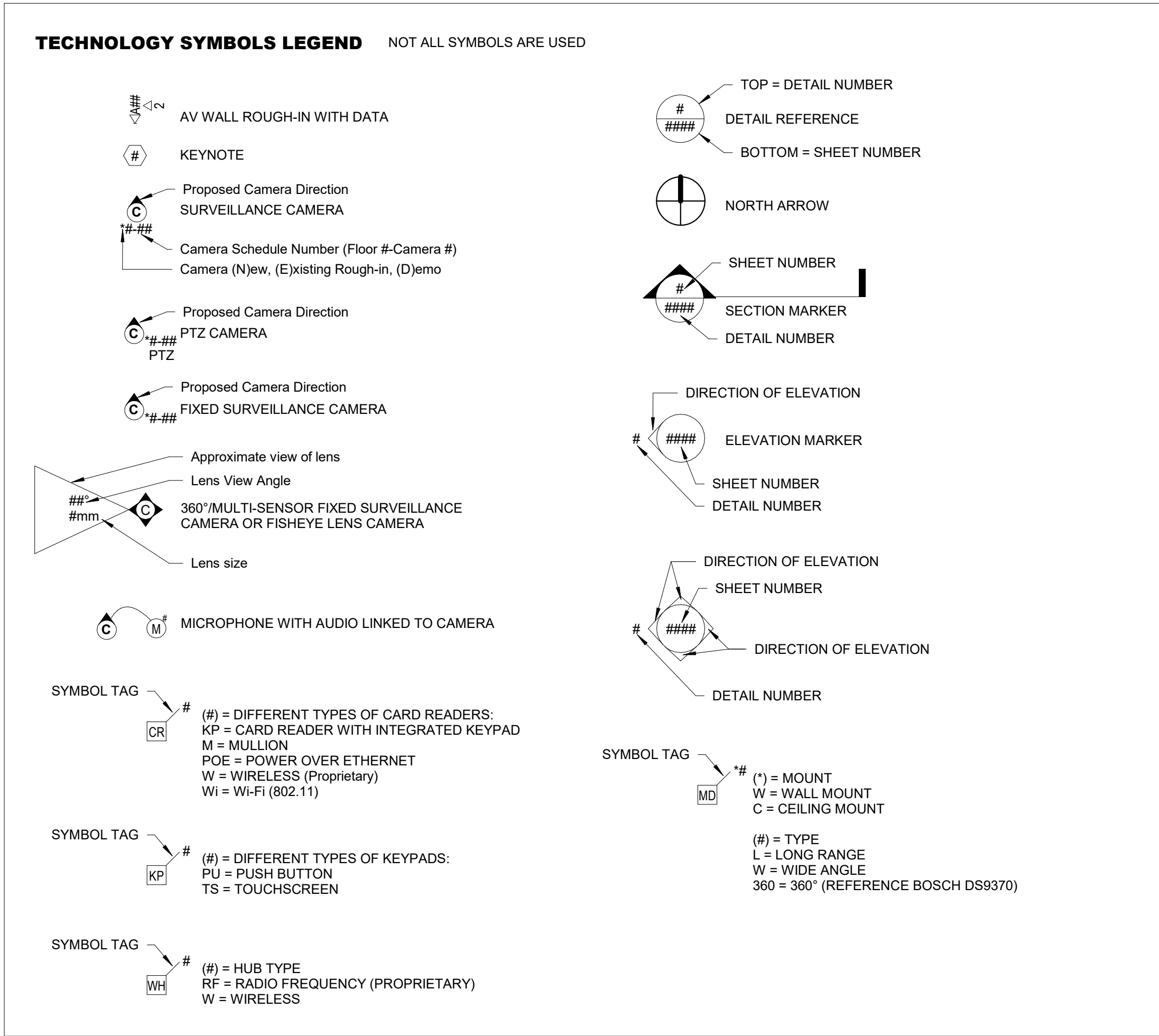


PREMISE SECURITY LEGEND	
SYMBOL	DESCRIPTION
	CARD READER
	CARD READER MULLION
	INTRUSION DETECTION KEYPAD (REFERENCE SYMBOL LEGEND FOR DIFFERENT TYPES)
	INTERCOM (1 DATA CABLE, PLUS TRIGGER CABLE TO ACS PANEL)
	INTERCOM MASTER STATION (1 DATA CABLE)
	PANIC / DURESS BUTTON
	LOCK DOWN BUTTON
	MOTION DETECTOR (REFERENCE SYMBOL LEGEND FOR DIFFERENT TYPES)
	ACCOUSTICAL GLASS BREAK SENSOR
	BIOMETRIC READER
	REQUEST TO EXIT - SURFACE PIR
	KEY SWITCH
	LOCAL ALARM SOUNDER
	RED/GREEN INDICATOR LIGHT
	DOORBELL
	MAGNETIC DOOR HOLD
	VISUAL STROBE
	DOOR RELEASE BUTTON, CONTROLLED DOOR LEAF
	REQUEST TO EXIT - INTEGRAL TO DOOR HARDWARE, SURFACE MOUNT MOTION, INTEGRAL TO DOOR HARDWARE
	DOOR CONTACT / MONITOR / POSITION SWITCH
	ELECTRIFIED HARDWARE (REFER TO DIV 08 SCHEDULES)
	ADA DOOR AUTO OPERATOR BUTTON
	WIRELESS LOCK HUB, # = TYPE
	STANDARD IP SURVEILLANCE CAMERA, (1) DATA CABLE
	180° MULTI-PAGER IP SURVEILLANCE CAMERA, (1) DATA CABLE
	360° MULTI-PAGER IP SURVEILLANCE CAMERA, (1) DATA CABLE
	2 - SENSOR IP SURVEILLANCE CAMERA, (1) DATA CABLE
	360° FISHEYE LENS CAMERA, (1) DATA CABLE
	IR ILLUMINATOR, (1) DATA CABLE AND TRIGGER TO CAMERA
	ACCESS CONTROL PANEL LOCATION
	INTRUSION DETECTION PANEL LOCATION

AUDIO/VISUAL MULTIMEDIA LEGEND	
SYMBOL	DESCRIPTION
	WALL AV ROUGH-IN DETAIL
	CEILING AV ROUGH-IN DETAIL
	FLOOR AV ROUGH-IN DETAIL
	INTERACTIVE WHITE BOARD - WALL - CEILING
	MULTIMEDIA PROJECTOR
	MULTIMEDIA FLAT PANEL DISPLAY
	LOUD SPEAKER, CEILING MOUNTED - # INDICATES TYPE
	CONTROL PANEL
	TOUCH PANEL
	MICROPHONE, CEILING MOUNTED - # INDICATES TYPE
	VOLUME CONTROL
	WALL BOX ENCLOSURE
	D1 = DIGITAL SINGLE SIDED CLOCK / A1 = ANALOG SINGLE SIDED CLOCK
	D2 = DIGITAL DOUBLE SIDED CLOCK / A2 = ANALOG DOUBLE SIDED CLOCK
	CEILING ENCLOSURE
	PRESENTATION CAMERA - CEILING - WALL MOUNTED
	TEACHERS WORK STATION

