

## LIGHTING

	2x4 FIXTURE ASSOCIATED CONTROL DEVICE FIXTURE TYPE (SEE LIGHT FIXTURE SCHEDULE)
	1x4 FIXTURE
	2x2 FIXTURE
	FIXTURE WIRED TO UNSWITCHED NORMAL CIRCUIT
	FIXTURE WIRED TO UNSWITCHED EMERGENCY CIRCUIT
	FIXTURE WIRED TO SWITCHED EMERGENCY CIRCUIT
	DOWN LIGHT
	INDUSTRIAL STRIP
	WALL MOUNTED FIXTURES
	TRACK LIGHTING
	POLE MOUNTED SITE LIGHTING FIXTURE FIXTURE TYPE (SEE LIGHT FIXTURE SCHEDULE)
	FLOOD LIGHT
	WALL WASH LIGHT FIXTURE
	EXIT SIGN, CEILING MOUNTED ARROW INDICATES EGRESS DIRECTION SHADING INDICATES SIGN FACE
	EXIT SIGN, WALL MOUNTED SHADING INDICATES SIGN FACE
	DUAL HEAD EMERGENCY LIGHT BATTERY PACK TD - TIME DELAY RESET
	REMOTE EMERGENCY LIGHTING HEAD
	WALL PACK
	S3 3-WAY TOGGLE SWITCH
	Sa SINGLE POLE TOGGLE SWITCH INDICATES CONTROLLED FIXTURE
	S4 4-WAY TOGGLE SWITCH
	SII DUAL LEVEL SWITCHING
	SD 0-10V DIMMER SWITCH COMPATIBLE WITH LED AS REQUIRED.
	SL LOW VOLTAGE SWITCH CONNECTED TO LIGHTING CONTROL SYSTEM.
	ST TIMER SWITCH, SPRING WOUND
	SDT SINGLE POLE DOUBLE THROW TOGGLE SWITCH, CENTER POSITION OFF
	SWP WEATHER PROOF
	SXP EXPLOSION PROOF
	SVD VACANCY SENSOR W/ INTEGRAL 0-10 DIMMER - MANUAL ON/AUTOMATIC OFF OPERATION
	UNSWITCHED CONTINUATION OF BRANCH CIRCUIT
	HOME RUN
	OCCUPANCY SENSOR a. INDICATES CONTROLLED FIXTURE INDICATES AIMING DIRECTION

## COMMUNICATION & DATA SYSTEMS

	TELEPHONE SYSTEM WALL JACK W-INDICATES WALL MOUNTED AT 48" AFF P-INDICATES PAYPHONE (2)-INDICATES 2 OUTLETS, SINGLE BOX
	DATA SYSTEM OUTLET
	COMBINATION VOICE/DATA SYSTEM OUTLET
	UNDERFLOOR TELEPHONE SYSTEM OUTLET
	UNDERFLOOR DATA SYSTEM OUTLET
	UNDERFLOOR VOICE & DATA OUTLET
	CATV CLOSED CIRCUIT TELEVISION OUTLET, MOUNT 18" AFF UNLESS OTHERWISE NOTED
	CCTV CABLE TELEVISION SYSTEM OUTLET, MOUNT 18" AFF UNLESS OTHERWISE NOTED
	PA PAGING SYSTEM CONTROL PANEL AND PAGING AMPLIFIER
	PAGING SYSTEM SPEAKER, CEILING MOUNTED
	PAGING SYSTEM SPEAKER, WALL MOUNT AT 7'-6" 1. FLUSH, 2. SURFACE, 3. HORN, 4. DUAL HORN
	VOLUME CONTROL
	HC INTERCOM SYSTEM HAND KEY
	CS CLOCK SPEAKER
	HS INTERCOM SYSTEM HAND SET
	CH WALL MOUNTED CLOCK
	CD CEILING MOUNTED DATA SYSTEM OUTLET
	CDT CEILING MOUNTED TELE/DATA SYSTEM OUTLET

