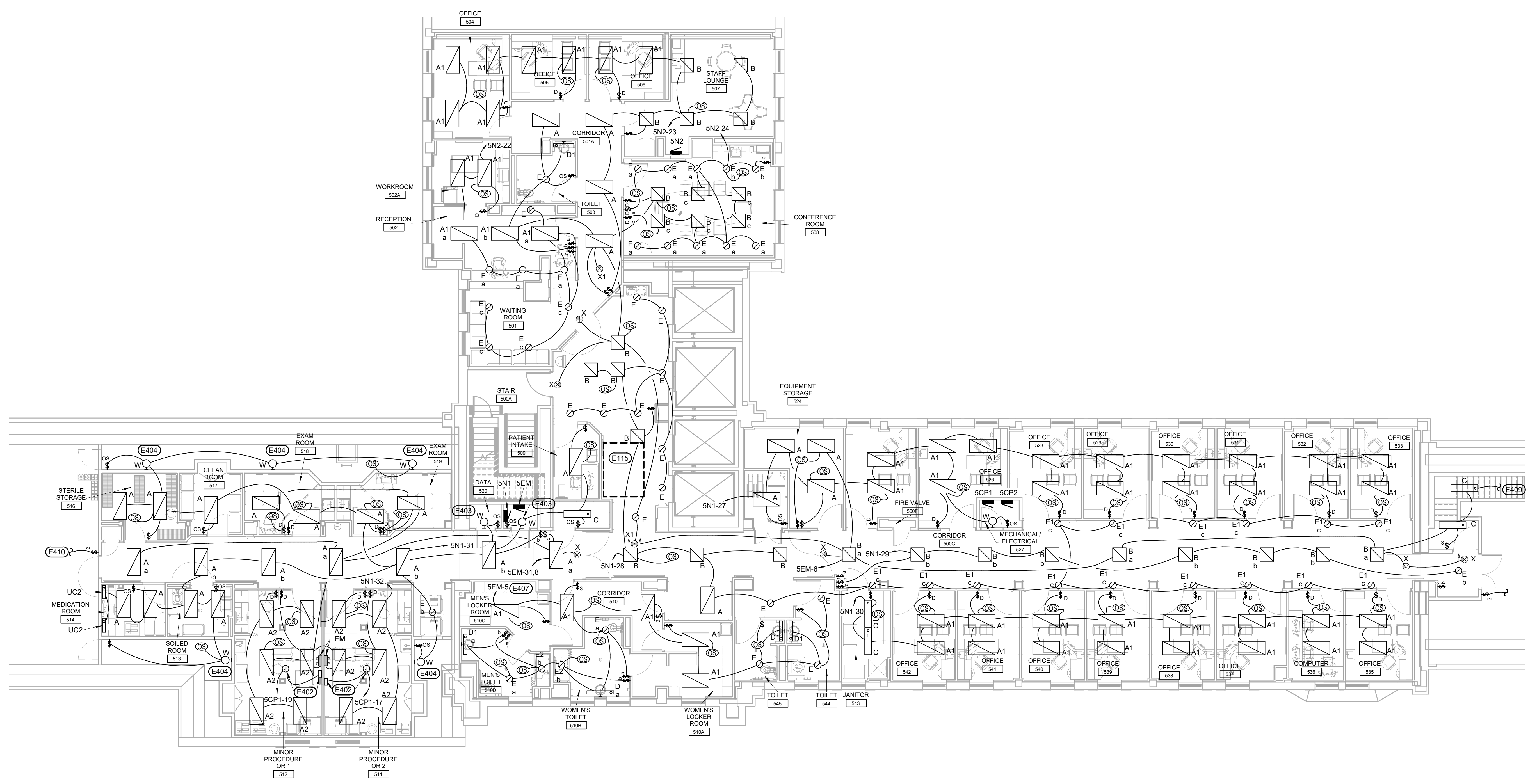


KEYNOTES:

- ELECTRICAL SPECIFIC NOTES**
- E115 EXISTING HATCH TO PENTHOUSE. ALL PERMANENTLY INSTALLED CONDUIT AND/OR EQUIPMENT/DEVICES/ETC. SHALL BE INSTALLED SO AS NOT TO CONFLICT WITH THE OWNER'S ABILITY TO USE THIS AREA AND SHALL NOT REQUIRE THE NEED TO DISCONNECT ANY ITEMS IN THE CEILING OR SPACE ABOVE IT.
 - E402 INSTALL EXISTING O. R. LIGHT FIXTURES REMOVED FROM THE EXISTING O. R. AS SHOWN ON SHEET ED-101. COORDINATE WITH OWNER & INSTALL PER MANUFACTURER RECOMMENDATIONS.
 - E403 MOUNT LIGHTS 1' ABOVE DOOR FRAME.
 - E404 MOUNT LIGHTS 1' BELOW TOP OF WALL.
 - E407 LIGHTING CIRCUIT TO BE CONNECTED TO A GFCI CIRCUIT BREAKER. PROVIDE PROPER GROUNDING OF ALL METAL PARTS.
 - E409 PROVIDE AND CONNECT TO 3 WAY SWITCH BELOW.
 - E410 PROVIDE NEW 3 WAY SWITCH AND RECONNECT TO EXISTING LIGHT CIRCUIT.

