ABBREVIATIONS

ABBREV.	DEFINITION
A	AMPS, AMPERE, AMPERAGE
AC	ABOVE COUNTER
A/C	ALTERNATING CURRENT
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CURRENT
AL	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARD INSTITUTE
ATSC	AUTOMATIC TRANSFER SWITCH CONTROL
ATS	AUTOMATIC TRANSFER SWITCH
A/V	AUDIO/VISUAL
AWG	AMERICAN WIRE GUAGE
BAS	BUILDING AUOTMATION SYSTEM
BFC	BELOW FINISHED CEILING
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
CU	COPPER
D	DIMMING OR DIMMER
DDC	DIGITAL CONTROLS
DB	DISTRIBUTION BOARD
DC	DIRECT CURRENT
DL	DAY-LIGHTING
DISC	DISCONNECT SWITCH
E	EMERGENCY
ECB	ENCLOSED CIRCUIT BREAKER
EWC	ELECTRIC WATER COOLER
EX	EXISTING
FUT	FUTURE
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM TERMINAL CABINET
FDR	FEEDER
GAA	GENERATOR ALARM ANNUNCIATOR
GAP	GENERATOR ALARM PANEL
GEN	GENERATOR
GEC	GROUNDING ELECTRODE CONDUCTOR
GFI	GROUND FAULT INTERRUPTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFEP	GROUND FAULT EQUIPMENT PROTECTION
GFP	GROUND FAULT PROTECTION
GND	GROUND
GRS	GALVANIZED RIGID STEEL
HH	HAND HOLE
HOA	HAND-OFF AUTOMATIC
HP	HORSEPOWER
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
IG	ISOLATED GROUND
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT AMPS
KW	KILOWATT
KWH	KILOWATT HOURS
LC	LIGHTING CONTACTOR
LS	LOUD SPEAKER
LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS AND GROUND FAULT PROTECTION
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MIN	MINIMUM
MH	MAN HOLE
MLO	MAIN LUGS ONLY
MTS	MANUAL TRANSFER SWITCH
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
N or NEUT	NEUTRAL
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
O/H	OVER HEAD
P	POLE
PA	PUBLIC ADDRESS
PB	PULL BOX
PC	PHOTOCELL
PH	PHASE POTENTIAL TRANSFORMER
PT	POTENTIAL TRANSFORMER
RC	RECEPTACLE CONTACTOR
RSC	RIGID STEEL CONDUIT
SEC	SECURITY
SPD	SURGE PROTECTIVE DEVICE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TC	TIME CLOCK
TEMP	TEMPORARY
TGB	TECHNOLOGY GROUND BAR
TGMB	TECHNOLOGY MAIN GROUND BAR
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TYP.	TYPICAL
U/C	UNDER COUNTER
U/G	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UL	UNDERWRITERS' LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS, VOLTAGE
VFD	VARIABLE FREQUENCY DRIVE
WG	WIRE GUARD
WP	WEATHERPROOF
XFER	TRANSFER
XFMR	TRANSFORMER

DEMOLITION GENERAL NOTES:

A. NOTIFY THE OWNER, IN WRITING, AT LEAST 7 DAYS IN ADVANCE OF ALL REQUIRED SHUTDOWNS ELECTRICAL UTILITIES. UPON WRITTEN RECEIPT OF APPROVAL FROM OWNER, SHUTDOWNS SHALL BE PERFORMED AS DIRECTED BY THE OWNER AND SHALL BE CONDUCTED AT NO ADDITIONAL CONTRACT COST. AT THE COMPLETION OF EACH SHUT DOWN, ALL SERVICES SHALL BE RESTORED SO THAT NORMAL OPERATION OF ALL UTILITIES CAN RESUME.

B. WHEN WORKING IN AND AROUND THE EXISTING BUILDING, EXTREME CARE SHALL BE EXERCISED IN REGARDS TO PROTECTION OF THE EXISTING STRUCTURE, MECHANICAL AND ELECTRICAL SERVICES WHICH WILL REMAIN. REPAIR, REPLACE OR RESTORE TO THE SATISFACTION OF THE OWNER/ARCHITECT/ENGINEER ALL EXISTING WORK DAMAGED IN THE PERFORMANCE OF DEMOLITION AND/OR NEW WORK.

C. ALL EXISTING WIRING, EQUIPMENT, CONDUITS AND MATERIALS NOT REQUIRED FOR RE-USE OR RE-INSTALLATION (SHOWN OR OTHERWISE) SHALL BE REMOVED. ALL EXISTING MATERIALS AND EQUIPMENT WHICH ARE REMOVED AND DESIRED BY THE OWNER, OR ARE INDICATED TO REMAIN AS THE PROPERTY OF THE OWNER, SHALL BE DELIVERED TO THE OWNER ON THE PREMISES BY THE CONTRACTOR WHERE DIRECTED BY THE ARCHITECT. ALL OTHER MATERIALS AND EQUIPMENT WHICH ARE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED BY THE CONTRACTOR FROM THE PREMISES.

