GENERAL NOTES

1. REFER TO THE MOUNTING HEIGHT DIAGRAM FOR MOUNTING HEIGHTS UNO.
2. REFER TO DETAIL SHEETS FOR DEVICE SPECIFICATIONS AND INSTALLATION REQUIREMENTS.
3. ALL CONDUIT PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS, OR SHAFTS SHALL BE SEALED IN ACCORDANCE WITH SPECIFICATION SECTION 270524, DIVISION 7 SPECIFICATIONS, AS WELL AS ALL APPLICABLE CODES AND REGULATIONS.
4. CONTRACTOR(S) SHALL COORDINATE LOCATIONS OF ALL CEILING MOUNTED DEVICES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS, ELEVATIONS, SECTIONS, DETAILS AND FINISHES. ANY MODIFICATION THAT WOULD EFFECT PERFORMANCE OF THE DEVICE OR RELATED SYSTEM WHICH CANNOT BE ADJUSTED TO AN ACCEPTABLE LEVEL SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER.
5. VOICE AND/OR DATA CONNECTIONS TO MECHANICAL, ELECTRICAL, ELEVATOR OR OTHER EQUIPMENT PROVIDED BY OTHERS SHALL BE VERIFIED WITH THE VARIOUS MANUFACTURERS PRIOR TO INSTALLATION. THE INSTALLATION AS INDICATED ON THE DRAWINGS SHALL BE ADAPTED TO ACCOMMODATE SUCH MANUFACTURER REQUIRED OR SUGGESTED INSTALLATION PRACTICES AND METHODS, BUT SHALL BE DONE TO ALLOW ALL REQUIRED TESTING AND CERTIFICATION, AS WELL AS BEING COMPLETED IN COMPLIANCE WITH ALL CODES AND REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
6. ALL RACKS, CABINETS, CABLE TRAY, CABLE RUNWAY OR OTHER NON-CURRENT CARRYING EQUIPMENT SHALL BE GROUNDED TO THE TELECOMMUNICATIONS GROUNDING BUSBAR SERVICING THIS AREA IN ACCORDANCE WITH SPECIFICATION SECTION 27 05 26.
7. UTILIZATION OF THE PHRASE "PROVIDED BY" WITHIN THE CONTEXT OF THESE DOCUMENTS SHALL EXPLICITLY REPRESENT "FURNISHED AND INSTALLED BY".
8. THE CONTRACTOR(S) SHALL ASSUME RESPONSIBILITY FOR REMOVING EXISTING CEILING TILES AND REPLACE WITH EXISTING TILES AS REQUIRED FOR EXECUTION OF THEIR SCOPE OF WORK. THIS INCLUDES SPACES IN THE NEW WORK AS INDICATED ON THE DRAWINGS AND AREAS NOT SHOWN WHERE THE CONTRACTOR IS REQUIRED TO AFFECT EXISTING CONDITIONS WHILE EXECUTING THEIR SCOPE OF WORK. DAMAGED TILES SHALL BE REPLACED BY THE CONTRACTOR(S) AT NO COST TO THE OWNER OR THE OWNER'S REPRESENTATIVES.
9. THE CONTRACTOR(S) SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING NECESSARY FOR INSTALLATION OF NEW WORK WITHIN THEIR RESPECTIVE SCOPE. CUTTING OF A STRUCTURAL MEMBER IS PROHIBITED WITHOUT SPECIFIC WRITTEN PERMISSION FROM THE ARCHITECT. ALL CUTTING AND PATCHING SHALL BE PERFORMED BY QUALIFIED TRADESMEN.
10. WHENEVER NOT OTHERWISE SPECIFIED, THE FINAL LOCATIONS FOR VISIBLE ITEMS IN PUBLIC AREAS SHALL BE VERTICALLY AND OR HORIZONTALLY ALIGNED WITH OTHER DEVICES IN THE FIELD OF VIEW OR AS DIRECTED BY THE ARCHITECT. WHENEVER POSSIBLE CONTRACTOR SHALL SIMILARLY COORDINATE WITH THE DEVICE LOCATIONS OF OTHER TRADES. ITEMS OF SPECIAL CONCERN INCLUDE ANY DEVICE WITH A FACEPLATE INCLUDING BUT NOT LIMITED TO RECEPTACLES, SWITCHES, AND TECHNOLOGY OUTLETS ETC.
11. ALL DEVICES IN INACCESSIBLE CEILINGS SHALL HAVE CONDUIT STUB IN NEAREST ACCESSIBLE CEILING IN THE DIRECTION OF THE APPROPRIATE CABLE ROUTE, UON.

