# IOWA LABS

## SECURITY CAMERA UPGRADES

## ANKENY, IA

## INDEX OF DRAWINGS

## SECURITY

SHEET NUMBER	DESCRIPTION
SC000	SECURITY SYMBOLS AND ABBREVIATIONS
SC001	SECURITY SCHEMATICS AND SCHEDULES
SC010	SITE PLAN - SECURITY - BASE BID
SC011	SITE PLAN - SECURITY - ALTERNATE #1
SC100A.1	LOWER LEVEL - AREA 'A' - SECURITY PLAN - BASE BID
SC100A.2	LOWER LEVEL - AREA 'A' - SECURITY PLAN - ALTERNATE #1
SC101A.1	FIRST LEVEL - AREA 'A' - SECURITY PLAN - BASE BID
SC101A.2	FIRST LEVEL - AREA 'A' - SECURITY PLAN - ALTERNATE #1
SC101B.1	FIRST LEVEL - AREA 'B' - SECURITY PLAN - BASE BID
SC101B.2	FIRST LEVEL - AREA 'B' - SECURITY PLAN - ALTERNATE #1
SC101C.1	FIRST LEVEL - AREA 'C' - SECURITY PLAN - BASE BID
SC101C.2	FIRST LEVEL - AREA 'C' - SECURITY PLAN - ALTERNATE #1
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SC101E.1	FIRST LEVEL - AREA 'E' - SECURITY PLAN - BASE BID
SC101F.1	FIRST LEVEL - AREA 'F' - SECURITY PLAN - BASE BID
SC200	SECURITY DETAILS









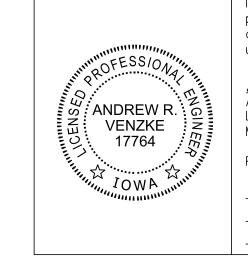


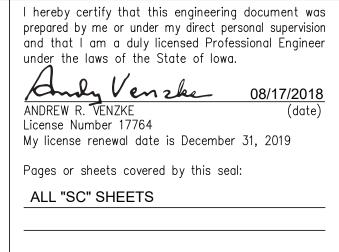
## PROJECT DRAWINGS

08/17/2018 20176525

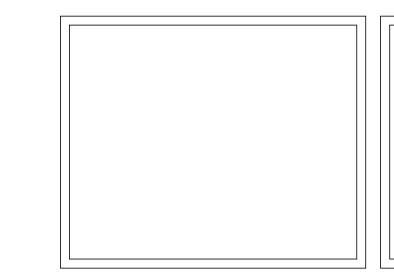


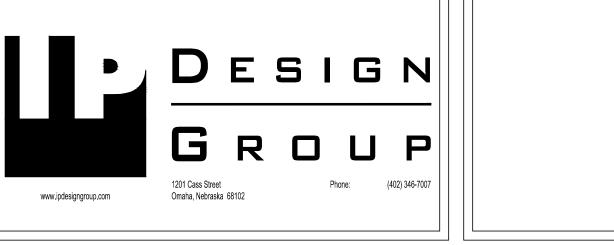
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		SEC	CURITY SYMBOLS		
			TELECOMMUNICATIONS		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
$\nabla$	COMMUNICATIONS OUTLET	-♦-	CEILING COMMUNICATIONS OUTLET	igotimes	FLOOR COMMUNICATIONS OUTLET
▼	SPECIAL SERVICES COMMUNICATIONS OUTLET	T	MUTOA - MULTI-USER TELECOMMUNICATIONS OUTLET ASSEMBLY	C-#-G	UNSHIELDED TWISTED PAIR COPPER CABLE - "C" INDICATES CATEGORY NUMBER
	WIRELESS ACCESS POINT		CABLE SLACK ("X" INDICATES SLACK LENGTH)	<u> </u>	"#" INDICATES NUMBER OF PAIRS "G" INDICATES AWG, "X" INDICATES CABLE NAM
<u>#-⊤</u>	FIBER OPTIC CABLE ("#" INDICATES NUMBER OF STRANDS	XXX <b>☼</b>	CABLE PROTECTOR ("XXX" INDICATES NUMBER OF PROTECTORS)	X	CROSS-CONNECT FIELD
ΟX	"T" INDICATES TYPE AND "X" INDICATES CABLE NAME)	( ( )	CEILING MOUNTED DAS ANTENNA	<del></del>	SPLICE
ØAV <sub>#</sub>	COMBINATION DATA/AV FLOOR OUTLET ("#" INDICATES DEVICE TYPE IN SCHEDULE)	( <b>(</b> ))	WALL MOUNTED DAS ANTENNA	T	MECHANICAL TERMINATION OF CABLE
$\Box$	AV GEAR BOX, REFER TO SCHEMATICS AND SPECS				
			AUDIOVISUAL		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
<u></u> \$#	WALL/SURFACE MOUNTED LOUDSPEAKER ("#" INDICATES DEVICE TYPE IN SCHEDULE)	<b>S</b> <sub>#</sub>	CEILING MOUNTED LOUDSPEAKER ("#" INDICATES DEVICE TYPE IN SCHEDULE)	<b>€</b>	GROUND/FLOOR MOUNTED LOUDSPEAKER ("#" INDICATES DEVICE TYPE IN SCHEDULE)
ŢV	TELEVISION/VIDEO OUTLET	V	VOLUME CONTROL	<b>□</b> #	PROJECTOR ("#" INDICATES DEVICE TYPE IN SCHEDULE)
С	CALL IN SWITCH	<b>\$</b> #	WALL MICROPHONE OUTLET ("#" INDICATES DEVICE TYPE IN SCHEDULE)	<b>P</b> #	CEILING MOUNTED FLAT PANEL DISPLAY ("#" INDICATES DEVICE TYPE IN SCHEDULE)
AV #	AV WALL OUTLET ("#" INDICATES DEVICE TYPE IN SCHEDULE)	<b>₩</b> #	FLOOR MICROPHONE OUTLET ("#" INDICATES DEVICE TYPE IN SCHEDULE)	#	WALL MOUNTED FLAT PANEL DISPLAY ("#" INDICATES DEVICE TYPE IN SCHEDULE)
(A) <sub>#</sub>	FLOOR AV OUTLET ("#" INDICATES DEVICE TYPE IN SCHEDULE)	- <b>A</b> V- <sub>S/F,#</sub>	AV CEILING OUTLET ("S/F" INDICATES SURFACE OR FLUSH MOUNTED "#" INDICATES DEVICE TYPE IN SCHEDULE)	#	FRONT/REAR PROJECTION SCREEN OR INTERACTIVE WHITEBOARD ("#" INDICATES DEVICE TYPE IN SCHEDULE)
RS #	AV ROOM SCHEDULER ("#" INDICATES DEVICE TYPE IN SCHEDULE)	<u>CP</u> #	AV CONTROL PANEL ("#" INDICATES DEVICE TYPE IN SCHEDULE)	# [AV]	AV CAMERA ("#" INDICATES DEVICE TYPE IN SCHEDULE)
<b>1</b> #,D	AV BACKBOX, ("#" INDICATES TYPE IN SCHEDULE) ("#D" INDICATES # OF DATA CABLES)	<b>Ø</b> #	AV CEILING BACKBOX, ("#" INDICATES TYPE IN SCHEDULE) ("#D" INDICATES # OF DATA CABLES)		
#,0	(#D INDICATES# OF DATA CABLES)	т	SECURITY		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
<b>₽</b> <sup>XX</sup>	WALL MOUNT MOTION SENSOR (90=90°, 180=180°, NB=NARROW BEAM)	Ē	POINT OF CONNECTION FOR 120VAC BY ELECTRICAL CONTRACTOR	KP	SECURITY KEYPAD DEVICE
<b>(</b>	CEILING MOUNT MOTION SENSOR	GB	GLASS BREAK SENSOR	KS	KEY SWITCH
$\boxtimes$	SOUNDER	IC S,M	INTERCOM STATION ("S" SUBSTATION, "M" MASTER STATION)	PS	DOOR LOCK POWER SUPPLY
Ø	STROBE	<b></b>	JUNCTION BOX FOR SPECIALTY SECURITY SENSOR	RA	REMOTE ANNUNCIATOR DEVICE
$\square_{M}$	ACCESS CONTROL DEVICE LOCATION "M" INDICATES MULLION MOUNT	<b>△</b> G,D	AUTOMATIC OPERATOR CONNECTION POINT ('G' GATE, 'D' DOOR)	RQE <sub>M,P</sub>	REQUEST TO EXIT DEVICE ("M" MOTION SENSOR, "P" PUSH BUTTON)
•	ELECTRONICALLY CONTROLLED AND MONITORED DOOR LOCATION	ŒK	FIXED BOX CAMERA ("#" INDICATES NUMBER IN SCHEDULE)	SEC	SECURITY EQUIPMENT CABINET(S), TYPE AND QUANTITY MAY VARY FROM WALL MOUNTED, FREE STANDING RACKS, OR EXTERIOR RATED.
<b>♦</b>	(REFER TO ACCESS CONTROL OPENING SCHEDULE)		FIXED DOME CAMERA ("#" INDICATES NUMBER IN SCHEDULE)	- *	REFER TO DETAILS
$\Phi$	MONITORED DOOR LOCATION (REFER TO ACCESS CONTROL OPENING SCHEDULE)	● <sub>P/D</sub>	SECURITY PUSH BUTTON - ("P/D" INDICATES PANIC ALARM OR DOOR RELEASE)		PTZ DOME CAMERA ("#" INDICATES NUMBER IN SCHEDULE)
			PATHWAYS		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
<del></del>	GROUND BAR	H	CONDUIT SLEEVE WITH BUSHINGS	11111	DISTRIBUTION RINGS
1 1 1	WALL MOUNT TELECOMMUNICATIONS EQUIPMENT  CABLE TRAY	-J-J-J-	J-HOOK STYLE CABLE HANGERS  CABLE RUNWAY	M	CABLE TRAY DROP OUT  CABLE TRAY - SOLID BOTTOM
+++++	("#" INDICATES TRAY DIMENSIONS)  CABLE TRAY - WALL MOUNTED	#	("#" INDICATES TRAY DIMENSIONS)	#	("#" INDICATES TRAY DIMENSIONS)  EQUIPMENT RACK
#	("#" INDICATES TRAY DIMENSIONS)			#	("#" INDICATES RACK NO. AND FRONT OF RACK
OVMDO	DECORPORA	0/4/50/	SUBSCRIPTS	0/4/50/	DECORIDATION
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION  CLIDGEDIDT IDTII APPLIED TO ANY CYARDOL	SYMBOL	DESCRIPTION
EP	SUBSCRIPT "EP" APPLIED TO ANY SYMBOL INDICATES EXPLOSION PROOF, CLASS, GROUP AND DIVISION AS NOTED	RT	SUBSCRIPT "RT" APPLIED TO ANY SYMBOL INDICATES RAIN TIGHT NEMA 3R OR EQUIVALENT	WP	SUBSCRIPT "WP" APPLIED TO ANY SYMBOL INDICATES WEATHERPROOF NEMA TYPE 4 OR EQUIVALENT
Е	SUBSCRIPT "E" ADDED TO ANY SYMBOL INDICATES EXISTING	К	SUBSCRIPT "K" ADDED TO ANY SYMBOL INDICATES KEY OPERATED	Р	SUBSCRIPT "P" ADDED TO ANY SYMBOL INDICATES PILOT LIGHT
PD	SUBSCRIPT "PD" ADDED TO ANY FLOOR OUTLET INDICATES PEDESTAL MOUNTED	WG	SUBSCRIPT "WG" ADDED TO ANY SYMBOL INDICATES WIRE GUARD		
			CENTER OF DEVICE 4" ABOVE COUNTER SURFACE OR WHEF	DE DDECENT ALLADOVE D	A CIVODI A CILI

SYMBOLS INDICATED HERE AND NOT USED IN THE CONTRACT DOCUMENTS DO NOT APPLY TO THIS PROJECT. ADDITIONAL SYMBOLS AND ABBREVIATIONS

MAY BE INDICATED IN THE CONTRACT DOCUMENTS.

