ELECTRICAL SYMBOLS LEGEND

LIGHTING

SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
A a	CEILING SURFACE MOUNTED LIGHT FIXTURE, CAPITAL LETTER INDICATES FIXTURE TYPE, SMALL LETTER INDICATES SWITCHING.	
	RECESSED CEILING MOUNTED LIGHT FIXTURE	
H	WALL MOUNTED INCAND. OR H.I.D. LIGHT FIXTURE, SURFACE OR, RECESSED MOUNTED	
	CEILING EXIT SIGN, SHADED SIDE INDICATES LIGHTED FACE, ARROWS INSTALLED AS SHOWN	
H	WALL EXIT SIGN	6 INCHES ABOVE DOOR FRAME TO BOTTOM
	SUSPENDED FIXTURE	
	SURFACE FLUORESCENT	
	RECESSED FLUORESCENT	
	FIXTURE CONNECTED TO EMERGENCY LIFE SAFETY POWER WHEN SHADED	
	FIXTURE CONNECTED TO EMERGENCY CRITICAL BRANCH POWER	
	EMERGENCY BATTERY LIGHT	7 FOOT 6 INCHES
	EMERGENCY REMOTE LAMP	7 FOOT 6 INCHES
H PC	PHOTO CELL	9 FOOT
M	CEILING MOUNTED MOTION SENSOR SWITCH	
H M	WALL MOUNTED MOTION SENSOR SWITCH	84 INCHES
M PP	MOTION SENSOR SWITCH POWER PACK	
C 2	CONTACTOR (NUMBER INDICATES NUMBER OF POLES)	
$	SINGLE POLE (HORSEPOWER RATED WHEN USED AS MOTOR DISCONNECT)	48 INCHES
$2	DOUBLE POLE	48 INCHES
$3	3-WAY	48 INCHES
$4	4-WAY	48 INCHES
$M	OCCUPANCY SENSOR SWITCH	48 INCHES
$K	KEY OPERATED	48 INCHES
$P	WITH PILOT LIGHT (CAN BE USED WITH OTHER SWITCH TYPES)	48 INCHES
$D	FLUORESCENT DIMMER	48 INCHES
$MC	MOMENTARY CONTACT	48 INCHES
	DIMMER (600 WATT UNLESS OTHERWISE NOTED)	48 INCHES
$I	LIGHTING INTENSITY SELECTOR PANEL	48 INCHES
$LV	LOW VOLTAGE SWITCH	48 INCHES

POWER

SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
	DUPLEX RECEPTACLE ("C" INDICATES EMERGENCY CRITICAL BRANCH POWER)	18 INCHES
	DOUBLE DUPLEX RECEPTACLE ("C" INDICATES EMERGENCY CRITICAL BRANCH POWER)	18 INCHES
A	TYPE L14-30 RECEPTACLE	18 INCHES
B	TYPE L14-50 RECEPTACLE	18 INCHES
G	GFCI TYPE RECEPTACLE	18 INCHES
A	MULTI-OUTLET ASSEMBLY - M.O.A., PROVIDE DEVICES AS SHOWN ON PLANS	18 INCHES
	DUPLEX RECEPTACLE, HALF SWITCHED	18 INCHES
R	FLOOR OUTLET, 'R' INDICATES RECESSED, 'F' INDICATES FLUSH, 'S' INDICATES SURFACE MOUNT	
H TS	TIME SWITCH	
T	DRY TYPE TRANSFORMER	
H PB	PUSH BUTTON	
H HC	POWER DOOR HANDICAP PUSH PAD	42 INCHES
H B	EMERGENCY BOILER SHUTDOWN PUSH BUTTON	48 INCHES
H T E	THERMOSTAT - PROVIDE BY DIVISION 16	48 INCHES
H T	THERMOSTAT - FURNISHED BY DIVISION 15, INSTALLED BY DIVISION 16	48 INCHES
$M	THERMAL SWITCH (MOTOR OVERLOAD TYPE)	48 INCHES
	POWER POLE	
1	MOTOR (NUMBER REFERS TO MOTOR AND EQUIPMENT SCHEDULE SEE SCHEDULE FOR WIRING AND CONTROLLER REQUIREMENTS)	
	SURFACE LIGHTING AND APPLIANCE PANELBOARD	
	RECESSED LIGHTING AND APPLIANCE PANELBOARD	
	SWITCHBOARD OR MOTOR CONTROL CENTER AS NOTED	
	SPECIAL EQUIPMENT CABINET AS NOTED	
L CB	ENCLOSED MOLDED CASE CIRCUIT BREAKER	
L V	VARIABLE FREQUENCY CONTROLLER WITH DISCONNECT	
L	NON-FUSED DISCONNECT	
L F	FUSED DISCONNECT	
	MAGNETIC STARTER	
L	COMBINATION STARTER-DISCONNECT	

SYSTEMS

SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
S	CEILING MOUNTED RECESSED SPEAKER	
S	CEILING SURFACE MOUNTED SPEAKER	
H S	WALL MOUNTED SPEAKER	90 INCHES
H C	CLOCK	90 INCHES TO BOTTOM
C S	CLOCK/SPEAKER UNIT	90 INCHES TO BOTTOM
H	MICROPHONE OUTLET	18 INCHES
M F	MICROPHONE FLOOR OUTLET	
H	VOLUME CONTROL	48 INCHES
AMP	AMPLIFIER CABINET	
H	AUXILIARY INPUT OUTLET	18 INCHES
2	COMPUTER OUTLET (NUMBER INDICATES QUANTITY OF CABLES AND JACKS, NO NUMBER INDICATES ONE)	18 INCHES
2 2	COMBINATION COMPUTER/TELEPHONE OUTLET IN SINGLE GANG OPENING (NUMBER INDICATES QUANTITY OF CABLES AND JACKS, NO NUMBER INDICATES ONE)	18 INCHES
W	TELEPHONE OUTLET ("W" INDICATES WALL MOUNTED AT 48 INCHES)	18 INCHES
	COMPUTER/TELEPHONE OUTLET, PROVIDE ROUGH-IN AND CONDUIT ONLY	18 INCHES
	FLOOR MOUNTED COMMUNICATIONS OUTLET	
	COMMUNICTIONS FLOOR OUTLET WITH FURNITURE WHIP	
H TV	TELEVISION OUTLET	18 INCHES
	REQUEST TO EXIT DEVICE	3 INCHES ABOVE DOOR FRAME
H R	DOOR POSITION SWITCH, RECESSED	
H S	DOOR POSITION SWITCH, SURFACE MOUNT	
H	DOOR POSITION SWITCH	
H CR	CARD READER	48 INCHES
	SURVEILLANCE CAMERA	
H	BLUE ALARM LIGHT	
	EXIT DOOR MONITOR - MOUNTED ABOVE CEILING	
H	ONE AUXILLARY JACK - MOUNTED BELOW PATIENT STATION	
	ONE LOW VOLTAGE LIGHTING RELAY - MOUNTED ABOVE CEILING	
WG	WANDERING SYSTEM MONITOR	

FIRE ALARM

SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
H F	MANUAL STATION	48 INCHES
H	FIXED TEMPERATURE DETECTOR	
DS	DUCT PHOTOELECTRIC DETECTOR	
S	PHOTOELECTRIC DETECTOR ('S' INDICATES SLEEPING ROOM WITH AUX. CONTACT, 'G' INDICATES WITH GUARD,'E' INDICATES FOR ELEVATOR RECALL)	
C	COMBINATION FIRE/SMOKE DAMPER OR SMOKE DAMPER BY DIVISION 15	
H	HORN/STROBE WITH STROBE	BOTTOM OF LENS 80 INCHES
S	SPEAKER HORN WITH STROBE	BOTTOM OF LENS 80 INCHES
C	CHIME WITH STROBE	BOTTOM OF LENS 80 INCHES
	STROBE LIGHT	BOTTOM OF LENS 80 INCHES
FA	FIRE ALARM SPEAKER	
FM	FIRE ALARM MODULE/RELAY	
DH	MAGNETIC DOOR HOLD OPEN	
SS	SUPERVISORY SWITCH (NUMBER INDICATES NUMBER OF DEVICES AT THIS LOCATION	
PS	PRESSURE SWITCH	
FS	FLOW SWITCH	
FACP	FIRE ALARM CONTROL PANEL	
ANN	FIRE ALARM ANNUNCIATOR	

