

R:\PROJECT\2021\21-163 RADIO SITE SECURITY UPGRADE\21-163 E-FRNTSHT - 2021-12-20 - SAMUEL VELA



ISD RADIO SITE SECURITY UPGRADES

COUNTY PROJECT #10.10.1024

GENERAL NOTES

- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE LATEST CALIFORNIA CODE OF REGULATIONS (CCR), NATIONAL ELECTRICAL CODE EDITION AND ALL APPLICABLE LOCAL CODES AND REGULATIONS.
- ALL PANELS, SWITCHES, ETC. SHALL HAVE SUFFICIENT GUTTER SPACE AND LUGS IN COMPLIANCE TO UL REQUIREMENTS TO ACCOMMODATE CONDUCTORS SHOWN.
- WHERE WIRE SIZES ARE INDICATED ON PLANS, FOR INDIVIDUAL CIRCUITS, THE WIRE SIZE INDICATED SHALL APPLY TO THE COMPLETE CIRCUIT, UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL EXTEND WIRING FROM ALL JUNCTION BOXES, SWITCHES, ETC. AND MAKE FINAL CONNECTION AS REQUIRED TO ALL BUILDING EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS.
- DRAWINGS ARE DIAGMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED. FOLLOW DRAWINGS IN LAYING OUT WORK AND CHECK DRAWINGS OR OTHER TRADES RELATING TO WORK TO VERIFY SPACE IN WHICH WORK WILL BE INSTALLED. MAINTAIN HEADROOM AND MINIMUM CODE REQUIRED WORKING CLEARANCES AT ALL TIMES.
- PROVIDE PULL BOXES WHEREVER NECESSARY TO FACILITATE PULLING OF CONDUCTORS. COORDINATE LOCATIONS OF BOXES WITH OTHER TRADES TO AVOID CONFLICT. PULL BOXES SHALL BE ACCESSIBLE. THE SIZE OF PULL BOX SHALL COMPLY WITH N.E.C. REQUIREMENTS.
- NO CONDUIT RUNS SHALL BE ALLOWED IN CONCRETE SLABS. ALL CONDUITS WILL BE PLACED ABOVE ACCESSIBLE CEILING SPACES UNLESS SPECIFICALLY INDICATED TO BE UNDERGROUND.
- DISCONNECT SWITCHES SHALL BE MOUNTED ON INDIVIDUAL SUPPORTS, OR OTHERWISE DIRECTLY ON EQUIPMENT, PROVIDED NO MODIFICATION TO EQUIPMENT IS NECESSARY.
- ALL ELECTRIC MATERIAL SHALL BE LISTED BY "UL" FOR THE TYPE OF APPLICATION AND "UL" LABEL SHALL APPEAR ON ALL ELECTRICAL EQUIPMENT.
- ALL DISTRIBUTION AND CONTROL EQUIPMENT (SUCH AS CB's, SWITCHES, CONTACTORS, ETC.), TERMINATIONS SHALL BE FULLY RATED PER UL AS FOLLOWS:

a. 125A OR LESS : 60°C OR MORE;
b. MORE THAN 125A : 75°C OR MORE.
- ANY ERRORS, OMISSIONS, OR DESIGN DISCREPANCIES ON PLANS OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ELECTRICAL ENGINEER FOR CLARIFICATION OR CORRECTION PRIOR TO CONSTRUCTION AND PREPARATION OF SUBMITTAL PACKAGES.
- CONDUCTORS SHALL HAVE UNDERWRITER'S LABORATORIES, INC.(UL) LISTED, 600 VOLT INSULATION OF TYPE SPECIFIED BELOW OR ELSEWHERE IN THE SPECIFICATIONS. CONDUCTORS SHALL BE COPPER.

1. BRANCH CIRCUITS - LIGHTING AND POWER.

a. #10 AWG AND SMALLER, SOLID WIRE TYPE THW OR THHN/THWN, THHW/THHN FOR DRY LOCATION ONLY),
b. #8 AWG TO #2 AWG, STRANDED TYPE THW OR THHN/THHW,
c. #1 AWG AND LARGER, STRANDED TYPE XHHW.

2. FEEDERS : TYPE THW OR THHN/THWN, OR XHHW.
- PROVIDE GREEN INSULATED GROUNDING CONDUCTOR IN EACH RACEWAY INCLUDING CONDUITS, PLUG STRIPS, WIREMOLD. SIZE OF GROUNDING SHALL BE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE ARTICLE 250.
- WIRING METHOD SHALL BE ENT ABOVE GROUND AND MOUNTED IN CONCEALED SPACES AND SCHEDULE-40 PVC FOR UNDERGROUND INSTALLATION. USE RIGID WHEN ENCASED IN CONCRETE OR SUSCEPTIBLE TO DAMAGE.

SUMMARY OF WORK

- PROVIDE ACCESS CONTROL SYSTEM CONSISTING OF A HEAD END ACCESS CONTROL PANEL, CARD READER, PUSHBUTTON REQUEST TO EXIT, DOOR POSITION SWITCH AND ELECTRIFIED DOOR HARDWARE.
- RETROFIT EXISTING DOORS AS NECESSARY FOR NEW ELECTRIFIED DOOR HARDWARE.
- PROVIDE SURVEILLANCE CAMERA SYSTEM WITH ALL NECESSARY LICENSES AND NETWORK VIDEO RECORDERS.
- FURNISH AND INSTALL ALL ELECTRICAL CONNECTION(S), COMPONENTS, DEVICES AND EQUIPMENT PER FLOOR PLAN.
- ALL PERMIT FEES SHALL BE CONTRACTOR'S RESPONSIBILITY.

PROJECT TEAM

ELECTRICAL

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APPLICABLE CODES

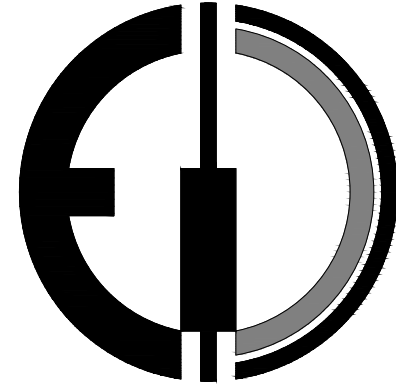
- 2019 BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.
- 2019 CALIFORNIA BUILDING CODE (CBC),PART 2, TITLE 24 C.C.R. (IBC WITH AMENDMENTS)
- 2019 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R. (NEC WITH AMENDMENTS)
- 2019 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R. (IFC WITH AMENDMENTS)
- 2019 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R.
- 2019 TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.
- 2019 CALIFORNIA ENERGY CODE (PART 6, TITLE 24 C.C.R.)
- 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE (CGBSG), PART 11, TITLE 24 C.C.R.

NOTE TO CONTRACTOR

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR THE SAME.

DESIGN WEST ENGINEERING
MECHANICAL • ELECTRICAL • ENERGY CONSULTANTS



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CONSULTANT

PROJECT TITLE

PROJECT FOR:

COUNTY OF SAN BERNARDINO
RADIO SITE SECURITY UPGRADES
VARIOUS LOCATIONS

STAMP



SHEET TITLE

ELECTRICAL TITLE
SHEET

DESIGNED BY EW
DRAWN BY EW
CHECKED BY LM
DATE 09/07/21
SCALE AS NOTED
JOB NO. 21-163

SHEET NO.

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ABBREVIATIONS

A	AMPERE	NEC	NATIONAL ELECTRICAL CODE
AF	AMPERE FRAME RATING (CIRCUIT BREAKER)	NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
AFF	ABOVE FINISHED FLOOR	NEW (N)	NEW, TO BE FURNISHED AND INSTALLED BY CONTRACTOR
AFG	ABOVE FINISHED GRADE	NF	NON-FUSED
AFU	AMPERE FUSE RATING (FUSE)	NIC	NOT IN CONTRACT
AIC	AMPERE INTERRUPTING CAPACITY	NL	NIGHT LIGHT
AS	AMPERE SWITCH RATING (FUSE)	NO	NUMBER, NORMALLY OPEN
AT	AMPERE TRIP RATING (CIRCUIT BREAKER)	NTS	NOT TO SCALE
AWG	AMERICAN WIRE GAUGE	OC	ON CENTER
BKBD	BACKBOARD	OD	OUTSIDE DIAMETER
BLDG	BUILDING	P	POLE
BKR	BREAKER	PB	PULL BOX
C	CONDUIT	PF	POWER FACTOR
CB	CIRCUIT BREAKER	PNL	PANEL
CKT	CIRCUIT	POC	POINT OF CONNECTION
CFS	COMBINATION FIRE SMOKE DAMPER	PP	POWER POLE
CO	CONDUIT ONLY	PWR	POWER
CONC	CONCRETE	PVC	POLYVINYL CHLORIDE
CT	CURRENT TRANSFORMER	QUAD	QUADRUPLEX
CU	COPPER	QTY	QUANTITY
CL	CENTERLINE	REQD	REQUIRED
DISC	DISCONNECT	REQMT	REQUIREMENT
DSBN	DISTRIBUTION SECTION	RGS	RIGID GALVANIZED STEEL
DN	DOWN	RMC	RIGID METALLIC CONDUIT
DWG	DRAWING	RM	ROOM
EA	EACH	RNC	RIGID NONMETALLIC CONDUIT
EC	ELECTRICAL CONTRACTOR	SHT	SHEET
EM	EMERGENCY	SN	SOLID NEUTRAL
EMT	ELECTRICAL METALLIC TUBING	SPEC	SPECIFICATIONS
EXIST, (E)	EXISTING	SPDT	SINGLE POLE, DOUBLE THROW
EXO	EXTERNAL OPERABLE DISCONNECT	SPST	SINGLE POLE, SINGLE THROW
F	FUSE	SW	SWITCH
FA	FIRE ALARM	SWBD	SWITCHBOARD
FACP	FIRE ALARM CONTROL PANEL	TC	TIME CLOCK
FF	FINISHED FLOOR	TEL	TELEPHONE
FG	FINISHED GRADE	TERM	TERMINAL
FLA	FULL LOAD CURRENT	TP	TEMPORARY POLE
FLUOR	FLUORESCENT	TYP	TYPICAL
GEC	GROUNDING ELECTRODE CONDUCTOR	UGPS	UNDERGROUND PULL SECTION
GEN	GENERATOR	UL	UNDERWRITERS LABORATORY
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	UPS	UNINTERRUPTIBLE POWER SUPPLY
GFP	GROUND FAULT PROTECTION	UON	UNLESS OTHERWISE NOTED
GND	GROUND	V	VOLT, VOLTAGE
HOA	HAND-OFF-AUTOMATIC	VA	VOLT-AMPERE
HP	HORSE POWER	VFC	VARIABLE FREQUENCY CONTROLLER
HV	HIGH VOLTAGE	VFD	VARIABLE FREQUENCY DRIVE
IDF	INTERMEDIATE DISTRIBUTION FRAME	W	WATT
IG	ISOLATED/INSULATED GROUND	WH	WATT-HOUR
INCAND	INCANDESCENT	WP	WEATHERPROOF
ISC	SHORT CIRCUIT CURRENT AVAILABLE IN RMS SYMMETRICAL AMPERES	WT	WEATHERTIGHT
J-BOX	JUNCTION BOX	WW	WIREWAY
KCMIL	THOUSAND CIRCULAR MILS	XP	EXPLOSION PROOF
KW	KILOWATT	Z	IMPEDANCE
KV	KILO VOLT	4W	FOUR-WIRE
KVA	KILO VOLT-AMPERE	3W	THREE-WIRE
LDC	LOCAL DISTRIBUTION CABINET	5S	JUNCTION BOX (4 11/16" SQUARED X2 1/8" DEEP)
LDF	LOCAL DISTRIBUTION FRAME	Ø	DIAMETER, PHASE
LCL	LONG CONTINUOUS LOAD	#	NUMBER
LTG	LIGHTING	°C	DEGREE CELSIUS
LV	LOW VOLTAGE	(E)	EXISTING DEVICE TO REMAIN
MFR	MANUFACTURER	(R)	REMOVE EXISTING DEVICE AND ASSOCIATED CONDUIT AND WIRE
MAX	MAXIMUM	(RL)	REMOVE EXISTING DEVICE AND RELOCATE AS SHOWN ON PLAN
MCC	MOTOR CONTROL CENTER	(NL)	NEW LOCATION OF RELOCATED DEVICE
MIN	MINIMUM		
MH	MANHOLE / METAL HALIDE		
MM	METER AND MAIN SECTION		
MULTI	MULTI-METER SECTION		
MV	MEDIUM VOLTAGE		
NC	NORMALLY CLOSED		