## POWER

	NON-FUSED SAFETY SWITCH AMPERE RATING
	NEMA ENCLOSURE RATING
	FUSED SAFETY SWITCH, TOP NUMBER INDICATES SWITCH AMPERE RATING, LOWER NUMBER INDICATES FUSE RATING
	NEMA ENCLOSURE
	MAGNETIC MOTOR STARTER, FVNR UNLESS INDICATED OTHERWISE
	NEMA ENCLOSURE RATING
	NEMA SIZE (TYPICAL)
	COMBINATION CIRCUIT BREAKER/MAGNETIC MOTOR STARTER FIRST NUMBER INDICATES CIRCUIT BREAKER AMPERE RATING SECOND NUMBER INDICATES NEMA STARTER SIZE
	COMBINATION FUSED DISCONNECT/MAGNETIC MOTOR STARTER NUMBERS INDICATE DISCONNECT AMPERE RATING/FUSE RATING/NEMA STARTER SIZE
	NON-FUSED DISCONNECT/MAGNETIC MOTOR STARTER FIRST NUMBER INDICATES CIRCUIT BREAKER AMPERE RATING SECOND NUMBER INDICATES NEMA STARTER SIZE
	M MANUAL MOTOR STARTER, TOGGLE OPERATED, 1,2 OR 3 POLE AS REQUIRED, OVERLOAD PROTECTION
	M MANUAL MOTOR SWITCH, TOGGLE OPERATED, SINGLE PHASE, 1 OR 2 POLE AS REQUIRED (NO OVERLOAD PROTECTION)
	CB 100A ENCLOSED CIRCUIT BREAKER AMPERE RATING
	1/2 ELECTRIC MOTOR, NUMBER INDICATES HORSEPOWER RATING
	5 EXPLOSION PROOF MOTOR
	VAV VARIABLE AIR VOLUME CONTROL ACTUATORS
	HS H/O/A - HAND/OFF/AUTO LOCAL SELECTOR SWITCH
	EMO EMERGENCY OFF BREAK GLASS STATION
	J JUNCTION BOX
	T TRANSFORMER
	P POWER POLE
	CONDUIT TURNING UP
	CONDUIT TURNING DOWN
	EY CONDUIT SEAL
	E DUPLEX RECEPTACLE, NEMA 5-20R, INSTALLED ON EMERGENCY CIRCUIT (TYPICAL)
	GFI DUPLEX RECEPTACLE, NEMA 5-20R
	HOSPITAL GRADE DUPLEX RECEPTACLE, NEMA 5-20R
	HOSPITAL GRADE GFCI DUPLEX RECEPTACLE, NEMA 5-20R
	HOSPITAL GRADE ISOLATED GROUND DUPLEX RECEPTACLE, NEMA 5-20R
	S SINGLE RECEPTACLE, NEMA 5-20R
	SC SINGLE CEILING RECEPTACLE, NEMA 5-20R UNO
	DC DUPLEX CEILING RECEPTACLE, NEMA 5-20R UNO
	DD DOUBLE DUPLEX (QUADRUPLX) RECEPTACLE, NEMA 5-20R
	HOSPITAL GRADE DOUBLE DUPLEX RECEPTACLE NEMA 5-20R
	SS SWITCHED RECEPTACLE
	FLOOR OUTLET, DUPLEX RECEPTACLE, NEMA 5-20R
	PR POWER RECEPTACLE, 480 VOLT NEMA CONFIGURATION AS NOTED.
	PR POWER RECEPTACLE, 240 VOLT NEMA CONFIGURATION AS NOTED.
	PB PANELBOARD, NORMAL POWER
	PB PANELBOARD, EMERGENCY POWER
	MO MULTI OUTLET ASSEMBLY
	CP CONTROL PANEL
	PPA-XX (PAR) BRANCH INDICATES PARTIAL CIRCUIT CIRCUIT NUMBER INDICATES PANEL NAME
	XXX EQUIPMENT TAG
	HOME RUN TO INDICATED PANEL