NURSE CALL

SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
N	CORRIDOR CALL OR ZONE LIGHT, CEILING OR WALL MOUNT	
NMS	MASTER STATION	
N E	PATIENT EMERGENCY STATION	48 INCHES
N	SINGLE BED PATIENT STATION	54 INCHES (VERIFY)
N S	STAFF STATION	48 INCHES
N D	DUTY STATION	48 INCHES
N EA	PATIENT EMERGENCY STATION WITH AUDIO	48 INCHES
N CB	EMERGENCY (CODE ONE)	
T	NURSE CALL CONNECTION FOR TV - MOUNTED IN CEILING BY TV	
		48 INCHES
		48 INCHES

MISC/ABBREVATIONS

SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
J	CEILING-MOUNTED JUNCTION BOX	
H J	WALL JUNCTION BOX	18 INCHES
	DASHED LINES INDICATE EXISTING FIXTURES, DEVICES, OR EQUIPMENT	
	HASH MARKS INDICATE ITEM NOTED TO BE REMOVED	
	CONDUIT CONCEALED IN WALL OR CEILING, QUANTITY OF CONDUCTORS NOT SHOWN, PROVIDE AS REQUIRED FOR DEVICE/CIRCUIT NUMBERS SHOWN.	
	CONDUIT UP	
	CONDUIT DOWN	
	CONDUIT CONCEALED IN FLOOR	
UG	UNDERGROUND CONDUIT AT 24 INCHES MINIMUM	
FA	FIRE ALARM CONDUIT	
	EMERGENCY LIFE SAFETY OR CRITICAL BRANCH POWER CONDUIT CONCEALED IN WALL OR CEILING, QUANTITY OF CONDUCTORS NOT SHOWN, PROVIDE AS REQUIRED FOR DEVICE/CIRCUIT NUMBERS SHOWN.	
L1-2,4,6 #10	HOME RUN TO PANELBOARD, QUANTITY OF CONDUCTORS REQUIRED NOT INDICATED, PROVIDE QUANTITY AS REQUIRED FOR CIRCUIT NUMBERS SHOWN, SWITCHING ARRANGEMENT, OR NUMBER OF HOME RUNS SHOWN. '#10' INDICATES WIRE SIZE, NO NUMBERS INDICATES #12, 3/4 INCH CONDUIT MINIMUM.	
	SURFACE CONDUIT OR SURFACE RACEWAY	
1	NOTE IDENTIFICATION	
	WIRE BASKET TYPE CABLE TRAY	
A	AMPERE	
AC	ABOVE COUNTER	
AFF	ABOVE FINISHED FLOOR	
AHU	AIR HANDLING UNIT	
C	CONDUIT	
EF	EXHAUST FAN	
EWC	ELECTRIC WATER COOLER	
FA	FIRE ALARM	
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	
GR	GROUND	
PH	PHASE	
TV	TELEVISION	
W	WIRE	
WP	WEATHERPROOF	

NOTES:
1. THIS IS A COMPREHENSIVE SYMBOL SCHEDULE. NOT ALL SYMBOLS ARE APPLICABLE TO THESE DRAWINGS.
2. MOUNTING HEIGHT IS TO THE CENTER OF DEVICE UNLESS OTHERWISE INDICATED.
3. FOR DEVICES SHOWN AS 48 INCHES MOUNTING HEIGHT, WHEN INSTALLED IN MASONRY BLOCK WALLS, MOUNTING AT 48 INCHES TO THE TOP OF THE OUTLET BOX IS ACCEPTABLE.

LUMINAIRE SCHEDULE

TYPE	MANUFACTURERS	CATALOG INFORMATION	FIXTURE DESCRIPTION	LAMP DATA NO.	LAMP DATA TYPE	BALLAST DATA NO.	BALLAST DATA TYPE	INPUT WATTS	VOLTAGE	MOUNTING	REMARKS
A1	LITHONIA OR EQUAL	2SP8 SERIES	2' X 4' RECESSED FLUORESCENT FIXTURE, REGRESSED ALUMINUM DOOR FRAME HINGED AND LATCHED WITH 0.125 INCH THICK PATTERN #12 DIFFUSER.	3	28W T8 SP41	1	ELECTRONIC	85	120	RECESSED	
A2	LITHONIA OR EQUAL	2SP8 SERIES	2' X 4' RECESSED FLUORESCENT FIXTURE, REGRESSED ALUMINUM DOOR FRAME HINGED AND LATCHED WITH 0.125 INCH THICK PATTERN #12 DIFFUSER.	2	28W T8 SP41	1	ELECTRONIC	58	120	RECESSED	
B1	LITHONIA OR EQUAL	2AV SERIES	2'X4' RECESSED BASKET FIXTURE, STRAIGHT BLADE WHITE LOUVER, ROUND HOLES DIFFUSER.	3	28W T8 SP41	2	ELECTRONIC	85	120	RECESSED	
C1	PORTFOLIO OR EQUAL	LD620 SERIES	6 INCH LED DOWNLIGHT, SEMI SPECULAR REFLECTOR, WHITE TRIM, 2000 DELIVERED LUMENS. COLOR RENDERING INDEX OF 80, 4000 DEGREE COLOR TEMPERATURE.		L.E.D. INCLUDED			36	120	RECESSED	
E1	LITHONIA OR EQUAL	LE SERIES	SOLID, DIE-CAST ALUMINUM HOUSING, WHITE ALUMINUM FACING WITH WHITE HOUSING. SELF DIAGNOSTICS. UNIVERSAL MOUNTING. AC ONLY.		INCLUDED			1.5	120	UNIVERSAL	
H1	LITHONIA OR EQUAL	LB SERIES	1' X 4' FLUORESCENT WRAPAROUND FIXTURE, ACRYLIC PRISMATIC DIFFUSER, WHITE ENAMEL FINISH.	2	28W T8 SP41	1	ELECTRONIC	58	120	SURFACE	
P1	TECH LIGHTING	700 FIRF SERIES	LOW VOLTAGE LED PENDANT WITH GLASS GLOBE. 6 WATT LED MODULE WITH 6 FEET OF FIELD CUTTABLE SUSPENSION CABLE. GLOBE APPROXIMATELY 6 INCHES IN LENGTH. ARCHITECT TO SELECT GLOBE COLOR. VERIFY LENGTH OF CABLE WITH ARCHITECT.		L.E.D. INCLUDED			6	120	PENDANT	
U1	LITHONIA OR EQUAL	N2S SERIES	2 FOOT UNDERCABINET LIGHT WITH SOLID FRONT AND PRISMATIC LENS, WHITE FINISH	1	17W T8 SP41	1	ELECTRONIC	20	120	SURFACE	
W1	LITHONIA OR EQUAL	WP SERIES	2 FOOT WALL MOUNTED FIXTURE. SNAP-IN, ACRYLIC DIFFUSER WITH PRISMATIC PATTERN. GLOSS-WHITE ENAMEL FINISH ON ALL METAL PARTS.	1	17W T8 SP41	1	ELECTRONIC	30	120	WALL	

Revisions | Date

Dept. of Veterans Affairs
Medical Center
2101 Elm Street North
Fargo, ND 58102

IMAGE GROUP INC.
403 CENTER AVENUE, SUITE 300
MOORHEAD, MN 56560

IMAGE GROUP INC., Architecture & Interiors
OBERMILLER NELSON ENGINEERING, Mechanical Engineers
MBN ENGINEERING, Electrical Engineers

MBN ENGINEERING
MECHANICAL • ELECTRICAL • CIVIL
503 7th St N, SUITE 200
FARGO, ND 58102
PHONE: 701.478.8338
FAX: 701.478.8340

REGISTERED PROFESSIONAL ENGINEER PE-4438 5-10-13 NORTH DAKOTA

Drawing Title: ELECTRICAL SYMBOLS LEGEND AND LUMINAIRE SCHEDULE

Project Title: FARGO VA HEALTH CARE SYSTEM RENOVATE FIRST FLOOR, BUILDING 1

Date: MAY 10, 2013
AS NOTED

VA Project No.: 437-13-104
Contract No.: VA263-P-1217
VA263-C-
Designed By: MB
Checked By: MB
Drawn By: TP
Building No.: 1, 46
AutoCAD File Name: 13-061 E1.dwg
Location: FARGO VA HEALTH CARE SYSTEM FARGO, ND
Drawing No.: E1
Dwg. 20 of 25