POWER LEGENDS AND SYMBOLS (CON'T)

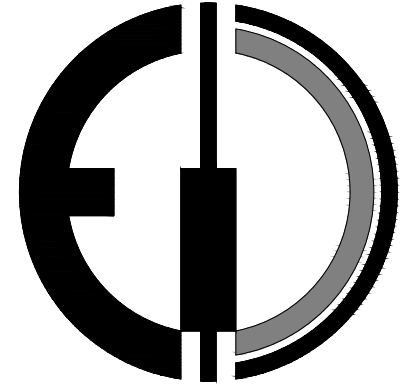
SYMBOL	DESCRIPTION
	MOLDED CASE CIRCUIT BREAKER
	SWITCH AND FUSE ASSEMBLY
	UTILITY COMPANY PULL SECTION LUGS
	GROUNDING CONNECTION TO MAIN BUILDING GROUND SYSTEM U.O.N.
	GROUNDING CONNECTION AT SWITCHGEAR/DISTRIBUTION BOARD WITH NEUTRAL BONDING.
	IN-LINE UTILITY COMPANY METER
	UTILITY METER WITH CIRCUIT TRANSFORMERS (CT'S) METER
	SOLID STATE DEVICE CONNECTED TO THE POWER DISTRIBUTION SYSTEM
	GROUND FAULT PROTECTION DEVICE CONNECTED TO THE POWER DISTRIBUTION SYSTEM
	TRANSFORMER WITH SECONDARY GROUND
	ON-SITE GENERATOR SET
	CONDUIT WIRING DESCRIPTION PER FEEDER SCHEDULE ON OTHER PLAN
	CONDUIT WIRING DESCRIPTION PER FEEDER SCHEDULE ON OTHER PLAN
	CONCRETE ELECTRICAL PULL BOX WITH LID APPROPRIATE FOR INSTALLATION LOCATION. LID SHALL BE LABELED "ELECTRICAL" OR "COMM" ACCORDING TO USE.
	POE SURVEILLANCE CAMERA WITH ADJUSTABLE VIEWING ANGLE. PROVIDE ALL NECESSARY MOUNTING HARDWARE. PROVIDE (1) CAT 6 CABLE BACK TO COUNTY PROVIDED NETWORK POE SWITCH.
	HID WALL MOUNT CARD READER. PROVIDE ALL NECESSARY MOUNTING HARDWARE AND CABLING.
	WALL MOUNT MECHANICAL PUSHBUTTON REQUEST TO EXIT. PROVIDE ALL NECESSARY MOUNTING HARDWARE AND CABLING.
	ELECTRIFIED DOOR HARDWARE.
	SURFACE MOUNT DOOR POSITION SWITCH. PROVIDE ALL NECESSARY CABLING .

POWER LEGEND AND SYMBOLS

SYMBOL	DESCRIPTION
	DUPLEX RECEPTACLE OUTLET, CONVENIENCE. (20 AMPS, 125 VOLTS) MOUNTED +15' A.F.F. TO BOTTOM OF DEVICE U.O.N.
	DOUBLE DUPLEX RECEPTACLE OUTLET, CONVENIENCE. (20 AMPS, 125 VOLTS) MOUNTED +15' A.F.F. TO BOTTOM OF DEVICE U.O.N.
	DUPLEX RECEPTACLE OUTLET, CONVENIENCE. (20 AMPS, 125 VOLTS, GFCI TYPE) MOUNTED +15' A.F.F. TO BOTTOM OF DEVICE U.O.N.
	DUPLEX RECEPTACLE OUTLET, CONVENIENCE. (20 AMPS, 125 VOLTS) WITH MOUNTING HEIGHT HORIZONTALLY ABOVE COUNTER TOP PER ARCHITECTURAL PLANS OR APPROVAL.
	DUPLEX RECEPTACLE OUTLET, CONVENIENCE. (20 AMPS, 125 VOLTS, GFCI TYPE) WITH MOUNTING HEIGHT HORIZONTALLY ABOVE COUNTER TOP PER ARCHITECTURAL PLANS OR APPROVAL.
	CA TITLE 24 COMPLIANT DUPLEX RECEPTACLE OUTLET, HALF-CONTROLLED, CONVENIENCE, WITH PERMANENT MARKING. (20 AMPS, 125 VOLTS) MOUNTED +15' A.F.F. TO BOTTOM OF DEVICE U.O.N.
	CA TITLE 24 COMPLIANT DOUBLE DUPLEX RECEPTACLE OUTLET, HALF-CONTROLLED, CONVENIENCE, WITH PERMANENT MARKING. (20 AMPS, 125 VOLTS) MOUNTED +15' A.F.F. TO BOTTOM OF DEVICE U.O.N.
	SIMPLEX RECEPTACLE OUTLET, CONVENIENCE WITH (2)USB PORTS. (20 AMPS, 125 VOLTS) MOUNTED +15' A.F.F. TO BOTTOM OF DEVICE U.O.N. LEVITON MODEL #75832.
	WEATHERPROOF DUPLEX RECEPTACLE OUTLET, CONVENIENCE. (20 AMPS, 125 VOLTS) MOUNTED +15' A.F.F. TO BOTTOM OF DEVICE U.O.N.
	SIMPLEX RECEPTACLE OUTLET ON DEDICATED CIRCUIT. (20 AMPS, 125 VOLTS) MOUNTED +15' A.F.F. TO BOTTOM OF DEVICE U.O.N.
	DUPLEX RECEPTACLE OUTLET ON DEDICATED CIRCUIT. (20 AMPS, 125 VOLTS) MOUNTED +15' A.F.F. TO BOTTOM OF DEVICE U.O.N.
	DUPLEX RECEPTACLE OUTLET, SINGLE SPLIT-CIRCUIT SWITCHED, (20 AMPS, 125 VOLTS) MOUNTED +15' A.F.F. TO BOTTOM OF DEVICE U.O.N.
	SURFACE MOUNTED DUPLEX RECEPTACLE OUTLET, CONVENIENCE. (20 AMPS, 125 VOLTS) MOUNTED +15' A.F.F. TO BOTTOM OF DEVICE U.O.N.
	RECESSED CEILING MOUNTED DUPLEX RECEPTACLE OUTLET, CONVENIENCE. (20 AMPS, 125 VOLTS) U.O.N.
	ABOVE CEILING, CONCEALED, JUNCTION BOX, WITH COVER, PER NATIONAL ELECTRICAL CODE (NEC) TABLE 314.16(A)(B), 4" SQUARE DEEP, WITH PLASTER RING.
	RECESSED WALL MOUNTED JUNCTION BOX, WITH COVER, PER NATIONAL ELECTRICAL CODE (NEC) TABLE 314.16(A)(B), 4" SQUARE DEEP, WITH PLASTER RING.
	DUPLEX RECEPTACLE, FLUSH IN FLOOR, WATERTIGHT JUNCTION BOX (HINGED BRASS COVER: 20 AMP, 120 VOLT, 2-POLE, 3-WIRE) U.O.N.
	DOUBLE DUPLEX RECEPTACLE, FLUSH IN FLOOR, WATERTIGHT JUNCTION BOX (20 AMP, 120 VOLT, 2-POLE, 3-WIRE) U.O.N.
	JUNCTION BOX, FLUSH IN FLOOR, WATERTIGHT (HINGED BRASS COVER: 20 AMP, 120 VOLT, 2-POLE, 3-WIRE) U.O.N.
	SPECIALTY OUTLET. VERIFY NEMA CONFIGURATION AS NOTED ON PLANS.
	BRANCH PANELBOARD, WALL MOUNTED, SEE PLANS AND SCHEDULE. (SURFACE MOUNTED)
	BRANCH PANELBOARD, WALL MOUNTED, SEE PLANS AND SCHEDULE. (RECESSED MOUNTED)
	MAIN SWITCHBOARD, POWER OR LIGHT, FLOOR STANDING ENCLOSURE, (SEE SINGLE LINE DIAGRAM AND LOAD SUMMARY)
	DISCONNECT SWITCH H.P. RATED 600 VOLTS RATED. *F* INDICATES FUSE TYPE. FUSES PER APPROVED MANUFACTURERS SHOP DRAWINGS.
	MAGNETIC MOTOR STARTER H.P. RATED (NUMBER INDICATES NEMA SIZE)
	MOUNTING HEIGHT FROM FINISHED FLOOR TO BOTTOM LINE OF OUTLET OR EQUIPMENT. FOR LIGHT FIXTURES, IT IS TO BOTTOM OF FIXTURE.
	CONDUIT TURNED DOWN, 3/4" UON
	CONDUIT TURNED UP, 3/4" UON
	CONDUIT STUBBED AND CAPPED, 3/4" UON
	RACEWAY CONCEALED IN WALLS OR ABOVE CEILING, 3/4" UON
	CONDUIT CONCEALED IN OR UNDER FLOOR, 3/4" UON, COORDINATE WITH G.C.; OR, BURIAL CONDUIT UNDERGROUND IN SCHEDULE - 40 PVC UNLESS NOTED OTHERWISE. VERIFY DEPTH AND TRENCHING WITH G.C.
	DETAIL REFERENCE
	EQUIPMENT REFERENCE
	EXISTING CONDUIT AND WIRING TO REMAIN
	PULL-OUT WIRES AND ABANDON CONDUIT. CUT AND CAPPED FLUSH WALL OR SLAB.
	EXISTING CONDUIT TO REMAIN
	EXISTING CONDUIT AND WIRE TO BE REMOVED
	ELECTRICAL UTILITY PRIMARY
	ELECTRICAL UTILITY SECONDARY
	UTILITY TELEPHONE
	TEMPORARY OVERHEAD CABLING
	3/4" UON HOMERUN TO CIRCUITS #1 AND #3 IN PANEL "A". (CROSSMARKS INDICATE NUMBER OF PHASES AND NEUTRAL. PROVIDE GROUND WIRE.)
	3/4" CONDUIT WITH 2 #12 & 1 #12 GND WIRES, UON
	3/4" CONDUIT WITH 3 #12 & 1 #12 GND WIRES, UON
	3/4" CONDUIT WITH 4 #12 & 1 #12 GND WIRES, UON
	3/4" CONDUIT WITH 5 #12 & 1 #12 GND WIRES, UON
	3/4" CONDUIT WITH 2 #10 & 1 #10 GND WIRES (#10 INDICATING WIRE SIZE)
	3/4" CONDUIT WITH 3 #10 & 1 #10 GND WIRES (#10 INDICATING WIRE SIZE)
	3/4" CONDUIT WITH 4 #10 & 1 #10 GND WIRES (#10 INDICATING WIRE SIZE)
	3/4" CONDUIT WITH 5 #10 & 1 #10 GND WIRES (#10 INDICATING WIRE SIZE)
	1" CONDUIT WITH 6 #10 & 1 #10 GND WIRES (#10 INDICATING WIRE SIZE)
	GROUND WELL
	EXISTING (DASH INDICATES) ELECTRICAL EQUIPMENT
	TELEPHONE BACKBOARD 2'X4'X3/4" PLYWOOD. PROVIDE 2" CONDUIT TO TELEPHONE POC.

