Department of Veterans Affairs
Sioux Falls VA Health Care System
Upgrade Electrical Systems
Building 5

Sioux Falls, South Dakota

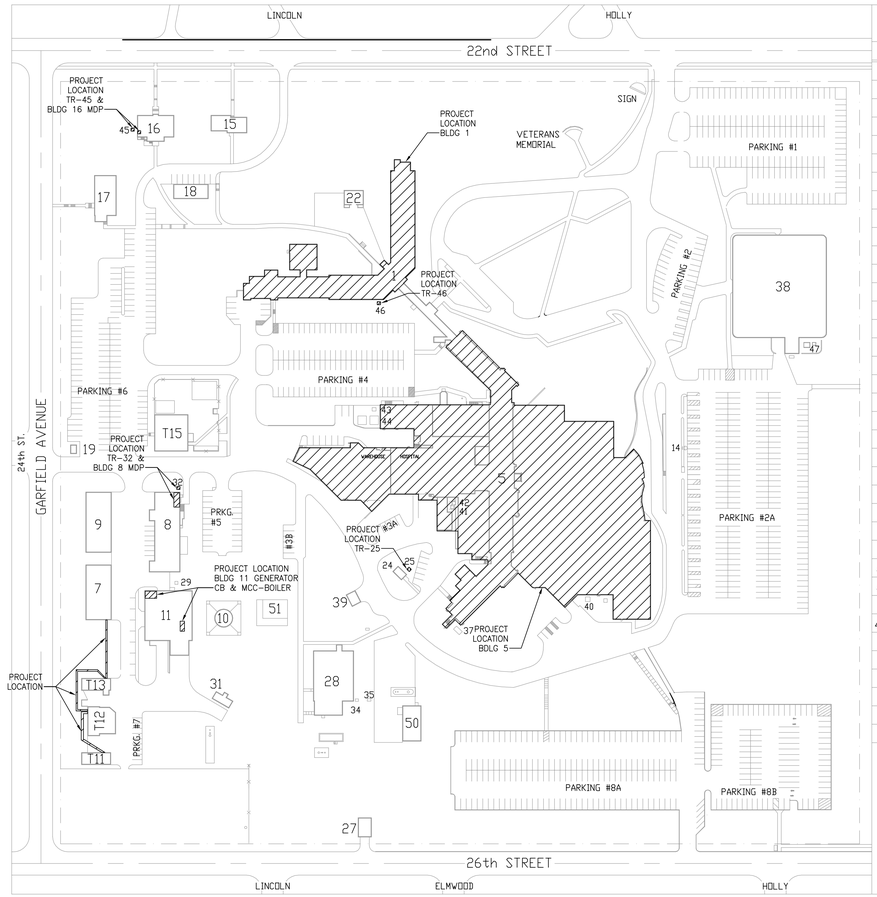
CONSTRUCTION DOCUMENTS

March 13, 2013

VA Project # 438-13-120

TSP Project # 04121073 PRIORITY 3

VICINITY & STAGING MAP



BUILDING SCHEDULE

NO.	BUILDINGS
1	N.H.C.U.
5	HOSPITAL BUILDING
7	UTILITY SHOPS
8	LAUNDRY
9	STATION GARAGE
10	WATER TANK
11	BOILER PLANT
14	FLAGPOLE
15	HOPTEL BUILDING
16	MENTAL HEALTH & BLDG. MGMT.
17	ENGINEERING and A & MM
18	GARAGE
19	GAS METER HOUSE
21	RECREATION SHELTER - HOSPITAL
22	RECREATION SHELTER - N.H.C.U.
24	AUXILIARY POWER UNIT
25	PAD MOUNT TRANSFORMER
27	ELECTRICAL SWITCHGEAR
28	RESEARCH BUILDING
29	PAD MOUNT TRANSFORMER
31	SALT STORAGE BASIN
32	PAD MOUNT TRANSFORMER
34	PAD MOUNT TRANSFORMER
35	POWER J-BOX #1
37	A/C PAD - I.C.U.
38	REGIONAL OFFICE BUILDING
39	OXYGEN STORAGE PAD
40,41	PAD MOUNT TRANSFORMER
42,43	PAD MOUNT TRANSFORMER
44	COOLING TOWER PAD
45-47	PAD MOUNT TRANSFORMER
50	GENERATOR BUILDING
51	EMERGENCY MANAGEMENT BUILDING
T11	STORAGE BUILDING
T12	STORAGE BUILDING
T13	STORAGE BUILDING
T15	CHILD DAYCARE

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1-GI001 COVER SHEET

ELECTRICAL

ES101 ELECTRICAL SITE PLAN
E-101 ELECTRICAL PLANS - BUILDING 1
E-102 ELECTRICAL PLANS - BUILDING 5
E-103 ELECTRICAL PLANS - BUILDING 5
E-104 ELECTRICAL PLANS - BUILDING 8, 11, 16
E-501 ELECTRICAL SCHEDULES - BUILDING 1
E-502 ELECTRICAL SCHEDULES - BUILDING 5
E-503 ELECTRICAL SCHEDULES - BUILDING 5
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E-601 ELECTRICAL RISER DIAGRAM - SITE
E-602 ELECTRICAL RISER DIAGRAM - BUILDING 1
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E-605 ELECTRICAL RISER DIAGRAM - BUILDING 5
E-606 ELECTRICAL RISER DIAGARM - BUILDINGS 8, 11, 16

SHEET IDENTIFICATION

E - 0 0 1

E D N N N

DISCIPLINE CHARACTER — SHEET SEQUENCE NUMBER 01–99

MODIFIER CHARACTER — SHEET TYPE DESIGNATOR

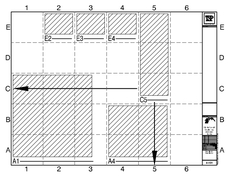
MODIFIER CHARACTER DESIGNATORS

S = SITE
D = DEMOLITION
L = LIGHTING
P = POWER
Y = AUXILIARY
I = INSTRUMENTATION
T = TELECOMMUNICATIONS

SHEET TYPE DESIGNATORS

0 = GENERAL (SYMBOLS LEGEND)
1 = PLANS (HORIZONTAL VIEWS)
2 = ELEVATIONS (VERTICAL VIEWS)
3 = SECTIONS (SECTIONAL VIEWS)
4 = LARGE SCALE VIEWS
5 = SCHEDULES
6 = DIAGRAMS
7 = USER DEFINED
8 = USER DEFINED
9 = 3D REPRESENTATIONS

COORDINATE SYSTEM



ABBREVIATIONS

AFC	ABOVE FINISHED COUNTER, INSTALLED DEVICE 8" ABOVE COUNTERTOP	FLUIOR	FLUORESCENT	NC	NORMALLY CLOSED
AFF	ABOVE FINISHED FLOOR	FLA	FULL LOAD AMPERES	NO	NORMALLY OPEN
AFG	ABOVE FINISHED GRADE	FBO	FURNISHED BY OWNER	PNL	PANEL
AHU	AIR HANDLING UNIT	F	FUSE	PH	PHASE
ALUM	ALUMINUM	FVNR	FULL VOLT NON-REVERSE	PL	PILOT LIGHT
AMP/A	AMPERE	GC	GENERAL CONTRACTOR	PVC	POLYVINYL CHLORIDE, CONDUIT
A/E	ARCHITECT/ENGINEER	GND	GROUND	PF	POWER FACTOR
X-NC	AUXILIARY CONTACTS, NORMALLY CLOSED	GFI/GFCI	GROUND FAULT CIRCUIT INTERRUPTER	PRV	POWER ROOF VENTILATOR
X-NO	AUXILIARY CONTACTS, NORMALLY OPEN	HOA	HAND-OFF-AUTOMATIC SELECTOR SWITCH	RECPT	RECEPTACLE
CUH	CABINET UNIT HEATER	HTR	HEATER	RMC	RIGID METAL CONDUIT
CLG	CEILING	HP	HORSEPOWER	SN	SOLID NEUTRAL
CKT	CIRCUIT	IC	INTERRUPTING CIRCUIT	SW	SWITCH
CS/CB	COMBINATION STARTER, CIRCUIT BREAKER DISCONNECT	IG	ISOLATED GROUND	SWBD	SWITCHBOARD
CS/FD	COMBINATION STARTER, FUSED DISCONNECT	J-BOX	JUNCTION BOX	TEL	TELEPHONE
CS/NFD	COMBINATION STARTER, NON-FUSED DISCONNECT	KV	KILOVOLT	TR	TAMPER RESISTANT
C	CONDUIT	KVA	KILOVOLT AMPERE	TCC	TEMPERATURE CONTROLS CONTRACTOR
CU	COPPER	KW	KILOWATT	TSTAT	THERMOSTAT
KCM	THOUSAND CIRCULAR MILS	KWH	KILOWATT HOUR	XFMR	TRANSFORMER
DISC	DISCONNECT	LTG	LIGHTING	TYP	TYPICAL
DISTR	DISTRIBUTION	MCB	MAIN CIRCUIT BREAKER	UH	UNIT HEATER
DIV	DIVISION	MDP	MAIN DISTRIBUTION PANEL	UV	UNIT VENTILATOR
DF	DOUBLE FACE	MLO	MAIN LUGS ONLY	VFD	VARIABLE FREQUENCY DRIVE
DN	DOWN	MAN	MANUAL	V	VOLT
EC	ELECTRICAL CONTRACTOR	MMS	MANUAL MOTOR STARTER	VA	VOLT AMPERE
EMT	ELECTRICAL METALLIC TUBE	MFRS	MANUFACTURERS	VAC	VOLTS, ALTERNATING CURRENT
EWC	ELECTRIC WATER COOLER	MC	MECHANICAL CONTRACTOR	VDC	VOLTS, DIRECT CURRENT
EM	EMERGENCY	M	METER	WTR	WATER
EQUIP	EQUIPMENT	MCC	MOTOR CONTROL CENTER	W	WATT
EF	EXHAUST FAN	MSS	MOTOR STARTER SWITCH	WP	WEATHER PROOF
EPRF	EXPLOSION PROOF	MTD	MOUNTED	W/	WITH
FA	FIRE ALARM	MOA	MULTI-OUTLET ASSEMBLY	W/O	WITHOUT
		NEC	NATIONAL ELECTRICAL CODE	Y	WYE CONNECTED
		NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION		

ISSUED FOR CONSTRUCTION

Revisions:	Date

CONSULTANTS:

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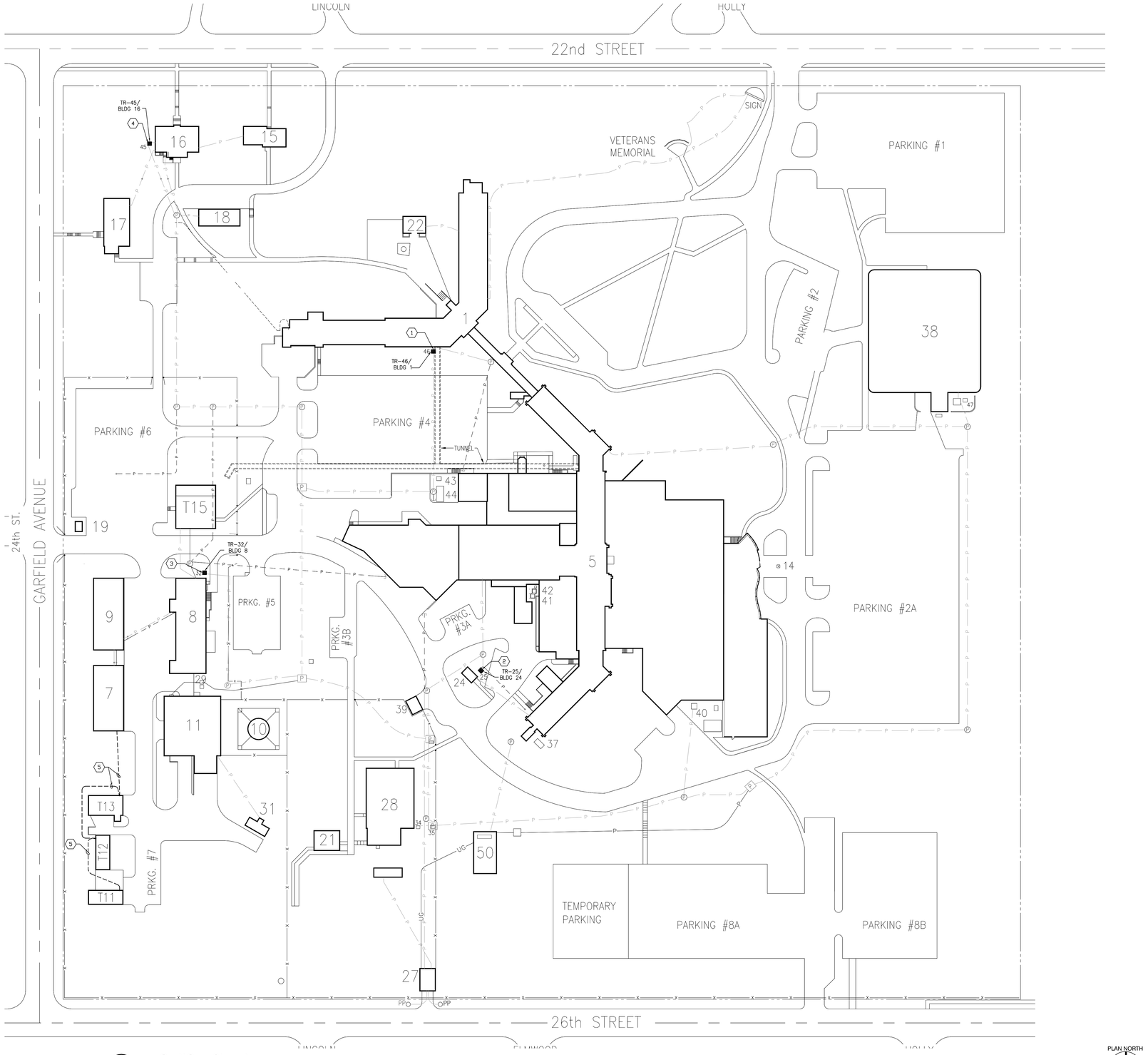
TSP PROJECT #04121073 - PRIORITY 3

Drawing Title: COVER SHEET	Project Title: Upgrade Electrical Systems Building 5	Project Number: 438-13-120	Office of Construction and Facilities Management
Approved: Project Director	Location: Sioux Falls, South Dakota	Building Numbers: 1, 5, 8, 11, 16	
	Date: 03/13/2012 / Checked: DLB / Drawn: JWN	Drawing Number: GI001 Dwg. 1 of 16	Department of Veterans Affairs

VA FORM 08-6231



F1 ELECTRICAL SITE PLAN
SCALE: 1" = 60'

SHEET GENERAL NOTES

A. CONTRACTOR WORKING HOURS SHALL BE DESIGNATED BY THE VA. VA SHALL DICTATE WHEN OUTAGES CAN OCCUR. CONTRACTOR SHALL ASSUME THAT OUTAGES WILL BE SCHEDULED DURING NON–BUSINESS HOURS AND THAT WORK HALL CONTINUE UNINTERRUPTED UNTIL SERVICE IS RESTORED, UNLESS SPECIFICALLY NOTED OTHERWISE.

B. SEE SHEET E–101 FOR ADDITIONAL SHEET GENERAL NOTES.

SHEET KEYNOTES

1. REPLACE TR–46/BLDG 1 TRANSFORMER. REMOVE AND DISPOSE OF EXISTING PAD MOUNTED 300KVA, 13,800Y–208Y/120 VOLT TRANSFORMER AND INTEGRAL LOAD BREAK SWITCH. PROVIDE A NEW PAD MOUNTED 300KVA, 13,800Y–208Y/120 VOLT ONAN TRANSFORMER. DISCONNECT PRIMARY (2/0 AWG, COPPER, 3–1/C, MV, EPR) AND SECONDARY (THREE PARALLEL SETS OF 4#500KCMIL COPPER, THWN, 3–1/2"C) CONDUCTORS FROM EXISTING TRANSFORMER AND RECONNECT TO NEW TRANSFORMER. CONTRACTOR SHALL VERIFY CABLE LENGTHS/HEIGHTS TO EXISTING TRANSFORMER TERMINATIONS AND ORDER NEW TRANSFORMER WITH SAME DIMENSIONS SO EXISTING CABLING IS REUSED (OTHERWISE CONTRACTOR IS RESPONSIBLE FOR PROVIDING NEW CABLING FROM PREVIOUS TERMINATION POINTS).

   PROVIDE LIS (LOAD BREAK SWITCH) INTERNAL TO TRANSFORMER MENTIONED ABOVE, (GE BREAKMASTER LIS – 600A FRAME, 25KA INTERRUPTING RATING AND GE 9F62 EJO–1, 15.5KV, E–RATED, 20A TRIP/FRAME, 50KA INTERRUPTING RATING) OR EQUIVALENT. LIS SHALL BE CAPABLE OF FEEDING TRANSFORMER FROM EITHER PRIMARY FEEDER I, PRIMARY FEEDER II, OR NEITHER. LIS SHALL NOT ALLOW BOTH FEEDERS TO BE SIMULTANEOUSLY CONNECTED TO TRANSFORMER.

   WHILE TRANSFORMER PAD IS EXPOSED. FILL VOIDS BETWEEN PRIMARY AND SECONDARY CONDUITS WITH CONCRETE.

   PROVIDE 2 WEEKS NOTICE IN WRITING TO OWNER PRIOR TO SHUTDOWN OF BUILDING. TRANSFORMER SHALL BE REPLACED DURING THE WEEKEND, BETWEEN THE HOURS OF 11PM AND 7AM.

2. REPLACE TR–25/BLDG 24 TRANSFORMER. REMOVE AND DISPOSE OF EXISTING PAD MOUNTED 300KVA, 13,800Y–208Y/120 VOLT TRANSFORMER AND INTEGRAL LOAD BREAK SWITCH. PROVIDE A NEW PAD MOUNTED 300KVA, 13,800Y–208Y/120 VOLT ONAN TRANSFORMER. DISCONNECT PRIMARY (2/0 AWG, COPPER, 3–1/C, MV, EPR) AND SECONDARY (TWO PARALLEL 4#500KCMIL + 1/0GROUND COPPER, THWN) CONDUCTORS FROM EXISTING TRANSFORMER AND RECONNECT TO NEW TRANSFORMER. CONTRACTOR SHALL VERIFY CABLE LENGTHS/HEIGHTS TO EXISTING TRANSFORMER TERMINATIONS AND ORDER NEW TRANSFORMER WITH SAME DIMENSIONS SO EXISTING CABLING IS REUSED (OTHERWISE CONTRACTOR IS RESPONSIBLE FOR PROVIDING NEW CABLING FROM PREVIOUS TERMINATION POINTS).

   PROVIDE LIS (LOAD BREAK SWITCH) INTERNAL TO TRANSFORMER MENTIONED ABOVE, (GE BREAKMASTER LIS – 600A FRAME, 25KA INTERRUPTING RATING AND GE 9F62 EJO–1, 15.5KV, E–RATED, 20A TRIP/FRAME, 50KA INTERRUPTING RATING) OR EQUIVALENT. LIS SHALL BE CAPABLE OF FEEDING TRANSFORMER FROM EITHER PRIMARY FEEDER I, PRIMARY FEEDER II, OR NEITHER. LIS SHALL NOT ALLOW BOTH FEEDERS TO BE SIMULTANEOUSLY CONNECTED TO TRANSFORMER.

   RUN GENERATOR AT BUILDING 50 DURING TRANSFORMER REPLACEMENT. TEMPORARILY SWITCH OVER ATS IN BUILDING 24 SO THAT PANEL E IS FED FROM BUILDING 50 GENERATOR.

   PROVIDE 2 WEEKS NOTICE IN WRITING TO OWNER PRIOR TO SHUTDOWN OF BUILDING. TRANSFORMER SHALL BE REPLACED AFTER 4PM ON A FRIDAY.

   WHILE TRANSFORMER PAD IS EXPOSED. FILL VOIDS BETWEEN PRIMARY AND SECONDARY CONDUITS WITH CONCRETE.

3. REPLACE TR–32/BLDG 8 TRANSFORMER. REMOVE AND DISPOSE OF EXISTING PAD MOUNTED 300KVA, 13,800Y–208Y/120 VOLT TRANSFORMER, AND INTEGRAL LOAD BREAK SWITCH. PROVIDE A NEW PAD MOUNTED 500KVA, 13,800Y–208Y/120 VOLT ONAN TRANSFORMER. DISCONNECT PRIMARY (2/0 AWG, COPPER, 3–1/C, MV, ERP) AND REMOVE SECONDARY (THREE PARALLEL SETS OF 4#500KCMIL COPPER, THWN) CONDUCTORS FROM EXISTING TRANSFORMER. PROVIDE NEW SECONDARY CONDUCTORS (FOUR PARALLEL SETS OF 4#350KCMIL COPPER, THWN) RECONNECT EXISTING PRIMARY AND NEW SECONDARY TO NEW TRANSFORMER. CONTRACTOR SHALL VERIFY CABLE LENGTHS/HEIGHTS TO EXISTING TRANSFORMER TERMINATIONS AND ORDER NEW TRANSFORMER WITH SAME DIMENSIONS SO EXISTING PRIMARY CABLING IS REUSED (OTHERWISE CONTRACTOR IS RESPONSIBLE FOR PROVIDING NEW CABLING FROM PREVIOUS TERMINATION POINTS).

   PROVIDE LIS (LOAD BREAK SWITCH) INTERNAL TO TRANSFORMER MENTIONED ABOVE, (GE BREAKMASTER LIS – 600A FRAME, 25KA INTERRUPTING RATING AND GE 9F62 EJO–1, 15.5KV, E–RATED, 20A TRIP/FRAME, 50KA INTERRUPTING RATING) OR EQUIVALENT. LIS SHALL BE CAPABLE OF FEEDING TRANSFORMER FROM EITHER PRIMARY FEEDER I, PRIMARY FEEDER II, OR NEITHER. LIS SHALL NOT ALLOW BOTH FEEDERS TO BE SIMULTANEOUSLY CONNECTED TO TRANSFORMER.

   PROVIDE 2 WEEKS NOTICE IN WRITING TO OWNER PRIOR TO SHUTDOWN OF BUILDING. TRANSFORMER SHALL BE REPLACED OVER A SINGLE WEEKEND. REPLACE TRANSFORMER AT THE SAME TIME AS BUILDING 8 MDP TO MINIMIZE DOWNTIME.

   WHILE TRANSFORMER PAD IS EXPOSED. FILL VOIDS BETWEEN PRIMARY AND SECONDARY CONDUITS WITH CONCRETE.

4. REPLACE TR–45/BLDG 16 TRANSFORMER. REMOVE AND DISPOSE OF EXISTING PAD MOUNTED 112.5KVA, 13,800Y–208Y/120 VOLT TRANSFORMER AND INTEGRAL LOAD BREAK SWITCH. PROVIDE A NEW PAD MOUNTED 112.5KVA, 13,800Y–208Y/120 VOLT ONAN TRANSFORMER. DISCONNECT PRIMARY (#2 AWG, COPPER, 3–1/C, MV, EPR) AND SECONDARY (4#500KCMIL COPPER, THWN) CONDUCTORS FROM EXISTING TRANSFORMER AND RECONNECT TO NEW TRANSFORMER. CONTRACTOR SHALL VERIFY CABLE LENGTHS/HEIGHTS TO EXISTING TRANSFORMER TERMINATIONS AND ORDER NEW TRANSFORMER WITH SAME DIMENSIONS SO EXISTING CABLING IS REUSED (OTHERWISE CONTRACTOR IS RESPONSIBLE FOR PROVIDING NEW CABLING FROM PREVIOUS TERMINATION POINTS).

   PROVIDE LIS (LOAD BREAK SWITCH) INTERNAL TO TRANSFORMER MENTIONED ABOVE, (GE BREAKMASTER LIS – 600A FRAME, 25KA INTERRUPTING RATING AND GE 9F60 EJO–1, 15.5KV, E–RATED, 15A TRIP/FRAME, 38KA INTERRUPTING RATING) OR EQUIVALENT. LIS SHALL BE CAPABLE OF FEEDING TRANSFORMER FROM EITHER PRIMARY FEEDER I, PRIMARY FEEDER II, OR NEITHER. LIS SHALL NOT ALLOW BOTH FEEDERS TO BE SIMULTANEOUSLY CONNECTED TO TRANSFORMER.

   PROVIDE 2 WEEKS NOTICE IN WRITING TO OWNER PRIOR TO SHUTDOWN OF BUILDING. TRANSFORMER SHALL BE REPLACED OVER A SINGLE WEEKEND.

   REPLACE TRANSFORMER AT SAME TIME AS BLDG 16 MDP IS BEING REPLACED.

   WHILE TRANSFORMER PAD IS EXPOSED. FILL VOIDS BETWEEN PRIMARY AND SECONDARY CONDUITS WITH CONCRETE.

5. REPLACE #12/2 UF CONDUCTORS WITH #10/2 WITH GROUND UF CONDUCTORS. TRENCH EXISTING GROUND AS REQUIRED. DISCONNECT EXISTING 12/2 CONDUCTORS FROM BUILDINGS SHOWN. PROVIDE NEW #10/2 WITH GROUND UF CONDUCTORS DIRECT BURIED. CONNECT TO BUILDINGS SHOWN.

   REPLACEMENT OF FEEDER SHALL OCCUR DURING THE WEEK, DURING NORMAL BUSINESS HOURS.

ISSUED FOR CONSTRUCTION

Revisions:	Date

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STATE OF SOUTH DAKOTA
DATE: 3/13/13

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TSP PROJECT #04121073 - PRIORITY 3

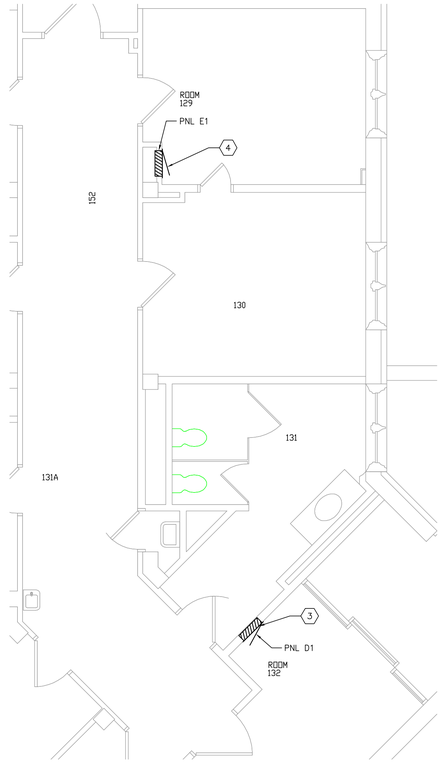
Drawing Title	ELECTRICAL SITE PLAN
Approved: Project Director	
Project Title	Upgrade Electrical Systems Building 5
Project Number	438-13-120
Building Numbers	1, 5, 8, 11, 16
Location	Sioux Falls, South Dakota
Date	03/13/2012
Checked	DLB
Drawn	JWN
Drawing Number	ES101
Dwg. 2 of 16	

Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08–6231

C1 ROOMS 001B-1, 024-1, & 020-1
SCALE: 1/4"=1'-0"



C3 ROOMS 129-1 & 132-1
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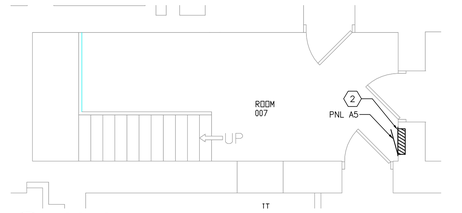

A6 ROOMS 007-1
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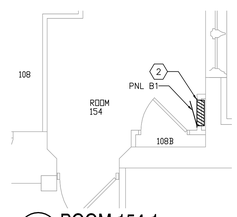

B1 ROOM 154-1
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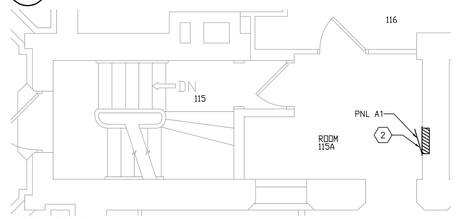

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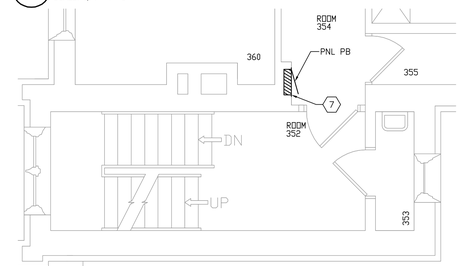

D6 ROOM 354-1
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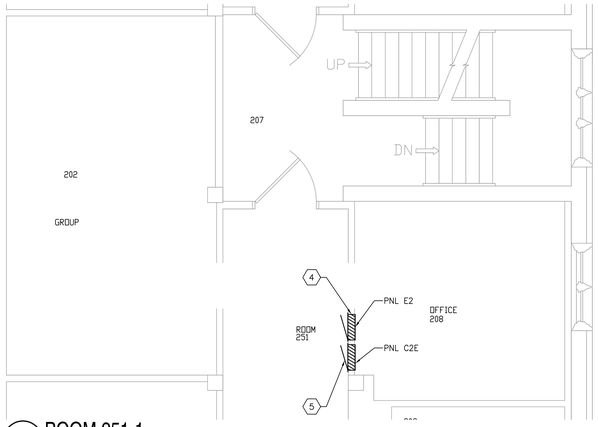

E1 ROOM 251-1
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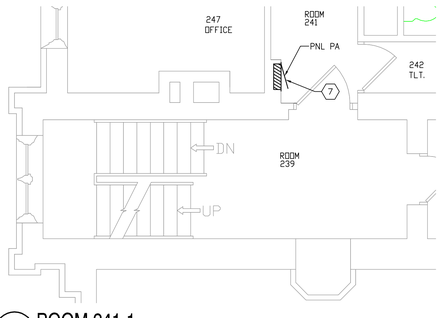

E3 ROOM 241-1
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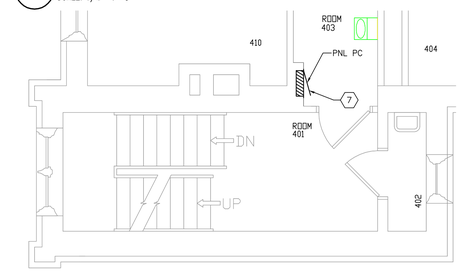

E6 ROOM 403-1
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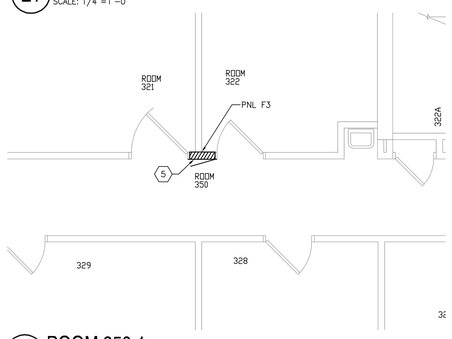

F1 ROOM 350-1
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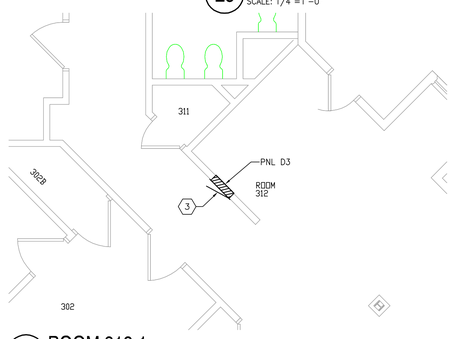

F2 ROOM 312-1
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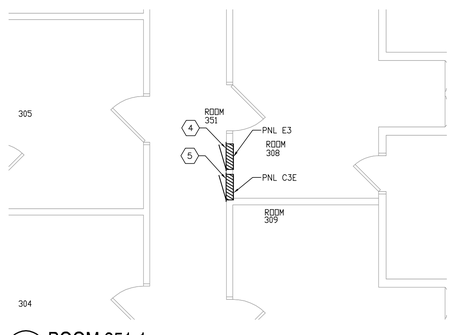


F4 ROOM 351-1
SCALE: 1/4"=1'-0"

SHEET GENERAL NOTES

A. EXISTING FLOORS, WALLS, CEILINGS, ETC IN FINISHED SPACES SHALL BE RETURNED TO THEIR ORIGINAL CONDITION UPON COMPLETION OF WORK. THIS INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING: CLEANING, PATCHING, REPLACING CEILING TILES, REPLACING WALL COVERING, PAINTING, ETC.