Department of Veterans Affairs

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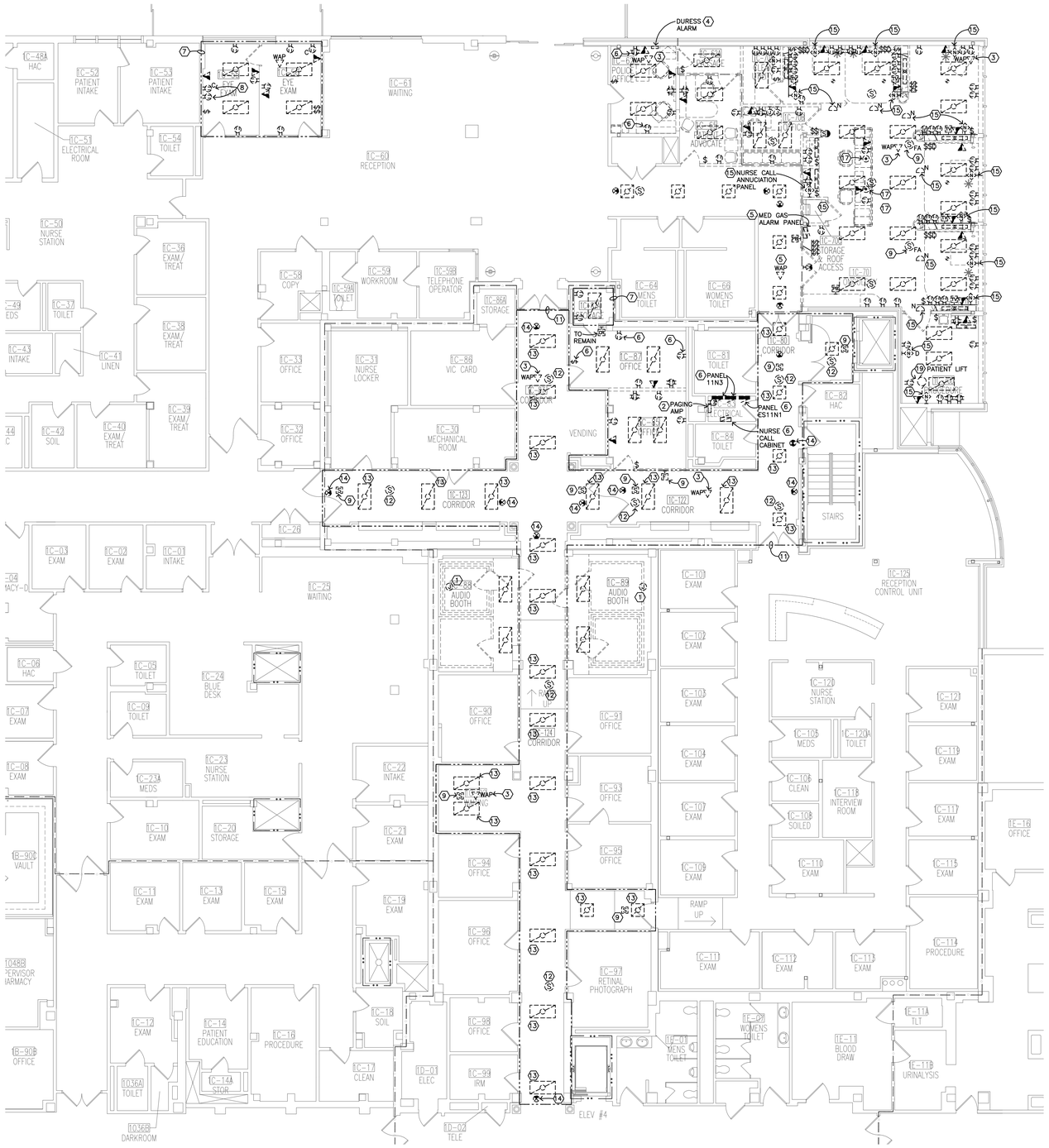

1 / E2 FIRST FLOOR DEMOLITION PLAN - ELECTRICAL

0' 4' 8' 16'

GENERAL NOTES:

1. WORK ON THIS PROJECT IS TO BE COMPLETED IN PHASES, SEE SHEET X2 FOR PHASING PLANS AND DETAILS.
2. ALL EQUIPMENT, DEVICES, FIXTURES, ET. SHOWN ON THE DEMOLITION PLANS SHALL BE REMOVED UNLESS NOTED OTHERWISE.

PLAN NOTES:

1. DISCONNECT POWER, PHONE AND DATA CONNECTIONS FROM AUDIO BOOTH.
2. PAGING AMPLIFIER TO BE RELOCATED WITHIN ROOM, SEE SHEET E5 FOR LOCATION.
3. DISCONNECT WIRELESS ACCESS ROUTER, SALVAGE FOR REINSTALLATION WHERE SHOWN ON SHEET E5.
4. DISCONNECT DURESS PANEL AND SALVAGE FOR REINSTALLATION IN NEW POLICE OFFICE.
5. DISCONNECT MED GAS ALARM PANEL. PANEL TO BE REINSTALLED, SEE SHEET E4.
6. PANEL, FIXTURE OR DEVICE TO REMAIN.
7. ALL ITEMS WITHIN BOUNDARY ARE TO REMAIN, UNLESS NOTED OTHERWISE.
8. REMOVE RECEPTACLES AND CONDUCTORS BACK TO SOURCE OF SUPPLY. PROVIDE BLANK COVER PLATE.
9. DISCONNECT SALVAGE EXISTING FIRE ALARM DEVICE, SALVAGE FOR REINSTALLATION WHERE SHOWN ON SHEET E5.
10. DISCONNECT EXISTING PATIENT LIFT.
11. DELETE WORK WITHIN BOUNDARY UNDER DEDUCT ALTERNATE BID 1.
12. DISCONNECT AND REMOVE EXISTING PAGING SPEAKER, SALVAGE FOR REINSTALLATION WHERE SHOWN ON SHEET E5.
13. DISCONNECT AND REMOVE EXISTING LIGHT FIXTURE, SALVAGE FOR REINSTALLATION WHERE SHOWN ON SHEET E3.
14. DISCONNECT AND REMOVE EXISTING EXIT LIGHT, SALVAGE FOR REINSTALLATION WHERE SHOWN ON SHEET E3.
15. DISCONNECT AND REMOVE EXISTING NURSE CALL DEVICE, SALVAGE FOR REINSTALLATION WHERE SHOWN ON SHEET E5.
16. DISCONNECT AND REMOVE EXISTING NURSE CALL MASTER STATION, SALVAGE FOR REINSTALLATION WHERE SHOWN ON SHEET E5.
17. REMOVE EXISTING FLOOR BOX, PATCH FLOOR.
18. DISCONNECT EXISTING HANDHELD BCMA DEVICES, TURN DEVICES OVER TO OWNER.
19. DISCONNECT POWER TO EXISTING PATIENT LIFT, SALVAGE FOR REINSTALLATION.

REFER TO SHEET A5 FOR SCOPE OF WORK IN BASEMENT BELOW ONCOLOGY SUITE. WORK INVOLVES REMOVAL AND REPLACEMENT OF ALL CEILING MOUNTED ELECTRICAL FIXTURES AND DEVICES IN NOTED AREA. SEE CEILING SYMBOLS LEGEND ON SHEET A5 FOR IDENTIFIED ITEMS.

