COMOROUS-TOWEY
R C H I T E C T S

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ITLE SHEET

393 13TH STREET

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BID SET

REVISIONS

DRAWN BY:

DATE: 3/31/2017

PROJECT NO.: 1203.22

T0.0

CABLE TRAY

30 x 4

36 | x | 4 |

9 | x | 5 |

12 | x | 5

24 | x | 5 |

36 x 5

9 x 6

12 x 6

18 x 6

30

45

36

72

RCPS, AND ROOM PLANS FOR SIZE, QUANTITY, AND LAYOUT

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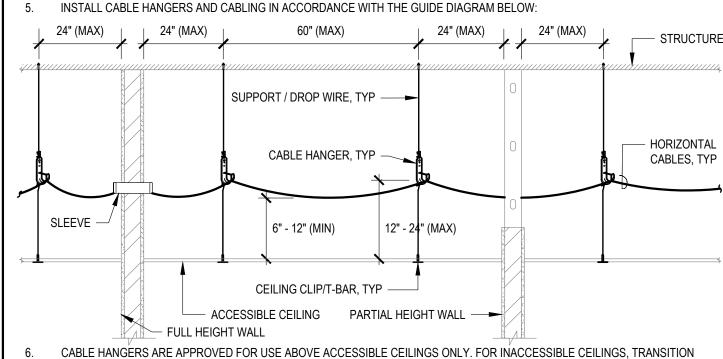
CABLE TRAY SYSTEMS

INSTALL CABLE HANGERS ACCORDING TO STATE CODES, LOCAL CODES, AND REGULATORY REQUIREMENTS FOR SEISMIC BRACING. INSTALL CABLE HANGERS PER TIA-569-B AND BICSI TDMM.

PROVIDE DEDICATED SUPPORTS (WIRES AND/OR RODS) FOR CABLE HANGERS - DO NOT SHARE WITH CEILING SUPPORT WIRES. PROVIDE IDENTIFICATION ONTO DEDICATED SUPPORTS, SUCH AS BLUE COLORING, TAGGING, OR OTHER EFFECTIVE

CABLE HANGERS ("J HOOKS")

- COORDINATE CABLE HANGER INSTALLATION WITH OTHER TRADES. FIELD DETERMINE CABLE HANGER ROUTES TO SUIT FIELD CONDITIONS, UNLESS SPECIFICALLY SHOWN WITH DIMENSIONS.
- AT FULL HEIGHT WALLS, PROVIDE SLEEVES TO ALLOW CABLES TO PASS. REFER TO THE "THROUGH PENETRATIONS" TABLE FOR APPROVED UL SYSTEMS WHEN PENETRATING FIRE BARRIERS, SMOKE BARRIERS, AND/OR SMOKE PARTITIONS.



THROUGH PENETRATIONS

THE TABLE BELOW LISTS THE FIRESTOPPING SYSTEMS APPROVED FOR PENETRATIONS OF FIRE BARRIERS AND SMOKE BARRIERS. APPLY THE PROPER UL SYSTEM TO THE BARRIER BEING PENETRATED AND THE PENETRANT TO MEET THE REQUIRED F AND T RATINGS. MIXING PRODUCTS AND/OR COMPONENTS BETWEEN SYSTEMS IS PROHIBITEDFOR QUANTITY OF SYSTEMS, REFER TO "CABLE TRAY -TO- SLEEVE TRANSITION EQUIVALENCY TABLE" (THIS SHEET).

SUBSTITUTIONS MAY BE ALLOWED. SUBMIT A SUBSTITUTION REQUEST FOR SYSTEMS DIFFERING FROM THOSE LISTED BELOW.

PENETRANT	UL SYSTEM#	F RATING	T RATING	COMMENTS
		CONCRETE FLOO	RS AND WALLS	
SINGLE EZ-PATH SLEEVE	C-AJ-3260	1 HR OR 2 HR	0 HR OR 1/2 HR	F RATING = FLOOR / WALL RATING T RATING FOR >20% FILL
MULTIPLE EZ-PATH SLEEVES	F-A-3037	2 HR OR 3 HR	0 HR	APPLICABLE TO FLOORS: F RATING = FLOOR RATING
MULTIPLE EZ-PATH SLEEVES	F-A-3037 WITH DUCT WRAP	2 HR OR 3 HR	2 HR	F RATING = FLOOR RATING, T RATING REQUIRES TRK444 KIT OR DUCT WRAP
SINGLE CONDUIT	C-AJ-1353 (OR C-AJ-1080)	2 HR OR 3 HR (3 HR)	0 HR (0 HR)	-
MULTIPLE CONDUITS	C-AJ-8113	2 HR	0 HR	-
SINGLE CONDUIT IN FLOOR WITH CABLES	C-AJ-3216	2 HR	1/2 HR	CONDUITS SHALL MEET STRUCTURAL REQUIREMENTS FOR CAST-IN-PLACE
MULTIPLE CONDUITS IN FLOOR WITH CABLES	C-AJ-3216	2 HR	1/2 HR	CONDUITS SHALL MEET STRUCTURAL REQUIREMENTS FOR CAST-IN-PLACE
SINGLE CONDUIT IN WALL WITH CABLES	W-J-3199	2 HR	3/4 HR, 1 HR	-
MULTIPLE CONDUITS IN WALL WITH CABLES	W-J-3200	2 HR	1/4 HR	-
CABLES IN SLEEVE	C-AJ-8113 WITH WRAP	2 HR	4" OR LESS: 2 HR	T RATING REQUIRES COOLANT WRAP
CABLES IN SLEEVE	C-AJ-3154	2, 3, 4 HR	2 1/2-4": 1/4 HR 1-2": 1/2 HR	-
-	-	-	-	-

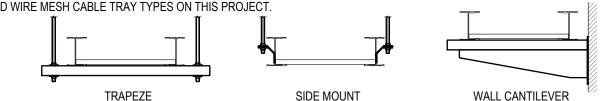
FRAMED WALLS

F RATING = WALL RATING 0 HR TO 2 HR

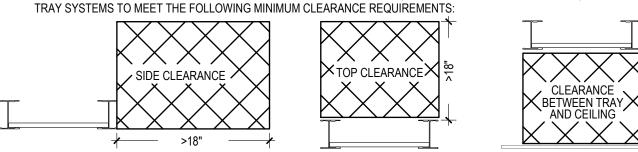
EZ-PATH SLEEVE(S)				TRATING - REFER TO UL DETAIL
SINGLE SPEEDSLEEVE (2" AND/OR 4")	W-L-3334	1 HR TO 4 HR	1 HR TO 4 HR	F RATING = WALL RATING T RATING - REFER TO UL DETAIL
MULTIPLE SPEEDSLEEVES (2" AND/OR 4")	W-L-3395	1 HR TO 2 HR	1/4 HR	F RATING = WALL RATING 16" GANGPLATE WITH 3 SPEEDSLEEVES, 24" GANGPLATE WITH 4 SPEEDSLEEVES
SINGLE SLEEVE KIT WITH PLUG (2" OR 4")	W-L-3394	1 HR OR 2 HR	0 HR, 3/4 HR, 1 Hr	F RATING = WALL RATING T RATING - REFER TO UL DETAIL
MULTIPLE SLEEVES KIT WITH PLUG (2" OR 4")	W-L-3395	1 HR OR 2 HR	1/4 HR	F RATING = WALL RATING
EMT SLEEVE WITH CABLES	W-L-3210	1 HR OR 2 HR	4" OR LESS: 3/4 HR	F RATING = WALL RATING
SINGLE EMT CONDUIT	W-L-1222	1 HR OR 2 HR	2 1/2"-4": 3/4 HR 1-2": 1 HR	F RATING = WALL RATING
MULTIPLE EMT CONDUITS	W-L-1168	1 HR OR 2 HR	1/4 HR	F RATING = WALL RATING
-	-	-	-	-

PROVIDE CABLE TRAY SYSTEMS ACCORDING TO STATE CODES, LOCAL CODES AND REGULATORY REQUIREMENTS,

INCLUDING SEISMIC BRACING. INSTALL CABLE TRAY SYSTEMS PER TIA-569-D AND BICSI TDMM. SUPPORT/SUSPENSION METHODS: THE SUPPORT/SUSPENSION METHODS BELOW ARE APPROVED FOR LADDER. TROUGH.

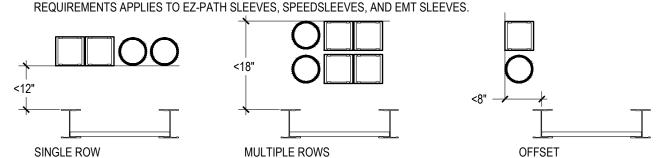


- CABLE TRAY SYSTEMS MAY SHARE SUPPORT/SUSPENSION SYSTEMS WITH OTHER TRADES/SYSTEM, SUCH AS TRAPEZE SUPPORTS. IF SHARED, COORDINATE ROUTES AND CONFIGURATIONS WITH OTHER TRADES.
- SUBMIT SEISMIC CALCULATIONS FOR SUPPORTS (REGARDLESS OF DEDICATED OR SHARED).
- CABLE TRAY ROUTING SHOWN IS DIAGRAMMATIC, UNLESS SPECIFICALLY SHOWN WITH DIMENSIONS. FIELD DETERMINE CABLE TRAY ROUTES TO SUIT FIELD CONDITIONS WHILE CONFORMING TO THE DESIGN INTENT, DRAWINGS, AND SPECIFICATIONS. COORDINATE CABLE TRAY SYSTEM INSTALLATION WITH OTHER TRADES.
- 6. ROUTE CABLE TRAYS PARALLEL TO BUILDING LINES WHERE POSSIBLE
- ACCESSIBLE: CABLE TRAYS SHALL BE ACCESSIBLE (ALSO PER 392.18(E)).
- FOR SPANS GREATER THAN 2-3 METERS (7-10 FEET) OVER INACCESSIBLE CEILINGS (E.G., HARD LID CEILING), TRANSITION CABLE TRAY TO CONDUIT, UON. TRANSITION CONDUITS' LOADING AREA SHALL EQUAL OR EXCEED CABLE TRAY'S LOADING AREA - ADHERE TO MAXIMUM FILL REQUIREMENTS AND TO "CABLE TRAY TRANSITION EQUIVALENCY TABLE". PROVIDE ONE ADDITIONAL SPARE CONDUIT OF SAME SIZE.
- DO NOT CHANGE CABLE TRAY DIRECTION OVER A INACCESSIBLE CEILING.
- PENETRATIONS: FOR EACH PENETRATION THROUGH FIRE BARRIERS, SMOKE BARRIERS, AND SMOKE PARTITIONS, PROVIDE APPROVED AND UL LISTED FOR THE APPLICATION FIRE STOP SYSTEMS TO MAINTAIN THE FIRE SEPARATION RATING. COORDINATE REQUIREMENTS WITH AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. MIXING PRODUCTS BETWEEN MANUFACTURED ASSEMBLIES IS PROHIBITED.
- STRUCTURAL JOINT: AT STRUCTURAL JOINT CROSSINGS, TRUNCATE CABLE TRAY AND PROVIDE SEPARATION PER STRUCTURAL REQUIREMENTS TO ACCOMMODATE THE CALCULATED DEFLECTION. IF SEPARATION IS GREATER THAN 12 INCHES, PROVIDE CABLE HANGERS TO SUPPORT CABLES BETWEEN TRAY SECTIONS.
- EXPANSION JOINTS: WHERE REQUIRED (SUCH AS OUTDOOR INSTALLATIONS), PROVIDE THERMAL EXPANSION JOINTS AT INTERVALS TO ACCOMMODATE THE CALCULATED EXPANSION.
- BOND CABLE TRAY SYSTEM TO APPROVED GROUNDING POINT. BOND SECTIONS AND FITTINGS AT JUNCTIONS.
- BEND RADIUS: CABLE TRAY FITTINGS SHALL HAVE A BEND RADIUS OF 12 INCHES.
- 15. CABLE TRAY DEPTH REFERS TO LOADING DEPTH.
- CLEARANCES: CABLE TRAY SYSTEMS REQUIRE SIDE AND TOP ACCESS (TO PLACE CABLES INTO THE TRAY). INSTALL CABLE



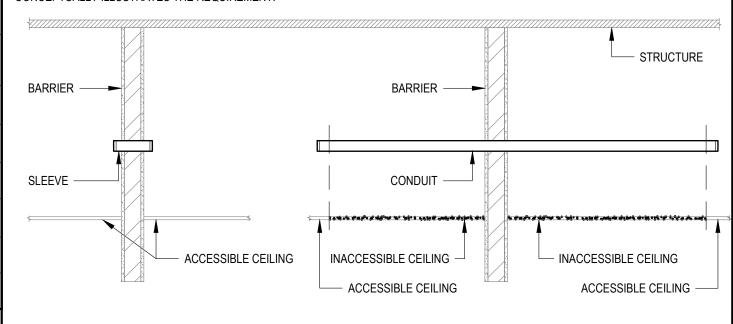
LIMITED ENCROACHMENTS TO THE REQUIRED CLEARANCES WILL BE ALLOWED WHEN THE SPAN OF THE ENCROACHMENT IS LESS THAN 2 METERS (6 FEET) - FOR EXAMPLE, A MECHANICAL DUCT MAY PASS DIRECTLY OVER THE TRAY.

CABLE TRAY -TO- SLEEVE ALIGNMENT: WHEN TRANSITIONING FROM CABLE TRAY TO SLEEVES (E.G., TO PENETRATE A FULL HEIGHT PARTITION), ALIGN THE SLEEVES TO THE TRAY PER THE TOLERANCES DESCRIBED BELOW. THESE ALIGNMENT



SLEEVE FILL SEQUENCE: WHEN FILLING/OCCUPYING SLEEVES, FILL FROM THE CENTER SLEEVE TO THE OUTER SLEEVES AND THE BOTTOM ROW BEFORE THE TOP ROW.

FOR PENETRATIONS OF FULL HEIGHT PARTITIONS ABOVE ACCESSIBLE CEILINGS, PROVIDE APPROVED RATED SLEEVES OR APPROVED FIRESTOP SYSTEM, UNLESS OTHERWISE NOTED. FOR PENETRATIONS ABOVE INACCESSIBLE CEILINGS, PROVIDE EMT CONDUIT THAT SPANS THE DISTANCE OF THE INACCESSIBLE CEILING, INCLUDING THE PENETRATION THROUGH THE BARRIER. THE DIAGRAM BELOW



CABLE TRAY -TO- SLEEVE TRANSITION EQUIVALENCY TABLE

THE TABLE BELOW LISTS THE EQUIVALENCIES BETWEEN CABLE TRAY LOADING AREA AND THE CORRESPONDING QUANTITY OF SLEEVES - EMT AND/OR RATED. APPLY THIS TABLE TO DETERMINE THE REQUIRED QUANTITY OF SLEEVES PER CABLE TRAY LOADING AREA WHEN TRANSITIONING FROM TRAY TO SLEEVES (E.G., TO PASS THROUGH FULL HEIGHT WALLS).

ALSO REFER TO THE "THROUGH PENETRATIONS" TABLE FOR APPROVED UL SYSTEMS WHEN PENETRATING FIRE BARRIERS, SMOKE BARRIERS, AND/OR SMOKE PARTITIONS.

TRAY-TO-SLEEVE EQUIVALENCY CHART

EQUIVALENT SLEEVE QUANTITY

10 | 20 | 96 | 12 | 59 | 23 | 13 | 49 | 10 | 14 | 55 | 11 | 17 | 45

12 | 24 | 116 | 14 | 71 | 27 | 16 | 58 | 12 | 17 | 66 | 13 | 21 | 54 3 | 5 | 24 | 3 | 15 | 6 | 4 | 13 | 3 | 4 | 14 | 3 | 5 | 1

| 10 | 20 | 96 | 12 | 59 | 23 | 13 | 49 | 10 | 14 | 55 | 11 | 17 | 45

3 | 6 | 29 | 4 | 18 | 7 | 4 | 15 | 3 | 5 | 17 | 4 | 6 | 14

5 | 9 | 44 | 6 | 27 | 11 | 6 | 22 | 5 | 7 | 25 | 5 | 8 | 21

| 12 | 24 | 116 | 14 | 71 | 27 | 16 | 58 | 12 | 17 | 66 | 13 | 21 | 54

| 15 | 30 | 144 | 17 | 89 | 34 | 20 | 73 | 15 | 21 | 82 | 16 | 26 | 68

108 | 18 | 36 | 173 | 21 | 107 | 41 | 24 | 87 | 18 | 25 | 98 | 19 | 31 | 8

	DADIN ENSIG				_			EVE, 4"	EVE, 2"	A	ESTOPPER, 4"	ESTOPPER, 2"	JGH, 4" SQ	JGH, 4" RD	JGH, 2" RD				
W		Ħ	LOADING AREA (SQ-IN)	CAPACITY -50% MAX FILL (SQ-IN)	STI EZ-PATH 44+	STI EZ-PATH 33	STI EZ-PATH 22	HILTI SPEEDSLEEVE,	HILTI SPEEDSLEEVE,	STI EZ-PATH S&A	LEGRAND FLAMESTOPPER,	LEGRAND FLAMESTOPPER,	3M PASS-THROUGH, 4"	3M PASS-THROUGH,	ЗМ PASS-ТНROUGH,	4" EMT SLEEVE	3" EMT SLEEVE	2" EMT SLEEVE	
6	х	2	12	6	1	2	10	2	6	3	2	5	1	2	6	2	2	5	
9	х	2	18	9	2	3	15	2	9	4	2	8	2	3	9	2	3	7	_
12	х	2	24	12	2	4	20	3	12	5	3	10	2	3	11	3	4	9	
18	х	2	36	18	3	6	29	4	18	7	4	15	3	5	17	4	6	14	
6	х	3	18	9	2	3	15	2	9	4	2	8	2	3	9	2	3	7	
9	х	3	27	13.5	3	5	22	3	14	6	3	11	3	4	13	3	4	11	
12	х	3	36	18	3	6	29	4	18	7	4	15	3	5	17	4	6	14	
18	х	3	54	27	5	9	44	6	27	11	6	22	5	7	25	5	8	21	
24	х	3	72	36	6	12	58	7	36	14	8	29	6	9	33	7	11	27	
30	х	3	90	45	8	15	72	9	45	17	10	37	8	11	41	8	13	34	
36	х	3	108	54	9	18	87	11	54	21	12	44	9	13	49	10	16	41	
6	х	4	24	12	2	4	20	3	12	5	3	10	2	3	11	3	4	9	
9	х	4	36	18	3	6	29	4	18	7	4	15	3	5	17	4	6	14	
12	х	4	48	24	4	8	39	5	24	9	6	20	4	6	22	5	7	18	
18	х	4	72	36	6	12	58	7	36	14	8	29	6	9	33	7	11	27	
24	х	4	96	48	8	16	77	9	48	18	11	39	8	11	44	9	14	36	

PATHWAYS SYMBOLS

- · · · · · · · · CONDUIT RUN CONCEALED IN SLAB, UNDER SLAB OR UNDERGROUND

CONDUIT RUN CONCEALED IN WALL OR CEILING

— CONDUIT TRUNCATED

— – — CONDUIT RUN EXPOSED ON WALL OR CEILING

─○ CONDUIT TURNED UP CONDUIT TURNED DOWN

CONDUIT SLEEVE (THROUGH WALL OR FLOOR)

FIRESTOP SLEEVE (THROUGH WALL OR FLOOR)

CABLE TRAY - LADDER

CABLE TRAY - WIRE MESH CABLE TRAY - SINGLE RAIL

SURFACE RACEWAY (OUTLET/DEVICE SYMBOLS SHOWN FOR EXAMPLE ONLY)

SEISMIC CALCULATIONS

SUBMIT STRUCTURAL CALCULATIONS FOR THE ANCHORAGE AND SEISMIC RESTRAINT OF FLOOR-MOUNTED EQUIPMENT (SUCH AS EQUIPMENT RACKS, FRAMES, CABINETS, ETC.), WALL-MOUNTED EQUIPMENT (SUCH AS BDA, ETC.), AND OVERHEAD-MOUNTED EQUIPMENT (SUCH AS ANTENNAS, OVERHEAD CABLE SUPPORT, ETC.) IN CONFORMANCE WITH CBC, SECTION 1601A. CALCULATIONS SHALL BE BASED ON FULLY LOADED EQUIPMENT AND SUPPORT SYSTEMS. CALCULATIONS SHALL DEMONSTRATE THAT THE EQUIPMENT AND SUPPORT SYSTEMS SHALL REMAIN ATTACHED TO THE MOUNTING SURFACE DURING AND AFTER EXPERIENCING SEISMIC FORCES IN CONFORMANCE WITH THE CBC. A STRUCTURAL ENGINEER LICENSED IN THE STATE OF CALIFORNIA SHALL PREPARE THE STRUCTURAL CALCULATIONS, AND SHALL STAMP AND SIGN THE SUBMITTAL. OBTAIN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD FOR THE CALCULATIONS.

INSIDE PLANT CONDUIT SYSTEMS

- 2. CONDUIT ROUTING SHOWN IS DIAGRAMMATIC UNLESS SPECIFICALLY SHOWN WITH DIMENSIONS. DETERMINE FINAL CONDUIT ROUTES TO SUIT FIELD CONDITIONS WHILE CONFORMING TO THE DESIGN INTENT, DRAWINGS, AND SPECIFICATIONS. COORDINATE THE CONDUIT SYSTEM INSTALLATION REQUIREMENTS WITH OTHER TRADES.
- FOR EACH PENETRATION THROUGH FIRE BARRIERS AND SMOKE BARRIERS, PROVIDE APPROVED UL LISTED FIRE STOP SYSTEMS (SEE "THROUGH PENETRATIONS" MATRIX ON THIS SHEET) TO MAINTAIN THE SEPARATION RATING, COORDINATE REQUIREMENTS WITH AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION.
- PROVIDE DEFLECTION FITTINGS AT STRUCTURAL EXPANSION JOINT CROSSINGS
- 4 | 8 | 36 | 5 | 23 | 9 | 5 | 19 | 4 | 6 | 21 | 4 | 7 | 1 PROVIDE DEDICATED SUPPORTS (DO NOT SHARE SUPPORTS WITH OTHER TRADES/SYSTEMS OTHER THAN SYSTEMS IDENTIFIED 5 | 10 | 48 | 6 | 30 | 12 | 7 | 25 | 5 | 7 | 28 | 6 | 9 | 2 IN THIS SET OF DRAWINGS) FOR CONDUIT SYSTEMS/DUCT BANKS INTENDED FOR LOW VOLTAGE SYSTEM CABLES, UNLESS 8 | 15 | 72 | 9 | 45 | 17 | 10 | 37 | 8 | 11 | 41 | 8 | 13 | 34
 - CONDUIT/DUCT BANK ROUTES, SHOWING CONDUIT TYPES, SIZES, AND QUANTITIES PER PENETRATION (E.G., FLOORS, FRAMED WALLS, CONCRETE WALLS, ETC.), INDICATE PENETRATION TYPE (E.G., EMT
 - SLEEVE, UL FIRESTOPPING SYSTEM, SMOKE BARRIER, ETC.), SIZE, AND QUANTITY
 - PER PULL BOX LOCATION, INDICATE BOX TYPE, SIZE, CONFIGURATION, AND RELATED INSTALLATION DETAILS
 - PER OUTLET, DEVICE, BACK BOX, AND JUNCTION BOX LOCATION, INDICATE BOX TYPE, SIZE, CONFIGURATION, AND RELATED INSTALLATION DETAILS
- | 6 | 12 | 58 | 7 | 36 | 14 | 8 | 29 | 6 | 9 | 33 | 7 | 11 | 2 ROUTE CONDUITS/DUCT BANKS PARALLEL TO BUILDING LINES WHERE POSSIBLE. 9 | 18 | 87 | 11 | 54 | 21 | 12 | 44 | 9 | 13 | 49 | 10 | 16 | 4
 - CONDUIT RUNS SHALL HAVE NO MORE THAN 180 TOTAL DEGREES OF BENDS BETWEEN PULL BOXES, AND NO SINGLE BEND SHALL EXCEED 90 DEGREES. OPTION: IF ADDITIONAL BENDS ARE REQUIRED, INCREASE THE CONDUIT RUN ONE TRADE SIZE FEET, THEN A THIRD 90 DEGREE BEND IS ALLOWED.
 - 9. WHEN ROUTING CONDUIT IN CONCRETE, PLACE CONDUITS INTO FORMS WITH A GRADUATED BEND RADIUS OF 40 TIMES THE CONDUIT SIZE TO MITIGATE CAPACITY REDUCTION. THE USE OF 90-DEGREE ELBOWS IS PROHIBITED, OTHER THAN TURNING UP OR DOWN OUT OF CONCRETE, UNLESS PRIOR AUTHORIZATION IS RECEIVED IN WRITING FROM THE OWNER/OWNER'S
 - 10. CONDUIT BENDS SHALL NOT EXCEED THE FOLLOWING RADII: - CONDUITS LESS THAN 2-INCH TRADE SIZE: SIX TIMES THE INSIDE DIAMETER

 - 12. PROVIDE INSULATED OR GROUNDED BUSHINGS ON EXPOSED ENDS OF CONDUITS AND SLEEVES. BOND ONE END (NOT BOTH ENDS) OF CONTINUOUS CONDUIT RUNS TO THE APPROVED GROUNDING BUS SYSTEM.
 - 13. REFER TO ROUGH-IN SCHEDULE FOR CONDUIT REQUIREMENTS. IF NOT EXPRESSLY STATED, PROVIDE ONE EMT TYPE 1-INCH TRADE SIZE CONDUIT AND ONE 4 11/16" SQUARE X 2 7/8" D (MIN) BOX FOR TELECOMMUNICATIONS OUTLETS.

 - GREATER THAN THE AGGREGATE CAPACITY OF THE WORK AREA CONDUITS. PROVIDE APPROVED JUNCTION AND OR PULL BOXES
 - 16. CONDUIT BODIES ("LB" FITTINGS, ETC.) ARE PROHIBITED FOR USE IN TELECOMMUNICATIONS AND AUDIOVISUAL SYSTEM PATHWAYS. THEY ARE ALLOWED FOR USE IN SECURITY SYSTEM PATHWAYS.
 - 17. PROVIDE A PULL STRING IN EACH CONDUIT RUN BETWEEN CONDUIT ENDS; LEAVE WORKING SLACK IN THE PULL STRING AT EACH END; TIE OFF SLACK TO PREVENT RECOIL (BACK INTO THE CONDUIT). PULL STRINGS SHALL BE CONTINUOUS AND WITHOUT KNOTS, KINKS, ETC. PULL STRING STRENGTH SHALL BE 200 LB, MINIMUM.
 - 19. OVER INACCESSIBLE CEILINGS (E.G., HARD LID CEILING), PROVIDE CONDUITS FOR LOW VOLTAGE SYSTEMS CABLING, UON. WHEN TRANSITIONING FROM CABLE TRAY, REFER TO SIZING REQUIREMENTS LISTED UNDER "CABLE TRAY SYSTEMS" ON THIS SHEET.

- 1. PROVIDE CONDUIT SYSTEMS, PULL BOXES, JUNCTION BOXES, DEVICE BOXES, OUTLET BOXES, PATHWAYS, SEISMIC BRACING, AND OTHER INFRASTRUCTURE SYSTEMS ACCORDING TO LOCAL CODES, REGULATORY REQUIREMENTS, TIA 569, AND BICSI TDMM.

- APPROVED BY THE ENGINEER.
- 6. PREPARE SHOP DRAWINGS SHOWING THE FOLLOWING:

- WHILE NOT EXCEEDING 270 DEGREES TOTAL. IF THE LAST BEND IS WITHIN 12 INCHES OF THE CONDUIT END, THEN THE INCREASE IN TRADE SIZE IS NOT REQUIRED DUE TO THAT SPECIFIC BEND. IF THE OVERALL LENGTH OF THE CONDUIT RUN IS LESS THAN 75
- REPRESENTATIVE OR THE ENGINEER.
- CONDUITS 2-INCH OR GREATER TRADE SIZE: TEN TIMES THE INSIDE DIAMETER
- 11. FOR BACKBONE PATHWAYS, PROVIDE EMT TYPE 4-INCH TRADE SIZE CONDUIT, UON.
- 14. PROVIDE A DEDICATED CONDUIT STUB PER OUTLET/DEVICE/BACK BOX. DAISY-CHAINING OUTLET BOXES IS PROHIBITED UNLESS
- 15. CONSOLIDATION OF WORK-AREA CONDUITS IS ALLOWED. THE CONSOLIDATED CONDUIT CAPACITY SHALL BE EQUAL TO OR
- 18. WHEN BOXES FACE OPPOSITE SIDES OF FRAMED WALLS, INSTALL OUTLET/DEVICE/BACK BOXES WITH AT LEAST ONE STUD BAY OR 24 INCHES SEPARATION BETWEEN BOXES.

CABLE SERVICE TYPES AND TERMINATIONS						CONNECTING	MEDIA T	YPES			
DESCRIPTOR	CABLE TYPE	CONDUCTORS	NEC	TERMINATION TYPE AT EQUIPMENT ROOM	TERMINATION TYPE AT USER SPACE	DESCRIPTOR	DESCRIPTION	DATA (COLOR)	VOICE (COLOR)	VIDEO (COLOR)	LENGTH (FT)
"D"	UTP CAT6A	4 TWISTED PAIRS (23 AWG)	CMP	HORIZONTAL DATA FIELD - ONTO RACK MOUNTED MODULAR PATCH PANELS	8-PIN MODULAR CONNECTOR	CPC1	COPPER/UTP PATCH CORD, CATEGORY 6A, 8-PIN MODULAR TO 8-PIN MODULAR	TO BE COORDINATED WITH ARCHITECT	-	-	7
"D1"	UTP CAT6A (BLUE)	4 TWISTED PAIRS (23 AWG)	CMP	HORIZONTAL DATA FIELD - ONTO RACK MOUNTED MODULAR PATCH PANELS	8-PIN MODULAR CONNECTOR	CPC2	COPPER/UTP PATCH CORD, CATEGORY 6A, 8-PIN MODULAR TO 8-PIN MODULAR	TO BE COORDINATED WITH ARCHITECT	-	-	10
"D2"	UTP CAT6A (WHITE)	4 TWISTED PAIRS (23 AWG)	CMP	HORIZONTAL DATA FIELD - ONTO RACK MOUNTED MODULAR PATCH PANELS	8-PIN MODULAR CONNECTOR	CPC3	COPPER/UTP PATCH CORD, CATEGORY 6A, 8-PIN MODULAR TO 8-PIN MODULAR, PLENUM RATED	TO BE COORDINATED WITH ARCHITECT	-	-	10
"TV"	COAXIAL	1 CENTER (18 AWG)	CATVP	CATV DISTRIBUTION FIELD - VIA WALL MOUNTED F TYPE CONNECTORS	F TYPE CONNECTOR	XCP1	COAXIAL PATCH CORD, QUADSHIELD, COMPRESSION TYPE F CONNECTOR	N/A	-	BLACK	6
"B"	NONE	NONE	-	BLANK INSERT IN UNUSED PORT	BLANK INSERT IN UNUSED PORT						
-	-	-	-	-	-						

NUMBERED	COMMENTS:

1. PROVIDE BLANK INSERTS IN UNUSED PORTS.

2. TERMINATE CABLING AT SURFACE-MOUNTED OUTLET BOX.

11. PROVIDE LABELS ON PATCH CORDS FOR POKE-THRU AND FLOOR BOX OUTLETS, TO MATCH CABLE AND PORT NUMBER.

12. COORDINATE THE INSTALLATION WITH SPECIALTY EQUIPMENT CONTRACTOR (I.E. ELEVATOR, SECURITY, FIRE ALARM), INCLUDING DEVICE TYPE, LOCATION, & INSTALLATION HEIGHT, AND CONNECTION TO EQUIPMENT'S CONTROL PANEL.

