

## UTILITY SHUTDOWNS

COORDINATE THIS WORK WITH THE COR, AND PLAN HIS WORK ACCORDINGLY.

1. THIS PROJECT WILL REQUIRE SHUT-DOWNS TO THE NORMAL POWER SYSTEM OF THE HOSPITAL, WHICH WILL REQUIRE SECOND OR THIRD SHIFT WORK, AS WELL AS WEEKEND WORK. THE CONTRACTOR SHALL

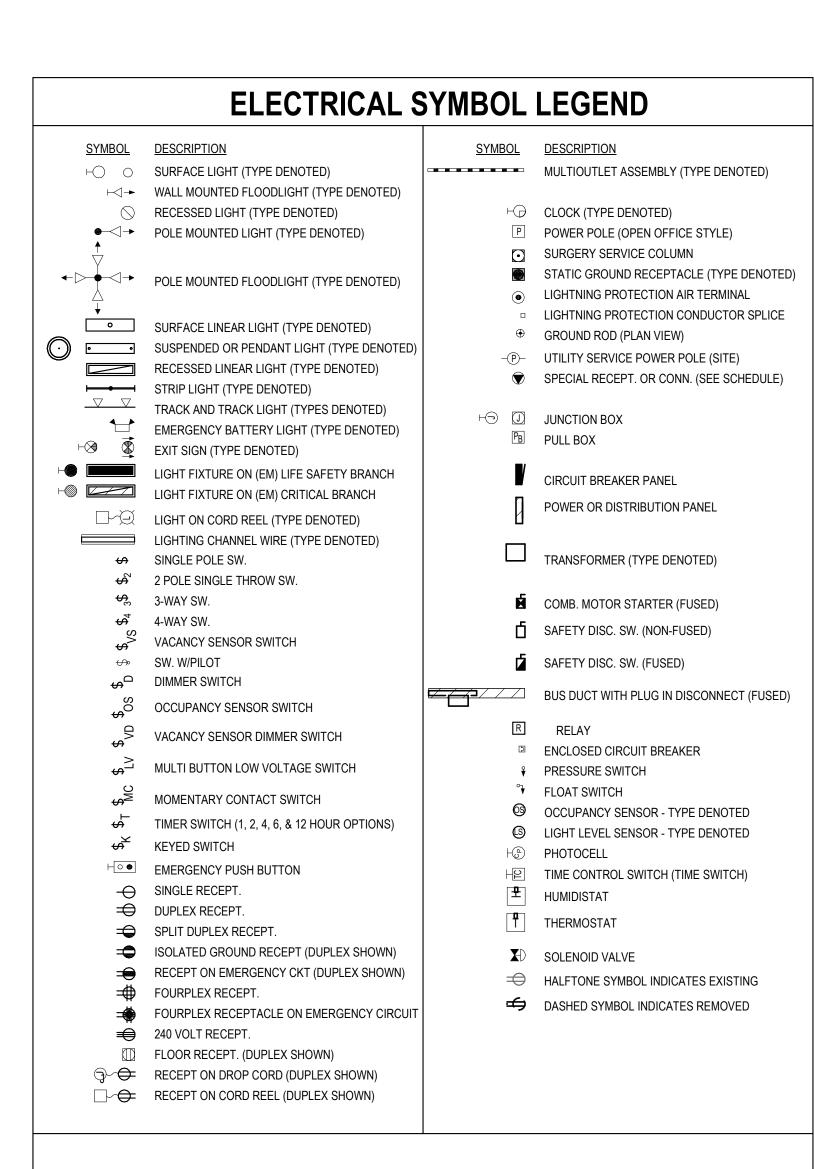
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- 2. CONTRACTOR SHALL PROVIDE A MINIMUM TWO WEEKS WRITTEN NOTICE PRIOR TO ANY SHUT DOWN. NOTICE IS TO INCLUDE BUT IS NOT LIMITED TO THE LOCATION, PANELS AND DURATION OF SHUT DOWN.
- 3. DURING ALL UTILITY SHUT-DOWNS OF THE NORMAL POWER SYSTEM, THE CONTRACTOR SHALL HAVE AN EMERGENCY GENERATOR ON SITE WITH 24 HOURS OF FUEL. THE CONTRACTOR SHALL HAVE SUITABLE TEMPORARY CABLES NEEDED TO PROVIDE EMERGENCY CONNECTIONS TO THE SWITCHGEAR IN THE EVENT
- THERE IS A PROBLEM.

  4. THE CONTRACTOR SHALL GENERATE A DETAILED METHOD OF PROCEDURE (MOP) DOCUMENT INDICATING HOW HE/SHE INTENDS TO PERFORM EACH STEP IN THE PROJECT. THIS MOP SHALL BE PRESENTED TO THE OWNER AND ENGINEER PRIOR TO STARTING THE PROJECT, FOR SIGN OFF. THE MOP MAY BE REVISED BASED ON CHANGES IN THE PROJECT CONSTRUCTION, ETC. AT ALL POINTS IN THE PROJECT THE COR SHALL BE MADE AWARE OF CHANGES TO THE MOP, AND A REVISED MOP SHALL BE PRESENTED TO THE COR AND ENGINEER

### **ELECTRICAL ABBREVIATIONS LIST** DCP DOMESTIC WATER CIRCULATING PUMP HT SWBD SWITCHBOARD HTG DEPT DEPARTMENT HEATING MANUFACTURER'S ASSOCIATION SYM SYMMETRICAL NFDS NON-FUSED SAFETY ABOVE COUNTER OR AIR DFTAII HTR HEATER SYSTEM DIAMETER HIGH VOLTAGE DISCONNECT SWITCH TELEPHONE ABOVE CEILING DISCONNECT HVAC HEATING, VENTILATING AND NOT IN CONTRACT TERM TERMINAL AIR CONDITIONING TWIST LOCK AUTOMATIC DOOR OPENER DISTRIBUTION NIGHT LIGHT HYDRONIC WATER PUMP TAMPER RESISTANT NORMALLY OPEN INTERRUPTING CAPACITY T-STAT THERMOSTAT ABOVE FINISHED FLOOR DAMPER NORMAL POWER FACTOR SAFETY DISCONNECT SWITCH TTC TELEPHONE TERMINAL CABINET ABOVE FINISHED GRADE ISOLATED GROUND NTS NOT TO SCALE INTERMEDIATE METAL CONDUIT DOUBLE THROW TELEVISION AIR HANDLING UNIT INCAND INCANDESCENT OVERLOADS TVTC TELEVISION TERMINAL CABINET ELECTRICAL CONTRACTOR PUBLIC ADDRESS ALUMINUM TYPICAL INFRARED PULL BOX OR PUSHBUTTON UNDER COUNTER ALTERNATE ELECTRIC, ELECTRICAL INTERLOCK WITH ELEVATOR J-BOX JUNCTION BOX PNEUMATIC ELECTRIC UNDERGROUND ELECTRICAL AMPL **EMERGENCY** KILOVOLT UNDERGROUND AMPI IFIFR PEDESTAL UNIT HEATER ANNUN ANNUNCIATOR ENERGY MANAGEMENT SYSTEM KVA KILOVOLT-AMPERE POWER FACTOR KVAR KILOVOLT-AMPERE REACTIVE APPROX APPROXIMATELY ELECTRICAL METALLIC TUBING UNDERGROUND TELEPHONE AQ-STAT AQUASTAT FLECTRIC PNEUMATIC KW KILOWATT POST INDICATING VALVE UTILITY ARCH ARCHITECT, ARCHITECTURAL KWH KILOWATT HOUR UNIT VENTILATOR OR ULTRAVIOLET FOUIP FOUIPMENT AMP SWITCH ELECTRIC WATER COOLER LOC LOCATE OR LOCATION POWER POLE VOLT AMP TRIP EXIST EXISTING VOLT-AMPERES LIGHT ATS AUTOMATIC TRANSFER SWITCH EXH FXHAUST LTG LIGHTING VIDEO DISPLAY TERMINAL AUTO AUTOMATIC EXPLOSION PROOF LTNG LIGHTNING PROJ PROJECTION VERT VERTICAL AUX AUXILIARY FIRE ALARM LOW VOLTAGE POWER ROOF VENTILATOR VFD VARIABLE FREQUENCY DRIVE AUDIO VISUAL POTENTIAL TRANSFORMER FABP FIRE ALARM BOOSTER POWER MAXIMUM VOL VOLUME AMERICAN WIRE GAUGE MAG.S MAGNETIC STARTER PVC POLYVINYL CHLORIDE (CONDUIT) W WATT BATT BATTERY FACP FIRE ALARM CONTROL PANEL MOMENTARY CONTACT WITH WIRE GUARD BD BOARD FCU FAN COIL UNIT MECHANICAL CONTRACTOR QUAN QUANTITY WATER HEATER BLDG BUILDING FIXTURE MAIN CIRCUIT BREAKER RCPT RECEPTACLE BMS BUILDING MANAGEMENT SYSTEM FLR FLOOR MOTOR CONTROL CENTER REQD REQUIRED W/O WITHOUT WP WEATHERPROOF CONDUIT FLUOR FLUORESCENT MAIN DISTRIBUTION CENTER ROOM MDP MAIN DISTRIBUTION PANEL RSC RIGID STEEL CONDUIT CAB CABINET FUSE XFMR TRANSFORMER CATALOG FUDS FUSED SAFETY DISCONNECT SWITCH MFR MANUFACTURER RTU ROOF TOP UNIT XFR TRANSFER CATV CABLE TELEVISION GAUGE MAIN FUSED DISCONNECT SWITCH SC SURFACE CONDUIT CIRCUIT BREAKER GALLON MANHOLE FEET SECONDARY CCTV CLOSED CIRCUIT TELEVISION GALV GALVANIZED MICROPHONE INCHES CKT NUMBER CIRCUIT GENERAL CONTRACTOR MINIMUM SIMILAR CLG MISC MISCELLANEOUS SOLID NEUTRAI CFII ING GENERATOR PHASE COMB COMBINATION GROUND FAULT CIRCUIT SPEC SPECIFICATION CENTER LINE MAIN LUGS ONLY CMPR COMPRESSOR INTERRUPTER MANUAL MOTOR STARTER SPKR SPEAKER PLATE GROUND FAULT PROTECTOR CONN CONNECTION MOA MULTIOUTLET ASSEMBLY SPARE CONSTRUCTION GROUND MOTOR STARTER PANELBOARD SURFACE RACEWAY CONT CONTINUATION OR CONTINUOUS GRS GALVANIZED RIGID STEEL (CONDUIT) MSBD MAIN SWITCHBOARD STAINLESS STEEL SELECTOR SWITCH CONTR CONTRACTOR GYP BD GYPSUM BOARD MOUNT STOP/START PUSHBUTTONS CONV CONVECTOR HOA HANDS-OFF-AUTOMATIC SWITCH MT.C EMPTY CONDUIT CIRCULATING PUMP HORIZ HORIZONTAL MANUAL TRANSFER SWITCH STA STATION STD STANDARD CATHODE-RAY TUBE MTR MOTOR, MOTORIZED HP HORSEPOWER HPF HIGH POWER FACTOR SURF SURFACE MOUNTED CURRENT TRANSFORMER NORMALLY CLOSED CTR CENTER NEC NATIONAL ELECTRICAL CODE SW SWITCH



### **ELECTRICAL GENERAL NOTES**

- 1 THE FOLLOWING GENERAL NOTES AS LISTED BELOW SHALL APPLY TO ALL ELECTRICAL REQUIREMENTS AS INDICATED ON ALL 'E' SERIES CONTRACT
- 2 THE CONTRACTOR IS RESPONSIBLE FOR THE ENTIRE DOCUMENT SET. I.E. IF WORK IS SHOWN ON OTHER DRAWINGS AS "BY CONTRACTOR" THE CONTRACTOR
- 3 DRAWINGS FOR THIS WORK ARE DIAGRAMMATIC AND INTENDED TO CONVEY THE EXTENT, GENERAL ARRANGEMENT AND LOCATIONS OF THE WORK. BECAUSE OF THE SCALE OF THE DRAWINGS, CERTAIN BASIC ITEMS SUCH AS ACCESS PANELS, CONDUITS, CABINET SIZES, PENETRATION SLEEVES, PULL BOXES, BACKBOXES AND JUNCTION BOXES MAY NOT BE SHOWN. INCLUDE ALL ITEMS WHERE REQUIRED BY CODE, MANUFACTURER AND RELATED SPECIFICATION SECTIONS FOR THE PROPER INSTALLATION OF ALL WORK.
- 4 DUE TO SCALE OF THE DRAWINGS, ALL ELECTRICAL DEVICE SYMBOLS ARE SHOWN ON DRAWINGS AS CLOSE AS POSSIBLE TO THEIR INTENDED LOCATION. CONTRACTOR SHALL COORDINATE IN THE FIELD THE PROPER INSTALLATION OF ALL EQUIPMENT, DEVICES, CONTROLS AND CONDUITS. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL REQUIREMENTS.
- 5 COORDINATE WITH ALL TRADES AND SYSTEM INTEGRATORS ANY CONDITIONS RELATED TO THE INSTALLATION OF ALL SYSTEMS. THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE TRADE ALL INSTALLATION REQUIREMENTS IMPACTING THE PLACEMENT OF ALL SYSTEM COMPONENTS TO THE SATISFACTION OF ALL CONCERNED TRADES.
- 6 COORDINATE EXACT LOCATION(S) OF ALL DATA AND TELEPHONE OUTLETS, ELECTRICAL RECEPTACLES WITH THE ARCHITECTURAL PLANS, FURNITURE PLANS AND ALL AFFECTED TRADES PRIOR TO INSTALLATION.
- 7 ALL CONDUITS SHALL BE SIZED AND INSTALLED IN ACCORDANCE WITH NFPA 70 AND PROJECT SPECIFICATIONS. ALL CONDUITS SHALL BE A MINIMUM OF 3/4" UNLESS OTHERWISE NOTED.
- 8 PROVIDE ALL EQUIPMENT CLEARANCES IN ACCORDANCE WITH NEC REQUIREMENTS. ARRANGE EQUIPMENT TO FACILITATE UNRESTRICTED ACCESS FOR MAINTENANCE AND SERVICE AROUND ALL EQUIPMENT, COMPONENTS AND/OR CABLE TERMINATIONS.
- 9 WHERE EQUIPMENT AND/OR JUNCTION BOXES ARE INSTALLED ABOVE FINISHED CEILINGS, THE CONTRACTOR SHALL PROVIDE ACCESS HATCHES LISTED FOR

THE INTENDED APPLICATION. ACCESS HATCHES SHALL BE LOCATED SO THAT SERVICE ACCESS TO THE EQUIPMENT AND/OR JUNCTION BOXES IS UNIMPEDED.

- 10 ALL PENETRATIONS OF WALLS AND/OR FLOORS SHALL BE FIRE STOPPED IN ACCORDANCE WITH THE ASTM AND NFPA REQUIREMENTS. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION. INSTALLATION OF FIRE-STOPS SHALL BE PERFORMED BY APPLICATOR/INSTALLER QUALIFIED AND TRAINED BY THE MANUFACTURER. INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH MANUFACTURER'S DETAILED INSTALLATION
- 11 ALL EQUIPMENT ENCLOSURES LOCATED OUTSIDE OR IN ALL AREAS WITH HIGH MOISTURE OR A RELATIVE HUMIDITY OF 75% OR GREATER SHALL BE NEMA 4X STAINLESS STEEL AND RATED FOR THAT APPLICATION.
- 12 ALL DEVICES, COMPONENTS OR EQUIPMENT INSTALLED ON THE EXTERIOR OF THE FACILITY SHALL BE PROVIDED IN ACCORDANCE WITH ALL MANUFACTURERS' REQUIREMENTS TO ENSURE THE PROPER OPERATION WHEN EXPOSED TO THE ENVIRONMENTAL CONDITIONS AND/OR AVERAGE ANNUAL LOWEST TEMPERATURE THAT CAN BE ANTICIPATED FOR THE GEOGRAPHIC REGION OF THE FACILITY.
- 13 ALL INTERIOR AND/OR EXTERIOR COMPONENTS, DEVICES OR SYSTEMS EQUIPMENT EXPOSED TO THE GENERAL POPULATION SHALL BE INSTALLED IN SECURED EQUIPMENT ENCLOSURES WITH TAMPER SWITCHES AND INSTALLED IN SUCH A MANNER THAT RESISTS TAMPERING AND/OR REMOVAL WITHOUT THE USE OF SPECIALIZED TOOLS.
- 14 FOR EQUIPMENT INSTALLATIONS REQUIRING COORDINATION WITH OTHER TRADES THE CONTRACTOR SHALL PROVIDE ALL TEMPLATES, BACKBOXES AND EQUIPMENT ANCHOR BOLTS FOR MOUNTING OR FLUSH MOUNTING PREPARATION, (E.G. PEDESTALS OR OTHER DEVICES REQUIRING MOUNTING ON WALLS, CONCRETE PADS OR OTHER MATERIALS). COORDINATE DELIVERY OF TEMPLATES AND EQUIPMENT WITH ALL AFFECTED CONTRACTORS.
- 15 ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (LATEST VERSION BEING ENFORCED), AND ALL OTHER APPLICABLE CODES AND STANDARDS BEING ENFORCED BY THE AUTHORITY HAVING JURISDICTION.
- 16 THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS OR INSTRUCTIONS FOR CONSTRUCTION SAFETY. THE ENGINEER ASSUMES NO
- NECESSITY TO WORK ON ENERGIZED ELECTRICAL COMPONENTS. FURTHER, NO SUPERINTENDENCE IS INCLUDED OR IMPLIED.

17 ALL SYSTEMS AND EQUIPMENT SHALL BE INSTALLED AND WIRED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

18 ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES, AND EQUIPMENT SHALL BE TESTED AND LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY.

RESPONSIBILITY FOR ANY WORKMAN'S OR TRANSIENT'S SAFETY, OR FOR THE ADEQUACY OF EQUIPMENT, BUILDING COMPONENTS, WORK AIDS, OR ANY

- 19 THE CONTRACTOR SHALL COORDINATE CONDUIT ROUTING (PLAN AND ELEVATION) WITH THE LIGHTING, CEILING ELEVATION, STRUCTURE, DUCTWORK,
- PIPING, ETC. REQUIRED FOR THE COMPLETION OF THE PROJECT, PRIOR TO INSTALLATION.

  20 THE CONTRACTOR SHALL SECURE AND PROTECT THE BUILDING AND/OR WORK AREA WITH FIRE RETARDANT TEMPORARY PLYWOOD PARTITIONS (WITH

LOCKING DOORS), ETC. CLOSE ALL OPENINGS AS REQUIRED. COORDINATE THIS WORK WITH THE OWNERS REPRESENTATIVE PRIOR TO STARTING. IF

TEMPORARY PARTITIONS IMPEDE THE FLOW OF EGRESS TO REQUIRED EGRESS DOORS AND STAIRS, THE CONTRACTOR SHALL PROVIDE EXIT SIGNS, AND

- 21 THE CONTRACTOR SHALL CAULK ALL JOINTS BETWEEN METAL FRAMES. THIS APPLIES TO BOTH INTERIOR AND EXTERIOR INSTALLATIONS.
- 22 THE DIMENSIONS SHOWN ON THE DRAWINGS ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO PERFORMING ANY WORK.
- 23 THE CONTRACTOR SHALL INSTALL ALL CONDUITS CONCEALED UNLESS NOTED OTHERWISE. EXPOSED CONDUIT SHALL ONLY BE INSTALLED IN CHASES, EXPOSED CEILING AREAS, JANITOR CLOSETS, AND MECHANICAL/ELECTRICAL ROOMS. EXPOSED CONDUIT INSTALLATION IS ACCEPTABLE IN ROOMS OR AREAS WITH EXPOSED CEILINGS. CONCEALED CONDUITS ARE REQUIRED IN ALL ROOMS WITH ACT OR DRYWALL CEILINGS.
- 24 ALL ELECTRICAL EQUIPMENT SHALL BE GROUNDED AND/OR BONDED PER THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE. PROVIDE ALL GROUNDING AND/OR BONDING COMPONENTS NOT EXPLICITLY SHOWN ON THE DOCUMENTS.
- 25 THE CONTRACTOR SHALL PROVIDE TYPEWRITTEN PANELBOARD DIRECTORIES, INDICATING THE LOADS SERVED BY THE RESPECTIVE PANELS. AMEND AS
- REQUIRED FOR AS-BUILT CONDITIONS. PROVIDE ELECTRONIC VERSIONS OF THE PANELBOARD SCHEDULES FOR FUTURE USE TO THE OWNER.

  THE CONTRACTOR SHALL REVIEW THE WORK REQUIRED WITH THE APPLICABLE LITHLITY COMPANIES SERVING THE PROJECT. ALL WORK PERFORMED SHALL
- 26 THE CONTRACTOR SHALL REVIEW THE WORK REQUIRED WITH THE APPLICABLE UTILITY COMPANIES SERVING THE PROJECT. ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE INDIVIDUAL UTILITY COMPANIES.
- 27 THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE OWNER PRIOR TO STARTING ALL PHASES OF THE PROJECT. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER WHAT WORK, IF ANY, HAS TO BE COMPLETED DURING SECOND OR THIRD SHIFT.
- 28 THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY POWER CONNECTIONS TO KEEP AREAS UP AND OPERATIONAL DURING THE CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THESE REQUIREMENTS WITH THE OWNER.
- 29 THE VERBIAGE ON THE DRAWINGS INDICATING TYPES OF MATERIALS TO BE ENCOUNTERED IS INTENDED TO AID THE ELECTRICAL CONTRACTOR IN
- MATERIALS REQUIRED TO COMPLETE THE PROJECT.

  30 THE LOCATIONS OF UTILITIES, STRUCTURE AND OTHER CONDITIONS SHOWN ON THE PLANS ARE APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE

UNDERSTANDING THE VARIOUS CONDITIONS LIKELY TO BE ENCOUNTERED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING QUANTITIES OF

- CONTRACTOR TO COORDINATE WITH THE UTILITY PROVIDERS AND REPORT ANY DISCREPANCIES TO THE REPRESENTATIVE PRIOR TO BEGINNING ANY WORK.
- 31 THE CONTRACTOR SHALL PROVIDE ALL OPENINGS IN PARTITIONS, EXTERIOR WALLS, FLOORS, AND ROOFS FOR THE INSTALLATION OF ANY ELECTRICAL WORK. FURNISH AND INSTALL ALL REQUIRED LINTELS AND SLEEVES FOR THIS WORK. ALL CONDUITS SHALL HAVE SLEEVES INSTALLED. ALL SLEEVES INSTALLED THROUGH EXTERIOR WALLS SHALL HAVE LINK SEALS INSTALLED.
- INSTALLED THROUGH EXTERIOR WALLS SHALL HAVE LINK SEALS INSTALLED.
- REPLACED BY THE CONTRACTOR TO MATCH THE ADJACENT FINISH.