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Medical Center
2101 Elm Street North
Fargo, ND 58102

IMAGE GROUP
IMAGE GROUP INC.
403 CENTER AVENUE, SUITE 300
MOORHEAD, MN 56560

IMAGE GROUP INC., Architecture & Interiors
OBERMILLER NELSON ENGINEERING, Mechanical Engineers
MBN ENGINEERING, Electrical Engineers

MBN ENGINEERING
MECHANICAL • ELECTRICAL • CIVIL
503 7th St N, SUITE 200
FARGO, ND 58102
PHONE: 701.478.6336
FAX: 701.478.6340

PE-4438 DATE 5-10-13 NORTH DAKOTA

KEY PLAN: A B C D

Drawing Title: FIRST FLOOR DEMOLITION PLAN - ELECTRICAL	Project Title: FARGO VA HEALTH CARE SYSTEM RENOVATE FIRST FLOOR, BUILDING 1		Date: MAY 10, 2013
			AS NOTED
VA Project No.: 437-13-104	Contract No.: VA263-P-1217 / VA263-C-	Designed By: MB / Checked By: MB / Drawn By: TP	Drawing No.: E2
Building No.: 1, 46	AutoCAD File Name: 13-061 E2.dwg	Location: FARGO VA HEALTH CARE SYSTEM FARGO, ND	Dwg. 21 of 25

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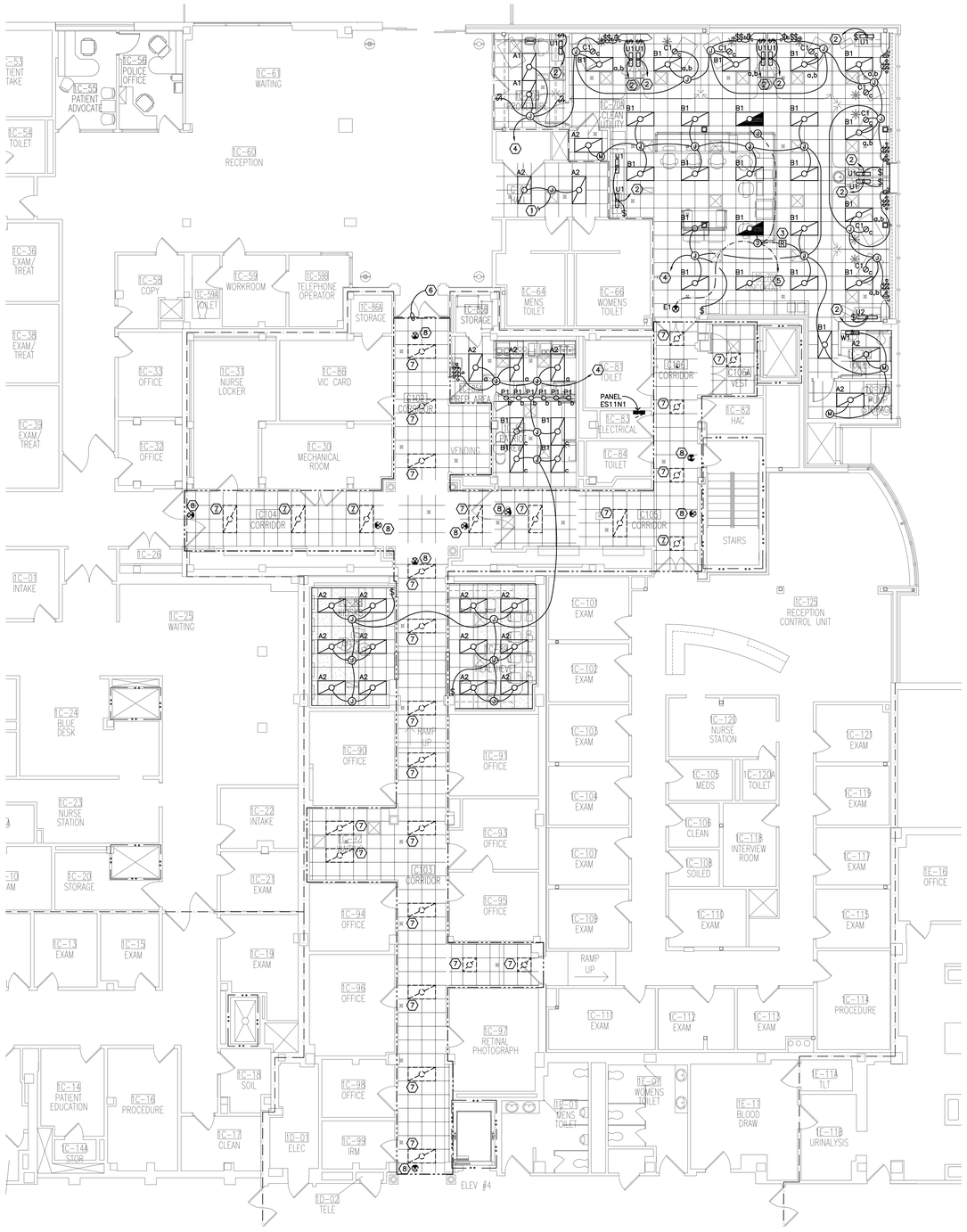


1 E3 FIRST FLOOR REMODELING PLAN - LIGHTING

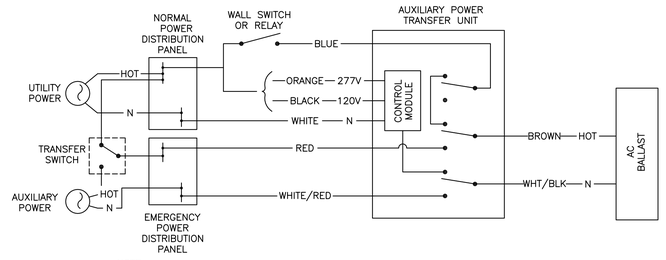
0' 4' 8' 16'

GENERAL NOTES:

1. WORK ON THIS PROJECT IS TO BE COMPLETED IN PHASES, SEE SHEET X2 FOR PHASING PLANS AND DETAILS.
2. STARBUCKS 1C-85 AND PREP AREA 1C-85A IS BUILT ON A DOUBLE FLOOR. THE CONTRACTOR MUST DRILL THROUGH BOTH FLOORS IF ANY EQUIPMENT OR DEVICE IS TO BE MOUNTED FROM BELOW. SEE ARCHITECTURAL PLANS AND DETAILS FOR EXACT LOCATIONS AND FLOOR DETAILS.

PLAN NOTES:

1. CONNECT TO EXISTING SWITCHING AND CIRCUITING.
2. CONNECT TO NEAREST RECEPTACLE CIRCUIT.
3. EMERGENCY LIGHTING RELAY, SEE DETAIL 2/E3.
4. CIRCUIT TO (1) 20/1 BREAKER IN EXISTING PANEL 11N3, PROVIDE NEW BREAKER AS REQUIRED.
5. CIRCUIT TO (1) 20/1 BREAKER IN EXISTING PANEL ES11N1, PROVIDE NEW BREAKER AS REQUIRED.
6. DELETE WORK WITHIN BOUNDARY UNDER DEDUCT ALTERNATE BID 1.
7. INSTALL SALVAGED LIGHT FIXTURE, CONNECT TO EXISTING SWITCHING AND CIRCUITING.
8. INSTALL SALVAGED EXIT FIXTURE, CONNECT TO EXISTING CIRCUITING.



NOTE:
A WALL SWITCH IS WIRED TO THE RELAY TO CONTROL WHETHER THE FIXTURE IS ON OR OFF. THE RELAY IS INTENDED TO PROVIDE THE FIXTURE POWER FROM A NORMAL PANEL DURING NORMAL OPERATING CONDITIONS. IN THE EVENT OF LOSS OF POWER, THE RELAY IS TO PROVIDE POWER FROM A LIFE SAFETY PANEL. WHEN NORMAL POWER RETURNS, THE RELAY IS TO RETURN NORMAL POWER TO THE FIXTURE.

