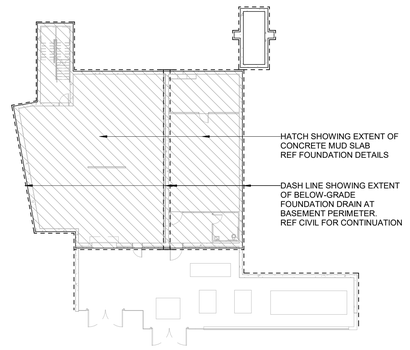
# A103



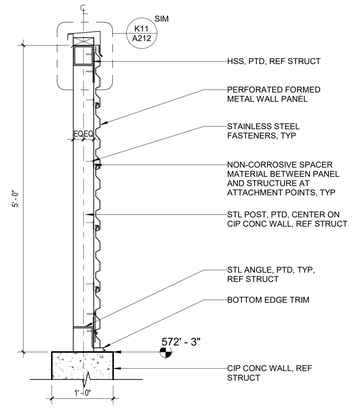

H1 A104 REFLECTED CEILING PLAN - BASEMENT
1/8" = 1'-0"




H5 A104 FINISH PLAN - BASEMENT
1/8" = 1'-0"




K9 A104 BASEMENT KEY PLAN - PERIMETER DRAINS & MUD SLAB EXTENTS
1" = 20'-0"




G9 A104 DETAIL - MECH YARD PERF SCREEN
1" = 1'-0"

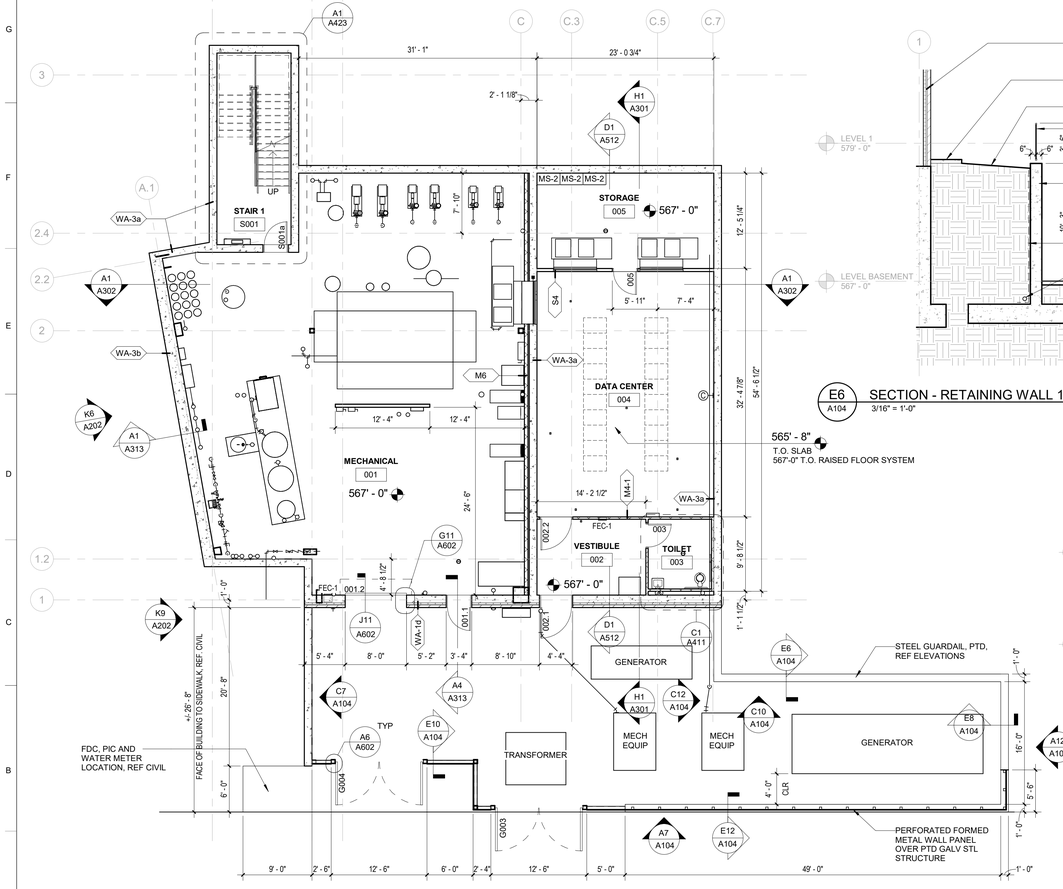
## GENERAL NOTES

1. REFER TO REFLECTED CEILING PLAN SHEETS FOR RCP LEGEND.
2. REFER TO FINISH PLAN SHEETS FOR FINISH LEGEND.

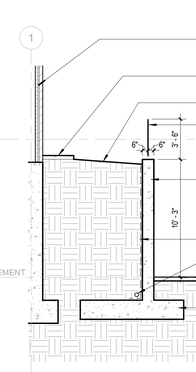
## FINISH TAG LEGEND

| ROOM NAME |
|---|
| ROOM # |
| FLOOR FINISH |
| BASE FINISH |
| WALL FINISH |

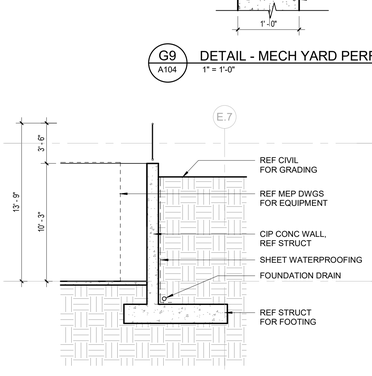
REFER TO PLAN NOTES FOR ACCENT AREAS AND OTHER SPECIFIC INFORMATION.



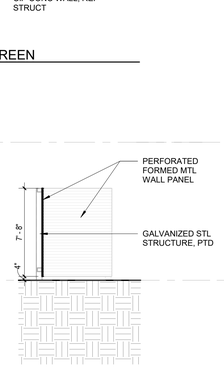

A1 A104 FLOOR PLAN - BASEMENT
1/8" = 1'-0"



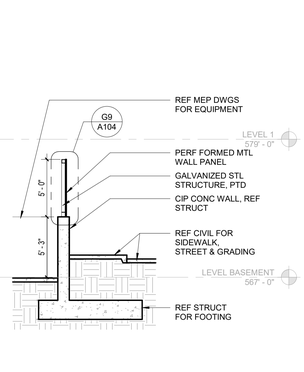

E6 A104 SECTION - RETAINING WALL 1
3/16" = 1'-0"



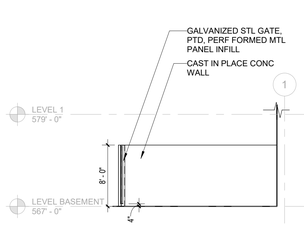

E8 A104 SECTION - RETAINING WALL 2
3/16" = 1'-0"



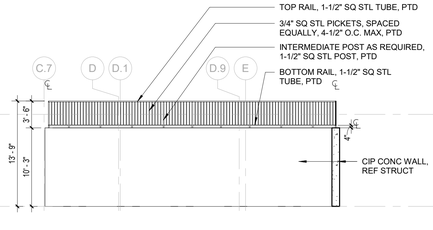

E10 A104 SECTION - PERF SCREEN 1
3/16" = 1'-0"



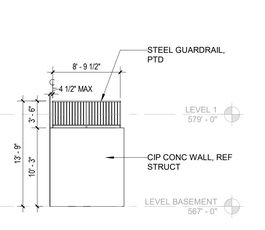

E12 A104 SECTION - PERF SCREEN 2
3/16" = 1'-0"



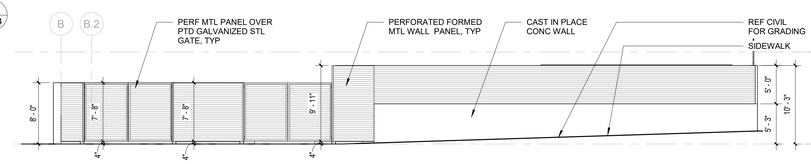

C7 A104 ELEV - INT MECH YARD WEST
1/8" = 1'-0"



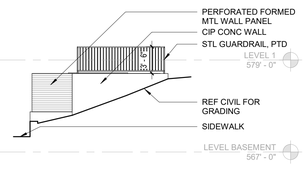

C10 A104 ELEV - INT MECH YARD NORTH
1/8" = 1'-0"




C12 A104 ELEV - INT MECH YARD EAST
1/8" = 1'-0"




A7 A104 ELEVATION - MECH YARD SCREEN WALL SOUTH
1/8" = 1'-0"




A12 A104 ELEVATION - MECH YARD SCREEN WALL EAST
1/8" = 1'-0"

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SUITE 400
RICHMOND, VA 23220
v 804.788.4774
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CHARLES W. TILLEY
LIC. No. 010767
10/08/2024
ARCHITECT

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
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PROJECT MANAGER: KS
DRAWN BY: BG, AJ, EW

QEA No.41911390

BID DOCUMENTS
10/8/2024

BASEMENT PLAN, RCP, FINISH PLAN

**A104**

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
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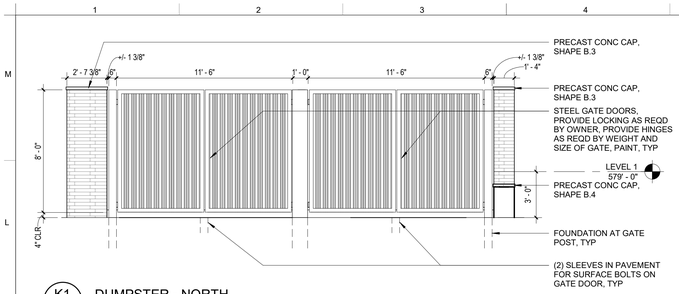
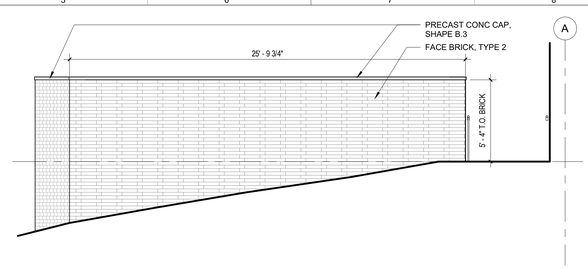
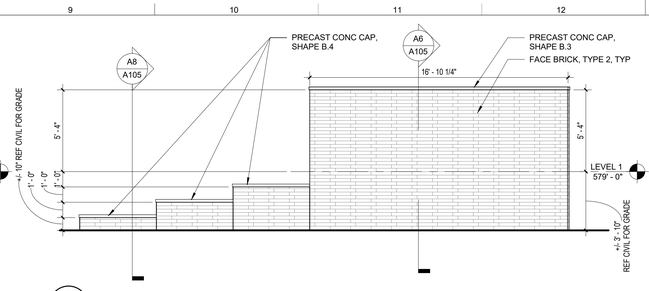


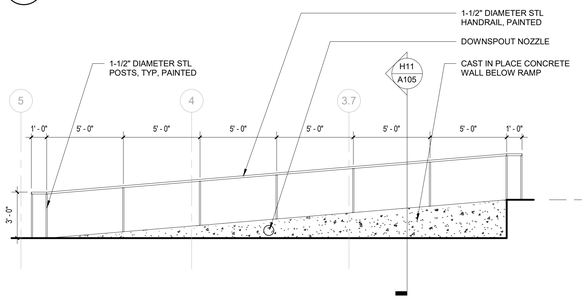

K1 A105 DUMPSTER - NORTH
1/4" = 1'-0"



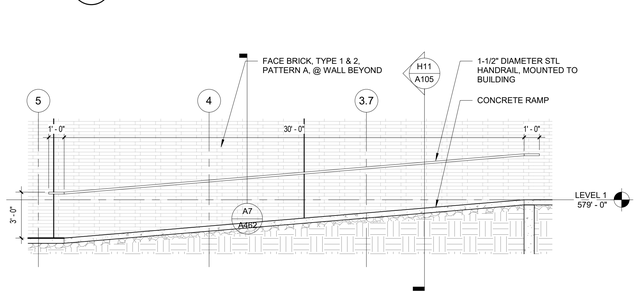

K5 A105 DUMPSTER - SOUTH
1/4" = 1'-0"



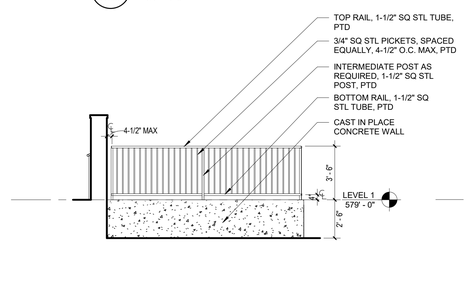

K9 A105 DUMPSTER - WEST
1/4" = 1'-0"



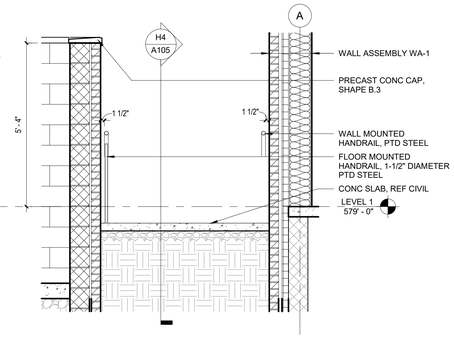

H1 A105 ELEVATION - RAMP
1/4" = 1'-0"



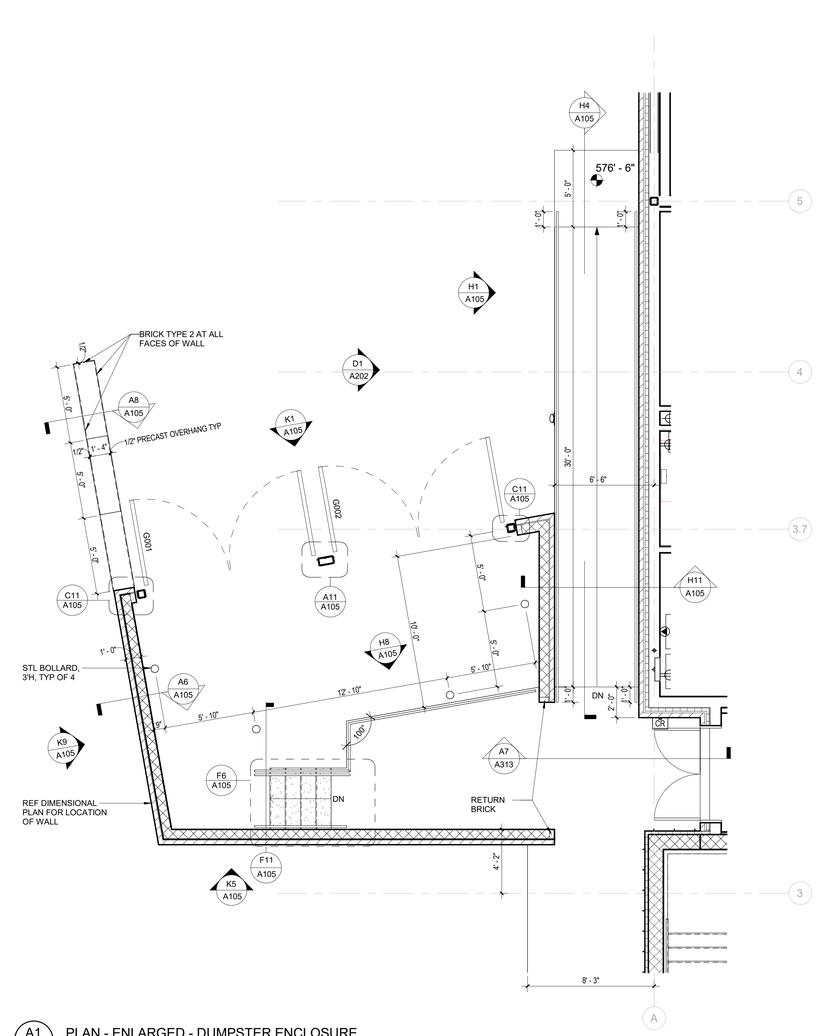

H4 A105 SECTION LONGITUDINAL - RAMP
1/4" = 1'-0"



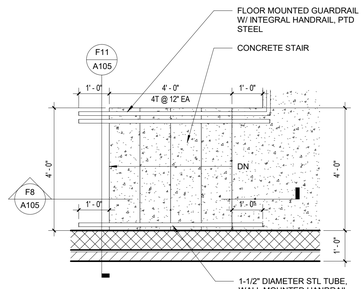

H8 A105 ELEVATION - DUMPSTER GUARDRAIL
1/4" = 1'-0"



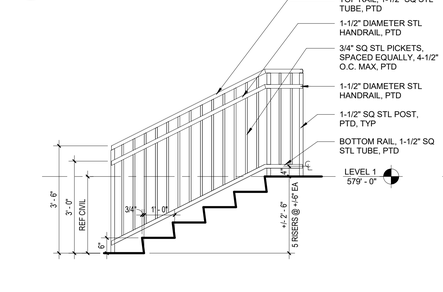

H11 A105 SECTION TRANSVERSE - RAMP
1/2" = 1'-0"



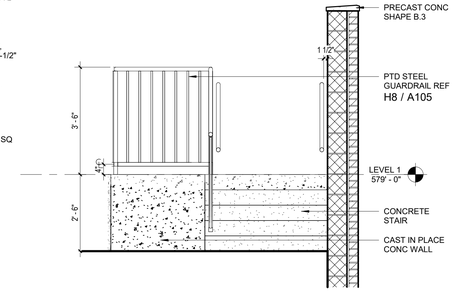

A1 A105 PLAN - ENLARGED - DUMPSTER ENCLOSURE
1/4" = 1'-0"



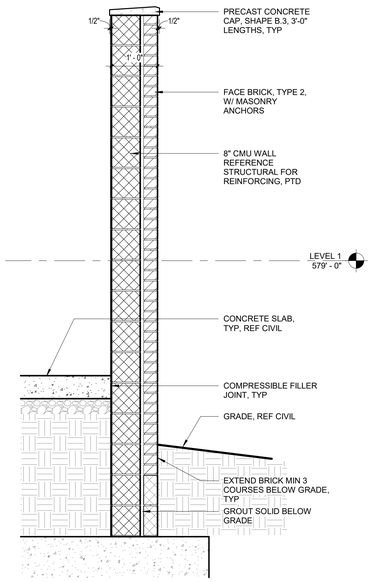

F6 A105 ENLARGED PLAN - STAIR
1/2" = 1'-0"



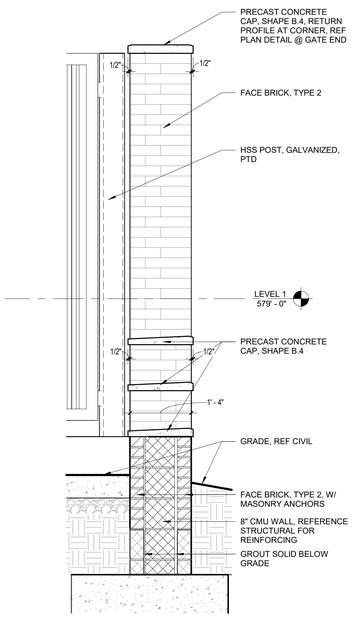

F8 A105 SECTION - STAIR
1/2" = 1'-0"



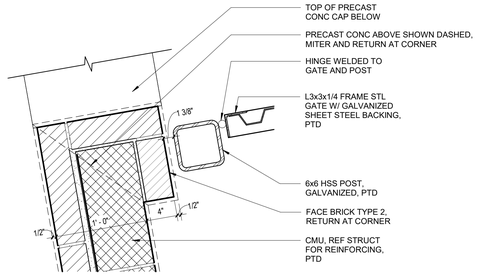

F11 A105 SECTION STAIR - DUMPSTER
1/2" = 1'-0"



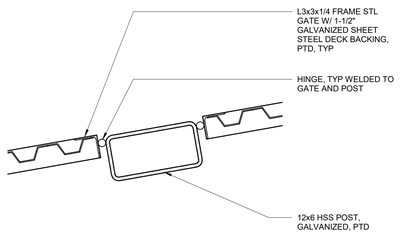

A6 A105 WALL SECTION - DUMPSTER ENCLOSURE
3/4" = 1'-0"




A8 A105 WALL SECTION - ENCLOSURE WALL EXTENSION
3/4" = 1'-0"




C11 A105 EXTERIOR PLAN DETAIL - GATE END
1 1/2" = 1'-0"




A11 A105 EXTERIOR PLAN DTL - GATE 2
1 1/2" = 1'-0"

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Albemarle County Public Schools

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PROJECT MANAGER: KS
DRAWN BY: AJ

QEA No.41911390

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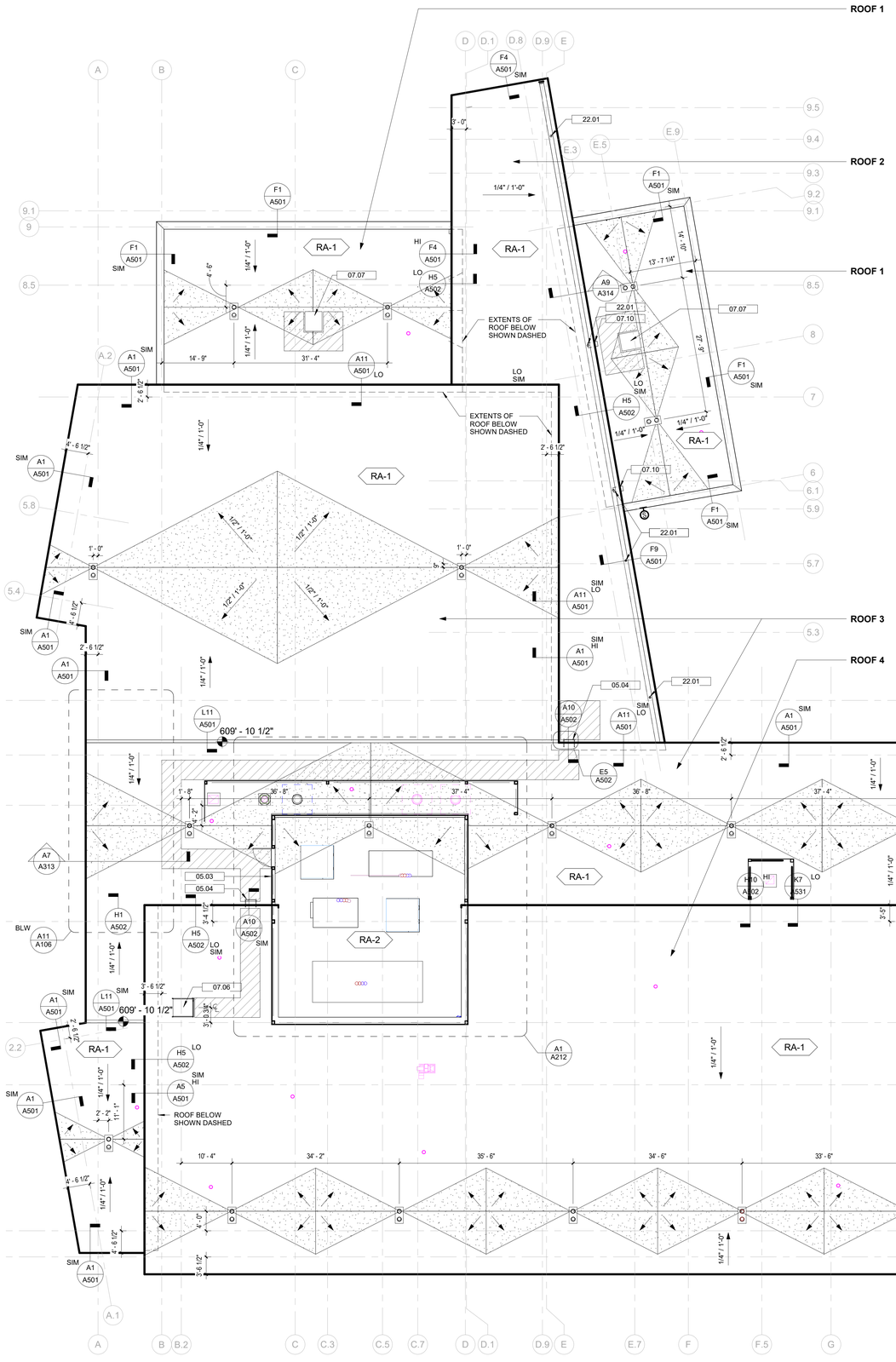
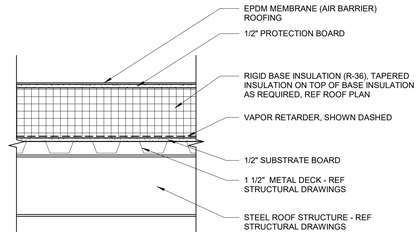
10/8/2024

DUMPSTER ENCLOSURE & RAMP

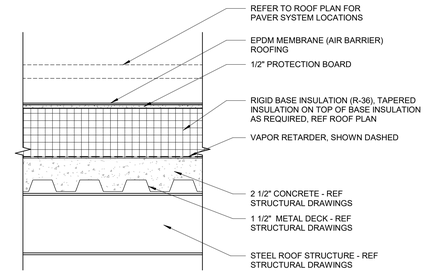
**A105**



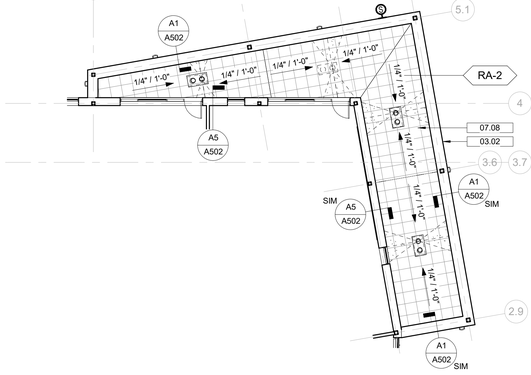

A1 ROOF PLAN (A106) 3/32" = 1'-0"



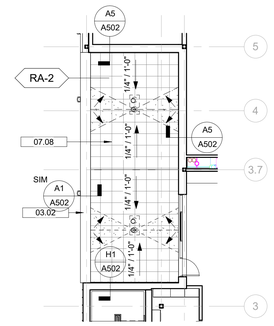

K9 ROOF ASSEMBLY RA-1 (A106) 1 1/2" = 1'-0"




H9 ROOF ASSEMBLY RA-2 (A106) 1 1/2" = 1'-0"




D11 ROOF PLAN - EAST ROOF TERRACE (A106) 3/32" = 1'-0"




A11 ROOF PLAN - WEST ROOF TERRACE (A106) 3/32" = 1'-0"

## GENERAL NOTES

1. PROVIDE SHEET METAL STRAPPING ON FACE OF CFMF STUDS AT LOCATIONS WHERE ROOF MEMBRANE TERMINATES ON VERTICAL FACE.

## ROOF LEGEND

- R# — ROOF ASSEMBLY TYPE
- DIRECTION OF ROOF SLOPE - MINIMUM SLOPE 1/4" PER 1'-0"
- CRICKET (TAPERED INSULATION, MINIMUM SLOPE 1/2" PER 1'-0") PROVIDE AT ALL MECHANICAL, CURBS, AND ROOF MOUNTED EQUIPMENT
- ROOF DRAIN (W/ SECONDARY OVERFLOW) - REF PLUMBING DRAWINGS
- ROOF WALKWAY PAD - REF SPECIFICATIONS
- MECHANICAL AND PLUMBING EQUIPMENT / ROOF PENETRATIONS - REF MECHANICAL AND PLUMBING DRAWINGS (FLASHING PER ROOF MFR RECOMMENDATIONS)

| | |
|---|---|
| 03.02 | PRECAST CONCRETE CAP, REF CUSTOM SHAPES |
| 05.03 | PREFIN. PERFORATED METAL PANEL SCREEN WALL |
| 05.04 | METAL EXTERIOR ROOF LADDER |
| 07.06 | METAL ROOF HATCH W/ SAFETY RAILING |
| 07.07 | METAL ROOF HATCH |
| 07.08 | CONCRETE PEDESTAL PAVER SYSTEM |
| 07.10 | SPLASH BLOCK |
| 22.01 | ROOF DRAIN AT GUTTER, REF PLUMBING |

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PROJECT MANAGER: KS
DRAWN BY: AJ

QEA No.41911390

BID DOCUMENTS
10/8/2024

ROOF PLAN

**A106**

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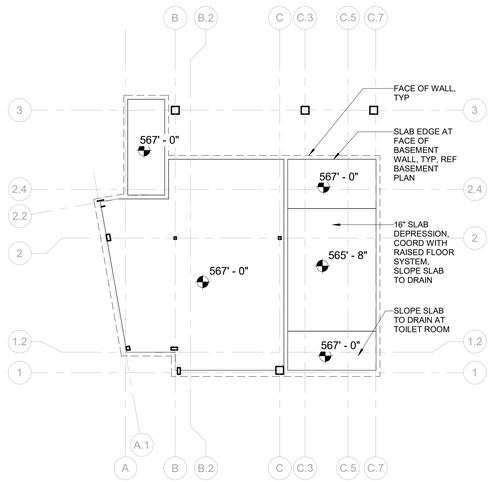
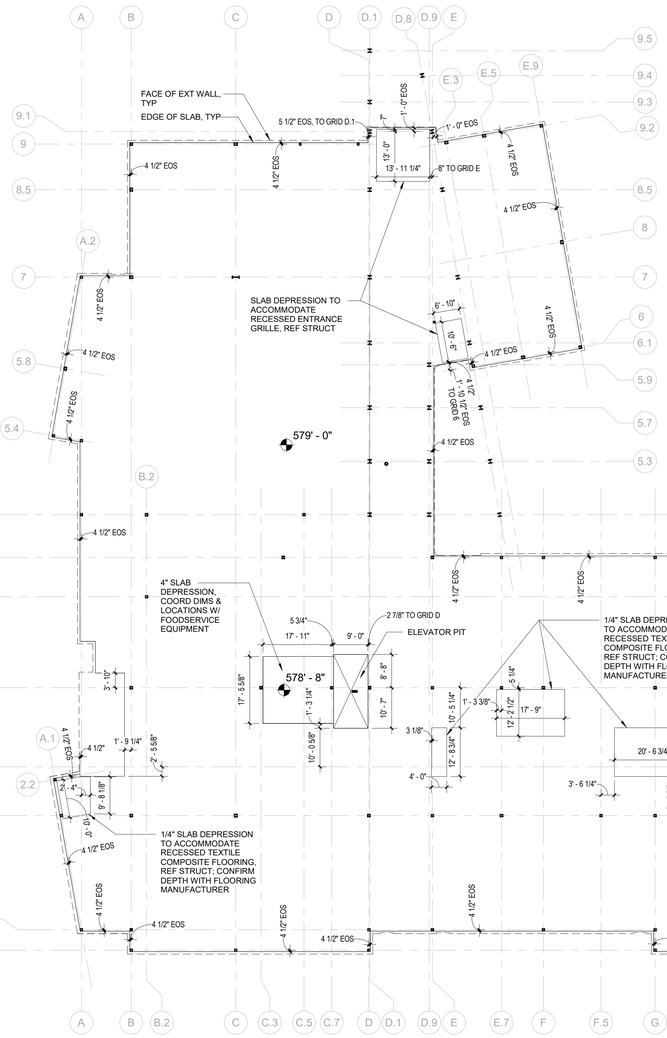



J1 / A111 BASEMENT - EDGE OF SLAB PLAN
1/16" = 1'-0"

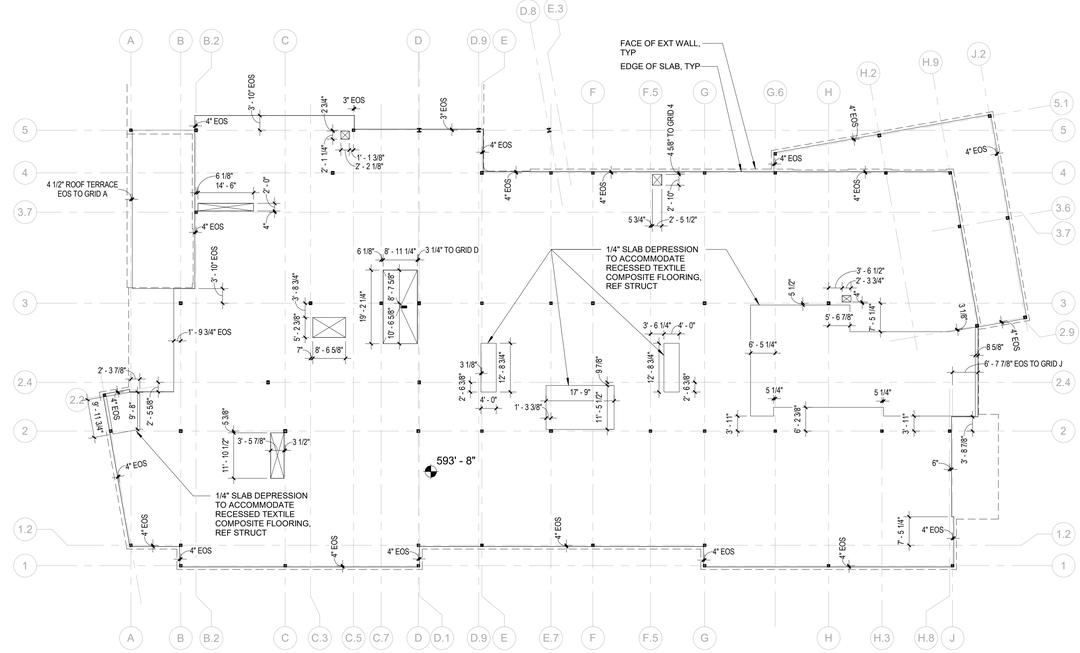
PLAN NORTH




A1 / A111 LEVEL 1 - EDGE OF SLAB PLAN
1/16" = 1'-0"

PLAN NORTH




A7 / A111 LEVEL 2 - EDGE OF SLAB PLAN
1/16" = 1'-0"

PLAN NORTH

## CONTROL PLAN GENERAL NOTES

1. REFER TO SITE PLANS AND CIVIL DRAWINGS FOR BUILDING LOCATION INFORMATION.
2. CONTROL PLAN DRAWINGS ARE TO BE USED IN CONJUNCTION AND IN COORDINATION WITH ARCHITECTURAL AND STRUCTURAL PLANS. NOTIFY ARCHITECT OF ANY DISCREPANCIES AND RESOLVE SUCH DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.
3. ALL SLAB ELEVATIONS ARE GIVEN TO THE TOP OF CONCRETE.
4. REFER TO STRUCTURAL DRAWINGS FOR FOUNDATION DESIGN AND DETAILS, CONCRETE REINFORCEMENT, EXTENT OF FOUNDATION, AND TYPICAL SLAB / DECK CONSTRUCTION INFORMATION.
5. PENETRATIONS, RECESSED FLOOR BOXES, AND FRAMED OPENINGS IN THE SLAB / DECK / WALLS ARE NOT LIMITED TO THOSE INDICATED ON THE CONTROL PLAN DRAWINGS. SEE ARCHITECTURAL FLOOR PLANS IN CONJUNCTION WITH ALL OTHER DISCIPLINES' DRAWINGS, INCLUDING BUT NOT LIMITED TO MECHANICAL, PLUMBING, ELECTRICAL, FIRE PROTECTION, AND IT / SECURITY / AUDIO-VISUAL FOR ANY ADDITIONAL REQUIRED PENETRATIONS, RECESSED DEVICES / FIXTURES, AND OPENINGS. ACTUAL LAYOUT OF PENETRATIONS IN THE FIELD MAY VARY FROM DIMENSIONS SHOWN ON CONTROL PLANS. PENETRATION DIMENSIONS SHOWN ON THE CONTROL PLANS DO NOT RELIEVE THE CONTRACTOR FROM THEIR RESPONSIBILITY TO COORDINATE THE WORK. SLEEVES SHALL BE LOCATED PER FINAL MEP / ARCHITECTURAL (GENERAL CONSTRUCTION) TRADE COORDINATION.
6. REFER TO THE MECHANICAL, PLUMBING, FIRE PROTECTION, AND ELECTRICAL DRAWINGS FOR ADDITIONAL CONCRETE HOUSEKEEPING PADS ASSOCIATED WITH SPECIFIC EQUIPMENT. PADS, AS DIMENSIONED ON THESE PLANS, ARE IN REFERENCE TO BASIS OF DESIGN EQUIPMENT. CONTRACTOR TO CONFIRM DIMENSIONS WITH APPROVED EQUIPMENT PRIOR TO PROCEEDING WITH THE WORK.
7. REFER TO CIVIL, STRUCTURAL, PLUMBING, AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING PERIMETER FOUNDATION DRAINAGE SYSTEMS.
8. REFER TO STRUCT DWGS FOR STRUCT SLAB DETAILING AT DEPRESSIONS & REFER TO ARCHITECTURAL FINISH DRAWINGS FOR COORDINATION WITH FINISHES.

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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
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PROJECT MANAGER: KS
DRAWN BY: AJ, EW, EC

QEA No.41911390

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CONTROL PLANS

**A111**

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
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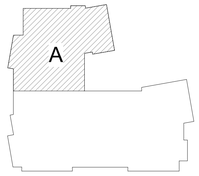
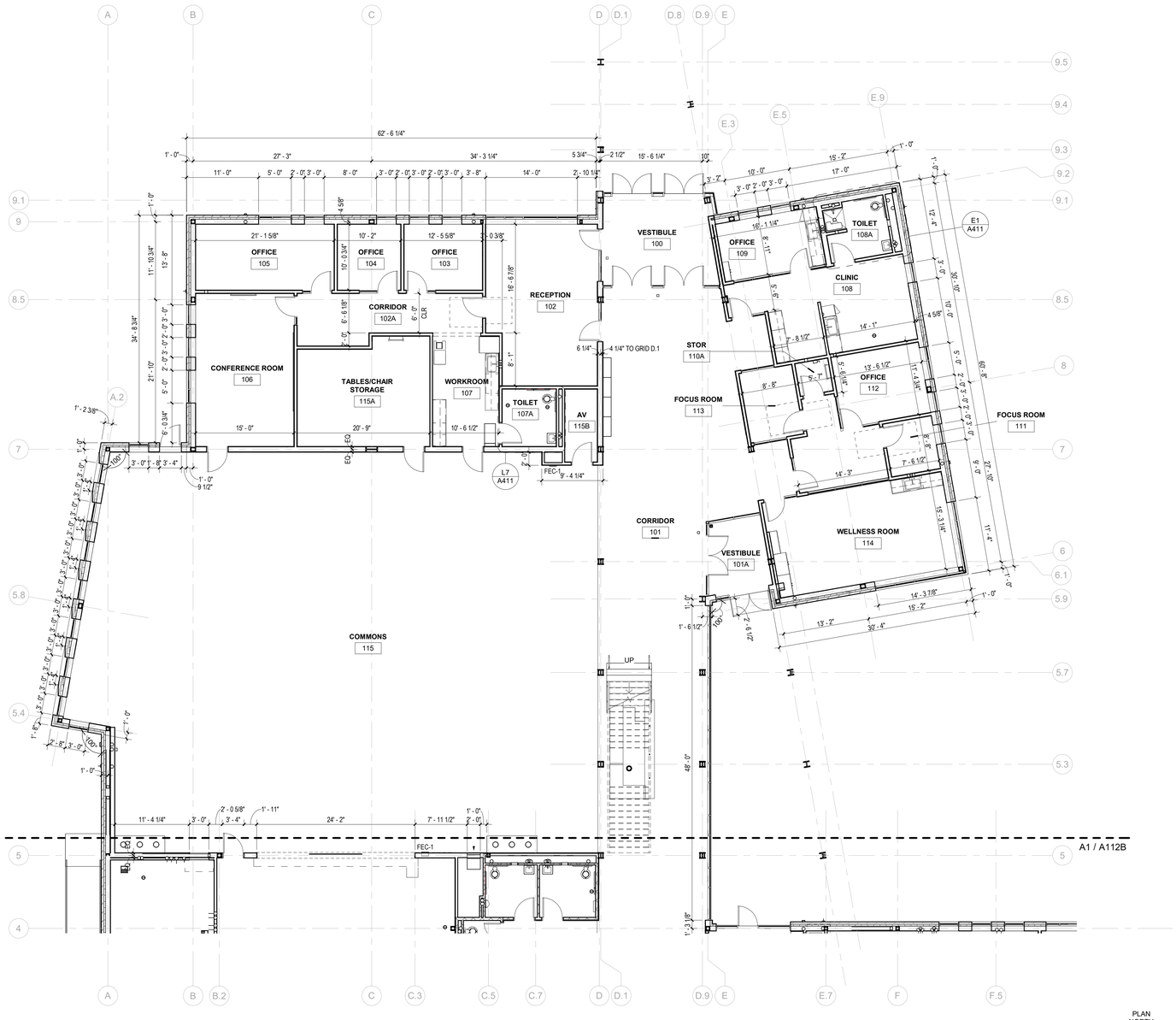
KEY PLAN




A1 / A112A DIMENSION PLAN - LEVEL 1 - AREA A

1/8" = 1'-0"

PLAN NORTH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SUITE 400
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DIMENSION PLAN - LEVEL 1 - AREA A

**A112A**

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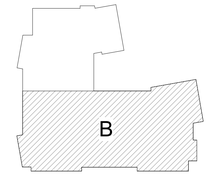


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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

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PROJECT MANAGER: KS

DRAWN BY: AJ, EW

QEA No.41911390

BID DOCUMENTS
10/8/2024

DIMENSION PLAN - LEVEL 1 - AREA B

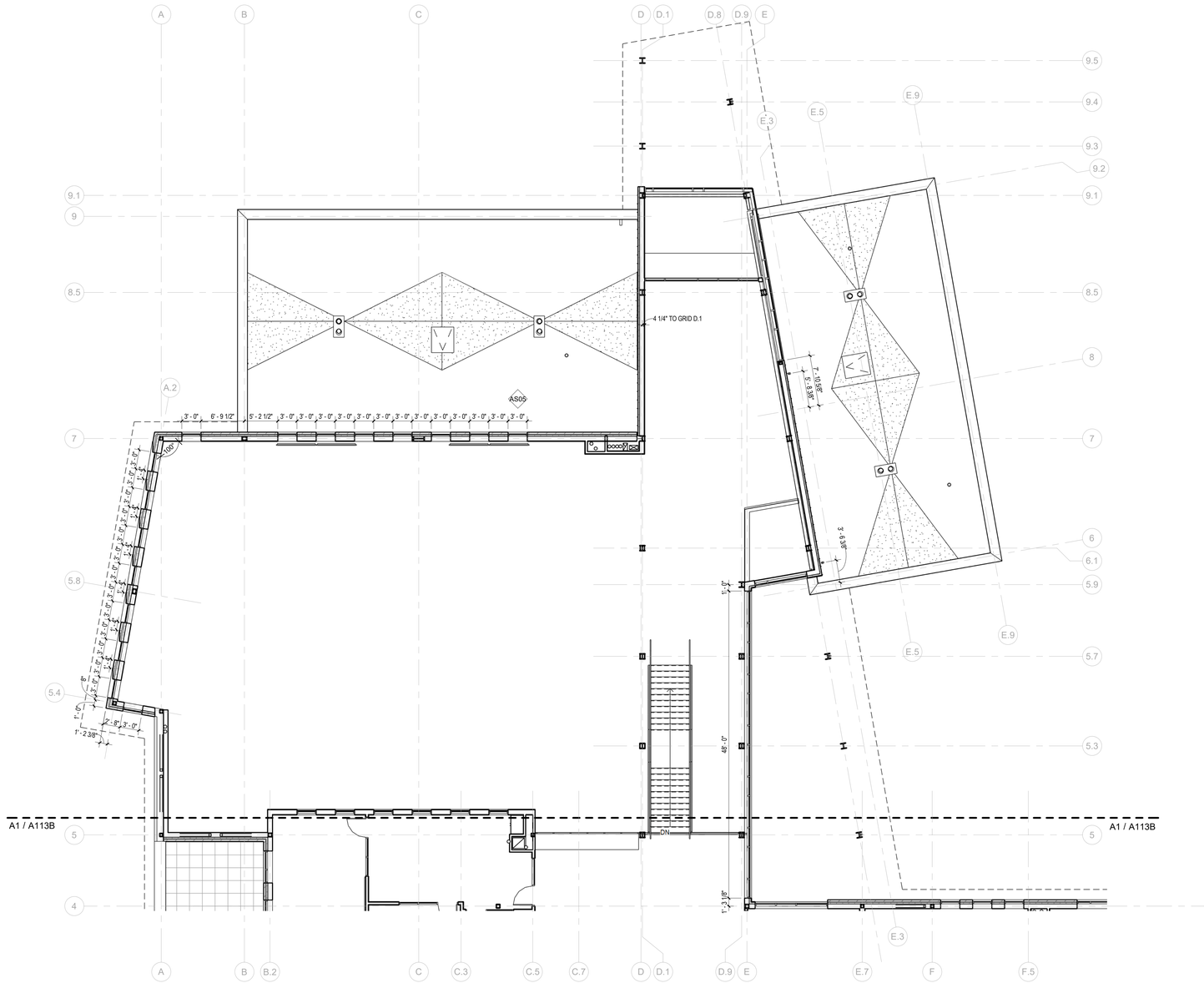
**A112B**

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:45:09 PM

A1 / A112B
1/8" = 1'-0"

DIMENSION PLAN - LEVEL 1 - AREA B

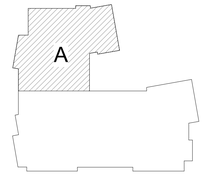
PLAN NORTH




A1 / A113A DIMENSION PLAN - LEVEL 2 - AREA B
1/8" = 1'-0"

PLAN NORTH

KEY PLAN

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CHARLES W. TILLEY
LIC. No. 010767
10/08/2024
ARCHITECT

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS

DRAWN BY: AJ, EW

QEA No.41911390

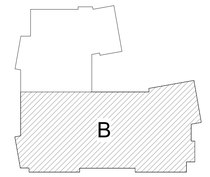
BID DOCUMENTS
10/8/2024

DIMENSION PLAN - LEVEL 2 - AREA A

# A113A

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:45:12 PM

KEY PLAN

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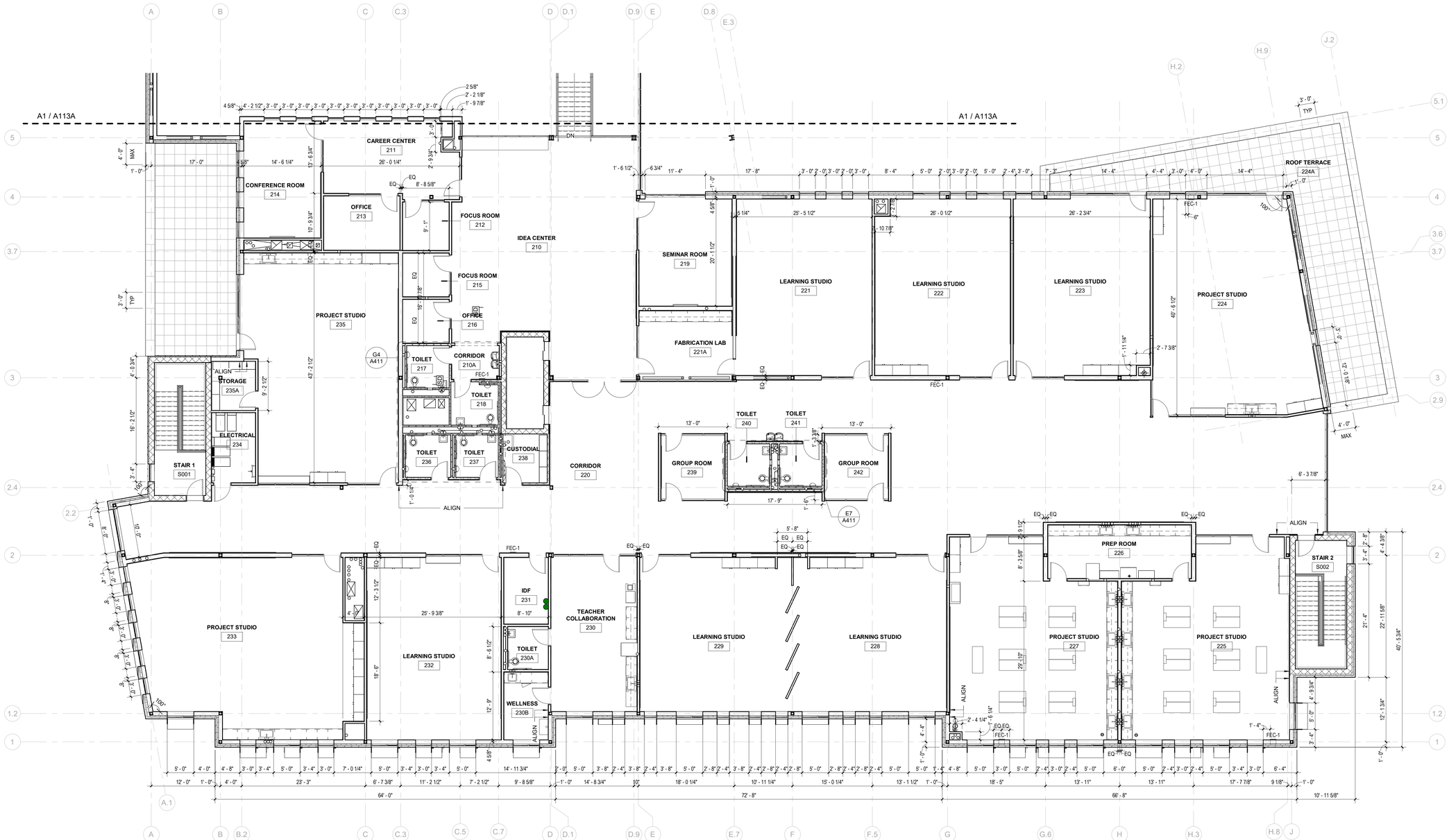


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PLOTTING DATE & TIME: 10/2/2024 2:45:15 PM

A1 / A113B DIMENSION PLAN - LEVEL 2 - AREA B
1/8" = 1'-0"

PLAN NORTH

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS
DRAWN BY: AJ, EW

QEA No.41911390

BID DOCUMENTS
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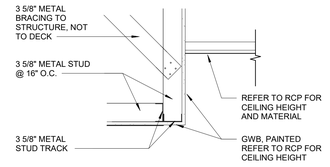
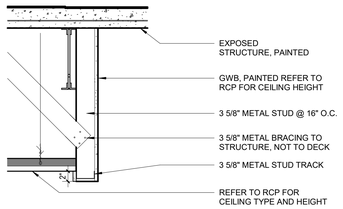
DIMENSION PLAN - LEVEL 2 - AREA B

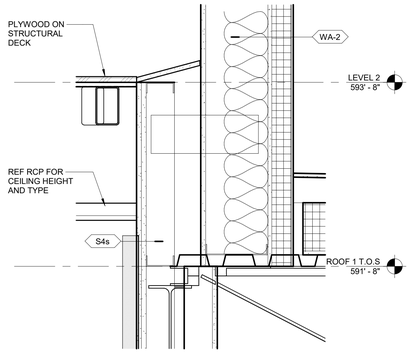
**A113B**



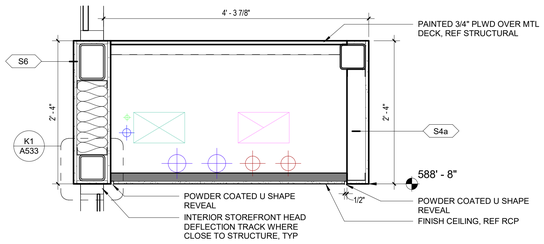




L1 A121A CEILING DETAIL
1" = 1'-0"

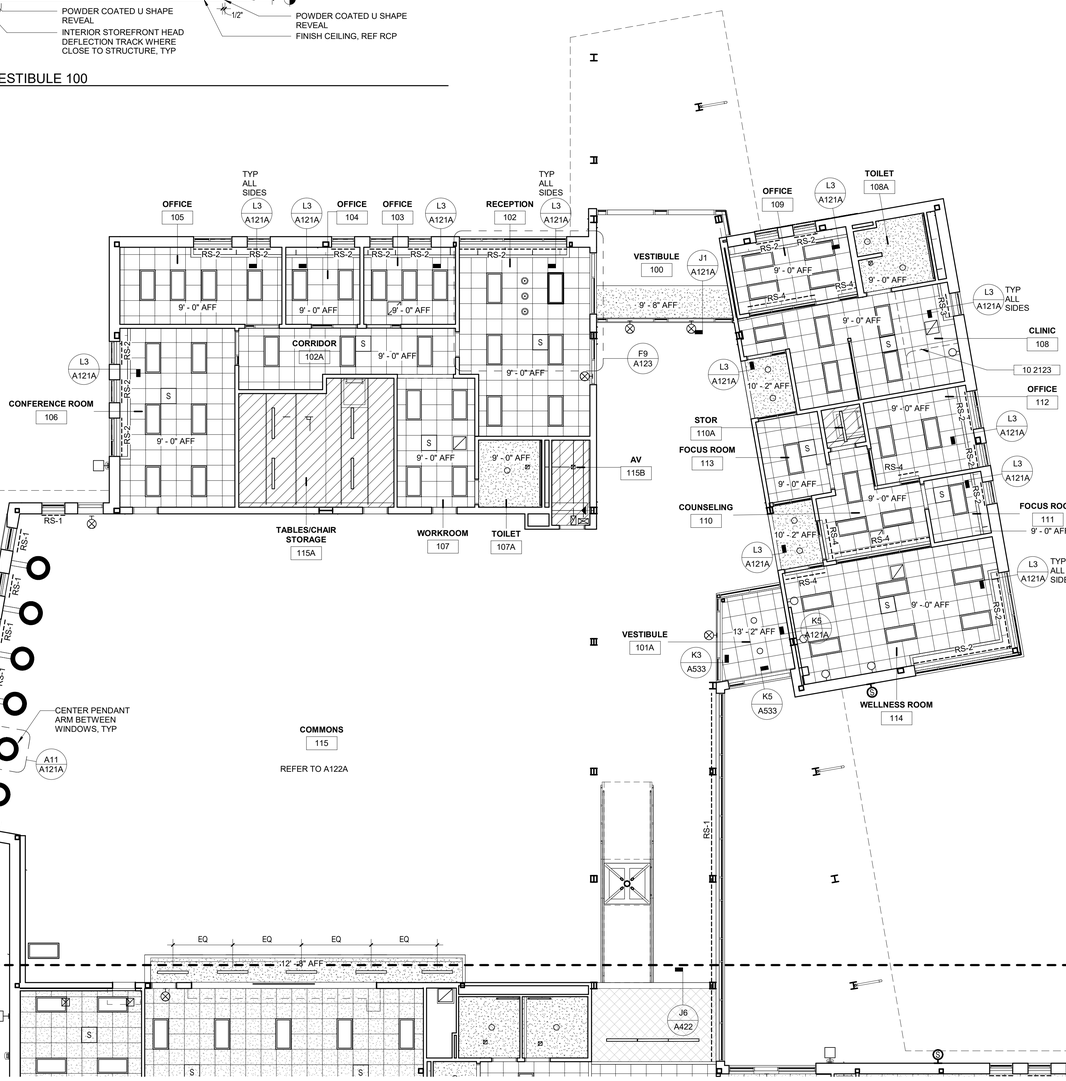
L3 A121A CEILING DETAIL
1" = 1'-0"




K5 A121A SECTION DETAIL - VESTIBULE EAST
1 1/2" = 1'-0"




J1 A121A BULKHEAD @ VESTIBULE 100
1" = 1'-0"

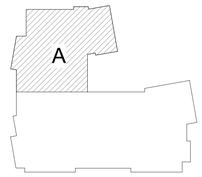



A1 A121A REFLECTED CEILING PLAN - LEVEL 1 - AREA A
1/8" = 1'-0"

## RCP LEGEND

- PARTITION
- SACP-1: SUSPENDED ACOUSTIC CEILING PANEL
- SACP-2: SUSPENDED ACOUSTIC CEILING PANEL
- SACP-3: SUSPENDED ACOUSTIC CEILING PANEL
- GYPSUM BOARD CEILING
- EXPOSED TO STRUCTURE - UNPAINTED
- EXPOSED TO STRUCTURE WITH SPRAY APPLIED ACOUSTIC TREATMENT; PAINTED
- LWC-1: LINEAR WOOD CEILING
- LINEAR METAL CEILING
- METAL SOFFIT PANEL SYSTEM
- RS-X ROLLER SHADE, REFER TO SPECIFICATIONS FOR TYPES
- MECHANICAL REFER TO MECHANICAL
- EQ08 - CEILING ACCESS PANEL
- LIGHTING REFER TO ELECTRICAL
- ACOUSTIC BAFFLE CLOUD
- ACOUSTIC BAFFLE CLOUD WITH LIGHT
- ACOUSTIC PENDANT
- WOOD GRILLE
- ACOUSTIC BAFFLE WAVE

## KEY PLAN

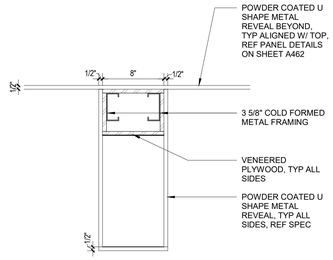



## KEYNOTES

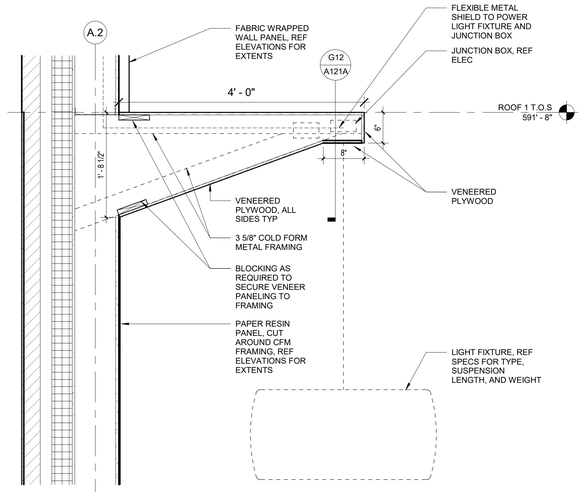
| | |
|---|---|
| 10 2123 | CURTAIN TRACK, REF SPEC |

## GENERAL NOTES

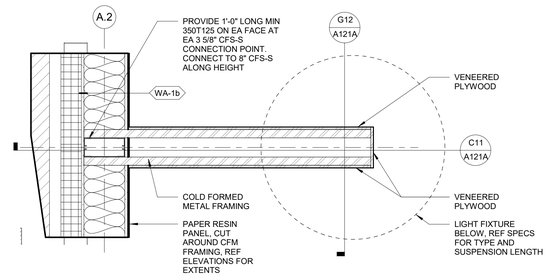
1. LIGHTING SHOWN FOR LOCATION PURPOSES ONLY, REFERENCE ELECTRICAL DRAWINGS FOR TECHNICAL INFORMATION.
2. DIMENSIONS ARE TO FINISH FACE UNLESS INDICATED OTHERWISE.
3. LIGHT FIXTURES TO BE CENTERED IN ROOM BETWEEN PRIMARY WALLS OR WITHIN GRID UNLESS INDICATED OTHERWISE.
4. REFER TO SPECIFICATIONS FOR CEILING AND LIGHT FIXTURE TYPES.
5. WOOD GRILLE CEILING WITHIN ENCLOSED ROOMS SHALL HAVE ACOUSTIC BACKER, REF SPEC
6. LIGHT FIXTURE HEIGHTS ARE NOTED TO BOTTOM OF FIXTURE UIO.
7. FIXTURES DIMENSIONED TO CENTERLINE UNLESS INDICATED OTHERWISE
8. FOR DEVICES SHOWN ON REFLECTED CEILING PLANS, BUT NOT INCLUDED IN RCP LEGEND (SUCH AS SPEAKERS, DIFFUSERS, ETC.) REFER TO FIRE PROTECTION, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS) DEVICES SHOWN FOR COORDINATION PURPOSES.




G12 A121A CEILING DETAIL - PENDANT ARMSECTION
1 1/2" = 1'-0"




C11 A121A CEILING DETAIL - PENDANT ARM SECTION
1" = 1'-0"




A11 A121A CEILING DETAIL - PENDANT PLAN
1" = 1'-0"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| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS
DRAWN BY: EW, EC

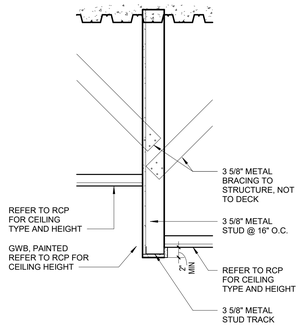
QEA No.41911390

BID DOCUMENTS
10/8/2024

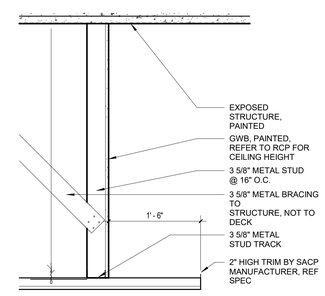
REFLECTED CEILING PLAN - LEVEL 1 - AREA A

**A121A**

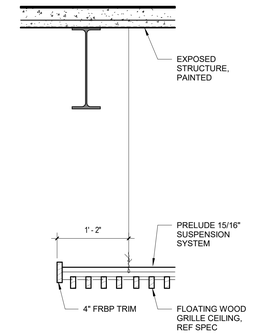
PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:45:17 PM



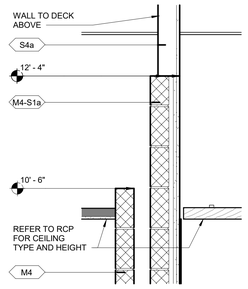

K1 A121B — CEILING DETAIL
1" = 1'-0"



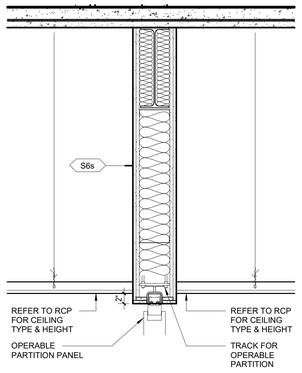

K3 A121B — CEILING DTL - CLOSED SACP CLOUD TYP
1" = 1'-0"




K5 A121B — CEILING DTL - WD GRILLE
1" = 1'-0"




K7 A121B — SECTION DETAIL
1" = 1'-0"




J8 A121B — SECTION DETAIL - OPERABLE PARTITION TRACK @ CLNG
1" = 1'-0"

## RCP LEGEND

- PARTITION
- SACP-1: SUSPENDED ACOUSTIC CEILING PANEL
- SACP-2: SUSPENDED ACOUSTIC CEILING PANEL
- SACP-3: SUSPENDED ACOUSTIC CEILING PANEL
- GYPSUM BOARD CEILING
- EXPOSED TO STRUCTURE - UNPAINTED
- EXPOSED TO STRUCTURE WITH SPRAY APPLIED ACOUSTIC TREATMENT; PAINTED
- LWC-1: LINEAR WOOD CEILING
- LINEAR METAL CEILING
- METAL SOFFIT PANEL SYSTEM
- RS-X ROLLER SHADE, REFER TO SPECIFICATIONS FOR TYPES
- MECHANICAL REFER TO MECHANICAL
- EQ08 - CEILING ACCESS PANEL
- LIGHTING REFER TO ELECTRICAL
- ACOUSTIC BAFFLE CLOUD
- ACOUSTIC BAFFLE CLOUD WITH LIGHT
- ACOUSTIC PENDANT
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## GENERAL NOTES

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4. REFER TO SPECIFICATIONS FOR CEILING AND LIGHT FIXTURE TYPES.
5. WOOD GRILLE CEILING WITHIN ENCLOSED ROOMS SHALL HAVE ACOUSTIC BACKER, REF SPEC
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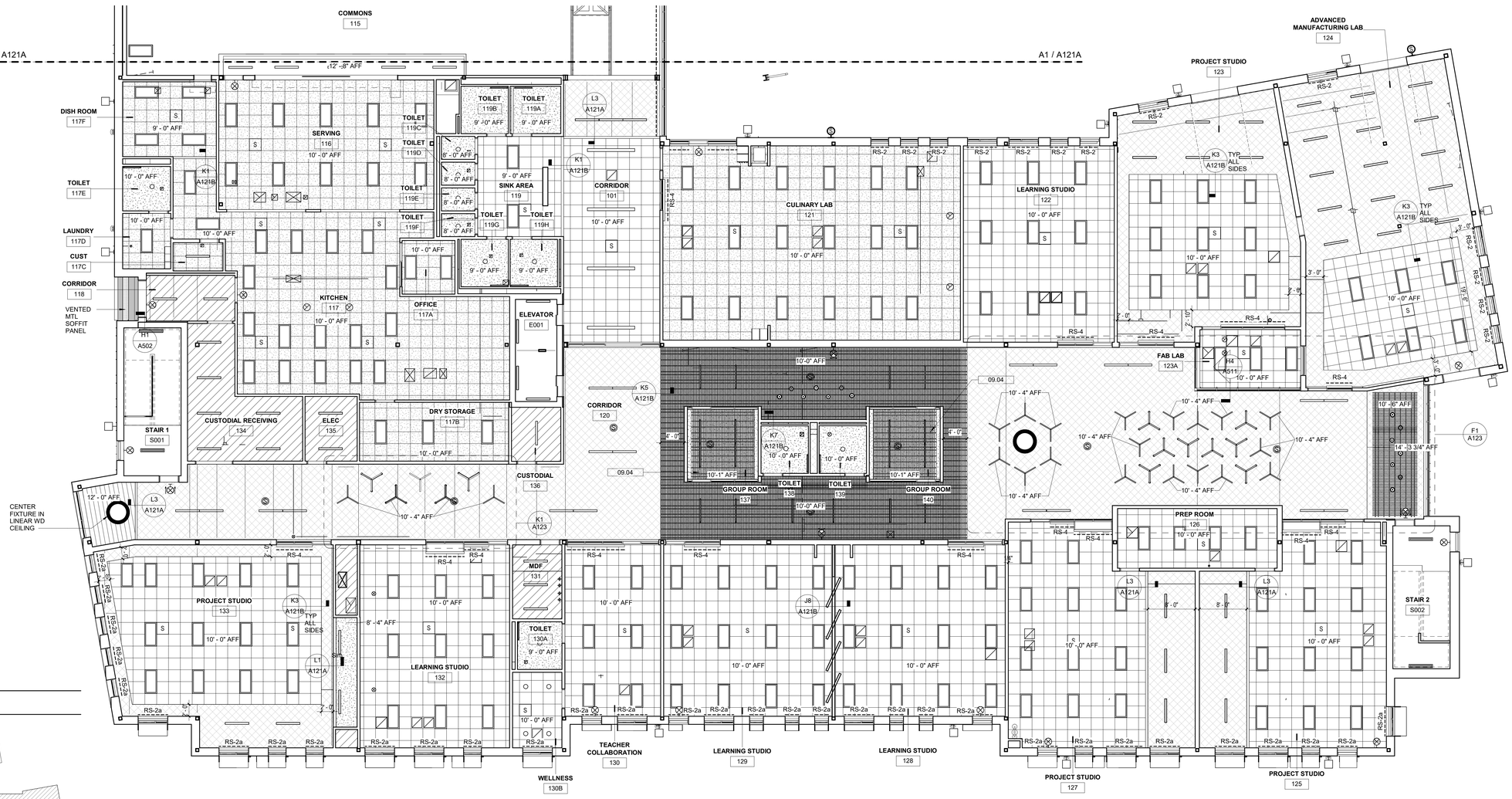
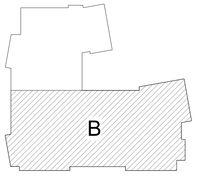



## KEY PLAN




A1 A121B — REFLECTED CEILING PLAN - LEVEL 1 - AREA B
1/8" = 1'-0"

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
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PROJECT MANAGER: KS
DRAWN BY: EW, EC

QEA No.41911390

BID DOCUMENTS
10/8/2024

REFLECTED CEILING PLAN - LEVEL 1 - AREA B

**A121B**

## RCP LEGEND

- PARTITION
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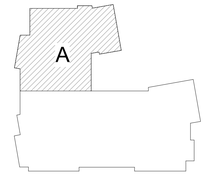
- ACOUSTIC BAFFLE WAVE

## KEY PLAN

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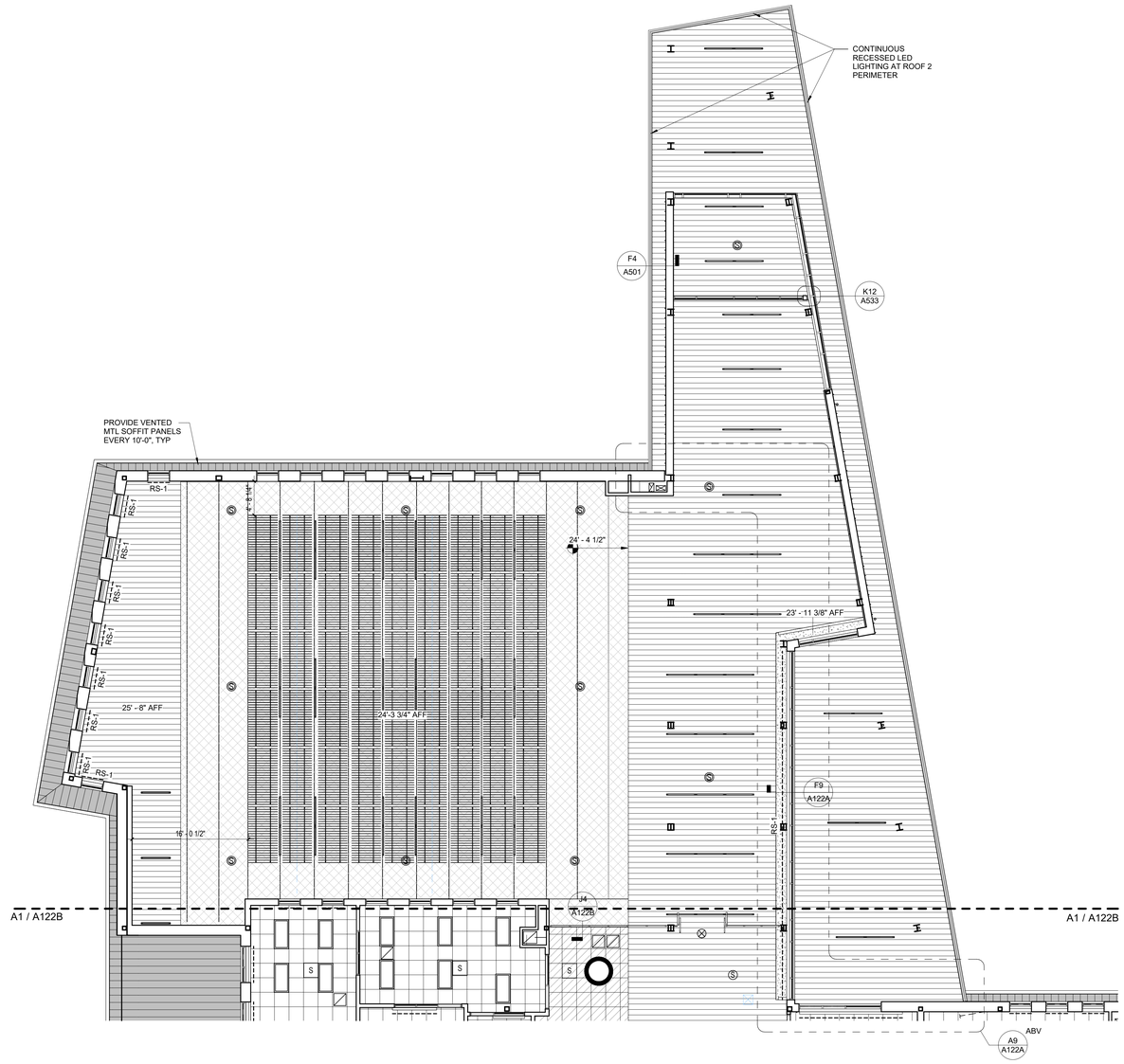
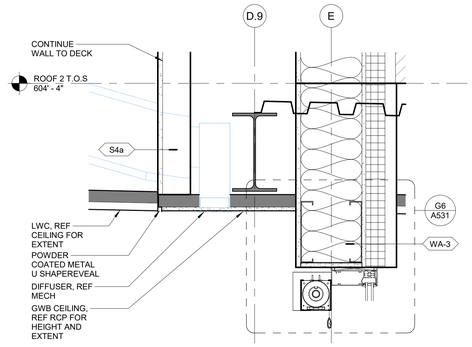
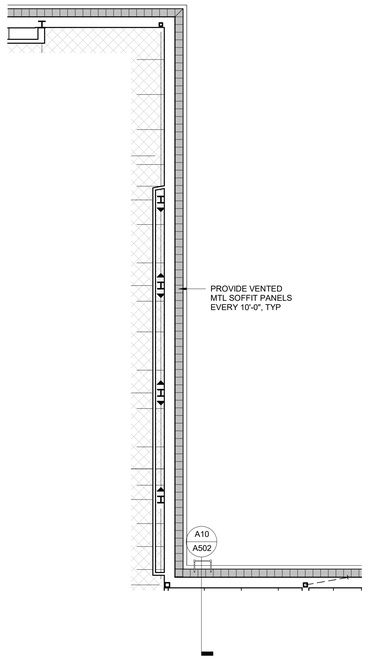



A1 / A122A REFLECTED CEILING PLAN - LEVEL 2 - AREA A
1/8" = 1'-0"




F9 / A122A SECTION DETAIL - GYP SOFFIT @ DIFFUSERS
1 1/2" = 1'-0"




A9 / A122A REFLECTED CEILNG PLAN - ROOF 3 - AREA A
1/8" = 1'-0"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DRAWN BY: EW, EC

QEA No.41911390

BID DOCUMENTS
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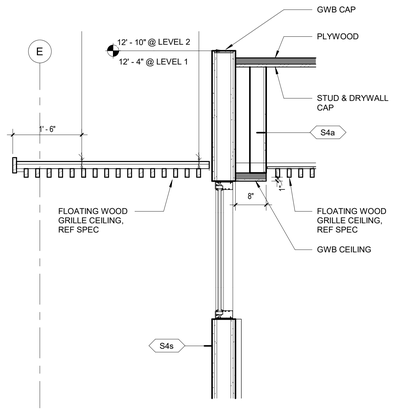
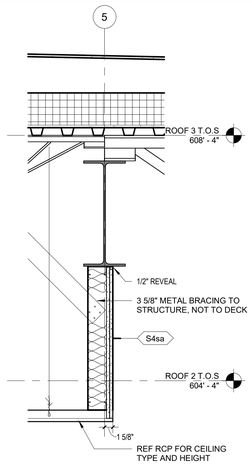
REFLECTED CEILING PLAN - LEVEL 2 - AREA A

# A122A

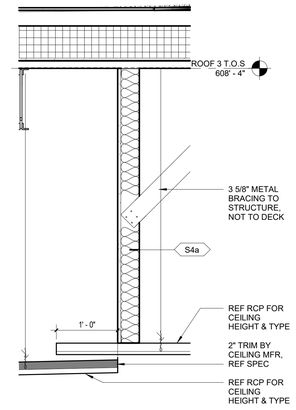
PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:45:21 PM



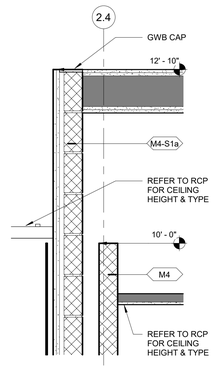

J1 A122B — CEILING DTL - WD GRILLE TO SOLID WD
3/4" = 1'-0"




J4 A122B — SECTION DETAIL - IDEA CENTER CLNG
1" = 1'-0"




J6 A122B — SECTION DETAIL - IDEA CENTER ACT TO WD
1" = 1'-0"



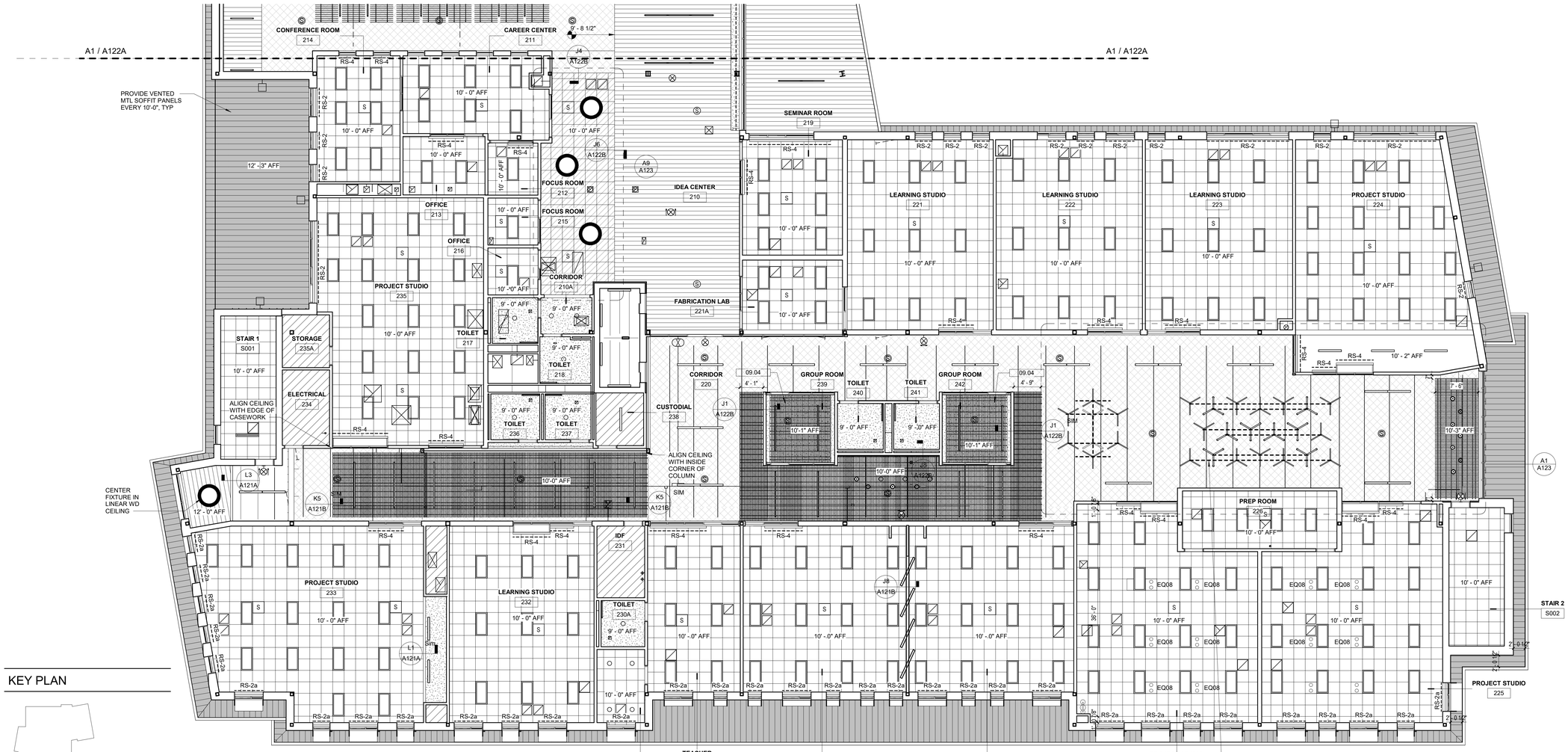

J8 A122B — SECTION DETAIL
1" = 1'-0"

## RCP LEGEND

- PARTITION
- SACP-1: SUSPENDED ACOUSTIC CEILING PANEL
- SACP-2: SUSPENDED ACOUSTIC CEILING PANEL
- SACP-3: SUSPENDED ACOUSTIC CEILING PANEL
- GYPSUM BOARD CEILING
- EXPOSED TO STRUCTURE - UNPAINTED
- EXPOSED TO STRUCTURE WITH SPRAY APPLIED ACOUSTIC TREATMENT; PAINTED
- LWC-1: LINEAR WOOD CEILING
- LINEAR METAL CEILING
- METAL SOFFIT PANEL SYSTEM
- RS-X — ROLLER SHADE, REFER TO SPECIFICATIONS FOR TYPES
- MECHANICAL REFER TO MECHANICAL
- EQ08 - CEILING ACCESS PANEL
- LIGHTING REFER TO ELECTRICAL
- ACOUSTIC BAFFLE CLOUD
- ACOUSTIC BAFFLE CLOUD WITH LIGHT
- ACOUSTIC PENDANT
- WOOD GRILLE
- ACOUSTIC BAFFLE WAVE

## GENERAL NOTES

1. LIGHTING SHOWN FOR LOCATION PURPOSES ONLY, REFERENCE ELECTRICAL DRAWINGS FOR TECHNICAL INFORMATION.
2. DIMENSIONS ARE TO FINISH FACE UNLESS INDICATED OTHERWISE.
3. LIGHT FIXTURES TO BE CENTERED IN ROOM BETWEEN PRIMARY WALLS OR WITHIN GRID UNLESS INDICATED OTHERWISE.
4. REFER TO SPECIFICATIONS FOR CEILING AND LIGHT FIXTURE TYPES.
5. WOOD GRILLE CEILING WITHIN ENCLOSED ROOMS SHALL HAVE ACOUSTIC BACKER, REF SPEC
6. LIGHT FIXTURE HEIGHTS ARE NOTED TO BOTTOM OF FIXTURE UIO.
7. FIXTURES DIMENSIONED TO CENTERLINE UNLESS INDICATED OTHERWISE
8. FOR DEVICES SHOWN ON REFLECTED CEILING PLANS, BUT NOT INCLUDED IN RCP LEGEND (SUCH AS SPEAKERS, DIFFUSERS, ETC.) REFER TO FIRE PROTECTION, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS) DEVICES SHOWN FOR COORDINATION PURPOSES.



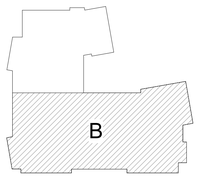

DASHED LINE INDICATES EXTENTS AND LAYOUT OF UNISTRUT SYSTEM FOR SUSPENSION OF LIGHT FIXTURES AND ACOUSTIC ELEMENTS, AND INSTALLATION OF ELECTRICAL JUNCTION BOXES RELATED TO LIGHT FIXTURES.

PROVIDE 1 5/8" x 1 5/8" UNISTRUT SECTIONS SUSPENDED BY THREADED ROD FROM STRUCTURE ABOVE. PROVIDE ALL CLAMPS, WASHERS, NUTS AND OTHER COMPONENTS AS REQUIRED FOR COMPLETE INSTALLATION OF SUSPENDED SYSTEM.

COORDINATE FINAL DIMENSIONS, LOCATIONS AND EXTENTS WITH LIGHT FIXTURE INSTALLATION REQUIREMENTS, STRUCTURAL ELEMENTS AND OTHER BUILDNG COMPONENTS.

PAINT UNISTRUT AND OTHER SUSPENSION COMPONENTS TO MATCH ADJACENT EXPOSED STRUCTURE

## KEY PLAN




A1 A122B — REFLECTED CEILING PLAN - LEVEL 2 - AREA B
1/8" = 1'-0"

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/3/2024 7:49:06 PM

QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

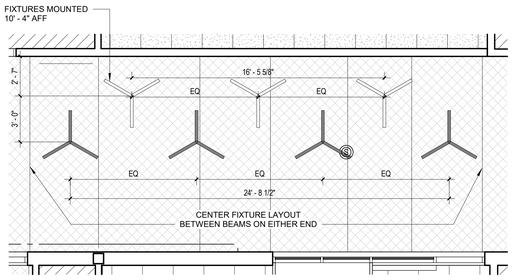
PROJECT MANAGER: KS
DRAWN BY: EW, EC

QEA No.41911390

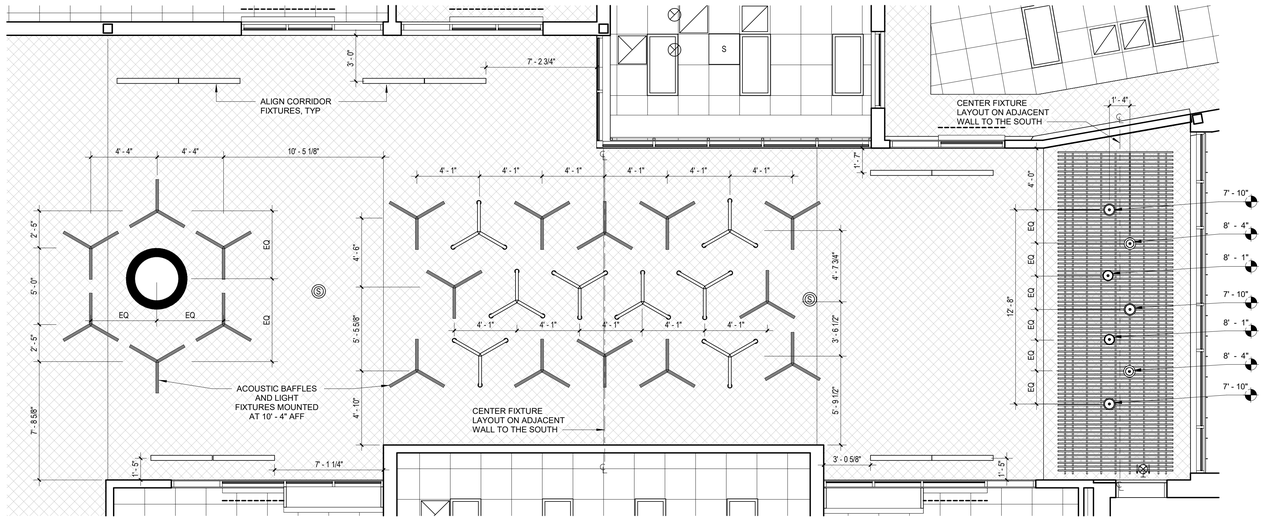
BID DOCUMENTS
10/8/2024

REFLECTED CEILING PLAN - LEVEL 2 - AREA B

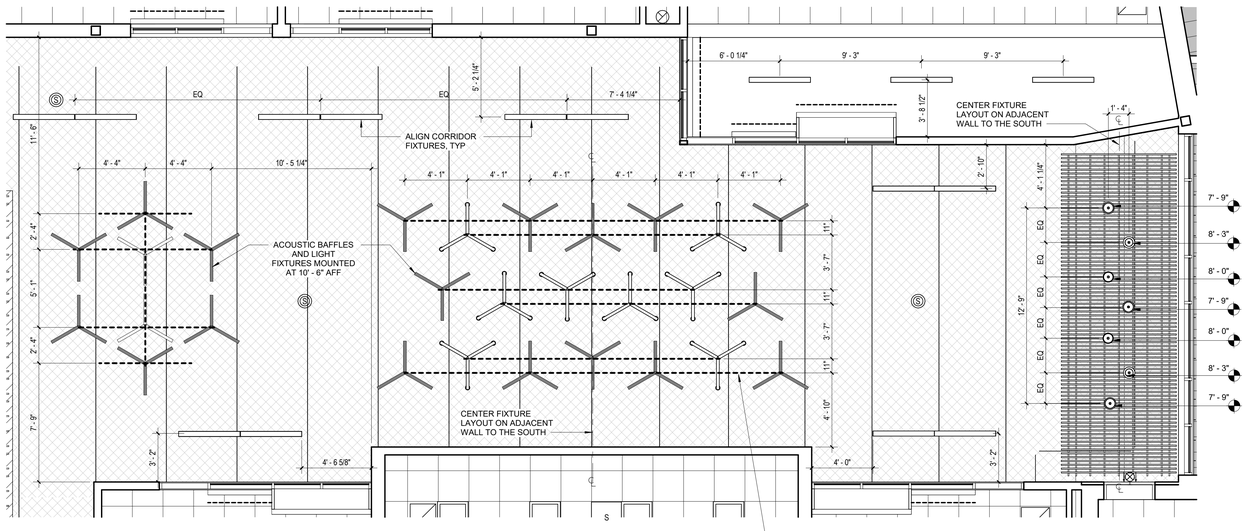
**A122B**




K1 A123 LIGHTING DIMENSION PLAN - LEVEL 1 AREA B WEST
1/4" = 1'-0"




F1 A123 LIGHTING DIMENSION PLAN - LEVEL 1 AREA B EAST
1/4" = 1'-0"




A1 A123 LIGHTING DIMENSION PLAN - LEVEL 2 AREA B EAST
1/4" = 1'-0"

DASHED LINE INDICATES EXTENTS AND LAYOUT OF UNISTRUT SYSTEM FOR SUSPENSION OF LIGHT FIXTURES AND ACOUSTIC ELEMENTS, AND INSTALLATION OF ELECTRICAL JUNCTION BOXES RELATED TO LIGHT FIXTURES.

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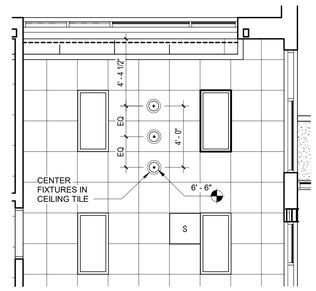
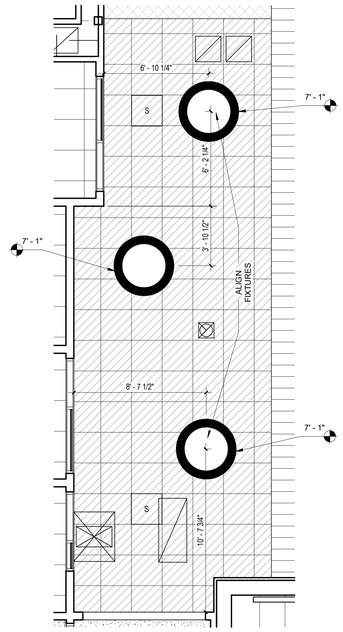
PAINT UNISTRUT AND OTHER SUSPENSION COMPONENTS TO MATCH ADJACENT EXPOSED STRUCTURE




F9 A123 LIGHTING DIMENSION PLAN - LEVEL 1 RECEPTION
1/4" = 1'-0"




A9 A123 LIGHTING DIMENSION PLAN - LEVEL 2 IDEA CENTER
1/4" = 1'-0"

## RCP LEGEND

- PARTITION
- SACP-1: SUSPENDED ACOUSTIC CEILING PANEL
- SACP-2: SUSPENDED ACOUSTIC CEILING PANEL
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- LWC-1: LINEAR WOOD CEILING
- LINEAR METAL CEILING
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- ROLLER SHADE, REFER TO SPECIFICATIONS FOR TYPES RS-X
- MECHANICAL REFER TO MECHANICAL
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- ACOUSTIC PENDANT
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## GENERAL NOTES

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3. LIGHT FIXTURES TO BE CENTERED IN ROOM BETWEEN PRIMARY WALLS OR WITHIN GRID UNLESS INDICATED OTHERWISE.
4. REFER TO SPECIFICATIONS FOR CEILING AND LIGHT FIXTURE TYPES.
5. WOOD GRILLE CEILING WITHIN ENCLOSED ROOMS SHALL HAVE ACOUSTIC BACKER, REF SPEC
6. LIGHT FIXTURE HEIGHTS ARE NOTED TO BOTTOM OF FIXTURE UIO.
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1840 WEST BROAD STREET
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v 804.788.4774
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Albemarle County Public Schools

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| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS
DRAWN BY: EW

QEA No.41911390

BID DOCUMENTS
10/8/2024

LIGHTING DIMENSION PLAN

**A123**

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:45:29 PM

## GENERAL NOTES

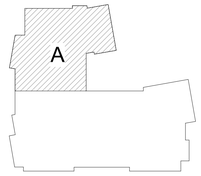
1. WHERE NO HATCH SHOWN, FLOORING SHALL BE FIELD COLOR ("FINISH"-1) OF FINISH NOTED IN ROOM TAG.
2. FLOOR FINISH CHANGES AT THRESHOLDS SHALL OCCUR AT INSIDE DOOR FRAME CORNER,UNDER DOOR PANEL. FLOOR FINISHES SHALL CONTINUE INTO THRESHOLD.
3. CWT SHALL BE INSTALLED FULL HEIGHT UIO. CWT SHALL BE INSTALLED UP TO 4' AFF WHERE SHOWN AT CUSTODIAL SINKS.
4. REFER TO INTERIOR ELEVATIONS FOR EXTENTS AND LOCATIONS OF CERAMIC TILE WAINSCOT IN CORRIDORS.
5. REFER TO INTERIOR ELEVATIONS FOR ADDITIONAL TILING INFORMATION.
6. WHERE SOFFITS NOTED TO BE ACCENT COLOR, PAINT ALL SIDES UNLESS INDICATED OTHERWISE.
7. TYPICAL PAINT FINISHES:
   - ALL TOILETS, CUSTODIAL CLOSETS/ROOMS, LAUNDRY ROOMS, KITCHENS, MECHANICAL ROOMS, AND ELECTRICAL ROOMS SHALL BE EPNT-1 ALL WALLS UIO.
   - HM FRAMES SHALL BE PNT-16 UIO WHEN ADJACENT WALL IS FIELD COLOR; SHALL MATCH ACCENT COLOR WHERE ADJACENT WALL IS ACCENT COLOR.
   - GWB CEILINGS SHALL BE PNT-11 UIO.
   - ALL EXPOSED STEEL COLUMNS AND STRUCTURE SHALL BE PAINTED PNT-17 UIO.
   - PAINTED METAL AT STAIRS (STRINGERS, RAILINGS, ETC.) SHALL BE PNT-15 UIO.
8. WHERE SOFFITS NOTED TO BE ACCENT COLOR, PAINT ALL SIDES UNLESS INDICATED OTHERWISE.
9. VINYL WALLCOVERING SHALL EXTEND TO THE CEILING UNLESS INDICATED OTHERWISE.
10. ALL ROOMS WITH EPNT WALLS SHALL HAVE EPNT ON GWB CEILINGS AND SOFFITS UIO.
11. PROVIDE TXCP IN ELEVATOR CAB.
12. WHERE UIO CONTROL JOINTS SHOWN IN CONCRETE FLOORING, SUBMIT RECOMMENDED CJ PATTERN TO BE APPROVED BY ARCH.
13. SWP SHALL BE INSTALLED FULL HEIGHT UIO. REFER TO INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION.
14. ALL GWB AND CMU WALLS AND CEILINGS TO BE PAINTED UIO.
15. ALL EXPOSED STRUCTURE, PIPING, AND DUCTWORK TO BE PAINTED UIO, INCLUDING ABOVE OPEN WOOD GRILLE AND BAFFLE CEILINGS.
16. RUBBER BASE SHALL BE PROVIDED AT ALL LOCATIONS UNLESS INDICATED OTHERWISE.
17. REFER TO INTERIOR WALL ELEVATIONS AND PANEL DETAILS FOR WALL BASE TRIM WHERE WALL PANELING IS PROVIDED.
18. REFER TO INTERIOR ELEVATIONS AND DETAILS FOR EXTENTS AND PATTERNING OF WALL FINISHES.
19. CWT SHALL BE INSTALLED IN A VERTICAL ORIENTATION, OFFSET ASHLAR PATTERN UIO.
20. UIO, PNT SHALL BE PNT-1.
21. TYPICAL WALL BASE AT PRP: METAL BASE, REF DETAILS AND SPEC.
22. TYPICAL WALL BASE AT CWT: CWT UIO, REF SPEC.

## FINISH TAG LEGEND

| ROOM NAME |
|---|
| ROOM # |
| FLOOR FINISH |
| BASE FINISH |
| WALL FINISH |

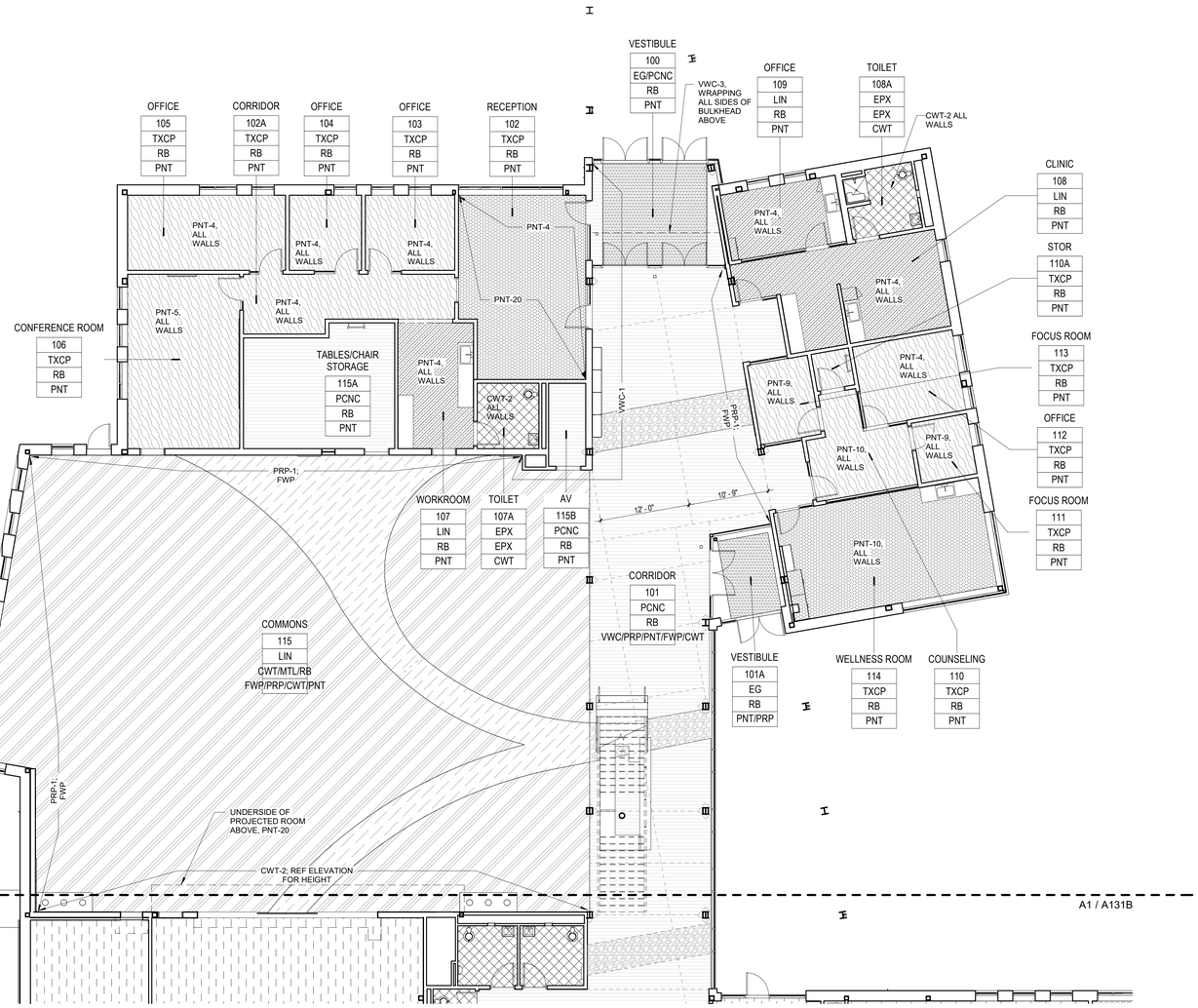
REFER TO PLAN NOTES FOR ACCENT AREAS AND OTHER SPECIFIC INFORMATION.

## KEY PLAN




## FINISH LEGEND

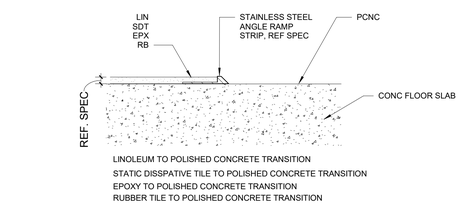
- EPX-1 EPOXY
- EPX-2 EPOXY
- POLISHED CONCRETE
- EXPOSED AGGREGATE CONCRETE
- TXCP-01 TEXTILE COMPOSITE FLOORING
- TXCP-02 TEXTILE COMPOSITE FLOORING
- TXCP-03 TEXTILE COMPOSITE FLOORING
- TCPX-4 TEXTILE COMPOSITE FLOORING
- LIN-1 RESILIENT SHEET FLOORING
- LIN-2 RESILIENT SHEET FLOORING
- LIN-3 RESILIENT SHEET FLOORING
- WOC WALK-OFF CARPET
- SDT STATIC DISSIPATIVE TILE
- RAF RAISED FLOOR ACCESS SYSTEM
- CONTROL JOINT



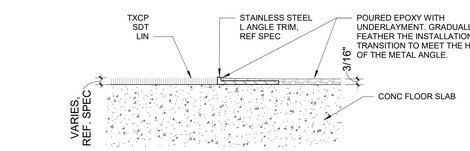

A1 / A131A FINISH PLAN - LEVEL 1 - AREA A
1/8" = 1'-0"

## FLOOR FINISH TRANSITIONS

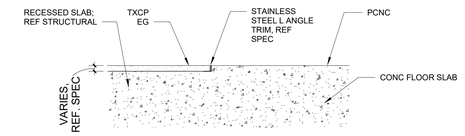
| MATERIALS | TRANSITION |
|---|---|
| PCNC > LIN | REF DETAIL ON A131A |
| PCNC > EG | REF DETAIL ON A131A |
| PCNC > TXCP | REF DETAIL ON A131A |
| PCNC > EPX | REF DETAIL ON A131A |
| PCNC > SDT | REF DETAIL ON A131A |
| PCNC > RB | REF DETAIL ON A131A |
| TXCP > LIN | SLT-XX-A |
| LIN > EPX | REF DETAIL ON A131A |
| TXCP > EPX | REF DETAIL ON A131A |
| SDT > EPX | REF DETAIL ON A131A |




LINOLEUM TO POLISHED CONCRETE TRANSITION
STATIC DISSPATIVE TILE TO POLISHED CONCRETE TRANSITION
EPOXY TO POLISHED CONCRETE TRANSITION
RUBBER TILE TO POLISHED CONCRETE TRANSITION




TEXTILE COMPOSITE TO EPOXY TRANSITION
STATIC DISSPATIVE TILE TO EPOXY TRANSITION
LINOLEUM TO EPOXY TRANSITION




TEXTILE COMPOSITE TO POLISHED CONCRETE TRANSITION
ENTRANCE GRILLE TO POLISHED CONCRETE TRANSITION

A11 / A131A FLOOR FINISH TRANSITION DETAILS
6" = 1'-0"

QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
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Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

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Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS
DRAWN BY: EW, EC

QEA No.41911390

BID DOCUMENTS
10/8/2024

FINISH PLAN - LEVEL 1 - AREA A

# A131A

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:45:32 PM

## GENERAL NOTES

1. WHERE NO HATCH SHOWN, FLOORING SHALL BE FIELD COLOR ("FINISH"-1) OF FINISH NOTED IN ROOM TAG.
2. FLOOR FINISH CHANGES AT THRESHOLDS SHALL OCCUR AT INSIDE DOOR FRAME CORNER,UNDER DOOR PANEL. FLOOR FINISHES SHALL CONTINUE INTO THRESHOLD.
3. CWT SHALL BE INSTALLED FULL HEIGHT UIO. CWT SHALL BE INSTALLED UP TO 4' AFF WHERE SHOWN AT CUSTODIAL SINKS.
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5. REFER TO INTERIOR ELEVATIONS FOR ADDITIONAL TILING INFORMATION.
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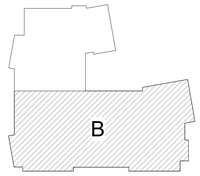
## FINISH TAG LEGEND

ROOM NAME
ROOM #
FLOOR FINISH
BASE FINISH
WALL FINISH

REFER TO PLAN NOTES FOR ACCENT AREAS AND OTHER SPECIFIC INFORMATION.

## KEY PLAN




## FINISH LEGEND

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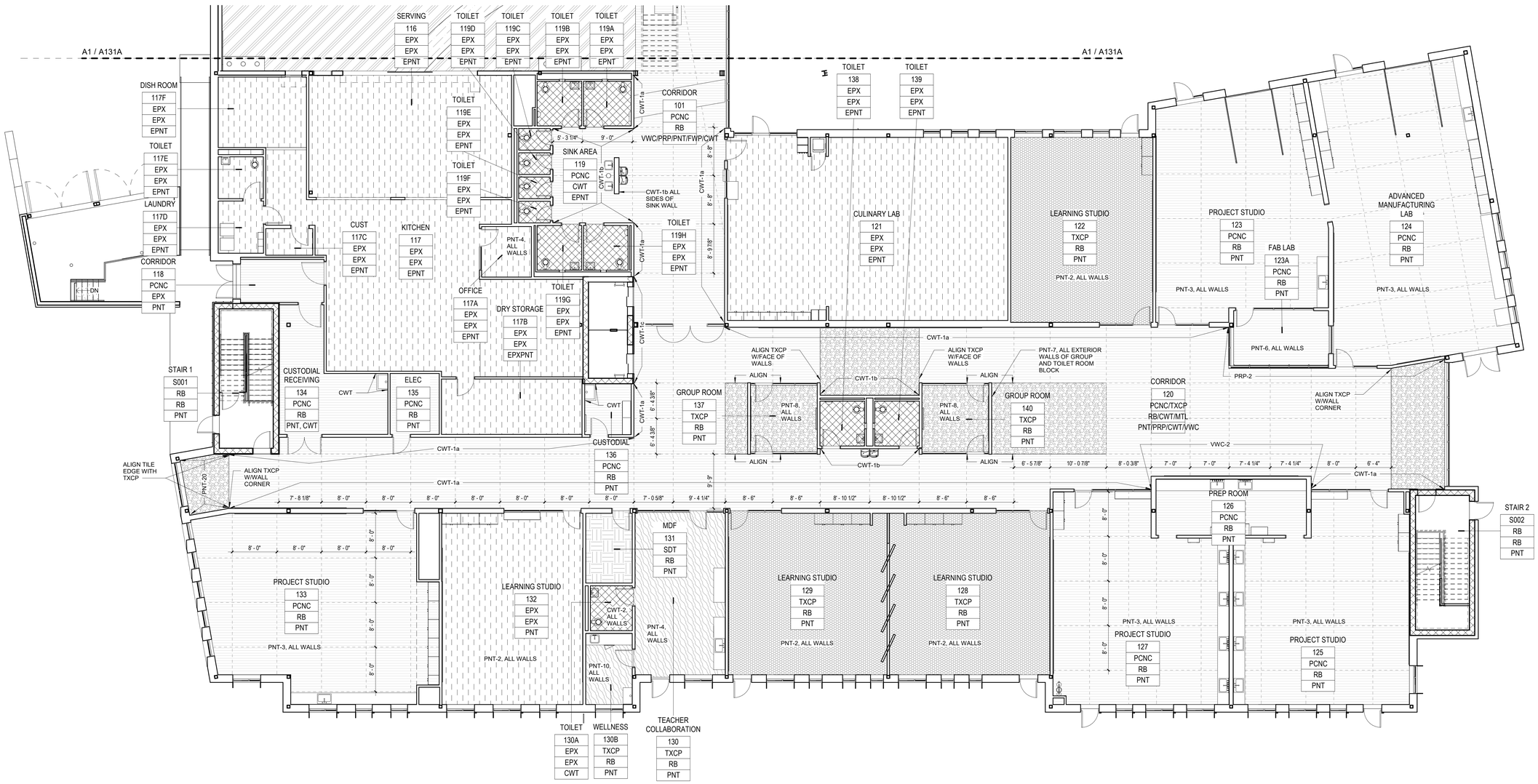


A1 / A131B — FINISH PLAN - LEVEL 1 - AREA B
1/8" = 1'-0"


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PROJECT MANAGER: KS
DRAWN BY: EW, EC

QEA No.41911390

BID DOCUMENTS
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FINISH PLAN - LEVEL 1 - AREA B

**A131B**

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:48:35 PM

## GENERAL NOTES

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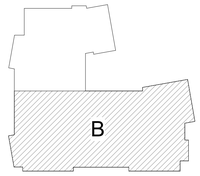
   - GWB CEILINGS SHALL BE PNT-11 UIO.
   - ALL EXPOSED STEEL COLUMNS AND STRUCTURE SHALL BE PAINTED PNT-17 UIO.
   - PAINTED METAL AT STAIRS (STRINGERS, RAILINGS, ETC.) SHALL BE PNT-15 UIO.
8. WHERE SOFFITS NOTED TO BE ACCENT COLOR, PAINT ALL SIDES UNLESS INDICATED OTHERWISE.
9. VINYL WALLCOVERING SHALL EXTEND TO THE CEILING UNLESS INDICATED OTHERWISE.
10. ALL ROOMS WITH EPNT WALLS SHALL HAVE EPNT ON GWB CEILINGS AND SOFFITS UIO.
11. PROVIDE TXCP IN ELEVATOR CAB.
12. WHERE NO CONTROL JOINTS SHOWN IN CONCRETE FLOORING, SUBMIT RECOMMENDED CJ PATTERN TO BE APPROVED BY ARCH.
13. SWP SHALL BE INSTALLED FULL HEIGHT UIO. REFER TO INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION.
14. ALL GWB AND CMU WALLS AND CEILINGS TO BE PAINTED UIO.
15. ALL EXPOSED STRUCTURE, PIPING, AND DUCTWORK TO BE PAINTED UIO, INCLUDING ABOVE OPEN WOOD GRILLE AND BAFFLE CEILINGS.
16. RUBBER BASE SHALL BE PROVIDED AT ALL LOCATIONS UNLESS INDICATED OTHERWISE.
17. REFER TO INTERIOR WALL ELEVATIONS AND PANEL DETAILS FOR WALL BASE TRIM WHERE WALL PANELING IS PROVIDED.
18. REFER TO INTERIOR ELEVATIONS AND DETAILS FOR EXTENTS AND PATTERNING OF WALL FINISHES.
19. CWT SHALL BE INSTALLED IN A VERTICAL ORIENTATION, OFFSET ASHLAR PATTERN UIO.
20. UIO, PNT SHALL BE PNT-1.
21. TYPICAL WALL BASE AT PRP: METAL BASE, REF DETAILS AND SPEC.
22. TYPICAL WALL BASE AT CWT: CWT UIO, REF SPEC.

## FINISH TAG LEGEND

ROOM NAME
ROOM #
FLOOR FINISH
BASE FINISH
WALL FINISH

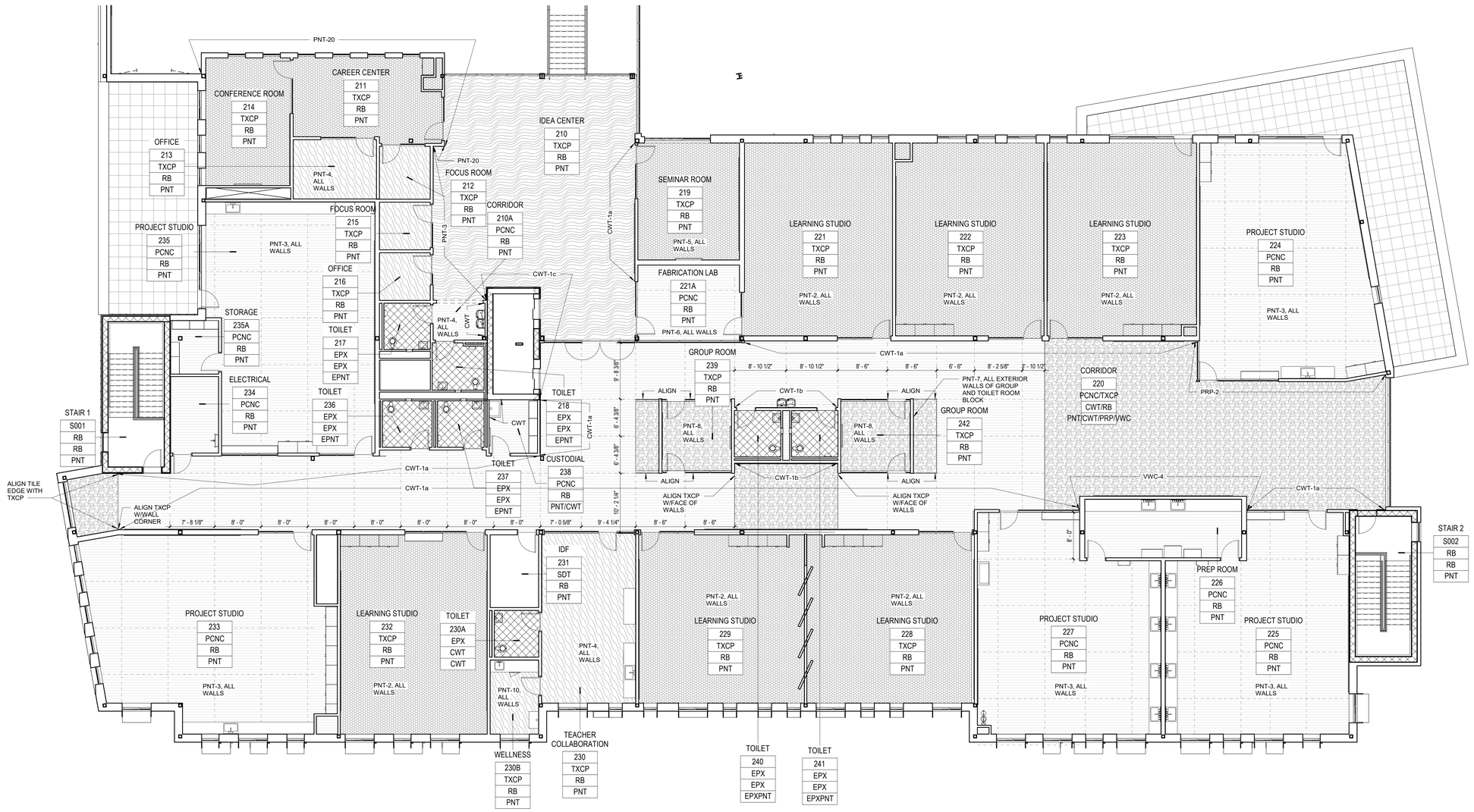
REFER TO PLAN NOTES FOR ACCENT AREAS AND OTHER SPECIFIC INFORMATION.

## KEY PLAN




## FINISH LEGEND

- EPX-1 EPOXY
- EPX-2 EPOXY
- POLISHED CONCRETE
- EXPOSED AGGREGATE CONCRETE
- TXCP-01 TEXTILE COMPOSITE FLOORING
- TXCP-02 TEXTILE COMPOSITE FLOORING
- TXCP-03 TEXTILE COMPOSITE FLOORING
- TCPX-4 TEXTILE COMPOSITE FLOORING
- LIN-1 RESILIENT SHEET FLOORING
- LIN-2 RESILIENT SHEET FLOORING
- LIN-3 RESILIENT SHEET FLOORING
- WOC WALK-OFF CARPET
- SDT STATIC DISSIPATIVE TILE
- RAF RAISED FLOOR ACCESS SYSTEM
- CONTROL JOINT




A1 / A132B PARTIAL PLAN - LEVEL 2 - AREA B
1/8" = 1'-0"


QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM


Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS
DRAWN BY: EW, EC

QEA No.41911390

BID DOCUMENTS
10/8/2024

FINISH PLAN - LEVEL 2 - AREA B

# A132B


PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
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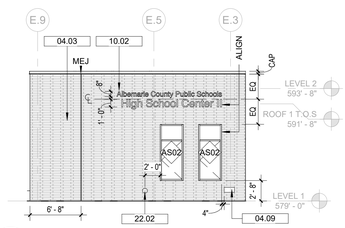
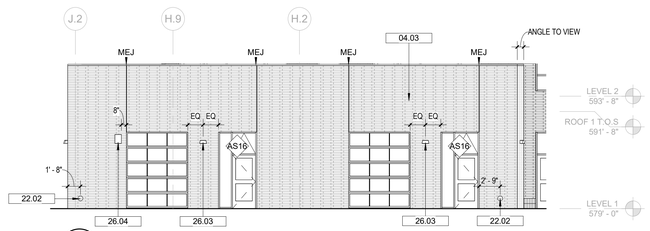
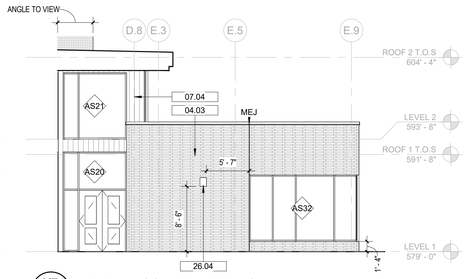



K1 A201 PARTIAL NORTH ELEVATION A
1/8" = 1'-0"




K3 A201 PARTIAL NORTH ELEVATION B
1/8" = 1'-0"




K7 A201 PARTIAL SOUTH ELEVATION A
1/8" = 1'-0"

## KEYNOTES

| | |
|---|---|
| 04.02 | FACE BRICK 3 |
| 04.03 | FACE BRICK 1 & 2, PATTERNED |
| 04.07 | ROW LOCK BRICK SILL SHAPE E, REF A521 FOR COLOR |
| 04.08 | ROW LOCK BRICK SILL SHAPE D, BRICK TYPE 3 |
| 04.09 | CORNERSTONE: 7 5/8" H X 4" D X 15 5/8" W, GEORGIA GRAY GRANITE WITH TEXT "2026" IN TIMES NEW ROMAN FONT |
| 04.10 | BRICK RELIEF JOINT AT LEVEL 1 |
| 05.02 | PERFORATED METAL PANEL SOLAR SHADE |
| 05.03 | PREFIN. PERFORATED METAL PANEL SCREEN WALL |
| 05.04 | METAL EXTERIOR ROOF LADDER |
| 07.04 | PREFIN METAL PANEL SYSTEM, STANDING SEAM |
| 07.05 | PREFIN METAL PANEL SYSTEM, FLUSH SEAM |
| 07.06 | METAL ROOF HATCH W/ SAFETY RAILING |
| 08.08 | BUTT-GLAZED CORNER - REF CURTAINWALL & STOREFRONT DETAILS |
| 10.02 | DIMENSIONAL LETTER SIGNAGE, 8" AND 12" TALL LETTERS, FINAL TEXT PROVIDED BY OWNER |
| 22.02 | LAMBS TONGUE DOWNSPOUT NOZZLE, CENTERLINE AT 16" AFF, REF PLUMBING |
| 26.03 | EXTERIOR LIGHTING - REF ELECTRICAL PLANS |
| 26.04 | EXTERIOR SPEAKER - REF ELECTRICAL PLANS |

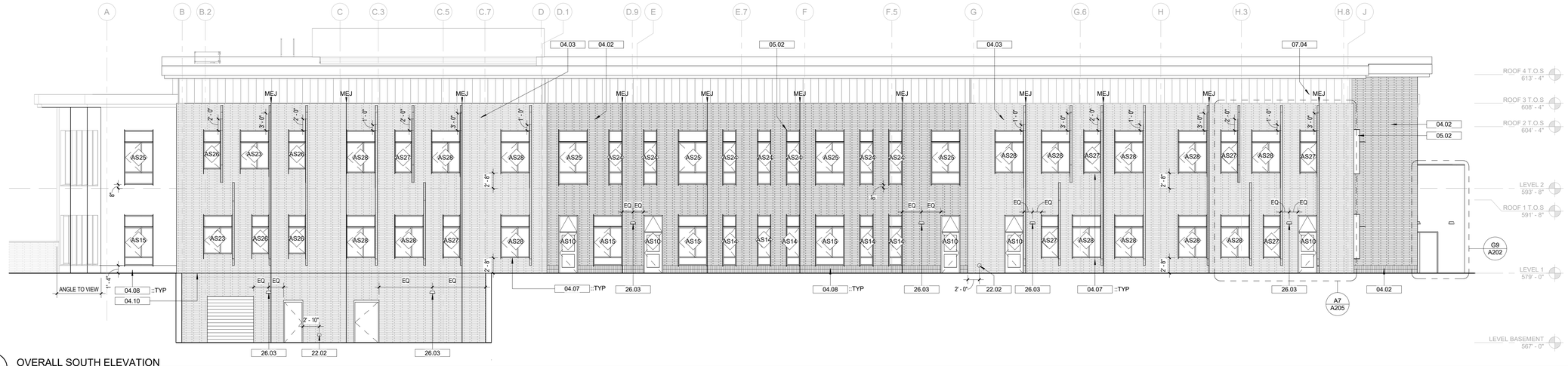
## GENERAL NOTES

1. DIMENSION ARE TO FINISH FACE UNLESS INDICATED OTHERWISE.
2. REFER TO SHEET A203 FOR BRICK PATTERN DETAILS.
3. REFER TO SHEET A205 FOR SUNSHADE DETAILS.

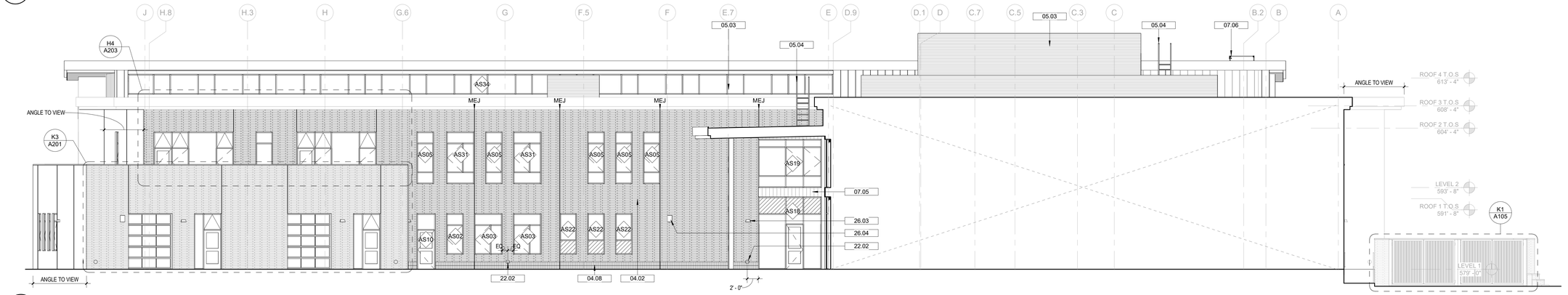
## GLASS FILM LEGEND

NOTE: REF SPEC SECTION 088000 FOR GLASS FILM PRODUCTS

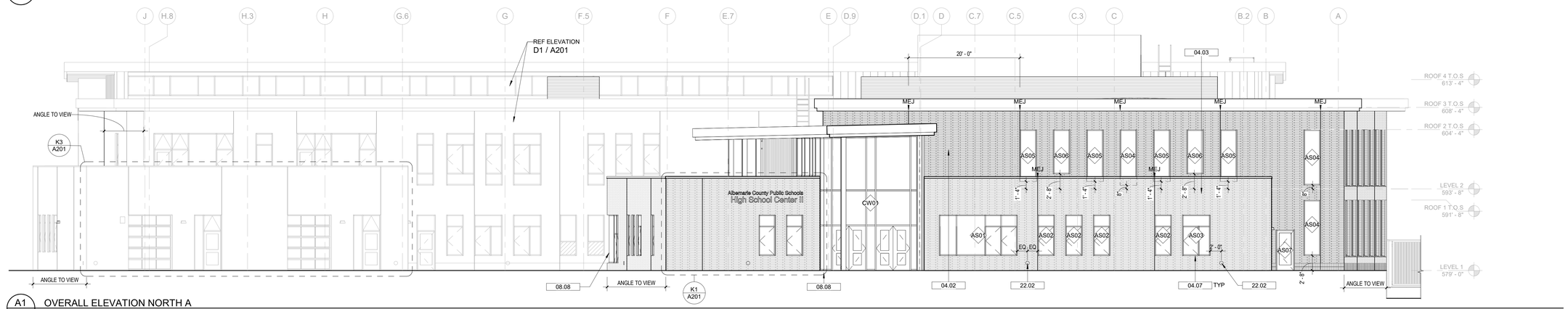
- GLASS FILM STYLE 1 (GF-1)
- GLASS FILM STYLE 2 (GF-2)
- GLASS FILM STYLE 3 (GF-3)




G1 A201 OVERALL SOUTH ELEVATION
1/8" = 1'-0"




D1 A201 OVERALL ELEVATION NORTH B
1/8" = 1'-0"




A1 A201 OVERALL ELEVATION NORTH A
1/8" = 1'-0"

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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

COMMONWEALTH OF VIRGINIA
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ARCHITECT

Albemarle County Public Schools

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Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS
DRAWN BY: BG, AJ, EW

QEA No.41911390

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10/8/2024

BUILDING ELEVATIONS

# A201

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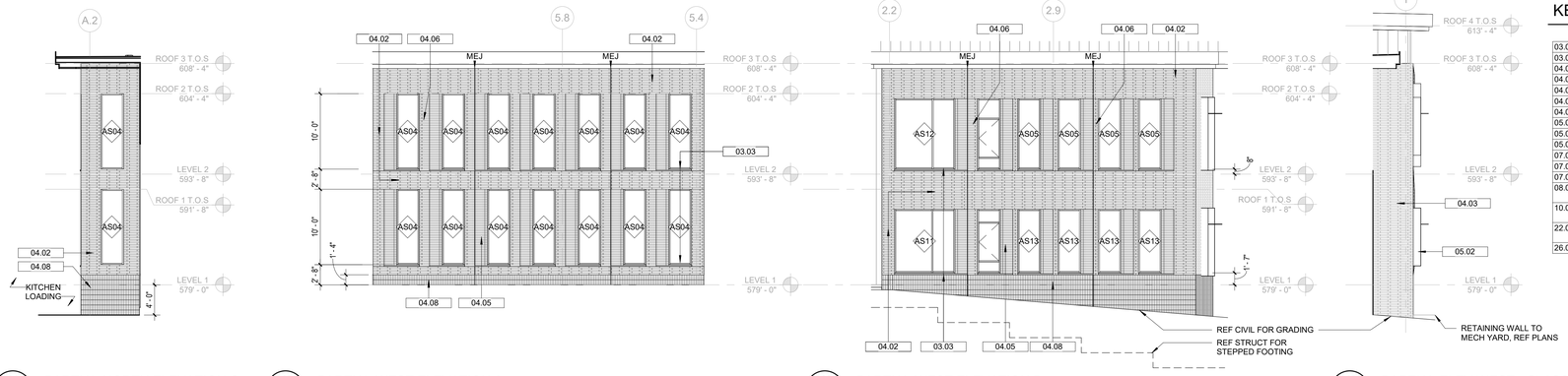



J1 A202 PARTIAL NORTH ELEVATION C
1/8" = 1'-0"

K2 A202 PARTIAL WEST ELEVATION A
1/8" = 1'-0"

K6 A202 PARTIAL WEST ELEVATION B
1/8" = 1'-0"

K9 A202 PARTIAL ELEV WEST - CLASSROOMS 1
1/8" = 1'-0"

## KEYNOTES

| | |
|---|---|
| 03.02 | PRECAST CONCRETE CAP, REF CUSTOM SHAPES |
| 03.03 | PRECAST CONCRETE SILL, REF CUSTOM SHAPES |
| 04.02 | FACE BRICK 3 |
| 04.03 | FACE BRICK 1 & 2, PATTERNED |
| 04.05 | FACE BRICK 4, STACKED BOND |
| 04.06 | FACE BRICK 3, ALTERNATING LOCK AT CORNER, REF DETAIL D7/A531 |
| 04.08 | ROW LOCK BRICK SILL SHAPE D, BRICK TYPE 3 |
| 05.02 | PERFORATED METAL PANEL SOLAR SHADE |
| 05.03 | PREFIN. PERFORATED METAL PANEL SCREEN WALL |
| 05.04 | METAL EXTERIOR ROOF LADDER |
| 07.04 | PREFIN METAL PANEL SYSTEM, STANDING SEAM |
| 07.05 | PREFIN METAL PANEL SYSTEM, FLUSH SEAM |
| 07.06 | METAL ROOF HATCH W/ SAFETY RAILING |
| 08.08 | BUTT-GLAZED CORNER - REF CURTAINWALL & STOREFRONT DETAILS |
| 10.02 | DIMENSIONAL LETTER SIGNAGE, 8" AND 12" TALL LETTERS, FINAL TEXT PROVIDED BY OWNER |
| 22.02 | LAMBS TONGUE DOWNSPOUT NOZZLE, CENTERLINE AT 16" AFF, REF PLUMBING |
| 26.03 | EXTERIOR LIGHTING - REF ELECTRICAL PLANS |

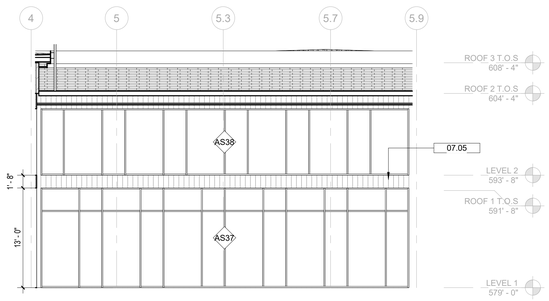
## GENERAL NOTES

1. DIMENSION ARE TO FINISH FACE UNLESS INDICATED OTHERWISE.
2. REFER TO SHEET A203 FOR BRICK PATTERN DETAILS.
3. REFER TO SHEET A205 FOR SUNSHADE DETAILS.

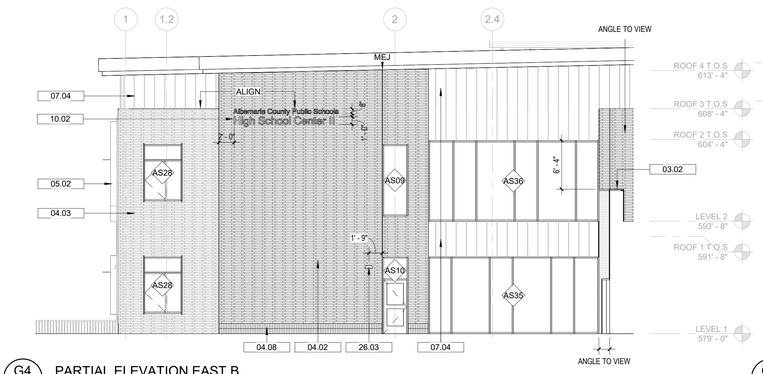
## GLASS FILM LEGEND

NOTE: REF SPEC SECTION 088000 FOR GLASS FILM PRODUCTS

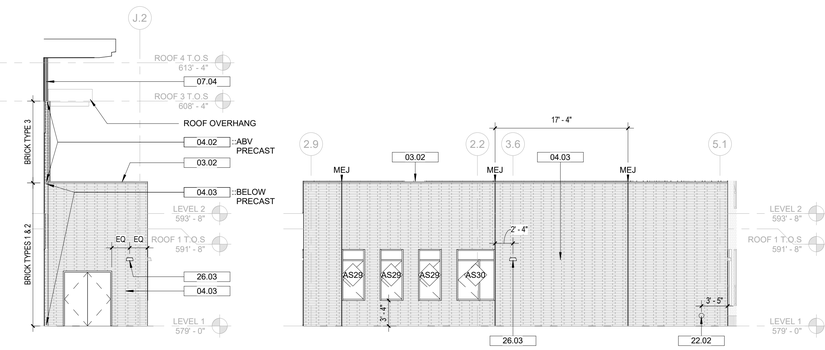
- GLASS FILM STYLE 1 (GF-1)
- GLASS FILM STYLE 2 (GF-2)
- GLASS FILM STYLE 3 (GF-3)




G1 A202 PARTIAL ELEVATION EAST A
1/8" = 1'-0"



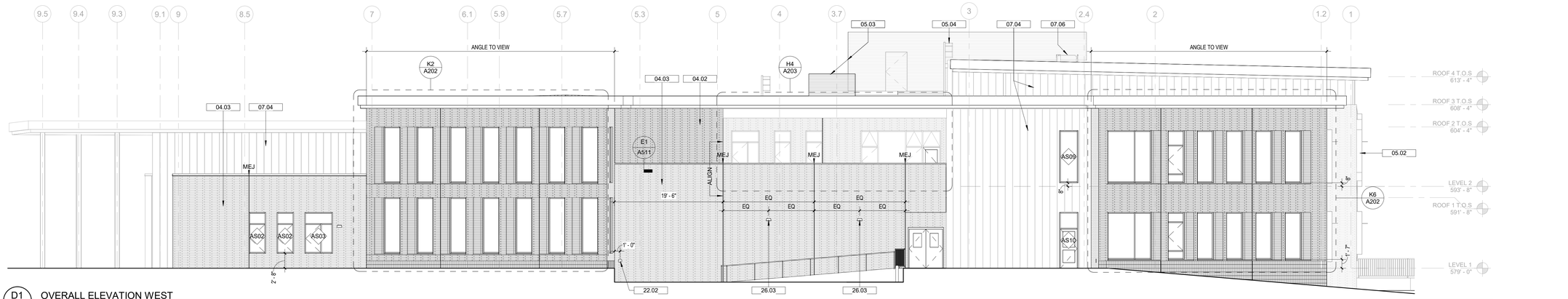

G4 A202 PARTIAL ELEVATION EAST B
1/8" = 1'-0"



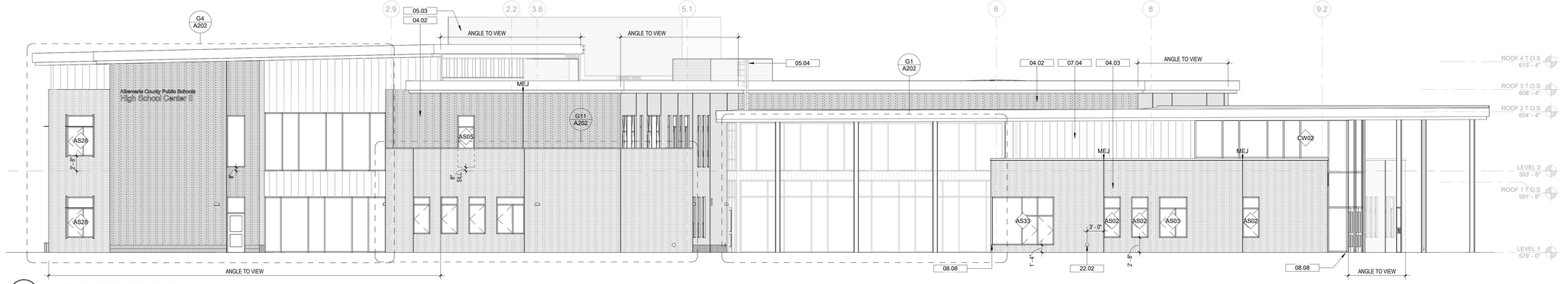

G9 A202 PARTIAL ELEV - MFR LAB SOUTH
1/8" = 1'-0"




G11 A202 PARTIAL ELEV - MFR LAB EAST
1/8" = 1'-0"




D1 A202 OVERALL ELEVATION WEST
1/8" = 1'-0"




A1 A202 OVERALL ELEVATION EAST
1/8" = 1'-0"

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SUITE 400
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v 804.788.4774
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COMMONWEALTH OF VIRGINIA
CHARLES W. TILLEY
LIC. No. 010767
10/08/2024
ARCHITECT

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
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Albemarle County Public Schools
2775 Hydraulic Rd.
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

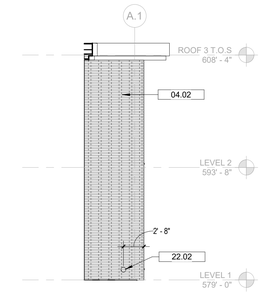
PROJECT MANAGER: KS
DRAWN BY: BG, AJ, EW

QEA No.41911390

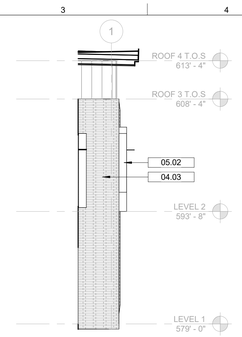
BID DOCUMENTS
10/8/2024

BUILDING ELEVATIONS

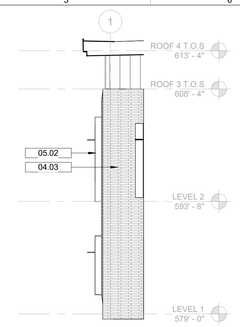
# A202



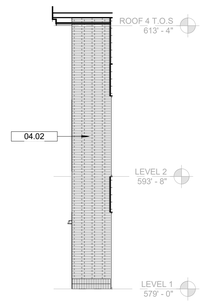

K1 A203 PARTIAL ELEV NORTH - LOADING
1/8" = 1'-0"



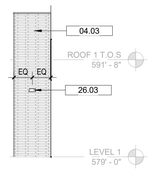

K5 A203 PARTIAL ELEV WEST - CLASROOMS 2
1/8" = 1'-0"



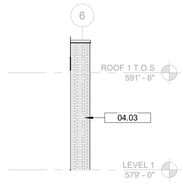

K7 A203 PARTIAL ELEV WEST - CLASSROOMS 3
1/8" = 1'-0"



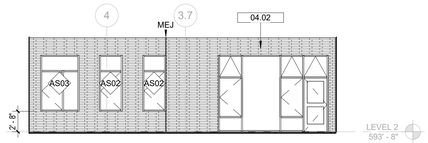

K9 A203 PARTIAL ELEV NORTH - STAIR 2
1/8" = 1'-0"



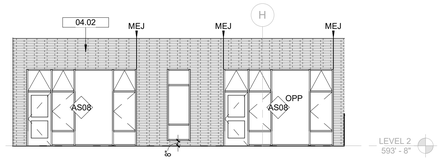

K10 A203 PARTIAL ELEV WEST - COURTYARD
1/8" = 1'-0"



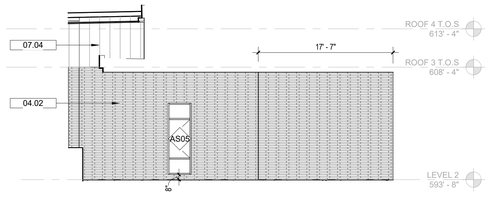

K12 A203 PARTIAL ELEV EAST - COURTYARD
1/8" = 1'-0"



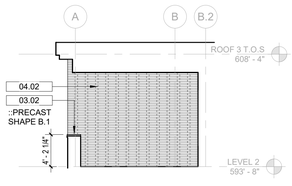

H7 A203 PARTIAL ELEV WEST - WEST ROOF TERRACE
1/8" = 1'-0"



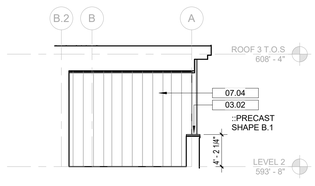

H4 A203 PARTIAL ELEV NORTH - EAST ROOF TERRACE
1/8" = 1'-0"




H1 A203 PARTIAL ELEV EAST - EAST ROOF TERRACE
1/8" = 1'-0"




H10 A203 PARTIAL ELEV NORTH - WEST ROOF TERRACE
1/8" = 1'-0"




H12 A203 PARTIAL ELEV SOUTH - WEST ROOF TERRACE
1/8" = 1'-0"

## KEYNOTES

| | |
|---|---|
| 03.02 | PRECAST CONCRETE CAP, REF CUSTOM SHAPES |
| 04.02 | FACE BRICK 3 |
| 04.03 | FACE BRICK 1 & 2, PATTERNED |
| 05.02 | PERFORATED METAL PANEL SOLAR SHADE |
| 07.04 | PREFIN METAL PANEL SYSTEM, STANDING SEAM |
| 22.02 | LAMBS TONGUE DOWNSPOUT NOZZLE, CENTERLINE AT 16" AFF, REF PLUMBING |
| 26.03 | EXTERIOR LIGHTING - REF ELECTRICAL PLANS |

## GENERAL NOTES

1. DIMENSION ARE TO FINISH FACE UNLESS INDICATED OTHERWISE.
2. REFER TO SHEET A203 FOR BRICK PATTERN DETAILS.
3. REFER TO SHEET A205 FOR SUNSHADE DETAILS.

## GLASS FILM LEGEND

NOTE: REF SPEC SECTION 088000 FOR GLASS FILM PRODUCTS

- GLASS FILM STYLE 1 (GF-1)
- GLASS FILM STYLE 2 (GF-2)
- GLASS FILM STYLE 3 (GF-3)

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| No | Date | Description |
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PROJECT MANAGER: KS
DRAWN BY: BG

QEA No.41911390

BID DOCUMENTS
10/8/2024

BUILDING ELEVATIONS

# A203

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F11 / A204 BRICK PATTERN ELEVATION KEY NORTH
1/16" = 1'-0"

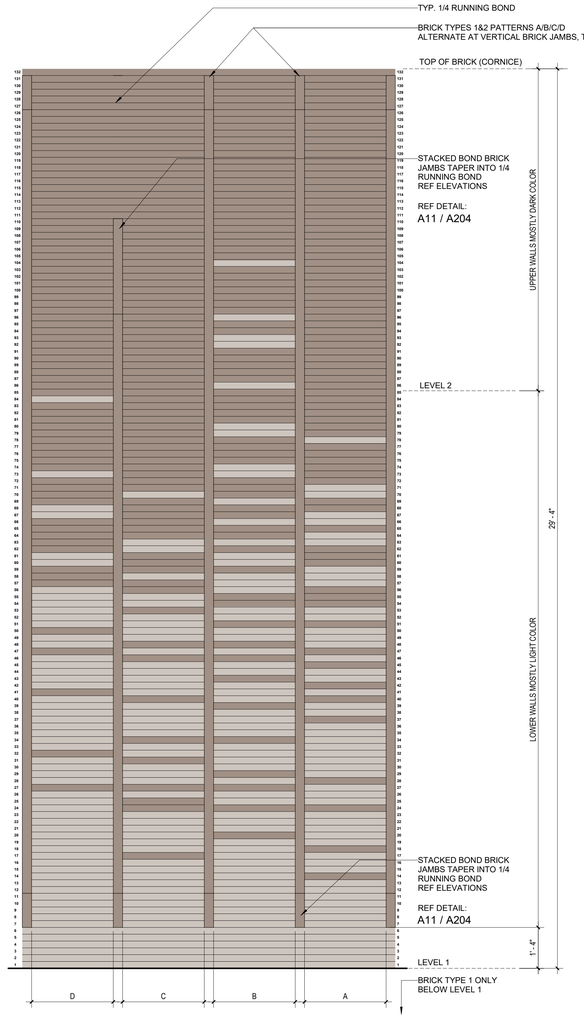
F1 / A204 BRICK PATTERN ELEVATION KEY SOUTH
1/16" = 1'-0"

A1 / A204 BRICK PATTERN TYPES - ELEVATION
1/4" = 1'-0"

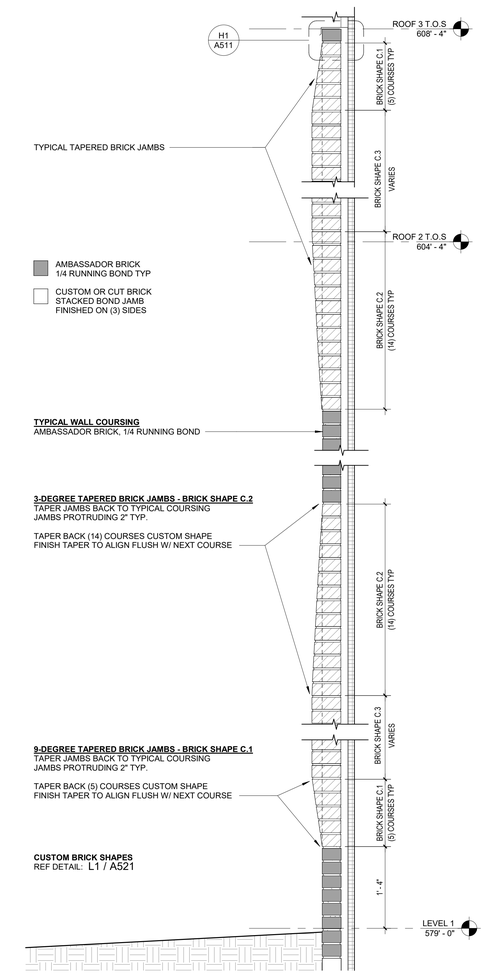
## FACE BRICK TYPE SCHEDULE

| TYPE | SIZE/SHAPE | COURSING | COLOR | LOCATIONS | GROUT COLOR |
|---|---|---|---|---|---|
| BRICK TYPE 1 | AMBASSADOR (16")<br>CUSTOM | 1/4 RUNNING<br>1/4 RUNNING | REF SPEC | VARIOUS<br>100-DEGREE CORNERS | REF SPEC |
| BRICK TYPE 2 | AMBASSADOR (16")<br>CUSTOM<br>CUSTOM<br>CUSTOM | 1/4 RUNNING<br>STACKED<br>1/4 RUNNING<br>ROW LOCK | REF SPEC | VARIOUS<br>TAPERED JAMBS (SOUTH)<br>100-DEGREE CORNERS<br>SILLS AT TYPE1-2 PATTERN | REF SPEC |
| BRICK TYPE 3 | AMBASSADOR (16")<br>CUSTOM<br>MODULAR (8")<br>CUSTOM | 1/4 RUNNING<br>1/4 RUNNING<br>SOLDIER<br>ROW LOCK | REF SPEC | VARIOUS<br>100-DEGREE CORNERS<br>BASE<br>SILLS AT TYPE 3 | REF SPEC |
| BRICK TYPE 4 | AMBASSADOR (16")<br>CUSTOM | STACKED<br>STACKED | REF SPEC | ANGLED JAMBS (WEST)<br>SPECIAL CORNERS | REF SPEC |

## BRICK TYPES 1&2 COURSING PATTERN TYPES




A7 / A204 BRICK TYPES 1 & 2 PATTERN GUIDE (ELEVATION SOUTH)
1/2" = 1'-0"




A11 / A204 SECTION - TYPICAL BRICK TAPERED JAMBS (SOUTH)
1" = 1'-0"

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10/08/2024
ARCHITECT

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO.
002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS
DRAWN BY: BG

QEA No.41911390

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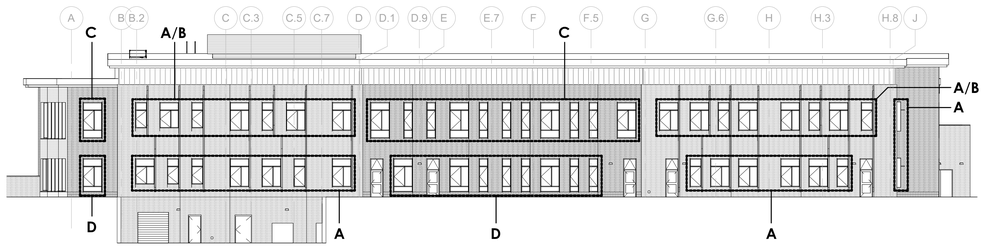
BUILDING ELEVATIONS - BRICK COLORS & DETAILS

# A204

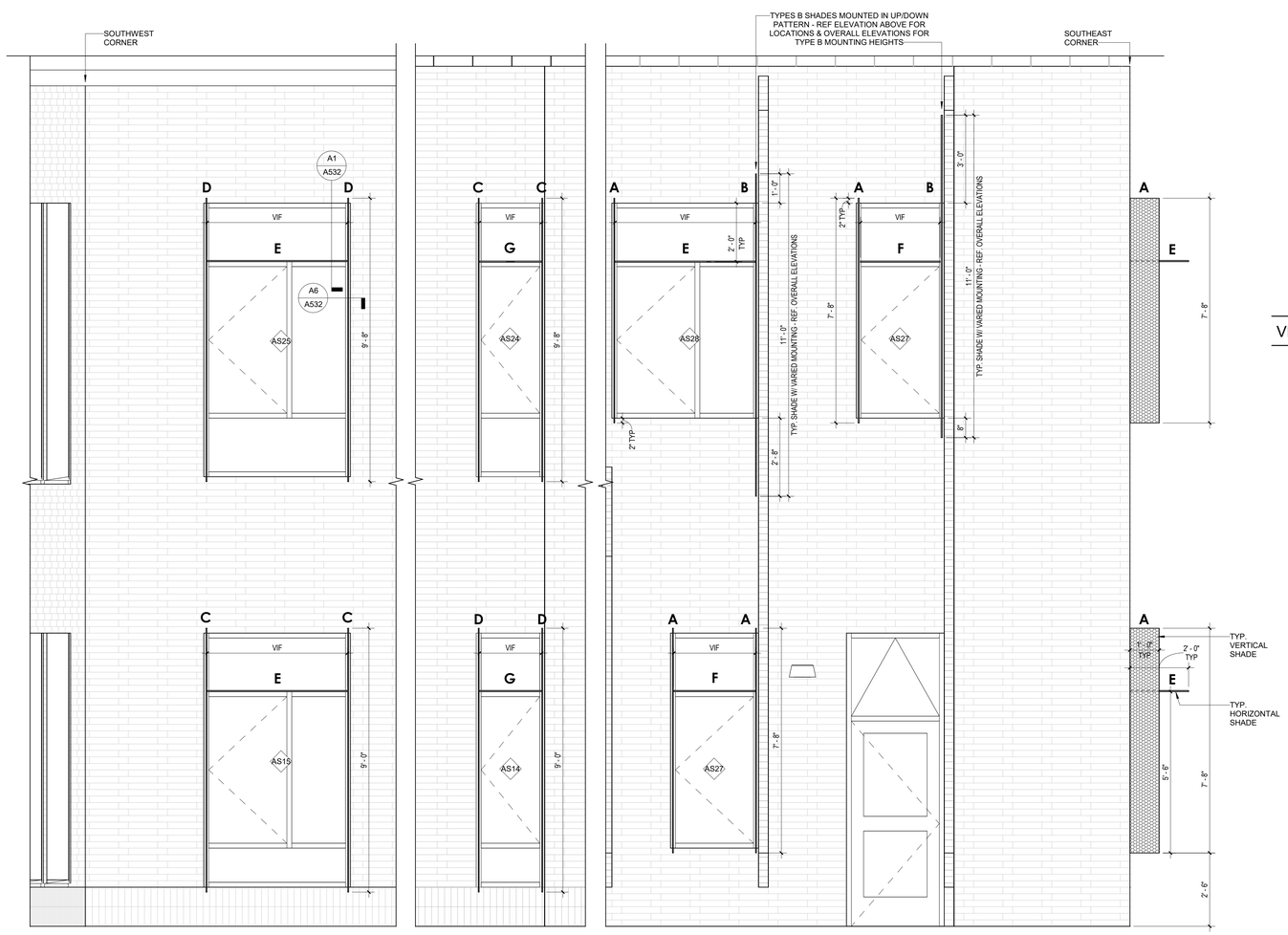



**A/B PATTERN SUNSHADES**

LH JAMB - TYPE A
RH JAMB - TYPE B

TYPE B SUNSHADES MOUNTED IN UP/DOWN PATTERN
REF OVERALL ELEVATIONS FOR MOUNTING HEIGHTS
REF ENLARGED DETAIL BELOW FOR TYPICAL DIMENSIONS

2 / A205 SUNSHADE TYPES ELEVATION KEY (SOUTH)
1/16" = 1'-0"




A7 / A205 ENLARGED PARTIAL ELEVATION SOUTH - SUNSHADE TYP MOUNTING LOCATIONS
1/2" = 1'-0"

## SUNSHADE TYPES SCHEDULE

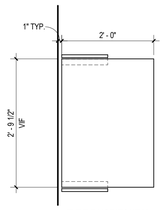
3/4" = 1'

| *VERTICAL* | WIDTH | LENGTH | STOREFRONT LOCATIONS (SOUTH FACADES ONLY) |
|---|---|---|---|
| TYPE A | 12" | 7' - 8" | AS23, AS26, AS27, AS28 |
| TYPE B | 12" | 11' - 0" | AS23, AS26, AS27, AS28 |
| TYPE C | 12" | 9' - 8" | AS15, AS25, AS24 |
| TYPE D | 12" | 9' - 0" | AS15, AS25, AS14 |

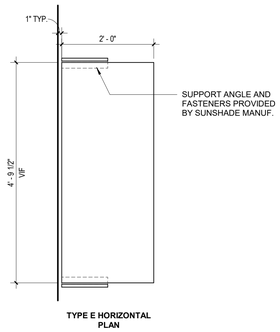
| *HORIZONTAL* | WIDTH | LENGTH | |
|---|---|---|---|
| TYPE E | 24" | VIF | AS15, AS25, AS27, AS28 |
| TYPE F | 24" | VIF | AS27, AS28 |
| TYPE G | 24" | VIF | AS14, AS24 |

## HORIZONTAL SUNSHADES TYPES

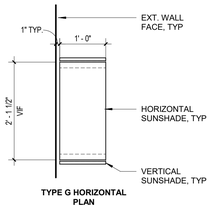
3/4" = 1'




**TYPE F HORIZONTAL PLAN**



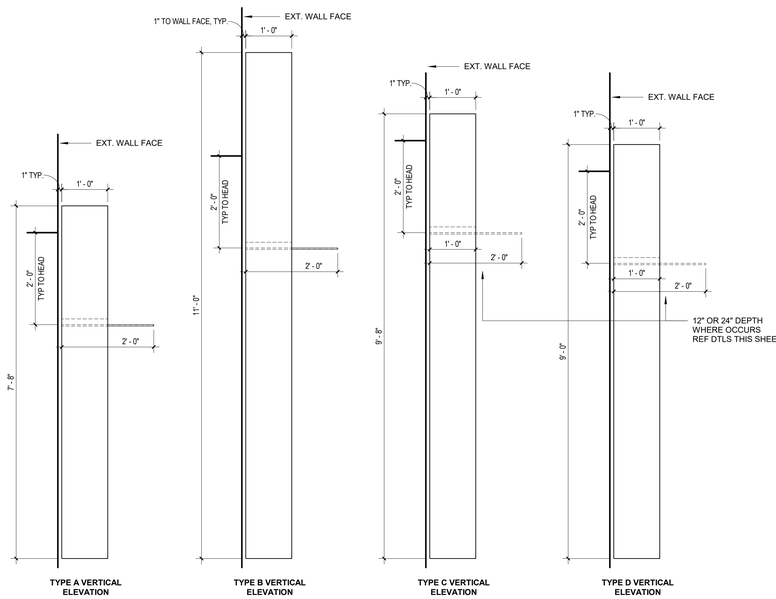

**TYPE E HORIZONTAL PLAN**




**TYPE G HORIZONTAL PLAN**

## VERTICAL SUNSHADE TYPES

3/4" = 1'




**TYPE A VERTICAL ELEVATION**

**TYPE B VERTICAL ELEVATION**

**TYPE C VERTICAL ELEVATION**

**TYPE D VERTICAL ELEVATION**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BUILDING ELEVATIONS - SUNSHADES & DETAILS

**A205**

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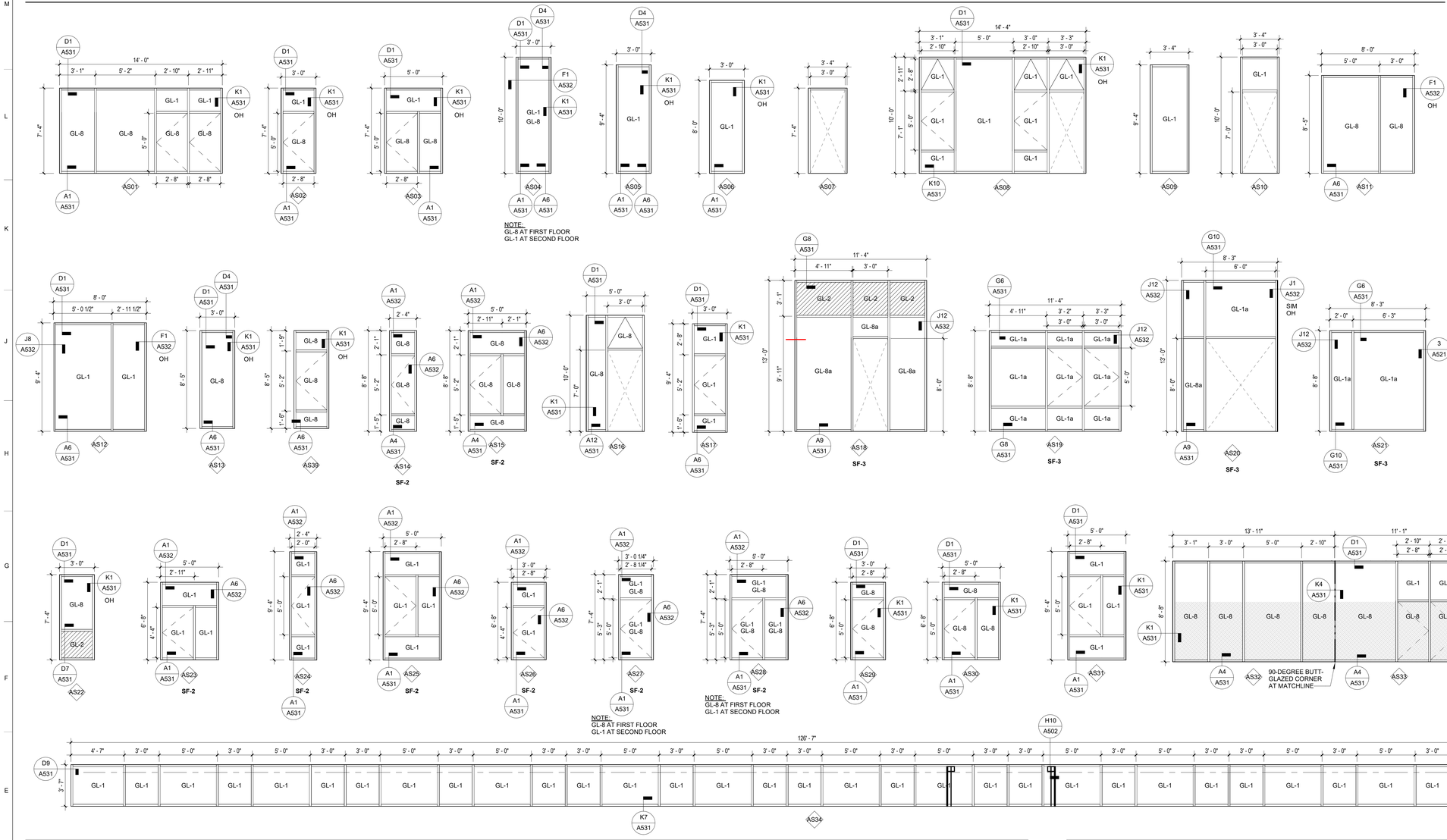
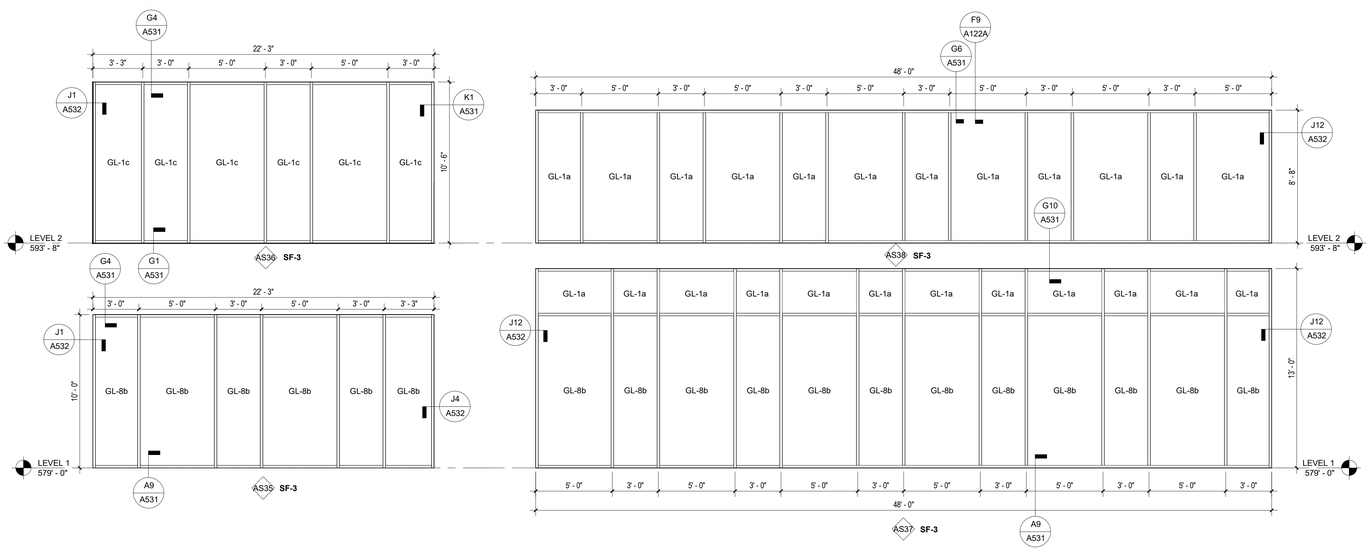
## EXTERIOR STOREFRONT ELEVATIONS

1/4"=1'-0"



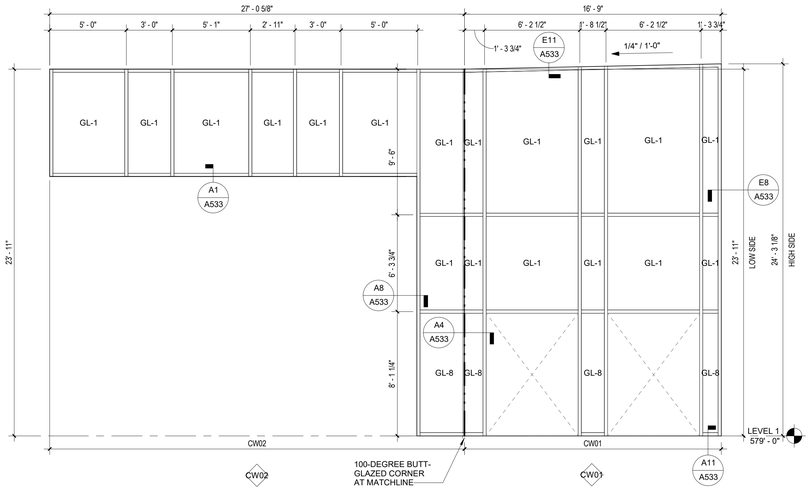

## EXTERIOR STOREFRONT ELEVATIONS

1/4"=1'-0"




## EXTERIOR CURTAINWALL ELEVATIONS

1/4"=1'-0"




## GENERAL NOTES

1. REF PLAN & ELEVATIONS FOR SURROUNDING WALL ASSEMBLY AT STOREFRONT AND CURTAIN WALL SYSTEMS.
2. REINFORCE SYSTEMS AS REQUIRED TO MEET CODE LOADS FOR ALL CONDITIONS.
3. OVERALL DIMENSIONS REFER TO ROUGH OPENINGS.
4. ALL DIMENSIONS TO BE VERIFIED IN FIELD PRIOR TO FABRICATION AND INSTALLATION OF GLAZING SYSTEMS.
5. ALL EXT. STOREFRONTS SYSTEM TO BE SF-1 EXCEPT WHERE NOTED OTHERWISE.
6. REFER TO OVERALL BUILDING ELEVATIONS FOR OPERABLE PANEL LOCATIONS.

