SECURITY SYSTEMS SYMBOLS					
SECURIT STSTEINS STINDULS					
	DETAIL REFERENCE	REFER TO REFERENCED DEVICE DESCRIPTION FOR ADDITIONAL REQUIREMENTS.			
L:XX #CA1 X'-Y"	N/A	CAMERA TAG INDICATES CAMERA ID# ("L:XX"), CAMERA TYPE AND MOUNTING HEIGHT. REFER TO CAMERA SCHEDULE FOR ADDITIONAL INFORMATION AND DETAIL REFERENCES.			
L:XX	S.01	FIXED (INTERIOR) SECURITY CAMERA. (REF: CAMERA SCHEDULES)			
L:XX	S.01	PTZ (INTERIOR) SECURITY CAMERA. (REF: CAMERA SCHEDULES)			
L:XX	S.01	FIXED (EXTERIOR) SECURITY CAMERA. (REF: CAMERA SCHEDULES)			
L:XX	S.01	PTZ (EXTERIOR) SECURITY CAMERA. (REF: CAMERA SCHEDULES)			
CXXX	S.03	CONTROLLED DOORWAY: REFER TO ACCESS CONTROL DOOR SCHEDULE. ("XXX" = ARCHITECTURAL DOOR NUMBER)			
MXXX	S.03	MONITORED ONLY DOORWAY: REFER TO ACCESS CONTROL DOOR SCHEDULE. ("XXX" = ARCHITECTURAL DOOR NUMBER)			
R	S.03	PROXIMITY CARD READER MOUNTED AT 48"AFF.			
К	S.03	KEYPAD / CARD READER MOUNTED AT 48"AFF.			
GENERAL	NOTES:				
	O DETAILS AS NFORMATION.	INDICATED ABOVE FOR ADDITIONAL RACEWAY, CABLING AND/OR			
(DATA) R SCHEDU	EQUIREMENTS	ATION SYSTEM SYMBOLS" LEGEND FOR STRUCTURED CABLING S FOR IP-ENABLED DEVICES. SECURITY DETAILS AND/OR ACEWAY REQUIREMENTS, INCLUDING BUT NOT LIMITED TO BACK- TING CONDITION AND HEIGHT.			
PATHWA	<u>(REQUIREI</u>	MENTS:			
CEILING CABLE R ROOM, U ACCROS	SPACE. PROVI UN TO NEARES INLESS NOTED S NON-ACCES	JTE AND TERMINATE CONDUIT WITHIN NEAREST ACCESSIBLE DE DEDIATED J-HOOKS AT 48-INCHES ON CENTER FOR REMAINING ST CABLE TRAY (AS APPLICABLE) OR SECURITY ROOM / TELECOM OTHERWISE. PROVIDE CONDUIT PATHWAY THROUGH WALLS AND SIBLE OR EXPOSED CEILING AREAS TO ENSURE UNOBSTRUCTED ENTIRE CABLE RUN.			

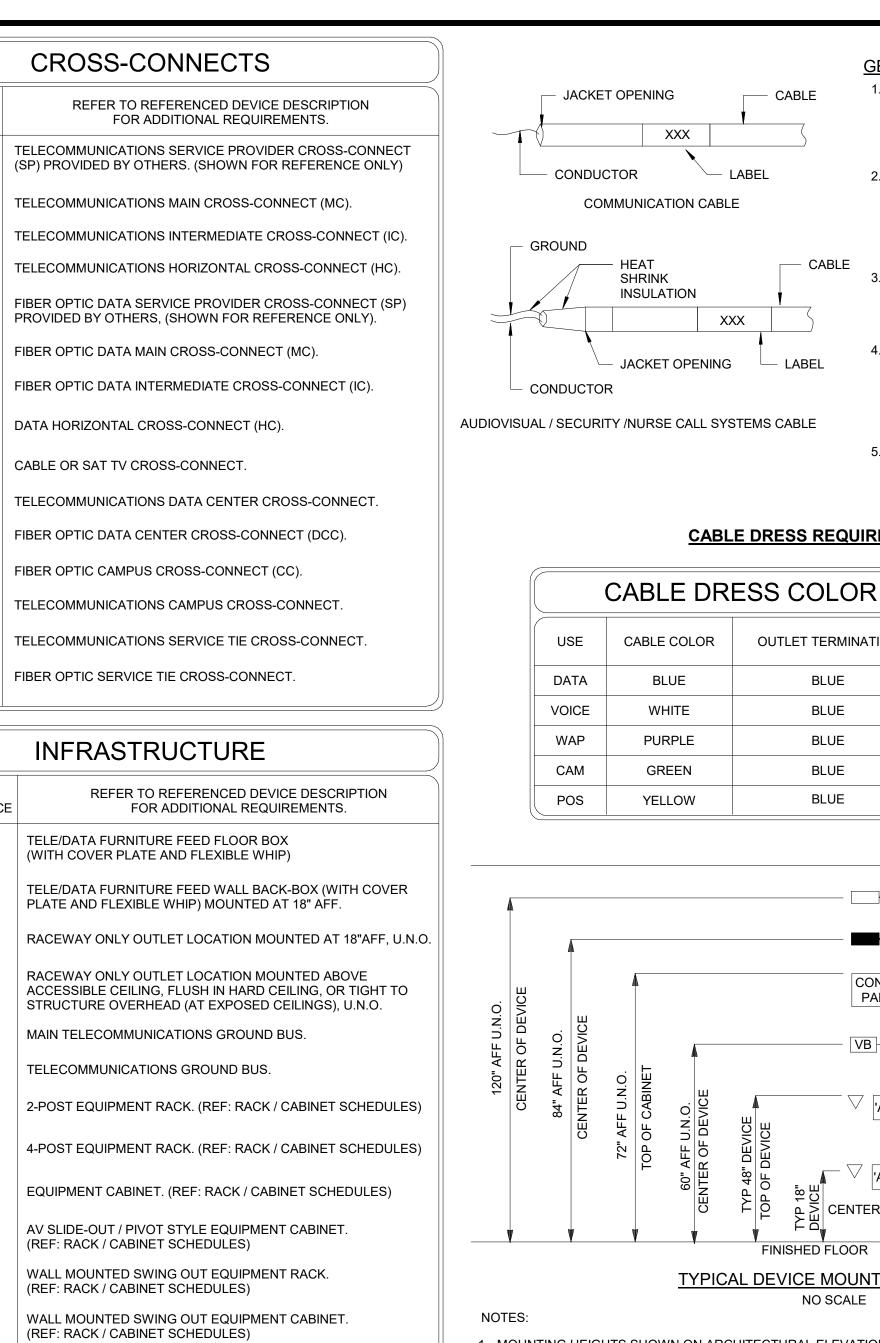
"WP" \$\abla_{E/#} \$\abla_{W}\$	N/A E.01	WEATHER-PROOF DEVICE COVER (TYPICAL FOR ALL DEVICES INDICATED WITH "WP"). TELE/DATA OUTLET(S) FOR ELEVATOR CAB DEVICES (PHONE,
	E.01	TELE/DATA OUTLET(S) FOR ELEVATOR CAB DEVICES (PHONE,
$\nabla_{\!\!W}$		CAMERA, VIDEO DISPLAY, ETC.). COORDINATE MOUNTING HEIGHT WITH ELEVATOR INTERFACE PANEL. (# = PORT QUANTITY, NO /# = 1-PORT)
	C.01 / R.01	TELE/DATA OUTLET FOR PHONE, WALL MOUNTED AT 48"AFF.
$\nabla_{\!\!\!\#}$	C.02 / R.01	DATA OUTLET WALL MOUNTED AT 18"AFF U.N.O. (# = PORT QUANTITY, NO /# = 1-PORT)
₩#	C.02 / R.01	DATA OUTLET WALL MOUNTED ABOVE COUNTER AT 8" ABOVE COUNTER OR MAXIMUM OF 44" AFF, U.N.O. (# = PORT QUANTITY, NO /# = 1-PORT)
-∲#	C.02 / R.01	DATA OUTLET MOUNTED ABOVE ACCESSIBLE CEILING,FLUSH IN HARD CEILING, OR TIGHT TO STRUCTURE OVERHEAD (AT EXPOSED CEILING), U.N.O. (# = PORT QUANTITY, NO / # = 1-PORT)
$\nabla_{\!$	C.06 / R.04	DATA OUTLET MOUNTED IN MODULAR FURNITURE. (# = PORT QUANTITY, NO / # = 1-PORT)
$ abla_{POS/\#}$	C.02 / R.01	POINT-OF-SALE (POS) DATA OUTLET WALL MOUNTED AT 18" AFF U.N.O. (# = PORT QUANTITY, NO /# = 1-PORT)
$ abla_{\text{TC/#}}$	C.02 / R.01	TIME-CLOCK (TC) DATA OUTLET WALL MOUNTED AT 44" AFF U.N.O. (# = PORT QUANTITY, NO /# = 1-PORT)
-\$ 	C.05 / R.02	DATA OUTLET FOR TV / VIDEO DISPLAY CEILING MOUNTED WITHIN SHARED BACK-BOX. (# = PORT QUANTITY, NO /# = 1-PORT)
▼ TV/#	C.05 / R.02	DATA / COAX OUTLET FOR TV / VIDEO DISPLAY WALL MOUNTED WITHIN SHARED BACK-BOX.
-\$\vec{P}_{TV}	C.05 / R.02	DATA / COAX OUTLET FOR TV / VIDEO DISPLAY CEILING MOUNTED WITHIN SHARED BACK-BOX.
$\nabla_{WLAN/\#}$	C.04 / R.01	WIRELESS LAN DATA OUTLET WALL MOUNTED AT 10'-0" AFF, U.N.O. (# = PORT QUANTITY, NO /# = 1-PORT)
₩LAN/#	C.04 / R.01	WIRELESS LAN OUTLET MOUNTED ABOVE ACCESSIBLE CEILING, FLUSH IN HARD CEILING, OR TIGHT TO STRUCTURE OVERHEAD (AT EXPOSED CEILINGS), U.N.O. (# = PORT QUANTITY, NO / # = 1-PORT)
VLAN-E/# ∇∕-\$-	W.01 / W.02	WIRELESS LAN DATA OUTLET MOUNTED WITHIN NEMA ENCLOSURE MOUNTED TO WALL OR STRUCTURE. (# = PORT QUANTITY, NO /# = 1-PORT)
$\nabla_{\!\!CAM}$	C.03 / S.02	DATA OUTLET FOR IP-BASED SECURITY CAMERA WALL OR POLE MOUNTED WITHIN SECURITY CAMERA BACK-BOX.
- CAM	C.03 / S.02	DATA OUTLET FOR IP-BASED SECURITY CAMERA CEILING MOUNTED WITHIN SECURITY CAMERA BACK-BOX.
VVU	C.05 / R.05	DATA OUTLET MOUNTED IN SURFACE RACEWAY. (# = PORT QUANTITY, NO /# = 1-PORT)
$igodol_{\#}$	C.05 / R.03	DATA OUTLET MOUNTED WITHIN POWER / DATA FLOORBOX (# = PORT QUANTITY, NO /# = 1-PORT)
Ø _{AV/#}	C.05 / R.03	DATA OUTLET MOUNTED WITHIN POWER / DATA / AV FLOORBOX (# = PORT QUANTITY, NO /# = 1-PORT)
₩ _{AV/#}	C.14	MULTI-PORT DATA DEVICE TERMINATED ON PATCH PANEL MOUNTED IN AV ENCLOSURE. (# = PORT QUANTITY, NO / # = 1-PORT
	NOTES:	
	O DETAILS AS NFORMATION.	INDICATED ABOVE FOR ADDITIONAL RACEWAY, CABLING AND/OR
REQUIRE SPECIAL	EMENTS SPECI	TEMS DRAWINGS (AV, SECURITY, ETC.) FOR BACK-BOX FIC TO EACH DEVICE TYPE. SELECT DEVICES MAY REQUIRE X TYPES, SIZES AND MOUNTING CONDITIONS AS DEPICTED IN VINGS.
		P CABLE TERMINATED (PER EIA/TIA-T568B) ON CAT.6 OUTLETS S FOR ALL TELE/DATA DEVICES, U.N.O.
I. RG-6 CO	AXIAL CABLE T	ERMINATED WITH F-TYPE CONNECTORS FOR COAXIAL DEVICES.
		MENTS: JTE AND TERMINATE CONDUIT WITHIN NEAREST ACCESSIBLE