2 E3 EMERGENCY RELAY ONE-LINE DIAGRAM

NO SCALE

Revisions	Date

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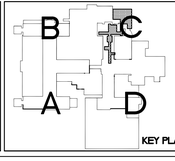
Medical Center
2101 Elm Street North
Fargo, ND 58102

IMAGE GROUP
IMAGE GROUP INC.
403 CENTER AVENUE, SUITE 300
MOORHEAD, MN 56560

IMAGE GROUP INC., Architecture & Interiors
OBERMILLER NELSON ENGINEERING, Mechanical Engineers
MBN ENGINEERING, Electrical Engineers

MBN ENGINEERING
MECHANICAL * ELECTRICAL * CIVIL
503 7th St N, SUITE 200
FARGO, ND 58102
PHONE: 701.478.6338
FAX: 701.478.6340

PE-4438 5-10-13 NORTH DAKOTA



KEY PLAN

Drawing Title: FIRST FLOOR REMODELING PLAN - LIGHTING	Project Title: FARGO VA HEALTH CARE SYSTEM RENOVATE FIRST FLOOR, BUILDING 1		Date: MAY 10, 2013
			AS NOTED
VA Project No.: 437-13-104	Contract No.: VA263-P-1217 / VA263-C-	Designed By: MB / Checked By: MB / Drawn By: TP	Drawing No.: E3
Building No.: 1, 46	AutoCAD File Name: 13-061 E3.dwg	Location: FARGO VA HEALTH CARE SYSTEM FARGO, ND	Dwg. 22 of 25

Department of Veterans Affairs

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PANELBOARD LOAD SCHEDULE

PANEL: EC11N1 | MAIN: MLO | VOLTS: 208Y/120, 3 PH., 4W. | ENCLOSURE: NEMA 1 | LOCATION: 1C-83

RATING: 100 AMP | AIC RATING: 10,000 | MOUNTING: SURFACE | FED FROM: BLDG 1 SWBD

CKT #	TRIP AMPS	POLE	LOAD IN VOLT-AMPERES LIGHTING	RECPT	MOTORS	KITCHEN	HEAT/AC	LOAD DESCRIPTION	PH	LOAD DESCRIPTION	HEAT/AC	KITCHEN	MOTORS	RECPT	LIGHTING	TRIP AMPS	POLE	CKT #
1	20	1		400				1C-70B	A	SPARE						20	1	2
3	20	1		1200				1C-70	B	SPARE						20	1	4
5	20	1			500			1C-70 OMNICELL	C	SPARE						20	1	6
7	20	1						1C-70	A	SPARE						20	1	8
9	20	1		1200				1C-70 NURSE STAT	B	SPARE						20	1	10
11	20	1		1200				1C-70 NURSE STAT	C	SPARE						20	1	12
13	20	1		1200				1C-70	A	SPARE						20	1	14
15	20	1		400				1C-70	B	SPARE						20	1	16
17	20	1			500			1C-70 REF	C	SPARE						20	1	18
19	20	1			500			1C-70 MED GAS PNL	A	SPARE						20	1	20
21	20	1		200				1C-70	B	SPARE						20	1	22
23	20	1						SPARE	C	SPARE						20	1	24
25	20	1						SPARE	A	SPARE						20	1	26
27	20	1						SPARE	B	SPARE						20	1	28
29	20	1						SPARE	C	SPARE						20	1	30
31	20	1						SPARE	A	SPARE						20	1	32
33	20	1						SPARE	B	SPARE						20	1	34
35	20	1						SPARE	C	SPARE						20	1	36
37	20	1						SPARE	A	SPARE						20	1	38
39	20	1						SPARE	B	SPARE						20	1	40
41	20	1						SPARE	C	SPARE						20	1	42

LOAD CALCULATIONS

LOAD TYPE	VA / PHASE A	B	C	TOTAL VA	DEMAND FACTOR	DIVERSIFIED LOAD
LIGHTING	0	0	0	0	1.00	0
RECEPTACLES	1600	3000	1200	5800	0.50	2900
MOTORS & EQUIP	500	0	1000	1500	0.90	1350
KITCHEN EQUIP.	0	0	0	0	0.65	0
HEAT / AC	0	0	0	0	0.90	0
TOTAL AMPS:		12		TOTAL VA:		4250

NOTES:

PANELBOARD LOAD SCHEDULE

PANEL: 11N4 | MAIN: MLO | VOLTS: 208Y/120, 3 PH., 4W. | ENCLOSURE: NEMA 1 | LOCATION: 1C-83

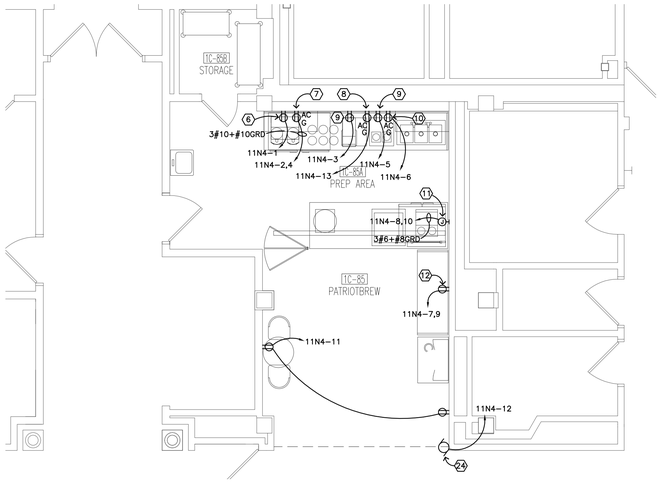
RATING: 100 AMP | AIC RATING: 10,000 | MOUNTING: SURFACE | FED FROM: BLDG 1 SWBD

CKT #	TRIP AMPS	POLE	LOAD IN VOLT-AMPERES LIGHTING	RECPT	MOTORS	KITCHEN	HEAT/AC	LOAD DESCRIPTION	PH	LOAD DESCRIPTION	HEAT/AC	KITCHEN	MOTORS	RECPT	LIGHTING	TRIP AMPS	POLE	CKT #
1	20*	1			600			1C-85A REF	A	1C-85A COFFEE		2400				30		2
3	20*	1			650			1C-85A ICE MAKER	B			2400					2	4
5	20*	1			650			1C-85A ICE MAKER	C	1C-85A BLENDER		1560				20	1	6
7	20				1350			1C-85 REF	A	1C-85A			4680			60		8
9		2			1350				B	COUNTER			4680				2	10
11	20	1		400				1C-85A	C	MOTORIZED GATE			1800			20	1	12
13	20	1		1800				ICE TEA BREWER	A	SPARE						20	1	14
15	20	1						SPARE	B	SPARE						20	1	16
17	20	1						SPARE	C	SPARE						20	1	18
19	20	1						SPARE	A	SPARE						20	1	20
21	20	1						SPARE	B	SPARE						20	1	22
23	20	1						SPARE	C	SPARE						20	1	24
25	20	1						SPARE	A	SPARE						20	1	26
27	20	1						SPARE	B	SPARE						20	1	28
29	20	1						SPARE	C	SPARE						20	1	30
31	20	1						SPARE	A	SPARE						20	1	32
33	20	1						SPARE	B	SPARE						20	1	34
35	20	1						SPARE	C	SPARE						20	1	36
37	20	1						SPARE	A	SPARE						20	1	38
39	20	1						SPARE	B	SPARE						20	1	40
41	20	1						SPARE	C	SPARE						20	1	42

LOAD CALCULATIONS

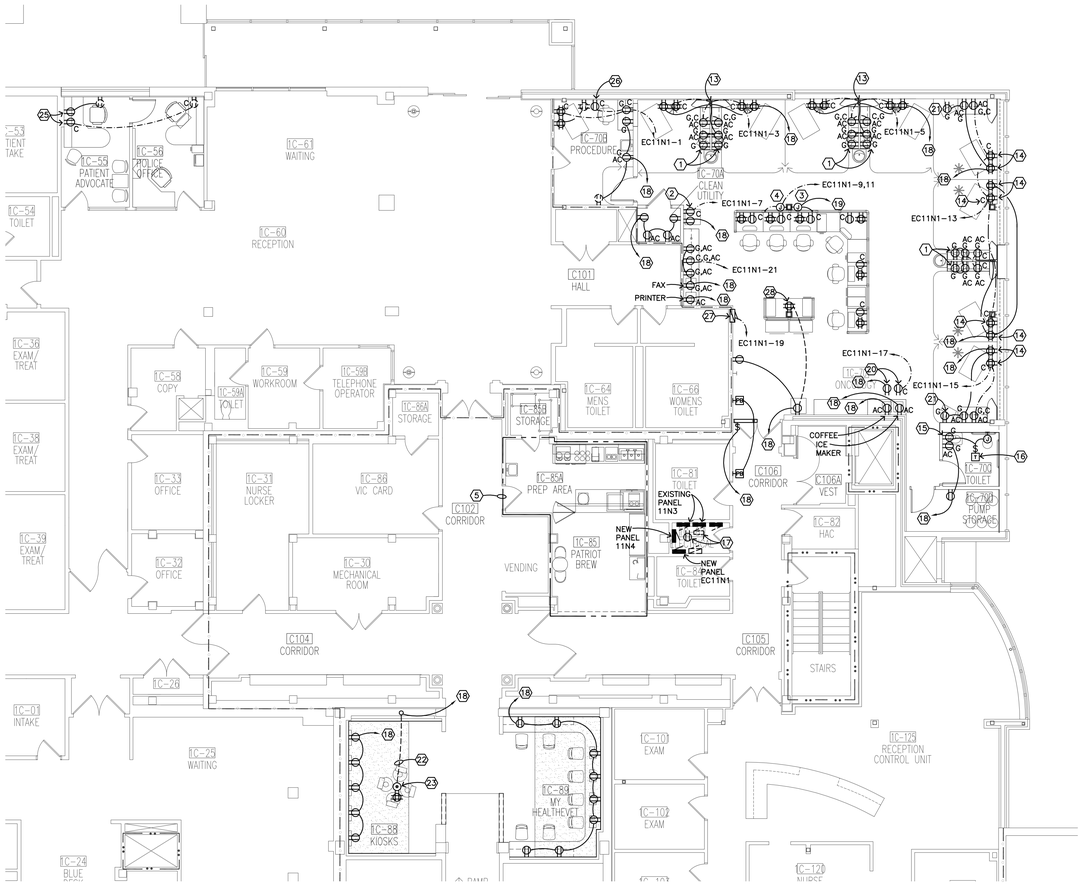
LOAD TYPE	VA / PHASE A	B	C	TOTAL VA	DEMAND FACTOR	DIVERSIFIED LOAD
LIGHTING	0	0	0	0	1.00	0
RECEPTACLES	1800	0	400	2200	0.50	1100
MOTORS & EQUIP	6630	6680	2450	15760	0.90	14184
KITCHEN EQUIP.	2400	2400	1560	6360	0.65	4134
HEAT / AC	0	0	0	0	0.90	0
TOTAL AMPS:		54		TOTAL VA:		19418

