ABBREVIATIONS

&	AND
@	AT
℄	CENTERLINE
ø	DIAMETER
#	NUMBER OR POUND
/	OF
AB	ANCHOR BOLT
ACOUS	ACOUSTICAL
AFF	ABOVE FINISH FLOOR
ADD	ADDITIONAL
ADJ	ADJACENT
AL	ALUMINUM
APP	APPROXIMATE(LY)
ARCH	ARCHITECT(URAL)
ASPH	ASPHALT
B/O	BY OTHERS
BD	BOARD
BIT	BITUMINOUS
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM OR BENCH MARK
BOT	BOTTOM
BRK	BRICK
C	COURSE(S)
C/C	CENTER TO CENTER
CAB	CABINET
CB	CATCH BASIN
CEM	CEMENT
CJ	CONTROL JOINT
CLG	CEILING
CLL	CONTRACT LIMIT LINE
CLR	CLEAR
CLOS	CLOSET
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CORR	CORRIDOR
CPT	CARPET
CTR	CENTER
CTRSK	COUNTERSINK
DBL	DOUBLE
DEPT	DEPARTMENT
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DISP	DISPENSER
DN	DOWN
DS	DOWN SPOUT
DTL	DETAIL
DWG	DRAWING
EA	EACH
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICA(AL)
ELEV	ELEVATOR
EMER	EMERGENCY
ENCL	ENCLOSURE
EP	EPOXY
EQ	EQUAL
EXIST	EXISTING
EXP	EXPOSED
EXT	EXTERIOR
FD	FLOOR DRAIN
FEC	FIRE EXTINGUISHER CABINET
FHC	FIRE HOSE CABINET
FIN	FINISH(ED)
FLOUR	FLORESCENT
F/W	FACE OF WALL
FPRF	FIREPROOF(ING)
FS	FULL SIZE
FT	FOOT
FTG	FOOTING
FUT	FUTURE
GA	GAUGE
GALV	GALVANIZE(D)
GC	GENERAL CONTRACTOR
GL	GLASS
GND	GROUND
GR	GRADE
GYP	GYPSUM
HB	HOSE BIBB
HC	HOLLOW CORE
HDWE	HARDWARE
HM	HOLLOW METAL
HOR	HORIZONTAL
HT	HEIGHT
ID	INSIDE DIAMETER
IN	INCH
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
JT	JOINT
JST	JOIST
KIT	KITCHEN
LAM	LAMINATE
LAV	LAVATORY
LT	LIGHT
MASY	MASONRY
MAX	MAXIMUM
MECH	MECHANICAL
MEMB	MEMBRANE
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MIS	MISCELLANEOUS
MO	MASONRY OPENING
MTD	MOUNT(ED)
MTL	METAL
MULL	MULLION
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OFCI	OWNER FURNISHED CONTRACTOR INSTALL
P	PAINT
PL	PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTIC
PLWD	PLYWOOD
PR	PAIR
PRCST	PRE-CAST
PSF	POUNDS PER SQUARE FOOT
PT	PAINT
PTD	PAPER TOWEL DISPENSER
PTN	PARTITION
PTR	PAPER TOWEL RECEPTACLE
QT	QUARRY TILE
R	RADIUS OR RISER
RAD	RADIUS
RD	ROOF DRAIN
REF	REFERENCE
REFR	REFRIGERATOR
REINF	REINFORCE
REQ	REQUIRE(D)
RESIL	RESILIENT
RM	ROOM
RO	ROUGH OPENING
ROW	RIGHT-OF-WAY
RWL	RAIN WATER LEADER
SCW	SOLID CORE WOOD
SCHED	SCHEDULE
SECT	SECTION
SHR	SHOWER
SHT	SHEET
SIM	SIMILAR
SND	SANITARY NAPKIN DISPENSER
SNR	SANITARY NAPKIN RECEPTACLE
SPEC	SPECIFICATION(S)
SQ	SQUARE
SS	STAINLESS STEEL
STA	STATION
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURE
SUSP	SUSPEND OR SUSPENSION
SYM	SYMMETRICAL
T	TREAD
T/C	TOP OF CURB
TELE	TELEPHONE
TER	TERRAZZO
T&G	TONGUE AND GROOVE
THK	THICK(NESS)
T/S	TOP OF SLAB
TPD	TOILET PAPER DISPENSER
T/W	TOP OF WALL
TYP	TYPICAL
UL	UNDERWRITER'S LABORATORY
UNF	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
V	VINYL
VB	VAPOR BARRIER
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
W/	WITH
WC	WATER CLOSET OR WATER COOLER
WD	WOOD
W/O	WITHOUT
WP	WATERPROOF
WR	WASTE RECEPTACLE OR WATER RESISTANT
WSCT	WAINSCOT
WT	WEIGHT
WWF	WELDED WIRE FABRIC

CITY OF WHEELING

17TH STREET WHEELING, WV 26003

W.F.D. - FIRE HEADQUARTERS

CONSTRUCTION DOCUMENTS

90% OWNER REVIEW

2-3-2022

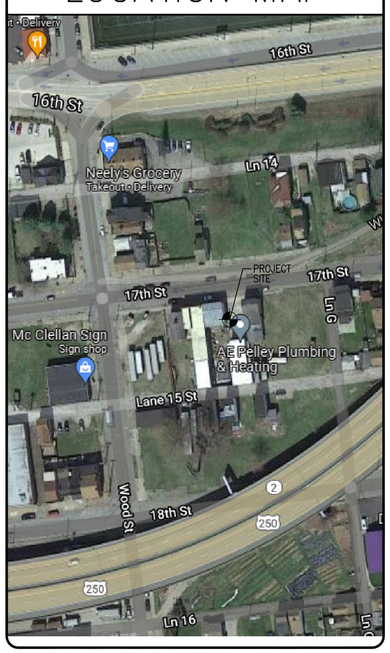
RENDERING

DRAWING INDEX

CODE INFORMATION

WV STATE FIRE CODE: (EFFECTIVE: 08/1/2020) (SUPERSEDES WV STATE BUILDING CODE) (SPRINKLERED)	
CONSTRUCTION TYPE (TABLE 2.2.A PAGE 5 & NFPA 220 TABLE 4.1.1)	TYPE II-000
BUILDING AREA (PER FLOOR-WORST CASE) / ALLOWABLE AREA LIMITATION (TABLE 2.2.A PAGE 5)	25,193 SF. / UNLIMITED
BUILDING HEIGHT / ALLOWABLE HEIGHT (TABLE 2.2.A PAGE 5)	38'-9" / 40'-0"
BUILDING STORIES / ALLOWABLE STORIES (TABLE 2.2.A PAGE 5)	1 / UNLIMITED UP TO 40'-0"
NFPA 101 LIFE SAFETY CODE 2018: (SUPERSEDES WV STATE BUILDING CODE / IBC 2015) (SPRINKLERED)	
OCCUPANCY CLASSIFICATION (CHAPTER 6) (SEPARATED OCCUPANCY)	BUSINESS / ASSEMBLY / RESIDENTIAL / STORAGE
OCCUPANT LOAD (TABLE 7.3.1.2)	179
MAX. EXIT ACCESS TRAVEL DIST. / MAX. ALLOWABLE DIST. (TABLE A.7.6)	BUSINESS AREAS - 72'-0" / 300'-0" RESIDENTIAL AREAS - N/A ASSEMBLY AREAS - 45'-0" / 250'-0" STORAGE AREAS - 95'-0" / 200'-0"
MAX. COMMON PATH OF TRAVEL / MAX. ALLOWABLE PATH (TABLE A.7.6)	BUSINESS AREAS - 53'-0" / 100'-0" RESIDENTIAL AREAS - N/A ASSEMBLY AREAS - 0'-0" / 20'-0" STORAGE AREAS - 40'-0" / 50'-0"
MAX. DEAD END CORRIDOR / MAX. ALLOWABLE DEAD END (TABLE A.7.6)	BUSINESS AREAS - 0'-0" / 50'-0" RESIDENTIAL AREAS - N/A ASSEMBLY AREAS - 0'-0" / 20'-0" STORAGE AREAS - 0'-0" / 50'-0"
BUILDING EXITS / EXITS REQUIRED (SECTION 7.4)	12 / 2
FIRE EXTINGUISHERS / EXTINGUISHERS REQUIRED (PER NFPA 10)	11 / 11
WV STATE BUILDING CODE / IBC 2015: (EFFECTIVE: 8/1/2020) (SPRINKLERED)	
OCCUPANCY CLASSIFICATION (CHAPTER 3) (SEPARATED OCCUPANCY)	BUSINESS/ASSEMBLY (A-3)/RESIDENTIAL (R-2)/STORAGE (S-2)
CONSTRUCTION TYPE (TABLE 601 & SECTION 602)	TYPE II-B
BUILDING AREA (PER FLOOR-WORST CASE) / ALLOWABLE AREA (TABLE 506.2)	25,193 SF. / 44,318 SF.
BUILDING HEIGHT / ALLOWABLE HEIGHT (TABLE 504.3)	42'-6" / 75'-0"
BUILDING STORIES / ALLOWABLE STORIES (TABLE 504.4)	1 / 3
OCCUPANT LOAD (TABLE 1004.1.2)	213
BUILDING EXITS / EXITS REQUIRED (TABLE 1006.2.1, 1006.3.1, 1006.3.2 (2), SECTION 1006)	12 / 2
MAX. EXIT ACCESS TRAVEL DIST. / MAX. ALLOWABLE DIST. (TABLE 1017.2)	BUSINESS AREAS - 72'-0" / 300'-0" RESIDENTIAL AREAS - 98'-0" / 250'-0" ASSEMBLY AREAS - 45'-0" / 250'-0" STORAGE AREAS - 95'-0" / 400'-0"
MAX. COMMON PATH OF TRAVEL / MAX. ALLOWABLE PATH (TABLE 1006.2.1/ 1006.3.2 (2))	BUSINESS AREAS - 53'-0" / 100'-0" RESIDENTIAL AREAS - 67'-0" / 125'-0" ASSEMBLY AREAS - 0'-0" / 75'-0" STORAGE AREAS - 40'-0" / 100'-0"
MAX. DEAD END CORRIDOR / MAX. ALLOWABLE DEAD END (SECTON 1020.4)	BUSINESS AREAS - 0'-0" / 50'-0" RESIDENTIAL AREAS - 0'-0" / 50'-0" ASSEMBLY AREAS - 0'-0" / 20'-0" STORAGE AREAS - 0'-0" / 50'-0"
GROUND SNOW LOAD (FIGURE 1608.2)	20
RISK CATAGORY (TABLE 1604.5)	IV
ULTIMATE DESIGN WIND SPEED (3 SEC. GUST) (FIGURE 1609.3)	120
SEISMIC SITE CLASS	D
SOIL BEARING CAPACITY	PSI GEOTECH REPORT 6/30/21
WATER CLOSETS / WATER CLOSETS REQUIRED (TABLE 2902.1)	17 / 8
LAVATORIES / LAVATORIES REQUIRED (TABLE 2902.1)	17 / 7
SERVICE SINKS / SERVICE SINKS REQUIRED (TABLE 2902.1)	2 / 4
DRINKING FOUNTAINS / DRINKING FOUNTAINS REQUIRED (TABLE 2902.1)	3 / 3

LOCATION MAP



SYMBOLS LIBRARY

- –CAST-IN PLACE CONCRETE
- –STEEL
- –GROUT/SAND/GYPSUM
- –RIGID INSULATION
- –EARTH/COMPACT FILL
- –FACE BRICK
- –PLYWOOD SHEATHING
- –CONCRETE MASONRY
- –BATT INSULATION
- –POROUS FILL/GRAVEL
- –COLUMN LINE DESIGNATION
- –BREAK IN OBJECT
- –SECTION DESIGNATION
- –SHEET NUMBER
- –PARTITION TYPE
- –CONTINUOUS FRAMING MEMBER
- –DISCONTINUOUS FRAMING MEMBER (BLOCKING)
- –WINDOW TYPE
- –DOOR BUBBLE
- –ELEVATION DESIGNATION
- –ELEVATION TARGET
- –PLAN/ DETAIL DESIGNATION
- –SHEET NUMBER
- –REVISION CLOUD

DESIGN CERTIFICATIONS

REVISION

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DRAWING STATUS

DESIGN STAGE:
- ○ SCHEMATIC DESIGN
- ○ DESIGN DEVELOPMENT
- ● CONSTRUCTION DRAWINGS

RELEASED FOR:
- ● REVIEW
- ○ BIDDING
- ○ CONSTRUCTION

PROJECT NO.
20-108B

SHEET
CS1.0

ELECTRICAL SYMBOL LEGEND

NOTES:

1. COORDINATE ALL DEVICE COLORS WITH THE ARCHITECT
2. SWITCHES SHALL BE MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.
4. RECEPTACLES TO BE MOUNTED AT 18" AFF TO CENTERLINE UNLESS OTHERWISE NOTED.
5. REFER TO FIRE ALARM SPECIFICATIONS FOR DETAILS AND ADDITIONAL INFORMATION.

SYMBOL	DESCRIPTION
	EXTRA HEAVY DUTY 20 AMP, 125 VOLT, DUPLEX GROUNDING TYPE RECEPTACLE. HUBBELL #HBL5362 (SPECIFICATION GRADE).
GFI	EXTRA HEAVY DUTY 20 AMP, 125 VOLT, DUPLEX GROUND FAULT INTERRUPTER TYPE RECEPTACLE. HUBBELL #GFRST20 (SPECIFICATION GRADE).
TR	EXTRA HEAVY DUTY 20 AMP, 125 VOLT, DUPLEX TAMPER-RESISTANT RECEPTACLE. HUBBELL #HBL5362TR (SPECIFICATION GRADE).
GFITR	EXTRA HEAVY DUTY 20 AMP, 125 VOLT, DUPLEX TAMPER-RESISTANT GROUND FAULT INTERRUPTER TYPE RECEPTACLE. HUBBELL #GFTR20 (SPECIFICATION GRADE).
WP/GFI	EXTRA HEAVY DUTY 20 AMP, 125 VOLT, TAMPER AND WEATHER RESISTANT DUPLEX GROUND FAULT INTERRUPTER TYPE RECEPTACLE. HUBBELL #GFTWRST20 (SPECIFICATION GRADE) WITH WEATHERPROOF "IN-USE" COVERPLATE. MOUNT VERTICALLY AT 24" AFG TO CENTERLINE UNLESS OTHERWISE NOTED.
EWC	EXTRA HEAVY DUTY 20 AMP, 125 VOLT, DUPLEX GROUND FAULT INTERRUPTER TYPE RECEPTACLE. HUBBELL #GFRST20 (SPECIFICATION GRADE) FOR ELECTRIC WATER COOLER. COORDINATE LOCATION WITH MANUFACTURER.
WT	EXTRA HEAVY DUTY 20 AMP, 125 VOLT, WEATHER RESISTANT DUPLEX RECEPTACLE IN THERMOPLASTIC WATERTIGHT HOUSING WITH WATERTIGHT RECEPTACLE PLUG COVERS. HUBBELL #HBL60W33D (SPECIFICATION GRADE). MOUNT VERTICALLY AT 24" AFG TO CENTERLINE UNLESS OTHERWISE NOTED.
USB	EXTRA HEAVY DUTY 20 AMP, 125 VOLT, DUPLEX GROUNDING TYPE RECEPTACLE WITH (1) TYPE A USB CHARGING PORT AND (1) TYPE C USB CHARGING PORT. HUBBELL #USB20AC5 (SPECIFICATION GRADE).
CORD REEL CLG	EXTRA HEAVY DUTY 20 AMP, 125 VOLT, DUPLEX GROUNDING TYPE RECEPTACLE. MOUNTED ON CEILING TO SERVE CORD REEL. HUBBELL #HBL5362 (SPECIFICATION GRADE). CORD REEL SHALL BE HUBBELL #HBL45123GF220WM1 (OR EQUAL) AND SHALL BE MOUNTED ON CEILING WITHIN 2' OF RECEPTACLE. CORD REEL LENGTH SHALL BE 45' WITH TWO DUPLEX OUTLETS IN IMPACT-RESISTANT BOX AND IN-LINE GFI MODULE.
	TWO EXTRA HEAVY DUTY 20 AMP, 125 VOLT, DUPLEX GROUNDING TYPE RECEPTACLES. HUBBELL #HBL5362 (SPECIFICATION GRADE). MOUNT IN COMMON BOX WITH COMMON PLATE.
	EXTRA HEAVY DUTY 20 AMP, 125 VOLT, SIMPLEX GROUNDING TYPE RECEPTACLE. HUBBELL #HBL8310 (SPECIFICATION GRADE).
	SPECIAL PURPOSE OUTLET. REFER TO DRAWINGS FOR DESCRIPTION. VERIFY EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.
	BOX AROUND DEVICE INDICATES SURFACE MOUNTED IN 4" SQUARE BOX WITH EXPOSED WORK COVER UNLESS OTHERWISE NOTED.
P	4-GANG RECESSED ON-GRADE FLOOR BOX (HUBBELL SYSTEMONE #CFB4G30RCR). COORDINATE COVER FINISH, FLOOR TYPE, AND EXACT LOCATION WITH ARCHITECT. PROVIDE WITH RECTANGULAR COVER. EQUIP WITH THE FOLLOWING: • PROVIDE (2) DUPLEX RECEPTACLE SUBPLATES (#FBMPDUP). CIRCUIT PER FLOOR PLAN. • PROVIDE BLANK PLATES OVER UNUSED OPENINGS.
AV	4-GANG RECESSED ON-GRADE FLOOR BOX (HUBBELL SYSTEMONE #CFB4G30RCR). COORDINATE COVER FINISH, FLOOR TYPE, AND EXACT LOCATION WITH ARCHITECT. PROVIDE WITH RECTANGULARCOVER. EQUIP WITH THE FOLLOWING: • PROVIDE (2) DUPLEX RECEPTACLE SUBPLATE (#FBMPDUP), CIRCUIT PER FLOOR PLAN. • PROVIDE (1) DECORATOR OPENING SUBPLATE (#FBMPREC) FOR TELECOM. • PROVIDE (1) DECORATOR OPENING SUBPLATE (#FBMPREC) FOR A/V CONNECTIONS.
	STANDARD STEEL JUNCTION BOX WITH COVER. LOCATE AND CONNECT AS DIRECTED. AF - POWER SUPPLY FOR AUTOMATIC FAUCET, HARD-WIRED (120V). REFER TO DETAIL. FV - POWER SUPPLY FOR AUTOMATIC FLUSH VALVE, HARD-WIRED (120V). REFER TO DETAIL. TC - TEMPERATURE CONTROLS JUNCTION BOX (120V) FOR VAV BOX CONTROL POWER. MOUNT ABOVE CEILING AND COIL CONDUCTORS INSIDE BOX FOR FINAL CONNECTION BY TEMPERATURE CONTROLS CONTRACTOR. SEC - SECURED DOOR POWER SUPPLY (120V).
	POINT OF CONNECTION TO ELECTRIFIED EQUIPMENT. VERIFY EXACT LOCATION WITH RESPECTIVE EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN. AD - AUTOMATIC DOOR (120V). TCP - TEMPERATURE CONTROL PANEL (120V).
	MOTOR FURNISHED AND INSTALLED BY OTHERS, WIRED BY ELECTRICAL CONTRACTOR. CONNECT AS DIRECTED BY MOTOR SUPPLIER. OHD - OVERHEAD DOOR
	FUSIBLE DISCONNECT SWITCH, HEAVY DUTY TYPE, (UNLESS NOTED OTHERWISE ON DRAWINGS) COMPLETE WITH FUSETRONS SIZED TO PROTECT MOTOR, EQUIPMENT OR CONDUCTORS (WHICHEVER IS APPLICABLE). SIZE, POLES, AND TYPE AS INDICATED. HORSEPOWER RATED, QUICK-MAKE, QUICK-BREAK.
	COMBINATION MAGNETIC MOTOR STARTER. REFER TO MOTOR STARTER SCHEDULE FOR DETAILS.
	PUSH BUTTON. REFER TO DRAWINGS FOR DETAILS.
	SPECIAL PUSH BUTTON STATION. REFER TO DRAWINGS FOR DETAILS.
M	MANUAL MOTOR STARTER WITH NEON PILOT LIGHT. ALLEN-BRADLEY #600TQX216. MOUNT AT 46" AFF TO CENTERLINE UNLESS OTHERWISE NOTED.
M	MANUAL MOTOR STARTER WITH NEON PILOT LIGHT. ALLEN-BRADLEY #600TAX216. SURFACE MOUNT IN 4" SQUARE BOX WITH EXPOSED WORK COVER AT 46" AFF TO CENTERLINE UNLESS OTHERWISE NOTED.
	UTILITY METER. REFER TO DETAILS.
PAN. "H"	208/120V,3Ø,4W PANELBOARD. REFER TO PANELBOARD SCHEDULE AND/OR SPECIFICATIONS FOR DETAILS.
DIST. PAN.	DISTRIBUTION PANEL. REFER TO PANELBOARD SCHEDULE AND/OR SPECIFICATIONS FOR DETAILS.

