VANCLEAVE SCHOOLS HVAC UPGRADES

JACKSON COUNTY SCHOOL DISTRICT

LOWER ELEMENTARY, MIDDLE
& HIGH SCHOOLS

12602 HWY 57, 4725 BULLDOG LN & 12424 HWY 57
VANCLEAVE, MISSISSIPPI 39565

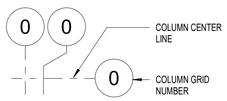
FEBRUARY 03, 2023
REV 0 - ISSUED FOR CONSTRUCTION

DESIGN GROUP
ARCHITECTURE + ENGINEERING
"Designed to Build"
918 Howard Ave Suite F
Biloxi, Mississippi 39530
P: 228.388.1950
www.mpdesigngroup.us

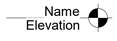
David J. Machado, PE
Brad P. Patano, PE
Gerrod W. Kilpatrick, PE
Bradford A. Jones, AIA
Fernanda A. Silva, AIA

GENERAL GRAPHIC LEGEND

SYMBOL-COLUMN GRID

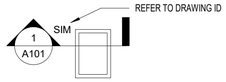


SYMBOL-FINISHED FLOOR ELEVATION

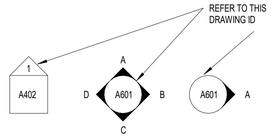


SYMBOL-SPOT ELEVATION

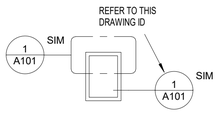
SYMBOL-BUILDING SECTION / WALL SECTION



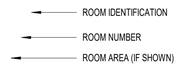
SYMBOL-EXTERIOR ELEVATION / INTERIOR ELEVATION



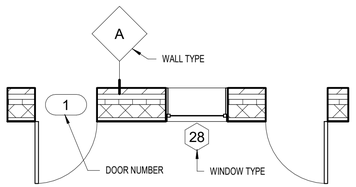
SYMBOL-DETAIL CALLOUT



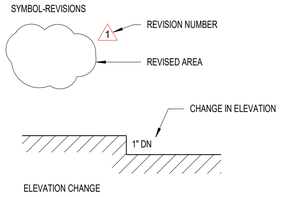
SYMBOL-ROOM TAG



SYMBOL-WALL / DOOR / WINDOW



SYMBOL-REVISIONS



ABBREVIATIONS INDEX

A

&	AND
@	AT
∠	ANGLE
A/C	AIR CONDITIONING
ACT	ACOUSTICAL CEILING TILE
ADDT'L	ADDITIONAL
ADJ	ADJUSTABLE
AF	ACCESS FLOORING
AFD	AUTOMATIC FIRE DAMPER
AFF	ABOVE FINISH FLOOR
ALUM	ALUMINUM
ALT	ALTERNATE
APPROX	APPROXIMATE
ARCH	ARCHITECT
ASF	ALUMINUM STORE FRONT

B

BTWN	BETWEEN
BIT	BITUMEN
BJ	BAR JOIST
BLDG	BUILDING
BLK	BLOCK
BLK'G	BLOCKING
BLT	BUILT
BM	BEAM
BO	BOTTOM OF
BR	BACKER ROD
BTWN	BETWEEN

C

CAP	CAPACITY
C/C	CENTER TO CENTER
CCTV	CLOSED CIRCUIT TELEVISION
CJ	CONTROL JOINT
CL	CLEAR
CLG	CEILING
CLO	CLOSET
CLR	COLOR
CMU	CONCRETE MASONRY UNIT
CONTR	CONTRACTOR
COL	COLUMN
COMP	COMPRESSION OR COMPRESSED
CONC	CONCRETE
COND	CONDENSATE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CPLNG	COUPLING
CPT	CARPET
CT	CERAMIC TILE
CTB	CERAMIC TILE BASE
CTR	CENTERS CENTER
CW	COLD WATER

D

DIA /	DIAMETER
DB	DRY BULB
DBL	DOUBLE
DEFL	DEFLECTION
DEPT	DEPARTMENT
DET/DTL	DETAIL
DISP	DISPENSER
DK	DARK
DN	DOWN
DP	DAMP PROOFING
DS	DOWNSPOUT
DWG(S)	DRAWING(S)

E

EA	EACH
EDF	ELECTRONIC DRINKING FOUNTAIN
EF	EXHAUST FAN
EFC	EACH FACE

E (CONT)

EJ	EXPANSION JOINT
ELEC	ELECTRICAL
EL/ELEV	ELEVATION
EMBED	EMBEDDED
ENGR	ENGINEER
ENT	ENTERING/ ENTRY
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EXPOSED STRUCTURE
EXH	EXHAUST
EXPAN	EXPANSION
EXT	EXTERIOR

F

FA	FIRE ALARM
FAC	FIRE ALARM CABINET
FD	FLOOR DRAIN
FAR	FIRE ALARM REMOTE
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FH	FIRE HYDRANT
FIN	FINISH
FLR	FLOOR
FOC	FACE OF CONC
FOB	FACE OF BRICK
FR	FRAME
FS	FLOW SWITCH
FTG	FOOTING

G

GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GF CMU	GROUND FACE CMU
GL	GLASS
GPM	GALLONS PER MIN.
GYP BD	GYPSUM BOARD

H

HB	HOSE BIB
HC	HANDICAP
HDWR	HARDWARE
HM	HOLLOW METAL
HP	HIGH POINT
HORIZ	HORIZONTAL
HR	HOUR
HT	HEIGHT
HW	HOT WATER
HVAC	HEATING, VENTILATION, AIR CONDITIONING

I

IC	INTERCOM
INSUL	INSULATION
INT	INTERIOR
INV	INVERT

J

JAN	JANITOR
JNT	JOINT
JST	JOIST

K

LAM	LAMINATE(D)
LAT	LAY-IN ACOUSTICAL CEILING
LAV	LAVATORY
LF	LINEAR FEET
LG	LEG
LP	LIGHT POLE

L

LAM	LAMINATE
LAV	LAVATORY
LT	LIGHT

M

MA	MIXED AIR
MAS	MASONRY
MAT'L	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MFR/MFGR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MAS	MODIFIED
MRV	MOISTURE RELEASE VENT
MT	METAL THRESHOLD
MTD	MOUNTED
MTL	METAL

N

N/A	NOT APPLICABLE
NF	NATURAL FINISH
NIC	NOT IN CONTRACT
NO / #	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE

O

OA	OUTSIDE AIR
OC	ON CENTER
OCEW	ON CENTER EACH WAY
OH	OVERHEAD
OPN'G	OPENING
OPP	OPPOSITE
OZ	OUNCE

P

±, +/_	PLUS OR MINUS
PT	PAINT
PART'N	PARTITION
PRE-FIN	PRE FINISH(ED)
PL	PLATE
PPL	PROPERTY LINE
PLAM	PLASTIC LAMINATE
PLYWD	PLYWOOD
PNL	PANEL
PP	POWER POLE
PR	PAIR
PRE FAB	PREFABRICATED
PROJ	PROJECTION
PSF	POUNDS/SQUARE INCH
PTD	PAPER TOWEL DISPENSER

Q

QT	QUARRY TILE
QTB	QUARRY TILE BASE
QTY	QUANTITY

R

RA	RETURN AIR
RB	RUBBER BASE
RD	ROOF DRAIN
RE:	REFER TO...
REF	REFERENCE
REFR	REFRIGERATOR
REINF	REINFORCED
REQ'D	REQUIRED

R (CONT)

RET	RETURN
RM	ROOM
R.O	ROUGH OPENING
RTU	ROOF TOP UNIT

S

SA	SUPPLY AIR
SAN	SANITARY
SAFM	SELF ADHERING FLASHING MEMBRANE
SCHED	SCHEDULE
SCWD	SOLID CORE WOOD
SECT	SECTION
SF	STOREFRONT/ SQUARE FEET
SHT	SHEET
SIM	SIMILAR
SL	SLOPE
SP	SPACING
SPEC	SPECIFIED/ SPECIFICATIONS
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
SUP	SUPPLY
SUSP	SUSPENDED
SYN	SYNTHETIC

T

T&B	TOP & BOTTOM
TBM	TEMPORARY BENCH MARK
TEL	TELEPHONE
T&G	TOUNGE & GROOVE
THRESH	THRESHOLD
TLT	TOILET
T.O.	TOP OF
T.O.B.	TOP OF BEAM
T.O.S.	TOP OF STRUCTURE
TP	TOILET PAPER HOLDER
TRTD	TREATED
TYP	TYPICAL ALL SIMILAR CONDITIONS

U

UC	UNDER COUNTER
UL	UNDERWRITER'S LABORATORY
UNO	UNLESS NOTED OTHERWISE

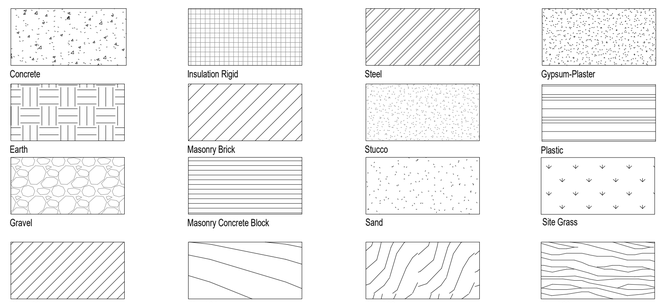
V

VAR	VARIES
VD	VOLUME DAMPER
VERT	VERTICAL
VCT	VINYL COMPOSITION TILE
VIF	VERIFY IN FIELD
VTR	VENT-THRU-ROOF
VWC	VINYL WALL COVERING

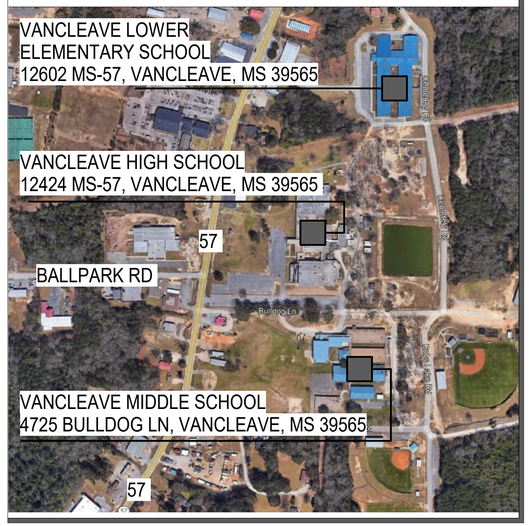
W

W	WIDE, WIDTH
W/	WITH
W/O	WITHOUT
WD	WOOD
WG	WATER GAUGE
WGVP	WIRE GLASS VISION PANEL
WH	WATER HEATER
WP	WATERPROOFING
WPMB	WATERPROOFING MEMBRANE

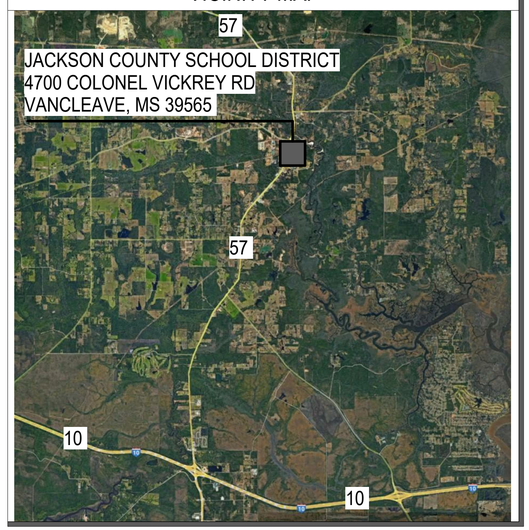
MATERIAL HATCH LEGEND



PROJECT MAP



VICINITY MAP



PROJECT GENERAL NOTES

1. THE CONSTRUCTION DOCUMENTS ARE COMPRISED OF BOTH DRAWINGS AND SPECIFICATIONS (PROJECT MANUAL). THE GENERAL CONTRACTOR SHALL NOT BREAK OUT SECTIONS TO SUB-CONTRACTORS OR VENDORS.
2. DO NOT SCALE DRAWINGS; IF DIMENSIONS ARE IN QUESTION CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM ARCHITECT BEFORE CONTINUING WITH CONSTRUCTION.
3. BIDDERS SHALL FIELD VERIFY ALL EXISTING CONDITIONS ON THE PROJECT JOB SITE PRIOR TO BIDDING.
4. GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING WORK OF ALL TRADES TO INSURE A USABLE & FUNCTIONAL END PRODUCT. ANY CONFLICTS BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE CLARIFIED BY THE ARCHITECT/ENGINEER. IF NO CLARIFICATION IS ISSUED THE BIDDER SHALL BID THE MOST STRINGENT PRODUCT OR APPLICATION.
5. GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL ABOVE CEILING WORK TO INSURE ADEQUATE INSTALL FOR ALL COMPONENTS AND TO PREVENT THE ADJUSTMENT OF ANY CEILING COMPONENTS.
6. GENERAL CONTRACTOR IS RESPONSIBLE FOR SECURING AND PROTECTING ALL CONSTRUCTION MATERIALS, EQUIPMENT, TOOLS, AND TEMPORARY FACILITIES ON THE JOB SITE FOR THE DURATION OF THE PROJECT.
7. MATERIALS USED ON THIS PROJECT SHALL NOT CONTAIN ASBESTOS.
8. GENERAL CONTRACTOR SHALL PLACE AND MAINTAIN THROUGHOUT DURATION OF PROJECT SPECIFIED GROUND MATERIAL OVER SOILS ADJACENT TO BUILDING PRIOR TO INSTALLING EXTERIOR WALL FINISH MATERIALS TO PREVENT STAINING ON FINISHED PRODUCT. ALL STAINS ON EXTERIOR WALL MATERIALS SHALL BE CLEANED AND FULLY REMOVED BEFORE SUBSTANTIAL COMPLETION OF PROJECT AT NO ADDITIONAL COST TO THE OWNER. IF STAINS CAN NOT BE REMOVED FROM THE FINISH MATERIALS, THE MATERIAL MUST BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.
9. GENERAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND SUBMITTALS FOR REVIEW AND APPROVAL BEFORE PROCEEDING WITH CONSTRUCTION. CONTRACTOR IS PROCEEDING AT HIS OWN RISK IF MATERIAL OR COMPONENTS ARE INSTALLED PRIOR TO RECEIVING REVIEWED AND EXECUTED SHOP DRAWINGS AND SUBMITTALS. CONTRACTOR SHALL TAKE LIABILITY FOR REMOVAL AND REPLACEMENT, AT NO ADDITIONAL COST TO THE OWNER, OF ALL MATERIAL, COMPONENTS AND LABOR FOR WORK INSTALLED WITHOUT SIGNED/STAMPED/APPROVED SHOP DRAWINGS AND SUBMITTALS.
10. ALL BID AMOUNTS MUST BE BASED ON THE MOST STRINGENT REQUIREMENT CALLED FOR IN THE COMPLETE CONSTRUCTION DOCUMENT PACKAGE. IN ADDITION, THE MOST STRINGENT REQUIREMENT SHOWN SHALL GOVERN AND TAKE PRECEDENCE IN THE EVENT OF ANY AND ALL CONFLICTS BETWEEN DIFFERENT DRAWINGS (PLANS, ELEVATIONS, DETAILS, SECTIONS, SCHEDULES, ETC...), BETWEEN DIFFERENT SPECIFICATION SECTIONS, WITHIN SPECIFICATION SECTIONS, AND BETWEEN THE DRAWINGS AND THE SPECIFICATIONS. IT WILL BE THE GENERAL CONTRACTORS RESPONSIBILITY TO BRING ANY AND ALL DISCREPANCIES TO THE ARCHITECT'S ATTENTION FOR FURTHER CLARITY PRIOR TO SUBMITTING A FORMAL BID.
11. ALL SITE INSPECTIONS, SITE VISITS, SITE MEETINGS, ETC... NOT PREVIOUSLY SCHEDULED, WHICH ARE REQUIRED FOR ANY REASON, ARRANGED OR SCHEDULED BY THE GENERAL CONTRACTOR, OR ANY OF THE PROJECT'S SUBCONTRACTORS, VENDERS, SUPPLIERS, ETC... THAT REQUIRE THE INVOLVEMENT OF ANY EMPLOYEE OF MP DESIGN GROUP OR ANY CONSULTANT OF MP DESIGN GROUP SHALL BE ARRANGED AND FINALIZED IN WRITING AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE WITH MP DESIGN GROUP.

PROJECT SCOPE OF WORK

ALL MECHANICAL, ELECTRICAL, STRUCTURAL, AND ARCHITECTURAL WORK ASSOCIATED WITH THE FOLLOWING:

LOWER ELEMENTARY CAFETERIA	-	REPLACE TWO 10 TON CONDENSING UNITS AND ASSOCIATED AIR HANDLERS
MIDDLE SCHOOL GYM	-	REPLACE TWO 15 TON CONDENSING UNITS AND ASSOCIATED AIR HANDLERS WITH TWO 20 TON CONDENSING UNITS AND ASSOCIATED AIR HANDLERS
HIGH SCHOOL GYM	-	REPLACE FOUR 20 TON PACKAGED ROOFTOP AC UNITS
HIGH SCHOOL LIBRARY	-	REPLACE ONE 10 TON PACKAGED ROOFTOP AC UNIT
HIGH SCHOOL COOLING PLANT	-	REPLACE COOLING TOWER AND ASSOCIATED FOUNDATION REPLACE HEAT EXCHANGER REPAIR FLANGE ADD REDUNDANT 30 HP CONDENSER WATER PUMP

DRAWING INDEX

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Bradford A. Jones, AIA
Fernanda A. Silva, AIA

REGISTERED ARCHITECT
Fernanda A. Silva
5425
02/03/23
STATE OF MISSISSIPPI

VANCLEAVE SCHOOLS HVAC UPGRADES
LOWER ELEMENTARY, MIDDLE & HIGH SCHOOLS
JACKSON COUNTY SCHOOL DISTRICT

SCALE: AS INDICATED
PROJECT NO: 0155.22.007
DRAWN BY: MAJ,
CHECKED BY: FAS

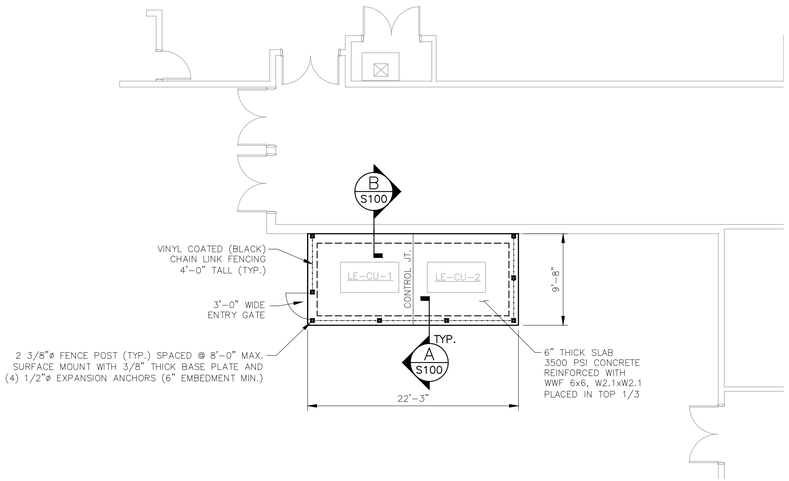
GENERAL NOTES, ABBREV, SYMBOLS, SHEET INDEX

NO.	DATE	REVISION / SUBMITTAL
REV 0	02.03.23	ISSUED FOR CONSTRUCTION

G101

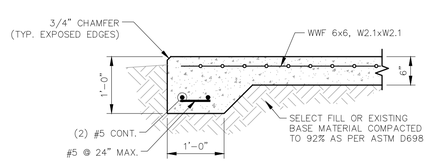
VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

2/3/2023 4:30:28 PM

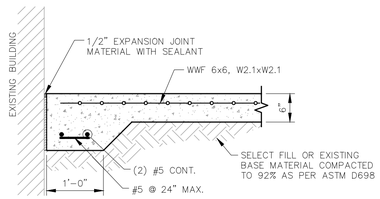


LOWER ELEMENTARY SCHOOL MECHANICAL EQUIPMENT PAD FOUNDATION PLAN

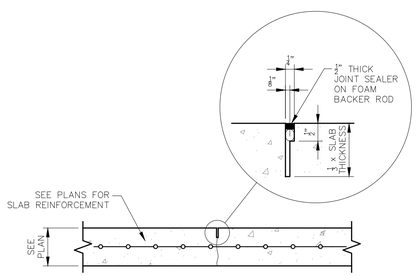
1 SCALE: 1/8" = 1'-0"



A S100 | S100 SECTION - FOUNDATION
SCALE: 3/4" = 1'-0"



B S100 | S100 SECTION - FOUNDATION
SCALE: 3/4" = 1'-0"



CONCRETE SAW CUT CONTROL JOINT (CJ)

NOTES:
1.) SAW JOINTS IN GREEN CONCRETE ONCE ADEQUATE CURING HAS OCCURRED TO SUPPORT THE WEIGHT OF THE SAW AND OPERATOR (APPROX. 1 HOUR IN HOT WEATHER AND 4 HOURS IN COLD WEATHER). CUTS TO BE MADE USING A BLADE SPECIFICALLY DESIGNED FOR DRY EARLY ENTRY CONCRETE CUTTING

2 S100 | S100 DETAIL - SLAB JOINTING
SCALE: N.T.S.

DESIGN CODES (ALL LATEST EDITION U.N.O.)

- INTERNATIONAL BUILDING CODE (IBC 2018)
- AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE 7-16) MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
- AMERICAN CONCRETE INSTITUTE (ACI)
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)
- AMERICAN WELDING SOCIETY (AWS)
- AMERICAN IRON AND STEEL INSTITUTE (SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL CONSTRUCTION MEMBERS)

MATERIAL SPECIFICATIONS

- ANCHOR BOLTS	Fy = 55,000 PSI (ASTM F1554) (HOT DIP GALVANIZED)
- EMBEDDED STEEL	Fy = 36,000 PSI (ASTM A36)
- CAST IN PLACE CONCRETE	
- FOUNDATIONS	F'c = 3500 PSI IN 28 DAYS
- EXTERIOR EXPOSED CONC. (AIR ENTRAINED)	F'c = 3500 PSI IN 28 DAYS
- REINFORCING STEEL	
- #3 OR LARGER	Fy = 60,000 PSI (ASTM A615, GRADE 60) (ASTM A616 (S1), GRADE 60)
- WELDED WIRE FABRIC	ASTM A185 (FLAT SHEETS ONLY)
- STRUCTURAL STEEL	Fy = 50 KSI
- HIGH STRENGTH STRUCTURAL BOLTS	ASTM A325-N (U.N.O.)

REINFORCING STEEL

1. ARRANGEMENT AND BENDING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH THE ACI DETAILING MANUAL, LATEST EDITION.
2. DETAILING OF REINFORCING STEEL SHALL CONFORM TO THE ACI MANUAL OF PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, ACI 315. REINFORCEMENT SHALL NOT BE WELDED UNLESS NOTED OR APPROVED BY THE ENGINEER.
3. REINFORCING STEEL SHALL BE NEW AND ALL BARS BE DEFORMED. REINFORCEMENT STEEL SHALL BE STORED IN SUCH MANNER TO PREVENT EXPOSURE TO THE ELEMENTS AND SHALL BE FREE OF RUST BEFORE PLACEMENT.
4. REINFORCING BARS: ASTM A615 GRADE 60
   ASTM A706 GRADE 60 FOR WELDABLE REINFORCING
5. BAR LAPS SHALL BE CLASS B TENSION LAPS (U.N.O.) AND SHALL BE LAPPED WITH MINIMUM LENGTHS AS SHOWN IN TYPICAL DETAILS, WHERE SPLICES ARE REQUIRED IN REINFORCING. SHORTER LAPS MAY BE ACCEPTABLE IF SPECIFIC LOCATIONS OF ALTERNATE LAPS ARE SHOWN ON THE REINFORCEMENT PLACEMENT DRAWINGS, WITH CALCULATIONS SUBMITTED/STAMPED BY PROFESSIONAL ENGINEER REGISTERED AND LICENSED IN THE STATE OF PROJECT LOCATION, JUSTIFYING THE ALTERNATE LAP LENGTHS.
6. PROVIDE SUITABLE CHAIRS, TIES, WIRE SPACERS, ETC. FOR SUPPORTING REINFORCING STEEL IN PROPER LOCATION WHILE PLACING CONCRETE. "WET STICKING" DOWELS WILL NOT BE PERMITTED.
7. WELDED WIRE MATERIAL SHALL COMPLY WITH AMERICAN SOCIETY OF TESTING MATERIALS (ASTM) A185 STANDARD SPECIFICATIONS. SUPPORT WELDED WIRE MATERIAL AT THE PROPER DEPTH PRIOR TO PLACING CONCRETE WITH MINIMUM CLEARANCES AS NOTED BELOW AND WITH APPURTENANCES NOTED BELOW. WELDED WIRE MATERIAL SHALL BE LAPPED ONE FULL MESH PANEL PLUS TWO (2) INCHES AT SIDES AND ENDS AND WIRED TOGETHER. LAP ALL SIDES AND ENDS EIGHT (8) INCHES, MINIMUM.
8. MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT IN SURFACES NOT EXPOSED DIRECTLY TO THE GROUND SHALL BE:
   - 3/4" FOR SLABS, JOISTS, AND WALLS
   - 1 1/2" FOR BEAM STIRRUPS AND COLUMN TIES/SPIRALS.

   "WET STICKING" DOWELS WILL NOT BE PERMITTED.
9. MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT IN SURFACES EXPOSED TO WEATHER OR IN CONTACT WITH GROUND SHALL BE:
   - 1 1/2" FOR BARS #5 OR SMALLER (U.N.O.)
   - 2" FOR BARS GREATER THAN #5 (U.N.O)
   - PROVIDE 3" COVER FOR CONCRETE CAST AGAINST & PERMANENTLY EXPOSED TO EARTH (U.N.O.).
10. CORNER BARS SHALL BE PROVIDED FOR ALL HORIZONTAL REINFORCING BARS AT INTERSECTIONS AND AND CORNERS OF ALL STRIP FOOTINGS, BEAMS, AND WALLS (U.N.O.). CORNER BARS SHALL BE OF THE SAME SIZE AND GRADE AS THE HORIZONTAL REINFORCING THEY CONNECT. MINIMUM LAP LENGTHS SHALL BE AS INDICATED AS INDICATED ON PLANS (U.N.O.).
11. REINFORCING STEEL SHOWN IN SECTIONS AND DETAILS ARE SCHEMATIC AND INDICATE THAT REINFORCEMENT IS PRESENT. SEE SCHEDULES, SECTIONS NOTES, AND GENERAL NOTES FOR ACTUAL REINFORCING REQUIRED.
12. REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE (IAW) CRSI "PLACING REINFORCING BARS", LATEST EDITION.
13. PROVIDE ONE (1) #4 HOOP WITH 8" LAP IN SLAB AROUND ALL FLOOR DRAINS.

