

TELECOMMUNICATIONS

110 TWISTED PAIR TERMINATION BLOCK
 ADF AREA DISTRIBUTION FACILITY
 BDC BUILDING DISTRIBUTION TELECOMMUNICATIONS ROOM
 BDF BUILDING DISTRIBUTION FRAME
 BEF BUILDING ENTRANCE FRAME
 BO BY OTHERS
 CAB TELECOM CABINET OR ENCLOSURE
 COIN CONNECTOR
 CSC COPPER SPICE CLOSURE
 CWF CONTROLLED ENVIRONMENT VAULT
 FDF FIBER DISTRIBUTION FACILITY
 FS FIBER SHELF/FIBER TERMINATION PANEL
 FSC FIBER OPTIC SPICE CLOSURE
 HH HANDHOLE
 IDC INTERMEDIATE DISTRIBUTION TELECOMMUNICATIONS ROOM
 IDF INTERMEDIATE DISTRIBUTION FRAME
 ISP INSIDE PLANT - CABLE WITHIN A BUILDING
 IT INFORMATION TECHNOLOGY
 LAN LOCAL AREA NETWORK
 MDC MAIN DISTRIBUTION TELECOMMUNICATIONS ROOM
 MDF MAIN DISTRIBUTION FRAME
 MH MANHOLE, MAINTENANCE HOLE
 MPE MINIMUM POINT OF ENTRY
 OCF OPTICAL CABLE ENTRANCE FACILITY
 OUP OUTSIDE PLANT - CABLE OUTSIDE A BUILDING
 PAV PAVEMENT
 PC PLASTIC CONDUIT
 PG PAIR GROUP
 POP POINT OF PRESENCE
 PR PAIR
 PVC POLYVINYL CHLORIDE
 RU RACK UNIT
 R/W RIGHT-OF-WAY
 SC SPICE CLOSURE
 SCS STRUCTURED CABLING SYSTEM
 SER SERIAL
 SMR SURFACE MOUNTED RACEWAY
 SS FIBER SPICE SHELF
 TCM TELECOM CONDUIT
 TCH TELECOM CONDUIT SLEEVE, HORIZONTAL
 TOR TELECOM HORIZONTAL AND VERTICAL RISER CONDUIT
 TOT TELECOM CABLE TRAY
 TEC TELECOM ENTRANCE CONDUIT
 TEL TELEPHONE
 TELECOM TELECOMMUNICATIONS
 TERM TERMINAL
 TP TWISTED PAIR
 TPB TELECOM PULL BOX
 TR TELECOM ROOM
 TSL TELECOM WALL OR FLOOR SLOT
 TSV TELECOM CONDUIT SLEEVE, VERTICAL
 WAN WIDE AREA NETWORK

ELECTRICAL

A or AMP AMPERE
 BND BOND(ING)
 C CONDUIT
 ELEC ELECTRICAL
 EMT ELECTRICAL METALLIC TUBING
 ENT ELECTRICAL NON-METALLIC TUBING
 GRC GALVANIZED RIGID CONDUIT
 GND GROUND
 Hz HERTZ
 IG ISOLATED GROUND
 IMC INTERMEDIATE METALLIC CONDUIT
 PB PULL BOX
 PLN PANEL
 PWR POWER
 UPS UNINTERRUPTIBLE POWER SUPPLY

