

ELECTRICAL SYMBOLS

ELEC ABBV.

PANELBOARDS AND POWER CONNECTIONS

	Flush Mounted Panelboard - See Panel Schedules
	Surface Mounted Panelboard - See Panel Schedules
	Existing Surface Mounted Panelboard - See Panel Schedules
	Transformer as Noted
	Pull Box - Size as Noted
	Junction Box
	Motor Connection #1 - See Equipment Schedule
	Heavy Duty Disconnect Switch with Enclosure to Suit (Size as Indicated in Motor Schedule)
	Manual Starter (Size as Indicated in Motor Schedule)
	Magnetic Starter (Size as Indicated in Motor Schedule)
	Circuit Breaker with Enclosure
	Combination-Starters (Size as Indicated in Motor Schedule)
	Generator Kill Switch
	Miscellaneous Load

Standard Mounting Height to Center of Box (unless noted otherwise on plan) Verify Mounting Heights with All Casework Locations.

RECEPTACLE AND TELEPHONES

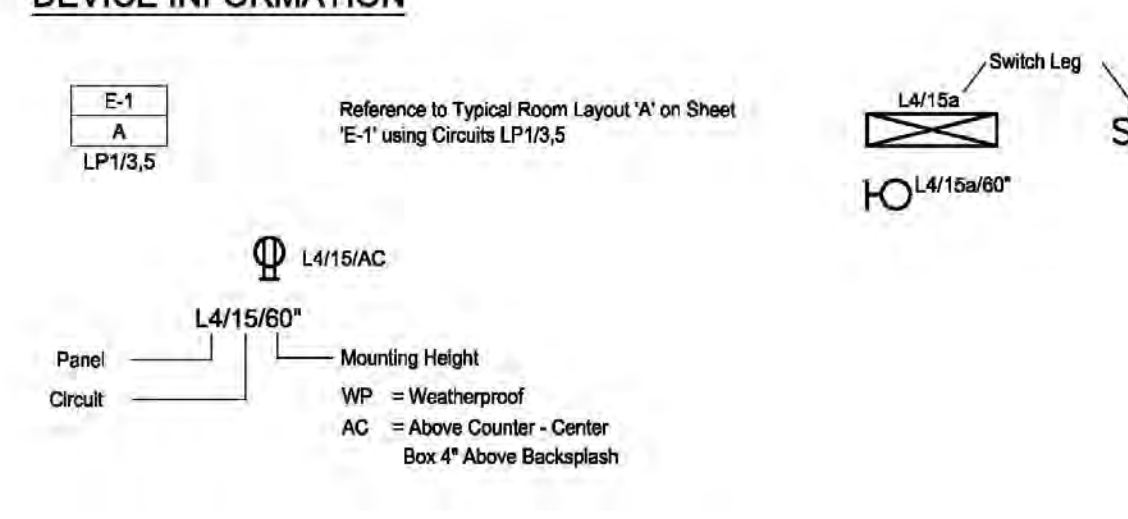
	16" Duplex Receptacle
	16" Switched Duplex Receptacle - Lower Half Shall be Switched
	16" Single Receptacle
	16" Fourplex Receptacle
	Special Receptacle
	Duplex Receptacle with Floor Box
	16" Duplex Ground Fault Interrupter Receptacle
	16" Fourplex Ground Fault Interrupter Receptacle
	16" Receptacles on Emergency Power
	Communications outlet and floor box with one four-pair drop.
	16" Telephone Outlet - Provide jack, one drop, and a 4" x 4" junction box with single gang routing, and 3/4" stub-up. W - Wall Telephone Jack, mounted 54" AFF
	16" Combination data and telephone outlet - Provide (2) jacks, (2) drops, and a 4" x 4" junction box, single gang routing, and 3/4" stub-up.
	16" Data Outlet - Provide one drop with 3/4" stub-up and 4" x 4" junction box with single gang routing.

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WIRING AND DEMOLITION

	Conduit and Conductors Concealed in Wall or Ceiling	Cross Lines Denote Quantity of #12 Conductors
	Conduit and Conductors Concealed in or Below Floor or Underground	
	Conduit and Conductors Exposed	Other Sizes of Conductors are Indicated by Note
	Home Run to Panelboard, etc. (Numbers Denote Panel and Circuit No.)	
	Conduit Turned Down	Wiring is Diagrammatic Up and Down Turns are Used Only For Changes in Floor Levels
	Conduit Turned Up	
	Conduit or Duct Stub and Cap	
	Nurse Call Raceway and/or Wiring	
	Speaker Raceway and/or Wiring	
	Public Telephone Raceway	
	Fire Detection System Raceway and/or Wiring	
	Television Raceway and/or Wiring	
	Clock and Program Raceway and/or Wiring	
	Intercom Raceway and/or Wiring	
	Remove Device	
	Existing Device to Remain	

DEVICE INFORMATION



LIGHTING AND SWITCHES

	Fixture Identification Tag - See Schedule
	Light Fixture - Ceiling Surface Mounted or Pendant
	Light Fixture - Wall Mounted
	Light Fixture - Ceiling Recessed Mounted
	Fluorescent Fixture - Recessed Mounted
	Fluorescent Fixture - Surface Mounted
	Fluorescent Fixture - Wall Mounted
	Exit Light - Ceiling Surface or Pendant Mounted
	Exit Light - Wall Mounted
	Track Light
	Undercounter/Undershelf Light
	Strip Light
	16" Night Light - Wall Fixture
	16" Night Light - Ceiling Fixture
	Post Top Luminaire with Post and Base
	Arm Mounted Luminaire with Post and Base
	Emergency Light - Battery Pack
	46" Time Switch
	46" Single Pole Switch
	46" Three-Way Switch
	46" Four-Way Switch
	46" Key Operated Switch
	46" Dimmer (800 Watt Unless Otherwise Noted)
	46" Motion Sensor - Ceiling Mounted
	46" Motion Sensor - Wall Mounted
	46" Timer Switch

Standard Mounting Height to Center of Box (unless noted otherwise on plan) Verify Mounting Heights with All Casework Locations.

FIRE ALARM SYSTEMS

	Fire Alarm Control Panel (FACP)
	Fire Alarm Annunciator Panel (FAAP)
	84" Speaker Strobe
	84" Alarm Strobe
	42" Manual Pull Station - Recessed
	Smoke Detector
	Heat Detector
	Duct Smoke Detector
	82" Magnetic Door Release
	Tamper Switch
	Flow Alarm
	Fire Alarm Key Switch
	90" Ceiling Mounted Dual Coil Speaker - Recessed
	90" Wall Mounted Dual Coil Speaker - Surface

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PAGING, INTERCOM AND NURSE CALL

	46" Call System Master Station
	46" Call System Device (See Details)
	90" Wall Mounted Call System Control Light
	54" Toilet Call System Device
	46" Staff Assist Station
	46" Staff Tracking Station
	46" Nurse Call Duty Station

Standard Mounting Height to Center of Box (unless noted otherwise on plan) Verify Mounting Heights with All Casework Locations.

MISCELLANEOUS SIGNAL SYSTEMS

	Bell
	Microphone - Floor Box
	46" Microphone - Surface Mounted
	18" Television Outlet
	Television Floor Outlet
	Television Remote Control
	Camera
	Master Clock and Program Device
	96" Clock - Wall Mounted Clock and Recessed Outlet
	Clock - Ceiling Mounted Clock and Recessed Outlet
	Clock - Wall Mounted, Battery Operated
	96" Elapsed Time Indicator
	46" Staff Assist Station
	46" Staff Tracking Station
	46" Keypad
	42" Pushbutton
	42" Handicap Push Button
	42" Card Reader (Proximity)
	Power Supply
	Door Contact
	Electric Door Strike
	Electric Hinge
	Electric Exit Device
	Electric Door Lock
	Electromagnetic Door Lock
	Master Door Intercom and Release Button
	Control Device

Standard Mounting Height to Center of Box (unless noted otherwise on plan) Verify Mounting Heights with All Casework Locations.

SCHEMATIC SYMBOLS

	Generator
	Circuit Breaker
	Primary Overcurrent Protection Device
	Fuse
	Fused Switch
	Transformer
	Panelboard
	Ground
	Utility Meter
	Transient Voltage Surge Suppressor
	Automatic Transfer Switch
	Kick Key Interlock
	Contact, Normally Open
	Contact, Normally Closed
	Contact, Coil
	Temperature Switch, Normally Open
	Solenoid
	Pilot Light, letter indicates color
	Capacitor
	Pushbutton, Normally Open
	Pushbutton, Normally Closed
	Pushbutton, Mushroom Head
	Terminal Block

A	AMPERE
AC	ALTERNATING CURRENT
AF	AMP FRAME
AFB	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AS	AMPERE INTERRUPTING CAPACITY
AL	ALUMINUM
AS	AMP SWITCH
AT	AMP TRIP
ARCH	ARCHITECT
ATS	AUTOMATIC TRANSFER SWITCH
AV	AUDIO VISUAL
BLDG	BUILDING
C	CONDUIT
CAM	CAMERA
CAT	CATALOG CATEGORY
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CCT	CIRCUIT
CCT	CIRCUIT
COL	COLUMN
CT	CURRENT TRANSFORMER
CU	COPPER
DC	DIRECT CURRENT
DISC	DISCONNECT
DIV	DIVISION
DWG	DRAWING
DT	DUST TIGHT
E	WIRED ON EMERGENCY CIRCUIT
ECC	ELECTRICAL CONTRACTOR
EMT	ELECTRIC METALLIC TUBING
EOL	END OF LINE
EWC	ELECTRIC WATER COOLER
EXST	EXISTING
F	FLASH
FA	FIRE ALARM
FBO	FURNISHED BY OTHERS
FDN	FOUNDATION
FLA	FULL LOAD AMPERES
FMC	FLEXIBLE METALLIC CONDUIT
GRD	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GNP	GROUND
HP	HORSE POWER
HV	HIGH VOLTAGE
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HZ	HERTZ (CYCLES PER SECOND)
ID	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
JB	JUNCTION BOX
JCAL	THOUSAND CIRCULAR MILS
KV	KILOVOLTS
KVA	KILOVOLT AMPERES
KVAR	KILOVOLT AMPERE REACTIVE
KW	KILOWATT
LS	LIMIT SWITCH
LTS	LIGHTING
LV	LOW VOLTAGE
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MISC	MISCELLANEOUS
MLD	MAIN LUG ONLY
MSR	MAIN SWITCHBOARD
MT	EMPTY
MTD	MOUNTED
MTG	MOUNTING
MTS	MANUAL TRANSFER SWITCH
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
#	NUMBER GAUGE
NTS	NOT TO SCALE
P	POLE
PB	PULL BOX
PH	PHASE
PNL	PANEL
PP	POWER PANEL
PAR	PAIR
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE CONDUIT
PKR	POWER
REC	RECESSED
RECP	RECEPTACLE
RT	RAINTIGHT
SEC	SECONDARY
SP	SPARE
SPL	SPLICE
SS	STAINLESS STEEL
SUSP	SUSPENDED
SW	SWITCH
SWED	SWITCHBOARD
TC	TELEPHONE CABINET
TEL	TELEPHONE
TERM	TERMINALS
TR	TAMPER RESISTANT
TYP	TYPICAL
UG	UNDERGROUND
V	VOLT
VT	VAPORTIGHT
W	WATT
WH	WATT-HOUR
WP	WEATHERPROOF
WT	WEATHERTIGHT WEIGHT
XFMR	TRANSFORMER
XP	EXPLOSION PROOF
Z	IMPEDANCE