## GROUNDING

	GRD ROD
	EXOTHERMIC WELD CONNECTION
	BOLTED CONNECTION
	BARE COPPER CONDUCTOR RUN EXPOSED
	BARE COPPER CONDUCTOR EMBEDDED IN CONCRETE OR BURIED

## FIRE ALARM

	FIRE ALARM CONTROL PANEL
	FIRE ALARM ANNUNCIATOR
	FIRE ALARM MASTER BOX
	FIRE ALARM MANUAL PULL STATION
	FIRE ALARM SPEAKER/STROBE UNIT
	FIRE ALARM AUDIBLE/VISIBLE NOTIFICATION APPLIANCE (GENERAL EVACUATION)
	FIRE ALARM AUDIBLE/VISIBLE NOTIFICATION APPLIANCE CLEAN ROOM NOTIFICATION (LOCAL)
	FIRE ALARM VISIBLE ONLY NOTIFICATION APPLIANCE CANDELA INTENSITY-15/75 UNLESS OTHERWISE NOTED
	PHOTOELECTRIC SMOKE DETECTOR, CEILING MOUNTED INDICATES AUXILIARY CONTACT.
	FIXED TEMPERATURE HEAT DETECTOR, CEILING MOUNTED.
	INDICATES EQUIPMENT INTERLOCKED WITH THE DETECTOR CLEAN ROOM SMOKE DETECTOR
	INDICATES EQUIPMENT INTERLOCKED WITH THE SMOKE DETECTOR
	COMBINATION RATE-OF-RISE/FIXED TEMPERATURE HEAT DETECTOR, CEILING MOUNTED
	ELECTRIC BELL
	DUCT SMOKE DETECTOR, PHOTOELECTRIC WITH AUXILIARY CONTACT.
	SPRINKLER SYSTEM FLOW SWITCH
	SPRINKLER SYSTEM TAMPER SWITCH
	FIRE ALARM SYSTEM MAGNETIC DOOR HOLDER
	INTERLOCK RELAY
	SMOKE DAMPER
	REMOTE ALARM INDICATOR
	REMOTE TESTING STATION
	KNOX BOX

