

LIGHTING

- 2x4 FLUORESCENT FIXTURE
TYPE AS SCHEDULED
ASSOCIATED CONTROL DEVICE
- 1x4 FLUORESCENT FIXTURE
- 2x2 FLUORESCENT FIXTURE
- FIXTURE WIRED TO UNSWITCHED EMERGENCY CIRCUIT
- FIXTURE WIRED TO UNSWITCHED NORMAL CIRCUIT
- FIXTURE WIRED TO SWITCHED EMERGENCY CIRCUIT
- DOWN LIGHT
- TRACK LIGHTING
- FLUORESCENT STRIP
- WALL MOUNTED FIXTURES
- 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
T - TIME DELAY RESET
- REMOTE EMERGENCY LIGHTING HEAD
- POLE MOUNTED SITE LIGHTING FIXTURE
TYPE AS SCHEDULED
- BOLLARD TYPE SITE LIGHTING FIXTURE
- FLOOD LIGHT
- WALL PACK
- SINGLE POLE TOGGLE SWITCH
INDICATES CONTROLLED FIXTURE
- 3-WAY TOGGLE SWITCH
- 4-WAY TOGGLE SWITCH
- DUAL LEVEL SWITCHING
- DIMMER SWITCH, INCANDESCENT OR FLUORESCENT AS REQUIRED.
- TOGGLE SWITCH WITH PILOT LIGHT
- TIMER SWITCH, SPRING WOUND
- SINGLE POLE DOUBLE THROW TOGGLE SWITCH, CENTER POSITION OFF
- WEATHER PROOF
- EXPLOSION PROOF
- PASSIVE INFRARED WALL SWITCH.
- KEYED SWITCH
- TIME CLOCK
- LIGHTING CONTACTOR
- PHOTOELECTRIC CONTROL
- OCCUPANCY SENSOR CONTROL UNIT
- UNSWITCHED CONTINUATION OF BRANCH CIRCUIT
- HOME RUN
- OCCUPANCY SENSOR
1. NORMAL ANGLE
2. WIDE ANGLE
3. 360° COVERAGE
4. AMBIENT LIGHT SENSOR
- OCCUPANCY SENSOR RELAY

POWER

- NON-FUSED SAFETY SWITCH
NEMA ENCLOSURE RATING
AMPERE RATING
- FUSED SAFETY SWITCH, TOP NUMBER INDICATES SWITCH AMPERE RATING, LOWER NUMBER INDICATES FUSE RATING
NEMA ENCLOSURE RATING
- MAGNETIC MOTOR STARTER, FVNR UNLESS INDICATED OTHERWISE
NEMA ENCLOSURE RATING (TYPICAL)
NEMA SIZE
- COMBINATION CIRCUIT BREAKER/MAGNETIC MOTOR STARTER
NUMBER INDICATES CIRCUIT BREAKER AMPERE RATING/NEMA STARTER SIZE
- COMBINATION FUSED DISCONNECT/MAGNETIC MOTOR STARTER
NUMBER INDICATES DISCONNECT AMPERE RATING/FUSE RATING/NEMA STARTER SIZE
- NON-FUSED DISCONNECT/MAGNETIC MOTOR STARTER
NUMBER INDICATES DISCONNECT AMPERE RATING/NEMA STARTER SIZE
- MANUAL MOTOR STARTER, TOGGLE OPERATED, 1, 2 OR 3 POLE AS REQUIRED
- MANUAL MOTOR SWITCH, TOGGLE OPERATED, SINGLE PHASE, 1 OR 2 POLE AS REQUIRED (NO OVERLOAD PROTECTION)
- ENCLOSED CIRCUIT BREAKER
- ELECTRIC MOTOR, NUMBER INDICATES HORSEPOWER RATING
- EXPLOSION PROOF MOTOR
- VARIABLE AIR VOLUME CONTROL ACTUATORS
- LOCAL SELECTOR SWITCH
H/O/A - HAND/OFF/AUTO
- EMERGENCY OFF STATION
- PUSH BUTTON STATION
- JUNCTION BOX
- TRANSFORMER
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN
- EY CONDUIT SEAL
- DUPLEX RECEPTACLE, NEMA 5-20R,
INSTALLED ON EMERGENCY CIRCUIT (TYPICAL)
- GFCI DUPLEX RECEPTACLE, NEMA 5-20R
- HOSPITAL GRADE DUPLEX RECEPTACLE, NEMA 5-20R
- HOSPITAL GRADE GFCI DUPLEX RECEPTACLE, NEMA 5-20R
- SINGLE RECEPTACLE, NEMA 5-20R
- DOUBLE DUPLEX RECEPTACLE, NEMA 5-20R
- HOSPITAL GRADE DOUBLE DUPLEX RECEPTACLE
NEMA 5-20R
- SWITCHED RECEPTACLE
- FLOOR OUTLET, DUPLEX RECEPTACLE, NEMA 5-20R
- POWER RECEPTACLE, 480 VOLT NEMA CONFIGURATION AS NOTED.
- POWER RECEPTACLE, 240 VOLT NEMA CONFIGURATION AS NOTED.
- PANELBOARD, NORMAL POWER
- PANELBOARD, EMERGENCY POWER
- MULTI OUTLET ASSEMBLY
- MOTORIZED DAMPER
- POWER POLE
- WALL OUTLET FOR MODULAR FURNITURE
- SINGLE PHASE SPEED CONTROLLER