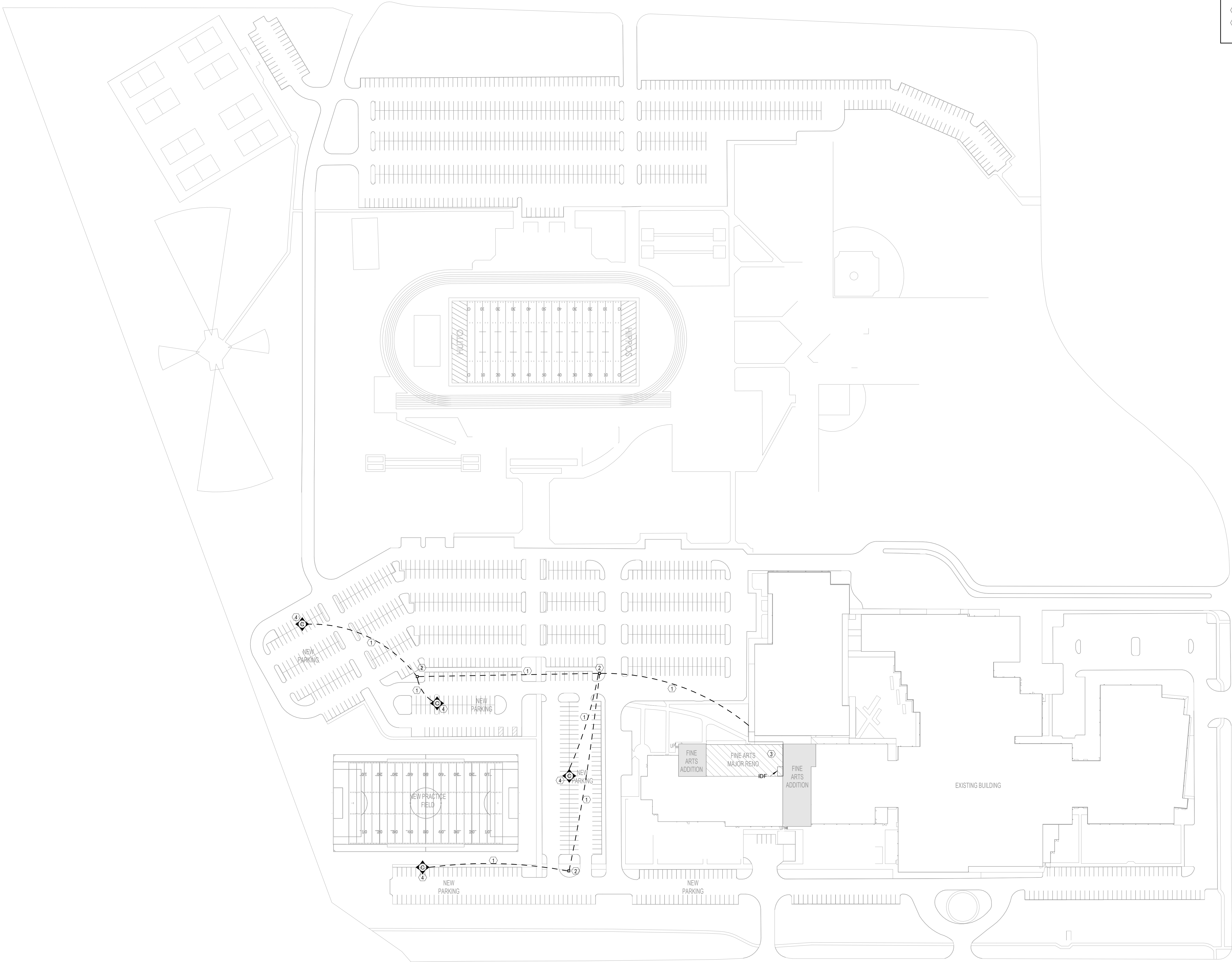
GENERAL ANNOTATION LEGEND	
SYMBOL	DESCRIPTION
	MAIN TELECOMMUNICATIONS ROOM
	TELECOMMUNICATION ROOM
	MAIN DISTRIBUTION FRAME
	INTERMEDIATE DISTRIBUTION FRAME
	EXISTING TO REMAIN
	PROVIDED BY OTHERS
	ABOVE FINISHED FLOOR
	ABOVE FINISHED GRADE
	ABOVE COUNTER
	ELECTRICAL CONTRACTOR
	PREMISE SECURITY CONTRACTOR
	STRUCTURAL CABLING CONTRACTOR
	AV/MULTIMEDIA CONTRACTOR
	UNLESS NOTED OTHERWISE
	ACCESS CONTROL SYSTEM
	INTRUSION DETECTION SYSTEM
	VIDEO SURVEILLANCE SYSTEM

STRUCTURED CABLING LEGEND	
SYMBOL	DESCRIPTION
	TELECOMMUNICATIONS OUTLET, # =NUMBER OF DATA CABLE(S)/JACK(S)
	TELECOMMUNICATIONS OUTLET, ## = NUMBER OF VOICE CABLE(S)/JACK(S) AND NUMBER OF DATA CABLE(S)/JACK(S)
	TELECOMMUNICATIONS OUTLET, # =NUMBER OF VOICE/DATA CABLE(S)/JACK(S), SURFACE MOUNT
	TELECOMMUNICATIONS OUTLET, ## = NUMBER OF VOICE CABLE(S)/JACK(S) AND NUMBER OF DATA CABLE(S)/JACK(S), SURFACE MOUNT
	WALL MOUNT PHONE (1 CABLE/JACK)
	WALL MOUNT PHONE, SURFACE MOUNT (1 CABLE/JACK)
	FLOOR MOUNTED OUTLET, # =NUMBER OF VOICE/DATA CABLE(S)/JACK(S) (FLOOR BOX BY E.C.)
	FLOOR MOUNTED OUTLET, ## = NUMBER OF VOICE CABLE(S)/JACK(S) AND NUMBER OF DATA CABLE(S)/JACK(S) (FLOOR BOX BY E.C.)
	CEILING MOUNTED DATA OUTLET, # =NUMBER OF VOICE/DATA CABLE(S)/JACK(S)
	CEILING MOUNTED OUTLET FOR WIRELESS ACCESS POINT #=NUMBER OF CABLE(S)/JACK(S)
	CABLING SLEEVE(S)
	TYPICAL LADDER RACK
	TYPICAL CABLE TRAY, BASKET STYLE

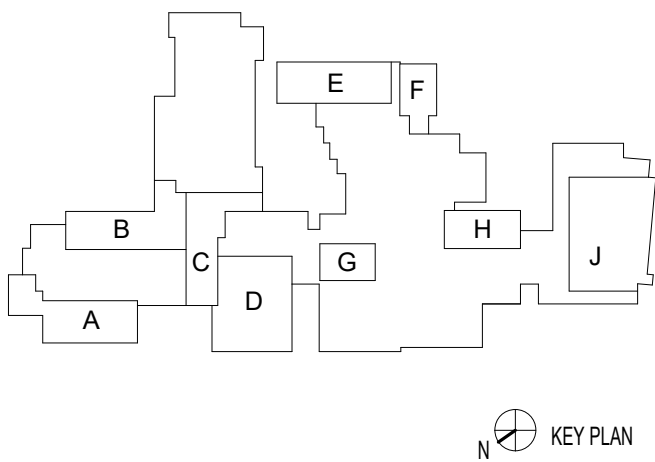


TECHNOLOGY SHEET INDEX - E-RATE		
SHEET NUMBER	SHEET NAME	Sheet Issue Date
T0.01E	TECHNOLOGY - INDEX SHEET	09/15/22
T1.00	TECHNOLOGY - SITE PLAN	07/27/22
T2.00E	TECHNOLOGY - 01 FLOOR PLAN - OVERALL	09/15/22
T2.10E	TECHNOLOGY - 02 FLOOR PLAN - OVERALL	09/15/22
T4.00E	TECHNOLOGY - ENLARGEMENTS	09/15/22
T5.00E	TECHNOLOGY - DETAILS	09/15/22
T5.01E	TECHNOLOGY - DETAILS	09/15/22

- TECHNOLOGY - GENERAL NOTES**
- EACH KEYNOTE MAY NOT BE UTILIZED ON EVERY SHEET.
 - ALL CONDUIT MEASUREMENTS REFER TO STANDARD CONDUIT TRADE SIZES.
 - ALL CABLES SHALL BE CONCEALED.
 - EACH CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY SLEEVES, WHETHER OR NOT SPECIFICALLY NOTED ON PROJECT DRAWINGS. ALL SLEEVES SHALL BE 2" UNLESS NOTED OTHERWISE ON THE DRAWINGS. CABLE FILL PERCENTAGE SHALL COMPLY WITH NEC.
 - DEVICE LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL REVIEW CONDITIONS AND COORDINATE WITH OTHER TRADES AS NECESSARY FOR EXACT PLACEMENT.