CAST IN PLACE CONCRETE

1. CONCRETE MIX DESIGN SHALL BE 3500 PSI IN 28 DAYS.
2. CONTRACTOR SHALL VERIFY ALL IN SLAB FIXTURE DIMENSIONS WITH ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL PLANS. ALL SLOTS, SLEEVES AND OTHER EMBEDDED ITEMS SHALL BE SET BEFORE CONCRETE IS PLACED. ALL FOUNDATION PENETRATIONS SHALL BE THROUGH THICKENED SLAB EDGE OR 6" CLEAR BELOW FOOTING. CONDUIT SHALL NOT BE PLACED WITHIN THE SLAB ON GRADE. CONDUIT SHALL BE INSTALLED BELOW THE SLAB ON GRADE. PIPES, CONDUIT, AND DUCTS SHALL NOT EXCEED ONE-THIRD THE SLAB THICKNESS (BASED ON THE MAXIMUM OUTSIDE DIAMETER) AND SHALL HAVE A CENTER-TO-CENTER SPACING OF NO LESS THAN (3) DIAMETERS, UNLESS SPECIFICALLY DETAILED. REGARDLESS OF DIAMETER, THE MINIMUM CLEAR SPACING BETWEEN CONDUITS SHALL BE 1". NO MORE THAN FOUR CONDUITS MAY BE PLACED ADJACENT TO EACH OTHER WITHOUT PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD. PROVIDE 1" MINIMUM CLEARANCE FROM REINFORCEMENT. LOCATIONS AND SIZES OF OPENINGS, SLEEVES, ETC. REQUIRED FOR OTHER TRADES MUST BE VERIFIED BY THOSE TRADES PRIOR TO PLACING CONCRETE. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATION OF SLEEVES, ACCESSORIES, ETC.
3. NO ALUMINUM CONDUITS, FIXTURES, ETC. MAY BE IN DIRECT CONTACT WITH THE CONCRETE.
4. ALL HONEY-COMBING, SPALLS, CRACKS, ETC. SHALL BE REPAIRED. EXTENT OF DEFECTIVE AREA SHALL BE DETERMINED BY THE STRUCTURAL ENGINEER.
5. CHAMFER ALL EXPOSED EXTERNAL CORNERS OF CONCRETE WITH A ¾" DEGREE CHAMFER, UNLESS NOTED OTHERWISE.
6. REFER TO PLANS FOR CONTROL JOINT LOCATIONS. CONSTRUCTION JOINTS MAY BE ADDED AS REQUIRED TO PREVENT THE FORMATION OF CONCRETE COLD JOINTS DURING PLACEMENT OF CONCRETE. CONSTRUCTION JOINTS SHALL BE INSTALLED IN LOCATIONS WHERE THE CONCRETE PLACEMENT OPERATION IS SCHEDULED FOR SEVERAL SEPARATE PLACEMENTS OR WHEREVER THE CONCRETE PLACEMENT IS DELAYED A SUFFICIENT AMOUNT OF TIME TO FORM A CONCRETE COLD JOINT.
7. SLABS ON GRADE SHALL BE A THICKNESS AND REINFORCING AS SHOWN ON PLANS. REINFORCING AS SHOWN ON PLANS AND SHALL BE HELD SECURELY FROM THE GROUND USING REBAR CHAIRS OR OTHER APPROVED METHODS (CUT CONCRETE BRICK MAY BE USED) TO ENSURE MESH STAYS AT DEPTH INTENDED.
8. UNDER NO CIRCUMSTANCES WILL DIGGING, TUNNELING OR TRENCHING BE ALLOWED AT OR NEAR ANY CONCRETE STRUCTURE WHICH MIGHT ACT TO UNDERMINE THE STRUCTURE.
9. EXPANSION JOINT FILLER SHALL BE PREMOLDED MATERIAL COMPOSED OF FIBERBOARD IMPREGNATED WITH ASPHALT CONFORMING TO ASTM D1751.
10. ALL DETAILS SHOWN ARE TYPICAL, SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS.

STRUCTURAL STEEL

1. UNLESS SPECIFICALLY NOTED OTHERWISE IN PLANS, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH AISC SPECIFICATIONS, LATEST EDITION.
2. THE FABRICATOR SHALL BE RESPONSIBLE FOR THE DESIGN AND ADEQUACY OF ALL CONNECTIONS THAT ARE NOT DESIGNED OR FULLY DETAILED IN THE CONTRACT DOCUMENTS.
3. WHERE FIELD AND SHOP WELDS ARE INDICATED ON THE DRAWINGS, THEY SHALL BE THE SIZE AND TYPE NOTED. ALL WELDING OF STRUCTURAL STEEL SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF AWS D1.1 CORRESPONDING TO THE AISC SPECIFICATION USED AND ALL WELDS INCLUDING FIELD WELDS SHALL BE MADE BY CERTIFIED WELDERS USING E70XX ELECTRODES.
4. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING REQUIRED TO MAINTAIN STABILITY UNTIL THE SYSTEM IS COMPLETE IN PLACE.
5. EXTERIOR EXPOSED STRUCTURAL STEEL PREP AND COATING SYSTEM:
   A. ALL STEEL AND FASTENERS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
6. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR INCLUDING THE COSTS FOR ALL MISCELLANEOUS STEEL IN THEIR BID REGARDLESS OF WHETHER OR NOT THOSE ITEMS ARE INDICTED ON THE STRUCTURAL DRAWINGS. THESE COSTS SHALL INCLUDE, BUT NOT LIMITED TO, MISCELLANEOUS STEEL ITEMS SHOWN ON ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS.
7. FIELD CUTTING, DRILLING, AND OTHER MODIFICATIONS OF STRUCTURAL STEEL COMPONENTS IS NOT PERMITTED WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD. WHERE BEAM PENETRATIONS CANNOT BE AVOIDED OR WHERE CUTTING IS REQUIRED, THE CONTRACTOR SHALL SUBMIT, TO THE STRUCTURAL ENGINEER OF RECORD, ALL PERTINENT INFORMATION INCLUDING PENETRATION SHAPE, SIZE, LOCATION, AND METHOD OF CUTTING THE OPENING.

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918 Howard Ave Suite F
Biloxi, Mississippi 39530
P: 228.388.1950
www.mpdesigngroup.us
David J. Machado, PE
Brad P. Patano, PE
Gerrod W. Kilpatrick, PE
Bradford A. Jones, AIA
Fernanda A. Silva, AIA

GERROD W. KILPATRICK
REGISTERED PROFESSIONAL
ENGINEER
12-3-23
#16559
STATE OF MISSISSIPPI

VANCLEAVE SCHOOLS HVAC UPGRADES
LOWER ELEMENTARY, MIDDLE, & HIGH SCHOOLS
12602 HWY 57, 4725 BULLDOG LN, & 12424 HWY 57
VANCLEAVE, MISSISSIPPI 39565

SCALE: AS INDICATED
PROJECT NO: 0155.22.008
DRAWN BY: ADC
CHECKED BY: GWK

LOWER ELEMENTRAY SCHOOL MECHANICAL EQUIPMENT PAD PLAN, SECTIONS, & DETAILS

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S100

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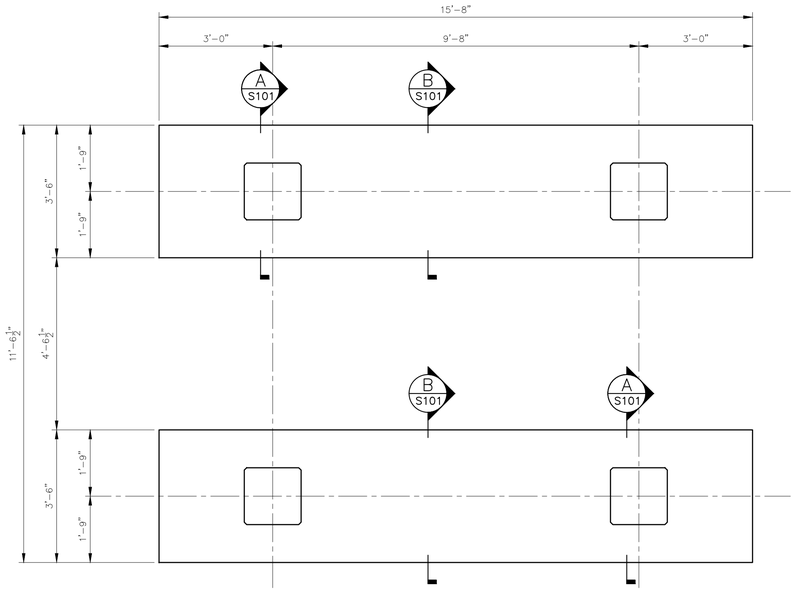
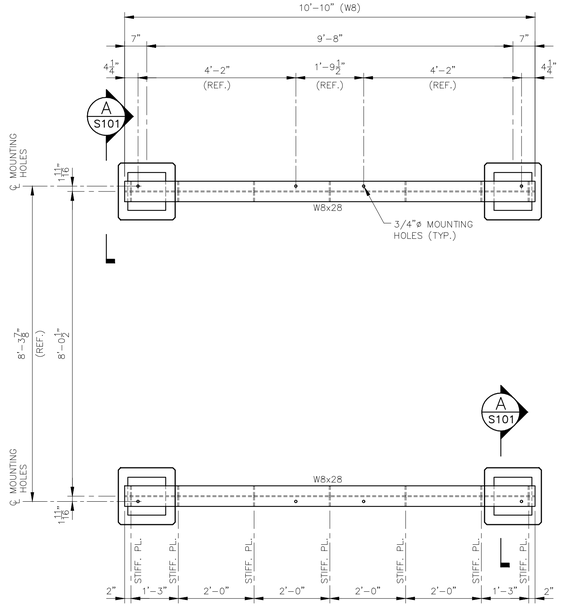


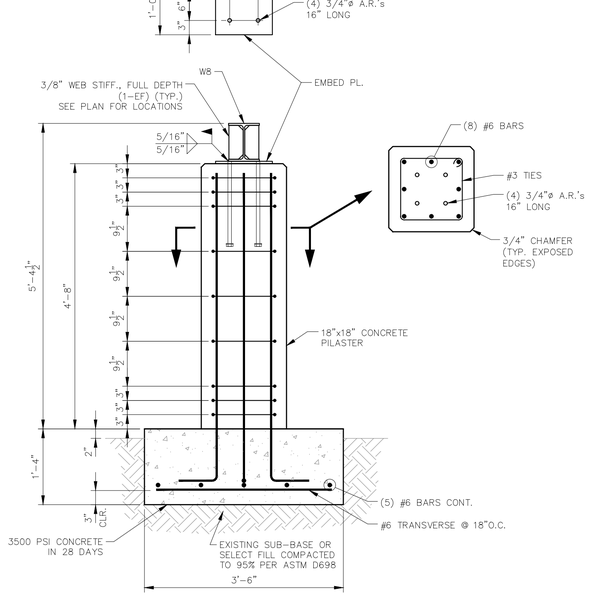
1 HIGH SCHOOL - COOLING TOWER - FOUNDATION PLAN

SCALE: 1/2" = 1'-0"
SEE MECHANICAL PLANS FOR LOCATION AND ORIENTATION

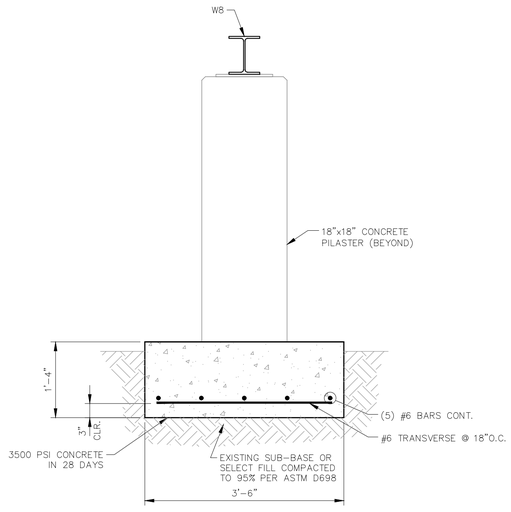


2 HIGH SCHOOL - COOLING TOWER - FRAMING PLAN

SCALE: 1/2" = 1'-0"
SEE MECHANICAL PLANS FOR LOCATION AND ORIENTATION



A S101 | S101 SECTION
SCALE: 3/4" = 1'-0"



B S101 | S101 SECTION
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SEE S100 FOR STRUCTURAL NOTES

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Brad P. Patano, PE
Gerrod W. Kilpatrick, PE
Bradford A. Jones, AIA
Fernanda A. Silva, AIA

GERROD W. KILPATRICK REGISTERED PROFESSIONAL ENGINEER 12-3-23 #16559 STATE OF MISSISSIPPI

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HIGH SCHOOL - COOLING TOWER PLANS, SECTIONS, & DETAILS

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HVAC SYMBOLS

	SQUARE/RECTANGULAR SUPPLY DOWN
	SQUARE/RECTANGULAR SUPPLY UP
	ROUND SUPPLY DOWN
	ROUND SUPPLY UP
	SQUARE/RECTANGULAR RETURN DOWN
	SQUARE/RECTANGULAR RETURN UP
	ROUND RETURN DOWN
	ROUND RETURN UP
	SQUARE/RECTANGULAR EXHAUST DOWN
	SQUARE/RECTANGULAR EXHAUST UP
	ROUND EXHAUST DOWN
	ROUND EXHAUST UP
	SQUARE/RECTANGULAR ELBOW
	SQUARE/RECTANGULAR ELBOW WITH TURNING VANES
	ROUND MAIN WITH CONICAL TAKEOFF
	ROUND MAIN WITH CONICAL TEE
	SQUARE/RECTANGULAR MAIN WITH CONICAL TEE
	ROUND MAIN WITH 45° LATERAL WYE
	SQUARE/RECTANGULAR MAIN WITH 45° LEAD IN TAKEOFF
	ROUND ELBOW
	EXISTING DUCT TO BE REMOVED
	EXISTING DUCT TO REMAIN
	NEW DUCT
	FLEXIBLE DUCT
	MANUAL VOLUME DAMPER
	INTERNALLY INSULATED DUCT
	SQUARE/RECTANGULAR TO ROUND TRANSITION
	CONCENTRIC TRANSITION
	ECCENTRIC TRANSITION
	ROUND NECK CEILING AIR TERMINAL
	SQUARE/RECTANGULAR NECK CEILING AIR TERMINAL
	TRANSFER AIR PATH
C	TIMECLOCK
T	THERMOSTAT
S	TEMPERATURE SENSOR
H	HUMIDITY SENSOR
SD	DUCT SMOKE DETECTOR
	CONNECT TO EXISTING
$	SWITCH
MD	MOTORIZED DAMPER
FD	FIRE DAMPER
FSD	COMBINATION FIRE/SMOKE DAMPER
SD	SMOKE DAMPER
BDD	BACKDRAFT DAMPER
	CAP AND SEAL
	FLEXIBLE CONNECTION

HVAC ABBREVIATIONS

A	
A	AMPS
AC	AIR CONDITIONING
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AL	ALUMINUM
B	
BDD	BACKDRAFT DAMPER
BOD	BOTTOM OF DUCT
C	
CEF	CEILING EXHAUST FAN
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CHW	CHILLED WATER
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CU	CONDENSING UNIT
CW	CONDENSER WATER
CWS	CONDENSER WATER SUPPLY
CWR	CONDENSER WATER RETURN
D	
DC	DIRECT CURRENT
E	
E	EXISTING
EA	EXHAUST AIR
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
ESP	EXTERNAL STATIC PRESSURE
F	
FC	FAN COIL
FD	FIRE DAMPER
FSD	COMBINATION FIRE/SMOKE DAMPER
FT	FOOT/FEET
G	
GA	GAUGE
GC	GENERAL CONTRACTOR
GFM	GLASS FABRIC AND MASTIC
H	
HP	HORSEPOWER OR HEAT PUMP
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
K	
KW	KILOWATT
L	
LBS	POUNDS

M	
MAX	MAXIMUM
MBH	ONE THOUSAND BRITISH THERMAL UNITS PER HOUR
MC	MECHANICAL CONTRACTOR
MCA	MINIMUM CIRCUIT AMPACITY
MD	MOTORIZED DAMPER
MIN	MINIMUM
MOCP	MAXIMUM OVERCURRENT PROTECTION
N	
NC/PO	NORMALLY CLOSED/POWERED OPEN
NIC	NOT IN CONTRACT
NIS	NEOPRENE IN SHEAR
NO/PC	NORMALLY OPEN/POWERED CLOSED
NTS	NOT TO SCALE
O	
OA	OUTDOOR AIR
OC	ON CENTER
P	
PC	PLUMBING CONTRACTOR
PH	PHASE
R	
RA	RETURN AIR
RFD	ROUND FIRE DAMPER
RGS	RIGID SEALED
RIS	RUBBER IN SHEAR
RPM	REVOLUTIONS PER MINUTE
S	
SA	SUPPLY AIR
SFD	SQUARE FIRE DAMPER
SQFT	SQUARE FEET
T	
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
U	
UC	UNDERCUT DOOR
UL	UNDERWRITERS LABORATORIES
V	
V	VOLTAGE
VD	VOLUME DAMPER
VIF	VERIFY IN FIELD
W	
W	WATT
WC	WATER COLUMN

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JOHN MICAH VAN DUIJVENDIJK — LICENSED PROFESSIONAL ENGINEER — STATE OF MISSISSIPPI
02/03/2023

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SCALE: NONE
PROJECT NO: 0155.22.008
DRAWN BY: JMV
CHECKED BY: JMV

MECHANICAL SYMBOLS & ABBREVIATIONS

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HVAC NOTES

A. GENERAL

1. ALL WORK SHALL CONFORM TO THE LATEST EDITIONS OF THE INTERNATIONAL CODE AND ALL LOCAL ORDINANCES AS ADOPTED BY THE LOCAL JURISDICTION.

2. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR NECESSARY FOR THE COMPLETE INSTALLATION AND OPERATION OF THE SYSTEMS INDICATED ON THE CONTRACT DOCUMENTS AND DRAWINGS EVEN IF NOT SPECIFICALLY SHOWN.

3. THE DRAWINGS ARE, IN PART, DIAGRAMMATIC AND DO NOT ALWAYS SHOW ALL NECESSARY MATERIALS AND EQUIPMENT TO SCALE OR IN EXACT LOCATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO CHECK ALL MEASUREMENTS, COORDINATE ALL WORK WITH OTHER TRADES, REVIEW ALL ARCHITECTURAL AND STRUCTURAL DRAWINGS, AND VISIT THE JOBSITE TO MAKE APPROPRIATE MEASUREMENTS.

4. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND INSPECTIONS AND SHALL PAY ALL ASSOCIATED FEES FOR SCOPE OF WORK.

5. WHEN THE SPECIFICATIONS OR DRAWINGS ARE UNCLEAR OR IN CONFLICT WITH CODES OR OTHER TRADES, THE CONTRACTOR SHALL BRING THIS TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION BEFORE SUBMITTING A BID.

6. SUBMITTALS AND SHOP DRAWINGS FOR ALL EQUIPMENT, MATERIALS, AND ACCESSORIES SHALL BE PROVIDED TO THE OWNER AND ENGINEER FOR REVIEW AND COMMENT PRIOR TO ORDER, MANUFACTURE, FABRICATION, AND INSTALLATION. FAILURE TO DO SO SHALL NOT RELIEVE THIS CONTRACTOR OF THE RESPONSIBILITY, CONSEQUENCES, AND POSSIBLE COSTS OF SUCH ACTION OR LACK OF ACTION REGARDLESS OF ANY AND ALL ERRORS OR OMISSIONS ON THESE DOCUMENTS. THIS ENGINEER SHALL NOT BE HELD LIABLE FOR ANY COSTS ASSOCIATED WITH THIS CONTRACTOR'S FAILURE TO COMPLY WITH THIS ITEM. IF SUBSTITUTIONS FOR SPECIFIED ITEMS ARE MADE, IT IS THIS CONTRACTOR'S RESPONSIBILITY TO PROVE PERFORMANCE, COMPATIBILITY, AND CONFORMANCE WITH THE ORIGINAL DESIGN AND SPECIFICATIONS. RE-DESIGN BY THIS ENGINEER TO ACCOMMODATE SUBSTITUTIONS SHALL NOT BE PERFORMED. OTHERWISE, IT WILL BE CONSIDERED ADDITIONAL WORK FOR WHICH COMPENSATION WILL BE REQUIRED.

7. ALL ACTUAL EQUIPMENT, MATERIALS, AND ACCESSORIES TO BE INSTALLED SHALL BE FULLY COORDINATED WITH THE ELECTRICAL, PLUMBING, CIVIL, STRUCTURAL, AND ARCHITECTURAL CONTRACTORS PRIOR TO ORDER, MANUFACTURE, FABRICATION, AND INSTALLATION. THIS INCLUDES BUT IS NOT LIMITED TO ELECTRICAL DATA, WEIGHTS, PLUMBING REQUIREMENTS, DIMENSIONS, PENETRATIONS, ETC. FAILURE TO DO SO SHALL NOT RELIEVE THIS CONTRACTOR OF THE RESPONSIBILITY, CONSEQUENCES, AND POSSIBLE COSTS OF SUCH ACTION OR LACK OF ACTION REGARDLESS OF ANY AND ALL ERRORS OR OMISSIONS ON THESE DOCUMENTS. THIS ENGINEER SHALL NOT BE HELD LIABLE FOR ANY COSTS ASSOCIATED WITH THIS CONTRACTORS FAILURE TO COMPLY WITH THIS ITEM.

8. ANY AND ALL DEVIATIONS FROM THE DESIGN DOCUMENTS WITHOUT THIS ENGINEER'S APPROVAL INDICATES ACCEPTANCE BY THIS CONTRACTOR AND/OR OWNER FOR THE RESPONSIBILITY OF THE PERFORMANCE OF THE SYSTEM AFFECTED. THIS ENGINEER SHALL NOT BE HELD LIABLE FOR ANY COSTS ASSOCIATED WITH THIS CONTRACTOR'S FAILURE TO FOLLOW THE DESIGN DOCUMENTS. IF MODIFICATIONS TO THE SPECIFIED DESIGN ARE MADE, IT IS THIS CONTRACTOR'S RESPONSIBILITY TO PROVE PERFORMANCE, COMPATIBILITY, AND CONFORMANCE WITH THE ORIGINAL DESIGN AND SPECIFICATIONS. RE-DESIGN BY THIS ENGINEER TO ACCOMMODATE MODIFICATIONS SHALL NOT BE PERFORMED. OTHERWISE, IT WILL BE CONSIDERED ADDITIONAL WORK FOR WHICH COMPENSATION WILL BE REQUIRED. SITE VISITS, INSPECTIONS, CALCULATIONS, COORDINATION, ETC. PERFORMED BY THIS ENGINEER TO INVESTIGATE PROBLEMS ASSOCIATED WITH DESIGN DEVIATIONS WILL ALSO BE CONSIDERED ADDITIONAL WORK FOR WHICH COMPENSATION WILL BE REQUIRED.

9. ANY ERRORS OR OMISSIONS ON THESE DOCUMENTS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER FOR REVIEW AND CORRECTION.

10. THE CONSTRUCTION DOCUMENTS ARE COMPRISED OF BOTH DRAWINGS AND SPECIFICATIONS (PROJECT MANUAL). ALL TRADES ARE INTERDEPENDENT AND MUST BE FULLY COORDINATED TO PROVIDE A COMPLETE PROJECT. THE GENERAL CONTRACTOR SHALL NOT BREAK OUT INDIVIDUAL SECTIONS TO SUB-CONTRACTORS OR VENDORS.

11. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WORK OF ALL TRADES TO INSURE A USABLE & FUNCTIONAL END PRODUCT. ANY CONFLICTS BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE CLARIFIED BY THE ARCHITECT/ENGINEER. IF NO CLARIFICATION IS ISSUED THE BIDDER SHALL BID THE MOST STRINGENT PRODUCT OR APPLICATION.

12. IF DISCREPANCIES ARE ENCOUNTERED BETWEEN THE DRAWINGS AND SPECIFICATIONS, THE MOST STRINGENT PRODUCT OR APPLICATION OVERRIDES IN ALL CASES.

13. THIS ENGINEER SHALL NOT BE HELD LIABLE FOR COSTS ASSOCIATED WITH ERRORS AND/OR OMISSIONS ON THESE DOCUMENTS IN EXCESS OF THE COST AND/OR TIME FOR THIS ENGINEER TO CORRECT THE DOCUMENTS. IN ANY CASE, THE LIMIT OF LIABILITY FOR THIS ENGINEER SHALL BE NO MORE THAN THE COST OF THIS ENGINEER'S INDIVIDUAL FEE, REGARDLESS OF THE TOTAL DESIGN FEE CHARGED FOR THE SET OF CONSTRUCTION DOCUMENTS.

14. TO THE FULLEST EXTENT PERMITTED BY LAW, THE TOTAL LIABILITY IN THE AGGREGATE, OF THIS ENGINEER AND THIS ENGINEER'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, AND INDEPENDENT PROFESSIONAL ASSOCIATES, AND ANY OF THEM, TO OWNER AND ANY ONE CLAIMING BY, THROUGH OR UNDER OWNER, FOR ANY AND ALL INJURIES, CLAIMS, LOSSES, EXPENSES, OR DAMAGES WHATSOEVER ARISING OUT OF OR IN ANY WAY RELATED TO THIS ENGINEER'S SERVICES, THE PROJECT OR THESE DOCUMENTS, FROM ANY CAUSE OR CAUSES WHATSOEVER, INCLUDING BUT NOT LIMITED TO, THE NEGLIGENCE, ERRORS, OMISSIONS, STRICT LIABILITY, BREACH OF CONTRACT, MISREPRESENTATION, OR BREACH OF WARRANTY OF THIS ENGINEER; OR THIS ENGINEER'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR INDEPENDENT PROFESSIONAL ASSOCIATES, OR ANY OF THEM, SHALL NOT EXCEED THE TOTAL COMPENSATION RECEIVED BY THIS ENGINEER FOR SERVICES PROVIDED.

15. THE USE OF THESE DOCUMENTS FOR CONSTRUCTION SIGNIFIES THIS OWNER, TENANT, AND CONTRACTORS AGREEMENT WITH THE ABOVE REQUIREMENTS REGARDLESS OF ANY OTHER PRIOR, CURRENT, OR FUTURE AGREEMENT AND/OR CONTRACT.