#### TYPICAL TECHNOLOGY GENERAL NOTES

#### LOW VOLTAGE CABLING NOTES

1. INSTALL COMMUNICATIONS CABLES CONTINUOUS FROM WORK AREA OUTLET LOCATION TO THE TELECOMMUNICATIONS ROOM SERVING THAT AREA OR FROM TELECOMMUNICATIONS ROOM TO TELECOMMUNICATIONS ROOM. DO NOT SPLICE TELECOMMUNICATIONS CABLES.

2. CABLE DAMAGED DURING ITS INSTALLATION WILL NOT BE ACCEPTED. UNLESS OTHERWISE ALLOWED BY OWNER, THE CONTRACTOR SHALL REPLACE CABLE DAMAGED DUE TO ITS INSTALLATION WITH NEW CABLE INSTALLED AT THE EXPENSE OF THE CONTRACTOR. DAMAGE INCLUDES PHYSICAL DAMAGE TO CABLE OR IMPROPER INSTALLATION PRACTICES THAT MAY AFFECT PERFORMANCE.

3. TERMINATE STATION CABLE ON PATCH PANELS IN TELECOMMUNICATIONS RACKS. IN THE WORK AREA, TERMINATE CABLE WITH AN 8 POSITION MODULAR JACK IN ACCORDANCE WITH T568B PIN/PAIR ASSIGNMENT, AND MOUNTED IN A LABELED PLENUM RATED BISCUIT BOX. NUMBER OF CABLES AND JACKS ARE KEYED TO THE DETAILS. SEE DETAIL DRAWINGS AND SPECIFICATIONS FOR LABELING INFORMATION.

4. PROVIDE MODULAR 24 PORT PATCH PANEL WITHIN TELECOMMUNICATIONS ROOM TO TERMINATE COMMUNICATIONS CABLES.
5. PROVIDE J-HOOKS, CONDUITS, OR CABLE TRAY AS REQUIRED TO NEATLY ROUTE AND SUPPORT COMMUNICATIONS CABLING, WHERE J-HOOKS, CONDUITS, OR CABLE TRAY ARE NOT AVAILABLE.

6. EXISTING PATHWAYS SHALL BE UTILIZED WHERE POSSIBLE.
7. SEE DETAIL AND SCHEMATIC SHEETS FOR CABLING, TERMINATIONS, ROUGH-IN, GROUNDING AND PATHWAY DIAGRAMS.

#### SECURITY GENERAL NOTES

1. THE NEW SECURITY SYSTEM SHALL BE PROGRAMMED AND TESTED BY THE CONTRACTOR. UPON COMPLETION AND SIGN-OFF BY THE CONTRACTOR. THE OWNER AND ENGINEER SHALL REVIEW AND SIGN-OFF THE SYSTEM PRIOR TO

GOING LIVE WITH THE NEW SYSTEM.

2. EXISTING SECURITY SYSTEM SHALL REMAIN OPERATIONAL UNTIL THE SIGN-OFF AND CUT-OVER OF THE NEW SECURITY SYSTEM.

3. EXISTING SECURITY CAMERAS SHALL BE REMOVED UPON THE ACTIVATION OF THE NEW SECURITY CAMERAS THAT ARE INTENDED TO REPLACE THEM. ALL INFRASTRUCTURE AND ASSOCIATED APPURTENANCES FOR THE EXISTING SECURITY CAMERAS SHALL BE REMOVED.

4. PROVIDE REQUIRED MOUNTS AND ACCESSORIES FOR SECURITY CAMERAS TO BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
5. SECURITY CAMERAS SHALL MEET THE REQUIRED FIELD OF VIEW AND PIXELS PER FOOT AS INDICATED IN THE SECURITY CAMERA SCHEDULE.

6. EXISTING SECURITY CAMERAS TO REMAIN SHALL BE CONNECTED TO NEW SYSTEM, UNLESS NOTED OTHERWISE.
7. EXISTING ELECTRONIC ACCESS CONTROL SYSTEM SHALL BE CONNECT TO THE NEW VIDEO MANAGEMENT SYSTEM NETWORK. THE EXISTING WORKSTATIONS THAT ARE TO BE UTILIZED FOR THE VIDEO MANAGEMENT SYSTEM WORKSTATIONS.

#### CONSTRUCTION NOTES

ALL DEBRIS RESULTING FROM PENETRATIONS SHALL BE CLEARED AND REMOVED FROM SITE ON A DAILY BASIS.

2. PROTECT ALL MATERIALS AND SURFACES TO REMAIN. IF SUCH MATERIALS AND SURFACES ARE DAMAGED DURING CONSTRUCTION.

3. REPAIR AND FINISH TO MATCH ORIGINAL CONDITIONS. PROTECT EQUIPMENT AND FURNISHINGS WHERE CONSTRUCTION WILL CAUSE DUST, DEBRIS, AND POSSIBLE DAMAGE.
4. EXERCISE CARE WHEN REMOVING OR REPLACING SUSPENDED CEILING TILES. DAMAGED TILES SHALL BE REPLACED WITH NEW TILES. ALL CEILINGS SHALL BE RETURNED TO ORIGINAL OR BETTER CONDITION. PAINT, CLEAN, AND REPLACE CEILING TILES AS NECESSARY. DO NOT LEAVE FINGERPRINTS ON TILES.

5. ANY STAGING AREA USED BY THE CONTRACTOR SHALL BE RETURNED TO ORIGINAL CONDITION TO OWNER'S SATISFACTION. THE CONTRACTOR SHALL ARRANGE WITH THE OWNER TO OBTAIN MATERIAL STORAGE AND STAGING, AND PARKING SPACE IF NEEDED. THE CONTRACTOR SHALL PROVIDE WORK TRAILER, SECURE STORAGE SPACE, PHONE LINES AND ANY OTHER SERVICE DEEMED NECESSARY. THE OWNER WILL NOT PROVIDE ANCILLARY SERVICES AT THE CONSTRUCTION SITE.

6. FIRESTOP ALL FLOOR, TRAY, AND WALL PENETRATIONS.
7. GROUND AND BOND ALL CABLE TRAYS AND CONDUITS OVER 30" UTILIZING MANUFACTURER'S RECOMMENDED HARDWARE.