TECHNOLOGY KEYNOTES - ERATE	
①	EXISTING UNDERGROUND PATHWAY.
②	EXISTING PULL BOX.
③	EXISTING OVERHEAD PATHWAY UNDER CANOPY TO IDF 6-194.
④	POLE MOUNTED CAMERA. CONTRACTOR SHALL PROVIDE POWERED FIBER SOLUTION INCLUDING CABLING AND ALL OTHER NECESSARY COMPONENTS FROM IDF 6-194 TO POLE MOUNTED CAMERA LOCATION.



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HUTTO ISD

HUTTO HIGH SCHOOL MODERNIZATION

101 CHRIS KELLEY BLVD, HUTTO, TX 78634

200 COLLEGE STREET
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OR CONSTRUCTION.

Tony Chojnowski
BLS - REG # 11065

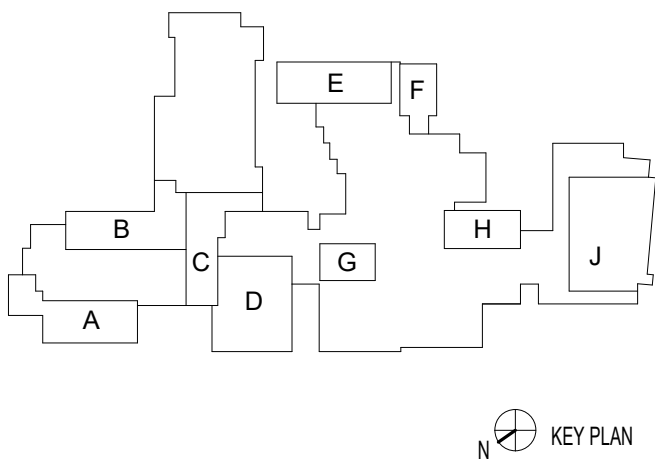
PROJECT NO.	21-064
DATE	09/01/2022
DRAWN BY: BH	CHECKED BY: JC
REVISIONS:	
△	Date Description

95% CD
T1.00
TECHNOLOGY - SITE
PLAN

pfluger

office: 512.476.4040 | fax: 512.476.4289
209 E Riverside Drive
Austin, Texas 78704
pflugarchitects.com

1 TECHNOLOGY - 01 FLOOR PLAN - OVERALL (ERATE)
SCALE: 1/32" = 1'-0"



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TECHNOLOGY KEYNOTES - ERATE	
①	EXISTING MDF LOCATION
②	EXISTING IDF LOCATION
③	NEW IDF LOCATION
④	CAT6A DATA DROP FOR AV DEVICE(S) SHALL BE ROUTED TO SWITCH IN IDF 6-194. FIELD VERIFY EXACT INSTALL LOCATION WITH EXISTING AV DEVICE ROUGH-IN.

HUTTO HIGH SCHOOL - ERATE

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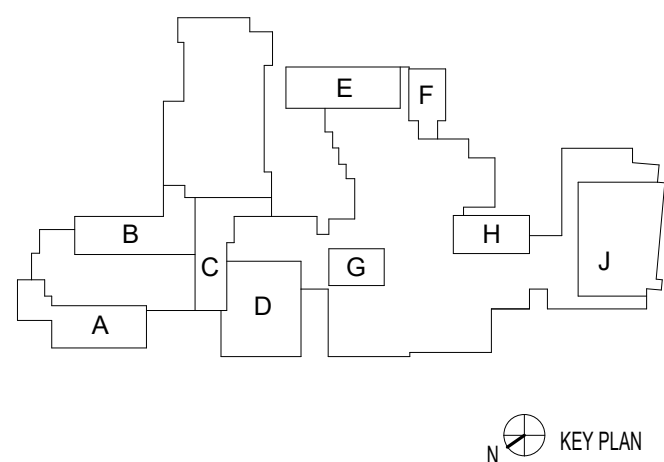
HUTTO ISD

200 COLLEGE STREET
HUTTO, TX 78634



PROJECT NO.	21-064
DATE	10/04/2022
DRAWN BY: CG	CHECKED BY: JC
REVISIONS:	
△	Date Description

ERATE
T2.00E
TECHNOLOGY - 01
FLOOR PLAN - OVERALL



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TECHNOLOGY KEYNOTES - ERATE	
①	EXISTING MDF LOCATION
②	EXISTING IDF LOCATION
③	NEW IDF LOCATION.
④	CAT6A DATA DROP FOR AV DEVICE(S) SHALL BE ROUTED TO SWITCH IN IDF 6-194. FIELD VERIFY EXACT INSTALL LOCATION WITH EXISTING AV DEVICE ROUGH-IN.

HUTTO HIGH SCHOOL - ERATE

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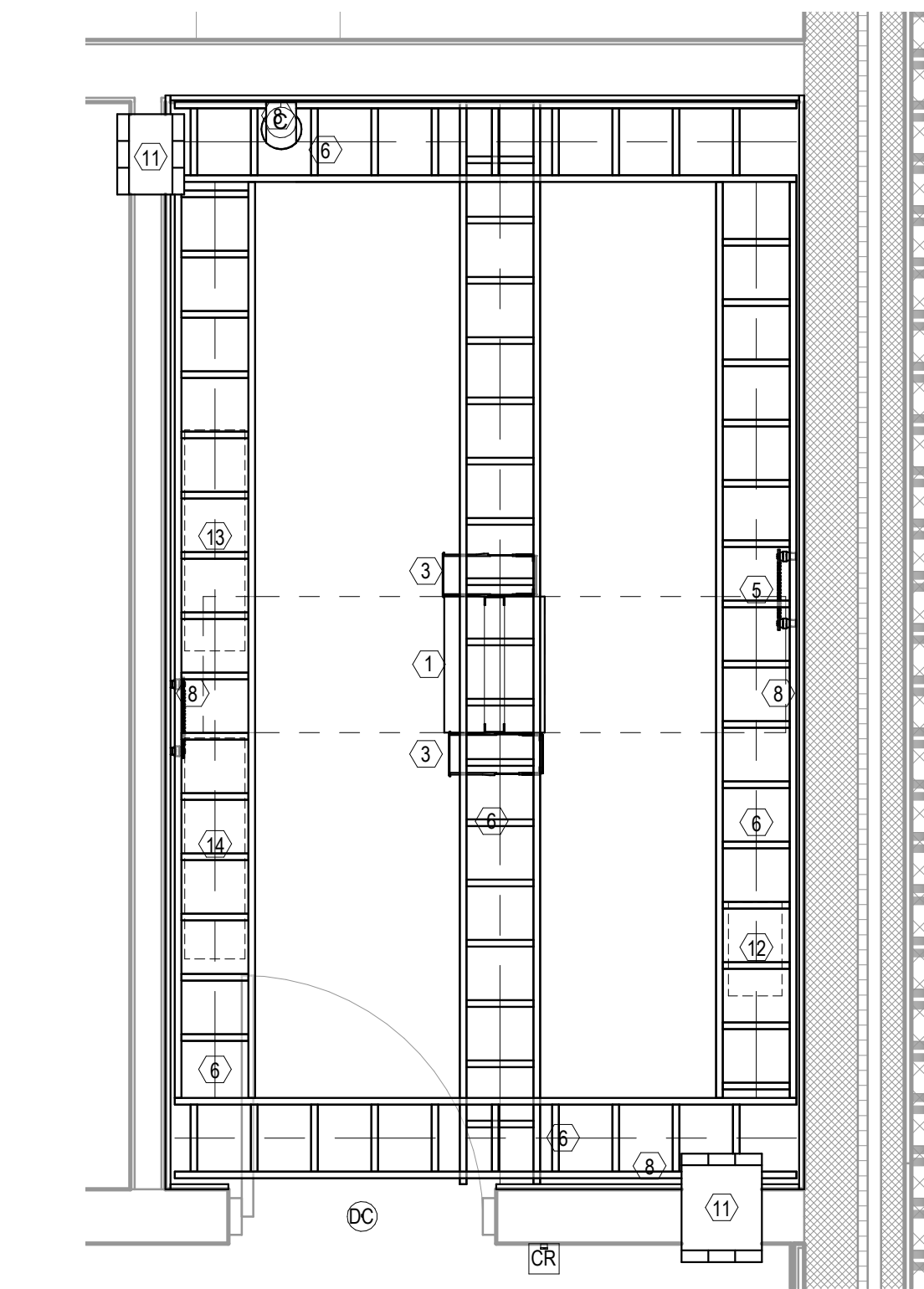
HUTTO ISD