CONCEALED
IN WALL OR
CEILING

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PROJECT FOR:

COUNTY OF SAN BERNARDINO
RADIO SITE SECURITY UPGRADES

VARIOUS LOCATIONS

STAMP



SHEET TITLE

ELECTRICAL
LEGENDS AND NOTES

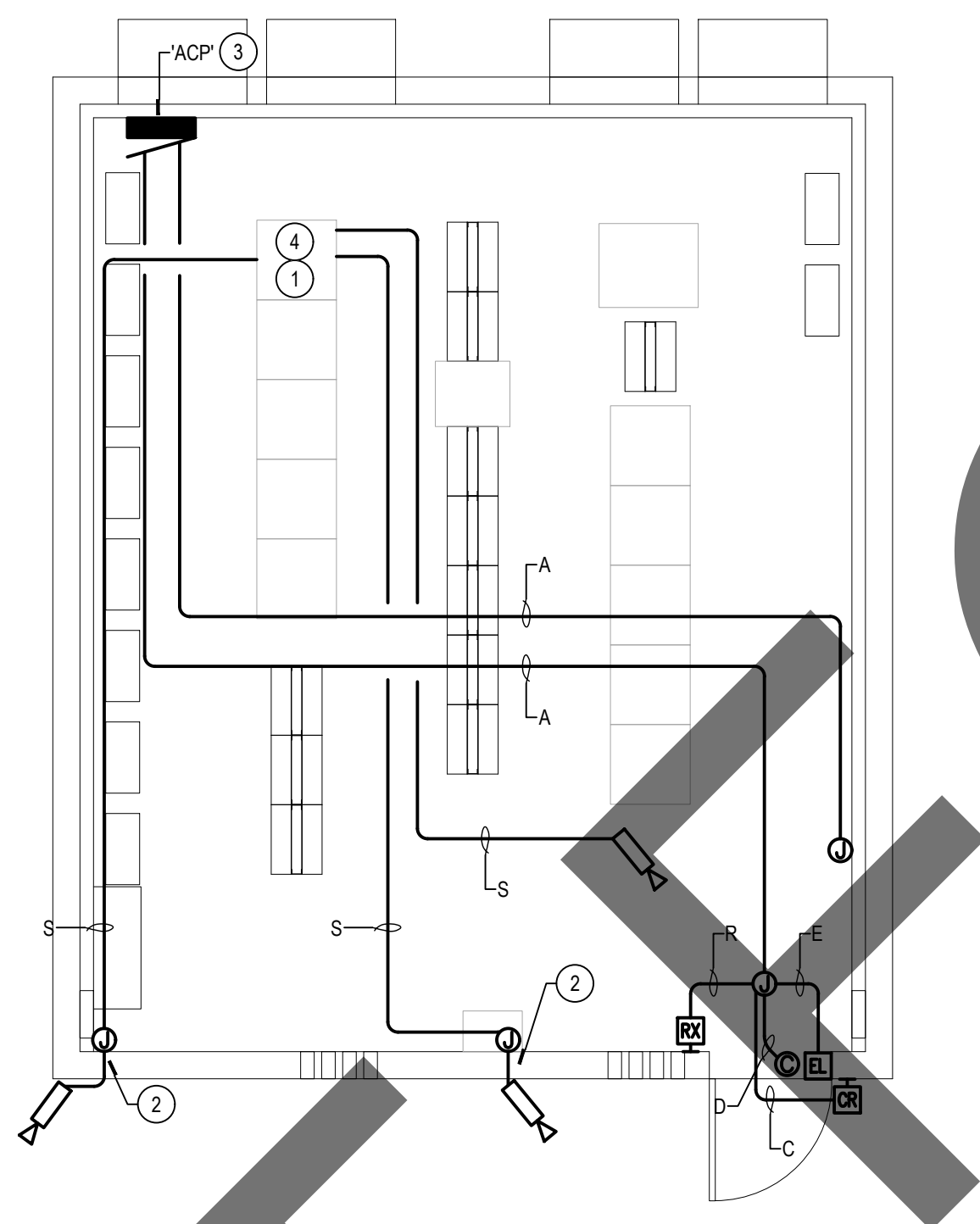
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DESIGNATION	TYPE
A	ACCESS CONTROL COMPOSITE CABLE
C	#18/6 CABLE (CARD READER)
D	2#18 SHIELDED CABLE (DOOR POSITION SWITCH)
E	2#14 CABLE (ELECTRIFIED DOOR HARDWARE)
R	4#16 CABLE (REQUEST TO EXIT)
S	CAT6 CABLE (SURVEILLANCE CAMERA)

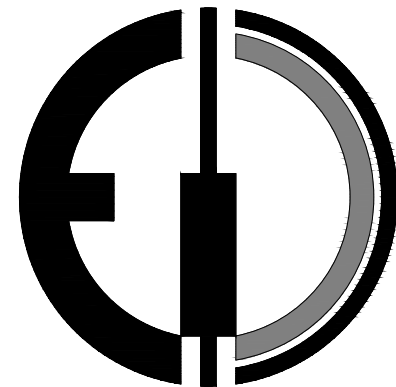
GENERAL NOTES

- CAT6 CABLE RUNS SHALL BE LIMITED TO 300'. CABLE SHALL BE RAN IN CONDUIT FOR EXTERIOR APPLICATIONS. INTERIOR APPLICATIONS CAN BE RAN THROUGH EXISTING CABLE TRAY SYSTEM.
- ALL EXTERIOR CABLING SHALL BE RAN IN MINIMUM 1" CONDUIT.
- LAYOUT IS AN OVERALL SCHEMATIC. EXACT LOCATIONS WILL DEPEND ON SPECIFIC BUILDING LAYOUT. CONTRACTOR TO PROVIDE PROPOSED SKETCH BASED ON EXISTING FACILITY LAYOUT.
- REFERENCE ARCHITECTURAL DRAWINGS FOR ELECTRO-MAGNETIC LOCK REQUIREMENTS. INSTALLATION TYPE (INSWING VS OUTSWING) TO BE PART OF A SITE DISCOVERY EFFORT.

CONSTRUCTION NOTES

- CAT6 CABLE SHALL BE TERMINATED IN COUNTY PROVIDED POE SWITCH. CONTRACTOR TO VERIFY EXACT SWITCH LOCATION WITH COUNTY PRIOR TO TERMINATING CABLE.
- PROVIDE 3/4" CONDUIT FOR BUILDING PENETRATION. CONTRACTOR TO PROVIDE ALL NECESSARY COMPONENTS FOR A COMPLETELY WEATHERPROOF INSTALLATION.
- PROVIDE DEDICATED 120V CIRCUIT FOR NEW ACCESS CONTROL PANEL. CONTRACTOR TO ROUTE CIRCUIT TO ELECTRICAL PANEL WITH 3/4" CONDUIT, 2#12 CONDUCTORS AND 1#12 GROUND.
- PROVIDE ALL NECESSARY GROUNDING CONNECTIONS FROM COUNTY PROVIDED POE SWITCH TO EXISTING TELECOMMUNICATIONS RACK.

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CONSULTANT

PROJECT TITLE

PROJECT FOR:

COUNTY OF SAN BERNARDINO
RADIO SITE SECURITY UPGRADES
VARIOUS LOCATIONS

STAMP



SHEET TITLE

ELECTRICAL FLOOR
PLAN

DESIGNED BY

EW

DRAWN BY

EW

CHECKED BY

LM

DATE

09/07/21

SCALE

AS NOTED

JOB NO.