SYMBOL	DESCRIPTION
S	HEAVY DUTY 20 AMP, SINGLE POLE SWITCH. HUBBELL #HBL1221.
S_3	HEAVY DUTY 20 AMP, THREE-WAY SWITCH. HUBBELL #HBL1223.
S_4	HEAVY DUTY 20 AMP, FOUR-WAY SWITCH. HUBBELL #HBL1224.
S WP	"WP" SUBSCRIPT INDICATES TO PROVIDE WEATHERPROOF COVER WITH HINGE ON TOP.
S OC	SINGLE-LEVEL SWITCH TYPE OCCUPANCY SENSOR. SWITCH CAN BE CONFIGURED AS EITHER AUTO-ON OR VACANCY OPERATION. SENSORSWITCH #WSX (PASSIVE INFRARED).
	BOX AROUND DEVICE INDICATES SURFACE MOUNTED IN 4" SQUARE BOX WITH EXPOSED WORK COVER.
A	LIGHTING CONTROL REFERENCE TAG. REFER TO DETAILS FOR INFORMATION.
	LED LIGHTING FIXTURES . REFER TO LIGHTING FIXTURE SCHEDULE FOR DETAILS.
	CEILING OR WALL MOUNTED EXIT SIGN WITH (2) EMERGENCY LED HEADS. SHADED AREA INDICATES LOCATION OF FACE(S). ARROWS INDICATE CHEVRONS. REFER TO LIGHTING FIXTURE SCHEDULE FOR DETAILS.
	EMERGENCY LIGHTING FIXTURE. REFER TO LIGHTING FIXTURE SCHEDULE FOR DETAILS.
	EMERGENCY LIGHTING REMOTE HEAD UL LISTED FOR USE FOR WET LOCATIONS. REFER TO LIGHTING FIXTURE SCHEDULE FOR DETAILS.
	OUTDOOR PHOTOCELL AND DIGITAL INTERFACE KIT WITH 120V POWER SUPPLY. nLIGHT #nIO-PC-KIT.
S LV	DIGITAL SINGLE-CHANNEL WALL SWITCH. nLIGHT #nPODMA.
S LVD	DIGITAL SINGLE-CHANNEL DIMMING WALL SWITCH. nLIGHT #nPODMA-DX
S DMX	DMX TOUCHSCREEN CONTROL STATION. REFER TO LIGHTING FIXTURE SCHEDULE TYPE "SSA" FOR DESCRIPTION.
OC1	DIGITAL CEILING MOUNT OCCUPANCY SENSOR. nLIGHT #nCM-PDT (DUAL-TECHNOLOGY).
RC1	DIGITAL SINGLE-RELAY 0-10V DIMMING ROOM CONTROLLER. nLIGHT #nPP16-EFP
RCD1	DIGITAL SINGLE-RELAY 0-10V DIMMING ROOM CONTROLLER. nLIGHT #nPP16-D-EFP.
DNB	DIGITAL NETWORK BRIDGE WITH 120V POWER SUPPLY. nLIGHT #nBRG-8-KIT.
LC	DIGITAL CENTRAL LIGHTING CONTROLLER IN NEMA 1 ENCLOSURE WITH TOUCHSCREEN INTERFACE. nLIGHT #nECY-MVOLT-BAC-ENC-GFXK.
	MANUAL FIRE ALARM SENDING STATION. MOUNT AT 46" AFF TO CENTERLINE UNLESS OTHERWISE NOTED.
	FIRE ALARM SYSTEM AUTOMATIC DETECTOR. SUBSCRIPT INDICATES TYPE. CO - CARBON MONOXIDE DETECTOR. FT - FIXED TEMPERATURE (190°F) HEAT DETECTOR, CEILING MOUNTED. SMD - SMOKE DETECTOR, DUCT TYPE COMPLETE WITH SAMPLING TUBES AND REMOTE KEY TEST SWITCH INDICATOR LIGHT. INSTALL IN AIR HANDLING UNIT OR DUCT AS RECOMMENDED BY RESPECTIVE MANUFACTURER AND COORDINATE INSTALLATION WITH MECHANICAL CONTRACTOR. REMOTE KEY TEST SWITCH SHALL BE INSTALLED IN CEILING AS CLOSE AS POSSIBLE TO DETECTOR LOCATION, UNLESS OTHERWISE NOTED. SMP - SMOKE DETECTOR, PHOTOELECTRIC TYPE, CEILING MOUNTED. SMP/S12 - SMOKE DETECTOR, PHOTOELECTRIC TYPE, CEILING MOUNTED, WITH LOW-FREQUENCY 512HZ SOUNDER BASE
	FIRE ALARM SYSTEM NOTIFICATION DEVICE, WALL-MOUNTED AT 82" AFF TO CENTERLINE UNLESS OTHERWISE NOTED. SUBSCRIPT INDICATES TYPE. NO SUBSCRIPT - COMBINATION HORN / STROBE. V - VISUAL-ONLY WP - WEATHERPROOF DEVICE CLG - CEILING-MOUNTED
C	FIRE ALARM SYSTEM ZONE ADDRESSABLE MODULE (CONTROL TYPE).
I	FIRE ALARM SYSTEM ZONE ADDRESSABLE MODULE (INDIVIDUAL TYPE).
M	FIRE ALARM SYSTEM ZONE ADDRESSABLE MODULE (MONITOR TYPE).
FACP	FIRE ALARM SYSTEM CONTROL PANEL.
FAMP	FIRE ALARM SYSTEM REMOTE ANNUNCIATOR PANEL.
TS	SPRINKLER SYSTEM TAMPER SWITCH. FURNISHED AND INSTALLED BY FIRE PROTECTION CONTRACTOR, CONNECTED TO FIRE ALARM SYSTEM BY ELECTRICAL CONTRACTOR. VERIFY LOCATION WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
FS	SPRINKLER SYSTEM FLOW SWITCH. FURNISHED AND INSTALLED BY FIRE PROTECTION CONTRACTOR, CONNECTED TO FIRE ALARM SYSTEM BY ELECTRICAL CONTRACTOR. VERIFY LOCATION WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
	FLUSH-MOUNTED COMMUNICATIONS OUTLET BOX. USE 5"SQ X 2-7/8" DEEP BACK BOX (BY RANDL OR EQUAL). REFER TO TYPICAL FLUSH COMMUNIATIONS OUTLET ROUGH-IN DETAIL.
	SURFACE-MOUNTED COMMUNICATIONS OUTLET BOX. USE 5"SQ X 2-7/8" DEEP BACK BOX (BY RANDL OR EQUAL). REFER TO TYPICAL SURFACE COMMUNIATIONS OUTLET ROUGH-IN DETAIL.
	COMMUNICATIONS CEILING OULET. THIS OUTLET IS TO FLOAT ABOVE CEILING OR WITHIN AN EQUIPMENT ENCLOSURE AS NOTED. THIS OUTLET REQUIRES NO CONDUIT/BOX ROUGH-IN WHERE INSTALLED IN ACCESSIBLE CEILING. WHERE INSTALLED IN NON-ACESSIBLE CEILING OR EXPOSED CEILING, USE 4"SQ X 2-7/8" DEEP BACK BOX (BY RANDL OR EQUAL) WITH 1-GANG REDUCER RING. PROVIDE 1"C FROM SAME TO NEAREST ACCESSIBLE AREA ABOVE FINISHED CEILING. WAP - WIRELESS ACCESS POINT.
VC	FLUSH-MOUNTED BOX FOR FIRE ALARM ALERTING SYSTEM VOLUME CONTROL STATION. USE 5"SQ X 4" DEEP BACK BOX (BY RANDL OR EQUAL). MOUNT AT 48" AFF. EXTEND 1"C TO NEAREST ACCESSIBLE CEILING. COORDINATE WITH OWNER'S VENDOR.
VC	SURFACE-MOUNTED BOX FOR FIRE ALARM ALERTING SYSTEM VOLUME CONTROL STATION. USE 5"SQ X 4" DEEP BACK BOX (BY RANDL OR EQUAL). MOUNT AT 48" AFF. EXTEND 1"C TO NEAREST ACCESSIBLE CEILING. COORDINATE WITH OWNER'S VENDOR.
STROBE	FLUSH-MOUNTED BOX FOR FIRE ALARM ALERTING SYSTEM STROBE LIGHT. USE 2-GANG BACK BOX (BY RANDL OR EQUAL). MOUNT AT 78" AFF. EXTEND 1"C TO NEAREST ACCESSIBLE CEILING. COORDINATE WITH OWNER'S VENDOR.
	SURFACE-MOUNTED BOX FOR FIRE ALARM ALERTING SYSTEM CEILING SPEAKER. USE 5"SQ X 3" DEEP BACK BOX (BY RANDL OR EQUAL). EXTEND 1"C TO NEAREST ACCESSIBLE CEILING. COORDINATE WITH OWNER'S VENDOR.
	SURFACE-MOUNTED BOX FOR FIRE ALARM ALERTING SYSTEM WALL SPEAKER. USE 5"SQ X 3" DEEP BACK BOX (BY RANDL OR EQUAL). MOUNT AT 78" AFF. EXTEND 1"C TO NEAREST ACCESSIBLE CEILING. COORDINATE WITH OWNER'S VENDOR.
	CEILING-MOUNTED SECURITY CAMERA. WHERE LOCATED ON INACCESSIBLE OR EXPOSED CEILING, PROVIDE FLUSH ROUND CEILING BACK BOX AND EXTEND 1"C TO NEAREST ACCESSIBLE CEILING. WHERE LOCATED ON ACCESSIBLE CEILING, CONDUIT/BOX ROUGH-IN IS NOT REQUIRED.
	WALL-MOUNTED SECURITY CAMERA. FOR INTERIOR LOCATIONS, USE 5"SQ X 2-7/8" DEEP BACK BOX (BY RANDL OR EQUAL) WITH 1-GANG REDUCER RING. FOR EXTERIOR LOCATIONS, USE A 1-GANG OUTDOOR-RATED BACK BOX. EXTEND 1"C TO ACCESSIBLE INTERIOR CEILING. WEATHERSEAL AS REQUIRED. COORDINATE HEIGHT WITH OWNER'S SECURITY VENDOR.

ABBREVIATION LEGEND

SYMBOL	DESCRIPTION
#"	NUMBER INDICATES MOUNTING HEIGHT OF DEVICE IN INCHES
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ATS	AUTOMATIC TRANSFER SWITCH
BFG	BELOW FINISHED GRADE
"C"	SUBSCRIPT "C" INDICATES DEVICE TO BE MOUNTED 8" ABOVE COUNTERTOP TO CENTERLINE.
CLG	CEILING
COFFEE	COFFEE MACHINE
DP	DISTRIBUTION PANEL
DW	DISHWASHER
EC	ELECTRICAL CONTRACTOR
EM	EMERGENCY
EMT	GALVANIZED ELECTRIC METALLIC TUBING (THINWALL), UL LISTED
FBO	FURNISHED BY OTHER TRADES, BUT INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR.
FPC	FIRE PROTECTION CONTRACTOR
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT INTERRUPTER
GRC	GALVANIZED, RIGID, HEAVY WALL CONDUIT, UL LISTED
H	DEVICE MOUNTED HORIZONTALLY.
MC	MECHANICAL CONTRACTOR (HVAC)
MICRO	MICROWAVE
N	NORMAL BRANCH CIRCUIT
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
PAN	PANELBOARD
PC	PLUMBING CONTRACTOR
PROJ	PROJECTOR. MOUNT RECEPTACLE FACEPLATE FLUSH WITH CEILING TILE. DO NOT MOUNT ABOVE CEILING.
PVC	CARLON PLASTIC CONDUIT, HEAVY WALL TYPE, POLYVINYL CHLORIDE, UL LISTED, SCHEDULE 40 UNLESS NOTED OTHERWISE.
REF	REFRIGERATOR
SPD	SURGE PROTECTION DEVICE
TR	TAMPER RESISTANT
TV	TELEVISION. COORDINATE HEIGHT WITH ARCHITECT.
UC	DEVICE MOUNTED UNDERCOUNTER.
VEND	VENDING MACHINE. CONNECT TO GFI-TYPE CIRCUIT BREAKER.
WP	WEATHERPROOF

ELECTRICAL GENERAL NOTES

1. THE GENERAL NOTES LISTED HERE APPLY TO ALL ELECTRICAL DRAWINGS IN ADDITION TO ANY ADDITIONAL DRAWING NOTES ON THE INDIVIDUAL DRAWINGS.

2. SEE CODED NOTES ON INDIVIDUAL DRAWING SHEETS FOR SPECIFIC INSTRUCTIONAL NOTES.

3. FIELD VERIFY EXISTING CONDITIONS.

4. COORDINATE ELECTRICAL WORK WITH ALL CONTRACTORS ON SITE (GENERAL TRADES, PLUMBING, FIRE PROTECTION, HVAC, ETC) PRIOR TO COMMENCEMENT OF CONSTRUCTION WORK.

5. THE ELECTRICAL DESIGN DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW EXACT LOCATION OF EQUIPMENT, LIGHTING, AND DEVICES UNLESS DIMENSIONS ARE GIVEN FOR CLEARANCES, ETC. LIGHTING, DEVICES AND ELECTRICAL EQUIPMENT ARE TO BE INSTALLED ALONG THE GENERAL PLANS SHOWN ON THE DRAWINGS, BUT KEEPING IN MIND ACTUAL BUILDING CONDITIONS WHICH MUST BE CONFIRMED WITH-IN THE ACTUAL WORK AREA. CONTRACTORS, IN THEIR BIDS, ARE REQUIRED TO INCLUDE ALL LABOR AND MATERIALS AND OTHER RELATED WORK NECESSARY TO PROVIDE MINOR OFFSETS IN ELECTRICAL INSTALLATION TO AVOID CONFLICT WITH OTHER WORK ON THIS PROJECT, OR AS REQUIRED IN ORDER TO OBTAIN MAXIMUM HEAD ROOM OR EQUIPMENT ACCESS IN SPACES.

6. PHASING - SEE DIVISION 1 PROJECT SPECIFICATION PHASING DOCUMENTS FOR SPECIFIC PHASING INSTRUCTIONS. COORDINATE SHUT-DOWN OF ANY UTILITY IN ADVANCE WITH THE OWNER.

7. MAINTAIN REQUIRED RIGGING ACCESS CLEARANCES. COORDINATE CLEARANCE REQUIREMENTS WITH OTHER TRADES.

8. E.C. IS TO COORDINATE ALL MASONRY PENETRATION LOCATIONS AND SIZES WITH G.C.

9. POWER AND TELECOM RISER PULL BOXES MAY NOT BE SHOWN. PROVIDE PULL BOXES AT LOCATIONS REQUIRED. IN NO CASE SHALL A FEEDER CONDUIT HAVE BENDS OF MORE THEN 270° WITHOUT THE INSTALLATION OF A PULL BOX.

10. PROVIDE FIRESEALING OF ALL OPENINGS THROUGH FIRE RATED WALLS AND ASSEMBLIES. SEE DETAIL SHEETS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

11. EC TO COORDINATE ELECTRICAL AND TELECOMMUNICATIONS DEVICE LOCATIONS WITH ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN. IF ELEVATIONS ARE NOT PROVIDED ON DOCUMENTS, EC SHALL COORDINATE LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECT. DEVICE REQUIRED TO BE RELOCATED DUE TO LACK OF COORDINATION WILL BE DONE AT THE CONTRACTOR'S EXPENSE.

12. FOR NORMAL BRANCH CIRCUIT WIRING, CONTRACTOR MAY COMBINE UP TO THREE HOMERUNS IN ONE RACEWAY ON A WYE SYSTEM AND TWO HOMERUNS IN ONE RACEWAY ON A DELTA SYSTEM. #12 AWG MINIMUM SIZE CONDUCTORS UNLESS NOTED OTHERWISE. ALL RACEWAYS TO CONTAIN SEPARATE EQUIPMENT GROUNDING CONDUCTOR. ALL BRANCH CIRCUITS SHALL HAVE SEPARATE NEUTRAL CONDUCTOR. NEUTRAL CONDUCTOR SHALL NOT BE SHARED BETWEEN CIRCUITS. REFER TO SPECIFICATIONS FOR RACEWAY TYPE.

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DRAWING STATUS

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CITY OF WHEELING
W.F.D. - FIRE HEADQUARTERS
168 17TH STREET, WHEELING, WV 26003
NOTES & LEGENDS - ELECTRICAL

REVISION

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Author	Checker

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AS NOTED	2/3/2022

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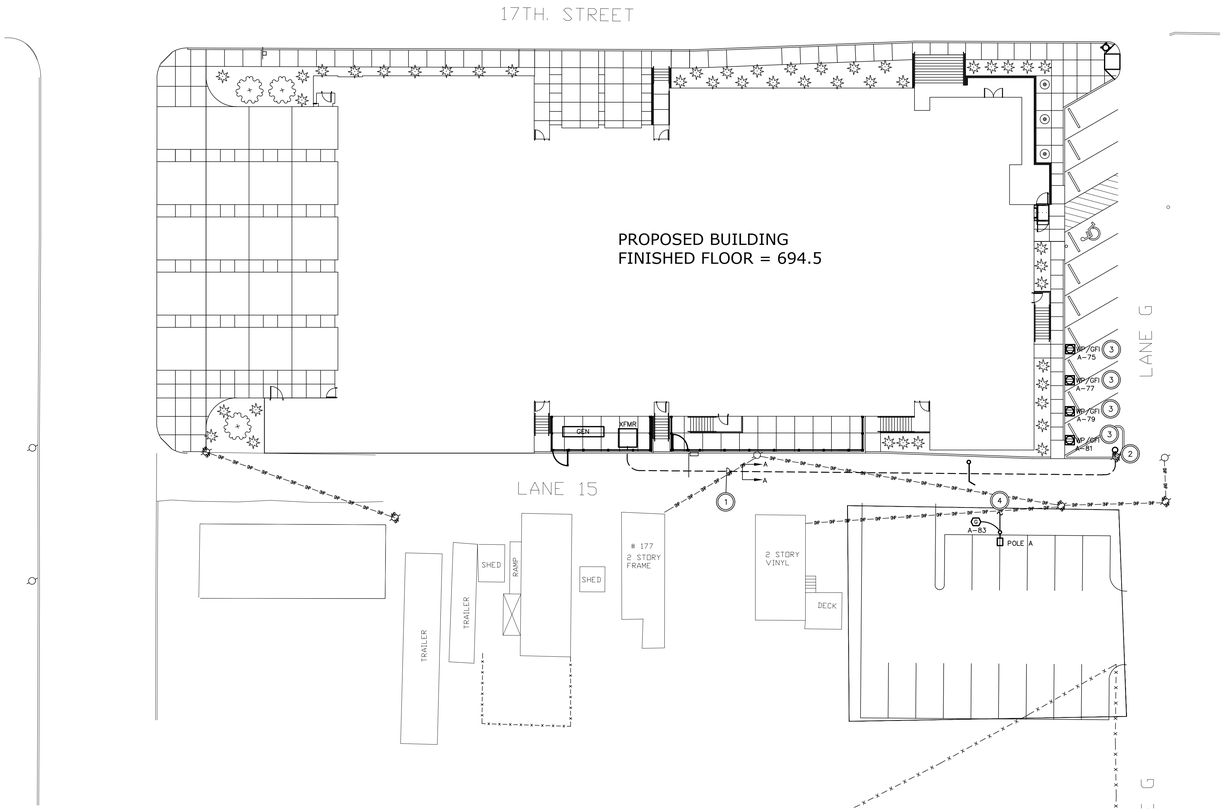
PLAN NOTES

A. SITE BRANCH CIRCUITS SHALL BE #10AWG IN 3/4"C AT 36" BFG UNLESS OTHERWISE NOTED.

CODED NOTES

1. UNDERGROUND PRIMARY DUCTBANK. REFER TO SECTION DETAIL.
2. NEW UTILITY POLE. TURN UP DUCTBANK AT BASE WITH LONG-SWEEP ELBOWS.
3. RECEPTACLE FOR DIESEL VEHICLE BLOCK HEATER. PROVIDE UNISTRUT MOUNTING STAND. COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.
4. 1-1/4"C FOR POLE-MOUNTED SECURITY CAMERA. STUB UP INTO ACCESSIBLE CEILING IN BUILDING AND TAG.



SITE PLAN - ELECTRICAL

SCALE 0 20' 40'

CALL BEFORE YOU DIG, DRILL OR BLAST! WEST VIRGINIA LAW REQUIRES 48 HOURS NOTICE FOR CONSTRUCTION PHASE AND 10 DAYS IN DESIGN STAGE MISS UTILITY OF WEST VIRGINIA, INC. 1-800-245-4848

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SITE PLAN - ELECTRICAL

REVISION

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P.E.K	K.M.N
PROJECT NO.	
20-108B	
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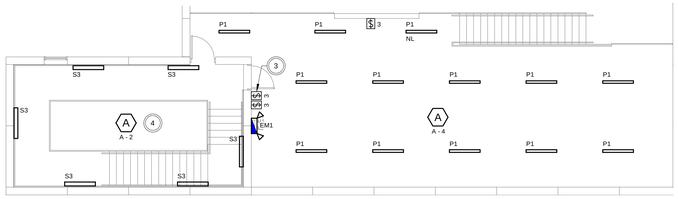

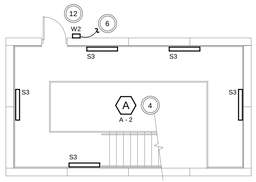

LIGHTING - MEZZANINE FLOOR PLAN - ELECTRICAL

1/8" = 1'-0"

LIGHTING - TOWER FLOOR PLAN - ELECTRICAL

1/8" = 1'-0"

ROOM LEGEND	
100	VESTIBULE
101	LOBBY
102	TREATMENT ROOM
103	RECEPTION
104	CORRIDOR
105	UNISEX R.R.
106	UNISEX R.R.
107	CORRIDOR
108	TRAINING ROOM
109	TRAINING SIMULATION
110	STORAGE
111	KITCHENETTE
112	WAITING AREA/ADMIN. ASSIST.
113	FILE ROOM
114	CONFERENCE ROOM
115	CHIEF OFFICE
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117	SHOWER ROOM
118	INVESTIGATOR OFFICE
119	EVIDENCE
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121	WORK ROOM
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142	BUNK ROOM

ROOM LEGEND	
143	SHOWER ROOM
144	BUNK ROOM
145	SHOWER ROOM
146	LAUNDRY ROOM
147	I.T./SERVER ROOM
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149	STAFF LOCKERS
150	SHOWER ROOM
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151B	ELECT. CLOSET
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153	BUNK ROOM
154	SHOWER ROOM
155	CAPTAIN OFFICE
156	BUNK ROOM
157	SHOWER ROOM
158	CAPTAIN OFFICE
159	BUNK ROOM
160	SHOWER ROOM
161	REPORT WRITING
162	VESTIBULE
163	CORRIDOR
164	CORRIDOR
165	CORRIDOR
166	CORRIDOR
167A	CORRIDOR
167B	MECH. CLOSET
167C	ELECT. CLOSET
168	VESTIBULE
169	CORRIDOR
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171	UNISEX R.R.
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177	HIGH APPARATUS BAY
178	TOG
179	FIRE EQUIP. STOR.
180	WORKSHOP/TOOL STOR.
181	TRAINING TOWER

PLAN NOTES

A. ALL DEVICES MOUNTED TO PRE-CAST CONCRETE PANELS SHALL BE SURFACE-MOUNTED. COORDINATE ALL LOCATIONS WITH ARCHITECTURAL DRAWINGS.