## GLAZING SCHEDULE

1. REF SPEC SECTION 088000 FOR GLAZING PRODUCTS.

| MARK | DESCRIPTION |
|---|---|
| GL-1 | EXTERIOR 1" IGU, LOW-E, CLEAR, LOW IRON |
| GL-1a | EXTERIOR 1" IGU W/ APPLIED FRIT PATTERN |
| GL-1b | EXTERIOR 1" IGU, 3/8" OUTER GLASS |
| GL-1c | EXTERIOR 1" IGU W/APPLIED FRIT PATTERN AND 3/8" OUTER GLASS |
| GL-2 | EXTERIOR 1" IGU, LOW-E, SPANDREL, LOW IRON |
| GL-3 | INTERIOR 1/4" TEMPERED, CLEAR |
| GL-4 | INTERIOR LAMINATED - ACOUSTIC, CLEAR |
| GL-5 | INTERIOR LAMINATED - SECURITY, CLEAR |
| GL-6 | FIRE RATED GLAZING |
| GL-7 | INTERIOR 1" IGU W/ INTERIOR LAMINATED - ACOUSTIC |
| GL-8 | EXTERIOR 1" IGU W/ INTERIOR LAMINATED - SECURITY |
| GL-8a | EXTERIOR 1" IGU W/ INTERIOR LAMINATED - SECURITY, W/ APPLIED FRIT PATTERN |
| GL-8b | EXTERIOR 1" IGU W/INTERIOR LAMINATED-SECURITY, W/APPLIED FRIT PATTERN AND 3/8" OUTER GLASS |

## STOREFRONT TYPES

NOTE: ALL EXT. STOREFRONTS SYSTEM TO BE SF-1 EXCEPT WHERE NOTED OTHERWISE.

| TYPE | DESCRIPTION | LOCATION |
|---|---|---|
| SF-1 | 2"X4" FRONT SET | TYPICAL |
| SF-2 | 2-1/4"X4" CENTER SET (REINFORCED) | AT SUNSHADES |
| SF-3 | 2"X6" FRONT SET | AT COURTYARD & CORRIDOR ENDS (EAST) |
| SF-4 | 2"X4" FRONT SET (STICK) | WELLNESS RM 114 |

## GLASS FILM LEGEND

NOTE: REF SPEC SECTION 088000 FOR GLASS FILM PRODUCTS

- GLASS FILM STYLE 1 (GF-1)
- GLASS FILM STYLE 2 (GF-2)
- GLASS FILM STYLE 3 (GF-3)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EXT STOREFRONT & CURTAIN WALL ELEVS

**A211**

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
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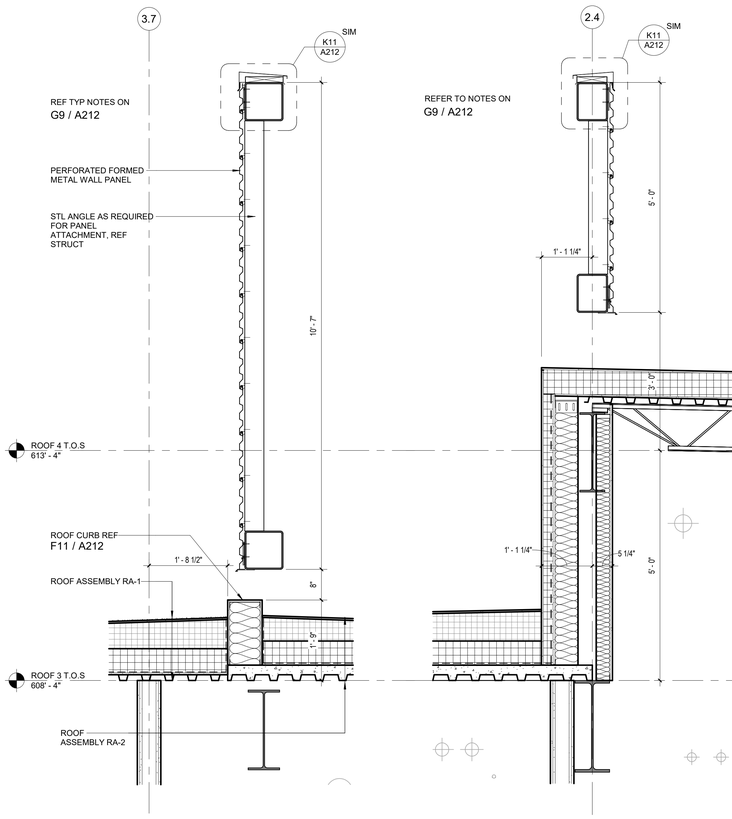
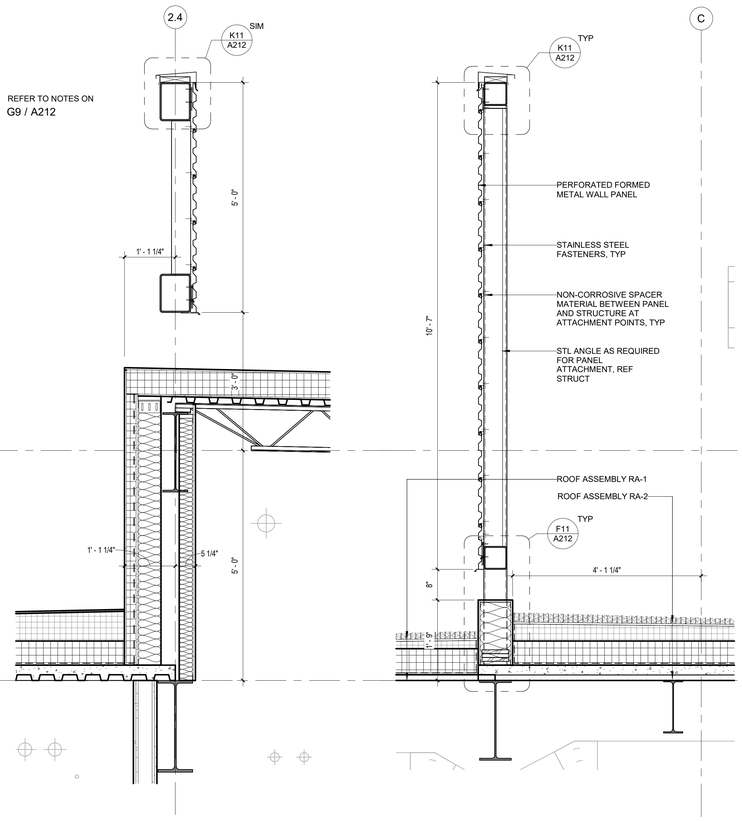


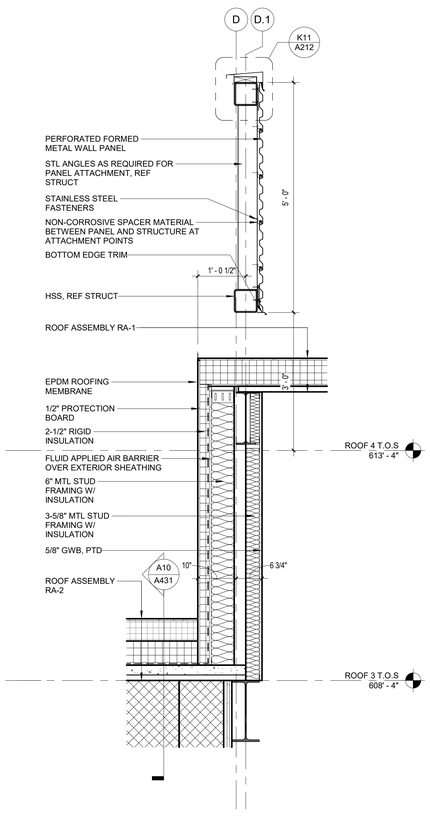

G1 A212 SECTION - ROOF MECH ENCLOSURE - NORTH
3/4" = 1'-0"



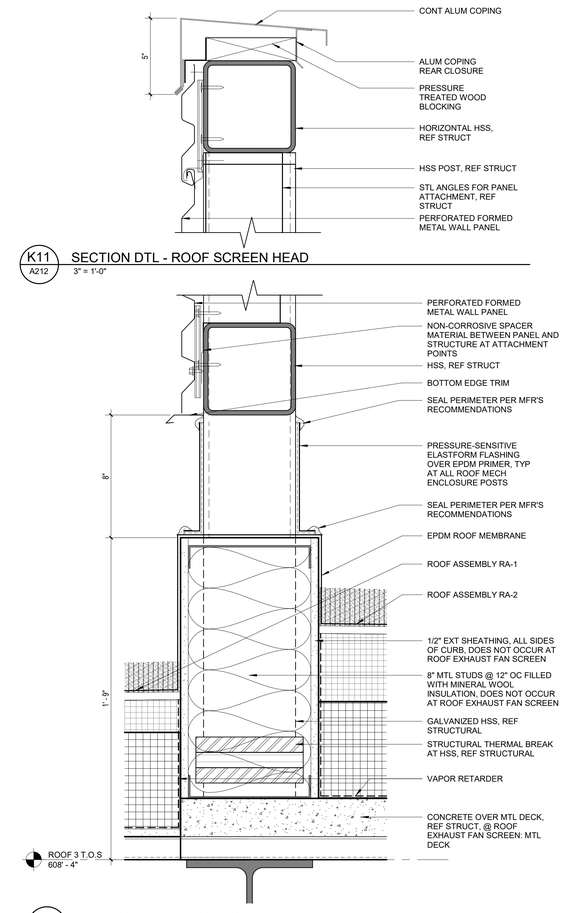

G3 A212 SECTION - ROOF MECH ENCLOSURE - SOUTH
3/4" = 1'-0"




G6 A212 SECTION - ROOF MECH ENCLOSURE - WEST
3/4" = 1'-0"



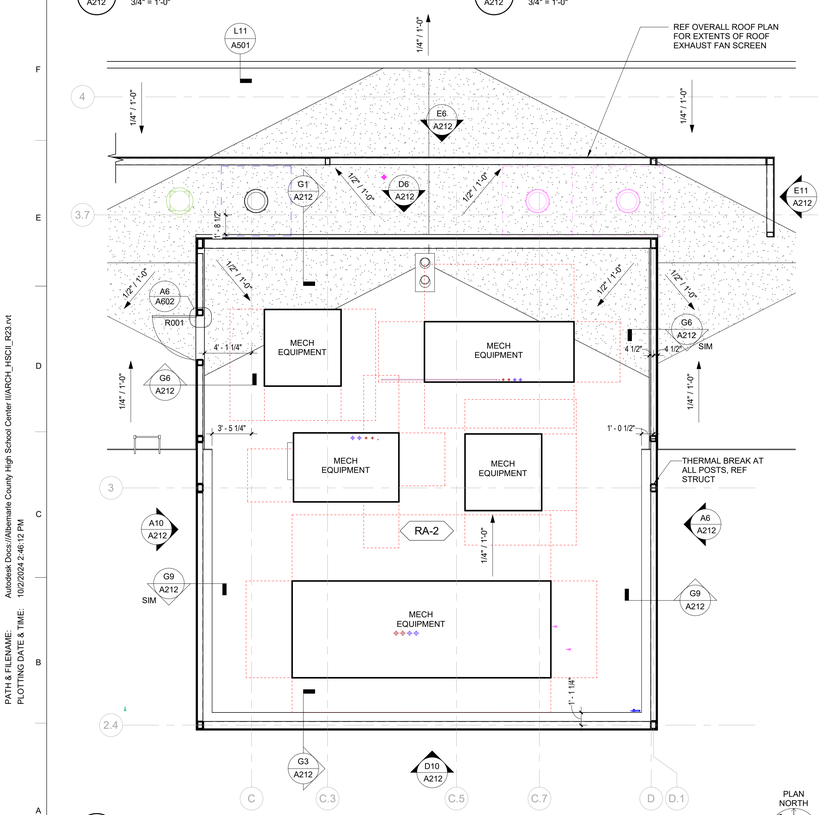

G9 A212 SECTION - ROOF MECH ENCLOSURE - EAST
3/4" = 1'-0"



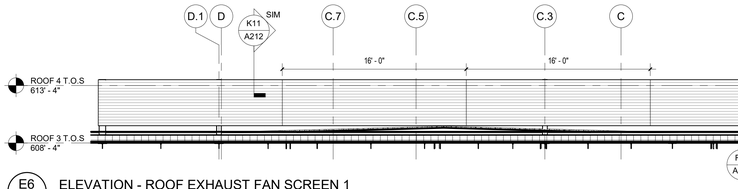

K11 A212 SECTION DTL - ROOF SCREEN HEAD
3" = 1'-0"



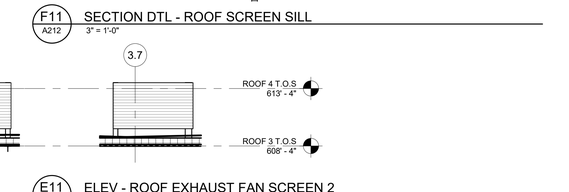

F11 A212 SECTION DTL - ROOF SCREEN SILL
3" = 1'-0"

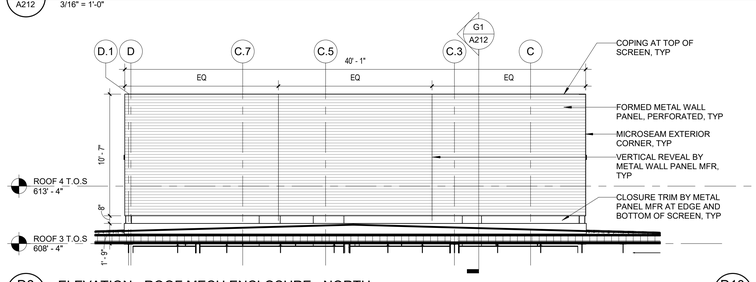



A1 A212 ENLARGED PLAN - ROOF MECHANICAL SCREEN
3/16" = 1'-0"



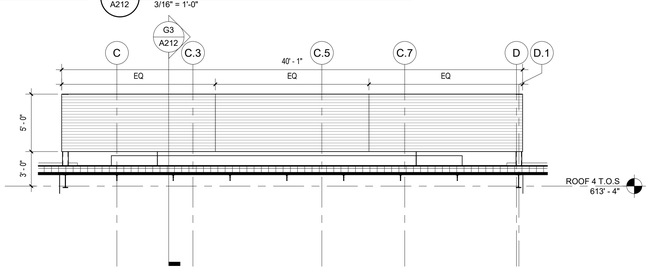

E6 A212 ELEVATION - ROOF EXHAUST FAN SCREEN 1
3/16" = 1'-0"

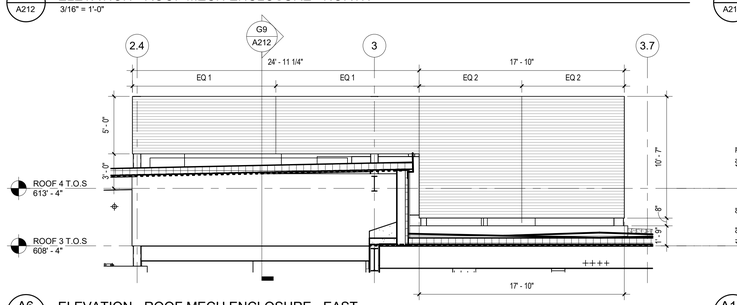



D6 A212 ELEVATION - ROOF MECH ENCLOSURE - NORTH
3/16" = 1'-0"

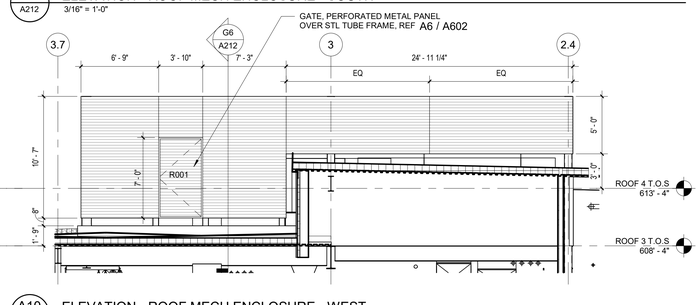
E11 A212 ELEV - ROOF EXHAUST FAN SCREEN 2
3/16" = 1'-0"




A6 A212 ELEVATION - ROOF MECH ENCLOSURE - EAST
3/16" = 1'-0"

D10 A212 ELEVATION - ROOF MECH ENCLOSURE - SOUTH
3/16" = 1'-0"




A10 A212 ELEVATION - ROOF MECH ENCLOSURE - WEST
3/16" = 1'-0"

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QEA No.41911390

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ROOF MECH ENCLOSURE ELEVS & DETAILS

**A212**

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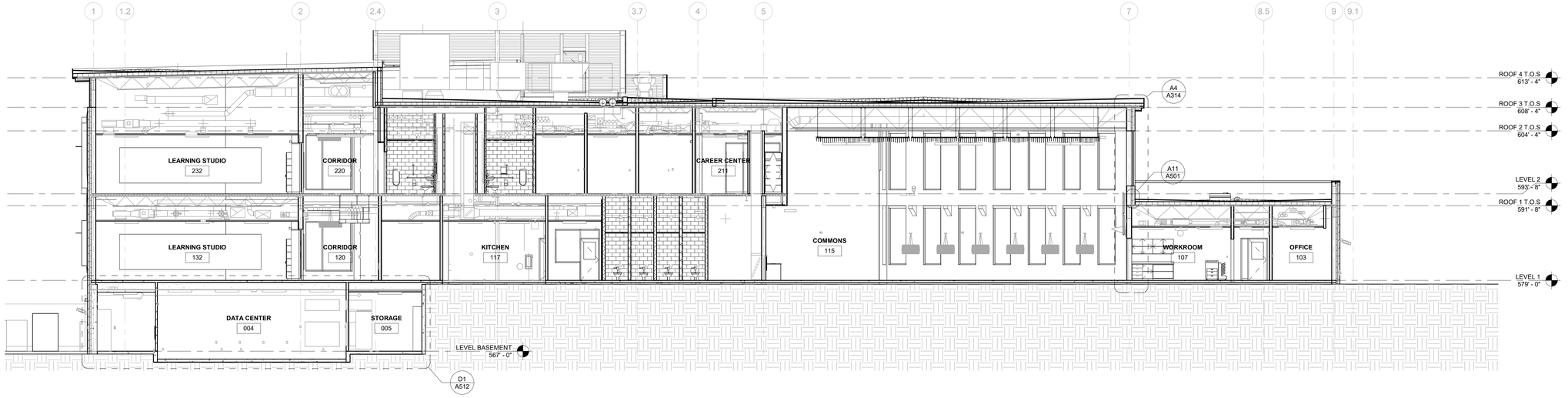
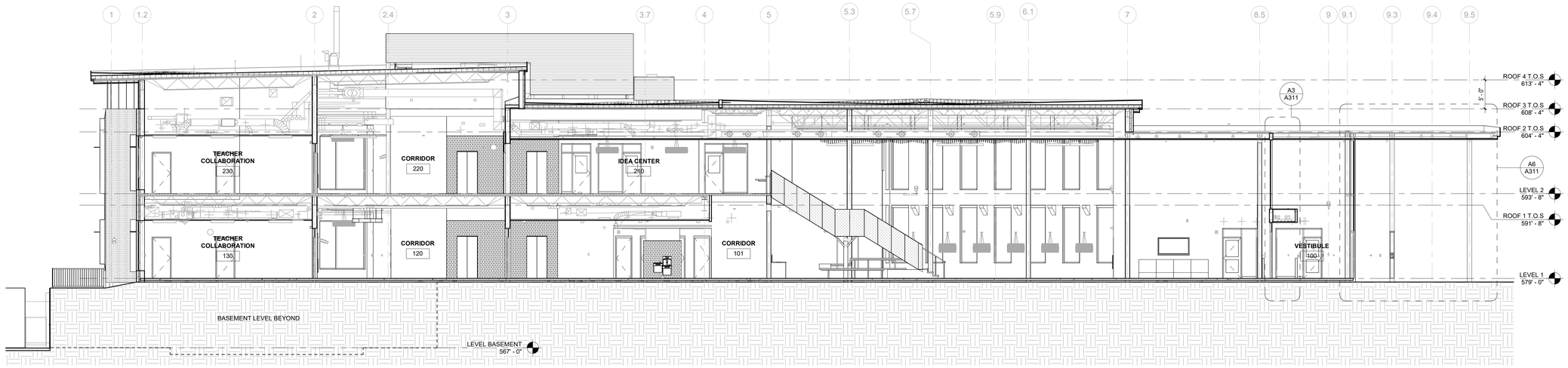
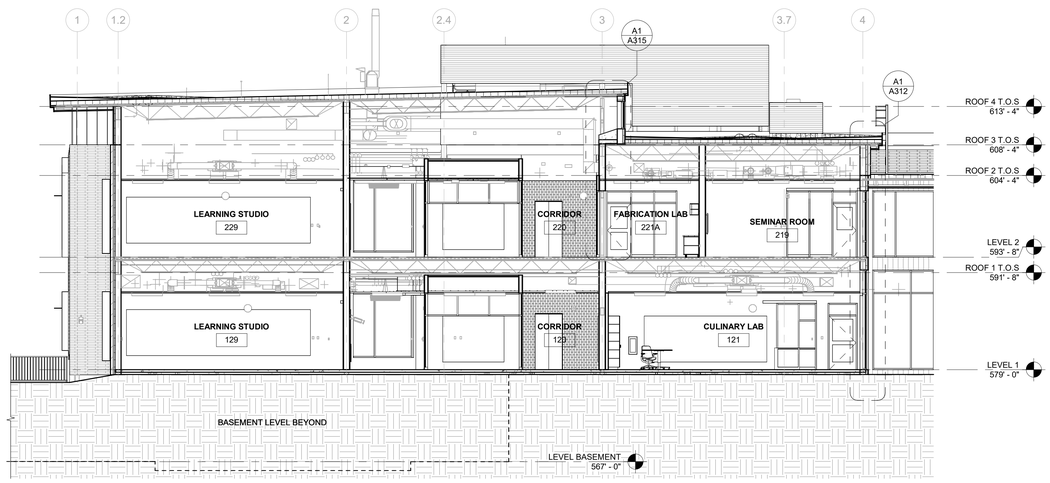



H1 A301 BUILDING SECTION
1/8" = 1'-0"




E1 A301 BUILDING SECTION
1/8" = 1'-0"




A1 A301 BUILDING SECTION
1/8" = 1'-0"

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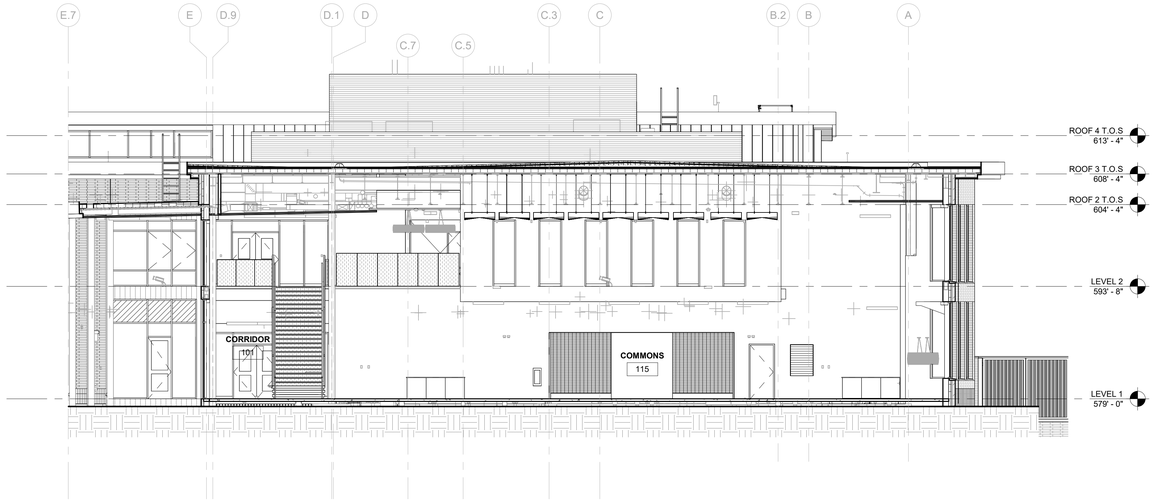
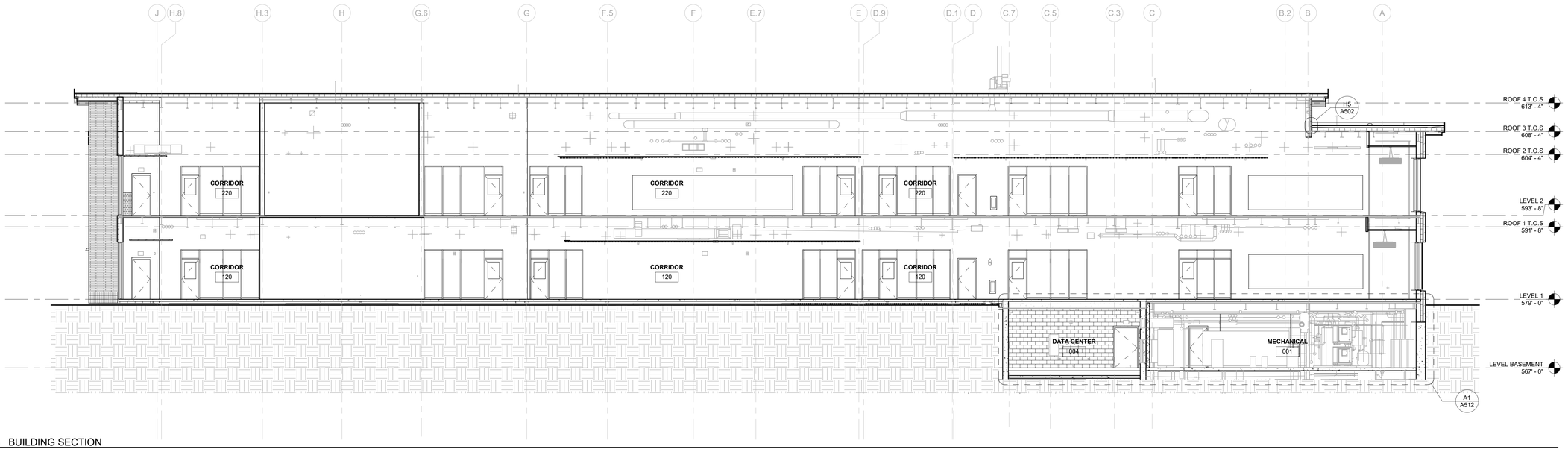
BUILDING SECTIONS

# A301




E1 A302 BUILDING SECTION
1/8" = 1'-0"




A1 A302 BUILDING SECTION
1/8" = 1'-0"

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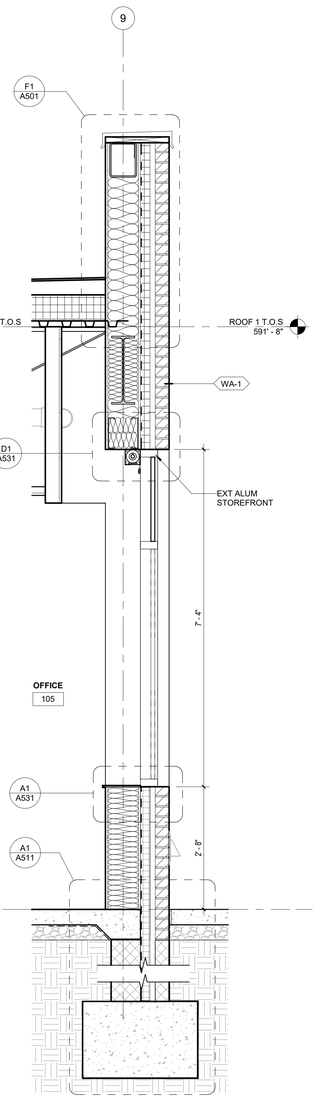
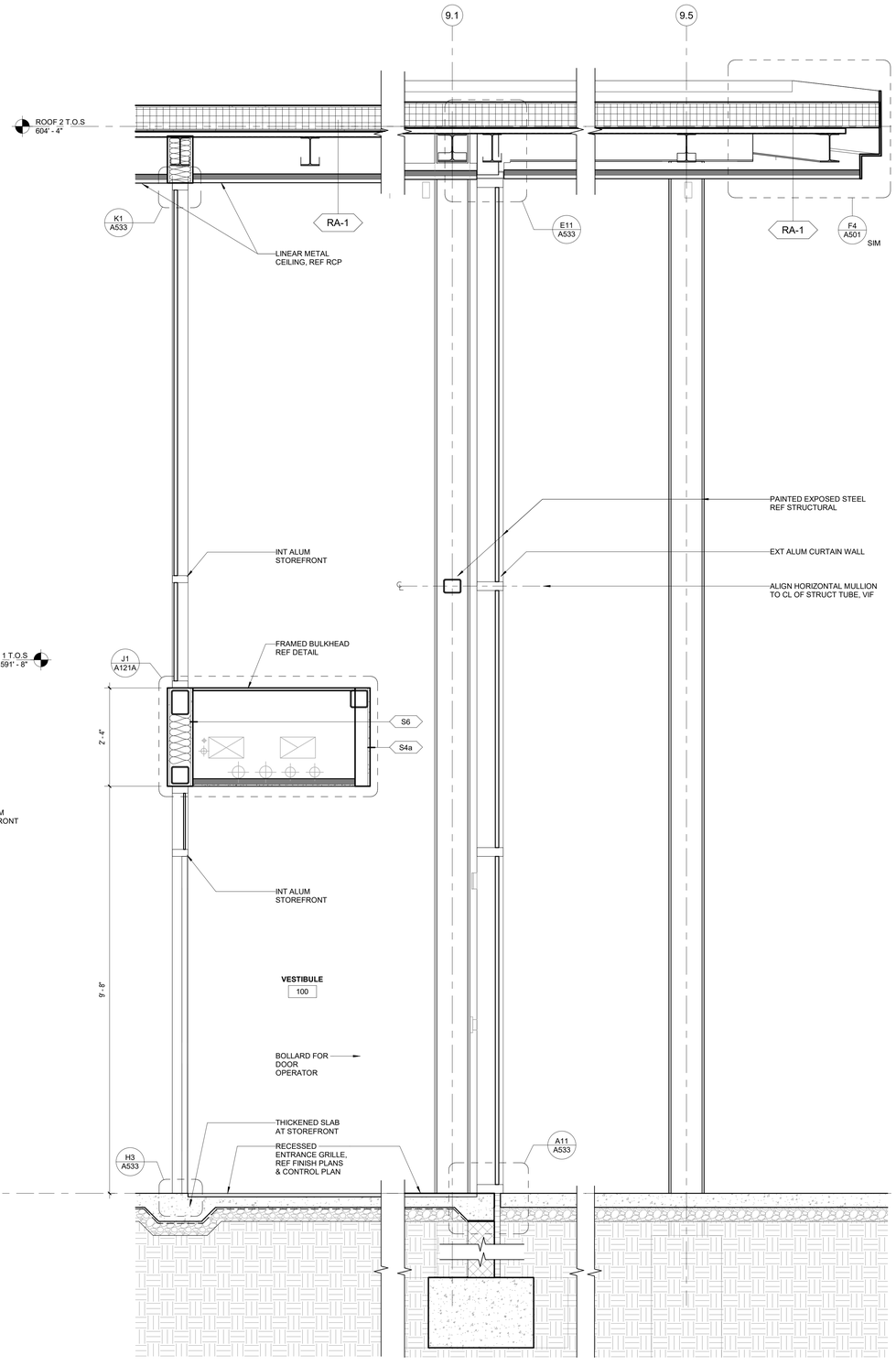
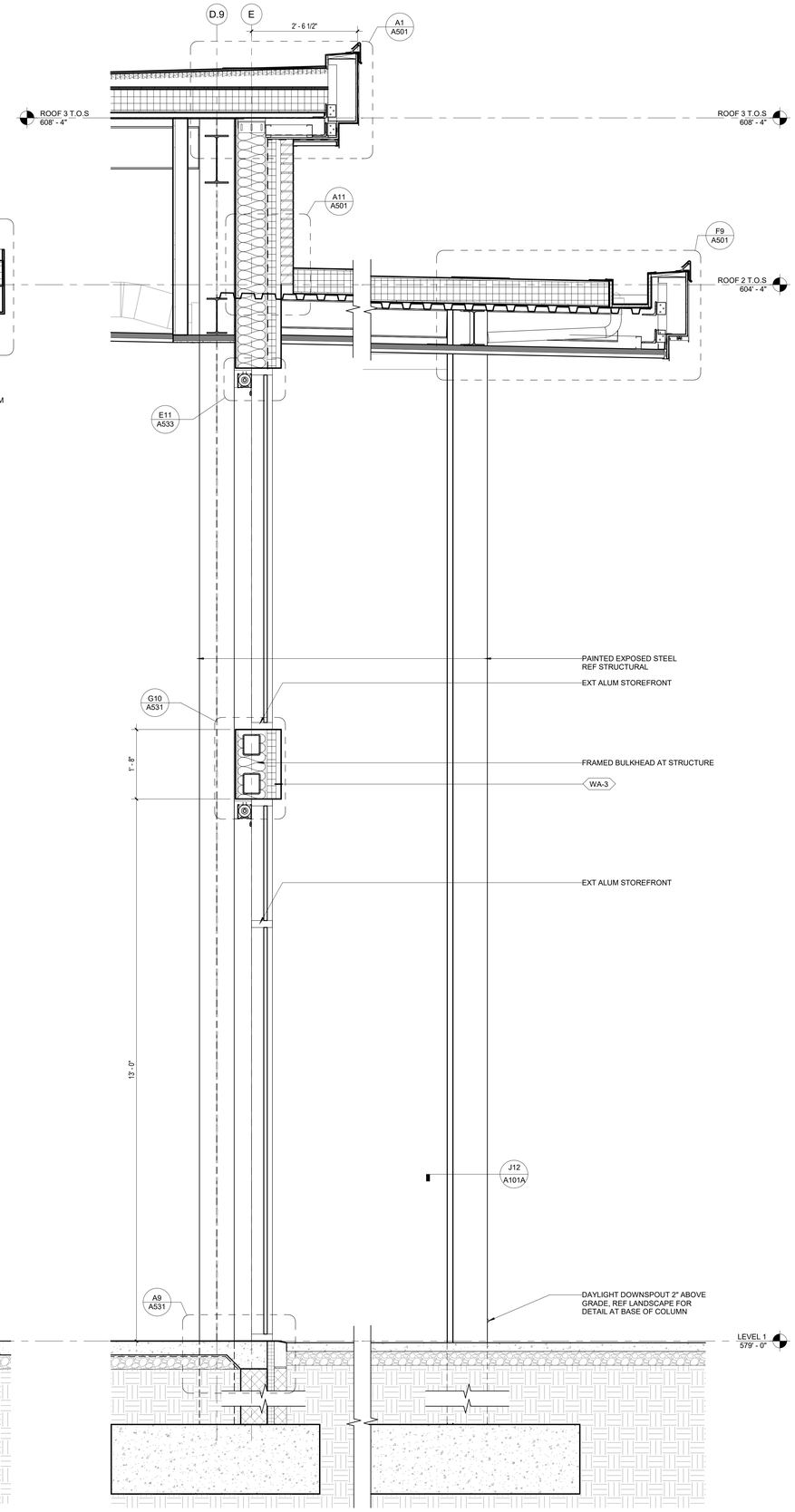
BUILDING SECTIONS

# A302




A1 / A311 WALL SECTION - ADMINISTRATION
3/4" = 1'-0"

A3 / A311 WALL SECTION - STOREFRONT AT ENTRY
3/4" = 1'-0"

A6 / A311 WALL SECTION - CURTAINWALL AT ENTRY
3/4" = 1'-0"

A10 / A311 WALL SECTION - STOREFRONT AT COURTYARD
3/4" = 1'-0"

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
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QUINN EVANS

1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

QUINNEVANS.COM

COMMONWEALTH OF VIRGINIA
CHARLES W. TILLEY
LIC. No. 010767
10/08/2024
ARCHITECT

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO.
002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

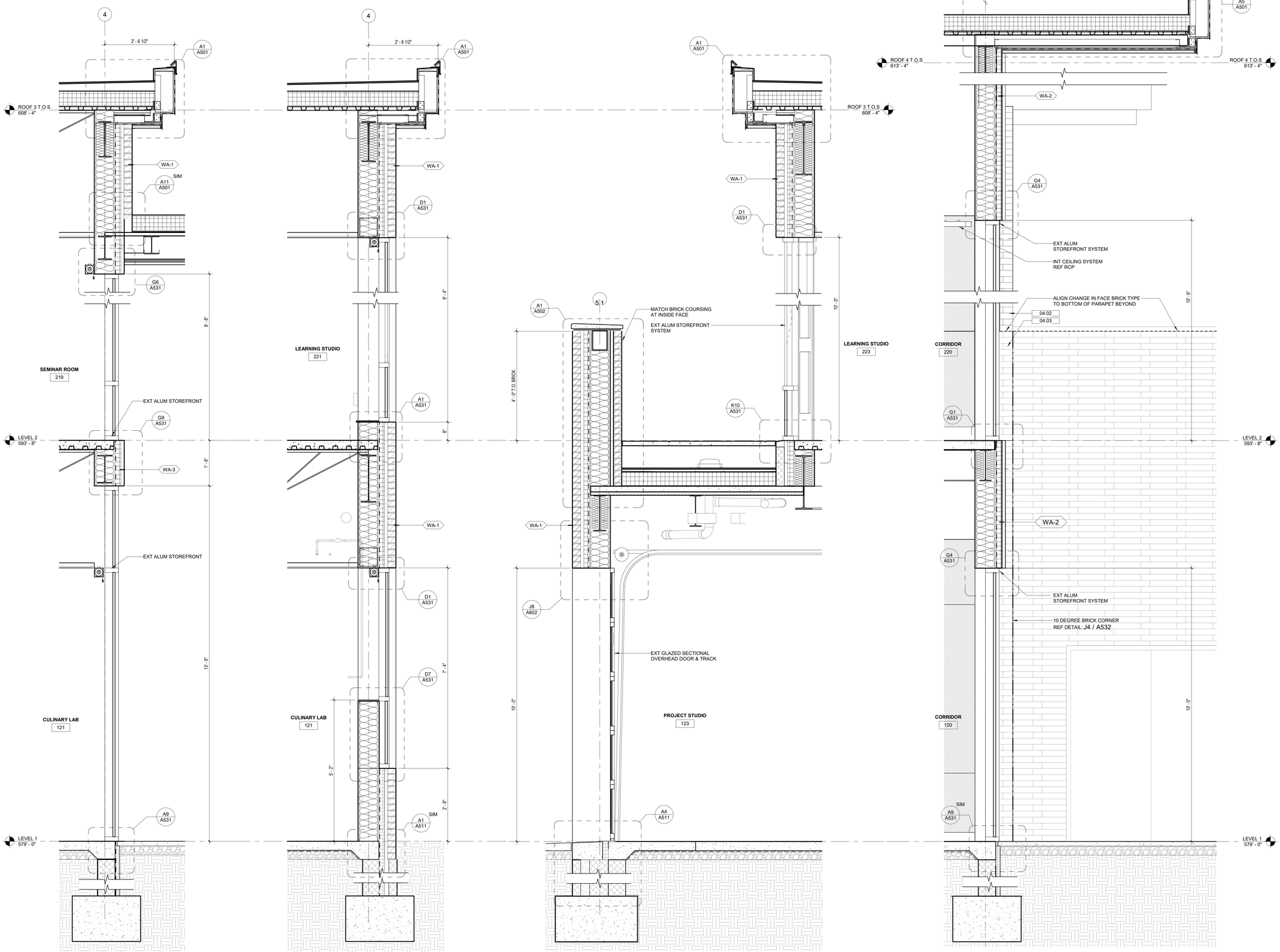
PROJECT MANAGER: KS
DRAWN BY: BG, AJ

QEA No.41911390

BID DOCUMENTS
10/8/2024

WALL SECTIONS

# A311




A1 / A312 WALL SECTION 3/4" = 1'-0"

A3 / A312 WALL SECTION 3/4" = 1'-0"

A6 / A312 WALL SECTION 3/4" = 1'-0"

A10 / A312 WALL SECTION 3/4" = 1'-0"

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Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS

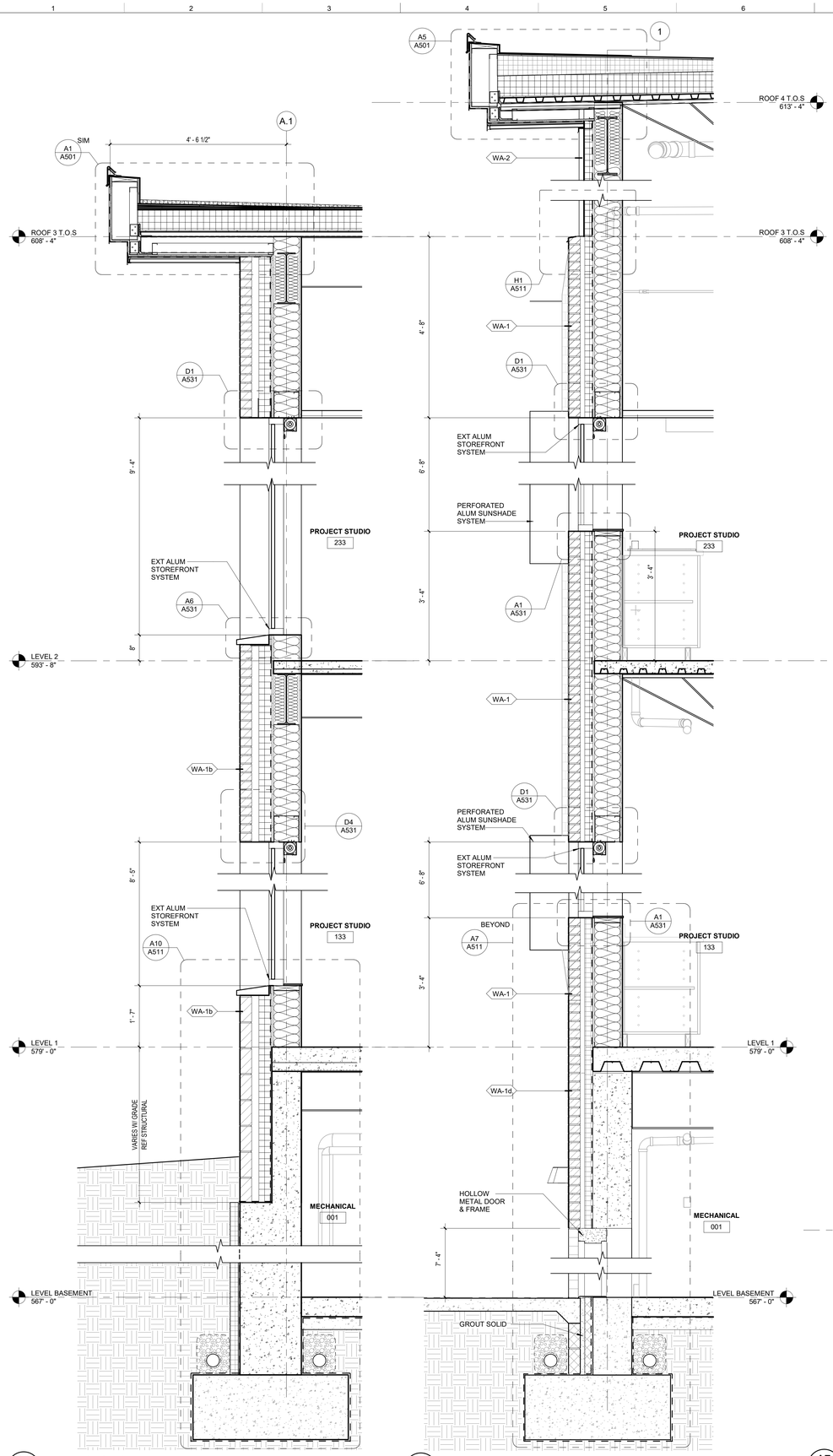
DRAWN BY: BG, AJ

QEA No.41911390

BID DOCUMENTS
10/8/2024

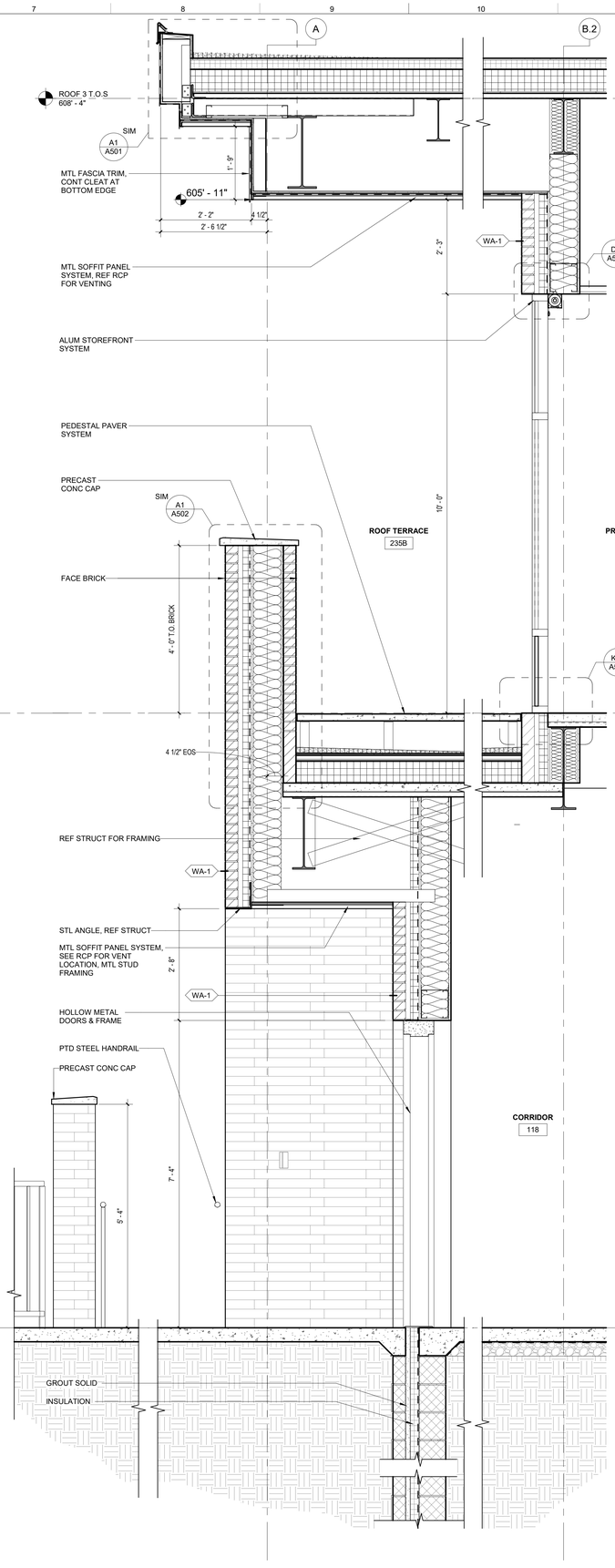
WALL SECTIONS

# A312

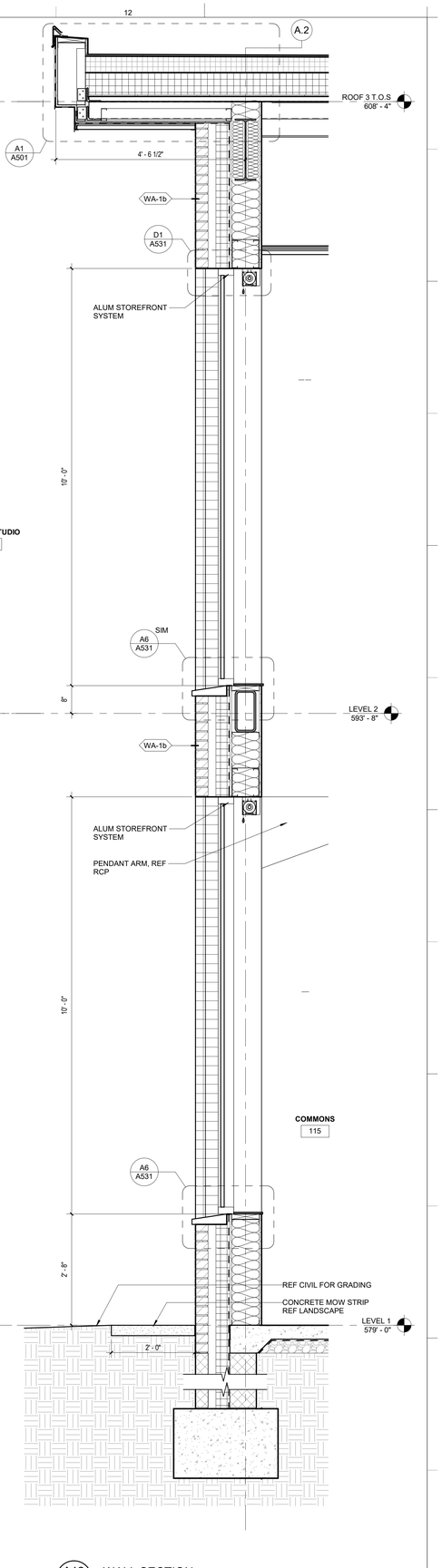



A1 A313 WALL SECTION 3/4" = 1'-0"

A4 A313 WALL SECTION 3/4" = 1'-0"




A7 A313 WALL SECTION 3/4" = 1'-0"




A12 A313 WALL SECTION 3/4" = 1'-0"

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
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10/08/2024
ARCHITECT

Albemarle County Public Schools

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|---|---|---|

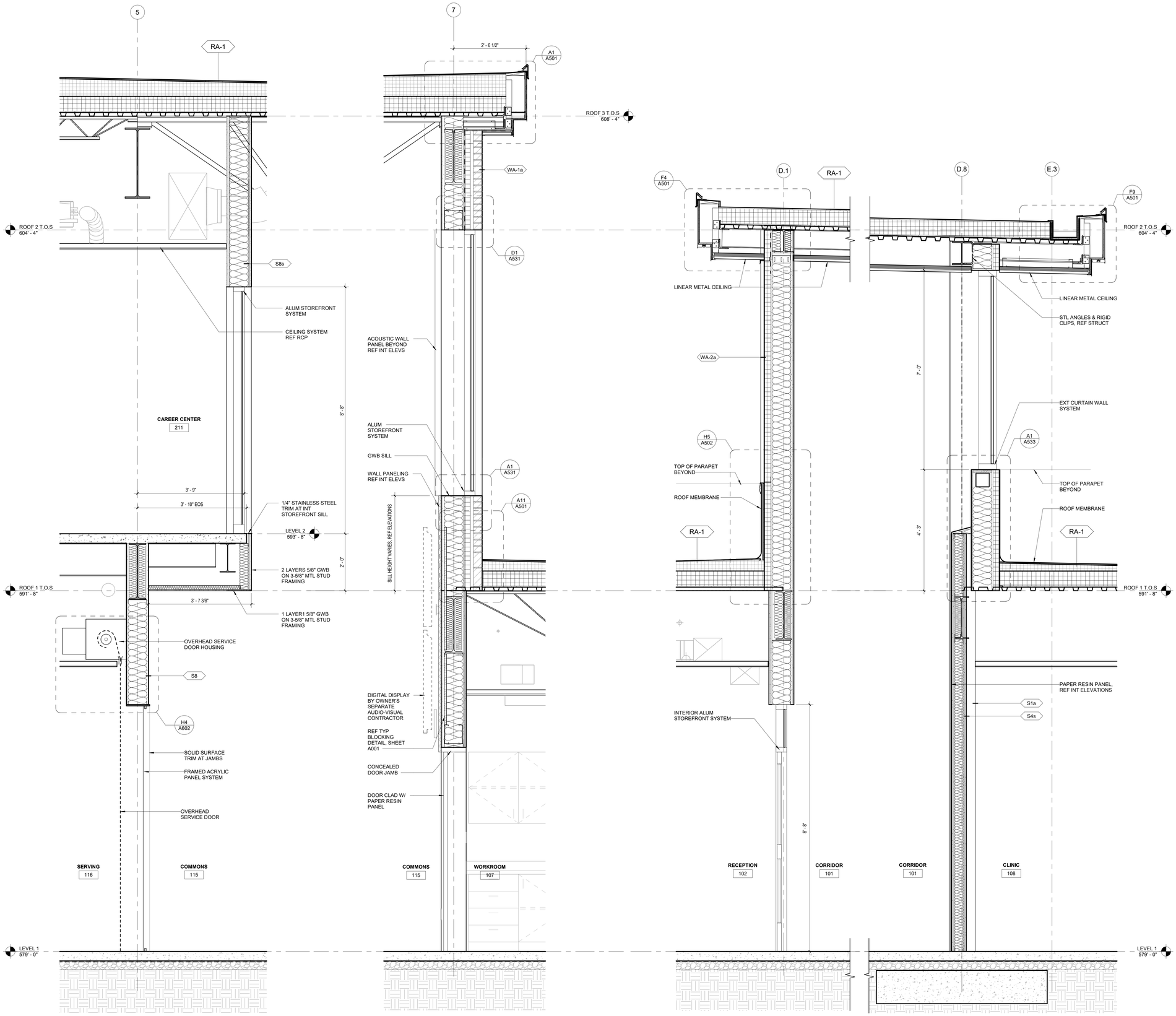
PROJECT MANAGER: KS
DRAWN BY: BG, AJ

QEA No.41911390

BID DOCUMENTS
10/8/2024

WALL SECTIONS

# A313




A1 A314 WALL SECTION 3/4" = 1'-0"

A4 A314 WALL SECTION 3/4" = 1'-0"

A6 A314 WALL SECTION 3/4" = 1'-0"

A9 A314 WALL SECTION 3/4" = 1'-0"

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
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10/08/2024
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Albemarle County Public Schools

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2775 Hydraulic Rd,
Charlottesville, VA 22901

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|---|---|---|

PROJECT MANAGER: KS

DRAWN BY: BG, AJ

QEA No.41911390

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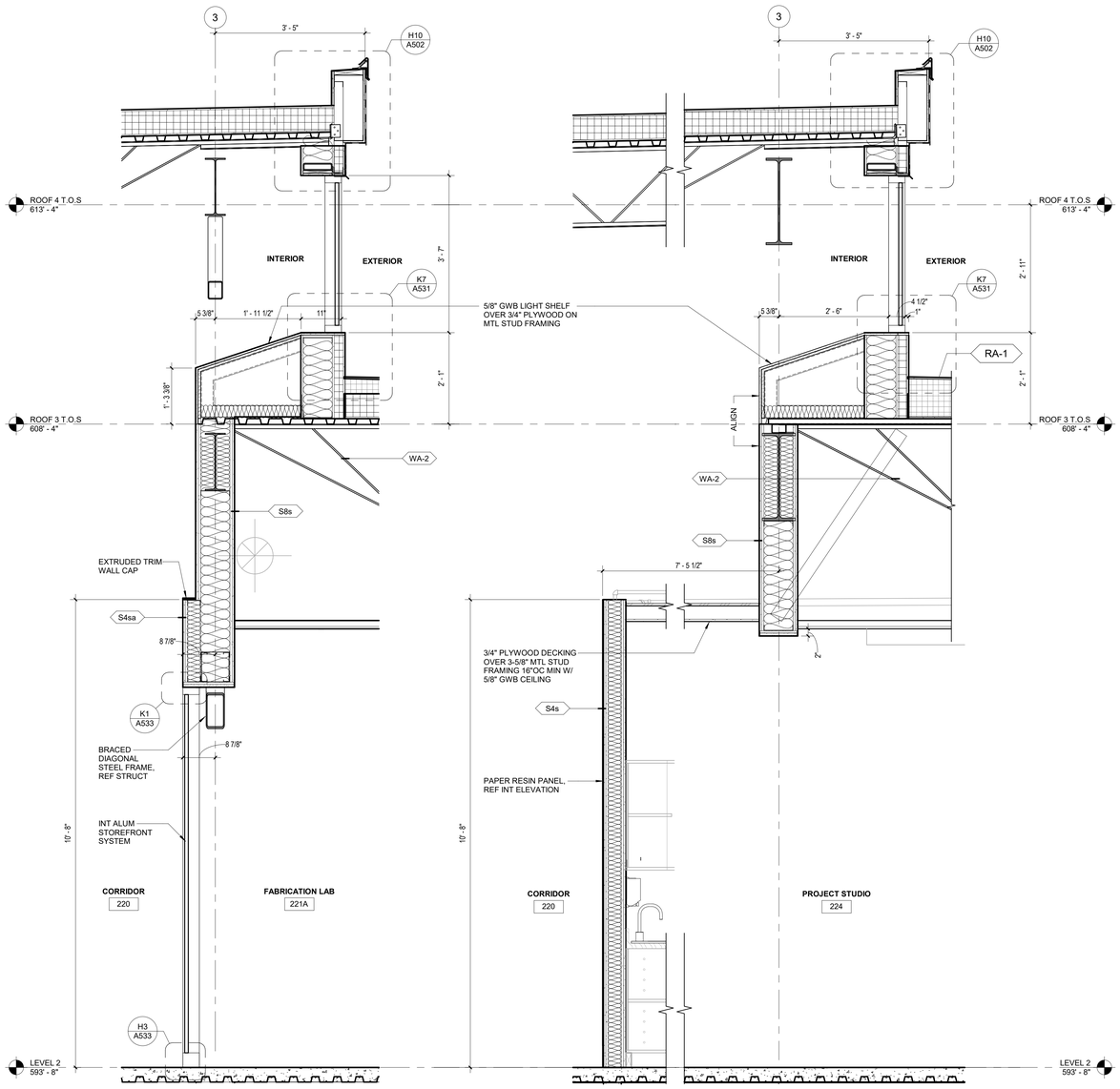
10/8/2024

WALL SECTIONS

# A314




A1 / A315 WALL SECTION
3/4" = 1'-0"

A4 / A315 WALL SECTION
3/4" = 1'-0"

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
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10/08/2024
ARCHITECT

Albemarle County Public Schools

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Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

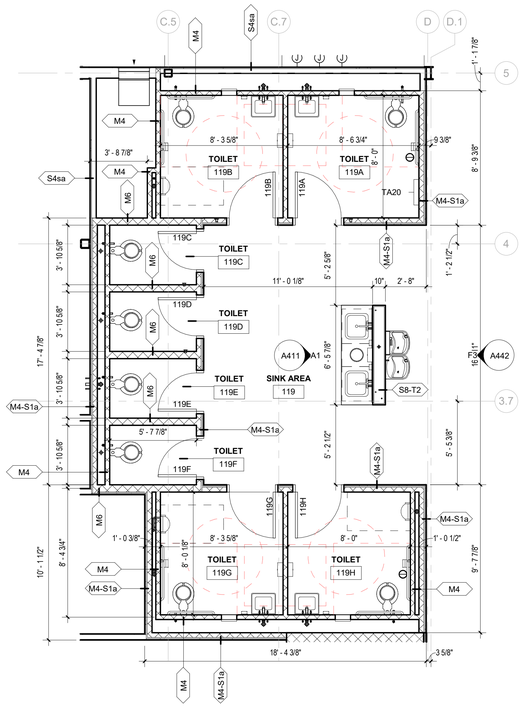
PROJECT MANAGER: KS
DRAWN BY: BG, AJ

QEA No.41911390

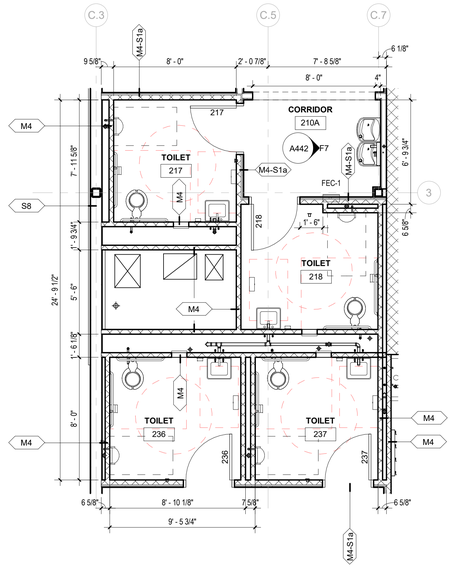
BID DOCUMENTS
10/8/2024

WALL SECTIONS

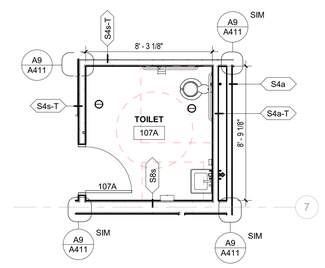
# A315



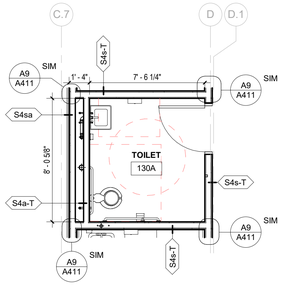

G1 ENLARGED TOILET PLAN
A411 1/4" = 1'-0"



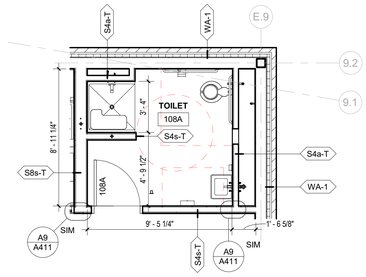

G4 ENLARGED TOILET PLAN
A411 1/4" = 1'-0"



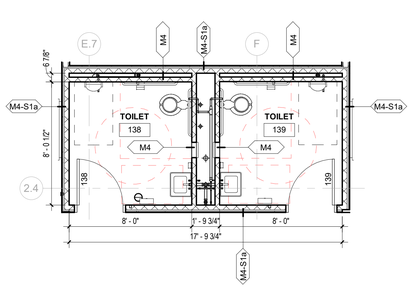

L7 ENLARGED TOILET PLAN
A411 1/4" = 1'-0"



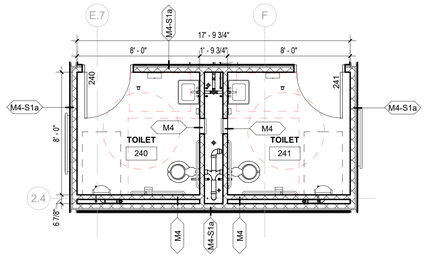

G7 ENLARGED TOILET PLAN
A411 1/4" = 1'-0"




E1 ENLARGED TOILET PLA
A411 1/4" = 1'-0"



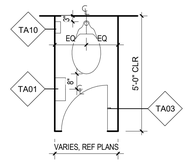

E4 ENLARGED TOILET PLAN
A411 1/4" = 1'-0"



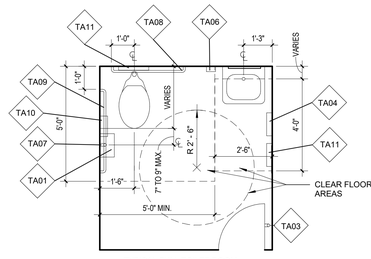

E7 ENLARGED TOILET PLAN
A411 1/4" = 1'-0"

## TYPICAL TOILET ROOM LAYOUTS AND ACCESSORIES

1. REFER TO TYPICAL TOILET COMPARTMENT AND TOILET ROOM LAYOUTS ON THIS SHEET FOR TOILET ACCESSORIES AND LOCATIONS NOT SHOWN ON INDIVIDUAL ENLARGED TOILET PLANS. ALL ACCESSORIES INDICATED ON TYPICAL TOILET COMPARTMENT AND TOILET ROOM LAYOUTS SHALL BE PROVIDED IN EACH TOILET COMPARTMENT AND ROOM UNLESS INDICATED OTHERWISE.



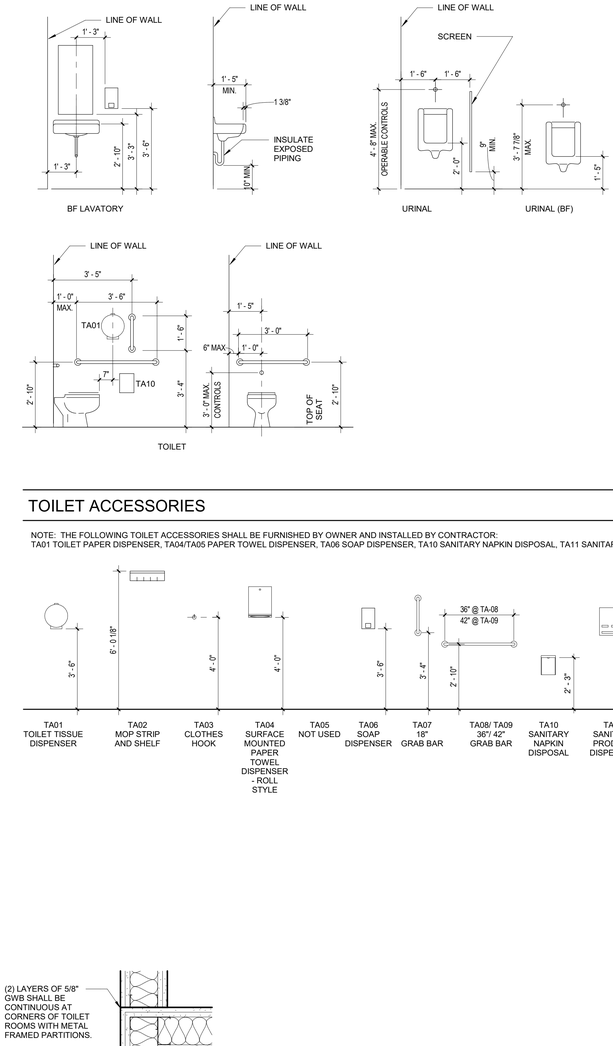

TYPICAL SINGLE TOILET ROOM




TYPICAL FULL TOILET ROOM

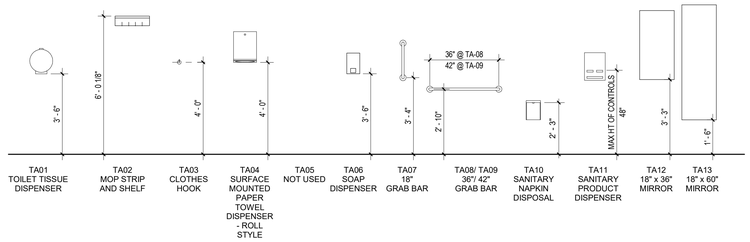
## STANDARD MOUNTING HEIGHTS

NOTES:
1. MOUNTING HEIGHTS AND DIMENSIONS ARE TYPICAL UNLESS NOTED OTHERWISE ON DRAWINGS. REFER TO TYPICAL TOILET PLANS AND INVIDUAL TOILET PLANS FOR ADDITIONAL DIMENSIONS.
2. LIKE DEVICES SHALL BE MOUNTED AT SAME HEIGHT THROUGHOUT BUILDING
3. THE REQUIREMENTS OF THE AMERICAN WITH DISABILITIES ACT GUIDELINES, VIRGINIA CONSTRUCTION CODE, AND VIRGINIA PLUMBING CODE SHALL BE FOLLOWED. ADVISE ARCHITECT IF DIMENSIONS INDICATED ON DRAWINGS OR SIZE AND LAYOUT OF PRODUCTS BEING PROVIDED CONFLICT WITH CODE REQUIREMENTS.

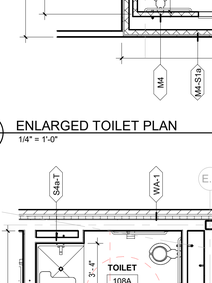



## TOILET ACCESSORIES

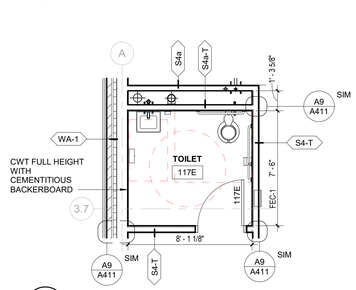
NOTE: THE FOLLOWING TOILET ACCESSORIES SHALL BE FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR:
TA01 TOILET PAPER DISPENSER, TA04/TA05 PAPER TOWEL DISPENSER, TA06 SOAP DISPENSER, TA10 SANITARY NAPKIN DISPOSAL, TA11 SANITARY PRODUCT DISPENSER



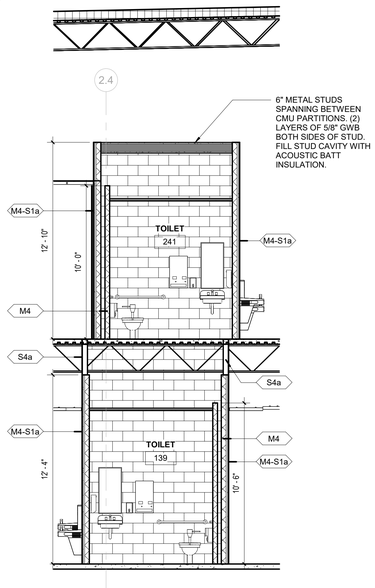

TA01 TOILET TISSUE DISPENSER
TA02 MOP STRIP AND SHELF
TA03 CLOTHES HOOK
TA04 SURFACE MOUNTED PAPER TOWEL DISPENSER - ROLL STYLE
TA05 NOT USED
TA06 SOAP DISPENSER
TA07 18" GRAB BAR
TA08/ TA09 36"/ 42" GRAB BAR
TA10 SANITARY NAPKIN DISPOSAL
TA11 SANITARY PRODUCT DISPENSER
TA12 18" x 36" MIRROR
TA13 18" x 60" MIRROR



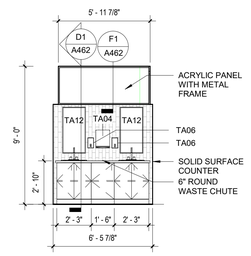

C1 ENLARGED TOILET PLAN
A411 1/4" = 1'-0"



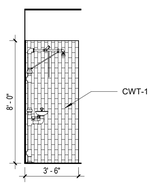

C4 ENLARGED TOILET PLAN
A411 1/4" = 1'-0"



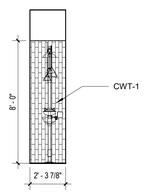

A7 SECTION - TOILETS 139 & 241
A411 1/4" = 1'-0"



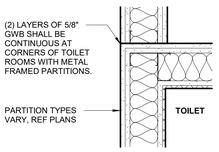

A1 ELEVATION - SINK AREA
A411 1/4" = 1'-0"




A3 ELEVATION - EMERGENCY SHOWER
A411 1/4" = 1'-0"




A5 ELEVATION - EMERGENCY SHOWER
A411 1/4" = 1'-0"




NOTE: TYPICAL AT ALL TOILET ROOM CORNERS WITH INTERSECTING PARTITIONS

A9 PLAN DETAIL - ACOUSTIC SEPARATION
A411 1 1/2" = 1'-0"

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Albemarle County Public Schools

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| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS
DRAWN BY: EW

QEA No.41911390

BID DOCUMENTS
10/8/2024

TOILET PLANS

**A411**

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
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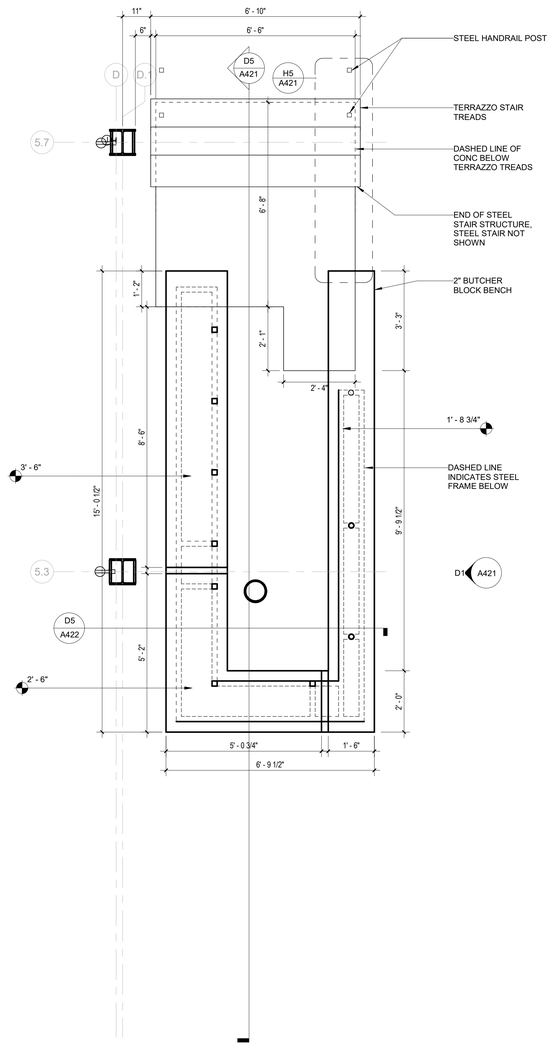
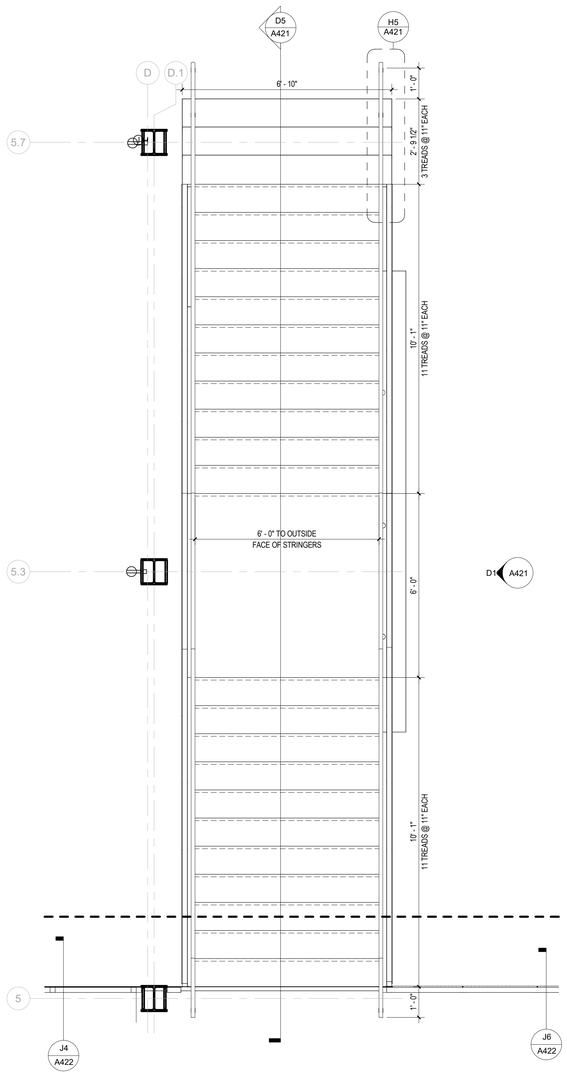
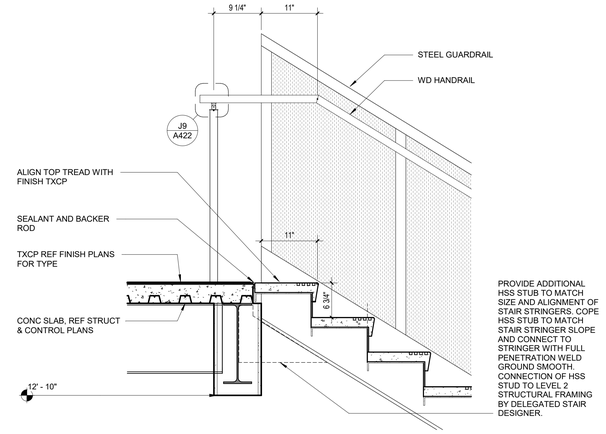


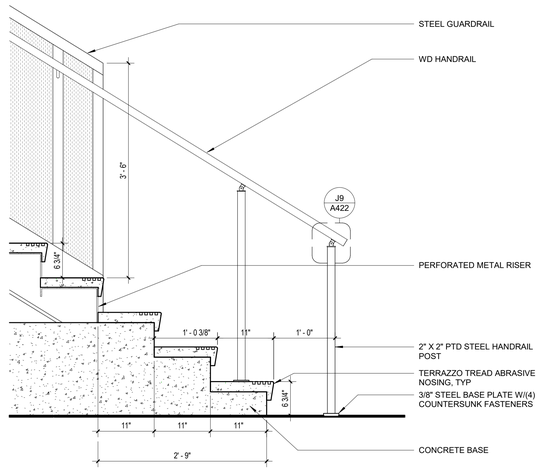

H1 A421 ENLARGED PLAN - LEVEL 1 - STAIR 3
1/2" = 1'-0"




H3 A421 ENLARGED PLAN - LEVEL 2 - STAIR 3
1/2" = 1'-0"

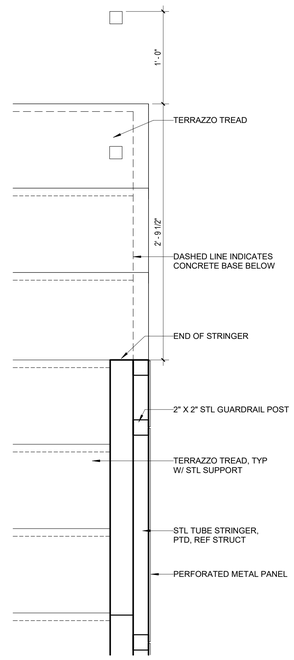



H10 A421 SECTION - STAIR 3 SECTION @ LEVEL 2 SLAB
1" = 1'-0"

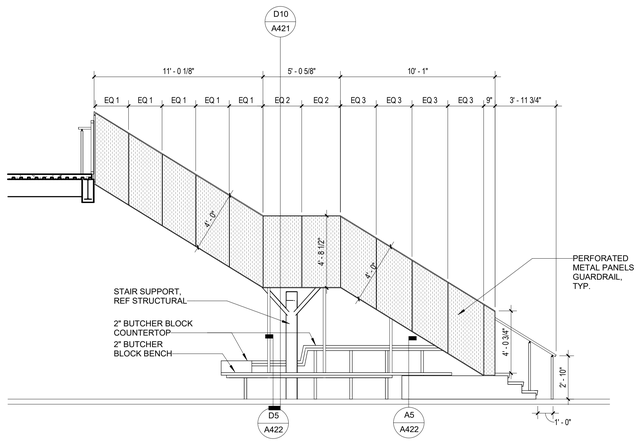



A10 A421 SECTION - STAIR 3 SECTION @ GROUND LEVEL SLAB
1" = 1'-0"

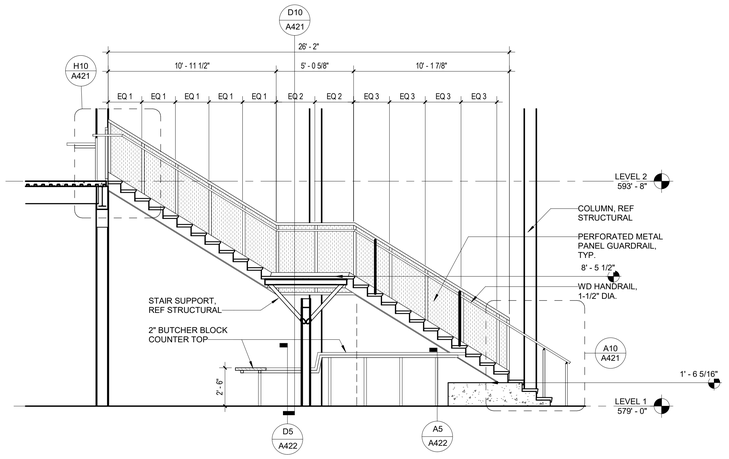
K3 / A121B



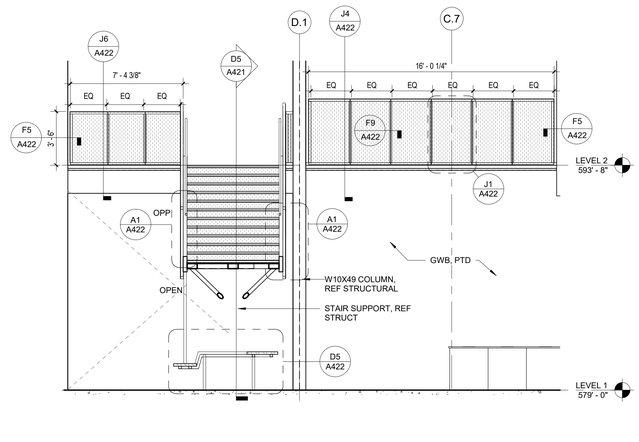

H5 A421 PLAN DETAIL - BOTTOM OF STAIR
1 1/2" = 1'-0"




D1 A421 ELEVATION - STAIR 3
1/4" = 1'-0"




D5 A421 SECTION - STAIR 3
1/4" = 1'-0"




D10 A421 SECTION - STAIR 3
1/4" = 1'-0"

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
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SUITE 400
RICHMOND, VA 23220
v 804.788.4774
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COMMONWEALTH OF VIRGINIA
CHARLES W. TILLEY
LIC. No. 016767
10/08/2024
ARCHITECT

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100
Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

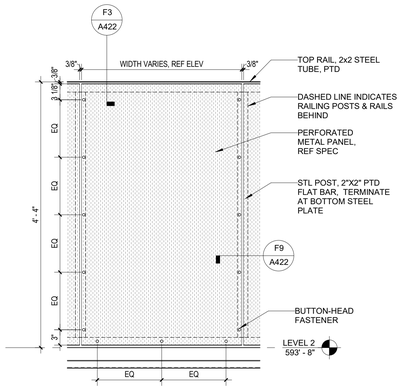
PROJECT MANAGER: KS
DRAWN BY: EW

QEA No.41911390

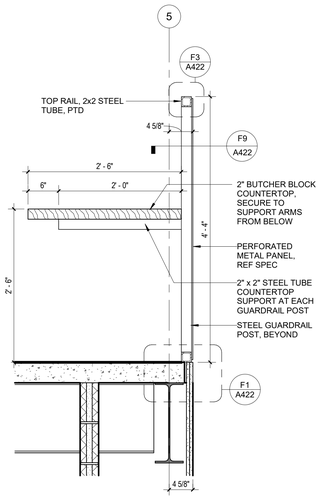
BID DOCUMENTS
10/8/2024

OPEN STAIR PLANS, ELEVS, SECTIONS

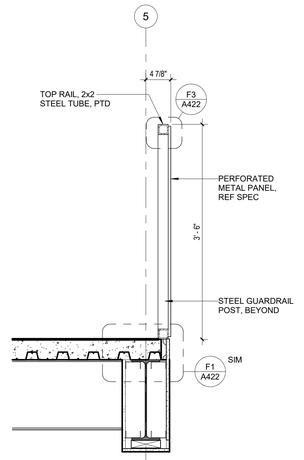
**A421**



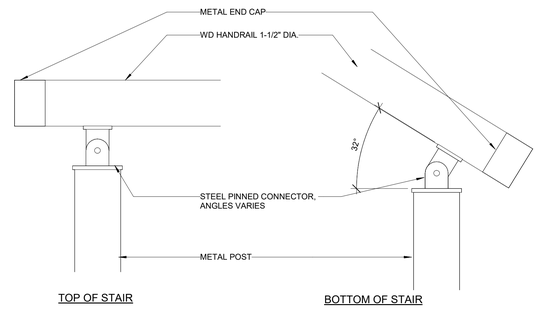

J1 TYP ELEVATION - METAL PANEL GUARDRAIL
A422 1" = 1'-0"




J4 SECTION DETAIL - GUARDRAIL W/COUNTER
A422 1" = 1'-0"



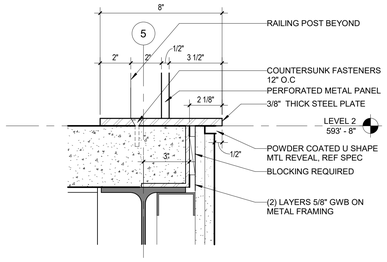

J6 SECTION DETAIL - GUARDRAIL
A422 1" = 1'-0"



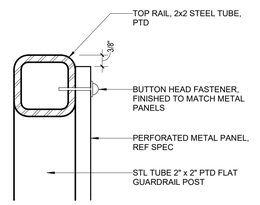

J9 HANDRAIL DETAILS
A422 6" = 1'-0"

## GENERAL STAIR NOTES

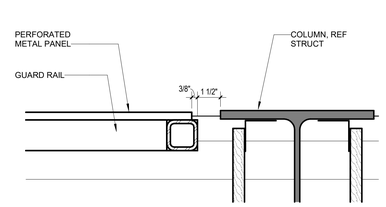
1. FINISHES:
   - A. PERFORATED METAL PANELS SHALL RECEIVE A POWDER-COAT FINISH. COLOR SELECTED BY ARCHITECT.
   - B. STEEL TUBE RAILING FRAMING, BENCH AND COUNTER SUPPORT SHALL BE FIELD PAINTED. REFER TO PAINTING SPECIFICATIONS FOR PAINT SYSTEM.



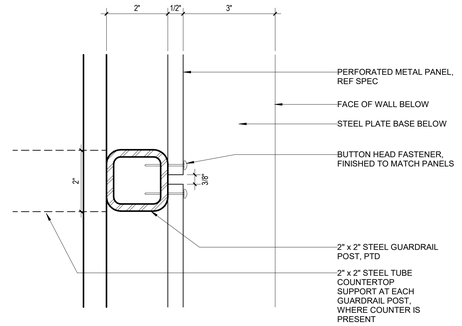

F1 SECTION DETAIL - GUARDRAIL BASE
A422 3" = 1'-0"



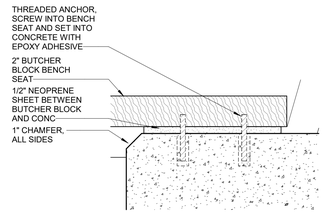

F3 TYP SECTION DETAIL - TOP OF GUARDRAIL TYP
A422 6" = 1'-0"



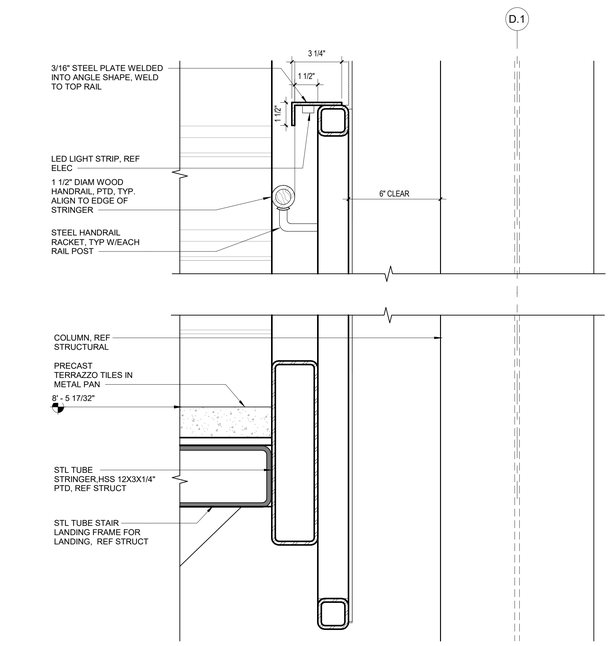

F5 TYP PLAN DETAIL - GUARDRAIL END
A422 3" = 1'-0"



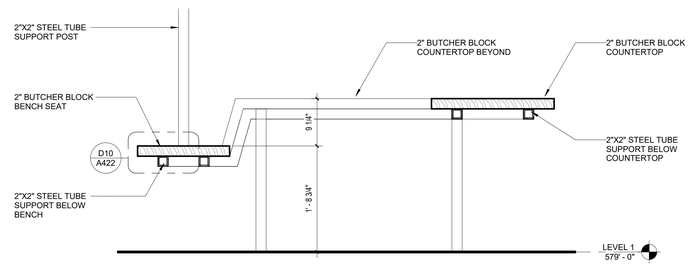

F9 PLAN DETAIL - GUARD RAIL POST
A422 6" = 1'-0"



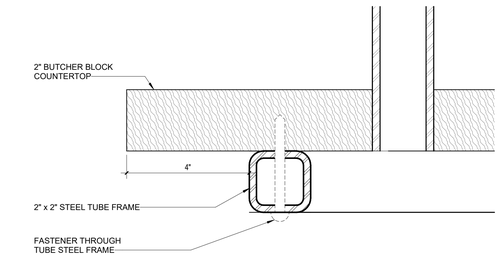

F12 SECTION DETAIL - BENCH @ CONC
A422 3" = 1'-0"



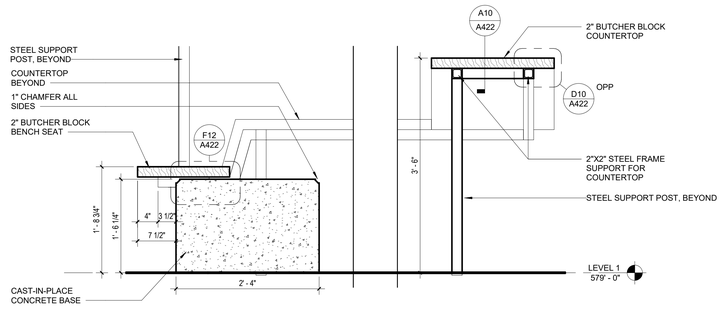

A1 SECTION DETAIL - STAIR GUARDRAIL
A422 3" = 1'-0"



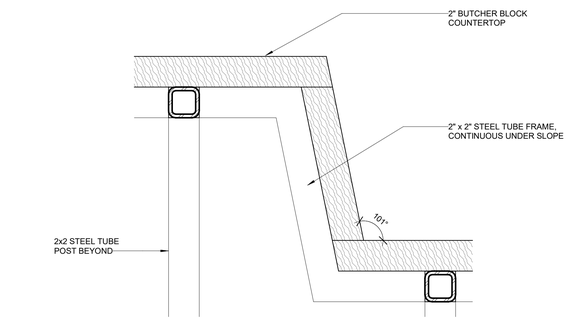

D5 SECTION DETAIL - STAIR 3 BENCH & COUNTER
A422 1" = 1'-0"




D10 SECTION DETAIL - COUNTER TO FRAME CONNECTION
A422 6" = 1'-0"




A5 SECTION - STAIR 3 BENCH & COUNTER
A422 1" = 1'-0"




A10 SECTION DETAIL - SLOPED COUNTER FRAME
A422 3" = 1'-0"

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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
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PROJECT MANAGER: KS
DRAWN BY: EW

QEA No.41911390

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OPEN STAIR & RAILING DETAILS

**A422**

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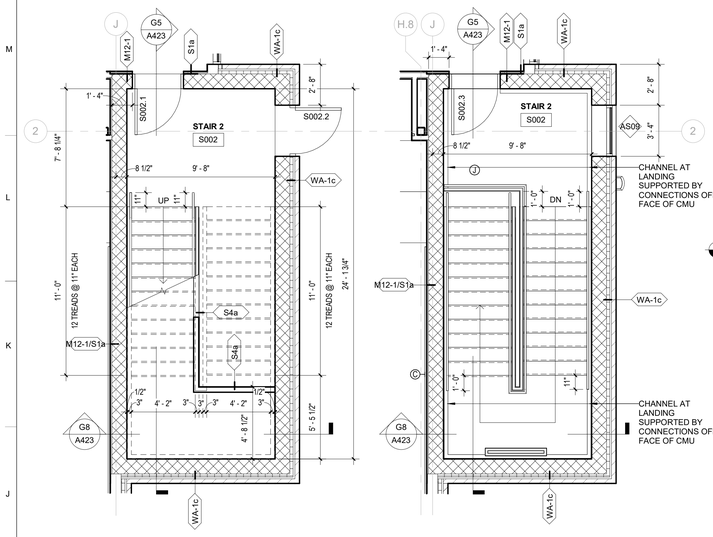
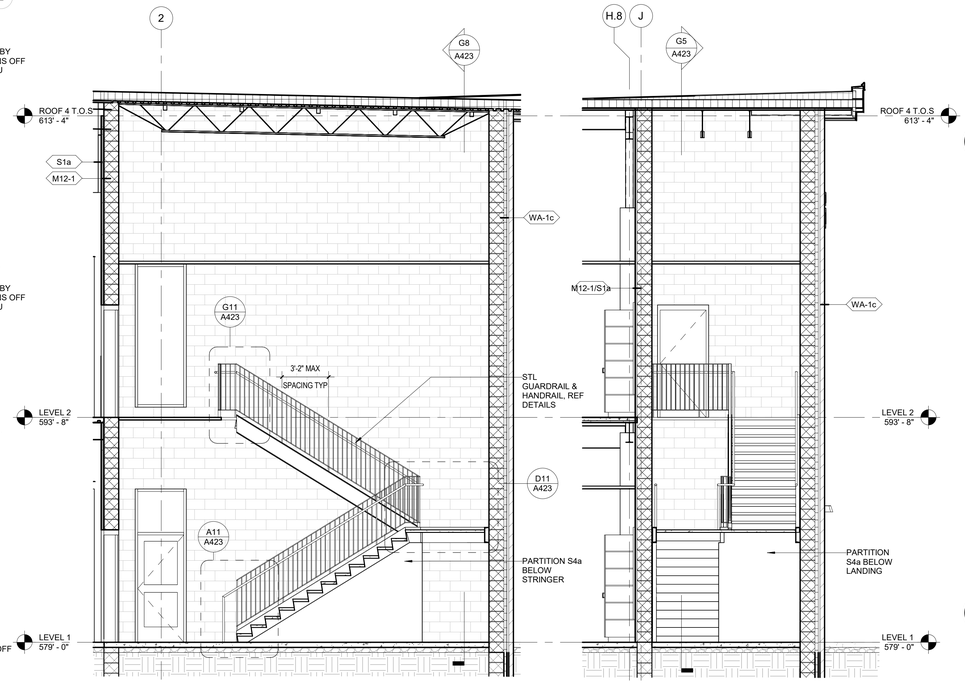



J1 A423 STAIR 2 - LEVEL 1 - ENLARGED PLAN
1/4" = 1'-0"



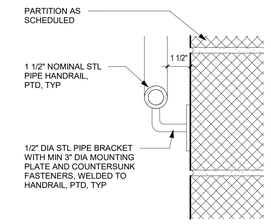

J3 A423 STAIR 2 - LEVEL 2 - ENLARGED PLAN
1/4" = 1'-0"



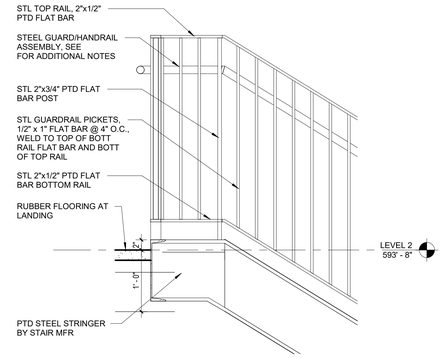

G5 A423 STAIR 2 - LONGITUDINAL SECTION
1/4" = 1'-0"



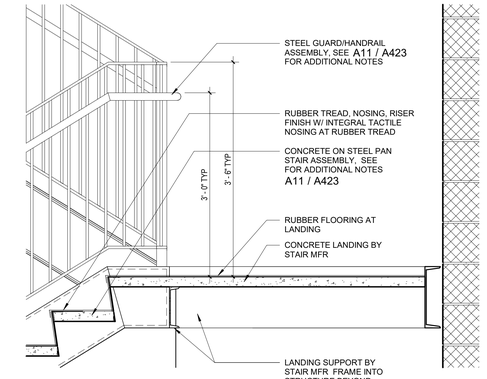

G8 A423 STAIR 2 - TRANSVERSE SECTION
1/4" = 1'-0"



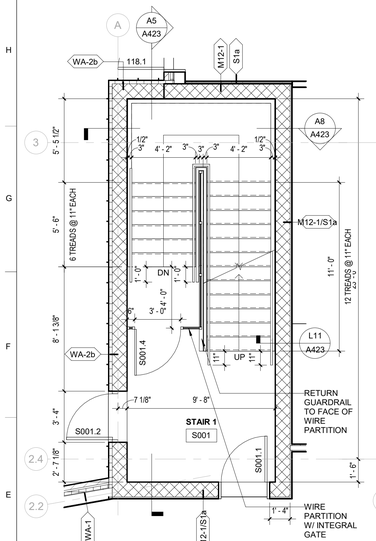

L11 A423 DETAIL @ HANDRAIL
3" = 1'-0"



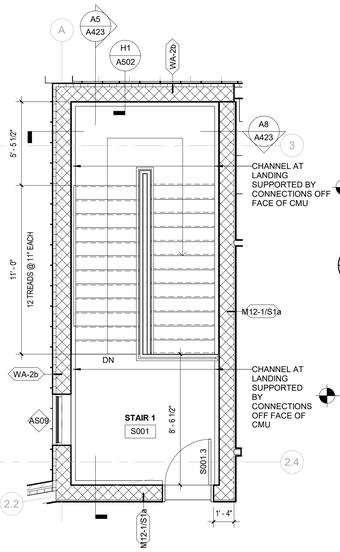

G11 A423 DETAIL @ LEVEL 2 LANDING
1" = 1'-0"



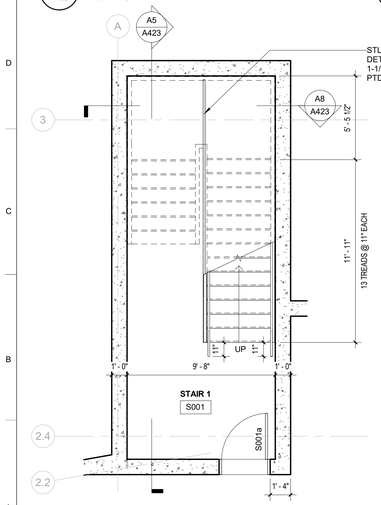

D11 A423 DETAIL @ INTERMEDIATE LANDING
1" = 1'-0"



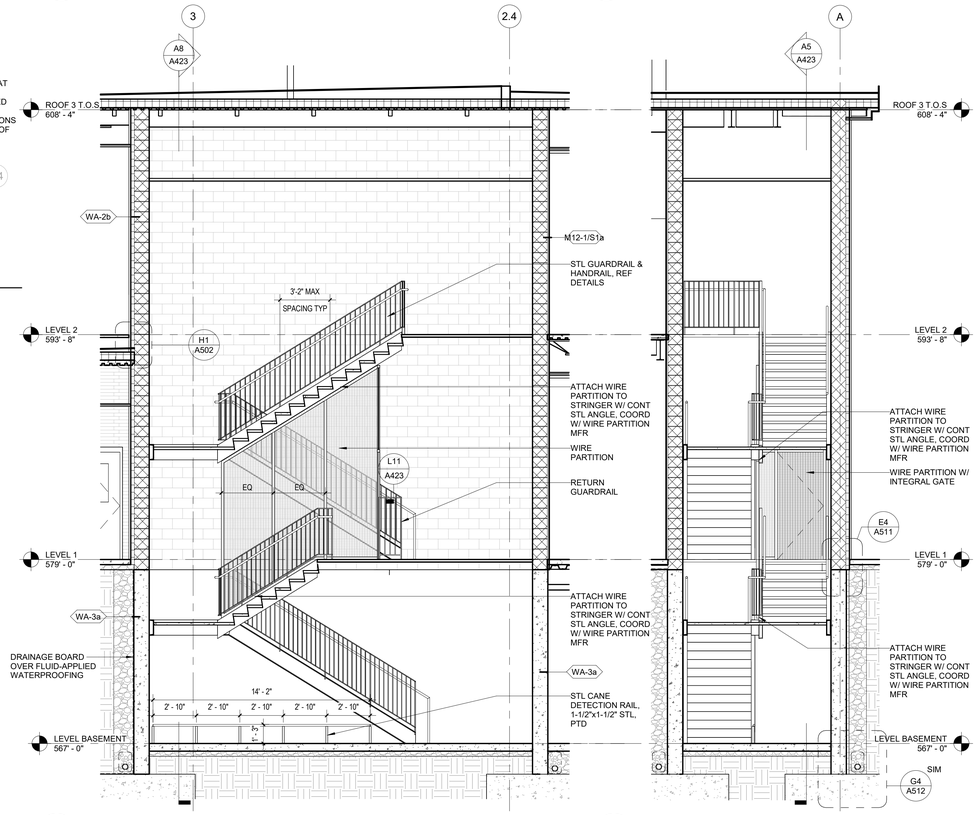

E1 A423 STAIR 1 - LEVEL 1 - ENLARGED PLAN
1/4" = 1'-0"




E3 A423 STAIR 1 - LEVEL 2 - ENLARGED PLAN
1/4" = 1'-0"



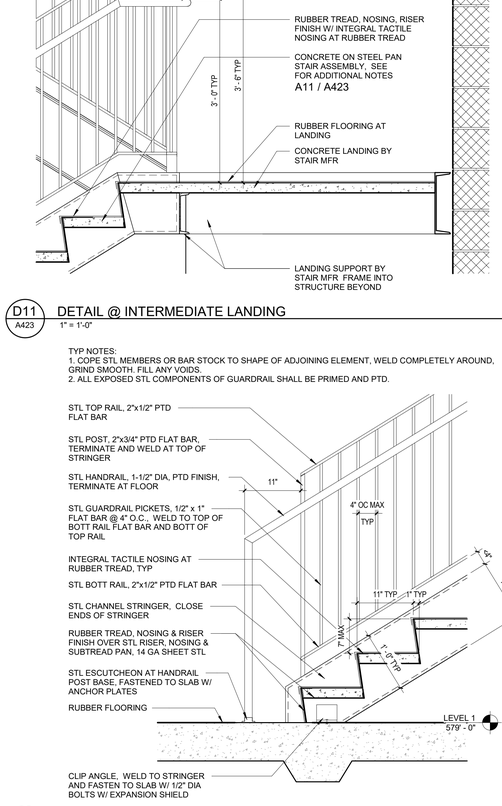

A1 A423 STAIR 1 - BASEMENT - ENLARGED PLAN
1/4" = 1'-0"




A5 A423 STAIR 1 - LONGITUDINAL SECTION
1/4" = 1'-0"




A8 A423 STAIR 1 - TRANSVERSE SECTION
1/4" = 1'-0"




A11 A423 DETAIL @ BASE OF STAIR
1" = 1'-0"

## GENERAL NOTES

1. COPE STEEL MEMBERS OR BAR STOCK TO SHAPE OF ADJOINING ELEMENT, WELD COMPLETELY AROUND, GRIND SMOOTH. FILL ANY VOIDS.
2. ALL EXPOSED STEEL COMPONENTS OF GUARDRAIL SHALL BE PRIMED AND PAINTED.

QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

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ARCHITECT

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PROJECT MANAGER: KS
DRAWN BY: AJ, EW

QEA No.41911390

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EGRESS STAIR PLANS AND SECTIONS

**A423**

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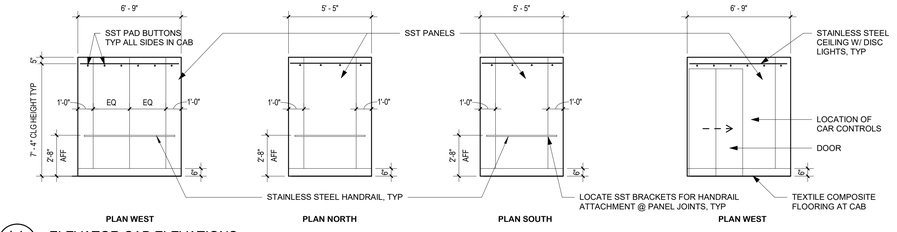
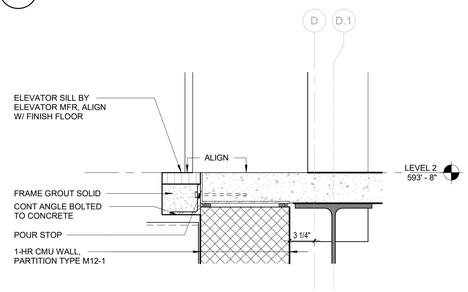
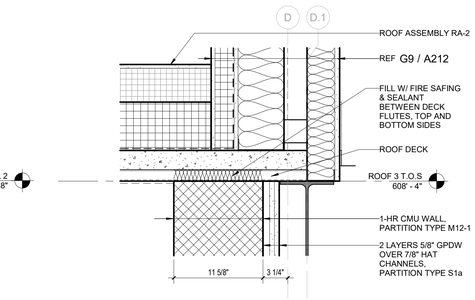


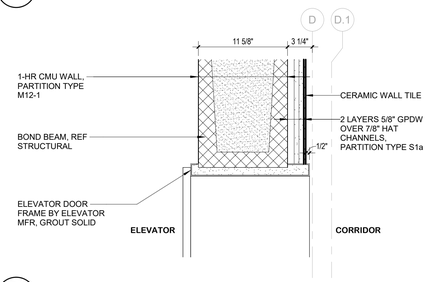

## L1 A431 ELEVATOR CAB ELEVATIONS
1/4" = 1'-0"



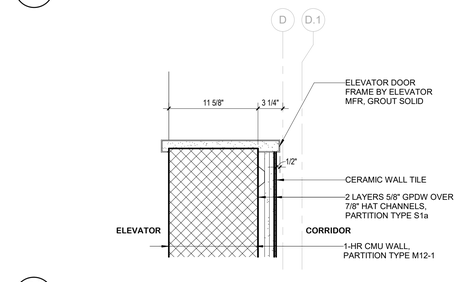

## J1 A431 ELEVATOR DOOR SILL - LEVEL 2
1 1/2" = 1'-0"



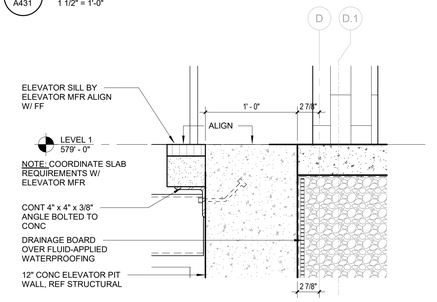

## J4 A431 ELEVATOR ROOF DETAIL
1 1/2" = 1'-0"



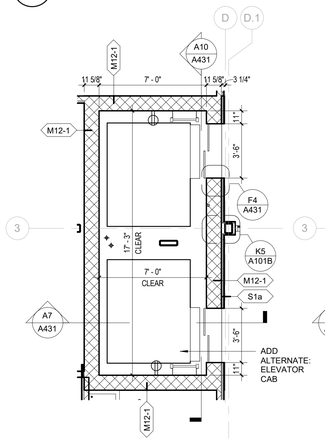

## F1 A431 ELEVATOR DOOR HEAD DETAIL
1 1/2" = 1'-0"



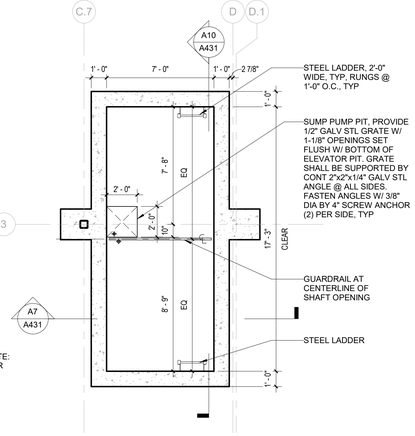

## F4 A431 ELEVATOR JAMB DETAIL
1 1/2" = 1'-0"



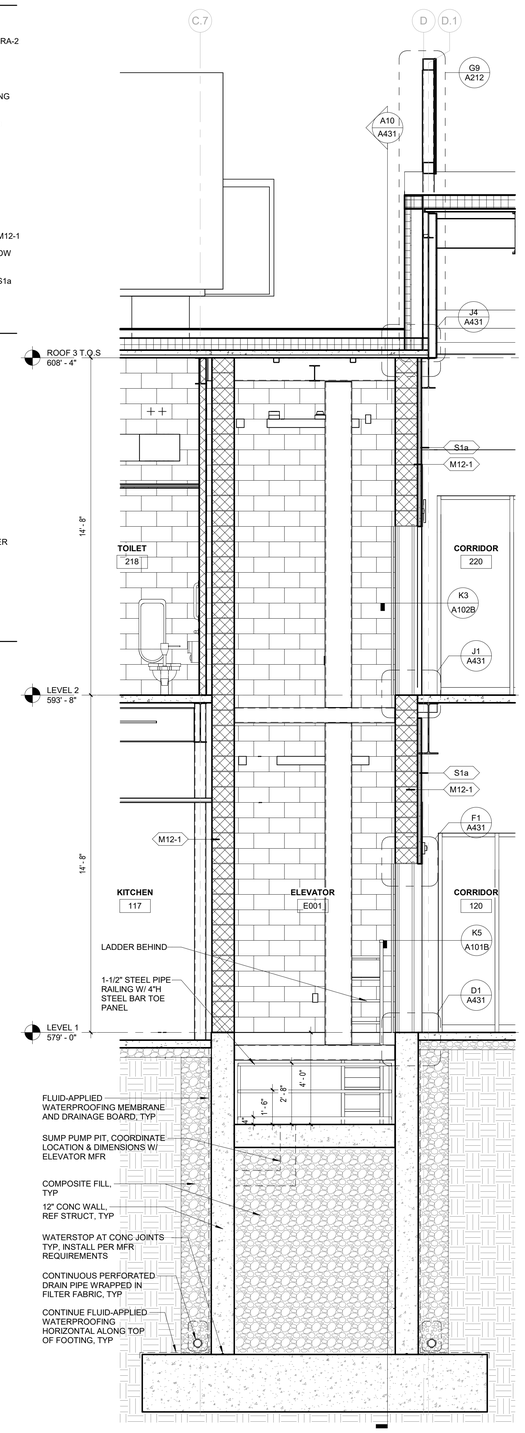

## D1 A431 ELEVATOR DOOR SILL - LEVEL 1
1 1/2" = 1'-0"



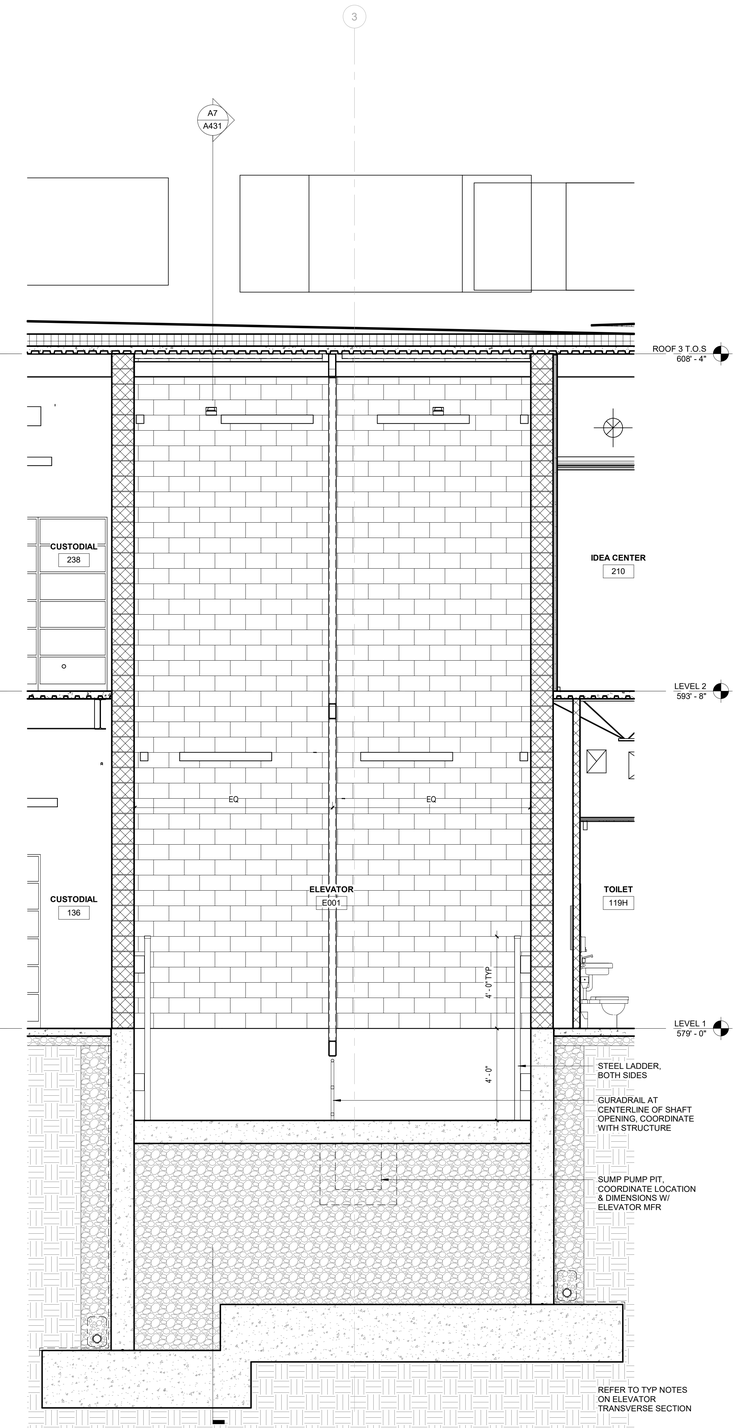

## A1 A431 ENLARGED ELEVATOR PLAN
1/4" = 1'-0"




## A3 A431 ENLARGED ELEVATOR PIT PLAN
1/4" = 1'-0"




## A7 A431 ELEVATOR TRANSVERSE SECTION
3/8" = 1'-0"




## A10 A431 ELEVATOR LONGITUDINAL SECTION
3/8" = 1'-0"

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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
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PROJECT MANAGER: KS
DRAWN BY: AJ, EW

QEA No.41911390

BID DOCUMENTS
10/8/2024

ELEVATOR PLANS, SECTIONS, DETAILS

**A431**

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
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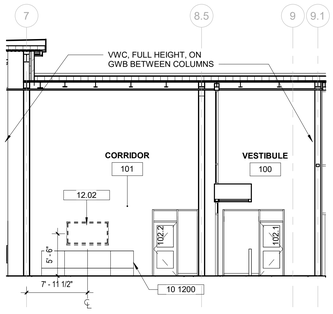
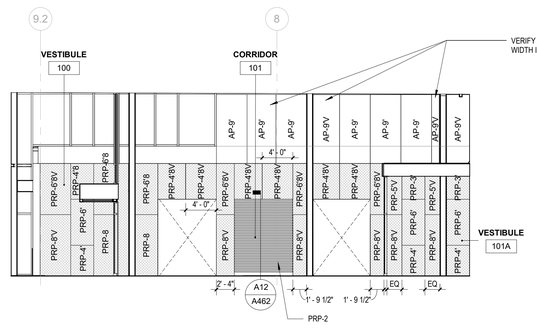
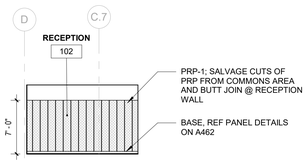



K1 A441 INTERIOR ELEVATION - CORRIDOR 101 - WEST
1/8" = 1'-0"




K4 A441 INTERIOR ELEVATION - CORRIDOR 101 - EAST
1/8" = 1'-0"




K8 A441 INTERIOR ELEVATION - RECEPTION 102 - SOUTH
1/8" = 1'-0"

## KEYNOTES

| | |
|---|---|
| 10 1200 | DISPLAY CASES, REF SPEC |
| 12.02 | DIGITAL DISPLAY BY OWNER'S SEPARATE A/V CONTRACTOR. COORDINATE FINAL LOCATION WITH A/V CONTRACTOR, INSTALL BLOCKING PER TYPICAL BLOCKING DETAIL ON SHEET A001 |

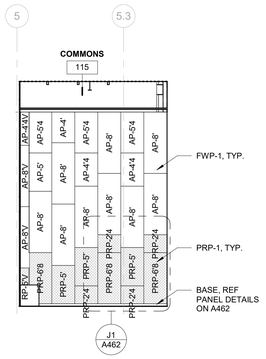
### ACOUSTIC WALL PANEL SCHEDULE

| MARK | WIDTH | HEIGHT | DEPTH |
|---|---|---|---|
| AP-2'4 | 3' - 0" | 2' - 4" | 0' - 2" |
| AP-2'8 | 3' - 0" | 2' - 8" | 0' - 2" |
| AP-3'8 | 3' - 0" | 3' - 8" | 0' - 2" |
| AP-4' | 3' - 0" | 4' - 0" | 0' - 2" |
| AP-4'4 | 3' - 0" | 4' - 4" | 0' - 2" |
| AP-5' | 3' - 0" | 5' - 0" | 0' - 2" |
| AP-5'4 | 3' - 0" | 5' - 4" | 0' - 2" |
| AP-7'4 | 3' - 0" | 7' - 4" | 0' - 2" |
| AP-8' | 3' - 0" | 8' - 0" | 0' - 2" |
| AP-9' | 4' - 0" | 9' - 0" | 0' - 2" |

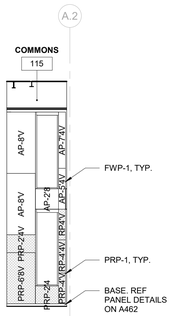
### PAPER RESIN PANEL SCHEDULE

| MARK | WIDTH | HEIGHT | DEPTH |
|---|---|---|---|
| PRP-1' | 3' - 0" | 1' - 0" | 0' - 0 1/4" |
| PRP-2' | 3' - 3" | 2' - 0" | 0' - 0 1/4" |
| PRP-2'2 | 4' - 0" | 2' - 2" | 0' - 0 1/4" |
| PRP-2'4 | 3' - 0" | 2' - 4" | 0' - 0 1/4" |
| PRP-2'4X4 | 4' - 0" | 2' - 4 5/8" | 0' - 0 1/4" |
| PRP-2'8 | 3' - 0" | 2' - 8" | 0' - 0 1/4" |
| PRP-3' | 3' - 0" | 3' - 0" | 0' - 0 1/4" |
| PRP-3'6 | 3' - 9 1/2" | 3' - 6" | 0' - 0 1/4" |
| PRP-4' | 3' - 0" | 4' - 0" | 0' - 0 1/4" |
| PRP-4'4 | 3' - 0" | 4' - 4" | 0' - 0 1/4" |
| PRP-4'8 | 3' - 0" | 4' - 8" | 0' - 0 1/4" |
| PRP-5' | 3' - 0" | 5' - 0" | 0' - 0 1/4" |
| PRP-6' | 3' - 0" | 6' - 0" | 0' - 0 1/4" |
| PRP-6'2 | 4' - 0" | 6' - 2" | 0' - 0 1/4" |
| PRP-6'8 | 3' - 0" | 6' - 8" | 0' - 0 1/4" |
| PRP-6'8x4 | 4' - 0" | 6' - 8" | 0' - 0 1/4" |
| PRP-7' | 3' - 0" | 7' - 0" | 0' - 0 1/4" |
| PRP-8 | 3' - 0" | 8' - 0" | 0' - 0 1/4" |

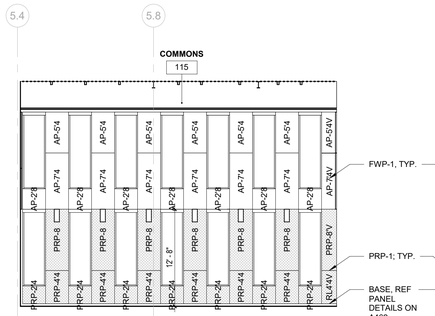
NOTE: TAGS INCLUDING 'V' INDICATE TYPICAL HEIGHT, VERIFY WIDTH IN FIELD



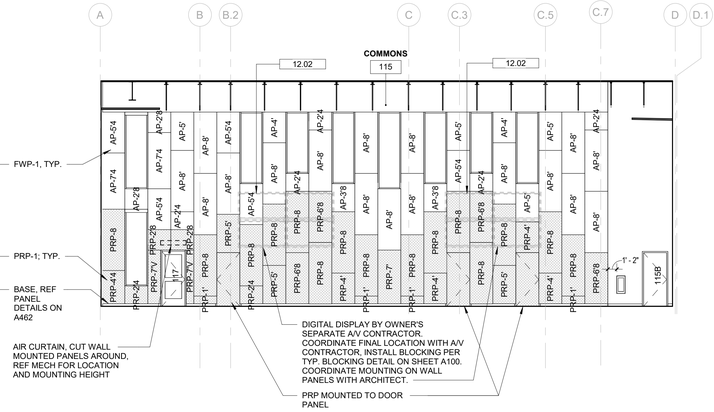

F1 A441 INTERIOR ELEVATION - COMMONS 115 - WEST
1/8" = 1'-0"



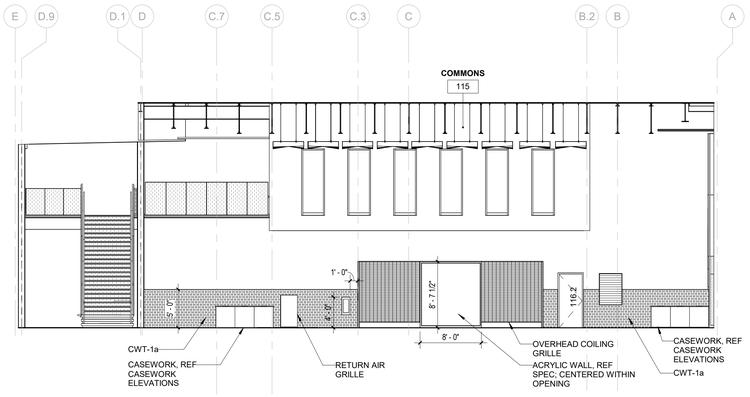

F3 A441 INTERIOR ELEVATION - COMMONS 115 - SOUTH
1/8" = 1'-0"



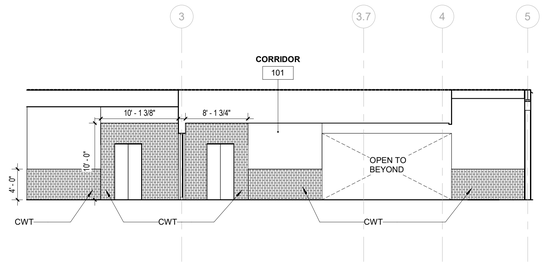

F5 A441 INTERIOR ELEVATION - COMMONS 115 - WEST
1/8" = 1'-0"



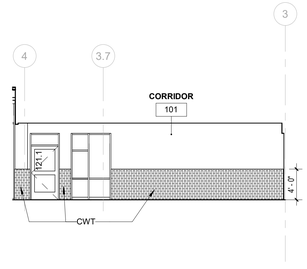

F8 A441 INTERIOR ELEVATION - COMMONS 115 - NORTH
1/8" = 1'-0"



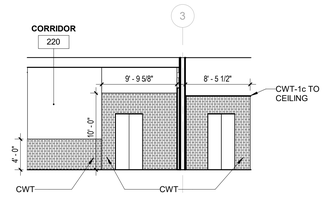

C1 A441 INTERIOR ELEVATION - COMMONS 115 - SOUTH
1/8" = 1'-0"




C6 A441 INTERIOR ELEVATION - CORRIDOR 101 - WEST




C10 A441 INTERIOR ELEVATION - CORRIDOR 101 - EAST
1/8" = 1'-0"




A1 A441 INTERIOR ELEVATION - CORRIDOR 220 - WEST

QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

COMMONWEALTH OF VIRGINIA
CHARLES W. TILLEY
LIC. No. 010767
10/08/2024
ARCHITECT

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd.
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS
DRAWN BY: EW, EC

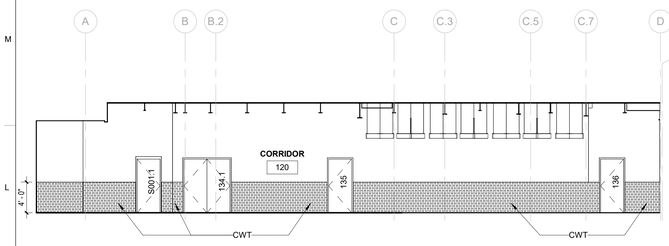
QEA No.41911390

BID DOCUMENTS
10/8/2024

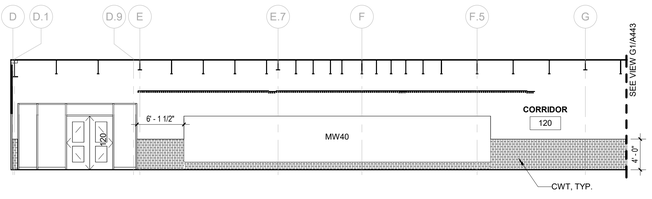
INTERIOR ELEVATIONS

**A441**

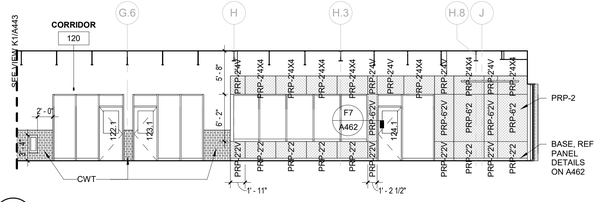
PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:47:16 PM



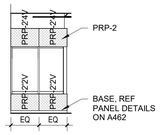

L1 A442 INTERIOR ELEVATION - CORRIDOR 120 - NORTH
1/8" = 1'-0"



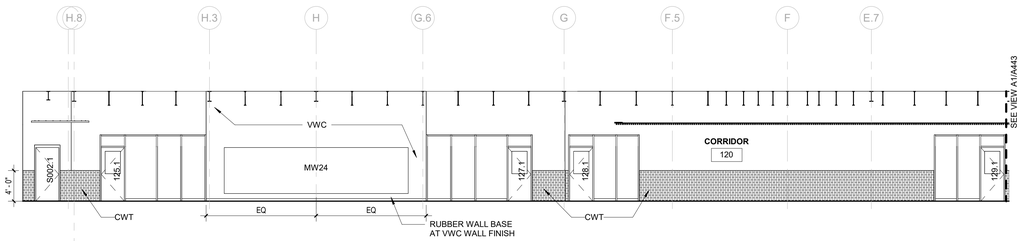

L5 A442 INTERIOR ELEVATION - CORRIDOR 120 - NORTH
1/8" = 1'-0"



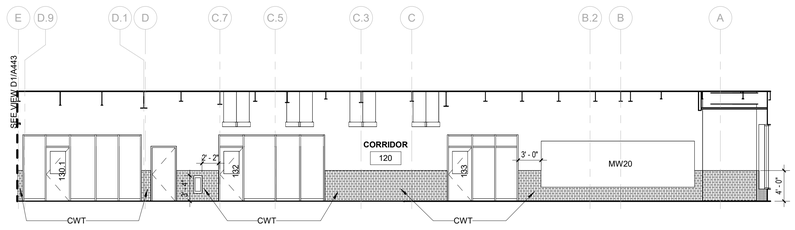

L10 A442 INTERIOR ELEVATION - CORRIDOR 120 NORTH
1/8" = 1'-0"



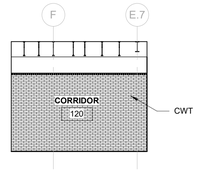

H1 A442 INTERIOR ELEVATION - CORRIDOR 120 EAST
1/8" = 1'-0"



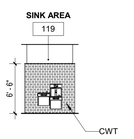

H3 A442 INTERIOR ELEVATION - CORRIDOR 120 - SOUTH
1/8" = 1'-0"



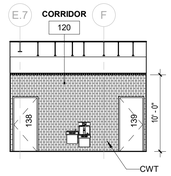

H9 A442 INTERIOR ELEVATION - CORRDIOR 120 - SOUTH
1/8" = 1'-0"



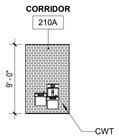

F1 A442 INTERIOR ELEVATION - CORRIDOR 120 - SOUTH
1/8" = 1'-0"



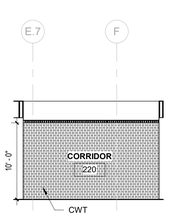

F3 A442 INTERIOR ELEVATION - SINK AREA 119 - WEST
1/8" = 1'-0"



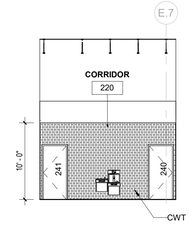

F5 A442 INTERIOR ELEVATION - CORRIDOR 122 - NORTH
1/8" = 1'-0"




F7 A442 INTERIOR ELEVATION - CORRIDOR 210A - EAST
1/8" = 1'-0"



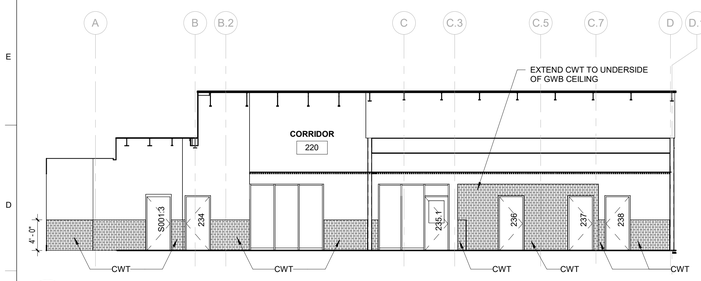

F9 A442 INTERIOR ELEVATION - CORRIDOR 220 - NORTH
1/8" = 1'-0"



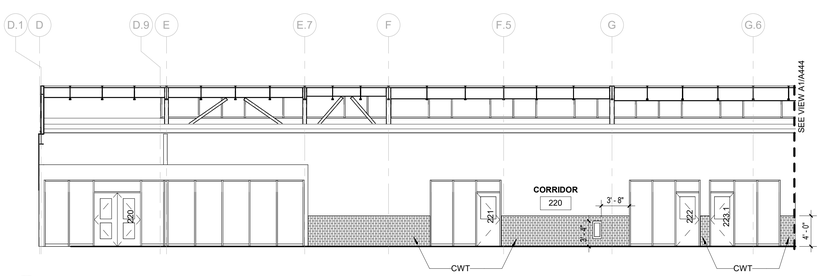

F11 A442 INTERIOR ELEVATION - CORRIDOR 220 - SOUTH
1/8" = 1'-0"

| PAPER RESIN PANEL SCHEDULE | | | |
|---|---|---|---|
| MARK | WIDTH | HEIGHT | DEPTH |
| PRP-1' | 3' - 0" | 1' - 0" | 0' - 0 1/4" |
| PRP-2' | 3' - 3" | 2' - 0" | 0' - 0 1/4" |
| PRP-2'2 | 4' - 0" | 2' - 2" | 0' - 0 1/4" |
| PRP-2'4 | 3' - 0" | 2' - 4" | 0' - 0 1/4" |
| PRP-2'4X4 | 4' - 0" | 2' - 4 5/8" | 0' - 0 1/4" |
| PRP-2'8 | 3' - 0" | 2' - 8" | 0' - 0 1/4" |
| PRP-3' | 3' - 0" | 3' - 0" | 0' - 0 1/4" |
| PRP-3'6 | 3' - 9 1/2" | 3' - 6" | 0' - 0 1/4" |
| PRP-4' | 3' - 0" | 4' - 0" | 0' - 0 1/4" |
| PRP-4'4 | 3' - 0" | 4' - 4" | 0' - 0 1/4" |
| PRP-4'8 | 3' - 0" | 4' - 8" | 0' - 0 1/4" |
| PRP-5' | 3' - 0" | 5' - 0" | 0' - 0 1/4" |
| PRP-6' | 3' - 0" | 6' - 0" | 0' - 0 1/4" |
| PRP-6'2 | 4' - 0" | 6' - 2" | 0' - 0 1/4" |
| PRP-6'8 | 3' - 0" | 6' - 8" | 0' - 0 1/4" |
| PRP-6'8x4 | 4' - 0" | 6' - 8" | 0' - 0 1/4" |
| PRP-7' | 3' - 0" | 7' - 0" | 0' - 0 1/4" |
| PRP-8 | 3' - 0" | 8' - 0" | 0' - 0 1/4" |

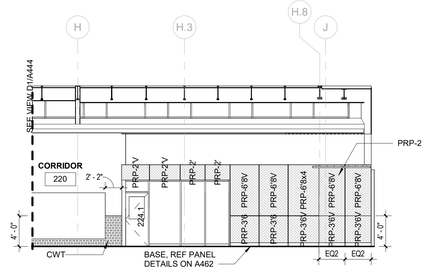
NOTE: TAGS INCLUDING 'V' INDICATE TYPICAL HEIGHT, VERIFY WIDTH IN FIELD



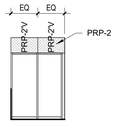

C1 A442 INTERIOR ELEVATION - CORRIDOR 220 - NORTH
1/8" = 1'-0"



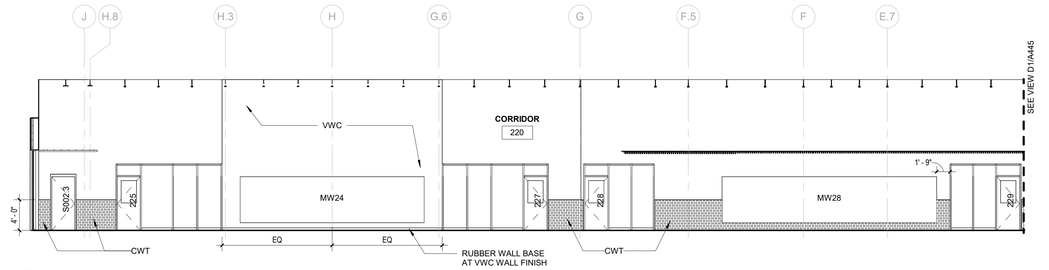

C5 A442 INTERIOR ELEVATION - CORRIDOR 220 - NORTH
1/8" = 1'-0"



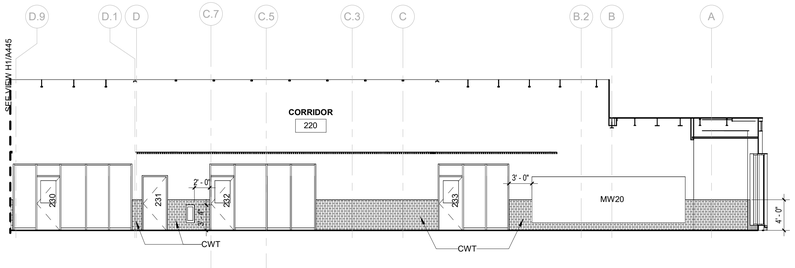

C10 A442 INTERIOR ELEVATION - CORRIDOR 220 - NORTH
1/8" = 1'-0"




A1 A442 INTERIOR ELEVATION - CORRIDOR 220 - EAST
1/8" = 1'-0"




A3 A442 INTERIOR ELEVATION - CORRIDOR 220 - SOUTH
1/8" = 1'-0"




A9 A442 INTERIOR ELEVATION - CORRIDOR 220 - SOUTH
1/8" = 1'-0"


QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM


COMMONWEALTH OF VIRGINIA
CHARLES W. TILLEY
LIC. No. 010767
10/08/2024

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS
DRAWN BY: EW, EC

QEA No.41911390

BID DOCUMENTS
10/8/2024

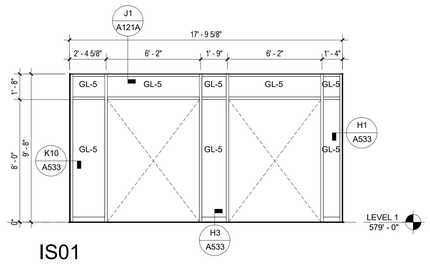
INTERIOR ELEVATIONS

**A442**

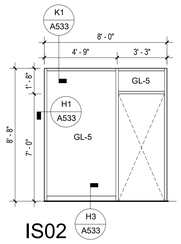
PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:47:25 PM

## INTERIOR STOREFRONT ELEVATIONS

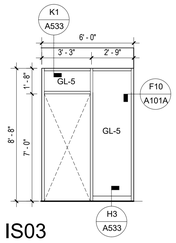
1 1/2"=1'-0"




IS01




IS02

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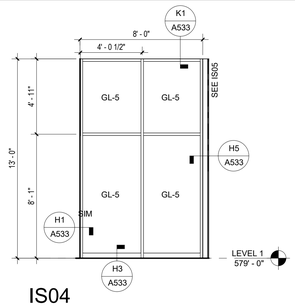
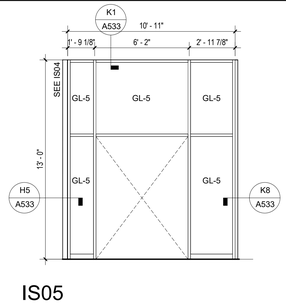
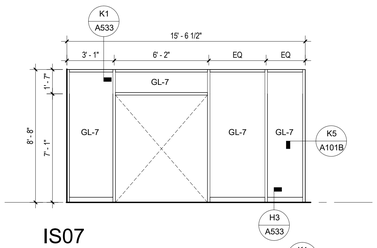



IS04

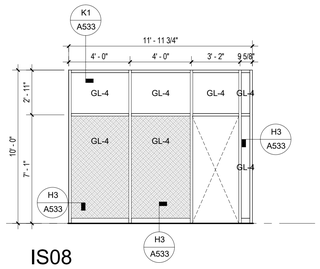



IS05

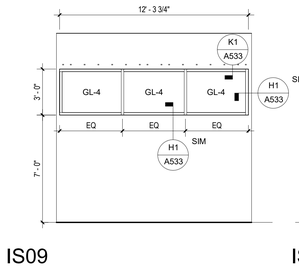
IS06 NOT USED



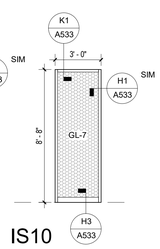

IS07



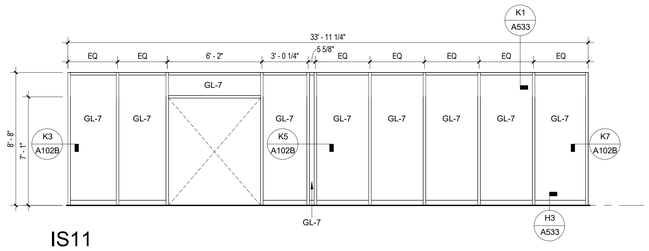

IS08



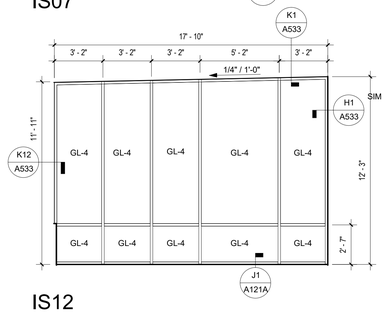

IS09




IS10




IS11




IS12

## GLAZING SCHEDULE

1. REF SPEC SECTION 088000 FOR GLAZING PRODUCTS.

| MARK | DESCRIPTION |
|---|---|
| GL-1 | EXTERIOR 1" IGU, LOW-E, CLEAR, LOW IRON |
| GL-1a | EXTERIOR 1" IGU W/ APPLIED FRIT PATTERN |
| GL-1b | EXTERIOR 1" IGU, 3/8" OUTER GLASS |
| GL-1c | EXTERIOR 1" IGU W/APPLIED FRIT PATTERN AND 3/8" OUTER GLASS |
| GL-2 | EXTERIOR 1" IGU, LOW-E, SPANDREL, LOW IRON |
| GL-3 | INTERIOR 1/4" TEMPERED, CLEAR |
| GL-4 | INTERIOR LAMINATED - ACOUSTIC, CLEAR |
| GL-5 | INTERIOR LAMINATED - SECURITY, CLEAR |
| GL-6 | FIRE RATED GLAZING |
| GL-7 | INTERIOR 1" IGU W/ INTERIOR LAMINATED - ACOUSTIC |
| GL-8 | EXTERIOR 1" IGU W/ INTERIOR LAMINATED - SECURITY |
| GL-8a | EXTERIOR 1" IGU W/ INTERIOR LAMINATED - SECURITY, W/ APPLIED FRIT PATTERN |
| GL-8b | EXTERIOR 1" IGU W/ INTERIOR LAMINATED-SECURITY, W/APPLIED FRIT PATTERN AND 3/8" OUTER GLASS |

NOTE: REF SPEC SECTION 088000 FOR GLASS FILM PRODUCTS

## GLASS LEGEND

GLASS FILM STYLE 1 (GF-1)

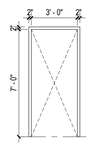
GLASS FILM STYLE 2 (GF-2)

GLASS FILM STYLE 3 (GF-3)

## HOLLOW METAL FRAME ELEVATIONS

1 1/2"=1'-0"

REFER TO DOOR SCHEDULE SHEET FOR HOLLOW METAL FRAME DETAILS.

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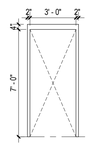


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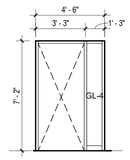


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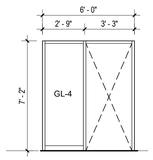


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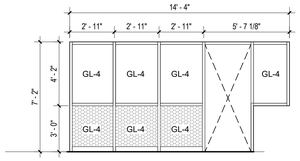


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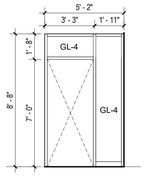


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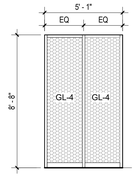


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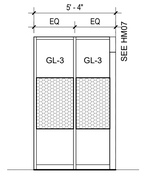


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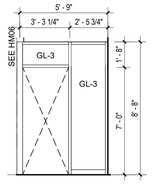


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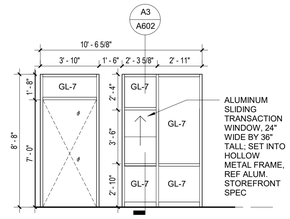


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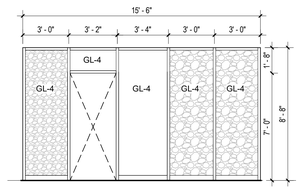


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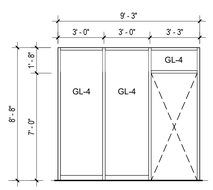


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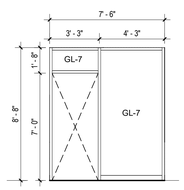


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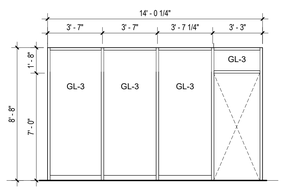


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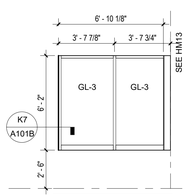


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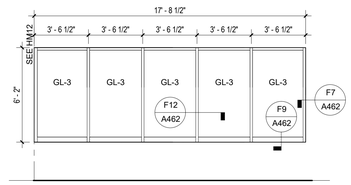


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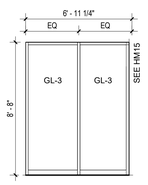


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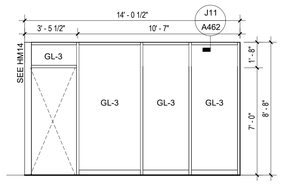


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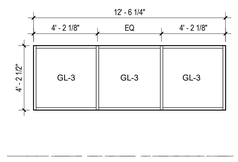


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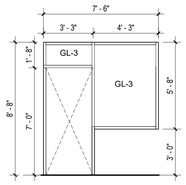


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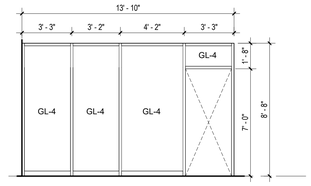


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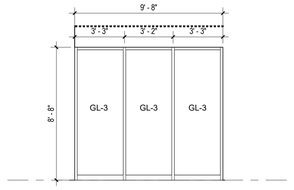


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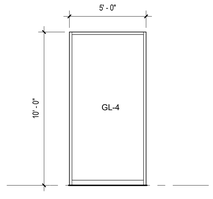



HM23

QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

COMMONWEALTH OF VIRGINIA
CHARLES W. TILLEY
LIC. No. 010767
10/08/2024
ARCHITECT

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS
DRAWN BY: EW

QEA No.41911390

BID DOCUMENTS
10/8/2024

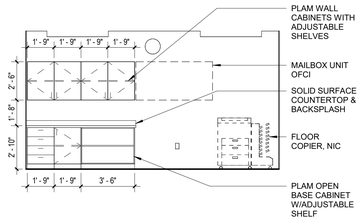
INTERIOR STOREFRONT & HOLLOW METAL FRAMES

**A451**

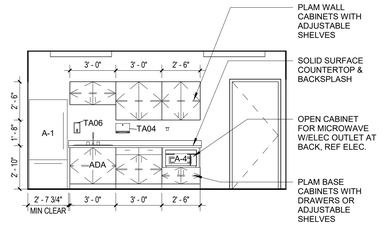
PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:47:38 PM

## GENERAL NOTES

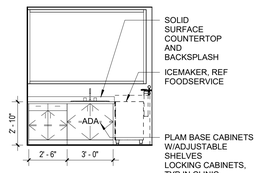
1. CONTRACTOR TO COORDINATE APPLIANCE CLEARANCES WITH CASEWORK, TYP.



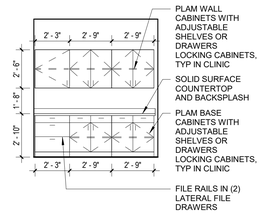

K1 A461 CASEWORK ELEV - WORKROOM 107
1/4" = 1'-0"



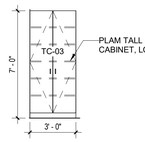

K3 A461 CASEWORK ELEV - WORKROOM 107
1/4" = 1'-0"



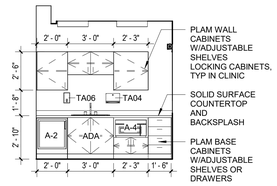

K6 A461 CASEWORK ELEV - CLINIC 108
1/4" = 1'-0"



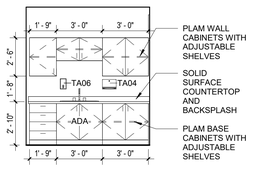

K8 A461 CASEWORK ELEV - CLINIC 108
1/4" = 1'-0"



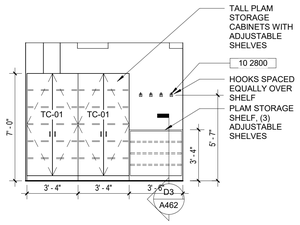

K9 A461 CASEWORK ELEV - CLINIC 109
1/4" = 1'-0"




K11 A461 CASEWORK ELEV - CLINIC 109
1/4" = 1'-0"




K12 A461 CASEWORK ELEV - WELLNESS 114
1/4" = 1'-0"




H1 A461 CASEWORK ELEV - WELLNESS 114
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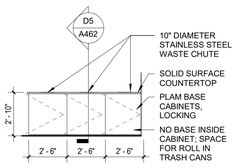
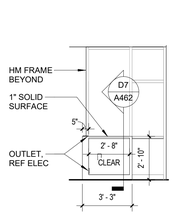
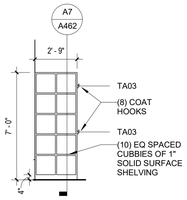


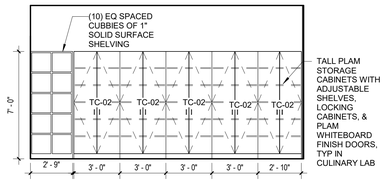

H3 A461 CASEWORK ELEV - COMMONS 115
1/4" = 1'-0"



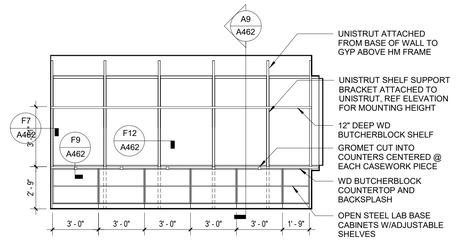

H4 A461 CASEWORK ELEV - CULINARY LAB 121
1/4" = 1'-0"



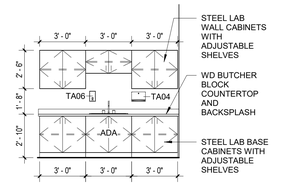

H7 A461 CASEWORK ELEV - CULINARY LAB 121
1/4" = 1'-0"



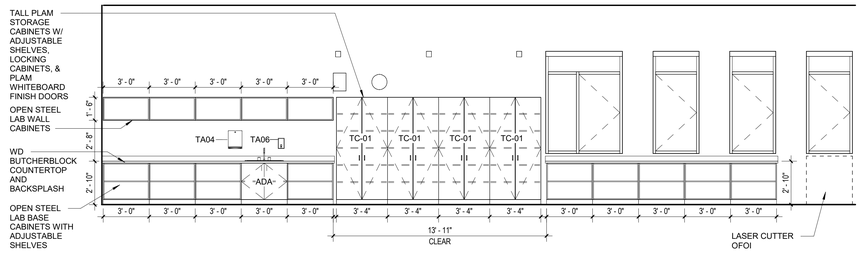

H9 A461 CASEWORK ELEV - CULINARY LAB 121
1/4" = 1'-0"



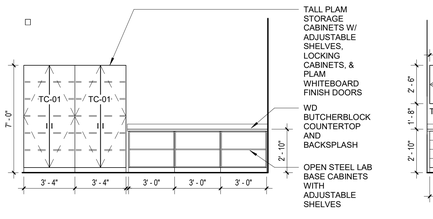

H11 A461 CASEWORK ELEV - FAB LAB 123A
1/4" = 1'-0"



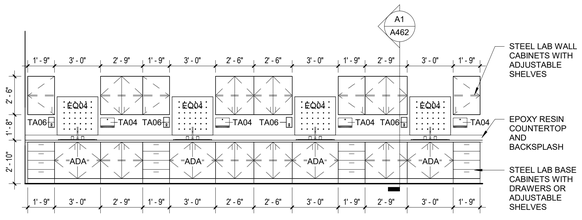

F1 A461 CASEWORK ELEV - PROJECT STUDIO 123/224
1/4" = 1'-0"



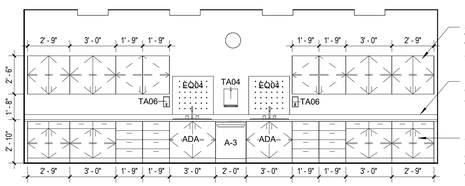

F3 A461 CASEWORK ELEV - ADVANCED MANUFACTURING LAB 124
1/4" = 1'-0"



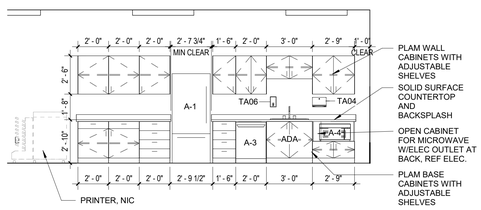

F9 A461 CASEWORK ELEV - ADVANCED MANUFACTURING LAB 124
1/4" = 1'-0"



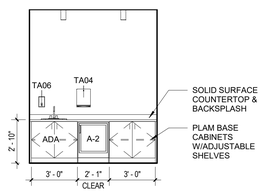

F10 A461 CASEWORK ELEV - PROJECT STUDIO 125/127 & 225/227
1/4" = 1'-0"




C1 A461 CASEWORK ELEV - PREP ROOM 126, NORTH
1/4" = 1'-0"




C4 A461 CASEWORK ELEV - TEACHER COLLAB 130/230
1/4" = 1'-0"




C7 A461 CASEWORK ELEV - WELLNESS 130B/230B
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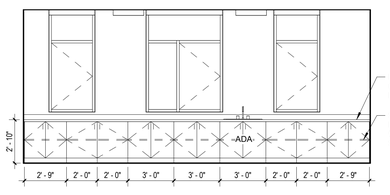


C9 A461 CASEWORK ELEV - PROJECT STUDIO 133/233
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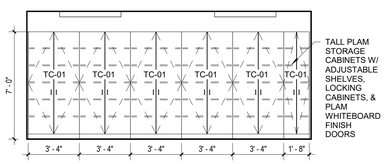


C12 A461 CASEWORK ELEV - PROJECT STUDIO 133/233
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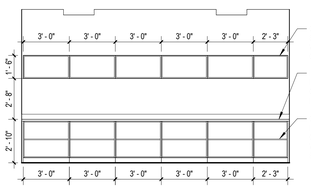


A1 A461 CASEWORK ELEV - FAB LAB 221A
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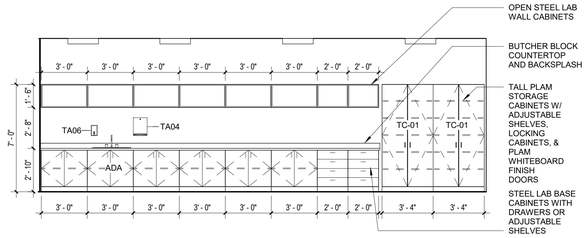
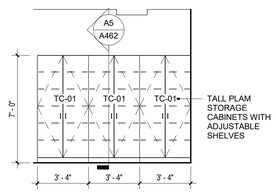
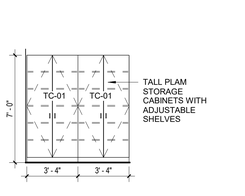



A4 A461 CASEWORK ELEV - PROJECT STUDIO 235
1/4" = 1'-0"




A7 A461 CASEWORK ELEV - LEARNING STUDIO TYP
1/4" = 1'-0"




A9 A461 CASEWORK ELEV - LEARNING STUDIO TYP
1/4" = 1'-0"

A11 A461 CASEWORK ELEV - CAREER CENTER 211
1/4" = 1'-0"


QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM


COMMONWEALTH OF VIRGINIA
CHARLES W. TILLEY
LIC. No. 010767
10/08/2024
ARCHITECT

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS
DRAWN BY: EW, EC

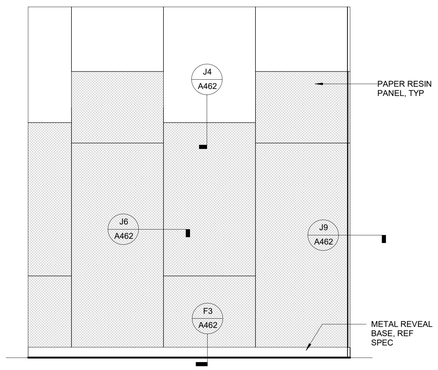
QEA No.41911390

BID DOCUMENTS
10/8/2024

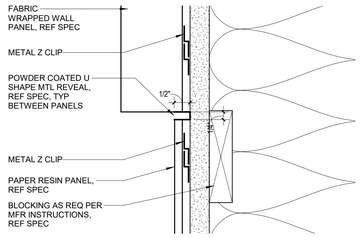
CASEWORK ELEVATIONS

**A461**

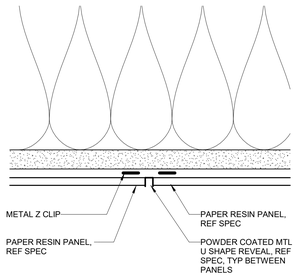
PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:47:51 PM



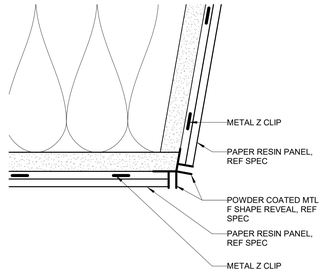

J1 A462 INTERIOR ELEVATION - TYP PANEL ELEV
1/2" = 1'-0"



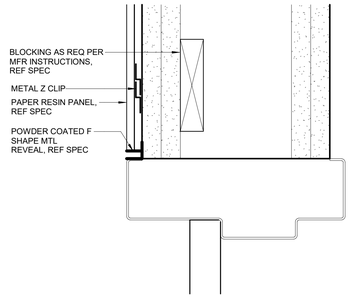

J4 A462 SECTION DETAIL - PAPER RESIN PANEL TO ACOUSTIC PANEL
6" = 1'-0"



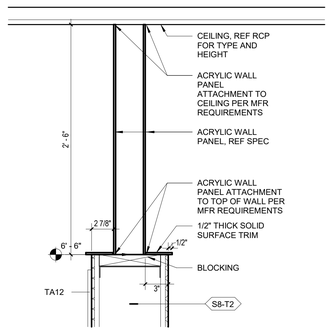

J6 A462 PLAN DETAIL - PAPER RESIN TO PAPER RESIN PANEL
6" = 1'-0"



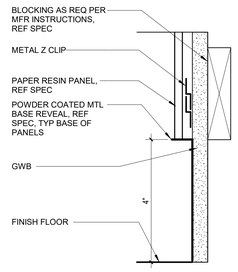

J9 A462 PLAN DETAIL - PANEL EDGE
6" = 1'-0"



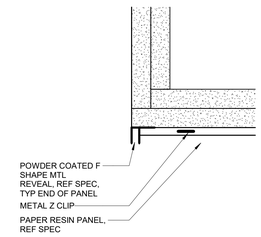

J11 A462 PANEL DETAIL - @HM HEAD
6" = 1'-0"



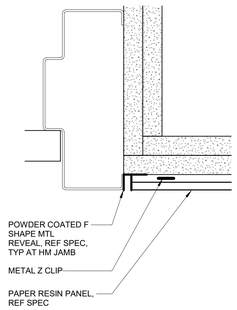

F1 A462 SECTION DETAIL - PANEL @ COMMONS SINK
1 1/2" = 1'-0"



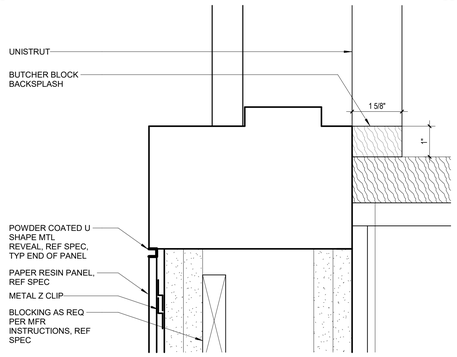

F3 A462 PANEL DETAIL - BASE
6" = 1'-0"



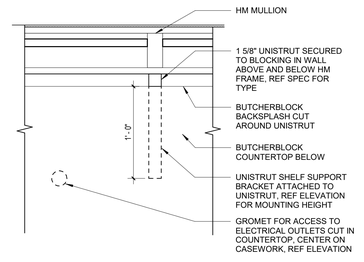

F5 A462 PANEL DETAIL - EDGE
6" = 1'-0"



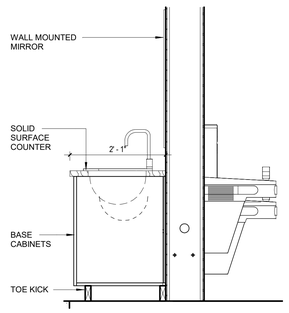

F7 A462 PANEL DETAIL - @HM JAMB
6" = 1'-0"



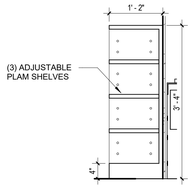

F9 A462 PANEL DETAIL - @HM SILL
6" = 1'-0"



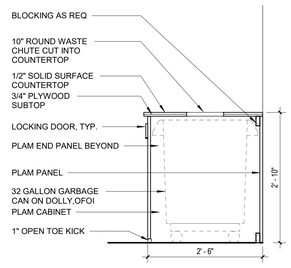

F12 A462 PLAN DETAIL - FAB LAB DISPLAY SHELF SUPPORT
1 1/2" = 1'-0"



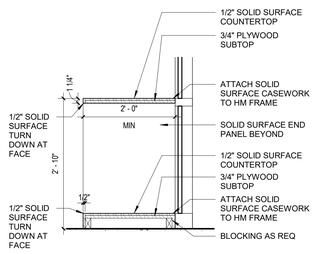

D1 A462 SECTION CASEWORK - SINK AREA
3/4" = 1'-0"



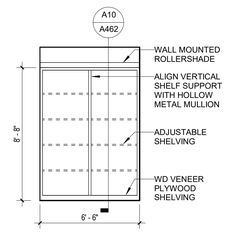

D3 A462 SECTION CASEWORK - SHOE SHELF
3/4" = 1'-0"



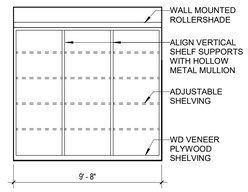

D5 A462 SECTION CSWK - TRASH
3/4" = 1'-0"



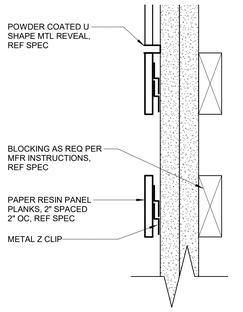

D7 A462 INT. SF SECTION AT CULINARY WINDOW DISPLAY
3/4" = 1'-0"

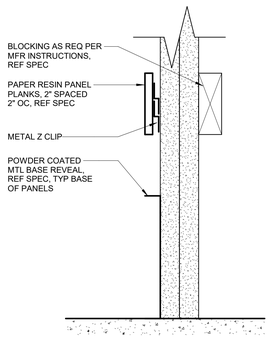



D9 A462 DISPLAY CASE
1/4" = 1'-0"

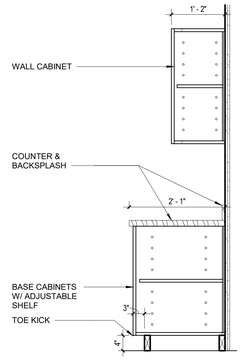



D11 A462 DISPLAY CASEWORK
1/4" = 1'-0"



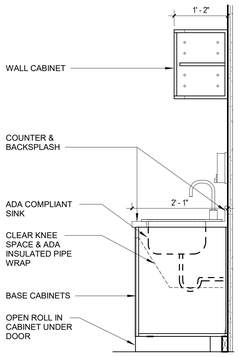




A12 A462 SPONSOR WALL SECTION
6" = 1'-0"



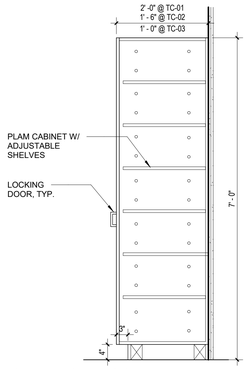

**NOTE:** REFER TO ELEVATIONS FOR HEIGHTS AND MATERIALS

A1 A462 TYPICAL CASEWORK SECTION
3/4" = 1'-0"



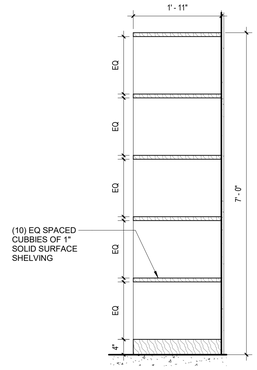

**NOTE:** REFER TO ELEVATIONS FOR HEIGHTS AND MATERIALS

A3 A462 TYPICAL ADA SINK CABINET SECTION
3/4" = 1'-0"

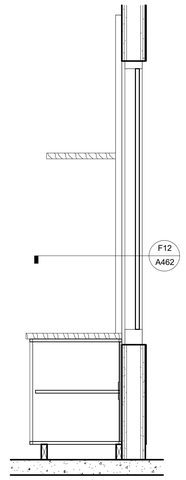



**NOTE:** REFER TO ELEVATIONS FOR HEIGHTS AND MATERIALS

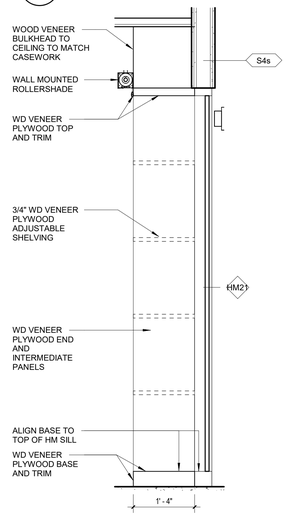
A5 A462 TYP TALL CABINET SECTION
3/4" = 1'-0"




A7 A462 SECTION CSWK - TALL OPEN SHELF
3/4" = 1'-0" REFERRED FROM:A105




A9 A462 SECTION CASEWORK - FAB LAB 123A
3/4" = 1'-0"




A10 A462 TYPICAL DISPLAY CASE SECTION
3/4" = 1'-0"

QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

COMMONWEALTH OF VIRGINIA
CHARLES W. TILLEY
LIC. No. 010767
10/08/2024
ARCHITECT

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd.
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS
DRAWN BY: EW, EC

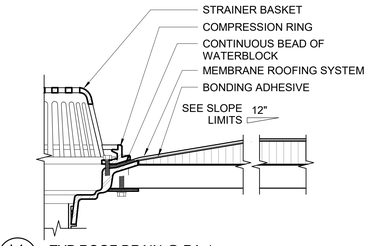
QEA No.41911390

BID DOCUMENTS
10/8/2024

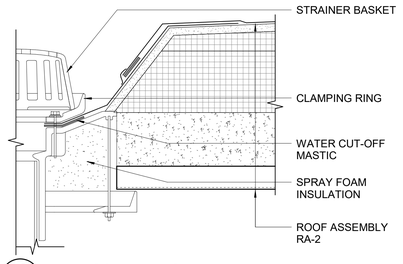
CASEWORK & PANEL DETAILS

# A462

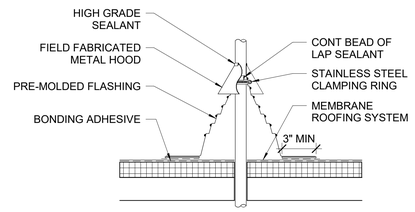
PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:47:55 PM



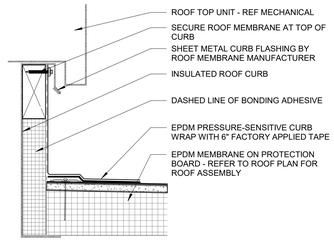

L1 A501 TYP ROOF DRAIN @ RA-1
3" = 1'-0"



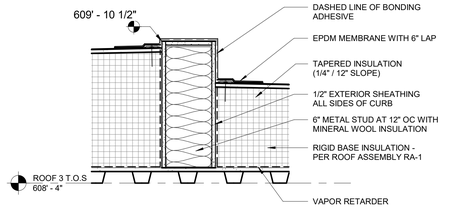

L3 A501 TYP ROOF DRAIN @ RA-2
3" = 1'-0"



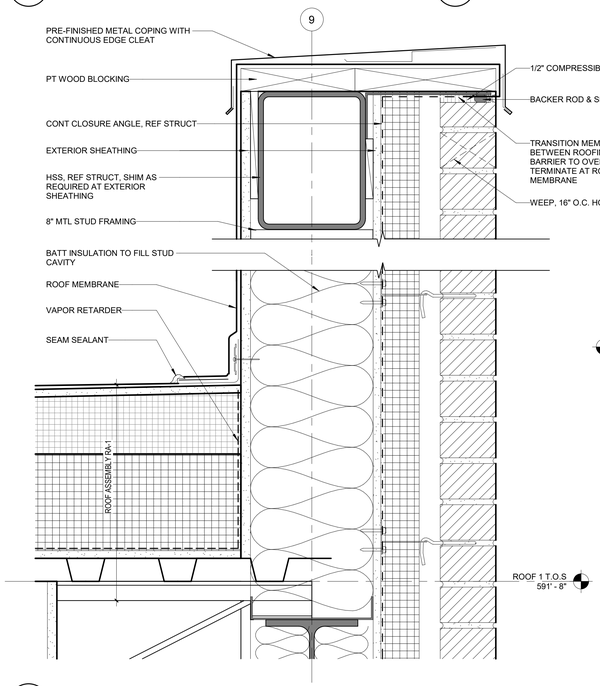

K6 A501 TYP PIPE PENETRATION
3" = 1'-0"



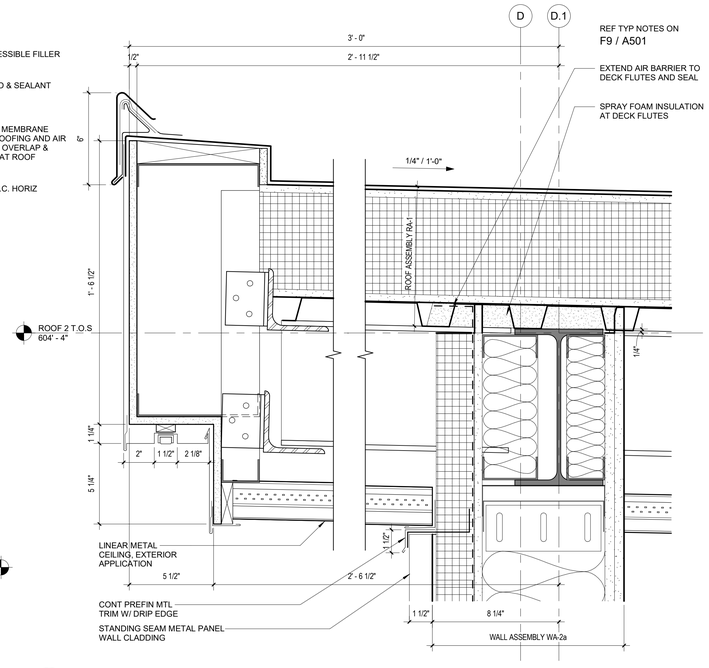

L9 A501 TYP ROOF CURB
3" = 1'-0"



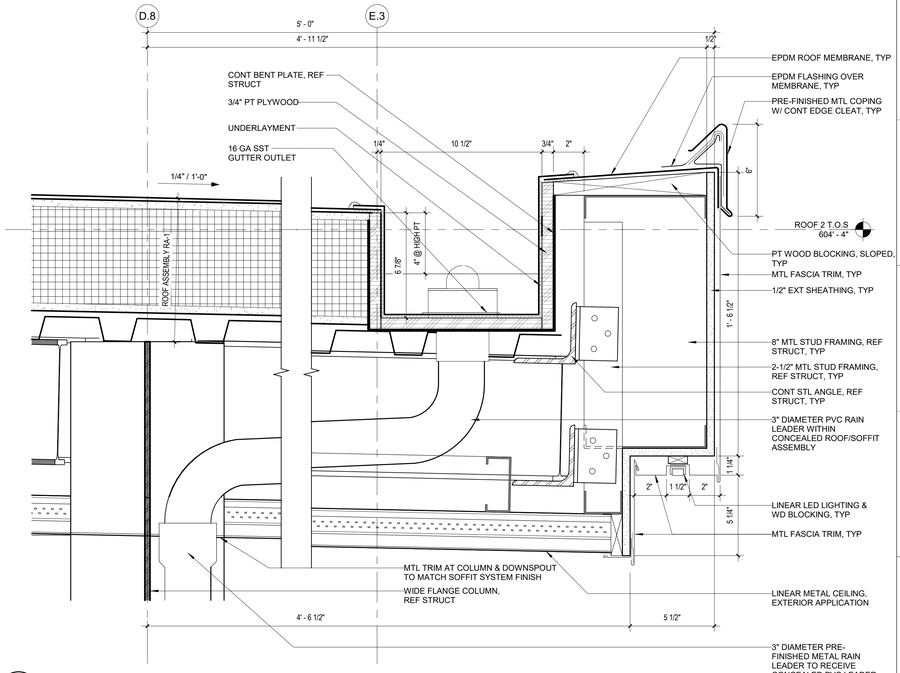

L11 A501 ROOF DETAIL
1 1/2" = 1'-0"



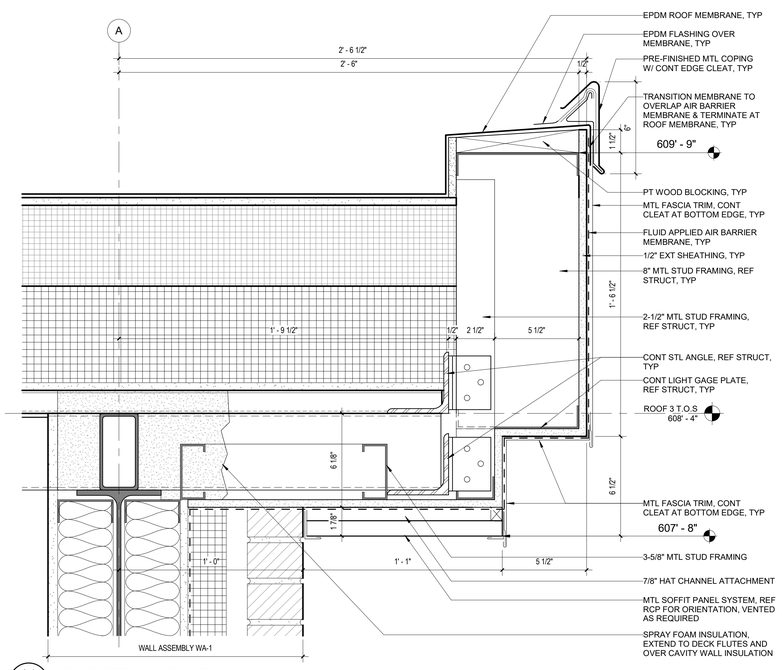

F1 A501 ROOF DETAIL - PARAPET @ WA-1
3" = 1'-0"




F4 A501 ROOF DETAIL @ ROOF 2
3" = 1'-0"




F9 A501 ROOF DETAIL @ ROOF 2 GUTTER
3" = 1'-0"




A1 A501 ROOF DETAIL @ ROOF 3
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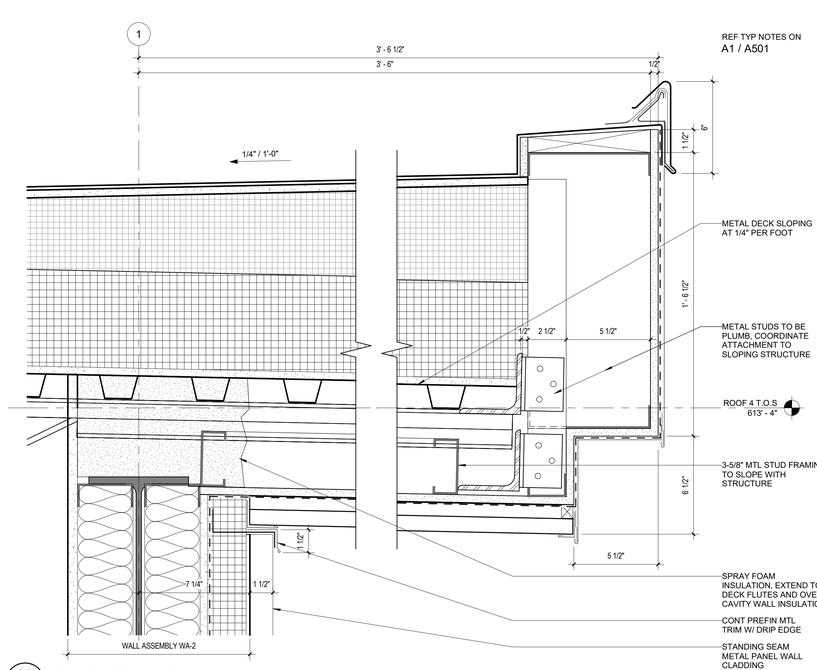


A5 A501 ROOF DETAIL @ ROOF 4
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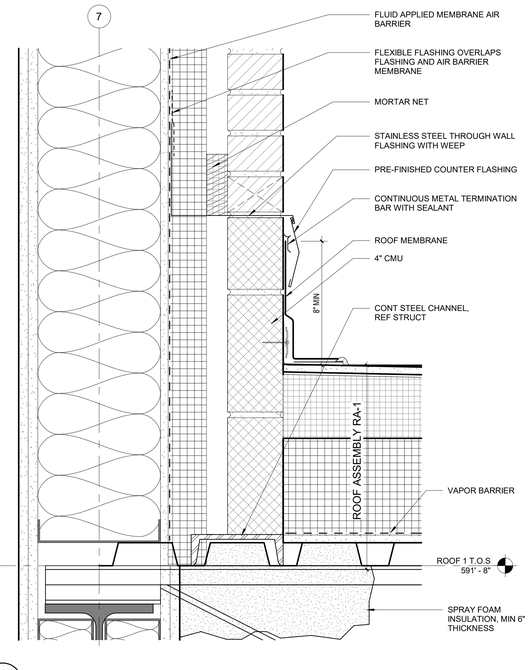


A11 A501 ROOF DETAIL - LOW @ WA-1
3" = 1'-0"

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
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Albemarle County Public Schools

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| No | Date | Description |
|---|---|---|

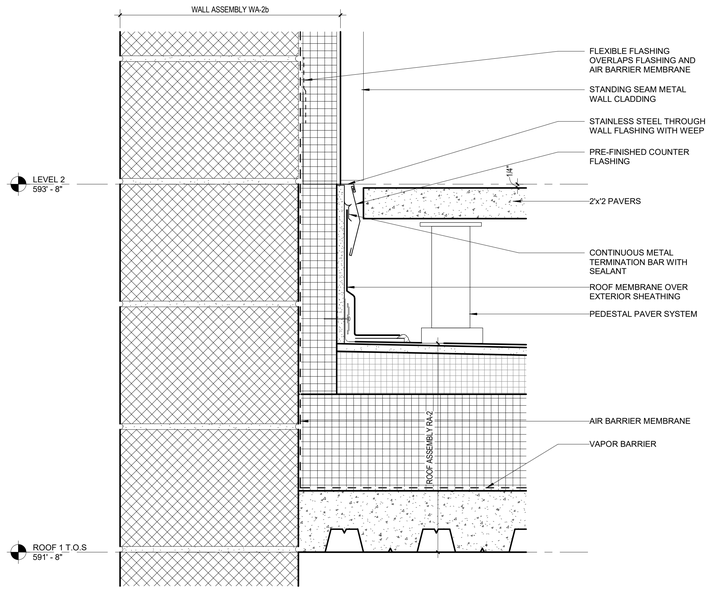
PROJECT MANAGER: KS
DRAWN BY: AJ

QEA No.41911390

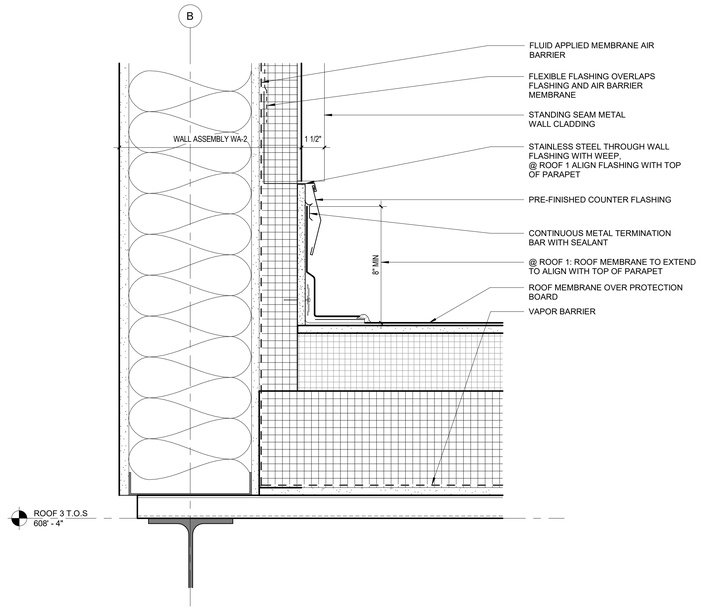
BID DOCUMENTS
10/8/2024

ROOF DETAILS

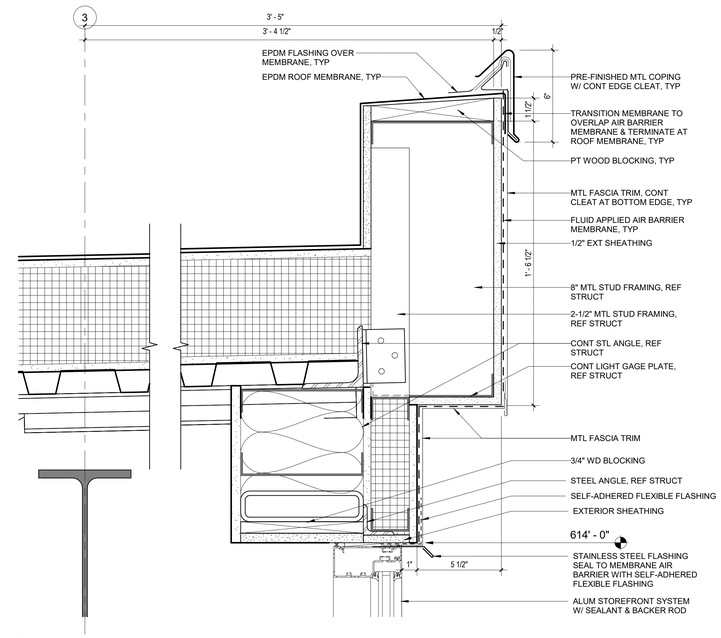
**A501**



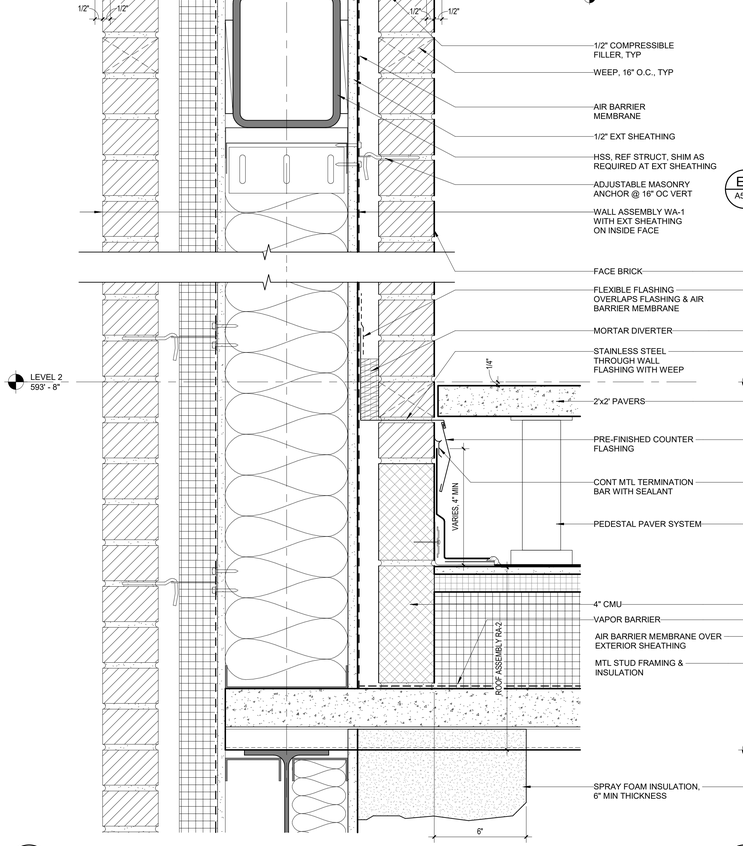

H1 A502 ROOF DETAIL @ WEST ROOF TERRACE - WA-2
3" = 1'-0"



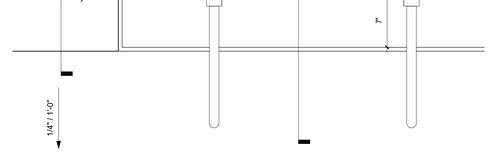

H5 A502 ROOF DETAIL @ WA-2 LOW
3" = 1'-0"



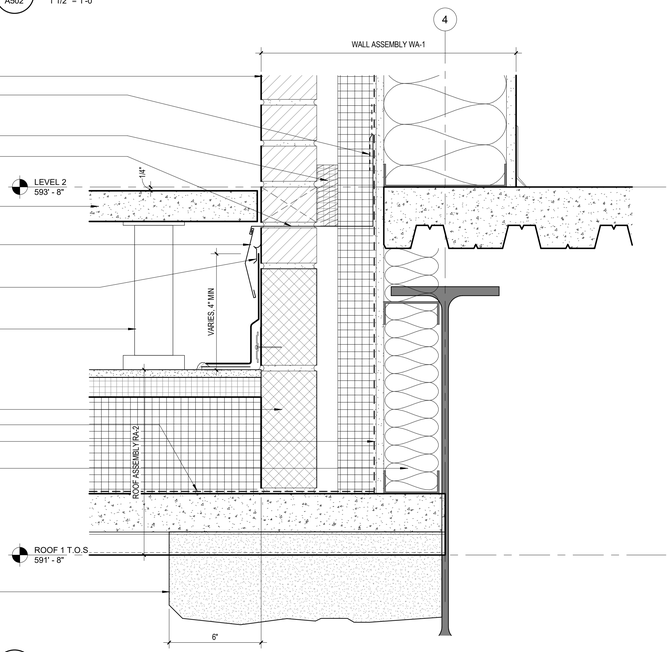

H10 A502 ROOF DETAIL - CLERESTORY SF HEAD
3" = 1'-0"



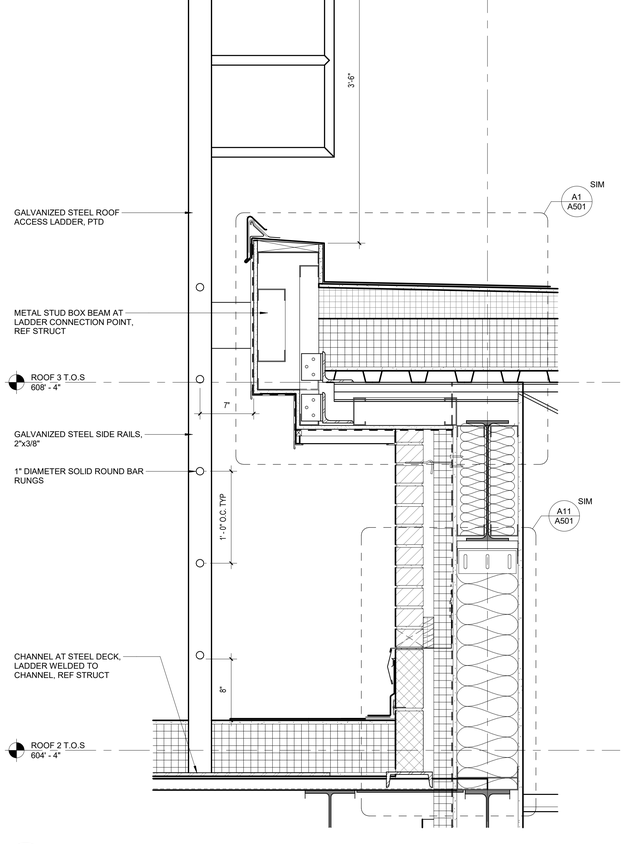

A1 A502 ROOF DETAIL - TYP ROOF TERRACE PARAPET
3" = 1'-0"




E5 A502 ENLARGED PLAN - ROOF ACCESS LADDER
1 1/2" = 1'-0"




A5 A502 ROOF DETAIL - TYP ROOF TERRACE @ BLDG FACE
3" = 1'-0"




A10 A502 SECTION - ROOF ACCESS LADDER
1 1/2" = 1'-0"

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| No | Date | Description |
|---|---|---|

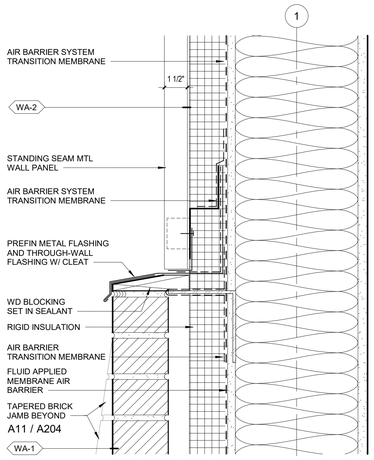
PROJECT MANAGER: KS
DRAWN BY: AJ

QEA No.41911390

BID DOCUMENTS
10/8/2024

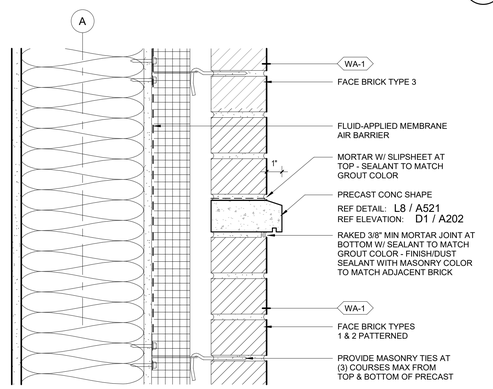
ROOF DETAILS

# A502



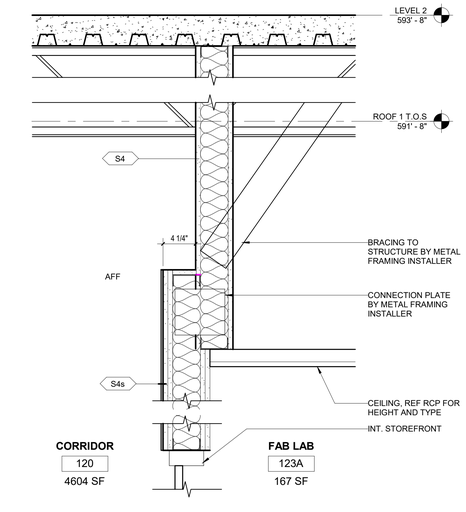

## H1 A511 BRICK SILL AT MTL PANEL

3" = 1'-0"



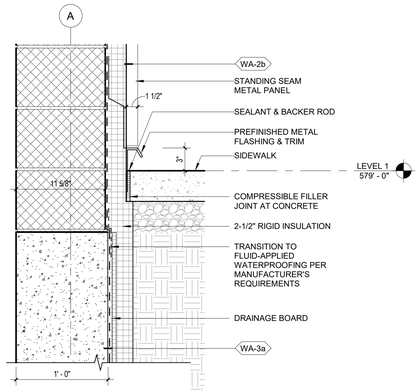

## E1 A511 HORIZONTAL PRECAST REVEAL AT BRICK

3" = 1'-0"



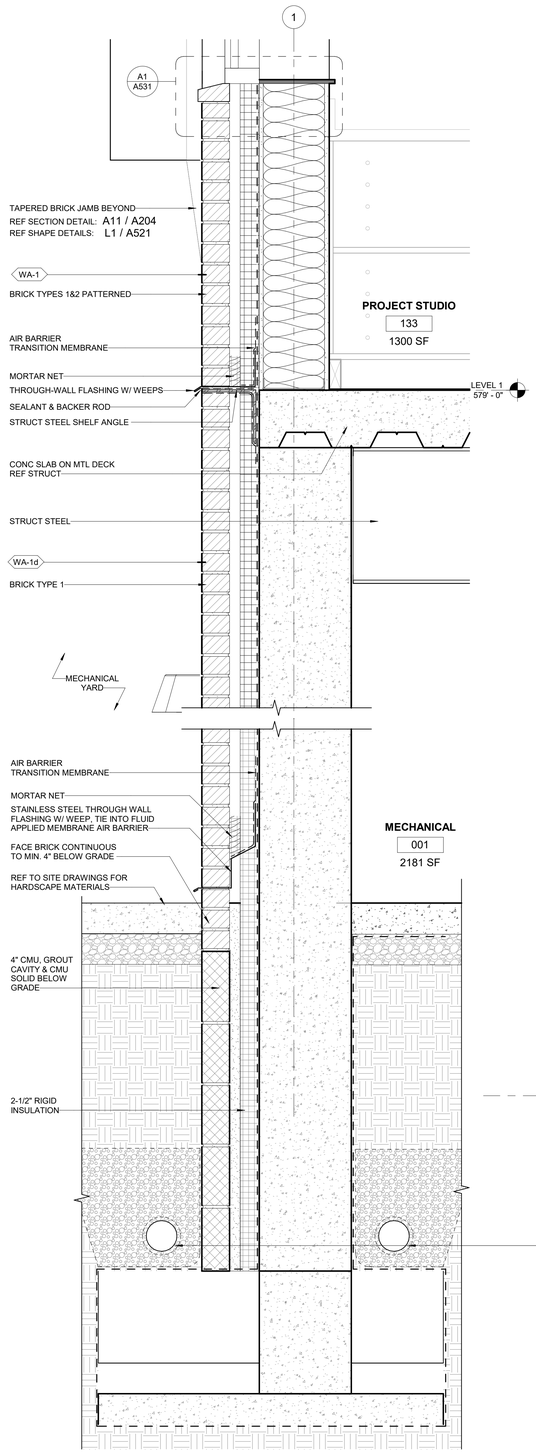

## H4 A511 SECTION DETAIL - L1 FAB LAB WALL

1 1/2" = 1'-0" REFERRED FROMA121B



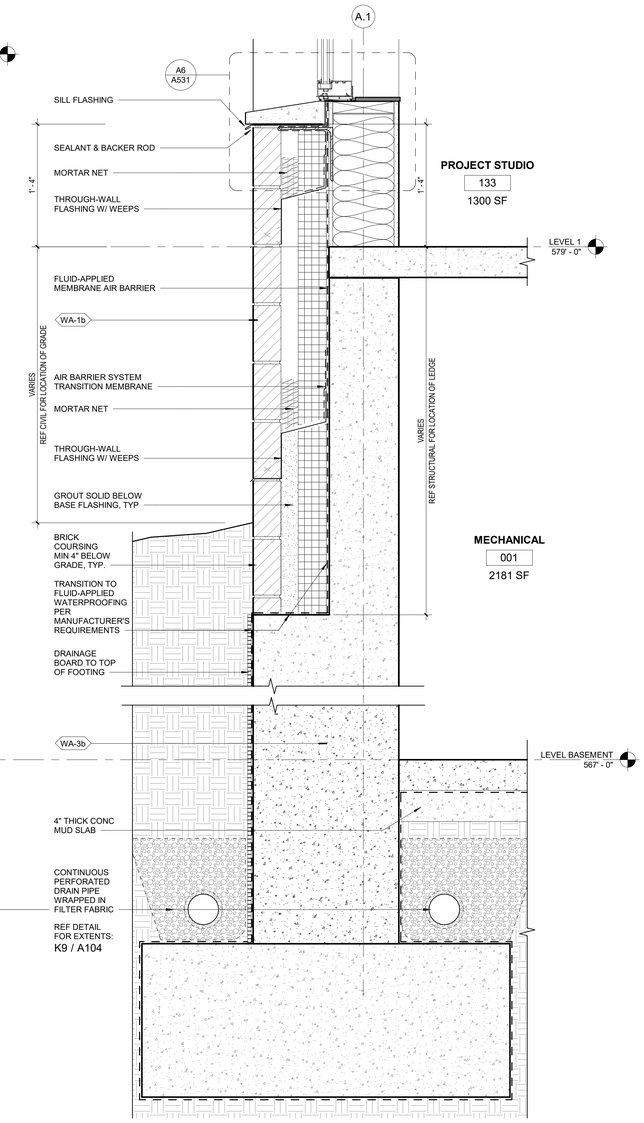

## E4 A511 WA-2b SLAB EDGE, LEVEL 1 AT CONCRETE

1 1/2" = 1'-0"



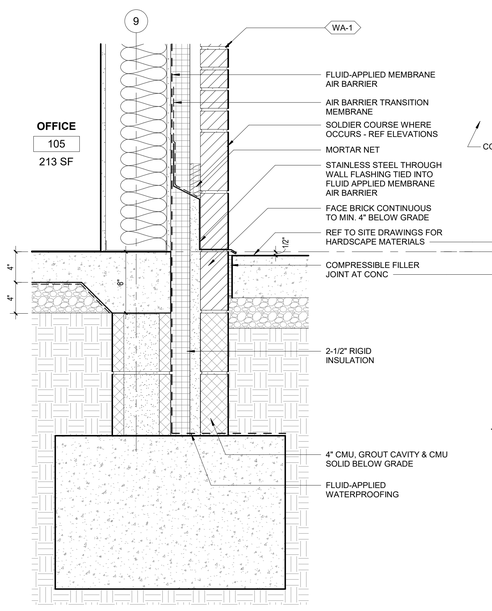

## A7 A511 WA-1 AT WA-1a SLAB EDGE, SOUTH

1 1/2" = 1'-0"



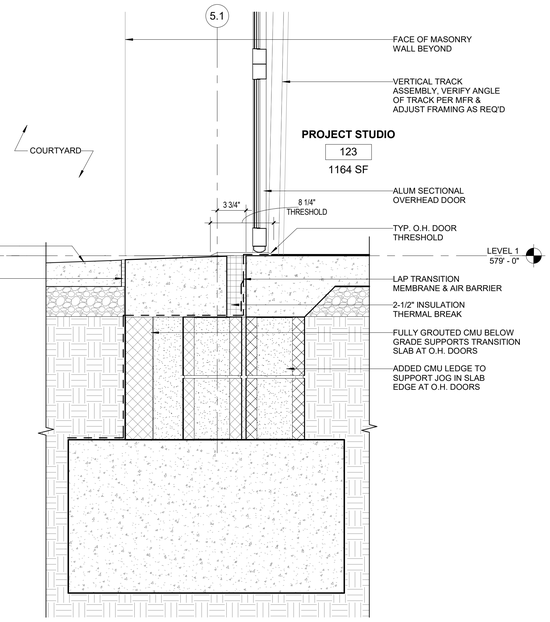

## A10 A511 WA-1b AT WA-3b AT SLAB EDGE, LEVEL 1 AT GRADE

1 1/2" = 1'-0"




## A1 A511 WA-1 AT SLAB EDGE, LEVEL 1 AT CONCRETE

1 1/2" = 1'-0"




## A4 A511 LEVEL 1 SLAB EDGE AT OVERHEAD DOOR THRESHOLD

1 1/2" = 1'-0"

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DRAWN BY: BG

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SECTION DETAILS

# A511

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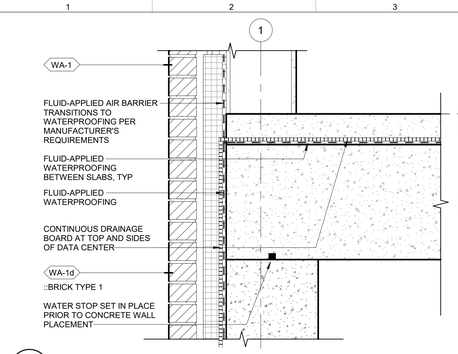
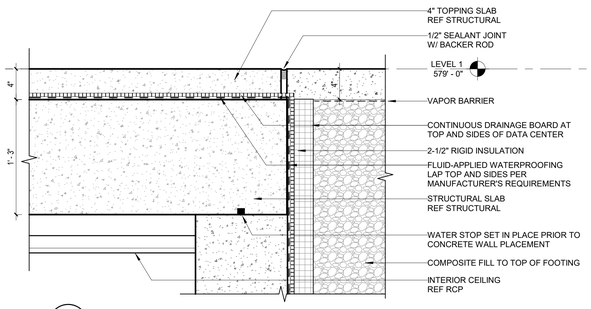


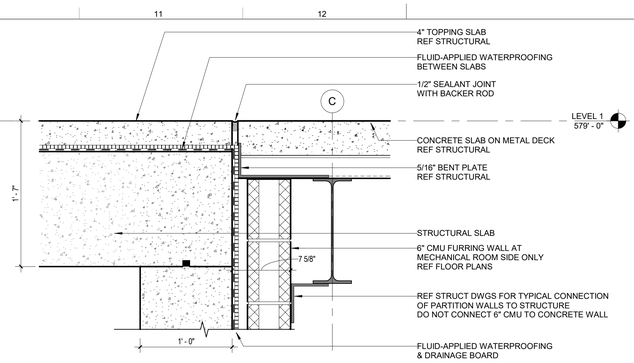

K1 A512 SECTION - TOP OF WALL DETAIL AT BASEMENT 1

1 1/2" = 1'-0"



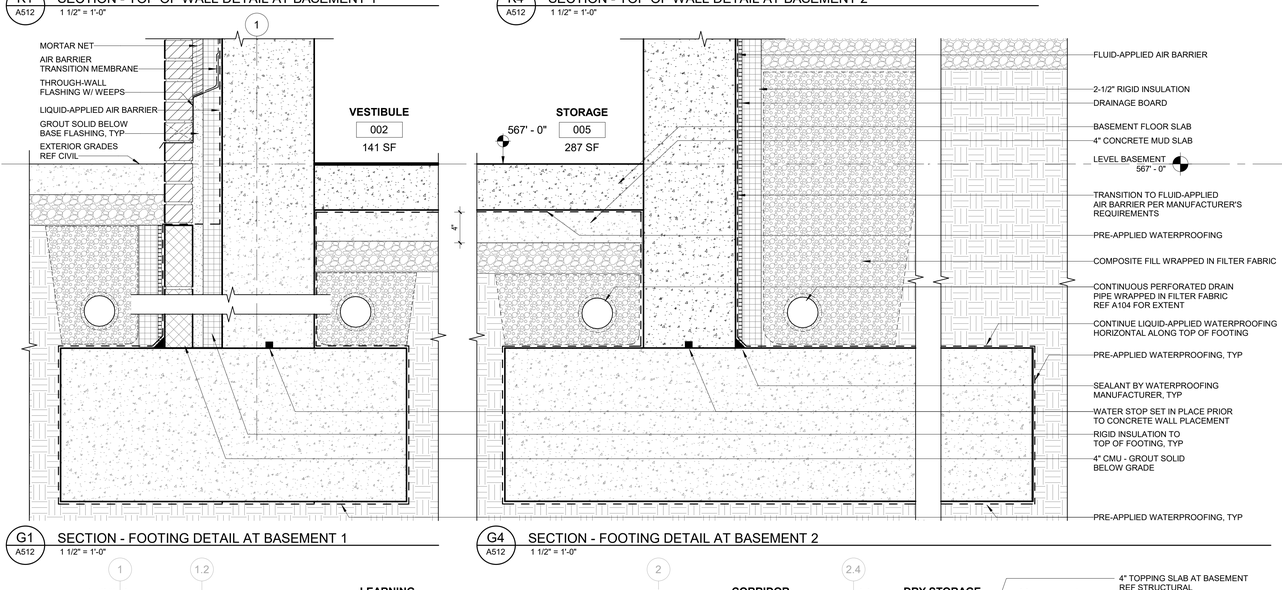

K4 A512 SECTION - TOP OF WALL DETAIL AT BASEMENT 2

1 1/2" = 1'-0"




K9 A512 SECTION - TOP OF WALL DETAIL AT BASEMENT 3

1 1/2" = 1'-0"

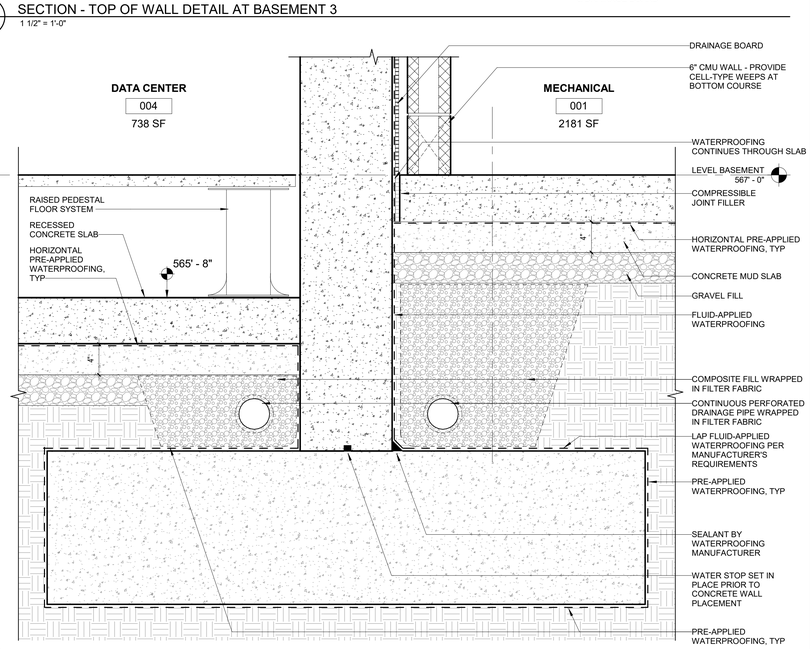



G1 A512 SECTION - FOOTING DETAIL AT BASEMENT 1

1 1/2" = 1'-0"

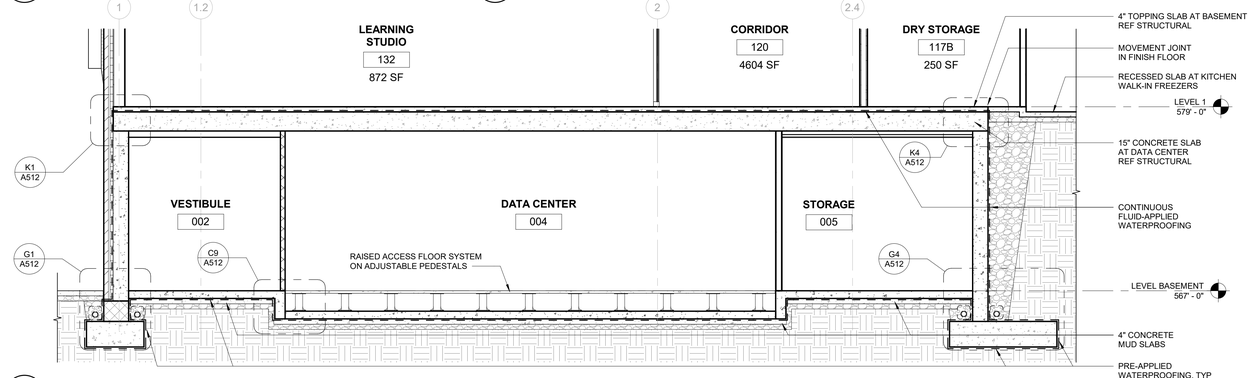
G4 A512 SECTION - FOOTING DETAIL AT BASEMENT 2

1 1/2" = 1'-0"



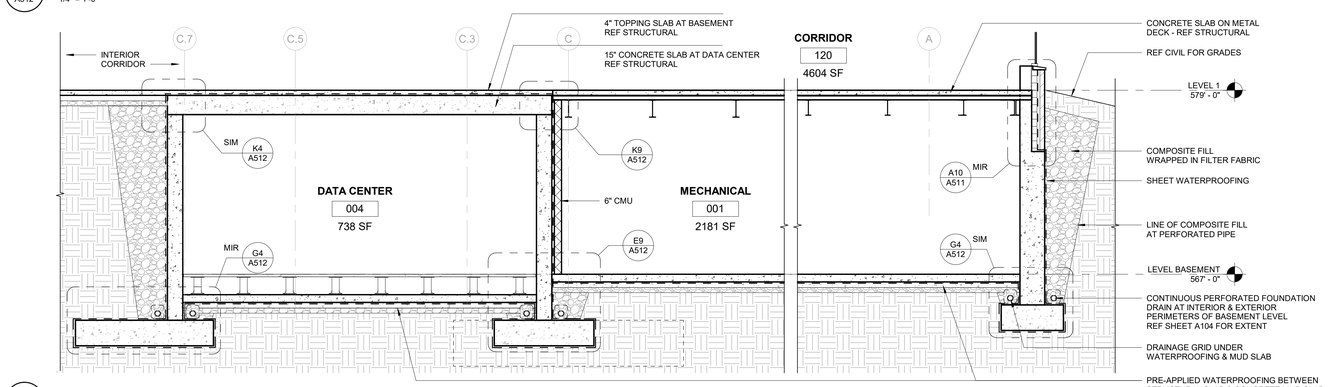

E9 A512 SECTION - FOOTING DETAIL AT BASEMENT 3

1 1/2" = 1'-0"



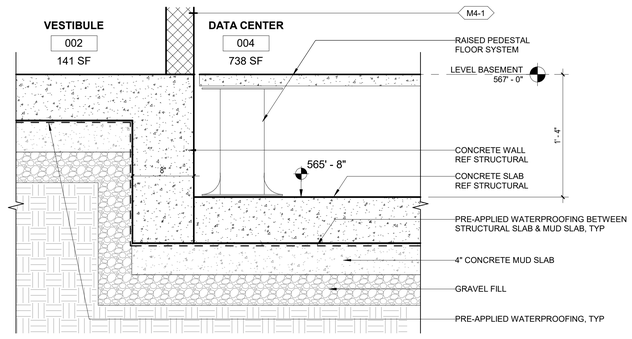

D1 A512 SECTION - DATA CENTER NORTH-SOUTH

1/4" = 1'-0"




A1 A512 SECTION - DATA CENTER EAST-WEST

1/4" = 1'-0"




C9 A512 SECTION - RECESSED SLAB AT BASEMENT

1 1/2" = 1'-0"

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DRAWN BY: BG

QEA No.41911390

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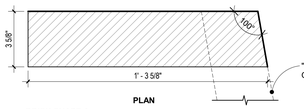
10/8/2024

SECTION DETAILS

**A512**

## CUSTOM BRICK SHAPES

3" = 1'-0"

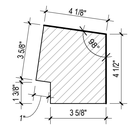



"SHAPE A" AT OPPOSING CORNER

PLAN

**BRICK SHAPE A**
**TYPICAL 100-DEGREE OUTSIDE CORNERS**
REF DIMENSION PLANS

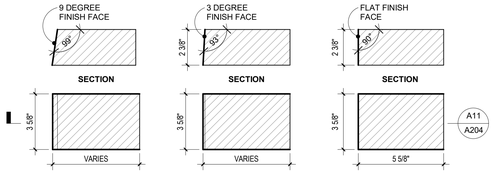
COLORS:
TYPES 1, 2, 3




PLAN

**BRICK SHAPE B**
**ANGLED JAMB CORNERS**
AT WEST STOREFRONTS

COLORS:
TYPE 4

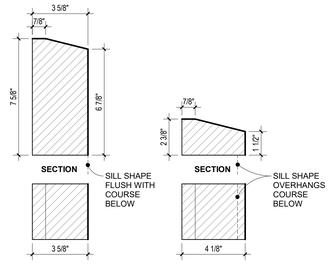



**BRICK SHAPE C.1**
**9 DEGREE TAPERED FACE JAMBS**
AT SOUTHWEST FACADES

**BRICK SHAPE C.2**
**3 DEGREE TAPERED FACE JAMBS**
AT SOUTHWEST FACADES

**BRICK SHAPE C.3**
**FLAT FACE JAMBS**
AT SOUTHWEST FACADES

COLORS:
TYPE 2




**BRICK SHAPE D**
**MODULAR SOLDIER TOP COURSE**
ROWLOCK SILLS AT LEVEL 1

COLORS:
TYPE 3

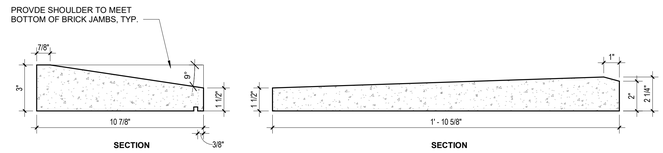
**BRICK SHAPE E**
**TYPICAL ROWLOCK SILLS**

COLORS:
TYPES 2 AT PATTERN 1&2
TYPE 3 AT MATCHING TYPE 3

**NOTE:**
BOLD LINE INDICATED FINISHED FACE OF BRICK

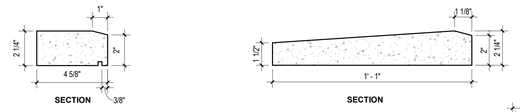
## CUSTOM PRECAST CONCRETE SHAPES

3" = 1'-0"




**PRECAST SHAPE A**
AT WEST STOREFRONTS

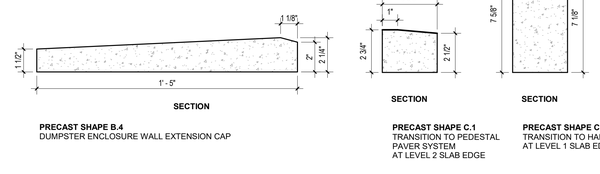
**PRECAST SHAPE B.1 - STRAIGHT**
GUARDWALL CAP, ROOF TERRACES




**PRECAST SHAPE B.2**
GUARDWALL CAP CONTINUATION INTEGRATED INTO BRICK COURSING AT WA-1

REF ELEVATION: D1 / A202

**PRECAST SHAPE B.3**
DUMPSTER ENCLOSURE CAP




**PRECAST SHAPE B.4**
DUMPSTER ENCLOSURE WALL EXTENSION CAP

**PRECAST SHAPE C.1**
TRANSITION TO PEDESTAL PAVER SYSTEM
AT LEVEL 2 SLAB EDGE

**PRECAST SHAPE C.2**
TRANSITION TO HARDSCAPE
AT LEVEL 1 SLAB EDGE

## CUSTOM PRECAST CONCRETE SHAPES

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



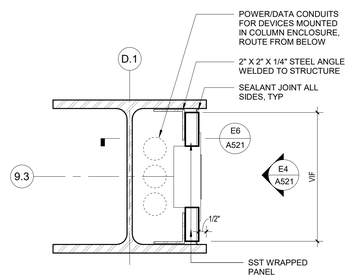

PLAN

**PRECAST SHAPE B.1 - CORNER**
GUARDWALL CAP CORNER, EXTERIOR ROOF TERRACES

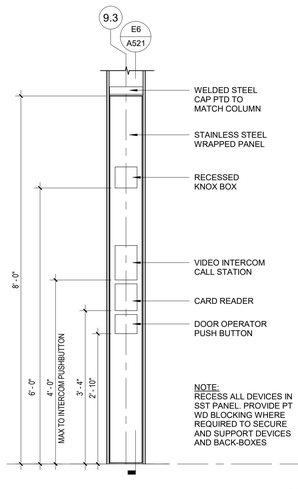
## PRECAST CONC GENERAL NOTES

1. JOINTS BETWEEN PRECAST CONCRETE SHAPES, AND JOINTS BETWEEN PRECAST CONCRETE & MASONRY ELEMENTS SHALL HAVE RAKED MORTAR JOINT W/ SEALANT & BACKER ROD.