				ABBREVIATIONS				
A AMP AC ALTERNATING CURRENT ACEG AC EQUIPMENT GROUND AFF ABOVE FINISHED FLOOR AHJ AUTHORITY HAVING JURISDICTION ALF ALUMINUM FRAME DOOR APPROX APPROXIMATELY ASHRAE AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS ASME AMERICAN SOCIETY OF MECHANICAL ENGINEERS ASTM STANDARD SPECIFICATIONS OF THE AMERICAN SOCIETY FOR TESTING MATERIALS ATS AUTOMATIC TRANSFER SWITCH AUX AUXILIARY AV ACID VENT, AUDIOVISUAL AVG AVERAGE AVI AUTOMATIC VEHICLE IDENTIFICATIO AW ACID WASTE AWG AMERICAN WIRE GAUGE BAS BUILDING AUTOMATION SYSTEM BFP BACKFLOW PREVENTER BICSI BUILDING INDUSTRY CONSULTING SERVICE INTERNATIONAL BLDG BUILDING BTC BONDING CONDUCTOR FOR TELECOMMUNICATION BTU BRITISH THERMAL UNIT PER HOUR	COAX COAXIAL CABLE CO-OSP CUSTOMER OWNER-OUTSIDE PLANT CPVC CHLORINATED POLYVINYL CHLORIDE	EHC ELECTRIC HEATING COIL EL ELEVATION ELEC ELECTRICAL EMD ESTIMATED MAXIMUM DEMAND EMI ELECTROMAGNETIC INTERFERENCE EMS ENERGY MANAGEMENT SYSTEM EMT ELECTRICAL METALLIC TUBING EOA ECONOMIZER OUTDOOR AIR EPO EMERGENCY POWER OFF EQUIP EQUIPMENT ER EQUIPMENT ROOM	FO FIBER OPTIC FOV FIELD OF VIEW FP FIBER PANEL FT FEET FURN FURNISHED FW FILTERED WATER G GAS GA GAUGE GALV GALVANIZED GC GENERAL CONTRACTOR GEC GROUNDING ELECTRODE CONDUCTOR GEN GENERATOR GFOI GROUND FAULT CIRCUIT INTERRUPTER GND GROUND GPM GALLONS PER MINUTE HHH HANDHOLE HMF HOLLOW METAL FRAME DOOR HP HORSEPOWER, HEAT PUMP HTG HEATING HVAC HEATING, VENTILATING AND AIR CONDITIONING HW HOT WATER HWC HOT WATER CIRCULATING HZ HERTZ IC INTERCOM IDC INSULATION DISPLACEMENT CONNECTOR IDF INTERMEDIATE DISTRIBUTION FRAME IDS INTRUSION DETECTION SYSTEM IE INVERT ELEVATION	IP INTERNET PROTOCOL ISP INSIDE PLANT J-BOX JUNCTION BOX KCMIL THOUSAND CIRCULAR MILS KV KILOVOLT KVA KILOVOLT AMPERE KW KILOWATT LAN LOCAL AREA NETWORK LBM LATCH BOLT MONITOR LBS POUNDS LEC LOCAL EXCHANGE CARRIER LTG LIGHTING MA MAKEUP AIR MATV MASTER ANTENNA TELEVISION MAU MAKEUP AIR UNIT (MAX) MAXIMUM MBH 1000 BTU/HOUR MC MAIN CROSS CONNECT MCB MAIN CIRCUIT BREAKER MDF MAIN DISTRIBUTION FRAME MECH MECHANICAL MERV MINIMUM EFFICIENCY REPORTING VALUE (MIN) MINIMUM MISC MISCELLANEOUS MLO MAIN LUGS ONLY MM MULTIMODE MOA MINIMUM OUTDOOR AIR MPOE MAIN POINT OF ENTRANCE MTD MOUNTED MTG MOUNTING	MUTOA MULTI USER TELECOMMUNICATIONS OUTLET ASSEMBLY  MXA MIXED AIR  NC NORMALLY CLOSED  NEC NATIONAL ELECTRICAL CODE  NEMA NATIONAL ELECTRICAL  MANUFACTURERS ASSOCIATION  NFPA NATIONAL FIRE PROTECTION  ASSOCIATION  NIC NOT IN CONTRACT  NO NORMALLY OPEN  NOM NOMINAL  NPW NON-POTABLE WATER  NTS NOT TO SCALE  NVE NETWORK VIDEO ENCODER  NVR NETWORK VIDEO RECORDER  OA OUTSIDE AIR  OC ON CENTER  OPE OWNER PROVIDED ELECTRONICS  OR OPERATOR ROOM  OSP OUTSIDE PLANT  PABX PRIVATE AUTOMATIC  BRANCH EXCHANGE  PB PULLBOX  PBO PROVIDE BY OTHERS  PBX PRIVATE BRANCH EXCHANGE  PDU POWER DISTRIBUTION UNIT  PERP PERPENDICULAR  PIC PLASTIC INSULATED CABLE  PIV POST INDICATOR VALVE  PLBG PLUMBING	PNL PANEL POE POWER OVER ETHERNET POP POINT OF PRESENCE PP PATCH PANEL PRV PRESSURE REGULATING VALVE PS PLASTER SINK PSF POUNDS PER SQUARE FOOT PSI POUNDS PER SQUARE INCH PSTN PUBLIC SWITCH TELEPHONE NETWORK PTAC PACKAGED TERMINAL AIR CONDITIONEF PTZ PAN-TILT-ZOOM PVC POLYVINYL CHLORIDE PWR POWER RA RETURN AIR REQD REQUIRED RGS RIGID GALVANIZED STEEL RH RELATIVE HUMIDITY RLFA RELIEF AIR RM ROOM RO REVERSE OSMOSIS WATER RPBFP REDUCED PRESSURE BACKFLOW PREVENTER RQE REQUEST TO EXIT SA SUPPLY AIR, SOUND ATTENUATOR SAN SANITARY SCH SCHEDULE SCTP SCREENED TWISTED PAIR SCW SOFT COLD WATER SHW SOFT HOT WATER (SIM) SIMILAR SLAB SEALED LEAD ACID BATTERY SM SPRINKLER MAIN, SINGLE MODE	SMACNA SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION SPD SURGE PROTECTIVE DEVICE SPECS SPECIFICATIONS SS STAINLESS STEEL SSD SUB SOIL DRAIN SSI SECURITY SYSTEMS INTEGRATOR SSS SURGEON SCRUB SINK ST STORM STD STANDARD STP SHIELDED TWISTED PAIR SW SWITCH SWBD SWITCHBOARD SWGR SWITCHGEAR T TRANSFORMER T-1 TRUNK LEVEL 1 TBB TELECOMMUNICATIONS BONDING BACKBONE TBBIBC TELECOMMUNICATIONS BONDING BACKBONE INTERCONNECTING BONDING CONDUCTOR TC TELECOMMUNICATIONS CLOSET TEL TELEPHONE TELECOMMUNICATIONS TEMP TEMPERATURE TGB TELECOMMUNICATIONS GROUNDING BUSBAR TMGB TELECOMMUNICATIONS MAIN GROUNDING BUSBAR TR TELECOMMUNICATIONS ROOM TTB TELEPHONE TERMINAL BOARD	TV TELEVISION TVSS TRANSIENT VOLTAGE SURGE SUPPRESSION (TYP) TYPICAL UG UNDERGROUND UL UNDERWRITERS LABORATORY UNO UNLESS NOTED OTHERWISE UPS UNINTERRUPTIBLE POWER SUPPL US UTILITY SINK UTP UNSHIELDED TWISTED PAIR V VOLT, VENT VD VOLUME DAMPER VERT VERTICAL VFC VARIABLE FREQUENCY CONTROL VOIP VOICE OVER INTERNET PROTOCO VTR VENT THROUGH ROOF W WATER, WATT WAN WIDE AREA NETWORK WAP WIRELESS ACCESS POINT WG WATER GUAGE WMP WIRE MANAGEMENT PANEL WP WEATHERPROOF WSA WIRE SIZING AMPS WSHP WATER SOURCE HEAT PUMP WTH WIRE TRANSFER HINGE XFMR TRANSFORMER

No Revisions

Do Not Scale Drawings. Verify all Dimensions and clearances from Architectural, STRUCTURAL, shop and other appropriate drawings or at site. Lay out and coordinate all work prior to installation to provide clearances required for operation, maintenance, and codes. Verify non-interference with other work. Do Not Fabricate Prior To Verification of Clearance For All Trabes. Reab SPECIFICATIONS.

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SECURITY
SYMBOLS AND ABBREVIATIONS

IOWA LABS
SECURITY CAMERA
UPGRADES

ANKENY

IOWA

Lincoln:
1201 Cerus Street
Comba Neiresta 68102

Lincoln:
1800 O Street, Suite 104
1801 Disaboring Fiserison, Sain 101
1801 Disaboring Fiserison, Sain 101
1802 O Street, Suite 104
1803 Disaboring Fiserison, Sain 101
1804 Disaboring Fiserison, Sain 101
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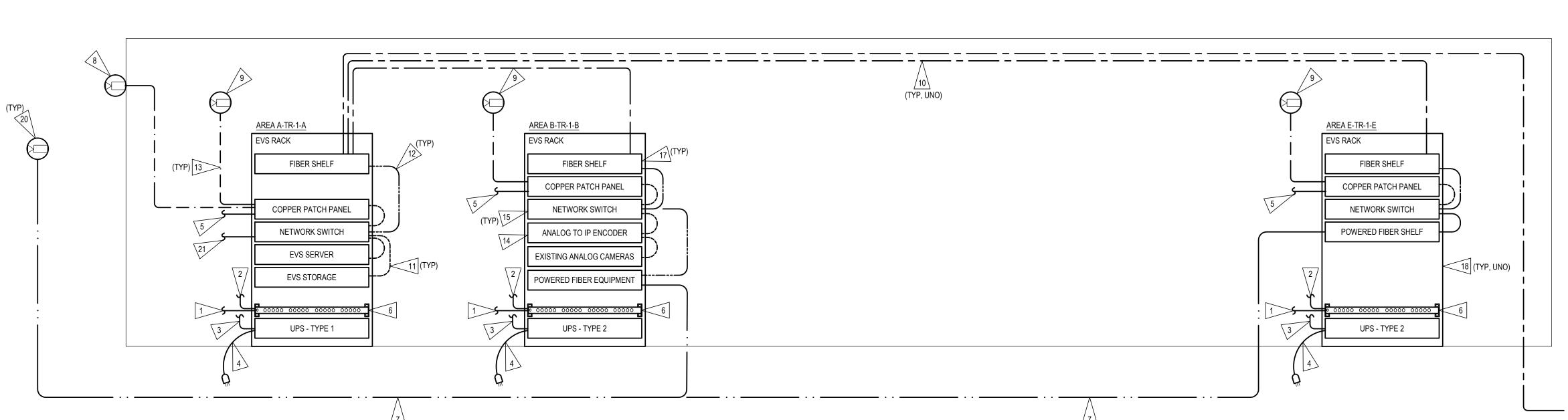
08/17/2018

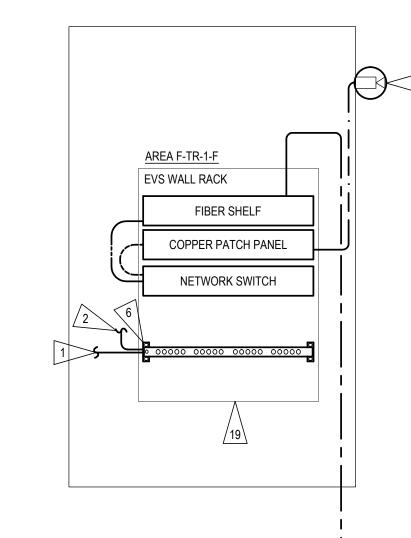
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20176525 Drawing No.