16. ALL EQUIPMENT, PRODUCTS, MATERIALS, COMPONENTS, ACCESSORIES, ETC. SHALL BE MANUFACTURED IN THE USA.

B. DUCTWORK

1. TURNING VANES SHALL BE INSTALLED IN ALL RECTANGULAR/SQUARE ELBOWS AND TEES 45° OR LARGER.

2. ALL DUCTWORK SHALL BE SHEET METAL CONSTRUCTION.

3. ALL SHEET METAL DUCT CONNECTIONS TO ANY FAN POWERED EQUIPMENT SHALL BE MADE WITH FLEXIBLE DUCT CONNECTORS 3" MIN IN LENGTH.

4. LOW PRESSURE DUCTWORK

   a. ALL SUPPLY DUCTWORK AND RETURN DUCTWORK SHALL BE CONSTRUCTED TO 2" WG PRESSURE CLASS STANDARDS AND SHALL CONFORM TO THE LATEST EDITIONS OF THE SMACNA DUCT CONSTRUCTION STANDARDS.

   b. ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK SHALL BE GALVANIZED SHEET METAL CONSTRUCTION UNLESS OTHERWISE NOTED IN THIS SECTION. SHEET METAL GAUGE SHALL BE AS PER SMACNA DUCT CONSTRUCTION STANDARDS (28 GAUGE OR LESS DEPENDING ON SIZE AND SHAPE). 30 GAUGE OR HIGHER SHEET METAL DUCT IS NOT ACCEPTABLE

   c. ALL EXTERNALLY INSULATED SHEET METAL DUCTWORK JOINTS SHALL BE SEALED AIRTIGHT WITH MASTIC AND TAPED OVER WITH DUCT TAPE. ALL INTERNALLY INSULATED SHEET METAL DUCTWORK JOINTS SHALL BE SEALED AIRTIGHT WITH MASTIC AND THE EXTERIOR SURFACE WIPED CLEAN TO PROVIDE A FINISHED APPEARANCE.

   d. ALL SQUARE AND RECTANGULAR VOLUME DAMPERS SHALL BE OPPOSED BLADE TYPE.

C. INSULATION

1. ALL SUPPLY, RETURN, AND OUTDOOR AIR DUCTWORK SHALL BE INSULATED.

2. ALL EXPOSED SUPPLY, RETURN, AND OUTDOOR AIR DUCTWORK SHALL BE SHEET METAL CONSTRUCTION AND SHALL BE INTERNALLY INSULATED.

3. ALL CONCEALED SHEET METAL AND FLEXIBLE SUPPLY, RETURN, AND OUTDOOR AIR DUCTWORK SHALL BE EXTERNALLY INSULATED, UNLESS INTERNALLY LINED.

4. INTERNAL DUCT INSULATION

   a. WHERE INDICATED ON THE PLANS, SHEET METAL DUCTWORK SHALL BE INTERNALLY LINED WITH INSULATION.

   b. WHEN INSTALLED IN FULLY CONDITIONED SPACES AND RETURN AIR PLENUMS WITHIN THE INSULATED AND/OR CONDITIONED ENVELOPE, INTERNAL INSULATION SHALL BE 1" THICK UNLESS OTHERWISE SPECIFIED.

   c. THE FIRST 10'-0" OF RECTANGULAR/SQUARE SHEET METAL DUCT UPSTREAM OR DOWNSTREAM OF ANY FAN SHALL BE INTERNALLY INSULATED WHETHER OR NOT INDICATED IN PLAN.

5. ALL SUPPLY, RETURN, AND OUTDOOR AIR DUCTWORK SHALL BE EXTERNALLY INSULATED WITH 2" THICK INSULATION (R-6.0), UNLESS INTERNALLY LINED. ALL JOINTS SHALL BE SEALED.

6. ALL CONDENSATE PIPING WITHIN THE BUILDING ENVELOPE, INCLUDING PRIMARY AND SECONDARY LINES, SHALL BE INSULATED WITH 1/2" THICK PIPE INSULATION. ALL JOINTS SHALL BE SEALED.

7. REFRIGERANT SUCTION PIPING LESS THAN 1-1/2" SHALL BE INSULATED WITH 1/2" THICK FLEXIBLE CELLULAR INSULATION. PIPING 1-1/2" OR LARGER SHALL BE INSULATED WITH 1" THICK INSULATION. ALL JOINTS SHALL BE SEALED. LIQUID LINES SHALL BE INSULATED WHEN INSTALLED WITHIN THE BUILDING IN UNCONDITIONED SPACES OUTSIDE OF THE INSULATED AND/OR CONDITIONED ENVELOPE.

8. EXPOSED EXTERIOR PIPE INSULATION SHALL BE JACKETED WITH ALUMINUM AND SEALED WEATHER TIGHT.

D. REFRIGERANT PIPING

1. ALL REFRIGERANT PIPING 1-3/8" AND SMALLER SHALL BE TYPE L-ACR OR TYPE K-ACR HARD DRAWN OR SOFT (AS INDICATED) COPPER UL RATED FOR 700 PSI AT 250°F AND CONFORMING TO ASTM STANDARD B280.

2. ALL REFRIGERANT PIPING LARGER THAN 1-3/8" AND 2-5/8" OR LESS SHALL BE TYPE K-ACR HARD DRAWN OR SOFT (AS INDICATED) COPPER UL RATED TO 700 PSI AT 250°F AND CONFORMING TO ASTM STANDARD B280.

3. ALL REFRIGERANT PIPE FITTINGS SHALL BE WROT COPPER UL RATED TO 700 PSI AT 250°F AND SHALL MEET ANSI/ASME STANDARD B16.22 AND NSF 61G.

4. ALL STRAIGHT RUNS OF REFRIGERANT PIPING SHALL BE SLOPED 1/8" PER FOOT MIN IN THE DIRECTION OF FLOW.

5. IF SOFT COPPER TUBING IS USED, IT SHALL BE INSTALLED AS STRAIGHT AS POSSIBLE WITHOUT EXCESSIVE BENDS, KINKS, OR OTHER OBSTRUCTIONS.

E. THERMOSTATS SHALL BE COMPATIBLE WITH SCHOOL CONTROL SYSTEM.

F. A CERTIFIED TEST AND BALANCE SHALL BE PERFORMED BY A CERTIFIED, 3RD PARTY TEST AND BALANCE COMPANY. INDIVIDUAL GRILLES SHALL BE BALANCED TO WITHIN 10% OF THE DESIGN AIR FLOWS AND UNITS SHALL BE BALANCED TO WITHIN 5% OF THE DESIGN AIR FLOWS. PUMPS SHALL BE BALANCED TO WITHIN 5% OF THE DESIGN FLOW. THE TEST AND BALANCE REPORT SHALL BE PROVIDED TO THE OWNER AND THIS ENGINEER FOR REVIEW AND COMMENT.

G. ALL LINE VOLTAGE (120V, 240V, 460V, ETC.) CONTROLS (SWITCHES, TIME CLOCKS, ETC.), ACCESSORIES, AND INTERCONNECTING WIRING SHALL BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR EXCEPT THAT ALL DAMPER ACTUATORS SHALL BE PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR. ALL LOW VOLTAGE (24V, ETC.) CONTROLS (THERMOSTATS, ETC.), ACCESSORIES, AND INTERCONNECTING WIRING SHALL BE PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR EXCEPT THAT ALL ASSOCIATED SMOKE AND FIRE ALARM WIRING SHALL BE PROVIDED AND INSTALLED BY THE FIRE ALARM CONTRACTOR. ALL NECESSARY TRANSFORMERS (120V TO 24V, ETC.) SHALL BE PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR OR THEIR CONTROLS SUBCONTRACTOR. COORDINATE ALL WORK WITH THE ELECTRICAL AND FIRE ALARM CONTRACTORS.

H. REFRIGERANT SYSTEM TESTS

1. PRESSURE TEST

   a. INTERCONNECTING PIPING

      a.1. EVACUATE ALL REFRIGERANT FROM THE SYSTEM.

      a.2. ISOLATE THE COMPONENT INTERCONNECTING PIPING AND CHARGE WITH DRY, OXYGEN FREE NITROGEN (OFN) TO 1.3 TIMES THE MAXIMUM ALLOWABLE PRESSURE OF THE SYSTEM COMPONENTS. MAINTAIN PRESSURE FOR 12 HOURS. IF LOSS OF PRESSURE OCCURS, LOCATE AND REPAIR LEAKS AND REPEAT TEST PROCEDURE.

   b. ENTIRE SYSTEM

      b.1. EVACUATE ALL REFRIGERANT FROM THE SYSTEM.

      b.2. CHARGE SYSTEM WITH DRY OFN TO THE MAXIMUM ALLOWABLE PRESSURE OF THE SYSTEM COMPONENTS. MAINTAIN PRESSURE FOR 12 HOURS. IF LOSS OF PRESSURE OCCURS, LOCATE AND REPAIR LEAKS AND REPEAT TEST PROCEDURE.

2. VACUUM TEST

   a. FOLLOWING SUCCESSFUL PRESSURE TESTING, EVACUATE THE SYSTEM TO 1500 MICRON. BREAK THE VACUUM WITH DRY OFN TO 1 BAR. REPEAT ONCE.

   b. CONTINUOUSLY EVACUATE THE SYSTEM TO BETWEEN 300 MICRON AND 500 MICRON FOR A MINIMUM OF 1 HOUR. INSPECT VACUUM PUMP FOR SIGNS OF MOISTURE DISCHARGE. CONTINUE EVACUATION AND INSPECT AT 1 HOUR INTERVALS UNTIL MOISTURE IS NOT PRESENT.

   c. MAINTAIN VACUUM FOR FOR 12 HOURS. IF LOSS OF VACUUM OCCURS, REPEAT TEST PROCEDURE.

3. FOLLOWING SUCCESSFUL PRESSURE AND VACUUM TESTING, CHARGE SYSTEM WITH NEW REFRIGERANT. RECOVERED, RECYCLED, OR RECLAIMED REFRIGERANT SHALL BE TREATED TO REMOVE MOISTURE, OIL, ACID, AND PARTICULATE MATTER PRIOR TO USE.

4. DOCUMENT TESTING AND PROVIDE TO OWNER. INSPECTION BY LOCAL AUTHORITY MAY BE REQUIRED.

I. CONDENSATE PIPING

1. ALL CONDENSATE PIPING SHALL BE PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR.

2. MATERIAL

   a. INTERIOR CONDENSATE PIPING SHALL BE APPROVED, SCHEDULE 40 PVC WITH PVC FITTINGS AND SOLVENT CEMENT JOINTS UNLESS OTHERWISE NOTED.

   b. EXTERIOR CONDENSATE PIPING SHALL BE APPROVED, SCHEDULE 80 PVC WITH PVC FITTINGS AND SOLVENT CEMENT JOINTS UNLESS OTHERWISE NOTED.

   c. WHEN NOTED AND/OR WHEN INSTALLED IN A RETURN AIR PLENUM CONDENSATE PIPING SHALL BE TYPE M COPPER WITH WROT COPPER FITTINGS AND SOLDERED JOINTS.

3. SIZING-CONNECTED LOAD

   a. 2 TONS OR LESS=3/4"

   b. MORE THAN 2 TONS TO 5 TONS=1"

   c. MORE THAN 5 TONS TO 30 TONS=1-1/4"

4. MINIMUM SLOPE

   a. 2-1/2" OR LESS=1/4" PER FOOT

J. ALL PIPING SHALL BE LABELED IN ACCORDANCE WITH ASTM STANDARD A13.1. LABELS SHALL INCLUDE PIPING SERVICE (REFRIGERANT SUCTION, REFRIGERANT LIQUID, CONDENSATE, ETC.), SIZE, AND DIRECTION OF FLOW.

K. COORDINATE ALL REQUIRED WALL, FLOOR, CEILING, AND ROOF PENETRATION LOCATIONS AND SIZES WITH THE GC PRIOR TO CONSTRUCTION. GC SHALL PROVIDE ALL REQUIRED FRAMED OPENINGS, HEADERS, MASONRY OPENINGS, LINTELS, ETC. AS NECESSARY.

L. COORDINATE ALL DUCT LOCATIONS, SIZES, AND ROUTING WITH GC PRIOR TO CONSTRUCTION. GC SHALL PROVIDE A CLEAR PATH THROUGH FRAMING AND MASONRY COMPONENTS TO ACCOMMODATE DUCT ROUTING.

M. COORDINATE ALL DUCT AND PIPE LOCATIONS, SIZES, AND ROUTING PRIOR TO CONSTRUCTION.

N. WATER SYSTEMS SHALL BE FLUSHED WITH CLEAN POTABLE WATER PRIOR TO SYSTEM START UP. FOLLOWING SYSTEM START UP BUT PRIOR TO TESTING AND BALANCING, ALL STRAINERS AND FILTERS SHALL BE FLUSHED AND CLEANED SO THEY ARE FREE OF DEBRIS. ENSURE THAT ALL COILS, PUMPS, EQUIPMENT, ETC. HAVE HAD FULL WATER FLOW PRIOR TO STRAINER/FILTER BLOW DOWN.

O. A QUALIFIED WATER TREATMENT SPECIALIST SHALL TEST AND TREAT ALL CONDENSER WATER SYSTEMS PRIOR TO SYSTEM TURN OVER TO OWNER TO PREVENT CORROSION, SCALE, BIOLOGICAL CONTAMINANTS, ETC.. CHEMICALS AND CONCENTRATIONS USED SHALL BE COMPATIBLE WITH PIPING AND EQUIPMENT MATERIALS.

P. LARGE EQUIPMENT SHALL BE SHIPPED FROM THE FACTORY IN SECTIONS SMALL ENOUGH TO FIT THROUGH ALL OPENINGS REQUIRED FOR INSTALLATION. BREAKDOWN OF EQUIPMENT ON SITE SHALL NOT BE PERMITTED. EQUIPMENT SHALL BE PROVIDED WITH DETAILED FACTORY PROVIDED INSTRUCTIONS FOR REASSEMBLY AND CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS, MATERIALS, WORKMANSHIP, ETC. COORDINATE WITH EQUIPMENT MANUFACTURERS, ARCHITECTURAL PLANS, AND WITH GC. REASSEMBLY OF EQUIPMENT SHALL BE PART OF THIS CONTRACT AND NO CHANGE ORDERS SHALL BE ALLOWED FOR FAILURE TO COMPLY WITH THIS SECTION.

Q. ALL PIPING CONNECTIONS AT MOTORIZED EQUIPMENT SHALL HAVE BRAIDED STAINLESS STEEL FLEXIBLE CONNECTIONS. PROVIDE WITH DIELECTRIC UNIONS FOR COPPER PIPE AND CONNECTIONS.

R. ALL CONTROL COMPONENTS, ACCESSORIES, AND INTERCONNECTING WIRING SHALL BE PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR OR HIS CONTROLS SUBCONTRACTOR. 120V POWER SHALL BE BROUGHT TO CONTROL COMPONENTS AS NECESSARY BY THE ELECTRICAL CONTRACTOR. COORDINATE ALL WORK WITH THE ELECTRICAL CONTRACTOR.

S. CONTRACTOR SHALL PROCURE THE SERVICES OF THE SCHOOL'S EXISTING CONTROLS CONTRACTOR (SEIMENS) TO FULLY INTEGRATE THE NEW/REPLACED EQUIPMENT INTO THE EXISTING CONTROL SYSTEM. THIS SHALL INCLUDE ALL PROGRAMMING, CONTROLLERS, CONTROL CABINETS, GRAPHICS, LOW VOLTAGE WIRING, SOFTWARE, HARDWARE, SENSORS, ETC. AS NECESSARY.

T. THE CONTROLS CONTRACTOR SHALL PROVIDE AND INSTALL ALL LOW VOLTAGE EQUIPMENT, COMPONENTS, AND WIRING.

U. 120V POWER SHALL BE BROUGHT TO CONTROL COMPONENTS AS NECESSARY BY THE ELECTRICAL CONTRACTOR. COORDINATE ALL WORK WITH THE ELECTRICAL AND FIRE ALARM CONTRACTORS.

V. VARIABLE FREQUENCY DRIVES (VFDs) SHALL BE PROVIDED BY THE MECHANICAL OR CONTROLS CONTRACTOR AND SHALL BE INSTALLED BY THE ELECTRICAL CONTRACTOR.

W. LOW VOLTAGE CONTROL WIRING CONDUIT/RACEWAYS SHALL BE PROVIDED AND INSTALLED BY THE CONTROLS CONTRACTOR. ALL LOW VOLTAGE CONTROL WIRING IN EXPOSED AREAS (MECHANICAL ROOMS, ETC.) SHALL BE INSTALLED IN CONDUIT. ALL LOW VOLTAGE CONTROL WIRING IN CONCEALED AREAS (ABOVE CEILINGS, ETC.) SHALL BE PROPERLY SUPPORTED FROM STRUCTURE WITH J-HOOKS.

X. ALL TEMPERATURE, HUMIDITY, ETC. SENSORS AND PORTS SHALL BE PROVIDED AND INSTALLED BY THE CONTROLS CONTRACTOR.

Y. ALL NECESSARY 120V TO LOW VOLTAGE TRANSFORMERS SHALL BE PROVIDED AND INSTALLED BY THE CONTROLS CONTRACTOR.

Z. ION GENERATORS SHALL BE PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR. THEY SHALL BE WIRED BY THE CONTROLS CONTRACTOR.

AA. CONDENSATE OVERFLOW SWITCHES SHALL BE PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR. THEY SHALL BE WIRED BY THE CONTROLS CONTRACTOR.

AB. DUCT SMOKE DETECTORS SHALL BE PROVIDED AND INSTALLED BY THE CONTROLS CONTRACTOR. ALL UNITS OVER 2000 CFM SHALL HAVE RETURN DUCT MOUNTED SMOKE DETECTORS. CONTROLS CONTRACTOR SHALL VERIFY ALL RETURN DUCT SMOKE DETECTORS ARE COMPATIBLE WITH THE FIRE ALARM SYSTEM. SMOKE DETECTORS SHALL BE ADDRESSABLE AND ABLE TO BE MONITORED BY THE FIRE ALARM SYSTEM. WIRING FOR SIGNAL TO THE FIRE ALARM PANEL SHALL BE PROVIDED AND INSTALLED BY THE FIRE ALARM CONTRACTOR. COORDINATE WITH FIRE ALARM CONTRACTOR.

AC. THE ROOFTOP AC UNITS HAVE FACTORY PROVIDED CONTROLLERS. THE CONTROLS CONTRACTOR SHALL PROVIDE AND INSTALL INTEGRATION OF THESE CONTROLLERS INTO THE BAS. COORDINATE WITH THE MANUFACTURER.

AD. ALL WORK SHALL BE CAREFULLY COORDINATED BETWEEN THE CONTROLS CONTRACTOR, MECHANICAL CONTRACTOR, ELECTRICAL CONTRACTOR, FIRE ALARM CONTRACTOR, TEST AND BALANCE CONTRACTOR, AND ALL WORK DEPICTED ON THE DRAWINGS AND SPECIFICATIONS.

AE. THE CONTROLS CONTRACTOR SHALL BE COPIED ON ALL EQUIPMENT SUBMITTALS RELATIVE TO THEIR WORK (PUMPS, AC UNITS, COOLING TOWER, ETC.) FOR REVIEW AND COMMENT. COORDINATE WITH MECHANICAL CONTRACTOR.

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www.mpdesigngroup.us

David J. Machado, PE
Brad P. Patano, PE
Gerrod W. Kilpatrick, PE
Bradford A. Jones, AIA
Fernanda A. Silva, AIA

JOHN MICAH VAN DUIJVENDIJK — REGISTERED PROFESSIONAL ENGINEER — STATE OF MISSISSIPPI
02/03/2023

VANCLEAVE SCHOOLS HVAC UPGRADES
LOWER ELEMENTARY, MIDDLE, & HIGH SCHOOLS
12602 HWY 57, 4725 BULLDOG LN, & 12424 HWY 57
VANCLEAVE, MISSISSIPPI 39565

SCALE: NONE
PROJECT NO: 0155.22.008
DRAWN BY: JMV
CHECKED BY: JMV

MECHANICAL NOTES

NO.	DATE	REVISION / SUBMITTAL
REV 0	02.03.2023	ISSUED FOR CONSTRUCTION

M002

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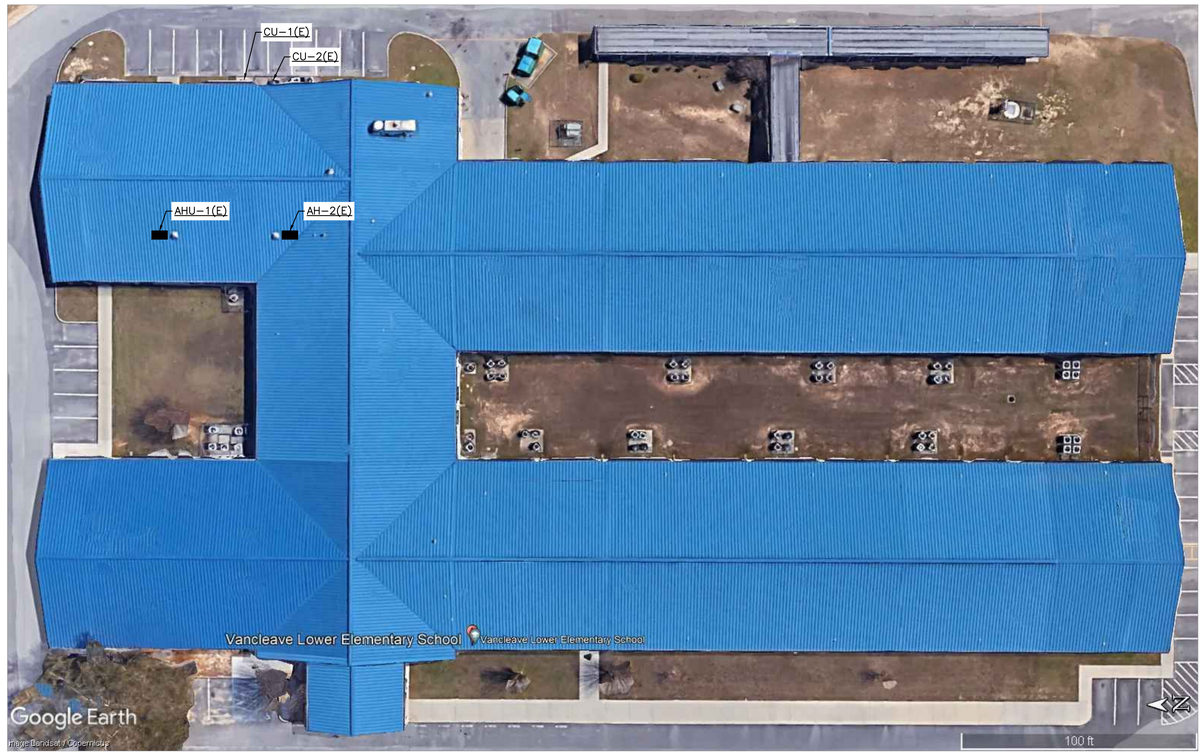

1 LOWER ELEMENTARY SCHOOL MECHANICAL SITE PLAN
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Brad P. Patano, PE
Gerrod W. Kilpatrick, PE
Bradford A. Jones, AIA
Fernanda A. Silva, AIA

JOHN MICAH VAN DUIJVENDIJK
LICENSED PROFESSIONAL
ENGINEER
22022
STATE OF MISSISSIPPI
02/03/2023

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LOWER ELEMENTARY SCHOOL
MECHANICAL SITE PLAN

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LICENSED PROFESSIONAL ENGINEER
ENGINEER
STATE OF MISSISSIPPI
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MIDDLE SCHOOL
MECHANICAL SITE PLAN

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LICENSED PROFESSIONAL ENGINEER
ENGINEER
STATE OF MISSISSIPPI
02/03/2023

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HIGH SCHOOL MECHANICAL SITE PLAN

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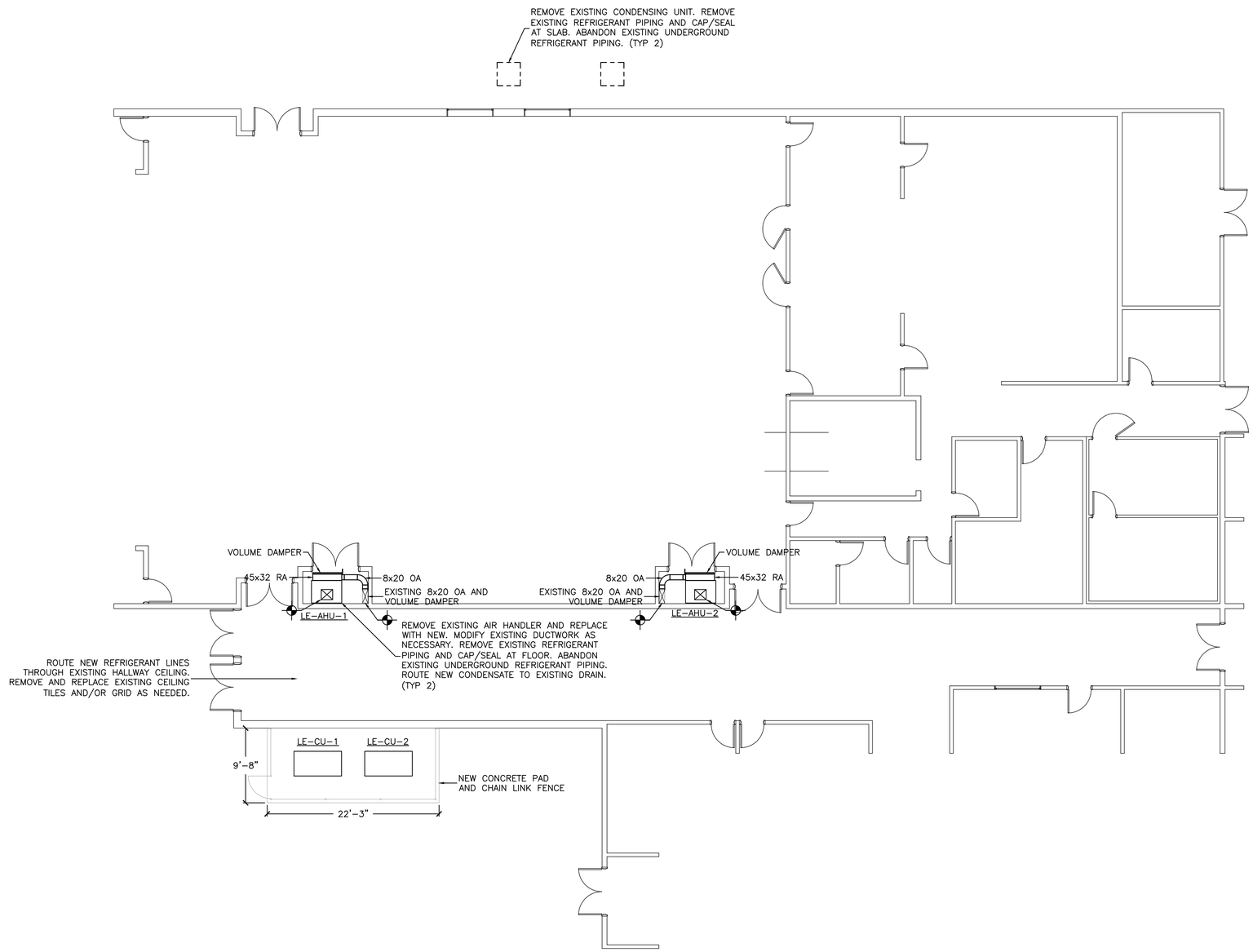