32 THE CONTRACTOR SHALL PROTECT ALL MATERIALS THAT ARE TO REMAIN IN PLACE FROM DAMAGE. ANY DAMAGE TO FINISHES, MATERIALS, ETC., SHALL BE

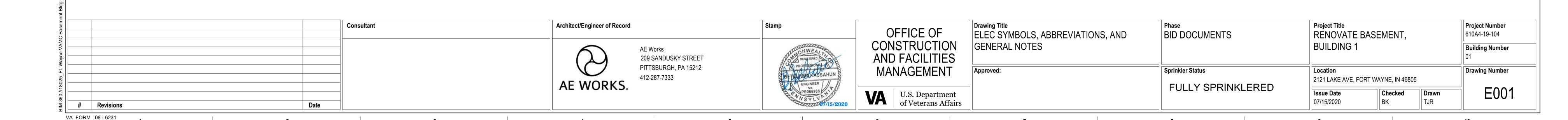
- 33 THE CONTRACTOR SHALL MAINTAIN THE BUILDING IN WEATHERTIGHT AND WATERPROOF CONDITION THROUGHOUT THE DURATION OF THEIR WORK. DO NOT LEAVE HOLES THROUGH WALLS AND/OR ROOFS OPEN TO THE ELEMENTS WHEN NO WORK IS OCCURRING IN THOSE AREAS.
- PROVIDE ALL JUNCTION BOXES, PULL BOXES AND OTHER PULL POINTS AS REQUIRED TO MEET THE MAXIMUM NUMBER OF BENDS PER NEC REQUIREMENTS. NOT ALL CONDUITS, PULL BOXES AND OTHER RACEWAY ITEMS ARE INDICATED ON THE DOCUMENTS. THE CONTRACTOR SHALL PROVIDE A COMPLETE RACEWAY SYSTEM MEETING THE REQUIREMENTS OUTLINED IN THE DRAWINGS AND SPECIFICATIONS.
- 35 DISTRIBUTION EQUIPMENT SHALL BE AIC RATED, AND ANY CIRCUIT BREAKERS SELECTED AND SET BASED ON THE OUTCOME OF THE CONTRACTORS OVERCURRENT PROTECTIVE DEVICE COODINATION STUDY. STUDY SHALL INCLUDE ALL ELEMENTS OF THE DISTRIBUTION SYSTEM REQUIRED TO ACCURATELY SIZE AND RATE THE EQUIPMENT ADDED AS PART OF THIS PROJECT.
- 36 ARC FLASH LABELS SHALL BE PROVIDED TO ALL EQUIPMENT BASED ON THE OUTCOME OF THE CONTRACTORS ARC FLASH STUDY (SEE NOTE 35 ABOVE FOR ADDITIONAL STUDY REQUIREMENTS). ANY EQUIPMENT MODIFIED AS PART OF THIS PROJECT SHALL ALSO BE INCLUDED IN THE ARC FLASH STUDY, AND RE
- LABELLED AS REQUIRED.

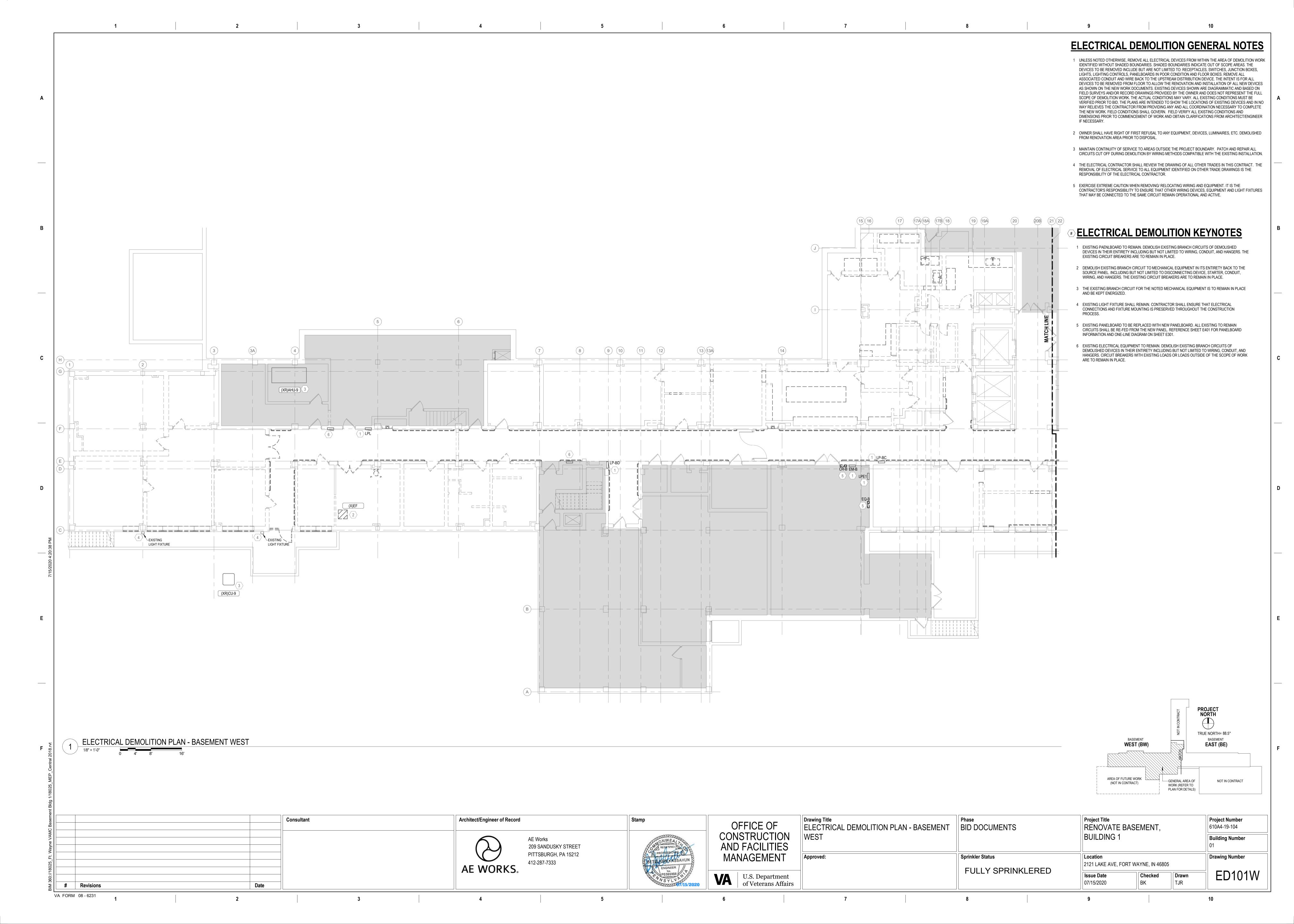
  37 THESE DRAWINGS DO NOT INDICATE ALL CONDUITS INTERCONNECTING EQUIPMENT, AND WHERE CONDUITS ARE INDICATED, THE ROUTING IS APPROXIMATE.
- 38 PROVIDE ALL JUNCTION BOXES AND OTHER PULL POINTS AS REQUIRED FOR EASE OF PULLING AND A CODE COMPLIANT INSTALLATION. ALL JUNCTION BOXES

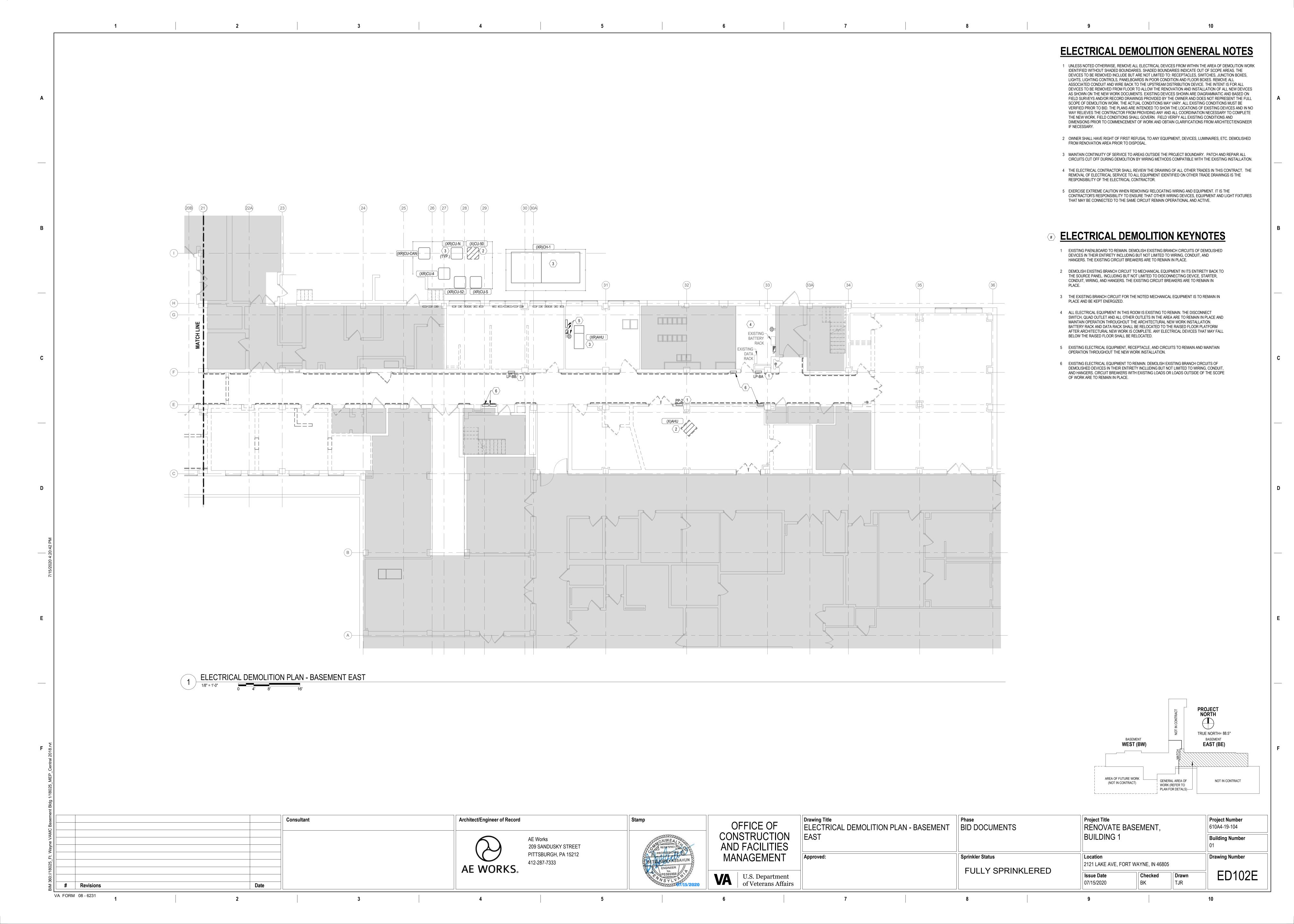
THE CONTRACTOR IS RESPONSIBLE FOR THE ROUTING AND INSTALLATION OF ALL CONDUIT IN COORDINATION WITH OTHER TRADES AND FIELD CONDITIONS.

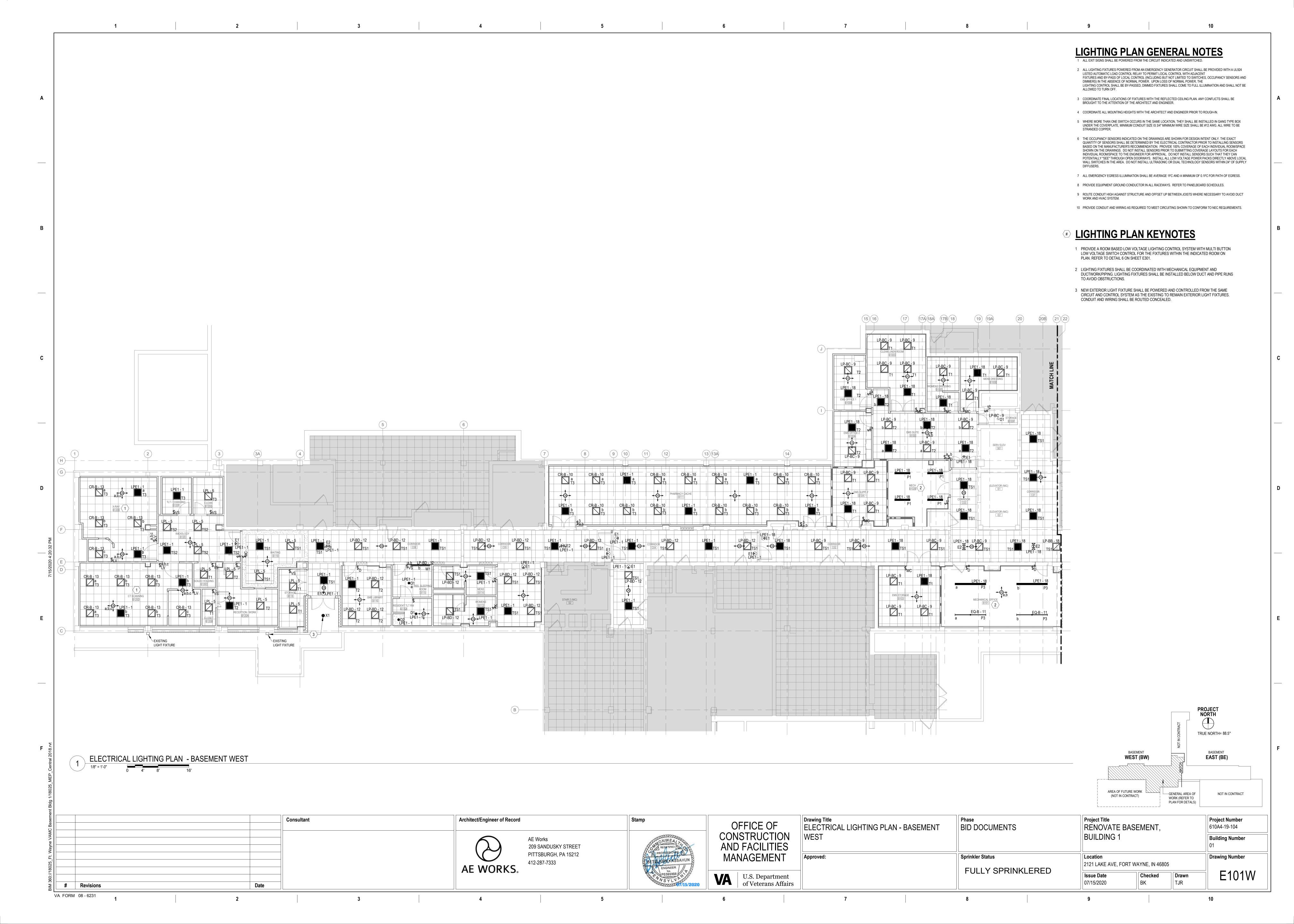
- AND OTHER PULL POINTS SHALL BE ACCESSIBLE

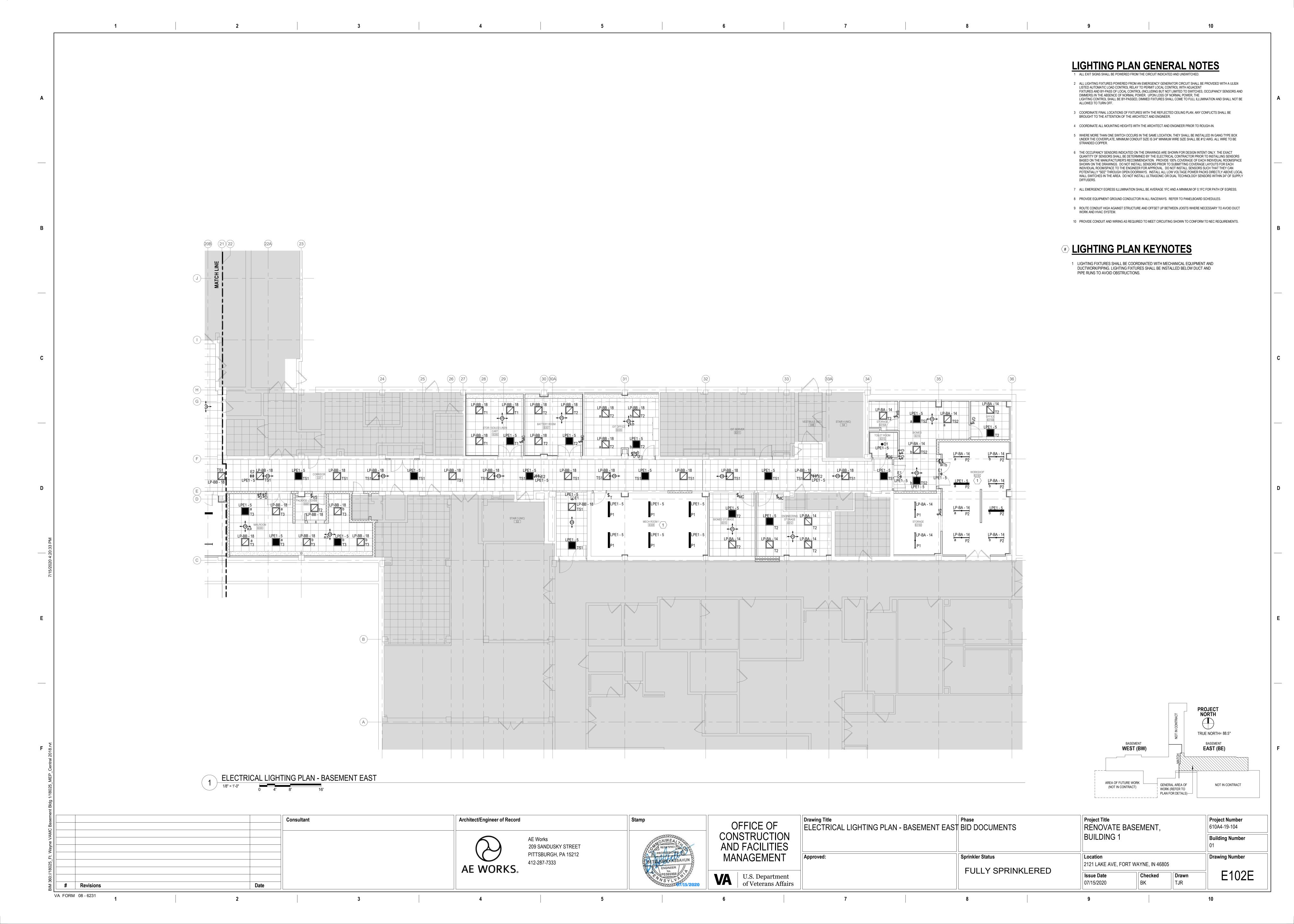
  MULTIWIPE RPANCH CIRCUITS ARE NOT PERMITTED, ALL SINGLE POLE RRANCH CIRCUITS SHALL HAVE A DEDICATED NEUTRAL AND GROUNT
- 39 MULTIWIRE BRANCH CIRCUITS ARE NOT PERMITTED, ALL SINGLE POLE BRANCH CIRCUITS SHALL HAVE A DEDICATED NEUTRAL AND GROUND.
- 40 MULTIPLE SMALL 20A/1P BRANCH CIRCUITS MAY SHARE A SINGLE CONDUIT PROVIDED THE CONTRACTOR UPSIZES THE CONDUIT AS REQUIRED, AND THE AMPACITY ADJUSTMENTS FROM TABLE 310.15(B)(3)(a) HAVE BEEN APPLIED.