B. WORK ASSOCIATED WITH REPLACEMENT OF AN ENTIRE RISER SHALL OCCUR OVER A SINGLE 8 HOUR PERIOD. ELECTRICAL CONTRACTOR SHALL PROVIDE ADEQUATE STAFF SO THAT ALL PANELS THAT ARE PART OF THE SAME RISER WILL BE REPLACED AT THE SAME TIME.

C. PROVIDE 2 WEEKS NOTICE IN WRITING TO OWNER PRIOR TO SHUTDOWN OF ANY EQUIPMENT, UNLESS NOTED OTHERWISE.

D. ELECTRICAL CONTRACTOR SHALL MEET WITH OWNER TO DO PHASING PLAN AND COORDINATE ALL ITEMS IN PANELS TO BE DE-ENERGIZED BEFORE ANY DOWNTIME.

E. SEE SHEETS E-601, E-602, E-603, E-604, E-605, AND E-606 FOR ADDITIONAL INFORMATION.

F. CONTRACTOR SHALL HAVE THE OPTION OF EITHER REPLACING AN ENTIRE PANELBOARD OR REPLACING THE PANEL INTERIOR AND KEEPING THE BACKBOX FOR REUSE FOR ANY PANEL THAT IS SHOWN TO BE REPLACED IN ITS ENTIRETY. IF THE CONTRACTOR CHOOSES TO REUSE THE BACKBOX, THE CONTRACTOR SHALL VERIFY THAT THE NEW INTERIOR WILL FIT INTO THE EXISTING BACKBOX, THE WARRANTY IS NOT VOIDED, THE ASSEMBLY IS LISTED.

G. CONTRACTOR WORKING HOURS SHALL BE DESIGNATED BY THE VA. THE VA SHALL DICTATE WHEN OUTAGES CAN OCCUR. CONTRACTOR SHALL ASSUME THAT OUTAGES WILL BE SCHEDULED DURING NON-BUSINESS HOURS AND THAT WORK SHALL CONTINUE UNINTERRUPTED UNTIL SERVICE IS RESTORED, UNLESS SPECIFICALLY NOTED OTHERWISE.

H. ALL WORK ASSOCIATED WITH BUILDING 1 SHALL OCCUR DURING THE WEEKEND BETWEEN THE HOURS OF 11PM AND 7AM, OR AS DIRECTED BY THE VA.

I. PROVIDE A TEMPORARY WORK AREA ENCLOSURE AROUND PANELS THAT ARE TO BE REPLACED AND LOCATED IN THE PUBLIC AREA OF THE BUILDING. THIS INCLUDES BUT IS NOT LIMITED TO: CORRIDORS, LOBBIES, WAITING AREAS, STAIRWELLS ETC. TEMPORARY ENCLOSURE SHALL NOT BLOCK MORE THAN 1/2 OF CORRIDOR.

J. CONTRACTOR SHALL MONITOR FUEL LEVELS OF GENERATORS THAT ARE BEING USED DURING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE VA WHEN FUEL LEVELS DROP TO A 1/4 OF TANK.

K. MOTOR CONTROL CENTER INDICATOR LAMPS NOTED TO BE REPLACED SHALL BE REPLACED WITH LED TYPE LAMPS.

L. ALL NEW PANELBOARDS SHALL BE MANUFACTURED BY SQUARE D (SCHNEIDER GROUP). SEE SPECIFICATION SECTION 262416.

M. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING NEW COORDINATION STUDY AND ADJUSTING TRIP SETTINGS ON ALL ELECTRONIC TRIP CIRCUIT BREAKERS. CIRCUIT BREAKERS SHALL COORDINATE WITH PANELS THEY ARE FEEDING. CONTACT TSP ARCHITECTS AND ENGINEERS FOR EXISTING COORDINATION STUDY.

N. SCHEDULED POWER OUTAGES SHALL NOT OCCUR IF SEVERE WEATHER IS FORECASTED. COORDINATE ALL OUTAGES WITH THE VA.

SHEET KEYNOTES

1. REPLACE DISTRIBUTION PANEL EM. REMOVE AND DISPOSE OF EXISTING 400A, 208V, 3P, 4W WALL MOUNTED PANEL AND METER. PROVIDE A NEW DISTRIBUTION PANEL. SEE SCHEDULE SHEET E-501. MOUNT ON WALL. DISCONNECT FEEDER AND BRANCH CIRCUIT CONDUCTORS, RECONNECT TO NEW PANEL. IF CONDUCTORS ARE NOT LONG ENOUGH FOR REUSE, REPLACE CONDUCTORS. SEE RISER ON E-602. PROVIDE A MULTI-FUNCTION DIGITAL METER ON PANEL.

   INTERCONNECT DIGITAL-METERING MONITOR WITH CAMPUS METASYS. PROVIDE CABLING TO CAMPUS NETWORK TO INTERFACE WITH METASYS AS REQUIRED. ELECTRICAL CONTRACTOR SHALL HIRE JOHNSON CONTROLS INC. (JCI) TO PERFORM THE INTERCONNECTION WORK AND COORDINATE WHERE NETWORK CABLING NEEDS TO TERMINATE. SEE SPECIFICATION 262411.

   PANEL SHALL BE REPLACED ON A WEEKEND.

2. REPLACE PANEL. REMOVE AND DISPOSE OF EXISTING 100A, 208V, 3P, 4W PANEL. PROVIDE A NEW PANELBOARD, SEE SCHEDULE SHEETS E-501 AND E-502. MOUNT AS SHOWN. DISCONNECT BRANCH CIRCUIT CONDUCTORS, RECONNECT TO NEW PANEL. IF CONDUCTORS ARE NOT LONG ENOUGH FOR REUSE, REPLACE CONDUCTORS. SEE RISER ON E-602.

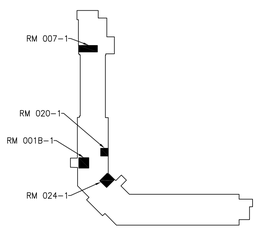
3. REPLACE PANEL. REMOVE AND DISPOSE OF EXISTING 225A, 208V, 3P, 4W PANEL. PROVIDE A NEW PANELBOARD, SEE SCHEDULE SHEETS E-501 AND E-502. MOUNT AS SHOWN. DISCONNECT BRANCH CIRCUIT CONDUCTORS, RECONNECT TO NEW PANEL. IF CONDUCTORS ARE NOT LONG ENOUGH FOR REUSE, REPLACE CONDUCTORS. SEE RISER ON E-602.

4. REPLACE PANEL. REMOVE AND DISPOSE OF EXISTING 100A, 208V, 3P, 4W PANEL. PROVIDE A NEW PANELBOARD, SEE SCHEDULE SHEETS E-501 AND E-502. MOUNT AS SHOWN. DISCONNECT BRANCH CIRCUIT CONDUCTORS, RECONNECT TO NEW PANEL. IF CONDUCTORS ARE NOT LONG ENOUGH FOR REUSE, REPLACE CONDUCTORS. SEE RISER ON E-602.

5. REPLACE PANEL. REMOVE AND DISPOSE OF EXISTING 100A, 208V, 3P, 4W PANEL. PROVIDE A NEW PANELBOARD, SEE SCHEDULE SHEETS E-501 AND E-502. MOUNT AS SHOWN. DISCONNECT BRANCH CIRCUIT CONDUCTORS, RECONNECT TO NEW PANEL. IF CONDUCTORS ARE NOT LONG ENOUGH FOR REUSE, REPLACE CONDUCTORS. SEE RISER ON E-602.

6. REPLACE TRANSFORMER. SEE ES101 FOR ADDITIONAL INFORMATION.

7. REPLACE PANEL. REMOVE AND DISPOSE OF EXISTING 225A, 208V, 3P, 4W PANEL. PROVIDE A NEW PANELBOARD, SEE SCHEDULE SHEETS E-501 AND E-502. MOUNT AS SHOWN. DISCONNECT BRANCH CIRCUIT CONDUCTORS, RECONNECT TO NEW PANEL. IF CONDUCTORS ARE NOT LONG ENOUGH FOR REUSE, REPLACE CONDUCTORS. SEE RISER ON E-602.



BASEMENT LEVEL KEY PLAN
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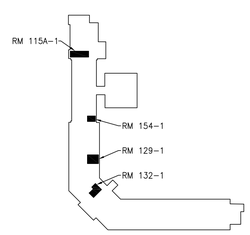

FIRST FLOOR KEY PLAN
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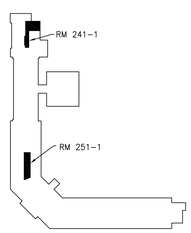

SECOND FLOOR KEY PLAN
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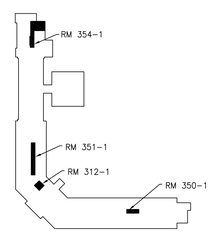

THIRD FLOOR KEY PLAN
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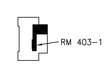

FOURTH FLOOR KEY PLAN
SCALE: NO SCALE

ISSUED FOR CONSTRUCTION

Revisions	Date

CONSULTANTS:

REGISTERED PROFESSIONAL ENGINEER REG. NO. 6729 DARRELL L. BREN STATE OF SOUTH DAKOTA
DATE: 3/13/13

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To Solve. To Excel. Together.

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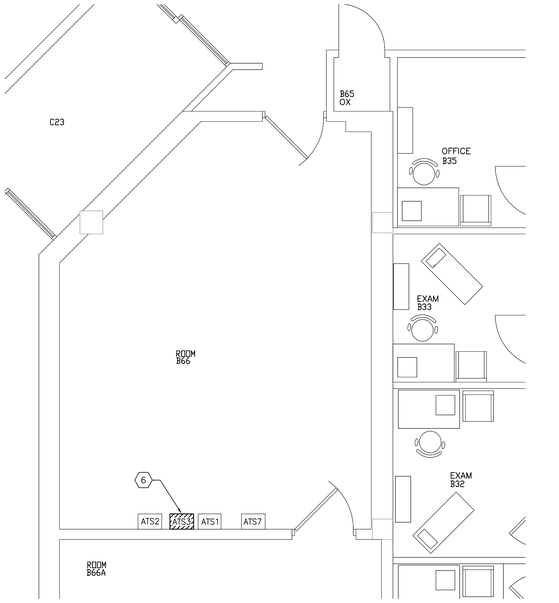
TSP PROJECT #04121073 - PRIORITY 3

Drawing Title	ELECTRICAL PLANS - BUILDING 1
Approved: Project Director	
Project Title	Upgrade Electrical Systems Building 5
Location	Sioux Falls, South Dakota
Date	03/13/2012
Checked	DLB
Drawn	JWN
Project Number	438-13-120
Building Numbers	1, 5, 8, 11, 16
Drawing Number	E-101
Dwg. 3 of 16	

Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08-6231



D1 ROOM B66-5 & B66A-5
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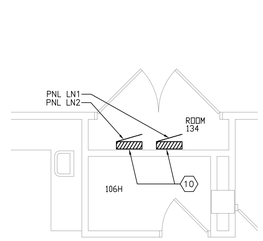

A3 ROOM 134-5
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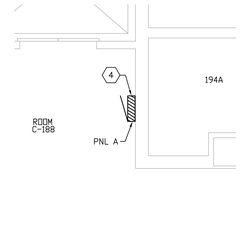

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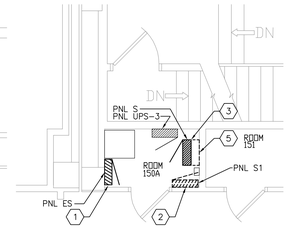

A5 ROOM 150A-5
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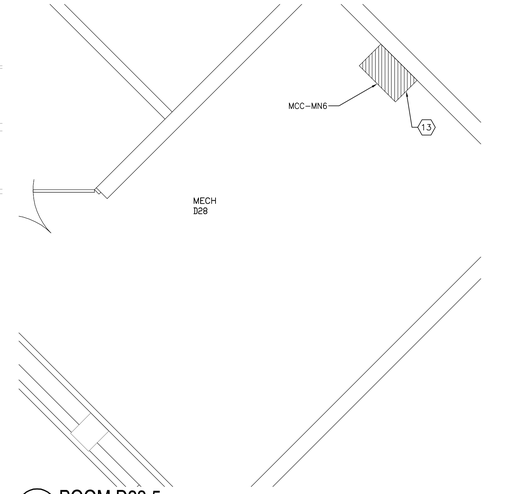

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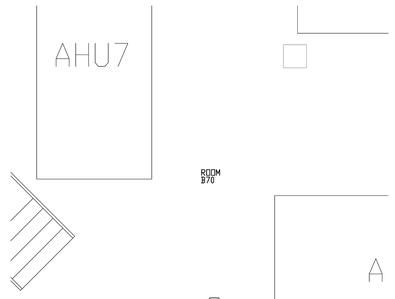

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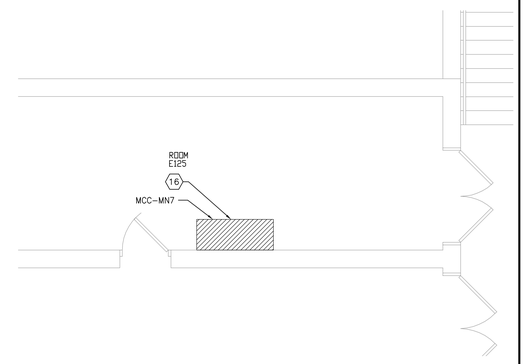

D6 ROOM 125-5
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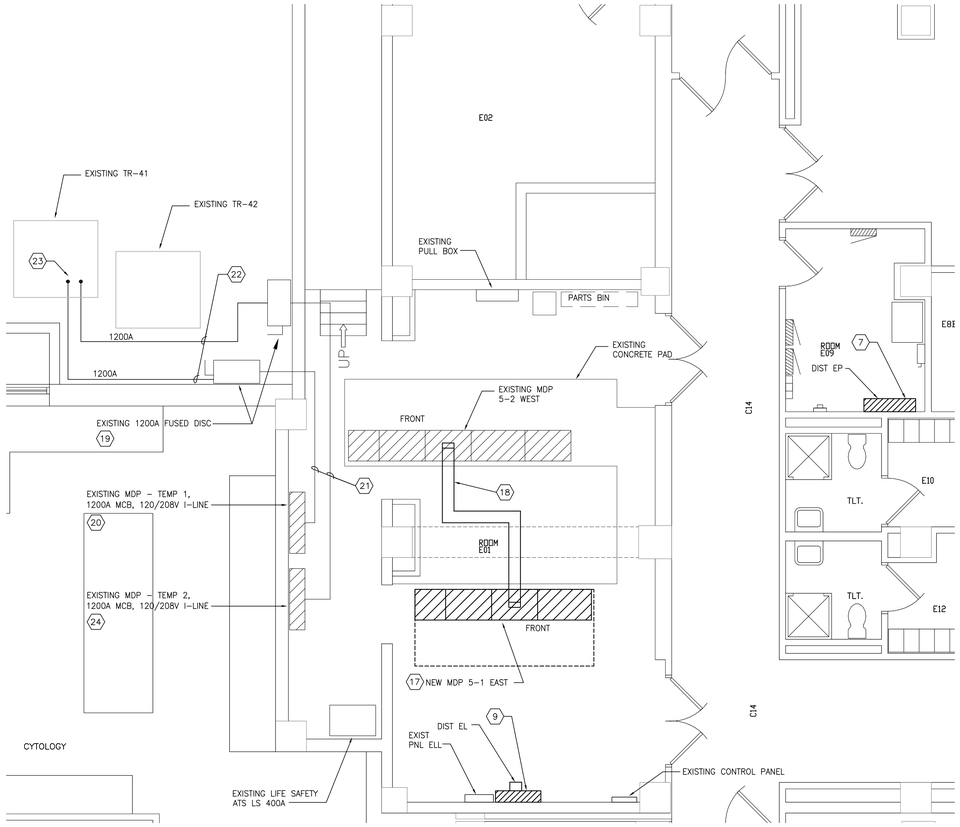

F1 ROOM E01-5 & E09-5
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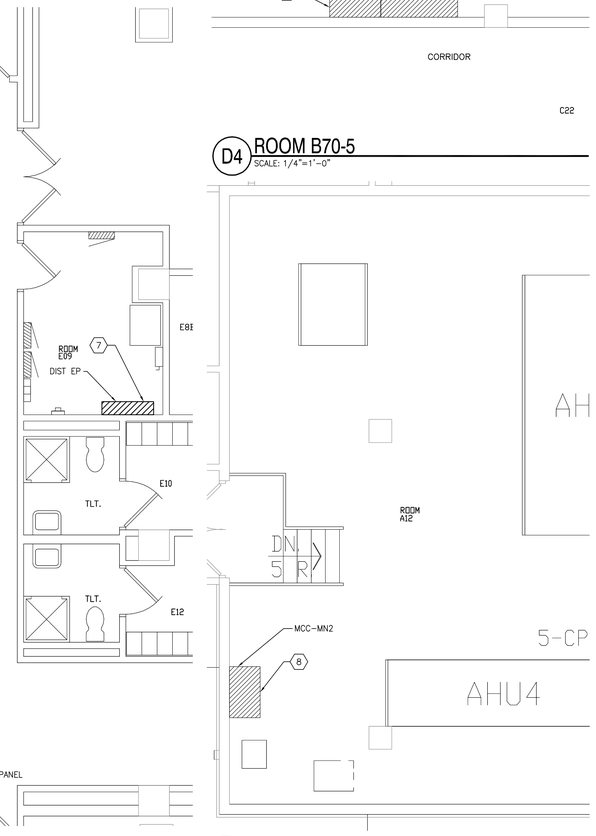

F4 ROOM A12-5
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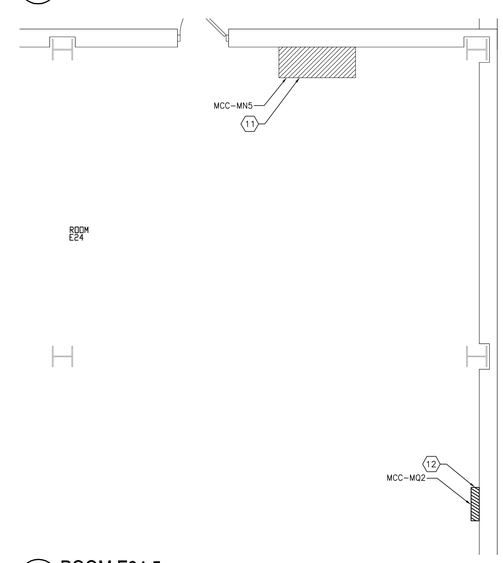


F6 ROOM E24-5
SCALE: 1/4"=1'-0"

SHEET GENERAL NOTES

A. SEE E-101 FOR ADDITIONAL GENERAL NOTES.

SHEET KEYNOTES

1. REPLACE PANEL ES. REMOVE AND DISPOSE OF EXISTING 100A, 208V, 3P, 4W WALL MOUNTED PANEL. PROVIDE A NEW PANELBOARD, SEE SCHEDULE ON SHEET E-501. DISCONNECT BRANCH CIRCUIT CONDUCTORS, RECONNECT TO NEW PANEL. IF CONDUCTORS ARE NOT LONG ENOUGH FOR REUSE, REPLACE CONDUCTORS. SEE RISER ON E-604.
2. SEE RISER DIAGRAM ON SHEET E-604.
3. REPLACE PANEL S. REMOVE AND DISPOSE OF EXISTING 225A, 208V, 3P, 4W WALL MOUNTED PANEL. PROVIDE A NEW PANELBOARD, SEE SCHEDULE ON SHEET E-503. . DISCONNECT BRANCH CIRCUIT CONDUCTORS, RECONNECT TO NEW PANEL. IF CONDUCTORS ARE NOT LONG ENOUGH FOR REUSE, REPLACE CONDUCTORS. SEE RISER ON E-604.
4. REPLACE PANEL A. REMOVE AND DISPOSE OF EXISTING 150A, 208V, 3P, 4W PANEL. PROVIDE A NEW PANELBOARD, SEE SCHEDULE ON E-503. DISCONNECT BRANCH CIRCUITS, RECONNECT TO NEW PANEL. IF CONDUCTORS ARE NOT LONG ENOUGH FOR REUSE, REPLACE CONDUCTORS. SEE RISER ON E-604.

   PANEL SHALL BE REPLACED BETWEEN THE HOURS OF 7:00PM AND 5:00AM.
5. REMOVE AND DISPOSE OF BACKBOX. NEW PANEL SHALL BE WALL MOUNTED. IF CONTRACTOR CHOOSES TO REUSE THE PANELBOARD BACKBOXES, THIS BACKBOX SHALL REMAIN.
6. REPLACE ATS. REMOVE AND DISPOSE OF EXISTING 400A, 208V, 3P, 4W WALL MOUNTED ATS. PROVIDE A NEW 400A, 3P, 4W WALL MOUNTED ATS, DISCONNECT NORMAL, EMERGENCY, AND LOAD FEEDER CONDUCTORS FEEDING INTO AND OUT OF ATS, RECONNECT TO NEW ATS. CONTRACTOR SHALL VERIFY CABLE LENGTHS/HEIGHTS TO EXISTING ATS TERMINATIONS AND ORDER NEW ATS WITH SAME DIMENSION SO EXISTING CABLING IS REUSED (OTHERWISE CONTRACTOR IS RESPONSIBLE FOR PROVIDING NEW CABLING FROM PREVIOUS TERMINATION POINTS).

   ATS SHALL BE REPLACED WHEN THE OUTSIDE AIR TEMPERATURE IS BETWEEN 65 DEGREES F AND 80 DEGREES F AND AFTER 6:00PM.
7. REPLACE DISTRIBUTION PANEL EP. REMOVE AND DISPOSE OF EXISTING 600A, 208V, 3P, 4W WALL MOUNTED DISTRIBUTION PANEL. PROVIDE A NEW DISTRIBUTION PANEL, SEE SCHEDULE ON E-502. DISCONNECT FEEDER AND BRANCH CIRCUIT CONDUCTORS FEEDING INTO AND OUT OF PANEL AND RECONNECT TO NEW PANEL. IF CONDUCTORS ARE NOT LONG ENOUGH FOR REUSE, REPLACE CONDUCTORS. PROVIDE A MULTI-FUNCTION DIGITAL METERING MONITOR FOR PANEL. SEE RISER ON E-603.

   INTERCONNECT DIGITAL-METERING MONITOR WITH CAMPUS METASYS. PROVIDE CABLING TO CAMPUS NETWORK TO INTERFACE WITH METASYS AS REQUIRED. ELECTRICAL CONTRACTOR SHALL HIRE JCI TO PERFORM THE INTERCONNECTION WORK AND COORDINATE WHERE NETWORK CABLING NEEDS TO TERMINATE. SEE SPECIFICATION 262411.

   PANEL SHALL BE REPLACED BETWEEN THE HOURS OF 7:00PM AND 5:00AM.

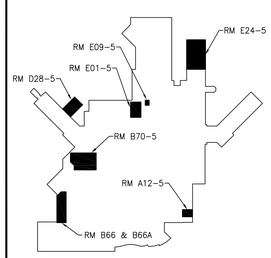
   PANEL SHALL BE REPLACED WHILE MCC-ERI IS TEMPORARILY CONNECTED TO SWBD 5-1.
8. PROVIDE A BLANK PANEL BELOW BUCKET EF-IVFD AND REPLACE SIX BURNT OUT INDICATOR LAMPS IN MCC-MN2. EXISTING MCC IS A GE 8000 LINE, CATALOG #517X0091L04.
9. REPLACE DISTRIBUTION PANEL EL. REMOVE AND DISPOSE OF EXISTING 400A, 208V, 3P, 4W WALL MOUNTED DISTRIBUTION PANEL. PROVIDE A NEW DISTRIBUTION PANEL, SEE SCHEDULE ON E-502. REMOVE EXISTING METER. DISCONNECT FEEDER AND BRANCH CIRCUIT CONDUCTORS FEEDING INTO AND OUT OF PANEL AND RECONNECT TO NEW PANEL. IF CONDUCTORS ARE NOT LONG ENOUGH FOR REUSE, REPLACE CONDUCTORS. PROVIDE A MULTI-FUNCTION DIGITAL METERING MONITOR FOR PANEL. SEE RISER ON E-604.

   INTERCONNECT DIGITAL-METERING MONITOR WITH CAMPUS METASYS. PROVIDE CABLING TO CAMPUS NETWORK TO INTERFACE WITH METASYS AS REQUIRED. ELECTRICAL CONTRACTOR SHALL HIRE JCI TO PERFORM THE INTERCONNECTION WORK AND COORDINATE WHERE NETWORK CABLING NEEDS TO TERMINATE. SEE SPECIFICATION 262411.

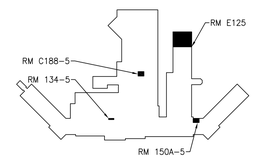
   PANEL SHALL BE REPLACED DURING A WEEKDAY NIGHT.
10. REPLACE PANELBOARD LN1 AND LN2. REMOVE AND DISPOSE OF EXISTING 150A, 208V, 3P, 4W WALL MOUNTED PANELS. PROVIDE A NEW PANELBOARD, SEE SCHEDULE ON E-502. BACK MOUNT ON EXISTING WALL. DISCONNECT BRANCH CIRCUIT CONDUCTORS, RECONNECT TO NEW PANEL LN1 AND LN2. IF CONDUCTORS ARE NOT LONG ENOUGH FOR REUSE, REPLACE CONDUCTORS. SEE RISER ON E-603.

    PANEL SHALL BE REPLACED BETWEEN THE HOURS OF 6:00PM AND 6:00AM.
11. PROVIDE A BLANK PANEL BELOW BUCKET 4-P23 & REPLACE 24 BURNT OUT INDICATOR LAMPS IN MCC-MN5. EXISTING MCC IS A GE 8000 LINE, CATALOG #517X0091L09.
12. REPLACE MCC-MQ2. REMOVE AND DISPOSE OF EXISTING 600A, 480V, 3P, 3W FLOOR MOUNTED MCC. PROVIDE A NEW MOTOR CONTROL CENTER, SEE SCHEDULE ON E-504, DISCONNECT FEEDER AND BRANCH CIRCUIT CONDUCTORS, RECONNECT TO NEW MCC. CONTRACTOR SHALL ORDER NEW MCC WITH SAME LAYOUT SO THAT EXISTING CONDUITS AND CONDUCTORS CAN BE REUSED (OTHERWISE CONTRACTOR IS RESPONSIBLE FOR PROVIDING NEW CONDUITS AND CONDUCTORS). EXISTING MCC IS MANUFACTURED BY GE 8000 LINE CATALOG #517X0091L10. CONTRACTOR SHALL VERIFY EXACT LAYOUT AND RATINGS OF STARTERS, CIRCUIT BREAKERS, CONTROLS ETC INSTALLED IN EXISTING MCC-MQ2. NEW MCC SHALL MATCH EXISTING LAYOUT.

    MCC SHALL BE REPLACED AFTER 6:00PM AND WHEN THE OUTSIDE AIR TEMPERATURE IS ABOVE 65 DEGREES F.
13. REPLACE THREE BURNT OUT INDICATOR LAMPS IN MCC-MN6. EXISTING MCC IS A GE 8000 LINE MCC-MN6. CATALOG #517X0091W5.
14. REPLACE ONE BURNT OUT INDICATOR LAMP IN MCC-MQ1. EXISTING MCC IS A GE 8000 LINE, CATALOG #517X0091L01.
15. REPLACE FOUR BURNT OUT INDICATOR LAMPS IN MCC-MN1. EXISTING MCC IS A GE 8000 LINE, CATALOG #517X0091L02.
16. REPLACE EIGHT BURNT OUT INDICATOR LAMPS IN MCC-MN7. EXISTING MCC IS A GE 8000 LINE, CATALOG #517X0091L06.
17. NEW SWITCHBOARD 5-1, EXTEND EXISTING CONDUIT SYSTEM AS REQUIRED TO ACCOMMODATE NEW SWITCHBOARD AND PROVIDE 4 NEW SETS OF 4-#600KCMIL CU & 1-#1/O CU GRND CONDUCTOR IN EXISTING RACEWAYS FROM EXISTING TR-41 TO NEW SWITCHBOARD. CUT AND PATCH EXISTING FLOOR SLAB IF NECESSARY. PROVIDE A KIRK-KEY INTERLOCK SWITCH FOR SWITCHBOARD 5-1 1600A MAIN CIRCUIT BREAKER. SWITCHBOARD 5-1 SHALL BE THE SAME MANUFACTURER AS EXISTING SWITCHBOARD 5-2. SWITCHBOARD 5-1 KIRK-KEY SHALL ACCEPT THE SAME KEY AS EXISTING SWITCHBOARD 5-2 1600A MAIN CIRCUIT BREAKER AND SWITCHBOARD 5-2 TIE-BREAKER. KIRK-KEY INTERLOCK SHALL ALLOW ONLY TWO OUT OF THE FOLLOWING THREE CIRCUIT BREAKERS TO BE CLOSED AT THE SAME TIME: SWBD 5-1 1600A MCB, SWBD 5-2 1600A MCB, AND SWBD 5-2 1600A TIE-BREAKER. CONNECT BACK INTO EXISTING GROUNDING SYSTEM.
18. PROVIDE A 1600A BUSSWAY SYSTEM BETWEEN EXISTING SWITCHBOARD 5-2 AND NEW SWITCHBOARD 5-1. CONNECT TO EXISTING SWITCHBOARD 5-2 TIE-BREAKER. SEE RISER DIAGRAM SHEETS E-603 AND E-604.
19. EXISTING 1200A EXTERIOR DISCONNECT SWITCHES TO BE DISCONNECTED AND REMOVED AFTER SWITCHBOARD 5-1 HAS BEEN COMPLETED INSTALLED, ENERGIZED AND TESTED. PATCH ANY OPENINGS IN WALLS TO MATCH EXISTING SURFACES.
20. EXISTING WALL MOUNTED 1200A "I-LINE" DISTRIBUTION BOARD. TRANSFER LOADS FROM EXISTING SWITCHBOARD 5-1 TO THIS DISTRIBUTION BOARD PER PANELS SCHEDULES ON SHEET E-504. TRANSFER LOADS BACK TO NEW SWITCHBOARDS 5-1 AFTER 5-1 HAS BEEN INSTALLED AND ENERGIZED. COORDINATE ANY REQUIRED DOWN TIME WITH OWNER PRIOR TO WORK BEING DONE. DISTRIBUTION BOARD SHALL BE REMOVED AND TURNED OVER TO THE OWNER AFTER ALL LOADS HAVE BEEN TRANSFERRED BACK.
21. EXISTING 1200A FEEDERS SHALL BE DISCONNECTED AND REMOVED AFTER THE INSTALLATION OF SWITCHBOARD 5-1 IS COMPLETED. PATCH ANY OPENINGS IN WALLS TO MATCH EXISTING SURFACES.
22. INSTALL 1200A FEEDERS FROM EXISTING DISCONNECT SWITCHES TO EXISTING TRANSFORMER TR-41. EXISTING 1200A FEEDER CABLES ARE LOCATED IN ROOM E01 FOR CONTRACTOR USE. DISCONNECT AND REMOVE FEEDERS AFTER INSTALLATION OF SWITCHBOARD 5-1 IN COMPLETED. PATCH ANY OPENINGS IN WALLS TO MATCH EXISTING SURFACES.
23. PROVIDE TRANSFORMER SECONDARY LUGS WITH PHYSICAL CAPACITY TO ACCOMMODATE BOTH NEW AND EXISTING CONDUCTORS. SUPPORT CONDUCTORS INSIDE TRANSFORMER CABINET TO AVOID EXCESSIVE STRAIN ON SECONDARY LANDING LUGS. DOWN TIME SHALL BE MINIMAL. COORDINATE ANY DOWN TIME WITH OWNER. COORDINATE ANY NECESSARY RUN-TIME OF HOSPITAL GENERATORS WITH OWNER. PATCH ANY UNUSED OPENINGS AFTER INSTALLATION OF SWITCHBOARD 5-1 IS COMPLETED.
24. EXISTING WALL MOUNTED 1200A "I-LINE" DISTRIBUTION BOARD. TRANSFER LOADS FROM EXISTING SWITCHBOARD 5-1 TO THIS DISTRIBUTION BOARD PER PANELS SCHEDULES ON SHEET E-504. TRANSFER LOADS BACK TO NEW SWITCHBOARDS 5-1 AFTER 5-1 HAS BEEN INSTALLED AND ENERGIZED. COORDINATE ANY REQUIRED DOWN TIME WITH OWNER PRIOR TO WORK BEING DONE. DISTRIBUTION BOARD SHALL BE REMOVED AND REUSED FOR REPLACEMENT OF MAIN SWITCHBOARD IN BUILDING #8 AFTER ALL LOADS HAVE BEEN TRANSFERRED BACK.