		CF
	DETAIL REFERENCE	
K _{sp}	N/A	TELECO (SP) PR
Кмс	C.12	TELECO
Кıс	C.12	TELECO
Кнс	C.12	TELECO
Ø SP	C.11	FIBER (PROVIE
Кмс	C.11	FIBER (
Кıс	C.11	FIBER (
Ҟнс	C.13	DATA H
К тν	N/A	CABLE
Крсс	C.12	TELECO
Косс	C.11	FIBER (
🗙 cc	C.11	FIBER (
Ќсс	C.12	TELECO
Ќsт	C.12	TELECO
🛠 ѕт	C.11	FIBER (

		INFRA3
	DETAIL REFERENCE	REFEF
Ø	R.03	TELE/DATA FURI (WITH COVER PL
$\overline{\nabla}$	R.04	TELE/DATA FURI PLATE AND FLE>
\forall	R.01	RACEWAY ONLY
-\$-	R.01	RACEWAY ONLY ACCESSIBLE CE STRUCTURE OV
TMGB	G.01	MAIN TELECOM
TGB	G.02	TELECOMMUNIC
	N/A	2-POST EQUIPMI
	N/A	4-POST EQUIPMI
	N/A	EQUIPMENT CAE
AV	N/A	AV SLIDE-OUT / F (REF: RACK / CAI
	N/A	WALL MOUNTED (REF: RACK / CA
	N/A	WALL MOUNTED (REF: RACK / CAI
►_7 ∠_1	N/A	EQUIPMENT RAC SHOWN FOR RE
MH	U.02	COMMUNICATIO
НН	U.03	COMMUNICATIO

1. J-HOOK PATHWAY: ROUTE AND TERMINATE CONDUIT WITHIN NEAREST ACCESSIBLE CEILING SPACE. PROVIDE DEDICATED J-HOOKS AT 48-INCHES ON CENTER FOR REMAINING CABLE RUN TO NEAREST CABLE TRAY (AS APPLICABLE) OR TELECOM ROOM / HORIZONTAL CROSS-CONNECT LOCATION, UNLESS NOTED OTHERWISE. PROVIDE CONDUIT PATHWAY

THROUGH WALLS AND ACROSS NON-ACCESSIBLE OR EXPOSED CEILING AREAS TO ENSURE UNOBSTRUCTED CABLE PATHWAY FOR ENTIRE CABLE RUN.

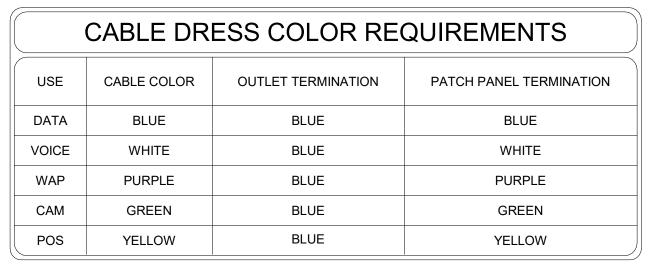


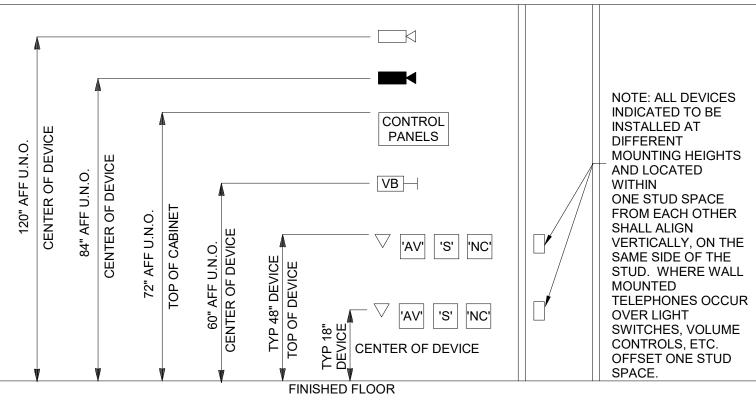
GENERAL NOTES:

- 1. CABLES: ALL SYSTEM CABLES OUTSIDE OF CONDUIT SHALL BE SUPPORTED WITHIN CEILING SPACES, UNDER FLOORS SPACES, ALONG WALLS, AND WITHIN EQUIPMENT RACKS PER SPECIFICATIONS.
- 2. CABLE DRESSING: ALL CABLES SHALL BE INSTALLED PER INFORMATION SHOWN HERE AND WITHIN SPECIFICATIONS. ALL CABLE NOT MEETING REQUIREMENTS HEREIN WILL BE REDRESSED AND / OR REPLACED AS NECESSARY.
- 3. LABELS: PROVIDE THERMAL TRANSFER / SELF-LAMINATING TYPE LABELS LOCATED ~2 INCHES FROM EACH END OF TERMINATED CABLE. HAND WRITTEN LABELS WILL NOT BE ACCEPTED.
- 4. HEAT SHRINK: PROVIDE HEAT SHRINK AT EACH EACH END OF TERMINATED CABLE FOR ALL AUDIOVISUAL / SECURITY / NURSE CALL CABLES. TAPE (ELECTRICAL OR OTHERWISE) UTILIZED IN PLACE OF HEAT SHRINK SHALL NOT BE ACCEPTED.
- 5. GROUND CONDUCTOR: PROVIDE CLEAR HEAT SHINK FOR ALL TERMINATED GROUND CONDUCTORS. FOR ALL UN-TERMINATED GROUND CONDUCTORS, CUT BACK TO JACKET OPENING AND COVER WITH HEAT SHRINK.

CABLE DRESS REQUIREMENTS

- CABLE





TYPICAL DEVICE MOUNTING HEIGHTS

1. MOUNTING HEIGHTS SHOWN ON ARCHITECTURAL ELEVATIONS SHALL GOVERN OVER THOSE SHOWN ABOVE

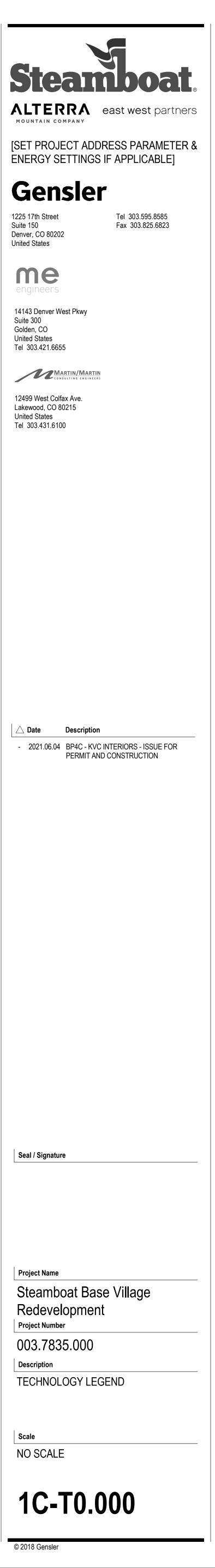
2. CONTRACTOR SHALL ENSURE THAT ALL MOUNTING HEIGHTS COMPLY WITH CURRENT ADA REQUIREMENTS.

- 3. ALL ABOVE COUNTER DEVICES SHALL BE MOUNTED 8" ABOVE COUNTER OR A MAXIMUM OF 44" AFF (TO TOP OF DEVICE). VERIFY HEIGHTS WITH ARCHITECT.
- 4. WHERE EVER DEVICES ARE INDICATED TO BE ABOVE DOORS, DEVICE SHALL BE CENTERED BETWEEN TOP OF DOOR TRIM AND CEILING LINE.

UIPMENT RACK OR CABINET PROVIDED BY OTHERS. IOWN FOR REFERENCE TO ALLOCATE FLOOR SPACE.

MMUNICATIONS MANHOLE.

MMUNICATIONS IN-GRADE HAND HOLE / PULL-BOX.



