

FBA Engineering / Plot Date: 8/16/2023 11:40 AM / Plotted by: Steve Roth / Drawing Location: L:\535\0501\SEC001.dwg

SECURITY SYSTEM GENERAL NOTES		INTRUSION DETECTION SYSTEM SYMBOLS	SHEET INDEX
<div><div><div>1. THESE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO COVER A COMPLETE INSTALLATION OF THE SECURITY SYSTEM (ACCESS CONTROL, BUILDING INTRUSION & CONDUIT ONLY & OUTLET BOXES FOR FUTURE CLOSED CIRCUIT TELEVISION). THE OMISSION OR EXPRESSED REFERENCE TO ANY ITEM OF LABOR OR MATERIALS REQUIRED FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH PRESENT PRACTICE OF THE TRADE SHALL NOT RELIEVE THE CONTRACTOR FROM PROVIDING SUCH ADDITIONAL LABOR AND MATERIALS.</div><div>2. THE DESIGN-BUILD SECURITY SYSTEMS CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF A COMPLETE SECURITY SYSTEM BASED ON THESE CONCEPTUAL PLANS AND SPECIFICATIONS.</div><div>3. THE SECURITY SYSTEMS CONTRACTOR IS REQUIRED TO REVIEW ALL OF THE PROJECT'S CONSTRUCTION DOCUMENTS AS A WHOLE IN ORDER TO IDENTIFY ALL REQUIREMENTS THAT DIRECTLY OR INDIRECTLY AFFECT ITS PORTION OF THE SECURITY SYSTEMS WORK, EVEN REQUIREMENTS LOCATED IN SECTIONS DESIGNATED AS APPLICABLE TO OTHER TRADES. IN CASE OF CONFLICTS, THE CONTRACTOR SHALL EITHER OBTAIN DIRECTION FROM THE OWNER'S REPRESENTATIVE OR OTHERWISE APPLY THE MORE STRINGENT REQUIREMENT</div><div>4. REFER TO THE ELECTRICAL PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. ALL APPLICABLE PORTIONS SHALL APPLY TO THE SECURITY SYSTEMS SCOPE OF WORK.</div><div>5. THE SECURITY SYSTEMS AS SHOWN ON THESE PLANS IS CONCEPTUAL ONLY AND IS BASED ON INITIAL OWNER AND DESIGN TEAM INPUT RECEIVED. THE SECURITY SYSTEMS CONTRACTOR IS RESPONSIBLE FOR MODIFYING THE SECURITY SYSTEMS AND DESIGN INTENT TO THE ACTUAL CONDITIONS OF THIS PROJECT AND THE OWNER'S FINAL NEEDS. COORDINATE, CONFIRM AND FINALIZE THE SYSTEMS EQUIPMENT, FEATURES, COVERAGE AND PROGRAMMING WITH THE OWNER'S REPRESENTATIVE. VERIFY WITH THE OWNER'S REPRESENTATIVE THE LEVEL OF INTEGRATION WITH OTHER SYSTEMS.</div><div>6. THE SECURITY SYSTEMS CONTRACTOR SHALL DEVELOP A COMPLETE SET OF CONSTRUCTION DOCUMENTS, PLANS AND SPECIFICATIONS AND SUBMIT TO THE OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE THE START OF CONSTRUCTION.</div><div>7. PROVIDE ALL REQUIRED MATERIALS INCLUDING BUT NOT LIMITED TO EQUIPMENT, HARDWARE, DEVICES, RACKS, TERMINAL CABINETS, CONTROLLERS, POWER SUPPLIES, WIRING AND CABLING, WIRE/CABLING MANAGERMENTS SYSTEMS AND SUPPORTS, CONDUITS AND RACEWAYS, ETC. FOR A COMPLETE AND OPERABLE SECURITY SYSTEMS.</div><div>8. WIRELESS DEVICES AND/OR COMPONENTS ARE NOT ALLOWED AS PART OF THE BASE BID UNLESS OTHERWISE NOTED. APPROVAL OF WIRELESS SYSTEMS SHALL BE AT THE DISCRETION OF THE OWNER'S REPRESENTATIVE.</div><div>9. ALL SYSTEM SOFTWARE PLATFORMS AND QUANTITY OF LICENSES SHALL BE PROVIDED FOR ALL FURNISHED EQUIPMENT AS PART OF THE SECURITY SYSTEMS CONTRACTOR'S COMPLETE AND OPERABLE SYSTEMS. ALL SOFTWARE PLATFORMS INSTALLED SHALL BE THE FULL AND COMPLETE VERSION OF THE MOST RECENT SOFTWARE PACKAGES AVAILABLE AT THE TIME OF THE INSTALLATION. THE OWNER'S REPRESENTATIVE SHALL BE PROVIDED WITH THE FORMAL COPIES OF ALL LICENSES AND FURNISHED WITH ALL USERNAMES AND PASSWORDS FOR THE SYSTEM AS PART OF THE CLOSE-OUT DOCUMENTATION.</div><div>10. THE SECURITY SYSTEMS CONTRACTOR SHALL BE A LICENSED (C-7) LOW VOLTAGE SYSTEMS CONTRACTOR AND A LICENSED (C-10) ELECTRICAL CONTRACTOR AND SHALL HAVE BEEN IN BUSINESS FURNISHING AND INSTALLING SIMILAR SYSTEMS IN SCOPE AND SIZE FOR A MINIMUM OF FIVE (5) YEARS.</div><div>11. THE SECURITY SYSTEMS CONTRACTOR SHALL BE A FACTORY AUTHORIZED DISTRIBUTOR, INSTALLER AND WARRANTY PROVIDER FOR THE MANUFACTURER OF THE EQUIPMENT TO BE INSTALLED. PROVIDE LETTER FROM THE SYSTEMS MANUFACTURERS CERTIFYING THAT THE CONTRACTOR IS AN AUTHORIZED DISTRIBUTOR AND INSTALLER OF THE EQUIPMENT. PROVIDE CERTIFICATES OF TRAINING FOR PERSONNEL PERFORMING THE WORK.</div><div>12. THE SECURITY SYSTEMS CONTRACTOR SHALL MAINTAIN A FULLY EQUIPPED SERVICE DEPARTMENT CAPABLE OF FURNISHING ADEQUATE REPAIR SERVICES FOR THE WARRANTED EQUIPMENT WITH RESPONSE TIMES TO THE PROJECT SITE WITHIN 4 HOURS.</div><div>13. ALL WORK AND EQUIPMENT SHALL BE GUARANTEED IN WRITING FOR A PERIOD OF 1-YEAR AFTER FINAL ACCEPTANCE OF WORK. PROVIDE AN EXTENDED 1-YEAR WARRANTY FOR A TOTAL OF 2-YEARS FROM FINAL ACCEPTANCE OF WORK.</div><div>14. THE CONSTRUCTION DOCUMENTS, PLANS AND SPECIFICATIONS AND ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH ALL LEGAL AND INDUSTRY REQUIREMENTS AND STANDARDS INCLUDING WITHOUT LIMITATION THE FOLLOWING:<div><div>A. CALIFORNIA CODE OF REGULATIONS TITLE 24, PARTS 1 AND 2 (CALIFORNIA BUILDING CODE), 2022 EDITION.</div><div>B. CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 3 (CALIFORNIA ELECTRICAL CODE), 2022 EDITION.</div><div>C. CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 9 (CALIFORNIA FIRE CODE), 2022 EDITION.</div><div>D. OTHER REGULATING AGENCIES WHICH MAY HAVE AUTHORITY OVER ANY PORTION OF THE WORK, INCLUDING THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY, AND THOSE CODES AND STANDARDS LISTED IN THESE NOTES AND SPECIFICATIONS.</div><div>E. THE ELECTRICAL SYSTEMS FUNCTIONALITY STANDARDS SET FORTH IN TITLE 7 OF THE CALIFORNIA CIVIL CODE (THE "RIGHT TO REPAIR ACT").</div><div>F. THE MANUFACTURER'S REQUIREMENTS OR RECOMMENDATIONS FOR ANY INCORPORATED PRODUCTS.</div><div>G. THE MOST CURRENT APPROVED ISSUES OF ANY NOTED SPECIFICATIONS, CODES AND STANDARDS, INCLUDING SUPPLEMENTS, UNLESS NOTED OTHERWISE.</div></div></div><div>15. IN INTERPRETING THESE PLANS, THE FOLLOWING GENERAL RULES APPLY:<div><div>A. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DRAWINGS.</div><div>B. SCALED DIMENSIONS AND GRAPHICALLY SHOWN LOCATIONS ARE TO BE CONSIDERED ONLY APPROXIMATE. FIELD VERIFY DIMENSIONS PRIOR TO BID.</div><div>C. BECAUSE THE PLANS ARE INTENDED TO SET FORTH THE REQUIREMENTS FOR CONSTRUCTION IN ONLY AN INDUSTRY-STANDARD LEVEL OF QUALITY AND DETAIL, AND THEREFORE ARE INTENDED TO BE SUPPLEMENTED BY APPROPRIATE REQUESTS FOR CLARIFICATION AND INFORMATION, ERRORS AND OMISSIONS AND TO BRING THESE ERRORS AND OMISSIONS TO THE ATTENTION OF AN APPROPRIATE OWNER REPRESENTATIVE IN A TIMELY MANNER AND ASSUMES THE RISK OF THE CONSEQUENCES OF FAILING TO DO SO BEFORE BIDDING OR OTHERWISE PROCEEDING.</div><div>D. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION AND NOTIFY THE ELECTRICAL ENGINEER IMMEDIATELY OF ANY DISCREPANCIES OR INCONSISTENCIES.</div></div></div><div>16. SUBMIT COMPLETE CONSTRUCTION DOCUMENTS, PLANS, SPECIFICATIONS AND CATALOG DATA SHEETS FOR THE SECURITY SYSTEMS TO THE OWNER'S REPRESENTATIVE FOR APPROVAL. SUBMITTALS SHALL AT THE MINIMUM INCLUDE THE FOLLOWING:<div><div>A. COPIES OF CONTRACTORS CURRENT C-7 LOW VOLTAGE CONTRACTOR LICENSE AND C-10 ELECTRICAL CONTRACTORS LICENSE.</div><div>B. COPY OF THE EQUIPMENT MANUFACTURERS AUTHORIZATION LETTERS CERTIFYING THE CONTRACTOR AS AN AUTHORIZED DISTRIBUTOR AND INSTALLER.</div><div>C. COPIES OF CERTIFICATES OF TRAINING FOR THE INSTALLING PERSONNEL AND PROOF THAT THEY ARE</div></div></div><div>LOCATED AT THE CONTRACTOR'S LOCAL FACILITY.</div><div>D. LIST OF PROJECTS SIMILAR IN SCOPE AND SIZE THAT HAVE BEEN COMPLETED IN THE LAST FIVE (5) YEARS.</div><div>E. MANUFACTURERS AND CONTRACTORS WARRANTIES.</div><div>F. PLANS FOR THE SITE AND BUILDING AT THE SAME SCALE AS THE CONTRACT DRAWINGS. PLANS SHALL SHOW WALLS, DOORS, WINDOWS, ROOM NUMBERS, ROOM NAMES. THE PLANS SHALL INCLUDE THE TYPE AND LOCATION OF ALL EQUIPMENT, HARDWARE, DEVICES, RACKS, TERMINAL CABINETS, CONTROLLERS, WIRING AND CABLING, CONDUIT AND RACEWAYS, ETC.</div><div>G. PLANS SHALL INCLUDE LEGENDS, DEVICE AND BACKBOX MOUNTING REQUIREMENTS AND HEIGHTS. THE MOUNTING HEIGHTS SHALL BE SYMMETRICAL FOR ALL TYPES OF DEVICES.</div><div>H. PLANS SHALL INCLUDE RISER DIAGRAMS, SINGLE LINE DIAGRAMS, WIRING DIAGRAMS CALCULATIONS FOR THE COMPLETE SYSTEM.</div><div>I. PLANS SHALL SHOW INTERFACE WITH OTHER SYSTEMS THAT ARE REQUIRED TO BE INTEGRATED.</div><div>J. MANUFACTURERS CATALOG DATA AND CUT SHEETS FOR ALL EQUIPMENT.</div><div>K. TESTING AND COMMISSIONING PROCEDURES COORDINATED WITH THE OWNER'S REQUIREMENTS AND MANUFACTURE'S STANDARDS INCLUDING ANSITIS-988-C.0, C.1, C.2 AND C.3.</div><div>17. SUBMITTALS WILL BE REVIEWED BY THE ELECTRICAL ENGINEER, IF AT ALL, ONLY PURSUANT TO THE INDUSTRY-STANDARD PROTOCOL SET FORTH IN AIA DOCUMENT A201, AND IN NO EVENT WILL THE SUBMITTAL REVIEW PROCESS RELIEVE OR LESSEN THE SUBMITTING CONTRACTORS RESPONSIBILITY FOR AN INAPPROPRIATE SUBMITTAL.</div><div>18. TRAINING - PROVIDE OWNER TRAINING FOR UP TO (2) 4 HOUR TRAINING SESSIONS. TRAINING SHALL BE SCHEDULED WITH THE OWNER'S REPRESENTATIVE AND SHALL BE AT TIMES CONVENIENT TO THE OWNER.</div><div>19. IN THE EVENT CONFLICTS BETWEEN THE CONSTRUCTION BID DOCUMENTS, CRITERIA AND SPECIFICATIONS THE MOST STRINGENT OF REQUIREMENTS SHALL APPLY.</div><div>20. IN NO EVENT WILL ANY SITE VISITS BY THE ELECTRICAL ENGINEER CONCERN CONSTRUCTION MEANS AND METHODS OR CONSTRUCTION SAFETY, AND ALL SUCH MATTERS SHALL REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR.</div><div>21. COPIES OF THE PLANS PROVIDED IN ANY ELECTRONIC FORM ARE SUBJECT TO THE SAME PROVISIONS AS THE OTHER INSTRUMENTS OF SERVICE PREPARED BY OR ON BEHALF OF THE ELECTRICAL ENGINEER FOR THE PROJECT, INCLUDING WITHOUT LIMITATION THE ENGINEERS COMMON LAW, STATUTORY OR OTHER RESERVED RIGHTS, INCLUDING COPYRIGHTS. A RECIPIENT IS GRANTED AT MOST A TRANSFERABLE NONEXCLUSIVE LICENSE TO REUSE THE PLANS SOLELY FOR PROJECT PURPOSES, AND NO RECIPIENT IS AUTHORIZED TO USE OR TO ALLOW THE USE OF ALL OR ANY PORTION OF THESE PLANS FOR ANY OTHER PURPOSE, AND ANY USE FOR ANY OTHER PURPOSE WOULD CONSTITUTE ACTIONABLE PLAGIARISM. ELECTRICAL ENGINEER PROVIDES DOCUMENTS IN AN ELECTRONIC FORM ONLY IN ITS STANDARD FORMATS AND CONVENTIONS AND WITH NO GUARANTEE OF COMPATIBILITY WITH ANY RECIPIENT'S SOFTWARE OR HARDWARE AND ANY USE WITH OR CONVERSION TO OTHER FORMATS OR CONVENTIONS, OR THE USE WITH ANY PARTICULAR SOFTWARE OR HARDWARE, IS AT THE RECIPIENT'S SOLE RISK.</div><div>22. THE DRAWINGS INDICATE, IN A DIAGRAMMATIC MANNER, THE DESIRED LOCATIONS AND ARRANGEMENT OF THE COMPONENTS OF SECURITY SYSTEMS WORK. DETERMINE EXACT SECURITY SYSTEMS EQUIPMENT, CONDUIT AND WIRING ROUTING, CONDUIT BENDS, AUXILIARY JUNCTION BOXES, SUPPORTS AND UNDEFINED CONSTRUCTION DETAILS AS A JOB CONDITION TO BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE CODE REQUIREMENTS. PROPER JUDGEMENT MUST BE EXERCISED IN EXECUTING THE WORK SO AS TO SECURE THE BEST POSSIBLE INSTALLATION IN THE AVAILABLE SPACE AND TO OVERCOME LOCAL DIFFICULTIES DUE TO SPACE LIMITATIONS OR INTERFERENCE OF CONDITIONS ENCOUNTERED.</div><div>23. IN THE EVENT CHANGES IN THE INDICATED LOCATIONS OR ARRANGEMENTS ARE NECESSARY, DUE TO DEVELOPED CONDITIONS IN THE BUILDING CONSTRUCTION OR REARRANGEMENT OF EQUIPMENT, SUCH CHANGES SHALL BE MADE WITHOUT COST PROVIDING THE CHANGE IS ORDERED BEFORE THE CONDUIT RUNS, ETC., AND WORK DIRECTLY CONNECTED TO SAME IS INSTALLED AND NO EXTRA MATERIALS ARE REQUIRED.</div><div>24. PROVIDE ALL EQUIPMENT WITH ENCLOSURES LISTED OR LABELED FOR USE AND LOCATION WHERE SUCH EQUIPMENT IS INSTALLED.</div><div>25. PROVIDE UL LISTED FIRE STOP FOR ALL PENETRATIONS THROUGH FIRE RATED FLOORS, WALLS, AND CEILINGS TO MAINTAIN ALL FIRE RATINGS.</div><div>26. GROUNDING SHALL BE EXECUTED IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS, BOTH OF THE STATE OF CALIFORNIA AND LOCAL AUTHORITIES HAVING JURISDICTION.</div><div>27. CONDUIT FOR ROOF MOUNTED EQUIPMENT SHALL BE ROUTED BELOW ROOF AND WITHIN BUILDING.</div><div>28. ALL SECURITY SYSTEMS EQUIPMENT SHALL BE NEW AND BE U.L. OR ETL LISTED AND LABELED.</div></div></div>		<div><div><div><div><div><div>INTRUSION DETECTION KEY PAD.</div><div>INTRUSION DETECTION PANIC BUTTON.</div><div>INTRUSION DETECTION SYSTEM MOTION SENSOR, WALL MOUNTED.</div><div>INTRUSION DETECTION SYSTEM MOTION SENSOR, CEILING MOUNTED.</div><div>INTRUSION DETECTION SYSTEM BREAK GLASS SENSOR, WALL MOUNTED.</div><div>INTRUSION DETECTION SYSTEM DOOR CONTACT - (COORDINATE DOOR CONTACT TYPE PER DOOR).</div><div>INTRUSION DETECTION SYSTEM CONDUIT WITH CONDUCTORS PER MANUFACTURERS REQUIREMENTS. REFERENCE RISER DIAGRAM AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. MINIMUM 3/4" C.</div></div></div><div><div>NOTE: PROVIDE CONDUIT ONLY AND OUTLET BOXES FOR ALL CCTV SYSTEM DEVICES DEPICTED BELOW. ACTUAL EQUIPMENT IS TO PROVIDED IN THE FUTURE BY OTHERS.</div><div>SURFACE MOUNTED (CEILING OR WALL). CLOSED CIRCUIT TELEVISION DOME TYPE CAMERA. PROVIDE WITH FLUSH 4S BACKBOX AND 3/4" CONDUIT HOMERUN TO NEAREST TEL. BACKBOARD. WALL MOUNTED LOCATIONS SHALL BE 8'-0", OR AS DIRECTED BY ARCHITECT. "WIP" INDICATES OUTDOOR MOUNTED CAMERA. PROVIDE WITH OUTDOOR-RATED BACKBOX. PROVIDE BLANK COVER PLATE ON ALL BACKBOXES.</div><div>CLOSED CIRCUIT TELEVISION WORKSTATION LOCATION. PROVIDE FLUSH 4S JUNCTION BOX 8"x18" WITH BLANK COVER PLATE & 3/4" CONDUIT HOMERUN CONTROL NEAREST TEL. BACKBOARD. WORKSTATION LOCATION TO BE VERIFIED WITH OWNER.</div><div>CLOSED CIRCUIT TELEVISION REMOTE MONITOR LOCATION. PROVIDE FLUSH 4S JUNCTION BOX 8"x18" WITH BLANK COVER PLATE & 3/4" CONDUIT HOMERUN TO NEAREST TEL. BACKBOARD. REMOTE MONITOR LOCATION TO BE VERIFIED WITH OWNER.</div></div></div><div><div>ACCESS CONTROL SYSTEM KEY PAD</div><div>ACCESS CONTROL SYSTEM CARD READER</div><div>ACCESS CONTROL SYSTEM PROXIMITY READER - (KEY TAG OR CARD TYPE PROXY CARD)</div><div>ACCESS CONTROL SYSTEM REQUEST EXIT</div><div>ACCESS CONTROL SYSTEM ELECTRIFIED LOCK = (LOCK HARDWARE, SYSTEMS AND CONNECTIONS TO BE COORDINATED PER DOOR TYPE WITH ARCHITECT AND CONTRACTOR.)</div><div>ACCESS CONTROL SYSTEM MAGNETIC DOOR HOLD - (HOLD TYPE, SYSTEMS AND CONNECTIONS TO BE COORDINATED PER DOOR TYPE WITH ARCHITECT AND CONTRACTOR.)</div><div>ACCESS CONTROL SYSTEM DOOR CONTACT - (COORDINATE TYPE PER DOOR)</div><div>ACCESS CONTROL SYSTEM AUDIBLE SOUNDER, WALL MOUNTED</div><div>ACCESS CONTROL SYSTEM AUDIBLE SOUNDER, CEILING MOUNTED</div><div>"CLICK TO ENTER" SYSTEM DEVICE. PROVIDE BACKBOX & 3/4" C. HOMERUN TO IT ROOM.</div><div>ACCESS CONTROL SYSTEM CONDUIT WITH CONDUCTORS PER MANUFACTURER'S REQUIREMENTS. REFERENCE RISER DIAGRAM AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. MINIMUM 3/4" C.</div></div></div><div><div><div>GENERAL SYMBOLS LIST</div><div><div><div>NOTE:</div><div>REFERENCE ELECTRICAL SHEETS FOR ADDITIONAL GENERAL ELECTRICAL SYMBOLS. ALL APPLICABLE PORTIONS SHALL APPLY TO THIS SCOPE OF WORK AS THOUGH WRITTEN HEREIN.</div><div><div><div><div>JUNCTION BOX, FLUSH WALL MOUNTED, +18".</div><div>JUNCTION BOX CONCEALED ABOVE ACCESSIBLE CEILING.</div><div>INDICATES CONNECTION TO EQUIPMENT AS REQUIRED, TYPICAL.</div><div>CONTROL PANEL OR TERMINAL CABINET AS INDICATED ON PLANS.</div><div>INDICATES CONDUIT DROP WITHIN BUILDING WALL.</div><div>INDICATES CONDUIT RISER WITHIN BUILDING WALL.</div><div>DETAIL CALLOUT, "C" INDICATES DETAIL, "E-2" INDICATES DRAWING WHERE DETAIL OCCURS.</div><div>PLAN NOTE CALLOUT. REFER TO CORRESPONDING NOTE ON DRAWING WHERE CALLOUT OCCURS.</div></div></div></div></div></div><div><div>ABBREVIATIONS</div><div><div><div>A</div><div>AMPS</div><div>FLA</div><div>FULL LOAD AMPS</div></div><div><div>AFC</div><div>ABOVE FINISHED COUNTER</div><div>G</div><div>GROUND</div></div><div><div>AFF</div><div>ABOVE FINISH FLOOR</div><div>GFI</div><div>GROUND FAULT INTERRUPTER</div></div><div><div>AFG</div><div>ABOVE FINISH GRADE</div><div>GRC/RGC</div><div>GALVANIZED RIGID CONDUIT</div></div><div><div>BDF</div><div>BUILDING DISTRIBUTION FRAME</div><div>IDF</div><div>INTERMEDIATE DISTRIBUTION FRAME</div></div><div><div>C</div><div>CONDUIT</div><div>IMC</div><div>INTERMEDIATE METALLIC TUBING</div></div><div><div>CB</div><div>CIRCUIT BREAKER</div><div>MCB</div><div>MAIN CIRCUIT BREAKER</div></div><div><div>CBC</div><div>CALIFORNIA BUILDING CODE</div><div>MDF</div><div>MAIN DISTRIBUTION FRAME</div></div><div><div>CCTV</div><div>CLOSED CIRCUIT TELEVISION</div><div>MFG/MFR</div><div>MANUFACTURER</div></div><div><div>CFC</div><div>CALIFORNIA FIRE CODE</div><div>MIN</div><div>MINIMUM</div></div><div><div>CKT</div><div>CIRCUIT</div><div>MLO</div><div>MAIN LUGS ONLY</div></div><div><div>CO</div><div>CONDUIT ONLY W/ PULL STRING</div><div>MOCP</div><div>MAXIMUM OVER CURRENT PROTECTION</div></div><div><div>CU</div><div>COPPER</div><div>NEC</div><div>NATIONAL ELECTRIC CODE</div></div><div><div>(D)</div><div>DEMOLISH OR REMOVE</div><div>NIC</div><div>NOT IN CONTRACT</div></div><div><div>DIA</div><div>DIAMETER</div><div>NL</div><div>NIGHT LIGHT</div></div><div><div>DISC</div><div>DISCONNECT</div><div>OC</div><div>ON CENTER</div></div><div><div>EMT</div><div>ELECTRIC METALLIC TUBING</div><div>PTZ</div><div>PAN-TILT-ZOOM</div></div><div><div>(E)</div><div>EXISTING TO REMAIN</div><div>OFCI</div><div>OWNER FURNISHED, CONTRACTOR INSTALLED</div></div><div><div>EC</div><div>ELECTRICAL CONTRACTOR</div><div>UON</div><div>UNLESS OTHERWISE NOTED</div></div><div><div>EF</div><div>EXHAUST FAN</div><div>V</div><div>VOLTS</div></div><div><div>EM</div><div>EMERGENCY</div><div>VL</div><div>VERIFY LOCATION</div></div><div><div>EMS</div><div>ENERGY MANAGEMENT SYSTEM</div><div>WP</div><div>WEATHERPROOF</div></div><div><div>(ER)</div><div>EXISTING TO BE REMOVED</div><div>XFMR</div><div>TRANSFORMER</div></div><div><div>IDCP</div><div>INTRUSION DETECTION CONTROL PANEL</div></div><div><div>IDTC</div><div>INTRUSION DETECTION TERMINAL CABINET</div></div><div><div>ACCP</div><div>ACCESS CONTROL CONTROL PANEL</div></div><div><div>ACTC</div><div>ACCESS CONTROL TERMINAL CABINET</div></div><div><div>CTVCP</div><div>CLOSED CIRCUIT TELEVISION CONTROL PANEL</div></div><div><div>CTVTC</div><div>CLOSED CIRCUIT TELEVISION TERMINAL CABINET</div></div></div></div></div></div></div>	