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HUTTO, TX 78634



PROJECT NO.	21-064
DATE	10/04/2022
DRAWN BY: CG	CHECKED BY: JC
REVISIONS:	
△	Date Description

ERATE
T2.10E
TECHNOLOGY - 02
FLOOR PLAN - OVERALL



1 TECHNOLOGY - LEVEL 1 - IDF 6-194 (E-RATE)
SCALE: 1/2" = 1'-0"

ENLARGEMENT KEYNOTES	
1	2-POST RACK, SECURED TO FLOOR WITH EXPANSION ANCHORS, FIRST RACK SHALL BE 6" FROM WALL, IF VERTICAL WIRE PRESENT BETWEEN RACK AND WALL THEN VERTICAL WIRE MANAGER ATTACHED TO WALL SIDE OF RACK SHALL BE 6" FROM WALL. (TYPICAL)
2	4-POST RACK, SECURED TO FLOOR WITH EXPANSION ANCHORS, FIRST RACK SHALL BE 6" FROM WALL, IF VERTICAL WIRE PRESENT BETWEEN RACK AND WALL THEN VERTICAL WIRE MANAGER ATTACHED TO WALL SIDE OF RACK SHALL BE 6" FROM WALL. (TYPICAL)
3	6" VERTICAL WIRE MANAGER SECURED TO SIDE OF RACK (TYPICAL)
4	10" VERTICAL WIRE MANAGER SECURED TO SIDE OF RACK (TYPICAL)
5	GROUND BUS BAR, MOUNTED 6" AFF. ELECTRON PLATED AND PREDRILLED TO ACCEPT STANDARD TWO-HOLE LUGS.
6	18"x2" LADDER RACK SECURED TO TOP OF RACK WITH LADDER RACK MOUNTING PLATE AND BOLTED TO WALL, WITH WATER FALLS INTO VERTICAL WIRE MANAGERS (TYPICAL)
7	18"x2" LADDER RACK WITH 6" CLEARANCE FROM WALL (TYPICAL)
8	3/4" FIRED RATED PLYWOOD SECURED TO WALL AT 22" AFF. IF THE PLYWOOD IS PAINTED, THE PAINT SHALL BE FIRE RETARDANT PAINT ON BOTH SIDES AND THE RATING STAMP ON THE PLYWOOD SHALL BE EXPOSED.
9	(4) 4" CONDUIT SLEEVES STUBBED UP 4" FROM FLOOR BELOW, WITH UL-LISTED 2-HOUR RATED RE-ENTERABLE FIRE STOP SYSTEM.
10	(4) 4" CONDUIT SLEEVES STUBBED UP TO FLOOR ABOVE, WITH UL-LISTED 2-HOUR RATED RE-ENTERABLE FIRE STOP SYSTEM.
11	FIRESTOP SLEEVES, STI EZPATH OR HILTI SPEED SLEEVES.
12	SPACE RESERVED FOR TELEPHONE TERMINAL BLOCKS OR FRAME.
13	SPACE RESERVED FOR SECURITY PANELS.
14	SPACE RESERVED FOR PA EQUIPMENT.

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PROJECT NO.	21-064
DATE:	08/15/2022
DRAWN BY: CG	CHECKED BY: JC
REVISIONS:	
1	08-15-22 ADDENDUM #1