	ABBREVIATIONS		ABBREVIATIONS		ABBREVIATIONS	GENERAL TECH
AC	ALTERNATING CURRENT	GHz	GIGAHERTZ	PA	PUBLIC ADDRESS	1. HEIGHTS SHOWN ARE TYPIC ALL DEVICE OUTLETS SHALL
ADA	AMERICANS WITH DISABILITIES ACT	GMP	GUARANTEED MAXIMUM PRICE	PABX	PRIVATE AUTOMATIC BRANCH EXCHANGE	2. MOUNTING HEIGHTS SHOW
AFF	ABOVE FINISHED FLOOR	GUI	GRAPHICAL USER INTERFACE	PBX	PRIVATE BRANCH EXCHANGE	THOSE SHOWN ABOVE.
AFG	ABOVE FINISHED GRADE	НС	HORIZONTAL CROSS-CONNECT	PCI	PAYMENT CARD INDUSTRY	3. ALL DEVICES INDICATED TO
AHU	AIR HANDLING UNIT	HD	HIGH DEFINITION	PE	POLYETHYLENE	LOCATED WITHIN ONE STUD SAME SIDE OF THE STUD. W
ALD	ASSISTED LISTENING DEVICE	HDMI	HIGH DEFINITION MULTIMEDIA INTERFACE	PH	PHASE	SWITCHES, VOLUME CONTR
ALPETH	ALUMINUM POLYETHYLENE	HVAC	HEATING, VENTILATING, AND AIR-CONDITIONING	POTS	PLAIN OLD TELEPHONE SERVICE	4. ALL EXPOSED RACEWAYS S
ALS	ASSISTED LISTENING SYSTEM	Hz	HERTZ	PR	PAIRS	OR STRUCTURAL MEMBERS AND SHALL BE INSTALLED S
ALT	ALTERNATE	IC	INTERMEDIATE CROSS-CONNECT	PRI	PRIMARY RATE INTERFACE (ISDN)	RACEWAYS SHOULD BE INS RACEWAYS SHALL BE APPR
AMP, A	AMPERE	ID	INSIDE DIAMETER	PSTN	PUBLIC SWITCHED TELEPHONE NETWORK	SHOULD BE ALLOWED FOR
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	IDF	INTERMEDIATE DISTRIBUTION FRAME	PROX	PROXIMITY	5. ALL BACK BOXES SHALL BE
ANT	ANTENNA	IEC	INTERNATIONAL ELECTROTECHNICAL COMMISSION	PTZ	PAN TILT ZOOM CAMERA	SHALL COORDINATE INSTAL MASONRY, AND GYP WALLS
ATSC	ADVANCED TELEVSION SYSTEMS		INSTITUTE OF ELECTRICAL AND	PVC	POLYVINYL CHLORIDE	6. DATA GIVEN ON THE DRAWI
	COMMITTEE (DIGITAL TELEVISION SIGNAL)		ELECTRONICS ENGINEERS, INC.	PWR	POWER	IS NOT GUARANTEED AND T
AUX	AUXILIARY	IF	INTERFACE	RCDD	REGISTERED COMMUNICATIONS	MEASUREMENTS,LEVELS,SF TRADES,ETC. AT THE SITE A
AUDIO	MICROPHONE OR LINE LEVEL BALANCED SIGNAL	IG	ISOLATED GROUND		DISTRIBUTION DESIGNER	CONDITIONS AT THE BUILDIN NOT BE SCALED.HOWEVER
AV	AUDIO VIDEO	IMC	INTERMEDIATE GRADE METALLIC CONDUIT	RF	RADIO FREQUENCY SIGNAL	COORDINATING HIS WORK V REQUIRED BY THE ACTUAL (
AWG	AMERICAN WIRE GAUGE	IP	INTERNET PROTOCOL (ETHERNET)	RGBHV	HIGH RESOLUTION ANALOG VIDEO	SITE BEFORE SUBMITTING A
BAS	BUILDING AUTOMATION SYSTEM	IR	INFRARED SIGNAL	RGS	RIGID GALVANIZED STEEL	CONDITIONS OF THE PROJE
BFC	BELOW FINISHED CEILING	ISDN	INTEGRATED SERVICES DIGITAL NETWORK	RH	RELATIVE HUMIDITY	 COORDINATE AND ADJUST A TO ACCOMPLISH A NEAT, IN
BFG	BELOW FINISHED GRADE	ISO	INTERNATIONAL ORGANIZATION OF STANDARDS	RMC	RIGID METALLIC CONDUIT	NOT LIMITED TO:
BICSI	BUILDING INDUSTRY CONSULTING SERVICES INTERNATIONAL	J-BOX	JUNCTION BOX	RNC	RIGID NON-METALLIC CABLE	
BMS	SERVICES IN FERNATIONAL BUILDING MANAGEMENT SYSTEM	kb	KILOBIT	RS-232	BI-DIRECTIONAL CONTROL DATA STREAM (RS-232/RS-422/RS485)	REFLECTED CEILING PLAI TECHNOLOGY LAN, FIRE F
BRI	BUILDING MANAGEMENT SYSTEM BASIC RATE INTERFACE (ISDN)	kbps	KILOBIT PER SECOND	RX	RECEIVE	B. COORDINATE NECESSAR'
	CONDUIT	kcmil	THOUSANDS OF CIRCULAR MILLS	SMFO	SINGLE-MODE FIBER OPTIC	IS COMPATIBLE WITH THE
CATV	CONDUT	kHz	KILOHERTZ	SMPOE	SECONDARY MAIN POINT OF ENTRY	C. THIS CONTRACTOR SHALL
CC	CONTACT CLOSURE	km	KILOMETER	SMFOL	SERVICE PROVIDER	SHOP DRAWINGS FOR CO CEILING CLEARANCES,CA
CMP	COMMUNICATIONS PLENUM CABLE	kVA	KILOVOLT AMPERES		SPEAKER LEVEL SIGNAL	8. DEFINITIONS:
CMR	COMMUNICATIONS RISER CABLE	kW	KILOWATT	SPL	SOUND PRESSURE LEVEL	A. "FURNISH" MEANS TO "SUPP
CO	CENTRAL OFFICE	kWh	KILOWATT-HOURS	STEREO	A BALANCED 2 CHANNEL AUDIO SIGNAL	B. "INSTALL" MEANS TO "SET IN
COAX	COAXIAL	LAN	LOCAL AREA NETWORK	STI-PA	SPEECH INTELLIGIBILITY INDEX - PUBLIC ADDRESS	
CODEC	CODER / DECODER	LED	LIGHT-EMITTING DIODE	STP	SHIELDED TWISTED PAIR	C. "PROVIDE" MEANS TO "FURM
CSI	CONSTRUCTION SPECIFICATIONS INSTITUTE	LEC	LOCAL EXCHANGE CARRIER (OR SP)	SW	SWITCH	D. "EQUIVALENT"MEANS"MEETS ALL SIGNIFICANT ASPECTS."
DAS	DISTRIBUTED ANTENNA SYSTEM	LFC	LIQUID TIGHT FLEXIBLE CONDUIT	TBB	TELECOMMUNICATIONS BONDING BACKBONE	E. "WORK BY OTHER(S)(CONTR
DAS	DECIBEL	LUMEN	LUMINOUS FLUX (PROJECTOR BRIGHTNESS)	ТСР	TRANSMISSION CONTROL PROTOCOL	WORK TO BE PERFÓRMED L
DC	DIRECT CURRENT	LV	LOW VOLTAGE	TCP/IP	TRANSMISSION CONTROL PROTOCOL	UNDER THE DIVISION OR SE CONTRACTORS SOLE RESPO
	DEMARCATION	LVC	LOW VOLTAGE CONTROL INTERFACE		WITH INTERNET PROTOCOL	BETWEEN HIS/HER SUPPLIE REQUIRED, CONSULT ARCHI
DISC	DISCONNECT	М	METER	TDD	TELECOMMUNICATIONS DEVICE FOR THE DEAF	9. FUTURE WORK:
DISC	DIGITAL MEDIA SIGNAL	mA	MILLIAMPERE	TDR	TIME DOMAIN REFLECTOMETER	
DMP	DIGITAL MEDIA SIGNAL	MAG	MAGNETIC	TDR	TELECOM DEMARC ROOM	A. THE DRAWINGS AND SPECI UNDER THIS SCOPE OF WC
DMP	DISPLAYPORT	MB	MEGABYTE	TEL	TELEPHONE	THE WORK.THIS WORK GEI WORK OR FOOD SERVICE V
DSL	DIGITAL SUBSCRIBER LINE	Mbps	MEGABITS PER SECOND	TELCO	TELEPHONE COMPANY (SP)	COORDINATE THIS WORK V SCOPE OF WORK.
DSP	DIGITAL SIGNAL PROCESSOR	MC	MAIN CROSS-CONNECT	TGB	TELECOMMUNICATIONS GROUND BUS BAR	10. "FIRE STOPPING"REQUIREM
DSS	DIGITAL SATELLITE SIGNAL	MDF	MAIN DISTRIBUTION FRAME	TIA	TELECOMMUNICATIONS INDUSTRY ASSOCIATION	AND CONDUIT/SLEEVE OPE
DVI-D	DIGITAL VISUAL INTERFACE-DIGITAL	MECH	MECHANICAL	TMGB	TELECOMMUNICATIONS MAIN GROUND BUS BAR	PREVENTING THE PASSAGE THE REQUIREMENTS OF TH
DVI-I	DIGITAL VISUAL INTERFACE-INTEGRATED	MFR	MANUFACTURER	TP	TOUCH PANEL (CONTROL SYSTEM)	11. REFER TO ARCHITECTURAL
DWG	DRAWING	MHz	MEGAHERTZ	TR	TELECOMMUNICATIONS ROOM	DUCTWORK,CONDUIT, CAB
EBC	EQUIPMENT BONDING CONDUCTOR	mm	MILLIMETER	ТТВ	TELEPHONE TERMINAL BOARD	12. ALL COMMUNICATIONS RAG
EIA	ELECTRONICS INDUSTRY ALLIANCE	MMFO	MULTI-MODE FIBER OPTIC	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION	SLEEVES, CABLE TRAY, J-H LENGTHS AND MAINTAIN IN
ELEC	ELECTRIC OR ELECTRICAL	MNS	MASS NOTIFICATION SYSTEM	UBS	UNIFORM BUILDING CODE	DISTRIBUTION (I.E. CAT.5E A SHALL EXCEED 90 METERS
ELEV	ELEVATOR	MPOE	MAIN POINT OF ENTRY	UC	UNDER COUNTER	13. CONDUIT SLEEVES SHALL E
EMC	ELECTROMAGNETIC COMPATIBILITY	MPOP	MINIMUM POINT OF PRESENCE	UG	UNDERGROUND	USING J-HOOKS TO PROVIE COMMUNICATIONS ROOMS
	ELECTROMAGNETIC INTERFERENCE	MTR	MAIN TELECOM ROOM	UNO	UNLESS NOTED OTHERWISE	
EMI		NEC	NATIONAL ELECTRIC CODE	UPS	UNINTERRUPTIBLE POWER SUPPLY	14. REFER TO AV CONSTRUCT SIZES,QUANTITIES, AND LC
EMI EMT	ELECTRIC METALLIC TUBING	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION	USB	UNIVERSAL SERIAL BUS	15. ALL COMMUNICATIONS CO
				UTP	UNSHIELDED TWISTED PAIR	SHALL BE BONDED TO BUI
EMT	ELECTRONIC NEWS GATHERING			UIF		
EMT ENG EX	ELECTRONIC NEWS GATHERING EXISTING	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	V	VOLTAGE	
EMT ENG EX FA	ELECTRONIC NEWS GATHERING EXISTING FIRE ALARM	NFPA NIC	NETWORK INTERFACE CARD	V VC	VOLTAGE VOLUME CONTROL	
EMT ENG EX	ELECTRONIC NEWS GATHERING EXISTING FIRE ALARM FEDERAL AVIATION ADMINISTRATION	NFPA NIC NID	NETWORK INTERFACE CARD NETWORK INTERFACE DEVICE	V	VOLUME CONTROL VIDEO GRAPHIC ARRAY (ANALOG	BE PHYSICALLY CONTINUC
EMT ENG EX FA FAA FAA	ELECTRONIC NEWS GATHERING EXISTING FIRE ALARM FEDERAL AVIATION ADMINISTRATION FIRE ALARM CONTROL PANEL	NFPA NIC	NETWORK INTERFACE CARD	V VC VGA	VOLUME CONTROL VIDEO GRAPHIC ARRAY (ANALOG COMPUTER SIGNAL, SEE ALSO RGBHV)	BE PHYSICALLY CONTINUC 17. ANY CABLE TRAY ROUTED INTERFERING ELECTRICAL
EMT ENG EX FA FAA FACP FLEX	ELECTRONIC NEWS GATHERING EXISTING FIRE ALARM FEDERAL AVIATION ADMINISTRATION FIRE ALARM CONTROL PANEL FLEXIBLE	NFPA NIC NID	NETWORK INTERFACE CARD NETWORK INTERFACE DEVICE 1 CANDELA PER SQUARE METER (FLAT	V VC VGA VM	VOLUME CONTROL VIDEO GRAPHIC ARRAY (ANALOG COMPUTER SIGNAL, SEE ALSO RGBHV) VOLTMETER	BE PHYSICALLY CONTINUC 17. ANY CABLE TRAY ROUTED INTERFERING ELECTRICAL TROUGH WITH REMOVABL 18. J-HOOKS SHALL BE ONLY U
EMT ENG EX FA FAA FACP FLEX FM	ELECTRONIC NEWS GATHERING EXISTING FIRE ALARM FEDERAL AVIATION ADMINISTRATION FIRE ALARM CONTROL PANEL FLEXIBLE FREQUENCY MODULATION	NFPA NIC NID NIT	NETWORK INTERFACE CARD NETWORK INTERFACE DEVICE 1 CANDELA PER SQUARE METER (FLAT PANEL BRIGHTNESS)	V VC VGA VM VTC	VOLUME CONTROL VIDEO GRAPHIC ARRAY (ANALOG COMPUTER SIGNAL, SEE ALSO RGBHV) VOLTMETER VIDEO TELECONFERENCE SYSTEM	 ALL COMMUNICATION CON BE PHYSICALLY CONTINUO ANY CABLE TRAY ROUTED INTERFERING ELECTRICAL TROUGH WITH REMOVABLI J-HOOKS SHALL BE ONLY U SERVED BY CABLE TRAY O
EMT ENG EX FA FAA FACP FLEX FM FO	ELECTRONIC NEWS GATHERING EXISTING FIRE ALARM FEDERAL AVIATION ADMINISTRATION FIRE ALARM CONTROL PANEL FLEXIBLE FREQUENCY MODULATION FIBER OPTIC	NFPA NIC NID NIT nm	NETWORK INTERFACE CARD NETWORK INTERFACE DEVICE 1 CANDELA PER SQUARE METER (FLAT PANEL BRIGHTNESS) NANOMETER	V VC VGA VM VTC W	VOLUME CONTROL VIDEO GRAPHIC ARRAY (ANALOG COMPUTER SIGNAL, SEE ALSO RGBHV) VOLTMETER VIDEO TELECONFERENCE SYSTEM WATT	 BE PHYSICALLY CONTINUO 17. ANY CABLE TRAY ROUTED INTERFERING ELECTRICAL TROUGH WITH REMOVABLE 18. J-HOOKS SHALL BE ONLY U SERVED BY CABLE TRAY O 19. ALL TELE/DATA CONDUIT A