CONDUIT FILL SCHEDULE					
MAXIMUM NUMBER OF CONDUCTORS/CABLES (BASED ON 40% MAX FILL RATIO)					
CONDUIT (EMT, TRADE SIZE)	UTP CAT 7 (0.27" O.D.)	FIBER OPTIC (0.27" O.D.)	4#22 WEST PENN 240 (0.142" O.D.)	RG-6/U WEST PENN 841 (0.254" O.D.)	
3/4"	3	3	11	3	
1"	6	6	19	6	
1 1/4"	10	10	30	9	
1 1/2"	13	13	44	13	
2"	22	22	78	24	

DIVISION OF RESPONSIBILITY								
	J-BOKES, CONDUIT, ROUGH-IN, 120V TO SUPPLY POWER	DEVICES AND CABLING	HEAD END UNIT	SYSTEMS INTEGRATION	DEVICE PLACEMENT LOCATIONS AND AIMING	TESTING AND COMMISSIONING	DOOR HARDWARE SPEC TO ARCHITECT/OWNER	TELEPHONE & DATA SYSTEM PROCUREMENT, INSTALLATION, AND PROGRAMMING
ELECTRICAL CONTRACTOR	X	CABLING ONLY						X
FIRE ALARM CONTRACTOR		X	X			X		
GENERAL CONTRACTOR	X	CABLING ONLY						X
OWNER					X			
OWNER'S I.T.							X	
SECURITY CONTRACTOR		X	X			X		
SECURITY SYSTEMS INTEGRATOR		DEVICES ONLY	X	X			X	

LOW VOLTAGE SYSTEMS CABLING MATRIX			
APPLICATION	TYPE	CABLE COLOR	SYSTEM
VOICE / DATA	CAT 7	RED/BLUE	VOIP / NETWORK DATA SYSTEMS
VOICE	CAT 7	RED	VOIP
DATA	CAT 7	BLUE	NETWORK DATA SYSTEMS
TELEVISION	CAT 7	GRAY	VIDEO
TELEVISION	RG11 / RG6	BLACK	VIDEO
CAMERAS	NA	NA	FUTURE
CAMERAS	NA	NA	FUTURE
FIBER BACKBONE MULTI-MODE	50µc/125	ORANGE	VOICE / DATA SURVEILLANCE
COPPER BACKBONE (25 PAIR COUNT)	CAT 7	BROWN	VOICE / DATA
WIRELESS ACCESS	CAT 7	PURPLE	VIDEO

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BENCHMARK:

THE CITY OF GARDENA BENCHMARK NO. 5D-15 ELEV. = 43.508

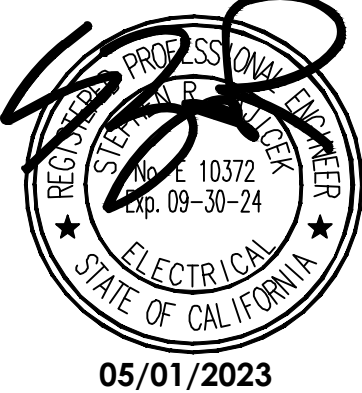


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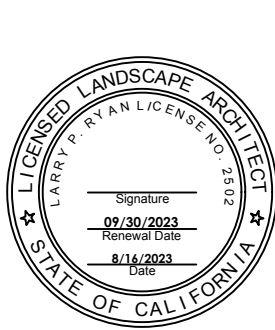
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REVISIONS			
NO.	DESCRIPTION	DATE	APPROVED
1	ADDENDUM 2	06-16-2023	

CITY OF GARDENA

DEPARTMENT OF PUBLIC WORKS - ENGINEERING

SYMBOLS LIST, GENERAL NOTES, & SCHEDULES

COMMUNITY AQUATICS & SENIOR CENTER

SEC-0.01

DESIGNED BY

SE

08/07/2023

DRAWN BY

SR

08/07/2023

CHECKED BY

BZ

08/07/2023

APPROVED BY

[Signature]

08/17/2023

FOR DIRECTOR OF PUBLIC WORKS

SHR. 1 OF 12

DWG. NO. 5-2606

FBA Engineering / Plot Date: 8/15/2023 11:16 AM / Plotted by: Steve Roth / Drawing Location: L:\535\0501\SEC002.dwg

ACCESS CONTROL SYSTEM GENERAL NOTES

1.1 GENERAL

- SECURITY CONTRACTOR SHALL PROVIDE, PROGRAM, AND INSTALL A FULLY FUNCTIONAL, COMPLETE AND OPERATIONAL ACCESS CONTROL SYSTEM. PROVIDE ALL ENGINEERING, DESIGN, TESTING, EQUIPMENT, MATERIALS, COMPONENTS AND INSTALLATION NECESSARY AS PART OF THIS WORK.
- ACCESS CONTROL SYSTEM, AT A MINIMUM, SHALL INCLUDE A DIGITAL ALARM COMMUNICATOR, BUILT-IN TELEPHONE LINE MONITOR, MEMORY LOGGER (500 EVENT MINIMUM), REAL TIME CLOCK, CALENDAR, TEST TIMER, BATTERY CHARGING/VOLTAGE SUPERVISION CIRCUITRY, BATTERY LEAD SUPERVISION, DIAGNOSTICS, TIME/EVENT BASED SCHEDULING AND ALL MODULES AND COMPONENTS FOR A COMPLETE AND OPERABLE SYSTEM.
- SYSTEM SHALL:
 - BE SCALABLE TO SUPPORT INDEPENDENT DEVICE ZONES (SINGLE DEVICE OR GROUP OF DEVICES GROUPED TOGETHER), EACH WITH INTERIOR AND PERIMETER PARTITIONING, QUANTITY OF ZONES AND DEVICES DEPENDENT ON PROJECT AND TO BE COORDINATED WITH OWNER.
 - PROVIDE IDENTIFICATION, ANNUNCIATION AND COMMUNICATION OF ALL DEVICES ON A POINT-BY-POINT BASIS, INCLUDING EACH ACCESS CONTROL BY USER NUMBER.
 - BE CAPABLE OF LOCALLY OR REMOTE PROGRAMMING.
 - BE PROVIDED WITH SECONDARY POWER BACK-UP
 - VIA BATTERIES. BATTERIES TO BE SIZED FOR MINIMUM 66-HOUR SUPERVISION AND 15-MINUTES OF ALARM. BATTERY CHARGER TO BE SIZED BASED ON BATTERY CAPACITIES.
 - VIA EMERGENCY GENERATOR OR BUILDING BATTERY INVERTER.
 - ALLOW REAL-TIME STATUS MONITORING/VIEWING OF DEVICES AND UNIT AND AREA EVENTS (AC FAIL, BATTERY FAIL, UNIT CONNECTED/LOST, AREA ARM/DISARM, INPUT TROUBLE, ETC.)
- ALL FIELD DEVICES SHALL BE INDIVIDUALLY HOMERUN TO ACCP OR ACTC. DAISY CHAINING OF DEVICES IS NOT ACCEPTABLE UNLESS WRITTEN APPROVAL IS PROVIDED PRIOR TO SYSTEM SHOP DRAWINGS AND INSTALLATION OF ANY DEVICES.

1.2 ACCESS CONTROL SYSTEM BASIS OF DESIGN

- THE INTENT AND PURPOSE OF THE ACCESS CONTROL SYSTEM IS TO PROVIDE ACCESS TO SECURED AREAS OF THE BUILDING AS INDICATED ON PLANS AND DEFINED BY THE OWNER, THROUGH THE ACCESS CONTROL SYSTEM. THE SYSTEM WILL ENABLE THE OWNER TO CONTROL ACCESS FOR DOORS AND/OR AREAS THROUGH THE PROGRAMMING OF THE RESTRICTED DATABASE ON SYSTEM SOFTWARE, AND TO PROVIDE THE CAPABILITY OF REMOTE ACCESS DATABASE MANAGEMENT. GRAPHICAL AND CONTROL INTEGRATION SOFTWARE SHALL BE PROVIDED FOR REMOTE ACCESS AND MANAGEMENT, INCLUDING REQUIRED SERVER COMPUTER AND DISPLAY.
- THE ACCESS CONTROL SYSTEM SHALL INTEGRATE WITH THE INTRUSION DETECTION SYSTEM AND FUTURE CCTV SYSTEM. INTEGRATION WITH THE INTRUSION DETECTION SYSTEM SHALL PROVIDE A MOMENTARY CONTACT CLOSURE SIGNAL FOR THE PROGRAMMED DISARMING OF THE INTRUSION DETECTION ZONES AS MAY BE REQUIRED.
- ACCESS TO SECURED AREAS SHALL BE PROVIDED THROUGH THE INSTALLATION OF DEDICATED AND SPECIFIC DEVICES, CONSISTING OF, BUT NOT LIMITED TO, PROXIMITY CARD READERS (WITH PROXIMITY CARDS), MAGNETIC DOOR CONTACTS, ELECTRIFIED HINGES, MORTISED LOCKS, ELECTRIFIED DOOR STRIKES, PANIC BARS, POWER SUPPLIES, REQUEST TO EXIT DEVICES, ETC. ALL DOOR HARDWARE REQUIREMENTS TO BE PART OF AND COORDINATED WITH PROJECT DOOR SCHEDULES AND DOOR INSTALLING CONTRACTOR.
- ACCESS TO INDIVIDUAL UNITS SHALL BE CENTRALLY MANAGED THROUGH WIRELESS SMART CONTROL LOCKSETS AND CEILING MOUNTED GATEWAYS, THROUGHOUT PROPERTY BUILDINGS.
- THE INTENT OF THE PLAN DRAWINGS IS TO GUIDE THE SECURITY CONTRACTOR IN THE BASIC INTENT OF THE SYSTEM DESIGN AND SHALL NOT BE CONSIDERED A FINAL OR COMPLETE SET OF PLANS. THE SECURITY CONTRACTOR SHALL INCLUDE AS PART OF HIS BID, AND SUBSEQUENT INSTALLATION, ALL REQUIRED MATERIALS AND LABOR, INCLUDING BUT NOT LIMITED TO ALL DEVICES, CABLING, CONNECTIONS, PATHWAYS, FIRESTOPPING, HARDWARE, SOFTWARE, UPS/BATTERY BACKUP, INTERFACES, WARRANTIES, ETC. FOR A COMPLETE AND OPERABLE SYSTEM.
- THE FOLLOWING SHALL BE UTILIZED AS AN ACCESS CONTROL SYSTEM EQUIPMENT BASIS OF DESIGN. THE LIST DOES NOT CONSTITUTE COMPLETE PARTS OR MATERIALS, BUT A GUIDE OF EQUIPMENT FROM OWNER'S ACCESS CONTROL STANDARDS OF ACCEPTABLE MANUFACTURER FOR COMPONENTS. CONTRACTOR SHALL AUGMENT AND PROVIDE ALL COMPONENTS NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM. THE FOLLOWING LIST OF ITEMS ARE IDENTIFIED FROM RS2 TECHNOLOGIES, AND ALLEGION, UNLESS OTHERWISE NOTED:

- A. RS2 TECHNOLOGIES SYSTEM CONTROLLER WITH ENTERPRISE-WIDE "ACCESS ITT" SOFTWARE AND WEB LICENSE "ACCESS ITT" UNIVERSAL BROWSER INTERFACE

PROXIMITY CARD - HID PROX 13.56mHz CARD OR 125kHz CARD (CONFIRM FREQUENCY WITH OWNER'S IT)

PROXIMITY READER - HID MULTICLASS SE READER (13.56mHz AND 125kHz), HID RP10, RP15, RP40. PROVIDE WITH OPTIONAL PRESOCKET GASKET FOR EXTERIOR DEVICE LOCATIONS.