SLEEVE REQUIREMENT NOTE:

1. THE ELECTRICAL CONTRACTOR SHALL SUPPLY ALL NECCESSARY SLEEVES REQUIRED FOR ALL DEVICE LOCATIONS AND, AS REQUIRED, TO TRAVERSE THE BUILDING(S) WITH ANY/ALL HORIZONTAL AND BACKBONE CABLING. SLEEVES SHALL BE LOCATED SO AS TO PROVIDE A READY PATHWAY FROM EACH DEVICE AND/OR EQUIPMENT LOCATION TO THE PATHWAY DEFINED ON THESE DRAWINGS. FURTHERMORE ALL PATHWAYS SHALL BE CREATED BETWEEN THE CORRIDOR OR OTHER MAJOR PATHWAY AND THE DESTINATION TERMINATION POINT, E.G. PATCH PANEL IN RACK AT A RATE OF (1) 4" CONDUIT PER (50) CABLES, UON. PROVIDE PENETRATIONS DOWN MAJOR PATHWAYS THROUGH FIRE/SMOKE BARRIER AT A RATE OF (1)4" CONDUIT PER (50) CABLES, UON. ALL CONTRACTORS SHALL MAINTAIN ALL SMOKE BARRIER AND FIRE WALL RATINGS FOR ALL PENETRATIONS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THESE SLEEVES WITH THE TECHNOLOGY CONTRACTOR PRIOR TO INSTALLATION. MINIMUM SLEEVE SHALL BE 2".

PLENUM USAGE NOTE:

1. IT IS INCUMBENT ON THE BIDDER TO REVIEW THE MECHANICAL PLANS TO DETERMINE THE EXACT LOCATION OF PLENUM CABLE REQUIREMENTS AND PROVIDE THAT CABLE AS NECCESSARY, INCLUDING ANY CHANGES THAT WOULD BE MADE BY POTENTIAL ADDENDA OR BULLETINS OR OTHER DOCUMENT CHANGES.

SCOPE CLARIFICATION NOTE:

1. THE ELECTRICAL CONTRACTOR SHALL PROVIDE, UNDER THE DIVISION 26 SCOPE OF WORK, ALL CONDUIT, JUNCTION BOXES, HANDHOLES, MANHOLES, BACKBOXES, RACEWAYS, PLASTER RINGS AND RELATED HARDWARE REQUIRED FOR ALL ROUGH IN, AND CONDUIT PATHWAYS INDICATED ON THE DIVISION 27 DRAWINGS.
2. THE TECHNOLOGY CONTRACTOR SHALL PROVIDE, UNDER THE DIVISION 27/28 SCOPE OF WORK, BLANK FACEPLATES FOR ALL TECHNOLOGY ROUGH-INS INDICATED ON DIVISION 27 DRAWINGS AS BEING ROUGH-IN ONLY, FOR FUTURE USE, OR OTHERWISE LEFT UNUSED.
3. THE ELECTRICAL CONTRACTOR SHALL PROVIDE, UNDER THE SCOPE OF THE DIVISION 26 SCOPE OF WORK, ALL PLYWOOD BACKBOARDS INDICATED ON THE DIVISION 27/28 DRAWINGS, INCLUDING, BUT NOT LIMITED TO, ALL PREPARATIONS, SUCH AS TWO COATS OF FIRE RETARDANT PAINT ON ALL SIDES, AND ALL OTHER REQUIREMENTS LISTED IN SPECIFICATION SECTION 270524.
4. THE ELECTRICAL CONTRACTOR SHALL PROVIDE, UNDER THE DIVISION 26 SCOPE OF WORK, ONLY THOSE UPS'S AND/OR OTHER POWER QUALITY DEVICES INDICATED ON THE DIVISION 26 DOCUMENTS. THE TECHNOLOGY CONTRACTOR SHALL PROVIDE, UNDER THE DIVISION 27 SCOPE OF WORK, ALL UPS'S AND/OR POWER QUALITY DEVICES INDICATED ON THE DIVISION 27 AND/OR 28 DOCUMENTS.
5. THE ELECTRICAL CONTRACTOR SHALL PROVIDE, UNDER THE DIVISION 26 SCOPE OF WORK, ALL CABLE TRAY AND CABLE RUNWAY INDICATED ON THE DIVISION 27/28 DOCUMENTS NOT CONTAINED IN ROOMS INDICATED AS BEING TECHNOLOGY ROOMS, OR TR's.
6. THE ELECTRICAL CONTRACTOR SHALL PROVIDE, UNDER THE DIVISION 26 SCOPE OF WORK, ALL CONDUIT SLEEVES. CONDUIT SLEEVES SHALL BE AS INDICATED ON THE DRAWINGS, AND/OR REQUIRED BY THE SPECIFICATIONS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE EXACT SLEEVING REQUIREMENTS WITH THE TECHNOLOGY CONTRACTOR PRIOR TO INSTALLATION. MINIMUM SLEEVE SHALL BE 2", UON. SLEEVING SHALL BE LOCATED SO AS TO BE WITH THE DIRECTION OF CABLE ROUTING.
7. THE ELECTRICAL CONTRACTOR SHALL PROVIDE, UNDER THE DIVISION 26 SCOPE OF WORK, ALL BUSBARS, CABLING AND RELATED HARDWARE INDICATED ON THE DIVISION 27/28 DOCUMENTS, REQUIRED TO PROVIDE THE ENTIRE TECHNOLOGY GROUNDING SYSTEM.
8. THE TECHNOLOGY CONTRACTOR SHALL PROVIDE ALL BONDING JUMPERS REQUIRED TO BOND ALL EQUIPMENT PROVIDED BY THE TECHNOLOGY CONTRACTOR.
9. THE ELECTRICAL CONTRACTOR SHALL PROVIDE, UNDER THE DIVISION 26 SCOPE OF WORK, ALL BONDING JUMPERS REQUIRED TO BOND THE CABLETRAY SYSTEM SO AS TO ASSURE THAT THE ENTIRE CABLETRAY SYSTEM IS ELECTRICALLY CONTINUOUS AND BONDED TO THE ELECTRICAL GROUNDING SYSTEM.
10. THE TECHNOLOGY CONTRACTOR SHALL PROVIDE, UNDER THE DIVISION 27 SCOPE OF WORK, ALL OTHER CABLING, CONNECTORS, PATHWAY HARDWARE AND OTHER EQUIPMENT REQUIRED TO COMPLETE THE INSTALLATION OF THE SYSTEMS AND CABLE PLANT AS INDICATED ON THE DIVISION 27 DOCUMENTS.