GROUND FLOOR KEY PLAN
SCALE: NO SCALE



FIRST FLOOR KEY PLAN
SCALE: NO SCALE

ISSUED FOR CONSTRUCTION

Revisions	Date

CONSULTANTS:

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 6729
DARRELL L. BREN
SOUTH DAKOTA
DATE: 3/13/13

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fax: (605) 336-7926
www.teamtsp.com
TSP PROJECT #04121073 - PRIORITY 3
To Solve. To Excel. Together.

Drawing Title: ELECTRICAL PLANS - BUILDING 5

Approved Project Director

Project Title: Upgrade Electrical Systems Building 5

Project Number: 438-13-120

Building Numbers: 1, 5, 8, 11, 16

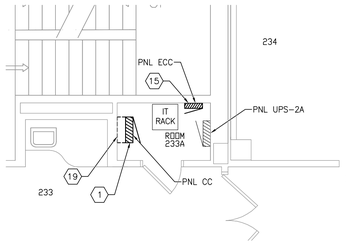
Location: Sioux Falls, South Dakota

Date: 03/13/2012 | Checked: DLB | Drawn: JWN

Drawing Number: E-102
Dwg. 4 of 16

Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231



A1 ROOM 233A-5
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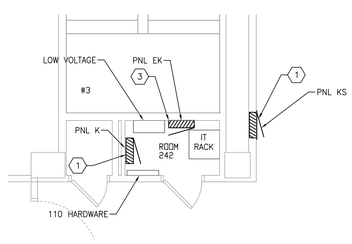

A2 ROOM 242-5
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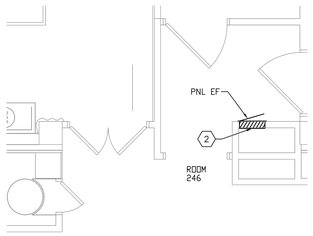

A3 ROOM 246-5
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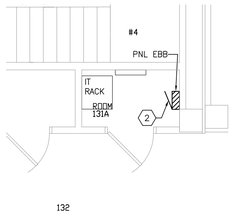

A5 ROOM 131A-5
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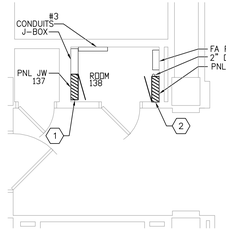

A6 ROOM 138-5
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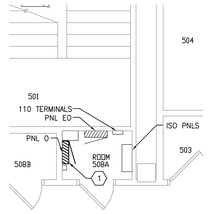

A7 ROOM 508A-5
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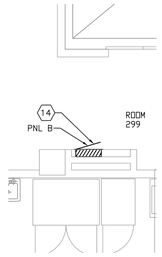

A8 ROOM 299-5
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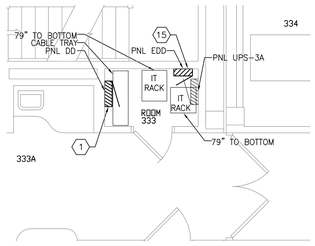

B1 ROOM 333-5
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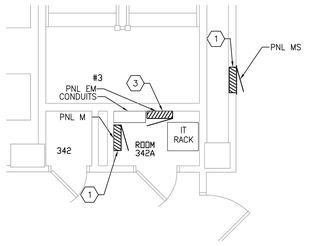

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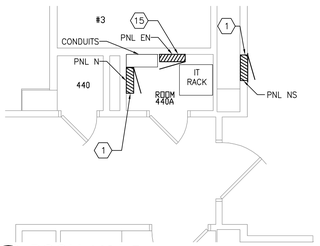

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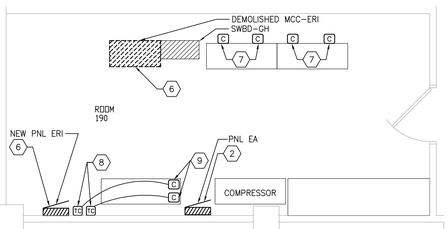

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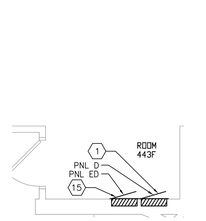

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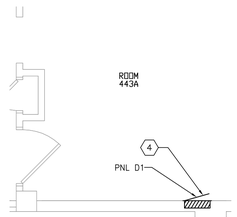

B8 ROOM 443A-5
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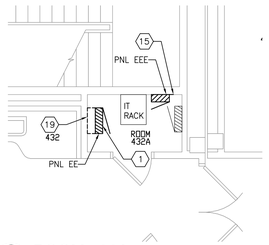

D1 ROOM 432A-5
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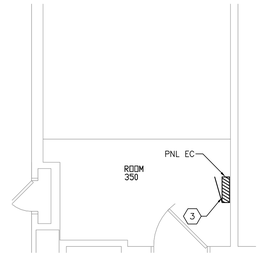

D2 ROOM 350-5
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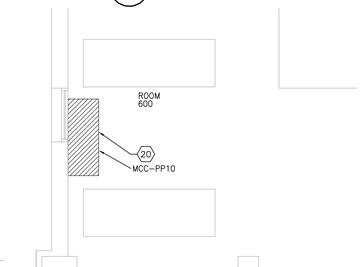

D3 ROOM 600-5
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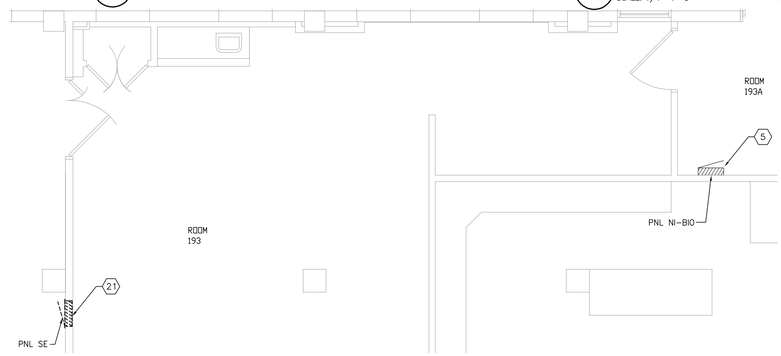
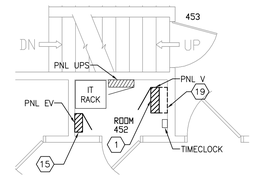


D4 ROOM 193-5 & 193A-5
SCALE: 1/4"=1'-0"



D8 ROOM 452-5
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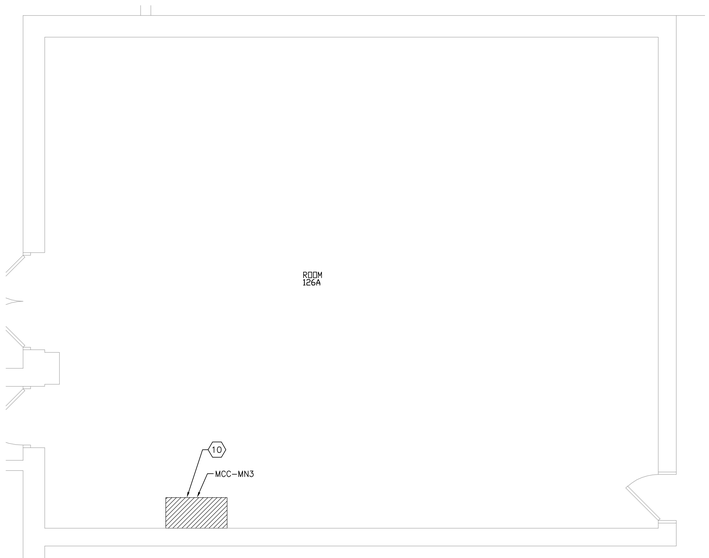

F1 ROOM 126A-5
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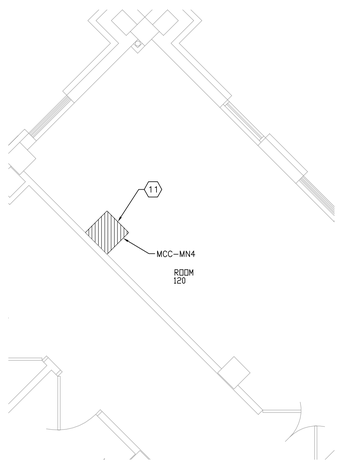

F4 ROOM 120-5
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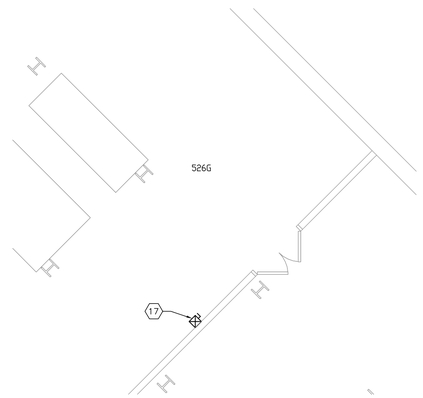
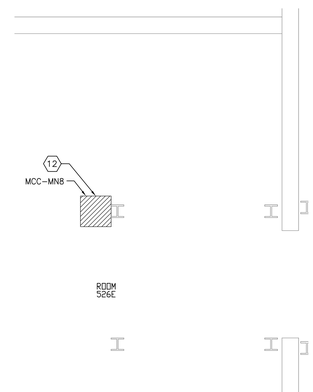


A7 ROOM 526G-5
SCALE: 1/4"=1'-0"



A7 ROOM 526E-5
SCALE: 1/4"=1'-0"

SHEET GENERAL NOTES

A. SEE SHEET E-101 FOR ADDITIONAL GENERAL NOTES.

SHEET KEYNOTES

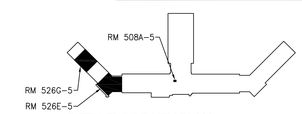
1. REPLACE PANEL. REMOVE AND DISPOSE OF EXISTING 225A, 208V, 3P, 4W PANEL. PROVIDE A NEW PANELBOARD, SHE SCHEDULE SHEETS E-502, E-503, AND E-504. DISCONNECT BRANCH CIRCUIT CONDUCTORS, RECONNECT TO NEW PANEL. IF CONDUCTORS ARE NOT LONG ENOUGH FOR REUSE, REPLACE CONDUCTORS. SEE RISERS ON E-603, E-604, AND E-605.
2. REPLACE PANEL. REMOVE AND DISPOSE OF EXISTING 100A, 208V, 3P, 4W PANEL. PROVIDE A NEW PANELBOARD, SEE SCHEDULE SHEETS E-502, E-503, AND E-504. DISCONNECT BRANCH CIRCUIT CONDUCTORS, RECONNECT TO NEW PANEL. IF CONDUCTORS ARE NOT LONG ENOUGH FOR REUSE, REPLACE CONDUCTORS. SEE RISER ON E-603, E-604, AND E-605.
3. REPLACE PANEL. REMOVE AND DISPOSE OF EXISTING 100A, 208V, 3P, 4W PANEL. PROVIDE A NEW PANELBOARD, SEE SCHEDULE SHEETS E-502, E-503, AND E-504. DISCONNECT BRANCH CIRCUIT CONDUCTORS, RECONNECT TO NEW PANEL. IF CONDUCTORS ARE NOT LONG ENOUGH FOR REUSE, REPLACE CONDUCTORS. SEE RISER ON E-603, E-604, AND E-605.
4. REPLACE PANEL. REMOVE AND DISPOSE OF EXISTING 100A, 208V, 3P, 4W PANEL. PROVIDE A NEW PANELBOARD, SEE SCHEDULE SHEETS E-502, E-503, AND E-504. DISCONNECT BRANCH CIRCUIT CONDUCTORS, RECONNECT TO NEW PANEL. IF CONDUCTORS ARE NOT LONG ENOUGH FOR REUSE, REPLACE CONDUCTORS. SEE RISER ON E-603, E-604, AND E-605.
5. CONNECT NEW FEEDER TO EXISTING PANEL N1-BIO. REMOVE ONE SPARE 30A-2P CIRCUIT BREAKER. PROVIDE A NEW 20A-2P CIRCUIT BREAKER FOR PHARMACY AC UNIT. PROVIDE 20A-2P BRANCH CIRCUIT FROM PNL NI-BIO TO PHARMACY AC UNIT, INTERCEPT EXISTING PHARMACY AC UNIT CIRCUIT AND EXTEND TO EXISTING PNL NI-BIO. MATCH EXISTING PANEL MANUFACTURER AND AIC RATING.

   SHUTDOWN OF PANEL SHALL OCCUR DURING THE WEEKDAY AT NIGHT.
6. PROVIDE NEW PANEL ERI, SEE SCHEDULE SHEET E-504. TEMPORARILY CONNECT NEW PNL ERI TO A SPARE 200A CIRCUIT BREAKER IN SWBD 5-1. ONCE NEW PNL IS ENERGIZED, TRANSFER LOADS FROM EXISTING MCC-ERI UNTIL ALL LOADS ARE TRANSFERRED, PROVIDE ADDITIONAL CONDUIT, CONDUCTORS, J-BOXES ETC AS REQUIRED. MAXIMUM DOWNTIME OF A LOAD ANY LOAD IS 1 HOUR. ONCE ALL LOADS ARE TRANSFERRED, DISCONNECT FEEDER FROM EXISTING MCC-ERI AND REMOVE AND DISPOSE OF EXISTING MCC-ERI. EXTEND FEEDER AND CONNECT TO NEW PNL. EXISTING MCC IS MANUFACTURED BY SIEMENS-ALLIC, PART #25-313-274-501, SERIAL #09-1461-37274-01. SEE RISER DIAGRAM SHEET E-603.

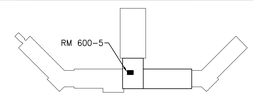
   MCC SHALL BE REPLACED BETWEEN THE HOURS OF 7:00PM AND 5:00AM.

   MCC SHALL BE REPLACED AFTER SWBD 5-1 IS REPLACED.
7. PROVIDE A 240V, 30A, 3POLE CONTACTOR FOR EXISTING COMPRESSOR. MOUNT ON EXISTING COMPRESSOR CONTACTOR BLACK BOX. EXTEND EXISTING CONTROL WIRING AS REQUIRED TO NEW CONTACTOR. WIRE PER DIAGRAM LOCATED ON COMPRESSOR CONTACTOR BLACK BOX. SEE SHEET E-603 FOR ADDITIONAL INFORMATION.
8. PROVIDE A 24HOUR TIME CLOCK FOR CONTROL FOR EAST FREEZER DEFROST AND FANS. TIME CLOCK SHALL DISCONNECT POWER TO THE FREEZER TWICE PER DAY FOR 25 MINUTES EACH, 6:00AM AND 8:00PM.
9. PROVIDE A 240V, 30A, 3POLE CONTACTOR FOR EXISTING COMPRESSOR. MOUNT ON EXISTING COMPRESSOR CONTACTOR BLACK BOX. EXTEND EXISTING CONTROL WIRING AS REQUIRED TO NEW CONTACTOR. TIME CLOCK SHALL DISCONNECT POWER TO COMPRESSOR AS INDICATED IN SHEET KEYNOTE #8. WIRE PER DIAGRAM LOCATED ON COMPRESSOR CONTACTOR BLACK BOX. SEE SHEET E-603 FOR ADDITIONAL INFORMATION.
10. REPLACE FOUR BURNT OUT INDICATOR LAMPS IN MCC-MN3. EXISTING MCC IS A GE 8000 LINE, CATALOG #517X0091L03.
11. REPLACE THREE BURNT OUT INDICATOR LAMPS IN MCC-MN4. EXISTING MCC IS A GE 8000 LINE, CATALOG #517X0091L07.
12. REPLACE SEVEN BURNT OUT INDICATOR LAMPS IN MCC-MN8. EXISTING MCC IS A GE 8000 LINE, CATALOG #517X0091L06.
13. LOCATION OF EXISTING EXTERIOR PHARMACY AC UNIT. CONNECT A 20A-2P CIRCUIT BREAKER IN PANEL NI-BIO. PANEL NI-BIO IS APPROXIMATELY 100' AWAY FROM AC UNIT.
14. REPLACE PANEL. REMOVE AND DISPOSE OF EXISTING 125A, 208V, 3P, 4W PANEL. PROVIDE A NEW PANELBOARD, SEE SCHEDULE SHEETS E-502, E-503, AND E-504. DISCONNECT BRANCH CIRCUIT CONDUCTORS, RECONNECT TO NEW PANEL. IF CONDUCTORS ARE NOT LONG ENOUGH FOR REUSE, REPLACE CONDUCTORS. SEE RISER ON E-604.

    PANEL SHALL BE REPLACED BETWEEN THE HOURS OF 7:00PM AND 5:00AM.
15. REPLACE PANEL. REMOVE AND DISPOSE OF EXISTING 100A, 208V, 3P, 4W PANEL. PROVIDE A NEW PANELBOARD, SEE SCHEDULE SHEETS ON E-502, E-503, AND E-504. DISCONNECT BRANCH CIRCUIT CONDUCTORS, RECONNECT TO NEW PANEL. IF CONDUCTORS ARE NOT LONG ENOUGH FOR REUSE, REPLACE CONDUCTORS. SEE RISER ON E-603, E-604, AND E-605.
16. NOT USED.
17. REPLACE CS/NFD. DISCONNECT CONTROL AND POWER CONDUCTORS FROM CS/NFD. PROVIDE A NEW 208V, 3PH, 3W, NEMA 0 CS/NFD FOR CONTROL OF EXISTING 1/2 HP, 208V, 3PH MICRO-BIOLOGY HOOD FAN. PROVIDE AUXILIARY CONTACTS AS REQUIRED. CONNECT EXISTING CONTROL AND POWER CONDUCTORS TO NEW CS/NFD AS REQUIRED.
18. NOT USED.
19. REMOVE AND DISPOSE OF BACKBOX. NEW PANEL SHALL BE WALL MOUNTED. IF CONTRACTOR CHOOSES TO REUSE THE PANELBOARD BACKBOXES, THIS BACKBOX SHALL REMAIN.
20. REPLACE FIVE BURNT OUT INDICATOR LAMPS IN MCC-PP10. EXISTING MCC IS A SQUARE D MODEL 4 CONTROL CENTER, CATALOG #A-580416.
21. REMOVE PANEL SE. REMOVE FEEDER BACK TO SOURCE. REMOVE CIRCUIT SERVING AC UNIT BACK TO AN ACCESSIBLE POINT WHERE CONDUIT & CONDUCTORS CAN BE EXTENDED TO PNL NI-BIO. PATCH AND PAINT WALL TO MATCH UPON REMOVAL OF PANEL.



FIFTH FLOOR KEY PLAN
NO SCALE



SIXTH FLOOR KEY PLAN
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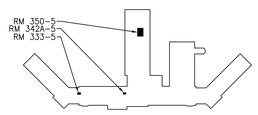

THIRD FLOOR KEY PLAN
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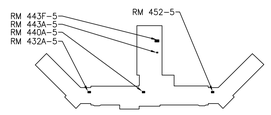

FOURTH FLOOR KEY PLAN
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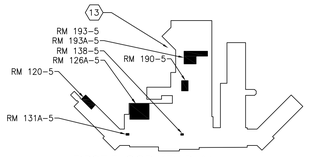

FIRST FLOOR KEY PLAN
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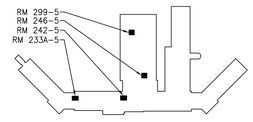

SECOND FLOOR KEY PLAN
SCALE: NO SCALE

ISSUED FOR CONSTRUCTION

Revisions:	Date

CONSULTANTS:

REGISTERED PROFESSIONAL ENGINEER
6729
DARRELL L. BREN
REG. NO.
DATE: 3/13/13

ARCHITECT/ENGINEERS:

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www.teamtsp.com
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TSP PROJECT #04121073 - PRIORITY 3

Drawing Title: ELECTRICAL PLANS - BUILDING 5

Approved Project Director

Project Title: Upgrade Electrical Systems Building 5

Project Number: 438-13-120

Building Numbers: 1, 5, 8, 11, 16

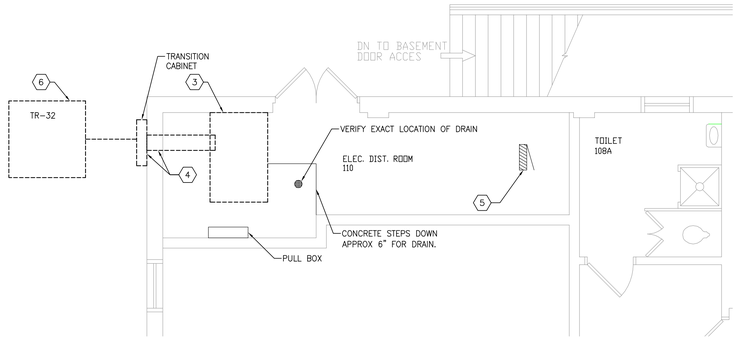
Location: Sioux Falls, South Dakota

Date: 03/13/2012 | Checked: DLB | Drawn: JWN

Drawing Number: E-103
Dwg. 5 of 16

Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231



B1 ROOM 110-8
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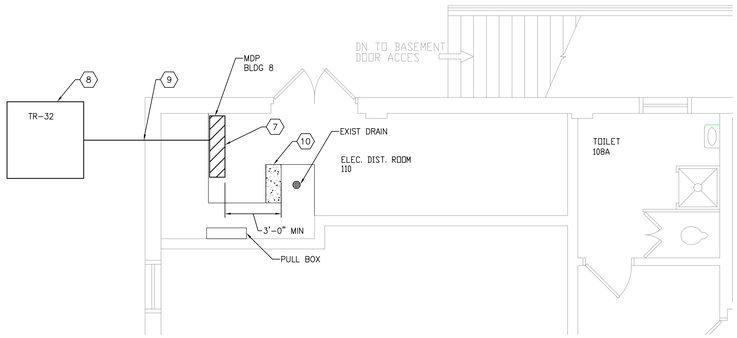

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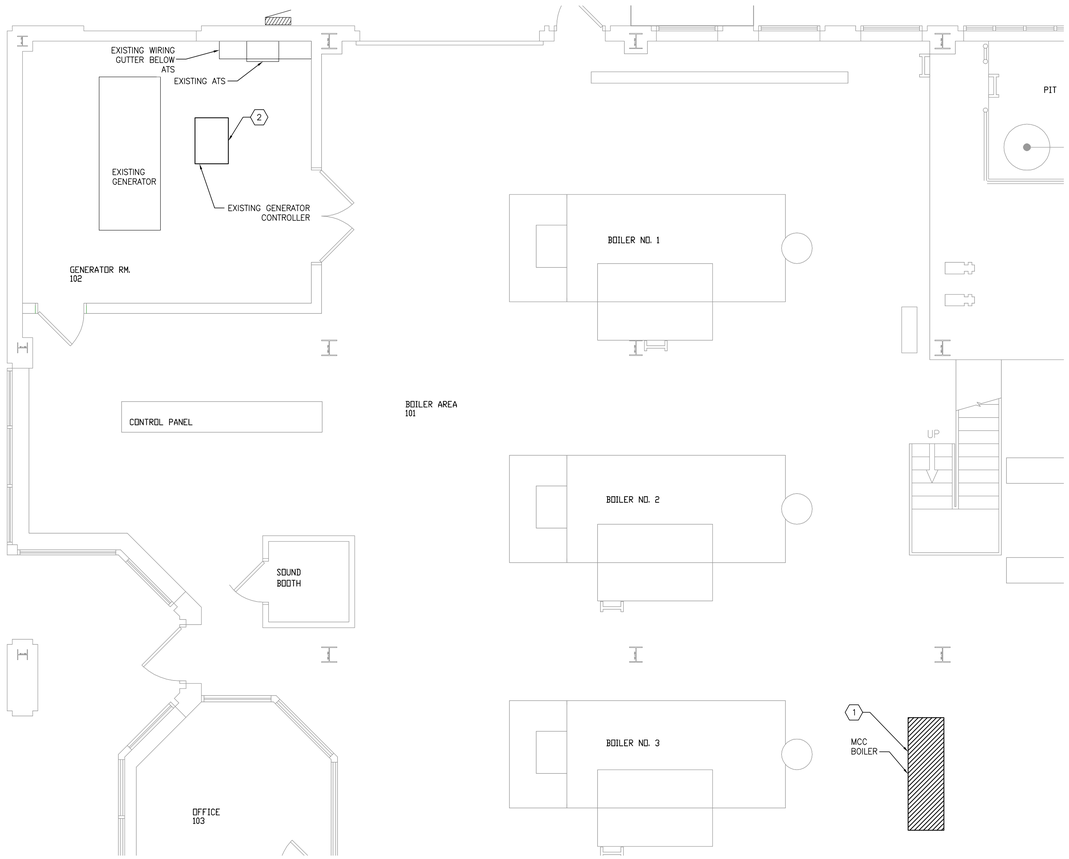


D4 ROOMS 102-11 & 101-11
SCALE: 1/4"=1'-0"

SHEET GENERAL NOTES

A. SEE SHEET E-101 FOR ADDITIONAL GENERAL NOTES.

SHEET KEYNOTES

1. REPLACE MCC-BOILER. REMOVE AND DISPOSE OF EXISTING 600A, 3PH, 3W PAD MOUNTED MCC. PROVIDE A NEW MOTOR CONTROL CENTER, SEE SCHEDULE SHEET E-504. MOUNT ON EXISTING PAD. DISCONNECT FEEDER AND BRANCH CIRCUITS FROM EXISTING MCC AND RECONNECT TO NEW MCC. NEW MCC SHALL BE 80" LONG (4 SECTION) SO THAT EXISTING CONCRETE PAD, FEEDER, AND BRANCH CIRCUITS CAN BE REUSED. CONTRACTOR SHALL ORDER NEW MCC WITH SAME LAYOUT SO THAT EXISTING CONDUITS AND CONDUCTORS CAN BE REUSED (OTHERWISE CONTRACTOR IS RESPONSIBLE FOR PROVIDING NEW CONDUITS AND CONDUCTORS). EXISTING MCC IS MANUFACTURED BY GE 8000LINE, CAT #461X065L01. CONTRACTOR SHALL VERIFY EXACT LAYOUT AND RATINGS OF STARTERS, CIRCUIT BREAKERS, CONTROLS ETC INSTALLED IN EXISTING MCC-BOILER PRIOR TO ORDERING NEW MCC-BOILER, NEW MCC SHALL MATCH EXISTING LAYOUT. SEE RISER DIAGRAM ON SHEET E-606.

   PROVIDE 2 WEEKS NOTICE IN WRITING TO OWNER PRIOR TO SHUTDOWN OF MCC. MCC SHALL BE REPLACED AFTER 3:00PM AND WHEN THE OUTSIDE AIR TEMPERATURE IS GREATER THAN 20 DEGREES F.

2. REPLACE 480V, 600A, 3P CIRCUIT BREAKER LOCATED IN EXISTING GENERATOR CONTROLLER. EXISTING CIRCUIT BREAKER IS MANUFACTURED BY WESTINGHOUSE CAT NO. LC3600F. NEW CIRCUIT BREAKER SHALL BE MANUFACTURED BY EATON, OR APPROVED EQUAL, WITH THE FOLLOWING PART NUMBERS: THERMAL MAGNETIC TRIP LD3600, LINE SIDE LUGS 3TA603LDK, MOUNTING HARDWARE BMH4.

3. UPON COMPLETION OF BUILDING 5 SWBD 5-1 REPLACEMENT, REMOVE AND DISPOSE OF EXISTING 1200A, 208V, 3P, 4W FLOOR MOUNTED MDP. REMOVE METER AND TWO ENCLOSED CIRCUIT BREAKERS THAT ARE FEEDING THE ACCU'S, DISCONNECT MDP FROM EXISTING SQUARE D POWER LOGIC METER SYSTEM. REMOVE SECONDARY FEEDER IN IT'S ENTIRETY BACK TO TRANSFORMER. BRANCH CIRCUITS FED FROM MDP SHALL REMAIN FOR REUSE. SEE RISER DIAGRAM ON SHEET E-606.

4. REMOVE AND DISPOSE OF EXISTING BUS DUCT, EXTERIOR TRANSITION CABINET, AND SECONDARY CONDUCTORS AND CONDUIT. PATCH OPENING IN EXTERIOR WALL WHERE BUS DUCT FORMALLY PENETRATED. MATCH EXISTING WALL CONSTRUCTION AND FINISH TYPE.

5. REPLACE COVER ON EXISTING PANEL MDP-B. REMOVE AND DISPOSE OF EXISTING COVER. PROVIDE A NEW STAINLESS STEEL GASKETED COVER. PANEL MDP-B IS LOCATED IN THE BASEMENT OF BUILDING 8. EXISTING PANEL IS MANUFACTURED BY GE.

6. REMOVE AND DISPOSE OF TRANSFORMER. SEE ES101 AND E-606 FOR ADDITIONAL INFORMATION.

7. INSTALL 1200A, 208V, 3P, 4W DIST PANEL THAT WAS FORMALLY USED AS A TEMPORARY SERVICE DURING BUILDING 5 SWBD 5-1 REPLACEMENT. INSTALL AFTER REPLACEMENT OF SWBD 5-1. PROVIDE UNI-STRUT SUPPORT FOR MDP. CONTRACTOR SHALL PROVIDE JUNCTION BOXES AND EXTEND BRANCH CIRCUIT CONDUIT AND CONDUCTORS AS REQUIRED TO NEW MDP. CONNECT MDP TO EXISTING SQUARE D POWER LOGIC METER SYSTEM. SEE RISER ON E-606. REMOVE ONE 225A, 3P CB AND ONE 600A, 3P CB, REPLACE WITH TWO 250A, 3P CIRCUIT BREAKERS. CONNECT NEW MDP INTO EXISTING BUILDING GROUNDING SYSTEM.

8. PROVIDE NEW TRANSFORMER. SEE ES101 AND E-606 FOR ADDITIONAL INFORMATION.

9. PROVIDE NEW SECONDARY FEEDER FROM TRANSFORMER. LB CONDUITS INTO BUILDING SO THAT THE CONDUITS ENTER INTO BACK OF MDP. SEAL EXTERIOR WALL PENETRATIONS. SEE RISER DIAGRAM SHEET E-660.. PROVIDE SUPPORT FOR CONDUIT AS REQUIRED PER NEC.

10. IN FILL EXISTING AREA WITH CONCRETE, APPROXIMATELY 12"X30". PROVIDE #4 REBAR AT 16" ON CENTER. PROVIDE 3#4X1'-6" DOWELS, DRILL AND EPOXY 6" INTO EXISTING CONCRETE. SCUFF FLOOR AREA WHERE NEW CONCRETE IS TO BE POURED. TOP OF NEW CONCRETE SHALL BE FLUSH WITH TOP OF EXISTING CONCRETE. CONCRETE SHALL CREATE 3'-0" MIN CLEARANCE INFRONT OF MDP.