EMT ENG EX FA FAA FACP FLEX FM FO FP	ELECTRONIC NEWS GATHERING EXISTING FIRE ALARM FEDERAL AVIATION ADMINISTRATION FIRE ALARM CONTROL PANEL FLEXIBLE FREQUENCY MODULATION FIBER OPTIC FLAT PANEL (VIDEO DISPLAY)	NFPA NIC NID NIT nm NTS	NETWORK INTERFACE CARD NETWORK INTERFACE DEVICE 1 CANDELA PER SQUARE METER (FLAT PANEL BRIGHTNESS) NANOMETER NOT TO SCALE	V VC VGA VM VTC W WAN	VOLUME CONTROL VIDEO GRAPHIC ARRAY (ANALOG COMPUTER SIGNAL, SEE ALSO RGBHV) VOLTMETER VIDEO TELECONFERENCE SYSTEM WATT WIDE AREA NETWORK	 BE PHYSICALLY CONTINUO 17. ANY CABLE TRAY ROUTED INTERFERING ELECTRICAL TROUGH WITH REMOVABLE 18. J-HOOKS SHALL BE ONLY U SERVED BY CABLE TRAY O 19. ALL TELE/DATA CONDUIT A THAN 25% SPARE CAPACIT
EMT ENG EX FA FAA FACP FLEX FM FO FP FTP	ELECTRONIC NEWS GATHERING EXISTING FIRE ALARM FEDERAL AVIATION ADMINISTRATION FIRE ALARM CONTROL PANEL FIEXIBLE FREQUENCY MODULATION FIBER OPTIC FLAT PANEL (VIDEO DISPLAY) FILE TRANSFER PROTOCOL	NFPA NIC NID NIT nm NTS OC	NETWORK INTERFACE CARD NETWORK INTERFACE DEVICE 1 CANDELA PER SQUARE METER (FLAT PANEL BRIGHTNESS) NANOMETER NOT TO SCALE ON CENTER	V VC VGA VM VTC W WAN WATS	VOLUME CONTROL VIDEO GRAPHIC ARRAY (ANALOG COMPUTER SIGNAL, SEE ALSO RGBHV) VOLTMETER VIDEO TELECONFERENCE SYSTEM WATT WIDE AREA NETWORK WIDE AREA TELECOMMUNICATIONS SERVICE	 BE PHYSICALLY CONTINUO 17. ANY CABLE TRAY ROUTED INTERFERING ELECTRICAL TROUGH WITH REMOVABLE 18. J-HOOKS SHALL BE ONLY U SERVED BY CABLE TRAY O 19. ALL TELE/DATA CONDUIT A THAN 25% SPARE CAPACIT 20. ALL COMMUNICATIONS COI 10:1 OF THE INSIDE DIAMET
EMT ENG EX FA FAA FACP FLEX FM FO FP FTP GA	ELECTRONIC NEWS GATHERING EXISTING FIRE ALARM FEDERAL AVIATION ADMINISTRATION FIRE ALARM CONTROL PANEL FLEXIBLE FREQUENCY MODULATION FIBER OPTIC FLAT PANEL (VIDEO DISPLAY) FILE TRANSFER PROTOCOL GAUGE	NFPA NIC NID NIT nm NTS OC OD	NETWORK INTERFACE CARD NETWORK INTERFACE DEVICE 1 CANDELA PER SQUARE METER (FLAT PANEL BRIGHTNESS) NANOMETER NOT TO SCALE ON CENTER OUTSIDE DIAMETER	V VC VGA VM VTC W WAN WAN WATS WLAN	VOLUME CONTROL VIDEO GRAPHIC ARRAY (ANALOG COMPUTER SIGNAL, SEE ALSO RGBHV) VOLTMETER VIDEO TELECONFERENCE SYSTEM WATT WIDE AREA NETWORK WIDE AREA TELECOMMUNICATIONS SERVICE WIRELESS LOCAL AREA NETWORK (WIFI)	 BE PHYSICALLY CONTINUO 17. ANY CABLE TRAY ROUTED INTERFERING ELECTRICAL TROUGH WITH REMOVABLE 18. J-HOOKS SHALL BE ONLY U SERVED BY CABLE TRAY O 19. ALL TELE/DATA CONDUIT A THAN 25% SPARE CAPACIT 20. ALL COMMUNICATIONS COI 10:1 OF THE INSIDE DIAMET SMALLER SHALL HAVE A MI
EMT ENG EX FA FAA FACP FLEX FM FO FP FTP GA GALV	ELECTRONIC NEWS GATHERING EXISTING FIRE ALARM FEDERAL AVIATION ADMINISTRATION FIRE ALARM CONTROL PANEL FIEXIBLE FREQUENCY MODULATION FIBER OPTIC FLAT PANEL (VIDEO DISPLAY) FILE TRANSFER PROTOCOL GAUGE GALVANIZED	NFPA NIC NID NIT nm NTS OC OD OEM OFE	NETWORK INTERFACE CARD NETWORK INTERFACE DEVICE 1 CANDELA PER SQUARE METER (FLAT PANEL BRIGHTNESS) NANOMETER NOT TO SCALE ON CENTER OUTSIDE DIAMETER ORIGINAL EQUIPMENT MANUFACTURER OWNER FURNISHED EQUIPMENT	V VC VGA VM VTC W WAN WATS	VOLUME CONTROL VIDEO GRAPHIC ARRAY (ANALOG COMPUTER SIGNAL, SEE ALSO RGBHV) VOLTMETER VIDEO TELECONFERENCE SYSTEM WATT WIDE AREA NETWORK WIDE AREA TELECOMMUNICATIONS SERVICE	 BE PHYSICALLY CONTINUO 17. ANY CABLE TRAY ROUTED INTERFERING ELECTRICAL TROUGH WITH REMOVABLE 18. J-HOOKS SHALL BE ONLY USERVED BY CABLE TRAY OF 19. ALL TELE/DATA CONDUIT AI THAN 25% SPARE CAPACIT 20. ALL COMMUNICATIONS CON 10:1 OF THE INSIDE DIAMET SMALLER SHALL HAVE A MI ELBOWS.
EMT ENG EX FA FAA FACP FLEX FM FO FP FTP GA GALV GB	ELECTRONIC NEWS GATHERINGEXISTINGFIRE ALARMFIDERAL AVIATION ADMINISTRATIONFIRE ALARM CONTROL PANELFLEXIBLEFREQUENCY MODULATIONFIBER OPTICFLAT PANEL (VIDEO DISPLAY)FILE TRANSFER PROTOCOLGAUGEGALVANIZEDGIGABYTE	NFPA NIC NID NIT nm NTS OC OD OEM OFE OS	NETWORK INTERFACE CARD NETWORK INTERFACE DEVICE 1 CANDELA PER SQUARE METER (FLAT PANEL BRIGHTNESS) NANOMETER NOT TO SCALE ON CENTER OUTSIDE DIAMETER ORIGINAL EQUIPMENT MANUFACTURER OWNER FURNISHED EQUIPMENT OPERATING SYSTEM	V VC VGA VM VTC W WAN WAN WATS WLAN	VOLUME CONTROL VIDEO GRAPHIC ARRAY (ANALOG COMPUTER SIGNAL, SEE ALSO RGBHV) VOLTMETER VIDEO TELECONFERENCE SYSTEM WATT WIDE AREA NETWORK WIDE AREA TELECOMMUNICATIONS SERVICE WIRELESS LOCAL AREA NETWORK (WIFI)	 BE PHYSICALLY CONTINUO 17. ANY CABLE TRAY ROUTED INTERFERING ELECTRICAL TROUGH WITH REMOVABLE 18. J-HOOKS SHALL BE ONLY USERVED BY CABLE TRAY OF 19. ALL TELE/DATA CONDUIT AI THAN 25% SPARE CAPACIT 20. ALL COMMUNICATIONS COI 10:1 OF THE INSIDE DIAMET SMALLER SHALL HAVE A MI ELBOWS. 21. COMMUNICATIONS CONDU FOR A PARTICULAR CONDU
EMT ENG EX FA FAA FACP FLEX FM FO FP FTP GA GALV GB GbPS	ELECTRONIC NEWS GATHERINGEXISTINGFIRE ALARMFIRE ALARM CONTROL PANELFIRE ALARM CONTROL PANELFLEXIBLEFREQUENCY MODULATIONFIBER OPTICFLAT PANEL (VIDEO DISPLAY)FILE TRANSFER PROTOCOLGAUGEGALVANIZEDGIGABYTEGIGABITS PER SECOND	NFPA NIC NID NIT nm NTS OC OD OEM OFE	NETWORK INTERFACE CARD NETWORK INTERFACE DEVICE 1 CANDELA PER SQUARE METER (FLAT PANEL BRIGHTNESS) NANOMETER NOT TO SCALE ON CENTER OUTSIDE DIAMETER ORIGINAL EQUIPMENT MANUFACTURER OWNER FURNISHED EQUIPMENT	V VC VGA VM VTC W WAN WAN WATS WLAN WM	VOLUME CONTROL VIDEO GRAPHIC ARRAY (ANALOG COMPUTER SIGNAL, SEE ALSO RGBHV) VOLTMETER VIDEO TELECONFERENCE SYSTEM WATT WIDE AREA NETWORK WIDE AREA NETWORK WIDE AREA TELECOMMUNICATIONS SERVICE WIRELESS LOCAL AREA NETWORK (WIFI) WIRELESS MICROPHONE	 BE PHYSICALLY CONTINUO 17. ANY CABLE TRAY ROUTED INTERFERING ELECTRICAL TROUGH WITH REMOVABLE 18. J-HOOKS SHALL BE ONLY USERVED BY CABLE TRAY OF 19. ALL TELE/DATA CONDUIT AI THAN 25% SPARE CAPACIT 20. ALL COMMUNICATIONS COI 10:1 OF THE INSIDE DIAMET SMALLER SHALL HAVE A MI ELBOWS. 21. COMMUNICATIONS CONDU
EMT ENG EX FA FAA FACP FLEX FM FO FP FTP GA GALV GB GbPS GC	ELECTRONIC NEWS GATHERINGEXISTINGFIRE ALARMFIRE ALARM CONTROL PANELFIRE ALARM CONTROL PANELFLEXIBLEFREQUENCY MODULATIONFIBER OPTICFLAT PANEL (VIDEO DISPLAY)FILE TRANSFER PROTOCOLGAUGEGALVANIZEDGIGABYTEGIGABITS PER SECONDGENERAL CONTRACTOR	NFPA NIC NID NIT nm NTS OC OD OEM OFE OS	NETWORK INTERFACE CARD NETWORK INTERFACE DEVICE 1 CANDELA PER SQUARE METER (FLAT PANEL BRIGHTNESS) NANOMETER NOT TO SCALE ON CENTER OUTSIDE DIAMETER ORIGINAL EQUIPMENT MANUFACTURER OWNER FURNISHED EQUIPMENT OPERATING SYSTEM OCCUPATIONAL SAFETY AND	V VC VGA VM VTC W WAN WATS WLAN WM WP	VOLUME CONTROL VIDEO GRAPHIC ARRAY (ANALOG COMPUTER SIGNAL, SEE ALSO RGBHV) VOLTMETER VIDEO TELECONFERENCE SYSTEM WATT WIDE AREA NETWORK WIDE AREA NETWORK WIDE AREA TELECOMMUNICATIONS SERVICE WIRELESS LOCAL AREA NETWORK (WIFI) WIRELESS MICROPHONE WEATHER PROOF	 BE PHYSICALLY CONTINUC 17. ANY CABLE TRAY ROUTED INTERFERING ELECTRICAL TROUGH WITH REMOVABLI 18. J-HOOKS SHALL BE ONLY USERVED BY CABLE TRAY O 19. ALL TELE/DATA CONDUIT A THAN 25% SPARE CAPACIT 20. ALL COMMUNICATIONS CO 10:1 OF THE INSIDE DIAMET SMALLER SHALL HAVE A M ELBOWS. 21. COMMUNICATIONS CONDU FOR A PARTICULAR COND MAXIMUM BEND FOR ANY 22. PROVIDE PROTECTIVE BUS
EMT ENG EX FA FAA FACP FLEX FM FO FP FTP GA GALV GB GbPS	ELECTRONIC NEWS GATHERINGEXISTINGFIRE ALARMFIRE ALARM CONTROL PANELFIRE ALARM CONTROL PANELFLEXIBLEFREQUENCY MODULATIONFIBER OPTICFLAT PANEL (VIDEO DISPLAY)FILE TRANSFER PROTOCOLGAUGEGALVANIZEDGIGABYTEGIGABITS PER SECOND	NFPA NIC NID NIT nm NTS OC OD OEM OFE OS OSHA	NETWORK INTERFACE CARD NETWORK INTERFACE DEVICE 1 CANDELA PER SQUARE METER (FLAT PANEL BRIGHTNESS) NANOMETER NOT TO SCALE ON CENTER OUTSIDE DIAMETER ORIGINAL EQUIPMENT MANUFACTURER OWNER FURNISHED EQUIPMENT OPERATING SYSTEM OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION	V VC VGA VM VTC W WAN WATS WLAN WM WP WT	VOLUME CONTROL VIDEO GRAPHIC ARRAY (ANALOG COMPUTER SIGNAL, SEE ALSO RGBHV) VOLTMETER VIDEO TELECONFERENCE SYSTEM WATT WIDE AREA NETWORK WIDE AREA NETWORK WIDE AREA TELECOMMUNICATIONS SERVICE WIRELESS LOCAL AREA NETWORK (WIFI) WIRELESS MICROPHONE WEATHER PROOF WATERTIGHT	 BE PHYSICALLY CONTINUO 17. ANY CABLE TRAY ROUTED INTERFERING ELECTRICAL TROUGH WITH REMOVABLE 18. J-HOOKS SHALL BE ONLY USERVED BY CABLE TRAY OF 19. ALL TELE/DATA CONDUIT AI THAN 25% SPARE CAPACIT 20. ALL COMMUNICATIONS COI 10:1 OF THE INSIDE DIAMET SMALLER SHALL HAVE A MI ELBOWS. 21. COMMUNICATIONS CONDU FOR A PARTICULAR CONDU