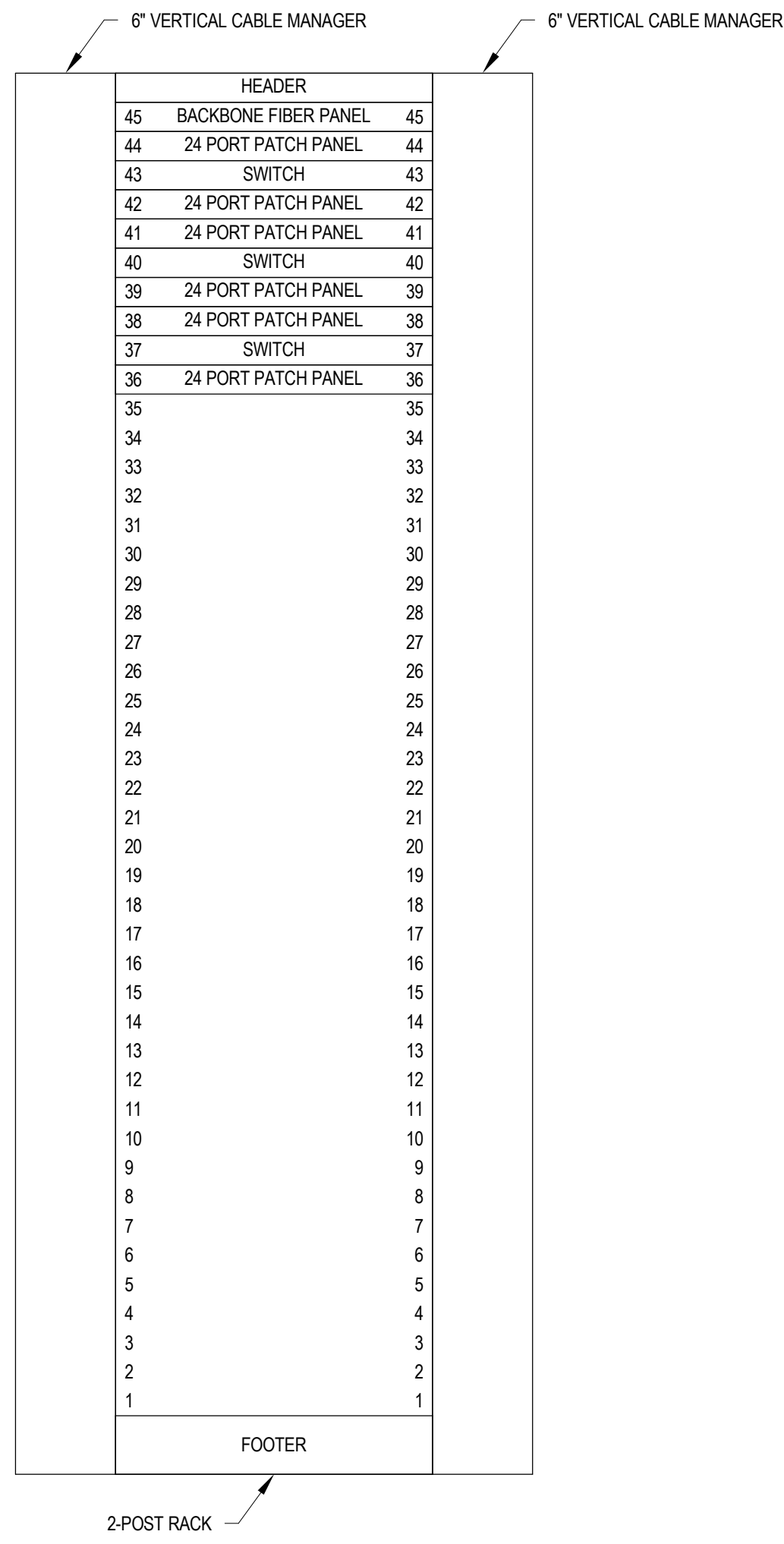
GMP 1
T4.00E
TECHNOLOGY -
ENLARGEMENTS

HUTTO HIGH SCHOOL MODERNIZATION - GMP 1

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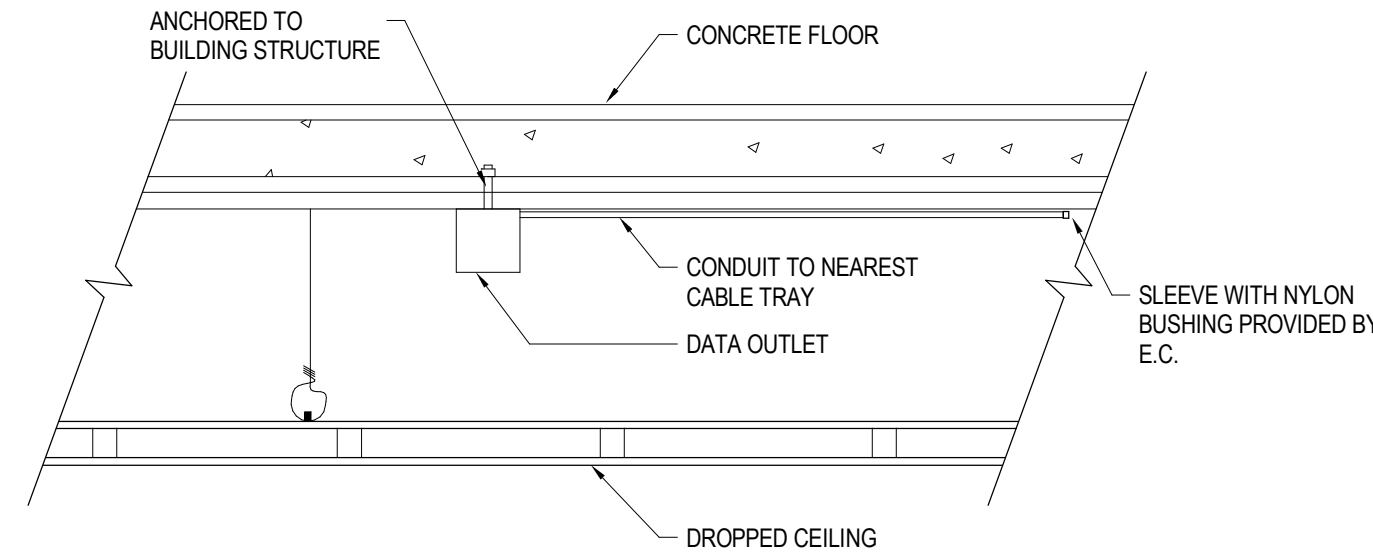
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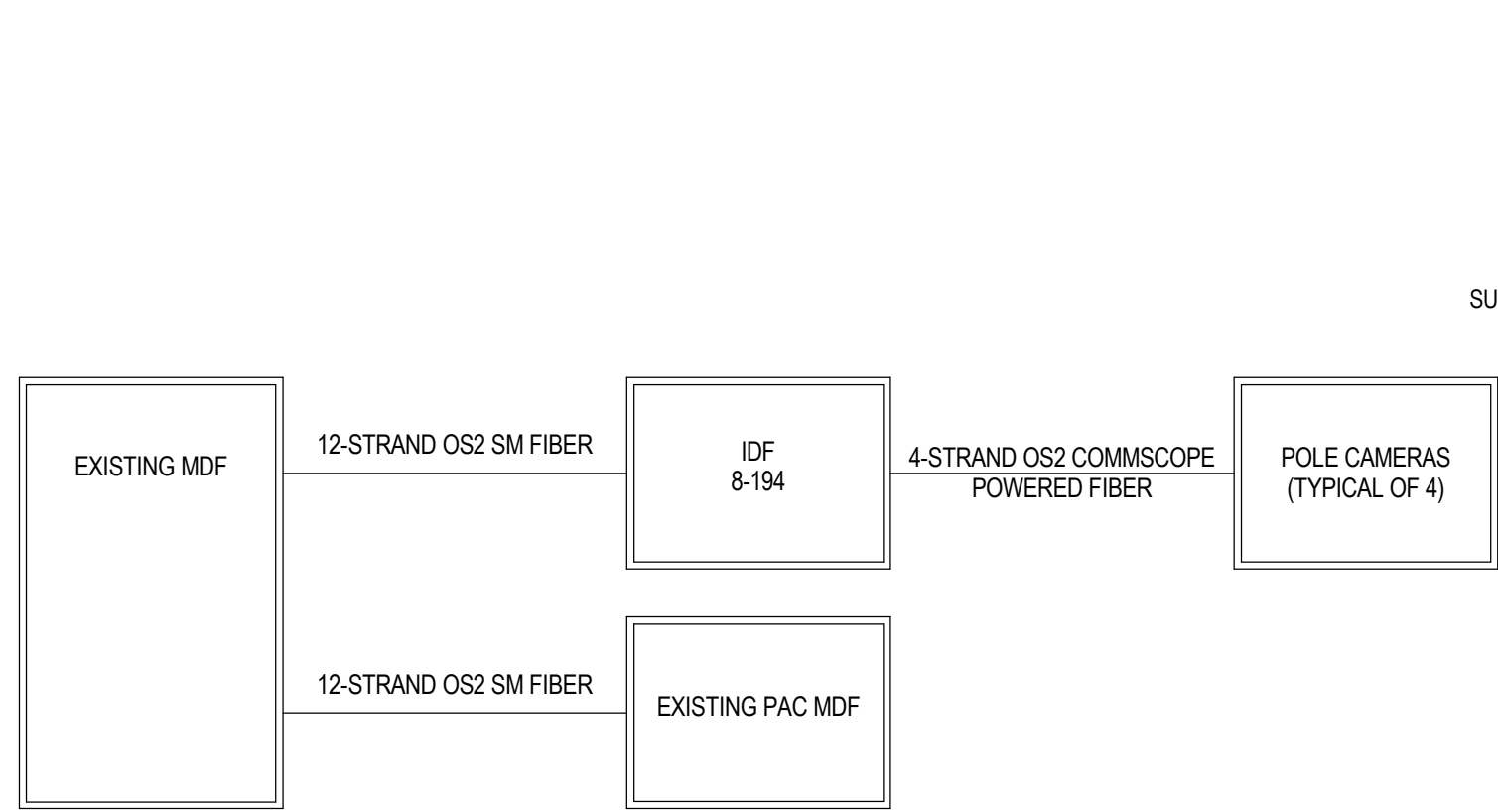


NOTE: ELEVATION SHOWN TO DEMONSTRATE TYPICAL LAYOUT. CONTRACTOR SHALL PROVIDE QUANTITIES PLUS 20% GROWTH AS NECESSARY FOR EACH TR LOCATION. CONFIRM ACTUAL LAYOUT WITH OWNER PRIOR IN PRE-CONSTRUCTION MEETING, PRIOR TO INSTALLATION.