ACCESS KEYPAD - HID RPK40

ALTRONIX AL600 SERIES POWER SUPPLIES

APC SMART UPS FOR SYSTEM BACK UP (4-HOURS MINIMUM)

VON DUPRIN PANIC HARDWARE WITH ELECTRIFIED TRIM - SERIES #99 OR #93

MAGNETIC DOOR CONTACTS - SENTROL 1079CT

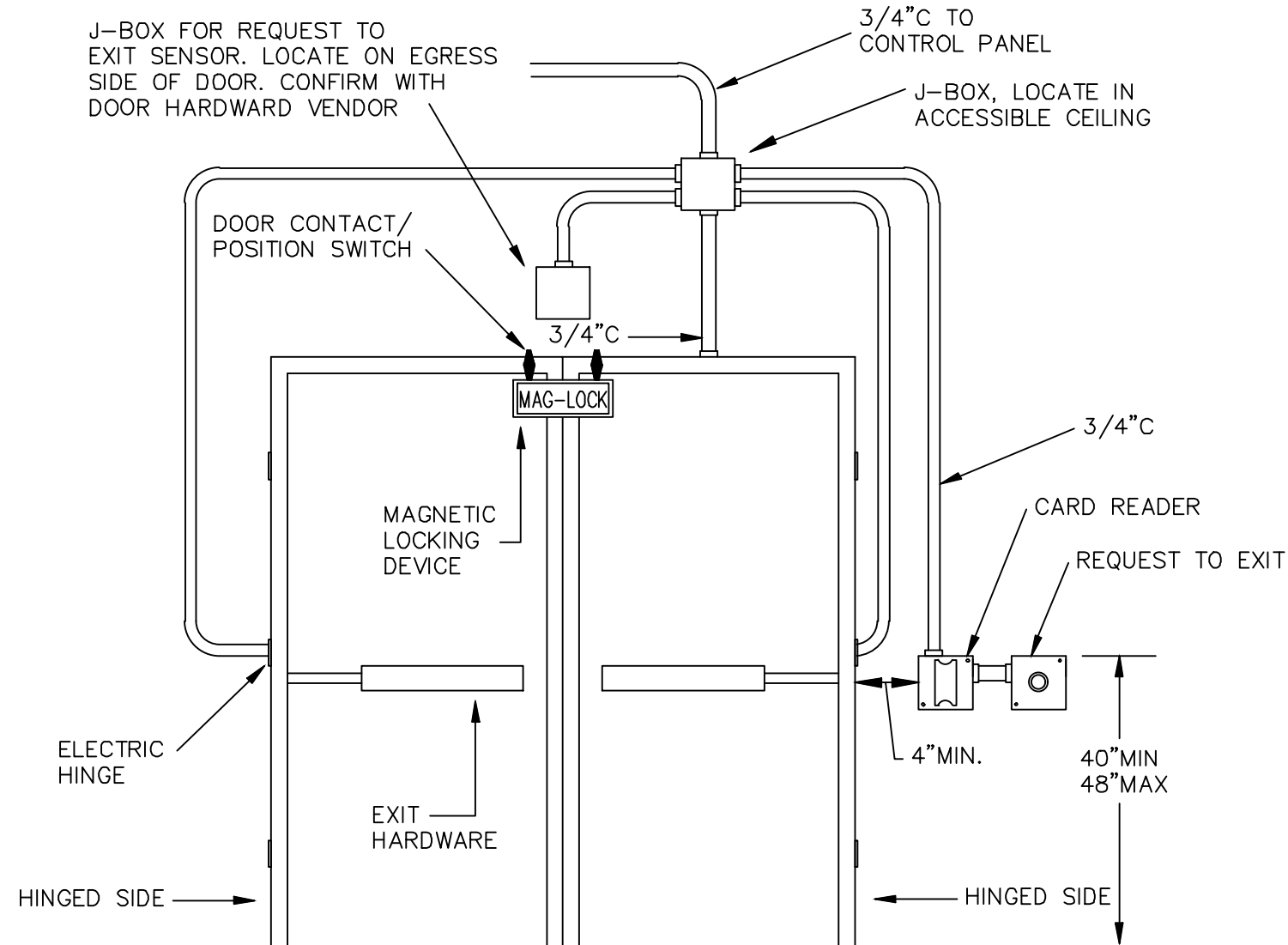
T-REX REQUEST TO EXIT MOTION DETECTORS - BOSCH DS160

ACCESS CONTROL COMPOSITE CABLE:

- ONE (1) 14-2C - LOCK POWER
- ONE (1) 18-2C AND ONE (1) 18-4C - CARD READER
- ONE (1) 18-4C - DOOR SWITCH
- ONE (1) 18-4C - REX/PIR

ADDITIONAL ACCESS CONTROL CABLE - 18-2C AND 18-4C SHIELDED CMP CABLE AS REQUIRED. ALLEGION DOOR SECURITY SYSTEM:

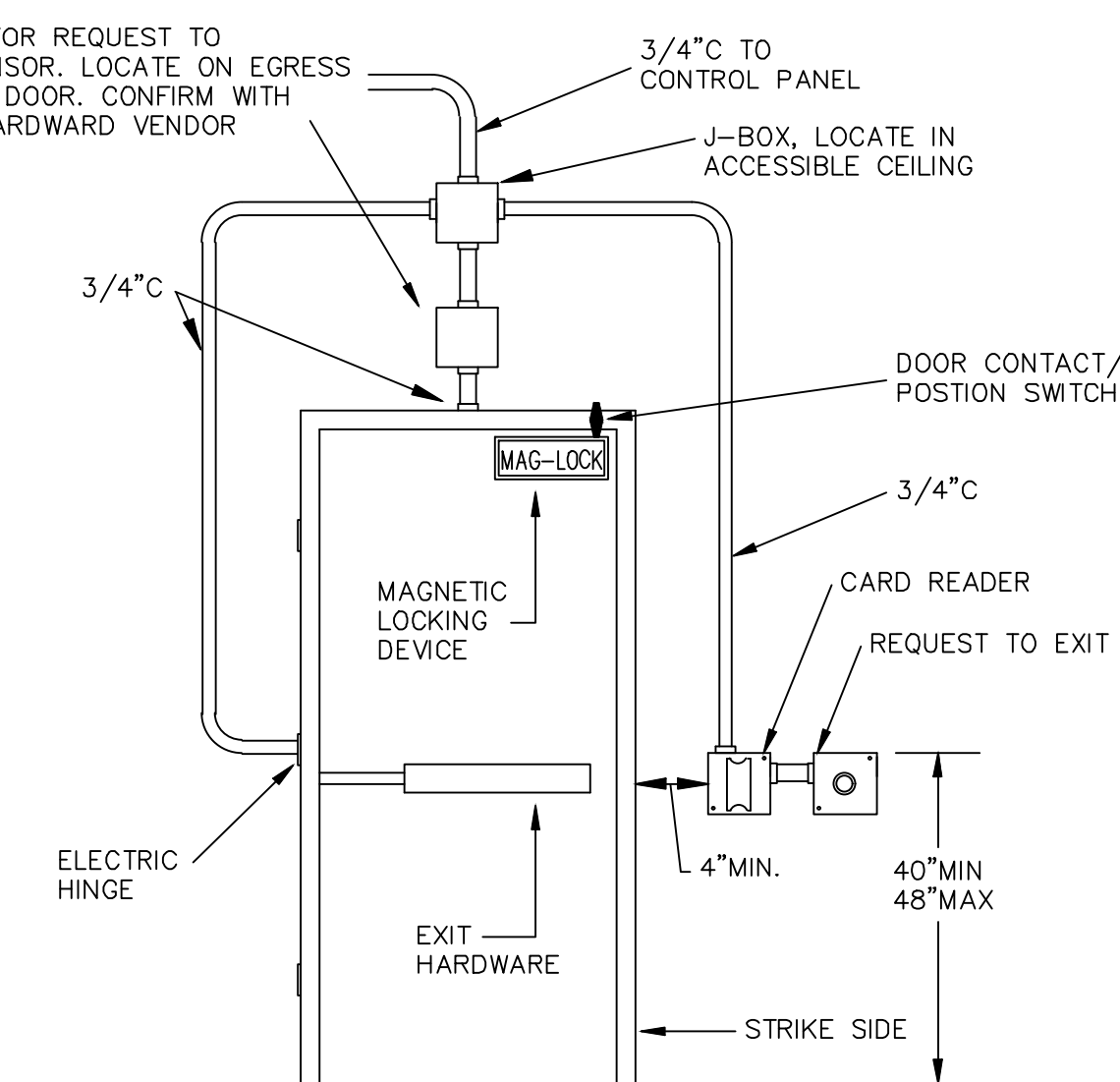
- KASTLE SYSTEMS V6 PANEL & MANAGEMENT
- NETWORK POE SWITCHES: 12 PORT
CISCO CATALYST 3560CX (WS-C3560CX-12PD-S), 24 PORT CISCO CATALYST 3650 (WS-C3650-24PD-S), 48 PORT CISCO CATALYST 3650 (WS-C3650CX-12PD-S)
- WIRELESS GATEWAY WITH GATE HOMERUN TO IDF/POE SWITCH
- NDE SERIES WIRELESS LOCKS
- SCHLAGE CONTROL SMART LOCKS



DOUBLE DOOR WITH READER

SCALE:
NONE

3



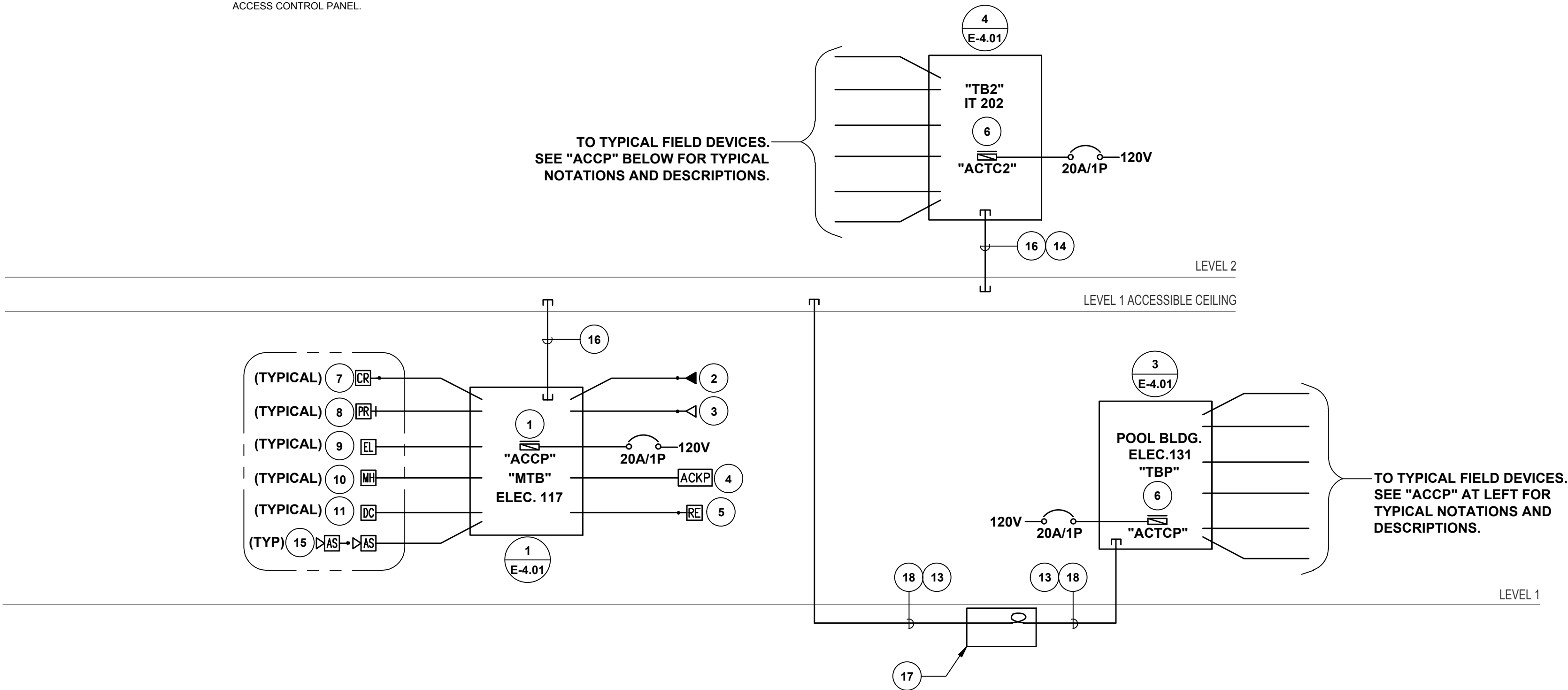
SINGLE DOOR WITH READER

SCALE:
NONE

2

KEY NOTES

- ACCESS CONTROL SYSTEM CONTROL PANEL COMPLETE WITH KEYPAD LOCKABLE ENCLOSURE, DIGITAL ALARM COMMUNICATOR, 120 VOLT CONNECTION, POWER SUPPLY AND TRANSFORMER, SECONDARY BATTERIES (OR CONNECTION TO SUPPLEMENTAL EMERGENCY POWER) AND CHARGER, OWNERS MANUAL, WARRANTY CARD, AND ALL MODULES AND ACCESSORIES AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.
- TELEPHONE SYSTEM BACKUP INTERFACE. PROVIDE 1" CONDUIT WITH TELEPHONE CABLE FROM CONTROL PANEL, DIGITAL ALARM COMMUNICATOR TO TELEPHONE SYSTEM BACKBOARD LOCATION. COORDINATE PHONE LINE REQUIREMENTS WITH OWNER.
- PRIMARY ETHERNET SYSTEM INTERFACE CONNECTION WITH REQUIRED MODULES AND CABLING HOMERUN TO NEAREST BUILDING DATA CABINET/ENCLOSURE. COORDINATE WITH OWNER FOR ALL REQUIRED CABLING STANDARDS IN PLACE.
- ACCESS CONTROL SYSTEM TOUCH SCREEN TYPE KEYPAD. PROVIDE MANUFACTURER'S RECOMMENDED BACKBOX AND 3/4" CONDUIT HOMERUN WITH CABLE PER MANUFACTURER'S RECOMMENDATIONS TO ACCESS CONTROL SYSTEM PANEL.
- REQUEST TO EXIT BUTTON. PUSH BUTTON SHALL SIGNAL THROUGH ACCESS CONTROL PANEL NORMALLY OCCUPIED SPACE FOR MANUAL OPERATION OF DOOR ACCESS. SURFACE MOUNT OVER FLUSH BACKBOX LOCATED WITHIN 6" OF DOOR EDGE ON LATCH SIDE ADJACENT TO WALL SWITCHES UNLESS OTHERWISE NOTED. SEE DOOR DETAILS FOR ADDITIONAL INFORMATION. PROVIDE J-BOX ABOVE DOOR JAMB / HEADER AND 3/4" CONDUIT WITH HOMERUN CABLE PER MANUFACTURER'S RECOMMENDATION TO ACCESS CONTROL PANEL.
- ACCESS CONTROL TERMINAL CABINET COMPLETE WITH LOCKABLE ENCLOSURE (KEYED TO MATCH CONTROL PANEL), 120 VOLT POWER SUPPLY AND TRANSFORMER, SECONDARY BATTERIES (OR CONNECTION TO SUPPLEMENTAL EMERGENCY POWER) AND ALL MODULES, TERMINAL BLOCKS AND ACCESSORIES FOR A COMPLETE AND OPERABLE SYSTEM.
- ACCESS CONTROL SYSTEM CARD READER. CARD READER SHALL BE UNIVERSAL TYPE WITH HID OR TOKEN CARDS PER OWNER'S SELECTION. SURFACE MOUNT OVER FLUSH BACKBOX LOCATED WITHIN 6" OF DOOR EDGE ON LATCH SIDE ADJACENT TO WALL SWITCHES UNLESS OTHERWISE NOTED. SEE DOOR DETAILS FOR ADDITIONAL INFORMATION. PROVIDE J-BOX ABOVE DOOR JAMB / HEADER AND 3/4" CONDUIT WITH HOMERUN CABLE PER MANUFACTURER'S RECOMMENDATION TO ACCESS CONTROL PANEL.
- ACCESS CONTROL SYSTEM PROXIMITY READER. READER SHALL BE UNIVERSAL TYPE WITH HID OR TOKEN CARDS PER OWNER'S SELECTION. SURFACE MOUNT OVER FLUSH BACKBOX LOCATED WITHIN 6" OF DOOR EDGE ON LATCH SIDE ADJACENT TO WALL SWITCHES UNLESS OTHERWISE NOTED. SEE DOOR DETAILS FOR ADDITIONAL INFORMATION. PROVIDE J-BOX ABOVE DOOR JAMB / HEADER AND 3/4" CONDUIT WITH HOMERUN CABLE PER MANUFACTURER'S RECOMMENDATION TO ACCESS CONTROL PANEL.
- ELECTRIFIED DOOR HARDWARE. PROVIDE CONDUIT AND CABLING/CONDUCTORS TO DOOR HARDWARE INCLUDING CONNECTIONS TO ALL ELECTRIFIED EQUIPMENT AS IDENTIFIED ON PLAN AND COORDINATED WITH ARCHITECTURAL DOOR SCHEDULES. COORDINATE ROUTING OF CONDUIT AND CABLING/CONDUCTORS FOR CONNECTIONS WITH DOOR INSTALLER. CONTRACTOR PRIOR TO INSTALLATION. SEE DOOR DETAILS FOR ADDITIONAL INFORMATION. PROVIDE J-BOX ABOVE DOOR JAMB / HEADER AND 3/4" CONDUIT WITH HOMERUN CABLE PER MANUFACTURER'S RECOMMENDATION TO ACCESS CONTROL PANEL.
- ACCESS CONTROL SYSTEM MAGNETIC DOOR HOLD. PROVIDE CONDUIT AND CONDUCTORS TO DOOR HOLD DEVICES, INCLUDING CONNECTIONS TO EQUIPMENT AS IDENTIFIED ON PLAN AND COORDINATED WITH ARCHITECTURAL DOOR SCHEDULES. COORDINATE ROUTING OF CONDUIT AND CONDUCTORS FOR CONNECTIONS WITH DOOR INSTALLER. CONTRACTOR PRIOR TO INSTALLATION. SEE DOOR DETAILS FOR ADDITIONAL INFORMATION. PROVIDE J-BOX ABOVE DOOR JAMB / HEADER AND 3/4" CONDUIT WITH HOMERUN CABLE PER MANUFACTURER'S RECOMMENDATION TO ACCESS CONTROL PANEL.
- ACCESS CONTROL SYSTEM DOOR CONTACT/POSITION SWITCH. CONTACTS TO BE FLUSH MOUNTED IN NEW DOOR FRAMES / CONSTRUCTION LOCATED WITHIN 6" OF DOOR EDGE ON LATCH SIDE. SEE DOOR DETAILS FOR ADDITIONAL INFORMATION. PROVIDE J-BOX ABOVE DOOR JAMB / HEADER AND 3/4" CONDUIT WITH HOMERUN CABLE PER MANUFACTURER'S RECOMMENDATION TO ACCESS CONTROL PANEL.
- PROVIDE 2" CONDUIT RISER WITH SYSTEM CONDUCTORS PER MANUFACTURER'S RECOMMENDATIONS FROM ACCESS CONTROL PANEL TO ACCESS CONTROL CABINETS ON FLOORS ABOVE.
- UNDERGROUND ACCESS CONTROL SYSTEM CONDUIT AND SYSTEM CONDUCTORS PER MANUFACTURER'S RECOMMENDATIONS FROM ACCESS CONTROL PANEL LOCATION TO OTHER SITE BUILDING STRUCTURES. CONDUIT SIZE, ROUTING PER SITE PLAN DRAWINGS. CABLING TO BE PROVIDED IN A "STAR TOPOLOGY" CONFIGURATION. ROUTING OF SYSTEM CONDUCTORS DAISY CHAINED THROUGH BUILDINGS IS NOT ACCEPTABLE.
- PROVIDE CONDUIT SLEEVES BETWEEN FLOORS FOR ACCESS CONTROL SYSTEM CONDUCTOR PATHWAYS. WHERE FLOOR IS RATED, PROVIDE FIRESTOP SYSTEM ASSEMBLY WITH RATING EQUAL TO OR GREATER THAN PENETRATED STRUCTURE FOR A UL LISTED PENETRATION SYSTEM (R1, E2 PATH OR APPROVED EQUAL).
- FLUSH CEILING OR WALL MOUNTED ACCESS CONTROL SYSTEM AUDIBLE BELL/CHIME. PROVIDE 3/4" CONDUIT WITH HOMERUN CABLE PER MANUFACTURER'S RECOMMENDATION TO ACCESS CONTROL PANEL.
- CONDUIT PROVIDED BY ELECTRICAL CONTRACTOR. REFER TO NOTE #8 ON E-3.01 FOR SIZES AND QUANTITIES.
- TYPICAL PULLBOX, IF REQUIRED. PROVIDE SERVICE LOOP IN ALL CABLES.
- CONDUIT PROVIDED BY ELECTRICAL CONTRACTOR. REFER TO NOTE #5 ON E-1.01 FOR SIZES AND QUANTITIES.



ACCESS CONTROL RISER DIAGRAM

SCALE:
NONE

1



DIAL TOLL FREE
1-800-422-4133
AT LEAST TWO DAYS
BEFORE YOU DIG

UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

BASIS OF BEARINGS:

BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF 162 ND STREET (FORMERLY MARKET STREET) BEING N 89° 55' 30" E SHOWN ON TRACT NO. 10901, M.B. 254/31-32

BENCHMARK:

THE CITY OF GARDENA BENCHMARK NO. 5D-15 ELEV. = 43.508

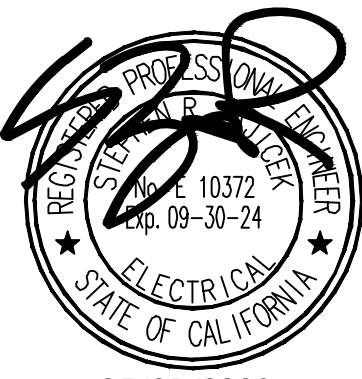


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05/01/2023

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REVISIONS

NO.	DESCRIPTION	DATE	APPROVED
1	ADDENDUM 2	06-16-2023	

CITY OF GARDENA DEPARTMENT OF PUBLIC WORKS - ENGINEERING

ACCESS CONTROL NOTES, RISER DIAGRAM & DETAILS

COMMUNITY AQUATICS & SENIOR CENTER

SEC-0.02

DESIGNED BY	SR	DATE	08/07/2023	APPROVED BY:	
DRAWN BY	SR	DATE	08/07/2023	DATE	
CHECKED BY	SR	DATE	08/07/2023	DATE	

SHT. 2 OF 12 DWG. NO. 5-2606

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1. GENERAL

1.1. SECURITY CONTRACTOR SHALL PROVIDE, PROGRAM AND INSTALL, A FULLY FUNCTIONAL, COMPLETE AND OPERATIONAL, INTRUSION DETECTION SYSTEM. PROVIDE ALL ENGINEERING, DESIGN, TESTING, EQUIPMENT, MATERIALS, COMPONENTS AND INSTALLATION NECESSARY AS PART OF THIS WORK.