**FLAG NOTES** 

August 21, 2018 9:35 AM Neal Schmitt





### TYPICAL VIDEO SURVEILLANCE DELIVERY SCHEMATIC

NO SCALE

	Security Camera Schedule															
LINE	CAMERA NAME	CAMERA MODEL	CAMERA TYPE	LOCATION	FIELD OF VIEW	SURVEILLANCE TYPE	CAMERA RESOLUTION	LENS TYPE		GTH MIN/MAX mm)	ENCLOSURE TYPE	DETAIL#	RECORDING	STORAGE DURATION	CABLE NOTES	CAMERA NOTES
1	S.1	AXIS Q3517-LVE	POLE DOME	SITE	DCI LOT	RECOGNITION OF FACE	5MP	VARI-FOCAL	4.1	9	EXTERIOR DOME	1/SC200	MOTION	60 DAYS	В	5
2	S.2	AXIS Q3517-LVE	POLE DOME	SITE	MAIN PARKING LOT	GENERAL SURVEILLANCE	5MP	VARI-FOCAL	4.1	9	EXTERIOR DOME	1/SC200	24/7	60 DAYS	В	5
3	S.3	AXIS Q3517-LVE	POLE DOME	SITE	MAIN PARKING LOT	GENERAL SURVEILLANCE	5MP	VARI-FOCAL	4.1	9	EXTERIOR DOME	1/SC200	24/7	60 DAYS	В	6
4	S.4	AXIS Q3517-LVE	POLE DOME	SITE	MAIN PARKING LOT ENTRY	GENERAL SURVEILLANCE	5MP	VARI-FOCAL	4.1	9	EXTERIOR DOME	1/SC200	MOTION	60 DAYS	В	5
5	S.5	AXIS Q3517-LVE	POLE DOME	SITE	GATE ENTRANCE ROAD	GENERAL SURVEILLANCE	5MP	VARI-FOCAL	4.1	9	EXTERIOR DOME	1/SC200	MOTION	60 DAYS	В	6
6	S.6	AXIS Q3517-LVE	WALL DOME	SITE	GATE ENTRANCE	RECOGNITION OF FACE	5MP	VARI-FOCAL	4.1	9	EXTERIOR DOME	7/SC200	MOTION	60 DAYS	A	5
7	S.7	AXIS Q3517-LVE	WALL DOME	SITE	SERVICE YARD	GENERAL SURVEILLANCE	5MP	VARI-FOCAL	4.1	9	EXTERIOR DOME	7/SC200	MOTION	60 DAYS	A	6
8	S.8	AXIS Q3517-LVE	WALL DOME	SITE	PERIMETER FENCE	GENERAL SURVEILLANCE	5MP	VARI-FOCAL	4.1	9	EXTERIOR DOME	7/SC200	MOTION	60 DAYS	A	5
9	S.9	AXIS Q3517-LVE	CORNER DOME	SITE	SERVICE YARD	GENERAL SURVEILLANCE	5MP	VARI-FOCAL	4.1	9	EXTERIOR DOME	5/SC200	MOTION	60 DAYS	A	5
10	S.10	AXIS Q3517-LVE	CORNER DOME	SITE	PERIMETER FENCE	GENERAL SURVEILLANCE	5MP	VARI-FOCAL	4.1	9	EXTERIOR DOME	5/SC200	MOTION	60 DAYS	A	6
11	S.11	AXIS Q3517-LVE	POLE DOME	SITE	PERIMETER FENCE	GENERAL SURVEILLANCE	5MP	VARI-FOCAL	4.1	9	EXTERIOR DOME	1/SC200	MOTION	60 DAYS	A	5
12	S.12	AXIS Q3517-LVE	WALL DOME	SITE	ME LOT	GENERAL SURVEILLANCE	5MP	VARI-FOCAL	4.1	9	EXTERIOR DOME	7/SC200	MOTION	60 DAYS	В	5
13	S.13	AXIS Q3517-LVE	POLE DOME	SITE	ME DRIVE	GENERAL SURVEILLANCE	5MP	VARI-FOCAL	4.1	9	EXTERIOR DOME	1/SC200	MOTION	60 DAYS	Α .	5
14	S.14	AXIS Q3517-LVE	WALL DOME	SITE	ME GATE ENTRANCE	RECOGNITION OF FACE	5MP	VARI-FOCAL	4.1	9	EXTERIOR DOME	7/SC200	MOTION	60 DAYS	A	5
15	S.15	AXIS Q3517-LVE	WALL DOME	SITE	DCI RECEIVING LOT	GENERAL SURVEILLANCE	5MP	VARI-FOCAL	4.1	9	EXTERIOR DOME	7/SC200	MOTION	60 DAYS	A	5
16	S.16	AXIS Q3517-LVE AXIS Q3517-LVE	POLE DOME	SITE	MAIN PARKING LOT	GENERAL SURVEILLANCE	5MP	VARI-FOCAL	4.1	9	EXTERIOR DOME	7/SC200	24/7	60 DAYS	В	5
17 18	S.17 S.18		WALL DOME	SITE SITE	MAIN PARKING LOT	GENERAL SURVEILLANCE GENERAL SURVEILLANCE	5MP	VARI-FOCAL VARI-FOCAL	4.1	9	EXTERIOR DOME	7/SC200	MOTION MOTION	60 DAYS 60 DAYS	A	5
19	S.10 S.19	AXIS Q3517-LVE AXIS Q3517-LVE	WALL DOME WALL DOME	SITE	DCI PARKING LOT  SERVICE YARD	GENERAL SURVEILLANCE	5MP 5MP	VARI-FOCAL  VARI-FOCAL	4.1	9	EXTERIOR DOME  EXTERIOR DOME	7/SC200 7/SC200	MOTION	60 DAYS	A A	5
20	S.19 S.20	AXIS Q3517-LVE	WALL DOME	SITE	DCI PARKING LOT	GENERAL SURVEILLANCE	5MP	VARI-FOCAL VARI-FOCAL	4.1	9	EXTERIOR DOME	7/SC200	MOTION	60 DAYS	Δ	5
21	LL.A.1	AXIS M-3037	PANORAMIC DOME	LOWER LEVEL - AREA A	EVID. LOBBY/ENTRANCE	RECOGNITION OF FACE	5MP	FIXED	1.27	1.27	INDOOR DOME	3/SC200	MOTION	60 DAYS	Δ	2,4,5
22	LL.A.2	AXIS P3374-LV	CEILING DOME	LOWER LEVEL - AREA A	PASSAGE A040	RECOGNITION OF FACE	2MP	VARI-FOCAL	3	10	INDOOR DOME	3/SC200	MOTION	60 DAYS	A	1,5
23	LL.A.3	AXIS P3374-LV	CEILING DOME	LOWER LEVEL - AREA A	EVID. WORK RM. A028	RECOGNITION OF FACE	2MP	VARI-FOCAL	3	10	INDOOR DOME	3/SC200	MOTION	60 DAYS	A	1,6
24	LL.A.4	AXIS P3374-LV	CEILING DOME	LOWER LEVEL - AREA A	BALLISTICS A077	RECOGNITION OF FACE	3MP	VARI-FOCAL	3	10	INDOOR DOME	3/SC200	MOTION	60 DAYS	A	1,6
25	LL.A.5	AXIS P3374-LV	CEILING DOME	LOWER LEVEL - AREA A	VEH EXAM BAY A048	RECOGNITION OF FACE	3MP	VARI-FOCAL	3	10	INDOOR DOME	3/SC200	MOTION	60 DAYS	A	6
26	1.A.1	AXIS M-3037	PANORAMIC DOME	FIRST FLOOR - AREA A	RECEPT. WAIT. A168	RECOGNITION OF FACE	5MP	FIXED	1.27	1.27	INDOOR DOME	3/SC200	MOTION	60 DAYS	A	2,4,5
27	1.A.2	AXIS P3374-LV	CEILING DOME	FIRST FLOOR - AREA A	DOOR A103	RECOGNITION OF FACE	2MP	VARI-FOCAL	3	10	INDOOR DOME	3/SC200	MOTION	60 DAYS	A	1,5
28	1.A.3	AXIS P3374-LV	CEILING DOME	FIRST FLOOR - AREA A	CORR A162	RECOGNITION OF FACE	2MP	VARI-FOCAL	3	10	INDOOR DOME	3/SC200	MOTION	60 DAYS	A	1,6
29	1.A.4	AXIS P3374-LV	CEILING DOME	FIRST FLOOR - AREA A	CORR AT202	GENERAL SURVEILLANCE	2MP	VARI-FOCAL	3	10	INDOOR DOME	3/SC200	MOTION	60 DAYS	A	1,6
30	1.A.5	AXIS P3374-LV	CEILING DOME	FIRST FLOOR - AREA A	CORR AT202	GENERAL SURVEILLANCE	2MP	VARI-FOCAL	3	10	INDOOR DOME	3/SC200	MOTION	60 DAYS	A	1,6
31	1.B.1	AXIS P3374-LV	CEILING DOME	FIRST FLOOR - AREA B	REC VEST B141	RECOGNITION OF FACE	2MP	VARI-FOCAL	3	10	INDOOR DOME	3/SC200	MOTION	60 DAYS	А	6
32	1.B.2	AXIS P3374-LV	CEILING DOME	FIRST FLOOR - AREA B	VEST B133	RECOGNITION OF FACE	2MP	VARI-FOCAL	3	10	INDOOR DOME	3/SC200	MOTION	60 DAYS	А	1,6
33	1.B.3	AXIS P3374-LV	CEILING DOME	FIRST FLOOR - AREA B	CORR B168	RECOGNITION OF FACE	2MP	VARI-FOCAL	3	10	INDOOR DOME	3/SC200	MOTION	60 DAYS	A	1,6
34	1.B.4	AXIS P3374-LV	CEILING DOME	FIRST FLOOR - AREA B	PASSAGE B189	RECOGNITION OF FACE	2MP	VARI-FOCAL	3	10	INDOOR DOME	3/SC200	MOTION	60 DAYS	A	1,6
35	1.B.5	AXIS P3374-LV	CEILING DOME	FIRST FLOOR - AREA B	PASSAGE B189	RECOGNITION OF FACE	2MP	VARI-FOCAL	3	10	INDOOR DOME	3/SC200	MOTION	60 DAYS	А	1,6
36	1.B.6	AXIS P3374-LV	CEILING DOME	FIRST FLOOR - AREA B	GALLERY B164	RECOGNITION OF FACE	2MP	VARI-FOCAL	3	10	INDOOR DOME	3/SC200	MOTION	60 DAYS	А	1,6
37	1.B.7	AXIS P3374-LV	CEILING DOME	FIRST FLOOR - AREA B	GALLERY B164	RECOGNITION OF FACE	2MP	VARI-FOCAL	3	10	INDOOR DOME	3/SC200	MOTION	60 DAYS	A	1,6
38	1.B.8	AXIS P3374-LV	CEILING DOME	FIRST FLOOR - AREA B	BODY RECEIV B136	GENERAL SURVEILLANCE	2MP	VARI-FOCAL	3	10	INDOOR DOME	3/SC200	MOTION	60 DAYS	А	6
39	1.C.1	AXIS P3374-LV	CEILING DOME	FIRST FLOOR - AREA C	VESTIBULE C101	RECOGNITION OF FACE	2MP	VARI-FOCAL	3	10	INDOOR DOME	3/SC200	MOTION	60 DAYS	A	6
40	1.C.2	AXIS P3374-LV	CEILING DOME	FIRST FLOOR - AREA C	PASSAGE C103	RECOGNITION OF FACE	2MP	VARI-FOCAL	3	10	INDOOR DOME	3/SC200	MOTION	60 DAYS	A	1,5
41	1.D.1	AXIS P3374-LV	CEILING DOME	FIRST FLOOR - AREA D	CORR D137	RECOGNITION OF FACE	2MP	VARI-FOCAL	3	10	INDOOR DOME	3/SC200	MOTION	60 DAYS	A	1,6
42	1.F.1	AXIS P3375-LVE	WALL DOME	FIRST FLOOR - AREA F	BACK ENTRY DOOR	RECOGNITION OF FACE	2MP	VARI-FOCAL	3	10	EXTERIOR DOME	7/SC200	MOTION	60 DAYS	A	5
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- CAMERA SHALL BE PLACED INTO 9X16 CORRIDOR FORMAT. 2. CAMERA SHALL PROVIDE A 360 DEGREE FIELD OF VIEW.
- 3. CAMERA SHALL PROVIDE A 180 DEGREE FIELD OF VIEW.

B. OUTDOOR RATED HYBRID FIBER OPTIC AND POWER CABLE.

- 4. PROVIDE TWO-WAY AUDIO AND RECORD THE AUDIO FOR THE DURATION OF THE VIDEO FOOTAGE.
- 5. BASE BID SECURITY CAMERA. ALTERNATE #1 BID SECURITY CAMERA.