TEMPORARY CABLING NOTE:

1. TECHNOLOGY CONTRACTOR SHALL PROVIDE ALL TEMPORARY TECHNOLOGY CABLING FOR TEMPORARY FACILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION TRAILERS. TECHNOLOGY CONTRACTOR SHALL ALSO REMOVE ALL TEMPORARY CABLING AT THE END OF THE PROJECT WHEN DIRECTED BY THE CONSTRUCTION MANAGER.

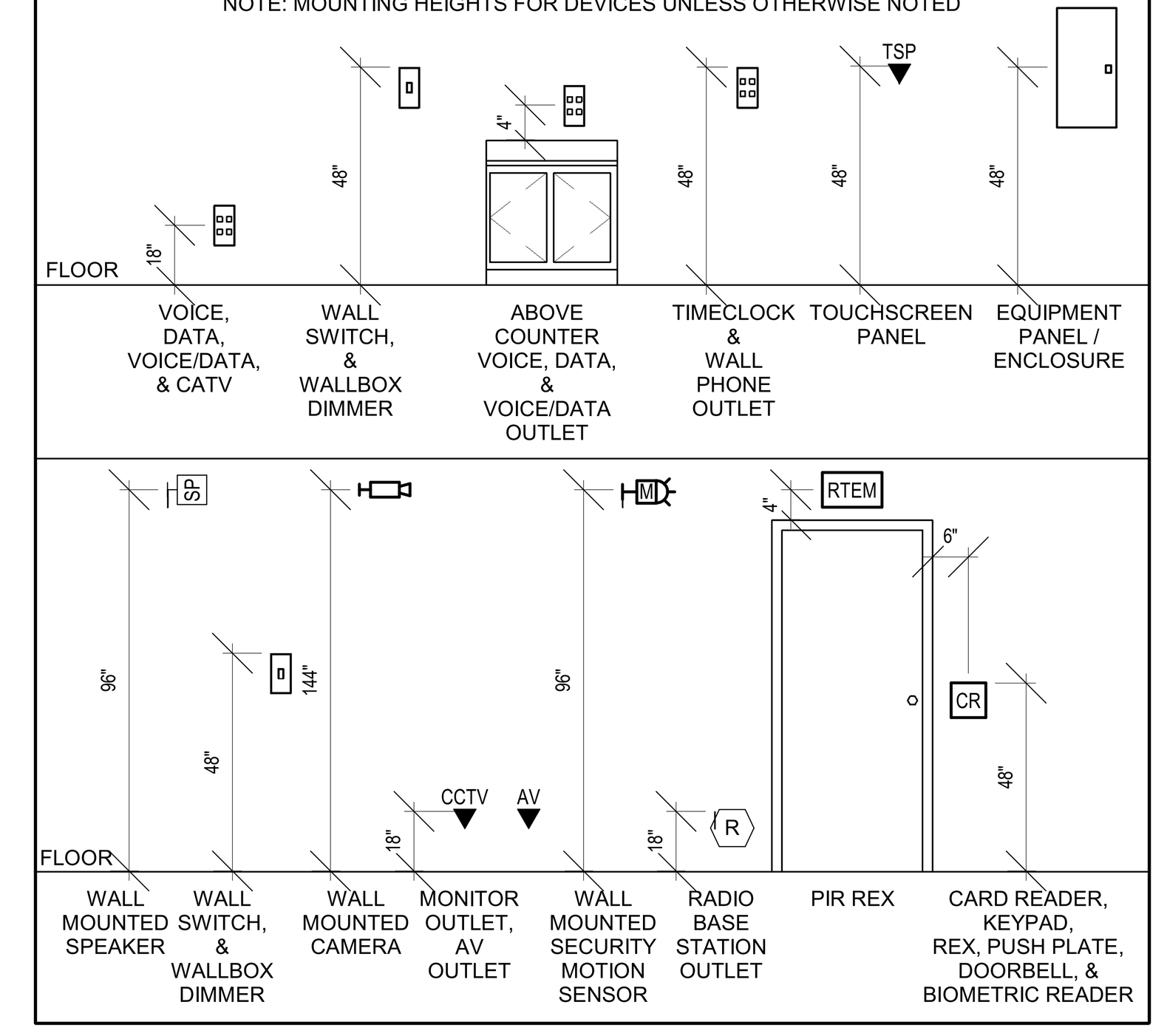
ABBREVIATIONS

A	AMPERE
AAC	ABOVE ACCESSIBLE CEILING
AC	ALTERNATING CURRENT
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AGL	ABOVE GRADE LEVEL
AHJ	AUTHORITY HAVING JURISDICTION
AL	ALUMINUM
ARCH	ARCHITECT
ATM	AUTOMATIC TELLER MACHINE
AV	AUDIOVISUAL
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BFG	BELOW FINISHED GRADE
BICSI	BUILDING INDUSTRY CONSULTING SERVICE INTERNATIONAL
BKBD	BACKBOARD
BLDG	BUILDING
BMS	BUILDING MANAGEMENT SYSTEM
C	CONDUIT
CAM	CAMERA
CAT	CATEGORY
CATV	COMMUNITY ANTENNA TELEVISION / CABLE TELEVISION
CCTV	CLOSED CIRCUIT TELEVISION
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CKT	CIRCUIT
CLG	CEILING
CONC	CONCRETE
CO	CONDUIT ONLY
CP	CONSOLIDATION POINT
CONT	CONTINUATION
CU	COPPER
DAS	DISTRIBUTED ANTENNA SYSTEM
DB	DECIBEL
DIV	DIVISION
DIA	DIAMETER
DP	DEMARCATION POINT
DPDT	DOUBLE POLE DOUBLE THROW
DWG	DRAWING
EA	EACH
EAC	ELECTRONIC ACCESS CONTROL
EC	ELECTRICAL CONTRACTOR
EF	ENTRANCE FACILITY
EIA	ELECTRONICS INDUSTRIES ASSOCIATION
ELEC	ELECTRICAL
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EP	EXPLOSION PROOF
EQUIP	EQUIPMENT
ER	EQUIPMENT ROOM
ETR	EXISTING TO REMAIN
EXIST	EXISTING
EXT	EXTERIOR
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM TERMINAL CABINET
FIXT	FIXTURE
FO	FIBER OPTIC
FT	FEET
G	GROUND
GC	GENERAL CONTRACTOR
HC	HORIZONTAL CROSS-CONNECT
HP	HORSEPOWER
HZ	HERTZ (CYCLES/SECOND)
INTERCOM	INTERCOMMUNICATION
IP	INTERNET PROTOCOL
IR	INFRARED
ISP	INTERNET SERVICE PROVIDER
JB	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KO	KNOCKOUT