1 LOWER ELEMENTARY SCHOOL MECHANICAL HVAC PLAN
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02/03/2023

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LOWER ELEMENTARY SCHOOL MECHANICAL HVAC PLAN

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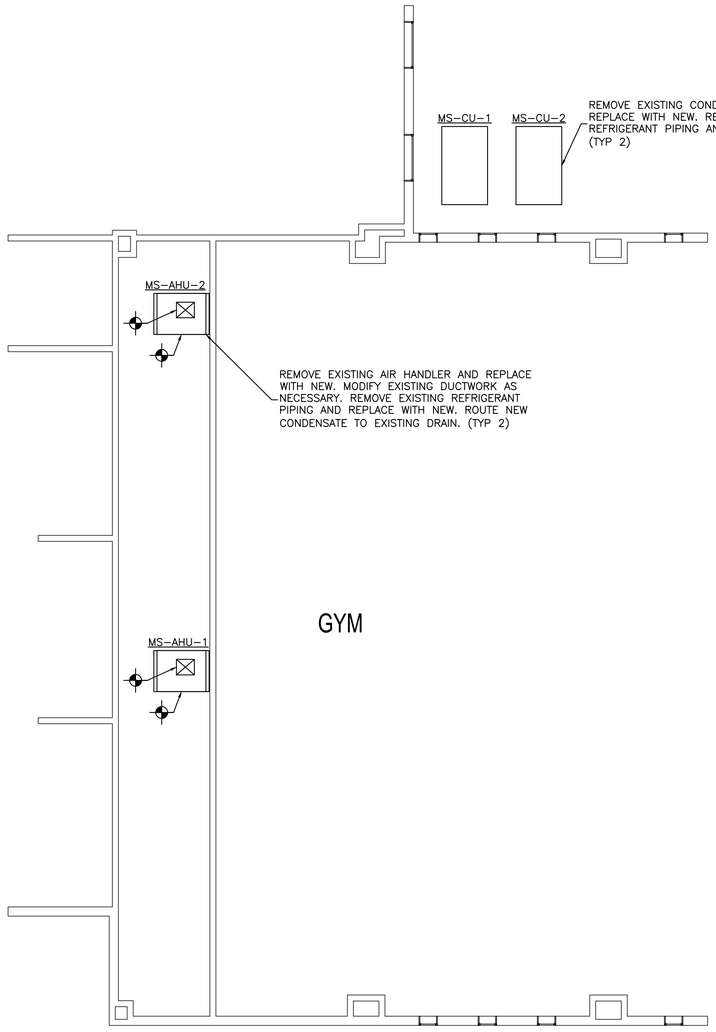

1 MIDDEL SCHOOL MECHANICAL HVAC PLAN
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LICENSED PROFESSIONAL
ENGINEER
22022
STATE OF MISSISSIPPI
02/03/2023

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MIDDLE SCHOOL
MECHANICAL HVAC PLAN

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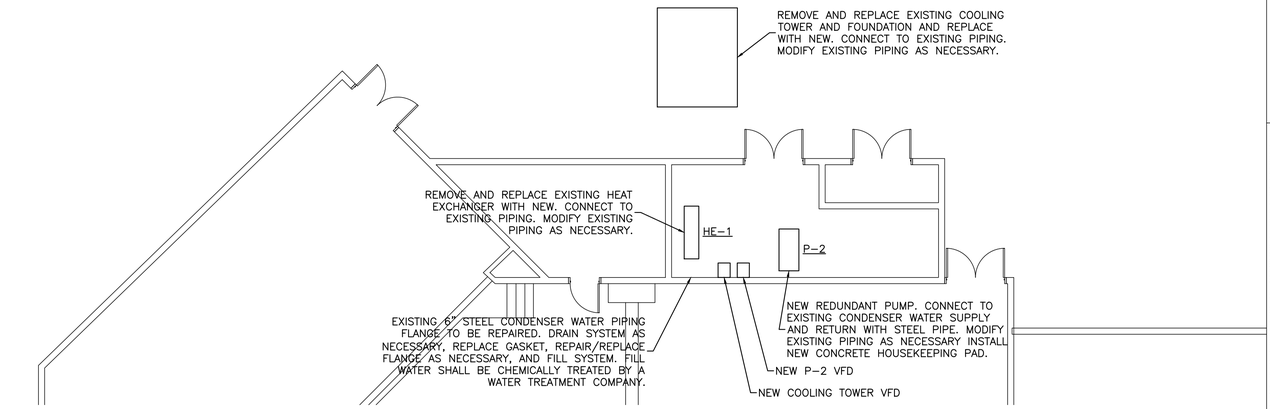
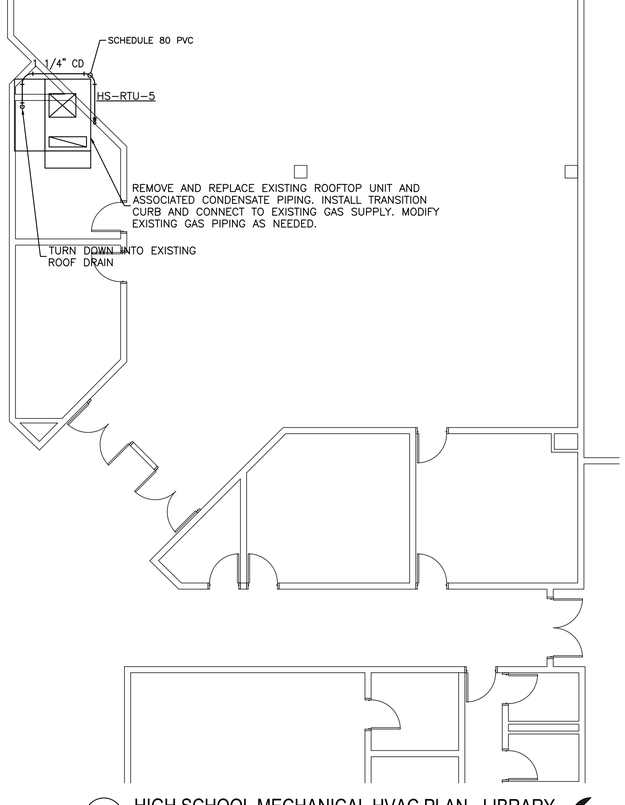
NOTE:
NEW GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL AND SHALL INCLUDE SHUTOFF VALVE AND DIRT LEG. PIPING SHALL BE PAINTED WITH A RUST PREVENTATIVE PRIMER AND TWO TOP COATS (YELLOW).



1 HIGH SCHOOL MECHANICAL HVAC PLAN - COOLING PLANT
SCALE: 1/8"=1'-0"



2 HIGH SCHOOL MECHANICAL HVAC PLAN - LIBRARY
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3 HIGH SCHOOL MECHANICAL HVAC PLAN - GYM
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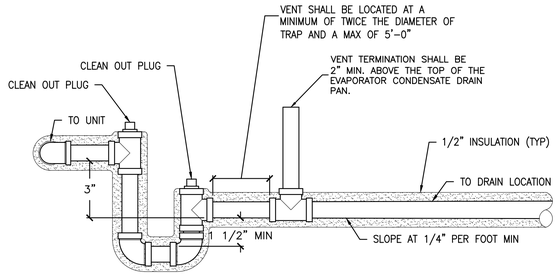
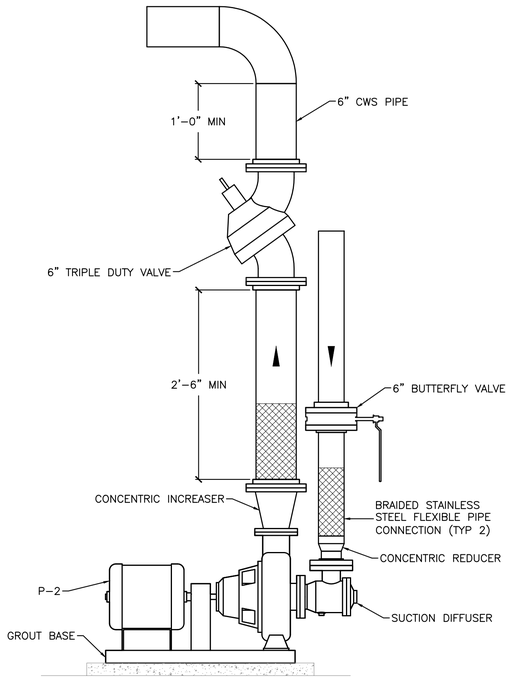
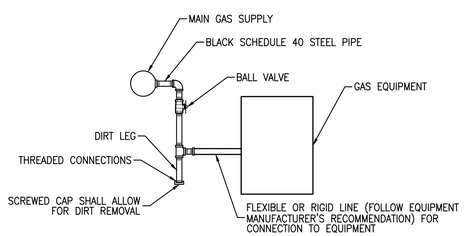


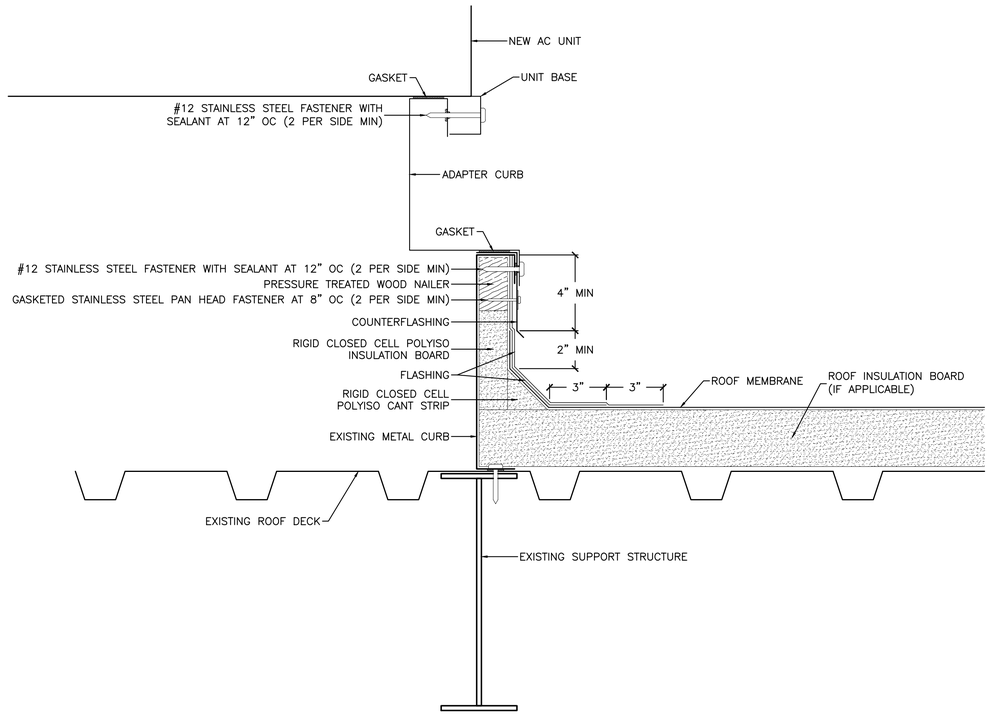
1 CONDENSATE DETAIL
SCALE: NTS



2 PUMP DETAIL
SCALE: NTS



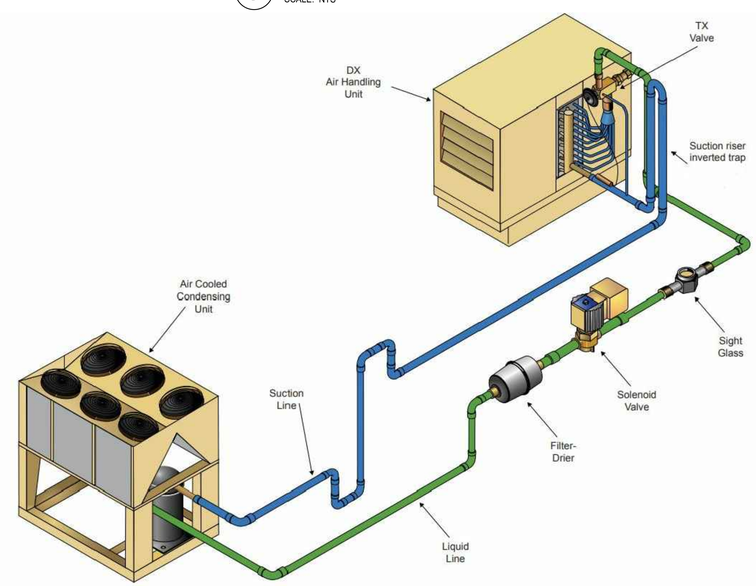
5 GAS CONNECTION DETAIL
SCALE: NTS



NOTE:

1. THE CONSTRUCTION SHOWN REPRESENTS THE MINIMUM REQUIREMENTS FOR THIS PROJECT. IT IS NOT A SUBSTITUTE FOR THE ROOFING SYSTEM MANUFACTURER'S INSTALLATION STANDARDS OR THE ROOFING CONTRACTOR'S STANDARDS. ALL WORK SHALL BE FULLY COORDINATED WITH THE ROOFING CONTRACTOR AND SHALL BE PERFORMED IN A MANNER THAT WILL NOT AFFECT ANY NEW OR EXISTING ROOF WARRANTY.
2. THE AC UNIT SHALL NOT BE SET UNTIL THE ROOF MEMBRANE AND FLASHING HAVE BEEN INSTALLED.

3 ROOF CURB DETAIL
SCALE: NTS



4 REFRIGERANT PIPING DETAIL
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David J. Machado, PE
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Gerrod W. Kilpatrick, PE
Bradford A. Jones, AIA
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VANCLEAVE, MISSISSIPPI 39565

SCALE: NONE
PROJECT NO: 0155.22.008
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MECHANICAL HVAC DETAILS

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PACKAGE ROOF TOP UNIT SCHEDULE

TAG	MAKE	MODEL	CFM	OA	ESP	RPM	COOLING CAPACITY					GAS HEAT INPUT (MBH)	V/PH	INDOOR FAN HP	INDOOR FAN FLA	OUTDOOR FAN FLA	COMPRESSOR AMPS	FLA	MCA	MOCP	LBS	NOTES
							NET TOTAL (MBH)	NET SENSIBLE (MBH)	EDB (°F)	EWB (°F)	OA (°F)											
HS-RTU-1	DAIKIN	MPS026G	8000	1200	0.60	1162	273.280	197.034	80.0	67.0	95.0	300	460/3	5	6.6	(3) 2.0	(3) 12.2	50.1	53.2	60	4010	2,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
HS-RTU-2	DAIKIN	MPS026G	8000	1200	0.60	1162	273.280	197.034	80.0	67.0	95.0	300	460/3	5	6.6	(3) 2.0	(3) 12.2	50.1	53.2	60	4010	2,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
HS-RTU-3	DAIKIN	MPS026G	8000	1200	0.60	1162	273.280	197.034	80.0	67.0	95.0	300	460/3	5	6.6	(3) 2.0	(3) 12.2	50.1	53.2	60	4010	2,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
HS-RTU-4	DAIKIN	MPS026G	8000	1200	0.60	1162	273.280	197.034	80.0	67.0	95.0	300	460/3	5	6.6	(3) 2.0	(3) 12.2	50.1	53.2	60	4010	1,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
HS-RTU-5	DAIKIN	DSP010A	4000	600	0.60	1504	128.365	98.082	80.0	67.0	95.0	N/A	460/3	8	6.8	(2) 1.8	4.5 & 7.9	21.0	23.0	30	2171	3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21

1 WITH TRANSITION CURB FOR COLEMAN MODEL ZS-20N30B4H2AAB1B1
2 WITH TRANSITION CURB FOR YORK MODEL DM240N24D4BUA1C
3 WITH TRANSITION CURB FOR TRANE MODEL TSC120A4E0A11
4 WITH RETURN AIR SMOKE DETECTOR
5 WITH CONVENIENCE OUTLET
6 WITH 2-POSITION, MOTORIZED OUTDOOR AIR DAMPER
7 WITH HINGED ACCESS PANELS
8 WITH HAIL GUARD
9 WITH BAS COMPATIBLE THERMOSTAT AND HUMIDITY SENSOR
10 WITH MERV 13 FILTERS
11 WITH HOT GAS REHEAT AND DEHUMIDIFICATION CONTROL
12 WITH NON-FUSED DISCONNECT
13 WITH 5 YEAR COMPRESSOR WARRANTY
12 WITH 10 YEAR HEAT EXCHANGER WARRANTY
13 MANUFACTURED IN THE USA
14 WITH LOW-AMBIENT CONTROL
15 WITH FACTORY START UP
16 WITH THROUGH THE BASE ELECTRICAL & GAS
17 WITH BACnet COMMUNICATION CONTROLLER
18 WITH CONDENSATE OVERFLOW SWITCH
19 WITH FILTER SWITCH
20 WITH FACTORY CONDENSER COIL CORROSION PROTECTION COATING
21 WITH MATCHED GLOBAL PLASMA SOLUTIONS (GPS-iMOD) NEEDLEPOINT BI-POLAR IONIZATION UNIT MOUNTED IN CABINET, UPSTREAM OF COOLING COIL

AIR HANDLER SCHEDULE

TAG	MAKE	MODEL	CFM	OA	ESP	RPM	HEAT (KW)	V/PH	FAN HP	FAN FLA	FAN LRA	HEATER FLA	MCA	MOCP	LBS	NOTES
LE-AHU-1	DAIKIN	BCVD0401	4000	500	1.0	1252	39	460/3	5	6.2	N/A	46.9	66.3	70	340	1,2,3,4,6,8,9,10
LE-AHU-2	DAIKIN	BCVD0401	4000	500	1.0	1252	39	460/3	5	6.2	N/A	46.9	66.3	70	340	1,2,3,4,6,8,9,10
MS-AHU-1	DAIKIN	CAH018GDAM	8000	1200	1.5	1013	35 (SEPARATE FEED)	208/3	7.5	23.3	162.28	97.15 (SEPARATE FEED)	N/A	N/A	1955	1,2,3,5,6,7,8,9,10
MS-AHU-2	DAIKIN	CAH018GDAM	8000	1200	1.5	1013	35 (SEPARATE FEED)	208/3	7.5	23.3	162.28	97.15 (SEPARATE FEED)	N/A	N/A	1955	1,2,3,5,6,7,8,9,10

1 WITH CONDENSATE OVERFLOW SWITCH
2 VERTICAL CONFIGURATION
3 WITH THERMAL EXPANSION VALVE
4 WITH SINGLE POINT ELECTRICAL CONNECTION
5 WITH SECONDARY DRAIN PAN
6 MOUNT ON NIS VIBRATION ISOLATION
7 WITH WARREN TECHNOLOGY MODEL CBK, 22.5"X16" ELECTRIC DUCT HEATER
8 WITH MATCHED GLOBAL PLASMA SOLUTIONS (GPS-iMOD) NEEDLEPOINT BI-POLAR IONIZATION UNIT MOUNTED IN CABINET, UPSTREAM OF COOLING COIL
9 WITH MERV 13 FILTERS
10 MANUFACTURED IN THE USA

CONDENSING UNIT SCHEDULE

TAG	MAKE	MODEL	TONNAGE	LIQUID	SUCTION	V/PH	FAN FLA	COMPRESSOR FLA	MCA	MOCP	LBS	NOTES
LE-CU-1	DAIKIN	RCS10H120C	10	5/8"	1-5/8"	208/3	(2) 3.9	34.8	49.0	80	565	1,2,3,4,5,6,7,8
LE-CU-2	DAIKIN	RCS10H120C	10	5/8"	1-5/8"	208/3	(2) 3.9	34.8	49.0	80	565	1,2,3,4,5,6,7,8
MS-CU-1	DAIKIN	RCS020D	20	(2) 5/8"	(2) 1-3/8"	208/3	(2) 4.2	(2) 37.6	93.6	125	1895	1,2,3,4,5,6,7,8
MS-CU-2	DAIKIN	RCS020D	20	(2) 5/8"	(2) 1-3/8"	208/3	(2) 4.2	(2) 37.6	93.6	125	1895	1,2,3,4,5,6,7,8

1 WITH FILTER/DRYER
2 SECURE TO CONCRETE PAD
3 WITH CONVENIENCE OUTLET
4 WITH LOW AMBIENT CONTROL
5 WITH 5 YEAR COMPRESSOR WARRANTY
6 WITH FACTORY CONDENSER COIL CORROSION PROTECTION COATING AND HAIL GUARD
7 MANUFACTURED IN THE USA
8 WITH FACTORY START UP

PUMP SCHEDULE

TAG	MAKE	MODEL	MAX GPM	MIN GPM	HEAD (FT)	HP	RPM	EFF. @100%	INLET (IN)	OUTLET (IN)	IMPELLER (IN)	V/PH	LBS	NOTES
P-2	TACO	FI4013D	465	117	130	30	1760	75	5	4	11.35	460/3	1065	1,2,3,4,5

1 SECURE TO NEW CONCRETE PAD AND GROUT BASE
2 WITH ODP MOTOR
3 125 PSI PRESSURE CLASS
4 WITH VFD
5 MANUFACTURED IN THE UNITED STATES

PLATE HEAT EXCHANGER SCHEDULE

TAG	MAKE	MODEL	HOT SIDE				COLD SIDE				LBS	NOTES
			GPM	EWT	LWT	PD (FT)	GPM	EWT	LWT	PD (FT)		
HE-1	TACO	PF31-191-4-NH	465	103.8	92	4.6	690	88	96	10.0	1875	1,2,3,4

1 WITH AISI 304 STAINLESS STEEL PLATES
2 WITH NBR HT GASKETS
3 MANUFACTURED IN THE UNITED STATES
4 WITH FLANGED CONNECTIONS

COOLING TOWER SCHEDULE

TAG	MAKE	MODEL	GPM	EWT	LWT	WB	V/PH	HP	FAN FLA	BASIN (KW)	LENGTH	WIDTH	LBS	INLET PD (FT)	NOTES
CT-1	EVAPCO	AT19-3I11	690	98	88	81	480/3	10	12.4	8	10'-5 1/2"	8'-5 1/2"	8350	6.0	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18

1 ALL STAINLESS STEEL CONSTRUCTION
2 WITH VIBRATION LIMIT SWITCH
3 MANUFACTURED IN THE UNITED STATES
4 WITH STRUCTURAL DESIGN FOR IBC COMPLIANCE FOR HIGH WIND/HURRICANE PRONE REGIONS (159 MPH)
5 WITH VARIABLE FREQUENCY DRIVE AND CONTROL SYSTEM
6 WITH ELECTRIC BASIN HEATER
7 WITH STAINLESS STEEL BASIN
8 WITH 5 YEAR COMPLETE PRODUCT WARRANTY
9 WITH INVERTER-DUTY TEFC MOTORS FOR VFD
10 WITH NEMA 4X STAINLESS STEEL CONTROL PANEL
11 WITH EXTERNAL SERVICE PLATFORM WITH LADDER
12 WITH FAN MOTOR SPACE HEATERS
13 WITH CONTACTOR, TRANSFORMER, & DISCONNECT FOR HEATER
14 WITH EVAPAK FILL
15 WITH 4 FOOT LADDER EXTENSION
16 WITH WATER LEVEL CONTROL SYSTEM AND FLOAT VALVE
17 WITH FLANGED CONNECTIONS
18 WITH STAINLESS STEEL INTERNAL SERVICE PLATFORM

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918 Howard Ave Suite F
Biloxi, Mississippi 39530
P: 228.388.1950
www.mpdesigngroup.us
David J. Machado, PE
Brad P. Patano, PE
Gerrod W. Kilpatrick, PE
Bradford A. Jones, AIA
Fernanda A. Silva, AIA

JOHN MICAH VAN DUIJVENDIJK LICENSED PROFESSIONAL ENGINEER STATE OF MISSISSIPPI
02/03/2023

VANCLEAVE SCHOOLS HVAC UPGRADES
LOWER ELEMENTARY, MIDDLE, & HIGH SCHOOLS
12602 HWY 57, 4725 BULLDOG LN, & 12424 HWY 57
VANCLEAVE, MISSISSIPPI 39565

SCALE: NONE
PROJECT NO: 0155.22.008
DRAWN BY: JMV
CHECKED BY: JMV

MECHANICAL HVAC SCHEDULES

NO.	DATE	REVISION / SUBMITTAL
REV 0	02.03.2023	ISSUED FOR CONSTRUCTION

MH601

VERIFY SCALES
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LIGHTING SYMBOLS

CEILING	WALL	DESCRIPTION
		LED, FLUORESCENT OR H.I.D. LIGHT FIXTURE. LETTER DENOTES FIXTURE TYPE. SEE LUMINARE SCHEDULE.
		LED OR FLUORESCENT STRIP LIGHT FIXTURE. LETTER DENOTES FIXTURE TYPE. SEE LUMINARE SCHEDULE
		LED OR FLUORESCENT LIGHT FIXTURE. LETTER DENOTES FIXTURE TYPE. SEE LUMINARE SCHEDULE.
		"EXIT" LIGHT FIXTURE. DIRECTIONAL ARROWS AS INDICATED. SHADED QUADRANT INDICATE FACE(S). SEE LUMINARE SCHEDULE.
		EMERGENCY BATTERY PACK FIXTURE. LETTER DENOTES FIXTURE TYPE. SEE LUMINARE SCHEDULE.
		H.I.D. FLOODLIGHT FIXTURE. LETTER DENOTES FIXTURE TYPE. SEE LUMINARE SCHEDULE.