13. IN LOCATIONS WITH CONDUIT STUB-UPS, PROVIDE SEPARATE SURFACE-MOUNTED OUTLET BOX(ES) FOR TERMINATION OF DATA CABLES.

14. FOR OUTLETS WITH UP TO 4 CABLES, PROVIDE (1) 4-PORT FACEPLATE/SURFACE-MOUNTED BOX. FOR OUTLETS WITH UP TO 6 CABLES, PROVIDE (1) 6-PORT FACEPLATE/SURFACE-MOUNTED BOX. FOR OUTLETS WITH UP TO 8 CABLES, PROVIDE (2) 4-PORT FACEPLATES/SURFACE-MOUNTED BOXES. FOR OUTLETS WITH MORE THAN 8 CABLES, PROVIDE (2) 6-PORT FACEPLATES/SURFACE-MOUNTED

15. CABLE COLOR WILL VARY BY OUTLET LOCATION, COORDINATE WITH ARCHITECT.

A. REFER TO FLOOR PLANS, REFLECTED CEILING PLANS AND ROOM PLANS FOR DIAGRAMMATIC LAYOUT OF TELECOMMUNICATIONS OUTLETS. ALSO REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR DIMENSIONED OUTLET PLACEMENT AND CONFIGURATION REQUIREMENTS.

B. REFER TO DIAGRAMS ON SHEET T0.20 FOR HORIZONTAL CABLING ROUTING REQUIREMENTS.

C. PROVIDE BLANK INSERTS INTO UNUSED FACEPLATE PORTS

GENERAL COMMENTS:

BID SET REVISIONS

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DRAWN BY:

PROJECT NO.: 1203.22

4. PROVIDE 20 FEET OF CABLE SLACK AT OUTLET END. 5. PROVIDE FACEPLATES/INSERTS TO MATCH FURNITURE OPENING TYPE AND COLOR. 6. PROVIDE PATCH CORD FROM PATCH PANEL TO NETWORK EQUIPMENT. COORDINATE INSTALLATION REQUIREMENTS WITH OWNER'S REPRESENTATIVE. 7. FURNISH PATCH CORDS TO OWNER'S IT DEPARTMENT 8. ROUTE PATCH CORDS TO AUDIOVISUAL DEVICE THROUGH DEDICATED CONDUIT. REFER TO AUDIOVISUAL BACKBOX SCHEDULE AND DETAILS FOR ADDITIONAL INFORMATION. 9. PROVIDE PATCH CORD FROM OUTLET TO DEVICE. 10. PROVIDE LABELS ON PATCH CORDS FOR HUDDLE ROOM AND CONFERENCE ROOM TELECOM OUTLETS, TO MATCH CABLE AND

3. PROVIDE 2 INCH BRAIDED NYLON SLEEVE FROM FEEDPOINT TO PARTITION FURNITURE RACEWAY.

		7	TECHNOLOG	SY SY	STE	EMS PATHWAY S	ERVICES ROUGH	-IN SCHEDULE		
SYMBOL	ATTRIBUTE	DESCRIPTION	SHAF	RED SERV	ICES ELEC	PATHWAY FEED	BOX TYPE	BOX COVER/RING	MOUNTING	DETAIL REFERENCE NUMBERED COMMENTS
C	ATTRIBUTE	COMMUNICATIONS CABLING FEED POINT - POKE-THRU (TYPE A)	•	-	-	(1) 1 1/2" CONDUIT	POKE-THRU	SEE DETAIL	FLUSH IN FLOOR	1, 8, 9, 10
C	В	COMMUNICATIONS CABLING FEED POINT - POKE-THRU (TYPE B)	•	-	-	(1) 2" CONDUIT	POKE-THRU	SEE DETAIL	FLUSH IN FLOOR	1, 8, 9, 10
	S(#)	MULTISERVICE POKE-THRU - TELECOM, POWER	•	-	•	(1) 1 1/4" CONDUIT	POKE-THRU	SEE DETAIL	FLUSH IN FLOOR	6, 8, 9, 10
	S(#)-AV	MULTISERVICE POKE-THRU - TELECOM, AV, POWER	•	•	•	(2) 1 1/4" CONDUITS	POKE-THRU	SEE DETAIL	FLUSH IN FLOOR	6, 8, 9, 10, 11
С	-	COMMUNICATIONS CABLING FEED POINT - WALL BOX	•	-	-	(2) 1 1/4" CONDUITS	SQUARE BOX, 6"SQ x 4"D	TWO GANG RING	FLUSH IN WALL, +18" AFF	1
C	T	COMMUNICATIONS CABLING FEED POINT - WALL MOUNTED CABLE TR	AY •	-	_	6"W x 2"D BASKET STYLE CABLE TRAY	-	-	FLUSH TO WALL SURFACE	14
	A(#)	TELECOM OUTLET - WALL MOUNTED	•	-		(1) 1 1/4" CONDUIT	SQUARE BOX, 5"SQ x 2 7/8"D	ONE GANG	FLUSH IN WALL, +18" AFF	1, 5, 7
	AV(#)	AV OUTLET - WALL MOUNTED	•	-	_	(1) 1 1/4" CONDUIT	SQUARE BOX, 5"SQ x 2 7/8"D	ONE GANG	FLUSH IN WALL, +56" AFF, UON	1, 3, 7
	B(#)	TELECOM OUTLET - WALL MOUNT ABOVE COUNTER	•	-	_	(1) 1 1/4" CONDUIT	SQUARE BOX, 5"SQ x 2 7/8"D	ONE GANG	FLUSH IN WALL, +44" AFF	1, 5, 7
\mathbf{Y}	F	COMMUNICATIONS OUTLET SERVING SECURITY EQUIPMENT CABINET	•	_	_	(1) 1" CONDUIT	_	ONE GANG	SURFACE MOUNTED, WITHIN SECURITY	1
	F(#)	TELECOM OUTLET - FURNITURE SYSTEM	•	_		FURNITURE SYSTEM RACEWAY	BUILT INTO FURNITURE	FURNITURE BEZEL	EQUIPMENT CABINET FURNITURE SYSTEM	3, 10, 12
		WALL PHONE		-		(1) 1" CONDUIT	SQUARE BOX, 4 11/16"SQ x 2 7/8"D	ONE GANG	FLUSH IN WALL, +44" AFF	1, 7, 13
(C)		COMMUNICATIONS CABLING FEED POINT - POWER POLE	•	-	-	(,	3Q0ANE BOX, 4 11/10 3Q X 2 1/0 B		·	10
<u> </u>	- ANIT		•	-	-	CABLE HANGER / 2" CONDUIT (1) 2" CONDUIT	-	-	FLUSH IN CEILING	
	ANT	REMOTE ANTENNA FOR WIRELESS ACCESS POINT	•	-	-	.,		-	-	15
	AV(#)	AV OUTLET - CEILING MOUNTED	•	-	-	CABLE HANGER / 1 1/4" CONDUIT	SQUARE BOX, OR 5"SQ x 2 7/8"D	ONE GANG	ABOVE ACCESSIBLE CEILING	3, 11
	SEC	COMMUNICATIONS OUTLET FOR SECURITY CAMERA - CEILING MOUNT	TED ●	-	-	CABLE HANGER / 1" CONDUIT	SQUARE BOX, OR 5"SQ x 2 7/8"D	ONE GANG	ABOVE ACCESSIBLE CEILING	3, 7, 8
	WAP	WIRELESS ACCESS POINT	•	-	-	CABLE HANGER / 1 1/4" CONDUIT	SQUARE BOX, OR 5"SQ x 2 7/8"D	ONE GANG	ABOVE ACCESSIBLE CEILING	3, 7, 8
	ALS	ASSISTIVE LISTENING SYSTEM - EMITTER		•		(1) 1" CONDUIT	SQUARE BOX, 4 11/16"SQ (OR 4"SQ) x 2 1/8"D	ONE GANG	FLUSH IN WALL, 98" AFF	1
	CAM	CAMERA - WALL MOUNT	-	•	-	(1) 1 1/4" CONDUIT	SQUARE BOX, 4 11/16"SQ x 2 1/8"D	ONE GANG	FLUSH IN WALL, 98" AFF, UON	1
	СР	CONTROL PANEL	-	•	-	(1) 1" CONDUIT	SQUARE BOX, 5"SQ x 2 1/8"D	TWO GANG	SWITCH HEIGHT	1
	FPD	DISPLAY - FLAT PANEL	-	•	-	(1) 1 1/4" CONDUIT	SQUARE BOX, 4 11/16"SQ x 2 1/8"D	TWO GANG	CENTER TO DISPLAY HORIZONTALLY AND VERTICALLY, UON	1, 6
	INT	MEDIA INTERFACE	-	•	-	(1) 1 1/4" CONDUIT	SQUARE BOX, 4 11/16"SQ x 2 1/8"D	ONE GANG	FLUSH IN WALL, 18" AFF	1,5
	INT2	MEDIA INTERFACE	-	•	-	(1) 1 1/4" CONDUIT	SQUARE BOX, 4 11/16"SQ x 2 1/8"D	TWO GANG	FLUSH IN WALL, 18" AFF	1, 5
	LVC	LOW VOLTAGE (PROJECTION SCREEN) CONTROL	-	•	-	NONE	SQUARE BOX, 4 11/16"SQ (OR 4"SQ) x 2 1/8"D	CLOSED / BLANK COVER	SURFACE ON WALL, ABOVE CEILING WITHIN 12" OF ELECTRICAL CONNECTION	6
	PSC	PROJECTION SCREEN CONTROL	-	•	-	(1) 1" CONDUIT	SQUARE BOX, 4 11/16"SQ (OR 4"SQ) x 2 1/8"D, or 1G SWITCH BOX	ONE GANG	FLUSH IN WALL, SWITCH HEIGHT	1
	TP	TERMINAL PANEL	-	•	-	(2) 1 1/4" CONDUITS	8" x 8" x 4"	-	CENTER, 18" AFF	1, 5, 11
	ANT	ANTENNA - CEILING MOUNT	-	•	-	(1) 1" CONDUIT HOME RUN A/R	SQUARE BOX, 4 11/16"SQ (OR 4"SQ) x 2 1/8"D	ONE GANG, UON	FLUSH IN CEILING	-
	CAM	CAMERA - CEILING MOUNT	-	•	-	(1) 1 1/4" CONDUIT HOME RUN A/R	SEE SECTION 274116	CUSTOM	FLUSH IN CEILING, UON	-
	LVC	LOW VOLTAGE CONTROL FOR PROJECTION SCREEN	-	•	-	(1) 1" CONDUIT HOME RUN A/R	SQUARE BOX, 4 11/16"SQ (OR 4"SQ) x 2 1/8"D	CLOSED / BLANK COVER	UNDERSIDE OF STRUCTURE ABOVE	5
\Diamond	MIC	CEILING MOUNTED MICROPHONE	-	•	-	(1) 1" CONDUIT HOME RUN A/R	SQUARE BOX, 4-11/16"SQ (OR 4"SQ) x 2-1/8"D	ONE GANG	FLUSH IN CEILING	-
	PJR	PROJECTOR - CEILING MOUNTED	-	•	-	NONE	SQUARE BOX, 4 11/16"SQ (OR 4"SQ) x 2 1/8"D	TWO GANG	UNDERSIDE OF STRUCTURE ABOVE	5
	S1	LOUDSPEAKER - CEILING MOUNT, ACCESSIBLE	-	•	-	DAISY CHAIN AND HOME RUN A/R	LOUDSPEAKER BACK BOX	GRILLE	FLUSH IN CEILING	-
	S2	LOUDSPEAKER - CEILING MOUNT, INACCESSIBLE	-	•	-	(1) 3/4" CONDUIT - DAISY CHAIN AND HOME RUN A/R	4" CEILING BOX	GRILLE	FLUSH IN CEILING	_
	AENTO.						EDAL COMMENTS:			
WITHIN THE SAME RO	T STUB FROM ACCESS OM. AVOID PENETRATI		LOCATE ADJACENT TO ELECTRICAL F ECTRICAL FOR ADDITIONAL INFORMA		DPOINT LOC	ATIONS WHERE APPLICABLE. REFER TO A. HE	ERAL COMMENTS: EIGHTS SHOWN IN THIS SCHEDULE ARE DEFAULT, UON. ANS, REFLECTED CEILING PLANS AND ROOM PLANS, WH			HEIGHTS. ALSO REFER TO TECHNOLOGY FLOOR
LEVATOR CONTROL	PANEL. CONDUITS MAY		. THE ARCHITECT AND FURNITURE VE ICATIONS. CONTRACTOR TO COORDIN				HERE OUTLET/DEVICE IS SHARED WITH ELECTRICAL, RE	FER TO ELECTRICAL DRAWINGS FOR INSTALL	ATION REQUIREMENTS AND ADDITIONAL REQUIREME	NTS.
	OUTLET TYPE, INSTALLA	SPECIALTY EQUIPMENT CONTRACTOR (I.E., SECURITY, FIRE 11 ATION CONFIGURATION (LOCATION, HEIGHT, ETC.), AND	. REFER TO AV ROOM PLANS FOR ADE	DITIONAL PATH\	WAY REQUIR	EMENTS. C. PF	ROVIDE BLANK INSERTS INTO UNUSED KNOCKOUTS.			
	UOUS CONDUIT FROM . PROVIDE A PULL STRI		FEED CABLING FOR FURNITURE OUT NELS TO OUTLET LOCATION IN FURNI		EDPOINTS. F	ROUTE CABLING THROUGH FURNITURE D. PF	ROVIDE LABELS ON CONDUITS AT BOTH ENDS.			
	ACENT TO POWER OUT ED BOX BRACKETS ARE		. IN LOCATIONS WITH EXPOSED/HARD DX. IN ACCESSIBLE AREAS, PROVIDE A				FRATED BARRIERS, PROVIDE FIRESTOPPING/SEALING A	ROUND BOX WHERE REQUIRED.		
			. CABLE TRAY MOUNTED VERTICALLY AY.	TO WALL. USE	VELCRO TIE	WRAPS TO SECURE CABLE BUNDLES TO				
7. PROVIDE A BOX A			LOCATION OF REMOTE ANTENNA. AN	ITENNA CONNE	CTS BACK T	O NEAREST WIRELESS ACCESS POINT.				
ELECOMMUNICATIO	NS PRIMARY PATHWAY	LE CEILING LOCATIONS, ROUTED BACK TO NEAREST '. IN LOCATIONS WITH EXPOSED OR NON-ACCESSIBLE, USE ONS PRIMARY PATHWAY.								



TECHNOLOGY ROUGH-IN SCHEDULE

ITD HEADQUARTERS 393 13TH STREET OAKLAND, CA 94612

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DRAWN BY:

PROJECT NO.: 1203.22

		SEC	URITY DOOR	SCHEDULE
SHEET NUNBER	FLOOR	DOOR NUMBER	DETAIL NUMBER	SECURITY CONFIGURATION
T2.00	LOWER LEVEL	107	2/T5.31	CARD READER, MAGNETIC DOOR CONTACTS, REX
T2.00	LOWER LEVEL	109	5/T5.30	CARD READER, MAGNETIC DOOR CONTACTS, REX
T2.01	LOWER LEVEL	128	2/T5.31	CARD READER, MAGNETIC DOOR CONTACTS, REX
T2.01	FIRST FLOOR	201	5/T5.30	CARD READER, MAGNETIC DOOR CONTACTS, REX
T2.01	FIRST FLOOR	210	2/T5.31	CARD READER, MAGNETIC DOOR CONTACTS, REX
T2.01	FIRST FLOOR	211	3/T5.30	CARD READER, MAGNETIC DOOR CONTACTS, REX, INTERCOM
T2.01	FIRST FLOOR	211A	6/T5.30	CARD READER ELEVATOR
T2.01	FIRST FLOOR	212	2/T5.30	CARD READER, MAGNETIC DOOR CONTACTS, REX
T2.01	FIRST FLOOR	213	5/T5.30	CARD READER, MAGNETIC DOOR CONTACTS, REX
T2.01	FIRST FLOOR	221	5/T5.30	CARD READER, MAGNETIC DOOR CONTACTS, REX
T2.01	FIRST FLOOR	221A	6/T5.30	CARD READER ELEVATOR
T2.01	FIRST FLOOR	222	1/T5.30	CARD READER, MAGNETIC DOOR CONTACTS, REX, INTERCOM
T2.01	FIRST FLOOR	224	4/T5.30	CARD READER, MAGNETIC DOOR CONTACTS, REX
T2.01	FIRST FLOOR	225	3/T5.30	CARD READER, MAGNETIC DOOR CONTACTS, REX, INTERCOM
T2.02	MEZZANINE	312	5/T5.30	CARD READER, MAGNETIC DOOR CONTACTS, REX
T2.03	SECOND FLOOR	409	5/T5.30	CARD READER, MAGNETIC DOOR CONTACTS, REX
T2.04	THIRD FLOOR	503	1/T5.31	MAGNETIC DOOR CONTACTS
T2.04	THIRD FLOOR	504A	4/T5.31	MAGNETIC DOOR CONTACTS, LOCAL ALARM
T2.04	THIRD FLOOR	504	3/T5.31	CARD READER IN/OUT, MAGNETIC DOOR CONTACTS, REX, LOCAL ALARM
T2.04	THIRD FLOOR	506	5/T5.31	CARD READER IN/OUT, MAGNETIC DOOR CONTACTS, REX, LOCAL ALARM
T2.04	THIRD FLOOR	506A	4/T5.31	MAGNETIC DOOR CONTACTS, LOCAL ALARM

		SECURI	TY CAMERA S	CHEDULE		
SHEET NUNBER	FLOOR	CAMERA NUMBER	DETAIL NUMBER	FIXED/PTZ	MOUNT TYPE	COMMENTS
T2.01	FIRST FLOOR	K201	2/T5.32	FIXED DOME	WALL	
T2.01	FIRST FLOOR	K202	3/T5.32	FIXED DOME	CEILING	
T2.01	FIRST FLOOR	K203	3/T5.32	FIXED DOME	CEILING	
T2.01	FIRST FLOOR	K204	3/T5.32	FIXED DOME	CEILING	
T2.01	FIRST FLOOR	K205	2/T5.32	FIXED DOME	WALL	
T2.01	FIRST FLOOR	K206	2/T5.32	FIXED DOME	WALL	
T2.01	FIRST FLOOR	K207	3/T5.32	FIXED DOME	CEILING	
T2.01	FIRST FLOOR	K208	1/T5.32	360 DOME	PENDANT	
T2.04	THIRD FLOOR	K501	3/T5.32	FIXED DOME	CEILING	
T2.04	THIRD FLOOR	K502	2/T5.32	FIXED DOME	WALL	
T2.04	THIRD FLOOR	K503	2/T5.32	FIXED DOME	WALL	MOUNT EXTERIOR CAMERA TO ELEVATOR MACHINE ROOM, ONE LEVE UP.
T2.04	THIRD FLOOR	K504	2/T5.32	FIXED DOME	WALL	
T2.04	THIRD FLOOR	K505	3/T5.32	FIXED DOME	CEILING	

NOTE

SCHEDULE FOR REFERENCE ONLY, REFER TO FLOOR PLANS FOR EXACT QUANTITY.

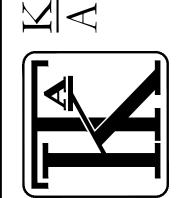
ENTRY CONTROL AND EXIT CONTROL FOR DOOR WITH ELECTRICIFIED HARDWARE ARE DEFINED IN THE ASSIGNED HARDWARE GROUPS. THE HARDWARE GROUPS ASSIGNMENTS ARE ON THE OPENING SCHEDULES. REFER TO ARCHITECTURAL DRAWINGS.

OMOROUS-TOWEY

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ECOM

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37-2800

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1333 Broadwa 1333 Broadwa Oakland, CA 510-337-2800

> DOOR AND CAMERA SCHEDULE

ITD HEADQUARTERS 393 13TH STREET OAKLAND, CA 94612

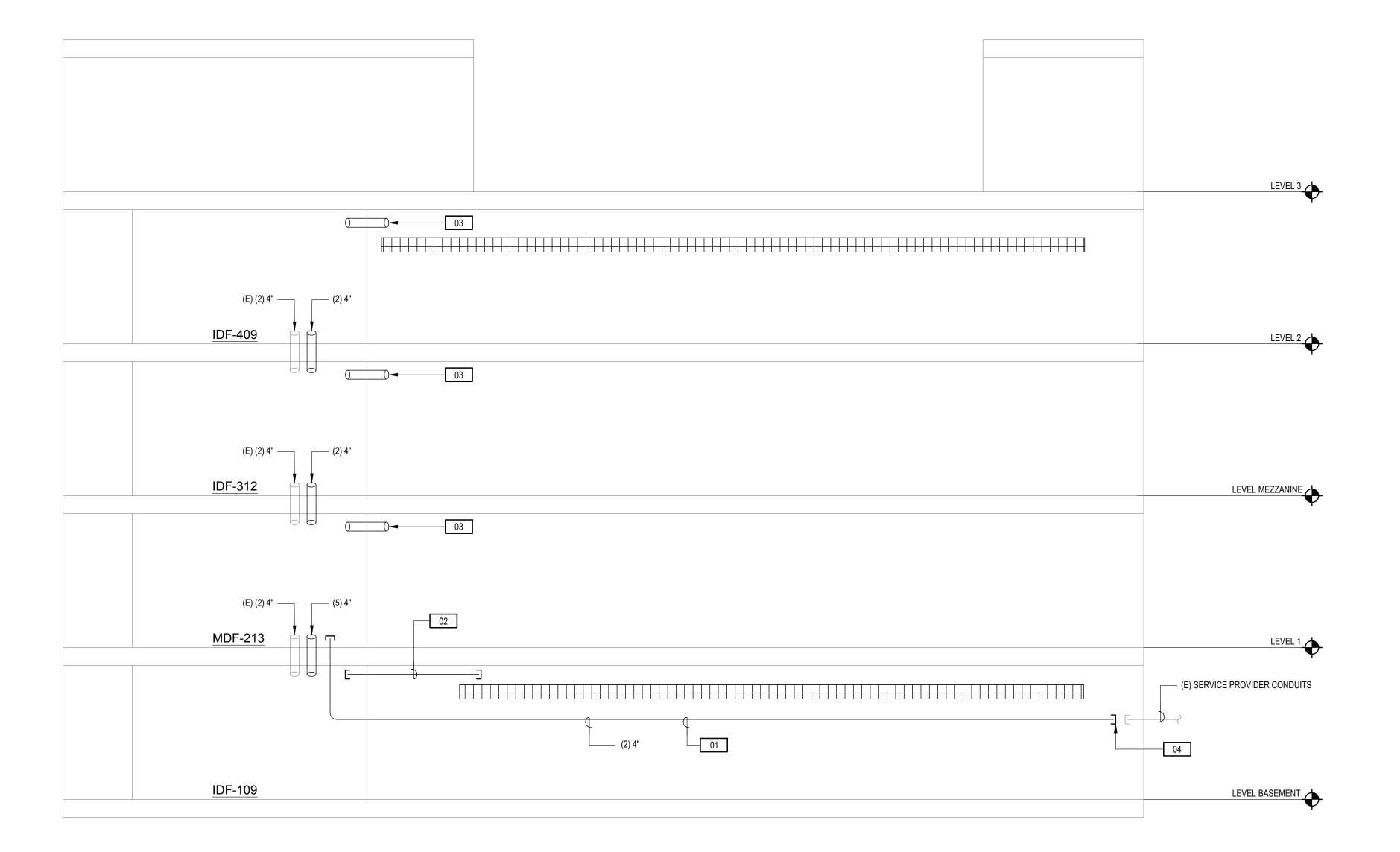
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PROJECT NO.: 1203.22

T0.05



- INFORMATION ABOUT PATHWAYS LOCATIONS, ROUTING, TYPES AND QUANTITIES.

CABLE TRAY ROUTING

CONDUIT SLEEVE (CONDUIT OF LENGTH LESS THAN 3 FEET)
- QUANTITY AND SIZE AS NOTED

CONDUIT AND/OR SLEEVE(S) WITH WEATHERHEAD - QUANTITY AND SIZE AS NOTED

FIRESTOP DEVICE(S) - QUANTITY AS NOTED



. THIS DRAWING REPRESENTS A DIAGRAMMATIC OVERVIEW OF THE TECHNOLOGY BACKBONE PATHWAYS INFRASTRUCTURE.

2. REFER TO FLOOR PLANS, REFLECTED CEILING PLANS AND TELECOM ROOM PLANS FOR MORE

3. PATHWAYS SHOWN DEDICATED FOR TECHNOLOGY CABLING ONLY, UON.

SYMBOL LEGEND

CABLE TRAY - REFER TO CEILING PLANS FOR HORIZONTAL

CONDUIT - QUANTITY AND SIZE AS NOTED

NUMBERED NOTES

01 CONDUIT CONNECTING EXISTING SERVICE PROVIDER ENTRANCE TO MDF-213 ON FIRST FLOOR.

02 CONDUITS FROM <u>IDF-109</u> TO PRIMARY PATHWAY IN USER SPACE, REFER TO RCPS FOR SIZES AND QUANTITIES.

03 CONDUIT SLEEVES TO USER SPACE, REFER TO RCPS FOR SIZES AND QUANTITIES.

04 INTERCEPT (E) SERVICE PROVIDER CONDUITS IN CEILING SPACE OF BASEMENT.

(9)

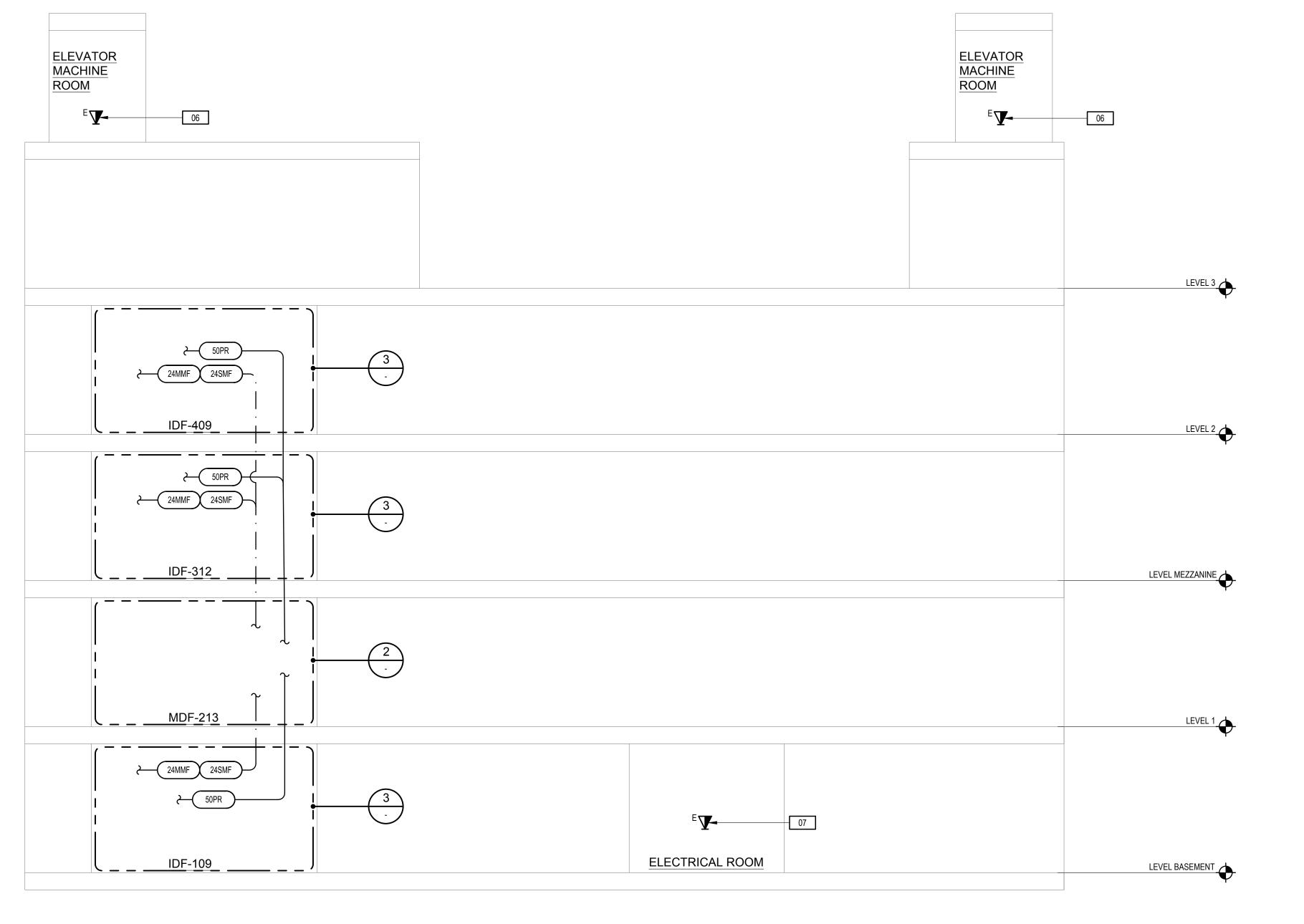
RISER DIAGRAM -PATHWAYS

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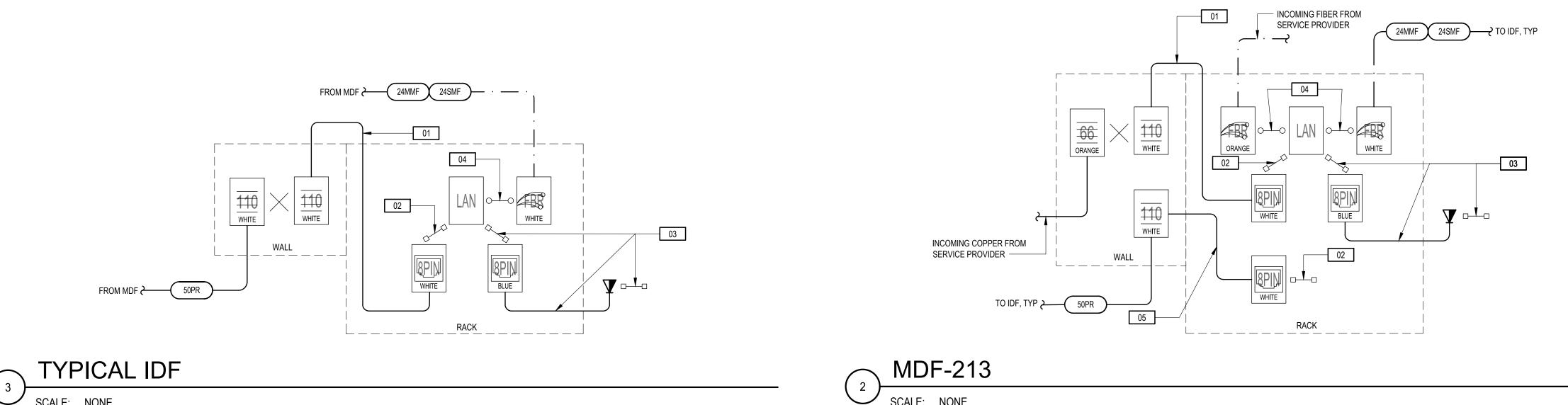
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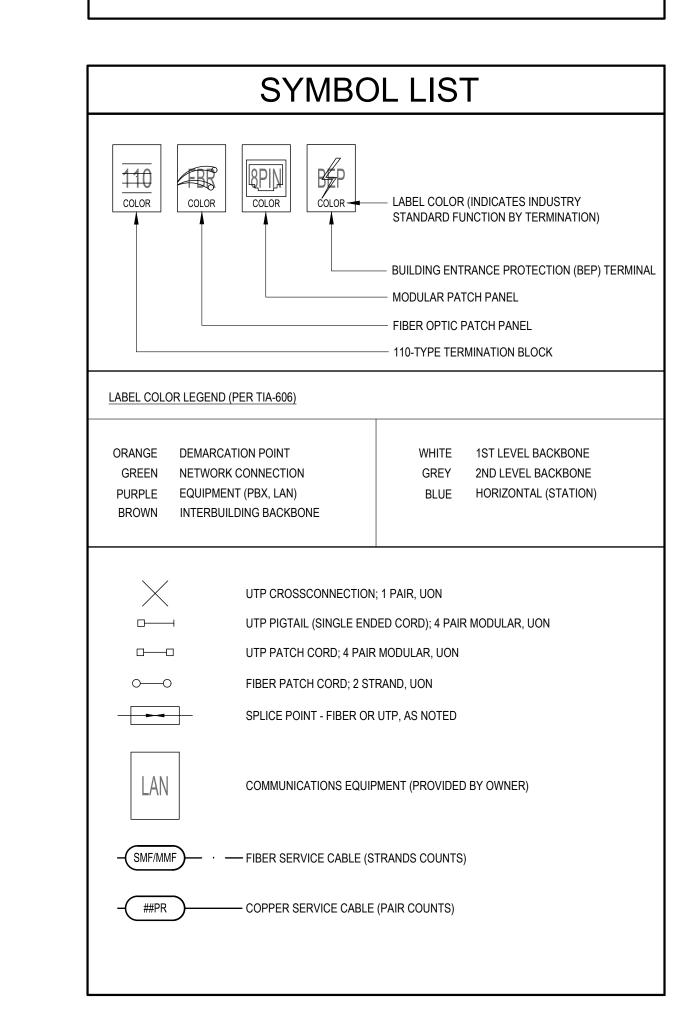


TELECOM CABLING DIAGRAM



SHEET NOTES

- THIS DRAWING REPRESENTS A DIAGRAMMATIC OVERVIEW OF THE TECHNOLOGY CABLING INFRASTRUCTURE. REFER TO FLOOR PLANS, REFLECTED CEILING PLANS, AND TELECOM ROOMS PLANS FOR MORE INFORMATION AND FOR ESTIMATING CABLE LENGTHS. REFER TO TELECOM ROOM PLANS FOR TERMINATION INFORMATION AND EQUIPMENT PLACEMENT.
- REFER TO TELECOMMUNICATIONS OUTLETS SCHEDULE FOR OUTLET CONFIGURATION REQUIREMENTS. REFER TO FLOOR PLANS FOR OUTLET APPROXIMATE PLACEMENTS. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT PLACEMENT, VERTICALLY AND HORIZONTALLY.
- 3. NOT ALL ROUTING CONFIGURATIONS FOR HORIZONTAL CABLING ARE SHOWN ON THIS



NUMBERED NOTES

- 01 50 PAIR TIE UTP CABLE, TERMINATE 1 PAIR PER PORT.
- 02 FURNISH (1) 10' LONG CAT6A PATCH CORD PER PORT. COORDINATE INSTALLATION REQUIREMENTS WITH OWNER'S REPRESENTATIVE.
- 03 REFER TO OUTLET SCHEDULE FOR MORE INFORMATION.
- 04 FIBER PATCH CORDS BY OWNER.
- 05 PROVIDE (1) 50-PAIR UTP TIE CABLE PER IDF, TERMINATE 1 PAIR PER PORT.
- 06 OUTLET FOR CONNECTION TO ELEVATOR DEMARCATION PANEL, FIELD DETERMINE EXACT
- 07 OUTLET FOR CONNECTION TO FIRE ALARM PANEL, FIELD DETERMINE EXACT LOCATION.

