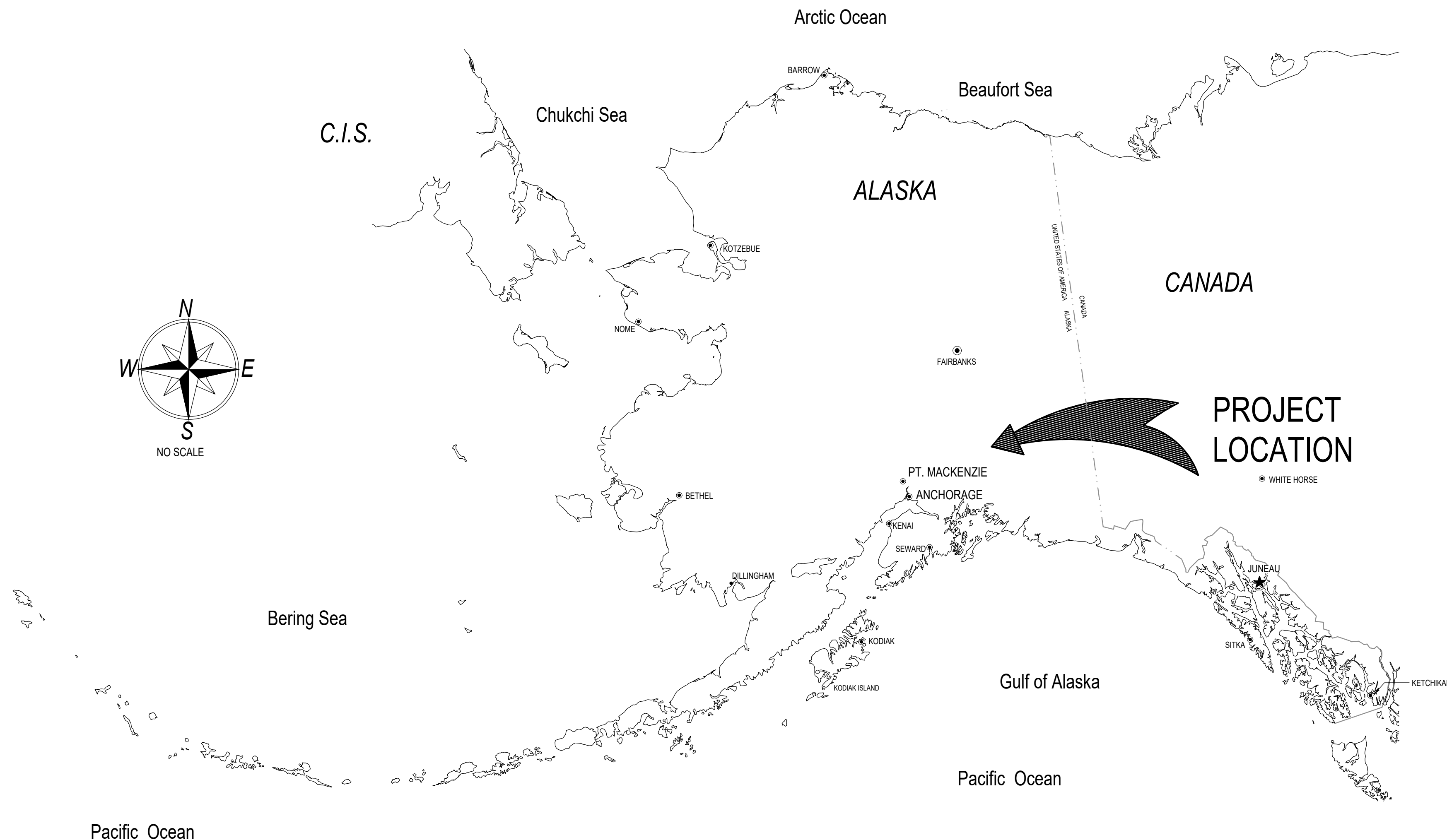


State of Alaska - Department of Corrections
Goose Creek Correctional Center
Camera System Upgrade