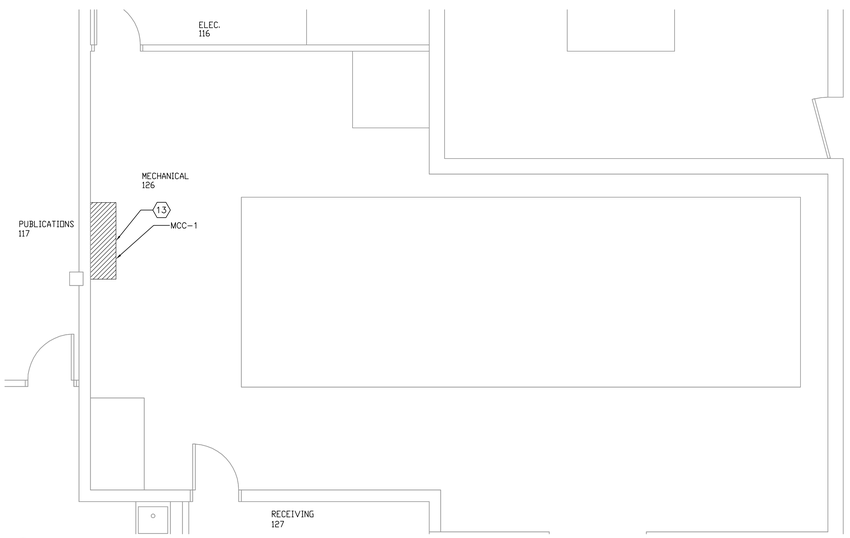
11. REPLACE MDP. REMOVE AND DISPOSE OF EXISTING 400A, 208V, 3P, 4W FLOOR MOUNTED MDP. REMOVE METER. PROVIDE A NEW MAIN DISTRIBUTION PANEL, SEE SHEETS E-504 AND E-606. DISCONNECT FEEDER AND BRANCH CIRCUITS FEEDING INTO AND OUT OF MDP AND CONNECT TO NEW MDP. PROVIDE A MULTI-FUNCTION DIGITAL METERING MONITOR FOR MDP. SEE RISER ON SHEET E-606. CONNECT NEW MDP INTO EXISTING BUILDING GROUNDING SYSTEM.

    REPLACE MDP AND TRANSFORMER AT THE SAME TIME OVER A SINGLE WEEKEND.

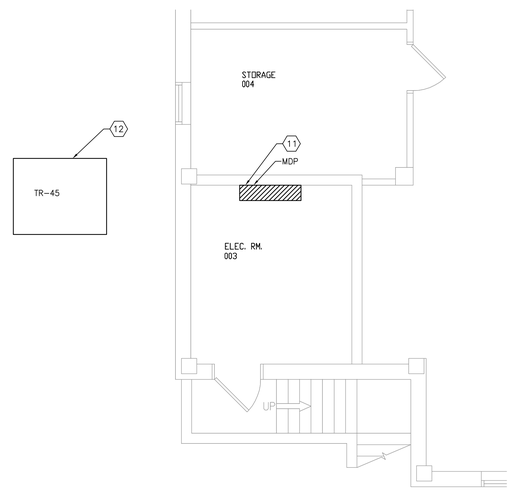
    INTERCONNECT DIGITAL-METERING MONITOR WITH CAMPUS METASYS. PROVIDE CABLING TO CAMPUS NETWORK TO INTERFACE WITH METASYS AS REQUIRED. ELECTRICAL CONTRACTOR SHALL HIRE JCI TO PERFORM THE INTERCONNECTION WORK AND COORDINATE WHERE NETWORK CABLING NEEDS TO TERMINATE. SEE SPECIFICATION 262411.

12. REPLACE TRANSFORMER. SEE ES101 AND E-606 FOR ADDITIONAL INFORMATION.

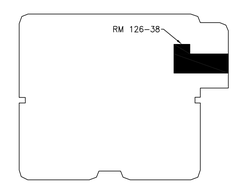
13. REPLACE 10 BURNT OUT INDICATOR LAMPS IN MCC-1. EXISTING MCC IS A GE 8000 LINE, CATALOG #483X0040M01.



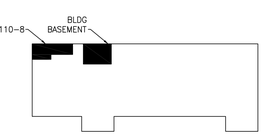
F1 ROOM 126-38
SCALE: 1/4"=1'-0"



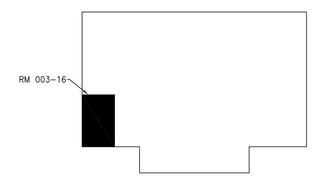
F5 ROOM 003-16
SCALE: 1/4"=1'-0"



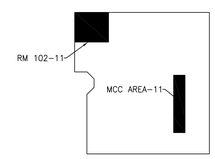
BLDG 38 KEY PLAN
SCALE: NO SCALE



BLDG 8 KEY PLAN
SCALE: NO SCALE



BLDG 16 KEY PLAN
SCALE: NO SCALE



BLDG 11 KEY PLAN
SCALE: NO SCALE

ISSUED FOR CONSTRUCTION

Revisions:	Date

CONSULTANTS:

REGISTERED PROFESSIONAL ENGINEER
REG. NO 6729
DARRELL L. BREN
DATE: 3/13/13

ARCHITECT/ENGINEERS:

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TSP PROJECT #04121073 - PRIORITY 3

Drawing Title: ELECTRICAL PLANS - BUILDING 8, 11, 16

Approved: Project Director

Project Title: Upgrade Electrical Systems Building 5

Location: Sioux Falls, South Dakota

Date: 03/13/2012 | Checked: DLB | Drawn: JWN

Project Number: 438-13-120

Building Numbers: 1, 5, 8, 11, 16

Drawing Number: E-104
Dwg. 6 of 16

Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231

PANEL TAG: EM
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: DISTRIBUTION
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 400
FEED THRU LUG [ ]
MIN A.I.C.: 22k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	PNL E1N	60/3	0.0	A	0.0	100/3	PNLS E5, E1, E2, E3	2
3	–	–	0.0	B	0.0	–	–	4
5	–	–	0.0	C	0.0	–	–	6
7	PNL EL	60/3	0.0	A	0.0	60/3	NORTH STEAM TUNNEL PNL	8
9	–	–	0.0	B	0.0	–	–	10
11	–	–	0.0	C	0.0	–	–	12
13		20/1	0.0	A	0.0	20/1		14
15	COND PUMPS	20/3	0.0	B	0.0	100/3	PNL C2E, C3E	16
17	–	–	0.0	C	0.0	–	–	18
19	–	–	0.0	A	0.0	–	–	20
21	SPARE	20/1	0.0	B	0.0	20/2	FIRE ALARM	22
23	SPARE	20/1	0.0	C	0.0	–	–	24
25	SPARE	15/3	0.0	A	0.0	20/1	SPARE	26
27		–	0.0	B	0.0		SPACE	28
29		–	0.0	C	0.0		SPACE	30
31	SPACE		0.0	A	0.0		SPACE	32
33	SPACE		0.0	B	0.0		SPACE	34
35	SPACE		0.0	C	0.0		SPACE	36
37	SPACE		0.0	A	0.0		SPACE	38
39	SPACE		0.0	B	0.0		SPACE	40
41	SPACE		0.0	C	0.0		SPACE	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: B1
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 107A PLUGMOLD	20/1	0.0	A	0.0	20/1	SPARE	2
3	RM 107A PLUGMOLD	20/1	0.0	B	0.0	20/1	SPARE	4
5	RM 107A REC	20/1	0.0	C	0.0	20/1	TELEPHONE REC	6
7	RM 107A REC & 107G GFI	20/1	0.0	A	0.0	20/1	RM 107C LTG	8
9	RM 107A REC & 107D	20/1	0.0	B	0.0	20/1	RM 107H, 107I, 107D LTG	10
11	RM 107, 107B, 107D REC	20/1	0.0	C	0.0	20/1	RM 107G, 107H, 107I, 107D REC	12
13	RM 107, 107B CPU	20/1	0.0	A	0.0	20/1	SPARE	14
15	RM 107B, 107C REC	20/1	0.0	B	0.0	20/1	SPARE	16
17	RM 107C, 107C, 107D, 107A REC	20/1	0.0	C	0.0	20/1	SPARE	18
19	RM 107C, 107D REC	20/1	0.0	A	0.0	20/1	TIME CLOCK AC	20
21	RM 107A, 107D LTS	20/1	0.0	B	0.0	20/1	SPACE	22
23	RM 107, 107B, 107D LTS	20/1	0.0	C	0.0	20/1	SPACE	24
25	AC FAN MOTOR	30/3	0.0	A	0.0	80/3	OUTSIDE AC	26
27	–	–	0.0	B	0.0	–	–	28
29	–	–	0.0	C	0.0	–	–	30

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: A5
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 125
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 8 N. WALL RECEPT	20/1	0.0	A	0.0	20/1	SPARE	2
3	RM 8 N. WALL RECEPT	20/1	0.0	B	0.0	20/1	SPARE	4
5	RM 8 AC	20/1	0.0	C	0.0	20/1	SPARE	6
7	RM 8 AC	20/1	0.0	A	0.0	20/1	SPARE	8
9	NO INFORMATION	20/1	0.0	B	0.0	20/1	SPARE	10
11	RM 8 LTG	20/1	0.0	C	0.0	20/1	SPARE	12
13	WEST HALL LTG	20/1	0.0	A	0.0	20/1	SPARE	14
15	RM 10, 11 LTG	20/1	0.0	B	0.0		SPACE	16
17	XEROX	30/1	0.0	C	0.0		SPACE	18
19	XEROX	30/1	0.0	A	0.0		SPACE	20
21	NO INFORMATION	30/2	0.0	B	0.0		SPACE	22
23	–	–	0.0	C	0.0		SPACE	24
25	SPACE		0.0	A	0.0		SPACE	26
27	SPACE		0.0	B	0.0		SPACE	28
29	SPACE		0.0	C	0.0		SPACE	30

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: A1
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 125
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 111 PLUGMOLD	20/1	0.0	A	0.0	20/1	RM 111 W. WALL REC	2
3		20/1	0.0	B	0.0	20/1	ON	4
5	RM 111 PLUGMOLD & CLOCK	20/1	0.0	C	0.0	20/1	ON	6
7		20/1	0.0	A	0.0	20/1	ON	8
9	RM 109, 109A REC	20/1	0.0	B	0.0	20/1	AC OFF	10
11		20/1	0.0	C	0.0	20/1	–	12
13	RM 109A, 109B REC	20/1	0.0	A	0.0	20/1	OFF	14
15		20/1	0.0	B	0.0	20/1	–	16
17	RM 109D AC REC	20/1	0.0	C	0.0	20/1	–	18
19		20/1	0.0	A	0.0	20/1	SPACE	20
21	RM 109A, 109B AC REC	20/1	0.0	B	0.0	20/1	SPACE	22
23		20/1	0.0	C	0.0	20/1	SPACE	24
25	RM 109C REC	20/1	0.0	A	0.0	20/1	SPACE	26
27		20/1	0.0	B	0.0	20/1	SPACE	28
29	RM 111 XEROX REC	20/1	0.0	C	0.0	20/1	SPACE	30

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: PA
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 247, LTG AC 246	20/1	0.0	A	0.0	20/1	RM 245, 256 LTG	2
3	RM 245, 246 REC	20/1	0.0	B	0.0	20/1	RM 242, 243 REC	4
5	RM 247 LTG	20/1	0.0	C	0.0	20/1	RM 244 LTG	6
7	RM 246, 247 REC	20/1	0.0	A	0.0	20/1	RM 243, 244 REC	8
9	DRINKING FOUNTAIN	20/1	0.0	B	0.0	20/1	HALL LTG	10
11	RM 246 WINDOW REC	20/1	0.0	C	0.0	20/1	RM 244 WINDOW REC	12
13	RM 247 WINDOW REC	20/1	0.0	A	0.0	20/1	RM 243 WINDOW REC	14
15	JANITOR CLOSET AND HALL LT	20/1	0.0	B	0.0	20/1	RM 242 WINDOW REC	16
17	SPRE	20/1	0.0	C	0.0	20/1	WEST HALL REC	18
19	JANITOR CLOSET REC	20/1	0.0	A	0.0		SPACE	20
21	SPARE	20/1	0.0	B	0.0		SPACE	22
23	SPACE		0.0	C	0.0		SPACE	24
25	SPACE		0.0	A	0.0		SPACE	26
27	SPACE		0.0	B	0.0		SPACE	28
29	SPACE		0.0	C	0.0		SPACE	30

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: PB
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 359, 161 LTG	20/1	0.0	A	0.0	20/1	RM 355, 356 LTG	2
3	RM 360 & HALL REC	20/1	0.0	B	0.0	20/1	RM 356, 357 REC	4
5	RM 361 REC	20/1	0.0	C	0.0	20/1	RM 357 LTG	6
7	RM 360 LTG	20/1	0.0	A	0.0	20/1	RM 355, 356 REC	8
9	HALL LTG	20/1	0.0	B	0.0	20/1	DRINKING FOUNTAIN	10
11	SPARE 'ON'	20/1	0.0	C	0.0	20/1	RM 357 WINDOW REC	12
13	RM 360 WINDOW REC	20/1	0.0	A	0.0	20/1	RM 356 WINDOW REC	14
15	SPARE 'ON'	20/1	0.0	B	0.0	20/1	RM 355 WINDOW REC	16
17	HALL CLOSET REC	20/1	0.0	C	0.0	20/1	SPACE	18
19	HALL & CLOSET LTG	20/1	0.0	A	0.0	20/1	SPACE	20
21	SPACE		0.0	B	0.0	15/2	RM 359AC SPLIT WIRED OUTLET	22
23	SPACE		0.0	C	0.0	–	–	24
25	SPACE		0.0	A	0.0		SPACE	26
27	SPACE		0.0	B	0.0		SPACE	28
29	SPACE		0.0	C	0.0		SPACE	30

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: PC
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 410, 4411 LTG	20/1	0.0	A	0.0	20/1	RM 404, 405 LTG	2
3	RM 409, 410 REC	20/1	0.0	B	0.0	20/1	RM 404, 405 REC	4
5	RM 409 LTG	20/1	0.0	C	0.0	20/1	RM 406 LTG	6
7	RM 409, 410 REC	20/1	0.0	A	0.0	20/1	RM 406 REC	8
9	DRINKING FOUNTAIN	20/1	0.0	B	0.0	20/1	HALL LTG	10
11	RM 409 WINDOW REC	20/1	0.0	C	0.0	20/1	RM 405 WINDOW REC	12
13	RM 410 WINDOW REC	20/1	0.0	A	0.0	20/1	RM 404 WINDOW REC	14
15	RM 411 WINDOW REC	20/1	0.0	B	0.0	20/1	RM 406 WINDOW REC	16
17	CLOSET REC	20/1	0.0	C	0.0	20/1	STAIR LTG	18
19	RM 405A AC REC	20/1	0.0	A	0.0	20/1	BATH EXHAUST FAN	20
21	SPACE		0.0	B	0.0	20/1	CLOSET & HALL LTG	22
23	SPACE		0.0	C	0.0		SPACE	24
25	SPACE		0.0	A	0.0		SPACE	26
27	SPACE		0.0	B	0.0		SPACE	28
29	SPACE		0.0	C	0.0		SPACE	30

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: D1
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 106A, 153, & POP REC	20/1	0.0	A	0.0	20/1	RM 106A FLOOR REC	2
3	RM 113, 113A, 112, HALL REC	20/1	0.0	B	0.0	20/1	RM 106 FLOOR REC	4
5	RM 113, 114, HALL REC	20/1	0.0	C	0.0	20/1	RM 104 FLOOR REC	6
7	RM 116-119 REC	20/1	0.0	A	0.0	20/1	RM 103A FLOOR REC	8
9	RM 116, 117 REC	20/1	0.0	B	0.0	20/1	RM 103 FLOOR REC	10
11	RM 106, 106A REC	20/1	0.0	C	0.0	20/1	RM 102 FLOOR REC	12
13	RM 104, 106, 115, 153 REC	20/1	0.0	A	0.0	20/1	RM 101 FLOOR REC	14
15	RM 104, 106 REC	20/1	0.0	B	0.0	20/1	RM 101-104 LTG	16
17	ON	20/1	0.0	C	0.0	20/1	SPARE	18
19	RM 103, 104 REC	20/1	0.0	A	0.0	20/1	SPARE	20
21	RM 103, 104 REC	20/1	0.0	B	0.0	20/1	RM 106 REC & LTG	22
23	RM 103, 104 REC	20/1	0.0	C	0.0	20/1	SPARE	24
25	RM 103, 104 152 REC	20/1	0.0	A	0.0	20/1	SPARE	26
27	RM 103, 152 REC	20/1	0.0	B	0.0	20/1	SPARE	28
29	RM 102, 103 REC	20/1	0.0	C	0.0	20/1	SPARE	30
31	RM 101, 102 REC	20/1	0.0	A	0.0	20/1	SPARE	32
33	RM 101, 102, 152 REC	20/1	0.0	B	0.0	20/1	SPARE	34
35	RM 113 FLOOR REC	20/1	0.0	C	0.0	20/1	SPARE	36
37	RM 114 FLOOR REC	20/1	0.0	A	0.0		SPACE	38
39	RM 116 FLOOR REC	20/1	0.0	B	0.0	20/1	SPARE	40
41	RM 117 FLOOR REC	20/1	0.0	C	0.0	20/1	ELECTRIC DOOR OPENER	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: D3
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	OUTLET BELOW PNL	20/1	0.0	A	0.0	20/1	W. HALL RECEPT BY BATHROOM	2
3	AIR HANDLER	20/1	0.0	B	0.0	20/1	RM 321 AC RECEPT	4
5	AIR HANDLER	20/1	0.0	C	0.0	20/1	RM 320 AC RECEPT	6
7	RM 312 TV RECEPT	20/1	0.0	A	0.0	20/1	RM 323 AC RECEPT	8
9	RM 312 AC RECEPT	20/1	0.0	B	0.0	20/1	RM 326 AC RECEPT	10
11	RM 335 AC RECEPT	20/1	0.0	C	0.0	20/1	RM 324 AC RECEPT	12
13	RM 318 AC RECEPT	20/1	0.0	A	0.0	20/1	RM 325 AC RECEPT	14
15	RM 330 AC RECEPT	20/1	0.0	B	0.0	20/1	RM 333 AC RECEPT	16
17	RM 319 AC RECEPT	20/1	0.0	C	0.0	20/1	RM 336 AC RECEPT	18
19	RM 303 AC RECEPT	20/1	0.0	A	0.0	20/1	RM 334	20
21	RM 302 AC RECEPT	20/1	0.0	B	0.0	20/1	RM 308 AC RECEPT	22
23	RM 308 AC RECEPT	20/1	0.0	C	0.0	20/1	RM 306 AC RECEPT	24
25	RM 306 AC RECEPT	20/1	0.0	A	0.0	20/1	RM 305 AC RECEPT	26
27	RM 327 AC RECEPT	20/1	0.0	B	0.0	20/1	RM 329 AC RECEPT	28
29	RM 328 AC RECEPT	20/1	0.0	C	0.0	20/1	RM 332 AC RECEPT	30
31	NO INFORMATION	20/1	0.0	A	0.0	20/1	RM 331 AC RECEPT	32
33	NO INFORMATION	20/1	0.0	B	0.0		SPACE	34
35	POP MACHINE	20/1	0.0	C	0.0		SPACE	36
37	SPACE		0.0	A	0.0		SPACE	38
39	SPACE		0.0	B	0.0		SPACE	40
41	SPACE		0.0	C	0.0		SPACE	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: D5
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	NO INFORMATION	20/1	0.0	A	0.0	40/3	NO INFORMATION	2
3	NO INFORMATION	20/1	0.0	B	0.0	–	NO INFORMATION	4
5	NO INFORMATION	20/1	0.0	C	0.0	–	NO INFORMATION	6
7	NO INFORMATION	20/2	0.0	A	0.0	30/2	NO INFORMATION	8
9	NO INFORMATION	–	0.0	B	0.0	–	NO INFORMATION	10
11	NO INFORMATION	20/1	0.0	C	0.0	20/1	NO INFORMATION	12
13	NO INFORMATION	20/2	0.0	A	0.0		SPACE	14
15	NO INFORMATION	–	0.0	B	0.0	20/1	NO INFORMATION	16
17	NO INFORMATION	20/1	0.0	C	0.0	20/1	NO INFORMATION	18
19	NO INFORMATION	20/1	0.0	A	0.0	20/1	NO INFORMATION	20
21	NO INFORMATION	20/1	0.0	B	0.0	20/1	NO INFORMATION	22
23	SPACE		0.0	C	0.0	20/1	NO INFORMATION	24
25	SPACE		0.0	A	0.0		SPACE	26
27	SPACE		0.0	B	0.0		SPACE	28
29	SPACE		0.0	C	0.0		SPACE	30
31	SPACE		0.0	A	0.0		SPACE	32
33	SPACE		0.0	B	0.0		SPACE	34
35	SPACE		0.0	C	0.0		SPACE	36
37	SPACE		0.0	A	0.0		SPACE	38
39	SPACE		0.0	B	0.0		SPACE	40
41	SPACE		0.0	C	0.0		SPACE	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG:D2-EXIST TO REMAIN
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 210 AC	20/1	0.0	A	0.0	50/3	RCU-1	2
3	RM 209 AC	20/1	0.0	B	0.0	–	–	4
5	RM 210 AC	20/1	0.0	C	0.0	–	–	6
7	RM 212 TV	20/1	0.0	A	0.0	50/3	RH-1	8
9	CU-1 REC	20/1	0.0	B	0.0	–	–	10
11	SPARE	20/1	0.0	C	0.0	–	–	12
13	RM 207 AC	20/1	0.0	A	0.0	50/3	RH-2	14
15	RM 207A AC	20/1	0.0	B	0.0	–	–	16
17	RM 206A AC	20/1	0.0	C	0.0	–	–	18
19	AC	20/1	0.0	A	0.0	50/3	CU-1	20
21	RM 205 AC	20/1	0.0	B	0.0	–	–	22
23	OFF	20/1	0.0	C	0.0	–	–	24
25	OFF	20/1	0.0	A	0.0	50/3	BCU-2	26
27	OFF	20/1	0.0	B	0.0	–	–	28
29	OFF	20/1	0.0	C	0.0	–	–	30
31	SPACE		0.0	A	0.0	40/3	RH-5	32
33	SPACE		0.0	B	0.0	–	–	34
35	SPACE		0.0	C	0.0	–	–	36
37	SPACE		0.0	A	0.0	50/3	CU-2	38
39	SPACE		0.0	B	0.0	–	–	40
41	SPACE		0.0	C	0.0	–	–	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG:F2-EXIST TO REMAIN
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 221-223,226,227 LTG	20/1	0.0	A	0.0	30/2	RM 226 DRYER	2
3	RM 221-223 REC	20/1	0.0	B	0.0	–		4
5	RM 224 LTG & REC	20/1	0.0	C	0.0	20/1	RM 226 WASHER	6
7	RM 226, 227 REC	20/1	0.0	A	0.0	20/1	RM 221 REC	8
9	RM 228 REC	20/1	0.0	B	0.0	20/1	RM 221 REC	10
11	RM 228 REC	20/1	0.0	C	0.0	20/1	RM 219 REC	12
13	RM 229 REC	20/1	0.0	A	0.0	20/1	RM 219 REC	14
15	RM 230 REC	20/1	0.0	B	0.0	20/1	RM 219 REC	16
17	RM 229, 229A, 230, 230A LTG	20/1	0.0	C	0.0	20/1	RM 217 REC	18
19	LTG 228, 228A	20/1	0.0	A	0.0	20/1	RM 218 REC	20
21	RM 231 REC	20/1	0.0	B	0.0	20/1	RM 217, 218 LTG	22
23	RM 216 REC	20/1	0.0	C	0.0	20/1	SPARE	24
25	RM 216 REC	20/1	0.0	A	0.0	30/3	RH-3	26
27	ICE MACHINE	20/1	0.0	B	0.0	–	–	28
29	N. MENTAL HEALTH OFFICE	20/1	0.0	C	0.0	–	–	30
31	RM 223 REC	20/1	0.0	A	0.0	30/3	RH-4	32
33	RM 221 REC	20/1	0.0	B	0.0	–	–	34
35	RM 222 REC	20/1	0.0	C	0.0	–	–	36
37	OFF	20/1	0.0	A	0.0	30/3	SPARE	38
39	OFF	20/1	0.0	B	0.0	–	–	40
41	OFF	20/1	0.0	C	0.0	–	–	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: F3
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 333-336 BED LTG	20/1	0.0	A	0.0	15/1	RM 325-329 BED LTG	2
3	RM 333-336 RECEPT	20/1	0.0	B	0.0	15/1	RM 325-328 LTG	4
5	RM 333-337 LTG	20/1	0.0	C	0.0	15/1	RM 322-329 LTG	6
7	RM 313-316 RECEPT	20/1	0.0	A	0.0	15/1	RM 322-324 LTG	8
9	RM 337 RECEPT	20/1	0.0	B	0.0	15/1	RM 322-324 RECEPT	10
11	RM 313, 315, 316 LTG	20/1	0.0	C	0.0	20/1	RM 322-324 BED LTG	12
13	RM 321-322 RECEPT	20/1	0.0	A	0.0	20/1	RM 330-332 RECEPT	14
15	HALL RECEPT BELOW PNL	20/1	0.0	B	0.0	20/1	RM 318-320 RECEPT	16
17	AHU NORTH	20/1	0.0	C	0.0	20/1	RM 318-321, 329-332 LTG	18
19	AHU NORTH	20/1	0.0	A	0.0	20/1	RM 318-321 RECEPT	20
21	SPARE 'ON'	20/1	0.0	B	0.0	20/1	RM 318-321, 329-332 BED LTG	22
23	SPARE 'ON'	20/1	0.0	C	0.0	20/1	SPARE 'ON'	24
25	RM 316 DRYER	30/2	0.0	A	0.0	20/1	RM 329-333 RECEPT & NL	26
27	–	–	0.0	B	0.0	20/1	SPARE 'ON'	28
29	SPACE		0.0	C	0.0	20/1	SPARE 'ON'	30
31	SPACE		0.0	A	0.0		SPACE	32
33	SPACE		0.0	B	0.0		SPACE	34
35	SPACE		0.0	C	0.0		SPACE	36

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: E5
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	FIRE ALARM	20/1	0.0	A	0.0	20/1	CENTER HALL & EXIT LTG	2
3	RM 1B LTG & RECEPT	20/1	0.0	B	0.0	20/1	EAST HALL & EXIT LTG	4
5	WEST HALL LTG	20/1	0.0	C	0.0	20/1	RM 20 RECEPT	6
7	SPARE 'ON'	20/1	0.0	A	0.0	20/1	SECURITY RM PNL 37	8
9	OFF	20/1	0.0	B	0.0	20/1	SECURITY RM PNL 37	10
11	OFF	20/1	0.0	C	0.0	20/1	OFF	12
13	SPACE		0.0	A	0.0		SPACE	14
15	SPACE		0.0	B	0.0		SPACE	16
17	SPACE		0.0	C	0.0		SPACE	18
19	SPACE		0.0	A	0.0		SPACE	20
21	SPACE		0.0	B	0.0		SPACE	22
23	SPACE		0.0	C	0.0		SPACE	24
25	SPACE		0.0	A	0.0		SPACE	26
27	SPACE		0.0	B	0.0		SPACE	28
29	SPACE		0.0	C	0.0		SPACE	30

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: E1
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	SPARE	20/1	0.0	A	0.0	20/1	RADIO ENTRY LTG	2
3	SPARE	20/1	0.0	B	0.0	20/1	STAIRWELL HALLWAY LTG	4
5	SPARE	20/1	0.0	C	0.0	20/1	STAIRWELL LTG	6
7	SPARE	20/1	0.0	A	0.0	20/1	SPARE	8
9	SPACE		0.0	B	0.0		SPACE	10
11	SPACE		0.0	C	0.0		SPACE	12
13	SPACE		0.0	A	0.0		SPACE	14
15	SPACE		0.0	B	0.0		SPACE	16
17	SPACE		0.0	C	0.0		SPACE	18
19	SPACE		0.0	A	0.0		SPACE	20
21	SPACE		0.0	B	0.0		SPACE	22
23	SPACE		0.0	C	0.0		SPACE	24

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: E2
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 211 ELEV LTS	20/1	0.0	A	0.0	20/1	EXIT LTS	2
3	RM 211, 211A REC	20/1	0.0	B	0.0	20/1	CORRIDOR LTS, DINING RM	4
5	PANEL REC 'OFF'	20/1	0.0	C	0.0	20/1	RM 212, 236-238 REC	6
7	SPACE		0.0	A	0.0	20/1	RM 214 REC	8
9	SPACE		0.0	B	0.0		SPACE	10
11	SPACE		0.0	C	0.0		SPACE	12
13	SPACE		0.0	A	0.0		SPACE	14
15	SPACE		0.0	B	0.0		SPACE	16
17	SPACE		0.0	C	0.0		SPACE	18
19	SPACE		0.0	A	0.0		SPACE	20
21	SPACE		0.0	B	0.0		SPACE	22
23	SPACE		0.0	C	0.0		SPACE	24

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: E3
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 301-305 LTG, NURSE CALL	20/1	0.0	A	0.0	20/1	EXIT LTG, HEAT TAPE	2
3	RM 302-305 BED-LTG	20/1	0.0	B	0.0	20/1	DOOR ALARMS	4
5	RM 301-306 RECEPT	20/1	0.0	C	0.0	20/1	SPARE	6
7	HALL LTG	20/1	0.0	A	0.0	20/1	SPARE	8
9	SPACE		0.0	B	0.0		SPACE	10
11	SPACE		0.0	C	0.0		SPACE	12
13	SPACE		0.0	A	0.0		SPACE	14
15	SPACE		0.0	B	0.0		SPACE	16
17	SPACE		0.0	C	0.0		SPACE	18
19	SPACE		0.0	A	0.0		SPACE	20
21	SPACE		0.0	B	0.0		SPACE	22
23	SPACE		0.0	C	0.0		SPACE	24

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: C2E
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 207, 209, 105 REC	20/1	0.0	A	0.0	20/1	RM 209 BED REC	2
3	RM 206 REC & LTG	20/1	0.0	B	0.0	20/1	ON	4
5	RM 209 BED LTG	20/1	0.0	C	0.0	20/1	OFF	6
7	ON	20/1	0.0	A	0.0	20/1	OFF	8
9	RM 202 REC OFF	20/1	0.0	B	0.0	20/1	RM 209, 211 LTS	10
11	ON	20/1	0.0	C	0.0	20/1	RM 204 OFF	12
13	RM 203 REC	20/1	0.0	A	0.0	20/1	RM 234 REC	14
15	OFF	20/1	0.0	B	0.0	20/1	RM 234 REC	16
17	RM 219, 219A, 228, 228A REC	20/1	0.0	C	0.0	20/1	RM 234, 235 REC	18
19	RM 217, 217A, 218, 218A REC	20/1	0.0	A	0.0	20/1	RM 234-236, 234A LTS	20
21	RM 230, 230A, 229, 229A REC	20/1	0.0	B	0.0	20/1	RM 232, 232A, 232B, 233 LTS	22
23	RM 213, 220 REC	20/1	0.0	C	0.0	20/1	RM 236 SPARE	24
25	RM 222 LTG	20/1	0.0	A	0.0	20/1	RM 233 REC	26
27	RM 214, 215, 213, 220 LTG	20/1	0.0	B	0.0	20/1	RM 234A REC	28
29	OFF	20/1	0.0	C	0.0	20/1	RM 233 REC	30
31	OFF	20/1	0.0	A	0.0	20/1	RM 211A, 212, 237, 238 LTS	32
33	OFF	20/1	0.0	B	0.0	20/1	NURSE CALL	34
35	SPACE		0.0	C	0.0	20/1	DOOR SECURITY	36

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: C3E
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	LTG DINING ROOM	20/1	0.0	A	0.0	20/1	RM 308-312 LTG	2
3	RM 306 LTS & BED	20/1	0.0	B	0.0	20/1	RM 308-312, 303 BED LTG	4
5	RM 306, KIT, DINING RECEPT	20/1	0.0	C	0.0	20/1	RM 308-312 RECEPT	6
7	RM 308 HALL RECEPT	20/1	0.0	A	0.0	20/2	AIR HANDLER SOUTH	8
9	RM 307 OFFICE	20/1	0.0	B	0.0	–	–	10
11	RM 307 OFFICE	20/1	0.0	C	0.0	20/1	RM 309 W AC	12
13	RM 309 W A/C	20/2	0.0	A	0.0	20/1	RM 307 AC	14
15	–	–	0.0	B	0.0	20/1	RM 307 AC	16
17	SPARE	50/2	0.0	C	0.0	20/1	RM 307 AC	18
19	–	–	0.0	A	0.0	20/1	RM 307 RECEPT	20
21	SPACE		0.0	B	0.0	20/1	OFF'	22
23	SPACE		0.0	C	0.0		SPACE	24
25	SPACE		0.0	A	0.0		SPACE	26
27	SPACE		0.0	B	0.0		SPACE	28
29	SPACE		0.0	C	0.0		SPACE	30
31	SPACE		0.0	A	0.0		SPACE	32
33	SPACE		0.0	B	0.0		SPACE	34
35	SPACE		0.0	C	0.0		SPACE	36

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

SHEET GENERAL NOTES

A. ANY SINGLE POLE CIRCUIT BREAKERS THAT ARE PROVIDED AS PART OF A PANEL REPLACEMENT SHALL COMPLY WITH THE REQUIREMENTS OF NEC 240.4(D).