#### A. INDOOR RATED CATEGORY 6 CABLE.

- 1. SECURITY CAMERA MAKE AND MODEL IS INCLUDED AS DESIGN BASIS. REFER TO 28 2300 FOR ADDITIONAL SECURITY CAMERA MANUFACTURERS. 2. REFER TO 28 2300 FOR ADDITIONAL INFORMATION REGARDING THE ELECTRONIC VIDEO SURVEILLANCE SYSTEM
- 3. REFER TO THIS SHEET FOR SECURITY SCHEMATIC AND CONNECTIVITY. 4. REVIEW FINAL FOV WITH OWNER/ENGINEER PRIOR TO THE FINAL CONFIGURATION OF THE SYSTEM.
- 5. VERIFY FINAL MOUNTING HEIGHTS OF EXTERIOR BUILDING MOUNT CAMERA WITH OWNER/ENGINEER PRIOR TO ROUGH-IN.
- 6. UNLESS NOTED OTHERWISE ALL CAMERAS TO BE RECORDED AT FULL RESOLUTION AND 12 FPS. 7. PROVIDE LENSES THAT ARE RATED FOR THE RESOLUTION OF THE CAMERA BEING PROVIDED.
- 8. THE VARI-FOCAL LENS RANGE STATED IS APPROXIMATE. PROVIDE A VARIFOCAL LENS WITH A MIN NO GREATER THAN AND A MAX NO LESS THAN .5mm FROM THE VALUE STATED IN THE CAMERA SCHEDULE 9. SURVEILLNACE TYPE COLUMN IS INDICATED TO PROVIDE INFORMATION REGARDING THE FIELD OF VIEW AND PIXELS PER FOOT. FINAL CALCULATIONS SHALL BE PERFORMED BY INTEGRATOR AND SUBMITTED WITH SHOP DRAWINGS.
- 10. PROVIDE REQUIRED MOUNTING ACCESSORIES AND MOUNTS AS REQUIRED.
- 11. SECURITY CAMERAS SHALL HAVE OPTIMAL LOW LIGHT PERFORMANCE FEATURES, OPTIMAL WIDE DYNAMIC RANGE FEATURES, AND IR CORRECTED LENS AS REQUIRED. 12. RECOGNITION OF FACE SHALL HAVE A MINIMUM OF 50 PIXELS PER FOOT OR BETTER AT SURVEILLANCE POINT.
- 13. GENERAL SURVEILLANCE SHALL HAVE A MINIMUM OF 20 PIXELS PER FOOT OR BETTER AT SURVEILLANCE POINT.
- 14. LABEL CABLING AT EACH END PER DETAIL 2/SC200 AND DIVISION 27 SPECIFICATIONS.

FLAG NOTES

- 1 PROVIDE #6 AWG GROUNDING CONDUCTOR FROM METALLIC EQUIPMENT ASSOCIATED WITH THE VIDEO SURVEILLANCE SYSTEM TO THE RACK MOUNT
- 2 PROVIDE #6 AWG GROUNDING CONDUCTOR FROM RACK MOUNT GROUND BAR TO TELECOMMUNICATIONS GROUND BAR.
- 3 PROVIDE CONNECTION FROM EQUIPMENT TO UPS.

17

- 4 PROVIDE CONNECTION TO ELECTRICAL RECEPTACLE.
- 5 PROVIDE CATEGORY 6 CABLING TO ASSOCIATED SECURITY DEVICE, SUCH AS BUT
- NOT LIMITED TO, SECURITY WORKSTATIONS AND SECURITY MONITORS.
- 6 1U RACK MOUNT GROUND BAR.
- 7 OUTDOOR RATED, HYBRID POWERED FIBER OPTIC CABLING.
- CATEGORY 6 CABLING AND SURGE PROTECTION DEVICE. 9 INTERIOR MOUNT CAMERA.
- 10 12 STRAND, INTERLOCKING METALLIC ARMORED, OM4 MULTI-MODE FIBER OPTIC

8 EXTERIOR BUILDING MOUNT CAMERA. PROVIDE INDOOR/OUTDOOR RATED

- 11 CATEGORY 6 COPPER PATCH CORDS.
- 12 FIBER OPTIC PATCH CORDS. 13 INDOOR PLENUM RATED, CATEGORY 6 CABLING.
- 14 RACK-MOUNT ENCODER. PROVIDE RACK-MOUNT ANALOG TO IP BASED SECURITY CAMERA ENCODER. PROVIDE LICENSES, NETWORK AND POWER CONNECTIONS AS REQUIRED TO COMPLETE A FULLY OPERATIONAL SYSTEM. EXISTING SECURITY

CAMERAS NOT BEING REPLACED SHALL BE PLACED ONTO THE NEW VIDEO

15 PROVIDE NETWORK SWITCH.

MANAGEMENT SYSTEM.

- 16 INDOOR/OUTDOOR RATED 12 STRAND, INTERLOCKING METALLIC ARMORED, OM4
- MULTI-MODE FIBER OPTIC CABLING. 17 RACK-MOUNT FIBER SHELF AND ASSOCIATED TERMINATION PANELS.
- 18 EXISTING TWO-POST EQUIPMENT RACK.
- 19 WALL-MOUNT CABINET. PROVIDE 3/4" A/C GRADE PLYWOOD WITH THE A SIDE FACING INTO THE ROOM AND TWO COATS OF FIRE RETARDANT PAINT.
- 20 EXTERIOR POLE MOUNT SECURITY CAMERA.
- 21 PROVIDE NETWORK CONNECTION TO OWNER'S ACCESS CONTROL SYSTEM. CONNECTION SHALL BE THERE TO UTILIZE A SINGLE EXISTING WORKSTATION FOR BOTH THE ACCESS CONTROL SYSTEM AND VIDEO MANAGEMENT SYSTEM.

No Revisions DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS and clearances from ARCHITECTURAL, STRUCTURAL, shop and other appropriate drawings or at site. Lay out and coordinate

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all work prior to installation to provide clearances required for operation, maintenance,