AL TECHNOLOGY SYSTEM REQUIREMENTS:

OWN ARE TYPICAL TO CENTERLINE OF BOX UNLESS NOTED OTHERWISE. OUTLETS SHALL BE MOUNTED VERTICALLY. EIGHTS SHOWN ON ARCHITECTURAL ELEVATIONS SHALL GOVERN OVER

S INDICATED TO BE INSTALLED AT DIFFERENT MOUNTING HEIGHTS AND THIN ONE STUD SPACE FROM EACH OTHER SHALL ALIGN VERTICALLY, ON THE F THE STUD. WHERE WALL MOUNTED TELEPHONES OCCUR OVER LIGHT /OLUME CONTROLS, ETC. OFFSET ONE STUD SPACE.

D RACEWAYS SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO WALLS JRAL MEMBERS SUCH THAT THEY FOLLOW STRUCTURAL SURFACE CONTOURS 3E INSTALLED SUCH THAT THEY DO NOT OBSTRUCT PASSAGEWAYS. MULTIPLE SHOULD BE INSTALLED GROUPED TOGETHER. THE LOCATION OF THESE SHALL BE APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION. (EXTRA TIME ALLOWED FOR THIS REVIEW AND APPROVAL).

XES SHALL BE FLUSH MOUNTED UNLESS OTHERWISE NOTED. CONTRACTOR RDINATE INSTALLATION OF CONDUIT AND BACK BOXES IN POURED CONCRETE, ND GYP WALLS.

ON THE DRAWINGS IS AS EXACT AS COULD BE SECURED. ABSOLUTE ACCURACY RANTEED AND THE CONTRACTOR SHALL OBTAIN AND VERIFY EXACT LOCATIONS, ENTS, LEVELS, SPACE REQUIREMENTS, POTENTIAL CONFLICTS WITH OTHER C. AT THE SITE AND SHALL SATISFACTORILY ADAPT HIS WORK TO ACTUAL S AT THE BUILDINGS. THE DRAWINGS ARE DIAGRAMMATICAL IN NATURE AND SHALL LED.HOWEVER THIS DOES NOT RELIEVE ANY SUB-CONTRACTOR FROM ING HIS WORK WITH ALL OTHER TRADES AND FROM ADJUSTING HIS WORK AS Y THE ACTUAL CONDITIONS OF THE PROJECT. THE CONTRACTOR SHALL VISIT THE SUBMITTING A BID TO BECOME THOROUGHLY FAMILIAR WITH THE ACTUAL OF THE PROJECT.

AND ADJUST ALL WORK BETWEEN TRADES AND EXISTING CONDITIONS IN ORDER LISH A NEAT, INTEGRATED AND EFFICIENT INSTALLATION WHICH INCLUDE BUT IS

THE CONTRACT DOCUMENTS OF ALL TRADES (IE. THE ARCHITECTURAL ED CEILING PLAN, MECHANICAL HVAC DRAWINGS, ELECTRICAL LIGHTING PLAN, OGY LAN, FIRE PROTECTION PLAN, ETC.)

ATE NECESSARY EQUIPMENT, FIXTURES, ETC. SO THAT THE FINAL INSTALLATION TIBLE WITH THE MATERIALS AND EQUIPMENT OF THE OTHER TRADES, TRACTOR SHALL ASSIST THE DIVISION 21, 22, & 23 CONTRACTOR IN PREPARING AWINGS FOR COORDINATING INSTALLATION OF ALL WORK (IE. LOCATING ALL LEARANCES, CABLE TRAY, CLEARANCES THROUGHOUT, ETC.).

EANS TO "SUPPLY" AND USUALLY REFERS TO AN ITEM OF EQUIPMENT. ANS TO "SET IN PLACE, CONNECT AND PLACE IN FULL OPERATIONAL ORDER". IEANS TO "FURNISH AND INSTALL".

"MEANS"MEETS THE SPECIFICATIONS OF THE REFERENCE PRODUCT OR ITEM IN CANT ASPECTS."SIGNIFICANT ASPECTS SHALL BE DETERMINED BY THE ENGINEER. THER(S)(CONTRACTOR)":"RE:DIVISION XX".AND SIMILAR EXPRESSIONS MEANS PERFORMED UNDER THE CONTRACT DOCUMENTS, BUT NOT NECESSARILY

DIVISION OR SECTION OF THE WORK ON WHICH THE NOTE APPEARS. IT IS THE RS SOLE RESPONSIBILITY TO COORDINATE THE WORK OF THE CONTRACT IS/HER SUPPLIERS, SUBCONTRACTORS, AND EMPLOYEES. IF CLARIFICATION IS CONSULT ARCHITECT BEFORE SUBMITTING BID.

NGS AND SPECIFICATIONS MAY INDICATE SOME WORK WHICH IS TO BE PROVIDED SCOPE OF WORK BUT WHOSE TIMING MAY BE DIFFERENT THAN THE REST OF THIS WORK GENERALLY FACILITATES THE INSTALLATION OF "TENANT FINISH" OOD SERVICE WORK. IT IS WITHIN THIS DIVISION'S SCOPE OF WORK TO TE THIS WORK WITH THE WORK OF THE CONTRACTOR PROVIDING THE FUTURE

PING"REQUIREMENT.ALL PENETRATIONS THROUGH RATED WALLS AND FLOORS JIT/SLEEVE OPENINGS SHALL BE SEALED WITH MATERIAL CAPABLE OF NG THE PASSAGE OF FLAMES. HOT GASSES AND SMOKE WHEN SUBJECTED TO REMENTS OF THE TEST STANDARD SPECIFIC FOR ALL APPLICABLE CODES.