B. PROVIDE GFI CIRCUIT BREAKERS WHERE INDICATED ON SCHEDULES OR WHERE REMOVED AS PART OF PANEL DEMOLITION. GFI WILL BE INDICATED AS 'GFI CB'.

ISSUED FOR CONSTRUCTION

Revisions: | Date

CONSULTANTS:

REGISTERED PROFESSIONAL ENGINEER REG. NO. 6729 DARRELL L. BREN SOUTH DAKOTA
DATE: 3/13/13

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TSP PROJECT #04121073 - PRIORITY 3

Drawing Title: ELECTRICAL SCHEDULES - BUILDING 1
Approved: Project Director
Project Title: Upgrade Electrical Systems Building 5
Location: Sioux Falls, South Dakota
Date: 03/13/2012
Checked: DLB
Drawn: JWN
Project Number: 438-13-120
Building Numbers: 1, 5, 8, 11, 16
Drawing Number: E-501
Dwg. 7 of 16

Office of Construction and Facilities Management
Department of Veterans Affairs

PANEL TAG: EP
MOUNTING: SURFACE
PANEL TYPE: DISTRIBUTION
VOLTAGE: 120/208 VOLTS, 3-PHASE, 4-WIRE
MAIN BUS RATING AMPS: 600
MIN A.I.C.: 22k (A)

CKT	ITEM OR AREA SERVED	DIST KVA	CIRCUIT BREAKER FRAME SIZE	# POLES	TRIP SETTING	REMARKS
MAIN		0.0				
1	PNL P8	0.0	300	3	300	
2	SPACE	0.0				
3	RM 190 MCC-ERI	0.0	200	3	200	
4	PNL P9	0.0	200	3	200	
5	PNL EP13 FIRE PUMP RM	0.0	200	3	200	
6	BLDG 1 ELEV	0.0	200	3	200	
7	PNL P10 KITCHEN	0.0	200	3	200	
8	PNL GEN EQUIP GEN RM	0.0	100	3	100	
9	PNL P4 KITCHEN	0.0	100	3	100	
10	PNL EW RM 446A	0.0	100	3	100	
11	PNL LNB1 TANK RM E7	0.0	200	3	200	
12	SPACE	0.0				
13	SPACE	0.0				
14	RM A88 MEDIAIR	0.0	150	3	150	
15		0.0				
16		0.0				
17		0.0				
18		0.0				
19		0.0				
20		0.0				

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: LN1
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 200
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 106C, 106D LTG	20/1	0.0	A	0.0	20/1	RM 105 RECEPT	2
3	LTG	20/1	0.0	B	0.0	20/1	RM 105 RECEPT	4
5	DENTAL LAB CASTING	30/2	0.0	C	0.0	20/1	RM 109 RECEPT	6
7	–	–	0.0	A	0.0	20/1	RM 109, 110 RECEPT	8
9	SPARE	20/1	0.0	B	0.0	20/1	RM 109, 110 RECEPT	10
11	SPARE	20/1	0.0	C	0.0	20/1	RM 106F XRAY, 110,111 RECEPT	12
13	LTG	20/1	0.0	A	0.0	20/1	RM 110, 111 RECEPT	14
15	LTG	20/1	0.0	B	0.0	20/1	RM 106E XRAY, 110, 111 RECEPT	16
17	REC N. OF WOMENS RESTROOM	20/1	0.0	C	0.0	20/1	VAV 'OFF'	18
19	B92 SPOT COOLER	20/2	0.0	A	0.0	20/1	SPARE	20
21	–	–	0.0	B	0.0	20/1	SPARE	22
23	RM 111A VAV	20/1	0.0	C	0.0	20/1	SPARE	24
25	DUST COLLECTOR	20/1	0.0	A	0.0	20/1	RM 113 RECEPT	26
27	DUST COLLECTOR	20/1	0.0	B	0.0	20/1	RM 112 RECEPT	28
29	UNDER LAB TABLE	20/1	0.0	C	0.0	20/1	RM 111 RECEPT	30
31	RM 113 MOTOR	20/1	0.0	A	0.0	20/1	RM 113 RECEPT	32
33	RM 113 MOTOR, VAV	20/1	0.0	B	0.0	20/1	RM 113 RECEPT	34
35	RM 113 COUNTER 'OFF'	20/1	0.0	C	0.0	20/1	RM 113 RECEPT	36
37	RM 113 PLUGSTRIP	20/1	0.0	A	0.0	20/1	JCI PWR	38
39	RM 117 RECEPT	20/1	0.0	B	0.0	30/2	CONDENSING UNIT B92	40
41	RM 116 RECEPT	20/1	0.0	C	0.0	–	–	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: LN2
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [X] C.B. [ ] AMPS: 200
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 125 RECEPT	20/1	0.0	A	0.0	20/1		2
3	RM 102, 126 RECEPT	20/1	0.0	B	0.0	20/1	RECEPTS	4
5	RM 102 RECEPT	20/1	0.0	C	0.0	20/1	RM 103 XRAY	6
7	RM 101 RECEPT	20/1	0.0	A	0.0	20/1	HALL 118 EXHAUST FAN	8
9	RM 106 RECEPT	20/1	0.0	B	0.0	20/1	RM 113, 117 VAV	10
11	RM 121 RECEPT	20/1	0.0	C	0.0	20/1	RM 102 XRAY, 105 SWING ARM	12
13	RM 106 RECEPT	20/1	0.0	A	0.0	20/1	SPARE	14
15	RM 106G, 122, 125	20/1	0.0	B	0.0	20/1	RM 113 EXHAUST FAN	16
17	RM 106 4PLEX	20/1	0.0	C	0.0	20/1	RM 113 EXHAUST FAN	18
19	SPARE RM 106	20/1	0.0	A	0.0	20/1	SPARE	20
21	SPARE RM 106	20/1	0.0	B	0.0	20/1	SPARE	22
23	SPARE RM 106	20/1	0.0	C	0.0	20/1	SPARE	24
25	SPARE	20/3	0.0	A	0.0	20/3	RM 133 RETURN AIR	26
27	–	–	0.0	B	0.0	–	–	28
29	–	–	0.0	C	0.0	–	–	30
31	SPARE	20/3	0.0	A	0.0	20/3	RM 104 DUCT HEATER 'OFF'	32
33	–	–	0.0	B	0.0	–	–	34
35	–	–	0.0	C	0.0	–	–	36
37	SPARE	30/3	0.0	A	0.0	70/3	RM 133 AIR HANDLER	38
39	–	–	0.0	B	0.0	–	–	40
41	–	–	0.0	C	0.0	–	–	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: KS
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 204 AC	40/1	0.0	A	0.0	40/1	RM 204S PBU	2
3	RM 207, 208 PBU	40/1	0.0	B	0.0	40/1	RM 204 N PBU	4
5	RM 205, 206 PBU	40/1	0.0	C	0.0	40/1	RM 239 PBU	6
7	SPARE	40/1	0.0	A	0.0	40/1	SPARE	8
9	RM 203 S PBU	40/1	0.0	B	0.0	20/1	RM 203, 204, 239, 240 REC	10
11	RM 203 N PBU	40/1	0.0	C	0.0	20/1	RM 205-207 TV RECEPT	12
13	SPARE	40/1	0.0	A	0.0	20/1	RM 208, 234, 235 TV RECEPT	14
15	SPARE	40/1	0.0	B	0.0	20/1	SPARE	16
17	SPARE	40/1	0.0	C	0.0	20/1	SPARE	18
19	SPARE	40/1	0.0	A	0.0	20/1	SPARE	20
21	SPARE	40/1	0.0	B	0.0	20/1	SPARE	22
23	SPARE	40/1	0.0	C	0.0	20/1	SPARE	24
25	RM 209 AC	20/1	0.0	A	0.0	20/2	RM 278 A/C	26
27	RM 209 N.E. PBU	20/1	0.0	B	0.0	–	–	28
29	RM 209 N.W. PBU	20/1	0.0	C	0.0	40/1	SPARE	30
31	RM 234 RECEPT	20/1	0.0	A	0.0		SPACE	32
33	RM 235 RECEPT	20/1	0.0	B	0.0		SPACE	34
35	SPACE		0.0	C	0.0		SPACE	36
37	SPACE		0.0	A	0.0		SPACE	38
39	SPACE		0.0	B	0.0		SPACE	40
41	SPACE		0.0	C	0.0		SPACE	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: MS
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 334, 335 PBU	40/1	0.0	A	0.0	40/1	RM 340 PBU	2
3	RM 307, 308 PBU	40/1	0.0	B	0.0	40/1	RM 304 S PBU	4
5	RM 305, 306 PBU	40/1	0.0	C	0.0	40/1	RM 304 N PBU	6
7	RM 341 PBU	40/1	0.0	A	0.0	40/1	RM 302 PBU	8
9	RM 303 S. PBU	40/1	0.0	B	0.0	20/1	RM 307, 308, 334, 335 REC	10
11	RM 303 N. PBU	40/1	0.0	C	0.0	20/1	RM 304-306, 340 TV REC	12
13	SPARE 'ON'	40/1	0.0	A	0.0	20/1	RM 302, 303, 341 TV REC	14
15	SPARE 'ON'	40/1	0.0	B	0.0	20/1	SPARE 'ON'	16
17	SPARE 'ON'	40/1	0.0	C	0.0	20/1	SPARE 'ON'	18
19	SPARE 'ON'	40/1	0.0	A	0.0	20/1	SPARE 'ON'	20
21	SPARE 'ON'	40/1	0.0	B	0.0	20/1	SPARE 'ON'	22
23	SPARE 'ON'	40/1	0.0	C	0.0	20/1	SPARE 'ON'	24
25	SPARE 'ON'	40/1	0.0	A	0.0	20/1	SPARE 'ON'	26
27	SPARE 'ON'	40/1	0.0	B	0.0	20/1	SPARE 'ON'	28
29	SPARE 'ON'	20/1	0.0	C	0.0	20/1	SPARE 'ON'	30
31	SPACE		0.0	A	0.0	20/1	SPARE 'ON'	32
33	SPACE		0.0	B	0.0		SPACE	34
35	SPACE		0.0	C	0.0		SPACE	36
37	SPACE		0.0	A	0.0		SPACE	38
39	SPACE		0.0	B	0.0		SPACE	40
41	SPACE		0.0	C	0.0		SPACE	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: NS
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 433 PBU	40/1	0.0	A	0.0	20/1	RM 402 RECEPT	2
3	RM 407 PBU	40/1	0.0	B	0.0	20/1	RM 403, 404A RECEPT	4
5	RM 437 PBU	40/1	0.0	C	0.0	20/1	RM 404 RECEPT	6
7	SPARE	50/3	0.0	A	0.0	40/1	SPARE	8
9	–	–	0.0	B	0.0	20/1	RM 433, 434, 407 REC	10
11	–	–	0.0	C	0.0	20/1	RM 405, 406, 438 REC	12
13	RM 480 PBU	40/1	0.0	A	0.0	20/1	RM 402, 403, 439 REC	14
15	RM 446, 417 PBU	40/1	0.0	B	0.0	40/1	RM 481 PBU	16
17	RM 479 PBU	40/1	0.0	C	0.0	40/1	SPARE 'ON'	18
19	RM 439 RECEPT	20/1	0.0	A	0.0	40/1	RM 445 PBU	20
21	RM 404 FCU-1	20/1	0.0	B	0.0	20/1	RM 445, 481, 482 TV RECEPT	22
23	RM 406 RECEPT	20/1	0.0	C	0.0	20/1	RM 446, 479, 480 TV RECEPT	24
25	POP MACHINE	20/1	0.0	A	0.0	20/1	RM 476, 477, 478, 450 TV RECEPT	26
27	RM 480 N. PBU	30/1	0.0	B	0.0	20/1	RM 477 RECEPT	28
29	RM 480 S. PBU	30/1	0.0	C	0.0	20/1	NO INFORMATION	30
31	RM 404A A/C	20/1	0.0	A	0.0	20/1	LOBBY FURNITURE	32
33	RM 435 PWR 'OFF'	20/1	0.0	B	0.0	20/1	RM 435 PWR	34
35	RM 435 PWR 'OFF'	20/1	0.0	C	0.0	20/1	RM 435 PWR	36
37	RM 435 PWR 'OFF'	20/1	0.0	A	0.0	20/1	RM 435 PWR	38
39	RM 435 PWR 'OFF'	20/1	0.0	B	0.0		SPACE	40
41	RM 435 PWR 'OFF'	20/1	0.0	C	0.0		SPACE	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: EL
MOUNTING: SURFACE
PANEL TYPE: DISTRIBUTION
VOLTAGE: 120/208 VOLTS, 3-PHASE, 4-WIRE
MAIN BUS RATING AMPS: 400
MIN A.I.C.: 22k (A)

CKT	ITEM OR AREA SERVED	DIST KVA	CIRCUIT BREAKER FRAME SIZE	# POLES	TRIP SETTING	REMARKS
MAIN		0.0				
1	PNL EA, EC, ED, EF	0.0	70	3	70	
2	SPARE	0.0	100	3	100	
3	PNL ES, ET, EU, EV	0.0	100	3	100	
4	PNL ELL	0.0	200	3	200	
5	OFF'	0.0	70	3	70	
6	SPARE	0.0	70	3	70	
7	SPARE	0.0	100	3	100	
8	PNL CP1	0.0	200	3	200	
9	EFF	0.0	70	3	70	
10	PNL CP2	0.0	200	3	200	
11	PNL ESA, ESB, ESC, ESD	0.0	100	3	100	
12	SPACE	0.0	–	3	–	
13	PNL ES, ET, EV, EN	0.0	100	3	100	
14	SPACE	0.0	–	3	–	
15		0.0				
16		0.0				
17		0.0				
18		0.0				
19		0.0				
20		0.0				

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: ES
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	STAIR LTG #3	20/1	0.0	A	0.0	20/1	STAIR #3 EXIT LTS	2
3	ELEC CLOSET & TELEPHONE	20/1	0.0	B	0.0	20/1	STAIR #1 EXIT AND OUTSIDE	4
5	"ON"	20/1	0.0	C	0.0	20/1	STAIR #1 LTS AND RECEPTS	6
7	SPARE "ON"	20/1	0.0	A	0.0	20/1	ELEC DOOR 153	8
9	SPARE	20/1	0.0	B	0.0	20/1	SPARE "ON"	10
11	HALLWAY LTS BY RM 153	20/1	0.0	C	0.0	20/1	SPARE "ON"	12
13	RECEPTS & LTS TELE BD	20/1	0.0	A	0.0	20/1	ELEC DOOR 155	14

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: EV
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	MED GAS ALARM	20/1	0.0	A	0.0	20/1	SPARE 'ON'	2
3	N. RM LT, 470 BED PNL	20/1	0.0	B	0.0	20/1	NURSECALL SYSTEM	4
5	NURSE STATION LTS	20/1	0.0	C	0.0	20/1	NIGHT LIGHTS	6
7	TELEPHONE OUTLETS	20/1	0.0	A	0.0	20/1	HALL LT	8
9	SPARE	20/1	0.0	B	0.0	20/1	HUB UPS REC	10
11	SPARE	20/1	0.0	C	0.0	20/1	TELEPHONE & NURSE CALL N.	12
13	SPACE	20/1	0.0	A	0.0		SPACE	14
15	SPACE		0.0	B	0.0		SPACE	16
17	SPACE		0.0	C	0.0		SPACE	18
19	SPACE		0.0	A	0.0		SPACE	20
21	SPARE	60/2	0.0	C	0.0		SPACE	22
23	SPARE	–	0.0	A	0.0		SPACE	24

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: EJ
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	EXIT LTS	20/1	0.0	A	0.0	20/1	DOCK LT	2
3	LTS ELEV LOBBY	20/1	0.0	B	0.0	20/1	FA DOOR HOLDERS	4
5	FA CHARGER	20/1	0.0	C	0.0	20/1	LTS STAIRWELL #3	6
7	176 COMPUTER LTS	20/1	0.0	A	0.0	20/1	N. HALL LTS	8
9	DENTAL EXIT LTS	20/1	0.0	B	0.0	20/1	PHONE OFFICE	10
11	176 LTS	20/1	0.0	C	0.0	20/1	SPARE	12
13	PHONE OFFICE	20/1	0.0	A	0.0	20/1	PLAZA DOOR	14

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: EK
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM LTS S.HALL EXIT	20/1	0.0	A	0.0	20/1	LOBBY LTG MONITOR REC	2
3	WANDER GUARD EXIT	20/1	0.0	B	0.0	20/1	SPARE	4
5	RM 241 CRASH CART	20/1	0.0	C	0.0	20/1	ELEC CLOSET & TELE RECEPT	6
7	243 BATH RECAND LT	20/1	0.0	A	0.0	20/1	SPARE 'ON'	8
9	HUB RECEPTACLE	20/1	0.0	B	0.0	20/1	SPARE 'ON'	10
11	SPARE 'ON'	20/1	0.0	C	0.0	20/1	SPARE 'ON'	12
13	SPACE		0.0	A	0.0		SPACE	14
15	SPACE		0.0	B	0.0		SPACE	16
17	SPACE		0.0	C	0.0		SPACE	18
19	SPACE		0.0	A	0.0		SPACE	20
21	SPACE		0.0	B	0.0		SPACE	22
23	SPACE		0.0	C	0.0		SPACE	24
25	SPACE		0.0	A	0.0		SPACE	26
27	SPACE		0.0	B	0.0		SPACE	28
29	SPACE		0.0	C	0.0		SPACE	30
31	SPACE		0.0	A	0.0		SPACE	32
33	SPACE		0.0	B	0.0		SPACE	34
35	SPACE		0.0	C	0.0		SPACE	36

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: EM
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	ALARM DISPLAY UNIT, 302-306	20/1	0.0	A	0.0	20/1	RM 309 RECEPT, RM LTS S	2
3	SPARE 'ON'	20/1	0.0	B	0.0	20/1	RM 302 (2) 4PLEX	4
5	ELEV. SHAFT 1 LTS	20/1	0.0	C	0.0	20/1	RM 342 RECEPTS	6
7	ELEV. SHAFT WEST LTS	20/1	0.0	A	0.0	20/1	HALL LTS LOBBY MONITOR	8
9	ELEV. SHAFT WEST LTS	20/1	0.0	B	0.0	20/1	TELEPHONE CLOSET	10
11	SPARE 'ON'	20/1	0.0	C	0.0	20/1	SPARE 'ON'	12
13	RM 344 LTS & RECEPT	20/1	0.0	A	0.0	20/1	RM 303 LTS	14
15	RM 303 4PLEX	20/1	0.0	B	0.0	20/1	RM 303 DESK	16
17	RM 303 4PLEX	20/1	0.0	C	0.0	20/1	RM 303 4PLEX	18
19	RM 303 4PLEX	20/1	0.0	A	0.0	20/1	RM 341 TELEMASTER RECEPT	20
21	RM 341 BED 3	20/1	0.0	B	0.0	20/1	RM 341 BED 2	22
23	RM 341 BED 4	20/1	0.0	C	0.0	20/1	RM 341 BED 1	24
25	SPACE		0.0	A	0.0	20/1	HUB RECEPT	26
27	SPACE		0.0	B	0.0	20/1	FIRE ALARM DOOR HOLDER	28
29	SPACE		0.0	C	0.0		SPACE	30
31	SPACE		0.0	A	0.0		SPACE	32
33	SPACE		0.0	B	0.0		SPACE	34
35	SPACE		0.0	C	0.0		SPACE	36

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: EN
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	N. RM LTS	20/1	0.0	A	0.0	20/1	RM 440, 442, 442A & LOBBY REC	2
3	S. RM LTS & 408B AC	20/1	0.0	B	0.0	20/1	HUB UPS SYSTEM	4
5	SPARE	20/1	0.0	C	0.0	20/1	RM 477 N. RECEPT	6
7	SPARE	20/1	0.0	A	0.0	20/1	RM 477 S. RECEPT	8
9	SPARE	20/1	0.0	B	0.0	20/1	RM 449 REC & FLUSH VALVE	10
11	SAME DAY SURGERY 40A	40/1	0.0	C	0.0	20/1	RM 449 VAC/AIR ALARM	12
13	SAME DAY SURGERY 40A	40/1	0.0	A	0.0	20/3	RM 339 AHU CIRC PUMP	14
15	RM 438 LTS	20/1	0.0	B	0.0	–	–	16
17	RM 438 RECEPT	20/1	0.0	C	0.0	–	–	18
19	AMBULATORY CARE AHU	30/3	0.0	A	0.0	30/3	AMBULATORY CARE AHU	20
21	RIGHT	–	0.0	B	0.0	–	LEFT	22
23	–	–	0.0	C	0.0	–	–	24

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: EA
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	O2 MONITOR	20/1	0.0	A	0.0	20/1	LOADING DOCK LTS	2
3	"ON"	20/1	0.0	B	0.0	20/1	LOADING DOCK LTS & RECEPTS	4
5	STAIRWELL LTS	20/1	0.0	C	0.0	30/1	CASH REGISTER CAFÉ	6
7	BIO MED RECEPTS	20/1	0.0	A	0.0	20/1	HALL LTS CANTEEN EXIT	8
9	BIO MED RECEPTS	20/1	0.0	B	0.0	20/1	COOLER TEMP ALARMS	10
11	TELEPHONE BOARD	20/1	0.0	C	0.0	20/1	BIO MED LTS	12
13	NORTH FREEZER	50/3	0.0	A	0.0	20/1	FREEZER TEMP ALARMS	14
15	–	–	0.0	B	0.0	50/3	SOUTH FREEZER	16
17	–	–	0.0	C	0.0	–	–	18
19	S. WALL SALAD COOLER	30/2	0.0	A	0.0	–	–	20
21	–	–	0.0	B	0.0	20/1	POWER SUPPLY FIRE ALARM	22
23	SPACE		0.0	C	0.0		SPACE	24

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: EF
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	OFF'	20/1	0.0	A	0.0	20/1	TELE RM RECEPT	2
3	DINING RM LTG	20/1	0.0	B	0.0	20/1	ROUGH RIDER N. LTG EXIT	4
5	EXIT LTS, S. KIT LIS	20/1	0.0	C	0.0		SPACE	6
7	DISHROOM FANS	20/1	0.0	A	0.0		SPACE	8
9	SPACE	20/1	0.0	B	0.0		SPACE	10
11	DISHROOM LTG	20/1	0.0	C	0.0		SPACE	12
13	SPACE		0.0	A	0.0		SPACE	14
15	SPACE		0.0	B	0.0		SPACE	16
17	SPACE		0.0	C	0.0		SPACE	18
19	SPACE		0.0	A	0.0		SPACE	20
21	SPACE		0.0	B	0.0		SPACE	22
23	SPACE		0.0	C	0.0		SPACE	24
25	SPACE		0.0	A	0.0		SPACE	26
27	SPACE		0.0	B	0.0		SPACE	28
29	SPACE		0.0	C	0.0		SPACE	30

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: ED
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	AIR COMP SPRINKLER	20/1	0.0	A	0.0	20/1	SPARE 'ON'	2
3	AUDI SIDE LTS	20/1	0.0	B	0.0	20/1	SPARE 'ON'	4
5	DIETETIC EXHAUST FAN	20/1	0.0	C	0.0	20/1	OFF'	6
7	–	20/1	0.0	A	0.0	20/1	AUDI LIGHT CENTER ROW	8
9	–	20/1	0.0	B	0.0	20/1	SPARE 'ON'	10
11	SPACE		0.0	C	0.0	20/1	COMP FOR A/C	12
13	SPACE		0.0	A	0.0		SPACE	14
15	SPACE		0.0	B	0.0		SPACE	16
17	SPACE		0.0	C	0.0		SPACE	18
19	SPACE		0.0	A	0.0		SPACE	20
21	SPACE		0.0	B	0.0		SPACE	22
23	SPACE		0.0	C	0.0		SPACE	24

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: EC
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	ELEV LT	20/1	0.0	A	0.0	20/1	RM 348 FAN RECEPTS	2
3	ELEV SHAFT LT	20/1	0.0	B	0.0	20/1	RM 348 LTS	4
5	TELEPHONE CLOSET RECEPTS	20/1	0.0	C	0.0	20/1	LTS RESPIRATORY CARE	6
7	SPACE		0.0	A	0.0		SPACE	8
9	SPACE		0.0	B	0.0		SPACE	10
11	SPACE		0.0	C	0.0		SPACE	12
13	SPACE		0.0	A	0.0		SPACE	14
15	SPACE		0.0	B	0.0		SPACE	16
17	SPACE		0.0	C	0.0		SPACE	18
19	SPACE		0.0	A	0.0		SPACE	20
21	SPACE		0.0	B	0.0		SPACE	22
23	SPACE		0.0	C	0.0		SPACE	24
25	SPACE		0.0	A	0.0		SPACE	26
27	SPACE		0.0	B	0.0		SPACE	28
29	SPACE		0.0	C	0.0		SPACE	30
31	SPACE		0.0	A	0.0		SPACE	32
33	SPACE		0.0	B	0.0		SPACE	34
35	SPACE		0.0	C	0.0		SPACE	36

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

SHEET GENERAL NOTES

A. ANY SINGLE POLE CIRCUIT BREAKERS THAT ARE PROVIDED AS PART OF A PANEL REPLACEMENT SHALL COMPLY WITH THE REQUIREMENTS OF NEC 240.4(D).

B. PROVIDE GFI CIRCUIT BREAKERS WHERE INDICATED ON SCHEDULES OR WHERE REMOVED AS PART OF PANEL DEMOLITION. GFI WILL BE INDICATED AS 'GFI CB'.

ISSUED FOR CONSTRUCTION

Revisions: | Date

CONSULTANTS:

REGISTERED PROFESSIONAL ENGINEER REG. NO. 6729 DARRELL L. BREN SOUTH DAKOTA
DATE: 3/13/13

ARCHITECT/ENGINEERS:

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TSP PROJECT #04121073 - PRIORITY 3

Drawing Title: ELECTRICAL SCHEDULES - BUILDING 5

Approved: Project Director

Project Title: Upgrade Electrical Systems Building 5

Location: Sioux Falls, South Dakota

Date: 03/13/2012 | Checked: DLB | Drawn: JWN

Project Number: 438-13-120

Building Numbers: 1, 5, 8, 11, 16

Drawing Number: E-502

Dwg. 8 of 16

Office of Construction and Facilities Management

Department of Veterans Affairs

PANEL TAG: S
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 160, 161 FAN RECEPTS	20/1	0.0	A	0.0	20/1	RM 151, 153–157, 157A LTS	2
3	RM 162 RECEPTS	20/1	0.0	B	0.0	20/1	RM 170–174 LTS	4
5	RM 164, 165 FAN RECEPTS	20/1	0.0	C	0.0	20/1	RM 158–161 LTS	6
7	RM 170 AC	20/1	0.0	A	0.0	20/1	RM 165–169 LTS	8
9	RM 166, 167 AC	20/1	0.0	B	0.0	20/1	RM 162, 162A, 163, 164 LTS	10
11	RM 171–174 RECEPTS, 172 AC	20/1	0.0	C	0.0	20/1	RM 10, 172 CLOCK	12
13	RM 167–170 RECEPTS, 168 AC	20/1	0.0	A	0.0	20/1	RM 171 AC	14
15	RM 164, 165 RECEPTS	20/1	0.0	B	0.0	20/1	CONNECTING CORR RECEPT	16
17	HALL RECEPTS	20/1	0.0	C	0.0	20/1	CONNECTING CORR LTS	18
19	RM 166, 167 RECEPTS	20/1	0.0	A	0.0	20/1	HALL LTS	20
21	RM 157–159 RECEPTS, 158	20/1	0.0	B	0.0	20/1	BASEMENT LTS	22
23	RM 168, 169 RECEPTS	20/1	0.0	C	0.0	20/1	BASEMENT RECEPTS	24
25	RM 172, 173 RECEPTS	20/1	0.0	A	0.0	20/1	BASEMENT LTS	26
27	RM 171 RECEPTS	20/1	0.0	B	0.0	20/1	RM 174 AC	28
29	AC & S. WALL 169, 170	20/1	0.0	C	0.0	20/1	RM 173 AC	30
31	PIPE BASEMENT RECEPT	20/1	0.0	A	0.0	20/1	OUTSIDE BOLLARD LTS	32
33	STAIRWAY RECEPT	20/1	0.0	B	0.0	30/2	RM 161 AC	34
35	CONNECTION CORR 4–PLEX	20/1	0.0	C	0.0	–	–	36
37	RM 161 AC	30/2	0.0	A	0.0	20/1	RM 151–159 FAN RM RECEPT	38
39	–	–	0.0	B	0.0	20/1	RM 164 AC	40
41	RM 158 AC	20/2	0.0	C	0.0	20/1	RM 162 AC	42
43	–	–	0.0	B	0.0	20/1	SPARE	44
45	RM 158 AC	20/1	0.0	C	0.0	20/1	SPARE	46
47	RACK RECEPTACLE	20/1	0.0	A	0.0	20/1	SPARE	48
49	MERC VAPOR LTG EXIT DOOR	20/1	0.0	B	0.0	20/1	SPARE	50
51	SPACE		0.0	C	0.0		SPACE	52
53	SPACE		0.0	A	0.0		SPACE	54
55	SPACE		0.0	B	0.0		SPACE	56
57	SPACE		0.0	C	0.0		SPACE	58
59	SPACE		0.0	C	0.0		SPACE	60