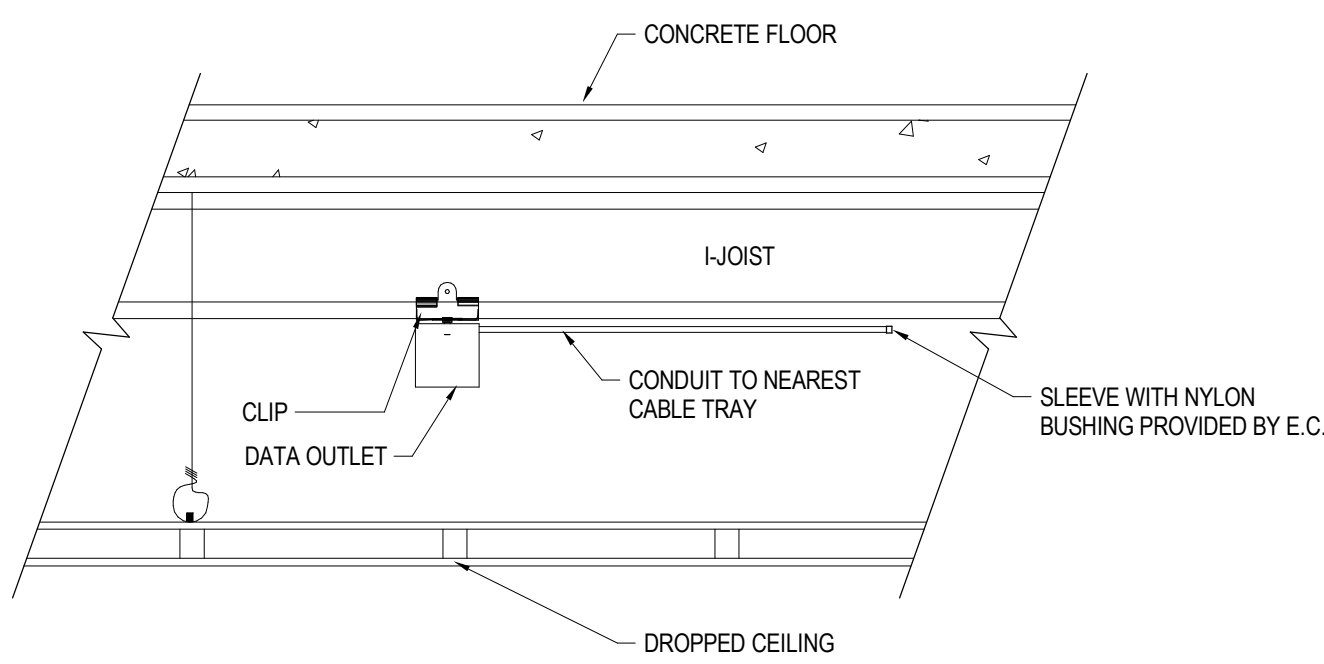
1 IDF - RACK ELEVATION
SCALE: NTS



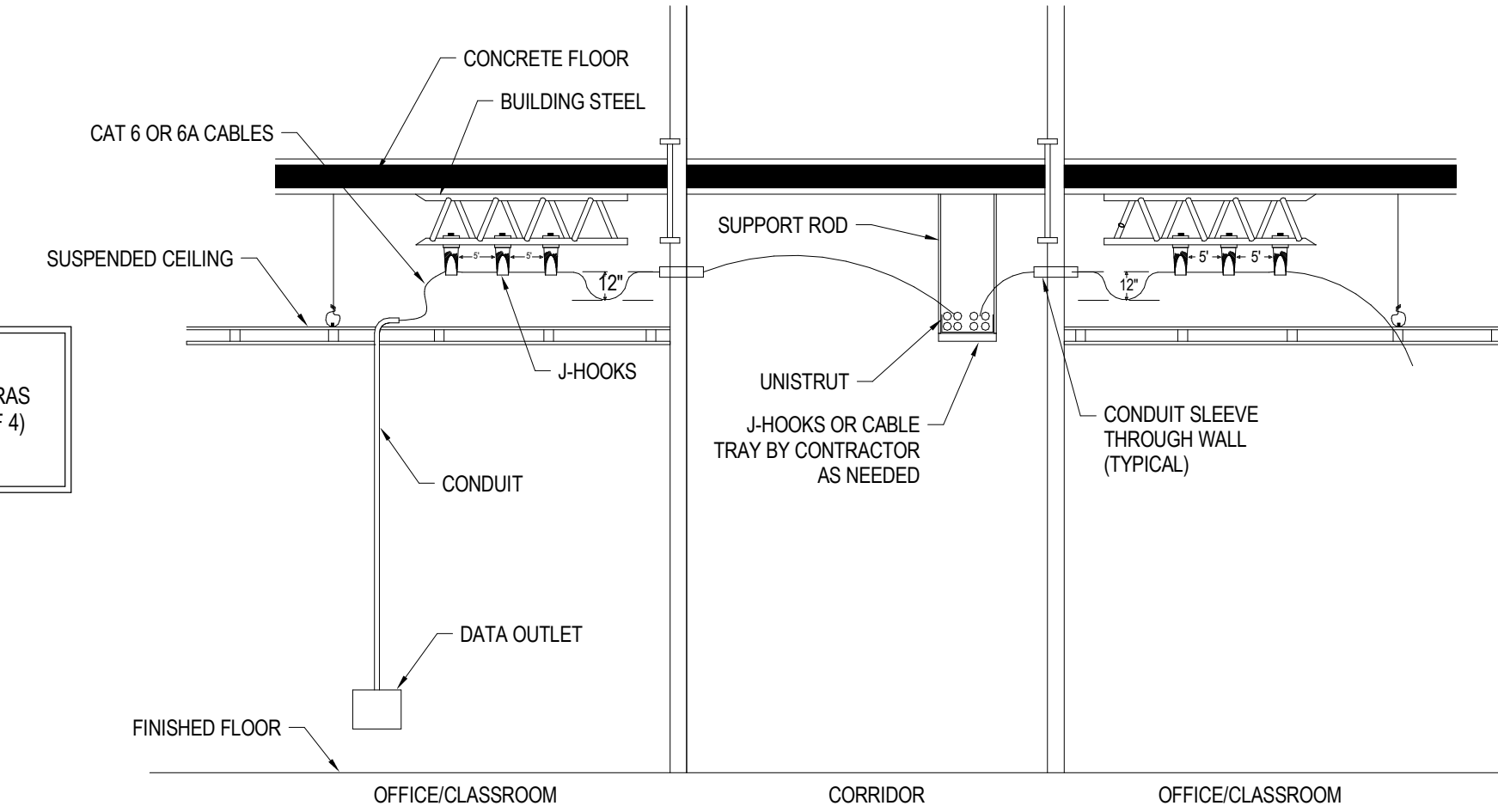
5 DROPPED CEILING MOUNTING DETAIL
SCALE: NS