B. EXTERIOR WALL-MOUNTED LIGHT FIXTURE HEIGHTS AND LOCATIONS SHALL BE COORDINATED WITH ARCHITECTURAL ELEVATIONS.

CODED NOTES

1. RGBW LIGHTS MOUNTED HIGH IN LOBBY - COORDINATE EXACT MOUNTING DETAILS WITH ARCHITECT. DMX CONTROL STATION LOCATED AT RECEPTION DESK.
2. DMX CONTROL STATION FOR ALL TYPE "S5A" AND "S5B" FIXTURES.
3. LIGHT SWITCH FOR TOWER LIGHTING.
4. WALL-MOUNTED FIXTURES IN THE TOWER SHALL BE 7' AFF UNLESS OTHERWISE NOTED.
5. UP TO FIXTURE ON TOWER LANDING.
6. DOWN TO FIXTURE BELOW.
7. MOUNTED AT 15' ABOVE FIRST FLOOR ELEVATION TO BOTTOM OF FIXTURE.
8. MOUNTED AT 22' ABOVE FIRST FLOOR ELEVATION TO BOTTOM OF FIXTURE.
9. MOUNTED AT 10' ABOVE FIRST FLOOR ELEVATION TO BOTTOM OF FIXTURE.
10. MOUNTED AT 2' ABOVE FIRST FLOOR ELEVATION TO BOTTOM OF FIXTURE.
11. MOUNTED AT 2'-6" BELOW FIRST FLOOR ELEVATION TO TOP OF FIXTURE.
12. MOUNTED AT 8' ABOVE FINISHED MEZZANINE FLOOR.
13. MOUNTED AT 18" ABOVE FIRST FLOOR ELEVATION TO BOTTOM OF FIXTURE.
14. MOUNTED ABOVE DOOR.
15. POWER FOR EXTERIOR WALL-MOUNTED BACK LIT LETTERING. COORDINATE EXACT LOCATION WITH ARCHITCT AND MANUFACTURER.
16. RGBW LIGHTS MOUNTED ABOVE OVERHEAD DOORS (TYPICAL FOR ALL) - COORDINATE EXACT MOUNTING DETAILS WITH ARCHITECT. DMX CONTROL STATION LOCATED AT RECEPTION DESK.

LIGHTING - FIRST FLOOR PLAN - ELECTRICAL

1/8" = 1'-0"

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LIGHTING - FIRST FLOOR PLAN - ELECTRICAL

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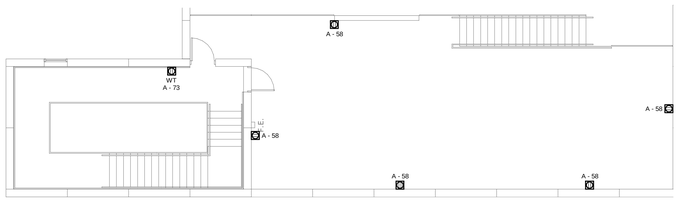
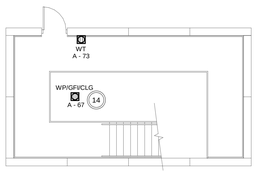


POWER - MEZZANINE FLOOR PLAN - ELECTRICAL

1/8" = 1'-0"



POWER - TOWER FLOOR PLAN - ELECTRICAL

1/8" = 1'-0"

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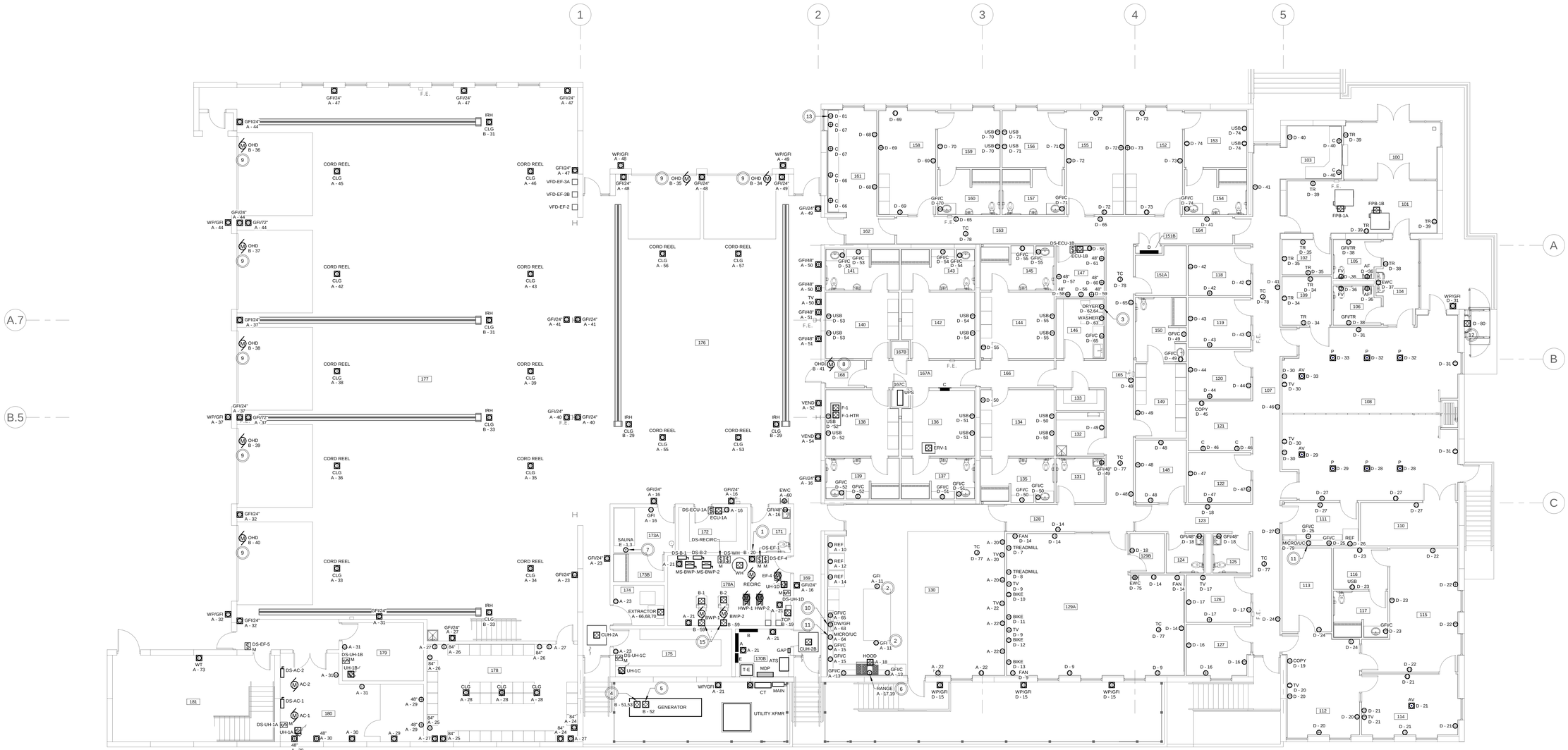
PLAN NOTES

A. ALL DEVICES MOUNTED TO PRE-CAST CONCRETE PANELS SHALL BE SURFACE-MOUNTED. COORDINATE ALL LOCATIONS WITH ARCHITECTURAL DRAWINGS.

CODED NOTES

1. RECEPTACLE FOR MIXING VALVE. COORDINATE LOCATION WITH PC
2. MOUNTED JUST BELOW COUNTERTOP. COORDINATE LOCATION WITH ARCHITECT.
3. NEMA 6-30R RECEPTACLE FOR DRYER. CONNECT TO PANEL WITH (2)-#10, (1)-#10IG IN 3/4"C.
4. GENERATOR BLOCK HEATER (2400W,208V,1PH).
5. GENERATOR BATTERY CHARGER (120V).
6. NEMA 14-50R RECEPTACLE FOR RANGE. CONNECT TO PANEL WITH (3)-#8, (1)-#10G IN 3/4"C.
7. NEMA 6-20R OUTLET FOR SAUNA (2990 WATTS, 240V, 1PH). COORDINATE EXACT LOCATION WITH MANUFACTURER PRIOR TO ROUGH-IN.
8. STORM SHELTER OVERHEAD DOOR (3/4HP, 120V, 1PH). PROVIDE 30A/1P TOGGLE SWITCH DISCONNECT ADJACENT TO MOTOR. CONNECT TO PANEL WITH #10AWG CONDUCTORS. PROVIDE DEDICATED 3/4" CONDUIT AND BACKBOX FOR WALL-MOUNTED CONTROL STATION - COORDINATE LOCATION WITH MANUFACTURER.
9. OVERHEAD DOOR (1/2HP, 120V, 1PH). PROVIDE 20A/1P TOGGLE SWITCH DISCONNECT ADJACENT TO MOTOR. PROVIDE DEDICATED 3/4" CONDUIT AND BACKBOX FOR WALL-MOUNTED CONTROL STATION - COORDINATE LOCATION WITH MANUFACTURER.
10. RECEPTACLE FOR DISHWASHER SHALL BE LOCATED IN THE ADJACENT CABINET UNDER THE SINK.
11. RECEPTACLE FOR UNDERCOUNTER MICROWAVE. COORDINATE LOCATION WITH ARCHITECT.
12. POWER CONNECTION TO LIFT STATION (120V, 1PH, INTEGRAL DISCONNECT). COORDINATE EXACT LOCATION WITH MANUFACTURER.
13. RECEPTACLE FOR BABY BOX. COORDINATE LOCATION WITH ARCHITECT.
14. CEILING-MOUNTED RECEPTACLE FOR CHAIN HOIST. COORDINATE LOCATION WITH ARCHITECT.
15. BOILER OUTSIDE AIR DAMPERS (120V). COORDINATE EXACT LOCATIONS WITH MC.



POWER - FIRST FLOOR PLAN - ELECTRICAL

1/8" = 1'-0"

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POWER - FIRST FLOOR PLAN - ELECTRICAL

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PLAN NOTES

A.

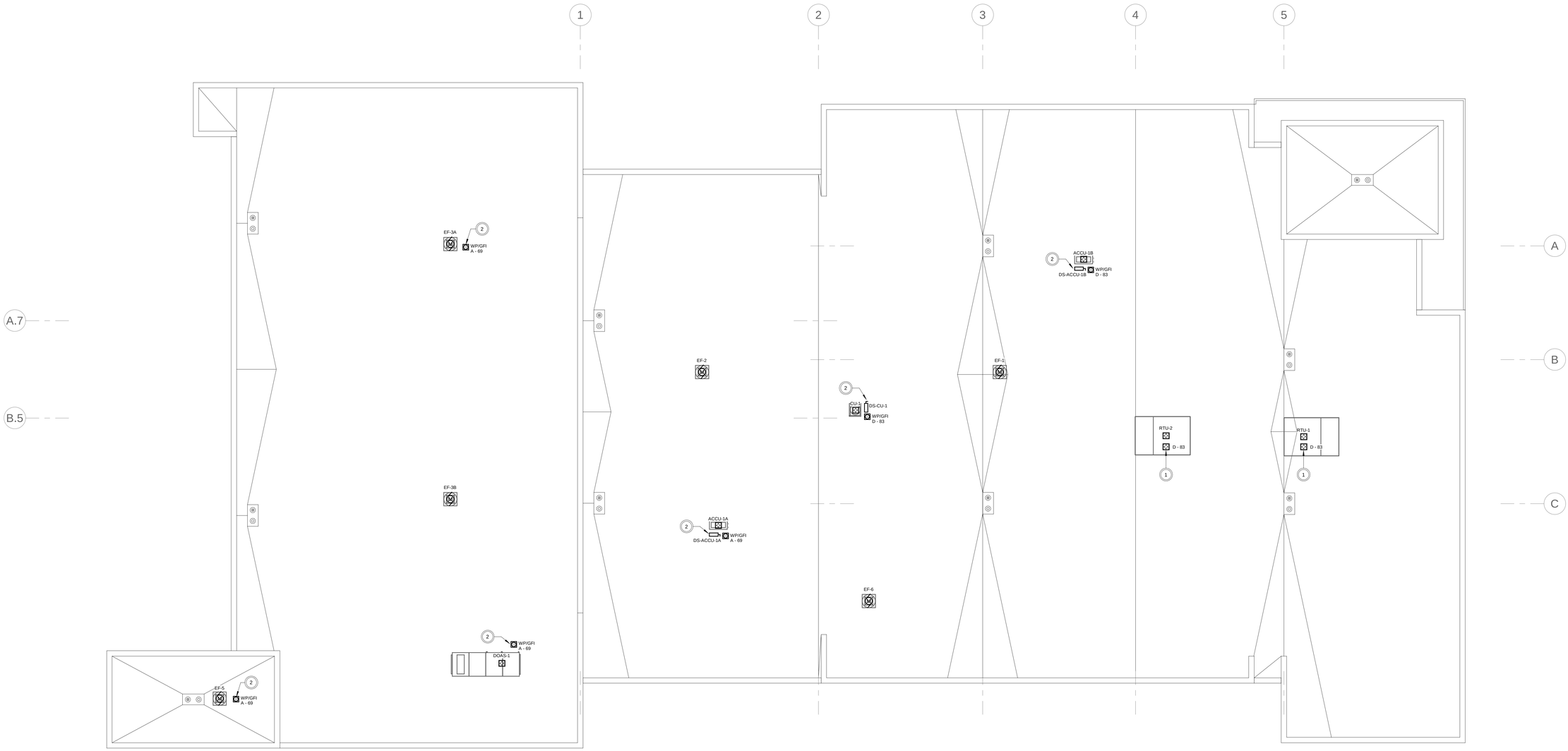
B.

C.

D.

CODED NOTES

1. RECEPTACLE INTEGRAL TO RTU.
2. PROVIDE UNISTRUT MOUNTING FOR DISCONNECT SWITCH AND/OR RECEPTACLE.



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POWER - ROOF PLAN - ELECTRICAL

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POWER - ROOF PLAN - ELECTRICAL

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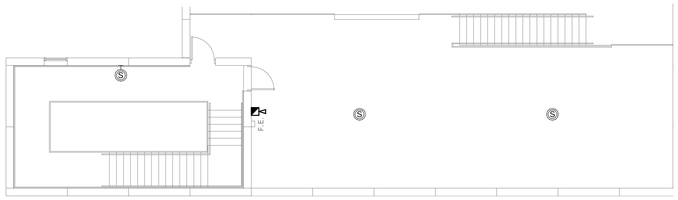

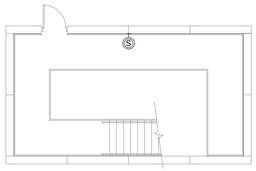

SYSTEMS - MEZZANINE FLOOR PLAN - ELECTRICAL

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SYSTEMS - TOWER FLOOR PLAN - ELECTRICAL

1/8" = 1'-0"

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153	BUNK ROOM
154	SHOWER ROOM
155	CAPTAIN OFFICE
156	BUNK ROOM
157	SHOWER ROOM
158	CAPTAIN OFFICE
159	BUNK ROOM
160	SHOWER ROOM
161	REPORT WRITING
162	VESTIBULE
163	CORRIDOR
164	CORRIDOR
165	CORRIDOR
166	CORRIDOR
167A	CORRIDOR
167B	MECH. CLOSET
167C	ELECT. CLOSET
168	VESTIBULE
169	CORRIDOR
170A	MECHANICAL ROOM
170B	ELECTRICAL ROOM
171	UNISEX R.R.
172	EMS STORAGE
173A	CLEAN DECON
173B	SHOW. ROOM
174	TOG LAUNDRY
175	QUARTERMASTER
176	LOW VEHICLE BAY
177	HIGH APPARATUS BAY
178	TOG
179	FIRE EQUIP. STOR.
180	WORKSHOP/TOOL STOR.
181	TRAINING TOWER

PLAN NOTES

A. ALL DEVICES MOUNTED TO PRE-CAST CONCRETE PANELS SHALL BE SURFACE-MOUNTED. COORDINATE ALL LOCATIONS WITH ARCHITECTURAL DRAWINGS.

B. SPEAKERS ARE FOR THE FIRE STATION ALERTING SYSTEM. SPEAKERS THAT ARE LOCATED ON ACT CEILINGS DO NOT REQUIRE ROUGH-IN ARE NOT SHOWN ON THE DRAWINGS. ONLY SPEAKERS THAT REQUIRE ROUGH-IN ARE SHOWN - REFER TO SYMBOL LEGEND. FIRE STATION ALERTING SYSTEM SHALL BE PROVIDED AND INSTALLED BY THE OWNER'S VENDOR.

CODED NOTES

1. SERVER ROOM. LINE ALL WALLS WITH FIRE-TREATED, 3/4" PLYWOOD COVERED IN LIGHT GREY PAINT FROM 24" AFF TO 120" AFF. PROVIDE TELECOMMUNICATIONS GROUND BAR PER DETAIL. PROVIDE CONDUIT STUBS AS REQUIRED FOR CABLE ACCESS INTO ROOM - COORDINATE LOCATIONS WITH TELECOM CONTRACTOR.

2. DUCT DETECTOR ON RTU-1 RETURN DUCT. COORDINATE LOCATION WITH MC. REMOTE TEST SWITCH TO BE LOCATED ON CEILING.

3. DUCT DETECTOR ON RTU-2 RETURN DUCT. COORDINATE LOCATION WITH MC. REMOTE TEST SWITCH TO BE LOCATED ON CEILING.

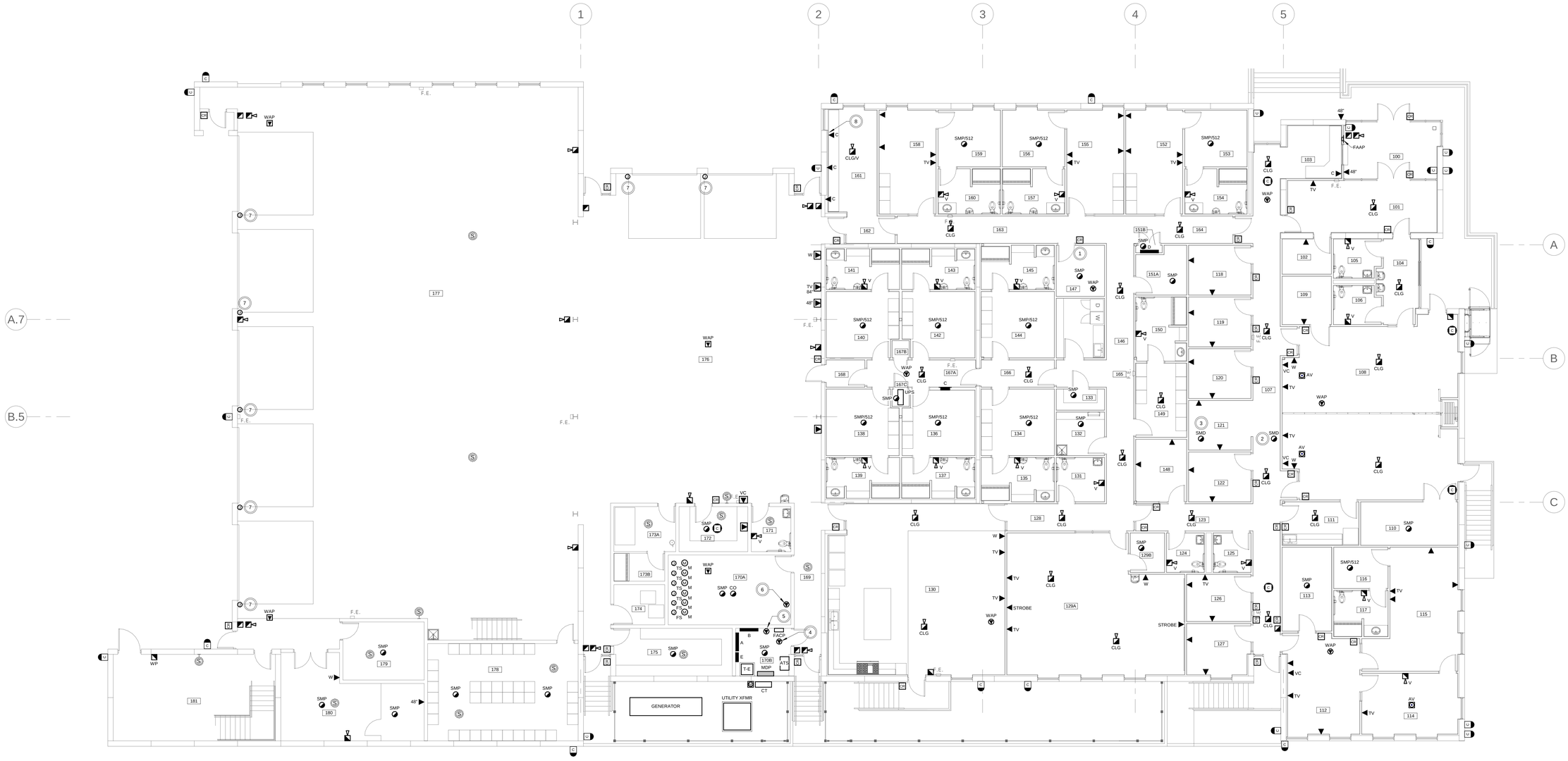
4. TELECOM OUTLET MOUNTED INSIDE FACP. PROVIDE 1"C TO ACCESSIBLE CEILING SPACE.