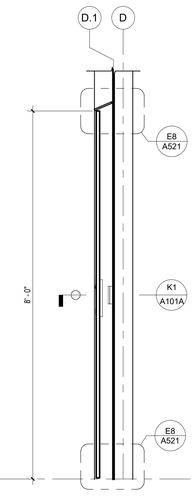
## ENTRY COLUMN CONTROLS INFILL DETAILS



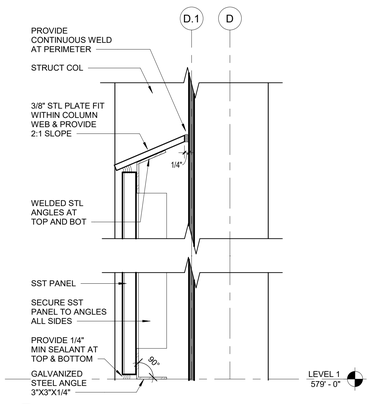

E1 A521 PLAN - ENTRY CONTROLS AT COLUMN
3" = 1'-0"




E4 A521 ELEV - ENTRY CONTROLS AT COLUMN
3/4" = 1'-0"

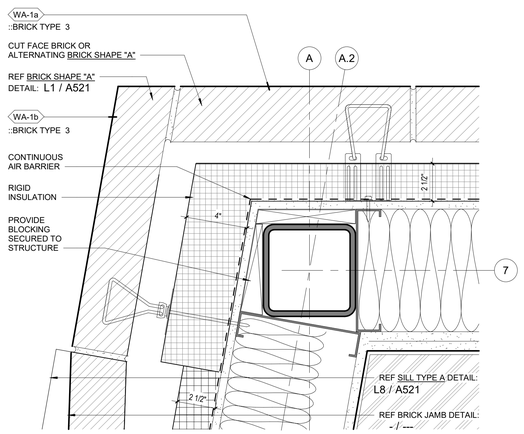



E6 A521 SECTION - ENTRY CONTROLS AT COLUMN
3/4" = 1'-0"

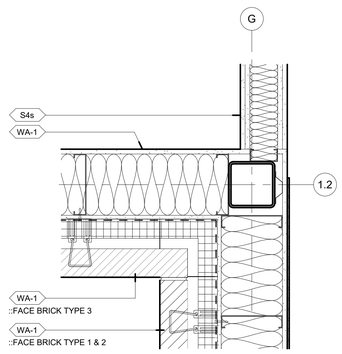



E8 A521 SECTION - CONTROLS INFILL STL CAP
3" = 1'-0"

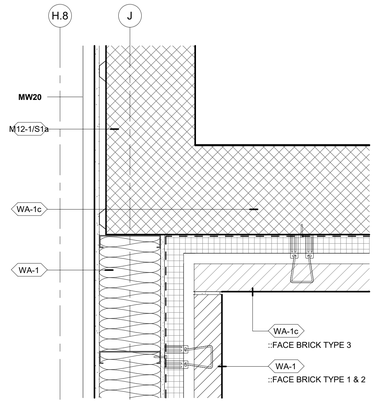
## EXTERIOR PLAN DETAILS



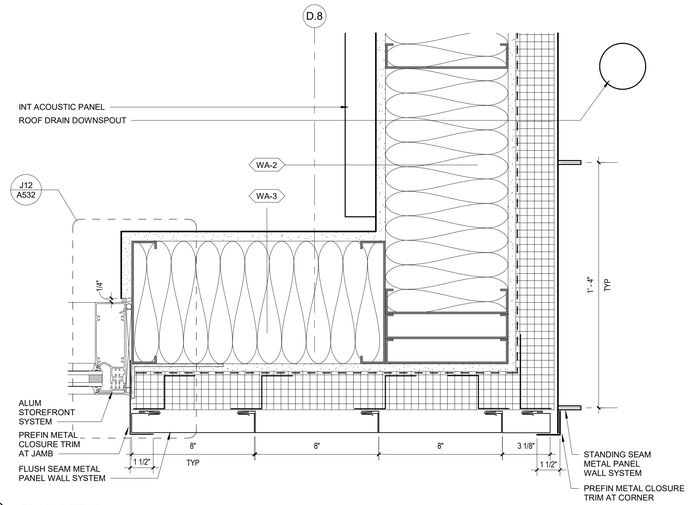

A1 A521 PLAN DETAIL
3" = 1'-0"




A4 A521 PLAN DETAIL
1 1/2" = 1'-0"




A7 A521 PLAN DETAIL
1 1/2" = 1'-0"




3 A521 PLAN DETAIL
3" = 1'-0"

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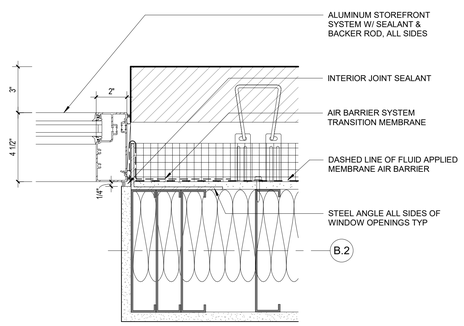
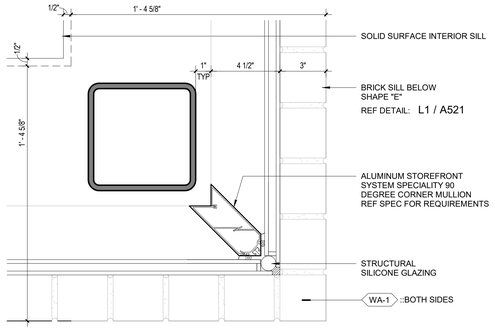
EXTERIOR DETAILS & CUSTOM SHAPES

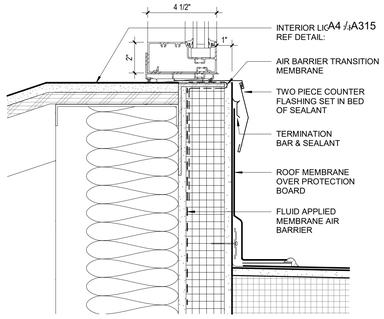
**A521**



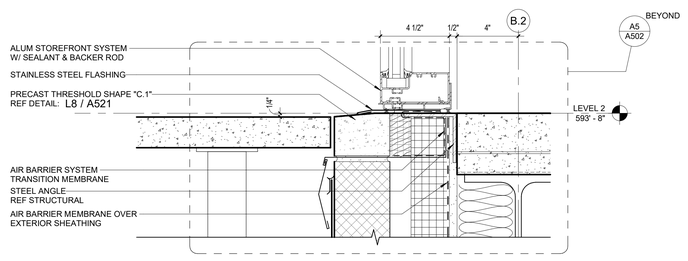

K1 A531 PLAN - SF JAMB AT BRICK
3" = 1'-0"



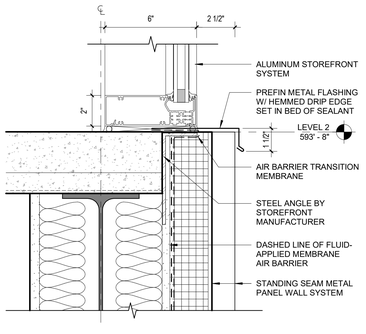

K4 A531 PLAN - SF BUTT GLAZED CORNER AT RM 114
3" = 1'-0"



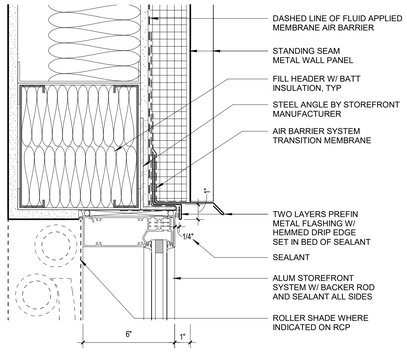

K7 A531 SECTION - SF SILL AT LEVEL 2 CLERESTORY
3" = 1'-0"



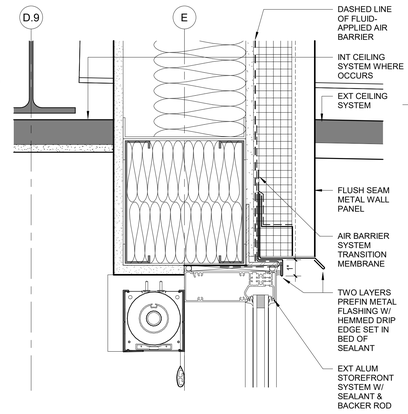

K10 A531 SECTION - SF SILL AT EXT PORCHES
3" = 1'-0"



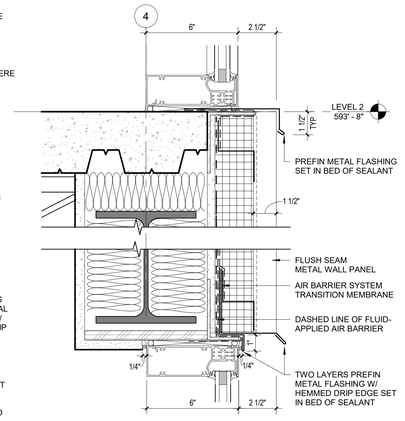

G1 A531 SECTION - SF SILL AT STANDING SEAM MTL PANEL
3" = 1'-0"



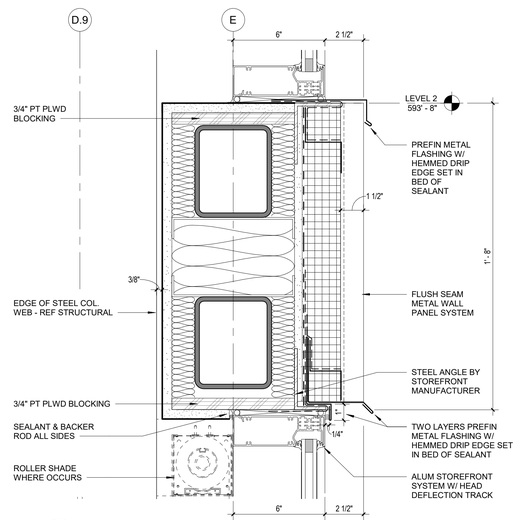

G4 A531 SECTION - SF HEAD AT STANDING SEAM MTL PANEL
3" = 1'-0"



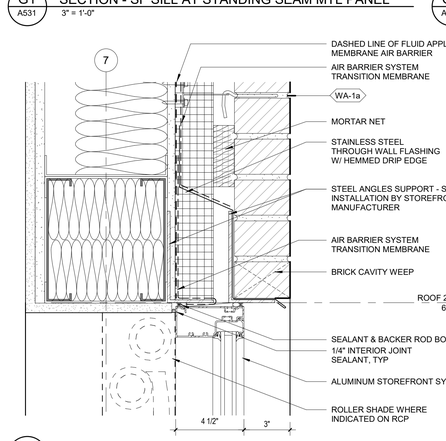

G6 A531 SECTION - SF HEAD AT FLUSH MTL PANEL
3" = 1'-0"



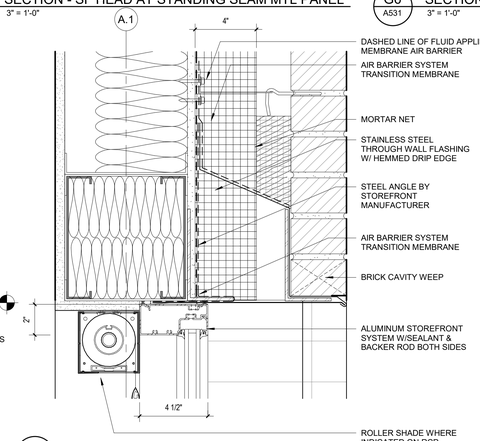

G8 A531 SECTION - SF HEAD/SILL AT FLUSH MTL PANEL - FLOOR
3" = 1'-0"



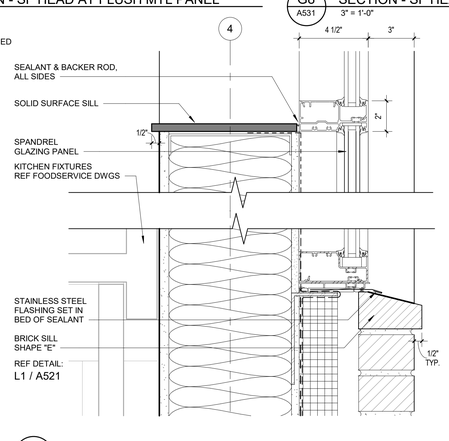

G10 A531 SECTION - SF HEAD/SILL AT FLUSH MTL PANEL - HEADER
3" = 1'-0"



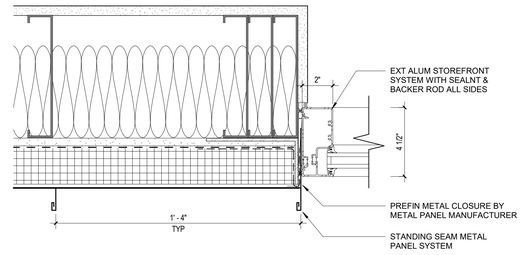

D1 A531 SECTION - SF HEAD, BRICK
3" = 1'-0"



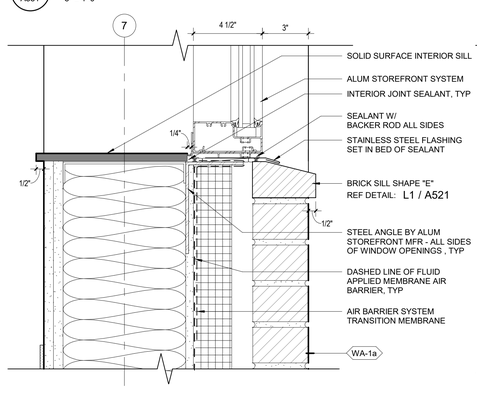

D4 A531 SECTION - SF HEAD, WALL TYPE WA-1b
3" = 1'-0"



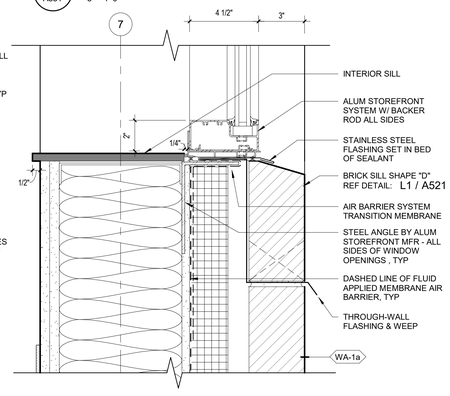

D7 A531 SF SILL AT CULINARY RM. 121
3" = 1'-0"



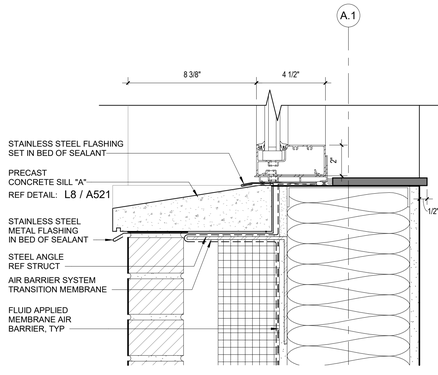

D9 A531 PLAN - SF JAMB AT STANDING SEAM
3" = 1'-0"



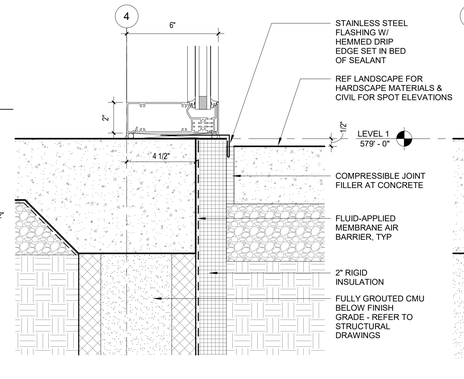

A1 A531 SECTION - SF SILL, BRICK SILL A
3" = 1'-0"



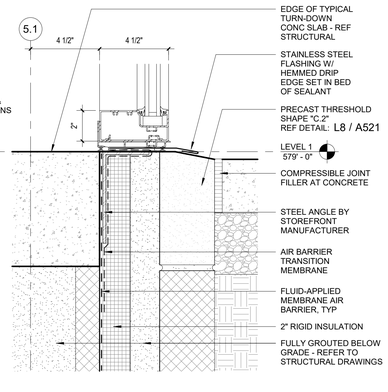

A4 A531 SECTION - SF SILL, BRICK SILL B
3" = 1'-0"




A6 A531 SECTION - SF SILL, PRECAST SILL A, WALL TYPE WA-1B
3" = 1'-0"




A9 A531 SECTION - SF SILL AT SLAB EDGE LEVEL 1
3" = 1'-0"




A12 A531 SECTION - SF SILL AT SLAB EDGE LEVEL 1
3" = 1'-0"

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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

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CHARLES W. TILLEY
LIC. No. 010767
10/08/2024
ARCHITECT

Albemarle County Public Schools

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IFB No. 2025-IFB-1007262
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Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS
DRAWN BY: BG

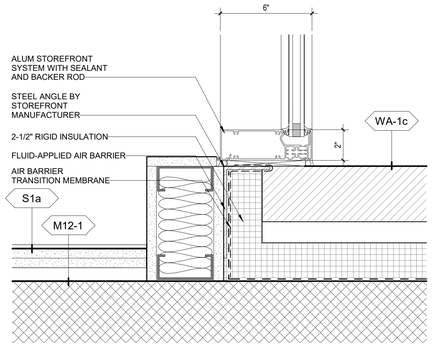
QEA No.41911390

BID DOCUMENTS
10/8/2024

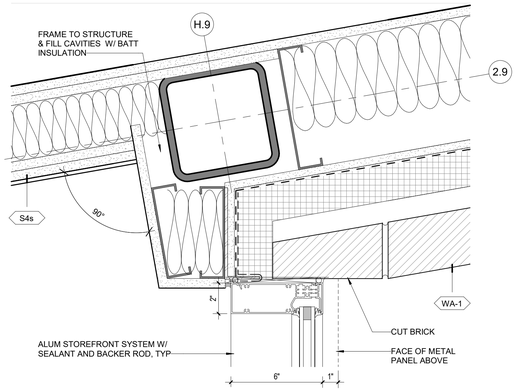
STOREFRONT DETAILS

# A531

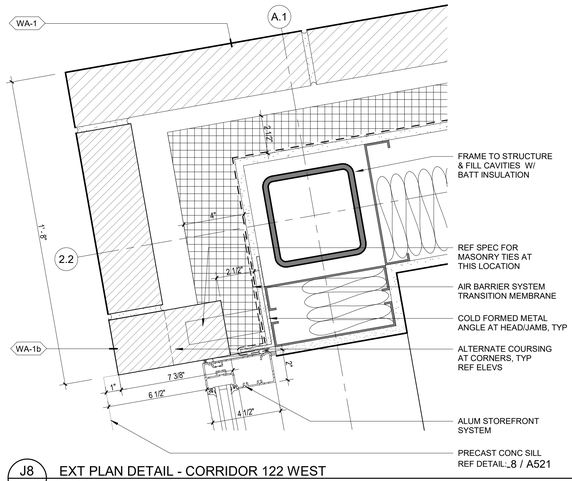
## EXTERIOR STOREFRONT DETAILS (CONTINUED)



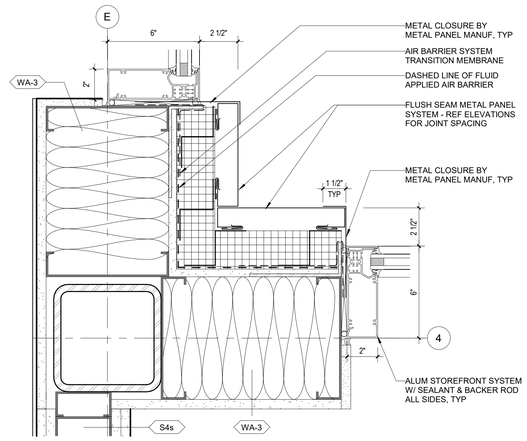

J1 A532 PLAN - SF JAMB AT CORRIDOR 122 - 90 DEGREE
3" = 1'-0"



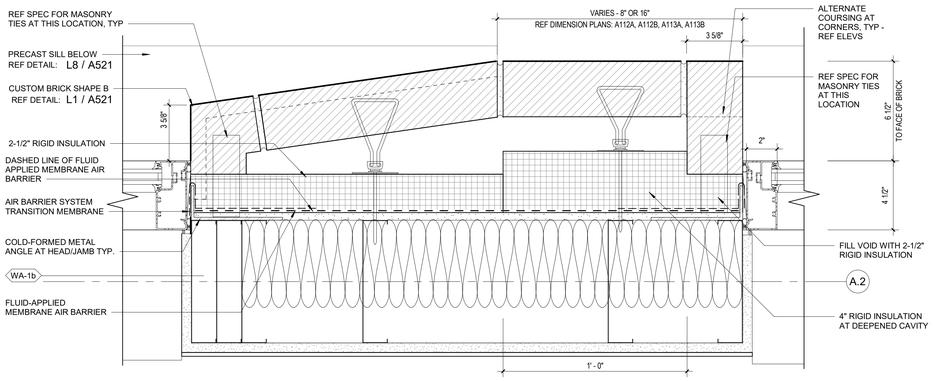

J4 A532 PLAN - SF JAMB AT CORRIDOR 122 EAST - ANGLE
3" = 1'-0"




J8 A532 EXT PLAN DETAIL - CORRIDOR 122 WEST
3" = 1'-0"

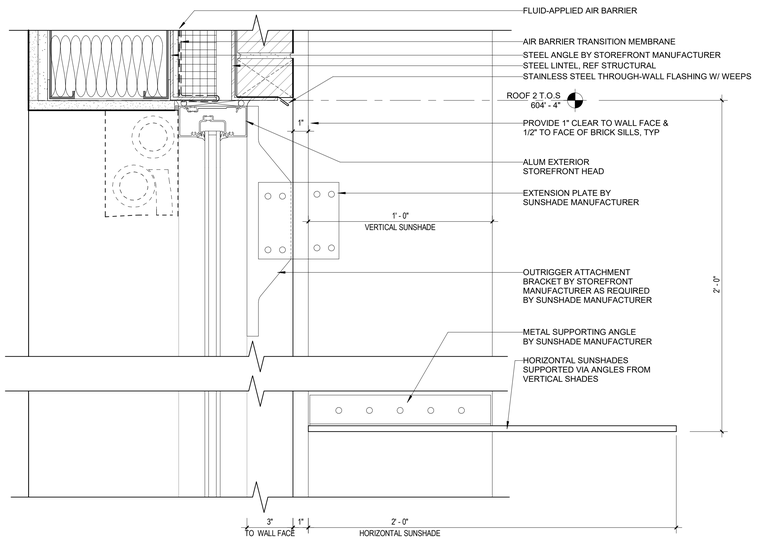



J12 A532 PLAN - SF JAMB AT FLUSH SEAM MTL PANEL
3" = 1'-0"

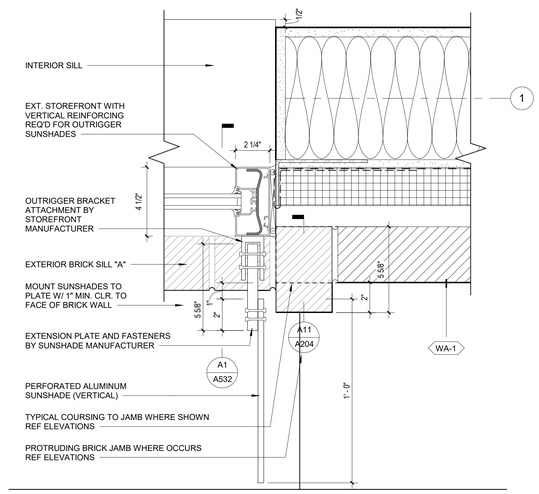



F1 A532 PLAN - STOREFRONT AT ANGLED BRICK JAMB
3" = 1'-0"

## EXTERIOR STOREFRONT W/ OUTRIGGER SUNSHADE DETAILS




A1 A532 SECTION - SF HEAD, BRICK W/ SUNSHADES
3" = 1'-0"




A6 A532 PLAN - SF JAMB AT SUNSHADE
3" = 1'-0"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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

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PROJECT MANAGER: KS
DRAWN BY: BG

QEA No.41911390

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STOREFRONT DETAILS

**A532**

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
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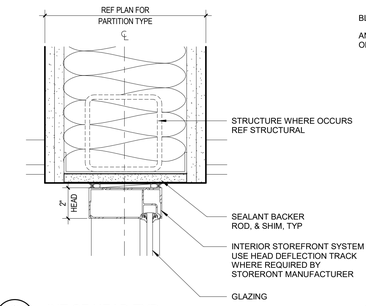
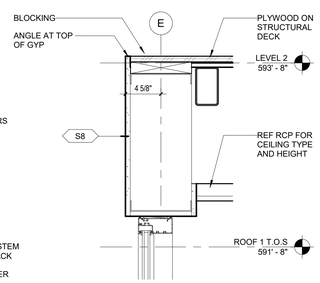
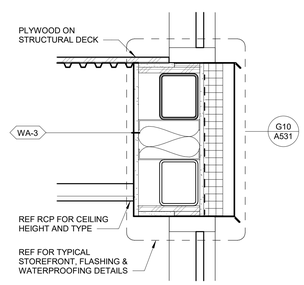
## INTERIOR STOREFRONT DETAILS



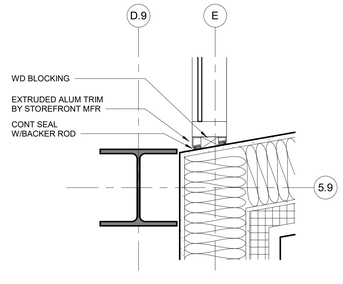

K1 A533 INT SF HEAD TYP
3" = 1'-0"



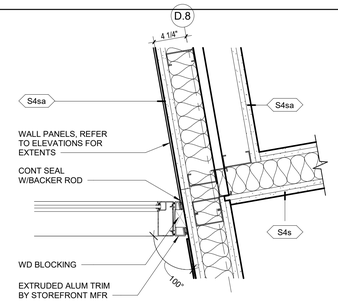

K3 A533 SECTION DETAIL - VESTIBULE CLNG
1 1/2" = 1'-0"



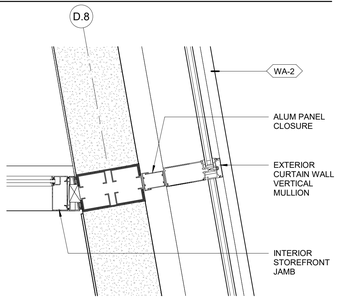

K5 A533 SECTION DETAIL - VESTIBULE SOUTH
1 1/2" = 1'-0"



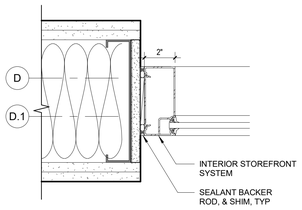

K8 A533 PLAN DETAIL - VESTIBULE 116 CORNER1
1 1/2" = 1'-0"



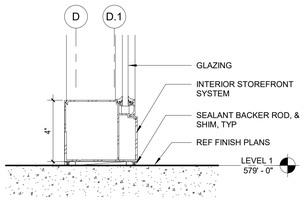

K10 A533 PLAN - INT SF JAMB AT ENTRY
1 1/2" = 1'-0"



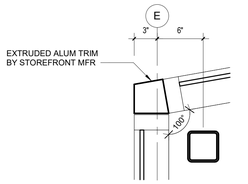

K12 A533 INT PLAN DETAIL - INTERSECTING SF AND CW
1 1/2" = 1'-0"




H1 A533 INT SF JAMB TYP
3" = 1'-0"

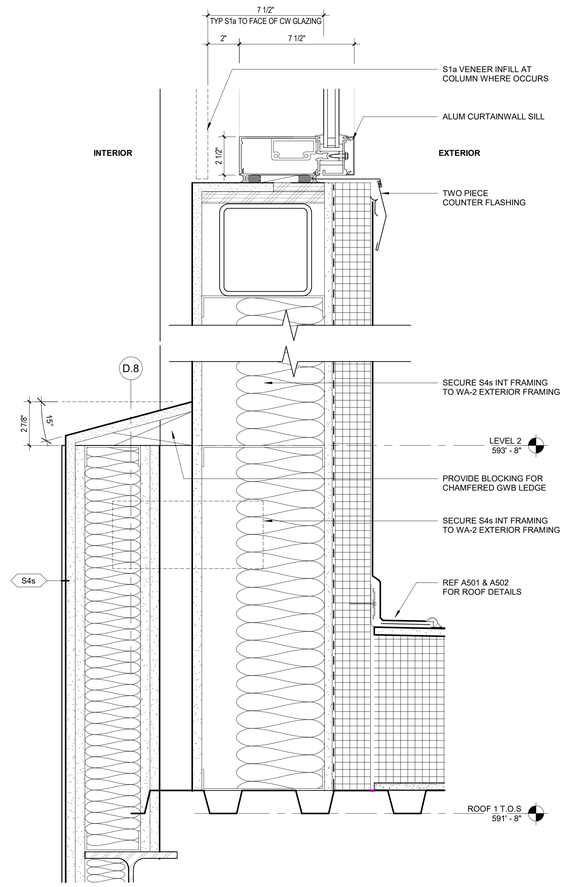



H3 A533 INT SF SILL FLR 1 TYP
3" = 1'-0"

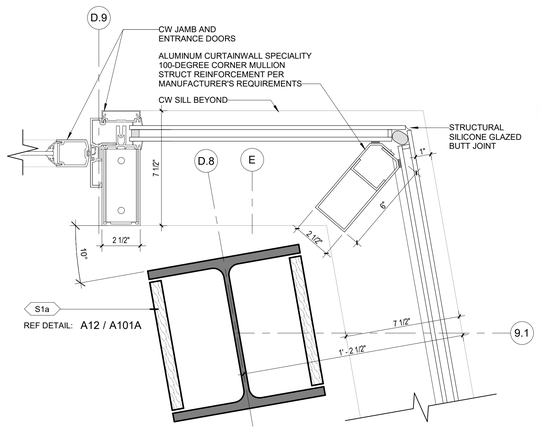



H5 A533 PLAN DETAIL - VESTIBULE 116 IS CORNER
1 1/2" = 1'-0"

## EXTERIOR CURTAINWALL DETAILS

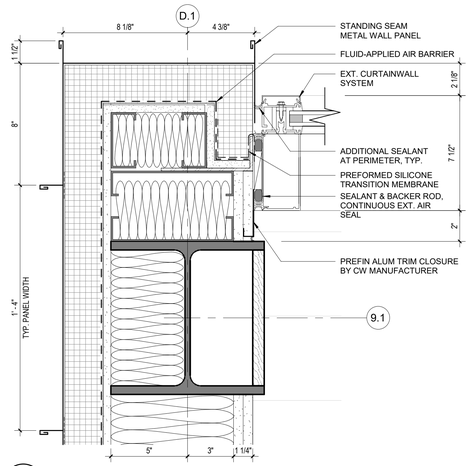



A1 A533 SECTION - CW SILL AT ENTRY CLERESTORY
3" = 1'-0" REFERRED FROMA101A

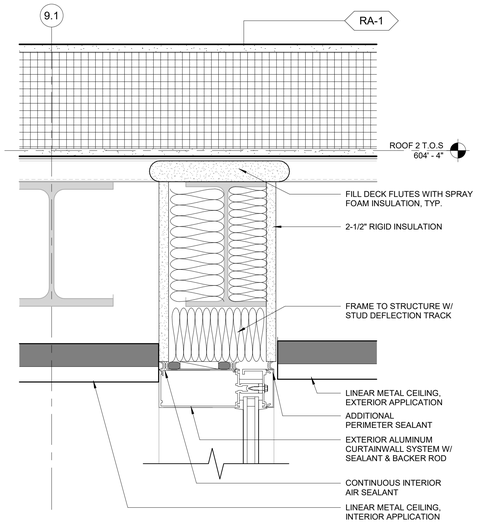



A4 A533 PLAN - CW BUTT GLAZED CORNER AT VEST. 100
3" = 1'-0"

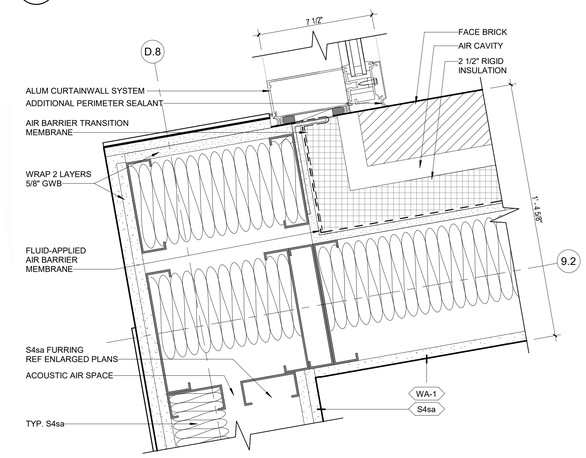
## EXTERIOR CURTAINWALL DETAILS



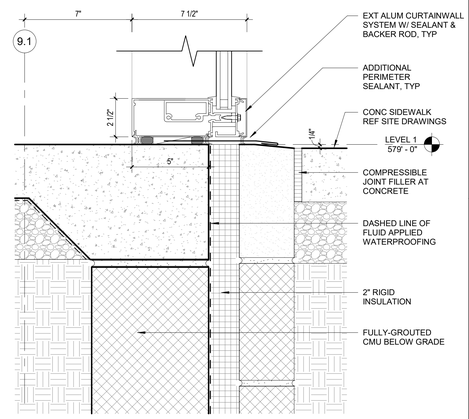

E8 A533 PLAN - CW JAMB AT STANDING SEAM AT ENTRY
3" = 1'-0"




E11 A533 SECTION - CW HEAD AT VEST. 100
3" = 1'-0"




A8 A533 PLAN - CW JAMB AT BRICK
3" = 1'-0"




A11 A533 SECTION - CW SILL AT VEST. 100
3" = 1'-0"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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
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QEA No.41911390

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10/8/2024

INT STOREFRONT & CURTAIN WALL DETAILS

**A533**


PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:48:40 PM

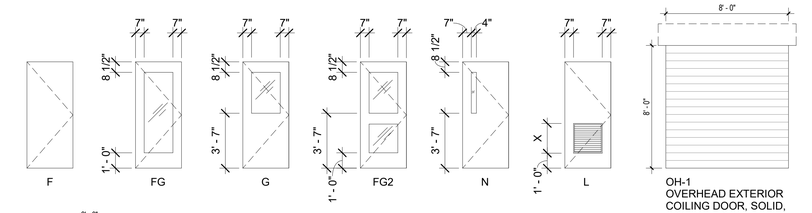
## DOOR SCHEDULE

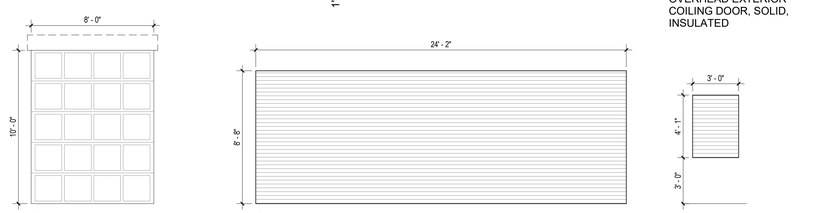
| MARK | LOCATION | PAIR | DOOR WIDTH | DOOR HEIGHT | DOOR TYPE | DOOR MATL | DOOR GLASS | FRAME TYPE | FRAME MATL | FRAME HEAD | FRAME JAMB | OTHER LABEL | OTHER HDW | OTHER UC | REMARKS | MARK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LEVEL 1 | | | | | | | | | | | | | | | | |
| 100.1 | VESTIBULE | PR | 3' - 0" | 8' - 0" | FG2 | ALUM | GL-8 | CW1 | ALUM | | | | 1.0 | | | 100.1 |
| 100.2 | VESTIBULE | PR | 3' - 0" | 8' - 0" | FG2 | ALUM | GL-8 | CW1 | ALUM | | | | 3.0 | | | 100.2 |
| 100.3 | VESTIBULE | PR | 3' - 0" | 8' - 0" | FG2 | ALUM | GL-5 | IS01 | ALUM | | | | 2.0 | | | 100.3 |
| 100.4 | VESTIBULE | PR | 3' - 0" | 8' - 0" | FG2 | ALUM | GL-5 | IS01 | ALUM | | | | 4.0 | | | 100.4 |
| 101A.1 | VESTIBULE | PR | 3' - 0" | 8' - 0" | FG2 | ALUM | GL-5 | IS05 | ALUM | | | | 4.0 | | | 101A.1 |
| 101A.2 | VESTIBULE | PR | 3' - 0" | 8' - 0" | FG2 | ALUM | GL-8 | AS20 | ALUM | | | | 3.0 | | | 101A.2 |
| 102.1 | RECEPTION | | 3' - 0" | 7' - 0" | FG2 | WD | GL-5 | IS02 | ALUM | | | | 11.0 | | | 102.1 |
| 102.2 | RECEPTION | | 3' - 0" | 7' - 0" | FG2 | WD | GL-5 | IS03 | ALUM | | | | 22.0 | | | 102.2 |
| 102A | RECEPTION | | 3' - 0" | 7' - 0" | N | WD | GL-3 | HM01 | HM | H1 | J1 | | 21.0 | | | 102A |
| 103 | OFFICE | | 3' - 0" | 7' - 0" | N | WD | GL-4 | HM03 | HM | H1 | J1 | | 20.0 | | | 103 |
| 104 | OFFICE | | 3' - 0" | 7' - 0" | N | WD | GL-4 | HM04 | HM | H1 | J1 | | 20.0 | | | 104 |
| 105 | OFFICE | | 3' - 0" | 7' - 0" | N | WD | GL-4 | HM03 | HM | H1 | J1 | | 20.0 | | | 105 |
| 106.1 | CONFERENCE ROOM | | 3' - 0" | 7' - 0" | G | WD | GL-4 | HM03 | HM | H1 | J1 | | 26.0 | | | 106.1 |
| 106.2 | CONFERENCE ROOM | | 3' - 0" | 7' - 0" | F | WD | | CONCEALED | HM | H3 | J3 | | 27.0 | | | 106.2 |
| 107 | WORKROOM | | 3' - 0" | 7' - 0" | F | WD | | CONCEALED | HM | H3 | J3 | | 22.0 | | | 107 |
| 107A | TOILET | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | | 25.0 | | | 107A |
| 108 | CLINIC | | 3' - 0" | 7' - 0" | G | WD | GL-4 | HM06 | HM | H1 | J1 | | 21.0 | | | 108 |
| 108A | TOILET | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | | 25.0 | | | 108A |
| 109 | OFFICE | | 3' - 0" | 7' - 0" | G | | GL-4 | HM05 | HM | H1 | J1 | | 20.0 | | | 109 |
| 110 | COUNSELING | | 3' - 0" | 7' - 0" | G | WD | GL-4 | HM06 | HM | H1 | J1 | | 21.0 | | | 110 |
| 110A | STOR | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | | 16.0 | | | 110A |
| 111 | FOCUS ROOM | | 3' - 0" | 7' - 0" | G | WD | GL-4 | HM01 | HM | H1 | J1 | | 20.0 | | | 111 |
| 112 | OFFICE | | 3' - 0" | 7' - 0" | G | WD | GL-4 | HM09 | HM | H1 | J1 | | 20.0 | | | 112 |
| 113 | FOCUS ROOM | | 3' - 0" | 7' - 0" | G | | GL-4 | HM01 | HM | H1 | J1 | | 20.0 | | | 113 |
| 114 | WELLNESS ROOM | | 3' - 0" | 7' - 0" | G | WD | GL-4 | HM06 | HM | H1 | J1 | | 21.0 | | | 114 |
| 115a | TABLES/CHAIR STORAGE | | 3' - 0" | 7' - 0" | F | WD | | CONCEALED | HM | H3 | J3 | | 17.0 | | | 115a |
| 115B | AV | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | | 16.0 | | | 115B |
| 116.1 | SERVING | | | | | | | | | | | | 30.0 | | OH-3, OVERHEAD ROLLING SERVICE DOOR | 116.1 |
| 116.2 | SERVING | | 3' - 0" | 7' - 0" | F | HM | | HM01 | HM | H1 | J1 | | 23.0 | | | 116.2 |
| 117 | COMMONS | | 3' - 0" | 7' - 2" | FG2 | ALUM | GL-3 | AS07 | ALUM | | | | 5.0 | | | 117 |
| 117A | KITCHEN | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM20 | HM | H1 | J1 | | 20.0 | | | 117A |
| 117B | DRY STORAGE | | 3' - 0" | 7' - 0" | F | HM | | HM01 | HM | H1 | J1 | | 17.0 | | | 117B |
| 117C | CUST | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | | 21.0 | | | 117C |
| 117D | LAUNDRY | | 3' - 0" | 7' - 0" | L | HM | | HM01 | HM | H1 | J1 | | 21.0 | | | 117D |
| 117E | TOILET | | 3' - 0" | 7' - 0" | F | HM | | HM01 | HM | H1 | J1 | | 25.0 | | | 117E |
| 117F | DISH ROOM | | | | | | | | | | | | 30.0 | | OH-4, OVERHEAD COUNTER DOOR | 117F |
| 118.1 | CORRIDOR | PR | 3' - 0" | 7' - 0" | G | HM | GL-8 | HM02 | HM | H4 | J4 | | 8.0 | | | 118.1 |
| 118.2 | CORRIDOR | | 4' - 0" | 7' - 0" | F | HM | | HM01 | HM | H1 | J1 | | 21.0 | | | 118.2 |
| 119A | TOILET | | 3' - 0" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | | 25.0 | | | 119A |
| 119B | TOILET | | 3' - 0" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | | 25.0 | | | 119B |
| 119C | TOILET | | 2' - 6" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | | 25.0 | | | 119C |
| 119D | TOILET | | 2' - 6" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | | 25.0 | | | 119D |
| 119E | TOILET | | 2' - 6" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | | 25.0 | | | 119E |
| 119F | TOILET | | 2' - 6" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | | 25.0 | | | 119F |
| 119G | TOILET | | 3' - 0" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | | 25.0 | | | 119G |
| 119H | TOILET | | 3' - 0" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | | 25.0 | | | 119H |
| 120 | CORRIDOR | PR | 3' - 0" | 7' - 0" | FG2 | WD | GL-7 | IS07 | ALUM | | | | 15.0 | | | 120 |
| 121.1 | CULINARY LAB | | 3' - 6" | 7' - 0" | FG2 | WD | GL-4 | HM10 | HM | H2 | J2 | | 21.0 | | | 121.1 |
| 121.2 | CULINARY LAB | | 3' - 0" | 8' - 0" | FG2 | ALUM | GL-8 | AS18 | ALUM | | | | 5.0 | | | 121.2 |
| 121.3 | CULINARY LAB | | 2' - 6" | 7' - 0" | L | | | HM01 | HM | | | | 24.0 | | | 121.3 |
| 122.1 | LEARNING STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM12 | HM | H5 | J5 | | 21.0 | | | 122.1 |
| 122.2 | LEARNING STUDIO | | 3' - 0" | 7' - 0" | FG2 | ALUM | GL-8 | AS10 | ALUM | | | | 5.0 | | | 122.2 |
| 123.1 | PROJECT STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-4 | HM12 | HM | H5 | J5 | | 21.0 | | | 123.1 |
| 123.2 | PROJECT STUDIO | | 3' - 0" | 7' - 0" | FG2 | ALUM | GL-8 | AS16 | ALUM | | | | 5.0 | | | 123.2 |
| 123.3 | PROJECT STUDIO | | | | | ALUM | | | | | | | 30.0 | | OH-2 OVERHEAD SECTIONAL DOOR | 123.3 |
| 123.4 | ADVANCED MANUFACTURING LAB | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | | 22.0 | | | 123.4 |
| 123A | PROJECT STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM14 | HM | H1 | J1 | | 21.0 | | | 123A |
| 124.1 | ADVANCED MANUFACTURING LAB | | 3' - 0" | 7' - 0" | G | WD | GL-4 | HM13 | HM | H1 | J1 | | 11.0 | | | 124.1 |
| 124.2 | ADVANCED MANUFACTURING LAB | | 3' - 0" | 7' - 0" | FG2 | ALUM | GL-8 | AS16 | ALUM | | | | 5.0 | | | 124.2 |
| 124.3 | ADVANCED MANUFACTURING LAB | | | | | ALUM | | | | | | | 30.0 | | OH-2 OVERHEAD SECTIONAL DOOR | 124.3 |
| 124.4 | ADVANCED MANUFACTURING LAB | PR | 3' - 0" | 7' - 0" | F | HM | | HM02 | HM | H4 | J4 | | 9.0 | | | 124.4 |
| 125.1 | PROJECT STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM21 | HM | H1 | J1 | | 21.0 | | | 125.1 |
| 125.2 | PROJECT STUDIO | | 3' - 0" | 7' - 0" | FG2 | ALUM | GL-8 | AS10 | ALUM | | | | 5.0 | | | 125.2 |
| 126.1 | PREP ROOM | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | | 21.0 | | | 126.1 |
| 126.2 | PREP ROOM | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | | 21.0 | | | 126.2 |
| 127.1 | PROJECT STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM21 | HM | H1 | J1 | | 21.0 | | | 127.1 |
| 127.2 | PROJECT STUDIO | | 3' - 0" | 7' - 0" | FG2 | ALUM | GL-1 | AS10 | ALUM | H1 | J1 | | 5.0 | | | 127.2 |
| 128.1 | LEARNING STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM12 | HM | H5 | J5 | | 21.0 | | | 128.1 |
| 128.2 | LEARNING STUDIO | | 3' - 0" | 7' - 0" | FG2 | ALUM | GL-8 | AS10 | ALUM | | | | 5.0 | | | 128.2 |
| 129.1 | LEARNING STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM12 | HM | H5 | J5 | | 21.0 | | | 129.1 |
| 129.2 | LEARNING STUDIO | | 3' - 0" | 7' - 0" | FG2 | ALUM | GL-8 | AS10 | ALUM | | | | 5.0 | | | 129.2 |
| 130.1 | TEACHER COLLABORATION | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM11 | HM | H5 | J5 | | 21.0 | | | 130.1 |
| 130.2 | TEACHER COLLABORATION | | 3' - 0" | 7' - 0" | FG2 | ALUM | GL-8 | AS10 | ALUM | | | | 5.0 | | | 130.2 |
| 130A | TOILET | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | | 25.0 | | | 130A |
| 130B | WELLNESS | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | | 24.0 | | | 130B |
| 131 | MDF | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | | 16.0 | | | 131 |
| 132 | LEARNING STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM21 | HM | H5 | J5 | | 21.0 | | | 132 |
| 133 | PROJECT STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM12 | HM | H5 | J5 | | 21.0 | | | 133 |
| 134.1 | CUSTODIAL RECEIVING | PR | 3' - 0" | 7' - 0" | F | ALUM | | HM01 | HM | H1 | J1 | | 18.0 | | | 134.1 |
| 134.2 | CUSTODIAL RECEIVING | | 4' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | | 16.0 | | | 134.2 |
| 135 | ELEC | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | 45 MIN | 28.0 | | | 135 |
| 136 | CUSTODIAL | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H2 | J2 | | 16.0 | | | 136 |
| 137.1 | GROUP ROOM | | 3' - 0" | 7' - 0" | G | WD | GL-3 | IS08 | ALUM | | | | 21.0 | | | 137.1 |
| 137.2 | CORRIDOR | | 3' - 0" | 7' - 0" | G | WD | GL-3 | IS08 | ALUM | | | | 21.0 | | | 137.2 |
| 138 | TOILET | | 3' - 0" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | | 25.0 | | | 138 |
| 139 | TOILET | | 3' - 0" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | | 25.0 | | | 139 |
| 140.1 | CORRIDOR | | 3' - 0" | 7' - 0" | G | WD | GL-3 | IS08 | ALUM | | | | 21.0 | | | 140.1 |
| 140.2 | GROUP ROOM | | 3' - 0" | 7' - 0" | G | WD | GL-3 | IS08 | ALUM | | | | 21.0 | | | 140.2 |
| G001 | | PR | 11' - 6" | 8' - 0" | GATE | STL | | | | | | | 29.0 | | DUMPSTER ENCLOSURE GATE | G001 |
| G002 | | PR | 11' - 6" | 8' - 0" | GATE | STL | | | | | | | 29.0 | | DUMPSTER ENCLOSURE GATE | G002 |
| S001.1 | STAIR 1 | | 3' - 0" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | 45 MIN | 14.0 | | | S001.1 |
| S001.2 | STAIR 1 | | 3' - 0" | 7' - 0" | FG2 | ALUM | GL-8 | AS10 | ALUM | | | | 6.0 | | | S001.2 |
| S001.4 | STAIR 1 | | 3' - 0" | 7' - 0" | - | | | | | | | | | | | S001.4 |
| S002.1 | STAIR 2 | | 3' - 0" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | 45 MIN | 14.0 | | | S002.1 |
| S002.2 | STAIR 2 | | 3' - 0" | 7' - 0" | FG2 | ALUM | GL-8 | AS10 | ALUM | | | | 6.0 | | | S002.2 |
| LEVEL 2 | | | | | | | | | | | | | | | | |
| 211 | IDEA CENTER | | 3' - 0" | 7' - 0" | G | WD | GL-4 | HM13 | HM | H1 | J1 | | 21.0 | | | 211 |
| 212 | FOCUS ROOM | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM13 | HM | H1 | J1 | | 20.0 | | | 212 |
| 213 | OFFICE | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM12 | HM | H1 | J1 | | 20.0 | | | 213 |
| 214 | COMMONS | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM12 | HM | H1 | J1 | | 26.0 | | | 214 |
| 215 | FOCUS ROOM | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM13 | HM | H1 | J1 | | 20.0 | | | 215 |
| 216 | OFFICE | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM13 | HM | H1 | J1 | | 20.0 | | | 216 |
| 217 | TOILET | | 3' - 0" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | | 25.0 | | | 217 |
| 218 | TOILET | | 3' - 0" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | | 25.0 | | | 218 |
| 219 | SEMINAR ROOM | | 3' - 0" | 7' - 0" | G | WD | GL-4 | HM12 | HM | H1 | J1 | | 21.0 | | | 219 |
| 220 | CORRIDOR | PR | 3' - 0" | 7' - 0" | FG2 | WD | GL-7 | IS11 | ALUM | | | | 15.0 | | | 220 |
| 221 | LEARNING STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM12 | HM | H5 | J5 | | 21.0 | | | 221 |
| 221A.1 | FABRICATION LAB | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM13 | HM | H5 | J5 | | 21.0 | | | 221A.1 |
| 221A.2 | FABRICATION LAB | | 3' - 0" | 7' - 0" | FG2 | WD | GL-3 | HM13 | HM | H5 | J5 | | 21.0 | | | 221A.2 |
| 222 | LEARNING STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM12 | HM | H5 | J5 | | 21.0 | | | 222 |
| 223.1 | LEARNING STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM12 | HM | H5 | J5 | | 21.0 | | | 223.1 |
| 223.2 | LEARNING STUDIO | | 3' - 0" | 7' - 0" | FG2 | ALUM | GL-1 | AS08 | ALUM | | | | 7.0 | | | 223.2 |
| 224.1 | PROJECT STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM18 | HM | H1 | J1 | | 21.0 | | | 224.1 |
| 224.2 | PROJECT STUDIO | | 3' - 0" | 7' - 0" | FG2 | ALUM | GL-1 | AS08 | ALUM | | | | 7.0 | | | 224.2 |
| 225 | PROJECT STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM21 | HM | H1 | J1 | | 21.0 | | | 225 |
| 226.1 | PREP ROOM | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | | 21.0 | | | 226.1 |
| 226.2 | PREP ROOM | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | | 21.0 | | | 226.2 |
| 227 | PROJECT STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM21 | HM | H1 | J1 | | 21.0 | | | 227 |
| 228 | LEARNING STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM12 | HM | H5 | J5 | | 21.0 | | | 228 |
| 229 | LEARNING STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM12 | HM | H5 | J5 | | 21.0 | | | 229 |
| 230 | TEACHER COLLABORATION | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM11 | HM | H5 | J5 | | 21.0 | | | 230 |
| 230A | TOILET | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | | 25.0 | | | 230A |
| 230B | WELLNESS | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | | 24.0 | | | 230B |
| 231 | IDF | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | | 16.0 | | | 231 |
| 232 | LEARNING STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM21 | HM | H5 | J5 | | 21.0 | | | 232 |
| 233 | PROJECT STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM12 | HM | H5 | J5 | | 21.0 | | | 233 |
| 234 | ELECTRICAL | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | 45 MIN | 16.0 | | | 234 |
| 235.1 | PROJECT STUDIO | | 3' - 0" | 7' - 0" | G | WD | GL-3 | HM12 | HM | H1 | J1 | | 21.0 | | | 235.1 |
| 235.2 | PROJECT STUDIO | | 3' - 0" | 7' - 0" | FG2 | ALUM | GL-1 | AS08 | ALUM | | | | 7.0 | | | 235.2 |
| 235A | STORAGE | | 3' - 0" | 7' - 0" | F | WD | | HM01 | HM | H1 | J1 | | 16.0 | | | 235A |
| 236 | TOILET | | 3' - 0" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | | 25.0 | | | 236 |
| 237 | TOILET | | 3' - 0" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | | 25.0 | | | 237 |
| 238 | CUSTODIAL | | 3' - 0" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | | 16.0 | | | 238 |
| 239.1 | GROUP ROOM | | 3' - 0" | 7' - 0" | G | WD | GL-3 | IS08 | ALUM | | | | 21.0 | | | 239.1 |
| 239.2 | GROUP ROOM | | 3' - 0" | 7' - 0" | G | WD | GL-3 | IS08 | ALUM | | | | 21.0 | | | 239.2 |
| 240 | TOILET | | 3' - 0" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | | 25.0 | | | 240 |
| 241 | TOILET | | 3' - 0" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | | 25.0 | | | 241 |
| 242.1 | GROUP ROOM | | 3' - 0" | 7' - 0" | G | WD | GL-3 | IS08 | ALUM | | | | 21.0 | | | 242.1 |
| 242.2 | CORRIDOR | | 3' - 0" | 7' - 0" | G | WD | GL-3 | IS08 | ALUM | | | | 21.0 | | | 242.2 |
| S001.3 | STAIR 1 | | 3' - 0" | 7' - 0" | F | WD | | HM02 | HM | H1 | J1 | 45 MIN | 14.0 | | | S001.3 |
| S002.3 | STAIR 2 | | 3' - 0" | 7' - 0" | F | WD | | HM02 | HM | H1 | J1 | 45 MIN | 14.0 | | | S002.3 |

## DOOR SCHEDULE

| MARK | LOCATION | PAIR | DOOR WIDTH | DOOR HEIGHT | DOOR TYPE | DOOR MATL | DOOR GLASS | FRAME TYPE | FRAME MATL | FRAME HEAD | FRAME JAMB | OTHER LABEL | OTHER HDW | OTHER UC | REMARKS | MARK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LEVEL BASEMENT | | | | | | | | | | | | | | | | |
| 001.1 | MECHANICAL | | 3' - 0" | 7' - 0" | F | HM | | HM02 | HM | H4 | J4 | | 10.0 | | | 001.1 |
| 001.2 | MECHANICAL | | | | | | | | | | | | 30.0 | | OH-1 OVERHEAD EXTERIOR COILING DOOR | 001.2 |
| 002.1 | VESTIBULE | | 4' - 0" | 7' - 0" | F | HM | | HM02 | HM | H4 | J4 | | 10.0 | | | 002.1 |
| 002.2 | VESTIBULE | | 4' - 0" | 7' - 0" | F | HM | | HM02 | HM | H2 | J2 | 45 MIN | 20.0 | | | 002.2 |
| 003 | TOILET | | 3' - 0" | 7' - 0" | F | WD | | HM02 | HM | H2 | J2 | | 25.0 | | | 003 |
| 005 | STORAGE | | 3' - 0" | 7' - 0" | F | HM | | HM01 | HM | H1 | J1 | | 20.0 | | | 005 |
| G003 | | PR | 11' - 6" | 7' - 6" | GATE | ALUM | | | | | | | 29.0 | | MECHANICAL ENCLOSURE GATE | G003 |
| G004 | | PR | 11' - 6" | 7' - 8" | GATE | ALUM | | | | | | | 29.0 | | MECHANICAL ENCLOSURE GATE | G004 |
| S001a | STAIR 1 | | 3' - 0" | 7' - 0" | F | HM | | HM01 | HM | H6 | J6 | 45 MIN | 13.0 | | | S001a |
| ROOF 3 T.O.S | | | | | | | | | | | | | | | | |
| R001 | | | 3' - 10" | 7' - 0" | F | ALUM | | | STL | | | | 19.0 | | ROOF MECH ENCLOSURE GATE, REF A212 | R001 |
| Grand total: 150 | | | | | | | | | | | | | | | | |

## DOOR ELEVATIONS




## GLAZING SCHEDULE

1. REF SPEC SECTION 088000 FOR GLAZING PRODUCTS.

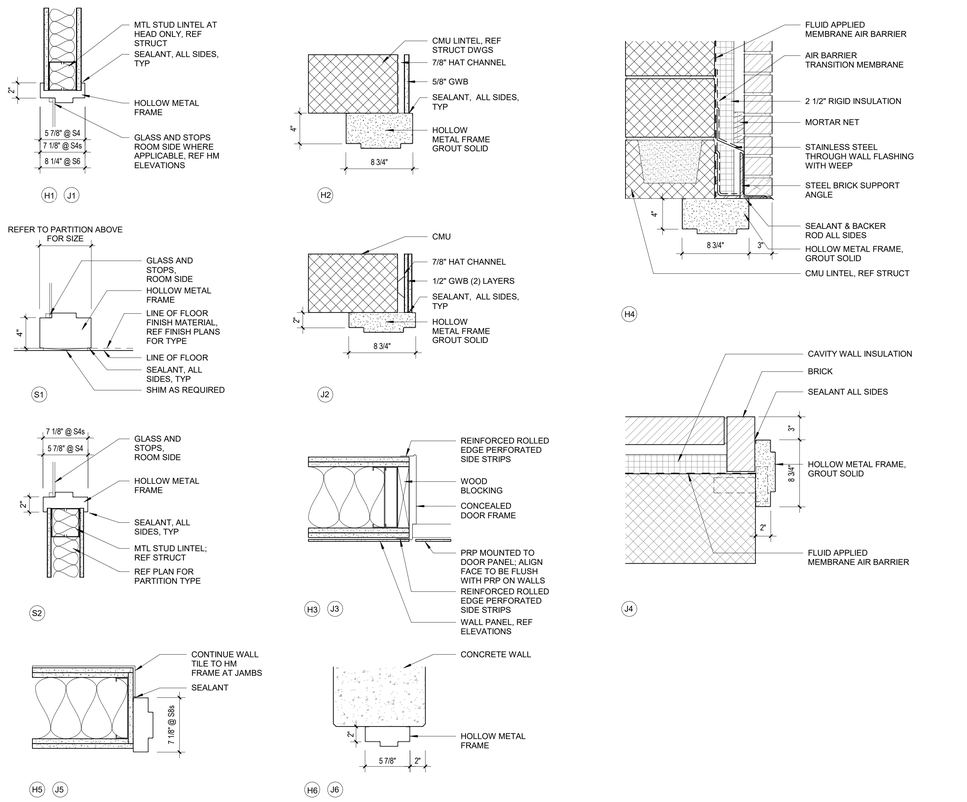
| MARK | DESCRIPTION |
|---|---|
| GL-1 | EXTERIOR 1" IGU, LOW-E, CLEAR, LOW IRON |
| GL-1a | EXTERIOR 1" IGU W/ APPLIED FRIT PATTERN |
| GL-1b | EXTERIOR 1" IGU, 3/8" OUTER GLASS |
| GL-1c | EXTERIOR 1" IGU W/APPLIED FRIT PATTERN AND 3/8" OUTER GLASS |
| GL-2 | EXTERIOR 1" IGU, LOW-E, SPANDREL, LOW IRON |
| GL-3 | INTERIOR 1/4" TEMPERED, CLEAR |
| GL-4 | INTERIOR LAMINATED - ACOUSTIC, CLEAR |
| GL-5 | INTERIOR LAMINATED - SECURITY, CLEAR |
| GL-6 | FIRE RATED GLAZING |
| GL-7 | INTERIOR 1" IGU W/ INTERIOR LAMINATED - ACOUSTIC |
| GL-8 | EXTERIOR 1" IGU W/ INTERIOR LAMINATED - SECURITY |
| GL-8a | EXTERIOR 1" IGU W/ INTERIOR LAMINATED - SECURITY W/APPLIED FRIT PATTERN |
| GL-8b | EXTERIOR 1" IGU W/INTERIOR LAMINATED-SECURITY, W/APPLIED FRIT PATTERN AND 3/8" OUTER GLASS |

NOTE: REF SPEC SECTION 088000 FOR GLASS FILM PRODUCTS

### GLASS FILM LEGEND

- GLASS FILM STYLE 1 (GF-1)
- GLASS FILM STYLE 2 (GF-2)
- GLASS FILM STYLE 3 (GF-3)

## FRAME DETAILS





QUINN EVANS

1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

QUINNEVANS.COM


COMMONWEALTH OF VIRGINIA
CHARLES W. TILLEY
LIC. No. 010767
10/08/2024
ARCHITECT

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS

DRAWN BY: EW

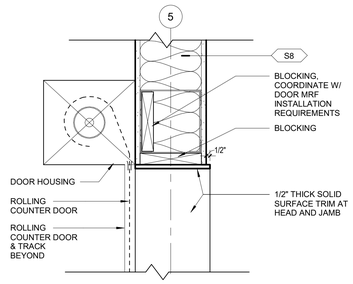
QEA No.41911390

BID DOCUMENTS
10/8/2024

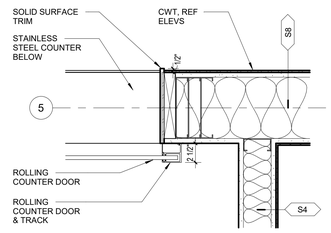
DOOR SCHEDULE & DETAILS

# A601

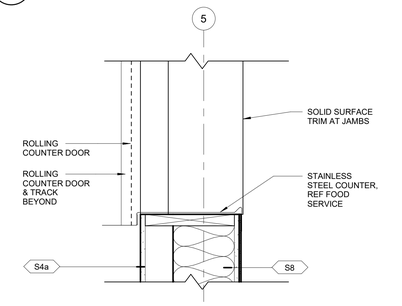
PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:48:46 PM



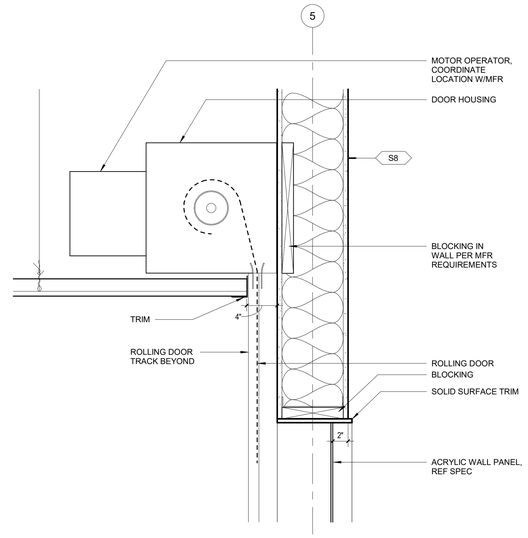

K1 A602 HEAD DETAIL - COUNTER DOOR
1 1/2" = 1'-0"



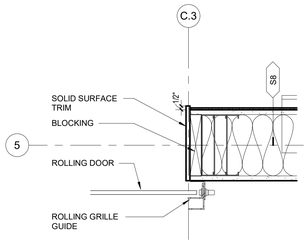

H1 A602 JAMB DETAIL - COUNTER DOOR
1 1/2" = 1'-0"



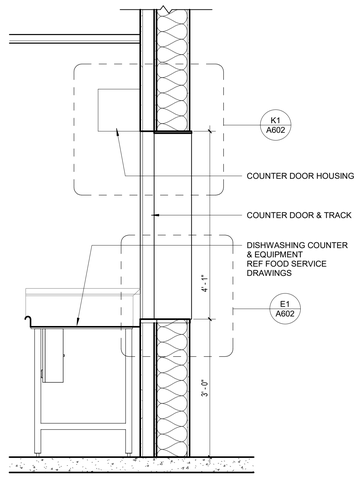

E1 A602 SILL DETAIL- COUNTER DOOR
1 1/2" = 1'-0"



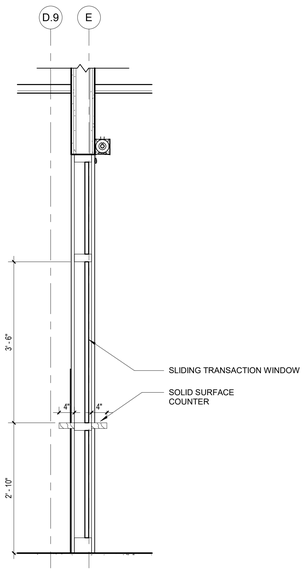

H4 A602 HEAD DETAIL - ROLLING SERVICE DOOR
1 1/2" = 1'-0" REFERRED FROM:A314



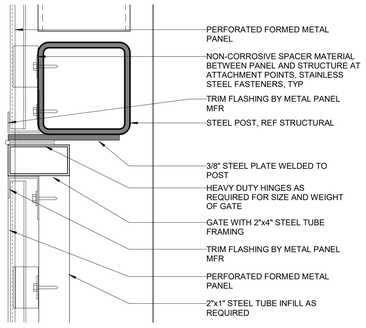

E4 A602 JAMB DETAIL - ROLLING SERVICE DOOR
1 1/2" = 1'-0"



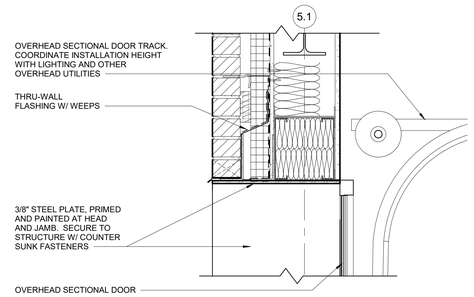

A1 A602 SECTION - DISH RETURN WINDOW
3/4" = 1'-0"



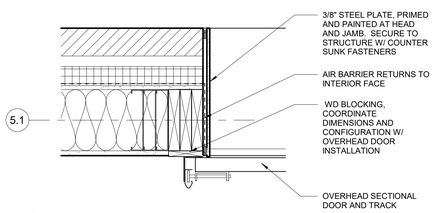

A3 A602 INT. SF SECTION AT CULINARY
3/4" = 1'-0"



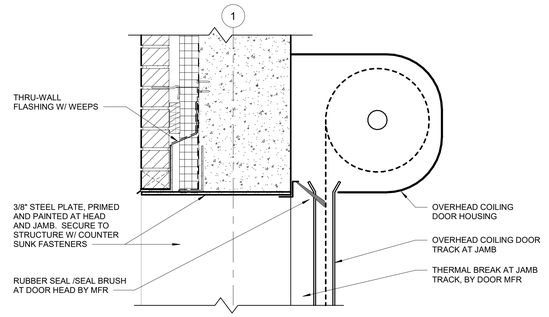

A6 A602 JAMB DETAIL - ROOF ENCLOSURE GATE
3" = 1'-0" REFERRED FROM:A104



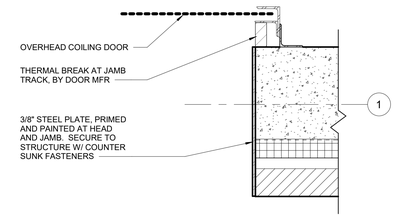

J8 A602 HEAD DETAIL - SECTIONAL DOOR
1 1/2" = 1'-0"




G8 A602 JAMB DETAIL - SECTIONAL DOOR
1 1/2" = 1'-0"




J11 A602 HEAD DETAIL - COILING DOOR
1 1/2" = 1'-0"




G11 A602 JAMB DETAIL - COILING DOOR
1 1/2" = 1'-0"

QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

COMMONWEALTH OF VIRGINIA
CHARLES W. TILLEY
LIC. No. 010767
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Albemarle County Public Schools

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| No | Date | Description |
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PROJECT MANAGER: KS
DRAWN BY: BG, AJ, KS

QEA No.41911390

BID DOCUMENTS
10/8/2024

DOOR DETAILS

**A602**

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:48:52 PM

## ROOM SIGNAGE SCHEDULE - LEVEL 1 - AREA A

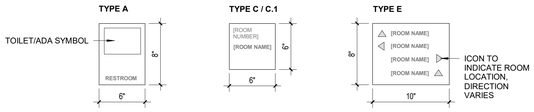
| ARCH NUMBER | ROOM NUMBER | NAME | SIGN MESSAGE | SIGNAGE TYPE | QUANTITY | NOTES |
|---|---|---|---|---|---|---|
| 102 | | RECEPTION | RECEPTION | D | 2 | |
| 103 | | OFFICE | | B | 1 | |
| 104 | | OFFICE | | B | 1 | |
| 105 | | OFFICE | | B | 1 | |
| 106 | | CONFERENCE ROOM | CONFERENCE ROOM | C | 2 | |
| 107A | | TOILET | RESTROOM | A | 1 | |
| 108 | | CLINIC | CLINIC | D | 1 | |
| 108A | | TOILET | RESTROOM | A | 1 | |
| 109 | | OFFICE | | B | 1 | |
| 110 | | COUNSELING | COUNSELING | D | 1 | |
| 110A | | STOR | STORAGE | C | 1 | |
| 111 | | FOCUS ROOM | FOCUS ROOM | D | 1 | |
| 112 | | OFFICE | | B | 1 | |
| 113 | | FOCUS ROOM | FOCUS ROOM | D | 1 | |
| 114 | | WELLNESS ROOM | WELLNESS ROOM | D | 1 | |
| 115B | | AV | AV | D | 1 | |

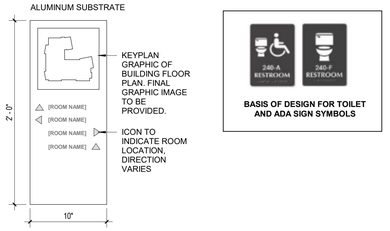
## ROOM SIGNAGE SCHEDULE - BASEMENT

| ARCH NUMBER | ROOM NUMBER | NAME | SIGN MESSAGE | SIGNAGE TYPE | QUANTITY | NOTES |
|---|---|---|---|---|---|---|
| 001 | | MECHANICAL | MECHANICAL | D | 1 | |
| 003 | | TOILET | RESTROOM | A | 1 | |
| 004 | | DATA CENTER | DATA CENTER | D | 2 | |
| 005 | | STORAGE | | B | 1 | |

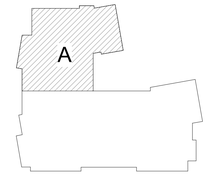
## INTERIOR SIGN NOTES AND TYPES

NOTES:
1. ALL SIGNAGE LOCATIONS SUBJECT TO FINAL APPROVAL BY OWNER.
2. REFER TO SIGNAGE SCHEDULE AND PLANS FOR SIGN LOCATIONS.
3. TEXT SHOWN IS REPRESENTATIONAL, FINAL TEXT TO BE APPROVED BY OWNER.
4. B.1, C.1, AND D.1 SIGN TYPES ARE PROVIDED AT LOCATIONS WHERE SIGN IS TO BE MOUNTED ON GLASS AND INCLUDES A BLANK PANEL OF SAME SIZE/SHAPE AS SIGN TO BE MOUNTED OPPOSITE SIDE OF GLASS
5. REFER TO SPECIFICATION SECTION 101423 - PANEL SIGNAGE FOR DESCRIPTION OF SIGN MATERIALS AND FABRICATION.
6. FINAL SIGN COLORS AND GRAPHIC IMAGES TO BE PROVIDED BY OWNER.
7. ALL SIGNS ARE ACRYLIC SUBSTRATE UNLESS INDICATED OTHERWISE.

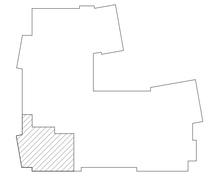


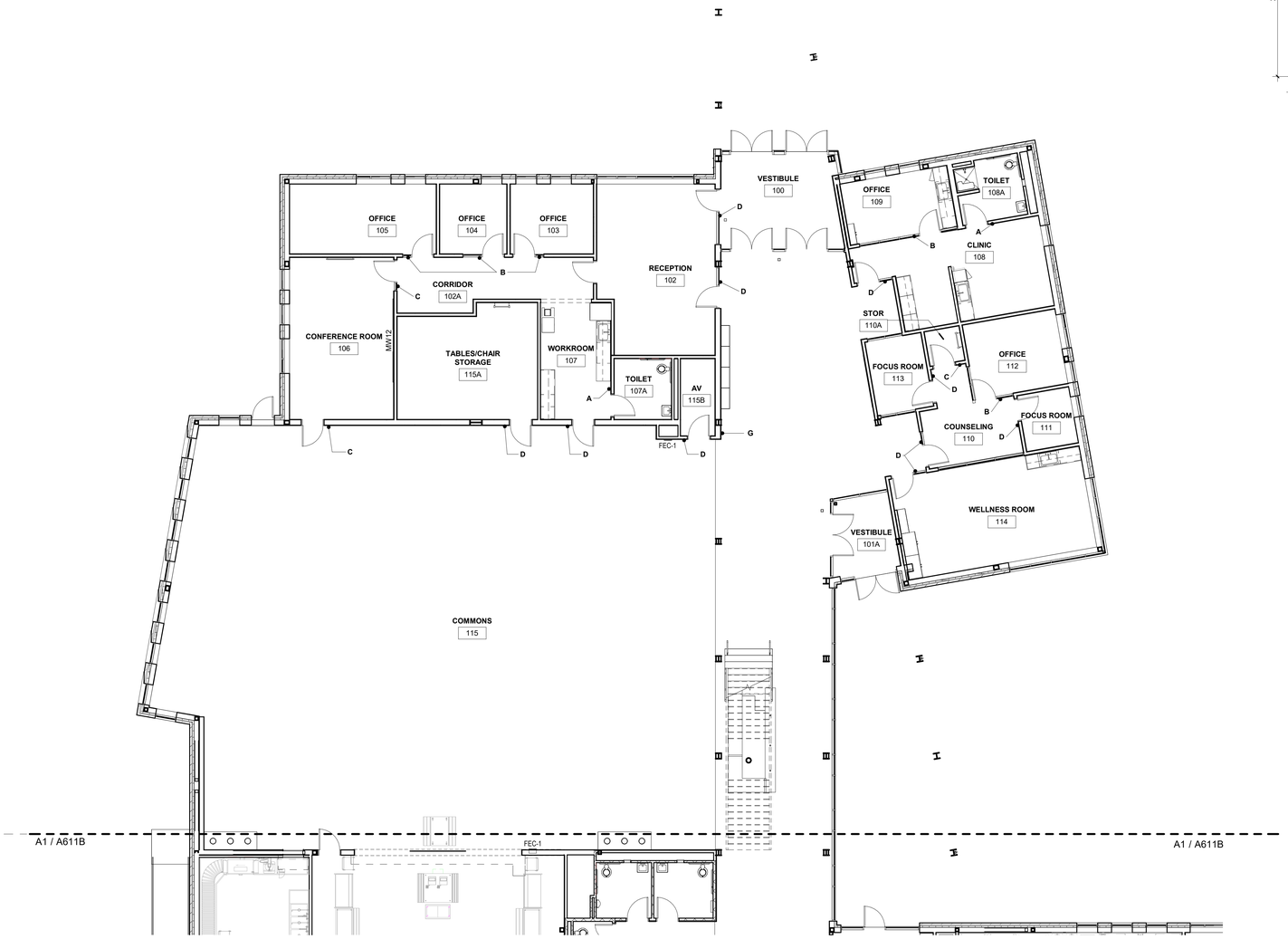



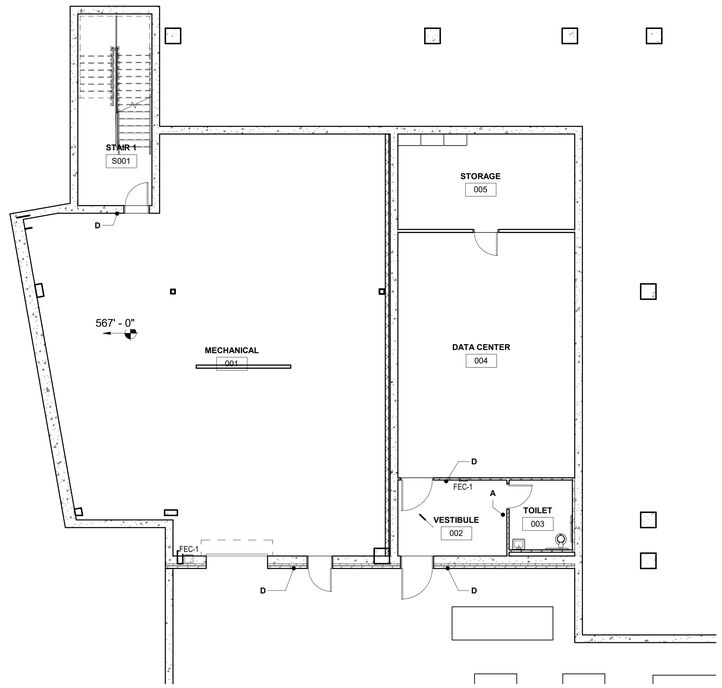

## KEY PLAN




## KEY PLAN






A1 / A611A — SIGNAGE PLAN - LEVEL 1 - AREA A
1/8" = 1'-0"

PLAN NORTH

A10 / A611A — SIGNAGE PLAN - BASEMENT
1/8" = 1'-0"

PLAN NORTH


QUINN EVANS
1840 WEST BROAD STREET
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RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM


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DRAWN BY: EW

QEA No.41911390

BID DOCUMENTS
10/8/2024

SIGNAGE PLAN - LEVEL 1 - AREA A & BASEMENT

**A611A**


PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:48:57 PM

| SIGNAGE - LEVEL 1 - AREA B | | | | | | |
|---|---|---|---|---|---|---|
| ARCH NUMBER | ROOM NUMBER | NAME | SIGN MESSAGE | SIGNAGE TYPE | QUAN TITY | NOTES |
| 116 | | SERVING | SERVING | F | 1 | |
| 117 | | KITCHEN | KITCHEN | C | 1 | |
| 117A | | OFFICE | | F | 1 | |
| 117B | | DRY STORAGE | DRY STORAGE | C | 1 | |
| 117C | | CUST | CUSTODIAL | F | 1 | |
| 117D | | LAUNDRY | LAUNDRY | F | 1 | |
| 117E | | TOILET | RESTROOM | A | 1 | |
| 118 | | CORRIDOR | | F | 1 | |
| 119 | | SINK AREA | RESTROOMS | A | 2 | |
| 119A | | TOILET | RESTROOM | A | 1 | |
| 119B | | TOILET | RESTROOM | A | 1 | |
| 119C | | TOILET | RESTROOM | A | 1 | |
| 119D | | TOILET | RESTROOM | A | 1 | |
| 119E | | TOILET | RESTROOM | A | 1 | |
| 119F | | TOILET | RESTROOM | A | 1 | |
| 119G | | TOILET | RESTROOM | A | 1 | |
| 119H | | TOILET | RESTROOM | A | 1 | |
| 121 | | CULINARY LAB | CULINARY LAB | C | 1 | |
| 122 | | LEARNING STUDIO | | B | 1 | |
| 123 | | PROJECT STUDIO | | B | 1 | |
| 123A | | FAB LAB | FAB LAB | D | 1 | |
| 124 | | ADVANCED MANUFACTURING LAB | | B | 1 | |
| 125 | | PROJECT STUDIO | | B | 1 | |
| 126 | | PREP ROOM | PREP ROOM | C | 2 | |
| 127 | | PROJECT STUDIO | | B | 1 | |
| 128 | | LEARNING STUDIO | | B | 1 | |

| SIGNAGE - LEVEL 1 - AREA B | | | | | | |
|---|---|---|---|---|---|---|
| ARCH NUMBER | ROOM NUMBER | NAME | SIGN MESSAGE | SIGNAGE TYPE | QUAN TITY | NOTES |
| 129 | | LEARNING STUDIO | | B | 1 | |
| 130 | | TEACHER COLLABORATION | TEACHER COLLABORATION | C | 1 | |
| 130A | | TOILET | RESTROOM | A | 1 | |
| 130B | | WELLNESS | WELLNESS ROOM | C | 1 | |
| 131 | | MDF | IDF | C | 1 | |
| 132 | | LEARNING STUDIO | | B | 1 | |
| 133 | | PROJECT STUDIO | | B | 1 | |
| 134 | | CUSTODIAL RECEIVING | CUSTODIAL | C | 2 | |
| 135 | | ELEC | ELECTRICAL | C | 1 | |
| 136 | | CUSTODIAL | CUSTODIAL | C | 1 | |
| 137 | | GROUP ROOM | GROUP ROOM | F | 2 | |
| 138 | | TOILET | RESTROOM | A | 1 | |
| 139 | | TOILET | RESTROOM | A | 1 | |
| 140 | | GROUP ROOM | GROUP ROOM | F | 2 | |
| E001 | | ELEVATOR | ELEVATOR | D | 2 | |
| S001 | | STAIR 1 | STAIR 1 | F | 3 | |
| S002 | | STAIR 2 | STAIR 2 | F | 2 | |

## INTERIOR SIGN NOTES AND TYPES

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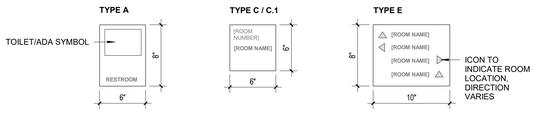
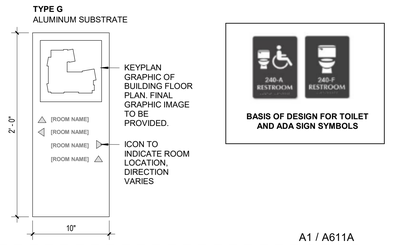
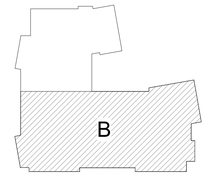
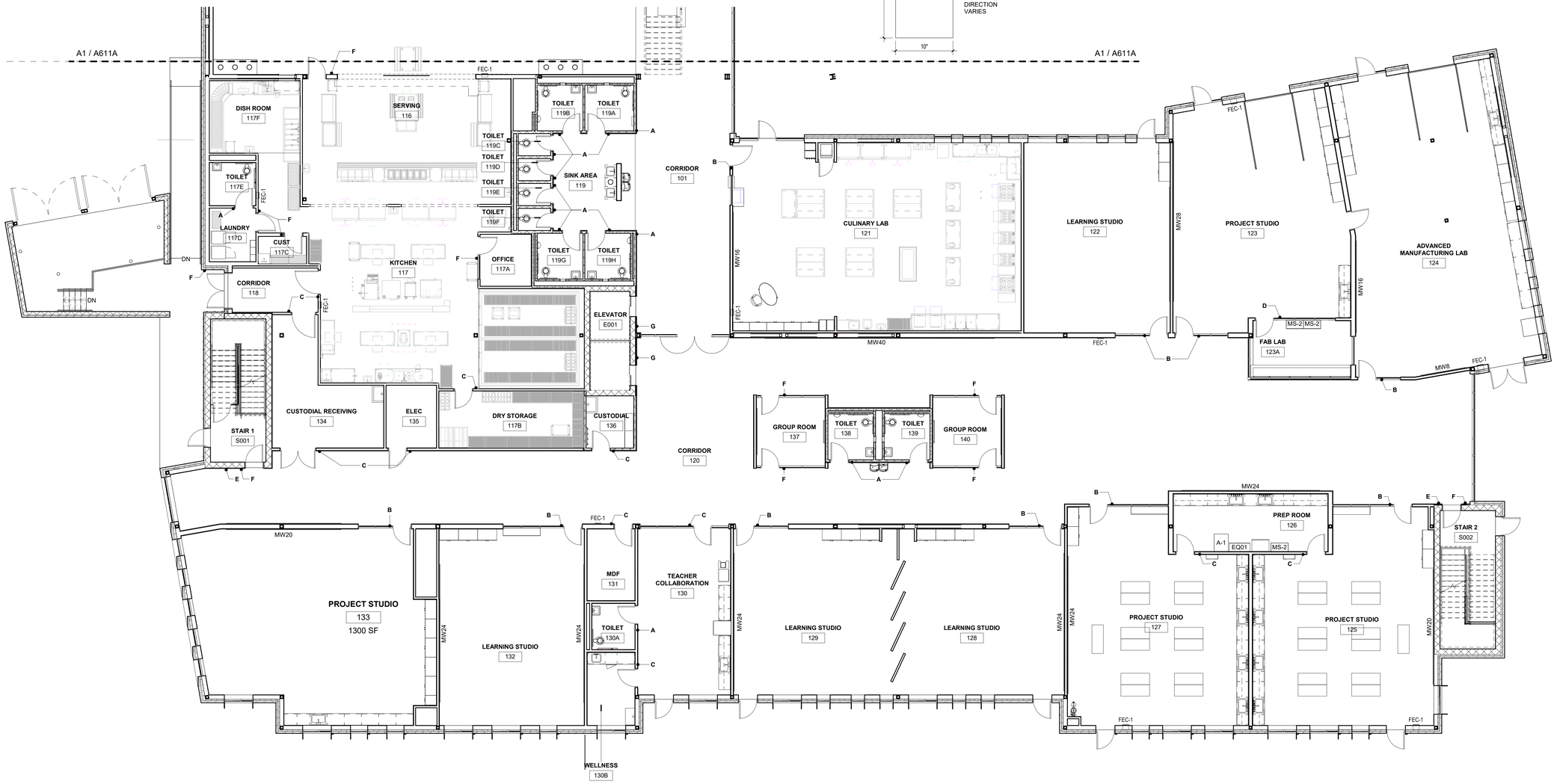



## KEY PLAN




A1 / A611B — SIGNAGE PLAN - LEVEL 1 - AREA B
1/8" = 1'-0"

PLAN NORTH

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:49:01 PM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PROJECT MANAGER: KS
DRAWN BY: EW

QEA No.41911390

BID DOCUMENTS
10/8/2024

SIGNAGE PLAN - LEVEL 1 - AREA B

**A611B**

| SIGNAGE - LEVEL 2 - AREA B | | | | | | |
|---|---|---|---|---|---|---|
| ARCH NUMBER | ROOM NUMBER | NAME | SIGN MESSAGE | SIGNAGE TYPE | QUANTITY | NOTES |
| 211 | | CAREER CENTER | CAREER CENTER | C | 1 | |
| 212 | | FOCUS ROOM | | B | 1 | |
| 213 | | OFFICE | | B | 1 | |
| 214 | | CONFERENCE ROOM | CONFERENCE ROOM | C | 1 | |
| 215 | | FOCUS ROOM | | B | 1 | |
| 216 | | OFFICE | | B | 1 | |
| 217 | | TOILET | RESTROOM | A | 1 | |
| 218 | | TOILET | RESTROOM | A | 1 | |
| 219 | | SEMINAR ROOM | | B | 1 | |
| 221 | | LEARNING STUDIO | | B | 1 | |
| 221A | | FABRICATION LAB | FAB LAB | D | 2 | |
| 222 | | LEARNING STUDIO | | B | 1 | |
| 223 | | LEARNING STUDIO | | B | 1 | |
| 224 | | PROJECT STUDIO | | B | 1 | |
| 225 | | PROJECT STUDIO | | B | 1 | |
| 226 | | PREP ROOM | PREP ROOM | C | 1 | |
| 227 | | PROJECT STUDIO | | B | 1 | |
| 228 | | LEARNING STUDIO | | B | 1 | |
| 229 | | LEARNING STUDIO | | B | 1 | |
| 230 | | TEACHER COLLABORATION | TEACHER COLLABORATION | C | 1 | |

| SIGNAGE - LEVEL 2 - AREA B | | | | | | |
|---|---|---|---|---|---|---|
| ARCH NUMBER | ROOM NUMBER | NAME | SIGN MESSAGE | SIGNAGE TYPE | QUANTITY | NOTES |
| 230A | | TOILET | RESTROOM | A | 1 | |
| 230B | | WELLNESS | WELLNESS ROOM | C | 1 | |
| 231 | | IDF | IDF | C | 1 | |
| 232 | | LEARNING STUDIO | | B | 1 | |
| 233 | | PROJECT STUDIO | | B | 1 | |
| 234 | | ELECTRICAL | ELECTRICAL | C | 1 | |
| 235 | | PROJECT STUDIO | | B | 1 | |
| 235A | | STORAGE | STORAGE | C | 1 | |
| 236 | | TOILET | RESTROOM | A | 1 | |
| 237 | | TOILET | RESTROOM | A | 1 | |
| 238 | | CUSTODIAL | CUSTODIAL | F | 1 | |
| 239 | | GROUP ROOM | GROUP ROOM | C | 2 | |
| 240 | | TOILET | RESTROOM | A | 1 | |
| 241 | | TOILET | RESTROOM | A | 1 | |
| 242 | | GROUP ROOM | GROUP ROOM | C | 2 | |

## INTERIOR SIGN NOTES AND TYPES

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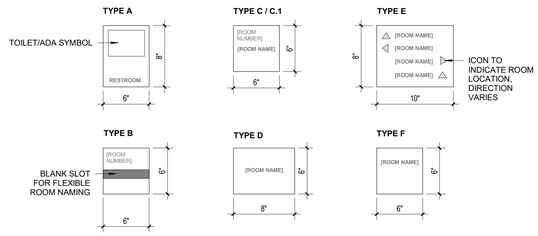
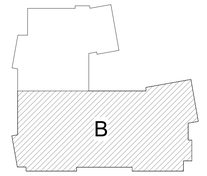



## KEY PLAN



1 A612 SIGNAGE PLAN - LEVEL 2 - AREA B
1/8" = 1'-0"

PLAN NORTH


QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
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CHARLES W. TILLEY
LIC. No. 010767
10/08/2024
ARCHITECT

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: KS
DRAWN BY: EW

QEA No.41911390

BID DOCUMENTS
10/8/2024

SIGNAGE PLAN - LEVEL 2

**A612**

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/ARCH_HSCII_R23.rvt
PLOTTING DATE & TIME: 10/2/2024 2:49:06 PM

# EXTERIOR SIGN NOTES AND TYPES

**NOTES:**
1. REFER TO LANDSCAPE PLANS FOR LOCATIONS OF EXTERIOR SIGN TYPES
2. FINAL SIGN TEXT AND COLORS WILL BE PROVIDED BY OWNER
3. CONTRACTOR SHALL PROVIDE COMPLETE TURNKEY SIGN DESIGN, FABRICATION AND INSTALLATION IN ACCORDANCE WITH SECTION 101423 PANEL SIGNAGE
4. EXACT PLACEMENT OF EACH SIGN SHALL BE COORDINATED ON SITE WITH OWNER AND ARCHITECT.

**FABRICATION NOTES:**

A. MAIN FRAME
   1. 3" SQUARE ALUMINUM TUBE FRAME WELDED SMOOTH AT CORNERS WITH NO SHARP EDGES
   2. PAINTED WITH EXTERIOR GRADE PAINT TO MATCH ARCHITECT'S SAMPLE

B. SUB FRAME
   1. 2" SQUARE ALUMINUM TUBE FRAME SECURED TO MAIN FRAME
   2. PAINTED TO MATCH ARCHITECT'S SAMPLE

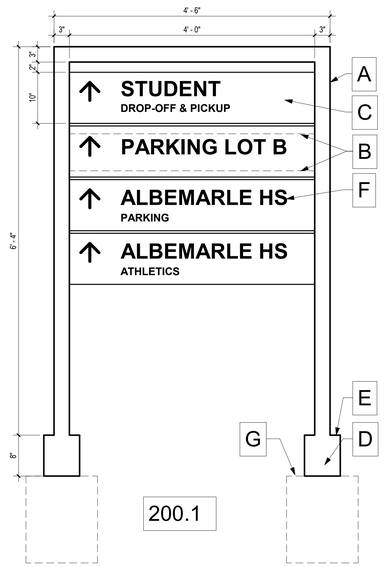
C. SIGN PANEL(S)
   1. 0.80" ALUMINUM PANEL ROUTED TO OVERAL SIGN SHAPE WITH NO SHARP EDGES.
   2. EACH PANEL SHALL BE PAINTED DIFFERENT COLOR, MATCH ARCHITECT'S SAMPLES.
   3. SIGN PANELS SHALL BE SECURED TO SUB FRAME WITH CONCEALED MECHANICAL FASTENERS AND BE REMOVABLE FOR FUTURE REPLACEMENT

D. MOUNTING BASE
   1. BREAKAWAY HARWARE FASTENED TO BASED ON MAIN FRAME
   2. HARDWARE INTEGRATED INTO CONCRETE FOOTER
   3. HARDWARE CONCEALED BY BASE TRIM COVER

E. BASE TRIM COVER
   1. SQUARE DECORATIVE BASE TRIM COVER
   2. PAINTED TO MATCH ARCHITECT'S SAMPLE

F. VINYL LETTERING AND GRAPHICS
   a. PLOT CUT LETTERS AND GRAPHICS APPLIED TO SIGN PANEL.
   b. COLORS AND FINAL TEXT MESSAGE TO BE PROVIDED BY OWNER

G. FOOTING
   a. PROVIDE CONCRETE FOOTER EXTENDING MINIMUM 24" BELOW GRADE AND OF DIAMETER THAT PROVIDES MINIMUM 3" COVER ON ALL SIDES OF FASTENERS

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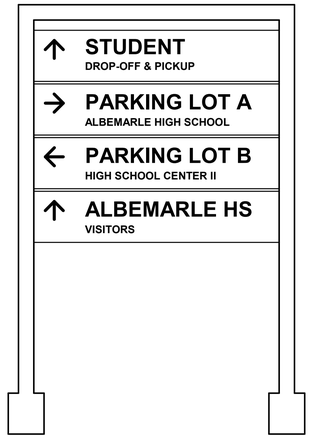


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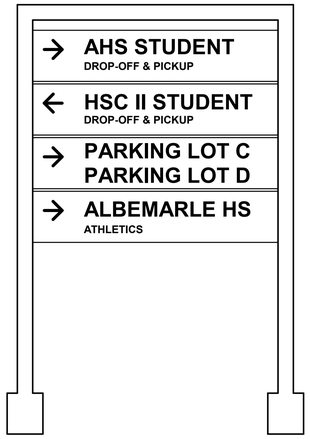


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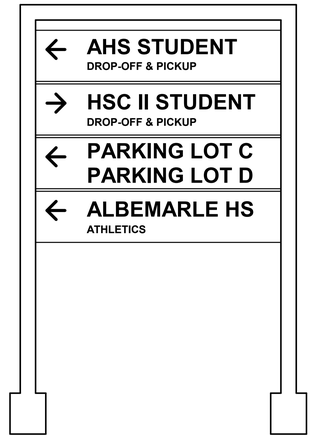


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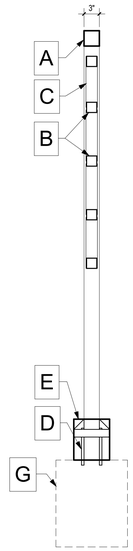
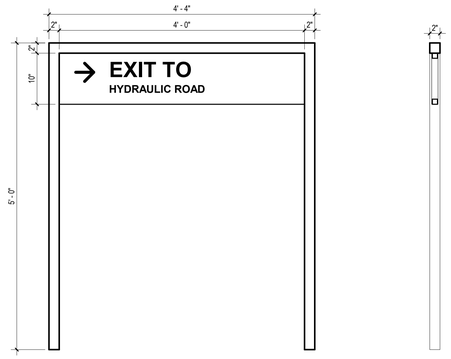
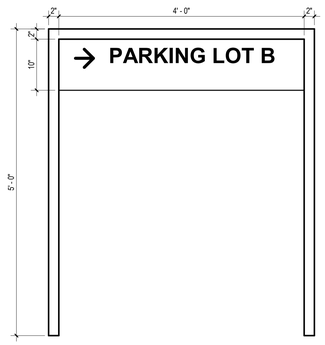



220 TERTIARY DIRECTIONAL

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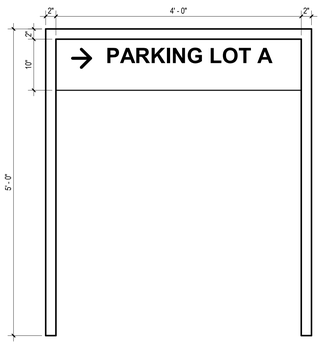


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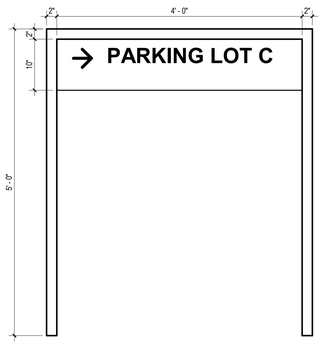


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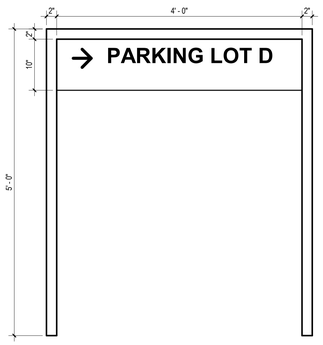


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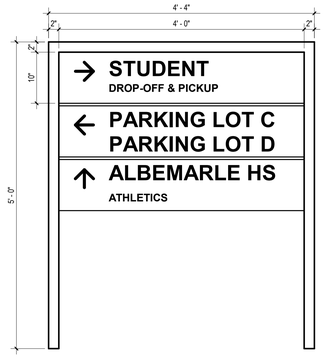
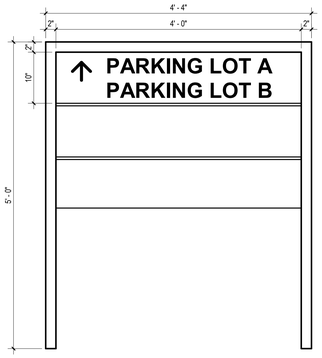
PRIMARY IDENTIFICATION




210.1 SIDE A




210.1 SIDE B




QUINN EVANS

1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

QUINNEVANS.COM


COMMONWEALTH OF VIRGINIA
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EXTERIOR SIGNAGE

**A613**

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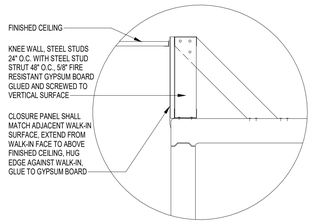
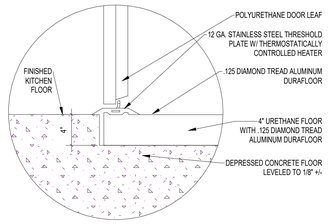
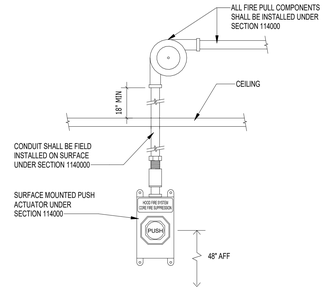


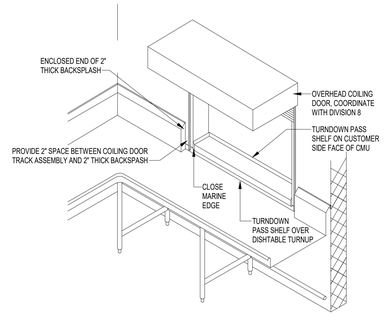

1 QF101 **WALK-IN CEILING CLOSURE DETAIL**
NOT TO SCALE



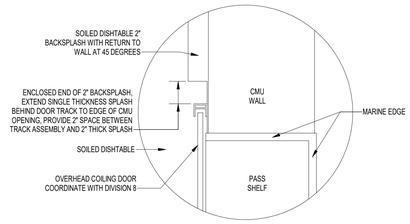

2 QF101 **WALK-IN SECTION DETAIL**
NOT TO SCALE




3 QF101 **REMOTE FIRE SUPPRESSION ACTUATION DEVICE DETAIL**
NOT TO SCALE




4 QF101 **PASS-THRU WINDOW ISOMETRIC DETAIL**
NOT TO SCALE




5 QF101 **PASS-THRU WINDOW PLAN DETAIL**
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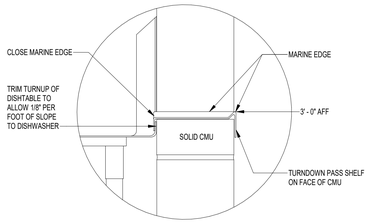


6 QF101 **PASS-THRU WINDOW SECTION DETAIL**
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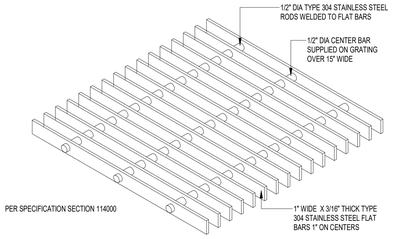
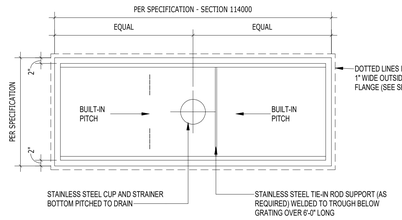
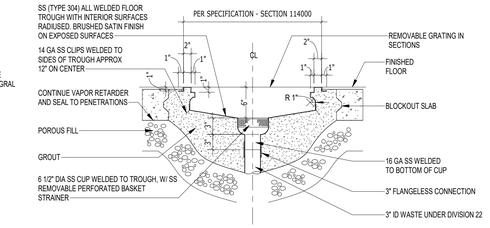



7 QF201 **FLOOR TROUGH GRATING DETAIL**
NOT TO SCALE

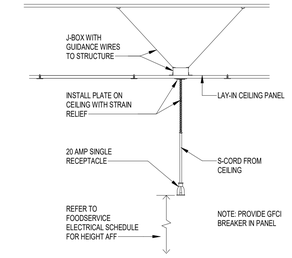
| ABBREVIATIONS | | | |
|---|---|---|---|
| ADJ | ADJUSTABLE | LKR | LOCKER |
| AFF | ABOVE FINISHED FLOOR | LT | LIGHT |
| ALT | ALTERNATE | LVR | LOUVER |
| ALUM | ALUMINUM | MAX | MAXIMUM |
| AMP | AMPERE | MBTU | 1000 BTU/HOUR |
| BLDG | BUILDING | MECH | MECHANICAL |
| BTU | BRITISH THERMAL UNIT | MIN | MINIMUM |
| C&P | CORD AND PLUG | MISC | MISCELLANEOUS |
| CBT | CABINET | MTD | MOUNTED |
| CFM | CUBIC FEET PER MINUTE | MTL | METAL |
| CL | CENTER LINE | MUA | MAKE UP AIR |
| CLG | CEILING | MUL | MULLION |
| CMU | CONCRETE MASONRY UNIT | NA | NOT APPLICABLE |
| COL | COLUMN | NIC | NOT IN CONTRACT |
| CONN | CONNECTION | NO. | NUMBER |
| CU FT | CUBIC FEET | NS | NO SCALE |
| CW | COLD WATER | OC | ON CENTER |
| DFA | DOWN FROM ABOVE | OD | OUTSIDE DIAMETER |
| DIAM | DIAMETER | OFC | OFFICE |
| DIM. | DIMENSION | OH. | OVERHEAD |
| DISP | DISPENSER | OPNG | OPENING |
| DIV | DIVISION | OPP | OPPOSITE |
| DN | DOWN | OPP H | OPPOSITE HAND |
| DTL | DETAIL | PERF | PERFORATE(D) |
| DWG | DRAWING | PH | PHASE |
| DWR | DRAWER | PLAM | PLASTIC LAMINATE |
| EA | EACH | PLUMB. | PLUMBING |
| EL | ELEVATION | PLYWD | PLYWOOD |
| ELEC | ELECTRICAL | PNL | PANEL |
| EQ | EQUAL | PREP | PREPARATION |
| EQPMNT | EQUIPMENT | PSI | POUNDS PER SQUARE INCH |
| ETR | EXISTING TO REMAIN | QT | QUANTITY |
| EX | EXISTING | RAD | RADIUS |
| EXH | EXHAUST | RCP | REFLECTED CEILING PLAN |
| FD | FLOOR DRAIN | REFG | REFRIGERATION |
| FEC | FIRE EXTINGUISHER CABINET | REQD | REQUIRED |
| FF | FINISHED FLOOR | RET | RETURN |
| FIN. | FINISH(ED) | RI | ROUGH-IN |
| FLR | FLOOR | RM | ROOM |
| FLSHG | FLASHING | RO | ROUGH OPENING |
| FLUR | FLUORESCENT | SAN | SANITARY |
| FRZ | FREEZER | SCH | SCHEDULE |
| FURN | FURNITURE | SHLVG | SHELVING |
| G | GAS | SHT | SHEET |
| GA | GAUGE | SP | STATIC PRESSURE |
| GAL | GALLON | SPEC | SPECIFICATION |
| GALV | GALVANIZED | SQ | SQUARE |
| GC | GENERAL CONTRACTOR | SS | STAINLESS STEEL |
| GPM | GALLONS PER MINUTE | STD | STANDARD |
| HGT | HEIGHT | STL | STEEL |
| HP | HORSE POWER | STOR | STORAGE |
| HVAC | HEATING, VENTILATING, AIR CONDITIONING | SUP | SUPPLY |
| HW | HOT WATER | TEL | TELEPHONE |
| ID | INSIDE DIAMETER | TV | TELEVISION |
| IN. | INCH | TYP | TYPICAL |
| INCL | INCLUDE | UDS | UTILITY DISTRIBUTION SYSTEM |
| INST | INSTALL(ATION) | UNFIN | UNFINISHED |
| INSUL | INSULATE(ION) | UNK | UNKNOWN |
| INT | INTERIOR | VAC | VACUUM |
| JAN | JANITOR | VENT. | VENTILATION |
| JB | JUNCTION BOX | VERT | VERTICAL |
| JC | JANITOR'S CLOSET | W/ | WITH |
| KTN | KITCHEN | W/O | WITHOUT |
| KW | KILOWATT HOUR | WH | WATER HEATER |
| LAM | LAMINATE | WL | WALL |
| LBS | POUNDS | WT | WEIGHT |




8 QF201 **FLOOR TROUGH PLAN DETAIL**
NOT TO SCALE




9 QF201 **FLOOR TROUGH SECTION DETAIL**
NOT TO SCALE




10 QF204 **S-CORD FROM CEILING DETAIL**
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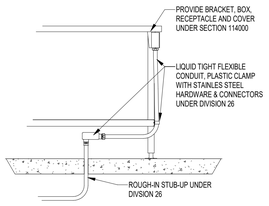
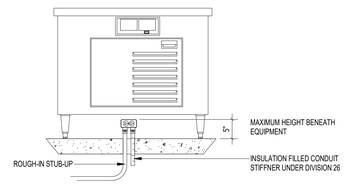



11 QF203 **TABLE MOUNTED RECEPTACLE DETAIL**
NOT TO SCALE




12 QF203 **WEATHER TIGHT RECEPTACLE BENEATH EQUIPMENT DETAIL**
NOT TO SCALE

KEY PLAN:

QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

Albemarle County Public Schools

**ACPS High School Center II**

IFB No. 2025-IFB-1007262
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PROJECT MANAGER: AEH
DRAWN: MDM

QEA No.41911390

BID DOCUMENTS
10/08/2024

FOODSERVICE ABBREVIATIONS & DETAILS

**QF100**

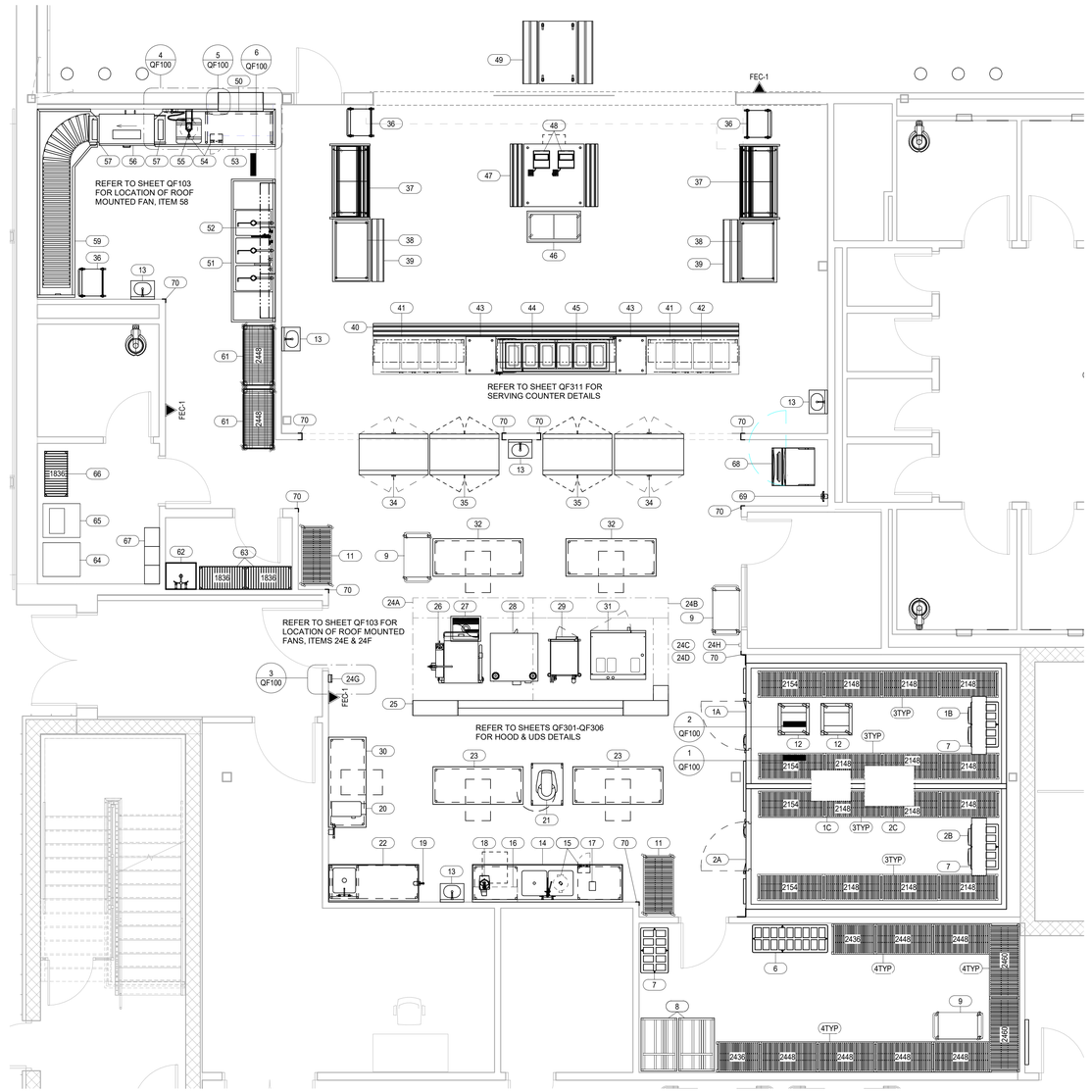
NOT FOR CONSTRUCTION

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/19097_Albemarle Co. HS Center II_Foodservice_v23.rvt
PLOTTING DATE & TIME: 10/1/2024 9:58:06 AM

| EQUIPMENT SCHEDULE | | |
|---|---|---|
| ITEM | QTY | DESCRIPTION |
| 1A | 1 | WALK-IN COOLER |
| 1B | 1 | WALK-IN COOLER UNIT COOLER |
| 1C | 1 | WALK-IN COOLER CONDENSING UNIT |
| 2A | 1 | WALK-IN FREEZER |
| 2B | 1 | WALK-IN FREEZER UNIT COOLER |
| 2C | 1 | WALK-IN FREEZER CONDENSING UNIT |
| 3 | 16 | WALK-IN SHELVING UNIT |
| 4 | 10 | DRY STORAGE SHELVING UNIT |
| 5 | - | SPARE NUMBER |
| 6 | 1 | DUNNAGE RACK |
| 7 | 3 | DUNNAGE RACK |
| 8 | 2 | FIRST-IN FIRST-OUT CAN RACK |
| 9 | 3 | UTILITY CART |
| 10 | - | SPARE NUMBER |
| 11 | 2 | PORTABLE PAN STORAGE UNIT |
| 12 | 2 | UNIVERSAL ANGLE PAN RACK |
| 13 | 5 | PEDESTAL HAND SINK WITH ELECTRONIC EYE |
| 14 | 1 | PREP TABLE WITH SINKS |
| 15 | 1 | DISPOSER WITH CONTROL PANEL |
| 16 | 1 | WALL SHELF |
| 17 | 1 | ELECTRIC CAN OPENER |
| 18 | 1 | FOOD PROCESSOR |
| 19 | 1 | MANUAL CAN OPENER |
| 20 | 1 | HOT WATER DISPENSER WITH FILTER |
| 21 | 1 | 20-QT MIXER ON STAND |
| 22 | 1 | WORKTABLE WITH SINK |
| 23 | 2 | WORKTABLE |
| 24A | 1 | EXHAUST HOOD WITH PSP |
| 24B | 1 | EXHAUST HOOD WITH PSP |
| 24C | 1 | FIRE SUPPRESSION SYSTEM |
| 24D | 1 | FAN CONTROL PANEL |
| 24E | 1 | EXHAUST FAN - ROOF MOUNTED |
| 24F | 1 | MAKE-UP AIR FAN - ROOF MOUNTED |
| 24G | 1 | REMOTE FIRE SUPPRESSION ACTUATION DEVICE |
| 24H | 1 | ROOM TEMPERATURE MONITOR |
| 25 | 1 | UTILITY DISTRIBUTION SYSTEM |
| 26 | 1 | 30-GAL TILT SKILLET |
| 27 | 1 | FLOOR TROUGH WITH ADA GRATING |
| 28 | 1 | DOUBLE CONVECTION OVEN |
| 29 | 1 | 3-PAN OVER 6-PAN STEAMER ON STAND |
| 30 | 1 | WORKTABLE |
| 31 | 1 | 6-PAN OVER 6-PAN COMBI OVEN ON STAND |
| 32 | 2 | WORKTABLE |
| 33 | - | SPARE NUMBER |
| 34 | 2 | 2-SECTION PASS-THRU HEATED CABINET |
| 35 | 2 | 2-SECTION PASS-THRU REFRIGERATOR |
| 36 | 3 | TRAY CART |
| 37 | 2 | REFRIGERATED AIR SCREEN MERCHANDISER |
| 38 | 2 | 2-TIER HEATED DISPLAY MERCHANDISER |
| 39 | 2 | SERVING COUNTER |
| 40 | 1 | SERVING COUNTER |
| 41 | 2 | 4-WELL HOT/COLD FOOD COUNTER |
| 42 | 2 | COUNTER PROTECTOR WITH HEAT & LIGHTS |
| 43 | 2 | PLAIN TOP COUNTER |
| 44 | 1 | COLD FOOD COUNTER |
| 45 | 1 | 2-TIER FOOD SHIELD WITH LIGHTS |
| 46 | 1 | ICE CREAM FREEZER |
| 47 | 1 | CASHIER COUNTER |
| 48 | - | POS SYSTEM - OWNER FURNISHED |
| 49 | 1 | PORTABLE CONDIMENT COUNTER |
| 50 | - | OVERHEAD COILING SHUTTER - REFER TO DIVISION 8 |
| 51 | 1 | POT SINK |
| 52 | 1 | POT RACK |
| 53 | 1 | SOILED DISHTABLE |
| 54 | 1 | DISPOSER WITH CONTROL PANEL |
| 55 | 1 | HOSE REEL |
| 56 | 1 | CONVEYOR WAREWASHER WITH BOOSTER HEATER |
| 57 | 2 | VENT DUCT EXTENSIONS |
| 58 | 1 | WAREWASHER EXHAUST FAN - ROOF MOUNTED |
| 59 | 1 | CLEAN DISHTABLE WITH RACK LIMIT SWITCH |
| 60 | - | SPARE NUMBER |
| 61 | 2 | PORTABLE DRYING RACK |
| 62 | - | FLOOR MOUNTED MOP SINK - REFER TO DIVISION 22 |
| 63 | 2 | NON-FOOD SHELVING UNIT |
| 64 | - | WASHER - REFER TO SECTION 113100 |
| 65 | - | DRYER - REFER TO SECTION 113100 |
| 66 | 1 | NON-FOOD STORAGE SHELVING UNIT |
| 67 | - | EMPLOYEE LOCKERS - REFER TO DIVISION 10 |
| 68 | 1 | ICE MAKER WITH BIN |
| 69 | 1 | ICE MAKER WATER FILTER |
| 70 | LOT | STAINLESS STEEL CORNER GUARD |
| NC1 | 1 | UNDERCOUNTER ICE-MAKER WITH WATER FILTER |

FOODSERVICE NURSE'S CLINIC EQUIPMENT PLAN

1/4" = 1'-0"




FOODSERVICE KITCHEN EQUIPMENT PLAN

1/4" = 1'-0"

SCALE: 1/4" = 1'-0" 0 2' 4' 8'


QUINN EVANS

1840 WEST BROAD STREET
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v 804.788.4774

QUINNEVANS.COM


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2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: AEH
DRAWN: MDM

QEA No.41911390

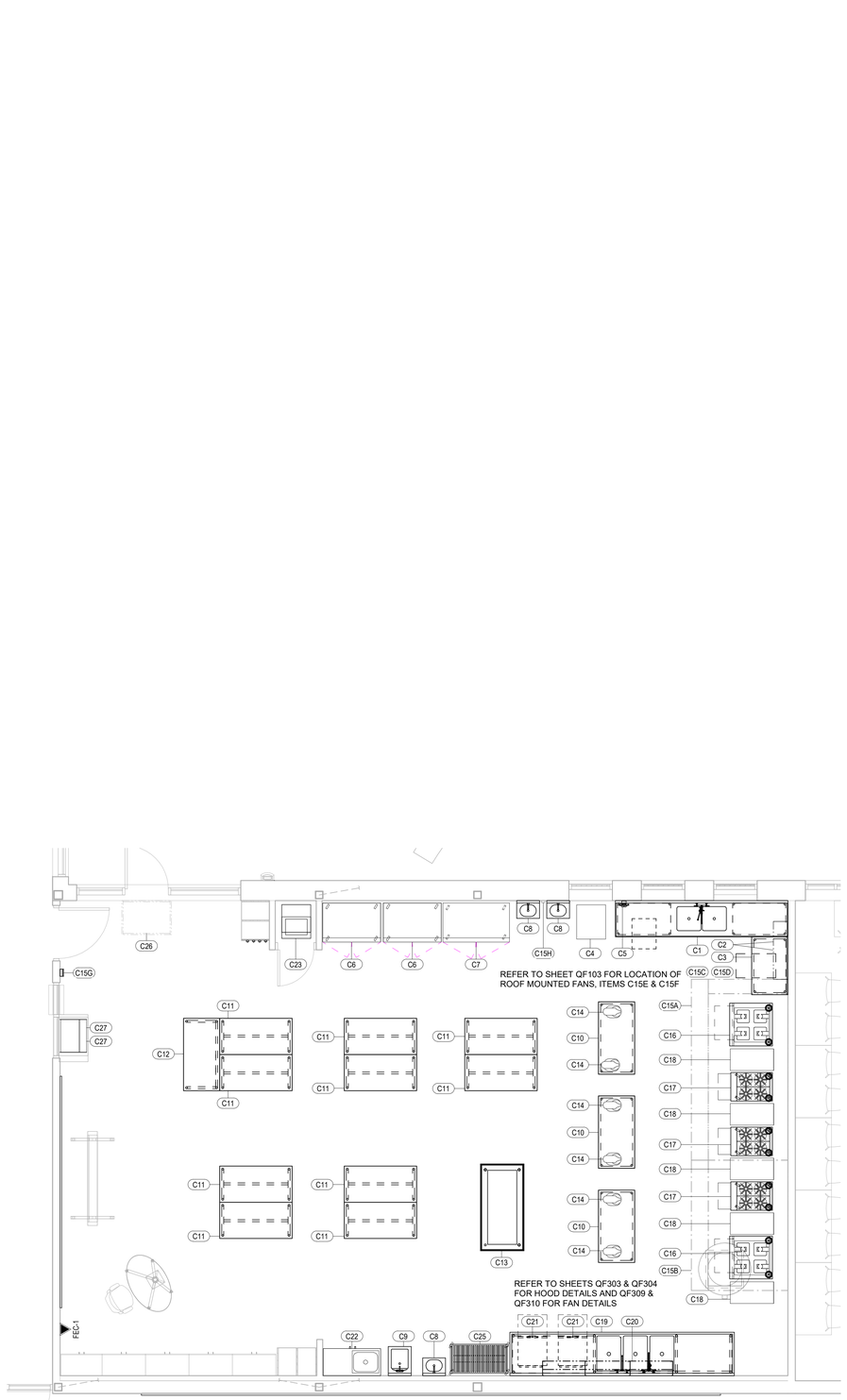
BID DOCUMENTS
10/08/2024

FOODSERVICE KITCHEN EQUIPMENT PLAN

# QF101

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/16987_Albemarle Co. HS Center II_Foodservice_v23.rvt
PLOTTING DATE & TIME: 10/1/2024 9:58:10 AM

| EQUIPMENT SCHEDULE | | |
|---|---|---|
| ITEM | QTY | DESCRIPTION |
| C1 | 1 | PREP TABLE WITH SINKS |
| C2 | 2 | WALL MOUNTED SHELF |
| C3 | 1 | WORTABLE |
| C4 | 1 | ICE MAKER WITH BIN |
| C5 | 1 | ICE MAKER WATER FILTER |
| C6 | 2 | 2-SECTION REACH-IN REFRIGERATOR |
| C7 | 1 | 2-SECTION REACH-IN FREEZER |
| C8 | 3 | PEDESTAL HAND SINK WITH ELECTRONIC EYE |
| C9 | 1 | ADA HAND SINK |
| C10 | 3 | WORKTABLE |
| C11 | 10 | WORKTABLE |
| C12 | 1 | ADA WORKTABLE |
| C13 | 1 | DEMO TABLE WITH OVERHEAD MIRROR |
| C14 | 6 | 5-QT MIXER |
| C15A | 1 | EXHAUST HOOD WITH PSP |
| C15B | 1 | EXHAUST HOOD WITH PSP |
| C15C | 1 | FIRE SUPPRESSION SYSTEM |
| C15D | 1 | FAN CONTROL PANEL |
| C15E | 1 | EXHAUST FAN - ROOF MOUNTED |
| C15F | 1 | MAKE-UP AIR FAN - ROOF MOUNTED |
| C15G | 1 | REMOTE FIRE SUPPRESSION ACTUATION DEVICE |
| C15H | 1 | ROOM TEMPERATURE MONITOR |
| C16 | 2 | 4-BURNER INDUCTION RANGE |
| C17 | 3 | 4-BURNER GAS RANGE |
| C18 | 5 | WORKTABLE |
| C19 | 1 | POT SINK |
| C20 | 1 | POT RACK |
| C21 | 2 | UNDERCOUNTER WAREWASHER |
| C22 | 1 | MOP CABINET |
| C23 | - | STACKED WASHER/DRYER - REFER TO SECTION 113100 |
| C24 | - | SPARE NUMBER |
| C25 | 1 | DRYING RACK |
| C26 | 1 | AIR SCREEN INSECT FAN |
| C27 | 2 | REFRIGERATED DISPLAY CASE |




## FOODSERVICE CULINARY ARTS LAB EQUIPMENT PLAN

1/4" = 1'-0"

SCALE: 1/4" = 1'-0"  0  2'  4'  8'


QUINN EVANS

1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

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Albemarle County Public Schools

**ACPS High School Center II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: AEH
DRAWN: MDM

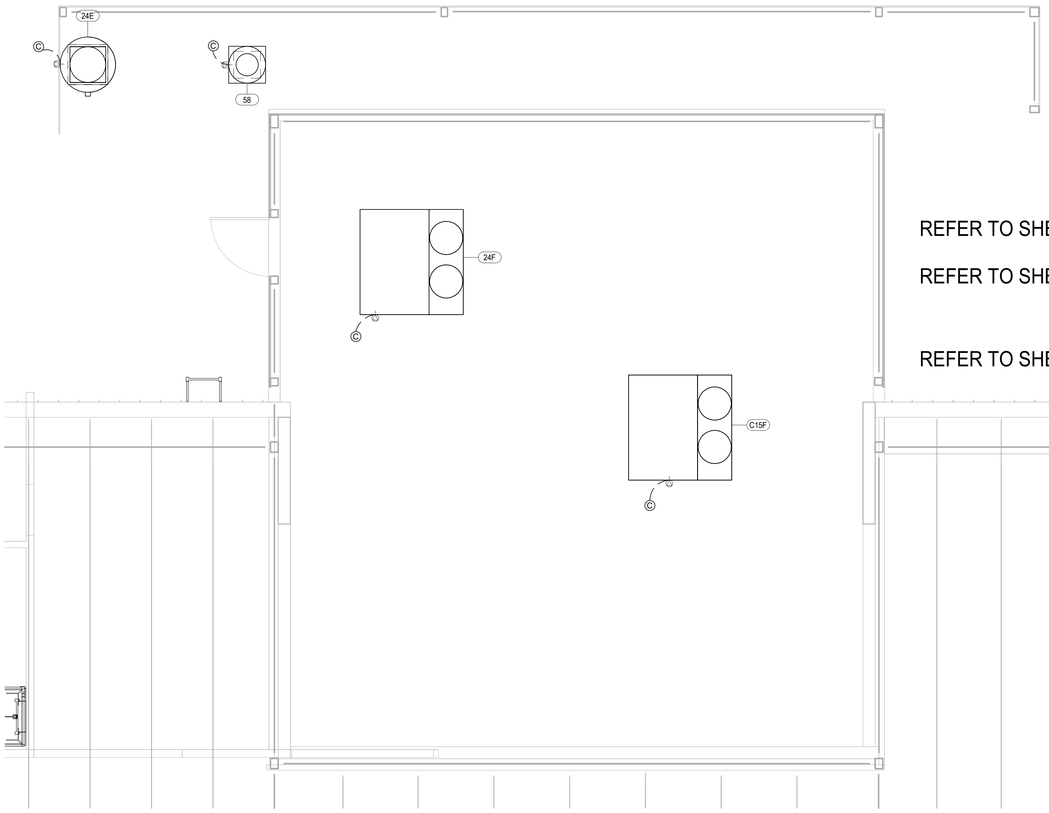
QEA No.41911390

BID DOCUMENTS
10/08/2024

FOODSERVICE CA LAB EQUIPMENT PLAN

**QF102**

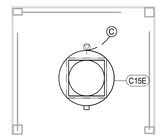
PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/10697_Albemarle Co. HS Center II_Foodservice_v23.rvt
PLOTTING DATE & TIME: 10/1/2024 9:58:13 AM




REFER TO SHEETS QF101 & QF102 FOR EQUIPMENT SCHEDULES

REFER TO SHEETS QF203 & QF204 FOR ELECTRICAL SCHEDULES

REFER TO SHEETS QF307-QF310 FOR FAN DETAILS




## FOODSERVICE ROOF EQUIPMENT & UTILITIES PLAN

1/4" = 1'-0"

SCALE: 1/4" = 1'-0" 0 2' 4' 8'

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/10697_Albemarle Co. HS Center II_Foodservice_v23.rvt
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**ACPS High School Center II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd.
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: AEH
DRAWN: MDM

QEA No.41911390

BID DOCUMENTS
10/08/2024

FOODSERVICE ROOF EQUIPMENT & UTILITIES PLAN

**QF103**

NOT FOR CONSTRUCTION

PLUMBING ROUGH-IN SCHEDULE

| ITEM | QTY | DESCRIPTION | SUPPLY | | SUGGESTED ROUTING | | | | WASTE | | | WATER CONDENSER | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | HW | CW | WL | FLR | DFA | HGT AFF | INDIRECT | DIRECT | HGT AFF | INLET | OUTLET | |
| 1B | 1 | WALK-IN COOLER UNIT COOLER | - | - | - | - | - | - | 3/4 | - | - | - | - | NOTE 9 |
| 1C | 1 | WALK-IN COOLER CONDENSING UNIT | - | - | - | - | - | - | - | - | - | 1/2 | 1/2 | NOTE 4, 12, CHILLED WATER LOOP, 11887 BTUH REJECTED |
| 2B | 1 | WALK-IN FREEZER UNIT COOLER | - | - | - | - | - | - | 3/4 | - | - | - | - | NOTE 9 |
| 2C | 1 | WALK-IN FREEZER CONDENSING UNIT | - | - | - | - | - | - | - | - | - | 1/2 | 1/2 | NOTE 4, 12, CHILLED WATER LOOP, 16170 BTUH REJECTED |
| 13 | 5 | PEDESTAL HAND SINK WITH ELECTRONIC EYE | 1/2 | 1/2 | X | - | - | 24 | - | 1-1/2 | 20 | - | - | NOTE 1 |
| 14 | 1 | PREP TABLE WITH SINKS | 1/2 | 1/2 | X | - | - | 12 | 2 | - | - | - | - | NOTE 1 |
| 15 | 1 | DISPOSER WITH CONTROL PANEL | - | 1/2 | X | - | - | 18 | - | 2 | 12 | - | - | NOTE 5 |
| 20 | 1 | HOT WATER DISPENSER WITH FILTER | - | 1/2 | X | - | - | 54 | 3/4 | - | - | - | - | NOTE 4, FINAL CONNECTION UNDER DIVISION 22 |
| 22 | 1 | WORKTABLE WITH SINK | 1/2 | 1/2 | X | - | - | 12 | 2 | - | - | - | - | NOTE 1 |
| 24F | 1 | MAKE-UP AIR FAN - ROOF MOUNTED | - | - | - | - | - | - | 1 | - | - | - | - | REFER TO QF308 FOR DETAILS |
| 25 | 1 | UTILITY DISTRIBUTION SYSTEM | 3/4 | 3/4 | - | - | X | 60 | - | - | - | - | - | NOTE 3, FINAL CONNECTIONS UNDER DIVISION 22 |
| 26 | 1 | 30-GAL TILT SKILLET | 1/2 | 1/2 | - | - | - | - | - | - | - | - | - | NOTE 3, SERVED BY ITEM 25 |
| 27 | 1 | FLOOR TROUGH WITH ADA GRATING | - | - | - | - | - | - | - | 4 | -9 | - | - | NOTE 2 |
| 29 | 1 | 3-PAN OVER 6-PAN STEAMER ON STAND | - | (2)3/4 | - | - | - | - | 1-1/4 | - | - | - | - | NOTE 3, 6, SERVED BY ITEM 25, UNFILTERED WATER TO CONDENSER |
| | | | - | (2)3/4 | - | - | - | - | - | - | - | - | - | NOTE 3, 6, SERVED BY ITEM 25, FILTERED WATER |
| 31 | 1 | 6-PAN OVER 6-PAN COMBI OVEN ON STAND | - | (2)3/4 | - | - | - | - | (2)2 | - | - | - | - | NOTE 3, 6, SERVED BY ITEM 25, UNFILTERED WATER TO CONDENSER |
| | | | - | (2)3/4 | - | - | - | - | - | - | - | - | - | NOTE 3, 6, SERVED BY ITEM 25, FILTERED WATER |
| 44 | 1 | COLD FOOD COUNTER | - | - | - | - | - | - | 1 | - | - | - | - | NOTE 6 |
| 51 | 1 | POT SINK | (2)3/4 | (2)3/4 | X | - | - | 12 | (3)2 | - | - | - | - | NOTE 1 |
| 54 | 1 | DISPOSER WITH CONTROL PANEL | - | 1/2 | X | - | - | 18 | - | 3 | 12 | - | - | NOTE 5 |
| 55 | 1 | HOSE REEL | 1/2 | 1/2 | X | - | - | 20 | - | - | - | - | - | NOTE 10 |
| 56 | 1 | CONVEYOR WAREWASHER WITH BOOSTER HEATER | (2)1/2 | - | X | - | - | 64 | 2 | - | - | - | - | NOTE 6, 11, FINAL CONNECTIONS UNDER DIVISION 22 |
| 62 | - | FLOOR MOUNTED MOP SINK - REFER TO DIVISION 22 | - | - | - | - | - | - | - | - | - | - | - | REFER TO DIVISION 22 |
| 64 | - | WASHER - REFER TO DIVISION 113100 | - | - | - | - | - | - | - | - | - | - | - | REFER TO DIVISION 113100 |
| 68 | 1 | ICE MAKER WITH BIN | - | - | - | - | - | - | 1/2, 3/4 | - | - | 3/8 | 1/2 | NOTE 4, 12, CHILLED WATER LOOP, 5450 BTUH REJECTED AT PEAK |
| 69 | 1 | ICE MAKER WATER FILTER | - | 1/2 | X | - | - | 72 | - | - | - | - | - | NOTE 4 |
| NC1 | 1 | UNDERCOUNTER ICE-MAKER WITH WATER FILTER | - | 1/2 | X | - | - | 44 | 1/2 | - | - | - | - | NOTE 4 |

GENERAL NOTES:

1. PLUMBING CONNECTIONS ARE INDICATED FOR KITCHEN EQUIPMENT ITEMS ONLY
2. FLOOR DRAINS ARE INDICATED FOR KITCHEN EQUIPMENT ITEMS ONLY, ADDITIONAL DRAINS MAY BE REQUIRED UNDER DIVISION 22
3. ROUGH-IN HEIGHT BENEATH CABINET BASES IS INDICATED TO CLEAR BASE, FINAL CONNECTION IS GENERALLY ABOVE AND WITHIN THE BODY
4. SUPPORT ALL SUPPLIES AND DRAINS TIGHT AGAINST BOTTOMS OF EQUIPMENT TO CLEAR FLOOR FOR CLEANING
5. FURNISH ALL CODE REQUIRED VACUUM BREAKERS UNDER DIVISION 22
6. ALL PLUMBING ROUGH-INS SHALL BE COORDINATED WITH FLOOR FINISH ONCE SELECTED BY OWNER

SCHEDULE REMARKS:

NOTE 1: CONNECT SECTION 114000 FURNISHED FAUCET(S) AND EXTEND DRAIN(S) TO FLOOR SINK (DRAIN) UNDER DIVISION 22
NOTE 2: SECTION 114000 SHALL COORDINATE INSTALLATION WITH DIVISION 3, 9 AND 22
NOTE 3: INSTALL SECTION 114000 FURNISHED QUICK DISCONNECT TO APPLIANCE UNDER DIVISION 22
NOTE 4: INSTALL SECTION 114000 FURNISHED FILTER, EXTEND DRAIN(S) TO FLOOR SINK(DRAIN) UNDER DIVISION 22
NOTE 5: INSTALL SECTION 114000 FURNISHED SOLENOID VALVE, VACUUM BREAKER, FLOW CONTROL AND WATER INLET UNDER DIVISION 22
NOTE 6: CONNECT DRAIN IN HARD COPPER UNDER DIVISION 22
NOTE 7: NOT USED
NOTE 8: NOT USED
NOTE 9: CONNECT DRAIN(S) IN REFRIGERATION GRADE HARD COPPER AS INDICATED ON PLUMBING ROUGH-IN DRAWING AND WRAP DRAIN WITH HEAT TAPE, INSULATION WHERE SUBJECT TO FREEZING TEMPERATURES UNDER SECTION 114000
NOTE 10: INSTALL SECTION 114000 FURNISHED AND MOUNTED HOSE REEL, MIXING FAUCET AND CHROME FITTINGS, FINAL CONNECTION UNDER DIVISION 22
NOTE 11: COORDINATE DRAIN TEMPERING KIT INSTALLATION WITH SECTION 114000 AND DIVISION 22
NOTE 12: CONNECT BUILDING SYSTEM CHILLED WATER LOOP SUPPLY AND RETURN TO EQUIPMENT UNDER DIVISION 22

VENTILATION SCHEDULE

| ITEM | QTY | DESCRIPTION | EXH COLLAR | CFM | SP | SUP COLLAR | CFM | SP | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| 24A | 1 | EXHAUST HOOD WITH PSP | 14" DIA | 1880 | -1.014 | (2)12" X 28" | 752 EA | 0.183 | NET LOSS FROM KITCHEN 376 |
| 24B | 1 | EXHAUST HOOD WITH PSP | 14" DIA | 1880 | -1.014 | (2)12" X 28" | 752 EA | 0.183 | NET LOSS FROM KITCHEN 376 |
| 56 | 1 | CONVEYOR WAREWASHER WITH BOOSTER HEATER | GRILLE | 400 | UNKNOWN | NONE | - | - | NET LOSS FROM KITCHEN 400 CFM |
| 57 | 2 | VENT DUCT EXTENSIONS | (2) 4" x 16" | 200,400 | UNKNOWN | NONE | - | - | NET LOSS FROM KITCHEN 600 CFM |
| 65 | - | DRYER - REFER TO SECTION 113100 | - | - | - | - | - | - | REFER TO SECTION 113100 |

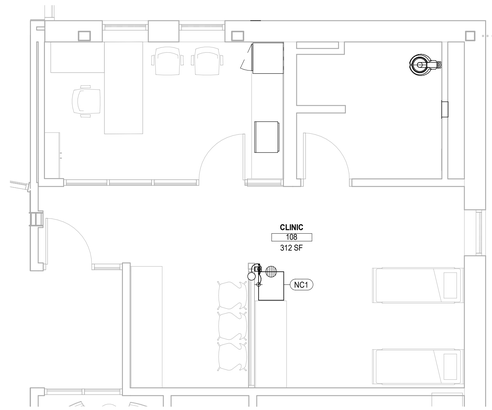
1. RECOMMENDED: PROVIDE 30 AIR CHANGES PER HOUR IN DISHROOM
2. 200 CFM ENTRANCE END, 400 CFM EXIT END, 400 TO 600 CFM CEILING GRILLE ABOVE CLEAN DISHTABLE

VENTILATION LEGEND

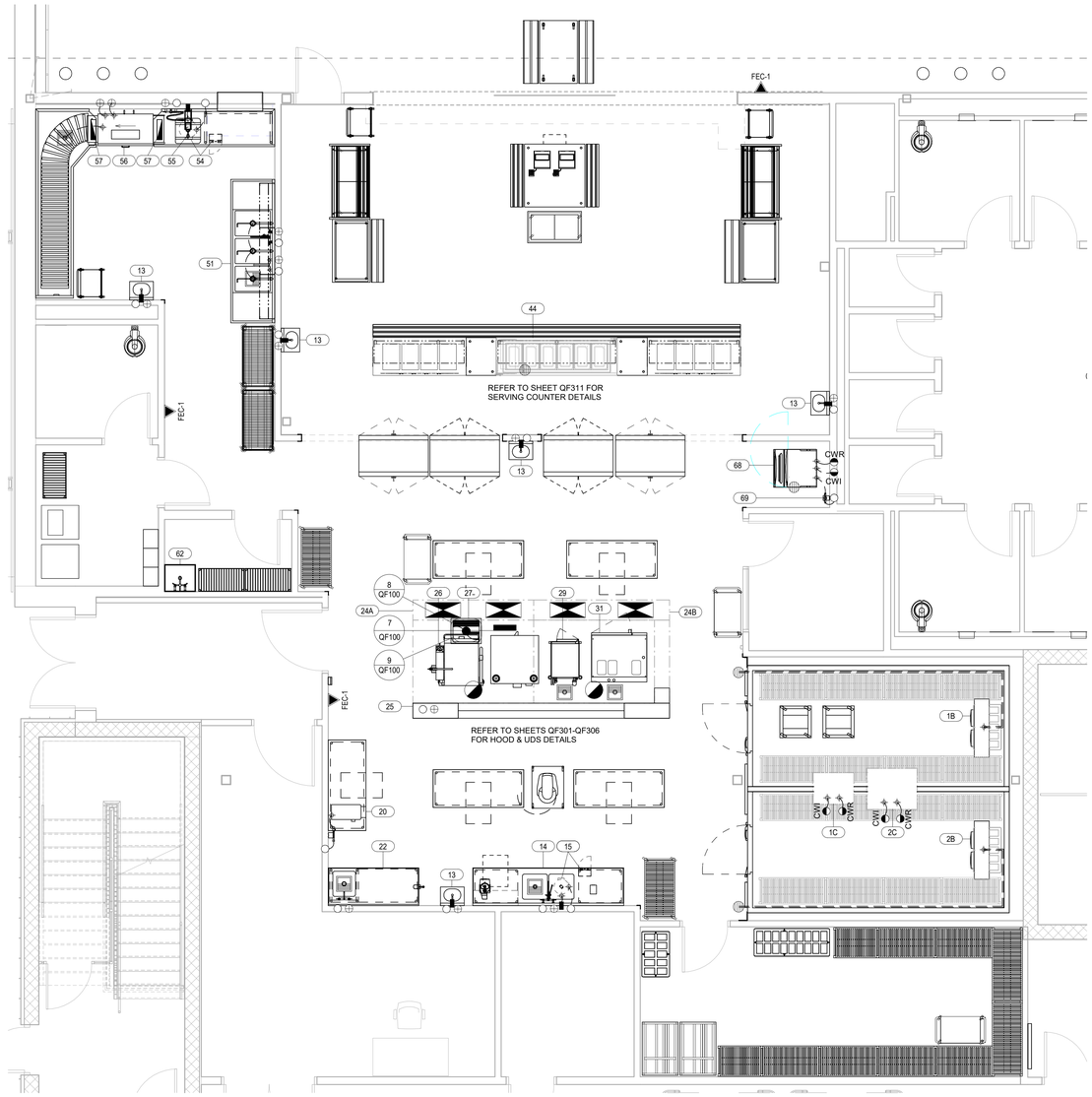
- EXHAUST DUCT CONNECTION
- ROUND EXHAUST DUCT CONNECTION
- SUPPLY DUCT CONNECTION
- ROUND SUPPLY DUCT CONNECTION
- 4" DRYER VENT CONNECTION

PLUMBING LEGEND

- COLD WATER
- HOT WATER
- CWI — CHILLED WATER IN
- CWR — CHILLED WATER RETURN
- POINT OF CONNECTION ON FOODSERVICE EQUIPMENT
- DIRECT WASTE FROM FLOOR
- DIRECT WASTE FROM WALL
- FLOOR DRAIN
- FLOOR RECEPTOR
- FUNNEL FLOOR DRAIN
- GAS DROP FROM MANIFOLD
- S — STEAM SUPPLY
- S — CONDENSATE RETURN




FOODSERVICE NURSE'S CLINIC PLUMBING ROUGH-IN PLAN
1/4" = 1'-0"




FOODSERVICE KITCHEN EQUIPMENT PLUMBING & VENTILATION ROUGH-IN PLAN
1/4" = 1'-0"

SCALE: 1/4" = 1'-0" 0 2' 4' 8'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SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM


Albemarle County Public Schools

**ACPS High School Center II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

NOT FOR CONSTRUCTION

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: AEH
DRAWN: MDM

QEA No.41911390

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10/08/2024

FOODSERVICE KITCHEN PLUMBING & VENTILATION ROUGH-IN PLAN

**QF201**

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/10697_Albemarle Co. HS Center II_Foodservice_v23.rvt
PLOTTING DATE & TIME: 10/1/2024 9:58:20 AM

| PLUMBING ROUGH-IN SCHEDULE | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | SUPPLY | | SUGGESTED ROUTING | | | | WASTE | | | GAS | | | WATER CONDENSOR | | |
| ITEM | QTY | DESCRIPTION | HW | CW | WL | FLR | DFA | HGT AFF | INDIRECT | DIRECT | HGT AFF | SIZE | MBTU | HGT AFF | INLET | OUTLET | REMARKS |
| C1 | 1 | PREP TABLE WITH SINKS | 1/2 | 1/2 | X | - | - | 12 | (2)2 | - | - | - | - | - | - | - | NOTE 1 |
| C4 | 1 | ICE MAKER WITH BIN | - | - | - | - | - | - | 3/4 | - | - | - | - | - | 3/8 | 1/2 | NOTE 4, 12, 3900 BTUH REJECTED AT PEAK |
| C5 | 1 | ICE MAKER WATER FILTER | - | 1/2 | X | - | - | 72 | - | - | - | - | - | - | - | - | NOTE 4 |
| C8 | 3 | PEDESTAL HAND SINK WITH ELECTRONIC EYE | 1/2 | 1/2 | X | - | - | 12 | - | 1-1/2 | 20 | - | - | - | - | - | NOTE 1 |
| C9 | 1 | ADA HAND SINK | 1/2 | 1/2 | X | - | - | 24 | - | 1-1/2 | 20 | - | - | - | - | - | NOTE 1 |
| C15F | 1 | MAKE-UP AIR FAN - ROOF MOUNTED | - | - | - | - | - | - | - | - | - | - | - | - | - | - | REFER TO QF310 FOR DETAILS |
| C17 | 3 | 4-BURNER GAS RANGE | - | - | - | - | - | - | - | - | - | 3/4 | 132 | 24 | - | - | NOTE 3 |
| C19 | 1 | POT SINK | (2)3/4 | (2)3/4 | X | - | - | 12 | (3)2 | - | - | - | - | - | - | - | NOTE 1 |
| C21 | 2 | UNDERCOUNTER WAREWASHER | 3/4 | 3/4 | X | - | - | 12 | 3/4 | - | - | - | - | - | - | - | NOTE 11, FINAL CONNECTIONS UNDER DIVISION 22 |
| C22 | 1 | MOP CABINET | 1/2 | 1/2 | X | - | - | 30 | - | 2 | 0 | - | - | - | - | - | NOTE 1 |
| C23 | - | STACKED WASHER/DRYER - REFER TO SECTION 113100 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | REFER TO SECTION 113100 |

GENERAL NOTES:

1. PLUMBING CONNECTIONS ARE INDICATED FOR KITCHEN EQUIPMENT ITEMS ONLY
2. FLOOR DRAINS ARE INDICATED FOR KITCHEN EQUIPMENT ITEMS ONLY, ADDITIONAL DRAINS MAY BE REQUIRED UNDER DIVISION 22
3. ROUGH-IN HEIGHT BENEATH CABINET BASES IS INDICATED TO CLEAR BASE, FINAL CONNECTION IS GENERALLY ABOVE AND WITHIN THE BODY
4. SUPPORT ALL SUPPLIES AND DRAINS TIGHT AGAINST BOTTOMS OF EQUIPMENT TO CLEAR FLOOR FOR CLEANING
5. FURNISH ALL CODE REQUIRED VACUUM BREAKERS UNDER DIVISION 22
6. ALL PLUMBING ROUGH-INS SHALL BE COORDINATED WITH FLOOR FINISH ONCE SELECTED BY OWNER

SCHEDULE REMARKS:

NOTE 1: CONNECT SECTION 114000 FURNISHED FAUCET(S) AND EXTEND DRAIN(S) TO FLOOR SINK (DRAIN) UNDER DIVISION 22
NOTE 2: NOT USED
NOTE 3: INSTALL SECTION 114000 FURNISHED QUICK DISCONNECT TO APPLIANCE UNDER DIVISION 22
NOTE 4: INSTALL SECTION 114000 FURNISHED FILTER, EXTEND DRAIN(S) TO FLOOR SINK(DRAIN) UNDER DIVISION 22
NOTE 5: NOT USED
NOTE 6: NOT USED
NOTE 7: NOT USED
NOTE 8: NOT USED
NOTE 9: NOT USED
NOTE 10: NOT USED
NOTE 11: NOT USED
NOTE 12: CONNECT BUILDING SYSTEM CHILLED WATER LOOP SUPPLY AND RETURN TO EQUIPMENT UNDER DIVISION 22

| VENTILATION SCHEDULE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ITEM | QTY | DESCRIPTION | EXH COLLAR | CFM | SP | SUP COLLAR | CFM | SP | REMARKS |
| C15A | 1 | EXHAUST HOOD WITH PSP | 14" DIA | 2300 | -1.360 | (3) 12" X 24" | 613 EA | 0.169 | NET LOSS FROM KITCHEN 461 CFM |
| C15B | 1 | EXHAUST HOOD WITH PSP | 14" DIA | 1800 | -0.888 | (2) 12" X 24" | 720 EA | 0.196 | NET LOSS FROM KITCHEN 360 CFM |

GENERAL NOTES:

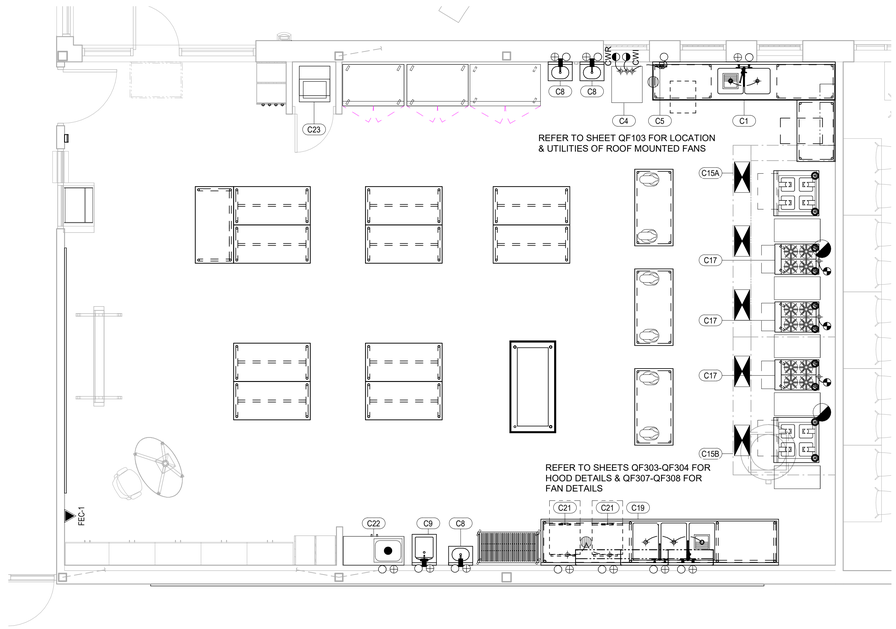
1. RECOMMENDED: PROVIDE 30 AIR CHANGES PER HOUR IN DISHROOM
2. 200 CFM ENTRANCE END, 400 CFM EXIT END, 400 TO 600 CFM CEILING GRILLE ABOVE CLEAN DISHTABLE

## VENTILATION LEGEND

- EXHAUST DUCT CONNECTION
- ROUND EXHAUST DUCT CONNECTION
- SUPPLY DUCT CONNECTION
- ROUND SUPPLY DUCT CONNECTION
- 4" DRYER VENT CONNECTION

## PLUMBING LEGEND

- COLD WATER
- HOT WATER
- CHILLED WATER IN (CWI)
- CHILLED WATER RETURN (CWR)
- POINT OF CONNECTION ON FOODSERVICE EQUIPMENT
- DIRECT WASTE FROM FLOOR
- DIRECT WASTE FROM WALL
- FLOOR DRAIN
- FLOOR RECEPTOR
- FUNNEL FLOOR DRAIN
- GAS DROP FROM MANIFOLD
- STEAM SUPPLY (S)
- CONDENSATE RETURN (S)




## FOODSERVICE CULINARY ARTS LAB PLUMBING & VENTILATION ROUGH-IN PLAN

1/4" = 1'-0"

SCALE: 1/4" = 1'-0" 0 2' 4' 8'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Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: AEH
DRAWN: MDM

QEA No.41911390

BID DOCUMENTS
10/08/2024

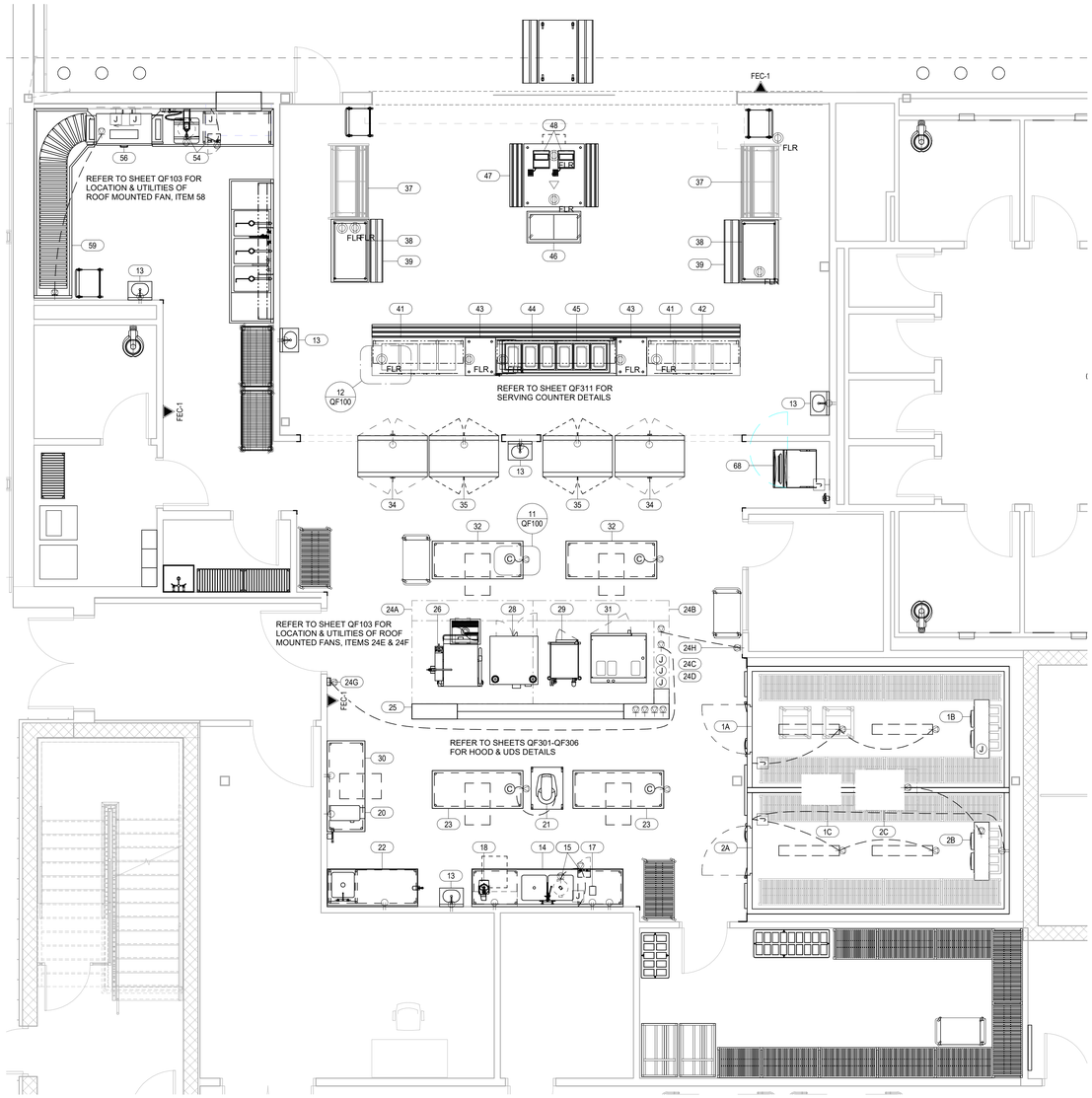
FOODSERVICE CA LAB PLUMBING & VENTILATION ROUGH-IN PLAN

**QF202**

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/10697_Albemarle Co. HS Center II_Foodservice_v23.rvt
PLOTTING DATE & TIME: 10/1/2024 9:58:22 AM

FOODSERVICE NURSE'S CLINIC ELECTRICAL ROUGH-IN PLAN

1/4" = 1'-0"




## ELECTRICAL LEGEND

| | |
|---|---|
| | POINT OF CONNECTION FOR FOODSERVICE EQUIPMENT |
| | SINGLE RECEPTACLE (PROVIDE GFCI BREAKER, NEMA 5-15R & NEMA 5-20R ONLY) |
| | GFCI DUPLEX RECEPTACLE |
| FLR | DUPLEX RECEPTACLE FLOOR MOUNTED |
| FLR | SINGLE RECEPTACLE FLOOR MOUNTED |
| | S-CORD MOUNTED FROM CEILING |
| J | JUNCTION BOX - WALL MOUNTED |
| J | JUNCTION BOX - CEILING MOUNTED |
| C | CONDUIT STUB UP LOCATION |
| $ | SWITCH |
| | DATA CONNECTION |
| | VOICE CONNECTION |
| V/D | VOICE & DATA CONNECTION |

FOODSERVICE EQUIPMENT ELECTRICAL ROUGH-IN PLAN

1/4" = 1'-0"

SCALE: 1/4" = 1'-0" 0 2' 4' 8'

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/10097_Albemarle Co. HS Center II_Foodservice_v23.rvt
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IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd.
Charlottesville, VA 22901

NOT FOR CONSTRUCTION

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: AEH
DRAWN: MDM

QEA No.41911390

BID DOCUMENTS
10/08/2024

FOODSERVICE KITCHEN ELECTRICAL ROUGH-IN PLAN

# QF203

| ELECTRICAL ROUGH-IN SCHEDULE | | | | | | | | | SUGGESTED ROUTING | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM | QTY | DESCRIPTION | VOLT | PHASE | KW | HP | AMP | CONN | WL | FLR | DFA | HGT | REMARKS |
| C1 | 1 | PREP TABLE WITH SINKS | (2)115 | 1 | - | - | 16.0 | RECP | X | - | - | 54 | NEMA 5-20R DUPLEX CONVENIENCE |
| C3 | 1 | WORTABLE | 115 | 1 | - | - | 16.0 | RECP | X | - | - | 54 | NEMA 5-20R DUPLEX CONVENIENCE |
| C4 | 1 | ICE MAKER WITH BIN | 115 | 1 | - | - | 7.0 | C&P | X | - | - | 54 | NEMA 5-15P, MAX 15A HACR TYPE BREAKER |
| C6 | 2 | 2-SECTION REACH-IN REFRIGERATOR | 115 | 1 | - | - | 6.0 | C&P | X | - | - | 54 | NEMA 5-15P |
| C7 | 1 | 2-SECTION REACH-IN FREEZER | 115 | 1 | - | - | 10.0 | C&P | X | - | - | 54 | NEMA 5-15P |
| C8 | 3 | PEDESTAL HAND SINK WITH ELECTRONIC EYE | 115 | 1 | - | - | 12.0 | C&P | X | - | - | 16 | NEMA 5-15P |
| C10 | 3 | WORKTABLE | (2)115 | 1 | - | - | 16.0 | RECP | - | - | X | 72 | NEMA 5-20R, PROVIDE SINGLE RECEPTACLE, S-CORD FROM CEILING UNDER DIVISION 26 |
| C11 | 10 | WORKTABLE | 115 | 1 | - | - | 16.0 | RECP | - | - | X | 72 | NEMA 5-20R, PROVIDE SINGLE RECEPTACLE, S-CORD FROM CEILING UNDER DIVISION 26 |
| C12 | 1 | ADA WORKTABLE | 115 | 1 | - | - | 12.0 | RECP | - | - | X | 72 | NEMA 5-20R, PROVIDE SINGLE RECEPTACLE, S-CORD FROM CEILING UNDER DIVISION 26 |
| C13 | 1 | DEMO TABLE WITH OVERHEAD MIRROR | 115 | 1 | - | - | 12.0 | RECP | - | - | X | 72 | NEMA 5-20R, PROVIDE SINGLE RECEPTACLE, S-CORD FROM CEILING UNDER DIVISION 26 |
| C14 | 6 | 5-QT MIXER | 115 | 1 | - | - | 2.9 | C&P | - | - | - | - | NEMA 5-15P, SERVED BY RECEPTACLE ABOVE ITEM C10 |
| C15A | 1 | EXHAUST HOOD WITH PSP | 115 | 1 | - | - | 12.0 | J-BOX | - | - | X | 88 | NOTE 1, EXTEND LIGHT CIRCUIT TO ITEM C15B UNDER DIVISION 26 |
| C15B | 1 | EXHAUST HOOD WITH PSP | - | - | - | - | - | - | - | - | - | - | INCLUDED IN ITEM C15A |
| C15C | 1 | FIRE SUPPRESSION SYSTEM | 115 | 1 | - | - | 12.0 | J-BOX | - | - | X | 88 | NOTE 1, 9 |
| C15D | 1 | FAN CONTROL PANEL | 115 | 1 | - | - | 12.0 | J-BOX | - | - | X | 88 | NOTE 1, 10 |
| C15E | 1 | EXHAUST FAN - ROOF MOUNTED | 480 | 3 | - | 5.0 | 7.2 | J-BOX | - | - | - | - | NOTE 1, 10 |
| C15F | 1 | MAKE-UP AIR FAN - ROOF MOUNTED | 208 | 3 | - | 3.0 | 10.1 | J-BOX | - | - | - | - | NOTE 1, 10 |
| C15G | 1 | REMOTE FIRE SUPPRESSION ACTUATION DEVICE | - | - | - | - | - | - | - | - | - | - | CONNECT LOW VOLTAGE FIELD WIRING UNDER DIVISION 26 |
| C15H | 1 | ROOM TEMPERATURE MONITOR | - | - | - | - | - | - | - | - | - | - | CONNECT LOW VOLTAGE FIELD WIRING UNDER DIVISION 26 |
| C16 | 2 | 4-BURNER INDUCTION RANGE | 115/208 | 3 | 21.1 | - | 66.4 | J-BOX | X | - | - | 24 | NOTE 1 |
| C17 | 3 | 4-BURNER GAS RANGE | 115 | 1 | - | - | 0.1 | C&P | X | - | - | 24 | NEMA 5-15P |
| C21 | 2 | UNDERCOUNTER WAREWASHER | 208 | 1 | - | - | 33.7 | J-BOX | X | - | - | 24 | NOTE 1, MCA 40, MOP 40 |
| C23 | - | STACKED WASHER/DRYER - REFER TO SECTION 113100 | - | - | - | - | - | - | - | - | - | - | REFER TO DIVISION 113100 |
| C26 | 1 | AIR SCREEN INSECT FAN | 115 | 1 | - | 1 | 12.6 | J-BOX | X | - | - | 96 | NOTE 1, EXTEND CIRCUIT THRU DOOR SWITCH TO MOTOR UNDER DIV 26 |
| C27 | 2 | REFRIGERATED DISPLAY CASE | 115 | 1 | - | 1 | 2.0 | C&P | X | - | - | 24 | NEMA 5-15P |

GENERAL NOTES:

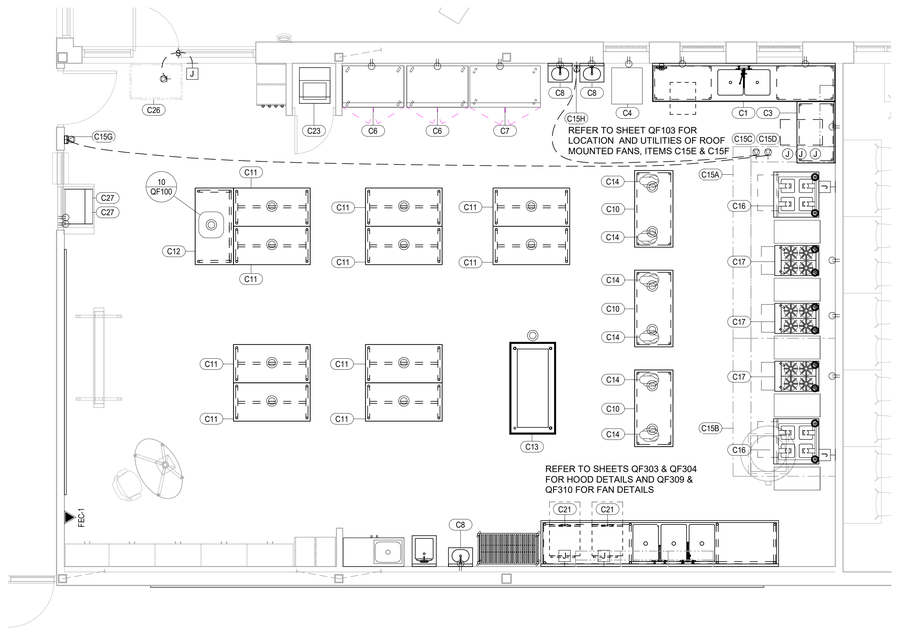
1. ELECTRICAL CONNECTIONS ARE INDICATED FOR KITCHEN EQUIPMENT ITEMS ONLY
2. SEAL ALL PENETRATIONS THRU WALK-IN BOTH OUTSIDE AND INSIDE CONDUIT FROM THE WARM SIDE TO PREVENT CONDENSATION
3. PROVIDE LARGE CLOCKS WITH SECOND HAND VISIBLE FROM PREP, HAND WASHING AND POT WASHING LOCATIONS
4. SHUNT TRIP ALL CIRCUITS BENEATH TYPE I KITCHEN EXHAUST HOOD WITH FIRE SUPRESSION SYSTEM
5. THERE ARE KNOWN ISSUES WITH COMMERICAL FOODSERVICE APPLIANCES CONNECTED TO GFCI RECEPTACLE. EQUIPMENT MANUFACTURERS RECOMMEND ALL CIRCUITS REQUIRING GFCI PROTECTION BE SUPPLIED WITH GFCI CIRCUIT BREAKERS IN LIEU OF GFCI RECEPTACLES.

SCHEDULE REMARKS:

NOTE 1: PROVIDE CIRCUIT IN LIQUID TIGHT CONDUIT TO APPLIANCE UNDER DIVISION 26
NOTE 2: NOT USED
NOTE 3: NOT USED
NOTE 4: NOT USED
NOTE 5: NOT USED
NOTE 6: NOT USED
NOTE 7: NOT USED
NOTE 8: NOT USED
NOTE 9: CONNECT HOOD LIGHT CIRCUIT, CONTROL CIRCUIT TO FIRE SUPPRESSION RELAYS AND FROM RELAYS TO FAN CONTROLS AND SHUNT TRIP BREAKERS UNDER DIVISION 26
NOTE 10: PROVIDE EXHAUST FAN CIRCUIT TO SECTION 114000 FURNISHED AND MOUNTED FAN CONTROL CENTER AND EXTEND LOAD CIRCUIT TO FAN ON ROOF UNDER DIVISION 26
NOTE 11: NOT USED
NOTE 12: NOT USED
NOTE 13: NOT USED
NOTE 14: COORDINATE DRAIN TEMPERING KIT INSTALLATION WITH SECTION 114000 AND DIVISION 26

## ELECTRICAL LEGEND

- POINT OF CONNECTION FOR FOODSERVICE EQUIPMENT
- SINGLE RECEPTACLE (PROVIDE GFCI BREAKER, NEMA 5-15R & NEMA 5-20R ONLY)
- GFCI DUPLEX RECEPTACLE
- FLR DUPLEX RECEPTACLE FLOOR MOUNTED
- FLR SINGLE RECEPTACLE FLOOR MOUNTED
- S-CORD MOUNTED FROM CEILING
- J JUNCTION BOX - WALL MOUNTED
- J JUNCTION BOX - CEILING MOUNTED
- C CONDUIT STUB UP LOCATION
- $ SWITCH
- DATA CONNECTION
- VOICE CONNECTION
- V/D VOICE & DATA CONNECTION




## FOODSERVICE CULINARY ARTS LAB ELECTRICAL ROUGH-IN PLAN

1/4" = 1'-0"

SCALE: 1/4" = 1'-0" 0 2' 4' 8'


QUINN EVANS

1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

QUINNEVANS.COM


NOT FOR CONSTRUCTION

Albemarle County Public Schools

**ACPS High School Center II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd.
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: AEH
DRAWN: MDM

QEA No.41911390

BID DOCUMENTS
10/08/2024

FOODSERVICE CA LAB ELECTRICAL ROUGH-IN PLAN

**QF204**


PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/10697_Albemarle Co. HS Center II_Foodservice_v23.rvt
PLOTTING DATE & TIME: 10/1/2024 9:58:26 AM

## FIRE SYSTEM INFORMATION

| FIRE SYSTEM NO | TAG | TYPE | SIZE | MAX FP | DESIGN FP | INSTALLATION | |
|---|---|---|---|---|---|---|---|
| | | | | | | SYSTEM | LOCATION ON HOOD |
| 1 | 24C | TANK FS | 4.0/4.0 | 40 | 36 | FIRE CABINET LEFT | LEFT, HOOD 1 |

## HOOD INFORMATION

| HOOD NO | TAG | MODEL | MANUFACTURER | LENGTH | MAX COOKING TEMP | TYPE | APPLIANCE DUTY | DESIGN CFM/FT | TOTAL EXH CFM | EXHAUST PLENUM RISER(S) | | | | | | | TOTAL SUPPLY CFM | HOOD CONSTRUCTION | HOOD CONFIG | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | WIDTH | LENG | HEIGHT | DIA | CFM | VEL | SP | | | END TO END | ROW |
| 1 | 24A | 6624 ND-2-PSP-F | CAPTIVEAIRE | 8' 0" | 600 DEG | I | HEAVY | 235 | 1880 | | | 4" | 14" | 1880 | 1759 | -1.014" | 1504 | 304 SS 100% | LEFT | ALONE |
| 2 | 24B | 6624 ND-2-PSP-F | CAPTIVEAIRE | 8' 0" | 600 DEG | I | HEAVY | 235 | 1880 | | | 4" | 14" | 1880 | 1759 | -1.014" | 1504 | 304 SS 100% | RIGHT | ALONE |

## HOOD INFORMATION

| HOOD NO | TAG | FILTER(S) | | | | | LIGHT(S) | | | UTILITY CABINET(S) | | | | | | FIRE SYSTEM PIPING | HOOD HANGING WEIGHT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | FIRE SYSTEM | | ELECTRICAL | SWITCHES | | |
| | | TYPE | QTY | HEIGHT | LENGTH | EFFICIENCY @ 7 MICRONS | QTY | TYPE | WIRE GUARD | LOCATION | SIZE | TYPE | SIZE | MODEL # | QUANTITY | | |
| 1 | 24A | CAPTRATE SOLO FILTER | 5 | 16" | 16" | 85% SEE FILTER SPEC | 2 | RECESSED ROUND | NO | LEFT | 12"x66"x24" | TANK FS | 4.0/4.0 | DCV-1111 | 1 LIGHT 1 FAN | YES | 914 LBS |
| 2 | 24B | CAPTRATE SOLO FILTER | 5 | 16" | 16" | 85% SEE FILTER SPEC | 2 | RECESSED ROUND | NO | | | | | | | YES | 568 LBS |

## HOOD OPTIONS

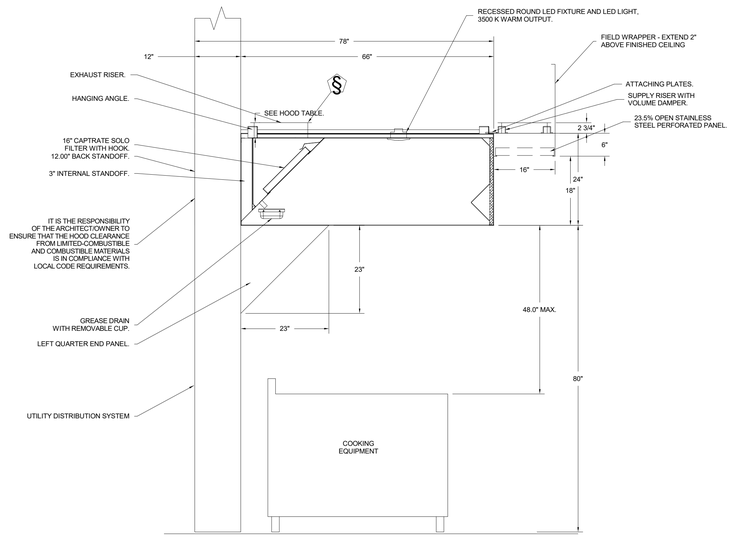
| HOOD NO | TAG | OPTION |
|---|---|---|
| 1 | 24A | FIELD WRAPPER - FRONT, LEFT, RIGHT. |
| | | BACK STANDOFF (FLAT) 12" WIDE 108" LONG. |
| | | LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 304 SS. |
| | | RISER SENSOR INSTALL 6IN PLEN. |
| 2 | 24B | FIELD WRAPPER - FRONT, LEFT, RIGHT. |
| | | BACK STANDOFF (FLAT) 12" WIDE 96" LONG. |
| | | RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 304 SS. |
| | | RISER SENSOR INSTALL 6IN PLEN. |

## PERFORATED SUPPLY PLENUM(S)

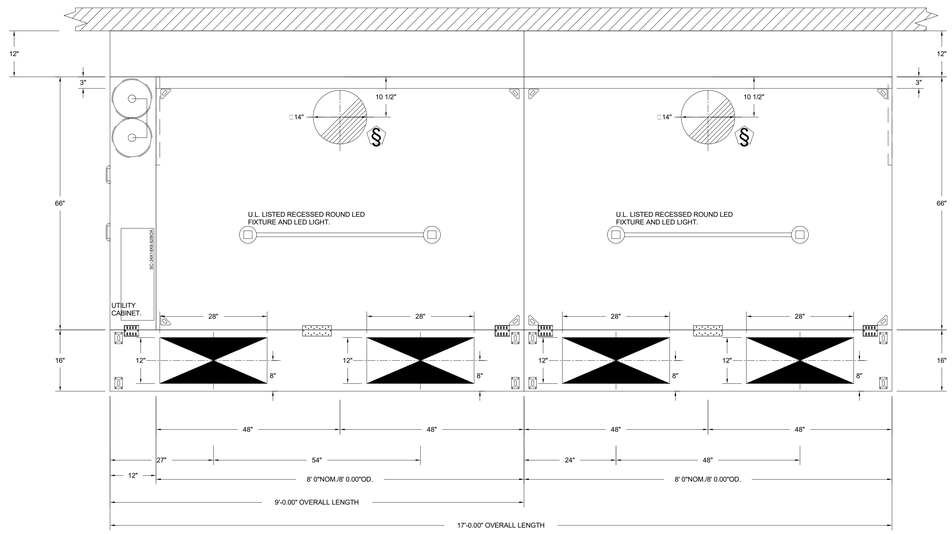
| HOOD NO | TAG | POS | LENGTH | WIDTH | HEIGHT | TYPE | RISER(S) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | WIDTH | LENG | DIA | CFM | SP |
| 1 | 24A | Front | 108" | 16" | 6" | MUA | 12" | 28" | | 752 | 0.183" |
| | | | | | | MUA | 12" | 28" | | 752 | 0.183" |
| 2 | 24B | Front | 96" | 16" | 6" | MUA | 12" | 28" | | 752 | 0.183" |
| | | | | | | MUA | 12" | 28" | | 752 | 0.183" |

## ELECTRICAL PACKAGE

| NO | TAG | PACKAGE # | LOCATION | SWITCHES | | OPTION | FANS CONTROLLED | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | LOCATION | QUANTITY | | TYPE | Φ | HP | VOLT | FLA |
| 1 | 24D | DCV-1111 | UTILITY CABINET LEFT | UDS | 1 LIGHT 1 FAN | SMART CONTROLS DCV | EXHAUST | 3 | 3.000 | 460 | 4.6 |




SECTION VIEW - MODEL 6624ND-2-PSP-F
HOOD - #1




PLAN VIEW - HOOD #1
8' 0.00" LONG 6624ND-2-PSP-F

PLAN VIEW - HOOD #2
8' 0.00" LONG 6624ND-2-PSP-F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v 804.788.4774
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PROJECT MANAGER: AEH
DRAWN: MDM

QEA No.41911390

BID DOCUMENTS
10/08/2024

FOODSERVICE KITCHEN EXHAUST HOOD DETAILS

**QF301**

NOT FOR CONSTRUCTION

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/19097_Albemarle Co. HS Center II_Foodservice_v23.rvt
PLOTTING DATE & TIME: 10/1/2024 9:58:27 AM

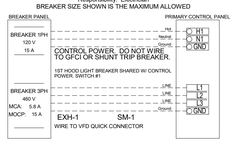
MODEL NUMBER: DCV-1111

DESCRIPTION OF OPERATION:
Demand Control Ventilation, w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans modulate based on duct temperature. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor shipped loose for field installation.Verify distance between VFD and Motor, additional cost could apply if distance exceeds 50 feet.

## BREAKER PANEL TO PRIMARY CONTROL PANEL

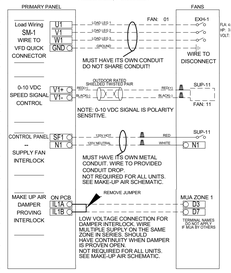
Responsibility: Electrician

BREAKER SIZE SHOWN IS THE MAXIMUM ALLOWED



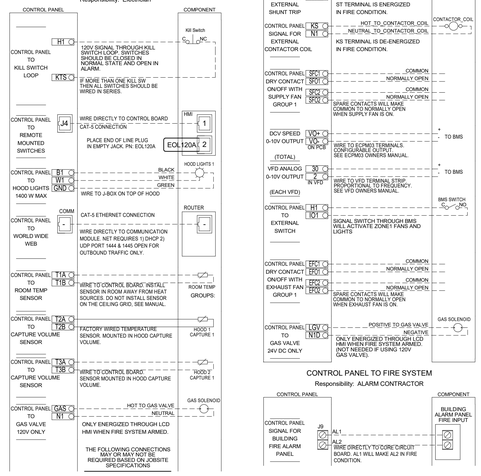

## CONTROL PANEL TO FANS

Responsibility: Electrician




## CONTROL PANEL TO ACCESSORY ITEMS

Responsibility: Electrician







## CONTROL PANEL TO FIRE SYSTEM

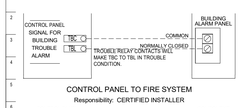
Responsibility: ALARM CONTRACTOR




MODEL NUMBER: DCV-1111

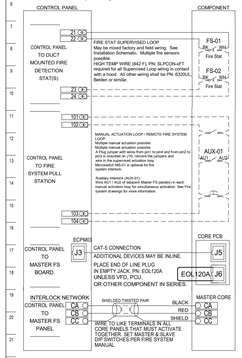
DESCRIPTION OF OPERATION:
Demand Control Ventilation, w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans modulate based on duct temperature. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor shipped loose for field installation.Verify distance between VFD and Motor, additional cost could apply if distance exceeds 50 feet.

## CONTROL PANEL TO BUILDING ALARM PANEL TROUBLE ALARM




## CONTROL PANEL TO FIRE SYSTEM

Responsibility: CERTIFIED INSTALLER




MODEL NUMBER: DCV-1111

DESCRIPTION OF OPERATION:
Fire System #1 TANK FS - 4.0/4.0.

## TANK PROTECTION LOW-VOLTAGE DETAIL

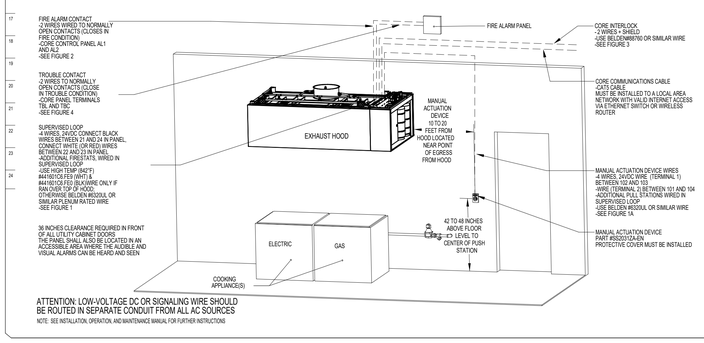
10/01/2023 Rev. 3

FS-1: MASTER

ALARM CONTRACTOR:
1. WIRE MANUAL ACTUATION DEVICE(S), REMOTE FIRESTAT(S), CORE INTERLOCK(S), FIRE SENSOR(S) AND FIRE ALARM CONTACTS
2. COMPLETE FINAL HOOKUP OF SYSTEM
3. VERIFY FINAL FIRE SYSTEM TEST

ALARM CONTRACTOR REQUIREMENT

| ITEM | CONNECTION IN PANEL | CONNECTION ON DEVICE | VOLTAGE | AMPERAGE | COMMENTS |
|---|---|---|---|---|---|
| MANUAL ACTUATION DEVICE(S) | 101 AND 104<br>102 AND 103 | 1 & 2 | 24 VDC | < 1.0 AMPS | WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103<br>WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104<br>JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED |
| MANUAL ACTUATION DEVICE COVER | N/A | N/A | N/A | N/A | MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED<br>IF SURFACE MOUNTED, USE COVER EXTENSION ST1-65318 |
| REMOTE FIRESTAT SENSOR(S) | 21 AND 24<br>22 AND 23 | BLACK AND WHITE | 24 VDC | < 1.0 AMPS | WIRE FIRE SENSOR WHITE WIRES BETWEEN HOOD CORE PANEL TERMINALS 22 AND 23<br>WIRE FIRE SENSOR BLACK WIRE BETWEEN HOOD CORE PANEL TERMINALS 21 AND 24<br>HIGH TEMP (MAT F) #4416010LFE5 (WHT) & #4416010LFE0 (BLK)WIRE OR SIMILAR ONLY IF RAN OF HOOD, OTHERWISE BELDEN #6320UL OR SIMILAR PLENUM RATED WIRE. SEE FIGURE 1 |
| FIRE ALARM CONTACT | AL1, AL2 | VARIES | 50V MAX (AC/DC) | UP TO 1 AMP | FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL |
| CORE INTERLOCK(S) | CA, CB, CC | CA, CB, CC | RS-485 COMMUNICATIONS SIGNAL | | CORE SYSTEM (1) CA, TO CORE SYSTEM (2) CA. CORE SYSTEM (1) CB, TO CORE SYSTEM (2) CB.<br>CORE SYSTEM (1) CC, TO CORE SYSTEM (2) CC. USE BELDEN# 88760 OR SIMILAR WIRE |
| TROUBLE CONTACT | TBC, TBL, TOK | VARIES | MAX 120 VAC | UP TO 6 AMPS | WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSES IN TROUBLE CONDITION |
| CORE COMMUNICATIONS CABLE | RJ-45 Jack | INTERNET CONNECTION | SIGNAL | <1.0 AMPS | TYPICAL CONNECTION CAT5 CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION |




NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

MODEL NUMBER: DCV-1111

DESCRIPTION OF OPERATION:
Fire System #1 TANK FS - 4.0/4.0.