1	PR/B	2/28/14
2	RECORD SET	9/30/16
No	REVISION	DATE

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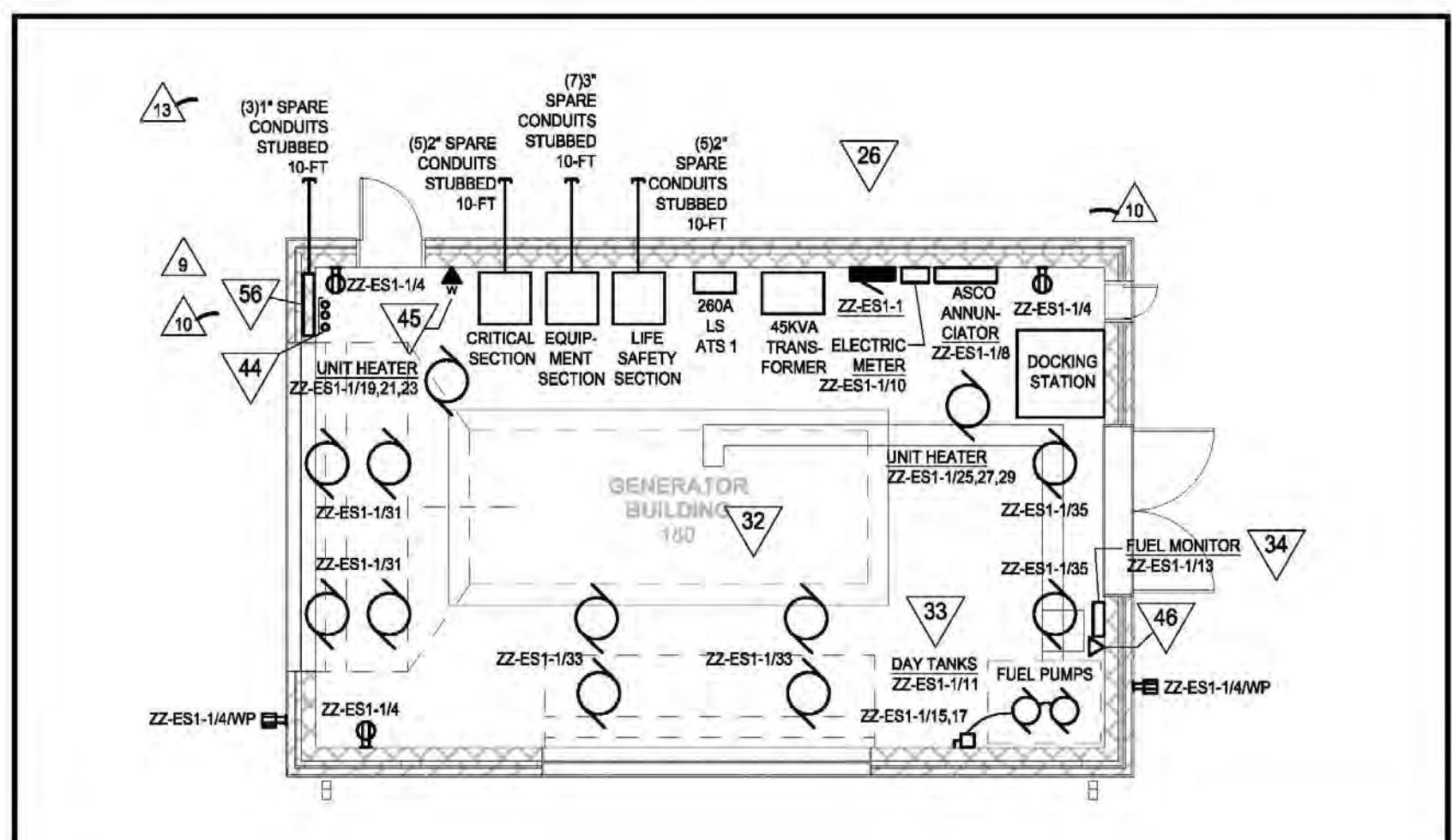
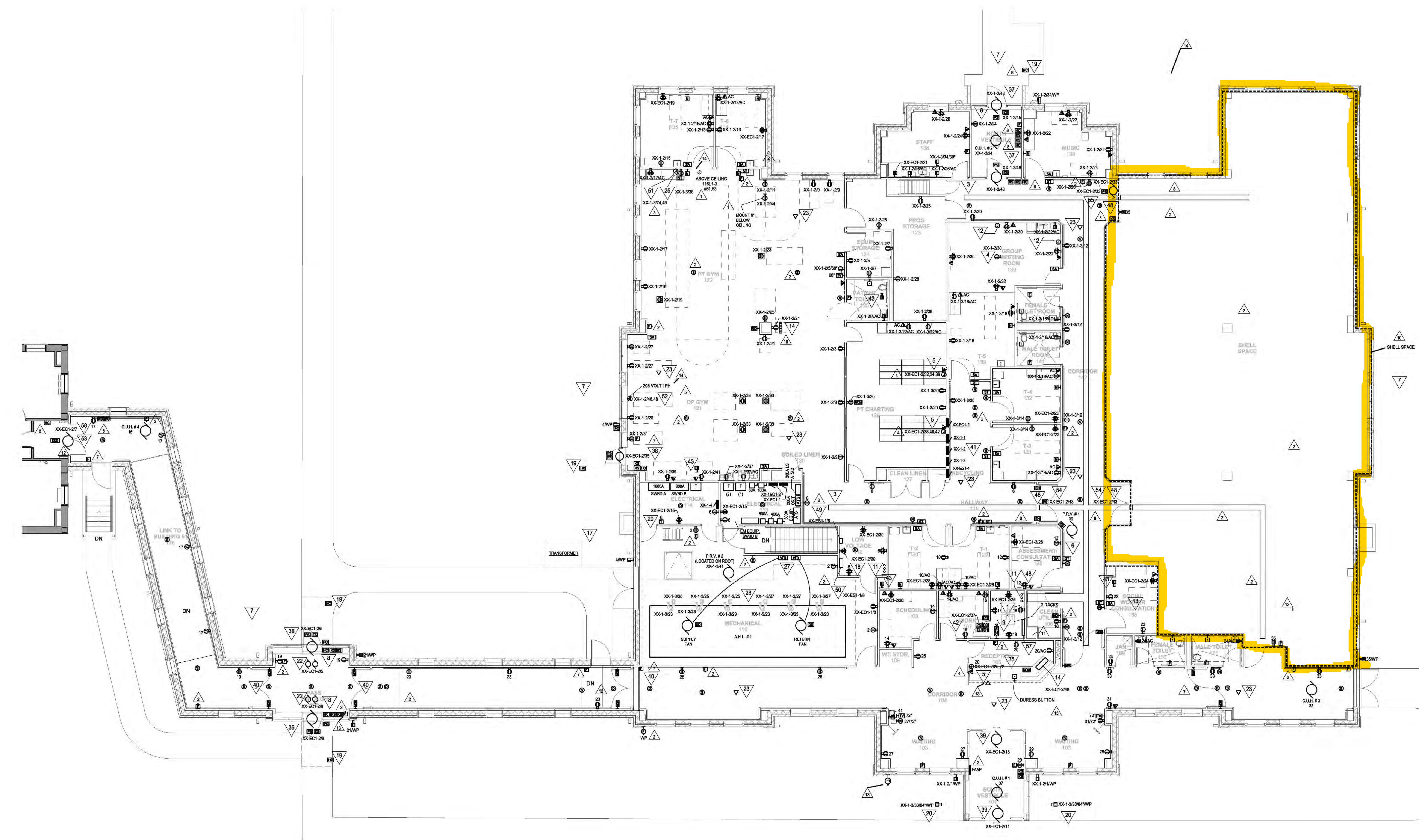
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 Brian A. Rice License No. 23913

APPROVED: SERVICE LINE DIRECTOR	DATE	APPROVED: INFECTION CONTROL NURSE	DATE
APPROVED: GEMS COORDINATOR	DATE	APPROVED: PATIENT SAFETY	DATE
APPROVED: PROJECTS SECTION MANAGER	DATE	APPROVED: CHIEF OF POLICE	DATE
APPROVED: DIRECTOR PMS	DATE	APPROVED: SAFETY MANAGER	DATE

DRAWING TITLE
ELECTRICAL SYMBOLS & ABBREVIATIONS

PROJECT TITLE	DATE
REHABILITATION CENTER PROJECT #056-332	01/03/2013
St. Cloud VA Health Care System	PROJECT NO. S1430
BUILDING NO. 116	CHECKED BY BROWN
LOCATION VA MEDICAL CENTER ST. CLOUD, MN 56303	DRAWING NO. E001