POWER SYMBOLS

FLOOR	WALL	CEIL.	COUNTR	QUAD.	DESCRIPTION
					DUPLEX OUTLET; GFCI=GFCI PROTECTION, WP=WEATHER PROOF COVER, IG=ISOLATED GROUND.
					SPECIAL OUTLET
					480/277V PANELBOARD
					208/120V PANELBOARD
					AS/#P/NR AT — DISCONNECT SWITCH, AS=FRAME SIZE, AT=FUSE SETTING (NF=NON FUSED), #P=NUMBER POLES, NR=NEMA ENCLOSURE RATING (NEMA 1 UNLESS OTHERWISE NOTED)
					MP/#P/NR SS — COMBINATION STARTER/DISCONNECT SWITCH, MP=MAX PROTECTION RATING, SS=STARTER SIZE, #P=NUMBER POLES, NR=NEMA ENCLOSURE RATING.
					NR SS — MAGNETIC MOTOR STARTER. SS=STARTER SIZE, NR=NEMA ENCLOSURE RATING (NEMA 1 UNLESS OTHERWISE NOTED
					HP — MOTOR, SINGLE-PHASE. HP=DENOTES HORSEPOWER
					HP — MOTOR, THREE-PHASE. HP=DENOTES HORSEPOWER
					J — JUNCTION BOX
					J — JUNCTION BOX, WALL MOUNTED
					T — TRANSFORMER

SYSTEM DEVICES

FLOOR	WALL	CEIL.	DESCRIPTION
			TELEPHONE OUTLET, FLUSH MOUNTED
			COMBINATION DATA/TELEPHONE OUTLET, FLUSH MOUNTED
			CABLE TELEVISION OUTLET, FLUSH MOUNTED
	H	H	FIRE ALARM, COMBINATION AUDIO/VISUAL ANNUNCIATION UNIT. CANDELA AS INDICATED. WALL MOUNTED 7'-6" AFF UNLESS OTHERWISE NOTED, CEILING MOUNTED.
	S	S	STROBE, WALL MOUNTED 7'-6" AFF UNLESS OTHERWISE NOTED. CEILING MOUNTED CANDELA AS INDICATED.
	P		FIRE ALARM PULL STATION. WALL MOUNTED 48" AFF.
	H		HEAT DETECTOR CEILING MOUNTED.
	SD		SMOKE DETECTOR CEILING MOUNTED.
	DSD		DUCT SMOKE DETECTOR, WITH SAMPLING TUBE MOUNTED IN HVAC DUCT.
	FS		FLOW SWITCH
	CM		CONTROL MODULE
	TS		TAMPER SWITCH
	FAP		FIRE ALARM CONTROL PANEL (FACP)
	TX		TRANSCEIVER
	ANN		FIRE ALARM REMOTE ANNUNCIATOR PANEL.
	VFD		VARIABLE FREQUENCY DRIVE
	TBB		TELEPHONE BACK BOARD PANEL

WIRING SYMBOLS

	DESCRIPTION
	WIRING (IN CONDUIT) CONCEALED IN CEILING OR WALL
	WIRING (IN CONDUIT) RUN EXPOSED
	WIRING UNDERGROUND (SITE WORK)
	TELECOMMUNICATION RACEWAY (SITE WORK)
L:1,3	HOMERUN TO PANELBOARD WITH NOMENCLATURE (LETTERS), CIRCUIT NUMBERS (NUMBERS), NUMBER OF CIRCUITS (NUMBER OF ARROWS), EACH CIRCUIT TO HAVE GROUND.
E	ELECTRICAL MANHOLE
T	TELECOMMUNICATION MANHOLE
	GROUND CONNECTION
$	SINGLE-POLE TOGGLE SWITCH.
$WP	WEATHER PROOF BUTTON SWITCH.
$3	THREE-WAY BUTTON SWITCH.
$D	SLIDE DIMMER FLUORESCENT.
$M	SWITCH, MOTOR RATED
$MS	SWITCH, MOTION SENSOR, LITHONIA WSX SERIES OR APPROVED EQUAL
PC	PHOTO CELL
OC	OCCUPANCY SENSOR, LITHONIA LIGHTING CEILING MOUNTED 360 DEGREE PASSIVE DUAL TECHNOLOGY MOTION SENSOR, OR APPROVED EQUAL
	CONDUIT STUBBED OUT
	GROUNDING CONNECTION BAR
	10' 3/4" COPPER CLAD GROUND ROD.

REFERENCE SYMBOLS

	DESCRIPTION
1	SPECIFIC NOTE REFERENCE.
100	FEEDER REFERENCE.
A / E1 E2 ; 1 / E1 E2	DETAIL/SECTION REFERENCE: "1" DENOTES DETAIL "A" DENOTES SECTION "E1" DENOTES DRAWING NUMBER WHERE DETAIL/SECTION IS TAKEN "E2" DENOTES DRAWING NUMBER WHERE DETAIL/SECTION IS DRAWN

SPECIAL SYSTEMS

	DESCRIPTION
ISP	SPEAKER. CEILING MOUNT.
CS	INTERCOM CALL STATION.
MC	FLOOR MOUNTED MICROPHONE OUTLET ACE BACKSTAGE HALF STAGE POCKET OR EQUAL.
$V	WALL MOUNTED VOLUME CONTROL 70 VOLT.
DC	MAGNETIC DOOR CONTACT. SECURITY SYSTEM
GB	GLASS BREAK SENSOR. SECURITY SYSTEM
MS	MOTION DETECTOR. SECURITY SYSTEM.
SEC	SECURITY SYSTEM PANEL.
KP	KEYPAD SECURITY SYSTEM.
PRO	OVERHEAD PROJECTOR

ONE-LINE SYMBOLS

	DESCRIPTION
M	METER ENCLOSURE
M	METER
	CIRCUIT BREAKER
	SWITCH, SINGLE POLE-SINGLE THROW
	FUSE
	FUSE
	FUSED SWITCH
	FUSED SWITCH
	DRY TYPE TRANSFORMER
PANEL	PANELBOARD
	CURRENT TRANSFORMER
	POTENTIAL TRANSFORMER
LC	LIGHTING CONTACTOR
GFM	GROUND FAULT MONITORING
K	KIRK-KEY MECHANICAL INTER-LOCK
	GROUND SYSTEM TEST WELL WITH GROUND ROD CONNECTION
	EXOTHERMIC WELD GROUND ROD CONNECTION
	EXOTHERMIC WELD CONNECTION
	4-WAY SF_6 SWITCH
	6-WAY SF_6 SWITCH
	TYPICAL DUAL CIRCUIT AIR BREAK TRANSFORMER DESIGN
400A / 440D	TRANSFORMER STATION NUMBER BUILDING NUMBER OR LOCATION
	LOAD BREAK SF_6 SWITCH
1	MOTOR STARTER (NUMBER INDICATES NEMA SIZE)
27	UNDERVOLTAGE RELAY
V	VOLT METER
A	AMMETER
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION

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918 Howard Ave Suite F
Biloxi, Mississippi 39530
P: 228.388.1950
www.mpdesigngroup.us

David J. Machado, PE
Brad P. Patano, PE
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Bradford A. Jones, AIA
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BRADLEY P. PATANO — LICENSED PROFESSIONAL ENGINEER — 2/3/2023 — 17411 — STATE OF MISSISSIPPI

VANCLEAVE SCHOOLS HVAC UPGRADES
LOWER ELEMENTARY, MIDDLE, & HIGH SCHOOLS
12602 HWY 57, 4725 BULLDOG LN, & 12424 HWY 57
VANCLEAVE, MISSISSIPPI 39565

SCALE: NTS
PROJECT NO: 0155.22.008
DRAWN BY: DLM
CHECKED BY: KDB

ELECTRICAL SYMBOL SCHEDULE

NO.	DATE	REVISION / SUBMITTAL
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E001

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GENERAL NOTES

1. EQUIPMENT SHALL BE MOUNTED ON MATERIALS SUITABLE FOR THE ENVIRONMENT WHICH IT IS INSTALLED WITH THE APPROPRIATE NEMA ENCLOSURE RATING.
2. WORKING CLEARANCES FOR ELECTRICAL EQUIPMENT SHALL BE IN COMPLIANCE WITH ARTICLE 110 AND 408.
3. THE DEDICATED ELECTRICAL SPACE EXTENDED FROM THE FLOOR TO THE STRUCTURAL CEILING WITH THE WIDTH AN DEPTH OF THE PANEL-BOARD OR SWITCHBOARD, MUST BE CLEAR OF ALL PIPING, DUCTS, EQUIPMENT FOREIGN TO THE ELECTRICAL OR ARCHITECTURAL APPURTENANCES IN ACCORDANCE WITH THE NEC 110 & 408. COORDINATE INSTALLATION OF ELECTRICAL EQUIPMENT WITH OTHER TRADES PRIOR TO ROUGHING IN EQUIPMENT.
4. ALL ELECTRICAL EQUIPMENT AND THE RESULTANT INSTALLATION OF SUCH EQUIPMENT, DEVICES, ETC., SHALL BE IN STRICT COMPLIANCE WITH THE NATIONAL ELECTRIC CODE, NFPA 70, ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES AND THE STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE NFPA 70E.
5. DRAWINGS AND SPECIFICATIONS FORM A COMPLETE SET OF DOCUMENTS FOR THE WORK IN THIS PROJECT. NEITHER IS COMPLETE WITHOUT THE OTHER. ANY ITEM MENTIONED IN ONE SHALL BE BINDING AS MENTIONED IN BOTH.
6. CONTRACTOR SHALL TAKE RESPONSIBILITY FOR FIELD VERIFICATION OF ALL DIMENSIONS AND LOCATIONS OF EXISTING, RELOCATED AND NEW EQUIPMENT AND SHALL BE RESPONSIBLE FOR COORDINATION WITH THE WORK OF OTHER TRADES NECESSARY TO THE PROJECT.
7. THESE DRAWINGS ARE INTENDED TO OUTLINE THE SCOPE OF WORK REQUIRED TO PROVIDE A COMPLETE AND OPERABLE PROJECT CONCLUSION. ALL MISCELLANEOUS COMPONENTS, PARTS, FASTENERS, SPLICES AND OTHER INCIDENTAL ITEMS NECESSARY TO PROVIDE A COMPLETED PROJECT SHALL BE PROVIDED WHETHER OR NOT SPECIFICALLY NOTED.
8. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY CONFLICTS ARISING FROM DISCOVERED CONDITIONS AT ANY PHASE OF THE PROJECT.
9. CONTRACTOR SHALL NOTIFY MISSISSIPPI ONE CALL TO DETERMINE THE LOCATION AND DEPTH OF UNDERGROUND UTILITIES PRIOR TO EXCAVATION.
10. AT ANY LOCATION WHERE EXCAVATION OR ASSOCIATED WORK CAUSES DAMAGE TO EXISTING UNDERGROUND UTILITIES, CONTRACTOR SHALL RESTORE THE DAMAGED SYSTEM TO LIKE-NEW STATE.
11. ALL BRANCH CIRCUITS SHALL HAVE A SEPARATE NEUTRAL AND GROUND.
12. ALL ABOVE GROUND EXPOSED CONDUIT SHALL BE RIGID GALVANIZED STEEL.
13. LOCATIONS OF OTHER EQUIPMENT SPECIFIED BY OTHER TRADES OR PROVIDED BY OWNER ARE APPROXIMATE. COORDINATE EXACT LOCATION IN FIELD PRIOR TO ROUGHING IN AND ROUTING CONDUIT.
14. SEE ARCHITECTURAL REFLECTED CEILING PLANS AND ELEVATIONS FOR EXACT LOCATIONS FOR LIGHT FIXTURES IN LAY-IN OR DRYWALL CEILINGS, AND ON INTERIOR OR EXTERIOR WALLS.
15. CONDUITS ARE NOT NECESSARILY SHOWN ON PLAN DRAWINGS FOR SAKE OF CLARITY. PROVIDE CONDUITS BETWEEN DEVICES AND TO PANELS PER REQUIREMENTS LISTED IN DIVISION 26 SPECIFICATIONS. INDICATE EXACT ROUTING OF CONDUIT ON PLAN DRAWINGS AS PART OF AS BUILD DOCUMENTATION TO BE SUBMITTED AFTER FINAL COMPLETION.
16. FINAL CONNECTION TO ALL MOTORS SHALL BE WITH FLEXIBLE CONDUIT CONNECTION.
17. ALL EXIT, NIGHT LIGHT, AND EMERGENCY FIXTURES SHALL BE CONNECTED TO LIGHT CIRCUIT AHEAD OF LOCAL SWITCH.
18. GENERAL CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING ANY WORK AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES. FAILURE TO DO SO INDICATES THAT THE CONTRACTOR ACCEPTS THE CONDITIONS AS THEY EXIST, AND SHALL PERFORM THE WORK REQUIRED AS SHOWN AND SPECIFIED.
19. ELECTRICAL CONTRACTOR SHALL REVIEW MECHANICAL DRAWINGS AND SPECIFICATION TO OBTAIN LOCATIONS, WIRING REQUIREMENTS, CONTROL WIRING SCHEMES, INTERLOCK WIRING AND THERMOSTAT LOCATIONS.
20. ALL DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO QUANTIFY THE MATERIALS SPECIFIED AND INDICATED THEIR INTENDED RELATIONSHIP TO EACH OTHER. THE DRAWINGS ARE NOT TO BE SCALED. THE VARIOUS SCALES USED ON THE DRAWINGS MAY NOT ALLOW FOR ALL FITTINGS, OFFSETS, AND ACCESSORIES THAT MAY BE REQUIRED TO COMPLETE THE WORK. THE CONTRACTOR SHALL CAREFULLY INVESTIGATE THE CONDITIONS THAT WOULD AFFECT THE WORK TO BE PERFORMED AND SHALL ARRANGE SUCH WORK AS NECESSARY TO COMPLY WITH THE INTENT OF THE CONSTRUCTION DOCUMENTS.
24. ALL OPERABLE WALL MOUNTED DEVICES (SWITCHES, PULL STATIONS, ETC.) SHALL BE INSTALLED SO THAT THE OPERABLE COMPONENT IS A MAXIMUM OF 48" AFF AND IN ACCORDANCE WITH ADA AND ABA STANDARDS.

DEMOLITION NOTES

1. PLANS DO NOT ATTEMPT TO SHOW ALL DEMOLITION ITEMS. SOME LIGHT FIXTURES, SWITCHES/DIMMERS, EXIT LIGHTS, RECEPTACLES, TELEPHONE, DATA, MISC. OUTLETS, COMMUNICATION DEVICES (FIRE ALARM, PAGING/INTERCOM, NURSE CALL, SECURITY,... ETC.) ARE SHOWN FOR INFORMATION PURPOSES AND GENERAL LAYOUT IN THESE AREAS TO BE RENOVATED. HOWEVER, THE ITEMS SHOWN ARE NOT NECESSARILY COMPLETE, ELECTRICAL CONTRACTOR (E.C.) TO FIELD VERIFY ALL DEMOLITION ITEMS AND PROVIDE REMOVAL OF ALL DEVICES ACCORDINGLY. SEE RELATED NOTES ON MAINTAINING SERVICE TO NON-DEMOLITION AREAS.
2. E.C. SHALL REMOVE ALL EXISTING LIGHT FIXTURES, SWITCHES/DIMMERS, EXIT LIGHTS, RECEPTACLES, TELEPHONE, DATA, MISC. OUTLETS, WIRING TROUGHS, DUCTS, FILM ILLUMINATORS, COMMUNICATION DEVICES (FIRE ALARM, PAGING/INTERCOM, SECURITY,... ETC.) IN DEMOLITION AREAS. REMOVE CONDUIT/WIRE BACK TO PANEL(S) UNLESS RE-USED FOR NEW AND/OR RELOCATED WORKS. EXISTING RACEWAYS, CONDUITS AND CABLE DUCTS WITH ADEQUATE CAPACITY FOR NEW AND/OR EXISTING LOADS MAY BE RE-USED. SIMILARLY FOR COMMUNICATION SYSTEM CONDUIT/WIRE (REMOVE BACK TO CONTROL PANEL(S) IF NOT RE-USED). FIXTURES NOT INDICATED FOR RE-USE SHALL BE DELIVERED TO A LOCATION TO BE SPECIFIED BY OWNER. ALL FIXTURES UPSTREAM OR DOWNSTREAM OF DEMOLISHED FIXTURES AND ON THE SAME CIRCUITS SHALL BE RECONNECTED TO MAINTAIN SERVICE, PROVIDE NEW CONDUIT/WIRE AS REQUIRED.
3. DAMAGE TO EXISTING MATERIALS/EQUIPMENT WILL BE REPAIRED AT NO ADDITIONAL COST TO OWNER. RE-SUPPORT ANY REMAINING CONDUIT OR DEVICE THAT WERE SUPPORTED BY WALLS/MILLWORK BEING REMOVED.
4. NON-DEMOLITION AREAS: DEMOLITION WORKS SHALL NOT AFFECT AREAS NOT INCLUDED IN DEMOLITION. E.C. SHALL BE RESPONSIBLE FOR THE CONTINUITY OF ALL SERVICES (POWER, TELEPHONE, FIRE ALARM, DATA, PAGING, INTERCOM, ETC.) IN NON-DEMOLITION AREAS. ALL SERVICES SHALL BE MAINTAINED AT ALL TIMES. E.C. SHALL MAINTAIN SERVICE BY EXTENDING, RE-ROUTING AND/OR RECONNECTING ANY CIRCUITS AFFECTED BY DEMOLITION.
5. E.C SHALL FIELD INVESTIGATE EXISTING ELECTRICAL INSTALLATION. ALL EXISTING INSTALLATION IN THE RENOVATION AREAS THAT ARE TO REMAIN BUT ARE NOT CURRENTLY IN COMPLIANCE WITH CURRENT CODES SHALL BE CORRECTED BY E.C., INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

   UN-SUPPORTED CONDUIT AND JUNCTION BOXES LAYING ON TOP OF CEILING TILES, CONDUIT AND/OR JUNCTION BOXES SUPPORTED ONLY BY TIE-WIRE – RAISE AND SUPPORT CONDUIT WITH STRAP PER SPECS. PROVIDE NEW CONDUIT/WIRE AS REQUIRED.

   CIRCUITS WITHOUT A SEPARATE GREEN GROUNDING WIRE – INSTALL A GREEN GROUNDING WIRE FOR EVERY RECEPTACLE OUTLET AND DEVICES. INSTALLATION OF THE GREEN GROUNDING WIRE MAY REQUIRE THE REMOVAL AND RE-INSTALLATION OF THE EXISTING WIRES. PROVIDE NEW WIRE AS REQUIRED.

   FIXTURES IMPROPERLY SUPPORTED OR INADEQUATELY SUPPORTED BY DEVICE BOXES – PROVIDE PROPER SUPPORT PER N.E.C.

   EMERGENCY AND NORMAL POWER CIRCUITS IN THE SAME CONDUIT – PROVIDE SEPARATION OF EMERGENCY AND NORMAL CIRCUITS AND INSTALL IN SEPARATE CONDUIT.
6. ALL EXISTING ABANDONED AND/OR UN-USED CONDUIT/WIRE, SWITCHES/STARTERS, JUNCTION BOXES, COMMUNICATION SYSTEM AND DEVICES IN PROJECT AREAS SHALL BE REMOVED BACK TO PANELS AND/OR CONTROL PANELS. ALL ITEMS DEMOLISHED BY E.C. SHALL BE REMOVED BACK TO PANELS AND/OR CONTROL PANELS.
7. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL SCOPE OF DEMOLITION WORK.
8. ALL WORK SHALL BE DONE IN TOTAL COORDINATION WITH THE BUILDING ELECTRICAL MAINTENANCE STAFF TO AVOID ANY INTERRUPTION TO EXISTING CIRCUITS IN USE.
9. ALL OPENINGS IN PARTITIONS AND CEILING SHALL BE FIRE SEALED.
10. CONTRACTOR TO PROVIDE OSHA APPROVED TEMPORARY LIGHTING AND POWER AS REQUIRED FOR THE DURATION OF THE PROJECT.

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David J. Machado, PE
Brad P. Patano, PE
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BRADLEY P. PATANO
LICENSED PROFESSIONAL ENGINEER
2/3/23
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VANCLEAVE SCHOOLS HVAC UPGRADES
LOWER ELEMENTARY, MIDDLE, & HIGH SCHOOLS
12602 HWY 57, 4725 BULLDOG LN, & 12424 HWY 57
VANCLEAVE, MISSISSIPPI 39565

SCALE: NTS
PROJECT NO: 0155.22.008
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ELECTRICAL NOTES

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E002

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ABBREVIATIONS

A

A	AMPERE(S)
AC	ALTERNATING CURRENT
A/C	AIR CONDITIONING
AF	AMPERE FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERES INTERRUPTING CAPACITY
ALUM	ALUMINUM
AT	AMPERE TRIP
AWG	AMERICAN WIRE GAGE
AHU	AIR HANDLING UNIT

C

C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CL	CLASS
COND	CONDUCTOR(S)
CT	CURRENT TRANSFORMER
CU	COPPER
COMM	COMMUNICATION
CWP	CHILLED WATER PUMP

D

DC	DIRECT CURRENT
DET.	DETECTOR

E

E.C.	ELECTRICAL CONTRACTOR
EEB	ELECTRICAL EQUIPMENT BUILDING
EF	EXHAUST FAN
EL.	ELEVATION
EM	EMERGENCY
ESD	EMERGENCY SHUTDOWN
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING

F

FC	FOOT CANDLE
FF	FINISHED FLOOR
FLA	FULL LOAD AMPS
FL	FLUORESCENT
FREQ.	FREQUENCY
FT.	FOOT; FEET

G

G	GROUND
GALV	GALVANIZED
GFI	GROUND FAULT INTERRUPTER
GND	GROUND

H

HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HV	HIGH VOLTAGE
HZ	HERTZ

J

JB	JUNCTION BOX

K

KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT.AMPERES
KW	KILOWATT

L

LBS.	POUNDS
LEV	LEVEL
LTG.	LIGHTING
LV	LOW VOLTAGE

M

MCB	MAIN CIRCUIT BREAKER
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MH	MOUNTING HEIGHT

N

N	NEUTRAL
NEC	NATIONAL ELECTRICAL CODE
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
NF	NONFUSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NL	UN SWITCHED NIGHT LIGHT
NTS	NOT TO SCALE

O

OC	ON CENTER
OL	OVERLOAD CONTACT

P

ø	PHASE
PNL	PANEL
PR	PAIR
PE	PHOTO ELECTRIC
PRI	PRIMARY
PIR	PASSIVE INFRARED
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
PWR	POWER

R

REC	RECEPTACLE
REQ'D.	REQUIRED
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RT	RAINTIGHT

S

SEC	SECONDARY
SMK	SMOKE
SPC	SINGLE POINT CONNECTION
SR	SUNRISE
SS	SUNSET
STD	STANDARD
SUPVR	SUPERVISORY
SWBD	SWITCHBOARD

T

TYP	TYPICAL

U

UG	UNDERGROUND
UL	UNDERWRITER'S LABORATORIES

V

V	VOLTS
VAC	VOLTAGE, ALTERNATING CURRENT
VDC	VOLTAGE, DIRECT CURRENT

W

W	WATTS, WIRE, WIDTH
WP	WEATHERPROOF

X

XFMR	TRANSFORMER

FEEDER SCHEDULE

TYPE THHN/THWN INSUL. COPPER CONDUCTOR AMPACITY BASED ON (75° TEMP. RATING) IN RIGID METAL CONDUIT
DRY INTERIOR LOCATIONS: EMT WITH CAST COMPRESSION FITTINGS
WET EXTERIOR LOCATIONS: RGS WITH CAST FITTINGS
UNDERGROUND INSTALLATIONS: SCHEDULE 80 PVC
BASED ON 31% FILL CAPACITIES

FEEDER DESIGNATION	3PH+G PHASE + GND. CONDUCTORS AND CONDUIT SIZE	FEEDER DESIGNATION	3PH+N+G PHASE + NEUTRAL + GND. CONDUCTORS AND CONDUIT SIZE	FEEDER DESIGNATION	2 WIRE + GND. OR 1 WIRE + NEUTRAL + GND. CONDUCTORS AND CONDUIT SIZE
20	3#12+#12 GND., 3/4"C	20N	4#12+#12 GND., 3/4"C	20S	2#12+#12 GND., 3/4"C
30	3#10+#10 GND., 3/4"C	30N	4#10+#10 GND., 3/4"C	30S	2#10+#10 GND., 3/4"C
50	3#8+#10 GND., 1"C	50N	4#8+#10 GND., 1"C	50S	2#8+#10 GND., 1"C
65	3#6+#8 GND., 1"C	65N	4#6+#8 GND., 1 1/4"C	65S	2#6+#8 GND., 1"C
85	3#4+#8 GND., 1 1/4"C	85N	4#4+#8 GND., 1 1/4"C	85S	2#4+#8 GND., 1 1/4"C
100	3#3+#8 GND., 1 1/4"C	100N	4#3+#8 GND., 1 1/2"C	100S	2#3+#8 GND., 1 1/4"C
115	3#2+#6 GND., 1 1/2"C	115N	4#2+#6 GND., 1 1/2"C	115S	2#2+#6 GND., 1 1/2"C
130	3#1+#6 GND., 1 1/2"C	130N	4#1+#6 GND., 2"C	130S	2#1+#6 GND., 1 1/2"C
150	3#1/0+#6 GND., 2"C	150N	4#1/0+#6 GND., 2"C	150S	2#1/0+#6 GND., 2"C
175	3#2/0+#6 GND., 2"C	175N	4#2/0+#6 GND., 2 1/2"C	175S	2#2/0+#6 GND., 2"C
200	3#3/0+#6 GND., 2"C	200N	4#3/0+#6 GND., 2 1/2"C	200S	2#3/0+#6 GND., 2"C
230	3#4/0+#4 GND., 2 1/2"C	230N	4#4/0+#4 GND., 3"C	230S	2#4/0+#4 GND., 2 1/2"C
255	3#250+#4 GND., 2 1/2"C	255N	4#250+#4 GND., 3"C	255S	2#250+#4 GND., 2 1/2"C
285	3#300+#4 GND., 3"C	285N	4#300+#4 GND., 3"C	285S	2#300+#4 GND., 3"C
310	3#350+#3 GND., 3"C	310N	4#350+#3 GND., 4"C	310S	2#350+#3 GND., 3"C
335	3#400+#3 GND., 3"C	335N	4#400+#3 GND., 4"C	335S	2#400+#3 GND., 4"C
380	3#500+#3 GND., 4"C	380N	4#500+#3 GND., 4"C	380S	2#500+#3 GND., 4"C
400	2 SETS(3#3/0+#3 GND., 2"C)	400N	2 SETS(4#3/0+#3 GND., 2 1/2"C)		
420	3#600+#2 GND., 4"C	420N	4#600+#2 GND., 4"C		
460	2 SETS(3#4/0+#2 GND., 2"C)	460N	2 SETS(4#4/0+#2 GND., 2 1/2"C)		
510	2 SETS(3#250+#1 GND., 2 1/2"C)	510N	2 SETS(4#250+#1 GND., 3"C)		
570	2 SETS(3#300+#4 GND., 2 1/2"C)	570N	2 SETS(4#300+#4 GND., 3"C)		
620	2 SETS(3#350+#1/0 GND., 3"C)	620N	2 SETS(4#350+#1/0 GND., 3"C)		
760	2 SETS(3#500+#1/0 GND., 3"C)	760N	2 SETS(4#500+#1/0 GND., 4"C)		
840	2 SETS(3#600+#2/0 GND., 4"C)	840N	2 SETS(4#600+#2/0 GND., 4"C)		
855	3 SETS(3#300+#2/0 GND., 2 1/2"C)	855N	3 SETS(4#300+#2/0 GND., 3"C)		
1005	3 SETS(3#400+#3/0 GND., 3"C)	1005N	3 SETS(4#400+#3/0 GND., 3"C)		
1240	4 SETS(3#350+#4/0 GND., 3"C)	1240N	4 SETS(4#350+#4/0 GND., 4"C)		
1650	5 SETS(3#400+#250 GND., 3"C)	1650N	5 SETS(4#400+#250 GND., 4"C)		
2010	6 SETS(3#400+#350 GND., 3"C)	2010N	6 SETS(4#400+#350 GND., 4"C)		
2660	7 SETS(3#500+#450 GND., 4"C)	2660N	7 SETS(4#500+#400 GND., 4"C)		
3040	8 SETS(3#500+#500 GND., 4"C)	3040N	8 SETS(4#500+#500 GND., 4"C)		
4180	11 SETS(3#500+#700 GND., 4"C)	4180N	11 SETS(4#500+#700 GND., 4"C)		