NOTES:
1. BREAKER NOTED WITH '*' TO BE GFCI



2/E4 LARGE SCALE PREP AREA PLAN - POWER

0' 2' 4' 8'



1/E4 FIRST FLOOR REMODELING PLAN - POWER

0' 4' 8' 16'

GENERAL NOTES:

1. WORK ON THIS PROJECT IS TO BE COMPLETED IN PHASES, SEE SHEET X2 FOR PHASING PLANS AND DETAILS.
2. PATRIOTBREW 1C-85 AND PREP AREA 1C-85A IS BUILT ON A DOUBLE FLOOR. THE CONTRACTOR MUST DRILL THROUGH BOTH FLOORS IF ANY EQUIPMENT OR DEVICE IS TO BE MOUNTED FROM BELOW. SEE ARCHITECTURAL PLANS AND DETAILS FOR EXACT LOCATIONS AND FLOOR DETAILS.

PLAN NOTES:

1. PROVIDE RECEPTACLE FOR OWNER PROVIDED TELEVISION MOUNTED IN CABINET. VERIFY LOCATION AND MOUNTING HEIGHT WITH VA PROJECT ENGINEER PRIOR TO ROUGH-IN.
2. PROVIDE 120V NORMAL POWER AND CRITICAL POWER CONNECTION TO OMNICELL.
3. PROVIDE FLEXIBLE CONNECTION (LIQUIDTITE FLEX) TO MODULAR FURNITURE FOR NORMAL POWER.
4. PROVIDE FLEXIBLE CONNECTION (LIQUIDTITE FLEX) TO MODULAR FURNITURE FOR CRITICAL POWER.
5. SEE 2/E4 FOR LARGE SCALE PLAN.
6. PROVIDE RECEPTACLE FOR UNDER COUNTER REFRIGERATOR.
7. PROVIDE RECEPTACLE AND 208 VOLT CONNECTION TO COFFEE BREWER.
8. PROVIDE RECEPTACLE FOR ICE TEA BREWER.
9. PROVIDE RECEPTACLE FOR UNDER COUNTER ICE MAKER.
10. PROVIDE RECEPTACLE FOR BLENDER.
11. PROVIDE 208 VOLT SINGLE PHASE CONNECTION TO FABRICATED COUNTER. COUNTER INCLUDES RECEPTACLES FOR UNDER COUNTER REFRIGERATOR, ESPRESSO MACHINE AND CASH REGISTER.
12. PROVIDE 208 VOLT SINGLE PHASE CONNECTION TO AIR SCREEN REFRIGERATOR. PROVIDE NEMA 6-20 RECEPTACLE.
13. STUB CONDUIT DOWN WALL FROM CEILING TO FEED RECEPTACLES IN PATIENT STATION(S).
14. MOUNT ALL RECEPTACLES ALONG WALL BETWEEN FIN TUBE RADIATION AND WINDOW SILL. VERIFY MOUNTING HEIGHT WITH VA PROJECT ENGINEER PRIOR TO ROUGH-IN. SEE ARCHITECTURAL ELEVATION 11/A4.
15. PROVIDE GFCI RECEPTACLE BELOW THE SINK FOR A PLUG IN POWER SUPPLY FOR THE LAVATORY HAND WASH SENSOR.
16. PROVIDE CONDUIT CONNECTION FROM TRANSFORMER(S) BY MECHANICAL CONTRACTOR TO PLUMBING SENSOR JUNCTION BOXES. MOUNT TRANSFORMERS ABOVE CEILING.
17. MOUNT RECEPTACLE FOR PAGING AMPLIFIER IN CLEAR SPACE ABOVE PANEL 11N3. PROVIDE MOUNTING BRACKET AND MOUNT PAGING AMPLIFIER NEAR RECEPTACLE.
18. CIRCUIT TO (1) 20/1 BREAKER IN EXISTING PANEL 11N3, PROVIDE NEW BREAKER AS REQUIRED.
19. CIRCUIT TO (2) 20/1 BREAKERS IN EXISTING PANEL 11N3, PROVIDE NEW BREAKER AS REQUIRED.
20. MOUNT RECEPTACLE UNDER COUNTER FOR OWNER PROVIDED REFRIGERATOR. PROVIDE BOTH NORMAL AND CRITICAL DEDICATED CIRCUITS.
21. PROVIDE RECEPTACLE FOR OWNER PROVIDED TELEVISION. VERIFY LOCATION WITH VA PROJECT ENGINEER PRIOR TO ROUGH-IN.
22. INSTALL CONDUIT RUN FROM FLOOR BOX TO WALL PRIOR TO FLOOR BEING IN-FILLED. COORDINATE INSTALLATION WITH GENERAL CONTRACTOR.
23. PROVIDE AND INSTALL WALKER RFB4 FLOOR BOX. INSTALL FLOOR BOX PRIOR TO FLOOR BEING IN-FILLED. COORDINATE INSTALLATION WITH GENERAL CONTRACTOR.
24. PROVIDE 120 VOLT CONNECTION TO MOTORIZED GATE. CIRCUIT AS SHOWN. INSTALL CONTROL DEVICE FURNISHED WITH GATE.
25. PROVIDE NEW RECEPTACLE, CONNECT TO EXISTING CIRCUIT AS SHOWN.
26. PROVIDE RECEPTACLE FOR PATIENT LIFT, VERIFY HEIGHT AND LOCATION WITH VA PROJECT ENGINEER.
27. PROVIDE 120 VOLT CONNECTION TO MEDICAL GAS ALARM PANEL, CIRCUIT AS SHOWN.
28. MOUNT RECEPTACLE ON COLUMN BELOW COUNTER.