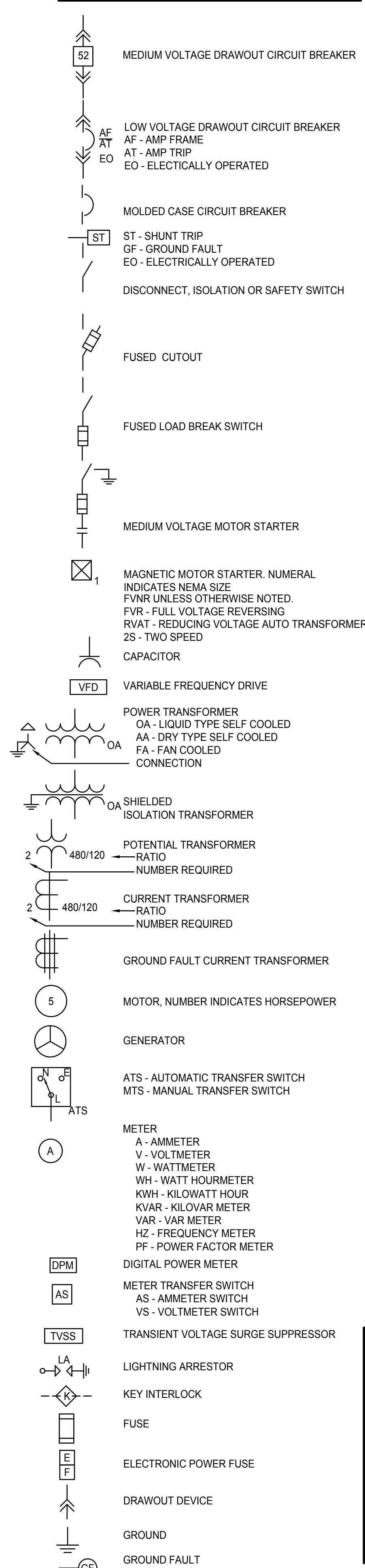
## SECURITY SYSTEMS

	DOOR CONTACT
	CARD READER
	KEY PAD
	CLOSED CIRCUIT TELEVISION CAMERA
	ELECTRIC STRIKE
	MAG LOCK
	TIME CLOCK

## ABBREVIATIONS

A AMP	AMPERE	LA	LIGHTNING ARRESTER
AFF	ABOVE FINISHED FLOOR	LTG	LIGHTING
AFG	ABOVE FINISHED GRADE	MC	METAL CLAD
AHJ	AUTHORITY HAVING JURISDICTION	MCB	MAIN CIRCUIT BREAKER
AIC	AMPERE INTERRUPTING CAPACITY	MFR	MANUFACTURER
AWG	AMERICAN WIRE GAUGE	MI	MINERAL INSULATED
BFG	BELOW FINISHED GRADE	MLO	MAIN LUG ONLY
BOS	BOTTOM OF STEEL	MTD	MOUNTED
C	CONDUIT, CONDUCTOR	MV	MEDIUM VOLTAGE
CATV	CABLE TELEVISION	NC	NORMALLY CLOSED
CB	CIRCUIT BREAKER	NEC	NATIONAL ELECTRICAL CODE
CCTV	CLOSED CIRCUIT TELEVISION	NEG	NEGATIVE
CPT	CONTROL POWER TRANSFORMER	NEUT	NEUTRAL
CT	CURRENT TRANSFORMER	NIC	NOT IN CONTRACT
CU	COPPER	NO	NORMALLY OPEN
DACT	DIGITAL ALARM COMMUNICATOR TRANSMITTER	NTS	NOT TO SCALE
DB	DIRECT BURIED	PF	POWER FACTOR
DISC	DISCONNECT	PH	PHASE
DN	DOWN	PVC	POLYVINYL CHLORIDE
EMT	ELECTRICAL METALLIC TUBING	RGS	RIGID STEEL CONDUIT
EWC	ELECTRIC WATER COOLER	RSC	RIGID STEEL CONDUIT
FAA	FIRE ALARM ANNUNCIATOR	RTD	RESISTANCE TEMPERATURE DETECTOR
FACP	FIRE ALARM CONTROL PANEL	SN	SOLID NEUTRAL
FBO	FURNISHED BY OTHERS	STP	SHIELDED TWISTED PAIR
FU	FUSE	STT	SHIELDED TWISTED TRIPLET
FWE	FURNISHED WITH EQUIPMENT	SWBD	SWITCHBOARD
GEN	GENERATOR	SWGR	SWITCHGEAR
GFCI	GROUND FAULT CIRCUIT BREAKER	TOS	TOP OF STEEL
GND	GROUND	TP	TAMPER PROOF
HP	HORSEPOWER	TRANSF	TRANSFORMER
HTR	HEATER	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
IG	ISOLATED GROUND	UNO	UNLESS NOTED OTHERWISE
IMC	INTERMEDIATE METAL CONDUIT	V	VOLT
K	KILO	VA	VOLT-AMPERE
KMIL	THOUSAND CIRCULAR MILS	VAR	VOLT-AMPERE REACTIVE
KV	KILOVOLT	WM	WATT METER
KVA	KILOVOLT-AMPERE	WP	WEATHER PROOF
KVAR	KILOVOLT-AMPERE REACTIVE	XFMR	TRANSFORMER
KW	KILOWATT	XP	EXPLOSION PROOF
KWH	KILOWATT-HOUR		