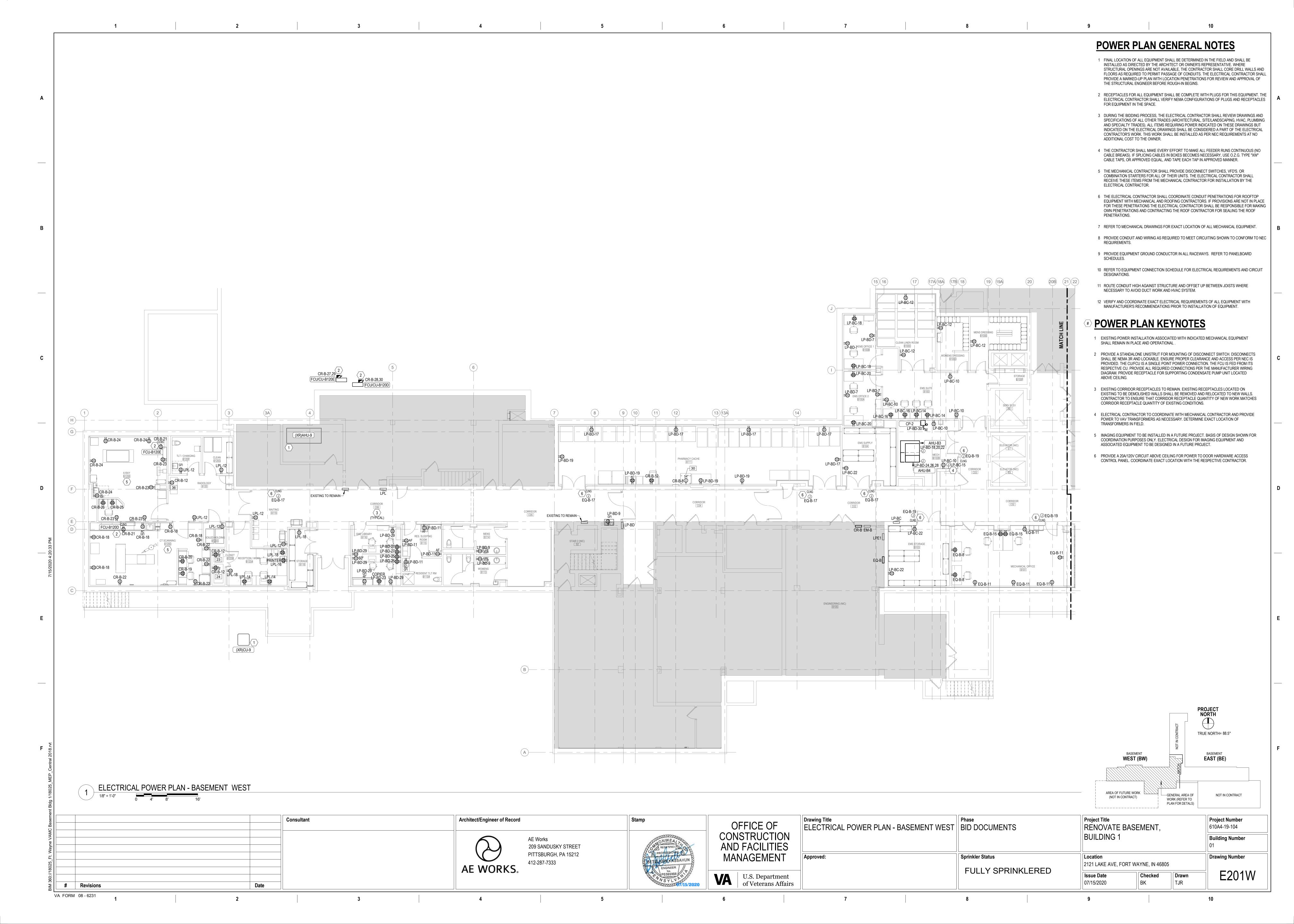


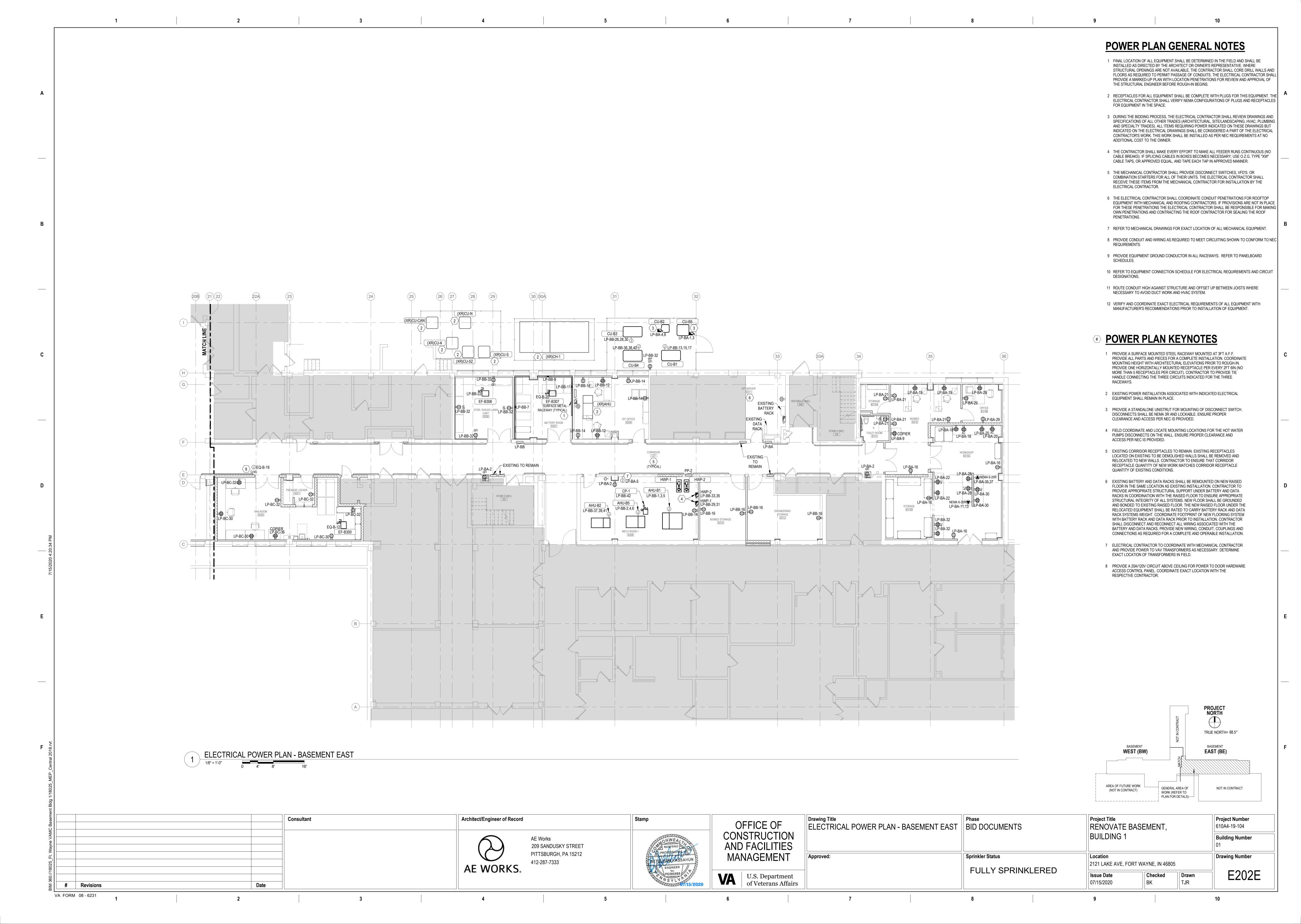


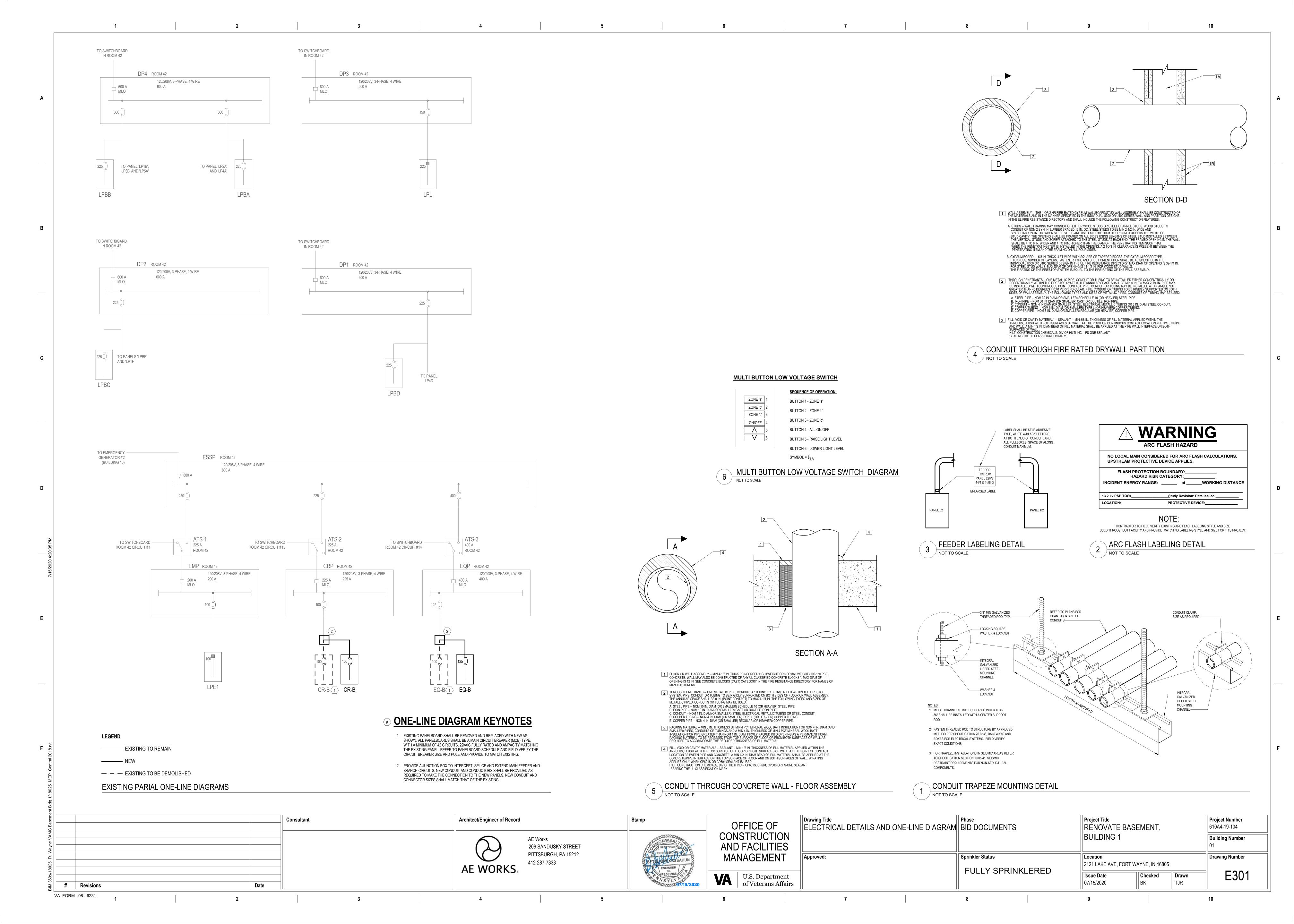












	RATINGS: 208Y/120 BUS RATING: 225 AMPS A.I.C. RATING EXISTING					TYPE: ATING:	MCB 225.0 A					LOCATION: CORRIDOR C04 FED FROM: MOUNTING: RECESSED	
KT	CIRCUIT		AKER				(KVA)			BREA		CIRCUIT	CKT
NO	DESCRIPTION	P	TRIP		4		3			TRIP	Р	DESCRIPTION	NO
1	SPACE			0.00	0.00	2.00	0.00					SPACE	2
3	SPACE					0.00	0.00	0.00	0.00			SPACE	4
5	SPACE			0.70	0.00			0.00	0.00			SPACE	6
7	RCPT - RMS B100A, B100B, B104	1	20.0 A	0.72	0.00	0.54	4.00			20.0 A	1	SPARE	8
9	RCPT - B113, B114, C05 FOUNTAIN	1	20.0 A			0.54	1.00	0.70	0.40	20.0 A	1	EXISTING LTG - BUG LIGHT	10
11	***RCPT RMS B115, B115A	1	20.0 A	4.00	4.00			0.72	0.42	20.0 A	1	LTG - RMS B113-B116, C04-C06	12
13	EXISTING LTG - 1-G 1-H	1	20.0 A	1.00	1.00	4.00	4.00			20.0 A	1	EXISTING LTG - BIOMED FILE RM	14
15	EXISTING RCPT - ROOM 39	1	20.0 A			1.00	1.00	0.00	4.70	20.0 A	1	EXISTING RCPT - FIRE PUMP ROOM	16
17	RCPT - RM B111 PHARMACY CACHE	1	20.0 A	0.00	4.70			0.90	1.78	0000	_	FORT MEGU BOOM BAOOR AUTUR	18
19	RCPT - RM B111 PHARMACY CACHE	1	20.0 A	0.90	1.78	4.00	4.70			20.0 A	3	EQPT - MECH ROOM B102B AHU B3	20
	EXISTING RCPT - IV RM EAST WALL	1	20.0 A			1.00	1.78	4.50	0.44				22
23	RCPT - RM B116 COPIER	1	20.0 A	0.70	0.44			1.58	0.44	0000	2	FORT MECH PMO PAGOR ALILLEA	24
25	RCPT - RM B116	1	20.0 A	0.72	0.44	0.70	0.44			20.0 A	3	EQPT - MECH RMS B102B AHU B4	26
27	RCPT - RM B116	1	20.0 A			0.72	0.44	0.00	0.00	20.0.4	4	FORT MECH PAGE OF S	28
29	RCPT - RM B116	1	20.0 A	0.00	1.00			0.90	0.86	20.0 A	1	EQPT - MECH B102B CP-2	30
31	SPARE	1	20.0 A	0.00	1.00	0.00	4.00			20.0 A	2	EXISTING HEATER - PHARMACY CACHE	32 34
33 35	SPARE SPARE	'	20.0 A			0.00	1.00	0.00	1.00				
	SPACE	1	20.0 A	0.00	1.00			0.00	1.00	20.0 A	2	EXISTING HEATER - PHARMACY CACHE	36 38
				0.00	1.00	0.00	4.00						
39	SPACE					0.00	1.00	0.00	4.00	20.0 A	2	EXISTING HEATER - PHARMACY CACHE	40
41	SPACE			_			<u> </u>	0.00	1.00	OONNE	OTED	LOADIDHAOF (IOVA)	42
NI.	OTEC.				.3		.3	9.		-		LOAD/PHASE (KVA)	
N	<u>DTES:</u>											LOAD/PHASE (A)	
												NECTED LOAD (AVA)	
**	PROVIDE CIRCUIT WITH ARC FAULT CIRCUIT	DDEAK	ED.					1/				NECTED LOAD (A) AND FACTOR	
	PROVIDE CIRCUIT WITH ARC FAULT CIRCUIT	DKEAN	Ξ <b>r</b>					10					
27.3 :TOTAL DEMAND LOAD (KVA) 75.7 :TOTAL DEMAND LOAD (A)													

	RATINGS: 208Y/120 BUS RATING: 225 AMPS A.I.C. RATING EXISTING					TYPE: ATING:		١				LOCATION: CORRIDOR-2 C07-2 FED FROM: MOUNTING: RECESSED	
CKT	I .		AKER			LOAD				BREA		CIRCUIT	CKT
NO	DESCRIPTION	P	TRIP		Α	E	3	(	;	TRIP	Р	DESCRIPTION	NO
3	EQPT - CU-B5 OUTSIDE	2	30.0 A	1.99	0.54	1.99	1.01			20.0 A 25.0 A	1 	RCPT - CORRIDOR C07 & MECH RM B308  EQPT - CU-B2 OUTSIDE	4
5	JBOX - MECH ROOM B308	1	20.0 A					0.50	1.01	25.0 A	2	EQPT - CU-B2 OUTSIDE	6
7	EXISTING - ROOM B316	1	20.0 A	1.00	1.00					20.0 A	1	EXISTING - WAREHOUSE	8
9	RCPT - BIOMED B316 COPIER	1	20.0 A			1.58	1.00			20.0 A	1	EXISTING LTG - ROOM 50	10
11	CDECIAL DODE WORKSHOP B2460	2	20.0.4					1.04	1.00	20.0 A	1	EXISTING LTG - ROOM 50	12
13	SPECIAL RCPT - WORKSHOP B316C	2	20.0 A	1.04	0.61					20.0 A	1	LTG - B310, B312, B316, B316A-B316D	14
15	EXISTING WAREHOUSE FAN	1	20.0 A			1.00	0.72			20.0 A	1	RCPT - RMS B310, B312, B316D	16
17	EXISTING LTG - ROOM 52	1	20.0 A					1.00	0.72	20.0 A	1	RCPT - WORKSHOP B316C	18
19	RCPT - BIOMED B316	20.0 A	0.72	0.72					20.0 A	1	RCPT - WORKSHOP B316C	20	
21	PT - RMS B315, B316, B316A 1 20.0					0.90	0.72			20.0 A	1	RCPT - WORKSHOP B316C	22
23	EXISTING LTG - WAREHOUSE	1	20.0 A					1.00	1.00	20.0 A	1	EXISTING RCPT	24
25	EXISTING LTG - WAREHOUSE	1	20.0 A	1.00	1.00					20.0 A	1	EXISTING - WAREHOUSE	26
27	EXISTING LTG - WAREHOUSE	1	20.0 A			1.00	0.72			20.0 A	1	RCPT - WORKSHOP 316C	28
29	RCPT - OFFICE B316B	1	20.0 A					0.72	0.72	20.0 A	1	RCPT - WORKSHOP 316C	30
31	RCPT	1	20.0 A	1.00	0.72					20.0 A	1	RCPT - WORKSHOP 316C	32
33	EXISTING ALARM SYSTEM	1	20.0 A			1.00	1.00			20.0 A	1	EXISTING RCPT - ROOM 53	34
35	SPECIAL RCPT - WORKSHOP B316C	2	20.0 A					1.04	1.00	20.0 A	1	EXISTING RCPT - ROOM 53	36
37	SPECIAL NOFT - WORKSHOP B3100		20.0 A	1.04	1.00					20.0 A	1	EXISTING RCPT - ROOM 53	38
39	EXISTING RCPT - ROOM 50	1	20.0 A			1.00	1.00			20.0 A	1	EXISTING RCPT - ROOM 50	40
41	EXISTING RCPT - ROOM 50	1	20.0 A					1.00	1.00	20.0 A	1	EXISTING RCPT - ROOM 50	42
-	OTES: NEW SINGLE POLE BREAKERS TO BE INSTAL SPARE MULTI-POLE BREAKERS	ACE OF		9.7	12		103	110.5 00.38% 40.0	:CONNE :TOTAL :TOTAL :TOTAL :TOTAL	CTED CONI CONI DEMA	D LOAD/PHASE (KVA) D LOAD/PHASE (A) NECTED LOAD (KVA) NECTED LOAD (A) AND FACTOR AND LOAD (KVA) AND LOAD (KVA) AND LOAD (A)		

CKT	BUS RATING: 225 AMPS A.I.C. RATING EXISTING				MAINS	S TYPE:						LOCATION: CORRIDOR C06 FED FROM: MOUNTING: RECESSED	
	CIRCUIT		EAKER				(KVA)			BREAM		CIRCUIT	CK
NO	DESCRIPTION	Р	TRIP		Α	I	В	(	;	TRIP	Р	DESCRIPTION	NC
	SPARE	1	20.0 A	0.00	0.00	4.00	4.00			20.0 A	1	SPARE	2
3	EXISTING PUMP - STAIRWELL	1	20.0 A			1.00	1.00	0.10	4.00	20.0 A	1	EXISTING RCPT	4
	LTG - RMS B118, B119, B120, B120A-B120G	1	20.0 A					0.42	1.00	20.0 A	1	EXISTING EXHAUST FAN	6
7	EXISTING - RCPT	1	20.0 A	1.00	1.00					20.0 A	1	EXISTING EXHAUST FAN	8
	EXISTING LTG - PHARMACY	1	20.0 A			1.00	1.00			20.0 A	1	RCPT	10
	SPARE	1	20.0 A					0.00	1.08	20.0 A	1	RCPT - RMS B119, B120, B120C, B120F, B120G	12
	EXISTING LTG - PHARMACY	1	20.0 A	1.00	0.72					20.0 A	1	RCPT - RM B120A	14
	EXISTING LTG - SURGICAL PACK RM	1	20.0 A			1.00	1.58			20.0 A	1	RCPT - RM B120A - PRINTER	16
	EXISTING LTG - OFFICE	1	20.0 A					1.00	0.72	20.0 A	1	RCPT - RMS B118, B120A	18
	EXISTING	1	20.0 A	1.00	1.00					20.0 A	1	EXISTING RCPT	20
	EXISTING LTG - PHARMACY	1	20.0 A			0.00	1.00			20.0 A	1	EXISTING IV HOOD - PHARMACY	22
	SPARE	1	20.0 A					0.00	0.00	20.0 A	1	SPARE	24
25				1.00	1.00								26
27	EXISTING FAN - PHARMACY	3	20.0 A			1.00	1.00			20.0 A	3	EXISTING	28
29								1.00	1.00				30
31				0.00	1.00								32
33	SPARE	3	20.0 A			0.00	1.00			20.0 A	3	EXISTING	34
35								0.00	1.00				36
37	EXISTING - RCPT	1	20.0 A	1.00	1.00								38
39	SPARE	1	20.0 A			0.00	1.00			20.0 A	3	EXISTING	40
41	SPACE							0.00	1.00				42
			-1	10	0.7	1	1.4	8.	1	:CONNE	CTE	LOAD/PHASE (KVA)	
NO	OTES:			92	2.1	98	3.7	67	`.1	:CONNE	CTE	LOAD/PHASE (A)	
						•			30.1	:TOTAL	CONI	NECTED LOAD (KVA)	
									83.6	:TOTAL	CONI	NECTED LOAD (A)	
								10				AND FACTOR	
		30.2 :TOTAL DEMAND LOAD (KVA) 83.9 :TOTAL DEMAND LOAD (A)											

	RATINGS: 208Y/120 BUS RATING: 225 AMPS A.I.C. RATING EXISTING				MAINS MCB R	TYPE: ATING:		A				LOCATION: CORRIDOR-2 C07-2 FED FROM: MOUNTING: RECESSED	
СКТ		BRI	EAKER			LOAD	(KVA)			BREA	KER	CIRCUIT	Ck
NO	DESCRIPTION	Р	TRIP		A	1	B	(	<u> </u>	TRIP	Р	DESCRIPTION	N
1 3 5	EQPT - MECH ROOM B308 AHU-B1	3	20.0 A	0.53	0.44	0.53	0.44	0.53	0.44	20.0 A	3	EQPT - MECH ROOM B308 AHU-B5	2
7	RCPT BATTERY ROOM B307	1	20.0 A	1.92	0.00			0.00	0.11	20.0 A	1	SPARE	
9	RCPT - BATTERY ROOM B307	1	20.0 A			1.92	1.00			20.0 A	1	EXISTING FAN - STAIRWELL NORTHEAST	1
11	RCPT - BATTERY ROOM B307	1	20.0 A					1.92	0.72	20.0 A	1	RCPT- OIT OFFICE RM B309	1
13				2.27	0.90					20.0 A	1	RCPT - OIT OFFICE B309	1
15	EQPT - CU-B1 OUTSIDE	3	40.0 A			2.27	0.72			20.0 A	1	RCPT - STORAGE B310, B312	1
17								2.27	0.90	20.0 A	1	LTG - B300-B301, B306-B307, B309, C07	1
19	EXISTING RCPT - MORGUE	1	20.0 A	1.00	1.00					20.0 A	1	EXISTING LTG - ENGINEERING RM	2
21	EXISTING RCPT - MORGUE	1	20.0 A			1.00	1.18			20.0 A	1	EQPT - STOR / SOILED B306 EXHAUST FAN	2:
23	EXISTING LTG & RCPT - MORGUE & OUTSIDE	1	20.0 A					1.00	1.00	20.0 A	1	EXISTING RCPT - ENGINEERING RM	2
25	SPARE	1	20.0 A	0.00	3.08								2
27	EXISTING LTG & RCPT	1	20.0 A			1.00	3.08			50.0 A	3	EQPT - CU-B3 OUTSIDE	2
29	- EQPT - MECH ROOM B308 HWP-1	2	20.0 A					1.14	3.08				3
31	EQT 1 - INECTITIOON BOOTHWI - I		20.0 A	1.14	0.90					20.0 A	1	RCPT - RM B307 & EXTERIOR NORTH WALL	3
33	EQPT - MECH ROOM B308 HWP-2	2	20.0 A			1.14	1.00			20.0 A	1	EXISTING RCPT - CORRIDOR	3
35	LGIT WESTITION BOSSTIWI 2		20.071					1.14	2.27				3
37				0.24	2.27					40.0 A	3	EQPT - CU-B4 OUTSIDE	3
39	EQPT - MECH ROOM B308 AHU B3	3	20.0 A			0.24	2.27						4
41								0.24	0.86	20.0 A		EQPT - MECH ROOM B308 CP1	4
					5.4	17			7.2	-		D LOAD/PHASE (KVA)	
<u>N</u>	OTES:			12	8.7	14	7.1	14	5.2 50.0			D LOAD/PHASE (A) NECTED LOAD (KVA)	
									138.7	:TOTAL	CON	NECTED LOAD (A)	
								1	00.86%	:TOTAL	DEM	AND FACTOR	
												AND LOAD (KVA)	
									139.9	:TOTAL	DEM	AND LOAD (A)	

	RATINGS: 208Y/120 BUS RATING: 100 AMPS A.I.C. RATING EXISTING				MAINS	TYPE:						LOCATION: ENGINEERING (NIC) B10 FED FROM: MOUNTING: SURFACE	
KT NO	CIRCUIT DESCRIPTION	BRI	TRIP		•	LOAD	(KVA)			BREA!	KER P	CIRCUIT DESCRIPTION	CK
	LTG B102B, 111, B113-116, C4-6, B119-120F	1	20.0 A	0.97	<b>A</b>		<b>)</b>	(	,	20.0 A	1	EXISTING LTG	2
	EXISTING RCPT - REAR RM	1	20.0 A	0.31	1.00	1.00	1.00			20.0 A	1	EXISTING	4
-	LTG C07, B300-301, B306-310, B312, B315-316D	1	20.0 A			1.00	1.00	0.85	1.00	20.0 A	1	EXISTING LTG	6
	EXISTING LTG - STAIR #1	1	20.0 A	1.00	1.00			0.00	1.00	20.0 A	<u>'</u>	EXISTING LTG	8
	EXISTING LTG	1	20.0 A	1.00	1.00	1.00	1.00			20.0 A	1	EXISTING LTG	10
	EXISTING LTG	1	20.0 A					1.00	1.00	20.0 A	1	EXISTING LTG	12
13	EXISTING LTG	1	20.0 A	1.00	1.00					20.0 A	1	EXISTING LTG	14
15	EXISTING LTG	1	20.0 A			1.00	0.00			20.0 A	1	SPARE	16
17	EXISTING RCPT	1	20.0 A					1.00	0.78	20.0 A	1	LTG C01-03, B101, 103, 100-100E, 102E, 104	18
19	SPARE	1	20.0 A	0.00	1.00					20.0 A	1	EXISTING	20
21	EXISTING	1	20.0 A			1.00	1.00			20.0 A	1	EXISTING LTG PANEL	22
23	EXISTING	1	20.0 A					1.00	1.00	20.0 A	1	EXISTING LTG PANEL	24
25	EXISTING	1	20.0 A	1.00	0.00					20.0 A	1	SPARE	26
27	SPARE	1	20.0 A			0.00	0.00			20.0 A	1	SPARE	28
29	SPARE	1	20.0 A					0.00	0.00	20.0 A	1	SPARE	30
31	SPARE	1	20.0 A	0.00	0.00					20.0 A	1	SPARE	32
33	SPARE	1	20.0 A			0.00	0.00			20.0 A	1	SPARE	34
	SPARE	1	20.0 A					0.00	0.00	20.0 A	1	SPARE	36
	SPARE	1	20.0 A	0.00	0.00					20.0 A	1	SPARE	38
	SPARE	1	20.0 A			0.00	0.00			20.0 A	1	SPARE	40
41	SPARE	1	20.0 A					0.00		20.0 A		SPARE	42
					'.9	-	.0	7.		1		LOAD/PHASE (KVA)	
<u>NC</u>	OTES:			66	6.4	58	3.3	63	3.5	J		LOAD/PHASE (A)	
												NECTED LOAD (KVA)	
								4				NECTED LOAD (A) AND FACTOR	