## TANK PROTECTION ELECTRICAL DETAIL

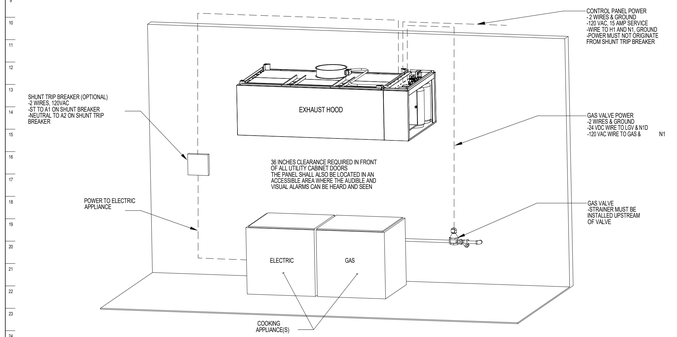
02/10/2021 Rev. 2

FS-1: MASTER

ELECTRICIAN:
1. WIRE MAIN CONTROL PANEL PER INCLUDED SCHEMATIC
2. WIRE ALL FANS PER INCLUDED SCHEMATIC
3. WIRE SHUNT TRIP BREAKER (OPTIONAL)
4. WIRE UDS APPLIANCE KILL SWITCH, IF EQUIPPED (OPTIONAL)
5. WIRE GAS VALVE

ELECTRICAL CONTRACTOR REQUIREMENT

| ITEM | CONNECTION IN PANEL | CONNECTION IN DEVICE | VOLTAGE | AMPERAGE | COMMENTS |
|---|---|---|---|---|---|
| SHUNT TRIP BREAKER (OPTIONAL) | ST & N1 | BREAKER COIL (#1 & #2) | 120 VAC | < 4 AMPS | ST TO A1 ON SHUNT BREAKER COIL, AND NEUTRAL TO A2 ON SHUNT TRIP BREAKER COIL |
| CONTROL PANEL POWER | H1 & N1 + GROUND | CIRCUIT BREAKER | 120 VAC | 15 AMPS | CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER |
| UDS APPLIANCE KILL SWITCH (OPTIONAL) | KTS & N1 | KTS & N1 | 120 VAC | < 4 AMPS | KILL SWITCH TERMINALS MUST BE IN SERIES WITH OTHER KILL SWITCHES |
| REMOTE 120VAC ANSUL AUTOMAN (OPTIONAL) | AU1, AU2 | SOLENOID | 120 VAC | < 6 AMPS | 120V TO AU1, AU2 TO ANSUL ELECTRIC AUTOMAN. ANSUL SOLENOID TO NEUTRAL |
| GAS VALVE | LOW & N1S (IF 24 VDC)<br>GAS & N1 (IF 120 VAC) | RED/RED/GREEN | 24 VDC OR 120 VAC | < 1.0 AMPS | IF 24 VDC - 2 WIRES & GROUND. N1S TO RED, LOV TO RED, AND GREEN TO GROUND<br>IF 120 VAC - 2 WIRES & GROUND GAS TO RED, N1 TO RED, AND GREEN TO GROUND |




NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS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PROJECT MANAGER: AEH
DRAWN: MDM

QEA No.41911390

BID DOCUMENTS
10/08/2024

FOODSERVICE KITCHEN EXHAUST HOOD DETAILS

**QF302**


PATH & FILENAME: Autodesk Docs://Albemarle County High School Center III/19097_Albemarle Co. HS Center III_Foodservice_v23.rvt
PLOTTING DATE & TIME: 10/1/2024 9:58:29 AM

## FIRE SYSTEM INFORMATION

| FIRE SYSTEM NO | TAG | TYPE | SIZE | MAX FP | DESIGN FP | INSTALLATION | |
|---|---|---|---|---|---|---|---|
| | | | | | | SYSTEM | LOCATION ON HOOD |
| 1 | C15C | TANK FS | 4.0/4.0 | 40 | 20 | FIRE CABINET LEFT | LEFT, HOOD 1 |

## HOOD INFORMATION

| HOOD NO | TAG | MODEL | MANUFACTURER | LENGTH | MAX COOKING TEMP | TYPE | APPLIANCE DUTY | DESIGN CFM/FT | TOTAL EXH CFM | EXHAUST PLENUM RISER(S) | | | | | | | TOTAL SUPPLY CFM | HOOD CONSTRUCTION | HOOD CONFIG | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | WIDTH | LENG | HEIGHT | DIA | CFM | VEL | SP | | | END TO END | ROW |
| 1 | C15A | 6624 ND-2-PSP-F | CAPTIVEAIRE | 11' 6" | 600 DEG | I | HEAVY | 200 | 2300 | | | 4" | 14" | 2300 | 2152 | -1.360" | 1840 | 304 SS 100% | LEFT | ALONE |
| 2 | C15B | 6624 ND-2-PSP-F | CAPTIVEAIRE | 9' 0" | 600 DEG | I | HEAVY | 200 | 1800 | | | 4" | 14" | 1800 | 1684 | -0.888" | 1440 | 304 SS 100% | RIGHT | ALONE |

## HOOD INFORMATION

| HOOD NO | TAG | FILTER(S) | | | | | LIGHT(S) | | | UTILITY CABINET(S) | | | | | FIRE SYSTEM PIPING | HOOD HANGING WEIGHT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | FIRE SYSTEM | | ELECTRICAL | SWITCHES | |
| | | TYPE | QTY | HEIGHT | LENGTH | EFFICIENCY @ 7 MICRONS | QTY | TYPE | WIRE GUARD | LOCATION | SIZE | TYPE | SIZE | MODEL # | QUANTITY | |
| 1 | C15A | CAPTRATE SOLO FILTER | 8 | 16" | 16" | 85% SEE FILTER SPEC | 3 | RECESSED ROUND | NO | LEFT | 12"x66"x24" | TANK FS | 4.0/4.0 | DCV-1111 | 1 LIGHT<br>1 FAN | YES | 1005 LBS |
| 2 | C15B | CAPTRATE SOLO FILTER | 6 | 16" | 16" | 85% SEE FILTER SPEC | 3 | RECESSED ROUND | NO | | | | | | | YES | 549 LBS |

## HOOD OPTIONS

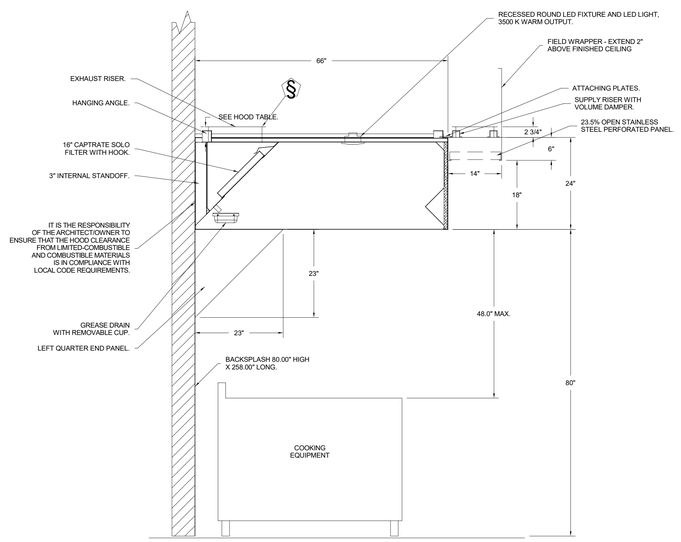
| HOOD NO | TAG | OPTION |
|---|---|---|
| 1 | C15A | FIELD WRAPPER - FRONT, LEFT, RIGHT. |
| | | BACKSPLASH 80.00" HIGH X 258.00" LONG 304 SS VERTICAL. |
| | | LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 304 SS. |
| | | RISER SENSOR INSTALL 6IN PLEN. |
| 2 | C15B | FIELD WRAPPER - FRONT, LEFT, RIGHT. |
| | | RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 304 SS. |
| | | RISER SENSOR INSTALL 6IN PLEN. |

## ELECTRICAL PACKAGE

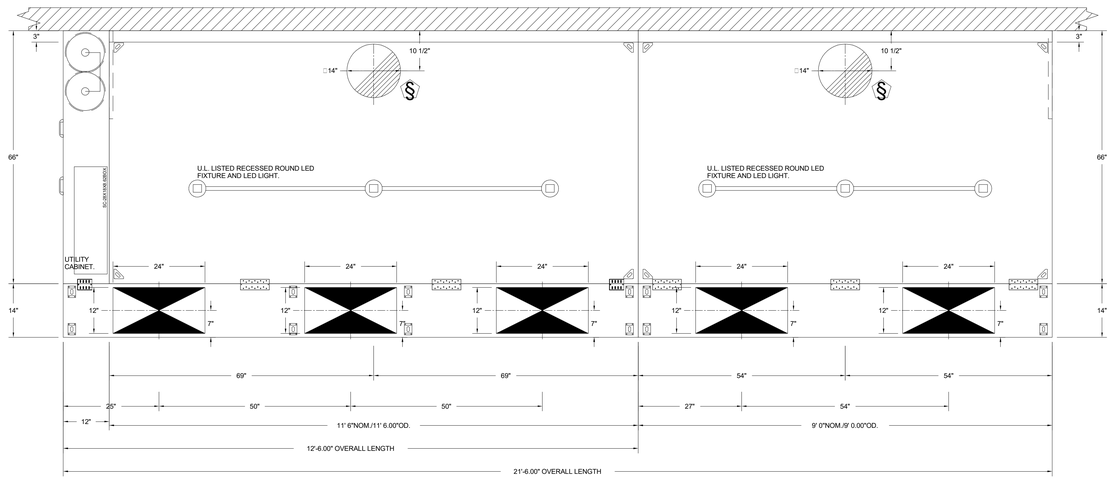
| NO | TAG | PACKAGE # | LOCATION | SWITCHES | | OPTION | FANS CONTROLLED | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | LOCATION | QUANTITY | | TYPE | ϕ | HP | VOLT | FLA |
| 1 | C15D | DCV-1111 | UTILITY CABINET LEFT | UTILITY CABINET LEFT<br>HOOD # 1 | 1 LIGHT<br>1 FAN | SMART CONTROLS DCV | EXHAUST | 3 | 5.000 | 460 | 7.2 |
| | | | | | | | SUPPLY | 3 | 3.000 | 208 | 10.1 |

## PERFORATED SUPPLY PLENUM(S)

| HOOD NO | TAG | POS | LENGTH | WIDTH | HEIGHT | TYPE | RISER(S) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | WIDTH | LENG | DIA | CFM | SP |
| 1 | C15A | Front | 150" | 14" | 6" | MUA | 12" | 24" | | 613 | 0.169" |
| | | | | | | MUA | 12" | 24" | | 613 | 0.169" |
| | | | | | | MUA | 12" | 24" | | 613 | 0.169" |
| 2 | C15B | Front | 108" | 14" | 6" | MUA | 12" | 24" | | 720 | 0.196" |
| | | | | | | MUA | 12" | 24" | | 720 | 0.196" |




SECTION VIEW - MODEL 6624ND-2-PSP-F
HOOD - #1




PLAN VIEW - HOOD #1
11' 6.00" LONG 6624ND-2-PSP-F

PLAN VIEW - HOOD #2
9' 0.00" LONG 6624ND-2-PSP-F


QUINN EVANS

1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

QUINNEVANS.COM


NOT FOR CONSTRUCTION

Albemarle County Public Schools

**ACPS High School Center II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: AEH
DRAWN: MDM

QEA No.41911390

BID DOCUMENTS
10/08/2024

FOODSERVICE CA
LAB EXHAUST HOOD
DETAILS

**QF303**


PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/10697_Albemarle Co. HS Center II_Foodservice_v23.rvt
PLOTTING DATE & TIME: 10/1/2024 9:58:29 AM

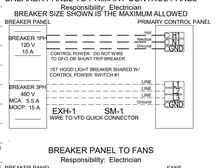
MODEL NUMBER: DCV-1111

DESCRIPTION OF OPERATION:
Demand Control Ventilation, air control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans modulate based on duct temperature. INVERTER DUTY 1 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor shipped loose for field installation Verify distance between VFD and Motor; additional cost could apply if distance exceeds 50 feet.

## BREAKER PANEL TO PRIMARY CONTROL PANEL

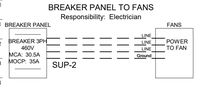
Responsibility: Electrician

BREAKER SIZE SHOWN IS THE MAXIMUM ALLOWED



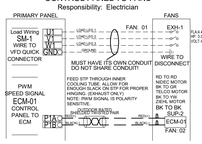

## BREAKER PANEL TO FANS

Responsibility: Electrician



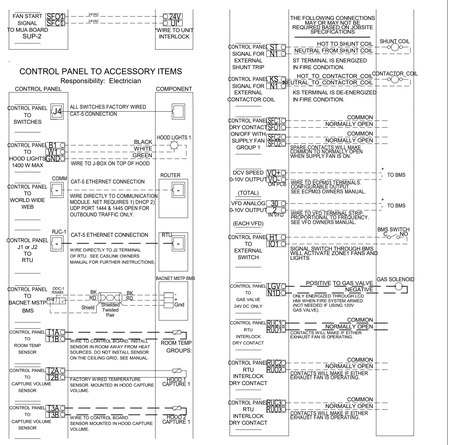

## CONTROL PANEL TO FANS

Responsibility: Electrician




## CONTROL PANEL TO ACCESSORY ITEMS

Responsibility: Electrician





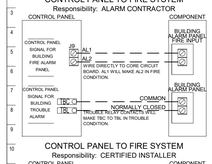


MODEL NUMBER: DCV-1111

DESCRIPTION OF OPERATION:
Demand Control Ventilation, air control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans modulate based on duct temperature. INVERTER DUTY 1 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor shipped loose for field installation Verify distance between VFD and Motor; additional cost could apply if distance exceeds 50 feet.

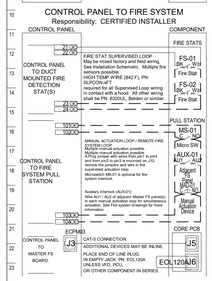
## CONTROL PANEL TO FIRE SYSTEM

Responsibility: ALARM CONTRACTOR



## CONTROL PANEL TO FIRE SYSTEM

Responsibility: CERTIFIED INSTALLER




MODEL NUMBER: DCV-1111

DESCRIPTION OF OPERATION:
Fire System #1 TANK FS - 4 GAL

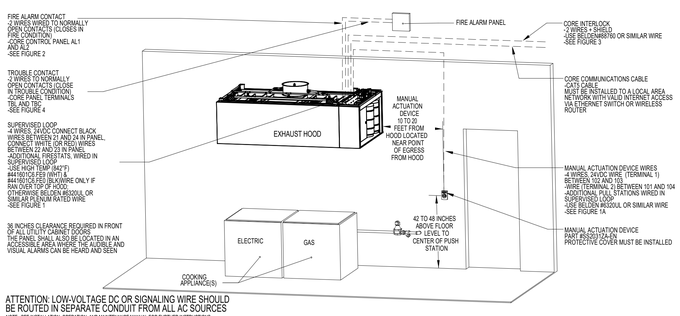
## TANK PROTECTION LOW-VOLTAGE DETAIL

10/01/2023 Rev. 3

ALARM CONTRACTOR:
1. WIRE MANUAL ACTUATION DEVICE(S), REMOTE FIRESTAT(S), CORE INTERLOCK(S), FIRE SENSOR(S) AND FIRE ALARM CONTACTS
2. COMPLETE FINAL HOOKUP OF SYSTEM
3. VERIFY FINAL FIRE SYSTEM TEST

FS-1: MASTER

| ALARM CONTRACTOR REQUIREMENT | | | | | |
|---|---|---|---|---|---|
| ITEM | CONNECTION IN PANEL | CONNECTION ON DEVICE | VOLTAGE | AMPERAGE | COMMENTS |
| MANUAL ACTUATION DEVICE(S) | 101 AND 104<br>102 AND 103 | 1 & 2 | 24 VDC | < 1.0 AMPS | WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103<br>WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104<br>JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED |
| MANUAL ACTUATION DEVICE COVER | N/A | N/A | N/A | N/A | MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED IF SURFACE MOUNTED, USE COVER EXTENSION STI-6531B |
| REMOTE FIRESTAT SENSOR(S) | 21 AND 24<br>22 AND 23 | BLACK AND WHITE | 24 VDC | < 1.0 AMPS | WIRE FIRE SENSOR WHITE WIRES BETWEEN HOOD CORE PANEL TERMINALS 22 AND 23<br>WIRE FIRE SENSOR BLACK WIRE BETWEEN HOOD CORE PANEL TERMINALS 21 AND 24<br>HIGH TEMP (842°F) #4416010S FEB (WHT) & #4416010S FEI (BLK)WIRE OR SIMILAR ONLY IF RAN OF HOOD. OTHERWISE BELDEN #6320UL OR SIMILAR PLENUM RATED WIRE. SEE FIGURE 1 |
| FIRE ALARM CONTACT | AL1, AL2 | VARIES | 50V MAX (AC/DC) | UP TO 1 AMP | FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL |
| CORE INTERLOCK(S) | CA, CB, CC | CA, CB, CC | RS-485 COMMUNICATIONS SIGNAL | | CORE SYSTEM (1) CA, TO CORE SYSTEM (2) CA. CORE SYSTEM (1) CB, TO CORE SYSTEM (2) CB.<br>CORE SYSTEM (1) CC, TO CORE SYSTEM (2) CC. USE BELDENM 88760 OR SIMILAR WIRE |
| TROUBLE CONTACT | TBC, TBL, TCK | VARIES | MAX 120 VAC | UP TO 6 AMPS | WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSES IN TROUBLE CONDITION |
| CORE COMMUNICATIONS CABLE | RJ-45 Jack | INTERNET CONNECTION | SIGNAL | <1.0 AMPS | TYPICAL CONNECTION CAT5 CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION |




ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES
NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

MODEL NUMBER: DCV-1111

DESCRIPTION OF OPERATION:
Fire System #1 TANK FS - 4 GAL

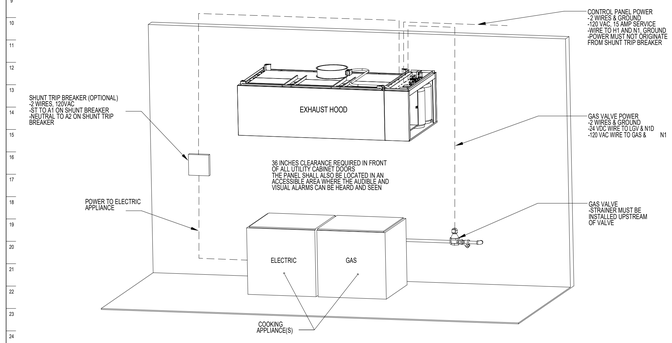
## TANK PROTECTION ELECTRICAL DETAIL

02/10/2021 Rev. 2

ELECTRICIAN:
1. WIRE MAIN CONTROL PANEL PER INCLUDED SCHEMATIC
2. WIRE ALL FANS PER INCLUDED SCHEMATIC
3. WIRE SHUNT TRIP BREAKER (OPTIONAL)
4. WIRE UDS APPLIANCE KILL SWITCH, IF EQUIPPED (OPTIONAL)
5. WIRE GAS VALVE

FS-1: MASTER

| ELECTRICAL CONTRACTOR REQUIREMENT | | | | | |
|---|---|---|---|---|---|
| ITEM | CONNECTION IN PANEL | CONNECTION IN DEVICE | VOLTAGE | AMPERAGE | COMMENTS |
| SHUNT TRIP BREAKER (OPTIONAL) | ST & N1 | BREAKER COIL (A1 & A2) | 120 VAC | < 4 AMPS | ST TO A1 ON SHUNT BREAKER COIL, AND NEUTRAL TO A2 ON SHUNT TRIP BREAKER COIL |
| CONTROL PANEL POWER | H1 & N1 + GROUND | CIRCUIT BREAKER | 120 VAC | 15 AMPS | CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER |
| UDS APPLIANCE KILL SWITCH (OPTIONAL) | KTS & N1 | KTS & N1 | 120 VAC | < 4 AMPS | KILL SWITCH TERMINALS MUST BE IN SERIES WITH OTHER KILL SWITCHES |
| REMOTE 120VAC ANSUL AUTOMAN (OPTIONAL) | AU1, AU2 | SOLENOID | 120 VAC | < 6 AMPS | 120V TO AU1. AU2 TO ANSUL ELECTRIC AUTOMAN, ANSUL SOLENOID TO NEUTRAL |
| GAS VALVE | LGV & N1(-IF 24 VDC)<br>GAS & N1 (IF 120 VAC) | RED/RED/GREEN | 24 VDC OR 120 VAC | < 1.0 AMPS | IF 24 VDC, 2 WIRES & GROUND. N1TO RED, LGV TO RED, AND GREEN TO GROUND<br>IF 120 VAC, 2 WIRES & GROUND GAS TO RED, N1 TO RED, AND GREEN TO GROUND |




NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS


QUINN EVANS

1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

QUINNEVANS.COM


NOT FOR CONSTRUCTION

Albemarle County Public Schools

**ACPS High School Center II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd.
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: AEH
DRAWN: MDM

QEA No.41911390

BID DOCUMENTS
10/08/2024

FOODSERVICE CA
LAB EXHAUST HOOD DETAILS

**QF304**


PATH & FILENAME: Autodesk Docs://Albemarle County High School Center III/10607_Albemarle Co. HS Center II_Foodservice_v23.rvt
PLOTTING DATE & TIME: 10/1/2024 9:58:31 AM

# IMPORTANT SPECIAL UDS PARTS/NOTES

| | |
|---|---|
| ☆ | TWO (2) QTI1+CR WATER FILTERS WITH WINDOWS. |
| ☆ | UDS IS "L" SHAPED DUE TO NEC CODE RESTRICTIONS. |
| | |
| | |
| | |
| | |

UDS CONSTRUCTION TO BE
18 GA., TYPE 304 STAINLESS STEEL

UTILITY DISTRIBUTION SYSTEM MODEL UDI
IS LISTED UNDER ETL FILE NUMBERS
1048265524CRT-001 & 10175491COL-001
CONFORMS TO UL STD 891 & 508A
CERTIFIED TO CAN/CSA C22.2 No. 31-M89

ALL GAS ASSOCIATED REVIEW AND TESTING
WERE PERFORMED THROUGH INTERTEK UNDER
THESE NEW TESTS/CERTIFICATIONS.

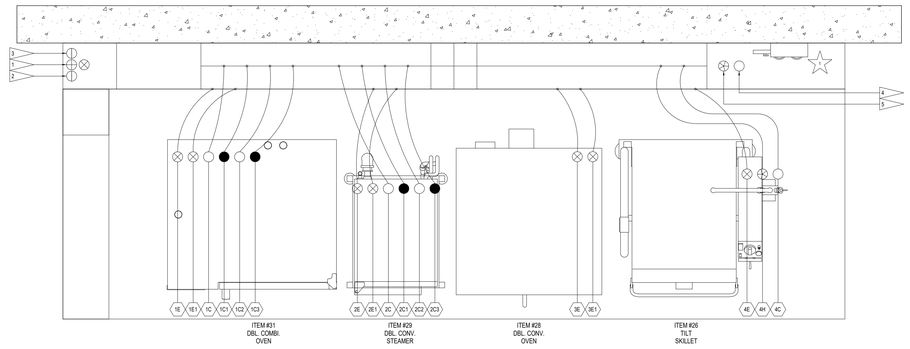
----NOTE----
NEC REQUIRES 48"
OF FIELD CLEARANCE
IN FRONT & 30"
ACROSS OF CIRCUIT
BREAKERS FOR
ACCESS.

**SYMBOL SCHEDULE**

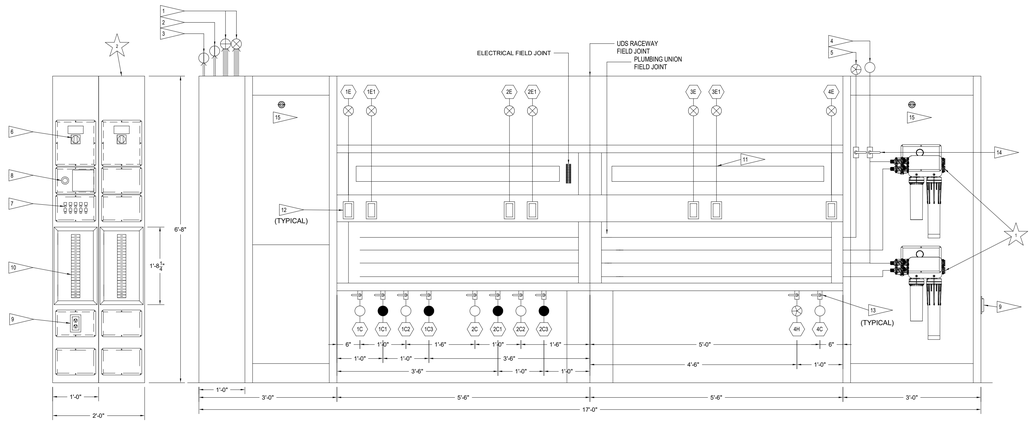
- COLD WATER
- HOT WATER
- FILTERED WATER
- NATURAL GAS
- PROPANE
- 120 VAC 1 PHASE
- 208 VAC 1 PHASE
- 208 VAC 3 PHASE
- 480 VAC 3 PHASE
- STEAM SUPPLY
- STEAM CONDENSATE RETURN

## STANDARD FLAG NOTES

1. ELECTRICAL SERVICE FROM ABOVE, SEE SCHEDULE FOR DETAILS. PROVIDED UNDER DIVISION 26
2. 120V/1PH/15A DEDICATED ELECTRICAL CIRCUIT INTO UDS TERMINALS "H1, N1" FOR FUEL/SHUNT CONTROL. (PROVIDED UNDER DIVISION 26) SEE SCHEMATIC BELOW.
3. 2-WIRE ELECTRICAL CIRCUIT FROM UDS TERMINALS "KTS & ST" TO LIKE TERMINALS LOCATED IN ELECTRICAL CONTROL PANEL. (PROVIDED UNDER DIVISION 26) SEE SHEET 2 FOR WIRING DETAILS.
4. COLD WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED UNDER DIVISION 22)
5. HOT WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED UNDER DIVISION 22)
6. SERVICE MAIN BREAKER W/SHUNT TRIP AND RESET HANDLE, SEE SCHEDULE FOR DETAILS.
7. STATUS INDICATOR LIGHTS.
8. **EMERGENCY KILL SWITCH**.W/ HMI/DCV SWITCH PLATE.
9. DCO RECEPTACLE W/ BREAKER & WEATHERPROOF COVER.
10. ELECTRICAL LOAD CENTER WITH INDIVIDUAL CIRCUIT BREAKERS.
11. ELECTRICAL WIRING TO APPLIANCES.
12. ELECTRICAL CONNECTION W/WEATHERPROOF COVER AS SPECIFIED ON THE EQUIPMENT SCHEDULE, SEE THIS SHEET.
13. PLUMBING CONNECTION AS SPECIFIED ON THE EQUIPMENT SCHEDULE, SEE THIS SHEET.
14. MANUAL SHUT OFF VALVE.
15. REMOVABLE ACCESS DOORS.




WALL VIEW - WALL UDS - UDW




ELEVATION - WALL UDS - UDW

## UTILITY DISTRIBUTION SYSTEM EQUIPMENT SCHEDULE

| EQUIPMENT | | | | | ELECTRICAL | | | | CIRCUIT BREAKER | | RECEPTACLE | GAS | | WATER | | STEAM | | | CONNECTION | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONN.# | ITEM | DESCRIPTION | MANUFACTURER | MODEL # | KW. | AMPS | HP | VOLT | PH | AMPS | POLES | PART # | SIZE | MBH | HOT | COLD | SUPPLY | COND. RETURN | LBS/HR | TYPE | LENGTH | |
| 1E | 31 | DBL. COMBI. OVEN | CONVOTHERM | C4ET 6.20EB-N/C4ET 6.20EB-N | 19.3 | 23.3 | - | 480 | 3 | 30 | 3 | L16-30R | - | - | - | - | - | - | - | CORD & PLUG | 6' | - |
| 1E1 | 31 | DBL. COMBI. OVEN | CONVOTHERM | C4ET 6.20EB-N/C4ET 6.20EB-N | 19.3 | 23.3 | - | 480 | 3 | 30 | 3 | L16-30R | - | - | - | - | - | - | - | CORD & PLUG | 6' | - |
| 1C | 31 | DBL. COMBI. OVEN | CONVOTHERM | C4ET 6.20EB-N/C4ET 6.20EB-N | - | - | - | - | - | - | - | - | - | - | - | 3/4" | - | - | - | QUICK DISCONNECT | 5' | - |
| 1C1 | 31 | DBL. COMBI. OVEN | CONVOTHERM | C4ET 6.20EB-N/C4ET 6.20EB-N | - | - | - | - | - | - | - | - | - | - | - | 3/4" | - | - | - | QUICK DISCONNECT | 5' | FILTERED |
| 1C2 | 31 | DBL. COMBI. OVEN | CONVOTHERM | C4ET 6.20EB-N/C4ET 6.20EB-N | - | - | - | - | - | - | - | - | - | - | - | 3/4" | - | - | - | QUICK DISCONNECT | 5' | - |
| 1C3 | 31 | DBL. COMBI. OVEN | CONVOTHERM | C4ET 6.20EB-N/C4ET 6.20EB-N | - | - | - | - | - | - | - | - | - | - | - | 3/4" | - | - | - | QUICK DISCONNECT | 5' | FILTERED |
| 2E | 29 | DBL. CONV. STEAMER | CLEVELAND | (2) 22CET63.1 | 12.0 | 14.4 | - | 480 | 3 | 20 | 3 | L16-20R | - | - | - | - | - | - | - | CORD & PLUG | 6' | - |
| 2E1 | 29 | DBL. CONV. STEAMER | CLEVELAND | (2) 22CET63.1 | 12.0 | 14.4 | - | 480 | 3 | 20 | 3 | L16-20R | - | - | - | - | - | - | - | CORD & PLUG | 6' | - |
| 2C | 29 | DBL. CONV. STEAMER | CLEVELAND | (2) 22CET63.1 | - | - | - | - | - | - | - | - | - | - | - | 3/4" | - | - | - | QUICK DISCONNECT | 5' | - |
| 2C1 | 29 | DBL. CONV. STEAMER | CLEVELAND | (2) 22CET63.1 | - | - | - | - | - | - | - | - | - | - | - | 3/4" | - | - | - | QUICK DISCONNECT | 5' | FILTERED |
| 2C2 | 29 | DBL. CONV. STEAMER | CLEVELAND | (2) 22CET63.1 | - | - | - | - | - | - | - | - | - | - | - | 3/4" | - | - | - | QUICK DISCONNECT | 5' | - |
| 2C3 | 29 | DBL. CONV. STEAMER | CLEVELAND | (2) 22CET63.1 | - | - | - | - | - | - | - | - | - | - | - | 3/4" | - | - | - | QUICK DISCONNECT | 5' | FILTERED |
| 3E | 28 | DBL. CONV. OVEN | GARLAND | MCO-ED-20-S | 10.4 | 14.0 | - | 480 | 3 | 20 | 3 | L16-20R | - | - | - | - | - | - | - | CORD & PLUG | 6' | - |
| 3E1 | 28 | DBL. CONV. OVEN | GARLAND | MCO-ED-20-S | 10.4 | 14.0 | - | 480 | 3 | 20 | 3 | L16-20R | - | - | - | - | - | - | - | CORD & PLUG | 6' | - |
| 4E | 26 | TILT SKILLET | CLEVELAND | SEL30T1 | 12.0 | 14.4 | - | 480 | 3 | 20 | 3 | L16-20R | - | - | - | - | - | - | - | CORD & PLUG | 6' | - |
| 4H | 26 | TILT SKILLET | CLEVELAND | SEL30T1 | - | - | - | - | - | - | - | - | - | - | 1/2" | - | - | - | - | QUICK DISCONNECT | 5' | - |
| 4C | 26 | TILT SKILLET | CLEVELAND | SEL30T1 | - | - | - | - | - | - | - | - | - | - | - | 1/2" | - | - | - | QUICK DISCONNECT | 5' | - |
| D1 | - | DUPLEX OUTLET | - | - | - | - | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | - | FACTORY | - | GFI BREAKER |
| D2 | - | DUPLEX OUTLET | - | - | - | - | - | 120 | 1 | 20 | 1 | DR20 | - | - | - | - | - | - | - | FACTORY | - | GFI BREAKER |
| TOTAL CONNECTED LOAD: | | | 0.0 | | KW. | 0.0 | AMP | 95.3 | KW. | 114.6 | AMP | - | | MBH | H.W. | | STEAM SUPPLY | | | LEGEND<br>MBH = BTU PER HOUR (1000S)<br>SB = STRAIGHT BLADE PLUGS<br>TL = TWIST LOCK PLUGS<br>PS = PIN & SLEEVE PLUGS<br>DCO = DUAL CONVENIENCE OUTLET<br>DIRECT = CONDUIT & WIRE | | |
| FUTURE AVAILABLE LOAD CAPACITY: | | | 14.4 | | KW. | 40.0 | AMP | 21.1 | KW. | 25.4 | AMP | - | | MBH | 3/4" | | - | | | | | |
| SYSTEM CAPACITY: | | | 14.4 | | KW. | 40.0 | AMP | 116.4 | KW. | 140.0 | AMP | - | | MBH | C.W. | | COND. RETURN | | | | | |
| SERVICE SIZE: | | | 120/208 V/ 3 PH/ 50 AMP | | | | | 480 V/ 3 PH/ 175 AMP | | | | - | | | 3/4" | | - | | | | | |

## UTILITY DISTRIBUTION SYSTEM FILTER INFORMATION

| EQUIPMENT | | | | | | FILTER | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| CONN. # | ITEM | DESCRIPTION | MANUFACTURER | MODEL # | EQUIPMENT FLOW RATE (GPM) | MANUFACTURER | MODEL # | FILTER FLOWRATE (GPM) | CONNECTION TYPE INLET | CONNECTION TYPE OUTLET |
| 1C1 | 31 | DBL. COMBI. OVEN | CONVOTHERM | C4ET 6.20EB-N/C4ET 6.20EB-N | 0.07 | OPTIPURE | QTI1+CR | 2.5 | 1/2" | 1/2" |
| 1C3 | 31 | DBL. COMBI. OVEN | CONVOTHERM | C4ET 6.20EB-N/C4ET 6.20EB-N | 0.07 | | | | | |
| 2C1 | 29 | DBL. CONV. STEAMER | CLEVELAND | (2) 22CET63.1 | 0.07 | OPTIPURE | QTI1+CR | 2.5 | 1/2" | 1/2" |
| 2C3 | 29 | DBL. CONV. STEAMER | CLEVELAND | (2) 22CET63.1 | 0.07 | | | | | |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Albemarle County Public Schools

**ACPS High School Center II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd.
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: AEH
DRAWN: MDM

QEA No.41911390

BID DOCUMENTS
10/08/2024

FOODSERVICE UTILITY DISTRIBUTION SYSTEM DETAILS

**QF305**


PATH & FN.ENAME: Autodesk Docs://Albemarle County High School Center III/19097_Albemarle Co. HS Center II_Foodservice_v23.rvt
PLOTTING DATE & TIME: 10/1/2024 9:58:32 AM

# IMPORTANT SPECIAL UDS PARTS/NOTES

| | |
|---|---|
| ☆ | TWO (2) QTI1+CR WATER FILTERS WITH WINDOWS. |
| ☆ | UDS IS "L" SHAPED DUE TO NEC CODE RESTRICTIONS. |
| | |
| | |
| | |
| | |

UDS CONSTRUCTION TO BE
18 GA., TYPE 304 STAINLESS STEEL

UTILITY DISTRIBUTION SYSTEM MODEL UDI
IS LISTED UNDER ETL FILE NUMBERS
10482652 4CRT-001 & 10175491COL-001
CONFORMS TO UL STD 891 & 508A
CERTIFIED TO CAN/CSA C22.2 No. 31-M89

ALL GAS ASSOCIATED REVIEW AND TESTING
WERE PERFORMED THROUGH INTERTEK UNDER
THESE NEW TESTS/CERTIFICATIONS.

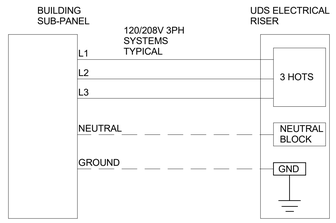
----NOTE----
NEC REQUIRES 48"
OF FIELD CLEARANCE
IN FRONT & 30"
ACROSS OF CIRCUIT
BREAKERS FOR
ACCESS.

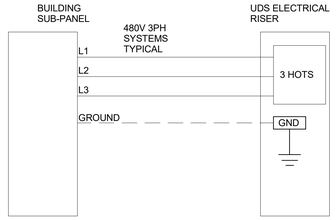
SYMBOL SCHEDULE

| |
|---|
| COLD WATER |
| HOT WATER |
| FILTERED WATER |
| NATURAL GAS |
| PROPANE |
| 120 VAC 1 PHASE |
| 208 VAC 1 PHASE |
| 208 VAC 3 PHASE |
| 480 VAC 3 PHASE |
| STEAM SUPPLY |
| STEAM CONDENSATE RETURN |

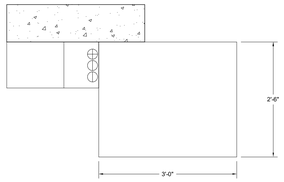
STANDARD FLAG NOTES

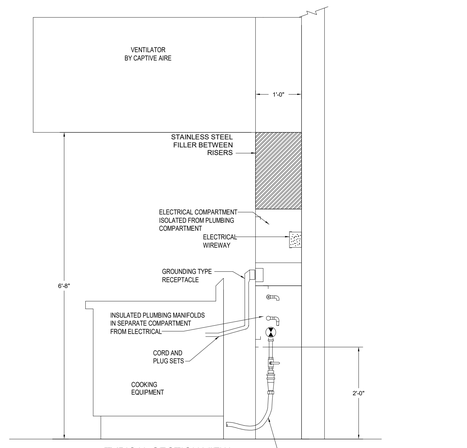
1. ELECTRICAL SERVICE FROM ABOVE, SEE SCHEDULE FOR DETAILS. PROVIDED UNDER DIVISION 26
2. 120V/1PH/15A DEDICATED ELECTRICAL CIRCUIT INTO UDS TERMINALS "H1, N1" FOR FUEL/SHUNT CONTROL. (PROVIDED UNDER DIVISION 26) SEE SCHEMATIC BELOW.
3. 2-WIRE ELECTRICAL CIRCUIT FROM UDS TERMINALS "KTS & ST" TO LIKE TERMINALS LOCATED IN ELECTRICAL CONTROL PANEL. (PROVIDED UNDER DIVISION 26) SEE SHEET 2 FOR WIRING DETAILS.
4. COLD WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED UNDER DIVISION 22)
5. HOT WATER SERVICE FROM ABOVE, SEE SCHEDULE FOR SERVICE SIZE (PROVIDED UNDER DIVISION 22)
6. SERVICE MAIN BREAKER W/SHUNT TRIP AND RESET HANDLE, SEE SCHEDULE FOR DETAILS.
7. STATUS INDICATOR LIGHTS.
8. **EMERGENCY KILL SWITCH** W/ HMI/DCV SWITCH PLATE.
9. DCO RECEPTACLE W/ BREAKER & WEATHERPROOF COVER.
10. ELECTRICAL LOAD CENTER WITH INDIVIDUAL CIRCUIT BREAKERS.
11. ELECTRICAL WIRING TO APPLIANCES.
12. ELECTRICAL CONNECTION W/WEATHERPROOF COVER AS SPECIFIED ON THE EQUIPMENT SCHEDULE. SEE THIS SHEET.
13. PLUMBING CONNECTION AS SPECIFIED ON THE EQUIPMENT SCHEDULE, SEE THIS SHEET.
14. MANUAL SHUT OFF VALVE.
15. REMOVABLE ACCESS DOORS.




NEC BREAKER CLEARANCE

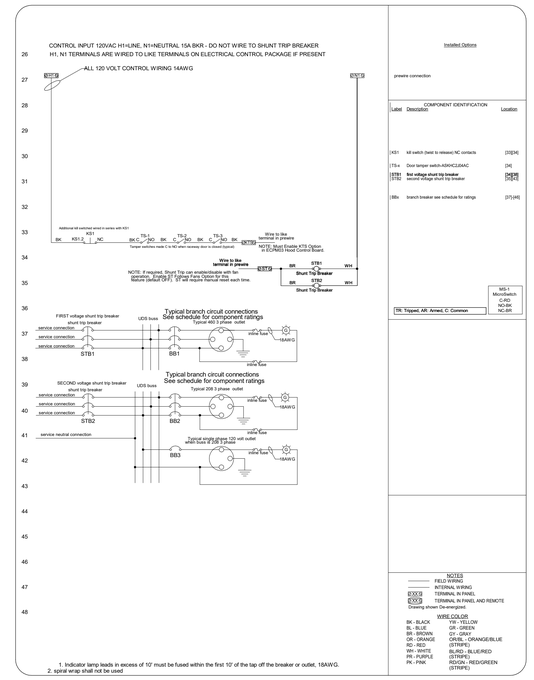



TYPICAL SECTION VIEW
MODEL UDW DISTRIBUTION SYSTEM

DOUBLE SHUT-OFF BRASS QUICK DISCONNECT HOSES WITH 1/4 TURN VALVES ON ALL LINES. ALL WATER HOSES ARE FLEXIBLE STAINLESS STEEL. ALL GAS HOSES ARE AGA CERTIFIED, CORRUGATED STAINLESS INNER JACKET, STAINLESS MESH OUTER, PVC COATED.

| PRODUCT DESCRIPTION | |
|---|---|
| UDS STYLE | WALL |
| HOOD HEIGHT | 80" |
| RISER HEIGHT | 80" |
| TRIM COLLAR SIZE | NA |
| RACEWAY TO FLOOR | 24" |
| UDS WIDTH | 12" |
| TOP OF RACEWAY FROM FLOOR | NA |
| OUTLET LOCATION | ON FACE |
| OUTLET HEIGHT (IF APPLICABLE) | 45" |
| PLUMBING HEIGHT | 18" |





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PROJECT MANAGER: AEH
DRAWN: MDM

QEA No.41911390

BID DOCUMENTS
10/08/2024

FOODSERVICE UTILITY DISTRIBUTION SYSTEM DETAILS

# QF306


PATH & FILENAME: Autodesk Docs://Albemarle County High School Center III/19097_Albemarle Co. HS Center III_Foodservice_v23.rvt
PLOTTING DATE & TIME: 10/1/2024 9:58:39 AM

## EXHAUST FAN INFORMATION

| FAN UNIT NO | TAG | QTY | FAN UNIT MODEL # | MANUFACTURER | CFM | ESP | RPM | MOTOR ENCL | HP | BHP | PHASE | VOLT | FLA | DISCHARGE VELOCITY | WEIGHT (LBS) | SONES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 24E | 1 | DU240HFA | CAPTIVEAIRE | 3760 | 1.400 | 865 | ODP,PREMIUM | 3.000 | 1.7560 | 3 | 460 | 4.6 | 855 FPM | 305 | 14.6 |
| 3 | 58 | 1 | DU50HFA | CAPTIVEAIRE | 1000 | 0.600 | 1271 | TEAO-ECM | .500 | 0.2100 | 1 | 115 | 6.3 | 380 FPM | 71 | 10.9 |

## DOAS/RTU FAN SCHEDULE

| FAN INFORMATION | | | | | | | | | | ELECTRICAL INFORMATION | | | | | COOLING INFORMATION | | | | | | | | | | REHEAT INFORMATION | | | | | ELECTRIC HEAT INFORMATION | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | OUTSIDE AIR | | MIXED AIR | | LEAVING AIR | | | CAPACITY | | | | DISCHARGE | | CAPACITY | | | | | | | | | |
| FAN UNIT NO | TAG | QTY | DOAS/RTU MODEL # | MANUFACTURER | BLOWER | RETURN AIR CFM | MAX OUTSIDE AIR CFM | TOTAL CFM | WEIGHT (LBS) | ESP | HP | PHASE | VOLT | MCA | MOCP | DB | WB | DB | WB | DB | WB | DP | TOTAL | SENS. | IEER | ISMRE | DB | WB | DESIRED | MAX | MOISTURE REMOVAL RATE | DSGN. KW'S | MAX. KW'S | VOLTS | AMPS | MCA | MOCP | TEMP RISE | NOTES |
| 2 | 24F | 1 | CAS-HVAC2-E.604-18-10T-MPU | CAPTIVEAIRE | 18Z-2 | 0 | 3008 | 3008 | 1840 | 0.400 | 5.00 | 3 | 460 | 30.5A | 35A | 82.8°F | 77.3°F | 82.8°F | 77.3°F | 64.7°F | 64.4°F | 64.3°F | 144.0 MBH | 56.1 MBH | 18.6 | 4.3 | -1.0°F | -1.0°F | 16.9 MBH | 0 MBH | 79.2 LBS/HR | 47 | 60 | 460 | 72.2 | 90.3 | 100 | 52 °F | 1,2,3,4,5,6,7,8,9,10,11,12,13,14 |

NOTES:

1. INVERTER SCROLL COMPRESSOR WITH INTEGRATED OIL SENSOR. DIGITAL OR STAGED SCROLL NOT AN APPROVED EQUAL
2. DIRECT DRIVE PLENUM BLOWER. BELT DRIVEN BLOWERS ARE NOT ACCEPTABLE
3. INTEGRATED MONITORING VIA CELLULAR CONNECTION BY MANUFACTURER
4. REFRIGERATION PRESSURE MONITORING ON HIGH AND LOW PRESSURE SIDE OF SYSTEM INCLUDED THROUGH DIGITAL INTERFACE
5. EC MOTOR CONDENSING FANS
6. ELECTRONIC EXPANSION VALVE. TXV NOT ACCEPTABLE
7. SUCTION LINE ACCUMULATOR
8. FACTORY COMMISSIONING WITH 5 YEAR PARTS WARRANTY
9. AVERAGING INTAKE, EVAP AND DISCHARGE TEMPERATURE SENSORS (DISCHARGE SENSOR TO BE FACTORY MOUNTED WITHIN UNIT)
10. 2" EXTERIOR DUAL-WALL CONSTRUCTION W/ R-13 INSULATION-MINIMUM 20GA EXTERIOR W/ 14GA BASE
11. SUPPLY CFM MONITORING INTEGRAL TO UNIT WITH CFM MEASUREMENT INCLUDED THROUGH DIGITAL INTERFACE
12. FULLY MODULATING HOT GAS REHEAT
13. DIRECT DRIVE ECM PLENUM BLOWER. BELT DRIVEN AND NON-ECM BLOWERS ARE NOT ACCEPTABLE
14. SEPARATE POWER CONNECTION FOR MAIN UNIT & ELECTRIC HEATER

## FAN OPTIONS

| FAN UNIT NO | TAG | QTY | DESCRIPTION |
|---|---|---|---|
| 1 | 24E | 1 | GREASE BOX |
| | | 1 | 2 YEAR PARTS WARRANTY |
| 2 | 24F | 1 | RTU TOTAL CFM MONITORING |
| | | 1 | INTAKE FIRESTAT SET TO 135°F |
| | | 1 | FREEZESTAT |
| | | 1 | DISCHARGE FIRESTAT SET TO 240°F |
| | | 1 | SEPARATE ELECTRIC HEAT CONNECTION - RTU. 750VA TRANSFORMER USED FOR CONTROLS. TWO PRIMARY CONNECTIONS REQUIRED FOR RTU WITH ELECTRIC HEAT. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #28, #47, "MA", OR "E2" PREWIRE OPTION MUST BE SELECTED. DO NOT PROVIDE SUPPLY STARTER IN PREWIRE |
| | | 1 | CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED |
| | | 1 | 2" MERV 13 FILTERS FOR RTU2 (QTY. 4) |
| | | 1 | 2" MERV 8 FILTERS FOR RTU2 (QTY. 4) |
| | | 1 | RTU2 DOWN DISCHARGE ELECTRIC HEAT |
| | | 1 | RTU FIXED 100% OA INTAKE CONTROL |
| | | 1 | RTU2 NO RETURN - 100% OA - MPU |
| | | 1 | 10 TON MODULATING COOLING OPTION, 460/480V. R410A REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS |
| | | 1 | ECM FAN DOAS - 3 PHASE |
| | | 1 | MOISTURE ELIMINATOR FOR SIZE 2, 10 TON RTU. NO REHEAT |
| | | 1 | RTU2 CURB DUCT HANGER |
| | | 1 | ECM 0-10V SUPPLY FAN CONTROL - RTU MUA BOARD |
| | | 1 | 5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT |

## FAN ACCESSORIES

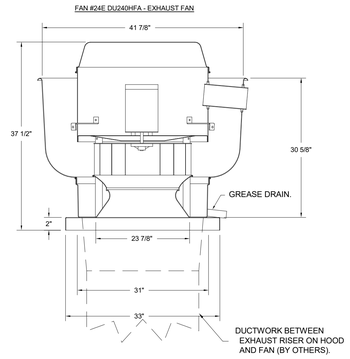
| FAN UNIT NO | TAG | EXHAUST | | | SUPPLY | | | |
|---|---|---|---|---|---|---|---|---|
| | | GREASE CUP | GRAVITY DAMPER | WALL MOUNT | SIDE DISCHARGE | GRAVITY DAMPER | MOTORIZED DAMPER | WALL MOUNT |
| 1 | 24E | YES | | | | | | |
| 3 | 58 | | | | | | | |

## CURB ASSEMBLIES

| NO | ON FAN | WEIGHT | ITEM | SIZE |
|---|---|---|---|---|
| 1 | # 1 | 48 LBS | CURB | 31.500"W X 31.500"L X 20.000"H VENTED HINGED. |
| 2 | # 2 | 111 LBS | CURB | 49.500"W X 75.000"L X 20.000"H INSULATED. |
| 3 | # 3 | 20 LBS | CURB | 19.500"W X 19.500"L X 18.000"H INSULATED. |

| HMI SCHEDULE | | | | |
|---|---|---|---|---|
| UNIT NUMBER | HMI # | HMI LOCATION | TEMP AVERAGING | MODBUS ADDRESS |
| FAN #2 | HMI #1 - UNIT HMI # 1 | MOUNTED IN UNIT | NOT AVERAGED | 55 |
| FAN #2 | HMI #2 - SPACE HMI # 1 | | AVERAGED | 56 |

FAN #24E DU240HFA - EXHAUST FAN




FEATURES:

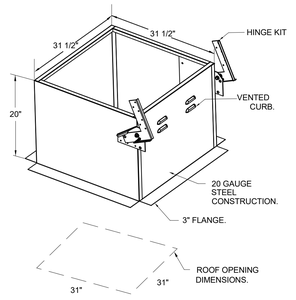
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

- GREASE BOX.
- 2 YEAR PARTS WARRANTY.

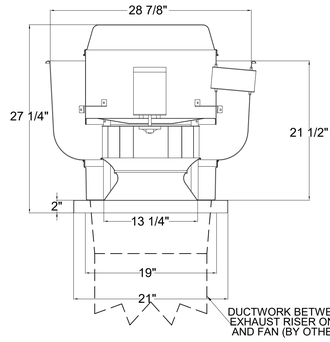






TOP VIEW

FAN #58 DU50HFA - EXHAUST FAN (DISH)




FEATURES:

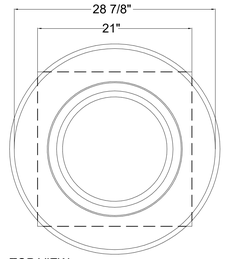
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).

- NEMA 3R SAFETY DISCONNECT SWITCH.

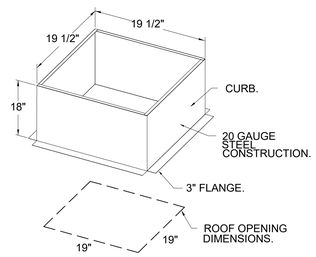
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

OPTIONS

- ECM WIRING PACKAGE - EXHAUST - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL -MSC- (TELCO), CCW ROTATION.
- 2 YEAR PARTS WARRANTY.




TOP VIEW





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Albemarle County Public Schools

**ACPS High School Center II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
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| No | Date | Description |
|---|---|---|

PROJECT MANAGER: AEH
DRAWN BY: MDM

QEA No.41911390

BID DOCUMENTS
10/08/2024

FOODSERVICE KITCHEN FAN DETAILS

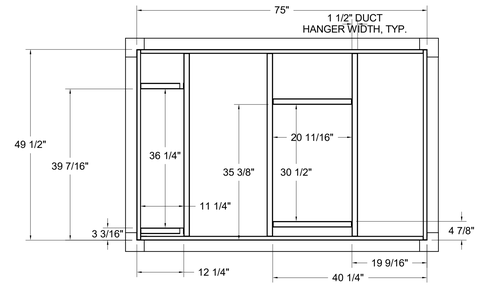
**QF307**

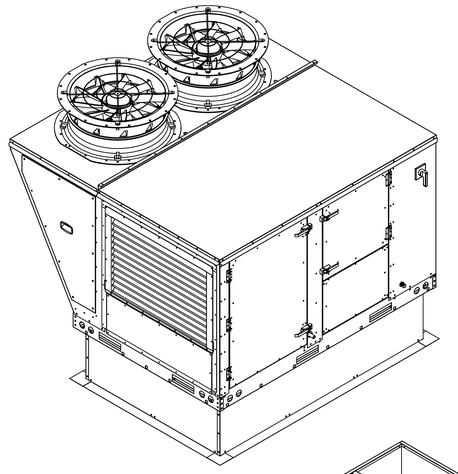

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/10697_Albemarle Co. HS Center II_Foodservice_v23.rvt
PLOTTING DATE & TIME: 10/1/2024 9:58:35 AM

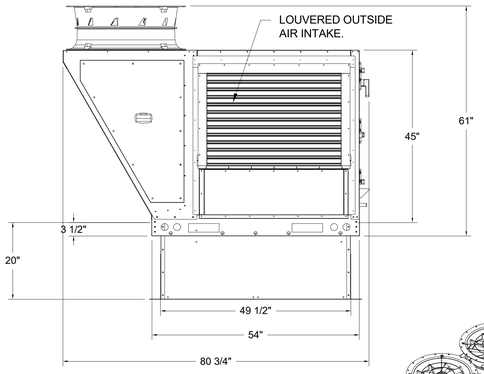
## FAN #24F CAS-HVAC2-E.604-18Z-10T-MPU - HEATER

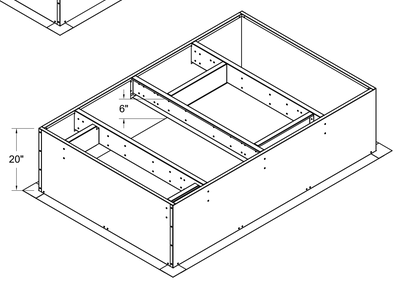
NOTES:
1. DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
2. ( ) DENOTES CORNER WEIGHT.
3. ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.
4. CONNECTION FROM BREAKER TO UNITS SAFETY DISCONNECT SWITCH TO BE COPPER WIRE ONLY.

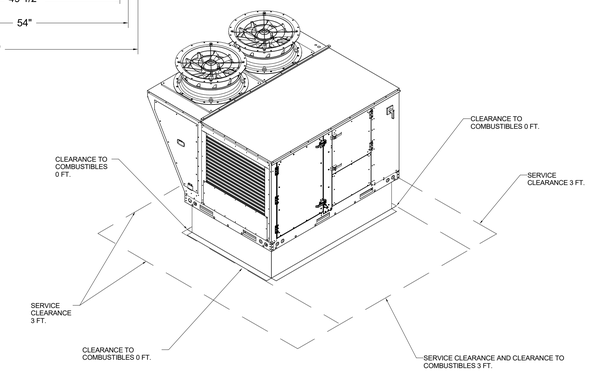
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.
SUGGESTED STRAIGHT DUCT SIZE IS 20.5" x 30.25".

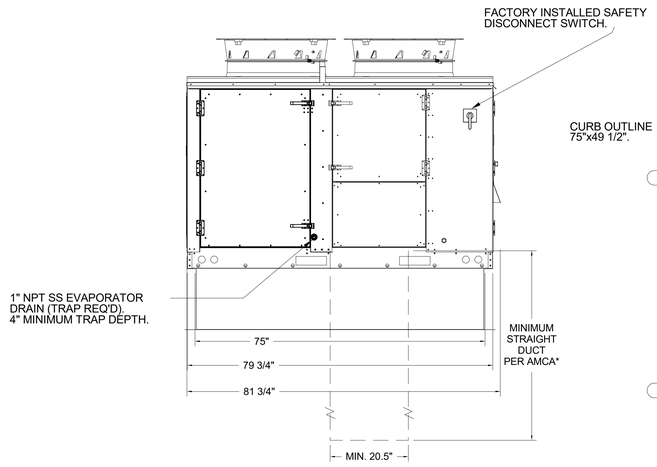


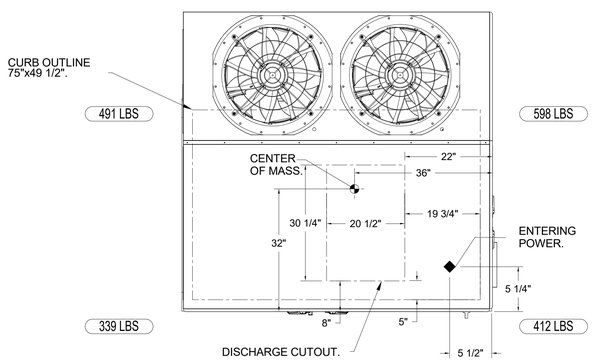







QUINN EVANS

1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

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CONSTRUCTION

Albemarle County Public Schools

**ACPS High School Center II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd.
Charlottesville, VA 22901

NOT FOR CONSTRUCTION

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: AEH
DRAWN: MDM

QEA No.41911390

BID DOCUMENTS
10/08/2024

FOODSERVICE KITCHEN FAN DETAILS

**QF308**


PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/10897_Albemarle Co. HS Center II_Foodservice_v23.rvt
PLOTTING DATE & TIME: 10/1/2024 9:58:36 AM

## EXHAUST FAN INFORMATION

| FAN UNIT NO | TAG | QTY | FAN UNIT MODEL # | MANUFACTURER | CFM | ESP | RPM | MOTOR ENCL | HP | BHP | PHASE | VOLT | FLA | DISCHARGE VELOCITY | WEIGHT (LBS) | SONES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | C15E | 1 | DU240HFA | CAPTIVEAIRE | 4100 | 1.500 | 906 | ODP,PREMIUM | 3.000 | 2.0340 | 3 | 460 | 4.4 | 932 FPM | 284 | 16 |

## DOAS/RTU FAN SCHEDULE

| FAN INFORMATION | | | | | | | | | | ELECTRICAL INFORMATION | | | | | COOLING INFORMATION | | | | | | | | | | | | ELECTRIC HEAT INFORMATION | | | | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FAN UNIT NO | TAG | QTY | DOAS/RTU MODEL # | MANUFACTURER | BLOWER | RETURN AIR CFM | MAX OUTSIDE AIR CFM | TOTAL CFM | WEIGHT (LBS) | ESP | HP | PHASE | VOLT | MCA | MOCP | OUTSIDE AIR | | MIXED AIR | | LEAVING AIR | | | CAPACITY | | IEER | ISMRE | DSGN. KW'S | MAX. KW'S | VOLTS | AMPS | MCA | MOCP | TEMP RISE | |
| | | | | | | | | | | | | | | | | DB | WB | DB | WB | DB | WB | DP | TOTAL | SENS. | | | | | | | | | |
| 2 | C15F | 1 | CAS-HVAC2-E.604-18-10T-MPU | CAPTIVEAIRE | 18Z-2 | 0 | 3280 | 3280 | 1838 | 1.000 | 5.00 | 3 | 460 | 30.5A | 35A | 82.8°F | 77.3°F | 82.8°F | 77.3°F | 66.1°F | 65.6°F | 65.4°F | 144.0 MBH | 56.6 MBH | 18.6 | 4.3 | 52 | 60 | 460 | 72.2 | 90.3 | 100 | 52 °F | 1,2,3,4,5,6,7,8,9,10,11,12,13,14 |

NOTES:

1. INVERTER SCROLL COMPRESSOR WITH INTEGRATED OIL SENSOR. DIGITAL OR STAGED SCROLL NOT AN APPROVED EQUAL
2. DIRECT DRIVE PLENUM BLOWER. BELT DRIVEN BLOWERS ARE NOT ACCEPTABLE
3. INTEGRATED MONITORING VIA CELLULAR CONNECTION BY MANUFACTURER
4. REFRIGERATION PRESSURE MONITORING ON HIGH AND LOW PRESSURE SIDE OF SYSTEM INCLUDED THROUGH DIGITAL INTERFACE
5. EC MOTOR CONDENSING FANS
6. ELECTRONIC EXPANSION VALVE. TXV NOT ACCEPTABLE
7. SUCTION LINE ACCUMULATOR
8. FACTORY COMMISSIONING WITH 5 YEAR PARTS WARRANTY
9. AVERAGING INTAKE, EVAP AND DISCHARGE TEMPERATURE SENSORS (DISCHARGE SENSOR TO BE FACTORY MOUNTED WITHIN UNIT)
10. 2" EXTERIOR DUAL-WALL CONSTRUCTION W/ R-13 INSULATION-MINIMUM 20GA EXTERIOR W/ 14GA BASE
11. SUPPLY CFM MONITORING INTEGRAL TO UNIT WITH CFM MEASUREMENT INCLUDED THROUGH DIGITAL INTERFACE
12. DOWN DISCHARGE/NO RETURN
13. DIRECT DRIVE ECM PLENUM BLOWER. BELT DRIVEN AND NON-ECM BLOWERS ARE NOT ACCEPTABLE
14. SEPARATE POWER CONNECTION FOR MAIN UNIT & ELECTRIC HEATER

## FAN OPTIONS

| FAN UNIT NO | TAG | QTY | DESCRIPTION |
|---|---|---|---|
| 1 | C15E | 1 | GREASE BOX |
| | | 1 | LOAD REACTOR MOUNTED IN FAN |
| | | 1 | 2 YEAR PARTS WARRANTY |
| 2 | C15F | 1 | TOTAL CFM MONITORING |
| | | 1 | INTAKE FIRESTAT SET TO 135°F |
| | | 1 | FREEZESTAT |
| | | 1 | DISCHARGE FIRESTAT SET TO 240°F |
| | | 1 | SEPARATE ELECTRIC HEAT CONNECTION - RTU. 750VA TRANSFORMER USED FOR CONTROLS. TWO PRIMARY CONNECTIONS REQUIRED FOR RTU WITH ELECTRIC HEAT. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #28, #47, "MA", OR "E2" PREWIRE OPTION MUST BE SELECTED. DO NOT PROVIDE SUPPLY STARTER IN PREWIRE |
| | | 1 | CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED |
| | | 1 | 2" MERV 13 FILTERS FOR RTU2 (QTY. 4) |
| | | 1 | 2" MERV 8 FILTERS FOR RTU2 (QTY. 4) |
| | | 1 | RTU2 DOWN DISCHARGE ELECTRIC HEAT |
| | | 1 | RTU FIXED 100% OA INTAKE CONTROL |
| | | 1 | RTU2 NO RETURN - 100% OA - MPU |
| | | 1 | 10 TON MODULATING COOLING OPTION, 460/480V. R410A REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS |
| | | 1 | ECM FAN DOAS - 3 PHASE |
| | | 1 | MOISTURE ELIMINATOR FOR SIZE 2, 10 TON RTU. NO REHEAT |
| | | 1 | RTU2 CURB DUCT HANGER |
| | | 1 | ECM WIRING PACKAGE-RTU/MUA - PWM SIGNAL FROM ECPMO3 PREWIRE |
| | | 1 | 5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT |
| | | 1 | EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET |

## FAN ACCESSORIES

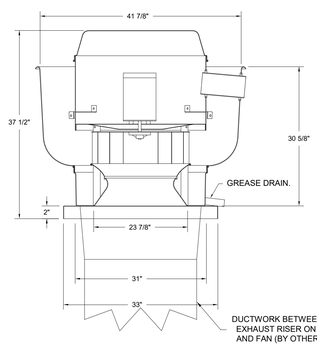
| FAN UNIT NO | TAG | EXHAUST | | | SUPPLY | | | |
|---|---|---|---|---|---|---|---|---|
| | | GREASE CUP | GRAVITY DAMPER | WALL MOUNT | SIDE DISCHARGE | GRAVITY DAMPER | MOTORIZED DAMPER | WALL MOUNT |
| 1 | | YES | | | | | | |

## CURB ASSEMBLIES

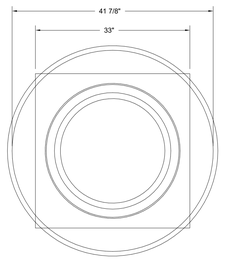
| NO | ON FAN | WEIGHT | ITEM | SIZE |
|---|---|---|---|---|
| 1 | # 1 | 43 LBS | CURB | 31.500"W X 31.500"L X 20.000"H VENTED HINGED. |
| 2 | # 2 | 111 LBS | CURB | 49.500"W X 75.000"L X 20.000"H INSULATED. |

| HMI SCHEDULE | | | | |
|---|---|---|---|---|
| UNIT NUMBER | HMI # | HMI LOCATION | TEMP AVERAGING | MODBUS ADDRESS |
| FAN #2 | HMI #1 - UNIT | IN UNIT | NOT AVERAGED | 55 |
| FAN #2 | HMI #2 - SPACE | | AVERAGED | 56 |

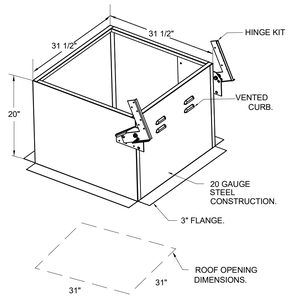
FAN #1 DU240HFA - EXHAUST FAN




DUCTWORK BETWEEN EXHAUST RISER ON HOOD AND FAN (BY OTHERS).




TOP VIEW




FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST

EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST

EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

- GREASE BOX.
- LOAD REACTOR MOUNTED IN FAN.
- 2 YEAR PARTS WARRANTY.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Albemarle County Public Schools

**ACPS High School Center II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd.
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: AEH
DRAWN: MDM

QEA No.41911390

BID DOCUMENTS
10/08/2024

FOODSERVICE CA LAB FAN DETAILS

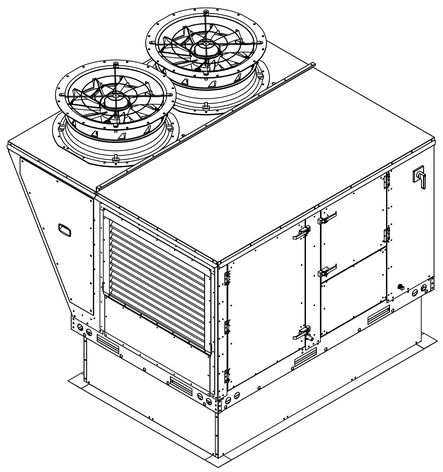
**QF309**

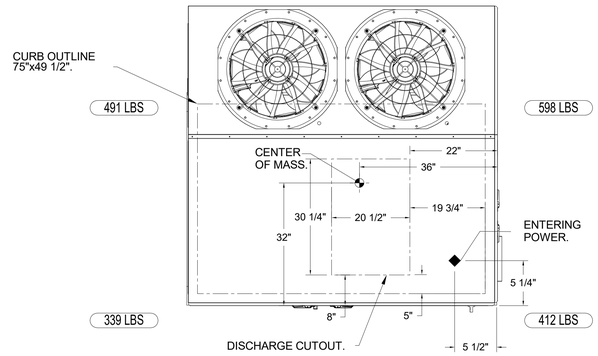

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center III/10697_Albemarle Co. HS Center II_Foodservice_v23.rvt
PLOTTING DATE & TIME: 10/1/2024 9:58:37 AM

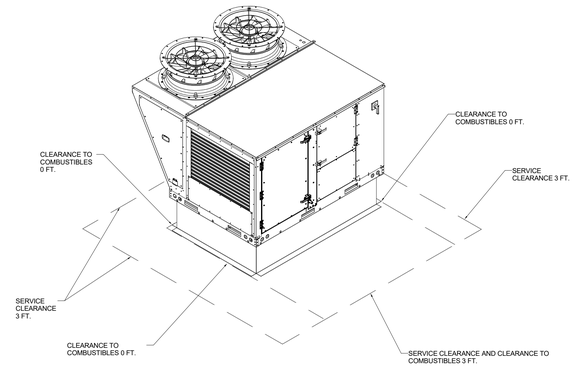
# FAN #C15F CAS-HVAC2-E.604-18Z-10T-MPU - HEATER

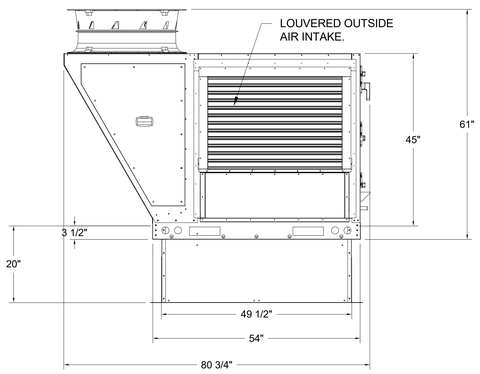
NOTES:
1. DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
2. ( ) DENOTES CORNER WEIGHT.
3. ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.
4. CONNECTION FROM BREAKER TO UNITS SAFETY DISCONNECT SWITCH TO BE COPPER WIRE ONLY.

*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.
SUGGESTED STRAIGHT DUCT SIZE IS 20.5" x 30.25".



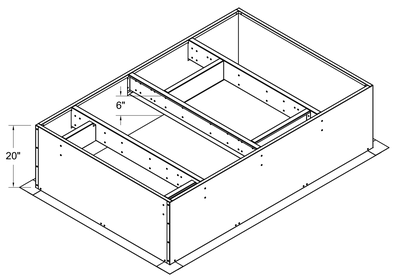


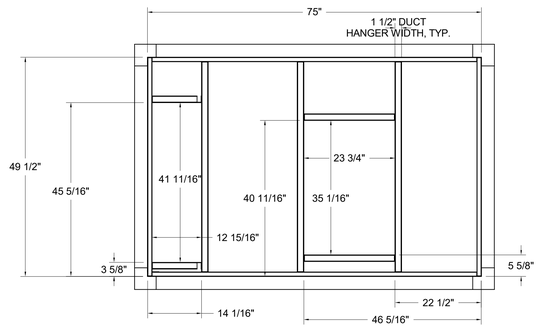










AIR DIFFUSION SUPPLY DUCT SPECIFICATIONS:
PROVIDE AIR DIFFUSION SUPPLY DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL DW-S0(HC), DW-S90(HC), & DW-S180(HC).
THREE DISTINCT HOLE PATTERN OPTIONS TO COVER A VARIETY OF CEILING HEIGHTS.
NO ADDITIONAL DIFFUSERS REQUIRED, AS THE DUCT ITSELF PROVIDES AIR DIFFUSION.
MADE OF HIGH QUALITY STAINLESS STEEL DESIGNED TO LAST 20+ YEARS.
HIGH INDUCTION SUPPLY DUCT IS CONSTRUCTED USING 24 GAUGE, 430 SS - 5" THRU 24".
HIGH INDUCTION SUPPLY DUCT IS CONSTRUCTED USING 20 GAUGE, 430 SS - 26" THRU 36".
QUICK ONSITE ASSEMBLY USING EPDM GASKETS & UNIVERSAL V-BANDS.
DOUBLE WALL SUPPLY DUCT AVAILABLE FOR INTERIOR AND EXTERIOR SPACES, EITHER CONDITIONED OR UNCONDITIONED.
DOUBLE WALL SUPPLY DUCT AVAILABLE IN DW-1S, DW-2S, & DW-3S TO MEET SPECIFIC REGIONAL "R" VALUE REQUIREMENTS.

| Insulation R-Value Recommendations | | |
|---|---|---|
| Supply Duct Type | Minimum R-value | Space Type |
| Single Wall - S & -HC | N/A | Conditioned Space Only |
| Double Wall - 1S | -4 | Unconditioned Interior Space Only |
| Double Wall - 2S | -8 | Unconditioned Space Climate Zones 1-4 |
| Double Wall - 3S | -12 | Unconditioned Space Climate Zones 5-8 |

DOUBLE WALL SUPPLY DUCT IS INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.
AIR DIFFUSION SUPPLY DUCT COMPLIES WITH SMACNA (SHEET METAL AND AIR CONDITIONING CONTRACTORS) BEST PRACTICES.
POSITIONING OF SPRINKLERS TO AVOID OBSTRUCTION TO DISCHARGE, SEE NFPA 13, TABLE 8.12.5.1.1.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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
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NOT FOR CONSTRUCTION

Albemarle County Public Schools

**ACPS High School Center II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd.
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: AEH
DRAWN: MDM

QEA No.41911390

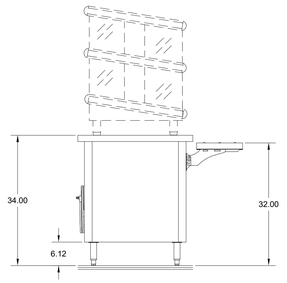
BID DOCUMENTS
10/08/2024

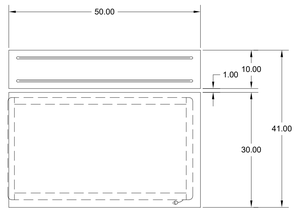
FOODSERVICE CA LAB FAN DETAILS

**QF310**


PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/10697_Albemarle Co. HS Center II_Foodservice_v23.rvt
PLOTTING DATE & TIME: 10/10/2024 9:58:39 AM

(2) REQUIRED
(1) SHOWN

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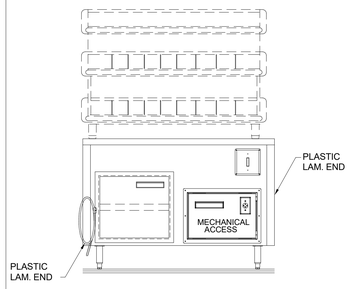
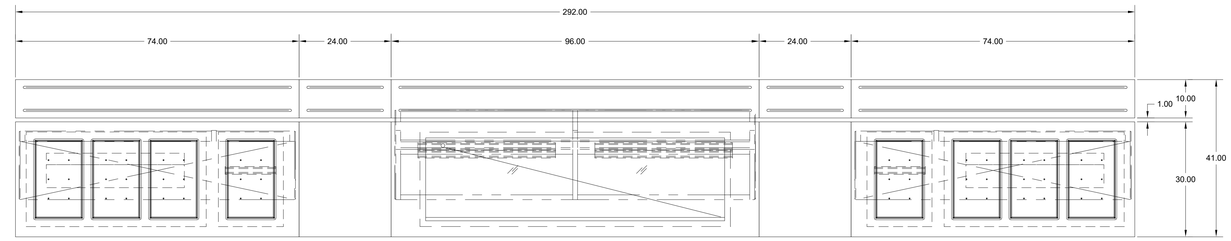
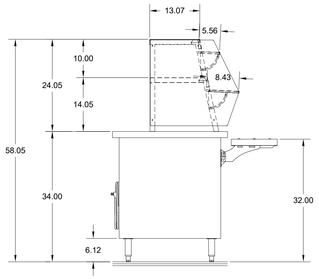


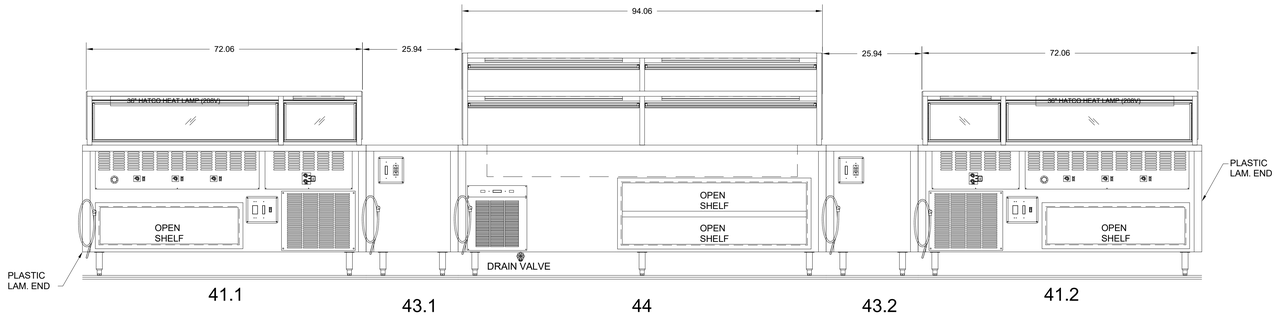

39

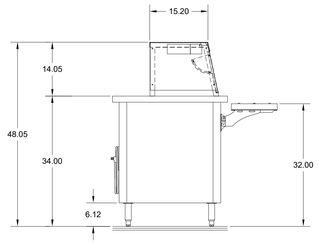
| SKU NO. 000-400140K21 | |
|---|---|
| MODEL NO. SC-50-NU | ITEM NO. 39 |
| -ALL PURPOSE COUNTER | |
| -S/S CONSTRUCTED ROLLED "V" TRAY SLIDE -MOUNTED ON FOLD-DOWN BRACKETS | |
| -MECHANICAL ACCESS | |
| -DRY STORAGE WITH CENTER SHELF | |
| -S/S ON OPERATOR SIDE -LAMINATE ON STUDENT SIDE AND ENDS | |
| -(1) 120/208V-20A SINGLE "TWIST LOCK" RECEPTACLE, NEMA #L14-20R WITH 20.0A BREAKER | |
| -NEMA NO. 14-20 PLUG WITH 9FT CORD 120/208V-60C-1PH-12.4A | |




END ELEVATION
OMIT #41.1 & 41.2 ONLY




END ELEVATION
ITEM #41.1 & 41.2 ONLY

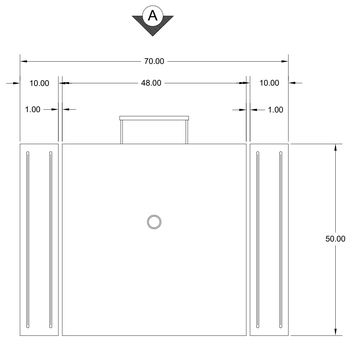
| SKU NO. 000-400140K22 | |
|---|---|
| MODEL NO. SFWH-3-NU | ITEM NO. 41.1 |
| -INDIVIDUALLY CONTROLLED HOT FOOD WELL *DRY OPERATION ONLY* -HOLDS (3) 12" X 20" PAN (BY OTHERS) -208/240V-60C-1HP-6A | |
| -S/S CONSTRUCTED ROLLED "V" TRAY SLIDE -MOUNTED ON FOLD-DOWN BRACKETS | |
| -S/S ON OPERATOR SIDE & RIGHT END -LAMINATE ON STUDENT SIDE & LEFT END | |
| MODEL NO. 1042F | |
| -INDIVIDUALLY CONTROLLED COMBO HOT/COLD/FREEZE FLEXIWELL PANS *DRY OPERATION ONLY* 208/240V-60C-1PH-2.3A-(1) @ 1/5HP | |
| -NEMA NO. 14-20 PLUG WITH 9FT CORD 120/203-230V-60C-1PH-12.35A | |
| -S/S CONSTRUCTED SINGLE TIER COUNTER PROTECTOR -18 GAUGE S/S TOP SHELF -FULL 0.25 SAFETY GLASS FRONTS -0.25 ACRYLIC ENDS -1.25 SQUARE S/S TUBING LEGS -0.25 PLEXIGLAS END PANEL BETWEEN HOT WELLS & FLEXIWELL | |
| -INSTALL (1) 36" HATCO HEAT LAMP (208V-3.9A) | |
| -(1) 36" FIXTURE FOR LED LIGHTING | |
| -(3) CLED BULBS PER FIXTURE (120V-0.037A EACH) | |
| -(1) 12.00 LED LIGHT (120V-0.04A) | |

| SKU NO. 000-400140K23 | |
|---|---|
| MODEL NO. SC-28-NU | ITEM NO. 43.1 |
| -ALL PURPOSE COUNTER | |
| -S/S CONSTRUCTED ROLLED "V" TRAY SLIDE -MOUNTED ON FOLD-DOWN BRACKETS | |
| -S/S ON OPERATOR SIDE, LEFT AND RIGHT ENDS -LAMINATE ON STUDENT SIDE ONLY | |
| -(1) 120V-15A DUPLEX (GFCI) RECEPTACLE, NEMA #5-15R WITH 10.0A BREAKER | |
| -NEMA NO. 5-15 PLUG WITH 9FT CORD 120V-60C-1PH-10A | |

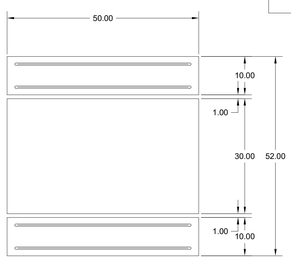
| SKU NO. 000-400140K24 | |
|---|---|
| MODEL NO. SCSC-96-BP | ITEM NO. 44 |
| -COLD PAN SERVING COUNTER -NEMA NO. 5-15 PLUG WITH 9FT CORD 115V-60C-1PH-5.28A -78.00 BY 21.62 BY 7.00 MECH. COOLED COLD PAN WITH DRAIN 115V-60C-1PH-4.8A-1/3HP -4" DEEP PANS BY OTHERS | |
| -S/S CONSTRUCTED ROLLED "V" TRAY SLIDE -MOUNTED ON FOLD-DOWN BRACKETS | |
| -S/S ON OPERATOR SIDE, LEFT AND RIGHT ENDS -LAMINATE ON STUDENT SIDE ONLY | |
| -S/S CONSTRUCTED DOUBLE TIER COUNTER PROTECTOR -0.25 SAFETY GLASS TOP SHELF -0.25 SAFETY GLASS MIDDLE SHELF -ADJUSTABLE 0.25 SAFETY GLASS FRONTS -0.25 ACRYLIC ENDS -1.25 SQUARE S/S TUBING LEGS | |
| -(4) 36.00 LED LIGHT (120V-0.12A) | |

| SKU NO. 000-400140K25 | |
|---|---|
| MODEL NO. SC-28-NU | ITEM NO. 43.2 |
| -ALL PURPOSE COUNTER | |
| -S/S CONSTRUCTED ROLLED "V" TRAY SLIDE -MOUNTED ON FOLD-DOWN BRACKETS | |
| -S/S ON OPERATOR SIDE, LEFT AND RIGHT ENDS -LAMINATE ON STUDENT SIDE ONLY | |
| -(1) 120V-15A DUPLEX (GFCI) RECEPTACLE, NEMA #5-15R WITH 10.0A BREAKER | |
| -NEMA NO. 5-15 PLUG WITH 9FT CORD 120V-60C-1PH-10A | |

| SKU NO. 000-400140K26 | |
|---|---|
| MODEL NO. SFWH-3-NU | ITEM NO. 41.2 |
| -INDIVIDUALLY CONTROLLED HOT FOOD WELL *DRY OPERATION ONLY* -HOLDS (3) 12" X 20" PAN (BY OTHERS) -208/240V-60C-1HP-6A | |
| -S/S CONSTRUCTED ROLLED "V" TRAY SLIDE -MOUNTED ON FOLD-DOWN BRACKETS | |
| -S/S ON OPERATOR SIDE & LEFT END -LAMINATE ON STUDENT SIDE & RIGHT END | |
| MODEL NO. 1042F | |
| -INDIVIDUALLY CONTROLLED COMBO HOT/COLD/FREEZE FLEXIWELL PANS *DRY OPERATION ONLY* 208/240V-60C-1PH-2.3A-(1) @ 1/5HP | |
| -NEMA NO. 14-20 PLUG WITH 9FT CORD 120/203-230V-60C-1PH-12.35A | |
| -S/S CONSTRUCTED SINGLE TIER COUNTER PROTECTOR -18 GAUGE S/S TOP SHELF -FULL 0.25 SAFETY GLASS FRONTS -0.25 ACRYLIC ENDS -1.25 SQUARE S/S TUBING LEGS -0.25 PLEXIGLAS END PANEL BETWEEN HOT WELLS & FLEXIWELL | |
| -INSTALL (1) 36" HATCO HEAT LAMP (208V-3.9A) | |
| -(1) 36" FIXTURE FOR LED LIGHTING | |
| -(3) CLED BULBS PER FIXTURE (120V-0.037A EACH) | |
| -(1) 12.00 LED LIGHT (120V-0.04A) | |




47




49

**Shelleysteel®**

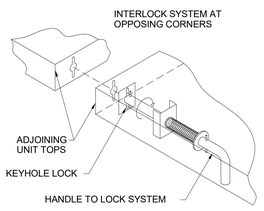
NOTES:

* TOPS ARE TO BE 14 GAUGE S/S
* PROVIDE INTERLOCKS AS REQUIRED
* ALL STANDARD LOCKING POLYURETHANE CASTERS
* CORDS STANDARD WITH 90° PLUGS
* UNITS SPECIFIED WITH DRAINS TO HAVE GATE VALVE AND GARDEN HOSE HOOK UP
* WHEN TRAY SLIDE/WORK SHELF BRACKETS ARE USED: FOLD DOWN BRACKETS ARE STANDARD UNLESS OTHERWISE REQUESTED
* ALL 120 VOLT RECEPTACLES (15 AND 20 AMP) WILL BE GFCI PROTECTED DUPLEXES

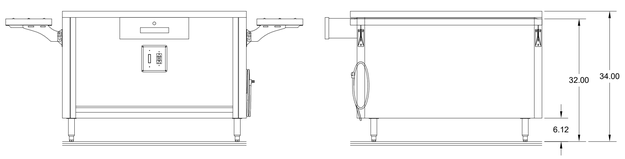
ENVIRONMENTALLY FRIENDLY INSULATION

* KYOTO PROTOCOL COMPLIANT
* NON O.D.P. (OZONE DEPLETION POTENTIAL)
* NON G.W.P. (GLOBAL WARMING POTENTIAL)
* POLYURETHANE INSULATION

* SHELLEYSTEEL: PROVIDE ANGULAR FRAME BASES WITH REINFORCED STAINLESS STEEL SIDE PANELS

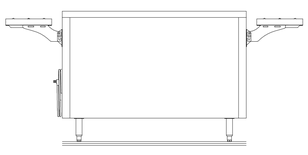



INTERLOCK DETAIL



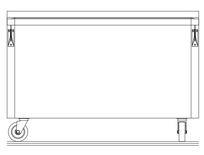

ELEVATION A

CASHIER COUNTER



47

| SKU NO. 000-400140K27 | |
|---|---|
| MODEL NO. SC-36-NU | ITEM NO. 47 |
| -ALL PURPOSE COUNTER | |
| -(2)S/S CONSTRUCTED ROLLED "V" TRAY SLIDE -MOUNTED ON FOLD-DOWN BRACKETS | |
| -(1) 120V-15A DUPLEX (GFCI) RECEPTACLE, NEMA #5-15R WITH 10.0A BREAKER | |
| -NEMA NO. 5-15 PLUG WITH 9FT CORD 120V-60C-1PH-10A | |
| -PROVIDE TUBULAR FOOT REST | |



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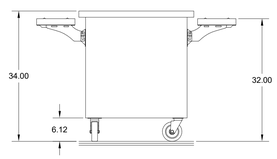


CONDIMENT COUNTER

| SKU NO. 000-400140K28 | |
|---|---|
| MODEL NO. SC-50-NU | ITEM NO. 49 |
| -ALL PURPOSE COUNTER | |
| -(2)S/S CONSTRUCTED ROLLED "V" TRAY SLIDE -MOUNTED ON FOLD-DOWN BRACKETS | |

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/19097_Albemarle Co. HS Center II_Foodservice_v23.rvt
PLOTTING DATE & TIME: 10/1/2024 9:58:39 AM

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1840 WEST BROAD STREET
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RICHMOND, VA 23220

v 804.788.4774

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Albemarle County Public Schools

**ACPS High School Center II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO.
002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: AEH
DRAWN: MDM

QEA No.41911390

BID DOCUMENTS
10/08/2024

FOODSERVICE SERVING COUNTER DETAILS

**QF311**

NOT FOR CONSTRUCTION

ELECTRICAL ROUGH-IN SCHEDULE

| ITEM | QTY | DESCRIPTION | VOLT | PHASE | KW | HP | AMP | CONN | SUGGESTED ROUTING WL | FLR | DFA | HGT | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1A | 1 | WALK-IN COOLER | 115 | 1 | - | - | 8.0 | J-BOX | - | - | X | 96 | NOTE 1, 3 |
| 1B | 1 | WALK-IN COOLER UNIT COOLER | 115 | 1 | - | - | 1.6 | J-BOX | - | - | X | 96 | NOTE 1, 100 % RUN TIME |
| 1C | 1 | WALK-IN COOLER CONDENSING UNIT | 208 | 3 | - | 3/4 | 5.2 | J-BOX | - | - | - | - | NOTE 1, MCA 6.5, MOP 15 |
| 2A | 1 | WALK-IN FREEZER | 115 | 1 | - | - | 12.0 | J-BOX | - | - | X | 96 | NOTE 1, 3, 4 |
| 2B | 1 | WALK-IN FREEZER UNIT COOLER | (2)208 | 1 | - | - | 1.0, 9.8 | J-BOX | - | - | X | 96 | NOTE 1, 4, 5 |
| 2C | 1 | WALK-IN FREEZER CONDENSING UNIT | 208 | 3 | - | 3 | 9.6 | J-BOX | - | - | - | - | NOTE 1, 5, MCA 12, MOP 20 |
| 13 | 5 | PEDESTAL HAND SINK WITH ELECTRONIC EYE | 115 | 1 | - | - | 12.0 | C&P | X | - | - | 16 | NEMA 5-15P |
| 14 | 1 | PREP TABLE WITH SINKS | 115 | 1 | - | - | 16.0 | RECP | X | - | - | 54 | NEMA 5-20R DUPLEX CONVENIENCE |
| 15 | 1 | DISPOSER WITH CONTROL PANEL | 480 | 3 | - | 2 | 2.2 | J-BOX | X | - | - | 18 | NOTE 1, 6 |
| 17 | 1 | ELECTRIC CAN OPENER | 115 | 1 | - | - | 12.0 | C&P | X | - | - | 54 | NEMA 5-15P |
| 18 | 1 | FOOD PROCESSOR | 115 | 1 | - | - | 7.0 | C&P | X | - | - | 54 | NEMA 5-15P |
| 20 | 1 | HOT WATER DISPENSER WITH FILTER | 208 | 1 | 5.0 | - | 24.0 | C&P | X | - | - | 54 | NEMA 6-30P |
| 21 | 1 | 20-QT MIXER ON STAND | 115 | 1 | - | - | 8.0 | C&P | - | - | - | - | NEMA 5-15P, SERVED BY RECEPTACLE ON ITEM 23 |
| 22 | 1 | WORKTABLE WITH SINK | 115 | 1 | - | - | 16.0 | RECP | X | - | - | 54 | NEMA 5-20R DUPLEX CONVENIENCE |
| 23 | 2 | WORKTABLE | 115 | 1 | - | - | 12.0 | J-BOX | - | X | - | 30 | NOTE 1, 2 |
| 24A | 1 | EXHAUST HOOD WITH PSP | 115 | 1 | - | - | 12.0 | J-BOX | - | - | X | 80 | NOTE 1, EXTEND LIGHT CIRCUIT TO ITEM 24B UNDER DIVISION 26 |
| 24B | 1 | EXHAUST HOOD WITH PSP | - | - | - | - | - | - | - | - | - | - | INCLUDED IN ITEM 24A |
| 24C | 1 | FIRE SUPPRESSION SYSTEM | 115 | 1 | - | - | 12.0 | J-BOX | - | - | X | 80 | NOTE 1, 12 |
| 24D | 1 | FAN CONTROL PANEL | 115 | 1 | - | - | 12.0 | J-BOX | - | - | X | 80 | NOTE 1, 10 |
| 24E | 1 | EXHAUST FAN - ROOF MOUNTED | 480 | 3 | - | 3 | 4.6 | J-BOX | - | - | - | - | NOTE 1, 10 |
| 24F | 1 | MAKE-UP AIR FAN - ROOF MOUNTED | 480 | 3 | - | 5 | 30.5 | J-BOX | - | - | - | - | NOTE 1, 10, MCA 30.5A, MOP 35A, FAN CIRCUIT |
| | | | 480 | 3 | 47 | - | 72.2 | J-BOX | - | - | - | - | NOTE 1, MCA 90.3A, MOP 100A, HEATER CIRCUIT |
| 24G | 1 | REMOTE FIRE SUPPRESSION ACTUATION DEVICE | - | - | - | - | - | - | - | - | - | - | CONNECT LOW VOLTAGE FIELD WIRING UNDER DIVISION 26 |
| 24H | 1 | ROOM TEMPERATURE MONITOR | - | - | - | - | - | - | - | - | - | - | CONNECT LOW VOLTAGE FIELD WIRING UNDER DIVISION 26 |
| 25 | 1 | UTILITY DISTRIBUTION SYSTEM | 115/208 | 3 | 0.0 | - | 0.0 | J-BOX | - | - | X | 60 | NOTE 1, 11, 50A SERVICE SIZE |
| | | | 277/480 | 3 | 95.3 | - | 114.6 | J-BOX | - | - | X | 60 | NOTE 1, 11, 175A SERVICE SIZE |
| 26 | 1 | 30-GAL TILT SKILLET | 480 | 3 | 12.0 | - | 14.4 | J-BOX | - | - | - | - | NOTE 11, SERVED BY UDS ITEM 25 |
| 28 | 1 | DOUBLE CONVECTION OVEN | (2)480 | 3 | 10.4 | 3/4 | 14.0 | J-BOX | - | - | - | - | NOTE 11, SERVED BY UDS ITEM 25 |
| 29 | 1 | 3-PAN OVER 6-PAN STEAMER ON STAND | (2)480 | 3 | 12.0 | - | 14.4 | J-BOX | - | - | - | - | NOTE 11, SERVED BY UDS ITEM 25 |
| 30 | 1 | WORKTABLE | 115 | 1 | - | - | 16.0 | RECP | X | - | - | 54 | NEMA 5-20R DUPLEX CONVENIENCE |
| 31 | 1 | 6-PAN OVER 6-PAN COMBI OVEN ON STAND | (2)480 | 3 | 19.3 | - | 23.3 | J-BOX | - | - | - | - | NOTE 11, SERVED BY UDS ITEM 25 |
| 32 | 2 | WORKTABLE | 115 | 1 | - | - | 12.0 | J-BOX | - | X | - | 30 | NOTE 1, 2 |
| 34 | 2 | 2-SECTION PASS-THRU HEATED CABINET | 208 | 1 | - | - | 10.5 | C&P | X | - | - | 88 | NEMA 6-20P |
| 35 | 2 | 2-SECTION PASS-THRU REFRIGERATOR | 115 | 1 | - | - | 6.5 | C&P | X | - | - | 88 | NEMA 5-15P |
| 37 | 2 | REFRIGERATED AIR SCREEN MERCHANDISER | 208 | 1 | - | - | 12.0 | C&P | - | X | - | 5 | NEMA 6-20P |
| 38 | 2 | 2-TIER HEATED DISPLAY MERCHANDISER | 115/208 | 1 | - | - | 12.4 | C&P | - | - | - | - | NEMA L14-20P, SERVED BY RECEPTACLE ON ITEM 39 |
| 39 | 2 | SERVING COUNTER | 115/208 | 1 | - | - | 12.4 | C&P | - | X | - | 5 | NEMA L14-20 |
| 41 | 2 | 4-WELL HOT/COLD FOOD COUNTER | 115/208 | 1 | - | - | 12.4 | C&P | - | X | - | 5 | NEMA 14-20P |
| 42 | 2 | COUNTER PROTECTOR WITH HEAT & LIGHTS | - | - | - | - | - | - | - | - | - | - | INCLUDED IN ITEM 41 |
| 43 | 2 | PLAIN TOP COUNTER | 115 | 1 | - | - | 10.0 | C&P | - | X | - | 5 | NEMA 5-15P |
| 44 | 1 | COLD FOOD COUNTER | 115 | 1 | - | - | 5.3 | C&P | - | X | - | 5 | NEMA 5-15P |
| 45 | 1 | 2-TIER FOOD SHIELD WITH LIGHTS | - | - | - | - | - | - | - | - | - | - | INCLUDED IN ITEM 44 |
| 46 | 1 | ICE CREAM FREEZER | 115 | 1 | - | - | 3.5 | C&P | - | X | - | 5 | NEMA 5-15P |
| 47 | 1 | CASHIER COUNTER | 115 | 1 | - | - | 10.0 | C&P | - | X | - | 5 | NEMA 5-15P |
| 48 | - | POS SYSTEM - OWNER FURNISHED | 115 | 1 | - | - | 10.0 | C&P | - | - | - | - | NOTE 13, NEMA 5-15P, SERVED BY RECEPTACLE ON ITEM 47 |
| 54 | 1 | DISPOSER WITH CONTROL PANEL | 480 | 3 | - | 3 | 3.7 | J-BOX | X | - | - | 18 | NOTE 1, 6 |
| 56 | 1 | CONVEYOR WAREWASHER WITH BOOSTER HEATER | 480 | 3 | 15.0 | - | 27.0 | J-BOX | X | - | - | 64 | NOTE 1, 7, 8, 14 |
| | | | 480 | 3 | 18.0 | - | 22.0 | J-BOX | X | - | - | 64 | NOTE 1, BOOSTER HEATER CIRCUIT |
| 58 | 1 | WAREWASHER EXHAUST FAN - ROOF MOUNTED | 115 | 1 | - | 1/2 | 6.3 | J-BOX | - | - | - | - | NOTE 1, 10 |
| 59 | 1 | CLEAN DISHTABLE WITH RACK LIMIT SWITCH | - | - | - | - | - | - | - | - | - | - | NOTE 7 |
| 64 | - | WASHER - REFER TO SECTION 113100 | - | - | - | - | - | - | - | - | - | - | REFER TO SECTION 113100 |
| 65 | - | DRYER - REFER TO SECTION 113100 | - | - | - | - | - | - | - | - | - | - | REFER TO SECTION 113100 |
| 68 | 1 | ICE MAKER WITH BIN | 115 | 1 | - | - | 7.9 | J-BOX | X | - | - | 72 | NOTE 1, MAX 20A HACR TYPE BREAKER |
| NC1 | 1 | UNDERCOUNTER ICE-MAKER WITH WATER FILTER | 115 | 1 | - | - | 5.3 | C&P | X | - | - | 24 | NEMA 5-15P |

GENERAL NOTES:

1. ELECTRICAL CONNECTIONS ARE INDICATED FOR KITCHEN EQUIPMENT ITEMS ONLY
2. SEAL ALL PENETRATIONS THRU WALK-IN BOTH OUTSIDE AND INSIDE CONDUIT FROM THE WARM SIDE TO PREVENT CONDENSATION
3. PROVIDE LARGE CLOCKS WITH SECOND HAND VISIBLE FROM PREP, HAND WASHING AND POT WASHING LOCATIONS
4. SHUNT TRIP ALL CIRCUITS BENEATH TYPE I KITCHEN EXHAUST HOOD WITH FIRE SUPRESSION SYSTEM
5. THERE ARE KNOWN ISSUES WITH COMMERICAL FOODSERVICE APPLIANCES CONNECTED TO GFCI RECEPTACLE.
EQUIPMENT MANUFACTURERS RECOMMEND ALL CIRCUITS REQUIRING GFCI PROTECTION BE SUPPLIED WITH GFCI CIRCUIT BREAKERS
IN LIEU OF GFCI RECEPTACLES.

SCHEDULE REMARKS:

NOTE 1: PROVIDE CIRCUIT IN LIQUID TIGHT CONDUIT TO APPLIANCE UNDER DIVISION 26

NOTE 2: RECEPTACLE, BOX, COVER, MOUNTING FURNISHED UNDER SECTION 114000, CONNECT UNDER DIVISION 26

NOTE 3: DIVISION 26 SHALL CONNECT SWITCHED CIRCUIT TO LIGHTS FURNISHED AND MOUNTED UNDER SECTION 114000

NOTE 4: PROVIDE RECEPTACLE BEHIND UNIT COOLER UNDER DIVISION 26

NOTE 5: CONNECT FREEZER UNIT COOLER FAN, DEFROST HEATER AND CONTROL CIRCUIT FROM FREEZER CONDENSING UNIT TIME CLOCK MOUNTED ON THE CONDENSING UNIT TO THE UNIT COOLER(S) MOUNTED IN THE WALK-IN FREEZER UNDER DIVISION 26

NOTE 6: CONNECT CIRCUIT THRU CONTROL TO SOLENOID VALVE AND MOTOR UNDER DIVISION 26

NOTE 7: CONNECT CONTROL CIRCUIT THRU RELAY PROVIDED AND MOUNTED UNDER SECTION 114000 TO DISHWASHER CONVEYOR CONTROL RELAY IN THE DISHWASHER CONTROL CENTER

NOTE 8: CONNECT EXHAUST FAN CONTROL CIRCUIT THRU FAN CONTROL RELAY ON DISHWASHER TO EXHAUST FAN CONTROLLER UNDER DIVISION 26

NOTE 9: NOT USED

NOTE 10: PROVIDE EXHAUST AND MAKEUP AIR FAN CIRCUITS TO SECTION 114000 FURNISHED AND MOUNTED FAN CONTROL CENTER AND EXTEND LOAD CIRCUIT TO FANS ON ROOF UNDER DIVISION 26

NOTE 11: CONNECT SECTION 114000 FURNISHED CORD SETS UNDER DIVISION 26

NOTE 12: CONNECT HOOD LIGHT CIRCUIT, CONTROL CIRCUIT TO FIRE SUPPRESSION RELAYS AND FROM RELAYS TO FAN CONTROLS UNDER DIVISION 26

NOTE 13: PROVIDE EMPTY CONDUIT TO MANAGER'S OFFICE FOR DATA LINK

NOTE 14: COORDINATE DRAIN TEMPERING KIT INSTALLATION WITH SECTION 114000 AND DIVISION 26

PATH & FILENAME: Autodesk Docs://Albemarle County High School Center II/10697_Albemarle Co. HS Center II_Foodservice_v23.rvt
PLOTTING DATE & TIME: 10/1/2024 9:58:40 AM

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RICHMOND, VA 23220
v 804.788.4774
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Albemarle County Public Schools

**ACPS High School Center II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: AEH
DRAWN: MDM

QEA No.41911390

BID DOCUMENTS
10/08/2024

FOODSERVICE KITCHEN ELECTRICAL SCHEDULE

# QF601

## SPRINKLER DESIGN DATA

GENERAL

AVAILABLE WATER SUPPLY INFORMATION

PERFORMED BY: ALBEMARLE COUNTY SERVICE AUTHORITY
DATE/TIME OF TEST: 02/22/2024
HYDRANT STATIC: 91.3 PSI
HYDRANT RESIDUAL: 82.4 PSI
HYDRANT FLOW: 2185 GPM

## FIRE PROTECTION LEGEND

| | |
|---|---|
| —— F —— | FIRE PROTECTION PIPING |
| —F(P-A)— | FIRE PROTECTION PIPING - PREACTION |
| ——o | ELBOW DOWN |
| ——o—— | TEE FROM TOP OF MAIN |
| ——o—— | TEE FROM BOTTOM OF PIPE |
| ——] | END CAP |

## ABBREVIATIONS

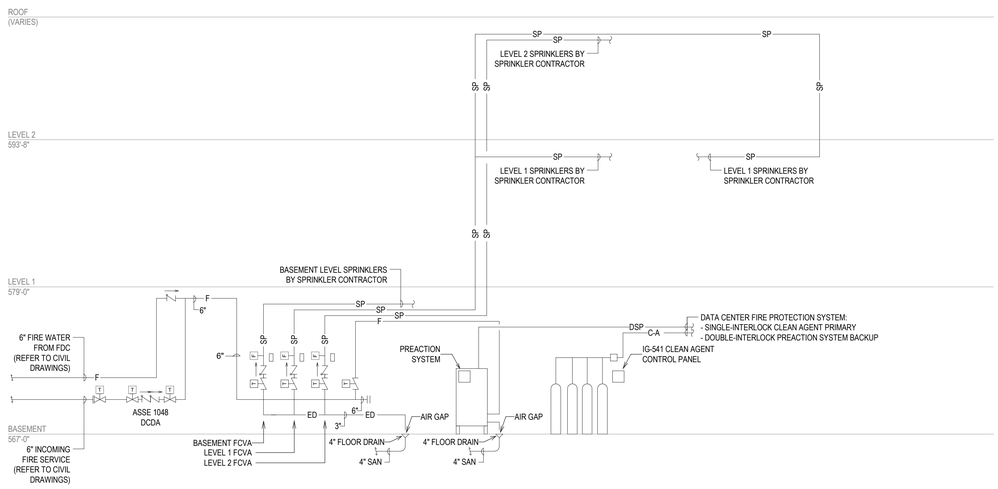
| | |
|---|---|
| A/E | ARCHITECT/ENGINEER |
| AHJ | AUTHORITY HAVING JURISDICTION |
| ARCH'L | ARCHITECTURAL |
| BFP | BACKFLOW PREVENTER |
| BFV | BUTTERFLY VALVE |
| DCD | DOUBLE CHECK DETECTOR |
| DI | DUCTILE IRON |
| DP | DRY PIPE |
| FDC | FIRE DEPARTMENT CONNECTION |
| FS | FIRE SUPPRESSION |
| GPM | GALLONS PER MINUTE |
| HORIZ | HORIZONTAL |
| INSP | INSPECTOR |
| MFR | MANUFACTURER |
| OH | ORDINARY HAZARD |
| OS&Y | OUTSIDE SCREW & YOKE |
| PSI | POUNDS PER SQUARE INCH |
| QR | QUICK RESPONSE |
| RCHK | RISER CHECK |
| RCP | RCP |
| TBD | TO BE DETERMINED |
| TS | TAMPER SWITCH |
| UNO | UNLESS NOTED OTHERWISE |
| VLV | VALVE |

## GENERAL NOTES (NEW WORK)

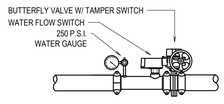
1. GENERAL DESCRIPTION OF SPRINKLER SCOPE OF WORK:
   A. PROVIDE NEW SERVICE TO BLDG AND WET PIPE SPKLR RISER.
   B. SYSTEM DESIGN SHALL PROVIDE CAPACITY FOR COVERAGE OF THE ENTIRE BUILDING (LOWER AND UPPER LEVELS), AND COVERAGE FOR THE LOWER LEVEL AND ELEVATOR HOISTWAY.
   C. PROVIDE FULL SPRINKLER COVERAGE THROUGHOUT THE RENOVATED LOWER LEVEL. COORDINATE INSTALLATION WITH PHASED CONSTRUCTION.
   D. PROVIDE RISER TO UPPER LEVEL WITH CAPPED END & BFV WITH TS AT CEILING OF UPPER LEVEL, FOR FUTURE CONNECTION AND EXTENSION.
   E. COORDINATE ALL WORK WITH THE ARCHITECTURAL PHASING PLANS. ALL EQUIPMENT AND SERVICES SERVING RESPECTIVE PHASES MUST BE COMPLETE AND FULLY OPERATIONAL WITHIN THE TIME PERIOD INDICATED ON THE PHASING PLAN WHETHER LOCATED WITHIN OR OUTSIDE THE INDICATED OUTLINE OF THE RESPECTIVE PHASE.
2. PROVIDE A COMPLETE AUTOMATIC SPRINKLER SYSTEM THROUGHOUT THE PROJECT AREA AS INDICATED ON THE PLANS. ALL WORK AND INSTALLATION SHALL CONFORM TO THE CODES INDICATED. PROVIDE ALL EQUIPMENT, LABOR AND MATERIAL FOR AN ACCEPTED AND OPERATING AUTOMATIC SPRINKLER SYSTEM.
3. DRAWINGS SHOW DESIGN INTENT ONLY. THE CONTRACTOR SHALL COORDINATE SPRINKLER HEAD LOCATIONS WITH ALL TRADE SHOP DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH NFPA I3 OBSTRUCTION RULES, AVOIDING ALL CONFLICTS WITH LIGHTING FIXTURES, DIFFUSERS, GRILLES, DUCTS, STRUCTURAL MEMBERS, PIPES AND OTHER BUILDING ELEMENTS ENCOUNTERED.
4. ALL PROJECT AREAS ARE LIGHT HAZARD, EXCEPT MECHANICAL/ELECTRICAL ROOMS, KITCHENETTE ROOMS, AND STORAGE AREAS WHICH ARE ORDINARY HAZARD GROUP 1. SPRINKLER HEAD AREA OF COVERAGE IS MAXIMUM 225 SF FOR LIGHT HAZARD AND 130 SF FOR ORDINARY HAZARD.

SHOP DRAWINGS:

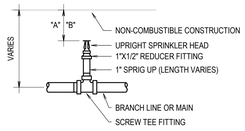
   A. PRIOR TO BEGINNING FABRICATION AND INSTALLATION, CONTRACTOR'S SHOP DRAWINGS AND PRODUCT DATA MUST BE SUBMITTED / APPROVED BY THE A/E AND OFFICE OF THE UNIVERSITY BUILDING OFFICIAL (OUBO). CONTRACTOR'S SHOP DRAWINGS SHALL INCORPORATE AS-BUILT CONDITIONS, REQUIRED MODIFICATIONS TO EXISTING SYSTEM AND NEW SPRINKLER SYSTEM LAYOUT.
   B. A/E CONSTRUCTION DOCUMENTS ARE FOR DESIGN INTENT ONLY AND ARE BASED ON AVAILABLE RECORD DOCUMENTS. THE CONTRACTOR SHALL CONFIRM AND COORDINATE AS-BUILT SPRINKLER SYSTEM LAYOUT, HEAD LOCATIONS, ETC.
   C. IT IS THE RESPONSIBILITY OF THE SPRINKLER CONTRACTOR TO REVIEW/COORDINATE WITH THE WORK OF OTHER TRADES (INCLUDING BUT NOT LIMITED TO STRUCTURAL, ARCHITECTURAL, PLUMBING, MECHANICAL, ELECTRICAL, FIRE ALARM) AS IT AFFECTS THEIR WORK, AND AS THE SPRINKLER WORK AFFECTS OTHER TRADES TO ENSURE THE CONSTRUCTION DOCUMENTS ARE CLOSELY FOLLOWED. WHERE DISCREPANCIES ARISE, THEY SHALL BE REFERRED TO THE A/E PRIOR TO PROCEEDING FURTHER.
   D. SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH NFPA 13 OBSTRUCTION RULES, COORDINATING ALL PIPING LOCATIONS/ELEVATIONS, MAINTAINING EASEMENTS FOR OTHER TRADES, AVOIDING ALL CONFLICTS WITH LIGHTING FIXTURES, DIFFUSERS, GRILLES, DUCTS, STRUCTURAL MEMBERS, PIPES AND OTHER BUILDING ELEMENTS ENCOUNTERED.
   E. CONTRACTOR'S SHOP DRAWINGS SHALL ALSO INDICATE CEILING HEIGHTS, HANGER LOCATIONS, AND FIRE RATED WALLS.
   F. ACTUAL ROUTING OF THE SPRINKLER PIPING SHALL BE COORDINATED WITH THE ARCHITECTURAL REFLECTED CEILING PLANS AND WITH ALL OTHER TRADES. THE SPRINKLER CONTRACTOR IS REQUIRED TO COORDINATE ALL PIPE LOCATIONS AND ELEVATIONS PRIOR TO SUBMISSION OF SHOP DRAWINGS AND PRIOR TO BEGINNING FABRICATION AND INSTALLATION. MAINTAIN EASEMENTS FOR OTHER TRADES, SUCH AS HVAC DUCTS/PIPES, LIGHT FIXTURES, PLUMBING PIPES, ETC. WHERE CONFLICTS ARISE, THEY SHALL BE REFERRED TO THE A/E PRIOR TO PROCEEDING FURTHER.
   G. THE CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND DIMENSIONS ON THE DRAWINGS PRIOR TO THE EXECUTION OF SHOP RAWINGS AND INSTALLATION.
6. INSTALL HANGERS PER NFPA 13.
7. PROVIDE SPRINKLER HEAD GUARDS IN ALL MECHANICAL ROOMS, STORAGE ROOMS AND SIMILAR SERVICE SPACES, AND FOR PROTECTION ON HEADS INSTALLED IN CEILINGS 7-FT AFF AND BELOW.
8. COORDINATE SPRINKLER HEAD SPACING AND ARRANGEMENT IN MECHANICAL ROOMS WITH EQUIPMENT, PIPING AND DUCTWORK.
9. PROVIDE SPRINKLER COVERAGE UNDER ALL OBSTRUCTIONS GREATER THAN 48" WIDTH PER NFPA 13.
10. ALL WET PIPING SHALL BE ROUTED WITHIN THE CONDITIONED ENVELOPE OF THE BUILDING. NO WET PIPING SHALL BE EXPOSED TO FREEZING CONDITIONS.
11. ALL WALL AND FLOOR PENETRATIONS SHALL BE CORE DRILLED OR SLEEVED. ALL PENETRATIONS IN WALLS, CEILINGS AND FLOORS SHALL BE SEALED TO THE FULL THICKNESS OF THE PENETRATION WITH APPROVED FIRE STOPPING MATERIAL OF EQUAL OR GREATER FIRE RESISTANCE. SEE ARCHITECTURAL DRAWINGS FOR FIRE RESISTANCE RATINGS.
12. PIPING: ALL PIPE 2" AND SMALLER SHALL BE THREADED, SCHEDULE 40 STEEL PIPE. ALL PIPE 2.5" AND LARGER SHALL BE GROOVED, SCHEDULE 10 STEEL PIPE. COMPRESSION TYPE / PLAIN END FITTINGS ARE NOT PERMITTED. EXPOSED PIPE, IN OFFICES, COMMON AREAS AND SIMILAR FINISHED SPACES, SHALL BE PAINTED TO MATCH SURROUNDINGS, AND PER OWNER'S INSTRUCTIONS.
13. ALL EQUIPMENT SHALL BE TESTED/APPROVED BY A NATIONAL TESTING LABORATORY WHERE REQUIRED PER NFPA CODES AND THE SPECIFICATIONS, AND INSTALLED PER THE LISTING AND MANUFACTURERS' INSTALLATION INSTRUCTIONS.
14. PROVIDE DOUBLE CHECK BACKFLOW PREVENTER (DCD) ON THE FIRE MAIN CONNECTION SERVING THE BUILDING. PROVIDE TESTING CAPABILITY PER NFPA 13.
15. PROVIDE FDC AS INDICATED ON THE DRAWINGS.
16. ALL DRAINS SHALL DISCHARGE OUTSIDE THE BUILDING AT A LOCATION APPROVED BY THE ARCHITECT/ENGINEER.
17. SPRINKLER HEADS SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE:
   A. ALL HEADS SHALL BE UL APPROVED.
   B. SUSPENDED CEILING TYPE: SEMI-RECESSED TYPE, QUICK RESPONSE, ORDINARY TEMPERATURE, CHROME PLATED.
   C. EXPOSED CONSTRUCTION: UPRIGHT TYPE, QUICK RESPONSE, ORDINARY TEMPERATURE, PLAIN BRASS.
18. ALL FIRE PROTECTION SYSTEM CONTROL VALVES SHALL BE INDICATING TYPE AND EQUIPPED WITH APPROVED VALVE SUPERVISORY SWITCHES.
19. COORDINATE ALL FIRE ALARM SYSTEM CONNECTION REQUIREMENTS WITH FIRE ALARM CONTRACTOR.
20. PROVIDE MISCELLANEOUS STEEL AS REQUIRED TO PROPERLY SUPPORT SUSPENDING PIPING. STEEL SHALL BE SUPPORTED FROM STRUCTURAL FRAMING MEMBERS. STEEL SHALL BE HOT DIPPED IN ACCORDANCE WITH ASTM A123.
21. FIRE SPRINKLER SYSTEMS SHALL BE CONCEALED ABOVE FINISHED CEILINGS WHERE POSSIBLE. PIPING SHALL BE ROUTED THROUGH OR BETWEEN OPEN STRUCTURAL ELEMENTS (SUCH AS BAR JOISTS) AND AROUND SOLID STRUCTURAL ELEMENTS (SUCH AS W-SHAPES). REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DETAILS OF BUILDING CONSTRUCTION.
22. CONTRACTOR SHALL ADHERE TO CEILING HEIGHTS INDICATED ON THE DRAWINGS, AND MAINTAIN AS MUCH HEAD ROOM CLEARANCE AS PRACTICAL BETWEEN THE FINISHED FLOOR AND BOTTOM OF SPRINKLER PIPE, FITTINGS, VALVES AND SPRINKLERS IN ALL AREAS WITH EXPOSED PIPE.
23. SEAL ALL PENETRATIONS THROUGH FIRE-RATED ASSEMBLIES TO MAINTAIN RATING. REFER TO ARCHITECTURAL DETAILS FOR FIRESTOPPING DETAILS.
24. SPRINKLER SYSTEM INSPECTION IS REQUIRED FOR THIS PROJECT. INSPECTION REQUESTS SHALL BE MADE AT LEAST 2 WORKING DAYS IN ADVANCE.




1 -- FP000 FP RISER
SCALE: NONE

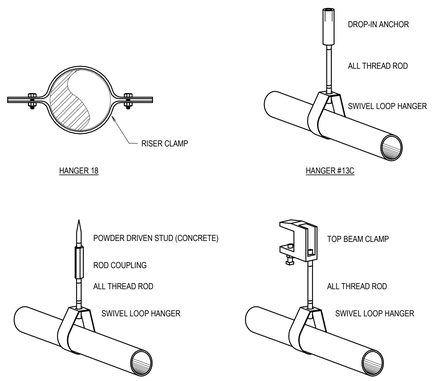



2 -- FP000 ELEVATOR CONTROL VALVE DETAIL
SCALE: NONE

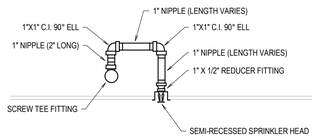



4 -- FP000 TYP UPRIGHT HEAD DETAIL
SCALE: NONE

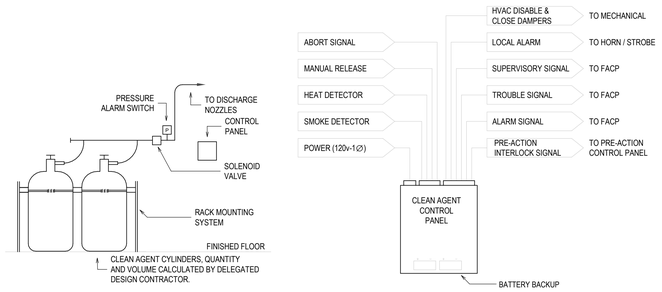
NOTES:
1. OBSTRUCTED CONSTRUCTION:
   DEFLECTORS AT 1" TO 6" BELOW "I" BEAMS AND 22" BELOW DECK - MAX PER NFPA 13.
2. UNOBSTRUCTED CONSTRUCTION:
   DEFLECTORS AT MAX 12" BELOW DECK PER NFPA 13.



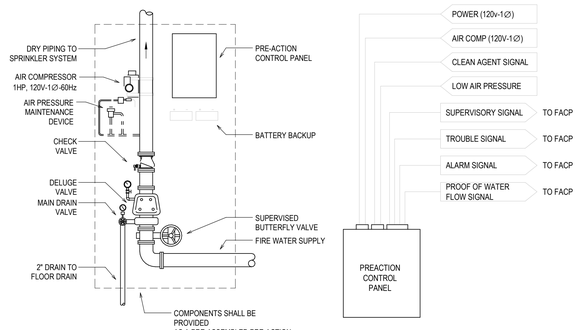

3 -- FP000 TYPICAL HANGER DETAILS
SCALE: NONE




5 -- FP000 TYPICAL ARM OVER DROP DETAIL
SCALE: NONE




6 -- FP000 CLEAN AGENT SCHEMATIC DETAIL
SCALE: NONE




DOUBLE INTERLOCK PRE-ACTION SYSTEM
SEQUENCE OF OPERATION

1. CLEAN AGENT SYSTEM RELEASE SEQUENCE SENDS SIGNAL TO PRE-ACTION CONTROL PANEL, TROUBLE SIGNAL SENT TO FACP (1ST INTERLOCK).
2. OPENING OF AUTOMATIC SPRINKLER OR DAMAGE TO SYSTEM PIPING, ACTIVATES THE LOW AIR SUPERVISORY SWITCH. TROUBLE SIGNAL SENT TO FACP (2ND INTERLOCK).
3. NOTE: IF EITHER INTERLOCK ENGAGES WITHOUT THE ENGAGEMENT OF THE OTHER, ONLY TROUBLE SIGNAL SHALL BE SENT TO FACP.
4. WHEN BOTH INTERLOCKS ENGAGE, SOLENOID IS OPERATED, OPENING DELUGE VALVE, AND PERMITTING WATER FLOW TO ANY OPEN AUTOMATIC SPRINKLERS. SOLENOID OPERATION SHALL SEND ALARM SIGNAL TO FACP. WATER FLOW SWITCH SHALL SEND ALARM TO FACP.
5. ELECTRICAL DISFUNCTION, SUCH AS OPEN CIRCUIT, GROUND, LOSS OF AC OR DC POWER, SHALL REPORT SYSTEM TROUBLE TO FACP.

7 -- FP000 PREACTION DETAIL
SCALE: NONE

### DESIGN CODES/STANDARDS

| CODE/STANDARD | YEAR/VERSION |
|---|---|
| VIRGINIA BUILDING CODE (VBC) | 2018 |
| VIRGINIA MECHANICAL CODE (VMC) | 2018 |
| VIRGINIA PLUMBING CODE (VPC) | 2018 |
| VIRGINIA ENERGY CONSERVATION CODE (VECC) | 2018 |
| VIRGINIA FUEL GAS CODE (VFGC) | 2018 |
| NATIONAL ELECTRICAL CODE (NEC) | 2017 |
| NFPA 13 | 2016 |
| NFPA 72 | 2016 |

### SHEET LIST - FIRE PROTECTION



| SHEET NO | SHEET NAME |
|---|---|
| FP000 | LEGENDS, ABBREVIATIONS, GENERAL NOTES & DETAILS |
| FP100 | BASEMENT PLAN |
| FP101 | LEVEL 1 PLAN |
| FP102 | LEVEL 2 PLAN |




QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

COMMONWEALTH OF VIRGINIA
MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER


Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JGS

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

LEGENDS, ABBREVIATIONS, GENERAL NOTES & DETAILS

**FP000**

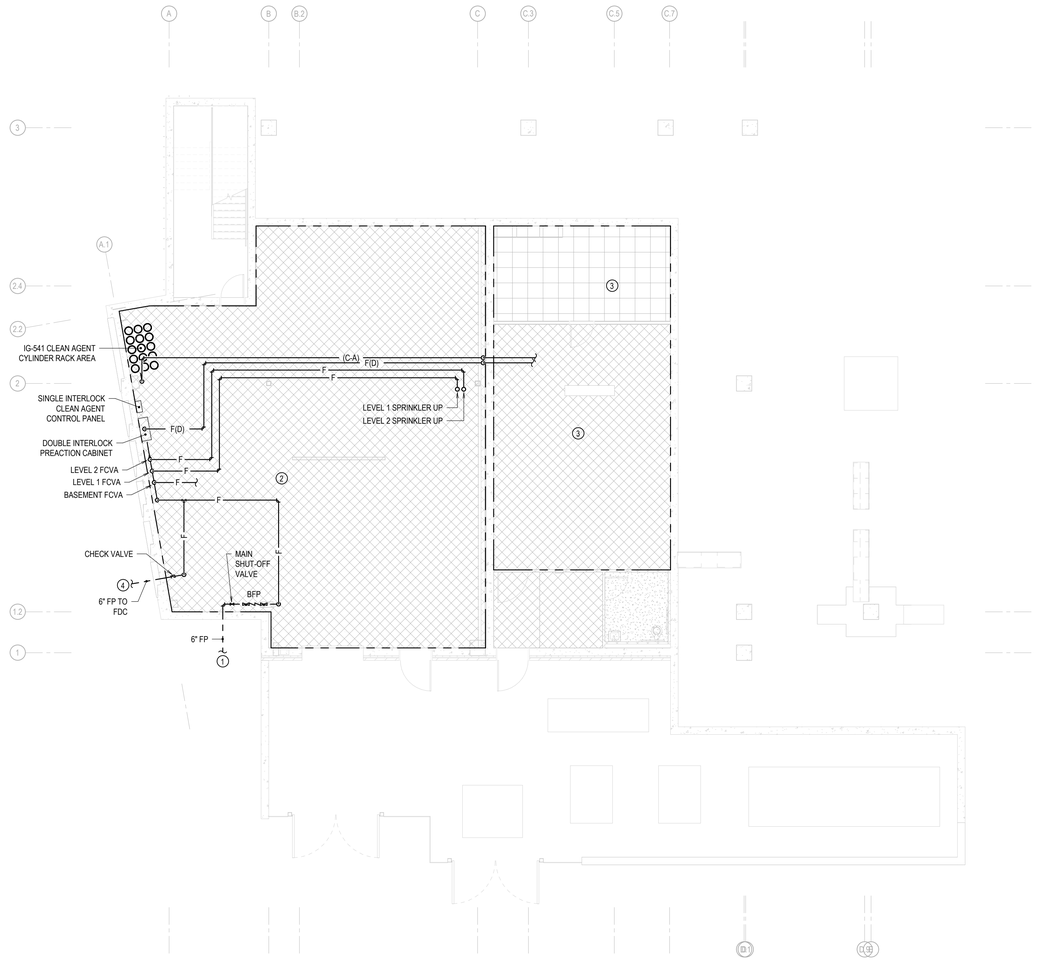
PATH & FILENAME: C:\Users\BethanyB\Documents\Revit Files\19168_P23_ACPS HS Center II_Plumb_BethanyB.rvt
PLOTTING DATE & TIME: 10/2/2024 11:57:32 AM

## GENERAL NOTES (NEW WORK)

1. SPRINKLER COVERAGE SHALL BE DESIGNED FOR LIGHT HAZARD OCCUPANCY UNO.

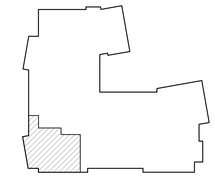
## (#) KEY NOTES (NEW WORK)

1. CONTINUED ON CIVIL SITE UTILITY PLAN.
2. BOUNDED AREA SPRINKLER COVERAGE SHALL BE DESIGNED FOR ORDINARY HAZARD GROUP 1 OCCUPANCY.
3. BOUNDED AREA SHALL BE PROTECTED BY A SINGLE-INTERLOCK, IG-541 CLEAN AGENT SUPPRESSION SYSTEM, WITH A DOUBLE-INTERLOCK PREACTION SPRINKLER SYSTEM INSTALLED TO PROVIDE SECONDARY COVERAGE IN THE EVENT OF DISCHARGE. SYSTEM SHALL BE DESIGNED AND PROVIDED BY DELEGATED DESIGN CONTRACTOR IN ACCORDANCE WITH VSFC, NFPA 2001 AND NFPA 13.
4. 6"F TO REMOTE 2-WAY FDC. REFER TO CIVIL FOR CONTINUATION.




1 -- FP100 BASEMENT FLOOR PLAN - FIRE PROTECTION
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN



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QUINN EVANS

1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com


COMMONWEALTH OF VIRGINIA
MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER

Albemarle County Public Schools

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2775 Hydraulic Rd.
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| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JGS

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

BASEMENT PLAN

# FP100

## GENERAL NOTES (NEW WORK)

1. SPRINKLER COVERAGE SHALL BE DESIGNED FOR LIGHT HAZARD OCCUPANCY UNO.

## (#) KEY NOTES (NEW WORK)

1. BOUNDED AREA SPRINKLER COVERAGE SHALL BE DESIGNED FOR ORDINARY HAZARD GROUP 1 OCCUPANCY.
2. PROVIDE FLOW SWITCH AND SHUTOFF VALVE WITH TAMPER FOR FIRE PROTECTION IN ELEVATOR HOISTWAY, ELEVATOR PIT, AND ELEVATOR MACHINE ROOM. SPRINKLER COVERAGE SHALL BE DESIGNED FOR ORDINARY HAZARD GROUP 1 OCCUPANCY.

1 -- FP101 LEVEL 1 PLAN - FIRE PROTECTION

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

0 3' 5.3' 11' 21'

PATH & FILENAME: C:\Users\BethanyB\Documents\Revit Files\19168_P23_ACPS HS Center II_Plumb_BethanyB.rvt
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QUINN EVANS

1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com


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MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER

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| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
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QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

LEVEL 1 PLAN

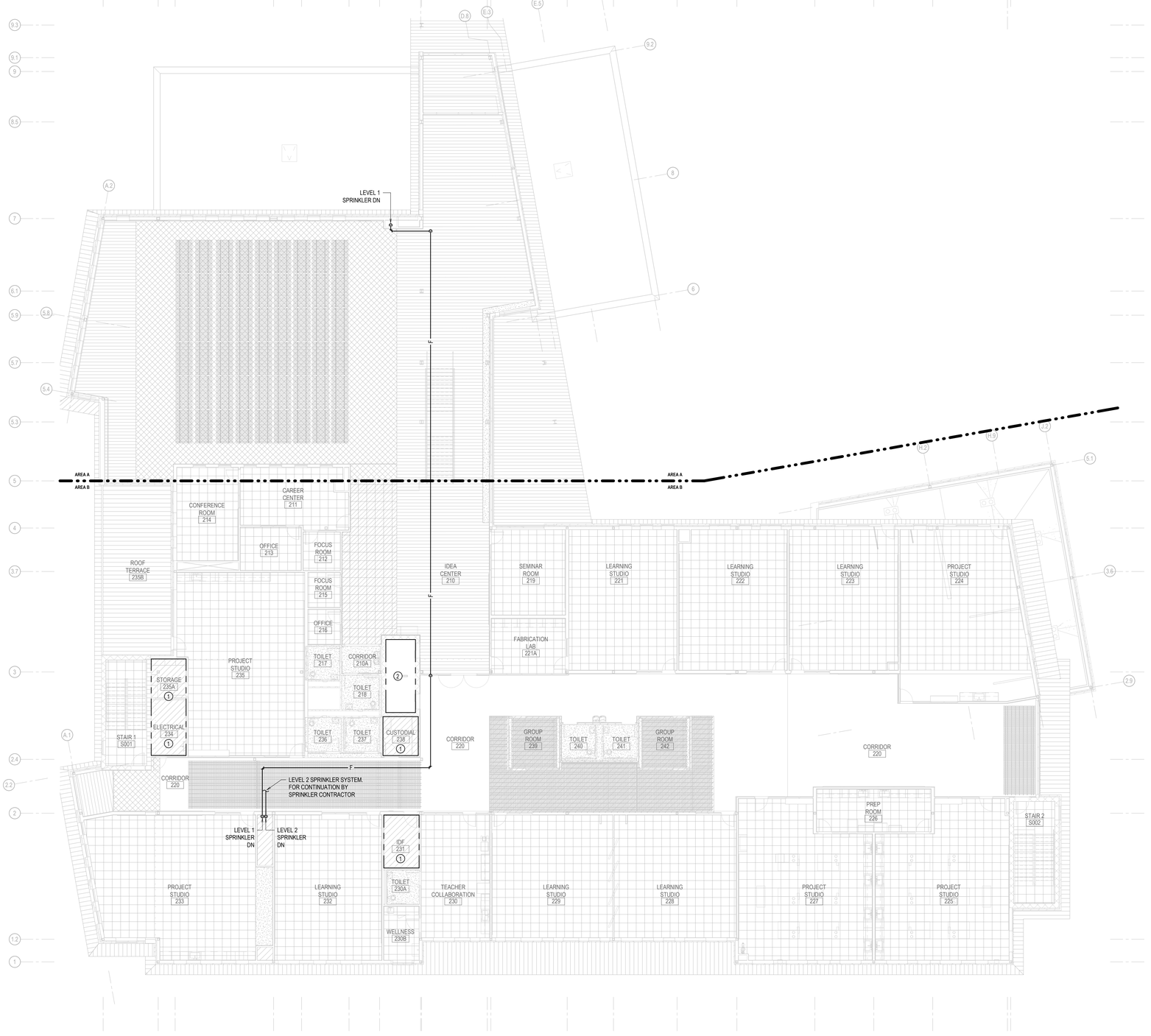
# FP101

## GENERAL NOTES (NEW WORK)

1. SPRINKLER COVERAGE SHALL BE DESIGNED FOR LIGHT HAZARD OCCUPANCY UNO.

## (#) KEY NOTES (NEW WORK)

1. BOUNDED AREA SPRINKLER COVERAGE SHALL BE DESIGNED FOR ORDINARY HAZARD GROUP 1 OCCUPANCY.
2. PROVIDE FLOW SWITCH AND SHUTOFF VALVE WITH TAMPER FOR FIRE PROTECTION IN ELEVATOR HOISTWAY, ELEVATOR PIT, AND ELEVATOR MACHINE ROOM. SPRINKLER COVERAGE SHALL BE DESIGNED FOR ORDINARY HAZARD GROUP 1 OCCUPANCY.




1 -- FP102 LEVEL 2 PLAN - FIRE PROTECTION
SCALE: 3/32" = 1'-0"
0 3' 5.3' 11' 21'

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QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com


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MATTHEW R. LEWIS
10/08/2024
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PROFESSIONAL ENGINEER

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Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JGS

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

LEVEL 2 PLAN

# FP102

# PLUMBING LEGEND

- FLOW ARROW
- CONTINUATION MARK

**BRANCHES FROM**

- TOP OF MAIN
- BOTTOM OF MAIN
- SIDE OF MAIN

**SYSTEMS**

- DOMESTIC COLD WATER (CW)
- DOMESTIC HOT WATER (HW)
- DOMESTIC HOT WATER RECIRCULATE (HWR)
- SANITARY WASTE (BLW FLR OR GRADE) —SAN—
- SANITARY WASTE (ABV FLR OR GRADE) ——SAN——
- SANITARY VENT —V—
- STORM DRAIN (ABV FLR OR GRADE) ——ST——
- STORM DRAIN (BLW FLR OR GRADE) —ST—
- SECONDARY STORM DRAIN ——SST——
- LIQUID PROPANE (ABV FLR OR GRADE) ——LP——
- LIQUID PROPANE (BLW FLR OR GRADE) —LP—
- GREASE DRAIN (BLW FLR OR GRADE) —GD—
- GREASE DRAIN (ABV FLR OR GRADE) ——GD——

**VALVES & FITTINGS**

- CHECK, SPRING
- BALL VALVE
- THERMOSTATIC BALANCING VALVE
- GAS PRESSURE REGULATOR
- UNION
- PIPE CAP
- HB HOSE BIBB
- FWH FREEZEPROOF WALL HYDRANT
- CLEANOUT (FLOOR OR WALL)
- FLOOR / AREA DRAIN
- (X) KITCHEN EQUIPMENT NUMBER

# ABBREVIATIONS

| | |
|---|---|
| ABV | ABOVE |
| AD | AREA DRAIN |
| ADA | ADA COMPLIANT |
| AFF | ABOVE FINISHED FLOOR |
| AFG | ABOVE FINISHED GRADE |
| ANT | ACID NEUTRALIZATION TRAP |
| ASSY | ASSEMBLY |
| BFP | BACKFLOW PREVENTER |
| BLDG | BUILDING |
| BLW | BELOW |
| BWV | BACKWATER VALVE |
| CD | CONDENSATE |
| CFH | CUBIC FEET PER HOUR |
| CFM | CUBIC FEET PER MINUTE |
| CO | CLEANOUT |
| CW | COLD WATER |
| DBL | DOUBLE |
| DFU | DRAINAGE FIXTURE UNIT |
| DN | DOWN |
| DCV | DOUBLE CHECK VALVE |
| DW | DISHWASHER |
| DWH | DOMESTIC WATER HEATER |
| DWST | DOMESTIC WATER STORAGE TANK |
| EA | EACH |
| EC | ELECTRICAL CONTRACTOR |
| ECO | EXTERIOR CLEANOUT |
| ESH | EMERGENCY EYEWASH/SHOWER |
| ET | EXPANSION TANK |
| F | FAHRENHEIT |
| FD | FLOOR DRAIN |
| FLR | FLOOR |
| FS | FLOOR SINK |
| FSC | FOOD SERVICE CONTRACTOR |
| FWH | FREEZELESS WALL HYDRANT |
| GAL | GALLONS |
| GI | GREASE INTERCEPTOR |
| GPM | GALLONS PER MINUTE |
| HB | HOSE BIBB |
| HP | HEAT PUMP |
| HW | HOT WATER (DOMESTIC) |
| HWR | HOT WATER RECIRC (DOMESTIC) |
| HWRP | HOT WATER RECIRCULATION PUMP |
| IE | INVERT ELEVATION |
| LAV | LAVATORY |
| LP | LIQUID PROPANE |
| MAX | MAXIMUM |
| MBH | THOUSAND BTUH |
| MFR | MANUFACTURER |
| PC | PLUMBING CONTRACTOR |
| PD | PRESSURE DROP |
| PRV | PRESSURE REDUCING VALVE |
| PSI | POUNDS PER SQUARE INCH |
| RD | ROOF DRAIN |
| RM | ROOM |
| RPZ | REDUCED PRESSURE ZONE ASSEMBLY |
| SAN | SANITARY |
| SS | STAINLESS STEEL |
| SST | SECONDARY STORMWATER |
| ST | STORMWATER |
| TMV | THERMOSTATIC MIXING VALVE |
| TW | TEMPERED WATER |
| TYP | TYPICAL |
| UNO | UNLESS NOTED OTHERWISE |
| VB | VACUUM BREAKER |
| VLV | VALVE |
| V | VENT |
| VTR | VENT THROUGH ROOF |
| W | WATER (DOMESTIC) |
| WB | WASHER BOX |
| WC | WATER CLOSET |
| WCO | WALL CLEANOUT |
| WSFU | WATER SUPPLY FIXTURE UNIT |

# GENERAL NOTES (NEW WORK)

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH CODES INDICATED.
2. REFER TO CIVIL PLANS FOR LOCATIONS AND INVERT ELEVATIONS OF WATER SUPPLY, SANITARY DRAIN AND STORM DRAIN LINES.
3. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND INSTALLATION HEIGHTS OF ALL PLUMBING FIXTURES.
4. UNDERGROUND WASTE PIPING SHALL BE MINIMUM SIZE OF 2".
5. PENETRATIONS THRU FIRE RATED CEILINGS, FLOORS OR WALLS SHALL BE SEALED TO MAINTAIN FIRE RATING INTEGRITY. REFER TO ARCHITECTURAL DRAWINGS FOR FIRESTOPPING DETAILS AND DETAILS OF PENETRATIONS THROUGH NON-FIRE RATED CEILINGS, FLOORS, AND WALLS.
6. PROVIDE APPROVED VACUUM BREAKERS FOR ALL WATER SUPPLIES WITH HOSE CONNECTIONS.
7. COORDINATE PLUMBING RISERS WITHIN WALLS WITH WALL CONSTRUCTION AND OTHER TRADES.
8. PROVIDE CLEANOUTS NEAR THE BASE OF EVERY SANITARY AND STORM DRAIN STACK, AND NEAR THE FIRST FIXTURE OF EVERY HORIZONTAL BRANCH DRAIN.
9. IN GENERAL, ABOVE-FLOOR PLUMBING PIPING SHALL BE RUN AS HIGH AS POSSIBLE, BELOW AND AVOIDING DUCTWORK AS APPLICABLE FOR ACCESSIBILITY AND MAINTENANCE.
10. THE PLUMBING CONTRACTOR SHALL COORDINATE THEIR WORK WITH ALL OTHER TRADES PRIOR TO FABRICATION OF SYSTEMS AND COMMENCEMENT OF INSTALLATION. IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO REVIEW THE WORK OF OTHER TRADES (INCLUDING, BUT NOT LIMITED TO, STRUCTURAL, ARCHITECTURAL, CIVIL, FIRE SPRINKLER, FIRE ALARM, HVAC, ELECTRICAL, AND FOOD SERVICE/KITCHEN CONSULTANT) AS IT AFFECTS THE PLUMBING WORK, AND AS THE PLUMBING CONTRACTOR'S WORK AFFECTS OTHER TRADES TO ENSURE THAT THE CONSTRUCTION DOCUMENTS ARE CLOSELY FOLLOWED. WHERE DISCREPANCIES ARISE, THEY SHALL BE REFERRED TO THE A/E PRIOR TO PROCEEDING FURTHER.
11. THIS DESIGN IS BASED ON MANUFACTURERS AND MODELS INDICATED, AND IS INTENDED TO SHOW THE GENERAL SIZE, CONFIGURATION, LOCATION, CONNECTIONS AND/OR SUPPORT FOR EQUIPMENT OR SYSTEMS SPECIFIED WITH RELATION TO THE OTHER BUILDINGS/SYSTEMS. SEE SPECIFICATION SECTIONS FOR TECHNICAL REQUIREMENTS.

## DIVISION OF LABOR MATRIX

| ITEM | SPECIFIED BY | FURNISHED BY | INSTALLED BY | POWER WIRING | CONTROL/ INTERLOCK WIRING | FIRE ALARM WIRING | NOTES |
|---|---|---|---|---|---|---|---|
| VARIABLE SPEED DRIVES (DIV 22 EQUIPMENT) | DIV 26 | DIV 22 | DIV 26 | DIV 26 | DIV 22/25 | DIV 26/28 | |
| COMBINATION MOTOR STARTERS (DIV 22 EQUIPMENT) | DIV 26 | DIV 26 | DIV 26 | DIV 26 | DIV 22/25 | DIV 26/28 | |
| PLUMBING PUMPS (DIV 22 EQUIPMENT) | DIV 22 | DIV 22 | DIV 22 | DIV 26 | DIV 25 | - | |
| CONTROL VALVES (DIV 22 EQUIPMENT) | DIV 25 | DIV 25 | DIV 22 | DIV 26 | DIV 25 | - | |
| IMMERSION WELL & METERS (DIV 22 EQUIPMENT) | DIV 25 | DIV 25 | DIV 22 | DIV 26 | DIV 25 | - | |
| HEAT TRACE (DIV 22 PIPING/EQUIPMENT) | DIV 22 | DIV 26 | DIV 26 | DIV 26 | DIV 22/25 | - | |

**GENERAL NOTES (APPLIES TO ALL EQUIPMENT):**

1. THESE DIVISIONS ARE BASE SCOPE. GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE ENTIRE SCOPE OF WORK IS COVERED.
2. ALL EXPOSED PLUMBING FIXTURES SHALL BE COORDINATED WITH THE ARCHITECT FOR ALL FINISHES AND COLOR SELECTIONS.

**SPECIFIC NOTES (AS NOTED IN THE SCHEDULE):**

1. PLUMBING CONTRACTOR TO COORDINATE THE INSTALLATION OF ALL DOMESTIC WATER PIPING AND PLUMBING EQUIPMENT. MECHANICAL CONTRACTOR TO INSTALL STEAM PIPING AND STEAM SPECIALTIES.

## DESIGN CODES/STANDARDS

| CODE/STANDARD | YEAR/VERSION |
|---|---|
| VIRGINIA BUILDING CODE (VBC) | 2018 |
| VIRGINIA MECHANICAL CODE (VMC) | 2018 |
| VIRGINIA PLUMBING CODE (VPC) | 2018 |
| VIRGINIA ENERGY CONSERVATION CODE (VECC) | 2018 |
| VIRGINIA FUEL GAS CODE (VFGC) | 2018 |
| NATIONAL ELECTRICAL CODE (NEC) | 2017 |
| NFPA 13 | 2016 |
| NFPA 72 | 2016 |

## SHEET LIST - PLUMBING



| SHEET NO | SHEET NAME |
|---|---|
| P000 | LEGENDS, ABBREVIATIONS & GENERAL NOTES |
| | |
| P100 | BASEMENT PLANS |
| P101A | LEVEL 1 - PARTIAL PLAN AREA A - FOUNDATION |
| P101B | LEVEL 1 - PARTIAL PLAN AREA B - FOUNDATION |
| PG101A | LEVEL 1 - PARTIAL PLAN AREA A - GRAVITY |
| PG101B | LEVEL 1 - PARTIAL PLAN AREA B - GRAVITY |
| PG102A | LEVEL 2 - PARTIAL PLAN AREA A - GRAVITY |
| PG102B | LEVEL 2 - PARTIAL PLAN AREA B - GRAVITY |
| | |
| PP101A | LEVEL 1 - PARTIAL PLAN AREA A - PRESSURE |
| PP101B | LEVEL 1 - PARTIAL PLAN AREA B - PRESSURE |
| PP102A | LEVEL 2 - PARTIAL PLAN AREA A - PRESSURE |
| PP102B | LEVEL 2 - PARTIAL PLAN AREA B - PRESSURE |
| | |
| P103 | ROOF PLAN |
| | |
| P401 | ENLARGED PLANS |
| P402 | ENLARGED PLANS |
| P403 | ENLARGED PLANS |
| P501 | DETAILS |
| P601 | RISER DIAGRAM - STORM |
| P602 | RISER DIAGRAM - SANITARY |
| P603 | RISER DIAGRAM - DOMESTIC WATER |
| P700 | SCHEDULES |
| P701 | SCHEDULES |




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1840 WEST BROAD STREET
SUITE 400
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v 804.788.4774

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ENERGY BY DESIGN
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Suite 202
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MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd.
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JGS

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

LEGENDS, ABBREVIATIONS & GENERAL NOTES

# P000


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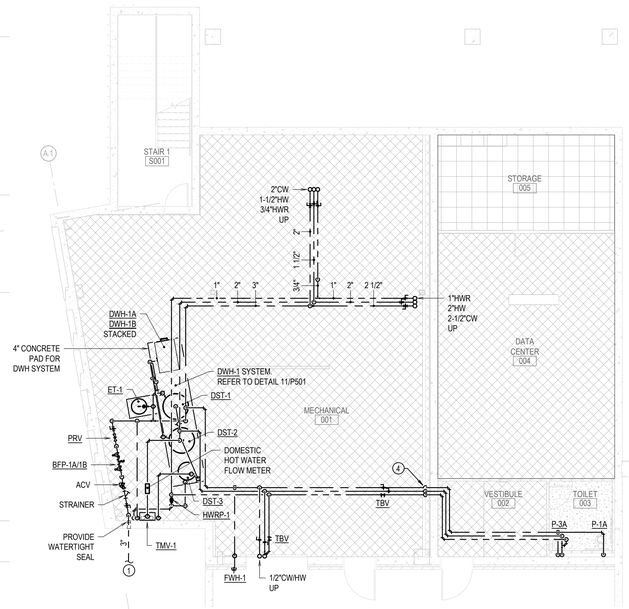
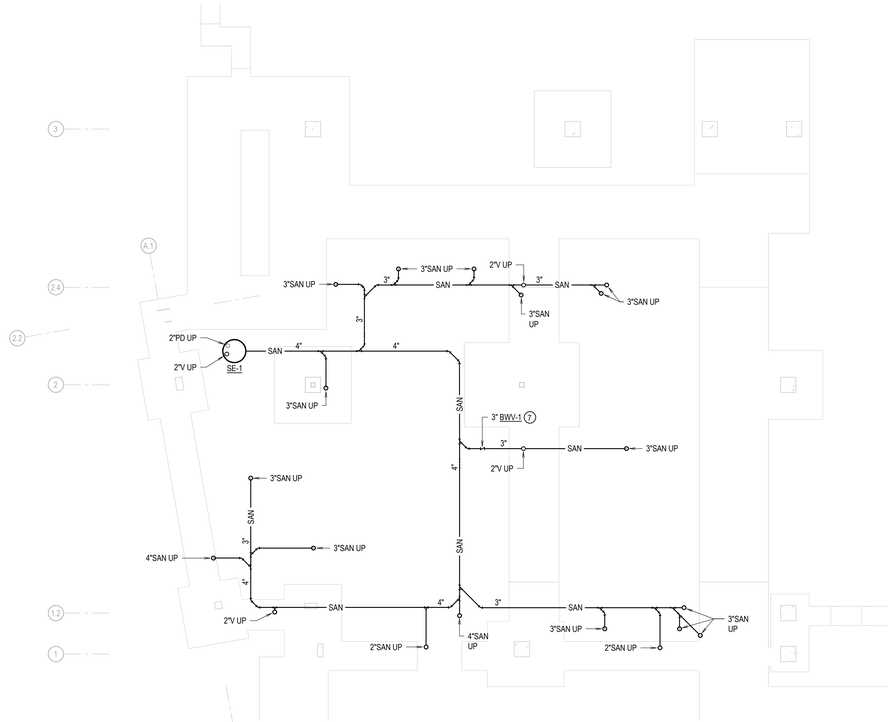



3 -- P100 BASEMENT FLOOR PLAN - PRESSURE

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

0 2' 4' 8' 16'




1 -- P100 FOUNDATION PLAN - BASEMENT

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

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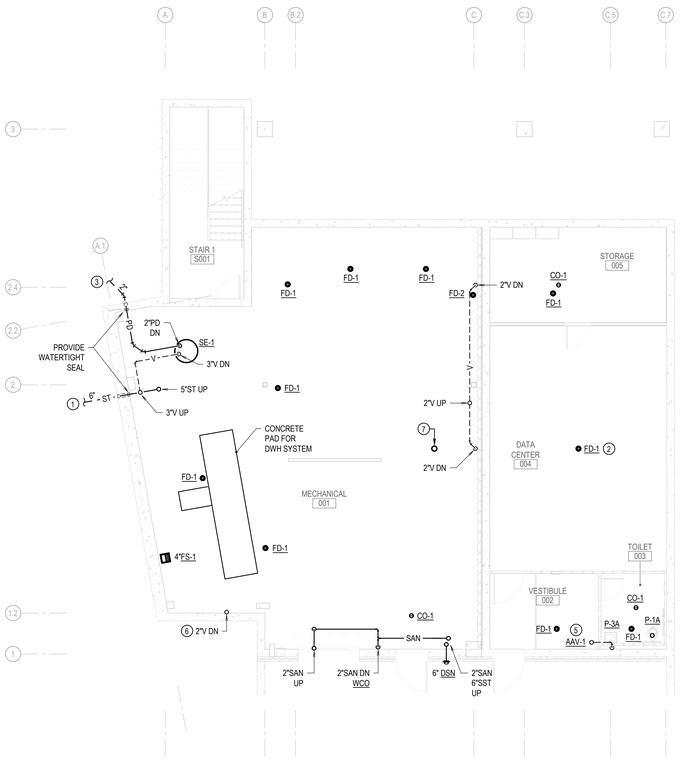



2 -- P100 BASEMENT FLOOR PLAN - GRAVITY

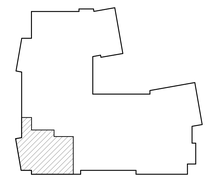
SCALE: 1/8" = 1'-0"

0 2' 4' 8' 16'

## KEY NOTES (NEW WORK)

1. CONTINUED ON CIVIL SITE UTILITY PLAN.
2. FD-1 IS LOCATED IN CONCRETE SLAB BENEATH RAISED FLOOR.
3. ROUTE 2"PD TO NEW MANHOLE. PROVIDE WATERTIGHT SEAL AT MECHANICAL ROOM WALL. CONTINUED ON CIVIL SITE UTILITY PLAN.
4. DO NOT ROUTE PIPE OVER ELECTRICAL EQUIPMENT/PANELS. COORDINATE ROUTING WITH ELECTRICAL CONTRACTOR PRIOR TO ROUGH-IN.
5. PROVIDE AAV-1 OVERHEAD IN ACCESSIBLE LOCATION.
6. PROVIDE AAV-1 AT 8'-0" AFF.
7. EXTEND BWV-1 ACCESS TO FINISHED FLOOR OF MECH RM 001 WITH EXTENSION AS REQUIRED.

## KEY PLAN



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SUITE 400
RICHMOND, VA 23220
v 804.788.4774
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2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

COMMONWEALTH OF VIRGINIA
MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER

Albemarle County Public Schools

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BASEMENT PLANS

# P100

PATH & FILENAME: C:\Users\JackS\Documents\19168_P23_ACPS HS Center II_Plumb_jsesb@BYD.rvt
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## KEY NOTES (NEW WORK)

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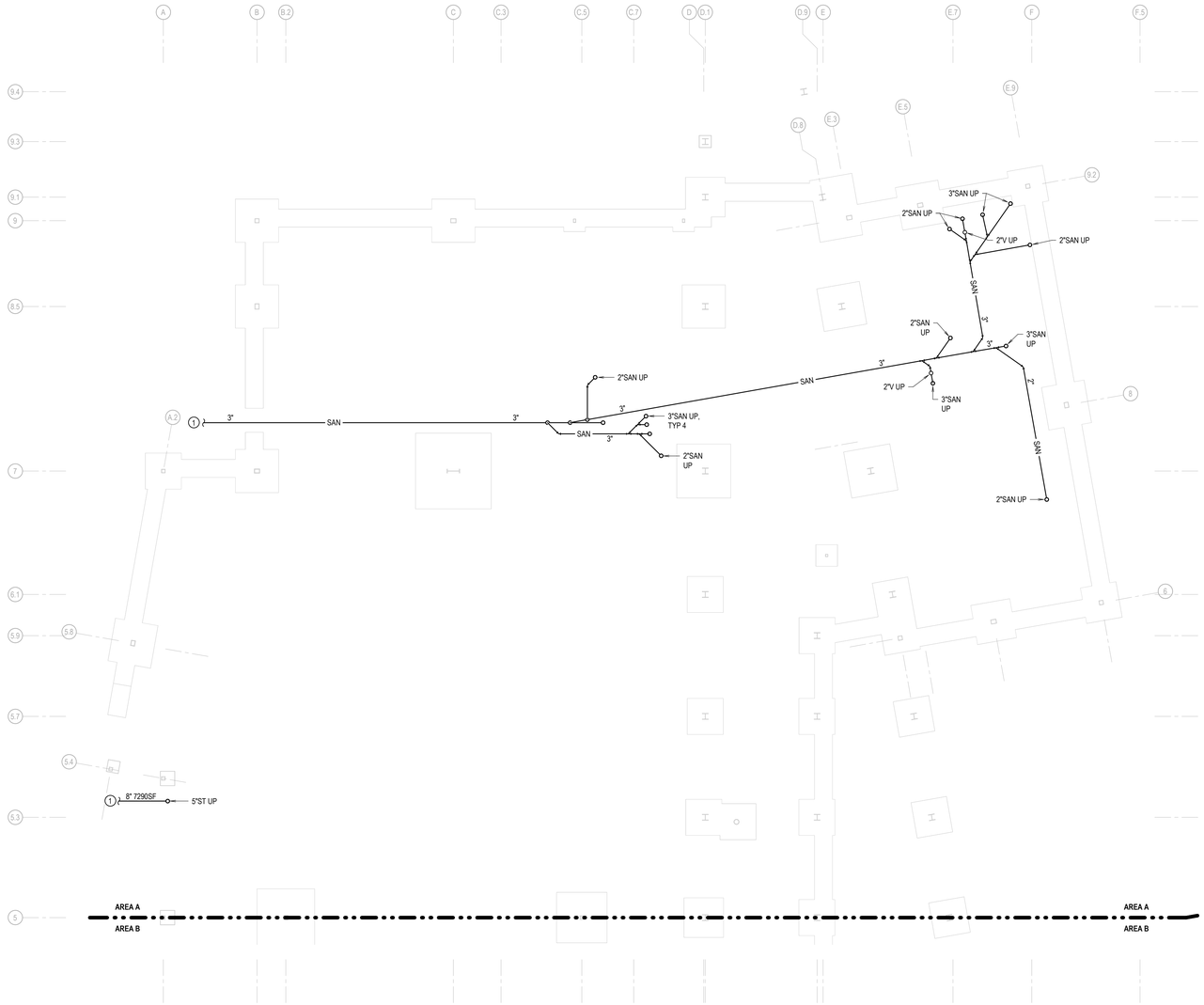
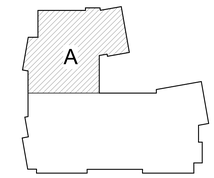



1 P101A FOUNDATION PLAN - LEVEL 1 - AREA A

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

0 2' 4' 8' 16'

KEY PLAN

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100 10th St. NE
Suite 202
Charlottesville, VA 22902
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MATTHEW R. LEWIS
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PROFESSIONAL ENGINEER

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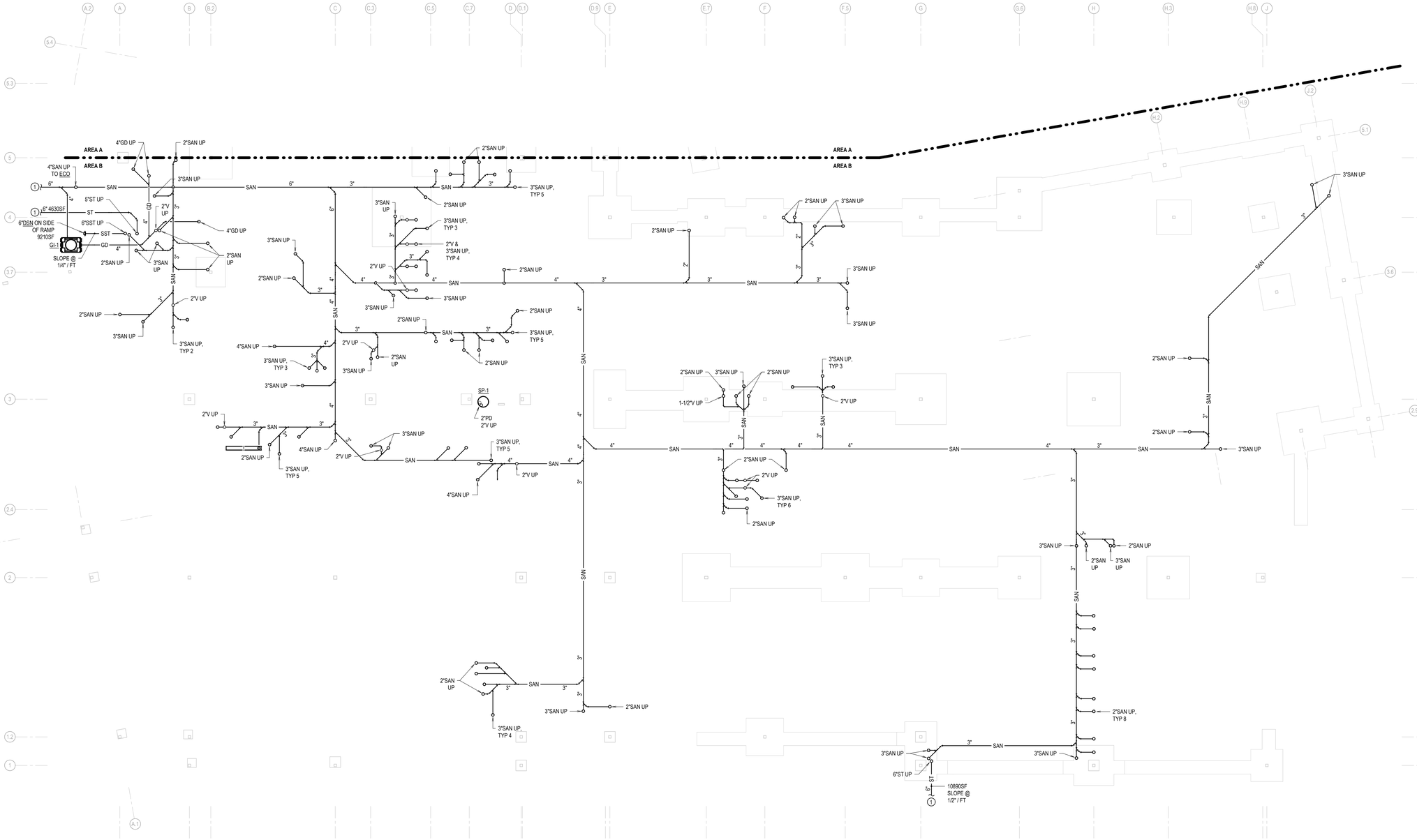
LEVEL 1 - PARTIAL PLAN AREA A - FOUNDATION

# P101A

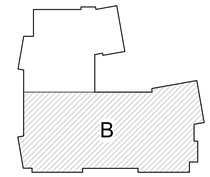
## KEY NOTES (NEW WORK)

1. CONTINUED ON CIVIL SITE UTILITY PLAN.




1 P101B FOUNDATION PLAN - AREA B
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN





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MATTHEW R. LEWIS
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NO. 51922
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QEA No.41911390/19168

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10/08/2024

LEVEL 1 - PARTIAL PLAN AREA B - FOUNDATION

# P101B

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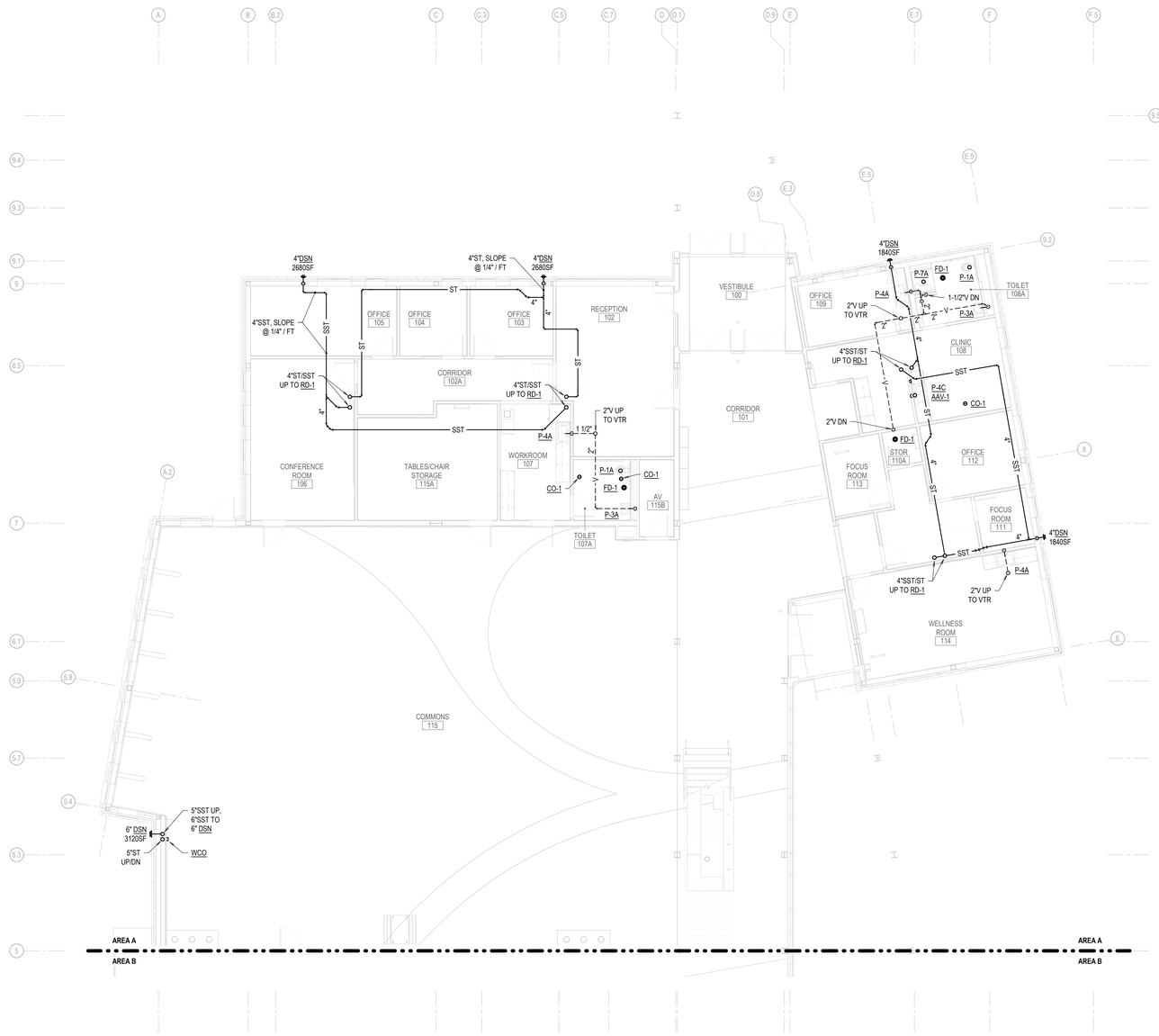
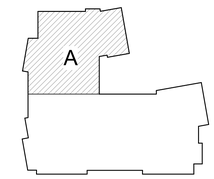



1 PG101A LEVEL 1 PARTIAL PLAN - AREA A - GRAVITY
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN

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RICHMOND, VA 23220
v 804.788.4774
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100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

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10/08/2024
NO. 51922
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LEVEL 1 - PARTIAL PLAN AREA A - GRAVITY

# PG101A

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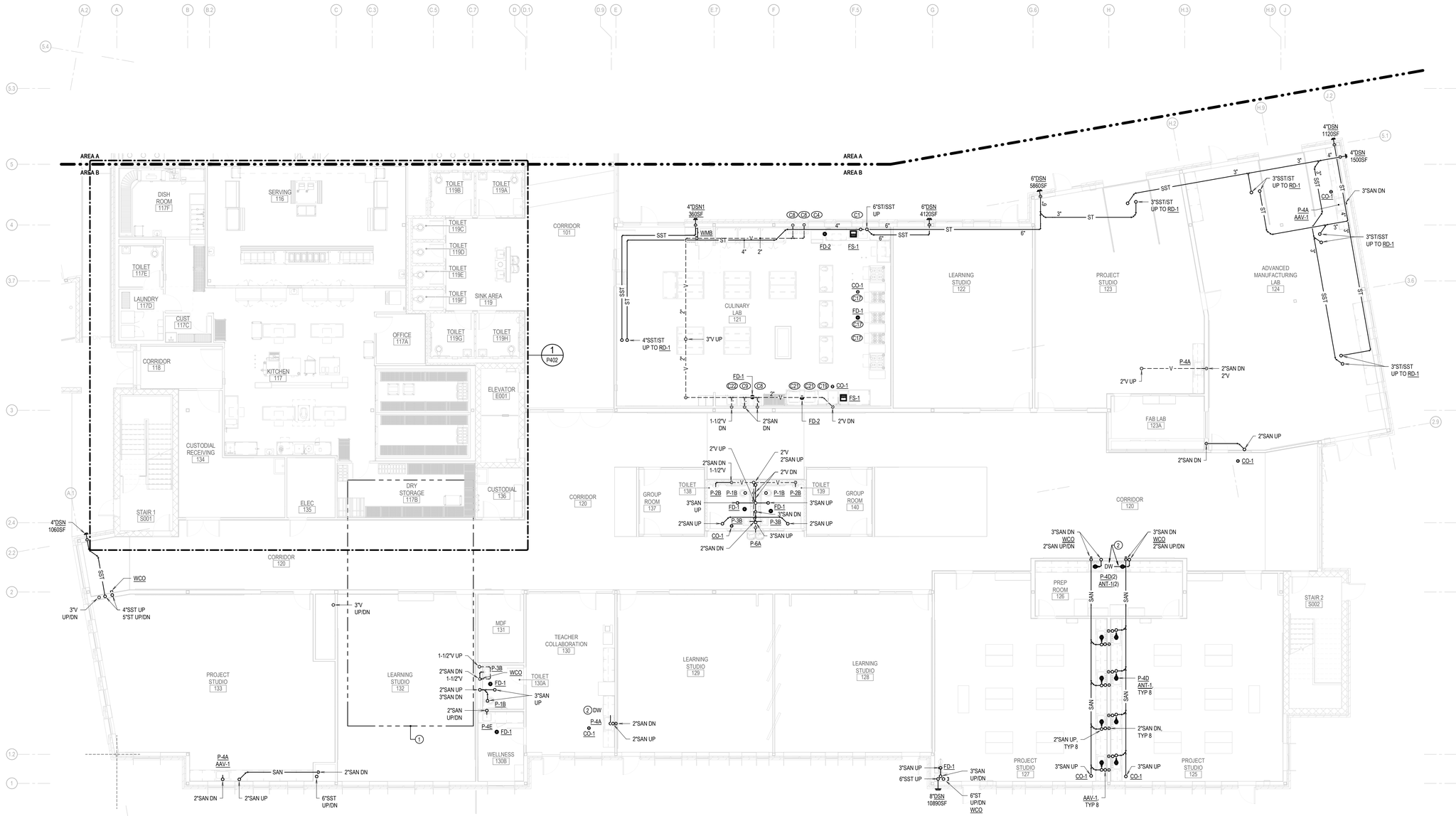
PLOTTING DATE & TIME: 10/2/2024 12:30:02 PM

## KEY NOTES (NEW WORK)

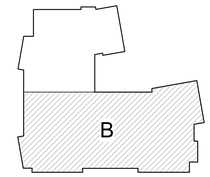
1. CONTRACTOR SHALL NOT INSTALL ANY PLUMBING PIPES ABOVE FOOTPRINT OF DATA CENTER ON BASEMENT LEVEL.
2. CONNECT DISHWASHER DRAIN TO VERTICAL SINK DRAIN PRIOR TO ANT-1.




1 P402

1 -- PG101B LEVEL 1 PARTIAL PLAN - AREA B - GRAVITY
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN

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MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER

Albemarle County Public Schools

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Albemarle County Public Schools
2775 Hydraulic Rd,
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| No | Date | Description |
|---|---|---|

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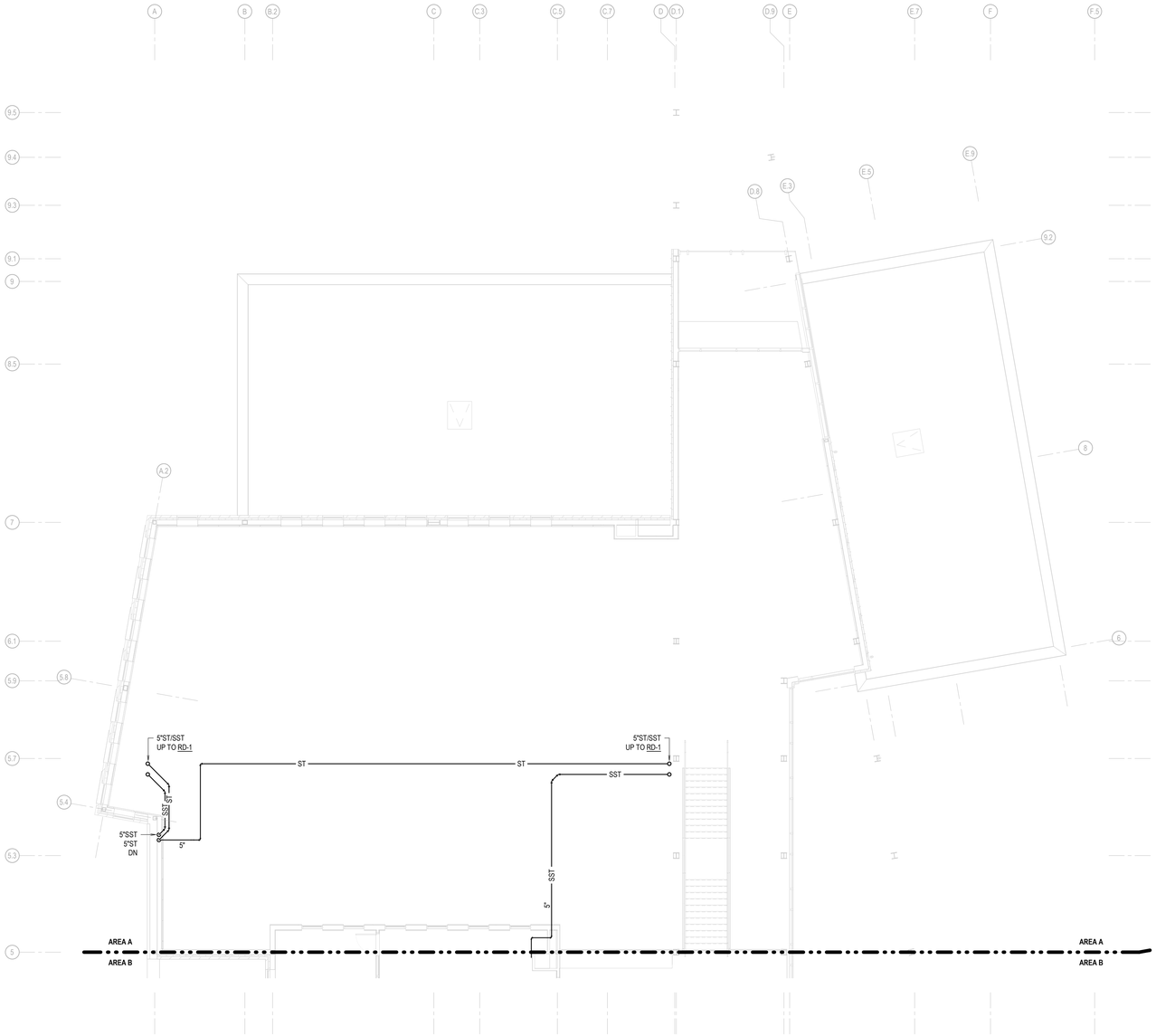
QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

LEVEL 1 - PARTIAL PLAN AREA B - GRAVITY

# PG101B

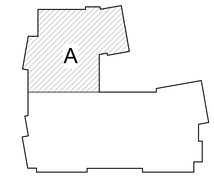



1 — PG102A LEVEL 2 PARTIAL PLAN - AREA A - GRAVITY

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

0 2' 4' 8' 16'

KEY PLAN

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PROJECT MANAGER: MRL
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QEA No.41911390/19168

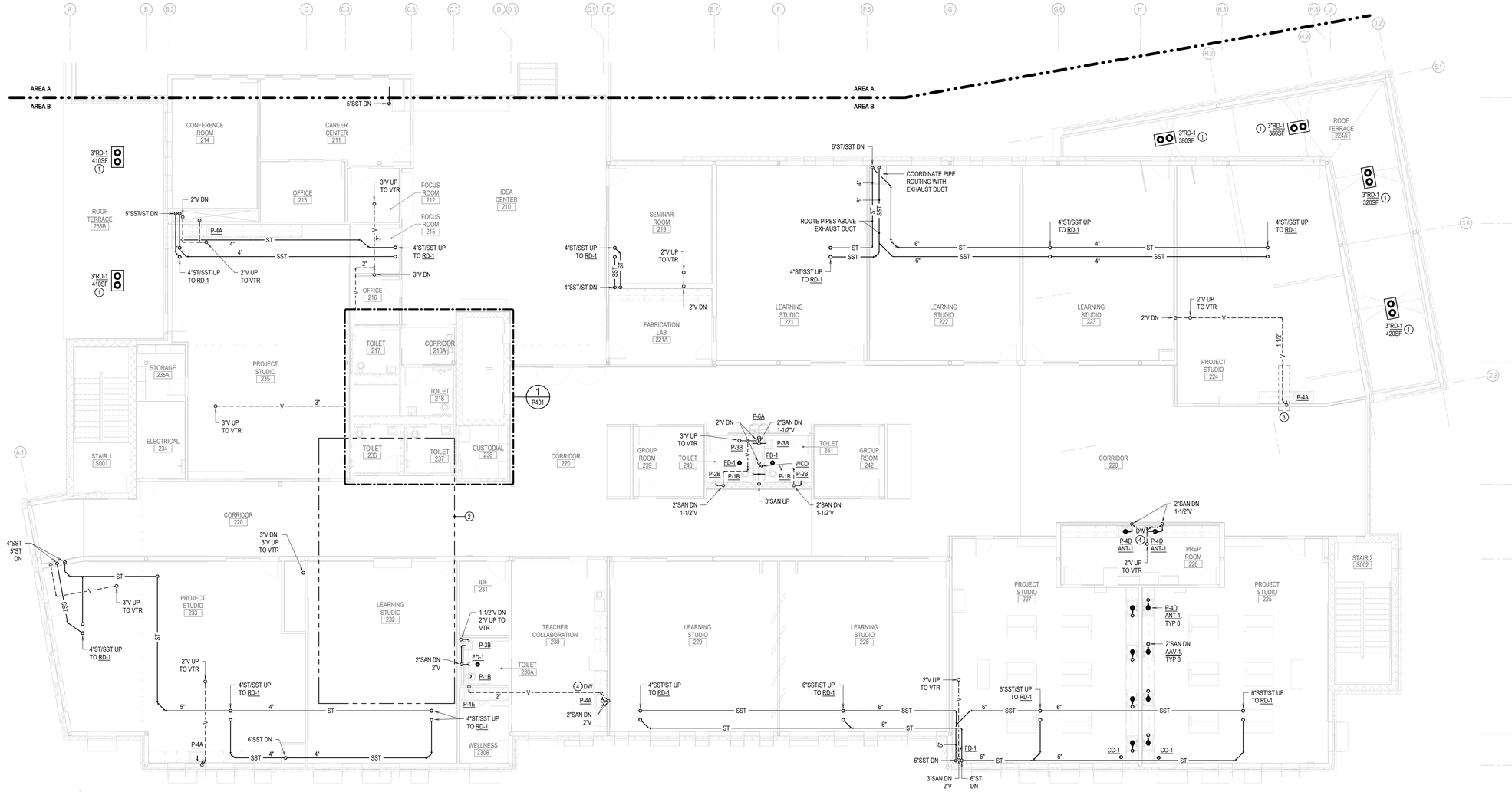
BID DOCUMENTS
10/08/2024

LEVEL 2 - PARTIAL PLAN AREA A - GRAVITY

# PG102A

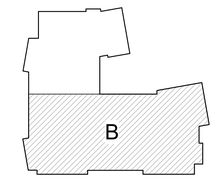
## KEY NOTES (NEW WORK)

1. ROOF DRAIN LOCATED BENEATH ROOF TERRACE WALKWAY.
2. CONTRACTOR SHALL NOT INSTALL ANY PLUMBING PIPES ABOVE FOOTPRINT OF DATA CENTER ON BASEMENT LEVEL.
3. ROUTE 2"V ABOVE EXPOSED SECTION AS LOW AS POSSIBLE TO KEEP OUT OF SIGHT.
4. CONNECT DISHWASHER DRAIN TO VERTICAL SINK DRAIN PRIOR TO ANT-1.




1 LEVEL 2 PARTIAL PLAN - AREA B - GRAVITY
PG102B SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN

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PROJECT MANAGER: MRL
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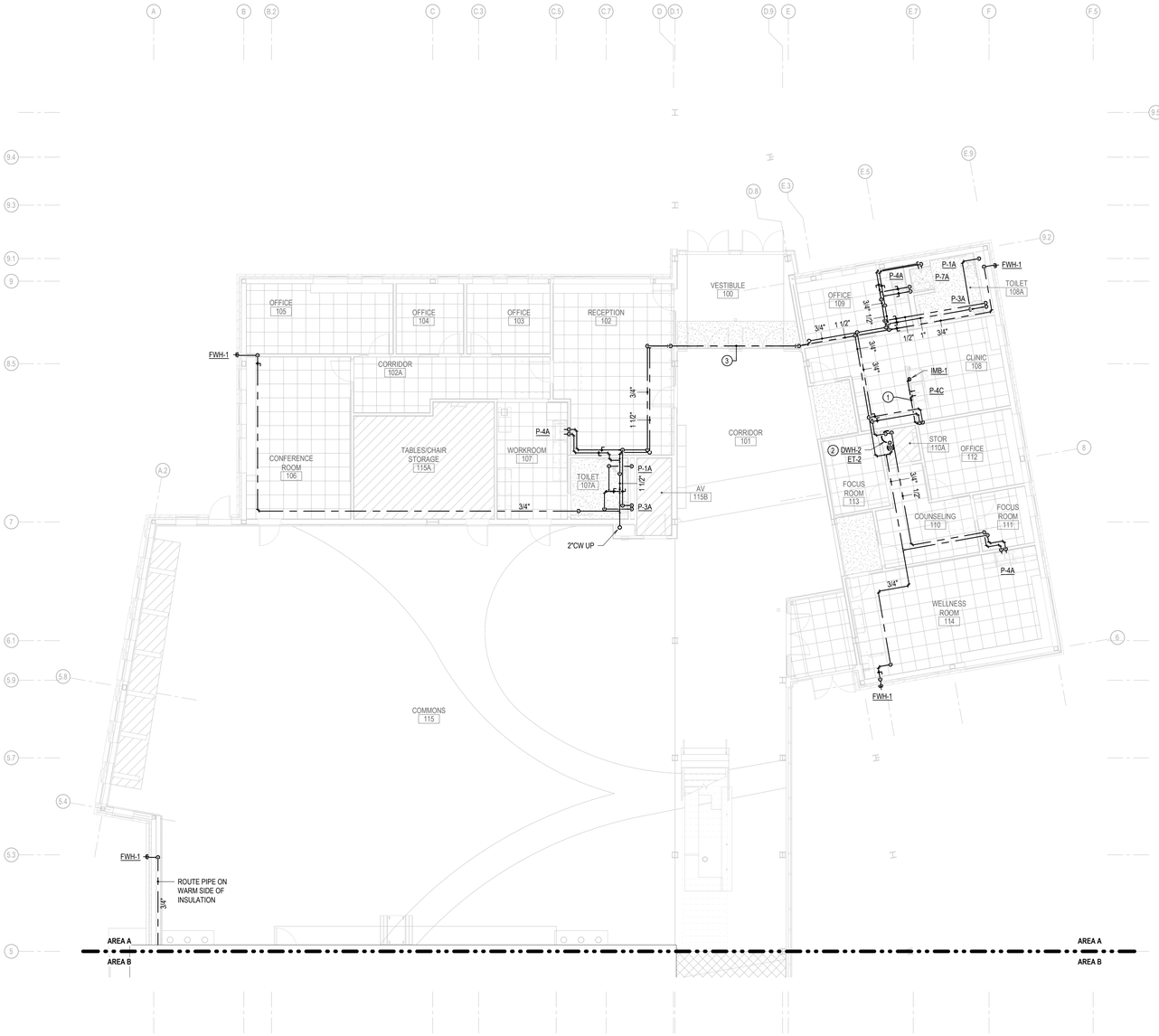
BID DOCUMENTS
10/08/2024

LEVEL 2 - PARTIAL PLAN AREA B - GRAVITY

# PG102B

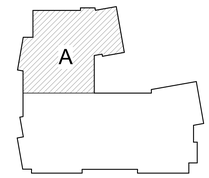
## KEY NOTES (NEW WORK)

1. ROUTE 1/2"CW & HW THRU WALL BELOW WINDOW OPENING.
2. PROVIDE TEMPERATURE MAINTENANCE HEAT TRACE FROM DWH-2 TO ALL FIXTURES SERVED.
3. ROUTE CW & HW STACKED THRU VESTIBULE. CLOSE COORDINATION IN THIS AREA IS REQUIRED BETWEEN ALL TRADES.




1 PP101A LEVEL 1 PARTIAL PLAN - AREA A - PRESSURE
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN

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v 804.788.4774
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100 10th St. NE
Suite 202
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10/08/2024

LEVEL 1 - PARTIAL PLAN AREA A - PRESSURE

# PP101A

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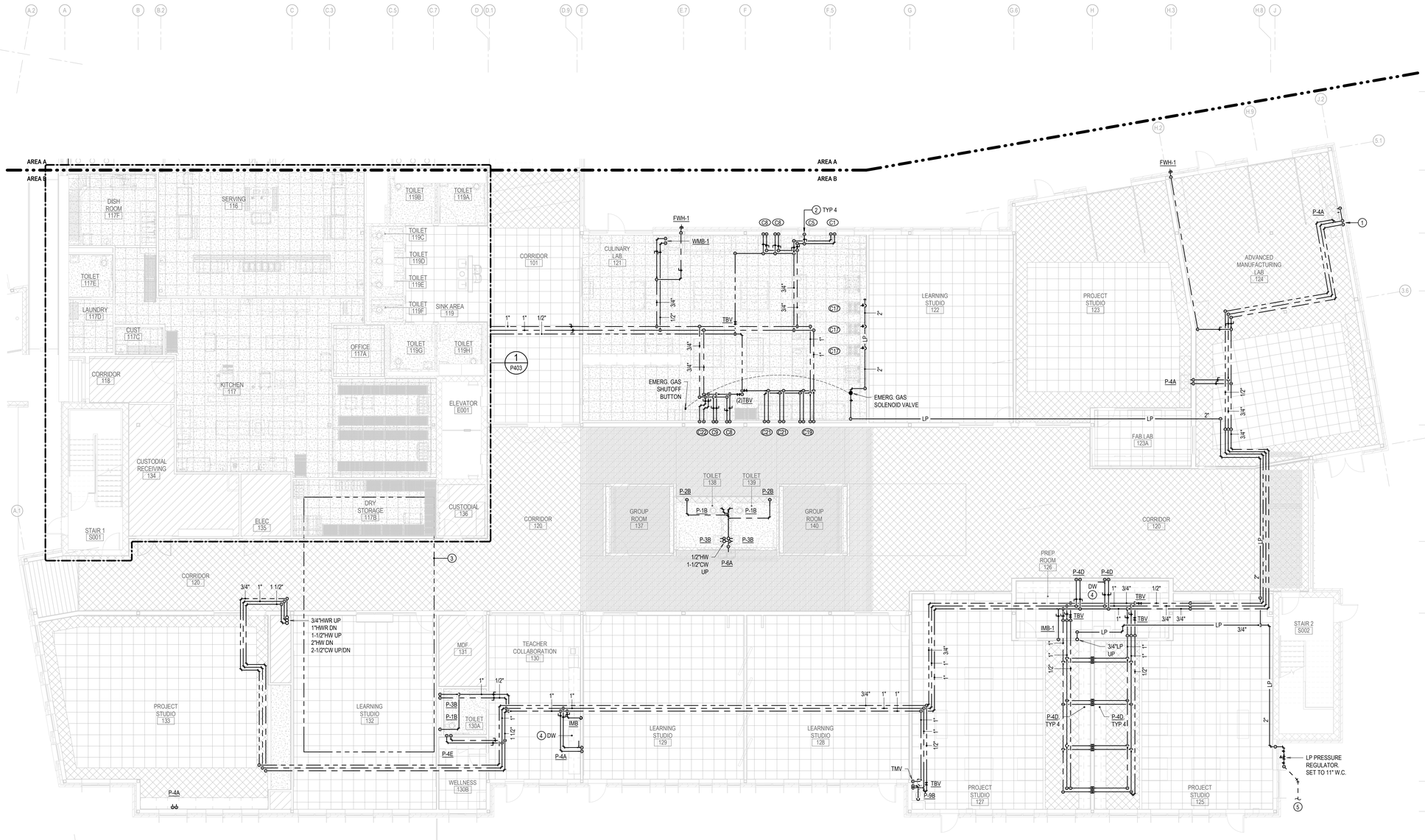
PLOTTING DATE & TIME: 10/2/2024 12:29:31 PM

## KEY NOTES (NEW WORK)

1. COORDINATE PIPE ROUTING WITH STEEL BRACING IN WALL. ROUTE 1/2"HW & CW DN WALL ON HOT SIDE OF WALL INSULATION.
2. ROUTE WATER PIPES DN WALL ON HOT SIDE OF INSULATION.
3. CONTRACTOR SHALL NOT INSTALL ANY PLUMBING PIPES ABOVE FOOTPRINT OF DATA CENTER ON BASEMENT LEVEL.
4. CONNECT HW FOR DISHWASHER BENEATH SINK TO HW FOR SINK. PROVIDE SHUT-OFF VALVE.
5. ROUTE PIPING TO UNDERGROUND PROPANE TANK PROVIDED BY OWNER'S VENDOR. REFER TO CIVIL PLANS FOR LOCATION OF TANK.