ARCHITECTURAL DRAWINGS FOR MINIMUM CLEARANCE REQUIREMENTS TO K,CONDUIT, CABLE TRAY. LIGHTING, ETC.

JNICATIONS RACEWAY AND PATHWAYS INCLUDING BUT NOT LIMITED TO CONDUIT. ABLE TRAY, J-HOOKS SHALL BE INSTALLED TO MINIMIZE UNNECESSARY CABLE ND MAINTAIN INDUSTRY STANDARD LENGTH LIMITATIONS FOR HORIZONTAL CABLE ON (I.E. CAT.5E ANDCAT.6/CAT.6A).NO HORIZONTAL CABLE LENGTH (BASIC LINK) EED 90 METERS (295 FEET).

LEEVES SHALL BE INSTALLED THROUGH ALL WALLS WHERE CABLING IS ROUTED OKS TO PROVIDE CONTINUOUS UN-OBSTRUCTED PATHWAYS TO NEAREST ATIONS ROOMS FROM STATIONS DEVICES. AV CONSTRUCTION DOCUMENTS FOR AV CONDUIT REQUIREMENT INCLUDING

NTITIES, AND LOCATIONS. JNICATIONS CONDUIT, CABLE TRAYS, LADDER RACKS, AND EQUIPMENT RACKS

ONDED TO BUILDING GROUND SYSTEM PER NEC 250. JNICATION CONDUIT OR SLEEVES ROUTED THROUGH ELECTRICAL ROOMS SHALL ALLY CONTINUOUS AND BONDED TO GROUND SYSTEM.

TRAY ROUTED THROUGH ELECTRICAL ROOMS OR WITHIN PROXIMITY OF NG ELECTRICAL SOURCES, SHALL BE ENCLOSED TYPE USING SOLID BOTTOM ITH REMOVABLE COVERS. CABLE TRAY SHALL BE BONDED TO GROUND SYSTEM. HALL BE ONLY USED IN ACCESSIBLE FINISHED CEILING SPACES NOT CABLE TRAY OR CONDUIT.

ATA CONDUIT AND OTHER RACEWAY INFRASTRUCTURE SHALL HAVE NO LESS SPARE CAPACITY ABOVE THE NEC MINIMUM FILL RATIOS.

JNICATIONS CONDUIT LARGER THAN 2" SHALL HAVE A MINIMUM BEND RADIUS OF INSIDE DIAMETER FOR ALL ELBOWS. ALL COMMUNICATIONS CONDUIT 2" AND SHALL HAVE A MINIMUM BEND RADIUS OF 6:1 OF THE INSIDE DIAMETER FOR ALL

CATIONS CONDUIT ROUTING SHALL NOT EXCEED 180° FOR THE SUM OF ELBOWS TICULAR CONDUIT RUN WITHOUT AN APPROVED PULL-BOX OR MANHOLE. THE BEND FOR ANY LOCATION SHALL NOT EXCEED 90°.

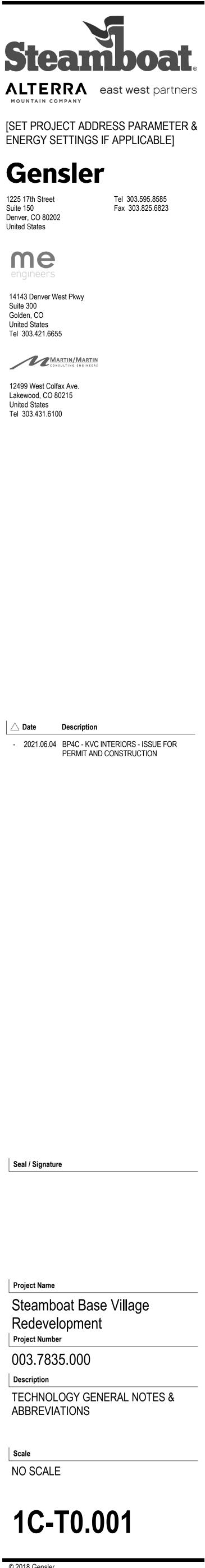
ROTECTIVE BUSHINGS ON ALL COMMUNICATIONS CONDUITS INCLUDING RISER SLEEVES, HORIZONTAL CONDUITS, DEVICE CONDUITS, AND SLEEVES.

CONDUIT SHALL BE STUBBED A MINIMUM OF 2" AFF. PROVIDE A 2" CURB IF SLAB T IS USED RATHER THAN SLEEVES. SERVICE PROVIDER AND UNDERGROUND HALL BE STUBBED A MINIMUM OF 4" AFF. 24. ALL FIBER OPTIC CABLE SHALL BE ARMORED OR INSTALLED WITHIN APPROVED/UL-

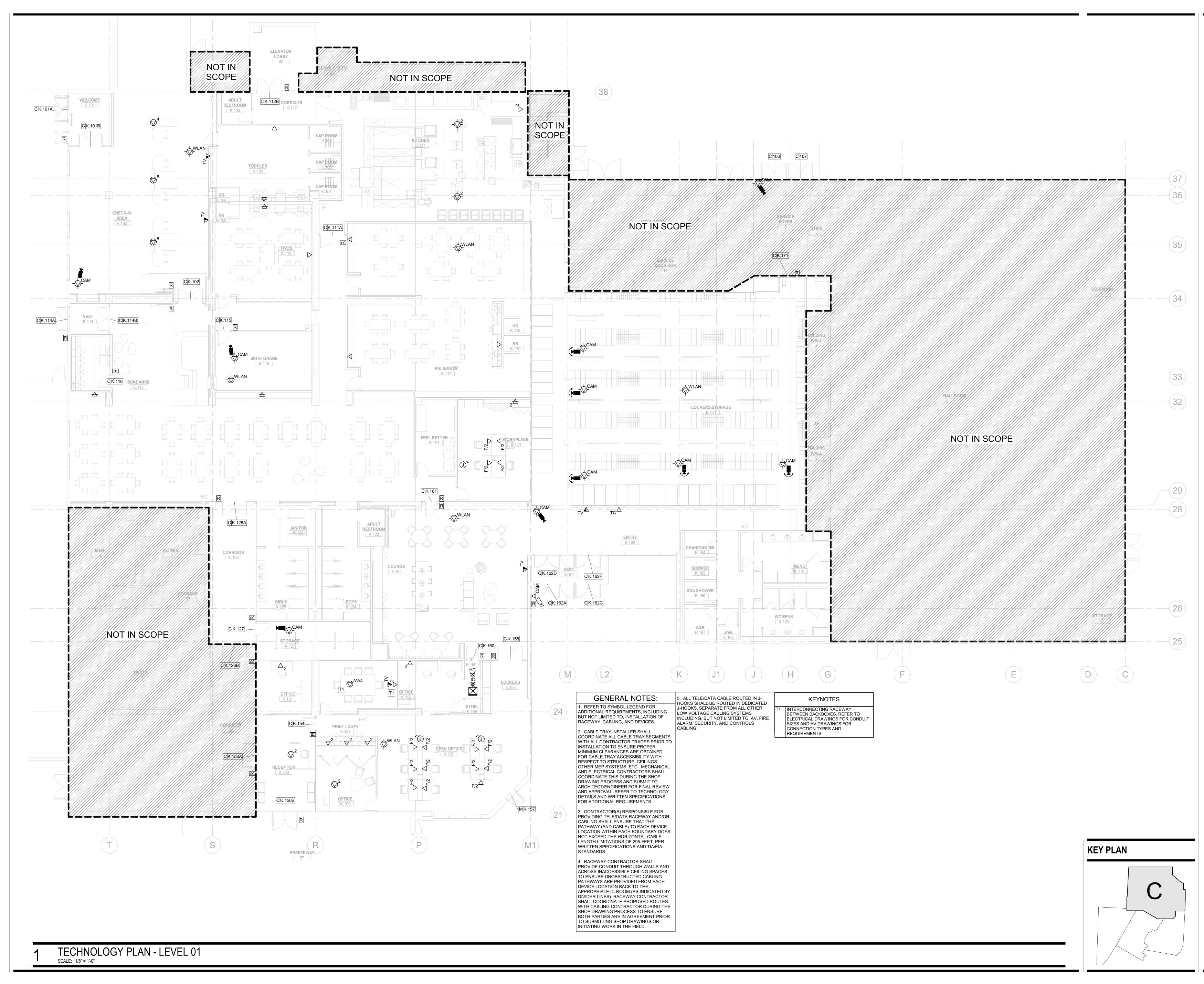
LISTED INNER-DUCT COMPLETE WITH FITTINGS, COUPLINGS, AND ADAPTERS (CARLON RISER-GARD, PLENUM-GARD, OR APPROVED EQUAL). FIBER OPTIC CABLE CAN UTILIZE METALLIC ARMORED SHEATH RATHER THAN USINGINNER-DUCT.

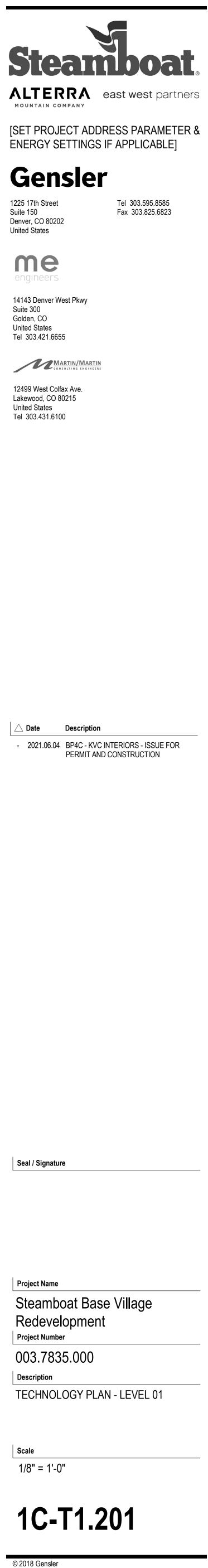
25. FINAL CABLE INSTALLATION, ALL UNDERGROUND COMMUNICATIONS CONDUIT SHALL BE SEALED TO PREVENT WATER, GAS AND RODENTS FROM ENTERING FACILITY.