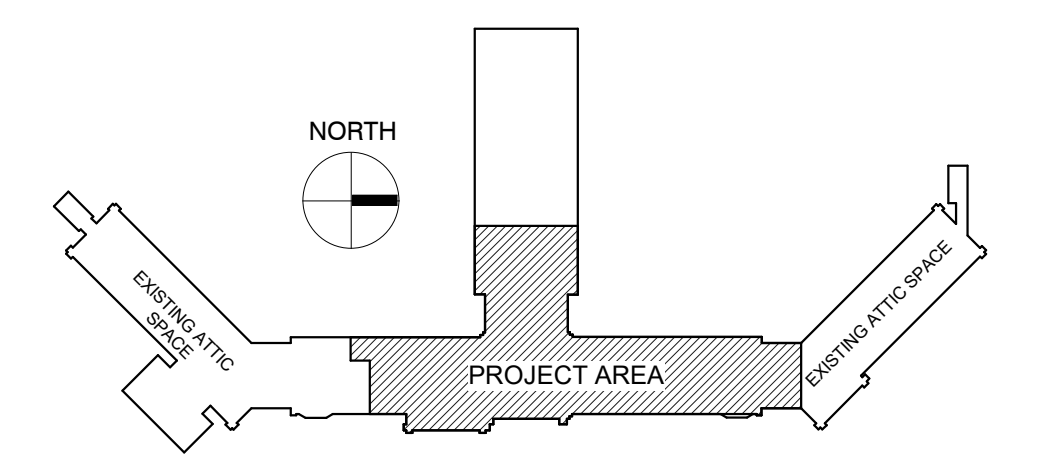


LIGHTING PLAN - FIFTH FLOOR
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

- A ALL ELECTRICAL SYSTEMS SHALL HAVE REDUNDANT GROUNDING

KEY PLAN:



PHASING PLAN NOTE:
SEE ARCHITECTURAL PLANS FOR PHASING OF PROJECT

100% CONSTRUCTION DRAWINGS

<p>CONSULTANTS:</p> <p>WPE WEST PLAINS ENGINEERING, INC. WPE #: BS15052 4609 SOUTH TECHLINK CIRCLE • SIOUX FALLS, SD 57106 PHONE: (605) 362-3753 • FAX: (605) 362-3759 WWW.WESTPLAINSENGINEERING.COM RAPID CITY, SD • SIOUX FALLS, SD • CASPER, WY • CEDAR RAPIDS, IA • BISMARCK, ND</p>	<p>RISE STRUCTURAL ASSOCIATES, INC. 101 Railroad Ave. - PO Box 39 Harrisburg, SD 57032 (605) 743-2510 fax(605) 743-2513</p>	<p>ARCHITECTS/ ENGINEERS:</p> <p>MSH ARCHITECTS 625 S. MINNESOTA AVENUE, SUITE 204 SIOUX FALLS, SOUTH DAKOTA 57104-4873 TELE: (605) 332-7850 FAX: (605) 332-3539</p>	<p>Drawing Title LIGHTING PLAN - FIFTH FLOOR</p>	<p>Project Title V.A. HEALTH CARE SYSTEM RENOVATE 5TH FLOOR SURGERY</p>	<p>Project Number 438-15-201</p>	<p>Office of Construction and Facilities Management</p>
			<p>Approved: Project Director</p>	<p>Location SIOUX FALLS, SOUTH DAKOTA</p>	<p>Building Number 5</p>	
<p>Revisions:</p>	<p>Date</p>	<p>DATE: OCTOBER 17, 2017</p>	<p>Checked MF</p>	<p>Drawing Number 5-EL101</p>	<p>Drawing Number 5-EL101</p>	<p>Dwg. 55 of 60</p>

one eighth inch = one foot
one quarter inch = one foot
three eighths inch = one foot
one half inch = one foot
three quarters inch = one foot
one inch = one foot
one and one half inches = one foot
three inches = one foot
one foot = one foot

one eighth inch = one foot
 one quarter inch = one foot
 three eighths inch = one foot
 one half inch = one foot
 three quarters inch = one foot
 one inch = one foot
 one and one half inches = one foot
 three inches = one foot
 six inches = one foot

ELECTRICAL SYMBOLS

THESE SYMBOLS COMPRISE A STANDARD LIST. NOT ALL SYMBOLS MAY APPEAR ON THIS PROJECT.
 ALL MOUNTING HEIGHTS ARE TO CENTER OF DEVICE UNLESS INDICATED OTHERWISE. MOUNTING HEIGHTS INDICATED ON ARCH. WALL ELEVATIONS OR AS NOTED SPECIFICALLY ON THE DRAWINGS OR IN THE SPECIFICATIONS SHALL TAKE PRECEDENCE OVER MOUNTING HEIGHTS LISTED BELOW.