5. TELECOM OUTLET MOUNTED INSIDE LIGHTING CONTROLLER. PROVIDE 1"C TO ACCESSIBLE CEILING SPACE.

6. TELECOM OUTLET MOUNTED INSIDE TEMPERATURE CONTROL PANEL. PROVIDE 1"C TO ACCESSIBLE CEILING.

7. JUNCTION BOX FOR RED/GREEN TRAFFIC LIGHT, MOUNTED AT 6' AFF. LIGHT TO BE POWERED AND CONTROLLED BY THE ASSOCIATED DOOR OPERATOR. COORDINATE CONDUIT REQUIREMENTS WITH OVERHEAD DOOR MANUFACTURER. CONTRACTOR TO COORDINATE LOCATION WITH ALL OTHER DRAWINGS.

8. PROVIDE 2" CONDUIT CONCEALED IN WALL TO BABY BOX FOR ALARM CONTROL WIRING. COORDINATE EXACT LOCATION WITH ARCHITECT.



SYSTEMS - FIRST FLOOR PLAN - ELECTRICAL

1/8" = 1'-0"

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PRELIMINARY
DO NOT USE FOR CONSTRUCTION
DATE 2/3/2022
Scheeser Buckley Mayfield

DRAWING STATUS

DESIGN STAGE:
- ○ SCHEMATIC DESIGN
- ○ DESIGN DEVELOPMENT
- ● CONSTRUCTION DRAWINGS

RELEASED FOR:
- ● REVIEW
- ○ BIDDING
- ○ CONSTRUCTION

CITY OF WHEELING
W.F.D. - FIRE HEADQUARTERS
168 17TH STREET, WHEELING, WV 26003
SYSTEMS - FIRST FLOOR PLAN - ELECTRICAL

REVISION

DRAWN BY:	CHECKED BY:
Author	Checker

PROJECT NO. 20-108B

SCALE:	DATE:
AS NOTED	2/3/2022

SHEET
E3.1

CODED NOTES

1. SERVICE ENTRANCE GROUNDING ELECTRODE AND GROUNDING ELECTRODE CONDUCTOR. SEE DETAIL SHEET FOR ADDITIONAL INFORMATION.

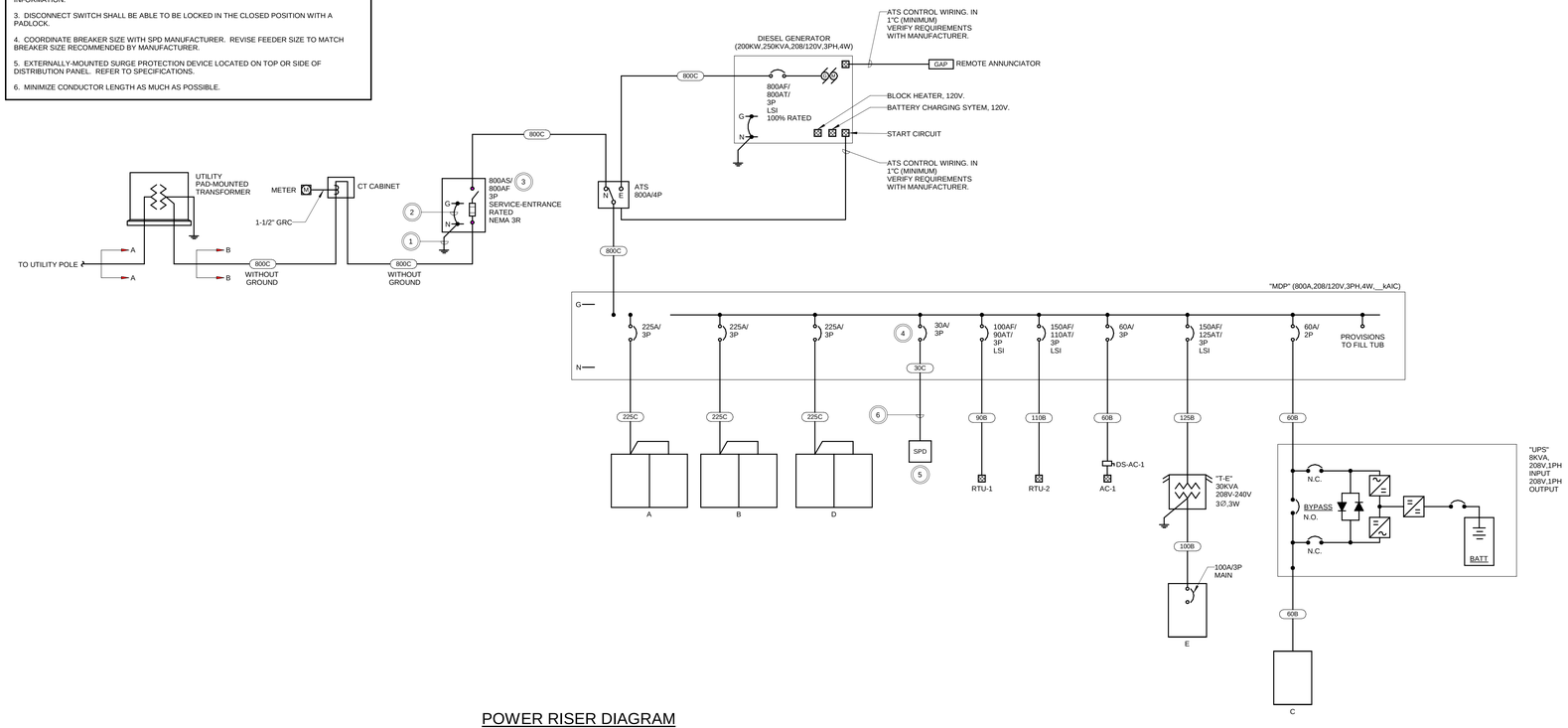
2. BOND NEUTRAL AND GROUND AT SERVICE ENTRANCE. SEE DETAIL SHEET FOR ADDITIONAL INFORMATION.

3. DISCONNECT SWITCH SHALL BE ABLE TO BE LOCKED IN THE CLOSED POSITION WITH A PADLOCK.

4. COORDINATE BREAKER SIZE WITH SPD MANUFACTURER. REVISE FEEDER SIZE TO MATCH BREAKER SIZE RECOMMENDED BY MANUFACTURER.

5. EXTERNALLY-MOUNTED SURGE PROTECTION DEVICE LOCATED ON TOP OR SIDE OF DISTRIBUTION PANEL. REFER TO SPECIFICATIONS.

6. MINIMIZE CONDUCTOR LENGTH AS MUCH AS POSSIBLE.



POWER RISER DIAGRAM
N.T.S.

STANDARD FEEDER SCHEDULE

FEEDER NO.	WIRE SIZE AMPS NOMINAL FEEDER SIZE (AMPS)	CONDUCTOR SIZE (AWG)		CONDUIT SIZE		
		PHASE/ NEUTRAL	GROUND	A	B	C
				2C	3C	4C
				W/G	W/G	W/G
		CU	CU	CU	CU	CU
15	15	12	12	3/4"	3/4"	3/4"
20	20	12	12	3/4"	3/4"	3/4"
25	25	10	10	3/4"	3/4"	3/4"
30	30	10	10	3/4"	3/4"	3/4"
35	35	8	10	3/4"	3/4"	3/4"
40	40	8	10	3/4"	3/4"	3/4"
45	45	8	10	3/4"	3/4"	3/4"
50	50	8	10	3/4"	3/4"	3/4"
60	60	6	10	3/4"	3/4"	1"
70	70	4	8	1"	1"	1-1/2"
80	80	4	8	1"	1"	1-1/2"
90	90	3	8	1"	1-1/2"	1-1/2"
100	100	2	8	1"	1-1/2"	1-1/2"
110	110	2	6	1"	1-1/2"	1-1/2"
125	125	1	6	1-1/2"	1-1/2"	1-1/2"
150	150	1/0	6	1-1/2"	1-1/2"	2"
175	175	2/0	6	1-1/2"	2"	2"
200	200	3/0	6	1-1/2"	2"	2"
225	225	4/0	4	2"	2"	2"
250	250	250	4	2"	2-1/2"	2-1/2"
300	300	350	4	2-1/2"	3"	3"
350	350	500	3	3"	3"	3"
400	400	500	3	3"	3"	3"
450	450	4/0	2	2 PARALLEL RUNS OF 2-1/2"	2 PARALLEL RUNS OF 2"	2 PARALLEL RUNS OF 2-1/2"
500	500	250	2	2 PARALLEL RUNS OF 2-1/2"	2 PARALLEL RUNS OF 2-1/2"	2 PARALLEL RUNS OF 2-1/2"
600	600	350	1	2 PARALLEL RUNS OF 3"	2 PARALLEL RUNS OF 3"	2 PARALLEL RUNS OF 3"
700	700	500	1/0	2 PARALLEL RUNS OF 3"	2 PARALLEL RUNS OF 3"	2 PARALLEL RUNS OF 3"
800	800	350	1/0	3 PARALLEL RUNS OF 3"	3 PARALLEL RUNS OF 2-1/2"	3 PARALLEL RUNS OF 3"

LIGHTING FIXTURE SCHEDULE

NOTES:
1. ALL FIXTURE FINISHES TO BE SELECTED BY ARCHITECT.
2. "NL" SUBSCRIPT INDICATES THAT THE FIXTURE IS CONNECTED TO AN UNSWITCHED CIRCUIT FOR "NIGHT LIGHT" ILLUMINATION.
3. "EM" SUBSCRIPT INDICATES THAT THE FIXTURE IS CONNECTED TO AN EMERGENCY POWER SOURCE FOR EMERGENCY ILLUMINATION.
4. PROVIDE LUMINAIRE DISCONNECT SWITCH, POWER PLUG OR EQUAL IN ACCORDANCE WITH NEC 410.103.
5. VERIFY CEILING TYPE WITH ARCHITECTURAL REFLECTED CEILING PLAN. PROVIDE MOUNTING TYPE AS REQUIRED TO ACCOMMODATE THE CEILING. (i.e. FLANGE OR GRID MOUNT).
6. CONFIRM ALL MOUNTING HEIGHTS WITH ARCHITECT.
7. PROPOSED EQUAL FIXTURE CUTSHEETS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL.

SYMBOL	CATALOG NUMBER	DESCRIPTION	MOUNTING	LAMP(S)	APPROVED EQUAL	POWER REQUIREMENT
D1	EVO4-35/07-AR-MD-LSS-MVOLT-GZ1	GOTHAM: EVO 4" APERTURE DOWNLIGHT, CLEAR SEMI-SPECULAR REFLECTOR AND FLANGE, MEDIUM DISTRIBUTION, 750 LUMENS, 3500K, AND (1) MULTI-VOLT LED DRIVER (0-10V DIMMING DOWN TO 1%).	CEILING RECESSED	INTEGRAL LED	PRESCOLITE, PORTFOLIO, FOCAL POINT, INTENSE, PATHWAY, ACULUX, LIGHTOLIER, H.E. WILLIAMS	8 VA
D2	EVO4-27/07-WR-MD-MVOLT-GZ1	SAME AS D1, EXCEPT WHITE REFLECTOR AND FLANGE AND 2700K.	CEILING RECESSED	INTEGRAL LED	SAME AS D1	8 VA
D3	EVO4SH-35/10-DFR-SOL-MVOLT-EZ10	GOTHAM: EVO 4" APERTURE SHOWER DOWNLIGHT, REGRESSED ACRYLIC LENS WITH NON-CONDUCTIVE "DEAD-FRONT" TRIM, 1000 LUMENS, 3500K, WET LOCATION LISTED, AND (1) MULTI-VOLT LED DRIVER.	CEILING RECESSED	INTEGRAL LED	SAME AS D1	9 VA
EM1	ELM4L-UVOLT-LTP	LITHONIA: QUANTUM EMERGENCY FIXTURE WITH (2) ADJUSTABLE LED HEADS, 640 LUMENS, WHITE FINISH, LITHIUM IRON PHOSPHATE BATTERY, AND (1) MULTI-VOLT LED DRIVER.	WALL SURFACE AT 7' AFF	INTEGRAL LED	DUAL-LITES, EMERGI-LITE, SURE-LITES, EXITRONIX, CHLORIDE, EVENLITE	2 VA
EM2	ELMRW-LP220L-TBD-T	LITHONIA: QUANTUM EMERGENCY REMOTE FIXTURE WITH (2) ADJUSTABLE LED HEADS (110 LUMENS EACH), WET LOCATION LISTED. CONNECT TO EXIT SIGN WITH HIGH-OUTPUT BATTERY PER DETAIL.	WALL OR CEILING SURFACE AS INDICATED ON PLANS	INTEGRAL LED	SAME AS EM1	2 VA
EM3	ELM6L-UVOLT-LTP	SAME AS EM1, EXCEPT 1100 LUMENS	WALL SURFACE AT 10' AFF.	INTEGRAL LED	SAME AS EM1	2 VA
EX1	LHQM-LED-R	LITHONIA: QUANTUM EXIT SIGN WITH (2) ADJUSTABLE LED HEADS, WHITE THERMOPLASTIC HOUSING, RED LETTERS, NICAD BATTERY, AND (1) MULTI-VOLT LED DRIVER.	WALL OR CEILING SURFACE AS INDICATED ON PLANS	INTEGRAL LED	DUAL-LITES, EMERGI-LITE, SURE-LITES, EXITRONIX, CHLORIDE, EVENLITE	2 VA
EX2	LHQM-LED-R-HO	SAME AS EX1, EXCEPT WITH HIGH-OUTPUT BATTERY FOR CONNECTION TO REMOTE HEAD	WALL OR CEILING SURFACE AS INDICATED ON PLANS	INTEGRAL LED	SAME AS EX1	2 VA
EX3	WLTC-1-R	LITHONIA: WET LOCATION EXIT SIGN WITH TWO EMERGENCY HEADS, WHITE THERMOPLASTIC HOUSING, CLEAR POLYCARBONATE LENS, RED LETTERS, NICAD BATTERY, AND (1) MULTI-VOLT LED DRIVER.	WALL SURFACE ABOVE DOOR	INTEGRAL LED	SAME AS EX1	2 VA
P1	ZL1N-L48-3000LM-FST-MVOLT-35K-80CRI-WH-HC36	LITHONIA: Z-SERIES STRIP FIXTURE, 4' LONG, STEEL HOUSING, FROSTED ACRYLIC LENS, 3000 LUMENS, 3500K, AND (1) MULTI-VOLT LED DRIVER.	CHAIN SUSPENDED	INTEGRAL LED	EATON, HUBBELL, H.E. WILLIAMS, COOPER, SIGNIFY	25 VA
P2	CAMPSIB-PMO-LED-80-750-35-80/20-8FT-UNV-D1-1-55WAC18	LUMENWERX: CAMBER SIB DIRECT/INDIRECT LINEAR SUSPENDED FIXTURE, 8-3/4" WIDE x 8' LONG x 1-1/2" DEEP, EXTRUDED ALUMINUM HOUSING WITH ACRYLIC CENTER LENS, 750 LUMENS PER FOOT, 80% DOWN / 20% UP DISTRIBUTION, 3500K, AND (1) MULTI-VOLT LED DRIVER (0-10V DIMMING DOWN TO 1%).	AIRCRAFT CABLE SUSPENDED AT 18" BELOW CEILING	INTEGRAL LED	SEE NOTE 7	60 VA
P3	IGB-18000LM-SEF-AFL-GND-MVOLT-GZ10-40K-80CRI-TBD-HBBS36	LITHONIA: I-BEAM HIGH BAY FIXTURE, 25.6" LONG, 15.5" WIDE, 2.6" DEEP, FROSTED ACRYLIC LENS, 18000 LUMENS,, 4000K, AND (1) MULTI-VOLT LED DRIVER.	CHAIN SUSPENDED AT HEIGHT INDICATED ON PLANS	INTEGRAL LED		106 VA
P4	IGB-12000LM-SEF-AFL-GND-MVOLT-GZ10-40K-80CRI-TBD-HBBS36	SAME AS P3, EXCEPT 12000 LUMENS AND 12" WIDE.	CHAIN SUSPENDED AT HEIGHT INDICATED ON PLANS	INTEGRAL LED		77 VA
P5	ZL1N-L24-2500LM-FST-MVOLT-35K-80CRI-WH-HC36	SAME AS P1, EXCEPT 2' LONG.	CHAIN SUSPENDED	INTEGRAL LED	SAME AS P1	19 VA
P6	RIMMTP-TR2+3+4-ULO-SW-90-8800-13000-17100-35-UNV-D1-1C-RDB-TBD	LUMENWERX: RIM MULTIPLE TRIANGLE PENDANT, (3) TRIANGLE-SHAPED FIXTURES WITH INNER LENS (2', 3' AND 4' SIZES) SUSPENDED IN STACKED GEOMETRIC PATTERN, 3500K, AND MULTI-VOLT 0-10V LED DRIVER. REMOTE-MOUNTED. COORDINATE EXACT CONFIGURATION WITH ARCHITECT.	AIRCRAFT CABLE SUSPENDED	INTEGRAL LED		0 VA
POLE A	FIXTURE: DSX0-LED-P2-40K-T4M-MVOLT-SPA-HS-TBD. POLE: SSS-20'-4C-DS19AS-TP	LITHONIA: D-SERIES SIZE 0 AREA FIXTURE, TYPE IV MEDIUM DISTRIBUTION, 4000K, 8700 LUMENS, AND (1) MULTI-VOLT LED DRIVER. MOUNTED ON 20' SQUARE STEEL POLE WITH HANDHOLE AND BASE COVER.	RAISED CONCRETE BASE	INTEGRAL LED	EATON, HUBBELL, LSI, PHILIPS	70 VA
R1	EPANL-2X4-4000LM-80CRI-35K-MIN1-ZT-MVOLT	LITHONIA: EPANL FLAT-PANEL FIXTURE, 2' x 4', WHITE ACRYLIC LENS IN ALUMINUM FRAME, 4000 LUMENS, 3500K, AND (1) MULTI-VOLT LED DRIVER (0-10V DIMMING DOWN TO 1%).	CEILING RECESSED	INTEGRAL LED	EATON, HUBBELL, H.E. WILLIAMS, COOPER, SIGNIFY	38 VA
R2A	EPANL-2X2-2000LM-80CRI-35K-MIN1-ZT-MVOLT	LITHONIA: EPANL FLAT-PANEL FIXTURE, 2' x 2', WHITE ACRYLIC LENS IN ALUMINUM FRAME, 2000 LUMENS, 3500K, AND (1) MULTI-VOLT LED DRIVER (0-10V DIMMING DOWN TO 1%).	CEILING RECESSED	INTEGRAL LED	SAME AS R1	19 VA
R2B	EPANL-2X2-3400LM-80CRI-35K-MIN1-ZT-MVOLT	SAME AS R2A, EXCEPT 3400 LUMENS	CEILING RECESSED	INTEGRAL LED	SAME AS R1	30 VA
R3	WHSPR-2X2-80CRI-35K-3300LM-MIN1-MVOLT-SWC-ZT	MARK ARCHITECTURAL: WHISPER SERIES TROFFER, 2' X 2' X 4-1/2" DEEP. WHITE ACRYLIC SIDE PANELS AND CENTER SQUARE PANEL, 3300 LUMENS, 3500K, AND (1) MULTI-VOLT LED DRIVER (0-10V DIMMING DOWN TO 1%).	CEILING RECESSED	INTEGRAL LED	LITECONTROL, LEDALITE, FINELITE, LUMAX, CURRENT, PINNACLE	30 VA
S1	EPANL-2X4-3000LM-80CRI-35K-MIN1-ZT-MVOLT-2X4SMKSH	SAME AS R1, EXCEPT 3000 LUMENS AND SURFACE-MOUNTED.	CEILING SURFACE	INTEGRAL LED	SAME AS R1	29 VA
S2	EPANL-2X2-3400LM-80CRI-35K-MIN1-ZT-MVOLT-2X2SMKSH	SAME AS R2A, EXCEPT SURFACE-MOUNTED	CEILING SURFACE	INTEGRAL LED	SAME AS R1	19 VA
S3	FEM-L48-4000LM-LPAFL-MD-MVOLT-GZ10-35K-80CRI	LITHONIA: ENCLOSED AND GASKETED INDUSTRIAL FIXTURE, 4' LONG, FIBERGLASS HOUSING WITH FROSTED ACRYLIC LENS, 4000 LUMENS, MEDIUM DISTRIBUTION, 3500K, WET LOCATION LISTED, AND (1) MULTI-VOLT LED DRIVER.	CEILING SURFACE	INTEGRAL LED	EATON, HUBBELL, H.E. WILLIAMS, COOPER, SIGNIFY	24 VA
S4	ZL1N-L48-3000LM-FST-MVOLT-35K-80CRI-WH	SAME AS P1, EXCEPT SURFACE MOUNTED	WALL OR CEILING SURFACE AS INDICATED ON PLANS	INTEGRAL LED	SAME AS P1	25 VA
S5A	CLCV-4-RGBW-9W-110-CCL-4	SOLID STATE LUMINAIRES: COLOURLINE COVE RGBW FIXTURE WITH LOUVER, 2" WIDE x 2" DEEP x 4' LONG, 180 DEGREE FULL ROTATION, 110 DEGREE BEAM, AND (1) DMX DRIVER. PROVIDE WITH ALL STARTER CORDS, EXTENSION CORDS, AND OTHER ACCESSORIES REQUIRED FOR A COMPLETE SYSTEM AS SHOWN ON THE DRAWINGS. PROVIDE WITH NICOLAUDIE "STICK-DE3" TOUCHSCREEN DMX CONTROLLER FOR ALL FIXTURES ON THE PROJECT.	SURFACE-MOUNTED AS INDICATED ON DRAWINGS	INTEGRAL LED	WINONA, INSIGHT, COLOR KINETICS, LUMENPULSE	36 VA
S5B	CLCV-1-RGBW-9W-110-CCL-1	SAME AS S5A, EXCEPT 12" LONG	SURFACE-MOUNTED AS INDICATED ON DRAWINGS	INTEGRAL LED	SAME AS S5A	9 VA
W1	FMVCCL-24IN-MVOLT-30K-90CRI-BN	LITHONIA: VANITY FIXTURE, 22-1/2" LONG, CYLINDRICAL HOUSING WITH WHITE ACRYLIC LENS, 1390 LUMENS, 3000K, BRUSHED NICKEL FINISH, AND (1) MULTI-VOLT LED DRIVER	WALL SURFACE ABOVE MIRROR	INTEGRAL LED	TERON, AFX, BROWNLEE	18 VA
W2	DSXW1-LED-10C-350-40K-TSS-MVOLT-TBD	LITHONIA: D-SERIES SIZE 1 WALL FIXTURE, 13-3/4" WIDE x 10" DEEP x 6-3/8" TALL, ALUMINUM HOUSING, TYPE III DISTRIBUTION, 1500 LUMENS, 4000K, WET LOCATION LISTED, AND (1) MULTI-VOLT LED DRIVER.	WALL SURFACE AT HEIGHT INDICATED ON PLANS	INTEGRAL LED		13 VA
W3	22292-K4	BEGA: ARCHITCTURAL STEPLIGHT, ALUMINUM HOUSING, 6-1/4" WIDE, 6-1/4" TALL, 3-3/4" DEEP, 620 LUMENS, 4000K, WET LOCATION LISTED, AND (1) MULTI-VOLT LED DRIVER.	WALL SURFACE	INTEGRAL LED		10 VA
W4	WDGE1-LED-P1-40K-80CRI-VF-MVOLT-TBD	LITHONIA: WDGE SERIES WALL FIXTURE, 9" WIDE, 5-1/2" DEEP, 8" TALL, ALUMINUM HOUSING, FORWARD THROW DISTRIBUTION, 1200 LUMENS, 4000K, WET LOCATION LISTED, AND (1) MULTI-VOLT LED DRIVER.	WALL SURFACE AT HEIGHT INDICATED ON PLANS	INTEGRAL LED		11 VA

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DRAWING STATUS
DESIGN STAGE:
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POWER RISER & SCHEDULES - ELECTRICAL

REVISION

DRAWN BY:	CHECKED BY:
Author	Checker

PROJECT NO.
20-108B

SCALE:	DATE:
AS NOTED	2/3/2022

SHEET
E4.1

PANEL NAME: A

LOCATION: MAIN ELECTRICAL ROOM
SUPPLIED FROM: MDP
MOUNTING: SURFACE

VOLTAGE: 120/208 NP
PHASE: 3
WIRES: 4

A.I.C. RATING: 22K
MAINS TYPE: MLO
MAINS RATING: 225 A
MCB RATING: N/A

NOTES: PANEL SHALL BE DOUBLE-TUB WITH 42 CIRCUITS PER TUB. PROVIDE SUB-FEED LUGS AS REQUIRED.