D. EXISTING CONDITIONS (PRESENCE AND LOCATION OF PANELBOARDS, LIGHTING FIXTURES, RECEPTACLES, EQUIPMENT, MATERIALS AND CIRCUITING) INDICATED ARE BASED ON INFORMATION OBTAINED FROM AVAILABLE RECORD DRAWINGS AND FIELD SURVEYS AND ARE NOT WARRANTED TO BE COMPLETE OR CORRECT. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF ALL CONDUITS, EQUIPMENT AND MATERIALS IN THE FIELD PRIOR TO STARTING ALL WORK.

E. EXISTING EQUIPMENT SIZES NOTED ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND ARE NOT WARRANTED TO BE CORRECT. CONTRACTOR SHALL VERIFY ALL SIZES IN THE FIELD IF EQUIPMENT IS IN PROJECT SCOPE.

F. WHEN EXISTING MECHANICAL AND ELECTRICAL WORK IS REMOVED, ALL CONDUITS, WIRING AND MATERIALS SHALL BE REMOVED TO A POINT BELOW FINISHED FLOORS OR BEHIND FINISHED WALLS AND CAPPED. SUCH POINTS SHALL BE FAR ENOUGH BEHIND FINISHED SURFACES TO ALLOW FOR THE INSTALLATION OF THE NORMAL THICKNESS OF FINISHED MATERIAL.

G. EXISTING MECHANICAL AND ELECTRICAL EQUIPMENT, CONDUIT, WIRING, DEVICES, AND MATERIALS AFFECTED BY DEMOLITION OR NEW WORK INSTALLATION AND REQUIRED TO REMAIN IN SERVICE SHALL BE REINSTALLED OR SUPPORTED AS REQUIRED IN ACCORDANCE WITH NEW WORK SPECIFICATIONS. ALL WORK SHALL BE COMPLETED TO THE SATISFACTION OF THE OWNER.

H. IN GENERAL, ON DEMOLITION DRAWINGS, ALL EQUIPMENT AND MATERIALS SHOWN "LIGHT" ARE EXISTING TO REMAIN AND ALL EQUIPMENT AND MATERIALS SHOWN AS "HEAVY AND DASHED" ARE EXISTING TO BE DEMOLISHED.

I. ENSURE THAT ALL ELECTRICAL WORK IS DONE DE-ENERGIZED. SPECIFICALLY WHERE ELECTRICAL EQUIPMENT IS OPENED EXPOSING LIVE PARTS, BREAKERS ARE REMOVED OR INSTALLED OR WHERE ELECTRICAL CONNECTIONS ARE MODIFIED. ALL POWER AT THE PANEL OR ENCLOSURE SHALL BE DE-ENERGIZED AT ITS SOURCE, PRIOR TO WORK BEING DONE.

J. ALL TESTING, TROUBLESHOOTING AND VERIFICATION OF DEENERGIZATION IS TO BE DONE IN ACCORDANCE WITH NFPA 70E INCLUDING ESTABLISHING, ISOLATING IF REQUIRED, SHOCK PROTECTIVE AND ARC FLASH PROTECTIVE APPROACH BOUNDARIES AND WEARING PERSONAL PROTECTIVE EQUIPMENT APPROPRIATE FOR THE HAZARD.

K. PRIOR TO THE REMOVAL OF A CIRCUIT FROM A PANELBOARD, THE CONTRACTOR SHALL VERIFY THAT NO EXISTING LOADS REMAIN ON THAT CIRCUIT. IF UNEXPECTED LOADS REMAIN ON THE CIRCUIT, NOTIFY EOR FOR DIRECTIONS TO PROCEED. ONCE CIRCUITS HAVE BEEN VERIFIED TO BE UNDER NO LOAD, BREAKERS IN THE CORRESPONDING PANELBOARD SHALL BE FLIPPED TO THE 'OFF' POSITION AND MARKED AS SPARE AND READY FOR FUTURE WORK. ALL CONDUIT AND WIRING SHALL BE REMOVED BACK TO SOURCE.

L. UPDATE PANEL SCHEDULES TO REFLECT NEW AND CHANGED LOAD. ALL PANEL SCHEDULES SHALL BE COMPUTER GENERATED.

M. EXISTING FIRE ALARM SYSTEM SHALL BE MAINTAINED AND OPERABLE DURING DEMOLITION. CONTRACTOR SHALL TEMP EXISTING DEVICES TO ALLOW DEMOLITION OF EXISTING CONDUIT AND WIRING.