LIGHTING		SWITCHES	
	CEILING SURFACE MOUNT FIXTURE		RECESSED FIXTURE
	EMERGENCY RECESSED FIXTURE		SINGLE POLE SWITCH (40' M.H.)
	WALL FIXTURE		DOUBLE POLE SWITCH (40' M.H.)
	EMERGENCY WALL FIXTURE		THREE-WAY SWITCH (40' M.H.)
	RECESSED FIXTURE		FOUR-WAY SWITCH (40' M.H.)
	EMERGENCY RECESSED FIXTURE		SWITCH WITH PILOT (40' M.H.)
	EXTERIOR POLE LIGHT		KEY OPERATED SWITCH (40' M.H.)
	BOLLARD LIGHT		MOMENTARY CONTACT SWITCH (80' M.H.)
	SURFACE MOUNT FIXTURE		DIMMER SWITCH (40' M.H.)
	EMERGENCY SURFACE MOUNT FIXTURE		TIMER SWITCH (80' M.H.)
	OCCUPANCY SENSOR		VARIABLE SPEED SWITCH
	SINGLE POLE SWITCH (40' M.H.)		FUSED SWITCH
	DOUBLE POLE SWITCH (40' M.H.)		
	THREE-WAY SWITCH (40' M.H.)		
	FOUR-WAY SWITCH (40' M.H.)		
	SWITCH WITH PILOT (40' M.H.)		
	KEY OPERATED SWITCH (40' M.H.)		
	MOMENTARY CONTACT SWITCH (80' M.H.)		
	DIMMER SWITCH (40' M.H.)		
	TIMER SWITCH (80' M.H.)		
	VARIABLE SPEED SWITCH		
	FUSED SWITCH		

LIGHTING FIXTURE SCHEDULE

FIXTURE MARK	FIXTURE TYPE	FIXTURE DIFFUSER	VOLTAGE	LAMP NUMBER AND WATTS	LAMP TYPE	MOUNTING TYPE	MOUNTING HEIGHT	MANUFACTURER	MODEL	COMMENTS
A	2 X 4 RECESSED	ACRYLIC	120	44W 4000 LUMENS	LED 4000K	RECESS	CEILING	CREE OR EQUAL	ZR24	ELECTRONIC DIMMING DRIVER, <20% THD, WHITE FINISH
A1	2 X 4 RECESSED	ACRYLIC	120	44W 4000 LUMENS	LED 4000K	RECESS	CEILING	CREE OR EQUAL	ZR24	ELECTRONIC DIMMING DRIVER, <20% THD, WHITE FINISH
A2	2 X 4 RECESSED	ACRYLIC	120	45W 5000 LUMENS	LED 4000K	RECESS	CEILING	CREE OR EQUAL	ZR24	ELECTRONIC DIMMING DRIVER, <20% THD, WHITE FINISH
B	2 X 2 RECESSED	ACRYLIC	120	34W 3400 LUMENS	LED 4000K	RECESS	CEILING	CREE OR EQUAL	L'R22	ELECTRONIC DIMMING DRIVER, <20% THD, WHITE FINISH
C	1'x4' WRAP	ACRYLIC	UNIV	35W 3579 LUMENS	LED 4000K	SURFACE	CEILING	LITHONIA OR EQUAL	STL4	ELECTRONIC DRIVER, <10% THD, WHITE FINISH
D	4' WALL BRACKET	ACRYLIC PRISMATIC	120	28.2 W 3251 LUMENS	LED 4000K	WALL	ABOVE MIRROR	COLUMBIA OR EQUAL	WL4	UP & DOWN LIGHT, ELECTRONIC DRIVER, < 10% THD, WHITE FINISH
D1	2' WALL BRACKET	ACRYLIC PRISMATIC	120	21W 2189 LUMENS	LED 4000K	WALL	ABOVE MIRROR	COLUMBIA OR EQUAL	WL2	UP & DOWN LIGHT, ELECTRONIC DRIVER, < 10% THD, WHITE FINISH
E	8" OPEN DOWNLIGHT	SPECULAR CLEAR REFLECTOR	UNIV.	1-18W LED 1000 LUMEN	LED 4000K	RECESS	CEILING	CREE OR EQUAL	KR	WHITE TRIM, ELECTRONIC DRIVER
E1	4" OPEN DOWNLIGHT	SPECULAR CLEAR REFLECTOR	UNIV.	1-18W LED 1100 LUMEN	LED 4000K	RECESS	CEILING	CREE OR EQUAL	KR	WHITE TRIM, ELECTRONIC DRIVER
E2	6" OPEN DOWNLIGHT	SPECULAR CLEAR REFLECTOR	UNIV.	1-30W 1700 LUMEN	LED 4000K	RECESS	CEILING	CREE OR EQUAL	KR	WHITE TRIM, ELECTRONIC DRIVER, SHOWER LIGHT, WET LOCATION
EM	EMERGENCY	SEALED	120	2W - 10LED	LED 5000K	WALL	90°	SURE LITE OR EQUAL	AEL2	CAST ALUMINUM WHITE POWER COAT HOUSING W/ UV STABILIZED POLYCARBONATE LENS, SELF DIAGNOSTIC, BATTERY BACKUP
F	CYLINDER, 4" OPEN	SPECULAR CLEAR REFLECTOR	120	27W 2000LUMENS	LED 4000K	PENDANT	CEILING	GOTHAM OR EQUAL	4" INCITO CYLINDER	WIDE DISTRIBUTION/WHITE HOUSING 4" APERTURE 45 DEGREE BEAM ANGLE 6" X 10" HOUSING
UC2	UNDER COUNTER	MILK WHITE	MULTI	10W 900 LUMENS	LED 4000K	SURFACE	UNDER CABINET	FAIL SAFE OR EQUAL	UCL	WHITE HOUSING
W	SURFACE WALL MOUNT	WHITE ACRYLIC	120	12W 829 LUMENS	LED 4000K	WALL	SEE PLANS	STONCO OR EQUAL	LWL	
X	EXIT SIGN SINGLE FACE	RED	UNIV.	LED	LED	UNIV.	PER PLANS	SURE LITE OR EQUAL	CX	CAST ALUMINUM, WHITE FACE WITH RED LETTERS
X1	EXIT SIGN DOUBLE FACE	RED	UNIV.	LED	LED	UNIV.	PER PLANS	SURE LITE OR EQUAL	CX	CAST ALUMINUM, WHITE FACE WITH RED LETTERS