PREPARED BY:

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RFP DOCUMENTS 6-22-2020

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GC1.0	SITE PLAN
GC2.0	SECURITY SYSTEM ONE-LINE DIAGRAM
GC3.0	EQUIPMENT SCHEDULE

0"
1"
2"
3"

26.05.00 – COMMON WORK RESULTS FOR ELECTRICAL

A. SCOPE OF WORK: FURNISH AND INSTALL ALL MATERIAL AND EQUIPMENT FOR THE ELECTRICAL WORK AS INDICATED ON THE DRAWINGS AND IN THESE SPECIFICATIONS.

B. STANDARDS, CODES AND REGULATIONS: COMPLY WITH THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE, INTERNATIONAL BUILDING CODE, AND INTERNATIONAL FIRE CODE INCLUDING ALL STATE AND LOCAL AMENDMENTS TO THESE CODES. COMPLY WITH THE LATEST PUBLISHED VERSION OF THE NECA STANDARD OF INSTALLATION.

C. DRAWINGS: THE DRAWINGS ARE DIAGRAMMATIC, NOT NECESSARILY SHOWING ALL OFFSETS OR EXACT LOCATIONS OF EQUIPMENT UNLESS SPECIFICALLY DIMENSIONED. REVIEW THE DRAWINGS AND SPECIFICATIONS FOR EQUIPMENT FURNISHED BY OTHER CRAFTS BUT INSTALLED IN ACCORDANCE WITH THIS SECTION. BRING QUESTIONABLE OR OBSCURE ITEMS, APPARENT CONFLICTS BETWEEN PLANS AND SPECIFICATIONS, GOVERNING CODES OR UTILITIES REGULATIONS TO THE ATTENTION OF THE DEPARTMENT. CODES, ORDINANCES, REGULATIONS, MANUFACTURER’S INSTRUCTIONS OR STANDARDS TAKE PRECEDENCE WHEN THEY ARE MORE STRINGENT OR CONFLICT WITH THE DRAWINGS AND SPECIFICATIONS.

D. RECORD DRAWINGS: MARK UP A CLEAN SET OF DRAWINGS AS THE WORK PROGRESSES TO SHOW ANY SIGNIFICANT REVISIONS TO THE SYSTEMS SHOWN.

E. WORKMANSHIP: INSTALLATION OF ALL WORK SHALL BE MADE SO THAT ITS SEVERAL COMPONENT PARTS SHALL FUNCTION AS A WORKABLE SYSTEM COMPLETE WITH ALL ACCESSORIES NECESSARY FOR ITS OPERATION. ALL MATERIAL AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER’S RECOMMENDATIONS, INSTRUCTIONS AND/OR INSTALLATION DRAWINGS AND IN ACCORDANCE WITH NECA STANDARDS. MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL CONFORM WITH APPLICABLE INDUSTRY STANDARDS, NEMA STANDARDS AND UNDERWRITERS LABORATORIES STANDARDS WHERE APPLICABLE.

F. SUBMITTALS: PROVIDE PRODUCT DATA, QUALIFICATIONS, SHOP DRAWINGS, AND OTHER ITEMS AS REQUIRED IN INDIVIDUAL SECTIONS. SUBMIT ALL SECTIONS TOGETHER IN A BOOKMARKED PDF FILE UNLESS DIRECTED OTHERWISE BY THE DEPARTMENT.

G. WARRANTY: THE CONTRACTOR SHALL GUARANTEE ALL WORK EXECUTED UNDER THIS CONTRACT TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM BENEFICIAL OCCUPANCY. ANY FAULTY MATERIALS OR WORKMANSHIP SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER DURING THE GUARANTEE PERIOD. DURING THE WARRANTY PERIOD, ALL SERVICE CALLS SHALL BE ANSWERED WITHIN (8) HOURS OF INITIAL CONTACT. ANY ISSUES THAT CANNOT BE RESOLVED BY TELEPHONE SHALL REQUIRE AN ON-SITE TECHNICIAN WITHIN 24 HOURS OF INITIAL CONTACT.