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: V
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 465 AC/FAN, 464A&B REC	20/1	0.0	A	0.0	20/1	RM452, 454–456,457–460LT	2
3	RM 464A&B, 465 REC	20/1	0.0	B	0.0	20/1	RM461–463,463A,463B,463CLT	4
5	RM 463B FAN, 463A AC/FAN	20/1	0.0	C	0.0	30/1	RM 471–474, WAITING AREA AC	6
7	RM 563A REC, 463A AC/FAN	20/1	0.0	A	0.0	20/1	RM 467–470 LTS	8
9	RM 461 FAN, 460 AC	20/1	0.0	B	0.0	20/1	RM 464A,B,C 456, 466 LTS	10
11	RM 461 AC/FAN, 460 FAN	20/1	0.0	C	0.0	20/1	RM 455 REC	12
13	HALL REC	30/1	0.0	A	0.0	20/1	RM 471,473 FAN, 473 REC	14
15	SPARE IN RM 471	30/1	0.0	B	0.0	20/1	PANEL REC	16
17	RM 468 AC, 464,466–468	20/1	0.0	C	0.0	20/1	AC NURSE STATION	18
19	RM 466 AC, 467	20/1	0.0	A	0.0	20/3	5TH FL N. ATTIC FAN	20
21	RM 469 AC/FAN	30/1	0.0	B	0.0	–	–	22
23	RM 470 AC/FAN	20/1	0.0	C	0.0	–	–	24
25	RM 459 AC	20/1	0.0	A	0.0	20/1	ATTIC N. END HOOD FAN	26
27	RM 463B,464B PBPU	40/1	0.0	B	0.0	20/1	RM 462 AC	28
29	RM 463A,464A PBPU	40/1	0.0	C	0.0	20/1	RM 463A AC	30
31	RM 461,462 PBPU	40/1	0.0	A	0.0	20/1	RM 464B AC	32
33	RM 405, 466 PBPU	40/1	0.0	B	0.0	20/1	RM 463A&B, 464A&B TV REC	34
35	RM 459, 460 PBPU	40/1	0.0	C	0.0	20/1	RM 461,462,465 TV REC	36
37	RM 467, 468 PBPU	40/1	0.0	A	0.0	20/1	RM 460, 466, 467 TV REC	38
39	RM 469 PBPU	40/1	0.0	B	0.0	20/1	RM 459,468–470, HALL REC	40
41	RACK REC	20/1	0.0	C	0.0	15/1	RM 465 AC	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: SE (1)
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	SPARE	20/1	0.0	A	0.0	20/1	SPARE	2
3	SPARE	20/1	0.0	B	0.0	20/1	SPARE	4
5	SPARE	20/1	0.0	C	0.0	20/1	SPARE	6
7	SPARE	20/1	0.0	A	0.0	20/1	SPARE	8
9	SPARE	20/1	0.0	B	0.0	20/1	SPARE	10
11	SPARE	20/1	0.0	C	0.0	20/1	SPARE	12
13	SPARE	20/1	0.0	A	0.0	20/1	SPARE	14
15	SPARE	20/1	0.0	B	0.0	20/1	SPARE	16
17	PHARMACY A/C "ON"	20/2	0.0	C	0.0	20/1	SPARE	18
19	–	–	0.0	A	0.0	30/2	SPARE	20
21	SPARE	30/2	0.0	B	0.0	–	–	22
23	–	–	0.0	C	0.0	30/2	SPARE	24
25	SPARE	30/2	0.0	A	0.0	–	–	26
27	–	–	0.0	B	0.0	20/1	SPARE	28
29	SPARE	20/1	0.0	C	0.0	30/2	SPARE	30
31	SPARE	20/1	0.0	A	0.0	–	–	32
33	SPARE	20/1	0.0	B	0.0	20/1	SPARE	34
35	SPARE	20/1	0.0	C	0.0	20/3	SPARE	36
37	SPACE		0.0	A	0.0	–	–	38
39	SPACE		0.0	B	0.0	–	–	40
41	SPACE		0.0	C	0.0		SPACE	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: NI-BIO-EXISTING
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 200
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	BIOMED AHU	20/3	0.0	A	0.0	20/1	WORK BENCH N. WALL RECEPT	2
3	–	–	0.0	B	0.0	20/1	WORK BENCH N. WALL RECEPT	4
5	–	–	0.0	C	0.0	20/1	SPARE 'ON'	6
7	LTG ABOVE CONF TABLE	20/1	0.0	A	0.0	20/1	BIOMED GENERAL RECEPT	8
9	WORK BENCH N.W. RECEPT	20/1	0.0	B	0.0	20/1	DRILL PRESS RECEPT	10
11	LTS IN BIOMED	20/1	0.0	C	0.0	20/1	PARTITION WALL RECEPT	12
13	RM 193 LTG	20/1	0.0	A	0.0	20/1	WORK BENCH S. WALL RECEPT	14
15	RM 193 RECEPT	20/1	0.0	B	0.0	20/1	WORK BENCH S. WALL RECEPT	16
17	TEMP CONTROLS	20/1	0.0	C	0.0	20/1	WORK BENCH S. WALL RECEPT	18
19	RM 193, E. WALL RECEPT	20/1	0.0	A	0.0	20/2	208V DRILL	20
21	RM 193 RECEPT	20/1	0.0	B	0.0	–	–	22
23	WORK BENCH N. WALL RECEPT	20/1	0.0	C	0.0	20/1	HALLWAY COPIER	24
25	WORK BENCH N. WALL RECEPT	20/1	0.0	A	0.0	20/1	WORK BENCH S. WALL RECEPT	26
27	PHARMACY AC UNIT	20/2	0.0	B	0.0	20/1	WORK BENCH S. WALL RECEPT	28
29		–	0.0	C	0.0	20/1	WORK BENCH S. WALL RECEPT	30

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: D
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	CONTROL CKT LV RELAY	20/1	0.0	A	0.0	20/1	NO INFORMATION	2
3	NO INFORMATION	20/1	0.0	B	0.0	20/1	9 HIGH RECESSED DIMMER	4
5	UPPER STAGE RECEP	20/1	0.0	C	0.0	20/1	LOWER STAGE RECEPT	6
7	RM 443F LTS & RECEPT	20/1	0.0	A	0.0	20/1	LOWER STAGE & WHEEL CHAIR	8
9	RM 443F & HALL LTG	20/1	0.0	B	0.0	20/1	SPOT LTG	10
11	RM 443F GFI SINK	20/1	0.0	C	0.0	20/1	SPOT LTG	12
13	NURSE CLASS & REFRIGE REC	20/1	0.0	A	0.0	20/1	STAGE LTS 'OFF'	14
15	NO INFORMATION	20/1	0.0	B	0.0	20/1	STAGE LTS 'OFF'	16
17	SPACE		0.0	C	0.0	20/1	STAGE LTS 'OFF'	18
19	MCB FOR PNL D1	100/3	0.0	A	0.0		SPACE	20
21	–	–	0.0	B	0.0		SPACE	22
23	–	–	0.0	C	0.0		SPACE	24
25	PENTHOUSE LTG	20/1	0.0	A	0.0	20/1	LOW ROW OF INDIRECT LTG	26
27	PENTHOUSE RECEPT	20/1	0.0	B	0.0	20/1	LOW ROW OF INDIRECT LTG	28
29	SOUTH RECEPT	20/1	0.0	C	0.0	20/1	MIDDLE ROW OF INDIR LTG	30
31	SURFACE LTG	20/1	0.0	A	0.0	20/1	MIDDLE ROW OF INDIR LTG	32
33	SURFACE LTG	20/1	0.0	B	0.0	20/1	HIGH ROW OF INDIRECT LTG	34
35	NO INFORMATION	20/1	0.0	C	0.0	20/1	HIGH ROW OF INDIRECT LTG	36
37	N. RECEPT & OFICE CLOCKS	20/1	0.0	A	0.0	20/1	NO INFORMATION	38
39	N. WALL RECEPT	20/1	0.0	B	0.0		SPACE	40
41	OFFICE & KIT LTG	20/1	0.0	C	0.0	20/1	8 LOW RECESSED DIMMER	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: D1
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	KIT W WALL RECEPT	20/1	0.0	A	0.0	20/1	RADIO CONSOLE	2
3	KIT S WALL RECEPT	20/1	0.0	B	0.0	20/1	OFF'	4
5	KIT W WALL RECEPT	20/1	0.0	C	0.0	20/1	OFFICE W WALL RECEPT	6
7	KIT 4PLEX RECEPT	20/1	0.0	A	0.0	20/1	OFFICE E WALL RECEPT	8
9	KIT 4PLEX RECEPT	20/1	0.0	B	0.0	20/1	OFFICE W WALL RECEPT	10
11	KIT W WALL RECEPT	20/1	0.0	C	0.0	20/1	KIT E WALL RECEPT	12
13	KIT E WALL AC RECEPT	20/1	0.0	A	0.0	20/1	KIT DUPLEX BELOW PNL	14
15	KIT N WALL	20/1	0.0	B	0.0	40/2	SPARE	16
17	OFF' LIBRARY RECEPT	20/1	0.0	C	0.0	–	–	18
19	OFF' LIBRARY RECEPT	20/1	0.0	A	0.0		SPACE	20

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: A
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 150
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 194 LTG	20/1	0.0	A	0.0	20/1	SPARE 'ON'	2
3	RM 194 RECEPT	20/1	0.0	B	0.0	20/1	NO INFORMATION	4
5	BURGLAR ALARM	20/1	0.0	C	0.0	20/1	RM 192 LTS, COOLER LTG	6
7	RM 188 LTG	20/1	0.0	A	0.0	20/1	RM 198 LTG	8
9	RM 188 ELEC DOOR	20/1	0.0	B	0.0	20/1	SPARE 'ON'	10
11	UNIT HEATER	20/1	0.0	C	0.0	20/1	RM 120 LTG	12
13	RM 194 FANS	20/1	0.0	A	0.0	20/1	FREEZER E. SIDE LTG	14
15	FREEZER LTS & DOOR HEAT	20/1	0.0	B	0.0	20/1	RM 191A COOLING FAN	16
17	DIARY COOLER	20/1	0.0	C	0.0	20/1	MEAT COOLER RECEPT	18
19	GARBAGE COOLER	20/1	0.0	A	0.0	20/1	ELEC DOOR OPENER	20
21	MEAT COOLER/EVAPORATOR	20/1	0.0	B	0.0	20/1	OVERHEAD DOOR	22
23	SPACE		0.0	C	0.0	20/1	DOCK DOOR	24
25	SPACE		0.0	A	0.0		SPACE	26
27	NO INFORMATION	20/2	0.0	B	0.0	20/2	NO INFORMATION	28
29	–	–	0.0	C	0.0	–	–	30

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: B
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 125
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	KIT LTG	20/1	0.0	A	0.0	20/1	MENS DRESSING RM	2
3	RM 295 & KIT RECEPT	20/1	0.0	B	0.0	20/1	HALL LTS LADY DRESSING RM	4
5	CEILING FAN	20/1	0.0	C	0.0	20/1	RM 293 S. WALL RECEPT	6
7	REFRIGE	20/1	0.0	A	0.0	20/1	RM 244 S. WALL	8
9	N. WALK–IN FAN	20/1	0.0	B	0.0	20/1	RM 296, 296C, 298 LTG	10
11	S. WALK–IN FAN	20/1	0.0	C	0.0	20/1	RM 296–298 RECEPT	12
13	MILK COOLER	20/1	0.0	A	0.0	20/1	WALK–IN COOLER LTG	14
15	FOOD CART	20/2	0.0	B	0.0	20/1	RM 296C RACK RECEPT	16
17	–	–	0.0	C	0.0	20/1	WEST & KIT RECEPT	18
19	FOOD CARK	20/2	0.0	A	0.0	20/1	S.W. A/C IN CANTEEN	20
21	–	–	0.0	B	0.0	20/1	CENTER A/C IN CANTEEN	22
23	SPARE 'ON'	20/2	0.0	C	0.0	20/1	N.W. A/C IN CANTEEN	24
25	–	–	0.0	A	0.0	20/1	RM 293 S.W. RECEPT	26
27	SPACE		0.0	B	0.0	20/1	RM 293 N.W. RECEPT	28
29	SPACE		0.0	C	0.0		SPACE	30

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: JW
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	N. HALL LTS	20/1	0.0	A	0.0	20/1	SPARE	2
3	SPARE	20/1	0.0	B	0.0	20/1	SPARE	4
5	SPARE	20/1	0.0	C	0.0	20/1	RM 175	6
7	SPARE	20/1	0.0	A	0.0	20/1	A/C RM 179	8
9	COMPUTER ROOM RECEPTS	20/1	0.0	B	0.0	20/1	RM 175	10
11	SPARE	20/1	0.0	C	0.0	20/1	HALL RECEPT	12
13	SPARE	20/1	0.0	A	0.0	20/1	GARAGE DR OPEN/AIR CURT	14
15	SPARE	20/1	0.0	B	0.0	20/1	LINE SHOOT LTS	16
17	SPARE	20/1	0.0	C	0.0	20/1	RM 175	18
19	SPARE	20/1	0.0	A	0.0	20/1	SPARE	20
21	SPARE	20/1	0.0	B	0.0	20/1	SPARE	22
23	SPARE	20/1	0.0	C	0.0	20/1	SPARE	24
25	SPARE	20/1	0.0	A	0.0	20/1	SPARE	26
27	SPARE	20/1	0.0	B	0.0	20/1	SPARE	28
29	"OFF"	30/2	0.0	C	0.0	20/1	SPARE	30
31	–	–	0.0	A	0.0	20/1	RM 175 A/C 176, 177 REC	32
33	POLICE OFFICER	30/1	0.0	B	0.0	20/1	SPARE	34
35	SPARE	15/1	0.0	C	0.0	20/1	LTS 178A, 179	36
37	RM 102, 103 TV RECEPTS	20/1	0.0	A	0.0	20/1	RM 178C RECEPTS	38
39	LOBBY RECEPTS	20/1	0.0	B	0.0	20/1	SPARE	40
41	LOBBY RECEPTS	20/1	0.0	C	0.0	20/1	SPARE	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: K
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	CENTER HALL RECEPTS	20/1	0.0	A	0.0	20/1	RM 238–240 LTS	2
3	RM 203,204 LTS N. HALLREC	20/1	0.0	B	0.0	20/1	RM 234–237 LTS, 235 GFI	4
5	RM205–207,209LTS. 209	20/1	0.0	C	0.0	20/1	RM 239 AC, 240 FAN RECEPTS	6
7	SPARE 'ON'	20/1	0.0	A	0.0	20/1	RM 202,203 REC, 204, 205	8
9	SPARE	20/1	0.0	B	0.0	20/1	RM 206 FAN, 207 & 208 AC	10
11	SPARE	20/1	0.0	C	0.0	20/1	RM 202 REC, 203 & 205 AC	12
13	SPARE	20/1	0.0	A	0.0	20/1	RM 207–209 FAN REC, 207AC	14
15	SPARE	20/1	0.0	B	0.0	20/1	RM 239 REC, 240 AC	16
17	SPARE	20/1	0.0	C	0.0	20/1	RM 233–235 FAN REC, 234REC	18
19	SPARE 'ON'	20/1	0.0	A	0.0	20/1	RM 234, 235 REC	20
21	SPARE	20/1	0.0	B	0.0	20/1	SPARE	22
23	SPARE	20/1	0.0	C	0.0	30/1	SPARE	24
25	SPARE	20/1	0.0	A	0.0	30/1	SPARE	26
27	SPARE	20/1	0.0	B	0.0	30/1	SPARE	28
29	SPARE	20/1	0.0	C	0.0	20/1	SPARE	30
31	SPARE	20/1	0.0	A	0.0	20/1	SPARE	32
33	SPARE	30/2	0.0	B	0.0	20/1	RM 239, 240 FAN REC	34
35	SPARE	–	0.0	C	0.0	20/1	SPARE	36
37	SPARE	20/1	0.0	A	0.0	20/1	SPARE	38
39	PWR PNL RECEPTS	20/1	0.0	B	0.0	20/1	SPARE	40
41	RM 203 AC	20/1	0.0	C	0.0	20/1	SPARE	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG:N1-EXIST TO REMAIN
MOUNTING: RECESSED
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [ ]
MIN A.I.C.: (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 446	20/1	0.0	A	0.0	20/1	RM 477, 480, 481 LTG	2
3	RM 447	20/1	0.0	B	0.0	20/1	RM 446–449 LTG	4
5	RM 447A	20/1	0.0	C	0.0	20/1	MED GAS ALARM PNL	6
7	RM 448, 449, 475, 473	20/1	0.0	A	0.0	20/1	POST OP 8	8
9	RM 475 COUNTER	20/1	0.0	B	0.0	20/1	POST OP 7	10
11	RM 475 COUNTER/FRIGE	20/1	0.0	C	0.0	20/1	POST OP 6	12
13	RM 477 N. NURSE	20/1	0.0	A	0.0	20/1	POST OP 5	14
15	RM 477 N. NURSE	20/1	0.0	B	0.0	20/1	POST OP 4	16
17	RM 480	20/1	0.0	C	0.0	20/1	POST OP 3	18
19	RM 480	20/1	0.0	A	0.0	20/1	POST OP 2	20
21	RM 480	20/1	0.0	B	0.0	20/1	POST OP 1	22
23	RM 481A	20/1	0.0	C	0.0	20/1	POST OP FOLD DN TABLES	24
25	RM 481, 477 GENERAL RECEPT	20/1	0.0	A	0.0	20/1	POST OP TV	26
27	PNL N1 RECEPT	20/1	0.0	B	0.0	20/1	RM 480–E	28
29	5–EF33, EF34	20/1	0.0	C	0.0	20/1	RM 480–E	30
31	RM 477 A/C FRIGE	20/1	0.0	A	0.0	20/1	NO INFORMATION	32
33	RM 477 BLANKET WARMER	20/1	0.0	B	0.0	20/1	NO INFORMATION	34
35	RM 477 UC FRIGE	20/1	0.0	C	0.0	20/1	NO INFORMATION	36
37	SPACE		0.0	A	0.0		SPACE	38
39	SPACE		0.0	B	0.0		SPACE	40
41	SPACE		0.0	C	0.0		SPACE	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: M
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	HALL RECEPT	20/1	0.0	A	0.0	20/1	SPACE	2
3	RM 303–305 FAN RECEPT	20/1	0.0	B	0.0	20/1	RM 305–309, 308A LTS	4
5	RM 304–305 AC	20/1	0.0	C	0.0	20/1	RM 334–337 LTS	6
7	RM 306–309 FAN RECEPT	20/1	0.0	A	0.0	20/1	RM 338–341 LTS, RM 237REC	8
9	RM 306–308 RECEPT	20/1	0.0	B	0.0	20/1	RM 302, 392 LTS	10
11	RM 340 FAN, 341 AC	20/1	0.0	C	0.0	20/1	RM 301 LTS, 392 RECEPTS	12
13	RM 334 AC	20/1	0.0	A	0.0	20/1	SPARE	14
15	RM 335 AC	20/1	0.0	B	0.0	20/1	SPARE	16
17	SPARE 'ON'	20/1	0.0	C	0.0	20/1	SPARE	18
19	RM 301–302, 350, 372	20/1	0.0	A	0.0	20/1	SPARE	20
21	SPARE	20/1	0.0	B	0.0	20/1	SPARE	22
23	SPARE	20/1	0.0	C	0.0	20/1	SPARE	24
25	SPARE	20/1	0.0	A	0.0	20/1	RM 303 AC	26
27	SPARE	20/1	0.0	B	0.0	20/1	RM 302 AC	28
29	SPARE	20/1	0.0	C	0.0	20/1	SPARE	30
31	SPARE	20/1	0.0	A	0.0	20/1	SPARE	32
33	WEST WALL LOBBY	20/1	0.0	B	0.0		SPACE	34
35	SPARE	20/1	0.0	C	0.0	20/1	SPARE	36
37	SPACE		0.0	A	0.0		SPACE	38
39	SPACE		0.0	B	0.0		SPACE	40
41	RM 306 AC	20/1	0.0	C	0.0	20/1	RM 340 AC, 341 FAN	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: O
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 526A SURGERY SUPPLY	20/1	0.0	A	0.0	20/1	ATTIC WASH AREA GFI CB	2
3	RM C–526 HALL LTG	20/1	0.0	B	0.0	20/1	SPARE	4
5	ATTIC LTG	20/1	0.0	C	0.0	20/1	LOBBY W. WALL	6
7	SPARE	20/1	0.0	A	0.0	20/1	GFI CIRCUIT BREAKER	8
9	OUTLET IN PENTHOUSE	20/1	0.0	B	0.0	20/1	ATTIC LTG	10
11	RM 526A RECEPT	20/1	0.0	C	0.0	20/1	RECEPT ON N. WALL	12
13	SPARE	20/1	0.0	A	0.0	20/1	PENTHOUSE LTG	14
15	RM 525 4PLEX	20/1	0.0	B	0.0	20/1	PENTHOUSE LTG	16
17	SQUARE D PNL IN PENTHOUSE	50/2	0.0	C	0.0	20/1	PENTHOUSE & STAIRWELL LTG	18
19	–	–	0.0	A	0.0	20/1	RM 513 LTG	20
21	RM 510A GFCI	20/1	0.0	B	0.0	20/1	SURGERY CLOCKS	22
23	RM 520 RECEPT	20/1	0.0	C	0.0	20/1	E. HALL RECEPTS	24
25	RECEPT IN AC AREA 'OFF'	30/2	0.0	A	0.0	20/1	SPARE 'ON'	26
27	–	–	0.0	B	0.0	20/1	SPARE 'ON'	28
29	RM 510, 513 RECEPT	20/1	0.0	C	0.0	20/1	RM 504 LTG	30
31	RECEPT ATTIC AC	20/1	0.0	A	0.0	20/1	TV AMP 5TH–8TH FLOOR	32
33	ATTIC TV. RM	20/1	0.0	B	0.0	20/1	ELEV LT, HALL RECEPT	34
35	SPARE	20/1	0.0	C	0.0	20/1	RM 525 E. WALL	36
37	GFI CB	20/1	0.0	A	0.0	20/1	RM 508B LTG	38
39	JOHNSON CONTROLS	20/1	0.0	B	0.0	20/1	SPARE	40
41	SPACE		0.0	C	0.0		SPACE	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: N
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 445–477 LTS	20/1	0.0	A	0.0	20/1	RM 476–479 LTS	2
3	RM 448–451, 449A, 449B LTS	20/1	0.0	B	0.0	30/1	RM 480, 481 LTS	4
5		20/1	0.0	C	0.0	30/1	RM 438 AC, 439 RECEPT	6
7	RM 403, 404 LTS	20/1	0.0	A	0.0	30/1	RM 433 FAN & AC	8
9	RM 405–408 LTS	30/1	0.0	B	0.0	20/1	RM 436 FAN & AC	10
11	RM 433, 434, 435A LTS	20/1	0.0	C	0.0	20/1	RM 438 FAN, 439 AC	12
13	RM 435–437, 325B LTS	30/1	0.0	A	0.0	20/1	RM401,482AC,401,402,482REC	14
15	RM 438, 439 LTS	30/1	0.0	B	0.0	20/1	RM480FAN,481AC, N.REC	16
17	RM401,401A&B,402,482 LT	30/1	0.0	C	0.0	20/1	RM 481, 482 RECEPT, 480 AC	18
19	RM 401 RECEPT	20/1	0.0	A	0.0	100/3	PNL N1	20
21	S. HALL 403–405, FAN REC	20/1	0.0	B	0.0	–	–	22
23	S. HALL RECEPT	30/1	0.0	C	0.0	–	–	24
25	RM 407, 408 AC, 406 RECEPT	30/1	0.0	A	0.0	20/1	RM445,446 REC AC FAN,445TV	26
27	RM 406 RECEPT, 407 AC	30/1	0.0	B	0.0	20/1	RM 451 FAN&AC, 450,451REC	28
29	RM 405 AC	20/1	0.0	C	0.0	20/1	RM 440 RACK REC	30
31	RM 403 AC	20/1	0.0	A	0.0	20/1	RM 451 N. WALL REC	32
33	RM 401 AC	30/1	0.0	B	0.0	15/1	RM 440A REC	34
35	SPARE 'ON'	20/1	0.0	C	0.0	20/1	RM 402 ELEV LOBBY AC, 'OFF'	36
37	RM 401 SW WALL 4PLEX	20/1	0.0	A	0.0	20/1	RM 481 AC	38
39	RM 445 AC	20/1	0.0	B	0.0	20/1	RM 404 AC	40
41	RM 480 RECEPT	20/1	0.0	C	0.0	20/1	N. WALL REC	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: CC
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 230 PWR & LTS	20/1	0.0	A	0.0		SPACE	2
3	GFI RM 227	20/1	0.0	B	0.0	20/1	CLNG LTS RM 25, 27	4
5	SPACE		0.0	C	0.0	20/1	RM 210 PWR	6
7	SPACE		0.0	A	0.0	20/1	DOOR OPENER CAPPED OFF	8
9	"ON"	20/1	0.0	B	0.0	20/1	225 LTS AND STORAGE	10
11	SPACE		0.0	C	0.0	20/1	215, 216, 217, 218, 219 LTS	12
13	TV	20/1	0.0	A	0.0	20/1	219 RECEPT & NEG AIR ALARM	14
15	TV	20/1	0.0	B	0.0	20/1	224 RECEPT	16
17	NURSE CONFERENCE SOUTH	20/1	0.0	C	0.0	20/1	222, 223, 224, 225 LTS	18
19	RECEPT PS 215	20/1	0.0	A	0.0	20/1	HALL RECEPTS	20
21	SPARE "OFF"	20/1	0.0	B	0.0	20/1	215 N. WALL RECEPTS	22
23	SPARE "OFF"	20/1	0.0	C	0.0	20/1	RACK RECEPT 233, 131A, D9	24
25	211 A/C	20/1	0.0	A	0.0		SPACE	26
27	211 A/C	20/1	0.0	B	0.0	20/1	ICE MACHINE	28
29	211 A/C	20/1	0.0	C	0.0	20/1	"ON"	30
31	213 PWR & LTS	20/1	0.0	A	0.0	20/1	230 A/C	32
33	213 AC	20/1	0.0	B	0.0		SPACE	34
35	214 PWR LTS & SINK RECEPT	20/1	0.0	C	0.0		SPACE	36
37	SPARE	40/2	0.0	A	0.0		SPACE	38
39	–	–	0.0	B	0.0		SPACE	40
41	SPACE		0.0	C	0.0		SPACE	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

SHEET GENERAL NOTES

A. ANY SINGLE POLE CIRCUIT BREAKERS THAT ARE PROVIDED AS PART OF A PANEL REPLACEMENT SHALL COMPLY WITH THE REQUIREMENTS OF NEC 240.4(D).

B. PROVIDE GFI CIRCUIT BREAKERS WHERE INDICATED ON SCHEDULES OR WHERE REMOVED AS PART OF PANEL DEMOLITION. GFI WILL BE INDICATED AS 'GFI CB'

SHEET KEYNOTES

1. PANEL IS TO BE DEMOLISHED. SCHEDULE IS INCLUDED FOR REFERENCE ONLY.

ISSUED FOR CONSTRUCTION

Revisions: | Date

CONSULTANTS:

REGISTERED PROFESSIONAL ENGINEER REG. NO. 6729 DARRELL L. BREN SOUTH DAKOTA
DATE: 3/13/13

ARCHITECT/ENGINEERS:

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Sioux Falls, SD 57104
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TSP PROJECT #04121073 - PRIORITY 3

Drawing Title: ELECTRICAL SCHEDULES - BUILDING 5
Approved: Project Director
Project Title: Upgrade Electrical Systems Building 5
Location: Sioux Falls, South Dakota
Date: 03/13/2012
Checked: DLB
Drawn: JWN
Project Number: 438-13-120
Building Numbers: 1, 5, 8, 11, 16
Drawing Number: E-503
Dwg. 9 of 16

Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231

PANEL TAG: DD
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 313 PBPU REC	20/1	0.0	A	0.0	20/1	RM 320 GENERAL REC	2
3	RM 313 UNDERCTR ANTE	20/1	0.0	B	0.0	20/1	RM 309 AC, 310 REC	4
5	RM 315 GENERAL REC	20/1	0.0	C	0.0	20/1	RM 311 AC	6
7	RM 317 GENERAL REC	20/1	0.0	A	0.0	20/1	RM 312 AC	8
9	RM 310 AC	20/1	0.0	B	0.0	20/1	RM 329, 330 LTS	10
11	RM 317 PBPU REC	20/1	0.0	C	0.0	20/1	RM 328-331 LTS	12
13	RM 318 PBPU REC	20/1	0.0	A	0.0	30/2	SPOT COOLER REC	14
15	RACK REC	20/1	0.0	B	0.0	–	–	16
17	RM 318 GENERAL REC	20/1	0.0	C	0.0	20/1	RM 322 CONTROL CTR REC	18
19	FRIDGE & ICE MACHINE	20/1	0.0	A	0.0	20/1	RM 323 GENERAL REC	20
21	SPARE 'ON'	20/1	0.0	B	0.0	20/1	RM 323 PBPU REC	22
23	RM 320 PBPU REC	20/1	0.0	C	0.0	20/1	RM 324, 326 REC	24
25	RM 319 ANTE UNDERCTR REC	20/1	0.0	A	0.0	20/1	RM 324, 325 REC	26
27	PNL REC	20/1	0.0	B	0.0	20/1	RM 303 REC	28
29	TELEMETRY REC, NURSE STAT	20/1	0.0	C	0.0	20/1		30
31	RM 313	20/1	0.0	A	0.0	20/1	RM 321 PBPU REC	32
33	SPARE 'ON'	20/1	0.0	B	0.0	20/1		34
35	RM 314 REC	20/1	0.0	C	0.0	20/1		36
37		20/1	0.0	A	0.0	20/1		38
39	RM 333 REC	20/1	0.0	B	0.0	20/1		40
41	GFI ICE MACHINE GFI CB	20/1	0.0	C	0.0	20/1	321 GENERAL REC	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: EE
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 225
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	STRESS MACHINE	20/1	0.0	A	0.0	20/1	RM 403, 414 LTG	2
3	STRESS MACHINE	20/1	0.0	B	0.0	20/1	RM 415, 419, 424 LTG	4
5	RM 423 LTG	20/1	0.0	C	0.0	20/1	HALL REC	6
7	RM 429 A/C	20/1	0.0	A	0.0	20/1	RM 419-421 REC	8
9	RM 411, 412 LTG, 412 MICRO	20/1	0.0	B	0.0	20/1	RM 411, 423, 424 REC	10
11	RM 403 REC & 414 HEAT	20/1	0.0	C	0.0	20/1	RM 410, 411 REC	12
13	RM 413 REC	20/1	0.0	A	0.0	20/1	RM 406, 409 REC	14
15	RM 417 REC	20/1	0.0	B	0.0	20/1	RM 404, 405 REC	16
17	RM 418 REC	20/1	0.0	C	0.0	20/1	RM 410 A/C	18
19	RM 414, 416 REC	20/1	0.0	A	0.0	20/1	RM 410 REC	20
21	RM 417 LTG	20/1	0.0	B	0.0	20/1	RM 410 REC	22
23	RM 418 LTG	20/1	0.0	C	0.0	20/1	RM 412 REC	24
25	RM 416 LTG	20/1	0.0	A	0.0	20/1	RM 412 A/C	26
27	RM 419 REC	20/1	0.0	B	0.0	20/1	RM 412 AC	28
29	SPACE	20/1	0.0	C	0.0	20/1	RM 428, 429 REC	30
31	SPACE	20/1	0.0	A	0.0	20/1	RM 432 REC	32
33	SPACE	20/1	0.0	B	0.0	20/1	ICE MACHINE	34
35	RACK REC	20/1	0.0	C	0.0	20/1	IN. DOOR OPENER	36
37	RM 442, 425, 426 LTG	20/1	0.0	A	0.0	20/1	S. DOOR OPENER	38
39	HVAC DAMPERS	20/1	0.0	B	0.0	20/1	RM 429 LTG	40
41	RM 414 REC	20/1	0.0	C	0.0	20/1	RM 401 REFRIG.	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: EBB (1)
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	NURSE CALL PNL	20/1	0.0	A	0.0	20/1	EXIT LTS WANDER GUARD	2
3	XRAY EXIT LT	20/1	0.0	B	0.0	20/1	ELEC CLOSET LTS & RECEPT	4
5	STAIRWELL LTS	20/1	0.0	C	0.0	20/1	UPS & SERVER RECEPTS	6
7	SPARE	40/2	0.0	A	0.0	20/1	SPARE	8
9	–	–	0.0	B	0.0	20/1	SPARE	10
11	SPACE		0.0	C	0.0		SPACE	12
13	SPACE		0.0	A	0.0		SPACE	14

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: ECC (1)
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	SPACE		0.0	A	0.0	20/1	210, 211 PWR & LTG	2
3	NURSE CALL	20/1	0.0	B	0.0	20/1	213 LTS. HALL SINK OUTLET	4
5	RM 234 BED 4PLEX	20/1	0.0	C	0.0	20/1	211 ISLAND	6
7	"ON"	20/1	0.0	A	0.0	20/1	HALL LTS	8
9	"ON"	20/1	0.0	B	0.0	20/1	CABINET COMPUTER	10
11	HUB UPS SYSTEM	20/1	0.0	C	0.0	20/1	NITE LITES	12
13	210 FAUCET & GAS ALARMS	20/1	0.0	A	0.0	20/1	TELEPHONE OUTLET	14
15	211 COUNTER	20/1	0.0	B	0.0		SPACE	16
17	211 COUNTER	20/1	0.0	C	0.0	20/1	229 OUTLET & 214A	18
19	211 SE WALL	20/1	0.0	A	0.0		SPACE	20
21	211 S WALL	20/1	0.0	B	0.0		SPACE	22
23	SPACE		0.0	C	0.0		SPACE	24

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: EDD (1)
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [X]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 312 REC	20/1	0.0	A	0.0	20/1	SPARE 'ON'	2
3	NURSE CALL SYSTEM	20/1	0.0	B	0.0	20/1	NURSESTATON LTS,311A4PLEX	4
5	RM 318 LTG, 315 REC	20/1	0.0	C	0.0	20/1	SPARE 'ON'	6
7	HALL LTS	20/1	0.0	A	0.0	20/1	ELEC CLOSET & TELEMETRY	8
9	NL MED PREP CAB	20/1	0.0	B	0.0	20/1	SPARE 'ON'	10
11	MED PREP CAB	20/1	0.0	C	0.0	20/1	SPARE 'ON'	12
13	VACUUM AIR ALARMS	20/1	0.0	A	0.0	20/1	TELEPHONE BOARD	14
15	RM 312 REC	20/1	0.0	B	0.0	20/1	HUB UPS SYSTEM	16
17	RM 311 REC	20/1	0.0	C	0.0	20/1	ON'	18
19	RM 311 REC	20/1	0.0	A	0.0	20/2	ON'	20
21	SPACE		0.0	C	0.0	–	–	22
23	SPACE		0.0	A	0.0		SPACE	24

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: EEE (1)
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 100
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	RM 460 GFI CB	20/1	0.0	A	0.0	20/1	SPARE 'ON'	2
3	RM 410 RECEPT	20/1	0.0	B	0.0	20/1	RM 409 NURSE CALL SYSTEM	4
5	RM 410 LTG	20/1	0.0	C	0.0	20/1	RM 410 E. WALL RECEPT	6
7	HALL N.L.	20/1	0.0	A	0.0	20/1	ELEC CLOSET LTG & RECEPT	8
9	HALL LTG	20/1	0.0	B	0.0	20/1	HUB UPS SYSTEM	10
11	VACUUM AIR ALARM	20/1	0.0	C	0.0	20/1	RM 409 TELEPHONE PNL REC	12
13	S. OUTLET E. OFFICE	20/1	0.0	A	0.0	20/1	SICU LTG N. WALL RECEPT	14
15	SPACE		0.0	B	0.0	20/1	RM 411 E.OFFICE E.WALL REC	16
17	SPACE		0.0	C	0.0		SPACE	18
19	SPACE		0.0	A	0.0		SPACE	20
21	SPACE		0.0	C	0.0		SPACE	22
23	SPACE		0.0	A	0.0		SPACE	24

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: MAIN BLDG 8
MOUNTING: FLOOR
PANEL TYPE: DISTRIBUTION
VOLTAGE: 120/208 VOLTS, 3-PHASE, 4-WIRE
MAIN BUS RATING AMPS: 1200
MIN A.I.C.: 22k (A)

CKT	ITEM OR AREA SERVED	DIST KVA	CIRCUIT BREAKER FRAME SIZE	# POLES	TRIP SETTING	REMARKS
MAIN		0.0	1200	3	1200	
1	BLDG T15	0.0	175	3	175	
2	PNL LA LAUNDRY	0.0	100	3	100	
3	BLDG 9	0.0	100	3	100	
4	ACCU-1	0.0	250	3	250	
5	ACCU-2	0.0	250	3	250	
6	DIST MDP A	0.0	400	3	400	
7	DIST MDP B	0.0	400	3	400	
8	SPACE	0.0	200	3	200	
9	SPACE	0.0	200	3	200	
10	SPACE	0.0	100	3	100	
11	SPACE	0.0	100	3	100	

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

*CONNECT EXISTING SQUARE D POWER LOGIC METERING SYSTEM TO NEW MDP
*PROVIDE WITH TVSS PROTECTION. SEE SPEC 264313.
*PANEL IS RELOCATED FROM BUILDING 5.