- GENERAL NOTES:**
- SOME NOTES MAY NOT APPLY TO THIS SHEET.
 - THE MINIMUM CONDUIT SIZE IS 3/4"
 - PROVIDE EMT CONDUIT. FLEXIBLE CONDUIT IS NOT ALLOWED EXCEPT FOR MOTOR AND LIGHTING WIRING.
 - PROVIDE 4-11/16" X 2-1/8" DEEP CEILING JUNCTION BOXES AND 4-11/16" X 4" DEEP WALL JUNCTION BOXES.
 - FIRE ALARM CONDUITS SHALL BE RED. LV CONDUITS SHALL BE BLUE.
 - CONNECT FIRE ALARM DEVICES TO FIRE ALARM PANEL IN BUILDING 51.
 - PROVIDE CONCRETE PADS FOR GENERATOR TRANSFORMER, SWITCHGEAR SECTIONS, AND DAY TANK.
 - PROVIDE AN AMERICAN MIDWEST POWER DOOR STOP, OR EQUAL, WITH TWO 2500A CIRCUIT BREAKERS AND A CROMPTON 07-12PA-428 PHASE MONITOR FOR 480V/277V.
 - PROVIDE A 450 GALLON A DAY TANK WITH TWO 1/2 HP PUMPS. PROVIDE CONTROL WIRING.
 - PROVIDE WIRING FOR THE LOW FUEL, SECONDARY CHAMBER AND FILL PROTECTION ALARM FOR THE BURIED TANK. CONNECT WIRES TO FUEL MONITOR.
 - PROVIDE POWER AND FIRE ALARM CONNECTIONS FOR ALL SMOKE DAMPERS. SEE MECHANICAL PLANS FOR LOCATIONS.
 - PROVIDE DYNA LOCKS, OR EQUAL, KEYSWITCHES WITH A BEST CORE AND TWO SPARE KEY BLANKS PER SWITCH.
 - PROVIDE RED CONDUIT FOR FIRE ALARM DEVICES. PROVIDE 1" EMT PAINTED ORANGE FOR FIBER OPTIC LINES.
- KEY NOTES:**
- PROVIDE A 3" COPPER GROUND BUS WITH #6 COPPER RUNNING TO THE SERVICE ENTRANCE GROUND BUS.
 - PROVIDE A 60A CONTACTOR AND KEYSWITCH TO LOCK OUT THE RANGE.
 - PROVIDE COOPER B-LINE CSA1109-12-144 CABLE TRAY.
 - CEILING MOUNTED PROJECTOR
 - PROVIDE POWER AND VOICEDATA FOR SYSTEM FURNITURE. PROVIDE TWO DATA DROPS AND TWO JACKS FOR EACH WORK STATION.
 - P.R.V. IS LOCATED ON ROOF
 - ALL CIRCUITS CONNECT TO PANEL XX-1-1 UNLESS NOTED OTHERWISE.
 - PROVIDE JUNCTION BOX AND COVER WITH 3/4" CONDUIT AND DRAWINGS TO RUN FROM DOOR ENTRY AREA TO IT 111. MOUNT JUNCTION BOX AT 54" AFF. THIS CONDUIT IS FOR A FUTURE INTERCOM.
 - CONNECT CCTV CAMERA TO RECORDER IN CLEAN UTILITY 108.
 - PROVIDE LOW VOLTAGE WIRING FROM OWNER FURNISHED ALARM CONTACT TO BAS MONITOR.
 - PROVIDE (2) 4" INTUMESCENT TYPE FIRE RATED SLEEVES IN CEILING. VERIFY LOCATION.
 - PROVIDE A 4" X 4" JUNCTION BOX, SINGLE-GANG MULDING, AND A 1" CONDUIT STUBUP FOR OVER-HEAD PROJECTOR CABLES.
 - PROVIDE A CEILING MOUNTED ANNUNCIATOR LIGHT. CONNECT TO 30-LIGHT ANNUNCIATOR PANEL IN RECEPTION 105. NOTE THAT THE SPEECH LAB AND SPEECH THERAPY LIGHTS CONNECT TO ONE CALL SWITCH.
 - PROVIDE A WALL MOUNTED ANNUNCIATOR FOR THE STAFF TRACKING AND STAFF ASSIST STATIONS.
 - NOT USED.
 - PROVIDE A 30-LAMP CONTROLLER FOR STAFF CALLS.
 - PROVIDE A RIGID STEEL CONDUIT FOR THE TRANSFORMER SECONDARY FEEDERS.
 - THE LOW VOLTAGE ROOM INCLUDES FIRE ALARM PAGING, AND NURSE CALL EQUIPMENT.
 - PROVIDE A BOLLARD FOR THE EXTERIOR HANDICAP PUSH PAD. BOLLARD SHALL BE DARK BRONZE ANODIZED ALUMINUM 8" X 4" TALL SURFACE MOUNT. W/VA ACCESS ABILITY BPS 9M PRP28 DB OR EQUAL.
 - PROVIDE A 24 HOUR TIMER FOR THE EXTERIOR RECEPTACLES. LOCATE TIME IN 114.
 - NOT USED.
 - AIR CURTAIN FAN MOTORS SHALL RUN WHEN THEIR RESPECTIVE DOOR OPERATOR OPENS THE DOOR. CONNECT MOTOR CONTROL CIRCUIT TO DOOR OPERATOR CONTACT.
 - PROVIDE AN ABOVE CEILING DATA OUTLET ON A R PIGTAIL FOR "SENSI-TRAC" EQUIPMENT.
 - MOUNT MICROWAVE RECEPTACLE IN CABINET ABOVE RANGE. SEE ARCHITECTURAL ELEVATION.
 - PROVIDE A DUPLEX RECEPTACLE FOR BUSINESS VECTOR CONTROL. VERIFY EXACT MOUNTING HEIGHT AND LOCATION WITH INSTALLER.
 - PROVIDE (2) 1-1/2" CONDUITS AND DRAWINGS FROM GENERATOR BUILDING TO REHAB BUILDING 1111 ROOM. PROVIDE (1) 1-1/2" CONDUIT AND DRAWING FROM GENERATOR BUILDING TO ELECTRICAL 113 FOR THE ATS CONDUCTORS.
 - PROVIDE VARIABLE FREQUENCY DRIVES WITH INTEGRAL DISCONNECT SWITCHES.
 - PROVIDE POWER FOR (8) AHU LIGHTS AND (8) RECEPTACLES. SEE DETAIL M0401 FOR LOCATIONS. LIGHTS, SWITCHES, AND RECEPTACLES TO BE FURNISHED BY DIV. 23.
 - PROVIDE A HOA SWITCH AND POWER FOR A GLYCOL FEEDER PUMP. MOUNT SWITCH AT 48" AFF. HARDWARE THE PUMP TO THE HOA.
 - STEAM METER AND WATER METER LOCATIONS.
 - PROVIDE POWER FOR METASYS TEMPERATURE CONTROL PANEL.
 - PROVIDE GENERATOR KILL SWITCH AND GENERATOR ANNUNCIATOR IN GENERATOR BUILDING.
 - CONNECT THE DAY TANK ALARMS TO THE GENERATOR ANNUNCIATOR PANEL.
 - OMNITECH OIL TANK MONITOR. SENSOR WIRING PROVIDED BY DIVISION 23.
 - PROVIDE DURESS BUTTON CONNECTED TO POLICE DISPATCHER.
 - PROVIDE WIRING AS REQUIRED FOR HARDWARE GROUP 80.
 - PROVIDE WIRING AS REQUIRED FOR HARDWARE GROUP E11A.
 - PROVIDE WIRING AS REQUIRED FOR HARDWARE GROUP E11.
 - PROVIDE WIRING AS REQUIRED FOR HARDWARE GROUP 13.
 - PROVIDE WIRING AS REQUIRED FOR HARDWARE GROUP 120.
 - PANELS XX-EC1-2, XX-1-1, XX-2-1, XX-3-1, AND XX-ES1-1 TO BE MOUNTED ABOVE HANDRAIL. MOUNT BOTTOM OF PANELBOARDS ABOVE 36". NOTE THAT THE TOP CIRCUIT BREAKER IS NOT TO EXCEED 7' AFF.
 - PROVIDE WIRING AS REQUIRED FOR HARDWARE GROUP 31A3.
 - PROVIDE FEDESTAL MOUNTED ROOFTOP GFCI RECEPTACLE AND WEATHER PROOF COVER. CONNECT TO CIRCUIT XX-1-114A. MOUNT TO SIDEWALL AND EXTEND 90 CENTER OF BOX IS 38" ABOVE CONCRETE DECK. SEE ARCHITECTURAL ROOF PLAN FOR LOCATIONS.
 - PROVIDE (8) 4" AND (2) 2" CONDUITS FROM INSIDE GENERATOR BUILDING TO EXTERIOR FOR FUTURE CONDUITS. STUB OUT 10' FROM BUILDING.
 - RUN A FOUR PAIR CAT 6 CABLE FROM THE GENERATOR ROOM TELEPHONE JACK TO 1111 DATA ROOM.
 - PROVIDE CAT 6 CABLE AND OUTLET FOR COMPUTER. CONNECT TO RTU FIBER PANEL.
 - PROVIDE WIRING AS REQUIRED FOR HARDWARE GROUP E11B.
 - PROVIDE (3) 4" SLEEVES WITH INTUMESCENT MATERIAL TO PROVIDE FIRE WALL RATING. MOUNT ABOVE CABLE TRAY.
 - PROVIDE POWER FOR FIRE ALARM POWER SUPPLIES AND SPEAKER AMPLIFIER.
 - PROVIDE NEW EDWARDS EST-3 PANEL WITH CENTRAL PROCESSOR UNIT LOOP CONTROLLER AND FIBER OPTIC TERMINATOR CABINET.
 - PROVIDE A 4" X 4" JUNCTION BOX WITH COVER AND 3/4" - 2#12 & 1#12 GND FEEDER FOR FUTURE TWO TROLLEY SYSTEM.
 - PROVIDE A 3/4" - 3 #12 & #12 GND FEEDER TO A NEMA 6-20 RECEPTACLE.
 - PROVIDE WIRING AS REQUIRED FOR HARDWARE GROUP 12L.
 - PROVIDE WIRING AS REQUIRED FOR HARDWARE GROUP 12H.
 - PROVIDE WIRING AS REQUIRED FOR HARDWARE GROUP 84.
 - PROVIDE A CABINET FOR THREE FIBER CONVERTERS. CONVERT THREE CAT 6 COPPER FOUR PAIR CONDUCTORS TO FIBER. PROVIDE A 12-STRAND, 62.5 MICRON FIBER OPTIC CABLE FROM THE REHAB 1111 TO THE GENERATOR BUILDING. PROVIDE 120V POWER FROM CIRCUIT ZZ-ES1-110. ONE CONVERTER IS FOR THE GENERATOR ANNUNCIATOR AND TWO CONVERTERS ARE FOR JOHNSON CONTROL SIGNALS. PROVIDE 3/4" CONDUIT TO RUN COPPER CABLES TO THE THREE DATA LOCATIONS.
 - PROVIDE THREE FIBER TO COPPER CONVERTERS. PROVIDE THREE PATCH CORDS TO CONNECT TO COPPER PATCH PANEL.
 - PROVIDE A RELAY TO RELEASE THE VERTICAL ROD LATCHES ON A GENERAL FIRE ALARM IN BUILDING 51 OR IN THE REHAB BUILDING.