	BUS RATING: 225 AMPS A.I.C. RATING EXISTING				MCB R	ATING:	225.0 A	١				FED FROM: MOUNTING: RECESSED	
CKT	CIRCUIT	BRE	AKER			LOAD	(KVA)			BREA	<b>KER</b>	CIRCUIT	CKT
NO	DESCRIPTION	Р	TRIP	1	4	I	3	(	)	TRIP	Р	DESCRIPTION	NO
1	SPACE			0.00	1.00					20.0 A	1	EXISTING - EMS ENERGY SYSTEM	2
3	SPACE					0.00	0.00					SPACE	4
5	SPACE							0.00	0.00			SPACE	6
7	EXISTING LTG - LOADING DOCK	1	20.0 A	1.00	1.00					20.0 A	1	EXISTING - LTG - RM 42	8
9	LTG - C01-C02, B103-B104, B100-B100E	1	20.0 A			0.71	0.90			20.0 A	1	RCPT - RMS B100, B102B	10
11	EXISTING DR'S PAGING RM 42	1	20.0 A					1.00	0.72	20.0 A	1	RCPT - RMS B100C, B100D, B100E	12
13	EXISTING RCPT - SPD DUMB WAITER #3	1	20.0 A	1.00	0.72					20.0 A	1	RCPT - RM B100	14
15	JBOX - MECH RM B102B	1	20.0 A			0.50	0.72			20.0 A	1	RCPT - RM B100	16
17	SPARE	1	20.0 A					0.00	0.72	20.0 A	1	RCPT - RM B100B COMPUTERS	18
19	EXISTING RCPT - LOADING DOCK	1	20.0 A	1.00	0.72					20.0 A	1	RCPT - RM B100A COMPUTERS	20
21	EXISTING LTG - LOADING DOCK, UNIT HEATS	1	20.0 A			1.00	0.54			20.0 A	1	RCPT - RM B103 & B104	22
23	EXISTING DOCK LEVELER, DOOR OPENER	1	20.0 A					1.00	0.00	20.0 A	1	SPARE	24
25	EXISTING DOCK LEVELER, DOOR OPENER	1	20.0 A	1.00	0.00					20.0 A	1	SPARE	26
27	EXISTING DOOR OPENER	1	20.0 A			1.00	0.00			20.0 A	1	SPARE	28
29	EXISTING DOOR OPENER	1	20.0 A					1.00	0.90	20.0 A	1	RCPT - RM B300	30
31	SPARE	1	20.0 A	0.00	0.90					20.0 A	1	RCPT - RM B300 & B301	32
33	EXISTING RCPT - IC-B AMPLIFIER, EMG-9	1	20.0 A			1.00	1.00			20.0 A	1	EXISTING RCPT - RMTC-B	34
35	EVICTING DOOD OOD DOOK MODIC DENGLI	_	00.0.4					1.00	1.58	20.0 A	1	RCPT - RM B300 COPIER	36
37	EXISTING DOOR 60B DOCK, WORK BENCH	2	20.0 A	1.00	1.00					20.0 A	1	EXISTING LTG - SPD BATHROOMS	38
39	EVICTING PORT. AIG GLIOP	_	20.0.4			1.00	1.00			20.0 A	1	EXISTING LTG - SPD DECONTAM GAS RM	40
41	EXISTING RCPT - A/C SHOP	2	30.0 A					1.00	1.00	20.0 A	1	EXISTING LTG/RCPT - ELEVATOR PIT	42
				10	).2	9	.2	9	.7	:CONNE	CTED	LOAD/PHASE (KVA)	
NO	OTES:			85	5.3	76	6.3	81	.4	:CONNE	CTED	LOAD/PHASE (A)	
			'						29.0	:TOTAL	CON	NECTED LOAD (KVA)	
									80.4	:TOTAL	CON	NECTED LOAD (A)	
								1	00.58%	:TOTAL	DEMA	AND FACTOR	
												AND LOAD (KVA)	
									80.9	:TOTAL	DEM/	AND LOAD (A)	

**EXISTING PANEL LP-BC** 

BRA	NCH CIRC	UIT WIRIN	IG SCHI	<u>EDULE</u>
BREAKER SIZE	PHASE CONDUCTOR	NEUTRAL CONDUCTOR	GROUND	CONDUIT
20A	12	12	12	3/4"
30A	10	10	10	3/4"
35A	8	8	10	1"
40A	8	8	10	1"
45A	6	6	10	1"
50A	6	6	10	1"
60A	4	4	10	1 -1/4"
70A	4	4	8	1 -1/4"
80A	3	3	8	1-1/2"

NOTE:

PROVIDE A CONDUCTOR PER BREAKER POLE. THESE ARE MINIMUM SIZES REQUIRED FOR EACH CIRCUIT. CONTRACTOR TO MAKE ALL THE NECESSARY FIELD ADJUSTMENTS TO COMPENSATE FOR VOLTAGE DROP.

IN GENERAL, VOLTAGE DROP FOR ANY BRANCH CIRCUIT SHALL NOT EXCEED 3%. VOLTAGE DROP FOR ANY FEEDER SHALL NOT EXCEED 2%. WHERE VOLTAGE DROP EXCEEDS THESE REQUIREMENTS, THE CONTRACTOR SHALL INCREASE THE SIZES OF THE CONDUCTORS AND RACEWAY AS REQUIRED.

	LIG	HTING FI	XTUF	RE S	CHEC	<u> ULE</u>	
TYPE	DESCRIPTION	MANUFACTURER	LAMP	VOLT	WATTAG E	MODEL NUMBER	NOTE
D1	RECESSED DOWNLIGHT	H E WILLIAMS	LED	120 V	28 W	4DR-TL-L30-8-35-DIM1-UNV-L-W-OF-CS	
D2	RECESSED DOWNLIGHT - SHOWER RATED	H E WILLIAMS	LED	120 V	14 W	4DR-TL-L15-8-35-DIM1-UNV-S-W-OF-CS	
E1	SINGLE FACE EXIT SIGN	LITHONIA	LED	120 V	3 W	EDGR 1 RMR	1
E2	DOUBLE FACE EXIT SIGN	LITHONIA	LED	120 V	3 W	EDGR 2 RMR	1
P1	STRIP DIRECT PENDANT	HE WILLIAMS	LED	120 V	20 W	75S 4 4' L30 8 35 AC 24	2
P2	STRIP DIRECT PENDANT	HE WILLIAMS	LED	120 V	42 W	75S 4 4' L65 8 35 AC 24	2
P3	DIRECT/INDIRECT PENDANT	FOCAL POINT	LED	120 V	62 W	FSM4B-S-BWFL-625DN-275UP-35K-8FT	2
T1	2X2 FIXTURE	HE WILLIAMS	LED	120 V	30 W	AT2-22-L30-835-D-DIM-UNV	
T2	2X2 FIXTURE	HE WILLIAMS	LED	120 V	37 W	AT2-22-L40-835-D-DIM-UNV	
T3	2X2 FIXTURE	HE WILLIAMS	LED	120 V	48 W	AT2-22-L50-835-D-DIM-UNV	
TS1	SHALLOW 2X2 FIXTURE	HE WILLIAMS	LED	120 V	21 W	PT-22-L26-835-RA-DIM-UNV	
TS2	SHALLOW 2X2 FIXTURE	HE WILLIAMS	LED	120 V	35 W	PT-22-L43-835-RA-DIM-UNV	
W1	HEADWALL FIXTURE	BETA CALCO	LED	120 V	18 W	MAHW2P02-LMA10-LMB10-CR80-CTA35	3
X1	4" DIAMETER SURFACE MOUNTED DOWNLIGHT	BEGA	LED	120 V	25 W	66 973 K35 19580	

ENERAL NOTE

A. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ACTUAL CEILING CONSTRUCTION TYPE AS DEFINED ON THE ARCHITECTURAL DRAWINGS AND FURNISH ALL LUMINAIRES WITH THE CORRECT MOUNTING DEVICES WHETHER OR NOT SUCH VARIATIONS ARE INDICATED BY THE LUMINAIRES CATALOG NUMBER. THE CONTRACOTR SHALL VERIFY THE DEPTH OF ALL RECESSED LUMINAIRES WITH THE ARCHITECTURAL DRAWINGS PRIOR TO ORDERING LUMINAIRES. ANY

DISCREPANCIES THAT WOULD CAUSE RECESSED LUMINAIRES NOT TO FIT INTO CEILING SHALL BE REPORTED TO THE REPRESENTATIVE PRIOR TO ORDERING LUMINAIRES.

B. LUMINAIRES RECESSED IN FIRE RATED CEILINGS SHALL BE PROVIDED WITH APPROVED FIRE RATED ENCLOSURE WITH A FIRE RATING EQUAL TO THAT OF THE

CEILING. PROVIDE A MINIMUM OF 3" CLEARANCE FROM SIDES AND TOP OF RECESSED LUMINAIRES.

C. PROVIDE ADVANCE CENTIUM VCN SERIES BALLASTS POTTED FOR HAZARDOUS LOCATION.

D. CATALOG NUMBER SPECIFIES STYLE, TYPE AND STANDARD OF LIGHT FIXTURE QUALITY.

E. IF THERE IS A DISCREPANCY BETWEEN A FIXTURE DESCRIPTION AND GENERAL NOTES AND THE CATALOG NUMBER LISTED, THE FIXTURE DESCRIPTION AND GENERAL NOTES SHALL DICTATE.
 F. CONTRACTOR SHALL REFER TO SPECIFICATIONS REGARDING PROVIDING ADDITIONAL SPARE DRIVERS AND LENSES.

SCHEDULE NOTES:

1. NUMBER OF FACE AND ARROW DIRECTIONS FOR EXIT SIGNS SHALL BE AS SHOWN ON THE PLANS.

NOMBER OF FACE AND ARROW DIRECTIONS FOR EXIT SIGNS SHALL BE AS SI
 TO BE MOUNTED 9 FT A.F.F. MEASURED TO THE BOTTOM OF THE FIXTURE.
 TO BE MOUNTED 6 FT A.F.F. MEASURED TO THE BOTTOM OF THE FIXTURE.

	MEDICAL E	QUIP	MENT CO	<u>INNC</u>	ECTI	ON SCI	HEDULE	• •
TAG	IDENTIFICATION	FLA / MCA	VOLTAGE / P / LOAD	PANEL	CKT. #	CONNECTION	FEEDER SIZE	CONDUIT SIZE
24	ULTRASOUND	-	120 V/1-180 VA	CR-B	12	NEMA 5-20R	(2) #12, (1) #12 G	3/4"
25	MOBILE X-RAY	-	120 V/1-180 VA	CR-B	12	NEMA 5-20R	(2) #12, (1) #12 G	3/4"
31	PHARMACY REFRIGERATOR	6.6	120 V/1-792 VA	CR-B	8	NEMA 5-20R	(2) #12, (1) #12 G	3/4"
41	CRASH CART	-	120 V/1-180 VA	CR-B	12	NEMA 5-20R	(2) #12, (1) #12 G	3/4"

MEDICAL EQUIPMENT SCHEDULE NOTES:

REFER TO ARCHITECTURAL DRAWINGS AND ELEVATIONS FOR EXACT LOCATION OF EQUIPMENT AND COORDINATE RECEPTACLES AND CONNECTION POINTS ACCORDINGLY.
 REFER TO MANUFACTURER DRAWINGS AND SPECIFICATIONS AND PROVIDE ALL REQUIRED ACCESSORIES FOR A FULLY FUNCTIONING SYSTEM.
 E.C. TO VERIFY AND COORDINATE EXACT OCPD AND OVERLOAD RATING WITH RESPECTIVE CONTRACTOR AND EQUIPMENT SUPPLIER. ADJUST CIRCUIT ACCORDINGLY.
 PROVIDE CORD AND PLUG AS REQUIRED BY THE EQUIPMENT MANUFACTURER.

	<u>EQUIP</u>	MEN	T CONN	IEC1	ΓΙΟΝ	SCI	<b>HEDULE</b>		
TAG	IDENTIFICATION	FLA	VOLTAGE / P / LOAD	CKT. BKR	PANEL	CKT.#	DISC / POLES / FUSE	FEEDER SIZE	CONDUIT SIZE
AHU-B1	AIR HANDLING UNIT	4.40	208 V/3-1585 VA	20A	LP-BB	1,3,5	INTEGRAL DISCONNECT	(3) #12, (1) #12 G	3/4"
AHU-B2	AIR HANDLING UNIT	2.00	208 V/3-720 VA	20A	LP-BB	37,39,41	INTEGRAL DISCONNECT	(3) #12, (1) #12 G	3/4"
AHU-B3	AIR HANDLING UNIT	14.8	208 V/3-5332 VA	20A	LP-BD	18,20,22	INTEGRAL DISCONNECT	(3) #12, (1) #12 G	3/4"
AHU-B4	AIR HANDLING UNIT	3.70	208 V/3-1332 VA	20A	LP-BD	24,26,28	INTEGRAL DISCONNECT	(3) #12, (1) #12 G	3/4"
AHU-B5	AIR HANDLING UNIT	3.70	208 V/3-1332 VA	20A	LP-BB	2,4,6	INTEGRAL DISCONNECT	(3) #12, (1) #12 G	3/4"
CP-1	CONDENSATE PUMP	7.2	120 V/1-864 VA	20A	LP-BB	42	20A/1P	(2) #12, (1) #12 G	3/4"
CP-2	CONDENSATE PUMP	7.2	120 V/1-864 VA	20A	LP-BD	30	20A/1P	(2) #12, (1) #12 G	3/4"
CU-B1	CONDENSING UNIT	18.9	208 V/3-6810 VA	40A	LP-BB	13,15,17	INTEGRAL DISCONNECT	(3) #8, (1) #10 G	1"
CU-B2	CONDENSING UNIT	9.66	208 V/2-2010 VA	25A	LP-BA	4,6	30A/2P/25A	(2) #10, (1) #10 G	3/4"
CU-B3	CONDENSING UNIT	25.7	208 V/3-9250 VA	50A	LP-BB	26,28,30	INTEGRAL DISCONNECT	(3) #6, (1) #10 G	1"
CU-B4	CONDENSING UNIT	18.9	208 V/3-6810 VA	40A	LP-BB	36,38,40	INTEGRAL DISCONNECT	(3) #8, (1) #10 G	1"
CU-B5	CONDENSING UNIT	19.1	208 V/2-3970 VA	30A	LP-BA	1,3	30A/2P/30A	(2) #10, (1) #10 G	3/4"
EF-B300	EXHAUST FAN	9.8	120 V/1-1176 VA	20A	EQ-B	12	20A/1P	(2) #12, (1) #12 G	3/4"
EF-B306	EXHAUST FAN	9.8	120 V/1-1176 VA	20A	LP-BB	22	20A/1P	(2) #12, (1) #12 G	3/4"
EF-B307	EXHAUST FAN	9.8	120 V/1-1176 VA	20A	EQ-B	20	20A/1P	(2) #12, (1) #12 G	3/4"
FCU/CU-B120D	SPLIT SYSTEM COOLING - CT	13.7	208 V/2-2850 VA	20A	CR-B	28,30	30A/2P/20A	(2) #12, (1) #12 G	3/4"
FCU/CU-B120E	SPLIT SYSTEM COOLING - XRAY	13.7	208 V/2-2850 VA	20A	CR-B	27,29	30A/2P/20A	(2) #12, (1) #12 G	3/4"
HWP-1	HOT WATER PUMP	11	208 V/2-2288 VA	20A	LP-BB	29,31	30A/2P/20A	(2) #12, (1) #12 G	3/4"
HWP-2	HOT WATER PUMP	11	208 V/2-2288 VA	20A	LP-BB	33,35	30A/2P/20A	(2) #12, (1) #12 G	3/4"

EQUIPMENT SCHEDULE NOTES:

1. REFER TO MECHANICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS FOR EXACT LOCATION OF EQUIPMENT.

5. STARTERS/DISCONNECT SWITCHES SHALL BE PROVIDED BY M.C. AND INSTALLED BY E.C.

E.C. TO VERIFY AND COORDINATE EXACT OCPD AND OVERLOAD RATING WITH RESPECTIVE CONTRACTOR AND EQUIPMENT SUPPLIER. ADJUST CIRCUIT ACCOURDINGLY.
 PROVIDE CIRCUITING AND CONNECTIONS FROM ALL FUSED AND NON-FUSED DISCONNECT SWITHCES, COMBINATION STARTERS, MAUNAL MOTOR STARTER, AND CONTROLLERS TO MECHANICAL EQUIPMENT SERVED. CONDUCTOR AND CONDUIT SIZES SHALL MATCH THOSE ERVING THE EQUIPMENT FROM THE PANELBOARD.
 ALL DISCONNECTING MEANS EQUIPMENT INSTALLED OUTDOORS OR IN WET/DAMP LOCATION SHALL BE PROVIDED IN A MINIMUM NEMA 3R LOCKABLE ENCLOSURE.

	RATINGS: 208Y/120 BUS RATING: 150 AMPS A.I.C. RATING 22,000 AMPS SYMME	TRICAL			_	TYPE: ATING:	MCB 100.0 A	١				LOCATION: ENGINEERING (NIC) B105 FED FROM: MOUNTING: SURFACE	i
CKT	· · · · · · · · · · · · · · · · · · ·		AKER			LOAD	(KVA)			BREA	KER	CIRCUIT	СКТ
NO	DESCRIPTION	Р	TRIP	-	4	I	B	(	3	TRIP	Р	DESCRIPTION	NO
1	SPARE	1	20.0 A	0.00	1.00					20.0 A	1	EXISTING OXYGEN TANK	2
3	SPARE	1	20.0 A			0.00	1.00			20.0 A	1	EXISTING KATO LIGHT BATT. CHARGER BLD 16	4
5	SPARE	1	20.0 A					0.00	1.00	20.0 A	1	EXISTING KATO LIGHT BATT. RCPT BLD 16	6
7	EXISTING LTG - LOWER PHARM	1	20.0 A	1.00	0.79					20.0 A	1	RCPT - RM B111 PHARMACY CACHE REF.	8
9	EXISTING LTG - RMS 42, 42A	1	20.0 A			1.00	0.63			20.0 A	1	LTG - RM B111 PHARMACY	10
11	EXISTING LTG - KITCHEN	1	20.0 A					1.00	0.90	20.0 A	1	RCPT - RM B111, B120, B120B	12
13	LTG - X-RAY B120B & CT SCAN B120C	1	20.0 A	0.48	1.00					20.0 A	1	EXISTING LTG - RM 49	14
15	EXISTING RCPT - LOWER PHARM	1	20.0 A			1.00	1.00			20.0 A	1	EXISTING MRI CRASH CART	16
17	EXISTING RCPT - LOWER PHARM	1	20.0 A					1.00	0.90	20.0 A	1	RCPT - CT SCANNING B120D	18
19	RCPT - CT SCANNING B120D	1	20.0 A	0.36	1.58					20.0 A	1	RCPT - CT SCANNING B120D	20
21	RCPT - IMAGING RMS - FCU PUMPS	1	20.0 A			0.01	0.72			20.0 A	1	RCPT - CT SCANNING B120D	22
23	RCPT - X-RAY B120B	1	20.0 A					0.72	0.72	20.0 A	1	RCPT X-RAY B120B	24
25	RCPT X-RAY B120B	1	20.0 A	0.36	0.36					20.0 A	1	RCPT X-RAY B120B	26
27 29	SPLIT SYSTEM COOLING - XRAY B120B	2	20.0 A			1.42	1.42	1.42	1.42	20.0 A	2	SPLIT SYSTEM COOLING - CT B120D	28 30
31	SPARE	1	20.0 A	0.00	0.00					20.0 A	1	SPARE	32
33	SPARE	1	20.0 A			0.00	0.00			20.0 A	1	SPARE	34
35	SPARE	1	20.0 A					0.00	0.00	20.0 A	1	SPARE	36
37	SPARE	1	20.0 A	0.00	0.00					20.0 A	1	SPARE	38
39	SPARE	1	20.0 A			0.00	0.00			20.0 A	1	SPARE	40
41	SPARE	1	20.0 A					0.00	0.00	20.0 A	1	SPARE	42
N(	OTES:	-	•		.8 6.4		.1 9.2		.9 5.7	+		LOAD/PHASE (KVA) LOAD/PHASE (A)	
								4	65.7	:TOTAL	CONN	NECTED LOAD (KVA) NECTED LOAD (A) AND FACTOR	

66.5 :TOTAL DEMAND LOAD (A)

	RATINGS: 208Y/120 BUS RATING: 150 AMPS				MAINS	NEL STYPE: ATING:	MCB		<b>B</b> (N	EW	)	LOCATION: ENGINEERING (NIC) B105 FED FROM: EQ-P			
OVT	A.I.C. RATING 22,000 AMPS SYMMET	_					(10.14)				<b>/</b>	MOUNTING: SURFACE	01/7		
CKT	CIRCUIT	_	EAKER			LOAD	·			BREA		CIRCUIT	CKT		
NO	DESCRIPTION	P	TRIP		4	t	3	(		TRIP	Р	DESCRIPTION	NO		
1				1.00	0.00	4.00	2.00			20.0 A	1	SPARE	2		
3	EXISTING HEATER - RM 42A	3	100.0 A			1.00	0.00			20.0 A	1	SPARE	4		
5								1.00	0.00	20.0 A	1	SPARE	6		
7	EXISTING FAN - RM 135	1	20.0 A	1.00	0.72					20.0 A	1	RCPT - MECHANICAL OFFICE B101	8		
9	EXISTING UPS - RM 27	1	20.0 A			1.00	1.00			20.0 A	1	EXISTING ROOM 38	10		
11	LTG & RCPT - MECHANICAL OFFICE B101	1	20.0 A					1.02	1.18	20.0 A	1	EXHAUST FAN - B300	12		
13	EXISTING PANEL - RM 42A	1	20.0 A	1.00	1.00								14		
15	RCPT - MECHANICAL OFFICE B101	1	20.0 A			0.72	1.00			30.0 A	3	EXISTING PHARMACY DUMB WAITER	16		
17	JBOXES - C02, C05, B119 CARD READERS	1	20.0 A					1.20	1.00	]			18		
19	JBOXES - C02, C03, C07 CARD READERS	1	20.0 A	1.20	-					20.0 A	1	EXHAUST FAN - B307	20		
21	SPARE	1	20.0 A			0.00	0.00			20.0 A	1	SPARE	22		
23	SPARE	1	20.0 A					0.00	0.00	20.0 A	1	SPARE	24		
25	SPARE	1	20.0 A	0.00	0.00					20.0 A	1	SPARE	26		
27	SPARE	1	20.0 A			0.00	0.00			20.0 A	1	SPARE	28		
29	SPARE	1	20.0 A					0.00	0.00	20.0 A	1	SPARE	30		
31	SPARE	1	20.0 A	0.00	0.00					20.0 A	1	SPARE	32		
33	SPARE	1	20.0 A			0.00	0.00			20.0 A	1	SPARE	34		
35	SPARE	1	20.0 A					0.00	0.00	20.0 A	1	SPARE	36		
37	SPARE	1	20.0 A	0.00	0.00					20.0 A	1	SPARE	38		
39	SPARE	1	20.0 A			0.00	0.00			20.0 A	1	SPARE	40		
41	SPARE	1	20.0 A			0.00	0.00	0.00	0.00	20.0 A	1	SPARE	42		
T1	OF AIRE		20.0 A	7	.0	4	7		.3			) LOAD/PHASE (KVA)	72		
N	OTES:				.o 3.7		., 3.8		 I.7	+		) LOAD/PHASE (A)			
<u></u>	<u> </u>				<i></i> .	30	<i>.</i>		16.9	:TOTAL	CONI	NECTED LOAD (KVA) NECTED LOAD (A)			
								1	00.18% 16.9	:TOTAL	DEM.	AND FACTOR AND LOAD (KVA) AND LOAD (A)			

PANELBOARD SCHEDULE NOTES:

1. UNLESS NOTED OTHERWISE, EXISTING PANELBOARDS AND CIRCUIT BREAKERS ARE BEING USED THROUGHOUT THIS PROJECT. THE EXISTING INFORMATION SHOWN IS BASED ON AVAILABLE EXISTING DRAWINGS AND LIMITED SITE SURVEY INFORMATION GATHERED.