PANEL TAG: ERI
MOUNTING: SURFACE
FEEDER: (SEE RISER DIAGRAM)
PANEL TYPE: LTG & APPLIANCE
VOLTAGE: 120/208 VAC, 3-PHASE, 4-WIRE
MAINS: LUG [ ] C.B. [X] AMPS: 200
FEED THRU LUG [ ]
MIN A.I.C.: 10k (A)

CKT	ITEM OR AREA SERVED	O/C PROT	DIST KVA	P	DIST KVA	O/C PROT	ITEM OR AREA SERVED	CKT
1	VESTIBULE COOLER COMP	30/3	0.0	A	0.0	30/2	EAST FREEZER DEF & FANS	2
3	–	–	0.0	B	0.0	–	–	4
5	–	–	0.0	C	0.0		SPACE	6
7	EAST FREEZER COMP 1	30/3	0.0	A	0.0		SPACE	8
9	–	–	0.0	B	0.0		SPACE	10
11	–	–	0.0	C	0.0		SPACE	12
13	EAST FREEZER COMP 2	30/3	0.0	A	0.0		SPACE	14
15	–	–	0.0	B	0.0		SPACE	16
17	–	–	0.0	C	0.0		SPACE	18
19	EAST FREEZER DEF & FAN	30/2	0.0	A	0.0		SPACE	20
21	–	–	0.0	B	0.0		SPACE	22
23	SUPPLY DAIRY GARBAGE COMP	30/3	0.0	C	0.0		SPACE	24
25	–	–	0.0	A	0.0		SPACE	26
27	–	–	0.0	B	0.0		SPACE	28
29	COOKS SALAD COMP	15/3	0.0	C	0.0		SPACE	30
31	–	–	0.0	A	0.0		SPACE	32
33	–	–	0.0	B	0.0		SPACE	34
35	MEAT COOLER COMP	30/3	0.0	C	0.0		SPACE	36
37	–	–	0.0	A	0.0		SPACE	38
39	–	–	0.0	B	0.0		SPACE	40
41	SPACE		0.0	C	0.0		SPACE	42

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

MOTOR CONTROL CENTER: MQ2
VOLTAGE: 277/480 VOLTS, 3-PHASE, 4-WIRE
MAIN BUS RATING AMPS:
VERTICAL BUS RATING AMPS: 600
MIN A.I.C.: 14k (A)

CKT	ITEM OR AREA SERVED	DIST KVA	MTR HP	MAGNETIC STARTER SIZE	MAGNETIC STARTER TYPE	CIRCUIT BREAKER FRAME SIZE	# POLES	TRIP SETTING	CONTROLS & REMARKS
MAIN		0.0							
1	TEL EQUIP 6 TON AC UNIT	0.0	–	–	–	60	3	60	
2	5-P7	0.0	15	2	FVNR	40	3	40	
3	5-P8	0.0	15	2	FVNR	40	3	40	
4	5-P9	0.0	7.5	1	FVNR	20	3	20	
5	5-P10	0.0	7.5	1	FVNR	20	3	20	
6	5-P11	0.0	0.33	0	FVNR	15	3	15	
7	5-CP3	0.0	2	–	–	15	3	15	
8	TEMP CONTROLS AIR COMP	0.0	7.5	–	–	20	3	20	
9	5-SF11	0.0	1.5	0	FVNR	15	3	15	

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

MOTOR CONTROL CENTER: BOILER (BLDG 11)
VOLTAGE: 480 VOLTS, 3-PHASE, 3-WIRE
MAIN BUS RATING AMPS: 600
VERTICAL BUS RATING AMPS: 600
MIN A.I.C.: 25k (A)

CKT	ITEM OR AREA SERVED	DIST KVA	MTR HP	MAGNETIC STARTER SIZE	MAGNETIC STARTER TYPE	CIRCUIT BREAKER FRAME SIZE	# POLES	TRIP SETTING	CONTROLS & REMARKS
MAIN		0.0							
1	TOWER PUMP CONTROL PNL	0.0	25	–	–	70	3	70	
2	TOWER PUMP CONTROL PNL	0.0	25	–	–	70	3	70	
3	OUTSIDE XFRM	0.0	–	–	–	150	3	150	
4	75kVA XFRM	0.0	–	–	–	150	3	150	
5	COMPACTOR	0.0	–	–	–	30	3	30	
6	AIR COMP 1	0.0	3	0	FVNR	15	3	15	
7	50kVA	0.0	–	–	–	150	3	150	
8	COND TRANSFER PUMP P1	0.0	3	0	FVNR	15	3	15	
9	COND TRANSFER PUMP P2	0.0	3	0	FVNR	15	3	15	
10	BOILER FEEDWATER PUMP P3	0.0	25	2	RVNR	70	3	70	
11	BOILER FEEDWATER PUMP P4	0.0	25	2	RVNR	70	3	70	
12	BOILER RM EX PTRV-3	0.0	1.5	0	FVNR	15	3	15	
13	BOILER RM EX PTRV-2	0.0	1.5	0	FVNR	15	3	15	
14	MAU – HV1	0.0	3	0	FVNR	15	3	15	
15	BOILER FUEL OIL PUMP P6 (WEST)	0.0	1	0	FVNR	15	3	15	
16	BOILER FUEL OIL PUMP P5 (EAST)	0.0	1	0	FVNR	15	3	15	
17		0.0							
18		0.0							
19		0.0							
20		0.0							

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

PANEL TAG: MAIN BLDG 16
MOUNTING: FLOOR
PANEL TYPE: DISTRIBUTION
VOLTAGE: 120/208 VOLTS, 3-PHASE, 4-WIRE
MAIN BUS RATING AMPS: 400
MIN A.I.C.: 10k (A)

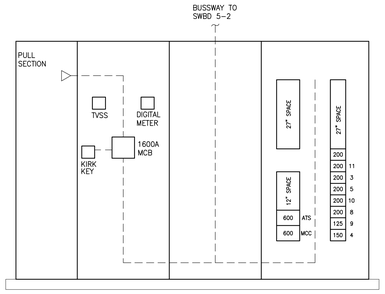
CKT	ITEM OR AREA SERVED	DIST KVA	CIRCUIT BREAKER FRAME SIZE	# POLES	TRIP SETTING	REMARKS
MAIN		0.0	400	3	400	
1	BLDG 18 GARAGE	0.0	60	3	60	
2	PWR METER DISC	0.0	20	3	20	
3	SPACE	0.0				
4	SPACE	0.0				
5	PNLS 16-1W, 16-2W	0.0	200	3	200	
6	PNLS 16-1E, 16-2E	0.0	200	3	200	
7	PNLS 16-B	0.0	60	3	60	
8	SPACE	0.0				
9	BLDG 17	0.0	100	3	100	
10	BLDG 15	0.0	100	3	100	
11	SPACE	0.0				
12	SPACE	0.0				

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

*PROVIDE WITH MULTI-FUNCTION DIGITAL METER
*PROVIDE WITH TVSS PROTECTION. SEE SPEC 264313

SHEET KEYNOTES

1. EXISTING PANEL IS 14" WIDE. NEW PANEL SHALL BE 14" WIDE TO FIT IN EXISTING LOCATION.



B8 NEW SWITCHBOARD 5-1 - ELEVATION
SCALE: NONE

PANEL TAG: SWBD 5-1 (EAST)
MOUNTING: FLOOR
PANEL TYPE: SWITCHBOARD
VOLTAGE: 120/208 VOLTS, 3-PHASE, 4-WIRE
MAIN BUS RATING AMPS: 1600
MIN A.I.C.: 65k (A)

CKT	ITEM OR AREA SERVED	DIST KVA	CIRCUIT BREAKER FRAME SIZE	# POLES	TRIP SETTING	REMARKS
MAIN		0.0	1600	3	1600	
1	FEEDER BUSS	0.0	–	–	–	BUSS CONNECTION
2	ATS – 5 (EQ)	0.0	600	3	600	
3	#2 – MCC PP10	0.0	600	3	600	
4	#11 – PANEL JS	0.0	200	3	200	
5	#3 – PANELS KS, MS, NS	0.0	200	3	200	
6	#5 – PANELS LN1, LN2	0.0	200	3	200	
7	#10 – PANEL P5	0.0	200	3	200	
8	#8 – PANEL P12	0.0	200	3	200	
9	#9 – PANEL LNWA	0.0	200	3	125	
10	#4 – SMOKE SHELTER PANEL	0.0	200	3	150	
11	TEMP CONNECTION TO PNL ERI	0.0	200	3	200	

SECTION 1
SECTION 2
SECTION 3
(12" + 27" + 27" SPACE)
SEE DETAIL ABOVE

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

*PROVIDE KIRK-KEY INTERLOCK ON MAIN CB.
*PROVIDE W/ TVSS PROTECTION. SEE SPEC 264313.

PANEL TAG: EXISTING MDP-TEMP 1
MOUNTING: WALL
PANEL TYPE: DISTRIBUTION
VOLTAGE: 120/208 VOLTS, 3-PHASE, 4-WIRE
MAIN BUS RATING AMPS: 1200
MIN A.I.C.: 65k (A)

CKT	ITEM OR AREA SERVED	DIST KVA	CIRCUIT BREAKER FRAME SIZE	# POLES	TRIP SETTING	REMARKS
MAIN		0.0	1200	3	1200	(ADJUSTABLE TO 1000A)
1	ATS-5 EQ	0.0	600	3	600	
2	(SPARE)	0.0	400	3	400	
3	(SPARE)	0.0	400	3	350	
4	(SPARE)	0.0	400	3	225	
5	#10 – PANEL P5	0.0	200	3	200	
6	#8 – PANEL P12	0.0	200	3	200	
7	(SPARE)	0.0	200	3	200	
8	(SPARE)	0.0	200	3	200	
9	(SPARE)	0.0	200	3	200	
10	(SPARE)	0.0	200	3	200	
11	(SPARE)	0.0	200	3	150	
12	#4 – SMOKE SHELTER PANEL	0.0	200	3	150	
13	#9 – PANEL LNWA	0.0	200	3	125	
14	(SPARE)	0.0	200	3	30	

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

*PROVIDE WITH TVSS PROTECTION. SEE SPEC 264313.

PANEL TAG: EXISTING MDP – TEMP 2
MOUNTING: WALL
PANEL TYPE: DISTRIBUTION
VOLTAGE: 120/208 VOLTS, 3-PHASE, 4-WIRE
MAIN BUS RATING AMPS: 1200
MIN A.I.C.: 65k (A)

CKT	ITEM OR AREA SERVED	DIST KVA	CIRCUIT BREAKER FRAME SIZE	# POLES	TRIP SETTING	REMARKS
MAIN		0.0	1200	3	1200	
1	#2 – MCC PP10	0.0	600	3	600	
2	(SPARE)	0.0	400	3	400	
3	(SPARE)	0.0	400	3	400	
4	(SPARE)	0.0	400	3	225	
5	(SPARE)	0.0	200	3	200	
6	#11 – PANEL JS	0.0	200	3	200	
7	#3 – PANELS KS, MS, NS	0.0	200	3	200	
8	#5 – PANELS LN1, LN2	0.0	200	3	200	
9	(SPARE)	0.0	200	3	175	
10	(SPARE)	0.0	200	3	100	
11	(SPARE)	0.0	200	3	100	

TOTAL CONNECTED LOAD (KVA) 0.0
TOTAL DEMAND LOAD (KVA) 0.0
FEEDER AMPERES DEMAND 0.0

*PROVIDE WITH TVSS PROTECTION. SEE SPEC 264313.

ISSUED FOR CONSTRUCTION

Revisions	Date

CONSULTANTS:

REGISTERED PROFESSIONAL ENGINEER
6729
DARRELL L. BREN
SOUTH DAKOTA
DATE 3/13/13

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TSP
To Solve. To Excel. Together.
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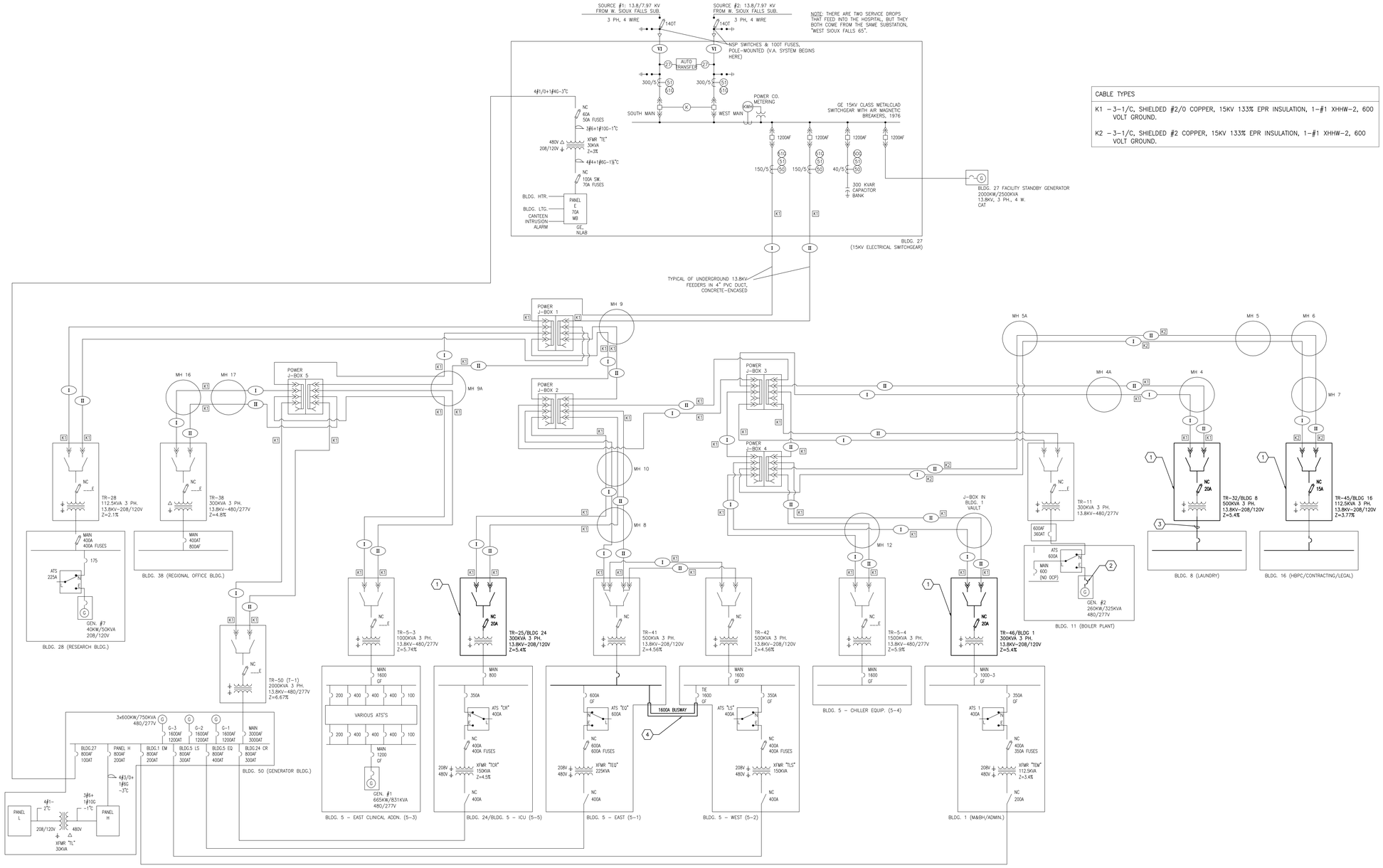
TSP PROJECT #04121073 - PRIORITY 3

Drawing Title: ELECTRICAL SCHEDULES - BUILDINGS 5, 8, 11, + 16
Approved Project Director
Project Title: Upgrade Electrical Systems Building 5
Project Number: 438-13-120
Building Numbers: 1, 5, 8, 11, 16
Location: Sioux Falls, South Dakota
Date: 03/13/2012
Checked: DLB
Drawn: JWN
Drawing Number: E-504
Dwg. 10 of 16

Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231



CABLE TYPES
K1 – 3–1/C, SHIELDED #2/0 COPPER, 15KV 133% EPR INSULATION, 1–#1 XHHW–2, 600 VOLT GROUND.
K2 – 3–1/C, SHIELDED #2 COPPER, 15KV 133% EPR INSULATION, 1–#1 XHHW–2, 600 VOLT GROUND.

F1 EXISTING CAMPUS SITE DISTRIBUTION RISER DIAGRAM
SCALE: NO SCALE

SHEET GENERAL NOTES

A. ALL PRIMARY AND SECONDARY FEEDER ARE EXISTING AND SHALL BE REUSED, UNLESS NOTED OTHERWISE.

SHEET KEYNOTES

1. REPLACE TRANSFORMER. SEE SHEET ES101 FOR ADDITIONAL INFORMATION.
2. REPLACE GENERATOR CONTROLLER CIRCUIT BREAKER. SEE SHEET E–104 FOR ADDITIONAL INFORMATION.
3. REPLACE SECONDARY CONDUCTORS FROM TRANSFORMER TO NEW MDP. SEE SHEETS E–104 AND E–606 FOR ADDITIONAL INFORMATION.
4. PROVIDE A 1600A BUSSWAY BETWEEN NEW SWBD 5–1 AND EXISTING SWBD 5–2. SEE SHEET E–102.

ISSUED FOR CONSTRUCTION

Revisions:	Date

CONSULTANTS:

REGISTERED PROFESSIONAL ENGINEER 6729 DARRELL L. BREN REG. NO. DATE: 3/13/13

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TSP PROJECT #04121073 - PRIORITY 3

Drawing Title: ELECTRICAL RISER DIAGRAM - SITE

Approved Project Director

Project Title: Upgrade Electrical Systems Building 5

Project Number: 438-13-120

Building Numbers: 1, 5, 8, 11, 16

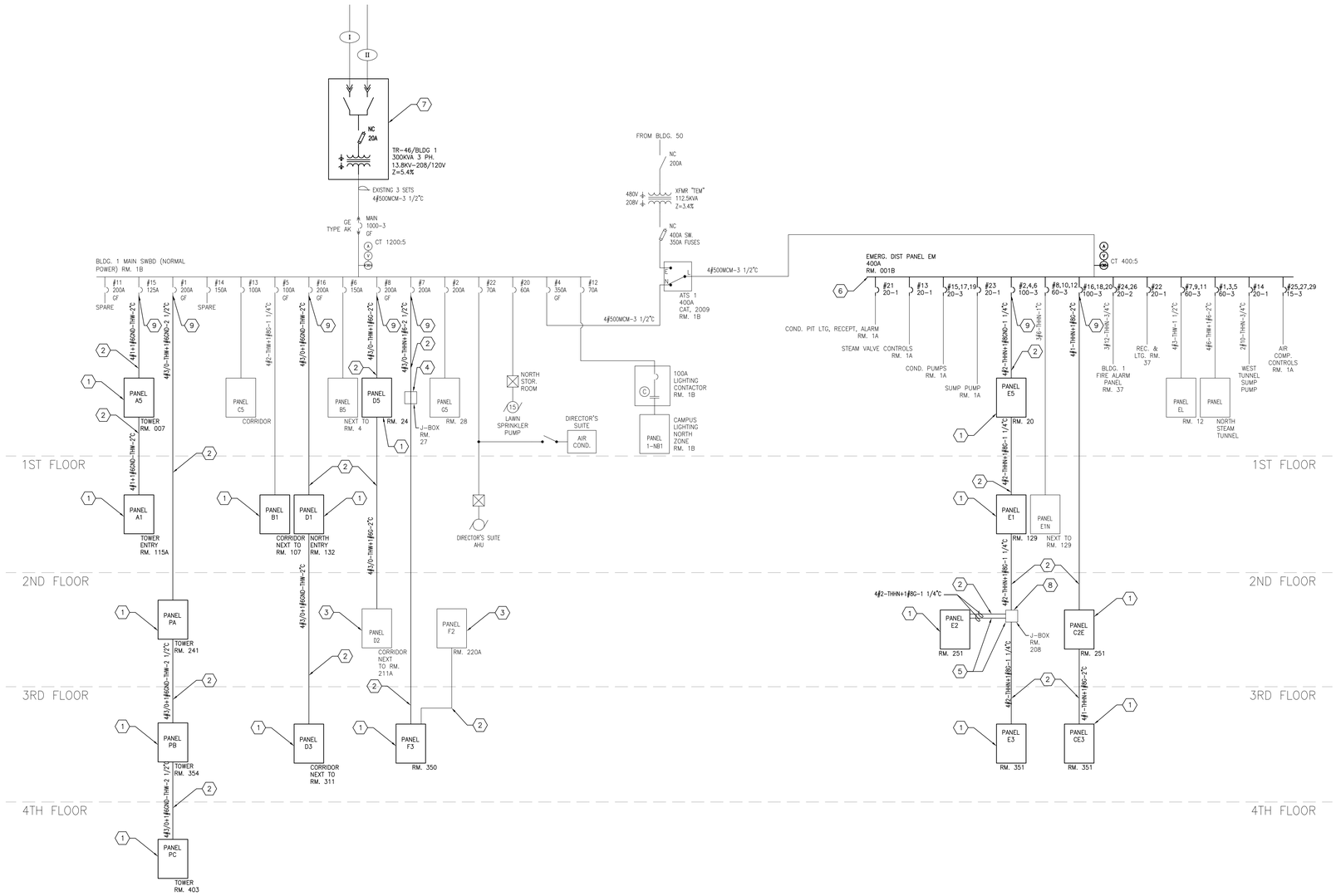
Location: Sioux Falls, South Dakota

Date: 03/13/2012 | Checked: DLB | Drawn: JWN

Drawing Number: E-601
Dwg. 11 of 16

Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231



F1 BUILDING 1 RISER
SCALE: NONE

SHEET GENERAL NOTES

A. SEE ADDITIONAL GENERAL NOTES ON SHEET E-101.

SHEET KEYNOTES

1. REPLACE PANEL. SEE SHEET E-101.
2. REPLACE RISER FEEDER CONDUCTORS, CONDUIT SHALL REMAIN FOR REUSE. REMOVE RISER FEEDER CONDUCTORS BACK TO SOURCE. PROVIDE NEW RISER FEEDER CONDUCTORS IN EXISTING CONDUIT. CONDUCTORS SHALL BE SIZED AS INDICATED. FEEDER SHALL NOT BE SPLICED AT ANY POINT, TERMINATE UN-SPLICED FEEDER ON LUGS OF PANEL SHOWN.
3. CONNECT NEW FEEDER TO EXISTING PANEL.
4. PULL NEW FEEDER THROUGH EXISTING JUNCTION BOX. FEEDER SHALL NOT BE SPLICED.
5. PULL NEW FEEDER THROUGH EXISTING JUNCTION BOX TO PANEL E2. FEEDER SHALL TERMINATE IN PANEL E2. PROVIDE A NEW CONDUIT BETWEEN PANEL E2 AND EXISTING JUNCTION BOX. PROVIDE NEW FEEDER FROM FEED-THRU LUGS ON PANEL E2, THROUGH NEW CONDUIT AND EXISTING JUNCTION BOX. AND TERMINATE ON PANEL E3.
6. REPLACE DIST PANEL EM. EXTEND ALL FEEDERS AND BRANCH CIRCUITS AS REQUIRED. SEE SHEET E-101.
7. REPLACE TRANSFORMER. SEE SHEET ES101.
8. PROVIDE NEW BLANK COVERPLATE FOR EXISTING J-BOX.
9. RISER AND PANELS ASSOCIATED WITH RISER SHALL BE REPLACED DURING A SINGLE 8 HOUR SHIFT. ELECTRICAL CONTRACTOR SHALL PROVIDE ADEQUATE STAFFING SO THAT EACH PANEL ASSOCIATED WITH RISER CAN BE REPLACED AT THE SAME TIME TO MINIMIZE DOWNTIME.

PROVIDE 2 WEEKS NOTICE IN WRITING TO OWNER PRIOR TO SHUTDOWN OF RISER. RISER SHALL BE REPLACED BETWEEN THE HOURS OF 11:00PM AND 7:00AM.

ISSUED FOR CONSTRUCTION

Revisions:	Date

CONSULTANTS:

REGISTERED PROFESSIONAL ENGINEER
6729
DARRELL L. BREN
DATE: 3/13/13

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TSP PROJECT #04121073 - PRIORITY 3

Drawing Title: ELECTRICAL RISER DIAGRAM - BUILDING 1

Approved: Project Director

Project Title: Upgrade Electrical Systems Building 5

Project Number: 438-13-120

Building Numbers: 1, 5, 8, 11, 16

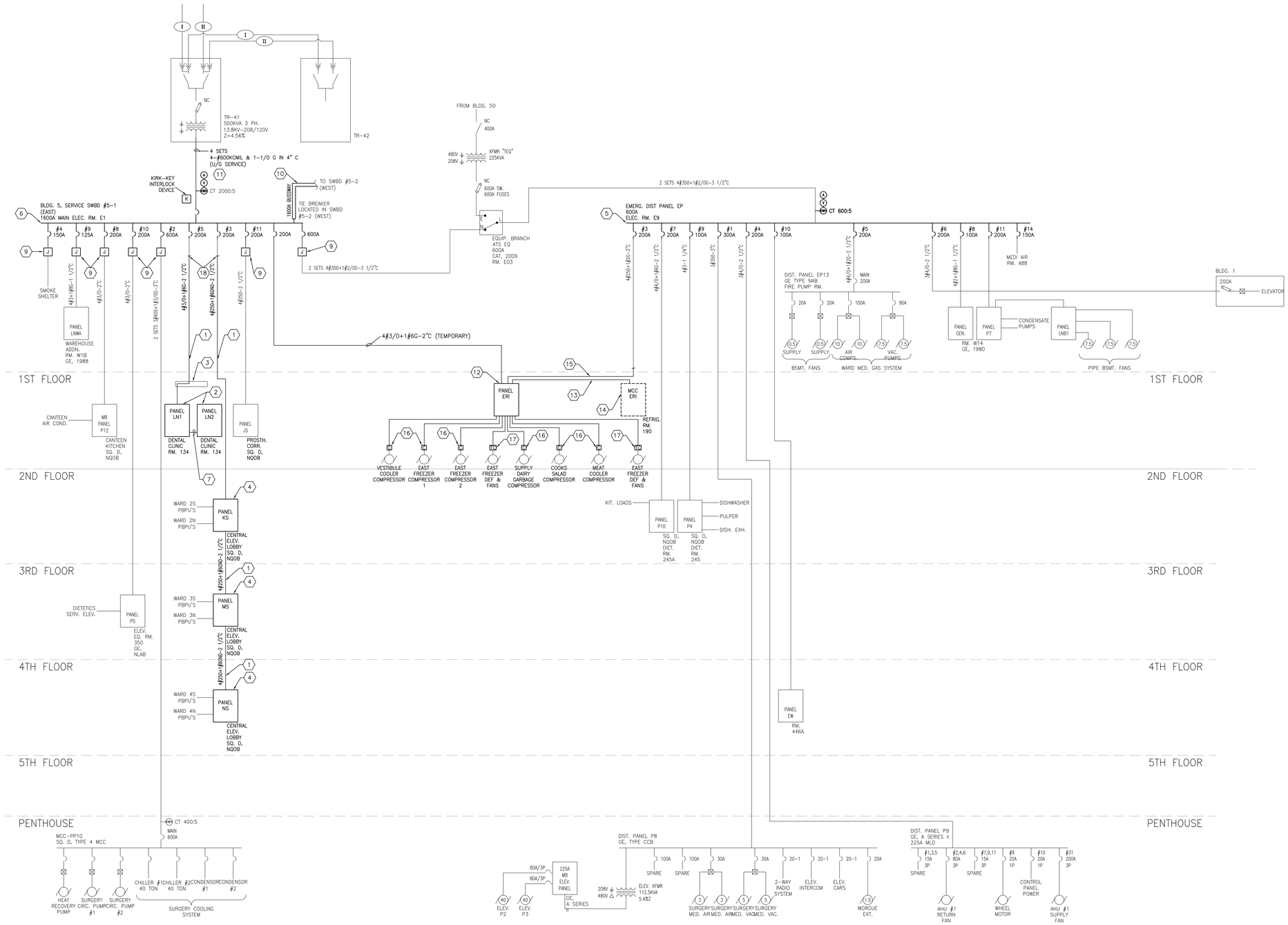
Location: Sioux Falls, South Dakota

Date: 03/13/2012 | Checked: DLB | Drawn: JWN

Drawing Number: E-602
Dwg. 12 of 16

Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231



F1 BUILDING 5 SERVICE SWITCHBOARD 5-1 RISER

SCALE: NONE

SHEET GENERAL NOTES

A. SEE E-101 FOR ADDITIONAL GENERAL NOTES.

SHEET KEYNOTES

1. REPLACE RISER FEEDER CONDUCTORS, CONDUIT SHALL REMAIN FOR REUSE. REMOVE RISER FEEDER CONDUCTORS BACK TO SOURCE. PROVIDE NEW RISER FEEDER CONDUCTORS IN EXISTING CONDUIT. CONDUCTORS SHALL BE SIZED AS INDICATED. FEEDER SHALL NOT BE SPLICED AT ANY POINT, TERMINATE UN-SPLICED FEEDER ON LUGS OF PANEL SHOWN.
2. REPLACE PANELS LN1 & LN2. DISCONNECT AND REMOVE FEEDER CONDUCTORS BETWEEN LN1 & LN2 AND SWBD 5-1.
3. ROUTE NEW FEEDER CONDUCTORS THROUGH EXISTING WIRING GUTTER TO NEW PANEL LN1. FEEDER SHALL NOT BE SPLICED AT ANY POINT, TERMINATE FEEDER ON LUGS OF PANEL INDICATED.
4. REPLACE PANEL. CONNECT TO NEW FEEDER.
5. REPLACE DIST PANEL EP. EXTEND ALL FEEDER AND BRANCH CIRCUITS AS REQUIRED. SEE SHEET E-102 FOR ADDITIONAL INFORMATION.
6. REPLACE SWBD 5-1. RUN GENERATOR AT BUILDING 50 DURING SWBD 5-1 REPLACEMENT. TEMPORARILY SWITCH OVER ATS SO THAT DIST PANEL EP IS FED FROM BUILDING 50 GENERATOR. RECONNECT EXISTING CIRCUITS TO NEW SWBD. SEE SHEET E-102 AND E-504. REPLACE SWBD 5-1 PRIOR TO REPLACEMENT OF BUILDING 8 MDP AND TR-32.
7. PROVIDE 4#3/0 & 1#6GROUND, 2" C.
8. NOT USED.
9. SPLICE FEEDERS AND BRANCH CIRCUITS PREVIOUSLY SERVED BY OLD SWITCHBOARD. PROVIDE JUNCTION BOXES AS NEEDED. LOCATE JUNCTION BOXES NEAR NEW SWITCHBOARD.
10. REFER TO SHEET E-102.
11. EXTEND EXISTING CONDUIT SYSTEM AS REQUIRED TO ACCOMMODATE NEW SWITCHBOARD. PROVIDE 4 NEW SETS OF 4-#600KCMIL CU & 1-#1/0 CU GRD IN EXISTING CONDUITS FROM EXITING TRANSFORMER 41 TO NEW SWITCHBOARD 5-1.
12. INSTALL NEW PANEL ERI AND TEMPORARILY CONNECT TO SWBD 5-1. SEE SHEET E-103.
13. TRANSFER LOADS FROM EXISTING MCC-ERI TO NEW PANEL ERI. EXTEND CONTROL WIRING TO LOCATION OF NEW STARTERS IN ROOM 190-5. SEE SHEET E-103.
14. AFTER LOADS ARE TRANSFERRED TO NEW PANEL ERI AND CONTROL WIRING IS EXTENDED TO LOCATION OF NEW STARTERS IN ROOM 190-5, REMOVE AND DISPOSE OF EXISTING MCC-ERI. SEE SHEET E-103.
15. EXTEND EXISTING CONDUIT TO NEW PANEL ERI, PROVIDE NEW FEEDER CONDUCTORS FROM DISTRIBUTION PANEL EP TO NEW PANEL ERI. DISCONNECT FROM SWBD 5-1.
16. PROVIDE A CONTACTOR MOUNTED IN EXISTING COMPRESSOR BLACK BOX. SEE SHEET E-103 FOR ADDITIONAL INFORMATION.
17. PROVIDE TIME CLOCK FOR CONTROL OF EAST FREEZER DEF & FANS. SEE SHEET E-103 FOR ADDITIONAL INFORMATION.
18. EXTEND EXISTING CONDUIT TO NEW SWBD 5-1, PROVIDE NEW FEEDER AS INDICATED FROM SWBD 5-1 TO PANELS SHOWN.