V VOLT
 VAC VOLTS, ALTERNATING CURRENT
 VDC VOLTS, DIRECT CURRENT
 W WATT
 XFR TRANSFORMER

GENERAL

(e)or(f) EXISTING
 (n)or(n) NEW
 ABV ABOVE
 ACH ABOVE COUNTER HEIGHT
 ACT ACoustical CEILING TILE
 ADJ ADJUSTABLE
 AFC ABOVE FINISHED CEILING
 AFF ABOVE FINISHED FLOOR
 AFD ABOVE FINISHED GRADE
 ALT ALTERNATE
 ANS AMERICAN NATIONAL STANDARDS INSTITUTE
 APPROX APPROXIMATE
 ARCH ARCHITECT(URAL)
 ASA AMERICAN STANDARDS ASSOCIATION
 AV AUDIOVISUAL
 AYC AUDIOVISUAL CONTRACTOR
 BET BETWEEN
 BFC BUILDING FINISHED CEILING
 BLDG BUILDING
 BLW BELOW
 CB CEILING BOX
 C-C CENTER TO CENTER
 CL CENTER LINE
 CLG CEILING
 CLR CLEAR
 CMU CONCRETE MASON UNIT
 COL COLUMN
 CONC CONCRETE
 CONT CONTINUOUS
 COORD COORDINATE, COORDINATION
 CORR CORROSION
 DED DEDICATE, DEDICATED
 DEMO DEMOLISH
 DEPT DEPARTMENT
 DET DETAIL
 DIM DIMENSION
 DIST DISTANCE
 DTC DATA TELECOMMUNICATION CONTRACTOR
 DWG DRAWING
 EA EACH
 EC ELECTRICAL CONTRACTOR
 ELEV ELEVATION
 EMERG EMERGENCY
 EQ EQUAL
 EQUIP EQUIPMENT
 EQUIV EQUIVALENT
 EWB ELECTRONIC WHITE BOARD
 EXT EXTERIOR
 FCC FEDERAL COMMUNICATIONS COMMISSION
 FIN FINISH
 FLX FLEXIBLE
 FLR FLOOR
 FLUR FLOURESCENT
 FUT FUTURE
 GA GAUGE
 GALV GALVANIZED
 GC GENERAL CONTRACTOR
 GMB GYPSUM WALL BOARD
 IN FINISHED CEILING
 INF IN FINISHED FLOOR
 INCL INCLUDE, INCLUDING
 INFO INFORMATION
 INT INTERIOR
 LV LOW VOLTAGE INTERFACE
 MAX MAXIMUM
 MECH MECHANICAL
 MEP MECHANICAL, ELECTRICAL, AND PLUMBING
 MFG MANUFACTURER
 MIN MINIMUM
 MISCELLANEOUS
 NA NOT APPLICABLE
 NEC NATIONAL ELECTRICAL CODE
 NEMA NATIONAL ELECTRICAL MANUFACTURER'S ASSOC.
 NFPA NATIONAL FIRE PROTECTION ASSOCIATION
 NIC NOT IN CONTRACT
 NO NUMBER
 NOM NOMINAL
 NTS NOT TO SCALE

MEASUREMENTS

BTU BRITISH THERMAL UNIT
 D or Dp DEEP
 DIA DIAMETER
 FT FOOT OR FEET
 H or HGT HEIGHT OR HIGH
 ID INSIDE DIAMETER
 IN INCH OR INCHES
 L LENGTH OR LONG
 LB POUND
 LN LINEAR
 M METER
 mm MILLIMETER
 OD OUTSIDE DIAMETER
 R RADIUS
 RAD RADIANS
 um MICRON
 W WIDE
 WT WEIGHT
 YD YARD

DIRECTIONAL

DN DOWN
 E EAST
 HORIZ HORIZONTAL
 L LEFT
 LH LEFT HAND
 N NORTH
 PERP PERPENDICULAR
 R RIGHT
 RH RIGHT HAND
 S SOUTH
 VERT VERTICAL
 W WEST

SYMBOLS

POINT OR NUMBER
 & AND
 @ AT
 ' FOOT OR FEET
 " INCH OR INCHES
 +/- or + PLUS OR MINUS
 < LESS THAN
 = EQUAL
 > GREATER THAN
 ° DEGREES, ANGULAR MEASURE
 ∠ ANGLE
 ∥ PARALLEL
 ∅ DIAMETER
 ∠ ANGLE

COLOR CODE

A ALMOND
 B BROWN
 C ORANGE RED
 E BLACK
 G GRAY
 I IVORY
 L BLUE
 O ORANGE
 P PURPLE
 R DARK RED
 V GREEN
 W WHITE
 Y YELLOW