100% CONSTRUCTION DRAWINGS

Revisions:	Date

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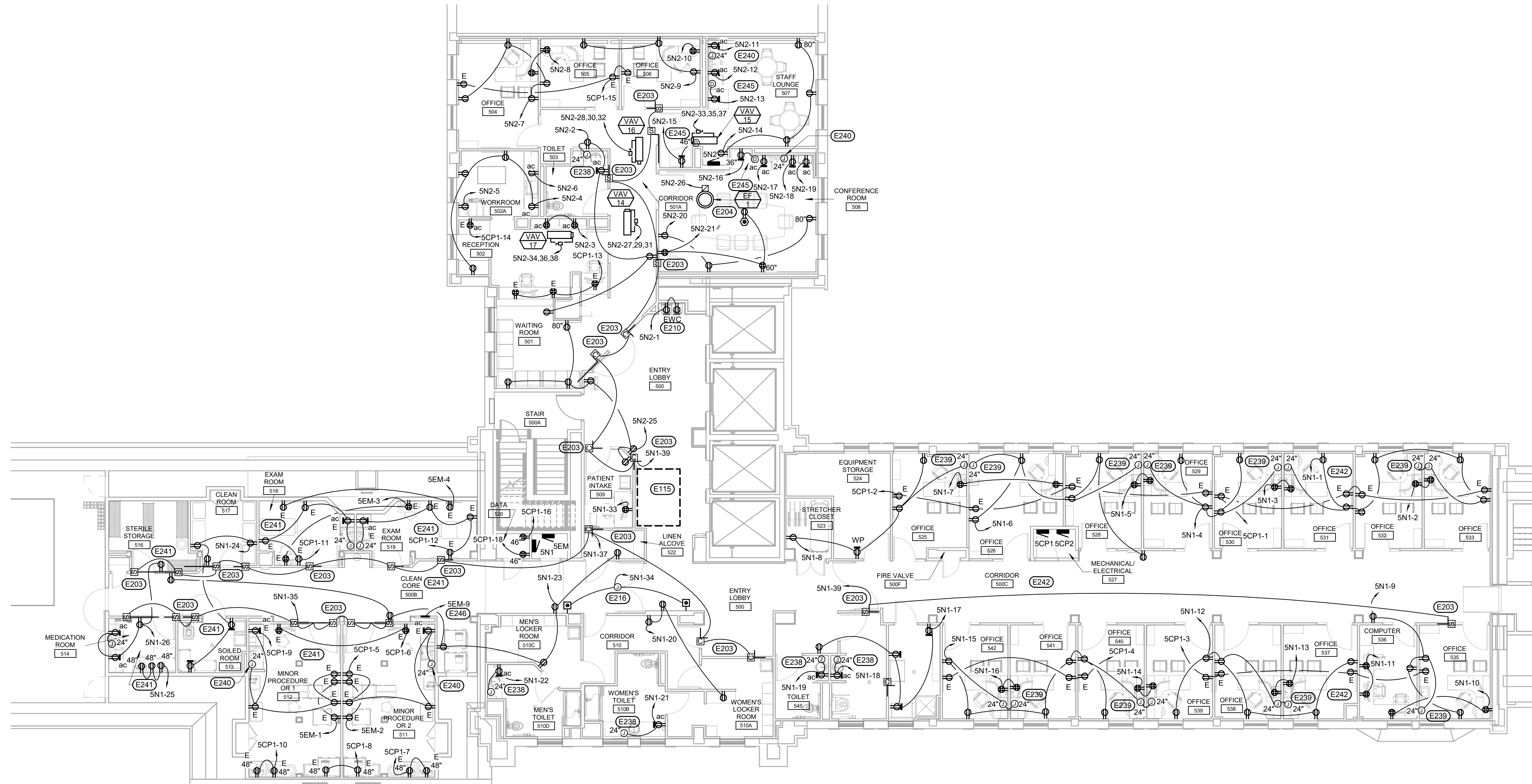
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Drawing Title LIGHTING DETAILS AND SCHEDULES	
Approved: Project Director	