KVM	KEYBOARD/VIDEO/MOUSE
KW	KILOWATT
LAN	LOCAL AREA NETWORK
LCP	LIGHTING CONTROL PANEL
LTG	LIGHTING
LV	LOW VOLTAGE
LVC	LOW VOLTAGE CONTRACTOR

MATV	MASTER ANTENNA TELEVISION
MAX	MAXIMUM
MC	MAIN CROSS-CONNECT
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MM	MULTIMODE
MTD	MOUNTED
MTG	MOUNTING
MTR	MAIN TELECOMMUNICATIONS ROOM
N/A	NOT APPLICABLE
NEC	NATIONAL ELECTRICAL CODE
NEX	NEW DEVICE IN EXISTING BACKBOX
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OBC	OHIO BUILDING CODE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFE	OWNER FURNISHED EQUIPMENT
OFOI	OWNER FURNISHED OWNER INSTALLED
OSP	OUTSIDE PLANT
PA	PUBLIC ADDRESS
PB	PULL BOX
PBX	PRIVATE BRANCH EXCHANGE
PIR	PASSIVE INFRARED
PLBG	PLUMBING
P/N	PART NUMBER
POC	POINT OF CONNECTION
POE	POWER OVER ETHERNET
POS	POINT OF SALE
PP	PATCH PANEL
PR	PAIR
PTZ	PAN/TILT/ZOOM
PVC	POLYVINYL CHLORIDE
PWR	POWER
QTY	QUANTITY
RCDD	REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
RD	RELOCATED DEVICE
REC	RECESSED
RECPT	RECEPTACLE
REF	REFRIGERATOR
REX	REMOVE EXISTING DEVICE
RF	RADIO FREQUENCY
RGS	RIGID GALVANIZED STEEL
RR	REMOVE AND RELOCATE
RTE	REQUEST TO EXIT
RU	RACK UNIT (1 3/4")
SM	SINGLE MODE
SP	SPEAKER
SPD	SURGE PROTECTIVE DEVICE
SPEC	SPECIFICATION
STP	SHIELDED TWISTED PAIR
SYM	SYMMETRICAL
SYS	SYSTEM
TBD	TO BE DETERMINED
TC	TECHNOLOGY CONTRACTOR
TELECOM	TELECOMMUNICATIONS
TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
TR	TELECOMMUNICATIONS ROOM
TV	TELEVISION
TYP	TYPICAL
UG	UNDERGROUND
UGPS	UNDERGROUND PULL SECTION
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTP	UNSHIELDED TWISTED PAIR
V	VOLTS
VLAN	VIRTUAL LOCAL AREA NETWORK
VMS	VIDEO MANAGEMENT SOFTWARE
VOIP	VOICE OVER INTERNET PROTOCOL
W	WATTS
WAN	WIDE AREA NETWORK
WAP	WIRELESS ACCESS POINT
WG	WIRE GUARD
WLAN	WIRELESS LOCAL AREA NETWORK
WP	WEATHERPROOF
XFMR	TRANSFORMER