21-163

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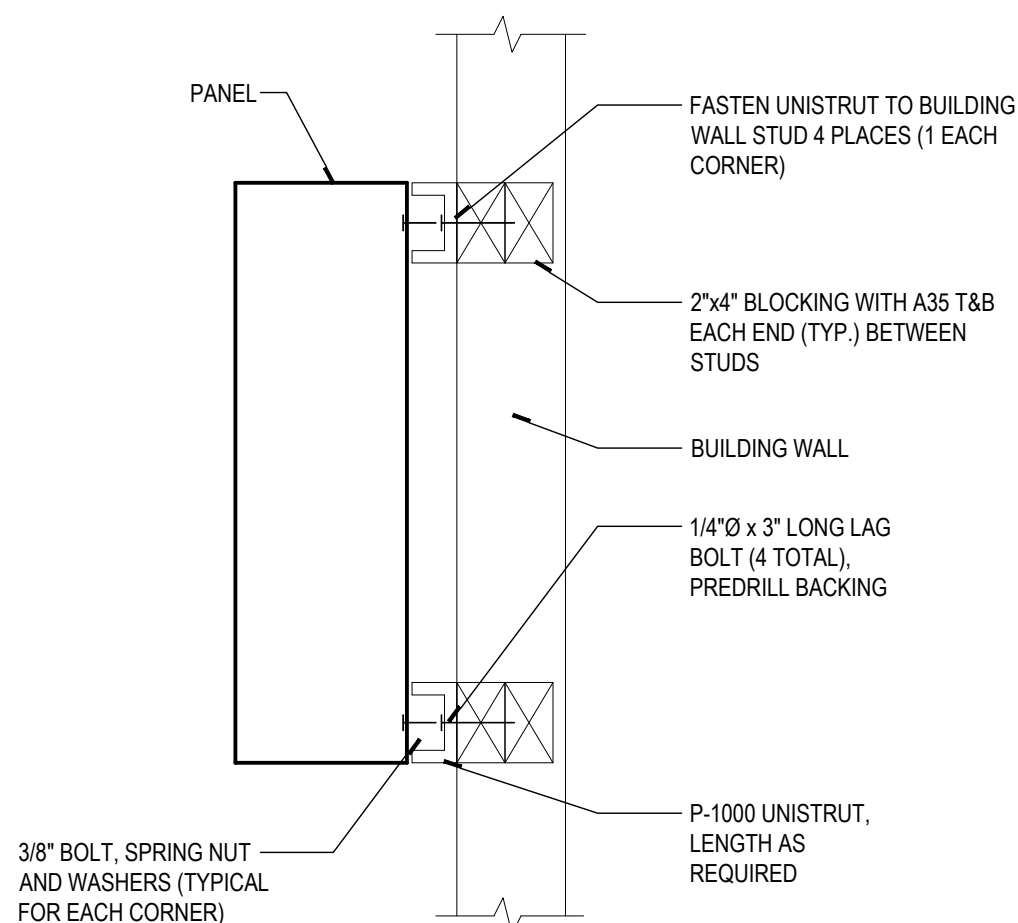
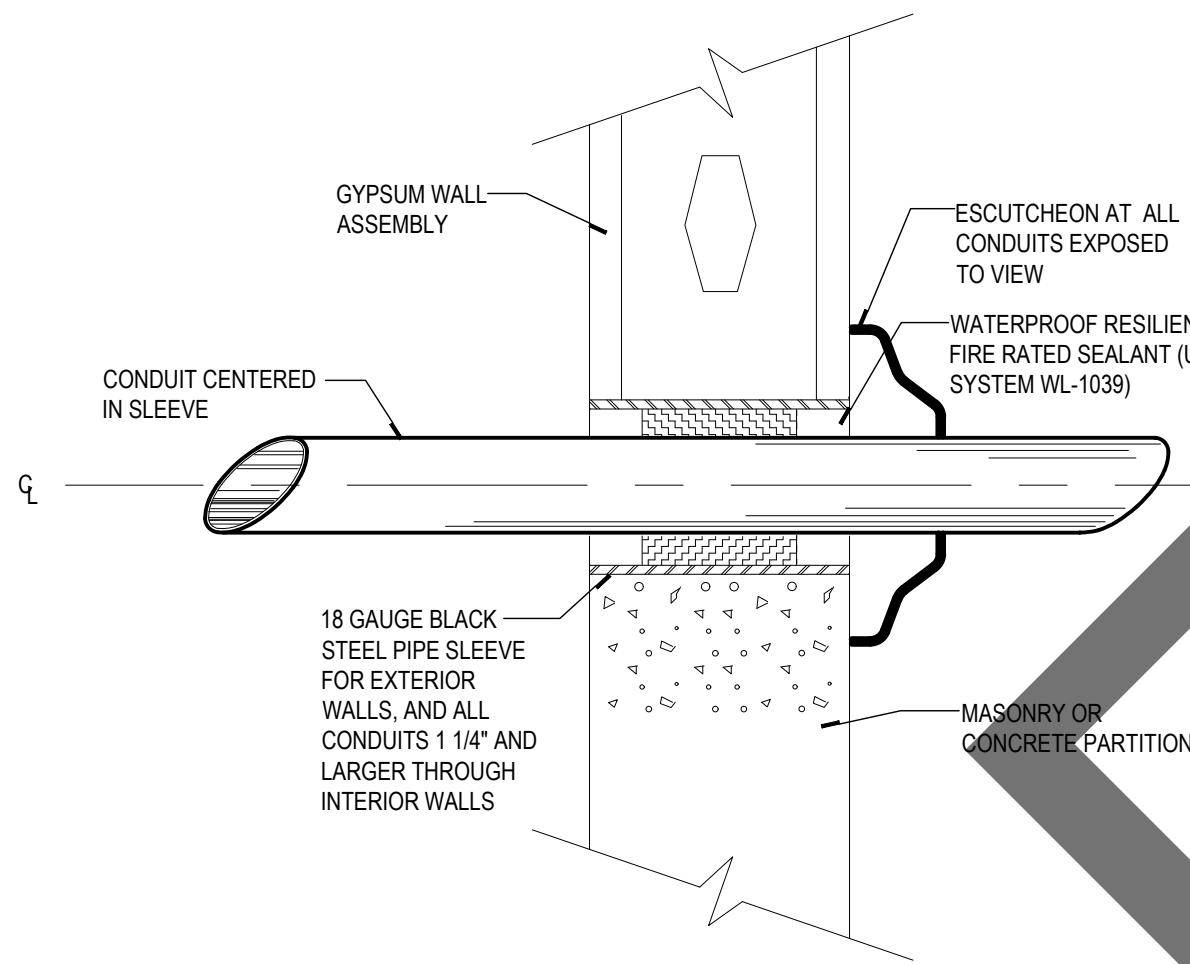
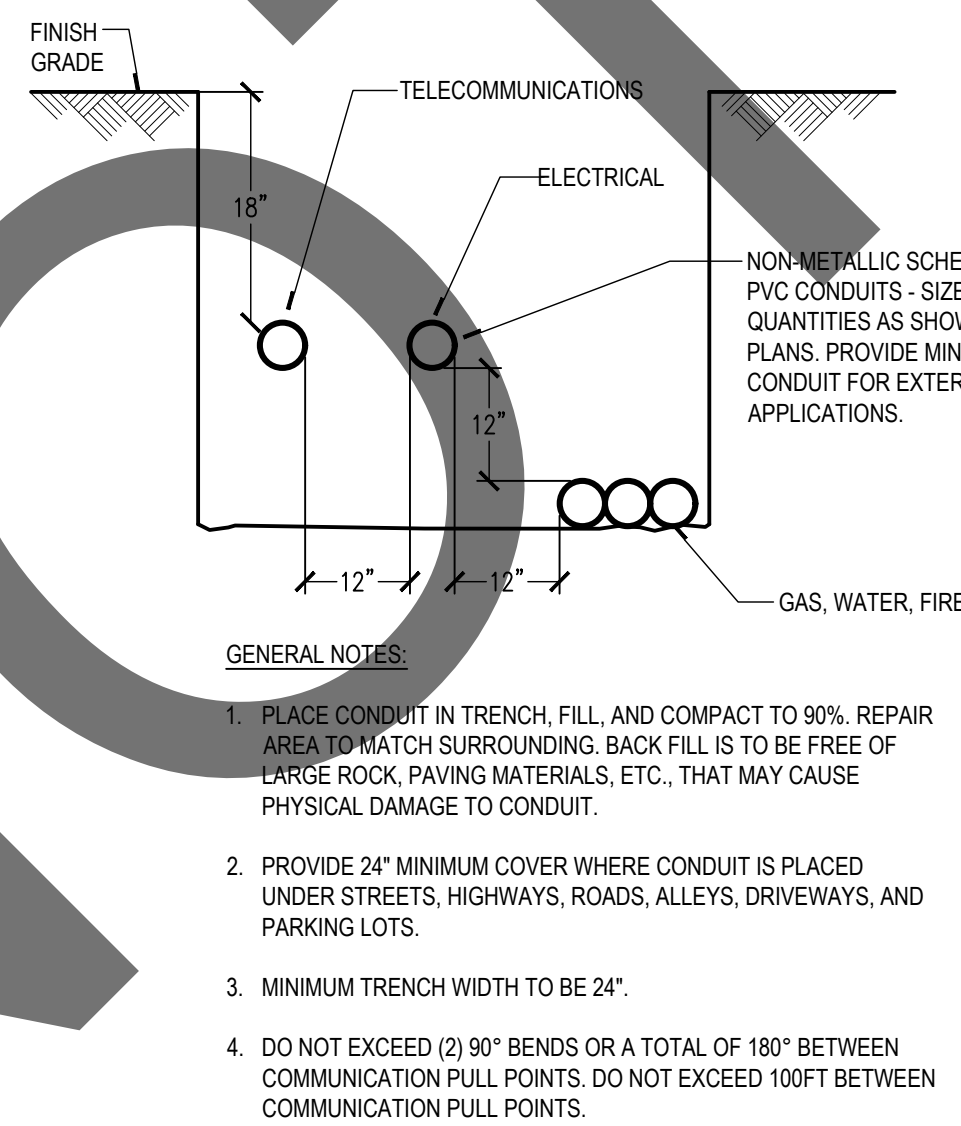
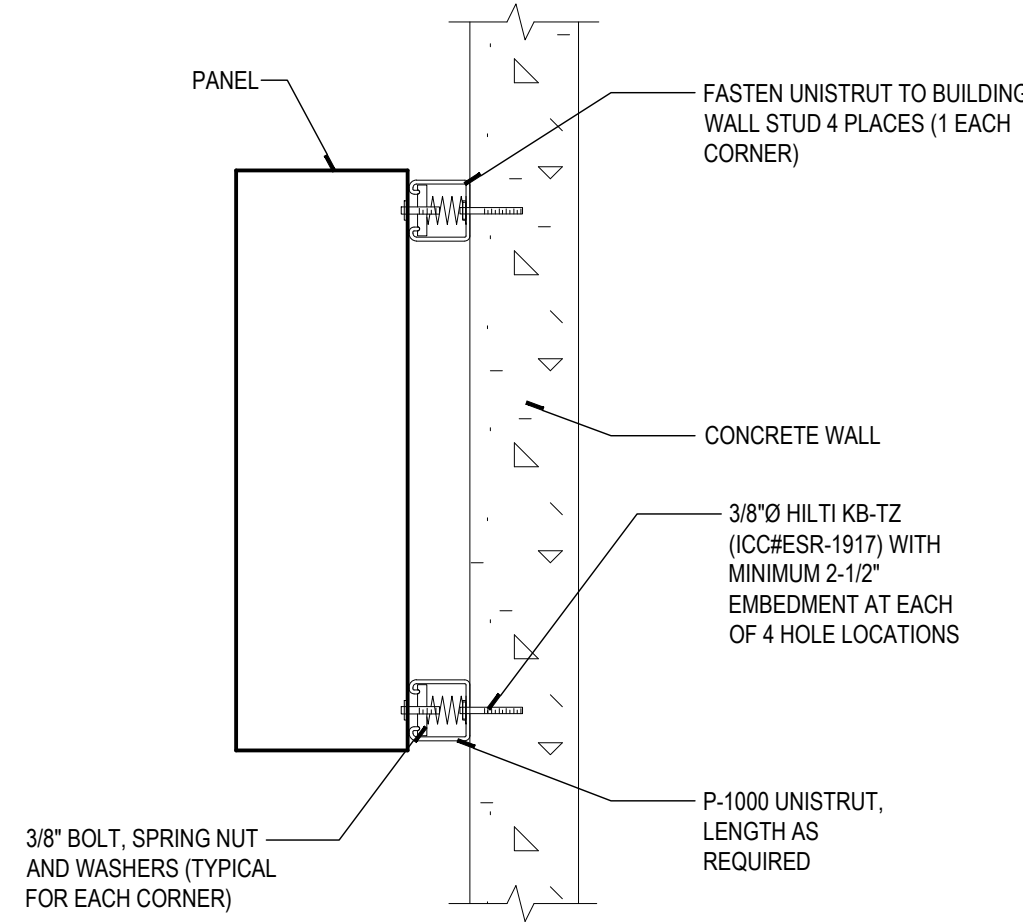
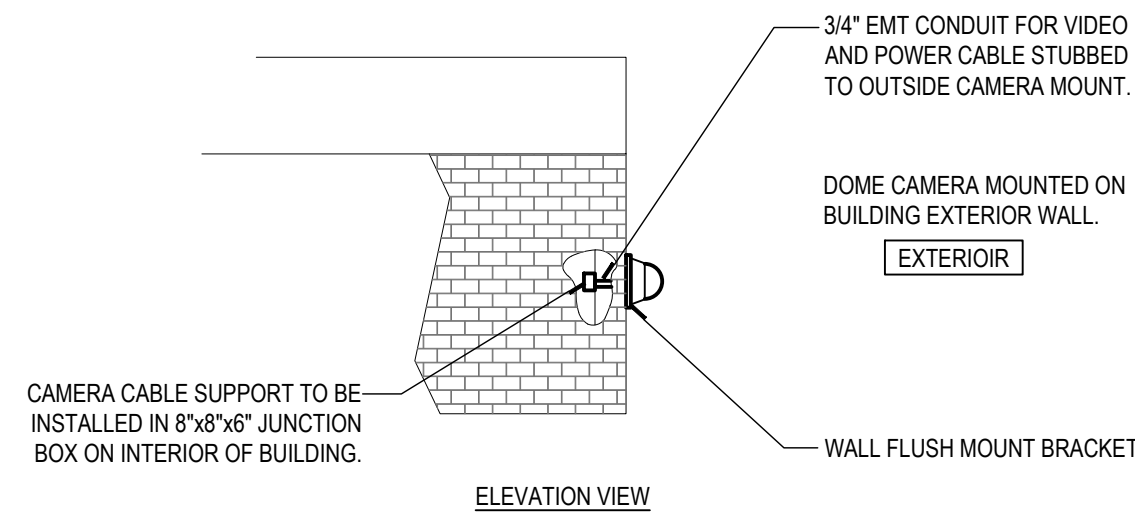
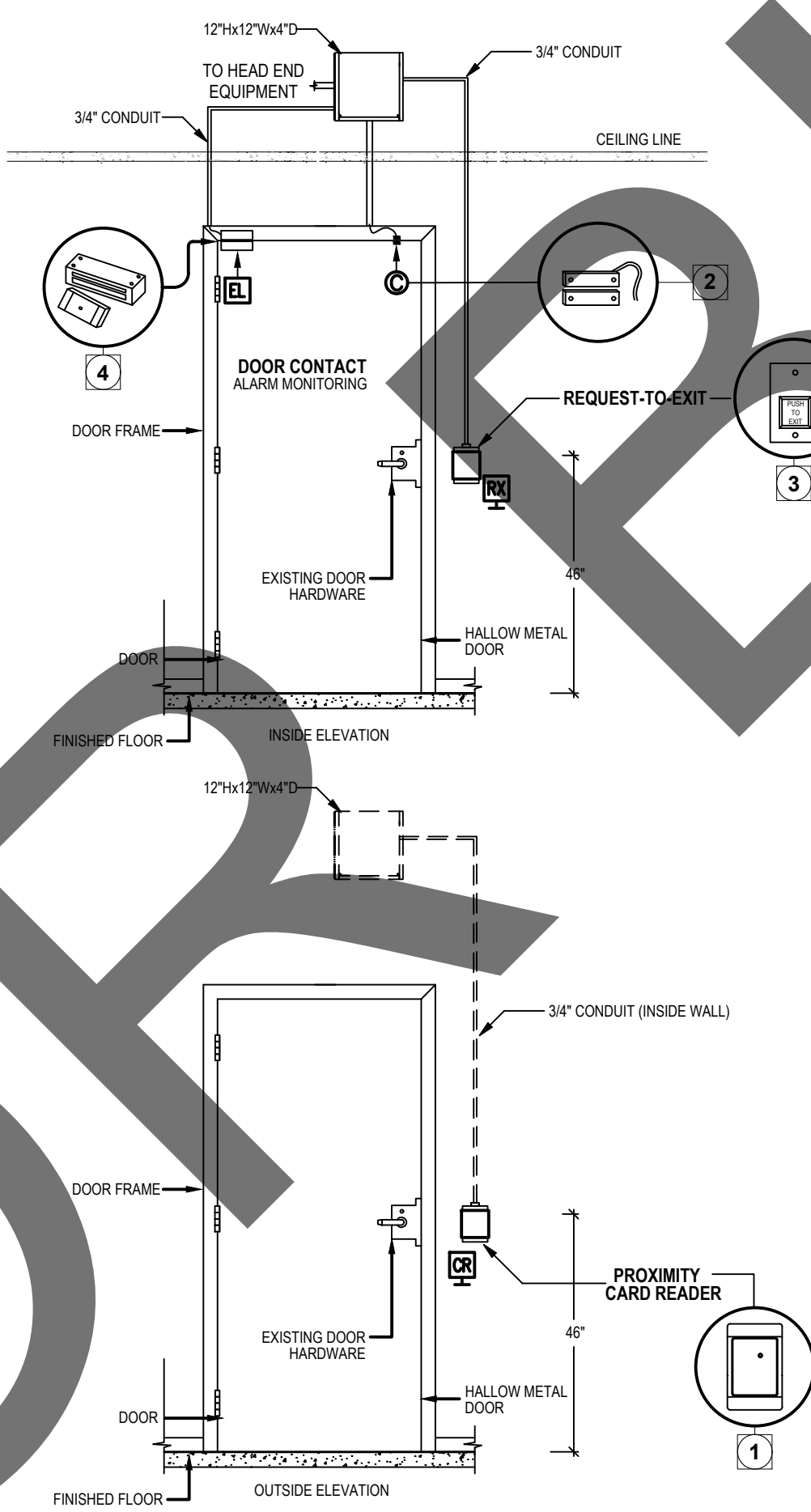
ENLARGED DEMOLITION POWER PLAN-ISD DATA CENTER