Revisions	Date

Dept. of Veterans Affairs
Medical Center
2101 Elm Street North
Fargo, ND 58102

IMAGE GROUP
IMAGE GROUP INC.
403 CENTER AVENUE, SUITE 300
MOORHEAD, MN 56560

IMAGE GROUP INC., Architecture & Interiors
OBERMILLER NELSON ENGINEERING, Mechanical Engineers
MBN ENGINEERING, Electrical Engineers

MBN ENGINEERING
MECHANICAL • ELECTRICAL • CIVIL
503 7th St N, SUITE 200
FARGO, ND 58102
PHONE: 701.478.6338
FAX: 701.478.6340

REGISTERED PROFESSIONAL ENGINEER PE-4438 NORTH DAKOTA 5-10-13

KEY PLAN: A B C D

Drawing Title: FIRST FLOOR REMODELING PLAN - POWER	Project Title: FARGO VA HEALTH CARE SYSTEM RENOVATE FIRST FLOOR, BUILDING 1		Date: MAY 10, 2013
			AS NOTED
VA Project No.: 437-13-104	Contract No.: VA263-P-1217 VA263-C-	Designed By: MB / Checked By: MB / Drawn By: TP	Drawing No.: E4
Building No.: 1, 46	AutoCAD File Name: 13-061 E4.dwg	Location: FARGO VA HEALTH CARE SYSTEM FARGO, ND	Dwg. 23 of 25

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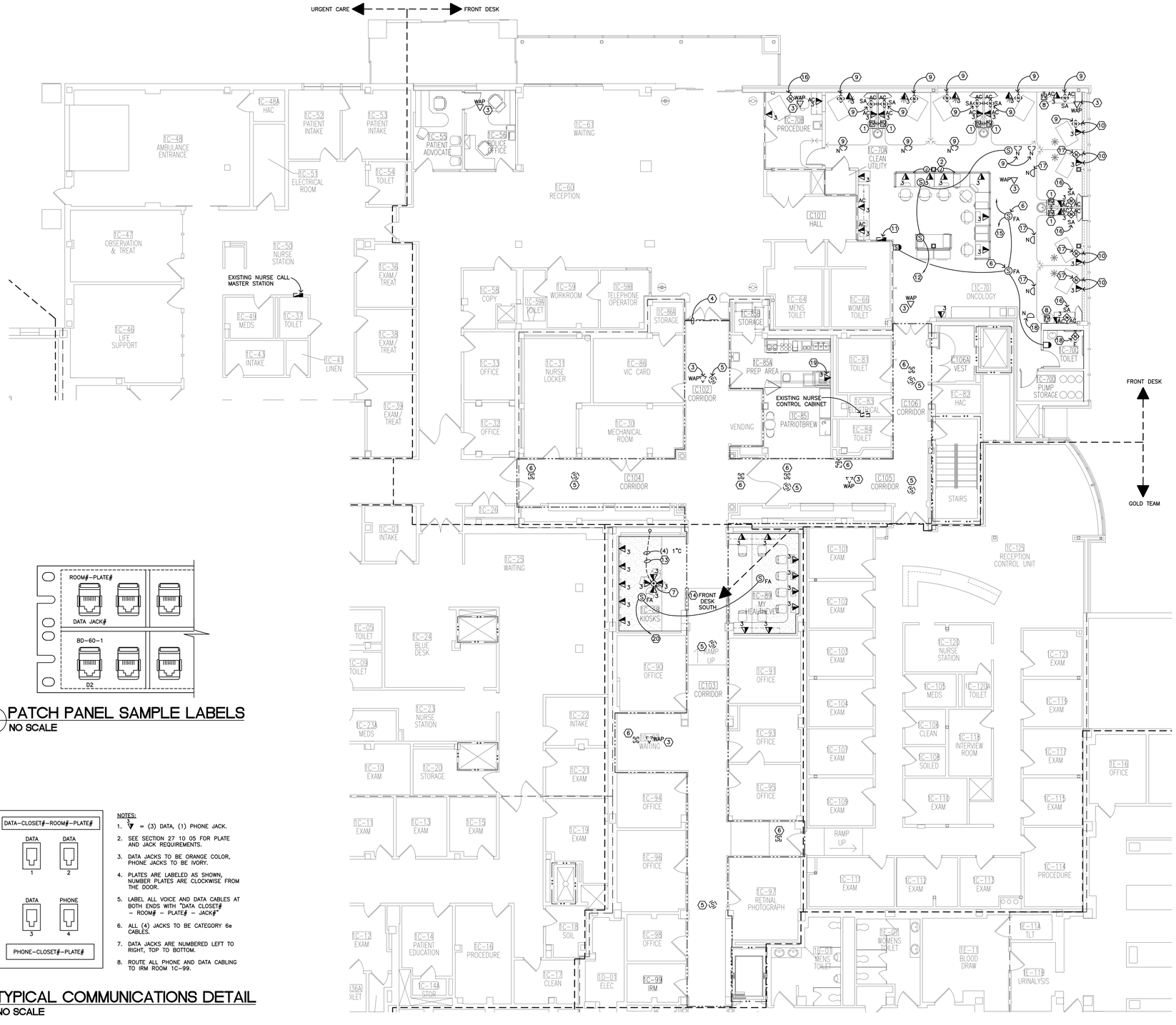

1 / E5 FIRST FLOOR REMODELING PLAN -SYSTEMS

0' 4' 8' 16'

2 / E5 PATCH PANEL SAMPLE LABELS

NO SCALE

NOTES:

1. = (3) DATA, (1) PHONE JACK.
2. SEE SECTION 27 10 05 FOR PLATE AND JACK REQUIREMENTS.
3. DATA JACKS TO BE ORANGE COLOR, PHONE JACKS TO BE IVORY.
4. PLATES ARE LABELED AS SHOWN, NUMBER PLATES ARE CLOCKWISE FROM THE DOOR.
5. LABEL ALL VOICE AND DATA CABLES AT BOTH ENDS WITH "DATA CLOSET# – ROOM# – PLATE# – JACK#"
6. ALL (4) JACKS TO BE CATEGORY 6a CABLES.
7. DATA JACKS ARE NUMBERED LEFT TO RIGHT, TOP TO BOTTOM.
8. ROUTE ALL PHONE AND DATA CABLING TO IRM ROOM 1C-99.

3 / E5 TYPICAL COMMUNICATIONS DETAIL

NO SCALE

GENERAL NOTES:

1. WORK ON THIS PROJECT IS TO BE COMPLETED IN PHASES, SEE SHEET X2 FOR PHASING PLANS AND DETAILS.
2. STARBUCKS 1C-85 AND PREP AREA 1C-85A IS BUILT ON A DOUBLE FLOOR. THE CONTRACTOR MUST DRILL THROUGH BOTH FLOORS IF ANY EQUIPMENT OR DEVICE IS TO BE MOUNTED FROM BELOW. SEE ARCHITECTURAL PLANS AND DETAILS FOR EXACT LOCATIONS AND FLOOR DETAILS.
3. ROUTE ALL PHONE AND DATA CABLING TO IRM ROOM 1C-99.

PLAN NOTES:

1. PROVIDE RECEPTACLE FOR OWNER PROVIDED TELEVISION MOUNTED IN CABINET. VERIFY LOCATION AND MOUNTING HEIGHT WITH VA PROJECT ENGINEER PRIOR TO ROUGH-IN. CONNECT TO EXISTING HOSPITAL TELEVISION DISTRIBUTION SYSTEM.
2. PROVIDE CONNECTION TO MODULAR FURNITURE.
3. INSTALL WIRELESS ACCESS ROUTER SALVAGED DURING DEMOLITION, VERIFY LOCATION WITH VA PROJECT ENGINEER.
4. DELETE WORK WITHIN BOUNDARY UNDER DEDUCT ALTERNATE BID 1.
5. INSTALL SALVAGED PAGING SPEAKER, CONNECT TO EXISTING CIRCUIT.
6. INSTALL SALVAGED FIRE ALARM DEVICE, CONNECT TO EXISTING CIRCUIT AND FIRE ALARM ZONE.
7. THE FLOOR BOX SHOWN IS THE SAME ONE SHOWN ON SHEET E4.
8. PROVIDE WALL MOUNTED RECEPTACLE FOR OWNER PROVIDED TELEVISION. VERIFY LOCATION WITH VA PROJECT ENGINEER PRIOR TO ROUGH-IN. CONNECT TO EXISTING HOSPITAL TELEVISION DISTRIBUTION SYSTEM.
9. INSTALL SALVAGED NURSE CALL DEVICE, CONNECT TO EXISTING NURSE CALL SYSTEM.
10. MOUNT ALL DEVICES ALONG WALL BETWEEN FIN TUBE RADIATION AND WINDOW SILL. VERIFY MOUNTING HEIGHT WITH VA PROJECT ENGINEER PRIOR TO ROUGH-IN.
11. INSTALL SALVAGED NURSE CALL ANNUNCIATOR PANEL, CONNECT TO EXISTING NURSE CALL SYSTEM.
12. CONNECT TO EXISTING PAGING SYSTEM IN CORRIDOR.
13. INSTALL CONDUIT RUN FROM FLOOR BOX TO WALL PRIOR TO FLOOR BEING IN-FILLED. COORDINATE INSTALLATION WITH GENERAL CONTRACTOR.
14. REPROGRAM THE FIRE ALARM SYSTEM VOICE COMMUNICATION SYSTEM WITH THE NEW ZONE INDICATED.
15. TO NEAREST EXISTING 'FRONT DESK' FIRE ALARM ZONE CIRCUIT.
16. PROVIDE NEW NURSE CALL DEVICE. DEVICE MUST BE SIMILAR TO AND BE COMPATIBLE WITH JERON PRO-ALERT 640. DEVICE TO NOTIFY URGENT CARE STAFF OF EMERGENCY IN ONCOLOGY. DEVICE TO BE ROUTED TO EXISTING NURSE CALL IN URGENT CARE NURSE CALL STATION 1C-50.
17. PROVIDE NEW CORDED NURSE CALL DEVICE. DEVICE MUST BE SIMILAR TO AND BE COMPATIBLE WITH JERON PRO-ALERT 640. DEVICE TO NOTIFY ONCOLOGY STAFF OF PATIENT REQUEST FOR ASSISTANCE VIA CEILING NURSE CALL LIGHT. CONNECT DEVICE TO NURSE CALL CONTROL CABINET IN ELECTRICAL ROOM 1C-83 AND NURSE CALL ANNUCIATOR PANEL.
18. PROVIDE NEW NURSE CALL DEVICE. DEVICE MUST BE SIMILAR TO AND BE COMPATIBLE WITH JERON PRO-ALERT 610. DEVICE TO NOTIFY ONCOLOGY STAFF OF PATIENT REQUEST FOR ASSISTANCE VIA CEILING NURSE CALL LIGHT.
19. MOUNT DATA RECEPTACLE BELOW COUNTER TO ALLOW BELOW COUNTER CONNECTION TO REGISTER.
20. TO NEAREST EXISTING 'FRONT DESK SOUTH' FIRE ALARM ZONE CIRCUIT.