NURSE CALL SYSTEM

- NURSE CALL CALL LIGHT
- PATIENT CALL BUTTON
- NURSE CALL PULL CORD
- NURSE CALL MASTER STATION

COMMUNICATION & DATA SYSTEMS

- TELEPHONE SYSTEM WALL JACK, MOUNT 18" AFF.
W-INDICATES WALL MOUNTED AT 48" AFF.
P-INDICATES PAYPHONE.
- VOICE/DATA OUTLET (EXISTING).
- DATA SYSTEM OUTLET (EXISTING)
- VOICE/DATA SYSTEM OUTLET (BOX ONLY)
- CATV TELEVISION SYSTEM OUTLET, MOUNT 84" AFF UNLESS OTHERWISE NOTED.
- PAGING SYSTEM CONTROL PANEL AND PAGING AMPLIFIER
- PAGING SYSTEM SPEAKER, CEILING MOUNTED.
- PAGING SYSTEM SPEAKER, WALL MOUNT AT 7'-6" AFF.
1. FLUSH
2. SURFACE
3. HORN
4. DUAL HORN
- VOLUME CONTROL
- CLOCK SPEAKER
- WALL MOUNTED CLOCK
- FLOOR MOUNTED VOICE & DATA OUTLET

SECURITY SYSTEMS

- DOOR CONTACT
- CARD READER
- KEY PAD
- CLOSED CIRCUIT TELEVISION CAMERA
- ELECTRIC STRIKE

FIRE ALARM

- FIRE ALARM CONTROL PANEL
- FIRE ALARM ANNUNCIATOR
- FIRE ALARM MASTER BOX
- FIRE ALARM MANUAL PULL STATION
- FIRE ALARM AUDIBLE/VISIBLE NOTIFICATION APPLIANCE (GENERAL EVACUATION)
- FIRE ALARM SPEAKER/STROBE UNIT
- FIRE ALARM AUDIBLE/VISIBLE NOTIFICATION APPLIANCE (CLEAN ROOM NOTIFICATION (LOCAL))
- FIRE ALARM VISIBLE ONLY NOTIFICATION APPLIANCE
CANDELA INTENSITY-15/75 UNLESS OTHERWISE NOTED
CEILING MOUNTED
- PHOTOELECTRIC SMOKE DETECTOR, CEILING MOUNTED
AUX-INDICATES AUXILIARY CONTACT.
- FIXED TEMPERATURE HEAT DETECTOR, CEILING MOUNTED.
- INDICATES EQUIPMENT INTERLOCKED WITH THE DETECTOR
- INDICATES EQUIPMENT INTERLOCKED WITH THE SMOKE DETECTOR
- COMBINATION RATE-OF-RISE/FIXED TEMPERATURE HEAT DETECTOR, CEILING MOUNTED
- 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

GROUNDING

- GROUND ROD
- GROUNDING PLATE
- EXOTHERMIC WELD CONNECTION
- BOLTED CONNECTION
- BARE COPPER CONDUCTOR RUN EXPOSED
- BARE COPPER CONDUCTOR EMBEDDED IN CONCRETE OR BURIED

ONE LINE DIAGRAM

- MEDIUM VOLTAGE DRAWOUT CIRCUIT BREAKER
- LOW VOLTAGE DRAWOUT CIRCUIT BREAKER
AF - AMP FRAME
AT - AMP TRIP
EO - ELECTRICALLY OPERATED
- MOLDED CASE CIRCUIT BREAKER
- ST - SHUNT TRIP
- GF - GROUND FAULT
- EO - ELECTRICALLY OPERATED
- DISCONNECT, ISOLATION OR SAFETY SWITCH
- FUSED CUTOUT
- FUSED LOAD BREAK SWITCH
- MEDIUM VOLTAGE MOTOR STARTER
- MAGNETIC MOTOR STARTER, NUMERAL INDICATES NEMA SIZE
FVR - FULL VOLTAGE REVERSING
RVAT - REDUCING VOLTAGE AUTO TRANSFORMER
2S - TWO SPEED
- CAPACITOR
- VARIABLE FREQUENCY DRIVE
- POWER TRANSFORMER
OA - LIQUID TYPE SELF COOLED
AA - DRY TYPE SELF COOLED
FA - FAN COOLED CONNECTION
- SHIELDED ISOLATION TRANSFORMER
- POTENTIAL TRANSFORMER
RATIO
NUMBER REQUIRED
- CURRENT TRANSFORMER
RATIO
NUMBER REQUIRED
- GROUND FAULT CURRENT TRANSFORMER
- MOTOR, NUMBER INDICATES HORSEPOWER
- GENERATOR
- AUTOMATIC TRANSFER SWITCH
- METER
A - AMMETER
V - VOLTMETER
W - WATTMETER
WH - WATT HOURMETER
KWH - KILOWATT HOUR
VAR - VAR METER
HZ - FREQUENCY METER
PF - POWER FACTOR METER
- DIGITAL POWER METER
- METER TRANSFER SWITCH
AS - AMMETER SWITCH
VS - VOLTMETER SWITCH
- TRANSIENT VOLTAGE SURGE SUPPRESSOR
- LIGHTING ARRESTER
- KEY INTERLOCK
- FUSE
- ELECTRONIC POWER FUSE
- DRAWOUT DEVICE
- GROUND