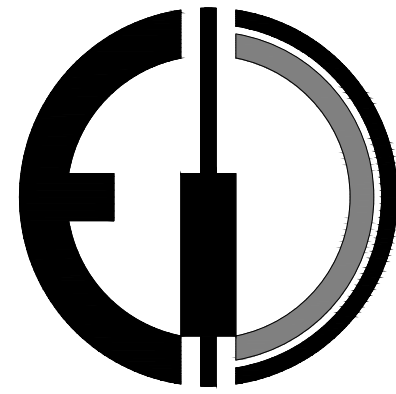
SCALE: 1/8" = 1'-0"

1

100% CONSTRUCTION SET

R:\PROJECT\2021\21-1-63 RADIO SITE SECURITY UPGRADE\21-1-63 E-DETAIL - 2021-12-20 - SAMUEL VELA

							
-	9	SURFACE MOUNTED ACCESS PANEL - WOOD	4				
							
-	10	CONDUIT THROUGH WALL	5				
							
-	11	CONDUIT BURIAL	6				
							
		SURFACE MOUNTED ACCESS PANEL - CMU	3				
							
		EXTERIOR WALL MOUNTED CAMERA	2				
							
		ACCESS CONTROL TYPICAL DOOR					
		<table><tr><th colspan="2">DEVICE SCHEDULE</th></tr><tr><td>1</td><td>PROXIMITY CARD READER SURFACE MOUNTED TO A 4S AT 42\" data-bbox="883 91 989 198"/></td></tr></table>		DEVICE SCHEDULE		1	PROXIMITY CARD READER SURFACE MOUNTED TO A 4S AT 42\" data-bbox="883 91 989 198"/>
DEVICE SCHEDULE							
1	PROXIMITY CARD READER SURFACE MOUNTED TO A 4S AT 42\" data-bbox="883 91 989 198"/>						



ISSUE DATE:

11/03/21 SV 100% CONSTRUCTION SET

DATE BY ISSUE FOR

REVISION:

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CONSULTANT

PROJECT TITLE

PROJECT FOR:

COUNTY OF SAN BERNARDINO
RADIO SITE SECURITY UPGRADES
VARIOUS LOCATIONS

STAMP



SHEET TITLE

ELECTRICAL DETAILS

DESIGNED BY	EW	SHEET NO.
DRAWN BY	EW	E2.1
CHECKED BY	LM	
DATE	09/07/21	
SCALE	AS NOTED	
JOB NO.	21-163	

NOTES:

- 1. DO NOT SCALE DRAWINGS. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE JOB SITE PRIOR TO BIDDING AND START OF CONSTRUCTION. IF DISCREPANCIES ARE FOUND, NOTIFY DESIGNER IMMEDIATELY FOR CLARIFICATIONS
- 2. CONTRACTOR TO VERIFY SIZES OF MAGNETIC LOCKS AND ACCESSORIES WITH BOLTS TYPES AND SIZES PER MANUFACTURER SPECIFICATIONS
- 3. SUBSTITUTIONS FOR SPECIFIED MATERIALS REQUIRE THE APPROVAL OF THE DESIGNER
- 4. DESIGNER SHALL BE NOTIFIED IMMEDIATELY OF THE UNAVAILABILITY OF SPECIFIED MATERIALS OR EQUIPMENT WHICH WILL DELAY THE SCHEDULED CONSTRUCTION COMPLETION DATE
- 5. ALL CONTRACTORS SHALL MAINTAIN THE PREMISES CLEAN AND FREE FROM ALL TRASH AND DEBRIS. THE FIXTURES, EQUIPMENT GLAZING, FLOORS, ETC. SHALL BE LEFT CLEAN AND READY FOR EITHER THE NEXT TRADE OR OCCUPANCY
- 6. ANY WORK INSTALLED IN CONFLICT WITH THE CONSTRUCTION DRAWINGS, WITHOUT THE PRIOR APPROVAL OF THE OWNER, SHALL BE CORRECTED BY THE CONTRACTOR AT HIS EXPENSE
- 7. EXISTING DOOR HARDWARE, INCLUDING BUT NOT LIMITED TO, LEVER HANDLES, PULL HANDLES, LATCHSETS, LOCKSETS, COVER PLATES, LOCKS, ARE TO REMAIN IN PLACE

SCOPE OF WORK:

INSTALLATION OF NEW ELECTROMAGNETIC LOCKS & HARDWARE FOR VARIOUS RADIO TOWER SITES

REVISIONS	
10-27-21	
11-02-21	
12-17-21	

T1314

BONALDO DESIGN GROUP
TENANT IMPROVEMENT PLANS
10700 JERSEY BLVD., SUITE 700
RANCHO CUCAMONGA, CA. 91730
PH. (909) 945-8437

PROJECT:

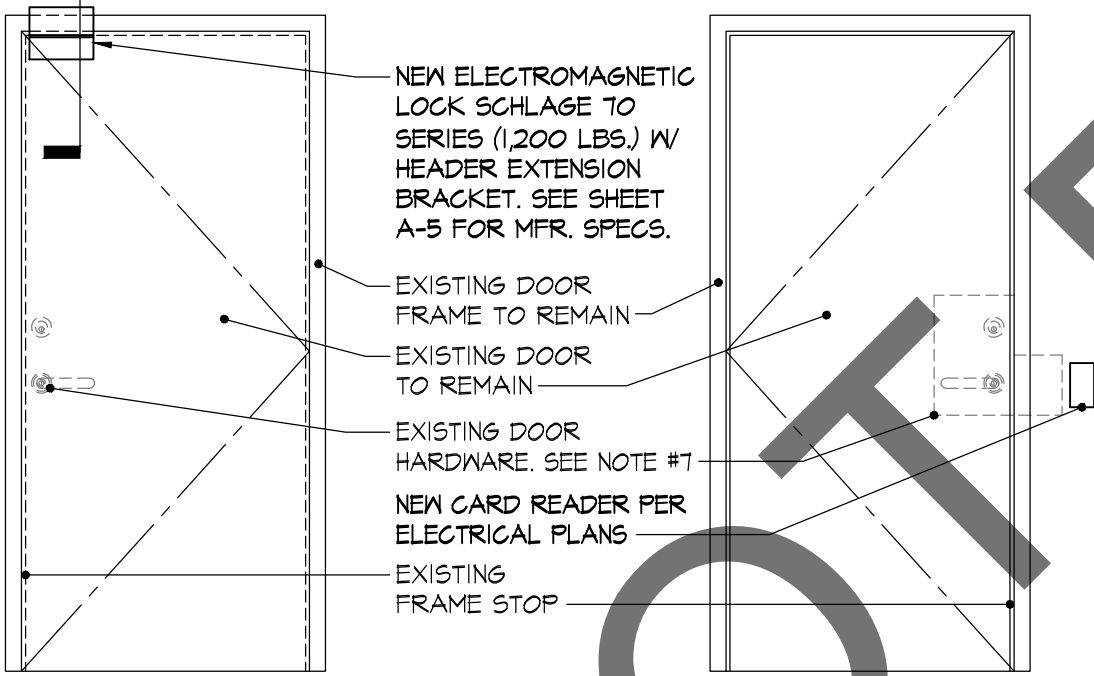
**ISD RADIO SECURITY
UPGRADE**
10.10.1024