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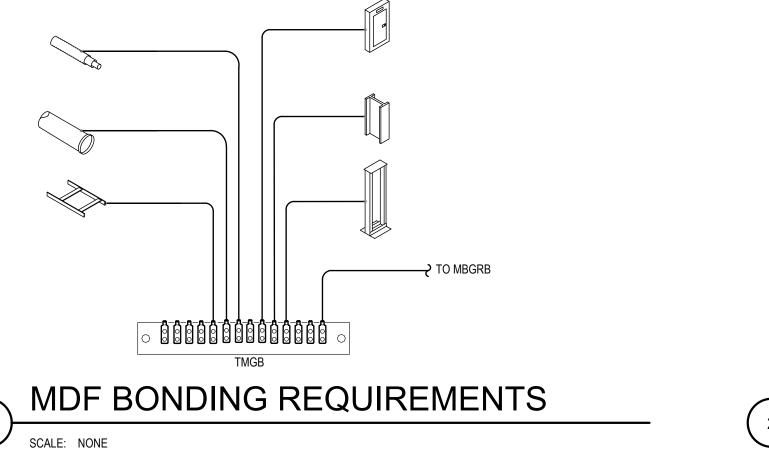
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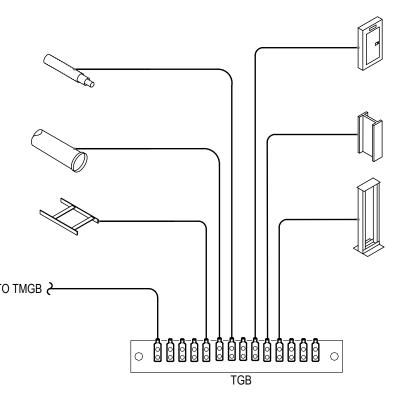
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DRAWN BY: PROJECT NO.:

TELECOMMUNICATIONS BONDING DIAGRAM

SCALE: NO

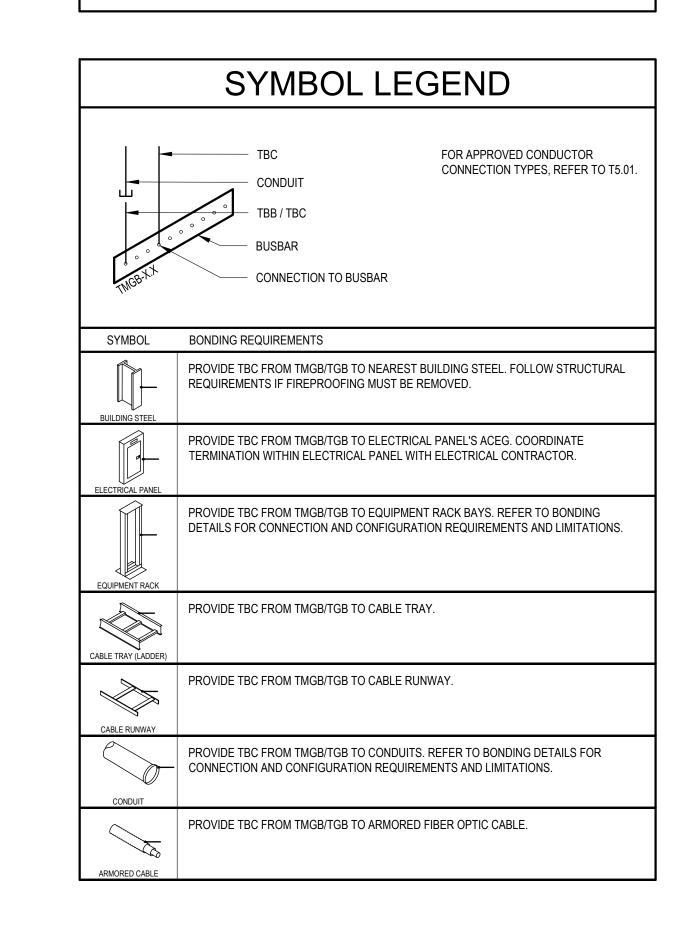




SCALE: NONE

SHEET NOTES

- THIS DRAWING REPRESENTS A DIAGRAMMATIC OVERVIEW OF THE TELECOMMUNICATIONS BONDING BACKBONE AND INFRASTRUCTURE. REFER TO FLOOR PLANS, REFLECTED CEILING PLANS AND ROOM PLANS FOR ESTIMATING BACKBONE CONDUCTOR LENGTHS AND ROOM PLANS FOR COMPONENT PLACEMENT. REFER TO 15.01 FOR ADDITIONAL REQUIREMENTS (APPROVED CONNECTIONS, CONFIGURATIONS, ETC.)
- 2. LABEL BUSBARS AND CONDUCTORS. REFER TO SPECIFICATIONS FOR LABELING REQUIREMENTS.
- 3. SIZE BONDING CONDUCTORS (BCT, TBB, GE AND TBC) PER ANSI/TIA-607-B -- SEE CHART BELOW.



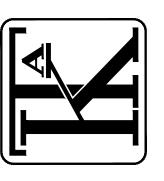
ANSI/TI/	∖- 607-B
TBB/GE/TBC LENGTH m (ft)	SIZE (AWG)
LESS THAN 4 (13)	6
4-6 (14-20)	4
6-8 (21-26)	3
8-10 (27-33)	2
10-13 (34-41)	1
13-16 (42-52)	1/0
16-20 (53-66)	2/0
20-26 (67-84)	3/0
26-32 (85-105)	4/0
32-38 (106-125)	250 KCMIL
38-46 (126-150)	300 KCMIL
46-53 (151-175)	350 KCMIL
53-76 (176-250)	500 KCMIL
76-91 (251-300)	600 KCMIL
GREATER THAN 91 (>300)	750 KCMIL

KOMOROUS-TOWE
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> RISER DIAGRAM -BONDING

ITD HEADQUARTERS 393 13TH STREET OAKLAND, CA 94612

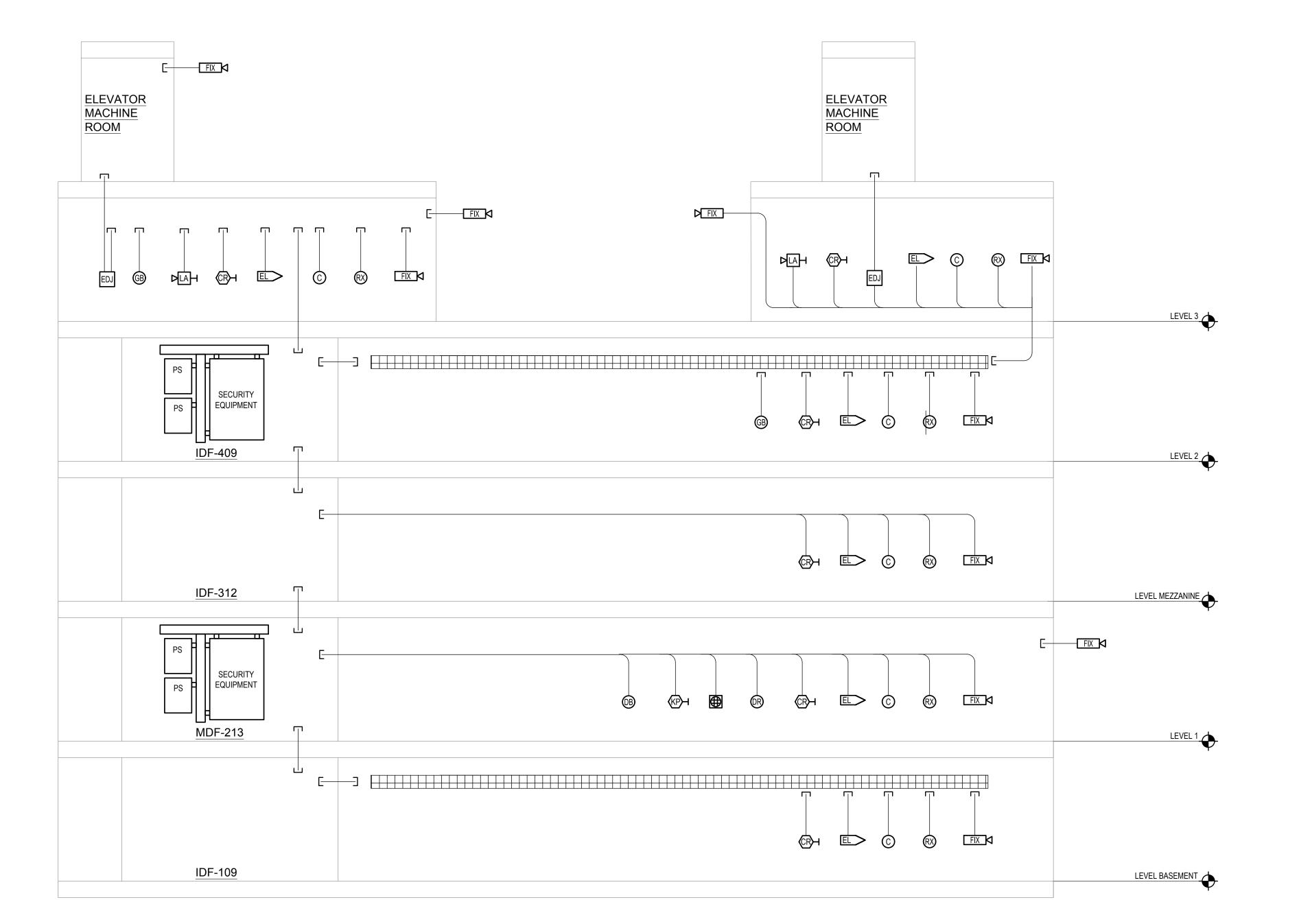
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DATE: 3/31/2017

DRAWN BY: T

PROJECT NO.: 1203.3

T0.12



- 1. THIS DRAWING REPRESENTS A DIAGRAMMATIC OVERVIEW OF THE SECURITY SYSTEM.
- 2. REFER TO FLOOR PLANS AND REFLECTED CEILING PLANS FOR ESTIMATING PATHWAYS AND
- 3. PROVIDE FIRESTOP MATERIAL IN AND AROUND SLEEVES AND CONDUITS THAT PENETRATE FIRE RATED WALLS OR FLOORS.
- 4. SECURITY DEVICES UTILIZE TELECOMMUNICATIONS CABLE TRAY, SLEEVES, ETC. REFER TO TELECOMMUNICATIONS PATHWAYS ON SHEET T0.11.

SYMBOL LEGEND

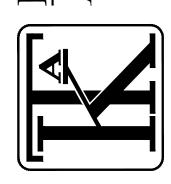
CABLE TRAY - REFER TO CEILING PLANS FOR HORIZONTAL CABLE TRAY ROUTING

CONDUIT - QUANTITY AND SIZE AS NOTED

CONDUIT SLEEVE (CONDUIT OF LENGTH LESS THAN 3 FEET)
- QUANTITY AND SIZE AS NOTED

CONDUIT AND/OR SLEEVE(S) WITH WEATHERHEAD - QUANTITY AND SIZE AS NOTED

FIRESTOP DEVICE(S) - QUANTITY AS NOTED

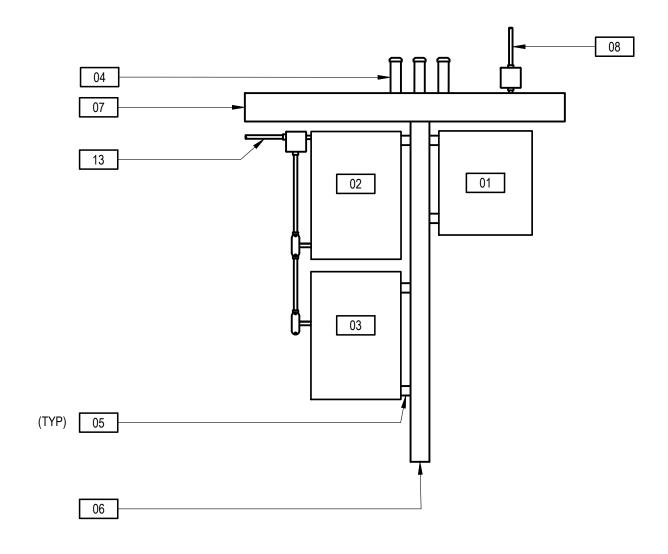


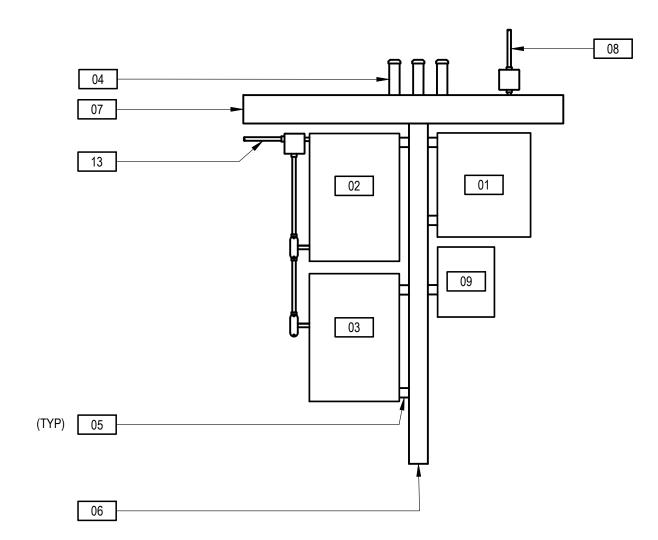
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RISER DIAGRAM -SECURITY

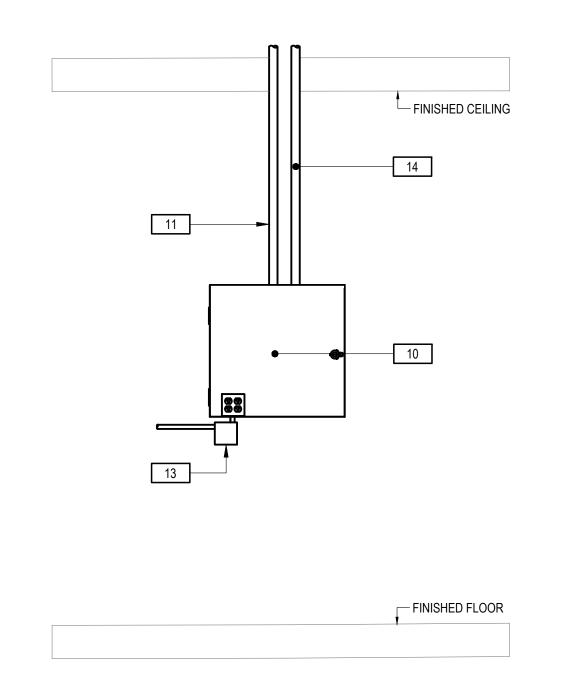
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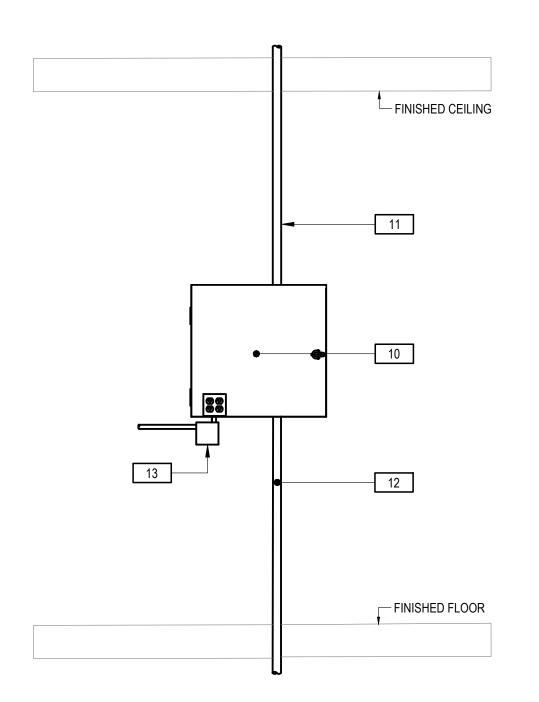


SECURITY EQUIPMENT ELEVATION IDF - 409



ELEVATOR DEMARCATION CABINET, LOBBY 509

SECURITY EQUIPMENT ELEVATION MDF - 213



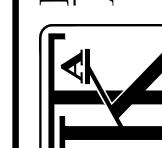
ELEVATOR DEMARCATION CABINET, LOBBY 504

SHEET NOTES

- ELEVATIONS ARE DIAGRAMMATIC. PROVIDE ACU'S AND POWER SUPPLIES AS REQUIRED TO SUPPORT THE SECURITY FIELD EQUIPMENT SHOWN ON THE FLOOR PLANS AND REFLECTED
- REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CIRCUITS/OUTLETS AND LIGHTING

NUMBERED NOTES

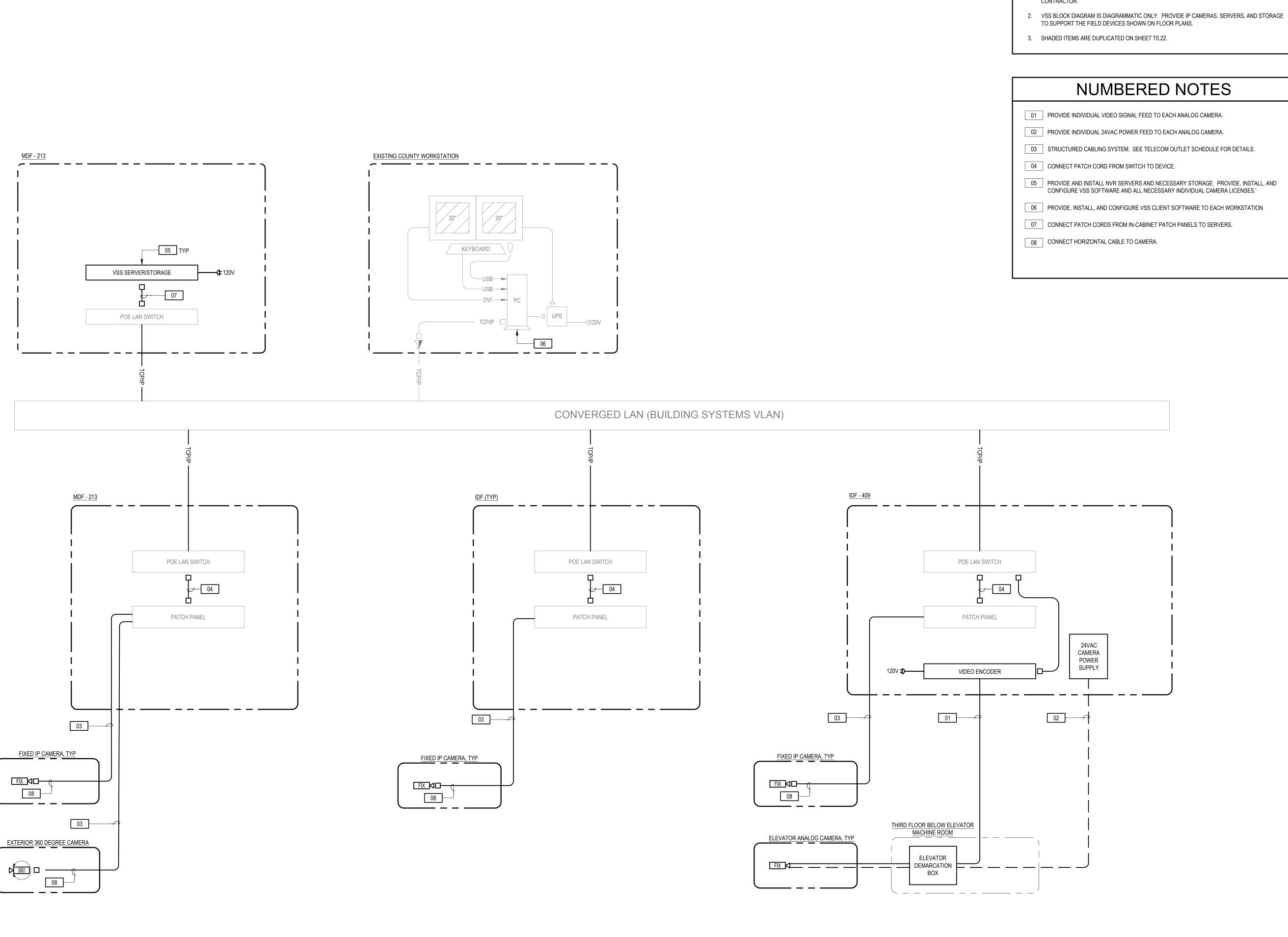
- 01 ACCESS CONTROL SYSTEM PANEL.
- 02 LOCK POWER SUPPLY: 24VDC CONTINUOUS POWER SUPPLY.
- 03 DEVICE POWER SUPPLY: 12VDC CONTINUOUS POWER SUPPLY.
- 04 3" CONDUIT TO OVERHEAD CABLE SUPPORT.
- 05 2" CHASE.
- 06 60"X6"X6" SCREW COVER GUTTER.
- 07 48"X"X6" SCREW COVER GUTTER.
- 08 FIRE LIFE SAFETY INTERFACE.
- 09 INTRUSION DETECTION SYSTEM PANEL. 10 PROVIDE 12" X 12" X 6" NEMA-1 ENCLOSURE FOR SECURITY CABLING DEMARCATION .
- 11 PROVIDE 1-1/4" CONDUIT TO ELEVATOR CONTROLLER ON ROOF.
- 12 TO IDF 409 ROOM.
- 13 120 VAC DEDICATED CIRCUITS.
- 14 PROVIDE 1-1/4" CONDUIT TO OVERHEAD CABLE SUPPORT.



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BLOCK DIAGRAMS -VSS

> HEADQUAKTEKS 33 13TH STREET KLAND, CA 94612

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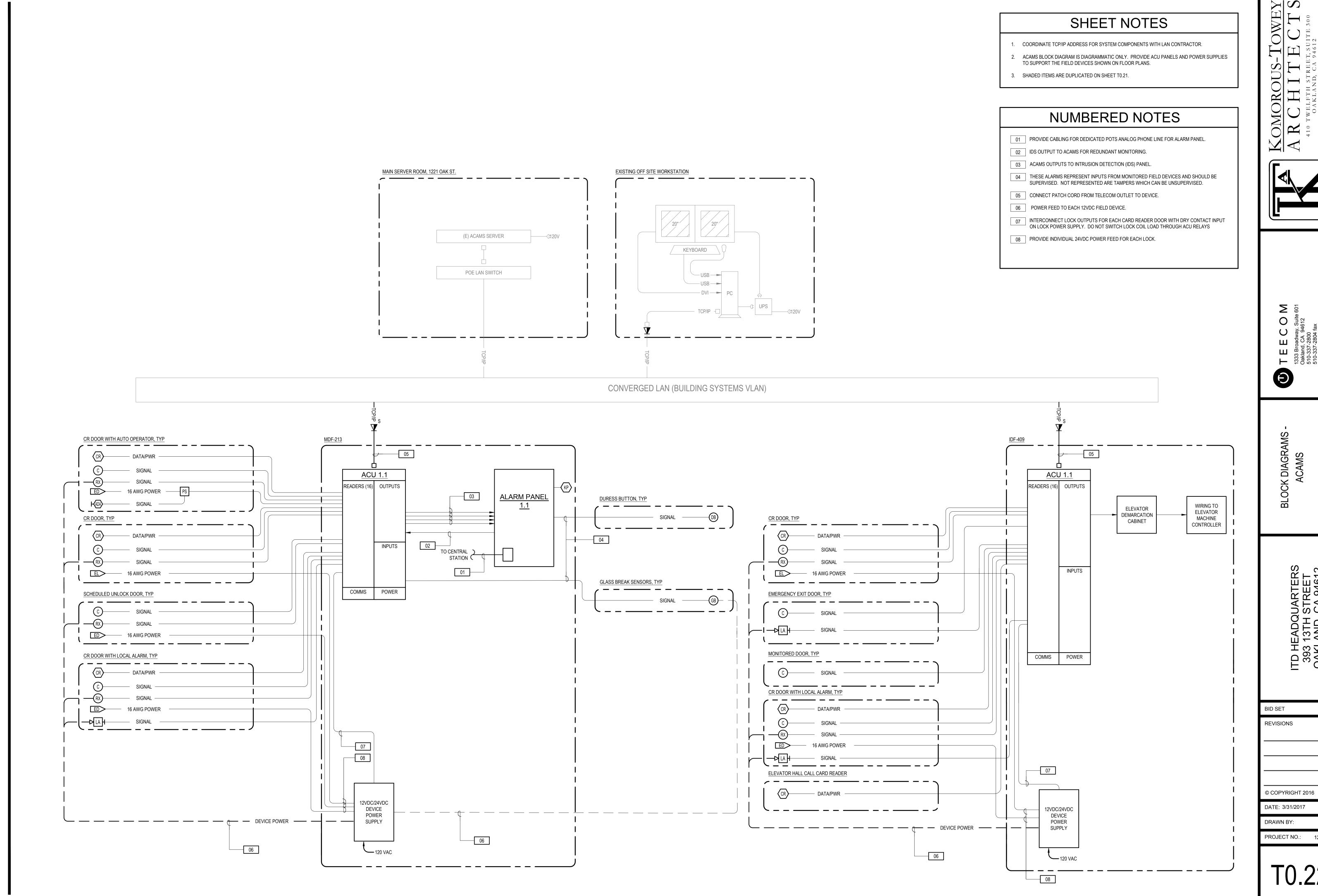
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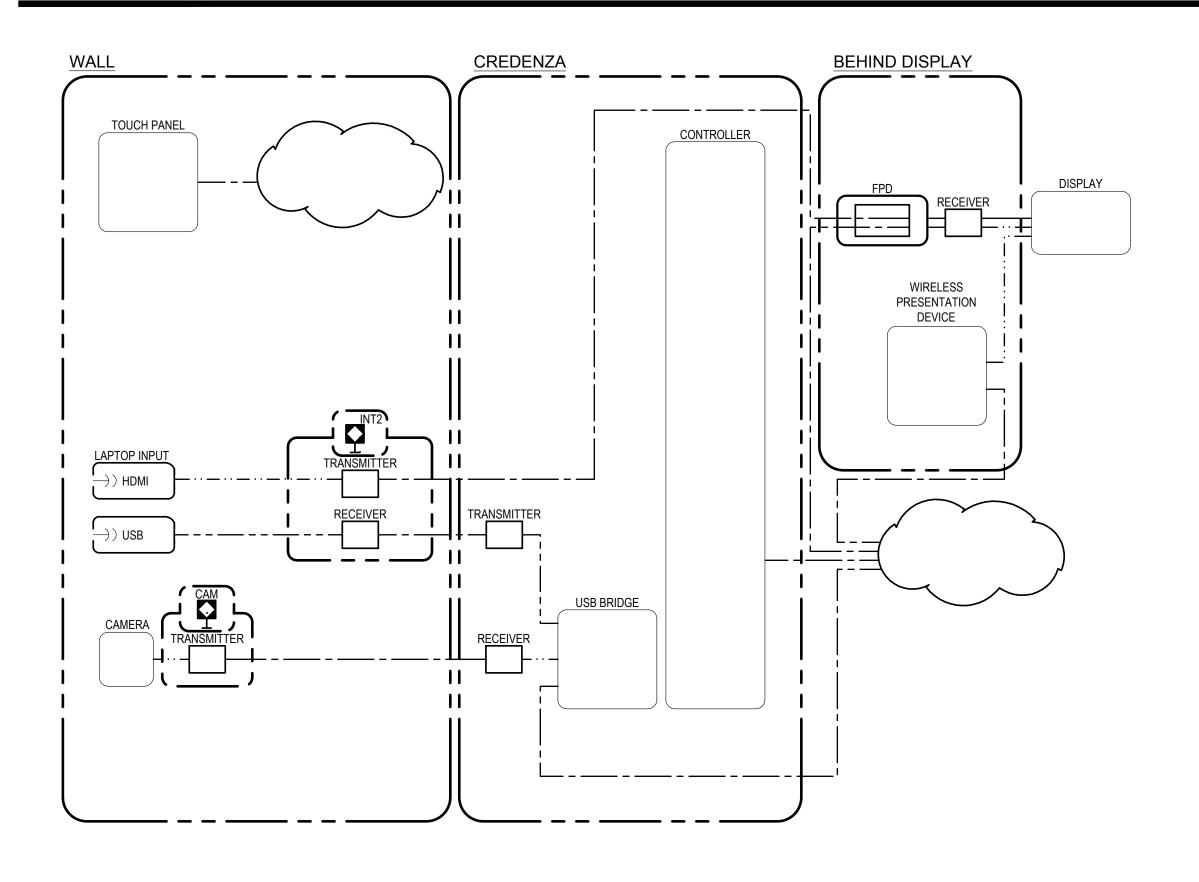
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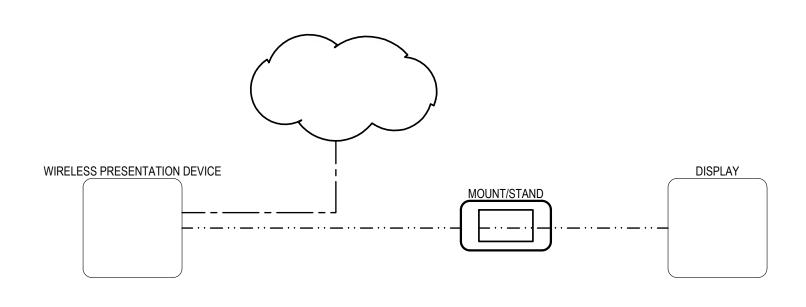
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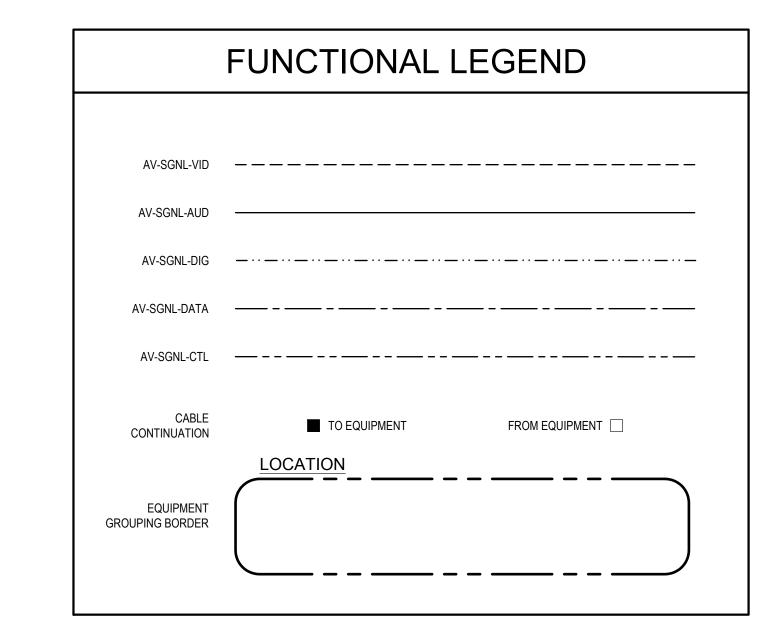
PROJECT NO.: 1203.22