GENERAL NOTES

1. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR FLOOR PLAN DIMENSIONS. DO NOT SCALE THESE DRAWINGS.
2. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ANY AND ALL WORK WITH OTHER TRADES INVOLVED IN THE PROJECT, PRIOR TO THE INSTALLATION OF HIS EQUIPMENT SO AS TO AVOID CONFLICTS DURING CONSTRUCTION AND ALLOW FOR OPTIMUM MAINTENANCE AND WORKING SPACE.
3. ALL LIGHT FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF THE SUSPENDED CEILING SYSTEM. REFER TO THE SPECIFICATIONS FOR MORE DETAILED INFORMATION.
4. USE OF THE CONDUIT SYSTEM FOR EQUIPMENT GROUNDING SHALL NOT BE ACCEPTABLE. A SEPARATE GREEN GROUND WIRE SHALL RUN WITH THE CIRCUIT CONDUCTORS IN EACH CIRCUIT.
5. IN ALL AREAS WHERE FIRE RATED WALLS, FLOORS AND CEILINGS ARE INSTALLED, ALL PENETRATIONS OF ELECTRICAL CONDUITS OR OTHER RELATED ELECTRICAL MATERIAL SHALL BE PROPERLY SEALED WITH APPROVED FIRE RATED MATERIALS TO MAINTAIN THE RATINGS OF THE BUILDING CONSTRUCTION.
6. ALL FUSES, DISCONNECT SWITCHES, AND BREAKER SIZES SHOWN FOR MECHANICAL/PLUMBING/FIRE PROTECTION EQUIPMENT SHALL BE VERIFIED BEFORE THE PURCHASE OR INSTALLATION OF SAID EQUIPMENT, WITH THE EQUIPMENT SUPPLIER AND MECHANICAL/PLUMBING CONTRACTOR. REFER TO SPECIFICATIONS 220512 AND 230512 FOR DIVISION OF WORK. NOTE: ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL DISCONNECTS AND LINE SIDE CONDUIT/WIRING. LOAD SIDE CONDUIT/WIRING AND FINAL CONNECTIONS SHALL BE BY PLUMBING, MECHANICAL OR FIRE PROTECTION CONTRACTOR AS APPLICABLE. (1)
7. ALL WORK AND MATERIAL SHALL BE PROVIDED IN ACCORDANCE WITH STATE, LOCAL AND NATIONAL CODES AND ORDINANCES.
8. THE NEW FIRE ALARM EQUIPMENT SHOWN SHALL BE PROVIDED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. PROVIDE ALL WIRING AS REQUIRED FOR A COMPLETE SYSTEM.
9. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL CEILING TYPES AND FINISHES BEFORE PURCHASE OF ANY LIGHT FIXTURES SO THAT THE PROPER TRIM WILL BE PROVIDED FOR THE CEILING TO BE INSTALLED. ANY DIFFERENCES SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
10. EACH CONTRACTOR SHALL PROVIDE HIS OWN SUPPORT OF ALL DEVICES AND EQUIPMENT PROVIDED BY HIM AND SHALL SUPPORT SUCH EQUIPMENT PER APPROVED GOVERNING CODES OR PER APPROVAL OF THE ENGINEER. UNACCEPTABLE WORKMANSHIP OR MATERIALS SHALL BE REPLACED AT THE REQUEST OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
11. ALL JUNCTION BOXES AND CONDUIT RUNS (WITH OR WITHOUT WIRES) SHALL BE COLOR CODED WITH PAINT, IN ACCORDANCE WITH SPECIFICATION 260553.
12. THE MOUNTING HEIGHTS AND LOCATIONS OF ALL WALL MOUNTED OUTLETS AND JUNCTION BOXES SHALL BE REVIEWED AND COORDINATED WITH THE ARCHITECT AND OWNER PRIOR TO INSTALLATION, FOR USE WITH THE ACTUAL EQUIPMENT, CASEWORK AND MILLWORK TO BE FURNISHED.
13. ALL WIRE AND CONDUIT SIZES ARE BASED ON 75°C THHN OR THWN WIRE UNLESS OTHERWISE NOTED.
14. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE UTILITY POWER COMPANY THE WORK REQUIRED FOR CONNECTION TO THE UTILITY'S NEW TRANSFORMER METERING, ETC.
15. WHERE MULTIPLE SWITCHES ARE SHOWN IN THE SAME LOCATION (EXCEPT CLASSROOM), THEY SHALL BE GANGED TOGETHER IN ONE MULTIPLE GANG BOX WITH MATCHING COVER AND PARTITION (IF REQUIRED). THE ELECTRICAL CONTRACTOR SHALL LOOK AT BOTH POWER AND LIGHTING PLAN TO DETERMINE WHICH SWITCH IS APPLICABLE.
16. THE LOCATION OF ALL WALL MOUNTED DEVICES, INCLUDING MOUNTING HEIGHTS, SHALL BE FIELD VERIFIED WITH THE ARCHITECT PRIOR TO INSTALLATION.
17. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE TELEPHONE AND CABLE TV COMPANIES THE LOCATION AND ROUTING OF THE UNDERGROUND INCOMING SERVICE. THE ELECTRICAL CONTRACTOR SHALL PAY FOR ALL NECESSARY CHARGES FOR INSTALLATION OF UNDERGROUND SERVICE, AS SHOWN ON THE PLANS.
18. WHERE ELECTRICAL RACEWAY PENETRATES EXTERIOR WALLS OR THE ROOF, THEY SHALL BE PROPERLY SEALED WITH METHODS APPROVED BY THE ENGINEER. SUBMIT DETAIL OF PROPOSED SEALING METHODS.
19. ALL EXTERIOR BUILDING LIGHTS AND EMERGENCY LIGHTING SHALL BE WIRED WITH #10 AWG, UNLESS OTHERWISE NOTED.
20. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL CHAIN HUNG FIXTURES LOCATED IN MECHANICAL OR OTHER SPACES WITH OTHER TRADES, SO AS NOT TO CONFLICT WITH OTHER EQUIPMENT.
21. ALL EMERGENCY LIGHTING, EXIT SIGNS AND EMERGENCY NIGHT LIGHTS SHALL BE WIRED AHEAD OF ANY SWITCH AND/OR BUILDING AUTOMATION SYSTEM.
22. WHERE CONDUIT OR OUTLET BOXES CANNOT BE INSTALLED IN EXISTING WALLS FOR NEW DEVICES, THEN PROVIDE AND INSTALL SURFACE MOUNTED WIREMOLD RACEWAYS. CONFIRM ALL WIREMOLD WITH ARCHITECT PRIOR TO INSTALLATION.
23. OUTLET BOXES ON OPPOSITE SIDES OF THE FIRE RESISTANT WALL OR SHAFT ENCLOSURE RATED TWO HOURS OR LESS SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF NOT LESS THAN 24".
24. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL ACCESS PANELS AS REQUIRED FOR ELECTRICAL CODE COMPLIANCE AND TO ACCESS ANY INSTALLATION THAT WILL REQUIRE FUTURE MAINTENANCE. THESE DOORS SHALL BE 20" X 20". EACH ROOM WITH A DRYWALL CEILING SHALL HAVE A MINIMUM OF ONE ACCESS DOOR PROVIDED BY THE ELECTRICAL CONTRACTOR. THE DRYWALL SUBCONTRACTOR WILL PROVIDE THE REQUIRED FRAMED OPENING AND INSTALL THE ACCESS DOORS.
25. PROVIDE FIVE (5)-3/4" SPARE CONDUITS IN RECESSED ELECTRICAL PANELS FOR FUTURE ACCESS.
26. ALL UNDERGROUND CONDUITS SHALL BE IDENTIFIED ON ASBUILT PLANS WITH DIMENSIONS LOCATING THE CONDUITS AND THEIR RESPECTIVE BURIAL DEPTHS.
27. CONDUCTORS FOR BRANCH CIRCUITS SHALL BE SIZED TO PREVENT VOLTAGE DROP EXCEEDING 3% AT THE FARTHEST OUTLET OF POWER, HEATING AND LIGHTING LOADS, OR ANY COMBINATION OF SUCH LOADS. THE MAXIMUM TOTAL VOLTAGE DROP ON BOTH FEEDERS AND BRANCH CIRCUITS TO THE FARTHEST OUTLET SHALL NOT EXCEED 5%.
   A. WHERE THE BRANCH CIRCUIT CONDUCTOR LENGTH FROM THE PANEL TO THE FIRST OUTLET ON A 277V CIRCUIT EXCEEDS 125'-0" THE BRANCH CIRCUIT CONDUCTORS FROM THE PANEL TO THE FIRST OUTLET SHALL NOT BE SMALLER THAN #10AWG. INCREASE THE BRANCH CIRCUIT CONDUCTOR SIZE AN ADDITIONAL WIRE SIZE FOR EACH ADDITIONAL 125' FOR THE ENTIRE CIRCUIT. THE GROUND CONDUCTOR SIZE SHALL BE INCREASED PROPORTIONALLY TO THE INCREASED PHASE CONDUCTORS AS PER NEC 2020 250.122 (B).
   B. WHERE THE CONDUCTOR LENGTH FROM THE PANEL TO THE FIRST OUTLET ON A 120V CIRCUIT EXCEED 50'-0" THE BRANCH CIRCUIT CONDUCTORS FROM THE PANEL TO THE FIRST OUTLET SHALL NOT BE SMALLER THAN #10AWG. INCREASE THE BRANCH CIRCUIT CONDUCTOR SIZE AN ADDITIONAL WIRE SIZE FOR EACH ADDITIONAL 125' FOR THE ENTIRE CIRCUIT. THE GROUND CONDUCTOR SIZE SHALL BE INCREASED PROPORTIONALLY TO THE INCREASED PHASE CONDUCTORS AS PER NEC 2020 250.122 (B).
28. THE CONTRACT DOCUMENTS ARE COMPLIMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE BINDING AS IF REQUIRED BY ALL. IN THE CASE OF A CONFLICT, DISAGREEMENT OR AMBIGUITY, PROVIDE THE BETTER QUALITY. IN THE CASE OF A CONFLICT, DISAGREEMENT OR AMBIGUITY, PROVIDE THE GREATER QUANTITY OF WORK.
29. ALL CONDUIT SHALL BE MINIMUM 3/4".
30. REFER TO DETAIL FOR LIGHTING INTEGRATION WITH BUILDING AUTOMATION SYSTEM.
31. EXCEPT WHERE SHOWN ON PLANS OR ABSOLUTELY NECESSARY (MUST BE APPROVED BY DESIGN TEAM), ALL CONDUITS AND PIPING SHALL BE CONCEALED IN BULKHEADS AND ABOVE CEILINGS AND NOT ROUTED THROUGH OPEN CEILINGS. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR THE LOCATION OF OPEN CEILINGS. WHEN CONDUITS ARE REQUIRED TO BE RUN EXPOSED, THEY ARE TO RUN TIGHT TO STRUCTURE AND BE PAINTED TO MATCH THE STRUCTURE.