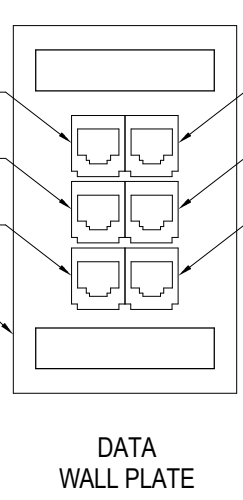
2 HUTTO HS NEW IDF BACKBONE CONNECTIVITY BY CABLING CONTRACTOR
SCALE: NTS



6 I-JOIST MOUNTING DETAIL
SCALE: NS

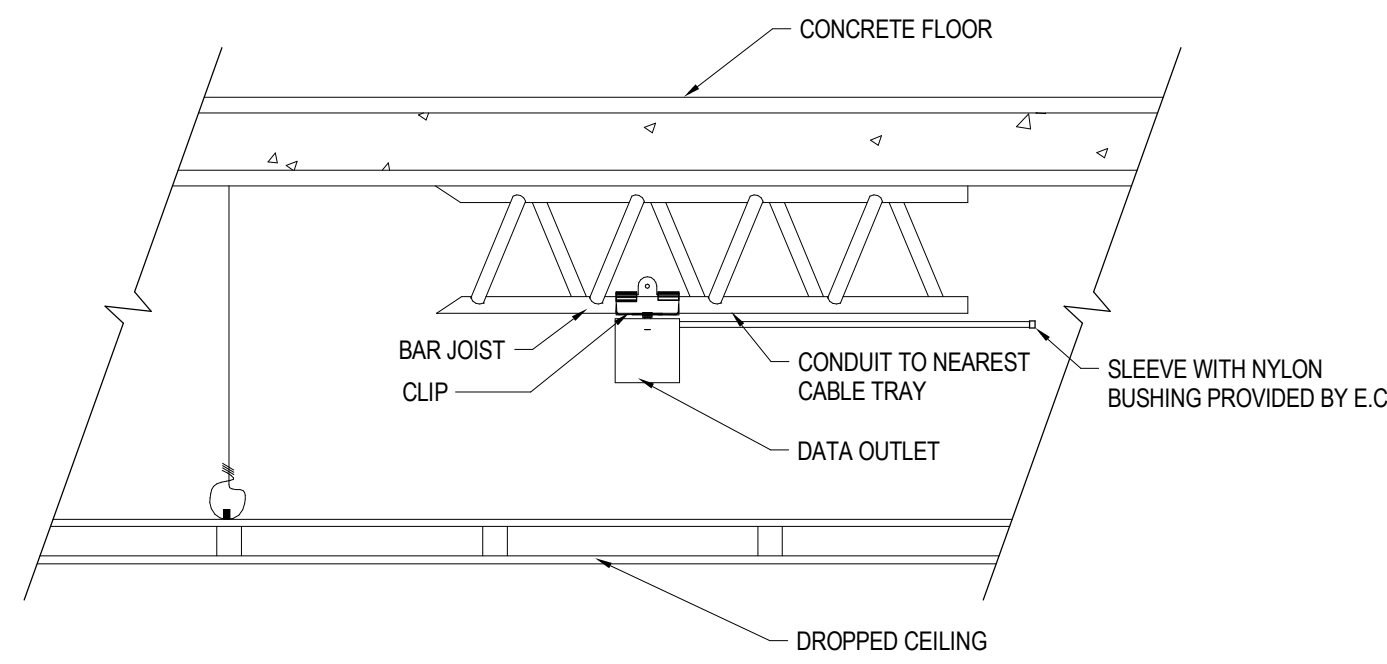


3 TYPICAL CLASSROOM HORIZONTAL CONNECTIVITY SECTION
SCALE: NTS

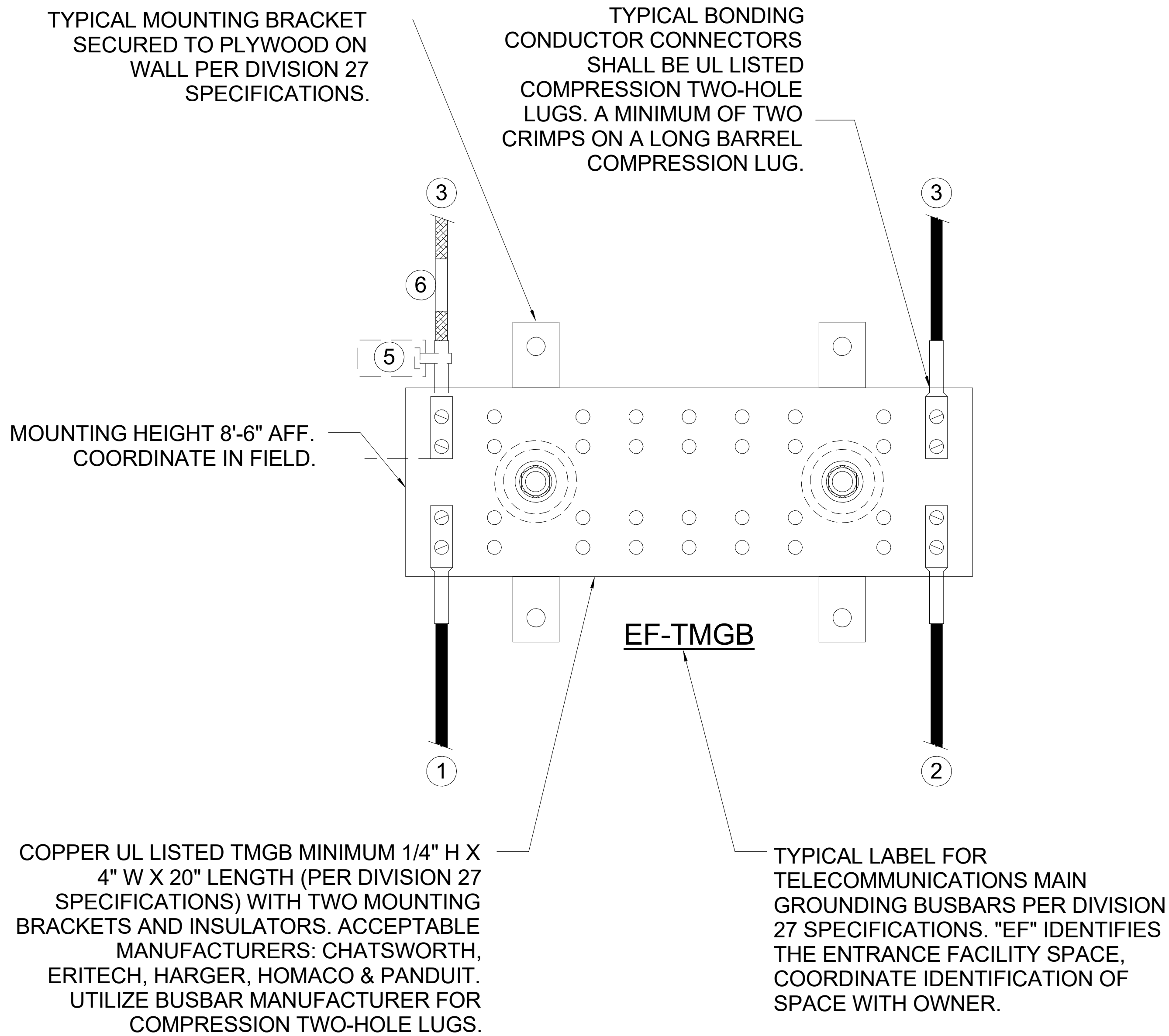


NOTE: WHERE EXISTING DUAL GANG BACKBOX IS USED CONTRACTOR SHALL PROVIDE DUAL GANG FACEPLATE.

7 DATA ROUGH-IN DETAILS
SCALE: NS

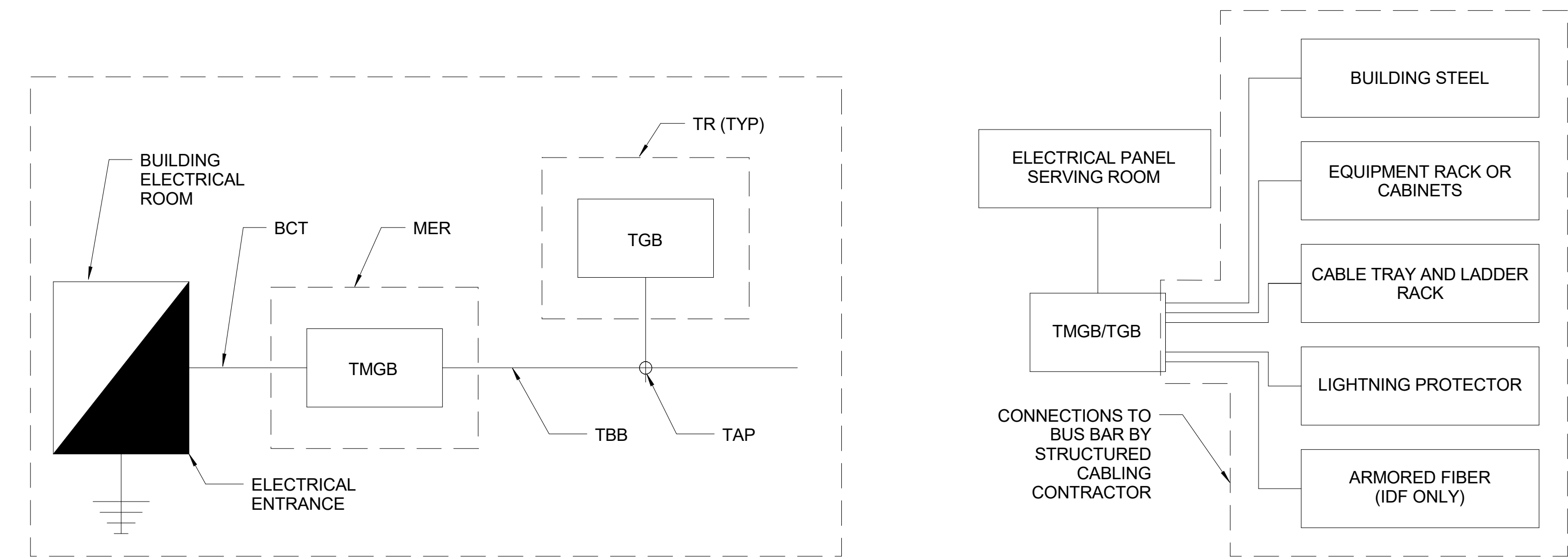


4 BAR JOIST MOUNTING DETAIL
SCALE: NS



BONDING CONDUCTOR SIZING CHART	
LENGTH (FEET)	SIZE (AWG)
LESS THAN (<) 13'	# 6
14' - 20'	# 4
21' - 26'	# 3
27' - 33'	# 2
34' - 41'	# 1
42' - 42'	# 1/0
42' - 52'	# 2/0
GREATER THAN (>) 66'	# 3/0