PROJECT NO.: 1203.22







FUNCTIONAL DIAGRAMS OPEN HUDDLE, SMALL
CONFERENCE (111, 127,
306, 417)

ITD HEADQUARTERS 393 13TH STREET OAKLAND, CA 94612

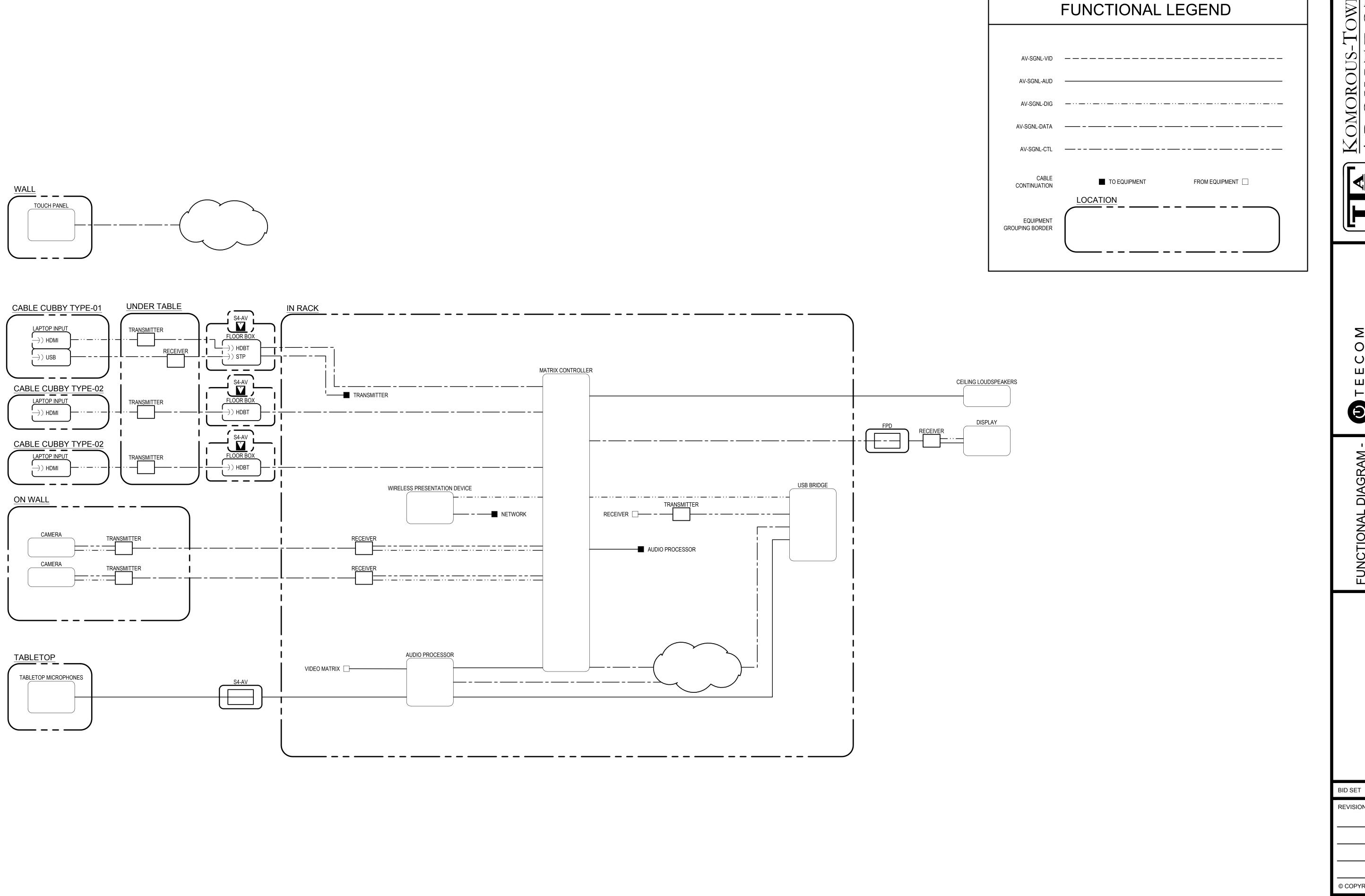
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SMALL CONFERENCE (111, 127, 306, 417)

OPEN HUDDLE



ZOMOROUS-TOWEY

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OAKLAND, CA 94612

Ph. 510.446.2244 Fx: 510.446.2242

kta@ktarch.com www.ktarch.com



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0akland, CA 94612
510-337-2800
510-337-2804 fax

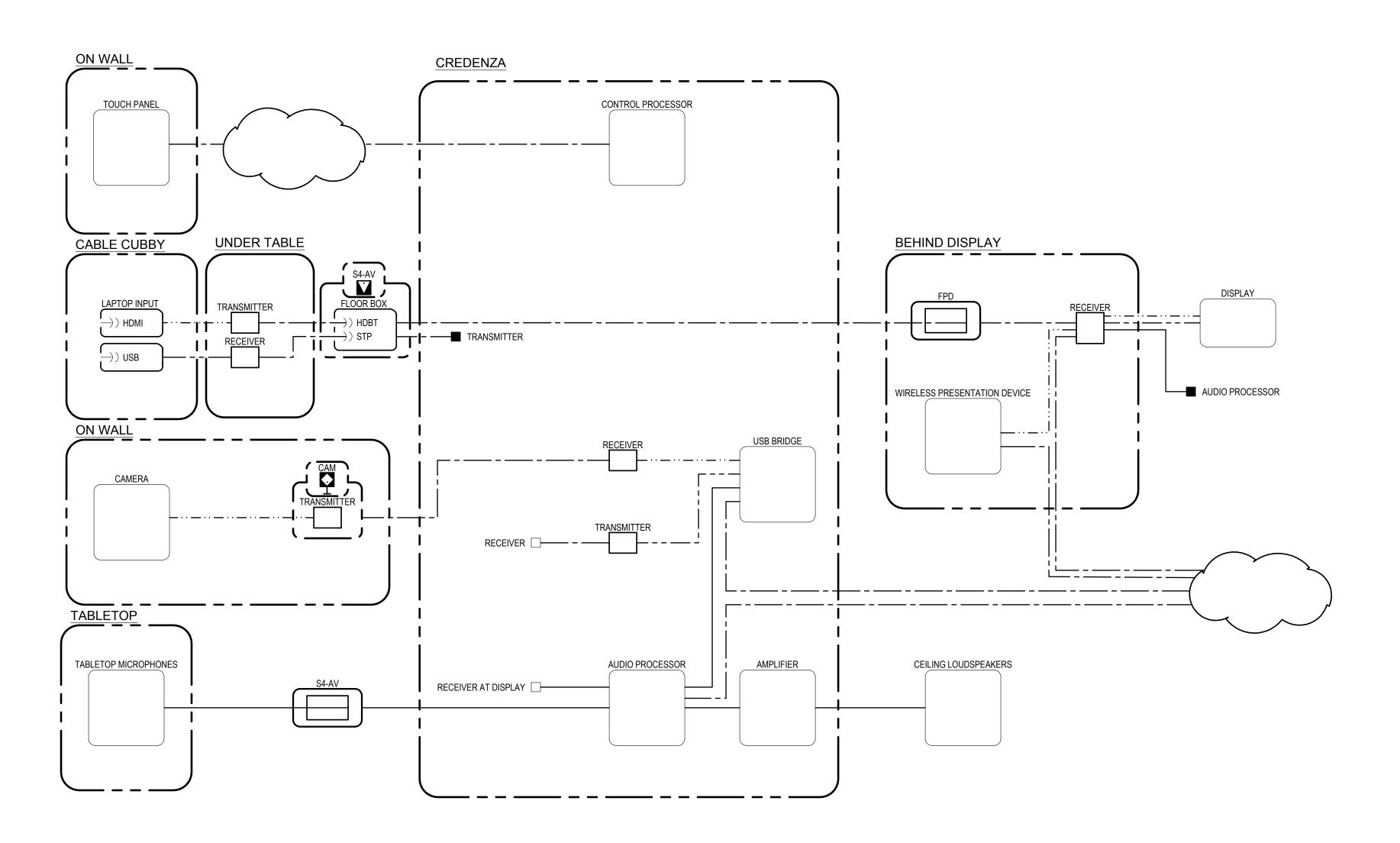
RGE CONFERENCE (228)

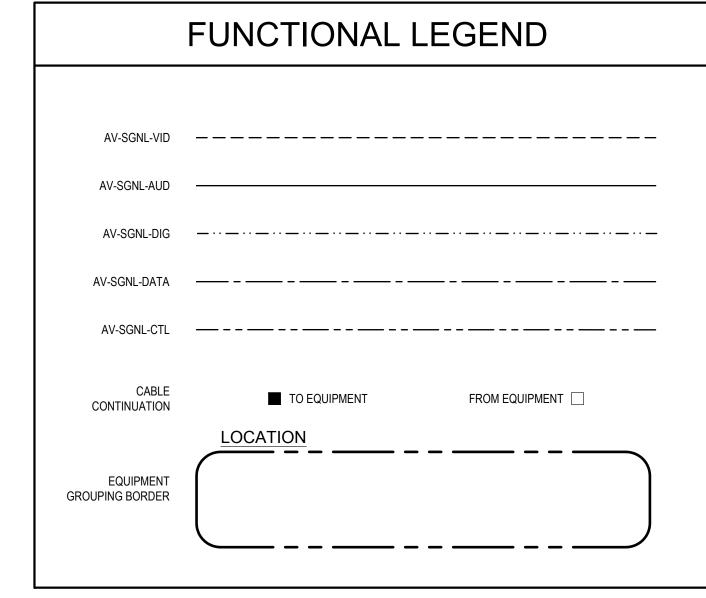
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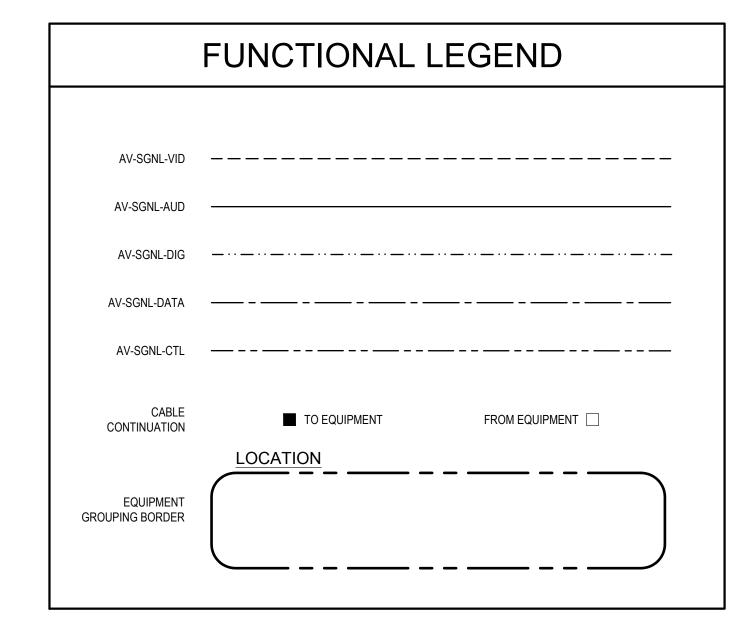


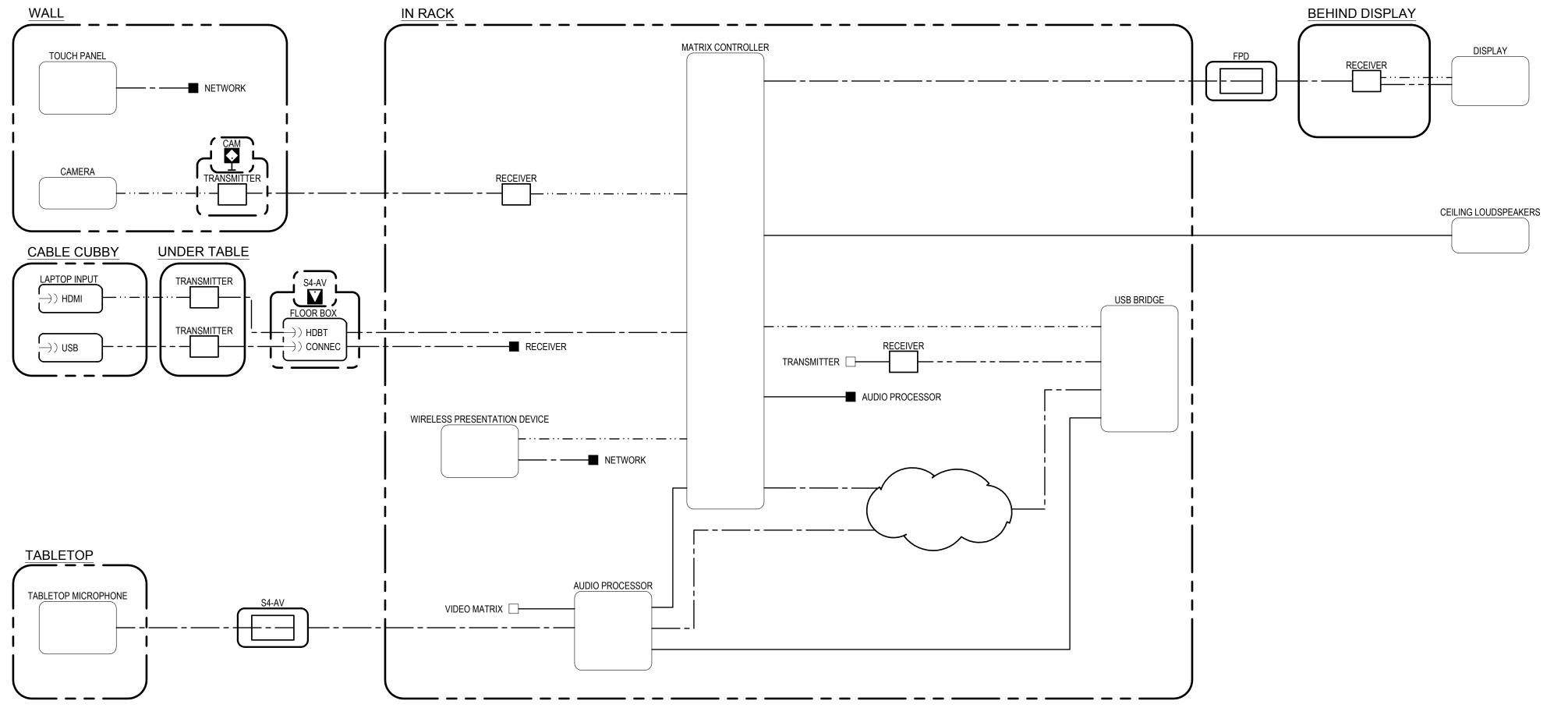
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FUNCTIONAL DIAGRAM -SMALL CONFERENCE (420)

> ITD HEADQUARTERS 393 13TH STREET OAKLAND, CA 94612

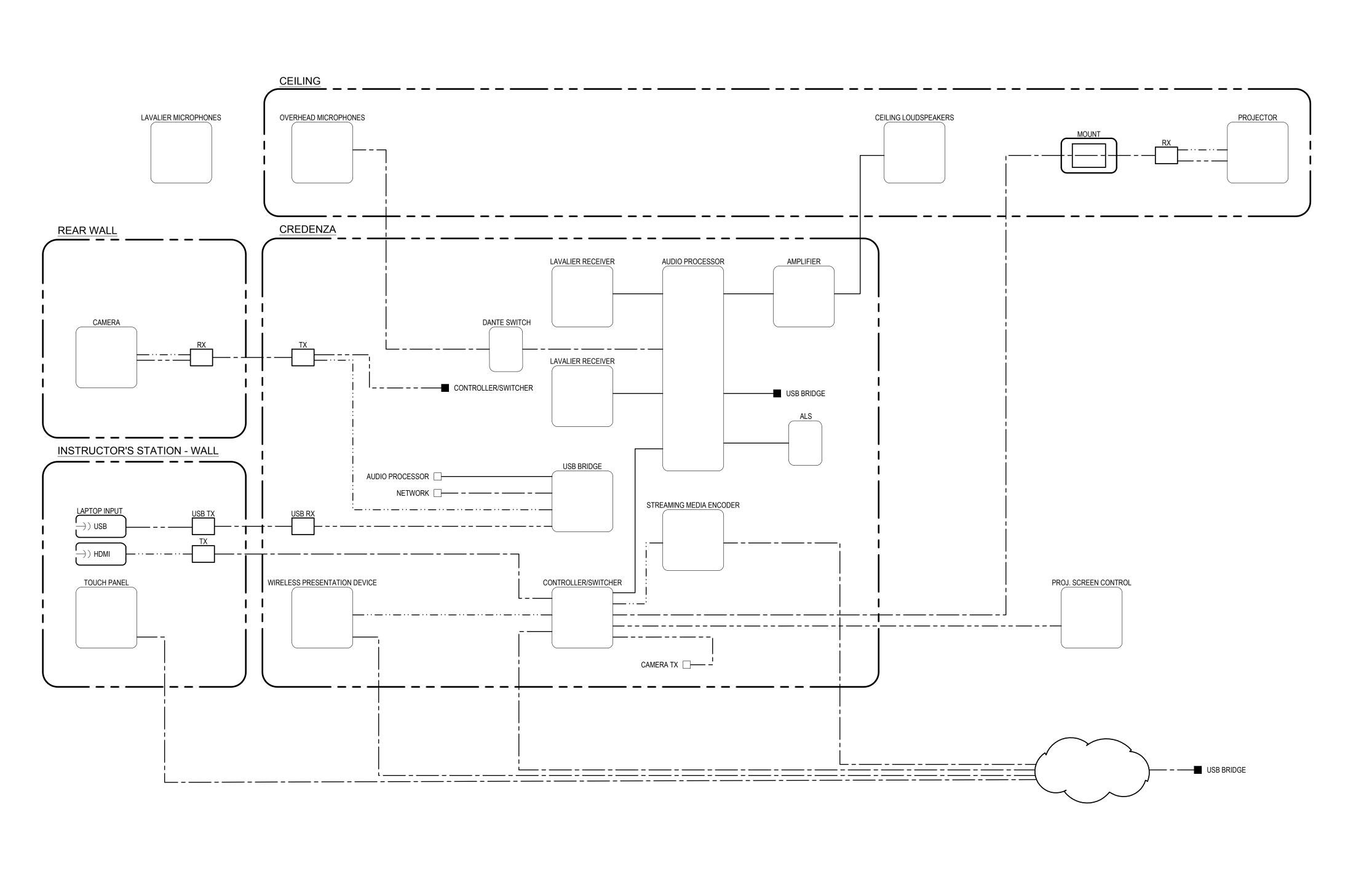
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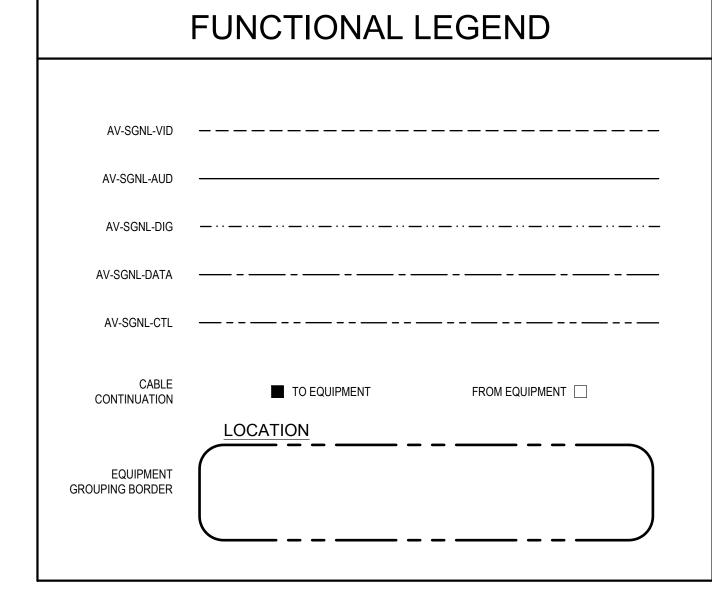
DATE: 3/31/2017

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PROJECT NO.: 1203.22

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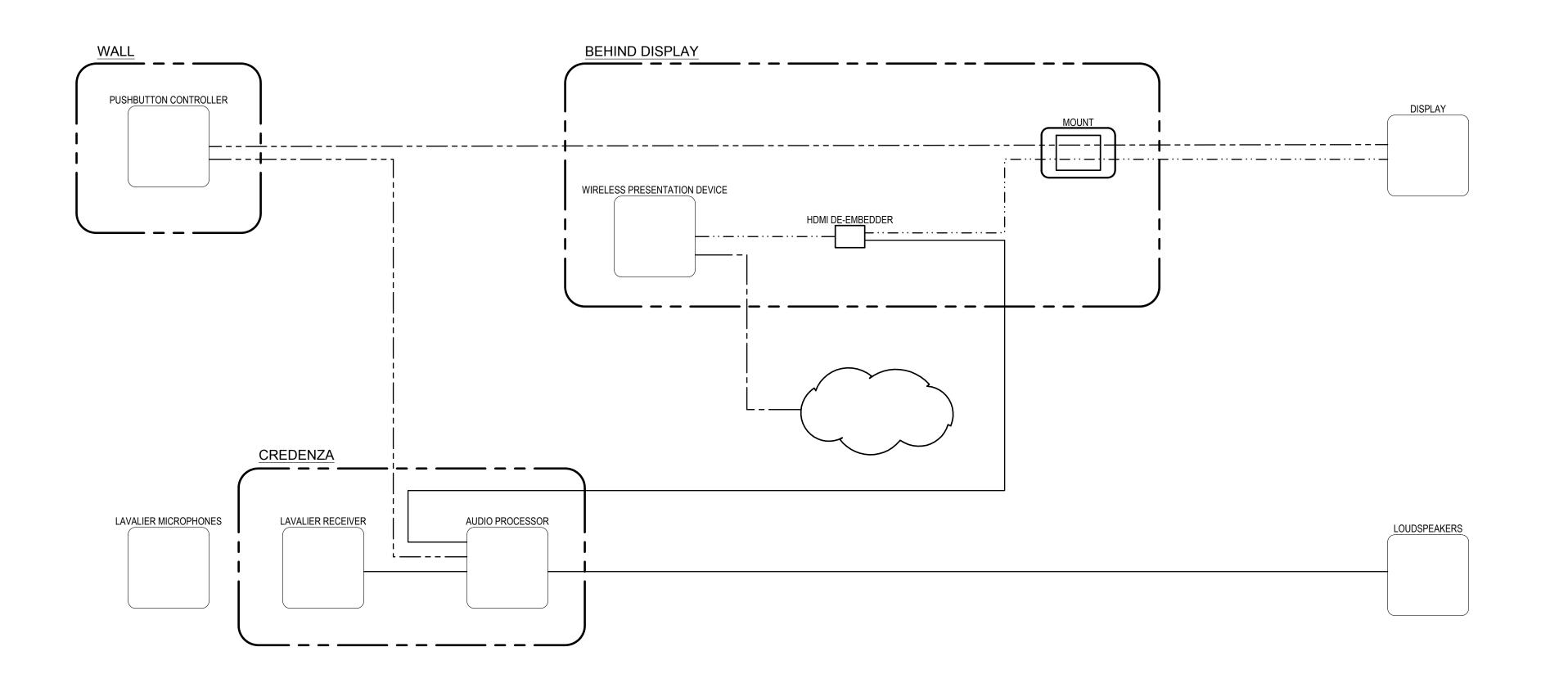


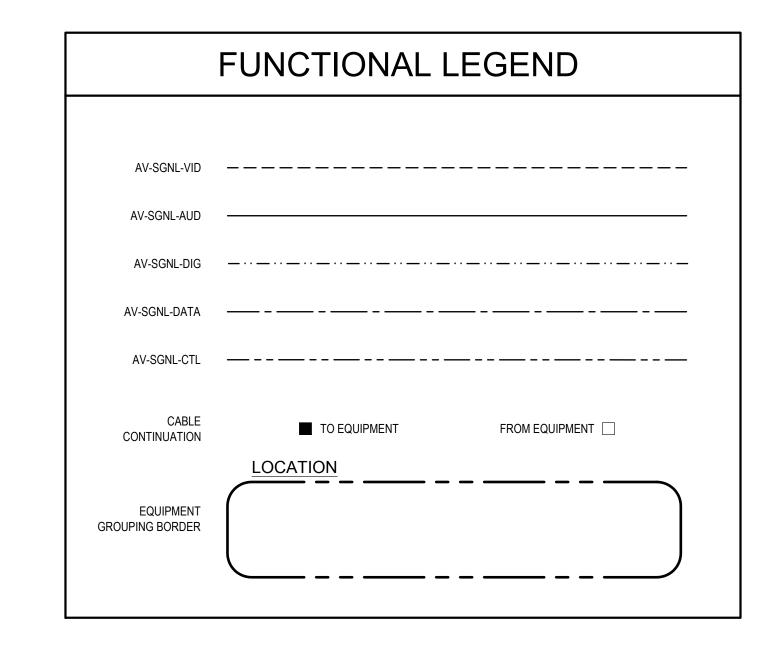


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FUNCTIONAL DIAGRAM -STADIUM CONFERENCE, RECEPTION AREA

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RECEPTION AREA DIGITAL SIGNAGE

STADIUM CONFERENCE

2 SCALE: NONE

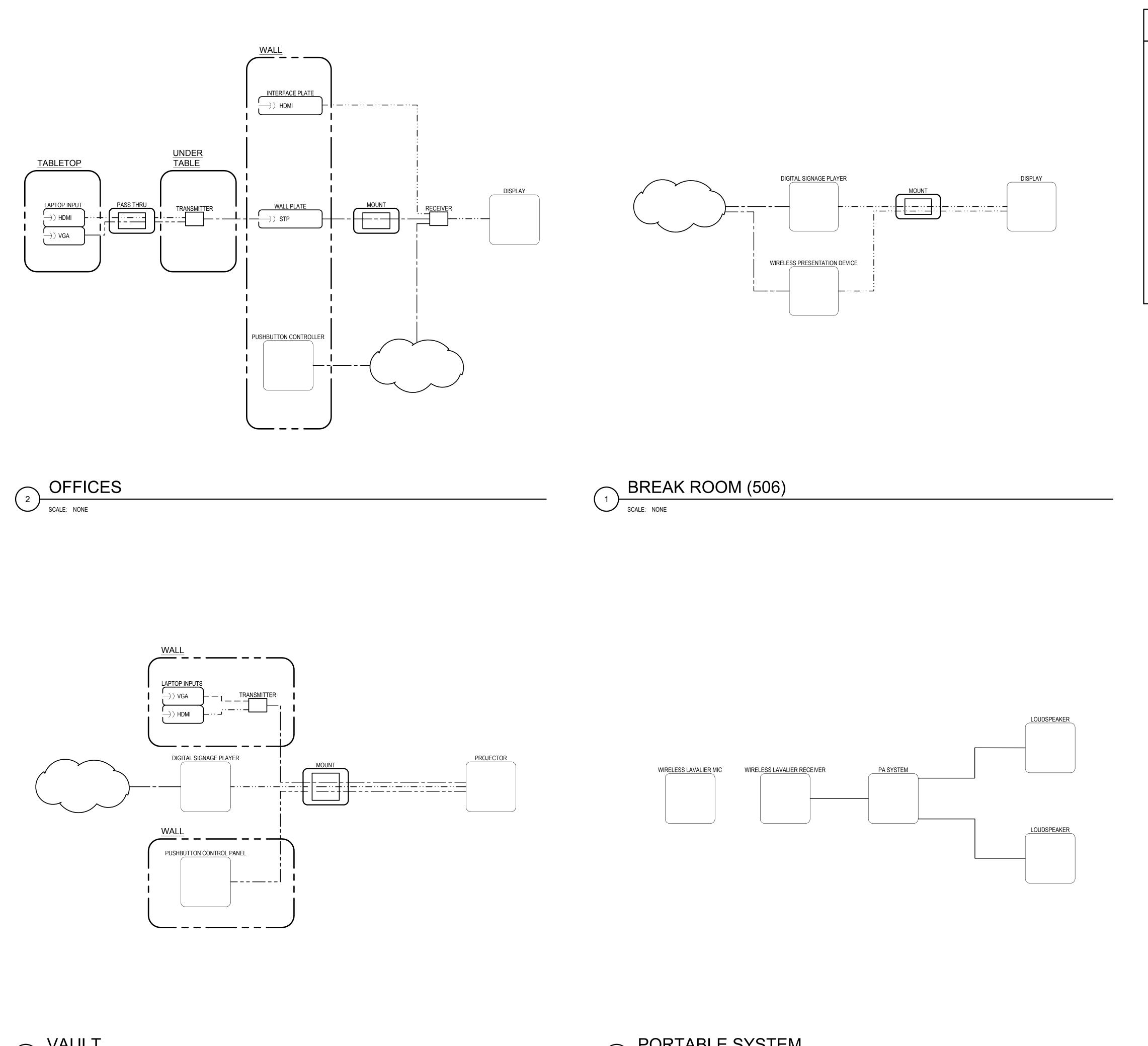
DIGITAL SIGNAGE PLAYER

MOUNT

DISPLAY

DISPLAY

DISPLAY



FUNCTIONAL LEGEND CABLE CONTINUATION TO EQUIPMENT FROM EQUIPMENT **LOCATION** EQUIPMENT GROUPING BORDER

FUNCTIONAL D OFFICES, D SIGNAGE, \ PORTABLE S

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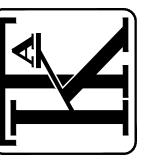
PORTABLE SYSTEM

SCALE: NONE

- REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF OUTLETS, DEVICES AND EQUIPMENT. ALSO REFER TO ELECTRICAL PLANS TO COORDINATE FINAL LOCATIONS OF OUTLETS, DEVICES AND
- SERVE LOW VOLTAGE DEVICES/OUTLETS ON THIS SHEET FROM IDF-109.
- REFER TO SHEET TO.02 FOR PATHWAYS REQUIREMENTS.
- PATHWAYS SHOWN ARE DEDICATED FOR TELECOMMUNICATIONS, SECURITY, AND AV CABLING ONLY,
- PROVIDE APPROVED FIRESTOP SYSTEMS AT PENETRATIONS THROUGH FIRE BARRIERS, SMOKE BARRIERS, AND SMOKE PARTITIONS TO MAINTAIN RATING. REFER TO SHEET T0.02 FOR APPROVED FIRESTOP SYSTEMS.