1	ADDENDUM 1	8/18/13	PR/43	2/24/16
2	PR/17	3/25/14	RECORD DRAWINGS	9/30/16
3	PR/21	1/15/15		
4	PR/28	4/22/15		
5	PR/28	5/08/15		
6	PR/31	8/02/15		
7	PR/34	8/17/15		
8	PR/28	10/14/15		
9	AS/19	10/28/15		
10	AS/19	11/04/16		
11	PR/28 AMENDMENT 1			
No.	REVISION	DATE	REVISION	DATE

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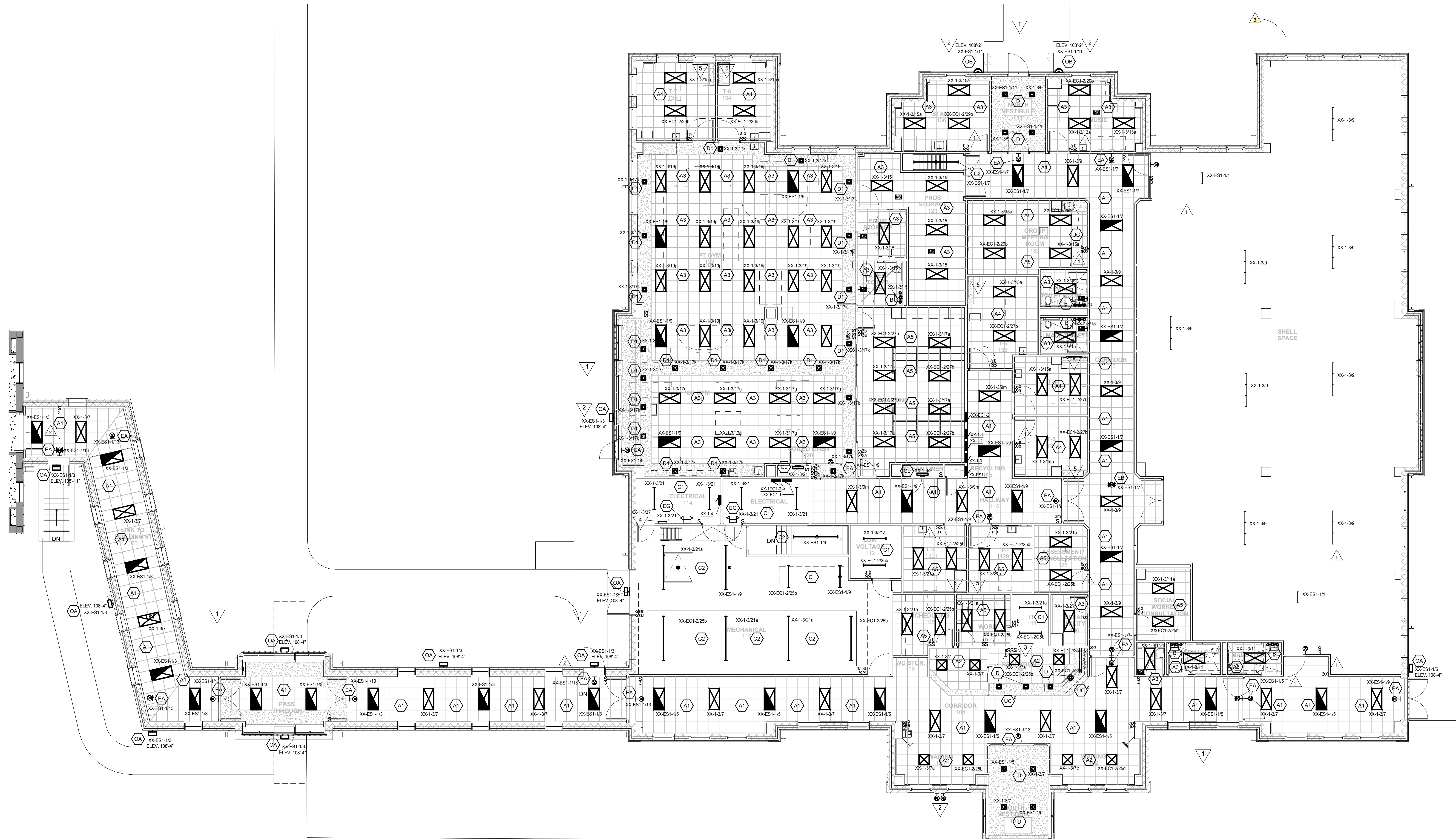
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DRAWING TITLE
POWER & SIGNAL FIRST FLOOR

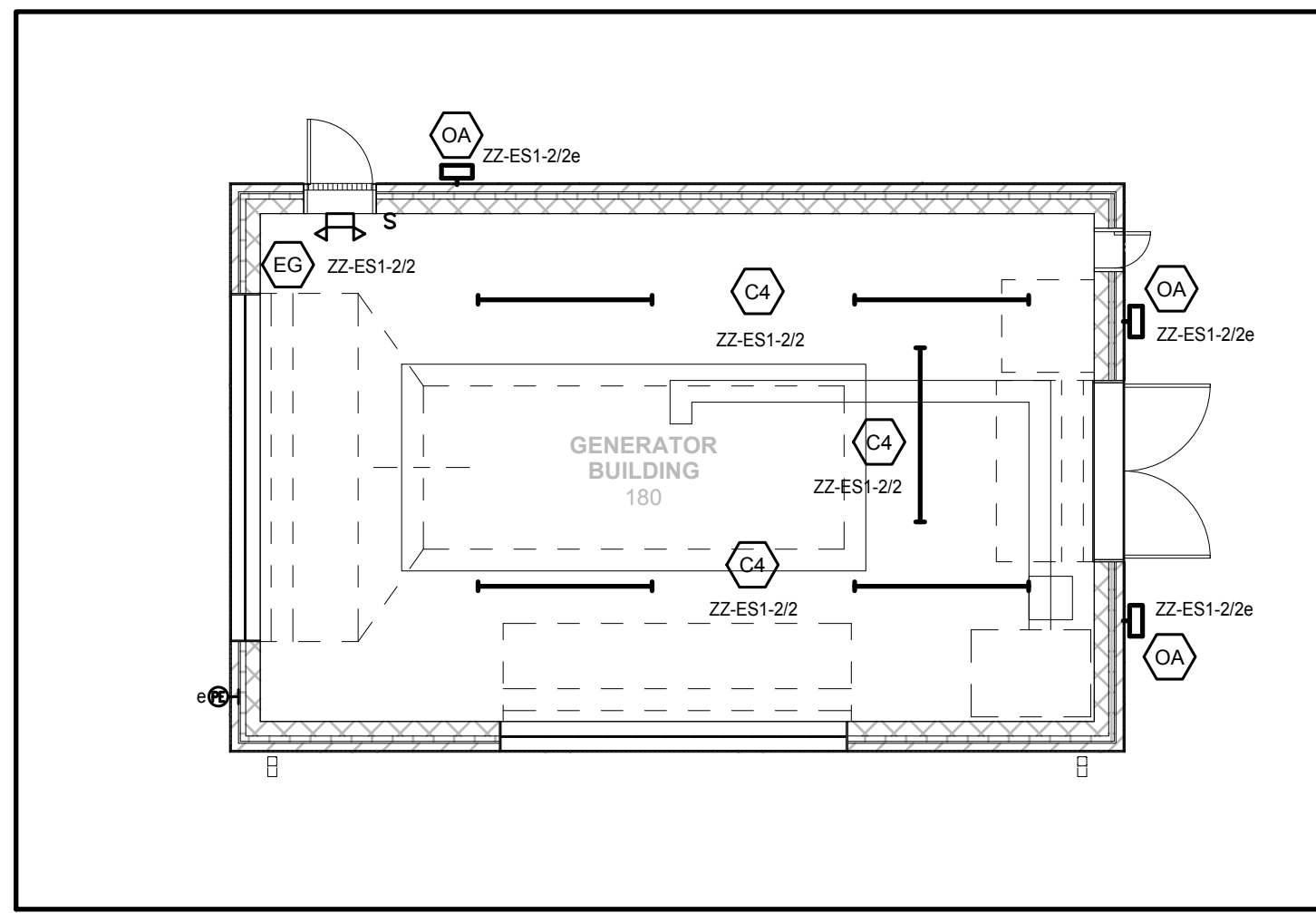
PROJECT TITLE	DATE
BUILDING No. 116	DESIGNED BY BROWN
LOCATION	DRAWING No. E101





- GENERAL LIGHTING NOTES:**
- A. SOME NOTES MAY NOT APPLY TO THIS SHEET.
 - B. NOT ALL LUMINAIRE ARE IDENTIFIED BY TYPE. WHEN A LUMINAIRE IS NOT IDENTIFIED IT SHALL BE THE SAME AS THOSE IDENTIFIED AROUND IT. CONTACT ELECTRICAL ENGINEER WITH QUESTIONS.
 - C. NOT ALL LUMINAIRE SWITCHES ARE IDENTIFIED. WHEN A SWITCH LEG IS NOT INDICATED THE LUMINAIRE SHALL BE PLACED ON THE SWITCH FOR THAT SPACE. IF NO SWITCH EXISTS THE LUMINAIRE WILL NOT BE SWITCHED. EMERGENCY EGRESS LIGHTING SHALL NOT BE SWITCHED.
 - D. WALL-MOUNTED EXIT SIGNS SHALL BE MOUNTED 6" ABOVE THE DOOR, WHEREVER POSSIBLE.
 - E. VERIFY MOUNTING HEIGHTS WITH ARCHITECTURAL ELEVATIONS.
 - F. PROVIDE A "POWER PLUG" TYPE LUMINAIRE DISCONNECT FOR EVERY BALLASTED LIGHT TO MEET NEW NEC CODE 410.130(6).

- KEY NOTES:**
- ▽ CONNECT LIGHTS TO PANEL XX-1-1 UNLESS NOTED OTHERWISE.
 - ▽ CONNECT PARKING LOT POLE LIGHT CONTROLLER AND MASTER LIGHTING PANEL TO PHOTOELECTRIC CELLS. PROVIDE PHOTOCELLS AND SHIELD MOUNT PHOTOCELL AT EL. 107'-6".
 - ▽ PROVIDE LIGHT SWITCH "S" TO CONTROL UNDERCABINET LIGHTS LOCATED IN REGISTRATION DESK.
 - ▽ LIGHTING CONTROLLER FOR 480V/1P PARKING LOT LIGHTS. PROVIDE WITH TEST SWITCH.
 - ▽ PROVIDE 120V LOCAL POWER FOR SYSTEMS FURNITURE LIGHT. VERIFY LOCATION WITH FURNITURE PROVIDER.