SYMBOL LEGEND (CONTINUED)

SYMBOL	DESCRIPTION	REMARKS
	8'x4'x3/4" FIRE RETARDANT PLYWOOD BACK BOARD FOR MDF AND IDF CLOSETS	REFER TO SPECIFICATIONS
SEC	NAPCO X255 SECURITY PANEL - SEE RISER ON E00.05/5.	REFER TO SPECIFICATION
MD	CLASSROOM CEILING MOUNTED MOTION DETECTOR	REFER TO SPECIFICATION
WA LR	MOTION SENSOR - WALL MOUNTED WA = WIDE ANGLE, LR = LONG RANGE	REFER TO SPECIFICATION
KP	NUMERICAL REMOTE SECURITY KEYPAD, LOCATE AT +60" AFF.	REFER TO SPECIFICATION
CR	EXTERNAL DOOR SECURITY CARD READER, +48" TO TOP OF BOX REFER TO DETAILS E00.07/5, 6 AND 7.	REFER TO SPECIFICATION
ACP	S2 SECURITY CARD ACCESS CONTROL SYSTEM	REFER TO SPECIFICATION
CAM #	VIDEO SURVEILLANCE CAMERA - "CAM #" INDICATES CAMERA NUMBER. PROVIDE CAT-6 WIRING TO CAMERA LOCATION. REFER TO DETAILS E00.07/3 AND E00.05/8.	REFER TO SPECIFICATION
S_T	DIGITAL TIME SWITCH/BACKLIT LED TIMER COUNTDOWN WITH ADJUSTMENTS FROM 5 MINUTES TO 12 HOURS.	WATTSTOPPER TS-400 OR EQUAL
	120/208 VOLT PANELBOARD WITH NEUTRAL AND GROUND BUS ACCESSORIES.	REFER TO SPECIFICATION
	277/480 VOLT PANELBOARD WITH NEUTRAL AND GROUND BUS ACCESSORIES.	REFER TO SPECIFICATION
SPD	SURGE PROTECTIVE DEVICE	REFER TO SPECIFICATION
TX	DRY TYPE STEP DOWN TRANSFORMER 480-120/208V 3 PHASE	REFER TO SPECIFICATION
	DISCONNECT SWITCH, HEAVY DUTY.	REFER TO SPECIFICATION
	WIRING AND CONDUIT INSTALLED CONCEALED IN WALL SPACE OR ABOVE FINISHED CEILING	REFER TO SPECIFICATION
	UNSWITCHED WIRING AND CONDUIT LEG ON LIGHTING PLANS. UNDER FLOOR WIRING AND CONDUIT ON POWER PLANS. UNDER GROUND WIRING AND CONDUIT ON SITE PLANS.	REFER TO SPECIFICATION
	HOME RUN CIRCUIT TO PANELBOARD	REFER TO SPECIFICATIONS
	CONDUIT SLEEVES - SIZE AND QUANTITY AS SHOWN ON PLANS	
J	JUNCTION BOX WITH REMOVABLE COVER - SIZE PER NATIONAL ELECTRICAL CODE	

ELECTRICAL SYSTEM AND EQUIPMENT

METHOD OF COMPLIANCE:

ENERGY CODE: PRESCRIPTIVE__X__ PERFORMANCE_____
ASHRAE 90.1: PRESCRIPTIVE_____ PERFORMANCE_____

LIGHTING SCHEDULE

Lamp type required in fixture - See Fixture Schedule.
Number of lamps in fixture - See Fixture Schedule.
Ballast type used in the fixture - See Specifications.
Number of ballasts in fixture - See Specifications.
Total wattage per fixture - Varies - See Fixture Schedule
Total interior wattage specified versus allowed: 16,631 watts versus 34,163 watts (whole building)
Total exterior wattage specified versus allowed: 569 watts versus 1920 watts

ADDITIONAL PRESCRIPTIVE COMPLIANCE

___ 406.2 More Efficient HVAC Performance
_X_ 406.3 Reduced Lighting Power Density
___ 406.4 Enhanced Lighting Controls
___ 406.5 On-Site Supply of Renewable Energy
___ 406.6 Provision of Dedicated Outdoor HVAC Air System
___ 406.7 High Efficiency Service Water Heating

DESIGNER STATEMENT:
To the best of my knowledge and belief, the design of this building complies with the electrical system and equipment requirements of the 2018 North Carolina State Building Code, Energy Conservation Code.