CONTRACTOR SHALL VERIFY DEMOLISHED LOADS AND CIRCUITS WITHIN THE AREA OF THIS
PROJECT AND REUSE THE EXISTING CIRCUIT BREAKERS TO SERVE THE NEW LOADS.

B. EXISTING SPARES AND SPACES WITHIN THE EXISTING PANELBOARDS SHALL BE REUSED TO THE EXTENT POSSIBLE

EXTENT POSSIBLE.
PROVIDE NEW CIRCUIT BREAKERS WHERE REQUIRED PER THE EQUIPMENT/LOAD CONNECTION SCHEDULE AND THE PANELBOARD SCHEDULES. NEW CIRCUIT BREAKERS SHALL MATCH AIC RATING OF THE EXISTING CIRCUIT BREAKERS AND BE FROM THE SAME MANUFACTURER AS THE

EXISTING CIRCUIT BREAKERS WITHIN THE EXISTING PANELBOARDS SHALL BE RECONFIGURED TO

ALLOW FOR THE INSTALLATION OF MULTIPLE POLE CIRCUIT BREAKERS.

6. EXISTING CIRCUITS THAT ORIGINATE FROM THE AREA OF DEMOLITION AND SERVE LOADS

OUTSIDE OF THE AREA OF DEMOLITION SHALL BE RECIRCUITED SO THAT THE LOADS OUTSIDE OF

THE AREA OF WORK REMAIN OPERATIONAL AS INTENDED.

7. NEW PANELBOARDS SHALL BE FULLY RATED FOR A MINIMUM OF 22kAIC. AFTER THE OVERCURRENT COORDINATION STUDIES HAVE BEEN CONDUCTED, THE PANELBOARD RATINGS

SHALL BE ADJUSTED ACCORDINGLY.

Project Title

RENOVATE RASEMENT

Project Number
610A4-19-104

#	Revisions	Date

4	
	AE WORKS.

Architect/Engineer of Record

AE Works 209 SANDUSKY STREET PITTSBURGH, PA 15212 412-287-7333





VA U.S. Department of Veterans Affairs

nent Affairs

Orawing Title ELECTRICAL SCHEDULES	Phase BID DOCUMENTS	Project Title RENOVATE BASE	Project Number 610A4-19-104		
		BUILDING 1			<b>Building Number</b> 01
Approved:	Sprinkler Status FULLY SPRINKLERED	Location 2121 LAKE AVE, FORT WAYNE, IN 46805			Drawing Number
		<b>Issue Date</b> 07/15/2020	<b>Checked</b> BK	<b>Drawn</b> TJR	E401

### **COMMUNICATIONS GENERAL NOTES:**

- 1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING HIS PROPOSAL AND BECOME FAMILIAR WITH THE CONDITIONS UNDER WHICH THE WORK WILL BE PERFORMED, AND CORRELATE HIS SITE OBSERVATIONS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. INCONSISTENCIES DISCOVERED SHALL BE REPORTED TO THE ARCHITECT, COR, AND ENGINEER AT ONCE, BEFORE SUBMITTAL OF BID PROPOSAL.
- 2. ALL COMMUNICATIONS PRODUCTS AND INSTALLATIONS SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL CODES. REFER TO SPECIFICATIONS FOR MATERIALS AND METHODS FOR
- COMMUNICATIONS CONSTRUCTION. 3. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, PAY ALL FEES, AND COMPLY WITH ALL NATIONAL, STATE, AND MUNICIPAL LAWS, CODES, AND ORDINANCES RELATING TO BUILDING AND
- PUBLIC SAFETY. 4. CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR REQUIRED FOR A COMPLETE
- WORKING AND COORDINATED SYSTEM. 5. UNLESS OTHERWISE NOTED. ALL EQUIPMENT AND MATERIALS SHALL BE NEW AND U.L. LISTED OR LABELED. EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, ANDLISTING OR LABELING REQUIREMENTS AND
- RESTRICTIONS. PROVIDE SUBMITTAL DATA AS DEPICTED IN THE COMMUNICATIONS SPECIFICATIONS. 6. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR APPROVAL FOR ALL COMMUNICATIONS MATERIALS PROPOSED TO BE PROVIDED UNDER THIS CONTRACT. ANY DEVIATIONS FROM ITEMS SPECIFIED SHALL BE CLEARLY IDENTIFIED. NO WORK IS AUTHORIZED WITHOUT SHOP DRAWINGS
- REVIEWED BY ENGINEER AND COR. 7. REFER TO AND COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL DEVICES AND EQUIPMENT.
- 8. REFER TO AND COORDINATE WITH DIVISION 23 FOR THE LOCATION OF ALL ITEMS LOCATED IN THE CEILING INCLUDING, BUT NOT LIMITED TO SUPPLY-AIR DIFFUSERS, RETURN-AIR DIFFUSERS AND FIRE SPRINKLER HEADS.
- 9. ALL PENETRATIONS THROUGH FIRE RATED WALLS OR PARTITIONS SHALL BE MADE IN ACCORDANCE WITH U.L. 483 "FIRE RESISTANCE DIRECTORY". PENETRATIONS SHALL BE SLEEVED AND SEALED WITH A UL APPROVED FIRE RATED SEALANT. REFER TO ARCHITECTURAL PLANS FOR FIRE RATED WALLS.
- 10. CONTRACTOR SHALL COORDINATE AND SCHEDULE ALL OUTAGES WITH OWNER'S REPRESENTATIVE. 11. CONTRACTOR SHALL WARRANTY WORK FOR ONE (1) YEAR FROM THE COMPLETION OF THE PROJECT AND PROVIDE OWNER WITH AS BUILT DRAWINGS. 12. SPACE ALLOCATIONS FOR MATERIALS, EQUIPMENT AND DEVICES HAVE BEEN MADE ON THE BASIS OF PRESENT AND KNOWN FUTURE REQUIREMENTS AND THE DIMENSIONS OF ITEMS OF EQUIPMENT OR
- DEVICES OF A PARTICULAR MANUFACTURER WHETHER INDICATED OR NOT. THE CONTRACTOR SHALL VERIFY THAT ALL MATERIALS, EQUIPMENT AND DEVICES PROPOSED FOR USE ON THIS PROJECT ARE WITHIN THE CONSTRAINTS OF THE ALLOCATED SPACE. 13. ALL EMPTY CONDUIT SYSTEMS SHALL CONTAIN A PULL WIRE FOR FUTURE PULLING OF CONDUCTORS. 14. CONTRACTOR SHALL EXPAND EXISTING OVERHEAD PAGING SYSTEM UTILIZING DEDICATED AMPLIFIERS, EQUAL TO BOGEN TPU STYLE, SIZED APPROPRIATELY FOR AREA BEING SERVED.

CONTRACTOR SHALL SIZE PAGING AMPLIFIER TO PROVIDE A 40% GROWTH RATE AT TIME OF

INSTALLATION. OVERHEAD PAGING EQUIPMENT WILL BE HOUSED IN ONE COMM ROOM PER FLOOR AS

## **DEMOLITION GENERAL NOTES:**

NOTED PER ENLARGED FLOOR PLANS.

- 1. INFORMATION PROVIDED ON THESE DRAWINGS HAVE BEEN TAKEN FROM DESIGN DRAWING AND FIELD OBSERVATIONS. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO PRICING AND COMMENCEMENT OF WORK.
- 2. WHERE EXISTING WALLS ARE DEMOLISHED, REMOVE ALL EXISTING WIRING DEVICES AND THEIR ASSOCIATED CONDUITS AND WIRING BACK TO THE POINT OF ORIGINATION.
- 3. PROVIDE FOR ANY AND ALL DEMOLITION WORK NECESSARY TO ACCOMMODATE ALL NEW CONSTRUCTION, INCLUDING ARCHITECTURAL, MECHANICAL, PLUMBING OR ELECTRICAL WORK.

4. IF DEMOLITION IS REQUIRED TO INSTALL AN ITEM, THE CONTRACTOR SHALL RESTORE THE AREA TO

PREVIOUS CONDITION, OR REPLACE DAMAGED ITEMS WITH NEW ITEMS TO MATCH EXISTING. 5. SPACE ALLOCATIONS FOR MATERIALS, EQUIPMENT AND DEVICES HAVE BEEN MADE ON THE BASIS OF PRESENT AND KNOWN FUTURE REQUIREMENTS AND THE DIMENSIONS OF ITEMS OF EQUIPMENT OR DEVICES OF A PARTICULAR MANUFACTURER, WHETHER INDICATED OR NOT. THE CONTRACTOR SHALL VERIFY THAT ALL MATERIALS, EQUIPMENT AND DEVICES PROPOSED FOR USE ON THIS PROJECT ARE WITHIN THE CONSTRAINTS OF THE ALLOCATED SPACE.

SYMBOL	DESCRIPTION	BACK BOX	MTG. HE
<b>○</b> D>	DOME LIGHT. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION OF DOME LIGHT. MAY BE CEILING MOUNTED OR WALL MOUNTED.	DD	CEILING WALL MO
⟨Z⟩	ZONE DOME LIGHT. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION OF DOME LIGHT. MAY BE CEILING MOUNTED OR WALL MOUNTED.	DD	CEILING WALL MO
SP	SINGLE PATIENT STATION (EQUIPPED WITH STAFF ASSIST/CODE BLUE)	CC	48" Al
(EP)	EMERGENCY PULL STATION	BB	48" AI
(PA)	EMERGENCY PULL STATION WITH AUDIO	BB	48" AI
(2B)	DUAL PUSH BUTTON STATION - STAFF ASSIST & CODE BLUE	BB	48" AI
(2P)	DUAL PUSH BUTTON STATION - STAFF ASSIST & CODE PINK	BB	48" Al
(CB)	SINGLE PUSH BUTTON STATION - CODE BLUE	BB	48" Al
(CP)	SINGLE PUSH BUTTON STATION - CODE PINK	BB	48" Al
SA	SINGLE PUSH BUTTON STATION - STAFF ASSIST	BB	48" Al
D	DUTY STATION	CC	48" Al
<b>(2J)</b>	2 JACK AUXILIARY ALARM INPUT STATION	BB	48" Al
ST	STAFF TERMINAL	CC	48" Al
(RK)	37 PIN BED CONNECTOR OUTLET	BB (NOTE#2)	18" A
(SS)	STAFF STATION	СС	48" Al
(BM)	BED/ROOM MANAGEMENT STATION	BB	48" Al
(DC)	DOMELESS CONTROLLER	EE	ABOV ACCESS CEILIN
(NM)	NURSE CALL CONSOLE	AA	NOTE
RCB	ROOM CONTROL BOARD	FF	ABOV ACCESS CEILIN
TVI	WALL MOUNTED NURSE CALL TO TV CONTROL OUTLET	BB	NA
TVC	NURSE CALL TV CONTROL OUTLET	NOTE#4	NA
NCT	NURSE CALL TERMINAL CABINET. WALL MOUNTED	NA	NA
NSCSER	NURSE CALL HEAD END SERVER. REFER TO CONTRACT DOCUMENTS FOR MOUNTING LOCATION (RACK/WALL MOUNTED)	NA	NA
	NURSE CALL BACK BOX SCHEDULE		•

	TE	LEVISION ROUGH IN LEGEND	
SYMBOL	DESCRIPTION		
Α	DOUBLE GANG BACK BOX, 2 1/2" DEEP, STUBBED ABOVE ACCESSIBLE CEILING	WITH SINGLE GANG DEVICE COVER AND 1" CONDUIT PATH S SPACE.	IWAY
В	DOUBLE GANG BACK BOX, 2 1/2" DEEP, ABOVE ACCESSIBLE CEILING SPACE.	WITH SINGLE GANG DEVICE COVER AND 1" CONDUIT PATH	IWAY STUBBED
С		AND 1" CONDUIT PATHWAY STUBBED ABOVE ACCESSIBLE C UTLET SHALL SHARE SAME BACK BOX. CONTRACTOR TO P X.	
D	HUBBELL RECESSED AV BOX (PART # N ACCESSIBLE CEILING SPACE.	NSAV62M). PROVIDE (1) 1" CONDUIT PATHWAY STUBBED TO	) ABOVE
E	HUBBELL RECESSED AV BOX (PART # N ACCESSIBLE CEILING SPACE.	NSAV124M). PROVIDE (1) 1" CONDUIT PATHWAY STUBBED T	O ABOVE
COORDIN 48" AFF IN 18" AFF IN 60" AFF IN 80" AFF IN	ATE OUTLET LOCATION WITH TV MOUNTII IDICATES TO TOP OF DEVICE; IDICATES TO CENTER OF DEVICE; IDICATES TO BOTTOM OF DEVICE; IDICATES TO BOTTOM OF DEVICE; IR MOUNTING HEIGHTS REFER TO CENTE		
COORDIN 48" AFF IN 18" AFF IN 60" AFF IN 80" AFF IN	ATE OUTLET LOCATION WITH TV MOUNTII NDICATES TO TOP OF DEVICE; NDICATES TO CENTER OF DEVICE; NDICATES TO BOTTOM OF DEVICE; IDICATES TO BOTTOM OF DEVICE; RE MOUNTING HEIGHTS REFER TO CENTE	NG BRACKET.  RLINE OF DEVICE.	
COORDIN 48" AFF IN 18" AFF IN 60" AFF IN 80" AFF IN	ATE OUTLET LOCATION WITH TV MOUNTII NDICATES TO TOP OF DEVICE; NDICATES TO CENTER OF DEVICE; NDICATES TO BOTTOM OF DEVICE; IDICATES TO BOTTOM OF DEVICE; RE MOUNTING HEIGHTS REFER TO CENTE	NG BRACKET.	
COORDIN 48" AFF IN 18" AFF IN 60" AFF IN 80" AFF IN ALL OTHE	ATE OUTLET LOCATION WITH TV MOUNTII IDICATES TO TOP OF DEVICE; IDICATES TO CENTER OF DEVICE; IDICATES TO BOTTOM OF DEVICE; IDICATES TO BOTTOM OF DEVICE; IR MOUNTING HEIGHTS REFER TO CENTE	NG BRACKET.  RLINE OF DEVICE.	E TO SCALE.
COORDIN 48" AFF IN 18" AFF IN 60" AFF IN 80" AFF IN ALL OTHE	ATE OUTLET LOCATION WITH TV MOUNTII IDICATES TO TOP OF DEVICE; IDICATES TO CENTER OF DEVICE; IDICATES TO BOTTOM OF DEVICE; IDICATES TO BOTTOM OF DEVICE; IR MOUNTING HEIGHTS REFER TO CENTE	RLINE OF DEVICE.  PUBLIC ADDRESS LEGEND	E TO SCALE.  MTG. HEIGHT UNO (NOTE 1)
COORDIN 48" AFF IN 18" AFF IN 60" AFF IN 80" AFF IN ALL OTHE	ATE OUTLET LOCATION WITH TV MOUNTII IDICATES TO TOP OF DEVICE; IDICATES TO CENTER OF DEVICE; IDICATES TO BOTTOM OF DEVICE; IDICATES TO BOTTOM OF DEVICE; IR MOUNTING HEIGHTS REFER TO CENTE	PUBLIC ADDRESS LEGEND  INGS. SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE	MTG. HEIGHT

PA VOLUME CONTROL - DOUBLE GANG BACKBOX, 2 1/2" DEEP, WITH SINGLE GANG DEVICE COVER, 3/4" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING SPACE.

PUBLIC ADDRESS NOTES:
1. COORDINATE WITH ARCHITECTURAL ELEVATIONS FOR EXACT MOUNTING HEIGHTS OF ALL WALL MOUNTED DEVICES.

Z = ZONE NUMBER

PA HEADEND - MIXER, AUDIO INPUTS AND

ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

M = MOUNT

<u>CONTROLS</u> Z = ZONE NUMBER

M = MOUNT

48" AFF INDICATES TO TOP OF DEVICE; 18" AFF INDICATES TO CENTER OF DEVICE; 60" AFF INDICATES TO BOTTOM OF DEVICE;

80" AFF INDICATES TO BOTTOM OF DEVICE;

M: W = WALL SHELF

M: W = WALL SHELF

R = RACK/CABINET

R = RACK/CABINET

TELEVISION SYMBOLS LEGEND

MTG. HEIGHT

UNO (NOTE 1)

NOTE 2

NOTE 2

NOTE 2

NOTE 2

N/A

N/A

48" AFF

BACK BOX

N/A

ALL SYMBOLS SHOWN MAY NOT APPEAR ON ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.

SYMBOL DESCRIPTION

TVHE TELEVISION HEADEND

TELEVISION OUTLET - ONE RG6 COAX CABLE

TELEVISION OUTLET - ONE RG6 COAX CABLE AND ONE DATA CABLE

TELEVISION OUTLET - ONE RG6 COAX CABLE AND TWO DATA CABLE

V JUNCTION BOARD. PROVIDE A MINIMUM 4' X 4' OF CLEAR WALL

CONTRACT DRAWINGS FOR EXACT LOCATION OF TVJ.

BACKBOARD SPACE FOR CATV EQUIPMENT AND CONNECTIONS. REFER TO

TELEVISION OUTLET - ONE DATA CABLE

		GENERA	AL SYMBOLS	LEGEND
ALL SYMBOLS	SHOWN MAY NO	OT APPEAR ON ALL DRAWINGS	. SYMBOLS ARE	SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.
——————————————————————————————————————		I .		DRE INFORMATION. CABLE SHOWN FOR COORDINATION RIFIED BY INSTALLATION CONTRACTOR.
<b></b>				D SLEEVE FIRE RATED PATHWAY DEVICE, PART IT SLEEVE THROUGH NON-RATED WALL.
$\bigcirc$		PLASTIC BUSHING ON BOTH	IENDS. REFER	OOR. PROVIDE EMT SLEEVE, EQUIPPED WITH TO FLOOR PLANS FOR SIZING. RATING SHALL TO ARCHITECTURAL DRAWINGS FOR FLOOR
WHILE DEZ		2 POST FREESTANDING EQUAND SPECS.	JIPMENT RACK.	SIZE AND LOCATION AS SHOWN ON DRAWINGS
1100		4 POST FREESTANDING EQUAND SPECS.	JIPMENT RACK.	SIZE AND LOCATION AS SHOWN ON DRAWINGS
		BASKET TRAY SIZE AND LO	OCATION AS SHO	WN ON DRAWINGS AND SPECS.
<u> </u>	<b>_</b>	TELECOMMUNICATIONS GR EQUAL	OUND BUSS BAR	(TGB) - 1/4" X 4" X 12"; CPI PART # 40153-012 OR
		COMMUNICA	TIONS ABBREVIA	TIONS
AFC	ABOVE FIN	IISHED CEILING	MON	MONITOR
AFF	ABOVE FIN	IISHED FLOOR	PACS	PACS VIEWING STATION
BFC		NISHED CEILING	PM	PHYSIOLOGICAL MONITORING
CAB	CABINET		PROX	"PROXIMITY" CABINET (IF APPLICABLE)
CCI		"CCI" CABINET (IF APPLICABLE)		WIRELESS ACCESS POINT
CPU	COMPUTE	COMPUTER		REAL-TIME LOCATING SYSTEM
01 0		GABLERALECTRONIC WHITE		TIME CLOCK (EMPLOYEE)
CT		LLO INCINIO WILL	TELE	TELEMETRY SYSTEM
	BOARD			
СТ	,		TV	TELEVISION
CT EWB	BOARD	NITOR	TV W	TELEVISION WALL PHONE

ALL S	YMBOLS S	HOWN MAY NOT APPEAR ON ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE	TO SCALE.  MTG_HEIGH	
S	SYMBOL DESCRIPTION			
N ▼	OR ∨	VOICE AND/OR DATA OUTLET, N=CABLE QUANTITY, PROVIDE DOUBLE GANG DEVICE BACK BOX, 2 1/8" DEEP, WITH SINGLE/ DOUBLE GANG DEVICE COVER AND 1" OR 1 1/4" CONDUIT PATHWAY STUBBED ABOVE ACCESSIBLE CEILING SPACE.	18" AFF	
W	or V		48" AFF	
₩ <b>₩</b>	OR <		48" AFF	
N	OR		48" AFF	
$\overset{N}{\bigcirc}$	OR €		FLOOR	
ф <sup>N</sup>	OR -€	CEILING MOUNTED VOICE AND/OR DATA OUTLET, N=CABLE QUANTITY. OUTLET TO BE HOUSED ABOVE ACCESSIBLE CEILING. CABLE TO LOCATION SHOWN ON THE FLOOR PLANS AND LEAVE A MINIMUM 50 FEET COILED AT THE LOCATION.	ABOVE ACCESSIBLE CEILING	
	CCTV	DATA OUTLET FOR CCTV SECURITY CAMERA, N=CABLE QUANTITY. OUTLET TO BE HOUSED ABOVE ACCESSIBLE CEILING UNLESS NOTED OTHERWISE. CABLE TO LOCATION SHOWN ON THE FLOOR PLANS AND LEAVE A MINIMUM 10 FEET COILED AT THE CAMERA LOCATION.	ABOVE ACCESSIBLE CEILING	
	- N WAP	DATA OUTLET FOR WIRELESS ACCESS POINT, N=CABLE QUANTITY. OUTLET TO BE HOUSED ABOVE ACCESSIBLE CEILING UNLESS NOTED OTHERWISE. CABLE TO LOCATION SHOWN ON THE FLOOR PLANS AND LEAVE A MINIMUM 15 FEET COILED AT THE WAP LOCATION.		
1. R D 2. 44 16 60 81	E/DATA NO REFER TO DEVICES. 8" AFF INI 8" AFF INI 0" AFF INI			

REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT MOUNTING HEIGHTS OF ALL DEVICES. STUB UP 3/4" CONDUIT INTO SIDE OF THE PATIENT STATION BACKBOX WITHIN THE SAME ROOM. PATHWAY SHOULD NOT

ABOVE ACCESSIBLE CEILING SPACE.

ABOVE ACCESSIBLE CEILING SPACE.

ABOVE ACCESSIBLE CEILING SPACE.

EXCEED 8 FEET TOTAL LENGTH.