1	AS18	1/05/16
2	PRCS1	8/02/16
3	RECORD DRAWINGS	9/30/16
No.	REVISION	DATE

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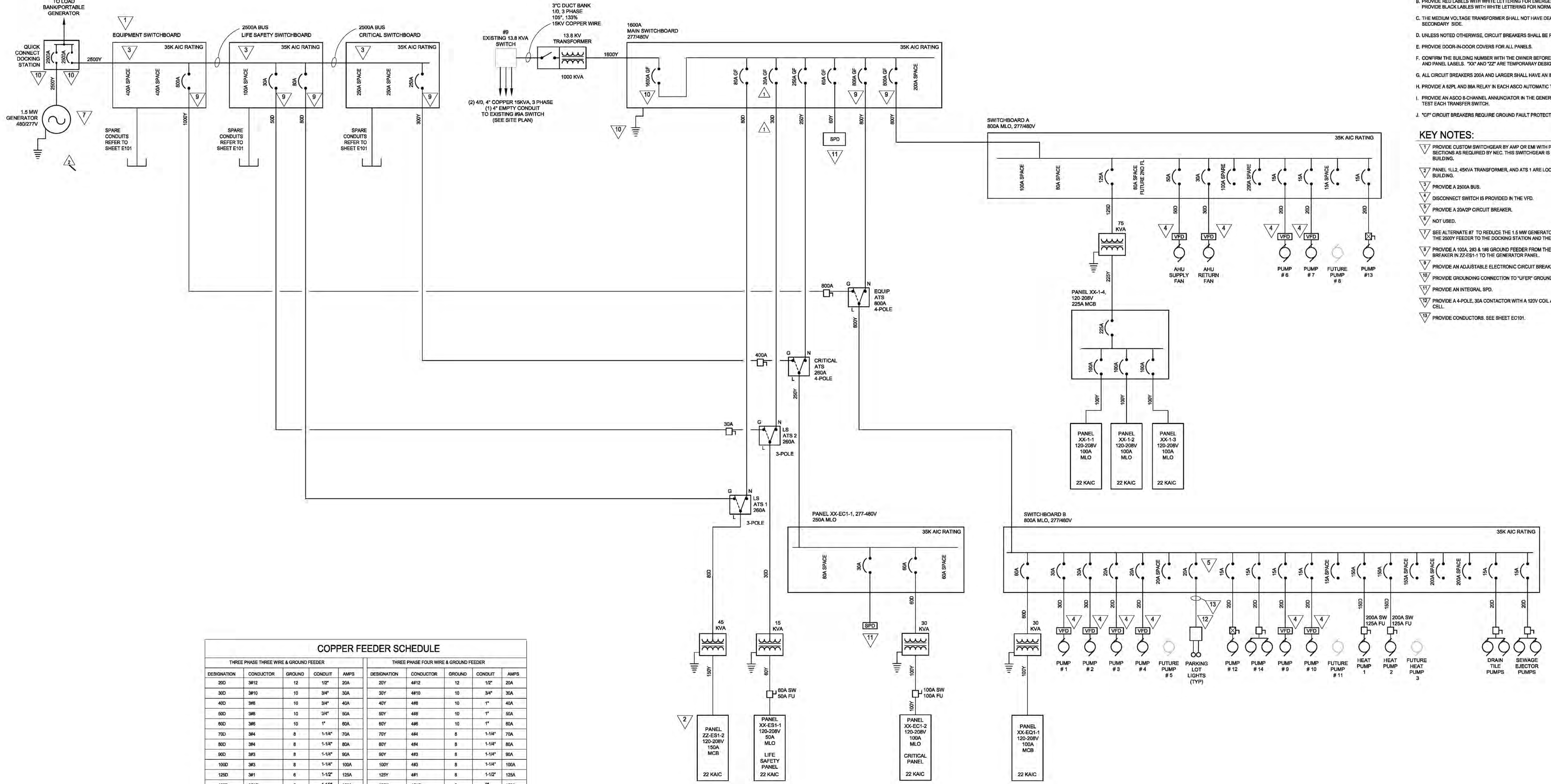
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DRAWING TITLE	
LIGHTING FIRST FLOOR	
APPROVED: CHIEF OF STAFF	DATE
APPROVED: MEDICAL CENTER DIRECTOR	DATE

PROJECT TITLE	DATE
REHABILITATION CENTER PROJECT #056-332 St. Cloud VA Health Care System	01/03/2013
BUILDING NO.	PROJ. SCALE
116	1/8"=1'-0"
DRAWN BY	PROJECT NO.
BRWN	S1430
LOCATION	DRAWING NO.
VA MEDICAL CENTER ST. CLOUD, MN 56303	E201





COPPER FEEDER SCHEDULE

THREE PHASE THREE WIRE & GROUND FEEDER				THREE PHASE FOUR WIRE & GROUND FEEDER			
DESIGNATION	CONDUCTOR	GROUND	CONDUIT	DESIGNATION	CONDUCTOR	GROUND	CONDUIT
200	3#12	12	1 1/2"	20Y	4#12	12	1 1/2"
300	3#10	10	3/4"	30Y	4#10	10	3/4"
400	3#8	10	3/4"	40Y	4#8	10	1"
500	3#6	10	3/4"	50Y	4#6	10	1"
600	3#6	10	1"	60Y	4#6	10	1"
700	3#4	8	1-1/4"	70Y	4#4	8	1-1/4"
800	3#4	8	1-1/4"	80Y	4#4	8	1-1/4"
900	3#3	8	1-1/4"	90Y	4#3	8	1-1/4"
1000	3#3	8	1-1/4"	100Y	4#3	8	1-1/4"
1200	3#1	6	1-1/2"	120Y	4#1	6	1-1/2"
1500	3#10	6	1-1/2"	150Y	4#10	6	2"
1750	3#10	6	1-1/2"	175Y	4#10	6	2"
2000	3#50	8	2"	200Y	4#50	8	2"
2250	3#40	4	2"	225Y	4#40	4	2-1/2"
2500	3#250	4	2-1/2"	250Y	4#250	4	2-1/2"
3000	3#150	4	2-1/2"	300Y	4#150	4	3"
4000	3#500	3	3"	400Y	4#500	3	3-1/2"
5000	(2)3#250	(2) 2	(2) 2-1/2"	500Y	(2)4#250	(2) 2	(2) 3"
6000	(2)3#150	(2) 1	(2) 3"	600Y	(2)4#150	(2) 1	(2) 3"
8000	(2)3#500	(2) 1/0	(2) 3"	800Y	(2)4#500	(2) 1/0	(2) 3-1/2"
10000	(4)3#250	(4) 3/0	(4) 2-1/2"	1000Y	(4)4#250	(4) 3/0	(4) 3"
12000	(4)3#150	(4) 3/0	(4) 3"	1200Y	(4)4#150	(4) 3/0	(4) 3"
16000	(8)3#400	(8) 4/0	(8) 3"	1600Y	(8)4#400	(8) 4/0	(8) 3-1/2"
18000*	(4)3#500	(4) 4/0	(4) 3-1/2"	18000Y*	(4)4#500	(4) 4/0	(4) 4"
20000	(8)3#400	(8) 250	(8) 3"	2000Y	(8)4#400	(8) 250	(8) 3-1/2"
28000	(7)3#600	(7) 300	(7) 3"	2800Y	(7)4#600	(7) 300	(7) 3-1/2"
30000	(8)3#500	(8) 400	(8) 3-1/2"	3000Y	(8)4#500	(8) 400	(8) 4"
40000	(11)3#600	(11)500	(11)3-1/2"	4000Y	(11)4#600	(11)500	(11)4"

* SPECIAL APPLICATION FOR A 1800A SERVICE ENTRANCE THAT ALLOWS THE USE OF FOUR CONDUITS. THIS ELIMINATES THE NEED FOR A CABLE CONNECTION CABINET SINCE FOUR CONDUITS WILL FIT INTO A PND MOUNT TRANSFORMER.
 (1) DO NOT INSTALL GROUND WIRE WITH THIS CONDUCTOR.

- GENERAL NOTES:**
- PROVIDE "RED FROM" INFORMATION ON ALL PANELS AND SWITCHBOARDS.
 - PROVIDE RED LABELS WITH WHITE LETTERING FOR EMERGENCY PANELS AND GEAR. PROVIDE BLACK LABELS WITH WHITE LETTERING FOR NORMAL PANELS AND GEAR.
 - THE MEDIUM VOLTAGE TRANSFORMER SHALL NOT HAVE DEAD FRONTS ON THE SECONDARY SIDE.
 - UNLESS NOTED OTHERWISE, CIRCUIT BREAKERS SHALL BE RATED AT 10KAIC.
 - PROVIDE DOOR-IN-DOOR COVERS FOR ALL PANELS.
 - CONFIRM THE BUILDING NUMBER WITH THE OWNER BEFORE PRINTING SWITCHGEAR AND PANEL LABELS. "XX" AND "ZZ" ARE TEMPORARY DESIGNATIONS.
 - ALL CIRCUIT BREAKERS 200A AND LARGER SHALL HAVE AN INJECTION PORT.
 - PROVIDE A 62PL AND 8A RELAY IN EACH ASCO AUTOMATIC TRANSFER SWITCH.
 - PROVIDE AN ASCO 8-CHANNEL ANNUNCIATOR IN THE GENERATOR BUILDING TO USE TO TEST EACH TRANSFER SWITCH.
 - "GF" CIRCUIT BREAKERS REQUIRE GROUND FAULT PROTECTION.

- KEY NOTES:**
- ▽ PROVIDE CUSTOM SWITCHGEAR BY AMP OR EMI WITH PHYSICAL SEPARATION BETWEEN SECTIONS AS REQUIRED BY NEC. THIS SWITCHGEAR IS LOCATED IN THE GENERATOR BUILDING.
 - ▽ PROVIDE A 2500A BUS.
 - ▽ DISCONNECT SWITCH IS PROVIDED IN THE VFD.
 - ▽ PROVIDE A 20A/2P CIRCUIT BREAKER.
 - ▽ NOT USED.
 - ▽ SEE ALTERNATE #7 TO REDUCE THE 1.5 MW GENERATOR TO A 500KW SIZE. MAINTAIN THE 2500Y FEEDER TO THE DOCKING STATION AND THE 2500A BUS SIZE.
 - ▽ PROVIDE A 100A, 3P & 1Ø GROUND FEEDER FROM THE TWO-POLE, 100A CIRCUIT BREAKER IN Z2-ES-1 TO THE GENERATOR PANEL.
 - ▽ PROVIDE AN ADJUSTABLE ELECTRONIC CIRCUIT BREAKER.
 - ▽ PROVIDE GROUNDING CONNECTION TO "UFER" GROUNDING ELECTRODE.
 - ▽ PROVIDE AN INTEGRAL SPD.
 - ▽ PROVIDE A 4-POLE, 3ØA CONTACTOR WITH A 120V COIL AND A 120V PHOTO ELECTRIC CELL.
 - ▽ PROVIDE CONDUCTORS. SEE SHEET EC101.

1	PR/2	RECORD DRAWINGS	1/16/14
2			9/30/16
No		REVISION	DATE

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Planning
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Horty Elving & Associates, Inc.

RECORD SET 09/30/16

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Brian A. Rice License No. 22913

APPROVED: SERVICE LINE DIRECTOR	DATE	APPROVED: REFLECTION CONTROL NURSE	DATE
APPROVED: GEMS COORDINATOR	DATE	APPROVED: PATIENT SAFETY	DATE
APPROVED: PROJECTS SECTION MANAGER	DATE	APPROVED: CHIEF OF POLICE	DATE
APPROVED: DIRECTOR PMS	DATE	APPROVED: SAFETY MANAGER	DATE