SHEET INDEX - ELECTRICAL

Sheet Number	Sheet Name	Current Revision	Current Revision Date
E101A	ENLARGED POWER PLAN - MECHANICAL YARD PLAN		
E103	EQUIPMENT PLATFORM POWER PLAN	1	02/20/2024
E201	GROUND FLOOR LIGHTING PLAN		
E202	FIRST FLOOR LIGHTING PLAN	1	02/20/2024
E203	EQUIPMENT PLATFORM LIGHTING PLAN		
E301	GROUND FLOOR TECHNOLOGY/SECURITY PLAN	1	02/20/2024
E302	FIRST FLOOR TECHNOLOGY/SECURITY PLAN	1	02/20/2024
E401	GROUND FLOOR FIRE ALARM PLAN	1	02/20/2024
E402	FIRST FLOOR FIRE ALARM PLAN	1	02/20/2024
E403	EQUIPMENT PLATFORM FIRE ALARM PLAN		
E502	DETAILS		
E503	NEW FIRE ALARM RISER/MATRIX, DETAILS	1	02/20/2024
E504	EXISTING BUILDING FIRE ALARM RISER		
E505	DETAILS	1	02/20/2024
E506	DATA/IT RISER DIAGRAM		
E700	ALT. 2 CONNECTOR & ALT. 3 CORRIDOR RENOVATION - ELECTRICAL DEMO	1	02/20/2024
E701	ALT. 2 CONNECTOR & ALT. 3 CORRIDOR RENOVATION - POWER PLAN	1	02/20/2024
E702	ALT. 2 CONNECTOR & ALT. 3 CORRIDOR RENOVATION - LIGHTING PLAN		
E703	ALT. 2 CONNECTOR & ALT. 3 CORRIDOR RENOVATION - TECHNOLOGY PLAN		
E704	ALT. 2 CONNECTOR & ALT. 3 CORRIDOR RENOVATION - FIRE ALARM PLAN	1	02/20/2024
E804	PANEL SCHEDULES	1	02/20/2024
E900	DEMOLITION SITE PLAN		
E901	NEW WORK SITE PLAN		
E001	ELECTRICAL LEAD SHEET	1	02/20/2024
E100	DEMOLITION		
E101	GROUND FLOOR POWER PLAN	1	02/20/2024
E102	FIRST FLOOR POWER PLAN	1	02/20/2024
E501	DETAILS		
E601	POWER RISERS/LOAD SUMMARY		
E801	LIGHTING FIXTURE SCHEDULE		
E802	PANEL SCHEDULES	1	02/20/2024
E803	PANEL SCHEDULES	1	02/20/2024