ON CENTER

OC ON CENTER
 OFC OWNER FURNISHED CONTRACTOR INSTALLED
 OFE OWNER FURNISHED EQUIPMENT
 OFDI OWNER FURNISHED EQUIPMENT INSTALLED
 OPO OPPOSITE
 OSHA OCCUPATIONAL SAFETY AND HEALTH ADMIN.
 OHND OVERHEAD
 PLC PERFORMANCE LIGHTING CONTRACTOR
 PLY PLYWOOD
 PRI PRIMARY
 PROP PROPOSED
 PSC PROJECTION SCREEN CONTROL
 QTY QUANTITY
 RCP REFLECTED CEILING PLAN
 RCT RECEPTACLE
 REF REFERENCE
 REM REMOVE
 REPL REPLACE
 REQ REQUIRED
 RM ROOM
 SCHED SCHEDULE
 SECT SECTION
 SHT DRAWING SHEET NUMBER OR SERIES
 SIM SIMILAR
 SPEC SPECIFICATION
 SQ SQUARE
 STD STANDARD
 STL STEEL
 SUSP(S) SUSPEND(ED)
 SWI SWITCH
 SYM SYMMETRICAL
 TELC TELECOMMUNICATIONS CONTRACTOR
 TEMP TEMPORARY
 THK THICKNESS
 TIA/EIA TELECOMMUNICATIONS INDUSTRY ASSOCIATION/
 ELECTRONICS INDUSTRY ALLIANCE
 TO MATCH EXISTING
 TYP TYPICAL
 UNIFORM BUILDING CODE
 UC UNDER COUNTER
 UL UNDERWRITERS LABORATORY
 UN UNLESS OTHERWISE NOTED
 VIF VERIFY IN FIELD
 W/ WITH
 W/O WITHOUT
 WD WOOD

WIRE AND CABLE

AFNM BONDED FILL FLOODED TWISTED CABLE
 ARM ARMED
 AWG AMERICAN WIRE GAUGE
 CAT3 CATEGORY 3 TWISTED PAIR COPPER CABLE
 CAT4 CATEGORY 4 TWISTED PAIR COPPER CABLE
 CAT5 CATEGORY 5 TWISTED PAIR COPPER CABLE
 CAT5e CATEGORY 5 ENHANCED TWISTED PAIR COPPER CABLE
 CAT6 CATEGORY 6 TWISTED PAIR COPPER CABLE
 CM NEC, COMMUNICATIONS CABLE
 CMP IN NEC, COMMUNICATIONS PLENUM CABLE
 CMR NEC, COMMUNICATIONS RISER CABLE
 COAX COAXIAL CABLE
 FO FIBER OPTIC
 HDPE HIGH DENSITY POLYETHYLENE
 LF LOOSE TUBE FILLED & FLOODED
 MDPE MEDIUM DENSITY POLYETHYLENE
 MM MULTIMODE FIBER OPTIC CABLE
 MPP MULTIPURPOSE PLENUM CABLE
 OFC NEC, OPTICAL FIBER CONDUCTIVE CABLE
 OFP NEC, OPTICAL FIBER CONDUCTIVE PLENUM CABLE
 OFOR NEC, OPTICAL FIBER CONDUCTIVE RISER CABLE
 OFNR NEC, OPTICAL FIBER NON-CONDUCTIVE CABLE
 OFN NEC, OPTICAL FIBER NON-CONDUCTIVE PLENUM CABLE
 OFNPN NEC, OPTICAL FIBER NON-CONDUCTIVE RISER CABLE
 SM SINGLE MODE FIBER OPTIC CABLE
 STP SHIELDED TWISTED PAIR
 TB TIGHT BUFFERED
 UT UNSHIELDED TWISTED PAIR
 WM WIRE MANAGER/MANAGEMENT

ABBREVIATIONS

GENERAL NOTES

FACILITY NOTES

PROJECT NOTES

1. **WIRE CONNECTIONS:** ALL COAXIAL CABLE CONNECTIONS SHALL BE MADE WITH CRIMP TYPE CONNECTORS FOR BOTH SHIELD AND INNER CONDUCTOR. INSTALL WITH MANUFACTURER'S APPROVED ASSEMBLY METHODS AND TOOLS. CONNECTORS ATTACHED TO COAXIAL CABLE SHALL BE BNC STYLE CONNECTORS. USE BNC TO W/F ADAPTER OR BNC TO RCA ADAPTER AS APPROPRIATE FOR THE EQUIPMENT BEING CONNECTED.

2. **RJ CONNECTIONS:** ALL RJ CABLE CONNECTIONS SHALL BE MADE WITH CRIMP TYPE CONNECTIONS. RJ45 CONNECTIONS ARE TO BE MADE WITH SHIELDED GROUNDING CONNECTORS.