1 GROUNDING AND BONDING DETAIL
SCALE: NTS

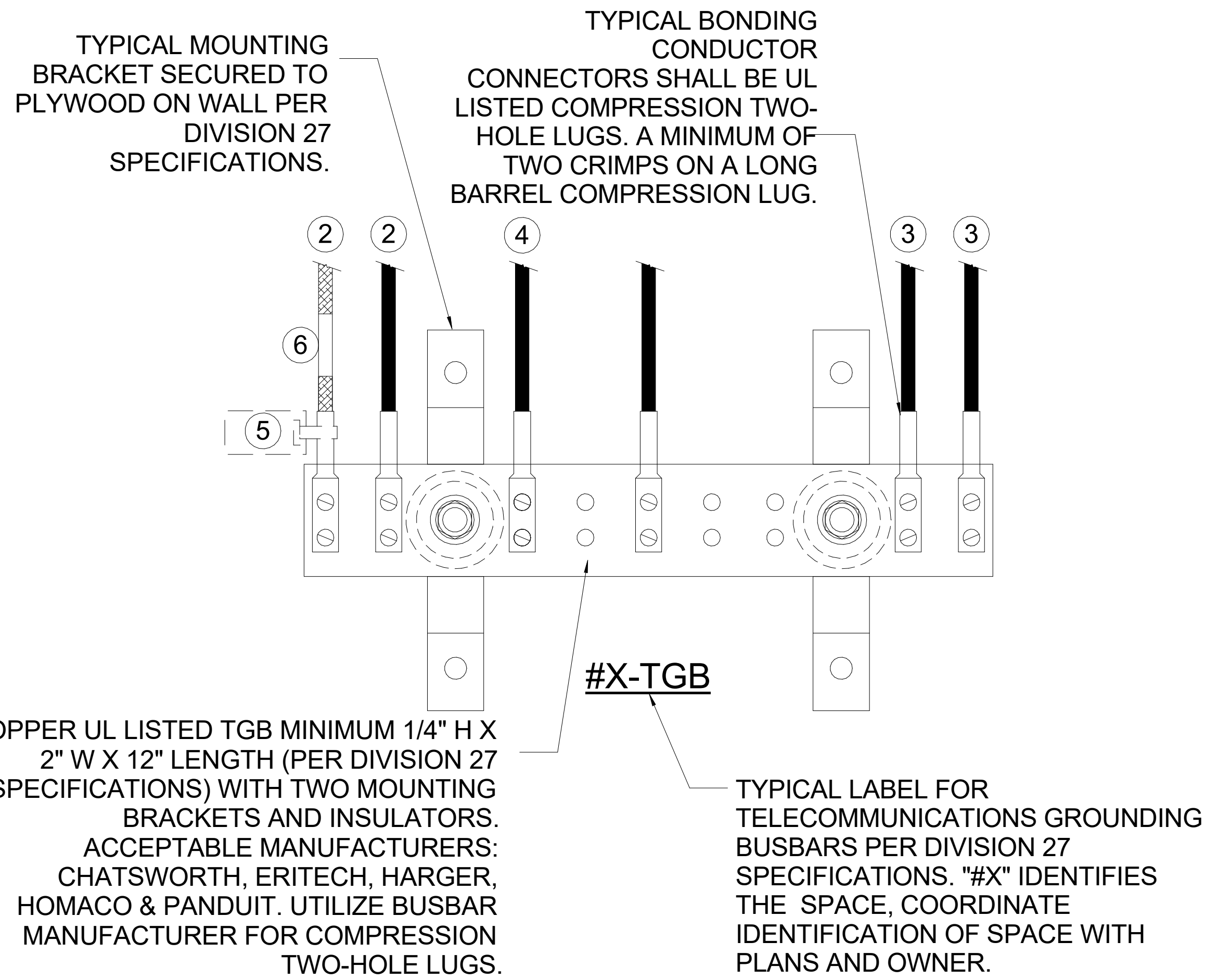


2 TYPICAL GROUNDING FLOW DIAGRAM
SCALE: NS

3 TELECOM ROOM BONDING DIAGRAM
SCALE: NS

GROUNDING & BONDING GENERAL NOTES

- ELECTRICAL CONTRACTOR RESPONSIBILITY - TELECOMMUNICATION MAIN GROUNDING BUSBAR (TMGB), TELECOMMUNICATION GROUNDING BUSBAR(S) (TGBS), AND THE BONDING CONDUCTORS TO THE BUILDING GROUNDING ELECTRODE, BUILDING STRUCTURAL STEEL, AND BONDING OF ALL TGBS TO THE TMGB SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. ALL GROUNDING OF OF EQUIPMENT, RACKS, CABINETS, AND DEVICES SHALL BE THE RESPONSIBILITY OF THE DIVISION 27 TECHNOLOGY CONTRACTOR.
- REFER TO GROUNDING AND BONDING DIVISION 27 SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- BONDING CONDUCTORS SHALL BE #3/0 AWG COLOR GREEN INSULATED COPPER CONDUCTOR OR SIZED PER "BONDING CONDUCTOR SIZING CHART" (ANSI J-STD-607-B) IN PATHWAY.
- FASTENING BONDING CONNECTOR TWO -HOLE LUGS TO ALL BUSBARS SHALL BE CLEANED AND APPLY A COPPER ANTI-OXIDANT TO THE CONTACT AREA OF BOTH THE CONNECTOR LUG AND THE BUSBAR.
- BONDING CONDUCTORS AND BUSBARS SHALL BE LABELED WITH IDENTIFICATION IN ACCORDANCE WITH THE REQUIREMENTS OF ANSI/TIA/EIA-606-B.
- BONDING CONDUCTORS SHALL BE LABELED WITH IDENTIFICATION LABEL NOTED BELOW AND SECURED WITH CABLE TIE TO EACH CONDUCTOR. (ANSI J-STD-607-B) IF THIS CONNECTOR OR CABLE IS LOOSE OR MUST BE REMOVED, PLEASE CALL THE BUILDING TELECOMMUNICATIONS MANAGER".
- DIVISION 27 CONTRACTOR SHALL PERFORM CONTINUITY TESTING MEASUREMENTS OF THE GROUNDING RESISTANCE TO NOT EXCEED 0.1 OHM BETWEEN:
 - THE TMGB AND THE NEAREST GROUNDING ELECTRODE.
 - THE TGB AND THE NEAREST GROUNDING ELECTRODE.
 - EACH TGB AND THE PATHWAY(S), RACK(S), CABINETS(S) AND APPLICABLE EQUIPMENT.



GROUNDING & BONDING NOTES

- BONDING CONDUCTOR FOR TELECOMMUNICATIONS (BCT) TO BUILDING MAIN ELECTRICAL GROUND SYSTEM.
- BCT TO TELECOMMUNICATIONS CABLE RUNWAYS(S), RACK(S), CABINET(S) AND APPLICABLE EQUIPMENT. DAISY CHAINING OF BCT AT RELAY RACKS IS NOT ACCEPTABLE. EACH RACK IS TO HAVE A BCT TO A COMPRESSION LUGTAP TO DEDICATED HOME RUN ACT BACK TO THE TGB. SEE DETAILS.
- TYPICAL TBB(S) THAT INTERCONNECTS ALL IDF TGB(S) WITH THE TMGB.
- BONDING CONDUCTOR TO EACH ARMORED FIBER JACKET. IDF SIDE ONLY.
- TYPICAL OF ALL BONDING CONDUCTORS WITH IDENTIFICATION LABEL NOTED BELOW AND SECURED WITH CABLE TIE TO EACH CONDUCTOR. (ANSI J-STD-607-B) "IF THIS CONNECTOR OR CABLE IS LOOSE OR MUST BE REMOVED, PLEASE CALL THE BUILDING TELECOMMUNICATIONS MANAGER".
- TYPICAL OF ALL BONDING CONDUCTORS CABLE IDENTIFIER/ LABEL.