Revisions	Date

Dept. of Veterans Affairs
Medical Center
2101 Elm Street North
Fargo, ND 58102

IMAGE GROUP INC.
403 CENTER AVENUE, SUITE 300
MOORHEAD, MN 56560

IMAGE GROUP INC., Architecture & Interiors
OBERMILLER NELSON ENGINEERING, Mechanical Engineers
MBN ENGINEERING, Electrical Engineers

MBN ENGINEERING
MECHANICAL * ELECTRICAL * CIVIL
503 7th St N, SUITE 200
FARGO, ND 58102
PHONE: 701.478.6338
FAX: 701.478.6340

PE-4438 5-10-13 NORTH DAKOTA

KEY PLAN

Drawing Title	FIRST FLOOR REMODELING PLAN - SYSTEMS
Project Title	FARGO VA HEALTH CARE SYSTEM RENOVATE FIRST FLOOR, BUILDING 1
Date	MAY 10, 2013
	AS NOTED
VA Project No.	437-13-104
Contract No.	VA263-P-1217 VA263-C-
Designed By	MB
Checked By	MB
Drawn By	TP
Drawing No.	E5
Building No.	1, 46
AutoCAD File Name	13-061 E5.dwg
Location	FARGO VA HEALTH CARE SYSTEM FARGO, ND
	Dwg. 24 of 25

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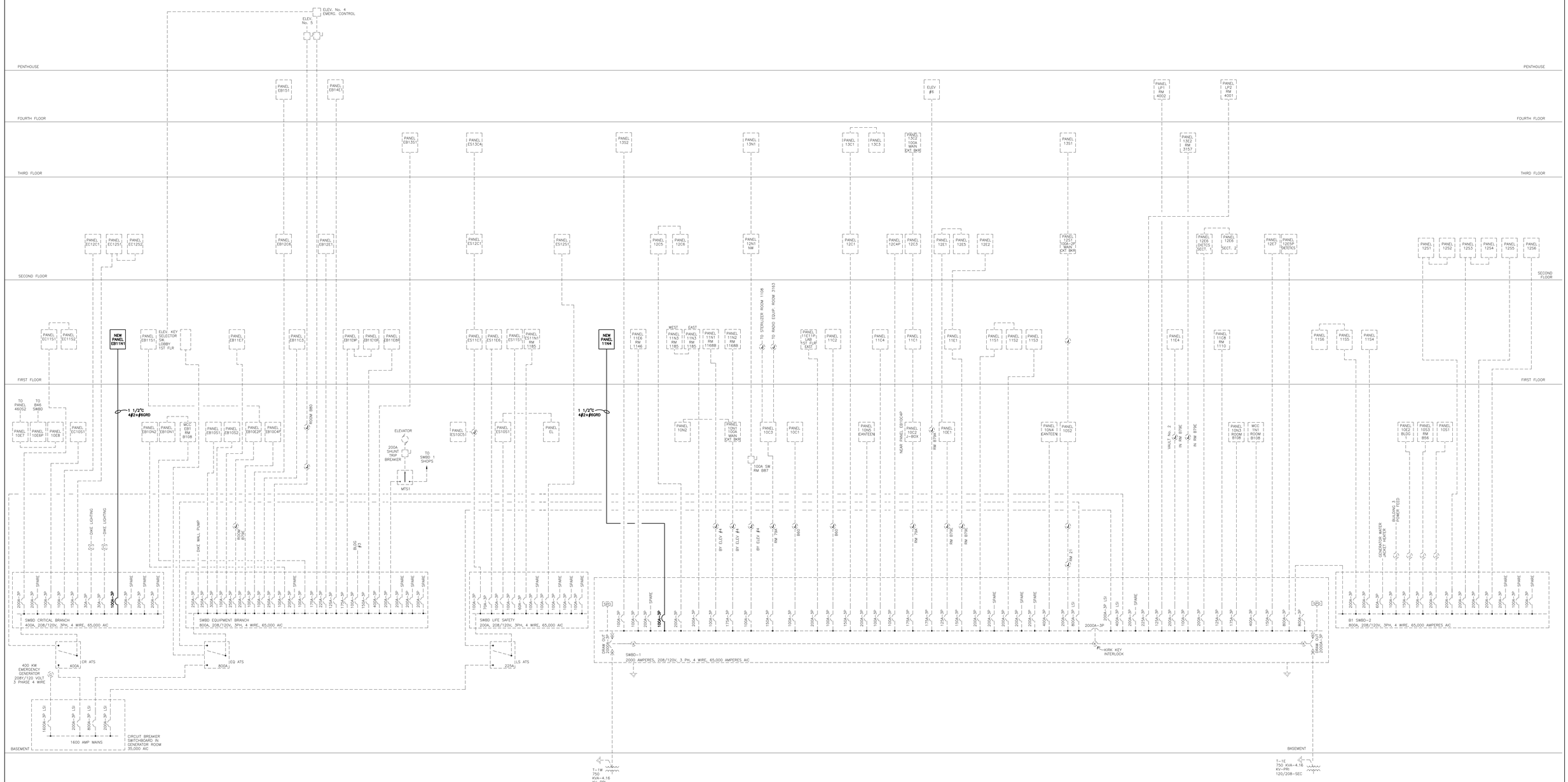

1/E6 REVISED ELECTRICAL ONE-LINE DIAGRAM - BUILDING 1

NO SCALE

Revisions	Date

Dept. of Veterans Affairs
Medical Center
2101 Elm Street North
Fargo, ND 58102

IMAGE GROUP INC.
403 CENTER AVENUE, SUITE 300
MOORHEAD, MN 56560

IMAGE GROUP INC., Architecture & Interiors
OBERMILLER NELSON ENGINEERING, Mechanical Engineers
MBN ENGINEERING, Electrical Engineers

MBN ENGINEERING
MECHANICAL • ELECTRICAL • CIVIL
503 7th St N, SUITE 200
FARGO, ND 58102
PHONE: 701.478.8336
FAX: 701.478.8340

PE-4438 5-10-13

Drawing Title: REVISED ELECTRICAL ONE-LINE DIAGRAM - BUILDING 1	Project Title: FARGO VA HEALTH CARE SYSTEM RENOVATE FIRST FLOOR, BUILDING 1		Date: MAY 10, 2013
			AS NOTED
VA Project No.: 437-13-104	Contract No.: VA263-P-1217 VA263-C-	Designed By: MB / Checked By: MB / Drawn By: TP	Drawing No.: E6
Building No.: 1, 46	AutoCAD File Name: 13-061 E6.dwg	Location: FARGO VA HEALTH CARE SYSTEM FARGO, ND	Dwg. 25 of 25

Department of Veterans Affairs

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