NUMBERED NOTES

- 01 PROVIDE CABLING PASS-THROUGH "MOUSE HOLE" HERE FOR OFE AV DEVICE CABLING. REFER TO DETAILS 1 AND 2 ON SHEET <u>T5.21</u>.
- 02 COLLABORATION AREA / OPEN HUDDLE.
- 03 PROJECTION ON WALL.
- 04 OUTLETS IN THE AREA TO BE FED FROM CONDUITS PENETRATING VAULT WALL. CONTRACTOR TO FIELD DETERMINE BEST LOCATION.
- CABLES TO ROUTE DOWN CABLE TRAY MOUNTED VERTICALLY TO EXPOSED COLUMN. USE VELCRO TIES TO SECURE CABLE BUNDLES TO TRAY.

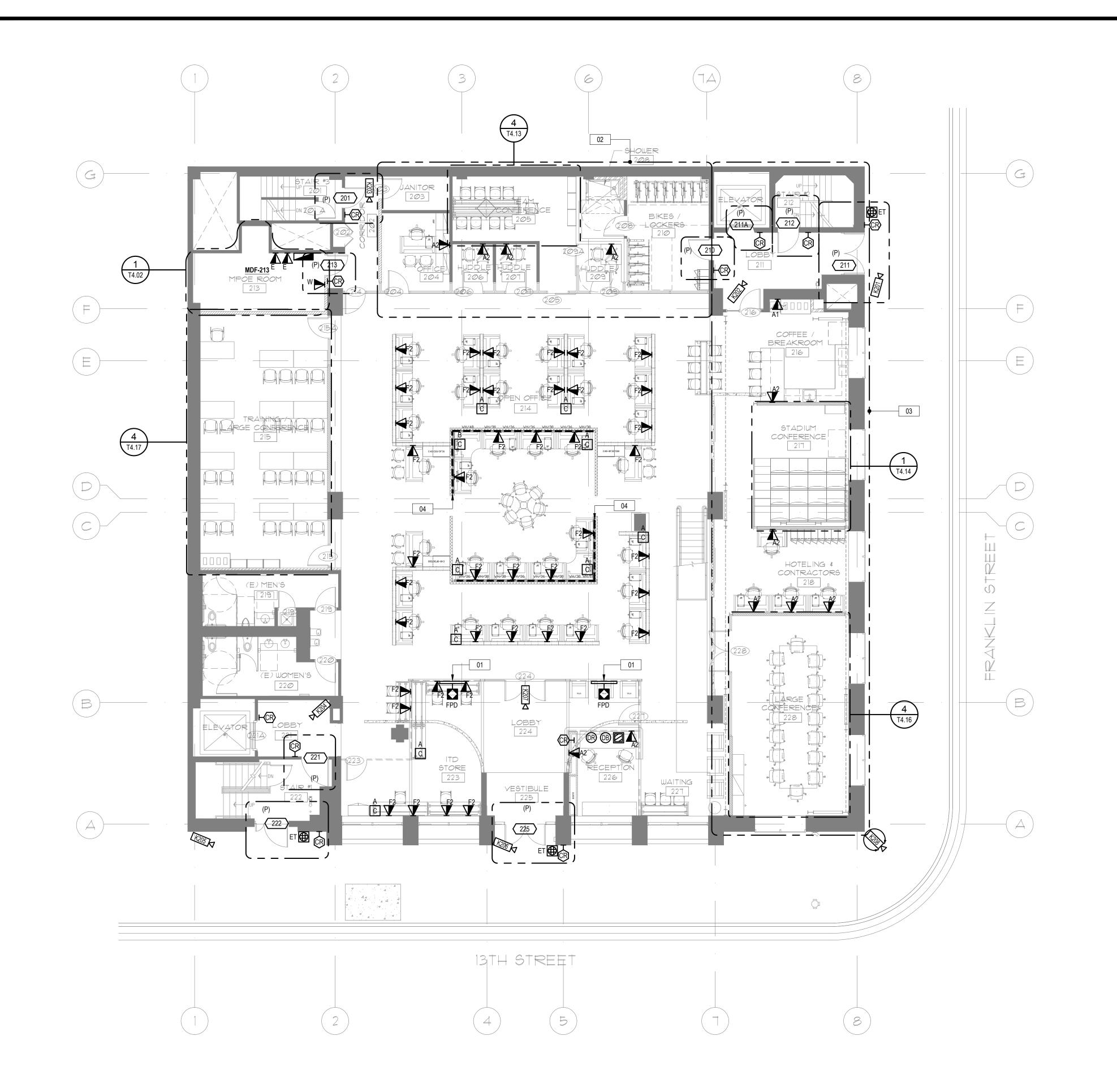


FLOOR

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- REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF OUTLETS, DEVICES AND EQUIPMENT.
 ALSO REFER TO ELECTRICAL PLANS TO COORDINATE FINAL LOCATIONS OF OUTLETS, DEVICES AND EQUIPMENT.
- SERVE LOW VOLTAGE DEVICES/OUTLETS ON THIS SHEET FROM MDF-213.
- REFER TO SHEET T0.02 FOR PATHWAYS REQUIREMENTS.
- PATHWAYS SHOWN ARE DEDICATED FOR TELECOMMUNICATIONS, SECURITY, AND AV CABLING ONLY, UON.
- PROVIDE APPROVED FIRESTOP SYSTEMS AT PENETRATIONS THROUGH FIRE BARRIERS, SMOKE BARRIERS, AND SMOKE PARTITIONS TO MAINTAIN RATING. REFER TO SHEET $\underline{10.02}$ FOR APPROVED FIRESTOP SYSTEMS.

NUMBERED NOTES

- 01 DIGITAL SIGNAGE DISPLAY, MOUNT AT 72" AFF TO CENTER.
- 02 HOMERUN OUTLETS WITHIN THIS AREA BACK TO CONSOLIDATION POINT A. REFER TO REFLECTED CEILING PLANS FOR CONSOLIDATION LOCATIONS.
- OUTLETS WITHIN THIS AREA AND FLOOR FED FURNITURE OUTLETS IN THE MEZZANINE SPACE TO ROUTE BACK TO ACCESSIBLE CEILING SPACE WITHIN ELEVATOR LOBBY 211 AND BACK TO MDF-213 THROUGH CONSOLIDATION POINT A.
- 6) FURNITURE OUTLETS FED THROUGH SURFACE RACEWAY MOUNTED TO THE INSIDE OF THE (E) CURB.

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> FLOOR PLAN -FIRST FLOOR

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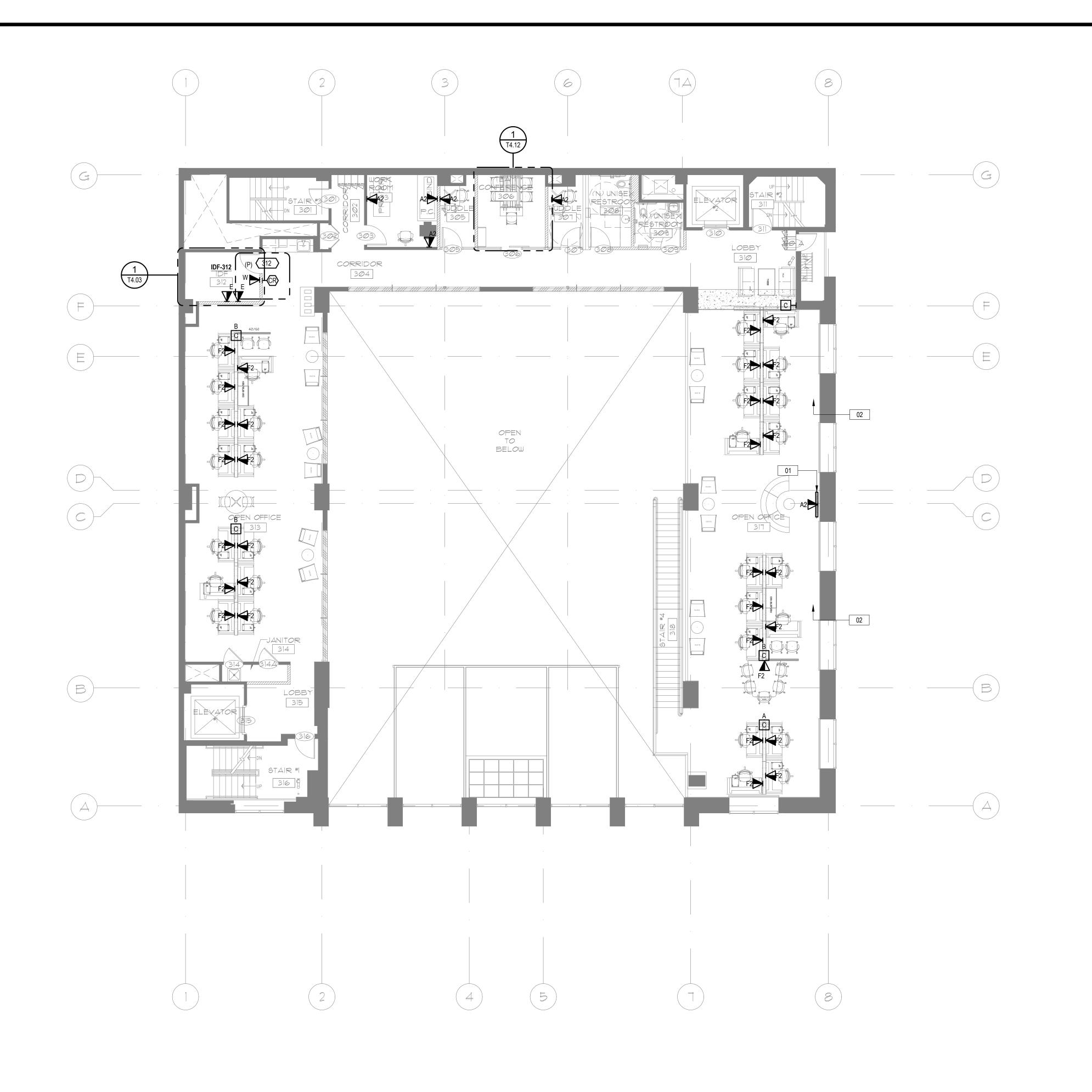
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T2.01

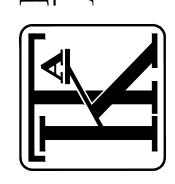


- 1. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF OUTLETS, DEVICES AND EQUIPMENT.
 ALSO REFER TO ELECTRICAL PLANS TO COORDINATE FINAL LOCATIONS OF OUTLETS, DEVICES AND EQUIPMENT.
- SERVE LOW VOLTAGE DEVICES/OUTLETS ON THIS SHEET FROM IDF-312.
- REFER TO SHEET T0.02 FOR PATHWAYS REQUIREMENTS.
- 4. PATHWAYS SHOWN ARE DEDICATED FOR TELECOMMUNICATIONS, SECURITY, AND AV CABLING ONLY, UON.
- PROVIDE APPROVED FIRESTOP SYSTEMS AT PENETRATIONS THROUGH FIRE BARRIERS, SMOKE BARRIERS, AND SMOKE PARTITIONS TO MAINTAIN RATING. REFER TO SHEET $\underline{10.02}$ FOR APPROVED FIRESTOP SYSTEMS.

NUMBERED NOTES

01 COLLABORATION AREA / OPEN HUDDLE.

MOROUS-TOWE CHITEL TH CT TWELFTH STREET, SUITE 300 OAKLAND, CA 94612 510.446.2244 FX: 510.446.2242



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> FLOOR PLAN -MEZZANINE

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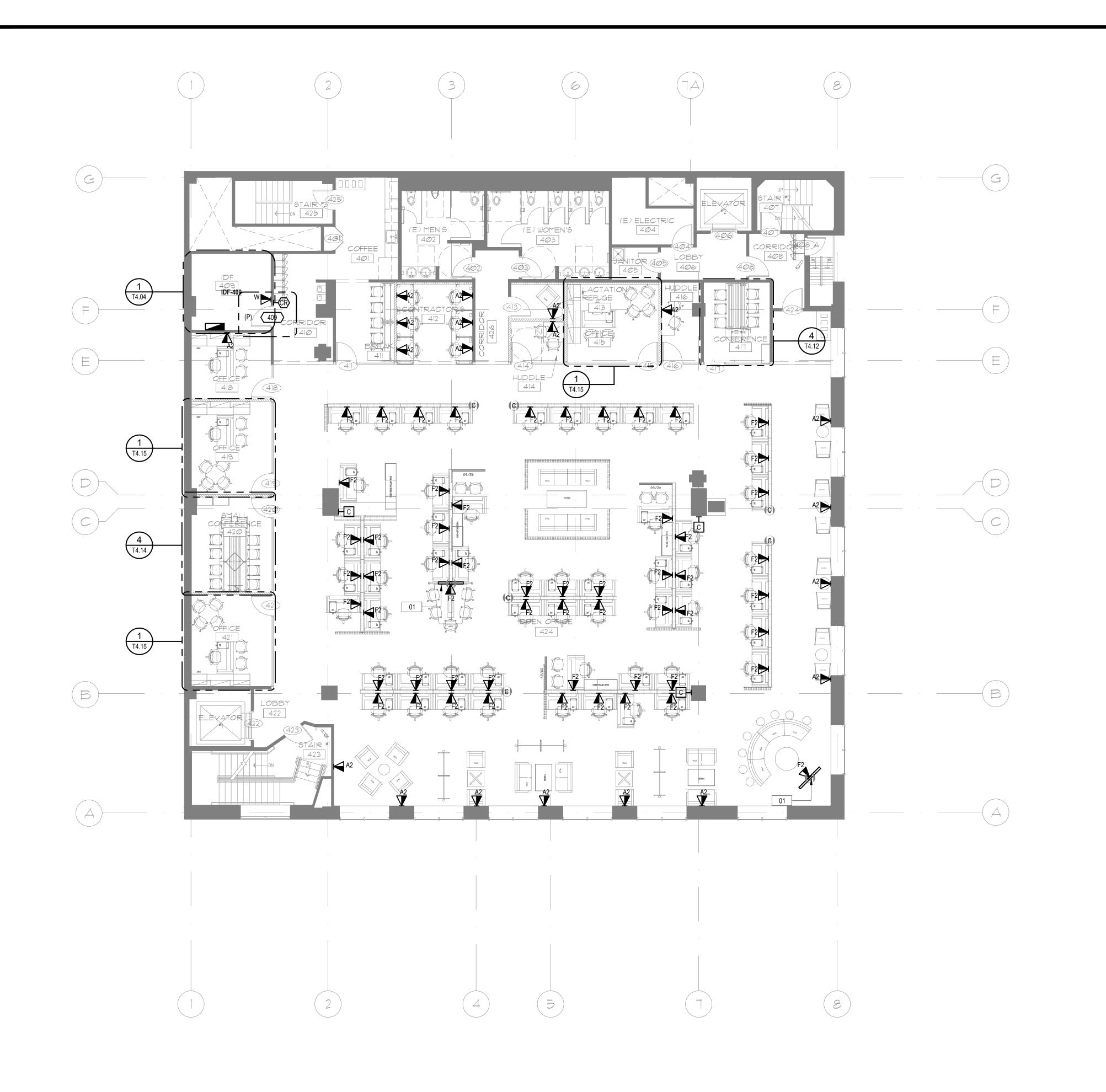
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PROJECT NO.: 1

T2.02



- 1. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF OUTLETS, DEVICES AND EQUIPMENT.
 ALSO REFER TO ELECTRICAL PLANS TO COORDINATE FINAL LOCATIONS OF OUTLETS, DEVICES AND FOLIPMENT
- SERVE LOW VOLTAGE DEVICES/OUTLETS ON THIS SHEET FROM IDF-409.
- REFER TO SHEET TO.02 FOR PATHWAYS REQUIREMENTS.
- 4. PATHWAYS SHOWN ARE DEDICATED FOR TELECOMMUNICATIONS, SECURITY, AND AV CABLING ONLY, UON.
- PROVIDE APPROVED FIRESTOP SYSTEMS AT PENETRATIONS THROUGH FIRE BARRIERS, SMOKE BARRIERS, AND SMOKE PARTITIONS TO MAINTAIN RATING. REFER TO SHEET <u>10.02</u> FOR APPROVED FIRESTOP SYSTEMS.

NUMBERED NOTES

01 COLLABORATION AREA / OPEN HUDDLE.

ROUS-TOW H I T E C FTH STREET, SUITE KLAND, CA 94612 6.2244 FX: 510.446.22

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> FLOOR PLAN -SECOND FLOOR

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PROJECT NO.:

T2.03

- 1. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF OUTLETS, DEVICES AND EQUIPMENT.
 ALSO REFER TO ELECTRICAL PLANS TO COORDINATE FINAL LOCATIONS OF OUTLETS, DEVICES AND FOLIPMENT
- SERVE LOW VOLTAGE DEVICES/OUTLETS ON THIS SHEET FROM IDF-409.
- REFER TO SHEET T0.02 FOR PATHWAYS REQUIREMENTS.
- I. PATHWAYS SHOWN ARE DEDICATED FOR TELECOMMUNICATIONS, SECURITY, AND AV CABLING ONLY, UON.
- PROVIDE APPROVED FIRESTOP SYSTEMS AT PENETRATIONS THROUGH FIRE BARRIERS, SMOKE BARRIERS, AND SMOKE PARTITIONS TO MAINTAIN RATING. REFER TO SHEET $\underline{10.02}$ FOR APPROVED FIRESTOP SYSTEMS.

NUMBERED NOTES

01 DIGITAL SIGNAGE DISPLAY, MOUNT AT 60" AFF.

02 MOUNT EXTERIOR CAMERA ON ELEVATOR MACHINE ROOM, ONE LEVEL UP. CAMERA TO BE FURNISHED AND INSTALLED BY SECURITY CONTRACTOR BUT NOT CONNECTED TO SECURITY NETWORK. COORDINATE FINAL LOCATION WITH AUDIOVISUAL CONSULTANT.

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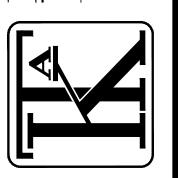
COMOROUS-TOWE

A R C H I T E C T

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OAKLAND, CA 94612

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> FLOOR PLAN -THIRD FLOOR

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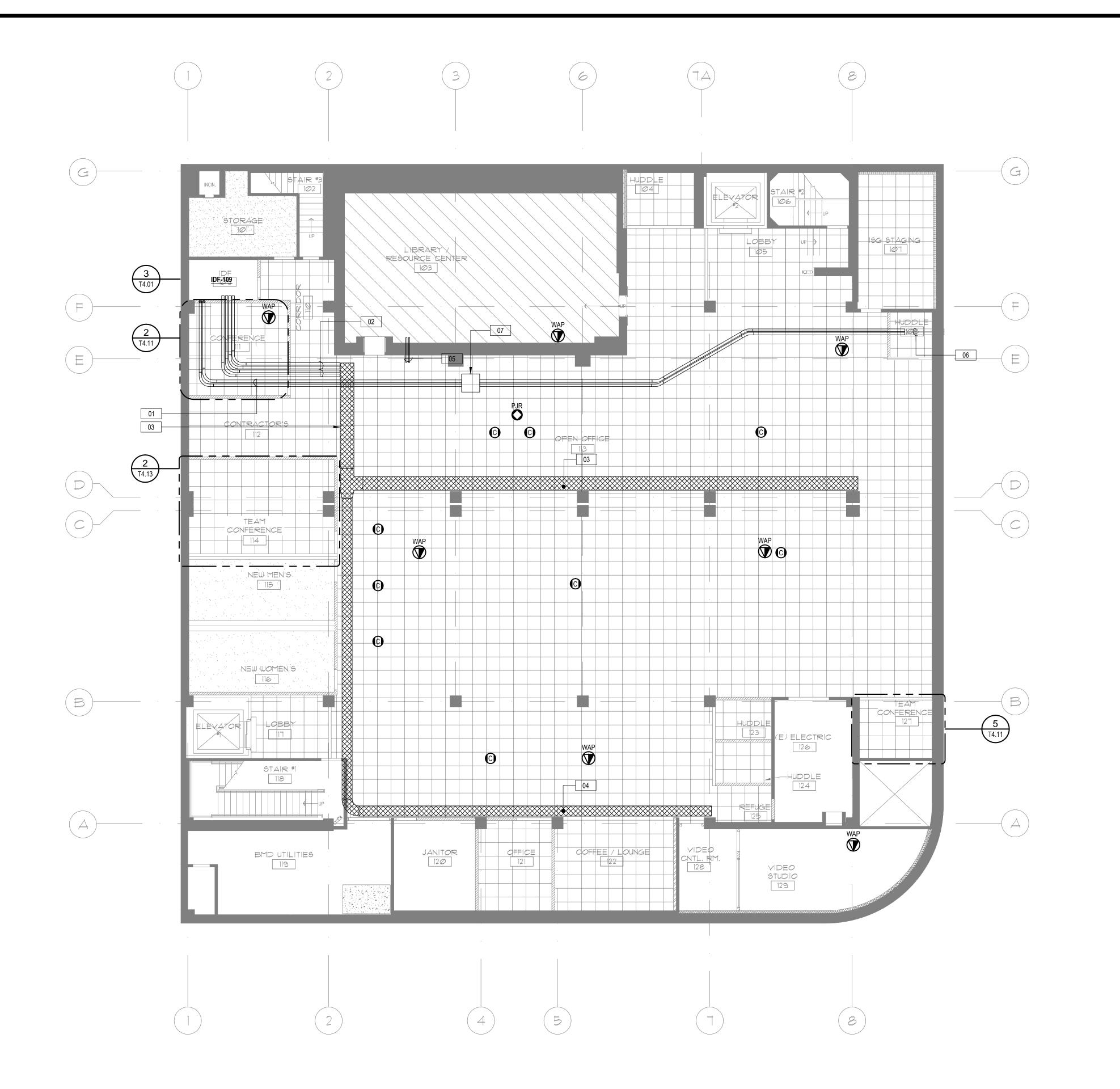
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T2 04

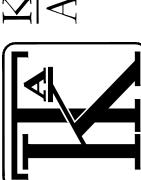


- REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF OUTLETS, DEVICES AND EQUIPMENT.
 ALSO REFER TO ELECTRICAL PLANS TO COORDINATE FINAL LOCATIONS OF OUTLETS, DEVICES AND EQUIPMENT.
- SERVE LOW VOLTAGE DEVICES/OUTLETS ON THIS SHEET FROM IDF-109.
- 3. REFER TO SHEET <u>T0.02</u> FOR PATHWAYS REQUIREMENTS.
- 4. PATHWAYS SHOWN ARE DEDICATED FOR TELECOMMUNICATIONS, SECURITY, AND AV CABLING ONLY, U.O.N.
- 5. PROVIDE APPROVED FIRESTOP SYSTEMS AT PENETRATIONS THROUGH FIRE BARRIERS, SMOKE BARRIERS, AND SMOKE PARTITIONS TO MAINTAIN RATING. REFER TO SHEET <u>10.02</u> FOR APPROVED FIRESTOP SYSTEMS.

NUMBERED NOTES

- 01 (2) 4" CONDUITS FROM EXISTING SERVICE PROVIDER ENTRANCE TO MDF-213.
- 02 (9) 4" CONDUITS FROM <u>IDF-109</u> TO PRIMARY PATHWAY.
- 03 24" x 4" BASKET STYLE CABLE TRAY.
- 04 18" x 4" BASKET STYLE CABLE TRAY.
- 05 (2) 2" CONDUITS THROUGH EXISTING VAULT WALL. COORDINATE PENETRATION WITH ARCHITECT.
- (E) CONDUITS FROM SERVICE PROVIDER. DEMOLISH (E) CONDUITS BACK TO THIS POINT, COORDINATE DEMOLITION WITH ARCHITECT. INTERCEPT CONDUITS AT THIS LOCATION AND CONTINUE NEW CONDUITS AS SHOWN.
- 07 24" x 24" x 6" NEMA 4 PULL BOX.

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> REFLECTED CEILING PLAN - LOWER LEVEL

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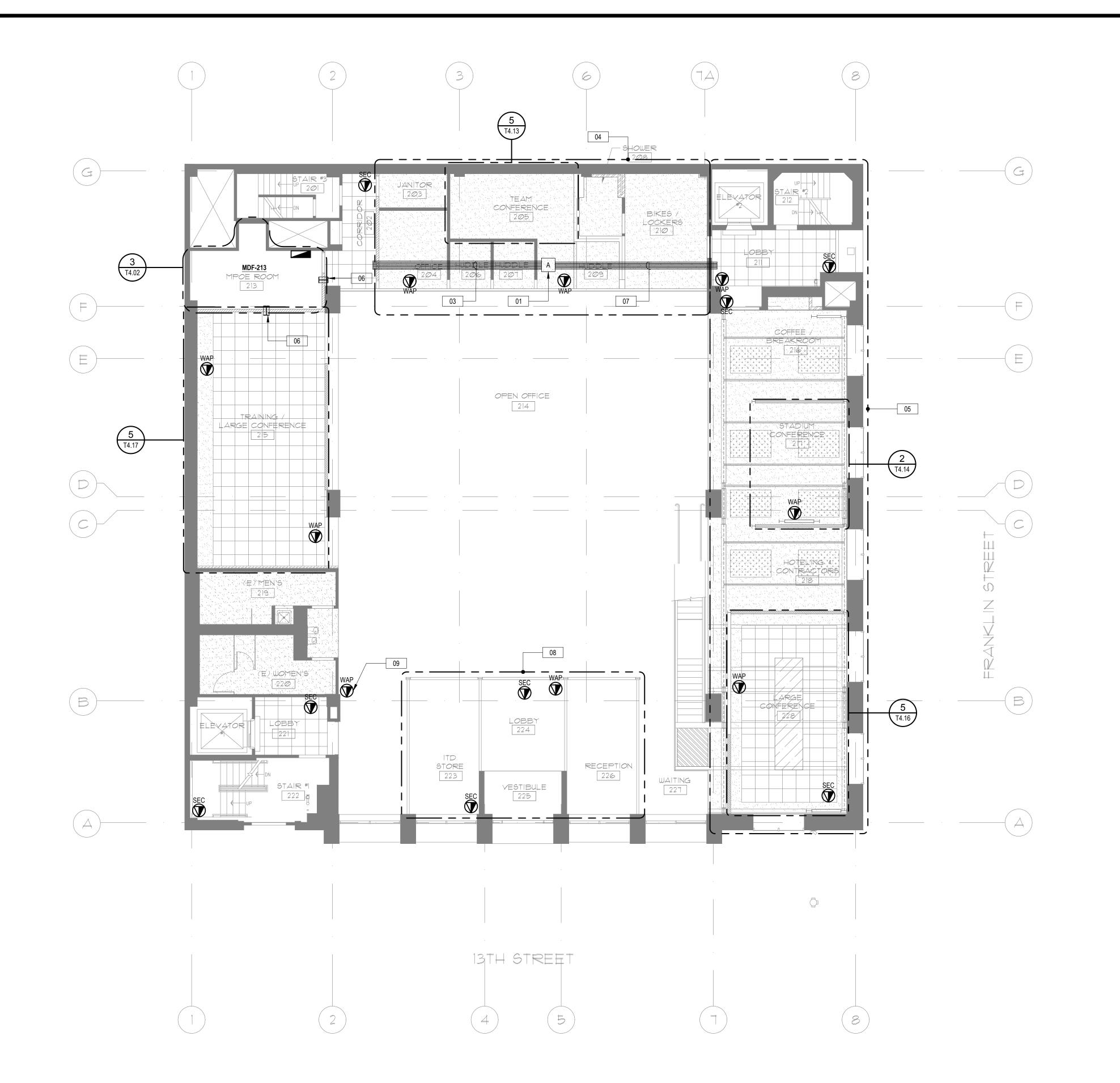
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PROJECT NO.:

T3.00



- REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF OUTLETS, DEVICES AND EQUIPMENT. ALSO REFER TO ELECTRICAL PLANS TO COORDINATE FINAL LOCATIONS OF OUTLETS, DEVICES AND
- SERVE LOW VOLTAGE DEVICES/OUTLETS ON THIS SHEET FROM MDF-213.
- REFER TO SHEET T0.02 FOR PATHWAYS REQUIREMENTS.
- PATHWAYS SHOWN ARE DEDICATED FOR TELECOMMUNICATIONS, SECURITY, AND AV CABLING ONLY,
- PROVIDE APPROVED FIRESTOP SYSTEMS AT PENETRATIONS THROUGH FIRE BARRIERS, SMOKE BARRIERS, AND SMOKE PARTITIONS TO MAINTAIN RATING. REFER TO SHEET T0.02 FOR APPROVED FIRESTOP SYSTEMS.