DOUBLE GANG BACK BOX, 3 1/2" DEEP, WITH SINGLE GANG DEVICE COVER AND 1" CONDUIT PATHWAY STUBBED

3 DEVICE BACK BOX, NON GANGABLE, 3 1/2" DEEP AND 1" CONDUIT PATHWAY STUBBED ABOVE ACCESSIBLE

DOUBLE GANG BACK BOX, 3 1/2" DEEP, WITH DUAL GANG DEVICE COVER AND 1" CONDUIT PATHWAY STUBBED

DOUBLE GANG BACK BOX, 2 1/8" DEEP, WITH BLANK COVER PLATE AND 1" CONDUIT PATHWAY STUBBED ABOVE

12" X 12" X 4" STEEL BOX ENCLOSURE MOUNTED ABOVE ACCESSIBLE CEILING SPACE. ENCLOSURE PROVIDED BY

- NURSE CONSOLE RECEPTACLE SHALL BE MOUNTED AT 18" AFF, UNLESS OTHERWISE NOTED, AND THE ACTUAL DEVICE SHALL
- RESIDE ON THE COUNTERTOP. 4. TV CONTROL OUTLET SHALL BE MOUNTED IN SAME BACK BOX AS THE TV COAX/DATA CABLE.

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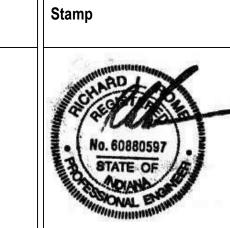
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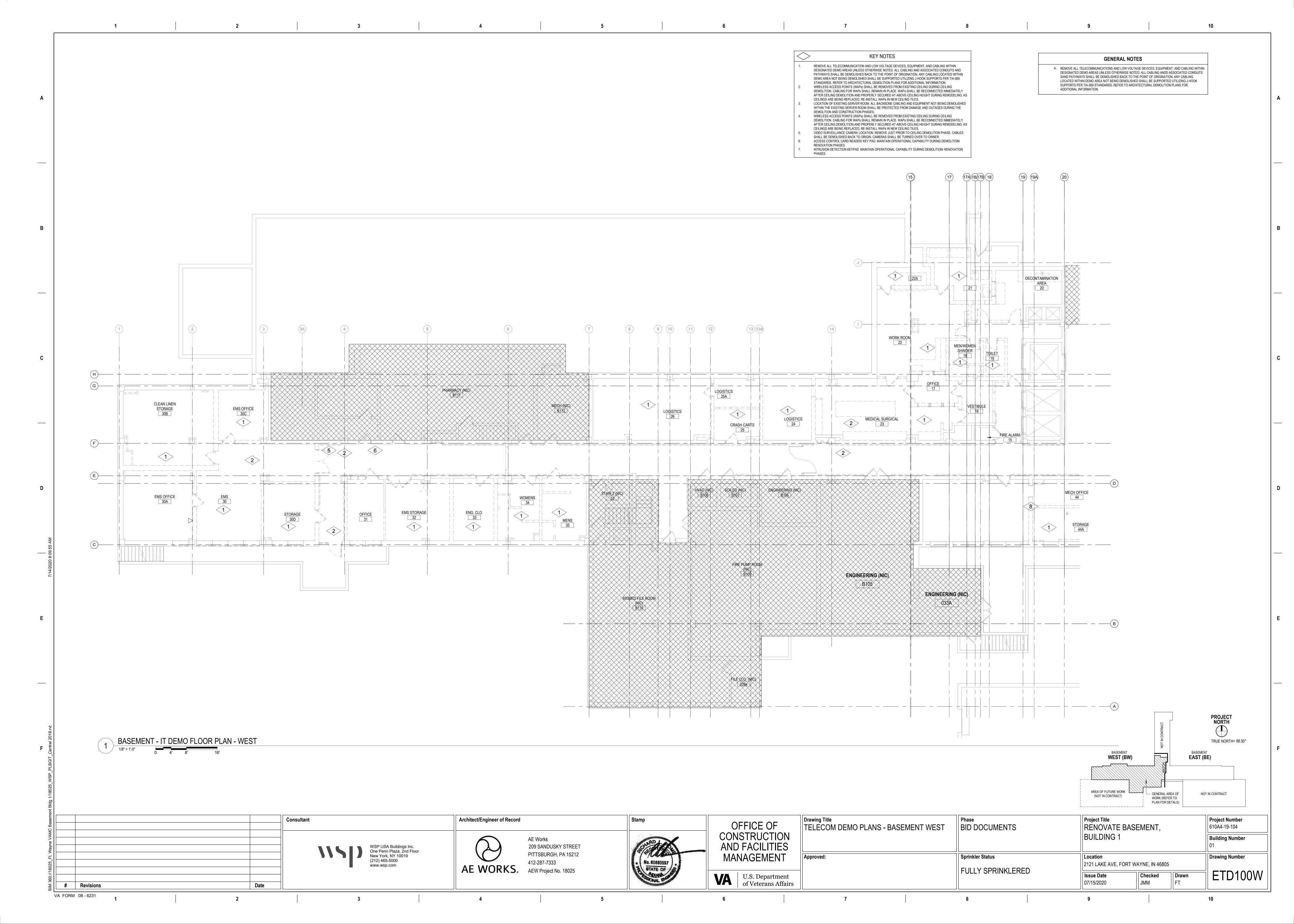
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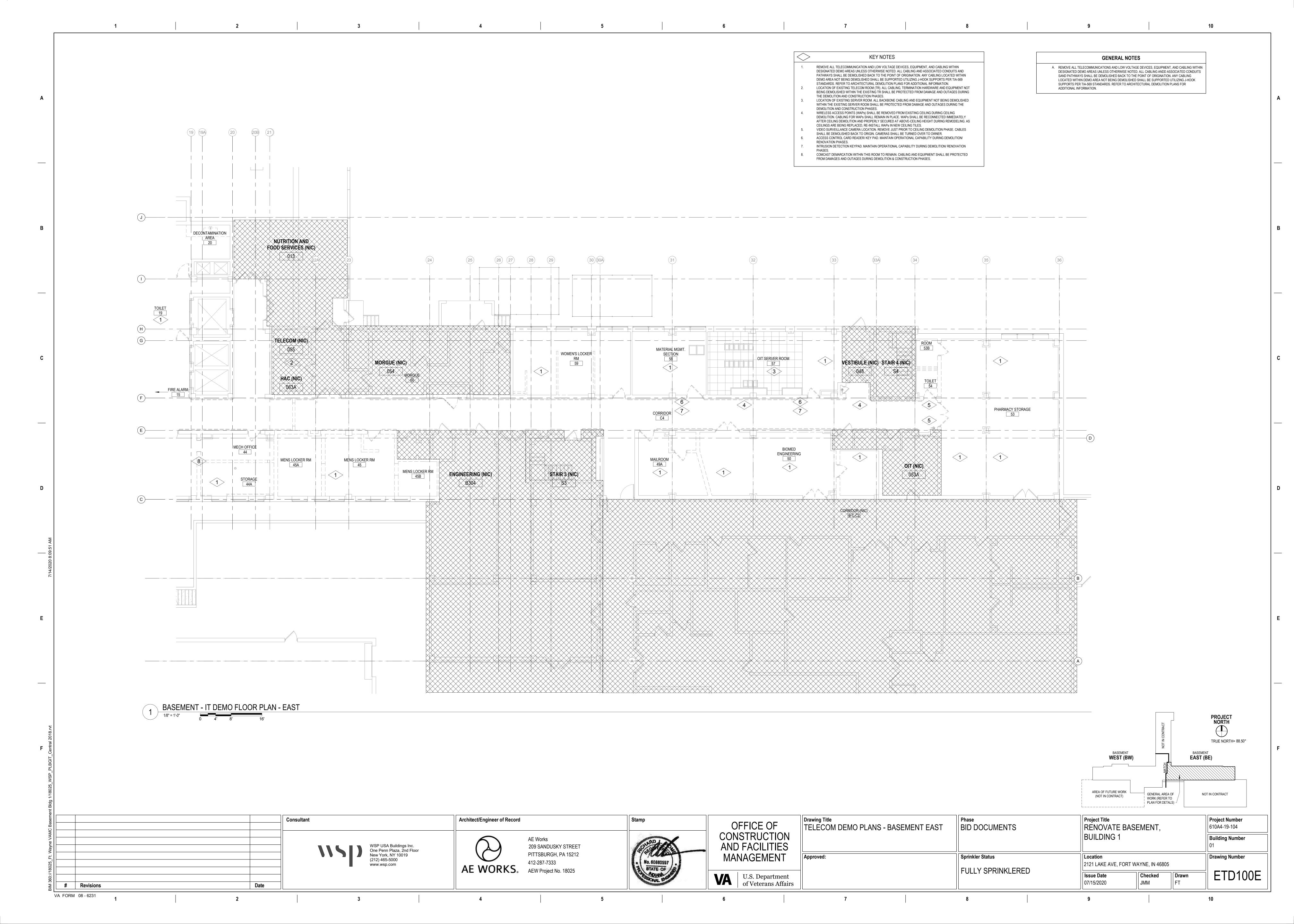


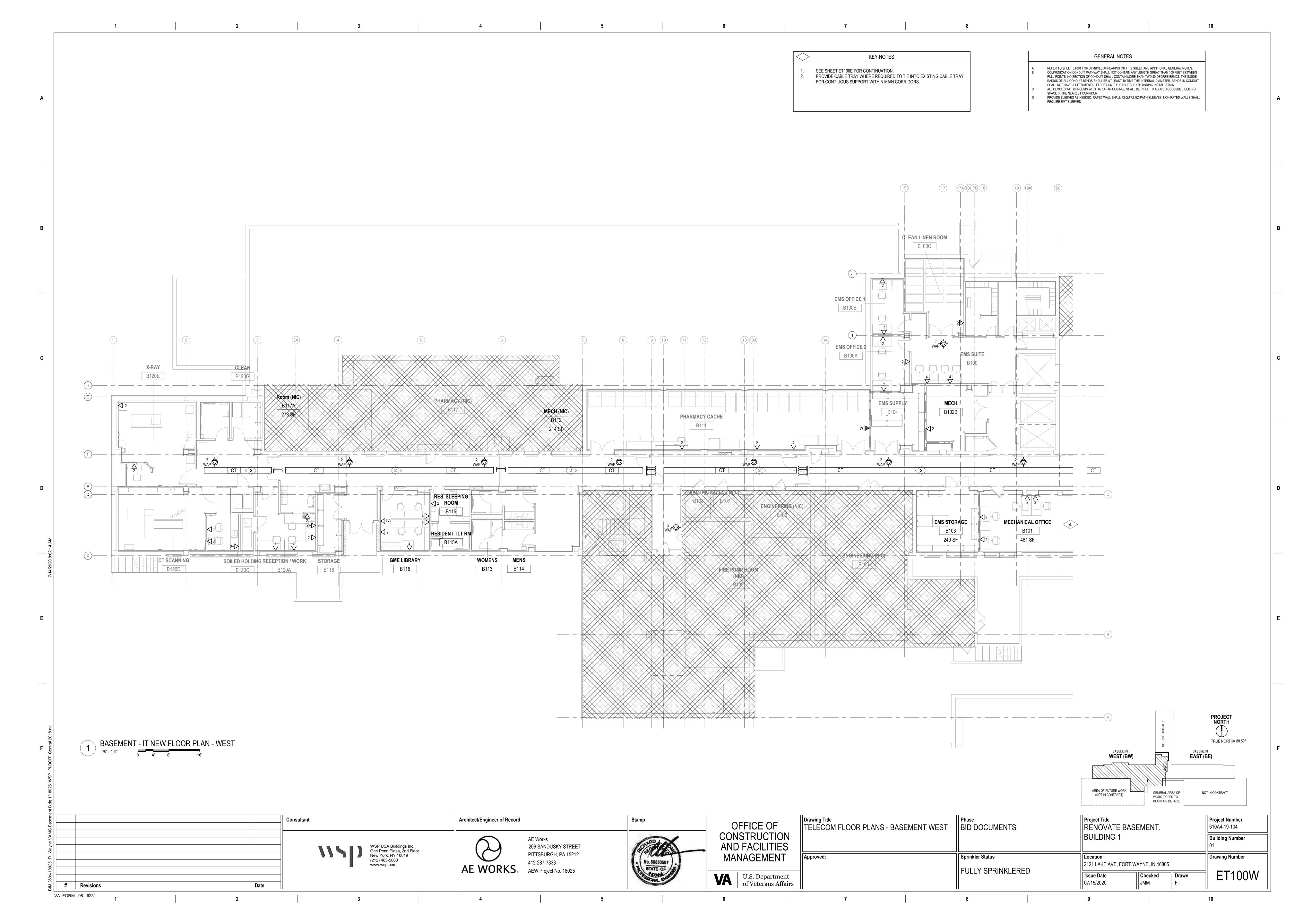
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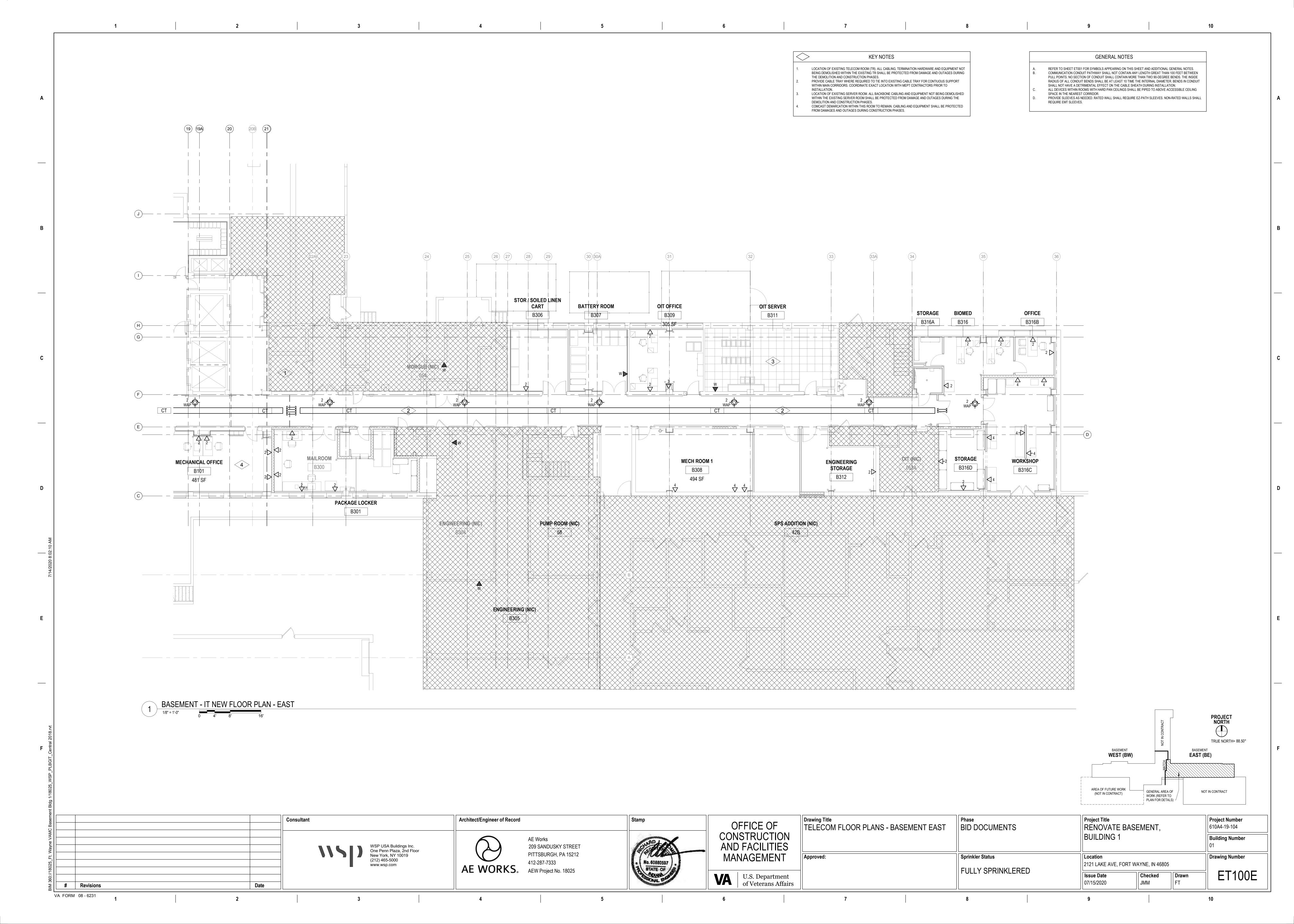
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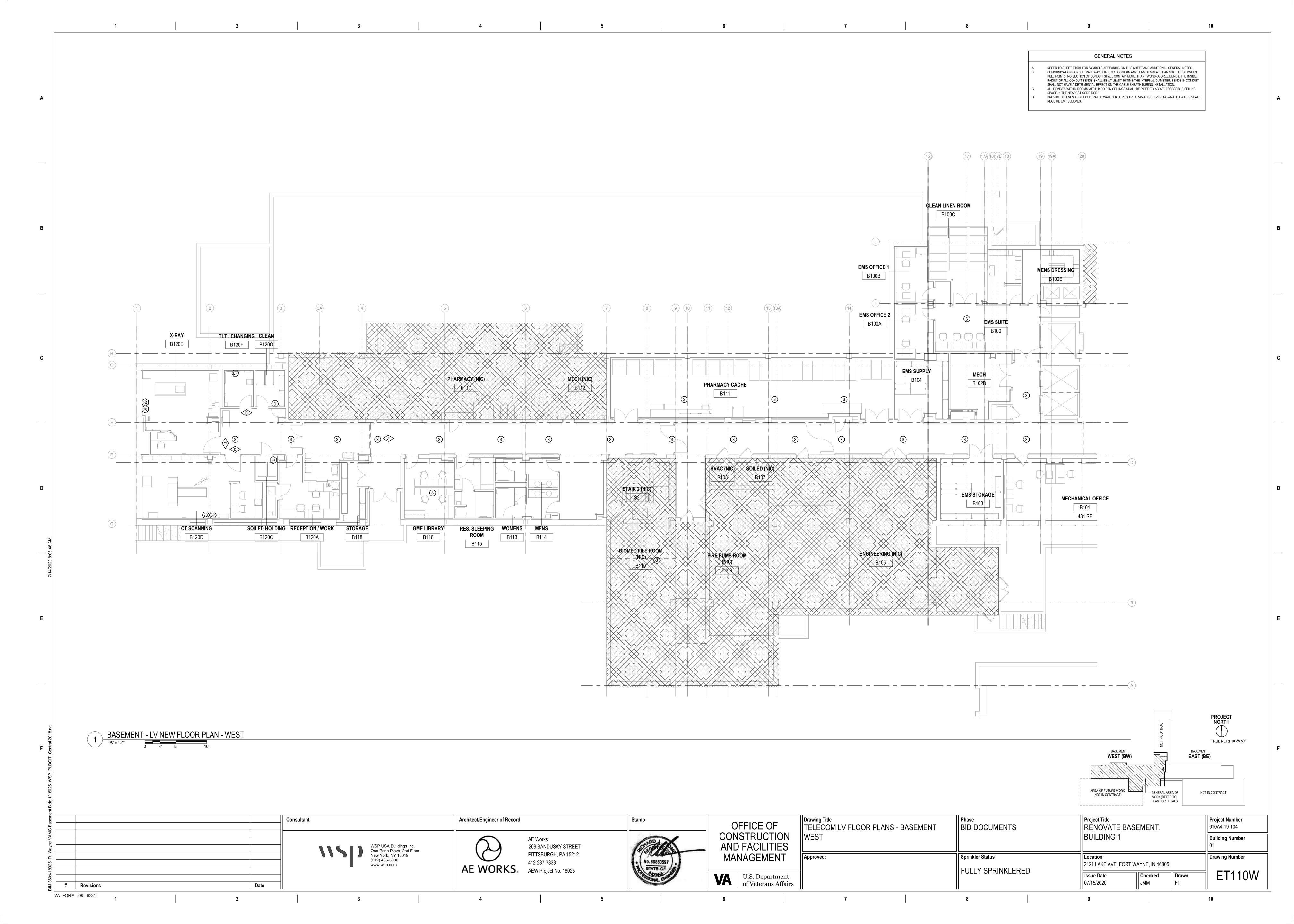
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TELECOM SYMBOLS, ABBREVIATIONS & GEN	NS & GEN   Phase   Project Title   RENOVATE BASEMENT,						Project Number 610A4-19-104
NOTES		BUILDING 1			<b>Building Number</b> 01		
Approved:	Sprinkler Status	Location 2121 LAKE AVE, FORT WAYNE, IN 46805			Drawing Number		
	FULLY SPRINKLERED	Issue Date 07/15/2020	Checked JMM	<b>Drawn</b> FT	ET001		