1.2. INTRUSION DETECTION SYSTEM, AT A MINIMUM, SHALL INCLUDE A DIGITAL ALARM COMMUNICATOR, BUILT-IN TELEPHONE LINE MONITOR, MEMORY LOGGING (600 EVENT MINIMUM), REAL TIME CLOCK, CALENDAR, TEST TIMER, BATTERY CHARGING/VOLTAGE SUPERVISION CIRCUITRY, BATTERY LEAD SUPERVISION, DIAGNOSTICS, TIME/EVENT BASED SCHEDULING AND ALL MODULES AND COMPONENTS FOR A COMPLETE AND OPERABLE SYSTEM.

2. SYSTEM SHALL:

A. BE SCALABLE TO SUPPORT INDIVIDUALIZED DEVICE ZONES (SINGLE DEVICE OR GROUP OF DEVICES GROUPED TOGETHER), EACH WITH INTERIOR AND PERIMETER PARTITIONING. QUANTITY OF ZONES DEPENDENT ON PROJECT AND TO BE COORDINATED WITH OWNER.

B. PROVIDE IDENTIFICATION, ANNUNCIATION AND COMMUNICATION OF ALARMED DETECTORS ON A POINT-BY-POINT BASIS, INCLUDING EACH ACCESS CONTROL BY USER NUMBER.

C. BE CAPABLE OF LOCALLY OR REMOTE PROGRAMMING. BE CAPABLE OF LOCALLY OR REMOTE PROGRAMMING.

D. BE PROVIDED WITH SECONDARY POWER BACK-UP:

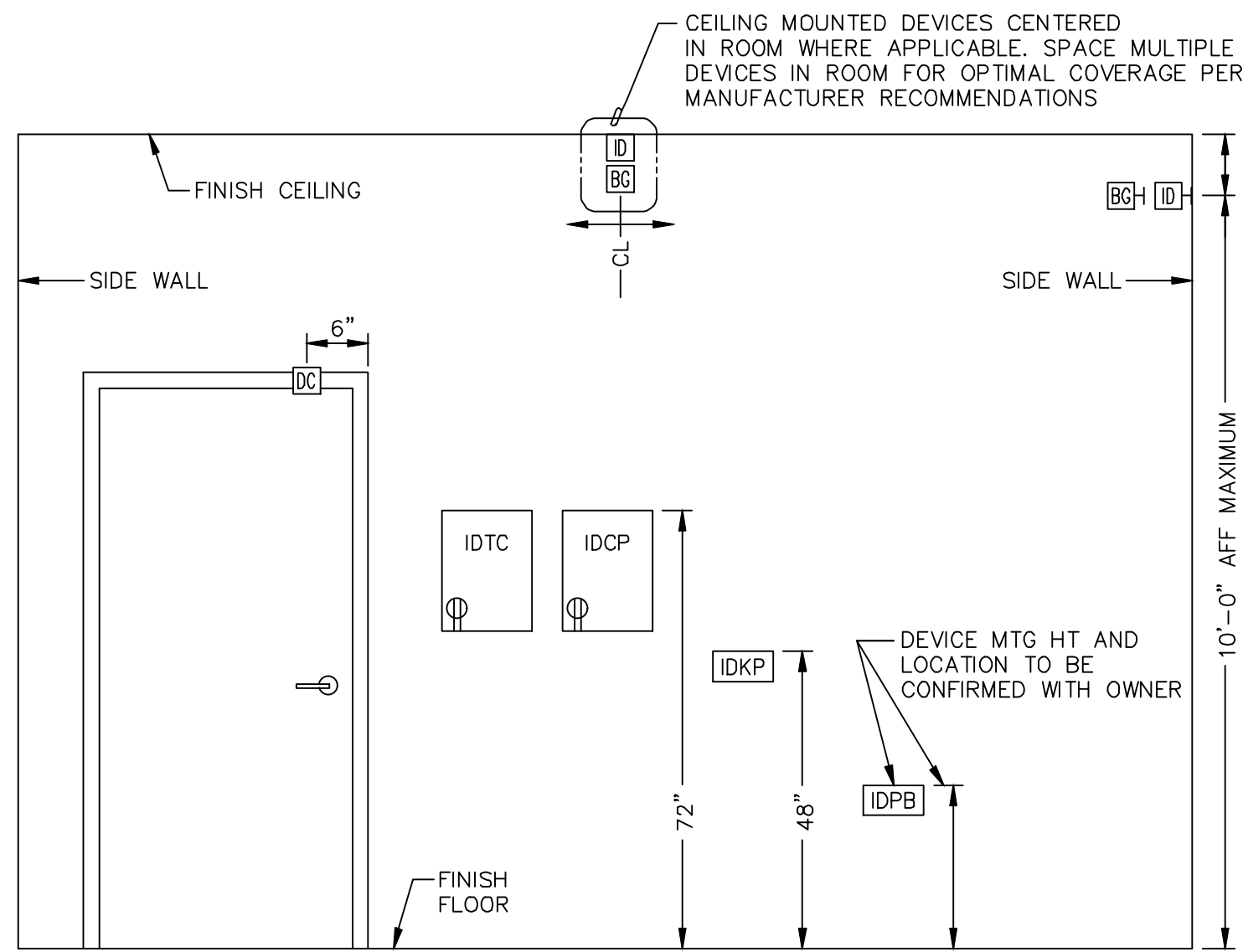
1) VIA BATTERIES. BATTERIES TO BE SIZED FOR MINIMUM 60-HOUR SUPERVISION AND 15-MINUTES OF ALARM. BATTERY CHARGER TO BE SIZED BASED ON BATTERY CAPACITIES.

E. ALLOW REAL-TIME STATUS MONITORING/INPUT OF DEVICES AND UNIT AND AREA EVENTS (AC FAIL, BATTERY FAIL, UNIT CONNECTION, LOST AREA ARM/DISARM, VIEW TROUBLE, ETC.)

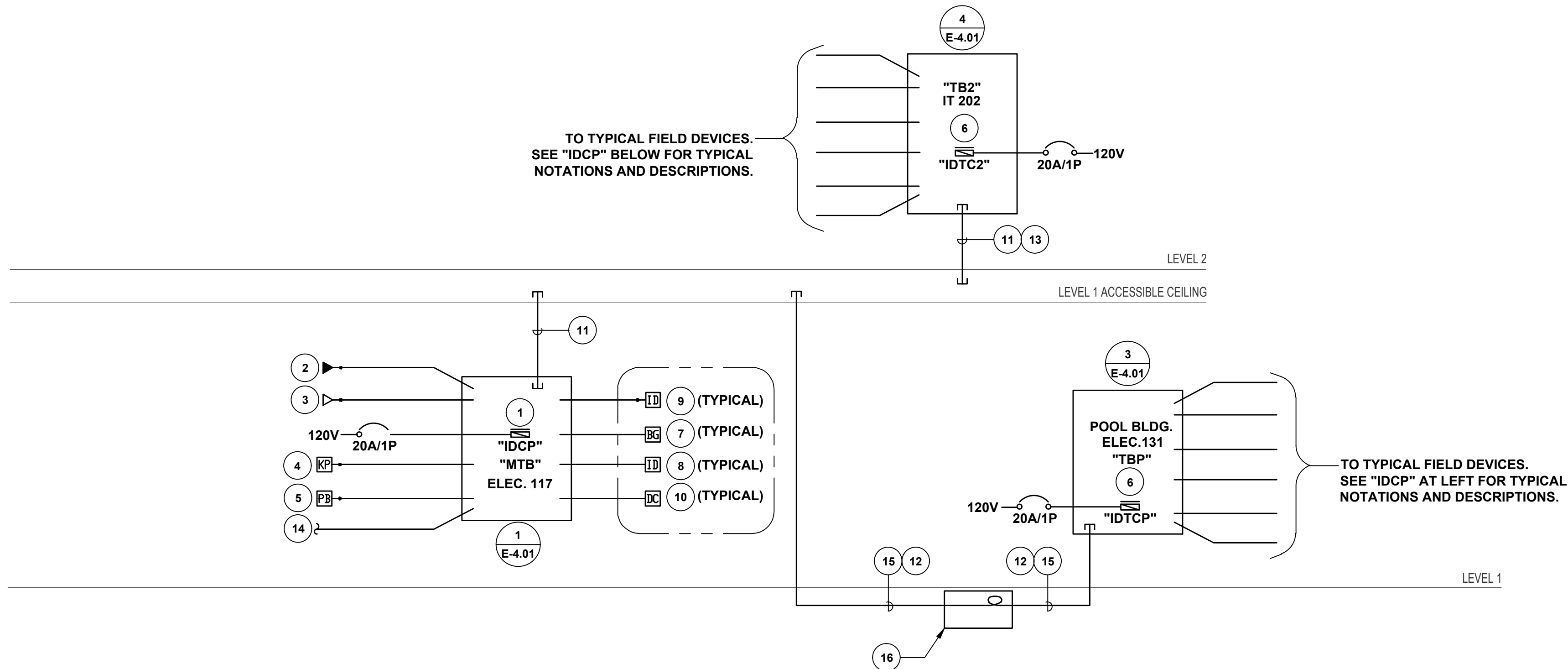
4. ALL FIELD DEVICES SHALL BE INDIVIDUALLY NOMENED TO DCP OR DTC. DAILY CHANGING OF DEVICES IS NOT ACCEPTABLE UNLESS WRITTEN APPROVAL IS PROVIDED FROM SYSTEM SHOP DRAWINGS AND INSTALLATION OF FIELD DEVICES.

5. INTRUSION DETECTION AND ALARM SYSTEMS BASIS OF DESIGN

- THE INTENT AND PURPOSE OF THE INTRUSION DETECTION AND ALARM SYSTEM IS TO PROVIDE SECURITY/INTRUSION DETECTION TO THE AREAS INDICATED ON PLAN, BY THE INSTALLATION OF DEDICATED AND SPECIFIC DEVICES TO COVER THE FOLLOWING AREAS: PERIMETER DETECTION, ROOF WATCHING, ON OTHER POTENTIAL ENTRY POINTS SHALL BE EQUIPPED WITH CONTACTED, CONCEALED MAGNETIC CONTACT SWITCHES AND INTERIOR AREA PROTECTION SHALL BE PROVIDED VIA A COMBINATION OF PASSIVE INFRARED/ MICROWAVE TYPE, WALL OR CEILING MOUNTED DETECTORS, AND/OR GLASS BREAK SENSORS AS LOCATED PER PLANS. THE ARMING AND DISARMING OR THE INTRUSION DETECTION AND ALARM SYSTEM SHALL BE ACHIEVED LOCALLY WITH A DEDICATED KEYCARD OR REMOTELY ACCESSSED VIA WEB/ETHERNET CONNECTION FROM A REMOTE LOCATION.
2. THE INTENT OF THE SECURITY PLAN DRAWINGS IS TO GUIDE THE SECURITY CONTRACTOR IN THE BASIC INTENT OF THE SYSTEM DESIGN AND SHALL NOT BE CONSIDERED A FINAL A COMPLETE SET OF PLANS. THE SECURITY CONTRACTOR SHALL BE RESPONSIBLE FOR THE RISK OF HIS BID, AND SUBSEQUENT INSTALLATION, ALL REQUIRED MATERIALS AND LABOR, INCLUDING BUT NOT LIMITED TO ALL DEVICES, CABLEING, CONNECTIONS, PATHWAYS, FIRESTOPPING, HARDWARE, SOFTWARE, UPS/BATTERY BACKUP, INTERFACES, WARRANTIES, ETC. FOR A COMPLETE AND OPERABLE SYSTEM.
3. THE FOLLOWING SHALL BE UTILIZED AS AN INTRUSION DETECTION AND ALARM SYSTEM EQUIPMENT BASE OF DESIGN. THE LIST DOES NOT CONSTITUTE COMPLETE PARTS OR MATERIALS, BUT A GUIDE OF EQUIPMENT FROM AN ACCEPTABLE MANUFACTURER FOR COMPONENTS. CONTRACTOR SHALL AUGMENT AND PROVIDE ALL COMPONENTS NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM. THE FOLLOWING LIST OF ITEMS ARE IDENTIFIED FROM BOSCH SECURITY SYSTEMS UNLESS OTHERWISE NOTED:
- A. ALARM PANEL - BOSCH DS9412 G4
 - B. DIGITAL KEYPAD - BOSCH D124 D60
 - C. PASSIVE INFRARED/MICROWAVE DETECTORS
 - BOSCH DS870 (LONG RANGE, SURFACE MTD.)
 - BOSCH DS850 (MEDIUM RANGE, SURFACE MTD.)
 - BOSCH DS8360 (360 DEGREE, SURFACE MTD.)
 - HONEYWELL 995 (LONG/RANGE RANGE, FLUSH MTD.)
 - HONEYWELL IS-280CM (360 DEGREE, FLUSH/SURFACE MTD.)
 - D. HONEYWELL DT6365ST (360 DEGREE, HIGH CEILING OF 8 FEET TO 16 FEET)
 - E. GLASS BREAK SENSOR - HONEYWELL FG162SF
 - F. SIREN/SPEAKER - SENTROL MP356
 - F. MAGNETIC DOOR CONTACTS
 - SENTROL 107GCT (FLUSH)
 - SENTROL 1042TV (SURFACE)
 - SENTROL 205B (SURFACE, EXPOSED WIRE)
 - SENTROL 2707A (HEAVY DUTY)
 - G. 2202 (OVERHEAD DOOR)
 - G. OCTOPORT 8 X ZONE EXPANDER - B4128D
 - H. OCTRELAY - B4125
 - I. POWER SUPPLY - ALTRONIX AL300ULX
 - J. ALARM CABLE - PLENUM RATED (UN), STRANDED, PVC, 18GA MIN, 2PR TWISTED



SCALE:	2
NONE	



1	INTRUSION DETECTION SYSTEM CONTROL PANEL, COMPLETE WITH KEY LOCKABLE ENCLOSURE, DIGITAL ALARM COMMUNICATOR, 120 VOLT CONNECTION, POWER SUPPLY, BATTERY, AND CABLES, INCLUDING DETECTOR, DETECTOR HEAD, SUPPLEMENTAL (EMERGENCY POWER) AND CHARGER, OWNER'S MANUAL, WARRANTY CARD, AND ACCESSORIES AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.
2	TELEPHONE SYSTEM BACKUP INTERFACE. PROVIDE 1" CONDUIT WITH TELEPHONE CABLE FROM CONTROL PANEL, DIGITAL ALARM COMMUNICATOR TO TELEPHONE CABLE FROM REMOTE LOCATION. COORDINATE PHONE LINE REQUIREMENTS WITH OWNER.
3	PRIMARY ETHERNET SYSTEM INTERFACE CONNECTION WITH REQUIRED MODULES AND CABLES HORNUP TO NEAREST BUILDING DATA CABLE/ETHERNET ENCLOSURE.
4	INTRUSION DETECTION SYSTEM TOUCH SCREEN TYPE KEYPAD. PROVIDE MANUFACTURER'S RECOMMENDED BACKBOX AND 3/4" CONDUIT HORNUP WITH CABLE PER MANUFACTURER'S RECOMMENDATIONS TO IDCP (OR IDTC).
5	INTRUSION DETECTION SYSTEM PAINC BUTTON. EXACT LOCATIONS AND FINAL QUANTITY TO BE DETERMINED BY THE PROJECT TEAM AND TRADES. PROVIDE FACE PLATE AND 3/4" CONDUIT HORNUP WITH CABLE PER MANUFACTURER'S RECOMMENDATIONS TO IDCP (OR IDTC).
6	INTRUSION DETECTION TERMINAL CABINET COMPLETE WITH LOCKABLE ENCLOSURE, KEY LOCK, BATTERY, AND CABLES, INCLUDING DETECTOR, DETECTOR HEAD, SECONDARY BATTERIES (OR CONNECTION TO SUPPLEMENTAL (EMERGENCY POWER) AND ALL MODULES, TERMINAL BLOCKS AND ACCESSORIES FOR A COMPLETE AND OPERABLE SYSTEM.
7	INTRUSION DETECTION BREAK GLASS SENSOR (CEILING OR WALL MOUNTED PER PLAN) WITH SPECIFIC FREQUENCY MICROPROCESSOR BASED SOUND ALARM. PROVIDE DETECTOR HEAD, DETECTOR HEAD MOUNTING BRACKET, DETECTOR HEAD AND ACOUSTICS, MOUNTING HEIGHTS, QUANTITY OF DEVICES PER SPACE, WINDOW SIZE COVERAGE, ETC.) SHALL BE PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE 1/2" CONDUIT HORNUP WITH CABLE PER MANUFACTURER'S RECOMMENDATIONS TO IDCP (OR IDTC).
8	INTRUSION DETECTION MOTION SENSOR, CEILING MOUNTED, PANORAMIC 360 DEGREE COVERAGE. MULTI TECHNOLOGY TYPE (PIR & MICROWAVE) WITH SELF TEST CAPABILITY. PROVIDE DETECTOR HEAD, DETECTOR HEAD MOUNTING BRACKET, ENVIRONMENT AND MOUNTING HEIGHTS FOR WHERE THEY ARE BEING INSTALLED. PROVIDE 1/2" CONDUIT HORNUP WITH CABLE PER MANUFACTURER'S RECOMMENDATION TO IDCP (OR IDTC).
9	INTRUSION DETECTION MOTION SENSOR, WALL MOUNTED, MULTI-TECHNOLOGY TYPE (PIR & MICROWAVE) WITH SELF TEST SUPERVISION, DETECTORS, QUANTITIES TO BE DETERMINED BY THE PROJECT TEAM AND TRADES. PROVIDE DETECTOR HEADS WHICH THEY ARE BEING INSTALLED. PROVIDE DETECTOR HEAD MOUNTING BRACKET BACKBOX WITH 1/2" CONDUIT HORNUP WITH CABLE PER MANUFACTURER'S RECOMMENDATION TO IDCP (OR IDTC).
10	INTRUSION DETECTION SYSTEM DOOR CONTACT/POSITION SWITCH. CONTACTS TO BE FLUSH MOUNTED IN NEW DOOR FRAME/CONSTRUCTION LOCATION WITHIN 8" OF DOOR FRAME. PROVIDE 1/2" CONDUIT HORNUP FOR ADDITIONAL INFORMATION. PROVIDE 1" JOXB ABOVE DOOR JAMB/HEADER AND 3/4" CONDUIT HORNUP WITH CABLE PER MANUFACTURER'S RECOMMENDATION TO IDCP (OR IDTC).
11	CONDUIT PROVIDED BY ELECTRICAL CONTRACTOR. REFER TO NOTE #5 ON 3-3.01 FOR SIZES AND QUANTITIES.
12	UNDERGROUND INTRUSION SYSTEM CONDUIT AND SYSTEM CONDUCTORS PER MANUFACTURER'S RECOMMENDATIONS FROM IDCP LOCATION TO OTHER SITE BUILDING STRUCTURES. CONDUIT SIZE, ROUTING AND PULL BOXES PER SITE PLAN AND/OR ELECTRICAL DRAWINGS. WIREDE INTRUSION SYSTEM CONDUIT AND CABLEING TO BE PROVIDED IN A "STAR TOPOLOGY" CONFIGURATION. ROUTING OF SYSTEM CONDUCTORS DAILY CHAINED THROUGH BUILDINGS IS NOT ACCEPTABLE.
13	PROVIDE CONDUIT SLEEVES BETWEEN FLORS FOR ACCESS CONTROL SYSTEM CONDUIT AND CABLEING. PROVIDE 1/2" CONDUIT HORNUP WITH CABLE PER MANUFACTURER'S ASSEMBLY WITH RATING EQUAL TO OR GREATER THAN APPROVED STRUCTURE FOR A UL LISTED PENETRATION SYSTEM. (SEE E2-PATH OR PENETRATED EQUAL).
14	TO OTHER INTEGRATED SECURITY SYSTEM HEAD END EQUIPMENT FOR ACCESS CONTROL SYSTEM (IDCT). PROVIDE 1/2" CONDUIT HORNUP WITH CABLE PER MANUFACTURER'S ASSEMBLY WITH RATING EQUAL TO OR GREATER THAN APPROVED STRUCTURE FOR A UL LISTED PENETRATION SYSTEM. (SEE E2-PATH OR PENETRATED EQUAL).
15	CONDUIT PROVIDED BY ELECTRICAL CONTRACTOR. REFER TO NOTE #5 ON 3-1.01 FOR SIZES AND QUANTITIES.
16	TYPICAL PULLBOX. IF REQUIRED, PROVIDE SERVICE LOOP IN ALL CABLES.