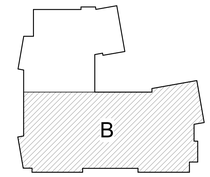



1 PP101B LEVEL 1 PARTIAL PLAN - AREA B - PRESSURE

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

0 2' 4' 8' 16'

KEY PLAN

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MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

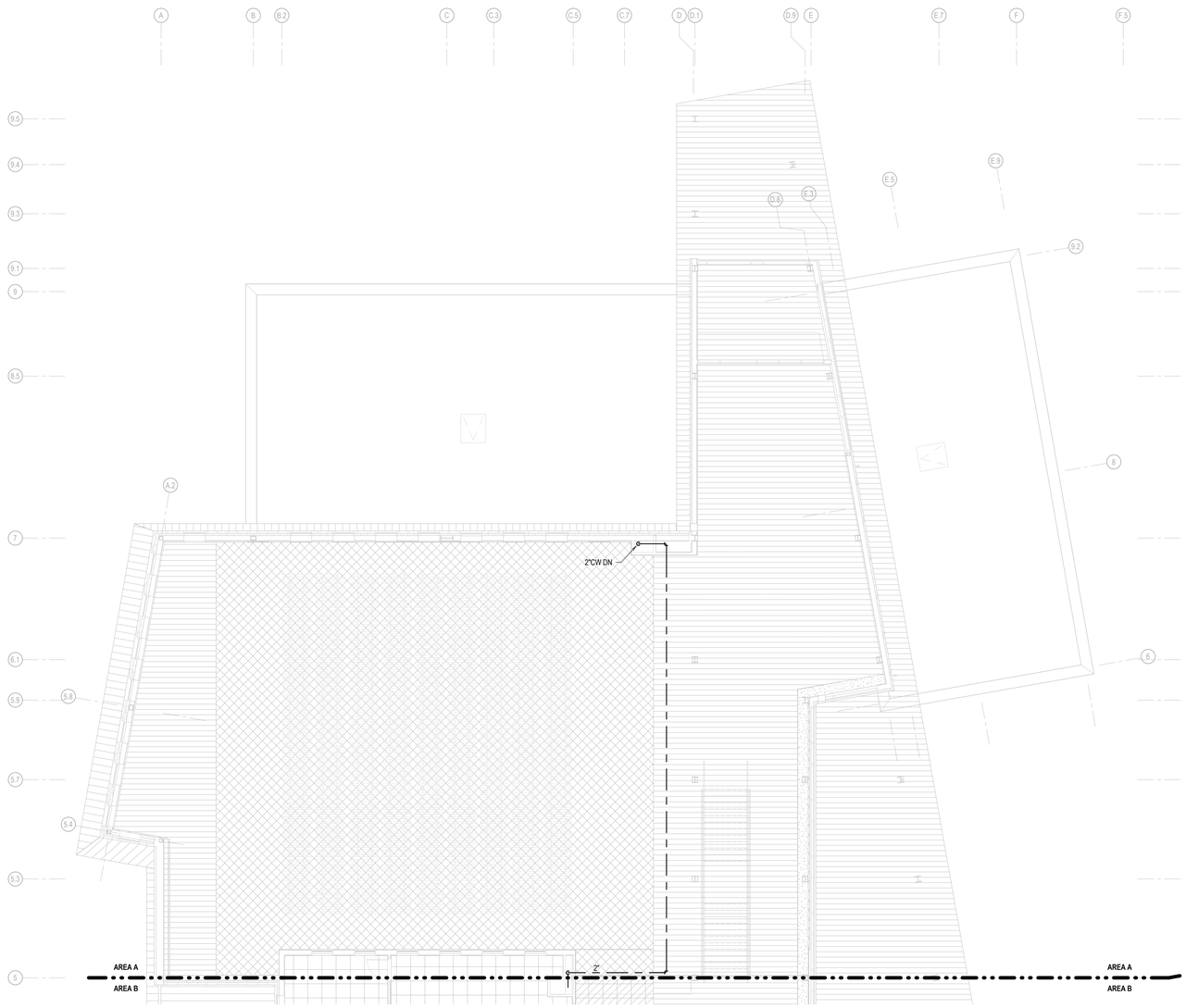
PROJECT MANAGER: MRL
DRAWN BY: JGS

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

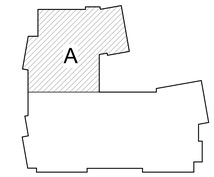
LEVEL 1 - PARTIAL PLAN AREA B - PRESSURE

# PP101B




1 LEVEL 2 PARTIAL PLAN - AREA A - PRESSURE
PP102A SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN

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SUITE 400
RICHMOND, VA 23220
v 804.788.4774
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100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

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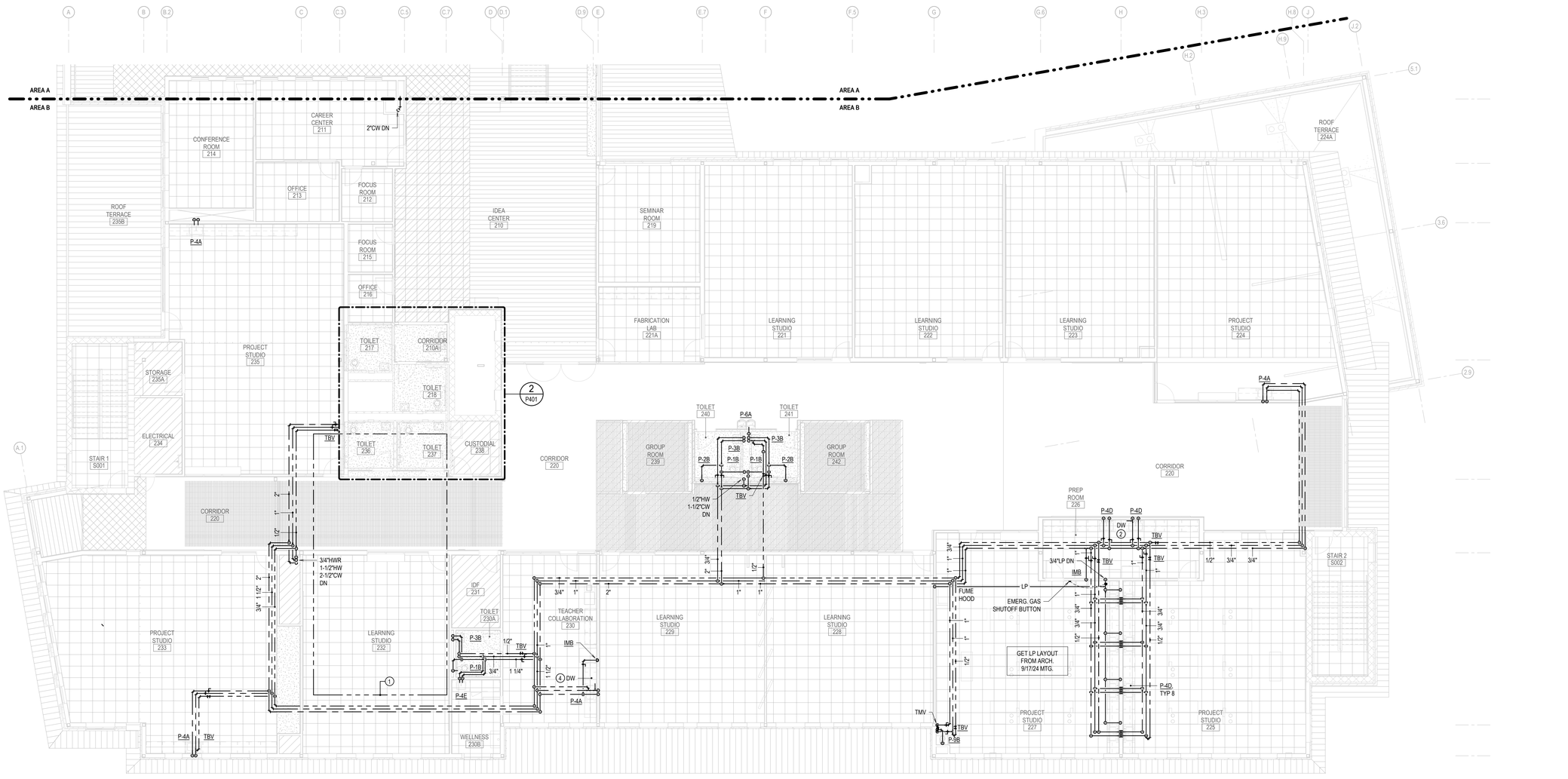
LEVEL 2 - PARTIAL PLAN AREA A - PRESSURE

# PP102A

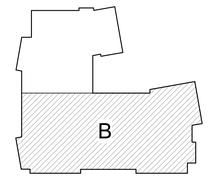
## KEY NOTES (NEW WORK)

1. CONTRACTOR SHALL NOT INSTALL ANY PLUMBING PIPES ABOVE FOOTPRINT OF DATA CENTER ON BASEMENT LEVEL.
2. CONNECT HW FOR DISHWASHER BENEATH SINK TO HW FOR SINK. PROVIDE SHUT-OFF VALVE.




1 LEVEL 2 PARTIAL PLAN - AREA B - PRESSURE
PP102B SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN

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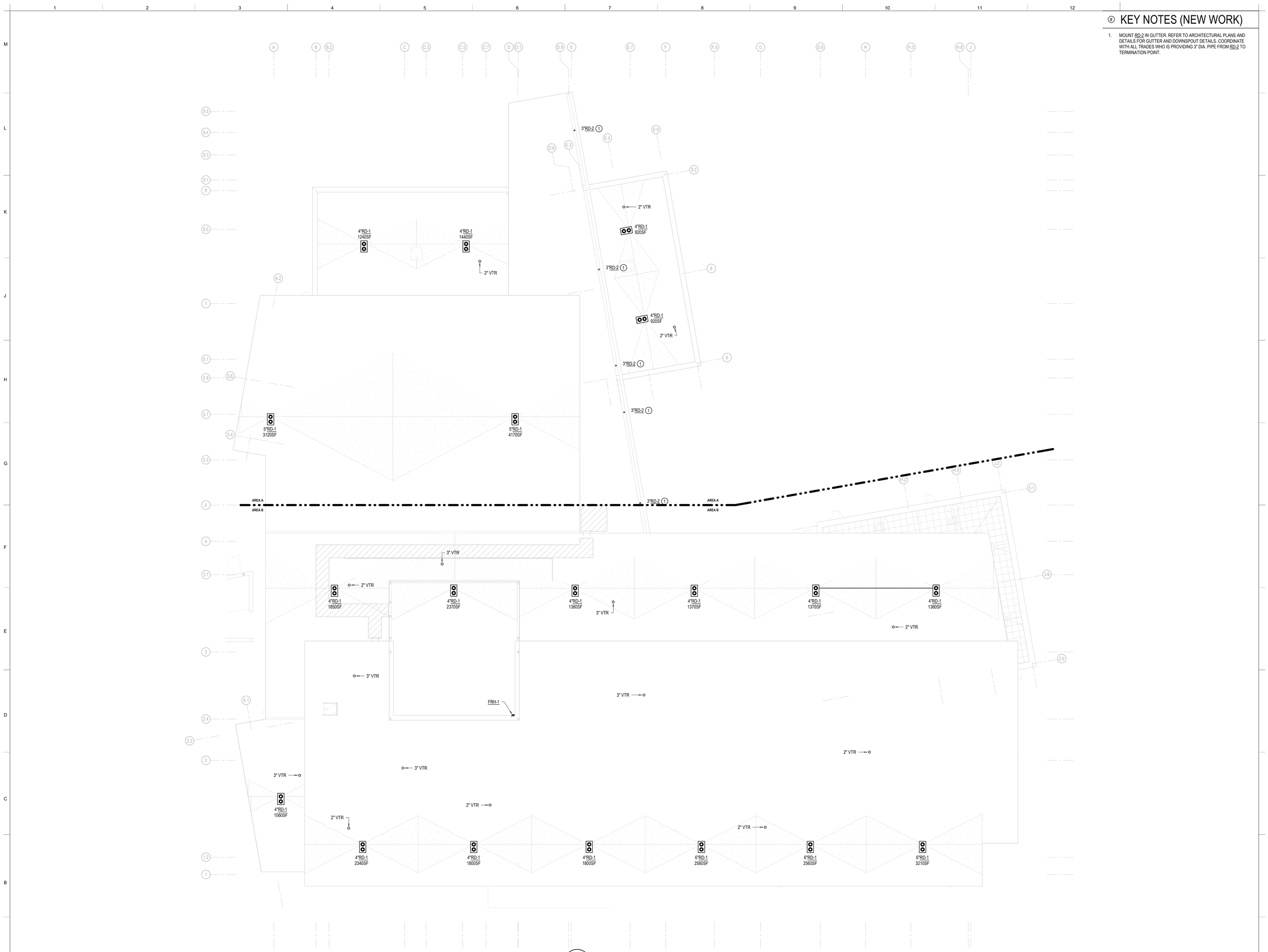
LEVEL 2 - PARTIAL PLAN AREA B - PRESSURE

# PP102B

## KEY NOTES (NEW WORK)

1. MOUNT RD-2 IN GUTTER. REFER TO ARCHITECTURAL PLANS AND DETAILS FOR GUTTER AND DOWNSPOUT DETAILS. COORDINATE WITH ALL TRADES WHO IS PROVIDING 3" DIA. PIPE FROM RD-2 TO TERMINATION POINT.




1 / P103 ROOF PLAN - GRAVITY
SCALE: 3/32" = 1'-0"
0 3' 5.3' 11' 21'

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Suite 202
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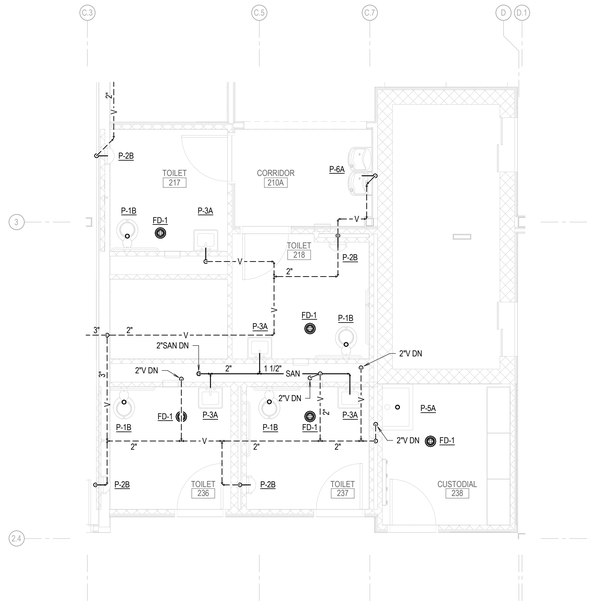
ROOF PLAN

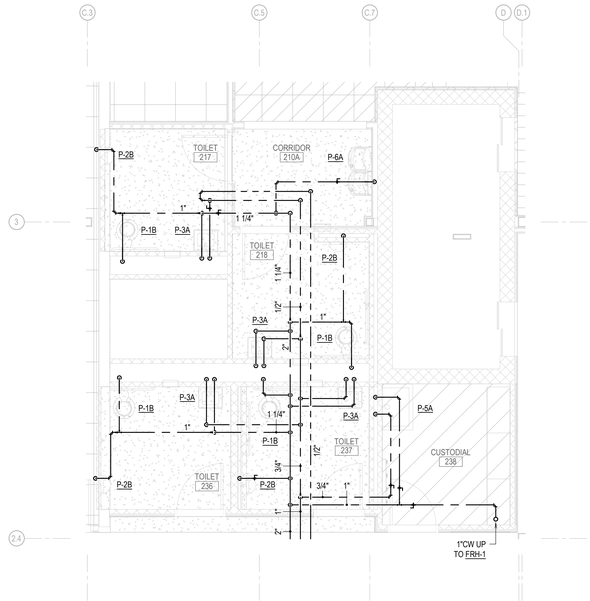
# P103




1 PG102B P401 ENLARGED PLAN: -GRAVITY

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

0 1' 2' 4' 8'




2 PP102B P401 ENLARGED PLAN: - PRESSURE

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

0 1' 2' 4' 8'

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SUITE 400
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v 804.788.4774

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2RW
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100 10th St. NE
Suite 202
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10/08/2024
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PROFESSIONAL ENGINEER

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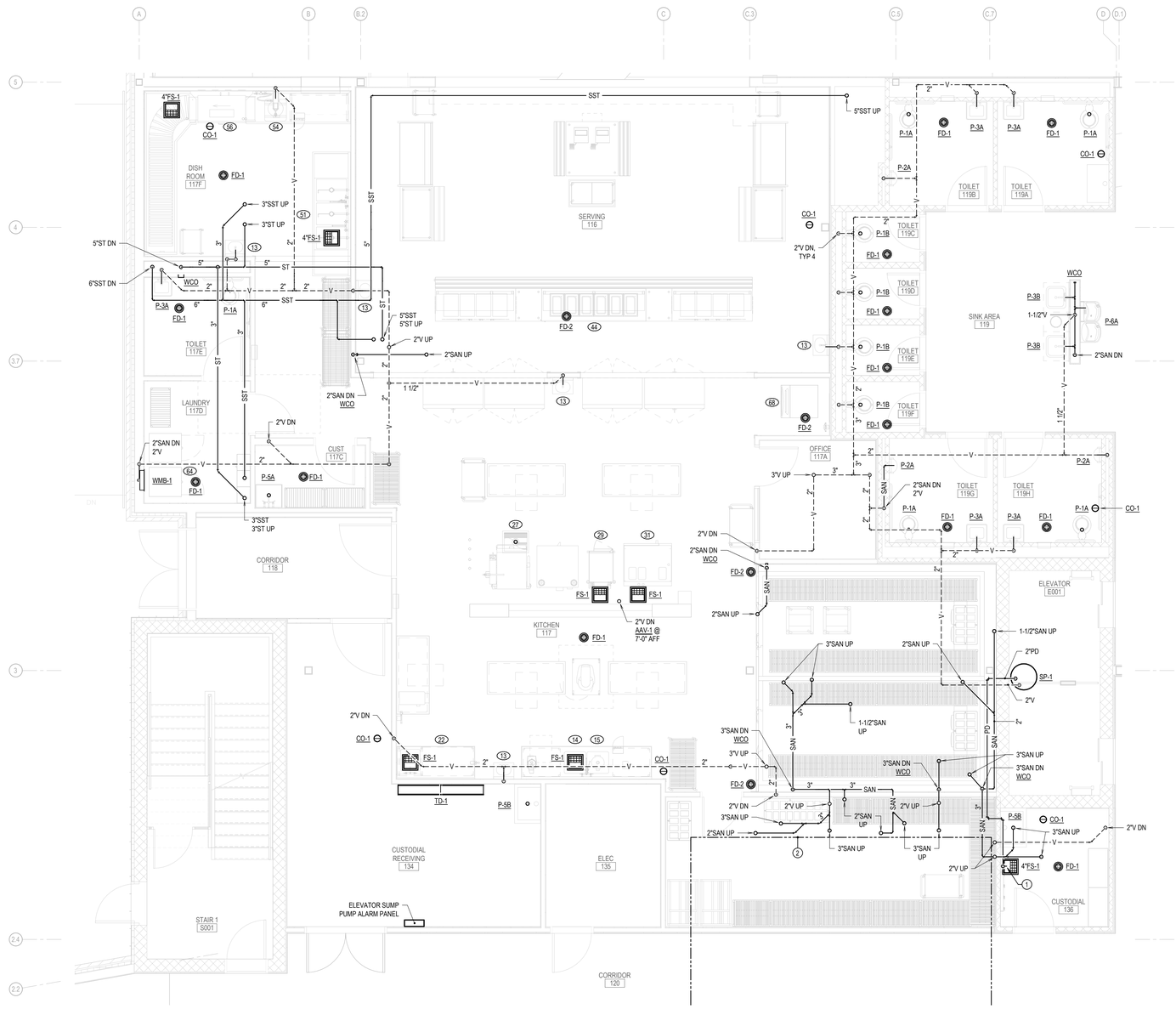
10/08/2024

ENLARGED PLANS

# P401

## KEY NOTES (NEW WORK)

1. TERMINATE 2"PD WITH A 45-DEGREE ELL AND SHORT PIECE OF PIPE ABOVE FS-1, PROVIDING A 1" AIR GAP.
2. CONTRACTOR SHALL NOT INSTALL ANY PLUMBING PIPES ABOVE FOOTPRINT OF DATA CENTER ON BASEMENT LEVEL.




1 PG101B | P402 ENLARGED PLAN: KITCHEN 122 - GRAVITY

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

0 1' 2' 4' 8'

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SUITE 400
RICHMOND, VA 23220

v 804.788.4774

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ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com


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NO. 51922
PROFESSIONAL ENGINEER

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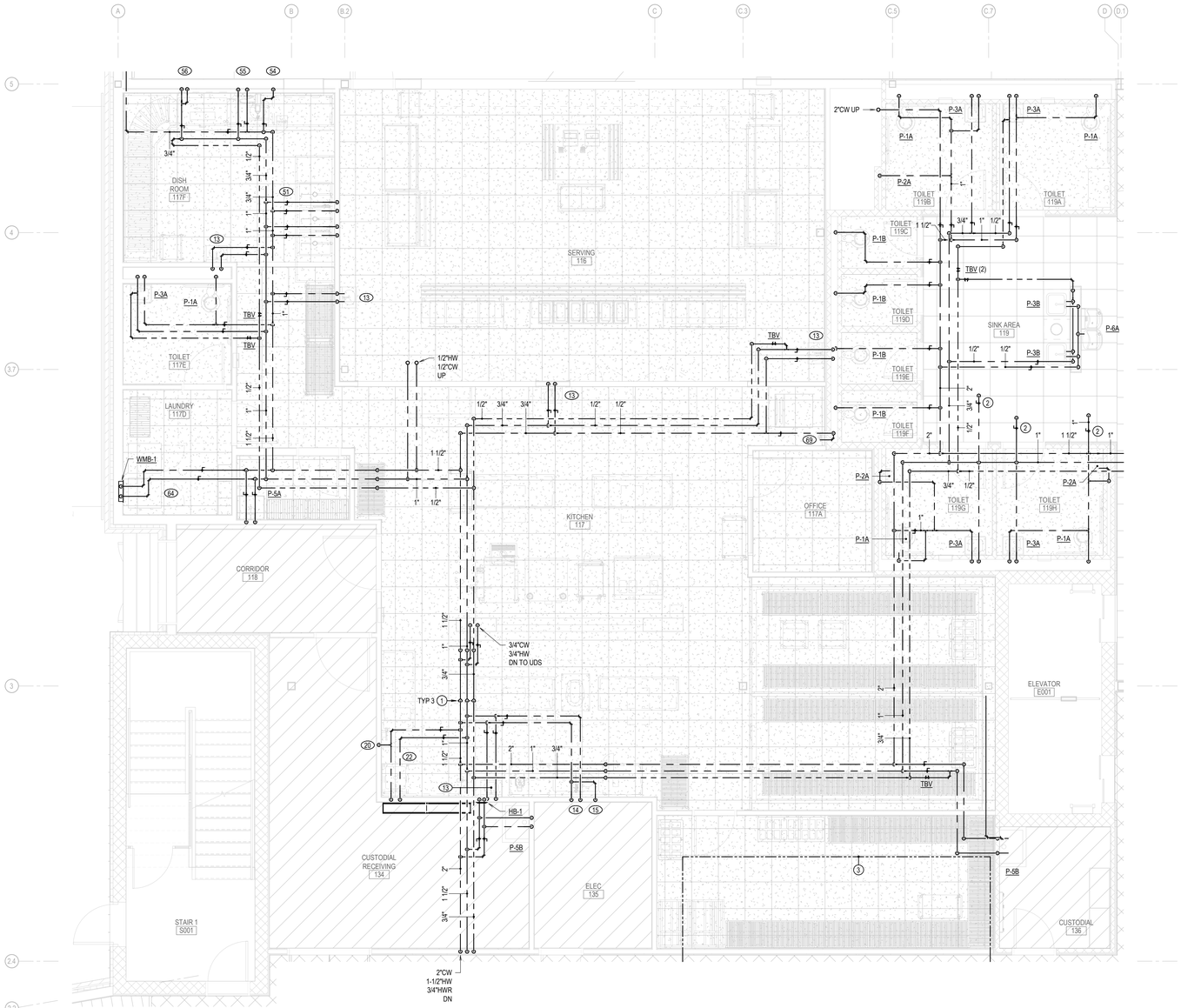
10/08/2024

ENLARGED PLANS

# P402

## KEY NOTES (NEW WORK)

1. DROP PIPES BELOW BEAM AND PROVIDE LOW POINT DRAINS.
2. LOCATE VALVE OVER ACT CEILING IN AN ACCESSIBLE LOCATION. COORDINATE WITH DUCTWORK AND ALL TRADES.
3. CONTRACTOR SHALL NOT INSTALL ANY PLUMBING PIPES ABOVE FOOTPRINT OF DATA CENTER ON BASEMENT LEVEL.




1 PP101B | P403 — ENLARGED PLAN: KITCHEN 122 - PRESSURE

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

0 1' 2' 4' 8'

PATH & FILENAME: C:\Users\kw5\Documents\19168_P23_ACPS HS Center II_Plumb_kw5UBYD.rvt
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SUITE 400
RICHMOND, VA 23220

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ENERGY BY DESIGN
100 10th St. NE
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10/08/2024
NO. 51922
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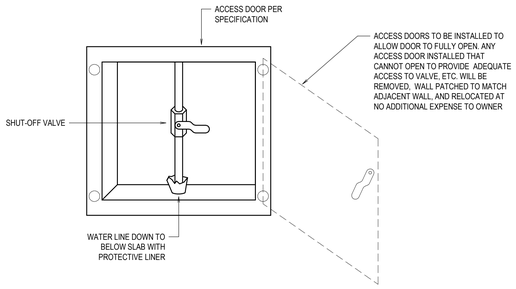
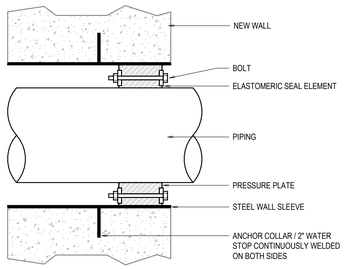
ENLARGED PLANS

# P403



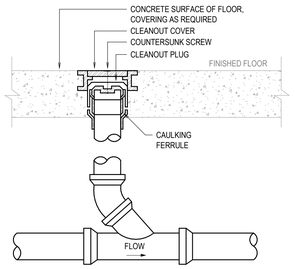

## 1 ACCESS DOOR DETAIL
SCALE: NONE

NOTES:
1. DETAIL IS SIMILAR FOR WATER HAMMER ARRESTOR ACCESS PANELS.

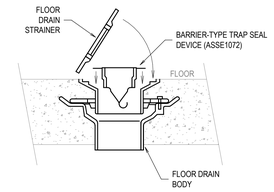



## 2 BELOW GRADE PIPE SLEEVE
SCALE: NONE

NOTES:
1. FIELD VERIFY EXACT LOCATIONS OF PENETRATIONS PRIOR TO FORMING OF WALL. COORDINATE WITH OTHER TRADES AS REQUIRED.

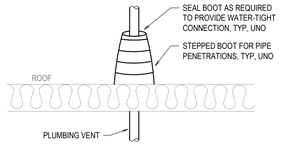



## 3 FLOOR CLEANOUT DETAIL
SCALE: NONE

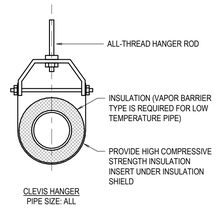



## 4 FLOOR DRAIN DETAIL WITH TRAP GUARD
SCALE: NONE

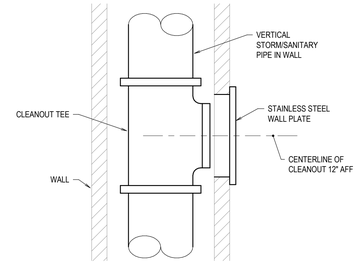
NOTES:
1. INSTALL BARRIER-TYPE TRAP SEAL DEVICE WITHIN FLOOR DRAIN BODY.




## 5 ROOF PENETRATION DETAIL
SCALE: NONE

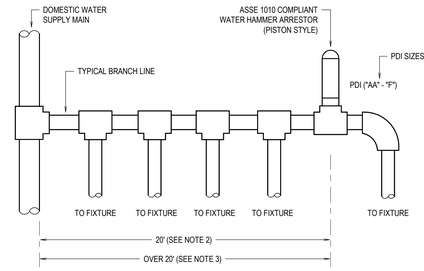



## 6 PIPE HANGER DETAIL
SCALE: NONE




## 7 WALL CLEANOUT DETAIL
SCALE: NONE

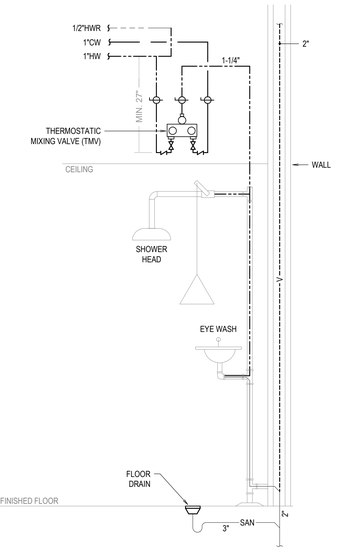
NOTES:
1. COORDINATE LOCATION AND DIRECTION OF VERTICAL WALL CLEANOUTS WITH CABINETRY WORK AND THE ARCHITECT PRIOR TO INSTALLATION AT THE PRE-CONSTRUCTION AND PER-INSTALLATION MEETINGS.




| WATER HAMMER ARRESTOR SIZES | | | | | | | |
|---|---|---|---|---|---|---|---|
| PDI UNITS | AA | A | B | C | D | E | F |
| FIXTURE UNITS | 1-3 | 1-11 | 12-32 | 33-60 | 61-113 | 114-154 | 155-330 |

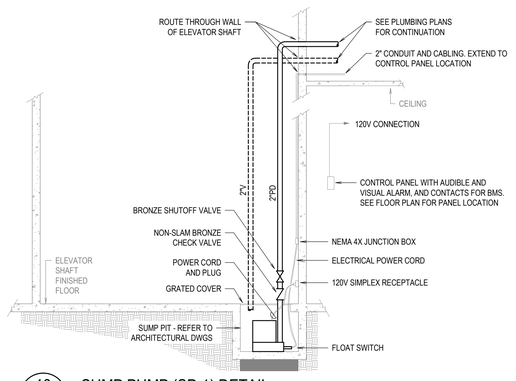
## 8 WATER HAMMER ARRESTOR INSTALLATION
SCALE: NONE

NOTES:
1. INSTALL WATER HAMMER ARRESTORS AT THE END OF BRANCH LINE BETWEEN THE LAST TWO FIXTURES SERVED.
2. ONE WATER HAMMER ARRESTOR PER 20' LINE, AND ANOTHER FOR BRANCHES OVER 20' IN LENGTH.
3. THE SUM OF FIXTURE UNIT RATING OF UNITS OVER 20' IN LENGTH SHALL BE EQUAL TO OR GREATER THAN THE DEMAND OF THE BRANCHES.



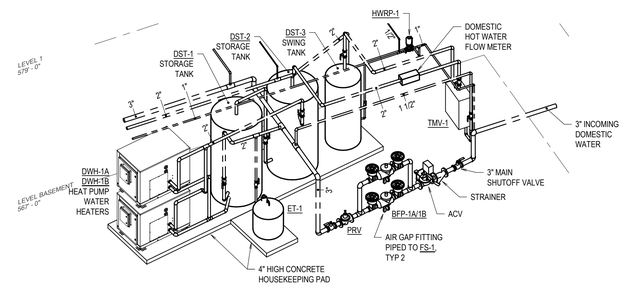

## 9 TYP CONNECTIONS AT P-9B DETAIL
SCALE: NONE

NOTES:
1. REFER TO ARCH SPECIFICATIONS FOR EMERGENCY SHOWERS IN CLASSROOMS.
2. INSTALL TMV IN ACCESSIBLE LOCATION ABOVE CEILING ON WALL.
3. COORDINATE REQUIRED TRAP(S) WITH MANUFACTURER'S INSTALLATION MANUAL AND LOCAL CODES.



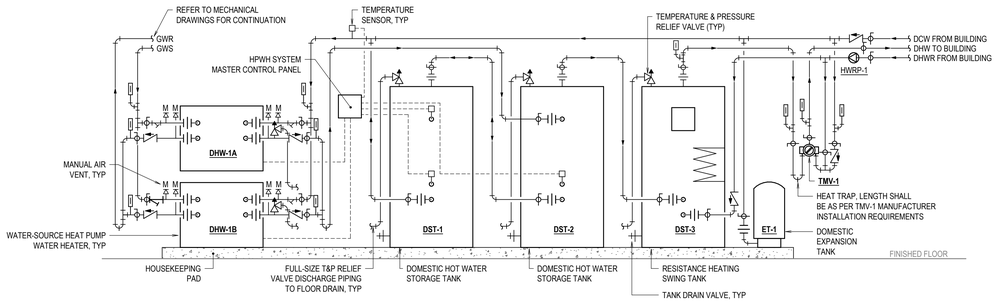

## 10 SUMP PUMP (SP-1) DETAIL
SCALE: NONE

NOTES:
1. INSTALL HIGH LEVEL ALARM AND VISUAL ALARM ON WALL. REFER TO PLANS FOR LOCATION.
2. ROUTE PUMPED DISCHARGE AND VENT PIPING AS INDICATED ON PLANS.
3. PROVIDE SUMP PUMP SP-1 AS SCHEDULED.
4. PROVIDE 2-HOUR RATED FIRESTOPPING AT ALL PENETRATIONS.




## 11 INCOMING SERVICE & DWH SYSTEM DETAIL
SCALE: NONE

NOTE: REFER TO DETAIL 12/P501 BELOW FOR VALVES, ETC. FOR HEAT PUMP DWH SYSTEM.




## 12 WATER-COOLED HEAT PUMP DOMESTIC WATER HEATER DETAIL
SCALE: NONE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SUITE 400
RICHMOND, VA 23220
v 804.788.4774
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2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com


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DETAILS

**P501**

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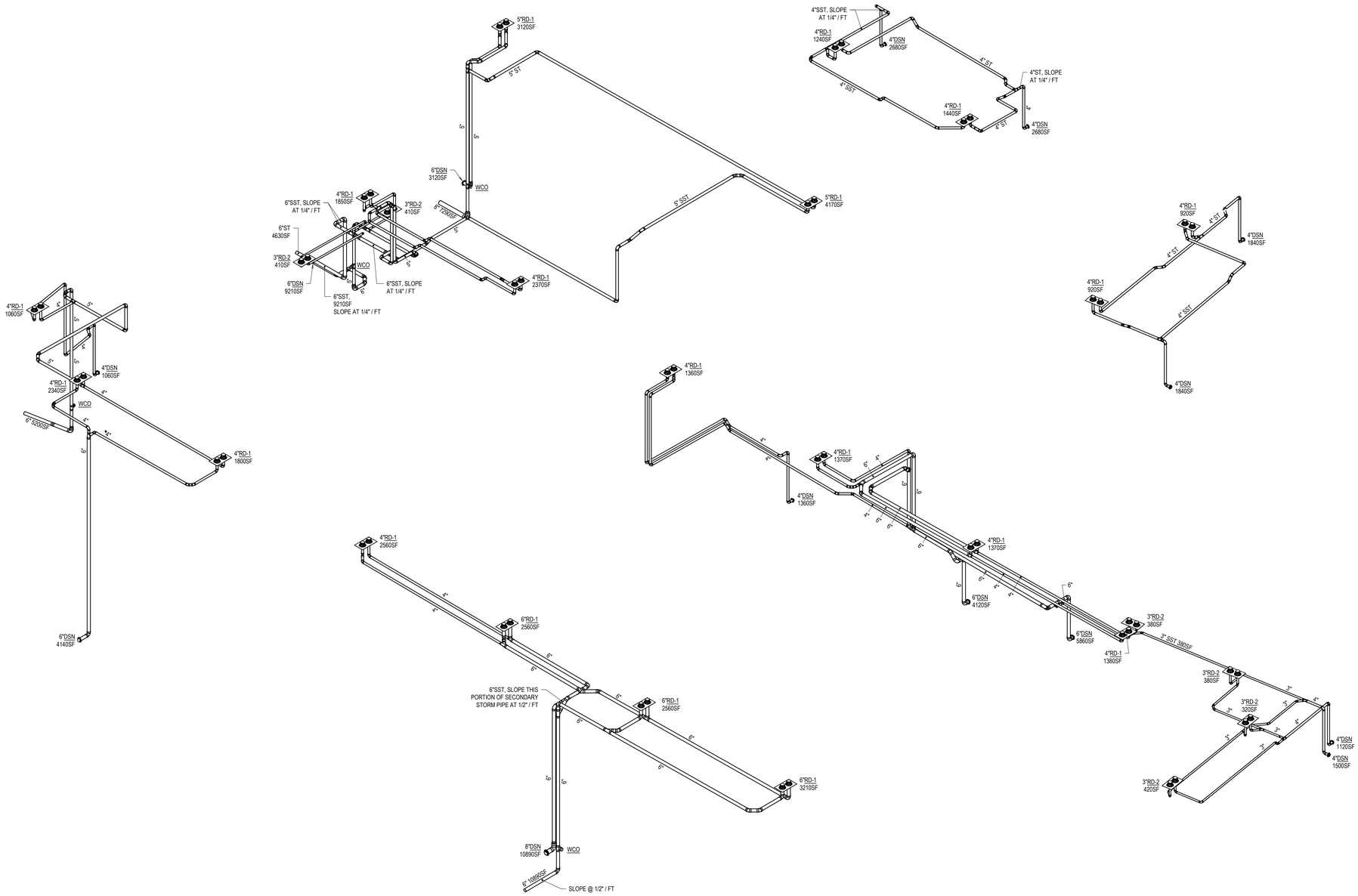


1 – P601 RISER - STORM

SCALE: NONE

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SUITE 400
RICHMOND, VA 23220

v 804.788.4774

QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com


COMMONWEALTH OF VIRGINIA
MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JGS

QEA No.41911390/19168

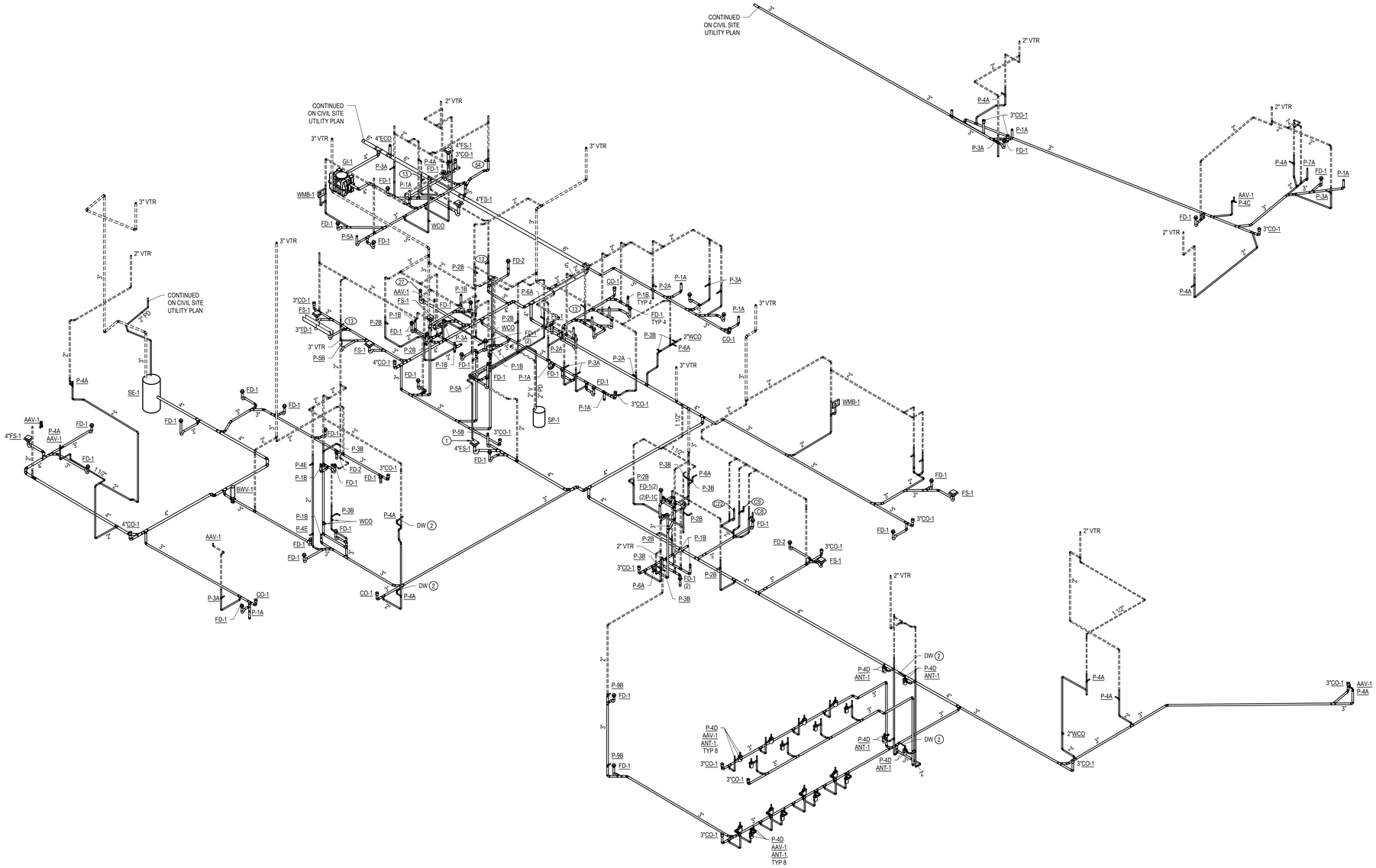
BID DOCUMENTS
10/08/2024

RISER DIAGRAM - STORM

# P601

## KEY NOTES (NEW WORK)

1. TERMINATE 2"PD WITH A 45-DEGREE ELL AND SHORT PIECE OF PIPE ABOVE FS-1, PROVIDING A 1" AIR GAP.
2. CONNECT DISHWASHER DRAIN TO VERTICAL SINK DRAIN PRIOR TO ANT-1.




1 / -- P602 RISER - SANITARY

SCALE: NONE


QUINN EVANS

1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com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RISER DIAGRAM - SANITARY

# P602

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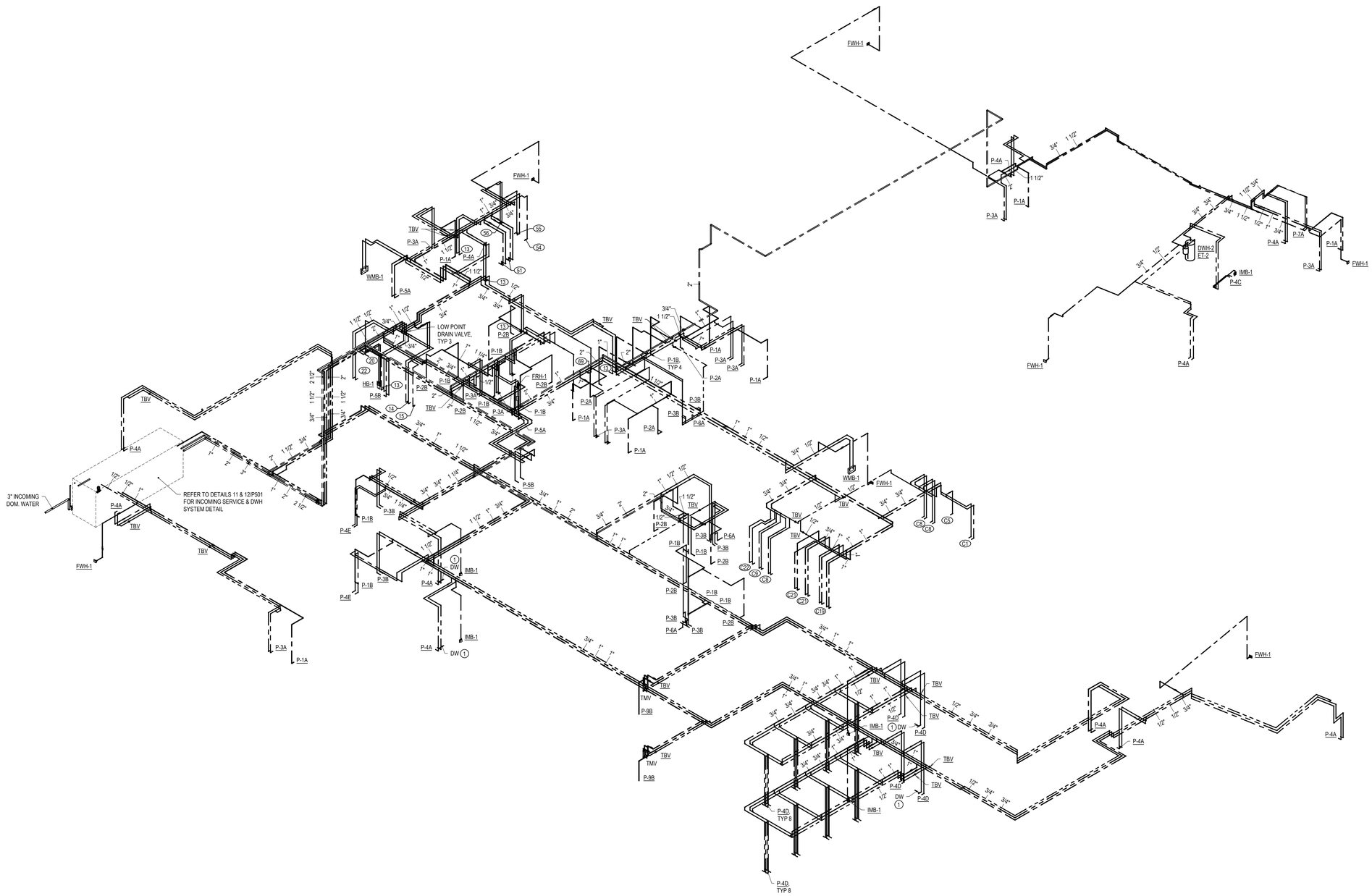
## KEY NOTES (NEW WORK)

1. CONNECT HW FOR DISHWASHER BENEATH SINK TO HW FOR SINK. PROVIDE SHUT-OFF VALVE.




1 -- P603 RISER - DOMESTIC WATER

SCALE: NONE

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QUINN EVANS

1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
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10/08/2024

RISER DIAGRAM - DOMESTIC WATER

# P603

## 22 4000 - PLUMBING FIXTURE SCHEDULE

| MARK | DESCRIPTION | MINIMUM BRANCH PIPING SIZES | | | | FLOW | MOUNTING / REMARKS | NOTES | BASIS OF DESIGN |
|---|---|---|---|---|---|---|---|---|---|
| | | CW | HW | SAN | V | | | | |
| P-1A | WATER CLOSET, ACCESSIBLE | 1" | - | 3" | 2" | 1.28 GPF | FLOOR, MANUAL FLUSH VALVE, OPEN-FRONT SEAT, ADA COMPLIANT | - | SLOAN ST-2029, DELANY E402-1.28-TS, COMFORT SEATS C106SSC |
| P-1B | WATER CLOSET | 1" | - | 3" | 2" | 1.28 GPF | FLOOR, MANUAL FLUSH VALVE, OPEN-FRONT SEAT | - | SLOAN ST-2009, DELANY E402-1.28-TS, COMFORT SEATS C106SSC |
| P-1C | WATER CLOSET, ACCESSIBLE | 1" | | 3" | 2" | 1.28 GPF | FLOOR, BACK OUTLET, MANUAL FLUSH VALVE, ADA COMPLIANT, OPEN-FRONT SEAT | - | SLOAN ST-2229, DELANY E402-1.28-TS, COMFORT SEATS C106SSC |
| P-2A | URINAL, ACCESSIBLE | 3/4" | - | 2" | 1-1/2" | 0.125 GPF | WALL, MANUAL FLUSH VALVE, CARRIER, ADA COMPLIANT | - | SLOAN SU-1009, DELANY E451-0.125-TS |
| P-2B | URINAL | 3/4" | - | 2" | 1-1/2" | 0.125 GPF | WALL, MANUAL FLUSH VALVE, CARRIER | - | SLOAN SU-1009, DELANY E451-0.125-TS |
| P-3A | LAVATORY, ACCESSIBLE | 1/2" | 1/2" | 1-1/2" | 1-1/2" | 0.50 GPM | WALL WITH SHROUD, METERING FAUCET, CARRIER, GRID STRAINER, TMV-2 | - | SLOAN SS-3165, SS-27-A, CHICAGO FAUCET 3520-E2805ABCP |
| P-3B | LAVATORY, ACCESSIBLE | 1/2" | 1/2" | 1-1/2" | 1-1/2" | 0.50 GPM | UNDERMOUNT, SS, REAR OVERFLOW, METERING FAUCET, GRID STRAINER, TMV-2 | - | SLOAN SS-3001, CHICAGO FAUCET 3520-E2805ABCP |
| P-4A | SINK, ACCESSIBLE | 1/2" | 1/2" | 2" | 1-1/2" | 1.5 GPM | UNDERMOUNT, SS, SINGLE HOLE, GOOSENECK FAUCET W/ WRISTBLADE HANDLES, PERFECT DRAIN | - | ELKAY ELUHAD161655PD, CHICAGO FAUCET 50-E35-317XKABCP |
| P-4B | SINK, DOUBLE BOWL | 1/2" | 1/2" | 2" | 1-1/2" | 1.5 GPM | FREESTANDING, SS, SPLASH-MOUNT SWIVEL NOZZLE | - | ELKAY 14-2C18X24-2-18X, CHICAGO FAUCET 540-LDL9E35XKABCP |
| P-5A | MOP RECEPTOR | 1/2" | 1/2" | 2" | 2" | - | FLOOR, 24"x24", MOLDED STONE, FAUCET, MOP BRACKET, FLEX HOSE & BRACKET, SS RIM GUARDS, STRAINER, (1)SS WALL PANEL. PROVIDE VANDAL-PROOF SCREWS | - | FLORESTONE MSR-2424, MR-370, MR-372, MR-373, MR-375, MR-377, TS BRASS B-0665-CR-BSTP |
| P-5B | MOP RECEPTOR | 1/2" | 1/2" | 3" | 2" | - | FLOOR, 36"x24", MOLDED STONE, FAUCET, MOP BRACKET, FLEX HOSE & BRACKET, SS RIM GUARDS, STRAINER, (1)SS WALL PANEL PROVIDE VANDAL-PROOF SCREWS | - | FLORESTONE MSR-3624, MR-370, MR-372, MR-373, MR-375, MR-377, TS BRASS B-0665-CR-BSTP |
| P-6A | WATER COOLER, DUAL, ACCESSIBLE | 1/2" | - | 1-1/2" | 1-1/2" | - | SURFACE MOUNT, SS, DUAL-HEIGHT W/ BOTTLE FILLER, IN-WALL CARRIER | - | ELKAY LZSTL8WSSP, MLP200 |
| P-7A | SHOWER, ACCESSIBLE | 1/2" | 1/2" | 2" | 1-1/2" | 1.5 GPM | MOLDED SHOWER ENCLOSURE, SEAT, GRAB BARS, FIXED AND HAND-HELD SHOWER HEADS, SLIDE BAR | - | STERLING OC-22-39, SPEAKMAN SLV-5060-E15, CPV-TP2, CPV-TV |
| P-9A | EMERGENCY EYEWASH/DRENCH HOSE | 1/2" | 1/2" | - | - | - | WALL MOUNTED, FLAG HANDLE, DUST COVERS, DRENCH HOSE, BACKFLOW PREVENTER, ASSE 1071 MIXING VALVE | - | GUARDIAN G5014BP, G6020 |
| P-9B | EMERGENCY SHOWER/EYEWASH, ACCESSIBLE | 1" | 1" | 1-1/4" | 1-1/2" | - | FLOOR, FLAG HANDLE, PLASTIC SHOWER HEAD, DUST COVERS, ASSE 1071 MIXING VALVE | - | GUARDIAN GBF1909, G6040LF |

NOTES:
1. ALL FIXTURES - COORDINATE FINAL CONNECTIONS TO EQUIPMENT SUPPLIED.
2. ALL FIXTURES - PROVIDE INTERNAL CLEANOUT IN ALL ACCESSIBLE TRAPS.
3. ALL FIXTURES - REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR MOUNTING HEIGHTS PRIOR TO ROUGH-IN.

## 22 1006 - PLUMBING PIPING SPECIALTIES SCHEDULE

| MARK | DESCRIPTION | MINIMUM BRANCH PIPING SIZES | | | | FLOW | MOUNTING / REMARKS | NOTES | BASIS OF DESIGN |
|---|---|---|---|---|---|---|---|---|---|
| | | CW | HW | SAN | V | | | | |
| AAV-1 | AIR ADMITTANCE VALVE | - | - | - | - | - | PVC, SCREENING ON AIR INLETS | - | SIOUX CHIEF 250-12P |
| ANT-1 | ACID NEUTRALIZATION TANK | - | - | - | - | - | HDPE, GASKETED COVER, MEDIA BUCKET, LIMESTONE MEDIA | - | MIFAB MI-NEUT-P, MI-LSC |
| BFP-1A/1B | BACKFLOW PREVENTER (MAIN SERVICE) | 3" | - | - | - | - | (2) REDUCED PRESSURE ZONE ASSEMBLY W/ (1) ACV, STRAINER, AIR GAP, LEAD-FREE, ASSE 1013 | 3 | ZURN FCIS |
| BTS-1 | BARRIER-TYPE TRAP SEAL | - | - | - | - | - | IN-LINE TRAP SEAL DEVICE, SILICONE GASKET AND SEAL, ASSE 1072 COMPLIANT, COORD SIZE WITH DRAIN | - | SIOUX CHIEF 835 SERIES |
| BWV-1 | BACKWATER VALVE | - | - | 3" | - | - | INLINE CAST IRON VALVE, EXTENSION AS NEEDED, GASKETED BOLTED BRONZE ACCESS COVER | - | MIFAB BV1200-R |
| CO-1 | FLOOR CLEANOUT, ROUND COVER | - | - | - | - | - | FLOOR, 6" ROUND NICKEL BRONZE COVER, VANDAL PROOF, OUTLET SAME SIZE AS SAN LINE | - | WATTS C0-190-PR6-6 |
| DSN | DOWNSPOUT NOZZLE | - | - | - | - | - | SIZE AS SHOWN ON PLANS, NICKEL BRONZE, S.S. BIRD SCREEN | - | WATTS RD-940-83 |
| FD-1 | FLOOR DRAIN, ROUND STRAINER | - | - | - | - | - | ROUND, 6" NICKEL BRONZE STRAINER, VANDAL PROOF, OUTLET SAME SIZE AS SAN LINE, BTS-1 | - | WATTS FD-190-PR6-6 |
| FD-2 | FLOOR DRAIN, RAISED LIP STRAINER | - | - | - | - | - | ROUND, 7" DIA. NICKEL BRONZE RAISED-LIP STRAINER W/ INTEGRAL BACKWATER VALVE | - | WATTS FD-100-ER7-6 |
| FS-1 | FLOOR SINK | - | - | - | - | - | 10" DEEP SUMP, HALF GRATE, POLY DOME BOTTOM STRAINER, SEDIMENT BUCKET, OUTLET SAME SIZE AS SAN LINE, BTS-1 | - | WATTS FS-750-5-150 |
| FS-2 | FLOOR SINK | - | - | - | - | - | 10" DEEP SUMP, FULL GRATE, POLY DOME BOTTOM STRAINER, SEDIMENT BUCKET, OUTLET SAME SIZE AS SAN LINE, BTS-1 | - | WATTS FS-750-5 |
| FWH-1 | FREEZELESS WALL HYDRANT | 3/4" | - | - | - | - | KEYED, RECESSED IN WALL, FREEZELESS, SATIN NICKEL BOX, COORD LENGTH WITH WALL ASSEMBLY, ASSE 1052 COMPLIANT | 1 | PRIER C-634, C-634BX1-CL |
| FWH-2 | FREEZELESS WALL HYDRANT | 3/4" | - | - | - | - | RECESSED IN WALL, FREEZELESS, SATIN NICKEL BOX, COORD LENGTH WITH WALL ASSEMBLY, ASSE 1052 COMPLIANT | 1 | PRIER C-634, C-634BX1 |
| HB-1 | HOSE BIBB | 3/4" | 3/4" | - | - | - | HOT & COLD, NARROW WALL, LOCKABLE SS BOX, INTEGRAL SHUTOFFS | 4 | PRIER P-628-CL |
| IMB-1 | ICE MAKER SUPPLY BOX | 1/2" | - | - | - | - | 3/8" OUTLET, 1/4-TURN VALVE, FRAME, DEBRIS COVER, 48" AFF, INTEGRAL WATER HAMMER ARRESTOR, RECESSED BOX | - | SIOUX CHIEF 696-G1011 |
| PRV | PRESSURE REDUCING VALVE | 3" | - | - | - | - | LEAD-FREE, SET OUTLET PRESSURE TO 65 PSI | - | ZURN 500XL3F |
| RD-1 | PRIMARY/SECONDARY COMBINATION ROOF DRAIN | - | - | - | - | - | SIZE AS SHOWN ON PLANS, CAST IRON COMBINATION, DECK FLANGE, FLASHING CLAMP, VANDAL-PROOF CAST IRON DOMES | - | MIFAB R1280-6 |
| RD-2 | GUTTER ROOF DRAIN | - | - | - | - | - | 3" OUTLET, CAST IRON DRAIN, ADJUSTABLE NICKEL BRONZE DOME STRAINER | - | MIFAB R1400 |
| TBV | THERMOSTATIC BALANCING VALVE | - | 1/2" | - | - | - | ASSEMBLY SHALL CONTAIN BALANCING VALVE, SHUT-OFF VALVES, SWING CHECK VALVE AND STRAINER, FIELD ADJUSTABLE TEMPERATURE SET POINT | - | CIMBERIO 778VWS-04 |
| TD-1 | TRENCH DRAIN | - | - | 3" | - | - | 3" OUTLET, 8" INTERNAL TRENCH WIDTH, HIGH STRENGTH POLYMER CONCRETE, GALV. STL. GRATE, END CAP, BTS-1 | - | MIFAB T1700-PB-13, T200-PGB-13-LS, T1700-PEC |
| TMV-1 | THERMOSTATIC MIXING VALVE (MAIN) | 1-1/2" | 1-1/2" | - | - | - | 0.25 GPM MIN FLOW, 5 PSI MAX PD @ 25 GPM FLOW, DIGITAL, LEAD FREE, SURFACE MOUNT MANIFOLD WITH HWRP-1, ASSE 1017 COMPLIANT, SET OUTLET TEMP TO 125°F | 2 | LAWLER NEPTUNE EMX 100 MS (ENG. NO. 943610) |
| TMV-2 | THERMOSTATIC MIXING VALVE (POINT OF USE) | 3/8" | 3/8" | - | - | - | 3/8" OUTLET, LEAD FREE, ASSE 1070 COMPLIANT, SET OUTLET TEMP TO 109°F | - | LAWLER 570 (ENG. NO. 86820) |
| WCO | WALL CLEANOUT COVER | - | - | - | - | - | BRASS CLEANOUT PLUG, SS COVER, VANDAL-PROOF SS SCREW, SAME SIZE AS SAN LINE | - | WATTS CO-590-RD |
| WMB-1 | WASHING MACHINE BOX | 1/2" | 1/2" | 2" | 1"1/2" | - | WASHING MACHINE OUTLET BOX WITH FRAME, NO-LEAD VALVES WITH ARRESTERS | - | SIOUX CHIEF 696-G2313MF |

NOTES:
1. PROVIDE ACCESSIBLE ISOLATION VALVE WITHIN BUILDING. REFER TO ARCHITECTURAL DWGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS.
2. PROVIDE FACTORY PRE-PIPED MANIFOLD SYSTEM W/ HWRP-1 INCLUDED.
3. REFER TO DOMESTIC WATER ENTRY DETAIL FOR SPECIFIC VALVE CONFIGURATIONS.
4. INSTALL 2'-6" AFF TO CENTER OF BOX.

## 22 0719 - PIPE & INSULATION SCHEDULE

| SYSTEM | MATERIAL | INSULATION | | | JACKET | NOTES |
|---|---|---|---|---|---|---|
| | | TYPE | PIPE SIZE, IN | THICKNESS, IN | | |
| DOMESTIC CW | COPPER | GLASS FIBER, ELASTOMERIC | LESS THAN 1-1/2" | 1/2 | VAPOR BARRIER | 1 |
| | COPPER | GLASS FIBER, ELASTOMERIC | 1-1/2" OR GREATER | 1 | VAPOR BARRIER | 1 |
| DOMESTIC HW / HWR | COPPER | GLASS FIBER, ELASTOMERIC | LESS THAN 1-1/2" | 1 | VAPOR BARRIER | 1 |
| | COPPER | GLASS FIBER, ELASTOMERIC | 1-1/2" OR GREATER | 1-1/2 | VAPOR BARRIER | 1 |
| LP GAS, ABOVE GRADE | SCHD 40 BLK STEEL | - | - | - | - | - |
| PUMPED DISCHARGE PIPING, INSIDE | COPPER, TYPE L | - | - | - | - | - |
| PUMPED DISCHARGE PIPING, OUTSIDE | COPPER, TYPE K | - | - | - | - | - |
| ROOF DRAIN BODIES | CAST IRON | GLASS FIBER | ALL | 1 | VAPOR BARRIER | - |
| STORM WATER, ABOVE GRADE | CAST IRON | GLASS FIBER | ALL | 1 | VAPOR BARRIER | - |
| STORM WATER, BELOW GRADE | SCHED. 40 PVC DWV | - | - | - | - | - |
| SANITARY, ABOVE GRADE | CAST IRON | - | - | - | - | - |
| SANITARY, BELOW GRADE | SCHED. 40 PVC DWV | - | - | - | - | - |

NOTES:
1. PROVIDE INSULATED COPPER DOMESTIC WATER PIPING (INCLUDING ALL VERTICAL RISERS) WITHIN INSULATED BUILDING ENVELOPE.
2. (TYP ALL) REFER TO PLUMBING PIPING SPECIFICATIONS (22 1005) FOR FULL PIPE SPECIFICATIONS.
3. (TYP ALL) REFER TO PLUMBING PIPING INSULATION SPECIFICATIONS (22 0719) FOR FULL PIPE INSULATION SPECIFICATIONS.

## 22 3000 - EXP TANK SCHEDULE

| MARK | ET-1 | ET-2 |
|---|---|---|
| TYPE | HYDROPNEUMATIC BLADDER (ASME) | HYDROPNEUMATIC BLADDER |
| MOUNTING | FLOOR, VERTICAL | VERTICAL |
| SERVICE | DOMESTIC HW | DOMESTIC HW |
| TANK VOLUME, GAL | 16.5 | 2 |
| ACCEPTANCE VOLUME, GAL | 11.2 | 0.9 |
| DIAMETER, IN. | 15 | 8" |
| HEIGHT, IN. | 25 | 14" |
| SYSTEM CONNECTION | 3/4" | 3/4" |
| BASIS OF DESIGN | AMTROL ST-30VC-DD | AMTROL ST-5C-DD |

NOTES:
1. 150 PSI MAXIMUM WORKING PRESSURE.
2. TANKS SHALL BE PRECHARGED WITH 55 PSIG COMPRESSED AIR. SET FINAL CHARGE BASED ON AVAILABLE WATER PRESSURE.

## 22 3000 - PUMP SCHEDULE

| MARK | HWRP-1 | SP-1 | SE-1 |
|---|---|---|---|
| TYPE | IN-LINE RECIRCULATING | ELEVATOR SUMP PUMP | DUPLEX SUMP PUMP |
| TOTAL GPM | 5 | 55 | 64 |
| TOTAL HEAD, FT | 25 | 30 | 15 |
| RPM | EC MOTOR | 3450 | 1750 |
| VOLTS-PH | 208-1 | 120-1 | 120-1 |
| HP | 3/4 | 1/2 | 1/2 |
| CONSTRUCTION | STAINLESS STEEL | CAST IRON | CAST IRON |
| SERVICE | HW 125°F RECIRCULATION | ELEVATOR SUMP PUMP | SEWAGE EJECTOR |
| BASIS OF DESIGN | BELL & GOSSETT ECOCIRC XL N 55-45 | ZOELLER SYSTEM: 940-0014 CHECK VALVE: 30-0151 (CAST IRON) | ZOELLER PUMPS: (2) N282-0002 CONTROLLER: 32324-0001 BALL/CHECK COMBO: (2) 30-0048 FLOAT BRKT. ASSEMBLY: 10-0253 FLOAT SWITCH: (3) 10-1881 BASIN: 33-0419 (36"x72") |

NOTES:
1. HWRP-1: PROVIDE ISOLATION FLANGES AT PUMP INLET/OUTLET.
2. HWRP-1 (PROVIDED WITH TMV-1): LEAD-FREE, SET TO TEMPERATURE CONSTANT MODE AT 120°F.
3. SP-1: PROVIDE GATE VALVE ON DISCHARGE PIPE. REFER TO DETAIL 10/P501.
4. SE-1: PROVIDE COMBINATION GATE/CHECK VALVE ON DISCHARGE PIPE.

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SCHEDULES

**P700**

## 22 30 00 - WATER SOURCED, HEAT PUMP WATER HEATER SCHEDULE

| MARK | LOCATION | SERVICE | CONFIGURATION | REFRIGERANT | TOTAL COP | POWER INPUT KW | DESIGN CAPACITY | | DOMESTIC WATER | | | SOURCE WATER | | | ELECTRICAL | | | | | | BASIS OF DESIGN | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | RECOVERY GPH | °F RISE | CAPACITY MBH | FLOW GPM | HEAD FT WC | CAPACITY MBH | FLOW GPM | HEAD FT WC | V-PH | FREQ | MCA | MOCP | RLA | SCCR | MFR | MODEL |
| DWH-1A | MECHANICAL 001 | PRIMARY BUILDING SERVICE | WATER SOURCE, SINGLE PASS, INTEGRAL CIRCULATOR | R513A | 6.3 | 10.4 | 233 | 90 | 129 | 12 | 7.1 | 93.5 | 23 | 13.9 | 460-3 | 60 | 30 | 50 | 25 | 100 | NYLE | C125W |
| DWH-1B | MECHANICAL 001 | PRIMARY BUILDING SERVICE | WATER SOURCE, SINGLE PASS, INTEGRAL CIRCULATOR | R513A | 6.3 | 10.4 | 233 | 90 | 129 | 12 | 7.1 | 93.5 | 23 | 13.9 | 460-3 | 60 | 30 | 50 | 25 | 100 | NYLE | C125W |

NOTES: APPLY TO ALL MARKS, UNLESS NOTED OTHERWISE.

1. WETTED COMPONENTS SHALL BE STAINLESS STEEL, COPPER, BRONZE, OR BRASS; CERTIFIED TO NSF-372.
2. LISTED DESIGN CAPACITIES ARE REFERENCED BASED ON 80°F ENTERING SOURCE WATER TEMPERATURE.
3. WATER HEATERS SHALL BE PROVIDED WITH STACKING FRAME.
4. WATER HEATERS SHALL BE SUPPLIED WITH EXTERNAL MASTER CONTROLLER, WITH TEMPERATURE SENSORS TO BE INSTALLED IN STORAGE TANKS AND ENTERING DHW PIPING.
5. REFER TO MECH DRAWINGS FOR BAS CONTROL INTEGRATION.

## 22 30 00 - ELECTRIC STORAGE WATER HEATER SCHEDULE

| MARK | LOCATION | SERVICE | CONFIGURATION | DESIGN CAPACITY | | | ELECTRICAL | | | BASIS OF DESIGN | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | STORAGE GAL | RECOVERY GPH | °F RISE | V-PH | FREQ | KW | MFR | MODEL |
| DWH-2 | STOR 110A | STAFF OFFICE AREA | CEMENT-LINED, WALL MOUNTED WITH DRAIN PAN | 30 | 61 | 90 | 208-3 | 60 | 15 | HUBBELL | SE30-0-15SLR-G5 |

NOTES: APPLY TO ALL MARKS, UNLESS NOTED OTHERWISE.

1. MOUNT ON MANUFACTURER SUPPLIED WALL-MOUNTING SHELF (G5) AT 7'-0" AFF

## 22 30 00 - DOMESTIC STORAGE TANK SCHEDULE

| MARK | LOCATION | SERVICE | CONFIGURATION | STORAGE CAPACITY GAL | ELECTRICAL | | | BASIS OF DESIGN | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | V-PH | FREQ | KW | MFR | MODEL |
| DST-1 | MECHANICAL 001 | DHW STORAGE | ASME CONSTRUCTION, CEMENT LINED, ROUND, VERTICAL, FLOOR MOUNTED | 432 | - | - | - | NYLE | NWHSSC0432SNA |
| DST-2 | MECHANICAL 001 | DHW STORAGE | ASME CONSTRUCTION, CEMENT LINED, ROUND, VERTICAL, FLOOR MOUNTED | 432 | - | - | - | NYLE | NWHSSC0432SNA |
| DST-3 | MECHANICAL 001 | DHW SWING TANK | ASME, 3" EXT JACKET, CEMENT LINED, ROUND, VERTICAL, FLOOR MOUNTED | 120 | 460-3 | 60 | 24 | CEMLINE | EHB-120-24KW |

NOTES: APPLY TO ALL MARKS, UNLESS NOTED OTHERWISE.

1. REFER TO HEAT PUMP WATER HEATER SYSTEM DIAGRAM FOR PIPING CONFIGURATION AND REQUIRED PORT LOCATIONS.


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RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
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100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com


COMMONWEALTH OF VIRGINIA
MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd.
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JGS

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

SCHEDULES

**P701**

PATH & FILENAME: C:\Users\BethanyB\Documents\Revit Files\19168_P23_ACPS HS Center II_Plumb_BethanyB.rvt
PLOTTING DATE & TIME: 10/2/2024 12:02:03 PM

## MOCK-UPS

1. PROVIDE MOCK-UPS IN FIELD FOR TYPICAL INSTALLATION OF MECHANICAL SYSTEMS INCLUDING PIPING, DUCTWORK, INSULATIONS, ETC, FOR INSPECTION AND APPROVAL BY ARCHITECT AND ENGINEER.
2. PROVIDE INTEGRAL MOCK-UPS FOR INSPECTION AND APPROVAL BY ARCHITECT AND ENGINEER FOR THE FOLLOWING UNITS:
   - A. RTU-COMMONS
   - B. FC-12-133
   - C. ATO-88-133
   - D. CHWP-1

## MECHANICAL LEGEND

- TEMPERATURE & HUMIDITY SENSOR WITH SET POINT CONTROL, 48" AFF. COORDINATE EXACT LOCATION WITH A/E PRIOR TO ROUGH-IN.
- TEMPERATURE SENSOR WITH SET POINT CONTROL, 48" AFF. COORDINATE EXACT LOCATION WITH A/E PRIOR TO ROUGH-IN.
- TEMPERATURE & HUMIDITY SENSOR WITHOUT SET POINT CONTROL, 48" AFF. COORDINATE EXACT LOCATION WITH A/E PRIOR TO ROUGH-IN.
- LINE-VOLTAGE THERMOSTAT
- CARBON DIOXIDE SENSOR
- EXISTING TO BE REMOVED
- EXISTING TO REMAIN
- DIRECTION OF FLOW INSIDE PIPE
- DIRECTION OF DOWNWARD PITCH
- POINT OF CONNECTION, NEW-TO-EXISTING
- POINT OF DISCONNECTION FOR DEMOLITION

PIPING

- HWS — HEATING WATER SUPPLY
- HWR — HEATING WATER RETURN
- CD — CONDENSATE DRAIN
- CW — DOMESTIC COLD WATER
- R-(X) — REFRIGERANT LINES
- CHWS — CHILLED WATER SUPPLY
- CHWR — CHILLED WATER RETURN
- GWS — GROUND WATER SUPPLY
- GWR — GROUND WATER RETURN

FITTINGS

- CAP
- CONNECTION, BOTTOM
- CONNECTION, TOP
- ELBOW, 90° TURNED UP
- ELBOW, 90° TURNED DOWN
- UNION
- PIPE ANCHOR

VALVES

- BALL
- BUTTERFLY
- BALANCING VALVE
- AUTOMATIC BALANCING FLOW CONTROL CHECK VALVE
- CHECK
- PRESSURE REDUCING
- AUTOMATIC THREE-WAY CONTROL
- AUTOMATIC TWO-WAY CONTROL
- FLOW SETTING

PIPING SPECIALTIES

- AIR SEPARATOR
- PRESSURE GAUGE
- THERMOMETER
- A/M — AIRVENT, AUTOMATIC/MANUAL
- CW-1 — PUMP
- STRAINER
- BACKFLOW PREVENTER
- FLEXIBLE CONNECTOR
- PUMP
- VFD — VARIABLE FREQUENCY DRIVE

DUCTWORK

- X/X — RECTANGULAR DUCT, FIRST DIMENSION IS SIDE SHOWN. DIMENSION IN INCHES
- X"Ø — ROUND DUCT, DIMENSION IN INCHES
- FLEXIBLE CONNECTION
- ACOUSTICAL LINING, UNO. REFER TO GENERAL NOTES FOR DOUBLE WALL DUCT REQUIREMENTS FOR ERU, AHU, AND RTU
- FLEXIBLE DUCT
- FABRIC DUCT
- TRANSITION, SLOPE NOT TO EXCEED 4-TO-1. FOT = FLAT ON TOP, FOB = FLAT ON BOTTOM
- X — CHANGE OF ELEVATION IN DIRECTION OF AIR FLOW (R = RISE, D = DROP)
- TURNING VANES
- STANDARD BRANCH, SUPPLY OR RETURN, NO SPLITTER
- MANUAL VOLUME DAMPER
- MOTORIZED DAMPER
- FIRE DAMPER WITH SLEEVE. PROVIDE ACCESS DOOR.
- SD — SMOKE DETECTOR
- SP — STATIC PRESSURE SENSOR
- AD — DUCT ACCESS DOOR
- RECTANGULAR DUCT SECTION (SUPPLY)
- RECTANGULAR DUCT SECTION (RETURN)
- RECTANGULAR DUCT SECTION (EXHAUST)
- RECTANGULAR ELBOW TURNING UP (SUPPLY)
- RECTANGULAR ELBOW TURNING UP (RETURN)
- RECTANGULAR ELBOW TURNING UP (EXHAUST)
- RECTANGULAR ELBOW TURNING DOWN (SUPPLY)
- RECTANGULAR ELBOW TURNING DOWN (RETURN)
- RECTANGULAR ELBOW TURNING DOWN (EXHAUST)
- ROUND DUCT SECTION (SUPPLY)
- ROUND DUCT SECTION (RETURN)
- ROUND DUCT SECTION (EXHAUST)
- ROUND ELBOW TURNING UP (SUPPLY)
- ROUND ELBOW TURNING UP (RETURN)
- ROUND ELBOW TURNING UP (EXHAUST)
- ROUND ELBOW TURNING DOWN (SUPPLY)
- ROUND ELBOW TURNING DOWN (RETURN)
- ROUND ELBOW TURNING DOWN (EXHAUST)
- RETURN GRILLE, TYPE AS INDICATED
- EXHAUST GRILLE, TYPE AS INDICATED
- RECTANGULAR CEILING SUPPLY DIFFUSER, ROUND CONNECTION, TYPE AS INDICATED
- SIDEWALL SUPPLY REGISTER
- SIDEWALL RETURN GRILLE

## ABBREVIATIONS

| | |
|---|---|
| A | AMPERE |
| ABV | ABOVE |
| A/E | ARCHITECT/ENGINEER |
| ACT | ACOUSTICAL CEILING TILE |
| AD | ACCESS DOOR |
| AFF | ABOVE FINISHED FLOOR |
| AFMS | AIR FLOW MONITORING STATION |
| AFR | ABOVE FINISHED ROOF |
| AHU | AIR HANDLING UNIT |
| ANSI | AMERICAN NATIONAL STANDARDS INSTITUTE |
| APD | AIR PRESSURE DROP |
| APPROX | APPROXIMATELY |
| ARCH | ARCHITECT |
| ARCHL | ARCHITECTURAL |
| ARI | AMERICAN REFRIGERATION INSTITUTE |
| AS | AIR SEPARATOR |
| ASHRAE | AMERICAN SOCIETY OF HEATING AND REFRIGERATION AND AIR-CONDITIONING ENGINEERS |
| ATU | AIR TERMINAL UNIT |
| AUX | AUXILIARY |
| BAS | BUILDING AUTOMATION SYSTEM |
| BC | BLOWER COIL |
| BDV | BLOWDOWN VALVE |
| BFP | BACKFLOW PREVENTER |
| BLDG | BUILDING |
| BTUH | BRITISH THERMAL UNITS PER HOUR |
| CD | CEILING DIFFUSER, CONDENSATE DRAIN |
| CEG | CEILING EXHAUST GRILLE |
| CFM | CUBIC FEET PER MINUTE |
| CHW | CHILLED WATER (S=SUPPLY) (R=RETURN) |
| CHWP | CHILLED WATER PUMP |
| CKT | CIRCUIT |
| CLG | CEILING |
| CO2 | CARBON DIOXIDE |
| CONC | CONCRETE |
| COND | CONDENSATE |
| CRG | CEILING RETURN GRILLE |
| CV | CONSTANT VOLUME |
| CW | COLD WATER |
| dB | DECIBELS |
| DB | DRY BULB |
| DDC | DIRECT DIGITAL CONTROL |
| DHW | DOMESTIC HOT WATER |
| DIA | DIAMETER |
| DP | DIFFERENTIAL PRESSURE |
| EA | EXHAUST AIR |
| EAD | EXHAUST AIR DUCT |
| EAL | EXHAUST AIR LOUVER |
| EAT | ENTERING AIR TEMPERATURE |
| EF | EXHAUST FAN |
| EQPT | EQUIPMENT |
| ESP | EXTERNAL STATIC PRESSURE |
| EWT | ENTERING WATER TEMPERATURE |
| F | DEGREE FAHRENHEIT |
| FC | FAN COIL |
| FLA | FULL LOAD AMPS |
| FLR | FLOOR |
| FPI | FINS PER INCH |
| FPM | FEET PER MINUTE |
| FT | FEET OR FOOT |
| GAL | GALLON |
| GALV | GALVANIZED |
| GPM | GALLONS PER MINUTE |
| GSW | GROUND-SOURCE WATER |
| HB | HOSE BIBB |
| HP | HORSEPOWER |
| H | HUMIDIFIER |
| HRCH | HEAT RECOVERY CHILLER |
| HVAC | HEATING, VENTILATION & AIR CONDITIONING |
| HW | HEATING WATER (S=SUPPLY) (R=RETURN) |
| HWP | HEATING WATER PUMP |
| HWRP | HEATING WATER RECIRCULATION PUMP |
| IN | INCH, INCHES |
| LAT | LEAVING AIR TEMPERATURE |
| LBS, # | POUNDS |
| LBS/HR | POUNDS PER HOUR |
| LWT | LEAVING WATER TEMPERATURE |
| MA | MIXED AIR |
| MAX | MAXIMUM |
| MBH | THOUSAND BTUH |
| MCA | MINIMUM CIRCUIT AMPS |
| MFR | MANUFACTURE |
| MOP | MAXIMUM OVERCURRENT PROTECTION |
| MTD | MOUNTED |
| NTS | NOT TO SCALE |
| OA | OUTDOOR AIR |
| OAU | OUTSIDE AIR UNIT |
| OAD | OUTSIDE AIR DUCT |
| OAL | OUTSIDE AIR LOUVER |
| OBD | OPPOSED BLADE DAMPER |
| OED | OPEN END DUCT W/ 1/2" WIRE MESH |
| NOM | NOMINAL |
| NPT | NATIONAL PIPE THREAD |
| PD | PRESSURE DROP |
| PI | PRESSURE INDEPENDENT |
| PRV | PRESSURE REDUCING VALVE |
| PSI | POUNDS PER SQUARE INCH |
| RA | RETURN AIR |
| RAD | RETURN AIR DUCT |
| RCP | REFLECTED CEILING PLAN |
| RG | RETURN GRILLE |
| SA | SUPPLY AIR |
| SAD | SUPPLY AIR DUCT |
| SD | DUCT SMOKE DETECTOR |
| SENS | SENSIBLE |
| SIM | SIMILAR |
| SP | STATIC PRESSURE |
| SWRG | SIDEWALL RETURN GRILLE |
| SWSG | SIDEWALL SUPPLY GRILLE |
| SWTG | SIDEWALL TRANSFER GRILLE |
| TOD | TOP OF DUCT |
| TRNS | TRANSITION |
| TTL | TOTAL |
| TU | TERMINAL UNIT |
| TYP | TYPICAL |
| UH | UNIT HEATER |
| UNO | UNLESS NOTED OTHERWISE |
| V-PH | VOLTAGE-PHASE |
| VFD | VARIABLE FREQUENCY DRIVE |
| W | WATT |
| WB | WET BULB |
| WC | WATER COLUMN |
| WPD | WATER PRESSURE DROP |
| WWM | WOVEN WIRE MESH, 1/2" UNO |

## GENERAL NOTES (NEW WORK)

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH CODES INDICATED.
2. PROVIDE SINGLE THICKNESS, 1.1/2 INCHES SPACED, TURNING VANES IN ALL MITERED DUCTWORK ELBOWS AND BULL HEAD DUCT TEES.
3. COORDINATE LOCATIONS OF ALL DEVICES, ACCESS PANELS, DIFFUSERS, GRILLES, & LOUVERS WITH ARCHITECTURAL REFLECTED CEILING PLANS, INTERIOR & EXTERIOR ELEVATIONS.
4. ALL DUCTWORK DIMENSIONS CITED ARE THE INSIDE CLEAR DIMENSIONS. CONTRACTOR SHALL MAKE ALLOWANCE FOR DOUBLE WALL AND DUCT LINER.
5. ALL PIPING AND CONTROL WIRING SHALL BE CONCEALED IN WALLS OR ABOVE CEILINGS OF FINISHED SPACES, UNLESS NOTED OTHERWISE. IN FINISHED SPACES WITH EXPOSED STRUCTURE CEILINGS, CONTRACTOR SHALL CLOSELY COORDINATE ROUTING WITH OTHER TRADES.
6. CONTRACTOR SHALL COORDINATE LOCATION OF ALL EQUIPMENT, PIPING AND DUCTWORK WITH OTHER TRADES. MAINTAIN REQUIRED SERVICE ACCESS.
7. PAINT ALL EXPOSED DUCTWORK, PIPING, AND ASSOCIATED COMPONENTS (EXCLUDING MECHANICAL AND STORAGE SPACES) PER DIVISION 9.
8. PROVIDE MIN 18" HIGH ROOF CURB FOR ALL ROOFTOP MECHANICAL EQUIPMENT, UNLESS OTHERWISE NOTED. CUSTOM CURBS FOR EQUIPMENT PIPING OR CONDUIT SHALL BE FULLY COORDINATED WITH ROOFING WARRANTY REQUIREMENTS. COORDINATE ALL ROOF OPENINGS, ROOFING, FLASHING AND WATERPROOFING WITH OTHER TRADES. BOTTOM OF CURB SHALL SLOPE TO MATCH ROOF PITCH FOR A LEVEL INSTALLATION. ENSURE THAT THE BOTTOM SURFACE OF ALL ROOF MOUNTED EQPT - INCLUDING BUT NOT LIMITED TO AHU, OAU - IS NOT EXPOSED TO OCCUPIED SPACE BELOW. CAULK / INSULATE / SEAL ANY VOIDS.
9. AIRFLOW QUANTITIES INDICATED ON THE PLANS ARE FOR OCCUPIED OPERATING MODE, UNO.
10. UNLESS OTHERWISE NOTED, ALL DUCT & PIPING MAINS SHALL BE INSTALLED AS HIGH AS POSSIBLE TO UNDERSIDE OF STRUCTURE. ROUTE DUCTS BETWEEN AND/OR THROUGH STRUCTURE WHERE INDICATED. VERIFY ROUTING OF DUCTS WITH CEILING HEIGHTS, STRUCTURAL SYSTEMS AND OTHER TRADES PRIOR TO DUCT FABRICATION. INSTALL PIPING BELOW DUCTWORK, UNO.
11. HVAC CONTRACTOR(S) SHALL COORDINATE THEIR WORK WITH ALL OTHER TRADES PRIOR TO FABRICATIONS OF SYSTEMS AND COMMENCEMENT OF INSTALLATION. IT SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR TO REVIEW THE WORK OF OTHER TRADES (INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, CIVIL, ELECTRICAL, EQUIPMENT, FIRE PROTECTION, FIRE ALARM, PLUMBING, AND STRUCTURAL) AS IT AFFECTS THEIR WORK, AND AS THEIR WORK AFFECTS OTHER TRADES, TO INSURE THAT THE CONSTRUCTION DOCUMENTS ARE CLOSELY FOLLOWED. WHERE DISCREPANCIES ARISE, THEY SHALL BE REFERRED TO THE A/E FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.
12. FLEX-DUCT RUNS SHALL BE 3' MINIMUM AND 5' MAXIMUM LENGTH. PROVIDE STAINLESS STEEL ADJUSTABLE BANDS TO FASTEN FLEX TO DUCTWORK COLLAR AND EQUIPMENT SERVED. PLASTIC TIES ARE UNACCEPTABLE.
13. PROVIDE MANUAL BALANCING DAMPERS IN EACH BRANCH OF SUPPLY, RETURN, VENTILATION, AND EXHAUST DUCTWORK.
14. PENETRATIONS THRU FIRE RATED CEILINGS, FLOORS, PARTITIONS, OR WALLS SHALL BE SEALED TO MAINTAIN FIRE RATING INTEGRITY. REFER TO ARCHL DRAWINGS FOR FIRESTOPPING DETAILS. PROVIDE RATED FIRE DAMPERS AS REQUIRED.
15. DO NOT INSTALL BULL HEAD TEES IN PIPING SYSTEMS.
16. COORDINATE WORK PRIOR TO INSTALLATION OF ARCHITECTURAL FINISHES AS REQUIRED.
17. COOLING COIL CONDENSATE LINES SHALL BE MINIMUM 3/4" DIAMETER FOR UNITS 5 TONS AND BELOW AND 1-1/4" DIAMETER FOR UNITS ABOVE 5 TONS, UNO.
18. INSTALL ALL DUCTWORK TERMINATING WITH WWM ABOVE FINISHED CEILING, UNO. TERMINATE DUCT COMPLETE WITH ELBOW DIRECTED TOWARDS UNDERSIDE OF ROOF DECK, UNO.
19. CONTRACTOR SHALL PROVIDE COORDINATED 3-D SHOP DRAWINGS OF DIVISION 23 SYSTEMS. SHOP DRAWINGS SHALL BE PREPARED IN ELECTRONIC FORMAT AND SUBMITTED IN PRINTED FORM.
20. INSTALL ALL HVAC WALL MOUNTED SENSORS 48" AFF, MEASURED FROM TOP OF OUTLET BOX, UNO.
21. NOMENCLATURE FOR FINAL ROOM NAMES AND NUMBERS MAY VARY FROM THE CONSTRUCTION DOCUMENTS. FINAL NAMES AND NUMBERS USED IN THE SHOP DRAWINGS, EQUIPMENT TAGS, BAS LABELING AND CLOSEOUT DOCUMENTATION SHALL BE COORDINATED WITH FINAL ROOM NAMES AND NUMBERS ASSIGNED BY THE OWNER AND ARCHITECT.

## DIVISION OF LABOR MATRIX

| ITEM | SPECIFIED BY | FURNISHED BY | INSTALLED BY | POWER WIRING | CONTROL/ INTERLOCK WIRING | FIRE ALARM WIRING | NOTES |
|---|---|---|---|---|---|---|---|
| VARIABLE SPEED DRIVES (DIV 23 EQUIPMENT) | DIV 26 | DIV 23 | DIV 26 | DIV 26 | DIV 23/25 | DIV 26/28 | |
| HVAC PUMPS (DIV 23 EQUIPMENT) | DIV 23 | DIV 23 | DIV 23 | DIV 26 | DIV 25 | - | |
| CONTROL VALVES (DIV 23 EQUIPMENT) | DIV 23 & 25 | DIV 23 & 25 | DIV 23 | DIV 25 | DIV 25 | - | |
| IMMERSION WELL & METERS (DIV 23 EQUIPMENT) | DIV 23/25 | DIV 25 | DIV 23 | DIV 25 | DIV 25 | DIV 26/28 | |
| DUCT SMOKE DETECTOR | DIV 28 | DIV 28 | DIV 26 | - | - | DIV 26/28 | |
| MOTORIZED DAMPERS | DIV 23 | DIV 23 | DIV 23 | DIV 25 | DIV 25 | DIV 26/28 | 1 |
| DUCT TEMPERATURE & PRESSURE SENSORS | DIV 25 | DIV 25 | DIV 23 | DIV 25 | DIV 25 | - | |

**GENERAL NOTES (APPLIES TO ALL EQUIPMENT):**

1. THESE DIVISIONS ARE BASE SCOPE. GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE ENTIRE SCOPE OF WORK IS COVERED.
2. ALL EXPOSED MECHANICAL DUCTS, PIPES, EQUIPMENT, AND OTHER PRODUCTS SHALL BE COORDINATED WITH THE ARCHITECT FOR ALL FINISHES AND COLOR SELECTIONS.

**SPECIFIC NOTES (AS NOTED IN THE SCHEDULE):**

1. THIS ROW APPLIES TO MOTORIZED DAMPERS THAT ARE NOT INTEGRAL TO EQUIPMENT. DAMPER ACTUATORS ARE PROVIDED BY DIV 25 CONTRACTOR

## DESIGN CODES/STANDARDS

| CODE/STANDARD | YEAR/VERSION |
|---|---|
| VIRGINIA BUILDING CODE (VBC) | 2018 |
| VIRGINIA MECHANICAL CODE (VMC) | 2018 |
| VIRGINIA PLUMBING CODE (VPC) | 2018 |
| VIRGINIA ENERGY CONSERVATION CODE (VECC) | 2018 |
| VIRGINIA FUEL GAS CODE (VFGC) | 2018 |
| NATIONAL ELECTRICAL CODE (NEC) | 2017 |
| NFPA 13 | 2016 |
| NFPA 72 | 2016 |

## SHEET LIST - MECHANICAL

| SHEET NO | SHEET NAME |
|---|---|
| M000 | LEGENDS, ABBREVIATIONS & GENERAL NOTES |
| MS100 | MECHANICAL SITE PLAN |
| M100 | BASEMENT PLANS |
| MH101A | LEVEL 1 - PARTIAL PLAN AREA A - DUCTWORK |
| MH101B | LEVEL 1 - PARTIAL PLAN AREA B - DUCTWORK |
| MH102A | LEVEL 2 - PARTIAL PLAN AREA A - DUCTWORK |
| MH102B | LEVEL 2 - PARTIAL PLAN AREA B - DUCTWORK |
| MP101A | LEVEL 1 - PARTIAL PLAN AREA A - PIPING |
| MP101B | LEVEL 1 - PARTIAL PLAN AREA B - PIPING |
| MP102A | LEVEL 2 - PARTIAL PLAN AREA A - PIPING |
| MP102B | LEVEL 2 - PARTIAL PLAN AREA B - PIPING |
| M103 | ROOF PLAN |
| MI101A | LEVEL 1 - PARTIAL PLAN AREA A - INSTRUMENTATION |
| MI101B | LEVEL 1 - PARTIAL PLAN AREA B - INSTRUMENTATION |
| MI102A | LEVEL 2 - PARTIAL PLAN AREA A - INSTRUMENTATION |
| MI102B | LEVEL 2 - PARTIAL PLAN AREA B - INSTRUMENTATION |
| M401 | ENLARGED PLANS |
| M501 | DETAILS |
| M502 | DETAILS |
| M503 | DETAILS |
| M504 | DETAILS |
| M701 | SCHEDULES |
| M702 | SCHEDULES |
| M703 | SCHEDULES |
| M801 | CONTROLS |
| M802 | CONTROLS |
| M803 | CONTROLS |
| M804 | CONTROLS |
| M805 | CONTROLS |
| M806 | CONTROLS |
| M807 | CONTROLS |


QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

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LEGENDS, ABBREVIATIONS & GENERAL NOTES

# M000

PATH & FILENAME: C:\Users\Bethany\Documents\Revit Files\19168_M23_ACPS HS Center II_Mech_BethanyB.rvt
PLOTTING DATE & TIME: 10/2/2024 12:14:36 PM

## GENERAL NOTES (NEW WORK)

1. REFER TO M-500 SERIES OF DRAWINGS FOR GEOTHERMAL DETAILS.
2. COUNTY TO PROVIDE TEST WELL GEOTHERMAL TESTING LOG AND THERMAL CONDUCTIVITY REPORT.

TOTAL 20 CIRCUITS, WITH PROVISION FOR ADDITIONAL CIRCUITS FOR FUTURE EXPANSION.
CIRCUIT BOREHOLES AS INDICATED.
1-1/4" HDPE SDR 9 PIPE FOR EACH BORE.
20 FT ON-CENTER. 535'-0" DEEP.
PIPING TO BE REVERSE-RETURN.
INSTALL PIPE TRACING MARKER ON ALL HORIZONTAL PIPES IN HORIZONTAL TRENCHES.
ALL HORIZONTAL PIPING TO BE BURIED MIN. 36" BELOW GRADE, UNO. COORDINATE WITH UNDERGROUND UTILITIES, TREES, LANDSCAPE AND OTHER SITE FEATURES.
BACKFILL TO BE 90% COMPACTED.
GROUND PERFORMANCE BASED ON TEST BORE.
BASIS OF LOOP DESIGN PARAMETERS
UNDISTURBED GROUND TEMPERATURE: 59.6°F ~61.4 °F
FORMATION THERMAL CONDUCTIVITY: 1.97 BTU/(HR*FT*°F)
FORMATION THERMAL DIFFUSIVITY: 1.31 FT^2/DAY
BOREHOLE DIAMETER: 10 IN
GROUT THERMAL CONDUCTIVITY: 1.0 BTU/(HR*FT*°F)
BOREHOLE THERMAL RESISTANCE:0.29 HR*FT*°F/BTU
PREDICTION TIME: 50 YEARS

## KEY NOTES (NEW WORK)

1. STEP DOWN PIPING ELEVATION BELOW GRADE TO AVOID FOOTERS. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL DETAILS.
2. INSTALL PRE-FABRICATED GEOTHERMAL VAULT WITH MANHOLE.
3. INSTALL CIRCUIT MAINS OUTSIDE OF BOREFIELD FOOTPRINT.
4. PROVISION FOR ADDITIONAL CIRCUIT BOREHOLES FOR FUTURE EXPANSION, AS NEEDED.

1 – MS100 SITE PLAN - MECHANICAL
SCALE: 1" = 20'-0"
0 5' 10' 20' 40'

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PLOTTING DATE & TIME: 10/2/2024 12:14:39 PM


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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
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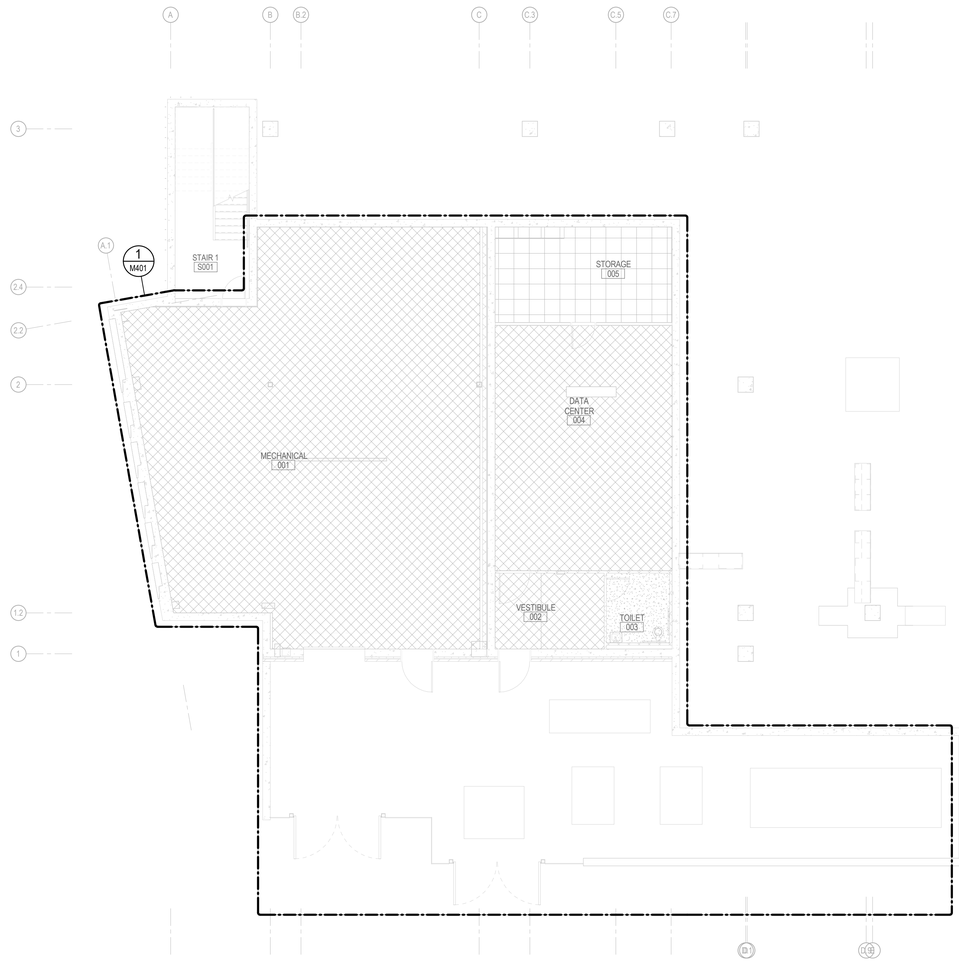
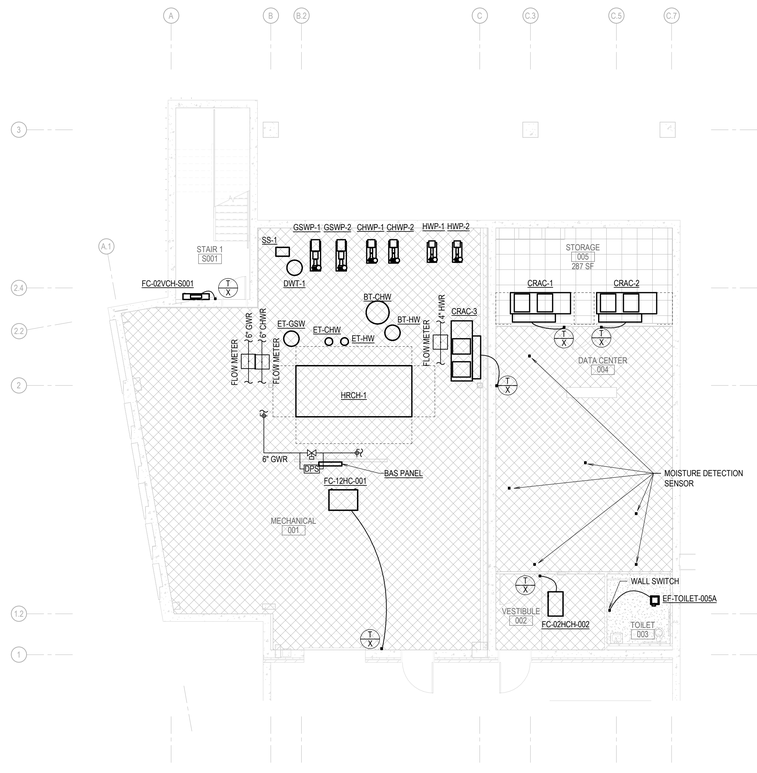
MECHANICAL SITE PLAN

**MS100**

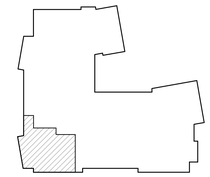



1 M100 — BASEMENT FLOOR PLAN - DUCTWORK
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'




2 M100 — BASEMENT FLOOR PLAN - INSTRUMENTATION
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN



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DRAWN BY: JAS/MAC

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

BASEMENT PLANS

**M100**

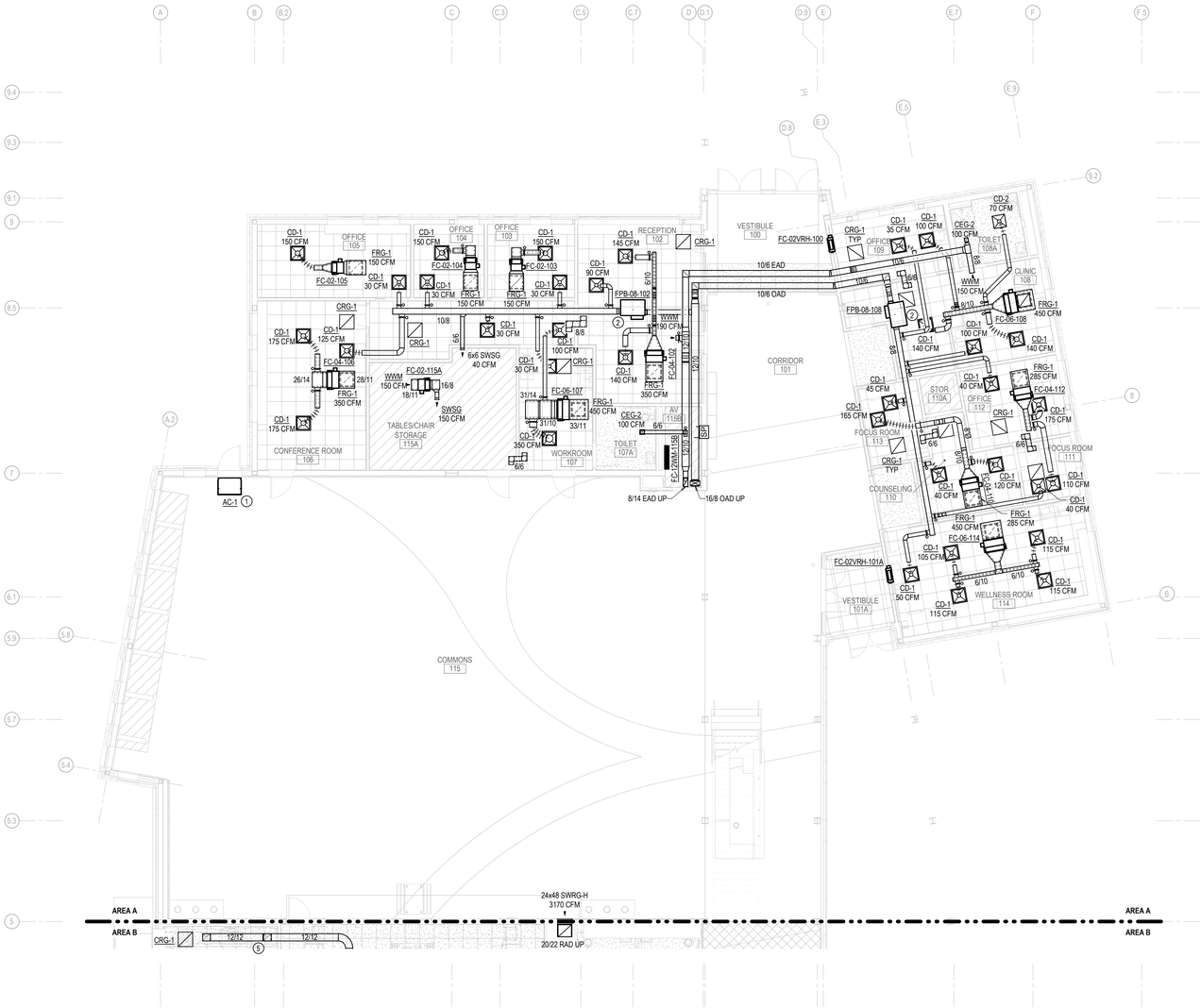
PATH & FILENAME: C:\Users\BethanyB\Documents\Revit Files\19168_M23_ACPS HS Center II_Mech_BethanyB.rvt
PLOTTING DATE & TIME: 10/2/2024 12:14:43 PM

## GENERAL NOTES (NEW WORK)

1. ALL BULL HEAD TEES WILL BE INSTALLED WITH TURNING VANES.
2. PROVIDE REMOTE BALANCING DAMPER WHERE MBD ARE SHOWN ABOVE INACCESSIBLE CEILINGS SUCH AS GYP AND WOOD GRILLE. PROVIDE MANUFACTURER STANDARD ACCESSORY SINGLE GANG WALL BOX WITH ALL PLATES AND PORTS. LOCATE CONTROL IN OR ABOVE ACCESSIBLE, CONCEALED, BACK OF HOUSE SPACE. SUBMIT COORDINATED FLOOR PLANS TO A/E FOR REVIEW AND APPROVAL OF REMOTE DAMPER CONTROL LOCATIONS.
3. PROVIDE 2" MERV 13 FILTERS IN FRGs ASSOCIATED WITH FC-XH-RM# UNITS. PROVIDE 2" MERV 8 FILTERS IN FRGs FOR ALL OTHER UNITS. PAINT THE INSIDE OF THE FILTER FRAMES DIFFERENT COLORS FOR MERV 8 AND 13 FILTERS. COORDINATE COLORS WITH OWNER.

## KEY NOTES (NEW WORK)

1. MOUNT AIR CURTAIN 8' ABOVE AFF.
2. OPERATION REQUIRES CONSTANT VOLUME OF PRIMARY AIR. BLANK OFF RETURN AIR OPENING.

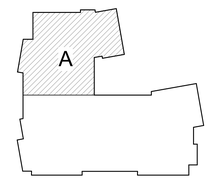



1 – MH101A LEVEL 1 PARTIAL PLAN - AREA A - DUCTWORK

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

0 2' 4' 8' 16'

KEY PLAN

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MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

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10/08/2024

LEVEL 1 - PARTIAL PLAN AREA A - DUCTWORK

# MH101A

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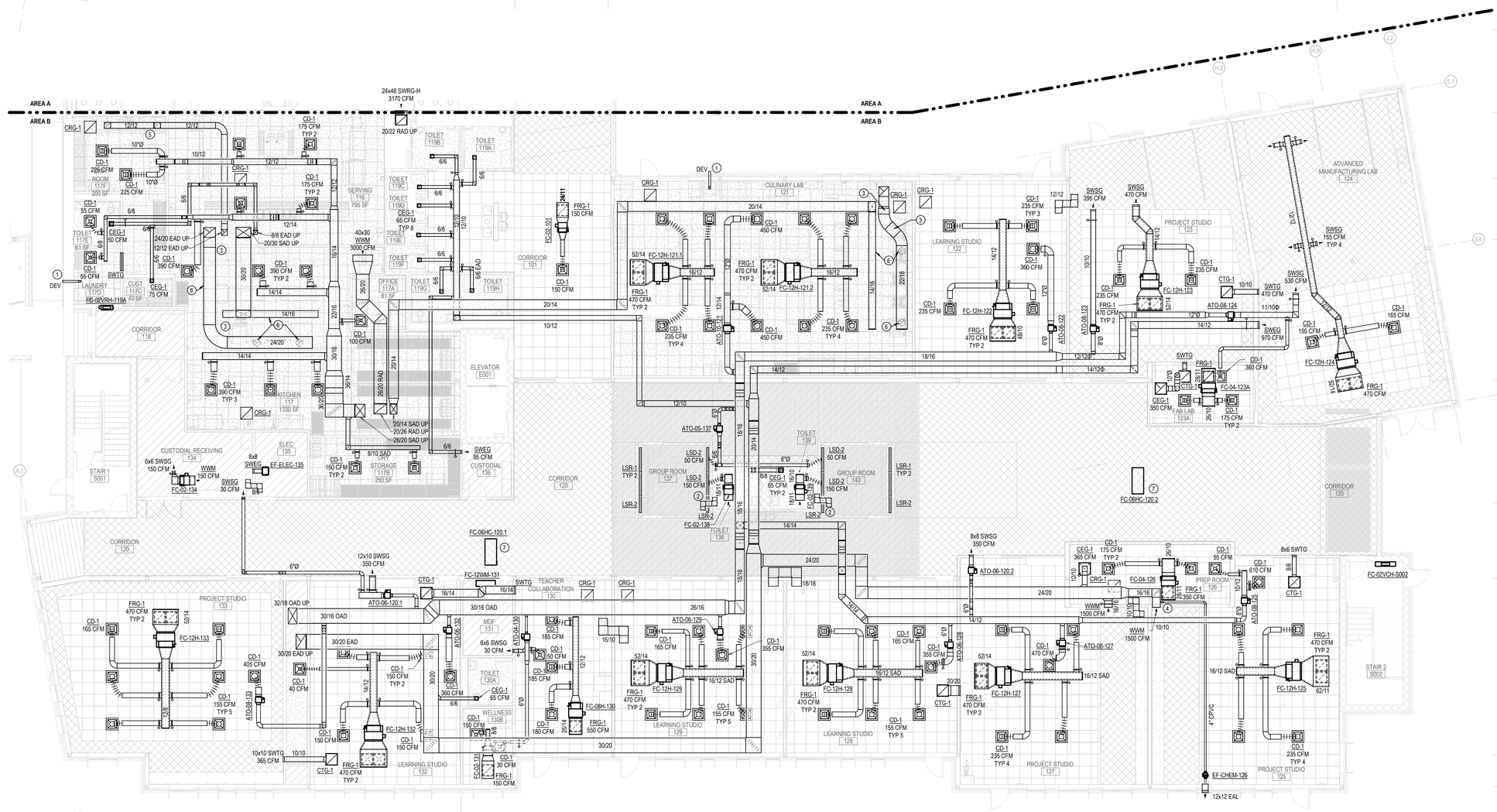
PLOTTING DATE & TIME: 10/2/2024 12:14:48 PM

## GENERAL NOTES (NEW WORK)

1. ALL BULL HEAD TEES WILL BE INSTALLED WITH TURNING VANES.
2. PROVIDE REMOTE BALANCING DAMPER WHERE MBD ARE SHOWN ABOVE INACCESSIBLE CEILINGS SUCH AS GYP AND WOOD GRILLE. PROVIDE MANUFACTURER STANDARD ACCESSORY SINGLE GANG WALL BOX WITH ALL PLATES AND PORTS. LOCATE CONTROL IN OR ABOVE ACCESSIBLE, CONCEALED, BACK OF HOUSE SPACE. SUBMIT COORDINATED FLOOR PLANS TO A/E FOR REVIEW AND APPROVAL OF REMOTE DAMPER CONTROL LOCATIONS.
3. PROVIDE 2" MERV 13 FILTERS IN FRGs ASSOCIATED WITH FC-XH-RM# UNITS. PROVIDE 2" MERV 8 FILTERS IN FRGs FOR ALL OTHER UNITS. PAINT THE INSIDE OF THE FILTER FRAMES DIFFERENT COLORS FOR MERV 8 AND 13 FILTERS. COORDINATE COLORS WITH OWNER.

## KEY NOTES (NEW WORK)

1. CONNECT 4" DRYER EXHAUST VENT TO DRYER, COORDINATE SIZE BASED ON MANUFACTURER'S RECOMMENDATIONS. TERMINATE DRYER EXHAUST WITH FOREVER CAP AND BACKDRAFT DAMPER. BIRD/INSECT SCREENS ARE NOT PERMITTED FOR DRYER DUCTS.
2. BLANK OFF LSD TO ALLOW FOR TRANSFER DUCT.
3. INSTALL GREASE DUCT CLEANOUT NOT MORE THAN 10 FT FROM ELBOW.
4. CONNECT 4" CPVC PIPE TO CHEMICAL STORAGE CABINET PROVIDED BY ARCHITECT.
5. SLOPE DISHWASHER EXHAUST DUCT 1/4 INCH PER 12 INCHES TOWARD DISHWASHER. PROVIDE RADIUS ELBOWS AS SHOWN. DO NOT PROVIDE TURNING VANES.
6. CONNECT TO KITCHEN HOOD. COORDINATE DUCT CONNECTION WITH APPROVED EQUIPMENT.
7. FOR UNIT MOUNTING HEIGHT, ALIGN THE BOTTOM OF THE FC WITH THE TOP OF THE ADJACENT LIGHT FIXTURES.
8. SLOPE GREASE EXHAUST DUCT 1/4 INCH PER 12 INCHES TOWARD KITCHEN HOOD. PROVIDE RADIUS ELBOWS AS SHOWN. DO NOT PROVIDE TURNING VANES.

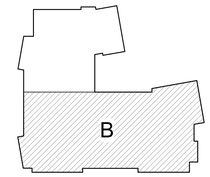



1 -- MH101B LEVEL 1 PARTIAL PLAN - AREA B - DUCTWORK

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

0 2' 4' 8' 16'

KEY PLAN

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10/08/2024
NO. 51922
PROFESSIONAL ENGINEER


Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

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10/08/2024

LEVEL 1 - PARTIAL PLAN AREA B - DUCTWORK

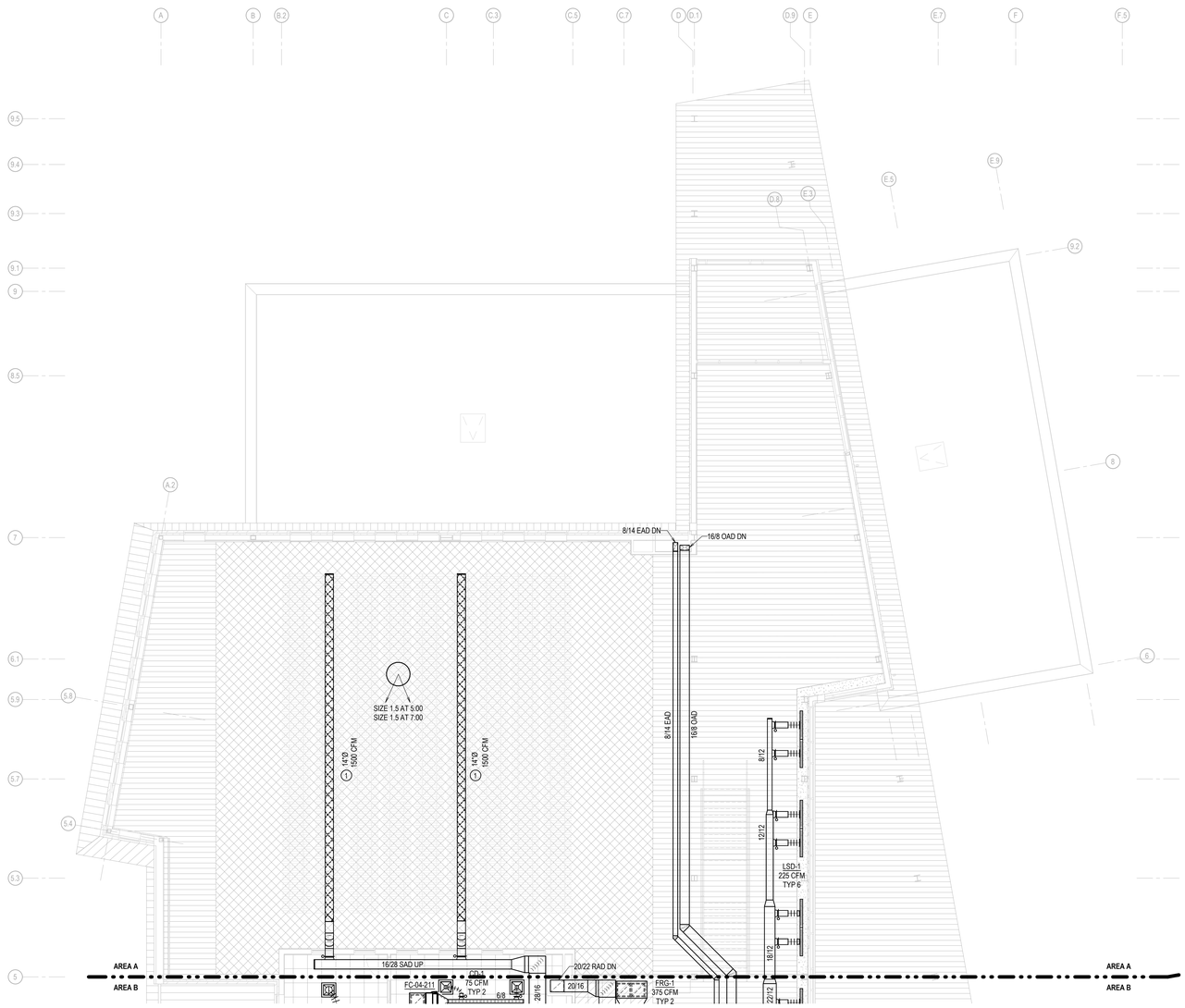
# MH101B

## GENERAL NOTES (NEW WORK)

1. ALL BULL HEAD TEES WILL BE INSTALLED WITH TURNING VANES.
2. PROVIDE REMOTE BALANCING DAMPER WHERE MBD ARE SHOWN ABOVE INACCESSIBLE CEILINGS SUCH AS GYP AND WOOD GRILLE. PROVIDE MANUFACTURER STANDARD ACCESSORY SINGLE GANG WALL BOX WITH ALL PLATES AND PORTS. LOCATE CONTROL IN OR ABOVE ACCESSIBLE, CONCEALED, BACK OF HOUSE SPACE. SUBMIT COORDINATED FLOOR PLANS TO A/E FOR REVIEW AND APPROVAL OF REMOTE DAMPER CONTROL LOCATIONS.
3. PROVIDE 2" MERV 13 FILTERS IN FRGs ASSOCIATED WITH FC-XH-RM# UNITS. PROVIDE 2" MERV 8 FILTERS IN FRGs FOR ALL OTHER UNITS. PAINT THE INSIDE OF THE FILTER FRAMES DIFFERENT COLORS FOR MERV 8 AND 13 FILTERS. COORDINATE COLORS WITH OWNER.

## KEY NOTES (NEW WORK)

1. MOUNT FABRIC DUCT 26'-6" AFF.

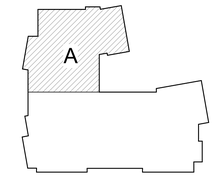



1 MH102A — LEVEL 2 PARTIAL PLAN - AREA A - DUCTWORK

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

0 2' 4' 8' 16'

KEY PLAN





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STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd.
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PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

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LEVEL 2 - PARTIAL PLAN AREA A - DUCTWORK

# MH102A

PATH & FILENAME: C:\Users\BethanyB\Documents\Revit Files\19168_M23_ACPS HS Center II_Mech_BethanyB.rvt
PLOTTING DATE & TIME: 10/2/2024 12:15:01 PM

## GENERAL NOTES (NEW WORK)

1. ALL BULL HEAD TEES WILL BE INSTALLED WITH TURNING VANES.
2. PROVIDE REMOTE BALANCING DAMPER WHERE MBD ARE SHOWN ABOVE INACCESSIBLE CEILINGS SUCH AS GYP AND WOOD GRILLE. PROVIDE MANUFACTURER STANDARD ACCESSORY SINGLE GANG WALL BOX WITH ALL PLATES AND PORTS. LOCATE CONTROL IN OR ABOVE ACCESSIBLE, CONCEALED, BACK OF HOUSE SPACE. SUBMIT COORDINATED FLOOR PLANS TO A/E FOR REVIEW AND APPROVAL OF REMOTE DAMPER CONTROL LOCATIONS.
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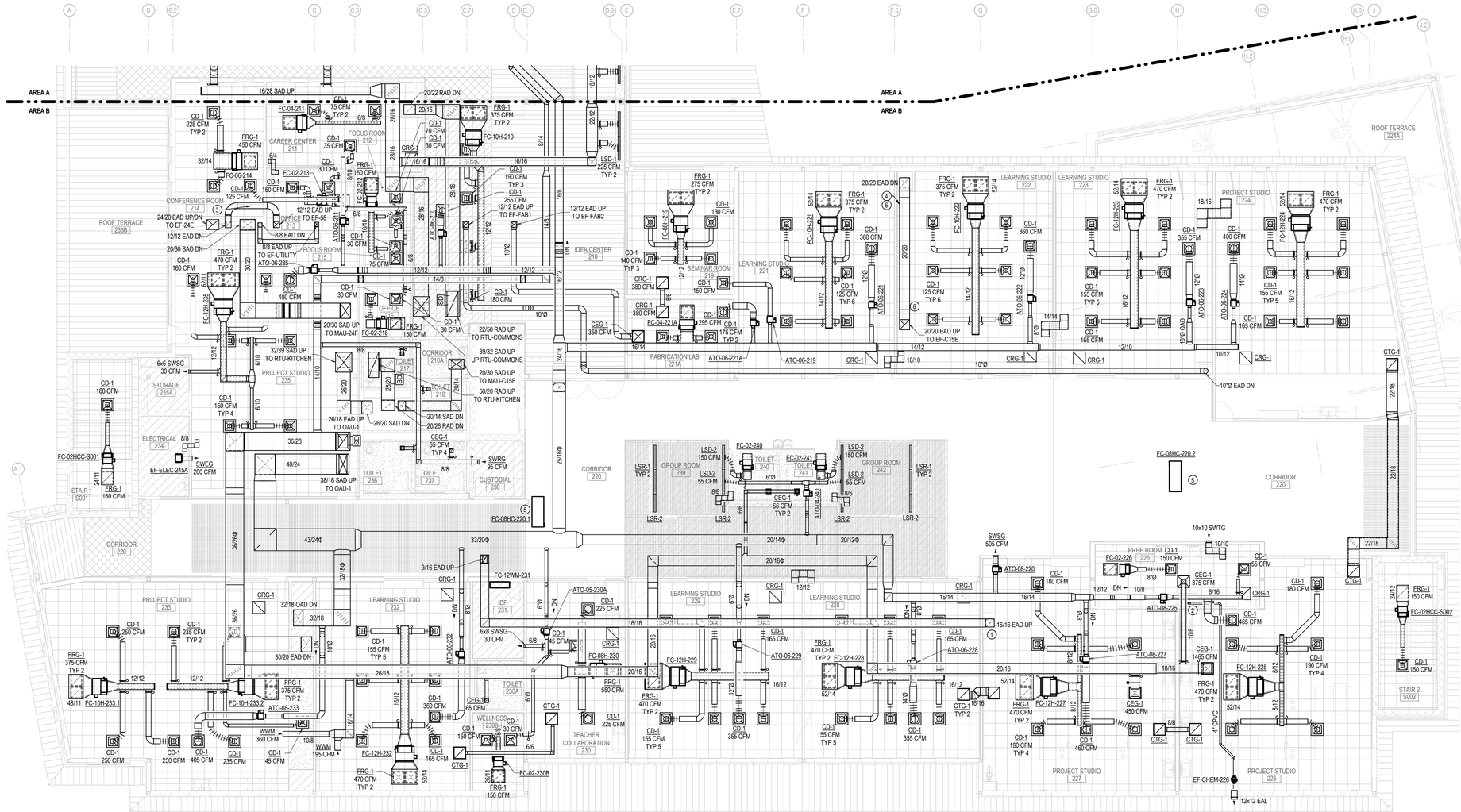
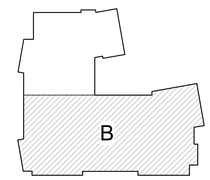
## (#) KEY NOTES (NEW WORK)

1. FUME HOOD PERFORMANCE ASSUMPTIONS ARE CONSTANT VOLUME HOOD, 760 CFM, AND 0.20" AIR PRESSURE DROP.
2. CONNECT 4" CPVC PIPE TO CHEMICAL STORAGE CABINET PROVIDED BY ARCHITECT.
3. SLOPE DISHWASHER EXHAUST DUCT 1/4 INCH PER 12 INCHES TOWARD DISHWASHER. PROVIDE RADIUS ELBOWS AS SHOWN. DO NOT PROVIDE TURNING VANES.
4. SLOPE GREASE EXHAUST DUCT 1/4 INCH PER 12 INCHES TOWARD KITCHEN HOOD. PROVIDE RADIUS ELBOWS AS SHOWN. DO NOT PROVIDE TURNING VANES.
5. FOR UNIT MOUNTING HEIGHT, ALIGN THE BOTTOM OF THE FC WITH THE TOP OF THE ADJACENT LIGHT FIXTURES.
6. INSTALL GREASE DUCT CLEANOUT NOT MORE THAN 10 FT FROM ELBOW.




1 LEVEL 2 PARTIAL PLAN - AREA B - DUCTWORK
MH102B SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN





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**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100
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2775 Hydraulic Rd,
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PROJECT MANAGER: MRL
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LEVEL 2 - PARTIAL PLAN AREA B - DUCTWORK

# MH102B

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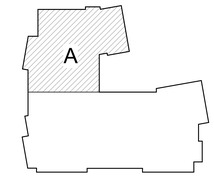
PLOTTING DATE & TIME: 10/2/2024 12:15:10 PM

## GENERAL NOTES (NEW WORK)

1. WHERE TEMPERATURE, HUMIDITY, AND CARBON DIOXIDE SENSORS ARE SHOWN ADJACENT TO EACH OTHER, PROVIDE A SINGLE COMBINATION SENSOR.
2. REFER TO TEMPERATURE SENSOR LOCATION DETAIL FOR NOTES ON INSTALLATION ADJACENT TO DOORS AND LIGHT SWITCHES.

1 -- MI101A LEVEL 1 PARTIAL PLAN - AREA A - INSTRUMENTATION
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN

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**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

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STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd.
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PROJECT MANAGER: MRL
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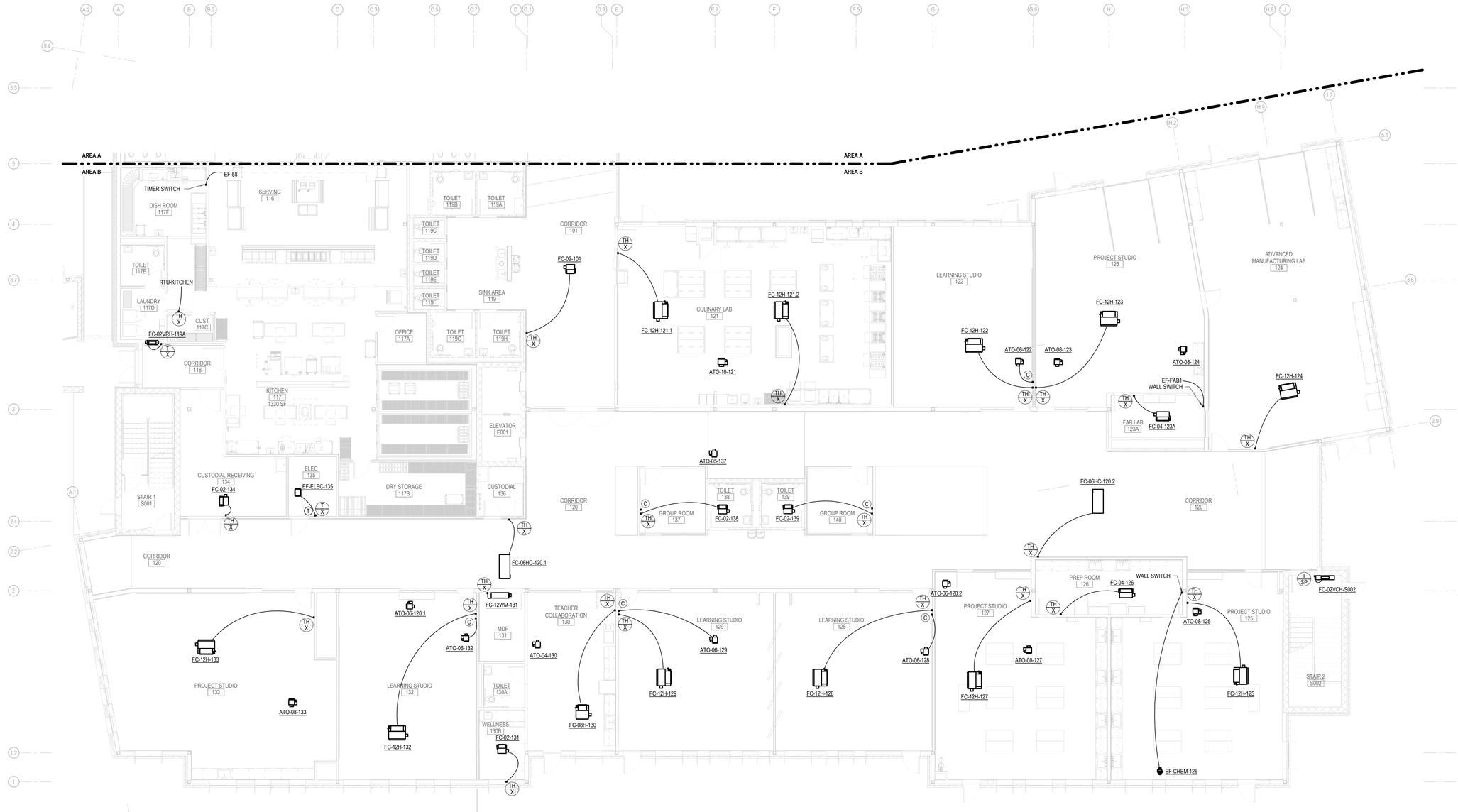
LEVEL 1 - PARTIAL PLAN AREA A - INSTRUMENTATION

# MI101A

## GENERAL NOTES (NEW WORK)

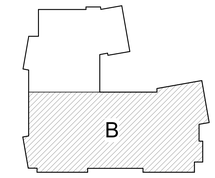
1. WHERE TEMPERATURE, HUMIDITY, AND CARBON DIOXIDE SENSORS ARE SHOWN ADJACENT TO EACH OTHER, PROVIDE A SINGLE COMBINATION SENSOR.
2. REFER TO TEMPERATURE SENSOR LOCATION DETAIL FOR NOTES ON INSTALLATION ADJACENT TO DOORS AND LIGHT SWITCHES.




1 LEVEL 1 PARTIAL PLAN - AREA B - INSTRUMENTATION
-- MI101B SCALE: 1/8" = 1'-0"

0 2' 4' 8' 16'

KEY PLAN

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Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

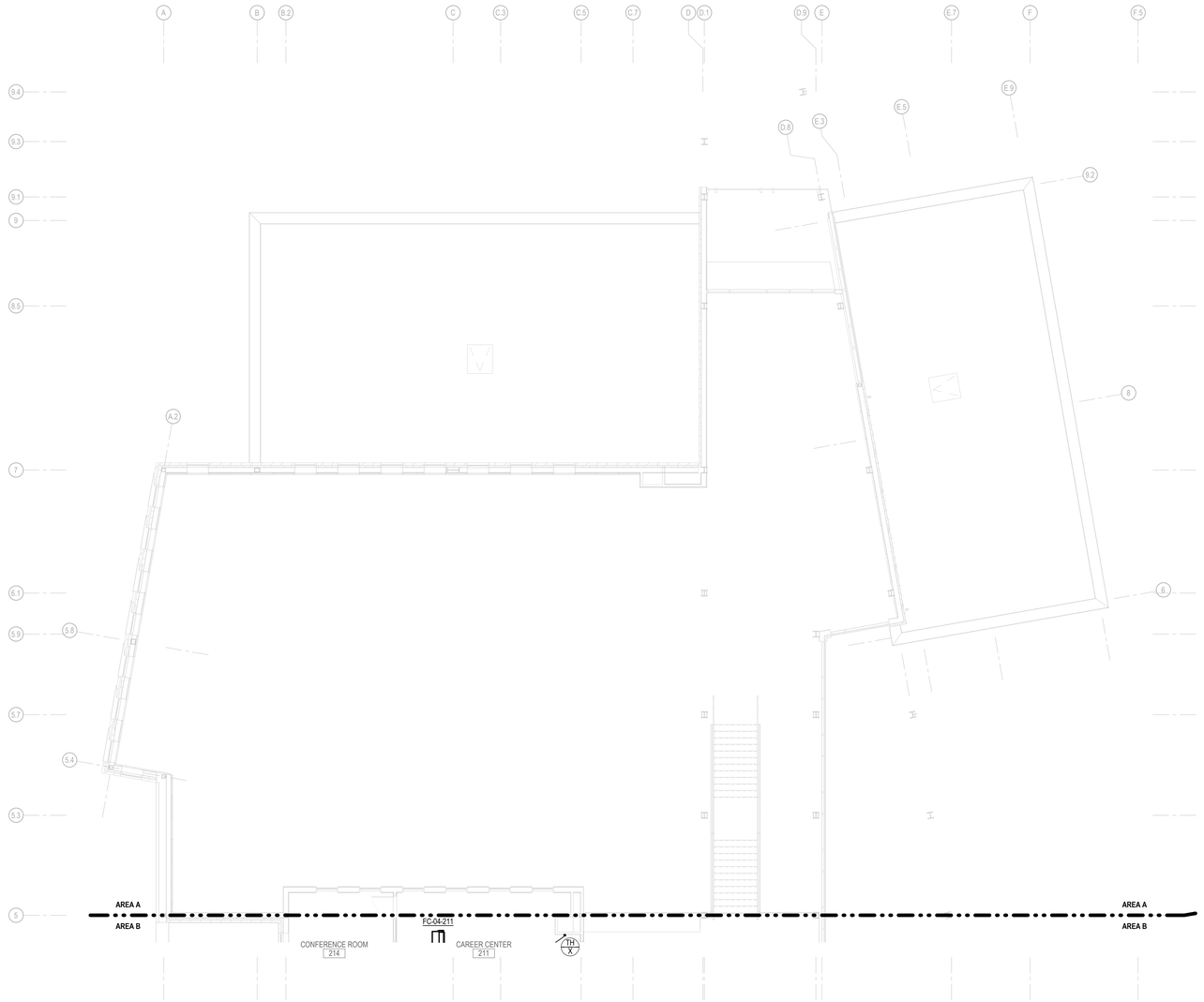
BID DOCUMENTS
10/08/2024

LEVEL 1 - PARTIAL PLAN AREA B - INSTRUMENTATION

# MI101B

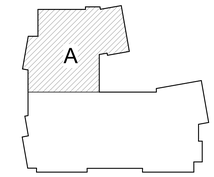
## GENERAL NOTES (NEW WORK)

1. WHERE TEMPERATURE, HUMIDITY, AND CARBON DIOXIDE SENSORS ARE SHOWN ADJACENT TO EACH OTHER, PROVIDE A SINGLE COMBINATION SENSOR.
2. REFER TO TEMPERATURE SENSOR LOCATION DETAIL FOR NOTES ON INSTALLATION ADJACENT TO DOORS AND LIGHT SWITCHES.




1 -- MI102A LEVEL 2 PARTIAL PLAN - AREA A - INSTRUMENTATION
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN

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|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

LEVEL 2 - PARTIAL PLAN AREA A - INSTRUMENTATION

# MI102A

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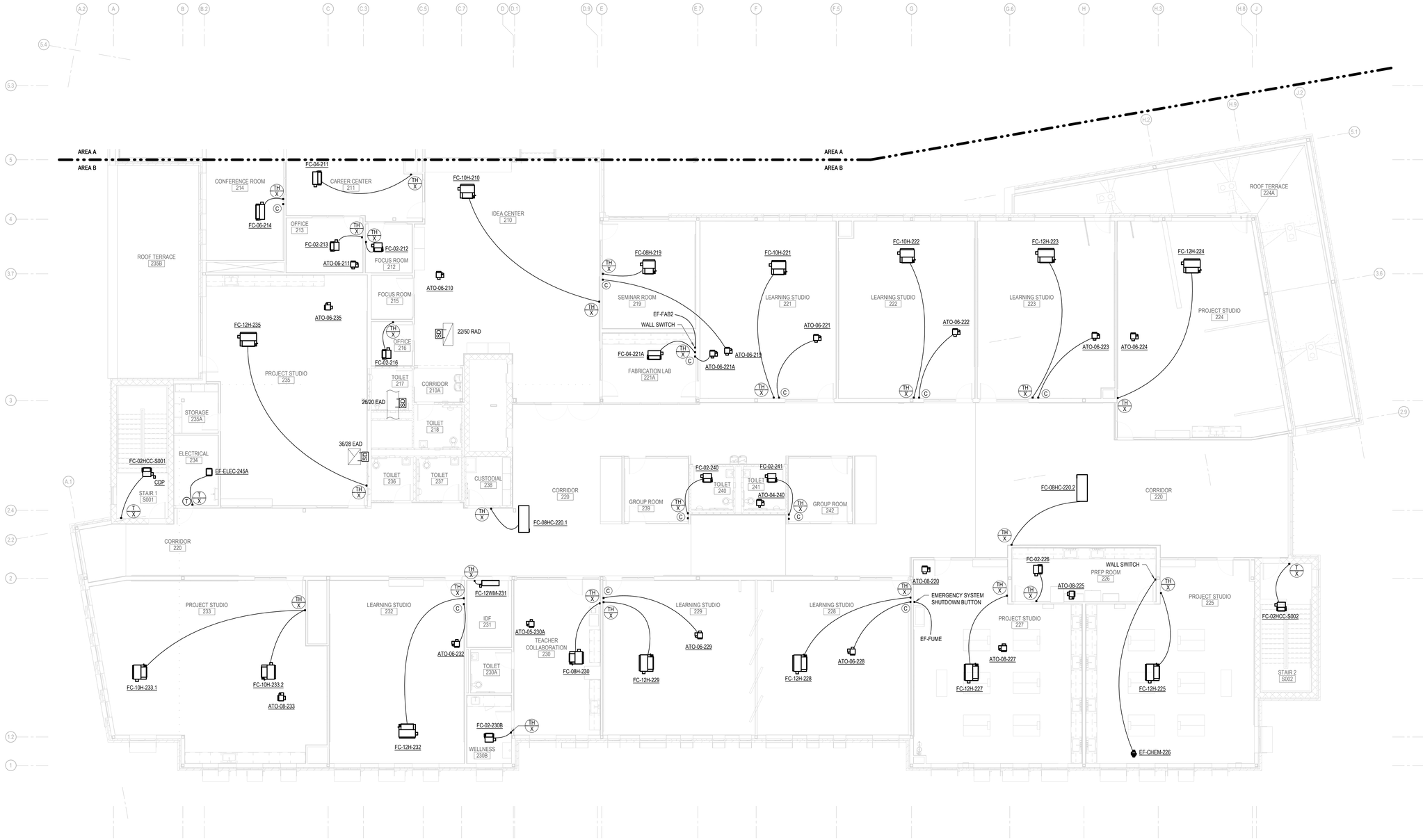
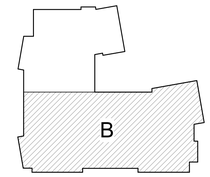
## GENERAL NOTES (NEW WORK)

1. WHERE TEMPERATURE, HUMIDITY, AND CARBON DIOXIDE SENSORS ARE SHOWN ADJACENT TO EACH OTHER, PROVIDE A SINGLE COMBINATION SENSOR.
2. REFER TO TEMPERATURE SENSOR LOCATION DETAIL FOR NOTES ON INSTALLATION ADJACENT TO DOORS AND LIGHT SWITCHES.




1 LEVEL 2 PARTIAL PLAN - AREA B - INSTRUMENTATION
-- MI102B SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN

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|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

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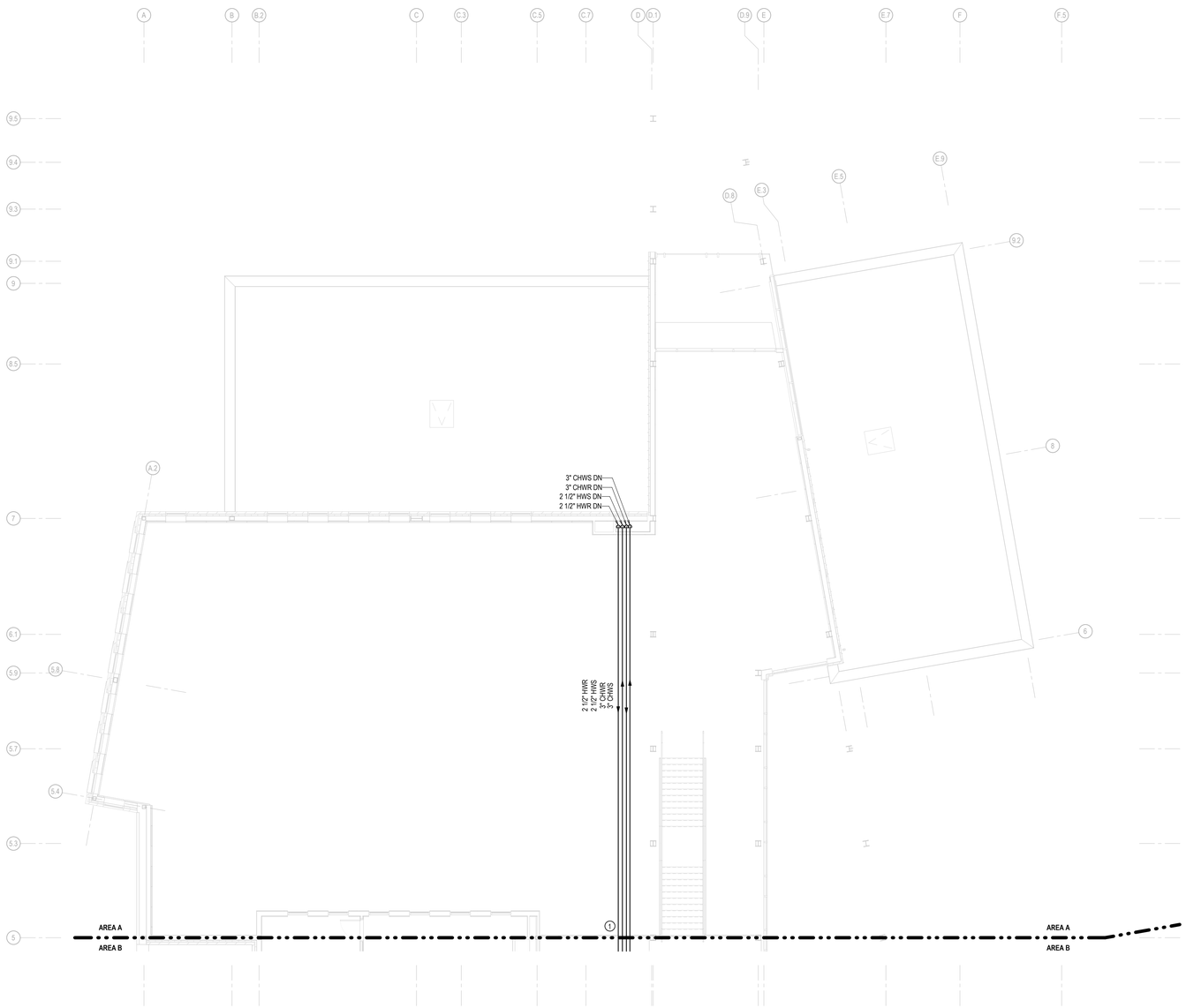
LEVEL 2 - PARTIAL PLAN AREA B - INSTRUMENTATION

# MI102B

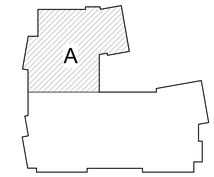
## KEY NOTES (NEW WORK)

1. REFER TO SHEET MP102B FOR CONTINUATION.




1 — MP102A LEVEL 2 PARTIAL PLAN - AREA A - PIPING
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN

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MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd.
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

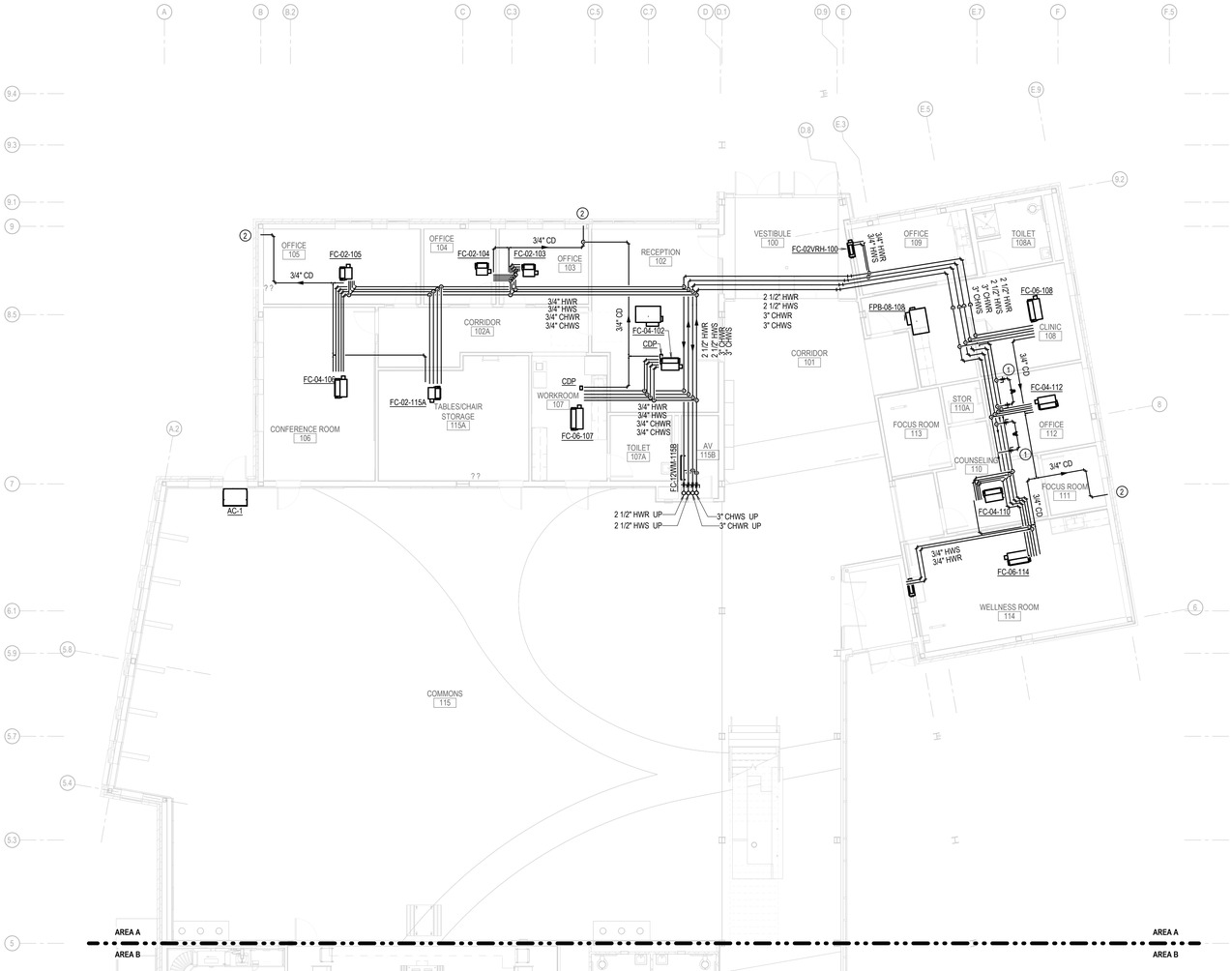
LEVEL 2 - PARTIAL PLAN AREA A - PIPING

# MP102A

PATH & FILENAME: C:\Users\BethanyB\Documents\Revit Files\19168_M23_ACPS HS Center II_Mech_BethanyB.rvt
PLOTTING DATE & TIME: 10/2/2024 12:15:24 PM

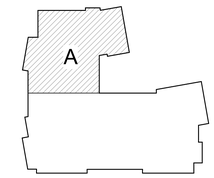
## KEY NOTES (NEW WORK)

1. INSTALL END OF LINE BYPASS. REFER TO SCHEMATICS AND CONTROL DIAGRAMS FOR FURTHER DETAIL.
2. CONDENSATE DRAIN TO PENETRATE EXTERIOR WALL 8" ABOVE GRADE AT CHUNNEL. REFER TO CIVIL DRAWINGS FOR FURTHER DETAIL.




1 LEVEL 1 PARTIAL PLAN - AREA A - PIPING
MP101A SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN





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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
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LEVEL 1 - PARTIAL PLAN AREA A - PIPING

# MP101A

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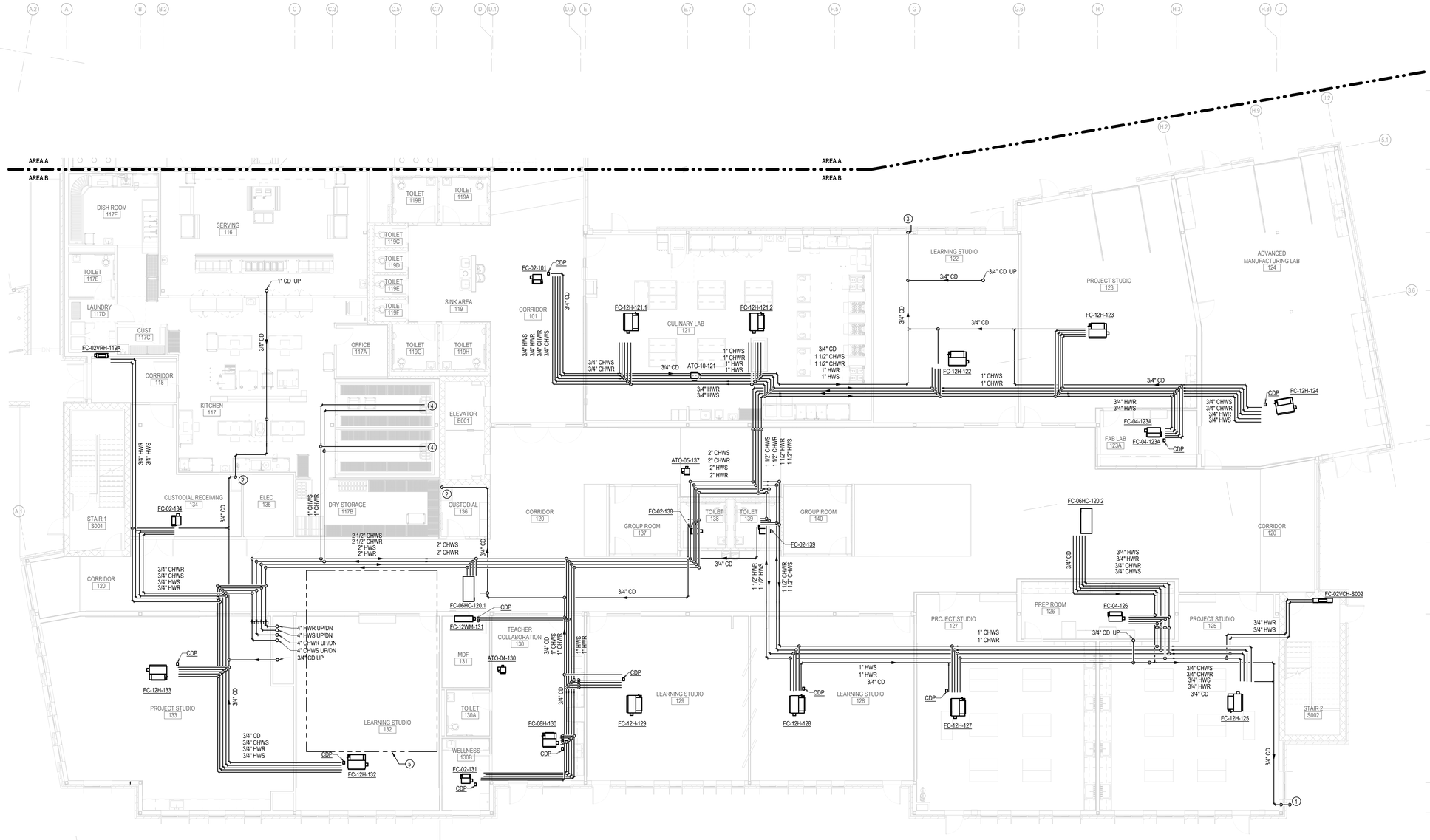
PLOTTING DATE & TIME: 10/2/2024 12:15:14 PM

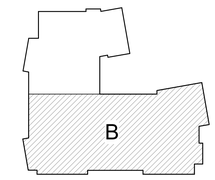
## KEY NOTES (NEW WORK)

1. CONDENSATE DRAIN TO PENETRATE EXTERIOR WALL 12" ABOVE GRADE. TERMINATE AT OPEN SITE DRAIN WITH AIR GAP. REFER TO CIVIL DRAWINGS FOR FURTHER DETAIL.
2. TERMINATE CONDENSATE DRAIN AT FLOOR SINK WITH 1" AIR GAP.
3. CONDENSATE DRAIN TO PENETRATE EXTERIOR WALL 8" ABOVE GRADE AT CHUNNEL. REFER TO CIVIL DRAWINGS FOR FURTHER DETAIL.
4. CONNECT CHWS/R TO WALK-IN COOLER AND WALK-IN FREEZER CONDENSING UNITS. REFER TO FOOD SERVICE DRAWINGS FOR FURTHER DETAIL.
5. CONTRACTOR SHALL NOT INSTALL ANY NON-REQUIRED HYDRONIC PIPES ABOVE FOOTPRINT OF DATA CENTER ON BASEMENT LEVEL.




1 -- MP101B LEVEL 1 PARTIAL PLAN - AREA B - PIPING
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN

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SUITE 400
RICHMOND, VA 23220
v 804.788.4774
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ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

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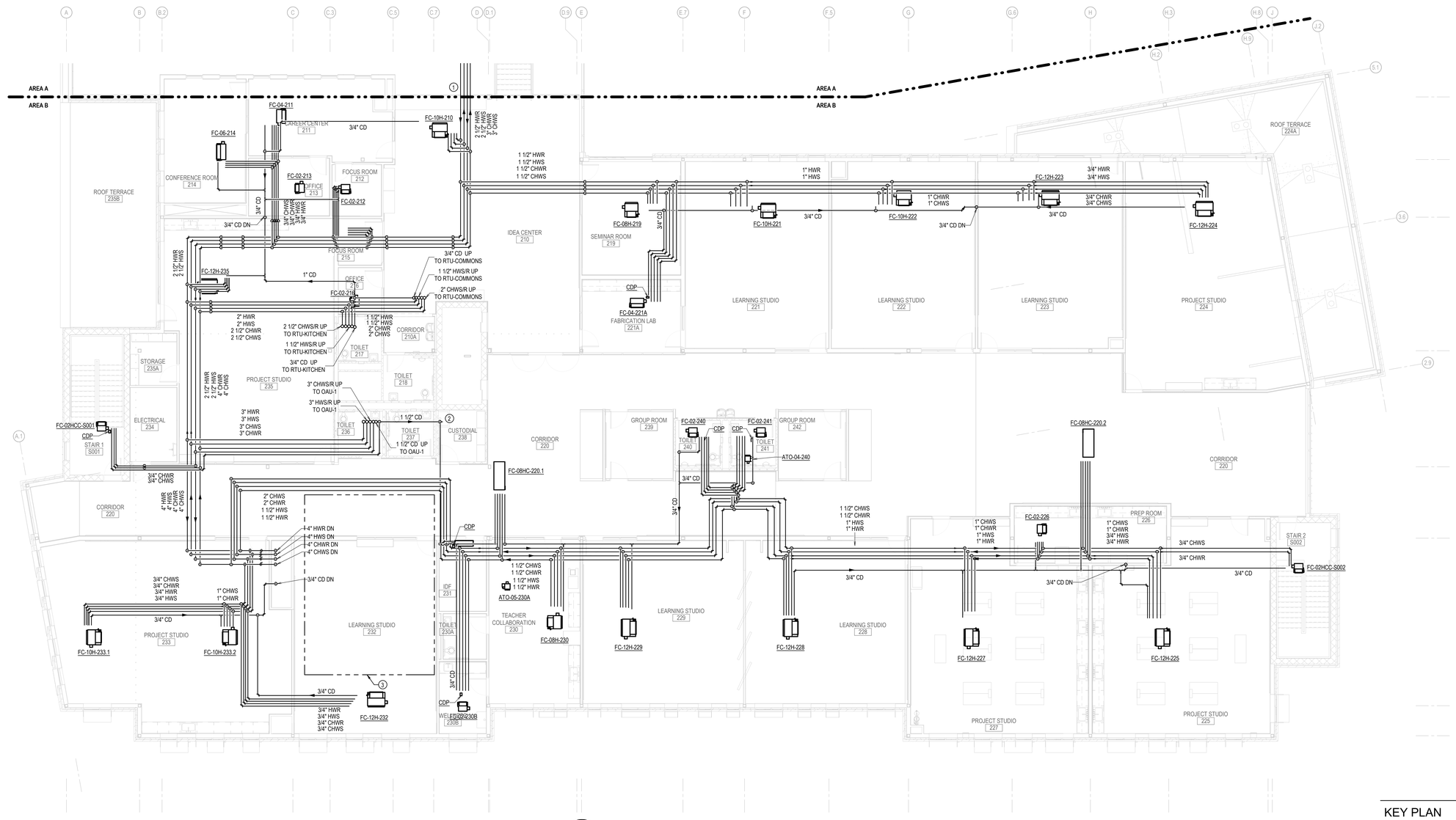
LEVEL 1 - PARTIAL PLAN AREA B - PIPING

# MP101B

## KEY NOTES (NEW WORK)

1. REFER TO SHEET MP102A FOR CONTINUATION.
2. TERMINATE CONDENSATE DRAIN AT FLOOR SINK WITH 1" AIR GAP.
3. CONTRACTOR SHALL NOT INSTALL ANY NON-REQUIRED HYDRONIC PIPES ABOVE FOOTPRINT OF DATA CENTER ON BASEMENT LEVEL.

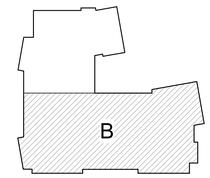



1 -- MP102B LEVEL 2 PARTIAL PLAN - AREA B - PIPING

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

0 2' 4' 8' 16'

KEY PLAN

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v 804.788.4774

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100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com


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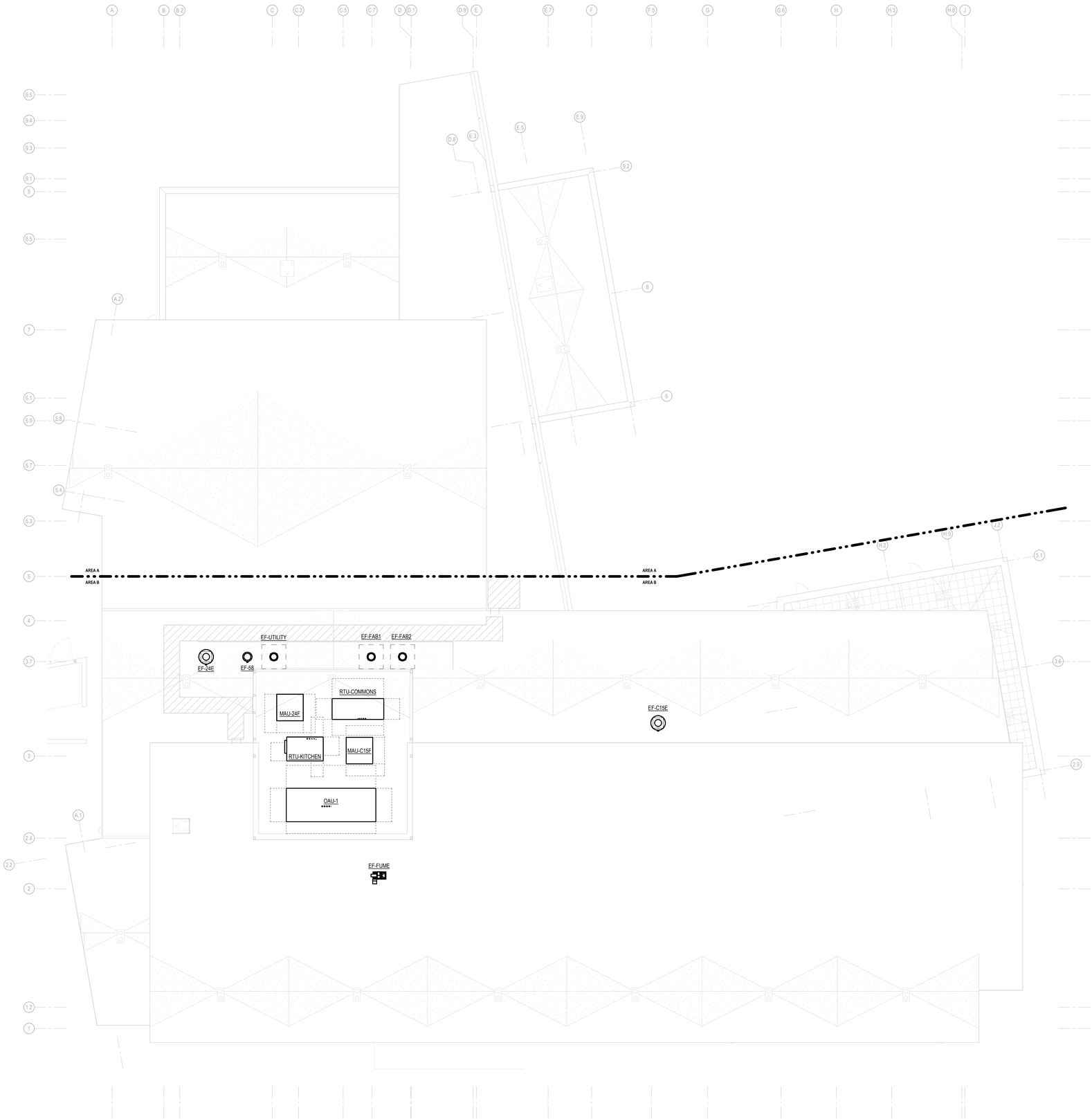
LEVEL 2 - PARTIAL PLAN AREA B - PIPING

# MP102B

## GENERAL NOTES (NEW WORK)

1. PROVIDE CONDENSATE DRAIN SIZED TO MATCH THE LARGER OF DRAIN PAN DISCHARGE OR 1 1/4". TERMINATE CONDNSATE AT CLOSET ROOF DRAIN.




1 / -- M103 ROOF PLAN - DUCTWORK
SCALE: 3/32" = 1'-0"
0 2' 4' 8' 16'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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
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2RW
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100 10th St. NE
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ROOF PLAN

# M103

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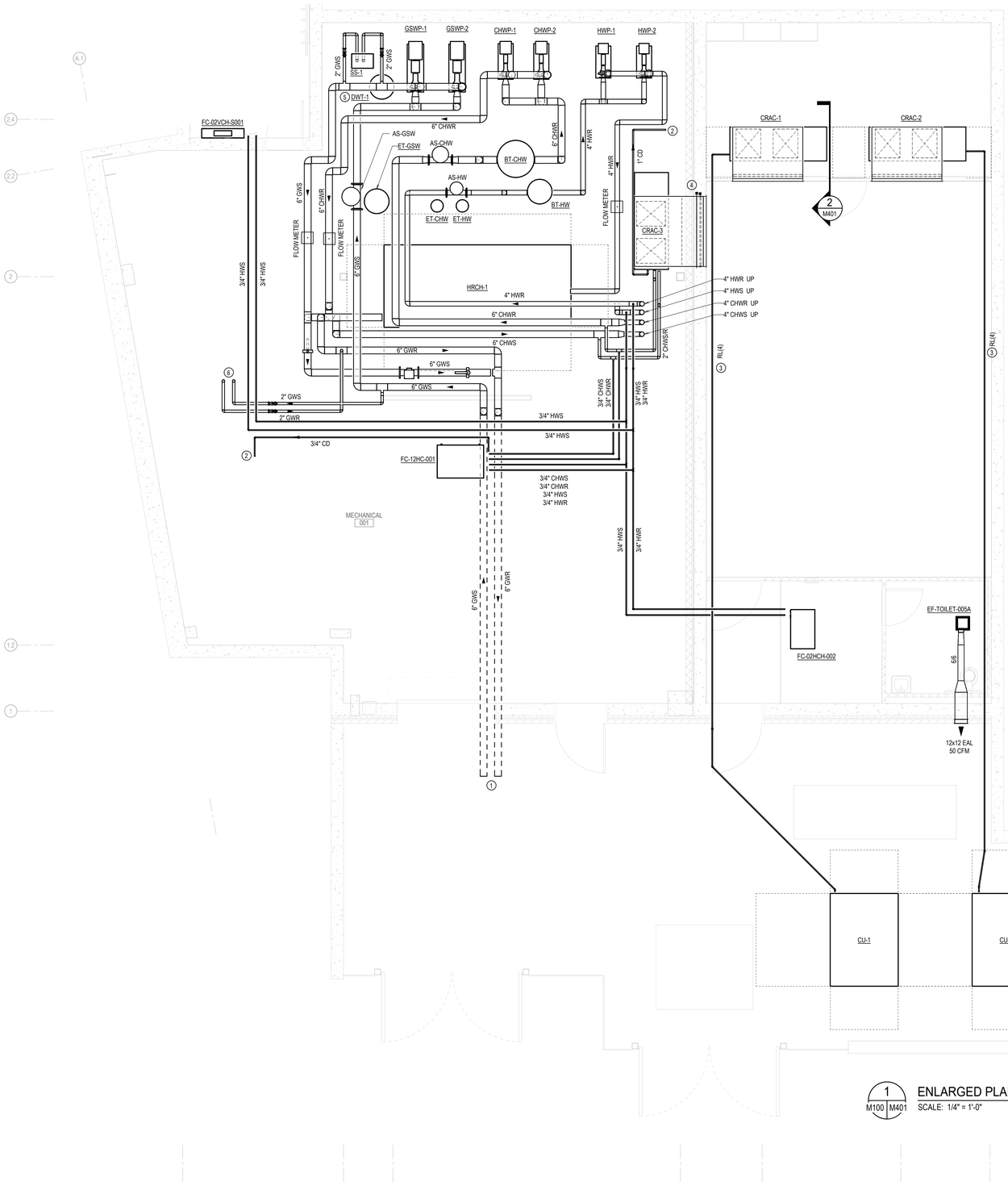
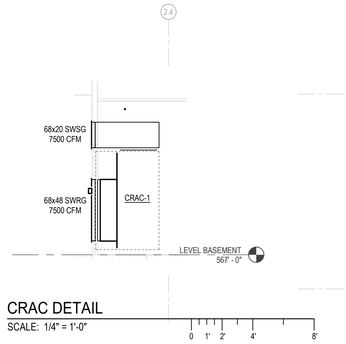



1 M100 | M401 ENLARGED PLAN: MECHANICAL 002 - DUCTWORK
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8'




2 M401 | M401 CRAC DETAIL
SCALE: 1/4" = 1'-0"
0 1' 2' 4' 8'

## KEY NOTES (NEW WORK)

1. CONTINUED ON CIVIL SITE UTILITIES PLAN.
2. TERMINATE CONDENSATE DRAIN AT FLOOR DRAIN WITH MINIMUM 1" AIR GAP.
3. DO NOT EXCEED MANUFACTURER'S MAXIMUM TOTAL EQUIVALENT PIPE LENGTH.
4. INSTALL BUBBLE TIGHT DAMPER TO SEAL ROOM UPON A SIGNAL FROM THE CLEAN AGENT FIRE PROTECTION SYSTEM.
5. TERMINATE DEWATERING TANK (DWT-1) DRAIN AT FLOOR DRAIN WITH MINIMUM 1" AIR GAP.
6. CONNECT 2" GWS/R TO DWH-1A AND DWH-1B. REFER TO SHEET P501 FOR PIPING CONNECTION DETAIL. REFER TO SHEET M802 FOR BAS CONTROL INTEGRATION.

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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
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100 10th St. NE
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BID DOCUMENTS
10/08/2024

ENLARGED PLANS

**M401**

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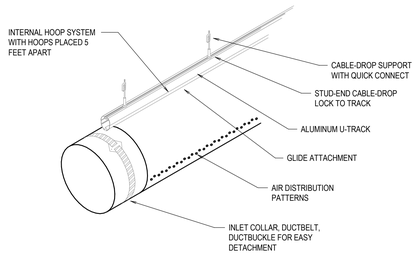
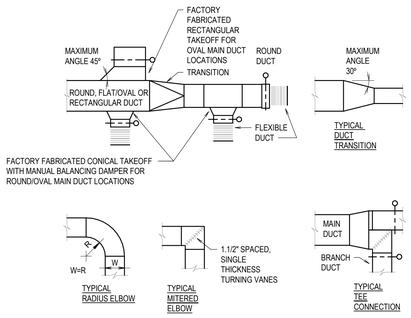



## 1 -- M501 FABRIC DUCT DETAIL

SCALE: NONE

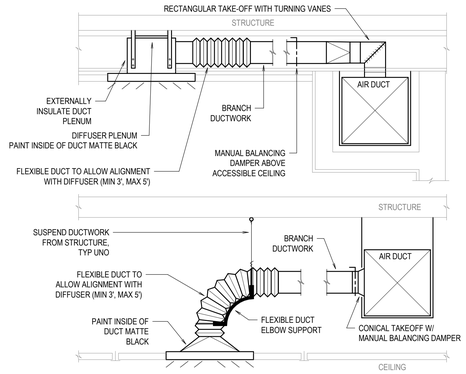
NOTES:
1. DETAIL SHOWN IS BASED ON DUCTSOX U TRACK SUSPENSION AND INTERAL HOOP SYSTEM AND IS INTENDED ONLY TO SHOW BASIC SIZE AND CONFIGURATION. REFER TO SPECIFICATIONS MFR'S INSTRUCTIONS FOR ADDITIONAL INFORMATION.
2. REFER TO FLOORPLANS FOR FOR AIR DISTRIBUTION PATTERNS.
3. SECURE SYSTEM TO ROOF DECK/STRUCTURE UNO.




## 2 -- M501 TYP DUCT CONNECTION DETAILS

SCALE: NONE

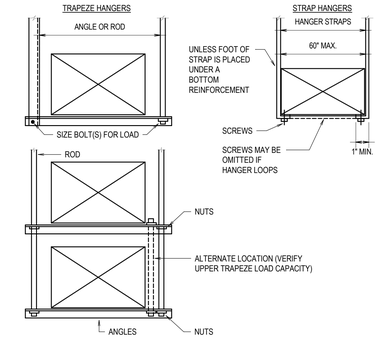
NOTES:
1. USE 1.5D RADIUS ELBOWS.




## 3 -- M501 CEILING AIR DEVICE DETAIL

SCALE: NONE

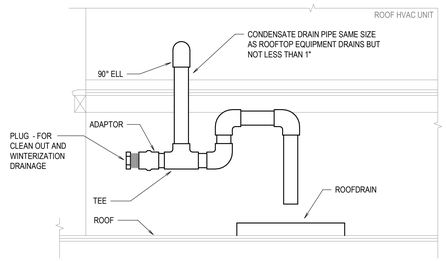
NOTES:
1. REFER TO ARCHITECTURAL DRAWINGS, MECHANICAL FLOORPLANS, AND FIELD VERIFY DIMENSIONS PRIOR TO INSTALLATION OF DUCTWORK.
2. INSTALL RECTANGULAR DUCTWORK TAKE-OFFS FOR ROUND BRANCH DUCTWORK AS REQUIRED TO COORDINATE WITH OTHER TRADES AND ACCOMMODATE CEILING HEIGHTS INDICATED ON ARCHITECTURAL RCPS.
3. SUPPORT REGISTER OR DIFFUSER PLENUM BOXES FROM STRUCTURE ABOVE, INDEPENDENTLY OF CEILING GRID.




## 4 -- M501 RECTANGULAR DUCT HANGER DETAILS

SCALE: NONE

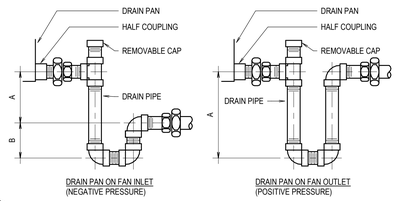
NOTES:
1. SUPPORT MATERIALS AND FASTENERS SHALL BE OF SAME MATERIAL AS SUPPORTED DUCTWORK.




## 7 -- M501 CONDENSATE DRAIN DETAIL - OUTDOOR UNITS

SCALE: NONE

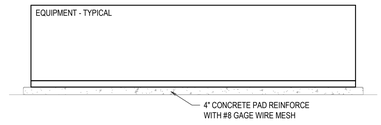
NOTES:
1. TERMINATE AT ROOFDRAIN.
2. SIZE TRAP IN ACCORDANCE WITH CONDENSATE DRAIN - INDOOR UNIT DETAIL.




## 6 -- M501 CONDENSATE DRAIN DETAIL - INDOOR UNITS

SCALE: NONE

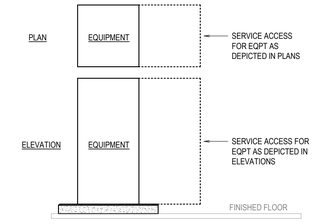
NOTES:
1. DRAIN PIPE TO BE SAME SIZE AS UNIT OUTLET, BUT NOT LESS THAN 1".
2. "A" = TWICE SYSTEM STATIC IN INCHES AT DRAIN POINT. "B" = 1/2 SYSTEM STATIC IN INCHES AT DRAIN POINT.
3. PROVIDE UNIONS BEFORE AND AFTER TRAP AS NOTED.




## 5 -- M501 CONCRETE PAD DETAIL

SCALE: NONE

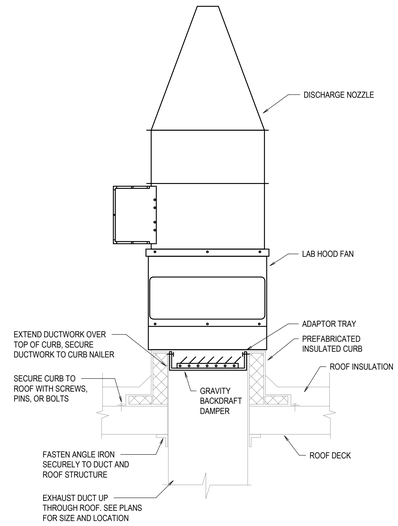
NOTES:
1. DETAIL IS TYPICAL FOR ALL FLOOR MOUNTED EQUIPMENT, UNO.
2. PROVIDE ADDITIONAL PAD DEPTH TO ACCOMMODATE COOLING COIL CONDENSATE DRAIN TRAPS.
3. EXTEND CONCRETE PAD MINIMUM OF 4 IN ON ALL SIDES.




## 8 -- M501 EQUIPMENT SERVICE CLEARANCE DETAIL

SCALE: NONE

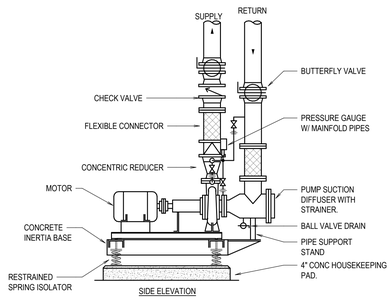
NOTES:
1. LOCATE ALL EQUIPMENT, WHICH MUST BE SERVICED, OPERATED, OR MAINTAINED IN FULLY ACCESSIBLE POSITIONS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. MAINTAIN A CLEAR PATH WITHOUT OBSTRUCTION TO ALLOW FOR ACCESS TO EQUIPMENT.
3. PROVIDE A MINIMUM OF THREE FEET OF CLEARANCE IN FRONT OF EQUIPMENT ACCESS DOORS AND COMPONENTS REQUIRING SERVICE, UNO.




## 9 -- M501 LAB HOOD FAN DETAIL

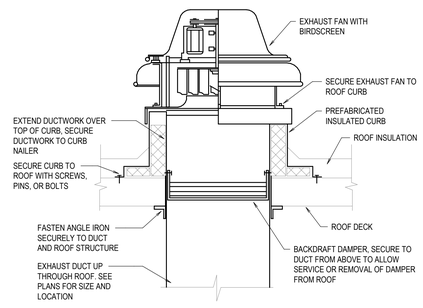
SCALE: NONE

NOTES:
1. INSTALL FAN IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. REFER TO ARCH'L DRAWINGS FOR ROOF PENETRATION DETAILS, ROOF CONSTRUCTION, AND ASSOCIATED FLASHING.
3. DETAIL IS TYPICAL FOR LAB HOOD EXHAUST FANS ONLY.




## 10 -- M501 BASE MOUNTED PUMP DETAIL

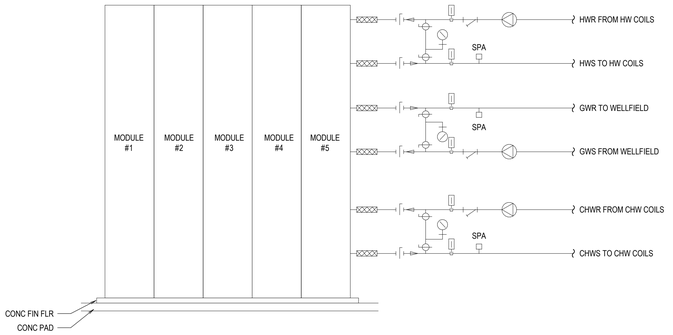
SCALE: NONE




## 11 -- M501 ROOFTOP EXHAUST FAN DETAIL

SCALE: NONE

NOTES:
1. INSTALL FAN IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. REFER TO ARCHL DRAWINGS FOR ROOF PENETRATION DETAILS, ROOF CONSTRUCTION, AND ASSOCIATED FLASHING.
3. DETAIL IS TYPICAL FOR DOWNBLAST AND UPBLAST TYPE FANS ONLY.




## 12 -- M501 HEAT RECOVERY CHILLER PIPING DETAIL

SCALE: NONE

NOTES:
1. INSTALL PIPING TO ALLOW FOR REMOVAL OF COMPRESSOR AND TO PROVIDE ACCESS TO CONTROL PANEL.
2. PROVIDE 30 MESH FOR DHRC STRAINERS.
3. SENSOR PIPE ASSEMBLY (SPA) FURNISHED BY EQUIPMENT MANUFACTURER INSTALLED BY MECHANICAL CONTRACTOR. SPA CONSISTS OF PRESSURE SENSOR, TEMPERATURE SENSOR, AND DRAIN FITTING. INSTALL 3-4 FEET FROM CHILLER.

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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
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2RW
ENERGY BY DESIGN
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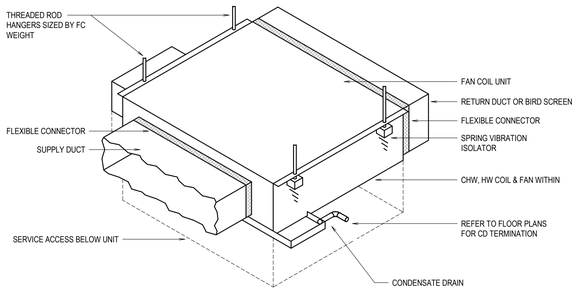
DETAILS

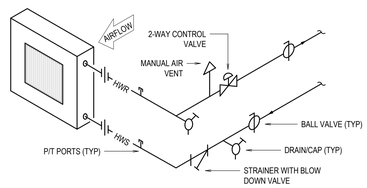
**M501**




1 -- M502 **DUCTED HORIZONTAL FAN COIL DETAIL**

SCALE: NONE

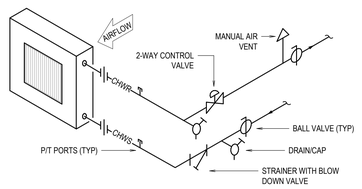
NOTES:
1. DETAIL IS TYPICAL FOR ALL HORIZONTAL FAN COIL UNITS.
2. PROVIDE FLEXIBLE DUCT CONNECTIONS FOR ALL AIR MOVING EQUIPMENT, UNO.
3. PROVIDE DUCT SIZES EQUIVILENT TO EQUIPMENT CONNECTIONS FOR ALL AIR MOVING EQUIPMENT, UNO.
4. COORDINATE WATER LEVEL DETECTION DEVICE WITH BAS CONTRACTOR.




2 -- M502 **INTERIOR HEATING WATER COIL PIPING DETAIL**

SCALE: NONE

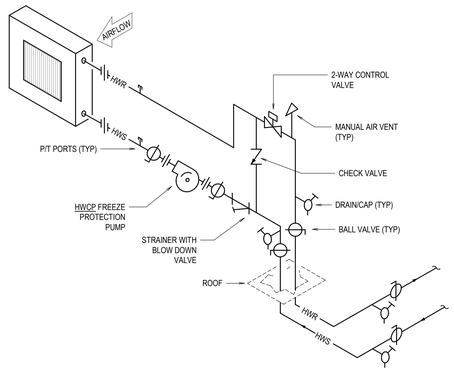
NOTES:
1. DETAIL IS TYPICAL FOR ALL INTERIOR HEATING WATER COILS, UNO.
2. TWO-WAY CONTROL VALVE INDUSTRIAL GRADE PRESSURE INDEPENDENT TYPE WITH P/T PORTS SHALL BE FURNISHED BY BAS CONTRACTOR, INSTALLED BY MECHANICAL CONTRACTOR.




3 -- M502 **INTERIOR CHILLED WATER COIL PIPING**

SCALE: NONE

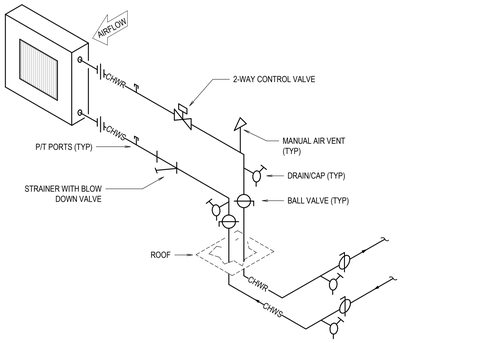
NOTES:
1. DETAIL IS TYPICAL FOR ALL INTERIOR CHILLED WATER COILS AND CONNECTION TO WALK IN FREEZER/COOLER.
2. TWO-WAY CONTROL VALVE INDUSTRIAL GRADE PRESSURE INDEPENDENT TYPE WITH P/T PORTS SHALL BE FURNISHED BY BAS CONTRACTOR, INSTALLED BY MECHANICAL CONTRACTOR.




4 -- M502 **EXTERIOR PREHEAT WATER COIL PIPING DETAIL**

SCALE: NONE

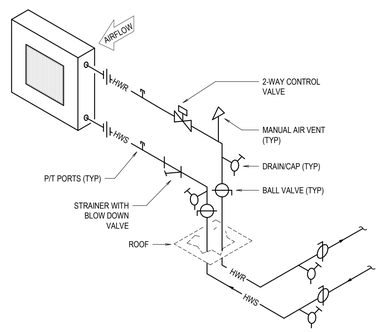
NOTES:
1. DETAIL IS TYPICAL FOR OAU-1 AND RTU-KITCHEN PREHEAT WATER COILS, UNO.
2. TWO-WAY CONTROL VALVE INDUSTRIAL GRADE PRESSURE INDEPENDENT TYPE WITH P/T PORTS SHALL BE FURNISHED BY BAS CONTRACTOR, INSTALLED BY MECHANICAL CONTRACTOR.
3. ALL PIPING SHOWN ABOVE ROOF SHALL BE INSTALLED WITHIN INSULATED PIPING ENCLOSURE (DOGHOUSE). COORDINATE TO ALLOW ACCESS AND PROVIDE CLEARANCES.




5 -- M502 **EXTERIOR CHILLED WATER COIL PIPING DETAIL**

SCALE: NONE

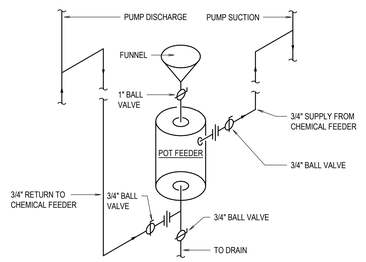
NOTES:
1. DETAIL IS TYPICAL FOR ALL EXTERIOR CHILLED WATER COILS, UNO.
2. TWO-WAY CONTROL VALVE INDUSTRIAL GRADE PRESSURE INDEPENDENT TYPE WITH P/T PORTS SHALL BE FURNISHED BY BAS CONTRACTOR, INSTALLED BY MECHANICAL CONTRACTOR.
3. ALL PIPING SHOWN ABOVE ROOF SHALL BE INSTALLED WITHIN INSULATED PIPING ENCLOSURE (DOGHOUSE). COORDINATE TO ALLOW ACCESS AND PROVIDE CLEARANCES.