and codes. Verify non-interference with other work. DO NOT FABRICATE PRIOR TO

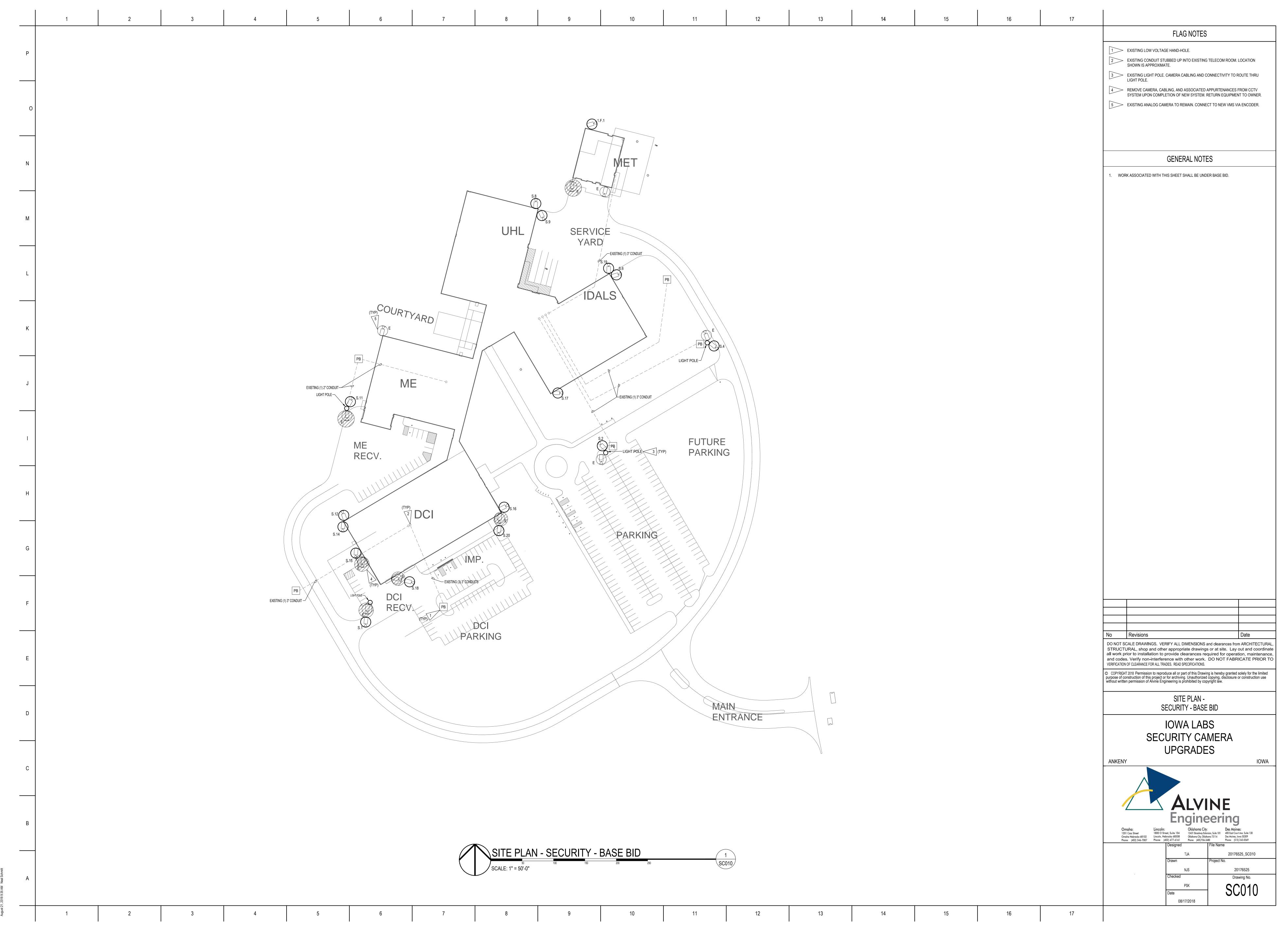
SECURITY SCHEMATICS AND SCHEDULES

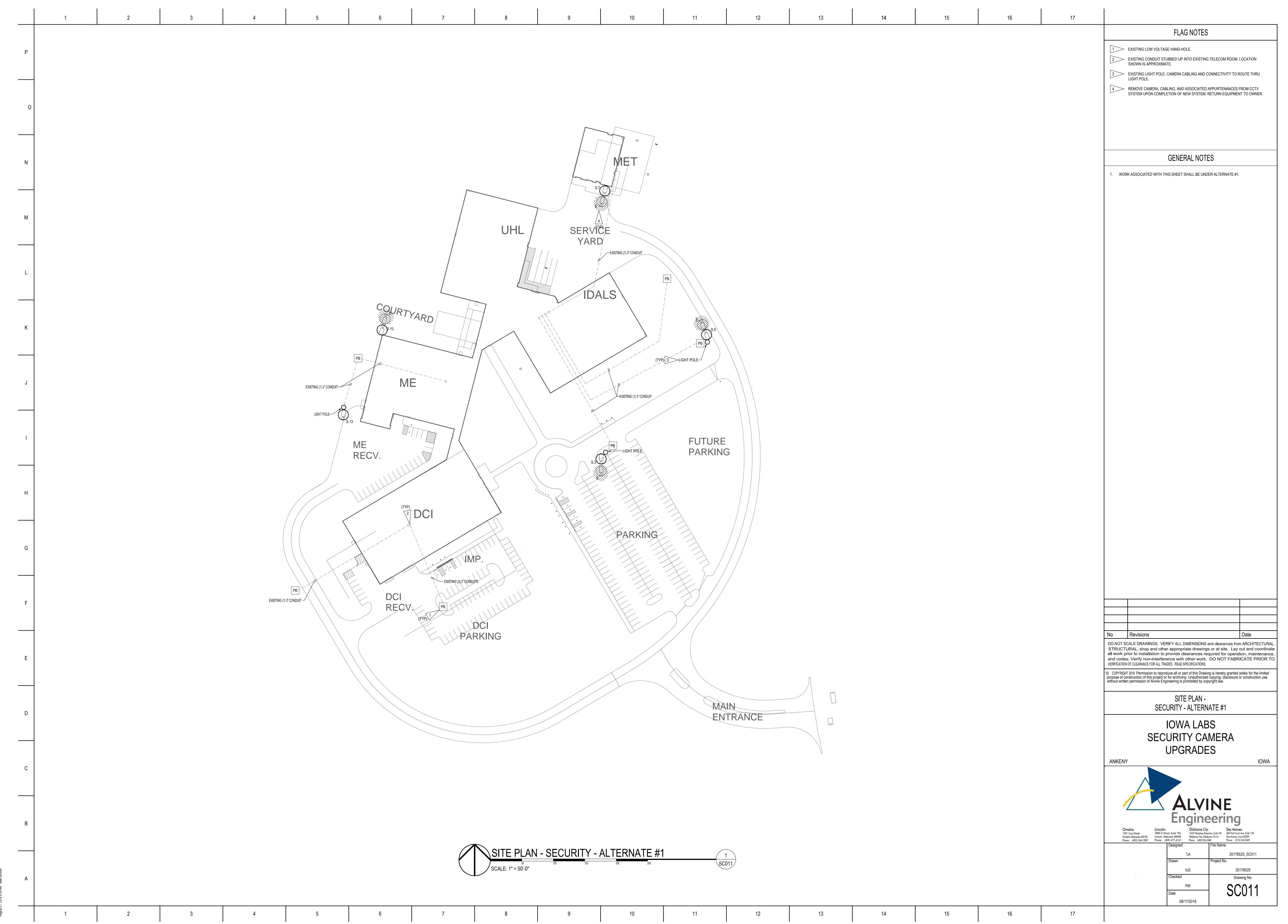
ANKENY

VERIFICATION OF CLEARANCE FOR ALL TRADES. READ SPECIFICATIONS.

Engineering

Omaha: 1201 Cass Street Omaha Nebraska 68102 Phone: (402) 346-7007	Lincoln, Nel	eet, Suite 104 oraska 68508 02) 477-6161	Oklahoma City 13431 Broadway Exte Oklahoma City, Oklah Phone: (405) 936-3	nsion, Suite 101 Ioma 73114	Des Moines: 400 East Court Ave. Suite 130 Des Moines, Iowa 50309 Phone: (515) 243-0569
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		Drawn		Project No	).
			NJS		20176525