SYMBOL LEGEND

SYMBOL	DESCRIPTION	REMARKS
OR	LED LIGHT FIXTURE - LETTER DESIGNATES TYPE	SEE FIXTURE SCHEDULE
	NIGHT LIGHT LED LIGHT FIXTURE - LETTER DESIGNATES TYPE	SEE FIXTURE SCHEDULE
	LED LIGHT FIXTURE - LETTER DESIGNATES TYPE	SEE FIXTURE SCHEDULE
	LED EMERGENCY LIGHT FIXTURE - LETTER DESIGNATES TYPE	SEE FIXTURE SCHEDULE
	LINEAR LIGHTING FIXTURE	SEE FIXTURE SCHEDULE
	BATTERY POWERED EMERGENCY FIXTURE - WALL MOUNTED	SEE FIXTURE SCHEDULE
	EXIT LIGHT - ARROW INDICATES DIRECTION & SHADING INDICATES ILLUMINATED FACE(S).	SEE FIXTURE SCHEDULE
S	SINGLE POLE TOGGLE SWITCH - +48" ABOVE FINISHED FLOOR TO TOP OF OUTLET, UNLESS OTHERWISE NOTED.	HUBBELL 1221-I WITH 97071 COVER EQUALS BY LEVITON OR P&S
S_3	3-WAY SWITCH - INSTALL AT +48" ABOVE FINISHED FLOOR TO TOP OF OUTLET	HUBBELL 1223-I WITH 97071 COVER EQUALS BY LEVITON OR P&S
S_4	4-WAY SWITCH - INSTALL AT +48" ABOVE FINISHED FLOOR TO TOP OF OUTLET	HUBBELL 1224-I WITH 97071 COVER EQUALS BY LEVITON OR P&S
S_K	SINGLE POLE KEY SWITCH - INSTALL AT +48" ABOVE FINISHED FLOOR TO TOP OF OUTLET, UNLESS OTHERWISE NOTED.	HUBBELL, LEVITON OR P&S STAINLESS STEEL COVER AND 2 KEYS PER SWITCH
LC#	MECHANICALLY HELD LIGHTING CONTACTOR. # INDICATES CONTACTOR NUMBER. PROVIDE NUMBER OF CONTACTS AS REQUIRED. PROVIDE HAND OFF AUTO SWITCH FOR EACH LIGHTING CONTACTOR. REFER TO DETAIL E801/1.	SQUARE D CLXGXXXX PROVIDE # CONTACTS AS NEEDED OR EQUAL BY SIEMENS OR EATON
OS	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR WITH ISOLATED RELAY AND WIDE ANGLE LENS. TIME DELAYS OF NO LESS THAN 15 MINUTES. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.	SEE DETAILS AND SPECIFICATION 260923
OS	CORNER MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR WITH ISOLATED RELAY AND WIDE ANGLE LENS. TIME DELAYS OF NO LESS THAN 15 MINUTES. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.	SEE DETAILS AND SPECIFICATION 260923
S_{OS}	PASSIVE INFRARED WALL SWITCH SENSOR - COVERAGE: MAJOR MOTION 35'x30', MINOR MOTION 20'x15'. TIME DELAYS OF NO LESS THAN 15 MINUTES. MOUNT AT +48" TO TOP OF OUTLET BOX. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.	SEE DETAILS AND SPECIFICATION 260923
S_D	120/277 VOLT LINE VOLTAGE 0-10V (1500VA) SLIDE DIMMER SWITCH WITH ON/OFF - COMPATIBLE WITH LED FIXTURE - MOUNT AT +48" TO TOP OF OUTLET BOX	LEVITON ILLUMATECH SERIES #IP710-LF-Z OR EQUAL BY EATON OR LUTRON
S_M	120 VOLT, 20 AMP, MOTOR RATED TOGGLE DISCONNECT SWITCH WITH JUNCTION BOX	HUBBELL, LEVITON OR P&S
S_{M2}	TWO POLE MOTOR RATED TOGGLE DISCONNECT SWITCH WITH JUNCTION BOX	HUBBELL, P&S OR LEVITON
	DUPLEX TAMPER RESISTANT GROUNDING TYPE RECEPTACLE - AT +16" ABOVE FINISHED FLOOR TO BOTTOM OF OUTLET, UON.	HUBBELL 5262XXTR W/ 97071 COVER. EQUALS; LEVITON, P&S
	TWO DUPLEX TAMPER RESISTANT GROUNDING TYPE RECEPTACLES IN A DOUBLE GANG BOX MOUNT AT +16" AFF TO BOTTOM OF OUTLET. PROVIDE WITH STAINLESS STEEL COVER UON.	HUBBELL 5262XXTR W/ 97071 COVER. EQUALS; LEVITON, P&S
GFI	TAMPER RESISTANT GFCI DUPLEX RECEPTACLE -GROUND FAULT INTERRUPTION TYPE INSTALL AT +16" ABOVE FINISHED FLOOR TO BOTTOM OF OUTLET, UON.	HUBBELL GFR5262XXTR WITH SS26 COVER EQUALS: LEVITON, P&S
GFI WP	TAMPER RESISTANT DUPLEX GROUNDING TYPE RECEPTACLE WITH WEATHERPROOF, 'IN-USE' COVER MOUNTED AT +16" ABOVE GRADE TO BOTTOM OF OUTLET BOX, UNLESS OTHERWISE NOTED, WITH HEAVY DUTY GRAY IN-USE COVER (TAYMAC OR EQUAL)	HUBBELL GFR5262XXTR WITH HEAVY DUTY IN USE COVER COVER EQUALS: P&S, LEVITON LEVITON, P&S, HUBBELL
	DATA OUTLET - REFER TO E03 SERIES PLANS AND DATA SCHEDULES FOR QUANTITY OF CAT-6 DROPS AT EACH OUTLET.	SINGLE GANG BOX WITH 3/4" CONDUIT STUBBED ABOVE CEILING
	120 VOLT, 20 AMP FACELESS GFI DEVICE	
WAP	WIRELESS ACCESS POINT, WITH CAT-6A DATA DROP. REFER TO PLANS FOR LOCATIONS.	SEE SPECIFICATION
PA	EXISTING BOGEN MULTI-COM 2000 INTERCOM HEAD-END UNIT	