ISSUED FOR CONSTRUCTION

Revisions	Date

CONSULTANTS:

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 6729
DARRELL L. BREN
DATE: 3/13/13

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TSP PROJECT #04121073 - PRIORITY 3

Drawing Title: ELECTRICAL RISER DIAGRAM - BUILDING 5

Approved Project Director

Project Title: Upgrade Electrical Systems Building 5

Project Number: 438-13-120

Building Numbers: 1, 5, 8, 11, 16

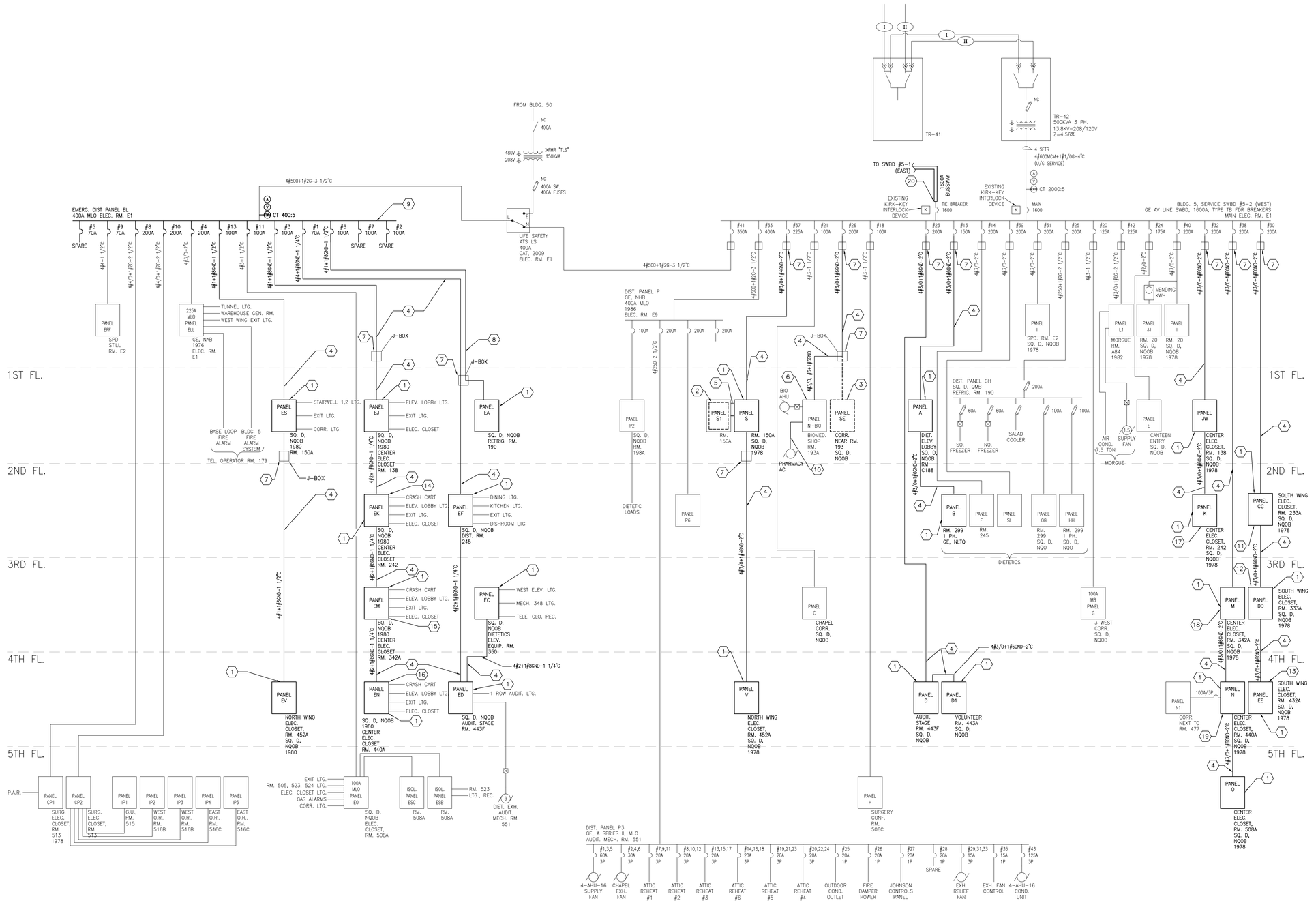
Location: Sioux Falls, South Dakota

Date: 03/13/2012 | Checked: DLB | Drawn: JWN

Drawing Number: E-603
Dwg. 13 of 16

Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231



F1 BUILDING 5 SERVICE SWITCHBOARD 5-2 RISER

SCALE: NONE

SHEET GENERAL NOTES

A. SEE SHEET E-101 FOR ADDITIONAL GENERAL NOTES.

SHEET KEYNOTES

1. REPLACE PANEL. SEE FLOOR PLANS.
2. GUT INTERIOR OF PANEL S1, BACKBOX SHALL REMAIN AS A JUNCTION POINT. REMOVE FEEDER BACK TO SOURCE. SPLICE AND EXTEND EXISTING BRANCH CIRCUITS TO NEW PANEL S. PROVIDE NEW COVER FOR BACKBOX.
3. REMOVE PANEL SE. REMOVE FEEDER BACK TO SOURCE. DISCONNECT CIRCUIT THAT FEEDS PHARMACY AC UNIT.
4. REPLACE RISER FEEDER CONDUCTORS, CONDUIT SHALL REMAIN FOR REUSE. REMOVE RISER FEEDER CONDUCTORS BACK TO SOURCE. PROVIDE NEW RISER FEEDER CONDUCTORS IN EXISTING CONDUIT. CONDUCTORS SHALL BE SIZED AS INDICATED. FEEDER SHALL NOT BE SPLICED AT ANY POINT, TERMINATE UN-SPLICED FEEDER ON LUGS OF PANEL SHOWN.
5. PROVIDE SIZE AND QUANTITY OF CONDUITS AS REQUIRED PER NEC FOR EXTENSION OF EXISTING BRANCH CIRCUITS FED FROM DEMOLISHED PANEL S1.
6. CONNECT NEW FEEDER TO EXISTING PANEL.
7. PULL NEW FEEDER THROUGH EXISTING JUNCTION BOX. FEEDER SHALL NOT BE SPLICED.
8. PROVIDE A NEW 100A, 3PH, 4W FEEDER TO PNL EA. INTERCEPT EXISTING CONDUIT FEEDING PANEL EA AND EXTEND TO DIST PNL EL.
9. REPLACE DIST EL. EXTEND EXISTING FEEDER AND BRANCH CIRCUITS AS REQUIRED. SEE SHEET E-102.
10. EXTEND EXISTING PHARMACY AC CIRCUIT TO EXISTING PANEL NI-BIO. SEE SHEET E-102 FOR ADDITIONAL INFORMATION.
11. TEMPORARILY DISCONNECT ALL AIR CONDITIONING AND OTHER NON-CRITICAL LOADS AS REQUIRED SO THAT CRITICAL LOADS FROM PANEL ECC CAN BE TEMPORARILY TRANSFERRED TO PANEL CC. PROVIDE ADDITIONAL CIRCUIT BREAKERS IN PANEL CC AS REQUIRED FOR TEMPORARY LOADS. UPON COMPLETION OF PANEL AND RISER REPLACEMENT, RECONNECT LOADS TO THE ORIGINAL PANEL.
12. TEMPORARILY DISCONNECT ALL AIR CONDITIONING AND OTHER NON-CRITICAL LOADS AS REQUIRED SO THAT CRITICAL LOADS FROM PANEL EDD CAN BE TEMPORARILY TRANSFERRED TO PANEL DD. PROVIDE ADDITIONAL CIRCUIT BREAKERS IN PANEL DD AS REQUIRED FOR TEMPORARY LOADS. UPON COMPLETION OF PANEL AND RISER REPLACEMENT, RECONNECT LOADS TO THE ORIGINAL PANEL.
13. TEMPORARILY DISCONNECT ALL AIR CONDITIONING AND OTHER NON-CRITICAL LOADS AS REQUIRED SO THAT CRITICAL LOADS FROM PANEL EEE CAN BE TEMPORARILY TRANSFERRED TO PANEL EE. PROVIDE ADDITIONAL CIRCUIT BREAKERS IN PANEL EE AS REQUIRED FOR TEMPORARY LOADS. UPON COMPLETION OF PANEL AND RISER REPLACEMENT, RECONNECT LOADS TO THE ORIGINAL PANEL.
14. TEMPORARILY TRANSFER CRITICAL LOADS FROM PANEL EK TO PANEL K. COORDINATE WITH OWNER ON WHICH LOADS ARE CRITICAL. TRANSFER LOADS OVER ONE AT A TIME. COORDINATE WITH OWNER AND STAFF, CONFIRM THAT ALL CRITICAL LOADS ARE TRANSFERRED OVER PRIOR TO DE-ENERGIZING PANEL EK.
15. TEMPORARILY TRANSFER CRITICAL LOADS FROM PANEL EM TO PANEL M. COORDINATE WITH OWNER ON WHICH LOADS ARE CRITICAL. TRANSFER LOADS OVER ONE AT A TIME. COORDINATE WITH OWNER AND STAFF, CONFIRM THAT ALL CRITICAL LOADS ARE TRANSFERRED OVER PRIOR TO DE-ENERGIZING PANEL EM.
16. TEMPORARILY TRANSFER CRITICAL LOADS FROM PANEL EN TO PANEL N. COORDINATE WITH OWNER ON WHICH LOADS ARE CRITICAL. TRANSFER LOADS OVER ONE AT A TIME. COORDINATE WITH OWNER AND STAFF, CONFIRM THAT ALL CRITICAL LOADS ARE TRANSFERRED OVER PRIOR TO DE-ENERGIZING PANEL EN.
17. TEMPORARILY DISCONNECT ALL AIR CONDITIONING AND OTHER NON-CRITICAL LOADS AS REQUIRED SO THAT CRITICAL LOADS FROM PANEL EK CAN BE TEMPORARILY TRANSFERRED TO PANEL K, PROVIDE ADDITIONAL CIRCUIT BREAKERS IN PANEL K AS REQUIRED FOR TEMPORARY LOADS. UPON COMPLETION OF PANEL AND RISER REPLACEMENT, RECONNECT LOADS TO THE ORIGINAL PANEL.
18. TEMPORARILY DISCONNECT ALL AIR CONDITIONING AND OTHER NON-CRITICAL LOADS AS REQUIRED SO THAT CRITICAL LOADS FROM PANEL EM CAN BE TEMPORARILY TRANSFERRED TO PANEL M, PROVIDE ADDITIONAL CIRCUIT BREAKERS IN PANEL M AS REQUIRED FOR TEMPORARY LOADS. UPON COMPLETION OF PANEL AND RISER REPLACEMENT, RECONNECT LOADS TO THE ORIGINAL PANEL.
19. TEMPORARILY DISCONNECT ALL AIR CONDITIONING AND OTHER NON-CRITICAL LOADS AS REQUIRED SO THAT CRITICAL LOADS FROM PANEL EN CAN BE TEMPORARILY TRANSFERRED TO PANEL N, PROVIDE ADDITIONAL CIRCUIT BREAKERS IN PANEL N AS REQUIRED FOR TEMPORARY LOADS. UPON COMPLETION OF PANEL AND RISER REPLACEMENT, RECONNECT LOADS TO THE ORIGINAL PANEL.
20. CONNECT 1600A BUSSWAY TO EXISTING SWBD 5-2 TIE-BREAKER. SEE SHEET E-102.

ISSUED FOR CONSTRUCTION

Revisions	Date

CONSULTANTS:

REGISTERED PROFESSIONAL ENGINEER REG. NO. 6729 DARRELL L. BREN STATE OF SOUTH DAKOTA
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TSP PROJECT #04121073 - PRIORITY 3

Drawing Title: ELECTRICAL RISER DIAGRAM - BUILDING 5

Approved Project Director

Project Title: Upgrade Electrical Systems Building 5

Project Number: 438-13-120

Building Numbers: 1, 5, 8, 11, 16

Location: Sioux Falls, South Dakota

Drawing Number: E-604

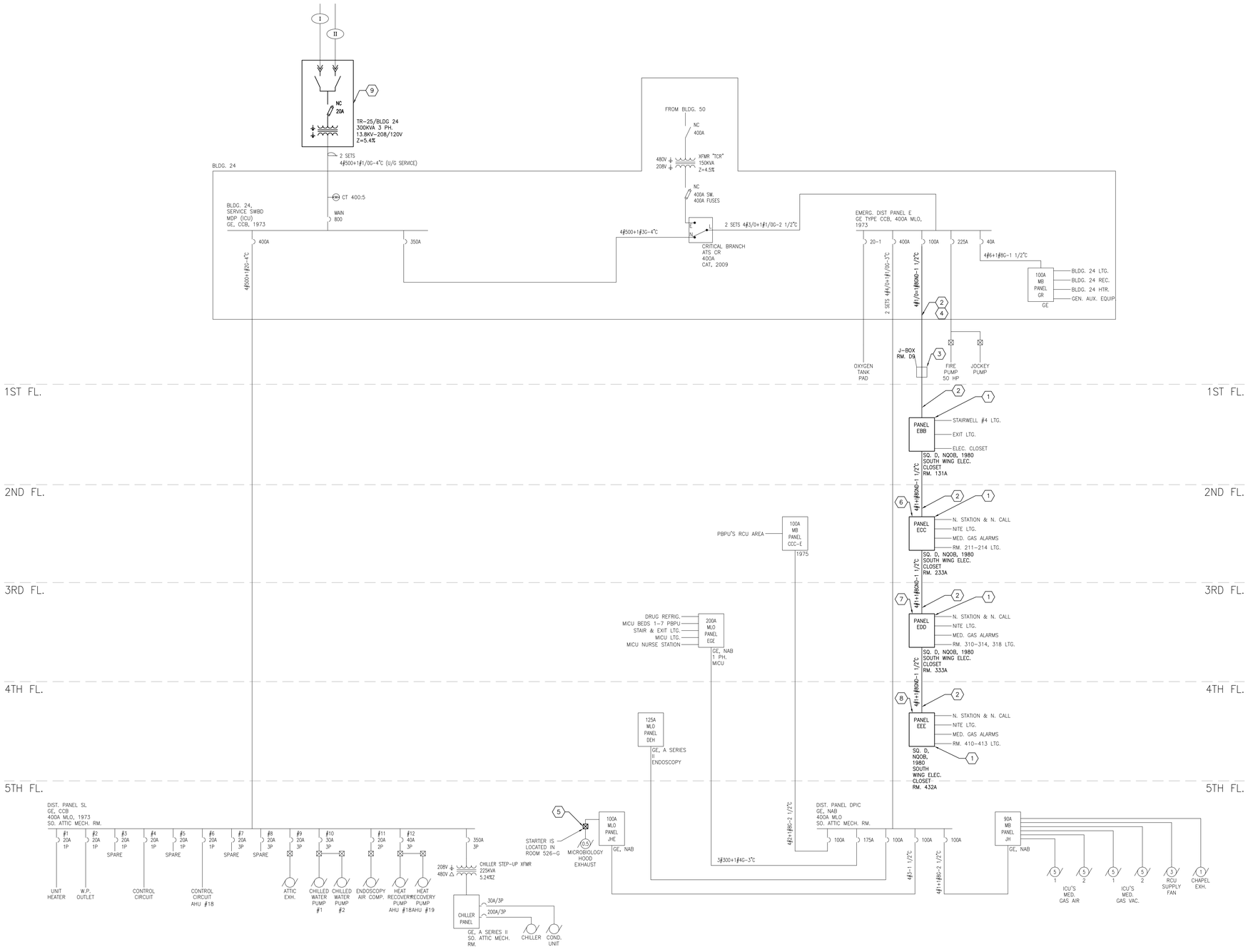
Date: 03/13/2012 | Checked: DLB | Drawn: JWN

Dwg. 14 of 16

Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08-6231



F1 BUILDING 5 SERVICE SWITCHBOARD 5-5 RISER

SCALE: NONE

SHEET GENERAL NOTES

A. SEE SHEET E-101 FOR ADDITIONAL GENERAL NOTES.

SHEET KEYNOTES

1. REPLACE PANEL. SEE FLOOR PLANS.
2. REPLACE RISER FEEDER CONDUCTORS, CONDUIT SHALL REMAIN FOR REUSE. REMOVE RISER FEEDER CONDUCTORS BACK TO SOURCE. PROVIDE NEW RISER FEEDER CONDUCTORS IN EXISTING CONDUIT. CONDUCTORS SHALL BE SIZED AS INDICATED. FEEDER SHALL NOT BE SPLICED AT ANY POINT, TERMINATE UN-SPLICED FEEDER ON LUGS OF PANEL SHOWN.
3. PULL NEW FEEDER THROUGH EXISTING JUNCTION BOX. FEEDER SHALL NOT BE SPLICED.
4. CONTRACTOR SHALL VERIFY DISTANCE BETWEEN BLDG 24 DIST E AND PNL EBB AND PROVIDE LENGTH OF FEEDER AS REQUIRED.
5. REPLACE CS/NFD. SEE SHEET E-103 FOR ADDITIONAL INFORMATION.
6. TEMPORARILY TRANSFER CRITICAL LOADS FROM PANEL ECC TO PANEL CC. COORDINATE WITH OWNER ON WHICH LOADS ARE CRITICAL. TRANSFER LOADS OVER ONE AT A TIME. COORDINATE WITH OWNER AND STAFF, CONFIRM THAT ALL CRITICAL LOADS ARE TRANSFERRED OVER PRIOR TO DE-ENERGIZING PANEL ECC.
7. TEMPORARILY TRANSFER CRITICAL LOADS FROM PANEL EDD TO PANEL DD. COORDINATE WITH OWNER ON WHICH LOADS ARE CRITICAL. TRANSFER LOADS OVER ONE AT A TIME. COORDINATE WITH OWNER AND STAFF, CONFIRM THAT ALL CRITICAL LOADS ARE TRANSFERRED OVER PRIOR TO DE-ENERGIZING PANEL ECC.
8. TEMPORARILY TRANSFER CRITICAL LOADS FROM PANEL EEE TO PANEL EE. COORDINATE WITH OWNER ON WHICH LOADS ARE CRITICAL. TRANSFER LOADS OVER ONE AT A TIME. COORDINATE WITH OWNER AND STAFF, CONFIRM THAT ALL CRITICAL LOADS ARE TRANSFERRED OVER PRIOR TO DE-ENERGIZING PANEL EEE.
9. REPLACE TRANSFORMER. SEE SHEET ES101.

ISSUED FOR CONSTRUCTION

Revisions	Date

CONSULTANTS:

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DARRELL L. BREN
DATE: 3/13/13

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TSP PROJECT #04121073 - PRIORITY 3

Drawing Title: ELECTRICAL RISER DIAGRAM - BUILDING 5

Approved Project Director

Project Title: Upgrade Electrical Systems Building 5

Project Number: 438-13-120

Building Numbers: 1, 5, 8, 11, 16

Location: Sioux Falls, South Dakota

Date: 03/13/2012 | Checked: DLB | Drawn: JWN

Drawing Number: E-605

Dwg. 15 of 16

Office of Construction and Facilities Management

Department of Veterans Affairs

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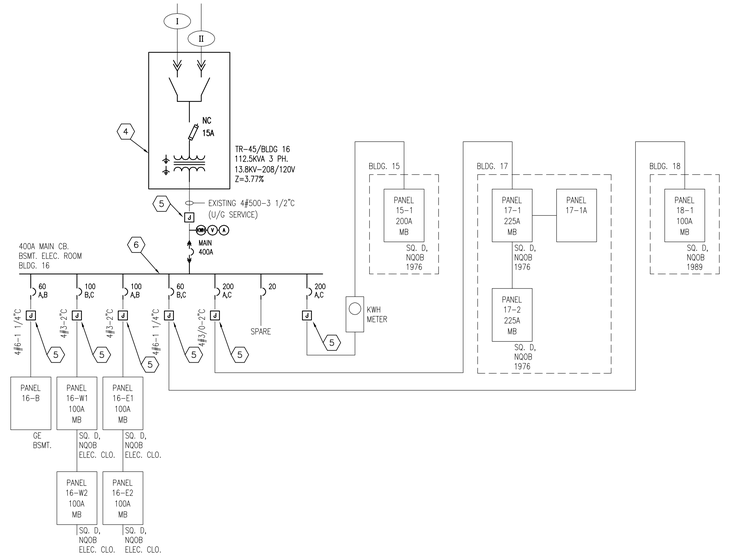
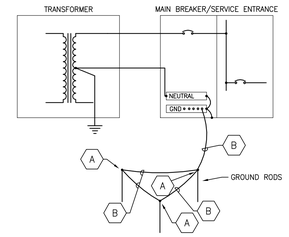


C1 BUILDING 16 RISER
SCALE: NONE



KEYNOTES

A. CONNECT GROUNDING ELECTRODE CONDUCTOR TO GROUND ROD WITH GROUND CONNECTOR.

B. #6 AWG BARE COPPER CONDUCTOR.

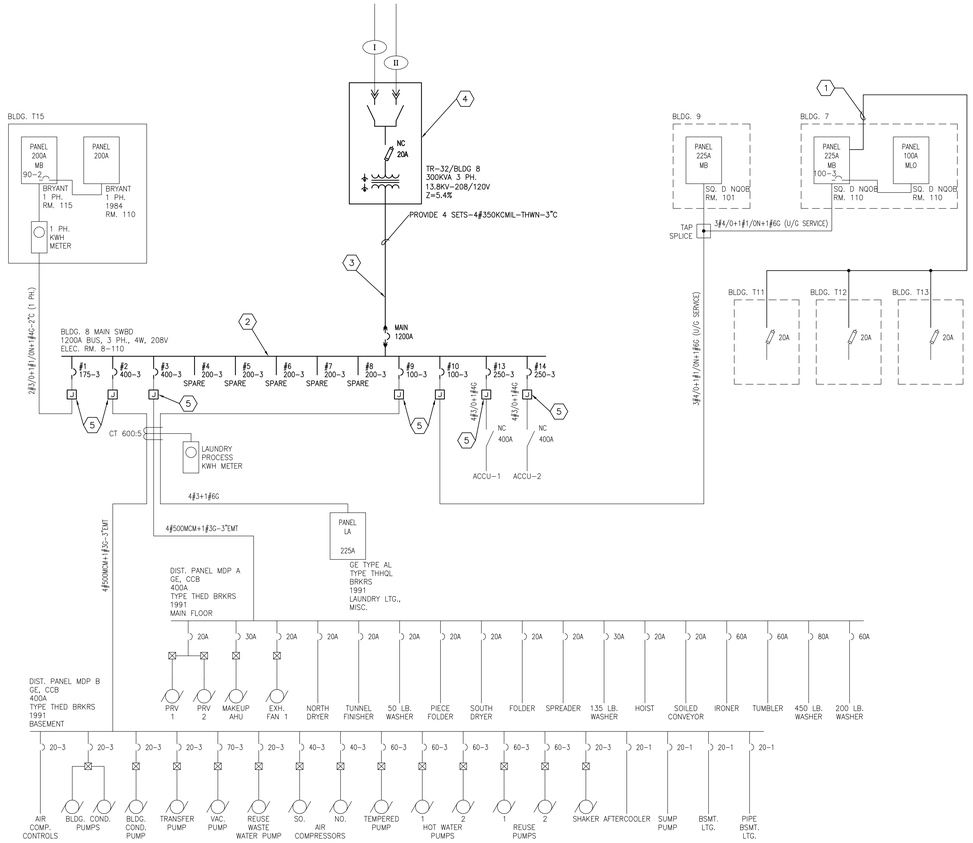
B7 ELECTRICAL GROUNDING DETAIL
SCALE: NONE

SHEET GENERAL NOTES

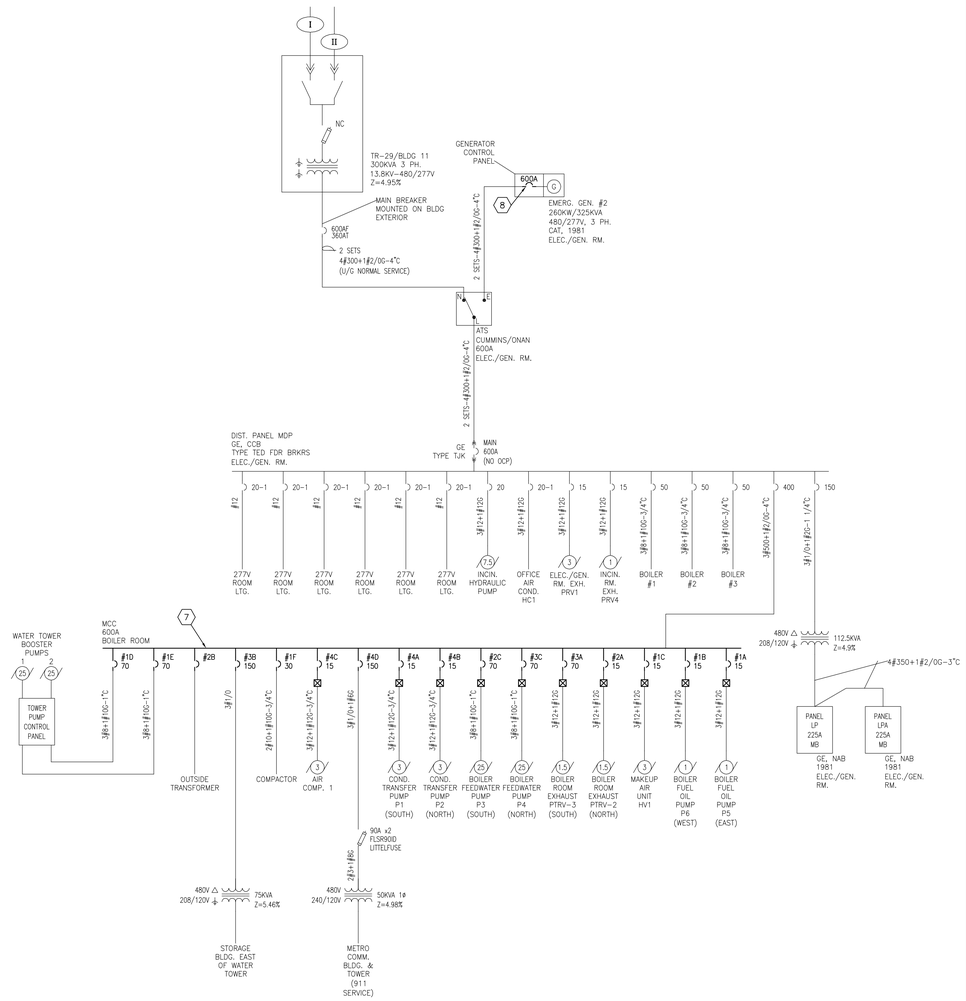
A. SEE SHEET E-101 FOR ADDITIONAL GENERAL NOTES.

SHEET KEYNOTES

1. REPLACE UNDERGROUND FEEDER CONDUCTORS, EXISTING CONDUIT SHALL REMAIN FOR REUSE. SEE SHEET ES101 FOR ADDITIONAL INFORMATION.
2. REPLACE BLDG 8 MDP. SEE SHEET E-104 FOR ADDITIONAL INFORMATION.
3. REMOVE AND DISPOSE OF BUS DUCT. PROVIDE NEW SECONDARY FEEDERS FROM TRANSFORMER TO MDP. SEE SHEET E-104.
4. REPLACE TRANSFORMER. SEE SHEET ES101. REPLACE TRANSFORMER AT SAME TIME AS BLDG MDP IS BEING REPLACED TO MINIMIZE DOWNTIME.
5. SPLICE AND EXTEND FEEDERS AND BRANCH CIRCUITS PREVIOUSLY SERVED BY OLD SWITCHBOARD. PROVIDE JUNCTION BOXES AS NEEDED. LOCATE JUNCTION BOXES NEAR NEW DIST PANEL.
6. REPLACE BLDG 16 MDP. SEE SHEET E-104 FOR ADDITIONAL INFORMATION.
7. REPLACE BLDG 11 MCC-BOILER. SEE SHEET E-104 FOR ADDITIONAL INFORMATION.
8. REPLACE GENERATOR CONTROLLER CIRCUIT BREAKER. SEE SHEET E-104 FOR ADDITIONAL INFORMATION.



F1 BUILDING 8 RISER
SCALE: NONE



F5 BUILDING 11 RISER
SCALE: NONE

ISSUED FOR CONSTRUCTION

Revisions	Date

CONSULTANTS:

REGISTERED PROFESSIONAL ENGINEER REG. NO. 6729 DARRELL L. BREN STATE OF SOUTH DAKOTA
DATE: 3/13/13

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TSP PROJECT #04121073 - PRIORITY 3
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Drawing Title	ELECTRICAL RISER DIAGRAM - BUILDINGS 8, 11, 16
Approved Project Director	
Project Title	Upgrade Electrical Systems Building 5
Location	Sioux Falls, South Dakota
Date	03/13/2012
Checked	DLB
Drawn	JWN
Project Number	438-13-120
Building Numbers	1, 5, 8, 11, 16
Drawing Number	E-606
Dwg. 16 of 16	

Office of Construction and Facilities Management
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