SCALE:	1
NONE	

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BASIS OF BEARINGS:
BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF 162 ND STREET (FORMERLY MARKET STREET) BEING N 89° 55' 30" E SHOWN ON TRACT NO. 10901, M.B. 254/31-32

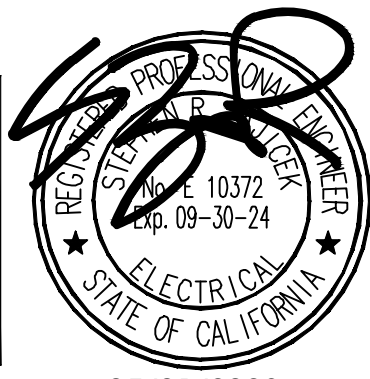
BENCHMARK:

THE CITY OF GARDENA BENCHMARK NO. 5D-15 ELEV. = 43.508



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05/01/2023

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CITY OF GARDENA

DEPARTMENT OF PUBLIC WORKS - ENGINEERING

INTRUSION DETECTION NOTES, RISER DIAGRAM & DETAILS

COMMUNITY AQUATICS & SENIOR CENTER

SEC-003

INITIAL	DATE	APPROVED BY:
---------	------	--------------

APPROVED BY	SR	08/07/2023
NAME	SR	08/07/2023

DATE	DIRECTOR OF PUBLIC	
08/07/2023		

KEY NOTES

- 1 CONDUIT PROVIDED BY ELECTRICAL CONTRACTOR, REFER TO NOTE #5 ON E-1.01 FOR SIZES AND QUANTITIES.

SECURITY GENERAL NOTES:

- ALL WALL MOUNTED DEVICE HEIGHTS SHALL BE VERIFIED WITH ARCHITECTURAL ROOM ELEVATIONS PRIOR TO ROUGH-IN.
- PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE PROTECTED WITH AN APPROVED FIRE STOP SYSTEM EQUAL TO OR GREATER THAN THE RATING OF THE WALL BEING PENETRATED.
- ALL DEVICES MOUNTED BACK-TO-BACK ON COMMON WALLS SHALL BE INSTALLED IN SEPARATE BOXES OFFSET 24-INCHES MINIMUM OR PROVIDED WITH PUTTY OR ANOTHER APPROVED SOUNDPROOF BACKING.
- WHEN EXPOSED CEILING OR OPEN GRID CONDITIONS EXIST, CONTRACTOR SHALL PROVIDE:
 - ALL CONDUITS SHALL BE ROUTED PARALLEL TO BUILDING STRUCTURES AND RACKED NEATLY IN GROUPS OF MULTIPLE PATHWAYS.
 - ALL SECURITY CABLING SHALL BE:
 - INSTALLED IN EMT CONDUIT PATHWAYS.
- COORDINATE LOCATION OF ALL SECURITY DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN.

SITE PLAN GENERAL NOTES:

- LOCATIONS OF EXISTING UTILITIES ARE NOT SHOWN AND CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING ON THIS SITE TO AVOID EXISTING DUCTS, PIPING, OR CONDUITS, ETC., AND TO PREVENT HAZARDS TO PERSONNEL AND/OR DAMAGE TO EXISTING UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN AND INSTALLED BY ANY OTHER CONTRACTS. THE ENGINEER IS NOT RESPONSIBLE FOR THE LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES, WHETHER OR NOT SHOWN OR DETAILED AND INSTALLED BY ANY OTHER CONTRACTS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER. THE ENGINEER SHOULD SEARCH UNIDENTIFIED CONDITIONS BE DISCOVERED. THESE DRAWINGS AND SPECIFICATIONS DO NOT INCLUDE THE NECESSARY ELEMENTS FOR CONSTRUCTION SAFETY.
- CONTRACTOR SHALL VERIFY THE LOCATION OF ANY EXISTING UNDERGROUND UTILITIES AND STRUCTURES PRIOR TO COMMENCEMENT OF WORK BY CONTACTING UNDERGROUND SERVICE ALERT (U.S.A.) AT 1(800) 422-4133, OR OTHER LOCAL APPLICABLE UNDERGROUND SERVICE ALERT AGENCIES.
- THE DRAWINGS ILLUSTRATE LOCATIONS OF EQUIPMENT AND ASSEMBLIES, PULLBOXES, MANHOLES, HANDHOLES, AND VAULTS, INCLUDING OTHER ELECTRICAL UNDERGROUND STRUCTURES AND PATHWAYS. CONTRACTOR SHALL CLOSELY COORDINATE EXACT LOCATIONS AND MOUNTING DEPTHS OF ALL DEVICES, STRUCTURES AND PATHWAYS WITH OTHER TRADES PRIOR TO PLACEMENT. TO ENSURE FINAL LOCATIONS ARE OUTSIDE FEATURE LANDSCAPE AND ARCHITECTURAL AREAS AND ARE NOT IN CONFLICT WITH THE INSTALLATION OF MATERIALS BY OTHER TRADES.
- SEE ARCHITECTURAL, CIVIL AND LANDSCAPE PLANS FOR EXACT LOCATION OF FIXTURES, PULLBOXES, MANHOLES, OTHER ELECTRICAL EQUIPMENT AND DEVICES, ETC. COORDINATE ALL UNDERGROUND STRUCTURES AND CONDUIT ROUTING WITH ARCHITECT OR OWNERS' REPRESENTATIVE PRIOR TO ROUGH-IN. TO ENSURE SUCH ITEMS ARE NOT PLACED IN PLANTING / HARDSCAPE AREAS.
- ALL EQUIPMENT LOCATED OUTDOORS SHALL BE WEATHERPROOF, NEMA 3R RATED.
- PROVIDE PULL STRING IN ALL EMPTY CONDUITS.

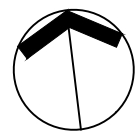
160TH STREET

HARVARD BOULEVARD

SITE SECURITY PLAN

SCALE:
3/32"=1'-0"

1



BASIS OF BEARINGS:

BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF 162 ND STREET (FORMERLY MARKET STREET) BEING N 89° 55' 30" E SHOWN ON TRACT NO. 10901, M.B. 254/31-32

BENCHMARK:

THE CITY OF GARDENA BENCHMARK NO. 5D-15 ELEV. = 43.508



AT LEAST TWO DAYS
BEFORE YOU DIG

UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

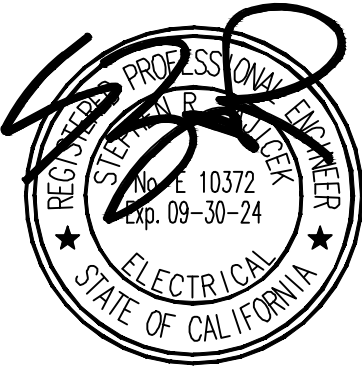


CONSULTANT:

FBA Engineering

Consulting Electrical Engineers
150 Pasadena Avenue Suite A120
Costa Mesa, CA 92626
949.852.9965 • 949.852.1657 (fax)
fbaeng.com

FBA Job Number: 535050



05/01/2023

PREPARED UNDER THE SUPERVISION OF:



31591 Camino Capistrano
San Juan Capistrano, CA 92675
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(949) 493-2660 phone



REVISIONS

NO.	DESCRIPTION	DATE	APPROVED
1	ADDENDUM 2	06-16-2023	

CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS -- ENGINEERING

SITE SECURITY PLAN

COMMUNITY AQUATICS & SENIOR CENTER

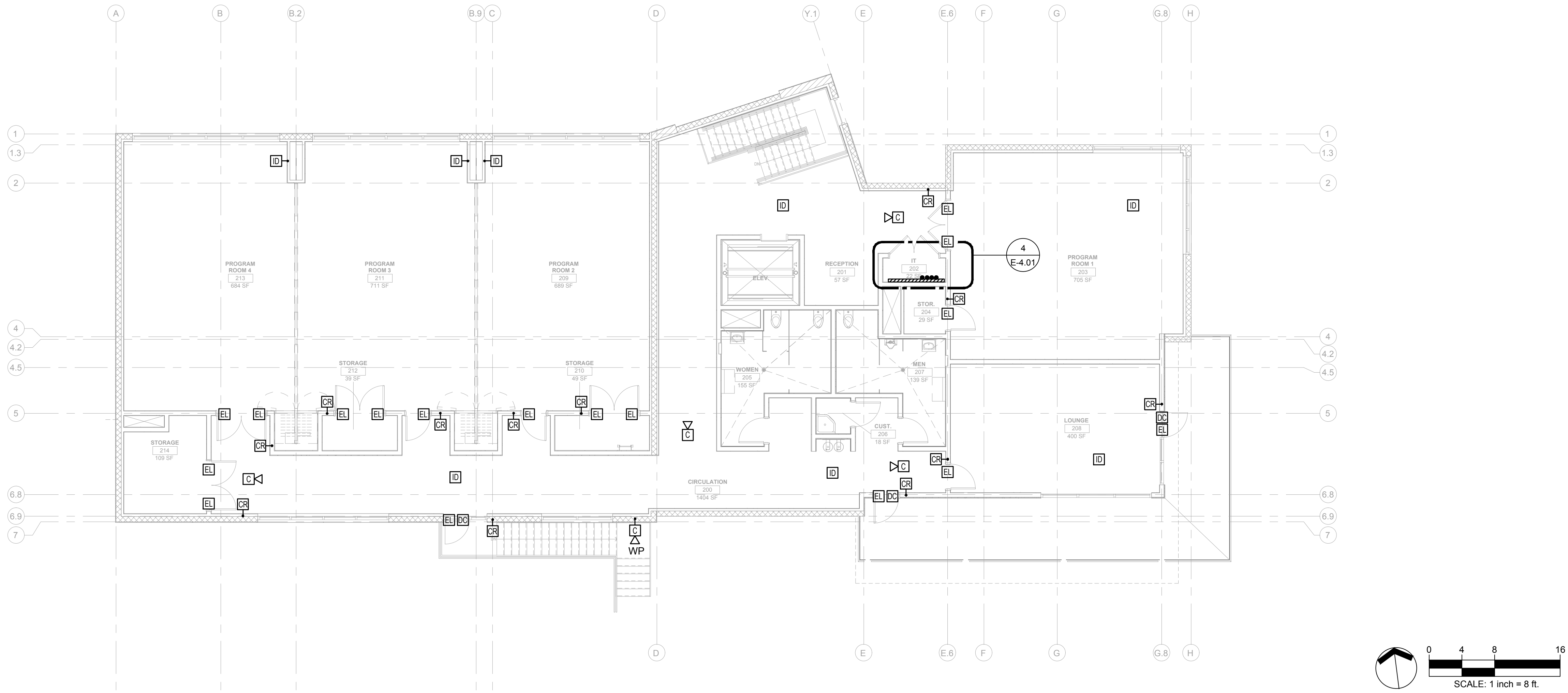
SEC-1.01

DESIGNED BY: SR DATE: 06/07/2023
DRAWN BY: SR DATE: 06/07/2023
CHECKED BY: SR DATE: 06/07/2023

APPROVED BY: DATE: 06/07/2023
SHT. 5 OF 12 DWG. NO. 5-2606

KEY NOTES

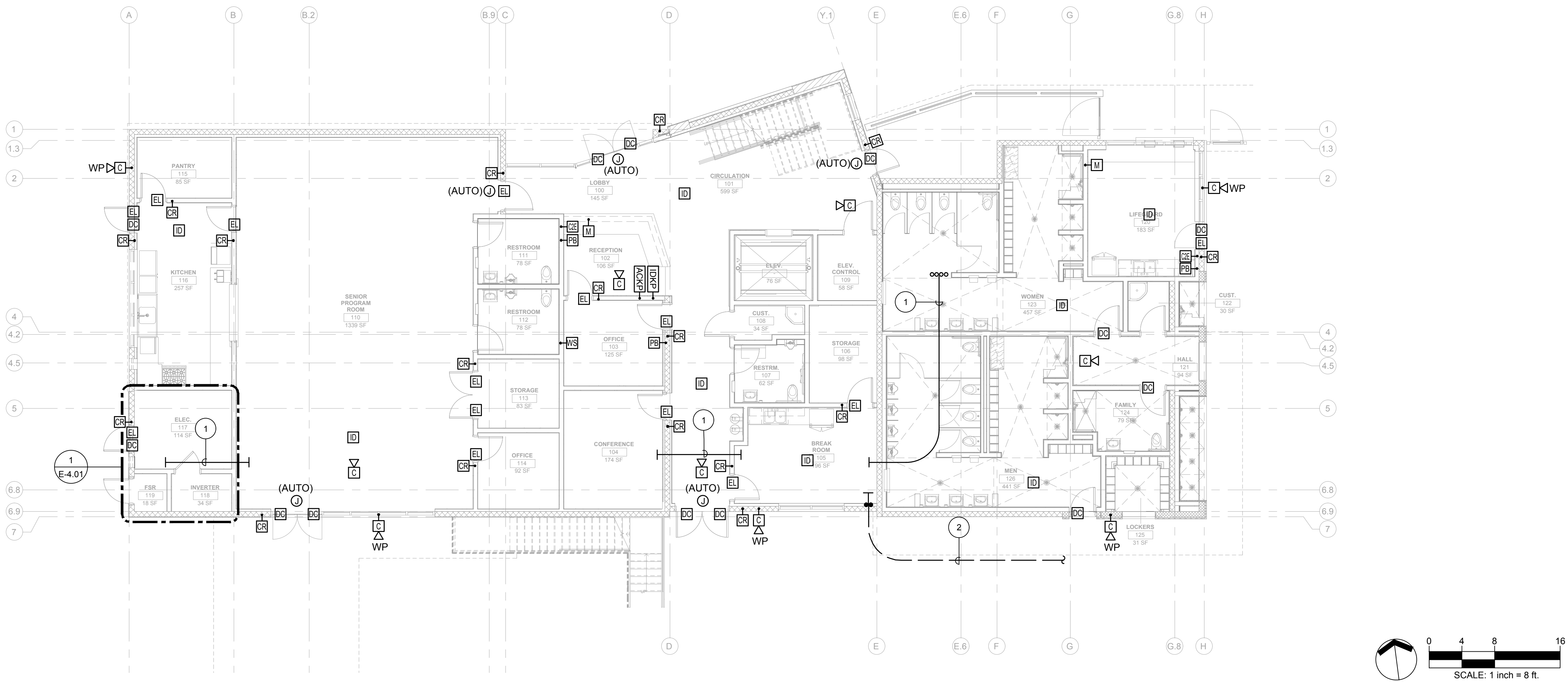
- 1 (1) 2"C. (TELECOM.) & (3) 2"C.O. (ACCESS, SECURITY & CCTV) PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. SEE E-3.01.
- 2 LOW VOLTAGE CONDUIT TO POOL BUILDING PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR, REFER TO NOTE #5 ON E-1.01 FOR QUANTITIES, SIZE AND CONTINUATION.



BUILDING SECOND FLOOR SECURITY PLAN

SCALE:
1/8"=1'-0"

2



BUILDING FIRST FLOOR SECURITY PLAN

SCALE:
1/8"=1'-0"

1

SECURITY GENERAL NOTES:

1. ALL WALL MOUNTED DEVICE HEIGHTS SHALL BE VERIFIED WITH ARCHITECTURAL ROOM ELEVATIONS PRIOR TO ROUGH-IN.
2. PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE PROTECTED WITH AN APPROVED FIRE STOP SYSTEM EQUAL TO OR GREATER THAN THE RATING OF THE WALL BEING PENETRATED.
3. ALL DEVICES MOUNTED BACK-TO-BACK ON COMMON WALLS SHALL BE INSTALLED IN SEPARATE BOXES OFFSET 24-INCHES MINIMUM OR PROVIDED WITH PUTTY OR ANOTHER APPROVED SOUNDPROOF BACKING.
4. WHEN EXPOSED CEILING OR OPEN GRID CONDITIONS EXIST, CONTRACTOR SHALL PROVIDE:
- A. ALL CONDUITS SHALL BE ROUTED PARALLEL TO BUILDING STRUCTURES AND RACKED NEATLY IN GROUPS OF MULTIPLE PATHWAYS.
- B. ALL SECURITY CABLING SHALL BE:
- 1) INSTALLED IN EMT CONDUIT PATHWAYS.
5. COORDINATE LOCATION OF ALL SECURITY DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN.

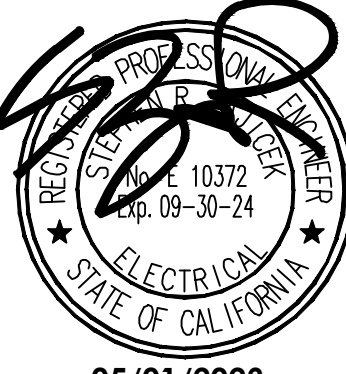
BASIS OF BEARINGS:
BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF 162 ND STREET (FORMERLY MARKET STREET) BEING N 89° 55' 30" E SHOWN ON TRACT NO. 10901, M.B. 254/31-32

BENCHMARK:
THE CITY OF GARDENA BENCHMARK NO. 5D-15 ELEV. = 43.508



CONSULTANT:

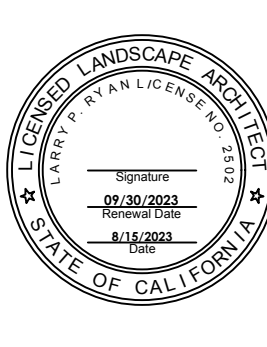
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FBA Job Number: 535050



05/01/2023

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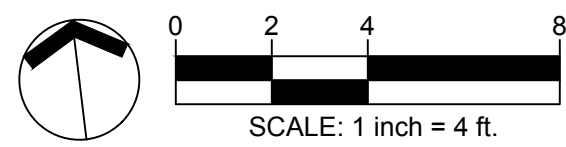
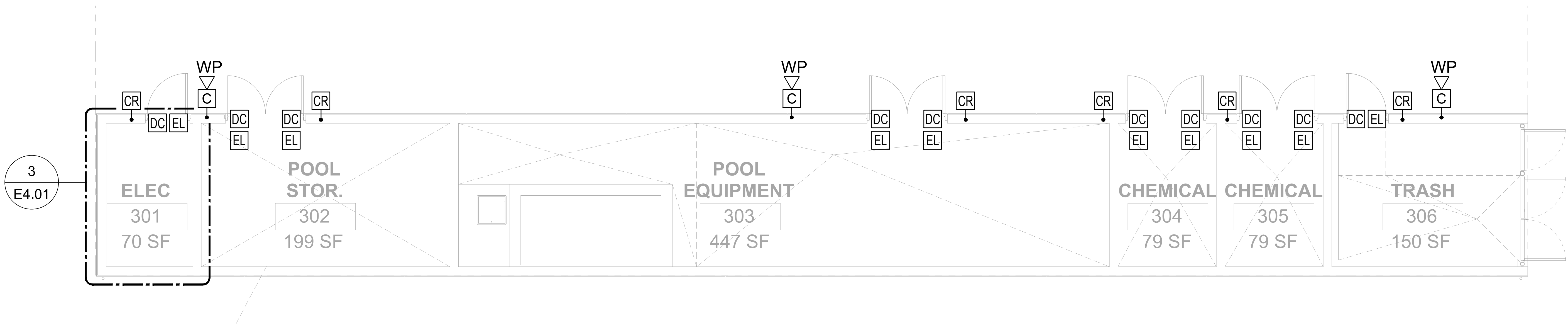
REVISIONS			
NO.	DESCRIPTION	DATE	APPROVED
1	ADDENDUM 2	06-16-2023	

CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS - ENGINEERING
BUILDING SECURITY PLANS
COMMUNITY AQUATICS & SENIOR CENTER
SEC-3.01

DESIGNED BY		DATE	APPROVED BY:	
SR	08/07/2023			
DRAWN BY		DATE	DIRECTOR OF PUBLIC WORKS	
SR	08/07/2023			
CHECKED BY		DATE	SHT. 6 OF 12	
SR	08/07/2023			
			DWG. NO. 5-2606	

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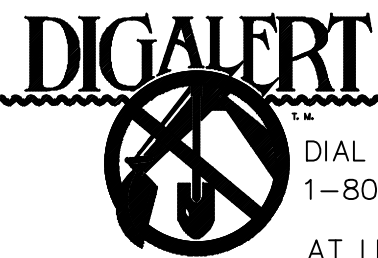
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POOL BUILDING SECURITY PLAN

SCALE: 1/4"=1'-0"

- SECURITY GENERAL NOTES:**
- ALL WALL MOUNTED DEVICE HEIGHTS SHALL BE VERIFIED WITH ARCHITECTURAL ROOM ELEVATIONS PRIOR TO ROUGH-IN.
 - PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE PROTECTED WITH AN APPROVED FIRE STOP SYSTEM EQUAL TO OR GREATER THAN THE RATING OF THE WALL BEING PENETRATED.
 - ALL DEVICES MOUNTED BACK-TO-BACK ON COMMON WALLS SHALL BE INSTALLED IN SEPARATE BOXES OFFSET 24-INCHES MINIMUM OR PROVIDED WITH PUTTY OR ANOTHER APPROVED SOUNDPROOF BACKING.
 - WHEN EXPOSED CEILING OR OPEN GRID CONDITIONS EXIST, CONTRACTOR SHALL PROVIDE:
 - ALL CONDUITS SHALL BE ROUTED PARALLEL TO BUILDING STRUCTURES AND RACKED NEATLY IN GROUPS OF MULTIPLE PATHWAYS.
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 - INSTALLED IN EMT CONDUIT PATHWAYS.
 - COORDINATE LOCATION OF ALL SECURITY DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN.