NUMBERED NOTES

- 01 24" x 24" x 6" PULL BOX PROVIDE ACCESS PANEL BELOW PULL BOX IN HARD CAP CEILING LOCATIONS.
- 02 (4) 2" CONDUITS.
- 03 (6) 2" CONDUITS.
- 04 HOMERUN OUTLETS WITHIN THIS AREA BACK TO CONSOLIDATION POINT A.
- 05 OUTLETS WITHIN THIS AREA AND FLOOR FED FURNITURE OUTLETS IN THE MEZZANINE SPACE TO ROUTE BACK TO ACCESSIBLE CEILING SPACE WITHIN ELEVATOR LOBBY 211 AND BACK TO MDF-213 THROUGH CONSOLIDATION POINT A.
- 06 (2) 4" CONDUIT SLEEVES.
- 07 (5) 2" CONDUITS.
- 08 OUTLETS IN THIS AREA TO ROUTE DOWN OVERHEAD STRUCTURE IN SURFACE MOUNT RACEWAY TO NEAREST FLOOR FEED POINT.
- 09 WIRELESS ACCESS POINT TO BE WALL MOUNTED AT THIS LOCATION.



ED CEILING SST FLOOR REFLECTEI PLAN - FIR

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- 1. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF OUTLETS, DEVICES AND EQUIPMENT. ALSO REFER TO ELECTRICAL PLANS TO COORDINATE FINAL LOCATIONS OF OUTLETS, DEVICES AND EQUIPMENT.
- SERVE LOW VOLTAGE DEVICES/OUTLETS ON THIS SHEET FROM IDF-312.
- REFER TO SHEET TO.02 FOR PATHWAYS REQUIREMENTS.
- 4. PATHWAYS SHOWN ARE DEDICATED FOR TELECOMMUNICATIONS, SECURITY, AND AV CABLING ONLY, UON.
- PROVIDE APPROVED FIRESTOP SYSTEMS AT PENETRATIONS THROUGH FIRE BARRIERS, SMOKE BARRIERS, AND SMOKE PARTITIONS TO MAINTAIN RATING. REFER TO SHEET $\underline{10.02}$ FOR APPROVED FIRESTOP SYSTEMS.

NUMBERED NOTES

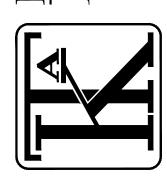
01 (2) 4" CONDUIT SLEEVES.

02 WIRELESS ACCESS POINT TO BE WALL MOUNTED AT THIS LOCATION.

COMOROUS-TOW

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> REFLECTED CEILING PLAN - MEZZANINE

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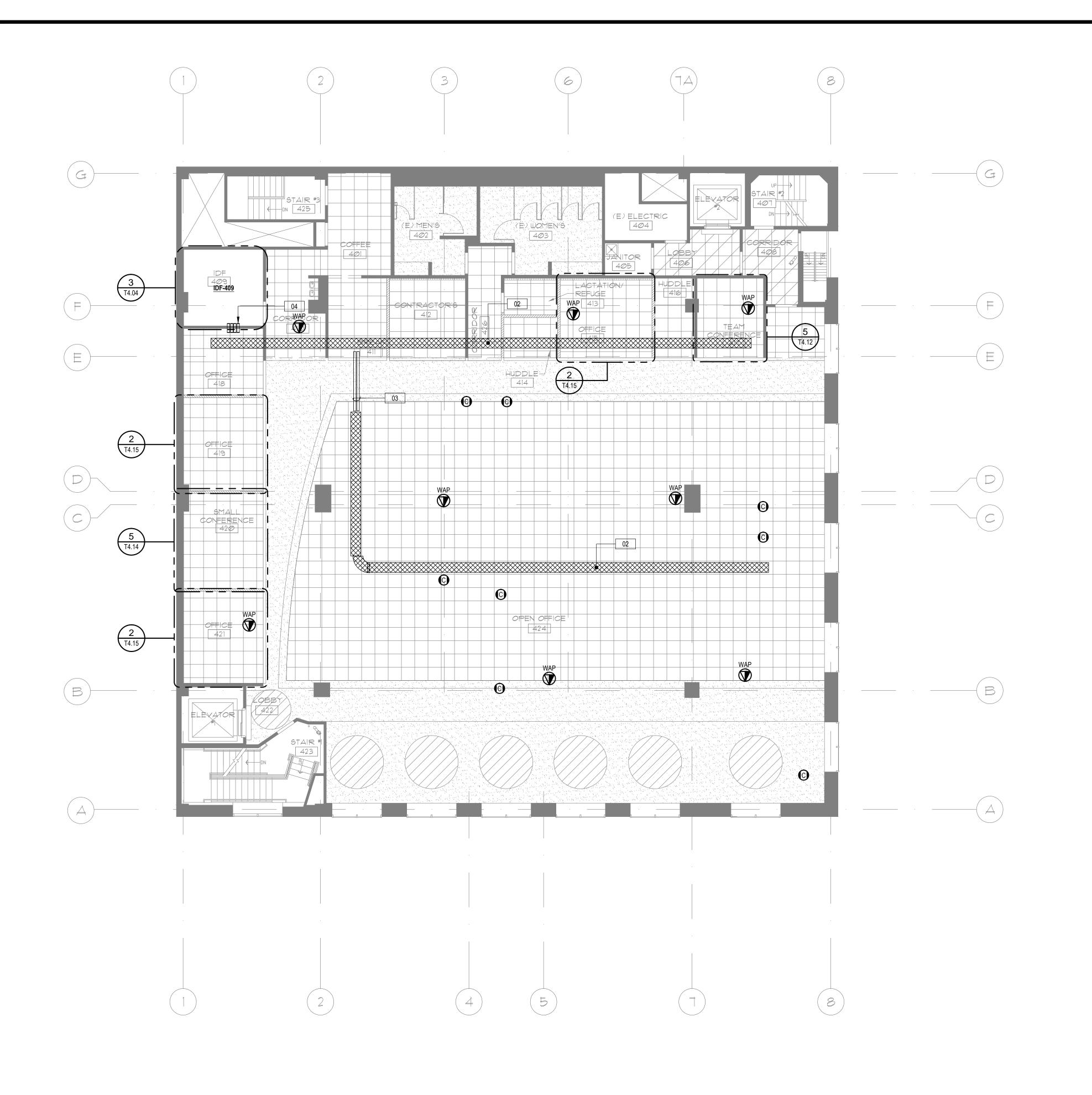
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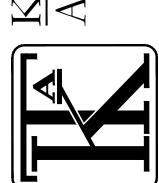
T3.02



- 1. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF OUTLETS, DEVICES AND EQUIPMENT.
 ALSO REFER TO ELECTRICAL PLANS TO COORDINATE FINAL LOCATIONS OF OUTLETS, DEVICES AND EQUIPMENT.
- SERVE LOW VOLTAGE DEVICES/OUTLETS ON THIS SHEET FROM IDF-409.
- REFER TO SHEET T0.02 FOR PATHWAYS REQUIREMENTS.
- 4. PATHWAYS SHOWN ARE DEDICATED FOR TELECOMMUNICATIONS, SECURITY, AND AV CABLING ONLY, UON.
- 5. PROVIDE APPROVED FIRESTOP SYSTEMS AT PENETRATIONS THROUGH FIRE BARRIERS, SMOKE BARRIERS, AND SMOKE PARTITIONS TO MAINTAIN RATING. REFER TO SHEET <u>10.02</u> FOR APPROVED FIRESTOP SYSTEMS.

NUMBERED NOTES

- 01 OUTLET TO SERVE DISPLAY AND WIRELESS SHARING DEVICE.
- 02 18" x 4" BASKET STYLE CABLE TRAY.
- 03 (2) 4" CONDUITS.
- 04 (4) 4" CONDUIT SLEEVES.



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> LECTED CEILING - SECOND FLOOR

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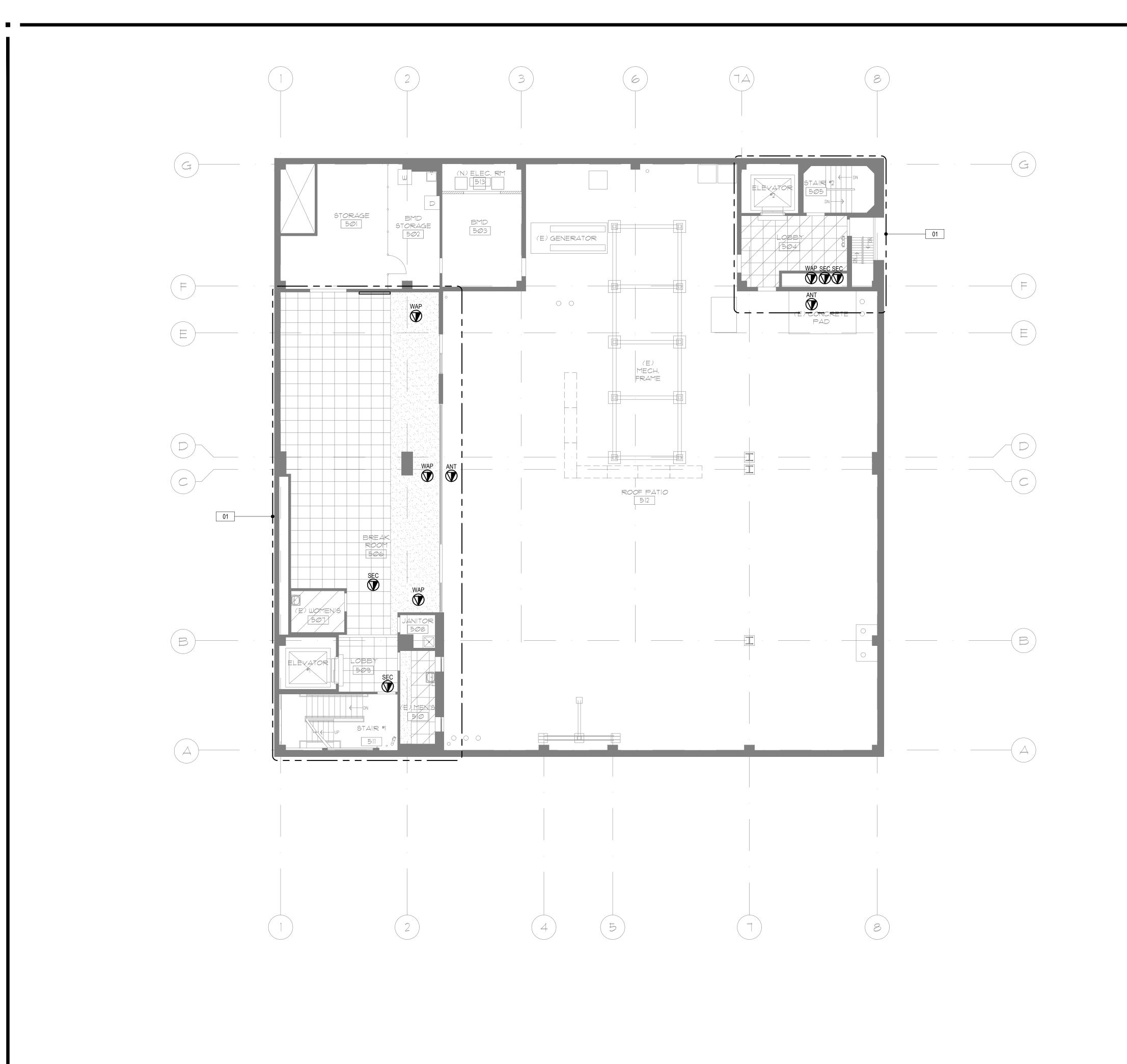
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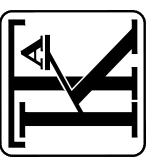
T2 02



- REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF OUTLETS, DEVICES AND EQUIPMENT. ALSO REFER TO ELECTRICAL PLANS TO COORDINATE FINAL LOCATIONS OF OUTLETS, DEVICES AND
 - SERVE LOW VOLTAGE DEVICES/OUTLETS ON THIS SHEET FROM MDF-409.
- REFER TO SHEET **TO.02** FOR PATHWAYS REQUIREMENTS.
- PATHWAYS SHOWN ARE DEDICATED FOR TELECOMMUNICATIONS, SECURITY, AND AV CABLING ONLY,
- PROVIDE APPROVED FIRESTOP SYSTEMS AT PENETRATIONS THROUGH FIRE BARRIERS, SMOKE BARRIERS, AND SMOKE PARTITIONS TO MAINTAIN RATING. REFER TO SHEET <u>T0.02</u> FOR APPROVED FIRESTOP SYSTEMS.

NUMBERED NOTES

01 OUTLETS IN THIS AREA TO STUB DOWN TO ACCESSIBLE CEILING SPACE IN THE FLOOR



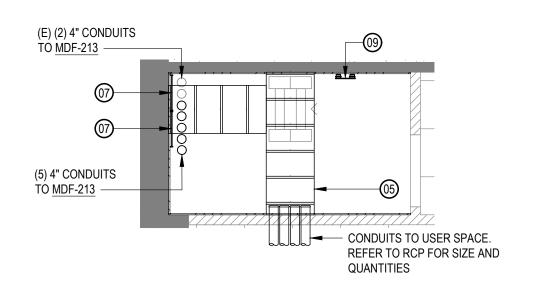
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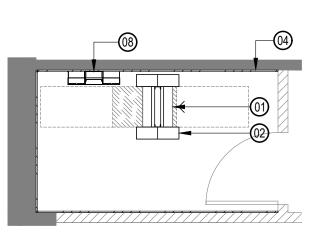
REFLECTED CEILING PLAN - THIRD FLOOR

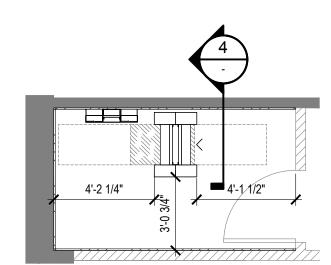
ITD HEADQUARTERS 393 13TH STREET OAKLAND, CA 94612

BID SET REVISIONS

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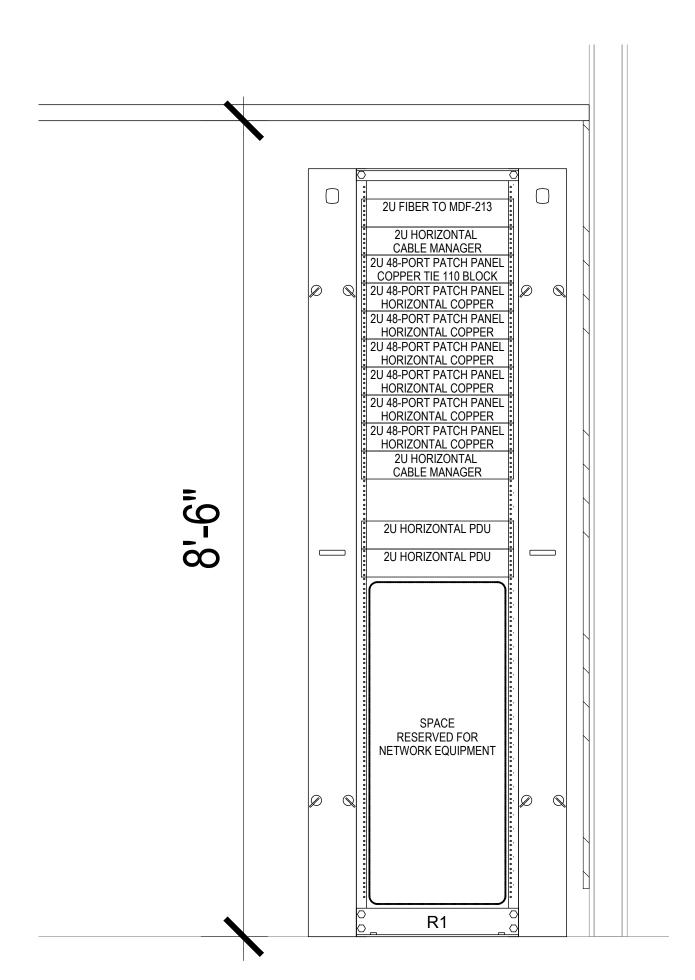
OVERHEAD PLAN

SCALE: 1/4"=1'-0'

FLOOR PLAN

REFERENCE PLAN

SCALE: 1/4"=1'-0"

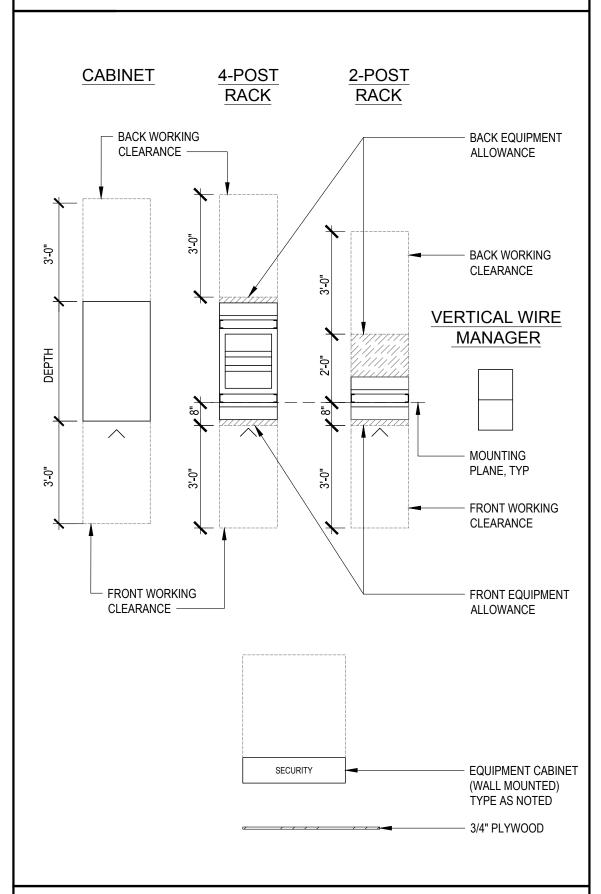


RACK BAY ELEVATION

SHEET NOTES

- 1. PROVIDE 3/4" FIRE RATED 4'x8' PLYWOOD ON WALLS OF ROOM AS SHOWN, STARTING AT 6" AFF TO 8'-6" AFF. MASK FIRE RATING STAMP PRIOR TO PAINTING. USE FLUSH FASTENERS FOR MOUNTING PLYWOOD.
- 2. PROVIDE RADIUS DROP OUTS WHERE CABLES TRANSITION DOWNWARD FROM OVERHEAD HORIZONTAL CABLE TRAY.
- 3. LABEL RACKS AND PATCH PANELS.
- 4. CABLE TRAY DEPTH REFERS TO TRAY'S LOADING DEPTH.
- 5. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CIRCUITS/OUTLETS AND LIGHTING REQUIREMENTS
- FIRESTOP PENETRATIONS (SLEEVES AND CONDUITS) THROUGH RATED WALLS AND FLOORS/DECKS TO RATING.
- 7. SEISMICALLY BRACE CABLE TRAYS AND EQUIPMENT RACKS TO MEET LOCAL SEISMIC CODES.
- 8. PROVIDE KNOCK-ON BUSHINGS ON CONDUIT AND SLEEVE ENDS.
- 9. PATHWAYS SHOWN ARE DEDICATED FOR TECHNOLOGY SYSTEMS CABLING ONLY, UON.
- 10. LABEL CONDUITS AT BOTH ENDS. LABEL MUST INDICATE CONDUIT'S USE FOR TECHNOLOGY SYSTEMS CABLES ONLY AND LOCATION OF THE CONDUIT'S FAR END TERMINATION.
- 11. DO NOT PLACE CABINETS, PANELS, PIPING, DUCTING OR EQUIPMENT IN THE TELECOM ROOMS OTHER THAN THAT SHOWN ON THESE ROOM PLANS AND DETAILS.
- 12. NEATLY BUNDLE (DRESS CABLE LONGITUDINALLY) AND SUPPORT (USING FASTENERS AND TIES DESCRIBED SPECIFICATIONS AND DRAWINGS) TELECOMMUNICATIONS CABLES ONTO OVERHEAD CABLE TRAY. NEATLY BUNDLE AND SUPPORT TELECOMMUNICATIONS CABLES ONTO VERTICALLY MOUNTED CABLE RUNWAY WHEN RISING FROM FLOOR SLEEVES, OR DESCENDING FROM CEILING SLEEVES USING APPROVED TIES. NEATLY BUNDLE TELECOMMUNICATIONS CABLES INTO THE BACK OF VERTICAL CABLE MANAGEMENT SECTIONS USING APPROVED TIES. DRESS TELECOMMUNICATIONS CABLES FROM THE VERTICAL MANAGEMENT SECTIONS TO THE TERMINATION POSITION. MAXIMUM BUNDLE SIZE: 24 CABLES.
- 13. PROVIDE SEPARATE PATCH PANELS FOR SECURITY AND WAP CABLING (WHEN SUFFICIENT RACK SPACE IS AVAILABLE).

SYMBOL LEGEND



E	QU	IPN	1E1	VT	LIST	•

EQUIP.#	DESCRIPTION/COMMENT
@1	EQUIPMENT RACK - 2-CHANNEL, 8'0"H x 19"W, BLACK
@	VERTICAL MANAGEMENT SECTION - 6"W, DOUBLE SIDED
<u> </u>	VERTICAL MANAGEMENT SECTION - 12"W, DOUBLE SIDED
(04)	3/4" FIRE RATED HARDWOOD PLYWOOD
(65)	OVERHEAD CABLE SUPPORT - CABLE RUNWAY, 24" W
66	WALL MOUNTED VERTICAL CABLE RUNWAY, 24" W
60	WALL MOUNTED VERTICAL CABLE RUNWAY, 18" W
88	WALL MOUNTED 110 BLOCKS WITH MANAGERS
<u></u>	GROUND BUSBAR MOUNTED AT 7' 0" AFF

COMOROUS-TOW R C H I T E C 7



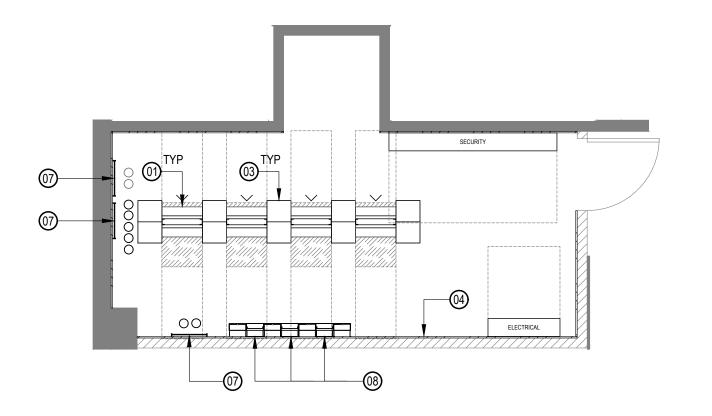
TEECOM
1333 Broadway, Suite 601
0akland, CA 94612
510-337-2800
510-337-2804 fax

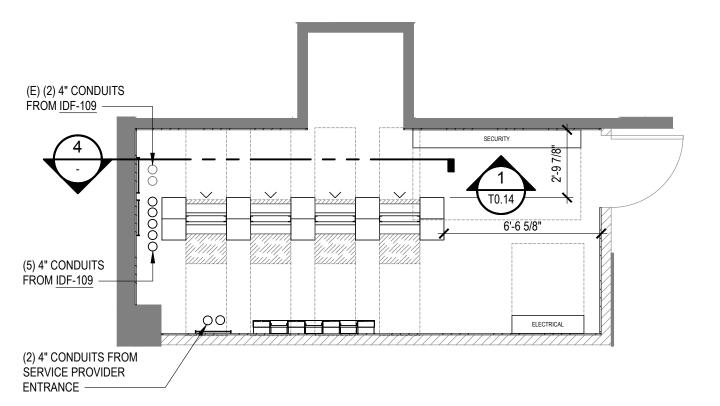
ROOM PLANS AND ELEVATIONS IDF-109

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DRAWN BY: TB

T4.01





OVERHEAD PLAN - MDF

SCALE: 1/4"=1'-0

FLOOR PLAN - MDF

SCALE: 1/4"=1'-0

REFERENCE PLAN - MDF

2U HORIZONTAL 2U HORIZONTAL 2U HORIZONTAL 2U HORIZONTAL CABLE MANAGER

2U 48-PORT PATCH PANEL
COPPER TIE TO 110 BLOCK

2U 48-PORT PATCH PANEL
COPPER TIE TO 110 BLOCK

2U 48-PORT PATCH PANEL
COPPER TIE TO 110 BLOCK

2U 48-PORT PATCH PANEL
COPPER TIE TO 110 BLOCK CABLE MANAGER
2U HORIZONTAL PDU CABLE MANAGER CABLE MANAGER CABLE MANAGER

2U 48-PORT PATCH PANEL
HORIZONTAL COPPER

2U 48-PORT PATCH PANEL
CABLE MANAGER 2U HORIZONTAL PDU SPACE RESERVED FOR COPPER TIE TO 110 BLOCK OWNER PROVIDED 2U HORIZONTAL **EQUIPMENT** CABLE MANAGER
2U HORIZONTAL PDU CABLE MANAGER 2U HORIZONTAL PDU 2U FIBER BACKBONE TO IDF 2U FIBER BACKBONE 2U HORIZONTAL CABLE MANAGER 2U HORIZONTAL PDU 7.-6" 2U HORIZONTAL PDU TO IDF 2U FIBER BACKBONE 2U HORIZONTAL PDU 2U HORIZONTAL PDU TO IDF SPACE RESERVED FOR SERVICE PROVIDER **EQUIPMENT** SPACE RESERVED FOR RESERVED FOR RESERVED FOR SECURITY EQUIPMENT CORE NETWORK EQUIPMENT NETWORK EQUIPMENT R3 R4

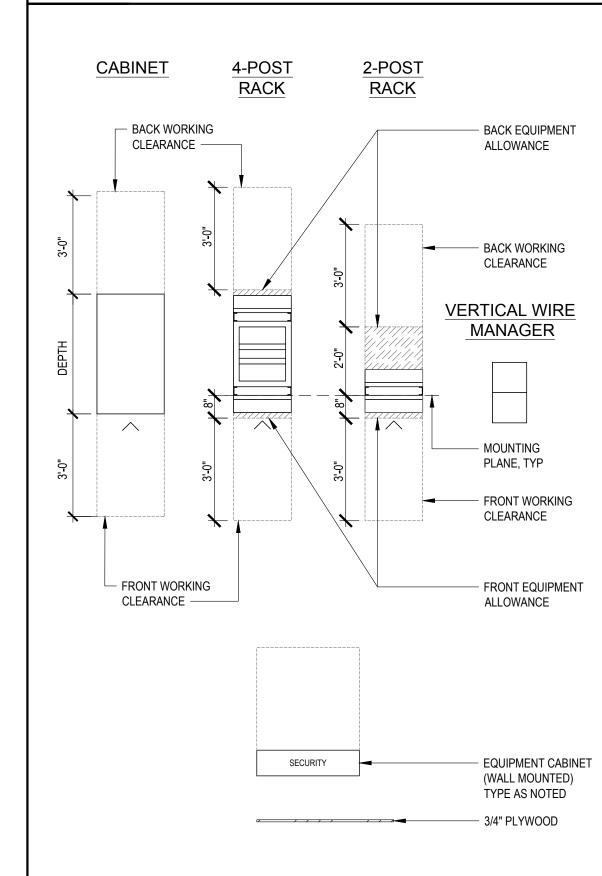
RACK BAY ELEVATION

SCALE: 1"=1'-0"

SHEET NOTES

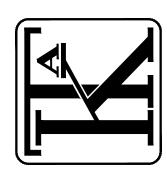
- 1. PROVIDE 3/4" FIRE RATED 4'x8' PLYWOOD ON WALLS OF ROOM AS SHOWN, STARTING AT 6" AFF TO 8'-6" AFF. MASK FIRE RATING STAMP PRIOR TO PAINTING. USE FLUSH FASTENERS FOR MOUNTING PLYWOOD.
- 2. PROVIDE RADIUS DROP OUTS WHERE CABLES TRANSITION DOWNWARD FROM OVERHEAD HORIZONTAL CABLE TRAY.
- 3. LABEL RACKS AND PATCH PANELS.
- 4. CABLE TRAY DEPTH REFERS TO TRAY'S LOADING DEPTH.
- 5. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CIRCUITS/OUTLETS AND LIGHTING REQUIREMENTS.
- FIRESTOP PENETRATIONS (SLEEVES AND CONDUITS) THROUGH RATED WALLS AND FLOORS/DECKS TO RATING.
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- 8. PROVIDE KNOCK-ON BUSHINGS ON CONDUIT AND SLEEVE ENDS.
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- 10. LABEL CONDUITS AT BOTH ENDS. LABEL MUST INDICATE CONDUIT'S USE FOR TECHNOLOGY
- SYSTEMS CABLES ONLY AND LOCATION OF THE CONDUIT'S FAR END TERMINATION.
- 11. DO NOT PLACE CABINETS, PANELS, PIPING, DUCTING OR EQUIPMENT IN THE TELECOM ROOMS OTHER THAN THAT SHOWN ON THESE ROOM PLANS AND DETAILS.
- 12. NEATLY BUNDLE (DRESS CABLE LONGITUDINALLY) AND SUPPORT (USING FASTENERS AND TIES DESCRIBED SPECIFICATIONS AND DRAWINGS) TELECOMMUNICATIONS CABLES ONTO OVERHEAD CABLE TRAY. NEATLY BUNDLE AND SUPPORT TELECOMMUNICATIONS CABLES ONTO VERTICALLY MOUNTED CABLE RUNWAY WHEN RISING FROM FLOOR SLEEVES, OR DESCENDING FROM CEILING SLEEVES USING APPROVED TIES. NEATLY BUNDLE TELECOMMUNICATIONS CABLES INTO THE BACK OF VERTICAL CABLE MANAGEMENT SECTIONS USING APPROVED TIES. DRESS TELECOMMUNICATIONS CABLES FROM THE VERTICAL MANAGEMENT SECTIONS TO THE TERMINATION POSITION. MAXIMUM BUNDLE SIZE: 24 CABLES.
- 13. PROVIDE SEPARATE PATCH PANELS FOR SECURITY AND WAP CABLING (WHEN SUFFICIENT RACK SPACE IS AVAILABLE).