3. **SIGNAL GROUNDING:** USE THE RACK AS A COMMON POINT OF GROUNDING FOR ALL TECHNICAL SYSTEMS. THE RACK IS TO BE GROUNDED / BONDED TO EARTH. CABLE SHIELDS SHALL ONLY BE USED FOR SHIELDING AND CONNECTED TO GROUND AT THE RACK ONLY. ALL RACK-MOUNTED EQUIPMENT SHALL BE CHECKED FOR GROUND CONTINUITY BETWEEN CHASSIS AND THE RACK.

4. **CABLING:**
 A ALL CABLING IS TO BE CONTINUOUS AND UN-SPLICED.
 B CABLE RUNWAY SYSTEMS SHALL BE UTILIZED AS THE MAIN DISTRIBUTION OF ALL CABLES. J-HOOK SUPPORTS SPACED NO MORE THAN SIX FEET ON CENTER TO BE USED TO REACH INDIVIDUAL OUTLET LOCATIONS AS NEEDED.
 C PLENUM RATED CABLES AND CABLE TIES MUST BE USED WHEN CABLES ARE LOCATED IN AN AIR PLENUM.
 D CABLES WITHIN RACKS SHALL BE BUNDLED AND LACED NEATLY TO SUPPORT MEMBERS WITH A SERVICE LOOP LARGE ENOUGH TO MAINTAIN CONVENIENT ACCESS TO ALL EQUIPMENT CONNECTIONS.
 E EQUIPMENT POWER CABLE IS TO BE SEPARATED FROM SIGNAL CABLES WITH IN ANY ENCLOSURE. PROVIDE THE MAXIMUM SEPARATION POSSIBLE WITHIN THE ENCLOSURE.

5. **WIRING:** ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH NETWORK AND BROADCAST STANDARD PRACTICES. CABLE JACKET SHALL BE COLOR CODED TO MAINTAIN A CONSISTENT IDENTIFICATION OF PHASING.

6. **MARKINGS:** PERMANENTLY MARK ALL CONNECTORS, CABLES, AND CABLE TERMINATIONS TO INDICATE THEIR FUNCTION AS IT CORRESPONDS TO THE WIRING DIAGRAM. ALL CABLE PAINS SHALL BE CODED WITH PERMANENTLY ATTACHED LABELS ON THE CABLE ENDS WITH CONSISTENT COLOR-CODED MARKINGS TO INDICATE THEIR FUNCTION. SEE CABLE LABEL DETAIL (DETAIL 5/15-400).

7. **AESTHETICS:** COORDINATE THE ELEVATION/LOCATION, FINISH AND COLOR OF ALL PLATES, WALL SWITCHES, FLOOR BOXES AND JUNCTION BOXES WITH THE CONSULTANT.

8. **VENTILATION:** PROVIDE ADEQUATE VENTILATION IN EQUIPMENT RACKS TO CONFORM TO THE EQUIPMENT MANUFACTURER'S TEMPERATURE REQUIREMENTS.

9. **FASTENERS, HANGERS, SUPPORTS:** PROVIDE FASTENERS, SUPPORTS AND SEISMIC RESTRAINTS TO ADEQUATELY SUPPORT THE LOAD.

10. **WORKMANSHIP:** INSTALLATION OF ALL WORK INCLUDING CABLING SHALL BE NEAT. ALL BOXES INCLUDING THE CAMERA ENCLOSURES, EQUIPMENT RACKS, ETC. SHALL BE PLUMB AND SQUARELY LOCATED. REPLACE/PATCH ALL CEILING, WALLS AND FLOOR REMOVED OR MODIFIED FOR THIS WORK WHEN THE WORK IS COMPLETE. LEAVE THE JOB SITE CLEAN AND FREE FROM MARKS AND BLEMISHES.

11. **DIMENSIONED LOCATIONS:** ALL DEVICE LOCATIONS ILLUSTRATED WITH DIMENSIONS ARE CRITICAL TO DESIRED PERFORMANCE. CONTRACTOR SHALL NOT FIELD ADJUST LOCATIONS WITHOUT COORDINATING WITH THE DESIGN CONSULTANT.