28.32.00 – VIDEO SURVEILLANCE SYSTEM

A. SUBMITTALS:

1. SUBMIT PRODUCT DATA FOR APPROVAL.
2. SUBMIT QUALIFICATIONS FOR THE SYSTEM SUBMITTED.
3. SUBMIT SHOP DRAWINGS WITH ALL HARDWARE AND CALCULATIONS PROVIDED FOR THE SYSTEM. AUTOCAD OF THE FACILITY WILL BE MADE AVAILABLE TO ASSIST IN CREATING DRAWINGS.
4. CLOSEOUT: PROVIDE AS-BUILT DRAWINGS WITH ALL INSTALLED COMPONENTS, IP/MAC ADDRESSES, AND FINAL CONFIGURATION OF HARDWARE.

B. MATERIALS

1. VIDEO MANAGEMENT SYSTEM:

- 1.1. MANUFACTURER SHALL BE MILESTONE "XPROTECT EXPERT". NO SUBSTITUTIONS SHALL BE ALLOWED. PROVIDE SOFTWARE, ALL LICENSES REQUIRED FOR SERVER, SITE, ALL IP CAMERAS, ENCODERS, WORKSTATIONS, LABOR, PROGRAMMING, AND ALL MATERIAL FOR A COMPLETE AND OPERABLE SYSTEM.
2. VIDEO SERVERS:
 - 2.1. HARDWARE CONFIGURATION SHALL MEET VMS REQUIREMENTS FOR SIZE OF THE SYSTEM AND THE NUMBER OF CAMERAS AND WORKSTATIONS CONNECTED.
 - 2.2. DIRECTORY SERVERS AND ARCHIVERS SHALL BE BY THE SAME MANUFACTURER, THOUGH DIFFERENT SERIES ARE ALLOWED BASED ON EQUIPMENT NEEDS.
 - 2.3. PROVIDE GPS TIME SERVER FOR ALL EQUIPMENT TO SYNCHRONIZE.
 - 2.4. MINIMUM ARCHIVER SIZE SHALL BE 64TB RAW STORAGE IN EACH SERVER. HIGHER CAPACITY SHALL BE PROVIDED AS NEEDED TO MEET RECORDING CAPACITY REQUIREMENTS.
 - 2.5. PROVIDE CAPACITY FOR MINIMUM 90 DAYS OF CALCULATED STORAGE IN ARCHIVERS BASED ON CURRENT QUANTITIES OF ANALOG CAMERAS/ENCODERS AND IP-BASED CAMERAS PER THE EQUIPMENT SCHEDULE. ASSUME IP-BASED CAMERAS HAVE 30% MOTION RECORDING AT 15FPS MINIMUM.
 - 2.6. PROVIDE RAID 6 CONFIGURATION OR AS RECOMMENDED BY THE MANUFACTURER. CALCULATED STORAGE CAPACITY SHALL BE NET AMOUNT AFTER RAID.
 - 2.7. OA FAILOVER ARCHIVER SHALL HAVE TWICE THE CAPACITY OF OA PRIMARY ARCHIVER TO ALLOW FOR FAILOVER OF ANY OTHER BUILDING.
 - 2.8. PROVIDE DUAL POWER SUPPLIES IN ALL SERVERS.
 - 2.9. PROVIDE (1) EACH SPARE DIRECTORY SERVER AND ARCHIVER. ARCHIVER RECORDING CAPACITY SHALL MEET THE MAXIMUM OF ANY INSTALLED ARCHIVER.
 - 2.10. PROVIDE FULL BACKUP OF ALL SERVERS AFTER INSTALLATION.
 - 2.11. PROVIDE COPIES OF ALL PRODUCT KEYS, PASSWORDS, AND ANY OTHER INFORMATION REQUIRED FOR INSTALLATION OR UPDATES OF SYSTEMS.
3. VIDEO SYSTEM WORKSTATIONS
 - 3.1. WORKSTATIONS SHALL BE PROVIDED BY THE OWNER. CONTRACTOR SHALL PROVIDE LICENSES, INSTALL SOFTWARE, INSTALL WORKSTATIONS IN THE FIELD, TEST ALL FUNCTIONS AND REMOVE OLD EQUIPMENT.
4. NETWORK SWITCHES:
 - 4.1. PoE NETWORK SWITCHES SHALL BE PROVIDED FOR ALL SWITCH PORTS LISTED, PLUS EXPANSION CAPABILITY OF 25% IN EACH BUILDING.
 - 4.2. SWITCHES SHALL BE 24–PORT, PLUS MINIMUM (2) SFP PORTS TO CONNECT FIBER OPTIC BACKBONE.
 - 4.3. SWITCHES SHALL BE CAPABLE OF PROVIDING PoE POWER ON ALL PORTS SIMULTANEOUSLY FOR CAMERAS.
 - 4.4. SWITCHES SHALL MEET VMS MANUFACTURER REQUIREMENTS FOR NETWORK MANAGEMENT, SECURITY PROTOCOLS, AND THROUGHPUT BASED ON SYSTEM DESIGN.
 - 4.5. FIBER OPTIC BACKBONE IN THE FACILITY IS SINGLE–MODE WITH LC CONNECTORS. PROVIDE TRANSCEIVERS FOR ALL PORTS USED FOR FIBER.
 - 4.6. PROVIDE MINIMUM 12–PORT FIBER SWITCHES WHERE DESIGNATED.
5. VIDEO CAMERAS:
 - 5.1. NO NEW CAMERAS WILL BE INSTALLED.
6. CABLING SYSTEM:
 - 6.1. NO NEW CABLING WILL BE INSTALLED.
7. ENCODERS:
 - 7.1. EXISTING ENCODERS ARE DVTCL "7608E".
 - 7.2. PROVIDE (3) NEW 16–CHANNEL ENCODERS FOR THE FACILITY TO USE AS SPARES. AXIS #P7216 OR EQUAL.