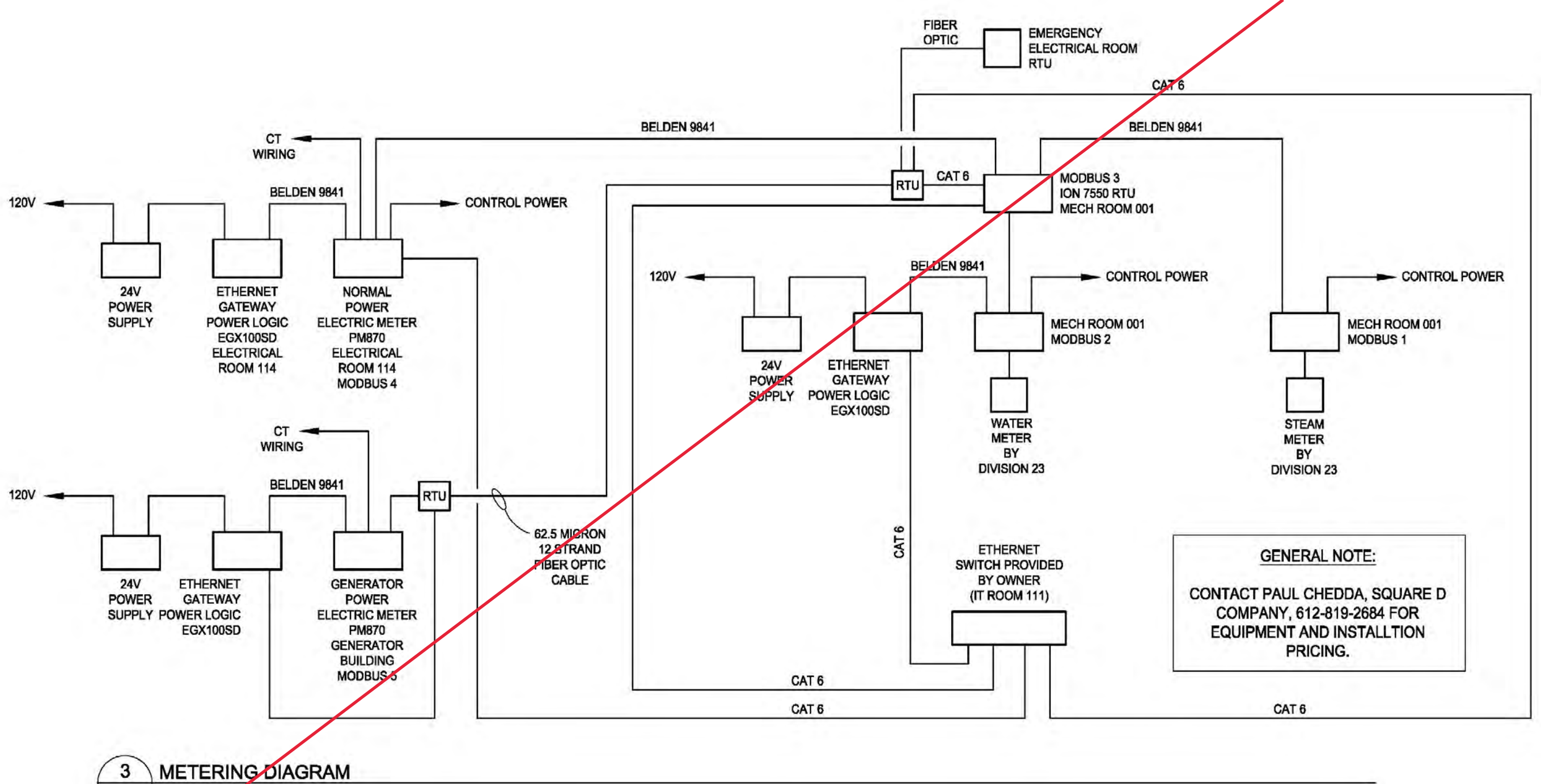
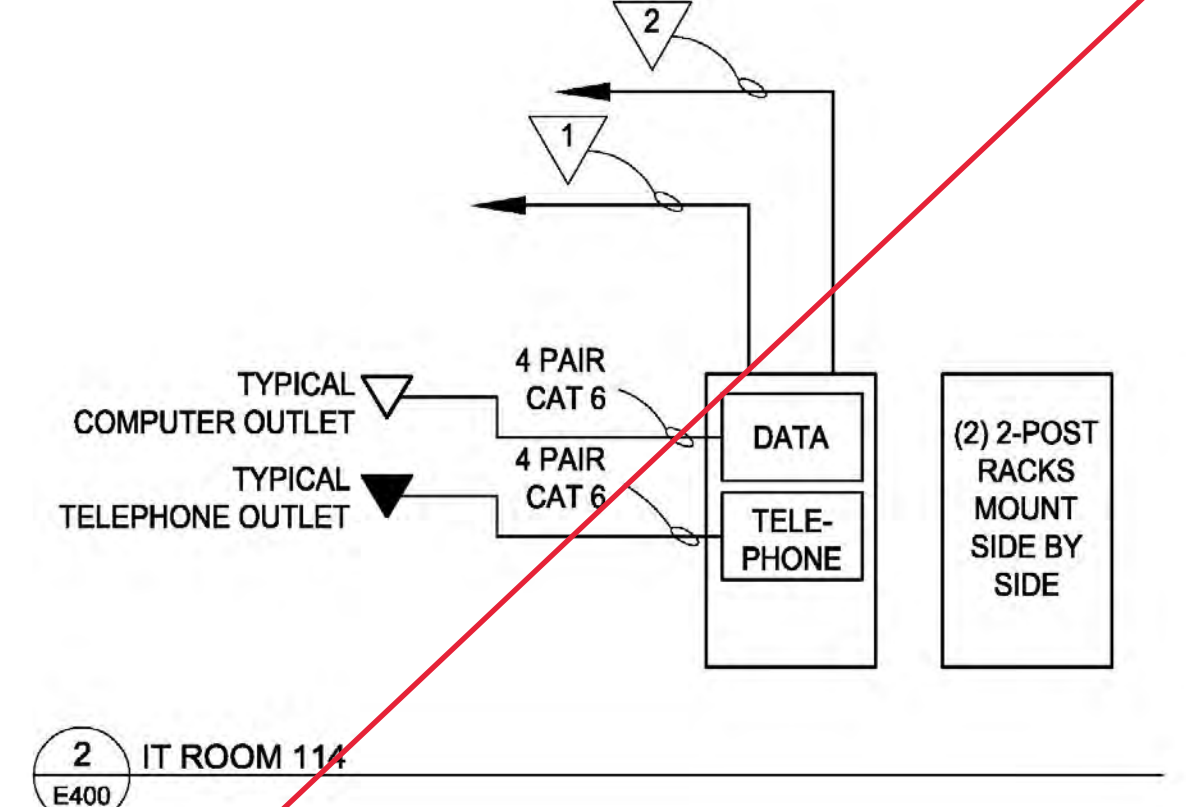
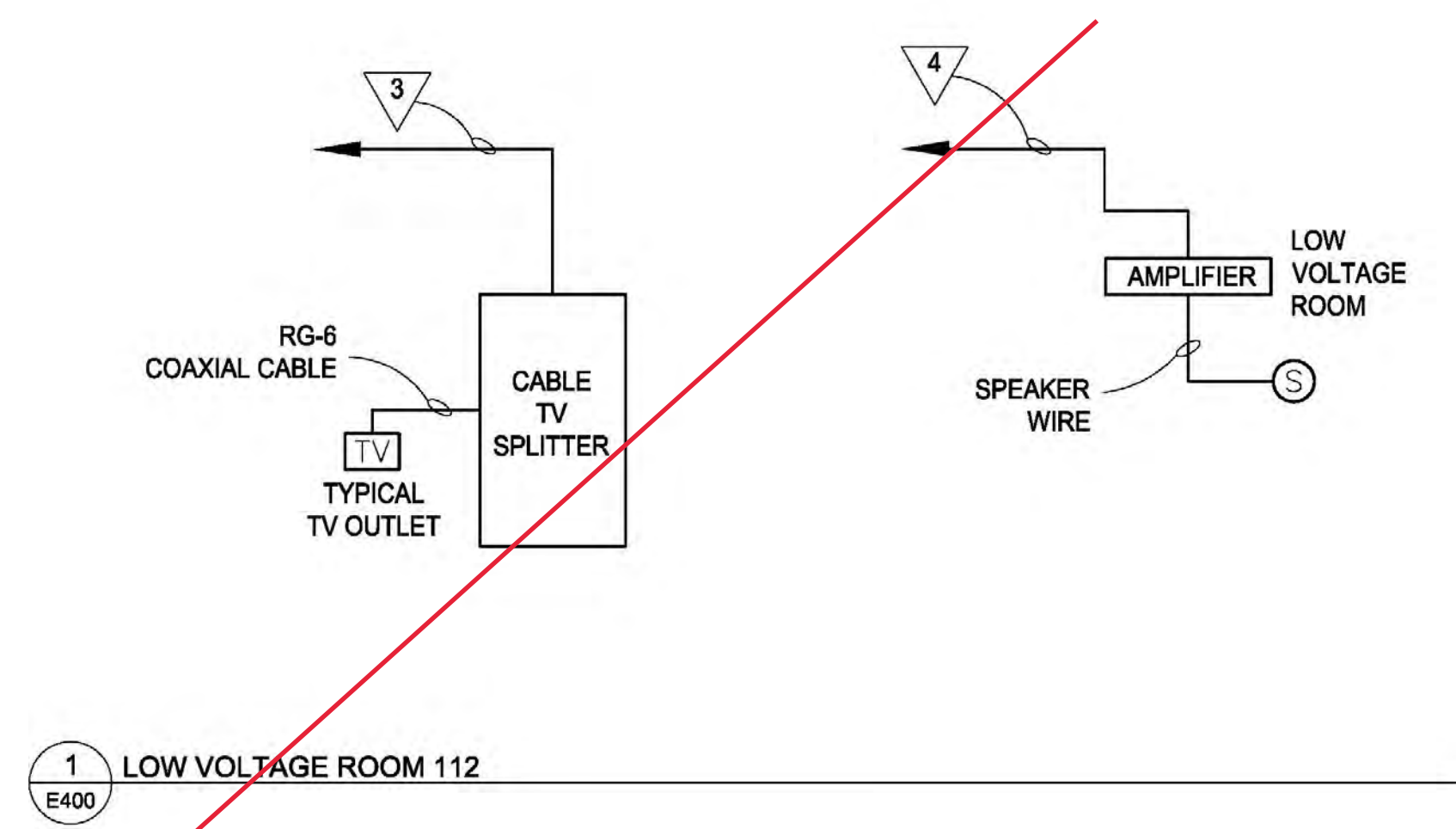
DRAWING TITLE
ONE-LINE DIAGRAM

APPROVED: CHIEF OF STAFF DATE

APPROVED: MEDICAL CENTER DIRECTOR DATE

PROJECT TITLE	DATE
REHABILITATION CENTER PROJECT #056-332	01/03/2013
ST. CLOUD VA Health Care System	PROJ SCALE
	PROJECT NO. S1430
BUILDING NO. 116	DRAWN
LOCATION: VA MEDICAL CENTER ST. CLOUD, MN 56303	DRAWING NO. E300





- KEY NOTES:**
- PROVIDE A 6-STRAND MULTI-MODE, 62.5 MICRON FIBER OPTIC CABLE FROM THE NEW IT ROOM 111 TO THE BUILDING 51 DATA ROOM.
 - PROVIDE ONE 200 PAIR OF COPPER CABLE FROM IT ROOM 111 TO BUILDING 108 DATA ROOM. THE OWNER SHALL PROVIDE TWO 4" CONDUIT BETWEEN BUILDING 29 AND THE CHASE, TO FACILITATE THIS RUN. PROVIDE TYPE 589 FIBER BLOBS IN BUILDING 108 DATA ROOM FOR ADDITIONAL TELEPHONE CONNECTIONS.
 - PROVIDE TWO RG-11 CABLES FROM SPLITTER TO BUILDING 51 FOR CABLE TV AND EDUCATIONAL TV CONNECTIONS.
 - PROVIDE ONE PAIR OF 18 GAUGE CONDUCTOR FROM THE LOW VOLTAGE ROOM TO THE BUILDING 108 DATA ROOM.