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Bradford A. Jones, AIA
Fernanda A. Silva, AIA

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REGISTERED PROFESSIONAL ENGINEER
5/2/23
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VANCLEAVE SCHOOLS HVAC UPGRADES
LOWER ELEMENTARY, MIDDLE, & HIGH SCHOOLS
12602 HWY 57, 4725 BULLDOG LN, & 12424 HWY 57
VANCLEAVE, MISSISSIPPI 39565

SCALE: NTS
PROJECT NO: 0155.22.008
DRAWN BY: DLM
CHECKED BY: KDB

ELECTRICAL ABBREVIATIONS & FEEDER SCHEDULE

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E003

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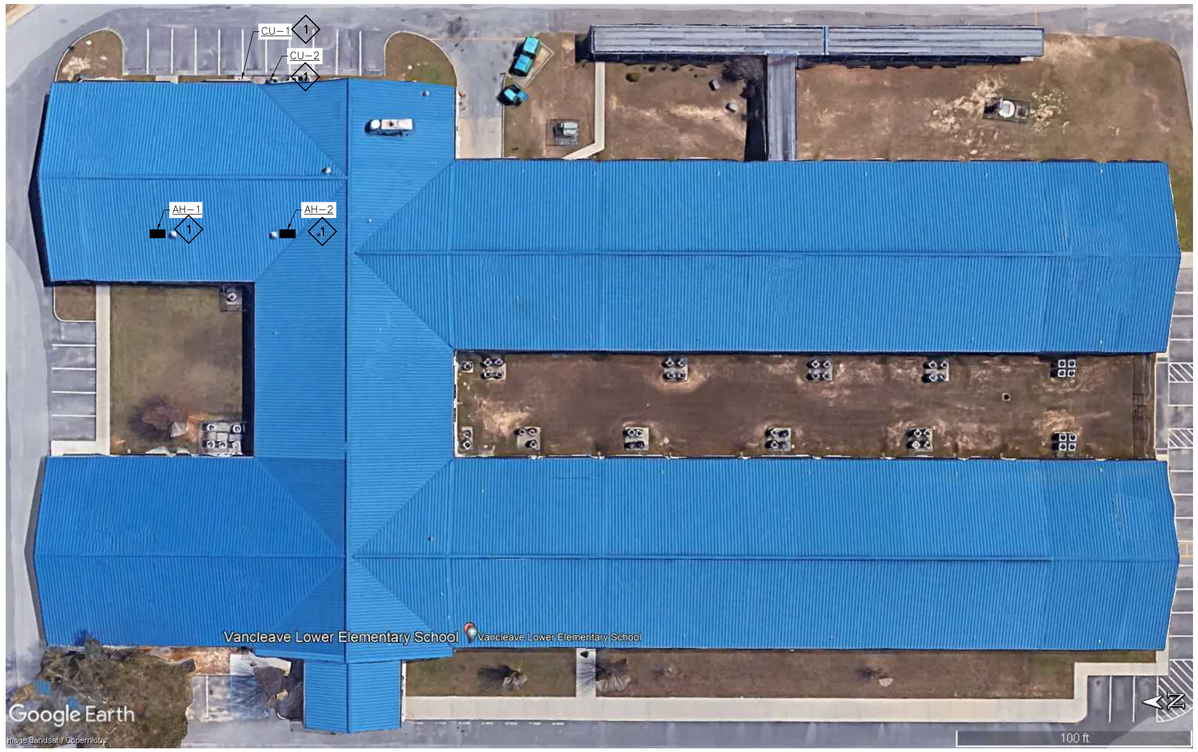
DRAWING E004 NOTES

1. CONTRACTOR SHALL COORDINATE WITH OWNER PRIOR TO DISPOSING ALL DEMOLISHED EQUIPMENT.

DRAWING E004 SPECIFIC NOTES

1 CONTRACTOR SHALL DEMOLISH EXISTING SAFETY SWITCH. CONTRACTOR SHALL DEMOLISH FEEDER BETWEEN SAFETY SWITCH AND HVAC UNIT. CONTRACTOR SHALL DEMOLISH CONDUIT AND FEED BACK TO SORCE. CONTRACTOR SHALL DEMOLISH ALL CONDUIT ABOVE GRADE. CONTRACTOR SHALL ABANDON CONDUIT 6" BELOW GRADE.



1 ELECTRICAL DEMO PLAN-LOWER ELEMENTARY SCHOOL
SCALE: 1/32" = 1'

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Brad P. Patano, PE
Gerrod W. Kilpatrick, PE
Bradford A. Jones, AIA
Fernanda A. Silva, AIA

BRADLEY P. PATANO
REGISTERED PROFESSIONAL
ENGINEER
2/2/23
17411
STATE OF MISSISSIPPI

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ELECTRICAL DEMO PLAN-LOWER ELEMENTARY SCHOOL

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DRAWING E005 NOTES

1. CONTRACTOR SHALL COORDINATE WITH OWNER PRIOR TO DISPOSING ALL DEMOLISHED EQUIPMENT.

DRAWING E005 SPECIFIC NOTES

1 CONTRACTOR SHALL DEMOLISH EXISTING SAFETY SWITCH. CONTRACTOR SHALL DEMOLISH FEEDER BETWEEN SAFETY SWITCH AND HVAC UNIT. CONTRACTOR SHALL DEMOLISH CONDUIT AND FEED FROM SWITCH TO SOURCE. CONTRACTOR SHALL DEMOLISH ALL CONDUIT ABOVE GRADE. CONTRACTOR SHALL ABANDON CONDUIT 6" BELOW GRADE.

1 ELECTRICAL DEMO PLAN-MIDDLE SCHOOL
SCALE: 1/32" = 1'

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David J. Machado, PE
Brad P. Patano, PE
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Bradford A. Jones, AIA
Fernanda A. Silva, AIA

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LICENSED PROFESSIONAL ENGINEER
2/2/23
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DRAWING E006 NOTES

1. CONTRACTOR SHALL COORDINATE WITH OWNER PRIOR TO DISPOSING ALL DEMOLISHED EQUIPMENT.

DRAWING E006 SPECIFIC NOTES

1. CONTRACTOR SHALL DEMOLISH EXISTING SAFETY SWITCH. CONTRACTOR SHALL DEMOLISH FEEDER BETWEEN SAFETY SWITCH AND HVAC UNIT. CONTRACTOR SHALL DEMOLISH FEED FROM SOURCE TO SWITCH. CONTRACTOR SHALL DEMOLISH ALL CONDUIT ABOVE GRADE. CONTRACTOR SHALL ABANDON CONDUIT 6" BELOW GRADE.

2. ALTERNATE 1: CONTRACTOR SHALL DEMOLISH EXISTING PANELBOARD MDP. CONTRACTOR SHALL PRESERVE FEEDER CABLE AND CONDUIT FOR CONNECTION TO NEW PANEL SEE E601 FOR EXISTING PANEL DETAILS. CONTRACTOR SHALL DEMOLISH SERVICE ENTRANCE CONDUCTOR. DEMOLISH SERVICE ENTRANCE CONDUIT AS REQUIRED.

1 ELECTRICAL DEMO PLAN-HIGH SCHOOL
SCALE: 1/32" = 1'

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2/2/23
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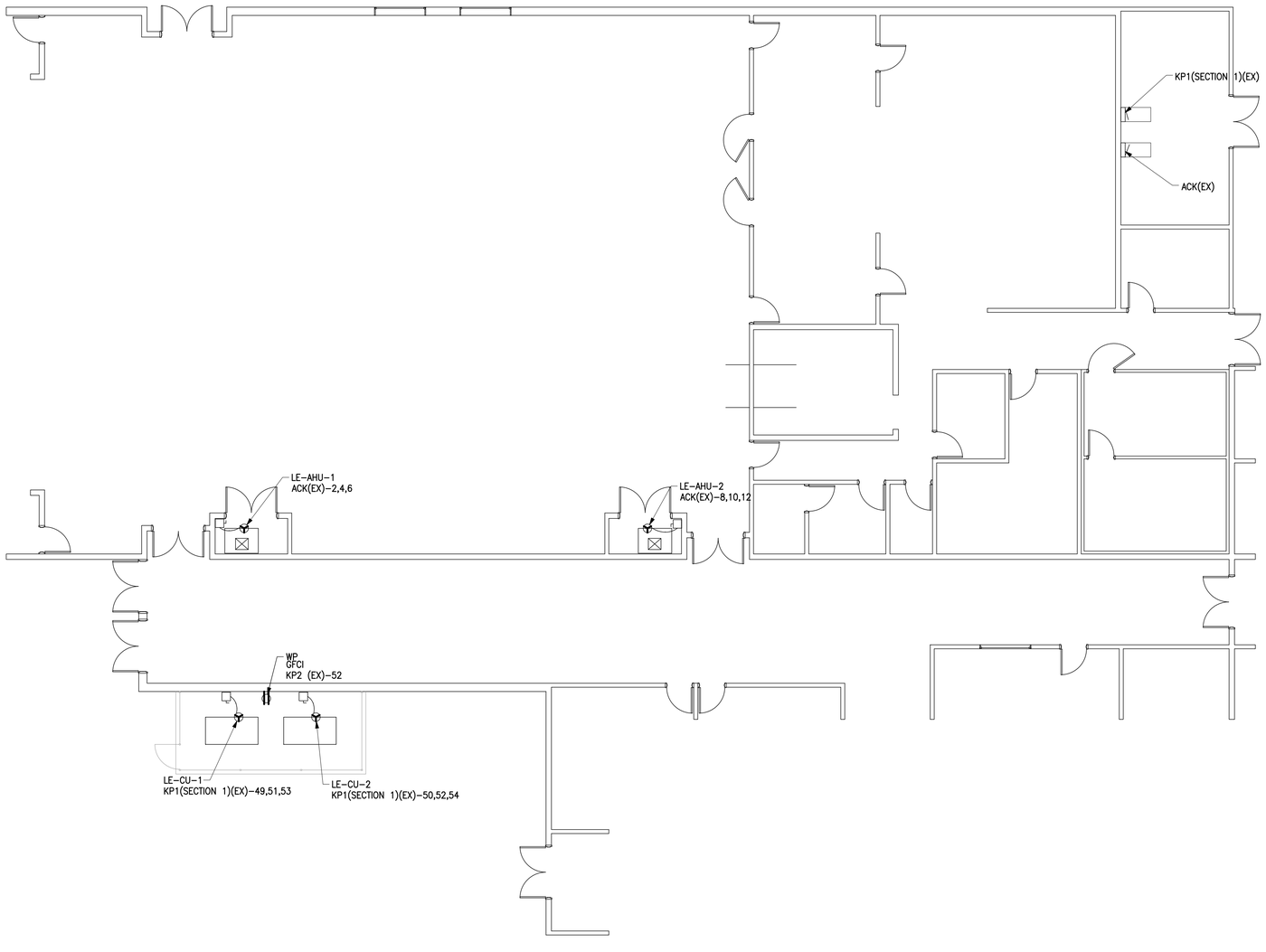
DRAWING E151 NOTES

1. ALL SAFETY SWITCHES SHALL BE PROVIDED AND MOUNTED BY THE E.C. COORDINATE EXACT REQUIREMENTS WITH THE EQUIPMENT MANUFACTURER.
2. COORDINATE EXACT WIRING REQUIREMENTS WITH THE MECHANICAL CONTRACTOR PRIOR TO ROUGHING IN.
3. ALL SAFETY SWITCHES SHALL BE HEAVY DUTY. NEMA 1 – INDOORS, NEMA 12/3R – OUTDOORS.
4. ALL SMOKE DUCT DETECTORS AND DAMPER SMOKE DETECTORS SHALL BE PROVIDED AND INSTALLED BY THE CONTROLS CONTRACTOR. FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE FOR TYING INTO THE FIRE ALARM SYSTEM. CONTRACTOR SHALL REFERENCE MECHANICAL SHEETS FOR EXACT QUANTITY AND LOCATIONS.
5. CONTRACTOR SHALL REFERENCE SHEET E613 FOR WHERE TO FEED CONVENIENCE RECEPTACLE FROM.



1 MECHANICAL POWER PLAN-LOWER ELEMENTARY SCHOOL
SCALE: 1/8" = 1'

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Fernanda A. Silva, AIA

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LICENSED PROFESSIONAL ENGINEER
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MECHANICAL POWER PLAN-LOWER ELEMENTARY SCHOOL

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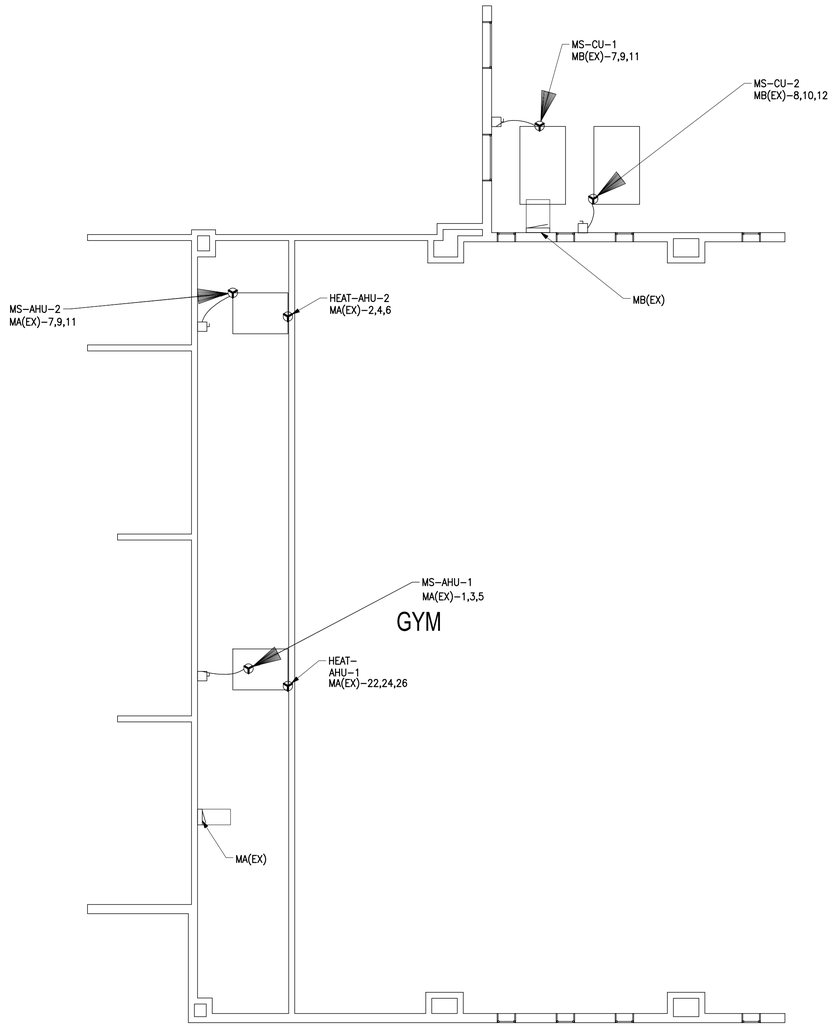
DRAWING E152 NOTES

1. ALL SAFETY SWITCHES SHALL BE PROVIDED AND MOUNTED BY THE E.C. COORDINATE EXACT REQUIREMENTS WITH THE EQUIPMENT MANUFACTURER.
2. COORDINATE EXACT WIRING REQUIREMENTS WITH THE MECHANICAL CONTRACTOR PRIOR TO ROUGHING IN.
3. ALL SAFETY SWITCHES SHALL BE HEAVY DUTY. NEMA 1 – INDOORS, NEMA 12/3R – OUTDOORS.
4. ALL SMOKE DUCT DETECTORS AND DAMPER SMOKE DETECTORS SHALL BE PROVIDED AND INSTALLED BY THE CONTROLS CONTRACTOR. FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE FOR TYING INTO THE FIRE ALARM SYSTEM. CONTRACTOR SHALL REFERENCE MECHANICAL SHEETS FOR EXACT QUANTITY AND LOCATIONS.



1 MECHANICAL POWER PLAN-MIDDLE SCHOOL
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2/2/23
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MECHANICAL POWER PLAN-MIDDLE SCHOOL

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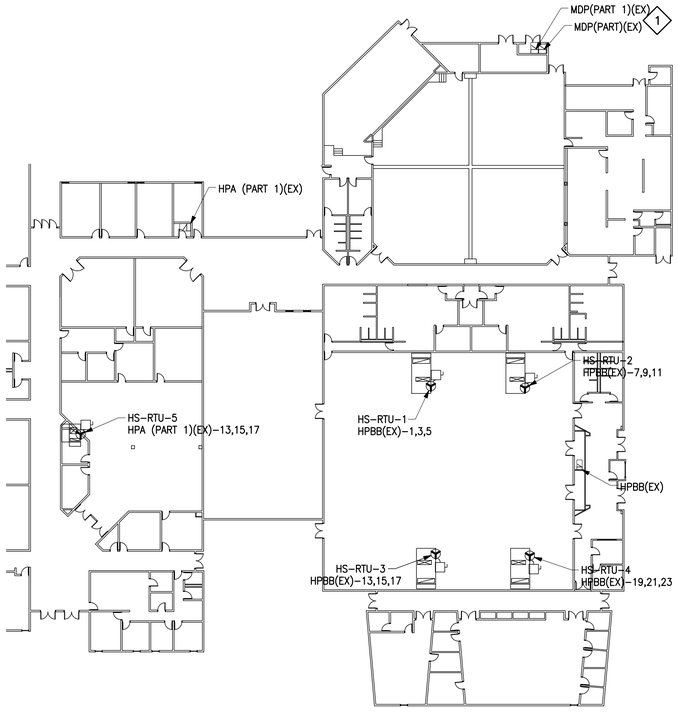
DRAWING E153 NOTES

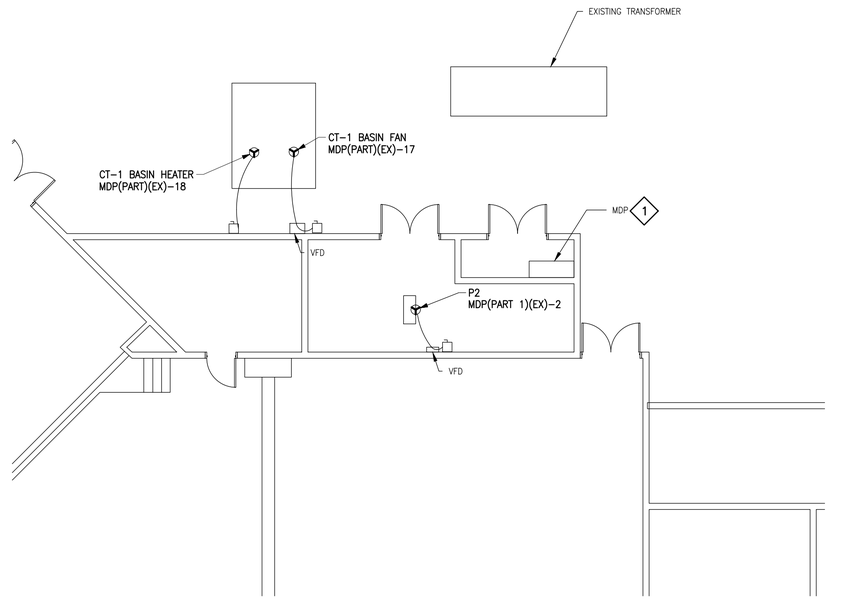
1. ALL SAFETY SWITCHES SHALL BE PROVIDED AND MOUNTED BY THE E.C. COORDINATE EXACT REQUIREMENTS WITH THE EQUIPMENT MANUFACTURER.
2. COORDINATE EXACT WIRING REQUIREMENTS WITH THE MECHANICAL CONTRACTOR PRIOR TO ROUGHING IN.
3. ALL SAFETY SWITCHES SHALL BE HEAVY DUTY. NEMA 1 – INDOORS, NEMA 12/3R – OUTDOORS.
4. ALL SMOKE DUCT DETECTORS AND DAMPER SMOKE DETECTORS SHALL BE PROVIDED AND INSTALLED BY THE CONTROLS CONTRACTOR. FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE FOR TYING INTO THE FIRE ALARM SYSTEM. CONTRACTOR SHALL REFERENCE MECHANICAL SHEETS FOR EXACT QUANTITY AND LOCATIONS.
5. CONTRACTOR SHALL REPLACE EXISTING MDP WITH NEW MDP AS ALTERNATE #1. CONTRACTOR SHALL PLACE NEW MDP IN EXISTING LOCATION. CONTRACTOR SHALL REFERENCE SHEET E611 FOR NEW MDP REQUIREMENTS.

DRAWING E153 SPECIFIC NOTES

1 ALTERNATE 1: CONTRACTOR SHALL PROVIDE AND INSTALL NEW SWITCHBOARD MDP. CONTRACTOR SHALL CONNECT EXISTING FEEDER CONDUCTOR TO NEW SWITCHBOARD. CONTRACTOR SHALL MODIFY FEEDER CONDUCTOR AND CONDUIT AS REQUIRED. CONTRACTOR SHALL FIELD COORDINATE EXISTING MDP SIZE AND MATCH WITH NEW MDP. SEE SHEET E611 FOR DETAILS.



1 MECHANICAL POWER PLAN-HIGH SCHOOL
SCALE: 1/32" = 1'



1 MECHANICAL/ELECTRICAL ROOMS ENLARGED-HIGH SCHOOL
SCALE: 1/8" = 1'

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Brad P. Patano, PE
Gerrod W. Kilpatrick, PE
Bradford A. Jones, AIA
Fernanda A. Silva, AIA

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LICENSED PROFESSIONAL
ENGINEER
2/3/23
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STATE OF MISSISSIPPI

VANCLEAVE SCHOOLS HVAC UPGRADES
LOWER ELEMENTARY, MIDDLE, & HIGH SCHOOLS
12602 HWY 57, 4725 BULLDOG LN, & 12424 HWY 57
VANCLEAVE, MISSISSIPPI 39565

SCALE: AS SHOWN
PROJECT NO: 0155.22.008
DRAWN BY: DLM
CHECKED BY: KDB

MECHANICAL POWER PLAN-HIGH SCHOOL

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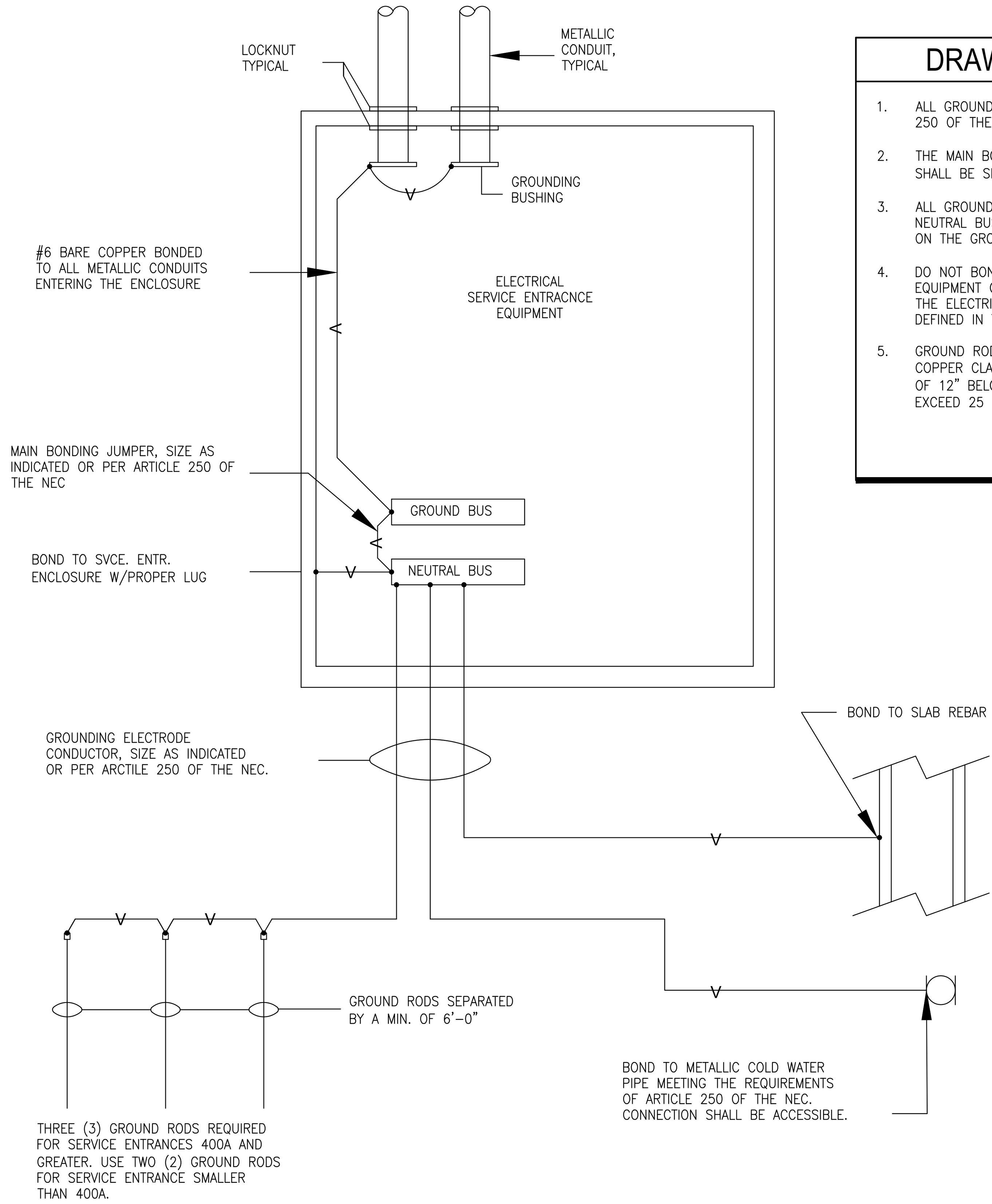

1 GROUNDING AND BONDING DETAIL

SCALE: NTS

DRAWING E501 SPECIFIC NOTES

1. ALL GROUNDING AND BONDING SHALL BE IN ACCORDANCE WITH ARTICLE 250 OF THE NEC.
2. THE MAIN BONDING JUMPER & THE GROUNDING ELECTRODE CONDUCTOR(S) SHALL BE SIZED AS INDICATED AND/OR PER NEC ARTICLE 250.
3. ALL GROUNDED (NEUTRAL) CONDUCTORS SHALL TERMINATE ON THE NEUTRAL BUS & ALL EQUIPMENT GROUNDING CONDUCTOR SHALL TERMINATE ON THE GROUND BUS. ONE LUG OR TERMINAL PER CONDUCTOR.
4. DO NOT BOND OR CONNECT THE GROUNDED (NEUTRAL) CONDUCTOR & THE EQUIPMENT GROUNDING CONDUCTOR TOGETHER AT ANY OTHER POINT IN THE ELECTRICAL SYSTEM EXCEPT AT SEPARATELY DERIVED SYSTEMS AS DEFINED IN THE NEC.
5. GROUND RODS USED FOR GROUNDING ELECTRODE SYSTEMS SHALL BE COPPER CLAD, 3/4"x10' MIN. AND SHALL BE INSTALLED WITH TOP A MIN. OF 12" BELOW FINISHED GRADE. RESISTANCE TO GROUND SHALL NOT EXCEED 25 OHMS PER NEC.