DATE:
8/16/21

SCALE:
AS NOTED

A-1

- 5b
A-4
- 4b
A-3
- 3b
A-3
- 2b
A-2
- 1b
A-2

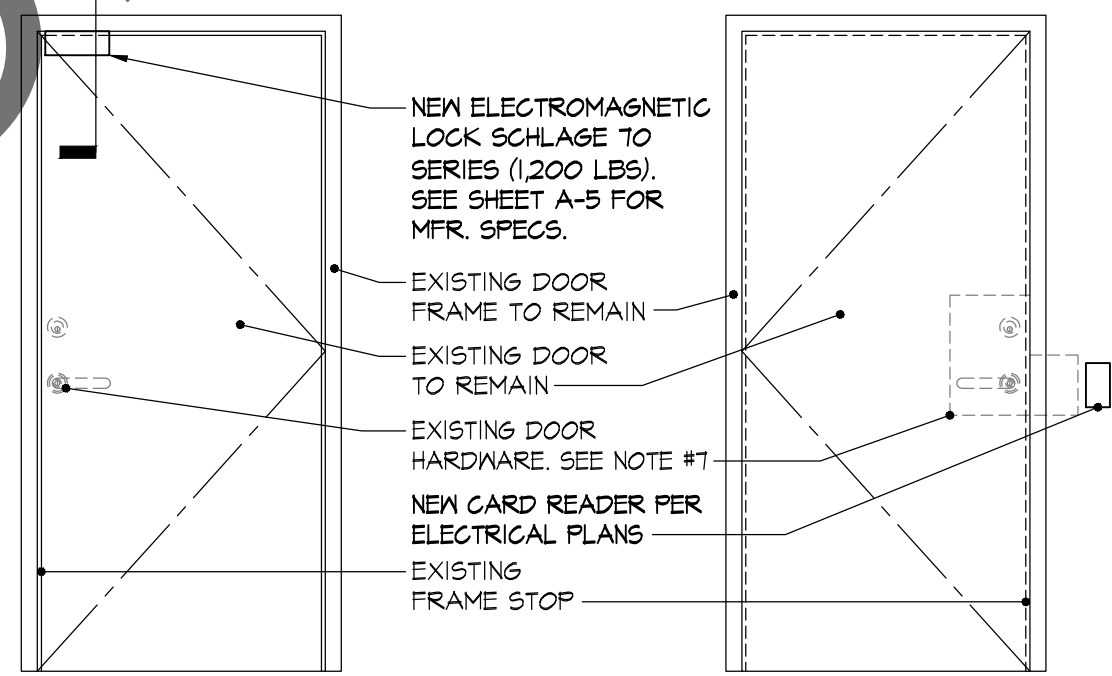


INSIDE VIEW

OUTSIDE VIEW

INSWING DOOR

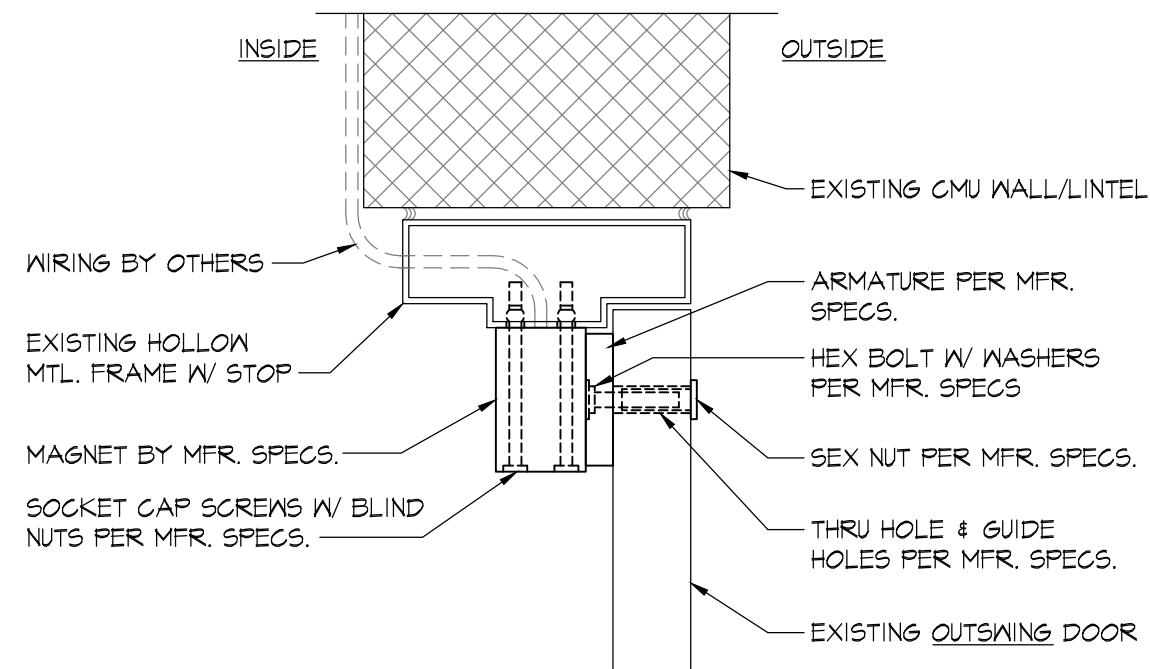
- 5a
A-4
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- 3a
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- 2a
A-2
- 1a
A-2



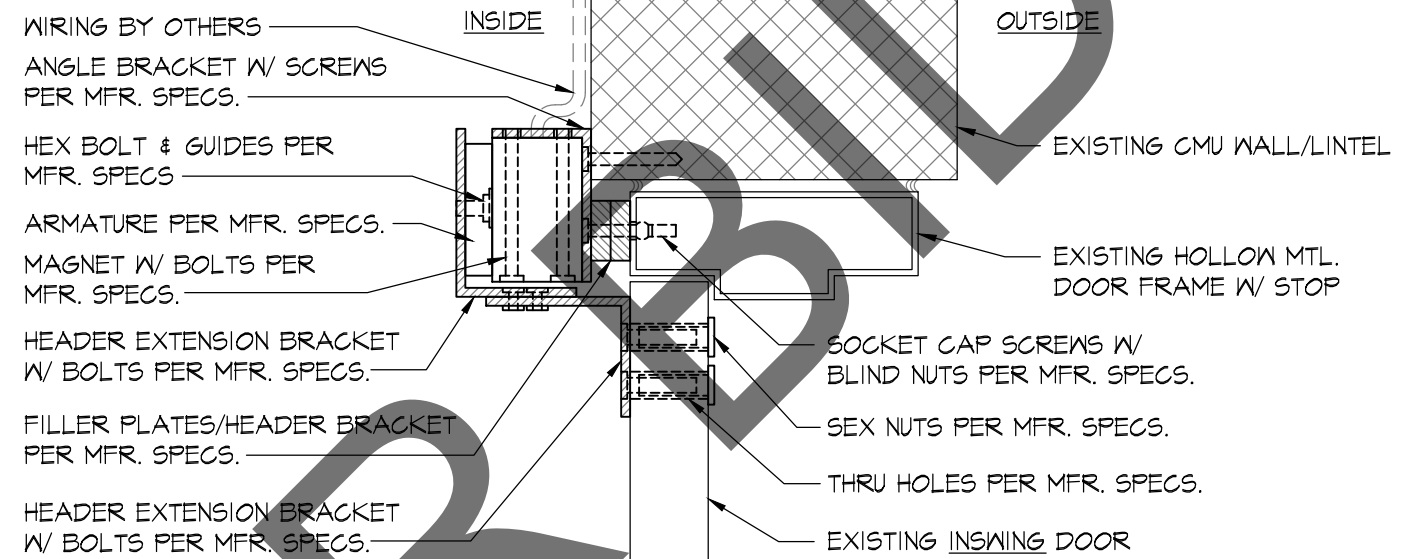
INSIDE VIEW

OUTSIDE VIEW

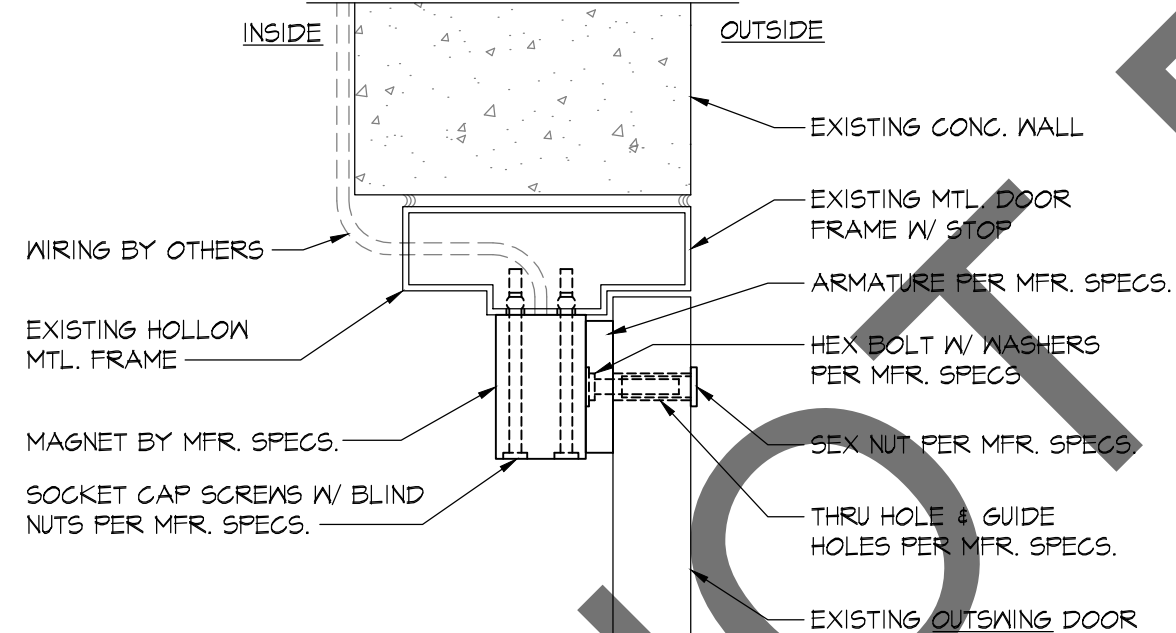
OUTSWING DOOR



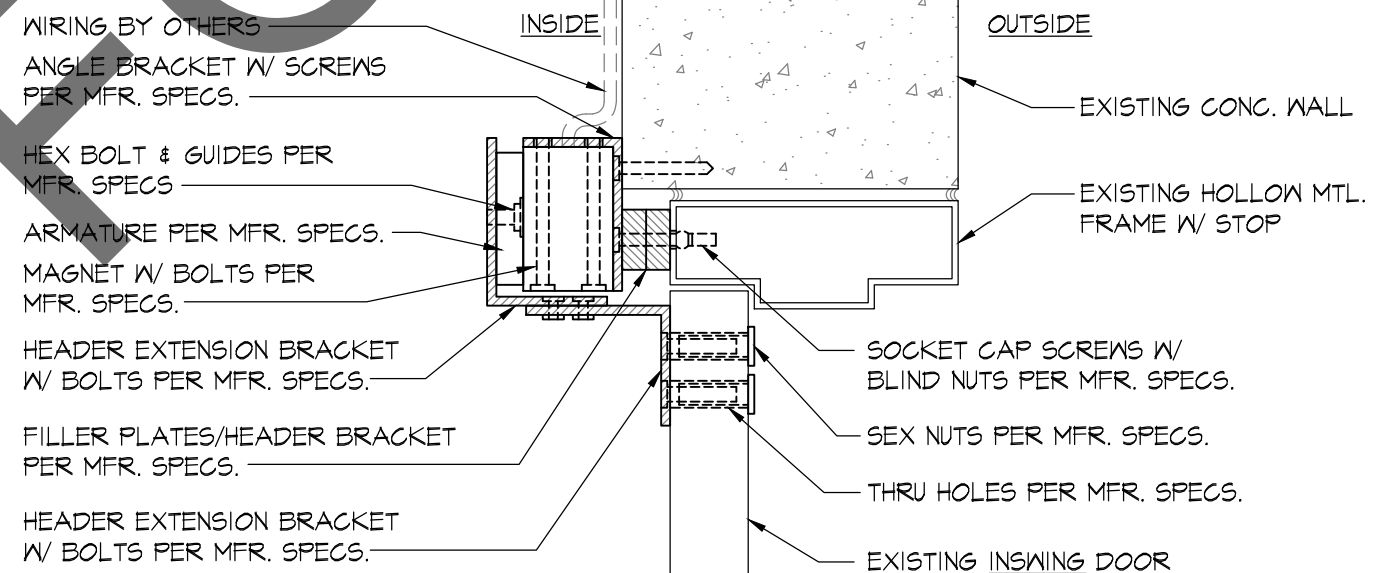
1a **OUTSWING DOOR**
METAL DOOR ON CMU WALL



1b **INSWING DOOR**
METAL DOOR ON CMU WALL



2a **OUTSWING DOOR**
METAL DOOR ON CONC. WALL



2b **INSWING DOOR**
METAL DOOR ON CONC. WALL

ELECTROMAGNETIC LOCK DETAILS

SCALE
3" = 1'-0"