SYMBOL LEGEND



EQUIPMENT LIST			
EQUIP.#	DESCRIPTION/COMMENT		
(1)	EQUIPMENT RACK - 2-CHANNEL, 7'0"H x 19", BLACK		
@	VERTICAL MANAGEMENT SECTION - 6"W, DOUBLE SIDED		
(3)	VERTICAL MANAGEMENT SECTION - 12"W, DOUBLE SIDED		
(4)	3/4" FIRE RATED HARDWOOD PLYWOOD		
(15)	OVERHEAD CABLE SUPPORT - CABLE RUNWAY, 24" W		
6 6	WALL MOUNTED VERTICAL CABLE RUNWAY, 24" W		
@	WALL MOUNTED VERTICAL CABLE RUNWAY, 18" W		
(8)	WALL MOUNTED 110 BLOCKS WITH MANAGERS		
@	GROUND BUSBAR MOUNTED AT 7' 0" AFF		
10	OVERHEAD CABLE SUPPORT - CABLE RUNWAY, 12" W		

RCHITETH STREET, SUITE 300
OAKLAND, CA 94612
Ph. 510.446.2244 Fx: 510.446.2242



1333 Broadway, Suite 601 0akland, CA 94612 510-337-2800 510-337-2804 fax

> ROOM PLANS AND ELEVATIONS MDF-213

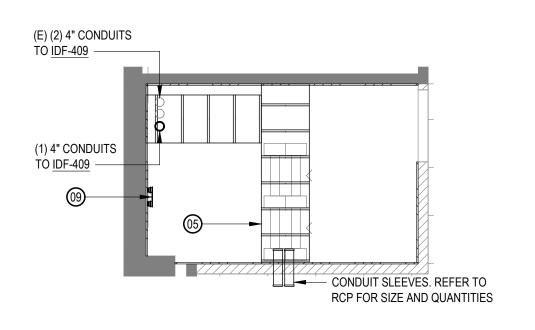
ITD HEADQUARTERS 393 13TH STREET OAKLAND, CA 94612

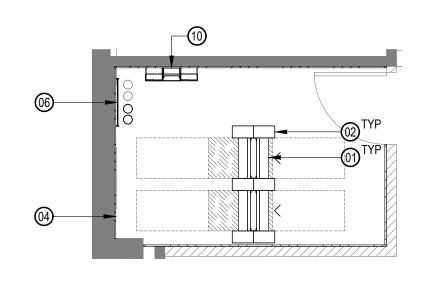
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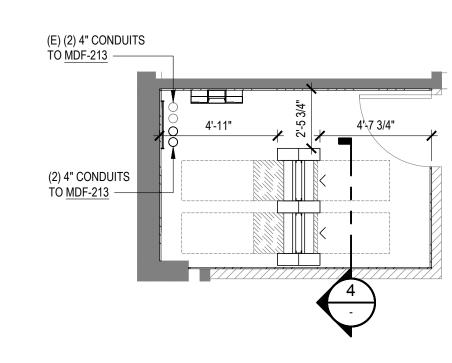
DATE: 3/31/2017

DRAWN BY: TB

T4 02







OVERHEAD PLAN

SCALE: 1/4"=1'-0'

FLOOR PLAN

REFERENCE PLAN

SCALE: 1/4"-1"-0"

2U FIBER TO MDF-213 2U HORIZONTAL 2U HORIZONTAL
CABLE MANAGER

2U 48-PORT PATCH PANEL
COPPER TIE 110 BLOCK

2U 48-PORT PATCH PANEL
HORIZONTAL COPPER

2U HORIZONTAL COPPER

2U HORIZONTAL
CABLE MANAGER CABLE MANAGER 2U NETWORK EQUIPMENT 2U HORIZONTAL CABLE MANAGER 2U NETWORK EQUIPMENT 2U HORIZONTAL PDU 2U HORIZONTAL PDU 2U NETWORK 7'-6" EQUIPMENT 2U HORIZONTAL CABLE MANAGER
2U NETWORK
EQUIPMENT
2U HORIZONTAL CABLE MANAGER 2U NETWORK EQUIPMENT RESERVED FOR FUTURE EQUIPMENT R1 R2

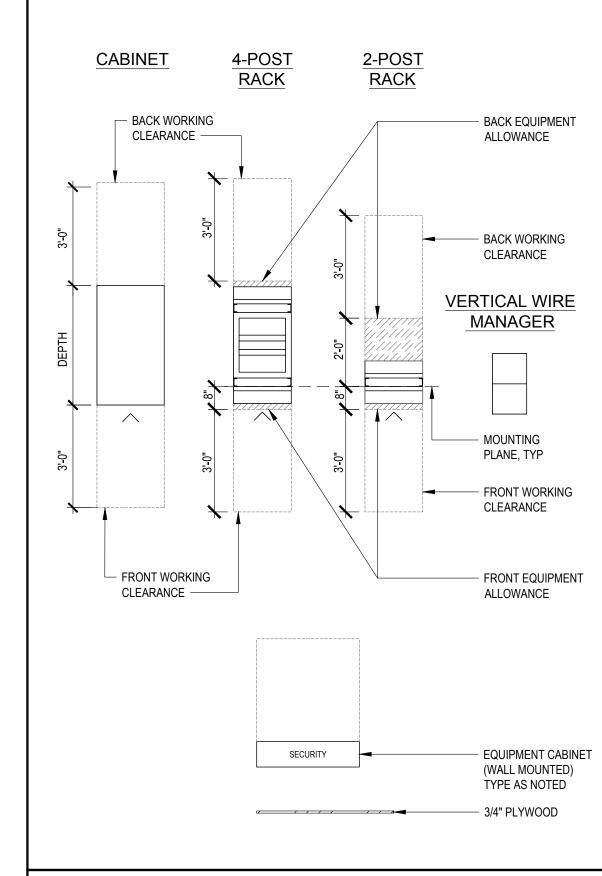
RACK BAY ELEVATION

SCALE: 1"=1'-0"

SHEET NOTES

- 1. PROVIDE 3/4" FIRE RATED 4'x8' PLYWOOD ON WALLS OF ROOM AS SHOWN, STARTING AT 6" AFF TO 8'-6" AFF. MASK FIRE RATING STAMP PRIOR TO PAINTING. USE FLUSH FASTENERS FOR MOUNTING PLYWOOD.
- 2. PROVIDE RADIUS DROP OUTS WHERE CABLES TRANSITION DOWNWARD FROM OVERHEAD HORIZONTAL CABLE TRAY.
- 3. LABEL RACKS AND PATCH PANELS.
- 4. CABLE TRAY DEPTH REFERS TO TRAY'S LOADING DEPTH.
- 5. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CIRCUITS/OUTLETS AND LIGHTING REQUIREMENTS
- 6. FIRESTOP PENETRATIONS (SLEEVES AND CONDUITS) THROUGH RATED WALLS AND FLOORS/DECKS TO RATING.
- 7. SEISMICALLY BRACE CABLE TRAYS AND EQUIPMENT RACKS TO MEET LOCAL SEISMIC CODES.
- 8. PROVIDE KNOCK-ON BUSHINGS ON CONDUIT AND SLEEVE ENDS.
- 9. PATHWAYS SHOWN ARE DEDICATED FOR TECHNOLOGY SYSTEMS CABLING ONLY, UON.
- 10. LABEL CONDUITS AT BOTH ENDS. LABEL MUST INDICATE CONDUIT'S USE FOR TECHNOLOGY SYSTEMS CABLES ONLY AND LOCATION OF THE CONDUIT'S FAR END TERMINATION.
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- 13. PROVIDE SEPARATE PATCH PANELS FOR SECURITY AND WAP CABLING (WHEN SUFFICIENT RACK SPACE IS AVAILABLE).

SYMBOL LEGEND



E	EQUIPMENT LIST			
EQUIP.#	DESCRIPTION/COMMENT			
(1)	EQUIPMENT RACK - 2-CHANNEL, 7'0"H x 19", BLACK			
@	VERTICAL MANAGEMENT SECTION - 6"W, DOUBLE SIDED			
(3)	VERTICAL MANAGEMENT SECTION - 12"W, DOUBLE SIDED			
(04)	3/4" FIRE RATED HARDWOOD PLYWOOD			
(65)	OVERHEAD CABLE SUPPORT - CABLE RUNWAY, 24" W			
66	WALL MOUNTED VERTICAL CABLE RUNWAY, 24" W			
(WALL MOUNTED VERTICAL CABLE RUNWAY, 18" W			
®	WALL MOUNTED 110 BLOCKS WITH MANAGERS			
<u></u>	GROUND BUSBAR MOUNTED AT 7' 0" AFF			

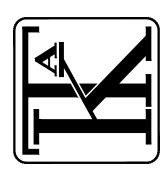
MOROUS-TOWEY

CHITECTS

TWELFTH STREET, SUITE 300

OAKLAND, CA 94612

OAKLAND, CA 94612



1333 Broadway, Suite 601 0akland, CA 94612 510-337-2800 510-337-2804 fax

> ROOM PLANS AND ELEVATIONS IDF-312

ITD HEADQUARTERS 393 13TH STREET OAKLAND, CA 94612

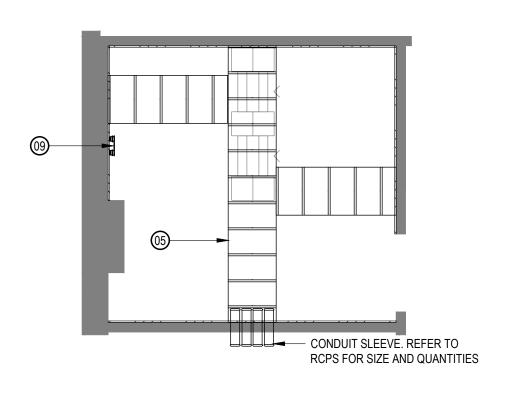
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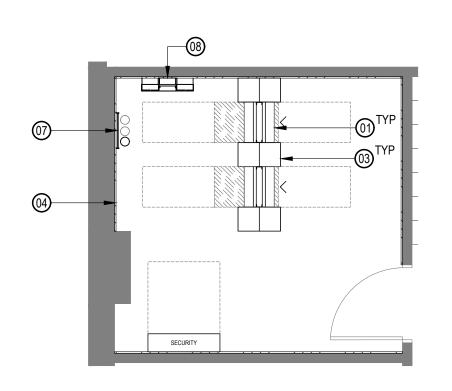
DATE: 3/31/2017

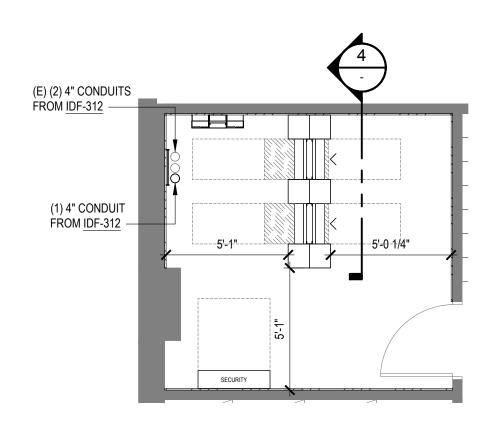
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PROJECT NO.: 1203.22

T4.03







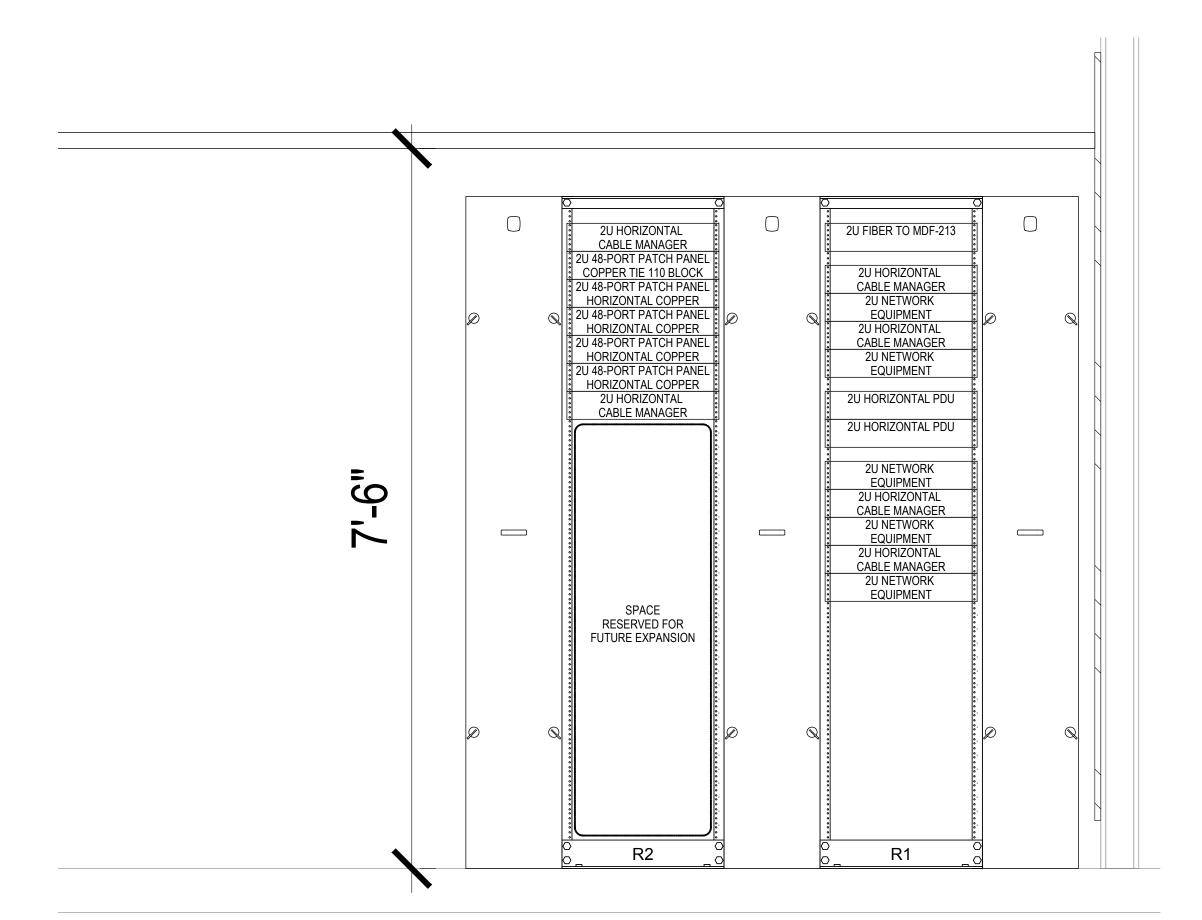
OVERHEAD PLAN

SCALE: 1/4"=1'-

FLOOR PLAN

REFERENCE PLAN

SCALE: 1/4"=1'-



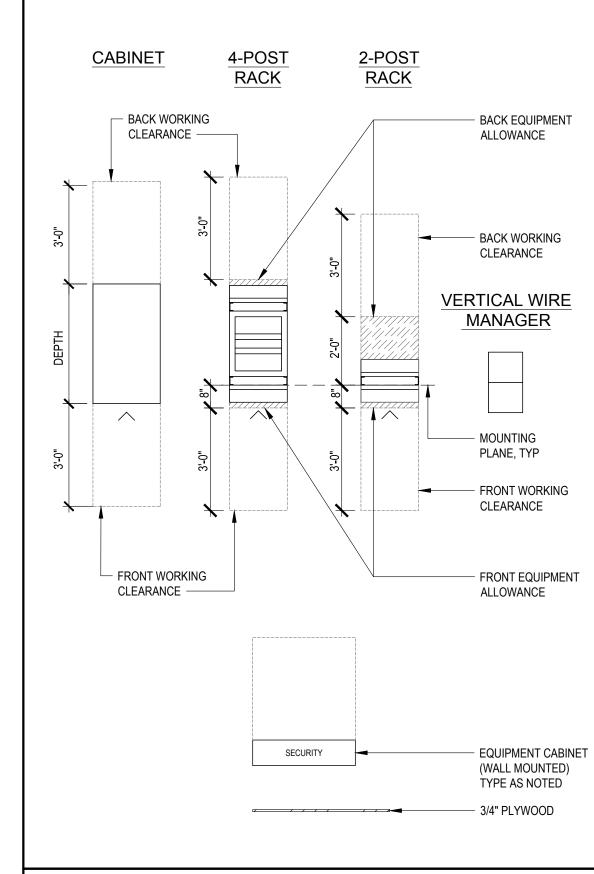
RACK BAY ELEVATION

SCALE: 1"=1'-0"

SHEET NOTES

- PROVIDE 3/4" FIRE RATED 4'x8' PLYWOOD ON WALLS OF ROOM AS SHOWN, STARTING AT 6" AFF
 TO 8'-6" AFF. MASK FIRE RATING STAMP PRIOR TO PAINTING. USE FLUSH FASTENERS FOR
 MOUNTING PLYWOOD.
- 2. PROVIDE RADIUS DROP OUTS WHERE CABLES TRANSITION DOWNWARD FROM OVERHEAD HORIZONTAL CABLE TRAY.
- 3. LABEL RACKS AND PATCH PANELS.
- 4. CABLE TRAY DEPTH REFERS TO TRAY'S LOADING DEPTH.
- 5. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CIRCUITS/OUTLETS AND LIGHTING
- FIRESTOP PENETRATIONS (SLEEVES AND CONDUITS) THROUGH RATED WALLS AND FLOORS/DECKS TO RATING.
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- 8. PROVIDE KNOCK-ON BUSHINGS ON CONDUIT AND SLEEVE ENDS.
- 9. PATHWAYS SHOWN ARE DEDICATED FOR TECHNOLOGY SYSTEMS CABLING ONLY, UON.
- 10. LABEL CONDUITS AT BOTH ENDS. LABEL MUST INDICATE CONDUIT'S USE FOR TECHNOLOGY SYSTEMS CABLES ONLY AND LOCATION OF THE CONDUIT'S FAR END TERMINATION.
- 11. DO NOT PLACE CABINETS, PANELS, PIPING, DUCTING OR EQUIPMENT IN THE TELECOM ROOMS OTHER THAN THAT SHOWN ON THESE ROOM PLANS AND DETAILS.
- 12. NEATLY BUNDLE (DRESS CABLE LONGITUDINALLY) AND SUPPORT (USING FASTENERS AND TIES DESCRIBED SPECIFICATIONS AND DRAWINGS) TELECOMMUNICATIONS CABLES ONTO OVERHEAD CABLE TRAY. NEATLY BUNDLE AND SUPPORT TELECOMMUNICATIONS CABLES ONTO VERTICALLY MOUNTED CABLE RUNWAY WHEN RISING FROM FLOOR SLEEVES, OR DESCENDING FROM CEILING SLEEVES USING APPROVED TIES. NEATLY BUNDLE TELECOMMUNICATIONS CABLES INTO THE BACK OF VERTICAL CABLE MANAGEMENT SECTIONS USING APPROVED TIES. DRESS TELECOMMUNICATIONS CABLES FROM THE VERTICAL MANAGEMENT SECTIONS TO THE TERMINATION POSITION. MAXIMUM BUNDLE SIZE: 24 CABLES.
- 13. PROVIDE SEPARATE PATCH PANELS FOR SECURITY AND WAP CABLING (WHEN SUFFICIENT RACK SPACE IS AVAILABLE).

SYMBOL LEGEND

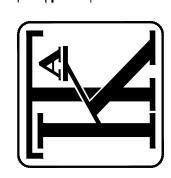


E	EQUIPMENT LIST			
EQUIP.#	DESCRIPTION/COMMENT			
(1)	EQUIPMENT RACK - 2-CHANNEL, 7'0"H x 19", BLACK			
@	VERTICAL MANAGEMENT SECTION - 6"W, DOUBLE SIDED			
(3)	VERTICAL MANAGEMENT SECTION - 12"W, DOUBLE SIDED			
(04)	3/4" FIRE RATED HARDWOOD PLYWOOD			
(05)	OVERHEAD CABLE SUPPORT - CABLE RUNWAY, 24" W			
66	WALL MOUNTED VERTICAL CABLE RUNWAY, 24" W			
67	WALL MOUNTED VERTICAL CABLE RUNWAY, 18" W			
(8)	WALL MOUNTED 110 BLOCKS WITH MANAGERS			
<u></u>	GROUND BUSBAR MOUNTED AT 7' 0" AFF			

MOROUS-TOWES

C H I T E C T

TWELFTH STREET, SUITE 300
OAKLAND, CA 94612
OAKLAND, CA 94612



1333 Broadway, Suite 601 Oakland, CA 94612 510-337-2800 510-337-2804 fax

> ROOM PLANS AND ELEVATIONS IDF-409

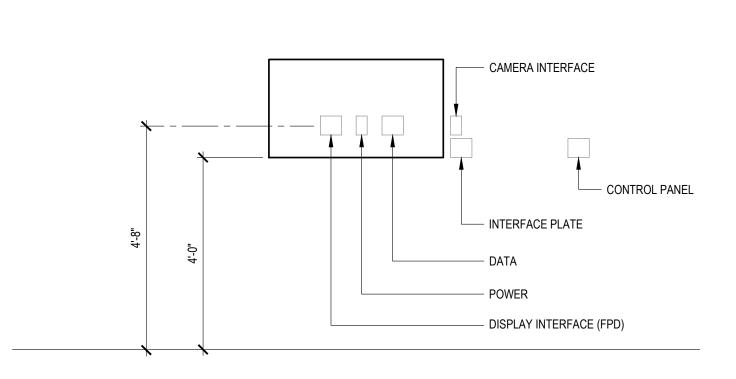
ITD HEADQUARTERS 393 13TH STREET OAKLAND, CA 94612

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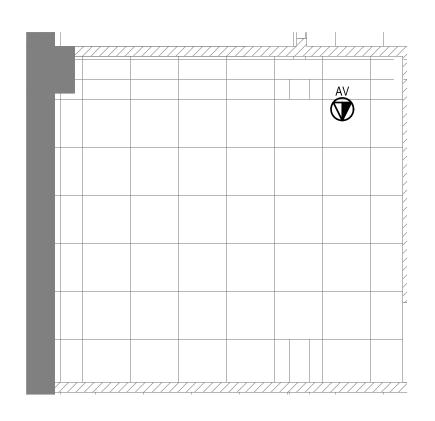
DATE: 3/31/2017

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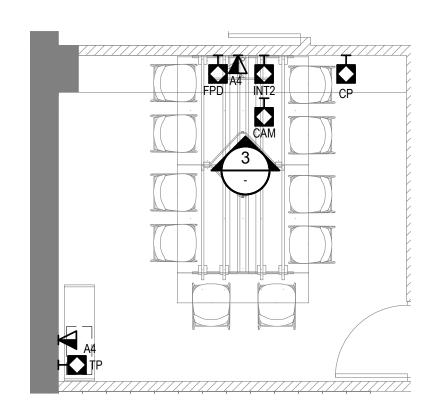
T4.04



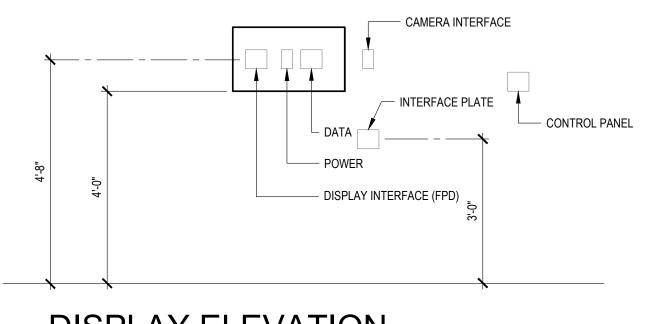
DISPLAY ELEVATION -CONFERENCE 111



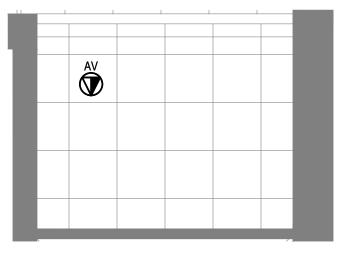
REFLECTED CEILING PLAN -**CONFERENCE 111**



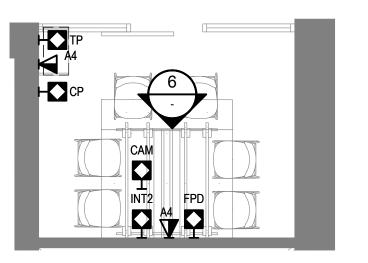
FLOOR PLAN - CONFERENCE 111



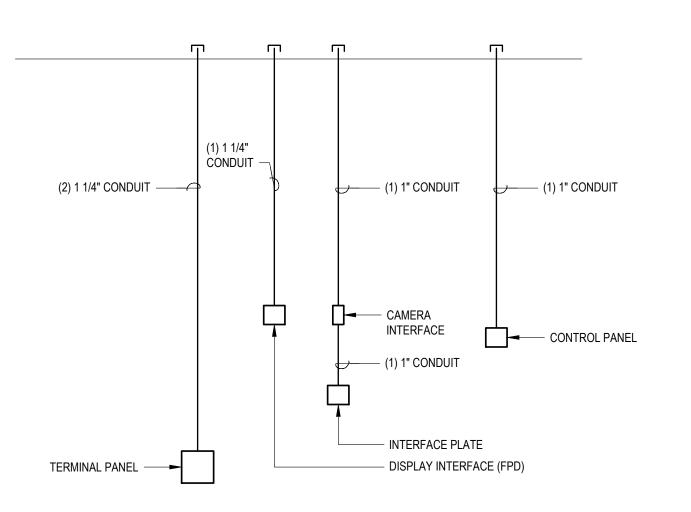
DISPLAY ELEVATION -TEAM CONFERENCE 127



REFLECTED CEILING PLAN -**TEAM CONFERENCE 127**



FLOOR PLAN -**TEAM CONFERENCE 127**



PATHWAYS ELEVATION - CONFERENCE 111 / TEAM CONFERENCE 127

SCALE: 1/4"=1'-0"

SHEET NOTES

- COORDINATE FLOOR BOX AND FEED POINT LOCATIONS WITH ARCHITECTURAL AND ELECTRICAL
- FIRESTOP PENETRATIONS (SLEEVES AND CONDUITS) THROUGH RATED WALLS AND FLOORS TO MATCH WALL RATING AS REGULATION REQUIRES.
- REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF TECHNOLOGY SYSTEMS
- LABEL PATHWAYS AT BOTH ENDS. LABEL MUST INDICATE PATHWAY'S DEDICATED USE FOR
- PROVIDE KNOCK-ON BUSHINGS ON PATHWAY AND SLEEVE ENDS.
- PROVIDE BLANK COVER PLATE ON ELECTRICAL BOXES INTENDED FOR FUTURE AUDIOVISUAL

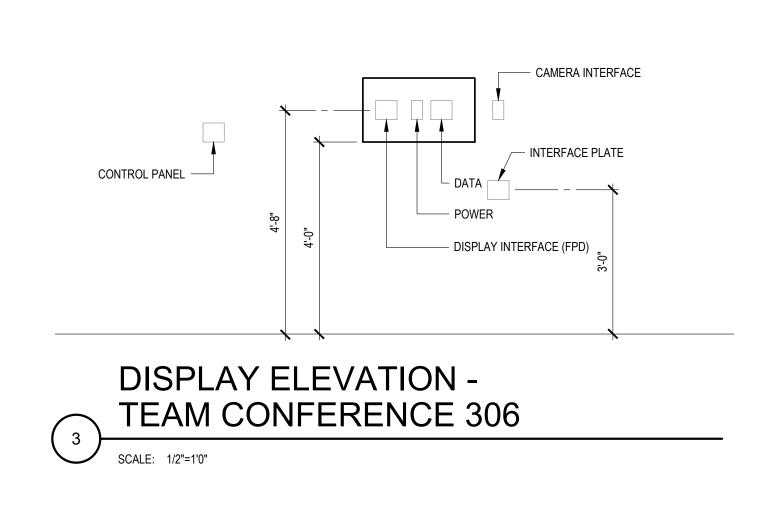
CONTROL OR INTERFACE.

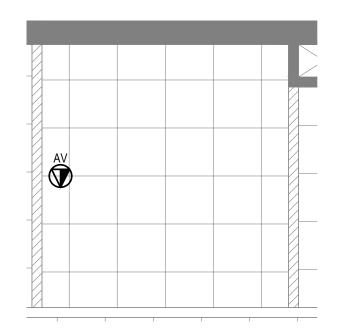
ITD HEADQUARTERS 393 13TH STREET OAKLAND, CA 94612

BID SET	
REVISIONS	

© COPYRIGHT 2016 DATE: 3/31/2017

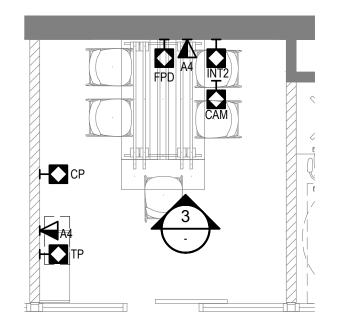
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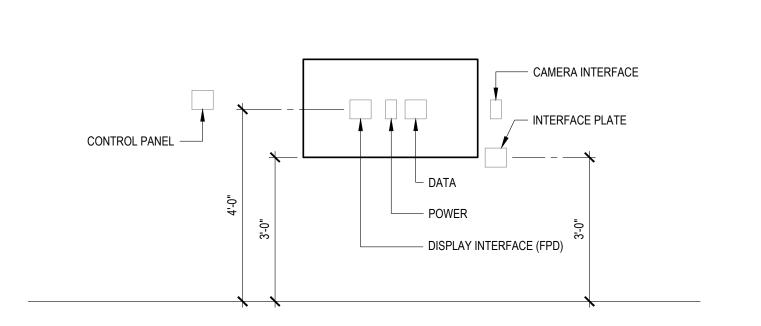


SCALE: 1/4"=1'-0"

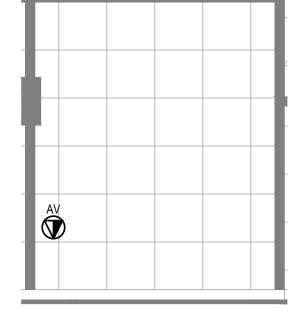


FLOOR PLAN -**TEAM CONFERENCE 306**

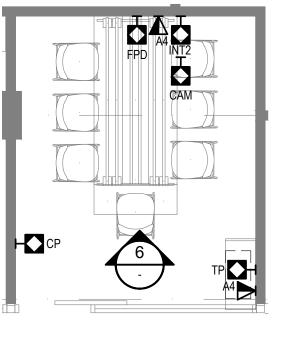
SCALE: 1/4"=1'-0"



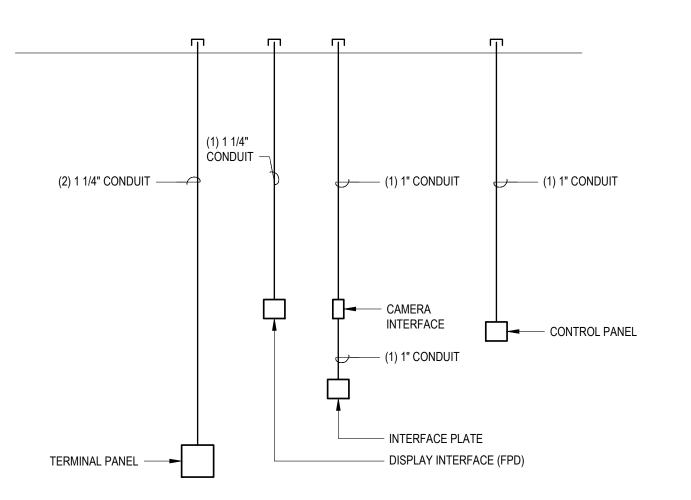
DISPLAY ELEVATION -TEAM CONFERENCE 417



REFLECTED CEILING PLAN -**TEAM CONFERENCE 417**



FLOOR PLAN -**TEAM CONFERENCE 417**



PATHWAYS ELEVATION -TEAM CONFERENCE 306, 417

SCALE: 1/4"=1'-0"

SHEET NOTES

- COORDINATE FLOOR BOX AND FEED POINT LOCATIONS WITH ARCHITECTURAL AND ELECTRICAL
- FIRESTOP PENETRATIONS (SLEEVES AND CONDUITS) THROUGH RATED WALLS AND FLOORS TO MATCH WALL RATING AS REGULATION REQUIRES.
- REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF TECHNOLOGY SYSTEMS
- LABEL PATHWAYS AT BOTH ENDS. LABEL MUST INDICATE PATHWAY'S DEDICATED USE FOR
- PROVIDE KNOCK-ON BUSHINGS ON PATHWAY AND SLEEVE ENDS.
- PROVIDE BLANK COVER PLATE ON ELECTRICAL BOXES INTENDED FOR FUTURE AUDIOVISUAL

CONTROL OR INTERFACE.