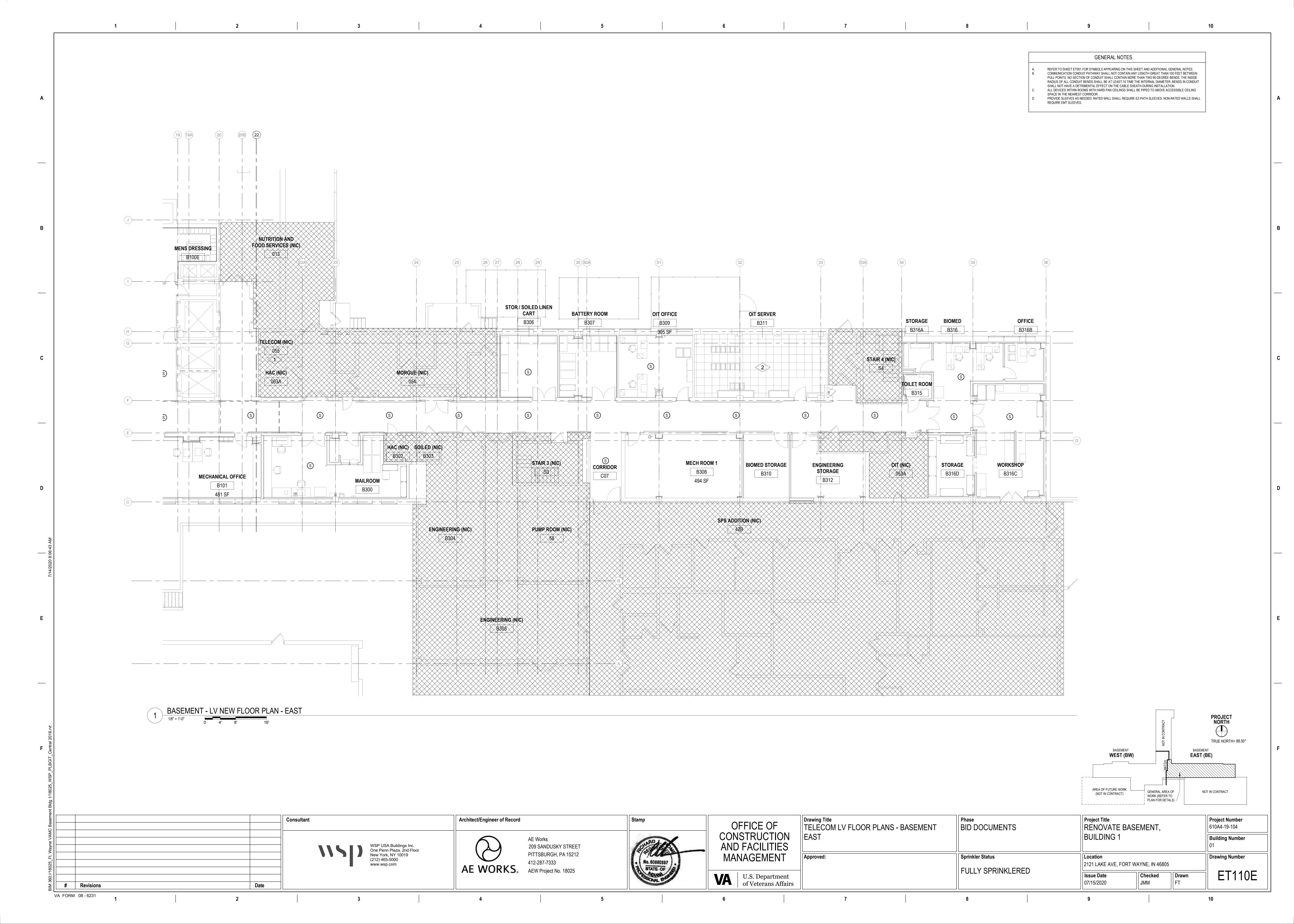


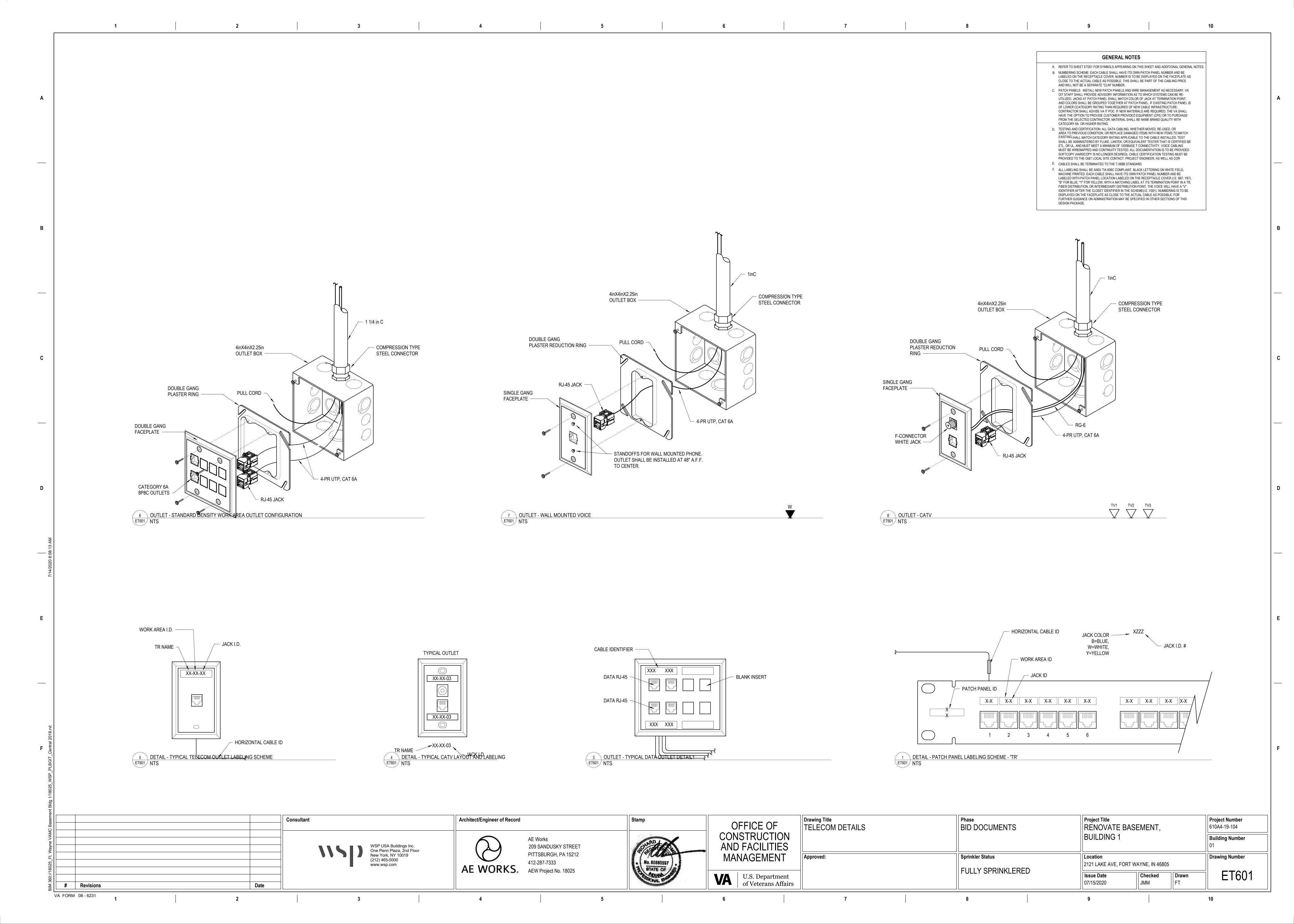












	MAX # OF CABLES BASED ON ALLOWABLE FILL										
CONDUIT TRADE SIZ	ZE				CABLE C	OUTSIDE DI	AMETER				
ENGLISH	METRIC	3.3	4.6	5.6	6.1	7.4	7.9	9.4	13.5	15.8	17.8 mm
		0.13	0.18	0.22	0.24	0.29	0.31	0.37	0.53	0.62	0.7 in
1/2"	16	1	1	0	0	0	0	0	0	0	0
3/4"	21	6	5	4	3	2	2	1	0	0	0
1"	27	8	124	7	6	3	3	2	1	0	0
1-1/4"	35	16		12	10	6	4	3	1	1	1
1-1/2"	41	20	18	16	15	174	6	4	2	1	1
2"	53	30	26	22	20		12	7	4	3	2
2-1/2"	63	45	40	36	30	17		12	6	3	3
3"	78	70	60	50	40	20	20	17	7	6	6
3-1/2"	91	-	-	-	-	-	-	22	12	7	6
4"	103	-	-	-	-	-	-	30	14	12	7

1. BASED ON ANSI/TIA 569D TABLE 9.

		<del>.</del>							
		M	IINIMU	JM PU	ILLBO	X SIZ	Έ		
MAXIMUM TRADE SI ENTERING PULLBOX									AL WIDTH BY
ENGLISH	METRIC	WID	)TH	LENG	TH	DEP	TH	IN	mm
IN	mm	IN	mm	IN	mm	IN	mm	1	
3/4"	21	4"	100	12"	300	3"	75	2"	50
1"	27	4"	100	16"	400	3"	75	2"	50
1-1/4"	35	6"	150	20"	500	3"	75	3"	75
1-1/2"	41	8"	200	27"	675	4"	100	4"	100
2"	53	8"	200	36"	900	4"	100	5"	125
2-1/2"	63	10"	250	42"	1050	5"	125	6"	150
3"	78	12"	300	48"	1200	5"	125	6"	150
3-1/2"	91	12"	300	54"	1350	6"	150	6"	150
4"	103	15"	375	60"	1520	8"	200	8"	200

NOTES: 1. TABLE BASED ON ANSI / TIA 569D

	CABLETRAY SCHEDULE CTX										
MARK	DEPTH	WIDTH	AREA	TYPE	REMARK						
	(in)	(in)	@40% FILL								
CT1	4	12	12,000	BASKET							
CT2	6	24	24,000	BASKET							
CT5	4	12	12,000	RUNWAY							
CT6	Δ	24	12 000	RIINWAY							

CABLE SCHEDULE			
KEY	QTY	UNITS	TYPE
F01	2	ST	MM FO
F02	6	ST	MM FO
F03	12	ST	MM FO
F04	24	ST	MM FO
F05	36	ST	MM FO
F06	48	ST	MM FO
F07	60	ST	MM FO
F08	72	ST	MM FO
F09	96	ST	MM FO
F10	144	ST	MM FO
F11	12	ST	SM FO
F12	24	ST	SM FO
F13	48	ST	SM FO
F14	24	ST	OM3 FO
V01	4	PR	CAT 6 UTP
V02	25	PR	CAT 3 UTP
V03	50	PR	CAT 3 UTP
V04	100	PR	CAT 3 UTP
V05	200	PR	CAT 3 UTP
V06	400	PR	CAT 3 UTP
V07	25	PR	CAT 5E UTP
D01	4	PR	CAT 6 UTP
SP1	4	PR	CAT 6 UTP
TV1	1	COAX	RG-6
TV2	1	COAX	RG-11
TV3	1	COAX	LDF4-50A FOAM HELIAX
G01	35	mm2	INSULATED CU
G02	95	mm2	INSULATED CU

<u>GENERAL CABLE SCHEDULE NOTES:</u> FO - FIBER OPTIC, MM - MULTIMODE, SM - SINGLE MODE, ST - STRANDS, COAX -COAXIAL, PR - PAIRS, UTP - UNSHIELDED TWISTED PAIR

ALL CABLES RUN OUTSIDE SHALL BE OUTSIDE PLANT RATED CABLE. PROVIDE OUTSIDE PLANT CABLES OR INDOOR/OUTDOOR RATED CABLES WHEN: -CABLE ENTERS OR EXITS THE BUILDING

-CABLE IS RUN UNDERSLAB (INDOOR/OUTDOOR) -CABLE IS RUN WITHIN IN-SLAB CONDUIT ON GRADE (INDOOR/OUTDOOR)

ALL OSP CABLE SHALL BE TERMINATED WITHIN 15 METERS OF ENTERING THE BUILDING FROM THE EXTERIOR. THIS DOES NOT APPLY TO INSIDE PLANT CABLE OR INDOOR/OUTDOOR RATED CABLE.

PROVIDE CABLE WITH JACKET AND CONNECTIVITY PER SYSTEM COLOR

SEE SPECIFICATION SECTION 27 15 00 FOR CONNECTOR TYPES REQUIRED BY EACH TYPE OF CABLE.

ent Bldg 1/18				
lasem		Consultant	Architect/Engineer of Record	Stamp
# Revis	ions	WSP USA Buildings Inc. One Penn Plaza, 2nd Floor New York, NY 10019 (212) 465-5000 www.wsp.com	AE Works 209 SANDUSKY STREET PITTSBURGH, PA 15212 412-287-7333 AEW Project No. 18025	No. 60880597 STATE OF

VA FORM 08 - 6231

	OFFICE OF CONSTRUCTION AND FACILITIES	Drawing Title TELECOM SCHEDULES	Phase BID DOCUMENTS	Project Title RENOVATE E BUILDING 1	RÉNOVATE BASEMENT,	
MANAGEMENT	Approved:	Sprinkler Status	Location 2121 LAKE AVE, FC	Location 2121 LAKE AVE, FORT WAYNE, IN 46805		
	U.S. Department		FULLY SPRINKLERED	Issue Date 07/15/2020	Checked	Drav

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FIRE ALARM SYMBOLS		
<u> </u>	DUCT TYPE SMOKE DETECTOR	
•	FIXED TEMPERATURE HEAT DETECTOR	
② ② <sub>BT</sub> ② <sub>BR</sub>	BT = BEAM TYPE TRANSMITTER BR = BEAM TYPE RECEIVER	
© co	COMBO SMOKE/CARBON MONOXIDE DETECTOR (WITH SOUNDER BASE)	
© <sub>CM</sub>	CARBON MONOXIDE DETECTOR (BATTERY OPERATED)	
$\Theta$	HYDROGEN DETECTOR	
Т	TAMPER MODULE	
W	WATER FLOW MODULE	
Р	PRESSURE MODULE	
PL	PRESSURE LOW MODULE	
СМ	CONTROL MODULE	
R	RELAY	
S ±	FIRE ALARM SPEAKER WITH VISUAL ALARM # DENOTES CANDELA VALUE (15 CD U.O.N.)	
<u>©</u>	COMBINATION CARBON MONOXIDE DETECTOR (STAND ALONE RESIDENTIAL 10 YEAR BATTERY BACKUP WITH 120 VOLT POWER CONNECTION)	
#	FIRE ALARM SPEAKER WITH VISUAL ALARM # DENOTES CANDELA VALUE (15 CD U.O.N.)	
Р	FIRE ALARM PULL STATION INSTALL NEW PULL STATIONS AS PER ADA REQUIREMENT	
FSD	FIRE SMOKE DAMPER	
HSD	HEAT SMOKE DAMPER	
FCO	FUSE CUT OUT (FCO)	
DGP	DATA GATHERING PANEL	
FACP	FIRE ALARM CONTROL PANEL	
FARA	FIRE ALARM REMOTE ANNUNCIATOR	
FACC	FIRE ALARM CENTRAL CONSOLE	
FATC	FIRE ALARM TERMINAL CABINET	
<u>-</u>	WARDEN PHONE	
<u> </u>	FIRE ALARM BELL	
DH	DOOR HOLDER	

# **ABBREVIATIONS**

	יוטטא
A	AMPERES
AC	ABOVE COUNTER
AFF	ABOVE FINISHED FLOOR
AF/AT	FRAME AMPERAGE / TRIP AMPERAGE
AL	ALUMINUM
ASYM	ASYMMETRICAL
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BMS	BUILDING MANAGEMENT SYSTEM
BOF	BOTTOM OF FIXTURE
Ģ.	CENTER LINE
CAT	CATALOG
СВ	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
СКТ	CIRCUIT
CDT	CONDUIT
CLG	CEILING
CO	CARBON MONOXIDE
COF	CENTER OF FIXTURE
СР	CONTROL PANEL
СТ	CURRENT TRANSFORMER
CU	COPPER
DM	DEMARK MAN HOLE
DWG	DRAWING
EC	EMPTY CONDUIT
ECH	ELECTRICAL CABINET HEATER
EM	EMERGENCY
ETR	EXISTING TO REMAIN
EUH	ELECTRICAL UNIT HEATER
EWC	ELECTRIC WATER COOLER  EXISTING
FA	FIRE ALARM
FCU	FAN COIL UNIT
G	GROUND
GFI	GROUND FAULT INTERRUPTER
GX	GENERAL EXHAUST
HC	HUNG CEILING
HN	HALF NEUTRAL
НОА	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HV	HIGH VOLTAGE
HZ	HERTZ
JB or J	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT-AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
KX	KITCHEN EXHAUST
LV	LOW VOLTAGE
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER

MER	MECHANICAL EQUIPMENT ROOM
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTG	MOUNTING
MTS	MANUAL TRANSFER SWITCH
N	NEUTRAL
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
□ or PH	PHASE
OL	OVERLOAD
P	POLE
PA	PUBLIC ADDRESS
PB	PULLBOX
PCB	POWER CIRCUIT BREAKER
PNL	PANEL
PS	PHOTO SENSOR
PT	POTENTIAL TRANSFORMER
RAU	RADIO AMPLIFICATION UNIT
RE	EXISTING TO BE REMOVED
	ROOM
RT	RAINTIGHT
RUD	ROLL UP DOOR
SMCP	SNOW MELTING CONTROL PANEL
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR ROOM
T/F	TRANSFORMER
TEL TOF	TELECOMMUNICATIONS  TOP OF FIXTURE
TRANS	TRANSFORMER
TS	TAMPER SWITCH
ТТВ	TELECOMMUNICATIONS TERMINAL BOARD
TTC	TELECOMMUNICATIONS TERMINAL CABINET
TV	TELEVISION
TX	TOILET EXHAUST
TYP	TYPICAL
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VAV	VARIABLE AIR VOLUME BOX
VP	VAPOR PROOF
W	WATTS
WF	WATERFLOW
WP	WATERPROOF
WT	WATERTIGHT
XP	EXPLOSION PROOF
Z	ZONE

Consultant Date # Revisions

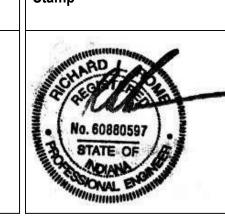
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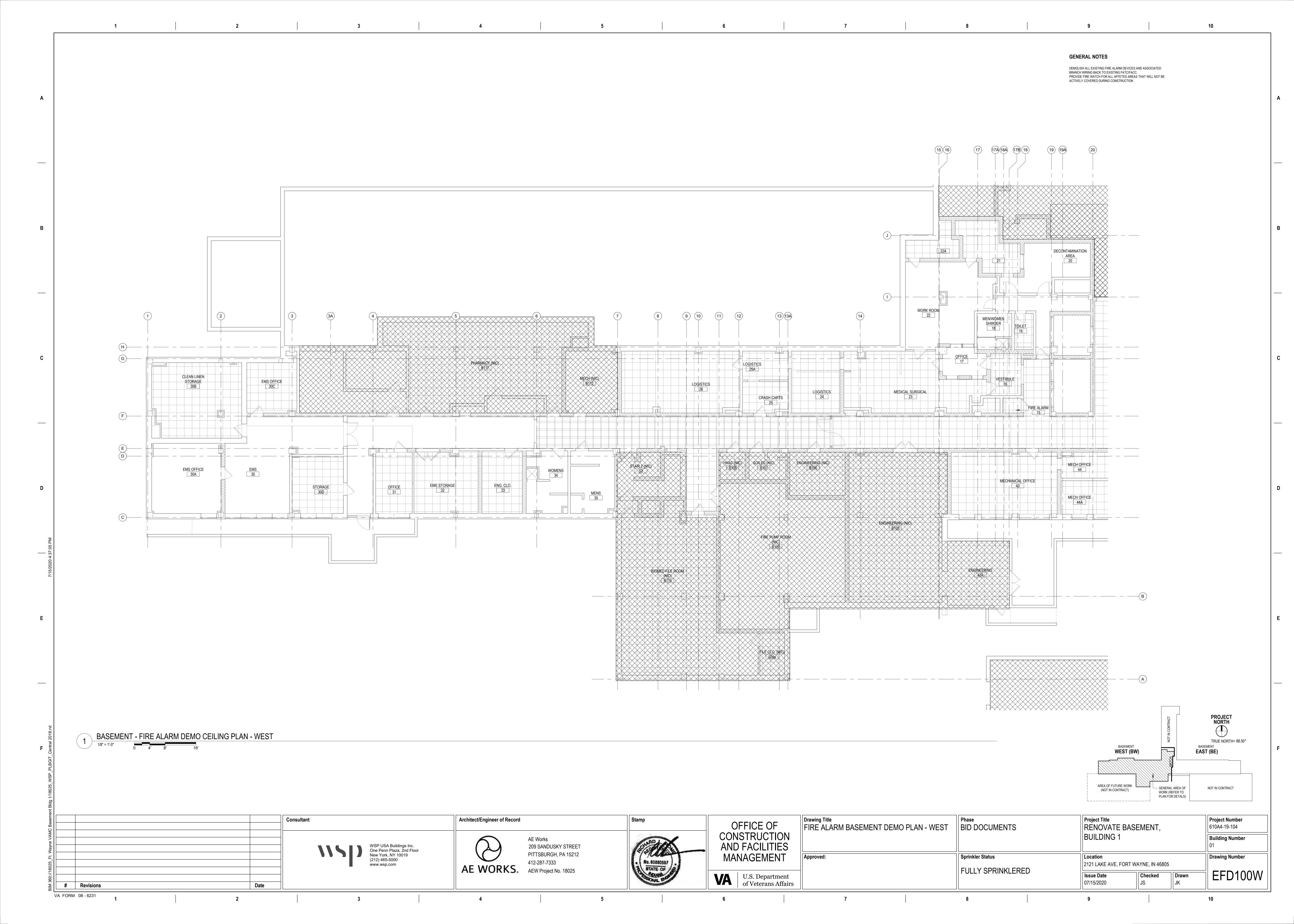
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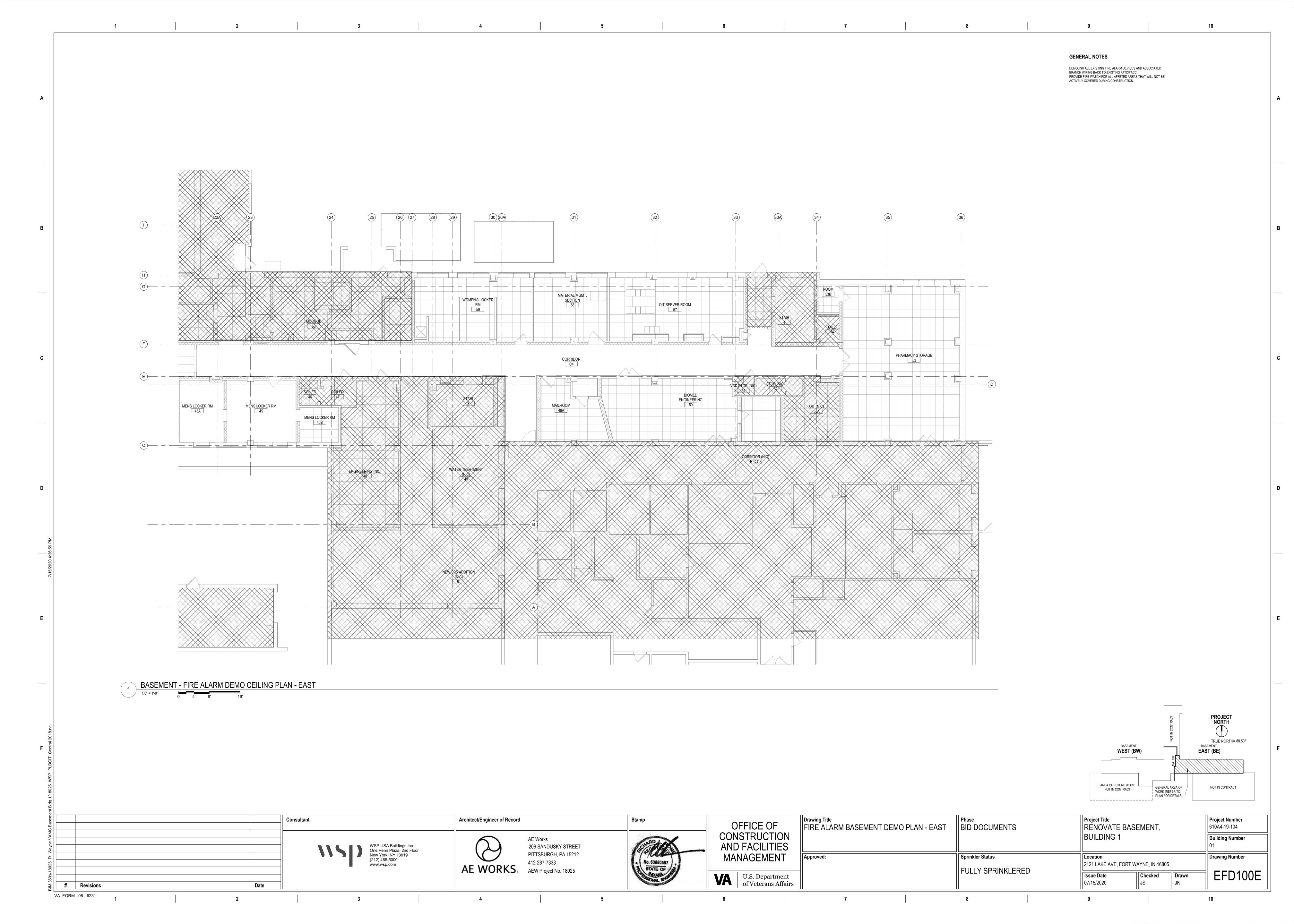