DEVICE MOUNTING HEIGHT DIAGRAM

NOTE: MOUNTING HEIGHTS FOR DEVICES UNLESS OTHERWISE NOTED



INTRUSION DETECTION SYSTEM

GB	GLASS BREAK SENSOR	IDCP	INTRUSION CONTROL PANEL
M	SECURITY MOTION SENSOR, CEILING-MOUNTED	M	SECURITY MOTION SENSOR, WALL-MOUNTED

DEVICE NOTES:
1. PROVIDE A SINGLE GANG 1-1/2" DEEP BACK BOX WITH A SINGLE GANG REDUCTION RING AT EACH LOCATION, UNO.
2. PROVIDE A 1/2" CONDUIT ROUTED BETWEEN THE BACK BOX AND THE NEAREST CABLE PATHWAY, UNO.

CATV SYSTEM

XX TV	TELEVISION OUTLET, WALL-MOUNTED
XX TV	TELEVISION OUTLET, CEILING-MOUNTED

DEVICE NOTES:
1. PROVIDE A 4-11/16" SQUARE BY 2-1/8" DEEP BACK BOX AT EACH LOCATION, UNO.
2. PROVIDE A 3/4" CONDUIT ROUTED BETWEEN BACK BOX AND NEAREST CABLE PATHWAY, UNO.
3. TERMINATE COAXIAL CABLING ON A F-TYPE CONNECTOR, UNO.

XX = DEVICE TYPE
V = VIDEO OUTLET

INTERCOM SYSTEM

XX	INTERCOM STATION

DEVICE NOTES:
1. PROVIDE A 4-11/16" SQUARE BY 2-1/8" DEEP BACK BOX AT EACH LOCATION, UNO.
2. PROVIDE A 1" CONDUIT ROUTED BETWEEN THE BACK BOX AND THE NEAREST CABLE PATHWAY, UNO.

ICP	INTERCOM CONTROL PANEL

XX = DEVICE TYPE
IDM = INTERCOM MASTER STATION
IDS = INTERCOM DOOR STATION
IDV = INTERCOM DOOR VIDEO

VIDEO SURVEILLANCE SYSTEM

XX	VIDEO SURVEILLANCE CAMERA, WALL-MOUNTED	XX	VIDEO SURVEILLANCE CAMERA, CEILING-MOUNTED
XX	VIDEO SURVEILLANCE CAMERA, PAN-TILT-ZOOM, WALL-MOUNTED	XX	VIDEO SURVEILLANCE CAMERA, PAN-TILT-ZOOM, CEILING-MOUNTED

DEVICE NOTES:
1. REFER TO CAMERA SCHEDULE FOR DEVICE TYPE AND MOUNTING INFORMATION.

XX = DEVICE DESCRIPTION
360 = 360 DEGREE CAMERA
180 = 180 DEGREEE CAMERA
PTZ = PAN/TILT ZOOM CAMERA
HDR = HIGH DYNAMIC RANGE CAMERA
WP = WEATHER PROOF
CM = CORNER MOUNT

CLOCK SYSTEM

XX	ANALOG SYSTEM CLOCK, WALL MOUNTED	1:23 XX	DIGITAL SYSTEM CLOCK, WALL MOUNTED
XX	ANALOG SYSTEM CLOCK, DOUBLE SIDED, WALL MOUNTED	1:23 XX	DIGITAL SYSTEM CLOCK, DOUBLE SIDED, WALL MOUNTED

XX = DEVICE DESCRIPTION
WG = WIREGUARD
ET = ELAPSED TIME

DISTRIBUTED ANTENNA SYSTEM (DAS)

	CEILING MOUNTED ANTENNA		POWER SPLITTER
	WALL MOUNTED ANTENNA		COUPLER
	DONOR ANTENNA		DAS HEADEND EQUIPMENT
	ICA12-50JPL 0 PLENUM RATED COAX CABLE		CABLE FLOOR TO FLOOR TRANSITION POINT
	CXTA42A-3 COAX JUMPER CABLE		

ELECTRONIC ACCESS CONTROL SYSTEM

CR XX	PROXIMITY / CARD READER	KP	KEYPAD
BR XX	BIOMETRIC READER	PB	PUSH BUTTON
PP	PUSH PLATE	RTEM XX	REQUEST TO EXIT MOTION SENSOR

DEVICE NOTES:
1. PROVIDE A 4-11/16" SQUARE BY 2-1/8" DEEP BACK BOX WITH A SINGLE GANG REDUCTION RING AT EACH LOCATION, UNO.
2. PROVIDE A 3/4" CONDUIT ROUTED TO THE ACCESS CONTROL JUNCTION BOX LOCATED ABOVE THE DOOR, UNO.
3. DOOR RELEASE BUTTON SHALL BE SURFACE-MOUNTED TO UNDERSIDE OF COUNTER/DESK. MOUNT THE BACK BOX DIRECTLY BELOW THE COUNTER/DESK AND PROVIDE SURFACE-MOUNTED RACEWAY FROM THE BACK BOX TO THE DOOR RELEASE BUTTON LOCATION, UNO.