CCT	LOAD NAME	NOTES	TRIP	POLES	A	B	C	POLES	TRIP	NOTES	LOAD NAME	CCT
1	LIGHTING - HIGH APPARATUS BAY		20 A	1	1511 VA / 360 VA			1	20 A		LIGHTING - TOWER	2
3	LIGHTING - HIGH APPARATUS BAY		20 A	1		1492 VA / 754 VA		1	20 A		LIGHTING - WORKSHOP, TURNOUT GEAR, STORAGE, MEZZANINE	4
5	LIGHTING - LOW VEHICLE BAY		20 A	1			1837 VA / 402 VA	1	20 A		LIGHTING - MECHANICAL, ELECTRICAL, DECON, STORAGE, RESTROOM, LAUNDRY	6
7	LIGHTING - DAYROOM, FITNESS, OFFICES, RESTROOMS		20 A	1	998 VA / 122 VA			1	20 A		LIGHTING - EXTERIOR PATIO, ENTRANCES, UTILITY YARD	8
9	LIGHTING - EXTERIOR HIGH AND LOW VEHICLE DOORS		20 A	1		157 VA / 1000 VA		1	20 A		RECEPT. - REFRIGERATOR	10
11	RECEPT. - KITCHEN ISLAND		20 A	1			360 VA / 1000 VA	1	20 A		RECEPT. - REFRIGERATOR	12
13	RECEPT. - KITCHEN COUNTER		20 A	1	360 VA / 1000 VA			1	20 A		RECEPT. - REFRIGERATOR	14
15	RECEPT. - KITCHEN COUNTER		20 A	1		360 VA / 1260 VA		1	20 A		RECEPT. - UNISEX R. R. & EMS STORAGE & CLEAN DECON & LOW VEHICLE BAY	16
17	RECEPT. - KITCHEN RANGE		50 A	2			0 VA / 942 VA	1	20 A		KITCHEN HOOD AND FAN	18
19	–	–	–	–	0 VA / 540 VA			1	20 A		RECEPT. - DAYROOM	20
21	RECEPT. - MECHANICAL ROOM & ELECTRICAL ROOM		20 A	1		1080 VA / 900 VA		1	20 A		RECEPT. - DAYROOM	22
23	RECEPT. - TOG LAUNDRY & QUARTERMASTER & HIGH APPARATUS BAY		20 A	1			720 VA / 360 VA	1	20 A		RECEPT. - TOG	24
25	RECEPT. - TOG		20 A	1	360 VA / 540 VA			1	20 A		RECEPT. - TOG	26
27	RECEPT. - TOG & HIGH APPARATUS BAY		20 A	1		900 VA / 540 VA		1	20 A		RECEPT. - TOG	28
29	RECEPT. - WORKSHOP/TOOL STOR.		20 A	1			900 VA / 900 VA	1	20 A		RECEPT. - WORKSHOP/TOOL STOR.	30
31	RECEPT. - FIRE EQUIP. STOR. & WORKSHOP/TOOL STOR. & HIGH APPARATUS BAY		20 A	1	720 VA / 540 VA			1	20 A		RECEPT. - HIGH APPARATUS BAY & OUTSIDE	32
33	RECEPT. - HIGH APPARATUS BAY - CORD REEL		20 A	1		180 VA / 180 VA		1	20 A		RECEPT. - HIGH APPARATUS BAY - CORD REEL	34
35	RECEPT. - HIGH APPARATUS BAY - CORD REEL		20 A	1			180 VA / 180 VA	1	20 A		RECEPT. - HIGH APPARATUS BAY - CORD REEL	36
37	RECEPT. - HIGH APPARATUS BAY		20 A	1	720 VA / 180 VA			1	20 A		RECEPT. - HIGH APPARATUS BAY - CORD REEL	38
39	RECEPT. - HIGH APPARATUS BAY - CORD REEL		20 A	1		180 VA / 360 VA		1	20 A		RECEPT. - HIGH APPARATUS BAY	40
41	RECEPT. - HIGH APPARATUS BAY		20 A	1			360 VA / 180 VA	1	20 A		RECEPT. - HIGH APPARATUS BAY - CORD REEL	42
43	RECEPT. - HIGH APPARATUS BAY - CORD REEL		20 A	1	180 VA / 720 VA			1	20 A		RECEPT. - HIGH APPARATUS BAY	44
45	RECEPT. - HIGH APPARATUS BAY - CORD REEL		20 A	1		180 VA / 180 VA		1	20 A		RECEPT. - HIGH APPARATUS BAY - CORD REEL	46
47	RECEPT. - HIGH APPARATUS BAY		20 A	1			720 VA / 540 VA	1	20 A		RECEPT. - LOW VEHICHLE BAY	48
49	RECEPT. - LOW VEHICLE BAY		20 A	1	540 VA / 900 VA			1	20 A		RECEPT. - LOW VEHICHLE BAY	50
51	RECEPT. - LOW VEHICLE BAY		20 A	1		720 VA / 1200 VA		1	20 A	GFI	RECEPT. - LOW VEHICHLE BAY - VENDING MACHINE	52
53	RECEPT. - LOW VEHICHLE BAY - CORD REEL		20 A	1			180 VA / 1200 VA	1	20 A	GFI	RECEPT. - LOW VEHICHLE BAY - VENDING MACHINE	54
55	RECEPT. - LOW VEHICHLE BAY - CORD REEL		20 A	1	180 VA / 180 VA			1	20 A		RECEPT. - LOW VEHICHLE BAY - CORD REEL	56
57	RECEPT. - LOW VEHICLE BAY - CORD REEL		20 A	1		180 VA / 900 VA		1	20 A		RECEPT. - MEZZANINE	58
59	LIGHTING CONTROLLER		20 A	1			100 VA / 600 VA	1	20 A		RECEPT. - DRINKING FOUNTAIN	60
61	BACK-LIT EXTERIOR LETTERING - FRONT OF BUILDING		20 A	1	500 VA / 500 VA			1	20 A		BACK-LIT EXTERIOR LETTERING - BACK OF TRAINING TOWER	62
63	RECEPT. - DISHWASHER		20 A	1		1000 VA / 180 VA		1	20 A		RECEPT. - MICROWAVE	64
65	RECEPT. - KITCHEN COUNTER		20 A	1			180 VA / 960 VA	3	15 A		EXTRACTOR	66
67	RECEPT. - TRAINING TOWER CHAIN HOIST		20 A	1	180 VA / 960 VA			1	20 A	–	–	68
69	RECEPT. - ROOF		20 A	1		720 VA / 960 VA		–	–	–	–	70
71	LIGHTING - COLOR-CHANGING AT HIGH BAY DOORS		20 A	1			360 VA / 0 VA	1	20 A		Spare	72
73	RECEPT. - TRAINING TOWER	GFI	20 A	1	540 VA / 0 VA			1	20 A		Spare	74
75	RECEPT. - BLOCK HEATER		20 A	1		180 VA / 0 VA		1	20 A		Spare	76
77	RECEPT. - BLOCK HEATER		20 A	1			180 VA / 0 VA	1	20 A		Spare	78
79	RECEPT. - BLOCK HEATER		20 A	1	180 VA / 0 VA			1	20 A		Spare	80
81	RECEPT. - BLOCK HEATER		20 A	1		180 VA / 0 VA		1	20 A		Spare	82
83	POLE LIGHT - PARKING LOT		20 A	1			70 VA / 0 VA	1	20 A		Spare	84
					13422 VA	**15833 VA**	**12800 VA**					

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTAL	
HVAC	696 VA	100.00%	696 VA		
Lighting	8983 VA	100.00%	8983 VA	**TOTAL CONNECTED:**	42031 VA
Power	3443 VA	100.00%	3443 VA	**TOTAL ESTIMATED DEMAND:**	32118 VA
Receptacle	29860 VA	66.74%	19930 VA	**TOTAL CONNECTED CURRENT:**	117 A
				TOTAL ESTIMATED DEMAND CURRENT:	89 A

PANEL NAME: B

LOCATION: MAIN ELECTRICAL ROOM
SUPPLIED FROM: MDP
MOUNTING: SURFACE

VOLTAGE: 120/208 NP
PHASE: 3
WIRES: 4

A.I.C. RATING: 22K
MAINS TYPE: MLO
MAINS RATING: 225 A
MCB RATING: N/A

NOTES: PANEL SHALL BE DOUBLE-TUB WITH 42 CIRCUITS PER TUB. PROVIDE SUB-FEED LUGS AS REQUIRED.

CCT	LOAD NAME	NOTES	TRIP	POLES	A	B	C	POLES	TRIP	NOTES	LOAD NAME	CCT
1	BOILER B-1		20 A	2	300 VA / 300 VA			2	20 A		BOILER B-2	2
3	–	–	–	–		300 VA / 300 VA		–	–	–	–	4
5	BOILER PUMP BWP-1		15 A	3			576 VA / 576 VA	3	15 A		BOILER PUMP BWP-2	6
7	–	–	–	–	576 VA / 576 VA			–	–	–	–	8
9	–	–	–	–		576 VA / 576 VA		–	–	–	–	10
11	HWP-1		20 A	3			828 VA / 828 VA	3	20 A		HWP-2	12
13	–	–	–	–	828 VA / 828 VA			–	–	–	–	14
15	–	–	–	–		828 VA / 828 VA		–	–	–	–	16
17	WATER HEATER		20 A	1			1000 VA / 90 VA	1	15 A		DOMESTIC RECIRC PUMP	18
19	TEMPERATURE CONTROL PANEL		20 A	1	100 VA / 180 VA			1	20 A		RECEPT. - MIXING VALVE	20
21	UH-1D MECH ROOM		20 A	1		16 VA / 16 VA		1	20 A		UH-1C QUARTERMASTER	22
23	UH-1B FIRE EQUIP. STORAGE		20 A	1			16 VA / 16 VA	1	20 A		UH-1A WORKSHOP	24
25	Spare		20 A	1	0 VA / 100 VA			1	20 A		CUH-2A LOW BAY ENTRY	26
27	CUH-2B LOW BAY ENTRY		20 A	1		100 VA / 3274 VA		3	45 A		DOAS-1 - TURNOUT GEAR	28
29	RECEPT. - INFRARED HEATERS LOW BAY	GFI	20 A	1			360 VA / 3274 VA	–	–	–	–	30
31	RECEPT. - INFRARED HEATERS HIGH BAY NORTH	GFI	20 A	1	360 VA / 3274 VA			–	–	–	–	32
33	RECEPT. - INFRARED HEATERS HIGH BAY SOUTH	GFI	20 A	1		360 VA / 1176 VA		1	20 A		OVERHEAD DOOR - LOW BAY	34
35	OVERHEAD DOOR - LOW BAY		20 A	1			1176 VA / 1176 VA	1	20 A		OVERHEAD DOOR - HIGH BAY	36
37	OVERHEAD DOOR - HIGH BAY		20 A	1	1176 VA / 1176 VA			1	20 A		OVERHEAD DOOR - HIGH BAY	38
39	OVERHEAD DOOR - HIGH BAY		20 A	1		1176 VA / 1176 VA		1	20 A		OVERHEAD DOOR - HIGH BAY	40
41	OVERHEAD DOOR - STORM SHELTER		30 A	1			1656 VA / 696 VA	1	20 A		EF-1	42
43	STORM SHELTER FURNACE HEATER		50 A	2	3600 VA / 333 VA			2	15 A		STORM SHELTER FURNACE	44
45	–	–	–	–		3600 VA / 333 VA		–	–	–	–	46
47	EF-4		20 A	1			100 VA / 1656 VA	1	25 A		EF-2 LOW BAY	48
49	EF-3A HIGH BAY		20 A	1	1176 VA / 1176 VA			1	20 A		EF-3B HIGH BAY	50
51	GENERATOR BLOCK HEATER		20 A	2		1200 VA / 500 VA		1	20 A		GENERATOR BATTERY CHARGER	52
53	–	–	–	–			1200 VA / 100 VA	1	20 A		EF-5 TRAININGTOWER	54
55	ACCUECU-1A - EMS STORAGE		25 A	2	965 VA / 999 VA			2	20 A		STORM SHELTER CONDENSING UNIT CU-1	56
57	–	–	–	–		965 VA / 999 VA		–	–	–	–	58
59	BOILER DAMPERS		20 A	1			200 VA / 0 VA	1	20 A		Spare	60
61	Spare		20 A	1	0 VA / 0 VA			1	20 A		Spare	62
63	Spare		20 A	1		0 VA / 0 VA		1	20 A		Spare	64
65	Spare		20 A	1			0 VA / 0 VA	1	20 A		Spare	66
67	Spare		20 A	1	0 VA / 0 VA			1	20 A		Spare	68
69	Spare		20 A	1		0 VA / 0 VA		1	20 A		Spare	70
71	Spare		20 A	1			0 VA / 0 VA	1	20 A		Spare	72
73	Spare		20 A	1	0 VA / 0 VA			1	20 A		Spare	74
75	Spare		20 A	1		0 VA / 0 VA		1	20 A		Spare	76
77	Spare		20 A	1			0 VA / 0 VA	1	20 A		Spare	78
79	Spare		20 A	1	0 VA / 0 VA			1	20 A		Spare	80
81	Spare		20 A	1		0 VA / 0 VA		1	20 A		Spare	82
83	Spare		20 A	1			0 VA / 0 VA	1	20 A		Spare	84
					15202 VA	**15699 VA**	**13112 VA**					

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTAL	
HVAC	32285 VA	100.00%	32285 VA		
Power	12156 VA	100.00%	12156 VA	**TOTAL CONNECTED:**	43612 VA
Receptacle	180 VA	100.00%	180 VA	**TOTAL ESTIMATED DEMAND:**	43612 VA
				TOTAL CONNECTED CURRENT:	121 A
				TOTAL ESTIMATED DEMAND CURRENT:	121 A

PANEL NAME: C

LOCATION: STORM SHELTER CORRIDOR
SUPPLIED FROM: MDP
MOUNTING: FLUSH

VOLTAGE: 120/280 Single
PHASE: 1
WIRES: 3

A.I.C. RATING: 22K
MAINS TYPE: MLO
MAINS RATING: 100 A
MCB RATING: N/A

NOTES:

CCT	LOAD NAME	NOTES	TRIP	POLES	A	B	POLES	TRIP	NOTES	LOAD NAME	CCT
1	LIGHTING - STORM SHELTER ROOMS		20 A	1	759 VA / 400 VA		1	20 A		ERV-1 VENTILATOR FAN	2
3	Spare		20 A	1		0 VA / 0 VA	1	20 A		Spare	4
5	Spare		20 A	1	0 VA / 0 VA		1	20 A		Spare	6
7	Spare		20 A	1		0 VA / 0 VA	1	20 A		Spare	8
9	Spare		20 A	1	0 VA / 0 VA		1	20 A		Spare	10
11	Spare		20 A	1		0 VA / 0 VA	1	20 A		Spare	12
13	Spare		20 A	1	0 VA / 0 VA		1	20 A		Spare	14
15	Spare		20 A	1		0 VA / 0 VA	1	20 A		Spare	16
17	Spare		20 A	1	0 VA / 0 VA		1	20 A		Spare	18
					1133 VA	**0 VA**					

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTAL	
HVAC	400 VA	100.00%	400 VA		
Lighting	579 VA	100.00%	579 VA	**TOTAL CONNECTED:**	1133 VA
Power	180 VA	100.00%	180 VA	**TOTAL ESTIMATED DEMAND:**	1133 VA
				TOTAL CONNECTED CURRENT:	5 A
				TOTAL ESTIMATED DEMAND CURRENT:	5 A

PANEL NAME: E

LOCATION: MAIN ELECTRICAL ROOM
SUPPLIED FROM: T-E
MOUNTING: SURFACE

VOLTAGE: 240
PHASE: 3
WIRES: 3

A.I.C. RATING: 22K
MAINS TYPE: MCB
MAINS RATING: 100 A
MCB RATING: 100 A

NOTES:

CCT	LOAD NAME	NOTES	TRIP	POLES	A	B	C	POLES	TRIP	NOTES	LOAD NAME	CCT
1	RECEPT. - SAUNA		20 A	2	1495 VA / 7482 VA			3	90 A		AC-2 VEHICLE BAY AIR COMPRESSOR	2
3	–	–	–	–		1495 VA / 7482 VA		–	–	–	–	4
5	Space		–	1			0 VA / 7482 VA	–	–	–	–	6
7	Space		–	1	0 VA / 0 VA			1	–		Space	8
9	Space		–	1		0 VA / 0 VA		1	–		Space	10
11	Space		–	1			0 VA / 0 VA	1	–		Space	12
13	Space		–	1	0 VA / 0 VA			1	–		Space	14
15	Space		–	1		0 VA / 0 VA		1	–		Space	16
17	Space		–	1			0 VA / 0 VA	1	–		Space	18
					7630 VA	**7630 VA**	**7482 VA**					

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTAL	
Power	22645 VA	100.00%	22645 VA		
				TOTAL CONNECTED:	22645 VA
				TOTAL ESTIMATED DEMAND:	22645 VA
				TOTAL CONNECTED CURRENT:	54 A
				TOTAL ESTIMATED DEMAND CURRENT:	54 A

PANEL NAME: D

LOCATION: CLOSET
SUPPLIED FROM: MDP
MOUNTING: SURFACE

VOLTAGE: 120/208 NP
PHASE: 3
WIRES: 4

A.I.C. RATING: 22K
MAINS TYPE: MLO
MAINS RATING: 225 A
MCB RATING: N/A

NOTES: PANEL SHALL BE DOUBLE-TUB WITH 42 CIRCUITS IN ONE TUB AND 60 CIRCUITS IN THE OTHER TUB. PROVIDE SUB-FEED LUGS AS REQUIRED.