Project Title V.A. HEALTH CARE SYSTEM RENOVATE 5TH FLOOR SURGERY		Project Number 438-15-201	
Location SIOUX FALLS, SOUTH DAKOTA		Building Number 5	
Date OCTOBER 17, 2017	Checked MF	Drawn GL	Drawing Number 5-EL500
		Dwg. 56 of 60	

Office of
Construction
and Facilities
Management

A
 three inches = one foot
 B
 one and one half inches = one foot
 C
 one inch = one foot
 D
 three quarters inch = one foot
 E
 one half inch = one foot
 F
 three eighths inch = one foot
 G
 three eighths inch = one foot
 H
 one quarter inch = one foot
 I
 one eighth inch = one foot



POWER PLAN - FIFTH FLOOR
SCALE: 1/8" = 1'-0"

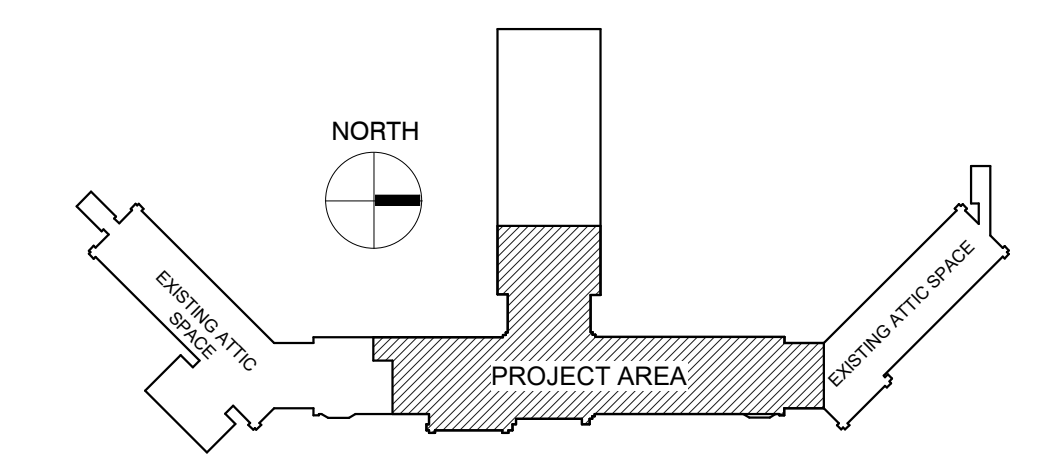
KEYNOTES:

- ELECTRICAL SPECIFIC NOTES**
- E115 EXISTING HATCH TO PENTHOUSE. ALL PERMANENTLY INSTALLED CONDUIT AND/OR EQUIPMENT DEVICES, ETC. SHALL BE INSTALLED SO AS NOT TO CONFLICT WITH THE OWNER'S ABILITY TO USE THIS AREA AND SHALL NOT REQUIRE THE NEED TO DISCONNECT ANY ITEMS IN THE CEILING OR SPACE ABOVE IT.
 - E203 PROVIDE 120V CONNECTION TO SMOKE/COMBINATION DAMPER AND INTERLOCK WITH DUCT DETECTOR AND FIRE ALARM SYSTEM.
 - E204 INTERLOCK EXHAUST FAN WITH MOTORIZED DAMPER.
 - E210 MOUNT RECEPTACLE IN WATER COOLER HOUSING/WASH FOUNTAIN. COORDINATE WITH MECHANICAL CONTRACTOR.
 - E216 POWER ASSIST DOOR PUSHBUTTON STATIONS AND OPERATORS. EQUIPMENT PROVIDED AND INSTALLED BY GC. CONNECTED/POWERED BY EC. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND COORDINATE EXACT REQUIREMENTS WITH ARCHITECTURAL SPECIFICATIONS/SHOP DRAWINGS. PROVIDE NECESSARY CONTROL WIRING FOR INTERLOCK WITH CARD ACCESS CONTROL. COORDINATE EXACT LOCATIONS WITH OWNER AND OTHER TRADES TO MAKE ALL SERVICES FIT IN THIS AREA. TYPICAL.
 - E238 PROVIDE JUNCTION BOX OR RECEPTACLE FOR RESTROOM FIXTURE SENSOR TRANSFORMERS. PROVIDE BOX FOR EACH FIXTURE WITH CONDUIT TO TRANSFORMER LOCATION INDICATED. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL CONTRACTOR INCLUDING, BUT NOT LIMITED TO NUMBER OF TRANSFORMERS AND SENSORS PER TRANSFORMER.
 - E239 PROVIDE JUNCTION BOX FOR FUTURE CONNECTION TO LAV SENSOR POWER. TYPICAL.
 - E240 PROVIDE JUNCTION BOX AND CONNECTION TO LAV SENSOR POWER.
 - E241 ALL DEVICES IN THE SOUTH WING SHALL BE HOSPITAL GRADE DEVICES. TYPICAL.
 - E242 ALL DEVICES IN THE NORTH WING SHALL BE HOSPITAL GRADE DEVICES. TYPICAL.
 - E245 ALL GFCI RECEPTACLES MUST COMPLY WITH CODE REQUIREMENT FOR A READILY ACCESSIBLE RESET BUTTON.
 - E246 PROVIDE POWER CONNECTION TO MED GAS ALARM PANEL. COORDINATE WITH SYSTEM INSTALLERS.