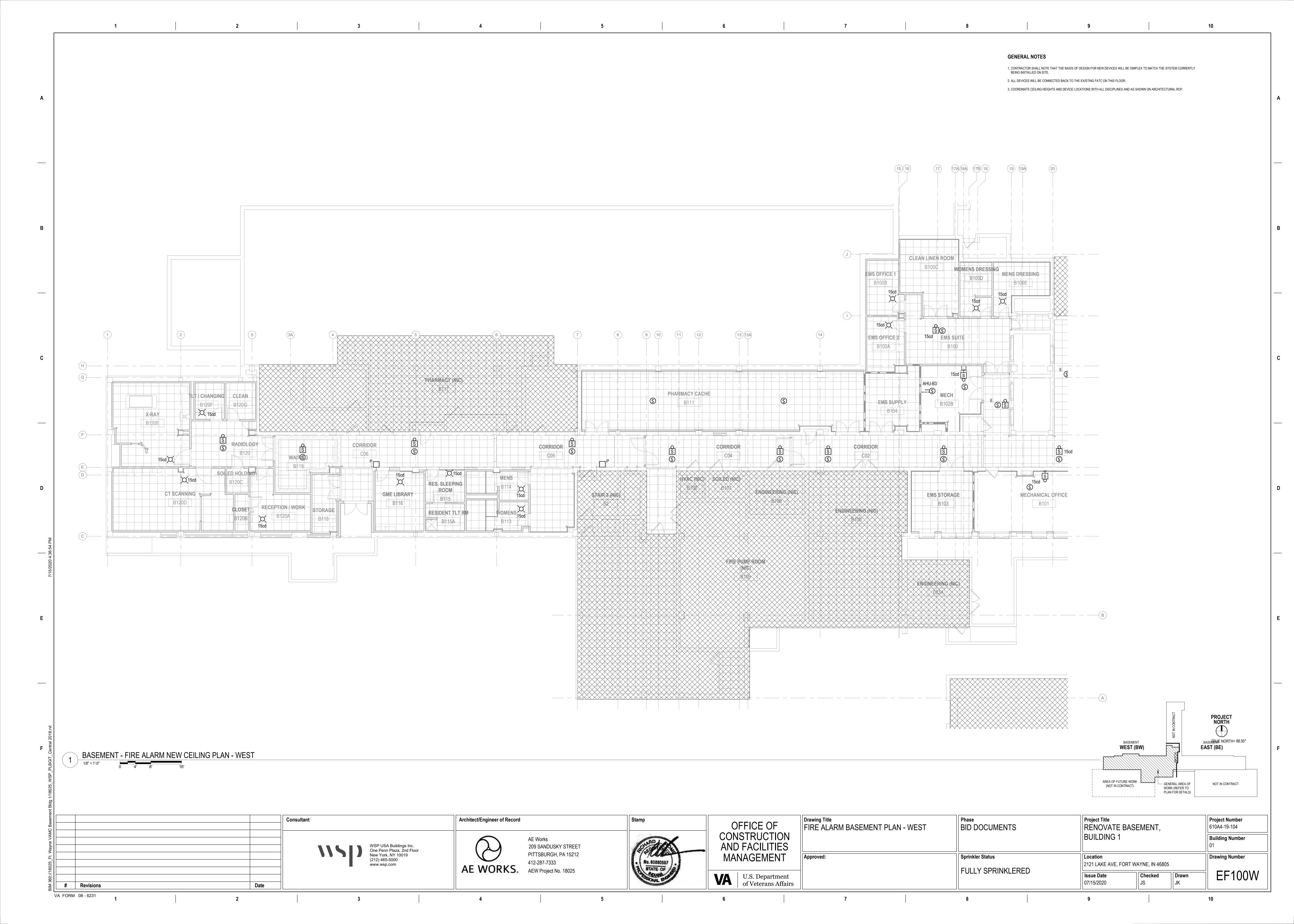
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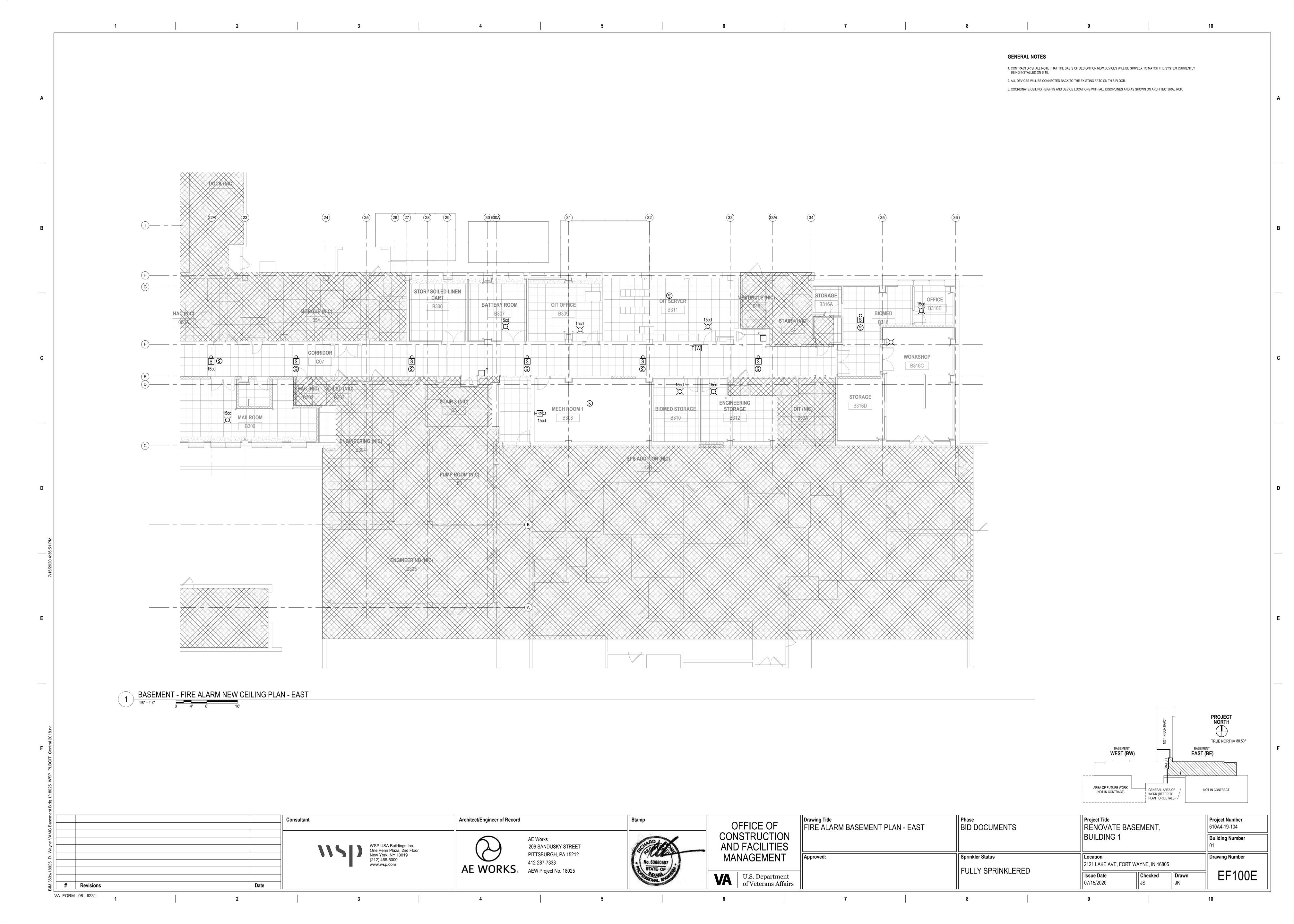
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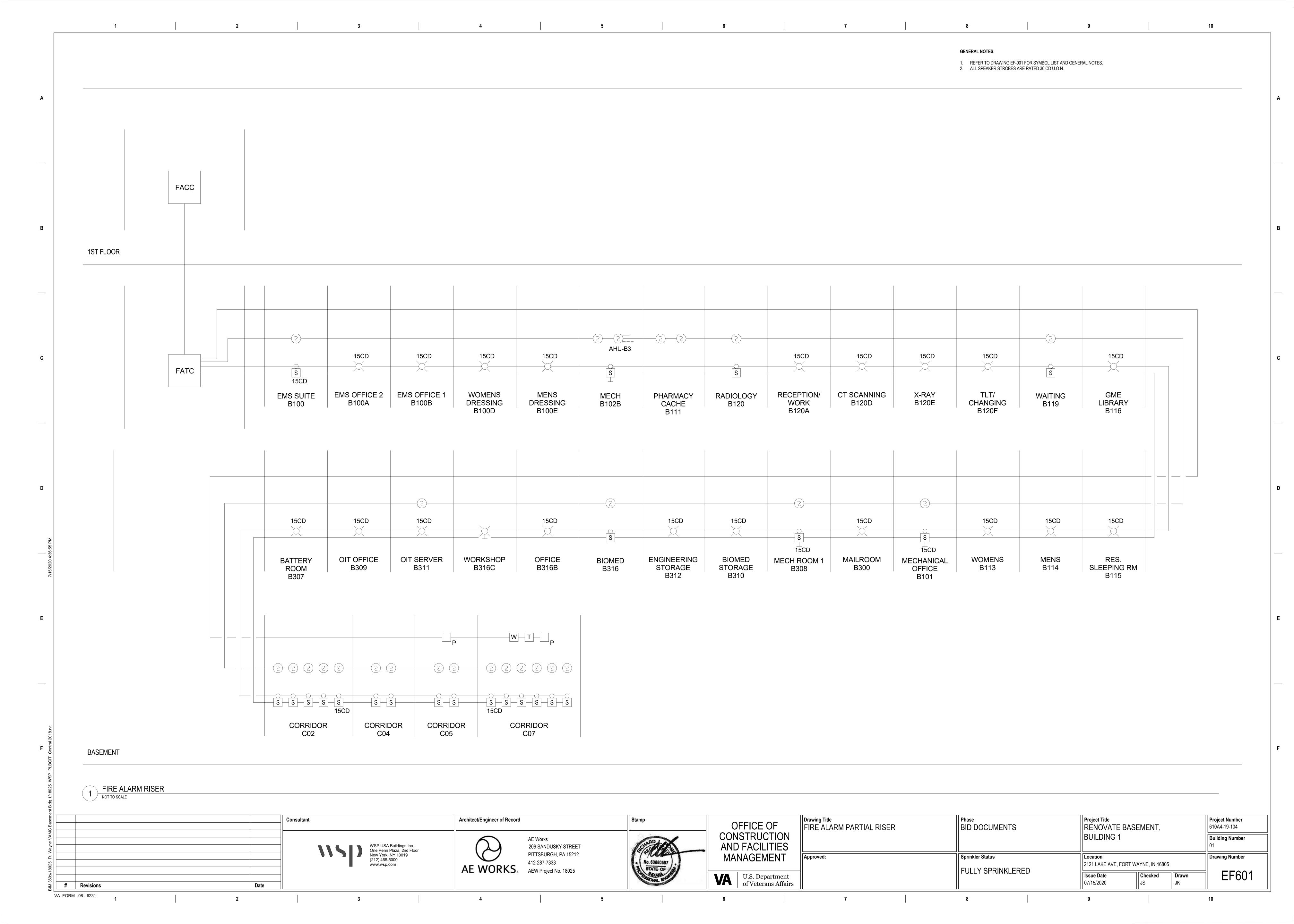
Project Title
RENOVATE BASEMENT, Phase BID DOCUMENTS Project Number E ALARM LEGENDS, SYMBOLS AND 610A4-19-104 BUILDING 1 REVIATIONS **Building Number** Sprinkler Status Drawing Number 2121 LAKE AVE, FORT WAYNE, IN 46805 FULLY SPRINKLERED EF001 Checked Issue Date Drawn 07/15/2020











ACCESS CONTROL SYMBOLS LEGEND **SECURITY SYSTEM GENERAL NOTES** ALL SYMBOLS SHOWN MAY NOT APPEAR ON ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE. 1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING HIS PROPOSAL AND BECOME FAMILIAR WITH THE CONDITIONS UNDER WHICH THE WORK WILL BE PERFORMED, AND CORRELATE HIS SITE OBSERVATIONS WITH THE REQUIREMENTS OF MTG. HEIGHT SYMBOL DESCRIPTION BACK BOX THE CONTRACT DOCUMENTS. INCONSISTENCIES DISCOVERED SHALL BE REPORTED TO UNO (NOTE 1) THE ARCHITECT, COR, AND ENGINEER AT ONCE, BEFORE SUBMITTAL OF BID PROPOSAL. CEILING OR 2. ALL COMMUNICATIONS PRODUCTS AND INSTALLATIONS SHALL COMPLY WITH ALL TECHNOLOGY WALL MOUNT APPLICABLE STATE AND LOCAL CODES. REFER TO SPECIFICATIONS FOR MATERIALS AND METHODS FOR COMMUNICATIONS CONSTRUCTION. C - CEILING - SPECIFIC TO DEVICE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, PAY ALL FEES, AND COMPLY WITH D - DESK - CAN BE MULTIPLE **EXAMPLE** ALL NATIONAL, STATE, AND MUNICIPAL LAWS, CODES, AND ORDINANCES RELATING TO BUILDING AND PUBLIC SAFETY. M - MULLION P - POLE 4. CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR REQUIRED EX = EXISTING DEVICE R - RACK FOR A COMPLETE WORKING AND COORDINATED SYSTEM. S - SURFACE 5. UNLESS OTHERWISE NOTED. ALL EQUIPMENT AND MATERIALS SHALL BE NEW AND U.L. T - TURNSTILE LISTED OR LABELED. EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN W - WALL ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, AND LISTING OR LABELING REQUIREMENTS AND RESTRICTIONS. PROVIDE SUBMITTAL DATA AS DEPICTED IN THE COMMUNICATIONS SPECIFICATIONS. CARD ACCESS READER 48" AFF 6. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR APPROVAL FOR ALL COMMUNICATIONS MATERIALS PROPOSED TO BE PROVIDED UNDER THIS CONTRACT. ANY DEVIATIONS FROM ITEMS SPECIFIED SHALL BE CLEARLY IDENTIFIED. NO WORK IS AUTHORIZED WITHOUT SHOP DRAWINGS REVIEWED BY ENGINEER & COR. BIOMETRIC ACCESS READER 7. ALL EMPTY CONDUIT SYSTEMS SHALL CONTAIN A PULL WIRE FOR FUTURE 48" AFF PULLING OF CONDUCTORS. F - FINGERPRINT H - HAND GEOMETRY FLOOR CALL R - RETINA 8. REFER TO AND COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXACT LOCATION V - VOICE OF ALL DEVICES AND EQUIPMENT. 9. REFER TO AND COORDINATE WITH DIVISION 15 FOR THE LOCATION OF ALL ITEMS CARD ACCESS READER W/KEYPAD LOCATED IN THE CEILING INCLUDING, BUT NOT LIMITED TO SUPPLY-AIR DIFFUSERS, RETURN-AIR DIFFUSERS AND FIRE SPRINKLER HEADS. B - BARCODE S - SMART CARD H - ELEVATOR HALL CALL 10. ALL PENETRATIONS THROUGH FIRE RATED WALLS OR PARTITIONS SHALL BE MADE F - ELEVATOR FLOOR CALL 48" AFF IN ACCORDANCE WITH U.L. 483 "FIRE RESISTANCE DIRECTORY". PENETRATIONS I - iCLASS P - PROXIMITY SHALL BE SLEEVED AND SEALED WITH A UL APPROVED FIRE RATED SEALANT. W - WIEGANDDUAL PUSH M - MAGSTRIPE BUTTON REFER TO ARCHITECTURAL PLANS FOR FIRE RATED WALLS. 11. CONTRACTOR SHALL COORDINATE AND SCHEDULE ALL OUTAGES WITH KEYPAD OWNER'S REPRESENTATIVE. 48" AFF 12. SPACE ALLOCATIONS FOR MATERIALS, EQUIPMENT AND DEVICES HAVE BEEN MADE ON THE D - DRY CONTACT W - WIEGAND BASIS OF PRESENT AND KNOWN FUTURE REQUIREMENTS AND THE DIMENSIONS OF ITEMS PUSH BUTTON OF EQUIPMENT OR DEVICES OF A PARTICULAR MANUFACTURER WHETHER INDICATED OR 48" AFF NOT. THE CONTRACTOR SHALL VERIFY THAT ALL MATERIALS, EQUIPMENT AND DEVICES R - REMOTE RELEASE X - REQUEST TO EXIT PROPOSED FOR USE ON THIS PROJECT ARE WITHIN THE CONSTRAINTS OF THE ALLOCATED PIR AS REQD. MOTION DETECTOR ACCESS CONTROL PANEL (NOTE#4) AS REQD. DOOR CONTACT N/A MAGNETIC LOCK AS REQD. SECURITY SYSTEM DEMOLITION NOTES F - FACE MOUNT S - SHEAR MOUNT D - DELAYED EGRESS A. INFORMATION PROVIDED ON THESE DRAWINGS HAVE BEEN TAKEN FROM DESIGN DRAWING AND FIELD OBSERVATIONS. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO 48" AFF INTRUSION DETECTION SIREN PRICING AND COMMENCEMENT OF WORK. B. WHERE EXISTING WALLS ARE DEMOLISHED, REMOVE ALL EXISTING WIRING DEVICES AND THEIR ASSOCIATED CONDUITS AND WIRING BACK TO THE POINT OF ORIGINATION. AS REQD. INTRUSION DETECTION KEYPAD C. PROVIDE FOR ANY AND ALL DEMOLITION WORK NECESSARY TO ACCOMMODATE ALL NEW CONSTRUCTION, INCLUDING ARCHITECTURAL, MECHANICAL, PLUMBING OR ELECTRICAL WORK. PANIC BUTTON - HARDWIRE CONNECTION TO LENEL ACCESS CONTROL PANEL. 48" AFF PROVIDE BACK BOX IN NEARBY WALL FOR CABLE PATHWAY. D. IF DEMOLITION IS REQUIRED TO INSTALL AN ITEM, THE CONTRACTOR SHALL RESTORE THE AREA TO PREVIOUS CONDITION, OR REPLACE DAMAGED ITEMS WITH NEW ITEMS TO MATCH REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT MOUNTING HEIGHTS OF ALL WALL MOUNTED DEVICES. E. SPACE ALLOCATIONS FOR MATERIALS, EQUIPMENT AND DEVICES HAVE BEEN MADE ON THE BASIS OF PRESENT AND KNOWN FUTURE REQUIREMENTS AND THE DIMENSIONS OF ITEMS OF REFER TO FLOOR PLANS FOR DEVICE LOCATION LAYOUT. PUSH PADS/WAVE PLATES ARE SHOWN FOR COORDINATION OF BACK BOX ROUGH IN PURPOSES ONLY. EQUIPMENT OR DEVICES OF A PARTICULAR MANUFACTURER, WHETHER INDICATED OR NOT. REFER TO DIV 08 SPECIFICATIONS FOR ADDITIONAL HARDWARE INFORMATION. THE CONTRACTOR SHALL VERIFY THAT ALL MATERIALS, EQUIPMENT AND DEVICES PROPOSED FOR USE ON THIS PROJECT ARE WITHIN THE CONSTRAINTS OF THE ALLOCATED SPACE. 4. REFER TO ENLARGED COMM ROOM LAYOUT FOR EXACT PLACEMENT OF ACCESS CONTROL EQUIPMENT. F. VERIFY THAT ANY DEVICES LOCATED OUTSIDE OF CONSTRUCTION AREA REMAINS IN PROPER G. ANY EXISTING CABLING TO REMAIN WITHIN CONSTRUCTION AREA NOT SUPPORTED PROPERLY SHALL BE SUPPORTED AS PART OF PROJECT. ACCESS CONTROL BACK BOX SCHEDULE H. EXISTING ABANDONED CABLE LOCATED IN CONSTRUCTION AREA SHALL BE REMOVED BACK TO POINT OF ORIGINATION PER NEC ARTICLES 725.25, 770.25, & 800.25. SYMBOL DESCRIPTION DOUBLE GANG BACK BOX, 2 1/8" DEEP, WITH SINGLE GANG DEVICE COVER AND 3/4" CONDUIT PATHWAY STUBBED ABOVE ACCESSIBLE CEILING SPACE. DOUBLE GANG BACK BOX, 2 1/8" DEEP, WITH SINGLE GANG DEVICE COVER AND 3/4" CONDUIT PATHWAY STUBBED ABOVE ACCESSIBLE CEILING SPACE. DOUBLE GANG BACK BOX, 2 1/8" DEEP, WITH SINGLE GANG DEVICE COVER AND 3/4" CONDUIT PATHWAY STUBBED ABOVE ACCESSIBLE CEILING SPACE. DOUBLE GANG BACK BOX, 2 1/8" DEEP, WITH SINGLE GANG DEVICE COVER AND 3/4" CONDUIT PATHWAY STUBBED ABOVE ACCESSIBLE CEILING SPACE. DOUBLE GANG BACK BOX, 2 1/8" DEEP, WITH SINGLE GANG DEVICE COVER AND 3/4" CONDUIT PATHWAY STUBBED ABOVE ACCESSIBLE CEILING SPACE. DOUBLE GANG BACK BOX, 2 1/8" DEEP, WITH SINGLE GANG DEVICE COVER AND 3/4" CONDUIT PATHWAY STUBBED ABOVE ACCESSIBLE CEILING SPACE. VIDEO SURVEILLANCE SYMBOLS LEGEND ALL SYMBOLS SHOWN MAY NOT APPEAR ON ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE. MTG. HEIGHT SYMBOL DESCRIPTION BACK BOX UNO (NOTE 1) CEILING OR MOUNT TECHNOLOGY WALL MOUNT - SPECIFIC TO DEVICE C - CEILING - CAN BE MULTIPLE D - DESK F - FLUSH **EXAMPLE** M - MULLION P - POLE R - RACK S - SURFACE T - TURNSTILE W - WALL STATIONARY CAMERA B - BOX E - ENVIROMENTAL AS REQD. C - COVERT P - POE V - VANDAL RESISTANT D - DOME PAN/TILT/ZOOM CAMERA B - BOX E - ENVIROMENTAL AS REQD. C - COVERT P - POE V - VANDAL RESISTANT D - DOME MONITOR AS REQD. D - DESKTOP S - SWING ARM T - WITH TILT R - RECESSED NVR T VIDEO RECORDER AS REQD. N - NVR SWITCH SW T AS REQD. K -KEY SWITCH T - TOGGLE P - PUSH BUTTON POWER SUPPLY AS REQD. A - 12VDC P - POE B - 24VAC <u>VIDEO SURVEILLANCE NOTES:</u>
1. REFER TO FLOOR PLAN DRAWINGS FOR ADDITIONAL MOUNTING HEIGHTS. CONFIRM MOUNTING HEIGHTS WITH ARCHITECTURAL Architect/Engineer of Record Drawing Title Consultant Project Title **Project Number** OFFICE OF SECURITY SYSTEM SYMBOLS, RENOVATE BASEMENT, BID DOCUMENTS 610A4-19-104 CONSTRUCTION ABBREVIATIONS, AND GENERAL NOTES BUILDING 1 **Building Number** AE Works AND FACILITIES WSP USA Buildings Inc. One Penn Plaza, 2nd Floor 209 SANDUSKY STREET PITTSBURGH, PA 15212 **MANAGEMENT** Sprinkler Status Drawing Number (212) 465-5000 No. 60880597 412-287-7333 2121 LAKE AVE, FORT WAYNE, IN 46805 www.wsp.com AE WORKS. FULLY SPRINKLERED AEW Project No. 18025 ES001 U.S. Department of Veterans Affairs Issue Date Checked Drawn 07/15/2020 JMM Date # Revisions VA FORM 08 - 6231