MOTOR & EQUIPMENT SCHEDULE - S1430

MOTOR/EQUIP. NO.	DESCRIPTION	LOCATION	kW	HP	MCA	MAX OPD	VOLTS	PHASE	DISC BY DIV	BY DIV	TYPE	STARTER BY DIV	BY DIV	TYE/CTRL	FED FROM	CONDUIT & WIRE SIZE	REMARKS	
A.H.U. #1	AIR HANDLING UNIT	MECHANICAL 119																
SUPPLY FAN		MECHANICAL 119	25	42.5	50	480/3	26	VFD	26	VFD	26	VFD	26	VFD	SEE ONE-LINE	SEE ONE-LINE	PROVIDE A DUCT SMOKE DETECTOR IN THE SUPPLY DUCT.	
RETURN FAN		MECHANICAL 119	15	26.3	30	480/3	26	VFD	26	VFD	26	VFD	26	VFD	SEE ONE-LINE	SEE ONE-LINE	PROVIDE A DUCT SMOKE DETECTOR IN THE RETURN DUCT.	
RUMP # 1	WELL FIELD PUMP	MECH ROOM 001	15	26.3	30	480/3	26	VFD	26	VFD	26	VFD	26	VFD	SEE ONE-LINE	SEE ONE-LINE		
RUMP # 2	WELL FIELD PUMP	MECH ROOM 001	15	26.3	30	480/3	26	VFD	26	VFD	26	VFD	26	VFD	SEE ONE-LINE	SEE ONE-LINE		
RUMP # 3	HYDRONIC HEATING PUMP	MECH ROOM 001	7 1/2	13.8	20	480/3	26	VFD	26	VFD	26	VFD	26	VFD	SEE ONE-LINE	SEE ONE-LINE		
RUMP # 4	HYDRONIC HEATING PUMP	MECH ROOM 001	7 1/2	13.8	20	480/3	26	VFD	26	VFD	26	VFD	26	VFD	SEE ONE-LINE	SEE ONE-LINE		
FUTURE RUMP # 5	HYDRONIC HEATING PUMP	MECH ROOM 001	7 1/2	13.8	20	480/3	26	VFD	26	VFD	26	VFD	26	VFD	SEE ONE-LINE	SEE ONE-LINE		
RUMP # 6	CH. WATER PUMP	MECH ROOM 001	5	9.5	15	480/3	26	VFD	26	VFD	26	VFD	26	VFD	SEE ONE-LINE	SEE ONE-LINE		
RUMP # 7	CH. WATER PUMP	MECH ROOM 001	5	9.5	15	480/3	26	VFD	26	VFD	26	VFD	26	VFD	SEE ONE-LINE	SEE ONE-LINE		
RUMP # 8	CH. WATER PUMP	MECH ROOM 001	5	9.5	15	480/3	26	VFD	26	VFD	26	VFD	26	VFD	SEE ONE-LINE	SEE ONE-LINE		
RUMP # 9	HEAT PUMP	MECH ROOM 001	5	9.5	15	480/3	26	VFD	26	VFD	26	VFD	26	VFD	SEE ONE-LINE	SEE ONE-LINE		
RUMP # 10	HEAT PUMP	MECH ROOM 001	5	9.5	15	480/3	26	VFD	26	VFD	26	VFD	26	VFD	SEE ONE-LINE	SEE ONE-LINE		
FUTURE RUMP # 11	HEAT PUMP	MECH ROOM 001	5	9.5	15	480/3	26	VFD	26	VFD	26	VFD	26	VFD	SEE ONE-LINE	SEE ONE-LINE		
RUMP # 12	HEAT EXCHANGER	MECH ROOM 001	3	6	15	480/3	26	DS	26	COMB	26	COMB	26	COMB	SEE ONE-LINE	SEE ONE-LINE		
RUMP # 13	SNOW MELT	MECH ROOM 001	1	3	15	480/3	26	DS	26	COMB	26	COMB	26	COMB	SEE ONE-LINE	SEE ONE-LINE		
RUMP # 14	CONDENSATE PUMPS	MECH ROOM 001	(2) 3/4	4	15	480/3	26	DS	23	FVNR	23	FVNR	23	FVNR	SEE ONE-LINE	SEE ONE-LINE		
HEAT PUMP 1	HEAT PUMP	MECH ROOM 001	70	105	150	480/3	26	FDS	-	-	-	-	-	-	SEE ONE-LINE	SEE ONE-LINE		
HEAT PUMP 2	HEAT PUMP	MECH ROOM 001	70	105	150	480/3	26	FDS	-	-	-	-	-	-	SEE ONE-LINE	SEE ONE-LINE		
FUTURE HEAT PUMP 3	HEAT PUMP	MECH ROOM 001	70	105	150	480/3	26	FDS	-	-	-	-	-	-	SEE ONE-LINE	SEE ONE-LINE		
C.U.H. # 1	CABINET UNIT HEATER	S VESTIBULE 101	1/20	15	120/1	23	MS	-	-	-	-	-	-	-	SEE PLAN	34°C - 2#12 & 1#12 GND		
C.U.H. # 2	CABINET UNIT HEATER	N VESTIBULE 137	1/20	15	120/1	23	MS	-	-	-	-	-	-	-	SEE PLAN	34°C - 2#12 & 1#12 GND		
C.U.H. # 3	CABINET UNIT HEATER	CORRIDOR 104	1/20	15	120/1	23	MS	-	-	-	-	-	-	-	SEE PLAN	34°C - 2#12 & 1#12 GND		
C.U.H. # 4	CABINET UNIT HEATER	LINK TO BLDG 51 176	1/20	15	120/1	23	MS	-	-	-	-	-	-	-	SEE PLAN	34°C - 2#12 & 1#12 GND		
UNIT HEATER # 1	UNIT HEATER	CRAWL SPACE 002	1/12	15	120/1	26	MS	-	-	-	-	-	-	-	SEE PLAN	34°C - 2#12 & 1#12 GND		
UNIT HEATER # 2	UNIT HEATER	CRAWL SPACE 002	1/12	15	120/1	26	MS	-	-	-	-	-	-	-	SEE PLAN	34°C - 2#12 & 1#12 GND		
UNIT HEATER # 3	UNIT HEATER	MECH ROOM 001	1/12	15	120/1	26	MS	-	-	-	-	-	-	-	SEE PLAN	34°C - 2#12 & 1#12 GND		
PR.V. #1	POWERED ROOFTOP VENTILATOR	ROOF	1/2	12.3	20	120/1	26	COMB	-	-	-	-	-	-	SEE PLAN	34°C - 2#12 & 1#12 GND	PROVIDE SINGLE POLE 120V RELAY WITH 24VAC COIL AND DISCONNECT SWITCH	
PR.V. #2	POWERED ROOFTOP VENTILATOR	ROOF	1/2	12.3	20	120/1	26	COMB	-	-	-	-	-	-	SEE PLAN	34°C - 2#12 & 1#12 GND	PROVIDE SINGLE POLE 120V RELAY WITH 24VAC COIL AND DISCONNECT SWITCH	
PROP. FAN	PROPELLER FAN	CRAWL SPACE 002	1/4	7.3	15	120/1	23	MS	-	-	-	-	-	-	SEE PLAN	34°C - 2#12 & 1#12 GND		
	DRAIN TILE PUMPS	MECH ROOM 001	(2) 1/2	15	480/3	26	DS	22	FVNR	22	FVNR	22	FVNR	22	FVNR	SEE PLAN	SEE ONE-LINE	
	SEWAGE EJECTOR PUMPS	MECH ROOM 001	(2) 1/2	15	480/3	26	DS	22	FVNR	22	FVNR	22	FVNR	22	FVNR	SEE PLAN	SEE ONE-LINE	PROVIDE WIRING FOR TWO SOLENOID VALVES AND CONTROLLER
	DOMESTIC WATER HEATER	MECH ROOM 001	FRAC	15	120/1	26	MS	-	-	-	-	-	-	-	SEE PLAN	34°C - 2#12 & 1#12 GND		

- LEGEND:**
- FDS = FUSED SAFETY SWITCH
 - SHUNT = SHUNT TRIP SAFETY SWITCH
 - COMB = #1 FVNR COMB. STARTER/HOA/AUX/TR
 - COMB 1 = #2 FVNR COMB. STARTER/HOA/AUX/TR
 - COMB 2 = #3 FVNR COMB. STARTER/HOA/AUX/TR
 - FVNR = FULL VOLTAGE NON-REVERSING STARTER
 - MRS = MOTOR RATED SWITCH
 - HOA = HAND/OFF/AUTO CONTROL
 - SS = START/STOP CONTROL
 - AUX = AUXILIARY CONTACTS
 - VFD = VARIABLE FREQUENCY DRIVE
 - TR = 24V CONTROL TRANSFORMER
 - DS = NON FUSED SAFETY SWITCH
 - CB = CIRCUIT BREAKER
 - WP = WEATHER PROOF
 - TSAT = THERMOSTAT