## ONE LINE DIAGRAM



## GENERAL NOTES:

- ALL WORK SHALL BE INSTALLED IN A NEAT AND WORKMAN LIKE MANNER, RECTILINEAR TO BUILDING STRUCTURE, AND IN ACCORDANCE WITH ALL APPLICABLE CODES, INCLUDING, BUT NOT LIMITED TO NFPA 70, NFPA 90A, NFPA 99, NFPA 101, AND THE AUTHORITY HAVING JURISDICTION.
- EXACT LOCATION OF MECHANICAL EQUIPMENT THAT REQUIRES ELECTRICAL CONNECTION IS SHOWN ON THE MECHANICAL PLANS. ALL MOTOR SAFETY SWITCHES, DISCONNECTS AND MOTOR STARTERS ARE PROVIDED BY DIVISION 26 UNLESS NOTED AS FURNISHED WITH EQUIPMENT (FWE).
- CONTRACTOR SHALL REVIEW ALL TRADES CONTRACT DOCUMENTS, AND FIELD VERIFY TO DETERMINE SPECIFIC MOUNTING LOCATIONS FOR ELECTRICAL EQUIPMENT AND CONDUITS.
- COORDINATE ARRANGEMENT, MOUNTING, AND SUPPORT OF ELECTRICAL CONDUIT AND EQUIPMENT TO PROVIDE FOR EASE OF DISCONNECTING THE EQUIPMENT WITH MINIMUM INTERFERENCE TO OTHER INSTALLATION, TO ALLOW RIGHT OF WAY FOR PIPING INSTALLED AT A REQUIRED SLOPE, AND SO CONNECTING RACEWAYS SHALL BE CLEAR OF OBSTRUCTIONS AND OF THE WORKING AND ACCESS SPACE OF OTHER EQUIPMENT.
- UNLESS OTHERWISE NOTED CONVENIENCE RECEPTACLES SHALL BE MOUNTED 18-INCHES AFF, LIGHTING TOGGLE SWITCHES 48-INCHES AFF, DATA SYSTEM OUTLETS 18-INCHES AFF, FIRE ALARM NOTIFICATION DEVICES 80-INCHES AFF OR 6-INCHES BELOW CEILING, WHICHEVER IS LOWER, AND FIRE ALARM MANUAL PULL STATIONS 48-INCHES TO TOP OF DEVICE.
- ALL PENETRATIONS THROUGH FLOORS, RATED WALLS AND PARTITIONS SHALL BE SEALED WITH UL APPROVED FIRE SEALANT MATERIAL TO MAINTAIN THE RATING OF SEPARATION.
- DEVICES SHALL NOT BE INSTALLED BACK-TO-BACK IN ADJACENT ROOMS. ADJUST LOCATIONS AS NECESSARY TO AVOID THIS CONDITION.
- ALL ENCLOSURES, CONDUIT BODIES AND THEIR COVERS CONTAINING FIRE ALARM SYSTEM CONDUCTORS SHALL BE PAINTED RED.
- AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITH EVERY FEEDER AND BRANCH CIRCUIT.
- UNLESS OTHERWISE NOTED WIRING SHALL BE #12 AWG CONDUCTORS AND #12 GND. HOME RUNS FED FROM 20A-1P CIRCUITS IN EXCESS OF 100 FEET SHALL BE #10 AWG. RUN A SEPARATE NEUTRAL WIRE FOR EACH DEDICATED BRANCH CIRCUIT SHOWN ON THE PLANS.
- FLEXIBLE CONNECTIONS TO MOTORS SHALL BE LIQUID TIGHT FLEXIBLE METAL CONDUIT, UNLESS OTHERWISE NOTED.
- LIGHTING TOGGLE SWITCHES SHALL BE COMMERCIAL SPECIFICATION GRADE 120/277 VOLT, SIDE WIRED AND PROVIDED WITH GROUNDING SCREW. COORDINATE COLOR WITH ARCHITECT.
- CONVENIENCE RECEPTACLES SHALL BE COMMERCIAL SPECIFICATION GRADE GROUNDING TYPE NEMA 5-20R, SIDE WIRED. COORDINATE COLOR WITH ARCHITECT.
- PROVIDE WALL PLATES FOR ALL WIRING DEVICES, COLORED SMOOTH TYPE THERMOPLASTIC IN FINISHED AREAS AND GALVANIZED IN UNFINISHED AREAS.
- ALL WIRING SHALL BE 600V, COPPER WITH THHN/THWN INSULATION IN METAL RACEWAY OR TYPE MC CABLE.
- COORDINATE FINAL LOCATION OF FIXTURE AND DEVICES WITH ARCHITECTURAL ELEVATIONS.
- COORDINATE W/ CONTROLS CONTRACTOR TO PROVIDE POWER FOR ALL MISCELLANEOUS CONTROL OPERATORS AND PANELS.
- PROVIDE 3/8" NYLON PULL STRING IN ALL EMPTY RACEWAYS.
- ALL DEVICES SHALL BE LABELED WITH CIRCUIT NUMBER.