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1-800-422-4133
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UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

BASIS OF BEARINGS:

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BENCHMARK:

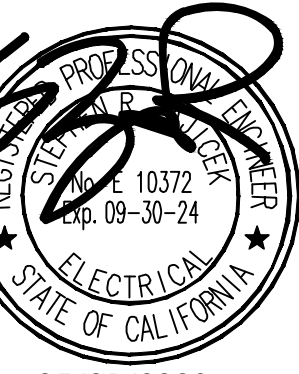
THE CITY OF GARDENA BENCHMARK NO. 5D-15 ELEV. = 43.508



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FBA Engineering

Consulting Electrical Engineers
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949.852.9960 • 949.852.1651 (fax)
fbaengr.com FBA Job Number: 535050



05/01/2023

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1	ADDENDUM 2	08-15-2023	

CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS - ENGINEERING

POOL BUILDING SECURITY PLAN
COMMUNITY AQUATICS & SENIOR CENTER
SEC-3.03

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SR	08/07/2023	
CHECKED BY	DATE	DIRECTOR OF PUBLIC WORKS
SR	08/07/2023	
SHT. 7 OF 12 DWG. NO. 5-2606		

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PLOT TIME: 8/15/2023 11:19:22 AM

TELECOMMUNICATIONS SYSTEM GENERAL NOTES		TELECOMMUNICATIONS SYMBOLS LIST																																																																																																			
<div><div><div>1. THESE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO COVER A COMPLETE INSTALLATION OF THE TELECOMMUNICATIONS (VOICE/DATA/VIDEO) SYSTEM. THE OMISSION OR EXPRESSED REFERENCE TO ANY ITEM OF LABOR OR MATERIALS REQUIRED FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH PRESENT PRACTICE OF THE TRADE SHALL NOT RELIEVE THE CONTRACTOR FROM PROVIDING SUCH ADDITIONAL LABOR AND MATERIALS.</div><div>2. THE DESIGN-BUILD TELECOMMUNICATION CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF A COMPLETE TELECOMMUNICATION SYSTEM BASED ON THESE CONCEPTUAL PLANS AND SPECIFICATIONS.</div><div>3. THE TELECOMMUNICATION CONTRACTOR IS REQUIRED TO REVIEW ALL OF THE PROJECT'S CONSTRUCTION DOCUMENTS AS A WHOLE IN ORDER TO IDENTIFY ALL REQUIREMENTS THAT DIRECTLY OR INDIRECTLY AFFECT ITS PORTION OF THE TELECOMMUNICATION WORK. EVEN REQUIREMENTS LOCATED IN SECTIONS DESIGNATED AS APPLICABLE TO OTHER TRADES. IN CASE OF CONFLICTS, THE CONTRACTOR SHALL EITHER OBTAIN DIRECTION FROM THE OWNER'S REPRESENTATIVE OR OTHERWISE APPLY THE MORE STRINGENT REQUIREMENT.</div><div>4. REFER TO THE ELECTRICAL PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. ALL APPLICABLE PORTIONS SHALL APPLY TO THE TELECOMMUNICATIONS SCOPE OF WORK.</div><div>5. THE TELECOMMUNICATION SYSTEM AS SHOWN ON THESE PLANS IS CONCEPTUAL ONLY AND IS BASED ON INITIAL OWNER AND DESIGN TEAM INPUT RECEIVED. THE TELECOMMUNICATION CONTRACTOR IS RESPONSIBLE FOR MODIFYING THE TELECOMMUNICATION SYSTEM AND DESIGN INTENT TO THE ACTUAL CONDITIONS OF THIS PROJECT AND THE OWNER'S FINAL NEEDS. COORDINATE, CONFIRM AND FINALIZE THE SYSTEMS EQUIPMENT, FEATURES, COVERAGE AND PROGRAMMING WITH THE OWNER'S REPRESENTATIVE. VERIFY WITH THE OWNER'S REPRESENTATIVE THE LEVEL OF INTEGRATION WITH OTHER SYSTEMS SUCH AS AV, SECURITY/CCTV, LIGHTING CONTROL, ENERGY MANAGEMENT, ETC.</div><div>6. THE TELECOMMUNICATION CONTRACTOR SHALL DEVELOP A COMPLETE SET OF CONSTRUCTION DOCUMENTS, PLANS AND SPECIFICATIONS AND SUBMIT TO THE OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE THE START OF CONSTRUCTION.</div><div>7. PROVIDE ALL REQUIRED MATERIALS INCLUDING BUT NOT LIMITED TO EQUIPMENT, HARDWARE, DEVICES, RACKS, TERMINAL CABINETS, CONTROLLERS, POWER SUPPLIES, WIRING AND CABLING, WIRE/CABLING MANAGERMENTS SYSTEMS AND SUPPORTS, CONDUITS AND RACEWAYS, ETC. FOR A COMPLETE AND OPERABLE TELECOMMUNICATION SYSTEMS.</div><div>8. WIRELESS DEVICES AND/OR COMPONENTS ARE NOT ALLOWED AS PART OF THE BASE BID UNLESS OTHERWISE NOTED. APPROVAL OF WIRELESS SYSTEMS SHALL BE AT THE DISCRETION OF THE OWNER'S REPRESENTATIVE.</div><div>9. ALL SYSTEM SOFTWARE PLATFORMS AND QUANTITY OF LICENSES SHALL BE PROVIDED FOR ALL FURNISHED EQUIPMENT AS PART OF THE TELECOMMUNICATION CONTRACTORS COMPLETE AND OPERABLE SYSTEMS. ALL SOFTWARE PLATFORMS INSTALLED SHALL BE THE FULL AND COMPLETE VERSION OF THE MOST RECENT SOFTWARE PACKAGES AVAILABLE AT THE TIME OF THE INSTALLATION. THE OWNER'S REPRESENTATIVE SHALL BE PROVIDED WITH THE FORMAL COPIES OF ALL LICENSES AND FURNISHED WITH ALL USERNAME AND PASSWORDS FOR THE SYSTEM AS PART OF THE CLOSE-OUT DOCUMENTATION.</div><div>10. THE TELECOMMUNICATIONS CONTRACTOR SHALL BE A LICENSED (C-7) LOW VOLTAGE SYSTEMS CONTRACTOR AND A LICENSED (C-10) ELECTRICAL CONTRACTOR AND SHALL HAVE BEEN IN BUSINESS FURNISHING AND INSTALLING SIMILAR SYSTEMS IN SCOPE AND SIZE FOR A MINIMUM OF FIVE (5) YEARS.</div><div>11. THE TELECOMMUNICATION CONTRACTOR SHALL BE A FACTORY AUTHORIZED DISTRIBUTOR, INSTALLER AND WARRANTY PROVIDER FOR THE MANUFACTURER OF THE EQUIPMENT TO BE INSTALLED. PROVIDE LETTER FROM THE SYSTEMS MANUFACTURERS CERTIFYING THAT THE CONTRACTOR IS AN AUTHORIZED DISTRIBUTOR AND INSTALLER OF THE EQUIPMENT. PROVIDE CERTIFICATES OF TRAINING FOR PERSONNEL PERFORMING THE WORK.</div><div>12. THE TELECOMMUNICATION CONTRACTOR SHALL MAINTAIN A FULLY EQUIPPED SERVICE DEPARTMENT CAPABLE OF FURNISHING ADEQUATE REPAIR SERVICES FOR THE WARRANTED EQUIPMENT WITH RESPONSE TIMES TO THE PROJECT SITE WITHIN 4 HOURS.</div><div>13. ALL WORK AND EQUIPMENT SHALL BE GUARANTEED IN WRITING FOR A PERIOD OF 1-YEAR AFTER FINAL ACCEPTANCE OF WORK. PROVIDE AN EXTENDED 1-YEAR WARRANTY FOR A TOTAL OF 2-YEARS FROM FINAL ACCEPTANCE OF WORK.</div><div>14. THE CONSTRUCTION DOCUMENTS, PLANS AND SPECIFICATIONS AND ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH ALL LEGAL AND INDUSTRY REQUIREMENTS AND STANDARDS INCLUDING WITHOUT LIMITATION THE FOLLOWING:<div><div>A. CALIFORNIA CODE OF REGULATIONS TITLE 24, PARTS 1 AND 2 (CALIFORNIA BUILDING CODE), 2022 EDITION.</div><div>B. CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 3 (CALIFORNIA ELECTRICAL CODE), 2022 EDITION.</div><div>C. CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 9 (CALIFORNIA FIRE CODE), 2022 EDITION.</div><div>D. OTHER REGULATING AGENCIES WHICH MAY HAVE AUTHORITY OVER ANY PORTION OF THE WORK, INCLUDING THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY, AND THOSE CODES AND STANDARDS LISTED IN THESE NOTES AND SPECIFICATIONS.</div><div>E. THE ELECTRICAL SYSTEMS FUNCTIONALITY STANDARDS SET FORTH IN TITLE 7 OF THE CALIFORNIA CIVIL CODE (THE "RIGHT TO REPAIR ACT").</div><div>F. THE MANUFACTURER'S REQUIREMENTS OR RECOMMENDATIONS FOR ANY INCORPORATED PRODUCTS.</div><div>G. THE MOST CURRENT APPROVED ISSUES OF ANY NOTED SPECIFICATIONS, CODES AND STANDARDS, INCLUDING SUPPLEMENTS, UNLESS NOTED OTHERWISE.</div></div></div><div>15. IN INTERPRETING THESE PLANS, THE FOLLOWING GENERAL RULES APPLY:<div><div>A. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DRAWINGS.</div><div>B. SCALED DIMENSIONS AND GRAPHICALLY SHOWN LOCATIONS ARE TO BE CONSIDERED ONLY APPROXIMATE. FIELD VERIFY DIMENSIONS PRIOR TO BID.</div></div></div></div><div><div><div>C. BECAUSE THE PLANS ARE INTENDED TO SET FORTH THE REQUIREMENTS FOR CONSTRUCTION IN ONLY AN INDUSTRY-STANDARD LEVEL OF QUALITY AND DETAIL, AND THEREFORE ARE INTENDED TO BE SUPPLEMENTED BY APPROPRIATE REQUESTS FOR CLARIFICATION AND INFORMATION, ERRORS AND OMISSIONS AND TO BRING THESE ERRORS AND OMISSIONS TO THE ATTENTION OF AN APPROPRIATE OWNER REPRESENTATIVE IN A TIMELY MANNER AND ASSUMES THE RISK OF THE CONSEQUENCES OF FAILING TO DO SO BEFORE BIDDING OR OTHERWISE PROCEEDING.</div><div>D. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION AND NOTIFY THE ELECTRICAL ENGINEER IMMEDIATELY OF ANY DISCREPANCIES OR INCONSISTENCIES.</div></div><div><div>16. SUBMIT COMPLETE CONSTRUCTION DOCUMENTS, PLANS, SPECIFICATIONS AND CATALOG DATA SHEETS FOR THE TELECOMMUNICATION SYSTEMS TO THE OWNER'S REPRESENTATIVE FOR APPROVAL. SUBMITTALS SHALL AT THE MINIMUM INCLUDE THE FOLLOWING:<div><div>A. COPIES OF CONTRACTORS CURRENT C-7 LOW VOLTAGE CONTRACTOR LICENSE AND C-10 ELECTRICAL CONTRACTORS LICENSE.</div><div>B. COPY OF THE EQUIPMENT MANUFACTURERS AUTHORIZATION LETTERS CERTIFYING THE CONTRACTOR AS AN AUTHORIZED DISTRIBUTOR AND INSTALLER.</div><div>C. COPIES OF CERTIFICATES OF TRAINING FOR THE INSTALLING PERSONNEL AND PROOF THAT THEY ARE LOCATED AT THE CONTRACTOR'S LOCAL FACILITY.</div><div>D. LIST OF PROJECTS SIMILAR IN SCOPE AND SIZE THAT HAVE BEEN COMPLETED IN THE LAST FIVE (5) YEARS.</div><div>E. MANUFACTURERS AND CONTRACTORS' WARRANTIES.</div><div>F. PLANS FOR THE SITE AND BUILDING AT THE SAME SCALE AS THE CONTRACT DRAWINGS. PLANS SHALL SHOW WALLS, DOORS, WINDOWS, ROOM NUMBERS, ROOM NAMES. THE PLANS SHALL INCLUDE THE TYPE AND LOCATION OF ALL EQUIPMENT; HARDWARE, DEVICES, RACKS, TERMINAL CABINETS, CONTROLLERS, WIRING AND CABLING, CONDUIT AND RACEWAYS, ETC.</div><div>G. PLANS SHALL INCLUDE LEGENDS, DEVICE AND BACKBOX MOUNTING REQUIREMENTS AND HEIGHTS.</div><div>H. PLANS SHALL INCLUDE RISER DIAGRAMS, SINGLE LINE DIAGRAMS, WIRING DIAGRAMS CALCULATIONS FOR THE COMPLETE SYSTEM.</div><div>I. PLANS SHALL SHOW INTERFACE WITH OTHER SYSTEMS THAT ARE REQUIRED TO BE INTEGRATED.</div><div>J. MANUFACTURERS CATALOG DATA AND CUT SHEETS FOR ALL EQUIPMENT.</div><div>K. TESTING AND COMMISSIONING PROCEDURES COORDINATED WITH THE OWNER'S REQUIREMENTS AND MANUFACTURE'S STANDARDS INCLUDING ANSIS/IEEE-568-C.0, C.1, C.2 AND C.3.</div></div></div><div>17. SUBMITTALS WILL BE REVIEWED BY THE ELECTRICAL ENGINEER. IF AT ALL, ONLY PURSUANT TO THE INDUSTRY-STANDARD PROTOCOL SET FORTH IN AIA DOCUMENT A201, AND IN NO EVENT WILL THE SUBMITTAL REVIEW PROCESS RELIEVE OR LESSEN THE SUBMITTING CONTRACTOR'S RESPONSIBILITY FOR AN INAPPROPRIATE SUBMITTAL.</div><div>18. IN NO EVENT WILL ANY SITE VISITS BY THE ELECTRICAL ENGINEER CONCERN CONSTRUCTION MEANS AND METHODS OR CONSTRUCTION SAFETY, AND ALL SUCH MATTERS SHALL REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR.</div><div>19. COPIES OF THE PLANS PROVIDED IN ANY ELECTRONIC FORM ARE SUBJECT TO THE SAME PROVISIONS AS THE OTHER INSTRUMENTS OF SERVICE PREPARED BY OR ON BEHALF OF THE ELECTRICAL ENGINEER FOR THE PROJECT, INCLUDING WITHOUT LIMITATION THE ENGINEER'S COMMON LAW, STATUTORY OR OTHER RESERVED RIGHTS, INCLUDING COPYRIGHTS. A RECIPIENT IS GRANTED AT MOST A TRANSFERABLE NONEXCLUSIVE LICENSE TO REUSE THE PLANS SOLELY FOR PROJECT PURPOSES, AND NO RECIPIENT IS AUTHORIZED TO USE OR TO ALLOW THE USE OF ALL OR ANY PORTION OF THESE PLANS FOR ANY OTHER PURPOSE, AND ANY USE FOR ANY OTHER PURPOSE WOULD CONSTITUTE ACTIONABLE PLAGIARISM. ELECTRICAL ENGINEER PROVIDES DOCUMENTS IN AN ELECTRONIC FORM ONLY IN ITS STANDARD FORMATS AND CONVENTIONS AND WITH NO GUARANTEE OF COMPATIBILITY WITH ANY RECIPIENT'S SOFTWARE OR HARDWARE AND ANY USE WITH OR CONVERSION TO OTHER FORMATS OR CONVENTIONS, OR THE USE WITH ANY PARTICULAR SOFTWARE OR HARDWARE, IS AT THE RECIPIENT'S SOLE RISK.</div><div>20. THE DRAWINGS INDICATE, IN A DIAGRAMMATIC MANNER, THE DESIRED LOCATIONS AND ARRANGEMENT OF THE COMPONENTS OF TELECOMMUNICATIONS WORK. DETERMINE EXACT TELECOMMUNICATION EQUIPMENT, CONDUIT AND WIRING ROUTING, CONDUIT BENDS, AUXILIARY JUNCTION BOXES, SUPPORTS AND UNDEFINED CONSTRUCTION DETAILS AS A JOB CONDITION TO BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE CODE REQUIREMENTS. PROPER JUDGEMENT MUST BE EXERCISED IN EXECUTING THE WORK SO AS TO SECURE THE BEST POSSIBLE INSTALLATION IN THE AVAILABLE SPACE AND TO OVERCOME LOCAL DIFFICULTIES DUE TO SPACE LIMITATIONS OR INTERFERENCE OF CONDITIONS ENCOUNTERED.</div><div>21. IN THE EVENT CHANGES IN THE INDICATED LOCATIONS OR ARRANGEMENTS ARE NECESSARY, DUE TO DEVELOPED CONDITIONS IN THE BUILDING CONSTRUCTION OR REARRANGEMENT OF EQUIPMENT, SUCH CHANGES SHALL BE MADE WITHOUT COST PROVIDING THE CHANGE IS ORDERED BEFORE THE CONDUIT RUNS, ETC., AND WORK DIRECTLY CONNECTED TO SAME IS INSTALLED AND NO EXTRA MATERIALS ARE REQUIRED.</div><div>22. PROVIDE ALL EQUIPMENT WITH ENCLOSURES LISTED OR LABELED FOR USE AND LOCATION WHERE SUCH EQUIPMENT IS INSTALLED.</div><div>23. PROVIDE UL LISTED FIRE STOP FOR ALL PENETRATIONS THROUGH FIRE RATED FLOORS, WALLS, AND CEILINGS TO MAINTAIN ALL FIRE RATINGS.</div><div>24. GROUNDING SHALL BE EXECUTED IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS, BOTH OF THE STATE OF CALIFORNIA AND LOCAL AUTHORITIES HAVING JURISDICTION.</div><div>25. CONDUIT FOR ROOF MOUNTED EQUIPMENT SHALL BE ROUTED BELOW ROOF AND WITHIN BUILDING.</div><div>26. ALL TELECOMMUNICATION EQUIPMENT SHALL BE NEW AND BE U.L. OR ETL LISTED AND LABELED.</div></div></div></div> <tr><td colspan="2"><div><div>NOTE:</div><div>REFERENCE ELECTRICAL SHEETS FOR ADDITIONAL GENERAL ELECTRICAL SYMBOLS. ALL APPLICABLE PORTIONS SHALL APPLY TO THIS SCOPE OF WORK AS THOUGH WRITTEN HEREIN.</div><div><div><div><div>Ⓜ→</div><div>①</div></div><div>JUNCTION BOX, FLUSH WALL MOUNTED, -18".</div></div><div><div><div><div>↗①</div></div><div>INDICATES CONNECTION TO EQUIPMENT AS REQUIRED, TYPICAL.</div></div><div><div><div><div>Ⓜ</div></div><div>CONTROL PANEL OR TERMINAL CABINET AS INDICATED ON PLANS.</div></div><div><div><div><div>→</div></div><div>INDICATES CONDUIT DROP WITHIN BUILDING WALL.</div></div><div><div><div><div>→</div></div><div>INDICATES CONDUIT RISER WITHIN BUILDING WALL.</div></div><div><div><div><div>=====</div></div><div>TELEPHONE BACKBOARD PROVIDED & INSTALLED BY ELECTRICAL CONTRACTOR, SEE E-4.01.</div></div><div><div><div><div>▶</div></div><div>TELEPHONE OUTLET MOUNTED AT +18" AFF - UON. PROVIDE 3/4"C. TO POINT ABOVE ACCESSIBLE CEILING SPACE OR AS OTHERWISE INDICATED. 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APPLICATION	TYPE	CABLE COLOR	SYSTEM
VOICE / DATA	CAT 7	RED/BLUE	VOIP / NETWORK DATA SYSTEMS
VOICE	CAT 7	RED	VOIP
DATA	CAT 7	BLUE	NETWORK DATA SYSTEMS
TELEVISION	CAT 7	GRAY	VIDEO
TELEVISION	RG11 / RG6	BLACK	VIDEO
CAMERAS	NA	NA	FUTURE
CAMERAS	NA	NA	FUTURE
FIBER BACKBONE MULTI-MODE	50µc/12S	ORANGE	VOICE / DATA SURVEILLANCE
COPPER BACKBONE (25 PAIR COUNT)	CAT 7	BROWN	VOICE / DATA
WIRELESS ACCESS	CAT 7	PURPLE	VIDEO