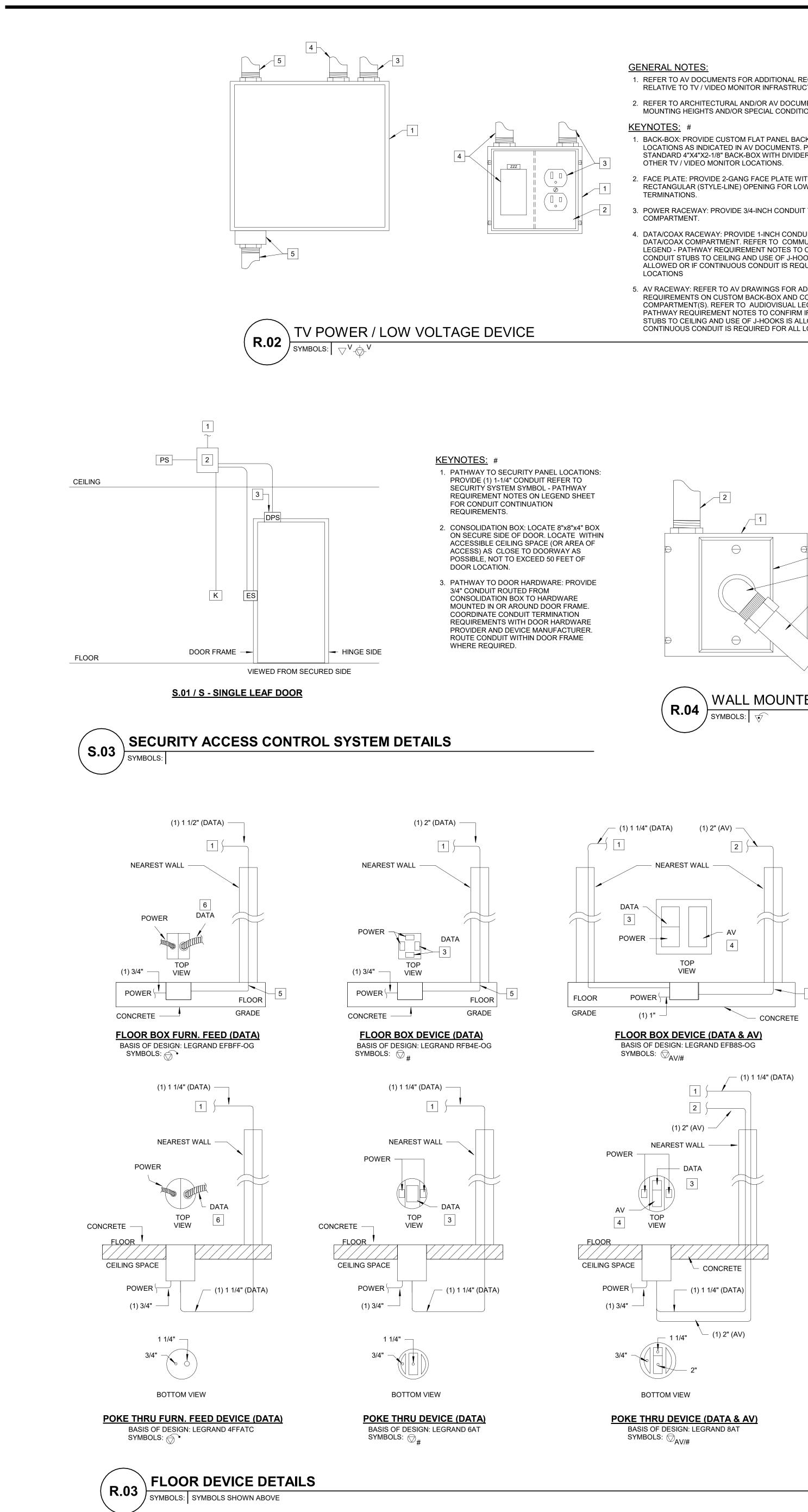
- 26. ALL COMMUNICATIONS CABLE INSTALLED BELOW GRADE SHALL BE GEL FILLED PIC/PE-89 PER RUS/REA DESIGNATION.
- 27. ALL UNDERGROUND COMMUNICATIONS CONDUIT SHALL HAVE METALLIC LOCATOR TAPE. 28. ALL COMMUNICATIONS CABLE SHALL BE PLENUM RATED (CMP), RISER RATED (CMR) AND UNDERGROUND RATED (WATERBLOCK) ACCORDING TO USE AND ENVIRONMENTAL CONDITIONS.
- 29. ALL BACKBONE (RISER) COMMUNICATIONS CABLE SHALL BE INSTALLED BASED ON A PHYSICAL STAR TOPOLOGY. REFER TO ONE-LINES DIAGRAMS FOR SPECIFIC ROUTING REQUIREMENTS.
- 30. ANY COMMUNICATIONS CABLES (FIBER AND COPPER) INSTALLED BELOW GRADE, UNDERGROUND, OR OTHER LOCATIONS SUBJECT TO WET CONDITIONS SHALL UTILIZE WATERBLOCK CONSTRUCTION.
- 31. CONTRACTOR SHALL NOT PAINT CABLES AND/OR SPRAY CABLES WITH FIRE PROOFING MATERIAL AS IT CAN AFFECT CABLE PERFORMANCE AND WILL VOID THE CABLE WARRANTY.



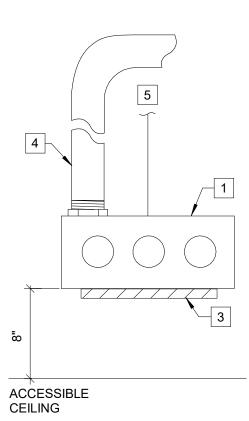
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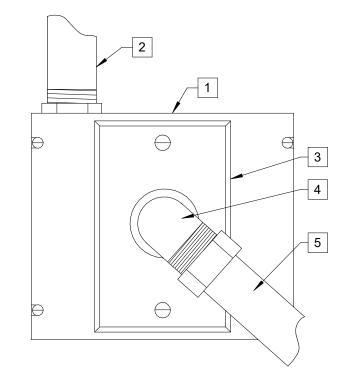


- 1. REFER TO AV DOCUMENTS FOR ADDITIONAL REQUIREMENTS RELATIVE TO TV / VIDEO MONITOR INFRASTRUCTURE.
- 2. REFER TO ARCHITECTURAL AND/OR AV DOCUMENTS FOR MOUNTING HEIGHTS AND/OR SPECIAL CONDITIONS.
- 1. BACK-BOX: PROVIDE CUSTOM FLAT PANEL BACK-BOX AT ALL LOCATIONS AS INDICATED IN AV DOCUMENTS. PROVIDE STANDARD 4"X4"X2-1/8" BACK-BOX WITH DIVIDER FOR ALL
- FACE PLATE: PROVIDE 2-GANG FACE PLATE WITH RECTANGULAR (STYLE-LINE) OPENING FOR LOW VOLTAGE
- POWER RACEWAY: PROVIDE 3/4-INCH CONDUIT TO POWER
- 4. DATA/COAX RACEWAY: PROVIDE 1-INCH CONDUIT TO DATA/COAX COMPARTMENT. REFER TO COMMUNICATION LEGEND - PATHWAY REQUIREMENT NOTES TO CONFIRM IF CONDUIT STUBS TO CEILING AND USE OF J-HOOKS IS ALLOWED OR IF CONTINUOUS CONDUIT IS REQUIRED FOR ALL
- 5. AV RACEWAY: REFER TO AV DRAWINGS FOR ADDITIONAL REQUIREMENTS ON CUSTOM BACK-BOX AND CONDUIT TO AV COMPARTMENT(S). REFER TO AUDIOVISUAL LEGEND -PATHWAY REQUIREMENT NOTES TO CONFIRM IF CONDUIT STUBS TO CEILING AND USE OF J-HOOKS IS ALLOWED OR IF CONTINUOUS CONDUIT IS REQUIRED FOR ALL LOCATIONS



ABOVE CEILING MOUNTED





GENERAL NOTES:

- 1. REFER TO SYSTEM SYMBOL LEGEND PATHWAY REQUIREMENT NOTES TO CONFIRM IF CONDUIT STUBS TO CEILING AND USE OF J-HOOKS IS ALLOWED OR IF CONTINUOUS CONDUIT IS REQUIRED FOR ALL LOCATIONS. PARTICULAR ATTENTION SHALL BE GIVEN TO CONDUIT ROUTING NOTES AS EACH SYSTEM (AV, COMM, SECURITY, ETC.) HAS SPECIFIC CONDUIT ROUTING REQUIREMENTS.
- KEYNOTES: # . BACK-BOX: PROVIDE 4-11/16" X 4-11/16 "X 3-1/4" (HUBBEL 260) FLUSH MOUNTED BOX WITH SINGLE GANG COVER PLATE.
- 2. CONDUIT: PROVIDE (1) 1-1/2" CONDUIT FOR LOW VOLTAGE CABLE.
- 3. FACE PLATE: STAINLESS STEEL COVER PLATE WITH CENTER MOUNTED GROMMET OPENING.
- CONDUIT FITTING: PROVIDE (1) 90-DEGREE CONDUIT FITTING FOR
- FURNITURE CONNECTOR. 5. FLEXIBLE DUCT FEED: PROVIDE (1) 1-1/2" POLYTUFF FLEXIBLE
- CONDUIT EXTENDED TO MODULAR FURNITURE.

WALL MOUNTED FURNITURE FEED DEVICE

GENERAL NOTES

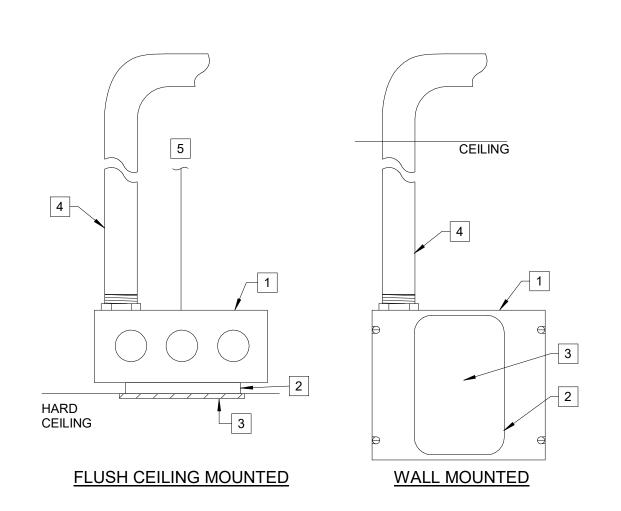
- 1. FLOOR BOX DETAILS ARE SCHEMATIC IN NATURE AND DEPICT COMMON PATHWAY REQUIREMENTS. INSTALLATION REQUIREMENTS MAY VARY BASED ON FIELD CONDITION SUCH AS WALL TYPE.
- 2. FLOOR BOX DEVICES SHALL BE INSTALLED WITHIN FLOORS THAT RESIDE ON GRADE. ENCASE ENTIRE FLOOR BOX AND CONDUIT WITHIN CONTRETE SLAB. IN CASES WHERE THE FLOOR SLAB THICKNESS DOES NOT SUPPORT SPECIFIED FLOOR BOX DEPTH, PROVIDE ADDITIONAL TRENCHING AS REQUIRED TO ENCASE FLOOR BOX AND CONDUIT. COORDINATE ALL FINAL LOCATION WITH ARCHITECTURAL AND DIVISION 03 PRIOR TO INSTALL.
- 3. POKE THRU DEVICES SHALL BE INSTALLED WITHIN FLOORS CAPABLE OF PROVIDING A CORE OPENING ACCORDING TO MANUFACTURER'S REQUIREMENTS. FLOOR SHALL NOT BE AT GRADE LEVEL AND SHALL HAVE AN ACCESSIBLE LEVEL BELOW. PROVIDE FIRE RATING APPROPRIATE TO FLOOR FIRE RATING, REFER TO DIVISION 7.
- 4. BASIS OF DESIGN (BOD) PRODUCT INFORMATION IS BASED ON A COORDINATED SOLUTION FOR ALL SYSTEMS. ANY PRODUCT SUBSTITUTIONS SHALL BE APPROVED BY LOW VOLTAGE ENGINEER PRIOR TO INSTALLATION TO ENSURE DESIGN INTENT IS MET.
- 5. REFER OT ELECTRICAL DOCUMENTS FOR ALL POWER REFERENCES.