LUMINAIRE SCHEDULE

TYPE	FIXTURE TYPE	WARRANTY	LED	INCANDESCENT	WARRANTY	VOLTS	DESCRIPTION	MANUFACTURER/MODEL	APPROVED EQUAL	NOTES/REMARKS
A1	2' X 4' RECESSED PARABOLIC	3	X		120V	150W	HIGH PERFORMANCE PARABOLIC LUMINAIRE. COLD ROLLED STEEL HOUSING. MULTI-VOLT BALLAST. 18-CELL ALUMINUM LOW RESISTANT DIFFUSER. LAVIN GRID.	LITHONIA 2P4N-G-B-2-32-18LD-MOLT-GEB10S	COLUMBIA DAYBRIGHT, METALUX LIGHTOLIER, LUMAX WILLIAMS, COOPER, LSI, FOCAL POINT OR APPROVED EQUAL	
A2	2' X 2' RECESSED PARABOLIC	3	X		120V	75W	HIGH PERFORMANCE PARABOLIC LUMINAIRE. COLD ROLLED STEEL HOUSING. MULTI-VOLT BALLAST. 9-CELL ALUMINUM LOW RESISTANT DIFFUSER. LAVIN GRID.	LITHONIA 2P4N-G-B-4-17-9LD-MOLT-GEB10S	COLUMBIA DAYBRIGHT, METALUX LIGHTOLIER, LUMAX WILLIAMS, COOPER, LSI, FOCAL POINT OR APPROVED EQUAL	
A3	2' X 4' RECESSED DIRECT/INDIRECT	3	X		120V	150W	RECESSED DIRECT/INDIRECT WHITE SATIN WHITE FINISH. EXTRUDED ACRYLIC DIFFUSER. SEALED OPTICAL COMPARTMENT. INSTANT START BALLAST.	LITHONIA FMA2-24-3-78-1C-120-E-G	COLUMBIA DAYBRIGHT, METALUX LIGHTOLIER, LUMAX WILLIAMS, COOPER, LSI, LITHONIA OR APPROVED EQUAL	
A4	2' X 4' RECESSED DIRECT/INDIRECT	3	X		120V	150W	RECESSED DIRECT/INDIRECT WHITE SATIN WHITE FINISH. EXTRUDED ACRYLIC DIFFUSER. SEALED OPTICAL COMPARTMENT. INSTANT START BALLAST.	LITHONIA FMA2-24-2-10W-1C-120-E-G	COLUMBIA DAYBRIGHT, METALUX LIGHTOLIER, LUMAX WILLIAMS, COOPER, LSI, LITHONIA OR APPROVED EQUAL	
A5	2' X 4' RECESSED PARABOLIC	3	X		120V	150W	HIGH PERFORMANCE PARABOLIC LUMINAIRE. COLD ROLLED STEEL HOUSING. MULTI-VOLT BALLAST. 18-CELL ALUMINUM LOW RESISTANT DIFFUSER. LAVIN GRID.	LITHONIA 2P4N-G-B-2-32-18LD-MOLT-GEB10S	COLUMBIA DAYBRIGHT, METALUX LIGHTOLIER, LUMAX WILLIAMS, COOPER, LSI, FOCAL POINT OR APPROVED EQUAL	
B	WARRANT-24"	3	X		120V	150W	TWO LIGHT BATH BAR IN SATIN NICKEL FINISH WITH WHITE ACRYLIC DIFFUSER. 20/27V BALLAST. UL DMP LISTED. 4.8" H X 25.12" L X 4.5" D	F32525U		
C1	4' STRIP LIGHT	3	X		120V	150W	4' STANDARD INDUSTRIAL STRIP WITH SYMMETRIC REFLECTOR AND WIREGUARD.	LITHONIA C-232-MVOLT-GEB10S-WGCSMR-C5MR48	COLUMBIA DAYBRIGHT, METALUX LITHONIA, LUMAX WILLIAMS, COOPER, LSI OR APPROVED EQUAL	CHANI HUNG MOUNT 6" A.F.F. OR BENEATH DUCTWORK
C2	8' STRIP LIGHT	3	X		120V	300W	8' STANDARD INDUSTRIAL STRIP WITH SYMMETRIC REFLECTOR AND WIREGUARD. TANDUM MOUNT.	LITHONIA T0-232-MVOLT-GEB10S-WGCSMR-C5MR69	COLUMBIA DAYBRIGHT, METALUX LITHONIA, LUMAX WILLIAMS, COOPER, LSI OR APPROVED EQUAL	PROGRAMMED START BALLAST CHANI HUNG MOUNT 6" A.F.F. OR BENEATH DUCTWORK
C3	4' STRIP LIGHT WALL MOUNTED	3	X		120V	150W	4' STANDARD INDUSTRIAL STRIP WITH WIREGUARD.	LITHONIA C-232-MVOLT-GEB10S-WGCSMR	COLUMBIA DAYBRIGHT, METALUX LITHONIA, LUMAX WILLIAMS, COOPER, LSI OR APPROVED EQUAL	RELOCATE TO BENEATH DUCTWORK
C4	8' STRIP LIGHT	3	X		120V	300W	8' STANDARD INDUSTRIAL STRIP WITH SYMMETRIC REFLECTOR AND WIREGUARD. TANDUM MOUNT. 40" LONG DIMEL STEM HANGER.	LITHONIA T0-232-MVOLT-GEB10S-WGCSMR-C5MR69-5040	COLUMBIA DAYBRIGHT, METALUX LITHONIA, LUMAX WILLIAMS, COOPER, LSI OR APPROVED EQUAL	
CL	CLOSET LIGHT	3	X		120V	150W	2' STANDARD WALL BRACKET. BAKED WHITE ENAMEL FINISH. #12 PATTERN. 0.125" THICK ACRYLIC DIFFUSER.	LITHONIA WS-1-17-A12125-MVOLT-GEB10S	COLUMBIA DAYBRIGHT, METALUX LITHONIA, LUMAX WILLIAMS, COOPER, LSI OR APPROVED EQUAL	MOUNT ABOVE CLOSET DOOR
D	RECESSED DOWNLIGHT 6" DIMMING	3	X		120V	40W	6" RECESSED DOWNLIGHT. CLEAR SEMI-SPECULAR REFLECTOR. MULTI-VOLT BALLAST. VERTICAL LAMP.	LITHONIA BVF-42TR1-60Z-MVOLT	INFINITY LIGHTOLIER, PATHWAYS, PEACHTREE, PORTFOLIO, PRESOLITE, SURELITE, COOPER, OR APPROVED EQUAL	
DD	RECESSED DOWNLIGHT 6" DIMMING	3	X		120V	150W	6" RECESSED DOWNLIGHT. CLEAR SPECULAR REFLECTOR.	LITHONIA LPN-608A	INFINITY LIGHTOLIER, PATHWAYS, PEACHTREE, PORTFOLIO, PRESOLITE, SURELITE, OR APPROVED EQUAL	
D1	RECESSED DOWNLIGHT 4" INCH	3	X		120V	40W	4" RECESSED ROUND LED DOWNLIGHT. CLEAR. WHITE FLANGE. 3000K LED.	LIGHTOLIER C420LED30K CCLV; C420LED1	SOLVANTI, ELITE(ORACLE), JUNO, PNC OR APPROVED EQUAL	
EA	EXIT SIGN SINGLE FACE	3	X		120V	150W	WHITE THERMOPLASTIC HOUSING WITH RED LETTERS. UNIVERSAL MOUNTING. SINGLE FACE	LITHONIA LQMS-W-3-R-120/277	CHLORIDE EXTRONICS, LIGHTOLIER, EMERGLITE, MCPHLBEN, PRESOLITE, SURELITE DUAL LITE, RENALL, OR APPROVED EQUAL	
EB	EXIT SIGN DOUBLE FACE	3	X		120V	150W	WHITE THERMOPLASTIC HOUSING WITH RED LETTERS. UNIVERSAL MOUNTING. DOUBLE FACE	LITHONIA LQMS-W-3-R-120/277	CHLORIDE EXTRONICS, LIGHTOLIER, EMERGLITE, MCPHLBEN, PRESOLITE, SURELITE DUAL LITE, RENALL, OR APPROVED EQUAL	
EG	EMERGENCY LIGHTING UNIT	3	X		120V	150W	WHITE HIGH IMPACT THERMOPLASTIC HOUSING. LEAD CALCIUM BATTERY. SELF-DIAGNOSTICS.	LITHONIA EL42-SD	CHLORIDE EXTRONICS, LIGHTOLIER, EMERGLITE, MCPHLBEN, PRESOLITE, SURELITE DUAL LITE, RENALL, OR APPROVED EQUAL	
CA	EXTERIOR WALL PACK	3	X		120V	150W	WALLPACK WITH 2 LED ARRAYS. SPECULAR REFLECTOR AND CLEAR FLAT GLASS LENS. BRONZE FINISH. 5000K LEDS.	RAE LIGHTING WPLED20V	ALLOWANCE PRICE \$211.25 EACH CONTACT ELECTROTECH INC. (763) 544-6288 FOR INFORMATION	SEE EXTERIOR ELEVATIONS FOR MOUNTING HEIGHTS.
CB	EXTERIOR LED LANTERN	3	X		120V	150W	FULL CUTOFF. WALL MOUNTED. LED LANTERN WITH TRADITIONAL LOOK. WHITE POLYCARBONATE DIFFUSER. DARK BRONZE TEXTURED FINISH. NEUTRAL 4100K WHITE LED TYPE V DISTRIBUTION. 20"W X 28.5"H	USALTS M02ART1M1; M02M1M-WP-V24LED-WARAL-6019-11-WP	HOLOPHANE, SELUX, KIM HUBBELL, LSI, COOPER, OR APPROVED EQUAL	SEE EXTERIOR ELEVATIONS FOR MOUNTING HEIGHTS.
CD	RECESSED EXTERIOR LIGHT	3	X		120V	150W	6" RECESSED OPEN DOWN LIGHT. HORIZONTAL LAMP	LITHONIA AHZ-100M-8-AR-120	OMEGA INFINITY, LIGHTOLIER, PATHWAYS, PRESOLITE, ATLANTIC OR APPROVED EQUAL	
CE	RECESSED EXTERIOR LIGHT QUARTZ RESTRIKE	3	X		120V	150W	6" RECESSED OPEN DOWN LIGHT. HORIZONTAL LAMP. QUARTZ RESTRIKE	LITHONIA AHZ-100M-8-AR-120-QRS	OMEGA INFINITY, LIGHTOLIER, PATHWAYS, PRESOLITE, ATLANTIC OR APPROVED EQUAL	
CP1	EXTERIOR LIGHT LIGHT POLE 1" HEAD	3	X		120V	480V/1PH	LED AREA LUMINAIRE WITH 80 LEDS (TWO ENGINES) 400K COLOR TEMP. TYPE IV FORWARD DARK BRONZE FINISH. 30" FT 6" ALUMINUM SQUARE POLE. PROVIDE ALUMINUM FRANGIBLE BREAKAWAY T-BASE.	LITHONIA DSXLED-400-330-40K-TAM-480-SP4DSBXD-US80M NAFCO 833E-DARK POLE POLE WITH VIBRATION DAMPER MILLERBERND T-BASE AVRON-TB-1-17-8RZ-H	OR PRE-APPROVED EQUALS	
CP2	UNDER CABINET LIGHTS-24"	3	X		120V	150W	LOW-PROFILE DESIGN. WHITE FINISH. INTEGRAL ROCKER SWITCH. MULTI-VOLT. 10% THD BALLAST.	LITHONIA N23-17-MVOLT-GEB10S-SWR	COLUMBIA DAYBRITE, LIGHTOLIER, LUMAX, MERCURY METALUX WILLIAMS, COOPER, OR APPROVED EQUAL	HARDWIRE TO LOCAL 120V CIRCUIT

NOTE THAT ALL LIGHTS SHALL MEET THE "MADE IN AMERICA" VA REQUIREMENTS.

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RECORD SET 09/30/16

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

Eric A. Rice License No. 23813

APPROVED: SERVICE LINE DIRECTOR DATE: _____ APPROVED: RECEPTION CONTROL NURSE DATE: _____

APPROVED: GEMS COORDINATOR DATE: _____ APPROVED: PATIENT SAFETY DATE: _____

APPROVED: PROJECTS SECTION MANAGER DATE: _____ APPROVED: CHIEF OF POLICE DATE: _____

APPROVED: DIRECTOR PMS DATE: _____ APPROVED: SAFETY MANAGER DATE: _____

ELECTRICAL SCHEDULES

APPROVED: CHIEF OF STAFF DATE: _____

APPROVED: MEDICAL CENTER DIRECTOR DATE: _____

PROJECT TITLE: REHABILITATION CENTER PROJECT #056-332
 St. Cloud VA Health Care System

DRAWING NO: S1430

BUILDING NO: 116

DATE: 10/3/2013

PROF SCALE

DATE: 10/3/2013

PROF SCALE

PROJECT NO: S1430

DATE: 10/3/2013

PROF SCALE

DATE: 10/3/2013

PROF SCALE

St. Cloud VA Health Care System
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