DIVISION OF RESPONSIBILITY									
	J-BOXES, CONDUIT, ROUGH-IN, 120V TO SUPPLY POWER	DEVICES AND CABLING	HEAD END UNIT	SYSTEMS INTEGRATION	DEVICE PLACEMENT LOCATIONS AND AIMING	TESTING AND COMMISSIONING	DOOR HARDWARE SPECTO ARCHITECT/OWNER	TELEPHONE & DATA SYSTEM PROCUREMENT, INSTALLATION, AND PROGRAMMING	CABLE TRAYS, PLYWOOD BACKBOARDS, GROUND BUS BAR
ELECTRICAL CONTRACTOR	X	CABLING ONLY							X
FIRE ALARM CONTRACTOR		X	X			X			
GENERAL CONTRACTOR	X	CABLING ONLY							X
OWNER					X				
OWNER'S I.T.								X	
SECURITY CONTRACTOR		X	X			X			
SECURITY SYSTEMS INTEGRATOR		DEVICES ONLY	X	X			X		

CONDUIT FILL SCHEDULE				
CONDUIT (EMT, TRADE SIZE)	MAXIMUM NUMBER OF CONDUCTORS/CABLES (BASED ON 40% MAX FILL RATIO)			
	UTP CAT6A (0.27" O.D.)	FIBER OPTIC (0.27" O.D.)	4#22 WEST PENN 240 (0.142" O.D.)	RG-6 /U WEST PENN 841 (0.254" O.D.)
3/4"	3	3	11	3
1"	6	6	19	6
1 1/4"	10	10	30	9
1 1/2"	13	13	44	13
2"	22	22	78	24

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UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

BASIS OF BEARINGS:

BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF 162 ND STREET (FORMERLY MARKET STREET) BEING N 89° 55' 30" E SHOWN ON TRACT NO. 10901, M.B. 254/31-32

BENCHMARK:

THE CITY OF GARDENA BENCHMARK NO. 5D-15 ELEV. = 43.508

CITY OF GARDENA
HIGHWAY 61

10372
10372
ELECTRICAL
STATE OF CALIFORNIA

05/01/2023

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fbaengr.com
FBA Job Number: 535050

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(949) 493-2000 phone

LANDSCAPE ARCHITECT
STATE OF CALIFORNIA

10372
10372
ELECTRICAL
STATE OF CALIFORNIA

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED
1	ADDENDUM 2	06-16-2023	

CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS - ENGINEERING

SYMBOLS LIST, GENERAL NOTES & SCHEDULES

COMMUNITY AQUATICS & SENIOR CENTER

TE-0.01

DESIGNED BY
SR

DATE
08/07/2023

CHECKED BY
RZ

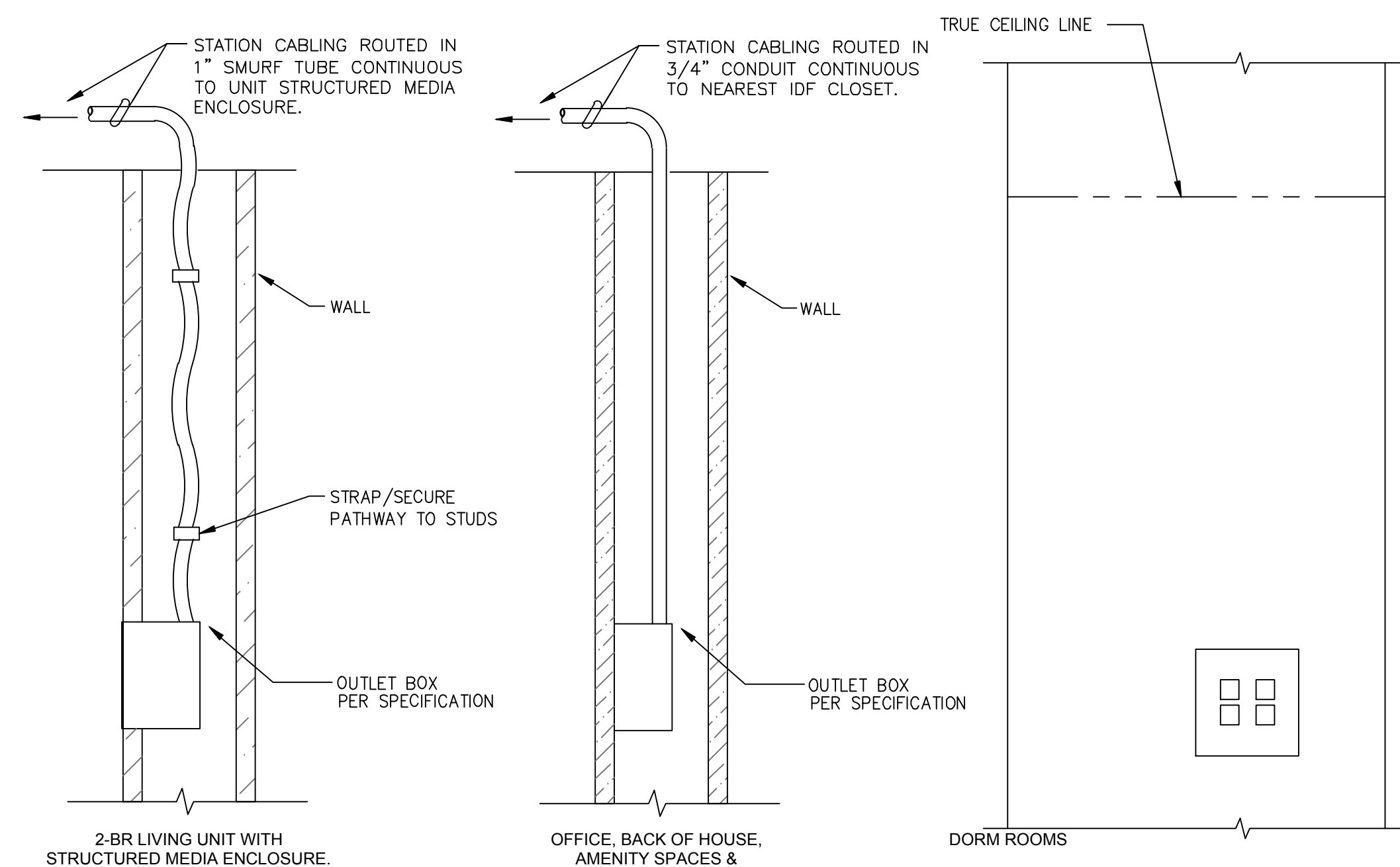
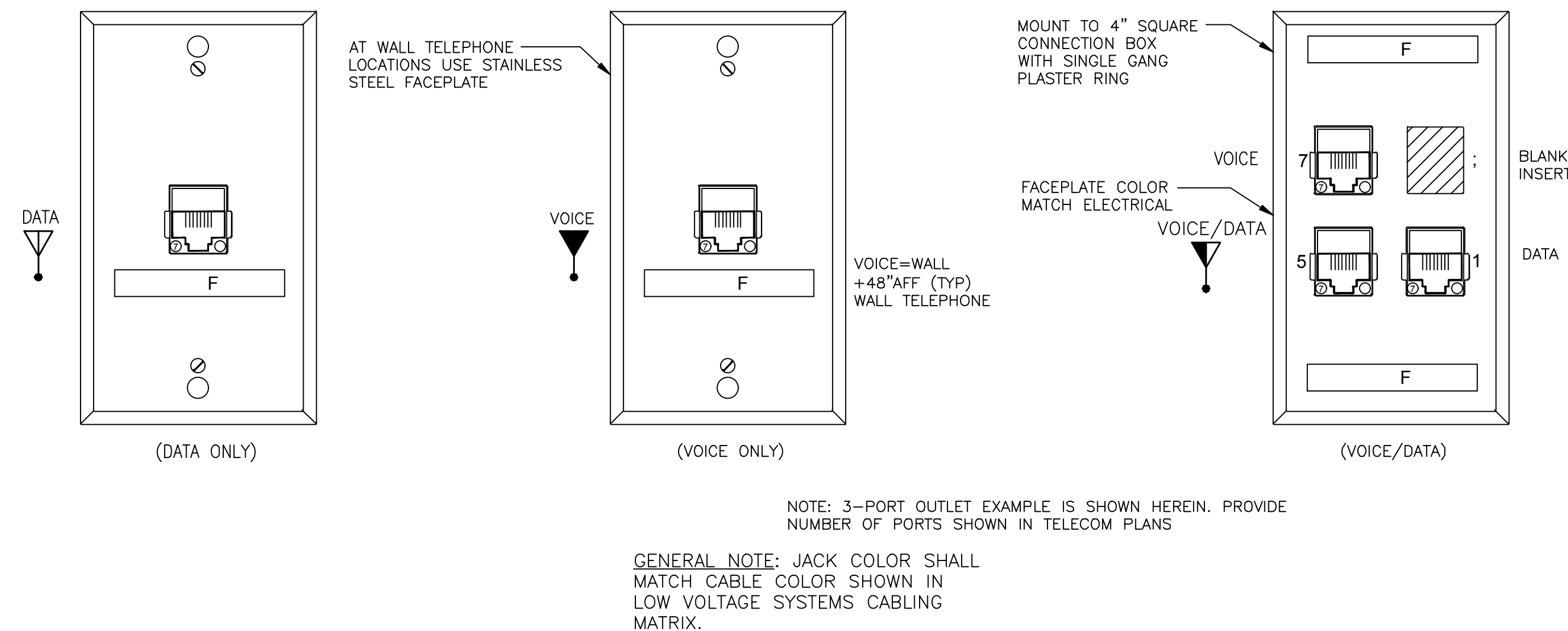
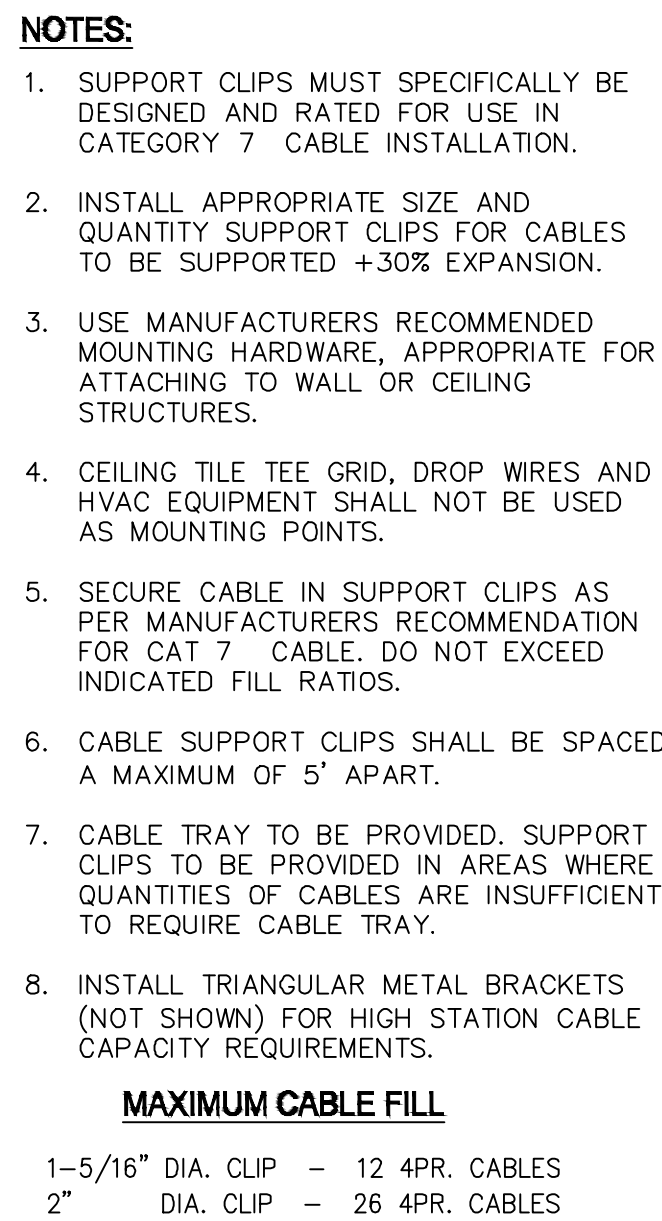
DATE
08/07/2023

APPROVED BY:
DATE
08/07/2023

DIRECTOR OF PUBLIC WORKS

SHT. 8 OF 12

DWG. NO. 5-2606



SCALE:	3
NTS	

SCALE:	2
NTS	

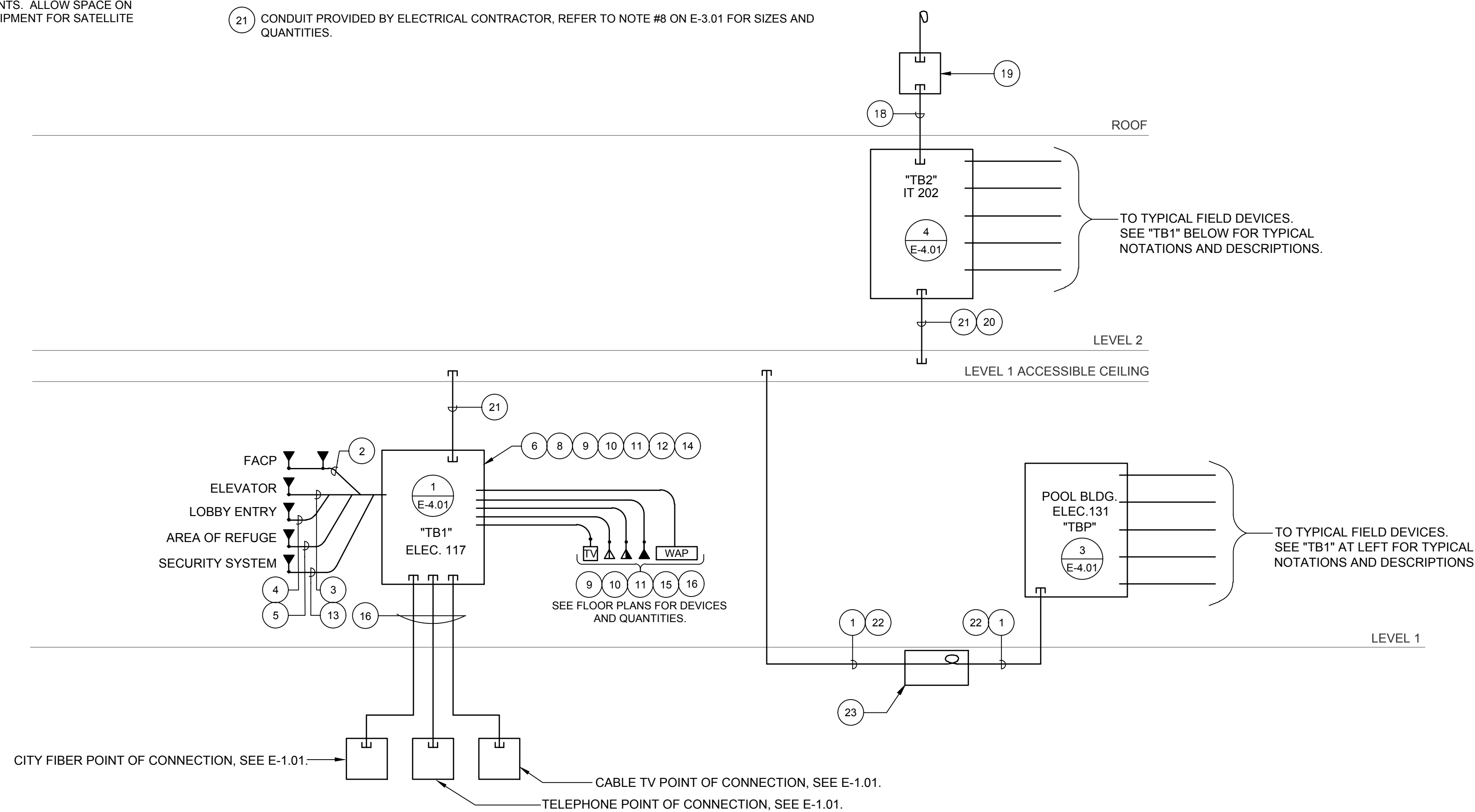
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NTS	



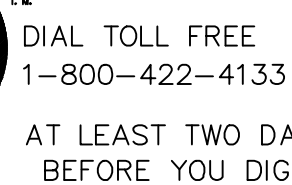
- 1 UNDERGROUND SERVICE CONDUITS FROM PROPERTY LINE FOR SERVICE PROVIDER CABLING PER UTILITY COMPANY REQUIREMENTS, REFER TO E-1.01.
- 2 3/4" CONDUIT WITH TELEPHONE CABLING AND TWO (2) RJ-31X-CONFIGURED JACKS AS REQUIRED, TO THE MAIN FIRE ALARM CONTROL PANEL.
- 3 3/4" CONDUIT WITH TELEPHONE CABLING, STUBBED UP INTO THE ELEVATOR MACHINE ROOM FOR REQUIRED DEDICATED TELEPHONE SERVICE. COORDINATE WITH ELEVATOR INSTALLER FOR EXACT LOCATION OF STUB UP.
- 4 3/4" CONDUIT WITH TELEPHONE CABLING AND JACK AS REQUIRED, TO THE TELEPHONE ENTRY/PROCESS CONTROL SYSTEM AT THE MAIN ENTRANCE TO THE FACILITY. COORDINATE WITH ARCHITECT/OWNER FOR EXACT LOCATION. TELEPHONE CONNECTION TO MAIN TELEPHONE BACKBOARD 'TB1'.
- 5 3/4" CONDUIT WITH TELEPHONE CABLE AND JACK AS REQUIRED TO THE AREA OF REFUGE 2-WAY COMMUNICATION BASE SYSTEM STATION COORDINATE WITH ARCHITECT FOR EXACT LOCATIONS WHERE APPLICABLE.
- 6 MAIN TELECOM TERMINAL BACKBOARD 'TB1' LOCATED AT GROUND LEVEL. 'TB1' PROVIDES FOR LOW VOLTAGE UTILITY SERVICES MINIMUM POINT OF ENTRY (MPOE) AND PROVIDES DEDICATED TERMINATIONS/CABLING FOR SOURCING OF TELEPHONE AND CABLE TV DISTRIBUTION CABLE.
- 7 TELECOM TERMINAL BACKBOARD. SEE FLOOR PLAN 'TE' SHEETS. THE BACKBOARD LOCATIONS ARE DEDICATED UTILITY EQUIPMENT SPACES PROVIDING THE DESIGNATED FLOOR, OR AREA SERVING FACILITY FOR TERMINATION/CROSS-CONNECTION OF BACKBONE/TRUNK CABLING FROM THE MAIN TELECOM ROOM TO THE FEEDER AND STATION CABLES FOR VOICE, DATA, AND CABLE TV SERVICES.
- 8 PROVIDE GROUND CONDUCTOR CONNECTIONS, AND EQUIPMENT GROUND BONDING CONNECTIONS TO SUPPORT THE INSTALLATION OF SIGNAL PROCESSING/DATA COM EQUIPMENT, TYPICAL FOR MPOE ROOM AND ALL TELECOM CLOSET BACKBOARDS.
- 9 PROVIDE ALL CABLING, CONNECTORS, AND CONNECTING HARDWARE FOR TELEPHONE / VOICE COMMUNICATIONS PER OWNER REQUIREMENTS.
- 10 PROVIDE ALL CABLING, CONNECTORS, AND CONNECTING HARDWARE FOR DATA COMMUNICATIONS AND NETWORKING PER OWNER REQUIREMENTS.
- 11 PROVIDE ALL CABLING, CONNECTORS, AND CONNECTING HARDWARE FOR BROADBAND CABLE TELEVISION PER OWNER AND ACCESS PROVIDER REQUIREMENTS. ALLOW SPACE ON BACKBOARD FOR BACKBOARD FOR FIBER CONNECTIONS AT BACKBOARD EQUIPMENT FOR SATELLITE TELEVISION EQUIPMENT.