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LICENSED PROFESSIONAL ENGINEER
17411
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ELECTRICAL GENERAL DETAILS

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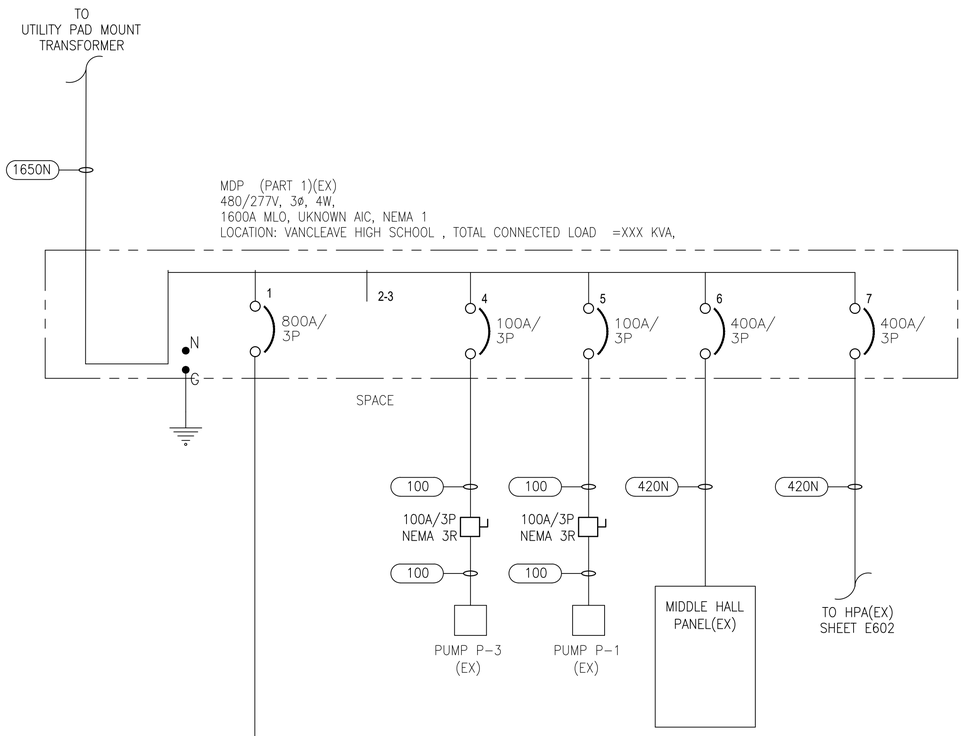
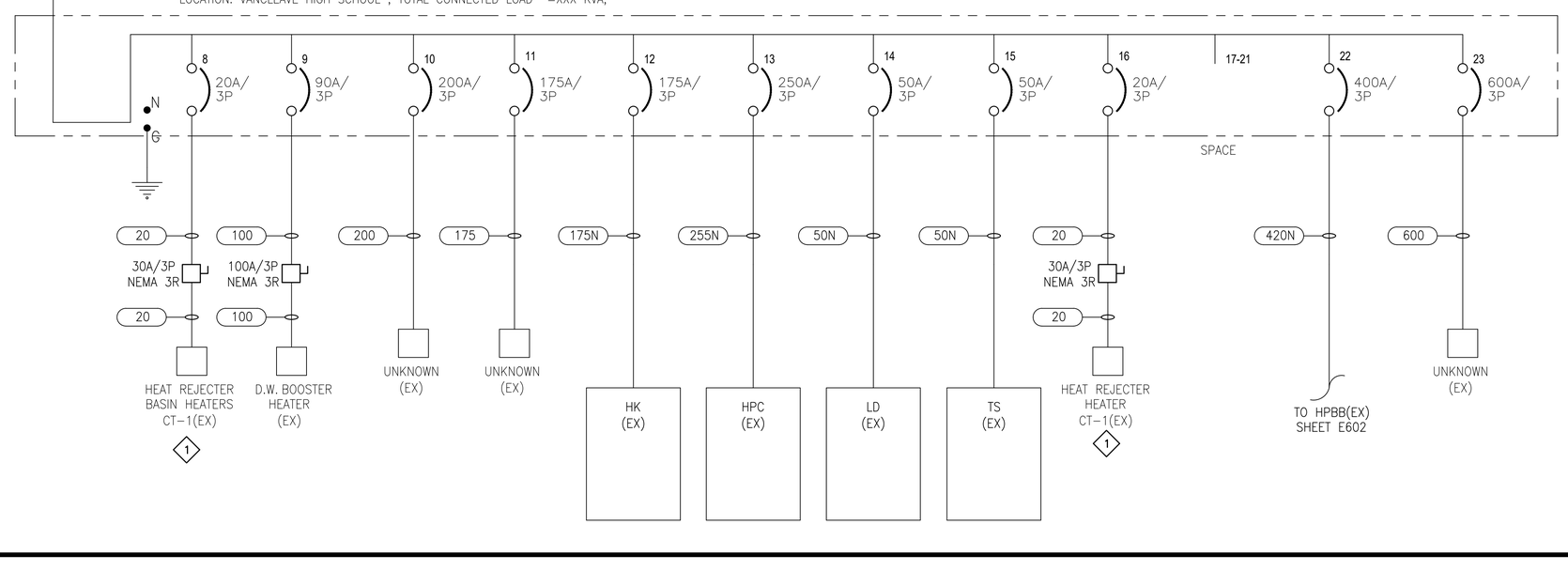
DRAWING E601 NOTES

1. CONTRACTOR SHALL COORDINATE WITH OWNER PRIOR TO DISPOSING ALL DEMOLISHED EQUIPMENT.
2. CONTRACTOR SHALL FILED VERIFY EXISTING PANEL BOARD SCHEDULE.

DRAWING E601 SPECIFIC NOTES

1. CONTRACTOR SHALL DEMOLISH EXISTING SAFETY SWITCH AND CONTROLS, CONTRACTOR SHALL DEMOLISH FEED FROM SOURCE TO DISCONNECT . CONTRACTOR SHALL DEMOLISH FEED FROM DISCONNECT TO EQUIPMENT. CONTRACTOR SHALL DEMOLISH ALL CONDUIT ABOVE GRADE. CONTRACTOR SHALL ABANDON CONDUIT 6" BELOW GRADE.





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VANCLEAVE, MISSISSIPPI 39565

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PROJECT NO: 0155.22.008
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ELECTRICAL ONE-LINE DIAGRAM
DEMOLITION PLAN- HIGH SHCOOL

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E601

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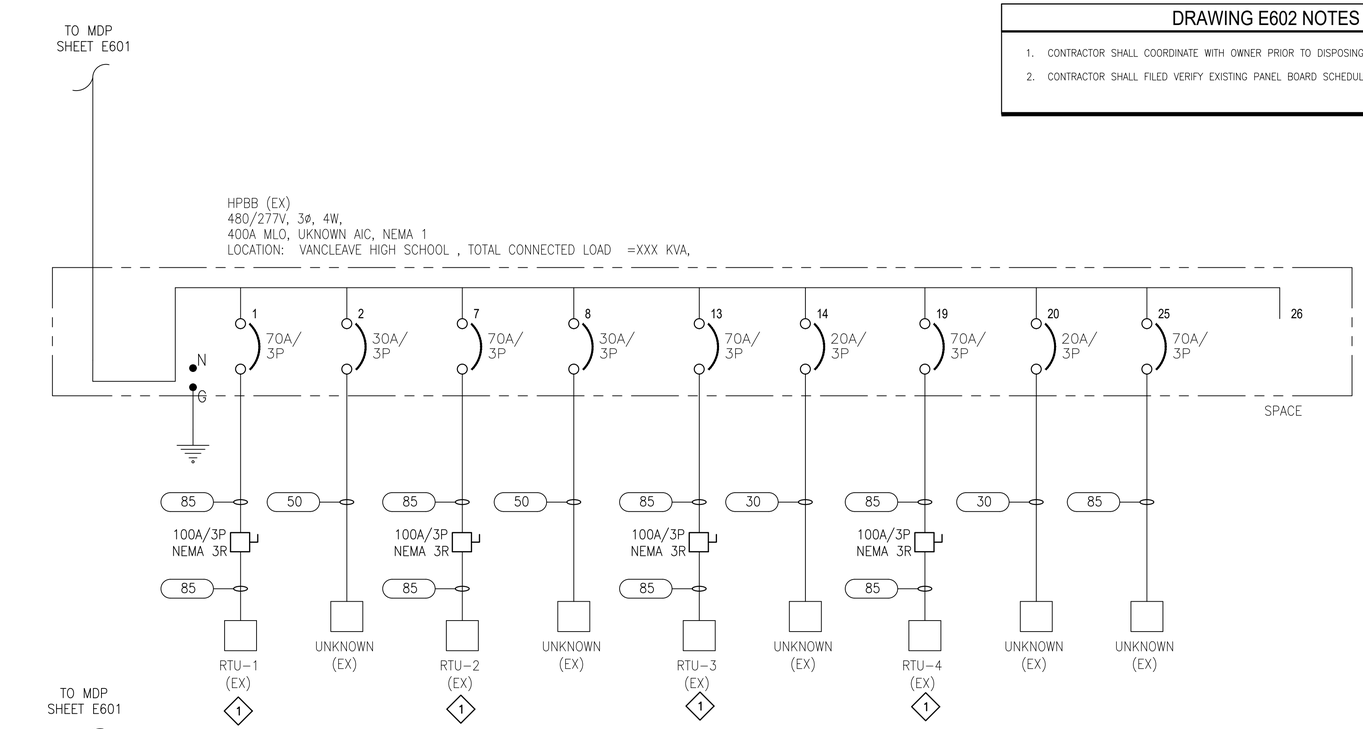
DRAWING E602 NOTES

1. CONTRACTOR SHALL COORDINATE WITH OWNER PRIOR TO DISPOSING ALL DEMOLISHED EQUIPMENT.
2. CONTRACTOR SHALL FILED VERIFY EXISTING PANEL BOARD SCHEDULE.

DRAWING E602 SPECIFIC NOTES

1. CONTRACTOR SHALL DEMOLISH EXISTING SAFETY SWITCH AND CONTROLS, CONTRACTOR SHALL DEMOLISH FEED FROM SOURCE TO DISCONNECT. CONTRACTOR SHALL DEMOLISH FEED FROM DISCONNECT TO EQUIPMENT. CONTRACTOR SHALL DEMOLISH ALL CONDUIT ABOVE GRADE. CONTRACTOR SHALL ABANDON CONDUIT 6" BELOW GRADE.



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PROJECT NO: 0155.22.008
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ELECTRICAL ONE-LINE DIAGRAM
DEMOLITION PLAN- HIGH SHCOOL

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E602

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DRAWING E603 NOTES

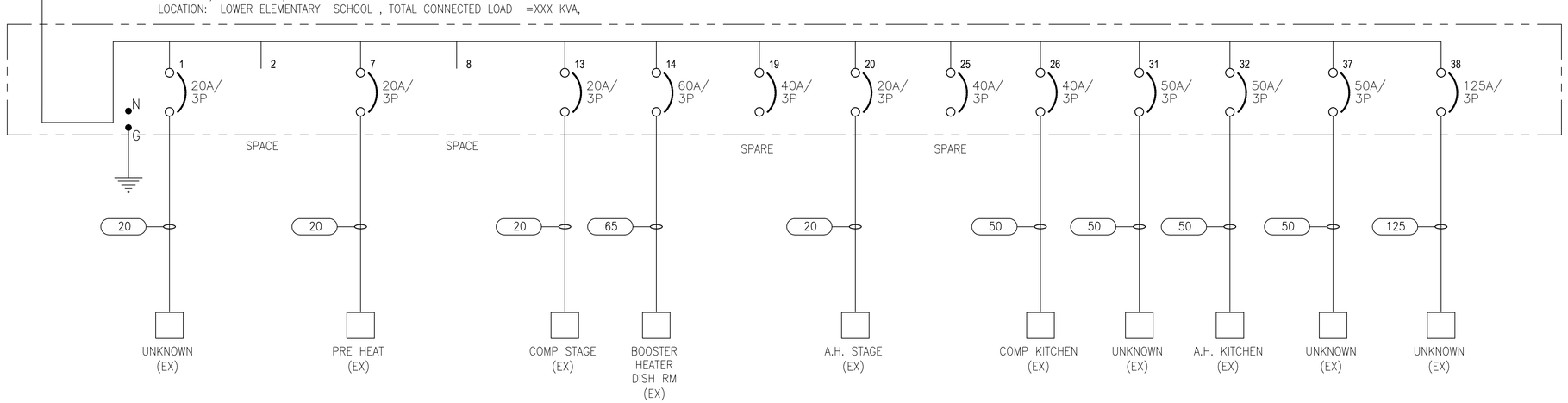
1. CONTRACTOR SHALL COORDINATE WITH OWNER PRIOR TO DISPOSING ALL DEMOLISHED EQUIPMENT.
2. CONTRACTOR SHALL FILED VERIFY EXISTING PANEL BOARD SCHEDULE.

DRAWING E603 SPECIFIC NOTES

1. CONTRACTOR SHALL DEMOLISH EXISTING SAFETY SWITCH AND CONTROLS, CONTRACTOR SHALL DEMOLISH FEED FROM SOURCE TO DISCONNECT . CONTRACTOR SHALL DEMOLISH ALL CONDUIT ABOVE GRADE. CONTRACTOR SHALL ABANDON CONDUIT 6" BELOW GRADE.

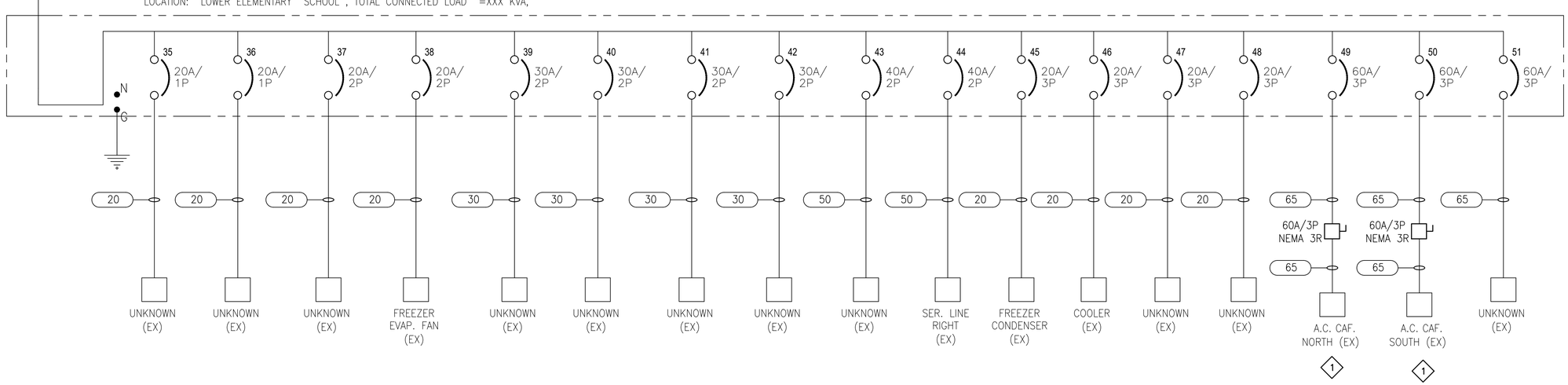
TO MAIN DISTRIBUTION PANEL

ACK (EX)
480/277V, 3ø, 4W,
600A MLO, UKNOWN AIC, NEMA 1
LOCATION: LOWER ELEMENTARY SCHOOL , TOTAL CONNECTED LOAD =XXX KVA,



TO TRANSFORMER

KP2(SECTION 2)(EX)
208/120V, 3ø, 4W,
400A MCB, UKNOWN AIC, NEMA 1
LOCATION: LOWER ELEMENTARY SCHOOL , TOTAL CONNECTED LOAD =XXX KVA,



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VANCLEAVE, MISSISSIPPI 39565

SCALE: NTS
PROJECT NO: 0155.22.008
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ELECTRICAL ONE-LINE DIAGRAM
DEMOLITION PLAN- LOWER ELEMENTARY SCHOOL

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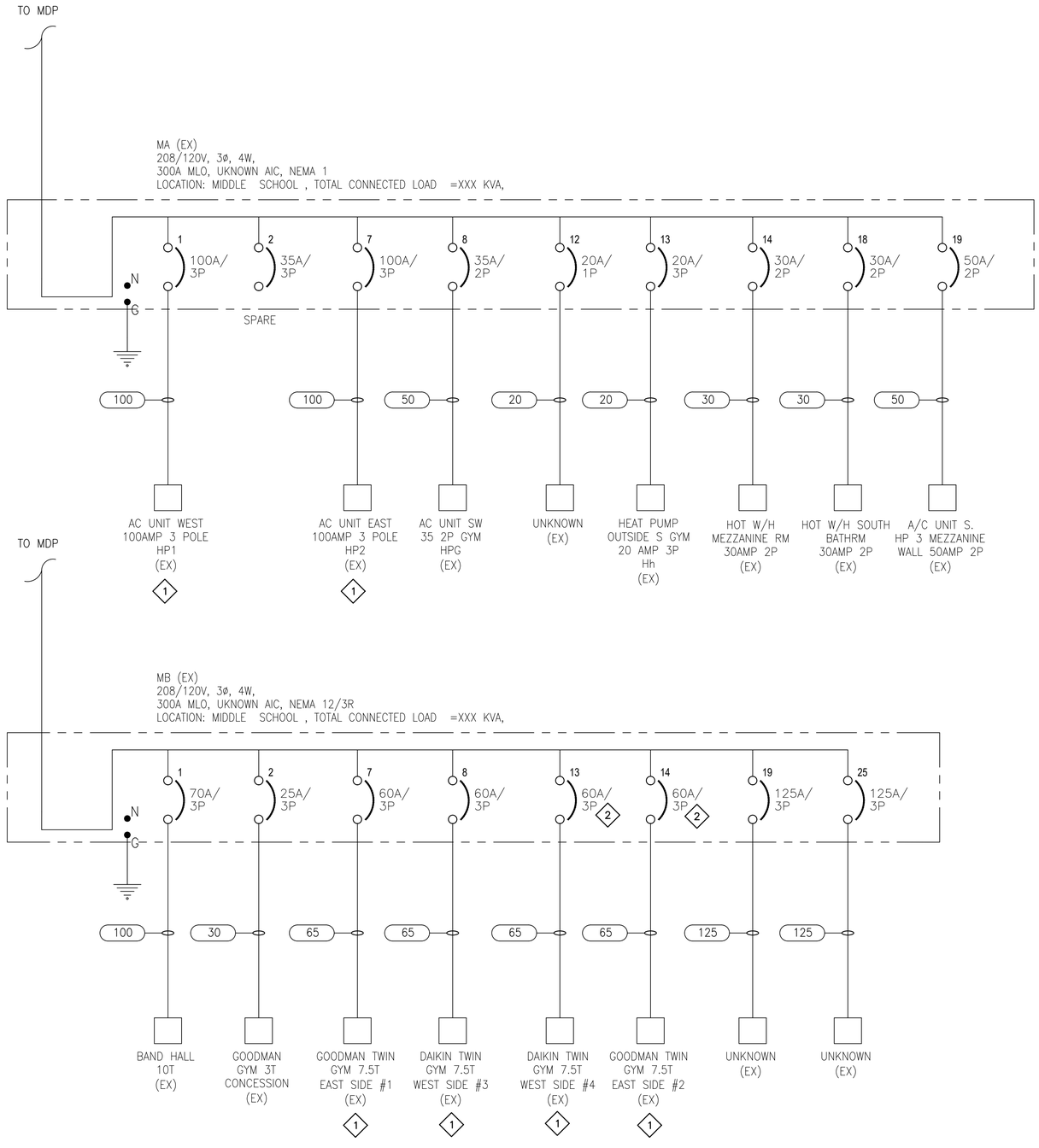
DRAWING E604 NOTES

1. CONTRACTOR SHALL COORDINATE WITH OWNER PRIOR TO DISPOSING ALL DEMOLISHED EQUIPMENT.
2. CONTRACTOR SHALL FILED VERIFY EXISTING PANEL BOARD SCHEDULE.

DRAWING E604 SPECIFIC NOTES

1. CONTRACTOR SHALL DEMOLISH EXISTING SAFETY SWITCH AND CONTROLS, CONTRACTOR SHALL DEMOLISH FEED FROM SOURCE TO DISCONNECT. CONTRACTOR SHALL DEMOLISH FEED AND CONDUIT FROM EQUIPMENT TO DISCONNECT. CONTRACTOR SHALL DEMOLISH ALL CONDUIT ABOVE GRADE. CONTRACTOR SHALL ABANDON CONDUIT 6" BELOW GRADE.
2. CONTRACTOR SHALL NOT DEMOLISH BREAKER.



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ELECTRICAL ONE-LINE DIAGRAM
DEMOLITION PLAN- MIDDLE SCHOOL

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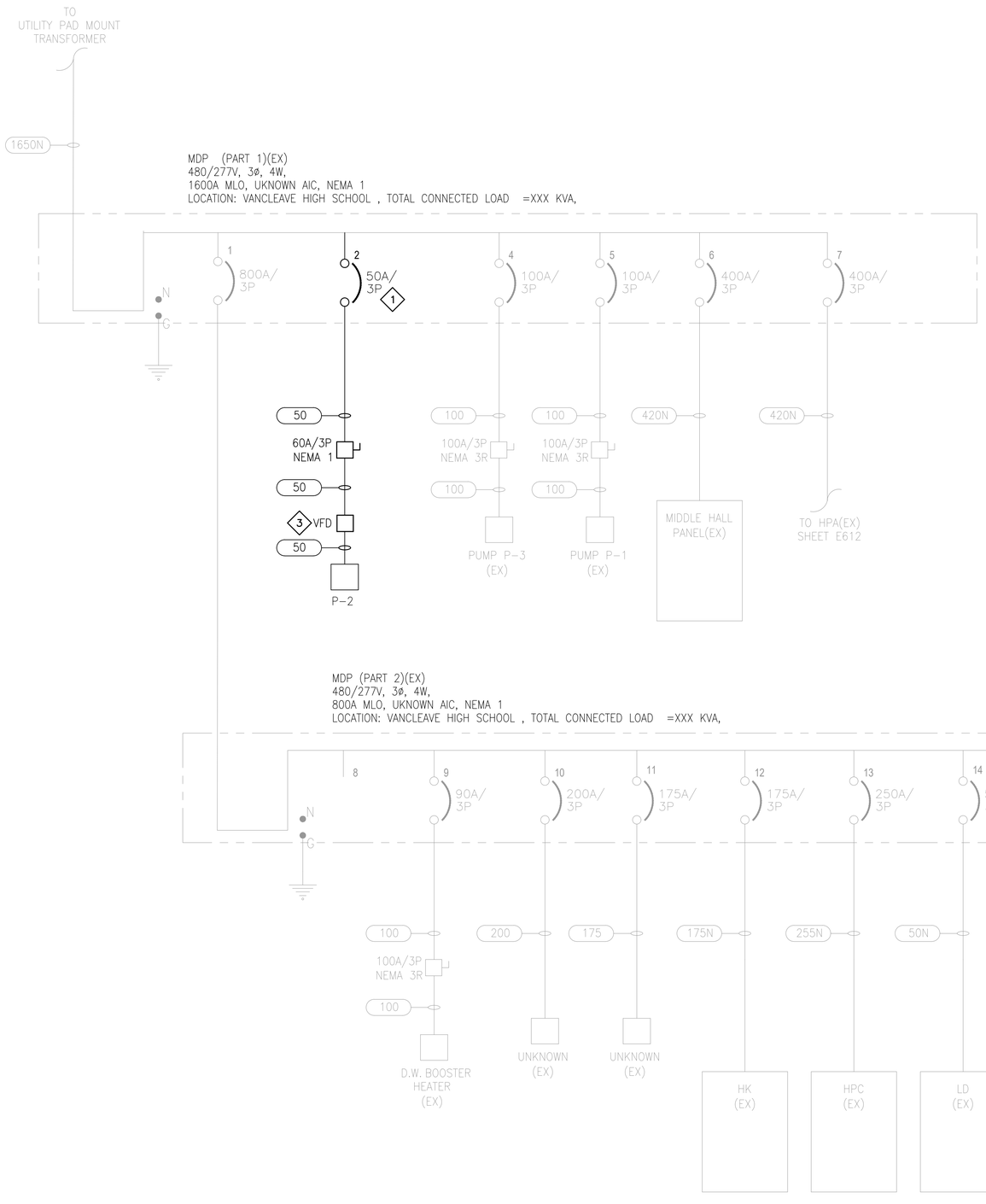

DRAWING E610 NOTES

1. CONTRACTOR SHALL FIELD COORDINATE EXISTING MOUNTING SPACE FOR EXISTING PANELBOARD. CONTRACTOR SHALL MODIFY EXISTING PANEL BOARD FOR NEW EQUIPMENT.