CCT	LOAD NAME	NOTES	TRIP	POLES	A	B	C	POLES	TRIP	NOTES	LOAD NAME	CCT
1	LIGHTING - TRAINING, RESTROOMS, KITCHENETTE, CHIEF'S SUITE		20 A	1	1452 VA / 541 VA			1	20 A		LIGHTING - WORK ROOM, INSPECTOR OFFICES, EVIDENCE, LOCKERS, SHOWER, STORAGE	2
3	LIGHTING - BUNK ROOMS, LAUNDRY, JANITOR, RESTROOM, SERVER ROOM		20 A	1		471 VA / 760 VA		1	20 A		LIGHTING - CAPTAIN BUNK ROOM, REPORT WRITING	4
5	LIGHTING - CORRIDOR, LOBBY, RECEPTION		20 A	1			719 VA / 183 VA	1	20 A		LIGHTING - EXTERIOR CANOPY, EAST FACADE	6
7	RECEPT. - FITNESS ROOM - TREADMILL		20 A	1	1500 VA / 1500 VA			1	20 A		RECEPT. - FITNESS ROOM - TREADMILL	8
9	RECEPT. - FITNESS ROOM		20 A	1		900 VA / 500 VA		1	20 A		RECEPT. - FITNESS ROOM - BIKE	10
11	RECEPT. - FITNESS ROOM - BIKE		20 A	1			500 VA / 500 VA	1	20 A		RECEPT. - FITNESS ROOM - BIKE	12
13	RECEPT. - FITNESS ROOM - BIKE		20 A	1	500 VA / 1080 VA			1	20 A		RECEPT. - FITNESS ROOM & CORRIDOR	14
15	RECEPT. - BACK PORCH		20 A	1			540 VA / 720 VA	1	20 A		RECEPT. - TRAINING OFFICE	16
17	RECEPT. - EMS OFFICE		20 A	1				1	20 A		RECEPT. - UNISEX R. R.	18
19	RECEPT. - WAITING AREA/ADMIN ASSIST. - COPY		20 A	1	500 VA / 900 VA			1	20 A		RECEPT. - WAITING AREA/ADMIN ASSIST	20
21	RECEPT. - CONFERENCE ROOM - 1 FLOOR BOX		20 A	1		1080 VA / 900 VA		1	20 A		RECEPT. - CHIEF OFFICE	22
23	RECEPT. - CHIEF OFFICE & BUNK ROOM & SHOWER ROOM		20 A	1			720 VA / 540 VA	1	20 A		RECEPT. - WAITING AREA/ADMIN ASSIST. & FILE ROOM & CORRIDOR	24
25	RECEPT. - KITCHENETTE		20 A	1	720 VA / 1000 VA			1	20 A		RECEPT. - KITCHENETTE - REFRIGERATOR	26
27	RECEPT. - TRAINING ROOM & STORAGE & KITCHENETTE & CORRIDOR		20 A	1		900 VA / 360 VA		1	20 A		RECEPT. - TRAINING ROOM - FLOOR BOX	28
29	RECEPT. - TRAINING ROOM - FLOOR BOX		20 A	1			360 VA / 720 VA	1	20 A		RECEPT. - TRAINING ROOM	30
31	RECEPT. - TRAINING ROOM		20 A	1	720 VA / 360 VA			1	20 A		RECEPT. - TRAINING ROOM - FLOOR BOX	32
33	RECEPT. - TRAINING ROOM - FLOOR BOX		20 A	1		360 VA / 540 VA		1	20 A		RECEPT. - TRAINING SIMULATION	34
35	RECEPT. - TREATMENT ROOM		20 A	1			540 VA / 400 VA	1	20 A		PWR. - UNISEX R. R. - AUTO FOUNTAIN & FAUCET VALVE	36
37	RECEPT. - DRINKING FOUNTAIN		20 A	1	600 VA / 540 VA			1	20 A		RECEPT. - UNISEX R. R. & CORRIDOR	38
39	RECEPT. - LOBBY & VESTIBULE		20 A	1		720 VA / 900 VA		1	20 A		RECEPT. - RECEPTION - COUNTER	40
41	RECEPT. - CORRIDOR		20 A	1			540 VA / 720 VA	1	20 A		RECEPT. - INVESTIGATOR OFFICE	42
43	RECEPT. - EVIDENCE		20 A	1	720 VA / 720 VA			1	20 A		RECEPT. - INVESTIGATOR OFFICE	44
45	RECEPT. - WORK ROOM - COPY		20 A	1			500 VA / 540 VA	1	20 A		RECEPT. - WORK ROOM & CORRIDOR	46
47	RECEPT. - INSPECTOR OFFICE		20 A	1			720 VA / 900 VA	1	20 A		RECEPT. - INSPECTOR OFFICE & CORRIDOR - COUNTER	48
49	RECEPT. - UNISEX R. R. & JANITOR CLOSET & STAFF LOCKERS & SHOWER ROOM & CORRIDOR		20 A	1	1080 VA / 900 VA			1	20 A		RECEPT. - BUNK ROOM & SHOWER ROOM	50
51	RECEPT. - BUNK ROOM & SHOWER ROOM		20 A	1		720 VA / 720 VA		1	20 A		RECEPT. - BUNK ROOM & SHOWER ROOM	52
53	RECEPT. - BUNK ROOM & SHOWER ROOM		20 A	1			720 VA / 720 VA	1	20 A		RECEPT. - BUNK ROOM & SHOWER ROOM	54
55	RECEPT. - BUNK ROOM & SHOWER ROOM		20 A	1	900 VA / 360 VA			1	20 A		RECEPT. - I.T./SERVER ROOM	56
57	RECEPT. - I.T./SERVER ROOM		20 A	1		360 VA / 360 VA		1	20 A		RECEPT. - I.T./SERVER ROOM	58
59	RECEPT. - I.T./SERVER ROOM		20 A	1			360 VA / 360 VA	1	20 A		RECEPT. - I.T./SERVER ROOM	60
61	RECEPT. - I.T./SERVER ROOM		20 A	1	360 VA / 750 VA			2	30 A		RECEPT. - LAUNDRY ROOM - DRYER	62
63	RECEPT. - LAUNDRY ROOM - WASHER		20 A	1			1200 VA / 750 VA	1	–	–	–	64
65	RECEPT. - LAUNDRY ROOM & CORRIDOR		20 A	1			720 VA / 720 VA	1	20 A		RECEPT. - REPORT WRITING - COUNTER	66
67	RECEPT. - REPORT WRITING - COUNTER		20 A	1	720 VA / 360 VA			1	20 A		RECEPT. - REPORT WRITING	68
69	RECEPT. - CAPTAIN OFFICE		20 A	1		900 VA / 720 VA		1	20 A		RECEPT. - BUNK ROOM & SHOWER ROOM	70
71	RECEPT. - BUNK ROOM & SHOWER ROOM		20 A	1			720 VA / 900 VA	1	20 A		RECEPT. - CAPTAIN OFFICE	72
73	RECEPT. - CAPTAIN OFFICE		20 A	1	900 VA / 720 VA			1	20 A		RECEPT. - BUNK ROOM & SHOWER ROOM	74
75	DRINKING FOUNTAIN - GYM		20 A	1		500 VA / 500 VA		1	20 A		BACK-LIT EXTERIOR LETTERING - MAIN ENTRANCE	76
77	TEMPERATURE CONTROL VAV JUNCTION BOXES		20 A	1			400 VA / 300 VA	1	20 A		TEMPERATURE CONTROL VAV JUNCTION BOXES	78
79	RECEPT. - KITCHENETTE MICROWAVE		20 A	1	180 VA / 1800 VA			1	20 A		EXTERIOR ADA LIFT STATION	80
81	RECEPT. - BABY BOX		20 A	1		600 VA / 965 VA		2	25 A		ACCUECU-1B - SERVER ROOM	82
83	RECEPT. - ROOF		20 A	1			702 VA / 965 VA	–	–	–	–	84
85	LIGHTING - COLOR-CHANGING IN LOBBY		20 A	1	162 VA / 0 VA			1	20 A		Spare	86
87	FAN-POWERED-BOX FPB-1A - VESTIBULE		20 A	1		804 VA / 0 VA		1	20 A		Spare	88
89	FAN-POWERED-BOX FPB-1B - CORRIDOR AND RESTROOMS		20 A	1			804 VA / 0 VA	1	20 A		Spare	90
91	Spare		20 A	1	0 VA / 0 VA			1	20 A		Spare	92
93	Spare		20 A	1		0 VA / 0 VA		1	20 A		Spare	94
95	Spare		20 A	1			0 VA / 0 VA	1	20 A		Spare	96
97	Spare		20 A	1	0 VA / 0 VA			1	20 A		Spare	98
99	Spare		20 A	1		0 VA / 0 VA		1	20 A		Spare	100
101	Spare		20 A	1			0 VA / 0 VA	1	20 A		Spare	102
					22379 VA	**19628 VA**	**17904 VA**					

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTAL	
HVAC	3538 VA	100.00%	3538 VA		
Lighting	4788 VA	100.00%	4788 VA	**TOTAL CONNECTED:**	59909 VA
Power	3314 VA	100.00%	3314 VA	**TOTAL ESTIMATED DEMAND:**	40599 VA
Receptacle	48664 VA	60.27%	29332 VA	**TOTAL CONNECTED CURRENT:**	166 A
				TOTAL ESTIMATED DEMAND CURRENT:	113 A

MDP - LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTAL	
HVAC	83956 VA	100.00%	83956 VA		
Lighting	14350 VA	100.00%	14350 VA	**TOTAL CONNECTED:**	199737 VA
Power	49633 VA	100.00%	49633 VA	**TOTAL ESTIMATED DEMAND:**	170296 VA
Receptacle	78704 VA	56.35%	44352 VA	**TOTAL CONNECTED CURRENT:**	554 A
				TOTAL ESTIMATED DEMAND CURRENT:	473 A

Matyskiela & Grant, Inc.
ARCHITECTS & ENGINEERS
1027 Mt. DeChantal Rd.
Wheeling, WV 26003
Ph: (304) 242-8248
Fax: (304) 242-8249

PRELIMINARY
DO NOT USE FOR CONSTRUCTION
DATE 2/3/2022
Scheeser Buckley Mayfield

DRAWING STATUS
DESIGN STAGE:
- ○ SCHEMATIC DESIGN
- ○ DESIGN DEVELOPMENT
- ● CONSTRUCTION DRAWINGS

RELEASED FOR:
- ● REVIEW
- ○ BIDDING
- ○ CONSTRUCTION

CITY OF WHEELING
W.F.D. - FIRE HEADQUARTERS
168 17TH STREET, WHEELING, WV 26003
SCHEDULES - ELECTRICAL

REVISION

DRAWN BY:	CHECKED BY:
Author	Checker

PROJECT NO. 20-108B

SCALE:	DATE:
AS NOTED	2/3/2022

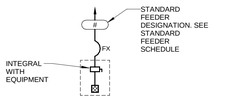
SHEET E5.1

MECHANICAL EQUIPMENT SCHEDULE

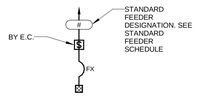
NOTES:

1. SEE STANDARD FEEDER SCHEDULE FOR MORE INFORMATION.
2. WHERE THE DISCONNECT IS LISTED AS "INTEGRAL", THE UNIT IS BEING SUPPLIED WITH AN "INTEGRAL" DISCONNECTING MEANS. WHERE A SIZE, TYPE, ETC. IS SHOWN; IT IS TO BE PROVIDED BY THE E.C.
3. **WHERE THE STARTER IS LISTED AS "INTEGRAL", THE UNIT IS BEING SUPPLIED WITH AN "INTEGRAL" STARTER. WHERE A STARTER DESIGNATION IS SHOWN; IT IS TO BE PROVIDED BY THE E.C. SEE THE MOTOR STARTER SCHEDULE FOR MORE INFORMATION.**
4. **SEE CONNECTION TYPE DIAGRAMS FOR MORE INFORMATION.**

DESIGNATION	DESCRIPTION	APPARENT POWER	HP	VOLTAGE	PHASE (NUMBER OF POLES)	WIRE/CONDUIT (NOTE 1)	PANEL	CIRCUIT(S)	DISCONNNECT DESIGNATION	DISCONNECT DESCRIPTION (NOTE 2)	DISCONNECT LOCATION	STARTER DESCRIPTION (NOTE 3)	CONNECTION TYPE (NOTE 4)	REMARKS
AC-1	AIR COMPRESSOR	11592 VA	10	208 V	3	60B	MDP	SEE POWER RISER	DS-AC-1	60A/240V/3P/NF/NEMA 1	ADJACENT TO UNIT	INTEGRAL	8	
AC-2	AIR COMPRESSOR	22447 VA	20	240 V	3	90B	E	2,4,6	DS-AC-2	100A/240V/3P/NF/NEMA 1	ADJACENT TO UNIT	INTEGRAL	8	
ACCU-1A	SPLIT-SYSTEM CONDENSING UNIT	1830 VA	-	208 V	2	25A	B	55,57	DS-ACCU-1A	30A/240V/2P/25AF/NEMA 3R	ADJACENT TO UNIT	INTEGRAL	6	11 MCA, 28A MOP. INTERCONNECT WITH ECU-1A PER MANUFACTURER'S INSTRUCTIONS.
ACCU-1B	SPLIT-SYSTEM CONDENSING UNIT	1830 VA	-	208 V	2	25A	D	82,84	DS-ACCU-1B	30A/240V/2P/25AF/NEMA 3R	ADJACENT TO UNIT	INTEGRAL	6	11 MCA, 28A MOP. INTERCONNECT WITH ECU-1B PER MANUFACTURER'S INSTRUCTIONS.
B-1	BOILER	600 VA	-	208 V	2	20A	B	1,3	DS-B-1	30A/240V/2P/NF/NEMA 1	ADJACENT TO UNIT	INTEGRAL	8	
B-2	BOILER	600 VA	-	208 V	2	20A	B	2,4	DS-B-2	30A/240V/2P/NF/NEMA 1	ADJACENT TO UNIT	INTEGRAL	8	
BWP-1	BOILER PUMP	1728 VA	1	208 V	3	15B	B	5,7,9	-	INTEGRAL TO MOTOR STARTER	-	MS-BWP-1	3	
BWP-2	BOILER PUMP	1728 VA	1	208 V	3	15B	B	6,8,10	-	INTEGRAL TO MOTOR STARTER	-	MS-BWP-1	3	
CU-1	CONDENSING UNIT	1997 VA	-	208 V	2	20A	B	56,58	DS-CU-1	30A/240V/2P/20AF/NEMA 3R	ADJACENT TO UNIT	INTEGRAL	8	12 MCA, 20A MOP
CUH-2A	HYDRONIC CABINET UNIT HEATER	100 VA	1/15	120 V	1	20A	B	26	-	INTEGRAL	-	INTEGRAL	1	
CUH-2B	HYDRONIC CABINET UNIT HEATER	100 VA	1/15	120 V	1	20A	B	27	-	INTEGRAL	-	INTEGRAL	1	
DOAS-1	ROOFTOP UNIT	9821 VA	-	208 V	3	45B	B	28,30,32	-	INTEGRAL		INTEGRAL	1	42.1 MCA, 45A MOP
ECU-1A	SPLIT-SYSTEM INDOOR UNIT	100 VA	-	208 V	2	(3)-#16	B	55,57	DS-ECU-1A	2P TOGGLE DISCONNECT	ADJACENT TO UNIT	INTEGRAL	6	INTERCONNECT WITH ACCU-1A PER MANUFACTURER'S INSTRUCTIONS
ECU-1B	SPLIT-SYSTEM INDOOR UNIT	100 VA	-	208 V	2	(3)-#16	D	82,84	DS-ECU-1B	2P TOGGLE DISCONNECT	ADJACENT TO UNIT	INTEGRAL	6	INTERCONNECT WITH ACCU-1B PER MANUFACTURER'S INSTRUCTIONS
EF-1	ROOFTOP EXHAUST FAN	696 VA	1/4	120 V	1	20A	B	42	DS-EF-1	MANUAL MOTOR STARTER	MECHANICAL ROOM	SEE REMARKS	7	PROVIDE RELAY-IN-A-BOX FOR CONNECTION TO TEMPERATURE CONTROLS
EF-2	ROOFTOP EXHAUST FAN	1656 VA	3/4	120 V	1	25A	B	48	-	INTEGRAL TO VFD	LOW BAY	VFD-EF-2	4	VFD FURNISHED BY MC, INSTALLED AND WIRED BY EC
EF-3A	ROOFTOP EXHAUST FAN	1176 VA	1/2	120 V	1	20A	B	49	-	INTEGRAL TO VFD	HIGH BAY	VFD-EF-3A	4	VFD FURNISHED BY MC, INSTALLED AND WIRED BY EC
EF-3B	ROOFTOP EXHAUST FAN	1176 VA	1/2	120 V	1	20A	B	50	-	INTEGRAL TO VFD	HIGH BAY	VFD-EF-3B	4	VFD FURNISHED BY MC, INSTALLED AND WIRED BY EC
EF-4	INLINE EXHAUST FAN	100 VA	1/10	120 V	1	20A	B	47	DS-EF-4	MANUAL MOTOR STARTER	MECHANICAL ROOM	SEE REMARKS	7	PROVIDE RELAY-IN-A-BOX FOR CONNECTION TO TEMPERATURE CONTROLS
EF-5	TRAINING TOWER EXHAUST FAN	100 VA	1/10	120 V	1	20A	B	54	DS-EF-5	MANUAL MOTOR STARTER	BASE OF TRAINING TOWER	INTEGRAL	7	PROVIDE RELAY-IN-A-BOX FOR CONNECTION TO TEMPERATURE CONTROLS
EF-6	KITCHEN HOOD EXHAUST FAN	696 VA	1/4	120 V	1	20A	A	18				INTEGRAL	9	FAN IS POWERED BY THE RANGE HOOD.
ERV-1	ENERGY RECOVERY VENTILATOR	400 VA	1/5	120 V	1	15A	C	2	-	INTEGRAL	-	INTEGRAL	1	
F-1	FURNACE	665 VA	-	208 V	2	15A	B	44,46	DS-F-1	30A/240V/2P/15AF/NEMA 1	ADJACENT TO UNIT	INTEGRAL	8	4 MCA, 15A MOP
F-1-HTR	FURNACE ELECTRIC HEAT	7200 VA	-	208 V	2	50A	B	43,45	DS-F-1-HTR	60A/240V/2P/NF/NEMA 1	ADJACENT TO UNIT	INTEGRAL	8	47 MCA, 50A MOP
FPB-1A	FAN-POWERED BOX	804 VA	-	120 V	1	20A	D	87	-	INTEGRAL	-	INTEGRAL	1	
FPB-1B	FAN-POWERED BOX	804 VA	-	120 V	1	20A	D	89	-	INTEGRAL	-	INTEGRAL	1	
HWP-1	HEATING WATER PUMP	2484 VA	1-1/2	208 V	3	20B	B	11,13,15	-	INTEGRAL TO VFD	-	VFD-HWP-1	4	VFD FURNISHED BY MC, INSTALLED AND WIRED BY EC
HWP-2	HEATING WATER PUMP	2484 VA	1-1/2	208 V	3	20B	B	12,14,16	-	INTEGRAL TO VFD	-	VFD-HWP-2	4	VFD FURNISHED BY MC, INSTALLED AND WIRED BY EC
RECIRC	RECIRCULATION PUMP	50 VA	1/40	120 V	1	15A	B	18	DS-RECIRC	MANUAL MOTOR STARTER	ADJACENT TO UNIT	SEE REMARKS	7	PROVIDE RELAY-IN-A-BOX FOR CONNECTION TO TEMPERATURE CONTROLS
RTU-1	ROOFTOP UNIT	21312 VA	-	208 V	3	90B	MDP	SEE POWER RISER	-	INTEGRAL	-	INTEGRAL	1	67 MCA, 90A MOP
RTU-2	ROOFTOP UNIT	27360 VA	-	208 V	3	110B	MDP	SEE POWER RISER	-	INTEGRAL		INTEGRAL	1	85 MCA, 110A MOP
UH-1A	HYDRONIC UNIT HEATER	16 VA	-	120 V	1	20A	B	24	DS-UH-1A	MANUAL MOTOR STARTER	ADJACENT TO UNIT	INTEGRAL	5	
UH-1B	HYDRONIC UNIT HEATER	16 VA	-	120 V	1	20A	B	23	DS-UH-1B	MANUAL MOTOR STARTER	ADJACENT TO UNIT	INTEGRAL	5	
UH-1C	HYDRONIC UNIT HEATER	16 VA	-	120 V	1	20A	B	22	DS-UH-1C	MANUAL MOTOR STARTER	ADJACENT TO UNIT	INTEGRAL	5	
UH-1D	HYDRONIC UNIT HEATER	16 VA	-	120 V	1	20A	B	21	DS-UH-1D	MANUAL MOTOR STARTER	ADJACENT TO UNIT	INTEGRAL	5	
WH	WATER HEATER	1000 VA	-	120 V	1	20A	B	17	DS-WH	TOGGLE SWITCH DISCONNECT	ADJACENT TO UNIT	INTEGRAL	2	



CONNECTION TYPE 1 DIAGRAM
N.T.S



CONNECTION TYPE 2 DIAGRAM
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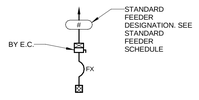

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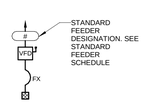

CONNECTION TYPE 4 DIAGRAM
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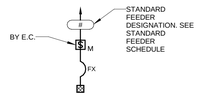

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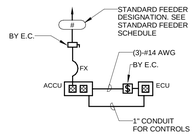

CONNECTION TYPE 6 DIAGRAM
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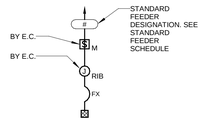

CONNECTION TYPE 7 DIAGRAM
N.T.S

CONNECTION TYPE 8 DIAGRAM
N.T.S

CONNECTION TYPE 9 DIAGRAM
N.T.S

MOTOR STARTER SCHEDULE

NOTES:

1. COMBINATION FUSIBLE DISCONNECT SWITCH AND MAGNETIC FVNR STARTER.
2. SURFACE MOUNTED, NEMA 1 ENCLOSURE.
3. EXTRA SET OF NO-NC CONTACTS.
4. HAND-OFF-AUTO SELECTOR SWITCH COVER.
5. PUST-TO-TEST (RED) PILOT LIGHT IN COVER ILLUMINATE WHILE MOTOR IS RUNNING.
6. CONTROL CIRCUIT TRANSFORMER WITH TWO (2) PRIMARY FUSES AND 120V SINGLE FUSE SECONDARY.
7. DISCONNECT SWITCH TO BE SIZED FOR AND EQUIPPED WITH FUSETRONS.
8. SIZE FUSETRONS TO PROTECT MOTOR, PER MANUFACTURER'S RECOMMENDATIONS.