REVISIONS	
10-27-21	
11-02-21	
12-17-21	

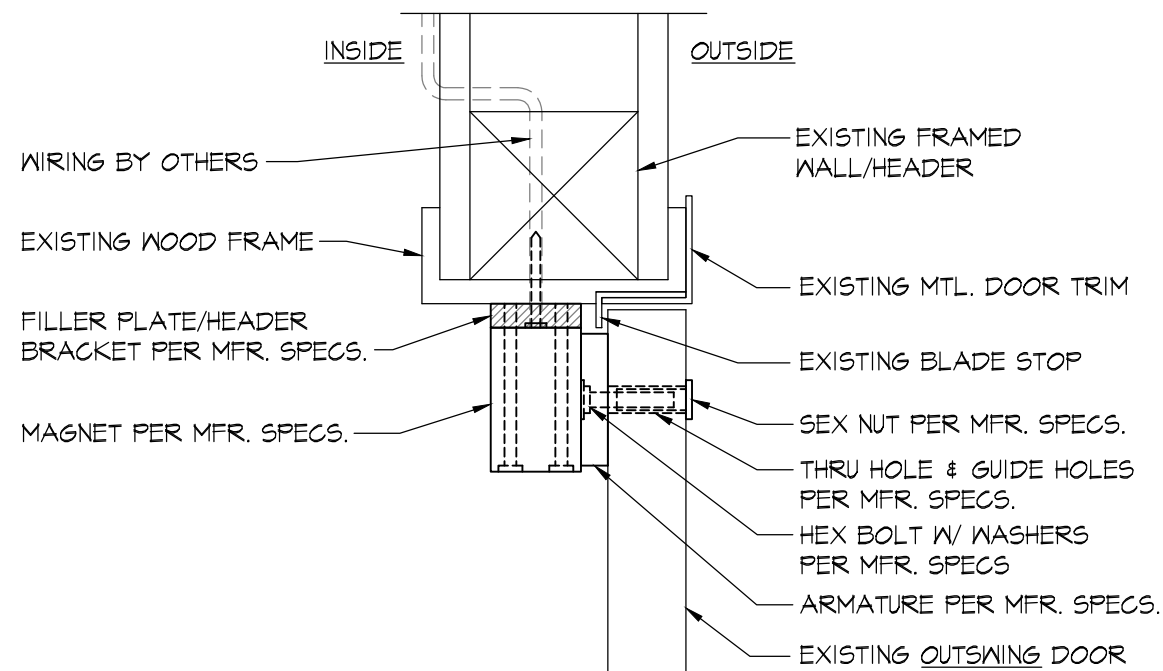
TB14

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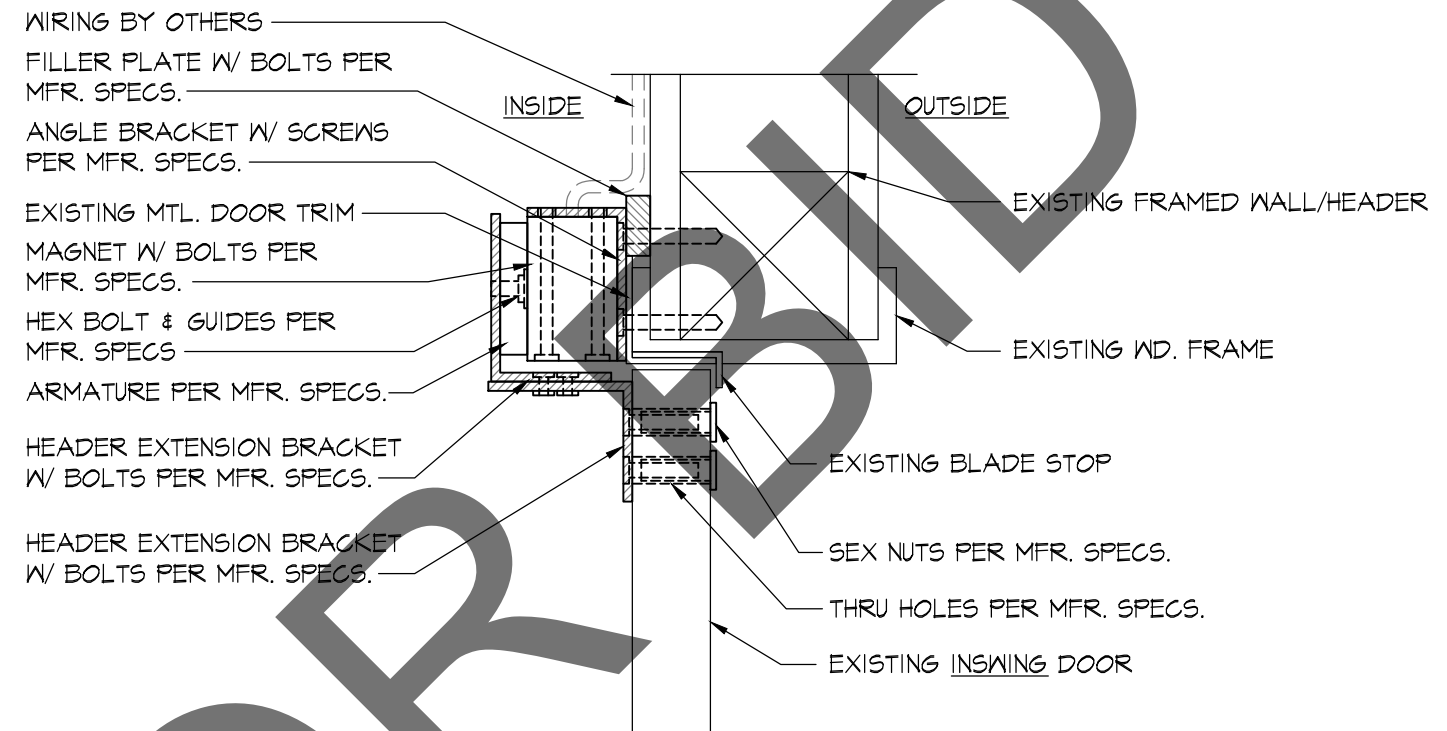
PROJECT: **ISD RADIO SECURITY UPGRADE**
10.10.1024

DATE: 8/16/21
SCALE: AS NOTED

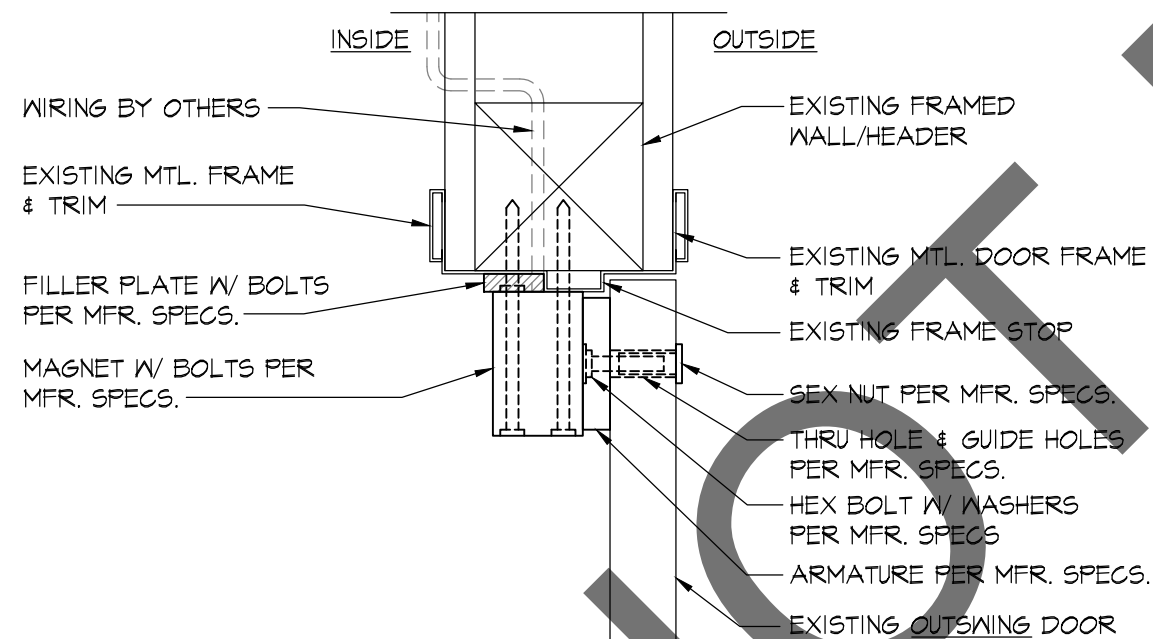
A-2



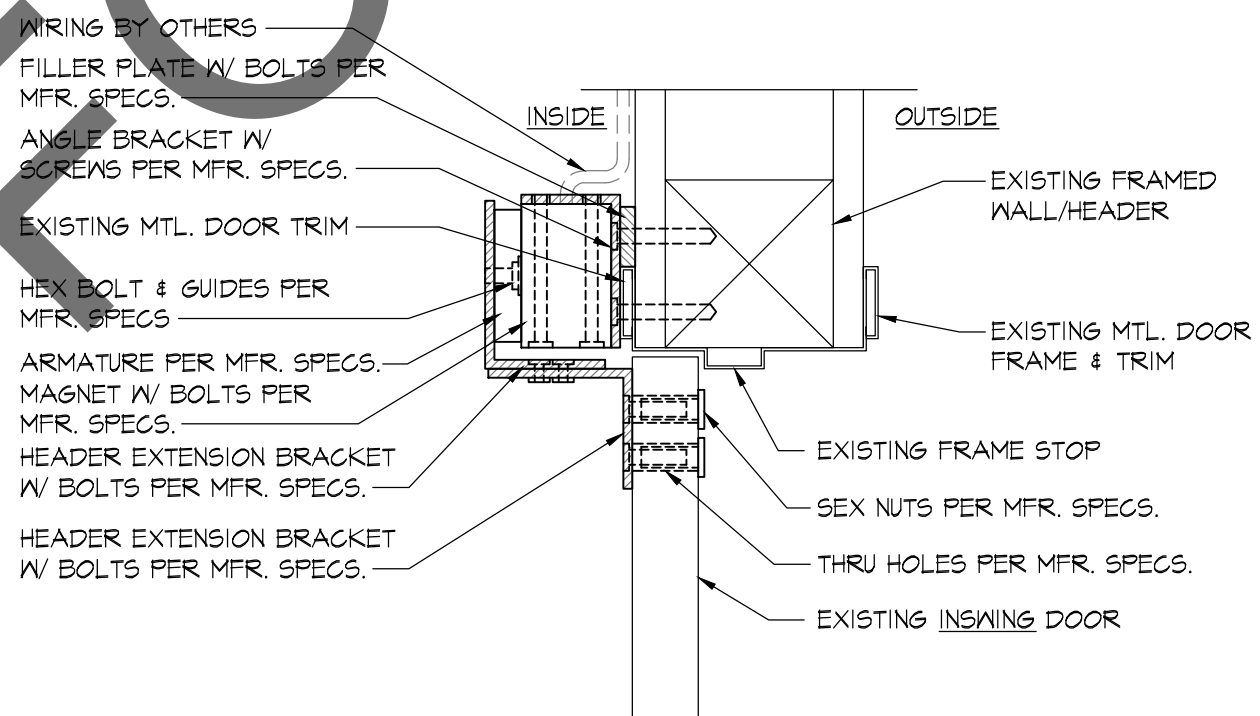
3a **OUTSWING DOOR**
METAL DOOR ON WD. FRMG.



3b **INSWING DOOR**
METAL DOOR ON WD. FRMG.