LS WP WG	WALL MOUNTED LOUDSPEAKER. EXACT MOUNTING HEIGHT FOR OUTDOOR SPEAKERS TO BE COORDINATED WITH ARCHITECT. WP=WEATHERPROOF. MOUNT ON INTERIOR AT +88" AFF.	SEE SPECIFICATION
LS	RECESSED CEILING SPEAKER, WITH BACK BOX AND ACCESSORIES - MATCH EXISTING BOGEEN SPEAKERS	SEE SPECIFICATION
DDC	HVAC CONTROL PANEL PROVIDED BY HVAC CONTRACTOR	
AMP	FIRE ALARM SYSTEM AMPLIFIER CABINET	REFER TO SPECIFICATIONS
NAC	FIRE ALARM SYSTEM NOTIFICATION APPLIANCE BOOSTER CABINET	REFER TO SPECIFICATIONS
VFD	VARIABLE FREQUENCY DRIVE FURNISHED BY HVAC CONTROLS CONTRACTOR AND INSTALLED/WIRED BY THE ELECTRICAL CONTRACTOR	REFER TO SPECIFICATIONS
IDF	IDF DATA RACK PROVIDED BY CONTRACTOR	REFER TO SPECIFICATIONS
TGB	IDF ROOM GROUND BAR, REFER TO SPECIFICATIONS AND REFER TO DETAILS E502/6 AND E505/5	REFER TO SPECIFICATIONS
	CONDUITS SLEEVES TURN DOWN TO CEILING CAVITY BELOW.	
	SINGLE GANG VOICE OUTLET WITH 1" CONDUIT STUBBED ABOVE NEAREST LAY-IN CEILING FOR: ELEVATOR, FIRE ALARM OR SECURITY INTRUSION SYSTEM. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH SYSTEM PROVIDED. SEE DETAIL E00.08/3.	
S_{OR}	LIGHTING OVERRIDE SWITCH - PROVIDED AND WIRED BY MECHANICAL CONTROLS CONTRACTOR	REFER TO SPECIFICATIONS AND MECHANICAL DRAWINGS FOR SEQUENCE OF OPERATIONS.
CR	EXTERNAL DOOR SECURITY CARD READER. LOCATE 48" TO TOP OF BOX.	SEE SPECIFICATIONS
DC	SECURITY DOOR CONTACT	SEE SPECIFICATIONS
REX	REQUEST TO EXIT MOTION	SEE SPECIFICATIONS
	SIMPLEX RECEPTACLE FOR ELEVATOR SUMP PUMP	HUBBELL, LEVITON OR P&S
V #CD	FIRE ALARM SIGNAL/SPEAKER - AUDIO/VISUAL, WALL MOUNTED AT +84" ABOVE FINISHED FLOOR. "WP" INDICATES WEATHERPROOF # CD INDICATES CANDELA RATING OF STROBE.	REFER TO SPECIFICATION
S #CD	FIRE ALARM SIGNAL - VISUAL, WALL MOUNTED AT +84" ABOVE FINISHED FLOOR. "WP" INDICATES WEATHERPROOF # CD INDICATES CANDELA RATING OF STROBE.	REFER TO SPECIFICATION
S #CD	CEILING MOUNTED FIRE ALARM STROBE - # CD INDICATES CANDELA RATING OF STROBE	REFER TO SPECIFICATION
F	MANUAL FIRE ALARM PULL STATION - INSTALL AT +48" ABOVE FINISHED FLOOR TO TOP OF BOX (DOUBLE ACTION). PROVIDE LEXAN STOPPER II COVERS ON ALL PULL STATIONS.	REFER TO SPECIFICATIONS PROVIDE WITH LEXAN PROTECTIVE COVER
V	FIRE ALARM SPEAKER - AUDIO ONLY, WALL MOUNTED AT +84" ABOVE FINISHED FLOOR. "WP" INDICATES WEATHERPROOF	REFER TO SPECIFICATION
SD	PHOTOELECTRIC TYPE SMOKE DETECTOR - CEILING MOUNTED	REFER TO SPECIFICATION
S D	DUCT TYPE PHOTOELECTRIC SMOKE DETECTOR INSTALLED IN MECHANICAL DUCTWORK. FURNISHED BY ELECTRICAL CONTRACTOR, INSTALLED BY MECHANICAL CONTRACTOR WITH FINAL CONNECTION BY ELECTRICAL CONTRACTOR.	REFER TO SPECIFICATION
V	RECESSED CEILING MOUNTED FIRE ALARM SPEAKER	REFER TO SPECIFICATION
	SPRINKLER BELL	
AHU-N	REMOTE ALARM ANNUNCIATORS FOR DUCT DETECTORS. MOUNT AT +88" AFF UNLESS OTHERWISE NOTED. MUST BE KEY-OPERATED. "N" DENOTES AIR HANDLING UNIT NUMBER TO BE IDENTIFIED ON FACEPLATE.	REFER TO SPECIFICATION
EMH	MAGNETIC DOOR HOLDER, WALL MOUNTED/FLOOR MOUNTED, TO BE COORDINATED WITH GENERAL CONTRACTOR/ARCHITECT.	REFER TO SPECIFICATION
HD	HEAT DETECTOR - FIXED TEMPERATURE (200°F @ KILN ROOM) (135°F @ MECHANICAL ROOMS)	REFER TO SPECIFICATION
V #CD	CEILING MOUNTED FIRE ALARM SPEAKER/STROBE - # CD INDICATES CANDELLA RATING OF STROBE	REFER TO SPECIFICATION
FACP	ADDRESSABLE VOICE-EVAC FIRE ALARM PANEL, EQUALS BY: NOTIFIER OR APPROVED EQUAL	REFER TO SPECIFICATION
RACP	REMOTE FIRE ALARM ADDRESSABLE CONTROL PANEL BY NOTIFIER OR APPROVED EQUAL. INSTALL IN RISER ROOM.	REFER TO SPECIFICATION
TP AND FS	TAMPER SWITCH/FLOW SWITCH - BY SPRINKLER SYSTEM CONTRACTOR ELECTRICAL CONTRACTOR SHALL CONNECT TO FIRE ALARM SYSTEM.	REFER TO SPECIFICATION
R	SHUTDOWN RELAY FOR AHU'S	REFER TO SPECIFICATION
CO	CARBON MONOXIDE DETECTOR WITH 85dB SOUNDER BASE, TEMPORAL 4	COMPATIBLE WITH FA SYSTEM
TS	TEMPERATURE SENSOR AT FIRELINE HOT BOX	POTTER OR EQUAL
MM	FIRE ALARM SYSTEM MONITOR MODULE	REFER TO SPECIFICATION
18 X 4	CABLE TRAY AND/OR RUNWAY	
HH	HAND HOLE	REFER TO ELECTRICAL SITE PLAN