DB	DOOR BELL BUTTON

DEVICE NOTES:
1. PROVIDE A SINGLE GANG 1-1/2" DEEP BACK BOX AT EACH LOCATION, UNO.
2. PROVIDE A 1/2" CONDUIT ROUTED TO THE ACCESS CONTROL JUNCTION BOX LOCATED ABOVE THE DOOR UNO.

ML XX	MAGNETIC LOCK	DC XX	DOOR CONTACT
EL XX	ELECTRIFIED LOCKSET (STAND ALONE BATTERY POWERED LOCK W/ INTEGRATED READER)	ES XX	ELECTRIC STRIKE
ACP XX	ACCESS CONTROL PANEL	R XX	ELECTRONIC ACCESS CONTROL RELAY
J	ACCESS CONTROL JUNCTION BOX	ACPS XX	ACCESS CONTROL POWER SUPPLY
		EPB XX	ELECTRIFIED PANIC BAR

DEVICE NOTES:
1. PROVIDE A 1/2" CONDUIT ROUTED TO ACCESS CONTROL JUNCTION BOX LOCATED ABOVE DOOR UNO.

XX = DEVICE TYPE
SM = SMART CARD READER
KP = PROXIMITY CARD READER / KEYPAD COMBINATION
BR = PROXIMITY CARD READER / BIOMETRIC READER COMBINATION
MU = MULLION-MOUNTED CARD READER
FP = FINGERPRINT READER
HND = HAND READER
IS = IRIS SCANNER
UC = UNDER COUNTER MOUNTED REQUEST TO EXIT BUTTON / DOOR RELEASE BUTTON
DL = DELAY EGRESS MAGNETIC LOCK

ACCESS CONTROL NOTE:
1. ACCESS CONTROL CONTRACTOR SHALL COORDINATE WITH AUTOMATIC DOOR PROVIDER FOR ALL DOORS BEING CONTROLLED BY ACCESS CONTROL SYSTEM. ACCESS CONTROL CONTRACTOR SHALL PROVIDE ANY REQUIRED RELAY INTERFACE. TIME DELAY CIRCUIT AND/OR OTHER RELATED DEVICES AND CABLING TO FULLY AND SUCCESSFULLY INTERFACE THE ACCESS CONTROL SYSTEM WITH THE AUTO DOORS. ACCESS CONTROL CONTRACTOR SHALL COORDINATE SEQUENCE OF OPERATION WITH DOOR VENDOR TO ASSURE PROPER OPERATION.

RF WIRELESS COMMUNICATION SYSTEM

MR	PRIVATE LAND MOBILE RADIO ANTENNA, CEILING-MOUNTED	TA	TELEMETRY ACCESS POINT, CEILING-MOUNTED
R	RADIO BASE STATION, WALL-MOUNTED	D	DISTRIBUTED ANTENNA SYSTEM ANTENNA, CEILING-MOUNTED

DEVICE NOTES:
1. PROVIDE A 4-11/16" SQUARE BY 2-1/8" DEEP BACK BOX WITH A SINGLE GANG REDUCTION RING AT EACH LOCATION, UNO.
2. PROVIDE A 1" CONDUIT ROUTED BETWEEN THE BACK BOX AND THE NEAREST CABLE PATHWAY, UNO.

AUDIOVISUAL SYSTEM

SP XX	SPEAKER, CEILING-MOUNTED	AV XX	AV DEVICE, CEILING-MOUNTED
PA XX	PA SYSTEM SPEAKER, CEILING-MOUNTED		

SP _ _ - _ _
SCHEDULE DESIGNATION
AUDIO ZONE (IF APPLICABLE)

DEVICE NOTES:
1. PROVIDE A 3/4" CONDUIT ROUTED BETWEEN EACH SPEAKER BACK BOX FOR SPEAKERS WITHIN A ZONE AND A 3/4" CONDUIT BETWEEN THE SPEAKER ZONE AND THE ASSOCIATED POWER AMPLIFIER OR NEAREST ACCESSIBLE CABLE PATHWAY, UNO.
2. INSTALL CEILING-MOUNTED SPEAK FLUSH TO CEILING, UNO. PROVIDE ALL NECESSARY MOUNTING HARDWARE AND TIE OFF ACCESSORIES TO PROPERLY SUPPORT THE SPEAKER PER MANUFACTURER'S MOUNTING INSTRUCTIONS.
3. PROVIDE SPEAKER GRILLES TO MATCH THE ADJACENT CEILING / WALL COLOR, UNO.