## LINE TYPES

	EXISTING
	NEW
	DEMOLITION

## GENERAL NOTE

- ALL GENERAL NOTES, SYMBOL LISTS, AND DETAILS ARE TO BE CONSIDERED AS APPLICABLE TO ALL ELECTRICAL DRAWINGS FOR THIS PROJECT. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT INDICATE THEIR INCORPORATION IN THE DESIGN.
- ALL DEVICES, FIXTURES, ETC SHALL BE NEW UNLESS DESIGNATED WITH THE FOLLOWING TAGS:  
E = EXISTING TO REMAIN  
ER = EXISTING DEVICE THAT HAS BEEN RELOCATED  
R = EXISTING DEVICE TO BE REMOVED  
RR = REMOVE EXISTING DEVICE AND RELOCATE TO NEW LOCATION
- THESE DRAWINGS ARE, IN GENERAL, MADE TO SCALE BUT ALL MEASUREMENTS SHALL BE TAKEN FROM FIGURED DIMENSIONS AND NOT BY SCALING.

## GENERAL DEMOLITION NOTES:

- WIRING FOR ALL EXISTING BRANCH CIRCUIT DEVICES TO BE DEMOLISHED AND NOT REUSED SHALL BE REMOVED BACK TO THE PANELBOARD. THE ASSOCIATED CIRCUIT BREAKER SHALL BE TURNED OFF AND MARKED AS SPARE IN THE PANELBOARD DIRECTORY. DO NOT ABANDON BRANCH CIRCUIT WIRING ABOVE CEILINGS OR IN WIREWAYS.
- ALL EXPOSED RACEWAYS AND CABLES IN FINISHED SPACES, NO LONGER IN USE, SHALL BE REMOVED.
- MAINTAIN, OR RESTORE IF INTERRUPTED BY REMOVALS OR IN PATH OF NEW CONSTRUCTION, ALL CONDUITS, BRANCH CIRCUITS, AND FEEDERS PASSING THROUGH AND SERVICE UNDISTURBED AREAS (SHOWN OR NOT SHOWN.)
- ALL EXISTING CONDUITS STUBBED THROUGH FLOORS OR ROOF SERVING ITEMS TO BE REMOVED (SHOWN OR NOT SHOWN) AND NOT REQUIRED TO BE REUSED SHALL BE CUT OFF FLUSH WITH SLAB OR ROOF DECK AND SEALED.
- IN ANY AREA REQUIRING THE PERFORMANCE OF ANY TRADES WORK, ALL ELECTRICAL ITEMS WITHIN PATH OF WORK SHALL BE CAREFULLY REMOVED AND STORED. ITEMS SHALL BE REINSTALLED AND RECONNECTED AS REQUIRED TO RESTORE SYSTEM COMPONENT, IN ACCORDANCE WITH PLANS, AND/OR AS DIRECTED AFTER COMPLETION OF OTHER TRADES WORK IN THAT AREA.
- ALL EXISTING FIXTURES AND ELECTRICAL DEVICES TO BE REMOVED AND NOT RELOCATED SHALL BE TURNED OVER TO THE OWNER. IF THE OWNER DECIDES THEY DO NOT WISH TO KEEP REMOVED ITEM, IT IS THE RESPONSIBILITY OF THE EC TO REMOVE FROM SITE.

NO.	DATE	DESCRIPTION
0	02.13.18	ISSUED FOR CONSTRUCTION

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02.13.18

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**BANGOR SAVINGS BANK -**  
RENOVATIONS TO 280 FORE  
STREET  
PORTLAND, MAINE

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**ELECTRICAL LEGEND  
AND GENERAL NOTES**

E-001