D. INSTALLATION:

1. INSTALLATION SHALL BE COORDINATED WITH THE DEPARTMENT AND FACILITY TO MINIMIZE SYSTEM DOWNTIME. CUTOVER TIMES SHALL BE AS NOTED IN CONTRACT TERMS AND CONDITIONS. CONTRACTOR SHALL PROVIDE A PHASED CUTOVER PLAN FOR APPROVAL.
2. SYSTEM DOWNTIME SHALL BE APPROVED A MINIMUM OF 48 HOURS IN ADVANCE, UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT.
3. COORDINATE WITH FACILITY FOR INSTALLATION LOCATION OF ALL EQUIPMENT.
4. PROVIDE 16 HOURS OF TRAINING FOR THE FACILITY, INCLUDING USER INTERFACE, SYSTEM CONFIGURATION AND TROUBLESHOOTING, SYSTEM UPDATES, CAMERA ADDITIONS/DELETIONS, MAPPING FUNCTIONS, AND OTHER PERTINENT FUNCTIONS. ASSUME (2) CLASSES OF (8) HOURS EACH. ALL TRAINING SHALL BE RECORDED FOR FUTURE USE BY THE DEPARTMENT.

28.40.00 – DETENTION MONITORING AND CONTROL SYSTEM

A. EXISTING SYSTEM:

1. PLC SYSTEM: SCHNEIDER ELECTRIC “QUANTUM 140” SERIES.
2. SOFTWARE: CITECT SCADA 2018.

B. SUBMITTALS:

1. NONE REQUIRED DURING PROJECT.

C. CLOSEOUT: PROVIDE COPY OF MODIFIED PROGRAM WITH ALL UPDATED CALL–UPS/KEYBOARD EMULATORS.

D. INSTALLATION:

1. PROVIDE ALL LABOR NECESSARY TO UPDATE THE EXISTING CONTROL SYSTEM FOR USE WITH THE NEW VMS. ALL CAMERA CALL–UPS, LISTS, QUAD CONFIGURATIONS, AND ASSOCIATED ALARMS SHALL BE UPDATED.