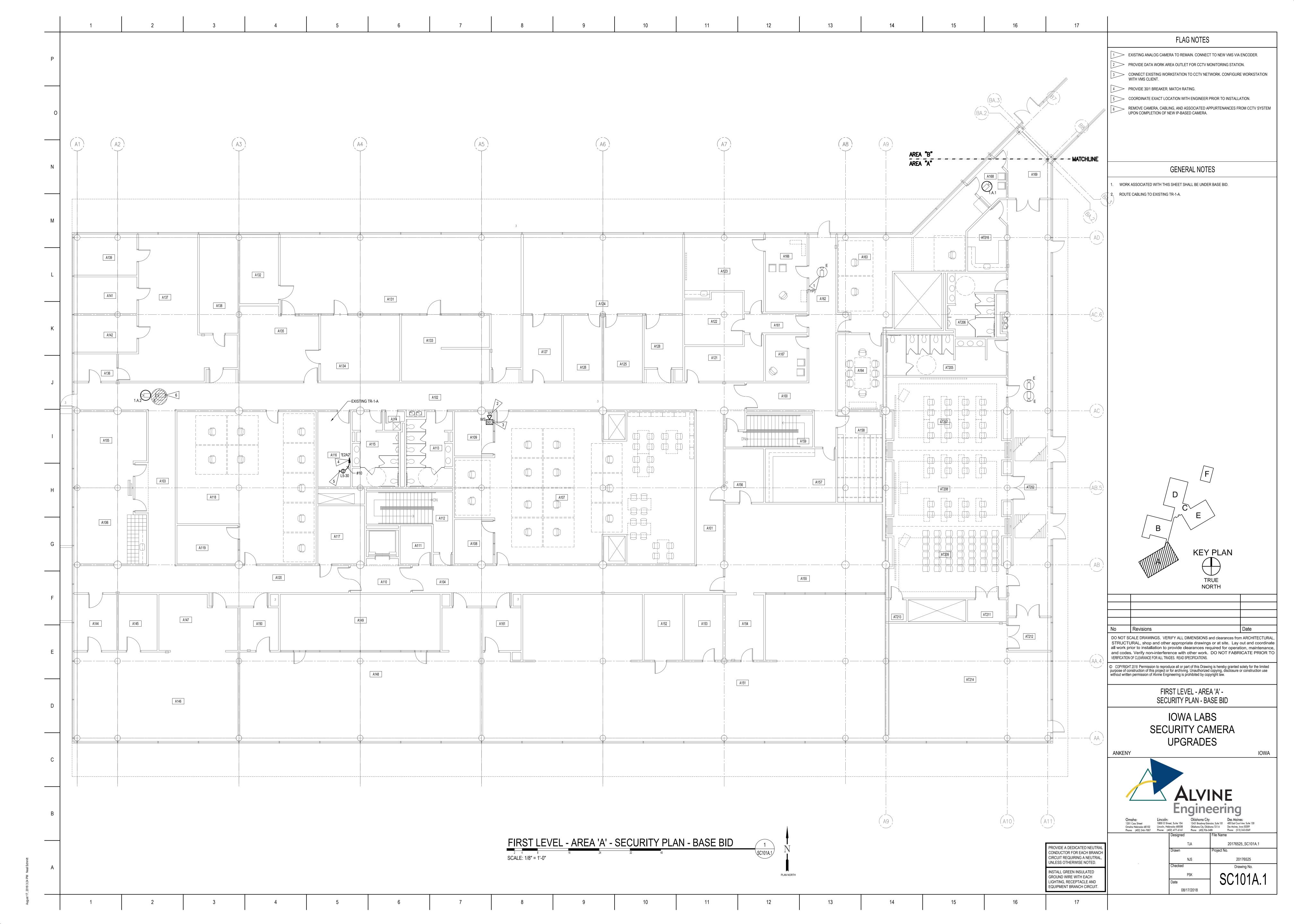


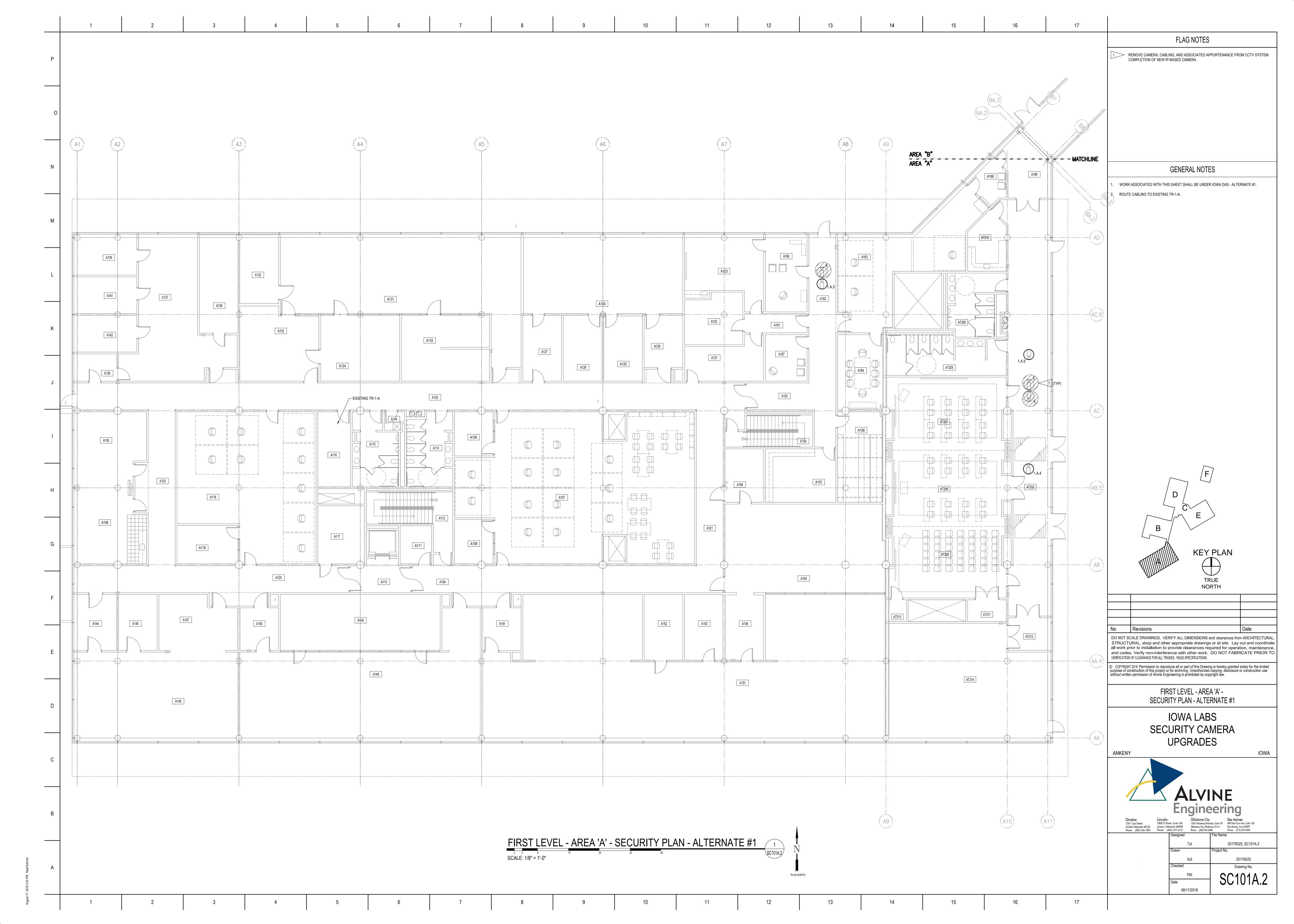


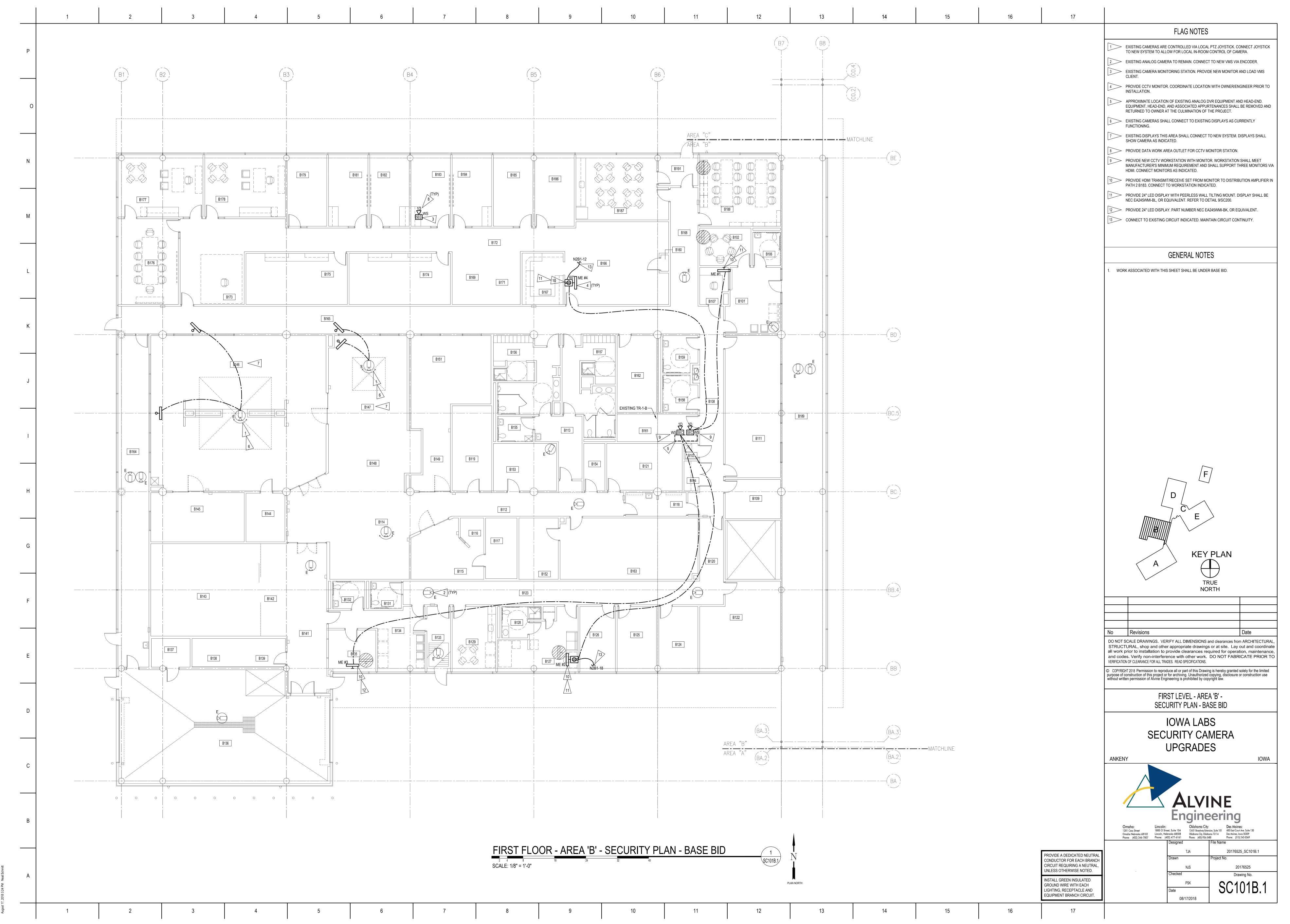
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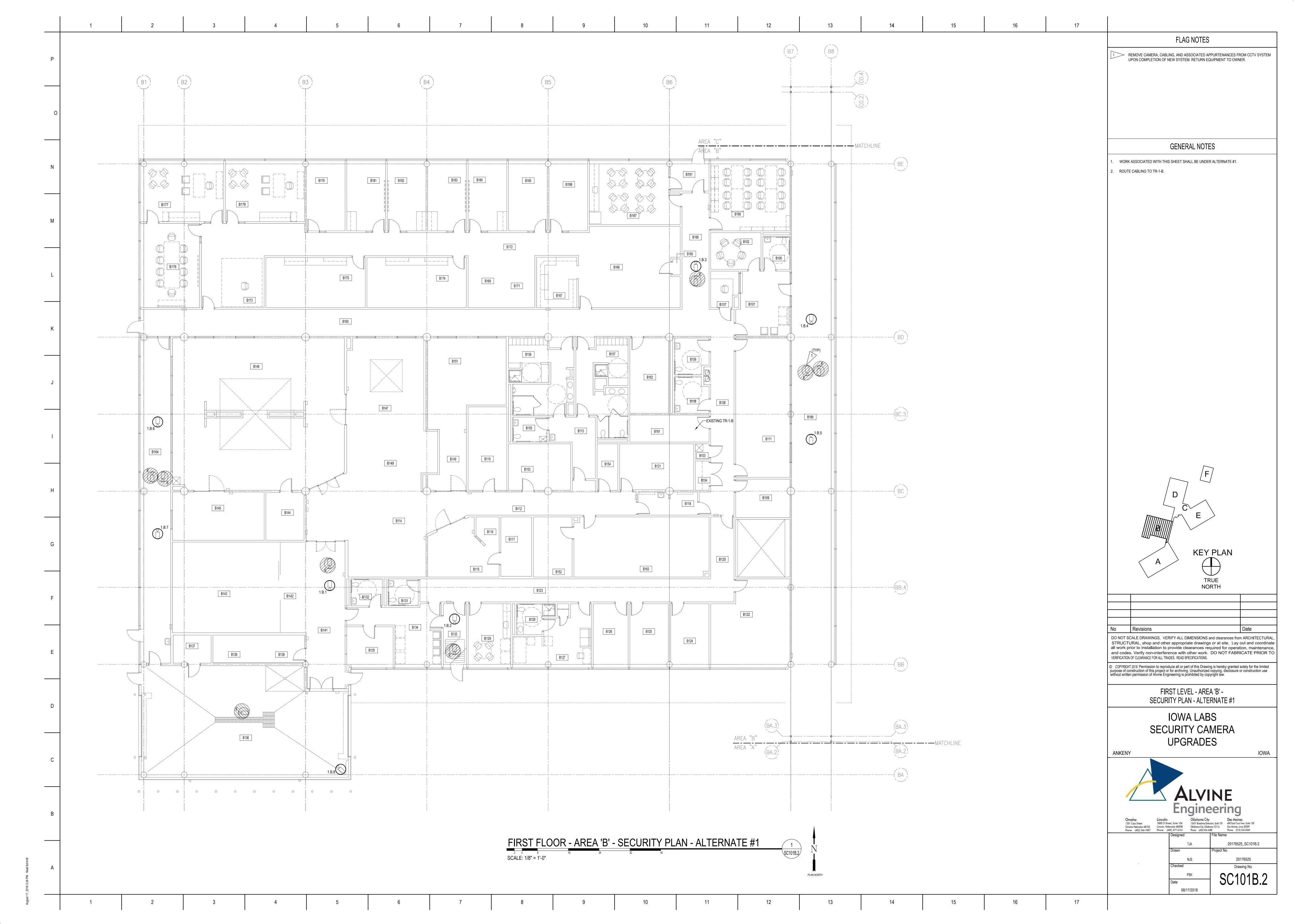