boomerang DESIGN
rethink, repurpose, results

SHELBY
201 S. Washington St., Suite 200
Shelby, NC 28150
704/406-6000

CHARLOTTE
1230 W. Morehead St., Suite 214
Charlotte, NC 28208
704/731-7000

RALEIGH
6131 Falls of Neuse Rd., Suite 204
Raleigh, NC 27609
919/573-6400

LEXINGTON
1070 S. Lake Dr., Suite J
Lexington, SC 29073
803/356-0507

pdc
Progressive Design Collaborative, Ltd.
3101 Poplarwood Court, Suite 320
Raleigh, North Carolina 27604
919-790-9989
License# C-0183

PROJECT #23015

COOPER ACADEMY
A & R

PROJECT TITLE

"CLIENT'S PROJECT" # - XXX

NORTH CAROLINA PROFESSIONAL SEAL 024651 ENGINEER JAMES T. BUTKOVICH

02/19/2024

TBUTKOVICH@PDCENGINEERS.COM

REVISIONS

NO.	DATE	DESCRIPTION
1	02/20/2024	ADDENDUM 01

BID SET
PROJECT PHASE

2307
BOOMERANG DESIGN PROJECT NUMBER

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DRAWING RELEASE DATE

ELECTRICAL LEAD SHEET
SHEET TITLE

E001
SHEET

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