2. COORDINATE ACCESS TO THE CONTROL SYSTEM WITH THE DEPARTMENT. IF REMOTE ACCESS IS NEEDED TO MAKE PROGRAMMING CHANGES, A SCHEDULED DATE/TIME WILL BE AGREED–UPON AND A PHYSICAL CONNECTION MADE AT THE FACILITY.
3. ANY DISRUPTION OF SECURITY CONTROLS DUE TO PROGRAMMING UPDATES, SYSTEM REBOOT, OR OTHER FUNCTIONS, SHALL BE COORDINATED NO LESS THAN 48 HOURS AHEAD OF TIME TO ALLOW FOR STAFFING CHANGES AS NEEDED.
4. UPDATE SYSTEM PROGRAMMING FOR COMMUNICATION WITH NEW VIDEO MANAGEMENT SYSTEM. TEST ALL CAMERA CALL–UPS TO CONFIRM COMPLETION. PROVIDE TEST REPORTS FOR ALL SYSTEM FUNCTIONS MODIFIED WITH RESULTS.
5. AFTER THE UPDATED PROGRAMMING AND TOUCHSCREEN FUNCTIONS ARE IN PLACE, DEMONSTRATE PROPER OPERATION TO THE FACILITY REPRESENTATIVE FOR FINAL APPROVAL.

RFP
DOCUMENTS

NOT FOR
CONSTRUCTION

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STATE OF ALASKA

DEPARTMENT OF CORRECTIONS

GOOSE CREEK CORRECTIONAL CENTER

CAMERA SYSTEM UPGRADE

REVISIONS:

DRAWN BY: JAM

CHECKED BY: JAM

DATE: 6/22/2020

JOB NUMBER: M0040

DWG FILE: M0040 - GCCC

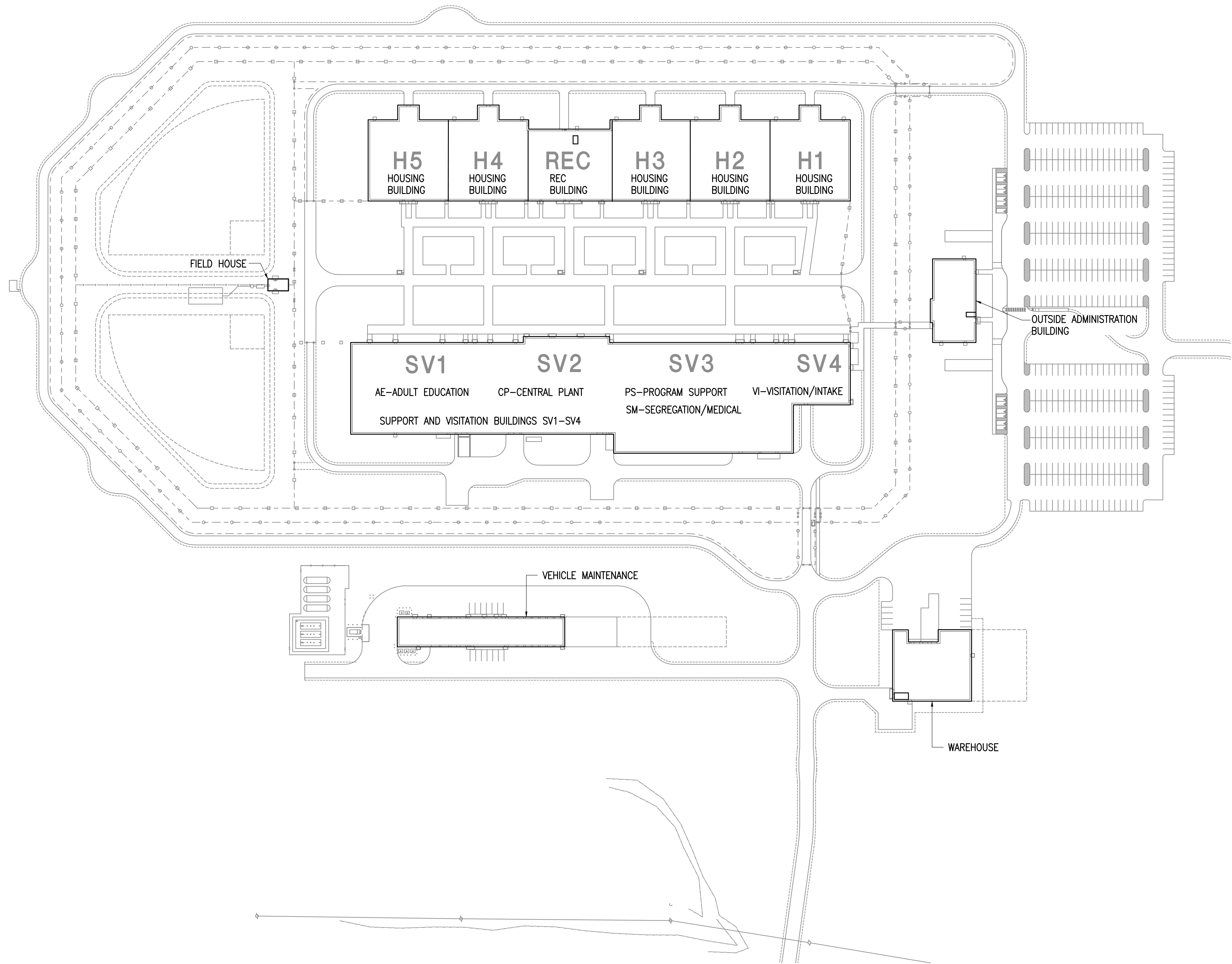
DRAWING TITLE:

ELECTRICAL
PERFORMANCE
SPECIFICATIONS

SHEET:

GC0.1

0"
1"
2"
3"



1 GCCC SITE PLAN
1" = 100'-0"



GENERAL NOTES:

- A. SITE PLAN IS GIVEN FOR REFERENCE. NO SITE WORK IS REQUIRED. EXISTING FIBER OPTIC BACKBONE BETWEEN BUILDINGS SHALL BE USED FOR NEW SYSTEM.

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DEPARTMENT OF CORRECTIONS
GOOSE CREEK CORRECTIONAL CENTER
CAMERA SYSTEM UPGRADE

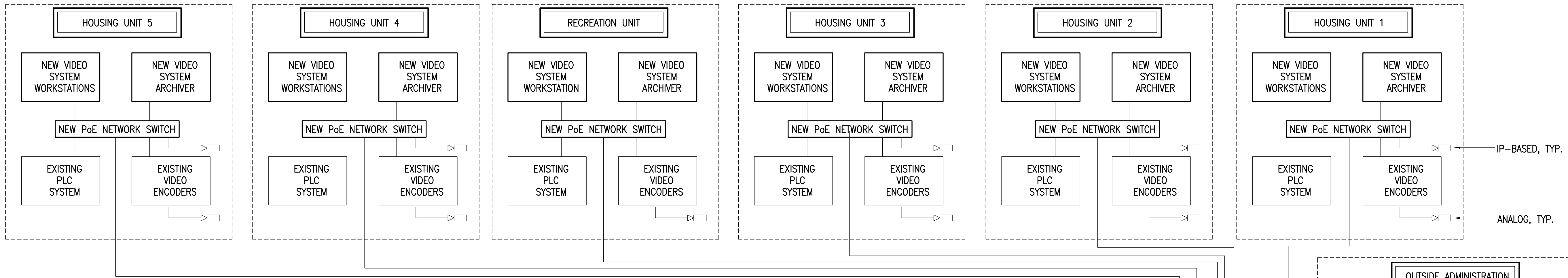
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SITE PLAN