SYMBOL	STARTER LOCATION	STARTER SIZE	STARTER POLES	STARTER COIL VOLTAGE	STARTER DISCONNECT SIZE	STARTER DISCONNECT FUSETRON	FOR	MOTOR HP	MOTOR VOLTAGE	MOTOR PHASE	MOTOR LOCATION	MOTOR STARTER CODE
MS-BWP-1	MECHANICAL ROOM	0	3	120	30A	SEE NOTE 8	BWP-1	1	208 V	3	MECH ROOM	1,2,3,4,5,6,7,8
MS-BWP-2	MECHANICAL ROOM	0	3	120	30A	SEE NOTE 8	BWP-2	1	208 V	3	MECH ROOM	1,2,3,4,5,6,7,8

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PRELIMINARY
DO NOT USE FOR CONSTRUCTION
DATE 2/3/2022
Scheeser Buckley Mayfield

DRAWING STATUS

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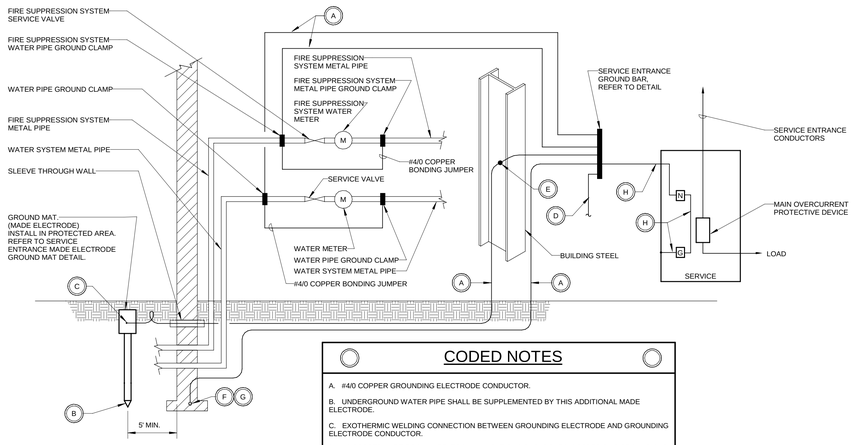
CITY OF WHEELING
W.F.D. - FIRE HEADQUARTERS
168 17TH STREET, WHEELING, WV 26003

SCHEDULES - ELECTRICAL

REVISION

DRAWN BY:	CHECKED BY:
Author	Checker
PROJECT NO.	
20-108B	
SCALE:	DATE:
AS NOTED	2/3/2022

SHEET
E5.2



CODED NOTES

A. #4/0 COPPER GROUNDING ELECTRODE CONDUCTOR.

B. UNDERGROUND WATER PIPE SHALL BE SUPPLEMENTED BY THIS ADDITIONAL MADE ELECTRODE.

C. EXOTHERMIC WELDING CONNECTION BETWEEN GROUNDING ELECTRODE AND GROUNDING ELECTRODE CONDUCTOR.

D. #6 COPPER WIRE TO MAIN TELECOMMUNICATIONS BACKBOARD COPPER BUS GROUND BAR. REFER TO DRAWINGS FOR LOCATION.

E. EXOTHERMIC WELDING CONNECTION BETWEEN BUILDING STEEL AND GROUNDING ELECTRODE CONNECTION.

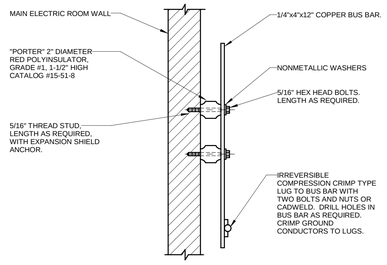
F. FOUNDATION REBAR NEAR BASE OF FOOTER WHERE AVAILABLE. WHERE NOT AVAILABLE, FURNISH AND INSTALL 20 FT. MIN. OF #4/0 BARE COPPER CABLE NEAR BOTTOM OF FOOTER WITH AT LEAST 2" OF CONCRETE COVER.

G. EXOTHERMIC WELDED CONNECTION TO FOOTER REBAR NEAR BASE OF FOOTER.

H. MAIN BONDING JUMPER. SIZE PER NEC 250.28(D).

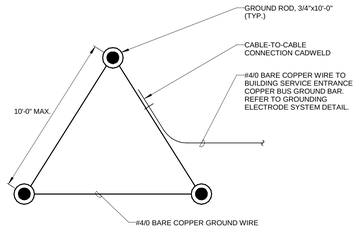
SERVICE ENTRANCE ELECTRODE SYSTEM DETAIL

N.T.S.



SERVICE ENTRANCE GROUND BAR DETAIL

N.T.S.



NOTE:

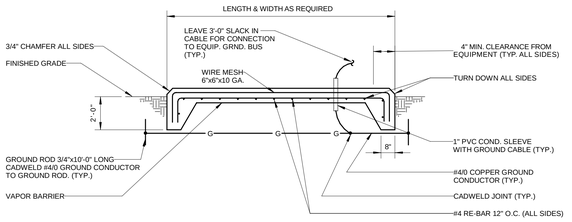
BURY TOP OF GROUND ROD AT 6" BELOW FINISHED GRADE.

SERVICE ENTRANCE MADE ELECTRODE GROUND MAT DETAIL

N.T.S.

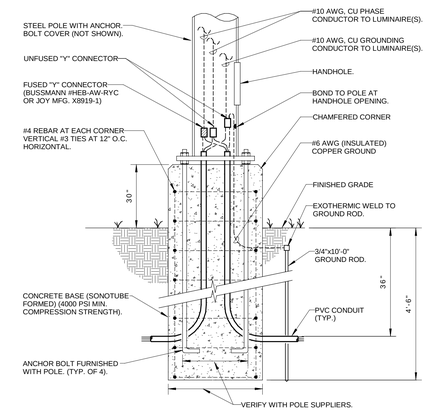
GENERAL NOTES

1. FINISH TOP SMOOTH AND LEVEL.
2. VERIFY ALL PAD DIMENSIONS WITH GENERATOR SUPPLIER.
3. CONCRETE FINE AGGREGATE WITH MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI IN 28 DAYS, APPROXIMATE VOLUME OF .42 CU. YDS.



GENERATOR PAD DETAIL

N.T.S.

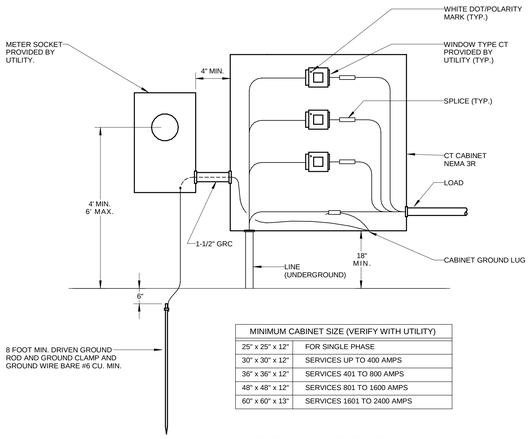


POLE BASE DETAIL

N.T.S.

NOTES

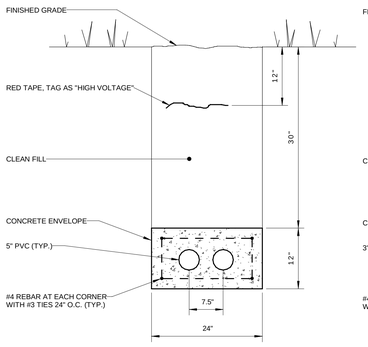
1. CT CABINET FURNISHED AND INSTALLED BY EC SHALL BE OF SUBSTANTIAL STRENGTH WITH CORROSION PROTECTION, SUCH AS PAINTED GALVANIZED STEEL NEMA 3R. ALUMINUM OR FIBER REINFORCED POLYESTER ENCLOSURES MUST BE USED IN CORROSIVE AREAS. IT SHALL HAVE PROVISIONS FOR INSTALLING A UTILITY PADLOCK AND SEAL. THE INSIDE BACK OF THE CABINET SHALL BE ENTIRELY COVERED BY 3/4" TREATED PLYWOOD FOR MOUNTING THE CURRENT TRANSFORMERS OR SUITABLE MOUNTING BRACKETS MAY BE PROVIDED. A GROUNDING LUG SHALL BE PROVIDED TO GROUND THE CABINET.
2. THE WHITE DOT POLARITY MARK ON THE CT SHALL BE TOWARD THE ENERGY SOURCE OR LINE SIDE.
3. EC SHALL MOUNT THE METER SOCKET OR CABINET NEXT TO THE CT CABINET AND INSTALL 1-1/2" GRC CONDUIT BETWEEN THE TWO. IF THE METER SOCKET CANNOT BE INSTALLED NEXT TO THE CT CABINET, IT MAY BE LOCATED UP TO 20 FEET AWAY WITH METER SERVICES APPROVAL. 1-1/2" CONDUIT SHALL CONNECT THE SOCKET AND CT CABINET.
4. THE CT CABINET AND METER SOCKET SHALL BE GROUNDED. BONDING TO THE SYSTEM NEUTRAL IS REQUIRED IF THE SYSTEM NEUTRAL IS GROUNDED. GROUND WIRE SHALL REMAIN CONTINUOUS AND UNBROKEN BETWEEN GROUND ROD AND CT CABINET.
5. UTILITY WILL INSTALL THE SECONDARY WIRING BETWEEN THE CT AND THE METER SOCKET.
6. THE CONDUCTOR SPLICE SHALL BE MADE WITH BOLTED CONNECTIONS FURNISHED AND INSTALLED BY CUSTOMER WHERE REQUIRED. WHERE THE CUSTOMER OWNS AND INSTALLS BOTH THE LINE AND LOAD CONDUCTORS, THE CONDUCTOR MAY PASS THROUGH THE CT'S WITHOUT SPLICE.



MINIMUM CABINET SIZE (VERIFY WITH UTILITY)	
25" x 25" x 12"	FOR SINGLE PHASE
30" x 30" x 12"	SERVICES UP TO 400 AMPS
36" x 36" x 12"	SERVICES 401 TO 800 AMPS
48" x 48" x 12"	SERVICES 801 TO 1600 AMPS
60" x 60" x 13"	SERVICES 1601 TO 2400 AMPS

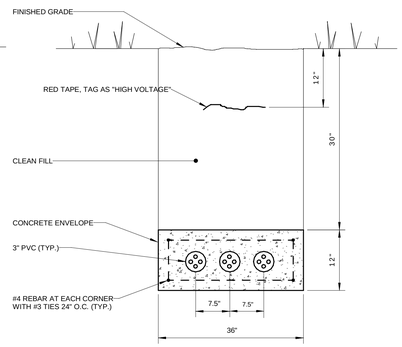
(WINDOW TYPE CT'S) CURRENT TRANSFORMER CABINET

NTS



SECTION "A-A"

N.T.S.



SECTION "B-B"

N.T.S.

DUCT BANK GENERAL NOTES

1. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS ON DUCT BANK CONSTRUCTION (I.E. CONCRETE REQUIREMENTS, ETC.)
2. NONMETALLIC SPACERS OF REQUIRED SIZE SHALL BE PROVIDED TO SUPPORT PVC CONDUITS RUN ENCASED IN CONCRETE. SPACERS SHALL BE PROVIDED AT 8' INTERVALS MINIMUM.

NOTE TO ENGINEER:

1. VERIFY ALL DIMENSIONS AND REQUIREMENTS WITH UTILITY COMPANY.
2. ALLEGHENY POWER SYSTEM CONCRETE PAD DETAIL FOR 75 TO 500 KVA TRANSFORMER.
3. DETAIL IS FOR REFERENCE ONLY. EXACT DETAIL SHALL BE PROJECT SPECIFIC.

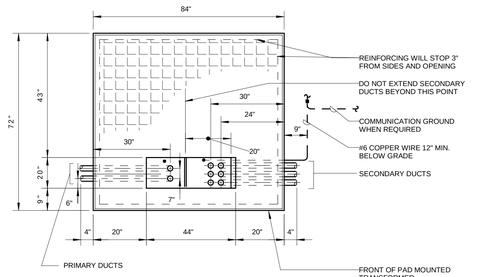
CODED NOTES

A. SECONDARY DUCTS SHOULD NOT EXTEND MORE THAN 2" ABOVE THE TOP OF FOUNDATION. PRIMARY DUCT SHOULD BE CUT OFF 2" BELOW THE TOP OF THE FOUNDATION TO ALLOW FOR TERMINATING THE CABLES.

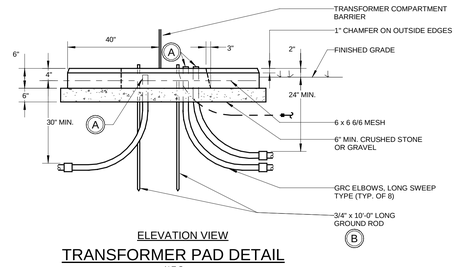
B. EXTEND GROUND RODS 2" ABOVE THE TOP OF THE FOUNDATION SO THAT A GROUNDING JUMPER MAY BE ATTACHED.

GENERAL NOTES

1. VERIFY ALL PAD DIMENSIONS WITH PAD MOUNTED TRANSFORMER SUPPLIER.
2. CONCRETE 3000 PSI: APPROXIMATE VOLUME .7 CU. YARDS. TOP AND SIDES TO BE FINISHED SMOOTH.



PLAN VIEW



ELEVATION VIEW

TRANSFORMER PAD DETAIL

N.T.S.

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CITY OF WHEELING
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DETAILS - ELECTRICAL

REVISION

DRAWN BY:	CHECKED BY:
Author	Checker

PROJECT NO. 20-108B

SCALE:	DATE:
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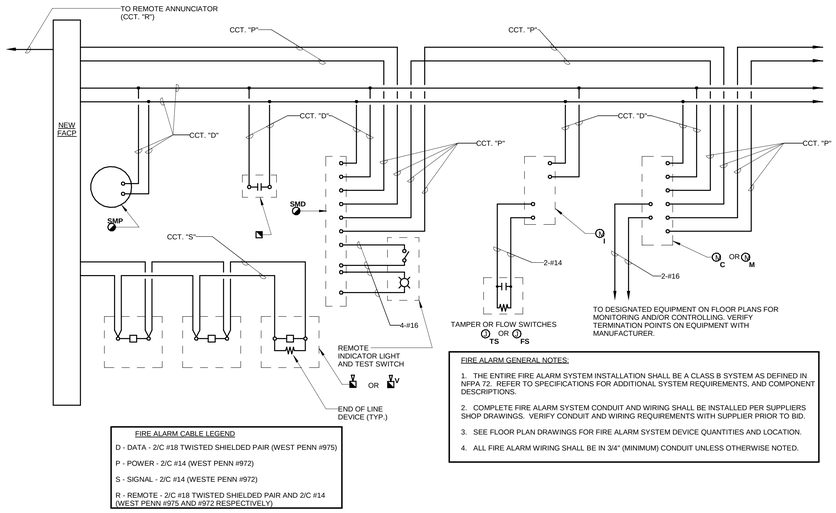
SHEET E6.1



FIRE ALARM CABLE LEGEND

D - DATA - 2/C #18 TWISTED SHIELDED PAIR (WEST PENN #975)

P - POWER - 2/C #14 (WEST PENN #972)

S - SIGNAL - 2/C #14 (WESTE PENN #972)

R - REMOTE - 2/C #18 TWISTED SHIELDED PAIR AND 2/C #14 (WEST PENN #975 AND #972 RESPECTIVELY)

FIRE ALARM GENERAL NOTES:

1. THE ENTIRE FIRE ALARM SYSTEM INSTALLATION SHALL BE A CLASS B SYSTEM AS DEFINED IN NFPA 72. REFER TO SPECIFICATIONS FOR ADDITIONAL SYSTEM REQUIREMENTS, AND COMPONENT DESCRIPTIONS.
2. COMPLETE FIRE ALARM SYSTEM CONDUIT AND WIRING SHALL BE INSTALLED PER SUPPLIERS SHOP DRAWINGS. VERIFY CONDUIT AND WIRING REQUIREMENTS WITH SUPPLIER PRIOR TO BID.
3. SEE FLOOR PLAN DRAWINGS FOR FIRE ALARM SYSTEM DEVICE QUANTITIES AND LOCATION.
4. ALL FIRE ALARM WIRING SHALL BE IN 3/4" (MINIMUM) CONDUIT UNLESS OTHERWISE NOTED.

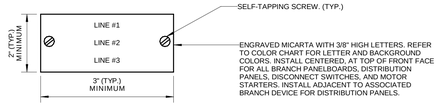
FIRE ALARM WIRING DIAGRAM

N.T.S.

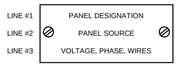
STANDARD COLORS:

ELECTRICAL EQUIPMENT SUCH AS:
1. PANELBOARDS, MOTOR STARTERS, DISTRIBUTION PANELS, DISCONNECT SWITCHES (IF APPLICABLE)

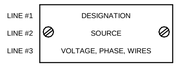
A. 208Y/120 VOLTS (NORMAL) - BLACK BACKGROUND, WHITE LETTERS



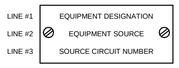
(TYPICAL FOR ALL NAMEPLATES)
GENERAL NAMEPLATE DETAIL



BRANCH PANELBOARD NAMEPLATE



DISTRIBUTION PANEL NAMEPLATE



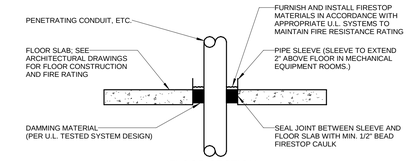
DISCONNECT SWITCH/MOTOR STARTER NAMEPLATE

DISTRIBUTION PANE
BRANCH OVERCURRENT PROTECTIVE DEVICE OR STARTER NAMEPLATE

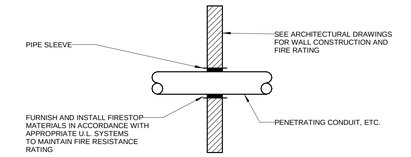
(REFER TO SPECIFICATIONS)
IDENTIFICATION TAGGING DETAILS

N.T.S.

UL FIRE STOP SYSTEMS FOR 1 AND 2 HOUR RATED WALL AND FLOOR ASSEMBLIES			
SERVICE	GYPSUM WALL PENETRATION	CONCRETE/MASONRY WALL PENETRATION	CONCRETE FLOOR PENETRATION
GRC CONDUIT (NOMINAL ≤ 6" DIA.)	WL1049	WS1055	CAJ1079
EMT CONDUIT (NOMINAL ≤ 4" DIA.)	WL1049	WS1055	CAJ1079
PVC CONDUIT/ INNER DUCT (≤ 2" DIA.)	WL2093	WJ2018	CAJ2031
CABLES (MAX. 3" DIA. CABLE BUNDLE)	WL3076	WJ3022	CAJ3133
CABLE TRAYS	WL4005	WJ4009	CAJ4029
BUS DUCT	WL6001	CAJ6008	CAJ6008



FLOOR SECTION



WALL SECTION

NOTES:

1. WHERE CONDUIT, CABLES AND OTHER COMPONENTS PASS THROUGH FIRE OR SMOKE RATED WALLS OR FLOORS, PROVIDE NON-ASBESTOS SEAL ASSEMBLIES CLASSIFIED BY U.L. TO PROVIDE FIRE BARRIERS EQUAL TO OR GREATER THAN THE TIME RATING OF THE CONSTRUCTION BEING PENETRATED, WITH APPROPRIATE MATERIALS AND SYSTEMS THAT COMPLY WITH APPLICABLE CODES AND THAT HAVE BEEN TESTED IN ACCORDANCE WITH U.L. 1479 OR ASTM E814.
2. GROUT, MORTAR OR GYPSUM BASED PRODUCTS SHALL NOT BE INSTALLED IN LIEU OF FIRESTOPPING MATERIALS AND U.L. SYSTEMS.
3. FOR SLEEVED PENETRATIONS, FIRESTOP ANNULAR SPACE. IF ANY, BETWEEN SLEEVE AND ADJACENT CONSTRUCTION TO MEET U.L. SYSTEM REQUIREMENTS. SEE NOTE 2 ABOVE.
4. THIS CONTRACTOR SHALL FIRESTOP ALL MISCELLANEOUS OPENINGS IN FIRE-RATED CONSTRUCTION RESULTING FROM HIS WORK.
5. CONTRACTOR SHALL PROVIDE SUBMITTAL DRAWINGS TO ENGINEER, INCLUDING U.L. RATED SYSTEM NUMBER AND DETAIL FOR EACH TYPE OF PENETRATION AND CONFIGURATION.
6. SLEEVES USED FOR CABLE RISERS THROUGH FLOORS OR WALLS SHALL BE INSTALLED PER THE ABOVE FLOOR OR WALL SECTIONS. IN ADDITION, FIRESTOP MATERIAL SHALL BE PROVIDED INSIDE SLEEVE AFTER CABLES ARE COMPLETELY INSTALLED.

FIRESTOPPING DETAIL FOR PENETRATIONS THROUGH FIRE-RATED CONSTRUCTIONS

N.T.S.

COMBINATION MOTOR STARTER DIAGRAM

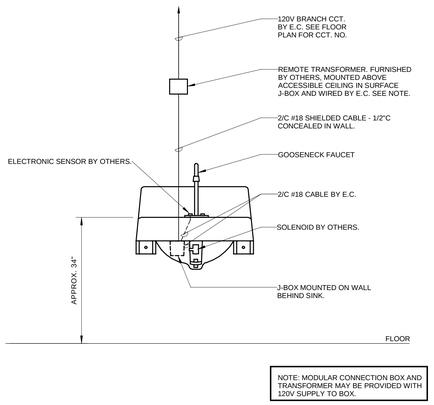
N.T.S.

RELAY-IN-A-BOX DETAIL

N.T.S.