12. **THE FINISH OF ALL AUDIOVISUAL SYSTEM FACEPLATES SHALL BE ANODIZED BRUSHED ALUMINUM. FINAL COLOR TO BE APPROVED BY PROJECT'S OWNER, ARCHITECT, AND/OR CONSULTANT.**

13. **ALL ENGRAVED LABELS SHALL BE FILLED WITH WHITE OR BLACK AS REQUIRED FOR THE GREATEST CONTRAST BETWEEN THE ENGRAVING AND FACEPLATE/LABEL BACKGROUND COLOR.**

14. **TRADE COORDINATION BETWEEN NETWORK AND SECURITY VENDORS:**
 A. ALL RACKS WILL BE PROVIDED BY IT/COMMUNICATIONS VENDOR. RACKS ARE SHOWN IN THIS SET FOR CLARITY.
 B. ALL CONDUIT AND POWER TO BE PROVIDED BY ELECTRICAL CONTRACTOR.
 C. ALL DOOR SECURITY DEVICES AND CABLING TO BE PROVIDED BY SECURITY VENDOR.
 D. ALL CAMERA MOUNTS AND ROUGH IN BY SECURITY VENDOR.

15. **POWER:**
 A EACH CIRCUIT THAT SERVES TECHNOLOGY SYSTEMS MUST HAVE A DEDICATED GROUND AND NEUTRAL CONDUCTOR. SHARED GROUNDS AND NEUTRALS ARE NOT ACCEPTABLE.
 B ALL CIRCUITS ARE 120 VAC, 60 HZ, 1-PHASE, UNO.
 C NOMINAL ELECTRICAL VOLTAGE IS 120 VAC. VOLTAGE MUST BE MAINTAINED WITH +/-10 PERCENT OF NOMINAL AT ALL TIMES FOR PROPER EQUIPMENT OPERATION.

16. **TECHNOLOGY CONVEYANCE SYSTEM:**
 A CONDUITS WHICH CARRY POWER MUST BE SEPARATED FROM TECHNOLOGY CONDUITS BY 12 INCHES FOR VOLTAGES OVER 100 VAC, 24 INCHES FOR VOLTAGES OVER 200 VAC AND 48 INCHES FOR ALL VOLTAGES OVER 300 VAC.
 B ALL CONDUIT SHALL BE CLEANED, DEBURRED AND HAVE PULL-STRINGS INSTALLED.
 C ALL INTERIOR AND ABOVE GRADE CONDUIT SHALL BE SOLID FERRIC METALLIC. ALL CONDUIT BELOW GRADE SHALL BE PLASTIC. CONTRACTOR SHALL NOT CHANGE CONDUIT TYPE WITHOUT DESIGN CONSULTANT APPROVAL.
 D PROVIDE PULL BOXES USING SWEEP ELBOWS AS REQUIRED BY CONDUIT PATH, CABLE BEND RADIUS OR PULLING TENSION LIMITS.
 E BACK BOXES TO BE SET TO ALLOW ALL TECHNOLOGY FACEPLATES TO BE INSTALLED TIGHT TO THE ADJACENT SURFACE.

17. **PRIOR TO THE START OF ACTIVE EQUIPMENT INSTALLATION THE EQUIPMENT SPACES SHALL BE:**
 A CLEAN AND SEALED FROM DUST PRIOR TO EQUIPMENT INSTALLATION.
 B MAINTAINED AT A TEMPERATURE OF 72 ± 10 DEGREES FAHRENHEIT AT ALL TIMES.
 C MAINTAINED AT A RELATIVE HUMIDITY BETWEEN 40 AND 70 PERCENT AT ALL TIMES.