DRAWING E610 SPECIFIC NOTES

1. CONTRACTOR SHALL PROVIDE AND INSTALL NEW CIRCUIT BREAKER IN EXISTING PANEL BOARD AS SHOWN. CONTRACTOR SHALL PROVIDE AND INSTALL NEW DISCONNECT.
2. CONTRACTOR SHALL LEAVE EXISTING EQUIPMENT AS IS.
3. VFD SHALL BE PROVIDED BY MECHANICAL CONTRACTOR. INSTALLED BY ELECTRICAL CONTRACTOR COORDINATE REQUIREMENTS WITH MECHANICAL CONTRACTOR.
4. VFD SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR. INSTALLED BY ELECTRICAL CONTRACTOR COORDINATE REQUIREMENTS WITH MECHANICAL CONTRACTOR.

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ELECTRICAL ONE-LINE DIAGRAM
PLAN- HIGH SHCOOL

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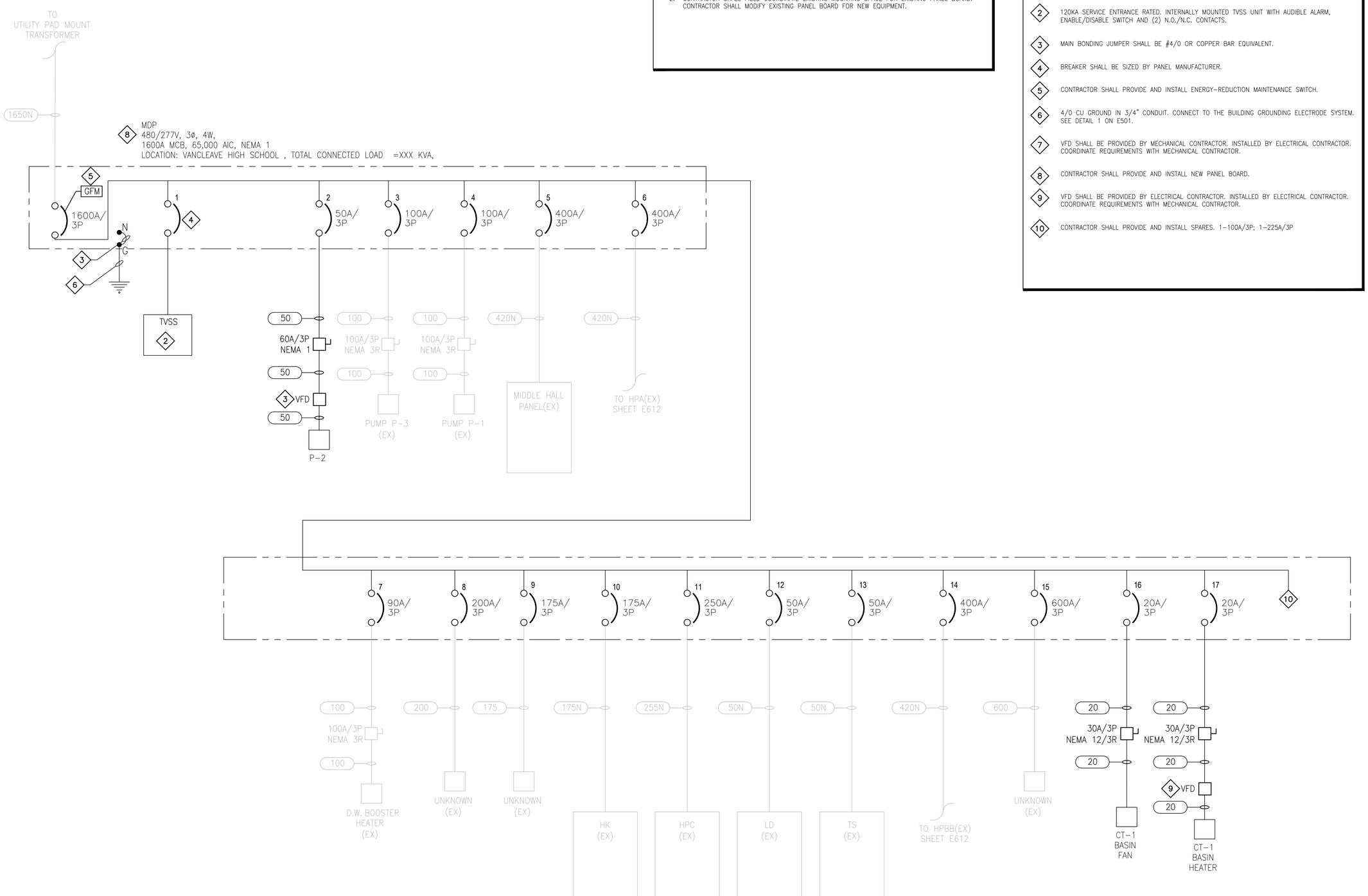
DRAWING E611 NOTES

1. CONTRACTOR SHALL FIELD COORDINATE EXISTING MOUNTING SPACE FOR EXISTING PANEL BOARD. CONTRACTOR SHALL MODIFY EXISTING PANEL BOARD FOR NEW EQUIPMENT.
2. CONTRACTOR SHALL FIELD COORDINATE EXISTING MOUNTING SPACE FOR EXISTING PANEL BOARD. CONTRACTOR SHALL MODIFY EXISTING PANEL BOARD FOR NEW EQUIPMENT.

DRAWING E611 SPECIFIC NOTES

1. NOT USED.
2. 120KA SERVICE ENTRANCE RATED. INTERNALLY MOUNTED TVSS UNIT WITH AUDIBLE ALARM, ENABLE/DISABLE SWITCH AND (2) N.O./N.C. CONTACTS.
3. MAIN BONDING JUMPER SHALL BE #4/0 OR COPPER BAR EQUIVALENT.
4. BREAKER SHALL BE SIZED BY PANEL MANUFACTURER.
5. CONTRACTOR SHALL PROVIDE AND INSTALL ENERGY-REDUCTION MAINTENANCE SWITCH.
6. 4/0 CU GROUND IN 3/4" CONDUIT. CONNECT TO THE BUILDING GROUNDING ELECTRODE SYSTEM. SEE DETAIL 1 ON E501.
7. VFD SHALL BE PROVIDED BY MECHANICAL CONTRACTOR. INSTALLED BY ELECTRICAL CONTRACTOR. COORDINATE REQUIREMENTS WITH MECHANICAL CONTRACTOR.
8. CONTRACTOR SHALL PROVIDE AND INSTALL NEW PANEL BOARD.
9. VFD SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR. INSTALLED BY ELECTRICAL CONTRACTOR. COORDINATE REQUIREMENTS WITH MECHANICAL CONTRACTOR.
10. CONTRACTOR SHALL PROVIDE AND INSTALL SPARES. 1-100A/3P; 1-225A/3P



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VANCLEAVE, MISSISSIPPI 39565

SCALE: NTS
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ELECTRICAL ONE-LINE DIAGRAM PLAN- HIGH SHCOOL- ALTERNATE #1

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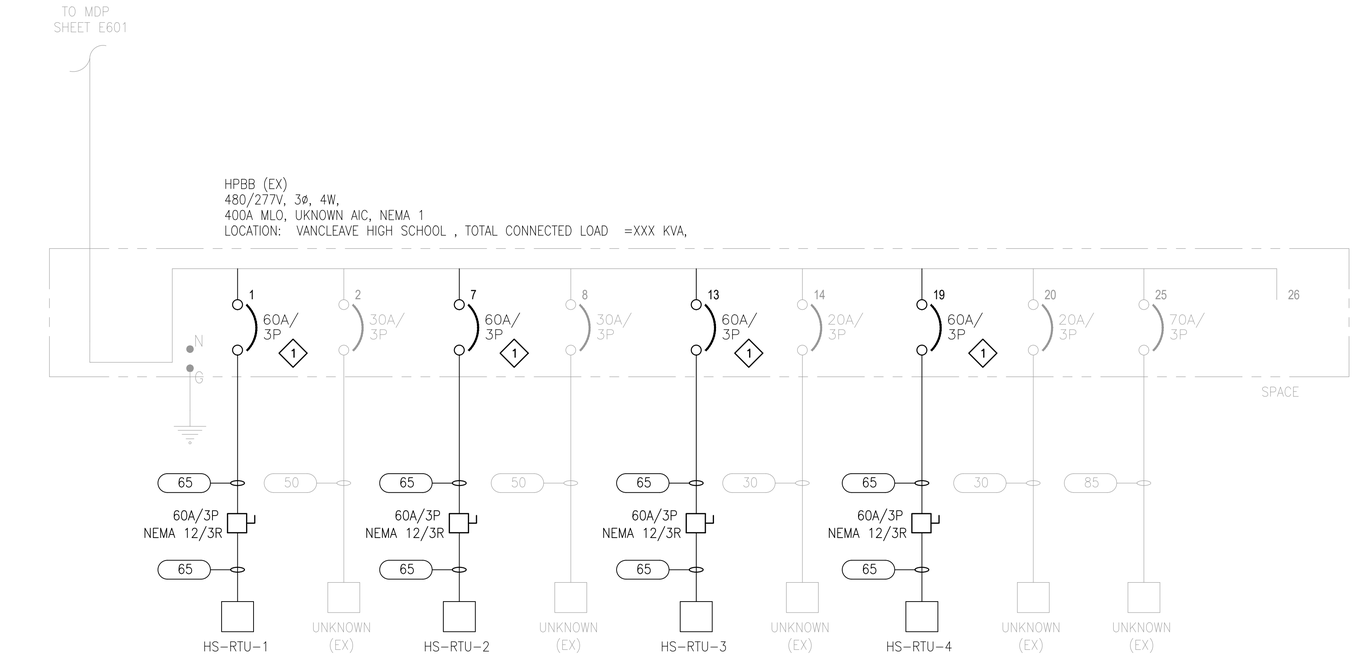

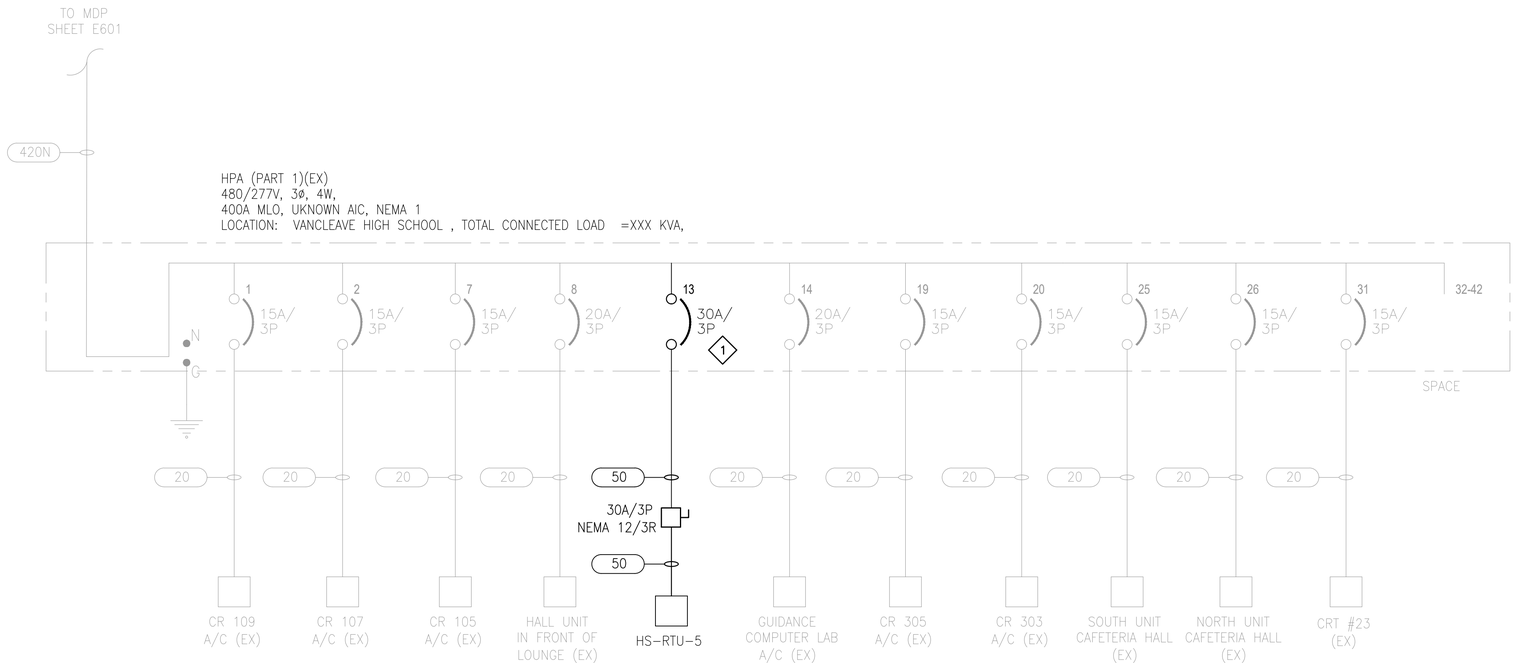

DRAWING E612 NOTES

1. CONTRACTOR SHALL FIELD COORDINATE EXISTING MOUNTING SPACE FOR EXISTING PANELBOARD. CONTRACTOR SHALL MODIFY EXISTING PANEL BOARD FOR NEW EQUIPMENT.

DRAWING E612 SPECIFIC NOTES

1. CONTRACTOR SHALL PROVIDE AND INSTALL NEW CIRCUIT BREAKER IN EXISTING PANEL BOARD AS SHOWN. CONTRACTOR SHALL PROVIDE AND INSTALL NEW DISCONNECT.

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ELECTRICAL ONE-LINE DIAGRAM
PLAN- HIGH SHCOOL

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DRAWING E613 NOTES

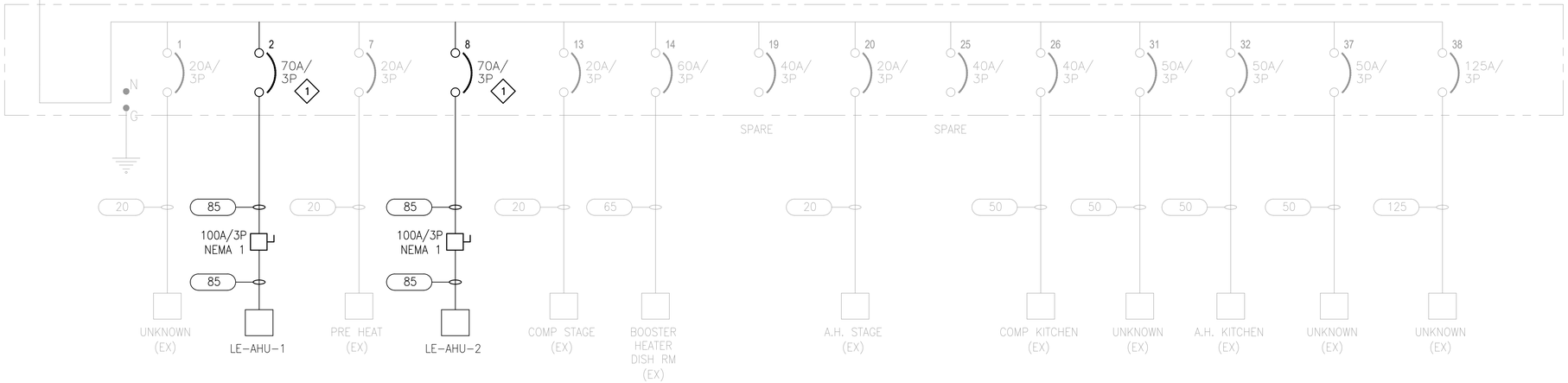
1. CONTRACTOR SHALL FIELD COORDINATE EXISTING MOUNTING SPACE FOR EXISTING PANELBOARD. CONTRACTOR SHALL MODIFY EXISTING PANEL BOARD FOR NEW EQUIPMENT.

DRAWING E613 SPECIFIC NOTES

1. CONTRACTOR SHALL PROVIDE AND INSTALL NEW CIRCUIT BREAKER IN EXISTING PANEL BOARD AS SHOWN.
2. NOT NEEDED.
3. CONTRACTOR SHALL REFERENCE SHEET E151 FOR LOCATION OF RECEPTACLE.

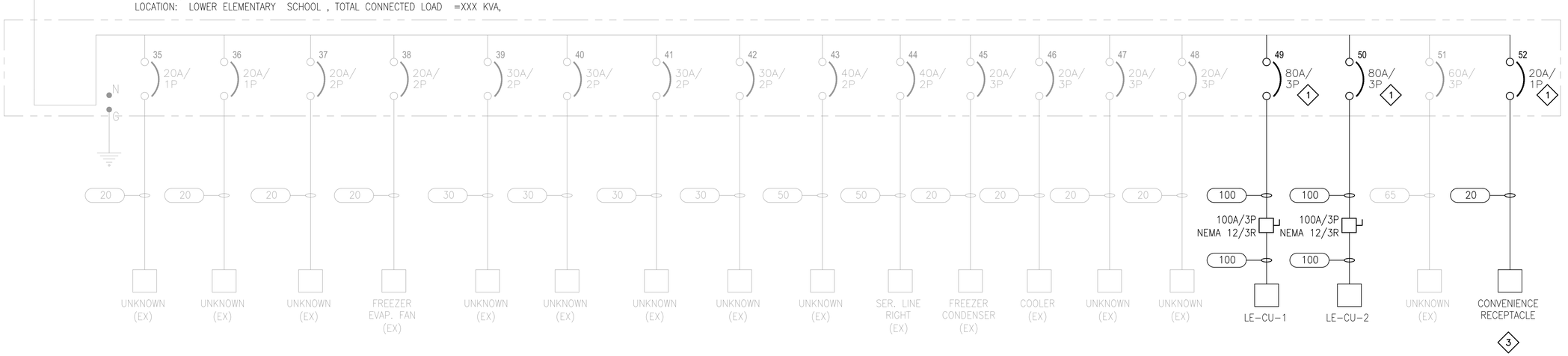
TO MAIN DISTRIBUTION PANEL

ACK (EX)
480/277V, 3ø, 4W,
600A MLO, UKNOWN AIC, NEMA 1
LOCATION: LOWER ELEMENTARY SCHOOL , TOTAL CONNECTED LOAD =XXX KVA,



TO TRANSFORMER

KP2(SECTION 2)(EX)
208/120V, 3ø, 4W,
400A MCB, UKNOWN AIC, NEMA 1
LOCATION: LOWER ELEMENTARY SCHOOL , TOTAL CONNECTED LOAD =XXX KVA,



MP DESIGN GROUP
ARCHITECTURE + ENGINEERING
"Designed to Build"
918 Howard Ave Suite F
Biloxi, Mississippi 39530
P: 228.388.1950
www.mpdesigngroup.us

David J. Machado, PE
Brad P. Patano, PE
Gerrod W. Kilpatrick, PE
Bradford A. Jones, AIA
Fernanda A. Silva, AIA

BRADLEY P. PATANO LICENSED PROFESSIONAL ENGINEER 2/3/23 17411 STATE OF MISSISSIPPI

VANCLEAVE SCHOOLS HVAC UPGRADES
LOWER ELEMENTARY, MIDDLE, & HIGH SCHOOLS
12602 HWY 57, 4725 BULLDOG LN, & 12424 HWY 57
VANCLEAVE, MISSISSIPPI 39565

SCALE: NTS
PROJECT NO: 0155.22.008
DRAWN BY: DLM
CHECKED BY: KDB

ELECTRICAL ONE-LINE DIAGRAM PLAN- LOWER ELEMENTARY SCHOOL

NO.	DATE	REVISION / SUBMITTAL
REV 0	02.03.2023	ISSUED FOR CONSTRUCTION

E613

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

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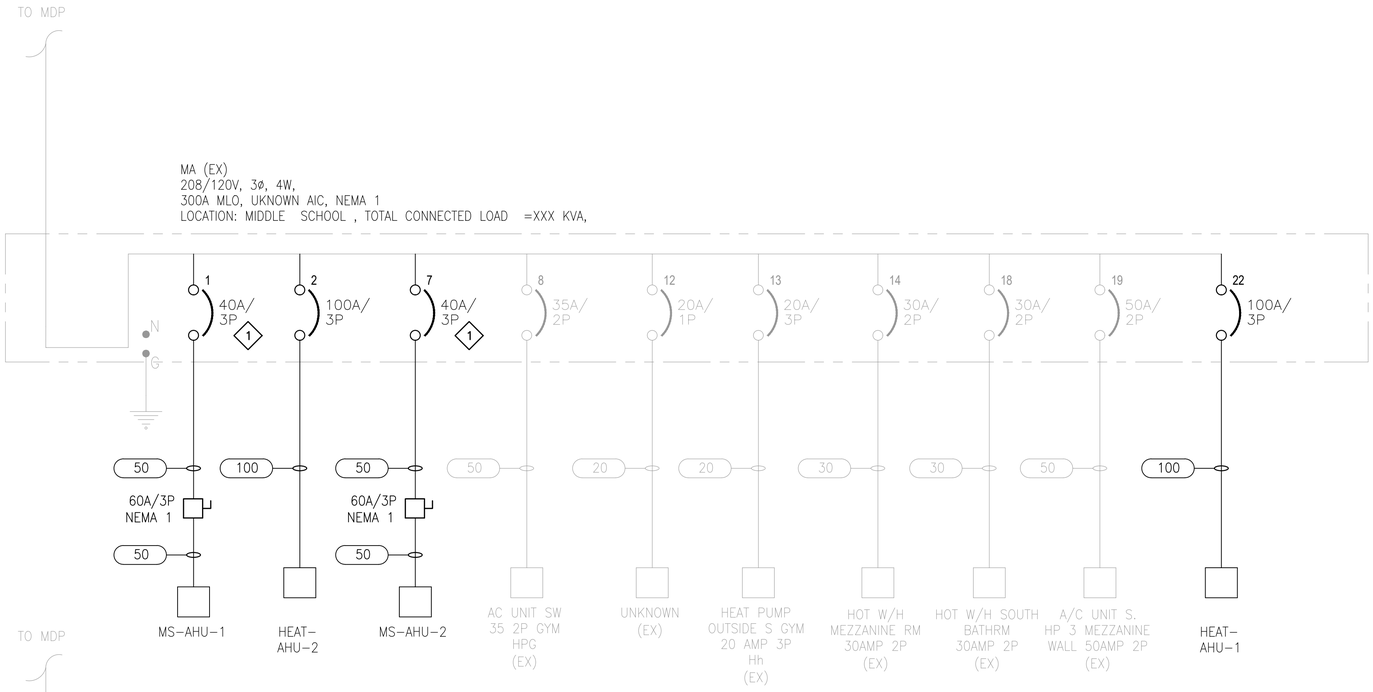
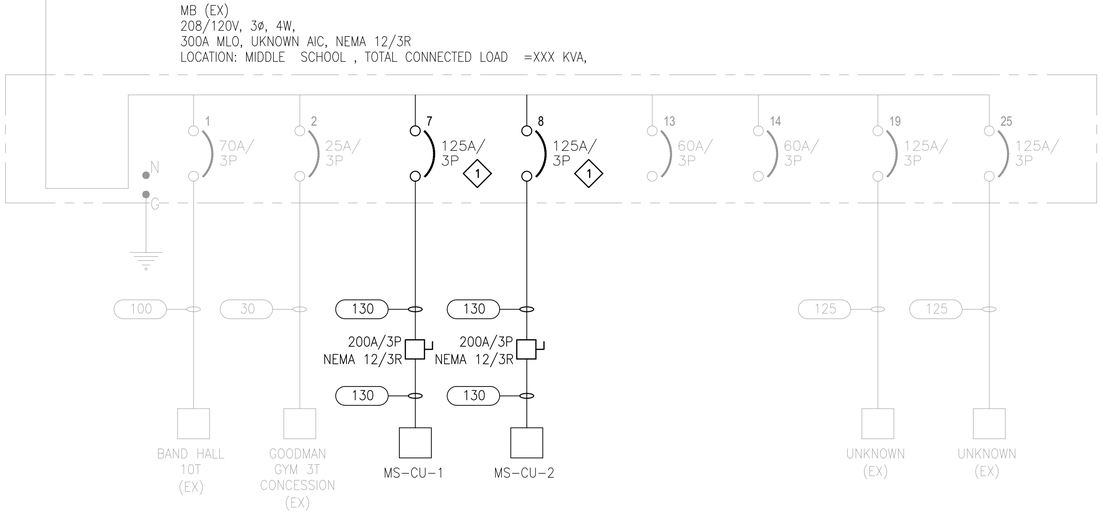
DRAWING E614 NOTES

1. CONTRACTOR SHALL FIELD COORDINATE EXISTING MOUNTING SPACE FOR EXISTING PANELBOARD. CONTRACTOR SHALL MODIFY EXISTING PANEL BOARD FOR NEW EQUIPMENT.

DRAWING E614 SPECIFIC NOTES

1. CONTRACTOR SHALL PROVIDE AND INSTALL NEW CIRCUIT BREAKER IN EXISTING PANEL BOARD AS SHOWN. CONTRACTOR SHALL PROVIDE AND INSTALL NEW DISCONNECT.
2. NOT NEEDED.





DESIGN GROUP
ARCHITECTURE + ENGINEERING
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918 Howard Ave Suite F
Biloxi, Mississippi 39530
P: 228.388.1950
www.mpdesigngroup.us
David J. Machado, PE
Brad P. Patano, PE
Gerrod W. Kilpatrick, PE
Bradford A. Jones, AIA
Fernanda A. Silva, AIA

BRADLEY P. PATANO
REGISTERED PROFESSIONAL
ENGINEER
2/2/23
17411
STATE OF MISSISSIPPI

VANCLEAVE SCHOOLS HVAC UPGRADES
LOWER ELEMENTARY, MIDDLE, & HIGH SCHOOLS
12602 HWY 57, 4725 BULLDOG LN, & 12424 HWY 57
VANCLEAVE, MISSISSIPPI 39565

SCALE: NTS
PROJECT NO: 0155.22.008
DRAWN BY: DLM
CHECKED BY: KDB

ELECTRICAL ONE-LINE DIAGRAM
PLAN- MIDDLE SCHOOL

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E614

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