6 -- M502 **EXTERIOR HEATING WATER COIL PIPING DETAIL**

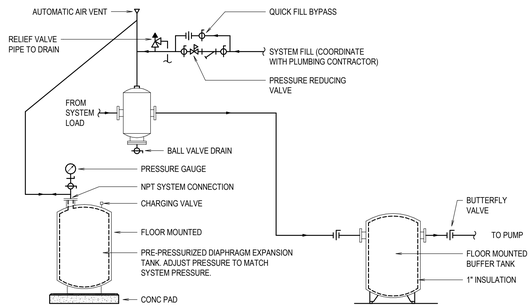
SCALE: NONE

NOTES:
1. DETAIL IS TYPICAL FOR RTU-COMMON HEATING WATER COIL.
2. TWO-WAY CONTROL VALVE INDUSTRIAL GRADE PRESSURE INDEPENDENT TYPE WITH P/T PORTS SHALL BE FURNISHED BY BAS CONTRACTOR, INSTALLED BY MECHANICAL CONTRACTOR.
3. ALL PIPING SHOWN ABOVE ROOF SHALL BE INSTALLED WITHIN INSULATED PIPING ENCLOSURE (DOGHOUSE). COORDINATE TO ALLOW ACCESS AND PROVIDE CLEARANCES.




7 -- M502 **POT FEEDER DETAIL**

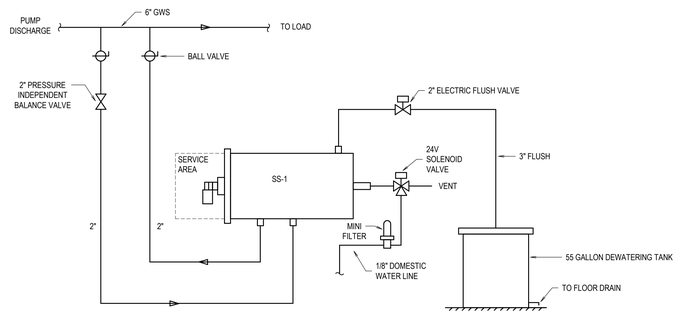
SCALE: NONE




8 -- M502 **EXPANSION TANK DETAIL**

SCALE: NONE

NOTES:
1. DESIGN IS TYPICAL FOR CHW SYSTEM, HW SYSTEM, AND GWS SYSTEM.
2. EXPANSION TANKS MAY BE HUNG FROM STRUCTURE INSTEAD OF FLOOR MOUNTED, IF STRUCTURAL DETAILS ARE SUBMITTED TO A/E FOR REVIEW.




9 -- M502 **SOLID SEPARATOR DETAIL**

SCALE: NONE

NOTES:
1. DETAIL BASED ON TEKLEEN LPF SIDESTREAM FILTER.
2. DETAIL IS TYPICAL FOR GSW SYSTEM.
3. CONTRACTOR SHALL COORDINATE SHIPPED-LOOSE COMPONENTS AND PIPE ACCESSORIES WITH EQUIPMENT MANUFACTURER.
4. ELECTRIC FLUSH VALVE, SOLENOID VALVE, AND AND MINI-FILTER PROVIDED BY EQUIPMENT MANUFACTURER
5. PRESSURE INDEPENDENT BALANCE VALVE PROVIDED BY BAS CONTRACTOR, INSTALLED BY MECHANICAL CONTRACTOR.
6. DEWATERING TANK TO DRAIN TO FLOOR DRAIN IN THE MECHANICAL ROOM.
7. PLUMBING CONTRACTOR TO PROVIDE 1/8" NPT DOMESTIC WATER CONNECTION.
8. ELECTRICAL CONTRACTOR TO PROVIDE 120V CIRCUIT FOR DC BACKFLUSH SYSTEM.
9. SS-1 TO BE SUPPORTED BY PIPING CONNECTIONS.

QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

COMMONWEALTH OF VIRGINIA
MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

DETAILS

**M502**

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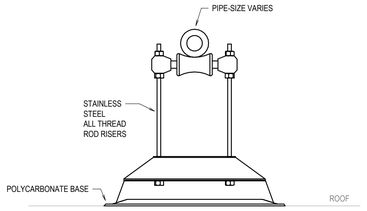
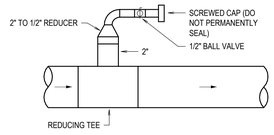



## 1 -- M503 EXTERIOR PIPE SUPPORT DETAIL

SCALE: NONE

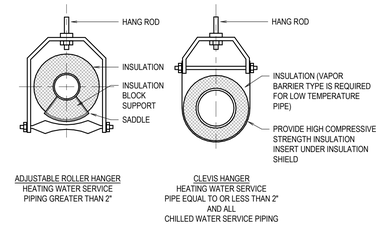
NOTES:
1. SPACE SUPPORTS IN ACCORDANCE WITH SPECIFICATIONS.
2. SECURE PIPING TO EACH SUPPORT.
3. ALL COMPONENTS SHALL BE OUTDOOR WEATHER RATED.




## 2 -- M503 PIPING AIR VENT DRAIN DETAIL

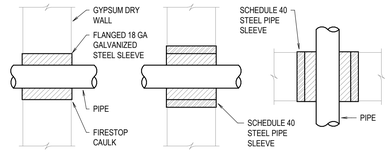
SCALE: NONE

NOTES:
1. INSTALL AIR VENT AT ALL HIGH POINTS IN ALL PIPING SYSTEMS.




## 3 -- M503 PIPE HANGER DETAIL

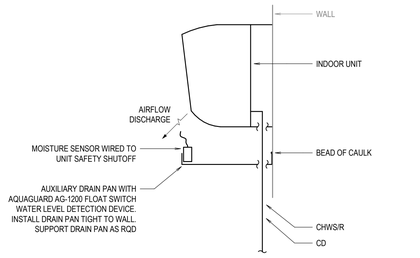
SCALE: NONE




## 4 -- M503 PIPE SLEEVE DETAIL

SCALE: NONE

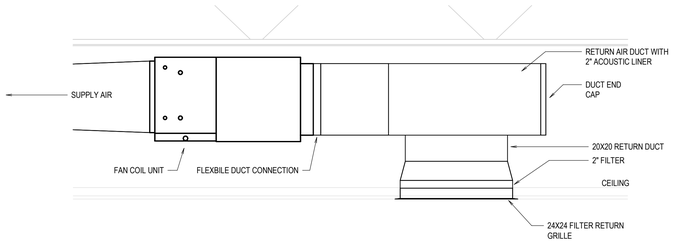
NOTES:
1. DETAIL IS TYPICAL FOR CHW,HW, REFRIGERANT AND CONDENSATE PIPING WALL PENETRATIONS IN NON-FIRE RATED WALLS.
2. PROVIDE ESCUTCHEONS WHERE PENETRATIONS ARE EXPOSED IN FINISHED AREAS.




## 5 -- M503 WALL-MOUNTED FAN COIL DETAIL

SCALE: NONE

NOTES:
1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
2. INSTALL WATER LEVEL DETECTION DEVICE SUCH THAT IT ACTIVATES UPON PRESENCE OF MOISTURE IN PAN. ACTIVATION OF DEVICE SHALL SHUT DOWN UNIT AND SEND AN ALARM TO THE BAS.
3. SLOPE DRIP PAN TOWARDS MOISTURE SENSOR.
4. INSTALL DRAIN PAN SO AS TO NOT INTERFERE WITH DISCHARGE AIRFLOW PATTERN.
5. OFFSET CHWS/R AND CD PIPES TO AVOID CONFLICT WITH AUXILIARY DRAIN PAN.




## 6 -- M503 FILTER RETURN GRILLE DETAIL

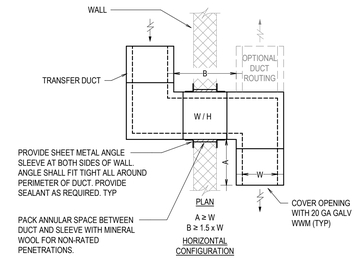
SCALE: NONE




## 7 -- M503 PUMP INSULATION DETAIL

SCALE: NONE

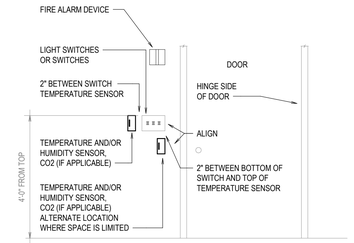
NOTES:
1. APPLICABLE FOR ALL BASE MOUNTED PUMPS.
2. TWO HALVES OF INSULATION BOX SHALL BE SECURED BY QUICK CONNECTING LATCHES. PROVIDE MULTIPLE INSULATION BOX SECTIONS FOR LARGER PUMPS, AS REQUIRED.




## 8 -- M503 SOUND ATTENUATING TRANSFER DUCT DETAIL

SCALE: NONE

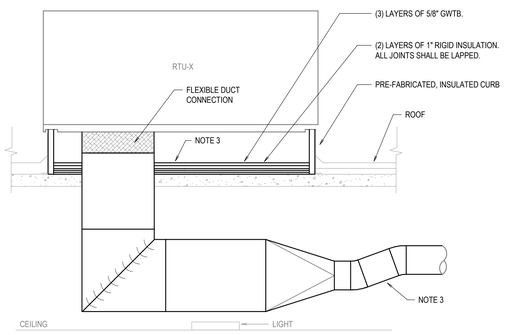
NOTES:
1. INSTALL DUCT ABOVE CEILING. COORDINATE INSTALLATION WITH OTHER TRADES.
2. REFER TO FLOOR PLANS FOR TRANSFER DUCT LOCATIONS AND CONFIGURATIONS.
3. INSTALL DUCT IN ACCORDANCE WITH SMACNA, WITH NO TURNING VANES IN ELBOWS.
4. PROVIDE 1" THICK DUCT LINER.
5. DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE CLEAR DIMENSIONS FROM LINER SURFACE TO LINER SURFACE.
6. W = DUCT WIDTH; H = DUCT HEIGHT.




## 9 -- M503 TEMPERATURE SENSOR LOCATION

SCALE: NONE

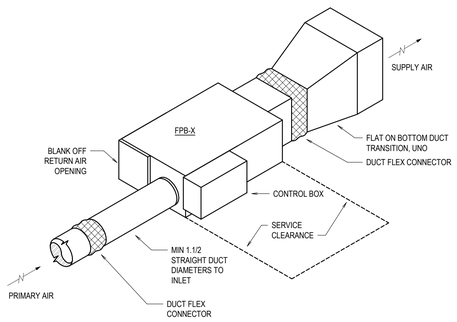
NOTES:
1. DETAIL IS TYPICAL FOR ALL TEMPERATURE [HUMIDITY] [CARBON DIOXIDE] SENSORS INSTALLED NEAR LIGHT SWITCHES ONLY WHERE ADEQUATE WALL SPACE IS LIMITED AND DEEMED INSUFFICIENT FOR INSTALLATIONS ADJACENT LIGHTING SWITCHES AND SENSORS.
2. INSTALL ALL OTHER TEMPERATURE SENSORS WITH 4'-0" FROM FINISHED FLOOR TO TOP OF TEMPERATURE SENSOR BOX. REFER TO BAS DRAWINGS FOR FURTHER DETAIL.
3. WHEN ABOVE MOUNTING PROCEDURE IS IMPOSSIBLE HINGE SIDE MOUNTING WILL BE PERMITTED WITH APPOX. 6" CLEARANCE FROM EDGE OF DOOR (IN OPEN POSITION) TO EDGE OF THERMOSTAT & LIGHT SWITCH. IF NEITHER INSTALLATION IS POSSIBLE, SWITCHES AND CONTROLS SHALL BE LOCATED AS DIRECTED BY ENGINEER. DO NOT INSTALL ABOVE DIMMER SWITCHES.




## 10 -- M503 ROOFTOP UNIT DETAIL

SCALE: NONE

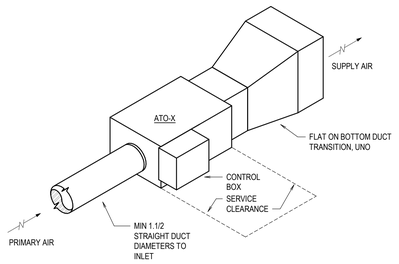
NOTES:
1. DETAIL IS TYPICAL FOR ALL RTU'S.
2. OFFSET DUCT AS NECESSARY TO ALLOW FOR MAIN DUCT TO BE INSTALLED AS HIGH AS POSSIBLE. COORDINATE WITH OTHER DUCTWORK, PIPING AND CONDUIT.
3. PROVIDE (3) LAYERS, 5/8" THICK, GWB MATERIAL FIT TIGHTLY INTO CURB AROUND ENTIRE CURB AND ALL PENETRATIONS. SEAL WITH SILICONE SEALANT ALL AROUND AND AT EACH PENETRATION. GLUE DRYWALL SHEETS TOGETHER. COMPLETE ONE LAYER AT A TIME UNTIL ALL THREE LAYERS ARE INSTALLED. PROVIDE (2) LAYERS OF 1" RIGID INSTALLATION SECURED DIRECTLY ABOVE GWB ASSEMBLY. ENSURE THAT BOTTOM OF UNIT IS NOT EXPOSED TO SPACE BELOW. CUT OUT AREA TO PENETRATE DUCTS, CONDUITS AND PIPES AS NECESSARY. DO NOT CUT OUT ENTIRE AREA UNDER ROOF CURB. FILL IN ANY AREA CUTOUT WITH ACOUSTICAL SYSTEM OF DRYWALL AND INSULATION INCLUDING PIPING DOGHOUSE.




## 11 -- M503 SERIES FAN POWERED BOX DETAIL

SCALE: NONE

NOTES:
1. PROVIDE MIN 1-1/2 DUCT DIAMETERS STRAIGHT ROUND DUCT UPSTREAM OF ATU PRIMARY AIR INLET. DUCT SHALL BE SIZE OF INLET CONNECTION.
2. PLENUM INLET TO BE SEALED CLOSED.
3. SUPPORT UNIT FROM STRUCTURE WITH OPEN SPRING ISOLATION HANGERS.




## 12 -- M503 SHUT OFF ATU DETAIL

SCALE: NONE

NOTES:
1. PROVIDE MIN 1-1/2 DUCT DIAMETERS STRAIGHT ROUND DUCT UPSTREAM OF ATU PRIMARY AIR INLET. DUCT SHALL BE SIZE OF INLET CONNECTION.
2. SUPPORT UNIT FROM STRUCTURE.

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QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

COMMONWEALTH OF VIRGINIA
MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

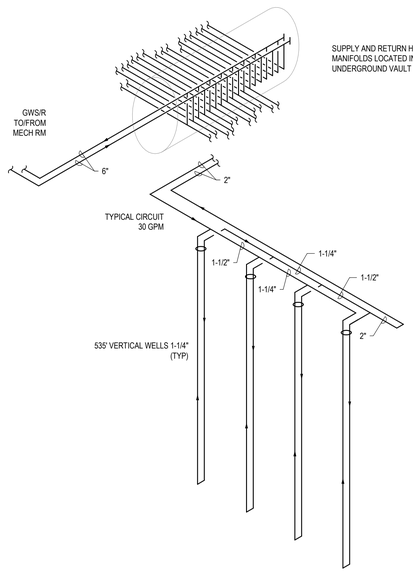
PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

DETAILS

# M503

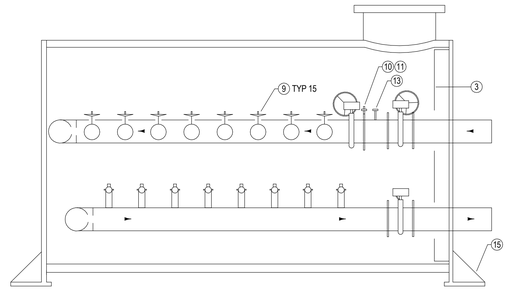



ALL CIRCUITS: PARALLEL PIPING IN REVERSE- RETURN CONFIGURATION. HEADER PIPING FOR EACH CIRCUIT LOCATED IN SINGLE TRENCH.

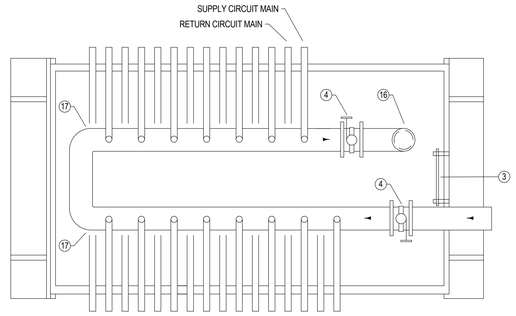
## 1 -- M504 GEOTHERMAL CIRCUIT DETAIL

SCALE: NONE

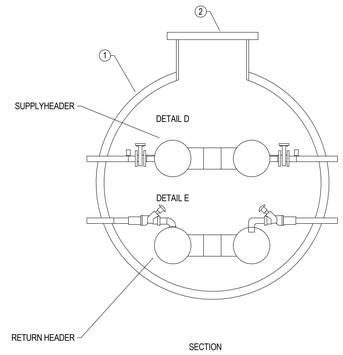
NOTES:
1. REFER TO FLOOR PLANS, MECHANICAL SITE PLAN, AND CIVIL SITE PLAN FOR ADDITIONAL INFORMATION.
2. PROVIDE 4 ADDITIONAL SUPPLY AND RETURN CIRCUIT MAINS, WITH ALL PIPING ACCESSORIES, VALVES, ETC. FOR FUTURE GEOTHERMAL WELLS AS SHOWN ON SITE PLANS.



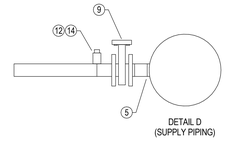

ELEVATION



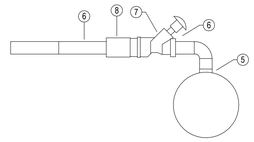

PLAN
(RETURN HEADER NOT SHOWN FOR CLARITY)




SECTION




DETAIL D
(SUPPLY PIPING)

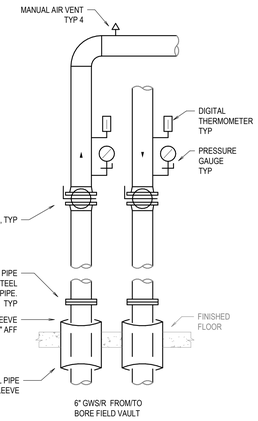



DETAIL E
(RETURN PIPING)

1. PRE-FABRICATED VAULT.
2. WATER TIGHT MAN HOLE WITH FLANGE SET & NEOPRENE GASKET.
3. OSHA APPROVED LADDER.
4. 6" GEAR OPERATED BUTTERFLY VALVE
5. 6"x2" DR 9 BRANCH SADDLE.
6. 2" BRASS MPT TRANS.
7. 2" CALIBRATED BALANCING VALVE.
8. 2" FULL PORT BRASS BALL VALVE.
9. 2" LEVER HANDLE BUTTERFLY VALVE.
10. 1/4" FPT x 3/4" SOCKET PORT.
11. 1/4" MPT BACK CONNECTION PRESSURE GAUGE.
12. 1/2" FPT x 3/4" SOCKET.
13. 1/2" MPT TEMPERATURE GAUGE.
14. 1/2" BRASS P/T PORT.
15. BALLASTING.
16. CONTINUATION TO 6" VALVED MANUAL BY-PASS.
17. PROVIDE 4 ADDITIONAL SUPPLY AND RETURN CIRCUIT MAINS, WITH ALL PIPING ACCESSORIES, VALVES, ETC. FOR FUTURE GEOTHERMAL WELLS AS SHOWN ON SITE PLANS.

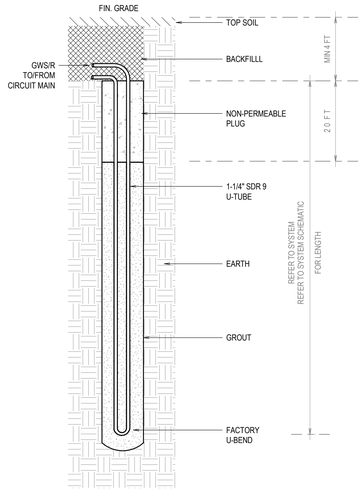
## 2 -- M504 PRE-FABRICATED GEO VAULT DETAIL

SCALE: NONE



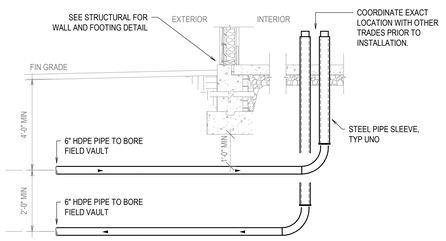

## 3 -- M504 GROUND SOURCE PIPING DETAIL 1

SCALE: NONE




## 4 -- M504 VERTICAL WELLFIELD BORE DETAIL

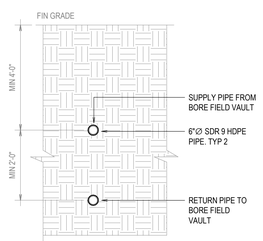
SCALE: NONE




## 5 -- M504 GROUND SOURCE PIPING DETAIL 2

SCALE: NONE

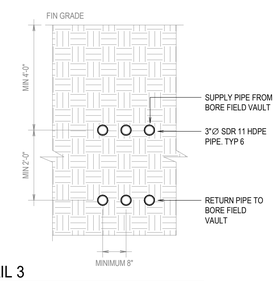
NOTES:
1. REFER TO FLOOR PLANS FOR EXACT LOCATIONS OF BUILDING PIPING ENTRANCE.



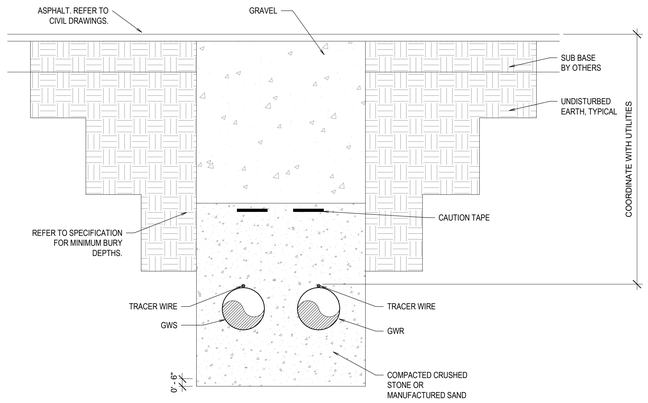

## 6 -- M504 GROUND SOURCE PIPING DETAIL 3

SCALE: NONE

NOTES:
1. INSTALL CIRCUIT MAINS SIMILARLY, UNO.




NOTES:
1. INSTALL CIRCUIT MAINS SIMILARLY, UNO.




## 7 -- M504 M - TYPICAL GEOTHERMAL MAIN PIPING TRENCH DETAIL (PAVED)

SCALE: NONE

NOTES:
1. REFER TO SPECIFICATION SECTION 232113.33 FOR EARTHWORK AND BACKFILL REQUIREMENTS.
2. REFER TO SPECIFICATION SECTION 230500 FOR COMMON REQUIREMENTS.


QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com


COMMONWEALTH OF VIRGINIA
MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

DETAILS

# M504

PATH & FILENAME: C:\Users\Bethany\Documents\Revit Files\19168_M23_ACPS HS Center II_Mech_BethanyB.rvt
PLOTTING DATE & TIME: 10/2/2024 12:16:16 PM

## DESIGN CONDITIONS - HIGH SCHOOL CENTER II

| LOCATION | OUTDOOR SUMMER, dB/wB | INDOOR OCCUPIED SUMMER, dB/RH/DP | INDOOR UNOCCUPIED SUMMER, dB/RH/DP | OUTDOOR WINTER, Db | INDOOR OCCUPIED WINTER, dB/RH/DP | INDOOR UNOCCUPIED WINTER, dB/RH/DP |
|---|---|---|---|---|---|---|
| COMMONS | 95/76 | 75/50/55 | 85/50/60 | 15 | 70/-/- | 55/-/- |
| KITCHEN | 95/76 | 75/50/55 | 85/50/64 | 15 | 70/-/- | 55/-/- |
| CULINARY LAB | 95/76 | 75/50/55 | 85/50/64 | 15 | 70/-/- | 55/-/- |
| DATA CENTER | 95/76 | X | 70/50/50.6 | 15 | X | 70/50/50.6 |
| CLASSROOMS/OFFICES | 95/76 | 75/50/55 | 80/50/60 | 15 | 70/-/- | 62/-/- |

NOTES:
1. OUTDOOR DESIGN CONDITIONS BASED ON ASHRAE CLIMATE DATA FOR CHARLOTTESVILLE, VA.
2. INDOOR DESIGN CONDITIONS BASED ON VECC, UNO.

## 23 0719: HYDRONIC PIPING INSULATION SCHEDULE

| SYSTEM | LOCATION | TYPE | MINIMUM INSULATION THICKNESS, NOMINAL PIPE SIZE, IN: < 1 | 1 TO < 1.1/2 | 1.1/2 TO < 4 | 4 TO < 8 | JACKET |
|---|---|---|---|---|---|---|---|
| HEATING WATER PIPING: 100-130°F | INTERIOR | GLASS FIBER, RIGID | 1 | 1 | 1.5 | 1.5 | - |
| GROUND SOURCE WATER PIPING: 52-95°F | INTERIOR | GLASS FIBER, RIGID | 1/2 | 1/2 | 1/2 | 1/2 | - |
| GROUND SOURCE WATER PIPING: 52-95°F | EXTERIOR | NONE | - | - | - | - | - |
| CHILLED WATER PIPING: 40-60°F | INTERIOR | GLASS FIBER, RIGID | 1/2 | 1/2 | 1 | 1 | - |
| REFRIGERANT PIPING | INTERIOR | ELASTOMERIC | 1 | 1 | 1 | - | - |
| REFRIGERANT PIPING | EXTERIOR | ELASTOMERIC | 1 | 1 | 1 | - | ALUMINUM |
| CONDENSATE PIPING | INTERIOR | GLASS FIBER, RIGID | 1/2 | 1/2 | 1/2 | 1/2 | - |

NOTES: APPLY TO ALL, UNO.
1. INSULATE ENTIRE SYSTEMS, INCLUDING EQUIPMENT AND HYDRONIC SPECIALTIES.
2. PAINT ALL EXPOSED PIPING IN FINISHED SPACES.

## 23 3700: SIDEWALL AIR OUTLET & INLET SCHEDULE

| MARK | DESCRIPTION | MOUNTING | NECK | BASIS OF DESIGN: MFR | MODEL | MATERIAL | NOTES |
|---|---|---|---|---|---|---|---|
| SWSG | 0° DOUBLE DEFLECTION | SURFACE - FLUSH MTD | - | PRICE | 600 | ALUMINUM | 1-4 |
| SWRG, SWTG, SWEG | 45° SINGLE DEFLECTION | SURFACE - FLUSH MTD | - | PRICE | 600 | ALUMINUM | 1-3 |
| SWRG-H | 45° SINGLE DEFLECTION, HEAVY DUTY | SURFACE - FLUSH MTD | - | PRICE | 98 | ALUMINUM | 1-3 |
| DEV | DRYER EXHAUST "FOREVER" VENT | - | 4" | FOREVER | - | STAINLESS STEEL | - |
| EAL | EXHAUST AIR LOUVER | - | - | GREENHECK | ESD 435 | ALUMINUM | 3, 5 |

NOTES:
1. COORDINATE EXACT LOCATIONS WITH REFLECTED CEILING PLAN-ARCHITECTURAL.
2. AIR DEVICES INDICATED WITHIN CEILING ARE TO BE INSTALLED WITHIN CEILINGS. REFER TO ARCH'L RCP FOR ADD'L DETAIL.
3. CONNECTED DUCT SIZE WILL INDICATE NECK SIZE, UNO.
4. PROVIDE FRONT BLADES PARALLEL TO LONG DIMENSION.
5. PROVIDE MFR STANDARD PAINT COLORS FOR SELECTION BY THE ARCHITECT.

## 23 3100: ROUND FLEX DUCT SCHEDULE

| CFM RANGE | DIA, IN | VELOCITY RANGE (FPM): MIN | NOM | MAX |
|---|---|---|---|---|
| 0-100 | 6 | 50 | 250 | 500 |
| 105-175 | 8 | 290 | 400 | 500 |
| 180-275 | 10 | 320 | 420 | 500 |
| 280-390 | 12 | 350 | 430 | 500 |
| 395-535 | 14 | 365 | 435 | 500 |

NOTES:
1. SIZES ABOVE SHALL BE PROVIDED FOR ALL RIGID ROUND RUN-OUTS AND FLEXIBLE DUCT CONNECTIONS TO AIR DIFFUSERS, REGISTERS, AND GRILLES UNO ON FLOOR PLANS.
2. REFER TO DIVISION 23 SPECIFICATIONS FOR FURTHER FLEXIBLE DUCT REQUIREMENTS.

## 23 3700: AIR OUTLET & INLET SCHEDULE

| MARK | DESCRIPTION | EQUIPMENT TYPE | MOUNTING | AIRFLOW, CFM: MIN | MAX | MAX APD, IN WC | MAX NC | FILTER FRAME, IN | SIZE, IN: NECK | FACE | BASIS OF DESIGN: MFR | MODEL | MATERIAL | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CD-1 | CEILING SUPPLY DIFFUSER | PLAQUE | LAY-IN T-BAR | 0 | 535 | 0.05 | 20 | - | VARIES | 24 X 24 | PRICE | ASPD | ALUMINUM | 1-3 |
| CD-2 | CEILING SUPPLY DIFFUSER | PLAQUE | SURFACE | 0 | 535 | 0.05 | 20 | - | VARIES | 24 X 24 | PRICE | ASPD | ALUMINUM | 1-3 |
| LSD-1 | LINEAR SLOT DIFFUSER | 3-SLOT, 3/4" SLOT WIDTH | SUFACE | 0 | 250 | 0.08 | 23 | - | 8Ø | 6 X 48 | PRICE | SDS75 | ALUMINUM | 1, 4 |
| LSD-2 | LINEAR SLOT DIFFUSER | 2-SLOT, 3/4" SLOT WIDTH | SUFACE | 0 | 150 | 0.09 | 21 | - | 7Ø | 4 X 48 | PRICE | SDS75 | ALUMINUM | 1, 4 |
| LSR-1 | LINEAR SLOT RETURN | 2-SLOT, 3/4" SLOT WIDTH | SUFACE | 0 | 200 | 0.01 | 20 | - | - | 4 X 48 | PRICE | SDR75 | ALUMINUM | 1, 5 |
| LSR-2 | LINEAR SLOT RETURN | 2-SLOT, 3/4" SLOT WIDTH | SUFACE | 0 | 200 | 0.01 | 20 | - | - | 4 X 36 | PRICE | SDR75 | ALUMINUM | 1, 5 |
| FRG-1 | FILTER RETURN GRILLE | PERFORATED | LAY-IN T-BAR | 0 | 2100 | 0.05 | 20 | 2 | 20 X 20 | 24 X 24 | PRICE | 10AFF | ALUMINUM | 1 |
| FRG-2 | FILTER RETURN GRILLE | PERFORATED | SURFACE | 0 | 2100 | 0.05 | 20 | 2 | 20 X 20 | 24 X 24 | PRICE | 10AFF | ALUMINUM | 1 |
| CRG-1 | CEILING RETURN GRILLE | PERFORATED | LAY-IN T-BAR | 0 | 2100 | 0.05 | 20 | - | VARIES | 24 X 24 | PRICE | 10A | ALUMINUM | 1, 6 |
| CRG-2 | CEILING RETURN GRILLE | PERFORATED | SURFACE | 0 | 2100 | 0.05 | 20 | - | VARIES | VARIES | PRICE | 10A | ALUMINUM | 1, 7 |
| CTG-1 | CEILING TRANSFER GRILLE | PERFORATED | LAY-IN T-BAR | 0 | 1875 | 0.05 | 20 | - | VARIES | 24 X 24 | PRICE | 10A | ALUMINUM | 1, 6 |
| CTG-2 | CEILING TRANSFER GRILLE | PERFORATED | SURFACE | 0 | 1875 | 0.1 | 20 | - | VARIES | VARIES | PRICE | 10A | ALUMINUM | 1, 7 |
| CEG-1 | CEILING EXHAUST GRILLE | PERFORATED | LAY-IN T-BAR | 0 | 2100 | 0.05 | 20 | - | VARIES | 24 X 24 | PRICE | 10A | ALUMINUM | 1, 6 |
| CEG-2 | CEILING EXHAUST GRILLE | PERFORATED | SURFACE | 0 | 2100 | 0.1 | 20 | - | VARIES | VARIES | PRICE | 10A | ALUMINUM | 1, 7 |

NOTES:
1. COORDINATE EXACT LOCATIONS WITH REFLECTED CEILING PLAN-ARCHITECTURAL.
2. NECK SIZE BASED ON CONNECTED FLEXIBLE DUCT SIZE BASED ON AIRFLOW RANGES IN THE FLEX DUCT SCHEDULE.
3. BACK PAN SHALL BE EXTERNALLY INSULATED WITH 1" FIBERGLASS WITH FOIL SCRIM.
4. PROVIDE INTEGRAL INSULATED PLENUM.
5. PROVIDE RETURN AIR BAFFLE.
6. NECK SIZE BASED ON CONNECTED DUCT DIMENSIONS. PROVIDE SQUARE TO ROUND ADAPTOR, AS REQUIRED.
7. NECK AND FACE SIZE BASED ON CONNECTED DUCT DIMENSIONS.

## 23 2114: BUFFER TANK SCHEDULE

| MARK | SERVICE | MODEL | VOLUME GAL | PORTS | OPENING | CONFIG | MOUNTING |
|---|---|---|---|---|---|---|---|
| BT-CHW | CHILLED WATER LOOP | V300-CBW | 300 | 2 | 6" | VERTICAL | FLOOR |
| BT-HW | HEATING WATER LOOP | V120-CBW | 120 | 2 | 4" | VERTICAL | FLOOR |

NOTES: APPLY TO ALL, UNO.
1. DESIGN AND PERFORMANCE BASED ON CEMLINE.
2. PROVIDE FLANGED CONNECTIONS.
3. PROVIDE DRAIN AND AIR VENT PORT.
4. UNIT FABRICATION SHALL INCLUDE 1" ELASTOMERIC INSULATION BY EQUIPMENT MANUFACTURER.

## 23 0713, 3100: DUCT & DUCT INSULATION SCHEDULE

| SYSTEM | MATERIAL | PRESSURE CLASS, IN WC | INSULATION: TYPE | THICKNESS, IN |
|---|---|---|---|---|
| OAU SUPPLY | GALV | 2 | GLASS FIBER, FLEXIBLE | 1 |
| OAU EXHAUST | GALV | 2 | - | - |
| KITCHEN GREASE EXHAUST | 316 STAINLESS STEEL | 2 | FIRE WRAP | 3 |
| ATO SUPPLY | GALV | 1 | - | - |
| FC SUPPLY | GALV | 1 | GLASS FIBER, FLEXIBLE | 2 |
| FC RETURN | GALV | 1 | - | - |
| FUME HOOD EXHAUST | 316 STAINLESS STEEL | 2 | GLASS FIBER, FLEXIBLE | 2 |
| RTU SUPPLY | GALV | 2 | GLASS FIBER, FLEXIBLE | 2 |
| RTU RETURN | GALV | 2 | - | - |
| DISHWASHER EXHAUST | WELDED ALUMINIUM | 1 | GLASS FIBER, FLEXIBLE | 1 |
| DRYER EXHAUST | GALV | 1 | - | - |
| CHEMICAL EXHAUST | SCHED 80 CPVC | - | - | - |

NOTES:
1. WHERE 2" DUCT LINER IS PROVIDED, AS INDICATED ON FLOOR PLANS, OMIT EXTERNAL INSULATION.
2. SEE FLOOR PLANS FOR KITCHEN GREASE EXHAUST CLEANOUT LOCATIONS.
3. KITCHEN GREASE EXHAUST DUCTWORK WILL NOT CONTAIN TURNING VANES. INSULATE DUCT TO PROVIDE ZERO INCHES OF CLEARANCE TO COMBUSTIBLES.
4. EXPOSED DUCT SHOULD BE SPIRAL OR FLAT OVAL. REFER TO FLOOR PLANS FOR LOCATIONS OF SPIRAL AND FLAT OVAL DUCT.

## 23 2114: AIR SEPARATOR SCHEDULE

| MARK | SERVICE | MODEL | GPM | % AIR ELIMINATION | WPD, FT |
|---|---|---|---|---|---|
| AS-HW | HEATING WATER LOOP | R-4F | 180 | 94 | 1.13 |
| AS-CHW | CHILLED WATER LOOP | R-5F | 300 | 94 | 1.31 |
| AS-GSW | GROUND SOURCE WATER LOOP | R-6F | 550 | 94 | 1.73 |

NOTES: APPLY TO ALL, UNO.
1. DESIGN AND PERFORMANCE DATA BASED ON BELL & GOSSETT.
2. PIPE BLOWDOWN VALVE TO NEAREST FLOOR DRAIN.

## 23 2500: AUTOMATIC SIDE STREAM FILTER SCHEDULE

| MARK | MODEL | TYPE | SERVICE | GPM | FILTER SIZE MICRON | FLUSH OUTLET, IN | BRANCH PIPING, IN | DIMENSIONS: LENGTH, IN | WIDTH, IN | HEIGHT, IN | V-PH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SS-1 | LPF2-LP | SIDESTREAM | GROUND SOURCE WATER | 100 | 100 | 2 | 2 | 21 | 14 | 14 | 120-1 |

NOTES:
1. DESIGN AND PERFORMANCE BASED ON TEKLEEN.
2. PROVIDE MFR 556 DEWATERING TANK.TERMINATE TANK DRAIN AT FLOOR DRAIN.
3. PROVIDE MFR 2" ELECTRIC FLUSH VALVE. TERMINATE FLUSH AT DEWATERING TANK WITH DEWATERING BAG.
4. PROVIDE MFR GB6 CONTROL PANEL WITH DC MOTOR CARD.
5. PROVIDE MFR 24 VAC SOLENOID. PLUMBING CONTRACTOR TO PROVIDE 1/8" NPT DOMESTIC WATER CONNECTION.
6. ELECTRICAL CONTRACTOR TO PROVIDE 120V CIRCUIT FOR DC BACKFLUSH SYSTEM.

## 23 2123: PUMP SCHEDULE

| MARK | MODEL | TYPE | SERVICE | DUTY POINT EFFICIENCY % | PART LOAD EFFICIENCY % | GPM (GPH) | HEAD FT | IMPELLER DIAM, IN | RPM | HP (W) | V-PH | FLA | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CHWP-1 | E-1510 | BASE MOUNTED | CHILLED WATER | 71.7 | 74.7 | 300 | 50 | 8.8 | 1616 | 7.5 | 480-3 | 9.3 | 1-4 |
| CHWP-1 | E-1510 | BASE MOUNTED | CHILLED WATER | 71.7 | 74.7 | 300 | 50 | 8.8 | 1616 | 7.5 | 480-3 | 9.3 | 1-4 |
| GSWP-1 | E-1510 | BASE MOUNTED | GROUND SOURCE WATER | 77.5 | 70.3 | 596 | 140 | 12.25 | 1721 | 40 | 480-3 | 49.0 | 1-4 |
| GSWP-2 | E-1510 | BASE MOUNTED | GROUND SOURCE WATER | 77.5 | 70.3 | 596 | 140 | 12.25 | 1721 | 40 | 480-3 | 49.0 | 1-4 |
| HWP-1 | E-1510 | BASE MOUNTED | HEATING WATER | 79.8 | 74.8 | 180 | 40 | 7.00 | 1677 | 3 | 480-3 | 9.0 | 1-4 |
| HWP-2 | E-1510 | BASE MOUNTED | HEATING WATER | 79.8 | 74.8 | 180 | 40 | 7.00 | 1677 | 3 | 480-3 | 9.0 | 1-4 |
| HWCP-OAU-1 | ECOCIRC XL 20-140 | CIRCULATOR | OAU-1 HWC | 58.1 | - | 77 | 12 | - | 2849 | 0.40 | 120-1 | - | 1-2,4,7 |
| HWCP-RTU-K | ECOCIRC XL 15-75 | CIRCULATOR | RTU-KITCHEN HWC | 41.8 | - | 18 | 8 | - | 1990 | 0.09 | 120.0 | - | 1-2,4,7 |
| CDP | VCCA-20-P | CONDENSATE | CONDENSATE | - | - | (45) | 10 | - | - | (93) | 120-1 | 2.0 | 5-6 |

NOTES:
1. DESIGN AND PERFORMANCE BASED ON BELL & GOSSETT, UNO.
2. PERFORMANCE BASED ON WATER.
3. BASE MOUNTED PUMP SHALL BE CONTROLLED BY VFDS. MECHANICAL CONTRACTOR SHALL FURNISH, ELECTRICAL CONTRACTOR SHALL INSTALL. REFER TO DIV 26 SPECIFICATIONS.
4. REFER TO CONTROL DRAWINGS FOR PUMP CONTROL.
5. DESIGN AND PERFORMANCE BASED ON LITTLE GIANT.
6. PROVIDE PLENUM RATED CONDENSATE PUMP WITH HARD WIRED CONNECTION AND HIGH WATER LEVEL SWITCH WITH DRY CONTACT FOR BAS CONNECTION.
7. PROVIDE EC MOTOR COMPATIBLE WITH 0-10 VDC SIGNAL.

## 23 2114: EXPANSION TANK SCHEDULE

| MARK | SERVICE | MODEL | TYPE | CONFIG | TTL VOL GAL | ACCEPT VOL GAL |
|---|---|---|---|---|---|---|
| ET-CHW | CHILLED WATER LOOP | B-35 | BLADDER | VERTICAL | 5.1 | 3.6 |
| ET-HW | HEATING WATER LOOP | B-35 | BLADDER | VERTICAL | 3.6 | 2.5 |
| ET-GSW | GROUND SOURCE WATER LOOP | B-200 | BLADDER | VERTICAL | 35.0 | 28.0 |

NOTES: APPLY TO ALL, UNO.
1. DESIGN AND PERFORMANCE BASED ON BELL AND GOSSETT.
2. TANKS SHALL BE PRECHARGED TO 12 PSIG AND BE RATED TO 100 PSIG. ADJUST TANK CHARGE TO MATCH SYSTEM PRESSURE.
3. SEE PIPING SCHEDULE FOR DESIGN WATER TEMPERATURES OF EACH LOOP.
4. DESIGN BASED ON SUMMER FILL TEMPERATURE OF 95°F, AND WINTER FILL TEMPERATURE OF 55°F.

## 23 3423: FAN SCHEDULE

| MARK | SERVICE | MODEL | TYPE | MOUNTING | CFM | ESP IN WC | DRIVE | HP (W) | INLET dBA | V-PH | MCA | MOP | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EF-FUME | PROJECT STUDIO 236 | FJI-10-BI | LAB EXHAUST | ROOF | 760 | 0.84 | DIRECT | 1 | 60 | 460-3 | - | - | 1-4, 7-9 |
| EF-FAB1 | FABRICATION LAB 221A | CUE-100HP-VG | UPBLAST | ROOF | 350 | 0.75 | DIRECT | 1/4 | 53 | 120-1 | 4.8 | 15 | 1-6 |
| EF-FAB2 | FABRICATION LAB 133A | CUE-100HP-VG | UPBLAST | ROOF | 350 | 0.6 | DIRECT | 1/4 | 52 | 120-1 | 4.8 | 15 | 1-6 |
| EF-UTILITY | KITCHEN TOILET 117E | G-097-VG | DOWNBLAST | ROOF | 125 | 1.0 | DIRECT | 1/4 | 56 | 120-1 | 4.8 | 15 | 1-5, 10 |
| EF-ELEC-ROOM NO. | ELECTRICAL ROOM EXHUAST | SP-A200 | CEILING CABINET | SUSPENDED | 200 | 0.3 | DIRECT | 172 | 50 | 120-1 | 3.4 | 15 | 1-3, 11-12 |
| EF-TOILET-ROOM NO. | TOILET EXHAUST | SP-B80 | CEILING CABINET | SUSPENDED | 50 | 0.5 | DIRECT | 18 | 34 | 120-1 | 0.2 | 15 | 1-3, 6, 11 |
| EF-CHEM-ROOM NO. | ACID STORAGE CABINET | RN 4EC-4 | INLINE | INLINE | 39 - 320 | 4.5 - 0.2 | DIRECT | (174) | - | 120-1 | 3.0 | - | 5-6, 13 |

NOTES:
1. DESIGN AND PERFORMANCE BASED ON GREENHECK.
2. PROVIDE FACTORY MEANS OF ELECTRICAL DISCONNECT AND THERMAL OVERLOAD PROTECTION.
3. PROVIDE INTEGRAL BACK DRAFT DAMPER, UNO.
4. PROVIDE MANUFACTURER PREINSULATED 18" ROOF CURB.
5. PROVIDE EC MOTOR.
6. FAN CONTROLLED BY WALL SWITCH. REFER TO CONTROL DRAWINGS FOR FAN CONTROL DETAILS.
7. PROVIDE VFD WITH NEMA-3 ENCLOSURE AND UNIT MOUNTING BRACKET, 10 FT SELF SUPPORTING STACK, AND CURB CAP INLET BOX WITH ACCESS DOOR.
8. FAN CONTROLLED BY FUME HOOD SENSORS. REFER TO CONTROL DRAWINGS FOR FAN CONTROL DETAILS.
9. FAN PERFORMANCE MUST BE COORDINATED WITH FINAL APPROVED FUME HOOD.
10. FAN CONTROLLED BY BAS SCHEDULE. EC MOTOR WILL BE COMPATIBLE WITH 0-10 VDC SIGNAL. REFER TO CONTROL DRAWINGS FOR FAN CONTROL DETAILS.
11. PROVIDE VIBRATION ISOLATORS.
12. FAN CONTROLLED BY LOCAL THERMOSTAT. REFER TO CONTROL DRAWINGS FOR FAN CONTROL DETAILS.
13. DESIGN AND PERFORMANCE BASED ON FANTECH.


QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com


COMMONWEALTH OF VIRGINIA
MATTHEW R. LEWIS
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NO. 51922
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100
Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

SCHEDULES

**M701**

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## 23 7200: OUTDOOR AIR UNIT SCHEDULE

| | | AIRFLOW | | | | | | | | | | | | TOTAL ENTHALPY WHEEL | | | | | | | SENSIBLE WHEEL | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | SUPPLY FAN | | | | | EXHAUST FAN | | | | | SUMMER TEMPS | | | WINTER TEMP. | | | WHEEL | SUMMER TEMPS | WHEEL |
| MARK | MODEL | TTL SA CFM | TTL EA CFM | QTY. | TTL CFM | SA ESP, IN WC | HP | BHP | QTY. | EXHAUST CFM | EA ESP, IN WC | HP | BHP | OA DB/WB | SA DB/WB | RA DB/WB | OA DB | SA DB/WB | RA DB/WB | EFFICIENCY % | SA DB/WB | RA DB/WB | EFFICIENCY % |
| OAU-1 | ERP-E-12 | 12520 | 10080 | 2 | 6260 | 3.5 | 11.10 | 10.09 | 2 | 5823 | 2.25 | 6.55 | 5.95 | 95/76 | 69.8/62.5 | 75/58 | 15.0 | 52.6/42.3 | 70/53 | 81.0 | 67.2/58.6 | 75/58 | 64.7 |

NOTES:
1. DESIGN AND PERFORMANCE BASED ON ANENEXAIR.
2. HEATING WATER COIL PERFORMANCE IS BASED ON 130°F EWT AND 110°F LWT.
3. CHILLED WATER COIL PERFORMACES ARE BASED ON 44°F EWT AND 56°F LWT.
4. FANS AND WHEELS WILL BE CONTROLLED BY VARIABLE FREQUENCY DRIVES.
5. PROVIDE SINGLE-POINT POWER CONNECTION AND NON-FUSED ELECTRICAL DISCONNECT.

## 23 7200: OUTDOOR AIR UNIT SCHEDULE (CONTINUED)

| | PREHEAT COIL | | | | | | COOLING COIL | | | | | | | FILTERS | | ELECTRICAL | | | | PHYSICAL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MARK | TTL MBH | EAT | LAT | GPM | APD IN | WPD FT | TTL MBH | SENS MBH | EAT DB/WB | LAT DB/WB | GPM | APD IN | WPD FT | SUPPLY | EXHAUST | V-PH | MCA | MOP | MIN SCCR KAIC | LENGTH IN | WIDTH IN | HEIGHT IN | WEIGHT LBS |
| OAU-1 | 801 | 15 | 70 | 80 | 0.15 | 6.77 | 368 | 245 | 69.8/62.5 | 53/53 | 61 | 0.85 | 13.57 | 12"-MERV 13 | 2"-MERV 8 | 480-3 | 66 | 70 | 23 | 270 | 101 | 113 | 9800 |

NOTES:
6. HP AND BHP IS CALACULATED PER FAN.
7. PROVIDE FLEXIBLE DUCT CONNECTORS AT ALL DUCT CONNECTIONS.
8. PROVIDE MFR 18" ROOF CURB WITH PIPE CHASE TO BRING PIPING UP THROUGH THE ROOF CURB FOR COIL CONNECTIONS.
9. DDC CONTROLS WITH BACNET IP INTERFACE WILL BE PROVIDED COMPLETE BY MFR. REFER TO CONTROL DRAWINGS FOR UNIT OPERATION.
10. HEATING COIL SHALL BE SIZED FOR FROST PROTECTION.

## 23 8124: HYDRONIC COMPUTER ROOM AC UNIT SCHEDULE

| | | | SUPPLY FAN | | | CHILLED WATER COIL | | | | | | | ELECTRICAL | | | | PHYSICAL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | NET CAPACITY | | EAT | LAT | | | | | | | | | | | |
| MARK | SERVICE | MODEL | CFM | ESP IN WC | MOTOR KW | TTL MBH | SENS MBH | DB/WB °F | DB/WB °F | EWT °F | LWT °F | GPM | WPD FT | V-PH | MCA | MOP | MIN SCCR KAIC | LENGTH IN | WIDTH IN | HEIGHT IN | WEIGHT LBS |
| CRAC-3 | DATA CENTER | MCC-053X | 7500 | 0.5 | 4.5 | 163 | 136.1 | 70/60.1 | 52.3/51.8 | 44 | 56 | 20 | 7.2 | 460-3 | 14.8 | 25 | 40.9 | 66 | 90 | 62 | 1500 |

NOTES:
1. DESIGN AND PERFORMANCE BASED ON ABOVEAIR.
2. PROVIDE CONSTANT SPEED SUPPLY FAN WITH EC MOTOR.
3. PROVIDE 4" FILTER RACKS FOR MERV 8 FILTERS.
4. PROVIDE FLEXIBLE DUCT CONNECTORS AT ALL DUCT CONNECTIONS.
5. PROVIDE UNIT MOUNTED MFR NON-FUSED DISCONNECT.
6. DDC CONTROLS WITH BACNET IP INTERFACE WILL BE PROVIDED COMPLETE BY MFR. REFER TO CONTROL DRAWINGS FOR UNIT OPERATION.
7. EQPT MFR TO FURNISH CONTROL VALVE & ACTUATOR, INSTALLED BY MECHANICAL CONTRACTOR. THIS IS PART OF THE PACKAGED CONTROLS.

## 23 7313: ROOF TOP UNIT SCHEDULE

| | | | | | | SUPPLY FAN | | | | EXHAUST FAN | | | | PREHEAT COIL | | | | | | COOLING COIL | | | | | | | | FILTERS | | ELECTRICAL | | | | PHYSICAL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MARK | SERVICE | MODEL | OA CFM | MAX SA CFM | MIN SA CFM | CFM | ESP, IN WC | HP | BHP | CFM | ESP, IN WC | HP | BHP | MBH | HEATING CFM | EAT °F DB | LAT °DB | GPM | APD IN | WPD FT | TTL MBH | SENS MBH | EAT DB/WB | LAT DB/WB | GPM | APD IN | WPD FT | PRE-FILTERS | FINAL FILTER | V-PH | MCA | MOP | MIN SCCR KAIC | LENGTH IN | WIDTH IN | HEIGHT IN | WEIGHT LBS |
| RTU-KITCHEN | KITCHEN | RN-011 | 1880 | 4000 | 1880 | 4000 | 2.5 | 5 | 3.89 | 4000 | 0.5 | 3 | 1.40 | 170.9 | 4000 | 15.0 | 80.5 | 18.0 | 0.07 | 3.0 | 210.4 | 137.8 | 84.4/69.6 | 52.0/51.9 | 36.5 | 0.46 | 4.8 | 2"-MERV 8 | 4"-MERV 13 | 460-3 | 14 | 20 | 35 | 111 | 72 | 47 | 1629 |

NOTES:
1. DESIGN AND PERFORMANCE BASED ON AAON.
2. HEATING COIL CAPACITIES ARE BASED ON 130/110 F EWT/LWT, 70 DB RA.
3. COOLING COIL CAPACITIES ARE BASED ON 44/56 EWT/LWT, 75/63 DB/WB RA.
4. OUTDOOR AIR CONDITIONS ARE BASED ON 95/76 DB/WB IN SUMMER AND 15 DB IN WINTER.
5. PROVIDE SINGLE-POINT POWER CONNECTION AND NON-FUSED ELECTRICAL DISCONNECT.
6. PROVIDE FLEXIBLE DUCT CONNECTORS AT ALL DUCT CONNECTIONS.
7. PROVIDE MFR 18" ROOF CURB WITH PIPE CHASE TO BRING PIPING UP THROUGH THE ROOF CURB FOR COIL CONNECTIONS.
8. FANS WILL BE CONTROLLED BY VARIABLE FREQUENCY DRIVES.
9. DDC CONTROLS WITH BACNET IP INTERFACE WILL BE PROVIDED COMPLETE BY MFR. REFER TO CONTROL DRAWINGS FOR UNIT OPERATION.

## 23 8124: DX COMPUTER ROOM AC UNIT SCHEDULE

| | | | SUPPLY FAN | | | DX COOLING | | | | ELECTRICAL | | | | PHYSICAL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | NET CAPACITY | | EAT | LAT | | | | MIN | | | | |
| MARK | SERVICE | MODEL | CFM | ESP IN WC | MOTOR KW | TTL MBH | SENS MBH | DB/WB | DB/WB | V-PH | MCA | MOP | SCCR KAIC | LENGTH IN | WIDTH IN | HEIGHT IN | WEIGHT LBS |
| CRAC-1 | DATA CENTER | MCE-053D | 7500 | 0.5 | 3.1 | 174.1 | 135.2 | 70/60.1 | 52.5/51.2 | 208-3 | 69.3 | 90 | 10.5 | 92 | 34 | 77 | 2425 |
| CRAC-2 | DATA CENTER | MCE-053D | 7500 | 0.5 | 3.1 | 174.1 | 135.2 | 70/60.1 | 52.5/51.2 | 208-3 | 69.3 | 90 | 10.5 | 92 | 34 | 77 | 2425 |

NOTES:
1. DESIGN AND PERFORMANCE BASED ON ABOVEAIR.
2. PROVIDE CONSTANT SPEED SUPPLY FAN WITH EC MOTOR.
3. PROVIDE 4" FILTER RACKS FOR MERV 8 FILTERS.
4. PROVIDE FLEXIBLE DUCT CONNECTORS AT ALL DUCT CONNECTIONS.
5. PROVIDE UNIT MOUNTED MFR NON-FUSED DISCONNECT.
6. DDC CONTROLS WITH BACNET IP INTERFACE WILL BE PROVIDED COMPLETE BY MFR. REFER TO CONTROL DRAWINGS FOR UNIT OPERATION.
7. REFRIGERANT WILL BE R-410A.

## 23 8124: COMPUTER ROOM CONDENSING UNIT SCHEDULE

| | | | TTL HEAT | ELECTRICAL | | | | PHYSICAL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MIN | REJECTION | | | | MIN SCCR | LENGTH | WIDTH | HEIGHT | WEIGHT |
| MARK | SERVICE | SCUP-127 | MBH | V-PH | MCA | MOP | KAIC | IN | IN | IN | LBS |
| CU-1 | CRAC-1 | 3.35 | 228 | 208-3 | 11.6 | 20 | 10.5 | 66 | 90 | 62 | 1570 |
| CU-2 | CRAC-2 | 3.35 | 228 | 208-3 | 11.6 | 20 | 10.5 | 66 | 90 | 62 | 1570 |

NOTES:
1. BASIS OF DESIGN MANUFACTURER IS ABOVE AIR.
2. OPERATING AMBIENT CONDITIONS ARE -20° F WINTER AND 95° F DB/80° F WB SUMMER. PROVIDE LOW KIT AS REQUIRED.
3. SHALL BE INSTALLED ON GRADE MOUNTED EQUIPMENT PADS.
4. SCUP-127 PERFORMANCE BASED ON ANSI/ASHRAE 127.
5. REFRIGERANT LINES SHALL BE SIZED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
6. DDC CONTROLS WITH BACNET IP INTERFACE WILL BE PROVIDED COMPLETE BY MFR. REFER TO CONTROL DRAWINGS FOR UNIT OPERATION.
7. PROVIDE UNIT MOUNTED MFR NON-FUSED DISCONNECT.
8. PROVIDE DIGITAL SCROLL COMPRESSORS AND VARIABLE SPEED CONDENSER FAN WITH EC MOTOR.
9. REFRIGERANT WILL BE R-410A.

## 23 3600: AIR TERMINAL UNIT - SERIES FAN POWERED BOX SCHEDULE

| | | | | | AIRFLOW | | | SOUND DATA | | DIMENSIONS | | | ELECTRICAL | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MARK | MODEL | TYPE | INLET SIZE, IN | FAN HP | MIN CFM | MAX CFM | MAX SP DROP IN WC | RADIATED NC | DISCHARGE NC | LENGTH, IN | WIDTH, IN | HEIGHT, IN | V-PH | MCA | MOCP |
| FPB-08-102 | DFLS | SERIES FAN POWERED | 8 | 1/3 | 405 | 405 | 0.75 | 32 | 28 | 40 | 26 | 10.5 | 208-1 | 4 | 15 |
| FPB-08-108 | DFLS | SERIES FAN POWERED | 8 | 1/3 | 350 | 350 | 0.75 | 31 | 27 | 40 | 26 | 10.5 | 208-1 | 4.1 | 15 |

NOTES: APPLY TO ALL, UNO.
1. DESIGN AND PERFORMANCE BASED ON TITUS
2. BRANCH SUPPLY DUCT SHALL MATCH FPB INLET SIZE, UNO.
3. DISCHARGE DUCT SIZE SHALL MATCH FPB DISCHARGE DIMENSIONS, UNO.
4. PROVIDE 1" FOIL FACED INSULATION.
5. DDC CONTROLS SHALL BE FURNISHED AND FIELD INSTALLED BY BAS CONTRACTOR.
6. MANUFACTURER SHALL PROVIDE 208-24V STEP DOWN TRANSFORMER FOR BAS POWER.
7. ALL NC LEVELS DETERMINED USING AHRI 885-2008 APPENDIX E.
8. PROVIDE ECM FAN MOTOR.

## 23 3433: AIR CURTAIN SCHEDULE

| | | | | SUPPLY FAN | | ELECTRICAL | | | PHYSICAL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MARK | MODEL | LOCATION | MOUNTING | CFM | HP | V-PH | FLA | MOCP | LENGTH | WIDTH | HEIGHT | WEIGHT LBS |
| AC-1 | AE10-E-1036A | COMMONS | WALL | 1425 | 1/2 | 208-1 | 4.1 | 15 | 38" | 29" | 15" | 180 |

NOTES:
1. DESIGN AND PERFORMANCE BASED ON BERNER.
2. PROVIDE UNIT MOUNTED DISCONNECT SWITCH FOR EACH UNIT.
3. PROVIDE MFR WALL MOUNTING BRACKET (CONCEALED TYPE).
4. THERE IS NO CONNECTION OF THIS SYSTEM TO THE BAS.
5. PROVIDE MFR CONTROLLER AND DOOR SWITCH FOR AUTOMATIC OPERATION WITH DOOR.
6. PROVIDE MFR COLOR OPTIONS FOR FINAL SELECTION BY ARCH.

## 23 7313: ROOF TOP UNIT WITH ENERGY RECOVERY WHEEL SCHEDULE

| | | | | | | | SUPPLY FAN | | | | EXHAUST FAN | | | | ENTHALPY WHEEL | | | | | | | | COOLING COIL | | | | | | | REHEAT COIL | | | | | FILTERS | | ELECTRICAL | | | | PHYSICAL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | EA | SUMMER TEMPS | | | | WINTER TEMP. | | | TTL | SENS | EAT | LAT | | APD | WPD | | HEATING | EAT | LAT | | APD | WPD | SUPPLY | EXHAUST | | | | MIN SCCR | LENGTH | WIDTH | HEIGHT | WEIGHT |
| MARK | SERVICE | MODEL | OA CFM | MIN OA CFM | MAX SA CFM | MIN SA CFM | CFM | ESP IN WC | HP | BHP | CFM | ESP IN WC | HP | BHP | CFM | TTL EFF % | OA DB/WB | SA DB/WB | RA DB/WB | TTL EFF % | OA DB | SA DB/WB | RA DB/WB | MBH | MBH | DB/WB | DB/WB | GPM | IN | FT | MBH | CFM | °F DB | °F DB | GPM | IN | FT | PRE/FILTERS | FINAL | V-PH | MCA | MOP | KAIC | IN | IN | IN | LBS |
| RTU-COMMONS | COMMONS | RN-016 | 2550 | 1000 | 4800 | 2550 | 4800 | 2.75 | 7.5 | 4.62 | 4270 | 1.5 | 5 | 2.98 | 2170 | 78.7 | 95/76 | 81.3/67.8 | 75/62.5 | 81.9 | 15 | 51.2/40.8 | 70/53 | 162.3 | 125.4 | 78.3/65.4 | 54/53.8 | 27 | 0.24 | 2.3 | 155.3 | 4800 | 60.0 | 89.3 | 16.0 | 0.34 | 1.3 | 2"-MERV 8 / 4"-MERV 13 | 4"-MERV 13 | 460-3 | 22 | 30 | 35 | 185 | 78 | 60 | 3024 |

NOTES:
1. DESIGN AND PERFORMANCE BASED ON AAON.
2. HEATING COIL CAPACITIES ARE BASED ON 130/110 F EWT/LWT, 70 DB RA AND TE WHEEL ENABLED.
3. COOLING COIL CAPACITIES ARE BASED ON 44/56 EWT/LWT, 75/63 DB/WB RA AND TE WHEEL ENABLED.
4. OUTDOOR AIR CONDITIONS ARE BASED ON 95/76 DB/WB IN SUMMER AND 15 DB IN WINTER.
5. PROVIDE SINGLE-POINT POWER CONNECTION AND NON-FUSED ELECTRICAL DISCONNECT.
6. PROVIDE FLEXIBLE DUCT CONNECTORS AT ALL DUCT CONNECTIONS.
7. PROVIDE MFR 18" ROOF CURB WITH PIPE CHASE TO BRING PIPING UP THROUGH THE ROOF CURB FOR COIL CONNECTIONS.
8. FANS AND WHEEL WILL BE CONTROLLED BY VARIABLE FREQUENCY DRIVES.
9. DDC CONTROLS WITH BACNET IP INTERFACE WILL BE PROVIDED COMPLETE BY MFR. REFER TO CONTROL DRAWINGS FOR UNIT OPERATION.


QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com


COMMONWEALTH OF VIRGINIA
MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

SCHEDULES

**M702**


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## 23 6433: GROUND SOURCE WATER TO WATER HEAT PUMP CHILLER SCHEDULE

| | | | COOLING PERFORMANCE DATA | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | COOLER DATA (EVAPORATOR) | | | | HEATER DATA (CONDENSER) | | | | | | ELECTRICAL | | | | BASIS OF DESIGN | |
| MARK | CAPACITY (TONS) | REFR. | GPM | EWT °F | LWT °F | PRESSURE DROP (FT) | GPM | EWT °F | LWT °F | PRESSURE DROP (FT) | NO. OF MODULES | COP | INPUT (KW) | MCA | MOP | V-PH | MANUFACTURER | MODEL |
| HRCH-1 | 190 | R-454B | 381 | 56 | 44 | 6.0 | 549 | 85 | 95 | 8.6 | 5 | 4.7 | 28.2 | 78.0 | 110.0 | 460-3 | TANDEM | WHRX040DZR |
| | | | SIMULTANEOUS PERFORMANCE DATA | | | | | | | | | | | | | | | |
| | | | COOLER DATA (EVAPORATOR) | | | | HEATER DATA (CONDENSER) | | | | | | ELECTRICAL | | | | BASIS OF DESIGN | |
| MARK | CAPACITY (TONS / MBH) | REFR. | GPM | EWT °F | LWT °F | PRESSURE DROP (FT) | GPM | EWT °F | LWT °F | PRESSURE DROP (FT) | NO. OF MODULES | COP | INPUT (KW) | MCA | MOP | V-PH | MANUFACTURER | MODEL |
| HRCH-1 | 154.8 / 2570 | R-454B | 380 | 53.8 | 44 | 6.0 | 290 | 112.2 | 130 | 2.7 | 5 | 6.2 | 41.6 | 78.0 | 110.0 | 460-3 | TANDEM | WHRX040DZR |
| | | | HEATING PERFORMANCE DATA | | | | | | | | | | | | | | | |
| | | | COOLER DATA (EVAPORATOR) | | | | HEATER DATA (CONDENSER) | | | | | | ELECTRICAL | | | | BASIS OF DESIGN | |
| MARK | CAPACITY (MBH) | REFR. | GPM | EWT °F | LWT °F | PRESSURE DROP (FT) | GPM | EWT °F | LWT °F | PRESSURE DROP (FT) | NO. OF MODULES | COP | INPUT (KW) | MCA | MOP | V-PH | MANUFACTURER | MODEL |
| HRCH-1 | 2888 | R-454B | 549 | 60 | 52 | 13.4 | 292 | 110 | 130 | 2.7 | 5 | 4.0 | 42.3 | 78.0 | 110.0 | 460-3 | TANDEM | WHRX040DZR |

NOTES:

1. SENSIBLE CHILLED WATER AND GROUND SOURCE WATER CAPACITIES BASED ON WATER.
2. PROVIDE MANUFACTURER CONTROLLER WITH BACNET IP INTERFACE.
3. PROVIDE SINGLE POINT POWER CONNECTION WITH FACTORY MEANS OF ELECTRICAL DISCONNECT AND THERMAL OVERLOAD PROTECTION.
4. ELECTRICAL DATA IS PER MODULE. PROVIDE SINGLE POINT POWER CONNECTION FOR ENTIRE UNIT.

## 23 3600: AIR TERMINAL UNIT - SHUT OFF SCHEDULE

| | | | | AIRFLOW | | | | | DIMENSIONS | | | WEIGHT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MARK | MODEL | TYPE | INLET SIZE, IN | MAX CFM | MIN CFM | MAX SP DROP IN WC | MAX DISCHARGE, NC | MAX RADIATED, NC | LENGTH, IN | WIDTH, IN | HEIGHT, IN | LBS. |
| ATO-04-130 | DESV | SINGLE DUCT | 04 | 110 | 110 | 0.50 | 27 | - | 15.5 | 12 | 8 | 24 |
| ATO-04-240 | DESV | SINGLE DUCT | 04 | 110 | 110 | 0.50 | 27 | - | 15.5 | 12 | 8 | 24 |
| ATO-05-230 | DESV | SINGLE DUCT | 05 | 105 | 105 | 0.50 | 19 | - | 15.5 | 12 | 8 | 24 |
| ATO-05-137 | DESV | SINGLE DUCT | 05 | 100 | 100 | 0.50 | 19 | - | 15.5 | 12 | 8 | 28 |
| ATO-06-120.1 | DESV | SINGLE DUCT | 06 | 380 | 380 | 0.50 | 23 | 15 | 15.5 | 12 | 8 | 24 |
| ATO-06-120.2 | DESV | SINGLE DUCT | 06 | 350 | 350 | 0.50 | 22 | 15 | 15.5 | 12 | 8 | 24 |
| ATO-06-122 | DESV | SINGLE DUCT | 06 | 360 | 110 | 0.50 | 22 | 15 | 15.5 | 12 | 8 | 24 |
| ATO-06-123 | DESV | SINGLE DUCT | 06 | 395 | 395 | 0.50 | 23 | 17 | 15.5 | 12 | 8 | 24 |
| ATO-06-127 | DESV | SINGLE DUCT | 06 | 470 | 470 | 0.50 | 25 | 18 | 15.5 | 12 | 8 | 24 |
| ATO-06-128 | DESV | SINGLE DUCT | 06 | 355 | 105 | 0.50 | 22 | 15 | 15.5 | 12 | 8 | 24 |
| ATO-06-129 | DESV | SINGLE DUCT | 06 | 355 | 105 | 0.50 | 22 | 15 | 15.5 | 12 | 8 | 24 |
| ATO-06-132 | DESV | SINGLE DUCT | 06 | 360 | 110 | 0.50 | 22 | 15 | 15.5 | 12 | 8 | 24 |
| ATO-06-210 | DESV | SINGLE DUCT | 06 | 255 | 255 | 0.50 | 22 | 11 | 15.5 | 12 | 8 | 24 |
| ATO-06-211 | DESV | SINGLE DUCT | 06 | 280 | 280 | 0.50 | 23 | 13 | 15.5 | 12 | 8 | 24 |
| ATO-06-219 | DESV | SINGLE DUCT | 06 | 125 | 40 | 0.50 | 24 | 18 | 15.5 | 12 | 8 | 24 |
| ATO-06-221 | DESV | SINGLE DUCT | 06 | 360 | 110 | 0.50 | 22 | 15 | 15.5 | 12 | 8 | 24 |
| ATO-06-221A | DESV | SINGLE DUCT | 06 | 295 | 90 | 0.50 | 22 | 15 | 15.5 | 12 | 8 | 24 |
| ATO-06-222 | DESV | SINGLE DUCT | 06 | 360 | 110 | 0.50 | 22 | 15 | 15.5 | 12 | 8 | 24 |
| ATO-06-223 | DESV | SINGLE DUCT | 06 | 355 | 105 | 0.50 | 22 | 15 | 15.5 | 12 | 8 | 24 |
| ATO-06-224 | DESV | SINGLE DUCT | 06 | 400 | 400 | 0.50 | 23 | 17 | 15.5 | 12 | 8 | 24 |
| ATO-06-227 | DESV | SINGLE DUCT | 06 | 460 | 460 | 0.50 | 25 | 18 | 15.5 | 12 | 8 | 24 |
| ATO-06-228 | DESV | SINGLE DUCT | 06 | 355 | 105 | 0.50 | 22 | 15 | 15.5 | 12 | 8 | 24 |
| ATO-06-229 | DESV | SINGLE DUCT | 06 | 355 | 105 | 0.50 | 22 | 15 | 15.5 | 12 | 8 | 24 |
| ATO-06-232 | DESV | SINGLE DUCT | 06 | 360 | 110 | 0.50 | 22 | 15 | 15.5 | 12 | 8 | 24 |
| ATO-06-233 | DESV | SINGLE DUCT | 06 | 405 | 405 | 0.50 | 23 | 17 | 15.5 | 12 | 8 | 24 |
| ATO-06-235 | DESV | SINGLE DUCT | 06 | 400 | 400 | 0.50 | 23 | 17 | 15.5 | 12 | 8 | 24 |
| ATO-08-124 | DESV | SINGLE DUCT | 08 | 610 | 610 | 0.50 | 27 | 18 | 15.5 | 12 | 10 | 25 |
| ATO-08-125 | DESV | SINGLE DUCT | 08 | 665 | 665 | 0.50 | 28 | 19 | 15.5 | 12 | 10 | 25 |
| ATO-08-220 | DESV | SINGLE DUCT | 08 | 505 | 505 | 0.50 | 25 | 15 | 15.5 | 12 | 10 | 25 |
| ATO-08-225 | DESV | SINGLE DUCT | 08 | 520 | 520 | 0.50 | 25 | 17 | 15.5 | 12 | 10 | 25 |
| ATO-08-133 | DESV | SINGLE DUCT | 08 | 405 | 405 | 0.50 | 24 | 14 | 15.5 | 12 | 10 | 25 |
| ATO-10-121 | DESV | SINGLE DUCT | 10 | 900 | 900 | 0.50 | 25 | 19 | 15.5 | 14 | 12.5 | 29 |

NOTES: APPLY TO ALL, UNO.

1. DESIGN AND PERFORMANCE BASED ON TITUS.
2. BRANCH SUPPLY DUCT SHALL MATCH ATO INLET SIZE, UNO.
3. DISCHARGE DUCT SIZE SHALL MATCH ATO DISCHARGE DIMENSIONS, UNO.
4. PROVIDE 1" FOIL FACED INSULATION.
5. BAS CONTRACTOR SHALL FURNISH AND FIELD INSTALL DDC CONTROLS.
6. NOISE CRITERIA DISCHARGE/RADIATED VALUES BASED ON AHRI 885-90/885-08.

## 23 8200: FAN COIL SCHEDULE

| | | | | FAN | | | COOLING COIL | | | | | | | HEATING COIL | | | | | | SOUND DATA | | ELECTRICAL | | | PHYSICAL | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MARK | MODEL | TYPE | FUNCTION | TTL CFM | ESP IN H2O | HP | TTL MBH | SENS MBH | LAT DB/WB, °F | LWT, °F | GPM | BRANCH PIPING, IN. | WPD FT | MBH | LAT, °F | LWT, °F | GPM | BRANCH PIPING, IN. | WPD FT | dBA | FILTER | V-PH | MCA | MOP | MAX LENGTH, IN | MAX HEIGHT, IN | MAX WIDTH, IN | MAX WT. LBS | NOTES |
| FC-02-ROOM# | CPY | HORIZONTAL CONCEALED | HEATING/COOLING | 150 | 0.30 | 0.14 | 4.0 | 3.3 | 55.1/53.8 | 56.0 | 0.7 | 3/4 | 2.0 | 2.8 | 86.9 | 111.2 | 0.3 | 3/4 | 0.1 | 49 | MERV 8 | 208-1 | 1.0 | 15 | 22 | 11 | 21 | 60 | 1 - 7, 9 |
| FC-04-ROOM# | CPY | HORIZONTAL CONCEALED | HEATING/COOLING | 285 | 0.30 | 0.17 | 8.2 | 6.4 | 54.5/53.2 | 56.0 | 1.3 | 3/4 | 7.8 | 5.7 | 88.0 | 110.0 | 0.6 | 3/4 | 0.4 | 55 | MERV 8 | 208-1 | 1.8 | 15 | 32 | 11 | 21 | 80 | 1 - 7, 9 |
| FC-06-ROOM# | CPY | HORIZONTAL CONCEALED | HEATING/COOLING | 450 | 0.30 | 0.17 | 11.9 | 9.7 | 55.4/54.0 | 55.8 | 2 | 3/4 | 3.1 | 8.8 | 87.7 | 110.0 | 0.9 | 3/4 | 0.9 | 51 | MERV 8 | 208-1 | 1.6 | 15 | 37 | 11 | 21 | 90 | 1 - 7, 9 |
| FC-08-ROOM# | CPY | HORIZONTAL CONCEALED | HEATING/COOLING | 575 | 0.30 | 0.17 | 15.6 | 12.5 | 55.1/53.7 | 56.0 | 2.6 | 3/4 | 5.4 | 11.4 | 88.0 | 110.0 | 1.1 | 3/4 | 1.5 | 62 | MERV 8 | 208-1 | 2.0 | 15 | 44 | 11 | 21 | 105 | 1 - 7, 9 |
| FC-10-ROOM# | CPY | HORIZONTAL CONCEALED | HEATING/COOLING | 775 | 0.30 | 0.17 | 18.9 | 16.1 | 56.1/54.7 | 56.0 | 3.1 | 3/4 | 1.5 | 16.0 | 88.7 | 110.0 | 1.6 | 3/4 | 3.3 | 59 | MERV 8 | 208-1 | 2.9 | 15 | 58 | 11 | 21 | 150 | 1 - 7, 9 |
| FC-12-ROOM# | CPY | HORIZONTAL CONCEALED | HEATING/COOLING | 900 | 0.30 | 0.17 | 23.0 | 19.1 | 55.7/54.3 | 56.0 | 3.8 | 1 | 2.3 | 18.8 | 88.9 | 110.0 | 1.9 | 3/4 | 4.7 | 65 | MERV 8 | 208-1 | 3.6 | 15 | 66 | 11 | 21 | 170 | 1 - 7, 9 |
| FC-06H-ROOM# | HPY | HI-PERF HORIZONTAL | HEATING/COOLING | 425 | 0.70 | 0.5 | 11.4 | 9.6 | 54.4/53.8 | 56.6 | 1.8 | 3/4 | 0.8 | 7.9 | 86.9 | 110.0 | 0.8 | 3/4 | 1.0 | 52 | MERV 13 | 208-1 | 2.6 | 15 | 23 | 17 | 32 | 95 | 1 - 7, 9 |
| FC-08H-ROOM# | HPY | HI-PERF HORIZONTAL | HEATING/COOLING | 550 | 0.70 | 0.5 | 16.1 | 13.0 | 5315/52.9 | 56.7 | 2.5 | 3/4 | 1.5 | 10.8 | 87.8 | 110.0 | 1.1 | 3/4 | 1.9 | 50 | MERV 13 | 208-1 | 3.0 | 15 | 28 | 17 | 32 | 110 | 1 - 7, 9 |
| FC-10H-ROOM# | HPY | HI-PERF HORIZONTAL | HEATING/COOLING | 750 | 0.70 | 0.5 | 22.6 | 18.0 | 53.1/52.6 | 56.8 | 3.5 | 3/4 | 2.8 | 14.3 | 87.3 | 110.0 | 1.4 | 3/4 | 3.3 | 56 | MERV 13 | 208-1 | 4.5 | 15 | 32 | 17 | 32 | 150 | 1 - 7, 9 |
| FC-12H-ROOM# | HPY | HI-PERF HORIZONTAL | HEATING/COOLING | 940 | 0.70 | 0.5 | 28.7 | 22.7 | 53.0/52.5 | 57.5 | 4.2 | 1 | 4.2 | 18.0 | 87.3 | 110.0 | 1.8 | 3/4 | 5.3 | 53 | MERV 13 | 208-1 | 4.2 | 15 | 37 | 17 | 32 | 170 | 1 - 7, 9 |
| FC-06HC-ROOM# | CXB | HORIZONTAL CABINET | HEATING/COOLING | 400 | - | 0.17 | 10.7 | 8.7 | 55.2/53.9 | 56.0 | 1.8 | 3/4 | 2.6 | 8.2 | 88.5 | 110.0 | 0.8 | 3/4 | 0.8 | 53 | MERV 8 | 208-1 | 1.6 | 15 | 53 | 12 | 24 | 170 | 1 - 7, 10, 11 |
| FC-08HC-ROOM# | CXB | HORIZONTAL CABINET | HEATING/COOLING | 530 | - | 0.17 | 14.6 | 11.7 | 55.0/53.6 | 56.0 | 2.4 | 3/4 | 4.8 | 10.8 | 88.5 | 110.0 | 1.1 | 3/4 | 1.4 | 64 | MERV 8 | 208-1 | 2.0 | 15 | 60 | 12 | 24 | 180 | 1 - 7, 10, 11 |
| FC-12HC-ROOM# | HLY | HORIZONTAL CABINET | HEATING/COOLING | 1500 | - | 0.5 | 43.8 | 35.3 | 53.6/53.0 | 57.3 | 6.5 | 1 | 3.5 | 46.5 | 98.1 | 110.0 | 4.7 | 1 | 9.7 | 63 | MERV 8 | 208-1 | 5.4 | 15 | 55 | 18 | 34 | 225 | 1 - 7, 10, 11 |
| FC-02HCC-ROOM# | CPY | HORIZONTAL CONCEALED | STAIRWELLS - COOLING ONLY | 150 | 0.30 | 0.14 | 4.0 | 3.3 | 55.1/53.8 | 56.0 | 0.7 | 3/4 | 2.0 | - | - | - | - | - | - | 49 | MERV 8 | 208-1 | 1.0 | 15 | 22 | 11 | 21 | 60 | 1 - 7, 9 |
| FC-02VCH-ROOM# | GXY | VERTICAL CABINET | STAIRWELLS - HEATING ONLY | 180 | - | 0.14 | - | - | - | - | - | - | - | 6.0 | 100.4 | 110.0 | 0.6 | 3/4 | 0.7 | 60 | MERV 8 | 208-1 | 0.9 | 15 | 29 | 25 | 10 | 65 | 1 - 6, 8, 10, 11 |
| FC-02VRH-ROOM# | GHY | VERTICAL RECESSED | VESTIBULES - HEATING ONLY | 180 | - | 0.14 | - | - | - | - | - | - | - | 6.0 | 100.4 | 110.0 | 0.6 | 3/4 | 0.7 | 60 | MERV 8 | 208-1 | 0.9 | 15 | 29 | 25 | 10 | 65 | 1 - 6, 8, 10, 11 |
| FC-02HCH-ROOM# | DXY | HORIZONTAL CABINET | VESTIBULES - HEATING ONLY | 180 | - | 0.14 | - | - | - | - | - | - | - | 6.0 | 100.4 | 110.0 | 0.6 | 3/4 | 0.7 | 50 | MERV 8 | 208-1 | 1.0 | 15 | 37 | 14 | 36 | 95 | 1 - 7, 10, 11 |
| FC-12WM-ROOM# | MHQWW | WALL - MOUNTED | IT/AV - COOLING ONLY | 330 | 0.25 | 1/60 | 11.7 | 8.3 | - | - | 4.5 | 1 | 15.7 | - | - | - | - | - | - | - | MERV 8 | 120-1 | 1 | 15 | 39 | 12 | 7 | 28 | 5, 6, 8, 12, 13 |

NOTES:

1. DESIGN AND PERFORMANCE BASED ON IEC.
2. HEATING COIL CAPACITIES ARE BASED ON 130º/110º F EWT/LWT, 70 DB RA.
3. COOLING COIL CAPACITIES ARE BASED ON 44º/56 EWT/LWT, 75/63 DB/WB RA.
4. PROVIDE 1" FILTER RACK FOR FAN COILS WITH PLENUM RETURN. BLANK OFF FILTER SECTION FOR FAN COILS DUCTED TO FILTER RETURN GRILLES. REFER TO FLOOR PLANS.
5. MECH CONTRACTOR TO PROVIDE PIPING PACKAGE. BAS CONTRACTOR TO FURNISH CONTROL VALVE & ACTUATOR, INSTALLED BY MECH CONTRACTOR.
6. DDC CONTROLS FURNISHED AND FIELD INSTALLED BY BAS CONTRACTOR.
7. PROVIDE EC MOTOR COMPATIBLE WITH 0-10 VDC SIGNAL AND FACTORY DISCONNECT.
8. PROVIDE EC MOTOR WITH LOCAL SPEED CONTROLLER AND FACTORY DISCONNECT.
9. SOUND PERFORMANCE DATA RATED PER AHRI STANDARD 260 FOR DUCTED DISCHARGE AND MEDIUM FAN SPEED.
10. SOUND PERFORMANCE DATA RATED PER AHRI STANDARD 260 FOR CASING RADIATED AND MEDIUM FAN SPEED.
11. PROVIDE MFR STANDARD CABINET PAINT COLORS FOR SELECTION BY THE ARCHITECT. COLORS OPTIONS WILL INCLUDE WHITE AND BLACK.
12. DESIGN AND PERFORMANCE BASED ON MULTIAQUA.
13. COOLING COIL CAPACITES ARE BASED ON 45º EWT, 80/67 dB/wB, HIGH SPEED SETTING


QUINN EVANS

1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com


COMMONWEALTH OF VIRGINIA
MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

SCHEDULES

# M703

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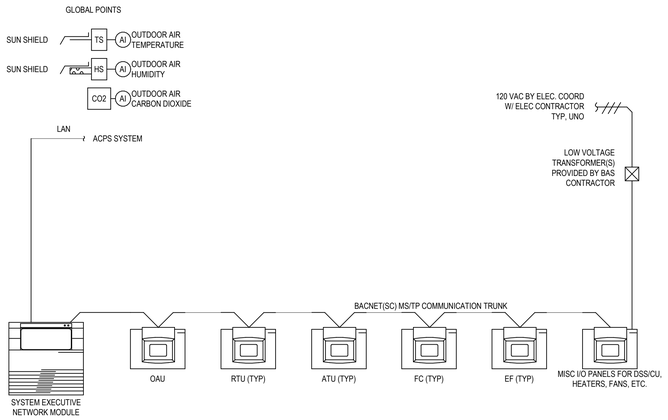


1 M801

## SYSTEM ARCHITECTURE

SCALE: NONE

NOTES:

1. PROVIDE SYSTEM WITH CONSISTENT BAS PROTOCOL THROUGHOUT PROJECT. WHERE REQUIRED, PROVIDE GATEWAYS.

## CONTROLS LEGEND

- AI — ANALOG INPUT
- AO — ANALOG OUTPUT
- BI — BINARY INPUT
- BO — BINARY INPUT
- INTERLOCK
- TS — TEMPERATURE SENSOR
- HS — HUMIDITY SENSOR
- PS — PRESSURE SENSOR
- FS — FLOW SWITCH
- FM — FLOW MEASUREMENT
- DM — DAMPER MODULATION
- DS — DAMPER STATUS
- CO — CARBON MONOXIDE SENSOR
- CO2 — CARBON DIOXIDE SENSOR
- DPS — DIFFERENTIAL PRESSURE SENSOR
- MOTOR
- ECM — EC MOTOR
- VFD — VARIABLE FREQUENCY DRIVE
- FLOW METER — FLOW METER
- AUTOMATIC 2-WAY CONTROL VALVE
- AUTOMATIC 3-WAY CONTROL VALVE
- TS — TEMPERATURE THERMOWELL
- PUMP
- EMERGENCY ALARM
- WALL STAT (XX-YY / XX-YY / ZZ / ZZ)
  - XX = SENSOR TYPE
  - YY = POINT TYPE
  - ZZ = SETPOINT/OVERRIDE
- DUCT INLET
- DUCT OUTLET
- AIRFLOW RING
- DAMPER
- AIR FLOW MEASURING STATION
- DISTRIBUTION TUBE
- D / X — DIRECT EXPANSION COIL
- H / P — HEAT PUMP
- CH / W — COOLING COIL
- H / W — HEATING COIL
- FILTER
- SD — DUCT SMOKE DETECTOR
- FAN
- MOISTURE DETECTION SENSOR

## SEQUENCE OF OPERATIONS

**CONVENTIONS**

1. THE BUILDING AUTOMATION SYSTEM (BAS) INSTALLER SHALL FURNISH AND INSTALL A DIRECT DIGITAL CONTROL (DDC) BAS FRONT END. THE NEW BAS COMPONENTS SHALL UTILIZE ELECTRONIC SENSING, MICROPROCESSOR-BASED DIGITAL CONTROL, AND ELECTRONIC ACTUATION OF DAMPERS, VALVES, AND DEVICES COMPATIBLE WITH THE EXISTING BAS TO PERFORM CONTROL SEQUENCES AND FUNCTION.
2. ALL MATERIALS SHALL BE NEW, THE BEST OF THEIR REPECTIVE KINDS WITHOUT IMPERFECTIONS OR BLEMISHES AND SHALL NOT BE DAMAGED IN ANY WAY, AND SHALL CONSIST OF THE MANUFACTURER'S LATEST PROVEN TECHNOLOGY AT THE TIME OF EQUIPMENT SUBMITTAL. USED EQUIPMENT SHALL NOT BE USED IN ANY WAY FOR THE PERMANENT INSTALLATION.
3. THE SYSTEM MUST BE FULLY BACNET (ASHRAE 135-2010 OR LATER) COMPLIANT AT THE TIME OF INSTALLATION. THE SYSTEM MUST USE BACNET AS THE NATIVE COMMUNICATION PROTOCOL BETWEEN THE BAS DEVICES AND NETWORK SERVERS.
4. ALL CONTROLS WORK SHALL BE INSTALLED BY THE BAS INSTALLER, UNLESS SPECIFIED OTHERWISE. ALL EQUIPMENT SHALL BE DIRECTLY CONTROLLED BY THE BAS WHERE POSSIBLE IN LIEU OF THIRD-PARTY OR FACTORY CONTROLS.
5. THE INSTALLATION OF ALL EQUIPMENT SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND INSTALLATION DOCUMENTATION.
6. CRITICAL SAFETY INTERLOCKS, SUCH AS FREEZESTATS, HIGH LIMIT PROTECTORS, END SWITCHES ETC., SHALL BE DIRECTLY CONNECTED, THROUGH WIRE, SO AS NOT TO DEPEND ON ANY DIGITAL CONTROL SYSTEM SEQUENCE OF OPERATION TO PERFORM THEIR SAFETY FUNCTION. CONTACTS SHALL BE PROVIDED SO THE SAFETY CAN BE MONITORED BY THE BAS.
7. LAMINATED CONTROL DRAWINGS INCLUDING SYSTEM CONTROL SCHEMATICS, SEQUENCES OF OPERATION AND PANEL TERMINATION DRAWINGS, SHALL BE PROVIDED IN EACH PANEL FOR THE EQUIPMENT SERVED BY THAT PANEL. TERMINAL UNIT DRAWINGS SHALL BE LOCATED IN THE CENTRAL PLANT EQUIPMENT PANEL OR MECHANICAL ROOM PANEL. THE DRAWINGS SHALL ACCURATELY RECORD THE ACTUAL CONTROLLER PROGRAMMING AND SETTINGS AT THE TIME OF BUILDING TURNOVER.
8. ELECTRONIC COPIES, INCLUDING EDITABLE AUTOCAD FILES, OF THE RECORD DRAWINGS SHALL BE PROVIDED AND SHALL INCLUDE COPIES OF THE ABOVE NOTED SCHEMATICS, CONTROLLER SCHEMATICS, AS WELL AS INDIVIDUAL FLOOR PLANS WITH CONTROLLER LOCATIONS WITH ALL INTERCONNECTING ROUTING WIRING, SPACE SENSORS, LAN WIRING, POWER WIRING, AND LOW VOLTAGE POWER WIRING.
9. CONTROLS INSTALLER SHALL PROVIDE THE OWNER WITH ALL PRODUCT LINE TECHNICAL MANUALS AND TECHNICAL BULLETINS, TO INCLUDE NEW AND UPGRADED PRODUCTS, BY THE SAME DISTRIBUTION CHANNEL AS TO DEALERS OR BRANCHES THROUGHOUT THE WARRANTY PERIOD OF THE PROJECT.
10. THE OWNER RESERVES THE RIGHT TO MAKE CHANGES TO THE BAS DURING THE WARRANTY PERIOD. SUCH CHANGES DO NOT CONSTITUTE A WAIVER OF WARRANTY. THE INSTALLER SHALL WARRANT PARTS AND INSTALLATION WORK REGARDLESS OF ANY SUCH CHANGES MADE BY THE OWNER, UNLESS THE INSTALLER PROVIDES CLEAR AND INDISPUTABLE EVIDENCE THAT A SPECIFIC PROBLEM IS THE RESULT OF SUCH CHANGES TO THE BAS. ANY DISAGREEMENT BETWEEN THE OWNER AND THE INSTALLER ON SUCH MATTERS SHALL BE SUBJECT TO RESOLUTION THROUGH THE CONTRACT 'DISPUTES' CLAUSE.
11. UNLESS OTHERWISE NOTED THE FOLLOWING CONVENTIONS SHALL APPLY FOR ALL HVAC SYSTEM SEQUENCES OF OPERATION CONTAINED HEREIN.
12. SPECIFIC DIAGNOSTIC MESSAGES, AT A MINIMUM, SHALL INCLUDE:
    a. SENSOR FAILURE - IDENTIFY SENSOR.
    b. PUMP IN HAND OPERATION - IDENTIFY PUMP.
    c. PUMP FAILURE - IDENTIFY PUMP.
    d. OUT OF LIMIT FOR NORMAL SYSTEM OPERATION - ALL SENSORS.
    e. LOSS OF COMMUNICATION - IDENTIFY COMPONENT.
13. REFER TO SPECIFICATIONS FOR ADDITIONAL BAS PERFORMANCE REQUIREMENTS.

## ABBREVIATIONS

| | |
|---|---|
| 2HOR | 2 HOUR OVERRIDE |
| ADS | AIR DIRT SEPARATOR |
| AFMS | AIR FLOW MONITORING STATION |
| AH | AIR HANDLER |
| AHU | AIR HANDLING UNIT |
| AI | ANALOG INPUT |
| AO | ANALOG OUTPUT |
| AS | AIR SEPARATOR |
| ATU | AIR TERMINAL UNIT |
| BAS | BUILDING AUTOMATION SYSTEM |
| BCU | BUILDING CONTROL UNIT |
| BI | BINARY INPUT |
| BO | BINARY OUTPUT |
| CAV | CONSTANT AIR VOLUME |
| CD | CONDENSATE DRAIN |
| CDP | CONDENSATE PUMP |
| CH | CHILLER |
| CHW | CHILLED WATER |
| CHWP | CHILLED WATER PUMP |
| CHWR/S | CHILLED WATER RETURN / SUPPLY |
| CO | CARBON MONOXIDE |
| CO2 | CARBON DIOXIDE |
| CP | CIRCULATOR PUMP |
| CRAC | COMPUTER ROOM AC UNIT |
| CSR | CURRENT SENSING RELAY |
| CT | CURRENT TRANSFORMER |
| CU | CONDENSING UNIT |
| CUH | CABINET UNIT HEATER |
| DCW | DOMESTIC COLD WATER |
| DDC | DIRECT DIGITAL CONTROL |
| HRCH | HEAT RECOVERY CHILLER |
| DM | DAMPER MOTOR |
| DP | DIFFERENTIAL PRESSURE |
| DPS | DIFFERENTIAL PRESSURE SENSOR |
| DS | DAMPER SWITCH |
| DWH | DOMESTIC WATER HEATER |
| DWST | DOMESTIC WATER STORAGE TANK |
| DX | DIRECT EXPANSION |
| EA | EXHAUST AIR |
| ECH | ELECTRIC CEILING HEATER |
| ECM | ELECTRICALLY COMMUTATED MOTOR |
| EF | EXHAUST FAN |
| EMS | ENERGY MANAGEMENT SYSTEM |
| EOL | END OF LINE |
| EQPT | EQUIPMENT |
| EUH | ELECTRIC UNIT HEATER |
| EWH | ELECTRIC WALL HEATER |
| FC | FAN COIL |
| FIP | FAIL IN PLACE |
| FM | FLOW METER |
| H | HUMIDIFIER |
| HG | HOT GAS |
| HGB | HOT GAS BYPASS |
| HP | HEAT PUMP |
| HW | HEATING WATER |
| HWB | HEATING WATER BOILER |
| HWP | HEATING WATER PUMP |
| HWR/S | HEATING WATER RETURN / SUPPLY |
| HWRP | DOMESTIC HEATING WATER RECIRC PUMP |
| HS | HUMIDITY SENSOR |
| HSTAT | HUMIDISTAT |
| MAU | MAKE-UP AIR UNIT |
| MFR | MANUFACTURER |
| MOD | MODULATING |
| MS/TP | MASTER SLAVE TOKEN PASSING |
| MSB | MAIN SWITCHBOARD |
| MZ | MULTIZONE |
| NC | NORMALLY CLOSED |
| NO | NORMALLY OPEN |
| OA | OUTSIDE AIR |
| PM | POWER METER |
| PS | PRESSURE SENSOR |
| RA | RETURN AIR |
| RH | REHEAT, RELATIVE HUMIDITY |
| RHC | REHEAT COIL |
| RTU | ROOFTOP UNIT |
| SA | SUPPLY AIR |
| SATU | SENSIBLE AIR TERMINAL UNIT |
| SCHW | SENSIBLE CHILLED WATER |
| SCHWS/R | SENSIBLE CHILLED WATER SUPPLY / RETURN |
| SCR | SILICON CONTROLLED RECTIFIER |
| SD | SMOKE DETECTOR |
| SF | SUPPLY FAN |
| SP | SET POINT |
| SPA | SET POINT ADJUSTMENT |
| SS | SOLIDS SEPARATOR |
| S/S | START / STOP |
| SZ | SINGLE ZONE |
| TE | TOTAL ENTHALPY |
| TEMP | TEMPERATURE |
| TMV | THERMOSTATIC MIXING VALVE |
| TS | TEMPERATURE SENSOR |
| TSTAT | THERMOSTAT |
| TYP | TYPICAL |
| UC | UNIT CONTROLLER |
| UM | UNIT MANUFACTURER |
| UNO | UNLESS NOTED OTHERWISE |
| UPS | UNINTERRUPTED POWER SUPPLY |
| VFD | VARIABLE FREQUENCY DRIVE |

## GENERAL NOTES (NEW WORK)

1. THE GENERAL CONTRACTOR WILL SOLICIT PROPOSAL FOR THE WORK SPECIFIED FROM THE BAS VENDORS ESTABLISHED TO PROVIDE SUCH SYSTEMS. ALL SENSORS, CONTROLLERS, VALVES, AND ASSOCIATED COMPONENTS INDICATED SHALL BE PROVIDED BY THE BAS CONTRACTOR.
2. BAS CONTRACTOR SHALL COORDINATE 120V ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR. 120 VOLT CIRCUITS FOR CONTROL POWER ARE SHOWN ON THE ELECTRICAL DRAWINGS. BAS CONTRACTOR SHALL PROVIDE ANY ADDITIONAL CIRCUITS AS REQUIRED FOR CONTROL POWER.
3. ALL CONTROL WIRING SHALL RUN IN CONDUIT, MIN 3/4", CONCEALED WITHIN WALLS OR ABOVE CEILINGS OF FINISHED SPACES, UNLESS NOTED OTHERWISE. IN SPACES WITH EXPOSED STRUCTURE CEILINGS, CONTRACTOR SHALL CLOSELY COORDINATE ROUTING WITH OTHER TRADES. CONDUIT FROM THE WALL OUTLET BOX MAY TERMINATE SEVERAL INCHES ABOVE THE CEILING WHERE LAY-IN CEILING TILES ARE TO BE USED. CABLING ABOVE THE CEILING SHALL BE NEATLY BUNDLED AND ATTACHED TO OR INDEPENDENTLY SUPPORTED FROM THE BUILDING STRUCTURE ABOVE.
4. ALL CONTROLS, SENSORS, AND FLOW METERS SHALL BE PROVIDED BY THE BAS CONTRACTOR, UNO. BAS CONTRACTOR SHALL PROVIDE ADDITIONAL POINTS & COMPONENTS AS NEEDED TO ACHIEVE THE SPECIFIED SEQUENCE OF OPERATION AND SYSTEM GRAPHIC DISPLAY.
5. INSTALL ALL HVAC WALL MOUNTED SENSORS 48" AFF, MEASURED FROM TOP OF OUTLET BOX, UNO.
6. DUCT SMOKE DETECTORS SHALL BE PROVIDED BY PROVIDED BY FIRE ALARM CONTRACTOR PER DIVISION 28 SPECIFICATIONS. DUCT SMOKE DETECTOR SHALL BE INSTALLED BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL INCLUDE A HARDWIRED CONNECTION FROM DUCT SMOKE DETECTOR TO RTUS TO ALLOW UNIT SHUTDOWN UPON DETECTION OF SMOKE.
7. REFER TO ELECTRICAL DRAWINGS FOR COORDINATION WITH ELECTRICAL SYSTEM CONTROL.
8. ALL VFD'S SHALL BE PROVIDED WITH BACNET MS/TP CARD TO INTERFACE WITH BAS.
9. THE INSTALLATION OF ALL EQUIPMENT SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND INSTALLATION DOCUMENTATION.

QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

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**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

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| No | Date | Description |
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PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

CONTROLS

# M801

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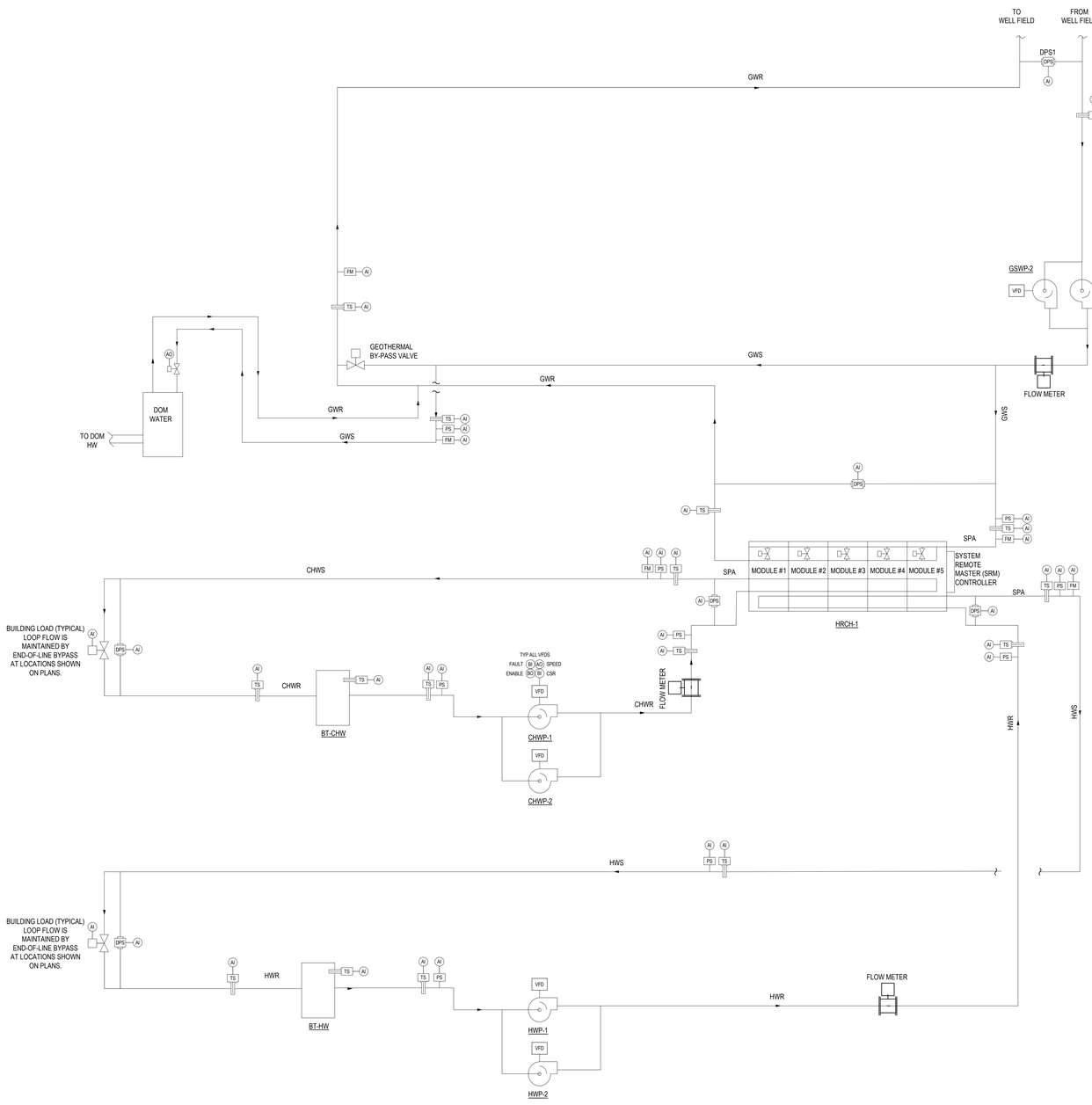


1 -- M802

## GROUND SOURCE CHILLED AND HEATING WATER SYSTEM

SCALE: NONE

NOTES:

1. CONTROLS SHALL BE FURNISHED AND FIELD INSTALLED BY BAS CONTRACTOR, UNO.
2. HRCH-1 SHALL BE FURNISHED WITH MANUFACTURER'S CONTROLLER WITH BACNET IP INTERFACE.
3. DWH SHALL BE FURNISHED WITH MANUFACTURER'S CONTROLLER WITH BACNET MS/TP INTERFACE. BAS CONTRACTOR SHALL PROVI
4. NOT ALL VALVES, FITTINGS, AND ACCESSORIES ARE SHOWN ON THE SCHEMATICS. SEE DETAIL SHEETS FOR ADDITIONAL INFORMATION.
5. REFER TO INDIVIDUAL EQUIPMENT DETAILS FOR ADDITION INFORMATION REGARDING CONTROLS, PIPING, ELECTRICAL CONNECTIONS, ETC..
6. INSTALL P/T PORTS AT ALL GAUGES AND SENSORS.
7. ALL PIPING TO EQUIPMENT INCLUDING INSTRUMENT CONTROL PIPING SHALL BE BY THE MECHANICAL CONTRACTOR. MINIMUM PIPE DIAMETER FOR INSTRUMENT CONTROL PIPING SHALL BE ½-INCH DIAMETER.
8. DIFFERENTIAL PRESSURE INSTRUMENT CONTROL PIPING SHALL CONNECT TO VERTICAL PIPING OR CONNECT ABOVE THE CENTER LINE OF HORIZONTAL PIPING TO PREVENT CARRYING AIR TO THE DIFFERENTIAL PRESSURE SENSOR.
9. ALL SETPOINTS MENTIONED IN THE SEQUENCE OF OPERATIONS ARE ADJUSTABLE.
10. SENSOR PIPE ASSEMBLY (SPA) IS FURNISHED MY MANUFACTURER AND INSTALLED BY MECHANICAL CONTRACTOR.

# SEQUENCE OF OPERATIONS

**GROUND SOURCE CHILLED AND HEATING WATER SYSTEM**

1. THE BAS CONTRACTOR SHALL PROVIDE A MICROPROCESSOR-BASED CONTROLLER WHICH SHALL MONITOR AND CONTROL THE ENTIRE SYSTEM IN A STAND-ALONE MODE OR AS DIRECTED BY THE BAS. THE HEAT RECOVERY CHILLER (HRCH-1) MANUFACTURER SHALL FURNISH AND INSTALL A BACNET COMPATIBLE MICROPROCESSOR-BASED SYSTEM REMOTE MASTER CONTROLLER (SRM) CAPABLE OF SEAMLESS COMMUNICATION WITH THE BAS WHICH SHALL MONITOR AND CONTROL THE HEAT RECOVERY CHILLER (HRCH-1) IN A STAND-ALONE MODE OR AS DIRECTED BY THE BAS. THE BAS SHALL BE RESPONSIBLE FOR COMMUNICATING WITH ALL CONTROLLERS AND PROVIDING STATUS AND DIAGNOSTICS OF THE UNITS TO THE OPERATOR.
2. THE BAS SHALL ENABLE THE GEOTHERMAL WATER SYSTEM BASED ON A CALL FOR COOLING, HEATING, OR DEHUMIDIFICATION FROM ONE OR MORE HYDRONIC EQUIPMENT (OAU, RTU, CRAC UNIT, FAN COIL UNIT (FC) ) AS INDICATED BY THE STATUS OF THEIR RESPECTIVE CONTROL VALVE OR A CALL FROM THE HEAT RECOVERY CHILLER (HRCH-1) SRM TO PROVIDE HEAT SOURCE/SINK UTLIZING THE GEOTHERMAL BOREFIELD.
3. THE SYSTEM DIFFERENTIAL PRESSURE SET POINTS (ESTABLISHED DURING TAB PROCESS) SHALL BE SATISFIED BY MODULATING THE LEAD PUMPS VARIABLE FREQUENCY DRIVE (VFD). THE SYSTEM END OF LINE BYPASS VALVE SHALL BE MODULATED OPEN TO MAINTAIN THE SYSTEM END OF LINE DIFFERENTIAL PRESSURE SET POINT ONLY AFTER THE PUMP VFD HAS MUDULATED DOWN TO ITS MINIMUM SPEED.
4. SHOULD FOR SOME REASON THE GEOTHERMAL LOOP SUPPLY TEMPERATURE DROP BELOW 50°F (ADJ) OR RISE ABOVE 85°F (ADJ), A LOW TEMPERATURE ALARM OR A HIGH TEMPERATURE ALARM SHALL BE GENERATED RESPECTIVELY.

   CONTROL OF FLOW THROUGH GROUND SOURCE/SINK PUMPS (GSWP-1 & GSWP-2)
5. THE PUMPS SHALL OPERATE IN A LEAD/STAND-BY MODE. THE LEAD GSWP SHALL ALTERNATE WEEKLY BY THE BAS. EITHER PUMP SHALL BE SELECTABLE TO BE THE LEAD PUMP. A CURRENT SENSOR FOR THE PUMP MOTOR SHALL INDICATE STATUS TO THE CONTROLLER. THE CONTROLLER SHALL BE PROGRAMMED TO RECOGNIZE CHANGES IN MOTOR TORQUE (CHANGES IN CURRENT DRAW) DUE TO BROKEN COUPLING.
6. IF A PUMP FAILS TO START WITHIN 20 SECONDS (ADJ) OF START COMMAND OR IF OPERATING PUMP FAILS AS PROVEN BY CURRENT SWITCH OR IF VFD FAILS, THE PUMP SHALL BE DE-ENERGIZED, A CRITICAL ALARM SHALL BE GENERATED AT THE BAS, AND THE STAND-BY PUMP SHALL START AFTER A 30 SECOND (ADJ) DELAY. IF THE STAND-BY PUMP OF VFD FAILS TO START OR FAILS DURING OPERATION AS SENSED BY CURRENT SENSING RELAY, AN ALARM SHALL BE SENT TO THE BAS. THE FAILED PUMP OR PUMPS SHALL REMAIN LOCKED OUT UNTIL MANUALLY RESET THROUGH THE BAS.
7. EITHER PUMP SHALL BE OFF UNTIL THERE IS A CALL FOR COOLING, HEATING, OR DEHUMIDIFICATION FROM ONE OR MORE HYDRONIC EQUIPMENT (OAU, RTU, CRAC UNIT, FAN COIL UNIT (FC) ) OR A CALL FOR HEATING FROM DOMESTIC WATER HEATER-HEAT PUMP AS INDICATED BY THE STATUS OF THEIR RESPECTIVE CONTROL VALVE OR A CALL FROM THE HEAT RECOVERY CHILLER SRM TO PROVIDE HEAT SOURCE/SINK UTLIZING THE GEOTHERMAL BOREFIELD.THE NUMBER OF UNITS NEEDED TO INITIATE THE LOOP FLOW SHALL BE EASILY CHANGED BY THE OPERATOR.
8. WHEN RUNNING THE ACTIVE PUMP'S SPEED SHALL VARY TO MAINTAIN THE SETPOINT DIFFERENTIAL PRESSURE AS SENSED BY DPS1.
9. THE GEOTHERMAL BY-PASS VALVE PROVIDES FLOW TO MEET THE REQUIRED MINIMUM PUMP FLOWRATE FOR THE ACTIVE GEOTHERMAL PUMP AND ITS VFD. THE BY-PASS VALVE FLOW RATE SETPOINT SHALL BE DETERMINED BY THE TAB AGENT BY OPERATING GSWP-1 (OR GSWP-2) AT 20 HZ, CLOSING ALL VALVES TO DOMESTIC WATER HEATING HEAT PUMPS AND TO THE HEAT RECOVERY CHILLER (HRCH-1), AND THEN OPENING BY-PASS VALVE UNTIL THE FLOW RATE EQUALS THE PUMP MANUFACTURER'S MINIMUM CONTINUOUS STABLE FLOW RATE. AFTER THE SYSTEM MINIMUM FLOW RATE SETPOINT HAS BEEN ESTABLISHED AND INCORPORATED IN THE CONTROLS THEN THE GEOTHERMAL BY-PASS VALVE FUNCTIONS TO PROVIDE MINIMUM FLOWRATE.
10. UPON A DECREASE IN FLOWRATE TO SETPOINT MINIMUM, ESTABLISED AT INITIAL TAB (ADJ), AS MEASURED BY THE FLOWMETER (FM), GEOTHERMAL BY-PASS VALVE MODULATES OPEN TO MAINTAIN SETPOINT; AND UPON AN INCREASE IN FLOWRATE ABOVE THE MINIMUM PLUS 10 GPM (ADJUSTABLE) AS MEASURED BY FLOW METER (FM), THEN GEOTHERMAL BY-PASS VALVE SHALL MODULATE TOWARD AND TO THE CLOSED POSITION. FM ALSO PROVIDES TRENDING DATA FOR THE GEOTHERMAL LOOP FLOW.
11. GENERATOR OPERATION: SHOULD THE BUILDING LOSE GRID POWER AND RELY ON GENERATOR EMERGENCY POWER, GSWP'S SHALL DELAY RESTARTING AND INITIATE SOFT START THROUGH THEIR VFDS TO AVOID UNNECESSARY POWER SPIKES. REFER TO GENERATOR STEP CHART FOR ADDITIONAL DETAIL.

    CONTROL OF FLOW THROUGH THE DOMESTIC WATER HEATER- HEAT PUMP
12. THE DOMESTIC WATER HEATER HEAT PUMP MANUFACTURER SHALL PROVIDE A BACNET COMPATIBLE MICROPROCESSOR-BASED CONTROLLER CAPABLE OF SEAMLESS COMMUNICATION WITH THE BAS WHICH SHALL MONITOR AND CONTROL THE DOMESTIC WATER HEATER-HEAT PUMP IN A STAND-ALONE MODE OR AS DIRECTED BY THE BAS. DOMESTIC HOT WATER HEATER-HEAT PUMP CONTROLLER SHALL PROVIDE OUTPUT AND READOUT OF THE DOMESTIC HOT WATER SUPPLY TEMPERATURES AND SET POINTS. MANUFACTURER'S INTEGRAL CONTROLLER SHALL PROVIDE ALL UNIT SAFETIES AND FREEZE CONTROL, REFRIGERANT HIGH-AND LOW PRESSURE SWITCHES, PHASE LOSS MONITORING, LOW VOLTAGE SAFETY AND COMPRESSOR STATUS/TEMPERATURE.
13. UPON A CALL FOR HEATING FROM DOMESTIC WATER HEATER-HEAT PUMP, AS INDICATED BY THE DOMESTIC WATER HEAT HEAT PUMP CONTROLLERS, THE BAS SHALL OPEN ITS ASSOCIATED CONTROL VALVE AND COMMUNICATE WITH THE HYDRONIC SYSTEM CONTROLLER TO ENABLE AND OPERATE THE GEOTHERMAL LOOP PUMPS. SHOULD FOR SOME REASON THE CONTROL VALVE FAIL TO OPEN, OR WHEN THE VALVE IS OPEN AND NO FLOW IS DETECTED AT THE DOMESTIC WATER HEATER HEAT PUMP AFTER THE GEOTHERMAL LOOP PUMPS ARE OPERATIONAL, AN ALARM SHALL BE GENERATED AT THE BAS. WHEN THE DOMESTIC WATER HEATER HEAT PUMP HAS BEEN INACTIVE FOR 30-MINUTES (ADJ.), THE ASSOCIATED CONTROL VALVE SHALL CLOSE.
14. DOMESTIC WATER HEATER HEAT-PUMPS INTEGRAL CONTROLLER SHALL CONTROL THE HEAT PUMP OPERATION, INCLUDING BUT NOT LIMITED TO ON/OFF CONTROL, CONTROLLING THE COMPRESSOR STAGING, COMPRESSOR SPEED CONTROL AND SEQUENCING ETC., TO MATCH THE DOMESTIC HOT WATER LOAD.
15. GENERATOR OPERATION: SHOULD THE BUILDING LOSE GRID POWER AND RELY ON GENERATOR EMERGENCY POWER, THE DOMESTIC WATER HEATER HEAT-PUMP SYSTEM SHALL DELAY RESTARTING TO AVOID UNNECESSARY POWER SPIKES. REFER TO GENERATOR STEP CHART FOR ADDITIONAL DETAIL.

    CONTROL OF THE 6-PIPE GROUND SOURCE HEAT RECOVERY CHILLER (HRCH-1)
16. THE 6-PIPE GROUND SOURCE HEAT RECOVERY CHILLER CONTAINS MULTIPLE HEAT PUMP MODULES WITH EACH MODULE CAPABLE OF OPERATING IN HEATING MODE, COOLING MODE OR SIMULTANEOUS (HEAT RECOVERY) MODE. EACH HEAT PUMP MODULE HAS MORE THAN ONE SCROLL COMPRESSOR AND AT LEAST TWO REFRIGERANT CIRCUITS INCLUDING HOT-GAS BYPASS, WITH MINIMUM TURNDOWN TO PROVIDE HEATING AND COOLING CAPACITY IN THE RANGE OF 20% TO 100% OF EACH MODULE'S CAPACITY.
17. THE BAS MUST ALWAYS STATE TO THE HEAT RECOVERY CHILLER (HRCH-1) SYSTEM REMOTE MASTER CONTROLLER (SRM) WHETHER IT IS IN HEATING PRIORITY OR COOLING PRIORITY MODE AS DESCRIBED BELOW:
    A. HEATING PRIORITY
        a. THE AMBIENT/OUTDOOR AIR TEMPERATURE IS BELOW 60°F (ADJ.)
        b. ONE (ADJ.) CALL FOR HEATING.
        c. ONE (ADJ.) CALL FOR DEHUMIDIFICATION
    B. COOLING PRIORITY
        a. THE AMBIENT/OUTDOOR AIR TEMPERATURE IS ABOVE 60°F (ADJ.)
        b. ONE (ADJ.) CALL FOR COOLING.
        c. ONE (ADJ.) CALL FOR DEHUMIDIFICATION
18. UPON A TRANSITION FROM HEATING WATER OR CHILLED WATER, THE BAS ACTIVATES THE SRM. GROUND LOOP SYSTEM, AND OPERATES ALL THREE (3) PUMPS I.E. GROUND SOURCE/SINK PUMPS (GSWP-1 OR GSWP-2), CHILLED WATER PUMPS (CHWP-1 OR CHWP-2), AND HEATING WATER PUMPS (HWP-1 OR HWP-2) AT MINIMUM BYPASS LEVEL. UPON ACTIVATION OF THE GROUND LOOP SYSTEM, THE GEOTHERMAL BY-PASS VALVE IS OPENED AND THE HEAT RECOVERY CHILLER MODULE VALVES REMAIN CLOSED. THE CONTROL SEQUENCES FOR GSWP-1 & GSWP-2 DESCRIBED ABOVE ARE EXECUTED. CONTROL AND OPERATION OF CHILLED AND HEATING WATER PUMPS (CHWP-1, CHWP-2, HWP-1, HWP-2) SHALL BE AS DESCRIBED BELOW:

    A. CHILLED WATER PUMPS (CHWP-1 & CHWP-2)
        a. CHWP'S SHALL BE ENABLED WHEN THE BAS COMMANDS THE HRCH-1 SRM TO COOLING PRIORITY MODE AND SHALL OPERATE IN A LEAD-STANDBY SEQUENCE.
        b. THE LEAD CHWP SHALL ALTERNATE WEEKLY BY THE BAS. EITHER PUMP (CHWP-1 OR CHWP-2) SHALL BE SELECTABLE TO BE THE LEAD PUMP. A CURRENT SENSOR FOR THE PUMP MOTOR SHALL INDICATE STATUS TO THE CONTROLLER. THE CONTROLLER SHALL BE PROGRAMMED TO RECOGNIZE CHANGES IN MOTOR TORQUE (CHANGES IN CURRENT DRAW) DUE TO BROKEN COUPLING.
        c. THE SYSTEM DIFFERENTIAL PRESSURE SET POINTS (ESTABLISHED DURING TAB PROCESS) SHALL BE SATISFIED BY MODULATING THE LEAD PUMP'S VARIABLE FREQUENCY DRIVE (VFD). THE BUILDING DIFFERENTIAL PRESSURE SENSORS SHALL BE LOCATED IN THE BRANCH PIPE PRIOR TO CONTROL VALVE. REFER TO THE FLOOR PLANS FOR LOCATION.
        d. CHILLED WATER BYPASS VALVE OPERATION: BAS SHALL MODULATE THE POSITION OF THE VALVE AS REQUIRED TO MAINTAIN SYSTEM MINMUM FLOW AND CHW SYSTEM DIFFERENTIAL PRESSURE AS ESTABLISHED IN THE TAB PROCESS 16 PSI (ADJ).
        e. PUMP MINIMUM FLOW SHALL BE 76 GPM AS DICTATED AS THE MINIMUM FLOW BY THE HRCH AND SHALL BE ESTABLISHED/COMMISSIONED AT TIME OF BALANCING AS THE MINIMUM PUMP SPEED THAT CORROLATES TO THIS FLOW. PUMP SHALL MODULATE TO MEET SET POINT OF THE DIFFERENTIAL PRESSURE SENSOR AND THE MODULE RUN/ENABLE STATUS OF THE 5-MODULE HRCH. IF SETPOINT DEMAND OF TEMPERATURE REQUIRES ADDITIONAL MODULES TO ENABLE, IF PUMP FLOW IS NOT MET BY FLOW METER, PUMP SHALL MODULATE TO 76 GPM X NO. OF MODULES COMMANDED ON FOR COOLING.

    B. HEATING WATER PUMPS (HWP-1 & HWP-2)
        a. HWP'S SHALL BE ENABLED WHEN THE BAS COMMANDS THE HRCH-1 SRM TO HEATING PRIORITY CONDITIONS AND SHALL OPERATE IN A LEAD-STANDBY SEQUENCE.
        b. THE LEAD HWP SHALL ALTERNATE WEEKLY BY THE BAS. EITHER PUMP (HWP-1 OR HWP-2) SHALL BE SELECTABLE TO BE THE LEAD PUMP. A CURRENT SENSOR FOR THE PUMP MOTOR SHALL INDICATE STATUS TO THE CONTROLLER. THE CONTROLLER SHALL BE PROGRAMMED TO RECOGNIZE CHANGES IN MOTOR TORQUE (CHANGES IN CURRENT DRAW) DUE TO BROKEN COUPLING.
        c. THE SYSTEM DIFFERENTIAL PRESSURE SET POINTS (ESTABLISHED DURING TAB PROCESS) SHALL BE SATISFIED BY MODULATING THE LEAD PUMP'SVARIABLE FREQUENCY DRIVE (VFD). THE BUILDING DIFFERENTIAL PRESSURE SENSORS SHALL BE LOCATED IN THE BRANCH PIPE PRIOR TO CONTROL VALVE. REFER TO THE FLOOR PLANS FOR LOCATION.
        d. HEATING WATER BYPASS VALVE OPERATION: BAS SHALL MODULATE THE POSITION OF THE VALVE AS REQUIRED TO MAINTAIN SYSTEM MINMUM FLOW AND HW SYSTEM DIFFERENTIAL PRESSURE AS ESTABLISHED IN THE TAB PROCESS 16 PSI (ADJ).
        e. PUMP MINIMUM FLOW SHALL BE 110 GPM AS DICTATED AS THE MINIMUM FLOW BY THE HRCH AND SHALL BE ESTABLISHED/COMMISSIONED AT TIME OF BALANCING AS THE MINIMUM PUMP SPEED THAT CORROLATES TO THIS FLOW.PUMP SHALL MODULATE TO MEET SET POINT OF THE DIFFERENTIAL PRESSURE SENSOR AND THE MODULE RUN/ENABLE STATUS OF THE 5-MODULE HRCH. IF SETPOINT DEMAND OF TEMPERATURE REQUIRES ADDITIONAL MODULES TO ENABLE, IF PUMP FLOW IS NOT MET BY FLOW METER, PUMP SHALL MODULATE TO 110 GPM X NO. OF MODULES COMMANDED ON FOR HEATING.

    A. IF A PUMP FAILS TO START WITHIN 20 SECONDS (ADJ) OF START COMMAND OR IF OPERATING PUMP FAILS AS PROVEN BY CURRENT SWITCH OR IF VFD FAILS, THE PUMP SHALL BE DE-ENERGIZED, A CRITICAL ALARM SHALL BE GENERATED AT THE BAS. AND THE STAND-BY PUMP SHALL START AFTER A 30 SECOND (ADJ) DELAY. IF THE STAND-BY PUMP OF VFD FAILS TO START OR FAILS DURING OPERATION AS SENSED BY CURRENT SENSING RELAY, AN ALARM SHALL BE SENT TO THE BAS. THE FAILED PUMP OR PUMPS SHALL REMAIN LOCKED OUT UNTIL MANUALLY RESET THROUGH THE BAS.

1. BASED ON THE INPUT PROVIDED BY BAS ON HEATING OR COOLING PRIORITY THE HRCH-1 SRM SEQUENCES AND CYCLES INDIVIDUAL HEAT PUMP MODULE AND THEIR STAGES AS DESCRIBED BELOW:

2. UPON A CALL FOR COOLING THE HRCH-1 SRM:
    A. ACTIVATES ONE (1) HEAT PUMP MODULE TO COOLING ONLY MODE, OPENS A CHW VALVE AND OPENS A SOURCE VALVE THAT ALLOWS GROUND SOURCE/SINK LOOP FLOW.
    B. THEN AFTER THE CHW AND SOURCE WATER FLOWS ARE VERIFIED BY FLOAT SWITCHES, THE SRM ACTIVATES ONE COMPRESSOR WITH HOT GAS BYPASS (HGB).
    C. THE SEQUENCE TO INCREASE COOLING EFFECT TO ATTAIN CW SETPOINT TEMPERATURE IS:
        a. REMOVAL OF HGB ON FIRST ACTIVE COMPRESSOR,
        b. INCREASE MODULE OUTPUT TO 50%,
        c. ACTIVATE THE SECOND COMPRESSOR WITH HGB, AND
        d. REMOVE HGB FROM SECOND COMPRESSOR.
    D. UPON A CONTINUED CALL FOR COOLING THE SECOND MODULE WILL BE ACTIVATED AND ITS COOLING OUTPUT SEQUENCED IN THE SAME MANNER AS THE FIRST MODULE (DESCRIBED ABOVE). MORE MODULES ARE ACTIVATED USING THE SAME SEQUENCE UNTIL MAXIMUM COOLING IS PROVIDED OR SET POINT IS REACHED.

3. RAMP-DOWN (REDUCING THE COOLING EFFECT OR CAPACITY) DEACTIVATES MODULES IN THE REVERSE ORDER (FIRST ON IS FIRST OFF) WITH THE COMPRESSOR THAT WAS ACTIVATED FIRST BEING THE FIRST TO BE DEACTIVATED.

4. THE CHW AND SOURCE WATER VALVES OF A MODULE CLOSE WHEN NO COMPRESSORS OF THE MODULE ARE ACTIVE AND THE BAS RAMPS DOWN THE GROUND SOURCE/SINK PUMP AND THE CHILLED WATER PUMPS ACCORDINGLY.

5. UPON A CALL FOR HEATING, THE HRCH-1 SRM:
    A. WILL FOLLOW THE THE SAME RAMP UP RAMP DOWN PROCEDURE USED FOR COOLING MODE (DESCRIBED ABOVE) EXCEPT NO HOT GAS BY-PASS (HGB) IS EMPLOYED.

6. FOR THE SITUATION WHERE THERE'S A CALL FOR SIMULTANEOUS HEATING AND COOLING, THE HRCH-1 SRM:
    A. WILL START THE FIRST MODULE IN THE DESIGNATED PRIORITY MODE, EITHER COOLING OR HEATING MODE SINCE THE EQUIPMENT'S INTERNAL SEQUENCE DO NOT ALLOW FOR THE FIRST MODULE TO START IN A SIMULTANEOUS (HEAT RECOVERY) MODE.
    B. WILL START THE SECOND MODULE IN SIMULTANEOUS MODE (WITH THE MODULE PROVIDING BOTH CHW AND HW TO THE SYSTEM LOOPS), STARTING WITH ONE COMPRESSOR OPERATING.
    C. TO MEET THE DEMANDS OF COOLING AND HEATING, THE SRM WILL DEACTIVATE COOLING-ONLY OR HEATING-ONLY STAGES/MODULES AND EITHER KEEPS SIMULTANEOUS HEATING-COOLING STAGES/MODULES OPERATING OR ADD MORE STAGES/MODULES IN SIMULTANEOUS MODE UNTIL THE CHW OR HW TEMPERATURE SET POINT IS SATISFIED.
    D. THE SRM WILL ATTEMPT TO MEET THE DEMANDS OF BOTH THE CHW SET POINTS WITH A PREFERENCE FOR AS MANY MODULES AS POSSIBLE BEING IN ENERGY-EFFICIENT SIMULTANEOUS MODE, WEHRE NONE OF THE BYPRODUCTS OF HEATING OR COOLING ARE REJECTED TO THE GROUND SOURCE.
    E. WHEN A SIMULTANEOUS LOAD IS PRESENT, THE SRM WILL DETERMINE THE LARGER OF THE COOLING AND HEATING LOADS, MAXIMIZE THE OPERATION OF SIMULTANEOUS STAGES/MODULES OF THE CHILLER, AND ONLY UTILIZE THE GEOTHERMAL SOURCE/SINK LOOP FOR THE LARGER OF THE LOADS AS REQUIRED.
    F. IF ALL MODULES ARE RUNNING, AND AN ADDITIONAL STAGE IS REQUIRED TO MEET THE PRIORITY SETPOINT, A MODULE WILL WILL BE TEMPORARILY STOPPED, REMOVING A STAGE OR TWO FROM THE NON-PRIORITY LOOP, THEN RESTARTED IN A MODE THAT WILL HELP MEET THE PRIORITY SETPOINT. THIS MAY RESULT IN THE NON-PRIORITY SETPOINT NOT BEING MET, HOWEVER THE SRM WILL STILL BE TRYING TO MAINTAIN BOTH LOOPS WITH AS MANY MODULES AS POSSIBLE IN SIMULTANEOUS MODE

7. THE MANUFACTURER PROVIDED CONTROLS OF THE MULTI-MODULE 6-PIPE GROUND SOURCE HEAT RECOVERY CHILLER ASSEMBLY MUST PROVIDE OR DO THE FOLLOWING:
    A. OPEN AND CLOSE A VALVE TO ALLOW SOURCE WATER FLOW WHEN THE MODULE IS CALLED TO BE ACTIVE AND WHEN IT IS CALLED TO BECOME INACTIVE.
    B. OPEN AND CLOSE VALVES TO ALLOW CHILLED WATER FLOW WHEN THE MODULE IS TO BE IN COOLING MODE OR SIMULTANEOUS COOLING AND HEATING MODE.
    C. OPEN AND CLOSE VALVES TO ALLOW HEATING WATER FLOW WHEN THE MODULE IS TO BE IN HEATING MODE OR SIMULTANEOUS COOLING AND HEATING MODE.
    D. CONTROL WHICH MODULES ARE OPERATING IN HEATING, WHICH IN COOLING, AND WHICH IN SIMULTANEOUS HEATING AND COOLING TO SATISFY THE SETPOINT SUPPLY TEMPERATURES FOR CHILLED WATER AND HEATING WATER.
    E. PROVIDE ALL UNIT SAFETIES AND FREEZE CONTROL, REFRIGERANT HIGH-AND LOW PRESSURE SWITCHES, PHASE LOSS MONITORING, LOW VOLTAGE SAFETY, COMPRESSOR RUN TIMES AND COMPRESSOR STATUS/TEMPERATURE.
    F. CONTROL THE HEAT RECOVERY CHILLER OPERATION, INCLUDING BUT NOT LIMITED TO ON/OFF CONTROL, CONTROLLING THE COMPRESSOR, HOT GAS BYPASS AND MODULE STAGING, COMPRESSOR SPEED CONTROL AND SEQUENCING ETC., TO MATCH THE LOAD.
    G. PROVIDE OUTPUT AND READOUT ON THE EQUIPMENT OF SUPPLY WATER TEMPERATURES AND SETPOINTS.

8. GENERATOR OPERATION: SHOULD THE BUILDING LOSE GRID POWER AND RELY ON GENERATOR EMERGENCY POWER, THE DOMESTIC WATER HEATER HEAT-PUMP SYSTEM SHALL DELAY RESTARTING TO AVOID UNNECESSARY POWER SPIKES. REFER TO GENERATOR STEP CHART FOR ADDITIONAL DETAIL.

9. SYSTEM GRAPHIC DISPLAY:
    a. OUTSIDE AIR TEMPERATURE AND HUMIDITY -GLOBAL.
    b. NUMBER OF UNITS, HEATING, COOLING OR DEHUMIDIFICATION CALLS TO INITIATE LOOP FLOW
    c. ALL TEMPERATURE AND PRESSURE SENSORS.
    d. ALL FLOW METERS.
    e. ALL VFDS -ENABLE, SPEED, STATUS, FAULT.
    f. PUMP ALTERNATE LEAD/LAG SWITCH, PUMP ON/OFF OVERRIDE SWITCH
    g. GEOTHERMAL LOOP SUPPLY, RETURN TEMPERATURE, FLOW,
    h. COOLING SET POINTS, HEATING SET POINTS, AND HI/LOW LOOP TEMEPRATURE ALARMS.
    i. CHILLED AND HEATING WATER SUPPLY SET POINTS.
    j. HRCH-1 SOURCE/SINK SUPPLY, RETURN, CHILLED WATER SUPPLY, RETURN, HEATING WATER SUPPLY, RETURN TEMPERATURES AND PRESSURES, AND ASSOCIATED PEAKS.
    k. HRCH-1: ALL MODULES - COMPRESSOR STAGES, STATUS, COOLING/HEATING/SIMULTANEOUS MODE, FAULT, SOURCE/SINK VALVE ENABLE, STATUS, CHILLED/HEATING WATER VALVE ENABLE, STATUS
    l. HEATING WATER END OF LINE BY-PASS VALVE, GEOTHERMAL BY-PASS VALVE POSITION.
    m. GENERATOR OPERATION - RESTART DELAY.


QUINN EVANS

1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

COMMONWEALTH OF VIRGINIA
MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER


Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

CONTROLS

**M802**

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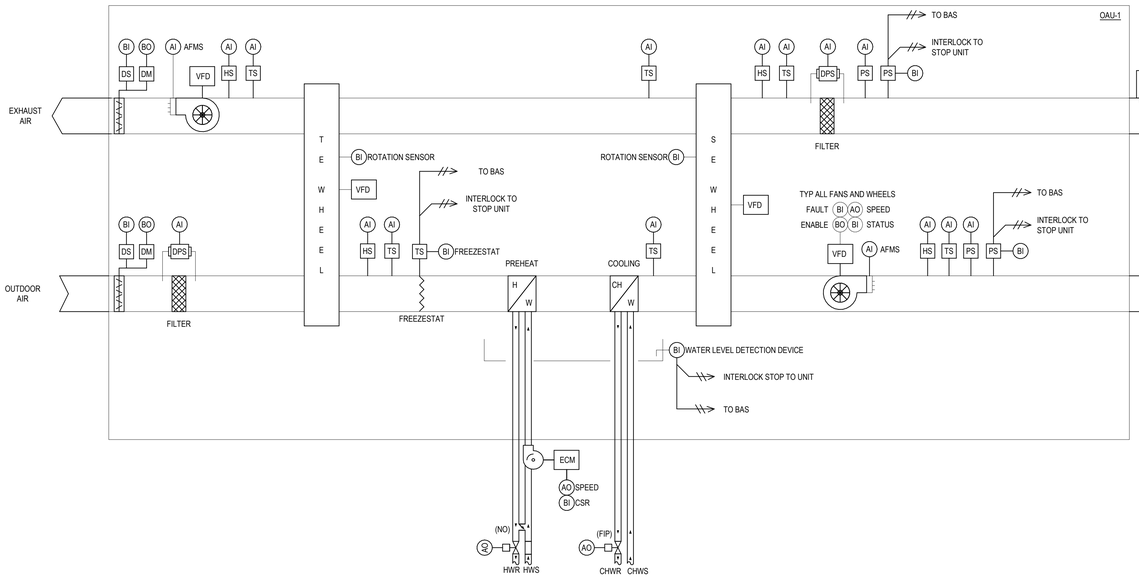


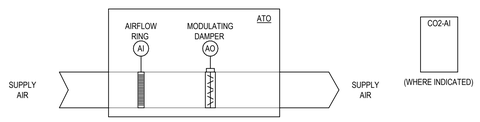

1 -- M803

## VARIABLE AIR VOLUME OUTSIDE AIR UNIT (OAU-1)

SCALE: NONE

NOTES:

1. UNIT CONTROLLER WITH BACNET IP INTERFACE AND INTERNAL UNIT SENSORS, UNO, WILL BE PROVIDED AND FACTORY WIRED BY EQUIPMENT MANUFACTER..
2. SMOKE DETECTOR WILL BE PROVIDED BY FIRE ALARM CONTRACTOR.
3. FREEZESTAT, HIGH/LOW PRESSURE STAT, WATER LEVEL DETECTION AND SMOKE DETECTOR SHALL BE HARDWIRED INTERLOCKED TO UNIT.
4. LOCATE DOWN DUCT PRESSURE SENSORS APPROXIMATELY 75% OF THE DISTANCE FROM THE FIRST TO THE MOST REMOTE TERMINAL UNIT. REFER TO FLOOR PLANS FOR LOCATIONS.




2 -- M803

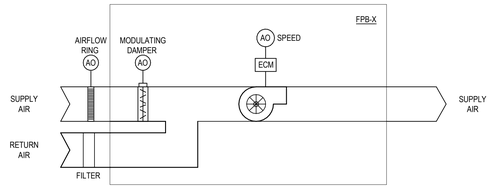
## SHUTOFF AIR TERMINAL UNIT (ATO)

SCALE: NONE

NOTES:

1. DETAIL IS TYPICAL FOR ALL ATO, UNLESS NOTED OTHERWISE.
2. CONTROLS SHALL BE FURNISHED AND FIELD INSTALLED BY BAS CONTRACTOR, UNO.
3. PROVIDE CO2 SENSORS FOR DENSELY OCCUPIED AREAS AS SHOWN ON PLANS. WHERE SHOWN ADJACENT WITH SPACE TEMPERATURE SENSOR PROVIDE INTEGRAL CO2 SENSOR.

| CO2 SETPOINTS: DEMAND CONTROL VENTILATION | | |
|---|---|---|
| **OCCUPANCY CATEGORY** | **ROOM #** | **CO2 SETPOINT (PPM)** |
| CLASSROOMS (AGE 9+) | 129,128,232,229,228,222,223,224 | 942 |
| COMPUTER LAB | 122,221 | 965 |
| CONFERENCE/ MEETING | 219 | 1656 |
| WOOD/METAL SHOP | 221A | 1156 |




3 -- M803

## SERIES FAN POWERED AIR TERMINAL UNIT (FPB)

SCALE: NONE

NOTES:

1. DETAIL IS TYPICAL FOR ALL FPB-X, UNO.
2. CONTROLS SHALL BE FURNISHED AND FIELD INSTALLED BY BAS CONTRACTOR, UNO.
3. OPERATION REQUIRES CONSTANT VOLUME OF PRIMARY AIR. BLANK OFF RETURN AIR OPENING.

## SEQUENCE OF OPERATIONS

VARIABLE AIR VOLUME OUTSIDE AIR UNIT (OAU-1)

1. THE EQUIPMENT MANUFACTURER SHALL PROVIDE A MICROPROCESSOR-BASED CONTROLLER WHICH SHALL MONITOR AND CONTROL THE SYSTEM IN A STANDALONE MODE OR AS DIRECTED BY THE BAS. THE BAS SHALL BE RESPONSIBLE FOR COMMUNICATING WITH THE CONTROLLER AND PROVIDING STATUS AND DIAGNOSTICS OF THE UNIT TO THE OPERATOR.
2. UNOCCUPIED OPERATION:
   a. THE UNIT SHALL BE DISABLED.
   b. AFTER A 5 MINUTE DELAY (ADJ) THE HEATING WATER VALVE, AND CHILLED WATER VALVE SHALL CLOSE.
   c. AFTER A 5 MINUTE DELAY (ADJ) ALL FANS AND ENERGY RECOVERY WHEELS SHALL BE COMMANDED OFF.
   d. AFTER A 5 MINUTE DELAY (ADJ) ALL OUTSIDE AIR AND EXHAUST AIR DAMPER ACTUATORS SHALL BE DE-ENERGIZED AND SPRING RETURN TO THEIR FAIL POSITION.
3. OCCUPIED OPERATION: ALL UNIT FUNCTIONS SHALL BE ENABLED. THE SYSTEM SHALL OPERATE TO MAINTAIN SUPPLY AIR TEMPERATURE AND DEHUMIDIFICATION SET POINTS.
   a. OUTSIDE AIR AND EXHAUST AIR DAMPERS SHALL OPEN.
   b. AFTER OUTSIDE AIR AND EXHAUST AIR DAMPERS ARE PROVED OPEN FOR 20 SECONDS, SUPPLY FANS AND EXHAUST FANS ARE ENERGIZED.
   c. THE ENTHALPY WHEEL AND SENSIBLE WHEEL SHALL OPERATE AT 100% FOR THE FIRST 5 MINUTES.
   d. AFTER A 5 MINUTE DELAY (ADJ) AND FANS ARE PROVED RUNNING, ALL CONTROL PROCESSES SHALL OPERATE AS DESCRIBED BELOW TO MAINTAIN SUPPLY AIR TEMPERATURE AND DEHUMIDIFICATION SET POINTS.
4. SUPPLY FAN DUCT STATIC PRESSURE CONTROL:
   a. THE BAS SHALL CONTINUOUSLY MONITOR THE DAMPER POSITIONS OF ALL ATO ASSOCIATED WITH THE UNIT.
   b. WHEN ANY ATO DAMPER IS MORE THAN 95% (ADJ) OPEN, THE SUPPLY FAN DUCT STATIC PRESSURE SET POINT SHALL BE RESET UPWARD BY 0.1 IWC (ADJ), UNTIL NO DAMPER IS MORE THAN 95% OPEN. THE SYSTEM MAXIMUM DUCT PRESSURE SET POINT IS AT THE MAXIMUM SETTING, OR THE SUPPLY FAN VFD IS AT THE MAXIMUM SETTING.
   c. WHEN ALL ATO DAMPERS ARE LESS THAN 75% (ADJ) OPEN, THE SUPPLY FAN DUCT STATIC PRESSURE SET POINT SHALL BE RESET DOWNWARD BY 0.1 IWC (ADJ), AT A FREQUENCY OF 15 (ADJ) MINUTES, UNTIL AT LEAST 1 DAMPER IS MORE THAN 75% OPEN. THE SYSTEM MINIMUM DUCT PRESSURE SET POINT IS AT THE MINIMUM SETTING, OR THE SUPPLY FAN VFD IS AT THE MINIMUM SETTING.
   d. THE BAS SHALL HAVE THE CAPABILITY TO ALLOW THE OPERATOR TO EASILY EXCLUDE 'NON-CRITICAL' ZONES THAT SHOULD NOT BE CONSIDERED WHEN DETERMINING THE STATIC PRESSURE SET POINT.
   e. HIGH STATIC LIMIT: AN INCREASE IN FAN DISCHARGE STATIC PRESSURE ABOVE THE HIGH STATIC LIMIT POINT 3.0 IWC SHALL CAUSE THE UNIT TO PERFORM AN EMERGENCY DISABLE AND AN ALARM SHALL BE SENT TO THE BAS TO INDICATE HIGH STATIC PRESSURE DISABLE. THIS ALARM SHALL BE MANUALLY RESET AT THE UNIT.
5. EXHAUST FAN DUCT STATIC PRESSURE CONTROL:
   a. THE BAS SHALL MODULATE THE EXHAUST FAN AIRFLOW TO BE PROPORTIONAL TO THE SUPPLY AIRFLOW. THE EXHUAST FAN AIRFLOW SHALL NOT GO BELOW THE MINIMUM NOTED IN THE SCHEDULE. PROVIDE 0.8 CFM (ADJ) OF EXHAUST AIR PER 1 CFM OF SUPPLY AIR TO MAINTAIN A POSITIVE OVERALL BUILDING PRESSURE.
   b. LOW STATIC LIMIT: A DECREASE IN FAN DISCHARGE STATIC PRESSURE BELOW THE LOW STATIC LIMIT POINT -3.0 IWC SHALL CAUSE THE UNIT TO PERFORM AN EMERGENCY DISABLE AND AN ALARM SHALL BE SENT TO THE BAS TO INDICATE LOW STATIC PRESSURE DISABLE. THIS ALARM SHALL BE MANUALLY RESET AT THE UNIT.
6. ENTHALPY WHEEL: THE TOTAL ENTHALPY WHEEL SHALL BE DISABLED IN ECONOMIZER MODE WHEN THE OUTDOOR AIR TEMPERATURE IS BETWEEN 65°F AND 74°F DB, AND BELOW 55°F WB. THE ENTHALPY WHEEL SHALL OPERATE AT 100% SPEED WHEN NOT IN ECONOMIZER MODE. IF THE OUTSIDE AIR TEMPERATURE FALLS BELOW THE FROST THRESHOLD SETPOINT OF 39°F (ADJ) THE TOTAL ENTHALPY WHEEL SPEED SHALL DECREASE TO MAINTAIN TE WHEEL DISCHARGE AIR TEMPERATURE ABOVE THE FROST THRESHOLD.
7. HEATING: THE HEATING WATER VALVE SHALL MODULATE TO MAINTAIN DISCHARGE AIR TEMPERATURE DOWNSTREAM OF THE COOLING COIL WHEN THE TE WHEEL DISCHARGE AIR TEMPERATURE IS MORE THAN 4°F DB BELOW THE SUPPLY AIR TEMPERATURE SETPOINT (BASED ON THE SUPPLY AIR TEMPERATURE RESET SCHEDULE) AND BELOW 60°F WB.
8. COOLING: THE CHILLED WATER VALVE SHALL USE A PI LOOP TO MODULATE TO MAINTAIN UNIT DISCHARGE AIR TEMPERATURE SETPOINT (BASED ON THE SUPPLY AIR TEMPERATURE RESET SCHEDULE) WHEN THE TE WHEEL DISCHARGE AIR TEMPERATURE IS ABOVE THE SUPPLY AIR TEMPERATURE SETPOINT.
9. DEHUMIDIFICATION: THE CHILLED WATER VALVE SHALL USE A PI LOOP TO MODULATE TO MAINTAIN 55°F DP UNIT DISCHARGE AIR TEMPERATURE WHEN THE TE WHEEL DISCHARGE AIR TEMPERATURE IS ABOVE 60°F WB.
10. SENSIBLE WHEEL: THE SENSIBLE WHEEL SHALL MODULATE TO MAINTAIN UNIT DISCHARGE AIR TEMPERATURE SETPOINT (BASED ON THE SUPPLY AIR TEMPERATURE RESET SCHEDULE) DIRECTLY DOWNSTREAM OF THE UNIT WHEN DEHUMIDIFICATION IS ENABLED.
11. SUPPLY AIR TEMPERATURE CONTROL:
    a. THE BAS SHALL RESET THE SUPPLY AIR TEMPERATURE INVERSELY WITH THE AMBIENT TEMPERATURE.
    b. THE LINEAR RELATIONSHIP SHALL BE SUPPLY TEMPERATURE OF 74°F DB AT 60°F DB AMBIENT TEMPERATURE OR LOWER AND 65°F DB AT 90° F DB AMBIENT TEMPERATURE OR ABOVE (ALL VALUES ADJUSTABLE).
    c. SUPPLY AIR TEMPERATURE SHALL BE RESET IN INCREMENTS OF 1°F (ADJ) EVERY 5 MINUTES (ADJ).
12. TIMED OVERRIDE: WHEN A USER TIMED OVERRIDE IS INITIATED AT A TERMINAL UNIT TEMPERATURE/HUMIDITY SENSOR WITHIN THE SPACES SERVED BY THE ASSOCIATED OAU, THE SYSTEM SHALL RETURN TO ITS NORMAL OCCUPIED OPERATION FOR 2 HOURS (ADJ). WHEN THE TIMED OVERRIDE PERIOD HAS ENDED, THE SYSTEM SHALL AUTOMATICALLY RETURN TO ITS UNOCCUPIED OPERATION.
13. FREEZE PROTECTION: A HARDWIRED, FREEZESTAT SHALL BE ELECTRICALLY INTERLOCKED WITH THE UNIT OPERATION. IF THE FREEZSTAT SET POINT OF 38 (ADJ) °F IS TRIPPED, ALL FANS SHALL DISABLE, ALL DAMPERS SHALL CLOSE, ALL VALVES SHALL OPEN TO 100%, AND AN ALARM SHALL BE GENERATED AT THE BAS. A MANUAL RESET OF THE LOW LIMIT TEMPERATURE SWITCH SHALL BE REQUIRED TO RESTART THE UNIT.
14. SMOKE DETECTION SHUTDOWN: SHOULD THE DUCT SMOKE DETECTORS DETECT SMOKE, THE OAU SHALL SHUT DOWN AND AN ALARM SHALL BE GENERATED AT THE BAS AND FIRE ALARM CONTROL PANEL.
15. IF CONDENSATE BEGINS TO BUILD UP IN THE CONDENSATE PAN, THE WATER LEVEL DETECTION DEVICE SHALL DISABLE THE UNIT, CLOSE ALL CHW VALVES, AND SEND AN ALARM TO THE BAS.
16. PREHEAT COIL PUMP: WHEN THE OUTSIDE AIR TEMPERATURE FALLS BELOW 38° F, THE COIL PUMP SHALL START. SHOULD THE PUMP FAIL TO START WITHIN 30 SECONDS OF A START COMMAND, AN ALARM SHALL BE GENERATED AT THE BAS.
17. PUMP DISABLE: THE BAS GRAPHIC INTERFACE DISPLAY SHALL INCLUDE AN ICON FOR THE PUMP, WHICH SHALL DISABLE THE PUMP FOR COIL DRAINAGE AND SERVICING.
18. SYSTEM GRAPHIC DISPLAY:
    a. OUTSIDE AIR TEMPERATURE AND HUMIDITY - GLOBAL.
    b. UNIT ENABLE/DISABLE, SCHEDULING, AND OCCUPIED MODE OVERRIDE.
    c. SUPPLY AND EXHAUST AIRFLOW.
    d. ALL DAMPERS - POSITION AND STATUS.
    e. ALL TEMPERATURE, HUMIDITY AND PRESSURE SENSORS.
    f. TE WHEEL ECONOMIZER SET POINTS.
    g. TE WHEEL - MODULATION AND ROTATION SENSOR.
    h. ALL VFDS - ENABLE, SPEED, STATUS, FAULT.
    i. SUPPLY DUCT STATIC PRESSURE CONTROL - ATO CRITICAL ZONE AND DAMPER POSITION, STATIC PRESSURE SET POINT, MINIMUM, MAXIMUM, AND DURATION.
    j. EXHAUST DUCT STATIC PRESSURE CONTROL - AIRFLOW SETPOINT, DOWN DUCT STATIC PRESSURE, MINIMUM AIRFLOW, AND MAXIMUM AIRFLOW.
    k. HEATING WATER VALVE MODULATION.
    l. CHILLED WATER VALVE MODULATION.
    m. ALL COILS - DISCHARGE TEMPERATURE AND SET POINT.
    n. SE WHEEL TEMPERATURE SET POINT AND SPEED.
    o. SE WHEEL - MODULATION AND ROTATION SENSORS.
    p. UNIT - DISCHARGE TEMPERATURE, SET POINTS, AND RESET SCHEDULE.
    q. ALL SMOKE DETECTORS - STATUS.
    r. ALL HIGH STATIC STATS - STATUS.
    s. FREEZESTAT STATUS.
    t. WATER LEVEL DETECTION DEVICE STATUS.
    u. PREHEAT COIL PUMP - ENABLE AND STATUS.

**SHUTOFF AIR TERMINAL UNIT (ATO)**

1. THE BAS CONTRACTOR SHALL PROVIDE A MICROPROCESSOR-BASED CONTROLLER WHICH SHALL MONITOR AND CONTROL THE UNIT IN A STAND-ALONE MODE OR AS DIRECTED BY THE BAS. VARIABLE AIR VOLUME TERMINALS SHALL BE CONTROLLED BY THE BAS FOR VENTILATION REQUIREMENTS OF THE ZONE OCCUPANTS. PRESSURE INDEPENDENT CONTROL SHALL SHUT OFF AND MODULATE AIRFLOW BETWEEN VENTILATION MINIMUMS AND MAXIMUMS.
2. THE UNIT SHALL BE PROVIDED WITH A TIME OF DAY OCCUPANCY SCHEDULE AND THE CAPABILITY FOR AN OCCUPANT TO OVERRIDE THE SCHEDULE. OCCUPANCY STATUS SHALL BE COMMUNICATED TO THE ASSOCIATED OAU.
3. UNOCCUPIED OPERATION: WHEN THE ATO IS SCHEDULED UNOCCUPIED, OPERATION SHALL BE AS FOLLOWS:
   a. THE DAMPER SHALL CLOSE.
4. UNOCCUPIED OPERATION OVERRIDE: WHEN ATO IS SCHEDULED UNOCCUPIED, UNOCCUPIED OPERATION SHALL BE OVERRIDDEN AS FOLLOWS:
   a. CO2 SENSOR OCCUPANCY OVERRIDE: IF ZONE CO2 LEVEL RISES ABOVE MAX CO2 LEVEL SCHEDULED IN THE VENTILATION TABLES (ADJ), THE ATO AND ASSOCIATED OAU SHALL RETURN TO NORMAL OCCUPIED OPERATION UNTIL ZONE CO2 LEVEL FALL BELOW 500 PPM (ADJ) OR 30 MINUTES (ADJ), WHICHEVER IS LONGER.
   b. TIMED OVERRIDE: WHEN A TIMED OVERRIDE IS INITIATED BY THE USER AT AN ASSOCIATED TERMINAL HEAT TRANSFER UNIT TEMPERATURE SENSOR, THE ATO AND ASSOCIATED OAU SHALL RETURN TO ITS NORMAL OCCUPIED OPERATION FOR A PERIOD OF 2 HOURS. WHEN THE TIMED OVERRIDE PERIOD HAS ENDED, THE ZONE SHALL AUTOMATICALLY RETURN TO ITS UNOCCUPIED OPERATION.
   c. ASSOCIATED OAU SHALL COMMAND ATO'S OPEN TO MINIMUM AIRFLOWS IN SEQUENTIAL ORDER LISTED IN VENTILATION TABLES UNTIL THE MINIMUM AIRFLOW LISTED ON THE MECHANICAL SCHEDULES IS MET. THE BAS SHALL ENSURE MINIUM OAU AIRFLOW IS MAINTAINED AT ALL TIMES.
   d. IF OVERRIDE PERIOD EXTENDS INTO NEXT SCHEDULED OCCUPIED PERIOD, UNIT SHALL AUTOMATICALLY TRANSITION TO OCCUPIED MODE.
5. OCCUPIED OPERATION: PI LOOP SHALL MODULATE ZONE DAMPER TO MAINTAIN CFM SETPOINT. CFM SETPOINT DETERMINED AS FOLLOWS:
   a. ATO SCHEDULED CONSTANT VOLUME: THE UNIT DAMPER SHALL MODULATE TO PROVIDE THE SCHEDULED CONSTANT OUTSIDE AIR CFM. REFER TO VENTILATION TABLES FOR FURTHER DETAIL.
   b. ATU MODULATING VOLUME (CO2): THE UNIT DAMPER SHALL MODULATE BETWEEN THE SCHEDULED MINIMUM AND MAXIMUM OUTSIDE AIR QUANTITIES BASED ON THE CORRESPONDING CO2 SENSOR SET POINT. WHEN THE CO2 SENSOR INDICATES THE SPACE IS 100 PPM BELOW SET POINT, THE DAMPER SHALL MODULATE CLOSED TO MAINTAIN THE SCHEDULED MINIMUM CFM. WHEN THE SENSOR INDICATES THE CO2 LEVEL IN THE SPACE EXCEEDS SET POINT, THE DAMPER SHALL MODULATE OPEN TO MAINTAIN THE SCHEDULED MAXIMUM CFM UNTIL THE SENSOR INDICATES THE SPACE IS 100 PPM BELOW SET POINT. REFER TO AIR TERMINAL UNIT SCHEDULE FOR CO2 SET POINTS AND SCHEDULED MINIMUM AND MAXIMUM OUTSIDE AIR QUANTITIES.
   c. ATO SHALL OUTPUT THE CURRENT DAMPER POSITION TO THE ASSOCIATED OAU FOR USE IN DETERMINING DOWN DUCT STATIC PRESSURE SETPOINT.
6. SYSTEM GRAPHIC DISPLAY:
   a. OUTSIDE AIR TEMPERATURE AND HUMIDITY - GLOBAL.
   b. UNIT MARK, TYPE, SIZE. ENABLE/DISABLE, OCCUPANCY SCHEDULE, AND OVERRIDE STATUS.
   c. CONSTANT VOLUME ATO: SET POINT.
   d. MODULATING VOLUME ATO: CURRENT SPACE CO2 LEVEL AND MAX ALLOWABLE CO2 CONCENTRATION LEVEL.
   e. MODULATING VOLUME ATO: CURRENT AIRFLOW SETPOINT, MINIMUM AND MAXIMUM AIRFLOW SET POINTS.
   f. DAMPER POSITION.
   g. SUPPLY AIRFLOW.

SERIES FAN POWERED AIR TERMINAL UNIT (FPB)

1. THE BAS CONTRACTOR SHALL PROVIDE A MICROPROCESSOR-BASED CONTROLLER WHICH SHALL MONITOR AND CONTROL THE UNIT IN A STAND-ALONE MODE OR AS DIRECTED BY THE BAS.
2. THE UNIT SHALL BE PROVIDED WITH A TIME OF DAY OCCUPANCY SCHEDULE AND THE CAPABILITY FOR AN OCCUPANT TO OVERRIDE THE SCHEDULE. OCCUPANCY STATUS SHALL BE COMMUNICATED TO THE ASSOCIATED OAU.
3. OCCUPIED OPERATION:
   a. THE FAN SHALL START AND RUN CONTINUOUSLY.
   b. PI LOOP SHALL MODULATE ZONE DAMPER TO MAINTAIN CFM SETPOINT. THE UNIT DAMPER SHALL MODULATE TO PROVIDE THE SCHEDULED CONSTANT OUTSIDE AIR CFM.
4. UNOCCUPIED OPERATION:
   a. THE FAN SHALL STOP.
   b. THE DAMPER SHALL CLOSE.
   c. IF OVERRIDE PERIOD EXTENDS INTO NEXT SCHEDULED OCCUPIED PERIOD, UNIT SHALL AUTOMATICALLY TRANSITION TO OCCUPIED MODE.
5. TIMED OVERRIDE: WHEN A TIMED OVERRIDE IS INITIATED BY THE USER AT THE TEMPERATURE SENSOR, THE SYSTEM SHALL RETURN TO ITS NORMAL OCCUPIED OPERATION FOR A PERIOD OF TIME AS SPECIFIED THROUGH THE BAS. WHEN THE TIMED OVERRIDE PERIOD HAS ENDED, THE SYSTEM SHALL AUTOMATICALLY RETURN TO ITS UNOCCUPIED OPERATION.
6. SYSTEM GRAPHIC DISPLAY:
   a. UNIT MARK, TYPE, SIZE, ENABLE/DISABLE, OCCUPANCY SCHEDULE, OVERRIDE STATUS, AND CRITICAL/ NON-CRITICAL DESIGNATION
   b. CONSTANT VOLUME FPB: SET POINT
   c. DAMPER POSITION
   d. SUPPLY AIRFLOW

QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

COMMONWEALTH OF VIRGINIA
MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

CONTROLS

**M803**

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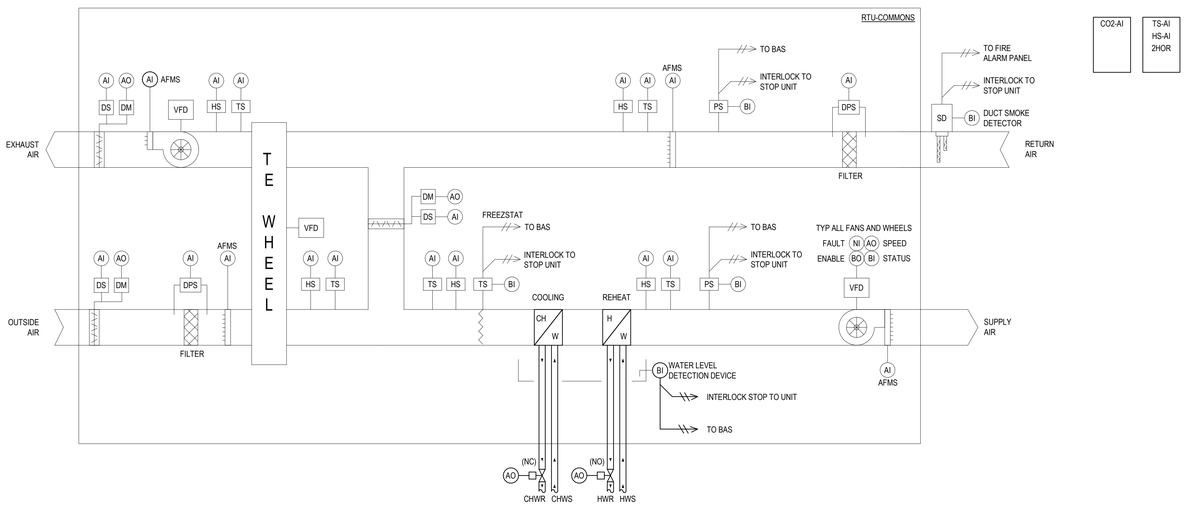
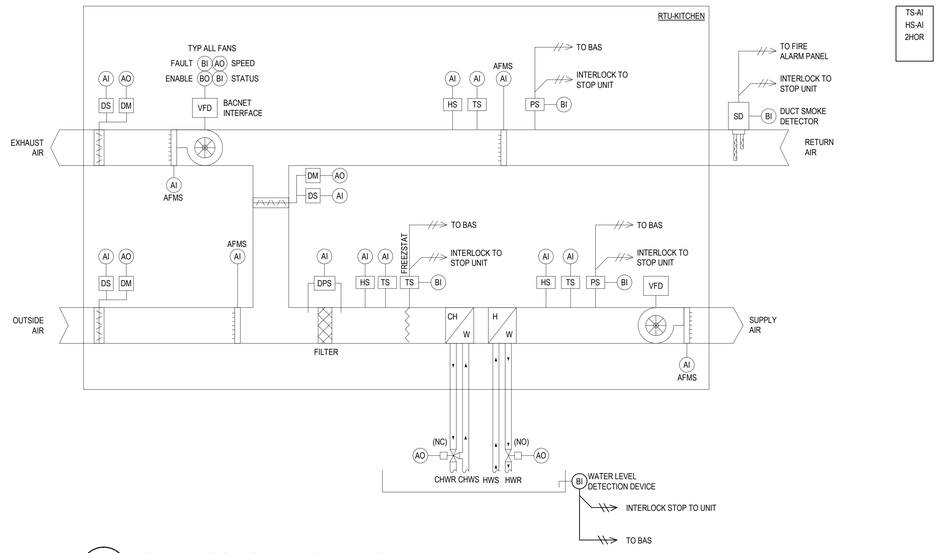



1 / -- M804

## SZ VAV ROOFTOP UNIT (RTU-COMMONS)

SCALE: NONE

NOTES:
1. DETAIL IS FOR RTU-COMMONS ONLY
2. UNIT CONTROLLER WITH BACNET IP INTERFACE AND INTERNAL UNIT SENSORS, UNO, WILL BE PROVIDED AND FACTORY WIRED BY EQUIPMENT MANUFACTURER.
3. SMOKE DETECTOR WILL BE PROVIDED BY FIRE ALARM CONTRACTOR.
4. FREEZESTAT, HIGH/LOW PRESSURE STAT, WATER LEVEL DETECTION AND SMOKE DETECTOR SHALL BE HARDWIRED INTERLOCKED TO UNIT.




2 / -- M804

## SZ VAV ROOFTOP UNIT (RTU-KITCHEN)

SCALE: NONE

NOTES:
1. DETAIL IS FOR RTU-KITCHEN
2. UNIT CONTROLLER WITH BACNET IP INTERFACE AND INTERNAL UNIT SENSORS, UNO, WILL BE PROVIDED AND FACTORY WIRED BY EQUIPMENT MANUFACTURER.
3. SMOKE DETECTOR WILL BE PROVIDED BY FIRE ALARM CONTRACTOR.
4. FREEZESTAT, HIGH/LOW PRESSURE STAT, WATER LEVEL DETECTION AND SMOKE DETECTOR SHALL BE HARDWIRED INTERLOCKED TO UNIT.

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# SEQUENCE OF OPERATIONS

SZ VAV ROOFTOP UNIT (RTU-COMMONS)

1. THE EQUIPMENT MANUFACTURER SHALL PROVIDE A MICROPROCESSOR-BASED CONTROLLER WHICH SHALL MONITOR AND CONTROL THE SYSTEM IN A STANDALONE MODE OR AS DIRECTED BY THE BAS. THE BAS SHALL BE RESPONSIBLE FOR COMMUNICATING WITH THE CONTROLLER AND PROVIDING STATUS AND DIAGNOSTICS OF THE UNIT TO THE OPERATOR.
2. UNOCCUPIED OPERATION:
   a. THE UNIT SHALL BE DISABLED.
   b. THE HEATING WATER VALVE, AND CHILLED WATER VALVE SHALL CLOSE.
   c. ALL FANS AND ENERGY RECOVERY WHEELS SHALL BE COMMANDED OFF.
   d. ALL OUTSIDE AIR AND EXHAUST AIR DAMPER ACTUATORS SHALL BE CLOSED. THE RETURN AIR DAMPER SHALL BE OPEN.
   e. THE UNIT SHALL CYCLE ON, AS DIRECTED BY THE BAS, TO MAINTAIN UNOCCUPIED SPACE HEATING, COOLING, AND DEHUMIDIFICATION SETPOINTS. THE HEATING WATER AND CHILLED WATER VALVES SHALL MODULATE TO MAINTAIN UNIT SCHEDULED DISCHARGE AIR TEMPERATURE SET POINTS (ADJ).
3. OCCUPIED OPERATION: ALL UNIT FUNCTIONS SHALL BE ENABLED. THE SYSTEM SHALL OPERATE TO MAINTAIN SPACE TEMPERATURE AND DEHUMIDIFICATION SET POINTS.
   a. THE OUTSIDE AIR AND EXHAUST AIR DAMPERS SHALL OPEN.
   b. THE SUPPLY FANS AND EXHAUST FANS ARE ENERGIZED.
   c. THE ENTHALPY WHEEL SHALL ENABLE.
4. SUPPLY FAN:
   a. THE SUPPLY FAN WILL MODULATE BASED ON THE SPACE DEMAND. AS THE SPACE TEMPERATURE RISES ABOVE THE UPPER LIMIT OF THE DEADBAND, THE FAN SPEED WILL RUN AT 100% IN THE COOLING MODE. WHEN THE SPACE TEMPERATURE IS IN THE DEADBAND, THE SUPPLY FAN WILL MODULATE PROPORTIONATELY. WHEN THE SPACE TEMPERATURE FALLS BELOW THE LOWER LIMIT OF THE DEADBAND, THE FAN SPEED WILL RUN AT 100% (ADJ). IN THE HEATING MODE.
   b. HIGH STATIC LIMIT: AN INCREASE IN FAN DISCHARGE STATIC PRESSURE ABOVE THE HIGH STATIC LIMIT POINT 3.0 IWC (ADJ) SHALL CAUSE THE UNIT TO PERFORM AN EMERGENCY DISABLE AND AN ALARM SHALL BE SENT TO THE BAS TO INDICATE HIGH STATIC PRESSURE DISABLE. THIS ALARM SHALL BE MANUALLY RESET AT THE UNIT.
5. EXHAUST FAN:
   a. THE EXHAUST FAN WILL BE ENABLED ANYTIME THE BUILDING PRESSURE IS ABOVE THE BUILDING PRESSURE SETPOINT .02" (ADJ.) PLUS THE BUILDING PRESSURE DEADBAND .01" (ADJ.). AS THE BUILDING PRESSURE APPROACHES THE BUILDING PRESSURE SETPOINT, THE EXHAUST FAN WILL MODULATE DOWN AND TURN OFF AS NECESSARY TO CONTROL TO THE BUILDING PRESSURE SETPOINT. IN THE UNOCCUPIED MODE, THE EXHAUST FANS WILL REMAIN OFF REGARDLESS OF BUILDING PRESSURE.
   b. LOW STATIC LIMIT: A DECREASE IN FAN DISCHARGE STATIC PRESSURE BELOW THE LOW STATIC LIMIT POINT -3.0 IWC (ADJ) SHALL CAUSE THE UNIT TO PERFORM AN EMERGENCY DISABLE AND AN ALARM SHALL BE SENT TO THE BAS TO INDICATE LOW STATIC PRESSURE DISABLE. THIS ALARM SHALL BE MANUALLY RESET AT THE UNIT.
6. OUTDOOR AIR DAMPER: THE DAMPER SHALL MODULATE TO MAINTAIN MINIMUM OUTDOOR AIRFLOW.
7. ENERGY RECOVERY WHEEL:
   a. THE HEAT WHEEL WILL RUN CONTINUOUSLY.
   b. WHEN THE UNIT GOES INTO COOLING MODE AND THE OUTDOOR AIR ENTHALPY IS ABOVE THE HIGH OUTDOOR ENTHALPY SETPOINT OF 30 BTU/LB (ADJ) AND BELOW THE LOW OUTDOOR ENTHALPY SETPOINT OF 20 BTU/LB (ADJ), THE HEAT WHEEL WILL BE DISABLED.
   c. THE HEAT WHEEL WILL ENTER A DEFROST MODE WHEN THE OUTDOOR TEMPERATURE IS BELOW THE HEAT WHEEL DEFROST SETPOINT 32F (ADJ.) AND 30 MINUTES HAVE ELAPSED SINCE THE LAST DEFROST CYCLE. WHEN THE HEAT WHEEL ENTERS THE DEFROST MODE, THE OUTDOOR AIR DAMPER WILL MODULATE TO 10% AND THE HEAT WHEEL WILL BE DISABLED FOR 2 MINUTES TO ALLOW FOR DEFROST TO OCCUR.
8. SPACE CONDITIONING:
   a. ACTIVE SUPPLY AIR TEMPERATURE SETPOINT: THE ACTIVE SUPPLY AIR TEMPERATURE SETPOINT SHALL BE SHALL BE EQUAL TO THE SPACE TEMPERATURE SETPOINT. THE ACTIVE SUPPLY AIR TEMPERATURE SETPOINT SHALL BE RESET PROPORTIONAL TO SPACE TEMPERATURE DEVIATION FROM SPACE SETPOINT. FOR EACH 0.1°F DEVIATION OF SPACE TEMPERATURE FROM SPACE SET POINT, THE ACTIVE SUPPLY AIR TEMPERATURE SETPOINT SHALL BE RESET BY 8°F (ADJ.) TIMES THE DEVIATION. THE ACTIVE SUPPLY AIR TEMPERATURE SETPOINT SHALL RESET UP WHEN SPACE TEMPERATURE IS BELOW THE SPACE SET POINT AND DOWN WHEN SPACE TEMPERATURE IS ABOVE THE SPACE SET POINT. THE ALGORITHM SHALL NOT EXCEED MINIMUM OF 48°F (ADJ) AND A MAXIMUM OF 90°F (ADJ).
   b. HEATING: IF THE SPACE TEMPERATURE FALLS BELOW SETPOINT, THE HEATING WATER VALVE WILL BEGIN TO MODULATE OPEN. WHEN THE SUPPLY AIR TEMPERATURE IS MORE THAN THE MODULATING HEATING WINDOW OF 10F (ADJ.) FROM THE ACTIVE SUPPLY AIR SETPOINT, THE VALVE WILL MAKE A MAXIMUM 10% ADJUSTMENT EVERY MODULATING HEATING TIME PERIOD OF 30 SECONDS (ADJ.). WHEN THE SUPPLY AIR TEMPERATURE IS WITHIN THE MODULATING HEATING WINDOW, THE VALVE WILL MAKE A SMALLER PROPORTIONAL ADJUSTMENT.
   c. COOLING: IF THE SPACE TEMPERATURE RISES ABOVE SETPOINT, THE CHILLED WATER VALVE WILL BEGIN TO MODULATE OPEN. WHEN THE SUPPLY AIR TEMPERATURE IS MORE THAN THE MODULATING COOLING WINDOW OF 10F (ADJ.) FROM THE ACTIVE SUPPLY AIR SETPOINT, THE VALVE WILL MAKE A MAXIMUM 10% ADJUSTMENT EVERY MODULATING COOLING TIME PERIOD OF 30 SECONDS (ADJ.). WHEN THE SUPPLY AIR TEMPERATURE IS WITHIN THE MODULATING COOLING WINDOW, THE VALVE WILL MAKE A SMALLER PROPORTIONAL ADJUSTMENT
   d. DEHUMIDIFICATION: DURING CONDITIONS WHEN EITHER THE SPACE WET BULB OR RETURN AIR WET BULB TEMPERATURE IS GREATER THAN 62°F (ADJ), THE UNIT SHALL BE IN DEHUMIDIFICATION MODE. THE CHILLED WATER VALVE SHALL MODULATE TO FULL OPEN. IF SPACE TEMPERATURE FALLS BELOW SETPOINT THE HEATING WATER VALVE SHALL MODULATE OPEN TO MAINTAIN ACTIVE SUPPLY AIR TEMPERATURE SETPOINT.
9. CO2 CONTROLLED VENTILATION:
   a. THE OUTSIDE AND RETURN AIR DAMPERS SHALL MODULATE BETWEEN MINIMUM AND MAXIMUM CFM QUANTITIES, AS INDICATED ON EQUIPMENT SCHEDULE, BASED ON THE AVERAGE READING BETWEEN THE CO2 SENSORS LOCATED IN THE OCCUPIED SPACE.
   b. WHEN THE CO2 SENSORS INDICATE THE SPACE IS BELOW 800 PPM (ADJ), THE DAMPERS SHALL MODULATE TO MAINTAIN THE SCHEDULED MINIMUM CFM.
   c. WHEN THE SENSORS INDICATE THE CO2 LEVEL IN THE SPACE EXCEEDS 942 PPM (ADJ), THE DAMPERS SHALL MODULATE TO MAINTAIN THE SCHEDULED MAXIMUM CFM UNTIL THE SENSOR INDICATES THE SPACE IS BELOW 800 PPM.
10. ECONOMIZER MODE: THE ECONOMIZER MODE SHALL BE DETERMINED BASED ON THE OUTSIDE AND RETURN AIR ENTHALPY. WHEN THE OUTSIDE AIR ENTHALPY IS LESS THAN THE RETURN AIR ENTHALPY THE UNIT SHALL OPERATE IN ECONOMIZER MODE. WHEN IN ECONOMIZER MODE, THE OUTSIDE, RETURN AND EXHAUST AIR DAMPERS SHALL MODULATE TO MAINTAIN SUPPLY AIR TEMPERATURE SETPOINT.
    a. AS THE SUPPLY AIR TEMPERATURE RISES ABOVE THE SUPPLY AIR TEMPERATURE SETPOINT THE OUTSIDE AND EXHAUST AIR DAMPERS SHALL MODULATE OPEN AND THE RETURN AIR DAMPER SHALL MODULATE CLOSED PROPORTIONALLY.
    b. UPON A CONTINUED RISE IN SUPPLY AIR TEMPERATURE, THE COOLING VALVE SHALL MODULATE OPEN. THE REVERSE SHALL OCCUR AS THE SUPPLY AIR TEMPERATURE FALLS.
    c. AS THE SUPPLY AIR TEMPERATURE FALLS BELOW THE SUPPLY AIR TEMPERATURE SETPOINT, THE OUTSIDE AND EXHAUST AIR DAMPERS SHALL MODULATE CLOSED AND THE RETURN AIR DAMPER SHALL MODULATE OPEN.
    d. IF THE MIXED AIR TEMPERATURE FALLS BELOW THE MIXED AIR TEMPERATURE SETPOINT OF 45°F (ADJ.) THE OUTSIDE AND EXHAUST AIR DAMPERS SHALL MODULATE CLOSED AND THE RETURN AIR DAMPER SHALL MODULATE OPEN.
11. TIMED OVERRIDE: WHEN A USER TIMED OVERRIDE IS INITIATED AT A TERMINAL UNIT TEMPERATURE/HUMIDITY SENSOR WITHIN THE SPACES SERVED BY THE ASSOCIATED RTU, THE SYSTEM SHALL RETURN TO ITS NORMAL OCCUPIED OPERATION FOR 2 HOURS (ADJ). WHEN THE TIMED OVERRIDE PERIOD HAS ENDED, THE SYSTEM SHALL AUTOMATICALLY RETURN TO ITS UNOCCUPIED OPERATION.
12. FREEZE PROTECTION: A HARDWIRED, FREEZSTAT SHALL BE ELECTRICALLY INTERLOCKED WITH THE UNIT OPERATION. IF THE FREEZSTAT SET POINT OF 38 (ADJ) °F IS TRIPPED, ALL FANS SHALL DISABLE, ALL DAMPERS SHALL CLOSE, ALL VALVES SHALL OPEN TO 100%, AND AN ALARM SHALL BE GENERATED AT THE BAS. A MANUAL RESET OF THE LOW LIMIT TEMPERATURE SWITCH SHALL BE REQUIRED TO RESTART THE UNIT.
13. SMOKE DETECTION SHUTDOWN: SHOULD THE DUCT SMOKE DETECTORS DETECT SMOKE, THE RTU SHALL SHUT DOWN AND AN ALARM SHALL BE GENERATED AT THE BAS AND FIRE ALARM CONTROL PANEL.
14. IF CONDENSATE BEGINS TO BUILD UP IN THE CONDENSATE PAN, THE WATER LEVEL DETECTION DEVICE SHALL DISABLE THE UNIT, CLOSE ALL CHW VALVES, AND SEND AN ALARM TO THE BAS.
15. SYSTEM GRAPHIC DISPLAY:
    a. OUTSIDE AIR TEMPERATURE AND HUMIDITY - GLOBAL.
    b. UNIT ENABLE/DISABLE, SCHEDULING, AND OCCUPIED MODE OVERRIDE.
    c. SUPPLY AND EXHAUST AIRFLOW.
    d. ALL DAMPERS - POSITION AND STATUS.
    e. ALL TEMPERATURE, HUMIDITY AND PRESSURE SENSORS.
    f. TE WHEEL ECONOMIZER SET POINTS.
    g. TE WHEEL - MODULATION AND ROTATION SENSOR.
    h. ALL VFDS - ENABLE, SPEED, STATUS, FAULT.
    i. HEATING WATER VALVE MODULATION.
    j. CHILLED WATER VALVE MODULATION.
    k. ALL COILS - DISCHARGE TEMPERATURE AND SET POINT.
    l. UNIT - DISCHARGE TEMPERATURE, AND SET POINTS.
    m. ALL SMOKE DETECTORS - STATUS.
    n. ALL HIGH STATIC STATS - STATUS.
    o. FREEZESTAT STATUS.
    p. WATER LEVEL DETECTION DEVICE STATUS.

SZ VAV ROOFTOP UNIT (RTU-KITCHEN)

1. THE EQUIPMENT MANUFACTURER SHALL PROVIDE A MICROPROCESSOR-BASED CONTROLLER WHICH SHALL MONITOR AND CONTROL THE SYSTEM IN A STANDALONE MODE OR AS DIRECTED BY THE BAS. THE BAS SHALL BE RESPONSIBLE FOR COMMUNICATING WITH THE CONTROLLER AND PROVIDING STATUS AND DIAGNOSTICS OF THE UNIT TO THE OPERATOR.
2. UNOCCUPIED OPERATION:
   a. THE UNIT SHALL BE DISABLED.
   b. AFTER A 5 MINUTE DELAY (ADJ) THE REHEAT VALVE, AND CHILLED WATER VALVE SHALL CLOSE.
   c. AFTER A 5 MINUTE DELAY (ADJ) ALL FANS AND ENERGY RECOVERY WHEELS SHALL BE COMMANDED OFF.
   d. AFTER A 5 MINUTE DELAY (ADJ) ALL OUTSIDE AIR AND EXHAUST AIR DAMPER ACTUATORS SHALL BE DE-ENERGIZED AND SPRING RETURN TO THEIR FAIL POSITION.
   e. THE UNIT SHALL CYCLE ON, AS DIRECTED BY THE BAS, TO MAINTAIN UNOCCUPIED SPACE HEATING, COOLING, AND DEHUMIDIFICATION SETPOINTS. THE HEATING WATER AND CHILLED WATER VALVES SHALL MODULATE TO MAINTAIN UNIT SCHEDULED DISCHARGE AIR TEMPERATURE SET POINTS (ADJ).
3. OCCUPIED OPERATION: ALL UNIT FUNCTIONS SHALL BE ENABLED. THE SYSTEM SHALL OPERATE TO MAINTAIN SPACE TEMPERATURE AND DEHUMIDIFICATION SET POINTS.
   a. OUTSIDE AIR AND EXHAUST AIR DAMPERS SHALL OPEN.
   b. AFTER OUTSIDE AIR AND EXHAUST AIR DAMPERS ARE PROVED OPEN FOR 20 SECONDS, SUPPLY FANS AND EXHAUST FANS ARE ENERGIZED.
   c. AFTER A 5 MINUTE DELAY (ADJ) AND FANS ARE PROVED RUNNING, ALL CONTROL PROCESSES SHALL OPERATE AS DESCRIBED BELOW TO MAINTAIN SUPPLY AIR TEMPERATURE AND DEHUMIDIFICATION SET POINTS.
4. SUPPLY FAN:
   a. THE SUPPLY FAN SHALL CONTINUOUSLY RUN TO PROVIDE THE SCHEDULED SUPPLY AIRFLOW TO THE SPACE.
   b. IF BOTH THE KITCHEN HOOD EXHAUST FAN AND THE DISHWASHER EXHAUST FAN ARE RUNNING, THE RETURN AIR DAMPER AND OUTSIDE AIR DAMPER SHALL MODULATE TO PROVIDE THE SCHEDULED MAXIMUM OUTSIDE AIR. IF EITHER THE KITCHEN HOOD EXHAUST FAN OR THE DISHWASHER EXHAUST FAN ARE NOT RUNNING, THE RETURN AIR DAMPER AND OUTSIDE AIR DAMPER SHALL MODULATE TO PROVIDE THE SCHEDULED MINIMUM OUTSIDE AIR.
   c. HIGH STATIC LIMIT: AN INCREASE IN FAN DISCHARGE STATIC PRESSURE ABOVE THE HIGH STATIC LIMIT POINT [3.0 IWC] SHALL CAUSE THE UNIT TO PERFORM AN EMERGENCY DISABLE AND AN ALARM SHALL BE SENT TO THE BAS TO INDICATE HIGH STATIC PRESSURE DISABLE. THIS ALARM SHALL BE MANUALLY RESET AT THE UNIT.
5. EXHAUST FAN:
   a. IF EITHER THE KITCHEN HOOD EXHAUST FAN OR THE DISHWASHER EXHAUST FAN ARE RUNNING, THE EXHAUST FAN SHALL BE COMMANDED TO STOP, AND THE EXHAUST AIR DAMPER SHALL MODULATE TO FULLY CLOSED. IF BOTH THE KITCHEN HOOD EXHAUST FAN AND THE DISHWASHER EXHAUST FAN ARE NOT RUNNING, THE BAS SHALL COMMAND THE EXHAUST AIR DAMPER TO MODULATE TO FULL OPEN AND THE EXHAUST FAN VFD TO MODULATE THE EXHAUST FAN AIRFLOW TO MAINTAIN A 200 CFM DIFFERENTIAL BETWEEN THE OUTDOOR AIR AFMS AND THE EXHAUST AIR AFMS.
   b. LOW STATIC LIMIT: A DECREASE IN FAN DISCHARGE STATIC PRESSURE BELOW THE LOW STATIC LIMIT POINT [-3.0 IWC] SHALL CAUSE THE UNIT TO PERFORM AN EMERGENCY DISABLE AND AN ALARM SHALL BE SENT TO THE BAS TO INDICATE LOW STATIC PRESSURE DISABLE. THIS ALARM SHALL BE MANUALLY RESET AT THE UNIT.
6. HEATING: THE HEATING WATER VALVE SHALL USE A PI LOOP TO MODULATE TO MAINTAIN THE SPACE TEMPERATURE SETPOINT WHEN THE SPACE TEMPERATURE FALLS MORE THAN 2°F DB BELOW THE SPACE TEMPERATURE SETPOINT AND THE RELATIVE HUMIDITY IS BELOW 50%.
7. COOLING: THE CHILLED WATER VALVE SHALL USE A PI LOOP TO MODULATE TO MAINTAIN THE SPACE TEMPERATURE SETPOINT WHEN THE SPACE TEMPERATURE IS MORE THAN 2°F DB ABOVE THE SPACE TEMPERATURE SETPOINT, AND THE RELATIVE HUMIDITY IS BELOW 50%.
8. DEHUMIDIFICATION: THE CHILLED WATER VALVE SHALL MODULATE TO FULL OPEN, AND THE HEATING WATER VALVE SHALL USE A PI LOOP MAINTAIN THE SPACE TEMPERATURE SETPOINT.
9. ECONOMIZER MODE: THE ECONOMIZER MODE SHALL BE DETERMINED BASED ON THE OUTSIDE AND RETURN AIR ENTHALPY. WHEN THE OUTSIDE AIR ENTHALPY IS LESS THAN THE RETURN AIR ENTHALPY THE UNIT SHALL OPERATE IN ECONOMIZER MODE. WHEN IN ECONOMIZER MODE, THE OUTSIDE, RETURN AND RELIEF AIR DAMPERS SHALL MODULATE TO MAINTAIN SUPPLY AIR TEMPERATURE SETPOINT. AS THE SUPPLY AIR TEMPERATURE RISES ABOVE THE SUPPLY AIR TEMPERATURE SETPOINT THE OUTSIDE AND RELIEF AIR DAMPERS SHALL MODULATE OPEN AND THE RETURN AIR DAMPER SHALL MODULATE CLOSED PROPORTIONALLY. AS THE MIXED AIR TEMPERATURE FALLS BELOW THE MIXED AIR TEMPERATURE SETPOINT OF 45°F (ADJ.) THE OUTSIDE AND RELIEF AIR DAMPERS SHALL MODULATE CLOSED AND THE RETURN AIR DAMPER SHALL MODULATE OPEN. AS THE SUPPLY AIR TEMPERATURE CONTINUES TO RISE, THE COOLING VALVE SHALL MODULATE OPEN. THE REVERSE SHALL OCCUR AS THE SUPPLY AIR TEMPERATURE FALLS.
10. TIMED OVERRIDE: WHEN A USER TIMED OVERRIDE IS INITIATED AT A TERMINAL UNIT TEMPERATURE/HUMIDITY SENSOR WITHIN THE SPACES SERVED BY THE ASSOCIATED OAU, THE SYSTEM SHALL RETURN TO ITS NORMAL OCCUPIED OPERATION FOR 2 HOURS (ADJ). WHEN THE TIMED OVERRIDE PERIOD HAS ENDED, THE SYSTEM SHALL AUTOMATICALLY RETURN TO ITS UNOCCUPIED OPERATION.
11. FREEZE PROTECTION: A HARDWIRED, FREEZSTAT SHALL BE ELECTRICALLY INTERLOCKED WITH THE UNIT OPERATION. IF THE FREEZSTAT SET POINT OF 38 (ADJ) °F IS TRIPPED, ALL FANS SHALL DISABLE, ALL DAMPERS SHALL CLOSE, ALL VALVES SHALL OPEN TO 100%, AND AN ALARM SHALL BE GENERATED AT THE BAS. A MANUAL RESET OF THE LOW LIMIT TEMPERATURE SWITCH SHALL BE REQUIRED TO RESTART THE UNIT.
12. SMOKE DETECTION SHUTDOWN: SHOULD THE DUCT SMOKE DETECTORS DETECT SMOKE, THE RTU SHALL SHUT DOWN AND AN ALARM SHALL BE GENERATED AT THE BAS AND FIRE ALARM CONTROL PANEL.
13. IF CONDENSATE BEGINS TO BUILD UP IN THE CONDENSATE PAN, THE WATER LEVEL DETECTION DEVICE SHALL DISABLE THE UNIT, CLOSE ALL CHW VALVES, AND SEND AN ALARM TO THE BAS.
14. SYSTEM GRAPHIC DISPLAY:
    a. OUTSIDE AIR TEMPERATURE AND HUMIDITY - GLOBAL.
    b. UNIT ENABLE/DISABLE, SCHEDULING, AND OCCUPIED MODE OVERRIDE.
    c. SUPPLY AND EXHAUST AIRFLOW.
    d. ALL DAMPERS - POSITION AND STATUS.
    e. ALL TEMPERATURE, HUMIDITY AND PRESSURE SENSORS.
    f. ALL VFDS - ENABLE, SPEED, STATUS, FAULT.
    g. HEATING WATER VALVE MODULATION.
    h. CHILLED WATER VALVE MODULATION.
    i. ALL COILS - DISCHARGE TEMPERATURE AND SET POINT.
    j. UNIT - DISCHARGE TEMPERATURE, AND SET POINTS.
    k. ALL SMOKE DETECTORS - STATUS.
    l. ALL HIGH STATIC STATS - STATUS.
    m. FREEZESTAT STATUS.
    n. WATER LEVEL DETECTION DEVICE STATUS.


QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

COMMONWEALTH OF VIRGINIA
MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER


Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd.
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

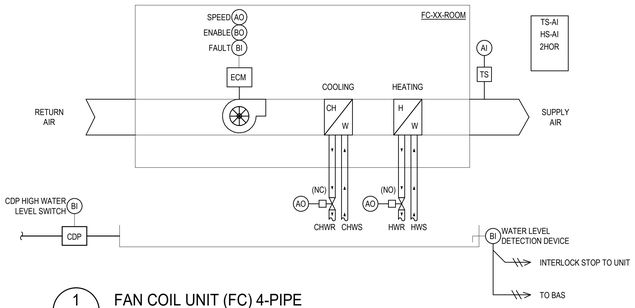
PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

CONTROLS

# M804



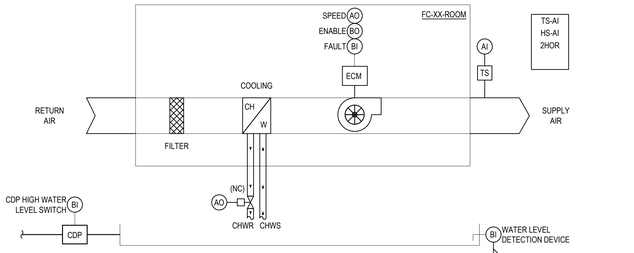

1 -- M805

## FAN COIL UNIT (FC) 4-PIPE

SCALE: NONE

NOTES:

1. DETAIL IS TYPICAL FOR ALL FAN COILS, UNO.
2. CONTROLS SHALL BE FURNISHED AND FIELD INSTALLED BY BAS CONTRACTOR.
3. PRESSURE INDEPENDENT INDUSTRIAL GRADE CHW CONTROL VALVES SHALL BE FURNISHED BY BAS CONTRACTOR, FIELD INSTALLED BY MECHANICAL CONTRACTOR.
4. PRESSURE INDEPENDENT INDUSTRIAL GRADE HW CONTROL VALVES SHALL BE FURNISHED BY BAS CONTRACTOR, FIELD INSTALLED BY MECHANICAL CONTRACTOR.
5. HIGH WATER LEVEL SWTICH SHALL BE PROVIDED BY CDP MFR.



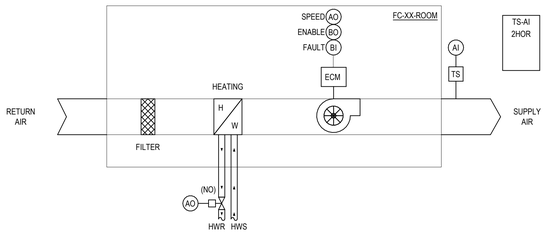

2 -- M805

## FAN COIL UNIT (FC) COOLING ONLY

SCALE: NONE

NOTES:

1. DETAIL IS TYPICAL FOR ALL COOLING ONLY FAN COILS, UNO.
2. CONTROLS SHALL BE FURNISHED AND FIELD INSTALLED BY BAS CONTRACTOR.
3. PRESSURE INDEPENDENT INDUSTRIAL GRADE CHW CONTROL VALVES SHALL BE FURNISHED BY BAS CONTRACTOR, FIELD INSTALLED BY MECHANICAL CONTRACTOR.
4. HIGH WATER LEVEL SWTICH SHALL BE PROVIDED BY CDP MFR.




3 -- M805

## FAN COIL UNIT (FC) HEATING ONLY

SCALE: NONE

NOTES:

1. DETAIL IS TYPICAL FOR ALL BLOWER COILS AND FAN COILS, UNO.
2. CONTROLS SHALL BE FURNISHED AND FIELD INSTALLED BY BAS CONTRACTOR.
3. PRESSURE INDEPENDENT INDUSTRIAL GRADE HW CONTROL VALVES SHALL BE FURNISHED BY BAS CONTRACTOR, FIELD INSTALLED BY MECHANICAL CONTRACTOR.

4 -- M805

## DATA ROOM TEMPERATURE MONITORING

SCALE: NONE

NOTES:

1. DETAIL IS TYPICAL FOR ALL ELECTRICAL, IDF, AND AV RMS, UNO.
2. REFER TO INSTRUMENTATION DRAWINGS FOR QUANTITY AND LOCATION.

# SEQUENCE OF OPERATIONS

**FAN COIL UNIT (FCU)**

1. THE BAS CONTRACTOR SHALL PROVIDE A MICROPROCESSOR-BASED CONTROLLER WHICH SHALL MONITOR AND CONTROL THE UNIT IN A STAND-ALONE MODE OR AS DIRECTED BY THE BAS. THE UNIT SHALL OPERATE IN OCCUPIED AND UNOCCUPIED MODE ACCORDING TO BAS SCHEDULING. THE BAS SHALL BE RESPONSIBLE FOR COMMUNICATING WITH THE CONTROLLER AND PROVIDING STATUS AND DIAGNOSTICS OF THE UNIT TO THE OPERATOR.
   a. UNITS SERVING MORE THAN (1) SPACE: THE BAS SHALL AVERAGE THE INDIVIDUAL SPACE TEMPERATURE AND RELATIVE HUMIDITY SET POINTS. REFER TO FLOOR PLANS FOR FURTHER DETAIL.
   b. SPACES SERVED BY MORE THAN (1) UNIT: THE BAS SHALL CONTROL THE UNITS SIMILARLY. REFER TO FLOOR PLANS FOR FURTHER DETAIL.
2. OCCUPIED OPERATION:
   a. ALL FUNCTIONS SHALL BE ENABLED.
   b. THE SYSTEM SHALL OPERATE TO MAINTAIN OCCUPIED SPACE SET POINTS.
   c. COOLING: TO MAINTAIN SPACE TEMPERATURE COOLING SET POINT (ADJ), THE CHILLED WATER VALVE SHALL BE MODULATED TO MAINTAIN THE SCHEDULED CHILLED WATER COIL LEAVING AIR SET POINT (ADJ). THE HEATING WATER VALVE SHALL BE CLOSED.
   d. HEATING: TO MAINTAIN SPACE TEMPERATURE HEATING SET POINT (ADJ), THE HEATING WATER VALVE SHALL BE MODULATED TO GRADUALLY INCREASE LEAVING AIR TEMPERATURE UP TO THE SCHEDULED HEATING WATER COIL LEAVING AIR SET POINT (ADJ). THE CHILLED WATER VALVE SHALL BE CLOSED.
   e. DEHUMIDIFICATION: IF THE SPACE TEMPERATURE IS SATISFIED AND THE SPACE DEHUMIDIFICATION SET POINT OF 50% (ADJ) IS NOT, THE CHILLED WATER VALVE SHALL OPEN FULLY AND THE HEATING WATER VALVE SHALL MODULATE TO MAINTAIN UNIT DISCHARGE AIR TEMPERATURE SET POINT (ADJ).
3. UNOCCUPIED OPERATION:
   a. WHEN THE BAS INITIATES UNOCCUPIED OPERATION, THE UNIT SHALL TURN OFF.
   b. THE UNIT SHALL CYCLE ON, AS DIRECTED BY THE BAS, TO MAINTAIN UNOCCUPIED SPACE'S HEATING, COOLING, DEHUMIDIFICATION, AND HUMIDIFICATION SET POINTS. THE HEATING WATER AND CHILLED WATER VALVES SHALL MODULATE TO MAINTAIN UNIT SCHEDULED DISCHARGE AIR TEMPERATURE SET POINTS (ADJ).
4. SUPPLY FAN:
   a. OCCUPIED MODE: THE SUPPLY FAN SHALL CYCLE WITH THE CHILLED AND HEATING WATER VALVES AS REQUIRED TO MAINTAIN OCCUPIED SET POINTS.
   b. UNOCCUPIED MODE ALL UNITS: THE SUPPLY FAN SHALL CYCLE WITH THE CHILLED AND HEATING WATER VALVES AS REQUIRED TO MAINTAIN OCCUPIED SET POINTS.
5. IF THE WATER LEVEL DETECTION DEVICE DETECTS BUILD-UP OF CONDENSATE THE DEVICE SHALL STOP WATER FLOW TO THE COILS, SHUT OFF THE UNIT FAN AND AN ALARM SHALL BE GENERATED AT THE BAS.
6. SYSTEM GRAPHIC DISPLAY:
   a. OUTSIDE AIR TEMPERATURE AND HUMIDITY - GLOBAL.
   b. UNIT MARK, TYPE, SIZE, OCCUPANCY SCHEDULE, AND OVERRIDE STATUS.
   c. SPACE TEMPERATURES AND RELATIVE HUMIDITIES.
   d. SPACE TEMPERATURE AND RELATIVE HUMIDITY SET POINTS.
   e. FAN ENABLE AND STATUS.
   f. HEATING WATER VALVE MODULATION.
   g. CHILLED WATER VALVE MODULATION.
   h. SUPPLY AIR TEMPERATURE.
   i. WATER LEVEL DETECTION STATUS.

**FAN COIL (COOLING ONLY)**

1. EACH UNIT SHALL HAVE A BAS MICROPROCESSOR-BASED CONTROLLER WHICH SHALL MONITOR AND CONTROL THE UNIT IN A STANDALONE MODE OR AS DIRECTED BY THE BAS. THE UNIT SHALL OPERATE IN OCCUPIED AND UNOCCUPIED MODE ACCORDING TO BAS SCHEDULING. THE BAS SHALL BE RESPONSIBLE FOR COMMUNICATING WITH THE CONTROLLER AND PROVIDING STATUS AND DIAGNOSTICS OF THE UNIT TO THE OPERATOR.
2. OCCUPIED OPERATION:
   a. THE SYSTEM SHALL OPERATE TO MAINTAIN SPACE SET POINTS.
   b. SUPPLY FAN: THE SUPPLY FAN SHALL CYCLE ON WHEN THE COOLING WATER VALVE IS NOT CLOSED AND OPERATE AT DESIGN AIRFLOW.
   c. COOLING: THE COOLING WATER VALVE SHALL MODULATE USING A PI LOOP TO MAINTAIN SPACE TEMPERATURE COOLING SET POINT (ADJ).
3. UNOCCUPIED OPERATION:
   a. THE SYSTEM SHALL OPERATE TO MAINTAIN THE UNOCCUPIED SPACE SET POINTS.
   b. SUPPLY FAN: THE SUPPLY FAN SHALL CYCLE ON WHEN THE COOLING WATER VALVE IS NOT CLOSED AND OPERATE AT DESIGN AIRFLOW.
   c. COOLING: THE COOLING WATER VALVE SHALL MODULATE USING A PI LOOP TO MAINTAIN UNOCCUPIED SPACE TEMPERATURE COOLING SET POINT (ADJ).
4. TIMED OVERRIDE: WHEN A USER TIMED OVERRIDE IS INITIATED AT THE TERMINAL UNIT SPACE SENSOR, THE SYSTEM SHALL RETURN TO ITS NORMAL OCCUPIED OPERATION FOR 2 HOURS (ADJ). WHEN THE TIMED OVERRIDE PERIOD HAS ENDED, THE TERMINAL UNIT SHALL AUTOMATICALLY RETURN TO ITS UNOCCUPIED OPERATION.
5. IF CONDENSATE BEGINS TO BUILD UP IN THE CONDENSATE PAN, THE WATER LEVEL DETECTION DEVICE SHALL CLOSE THE CHW VALVE AND SEND AN ALARM TO THE BAS. SUPPLY FAN SHALL OPERATE AT DESIGN AIRFLOW.
6. SYSTEM GRAPHIC DISPLAY:
   a. OUTSIDE AIR TEMPERATURE AND HUMIDITY - GLOBAL.
   b. UNIT MARK, TYPE, SIZE, AND ENABLE/DISABLE.
   c. SPACE TEMPERATURES AND SETPOINTS.
   d. FAN ENABLE AND STATUS.
   e. ALL TEMPERATURE SENSORS.
   f. COOLING WATER VALVE MODULATION.
   g. SUPPLY AIR TEMPERATURE.
   h. WATER LEVEL DETECTION STATUS.

**FAN COIL (HEATING ONLY)**

1. EACH UNIT SHALL HAVE A BAS MICROPROCESSOR-BASED CONTROLLER WHICH SHALL MONITOR AND CONTROL THE UNIT IN A STANDALONE MODE OR AS DIRECTED BY THE BAS. THE UNIT SHALL OPERATE IN OCCUPIED AND UNOCCUPIED MODE ACCORDING TO BAS SCHEDULING. THE BAS SHALL BE RESPONSIBLE FOR COMMUNICATING WITH THE CONTROLLER AND PROVIDING STATUS AND DIAGNOSTICS OF THE UNIT TO THE OPERATOR.
2. OCCUPIED OPERATION:
   a. THE SYSTEM SHALL OPERATE TO MAINTAIN SPACE SET POINTS.
   b. SUPPLY FAN: THE SUPPLY FAN SHALL CYCLE ON WHEN THE HEATING WATER VALVE IS NOT CLOSED AND OPERATE AT DESIGN AIRFLOW.
   c. HEATING: THE HEATING WATER VALVE SHALL MODULATE USING A PI LOOP TO MAINTAIN SPACE TEMPERATURE HEATING SET POINT (ADJ).
3. UNOCCUPIED OPERATION:
   a. THE SYSTEM SHALL OPERATE TO MAINTAIN SPACE SET POINTS.
   b. SUPPLY FAN: THE SUPPLY FAN SHALL CYCLE ON WHEN THE HEATING WATER VALVE IS NOT CLOSED AND OPERATE AT DESIGN AIRFLOW.
   c. HEATING: THE HEATING WATER VALVE SHALL MODULATE USING A PI LOOP TO MAINTAIN UNOCCUPIED SPACE TEMPERATURE HEATING SET POINT (ADJ).
4. TIMED OVERRIDE: WHEN A USER TIMED OVERRIDE IS INITIATED AT THE TERMINAL UNIT SPACE SENSOR, THE SYSTEM SHALL RETURN TO ITS NORMAL OCCUPIED OPERATION FOR 2 HOURS (ADJ). WHEN THE TIMED OVERRIDE PERIOD HAS ENDED, THE TERMINAL UNIT SHALL AUTOMATICALLY RETURN TO ITS UNOCCUPIED OPERATION.
5. SYSTEM GRAPHIC DISPLAY:
   a. OUTSIDE AIR TEMPERATURE AND HUMIDITY - GLOBAL.
   b. UNIT MARK, TYPE, SIZE, AND ENABLE/DISABLE.
   c. SPACE TEMPERATURES AND SETPOINTS.
   d. FAN ENABLE AND STATUS.
   e. ALL TEMPERATURE SENSORS.
   f. HEATING WATER VALVE MODULATION.
   g. SUPPLY AIR TEMPERATURE.

**DATA ROOM TEMPERATURE MONITORING**

1. THE BAS SHALL GENERATE AN ALARM IF THE SPACE TEMPERATURE EXCEEDS THE ALARM TEMPERATURE SET POINT OF 80° F (ADJ).
2. SYSTEM GRAPHIC DISPLAY:
   a. ALL SPACES - SPACE TEMPERATURE, ALARM TEMPERATURE SE POINT, AND STATUS.
   b. BUILDING FLOOR PLANS SHOWING SENSOR LOCATIONS.

QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

COMMONWEALTH OF VIRGINIA
MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

CONTROLS

**M805**

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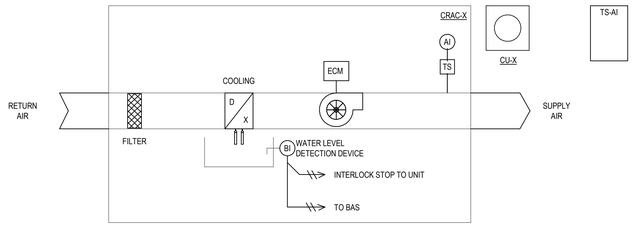
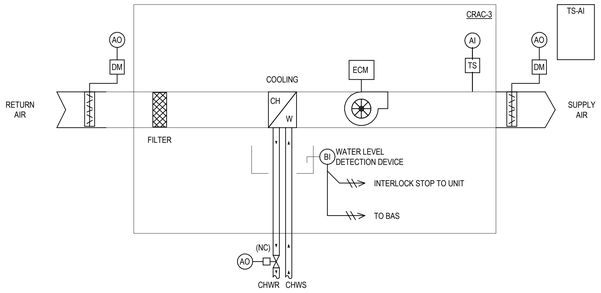



## 1 DX CRAC UNIT

SCALE: NONE

NOTES:

1. DETAIL IS TYPICAL FOR CRAC-1 AND 2 AND CU-1 AND 2.
2. UNIT CONTROLLER WITH BACNET IP INTERFACE AND INTERNAL UNIT SENSORS, UNO, WILL BE PROVIDED AND FACTORY WIRED BY EQUIPMENT MANUFACTER.

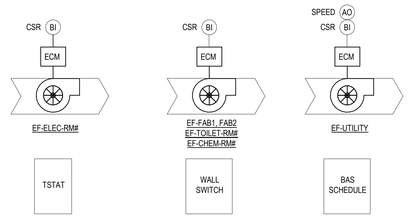



## 2 HYDRONIC CRAC UNIT

SCALE: NONE

NOTES:

1. UNIT CONTROLLER WITH BACNET IP INTERFACE AND INTERNAL UNIT SENSORS, UNO, WILL BE PROVIDED AND FACTORY WIRED BY EQUIPMENT MANUFACTER.
2. MOTORIZED DAMPERS WILL BE PROVIDED BY MECHANICAL CONTRACTOR.

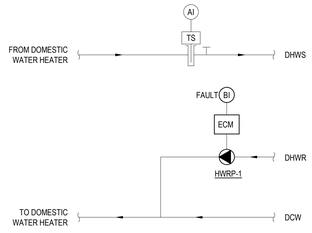



## 3 GENERAL EXHAUST FANS

SCALE: NONE

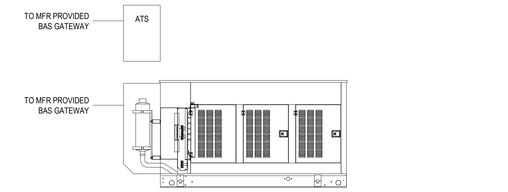
NOTES:

1. REFER TO FAN SCHEDULE AND FLOOR PLANS FOR ADDITIONAL DETAIL.
2. EXHAUST FAN TSTAT SET POINT FOR ELEC ROOMS SHALL BE 76° F, UNO.
3. OPERATE EF-UTILITY ON THE SAME BAS SCHEDULE AS RTU-KITCHEN.




## 4 DOMESTIC HOT WATER SYSTEM (EWH)

SCALE: NONE

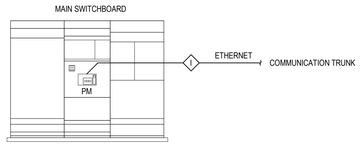



## 5 GENERATOR MONITORING & STEPPING

SCALE: NONE

NOTES:

1. TYPICAL FOR ALL GENERATORS, UNO.
2. REFER TO DIVISION 26 SPECIFICATIONS FOR DETAIL.
3. BACNET GATEWAYS PROVIDED BY DIVISION 26 CONTRACTOR.

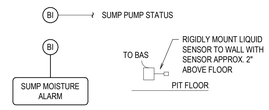



## 6 BUILDING ELECTRICAL MONITORING

SCALE: NONE

NOTES:

1. METER SHALL BE FURNISHED BY ELECTRICAL CONTRACTOR, INTEGRAL TO THE MAIN SWITCH BOARD.
2. COORDINATE ETHERNET/NETWORK DROPS FOR METERS AND GATEWAYS WITH OTHER TRADES AS REQUIRED.
3. DETAIL IS TYPICAL FOR ALL MAIN SWITCH BOARD'S, UNLESS NOTED OTHERWISE.




## 7 SUMP PUMP MONITORING

SCALE: NONE

NOTES:

1. DETAIL IS TYPICAL FOR ALL SUMP PUMPS, UNO.
2. BAS CONTRACTOR TO PROVIDE LIQUID SENSOR.

# SEQUENCE OF OPERATIONS

**DX CRAC UNIT**

1. THE EQUIPMENT MANUFACTURER SHALL PROVIDE A MICROPROCESSOR-BASED CONTROLLER WHICH SHALL MONITOR AND CONTROL THE SYSTEM IN A STANDALONE MODE OR AS DIRECTED BY THE BAS. THE BAS SHALL BE RESPONSIBLE FOR COMMUNICATING WITH THE CONTROLLER AND PROVIDING STATUS AND DIAGNOSTICS OF THE UNIT TO THE OPERATOR.
2. SCHEDULING: THE BAS SHALL CYCLE AMOUNG CRAC-1, 2, AND 3 WITH EACH UNIT OPERATING CONTINUOUSLY FOR 10 DAYS.
3. THE UNIT SHALL RUN CONTINUOUSLY TO MAINTAIN SPACE TEMPERATURE SET POINT OF 70° F DB (ADJ.).
4. IF THE WATER LEVEL DETECTION DEVICE DETECTS A BUILDUP OF CONDENSATE, THE UNIT SHALL DISABLE AND AN ALARM SHALL BE GENERATED IN THE BAS.
5. SYSTEM GRAPHIC DISPLAY:
   a. OUTSIDE AIR TEMPERATURE AND HUMIDITY - GLOBAL.
   b. UNIT MARK, TYPE, SIZE, ENABLE/DISABLE, AND OPERATION SCHEDULE.
   c. SUPPLY AIR TEMPERATURE.
   d. SPACE TEMPERATURE AND SET POINT.
   e. WATER LEVEL DETECTION STATUS.

**HYDRONIC CRAC UNIT**

1. THE BAS CONTRACTOR SHALL PROVIDE A MICROPROCESSOR-BASED CONTROLLER WHICH SHALL MONITOR AND CONTROL THE SYSTEM IN A STANDALONE MODE OR AS DIRECTED BY THE BAS. THE BAS SHALL BE RESPONSIBLE FOR COMMUNICATING WITH THE CONTROLLER AND PROVIDING STATUS AND DIAGNOSTICS OF THE UNIT TO THE OPERATOR.
2. UPON A SIGNAL DETECTING HEAT OR SMOKE FROM THE FIRE SUPPRESSION SYSTEM, THE BAS SHALL DISABLE THE UNIT AND CLOSE THE MOTORIZED DAMPERS.
3. SYSTEM GRAPHIC DISPLAY:
   a. OUTSIDE AIR TEMPERATURE AND HUMIDITY - GLOBAL.
   b. UNIT MARK, TYPE, SIZE, ENABLE/DISABLE, AND OPERATION SCHEDULE.
   c. DAMPER POSITION.

1. THE EQUIPMENT MANUFACTURER SHALL PROVIDE A MICROPROCESSOR-BASED CONTROLLER WHICH SHALL MONITOR AND CONTROL THE SYSTEM IN A STANDALONE MODE OR AS DIRECTED BY THE BAS. THE BAS SHALL BE RESPONSIBLE FOR COMMUNICATING WITH THE CONTROLLER AND PROVIDING STATUS AND DIAGNOSTICS OF THE UNIT TO THE OPERATOR.
2. SCHEDULING: THE BAS SHALL CYCLE AMOUNG CRAC-1, 2, AND 3 WITH EACH UNIT OPERATING CONTINUOUSLY FOR 10 DAYS.
3. THE UNIT SHALL RUN CONTINUOUSLY TO MAINTAIN SPACE TEMPERATURE SET POINT OF 70° F DB (ADJ.).
4. IF THE WATER LEVEL DETECTION DEVICE DETECTS A BUILDUP OF CONDENSATE, THE UNIT SHALL DISABLE AND AN ALARM SHALL BE GENERATED IN THE BAS.
5. SYSTEM GRAPHIC DISPLAY:
   a. OUTSIDE AIR TEMPERATURE AND HUMIDITY - GLOBAL.
   b. UNIT MARK, TYPE, SIZE, ENABLE/DISABLE, AND OPERATION SCHEDULE.
   c. SUPPLY AIR TEMPERATURE.
   d. SPACE TEMPERATURE AND SET POINT.
   e. WATER LEVEL DETECTION STATUS.

**GENERAL EXHAUST FANS**

1. TSTAT CONTROL: THE FAN SHALL BE CONTROLLED BY A LOCAL THERMOSTAT.
2. WALL SWITCH CONTROL: THE FAN SHALL BE CONTROLLED BY A LOCAL WALL SWITCH.
3. BAS SCHEDULE CONTROL: THE FAN SHALL BE ENABLED AND RUN CONTINUOUSLY IN OCCUPIED MODE. THE FAN SHALL BE OFF IN UNOCCUPIED MODE. THE FAN SCHEDULE SHALL BE LINKED TO THE RTU OCCUPANCY SCHEDULE.
4. SYSTEM GRAPHIC DISPLAY:
   a. OUTSIDE AIR TEMPERATURE AND HUMIDITY - GLOBAL.
   b. UNIT MARK, TYPE, AND OPERATION SCHEDULE.
   c. FAN STATUS AND SPEED.

DOMESTIC HOT WATER SYSTEM MONITORING

1. THE HWRP MANUFACTURER SHALL PROVIDE CONTROLLER WHICH SHALL MONITOR AND CONTROL THE PUMP IN A STAND ALONE MODE. THE HWRP SHALL NOT BE CONTROLLED BY THE BAS. A DRY CONTACT SHALL BE PROVIDED TO INDICATE FAULT TO THE BAS.
2. DOMESTIC HOT WATER SUPPLY TEMPERATURE SETPOINT SHALL BE LOCALLY CONFIGURED TO 140°F. UPON A FALL IN DHWS TEMPERATURE BELOW 120 °F, AN ALARM SHALL BE GENERATED AT THE BAS.
3. SYSTEM GRAPHIC DISPLAY:
   a. OUTSIDE AIR TEMPERATURE AND HUMIDITY - GLOBAL.
   b. ALL TEMPERATURE SENSORS.
   c. HWRP FAULT.
   d. DHWS TEMPERATURE ALARM.

**GENERATOR MONITORING AND STEPPING**

1. THE GENERATOR MANUFACTURER SHALL PROVIDE A MICROPROCESSOR-BASED CONTROLLER WHICH SHALL MONITOR AND CONTROL THE SYSTEM IN A STAND-ALONE MODE. THE BAS SHALL BE RESPONSIBLE FOR COMMUNICATING WITH THAT CONTROLLER AND PROVIDING STATUS AND DIAGNOSTICS OF THE UNIT TO THE OPERATOR.
2. THE GENERATOR MANUFACTURER AND BAS SHALL BE RESPONSIBLE FOR THOROUGHLY COORDINATING TO EXPOSE ALL NETWORK AVAILABLE GENERATOR AND ATS PHYSICAL POINTS AND SET POINTS FOR DIAGNOSTIC AND MONITORING PURPOSES.
3. ON A LOSS OF GRID POWER THE BAS SHALL STEP THE START-UP OF BAS CONTROLLED HVAC EQUIPMENT TO AVOID UNNECESSARY ELECTRICAL SPIKES.
4. SYSTEM GRAPHIC DISPLAY:
   a. OUTSIDE AIR TEMPERATURE AND HUMIDITY - GLOBAL.
   b. GENERATOR - UNIT MARK AND ALL AVAILABLE BAS PHYSICAL POINTS AND SET POINTS.
   c. ALL ATS'S - UNIT MARK AND ALL AVAILABLE BAS PHYSICAL POINTS AND SET POINTS.

**BUILDING ELECTRICAL MONITORING**

1. THE BAS SHALL MONITOR BUILDING ELECTRICAL USAGE CONTINUOUSLY VIA THE METER PROVIDED WITH THE MAIN SWITCH BOARD. METER COMMUNICATION PROTOCOL SHALL BE COORDINATED WITH THE UTILITY PROVIDER. REFER TO ELECTRICAL DRAWINGS AND DIVISION 26 SPECIFICATIONS FOR FURTHER DETAIL. THE BAS SHALL RECORD BUILDING POWER USE AND MAINTAIN THE FOLLOWING DATA:
   a. DAILY: BEGINNING AT 12:00 AM AND ENDING AT 11:59:30 PM, THE BAS SHALL RECORD ELECTRICAL DEMAND (KW) EVERY 60 SECONDS. THIS RECORD SHALL BE MAINTAINED FOR 60 DAYS.
   b. DAILY: AT 11:59 PM, THE BAS SHALL CALCULATE THE ENERGY USAGE (KW-HR) USED IN THE PREVIOUS 24 HOURS. THIS RECORD SHALL BE KEPT FOR TWO YEARS.
   c. DAILY: AT 12:00 AM, THE BAS SHALL RECORD THE HIGHEST DEMAND READING FOR THE PREVIOUS 24 HOURS. THE RECORD SHALL INCLUDE KW DEMAND, DATE, AND TIME. THIS RECORD SHALL BE KEPT FOR TWO YEARS.
   d. MONTHLY: ON THE 1ST DAY OF THE MONTH AT 12:01 AM, THE BAS SHALL RECORD THE ENERGY USAGE (KW-HR) USED THE PREVIOUS MONTH. THIS RECORD SHALL BE KEPT FOR THE LIFE OF THE PROJECT.
   e. YEARLY: ON JANUARY 1ST OF EACH YEAR, THE BAS SHALL RECORD THE HIGHEST KW-HR FROM THE PREVIOUS YEAR. THIS RECORD SHALL BE KEPT FOR THE LIFE OF THE PROJECT.
2. SYSTEM GRAPHIC DISPLAY:
   a. DAILY ELECTRICAL DEMAND.
   b. DAILY BUILDING KW CONSUMPTION.
   c. MONTHLY BUILDING KW CONSUMPTION.
   d. ANNUAL PEAK KW CONSUMPTION.
3. REFER TO ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR FURTHER DETAIL.

**SUMP PUMP MONITORING**

1. THE BAS SHALL GENERATE AN ALARM IF THE SUMP PUMP ALARM CONTACTS ARE ACTIVATED.
2. THE BAS SHALL GENERATE AN ALARM IF THE SUMP MOISTURE DETECTION SENSOR ACTIVATES HIGH LEVEL ALARM.
3. SYSTEM GRAPHIC DISPLAY:
   a. ALL SUMP PUMPS - UNIT MARK AND STATUS.
   b. MOISTURE DETECTION - HIGH LEVEL ALARM.

QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

COMMONWEALTH OF VIRGINIA
MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

CONTROLS

**M806**

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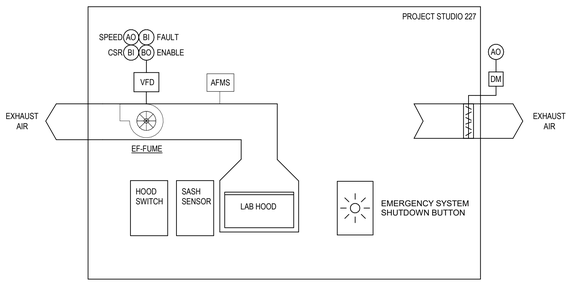



## 1 -- M807 LAB HOOD VENTILATION

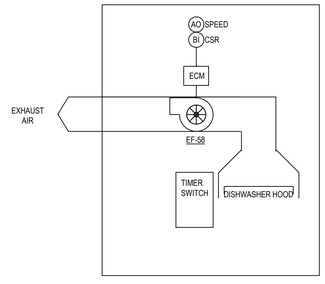
SCALE: NONE

NOTES:

1. CONTROLS SHALL BE FURNISHED AND FIELD INSTALLED BY BAS CONTRACTOR.
2. DESIGN INTENT IS TO MAINTAIN EXHAUST AND NEGATIVE PRESSURIZATION WITHIN INDIVIDUAL LAB SPACES, WHERE APPROPRIATE.
3. REFER TO FLOOR PLANS AND FAN SCHEDULES FOR ADDITIONAL DETAIL.

AI — DIGITAL BUILDING DOMESTIC COLD WATER METER

AI — DIGITAL DOMESTIC HOT WATER METER




## 2 -- M807 DISHWASHER EXHAUST

SCALE: NONE

NOTES:

1. REFER TO FOOD SERVICE FAN SCHEDULE AND FLOOR PLANS FOR ADDITIONAL DETAIL ON FAN.

AI — EXTERIOR PHOTOCELL

BO — TO LIGHTING RELAY, SEE ELECTRICAL PLANS FOR LOCATION AND QUANTITY TO BE CONTROLLED

## 3 -- M807 WATER MONITORING

SCALE: NONE

NOTES:

1. PROVIDE MANUFACTURER RECOMMENDED REQUIRED STRAIGHT PIPE DIAMETERS UPSTREAM AND DOWNSTREAM OF ALL FLOW METERS.
2. REFER TO PLUMBING DRAWINGS FOR METER QUANTITY AND LOCATIONS.

## 4 -- M807 EXTERIOR LIGHTING CONTROL

SCALE: NONE

NOTES:

1. REFER TO ELECTRICAL DRAWINGS FOR CIRCUITS TO BE CONTROLLED. PROVIDE SEPARATE BAS POINTS FOR EACH CIRCUIT. COORDINATE BAS POINTS WITH LIGHTING SYSTEMS.
2. PHOTOCELL AND RELAYS FURNISHED BY BAS CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR.
3. COORDINATE PHOTOCELL ROOF LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN.
4. CONTROLS CONDUIT PROVIDED BY BAS CONTRACTOR. DO NOT INSTALL CONTROL WIRING IN SAME CONDUIT AS POWER WIRING. REFER TO DIVISION 26 FOR CONDUIT REQUIREMENTS.

## 5 -- M807 MOISTURE DETECTION

SCALE: NONE

NOTES:

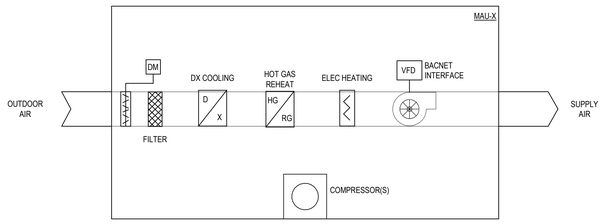
1. DETAIL IS TYPICAL FOR ALL MOISTURE DETECTION SENSORS, UNO.
2. REFER TO INSTRUMENTATION DRAWINGS FOR QUANTITY AND LOCATION. COORDINATE FINAL LOCATIONS WITH OTHER TRADES PRIOR TO PLACEMENT.
3. RIGIDLY MOUNT SENSOR TO FLOOR, UNO.

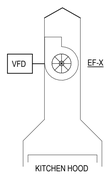
## 6 -- M807 CO2 MONITORING

SCALE: NONE

NOTES:

1. DETAIL IS TYPICAL MONITORING ONLY CO2 SENSORS..
2. REFER TO INSTRUMENTATION DRAWINGS FOR QUANTITY AND LOCATION.
3. WHERE TEMPERATURE, HUMIDITY, AND CARBON DIOXIDE SENSORS ARE SHOWN ADJACENT TO EACH OTHER, PROVIDE A SINGLE COMBINATION SENSOR.




## 7 -- M807 MAKE-UP AIR UNIT (MAU) AND EXHAUST FAN (EF)

SCALE: NONE

NOTES:

1. DETAIL IS TYPICAL FOR MAU-24F AND EF-24E (117 KITCHEN) AND MAU-C15F AND EF-C15E (121 CULINARY LAB).
2. CONTROLS SHALL BE PROVIDED BY EQUIPMENT MANUFACTURER. REFER TO FOOD SERVICE PLANS FOR ADDITIONAL DETAIL.

# SEQUENCE OF OPERATIONS

**LAB HOOD VENTILATION**

1. THE BAS CONTRACTOR SHALL PROVIDE A MICROPROCESSOR-BASED CONTROLLER WHICH SHALL MONITOR AND CONTROL THE SYSTEM IN STAND-ALONE MODE OR AS DIRECTED BY THE BAS. THE BAS SHALL BE RESPONSIBLE FOR COMMUNICATING WITH THE CONTROLLER AND PROVIDING STATUS AND DIAGNOSTICS OF THE UNIT TO THE OPERATOR.
2. CONSTANT VOLUME HOOD OPERATION.
   a. WHEN THE HOOD SWITCH IS TOGGLED ON, THE EXHAUST FAN SHALL BE ENABLED TO MAINTAIN FUME HOOD DESIGN EXHAUST AIRFLOW. THE MOTORIZED DAMPER SHALL CLOSE.
   b. WHEN THE HOOD SWITCH IS TOGGLED OFF, THE EXHAUST FAN SHALL BE COMMANDED OF BY THE BAS. THE MOTORIZED DAMPER SHALL OPEN.
3. IF THE EXHAUST FAN FAILS, AN ALARM SHALL BE GENERATED AT THE BAS.
4. LOW AIRFLOW ALARM: IF THE FUME HOOD EXHAUST AIRFLOW FALLS 10% BELOW FUME HOOD DESIGN EXHAUST AIRFLOW, AN ALARM SHALL BE GENERATED IN THE BAS.
5. THERE SHALL BE A HARDWIRE INTERFACE BETWEEN THE EXHAUST FAN AND THE EMERGENCY SYSTEM SHUTDOWN BUTTON. NO BAS PROGRAMMING SHALL BE REQUIRED FOR THE INTERFACE. WHEN THE BUTTON IS PRESSED, THE EXHAUST FAN SHALL BE ENABLED AND AN ALARM SHALL BE GENERATED AT THE BAS.
6. SYSTEM GRAPHIC DISPLAY:
   a. OUTSIDE AIR TEMPERATURE AND HUMIDITY - GLOBAL.
   b. UNIT MARK, TYPE, AND ENABLE/DISABLE.
   c. EXHAUST FAN ENABLE, SPEED, AND STATUS.
   d. FUME HOOD - HOOD SWITCH, SASH POSITION, AIRFLOW CFM, AND LOW FLOW ALARM.
   e. MOTORIZED DAMPER POSITION.
   f. SHUTDOWN STATUS.

**DISHWASHER EXHAUST**

1. THE BAS CONTRACTOR SHALL PROVIDE A MICROPROCESSOR-BASED CONTROLLER WHICH SHALL MONITOR AND CONTROL THE SYSTEM IN STAND-ALONE MODE OR AS DIRECTED BY THE BAS.
2. THE DISHWASHER HOOD EXHAUST FAN SHALL BE INTERLOCKED WITH THE DISHWASHER OPERATION. THE FAN SHALL OPERATE A MINIMUM OF 30 MINUTES (ADJ) AFTER DISHWASHER OPERATION IS COMPLETE TO ENSURE MOISTURE IS REMOVED FROM THE APPLIANCE AND ADJACENT SPACE.
3. THE FAN SHALL ALSO BE MANUALLY ENABLED AT A LOCAL TIMER SWITCH.
4. SYSTEM GRAPHIC DISPLAY:
   a. OUTSIDE AIR TEMPERATURE AND HUMIDITY - GLOBAL.
   b. UNIT MARK, TYPE, AND ENABLE/DISABLE.
   c. FAN: SPEED AND STATUS.

**WATER MONITORING**

1. THE BAS SHALL MONITOR THE WATER CONSUMPTION FOR THE FOLLOWING SYSTEMS.
2. SYSTEM GRAPHIC DISPLAY:
   a. DOMESTIC COLD WATER METER: FLOW RATE AND DAILY CONSUMPTION.
   b. DOMESTIC HOT WATER METER: FLOW RATE AND DAILY CONSUMPTION.

**EXTERIOR LIGHTING CONTROL**

1. THE BAS SHALL CONTROL INDIVIDUAL LIGHTING CIRCUITS VIA LIGHTING CONTROLS. EACH CIRCUIT SHALL HAVE ITS OWN OPERATING SCHEDULE ACCORDING TO BAS PROGRAMMING AND PHOTOCELL. LIGHTING CONTROLS ARE TO BE PROVIDED BY THE BAS CONTRACTOR.
2. SYSTEM GRAPHIC DISPLAY:
   a. PHOTOCELL STATUS - GLOBAL.
   b. SITE PLAN COLOR CODED BY LIGHTING CONTROL ZONES.
   c. ALL CIRCUITS - UNIT MARK, OCCUPANCY SCHEDULE.

**MOISTURE DETECTION**

1. THE BAS SHALL GENERATE AN ALARM IF THE MOISTURE DETECTION SENSOR CONTACTS ARE ACTIVATED.
2. SYSTEM GRAPHIC DISPLAY:
   a. ALL MOISTURE DETECTION SENSORS - UNIT MARK AND STATUS.
   b. BUILDING FLOOR PLANS SHOWING SENSOR LOCATIONS.

**CO2 MONITORING**

1. THE BAS SHALL GENERATE AN ALARM IF THE SPACE CO2 EXCEED THE MAX ALLOWABLE CO2 CONCENTRATION LEVEL LISTED IN THE TABLE.
2. SYSTEM GRAPHIC DISPLAY:
   a. ALL CO2 SENSORS - UNIT MARK, CURRENT SPACE CO2, MAX ALLOWABLE CO2 CONCENTRATION LEVEL, AND ALARM.
   b. BUILDING FLOOR PLANS SHOWING SENSOR LOCATIONS.

**CO2 SETPOINTS: MONITOR ONLY**

| OCCUPANCY CATEGORY | ROOM # | CO2 SETPOINT (PPM) |
|---|---|---|
| CONFERENCE/ MEETING | 106,111,113,137,140,214,239,242 | 1620 |
| RECEPTION AREAS | 102 | 1656 |

**MAKE-UP AIR UNIT (MAU) AND EXHAUST FAN (EF)**

1. THE EQUIPMENT MANUFACTURER SHALL PROVIDE A MICROPROCESSOR-BASED CONTROLLER WHICH SHALL MONITOR AND CONTROL THE SYSTEM IN A STANDALONE MODE OR AS DIRECTED BY THE BAS. THE BAS SHALL BE RESPONSIBLE FOR COMMUNICATING WITH THE CONTROLLER AND PROVIDING STATUS AND DIAGNOSTICS OF THE UNIT TO THE OPERATOR. THE BAS CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY REQUIRE GATEWAYS.
2. SYSTEM GRAPHIC DISPLAY:
   a. OUTSIDE AIR TEMPERATURE AND HUMIDITY - GLOBAL.
   b. UNIT ENABLE/DISABLE, SCHEDULING, AND OCCUPIED MODE OVERRIDE.
   c. SPACE TEMPERATURE SETPOINT.
   d. ALL DAMPERS - POSITION.
   e. DIRTY FILTER STATUS.
   f. ALL TEMPERATURE AND HUMIDITY SENSORS.
   g. SPACE TEMPERATURE SET POINT.
   h. ALL VFDS - ENABLE, SPEED, STATUS.
   i. EXHAUST FAN - ENABLE.
   j. ELECTRIC HEAT - ENABLE.
   k. COOLING COMPRESSOR STAGES - ENABLE.
   l. WATER LEVEL DETECTION DEVICE STATUS.

QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

COMMONWEALTH OF VIRGINIA
MATTHEW R. LEWIS
10/08/2024
NO. 51922
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: MRL
DRAWN BY: JAS/MAC

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

CONTROLS

**M807**

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## FIRESTOPPING GENERAL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE ARCHITECTURAL DRAWINGS PRIOR TO SUBMITTING THEIR BID PRICE. THE CONTRACTOR SHALL INCLUDE IN THEIR BID PRICE ALL REQUIRED FIRESTOPPING WHETHER OR NOT INDICATED ON THE ELECTRICAL DRAWINGS.
2. WHEREVER FIRE DAMPERS ARE INDICATED ON MECHANICAL DRAWINGS OR REQUIRED AS INDICATED BY A ONE-HOUR OR GREATER FIRE RATING ON THE ARCHITECTURAL PLANS, THOSE WALLS SHALL BE CONSIDERED FIRE RATED WALLS. ANY PENETRATIONS OF PIPING, CONDUIT, DUCTWORK, ETC. THROUGH THOSE WALLS SHALL BE FIRESTOPPED IN ACCORDANCE WITH THE DETAILS INDICATED ON THE ARCHITECTURAL AND DIVISION 7 SECTION "FIRESTOPPING".
3. MAINTAIN FIRE RATINGS WHERE ELECTRICAL ITEMS PENETRATE FIRE RATED BUILDING ELEMENTS. PROVIDE UL LISTED FIRESTOPPING SYSTEM FOR EACH PENETRATION. GROUP CONDUITS/CABLES TOGETHER TO REDUCE QUANTITY OF PENETRATIONS WHEREVER POSSIBLE.
4. ALL DATA, VOICE AND OR VIDEO SLEEVES SHALL BE FIRESTOPPED AFTER CABLE INSTALLATION BY THE DATA-VOICE AND VIDEO CONTRACTOR(S).

## ELECTRICAL LEGEND

CONDUIT OR CABLE UP

CONDUIT OR CABLE DOWN

CONDUIT UNDERGROUND OR UNDERSLAB

EXISTING TO BE REMOVED

EXISTING TO REMAIN

GROUNDING CONNECTION

WIRING DEVICES

5X — WALL SWITCH, AT 48" AFF TO TOP OF BOX, UNO. SUBSCRIPTS INDICATE THE FOLLOWING:
(NONE) SINGLE POLE
a (LOWER CASE LETTER) SWITCHING PATTERN
O OCCUPANCY SENSOR
T TIMER, ELECTRONIC
V VACANCY SENSOR
VD VACANCY SENSOR/DIMMER

4aX — DIGITAL LOW VOLTAGE WALL SWITCH, AT 48" AFF TO TOP OF BOX, UNO. SUBSCRIPTS INDICATE THE FOLLOWING:
(NONE) SINGLE ZONE ON/OFF
a (LOWER CASE LETTER) SWITCHING PATTERN
D SINGLE ZONE DIMMER W/ ON/OFF
2D TWO ZONE DIMMER W/ ON/OFF
3D THREE ZONE DIMMER W/ ON/OFF
4D FOUR ZONE DIMMER W/ ON/OFF
TS TOUCH SCREEN CONTROLLER

OS — CEILING MOUNTED OCCUPANCY SENSOR SUBSCRIPTS INDICATE THE FOLLOWING:
H HIGH BAY SENSOR
a (LOWER CASE LETTER) SWITCHING PATTERN

PS — CEILING PHOTOSENSOR. SUBSCRIPTS INDICATE THE FOLLOWING:
a (LOWER CASE LETTER) SWITCHING PATTERN

DUPLEX RECEPTACLE AT 18" AFF OR GRADE, UNO. SUBSCRIPTS INDICATE THE FOLLOWING:
GF GROUND FAULT CIRCUIT INTERRUPTER
L MOUNTED AT +8" AFF UNDER MARKER WALL
TV TV/MONITOR, MT AT +60" AFF
WP WEATHERPROOF AND GFCI TYPE

DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER/ BACKSPLASH, 2" FROM TOP OF BACKSPLASH TO BOTTOM EDGE OF FACEPLATE. 120V/20A UNO.

QUAD RECEPTACLE AT 18" AFF, UNO

20A, 120V TWISTLOCK RECEPTACLE

120V, 20A DUPLEX RECEPTACLE IN FLUSH FLOOR BOX WITH COVER.

120V, 20A QUAD RECEPTACLE IN FLUSH FLOOR BOX WITH COVER.

120V, 20A RECEPTACLE IN POKE-THRU BOX WITH COVER.

FLR — KITCHEN RECEPTACLE, STUBBED UP FROM FLOOR, SEE DETAIL ON QF 203

KCR — KITCHEN CORD RECEPTACLE. SEE DETAIL ON E501.

CCR — CLASSROOM CORD RECEPTACLE. SEE DETAIL ON E501.

J — JUNCTION BOX

J — JUNCTION BOX, WALL MOUNTED

E — EQUIPMENT CONNECTION. SUBSCRIPTS INDICATE THE FOLLOWING:
HT HEAT TRACE
MD MOTORIZED DOOR
OHD OVERHEAD DOOR
MS MOTORIZED SHADE

J — SR — DUAL SERVICE SURFACE METAL RACEWAY; POWER AND DATA. 20A QUAD RECEPTACLES AND 2-JACK DATA OUTLETS SPACED AT 24" ON CENTER. WHERE MULTIPLE CIRCUITS ARE INDICATED, RECEPTACLES SHALL BE ALTERNATELY CONNECTED TO THE CIRCUITS. PROVIDE DATA CONDUITS TO SURFACE METAL RACEWAY AS INDICATED ON "ET" PLANS. MOUNT SURFACE METAL RACEWAY AT +18" AFF UNLESS NOTED OTHERWISE.

COMMUNICATION SYMBOLS

VOICE/DATA OUTLET WITH COVER FLUSH IN WALL. MOUNTED AT 18" AFF UNO. PROVIDE TWO CAT6A CABLES AND JACKS. CABLE ROUTED IN 1"C TO ABOVE ACCESSIBLE CEILING. OUTLETS SHALL BE AT SAME HEIGHT AS ADJACENT RECEPTACLES, WHERE OTHER THAN 18" AFF.
SUBSCRIPTS INDICATE THE FOLLOWING:
L MOUNTED AT +8" AFF UNDER MARKER WALL
W WALL MOUNTED AT +48" AFF

DATA OUTLET IN FLUSH FLOOR BOX WITH COVER. OUTLET LOCATED IN SAME BOX AS POWER, UNO. PROVIDE TWO CAT6A CABLES AND JACKS. CABLE ROUTED IN 1"C UNDER FLOOR AND UP NEAREST WALL TO ABOVE ACCESSIBLE CEILING.

DATA OUTLET IN POKE-THRU BOX WITH COVER. OUTLET LOCATED IN SAME BOX AS POWER, UNO. PROVIDE TWO CAT6A CABLES AND JACKS. CABLE ROUTED IN 1"C STUBBED OUT ABOVE ACCESSIBLE CEILING OF FLOOR BELOW.

WA — WIRELESS ACCESS POINT MOUNTED IN CEILING. PROVIDE (2) CAT6A CABLES AND JACKS. LEAVE 25' OF SLACK IN EACH CABLE.

DATA RACK FURNISHED AND INSTALLED BY CONTRACTOR. REFER TO DRAWINGS AND SPECIFICATIONS FOR MORE INFO.

POWER DISTRIBUTION

PANELBOARD, SURFACE MOUNTED, 120/208V

PANELBOARD, FLUSH MOUNTED, 120/208V

PANELBOARD, SURFACE MOUNTED, 277/480V

PANELBOARD, FLUSH MOUNTED, 277/480V

DASHED LINES REPRESENT ELECTRICAL EQPT REQUIRED CLEARANCES (PER NEC)

DISCONNECT SWITCH. SIZE AND TYPE AS INDICATED

VFD — VARIABLE FREQUENCY DRIVE

LIGHT FIXTURES

EM = FIXTURE CONNECTED TO EMERGENCY CIRCUIT
a LIGHTING/CONTROL GROUP DESIGNATION
ps PHOTOSENSOR CONTROLLED, FIXTURE TO BE DIMMABLE

2' X 4' LIGHT FIXTURE

2' X 2' LIGHT FIXTURE

1' X 4' LIGHT FIXTURE

CEILING MOUNTED LIGHT FIXTURE

WALL MOUNTED LIGHT FIXTURE

EXIT SIGN WITH EMERGENCY BATTERY, CEILING MTD. DARKENED QUADRANT INDICATES STENCILED FACE(S). ARROW INDICATES DIRECTIONAL EXIT. TYPE X1, UNO

EXIT SIGN WITH EMERGENCY BATTERY, WALL MOUNTED. DARKENED QUADRANT INDICATES STENCILED FACE(S). ARROW INDICATES DIRECTIONAL EXIT. TYPE X1, UNO.

EXTERIOR LIGHT FIXTURES

POLE LIGHT

WALL MOUNTED EXTERIOR LIGHT

LIGHTING PROTECTION

AIR TERMINAL.

LIGHTNING CONDUCTOR

GROUND ELECTRODE

FIRE ALARM SYSTEMS

F — FIRE ALARM MANUAL PULL STATION AT 48" AFF

SD — SMOKE DETECTOR, SUBSCRIPTS INDICATE THE FOLLOWING:
(NONE) CEILING MOUNTED
D DUCT DETECTOR (PROVIDED/INSTALLED AND WIRED TO FACP BY ELECTRICAL CONTRACTOR; INTERFACED WITH HVAC CONTROLS BY MECH. CONTRACTOR)
E ELEVATOR RECALL

C L — FIRE ALARM AUDIBLE/VISUAL INDICATOR MOUNTED SUCH THAT LENS IS BETWEEN 80" & 96" AFF. ALL WALL MOUNTED TO BE AT SAME HEIGHT. X=CANDELA LEVEL. C=CEILING MTD

15 L C — FIRE ALARM VISUAL INDICATOR MOUNTED SUCH THAT LENS IS BETWEEN 80" & 96" AFF. ALL WALL MOUNTED TO BE AT SAME HEIGHT. X=CANDELA LEVEL. C=CEILING MTD

FACP — FIRE ALARM CONTROL PANEL

FAA — FIRE ALARM ANNUNCIATOR

FS — FLOW SWITCH

TS — TAMPER SWITCH

PIV — POST INDICATOR VALVE

HD — HEAT DETECTOR

RM — FORM C RELAY MODULE W/120V RATED DRY CONTACTS

SECURITY/MISCELLANEOUS SYMBOLS

CEILING MTD CAMERA. OFCI - CONTRACTOR TO INSTALL CABLING

WALL MTD CAMERA. OFCI - CONTRACTOR TO INSTALL CABLING

CR — CARD READER/CARD SWIPE CONTRACTOR TO PROVIDE SINGLE GANG OUTLET BOX AND 1/2" CONDUIT WITH PULL STRING TO ABOVE ACCESSIBLE CEILING. MOUNT AT +48" AFF.

KP — KEY PAD. CONTRACTOR TO PROVIDE SINGLE GANG OUTLET BOX AND 1/2" CONDUIT WITH PULL STRING TO ABOVE ACCESSIBLE CEILING. MOUNT AT +48" AFF.

AI — AI PHONE/DOORBELL

RI — REMOTE INDICATOR

V — CEILING MTD VAPE SENSOR, DEVICE TO BE HALO-2C, NO SUBSTITUTIONS. PROVIDE (1) CAT 6 CABLE FROM SENSOR TO IDF ROOM.

MS — MOTION DETECTOR. CONTRACTOR TO PROVIDE SINGLE GANG OUTLET BOX AND 1/2" CONDUIT WITH PULL STRING TO ABOVE ACCESSIBLE CEILING.

DC — DOOR CONTACT. CONTRACTOR TO PROVIDE SINGLE GANG OUTLET BOX AND 1/2" CONDUIT WITH PULL STRING TO ABOVE ACCESSIBLE CEILING. MOUNT AT/TO TOP OF DOOR FRAME.

C — ANALOG WIRELESS CLOCK. 12" DIAMETER. SUBSCRIPT INDICATES THE FOLLOWING:
16 16" DIAMETER CLOCK

S — ROUND CEILING SPEAKER, 25V XFMR. SUBSCRIPT INDICATES THE FOLLOWING:
IP WITH IP INTERFACE MODULE
P METAL ENCLOSURE, PENDANT MOUNT

S — 2x2 LAY-IN TILE SPEAKER, 25V XFMR. SUBSCRIPT INDICATES THE FOLLOWING:
IP WITH IP INTERFACE MODULE

S — WALL SPEAKER, SQUARE METAL ENCLOSURE, 25V XFMR

DB — DOOR BELL. MOUNT AT +48" AFF

B — DOOR BELL BUZZER

T — DOOR BELL TRANSFORMER

EPO — WALL MOUNTED EMERGENCY POWER OFF PUSHBUTTON

HANDICAP OR OVERHEAD DOOR OPERATOR, MH AS INDICATED

RGA — REMOTE GENERATOR ANNUNCIATOR

EC — TWO-WAY ELEVATOR LOBBY COMMUNICATION STATION. MOUNT AT +48"

ECM — TWO-WAY ELEVATOR LOBBY COMMUNICATION MASTER STATION. MOUNT AT +48"

## ABBREVIATIONS

| | |
|---|---|
| A | AMPERE |
| AFF | ABOVE FINISHED FLOOR |
| ADMIN | ADMINISTRATION |
| AUX | AUXILIARY |
| AWG | AMERICAN WIRE GAUGE |
| A/E | ARCHITECT/ENGINEER |
| A/V | AUDIO VISUAL |
| BAS | BUILDING AUTOMATION SYSTEM |
| BC | BLOWER COIL |
| BLDG | BUILDING |
| BRKR | BREAKER |
| BTM | BOTTOM |
| CIRC | CIRCULATION |
| CKT | CIRCUIT |
| CLG | CEILING |
| CNTR | CONTACTOR |
| COMB | COMBINATION |
| COMM | COMMUNICATION |
| CONC | CONCRETE |
| C,COND | CONDUIT |
| CT | CURRENT TRANSFORMER |
| CTR | CENTER |
| CTRL | CONTROL |
| CU | COPPER |
| DISC | DISCONNECT |
| DIV | DIVISION |
| DN | DOWN |
| DWG | DRAWING |
| DWH | DOMESTIC WATER HEATER |
| EF | EXHAUST FAN |
| ELEC | ELECTRIC |
| EMT | ELECTRIC METALLIC TUBING |
| EQPT | EQUIPMENT |
| ERV | ENERGY RECOVERY VENTILATOR |
| EUH | ELECTRIC UNIT HEATER |
| EWC | ELECTRIC WATER COOLER |
| FAA | FIRE ALARM ANNUNCIATOR |
| FACP | FIRE ALARM CONTROL PANEL |
| FC | FOOT CANDLES |
| FDISC | FUSED DISCONNECT SWITCH |
| FLR | FLOOR |
| FT | FOOT,FEET |
| GEC | GROUNDING ELECTRODE CONDUCTOR |
| GF | GROUND FAULT |
| GFCI | GROUND FAULT CIRCUIT INTERRUPTER |
| G,GND | GROUND |
| HOA | HAND-OFF-AUTO |
| HP | HORSEPOWER |
| HTR | HEATER |
| HVAC | HEATING, VENTILATION, AIR CONDITIONING |
| HW | HOT WATER UNIT HEATER |
| HZ | HERTZ |
| KAIC | 1,000 AMPERE INTERRUPTING CURRENT |
| KCMIL | THOUSAND CIRCULAR MILS |
| KW | KILOWATT |
| KVA | KILOVOLT AMPERE |
| LTG | LIGHTING |
| LTS | LIGHTS |
| LV | LOW VOLTAGE |
| MAX | MAXIMUM |
| MB | MAIN BREAKER |
| MFR | MANUFACTURER |
| MH | MOUNTING HEIGHT (AFF UNO) |
| MIN | MINIMUM |
| MLO | MAIN LUGS ONLY |
| MTD | MOUNTED |
| N | NEUTRAL |
| NEMA | NATIONAL ELECTRICAL MFRS ASSOCIATION |
| NFPA | NATIONAL FIRE PROTECTION ASSOCIATION |
| NTS | NOT TO SCALE |
| OAU | OUTSIDE AIR UNIT |
| OCPD | OVER CURRENT PROTECTIVE DEVICE |
| OFCI | OWNER FURNISHED, CONTRACTOR INSTALLED |
| P | POLE |
| PB | PULL BOX |
| PH | PHASE |
| PNL | PANEL |
| PWR | POWER |
| REC | RECEPTACLE |
| REFR | REFRIGERATOR |
| REQD | EQUIRED |
| RM | ROOM |
| SE | SERVICE ENTRANCE |
| SECT | SECTION |
| SF | SQUARE FEET |
| SPD | SURGE PROTECTION DEVICE |
| SPKR | SPEAKER |
| ST | SHUNT TRIP |
| STRTR | STARTER |
| SURF | SURFACE |
| SW | SWITCH |
| SWBD | SWITCHBOARD |
| THRU | THROUGH |
| TP | TRAP PRIMER |
| TYP | TYPICAL |
| UL | UNDERWRITER LABORATORIES |
| UNO | UNLESS NOTED OTHERWISE |
| V | VOLTS |
| VFD | VARIABLE FREQUENCY DRIVE |
| VCC | VIRGINIA CONSTRUCTION CODE |
| W | WATTS |
| WG | WIRE GUARD |
| WP | WEATHERPROOF |
| WTR | WATER |
| XFMR | TRANSFORMER |

## GENERAL NOTES (NEW WORK)

1. THESE NOTES APPLY TO ALL ELECTRICAL DRAWINGS.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH CODES INDICATED AND LOCAL CODES AS REQUIRED BY AUTHORITY HAVING JURISDICTION (AHJ).
3. COORDINATE ALL WORK WITH THE CONSTRUCTION COMPLETION SCHEDULE SPECIFIED FOR THE PROJECT AND WITH ALL OTHER TRADES TO ENSURE THAT PROJECT IS COMPLETED ON SCHEDULE.
4. THE CONTRACTOR SHALL INCLUDE IN THEIR PRICE AFTER HOURS LABOR AND / OR WEEKEND LABOR FOR ALL WORK REQUIRED TO MEET MILESTONE DEADLINES AND CONSTRUCTION COMPLETION SCHEDULE.
5. CONTRACTOR SHALL INCLUDE IN THEIR PRICE SYSTEMS DEMONSTRATION IN SUMMER AND WINTER SEASONS FOLLOWING COMPLETION OF CONSTRUCTION. DEMONSTRATIONS SHALL BE INCLUDED IN THE BASE CONTRACT TO BE COORDINATED WITH OWNER'S REPRESENTATIVE AND ENGINEER TO OCCUR DURING PEAK SUMMER AND WINTER CONDITIONS. SEE DIVISION 23 AND DIVISION 26 SPECIFICATIONS.
6. PAY FOR AND OBTAIN ALL PERMITS UPON COMPLETION OF WORK. PRESENT THE OWNER WITH A CERTIFICATE FOR FINAL INSPECTION FROM THE LOCAL AUTHORITY.
7. EXIT SIGNS SHALL BE CONNECTED AHEAD OF ALL SWITCHING AND CONTROLS.
8. IN THE PANELBOARD SCHEDULES, THE ROOM NUMBER INDICATES THE LOCATION ON THE DRAWING OF THE FIRST ITEM TO BE ENERGIZED BY THE CIRCUIT. FINAL PANEL DIRECTORIES SHALL REFLECT ALL FINAL LCPS ROOM NUMBERS FOR LOADS SERVED.
9. MOUNTING HEIGHTS, UNLESS OTHERWISE NOTED, ARE TO CENTER LINE OF EQUIPMENT, EXCEPT MOUNTING HEIGHTS OF LIGHTING FIXTURES WHICH IS TO BOTTOM OF FIXTURE, UNLESS NOTED OTHERWISE.
10. ALL CND AND WIRING SHALL BE RUN CONCEALED ABOVE FINISHED CEILINGS, WITHIN WALLS, OR BELOW FLOORS IN FINISHED SPACES.
11. PLACE JUNCTION BOXES IN ACCESSIBLE LOCATIONS ABOVE CEILINGS. ENSURE THAT ACCESS TO PULL OR J BOXES IS NOT BLOCKED. DO NOT LOCATE PULL OR J BOXES DIRECTLY ABOVE OTHER EQUIPMENT LOCATED IN THE CEILING SPACE. DO NOT LOCATE PULL OR J BOXES ABOVE INACCESSIBLE CEILINGS (I.E. TOILET ROOMS, RESTROOMS, ETC. OR AS INDICATED ON THE ARCHITECTURAL RCP).
12. WHERE LIGHT SWITCHES ARE INDICATED TO BE MOUNTED BACK OF DOOR, THEY SHALL BE MOUNTED A MINIMUM OF 3'-4" FROM HINGED SIDE.
13. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILING TYPES AND EXACT LOCATIONS OF LIGHTING FIXTURES. REFER TO ARCHITECTURAL INTERIOR ELEVATIONS FOR SPECIFIC LOCATIONS OF WALL-MOUNTED DEVICES. COORDINATE WITH WALL FRAMING TO ACHIEVE LOCATIONS INDICATED ON CEILINGS AND WALLS.
14. LIGHT FIXTURES IN MECHANICAL ROOMS ARE SHOWN IN APPROXIMATE LOCATIONS. COORDINATE LOCATIONS AND MOUNTING HEIGHTS OF LIGHTING FIXTURES IN MECHANICAL ROOMS WITH FINAL LOCATIONS OF PIPE, DUCTS, AND OTHER EQUIPMENT FOR BEST ARRANGEMENT. FIXTURES SHALL BE EASILY ACCESSIBLE FOR RELAMPING.
15. MECHANICAL AND PLUMBING EQUIPMENT IS SHOWN IN APPROXIMATE LOCATIONS. FOR EXACT LOCATION OF MECHANICAL AND PLUMBING EQUIPMENT AND PIPING, SEE MECHANICAL AND PLUMBING DRAWINGS.
16. PROVIDE FUSES IN ALL FUSED SWITCHES. FUSE RATINGS SHALL BE IN ACCORDANCE WITH EQPT MFR'S RECOMMENDATIONS.
17. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL EXTERNAL STARTERS FOR MECHANICAL EQUIPMENT, UNLESS OTHERWISE NOTED ON MECHANICAL DRAWINGS.
18. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL AND PLUMBING CONTRACTORS AND SHALL PROVIDE NEUTRAL CONDUCTORS WHERE REQUIRED.
19. OCCUPANCY/VACANCY SENSORS SHALL BE SET FOR 20 MINUTES, UNO.
20. THE ELECTRICAL CONTRACTOR(S) SHALL COORDINATE THEIR WORK WITH ALL TRADES PRIOR TO FABRICATION OF SYSTEMS AND COMMENCEMENT OF INSTALLATION, AND PRIOR TO ANY PROCUREMENT OF MATERIALS. IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO REVIEW THE WORK OF OTHER TRADES (INCLUDING, BUT NOT LIMITED TO STRUCTURAL, ARCHITECTURAL, FIRE ALARM, MECHANICAL, PLUMBING, TELE/DATA, SECURITY, THEATRICAL AND A/V) AS IT AFFECTS THE ELECTRICAL WORK, AND AS THE ELECTRICAL WORK AFFECTS OTHER TRADES TO ENSURE THE CONSTRUCTION DOCUMENTS ARE CLOSELY FOLLOWED. WHERE DISCREPANCIES ARISE, THEY SHALL BE REFERRED TO THE A/E FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.
21. IN ADDITION TO ANY OTHER ROOFING WARRANTY REQUIREMENTS IN DIVISION 7 OF THE PROJECT SPECIFICATIONS, THE CONTRACTOR SHALL PROVIDE ALL ROOF PENETRATION WORK UTILIZING METHODS AND MATERIALS NECESSARY TO MAINTAIN THE INTEGRITY OF THE ROOF SYSTEM PERFORMANCE AND INSTALLER WARRANTIES. THE CONTRACTOR SHALL PRESENT TO THE OWNER A WRITTEN WARRANTY ON THE WEATHERPROOF INTEGRITY OF ANY AND ALL ROOF PENETRATIONS INSTALLED AS A PART OF THIS CONTRACT.
22. THE DESIGN IS BASED ON MFRS AND MODELS INDICATED AND IS INTENDED TO SHOW THE GENERAL SIZE, CONFIGURATION, LOCATION, CONNECTIONS, AND/OR SUPPORT FOR EQUIPMENT OR SYSTEMS WITH RELATION TO THE OTHER BUILDING/SYSTEMS. SEE SPECIFICATION SECTIONS FOR TECHNICAL REQUIREMENTS.
23. BUSH CONDUIT ENDS FOR ALL LOW VOLTAGE CONDUITS.

## PV SYSTEM GENERAL NOTES

1. THE PV SYSTEM IS AN ADDITIVE ALTERNATE BID ITEM. PV SCOPE IS SHOWN ON ALL THREE POWER PLANS AND THE RISER DIAGRAM.
2. FOR BASE BID PROVIDE: CONDUIT PATHWAY FROM ROOF DOWN TO LOWER LEVEL AS INDICATED ON THE DRAWINGS. SYSTEM WATTAGE IS BASED ON MICROINVERTERS. IF CENTRAL INVERTERS ARE USED, THEY MAY BE MOUNTED AT THE ROOF, ADJACENT TO THE MECHANICAL SCREEN. SEE ROOF PLAN.
3. FOR THE ADDITIVE ALTERNATE BID ITEM PROVIDE: COMPLETE NOMINAL 252 KW PV SYSTEM AS SHOWN IN THE CONTRACT DOCUMENTS. INVERTER LOCATIONS ARE TO BE FIELD COORDINATED PRIOR TO ROUGH-IN. THE PV CONTRACTOR WILL BE RESPONSIBLE FOR COORDINATING CONNECTION REQUIREMENTS WITH THE ELECTRIC UTILITY COMPANY.

## DIVISION OF LABOR MATRIX

| ITEM | SPECIFIED BY | FURNISHED BY | INSTALLED BY | POWER WIRING | CONTROL/ INTERLOCK WIRING | FIRE ALARM WIRING | NOTES |
|---|---|---|---|---|---|---|---|
| VARIABLE SPEED DRIVES (DIV 22 EQUIPMENT) | DIV 26 | DIV 22 | DIV 26 | DIV 26 | DIV 22/25 | - | |
| VARIABLE SPEED DRIVES (DIV 23 EQUIPMENT) | DIV 26 | DIV 23 | DIV 26 | DIV 26 | DIV 23/25 | - | |
| COMBINATION MOTOR STARTERS (DIV 22 EQUIPMENT) | DIV 26 | DIV 26 | DIV 26 | DIV 26 | DIV 22/25 | - | |
| COMBINATION MOTOR STARTERS (DIV 23 EQUIPMENT) | DIV 26 | DIV 26 | DIV 26 | DIV 26 | DIV 23/25 | - | |
| PLUMBING PUMPS (DIV 22 EQUIPMENT) | DIV 22 | DIV 22 | DIV 22/23 | DIV 26 | DIV 25 | - | |
| HVAC PUMPS (DIV 23 EQUIPMENT) | DIV 23 | DIV 23 | DIV 23 | DIV 26 | DIV 25 | - | |
| CONTROL VALVES (DIV 22 EQUIPMENT) | DIV 25 | DIV 25 | DIV 22 | DIV 26 | DIV 25 | - | |
| CONTROL VALVES (DIV 23 EQUIPMENT) | DIV 23/25 | DIV 25 | DIV 23 | DIV 25 | DIV 25 | - | |
| IMMERSION WELL & METERS (DIV 23 EQUIPMENT) | DIV 23/25 | DIV 25 | DIV 23 | DIV 25 | DIV 25 | - | |
| DUCT SMOKE DETECTOR | DIV 28 | DIV 23/25 | DIV 25 | - | - | DIV 26/28 | |
| HEAT TRACE (DIV 22 PIPING/EQUIPMENT) | DIV 22 | DIV 22 | DIV 22 | DIV 26 | DIV 25 | - | |

**GENERAL NOTES (APPLIES TO ALL EQUIPMENT):**

1. THESE DIVISIONS ARE BASE SCOPE. GENERAL CONTRACTOR MAY DEVIATE EXCEPT FOR VARIABLE SPEED DRIVES, BUT REMAINS RESPONSIBLE TO ENSURE ENTIRE SCOPE OF WORK IS COVERED.

**SPECIFIC NOTES (AS NOTED IN THE SCHEDULE):**

1

## DESIGN CODES/STANDARDS

| CODE/STANDARD | YEAR/VERSION |
|---|---|
| VIRGINIA BUILDING CODE (VBC) | 2018 |
| VIRGINIA MECHANICAL CODE (VMC) | 2018 |
| VIRGINIA PLUMBING CODE (VPC) | 2018 |
| VIRGINIA ENERGY CONSERVATION CODE (VECC) | 2018 |
| VIRGINIA FUEL GAS CODE (VFGC) | 2018 |
| NATIONAL ELECTRICAL CODE (NEC) | 2017 |
| NFPA 13 | 2016 |
| NFPA 72 | 2016 |

## SHEET LIST - ELECTRICAL



| SHEET NO | SHEET NAME |
|---|---|
| E000 | LEGENDS, ABBREVIATIONS & GENERAL NOTES |
| ES100 | ELECTRICAL SITE PLAN - OVERALL |
| ES101 | ELECTRICAL SITE PLAN |
| ES102 | ELECTRICAL SITE PLAN |
| ES103 | ELECTRICAL SITE PLAN |
| E100 | BASEMENT PLANS |
| EL101A | LEVEL 1 - PARTIAL PLAN AREA A - LIGHTING |
| EL101B | LEVEL 1 - PARTIAL PLAN AREA B - LIGHTING |
| EL102A | LEVEL 2 - PARTIAL PLAN AREA A - LIGHTING |
| EL102B | LEVEL 2 - PARTIAL PLAN AREA B - LIGHTING |
| EP101A | LEVEL 1 - PARTIAL PLAN AREA A - POWER |
| EP101B | LEVEL 1 - PARTIAL PLAN AREA B - POWER |
| EP102A | LEVEL 2 - PARTIAL PLAN AREA A - POWER |
| EP102B | LEVEL 2 - PARTIAL PLAN AREA B - POWER |
| EP103 | ROOF PLAN - POWER |
| ET101A | LEVEL 1 - PARTIAL PLAN AREA A - SPECIAL SYSTEMS |
| ET101B | LEVEL 1 - PARTIAL PLAN AREA B - SPECIAL SYSTEMS |
| ET102A | LEVEL 2 - PARTIAL PLAN AREA A - SPECIAL SYSTEMS |
| ET102B | LEVEL 2 - PARTIAL PLAN AREA B - SPECIAL SYSTEMS |
| E401 | ENLARGED PLANS |
| E402 | ENLARGED PLANS |
| E501 | DETAILS |
| E502 | DETAILS |
| E503 | LIGHTNING PROTECTION |
| E601 | POWER RISER DIAGRAM |
| E602 | LV RISER DIAGRAM |
| E603 | FA RISER DIAGRAM |
| E700 | LIGHTING SCHEDULES |
| E701 | PANEL SCHEDULES |
| E702 | PANEL SCHEDULES |
| E703 | PANEL SCHEDULES |
| E704 | PANEL SCHEDULES |
| E705 | PANEL SCHEDULES |




QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

COMMONWEALTH OF VIRGINIA
NEAL A. CRAMER
Lic. No. 41825
10/08/2024
PROFESSIONAL ENGINEER

Albemarle County Public Schools


**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: NAC
DRAWN BY: AMH

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

LEGENDS, ABBREVIATIONS & GENERAL NOTES

# E000

PATH & FILENAME: C:\Users\Bethany.Ott\Documents\Revit Files\19168_E23_ACPS HS Center II_Elect_BethanyB.rvt
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## GENERAL NOTES (NEW WORK)

1. REFER TO THE REFERENCED PARTIAL SITE PLANS FOR ELECTRICAL WORK.

1 ES100 ELECTRICAL SITE PLAN - OVERALL
SCALE: 1" = 50'-0"
0 25' 50' 100'

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QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

COMMONWEALTH OF VIRGINIA
NEAL A. CRAMER
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|---|---|---|

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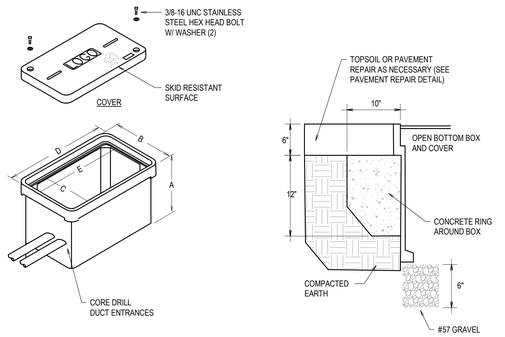
DRAWN BY: AMH

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

ELECTRICAL SITE PLAN - OVERALL

# ES100



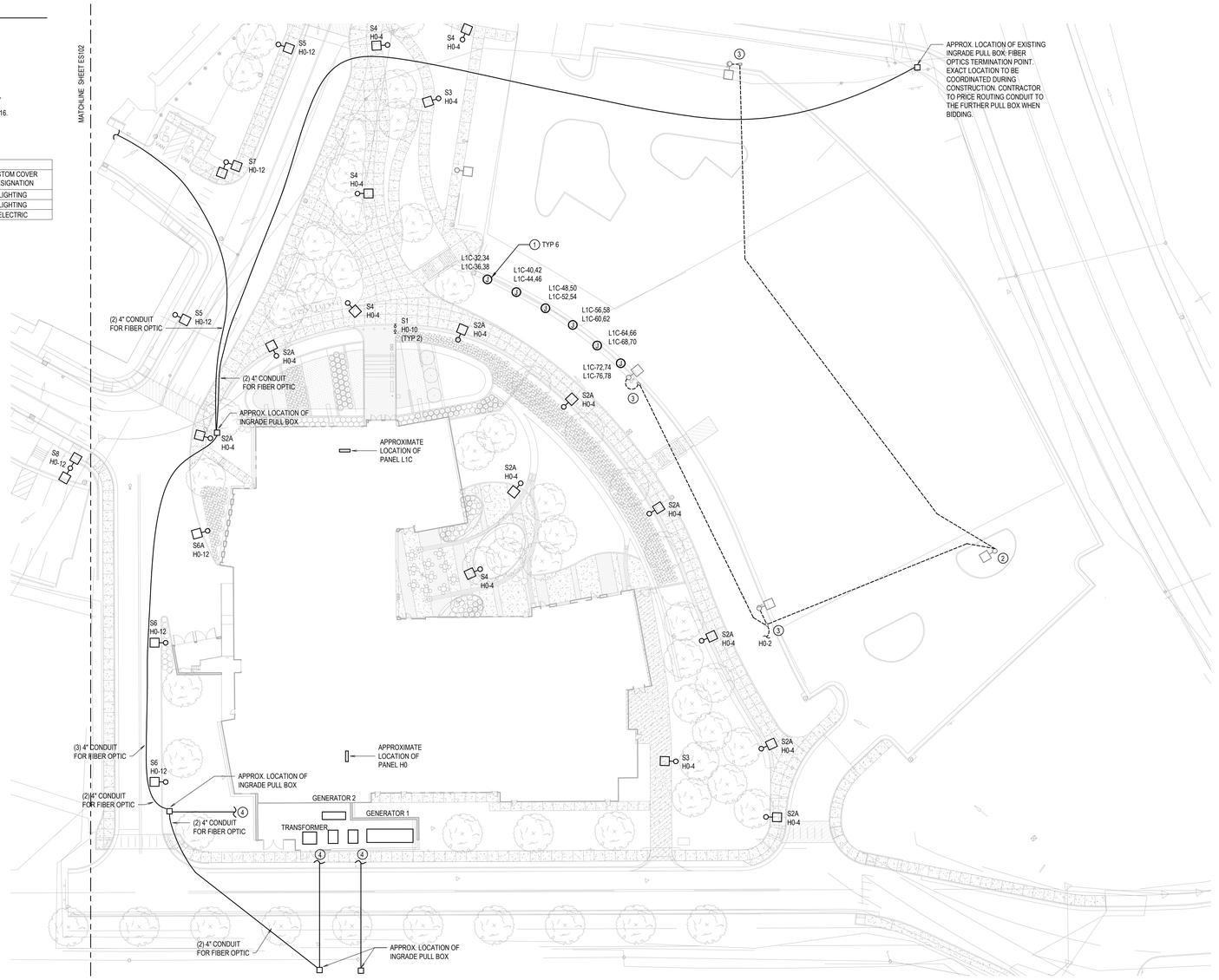

## 2 -- ES101 INGRADE PULL BOX DETAIL

SCALE: NONE

NOTES:

A. HOUSING SHALL BE A POLYMER CONCRETE REINFORCED WITH A HEAVY WEAVE FIBERGLASS REINFORCING WITH COMPRESSIVE STRENGTH OF NO LESS THAN 10,000 PSI.
B. PROVIDE STAINLESS STEEL BOLTS AND INSERTS.
C. COORD BOX LOCATION WITH OTHER UG UTILITIES.
D. DO NOT INSTALL IN-GRADE PULL BOXES IN CONCRETE SIDEWALKS, DOORWAY EXIT PATHS, ASPHALT TRAILS OR PARKING AREAS.
E. BOXES SHALL COMPLY WITH REQUIREMENTS OF SECTION 26 0533.16.
F. COORDINATE EXACT TYPE AND LOCATION WITH OWNER.

| SCHEDULE | | | | | | |
|---|---|---|---|---|---|---|
| HANDHOLE TYPE | DIMENSION | | | | | CUSTOM COVER DESIGNATION |
| | A | B | C | D | E | |
| A | 18" | 13-3/8" | 10-1/8" | 20-1/4" | 17" | LIGHTING |
| B | 18" | 15-1/2" | 11-3/4" | 25" | 21-1/4" | LIGHTING |
| C | 24" | 26" | 22-1/4" | 37-5/8" | 33-7/8" | ELECTRIC |




## 1 -- ES101 ELECTRICAL SITE PLAN

SCALE: 1" = 30'-0"

0 15' 30' 60'

## GENERAL NOTES (NEW WORK)

1. FIELD COORD ALL IN-GROUND PULL BOX LOCATIONS WITH OTHER UTILITIES.
2. DO NOT INSTALL IN-GROUND PULL BOXES IN ASHPALT, PAVING OR OTHER AREAS SUBJECT TO HEAVY VEHICULAR TRAFFICE. IF NOT OTHER LOCATION IS AVAILABLE. SUCH BOXES SHALL HAVE COVERS RATED FOR HEAVY TRAFFIC LOCATIONS.
3. REFER TO THE EL SHEETS FOR BUILDING MOUNTED LIGHT FIXTURES.
4. REFER TO SHEET E100 FOR WORK ASSOCIATED WITH THE GENERATORS AND UTILITY TRANSFORMER.
5. REFER TO SHEET E100 FOR WORK ASSOCIATED WITH THE GENERATORS AND UTILITY TRANSFORMER.
6. SITE LIGHTING CIRCUITS TO BE CONTROLLED BY BAS. EACH CIRCUIT IS TO BE A ZONE. COORDINATE WITH CONTROLS CONTRACTOR.

## # KEY NOTES (NEW WORK)

1. CIRCUITS FOR FUTURE ELECTRIC VEHICLE CHARGERS. PROVIDE NEMA 3R J BOX MOUNTED TO CONCRETE SLAB. CONDUCTORS TO BE TAPPED OFF/CAPPED OFF IN BOX FOR FUTURE CONNECTIONS TO CHARGERS. CONDUIT ROUTING BACK TO PANEL L1C, IN ROOM 107, TO BE FIELD COORDINATED.
2. EXISTING LIGHT FIXTURE AND POLE TO BE REMOVED AND REINSTALLED. PROVIDE NEW BASE.
3. EXISTING LIGHT FIXTURE TO REMAIN. EXISTING CIRCUITRY TO BE PARTIALLY REMOVED DURING DEMOLITION. PROVIDE TYPE A HANDHOLE AND NEW CIRCUITRY AS INDICATED. CONNECT TO EXISTING CIRCUITRY OUT OF EXISTING POLE BASE.
4. SEE SHEET E402 FOR CONTINUATION

QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
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**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd.
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: NAC
DRAWN BY: AMH

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

ELECTRICAL SITE PLAN

# ES101

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## TENNIS SPORTS LIGHTING POLE SCHEDULE

| POLE | | | | LUMINAIRES | | |
|---|---|---|---|---|---|---|
| QTY | LOCATION | SIZE | GRADE ELEVATION | MOUNTING HEIGHT | LUMINAIRE TYPE | QTY/ POLE |
| 8 | T1-T2 | 38' | - | 38' | TLC-LED-550 | 2 |
| | T4-T7 | | | | TLC-LED-400 | |
| | T9-T10 | | | | TLC-LED-400 | |
| 2 | T3, T8 | 38' | - | 38' | TLC-LED-400 | 4 |
| 4 | T11 | 30' | - | 30' | TLC-LED-400 | 2 |
| | T13-T14 | | | | TLC-LED-400 | |
| | T16 | | | | TLC-LED-400 | |
| T5 | T12, T15 | 30' | - | 30' | TLC-LED-400 | 1 |

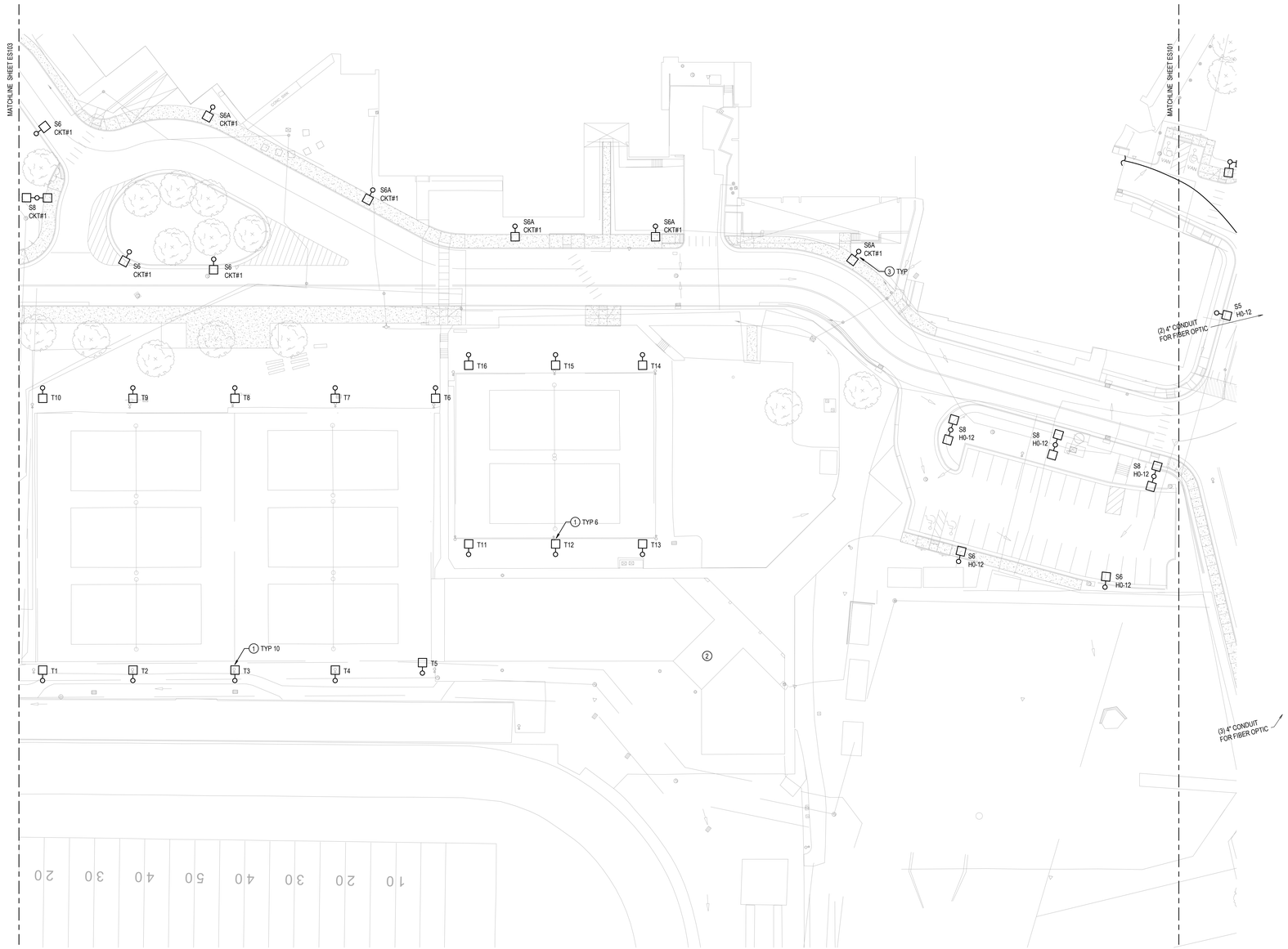
NOTES:
1. WORK IS LIMITED TO NEW FIXTURES AND DRIVERS. EXISTING POLES, ETC. ARE TO REMAIN.
2. EXISTING CIRCUITRY IS TO BE REUSED TO SERVE NEW FIXTURE HEADS.

## GENERAL NOTES (NEW WORK)

1. FIELD COORD ALL IN-GROUND PULL BOX LOCATIONS WITH OTHER UTILITIES.
2. DO NOT INSTALL IN-GROUND PULL BOXES IN ASHPALT, PAVING OR OTHER AREAS SUBJECT TO HEAVY VEHICULAR TRAFFICE. IF NOT OTHER LOCATION IS AVAILABLE. SUCH BOXES SHALL HAVE COVERS RATED FOR HEAVY TRAFFIC LOCATIONS.
3. FIELD COORDINATE ALL UNDERGROUND SITE LIGHTING CONDUIT RUNS WITH OTHER SITE UTILITIES AND WORK.

## (#) KEY NOTES (NEW WORK)

1. EXISTING TENNIS COURT LIGHTING FIXTURE HEADS TO BE REMOVED. PROVIDE NEW MUSCO FIXTURES. SEE SCHEDULE ON THIS SHEET. EXISTING BRANCH CIRCUITRY TO REMAIN AND BE REUSED.
2. TENNIS LIGHTS ARE FED OUT OF FIELD HOUSE PANEL(S). REUSE EXISTING BRANCH CIRCUITS/BREAKERS FOR THE COURT LIGHTING. EXISTING BAS CONTROL OF TENNIS COURT LIGHTING TO REMAIN AND BE REUSED.
3. SERVE CKT #1 OUT OF 600A SQUARE D I-LINE PANEL IN FIELD HOUSE. PROVIDE NEW 20A/1P BREAKER. CIRCUIT TO BE CONTROLLED BY BAS. COORDINATE WITH EXISTING LIGHTING CONTROLS LOCATED IN THE FIELD HOUSE. ALL THREE NEW FIELD HOUSE LIGHTING CIRCUITS ARE TO BE SEPARATE CONTROL ZONES.




1 ES102 ELECTRICAL SITE PLAN
SCALE: 1" = 30'-0"
0 15' 30' 60'

PATH & FILENAME: C:\Users\BethanyB\Documents\Revit Files\19168_E23_ACPS HS Center II_Elect_BethanyB.rvt
PLOTTING DATE & TIME: 10/2/2024 12:25:11 PM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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

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NEAL A. CRAMER
Lic. No. 41825
10/08/2024
PROFESSIONAL ENGINEER


Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: NAC
DRAWN BY: AMH

QEA No.41911390/19168

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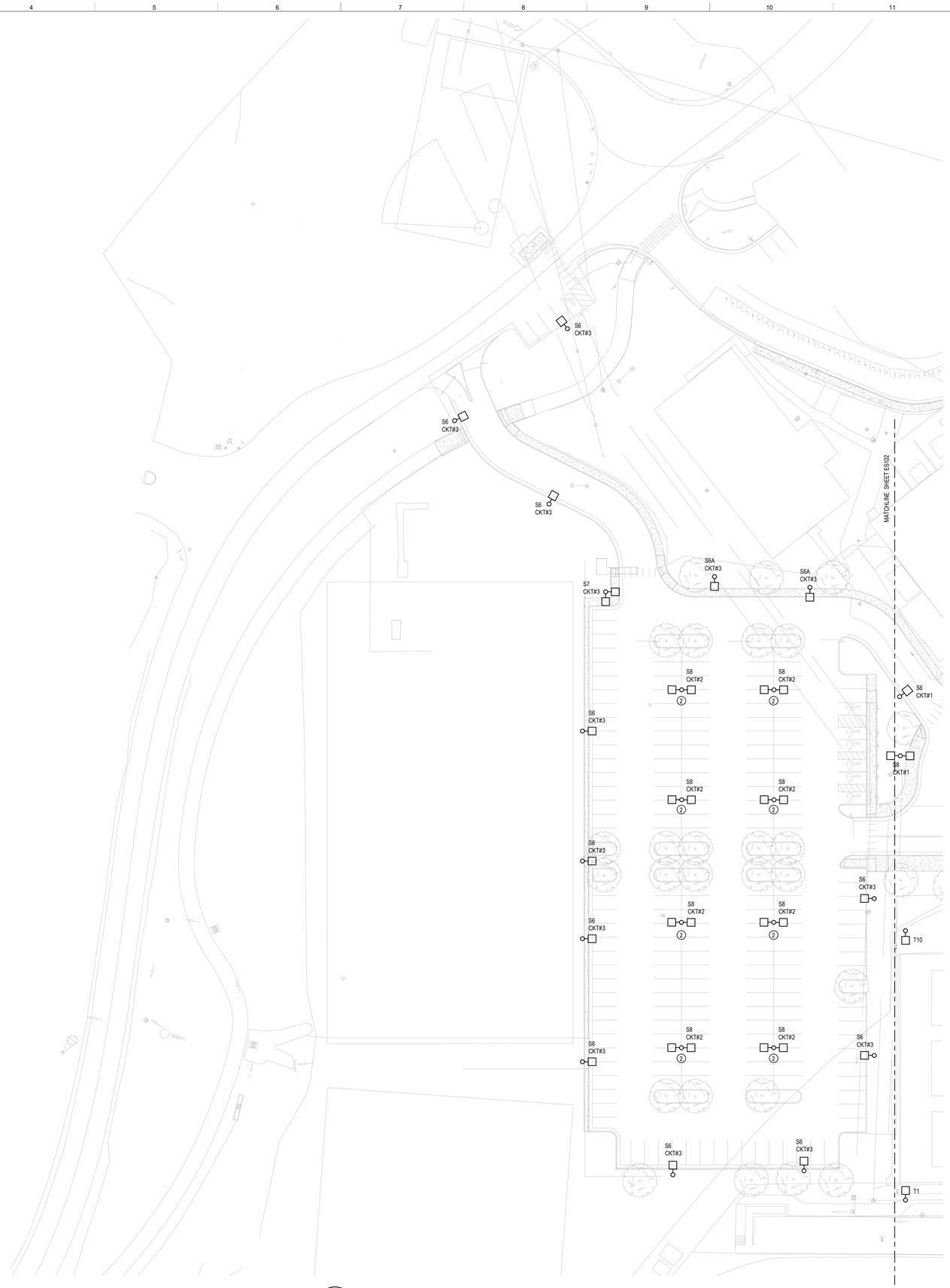
10/08/2024

ELECTRICAL SITE PLAN

# ES102




## GENERAL NOTES (NEW WORK)

1. FIELD COORD ALL IN-GROUND PULL BOX LOCATIONS WITH OTHER UTILITIES.
2. DO NOT INSTALL IN-GROUND PULL BOXES IN ASHPALT, PAVING OR OTHER AREAS SUBJECT TO HEAVY VEHICULAR TRAFFICE. IF NOT OTHER LOCATION IS AVAILABLE. SUCH BOXES SHALL HAVE COVERS RATED FOR HEAVY TRAFFIC LOCATIONS.
3. FIELD COORDINATE ALL UNDERGROUND SITE LIGHTING CONDUIT RUNS WITH OTHER SITE UTILITIES AND WORK.
4. REFER TO CIVIL AND IRRIGATION PLANS FOR ELECTRICAL WORK ASSOCIATED WITH THE NEW IRRIGATION SYSTEM.

## (#) KEY NOTES (NEW WORK)

1. SERVE CIRCUITS #2 AND #3 OUT OF 600A SQUARE D I-LINE PANEL IN FIELD HOUSE. PROVIDE NEW 20A/1P BREAKER. CIRCUIT TO BE CONTROLLED BY BAS. COORDINATE WITH EXISTING LIGHTING CONTROLS LOCATED IN THE FIELD HOUSE. ALL THREE NEW FIELD HOUSE LIGHTING CIRCUITS ARE TO BE SEAPARATE CONTROLS ZONES.
2. POLE TO HAVE BASE THAT EXTENDS 36" ABOVE GRADE.

1 ES103 ELECTRICAL SITE PLAN
SCALE: 1" = 30'-0"
0 15' 30' 60'

PATH & FILENAME: C:\Users\BethanyB\Documents\Revit Files\19168_E23_ACPS HS Center II_Elect_BethanyB.rvt
PLOTTING DATE & TIME: 10/2/2024 12:25:14 PM

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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

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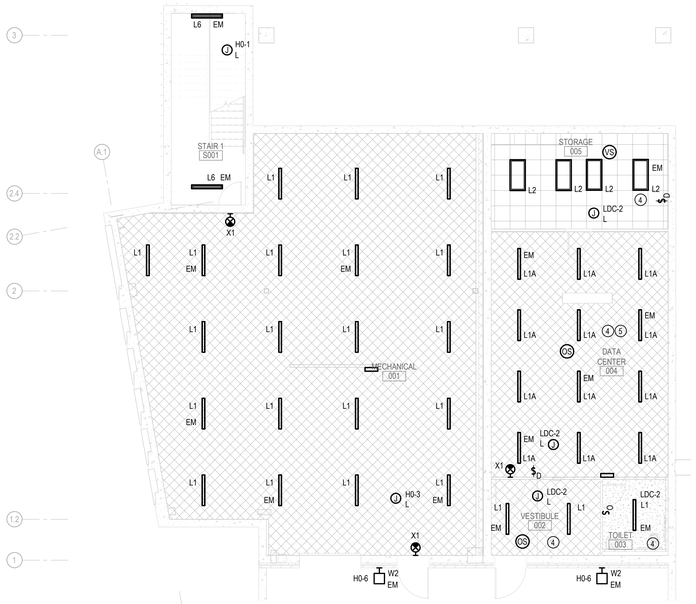
ELECTRICAL SITE PLAN

# ES103




1 -- E100 BASEMENT FLOOR PLAN - LIGHTING

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

0 2' 4' 8' 16'

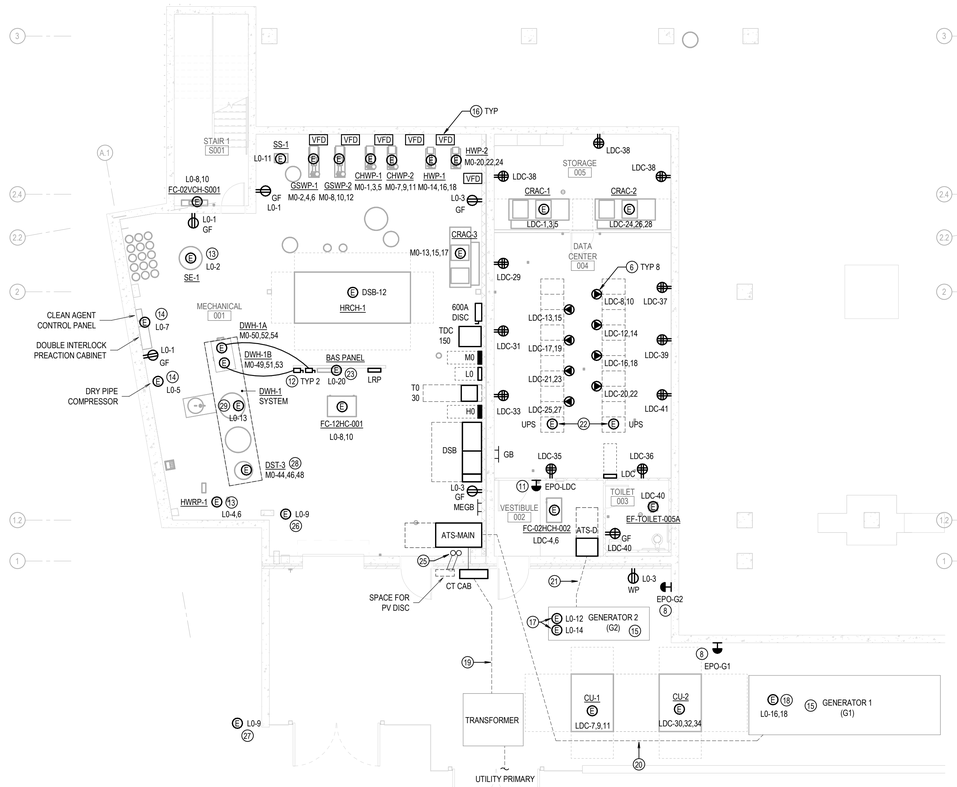
| Statistics | | | | | |
|---|---|---|---|---|---|
| Description | Avg | Max | Min | Max/Min | Avg/Min |
| 002 Vestibule | 19.0 fc | 22.2 fc | 14.5 fc | 1.5:1 | 1.3:1 |
| 003 Toilet | 18.1 fc | 24.2 fc | 12.6 fc | 1.9:1 | 1.4:1 |
| 004 Data Ctr | 44.1 fc | 56.1 fc | 24.6 fc | 2.3:1 | 1.8:1 |
| 005 Storage | 25.1 fc | 37.8 fc | 10.7 fc | 3.5:1 | 2.3:1 |
| 001 Mech/Elec | 25.1 fc | 35.2 fc | 8.5 fc | 4.1:1 | 3.0:1 |

## GENERAL NOTES (NEW WORK)

1. OCCUPANCY/VACANCY AND PHOTO SENSORS ARE SHOWN SCHEMATICALLY TO CONVEY DESIGN INTENT. PROVIDE QUANTITIES IN LOCATIONS AS REQUIRED TO HAVE COMPLETE COVERAGE IN SPACES.
2. STAIR LIGHT FIXTURES TO HAVE INTEGRAL MOTION SENSOR.

## KEY NOTES (NEW WORK)

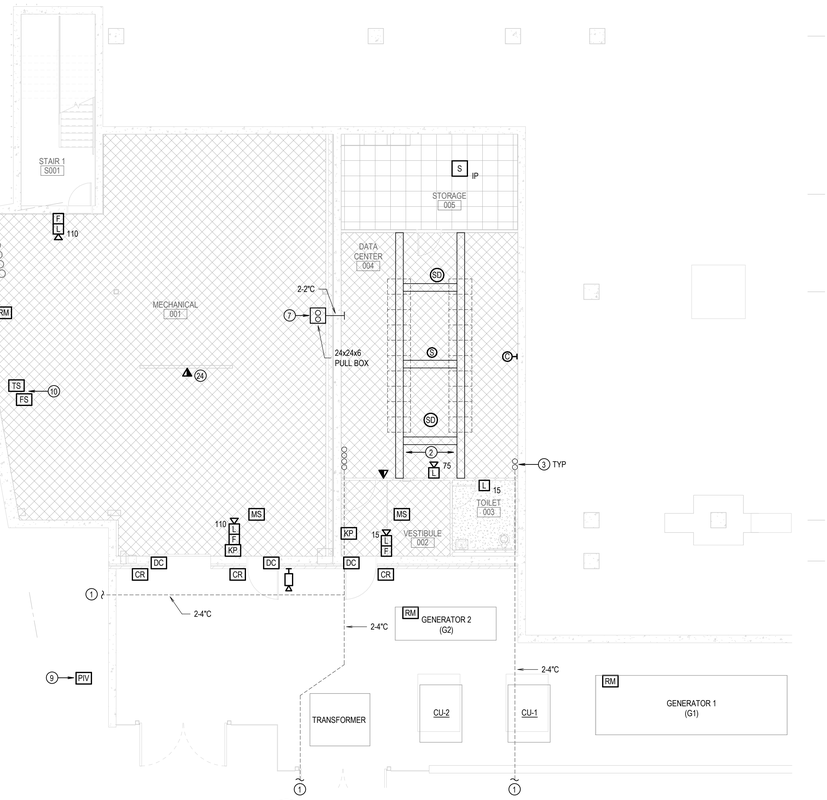
1. TO HAND HOLE/PULL BOX ON SITE. REFER TO CIVIL DRAWINGS. HAND HOLE/PULL BOX BY OWNER, FINAL LOCATION TO BE FIELD COORDINATED.
2. 12" WIDE CABLE TRAY, METAL BASKET TYPE. MOUNT 12" ABOVE TOP OF RACKS. CABLE TRAY TO BE SUPPORTED FROM UNISTRUT USED TO MOUNT LIGHTS AS WELL AS FROM END WALLS.
3. STUB UP CONDUITS 6" ABOVE FINISHED FLOOR. BUSH CONDUIT ENDS.
4. LIGHTS IN THIS ROOM TO BE OPERATED AT 120V.
5. PROVIDE UNI-STRUT TO SUPPORT LIGHT FIXTURES. SUPPPORT UNISTRUT FROM WALLS. MOUNT FIXTURES AT +10' AFF.
6. NEMA L6-30R RECEPTACLE. MOUNT TO CABLE TRAY.
7. 2-2"C UP IN CHASE TO SECOND FLOOR.
8. FIELD COORDINATE EXACT LOCATION OF EPO SWITCH. GENERATOR EPO SWITCH FURNISHED WITH GENERATOR PACKAGE, INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR.
9. SEE CIVIL DRAWINGS FOR EXACT LOCATION.
10. COORDINATE QUANTITY AND LOCATION(S) WITH SPRINKLER CONTRACTOR AND SPRINKLER SHOP DRAWINGS.
11. EPO SWITCH FOR SHUNT TRIPPING OF PANEL LDC. FIELD COORDINATE EXACT LOCATION.
12. 60A NEMA 1 NON-FUSED DISCONNECT. COORDINATE LOCATION WITH PLUMBING CONTRACTOR.
13. COORDINATE WITH PLUMBING CONTRACTOR AND PROVIDE DISCONNECTING MEANS AS REQUIRED.
14. COORDINATE CONNECTION REQUIREMENTS TO DRY PIPE COMPRESSOR AND CLEAN AGENT/PREACTION SYSTEM CONTROL PANELS WITH SPRINKLER CONTRACTOR. PROVIDE DISCONNECTING MEANS AS REQUIRED.
15. REFER TO STRUCTURAL DRAWINGS FOR GENERATOR PAD DETAIL. GENERATOR PAD TO EXTEND A MINIMUM OF 3" ABOVE SURROUNDING CONCRETE/SURFACE.
16. FIELD COORDINATE VFD LOCATION WITH MECHANICAL CONTRACTOR.
17. CONNECTIONS FOR GENERATOR BATTERY CHARGER AND HEATER.
18. CONNECTION FOR GENERATOR INTEGRAL LOAD CENTER.
19. REFER TO DETAIL #1 ON SHEET E501.
20. REFER TO DETAIL #4 ON SHEET E502.
21. REFER TO DETAIL #5 ON SHEET E502.
22. CONNECT UPS TO SUB-BREAKER IN PANEL LDC.
23. POWER CONNECTION FOR BAS CONTROLS. COORDINATE CONNECTION REQUIREMENTS WITH CONTROLS CONTRACTOR.
24. DATA DROP FOR BAS CONTROLS.
25. 2-3"C UP TO ROOF FOR PV CABLING. FIELD COORDINATE ROUTE.
26. CONNECTION FOR WATER METER POWER. COORDINATE LOCATION WITH PLUMBING CONTRACTOR.
27. CONNECTION FOR WATER METER POWER. COORDINATE LOCATION WITH CIVIL.
28. PROVIDE 60A, NEMA 1 NON-FUSED DISCONNECT. COORDINATE LOCATION WITH PLUMBING CONTRACTOR.
29. CONTROL POWER FOR DWH SYSTEM. COORDINATE WITH PLUMBING CONTRACTOR.




2 -- E100 BASEMENT FLOOR PLAN - POWER

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

0 2' 4' 8' 16'

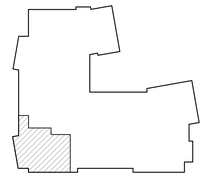



3 -- E100 BASEMENT FLOOR PLAN - SPECIAL SYSTEMS

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

0 2' 4' 8' 16'

KEY PLAN



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SUITE 400
RICHMOND, VA 23220
v 804.788.4774
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Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: NAC
DRAWN BY: AMH

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

BASEMENT PLANS

# E100

PATH & FILENAME: C:\Users\BethamBP\Documents\Revit Files\19168_E23_ACPS HS Center II_Elect_BethanyB.rvt
PLOTTING DATE & TIME: 10/2/2024 12:25:21 PM

| Statistics | | | | | |
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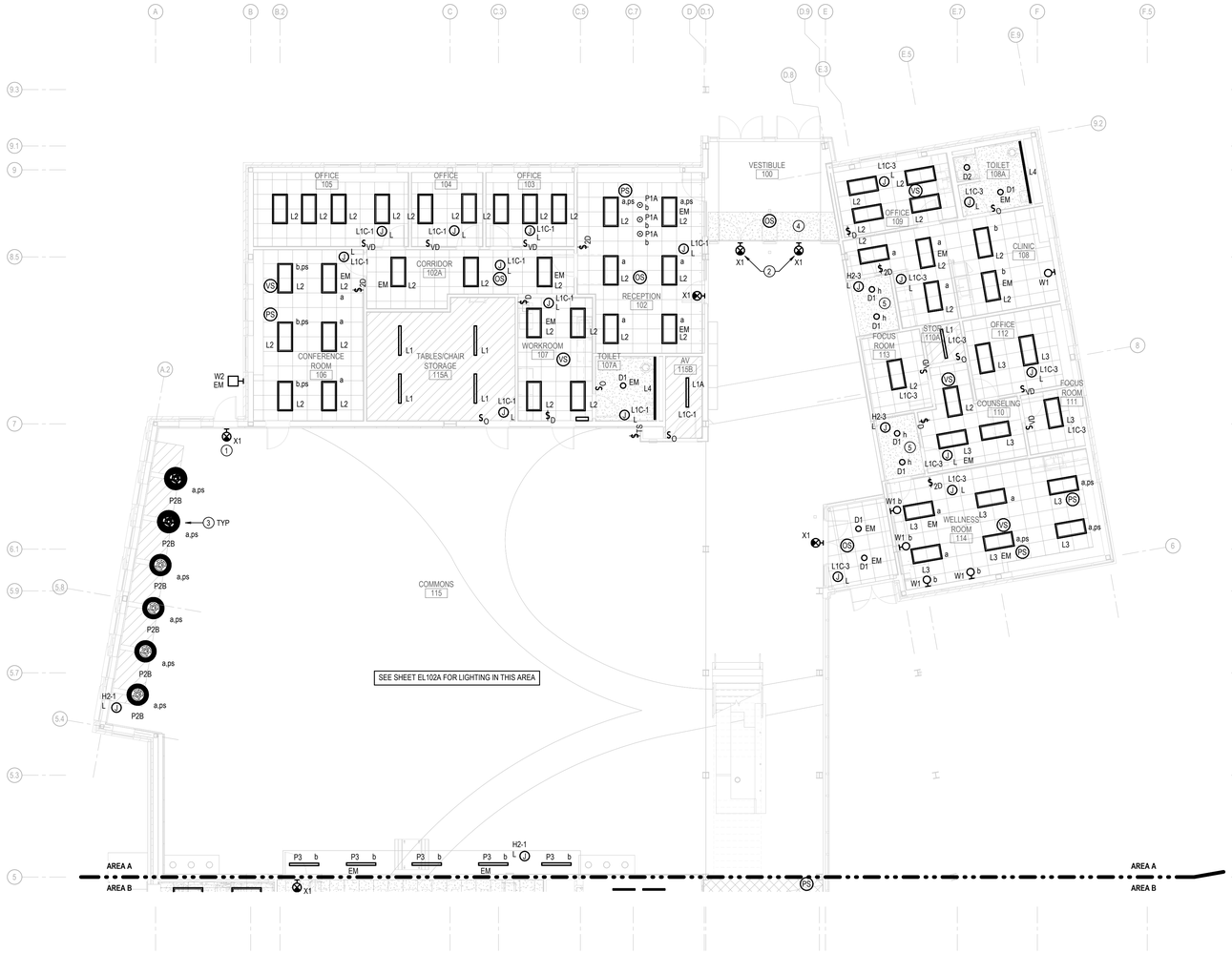
| Description | Avg | Max | Min | Max/Min | Avg/Min |
| 102 Reception | 35.1 fc | 71.0 fc | 19.2 fc | 3.7:1 | 1.8:1 |
| 102A Corr | 17.7 fc | 20.6 fc | 12.9 fc | 1.6:1 | 1.4:1 |
| 103 Office | 37.4 fc | 49.8 fc | 26.9 fc | 1.9:1 | 1.4:1 |
| 104 Office | 27.9 fc | 35.7 fc | 20.6 fc | 1.7:1 | 1.4:1 |
| 105 Office | 33.2 fc | 49.4 fc | 19.5 fc | 2.5:1 | 1.7:1 |
| 106 Conference | 34.6 fc | 43.8 fc | 22.2 fc | 2.0:1 | 1.6:1 |
| 107 Workroom | 34.4 fc | 39.0 fc | 29.9 fc | 1.3:1 | 1.2:1 |
| 107A Tlt | 24.3 fc | 31.2 fc | 17.1 fc | 1.8:1 | 1.4:1 |
| 108 Clinic | 28.9 fc | 40.4 fc | 13.4 fc | 3.0:1 | 2.2:1 |
| 108A Toilet | 22.5 fc | 33.5 fc | 8.5 fc | 3.9:1 | 2.6:1 |
| 109 Office | 41.1 fc | 49.6 fc | 27.2 fc | 1.8:1 | 1.5:1 |
| 110 Counseling | 30.9 fc | 42.8 fc | 14.3 fc | 3.0:1 | 2.2:1 |
| 110A Storage | 26.1 fc | 30.9 fc | 22.9 fc | 1.3:1 | 1.1:1 |
| 111 Focus | 18.9 fc | 24.4 fc | 11.3 fc | 2.2:1 | 1.7:1 |
| 112 Office | 21.9 fc | 32.5 fc | 11.3 fc | 2.9:1 | 1.9:1 |
| 113 Focus | 15.9 fc | 22.8 fc | 11.3 fc | 2.0:1 | 1.4:1 |
| 114 Wellness | 30.8 fc | 39.7 fc | 18.8 fc | 2.1:1 | 1.6:1 |
| 115A Storage | 28.7 fc | 38.6 fc | 16.2 fc | 2.4:1 | 1.8:1 |
| 115B AV | 25.0 fc | 31.2 fc | 18.1 fc | 1.7:1 | 1.4:1 |
| 101A Vestibule | 10.5 fc | 11.5 fc | 8.4 fc | 1.4:1 | 1.3:1 |

## GENERAL NOTES (NEW WORK)

1. LIGHT FIXTURES IN ADMIN AND CLINIC AREAS ARE TO BE OPERATED AT 120V.
2. OCCUPANCY/VACANCY AND PHOTO SENSORS ARE SHOWN SCHEMATICALLY TO CONVEY DESIGN INTENT. PROVIDE QUANTITIES IN LOCATIONS AS REQUIRED TO HAVE COMPLETE COVERAGE IN SPACES.

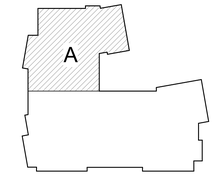
## (#) KEY NOTES (NEW WORK)

1. EXIT SIGN LOCATION AND MOUNTING TO BE COORDINATED WITH AIR FAN LOCATED ABOVE DOOR. SEE ALSO ARCHITECTURAL ELEVATIONS.
2. MOUNT TO BULKHEAD.
3. FIXTURES MOUNTED FROM ARMS. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING DETAIL.
4. ALL POWER CIRCUITRY FOR THE CLINIC SIDE TO BE ROUTED ACROSS IN THE SOFFIT. COORDINATE WITH OTHER TRADES.
5. D1 FIXTURES TO BE CONTROLLED WITH COMMONS AREA LIGHTING. SEE ALSO SHEET EL102A.




1 EL101A LEVEL 1 PARTIAL PLAN - AREA A - LIGHTING
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN

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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
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PROJECT MANAGER: NAC
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LEVEL 1 - PARTIAL PLAN AREA A - LIGHTING

**EL101A**

PATH & FILENAME: C:\Users\Bethany\Documents\Revit Files\19168_E23_ACPS HS Center II_Elect_BethanyB.rvt
PLOTTING DATE & TIME: 10/2/2024 12:25:29 PM

| Statistics | | | | | |
|---|---|---|---|---|---|
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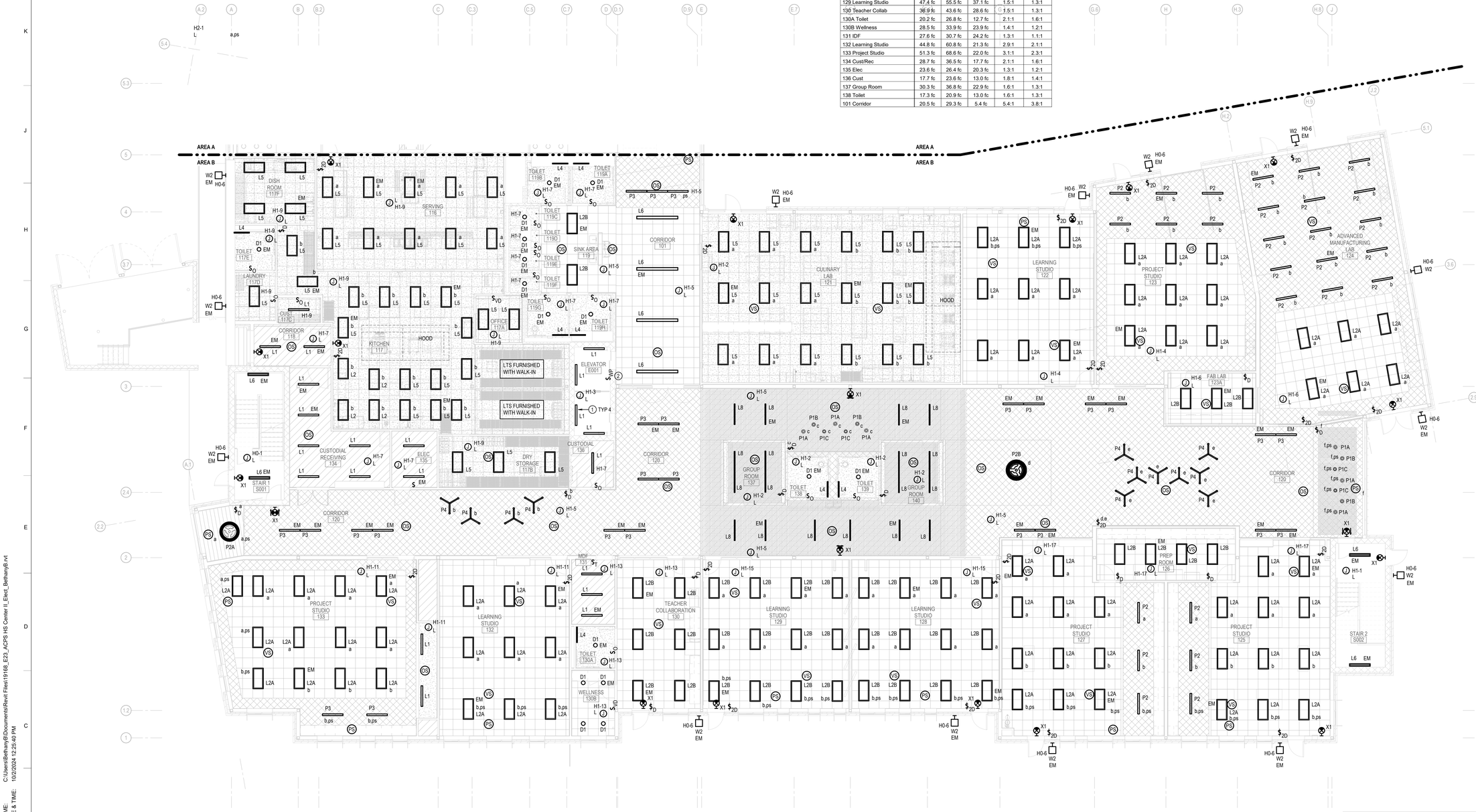
| 116 Serving | 44.1 fc | 53.9 fc | 27.3 fc | 2.0:1 | 1.6:1 |
| 117 Kitchen | 59.1 fc | 93.9 fc | 5.8 fc | 16.2:1 | 10.2:1 |
| 117A Office | 26.6 fc | 31.8 fc | 20.5 fc | 1.6:1 | 1.3:1 |
| 117B Dry Stor | 32.6 fc | 44.4 fc | 20.2 fc | 2.2:1 | 1.6:1 |
| 117C Cust | 24.0 fc | 26.2 fc | 21.8 fc | 1.2:1 | 1.1:1 |
| 117D Laundry | 25.6 fc | 33.5 fc | 19.2 fc | 1.7:1 | 1.3:1 |
| 117E Toilet | 19.4 fc | 25.4 fc | 9.5 fc | 2.7:1 | 2.0:1 |
| 117F Dish Room | 48.1 fc | 54.7 fc | 35.5 fc | 1.5:1 | 1.4:1 |
| 118 Corridor | 16.2 fc | 18.6 fc | 13.0 fc | 1.4:1 | 1.2:1 |
| 119 Sink Area | 22.0 fc | 26.5 fc | 12.6 fc | 2.1:1 | 1.7:1 |
| 119B Toilet | 19.6 fc | 25.8 fc | 12.0 fc | 2.2:1 | 1.6:1 |
| 119D Toilet | 26.8 fc | 29.2 fc | 24.7 fc | 1.2:1 | 1.1:1 |
| 120 Corridor | 22.5 fc | 46.7 fc | 5.8 fc | 8.1:1 | 3.9:1 |
| 121 Culinary Lab | 44.4 fc | 60.8 fc | 14.1 fc | 4.3:1 | 3.1:1 |
| 122 Learning Studio | 44.9 fc | 61.1 fc | 20.6 fc | 3.0:1 | 2.2:1 |
| 123 Project Studio | 48.2 fc | 75.3 fc | 14.7 fc | 5.1:1 | 3.3:1 |
| 123A Fab Lab | 42.1 fc | 52.5 fc | 30.3 fc | 1.7:1 | 1.4:1 |
| 124 Adv Manufacturing Lab | 46.4 fc | 63.6 fc | 13.0 fc | 4.9:1 | 3.6:1 |
| 126 Prep Room | 40.7 fc | 53.2 fc | 26.6 fc | 2.0:1 | 1.5:1 |
| 127 Project Studio | 50.2 fc | 67.2 fc | 21.8 fc | 3.1:1 | 2.3:1 |
| 129 Learning Studio | 47.4 fc | 55.5 fc | 37.1 fc | 1.5:1 | 1.3:1 |
| 130 Teacher Collab | 36.9 fc | 43.6 fc | 28.6 fc | 1.5:1 | 1.3:1 |
| 130A Toilet | 20.2 fc | 26.8 fc | 12.7 fc | 2.1:1 | 1.6:1 |
| 130B Wellness | 28.5 fc | 33.9 fc | 23.9 fc | 1.4:1 | 1.2:1 |
| 131 IDF | 27.6 fc | 30.7 fc | 24.2 fc | 1.3:1 | 1.1:1 |
| 132 Learning Studio | 44.8 fc | 60.8 fc | 21.3 fc | 2.9:1 | 2.1:1 |
| 133 Project Studio | 51.3 fc | 68.6 fc | 22.0 fc | 3.1:1 | 2.3:1 |
| 134 Cust/Rec | 28.7 fc | 36.5 fc | 17.7 fc | 2.1:1 | 1.6:1 |
| 135 Elec | 23.6 fc | 26.4 fc | 20.3 fc | 1.3:1 | 1.2:1 |
| 136 Cust | 17.7 fc | 23.6 fc | 13.0 fc | 1.8:1 | 1.4:1 |
| 137 Group Room | 30.3 fc | 36.8 fc | 22.9 fc | 1.6:1 | 1.3:1 |
| 138 Toilet | 17.3 fc | 20.9 fc | 13.0 fc | 1.6:1 | 1.3:1 |
| 101 Corridor | 20.5 fc | 29.3 fc | 5.4 fc | 5.4:1 | 3.8:1 |

## GENERAL NOTES (NEW WORK)

1. OCCUPANCY SENSORS IN CORRIDOR 120 PROVIDE AUTOMATIC ON/OFF FOR ALL FIXTURES. LOCAL ZONED SWITCHES, AS INDICATED, ARE FOR LOCAL CONTROL/DIMMING OF SOME LIGHTS.
2. CIRCUITS H0-6 AND H0-8 TO BE CONTROLLED BY BAS. COORDINATE WITH CONTROLS CONTRACTOR.
3. OCCUPANCY/VACANCY AND PHOTO SENSORS ARE SHOWN SCHEMATICALLY TO CONVEY DESIGN INTENT. PROVIDE QUANTITIES IN LOCATIONS AS REQUIRED TO HAVE COMPLETE COVERAGE IN SPACES.
4. STAIR LIGHT FIXTURES TO HAVE INTEGRAL MOTION SENSOR.

## (E) KEY NOTES (NEW WORK)

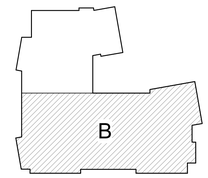
1. MOUNT HORIZONTALLY, WITH BOTTOM OF FIXTURE 4' ABOVE BOTTOM OF PIT.
2. MOUNT SWITCH IN PIT. FIELD COORDINATE LOCATION.




1 LEVEL 1 PARTIAL PLAN - AREA B - LIGHTING
-- EL101B SCALE: 1/8" = 1'-0"

0 2' 4' 8' 16'

KEY PLAN





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RICHMOND, VA 23220
v 804.788.4774
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DRAWN BY: AMH

QEA No.41911390/19168

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LEVEL 1 - PARTIAL PLAN AREA B - LIGHTING

# EL101B

PATH & FILENAME: C:\Users\BethanyB\Documents\Revit Files\19168_E23_ACPS HS Center II_Elect_BethanyB.rvt
PLOTTING DATE & TIME: 10/2/2024 12:25:40 PM

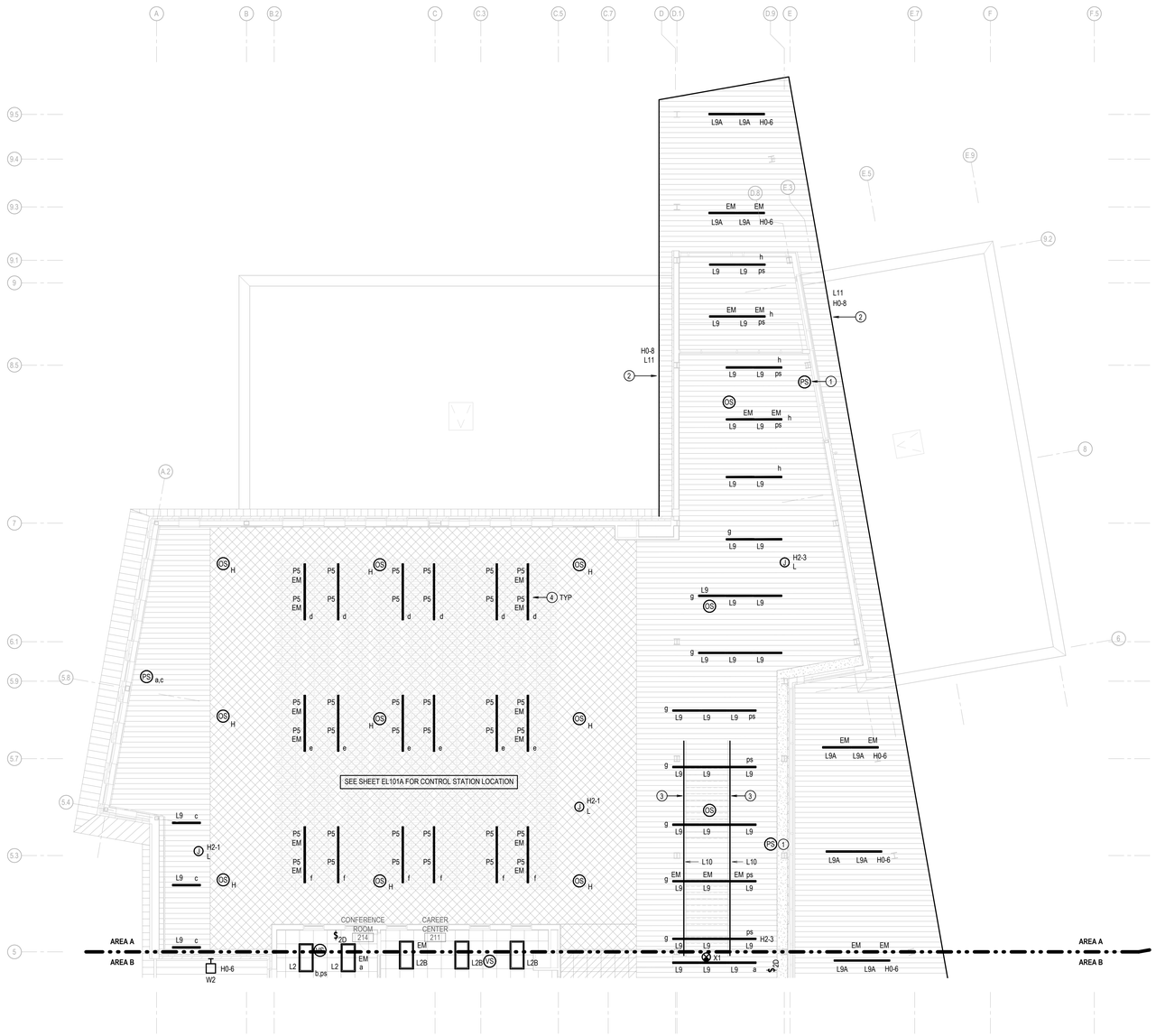
| Statistics | | | | | |
|---|---|---|---|---|---|
| Description | Avg | Max | Min | Max/Min | Avg/Min |
| 115 Commons/Corridor | 16.0 fc | 32.7 fc | 2.0 fc | 16.4:1 | 8.0:1 |
| 210 Idea Center | 33.2 fc | 60.2 fc | 7.9 fc | 7.6:1 | 4.2:1 |
| Lower Str Riser | 20.5 fc | 22.9 fc | 18.4 fc | 1.2:1 | 1.1:1 |
| Str Landing | 27.7 fc | 28.2 fc | 27.2 fc | 1.0:1 | 1.0:1 |
| Upper Str Riser | 29.5 fc | 37.7 fc | 24.5 fc | 1.5:1 | 1.2:1 |
| 115 Commons | 24.0 fc | 65.1 fc | 9.1 fc | 7.2:1 | 2.6:1 |

## GENERAL NOTES (NEW WORK)

1. OCCUPANCY SENSORS IN COMMONS 115 PROVIDE AUTOMATIC ON/OFF FOR ALL FIXTURES. CONTROL ZONES ARE INDICATED.
2. CIRCUITS H0-6 AND H0-8 TO BE CONTROLLED BY BAS. EACH CIRCUIT IS TO BE A ZONE. COORDINATE WITH CONTROLS CONTRACTOR.
3. OCCUPANCY/VACANCY AND PHOTO SENSORS ARE SHOWN SCHEMATICALLY TO CONVEY DESIGN INTENT. PROVIDE QUANTITIES IN LOCATIONS AS REQUIRED TO HAVE COMPLETE COVEREGE IN SPACES.

## (#) KEY NOTES (NEW WORK)

1. PHOTOSENSOR CONTROLS THE FIRST 4' OF THE L9 FIXTURES INDICATED.
2. FIXTURE MOUNTED IN EXTERIOR SOFFIT. REFER TO ARCHITECTURAL DRAWINGS FOR DETAIL. SEE ALSO GENERAL NOTES #2 ABOVE.
3. FIXTURE MOUNTED UNDER GUARD RAIL. REFER TO ARCHITECTURAL DRAWINGS FOR DETAIL.
4. PENDANT MOUNT FIXTURE FROM JOIST. BOTTOM OF FIXTURE TO BE EVEN WITH LOWEST POINT OF ACOUSTICAL BAFFLES.




1 LEVEL 2 PARTIAL PLAN - AREA A - LIGHTING
EL102A SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'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RICHMOND, VA 23220
v 804.788.4774
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ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
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NEAL A. CRAMER
Lic. No. 41825
10/08/2024
PROFESSIONAL ENGINEER


Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

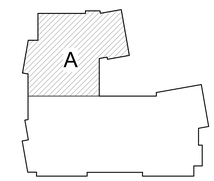
| No | Date | Description |
|---|---|---|

PROJECT MANAGER: Checker
DRAWN BY: Author

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

KEY PLAN




LEVEL 2 - PARTIAL PLAN AREA A - LIGHTING

**EL102A**

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PLOTTING DATE & TIME: 10/2/2024 12:23:49 PM

| Statistics | | | | | |
|---|---|---|---|---|---|
| Description | Avg | Max | Min | Max/Min | Avg/Min |
| 212 Focus Room | 25.6 fc | 30.8 fc | 20.6 fc | 1.5:1 | 1.2:1 |
| 213 Office | 32.6 fc | 43.0 fc | 21.0 fc | 2.0:1 | 1.6:1 |
| 214 Conference | 28.1 fc | 34.0 fc | 20.3 fc | 1.7:1 | 1.4:1 |
| 216 Office | 25.3 fc | 31.2 fc | 19.0 fc | 1.6:1 | 1.3:1 |
| 219 Seminar | 26.5 fc | 31.6 fc | 18.4 fc | 1.7:1 | 1.4:1 |
| 220 Corridor | 29.2 fc | 54.4 fc | 8.4 fc | 6.5:1 | 3.5:1 |
| 221 Learning Studio | 45.3 fc | 60.8 fc | 23.3 fc | 2.6:1 | 1.9:1 |
| 221A Fabrication Lab | 43.9 fc | 53.4 fc | 31.2 fc | 1.7:1 | 1.4:1 |
| 223 Learning Studio | 46.2 fc | 61.0 fc | 24.6 fc | 2.5:1 | 1.9:1 |
| 224 Project Studio | 60.4 fc | 81.2 fc | 22.8 fc | 3.6:1 | 2.6:1 |
| 225 Project Studio | 52.0 fc | 66.7 fc | 23.5 fc | 2.8:1 | 2.2:1 |
| 229 Learning Studio | 47.4 fc | 55.6 fc | 37.4 fc | 1.5:1 | 1.3:1 |
| 230 Teacher Collab | 36.3 fc | 43.2 fc | 27.6 fc | 1.6:1 | 1.3:1 |
| 230A Toilet | 20.2 fc | 26.9 fc | 13.0 fc | 2.1:1 | 1.6:1 |
| 230B Wellness | 28.4 fc | 33.6 fc | 23.9 fc | 1.4:1 | 1.2:1 |
| 231 IDF | 32.9 fc | 36.2 fc | 28.9 fc | 1.3:1 | 1.1:1 |
| 232 Learning Studio | 44.9 fc | 60.8 fc | 21.7 fc | 2.8:1 | 2.1:1 |
| 234 Electric | 23.6 fc | 26.4 fc | 20.5 fc | 1.3:1 | 1.2:1 |
| 235 Project Studio | 51.8 fc | 69.0 fc | 24.2 fc | 2.9:1 | 2.1:1 |
| 235 Project Studio | 63.6 fc | 83.4 fc | 24.5 fc | 3.4:1 | 2.6:1 |
| 235A Storage | 24.4 fc | 26.8 fc | 21.8 fc | 1.2:1 | 1.1:1 |
| 236 Toilet | 19.7 fc | 26.1 fc | 11.8 fc | 2.2:1 | 1.7:1 |
| 238 Custodial | 13.3 fc | 15.0 fc | 11.5 fc | 1.3:1 | 1.2:1 |
| 241 Toilet | 16.7 fc | 20.3 fc | 12.0 fc | 1.7:1 | 1.4:1 |
| 242 Group Room | 30.0 fc | 36.4 fc | 22.5 fc | 1.6:1 | 1.3:1 |
| 226 Prep Room | 40.6 fc | 53.0 fc | 26.6 fc | 2.0:1 | 1.5:1 |
| 211 Career Center | 41.3 fc | 51.8 fc | 17.4 fc | 3.0:1 | 2.4:1 |

## GENERAL NOTES (NEW WORK)

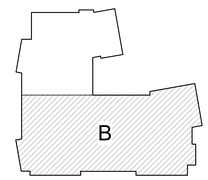
1. OCCUPANCY SENSORS IN CORRIDOR 220 PROVIDE AUTOMATIC ON/OFF FOR ALL FIXTURES. LOCAL ZONED SWITCHES, AS INDICATED, ARE FOR LOCAL CONTROL/DIMMING OF SOME LIGHTS.
2. OCCUPANCY/VACANCY AND PHOTO SENSORS ARE SHOWN SCHEMATICALLY TO CONVEY DESIGN INTENT. PROVIDE QUANTITIES IN LOCATIONS AS REQUIRED TO HAVE COMPLETE COVERAGE IN SPACES.
3. STAIR LIGHT FIXTURE TO HAVE INTEGRAL MOTION SENSOR.

## (#) KEY NOTES (NEW WORK)

1. MOUNT AT TOP OF SHAFT.
2. SWITCH TO CONTROL EXTERIOR FIXTURES AT TERRACE 235B.
3. SWITCH TO CONTROL EXTERIOR FIXTURES AT TERRACE 224A.

1 LEVEL 2 PARTIAL PLAN - AREA B - LIGHTING
EL102B SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN

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Suite 202
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T: 434.296.2116 | 2RW.com

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NEAL A. CRAMER
Lic. No. 41825
10/08/2024
PROFESSIONAL ENGINEER

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| No | Date | Description |
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PROJECT MANAGER: NAC
DRAWN BY: AMH

QEA No.41911390/19168

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LEVEL 2 - PARTIAL PLAN AREA B - LIGHTING

**EL102B**

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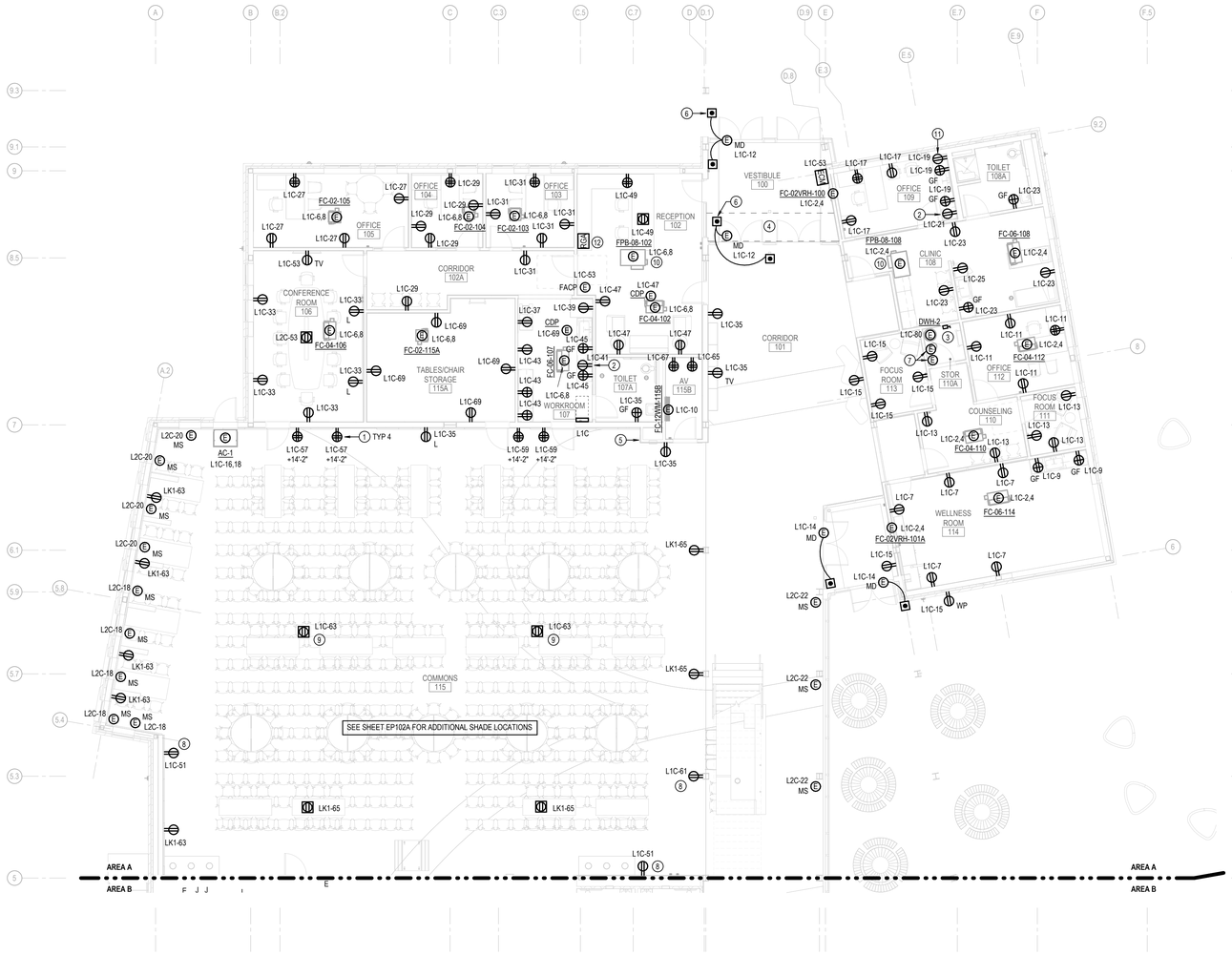
PLOTTING DATE & TIME: 10/2/2024 12:25:57 PM

## GENERAL NOTES (NEW WORK)

1. POWER AND LOW VOLTAGE CONDUITS FOR FLUSH FLOOR BOXES ARE TO BE RUN BACK INDIVIDUALLY TO THE NEAREST WALL. CONDUITS ARE NOT TO BE DAISY CHAINED BETWEEN BOXES.
2. CIRCUIT(S) TO MOTORIZED SHADES TO BE RUN DOWN FROM ABOVE.
3. REFER TO PAVION AV DRAWINGS FOR ADDITIONAL WORK. SEE SHEETS AV-1 THROUGH AV-3.
4. COORDINATE WITH MECHANICAL CONTRACTOR AND PROVIDE LOCKABLE DISCONNECTING MEANS FOR ALL CONDENSATE PUMPS.

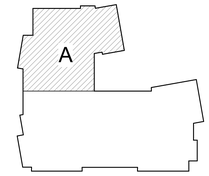
## (#) KEY NOTES (NEW WORK)

1. QUAD RECEPTACLE FOR FLAT PANEL DISPLAY ARRAY.
2. RECEPTACLE FOR MICROWAVE. COORDINATE MOUNTING HEIGHT WITH CASEWORK DETAILS AND SHOP DRAWINGS.
3. 60A NON-FUSED DISCONNECT FOR DWH-2. COORDINATE LOCATION WITH PLUMBING CONTRACTOR.
4. ALL POWER CIRCUITRY FOR THE CLINIC SIDE TO BE ROUTED ACROSS IN THE SOFFIT. COORDINATE WITH OTHER TRADES.
5. LOCATE MOTORIZED SHADE CONTROLS HERE, ADJACENT TO LIGHTING CONTROL STATION. CONTROL FURNISHED WITH SHADES, ELECTRICAL CONTRACTOR TO INSTALL AND WIRE. COORDINATE WITH SHADES SUPPLIED.
6. MOUNTED IN/TO BOLLARD. COORDINATE WITH ARCHITECTURAL.
7. CONNECTIONS FOR HEAT TRACE. COORDINATE LOCATION WITH PLUMBING CONTRACTORS. CIRCUIT CONNECTIONS TO L1C-28 AND L1C-30.
8. RECEPTACLE FOR AV POWER/EQUIPMENT.
9. RECEPTACLE FOR AV POWER/EQUIPMENT IN FSR FL-400 FLUSH FLOOR BOX.
10. PROVIDE LOCKABLE DISCONNECTING MEANS FOR UNIT.
11. RECEPTACLE FOR UNDERCOUNTER REFRIGERATOR.
12. REMOTE GENERATOR ANNUNCIATOR TO BE EITHER ONE COMBINATION ANNUNCIATOR COVERING BOTH GENERATORS OR ONE SEPARATE ANNUNCIATOR FOR EACH GENERATOR.




1 EP101A — LEVEL 1 PARTIAL PLAN - AREA A - POWER
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN

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NEAL A. CRAMER
Lic. No. 41825
10/08/2024
PROFESSIONAL ENGINEER

Albemarle County Public Schools

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Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
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PROJECT MANAGER: NAC
DRAWN BY: AMH

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

LEVEL 1 - PARTIAL PLAN AREA A - POWER

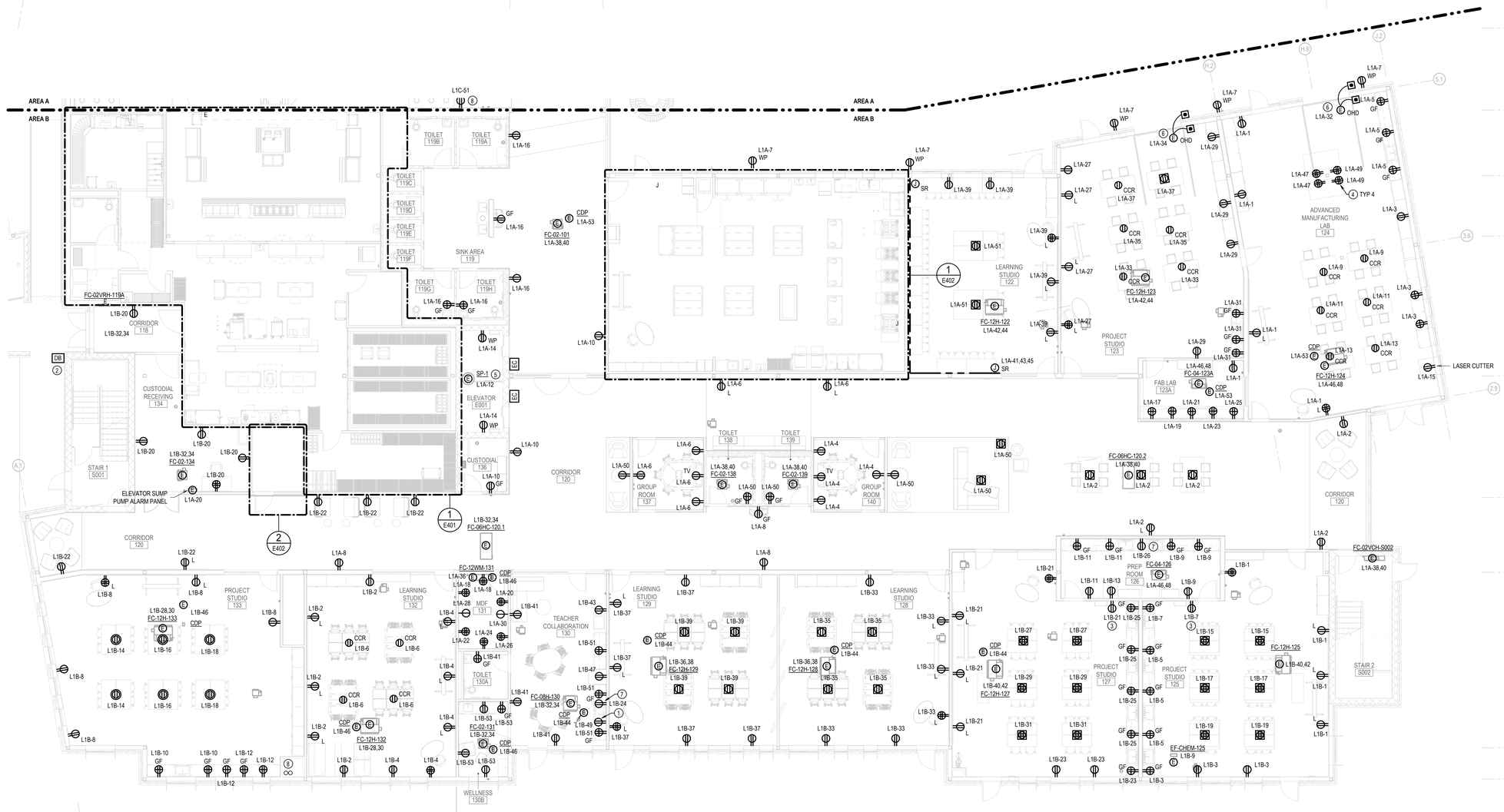
# EP101A

## GENERAL NOTES (NEW WORK)

1. POWER AND LOW VOLTAGE CONDUITS FOR FLUSH FLOOR BOXES ARE TO BE RUN BACK INDIVIDUALLY TO THE NEAREST WALL. CONDUITS ARE NOT TO BE DAISY CHAINED BETWEEN BOXES.
2. SEE PV GENERAL NOTES ON E000 FOR BASE BID VS ADDITIVE ALTERNATE.
3. COORDINATE WITH MECHANICAL CONTRACTOR AND PROVIDE LOCKABLE DISCONNECTING MEANS FOR ALL CONDENSATE PUMPS.

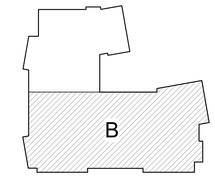
## (E) KEY NOTES (NEW WORK)

1. RECEPTACLE FOR MICROWAVE. COORDINATE MOUNTING HEIGHT WITH CASEWORK DETAILS AND SHOP DRAWINGS.
2. DOORBELL. BUZZER AND TRANSFORMER LOCATED IN KITCHEN OFFICE. SEE SHEET E4.01.
3. RECEPTACLE FOR GOGGLE CABINET. CABINET TO BE MOUNTED AT +68" AFF TO TOP OF CABINET. RECEPTACLE TO BE MOUNTED ADJACENT TO THE TOP RIGHT SIDE OF THE CABINET.
4. RECEPTACLES AND CONDUIT TO BE SURFACE MOUNTED TO COLUMN.
5. CIRCUIT TO BE ROUTED THROUGH CONTROL PANEL. COORDINATE WITH PLUMBING CONTRACTOR.
6. OVERHEAD DOOR. COORDINATE CONNECTION REQUIREMENTS WITH DOOR PROVIDED. PROVIDE DISCONNECTING MEANS AS REQUIRED. DOOR CONTROLS/PUSHBUTTONS FURNISHED WITH DOOR, INSTALLED AND WIRE BY ELECTRICAL CONTRACTOR.
7. RECEPTACLE FOR DISHWASHER.
8. 2-3"C UP TO ROOF FOR PV CABLING. FIELD COORDINATE ROUTE.




1 EP101B LEVEL 1 PARTIAL PLAN - AREA B - POWER
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN

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NEAL A. CRAMER
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10/08/2024
PROFESSIONAL ENGINEER

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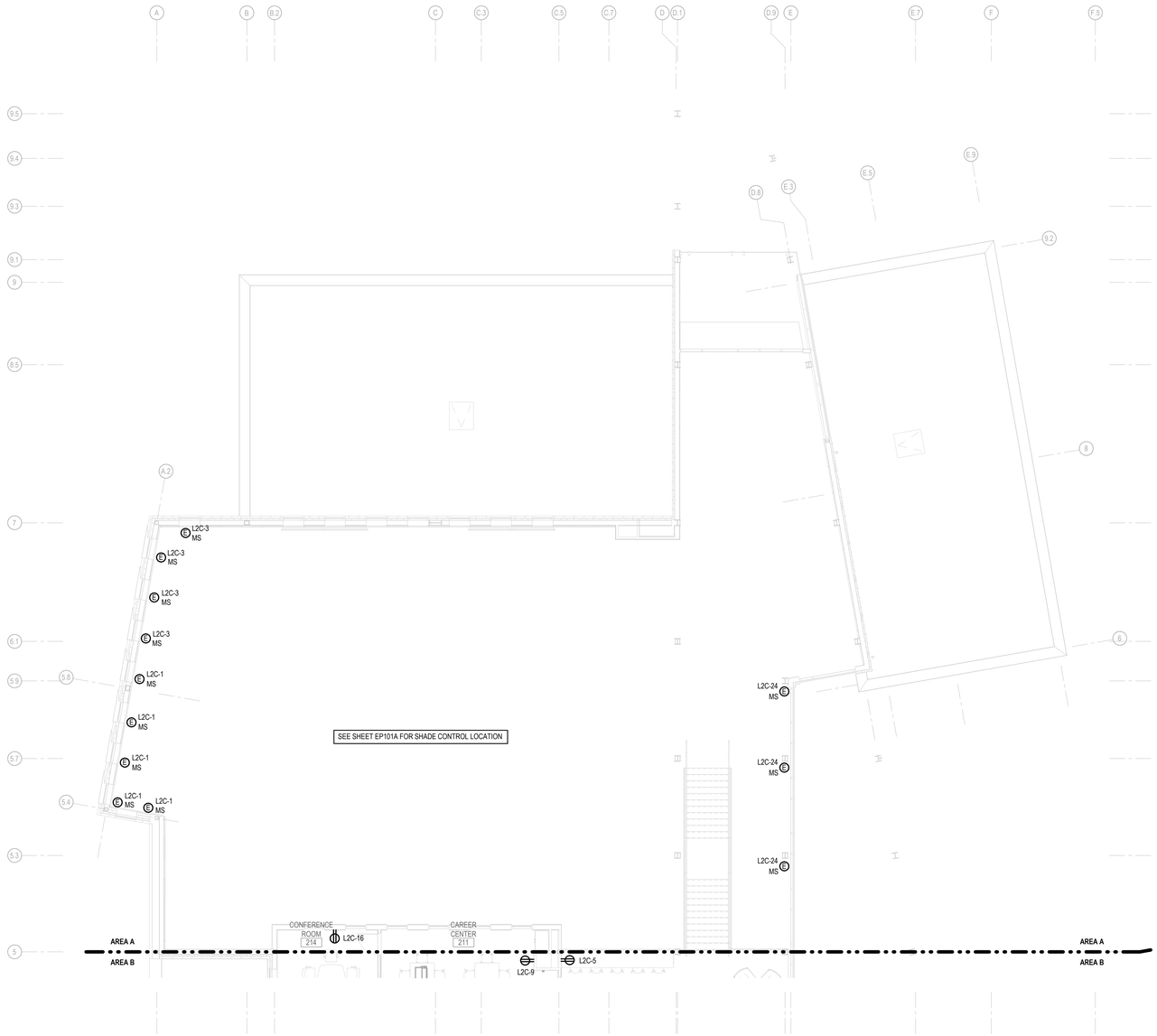
LEVEL 1 - PARTIAL PLAN AREA B - POWER

# EP101B




1 LEVEL 2 PARTIAL PLAN - AREA A - POWER
EP102A SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

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NEAL A. CRAMER
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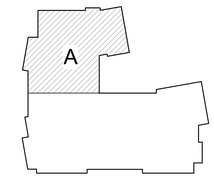
KEY PLAN




LEVEL 2 - PARTIAL PLAN AREA A - POWER

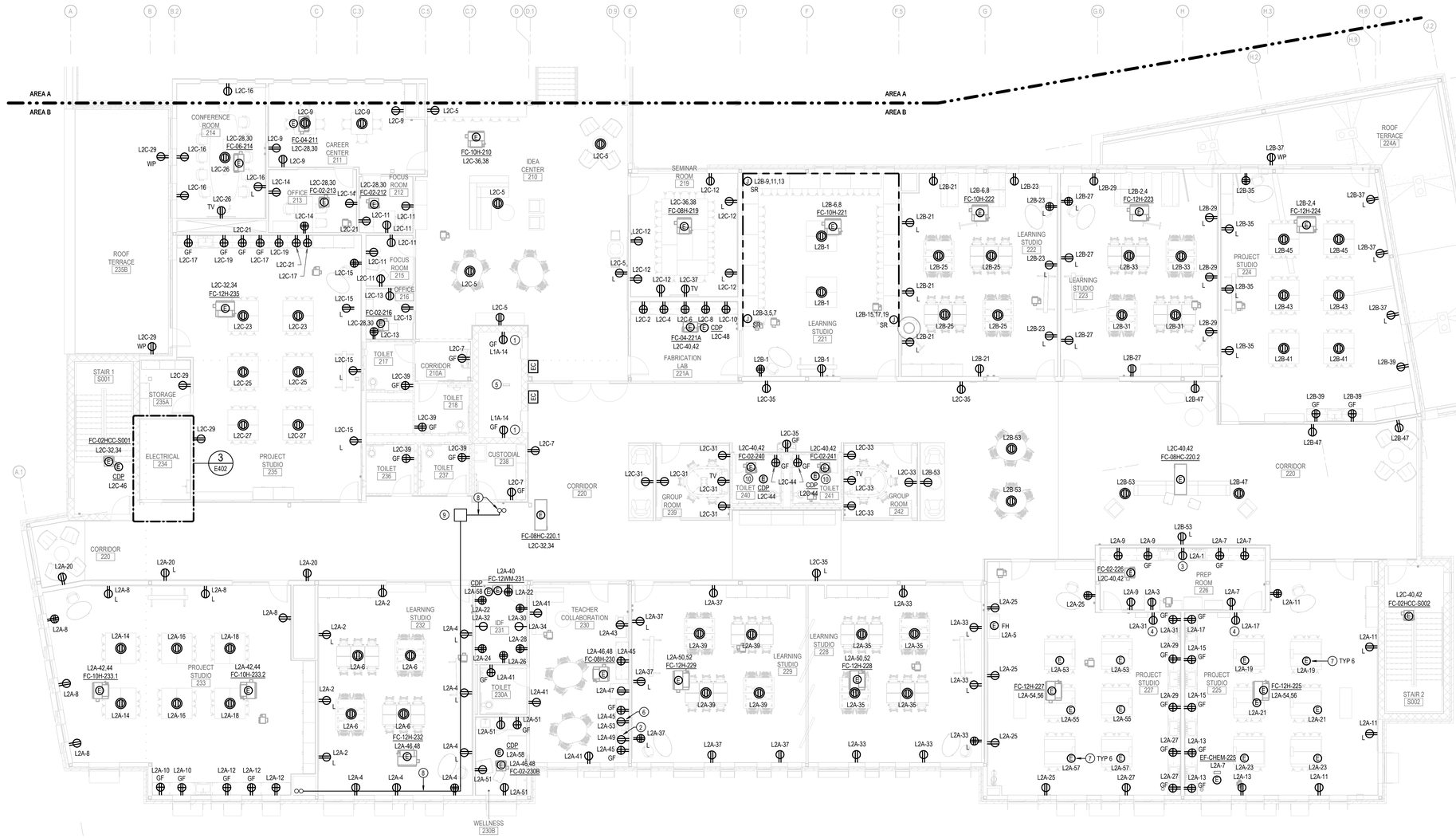
# EP102A

## GENERAL NOTES (NEW WORK)

1. SEE PV GENERAL NOTES ON E000 FOR BASE BID VS ADDITIVE ALTERNATE.
2. COORDINATE WITH MECHANICAL CONTRACTOR AND PROVIDE LOCKABLE DISCONNECTING MEANS FOR ALL CONDENSATE PUMPS.

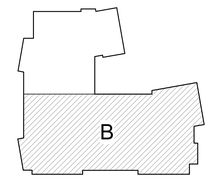
## Ⓟ KEY NOTES (NEW WORK)

1. MOUNT AT TOP OF SHAFT.
2. RECEPTACLE FOR MICROWAVE. COORDINATE MOUNTING HEIGHT WITH CASEWORK DETAILS AND SHOP DRAWINGS.
3. RECEPTACLE FOR DISHWASHER.
4. RECEPTACLE FOR GOGGLE CABINET. CABINET TO BE MOUNTED AT +68" AFF TO TOP OF CABINET. RECEPTACLE TO BE MOUNTED ADJACENT TO THE TOP RIGHT SIDE OF THE CABINET.
5. ELEVATOR AND CAB LIGHT DISCONNECTS ARE IN SHAFT. COORDINATE INSTALLATION WITH ELEVATOR CONTRACTOR AND ELEVATOR SUPPLIED. SEE ELECTRIC ROOM 234 FOR LOCATION OF FUSED SHUNT TRIP DISCONNECT FOR ELEVATOR. CONNECT ELEVATOR CAB LIGHT CIRCUIT TO L2A-36 AND L2A-38.
6. RECEPTACLE FOR DISHWASHER.
7. POWER CONNECTION FOR OVERHEAD UTILITY CARRIER. COORDINATE CONNECTION LOCATION WITH EQUIPMENT SUPPLIED.
8. 2-3"C UP TO ROOF FOR PV CABLING. FIELD COORDINATE ROUTE.
9. 24x24x6 PULL BOX.
10. CONNECTION FOR CONDENSATE PUMP. COORDINATE WITH MECHANICAL CONTRACTOR AND PROVIDE DISCONNECTING MEANS AS REQUIRED.




1 LEVEL 2 PARTIAL PLAN - AREA B - POWER
EP102B SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN

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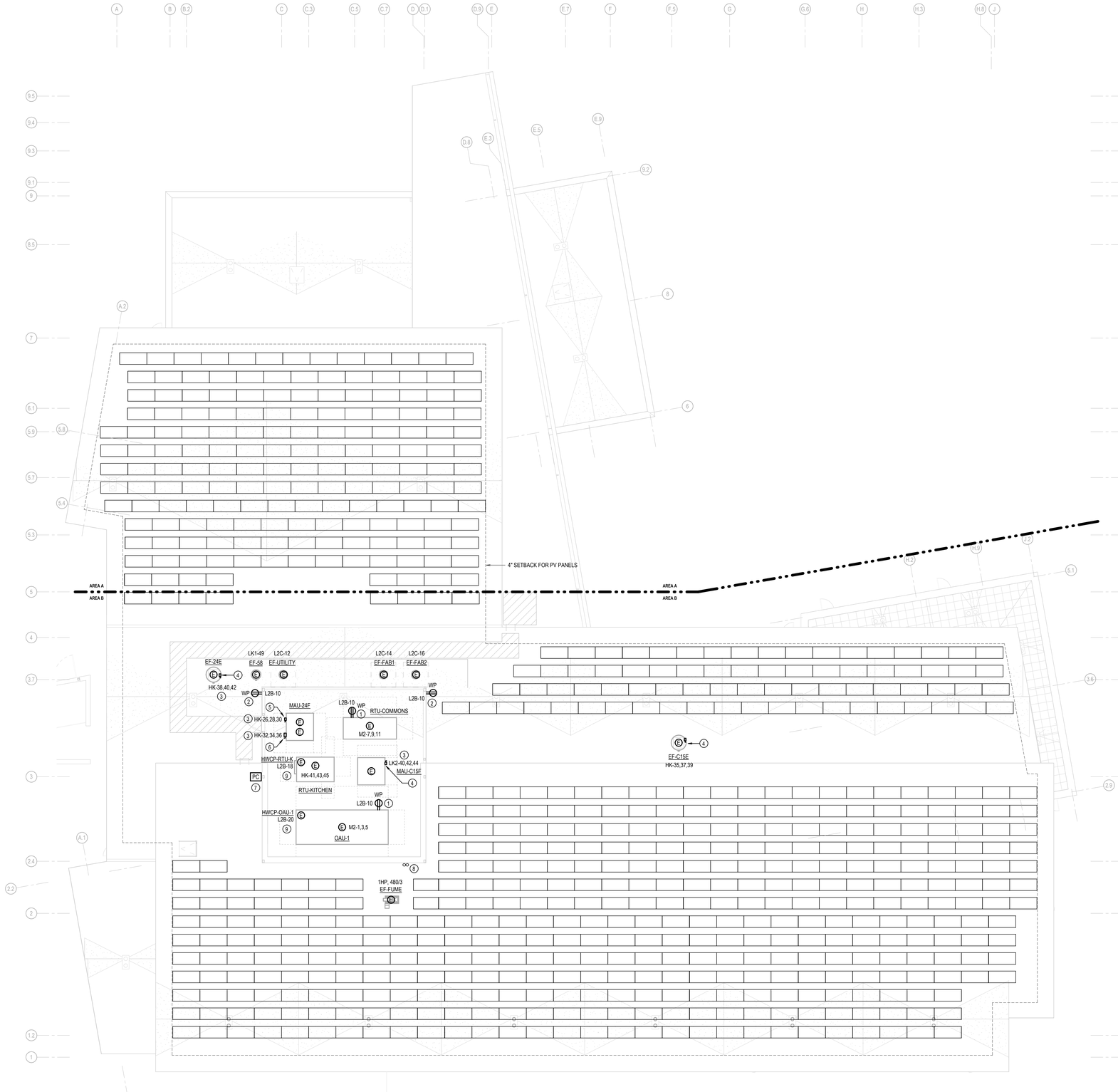
LEVEL 2 - PARTIAL PLAN AREA B - POWER

# EP102B




1 EP103 ROOF PLAN - POWER

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

0 3' 5.3' 11' 21'

## GENERAL NOTES (NEW WORK)

1. SEE PV GENERAL NOTES ON E000 FOR BASE BID VS ADDITIVE ALTERNATE.

## KEY NOTES (NEW WORK)

1. MOUNT RECEPTACLE TO MECHANICAL UNIT OR UNIT SUPPORTS. COORDINATE WITH MECHANICAL CONTRACTOR.
2. MOUNT RECEPTACLE TO SCREEN WALL SUPPORTS. COORDINATE WITH GENERAL CONTRACTOR.
3. CIRCUIT TO BE ROUTED THROUGH HOOD CONTROL PANEL. COORDINATE WITH KITCHEN CONTRACTOR.
4. 30A NEMA 3R NON-FUSED DISCONNECT SWITCH.
5. 6A NEMA 3R NON-FUSED DISCONNECT SWITCH.
6. 100A NEMA 3R NON-FUSED DISCONNECT SWITCH.
7. PHOTOCELL FOR CONTROL OF EXTERIOR LIGHTS. FIELD COORDINATE LOCATION, AIM NORTH.
8. 2-3"C UP FROM BASEMENT LEVEL FOR PV CABLING. TERMINATE ABOVE ROOF IN WEATHERHEAD.
9. COORDINATE CONNECTION LOCATION WITH MECHANICAL CONTRACTOR. PROVIDE LOCKABLE DISCONNECTING MEANS.

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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

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ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
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ROOF PLAN - POWER

# EP103

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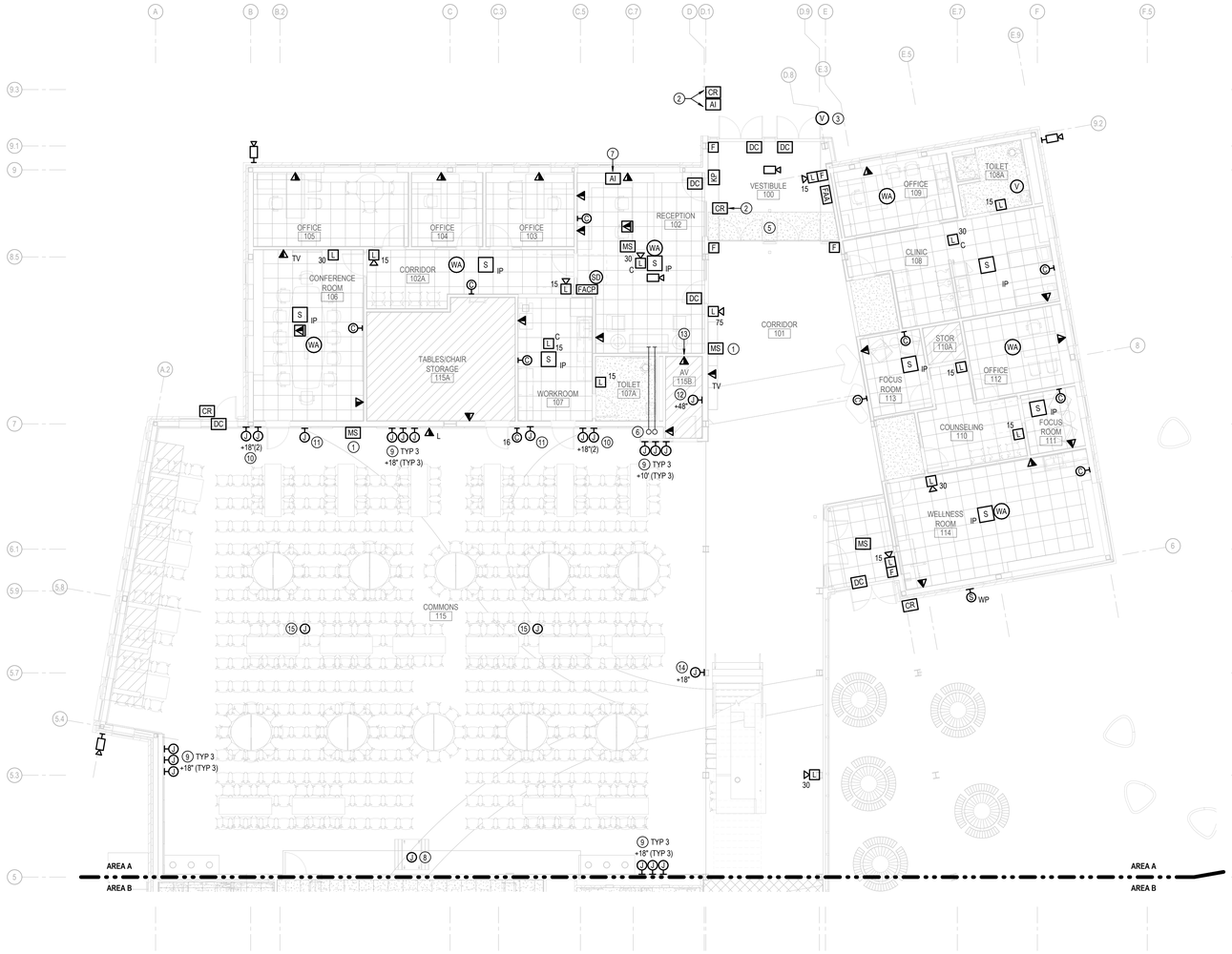



1 ET101A LEVEL 1 PARTIAL PLAN - AREA A - SPECIAL SYSTEMS
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

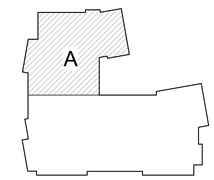
## GENERAL NOTES (NEW WORK)

1. LV CABLING FOR AREA A TO BE ROUTED BACK TO THE SECOND FLOOR IDF VIA THE 2-2" CONDUITS.
2. POWER AND LOW VOLTAGE CONDUITS FOR FLUSH FLOOR BOXES ARE TO BE RUN BACK INDIVIDUALLY TO THE NEAREST WALL. CONDUITS ARE NOT TO BE DAISY CHAINED BETWEEN BOXES.
3. REFER TO PAVILION AV DRAWINGS FOR ADDITIONAL WORK. SEE SHEETS AV-1 THROUGH AV-3.

## (#) KEY NOTES (NEW WORK)

1. WALL MOUNT AT +7'-10" AFF. FIELD COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.
2. MOUNTED IN/TO BOLLARD. COORDINATE WITH ARCHITECTURAL.
3. MOUNT TO CANOPY ABOVE.
4. MOUNT IN/TO DESK. COORDINATE WITH ARCHITECTURAL DRAWINGS AND CASEWORK SHOP DRAWINGS.
5. ALL LOW VOLTAGE CABLING FOR THE CLINIC SIDE TO BE ROUTED ACROSS IN THE SOFFIT. COORDINATE WITH OTHER TRADES.
6. 2-2"C UP IN CHASE TO SECOND FLOOR CEILING. COORDINATE LOCATE WITH PLUMBING AND SPRINKLER CONTRACTORS.
7. AI PHONE MASTER STATION LOCATION.
8. 1-GANG J BOX, MOUNTED FLUSH IN OVERHANG CEILING. PROVIDE 1"C BACK TO AV RACK.
9. TWO 1-GANG BOXES AND ONE 2-GANG BOX FOR AV. PROVIDE 1"C BACK TO AV RACK FROM EACH BOX.
10. ONE 1-GANG BOX AND ONE 2-GANG BOX FOR AV. PROVIDE 1"C BACK TO AV RACK FROM EACH BOX.
11. SIX 1-GANG J BOXES FOR FLAT PANEL DISPLAY ARRAY. MOUNT AT + 96". PROVIDED 1"C BACK TO ABOVE CONFERENCE ROOM DROP CEILING.
12. ONE 2-GANG BOX. PROVIDE 1"C BACK TO AV RACK.
13. DATA OUTLET WITH (3) DATA DROPS/JACKS.
14. ONE 1-GANG BOX. PROVIDE 1"C BACK TO AV RACK.
15. PROVIDE 1"C FROM FSR FLOOR BOX BACK TO AV RACK. REFER TO SHEET EP101A FOR FLOOR BOX LOCATIONS.

KEY PLAN

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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

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ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

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NEAL A. CRAMER
Lic. No. 41825
10/08/2024
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: NAC
DRAWN BY: AMH

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

LEVEL 1 - PARTIAL PLAN AREA A - SPECIAL SYSTEMS

# ET101A

PATH & FILENAME: C:\Users\Bethany\Documents\Revit Files\19168_E23_ACPS HS Center II_Elect_BethanyB.rvt
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## GENERAL NOTES (NEW WORK)

1. POWER AND LOW VOLTAGE CONDUITS FOR FLUSH BOXES ARE TO BE RUN BACK INDIVIDUALLY TO THE NEAREST WALL. CONDUITS ARE NOT TO BE DAISY CHAINED BETWEEN BOXES.
2. REFER ALSO TO PAVION AV DRAWINGS SHEET AV-4 FOR ADDITIONAL INFORMATION.

## (F) KEY NOTES (NEW WORK)

1. WALL MOUNT AT +7'-10" AFF. FIELD COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.
2. PROVIDE CONDUITS AS REQUIRED TO SERVE NETWORK DROPS IN THE SURFACE METAL RACEWAY. REFER TO LEGEND ON E000 FOR OUTLET SPACING. COORDINATE RACEWAY FEED-POINTS WITH POWER.
3. DATA OUTLET WITH (2) TWO DATA DROPS TO BE MOUNTED IN AV ENCLOSURE OR FLUSH WITH FACE OF CEILING. COORDINATE WITH AV CONTRACTOR.
4. 1-GANG J BOX FOR AV. PROVIDE 1"C BACK TO AV ENCLOSURE ABOVE CEILING. FIELD COORDINATE LOCATION PRIOR TO ROUGH-IN.
5. 2-GANG J BOX FOR AV. PROVIDE 1"C BACK TO AV ENCLOSURE ABOVE CEILING. FIELD COORDINATE LOCATION PRIOR TO ROUGH-IN.
6. AV ENCLOSURE, BY OTHERS.
7. FIRE ALARM INTERFACE/MODULE FOR HOOD SUPPRESSION SYSTEM. COORDINATE WITH KITCHEN CONTRACTOR.

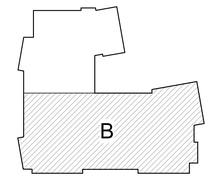
AREA A
AREA B

DISH ROOM 117F · SERVING 116 · TOILET 119B · TOILET 119A · TOILET 119C · TOILET 119D · TOILET 119E · TOILET 119F · SINK AREA 119 · CORRIDOR 101 · CULINARY LAB 121 · TOILET 117E · LAUNDRY 117D · CUST 117C · KITCHEN 117 · OFFICE 117A · TOILET 119G · TOILET 119H · CORRIDOR 118 · ELEVATOR E001 · CUSTODIAL RECEIVING 134 · ELEC 135 · DRY STORAGE 117B · CUSTODIAL 136 · CORRIDOR 120 · STAIR 1 S001 · GROUP ROOM 137 · TOILET 138 · TOILET 139 · GROUP ROOM 140 · LEARNING STUDIO 122 · PROJECT STUDIO 123 · ADVANCED MANUFACTURING LAB 124 · FAB LAB 123A · PREP ROOM 126 · PROJECT STUDIO 127 · PROJECT STUDIO 125 · CORRIDOR 120 · STAIR 2 S002 · PROJECT STUDIO 133 · LEARNING STUDIO 132 · TEACHER COLLABORATION 130 · TOILET 130A · WELLNESS 130B · LEARNING STUDIO 129 · LEARNING STUDIO 128 · CORRIDOR 120

MOUNT TO MULLION

1 LEVEL 1 PARTIAL PLAN - AREA B - SPECIAL SYSTEMS
ET101B SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN

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SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

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NEAL A. CRAMER
Lic. No. 41825
10/08/2024
PROFESSIONAL ENGINEER

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2775 Hydraulic Rd,
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PROJECT MANAGER: NAC
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LEVEL 1 - PARTIAL PLAN AREA B - SPECIAL SYSTEMS

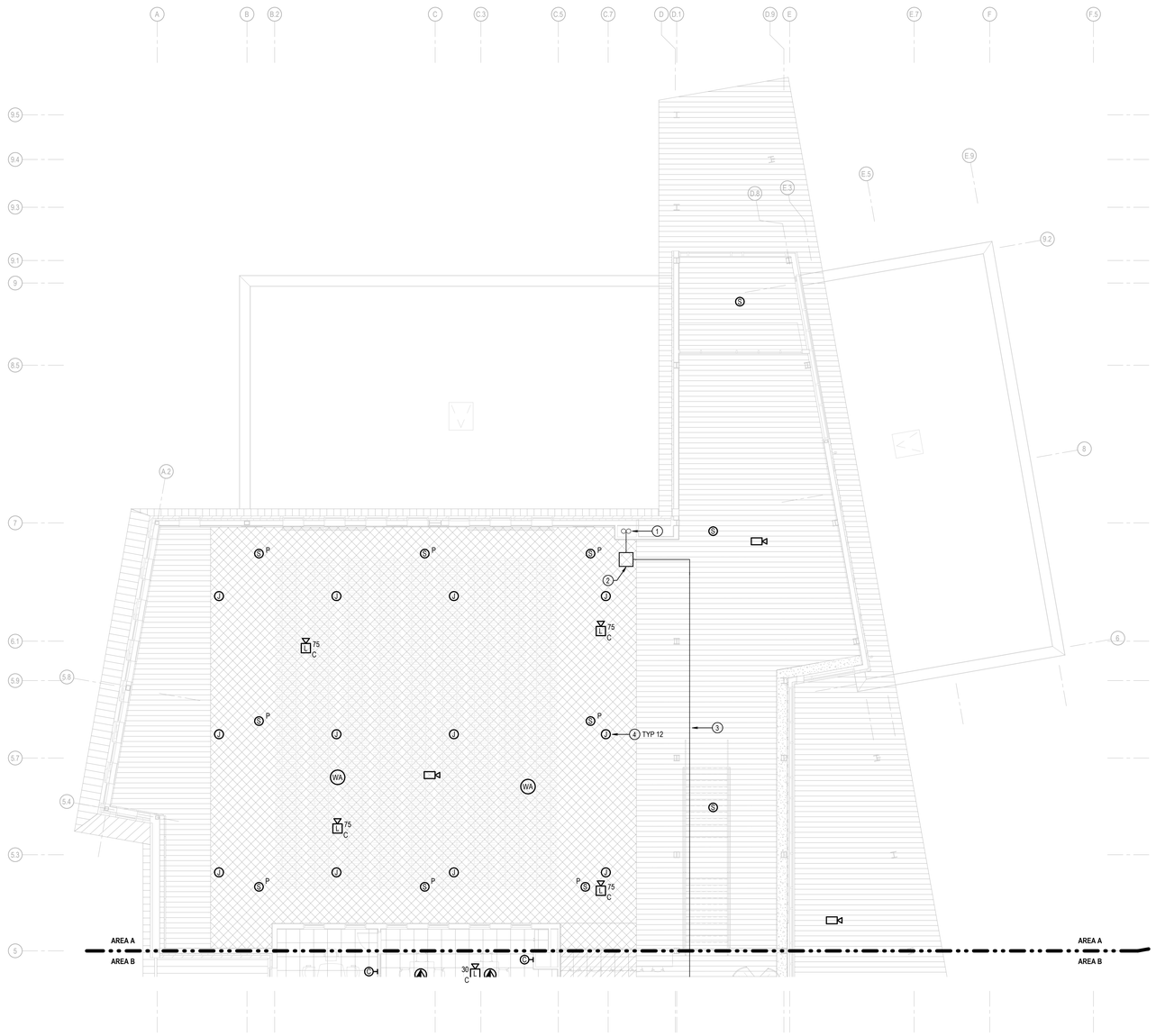
# ET101B

## GENERAL NOTES (NEW WORK)

1. REFER TO PAVILION AV DRAWINGS FOR ADDITIONAL WORK. SEE SHEETS AV-1 THROUGH AV-3.

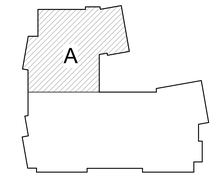
## (#) KEY NOTES (NEW WORK)

1. 2-2"C UP IN CHASE FROM FLOOR BELOW. COORDINATE LOCATION WITH PLUMBING AND SPRINKLER CONTRACTORS.
2. 24" X 24" X 6" MINIMUM PULL BOX. LOCATE UP AT/IN JOIST STRUCTURE.
3. 2-2"C ROUTED ABOVE CEILING.
4. 2-GANG BOX FOR SPEAKER. MOUNT TO/FROM STRUCTURE. PROVIDE CONDUITS BETWEEN SPEAKER JBOXES AND BACK TO AV RACK AS SHOWN ON SHEET AV-1.