- 12 ALL ACTIVE EQUIPMENT, INCLUDING POWER SUPPLIES, SIGNAL PROCESSING DEVICES, BROADBAND/RADIO/AUDIO AMPLIFIERS, COMPUTERS AND DATA NETWORKING DEVICES, TELEPHONE SWITCHING DEVICES, ETC., SHALL BE PROVIDED BY OTHERS.
- 13 3/4" CONDUIT WITH TELEPHONE CABLING, ROUTED TO SECURITY SYSTEM CONTROL PANEL FOR REQUIRED DEDICATED TELECOM/BUILDING SYSTEMS CONNECTIVITY.
- 14 "MDF" SHALL BE A FLOOR-STANDING DATA EQUIPMENT RACK, CHATSORTHWORTH STANDARD RACK 55503 OR APPROVED EQUIV., 19"W X 84"H X 3"D, WITH ALL ACCESSORIES PROVIDED FOR A COMPLETE AND OPERABLE SYSTEM. PROVIDE FIBER OPTIC TERMINAL PANELS, CAT6A PATCH PANELS, HORIZONTAL AND VERTICAL CABLE MANAGEMENT, SURGE PROTECTION/PLUG STRIPS, GROUNDING ACCESSORIES, AND LABELING AS REQUIRED BY OWNER. ALL ACTIVE EQUIPMENT, INCLUDING POWER SUPPLIES, SIGNAL PROCESSING DEVICES, BROADBAND/RADIO/AUDIO AMPLIFIERS, COMPUTERS AND DATA NETWORKING DEVICES, TELEPHONE SWITCHING DEVICES, ETC., SHALL BE PROVIDED BY OTHERS.
- 15 OUTLETS FOR VOICE AND DATA INCLUDING CAT6A MODULAR JACKS/FACEPLATE ON A RECESSED OUTLET BOX WITH STAR-CONFIGURED 4-PAIR CAT7 TIGHT COPPER CABLING TO THE BUILDING'S TELECOM TERMINAL BACKBOARD. SEE FLOOR PLANS FOR LOCATIONS/QUANTITIES.
- 16 OUTLETS FOR CABLE TV AND SATELLITE TV INCLUDING DOUBLE-RG-6 MODULAR JACKS/FACEPLATE ON A RECESSED OUTLET BOX WITH TWO (2) STAR-CONFIGURED 75-OMH RG-6 PVC-JACKETED COAXIAL STATION CABLES PER CATV AND SATELLITE/DTV SERVICE PROVIDER SPECIFICATIONS TO THE BUILDING'S TELECOM TERMINAL BACKBOARD AND UNDERGROUND RG-11 TRUNK COAXIAL CABLE PER SERVICE PROVIDER REQUIREMENTS. SEE FLOOR PLANS FOR LOCATIONS/QUANTITIES.
- 17 CONDUIT PROVIDED BY ELECTRICAL CONTRACTOR, REFER TO NOTE #5 ON E-1.01 FOR SIZES AND QUANTITIES.
- 18 (1) 2" C.O. (FUTURE DISH CABLING) AND 3/4" C.O. FOR DISH GROUND CONDUCTORS. PROVIDE CONDUITS WITH PULL ROPES.
- 19 12" X 12" X 6"D. WEATHERPROOF PULL BOX WITH 2" SERVICE HEAD STUBBED OUT OF WALL FOR FUTURE DISH ANTENNA.
- 20 PROVIDE CONDUIT SLEEVES BETWEEN FLOORS FOR ACCESS CONTROL SYSTEM CONDUCTOR HANDWAYS, WHERE FLOOR IS RATED, PROVIDE FIRESTOP SYSTEM ASSEMBLY WITH RATING EQUAL TO OR GREATER THAN PENETRATED STRUCTURE FOR A UL LISTED PENETRATION SYSTEM. (STI E2-PATH OR APPROVED EQUAL).
- 21 CONDUIT PROVIDED BY ELECTRICAL CONTRACTOR, REFER TO NOTE #8 ON E-3.01 FOR SIZES AND QUANTITIES.

- 22 UNDERGROUND ACCESS CONTROL SYSTEM CONDUIT AND SYSTEM CONDUCTORS PER MANUFACTURER'S RECOMMENDATIONS FROM ACCESS CONTROL PANEL LOCATION TO OTHER SITE BUILDING STRUCTURES. CONDUIT SIZE, ROUTING PER SITE PLAN DRAWINGS. CABLEING TO BE PROVIDED IN A "STAR TOPOLOGY" CONFIGURATION. ROUTING OF SYSTEM CONDUCTORS' DAISY CHAINED THROUGH BUILDINGS IS NOT ACCEPTABLE.
- 23 TYPICAL PULLBOX, IF REQUIRED. PROVIDE SERVICE LOOP IN ALL CABLES.



SCALE: NONE	1
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THE CITY OF GARDENA BENCHMARK NO. 5D-15 ELEV. = 43.508



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FBA Job Number: 535050



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(949) 493-2600 phone

[illegible]

TELECOM. RISER DIAGRAM

TE-0.02

	INITIAL	DATE	APPROVED BY:
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	INITIAL	DATE	APPROVED BY:	
DESIGNED BY	SR	08/07/2023		
DRAWN BY	SR	08/07/2023	DATE DIRECTOR OF PUBLIC WORKS	
CHECKED BY	BZ	08/07/2023		
			SHT. 9 OF 12	DWG. NO. 5-2606

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PLAN NOTES

- 1 4S WEATHERPROOF J-BOX AT BASE OF TREE FOR SPEAKER CABLING. SEE DETAIL 3/E-4.01. J-BOX PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR, REFER TO E-1.01.
- 2 1" (SPEAKER CABLING) TO TEL. BACKBOARD "TBP" IN POOL BUILDING. CONDUIT PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR, REFER TO E-1.01.
- 3 3/4" (SPEAKER CABLING). CONDUIT PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR, REFER TO E-1.01.
- 4 CONDUIT PROVIDED BY ELECTRICAL CONTRACTOR, REFER TO NOTE #5 ON E-1.01 FOR SIZES AND QUANTITIES.

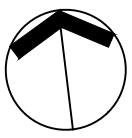
SITE PLAN GENERAL NOTES:

1. LOCATIONS OF EXISTING UTILITIES ARE NOT SHOWN AND CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING ON THIS SITE TO AVOID EXISTING DUCTS, PIPING, OR CONDUITS, ETC., AND TO PREVENT HAZARDS TO PERSONNEL AND/OR DAMAGE TO EXISTING UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN AND INSTALLED BY ANY OTHER CONTRACTS. THE ENGINEER IS NOT RESPONSIBLE FOR THE LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES, WHETHER OR NOT SHOWN OR DETAILED AND INSTALLED BY ANY OTHER CONTRACTS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER. THE ENGINEER SHOULD SEARCH UNIDENTIFIED CONDITIONS BE DISCOVERED. THESE DRAWINGS AND SPECIFICATIONS DO NOT INCLUDE THE NECESSARY ELEMENTS FOR CONSTRUCTION SAFETY.
2. CONTRACTOR SHALL VERIFY THE LOCATION OF ANY EXISTING UNDERGROUND UTILITIES AND STRUCTURES PRIOR TO COMMENCEMENT OF WORK BY CONTACTING UNDERGROUND SERVICE ALERT (U.S.A.) AT 1(800) 422-4133, OR OTHER LOCAL APPLICABLE UNDERGROUND SERVICE ALERT AGENCIES.
3. THE DRAWINGS ILLUSTRATE LOCATIONS OF EQUIPMENT AND ASSEMBLIES, PULLBOXES, MANHOLES, HANDHOLES, AND VENTS, INCLUDING OTHER ELECTRICAL UNDERGROUND STRUCTURES AND PATHWAYS. CONTRACTOR SHALL CLOSELY COORDINATE EXACT LOCATIONS AND MOUNTING DEPTHS OF ALL DEVICES, STRUCTURES AND PATHWAYS WITH OTHER TRADES PRIOR TO PLACEMENT. TO ENSURE FINAL LOCATIONS ARE OUTSIDE FEATURE LANDSCAPE AND ARCHITECTURAL AREAS AND ARE NOT IN CONFLICT WITH THE INSTALLATION OF MATERIALS BY OTHER TRADES.
4. SEE ARCHITECTURAL, CIVIL AND LANDSCAPE PLANS FOR EXACT LOCATION OF FIXTURES, PULLBOXES, MANHOLES, OTHER ELECTRICAL EQUIPMENT AND DEVICES, ETC. COORDINATE ALL UNDERGROUND STRUCTURES AND CONDUIT ROUTING WITH ARCHITECT OR OWNERS' REPRESENTATIVE PRIOR TO ROUGH-IN. TO ENSURE SUCH ITEMS ARE NOT PLACED IN PLANTING / HARDSCAPE AREAS.
5. ALL EQUIPMENT LOCATED OUTDOORS SHALL BE WEATHERPROOF, NEMA 3R RATED.
6. PROVIDE PULL STRING IN ALL EMPTY CONDUITS.

SITE TELECOM PLAN

SCALE:
3/32"=1'-0"

1



BASIS OF BEARINGS:

BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF 162 ND STREET (FORMERLY MARKET STREET) BEING N 89° 55' 30" E SHOWN ON TRACT NO. 10901, M.B. 254/31-32

BENCHMARK:

THE CITY OF GARDENA BENCHMARK NO. 5D-15 ELEV. = 43.508



UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

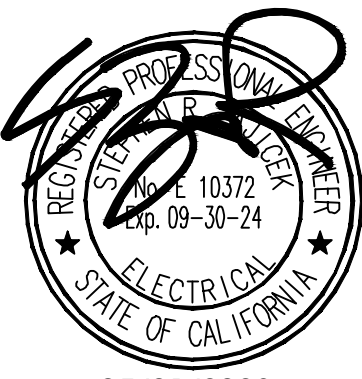


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FBA Job Number: 535050



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(949) 493-2660 phone



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1	ADDENDUM 2	06-16-2023	

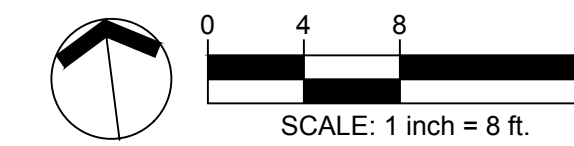
CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS - ENGINEERING

SITE TELECOM PLAN
COMMUNITY AQUATICS & SENIOR CENTER
TE-1.01

DESIGNED BY	SR	DATE	06/07/2023	APPROVED BY:
DRAWN BY	SR	DATE	06/07/2023	DATE
CHECKED BY	BZ	DATE	06/07/2023	DATE

DIRECTOR OF PUBLIC WORKS
SHT. 10 OF 12 DWG. NO. 5-2606

- 1 (1) 2"C. (TELECOM.) & (3) 2"C.O. (ACCESS, SECURITY & CCTV) PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR, SEE E-3.01.
- 2 LOW VOLTAGE CONDUIT TO POOL BUILDING PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR, REFER TO NOTE #5 ON E-1.01 FOR QUANTITIES, SIZE AND CONTINUATION.

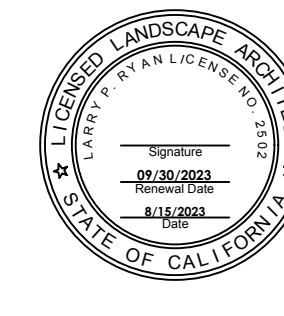
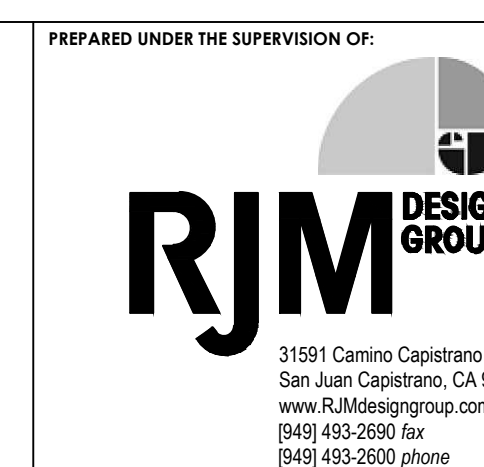
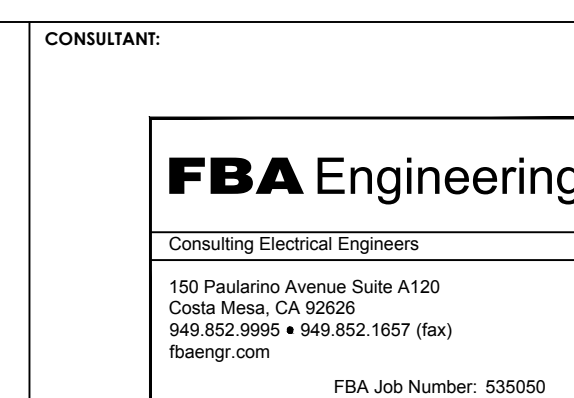


SCALE:
1/8"=1'-0"

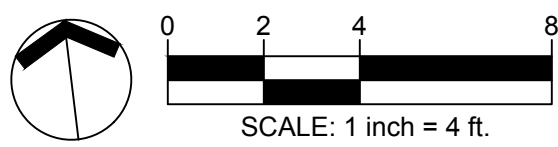
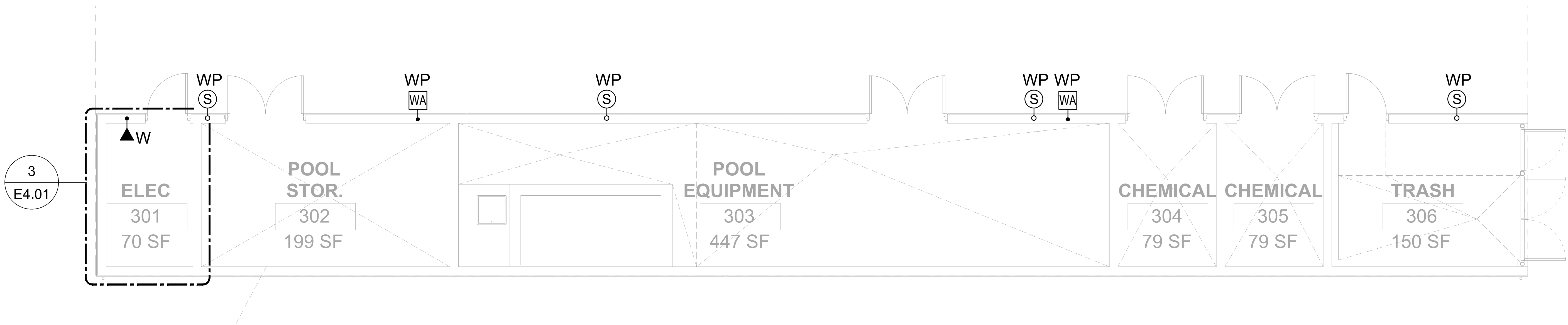


SCALE:
1/8"=1'-0"

1. ALL WALL MOUNTED DEVICE HEIGHTS SHALL BE VERIFIED WITH ARCHITECTURAL ROOM ELEVATIONS PRIOR TO ROUGH-IN.
2. PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE PROTECTED WITH AN APPROVED FIRE STOP SYSTEM EQUAL TO OR GREATER THAN THE RATINGS OF THE WALL BEING PENETRATED.
3. ALL DEVICES MOUNTED BACK-TO-BACK ON COMMON WALLS SHALL BE INSTALLED IN SEPARATE BOXES OFFSET 24-INCHES MINIMUM OR PROVIDED WITH PUTTY OR ANOTHER APPROVED SOUNDPROOF BACKING.
4. WHEN EXPOSED CEILING OR OPEN GRID CONDITIONS EXIST, CONTRACTOR SHALL PROVIDE:
 - A. ALL CONDUITS SHALL BE ROUTED PARALLEL TO BUILDING STRUCTURES AND RACKED NEATLY IN GROUPS OF MULTIPLE PATHWAYS.
 - B. ALL LOW VOLTAGE CABLES SHALL BE:
 - 1) INSTALLED IN EMT CONDUIT PATHWAYS OR
 - 2) INSTALLED NEATLY IN CABLE MANAGEMENT OPEN BASKET OR LADDER TYPED WIREWAY SUPPORTED INDEPENDENTLY FROM STRUCTURE ABOVE.
5. EXPOSED LOW VOLTAGE CABLEING IN OPEN TYPE CEILING APPLICATIONS INSTALLED ON D-RINGS, J-HOOKS OR SIMILAR APPARATUS WILL NOT BE ACCEPTED UNLESS APPROVED IN WRITING BY ARCHITECT/OWNER TO ANY ROUGH-IN OR INSTALLATION. CONTRACTOR SHALL INCLUDE AN ALLOWANCE IN HIS BASE BID FOR THE INSTALLATION OF LOW VOLTAGE CABLES IN OPEN CEILING AS DESCRIBED.
6. EXPOSED CABLE/CONDUCTORS INSTALLED IN A PLENUM SHALL CONFORM TO LISTED FOR SUCH ENVIRONMENT AND INSTALLATION SHALL CONFORM TO NEC OR CEC WHERE ADOPTED ARTICLE 300(2C).
7. COORDINATE LOCATION OF ALL TELECOM DEVICE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN.
8. ALL TELECOM DEVICE OUTLET BOXES AND CONDUIT SHALL BE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. REFER TO E-3.01.

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POOL BUILDING TELECOM PLAN SCALE: 1/4"=1'-0" 1

TELECOM GENERAL NOTES:

- ALL WALL MOUNTED DEVICE HEIGHTS SHALL BE VERIFIED WITH ARCHITECTURAL ROOM ELEVATIONS PRIOR TO ROUGH-IN.
- PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE PROTECTED WITH AN APPROVED FIRE STOP SYSTEM EQUAL TO OR GREATER THAN THE RATING OF THE WALL BEING PENETRATED.
- ALL DEVICES MOUNTED BACK-TO-BACK ON COMMON WALLS SHALL BE INSTALLED IN SEPARATE BOXES OFFSET 24-INCHES MINIMUM OR PROVIDED WITH PUTTY OR ANOTHER APPROVED SOUNDPROOF BACKING.
- WHEN EXPOSED CEILING OR OPEN GRID CONDITIONS EXIST, CONTRACTOR SHALL PROVIDE:
 - ALL CONDUITS SHALL BE ROUTED PARALLEL TO BUILDING STRUCTURES AND RACKED NEATLY IN GROUPS OF MULTIPLE PATHWAYS.
 - ALL LOW VOLTAGE CABLES SHALL BE:
 - INSTALLED IN EMT CONDUIT PATHWAYS OR INSTALLED NEATLY IN CABLE MANAGEMENT OPEN BASKET OR LADDER TYPED WIREWAY SUPPORTED INDEPENDENTLY FROM STRUCTURE ABOVE.
- EXPOSED LOW VOLTAGE CABLING IN OPEN TYPE CEILING APPLICATIONS INSTALLED ON D-RINGS, J-HOOKS OR SIMILAR APPARATUS WILL NOT BE ACCEPTED UNLESS APPROVED IN WRITING BY ARCHITECT/OWNER PRIOR TO ANY ROUGH-IN OR INSTALLATION. CONTRACTOR SHALL INCLUDE AN ALLOWANCE IN HIS BASE BID FOR THE INSTALLATION OF LOW VOLTAGE CABLES IN OPEN CEILING AS DESCRIBED.
- EXPOSED CABLE/CONDUCTORS INSTALLED IN A PLENUM SPACE SHALL BE LISTED FOR SUCH ENVIRONMENT AND INSTALLATION SHALL CONFORM TO NEC OR CEC WHERE ADOPTED ARTICLE 300.22(C).
- COORDINATE LOCATION OF ALL TELECOM DEVICE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN.
- ALL TELECOM DEVICE OUTLET BOXES AND CONDUIT SHALL BE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR, REFER TO E-3.01.



BASIS OF BEARINGS:
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BENCHMARK:
THE CITY OF GARDENA BENCHMARK NO. 5D-15 ELEV. = 43.508



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05/01/2023

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(949) 493-2660 phone



REVISIONS			
NO.	DESCRIPTION	DATE	APPROVED
1	ADDENDUM 2	08-14-2023	

CITY OF GARDENA
DEPARTMENT OF PUBLIC WORKS - ENGINEERING
POOL BUILDING TELECOM PLAN
COMMUNITY AQUATICS & SENIOR CENTER
TE-3.03

DESIGNED BY		DATE	APPROVED BY:	
SR	SR	08-07-2023		
CHECKED BY		DATE	DIRECTOR OF PUBLIC WORKS	
SR	SR	08-07-2023		
SHT. 12 OF 12		DWG. NO. 5-2606		

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PLOT TIME: 8/15/2023 11:19 AM