<u>KEYNOTES</u>

- 1. REFER TO COMMUNICATION LEGEND PATHWAY REQUIREMENT NOTES FOR CONDUIT CONTINUATION REQUIREMENTS.
- 2. REFER TO AUDIOVISUAL LEGEND PATHWAY REQUIREMENT NOTES FOR CONDUIT CONTINUATION REQUIREMENTS.
- 3. DATA OUTLETS: REFER TO DETAIL C.05 FOR DATA TERMINATION REQUIREMENTS. PROVIDE STYLE-LINE
- (DECORA) FRAME AT EACH DATA COMPARTMENT. 4. AV OUTLETS: PROVIDE APPROPRIATE ACCESSORIES FOR AV OUTLET TYPE AND QUANTITY AS REQUIRED PER AV DOCUMENTS. IN CASE WHERE HD-BASE-T TRANSMITTER IS LOCATED WITHIN DEVICE, UTILIZE STAND OFFS TO PROVIDE

INSTALL SPACE AND HEAT DISSIPATION AS NECESSARY.

- 5. CONDUIT BENDS: IF FLOOR DEPTH IS NOT SUFFICIENT TO ACCOMIDATE CONDUIT BEND RADIUS, A HORIZONTAL 90 DEGREE BEND CAN BE UTILIZED TO PUT CONDUIT IN LINE WITH WALL SECTION IN ORDER TO BEND CONDUIT VERTICALLY INTO WALL. TOTAL CONDUIT BENDS SHALL NOT EXCEED (3) 90 DEGREE BENDS BEFORE PULL BOX IS UTILIZED.
- 6. FLEXIBLE WHIP: PROVIDE 1 1/4-INCH FLEXIBLE CONDUIT WHIP EXTENDED FROM COVER PLATE TO MODULAR FURNITURE.



GENERAL NOTES

REQUIREMENTS.

COMPONENT FROM BACK-BOX.

DETAILS FOR ADDITIONAL INFORMATION.

4. CONDUIT: PROVIDE CONDUIT SIZED AS FOLLOWS:

(1) 1-INCH CONDUIT FOR (1-4) CABLES/PORTS

(1) 1-1/4-INCH CONDUIT FOR (5-6) CABLES/PORT

<u>KEYNOTES:</u> #

ABOVE.

1. REFER TO SYSTEM SYMBOL LEGEND - PATHWAY REQUIREMENT NOTES TO CONFIRM IF CONDUIT STUBS TO CEILING AND USE OF J-

CONDUIT ROUTING NOTES AS EACH SYSTEM (AV, COMM,

SECURITY, ETC.) HAS SPECIFIC CONDUIT ROUTING

1. BACK-BOX: PROVIDE 4"X4"X2-1/8" FLUSH MOUNTED BOX.

2. MUD-RING: PROVIDE 1-GANG MUD RING FOR MOUNTING OF

3. FACE PLATE: REQUIREMENTS VARY, REFER TO SPECIFIC DEVICE

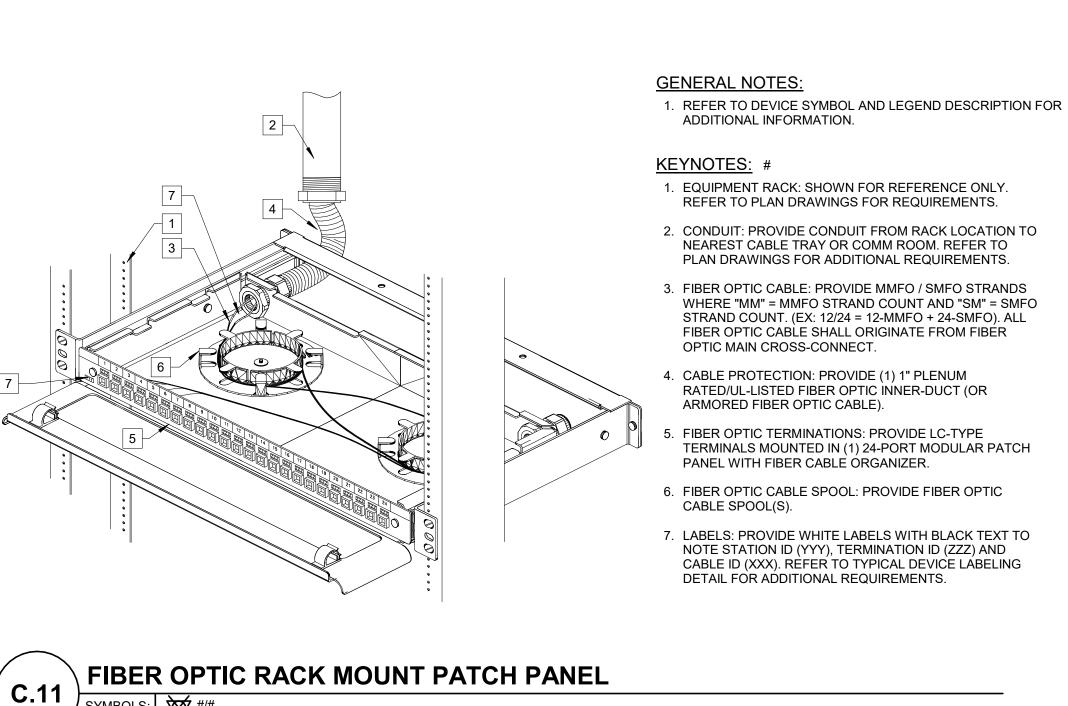
5. SUPPORT: PROVIDE THREADED ROD ATTACHED TO STRUCTURE

DEVICE / FACEPLATE. MUD RING SHALL BE SEPARATE

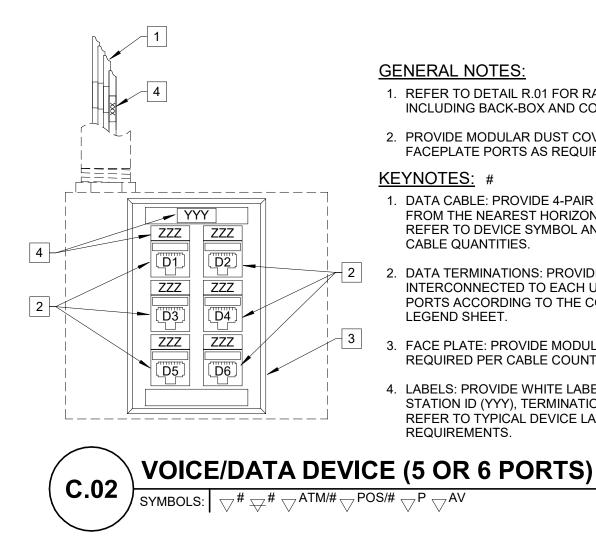
HOOKS IS ALLOWED OR IF CONTINUOUS CONDUIT IS REQUIRED

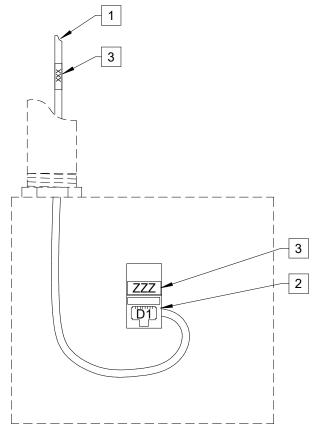
FOR ALL LOCATIONS. PARTICULAR ATTENTION SHALL BE GIVEN TO

COMM RACEWAY DEVICES









C.03

GENERAL NOTES:

QUANTITIES.

GENERAL NOTES:

KEYNOTES: #

CABLE QUANTITIES.

LEGEND SHEET.

REQUIREMENTS.

1. REFER TO DETAIL R.01 FOR RACEWAY REQUIREMENTS

2. PROVIDE MODULAR DUST COVER(S) ON ALL UNUSED

1. DATA CABLE: PROVIDE 4-PAIR UTP CABLE(S) ORIGINATING

FROM THE NEAREST HORIZONTAL CROSS-CONNECT (HC).

2. DATA TERMINATIONS: PROVIDE RJ45 TYPE MODULAR JACK

PORTS ACCORDING TO THE COLOR SCHEDULE ON THE

INTERCONNECTED TO EACH UTP CABLE. PROVIDE COLORED

3. FACE PLATE: PROVIDE MODULAR FACEPLATE WITH PORTS AS

4. LABELS: PROVIDE WHITE LABELS WITH BLACK TEXT TO NOTE STATION ID (YYY), TERMINATION ID (ZZZ) AND CABLE ID (XXX).

REFER TO TYPICAL DEVICE LABELING DETAIL FOR ADDITIONAL

REFER TO DEVICE SYMBOL AND LEGEND DESCRIPTION FOR

INCLUDING BACK-BOX AND CONDUIT.

FACEPLATE PORTS AS REQUIRED.

REQUIRED PER CABLE COUNTS.

- 1. INTENT OF THIS DETAIL IS TO DEPICT STRUCTURED CABLING REQUIREMENTS. REFER TO OTHER SYSTEMS DRAWINGS (AV,
- RATED BISCUIT IN LIEU OF BACK-BOX FOR DEVICES LOCATED
- BACK-BOX TYPES, SIZES AND MOUNTING CONDITIONS.
- 2. CONTRACTOR TO PROVIDE DATA OUTLET(S) MOUNTED IN PLENUM
- SECURITY, ETC.) FOR BACK-BOX REQUIREMENTS SPECIFIC TO

- ABOVE ACCESSIBLE CEILINGS.
- EACH DEVICE TYPE. SELECT DEVICES MAY REQUIRE SPECIALIZED

1. DATA CABLE: PROVIDE 4-PAIR UTP CABLE(S) ORIGINATING FROM

DEVICE SYMBOL AND LEGEND DESCRIPTION FOR CABLE

2. DATA TERMINATIONS: PROVIDE RJ45 TYPE MODULAR JACK

3. LABELS: PROVIDE WHITE LABELS WITH BLACK TEXT TO NOTE STATION ID (YYY), TERMINATION ID (ZZZ) AND CABLE ID (XXX)

REMAIN LOOSE INSIDE BACK-BOX.

THE NEAREST HORIZONTAL CROSS-CONNECT (HC). REFER TO

INTERCONNECTED TO EACH UTP CABLE. CABLE AND JACK SHALL

SYMBOLS: \bigtriangledown CAM \sim CAM \sim CP \sim C \sim TR