4a **OUTSWING DOOR**
WOOD DOOR ON FRAMED WALL



4b **INSWING DOOR**
WOOD DOOR ON FRAMED WALL

ELECTROMAGNETIC LOCK DETAILS

SCALE
3" = 1'-0"

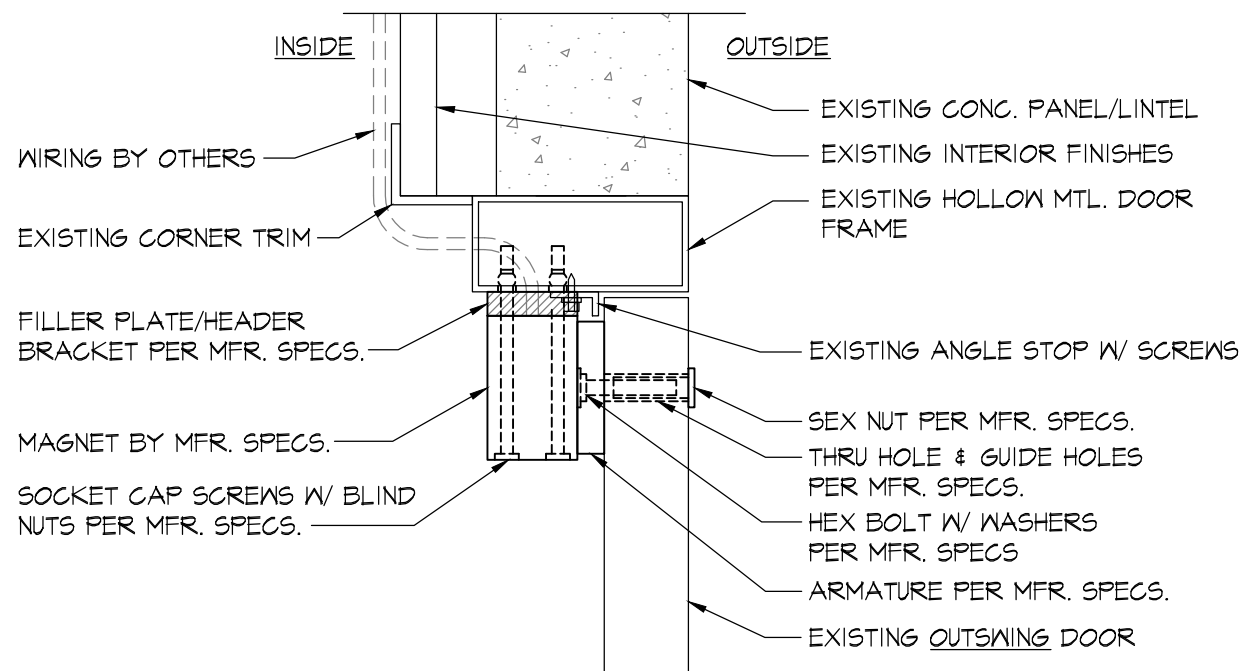
REVISIONS
10-27-21
11-02-21
12-17-21

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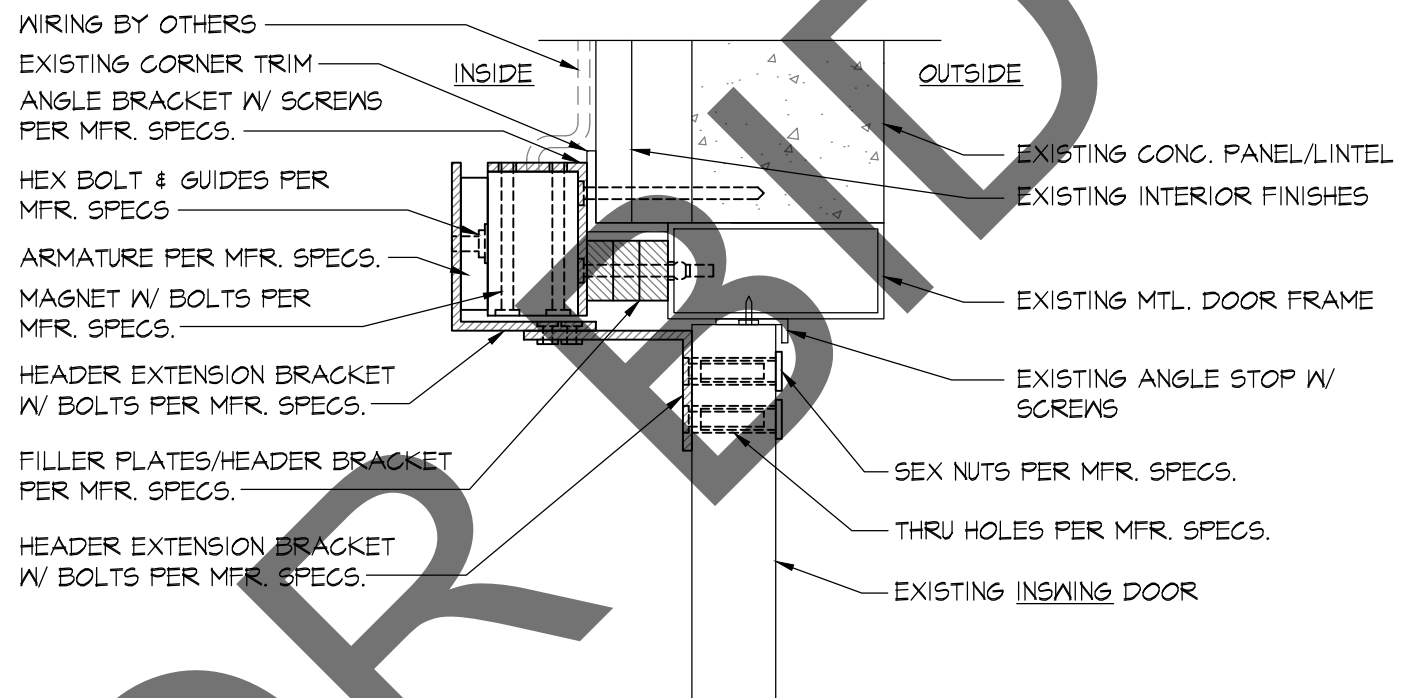
PROJECT:
ISD RADIO SECURITY
UPGRADE
10.10.1024

DATE:
8/16/21
SCALE:
AS NOTED

A-3



5a **OUTSWING DOOR**
METAL DOOR ON CONC. PANEL
W/ INTERIOR FINISHES



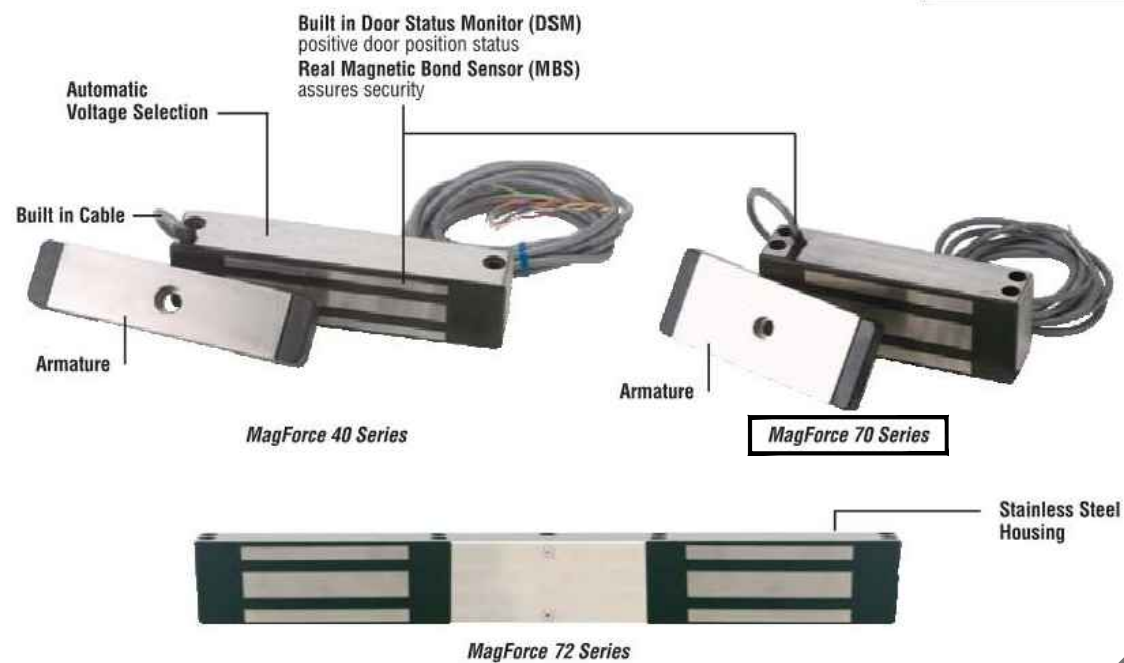
5b **INSWING DOOR**
METAL DOOR ON CONC. PANEL
W/ INTERIOR FINISHES



MagForce™ 40 and 70 Series Electromagnetic Locks

The Full Featured Solution

MagForce™
LIFETIME WARRANTY



Schlage Locknetics introduces the integrator's answer to retrofit needs for electromagnetics locks. These "Full Featured" electromagnetic locks are easy to stock, easy to select and easy to install. With common templating and standard features, the MagForce line for retrofit makes sense for virtually every application.

Benefits of Using 40 and 70 Series Electromagnetic Locks

- Stainless steel housing - standard
- Low amp draw -
 - 70 Series - .12A @ 24 VDC, 25A @ 12 VDC
 - 40 Series - .15A @ 24 VDC, 32A @ 12 VDC
- Simplified armature installation
- Strong holding forces:
 - 70 Series - 1200 lbs.
 - 40 Series - 600 lbs.
- Universal Header Bracket (UHB)
- Double magnet available with 70 series
- UL 10C - 1 Hour Fire Rated



Questions? Call: 866-322-1237 • FAX: 866-322-1233 • Visit us on the Internet at www.schlage.com
Schlage - Electronic Security • 575 Birch Street • Forestville, CT 06010



G19



MagForce™ 40 and 70 Series Electromagnetic Locks

The Full Featured Solution

How To Order MagForce 40 and 70 Series

Select Model
Select Accessories
Select Finish

70 - HDB70 - 335

1. Select Model

40	Single Lock
70	Single Lock
72	Double Lock

2. Select Accessories

70 Series	40 Series	
HDB70	HDB40	Herculite Door Bracket
UHB		Universal Header Bracket
HEB		Header Extension Bracket
CWB70	CWB40	Concrete/Wood Bracket
ASB70	ASB40	Aluminum Spacer Brackets
DC70	DC40	Dress Cover
OSA		1/4" offset Armature Strike

3. Select Finish (accessories only)

628	US28	Satin Aluminum, Anodized (standard)
605	US3	Bright Brass (Dress Cover Only)
335	US19	Satin Black, Anodized

40 Dress Cover



70 Dress Cover



Filler Plates

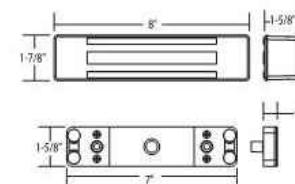
Filler Plates Available in 628 Satin Aluminum or 335 Satin Black Finishes

- 1-1/4" x 1/8"
- 1-1/4" x 1/4"
- 1-1/4" x 3/8"
- 1-1/4" x 1/2"
- 1-1/4" x 5/8"



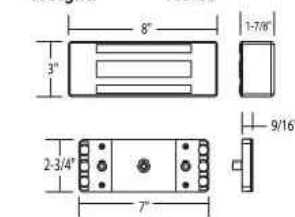
40 Specifications:

Holding Force: 600 lbs.
Input Voltage: 12/24 VDC
Current Draw: .32A@12VDC
.15A@24VDC
Length: 8"
Height: 1 7/8"
Depth: 1 1/8"
Weight: 3.5lbs



70 Specifications:

Holding Force: 1200 lbs.
Input Voltage: 12/24 VDC
Current Draw: .25A@12VDC
.12A@24VDC
Length: 8"
Height: 3"
Depth: 1 7/8"
Weight: 7.5lbs



72 Specifications:

Holding Force: 1200 lbs.
per door leaf
Input Voltage: 12/24 VDC
Current Draw: .50A@12VDC
.25A@24VDC
Length: 22"
Height: 3"
Depth: 1 7/8"
Weight: 15lbs



G20

Questions? Call: 866-322-1237 • FAX: 866-322-1233 • Visit us on the Internet at www.schlage.com
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REVISIONS
10-27-21
11-02-21
12-17-21
T1314

BONALDO DESIGN GROUP
TENANT IMPROVEMENT PLANS
10700 JERSEY BLVD., SUITE 700
RANCHO CUCAMONGA, CA. 91730
PH. (909) 945-8437

PROJECT:
ISD RADIO SECURITY
UPGRADE
10.10.1024

DATE:
8/16/21
SCALE:
AS NOTED

A-5

ELECTROMAGNETIC LOCK SCHLAGE SERIES 70 MFR. SPECS.

SCALE