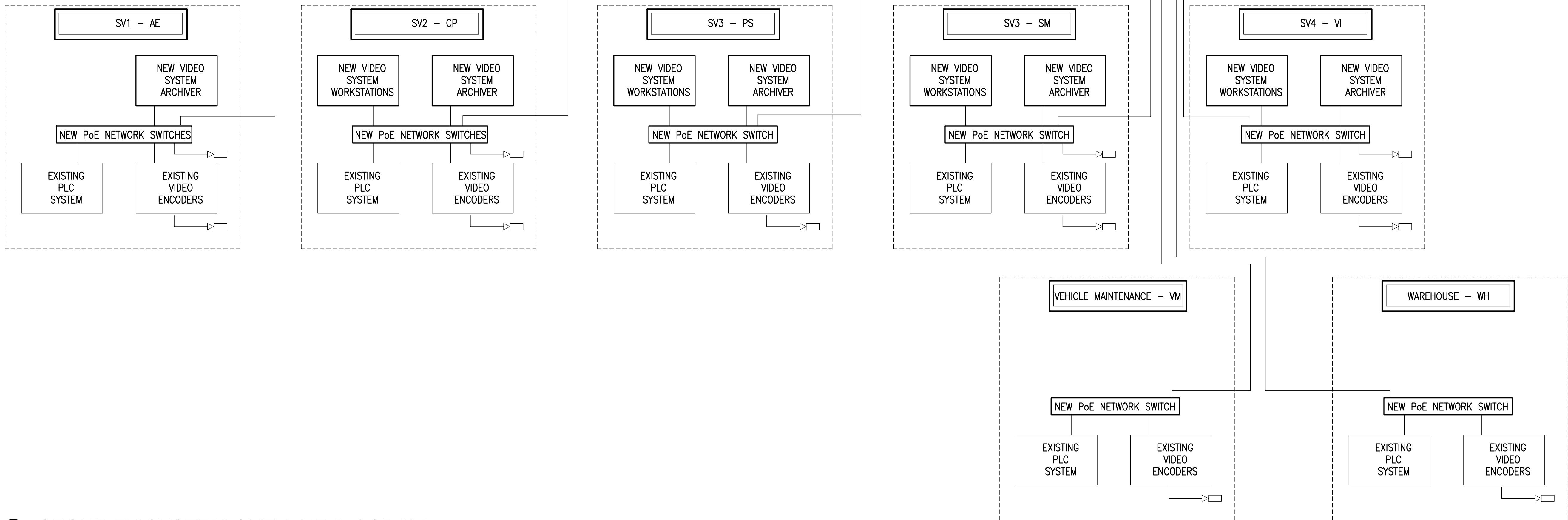
SHEET:
GC1.0

0"
1"
2"
3"



DETAIL NOTES:

- A. SEE GC3.0 FOR EQUIPMENT QUANTITIES.
- B. ALL CABLING IS EXISTING AND SHALL BE RE-USED UNLESS NOTED OTHERWISE.
- C. ALL CLIENT WORKSTATIONS, MONITORS, AND CABLING (IF NEEDED) SHALL BE PROVIDED BY OWNER.
- D. PLC SYSTEM SHALL BE CONNECTED TO NEW SWITCHES.
- E. ALL RACK-MOUNTED EQUIPMENT SHALL BE INSTALLED IN EXISTING RACKS.
- F. CONNECT ALL EQUIPMENT TO EXISTING UPS CIRCUITS IN USE.
- G. ENCODERS ARE 8-CHANNEL AND TYPICALLY FULL.
- H. PLC SYSTEM SHALL BE UPDATED FOR CAMERA CALL-UPS WITH NEW VMS. THERE ARE APPROXIMATELY 800 CAMERAS IN THE FACILITY ACCESSIBLE TO THE PLC SYSTEM. PER COMMISSIONING RECORD DOCUMENTS, THERE WERE A TOTAL OF 594 CAMERA CALL-UPS ASSOCIATED WITH DEVICES AND ALARMS AT THE TIME OF INITIAL OCCUPANCY. ALL PROGRAMMING SHALL BE PROVIDED UPDATE PLC SO THAT ALL CAMERAS AND CALL-UPS FUNCTION. ASSUME A TOTAL OF 700 CALL-UPS IN CASE OF MODIFICATIONS NOT REFLECTED IN RECORD DOCUMENTS.
- I. ALL EXISTING EQUIPMENT SHALL BE TURNED OVER TO THE FACILITY AS IT IS REMOVED, UNLESS DIRECTED OTHERWISE.