GENERAL NOTES:

- A ALL ELECTRICAL SYSTEMS SHALL HAVE REDUNDANT GROUNDING.
- B ALL RECEPTACLES SHALL BE HOSPITAL GRADE.

KEY PLAN:



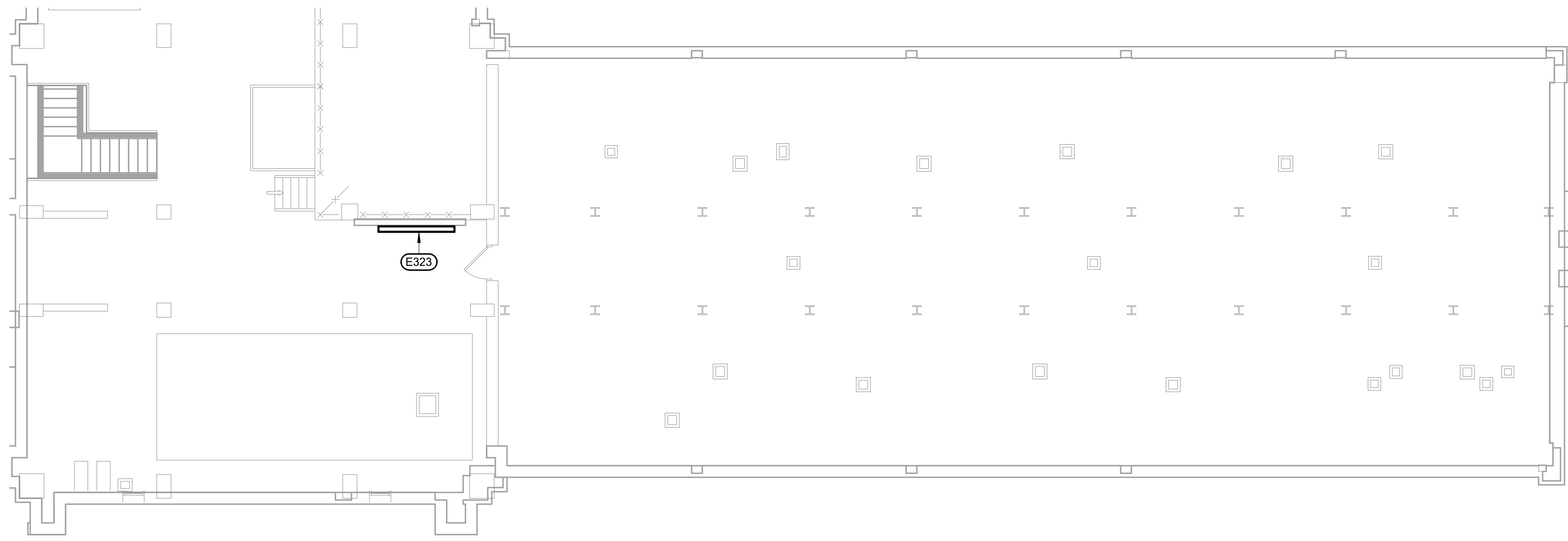
PHASING PLAN NOTE:
SEE ARCHITECTURAL PLANS FOR PHASING OF PROJECT

100% CONSTRUCTION DRAWINGS

CONSULTANTS: WPE #: BS15052 4609 SOUTH TECHLINK CIRCLE • SIOUX FALLS, SD 57106 PHONE: (605) 362-3753 • FAX: (605) 362-3759 WWW.WESTPLAINSENGINEERING.COM RAPID CITY, SD • SIOUX FALLS, SD • CASPER, WY • CEDAR RAPIDS, IA • BISMARCK, ND		ARCHITECTS/ ENGINEERS: 101 Railroad Ave. - PO Box 39 Hamburg, SD 57032 (605) 743-2510 fax(605) 743-2513		 MSH ARCHITECTS 625 S. MINNESOTA AVENUE, SUITE 204 SIOUX FALLS, SOUTH DAKOTA 57104-4873 TELE: (605) 332-7850 FAX: (605) 332-3539		Drawing Title POWER PLAN - FIFTH FLOOR Approved: Project Director		Project Title V.A. HEALTH CARE SYSTEM RENOVATE 5TH FLOOR SURGERY Project Number 438-15-201 Building Number 5 Location SIOUX FALLS, SOUTH DAKOTA Date OCTOBER 17, 2017 Checked MF Drawn GL		Drawing Number 5-EP101 Dwg. 57 of 60 Office of Construction and Facilities Management	
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KEYNOTES:

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- E115 EXISTING HATCH TO PENTHOUSE. ALL PERMANENTLY INSTALLED CONDUIT AND/OR EQUIPMENT DEVICES, ETC. SHALL BE INSTALLED SO AS NOT TO CONFLICT WITH THE OWNER'S ABILITY TO USE THIS AREA AND SHALL NOT REQUIRE THE NEED TO DISCONNECT ANY ITEMS IN THE CEILING OR SPACE ABOVE IT.
 - E301 SMARTBOARD TO COMPUTER PATHWAY - PROVIDE A 2" CONDUIT BETWEEN LOCATIONS WITH 1 HDMI CABLE AND 2 CAT6 CABLES. PROVIDE 6"X6" 4" DEEP JUNCTION BOX. PROVIDE BLANK COVER WITH GROMMETTED OPENING.
 - E304 INTERLOCK WITH FIRE ALARM SYSTEM (DUCT TYPE SMOKE DETECTOR) TO SHUTDOWN UNIT UPON FIRE DETECTION. COORDINATE WITH MECHANICAL CONTRACTOR TO PROVIDE PROPER INSTALLATION REQUIREMENTS. PROVIDE REMOTE TEST STATION FOR EACH (IF INACCESSIBLE), MOUNT IN ACCESSIBLE SPACE BELOW UNIT. TYPICAL.
 - E305 LOCATE THE DEVICES UNDER THE COUNTER AT 24" AFF IN THE KNEE SPACE. TYPICAL.
 - E306 DURESS ALARM PUSH BUTTON. CONNECT TO THE EXISTING SECURITY PANEL. COORDINATE LOCATION OF PANEL WITH THE OWNER. TYPICAL.
 - E309 PROVIDE NEW NURSE CALL DEVICES AND CONNECT TO THE EXISTING RAULAND 5 NURSE CALL SYSTEM. TYPICAL ROUTE ALL CABLING TO THE DATA CLOSET S20.
 - E310 PROVIDE FLUSH-MOUNT 4 SQUARE BOX WITH SINGLE GANG MUD RING FOR DATA, VOICE, OR VOICE/DATA OUTLET. PROVIDE CONDUIT TO CEILING SPACE PER SPECIFICATIONS. TYPICAL.
 - E314 PROVIDE A SINGLE GANG BOX ON THE WALL AND ONE ON THE CEILING AS SHOWN WITH A 3/4" CONDUIT BETWEEN J-BOXES FOR OWNER'S FUTURE USE. TYPICAL.
 - E315 PROVIDE FLUSH-MOUNT 2 GANG WALL-BOX FOR TV OUTLETS. PROVIDE A 3/4" CONDUIT TO CEILING SPACE. CAT 6 CABLE ROUTED TO THE OWNER'S GIGAHUB IN DATA CLOSET S20.
 - E316 PROVIDE ACCESS CONTROL AND POWER CONNECTIONS AS NEEDED FOR A FULLY OPERATIONAL SYSTEM TO BE COMPATIBLE WITH THE OWNER'S EXISTING SYSTEM. SEE SPECIFICATIONS.
 - E320 CLOCKS SHALL BE BATTERY OPERATED, ATOMIC CORRECTING WIRELESS SYSTEM. CLOCKS SHALL MATCH THE OWNER'S EXISTING SYSTEM. TYPICAL.
 - E321 PROVIDE LAP TIME / TIME CLOCK. SEE SPECIFICATION SECTION 275241 FOR DESCRIPTION.
 - E322 PROVIDE A SINGLE DATA RACK AND PATCH PANELS AS NEEDED WITH A 6 PAIR MULTIMODE FIBER CABLE FROM ROOM 175-5 ON FIRST FLOOR NORTH WING, A 100 PAIR TELECOM BACKBONE FROM ROOM E23-5 WITH 25 PAIR EXTENDING ON TO THE PENTHOUSE. THE CABLES SHALL EXTEND THE HEIGHT OF THE ROOM PLUS 17" OF SLACK FOR THE OWNER'S USE. SEE PARTIAL PLAN ON THIS SHEET FOR LOCATION OF 25 PAIR CABLE TO BE TERMINATED BY THE OWNER.
 - E323 LOCATION OF THE 25 PAIR CABLE BEING EXTENDED TO THE PENTHOUSE FROM THE 5TH FLOOR DATA CLOSET. PROVIDE 9 CAT 6 CABLES FOR THE ELEVATOR CONTROLS FROM THE 5TH FLOOR DATA RACK AND 4 CAT 6 CABLES FROM THE 5TH FLOOR DATA RACK FOR OWNER'S FUTURE USE.