SP XX	SPEAKER WALL-MOUNTED		
PA XX	PA SYSTEM SPEAKER WALL-MOUNTED		

DEVICE NOTES:
1. PROVIDE A 3/4" CONDUIT BETWEEN BACK BOX AND NEAREST CABLE PATHWAY UNO.
2. PROVIDE A 4-11/16" SQUARE BY 2-1/8" DEEP BACK BOX WITH A SINGLE GANG REDUCTION RING AT EACH LOCATION UNO.

AV XX	AUDIO / VISUAL WALLPLATE

DEVICE NOTES:
1. PROVIDE (2)1" CONDUITS ROUTED BETWEEN BACK BOX AND NEAREST CABLE PATHWAY UNO.
2. PROVIDE A 2-GANG 2-1/8" DEEP BACK BOX AT EACH LOCATION UNO.
3. REFER TO DETAILS FOR AUDIO/VISUAL WALLPLATE DETAILS AND REQUIREMENTS.

AV XX	AUDIO / VISUAL DEVICE, FLOOR MOUNTED

DEVICE NOTES:
1. MOUNT OUTLET IN FLOOR BOX PROVIDED BY THE ELECTRICAL CONTRACTOR. REFER TO THE ELECTRICAL PLANS AND SPECIFICATIONS FOR FLOOR BOX DETAILS, UNO.
2. PROVIDE A 1" CONDUIT ROUTED BETWEEN THE BACK BOX AND THE NEAREST CABLE PATHWAY, UNO.

TSP XX	TOUCHSCREEN PANEL

DEVICE NOTES:
1. PROVIDE A 4-11/16" SQUARE BY 2-1/8" DEEP BACK BOX AT EACH LOCATION UNO.
2. PROVIDE A 1" CONDUIT ROUTED BETWEEN BACK BOX AND NEAREST CABLE PATHWAY UNO.
3. PROVIDE THE TOUCHSCREEN MANUFACTURERS BACK BOX TO ELECTRICAL CONTRACTOR FOR INSTALLATION UNO.

VM XX	VIDEO MONITOR OUTLET, WALL MOUNTED

DEVICE NOTES:
1. PROVIDE A 4-11/16" SQUARE BY 2-1/8" DEEP BACK BOX AT EACH LOCATION UNO.
2. PROVIDE A 1" CONDUIT ROUTED BETWEEN BACK BOX AND NEAREST CABLE PATHWAY UNO.

VM XX	VIDEO MONITOR OUTLET, CEILING MOUNTED

AV COORDINATION NOTE:
1. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL CONDUIT AND BACKBOX REQUIREMENTS AND EXACT LOCATIONS WITH A/V CONTRACTOR PRIOR TO PROCUREMENT.

P XX	PROJECTOR, CEILING MOUNTED	P XX	PROJECTOR, CEILING MOUNTED

AV COORDINATION NOTE:
1. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL CONDUIT AND BACKBOX REQUIREMENTS AND EXACT LOCATIONS WITH A/V CONTRACTOR PRIOR TO PROCUREMENT.

XX = DEVICE TYPE
WP = WEATHERPROOF, OUTDOOR RATED ACCESS POINT
PE = NON-METALLIC PROTECTIVE ENCLOSURE

TAGS AND CALLOUT SYMBOLS

X / XXXXX	SECTION CALLOUT — SECTION NUMBER — SHEET NUMBER	X / XXXXX	DETAIL CALLOUT — DETAIL NUMBER — SHEET NUMBER
X	REVISION CALLOUT	XX	KEYNOTE CALLOUT
LPA	INDICATES PANELBOARD, DISTRIBUTION SWITCH-BOARD OR DISTRIBUTION PANELBOARD NAME		3/4" AC GRADE FIRE RESISTANT PLYWOOD BACKBOARD - MOUNTED 1'-0" TO 9'-0" AFF

CABLE TRAY PATHWAYS
XX" x XX"
INDICATES HEIGHT OF CABLE TRAY
INDICATES WIDTH OF CABLE TRAY

LADDER CABLE TRAY PATHWAYS
XX" x XX"
INDICATES HEIGHT OF CABLE TRAY
INDICATES WIDTH OF CABLE TRAY

J-HOOK PATHWAYS

DEVICE NOTES:
1. REFER TO DETAILS FOR MOUNTING REQUIREMENTS.