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DRAWING TITLE:
SECURITY SYSTEM
ONE-LINE DIAGRAM

SHEET:

GC2.0

0"
1"
2"
3"

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VIDEO SYSTEM EQUIPMENT SCHEDULE								
LOCATION	NEW REQUIRED SERVERS-NOTE 1	NEW REQUIRED SWITCHES - NOTE 2	NEW OFCI WORKSTATIONS - NOTE 3	EXISTING TO INTEGRATE IP CAMERAS - NOTE 4	EXISTING 8-CH ENCODERS	PLC SYSTEM SWITCH PORTS	MINIMUM SWITCH PORTS	NOTES
OA	4	6	10	2 - 5MP	6	8	26	5, 8
H1	1	1	2	2 - 5MP	6	3	14	
H2	1	1	2	2 - 5MP	6	3	14	
H3	1	1	2	2 - 5MP	6	3	14	
REC	1	1	1	0	5	1	8	
H4	1	1	2	1 - 5MP	6	3	13	
H5	1	1	2	2 - 5MP	6	3	14	
AE	1	2	0	3 - 5MP	14	2	20	6
CP	1	2	2	2 - 5MP, 2 - 1080P, 4 - <1MP	11	2	24	6
PS	1	1	2	0	9	4	16	
SM	1	2	5	2 - 5MP	17	6	31	
VI	1	1	4	1 - 1080P	7	2	15	
VM	0	1	0	0	2	1	3	7
WH	0	1	0	0	2	1	3	7
TOTAL	15	22	34	18 - 5MP, 3 - 1080P, 4 - <1MP	103			
NOTES								
1 MINIMUM NUMBER OF SERVERS REQUIRED IS LISTED FOR EACH LOCATION. IN ADDITION, 2 SPARES WILL BE REQUIRED, SEE SPECIFICATIONS.								
2 MINIMUM NUMBER OF 24-PORT SWITCHES REQUIRED IS LISTED FOR EACH LOCATION. 25% SPARE CAPACITY AT EACH LOCATION IS REQUIRED.								
3 WORKSTATIONS SHALL BE OWNER-FURNISHED, CONTRACTOR-INSTALLED. A TOTAL OF 35 WORKSTATIONS WILL BE PROVIDED, WITH ONE SPARE.								
4 EXISTING MODELS IN USE: 5MP - ARECONT AV5155DN-16HK AND BOSCH 8000I SERIES, 1080P - BOSCH 5000I SERIES, <1MP - BOSCH NDC-455-P								
5 SERVER CONFIGURATION AT THIS LOCATION SHALL BE PRIMARY AND FAILOVER DIRECTORY SERVERS, PRIMARY AND FAILOVER ARCHIVER.								
FAILOVER ARCHIVER SERVES LOCATION AND ALL OTHER ARCHIVERS IN THE FACILITY.								
6 LOCATION HAS 2 EXISTING SERVERS. IT IS ASSUMED LOCATION WILL ONLY REQUIRE A SINGLE ARCHIVER IN NEW SYSTEM.								
7 NO RECORDING IS PERFORMED AT THIS LOCATION, VIDEO IS TRANSFERRED TO OA FOR RECORDING.								
8 ONE SWITCH AT THIS LOCATION SERVES THE PLC SYSTEM ONLY. ASSUME ONE SWITCH EACH FOR CAMERAS, WORKSTATIONS, PLC.								
PROVIDE THREE NEW FIBER SWITCHES FOR ALL SINGLE-MODE FIBER.								

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EQUIPMENT SCHEDULE

SHEET:

GC3.0