18. **ALL NETWORK CABLES (CAT 6A) ARE IN CONTRACT.**

19. **ALL BLOCKING TO BE PROVIDED BY OTHERS.**

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REVISIONS

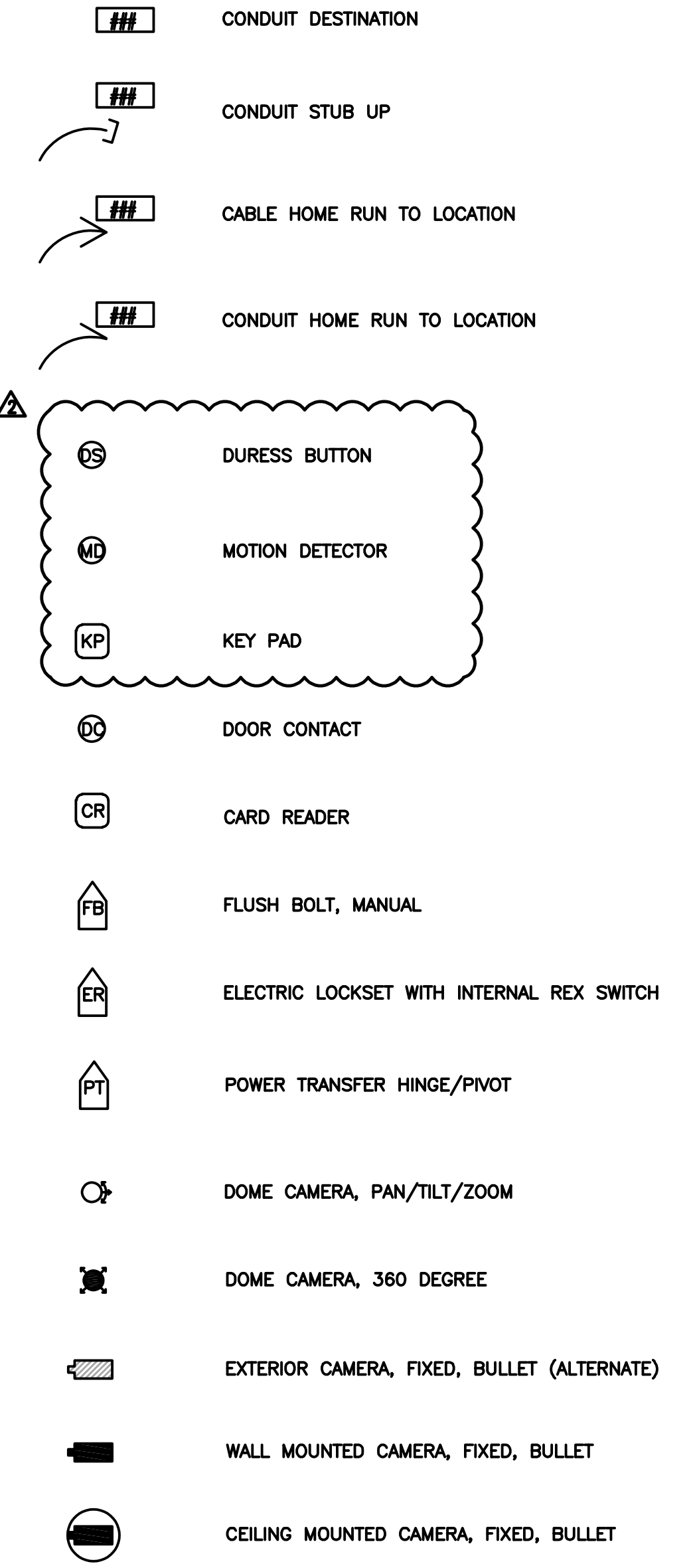
No.	Description	Date
1	ADDENDUM #2	6/19/2018
2		

ISSUED: CONSTRUCTION DOCUMENTS

DATE: 05/24/2018
SCALE: 1/16" = 1'-0"
SHEET NAME:
SHEET INDEX AND NOTES

SHEET NUMBER:

TY-001



SYMBOL LIST

NUMBER	DRAWING NAME	TY-001	TY-100	TY-101A	TY-101Bn	TY-101Bn	TY-101C	TY-200	TY-701
1	OVERALL SHEET INDEX AND NOTES	X	X	X	X	X			
2	OVERALL FLOOR PLANS		X	X	X	X			
3	FIRST FLOOR PLAN - AREA A						X		
4	FIRST FLOOR PLAN - AREA Bn						X		
5	FIRST FLOOR PLAN - AREA Bc						X		
6	FIRST FLOOR PLAN - AREA C						X		
7	OVERALL REFLECTED CEILING PLANS		X	X	X	X			
8	COORDINATION DETAILS		X	X	X	X			

PROJECT NOTES

- TRADE COORDINATION BETWEEN NETWORK AND SECURITY VENDORS.
- POWER:
- TECHNOLOGY CONVEYANCE SYSTEM:
- PRIOR TO THE START OF ACTIVE EQUIPMENT INSTALLATION THE EQUIPMENT SPACES SHALL BE:
- ALL NETWORK CABLES (CAT 6A) ARE IN CONTRACT.
- ALL BLOCKING TO BE PROVIDED BY OTHERS.

FACILITY NOTES

ABBREVIATIONS