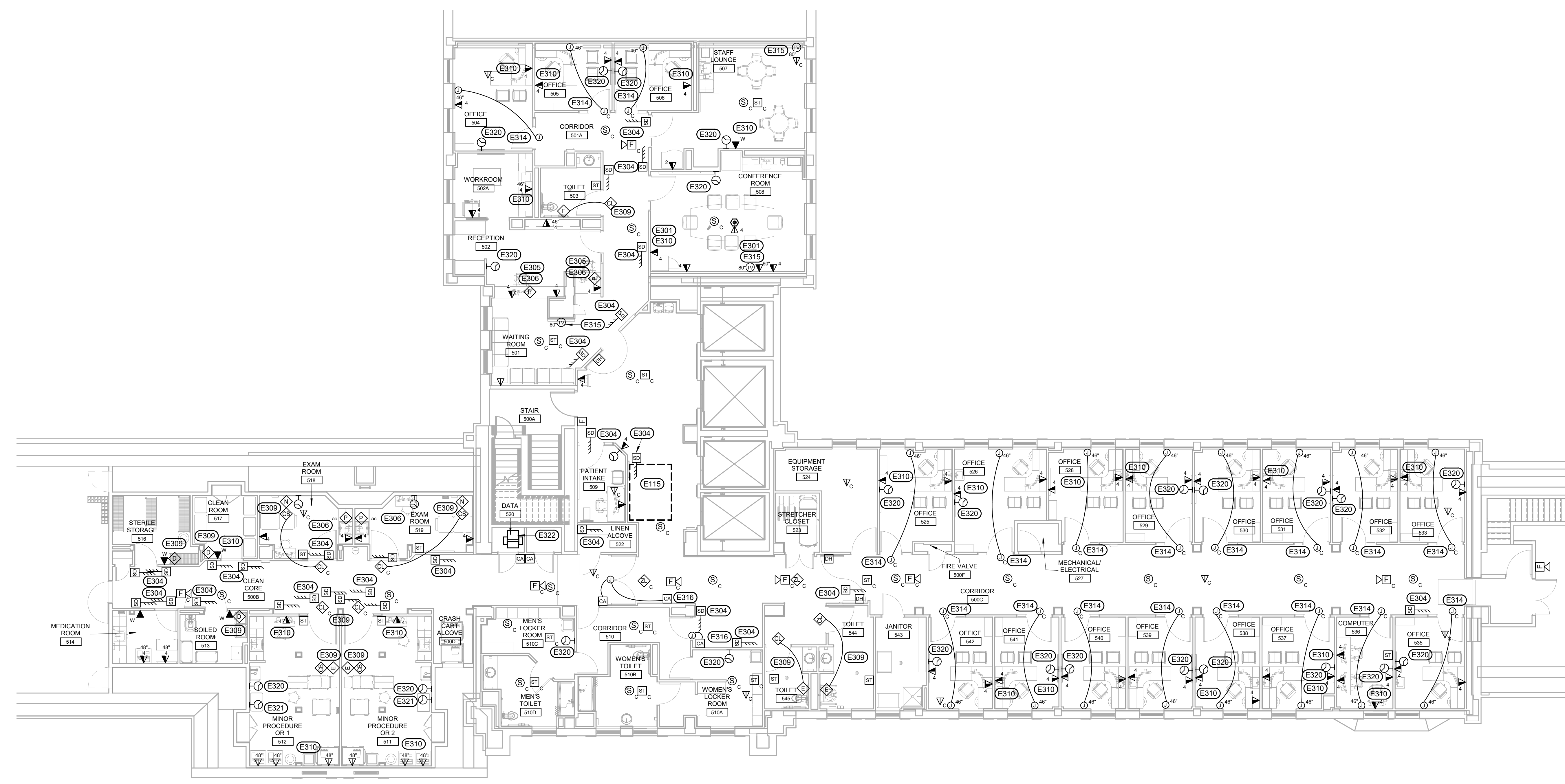
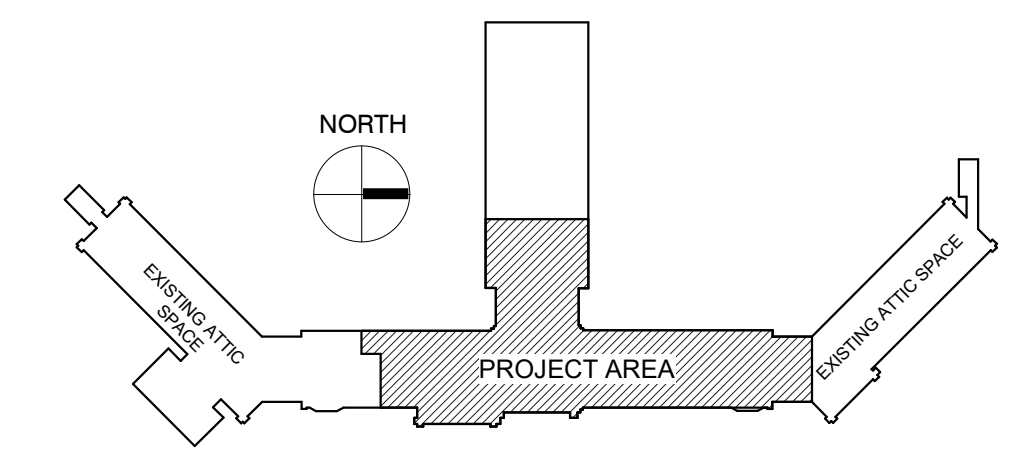


COMMUNICATIONS PLAN - PENTHOUSE
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

- A AT END OF PROJECT ALL EXISTING DATA/PHONE/TV CABLE NO LONGER UTILIZED SHALL BE REMOVED BACK TO ITS SOURCE.

KEY PLAN:



COMMUNICATIONS PLAN - FIFTH FLOOR
SCALE: 1/8" = 1'-0"

PHASING PLAN NOTE:
SEE ARCHITECTURAL PLANS FOR PHASING OF PROJECT

100% CONSTRUCTION DRAWINGS

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<p>Revisions: _____ Date _____</p>		<p>Date: OCTOBER 17, 2017 Checked: MF Drawn: GL</p>		<p>Location: SIOUX FALLS, SOUTH DAKOTA</p>	