1 LEVEL 2 PARTIAL PLAN - AREA A - SPECIAL SYSTEMS
ET102A SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN

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LEVEL 2 - PARTIAL PLAN AREA A - SPECIAL SYSTEMS

# ET102A

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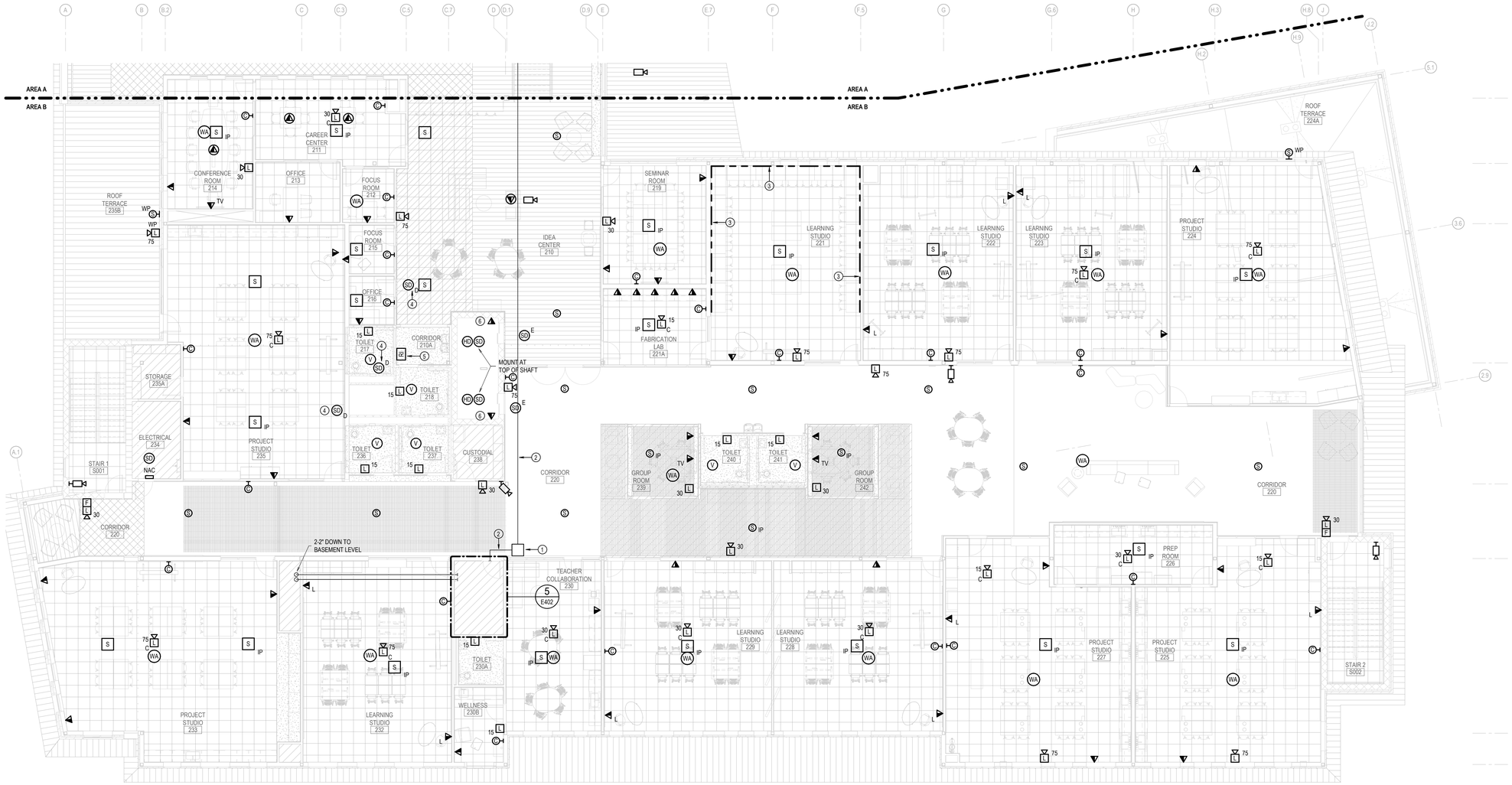
## GENERAL NOTES (NEW WORK)

1. X.

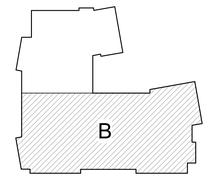
## (#) KEY NOTES (NEW WORK)

1. 24" X 24" X 6" MINIMUM PULL BOX. LOCATE UP AT/IN JOIST STRUCTURE.
2. 2-2"C ROUTED ABOVE CEILING.
3. PROVIDE CONDUITS AS REQUIRED TO SERVE NETWORK DROPS IN THE SURFACE METAL RACEWAY. REFER TO LEGEND ON E000 FOR OUTLET SPACING. COORDINATE RACEWAY FEED-POINTS WITH POWER.
4. COORDINATE LOCATION WITH MECHANICAL CONTRACTOR.
5. REMOTE INDICATORS FOR THE THREE DUCT SMOKE DETECTORS. MOUNT AT +72" AFF. FIELD COORDINATE EXACT LOCATION.
6. DATA DROP FOR ELEVATOR CAB PHONE. COORDINATE CONNECTION LOCATION WITH ELEVATOR CONTRACTOR.




1 LEVEL 2 PARTIAL PLAN - AREA B - SPECIAL SYSTEMS
ET102B SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16'

KEY PLAN

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SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

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ENERGY BY DESIGN
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NEAL A. CRAMER
Lic. No. 41825
10/08/2024
PROFESSIONAL ENGINEER

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STATE PROJECT NO. 002-88-01-100

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LEVEL 2 - PARTIAL PLAN AREA B - SPECIAL SYSTEMS

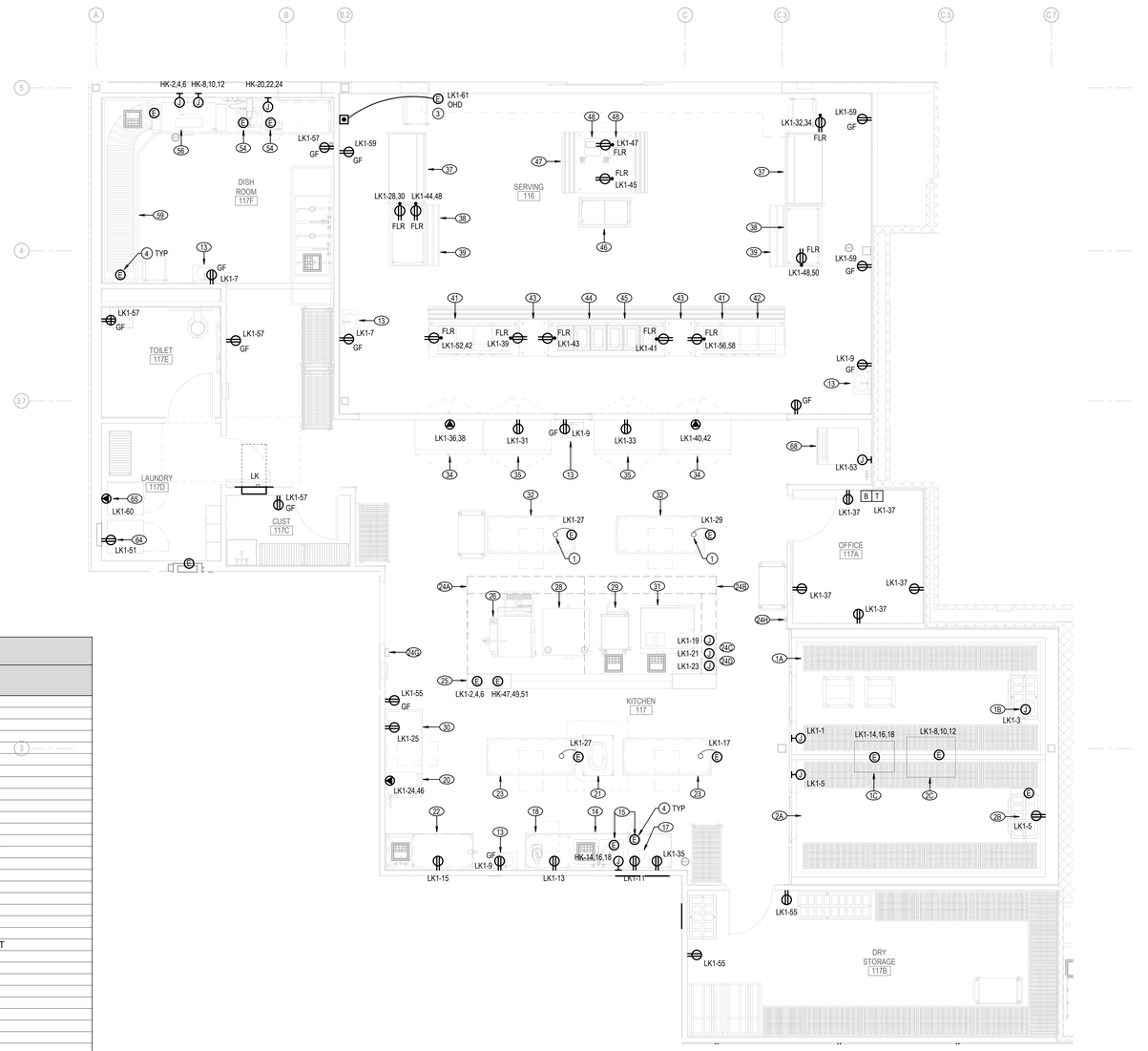
# ET102B

## GENERAL NOTES (NEW WORK)

1. REFER TO SHEET QF203 FOR FLOOR AND TABLE MOUNTED RECEPTACLE DETAILS.
2. REFER TO SHEET QF601 FOR ADDITIONAL ELECTRICAL SCOPE.
3. REFER TO SHEETS QF301 - QF304 FOR EXHAUST HOOD CONNECTIONS AND WIRING.
4. ALL SINGLE-PHASE RECEPTACLES RATED 150V TO GROUND OR LESS, 50 AMPS OR LESS AND THREE-PHASE RECEPTACLES RATED 150V TO GROUND OR LESS, 100A AMPS OR LESS SHALL HAVE GFCI PROTECTION.
5. COORDINATE WITH KITCHEN EQUIPMENT CONTRACTOR AND PROVIDE DISCONNECTING MEANS AS REQUIRED.

## KEY NOTES (NEW WORK)

1. CONDUIT STUB-UP TO TABLE MTD RECEPTACLE.
2. DOOR BELL BUZZER AND TRANSFORMER. MOUNT TRANSFORMER ABOVE ACCESSIBLE CEILING. MOUNT BUZZER 12" BELOW FINISHED CEILING. FIELD COORDINATE LOCATION.
3. OVERHEAD DOOR. COORDINATE CONNECTION REQUIREMENTS WITH DOOR PROVIDED. PROVIDE DISCONNECTION MEANS AS REQUIRED. DOOR CONTROLS/PUSHBUTTONS FURNISHED WITH DOOR, INSTALLED AND WIRE BY ELECTRICAL CONTRACTOR.
4. REFER TO KITCHEN DRAWINGS FOR WIRING REQUIRED BETWEEN MAIN EQUIPMENT CONNECTION POINT AND SUB-CONNECTIONS.




## KITCHEN EQUIPMENT ELECTRIC SCHEDULE

| ITEM | QTY | DESCRIPTION | ELECTRIC VOLTS | PHASE | KW | HP | AMP | CONNECTION | MH | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| 1A | 1 | WALK-IN COOLER | 115 | 1 | | | 8.0 | JBOX | 96 | |
| 1B | 1 | WALK-IN COOLER UNIT COOLER | 115 | 1 | | | 1.6 | JBOX | 96 | |
| 1C | 1 | WALK-IN COOLER CONDENSING UNIT | 208 | 3 | | 3/4 | 5.2 | JBOX | - | MC1 6.5A, MOP 15A |
| 2A | 1 | WALK-IN FREEZER | 115 | 1 | | | 12.0 | JBOX | 96 | |
| 2B | 1 | WALK-IN FREEZER COOLER | (2)208 | 1 | | | 1.0,9.8 | JBOX | 96 | |
| 2C | 1 | WALK-IN FREEZER CONDENSING UNIT | 208 | 3 | | 3 | 9.6 | JBOX | - | MCA 12A, MOP 20A |
| 13 | 1 | PEDESTAL HAND SINK WITH ELECTRONIC EYE | 115 | 1 | | | 12.0 | C&P | 16 | |
| 14 | 1 | PREP TABLE WITH SINKS | 115 | 1 | | | 16.0 | RECEP | 24 | DUPLEX CONVENIENCE |
| 15 | 1 | DISPOSER WITH CONTROL PANEL | 480 | 3 | | 2 | 2.2 | JBOX | 18 | |
| 17 | 1 | ELECTRIC CAN OPENER | 115 | 1 | | | 12.0 | C&P | 54 | |
| 18 | 1 | FOOD PROCESSOR | 115 | 1 | | | 7.0 | C&P | 54 | |
| 20 | 1 | HOT WATER DISPENSER WITH FILTER | 208 | 1 | 5 | | 24.0 | C&P | 54 | NEMA 6-30R |
| 21 | 1 | 20-QT MIXER ON STAND | 115 | 1 | | | 8.0 | C&P | - | SERVED BY RECEPTACLE ON ITEM #23 |
| 22 | 1 | WORKTABLE WITH SINK | 115 | 1 | | | 16.0 | RECEP | 54 | DUPLEX CONVENIENCE |
| 23 | 2 | WORKTABLE WITH SINK | 115 | 1 | | | 12.0 | JBOX | 30 | |
| 24A | 1 | EXHAUST HOOD WITH PSP | 115 | 1 | | | 12.0 | JBOX | 80 | EXTEND LIGHT CIRCUIT TO ITEM 24B |
| 24B | 1 | EXHAUST HOOD WITH PSP | - | - | - | - | - | | - | INCLUDED IN ITEM #24A |
| 24C | 1 | FIRE SUPPRESSION SYSTEM | 115 | 1 | | | 12.0 | JBOX | 80 | |
| 24D | 1 | FAN CONTROL PANEL | 115 | 1 | | | 12.0 | JBOX | 80 | |
| 24E | 1 | EXHAUST FAN - ROOF MOUNTED | 480 | 3 | | 3 | 4.6 | JBOX | - | |
| 24F | 1 | MAKE-UP AIR FAN - ROOF MOUNTED | 480 | 3 | | 5 | 30.5 | JBOX | - | MCA 30.5A, MOP 35A, FAN CIRCUIT |
| | | | 480 | 3 | 47 | | 72.2 | JBOX | - | MCA 90.3A, MOP 100A, HEATER CIRCUIT |
| 24G | 1 | REMOTE FIRE SUPPRESSION ACTUATION DEVICE | - | - | - | - | - | - | - | CONNECT LV FIELD WIRING |
| 24H | 1 | ROOM TEMPERATURE MONITOR | - | - | - | - | - | - | - | CONNECT LV FIELD WIRING |
| 25 | 1 | UTILITY DISTRIBUTION SYSTEM | 115/208 | 3 | 0 | | 0.0 | JBOX | 60 | 50A SERVICE SIZE |
| | | | 480 | 3 | 95.3 | | 114.6 | JBOX | 60 | 175A SERVICE SIZE |
| 26 | 1 | 30-GAL TILT SKILLET | 480 | 3 | 12 | | 14.4 | JBOX | - | SERVED BY UDS ITEM #25 |
| 28 | 1 | DOUBLE CONVECTION OVEN | 480 | 3 | 10.4 | 3/4 | 14.0 | JBOX | - | SERVED BY UDS ITEM #25 |
| 29 | 1 | 3-PAN OVER 6-PAN STEAMER ON STAND | (2)480 | 3 | 12 | | 14.4 | JBOX | - | SERVED BY UDS ITEM #25 |
| 30 | 1 | WORKTABLE | 115 | 1 | | | 16.0 | RECEP | 54 | DUPLEX CONVENIENCE |
| 31 | 1 | 6-PAN OVER 6-PAN COMBI OVEN ON STAND | 480 | 3 | 19.3 | | 23.3 | JBOX | - | SERVED BY UDS ITEM #25 |
| 32 | 2 | WORKTABLE | 115 | 1 | | | 12.0 | JBOX | 30 | |
| 34 | 2 | 2-SECTION PASS THRU HEATED CABINET | 208 | 1 | | | 10.5 | C&P | 88 | NEMA 6-20R |
| 35 | 2 | 2-SECTION PASS THRU REFRIGERATOR | 115 | 1 | | | 6.5 | C&P | 88 | |
| 37 | 2 | REFRIGERATED AIR SCREEN MERCHANDISER | 208 | 1 | | | 12.0 | C&P | 5 | NEMA 6-20R |
| 38 | 2 | 2-TIER HEATED DISPLAY MERCHANDISER | 115 | 1 | | | 12.4 | C&P | - | NEMA L14-20R, SERVED BY RECEPTACLE ON ITEM #39 |
| 39 | 2 | SERVING COUNTER | 115/208 | 1 | | | 12.4 | C&P | 5 | NEMA 14-20R |
| 41 | 2 | 4-WELL HOT/COLD FOOD COUNTER | 115/208 | 1 | | | 12.4 | C&P | 5 | NEMA 14-20R |
| 42 | 2 | COUNTER PROJECTOR WITH HEAT AND LIGHTS | - | - | - | - | - | - | - | INCUDED IN ITEM #41 |
| 43 | 2 | PLAIN TOP COUNTER | 115 | 1 | | | 10.0 | C&P | 5 | |
| 44 | 1 | COLD FOOD COUNTER | 115 | 1 | | | 5.3 | C&P | 5 | |
| 45 | 1 | 2-TIER FOOD SHIELD WITH LIGHTS | - | - | - | - | - | - | - | INCLUDED IN ITEM #44 |
| 46 | 1 | ICE CREAM FREEZER | 115 | 1 | | | 3.5 | C&P | 5 | |
| 47 | 1 | CASHIER COUNTER | 115 | 1 | | | 10.0 | C&P | 5 | |
| 48 | - | POS SYSTEM - OWNER FURNISHED | - | - | - | - | - | - | - | SERVED BY RECEPTACLE ON ITEM #47 |
| 54 | 1 | DISPOSER WITH CONTROL PANEL | 480 | 3 | | 3 | 3.7 | JBOX | 118 | |
| 56 | 1 | CONVEYOR WAREWASHER WITH BOOSTER HEATER | 480 | 3 | 15 | | 27.0 | JBOX | 64 | |
| | | | 480 | 3 | 18 | | 22.0 | JBOX | 64 | BOOSTER HEATER CIRCUIT |
| 58 | 1 | WAREWASHER EXHAUST FAN - ROOF MOUNTED | 115 | 1 | | 1/2 | 6.3 | JBOX | - | |
| 59 | 1 | CLEAN DISHTABLE WITH RACK LIMIT SWITCH | - | - | - | - | - | - | - | |
| 64 | 1 | WASHER - REFER TO DIV 11 | - | - | - | - | - | | | |
| 65 | 1 | DRYER - REFER TO DIV 11 | - | - | - | - | - | | | |
| 68 | 1 | ICE MAKER WITH BIN | 115 | 1 | | | 7.9 | JBOX | 72 | |

CONNECTION KEY:

| | |
|---|---|
| C&P | CORD AND PLUG |
| JBOX | JUNCTION BOX/HARD-WIRED |
| RECEP | RECEPTACLE |

1 EP101B E401 ENLARGED PLAN: KITCHEN 122 - POWER

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

0 1' 2' 4' 8'


QUINN EVANS

1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

QUINNEVANS.COM

2RW
ENERGY BY DESIGN
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Suite 202
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IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

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| No | Date | Description |
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PROJECT MANAGER: NAC
DRAWN BY: AMH

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ENLARGED PLANS

# E401

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# CULINARY EQUIPMENT ELECTRIC SCHEDULE

| ITEM | QTY | DESCRIPTION | ELECTRIC VOLTS | PHASE | KW | HP | AMP | CONNECTION | MH | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | PREP TABLE WITH SINKS | 115 | 1 | | | 16.0 | RECEP | 54 | DUPLEX CONVENIENCE |
| C3 | 1 | WORKTABLE | 115 | 1 | | | 16.0 | RECEP | 54 | DUPLEX CONVENIENCE |
| C4 | 1 | ICE MAKER WITH BIN | 115 | 1 | | | 10.6 | JBOX | 54 | |
| C6 | 2 | 2-SECTION REACH-IN REFRIGERATOR | 115 | 1 | | | 6.0 | C&P | 54 | |
| C7 | 1 | 2-SECTION REACH-IN FREEZER | 115 | 1 | | | 10.0 | C&P | 54 | |
| C8 | 3 | PEDESTAL HAND SINK WITH ELECTRONIC EYE | 115 | 1 | | | 12.0 | C&P | 16 | |
| C10 | 3 | WORKTABLE | (2)115 | 1 | | | 16.0 | RECEP | 72 | |
| C11 | 10 | WORKTABLE | 115 | 1 | | | 16.0 | RECEP | 72 | |
| C12 | 1 | ADA WORKTABLE | 115 | 1 | | | 12.0 | RECEP | 72 | |
| C13 | 1 | DEMO TABLE WITH OVERHEAD MIRROR | 115 | 1 | | | 12.0 | RECEP | 72 | |
| C14 | 6 | 5-QT MIXER | 115 | 1 | | | 2.9 | C&P | - | SERVED BY RECEPTACLE ABOVE, ITEM #C10 |
| C15A | 1 | EXHAUST HOOD WITH PSP | 115 | 1 | | | 12.0 | JBOX | 88 | EXTEND LIGHT CIRCUIT TO ITEM C15B |
| C15B | 1 | EXHAUST HOOD WITH PSP | 115 | 1 | | | - | - | - | INCLUDED IN ITEM #C15A |
| C15C | 1 | FIRE SUPPRESSION SYSTEM | 115 | 1 | | | 12.0 | JBOX | 88 | |
| C15D | 1 | FAN CONTROL PANEL | 115 | 1 | | | 12.0 | JBOX | 88 | |
| C15E | 1 | EXHAUST FAN - ROOF MOUNTED | 480 | 3 | | 5 | 7.2 | JBOX | - | |
| C15F | 1 | MAKE-UP AIR FAN - ROOF MOUNTED | 208 | 3 | | 3 | 10.1 | JBOX | - | |
| C15G | 1 | REMOTE FIRE SUPPRESSION ACTUATION DEVICE | - | - | | | - | - | - | CONNECT LV FIELD WIRING |
| C15H | 1 | ROOM TEMPERATURE MONITOR | - | - | | | - | - | - | CONNECT LV FIELD WIRING |
| C16 | 2 | 4-BURNER INDUCTION RANGE | 115/208 | 3 | 21.1 | | 66.4 | JBOX | 24 | |
| C17 | 3 | 4-BURNER GAS RANGE | 115 | 1 | | | 0.1 | C&P | 24 | |
| C21 | 2 | UNDERCOUNTER WAREWASHER | 208 | 1 | | | 33.7 | JBOX | 24 | MCA 40A, MOP 40A |
| C23 | - | STACKED WASHER/DRYER - REFER TO DIV 11 | - | - | - | - | - | | | |
| C26 | 1 | AIR SCREEN INSECT FAN | 115 | 1 | | | 12.6 | JBOX | 96 | EXTEND CIRCUIT THROUGH DOOR SWITCH. |
| C27 | 1 | DUAL ZONE DISPLAY CASE | 115 | 1 | | | 2.5 | C&P | 5 | |
| | | | | | | | | | | |

CONNECTION KEY:

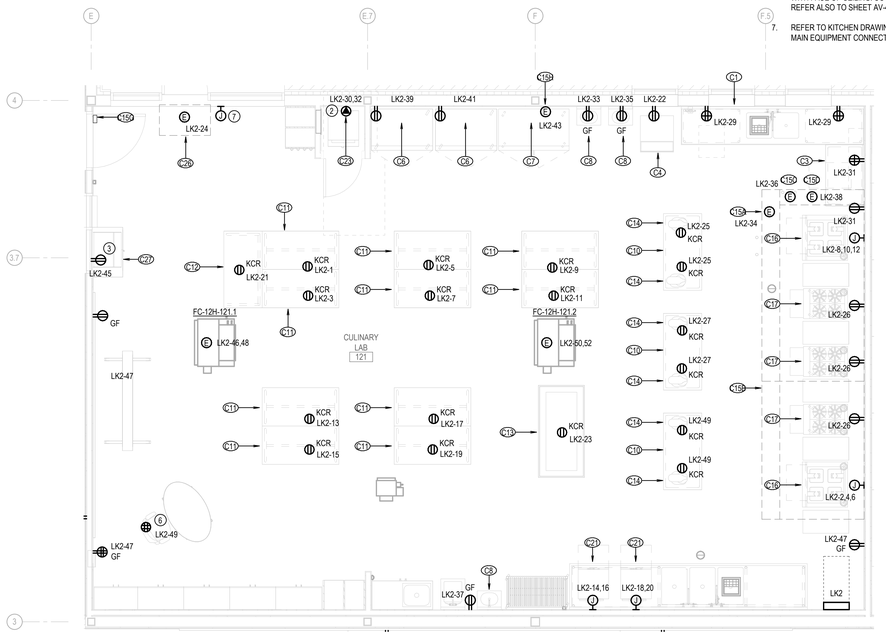
| | |
|---|---|
| C&P | CORD AND PLUG |
| JBOX | JUNCTION BOX/HARD-WIRED |
| RECEP | RECEPTACLE |

## GENERAL NOTES (NEW WORK)

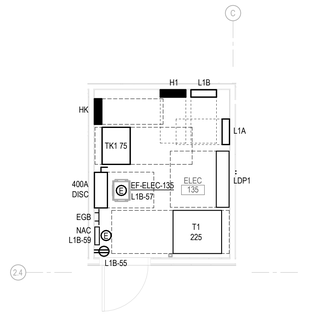
1. REFER TO SHEET QF203 FOR FLOOR AND TABLE MOUNTED RECEPTACLE DETAILS.
2. REFER TO SHEET QF601 FOR ADDITIONAL ELECTRICAL SCOPE.
3. REFER TO SHEETS QF301 - QF304 FOR EXHAUST HOOD CONNECTIONS AND WIRING.
4. ALL SINGLE-PHASE RECEPTACLES RATED 150V TO GROUND OR LESS, 50 AMPS OR LESS AND THREE-PHASE RECEPTACLES RATED 150V TO GROUND OR LESS, 100A AMPS OR LESS SHALL HAVE GFCI PROTECTION.
5. COORDINATE WITH KITCHEN EQUIPMENT CONTRACTOR AND PROVIDE DISCONNECTING MEANS AS REQUIRED.

## KEY NOTES (NEW WORK)

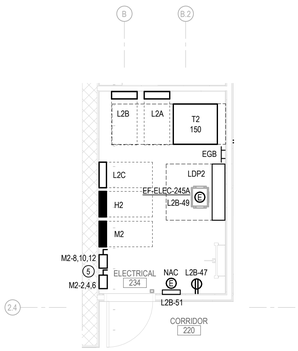
1. 3/4" THICK FRT PLYWOOD TO 8' HIGH.
2. 30A DRYER RECEPTACLE.
3. TWO DUPLEX RECEPTACLES MOUNTED IN/TO CASEWORK. CONDUIT TO BE RUN DOWN IN WALL AND UP INTO CASEWORK. COORDINATE WITH ARCHITECTURAL DETAILS AND CASEWORK SHOP DRAWINGS.
4. 12" WIDE CABLE TRAY, BASKET TYPE. MOUNT 12" ABOVE TOP OF RACKS.
5. 100A FUSED SHUNT TRIP TYPE ELEVATOR DISCONNECT WITH 80A FUSES. COORDINATE FUSE SIZE WITH ELEVATOR SUPPLIED.
6. QUAD RECEPTACLE TO BE MOUNTED IN AV ENCLOSURE OR FLUSH WITH FACE OF CEILING. COORDINATE WITH AV CONTRACTOR. REFER ALSO TO SHEET AV-4.
7. REFER TO KITCHEN DRAWINGS FOR WIRING REQUIRED BETWEEN MAIN EQUIPMENT CONNECTION POINT AND SUB-CONNECTIONS.



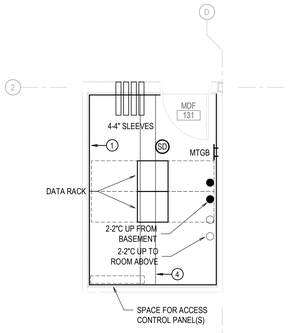

1 EP101B E402 ENLARGED PLAN - CULINARY LAB 121
SCALE: 1/4" = 1'-0"



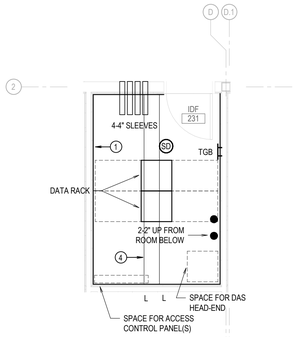

2 EP101B E402 ENLARGED PLAN: ELEC 135 - POWER
SCALE: 1/4" = 1'-0"




3 EP102B E402 ENLARGED PLAN: ELEC 234 - POWER
SCALE: 1/4" = 1'-0"




4 ET101B E402 ENLARGED PLAN: MDF 131 - SPECIAL SYSTEMS
SCALE: 1/4" = 1'-0"




5 ET102B E402 ENLARGED PLAN: IDF 231 - SPECIAL SYSTEMS
SCALE: 1/4" = 1'-0"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SUITE 400
RICHMOND, VA 23220
v 804.788.4774
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Suite 202
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PROFESSIONAL ENGINEER


Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

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Albemarle County Public Schools
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Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: NAC
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ENLARGED PLANS

**E402**

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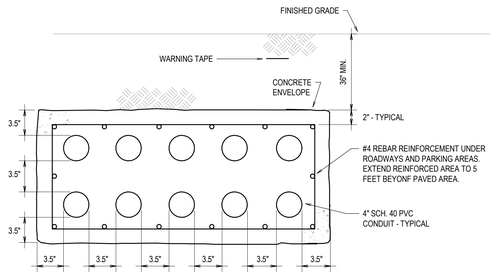



1 -- E501 SERVICE ENTRANCE DUCT BANK DETAIL
SCALE: NONE

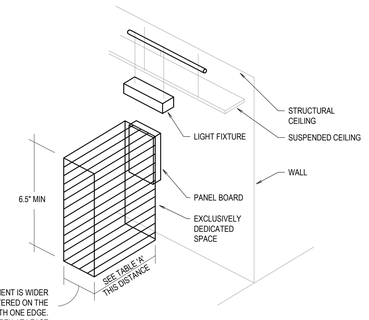
| TABLE "A" - WORKING CLEARANCES | | | |
|---|---|---|---|
| VOLTAGE TO GROUND, NOMINAL | CONDITION: 1 | 2 | 3 |
| | MIN. CLEAR DISTANCE (FT) | | |
| 0-150 | 3 | 3 | 3 |
| 151-600 | 3 | 3.5 | 4 |

WHERE THE CONDITIONS ARE AS FOLLOWS:

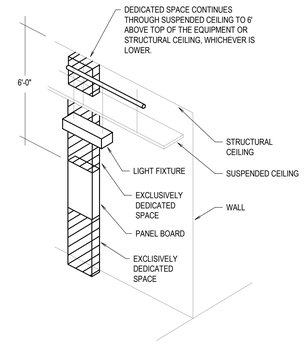
1. EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OR OTHER INSULATING MATERIALS. INSULATED WIRE OR INSULATED BUSBARS OPERATING AT NOT OVER 300 VOLTS SHALL NOT BE CONSIDERED LIVE PARTS.
2. EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.
3. EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1) WITH THE OPERATOR BETWEEN.

30" OR WIDTH OF EQUIPMENT IF EQUIPMENT IS WIDER THAN 30" DOES NOT HAVE TO BE CENTERED ON THE EQUIPMENT BUT AT LEAST EVEN WITH ONE EDGE. EQUIPMENT DOOR SHALL BE ABLE TO OPEN AT LEAST 90 DEG.

NOTE: THIS INCLUDES BUT IS NOT LIMITED TO PANELBOARDS, SAFETY SWITCHES, MOTOR STARTERS, JUNCTION BOXES AND OTHER ELECTRIC EQUIPMENT.




NOTE:
THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF ELECTRIC EQUIPMENT REQUIRED BY SECTION 110-26 (a) OF THE NATIONAL ELECTRIC CODE.

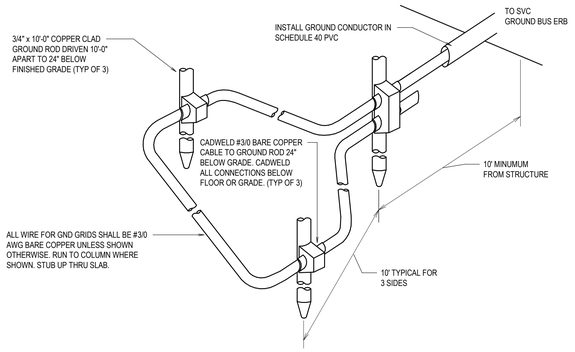



NOTE:
THIS FIGURE ILLUSTRATES THE ADDITIONAL EXCLUSIVELY DEDICATED SPACE REQUIRED OVER AND UNDER PANELBOARDS FOR CABLES, RACEWAYS, ETC. TO AND FROM PANELBOARDS REQUIRED BY SECTION 110-26 (f) OF THE NATIONAL ELECTRICAL CODE.

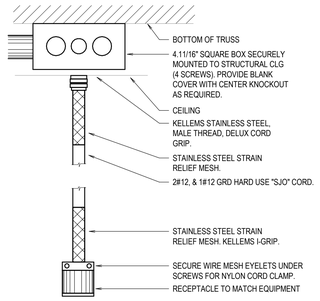
ALL ELECTRICAL EQUIPMENT

PANEL BOARDS

2 -- E501 DEDICATED WORKING SPACE FOR EQUIPMENT
SCALE: NONE

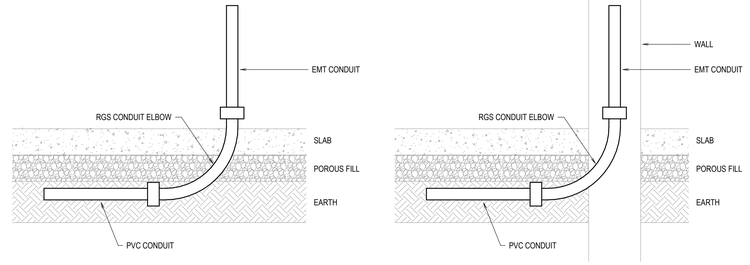



3 -- E501 GROUNDING COUNTERPOISE DETAIL
SCALE: NONE




6 -- E501 CORD DROP DETAIL
SCALE: NONE

NOTES:
1. PROVIDE 30" CORD AND RECEPTACLE TO MATCH KITCHEN EQUIPMENT FOR 'KCR' CORD DROPS.
2. PROVIDE 36" CORD AND 20A, 120V DUPLEX RECEPTACLE FOR 'CCR' CORD DROPS.
3. PROVIDE J HOOK ADJACENT TO CORD DROP SO THAT CORD MAY BE HUNG UP OUT OF THE WAY WHEN NOT IN USE FOR BOTH TYPES.




5 -- E501 PVC TO EMT TRANSITION DETAIL
SCALE: NONE

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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

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ENERGY BY DESIGN
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Suite 202
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PROJECT MANAGER: NAC
DRAWN BY: AMH

QEA No.41911390/19168

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DETAILS

**E501**

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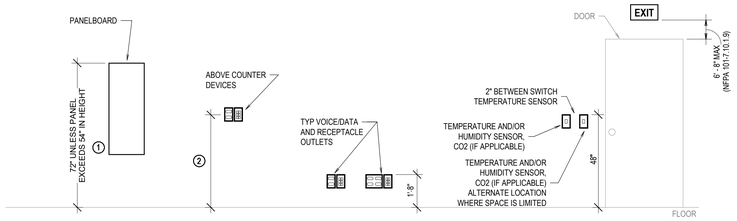
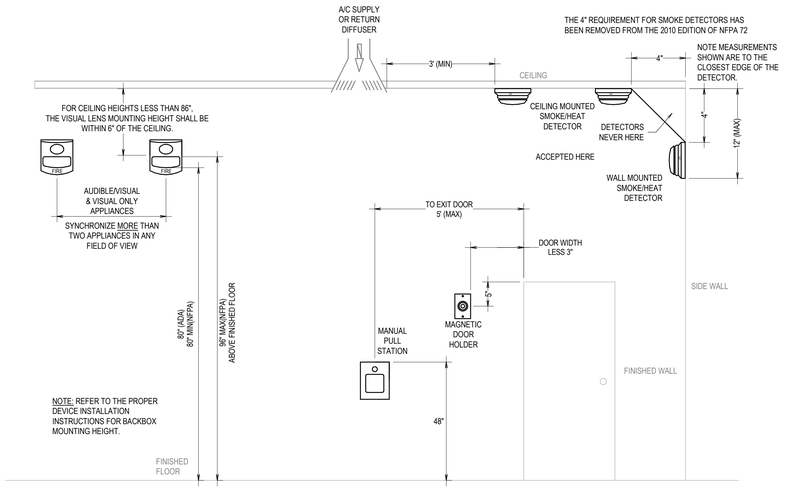



1 — E502 TYPICAL DEVICE MOUNTING HEIGHTS

SCALE: NONE

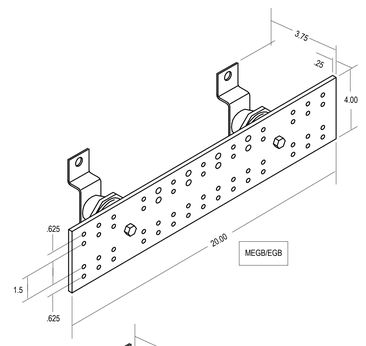
GENERAL NOTE:
1. ALL MOUNTING HEIGHTS SHALL BE IN ACCORDANCE WITH ADA REQUIREMENTS. NOTIFY ENGINEER OF ANY DISCREPENCIES BETWEEN THE HEIGHTS INDICATED, OTHER SUBCONSULTANT DRAWINGS, OR ADA CLEARANCES.

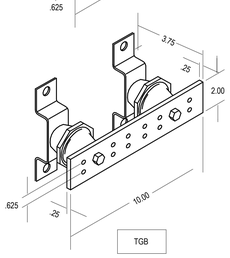
(#) KEYNOTES:
1. MAX HEIGHT FOR CIRCUIT BREAKER OPERATING HANDLES IS 6'-7".
2. 48" TO THE TOP IF NO COUNTER TOP OR 4" ABOVE COUNTER/BACKSPLASH IF PRESENT.

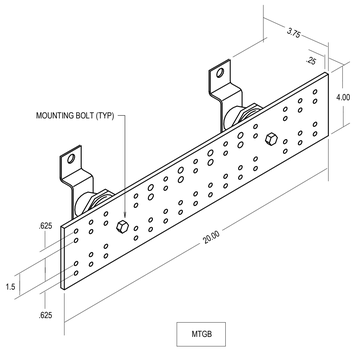



2 — E502 TYPICAL FIRE ALARM DEVICE MOUNTING HEIGHTS

SCALE: NONE



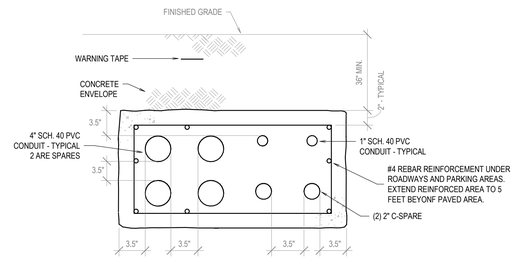




3 — E502 TYPICAL GROUND BUS DETAIL

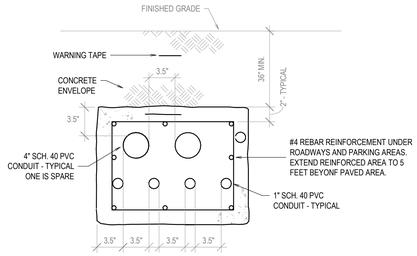
SCALE: NONE

NOTES:
A. TYPICAL BUSBARS, INSULATORS AND BACKBOARD MOUNT BRACKETS SHOWN HERE REFLECT TIA STANDARDS-COMPLIANT DIMENSIONS
B. MOUNT BUSBARS @ 12" AFF UNLESS DIRECTED OTHERWISE BY OWNER.
C. ERB HEIGHT AND THICKNESS PER SECTION 260526. LENGTH AS NEEDED TO ACCOMMODATE ALL CONNECTIONS.
D. PROVIDE SUPPORTS AS REQUIRED.
E. USE CAST SILICON BRONZE SOLDERLESS COMPRESSION TYPE TERMINALS AND LONG-BARREL, TWO-BOLT CONNECTIONS TO GROUND BUS BARS.



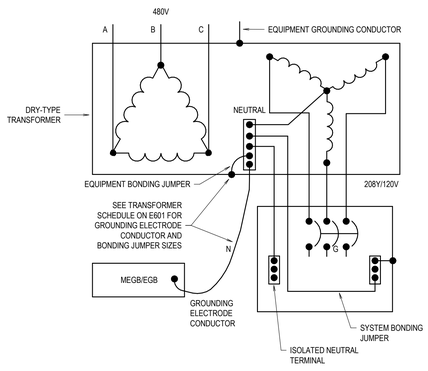

4 — E502 GENERATOR G1 DUCT BANK DETAIL - (4) 4", (2) 1"PVC & (2) 2"PVC SPARE

SCALE: NONE



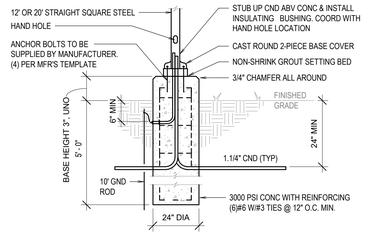

5 — E502 GENERATOR G1 DUCT BANK DETAIL - (4) 4", (2) 1"PVC & (2) 2"PVC SPARE

SCALE: NONE



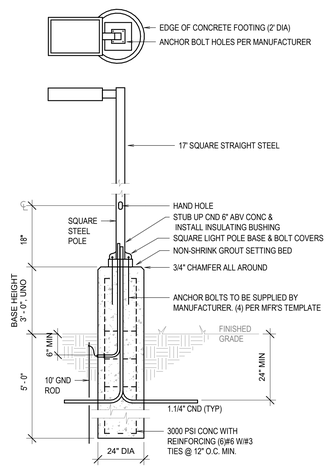

6 — E502 TRANSFORMER GROUNDING

SCALE: NONE




7 — E502 POLE BASE DETAIL

SCALE: NONE

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RICHMOND, VA 23220

v 804.788.4774

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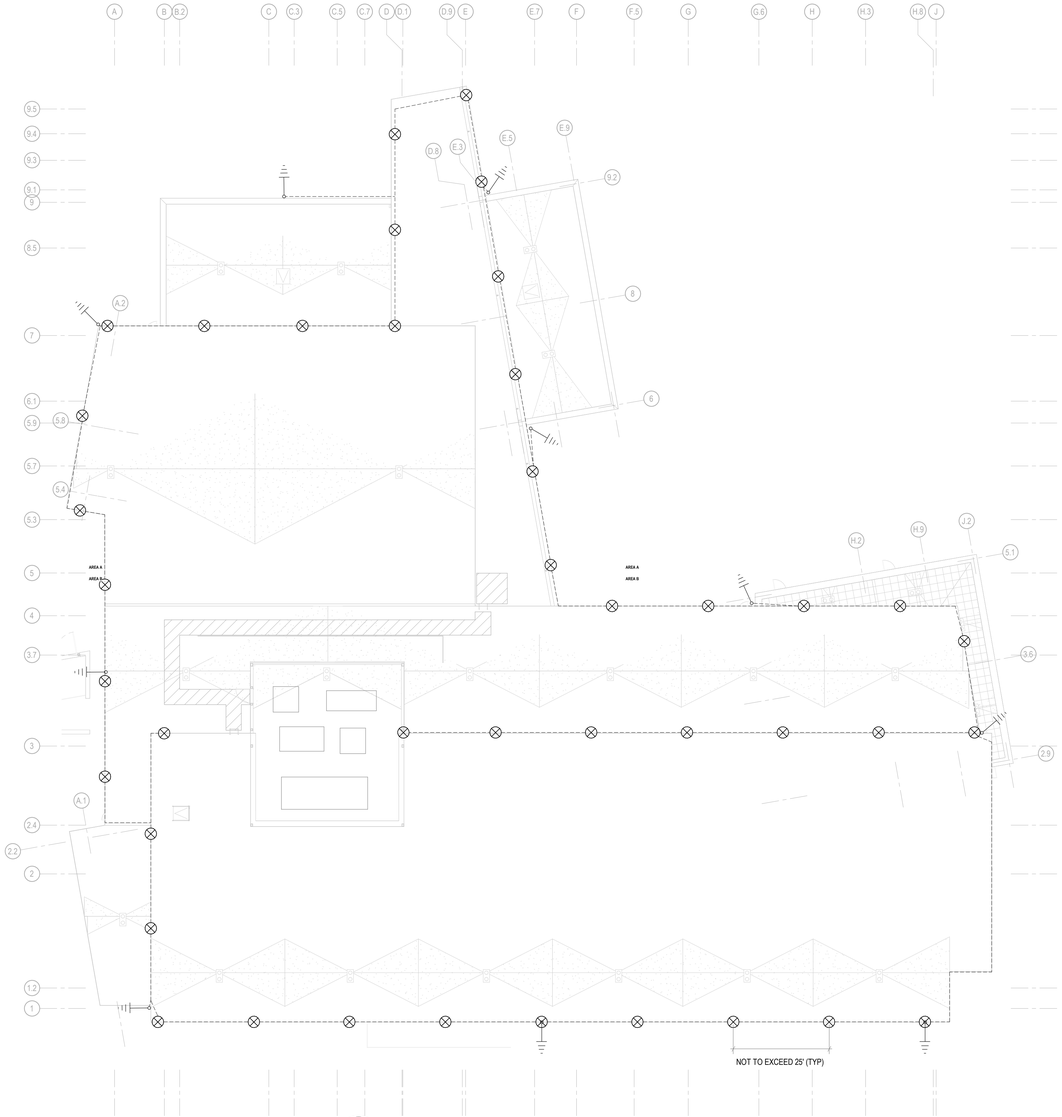
# E502

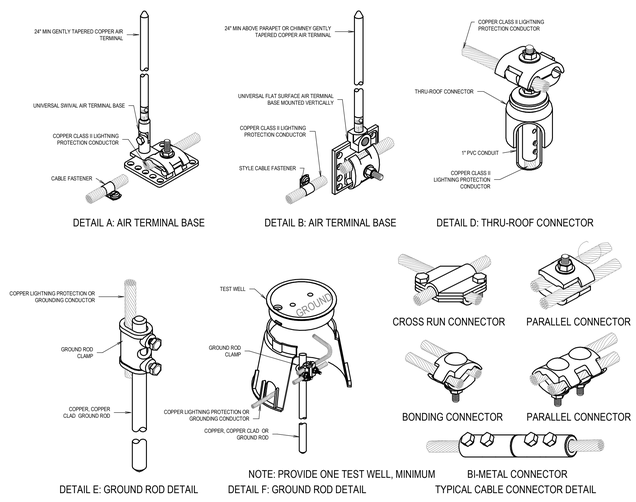



1 E503 — ROOF PLAN - LIGHTNING PROTECTION

SCALE: 1/16" = 1'-0"

0 2' 4' 8' 16'

| CLASS I - MINIMUM MATERIAL REQUIREMENTS | | |
|---|---|---|
| TYPE OF CONDUCTOR | PARAMETER | SIZE (COPPER ONLY) |
| AIR TERMINAL | DIAMETER | 3/8 INCH |
| MAIN CONDUCTOR, CABLE | SIZE (EACH STRAND)<br>WEIGHT PER LENGTH<br>CROSS-SECTION AREA | 17 AWG<br>187 LB/1000 FT<br>57,400 CIRCULAR MILS |
| BONDING CONDUCTOR, CABLE (SOLID OR STRANDED) | SIZE (EACH STRAND)<br>CROSS-SECTION AREA | 17 AWG<br>26,240 CIRCULAR MILS |
| BONDING CONDUCTOR, SOLID STRIP | THICKNESS<br>WIDTH | 0.051 INCH<br>1/2" |
| MAIN CONDUCTOR, SOLID STRIP | THICKNESS<br>CROSS-SECTION AREA | 0.051 INCH<br>57,400 CIRCULAR MILS |




DETAIL A: AIR TERMINAL BASE — DETAIL B: AIR TERMINAL BASE — DETAIL D: THRU-ROOF CONNECTOR

DETAIL E: GROUND ROD DETAIL — NOTE: PROVIDE ONE TEST WELL, MINIMUM — DETAIL F: GROUND ROD DETAIL — TYPICAL CABLE CONNECTOR DETAIL

2 E503 — LIGHTNING PROTECTION DETAILS

SCALE: NONE

## LIGHTNING PROTECTION NOTES

1. THE LIGHTNING PROTECTION CONTRACTOR SHALL PROVIDE A UL MASTER LABEL LIGHTNING PROTECTION SYSTEM COMPLETE WITH ALL AIR TERMINALS, CABLING, GROUND RODS AND ACCESSORIES REQUIRED FOR A COMPLETE INSTALLATION. THE LIGHTNING PROTECTION CONTRACTOR SHALL REVIEW THE ARCHITECTURAL, ELECTRICAL AND MECHANICAL DRAWINGS IN ORDER TO OBTAIN A COMPLETE UNDERSTANDING OF THE PROJECT SCOPE, BUILDING SIZE AND ROOF, AND SHALL PROVIDE SHOP DRAWINGS AND MATERIAL CUTS PRIOR TO INSTALLATION. THE LIGHTNING PROTECTION CONTRACTOR SHALL PROVIDE CONDUIT SLEEVES REQUIRED TO CONCEAL GROUNDING CONDUCTORS AND SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO ASSURE THEIR PROPER AND TIMELY INSTALLATION.
2. METAL BODIES OF INDUCTANCE SITUATED WITH 6'-0" OF A LIGHTNING PROTECTION CONDUCTOR OR BONDED METAL BODY SHALL BE INTERCONNECTED TO THE LIGHTNING PROTECTION SYSTEM.
3. NO BEND OF CONDUCTOR SHALL FORM A FINAL INCLUDED ANGLE OF LESS THAN 90 DEGREES NOR SHALL HAVE A RADIUS OF BEND LESS THAN 8".
4. CONDUCTORS SHALL INTERCONNECT ALL AIR TERMINALS AND FORM A TWO WAY PATH TO GROUND HORIZONTALLY OR DOWNWARD TO CONNECTIONS TO GROUNDING RODS.
5. ALL LIGHTNING PROTECTION CONDUCTORS SHALL BE FASTENED TO THE STRUCTURE UPON WHICH THEY ARE PLACED AT MAXIMUM INTERVALS OF 3 FEET.
6. CONNECTIONS TO GROUND RODS SHALL BE MADE AT A POINT NOT LESS THAN 30" BELOW GRADE AND 24" AWAY FROM ANY FOUNDATION WALL.
7. ACTUAL JOBSITE CONDITIONS MAY NECESSITATE SLIGHT ALTERATIONS OF AIR TERMINAL AND GROUND LOCATIONS. AIR TERMINAL LOCATIONS, DOWN CONDUCTOR LOCATIONS AND CABLE ROUTINGS SHOWN ARE TYPICAL. FINE SYSTEM DESIGN AND INSTALLATION IS TO MEET ALL REQUIREMENTS FOR NFPA 780 CLASS II SYSTEM AND TO ACHIEVE A UL MASTER LABEL.
8. ALL ADHESIVE TYPE FITTINGS SHALL BE SET IN PLACE WITH AN APPLICATION OF COMPATIBLE ROOF CEMENT. COORDINATE WITH ROOFING CONTRACTOR.
9. BOND ALL METALLIC PIPES ENTERING THE STRUCTURE TO THE NEAREST DOWNLEAD, GROUND ROD OR GROUND LOOP CABLE.
10. BOND TO ALL ROOF DRAINS AND PLUMBING VENTS.
11. DISTANCES BETWEEN GROUND CONDUCTORS NOT TO EXCEED 100'.
12. ROOF PADS, PAVERS, FLASHINGS OR ANY OTHER SPECIAL ROOF MATERIALS REQUIRED FOR THE INSTALLATION OF THE LIGHTNING PROTECTION SYSTEM SHALL BE FURNISHED AND INSTALLED BY THE ROOF CONTRACTOR.
13. DOWN CONDUCTORS SHALL BE RUN IN PVC CONDUIT IN EXTERIOR WALL CAVITY. BUILDING STEEL SHALL NOT BE USED AS A DOWN CONDUCTOR.
14. PROVIDE MINIMUM OF ONE GROUND TEST WELL, LOCATED NEAR BLDG SERVICE ENTRANCE.
15. REFER TO SHEET EP103 FOR PV LAYOUT. COORDINATE FINAL LAYOUT WITH PV CONTRACTOR.

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1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

COMMONWEALTH OF VIRGINIA
NEAL A. CRAMER
Lic. No. 41825
10/08/2024
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262

STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: Checker
DRAWN BY: Author

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

LIGHTNING PROTECTION

**E503**

PATH & FILENAME: C:\Users\Bethany.Bir\Documents\Revit Files\19168_E23_ACPS HS Center II_Elect_Bethany.B.rvt
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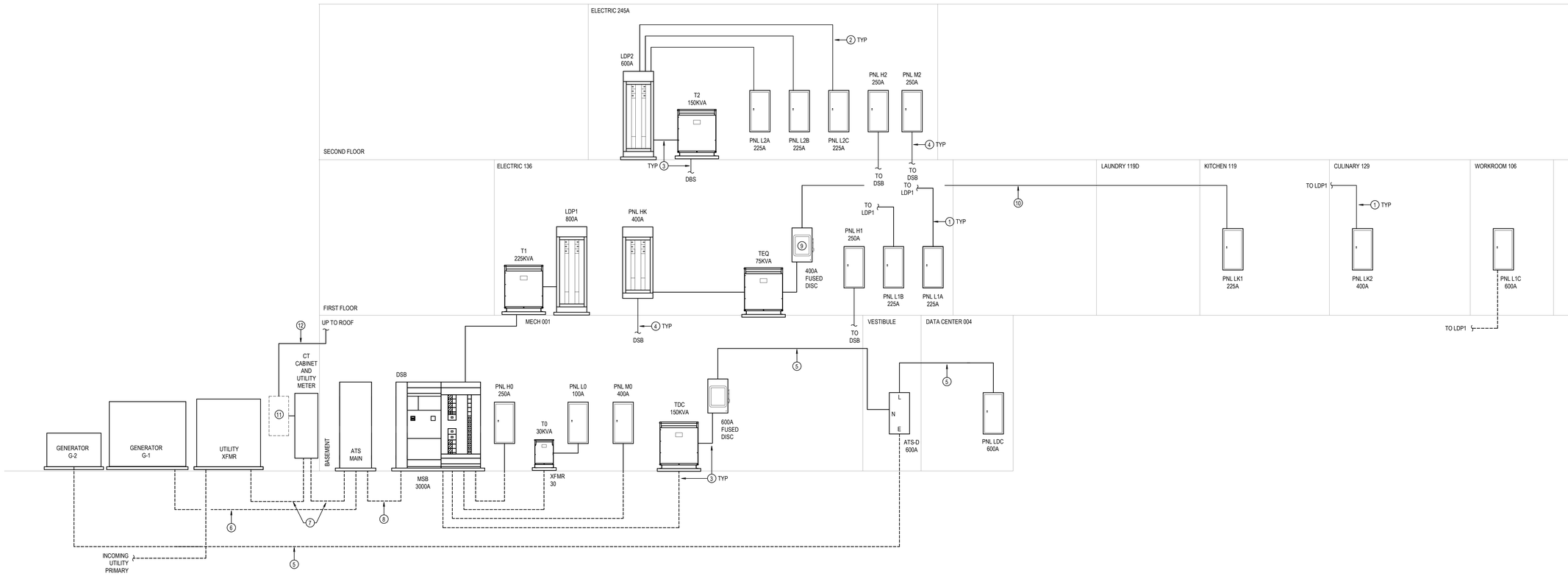
## GENERAL NOTES (NEW WORK)

1. FUSE SIZE IS THE SAME AS DISCONNECT SWITCH SIZE UNLESS NOTED OTHERWISE.
2. SEE PV GENERAL NOTES ON E000 FOR BASE BID VS ADDITIVE ALTERNATE.

## KEY NOTES (NEW WORK)

1. REFER TO PANEL SCHEDULE LDP1 FOR FEEDER SIZE.
2. REFER TO PANEL SCHEDULE LDP2 FOR FEEDER SIZE.
3. REFER TO TRANSFORMER SCHEDULE, ON THIS SHEET, FOR PRIMARY AND SECONDARY FEEDER SIZES.
4. REFER TO DSB SCHEDULE FOR FEEDER SIZE.
5. 2 SETS: 4#350KCMIL, 1#1, 3"C.
6. 2 SETS: 4#600KCMIL, 1#1/0, 4"C.
7. 8 SETS: 4#600KCMIL, 4"C.
8. 8 SETS: 4#600KCMIL, 1#400KCMIL, 4"C.
9. DISCONNECT TO HAVE 225A FUSES.
10. 4#4/0, 1#4, 2.1/2"C.
11. PV DISCONNECT SWITCH, PROVIDED WITH PV PACKAGE. CONNECT TO CT CABINET/SERVICE AS PER UTILITY COMPANY REQUIREMENTS.
12. 2-3"C CONDUITS FOR PV CABLING.




1 → E601 POWER RISER

SCALE: NONE

## TRANSFORMER SCHEDULE

| KVA RATING | PRIMARY CONNECTION | | | SECONDARY CONNECTION | | | GROUNDING ELECTRODE CONDUCTOR SIZE | BONDING JUMPER SIZE |
|---|---|---|---|---|---|---|---|---|
| | OCPD (AMPS) | NUMBER OF SETS | WIRING | OCPD (AMPS) | NUMBER OF SETS | WIRING | | |
| T30 | 50 | 1 | 3 - #6 + 1 - #10 in 3/4"C | 100 | 1 | 4 - #2 + #8G, 1-1/4"C | #8 AWG | #8 |
| T75 | 125 | 1 | 3 - #1 + 1 - #6 in 1 1/4"C | 225 | 1 | 4-#4/0 + #4G, 2-1/2"C | #2 AWG | #6 |
| T150 | 225 | 1 | 3 - #4/0 + 1 - #4 in 2"C | 600 | 2 | 4 - 350 KCMIL + #1G in 2-1/2"C | #1/0 AWG | #2 |
| T225 | 350 | 1 | 3 - 500KCMIL + 1 - #3 in 2 1/2"C | 800 | 2 | 4 - 600 KCMIL + #1/0G, 3 1/2"C | #3/0 AWG | #1/0 |

NOTES:

1. OCPD AND WIRE SIZES ARE UNLESS OTHERWISE INDICATED.
2. PROVIDE SIX 1/2% TAPS: 4 FCBN AND 2 FCAN.
3. SYSTEM VOLTAGE IS 480V DELTA PRIMARY AND 208/120V WYE SECONDARY.
4. CONNECT THE INDICATED GROUNDING ELECTRODE CONDUCTOR TO THE BUILDING GROUNDING ELECTRODE SYSTEM.

## 26 3213: GENERATOR SCHEDULE

| | | NFPA 101 REQUIREMENTS | | | | MINIMUM RUNTIME | | EPA | ENCLOSURE | | ELECTRICAL | | | | | DIMENSIONS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MARK | RATING | LEVEL | CLASS | TYPE | FUEL TYPE | % LOAD | HOURS | EMMISSIONS COMPLIANCE | TYPE | SOUND LEVEL (dBA) at 23' | V-PH | KW @0.8PF | FLA | OUTPUT BREAKER | ALTERNATOR | LENGTH IN | WIDTH IN | TOTAL HEIGHT IN | APPROX. WET WEIGHT (LBS) |
| G-1 | STANDBY | 1 | 48 | U | #2 DIESEL | 100 | 48.0 | STATIONARY EMERG | LEVEL 1 SOUND | 76 | 480-3 | 750 | 1,128 | 1,200 | STANDARD | 300 | 93 | 124 | 22,000 |
| G-2 | STANDBY | 1 | 48 | U | #2 DIESEL | 100 | 48.0 | STATIONARY EMERG | LEVEL 1 SOUND | 75 | 208-3 | 150 | 521 | 600 | STANDARD | 132 | 46 | 93 | 6,900 |

NOTES:

1. DESIGN AND PERFORMANCE BASED ON CATERPILLAR CAT C18PD AND CAT D150GC
2. SERVICE PANELS SHALL BE REMOVABLE / LIFT-OFF TYPE.
3. WEIGHT DOES NOT INCLUDES FUEL
4. PROVIDE 100% RATED OUTPUT LSI BREAKERS FOR BOTH GENERATORS. PROVIDE REQUIRED ARC FLASH ENERGY-REDUCING MAINTENANCE SWITCHING AND GROUND FAULT ALARM FOR G-1 OUTPUT BREAKER.
5. GENERATOR G-1 TO HAVE INTEGRAL LOAD CENTER.


QUINN EVANS

1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220

v 804.788.4774

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2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
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T: 434.296.2116 | 2RW.com


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PROJECT MANAGER: NAC
DRAWN BY: AMH

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

POWER RISER DIAGRAM

# E601

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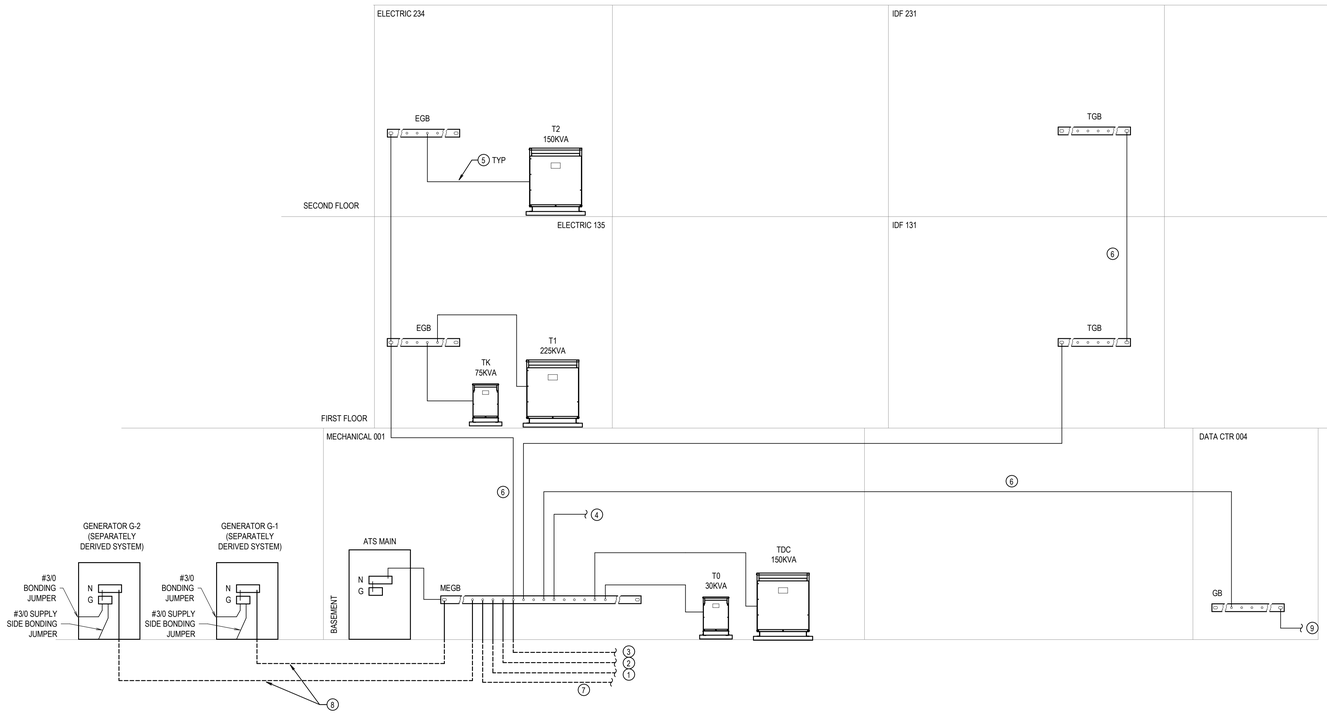
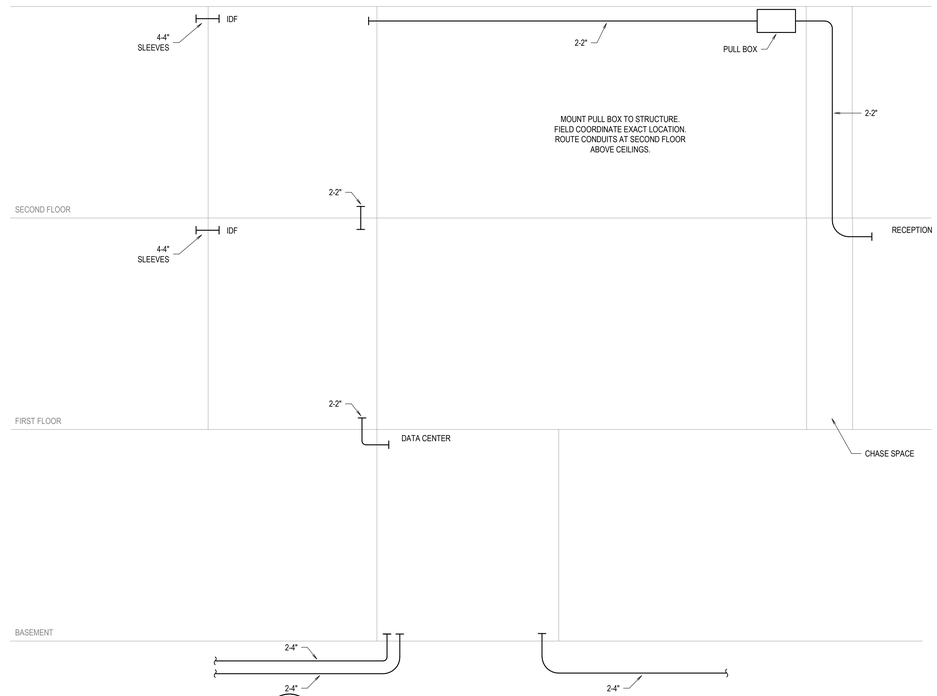



1 / E602 GROUNDING RISER

SCALE: NONE




2 / E602 LOW VOLTAGE CONDUIT RISER DIAGRAM

SCALE: NONE

NOTES:

A. COORDINATE ROUTING THROUGH CHASE WITH PLBG AND SPRINKLER CONTRACTORS..

## ⑨ KEY NOTES (NEW WORK)

1. #3/0 TO WATER MAIN.
2. #3/0 TO SPRINKLER MAIN.
3. #3/0 TO STRUCTURE RE-BAR.
4. TO LIGHTNING PROTECTION SYSTEM. SIZE TO MATCH MAIN SYSTEM CONDUCTOR.
5. REFER TO TRANSFORMER SCHEDULE ON SHEET E6.01 FOR XFMR GROUNDING ELECTRODE CONDUCTOR SIZE.
6. #4/0.
7. #3/0 TO GROUNDING COUNTERPOISE.
8. #3/0.
9. GROUND/BOND DATA CENTER RATED FLOOR. CONDUTOR SIZE AS PER FLOOR MANUFACTURER'S RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS.

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STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools

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Charlottesville, VA 22901

| No | Date | Description |
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DRAWN BY: AMH

QEA No.41911390/19168

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10/08/2024

LV RISER DIAGRAM

# E602

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# ELEV SEQUENCE OF OPERATIONS

1. PROVIDE AND INSTALL ALL FIRE ALARM DEVICES AND ELEVATOR CIRCUITRY DEVICES INCLUDING BUT NOT LIMITED TO ALL CONTROL INTERLOCKS, CABLING, HARDWARE, MATERIAL AND LABOR NECESSARY TO ACHIEVE THE FOLLOWING SEQUENCE OF OPERATION.

2. ACTIVIATION OF ANY ELEVATOR SHAFT OR LOBBY SMOKE DETECTOR WILL CAUSE RECALL TO PRIMARY RECALL FLOOR, CONDUITION = GENERAL ALARM WITH APPROPRIATE DEVICE AND HORIZONTAL/VERTICAL ZONE ANNUNCIATION AT FACP AND ANNUNCIATOR.

3. ACTIVATION OF GROUND FLOOR LOBBY SMOKE DETECTOR WILL CAUSE SECONDARY RECALL CONDUIT = GENERAL ALARM WITH APPROPRIATE DEVICE AND HORIZONTAL/VERTICAL ZONE ANNUNCIATION AT FACP AND ANNUNCIATOR.

4. ACTIVATION OF SHAFT OR MACHINE ROOM HEAT DETECTORS SHALL CAUSE THE SHUNT TRIP BREAKER AT ELEVATOR MOTORS TO DE-ENERGIZE THE ELEVATOR MOTOR CIRCUITS. CONDITION = GENERAL ALARM WITH APPROPRIATE DEVICE AND HORIZONTAL/VERTICAL ZONE ANNUNCIATION AT FACP AND ANNUNCIATOR. HEAT DEVICES = 135 DEG. F.

5. INTERLOCK SHUNT TRIP WITH HEAT DETECTOR TO DE-ENERGIZE MOTOR UPON ACTIVATION OF HEAT DETECTOR AND ONLY WHEN CAB DOORS HAVE OPENED AND ALLOWED SAFE EXIT OF PASSENGERS.

6. ELEVATOR MACHINE ROOM SHALL NOT DISCHARGE WATER UNLESS OPERATING TEMPERATURE (165 DEGREES F) IS PRESENT AT A SHAFT SPRINKLER.

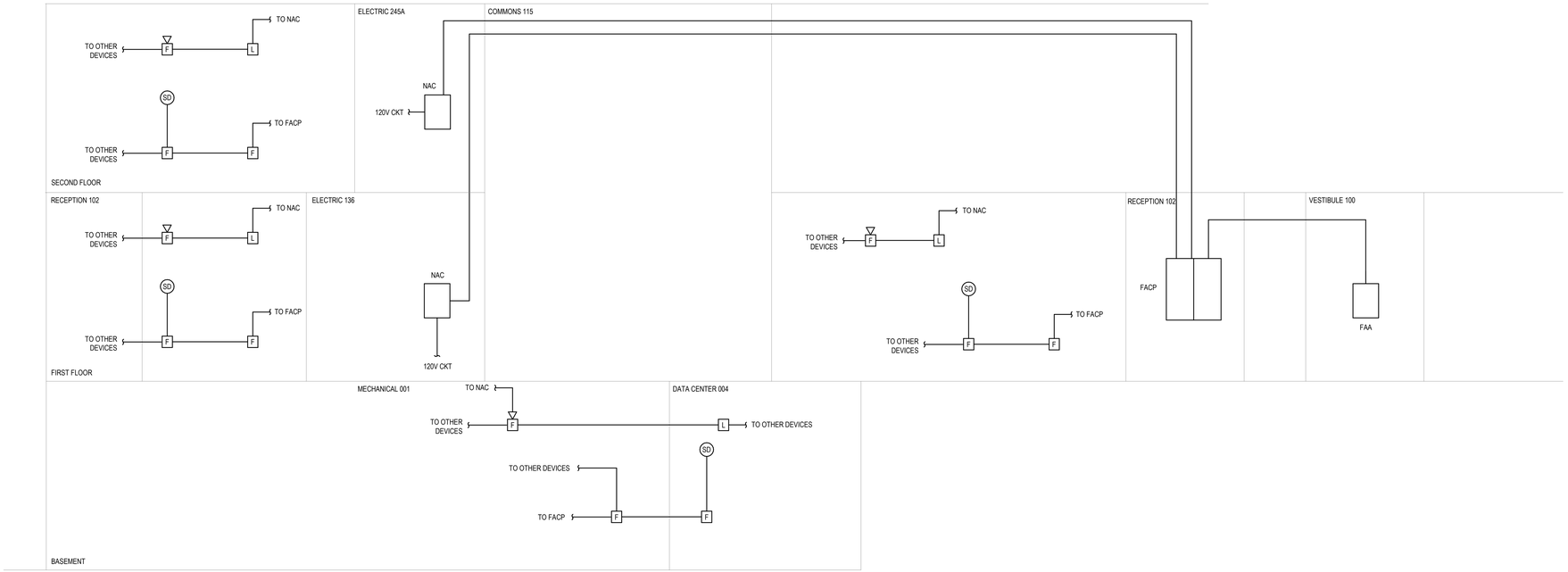
7. FULLY COORDINATE INTERLOCK WIRING TYPE, CONNECTIONS, AND LOGIC WITH THE ELEVATOR VENDOR/CONTRACTOR TO ALLOW RECALL FOR ELEVATOR. ACTIVATION OF SMOKE DETECTORS AS ABOVE DESCRIBED SHALL OVERRIDE ALL NORMAL CONTROL OPERATION OF THE ELEVATOR.

8. PRIMARY AND SECONDARY RECALL FLOORS SHALL BE COORDINATED WITH DESIGNATIONS FOR SAME AS MADE BY THE ARCHITECT OR THE AUTHORITIES HAVING JURISDICTION. FULLY COORDINATE THE ACTUAL LEVELS WITH THE ARCHITECT PRIOR TO PROVIDING THE WORK.

9. ALL WORK SHALL BE IN ACCORDANCE WITH NFPA 72, ANSI ELEVATOR CODE AND CURRENT ADOPTED STATE OF VIRGINIA CODES.

10. PROVIDE RELAY(S) AT EACH ELEVATOR SHUNT TRIP POWER SOURCE TO MONITOR SHUNT TRIP POWER AT ELEVATOR.

| | FIRE ALARM SYSTEM INPUT/OUTPUT MATRIX | OUTPUT/ACTIVATION | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FACP - ALARM | FACP - SUPERVISORY | FACP - TROUBLE | FAAP - ALARM | FAAP - SUPERVISORY | FAAP - TROUBLE | CENTRAL MONITORING STATION - ALARM | CENTRAL MONITORING STATION - SUPERVISORY | CENTRAL MONITORING STATION - TROUBLE | STROBE/HORNS/SPEAKERS | RECALL ELEVATOR TO PRIMARY FLOOR | RECALL ELEVATOR TO SECONDARY FLOOR | RELEASE ASSOCIATED DOOR HOLD OPENS | RELEASE ALL DOOR HOLD OPENS IN STAIRWELL | SHUTDOWN ASSOCIATED MECH EQUIP | CLOSE ASSOCIATED DAMPER | SHUNT TRIP ASSOC. ELEVATOR (S) POWER | EXTERIOR WATERFLOW BELL | SILENCE COMMONS SOUND SYSTEM | UNLOCK SECURE (MAG) DOORS IN EGRESS PATH | UNLOCK DELAYED EGRESS DOORS |
| | MANUAL PULL STATION | X | | | X | | | X | | | X | | | | | | | | | | X | X | | |
| | SMOKE DETECTOR - GENERAL | X | | | X | | | X | | | X | | | | | | | | | | X | X | | |
| | HEAT DETECTOR - GENERAL | X | | | X | | | X | | | X | | | | | | | | | | X | X | | |
| | DUCT SMOKE DETECTOR - MECH SHUTDOWN | | X | | | X | | | X | | | | | | | | X | | | | | | | |
| | SMOKE DETECTOR - MECH SHUTDOWN | | X | | | X | | | X | | | | | | | | X | | | | | | | |
| | DUCT SMOKE DETECTOR - DAMPER | | X | | | X | | | X | | | | | | | | | X | | | | | | |
| | SMOKE DETECTOR - DAMPER | | X | | | X | | | X | | | | | | | | | X | | | | | | |
| | SPRINKLER WATER FLOW SWITCH | X | | | X | | | X | | | X | | | | | | | | X | | | X | X | |
| | VALVE TAMPER SWITCH | | X | | | X | | | X | | | | | | | | | | | | | | | |
| | SMOKE DETECTOR - ELEVATOR SHAFT | X | | | X | | | X | | | X | X | | | | | | | X | | | X | X | |
| | HEAT DETECTOR - ELEVATOR SHAFT | X | | | X | | | X | | | X | X | | | | | | | X | | | X | X | |
| | SMOKE DETECTOR - ELEV. MACHINE RM | X | | | X | | | X | | | X | X | | | | | | | | | | X | X | |
| | HEAT DETECTOR - ELEV. MACHINE RM | X | | | X | | | X | | | X | X | | | | | | | | | | X | X | |
| | HEAT DETECTOR - ELEVATOR SHAFT PIT | X | | | X | | | X | | | X | | | | | | | | | | | X | X | |
| | SMOKE DETECTOR - ELEV. PRIMARY FLOOR | X | | | X | | | X | | | X | | X | | | | | | | | | X | X | |
| | SMOKE DETECTOR - ELEV. GENERAL LOBBIES | X | | | X | | | X | | | X | X | | | | | | | | | | X | X | |
| INPUT | ELEVATOR SHUNT TRIP POWER MONITOR | | X | | | X | | | X | | | X | | | | | | | | | | | | | |
| | ELEV. SHAFT/MACHINE RM WATERFLOW | X | | | X | | | X | | | X | | | | | | | | | | | X | X | |
| | FACP POWER LOSS | | | X | | | X | | | X | | | | | | | | | | | | | | | |
| | FACP LOW BATTERY VOLTAGE | | | X | | | X | | | X | | | | | | | | | | | | | | | |
| | GENERATOR - RUNNING | | X | | | X | | | X | | | | | | | | | | | | | | | |
| | GENERATOR - FAULT | | x | | | X | | | X | | | | | | | | | | | | | | | |
| | PRE-ACTION CONTROL PANEL FAULT | | x | | | X | | | X | | | | | | | | | | | | | | | |
| | PRE-ACTION CONTROL PANEL RELEASE | | X | | | X | | | X | | | | | | | | | | | | | | | |
| | CLEAN AGENT CONTROL PANEL FAULT | | X | | | X | | | X | | | | | | | | | | | | | | | |
| | CLEAN AGENT CONTROL PANEL RELEASE | X | | | X | | | X | | | X | | | | | | | | | | | X | X | |
| | SMOKE DETECTOR - DOOR HOLD OPEN (CORRIDOR OR... | | X | | | X | | | X | | | | | X | | | | | | | | | | |
| | KITCHEN ANSUL SYSTEM RELEASE | | X | | | X | | | X | | | | | | | | | | | | | | | |
| | DAS - LOSS OF NORMAL AC POWER | | | X | | | X | | | X | | | | | | | | | | | | | | | |
| | DAS - SYSTEM BATTERY CHARGER FAILURE | | | X | | | X | | | X | | | | | | | | | | | | | | | |
| | DAS - MALFUNCTION OF DONOR ANTENNA | | | X | | | X | | | X | | | | | | | | | | | | | | | |
| | DAS - FAILURE OF ACTIVE RF EMITTING DEVICE(S) | | | X | | | X | | | X | | | | | | | | | | | | | | | |
| | DAS - LOW BATT, AT 70% | | | X | | | X | | | X | | | | | | | | | | | | | | | |
| | DAS - FAILURE OF CRITICAL COMPONENTS | | | X | | | X | | | X | | | | | | | | | | | | | | | |




1 / E603 — FA RISER

SCALE: NONE

NOTES:
1. REFER TO E100 AND ET PLANS FOR ALL DEVICES AND LOCATIONS.

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1840 WEST BROAD STREET
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BID DOCUMENTS
10/08/2024

FA RISER DIAGRAM

# E603

# LIGHTING FIXTURE SCHEDULE

| MARK | DESCRIPTION | MFR/MODEL (BASIS OF DESIGN) | MTG | SOURCE/ LAMP | COLOR TEMP | LUMENS | INPUT WATTS | REMARKS |
|---|---|---|---|---|---|---|---|---|
| D1 | 4" DIAMETER RECESSED LED DOWNLIGHT | GOTHAM LIGHTING EVO4 35/15 AR WD LSS | R/C | LED | 3500K | 1500 | 13.7 | |
| D2 | 4" DIAMETER RECESSED LED DOWNLIGHT, LISTED FOR SHOWER USE | GOTHAM LIGHTING EVO4SH 35/10 DFF SMO | R/C | LED | 3500K | 1000 | 8.8 | |
| L1 | 4 FT LENSED LED STRIP LIGHT, WIDE DIFFUSE LENS | LITHONIA LIGHTING CLX L48 4000LM SEF FDL MVOLT 35K 80CRI | S/C | LES | 3500K | 4000 | 25.5 | |
| L1A | SAME AS TYPE L1 EXCEPT 5000 LUMENS | LITHONIA LIGHTING CLX L48 5000LM SEF FDL MVOLT 35K 80CRI | S/C | LES | 3500K | 5000 | 31.8 | |
| L2 | 2X4 RECESSED VOLUMETRIC TROFFER | LITHONIA LIGHTING STAK 2X4 30L 80CRI 35K COL MVOLT | R/C | LED | 3500K | 3170 | 24.1 | |
| L2A | SAME AS TYPE L2 EXCEPT 6000 LUMENS | LITHONIA LIGHTING STAK 2X4 60L 80CRI 35K COL MVOLT | R/C | LED | 3500K | 6035 | 50.2 | |
| L2B | SAME AS TYPE L2 EXCEPT 5000 LUMENS | LITHONIA LIGHTING STAK 2X4 60L 80CRI 35K COL MVOLT | R/C | LED | 3500K | 5262 | 41.9 | |
| L3 | 2X4 RECESSED VOLUMETRIC TROFFER | LITHONIA LIGHTING STAK 2X4 30L 80CRI 30K COL MVOLT | R/C | LED | 3000K | 3056 | 24.1 | |
| L4 | 2"W RECESSED LED PERIMETER LIGHT | FOCAL POINT LIGHTING FSM2PR FL0 250LF 35K UNC WH | R/C | LED | 3500K | 250/LF | 2.9/LF | LENGTH AS INDICATED ON LIGHTING PLANS |
| L5 | WET LOCATION 2'X4' LED TROFFER | LITHONIA LIGHTING 2WRTL G L48 5000LM AFL MD MVOLT 35K 80CRI | R/C | LED | 3500K | 5000 | 35.9 | |
| L6 | 4' LED WRAPAROUND FIXTURE, VANDAL RESISTANT | LUMINAIRELED TSL9 46IN 2DRV 50W 35K MVOLT CLP ONOFF50 | S/C | LED | 3500K | 5916 | 57.1 | INTEGRAL 50% ON/OFF SENSOR |
| L8 | 2"W RECESSED LED LINEAR LIGHT FOR ARMSTRONG CEILING INSTALLATION | XALUSA PANO 2 DIR OP 35K 0600LF 4FT | R/C | LED | 3500K | 600/LF | 5.7/LF | LENGTH AS INDICATED ON LIGHTING PLANS. FIXTURE TO BE COMPATIBLE WITH ARMSTRONG CEILING |
| L9 | 5.9"W RECESSED LED LINEAR LIGHT FOR ARMSTRONG CEILING INSTALLATION | XALUSA PANO 5 DIR OP 35K 0550LF 4FT | R/C | LED | 3500K | 550/LF | 5.2/LF | LENGTH AS INDICATED ON LIGHTING PLANS. FIXTURE TO BE COMPATIBLE WITH ARMSTRONG CEILING |
| L10 | LED TAPE LIGHT, MOUNTED IN GUARD RAIL. | LEDI LIGHTING INSPIRE AC1 45 35 H | | LED | 3500K | 390/LF | 4.5/LF | PROVIVE CHANNEL KIT AND MOUNTING CLIPS |
| P1A | DECORATIVE LED PENDANT LIGHT | LIGHTART COL COIL PND C1 MP 835CK 850LM WFL PCE LV01 STD WPC | SUSP | LED | 3500K | 956 | 11.8 | COLOR SELECTED BY ARCHITECT |
| P1B | DECORATIVE LED PENDANT LIGHT | LIGHTART COL COIL PND C6 MP 835CK 850LM WFL PCE LV01 STD WPC | SUSP | LED | 3500K | 956 | 11.8 | COLOR SELECTED BY ARCHITECT |
| P1C | DECORATIVE LED PENDANT LIGHT | LIGHTART COL COIL PND C7 MP 835CK 850LM WFL PCE LV01 STD WPC | SUSP | LED | 3500K | 956 | 11.8 | COLOR SELECTED BY ARCHITECT |
| P2A | DECORATIVE ACOUSTIC LED PENDANT LIGHT | FOCAL POINT LIGHTING DL1A 48S CRV1 12 XXX FSDL 22 CX 4000L 35K | SUSP | LED | 3500K | 4000 | 58.28 | COLOR SELECTED BY ARCHITECT |
| P2B | DECORATIVE ACOUSTIC LED PENDANT LIGHT | FOCAL POINT LIGHTING DL1A 36S CRV1 12 XXX FSDL 22 CX 3000L 35K | SUSP | LED | 3500K | 3000 | 46.08 | |
| P2C | DECORATIVE ACOUSTIC LED PENDANT LIGHT | FOCAL POINT LIGHTING DL1A 48S CRV1 18 XXX FSDL 22 CX 4000L 35K | SUSP | LED | 3500K | 4000 | 58.28 | |
| P3 | 4"W DIRECT LINEAR LED PENDANT FIXTURE | MARK LIGHTING S4PD 4FT 80CRI 35K 1000LMF STD FLL | SUSP | LED | 3500K | 1000/LF | 8/LF | |
| P3A | THE SAME AS P3 EXCEPT 1500LM/FT | MARK LIGHTING S4PD 4FT 80CRI 35K 1500LMF STD FLL | SUSP | LED | 3500K | 1500/LF | 13/LF | |
| P4 | DECORATEVE SPOKED ACOUSTIC LED PENDANT FIXTURE | FOCAL POINT LIGHTING ASM1TP 4 RL XX 3000LF 35K XC UNV | SUSP | LED | 3500K | 3000 | 30.2 | |
| P5 | 2"W DIRECT LINEAR LED PENDANT FIXTURE | MARK LIGHTING S2PD 4FT 80CRI 35K 800LMF STD FLL | SUSP | LED | 3500K | 800/LF | 6.3/LF | |
| W1 | DECORATIVE LED WALL SCONCE | JUSTICE DESIGN GROUP OFF-SET CIRCLE LED WALL SCONCE | W | LED | 3000K | 1000 | 11.3 | |
| X1 | LED EXIT SIGN, RED LETTERING, ALUMINUM HOUSING | LITHONIA LIGHTING LE S X R | U | LED | N/A | N/A | <5 | |

BASIS OF DESIGN STATEMENT:

THE DESIGN IS BASED ON THE MANUFACTURERS AND MODELS INDICATED AND IS INTENDED ONLY TO SHOW THE GENERAL SIZE, CONFIGURATION, LOCATION, CONNECTIONS AND/OR SUPPORT FOR THE EQUIPMENT OR SYSTEMS SPECIFIED WITH RELATION TO THE OTHER BUILDING SYSTEMS. REFER TO DIV 26 SPECIFICATION SECTIONS FOR ADDITIONAL TECHNICAL REQUIREMENTS.

MTG KEY:

| | |
|---|---|
| C | COVE |
| P | POLE |
| R/C | RECESSED / CEILING |
| SUSP | SUSPENDED |
| S/C | SURFACE / CEILING |
| S/P | SUSPENDED / PENDANT MTD |
| S/W | SURFACE / WALL |
| U | UNIVERSAL |
| U/C | UNDER CABINET |
| W | WALL |

NOTES:

1. REFER TO LIGHTING PLANS FOR CHEVRONS AND FACES FOR EXIT SIGNS.
2. FIXTURES ON SCHEDULE ARE TYPICALLY INDICATED FOR GRID TYPE INSTALLATION. IN INSTANCES WHERE CEILING TYPE DIFFERS, PROVIDE FIXTURES AS INDICATED AND DESIGNED FOR THAT APPLICATION. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS.
3. PROVIDE ALL FIXTURES WITH ALL ACCESSORIES NECESSARY FOR A COMPLETE INSTALLATION.
4. LED FIXTURES SHALL HAVE RATED LIFE BASED ON IESNA TM-21 (BASED ON LM-80 DATA) AND PHOTOMETRIC PERFORMANCE TESTED IN ACCORDANCE WITH IESNA 79.
5. ALL LIGHT SOURCES SHALL HAVE MINIMUM CRI OF 80, UNO.
6. ALL FIXTURES SHALL BE RATED 120/277 MULTI-VOLT, UNO.
7. INPUT POWER AND LUMEN OUTPUT TOLERANCE OF SUBSTITUTED FIXTURES (IF PERMITTED) IS +/-10% (+/-5% FOR FIXTURES ≤2000 LUMENS)

# EXTERIOR LIGHTING FIXTURE SCHEDULE

| MARK | DESCRIPTION | MFR/MODEL (BASIS OF DESIGN) | MTG | SOURCE/ LAMP | COLOR TEMP | LUMENS | INPUT WATTS | REMARKS |
|---|---|---|---|---|---|---|---|---|
| L9A | | | | | | | | |
| L11 | EXTERIOR LED TAPE LIGHT MOUNTED IN SOFFIT | LEDI LIGHTING INSPIRE CB1 OUT 46 30 CUSTOM CH1-KIT-SQ-CL | C | LED | 3000K | 355/LF | 4.6/LF | PROVIDE SQUARE CHANNEL WITH CLEAR STANDARD LENS. HARDWIRED |
| S1 | LGROUND MOUNTED LED FLAGPOLE LIGHT | HYDREL LIGHTING SAF7 P2 80CRI 30K MVOLT 30DEG CWL KM | G | LED | 3000K | 3552 | 44 | PROVIDE ALL ACESSORIES FOR GROUND MOUNTING |
| S2 | LED FLAT PEDESTRIAN FIXTURE, 12' POLE. TYPE 4 MEDIUM DISTRIBUTION | LITHONIA LIGHTING DSX0 LED P3 30K 80CRI T4M SSS POLE SERIES | P | LED | 3000K | 7776 | 69 | |
| S2A | LED FLAT PEDESTRIAN FIXTURE, 12' POLE. TYPE 4 MEDIUM DISTRIBUTION WITH HOUSE SIDE SHIELD | LITHONIA LIGHTING DSX0 LED P3 30K 80CRI T4M HS SSS POLE SERIES | P | LED | 3000K | 6689 | 69 | |
| S3 | LED FLAT PEDESTRIAN FIXTURE, 12' POLE. TYPE 2 MEDIUM DISTRIBUTION | LITHONIA LIGHTING DSX0 LED P5 30K 80CRI T2M SSS POLE SERIES | P | LES | 3000K | 10411 | 90 | |
| S4 | LED FLAT PEDESTRIAN FIXTURE, 12' POLE. TYPE 5 WIDE DISTRIBUTION | LITHONIA LIGHTING DSX0 LED P6 30K 80CRI T5W SSS POLE SERIES | P | LED | 3000K | 15838 | 137 | |
| S5 | LED FLAT PARKING FIXTURE, 20' POLE. TYPE 3 DISTRIBUTION, LOW GLARE | LITHONIA LIGHTING DSX1 LED P6 30K 80CRI T3LG SSS POLE SERIES | P | LED | 3000K | 15981 | 162 | |
| S6 | LED FLAT PARKING FIXTURE, 20' POLE. TYPE 3 LOW GLARE | LITHONIA LIGHTING DSX1 LED P8 30K 80CRI T3LG SSS POLE SERIES | P | LED | 3000K | 21810 | 216 | |
| S6A | LED FLAT PARKING FIXTURE, 20' POLE. TYPE 3 LOW GLARE, EXTERNAL GLARE SHIELD | LITHONIA LIGHTING DSX1 LED P8 30K 80CRI T3LG EGS SSS POLE SERIES | P | LED | 3000K | 20178 | 216 | |
| S7 | LED FLAT PARKING FIXTURE, 20' POLE. TYPE 3 DISTRIBUTION, LOW GLARE (DOUBLE HEAD) | LITHONIA LIGHTING DSX1 LED P8 30K 80CRI T3LG SSS POLE SERIES | P | LED | 3000K | 21810 EA | 432 | TWO HEADS AT 90 DEGREES |
| S8 | LED FLAT PARKING FIXTURE, 20' POLE. TYPE 3 DISTRIBUTION, LOW GLARE (DOUBLE HEAD) | LITHONIA LIGHTING DSX1 LED P8 30K 80CRI T3LG SSS POLE SERIES | P | LED | 3000K | 21810 EA | 432 | TWO HEADS AT 180 DEGREES |
| W2 | ARCHITECTURAL EXTERIOR LED WALL SCONCE | LITHONIA LIGHTING ARC1 LED P2 3000K | W | LED | 3500K | 2035 | 17 | MOUNT AT +8'6" ABOVE GRADE. |

BASIS OF DESIGN STATEMENT:

THE DESIGN IS BASED ON THE MANUFACTURERS AND MODELS INDICATED AND IS INTENDED ONLY TO SHOW THE GENERAL SIZE, CONFIGURATION, LOCATION, CONNECTIONS AND/OR SUPPORT FOR THE EQUIPMENT OR SYSTEMS SPECIFIED WITH RELATION TO THE OTHER BUILDING SYSTEMS. REFER TO DIV 26 SPECIFICATION SECTIONS FOR ADDITIONAL TECHNICAL REQUIREMENTS.

MTG KEY:

| | |
|---|---|
| C | CANOPY |
| G | GROUND |
| P | POLE |
| W | WALL |

NOTES:

1. PROVIDE ALL FIXTURES WITH ALL ACCESSORIES NECESSARY FOR A COMPLETE INSTALLATION.
2. LED FIXTURES SHALL HAVE RATED LIFE BASED ON IESNA TM-21 (BASED ON LM-80 DATA) AND PHOTOMETRIC PERFORMANCE TESTED IN ACCORDANCE WITH IESNA 79.
3. ALL LIGHT SOURCES SHALL HAVE MINIMUM CRI OF 80, UNO.
4. ALL FIXTURES SHALL BE RATED 120/277 MULTI-VOLT, UNO.
5. INPUT POWER AND LUMEN OUTPUT TOLERANCE OF SUBSTITUTED FIXTURES (IF PERMITTED) IS +/-10% (+/-5% FOR FIXTURES ≤2000 LUMENS)
6. ALL FIXTURE AND POLE COLORS TO BE SELECTED BY ARCHITECT.

**DESIGN LIGHTING LEVELS**

| ROOM/SPACE USE | DESIGN FC (AVE) |
|---|---|
| PATHS TO BUILDING | 0.6 |
| SERVICE/LOADING AREA | 10 |
| EGRESS DOORS | 1 |
| ENTRIES/VESTIBULES | 15 |
| LOUNGE | 20 |
| CONFERENCE | 30 |
| OFFICES | 30 |
| RESTROOMS | 10 |
| CIRCULATION | 10 |
| STAIRS | 10 |
| IT ROOMS | 50 |
| ELECTRICAL/MECHANICAL ROOMS | 30 |
| STORAGE/JANITOR CLOSET | 20 |
| COMMERCIAL KITCHEN | 50 |
| CULINARY ARTS KITCHEN | 30-50 |
| LEARNING STUDIO | 30-50 |
| PROJECT STUDIO | 50 |
| EMERG EGRESS | SEE NOTES |

NOTES:

1. MEANS OF EGRESS ILLUMINATION (EMERGENCY POWER) SHALL BE 1 FC AVERAGE, 0.1 MIN

## GENERAL NOTES (NEW WORK)

1. CONTRACTOR SHALL PROVIDE SUITABLE TRIM AND APPURTENANCES TO MOUNT FIXTURES IN TYPE OF CEILING OR WALL AS SPECIFIED BY ARCHITECTURAL FINISH SCHEDULES REGARDLESS OF CATALOG NUMBER GIVEN. CONTRACTOR SHALL VERIFY REQUIRED FIXTURE INSTALLATION APPENDAGES PRIOR TO ORDERING FIXTURES.
2. ELECTRICAL CONTRACTOR SHALL VERIFY LIGHTING FIXTURE REQUIREMENTS AGAINST ARCHITECTURAL PLANS WITH SPECIFICS TO, BUT NOT LIMITED TO, CUSTOM ARCHITECTURAL SOFFITS AS SHOWN ON ANY PLANS.
3. FIXTURES SHALL BE SUPPORTED FROM THE STRUCTURE AS STATED IN THE SPECIFICATIONS OR AS APPROVED BY THE ENGINEER.
4. ALL RECESSED FIXTURES INSTALLED IN CEILING, INDICATED BY ARCHITECT AS HAVING INSULATION INSTALLED OVER CEILING AND FIXTURES, SHALL BE U.L. RATED FOR DIRECT CONTACT WITH INSULATION. VERIFY WITH ARCHITECTURAL PLANS.
5. FINISHES, TRIM TYPES, AND COLORS FOR LIGHTING FIXTURES SHALL BE SELECTED AND APPROVED BY ARCHITECT.


QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com


COMMONWEALTH OF VIRGINIA
NEAL A. CRAMER
Lic. No. 41825
10/08/2024
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: NAC
DRAWN BY: AMH

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

LIGHTING SCHEDULES

**E700**


PATH & FILENAME: C:\Users\BethamB\Documents\Revit Files\19168_E23_ACPS HS Center II_Elect_BethamB.rvt
PLOTTING DATE & TIME: 10/2/2024 12:28:05 PM

PANEL NO.: **DSB** | BUS AMPS: **3000A** | FED FROM: **Utility Xfmr** | INTEGRAL SPD: **320 kA/PHASE** (NOTE 3)
PHASES: **3** | MAIN TYPE: **MLO** | MOUNTING: **PAD** | LOCATION: **ELECTRICAL ROOM**
VOLTS **480V** | AIC RATING: **40,418 MINIMUM** | PANEL TYPE: **SWITCHBOARD** | USAGE: **SERVICE ENTRANCE**

| CIRCUIT SETS | WIRE | NEUT. | GND. | COND. | LOAD AMPS. | DESCRIPTION | NOTES | BREAKER POLE | AMP. | CKT. # | | CKT. # | AMP. | BREAKER POLE | NOTES | DESCRIPTION | LOAD AMPS. | CIRCUIT SETS | WIRE | NEUT. | GND. | COND. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | #1/0 | #1/0 | #6 | 1-1/2" | 14.1 | PANEL H0 | 2 | 3 | 150 | 1 | A | 2 | 150 | 3 | 2 | PANEL H1 | 5.3 | 1 | #1/0 | #1/0 | #6 | 1-1/2" |
| | | | | | 7.0 | | | | | | B | | | | | | 7.8 | | | | | |
| | | | | | 11.3 | | | | | | C | | | | | | 12.0 | | | | | |
| 1 | 350 | 350 | #4 | 3" | 237.8 | PANEL M0 | 2 | 3 | 300 | 3 | A | 4 | 150 | 3 | 2 | PANEL H2 | 19.1 | 1 | #1/0 | #1/0 | #6 | 1-1/2" |
| | | | | | 240.8 | | | | | | B | | | | | | 15.6 | | | | | |
| | | | | | 240.8 | | | | | | C | | | | | | 15.0 | | | | | |
| 2 | 250 | - | #1 | 2-1/2" | 348.4 | PANEL LDP1 | 2 | 3 | 500 | 5 | A | 6 | 225 | 3 | 2 | PANEL M2 | 146.6 | 1 | #4/0 | #4/0 | #4 | 2-1/2" |
| | | | | | 308.4 | VIA TRANSFORMER | | | | | B | | | | | | 146.6 | | | | | |
| | | | | | 315.3 | | | | | | C | | | | | | 146.6 | | | | | |
| 1 | #1 | - | #6 | 1-1/2" | 91.3 | PANEL LDP2 | 2 | 3 | 125 | 7 | A | 8 | 50 | 3 | 2 | PANEL L0 | 22.8 | 1 | #6 | - | #10 | 1" |
| | | | | | 80.8 | VIA TRANSFORMER | | | | | B | | | | | VIA TRANSFORMER | 26.6 | | | | | |
| | | | | | 83.8 | | | | | | C | | | | | | 33.8 | | | | | |
| 2 | #3/0 | #3/0 | #2 | 2" | 316.1 | PANEL HK | 2,4 | 3 | 400 | 9 | A | 10 | 250 | 3 | 2 | PANEL LDC | 147.1 | 1 | 250 | - | #4 | 2-1/2" |
| | | | | | 307.9 | | | | | | B | | | | | VIA TRANSFORMER | 143.1 | | | | | |
| | | | | | 320.2 | | | | | | C | | | | | | 128.8 | | | | | |
| | | | | | 0.0 | SPARE | | 3 | 200 | 11 | A | 12 | 110 | 3 | 2 | HRCH-1 | 88.0 | 1 | #2 | #2 | #6 | 1-1/4" |
| | | | | | 0.0 | | | | | | B | | | 3 | | | 88.0 | | | | | |
| | | | | | 0.0 | | | | | | C | | | 3 | | | 88.0 | | | | | |
| | | | | | 0.0 | SPARE | | 3 | 200 | 13 | A | 14 | 200 | 3 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | | | | | | B | | | | | | 0.0 | | | | | |
| | | | | | 0.0 | | | | | | C | | | | | | 0.0 | | | | | |
| | | | | | 0.0 | SPACE | | 3 | | 15 | A | 16 | | 3 | | SPACE | 0.0 | | | | | |
| | | | | | 0.0 | | | | | | B | | | | | | 0.0 | | | | | |
| | | | | | 0.0 | | | | | | C | | | | | | 0.0 | | | | | |
| | | | | | 0.0 | SPACE | | 3 | | 17 | A | 18 | | 3 | | SPACE | 0.0 | | | | | |
| | | | | | 0.0 | | | | | | B | | | | | | 0.0 | | | | | |
| | | | | | 0.0 | | | | | | C | | | | | | 0.0 | | | | | |
| | | | | | 0.0 | SPACE | | 3 | | 19 | A | 20 | | 3 | | SPACE | 0.0 | | | | | |
| | | | | | 0.0 | | | | | | B | | | | | | 0.0 | | | | | |
| | | | | | 0.0 | | | | | | C | | | | | | 0.0 | | | | | |

| LOAD SUMMARY | CON. KVA | % | DEM. KVA |
|---|---|---|---|
| RECEPTACLES | 263.03 | code | 136.52 |
| MOTORS | 232.65 | 100% | 232.65 |
| LIGHTS (INT.) | 24.61 | 100% | 24.61 |
| LIGHTS (EXT.) | 7.97 | 100% | 7.97 |
| HVAC (HEAT) | 60.00 | 100% | 60.00 |
| HVAC (COOL) | 210.74 | 100% | 210.74 |
| VENTILATION | 45.77 | 100% | 45.77 |
| KITCHEN | 275.63 | 65% | 179.16 |
| EMERGENCY | 0.00 | 100% | 0.00 |
| MISC. | 255.46 | 100% | 255.46 |
| FUTURE | 0.00 | 100% | 0.00 |
| OTHER | 0.00 | 100% | 0.00 |
| TRACK | 0.00 | 100% | 0.00 |
| LARGEST MTR | 0.00 | 25% | 0.00 |
| TOTAL KVA | 1376 KVA | | 1153 KVA |
| TOTAL AMPS | 1655 AMPS | | 1387 AMPS |

**PANEL NOTES:**
1. DSB TO HAVE OWNER METERING AND SPD.
2. PROVIDE SUB-METERING FOR PANEL/FEEDER AT THE BREAKER.
3. PROVIDE BREAKER FOR SPD AS REQUIRED.
4. PROVIDE 100% RATED BREAKER.
5.
6.

PANEL NO.: **H0** | BUS AMPS: **250A** | FED FROM: **DSB** | INTEGRAL SPD: **NONE**
PHASES: **3** | MAIN TYPE: **MLO** | MOUNTING: **SURFACE** | LOCATION: **ELECTRICAL ROOM**
VOLTS **480V** | AIC RATING: **40,869 MINIMUM** | PANEL TYPE: **LIGHTING AND APPLIANCE** | USAGE: **BRANCH CIRCUIT**

| CIRCUIT SETS | WIRE | NEUT. | GND. | CND. | LOAD AMPS. | DESCRIPTION | NOTES | BREAKER POLE | AMP. | CKT. # | | CKT. # | AMP. | BREAKER POLE | NOTES | DESCRIPTION | LOAD AMPS. | CIRCUIT SETS | WIRE | NEUT. | GND. | CND. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | #12 | #12 | #12 | 3/4" | 1.8 | LTS - STAIR #1 | | 1 | 20 | 1 | A | 2 | 20 | 1 | 2 | SITE LTS PARKING LOT | 9.0 | 1 | #10 | #10 | #10 | 1" |
| 1 | #12 | #12 | #12 | | 1.8 | LTS - MECHAINCAL ROOM | | 1 | 20 | 3 | B | 4 | 20 | 1 | 2 | SITE LTS SIDEWALK | 4.8 | 1 | #10 | #10 | #10 | 1" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 5 | C | 6 | 20 | 1 | 2 | EXT BLDG MTD LTS | 1.5 | 1 | #10 | #10 | #10 | 1" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 7 | A | 8 | 20 | 1 | 2 | EXT BLDG LTS - CANOPY EDGE | 3.3 | 1 | #10 | #10 | #10 | 3/4" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 9 | B | 10 | 20 | 1 | 2 | FLAG POLE LTS | 0.3 | 1 | #10 | #10 | #10 | 1" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 11 | C | 12 | 20 | 1 | 2 | SITE LTS DRIVE/ROAD | 9.7 | 1 | #10 | #10 | #10 | 1" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 13 | A | 14 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 15 | B | 16 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 17 | C | 18 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 19 | A | 20 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 21 | B | 22 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 23 | C | 24 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 25 | A | 26 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 27 | B | 28 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 29 | C | 30 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 31 | A | 32 | 20 | 3 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 33 | B | 34 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 35 | C | 36 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 37 | A | 38 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 39 | B | 40 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 41 | C | 42 | 20 | 1 | | SPARE | 0.0 | | | | | |

**PANEL NOTES:**
1. ADJUST ALL CONDUCTOR SIZES FOR VOLTAGE DROP PER SPECIFICATIONS.
2. CIRCUIT TO BE CONTROLLED BY BAS. COORDINATE WITH CONTROLS CONTRACTOR.
3.
4.
5.
6.

| | CONN. | DEM. |
|---|---|---|
| TOTAL KVA | 9.0 | 9.0 |
| TOTAL AMPS | 10.8 | 10.8 |

PANEL NO.: **H1** | BUS AMPS: **250A** | FED FROM: **DSB** | INTEGRAL SPD: **NONE**
PHASES: **3** | MAIN TYPE: **MLO** | MOUNTING: **SURFACE** | LOCATION: **ELECTRICAL ROOM**
VOLTS **480V** | AIC RATING: **25,580 MINIMUM** | PANEL TYPE: **LIGHTING AND APPLIANCE** | USAGE: **BRANCH CIRCUIT**

| CIRCUIT SETS | WIRE | NEUT. | GND. | CND. | LOAD AMPS. | DESCRIPTION | NOTES | BREAKER POLE | AMP. | CKT. # | | CKT. # | AMP. | BREAKER POLE | NOTES | DESCRIPTION | LOAD AMPS. | CIRCUIT SETS | WIRE | NEUT. | GND. | CND. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | #12 | #12 | #12 | 3/4" | 0.7 | LTS - STAIR #2 | | 1 | 20 | 1 | A | 2 | 20 | 1 | | LTS - 121 | 3.2 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 0.7 | LTS - ELEV SHAFT | | 1 | 20 | 3 | B | 4 | 20 | 1 | | LTS - 122, 123 | 3.7 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 1.8 | LTS - CORRIDOR 101, 120 | | 1 | 20 | 5 | C | 6 | 20 | 1 | | LTS - 123A, 124 | 3.2 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 0.4 | LTS - 118,134-136, 119A-H | | 1 | 20 | 7 | A | 8 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 1.5 | LTS - 116, 117, 117A-F | | 1 | 20 | 9 | B | 10 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 3.9 | LTS - 132, 133 | | 1 | 20 | 11 | C | 12 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 1.4 | LTS - 130, 130A/B, 131 | | 1 | 20 | 13 | A | 14 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 3.4 | LTS - 128, 129 | | 1 | 20 | 15 | B | 16 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 5.0 | LTS - 125, 126, 127 | | 1 | 20 | 17 | C | 18 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 19 | A | 20 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 21 | B | 22 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 23 | C | 24 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 25 | A | 26 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 27 | B | 28 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 29 | C | 30 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 31 | A | 32 | 20 | 3 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 33 | B | 34 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 35 | C | 36 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 37 | A | 38 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 39 | B | 40 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 41 | C | 42 | 20 | 1 | | SPARE | 0.0 | | | | | |

**PANEL NOTES:**
1. ADJUST ALL CONDUCTOR SIZES FOR VOLTAGE DROP PER SPECIFICATIONS.
2.
3.
4.
5.
6.

| | CONN. | DEM. |
|---|---|---|
| TOTAL KVA | 7.0 | 7.0 |
| TOTAL AMPS | 8.4 | 8.4 |

PANEL NO.: **H2** | BUS AMPS: **250A** | FED FROM: **DSB** | INTEGRAL SPD: **NONE**
PHASES: **3** | MAIN TYPE: **MLO** | MOUNTING: **SURFACE** | LOCATION: **ELECTRICAL ROOM**
VOLTS **480V** | AIC RATING: **22,999 MINIMUM** | PANEL TYPE: **LIGHTING AND APPLIANCE** | USAGE: **BRANCH CIRCUIT**

| CIRCUIT SETS | WIRE | NEUT. | GND. | CND. | LOAD AMPS. | DESCRIPTION | NOTES | BREAKER POLE | AMP. | CKT. # | | CKT. # | AMP. | BREAKER POLE | NOTES | DESCRIPTION | LOAD AMPS. | CIRCUIT SETS | WIRE | NEUT. | GND. | CND. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | #12 | #12 | #12 | 3/4" | 5.5 | LTS - COMMONS 115 | | 1 | 20 | 1 | A | 2 | 20 | 1 | | LTS - 219, 221A, 239-242 | 1.9 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 5.2 | LTS - COMMONS 115 CORRIDOR | | 1 | 20 | 3 | B | 4 | 20 | 1 | | LTS - 221, 222 | 3.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 3.9 | LTS - 210-216 | | 1 | 20 | 5 | C | 6 | 20 | 1 | | LS - 223, 224 | 4.4 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 3.3 | LTS - 217, 218, 234-238 | | 1 | 20 | 7 | A | 8 | 20 | 1 | | LTS - CORRIDOR 220 | 8.4 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 4.0 | LTS - 232, 233 | | 1 | 20 | 9 | B | 10 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 1.5 | LTS - 230, 230A/B, 231 | | 1 | 20 | 11 | C | 12 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 13 | A | 14 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 3.4 | LTS - 228, 229 | | 1 | 20 | 15 | B | 16 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 5.3 | LTS - 225, 226, 227 | | 1 | 20 | 17 | C | 18 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 19 | A | 20 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 21 | B | 22 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 23 | C | 24 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 25 | A | 26 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 27 | B | 28 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 29 | C | 30 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 31 | A | 32 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 33 | B | 34 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 35 | C | 36 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 37 | A | 38 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 39 | B | 40 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 41 | C | 42 | 20 | 1 | | SPARE | 0.0 | | | | | |

**PANEL NOTES:**
1. ADJUST ALL CONDUCTOR SIZES FOR VOLTAGE DROP PER SPECIFICATIONS.
2.
3.
4.
5.
6.

| | CONN. | DEM. |
|---|---|---|
| TOTAL KVA | 13.8 | 13.8 |
| TOTAL AMPS | 16.6 | 16.6 |

PANEL NO.: **HK** | BUS AMPS: **400A** | FED FROM: **DSB** | INTEGRAL SPD: **NONE**
PHASES: **3** | MAIN TYPE: **MLO** | MOUNTING: **SURFACE** | LOCATION: **ELECTRICAL ROOM**
VOLTS **480V** | AIC RATING: **31,465 MINIMUM** | PANEL TYPE: **LIGHTING AND APPLIANCE** | USAGE: **BRANCH CIRCUIT**

| CIRCUIT SETS | WIRE | NEUT. | GND. | CND. | LOAD AMPS. | DESCRIPTION | NOTES | BREAKER POLE | AMP. | CKT. # | | CKT. # | AMP. | BREAKER POLE | NOTES | DESCRIPTION | LOAD AMPS. | CIRCUIT SETS | WIRE | NEUT. | GND. | CND. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 0.0 | SPARE | | 1 | 20 | 1 | A | 2 | 40 | 3 | | ITEM 56 WAREWASHER | 27.0 | 1 | #8 | #8 | #10 | 3/4" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 3 | B | 4 | | | | | 27.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 5 | C | 6 | | | | | 27.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 7 | A | 8 | 30 | 3 | | ITEM 56 BOOSTER HEATER | 22.0 | 1 | #10 | #10 | #10 | 3/4" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 9 | B | 10 | | | | | 22.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 11 | C | 12 | | | | | 22.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 13 | A | 14 | 20 | 3 | | ITEM 15 DISPOSER | 2.2 | 1 | #12 | #12 | #12 | 3/4" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 15 | B | 16 | | | | | 2.2 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 17 | C | 18 | | | | | 2.2 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 19 | A | 20 | 20 | 3 | | ITEM 54 DISPOSER | 3.7 | 1 | #12 | #12 | #12 | 3/4" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 21 | B | 22 | | | | | 3.7 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 23 | C | 24 | | | | | 3.7 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 25 | A | 26 | 35 | 3 | | ITEM 24F MAU FAN CIRCUIT | 30.5 | 1 | #8 | #8 | #10 | 3/4" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 27 | B | 28 | | | | | 30.5 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 29 | C | 30 | | | | | 30.5 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 31 | A | 32 | 90 | 3 | | ITEM 24F MAU HEATER CIRCUIT | 72.2 | 1 | #3 | #3 | #8 | 1-1/4" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 33 | B | 34 | | | | | 72.2 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 7.6 | EF-C15E | | 3 | 20 | 35 | C | 36 | | | | | 72.2 | | | | | |
| | | | | | 7.6 | (SHP) | | | | 37 | A | 38 | 20 | 3 | | ITEM 24E EXHAUST FAN | 4.6 | 1 | #12 | #12 | #12 | 3/4" |
| | | | | | 7.6 | | | | | 39 | B | 40 | | | | | 4.6 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 14.0 | RTU-KITCHEN | | 3 | 20 | 41 | C | 42 | | | | | 4.6 | | | | | |
| | | | | | 14.0 | | | | | 43 | A | 44 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 14.0 | | | | | 45 | B | 46 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #2/0 | #2/0 | #6 | 2" | 114.5 | ITEM 25 UDS 480V CONNECTION | | 3 | 175 | 47 | C | 48 | 125 | 3 | | PANEL LK1 VIA XFMR | 80.8 | 1 | #1 | - | #6 | 1-1/2" |
| | | | | | 114.5 | | | | | 49 | A | 50 | | | | | 77.0 | | | | | |
| | | | | | 114.5 | | | | | 51 | B | 52 | | | | | 69.5 | | | | | |

**PANEL NOTES:**
1. ADJUST ALL CONDUCTOR SIZES FOR VOLTAGE DROP PER SPECIFICATIONS.
2.
3.
4.
5.
6.

| | CONN. | DEM. |
|---|---|---|
| TOTAL KVA | 336.0 | 261.7 |
| TOTAL AMPS | 404.2 | 314.7 |

## GENERAL NOTES (NEW WORK)

1. ALL PANELS ARE TO HAVE SEPARATE NEUTRAL AND EQUIPMENT GROUNDING BUSES.
2. ALL TERMINATIONS ON PANELS SHALL HAVE DUAL RATED 60/75C LUGS.
3. CIRCUIT AND CONDUIT SIZES ARE BASED UPON COPPER CONDUCTORS.
4. WHERE "SPARE" IS INDICATED IN PANEL SCHEDULES, PROVIDE COMPLETE OPERATIONAL SPARE BREAKER. WHERE NO SIZE IS INDICATED, PROVIDE 20A, 1-POLE BREAKER.

| | |
|---|---|
| DSB | H1 |
| H0 | H2 |
| | HK |


QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

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ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

COMMONWEALTH OF VIRGINIA
NEAL A. CRAMER
Lic. No. 41825
10/08/2024
PROFESSIONAL ENGINEER


Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: NAC | DRAWN BY: AMH

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

PANEL SCHEDULES

**E701**

PATH & FILENAME: C:\Users\BethanyB\Documents\Revit Files\19168_E23_ACPS HS Center II_Elect_BethanyB.rvt
PLOTTING DATE & TIME: 10/2/2024 12:28:11 PM

## L0

PANEL NO.: L0 | BUS AMPS: 100A | FED FROM: 30 | INTEGRAL SPD: NONE
PHASES: 3 | MAIN CB AMPS: 100A | MOUNTING: SURFACE | LOCATION: ELECTRICAL ROOM
VOLTS 208V | AIC RATING: 10,000 MINIMUM | PANEL TYPE: LIGHTING AND APPLIANCE | USAGE: BRANCH CIRCUIT

| CIRCUIT SETS | WIRE | NEUT. | GND. | CND. | LOAD AMPS. | DESCRIPTION | NOTES | BREAKER POLE | AMP. | CKT. # | CKT. # | BREAKER AMP. | POLE | NOTES | DESCRIPTION | LOAD AMPS. | CIRCUIT SETS | WIRE | NEUT. | GND. | CND. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECEP - 001 | | 1 | 20 | 1 A | 2 | 20 | 1 | | SE-1 | 9.8 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 3.0 | RECEP - 001 | | 1 | 20 | 3 B | 4 | 15 | 2 | | HWRP-1 | 7.6 | 1 | #12 | - | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 9.8 | DRY PIPE COMPRESSOR | 2 | 1 | 20 | 5 C | 6 | | | | | 7.6 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 8.3 | CLEAN AGENT/PREACTION PNL PWR | 2 | 1 | 20 | 7 A | 8 | 15 | 2 | | FAN COIL - STR 1, 001 | 6.3 | 1 | #12 | - | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 3.0 | WATER METER POWER | | 1 | 20 | 9 B | 10 | | | | | 6.3 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 8.3 | SOLID SEPARATOR | | 1 | 20 | 11 C | 12 | 20 | 1 | | GENERATOR 2 BATTER CHARGER | 10.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 4.2 | DWH SYSTEM CONTROL POWER | | 1 | 20 | 13 A | 14 | 20 | 1 | | GENERATOR 2 HEATER | 10.4 | 1 | #12 | #12 | #12 | 3/4" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 15 B | 16 | 70 | 2 | | GENERATOR 1 LOAD CENTER | 50.0 | 1 | #4 | #4 | #8 | 1" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 17 C | 18 | | | | | 50.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 19 A | 20 | 20 | 1 | | BAS CONTROL POWER - 001 | 10.0 | 1 | #12 | #12 | #12 | 3/4" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 21 B | 22 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | 13 | 1 | 20 | 23 C | 24 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 25 A | 26 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 27 B | 28 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 29 C | 30 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 31 A | 32 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 33 B | 34 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 35 C | 36 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 37 A | 38 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 39 B | 40 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 41 C | 42 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 43 A | 44 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 45 B | 46 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 47 C | 48 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 49 A | 50 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 51 B | 52 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 53 C | 54 | 20 | 1 | | SPARE | 0.0 | | | | | |

**PANEL NOTES:**
1. ADJUST ALL CONDUCTOR SIZES FOR VOLTAGE DROP PER SPECIFICATIONS.
2. PROVIDE LOCKING TAB FOR BREAKER.
3.
4.
5.
6.

| | CONN. | DEM. |
|---|---|---|
| TOTAL KVA | 23.1 | 23.1 |
| TOTAL AMPS | 64.0 | 64.0 |

## L1B

PANEL NO.: L1B | BUS AMPS: 225A | FED FROM: LDP1 | INTEGRAL SPD: NONE
PHASES: 3 | MAIN TYPE: MLO | MOUNTING: SURFACE | LOCATION: ELECTRICAL ROOM
VOLTS 208V | AIC RATING: 13,368 MINIMUM | PANEL TYPE: LIGHTING AND APPLIANCE | USAGE: BRANCH CIRCUIT

| CIRCUIT SETS | WIRE | NEUT. | GND. | CND. | LOAD AMPS. | DESCRIPTION | NOTES | BREAKER POLE | AMP. | CKT. # | CKT. # | BREAKER AMP. | POLE | NOTES | DESCRIPTION | LOAD AMPS. | CIRCUIT SETS | WIRE | NEUT. | GND. | CND. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | RECEP 125 | | 1 | 20 | 1 A | 2 | 20 | 1 | | RECEP - 132 | 7.5 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECEP 125 | | 1 | 20 | 3 B | 4 | 20 | 1 | | RECEP - 132 | 7.5 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 3.0 | RECEP 125 | | 1 | 20 | 5 C | 6 | 20 | 1 | | RECEP - 132 | 6.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECEP 125 | | 1 | 20 | 7 A | 8 | 20 | 1 | | RECEP - 133 | 9.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 5.9 | RECEP - 126, EF-CHEM | | 1 | 20 | 9 B | 10 | 20 | 1 | | RECEP - 133 | 3.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 9.0 | RECEP - 126 | | 1 | 20 | 11 C | 12 | 20 | 1 | | RECEP - 133 | 4.5 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 8.0 | RECEP - REFRIGERATOR 126 | | 1 | 20 | 13 A | 14 | 20 | 1 | | RECEP - 133 | 3.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 9.0 | RECEP - 125 | | 1 | 20 | 15 B | 16 | 20 | 1 | | RECEP - 133 | 3.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 9.0 | RECEP - 125 | | 1 | 20 | 17 C | 18 | 20 | 1 | | RECEP - 133 | 3.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 9.0 | RECEP - 125 | | 1 | 20 | 19 A | 20 | 20 | 1 | | RECEP - 116, 134 | 9.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 9.0 | RECEP - 127 | | 1 | 20 | 21 B | 22 | 20 | 1 | | RECEP - 120 | 5.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECEP - 127 | | 1 | 20 | 23 C | 24 | 20 | 1 | | RECEP - 130 DISHWASHER | 10.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | RECEP - 127 | | 1 | 20 | 25 A | 26 | 20 | 1 | | RECEP - 126 DISHWASHER | 10.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 127 | | 1 | 20 | 27 B | 28 | 15 | 2 | | FAN COILS - 133, 132 | 8.4 | 1 | #12 | - | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 127 | | 1 | 20 | 29 C | 30 | | | | | 8.4 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 127 | | 1 | 20 | 31 A | 32 | 15 | 2 | | FAN COILS - 134, 130, 130B, 118, 120 | 7.5 | 1 | #12 | - | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 10.5 | RECEP - 128 | | 1 | 20 | 33 B | 34 | | | | | 5.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 128 | | 1 | 20 | 35 C | 36 | 15 | 2 | | FAN COILS - 129, 128 | 8.4 | 1 | #12 | - | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 10.5 | RECEP - 129 | | 1 | 20 | 37 A | 38 | | | | | 8.4 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 129 | | 1 | 20 | 39 B | 40 | 15 | 2 | | FAN COILS - 127, 125 | 8.4 | 1 | #12 | - | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 130, 130A | | 1 | 20 | 41 C | 42 | | | | | 8.4 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 12.5 | RECEP - COPIER 130 | | 1 | 20 | 43 A | 44 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 45 B | 46 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 8.0 | RECEP - REFRIGERATOR 130 | | 1 | 20 | 47 C | 48 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 12.5 | RECEP - MICROWAVE 130 | | 1 | 20 | 49 A | 50 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECEP - 130 | | 1 | 20 | 51 B | 52 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 10.5 | RECEP - 130B | | 1 | 20 | 53 C | 54 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 1.5 | RECEP - 155 | | 1 | 20 | 55 A | 56 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 3.4 | EF-ELEC-135 | | 1 | 15 | 57 B | 58 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 4.0 | NAC PNL | 2 | 1 | 20 | 59 C | 60 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 61 A | 62 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 63 B | 64 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 65 C | 66 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 67 A | 68 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 69 B | 70 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 71 C | 72 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 73 A | 74 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 75 B | 76 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 77 C | 78 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 79 A | 80 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 81 B | 82 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 83 C | 84 | 20 | 1 | | SPARE | 0.0 | | | | | |

**PANEL NOTES:**
1. ADJUST ALL CONDUCTOR SIZES FOR VOLTAGE DROP PER SPECIFICATIONS.
2. PROVIDE LOCKING TAB FOR BREAKER.
3.
4.
5.
6.

| | CONN. | DEM. |
|---|---|---|
| TOTAL KVA | 40.7 | 29.1 |
| TOTAL AMPS | 113.0 | 80.7 |

## L1A

PANEL NO.: L1A | BUS AMPS: 225A | FED FROM: LDP1 | INTEGRAL SPD: NONE
PHASES: 3 | MAIN TYPE: MLO | MOUNTING: SURFACE | LOCATION: ELECTRICAL ROOM
VOLTS 208V | AIC RATING: 13,368 MINIMUM | PANEL TYPE: LIGHTING AND APPLIANCE | USAGE: BRANCH CIRCUIT

| CIRCUIT SETS | WIRE | NEUT. | GND. | CND. | LOAD AMPS. | DESCRIPTION | NOTES | BREAKER POLE | AMP. | CKT. # | CKT. # | BREAKER AMP. | POLE | NOTES | DESCRIPTION | LOAD AMPS. | CIRCUIT SETS | WIRE | NEUT. | GND. | CND. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | #12 | #12 | #12 | 3/4" | 9.0 | RECEP - 124 | | 1 | 20 | 1 A | 2 | 20 | 1 | | RECEP - 120 | 7.5 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECEP - 124 | | 1 | 20 | 3 B | 4 | 20 | 1 | | RECEP - 120 | 6.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 3.0 | RECEP - 124 | | 1 | 20 | 5 C | 6 | 20 | 1 | | RECEP - 120, 137 | 7.5 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | EXT RECEP | | 1 | 20 | 7 A | 8 | 20 | 1 | | RECEP - 120 EWC | 7.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 124 | | 1 | 20 | 9 B | 10 | 20 | 1 | | RECEP - 136, 120 | 4.5 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 124 | | 1 | 20 | 11 C | 12 | 20 | 1 | | SP-1 | 9.8 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 124 | | 1 | 20 | 13 A | 14 | 20 | 1 | | RECEP - ELEV PIT | 6.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 10.0 | RECEP 124 LASER CUTTER | | 1 | 20 | 15 B | 16 | 20 | 1 | | RECEP - 119, 119G, 119H, EWC | 10.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 10.0 | RECEP - 123A | | 1 | 20 | 17 C | 18 | 20 | 1 | | RECEP - 131 | 8.3 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 10.0 | RECEP - 123A | | 1 | 20 | 19 A | 20 | 20 | 1 | | RECEP - 131 | 8.3 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 10.0 | RECEP - 123A | | 1 | 20 | 21 B | 22 | 20 | 1 | | RECEP - 131 | 8.3 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 10.0 | RECEP - 123A | | 1 | 20 | 23 C | 24 | 20 | 1 | | RECEP - 131 | 8.3 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 10.0 | RECEP - 123A | | 1 | 20 | 25 A | 26 | 20 | 1 | | RECEP - 131 | 8.3 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | RECEP - 123 | | 1 | 20 | 27 B | 28 | 20 | 1 | | RECEP - 131 | 4.2 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 123 | | 1 | 20 | 29 C | 30 | 20 | 1 | | RECEP - 131 | 4.2 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECEP - 123 | | 1 | 20 | 31 A | 32 | 20 | 1 | | OVERHEAD DOOR - 124 | 9.8 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 123 | | 1 | 20 | 33 B | 34 | 20 | 1 | | OVERHEAD DOOR - 123 | 9.8 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 123 | | 1 | 20 | 35 C | 36 | 15 | 1 | | FAN COIL - 131 | 1.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 123 | | 1 | 20 | 37 A | 38 | 15 | 2 | | FAN COILS - 119, 138, 139, 120, STR | 5.5 | 1 | #12 | - | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 9.0 | RECEP - 122 | | 1 | 20 | 39 B | 40 | | | | | 4.6 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | WIREMOLD RECEP - 122 | | 1 | 20 | 41 C | 42 | 15 | 2 | | FAN COILS 122, 123 | 8.4 | 1 | #12 | - | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | WIREMOLD RECEP - 122 | | 1 | 20 | 43 A | 44 | | | | | 8.4 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | WIREMOLD RECEP - 122 | | 1 | 20 | 45 B | 46 | 15 | 2 | | FAN COILS - 124, 123A, 126 | 7.8 | 1 | #12 | - | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 124 | | 1 | 20 | 47 C | 48 | | | | | 7.8 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 124 | | 1 | 20 | 49 A | 50 | 20 | 1 | | RECEP - 120, 138, 139 | 9.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 122 | | 1 | 20 | 51 B | 52 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 53 C | 54 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 55 A | 56 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 57 B | 58 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 59 C | 60 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 61 A | 62 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 63 B | 64 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 65 C | 66 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 67 A | 68 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 69 B | 70 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 71 C | 72 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 73 A | 74 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 75 B | 76 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 77 C | 78 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 79 A | 80 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 81 B | 82 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 83 C | 84 | 20 | 1 | | SPARE | 0.0 | | | | | |

**PANEL NOTES:**
1. ADJUST ALL CONDUCTOR SIZES FOR VOLTAGE DROP PER SPECIFICATIONS.
2.
3.
4.
5.
6.

| | CONN. | DEM. |
|---|---|---|
| TOTAL KVA | 43.5 | 30.8 |
| TOTAL AMPS | 120.7 | 85.4 |

## L1C

PANEL NO.: L1C | BUS AMPS: 600A | FED FROM: LDP1 | INTEGRAL SPD: NONE
PHASES: 3 | MAIN TYPE: MLO | MOUNTING: SURFACE | LOCATION: ELECTRICAL ROOM
VOLTS 208V | AIC RATING: 10,315 MINIMUM | PANEL TYPE: LIGHTING AND APPLIANCE | USAGE: BRANCH CIRCUIT

| CIRCUIT SETS | WIRE | NEUT. | GND. | CND. | LOAD AMPS. | DESCRIPTION | NOTES | BREAKER POLE | AMP. | CKT. # | CKT. # | BREAKER AMP. | POLE | NOTES | DESCRIPTION | LOAD AMPS. | CIRCUIT SETS | WIRE | NEUT. | GND. | CND. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | #12 | #12 | #12 | 3/4" | 7.0 | LTS - ADMIN AREA, 102-107, 115A/B | | 1 | 20 | 1 A | 2 | 15 | 2 | | FAN COIL UNITS - CLINIC AREA | 9.7 | 1 | #12 | - | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 5.1 | LTS - CLINIC AREA, 108 - 114, VESTIBULE | | 1 | 20 | 3 B | 4 | | | | | 9.7 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 5 C | 6 | 15 | 2 | | FAN COIL UNITS - ADMIN AREA | 11.2 | 1 | #12 | - | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | RECEP 114 | | 1 | 20 | 7 A | 8 | | | | | 10.2 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 3.0 | RECEP 114 | | 1 | 20 | 9 B | 10 | 15 | 1 | | FC-12WM-115B | 1.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | RECEP 112 | | 1 | 20 | 11 C | 12 | 20 | 1 | | MOTORIZED DOOR - 100 | 8.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | RECEP 110, 111 | | 1 | 20 | 13 A | 14 | 20 | 1 | | MOTORIZED DOOR - VEST | 8.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 9.0 | RECEP 113, 101, 101A, EXT. | | 1 | 20 | 15 B | 16 | 20 | 2 | | AC-1 | 4.1 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP 109 | | 1 | 20 | 17 C | 18 | | | | | 4.1 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 9.0 | RECEP 109 | | 1 | 20 | 19 A | 20 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 12.5 | RECEP MICROWAVE 109 | | 1 | 20 | 21 B | 22 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 2.5 | RECEP 108, 108A | | 1 | 20 | 23 C | 24 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 10.0 | RECEP 108 ICE MAKER | | 1 | 20 | 25 A | 26 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | RECEP 105 | | 1 | 20 | 27 B | 28 | 20 | 1 | 3 | PLBG HEAT TRACE - CLINIC AREA | 0.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 9.0 | RECEP 104, 102A | | 1 | 20 | 29 C | 30 | 20 | 1 | 3 | PLBG HEAT TRACE - ADMIN AREA | 0.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 9.0 | RECEP 103, 102A | | 1 | 20 | 31 A | 32 | 50 | 2 | | CIRCUIT FOR EV CHARGER | 40.0 | 1 | #6 | #6 | #10 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | RECEP 106 | | 1 | 20 | 33 B | 34 | | | | | 40.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 9.0 | RECEP 101, 107A, 115 | | 1 | 20 | 35 C | 36 | 50 | 2 | | CIRCUIT FOR EV CHARGER | 40.0 | 1 | #6 | #6 | #10 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 12.5 | RECEP 107 COPIER | | 1 | 20 | 37 A | 38 | | | | | 40.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 8.0 | RECEP 107 REFRIGERATOR | | 1 | 20 | 39 B | 40 | 50 | 2 | | CIRCUIT FOR EV CHARGER | 40.0 | 1 | #6 | #6 | #10 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 12.5 | RECEP 107 MICROWAVE | | 1 | 20 | 41 C | 42 | | | | | 40.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECEP 107 | | 1 | 20 | 43 A | 44 | 50 | 2 | | CIRCUIT FOR EV CHARGER | 40.0 | 1 | #6 | #6 | #10 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 3.0 | RECEP 107 | | 1 | 20 | 45 B | 46 | | | | | 40.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP 102 | | 1 | 20 | 47 C | 48 | 50 | 2 | | CIRCUIT FOR EV CHARGER | 40.0 | 1 | #6 | #6 | #10 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECEP 102 | | 1 | 20 | 49 A | 50 | | | | | 40.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 4.2 | RECEP 115, AV | | 1 | 20 | 51 B | 52 | 50 | 2 | | CIRCUIT FOR EV CHARGER | 40.0 | 1 | #6 | #6 | #10 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 9.0 | FACP | 2 | 1 | 20 | 53 C | 54 | | | | | 40.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 3.0 | RECEP - 106 | | 1 | 20 | 55 A | 56 | 50 | 2 | | CIRCUIT FOR EV CHARGER | 40.0 | 1 | #6 | #6 | #10 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 8.3 | RECEP - 115 FLAT PANEL DISPLAY | | 1 | 20 | 57 B | 58 | | | | | 40.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 8.3 | RECEP - 115 FLAT PANEL DISPLAY | | 1 | 20 | 59 C | 60 | 50 | 2 | | CIRCUIT FOR EV CHARGER | 40.0 | 1 | #6 | #6 | #10 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 2.1 | RECEP - 115, AV | | 1 | 20 | 61 A | 62 | | | | | 40.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 4.2 | RECEP - 115, AV | | 1 | 20 | 63 B | 64 | 50 | 2 | | CIRCUIT FOR EV CHARGER | 40.0 | 1 | #6 | #6 | #10 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 8.3 | RECEP - 115B AV RACK | | 1 | 20 | 65 C | 66 | | | | | 40.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 8.3 | RECEP - 115B AV RACK | | 1 | 20 | 67 A | 68 | 50 | 2 | | CIRCUIT FOR EV CHARGER | 40.0 | 1 | #6 | #6 | #10 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 10.0 | RECEP - 115A, (2) CDPs | | 1 | 20 | 69 B | 70 | | | | | 40.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 71 C | 72 | 50 | 2 | | CIRCUIT FOR EV CHARGER | 40.0 | 1 | #6 | #6 | #10 | 3/4" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 73 A | 74 | | | | | 40.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 75 B | 76 | 50 | 2 | | CIRCUIT FOR EV CHARGER | 40.0 | 1 | #6 | #6 | #10 | 3/4" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 77 C | 78 | | | | | 40.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 79 A | 80 | 60 | 3 | | DWH-2 | 41.6 | 1 | #6 | #6 | #10 | 1" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 81 B | 82 | | | | | 41.6 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 83 C | 84 | | | | | 41.6 | | | | | |

**PANEL NOTES:**
1. ADJUST ALL CONDUCTOR SIZES FOR VOLTAGE DROP PER SPECIFICATIONS.
2. PROVIDE LOCKING TAB FOR BREAKER.
3. PROVIDE 30 mA GF BREAKER FOR HEAT TRACE.
4.
5.
6.

| | CONN. | DEM. |
|---|---|---|
| TOTAL KVA | 151.4 | 143.0 |
| TOTAL AMPS | 420.3 | 396.8 |

## GENERAL NOTES (NEW WORK)

1. ALL PANELS ARE TO HAVE SEPARATE NEUTRAL AND EQUIPMENT GROUNDING BUSES.
2. ALL TERMINATIONS ON PANELS SHALL HAVE DUAL RATED 60/75C LUGS.
3. CIRCUIT AND CONDUIT SIZES ARE BASED UPON COPPER CONDUCTORS.
4. WHERE "SPARE" IS INDICATED IN PANEL SCHEDULES, PROVIDE COMPLETE OPERATIONAL SPARE BREAKER. WHERE NO SIZE IS INDICATED, PROVIDE 20A, 1-POLE BREAKER.


QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com

COMMONWEALTH OF VIRGINIA
NEAL A. CRAMER
Lic. No. 41825
10/08/2024
PROFESSIONAL ENGINEER

Albemarle County Public Schools


**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: NAC | DRAWN BY: AMH

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

PANEL SCHEDULES

# E702

| | |
|---|---|
| L0 | L1B |
| L1A | L1C |
| | |

PATH & FILENAME: C:\Users\BethanyB\Documents\Revit Files\19168_E23_ACPS HS Center II_Elect_BethanyB.rvt
PLOTTING DATE & TIME: 10/2/2024

## L2A

PANEL NO.: L2A | BUS AMPS: 225A | FED FROM: LDP2 | INTEGRAL SPD: NONE
PHASES: 3 | MAIN TYPE: MLO | MOUNTING: SURFACE | LOCATION: ELECTRICAL ROOM
VOLTS 208V | AIC RATING: 10,701 MINIMUM | PANEL TYPE: LIGHTING AND APPLIANCE | USAGE: BRANCH CIRCUIT

| CIRCUIT | | | | | LOAD | DESCRIPTION | NOTES | BREAKER | | CKT. | CKT. | BREAKER | | NOTES | DESCRIPTION | LOAD | CIRCUIT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SETS | WIRE | NEUT. | GND. | CND. | AMPS. | | | POLE | AMP. | # | # | AMP. | POLE | | | AMPS. | SETS | WIRE | NEUT. | GND. | CND. |
| 1 | #12 | #12 | #12 | 3/4" | 10.0 | RECEP DISHWASHER 226 | | 1 | 20 | 1 | A 2 | 20 | 1 | | RECEP - 232 | 6.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 8.0 | RECEP 226 REFRIGERATOR | | 1 | 20 | 3 | B 4 | 20 | 1 | | RECEP - 232 | 9.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 8.3 | FUME HOOD 227 | | 1 | 20 | 5 | C 6 | 20 | 1 | | RECEP - 232 | 6.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 5.9 | RECEP - 227, EF-CHEM | | 1 | 20 | 7 | A 8 | 20 | 1 | | RECEP - 233 | 10.5 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECEP - 227 | | 1 | 20 | 9 | B 10 | 20 | 1 | | RECEP - 233 | 3.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | RECEP - 225 | | 1 | 20 | 11 | C 12 | 20 | 1 | | RECEP - 233 | 4.5 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECEP - 225 | | 1 | 20 | 13 | A 14 | 20 | 1 | | RECEP - 233 | 6.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 3.0 | RECEP - 225 | | 1 | 20 | 15 | B 16 | 20 | 1 | | RECEP - 233 | 6.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 3.0 | RECEP - 225 | | 1 | 20 | 17 | C 18 | 20 | 1 | | RECEP - 233 | 6.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 225 | | 1 | 20 | 19 | A 20 | 20 | 1 | | RECEP - 220 | 4.5 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 225 | | 1 | 20 | 21 | B 22 | 20 | 1 | | RECEP - 231 | 8.3 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 225 | | 1 | 20 | 23 | C 24 | 20 | 1 | | RECEP - 231 | 8.3 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 9.0 | RECEP - 227 | | 1 | 20 | 25 | A 26 | 20 | 1 | | RECEP - 231 | 8.3 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECP - 227 | | 1 | 20 | 27 | B 28 | 20 | 1 | | RECEP - 231 | 8.3 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 3.0 | RECEP - 227 | | 1 | 20 | 29 | C 30 | 20 | 1 | | RECEP - 231 | 8.3 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 3.0 | RECEP - 227 | | 1 | 20 | 31 | A 32 | 20 | 1 | | RECEP - 231 | 4.2 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 10.5 | RECEP - 228 | | 1 | 20 | 33 | B 34 | 20 | 1 | | RECEP - 231 | 4.2 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 228 | | 1 | 20 | 35 | C 36 | 20 | 1 | | ELEVATOR CAB 1 LIGHTS | 3.3 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 10.5 | RECEP - 229 | | 1 | 20 | 37 | A 38 | 20 | 1 | | ELEVATOR CAB 2 LIGHTS | 3.3 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 4.0 | RECEP - 229 | | 1 | 20 | 39 | B 40 | 15 | 1 | | FAN COIL - 231 | 1.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 230, 230A | | 1 | 20 | 41 | C 42 | 20 | 2 | | FAN COILS 233 | 9.0 | 1 | #12 | - | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 12.5 | RECEP 230 COPIER | | 1 | 20 | 43 | A 44 | | | | | 9.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECEP - 230 | | 1 | 20 | 45 | B 46 | 15 | 2 | | FAN COILS - 232, 230, 230B | 8.2 | 1 | #12 | - | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 8.0 | RECEP - 230 REFRIGERATOR | | 1 | 20 | 47 | C 48 | | | | | 8.2 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 12.5 | RECEP 230 MICROWAVE | | 1 | 20 | 49 | A 50 | 15 | 2 | | FAN COILS - 229, 228 | 8.4 | 1 | #12 | - | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 10.5 | RECEP - 230B | | 1 | 20 | 51 | B 52 | | | | | 8.4 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 10.0 | RECEP - 230 DISHWASHER | | 1 | 20 | 53 | C 54 | 15 | 2 | | FAN COILS - 227, 225 | 8.4 | 1 | #12 | - | #12 | 3/4" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 55 | A 56 | | | | | 8.4 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 57 | B 58 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 59 | C 60 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 61 | A 62 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 63 | B 64 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 65 | C 66 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 67 | A 68 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 69 | B 70 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 71 | C 72 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 73 | A 74 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 75 | B 76 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 77 | C 78 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 79 | A 80 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 81 | B 82 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 83 | C 84 | 20 | 1 | | SPARE | 0.0 | | | | | |

**PANEL NOTES:**
1. ADJUST ALL CONDUCTOR SIZES FOR VOLTAGE DROP PER SPECIFICATIONS.
2.
3.
4.
5.
6.

| | CONN. | DEM. |
|---|---|---|
| TOTAL KVA | 43.8 | 31.4 |
| TOTAL AMPS | 121.7 | 87.2 |

## L2C

PANEL NO.: L2C | BUS AMPS: 225A | FED FROM: LDP2 | INTEGRAL SPD: NONE
PHASES: 3 | MAIN TYPE: MLO | MOUNTING: SURFACE | LOCATION: ELECTRICAL ROOM
VOLTS 208V | AIC RATING: 10,000 MINIMUM | PANEL TYPE: LIGHTING AND APPLIANCE | USAGE: BRANCH CIRCUIT

| CIRCUIT | | | | | LOAD | DESCRIPTION | NOTES | BREAKER | | CKT. | CKT. | BREAKER | | NOTES | DESCRIPTION | LOAD | CIRCUIT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SETS | WIRE | NEUT. | GND. | CND. | AMPS. | | | POLE | AMP. | # | # | AMP. | POLE | | | AMPS. | SETS | WIRE | NEUT. | GND. | CND. |
| 1 | #12 | #12 | #12 | 3/4" | 11.0 | MOTORIZED SHADES | | 1 | 20 | 1 | A 2 | 20 | 1 | | RECEP - 221A | 10.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 8.8 | MOTORIZED SHADES | | 1 | 20 | 3 | B 4 | 20 | 1 | | RECEP - 221A | 10.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 9.0 | RECEP - 210 | | 1 | 20 | 5 | C 6 | 20 | 1 | | RECEP - 221A | 10.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.3 | RECEP - 238, 220, 210A EWC | | 1 | 20 | 7 | A 8 | 20 | 1 | | RECEP - 221A | 10.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | RECEP - 211 | | 1 | 20 | 9 | B 10 | 20 | 1 | | RECEP - 221A | 10.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 9.0 | RECEP - 212, 215 | | 1 | 20 | 11 | C 12 | 20 | 1 | | RECEP - 219 | 9.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 216 | | 1 | 20 | 13 | A 14 | 20 | 1 | | RECEP - 213 | 6.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | RECEP - 235 | | 1 | 20 | 15 | B 16 | 20 | 1 | | RECEP - 214 | 6.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECEP - 235 | | 1 | 20 | 17 | C 18 | 20 | 1 | | MOTORIZED SHADES | 11.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECEP - 235 | | 1 | 20 | 19 | A 20 | 20 | 1 | | MOTORIZED SHADES | 8.8 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 0.0 | RECEP - 235 | | 1 | 20 | 21 | B 22 | 20 | 1 | | MOTORIZED SHADES | 6.6 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 235 | | 1 | 20 | 23 | C 24 | 20 | 1 | | MOTORIZED SHADES | 6.6 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 235 | | 1 | 20 | 25 | A 26 | 20 | 1 | | RECEP - 214 | 3.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 235 | | 1 | 20 | 27 | B 28 | 15 | 2 | | FAN COILS - 214, 211, 213, 212, 216 | 6.4 | 1 | #12 | - | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 235, 235A, EXTERIOR | | 1 | 20 | 29 | C 30 | | | | | 6.4 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 9.0 | RECEP - 220, 239 | | 1 | 20 | 31 | A 32 | 15 | 2 | | FAN COILS - STR, 235, 220 | 7.2 | 1 | #12 | - | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | RECEP - 220, 242 | | 1 | 20 | 33 | B 34 | | | | | 7.2 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 8.5 | RECEP - 220, 220 EWC | | 1 | 20 | 35 | C 36 | 15 | 2 | | FAN COILS - 210, 219 | 7.5 | 1 | #12 | - | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 3.0 | RECEP - 219 | | 1 | 20 | 37 | A 38 | | | | | 7.5 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 217, 218, 236, 237 | | 1 | 20 | 39 | B 40 | 15 | 2 | | FAN COILS - 221A, 240, 239, 220, STR | 8.8 | 1 | #12 | - | #12 | 3/4" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 41 | C 42 | | | | | 8.8 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 43 | A 44 | 20 | 1 | | RECEP_COP - 240, 241 | 4.5 | 1 | #12 | #12 | #12 | 3/4" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 45 | B 46 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 47 | C 48 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 49 | A 50 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 51 | B 52 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 53 | C 54 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 55 | A 56 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 57 | B 58 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 59 | C 60 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 61 | A 62 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 63 | B 64 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 65 | C 66 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 67 | A 68 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 69 | B 70 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 71 | C 72 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 73 | A 74 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 75 | B 76 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 77 | C 78 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 79 | A 80 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 81 | B 82 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 83 | C 84 | 20 | 1 | | SPARE | 0.0 | | | | | |

**PANEL NOTES:**
1. ADJUST ALL CONDUCTOR SIZES FOR VOLTAGE DROP PER SPECIFICATIONS.
2.
3.
4.
5.
6.

| | CONN. | DEM. |
|---|---|---|
| TOTAL KVA | 35.5 | 28.1 |
| TOTAL AMPS | 98.4 | 78.0 |

## L2B

PANEL NO.: L2B | BUS AMPS: 225A | FED FROM: LDP2 | INTEGRAL SPD: NONE
PHASES: 3 | MAIN TYPE: MLO | MOUNTING: SURFACE | LOCATION: ELECTRICAL ROOM
VOLTS 208V | AIC RATING: 10,701 MINIMUM | PANEL TYPE: LIGHTING AND APPLIANCE | USAGE: BRANCH CIRCUIT

| CIRCUIT | | | | | LOAD | DESCRIPTION | NOTES | BREAKER | | CKT. | CKT. | BREAKER | | NOTES | DESCRIPTION | LOAD | CIRCUIT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SETS | WIRE | NEUT. | GND. | CND. | AMPS. | | | POLE | AMP. | # | # | AMP. | POLE | | | AMPS. | SETS | WIRE | NEUT. | GND. | CND. |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | RECEP - 221 | | 1 | 20 | 1 | A 2 | 15 | 2 | | FAN COILS - 224, 223 | 8.4 | 1 | #12 | - | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | WIREMOLD 221 | | 1 | 20 | 3 | B 4 | | | | | 8.4 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | WIREMOLD 221 | | 1 | 20 | 5 | C 6 | 20 | 2 | | FAN COILS - 221, 222 | 9.0 | 1 | #12 | - | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | WIREMOLD 221 | | 1 | 20 | 7 | A 8 | | | | | 9.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | WIREMOLD 221 | | 1 | 20 | 9 | B 10 | 20 | 1 | | RECEP - ROOF | 6.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | WIREMOLD 221 | | 1 | 20 | 11 | C 12 | 20 | 1 | | EF-UTILITY | 5.8 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | WIREMOLD 221 | | 1 | 20 | 13 | A 14 | 20 | 1 | | EF-FAB1 | 5.8 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | WIREMOLD 221 | | 1 | 20 | 15 | B 16 | 20 | 1 | | EF-FAB2 | 5.8 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | WIREMOLD 221 | | 1 | 20 | 17 | C 18 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | WIREMOLD 221 | | 1 | 20 | 19 | A 20 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | RECEP - 222 | | 1 | 20 | 21 | B 22 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | RECEP - 222 | | 1 | 20 | 23 | C 24 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 222 | | 1 | 20 | 25 | A 26 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | RECEP - 223 | | 1 | 20 | 27 | B 28 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 223 | | 1 | 20 | 29 | C 30 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 223 | | 1 | 20 | 31 | A 32 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 223 | | 1 | 20 | 33 | B 34 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | RECEP - 224 | | 1 | 20 | 35 | C 36 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 224, 224A | | 1 | 20 | 37 | A 38 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECEP - 224 | | 1 | 20 | 39 | B 40 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 224 | | 1 | 20 | 41 | C 42 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 224 | | 1 | 20 | 43 | A 44 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 224 | | 1 | 20 | 45 | B 46 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 220 | | 1 | 20 | 47 | C 48 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 3.4 | EF-ELEC-245A | | 1 | 15 | 49 | A 50 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 4.0 | NAC PNL | 2 | 1 | 20 | 51 | B 52 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | RECEP - 220 | | 1 | 20 | 53 | C 54 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 55 | A 56 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 57 | B 58 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 59 | C 60 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 61 | A 62 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 63 | B 64 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 65 | C 66 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 67 | A 68 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 69 | B 70 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 71 | C 72 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 73 | A 74 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 75 | B 76 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 77 | C 78 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 79 | A 80 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 81 | B 82 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 83 | C 84 | 20 | 1 | | SPARE | 0.0 | | | | | |

**PANEL NOTES:**
1. ADJUST ALL CONDUCTOR SIZES FOR VOLTAGE DROP PER SPECIFICATIONS.
2. PROVIDE LOCKING TAB FOR BREAKER.
3.
4.
5.
6.

| | CONN. | DEM. |
|---|---|---|
| TOTAL KVA | 26.2 | 21.4 |
| TOTAL AMPS | 72.8 | 59.4 |

## LDC

PANEL NO.: LDC | BUS AMPS: 600A | FED FROM: 150 | INTEGRAL SPD: 120 kA/PHASE
PHASES: 3 | MAIN CB AMPS: 600A | MOUNTING: SURFACE | LOCATION: ELECTRICAL ROOM
VOLTS 208V | AIC RATING: 10,409 MINIMUM | PANEL TYPE: POWER DISTRIBUTION | USAGE: BRANCH CIRCUIT

| CIRCUIT | | | | | LOAD | DESCRIPTION | NOTES | BREAKER | | CKT. | CKT. | BREAKER | | NOTES | DESCRIPTION | LOAD | CIRCUIT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SETS | WIRE | NEUT. | GND. | CND. | AMPS. | | | POLE | AMP. | # | # | AMP. | POLE | | | AMPS. | SETS | WIRE | NEUT. | GND. | CND. |
| 1 | #3 | #3 | #8 | 1-1/4" | 69.2 | CRAC-1 | | | 3 | 90 | 1 A 2 | 20 | 1 | | LTS DATA CENTER | 4.8 | 1 | #12 | #12 | #12 | 3/4" |
| | | | | | 69.2 | | | | | | 3 B 4 | 15 | 2 | | FAN COIL - 002 | 1.0 | 1 | #12 | - | #12 | 3/4" |
| | | | | | 69.2 | | | | | | 5 C 6 | | | | | 1.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 11.6 | CU-1 | | | 3 | 20 | 7 A 8 | 30 | 2 | | NEMA 6-30 RECEP | 24.0 | 1 | #10 | #10 | #10 | 3/4" |
| | | | | | 11.6 | | | | | | 9 B 10 | | | | | 24.0 | | | | | |
| 1 | #10 | #10 | #10 | 3/4" | 24.0 | NEMA 6-30 RECEP | | | 2 | 30 | 11 C 12 | 30 | 2 | | NEMA 6-30 RECEP | 24.0 | 1 | #10 | #10 | #10 | 3/4" |
| | | | | | 24.0 | | | | | | 13 A 14 | | | | | 24.0 | | | | | |
| 1 | #10 | #10 | #10 | 3/4" | 24.0 | NEMA 6-30 RECEP | | | 2 | 30 | 15 B 16 | 30 | 2 | | NEMA 6-30 RECEP | 24.0 | 1 | #10 | #10 | #10 | 3/4" |
| | | | | | 24.0 | | | | | | 17 C 18 | | | | | 24.0 | | | | | |
| 1 | #10 | #10 | #10 | 3/4" | 24.0 | NEMA 6-30 RECEP | | | 2 | 30 | 19 A 20 | 30 | 2 | | NEMA 6-30 RECEP | 24.0 | 1 | #10 | #10 | #10 | 3/4" |
| | | | | | 24.0 | | | | | | 21 B 22 | | | | | 24.0 | | | | | |
| 1 | #10 | #10 | #10 | 3/4" | 24.0 | NEMA 6-30 RECEP | | | 2 | 30 | 23 C 24 | 90 | 3 | | CRAC-2 | 69.2 | 1 | #3 | #3 | #8 | 1-1/4" |
| | | | | | 24.0 | | | | | | 25 A 26 | | | | | 69.2 | | | | | |
| | | | | | 24.0 | | | | | | 27 B 28 | | | | | 69.2 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 3.0 | RECEP - 004 | | | 1 | 20 | 29 C 30 | 20 | 3 | | CU-2 | 11.6 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 3.0 | RECEP - 004 | | | 1 | 20 | 31 A 32 | | | | | 11.6 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 3.0 | RECEP - 004 | | | 1 | 20 | 33 B 34 | | | | | 11.6 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 3.0 | RECEP - 004 | | | 1 | 20 | 35 C 36 | 20 | 1 | | RECEP - 004 | 3.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 3.0 | RECEP - 004 | | | 1 | 20 | 37 A 38 | 20 | 1 | | RECEP - 005 | 9.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 3.0 | RECEP - 004 | | | 1 | 20 | 39 B 40 | 20 | 1 | | RECEP, EF-003 | 2.3 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 3.0 | RECEP - 004 | | | 1 | 20 | 41 C 42 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | | 1 | 20 | 43 A 44 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | | 1 | 20 | 45 B 46 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | | 1 | 20 | 47 C 48 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | | 1 | 20 | 49 A 50 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | | 1 | 20 | 51 B 52 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | | 1 | 20 | 53 C 54 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #4/0 | #4/0 | #4 | 2-1/2" | 41.6 | SUB-FEED BREAKER FOR UPS | 2 | 3 | 225 | | A | 225 | 1 | 2 | SUB-FEED BREAKER FOR UPS | 41.6 | 1 | #4/0 | #4/0 | #4 | 2" |
| | | | | | 41.6 | | | | | | B | | 1 | | | 41.6 | | | | | |
| | | | | | 41.6 | | | | | | C | | 1 | | | 41.6 | | | | | |

**PANEL NOTES:**
1. ADJUST ALL CONDUCTOR SIZES FOR VOLTAGE DROP PER SPECIFICATIONS.
2. PROVIDE SUB-FEED BREAKER.
3. PROVIDE BREAKER FOR SPD AS REQUIRED.
4.
5.
6.

| | CONN. | DEM. |
|---|---|---|
| TOTAL KVA | 133.2 | 116.1 |
| TOTAL AMPS | 369.7 | 322.3 |

# GENERAL NOTES (NEW WORK)

1. ALL PANELS ARE TO HAVE SEPARATE NEUTRAL AND EQUIPMENT GROUNDING BUSES.
2. ALL TERMINATIONS ON PANELS SHALL HAVE DUAL RATED 60/75C LUGS.
3. CIRCUIT AND CONDUIT SIZES ARE BASED UPON COPPER CONDUCTORS.
4. WHERE "SPARE" IS INDICATED IN PANEL SCHEDULES, PROVIDE COMPLETE OPERATIONAL SPARE BREAKER. WHERE NO SIZE IS INDICATED, PROVIDE 20A, 1-POLE BREAKER.


QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com


COMMONWEALTH OF VIRGINIA
NEAL A. CRAMER
Lic. No. 41825
10/08/2024
PROFESSIONAL ENGINEER


Albemarle County Public Schools


**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: NAC | DRAWN BY: AMH

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

PANEL SCHEDULES

**E703**

| | |
|---|---|
| L2A | L2C |
| L2B | LDC |
| | |

PATH & FILENAME: C:\Users\Bethany.Bird\Documents\Revit Files\19168_E23_ACPS HS Center II_Elect_BethanyB.rvt
PLOTTING DATE & TIME: 10/2/2024 12:28:24 PM

PANEL NO.: **LDP1** | BUS AMPS: **800A** | FED FROM: **225** | INTEGRAL SPD: **NONE**
PHASES: **3** | MAIN CB AMPS: **800A** | MAIN CIRCUIT BREAKER IS RATED | MOUNTING: **SURFACE** | LOCATION: **ELECTRICAL ROOM**
VOLTS **208V** | AIC RATING: **17,262 MINIMUM** | **AT 100% MINIMUM** | PANEL TYPE: **POWER DISTRIBUTION** | USAGE: **DISTRIBUTION**

| CIRCUIT | | | | | LOAD | DESCRIPTION | NOTES | BREAKER | | | | BREAKER | | NOTES | DESCRIPTION | LOAD | CIRCUIT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SETS | WIRE | NEUT. | GND. | COND. | AMPS. | | | POLE | AMP. | | | AMP. | POLE | | | AMPS. | SETS | WIRE | NEUT. | GND. | COND. |
| 1 | #4/0 | #4/0 | #4 | 2-1/2" | 95.1 | PANEL L1A | | 3 | 225 | 1 | A 2 | 400 | 3 | 2 | PANEL LK2 | 249.2 | 2 | #3/0 | #3/0 | #2 | 2" |
| | | | | | 84.9 | | | | | | B | | | | | 210.2 | | | | | |
| | | | | | 76.2 | | | | | | C | | | | | 220.0 | | | | | |
| 1 | #4/0 | #4/0 | #4 | 2-1/2" | 94.0 | PANELL L1B | | 3 | 225 | 3 | A 4 | 100 | 3 | | SPARE | 0.0 | | | | | |
| | | | | | 68.7 | | | | | | B | | | | | 0.0 | | | | | |
| | | | | | 79.4 | | | | | | C | | | | | 0.0 | | | | | |
| 2 | #4/0 | #4/0 | #1/0 | 2-1/2" | 404.9 | PANLE L1C | | 3 | 600 | 5 | A 6 | 100 | 3 | | SPARE | 0.0 | | | | | |
| | | | | | 390.8 | | | | | | B | | | | | 0.0 | | | | | |
| | | | | | 394.8 | | | | | | C | | | | | 0.0 | | | | | |
| | | | | | 0.0 | SPACE | | 3 | | 7 | A 8 | | 3 | | SPACE | 0.0 | | | | | |
| | | | | | 0.0 | SPACE | | | | | B | | | | SPACE | 0.0 | | | | | |
| | | | | | 0.0 | SPACE | | | | | C | | | | SPACE | 0.0 | | | | | |
| | | | | | 0.0 | SPACE | | 3 | | 9 | A 10 | | 3 | | SPACE | 0.0 | | | | | |
| | | | | | 0.0 | SPACE | | | | | B | | | | SPACE | 0.0 | | | | | |
| | | | | | 0.0 | SPACE | | | | | C | | | | SPACE | 0.0 | | | | | |
| | | | | | 0.0 | SPACE | | 3 | | 11 | A 12 | | 3 | | SPACE | 0.0 | | | | | |
| | | | | | 0.0 | | | | | | B | | | | | 0.0 | | | | | |
| | | | | | 0.0 | | | | | | C | | | | | 0.0 | | | | | |

| LOAD SUMMARY | CON. KVA | % | DEM. KVA |
|---|---|---|---|
| RECEPTACLES | 134.784 | code | 72.392 |
| MOTORS | 19.3808 | 100% | 19.3808 |
| LIGHTS (INT.) | 1.449 | 100% | 1.449 |
| LIGHTS (EXT.) | 0 | 100% | 0 |
| HVAC (HEAT) | 0 | 100% | 0 |
| HVAC (COOL) | 1.4976 | 100% | 1.4976 |
| VENTILATION | 6.0008 | 100% | 6.0008 |
| KITCHEN | 63.1352 | 65% | 41.03788 |
| EMERGENCY | 0 | 100% | 0 |
| MISC. | 127.64 | 100% | 127.64 |
| FUTURE | 0 | 100% | 0 |
| OTHER | 0 | 100% | 0 |
| TRACK | 0 | 100% | 0 |
| LARGEST MTR | 0 | 25% | 0 |
| TOTAL KVA | 354 KVA | | 269 KVA |
| TOTAL AMPS | 982 AMPS | | 748 AMPS |

**PANEL NOTES:**
1. ADJUST ALL CONDUCTOR SIZES FOR VOLTAGE DROP PER SPECIFICATIONS.
2. PROVIDE SUB-METERING FOR PANEL/FEEDER AT THE BREAKER.
3.
4.
5.
6.

PANEL NO.: **LDP2** | BUS AMPS: **600A** | FED FROM: **150** | INTEGRAL SPD: **NONE**
PHASES: **3** | MAIN CB AMPS: **600A** | MOUNTING: **SURFACE** | LOCATION: **ELECTRICAL ROOM**
VOLTS **208V** | AIC RATING: **11,534 MINIMUM** | PANEL TYPE: **POWER DISTRIBUTION** | USAGE: **DISTRIBUTION**

| CIRCUIT | | | | | LOAD | DESCRIPTION | NOTES | BREAKER | | | | BREAKER | | NOTES | DESCRIPTION | LOAD | CIRCUIT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SETS | WIRE | NEUT. | GND. | COND. | AMPS. | | | POLE | AMP. | | | AMP. | POLE | | | AMPS. | SETS | WIRE | NEUT. | GND. | COND. |
| 1 | #4/0 | #4/0 | #4 | 2-1/2" | 99.6 | PANEL L2A | | 3 | 225 | 1 | A 2 | 225 | 3 | | PANEL L2C | 79.9 | 1 | #4/0 | #4/0 | #4 | 2-1/2" |
| | | | | | 78.6 | | | | | | B | | | | | 75.5 | | | | | |
| | | | | | 83.4 | | | | | | C | | | | | 78.6 | | | | | |
| 1 | #4/0 | #4/0 | #4 | 2-1/2" | 60.2 | PANEL L2B | | 3 | 225 | 3 | A 4 | 225 | 3 | | SPARE | 0.0 | | | | | |
| | | | | | 59.2 | | | | | | B | | | | | 0.0 | | | | | |
| | | | | | 58.8 | | | | | | C | | | | | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 3 | 100 | 5 | A 6 | | 3 | | SPACE | 0.0 | | | | | |
| | | | | | 0.0 | | | | | | B | | | | | 0.0 | | | | | |
| | | | | | 0.0 | | | | | | C | | | | | 0.0 | | | | | |
| | | | | | 0.0 | SPACE | | 3 | | 7 | A 8 | | 3 | | SPACE | 0.0 | | | | | |
| | | | | | 0.0 | | | | | | B | | | | | 0.0 | | | | | |
| | | | | | 0.0 | | | | | | C | | | | | 0.0 | | | | | |

| LOAD SUMMARY | CON. KVA | % | DEM. KVA |
|---|---|---|---|
| RECEPTACLES | 79.21 | code | 44.605 |
| MOTORS | 17.4384 | 100% | 17.4384 |
| LIGHTS (INT.) | 0.8 | 100% | 0.8 |
| LIGHTS (EXT.) | 0 | 100% | 0 |
| HVAC (HEAT) | 0 | 100% | 0 |
| HVAC (COOL) | 0 | 100% | 0 |
| VENTILATION | 2.088 | 100% | 2.088 |
| KITCHEN | 0 | 65% | 0 |
| EMERGENCY | 0 | 100% | 0 |
| MISC. | 5.986 | 100% | 5.986 |
| FUTURE | 0 | 100% | 0 |
| OTHER | 0 | 100% | 0 |
| TRACK | 0 | 100% | 0 |
| LARGEST MTR | 0 | 25% | 0 |
| TOTAL KVA | 106 KVA | | 71 KVA |
| TOTAL AMPS | 293 AMPS | | 197 AMPS |

**PANEL NOTES:**
1. ADJUST ALL CONDUCTOR SIZES FOR VOLTAGE DROP PER SPECIFICATIONS.
2.
3.
4.
5.
6.

PANEL NO.: **LK1** | BUS AMPS: **225A** | FED FROM: **75** | INTEGRAL SPD: **NONE**
PHASES: **3** | MAIN CB AMPS: **225A** | MAIN CIRCUIT BREAKER IS RATED | MOUNTING: **SURFACE** | LOCATION: **ELECTRICAL ROOM**
VOLTS **208V** | AIC RATING: **10,000 MINIMUM** | **AT 100% MINIMUM** | PANEL TYPE: **LIGHTING AND APPLIANCE** | USAGE: **BRANCH CIRCUIT**

| CIRCUIT | | | | | LOAD | DESCRIPTION | NOTES | BREAKER | | CKT. | | CKT. | BREAKER | | NOTES | DESCRIPTION | LOAD | CIRCUIT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SETS | WIRE | NEUT. | GND. | CND. | AMPS. | | | POLE | AMP. | # | | # | AMP. | POLE | | | AMPS. | SETS | WIRE | NEUT. | GND. | CND. |
| 1 | #12 | #12 | #12 | 3/4" | 8.0 | ITEM 1A WALK-IN COOLER | | 1 | 20 | 1 | A | 2 | 50 | 3 | | ITEM 25 UDS 120/208V CONNECTION | 40.0 | 1 | #6 | #6 | #10 | 1" |
| 1 | #12 | #12 | #12 | 3/4" | 1.6 | ITEM 1B WALK-IN COOLER | | 1 | 20 | 3 | B | 4 | | | | | 40.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 12.0 | ITEM 2A WALK-IN FREEZER | | 1 | 20 | 5 | C | 6 | | | | | 40.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 12.0 | ITEM 13 HAND SINK WITH ELEC EYE | | 1 | 20 | 7 | A | 8 | 20 | 3 | | ITEM 2C WALK-IN FREEZER COND UNIT | 9.6 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 12.0 | ITEM 13 HAND SINK WITH ELEC EYE | | 1 | 20 | 9 | B | 10 | | | | | 9.6 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 12.0 | ITEM 17 CAN OPENER | | 1 | 20 | 11 | C | 12 | | | | | 9.6 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 7.0 | ITEM 18 FOOD PROCESSOR | | 1 | 20 | 13 | A | 14 | 20 | 3 | | ITEM 1C WALK-IN COOLER COND UNIT | 5.2 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 16.0 | ITEM 22 WORK TABLE | | 1 | 20 | 15 | B | 16 | | | | | 5.2 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 12.0 | ITEM 23 WORK TABLE | | 1 | 20 | 17 | C | 18 | | | | | 5.2 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 12.0 | ITEM 24A EXHAUST HOOD | | 1 | 20 | 19 | A | 20 | 20 | 2 | | ITEM 2B WALK-IN FREEZER COOLER (2) | 10.8 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 12.0 | ITEM 24C HOOD SUPPRESSION | | 1 | 20 | 21 | B | 22 | | | | | 10.8 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 12.0 | ITEM 24D HOOD CONTROL PANEL | | 1 | 20 | 23 | C | 24 | 30 | 2 | | ITEM 20 HOT WATER DISPENSER | 24.0 | 1 | #10 | #10 | #10 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 16.0 | ITEM 30 WORK TABLE | | 1 | 20 | 25 | A | 26 | | | | | 24.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 12.0 | ITEM 23 WORK TABLE | | 1 | 20 | 27 | B | 28 | 20 | 2 | | ITEM 37 MERCHANDISER | 12.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 12.0 | ITEM 32 WORK TABLE | | 1 | 20 | 29 | C | 30 | | | | | 12.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.5 | ITEM 35 PASS-THRU REFRIGERATOR | | 1 | 20 | 31 | A | 32 | 20 | 2 | | ITEM 37 MERCHANDISER | 12.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.5 | ITEM 35 PASS-THRU REFRIGERATOR | | 1 | 20 | 33 | B | 34 | | | | | 12.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 16.0 | ITEM 14 PREP TABLE | | 1 | 20 | 35 | C | 36 | 20 | 2 | | ITEM 34 HEATED PASS-THRU | 10.5 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP 117A | | 1 | 20 | 37 | A | 38 | | | | | 10.5 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 10.0 | ITEM 43 PLAIN TOP COUNTER | | 1 | 20 | 39 | B | 40 | 20 | 2 | | ITEM 34 HEATED PASS-THRU | 10.5 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 10.0 | ITEM 43 PLAIN TOP COUNTER | | 1 | 20 | 41 | C | 42 | | | | | 10.5 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 5.3 | ITEM 44 COLD COUNTER | | 1 | 20 | 43 | A | 44 | 20 | 2 | | ITEM 39 SERVING COUNTER | 12.4 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 3.5 | ITEM 46 ICE CREAM FREEZER | | 1 | 20 | 45 | B | 46 | | | | | 12.4 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 10.0 | ITEM 47 CASHIER COUNTER | | 1 | 20 | 47 | C | 48 | 20 | 2 | | ITEM 39 SERVING COUNTER | 12.4 | 1 | #12 | #12 | #12 | 3/4" |
| #12 | #12 | #12 | 3/4" | 6.3 | ITEM 59 WAREWASH EXHAUST FAN | | 1 | 20 | 49 | A | 50 | | | | | 12.4 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 12.5 | ITEM 64 WASHER | | 1 | 20 | 51 | B | 52 | 20 | 2 | | ITEM 41 HOT/COLD FOOD COUNTER | 12.4 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 7.9 | ITEM 68 ICE MAKER | | 1 | 20 | 53 | C | 54 | | | | | 12.4 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECEP 117B, 117 | | 1 | 20 | 55 | A | 56 | 20 | 2 | | ITEM 41 HOT/COLD FOOD COUNTER | 12.4 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECEP 117, 117C, 117E | | 1 | 20 | 57 | B | 58 | | | | | 12.4 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECEP 116 | | 1 | 20 | 59 | C | 60 | 30 | 2 | | ITEM 65 DRYER | 24.0 | 1 | #10 | #10 | #10 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 7.6 | OVERHEAD DOOR - 116 | | 1 | 15 | 61 | A | 62 | | | | | 24.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 7.5 | RECEP - 115 | | 1 | 20 | 63 | B | 64 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 115 | | 1 | 20 | 65 | C | 66 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 67 | A | 68 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 69 | B | 70 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 71 | C | 72 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 73 | A | 74 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 75 | B | 76 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 77 | C | 78 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 79 | A | 80 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 81 | B | 82 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 83 | C | 84 | 20 | 1 | | SPARE | 0.0 | | | | | |

**PANEL NOTES:**
1. ADJUST ALL CONDUCTOR SIZES FOR VOLTAGE DROP PER SPECIFICATIONS.
2.
3.
4.
5.
6.

| | CONN. | DEM. |
|---|---|---|
| TOTAL KVA | 88.1 | 63.0 |
| TOTAL AMPS | 244.5 | 174.9 |

PANEL NO.: **LK2** | BUS AMPS: **400A** | FED FROM: **LDP1** | INTEGRAL SPD: **NONE**
PHASES: **3** | MAIN TYPE: **MLO** | MOUNTING: **SURFACE** | LOCATION: **CULINARY LAB 121**
VOLTS **208V** | AIC RATING: **11,858 MINIMUM** | PANEL TYPE: **LIGHTING AND APPLIANCE** | USAGE: **BRANCH CIRCUIT**

| CIRCUIT | | | | | LOAD | DESCRIPTION | NOTES | BREAKER | | CKT. | | CKT. | BREAKER | | NOTES | DESCRIPTION | LOAD | CIRCUIT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SETS | WIRE | NEUT. | GND. | CND. | AMPS. | | | POLE | AMP. | # | | # | AMP. | POLE | | | AMPS. | SETS | WIRE | NEUT. | GND. | CND. |
| 1 | #12 | #12 | #12 | 3/4" | 16.0 | RECEP - ITEM C11 | | 1 | 20 | 1 | A | 2 | 90 | 3 | | ITEM C16 - INDUCTION RANGE | 66.4 | 1 | #3 | #3 | #8 | 1-1/4" |
| 1 | #12 | #12 | #12 | 3/4" | 16.0 | RECEP - ITEM C11 | | 1 | 20 | 3 | B | 4 | | | | | 66.4 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 16.0 | RECEP - ITEM C11 | | 1 | 20 | 5 | C | 6 | | | | | 66.4 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 16.0 | RECEP - ITEM C11 | | 1 | 20 | 7 | A | 8 | 90 | 3 | | ITEM C16 - INDUCTION RANGE | 66.4 | 1 | #3 | #3 | #8 | 1-1/4" |
| 1 | #12 | #12 | #12 | 3/4" | 16.0 | RECEP - ITEM C11 | | 1 | 20 | 9 | B | 10 | | | | | 66.4 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 16.0 | RECEP - ITEM C11 | | 1 | 20 | 11 | C | 12 | | | | | 66.4 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 16.0 | RECEP - ITEM C11 | | 1 | 20 | 13 | A | 14 | 45 | 2 | | ITEM C21 - WAREWASHER | 33.7 | 1 | #6 | #6 | #10 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 16.0 | RECEP - ITEM C11 | | 1 | 20 | 15 | B | 16 | | | | | 33.7 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 16.0 | RECEP - ITEM C11 | | 1 | 20 | 17 | C | 18 | 45 | 2 | | ITEM C21 - WAREWASHER | 33.7 | 1 | #6 | #6 | #10 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 16.0 | RECEP - ITEM C11 | | 1 | 20 | 19 | A | 20 | | 2 | | | 33.7 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 12.0 | RECEP - ITEM C12 | | 1 | 20 | 21 | B | 22 | 20 | 1 | | ITEM C4 - ICE MAKER | 12.2 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 12.0 | RECEP - ITEM C13 | | 1 | 20 | 23 | C | 24 | 20 | 1 | | ITEM C26 - AIR SCREEN | 12.6 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 16.0 | RECEP - ITEM C10 | | 1 | 20 | 25 | A | 26 | 20 | 1 | | ITEM C17 - GAS RANGE (3) | 0.3 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 16.0 | RECEP - ITEM C10 | | 1 | 20 | 27 | B | 28 | 20 | 1 | | SPARE | 0.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 16.0 | RECEP - ITEM C1 | | 1 | 20 | 29 | C | 30 | 40 | 2 | | ITEM C23 - STACKED WASHER/DRYER | 24.0 | 1 | #8 | #8 | #10 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 16.0 | RECEP - ITEM C3 | | 1 | 20 | 31 | A | 32 | | 2 | | | 24.0 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 12.0 | RECEP - ITEM C8 | | 1 | 20 | 33 | B | 34 | 20 | 1 | | ITEM C15A - EXHAUST HOOD | 13.8 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 12.0 | RECEP - ITEM C8 | | 1 | 20 | 35 | C | 36 | 20 | 1 | | ITEM C15C - FIRE SUPPRESSION SYS | 12.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 12.0 | RECEP - ITEM C8 | | 1 | 20 | 37 | A | 38 | 20 | 1 | | ITEM C15D - FAN CONTROL PANEL | 12.0 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - ITEM C6 | | 1 | 20 | 39 | B | 40 | 20 | 3 | | ITEM C15F - MAU FAN | 10.1 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - ITEM C6 | | 1 | 20 | 41 | C | 42 | | | | | 10.1 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 10.0 | RECEP - ITEM C7 | | 1 | 20 | 43 | A | 44 | | | | | 10.1 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 10.0 | RECEP - ITEM C27 | | 1 | 20 | 45 | B | 46 | 20 | 2 | | FC-12 | 3.6 | 1 | #12 | #12 | #12 | 3/4" |
| 1 | #12 | #12 | #12 | 3/4" | 4.5 | RECEP - 121 | | 1 | 20 | 47 | C | 48 | | | | | 3.6 | | | | | |
| 1 | #12 | #12 | #12 | 3/4" | 6.0 | RECEP - 121 AV | | 1 | 20 | 49 | A | 50 | 20 | 2 | | FC-12 | 3.6 | 1 | #12 | #12 | #12 | 3/4" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 51 | B | 52 | | | | | 3.6 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 53 | C | 54 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 55 | A | 56 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 57 | B | 58 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 59 | C | 60 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 61 | A | 62 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 63 | B | 64 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 65 | C | 66 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 67 | A | 68 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 69 | B | 70 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 71 | C | 72 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 73 | A | 74 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 75 | B | 76 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 77 | C | 78 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 79 | A | 80 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 81 | B | 82 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 83 | C | 84 | 20 | 1 | | SPARE | 0.0 | | | | | |

**PANEL NOTES:**
1. ADJUST ALL CONDUCTOR SIZES FOR VOLTAGE DROP PER SPECIFICATIONS.
2.
3.
4.
5.
6.

| | CONN. | DEM. |
|---|---|---|
| TOTAL KVA | 118.3 | 81.6 |
| TOTAL AMPS | 328.3 | 226.5 |

## GENERAL NOTES (NEW WORK)

1. ALL PANELS ARE TO HAVE SEPARATE NEUTRAL AND EQUIPMENT GROUNDING BUSES.
2. ALL TERMINATIONS ON PANELS SHALL HAVE DUAL RATED 60/75C LUGS.
3. CIRCUIT AND CONDUIT SIZES ARE BASED UPON COPPER CONDUCTORS.
4. WHERE "SPARE" IS INDICATED IN PANEL SCHEDULES, PROVIDE COMPLETE OPERATIONAL SPARE BREAKER. WHERE NO SIZE IS INDICATED, PROVIDE 20A, 1-POLE BREAKER.

| | |
|---|---|
| LDP1 | LK2 |
| LDP2 | |
| LK1 | |


QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com


COMMONWEALTH OF VIRGINIA
NEAL A. CRAMER
Lic. No. 41825
10/08/2024
PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd,
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: NAC | DRAWN BY: AMH

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

PANEL SCHEDULES

**E704**

PATH & FILENAME: C:\Users\BethanyB\Documents\Revit Files\19168_E23_ACPS HS Center II_Elect_BethanyB.rvt
PLOTTING DATE & TIME: 10/2/2024 12:28:39 PM

PANEL NO.: **M0** | BUS AMPS: **400A** | FED FROM: **DSB** | INTEGRAL SPD: **NONE**
PHASES: **3** | MAIN TYPE: **MLO** | MOUNTING: **SURFACE** | LOCATION: **ELECTRICAL ROOM**
VOLTS **480V** | AIC RATING: **41,961 MINIMUM** | PANEL TYPE: **LIGHTING AND APPLIANCE** | USAGE: **BRANCH CIRCUIT**

| CIRCUIT | | | | | LOAD | DESCRIPTION | NOTES | BREAKER | | CKT. | | CKT. | BREAKER | | NOTES | DESCRIPTION | LOAD | CIRCUIT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SETS | WIRE | NEUT. | GND. | CND. | AMPS. | | | POLE | AMP. | # | | # | AMP. | POLE | | | AMPS. | SETS | WIRE | NEUT. | GND. | CND. |
| 1 | #12 | - | #12 | 3/4" | 7.6 | HWP-1 | | 3 | 15 | 1 | A | 2 | 100 | 3 | | GSWP-1 | 52.0 | 1 | #3 | - | #8 | 1-1/4" |
| | | | | | 7.6 | (5 HP) | | | | 3 | B | 4 | | | | (40HP) | 52.0 | | | | | |
| | | | | | 7.6 | | | | | 5 | C | 6 | | | | | 52.0 | | | | | |
| 1 | #12 | - | #12 | 3/4" | 7.6 | HWP-2 | | 3 | 15 | 7 | A | 8 | 100 | 3 | | GSWP-2 | 52.0 | 1 | #3 | - | #8 | 1-1/4" |
| | | | | | 7.6 | (5HP) | | | | 9 | B | 10 | | | | (40HP) | 52.0 | | | | | |
| | | | | | 7.6 | | | | | 11 | C | 12 | | | | | 52.0 | | | | | |
| 1 | #10 | #10 | #10 | 3/4" | 14.8 | CRAC-3 | | 3 | 25 | 13 | A | 14 | 20 | 3 | | CHWP-1 | 11.0 | 1 | #12 | - | #12 | 3/4" |
| | | | | | 14.8 | | | | | 15 | B | 16 | | | | (7.5HP) | 14.0 | | | | | |
| | | | | | 14.8 | | | | | 17 | C | 18 | | | | | 14.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 19 | A | 20 | 25 | 3 | | CHWP-2 | 14.0 | 1 | #10 | - | #10 | 3/4" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 21 | B | 22 | | | | (7.5 HP) | 14.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 23 | C | 24 | | | | | 14.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 25 | A | 26 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 27 | B | 28 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 29 | C | 30 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 31 | A | 32 | 20 | 3 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 33 | B | 34 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 35 | C | 36 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 37 | A | 38 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 39 | B | 40 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 41 | C | 42 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 43 | A | 44 | 40 | 3 | | DST-3 | 28.9 | 1 | #8 | #8 | #10 | 3/4" |
| | | | | | 0.0 | SPARE | | 1 | 20 | 45 | B | 46 | | | | | 28.9 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 47 | C | 48 | | | | | 28.9 | | | | | |
| 1 | #8 | #8 | #10 | 3/4" | 25.0 | DWH-1B | | 3 | 40 | 49 | A | 50 | 40 | 3 | | DWH-1A | 25.0 | 1 | #8 | #8 | #10 | 3/4" |
| | | | | | 25.0 | | | | | 51 | B | 52 | | | | | 25.0 | | | | | |
| | | | | | 25.0 | | | | | 53 | C | 54 | | | | | 25.0 | | | | | |

**PANEL NOTES:**
1. ADJUST ALL CONDUCTOR SIZES FOR VOLTAGE DROP PER SPECIFICATIONS.
2.
3.
4.
5.
6.

| | CONN. | DEM. |
|---|---|---|
| TOTAL KVA | 199.3 | 199.3 |
| TOTAL AMPS | 239.8 | 239.8 |

PANEL NO.: **M2** | BUS AMPS: **250A** | FED FROM: **DSB** | INTEGRAL SPD: **NONE**
PHASES: **3** | MAIN TYPE: **MLO** | MOUNTING: **SURFACE** | LOCATION: **ELECTRICAL ROOM**
VOLTS **480V** | AIC RATING: **22,999 MINIMUM** | PANEL TYPE: **LIGHTING AND APPLIANCE** | USAGE: **BRANCH CIRCUIT**

| CIRCUIT | | | | | LOAD | DESCRIPTION | NOTES | BREAKER | | CKT. | | CKT. | BREAKER | | NOTES | DESCRIPTION | LOAD | CIRCUIT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SETS | WIRE | NEUT. | GND. | CND. | AMPS. | | | POLE | AMP. | # | | # | AMP. | POLE | | | AMPS. | SETS | WIRE | NEUT. | GND. | CND. |
| 1 | #6 | #6 | #10 | 1" | 45.9 | OAU-1 | | 3 | 60 | 1 | A | 2 | 80 | 3 | 2 | ELEVATOR 1 | 40.9 | 1 | #4 | - | #8 | 1-1/4" |
| | | | | | 45.9 | | | | | 3 | B | 4 | | | | (30 HP DESIGN) | 40.9 | | | | | |
| | | | | | 45.9 | | | | | 5 | C | 6 | | | | | 40.9 | | | | | |
| 1 | #10 | #10 | #10 | 3/4" | 19.0 | RTU-COMMONS | | 3 | 25 | 7 | A | 8 | 80 | 3 | | ELEVATOR 1 | 40.9 | 1 | #4 | - | #8 | 1-1/4" |
| | | | | | 19.0 | | | | | 9 | B | 10 | | | | (30 HP DESIGN) | 40.9 | | | | | |
| | | | | | 19.0 | | | | | 11 | C | 12 | | | | | 40.9 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 13 | A | 14 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 15 | B | 16 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 17 | C | 18 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 19 | A | 20 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 21 | B | 22 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 23 | C | 24 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 25 | A | 26 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 27 | B | 28 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 29 | C | 30 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 31 | A | 32 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 33 | B | 34 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 35 | C | 36 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 37 | A | 38 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 39 | B | 40 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 41 | C | 42 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 43 | A | 44 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 45 | B | 46 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 47 | C | 48 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 49 | A | 50 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 51 | B | 52 | 20 | 1 | | SPARE | 0.0 | | | | | |
| | | | | | 0.0 | SPARE | | 1 | 20 | 53 | C | 54 | 20 | 1 | | SPARE | 0.0 | | | | | |

**PANEL NOTES:**
1. ADJUST ALL CONDUCTOR SIZES FOR VOLTAGE DROP PER SPECIFICATIONS.
2. COORDINATE BREAKER AND CIRCUIT SIZE WITH ELEATOR SUPPLIED.
3.
4.
5.
6.

| | CONN. | DEM. |
|---|---|---|
| TOTAL KVA | 121.9 | 121.9 |
| TOTAL AMPS | 146.6 | 146.6 |

# GENERAL NOTES (NEW WORK)

1. ALL PANELS ARE TO HAVE SEPARATE NEUTRAL AND EQUIPMENT GROUNDING BUSES.
2. ALL TERMINATIONS ON PANELS SHALL HAVE DUAL RATED 60/75C LUGS.
3. CIRCUIT AND CONDUIT SIZES ARE BASED UPON COPPER CONDUCTORS.
4. WHERE "SPARE" IS INDICATED IN PANEL SCHEDULES, PROVIDE COMPLETE OPERATIONAL SPARE BREAKER. WHERE NO SIZE IS INDICATED, PROVIDE 20A, 1-POLE BREAKER.


QUINN EVANS
1840 WEST BROAD STREET
SUITE 400
RICHMOND, VA 23220
v 804.788.4774
QUINNEVANS.COM

2RW
ENERGY BY DESIGN
100 10th St. NE
Suite 202
Charlottesville, VA 22902
T: 434.296.2116 | 2RW.com


COMMONWEALTH OF VIRGINIA
NEAL A. CRAMER
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PROFESSIONAL ENGINEER

Albemarle County Public Schools

**NEW CONSTRUCTION HIGH SCHOOL CENTER II**

IFB No. 2025-IFB-1007262
STATE PROJECT NO. 002-88-01-100

Albemarle County Public Schools
2775 Hydraulic Rd.
Charlottesville, VA 22901

| No | Date | Description |
|---|---|---|

PROJECT MANAGER: NAC | DRAWN BY: AMH

QEA No.41911390/19168

BID DOCUMENTS
10/08/2024

PANEL SCHEDULES

**E705**

| | |
|---|---|
| | M0 |
| | M2 |
| | |

PATH & FILENAME: C:\Users\BethamP\Documents\Revit Files\19168_E23_ACPS HS Center II_Elect_BethanyB.rvt
PLOTTING DATE & TIME: 10/2/2024 12:28:34 PM