DEMOLITION

< R >	EXISTING TO BE REMOVED COMPLETE TO SOURCE	< RD >	EXISTING AT NEW LOCATION
< RR >	EXISTING TO BE RELOCATED	< RED >	REMOVE EXISTING DEVICE AND CABLING, EXISTING BACKBOX TO REMAIN
< X >	EXISTING TO REMAIN		CONDUIT AND CABLE TO BE DEMOLISHED
< NEX >	NEW DEVICE IN EXISTING BACKBOX		EQUIPMENT TO BE DEMOLISHED

MISCELLANEOUS

J XX	JUNCTION BOX, WALL-MOUNTED	J XX	JUNCTION BOX, FLOOR-MOUNTED
J XX	JUNCTION BOX, CEILING-MOUNTED		TELECOMMUNICATIONS BONDING BUSBAR

XX = DEVICE DESCRIPTION
SFF = STRUCTURED FURNITURE FEED

EQUIPMENT RACKS AND CABINETS

FRONT	FLOOR-MOUNTED TWO-POST EQUIPMENT RACK	FRONT	FLOOR-MOUNTED EQUIPMENT/SERVER ENCLOSURE
FRONT	WALL-MOUNTED EQUIPMENT RACK	FRONT	FLOOR-MOUNTED FOUR-POST EQUIPMENT RACK

NOTES:
1. REFER TO ENLARGED FLOOR PLANS AND DETAILS FOR SPECIFIC EQUIPMENT RACK AND CABINET INFORMATION.

TELECOMMUNICATIONS SYSTEM

XX	DATA OUTLET, WALL MOUNTED	XX	DATA OUTLET, WALL MOUNTED

DEVICE NOTES:
1. PROVIDE A 4-11/16" SQUARE BY 2-1/8" DEEP BACK BOX WITH A SINGLE GANG REDUCTION RING AT EACH LOCATION, UNO.
2. PROVIDE A 1" CONDUIT ROUTED BETWEEN THE BACK BOX AND THE NEAREST CABLE PATHWAY, UNO.

XX	DATA OUTLET, FLOOR MOUNTED	XX	DATA OUTLET, FURNITURE MOUNTED

DEVICE NOTES:
1. MOUNT OUTLET IN FLOOR BOX PROVIDED BY THE ELECTRICAL CONTRACTOR. REFER TO THE ELECTRICAL PLANS AND SPECIFICATIONS FOR FLOOR BOX DETAILS, UNO.
2. PROVIDE A 1" CONDUIT ROUTED BETWEEN THE BACK BOX AND THE NEAREST CABLE PATHWAY, UNO.

XX	DATA OUTLET, CEILING MOUNTED

DEVICE NOTES:
1. PROVIDE A 4-11/16" SQUARE BY 2-1/8" DEEP BACK BOX WITH A SINGLE GANG REDUCTION RING AT EACH LOCATION, UNO.
2. PROVIDE A 1" CONDUIT ROUTED BETWEEN THE BACK BOX AND THE NEAREST CABLE PATHWAY, UNO.
3. FLUSH MOUNT OUTLET FACEPLATE TO CEILING, UNO.

XX = ATTRIBUTE
(NO SUBSCRIPT) = (1) DATA
2 = (2) DATA
3 = (3) DATA
4 = (4) DATA
5 = (5) DATA
6 = (6) DATA
AL = ANALOG VOICE LINE
ATM = AUTOMATIC TELLER MACHINE
DS = DIGITAL SIGNAGE
E = ELEVATOR PHONE
EP = EMERGENCY ANALOG VOICE LINE
H = HOUSE PHONE
POS = POINT OF SALE LOCATION
TC = TIME CLOCK
W = WALL PHONE

XX	DATA OUTLET, WALL MOUNTED	XX	DATA OUTLET, CEILING MOUNTED

WIRELESS DROP INSTALLATION NOTE:
1. FOR ALL WIRELESS DATA DROPS. THE CONTRACTOR SHALL PROVIDE CABLING TO THE LOCATION INDICATED AND TO THE EXTENT THAT IT DOES NOT EXCEED THE EIA/TIA DISTANCE LIMITATIONS, PROVIDE A 25' SERVICE LOOP. CABLING SHALL BE TERMINATED ONTO JACKS.
2. JACKS SHALL BE MOUNTED IN A PLENUM RATED SURFACE MOUNTED BACKBOX. CONTRACTOR SHALL LABEL CABLE AND DROP.
3. DROPS SHALL BE BAGGED FOR PROTECTION UNTIL READY TO SURVEY AND DEPLOY ACCESS POINTS. CONTRACTOR SHALL EXTEND SERVICE LOOP CABLING TO A LOCATION AS DIRECTED BY OWNER'S VENDOR.

XX = ATTRIBUTE
WP = WEATHERPROOF, OUTDOOR RATED ACCESS POINT
PE = NON-METALLIC PROTECTIVE ENCLOSURE

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
BICSI
EXPIRES 12-31-24
BICSI ID # 181837R
Daniel R Kodicovic

PROJECT NO
2203-2

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ANTHONY M. WUK
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MASSILLON CITY SCHOOL DISTRICT
MASSILLON EAST ELEMENTARY PK-3
1 PAUL E BROWN DRIVE SE, MASSILLON, OHIO 44646
MASSILLON CITY SCHOOL DISTRICT MASSILLON, OHIO

MARK	DATE	DESCRIPTION
	07.12.23	100% BID PERMIT SET

ISSUED AS:

PROJECT NO	2203-2
DRAWN BY	DRK
CHECKED BY	AMW
DATE	07/12/23

TECHNOLOGY SYMBOL LEGEND AND NOTES

SCALE: 12" = 1'-0"

SHEET NO
T-001