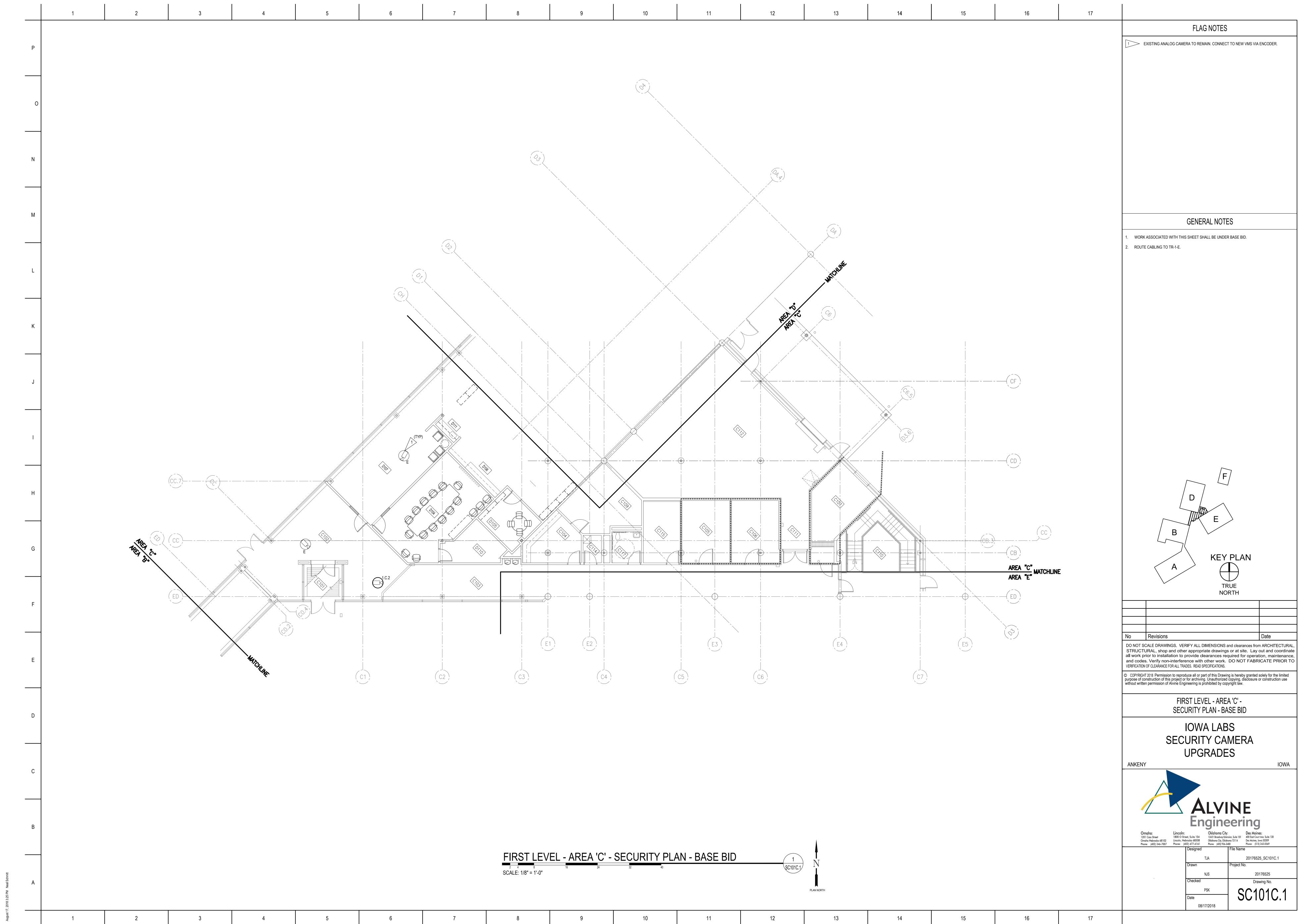


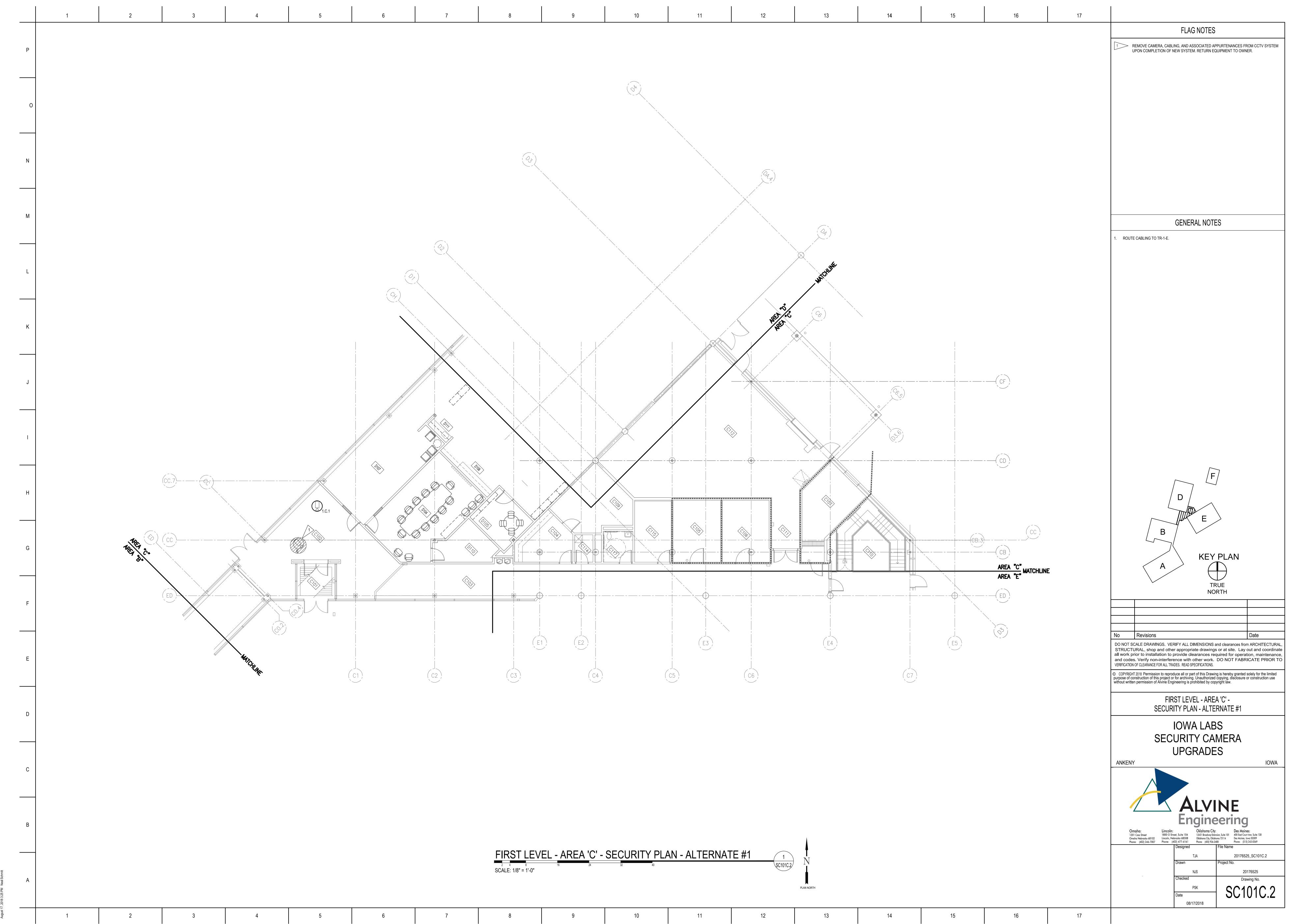


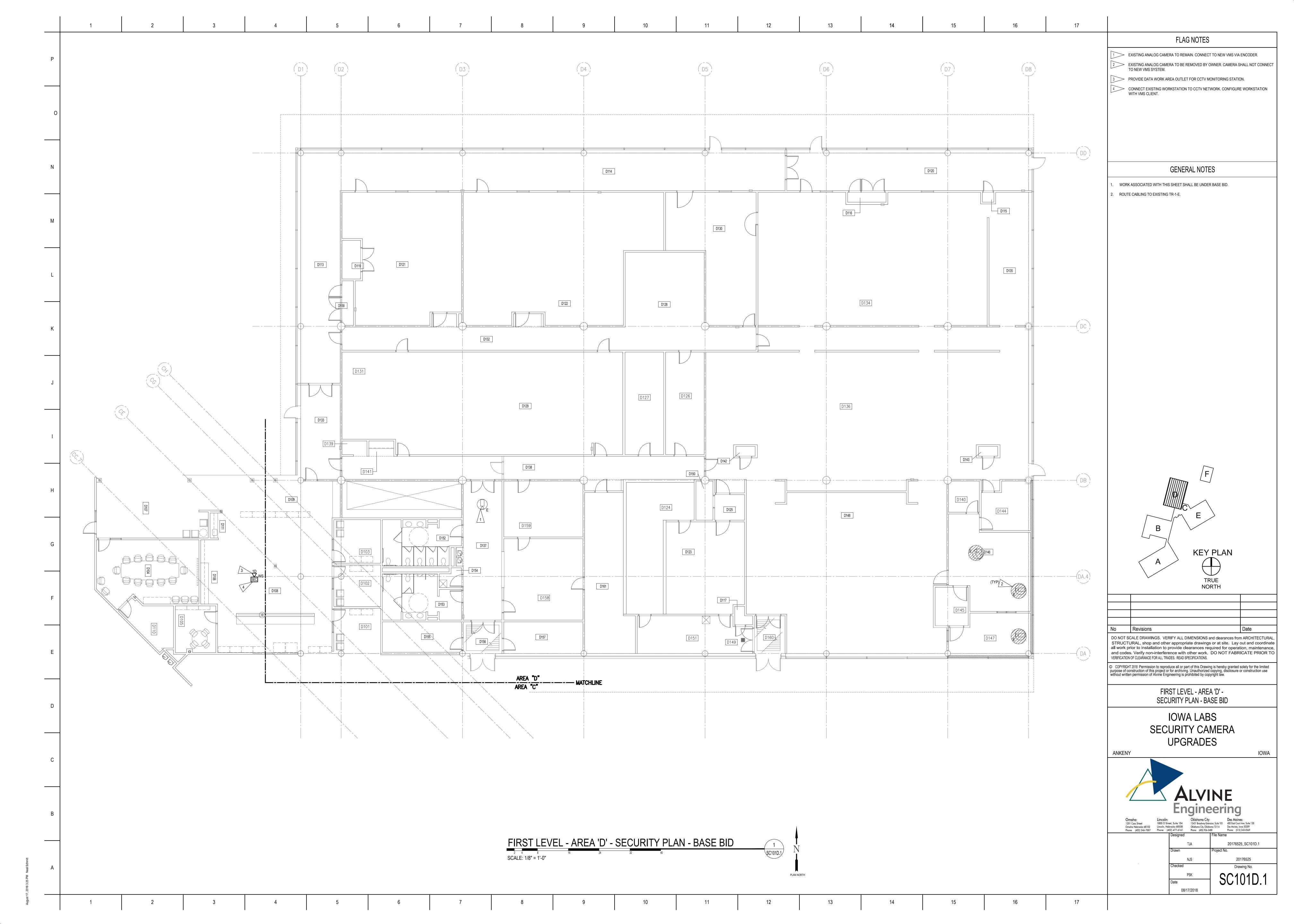


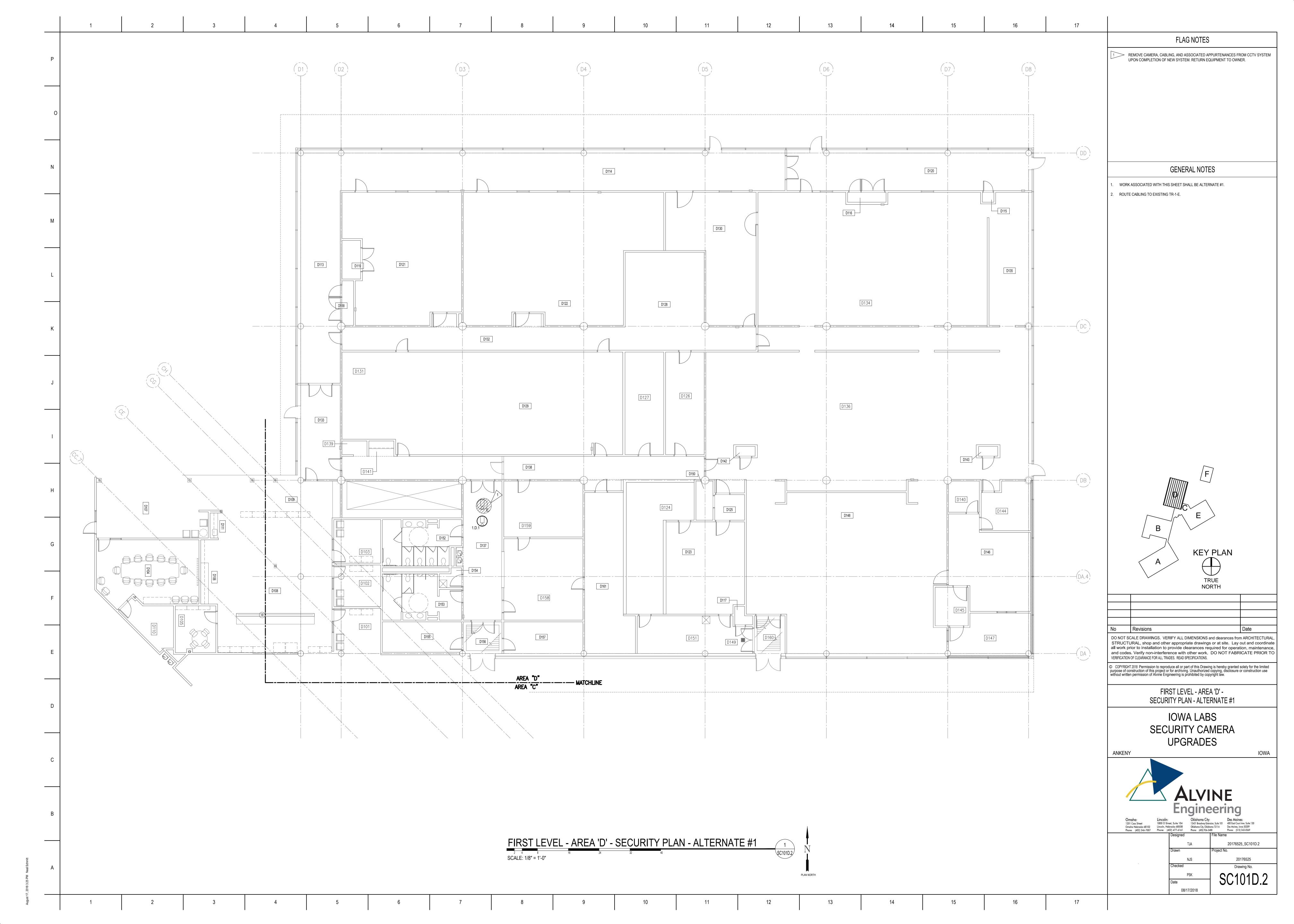














August 17, 2018 3:25 PM Neal Schmitt