TYPICAL DUPLEX RECEPTACLE FACEPLATE

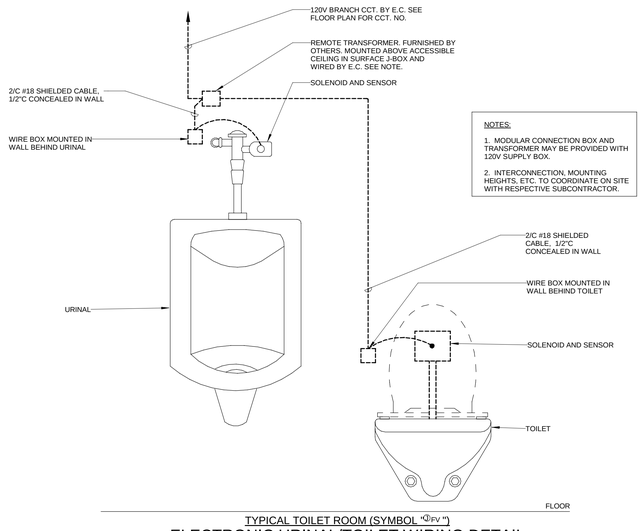
N.T.S.



NOTE: MODULAR CONNECTION BOX AND TRANSFORMER MAY BE PROVIDED WITH 120V SUPPLY TO BOX.

(SYMBOL "ⓈAF")
ELECTRONIC SINK CONTROL WIRING DETAIL

N.T.S.



TYPICAL TOILET ROOM (SYMBOL "ⓈFV ")
ELECTRONIC URINAL/TOILET WIRING DETAIL

N.T.S.

Matyskiela & Grant, Inc.
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CITY OF WHEELING
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168 17TH STREET, WHEELING, WV 26003
DETAILS - ELECTRICAL

REVISION

DRAWN BY:	CHECKED BY:
Author	Checker

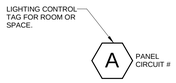
PROJECT NO. 20-108B

SCALE:	DATE:
AS NOTED	2/3/2022

SHEET E6.2

LIGHTING CONTROLS NOTES

1. REFER TO FLOOR PLANS FOR LOCATIONS AND QUANTITIES OF CONTROL DEVICES SUCH AS SWITCHES, OCCUPANCY SENSORS, ETC.
2. REFER TO FLOOR PLANS FOR LOCATIONS OF UNSWITCHED "NIGHT-LIGHT" EMERGENCY FIXTURES.



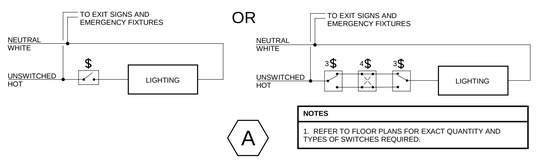
LIGHTING CONTROL TAG DETAILS

N.T.S.

OCCUPANCY SENSOR CONFIGURATION

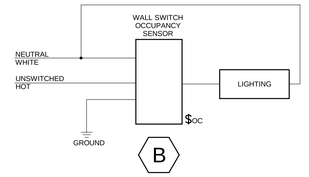
ROOM DESCRIPTION	AUTOMATIC ON	MANUAL ON	MANUAL ON/AUTOMATIC TO 50%
PRIVATE OFFICE			X
OPEN OFFICE		X	
RESTROOM	X		
STORAGE	X		
COURTROOM		X	
CONFERENCE/MEETING/TRAINING		X	
LUNCH/BREAK ROOM		X	
COPY/PRINT		X	

NOTES:
1. SENSOR MUST SHUT OFF LIGHTS WITHIN 30 MINUTES OF UNOCCUPIED USE



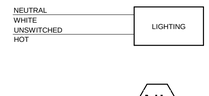
TYPICAL LINE-VOLTAGE SWITCHING

N.T.S.



TYPICAL SWITCH OCCUPANCY SENSOR

N.T.S.



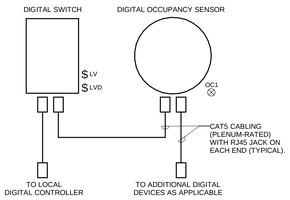
TYPICAL UNSWITCHED "NIGHT-LIGHT" FIXTURES

N.T.S.

DIGITAL LIGHTING CONTROL TYPES

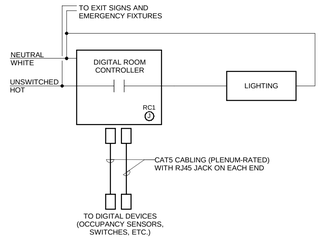
NOTES:
1. BASIS-OF-DESIGN IS ACUITY nLIGHT. REFER TO SPECIFICATIONS FOR ADDITIONAL EQUIVALENT MANUFACTURERS.
2. PROVIDE QUANTITY OF LIGHTING CONTROLLERS REQUIRED TO ACHIEVE SPECIFIED ZONING AND CONTROLS FOR EACH TYPE.
3. REFER TO FLOOR PLANS FOR LOCATIONS AND QUANTITIES OF DIGITAL DEVICES SUCH AS WALL SWITCHES, OCCUPANCY SENSORS, ETC.
4. REFER TO FLOOR PLANS FOR LOCATIONS OF UNSWITCHED "NIGHT-LIGHT" EMERGENCY FIXTURES.
5. REFER TO FLOOR PLANS FOR AREAS THAT REQUIRE EMERGENCY RELAYS.

CONTROL TAG	NON-DIM ZONES	0-10V DIM ZONES	ADDITIONAL REMARKS
C	1	-	-
D	-	1	-
E	-	2	-
F	-	4	PROVIDE WITH PARTITION SENSOR FOR CENTER PARTITION. LIGHTING CONTROLS SHALL COMBINE OR SPLIT ZONE CONTROLS AS REQUIRED DEPENDING ON THE POSITION OF THE PARTITION.
G	1	-	EXTERIOR LIGHTING ZONE. CONNECT TO DIGITAL NETWORK BRIDGE. CONTROLLED BY TIME SCHEDULE AND PHOTOCELL.



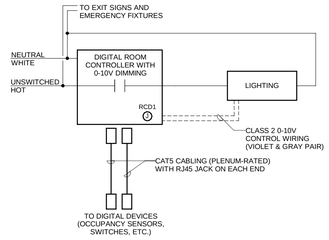
TYPICAL DIGITAL DEVICES

N.T.S.



TYPICAL DIGITAL LIGHTING CONTROLLER

N.T.S.

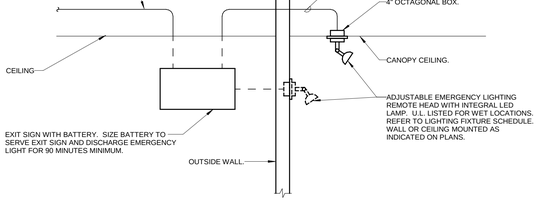


TYPICAL 0-10V DIMMING DIGITAL LIGHTING CONTROLLER

N.T.S.

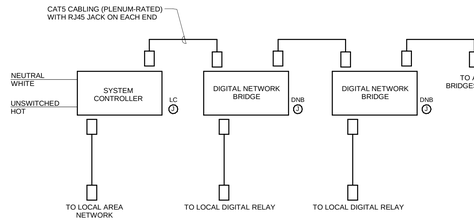
	MAX. CIRCUIT LENGTH (FT)		
	NUMBER OF HEADS		
WIRE SIZE	1	2	3
#12	59	29	19
#10	94	47	31
#8	150	84	50

TABLE "A"



EXIT SIGN AND EXIT DISCHARGE EMERGENCY LIGHTING COMBO DETAIL

N.T.S.



DIGITAL LIGHTING CONTROL NETWORK

N.T.S.

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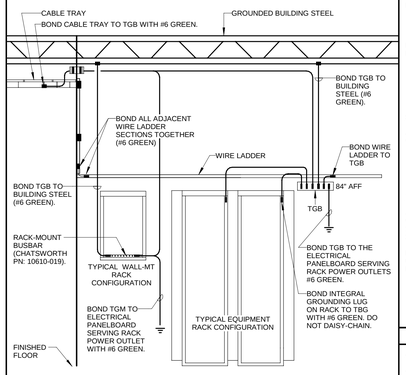
SHEET
E6.3

TYPICAL TELECOM ROOM BONDING



TELECOMMUNICATIONS GROUNDING/BONDING NOTES

1. INITIAL GROUND BAR INSTALLATION, BONDING TO BUILDING STEEL. AC GROUND (ASSUME 100-FT TO PANELBOARD) AND CABLE TRAY BY ELECTRICAL CONTRACTOR (NOTIFY CONSTRUCTION MANAGER IF THESE ARE NOT PRESENT IN FIELD). ALL TELECOM ROOM FIT-OUT EQUIPMENT TO BE BONDED TO GROUND BAR BY CABLING VENDOR.
2. TELECOMMUNICATIONS GROUNDING BUSBAR SHALL SERVE ALL APPLICABLE TELECOMMUNICATIONS EQUIPMENT WITHIN THE SAME ROOM OR SPACE.
3. ALL BACKBONE AND BONDING CONDUCTORS SHALL BE COPPER AND SIZED AS INDICATED. CONDUCTORS PLACED WITHIN TELECOM SPACES SHALL BE GREEN. CONDUCTORS PLACED IN PLENUM-RATED CEILING SPACES SHALL BE BARE COPPER (CODE PERMITTING).
4. BONDING CONDUCTORS THAT ARE PLACED IN FERROUS METALLIC CONDUITS THAT EXCEED 3' IN LENGTH SHALL BE BONDED TO EACH END OF THE CONDUIT.
5. ALL BONDING CONNECTIONS SHALL BE MADE WITH TWO-HOLE COMPRESSION TYPE LUGS ON A PAINT-FREE AREA USING STAR WASHERS. SCREW TERMINAL LUGS WILL NOT BE ACCEPTED.
6. NO SPLICES SHALL BE MADE TO A BACKBONE OR BONDING CONDUCTORS.
7. ALL BONDING CONDUCTORS SHALL BE MARKED WITH A GREEN COLOR AND LABELED AS CLOSE AS PRACTICABLE TO THEIR POINT OF TERMINATION.
8. ALL GROUNDING CONDUCTORS SHALL BE ROUTED IN A NEAT AND WORKMANLIKE MANNER AND SHALL BE FREE OF SHARP BENDS AND KINKS.
9. BOND TO THE GROUNDING BUSBAR, TELECOMMUNICATIONS EQUIPMENT, TELECOMMUNICATIONS CONDUIT AND CABLE TRAY THAT RESIDES IN OR ORIGINATES FROM (OR TERMINATES IMMEDIATELY OUTSIDE OF) THE SAME ROOM OR SPACE AS THE BUSBAR.
10. UNLESS OTHERWISE INSTRUCTED, FOLLOW GUIDELINES SET FORTH IN THE MOST CURRENT REVISION OF THE J-STD-607 - COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS STANDARD.
11. ALL BONDING CONDUCTORS AND CONNECTORS SHALL BE LISTED FOR THE PURPOSE INTENDED AND APPROVED BY A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL).
12. TREAT ALL BONDING CONNECTIONS WITH ANTI-OXIDATION PASTE.
13. DETAIL IS TYPICAL AND DOES NOT INDICATE THE ACTUAL SYSTEM.

TELECOMMUNICATIONS GROUNDING/BONDING LABELING

ALL TELECOMMUNICATIONS GROUNDING BUSBARS SHALL BE LABELED WITH A UNIQUE IDENTIFIER INDICATING THE FOLLOWING INFORMATION:
1. TYPE OF BUSBAR (TGMB OR TGB).
2. TELECOMMUNICATIONS SPACE (E.G. TR).
3. ROOM NUMBER

EXAMPLE: THE LABEL BELOW INDICATES A TELECOMMUNICATIONS GROUNDING BUSBAR LOCATED IN TELECOMMUNICATIONS ROOM TR-100

TGB - TR100
BUSBAR TYPE / TELECOM SPACE

(REFER TO ABBREVIATION LEGEND FOR EQUIPMENT IDENTIFICATION LABELING)

STANDARD J-STD-607-A CONDUCTOR DISCONNECT LABEL:

ALL TELECOMMUNICATIONS GROUNDING / BONDING CONDUCTORS SHALL BE LABELED WITH THE FOLLOWING:

IF THIS CONNECTOR OR CABLE IS LOOSE OR NOT BE REMOVED, PLEASE CALL THE BUILDING TELECOMMUNICATIONS MANAGER

TELECOMMUNICATIONS GROUNDING / BONDING CONDUCTOR IDENTIFICATION LABELING:

ALL TELECOMMUNICATIONS GROUNDING / BONDING CONDUCTORS SHALL BE LABELED WITH A UNIQUE IDENTIFIER INDICATING THE FOLLOWING INFORMATION:
1. CONDUCTOR TYPE ABBREVIATION
2. FAR-END EQUIPMENT IDENTIFIER

EXAMPLE: THE LABEL BELOW INDICATES A TELECOMMUNICATIONS EQUIPMENT BONDING CONDUCTOR WITH A FAR-END CONNECTION TO EQUIPMENT RACK 01. VERIFY EQUIPMENT RACK IDENTIFIERS WITH OWNER'S IT STAFF.

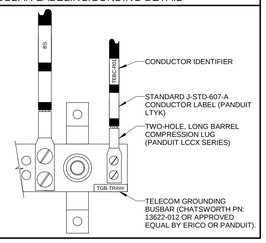
TEBC - R01
CONDUCTOR TYPE / FAR-END EQUIPMENT

REFER TO ABBREVIATION LEGEND FOR EQUIPMENT IDENTIFICATION LABELING

ABBREVIATION LEGEND

ABBREVIATION	DESCRIPTION
ACEG	ALTERNATING CURRENT EQUIPMENT GROUND
BC	BONDING CONDUCTOR
BCT	BONDING CONDUCTOR FOR TELECOMMUNICATIONS
BS	BUILDING STEEL
C##	EQUIPMENT CABINET IDENTIFIER (COORDINATE WITH OWNER'S IT DEPT)
GE	GROUNDING EQUALIZER
PNL##	ELECTRICAL PANEL IDENTIFIER
R##	EQUIPMENT RACK IDENTIFIER (COORDINATE WITH OWNER'S IT DEPT)
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
TEBC	TELECOMMUNICATIONS EQUIPMENT BONDING CONDUCTOR
TER	TELECOMMUNICATIONS EQUIPMENT ROOM
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
TR	TELECOMMUNICATIONS ROOM
WL	WIRE LADDER PATHWAY

BUSBAR LABELING/BONDING DETAIL



TELECOM PATHWAY NOTES:

1. PROVIDE MATERIAL AND EQUIPMENT IN ACCORDANCE WITH THE PROJECT DOCUMENTS AND IN CONFORMANCE WITH ALL U.L. AND NEMA STANDARDS WHICH APPLY.
2. IT IS THIS CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND TO BECOME FAMILIARIZED WITH THE EXISTING FACILITY. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER IN WRITING (FAILURE TO DO SO SHALL BE DEEMED AS ACCEPTANCE OF EXISTING CONDITIONS).
3. CONTRACTOR MUST OBSERVE THE TELECOM GROUNDING REQUIREMENTS ON THIS PROJECT.
4. ALL TELECOM CONDUIT RUNS SHALL BE GROMMETED AT BOTH ENDS WITH NYLON PULL-LINE THROUGHOUT.
5. LABEL ALL CONDUITS WITH FAR-END SPACE ROOM NAME/#.
6. ALL TELECOM CONDUIT RUNS SHALL EXTEND NO MORE THAN 100' AND CONTAIN NO MORE THAN 180-DEGREE OF BEND BETWEEN PULL BOXES.
7. TELECOM PULL BOXES ARE TO BE USED AS "STRAIGHT-THROUGH" PULLING POINTS AND SHALL NOT BE USED IN LIEU OF A 90-DEGREE CONDUIT SWEEP (I.E. PULL BOXES MUST BE INSTALLED EITHER BEFORE OR AFTER BENDS).
8. CONDUIT SLEEVING THOUGH FIRE-RATED WALLS MUST BE FIRESTOPPED TO RESTORE WALL'S ORIGINAL RATING.
9. CONDUIT SWEEPS MUST HAVE BEND RADII NO LESS THAN 6X THE O.D. OF CONDUIT. DO NOT USE "PULLING L" TYPE FITTINGS OR PULL BOXES IN LIEU OF A CONDUIT SWEEP.
10. SIZE AND INSTALL ALL CONDUITS AND PULLBOXES ACCORDING TO THE ANSI/TIA-569: COMMERCIAL BUILDING STANDARD FOR TELECOMMUNICATIONS INFRASTRUCTURE PATHWAYS AND SPACES.
11. FIRESTOP INSIDE OF FIRE-RATED TELECOM SLEEVES AFTER CABLE INSTALLATION.
12. SLEEVING NOTE:

- THE ELECTRICAL CONTRACTOR SHALL SUPPLY ALL NECESSARY SLEEVES REQUIRED FOR ALL DEVICE LOCATIONS AND, AS REQUIRED, TO TRAVERSE THE BUILDING(S) WITH ANY/ALL HORIZONTAL AND BACKBONE TELECOM, AV, OR SECURITY CABLING.
- SLEEVES SHALL BE LOCATED SO AS TO PROVIDE A READY PATHWAY FROM EACH DEVICE AND/OR EQUIPMENT LOCATION TO THE MAIN CABLE TRAY PATHWAY OR TO ACCESSIBLE AREA ABOVE FINISHED CEILING IN NEAREST CORRIDOR.
- ALL PATHWAYS SHALL BE CREATED BETWEEN THE CORRIDOR OR OTHER MAJOR PATHWAY AND THE DESTINATION TERMINATION POINT, E.G. PATCH PANEL IN RACK AT A RATE OF (1) 4"C PER 80 CABLES UON.
- PROVIDE PENETRATIONS DOWN MAJOR PATHWAYS THROUGH FIRE/SMOKE BARRIER (REFER ARCHITECTURAL DRAWINGS FOR RATED WALL LOCATIONS/RATING) AT A RATE OF (1) 4"C. PER 80 CABLES, UON.
- ALL CONTRACTORS SHALL MAINTAIN ALL SMOKE BARRIER AND FIRE WALL RATINGS FOR ALL PENETRATIONS.
- MINIMUM SLEEVE SHALL BE 1-1/4".

GENERAL NOTES

A. ACCESS CONTROL DETAILS ARE OF A TYPICAL SYSTEM. REFER TO MANUFACTURER FOR COMPLETE INSTALLATION INSTRUCTIONS.

B. ALL ACCESS CONTROL CONDUITS SHALL BE 3/4" (MINIMUM) UNLESS OTHERWISE NOTED.

C. ALL CONDUIT AND JUNCTION BOXES SHALL BE BY THE E.C. UNLESS OTHERWISE NOTED.

D. DETAILS ARE CONCEPTUAL. VERIFY EXACT LOCATIONS OF DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN.

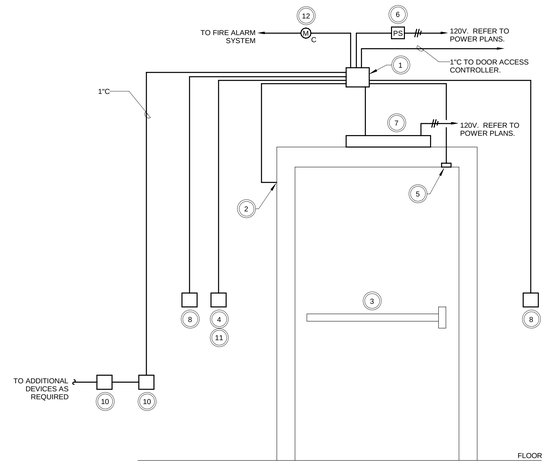
E. ACCESS CONTROL DEVICES, ASSOCIATED EQUIPMENT, AND CABLING SHALL BE FURNISHED AND INSTALLED BY THE SECURITY SYSTEM VENDOR.

F. THE FIRE ALARM ADDRESSABLE MODULE SHALL BE CAPABLE OF RELEASING SECURED DOORS UPON ACTIVATION OF THE FIRE ALARM SYSTEM. COORDINATE WITH THE OWNER AND ARCHITECT ON WHICH DOORS SHALL RELEASE.

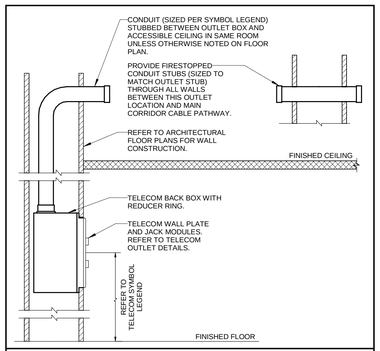
G. DOOR DETAILS SHOW GENERAL CONNNECTIONS FOR ALL TYPES OF DEVICES THAT MAY BE REQUIRED. REFER TO THE HARDWARE SCHEDULE SPECIFICATION FOR SPECIFIC DEVICES THAT ARE REQUIRED AT EACH DOOR.

SECURITY DOOR CODED NOTES

1. SECURITY J-BOX ABOVE ACCESSIBLE CEILING ON SECURED SIDE OF THE DOOR.
2. POWER TRANSFER DEVICE.
3. ELECTRIC LOCK OR ELECTRIC PANIC BAR.
4. CARD READER.
5. DOOR POSITION SWITCH.
6. POWER SUPPLY (120V).
7. AUTO OPERATOR (120V).
8. AUTO OPERATOR PUSHPLATE.
9. MAGNETIC LOCK.
10. REMOTE DOOR RELEASE BUTTON AND PANIC BUTTON, LOCATED AT DESKS PER ARCHITECT'S DIRECTION.
11. DOORBELL.
12. ADDRESSABLE FIRE ALARM MODULE. INTERFACE WITH ACCESS CONTROLS AS REQUIRED.



TYPICAL SECURED DOOR DETAIL
N.T.S.



▼ TYPICAL FLUSH TELECOM OUTLET

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- ○ DESIGN DEVELOPMENT
- ● CONSTRUCTION DRAWINGS

RELEASED FOR:
- ● REVIEW
- ○ BIDDING
- ○ CONSTRUCTION

CITY OF WHEELING
W.F.D. - FIRE HEADQUARTERS
168 17TH STREET, WHEELING, WV 26003
DETAILS - ELECTRICAL

REVISION

DRAWN BY:	CHECKED BY:
Author	Checker
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SHEET
E6.4