ABBREVIATIONS

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

GENERAL NOTES:

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH NFPA-70, NATIONAL ELECTRICAL CODE (NEC), 1999 EDITION.
2. ALL MOTOR SAFETY SWITCHES, DISCONNECTS AND MOTOR STARTERS ARE PROVIDED BY DIVISION 16000 UNLESS NOTED AS FURNISHED WITH EQUIPMENT (FWE).
3. UNLESS OTHERWISE NOTED, CONVENIENCE RECEPTACLES SHALL BE MOUNTED 18" AFF, LIGHTING TOGGLE SWITCHES 48" AFF, DATA SYSTEM OUTLET BOXES 18" AFF. FIRE ALARM NOTIFICATION DEVICES 80" AFF OR 6" BELOW CEILING, WHICHEVER IS LOWER AND FIRE ALARM MANUAL PULL STATIONS 48" AFF TO TOP OF THE DEVICE.
4. ALL PENETRATIONS THROUGH FLOORS, RATED WALLS AND PARTITIONS SHALL BE SEALED WITH UL APPROVED FIRE SEALANT MATERIALS TO MAINTAIN THE RATING OF THE SEPARATION. REFER TO SPECIFICATION 07841 FOR MATERIALS.
5. ALL ENCLOSURES, CONDUIT BODIES AND THEIR COVERS CONTAINING FIRE ALARM SYSTEM CONDUCTORS SHALL BE PAINTED RED.
6. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITH EVERY FEEDER AND BRANCH CIRCUIT.
7. UNLESS OTHERWISE NOTED, WIRING SHALL BE 2 #12 AWG CONDUCTORS & #12 GND. HOME RUNS FED FROM 20A-1P CIRCUITS IN EXCESS OF 100 FEET SHALL BE #10 AWG.
8. ALL WIRING SHALL BE COPPER CONDUCTORS WITH 600V TYPE INSULATION.
9. ALL EMERGENCY SYSTEM WIRING SHALL BE INSTALLED IN ACCORDANCE WITH NEC ARTICLE 700.
10. PROVIDE UPDATED TYPED PANEL SCHEDULES FOR ALL PANELS BEING MODIFIED. BREAKERS BECOMING SPARE UPON REMOVAL OF DEVICES TO BE LABELED AS "SPARE". CIRCUITS BECOMING SPARE SHALL HAVE ALL EXISTING WIRE AND CONDUIT REMOVED.
11. UNLESS OTHERWISE NOTED, ALL CONDUIT SHALL BE EMT, MINIMUM SIZE 3/4".
12. CONVENIENCE RECEPTACLES SHALL BE COMMERCIAL GRADE GROUNDING TYPE, SIDE WIRED, NEMA 5-20R. DEVICES AND COVER PLATES SHALL MATCH WALL FINISHES.
13. WALL SWITCHES SHALL BE COMMERCIAL GRADE 120/277V, 20A, SIDE WIRED. DEVICES AND COVER PLATES SHALL MATCH WALL FINISHES.
14. USM TELECOM WILL PROVIDE ALL VOICE/DATA CABLING. CONTRACTOR IS TO PROVIDE CABLE TRAY, CONDUIT AND BOXES FOR ALL VOICE/DATA OUTLET LOCATIONS. A 1" CONDUIT SHALL EXTEND FROM BOX TO CABLE TRAY. FOR FLOOR MOUNTED VOICE/DATA OUTLET LOCATIONS, CONDUIT SHALL EXTEND FROM BOX TO TRAY ON FLOOR BELOW.
15. FIRE ALARM SYSTEM IS AN ADDRESSABLE SIMPLEX SYSTEM. ALL NEW REQUIRED FIRE ALARM DEVICES AND ASSOCIATED EQUIPMENT SHALL BE COMPATIBLE WITH THE EXISTING SYSTEM.

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REV.	DESCRIPTION	DATE

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LEGEND & GENERAL NOTES

SHEET TITLE:	SCALE: NOT TO SCALE	DATE:
PROJECT MANAGER: SLB	GRAPHIC SCALE: 0" 1"	
JOB CAP/DRAWN: CTB/JAC		
A/E OF RECORD: JPP	SHEET No.	
SMRT CAD FILE: E-001-99092		
PROJECT No. 99092		E-001

GENERAL NOTE
1. 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.