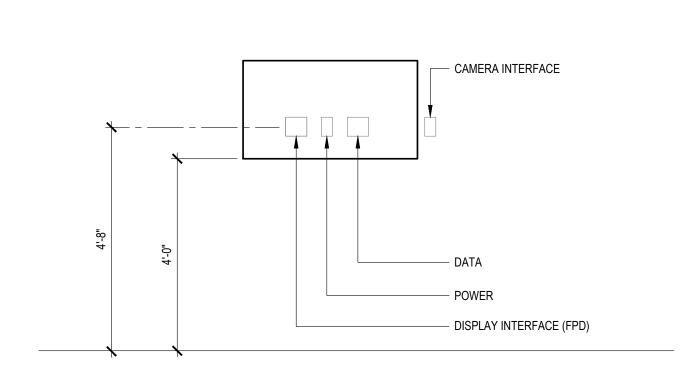
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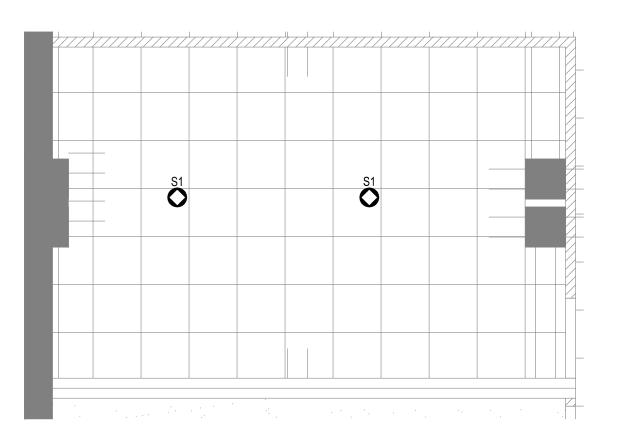
BID SET REVISIONS

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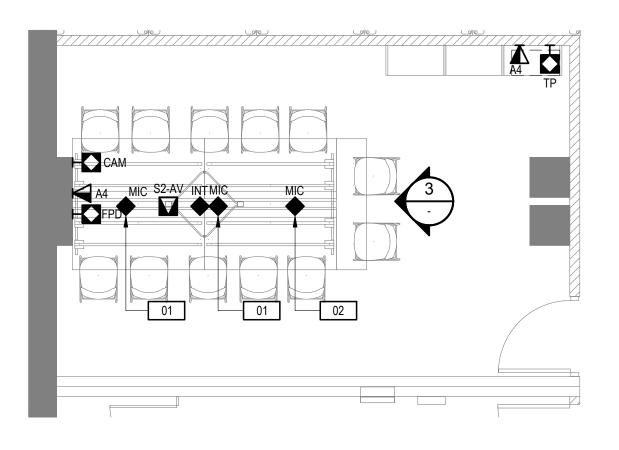


DISPLAY ELEVATION -CONFERENCE 114



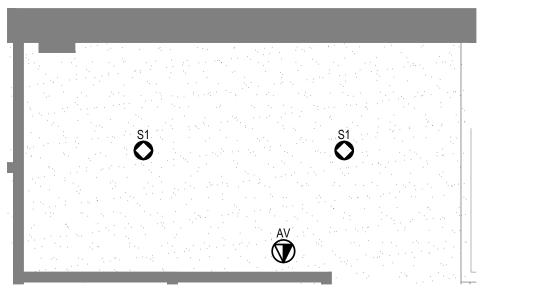
REFLECTED CEILING PLAN -**TEAM CONFERENCE 114**

SCALE: 1/4"=1'-0"



FLOOR PLAN -**TEAM CONFERENCE - 114**

SCALE: 1/4"=1'-0"



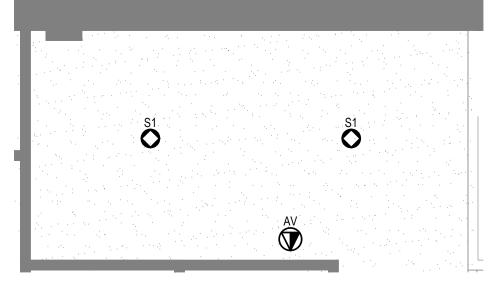
DISPLAY ELEVATION -TEAM CONFERENCE 205

- CAMERA INTERFACE

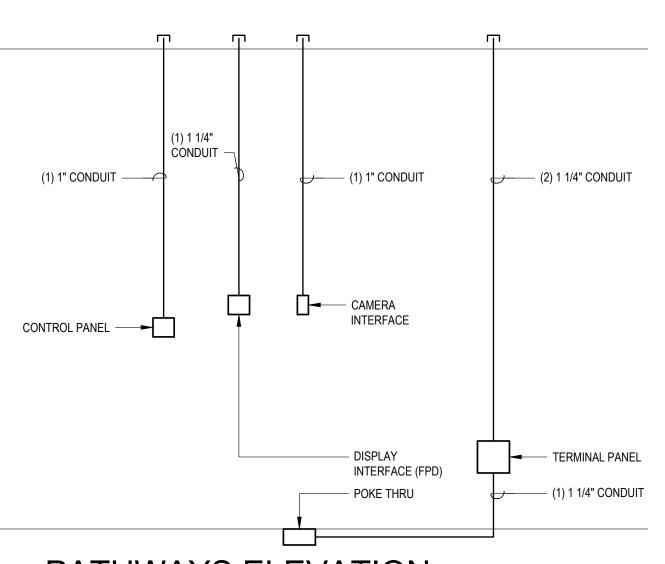
DISPLAY INTERFACE (FPD)

POWER

CONTROL PANEL -

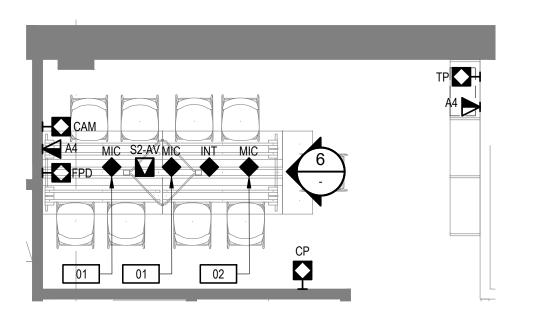


REFLECTED CEILING PLAN -**TEAM CONFERENCE 205**

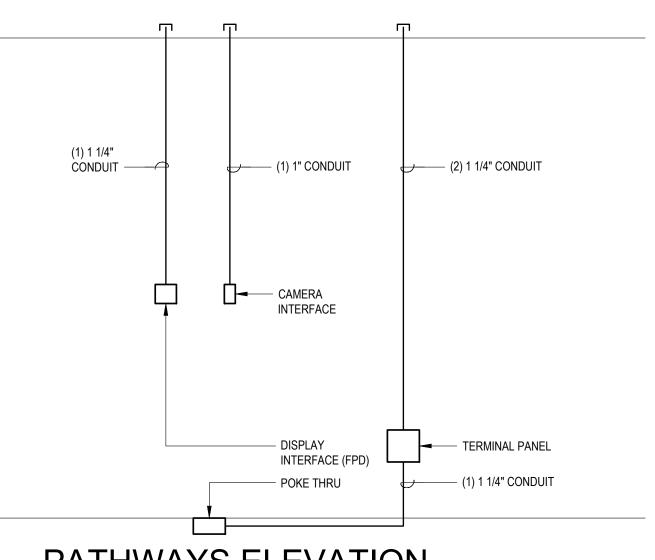


PATHWAYS ELEVATION -**TEAM CONFERENCE 205**

SCALE: 1/4"=1'-0"



FLOOR PLAN -**TEAM CONFERENCE 205**



PATHWAYS ELEVATION -**TEAM CONFERENCE 114**

SCALE: 1/4"=1'-0"

SHEET NOTES

- COORDINATE FLOOR BOX AND FEED POINT LOCATIONS WITH ARCHITECTURAL AND ELECTRICAL
- FIRESTOP PENETRATIONS (SLEEVES AND CONDUITS) THROUGH RATED WALLS AND FLOORS TO
- REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF TECHNOLOGY SYSTEMS
- LABEL PATHWAYS AT BOTH ENDS. LABEL MUST INDICATE PATHWAY'S DEDICATED USE FOR
- PROVIDE KNOCK-ON BUSHINGS ON PATHWAY AND SLEEVE ENDS.
- PROVIDE BLANK COVER PLATE ON ELECTRICAL BOXES INTENDED FOR FUTURE AUDIOVISUAL CONTROL OR INTERFACE.

NUMBERED NOTES

01 BIDIRECTIONAL MICROPHONE. REFER TO AUDIOVISUAL SPECIFICATION.

02 CARDIOID MICROPHONE. REFER TO AUDIOVISUAL SPECIFICATION.

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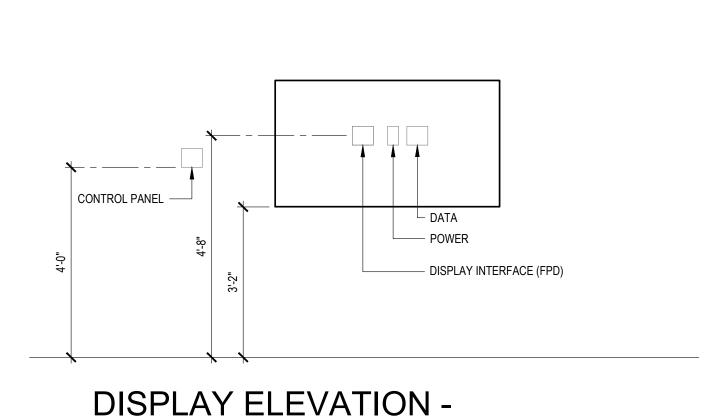
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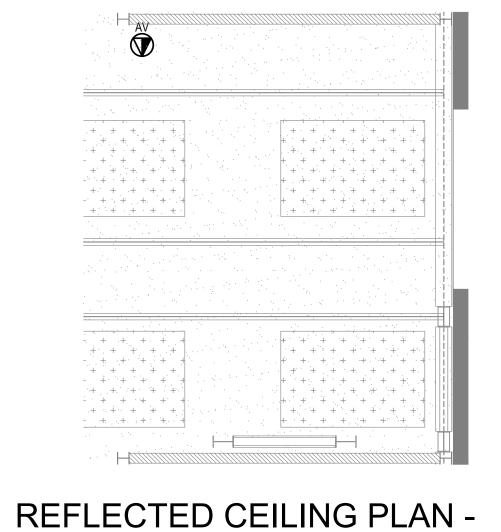
PROJECT NO.:

DRAWN BY:

T4.13

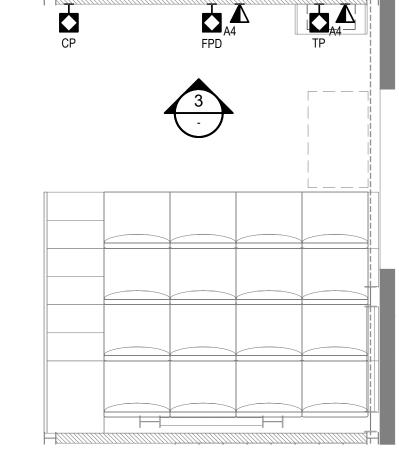


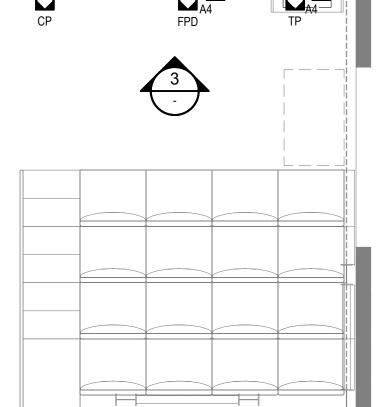
STADIUM CONFERENCE 217



STADIUM CONFERENCE 217

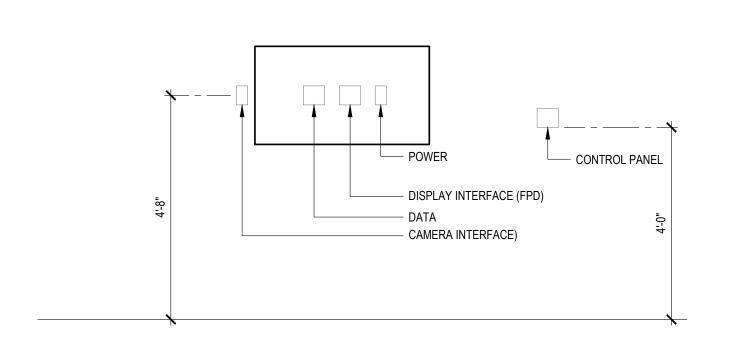
SCALE: 1/4"=1'-0"









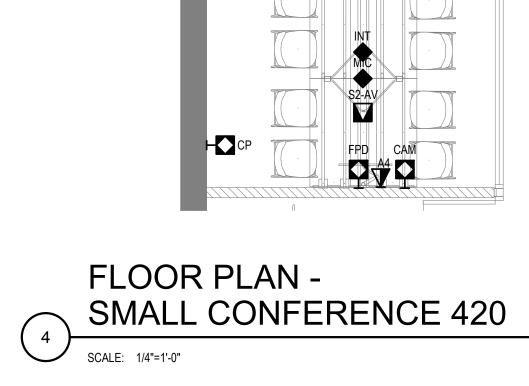


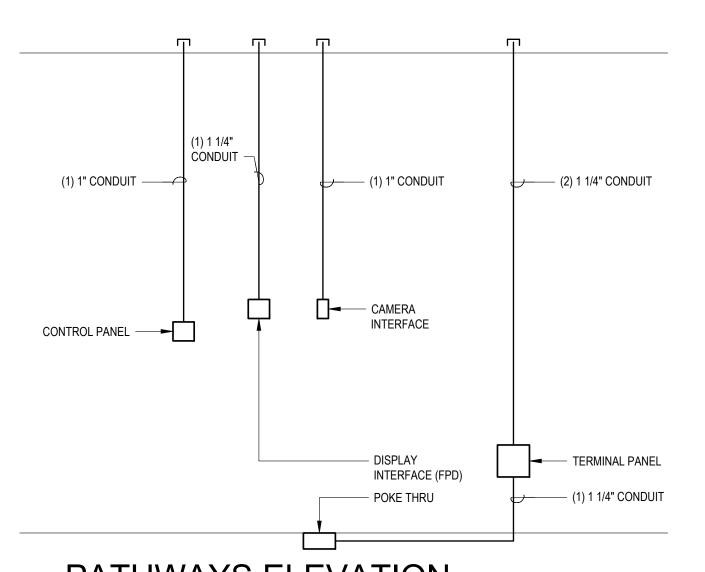
DISPLAY ELEVATION -

SMALL CONFERENCE 420

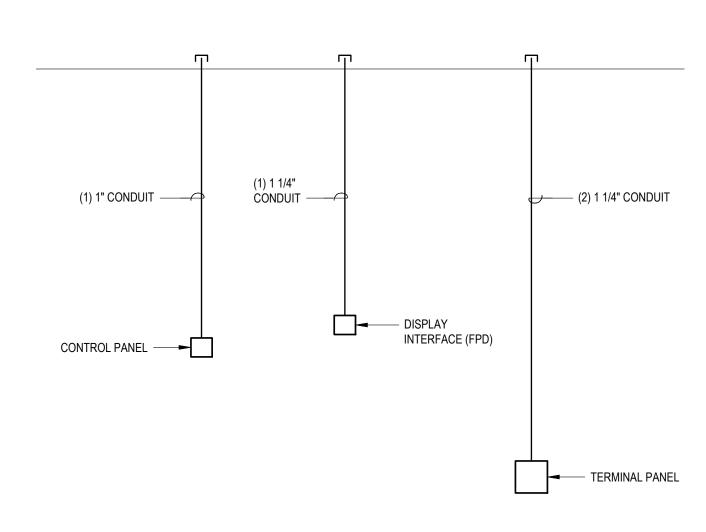


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PATHWAYS ELEVATION -STADIUM CONFERENCE 217



SHEET NOTES

COORDINATE FLOOR BOX AND FEED POINT LOCATIONS WITH ARCHITECTURAL AND ELECTRICAL

FIRESTOP PENETRATIONS (SLEEVES AND CONDUITS) THROUGH RATED WALLS AND FLOORS TO

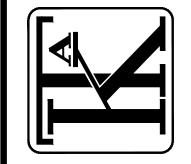
PROVIDE BLANK COVER PLATE ON ELECTRICAL BOXES INTENDED FOR FUTURE AUDIOVISUAL

SEISMICALLY BRACE TECHNOLOGY SYSTEMS PATHWAYS TO MEET LOCAL REGULATIONS.

REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF TECHNOLOGY SYSTEMS

PROVIDE KNOCK-ON BUSHINGS ON PATHWAY AND SLEEVE ENDS.

CONTROL OR INTERFACE.



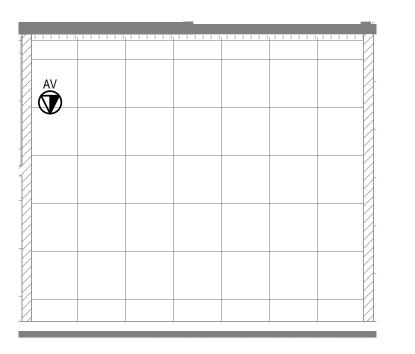
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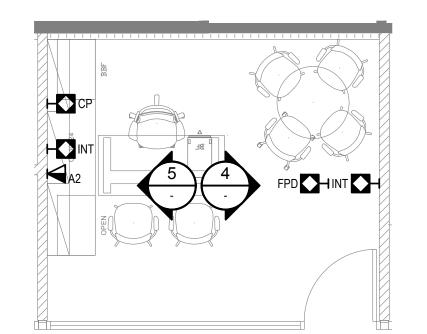
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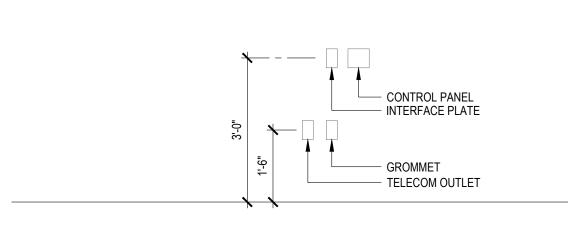
PROJECT NO.:





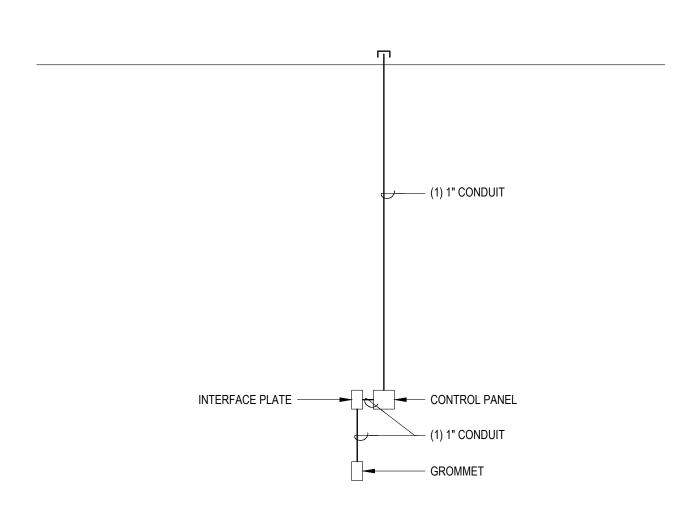
REFLECTED CEILING PLAN -OFFICE 415, 419, 421

FLOOR PLAN -OFFICE 415, 419, 421

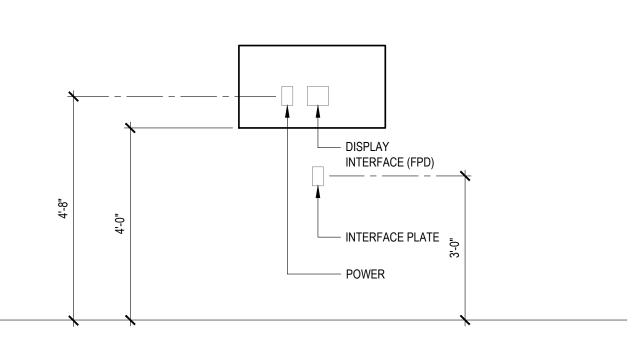


BACK WALL ELEVATION -OFFICE 415, 419, 421

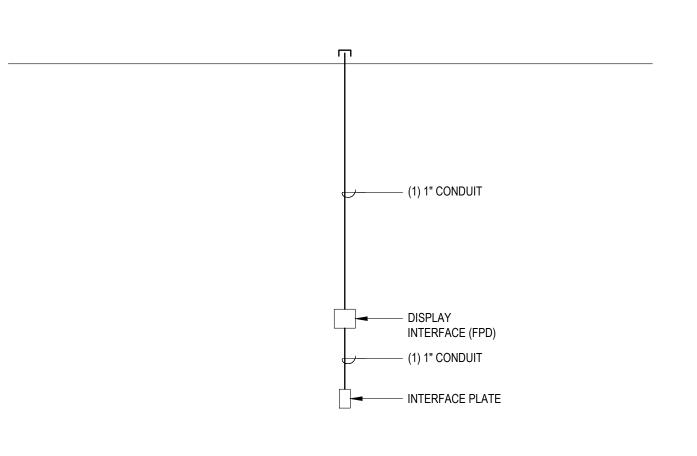
SCALE: 1/2"=1'-0"



BACK WALL PATHWAYS ELEVATION - OFFICE 415, 419, 421



DISPLAY WALL ELEVATION -OFFICE 415, 419, 421



DISPLAY WALL PATHWAYS ELEVATION - OFFICE 415, 419, 421

SHEET NOTES

- COORDINATE FLOOR BOX AND FEED POINT LOCATIONS WITH ARCHITECTURAL AND ELECTRICAL
- FIRESTOP PENETRATIONS (SLEEVES AND CONDUITS) THROUGH RATED WALLS AND FLOORS TO MATCH WALL RATING AS REGULATION REQUIRES.
- REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF TECHNOLOGY SYSTEMS
- LABEL PATHWAYS AT BOTH ENDS. LABEL MUST INDICATE PATHWAY'S DEDICATED USE FOR
- TECHNOLOGY SYSTEMS CABLING AND LOCATION OF THE PATHWAY'S FAR END.

PROVIDE KNOCK-ON BUSHINGS ON PATHWAY AND SLEEVE ENDS.

- PROVIDE BLANK COVER PLATE ON ELECTRICAL BOXES INTENDED FOR FUTURE AUDIOVISUAL
- CONTROL OR INTERFACE.

ROOM POFFICE 418

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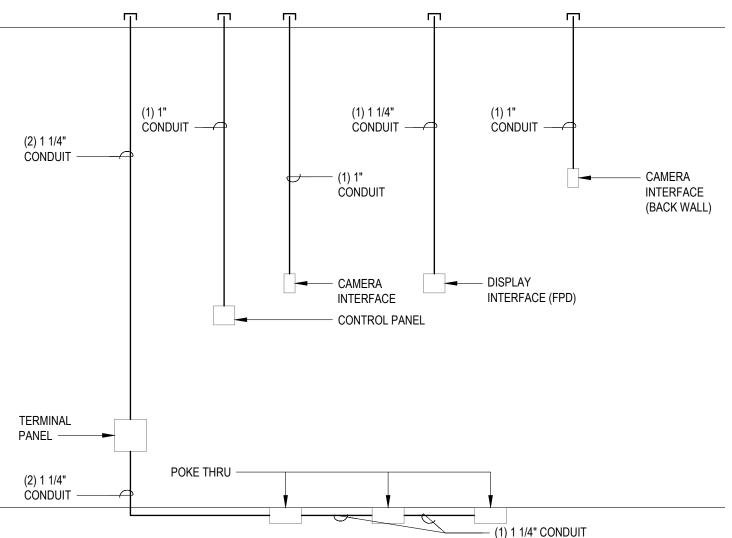
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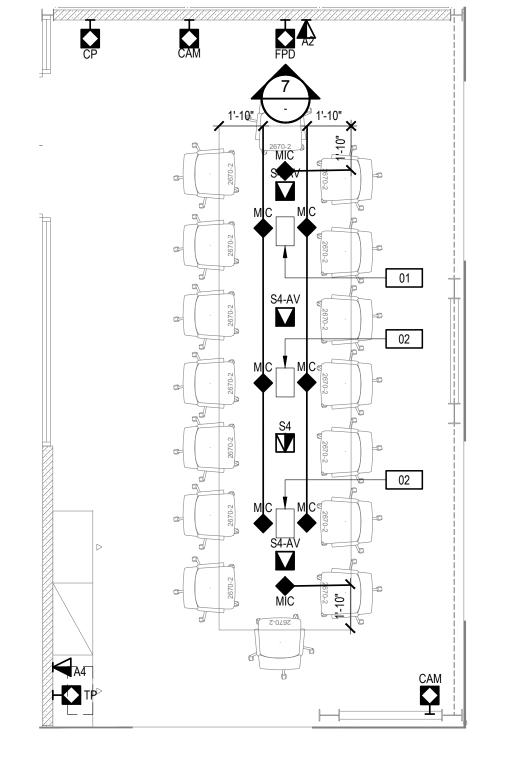
REFLECTED CEILING PLAN -

LARGE CONFERENCE 228



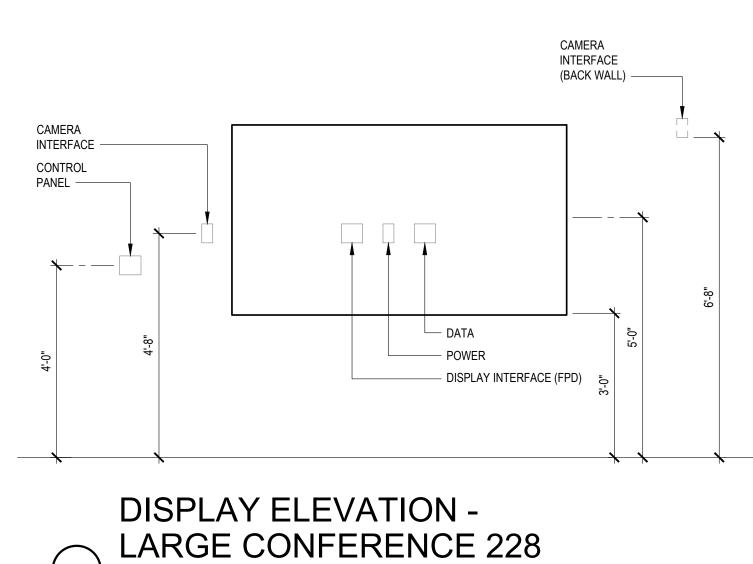
PATHWAYS ELEVATION -LARGE CONFERENCE 228

SCALE: 1/2"=1'-0"



FLOOR PLAN -LARGE CONFERENCE 228

SCALE: 1/2"=1'-0"



SHEET NOTES

- COORDINATE FLOOR BOX AND FEED POINT LOCATIONS WITH ARCHITECTURAL AND ELECTRICAL
- FIRESTOP PENETRATIONS (SLEEVES AND CONDUITS) THROUGH RATED WALLS AND FLOORS TO MATCH WALL RATING AS REGULATION REQUIRES.
- REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF TECHNOLOGY SYSTEMS DEVICES/OUTLETS.
- LABEL PATHWAYS AT BOTH ENDS. LABEL MUST INDICATE PATHWAY'S DEDICATED USE FOR TECHNOLOGY SYSTEMS CABLING AND LOCATION OF THE PATHWAY'S FAR END.
- PROVIDE KNOCK-ON BUSHINGS ON PATHWAY AND SLEEVE ENDS.
- PROVIDE BLANK COVER PLATE ON ELECTRICAL BOXES INTENDED FOR FUTURE AUDIOVISUAL CONTROL OR INTERFACE.

NUMBERED NOTES

- 01 TABLE BOX WITH DATA, POWER, USB CHARGING SOCKETS, HDMI INPUT, AND USB SOFT-CODEC CONNECTIONS.
- 02 TABLE BOX WITH DATA AND POWER , USB CHARGING SOCKETS, HDMI INPUT, BUT NO USB SOFT-CODEC CONNECTION.

ROOM PLAN LARGE CONFERENC

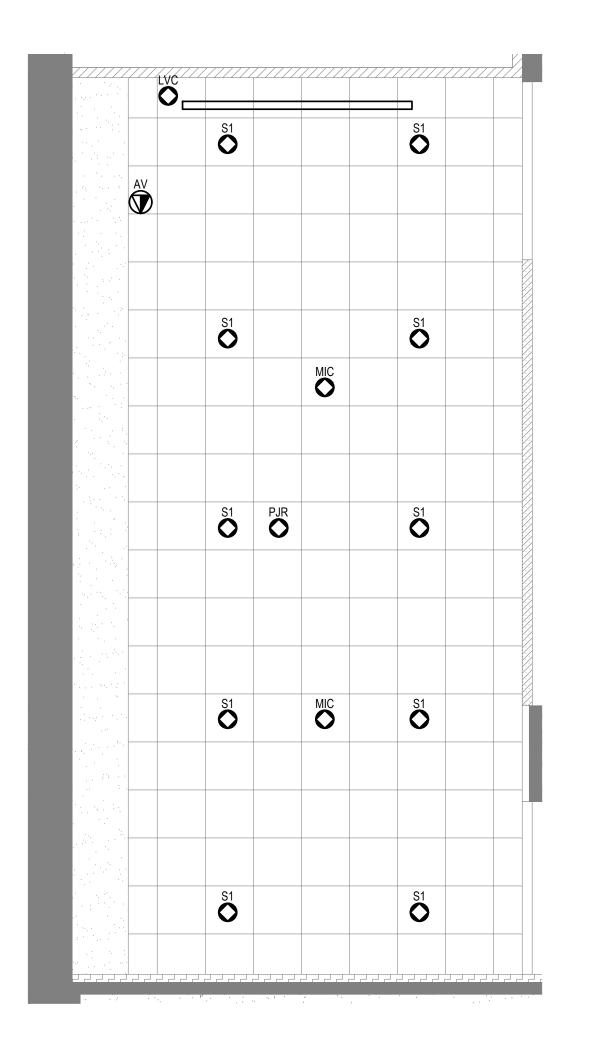
BID SET REVISIONS

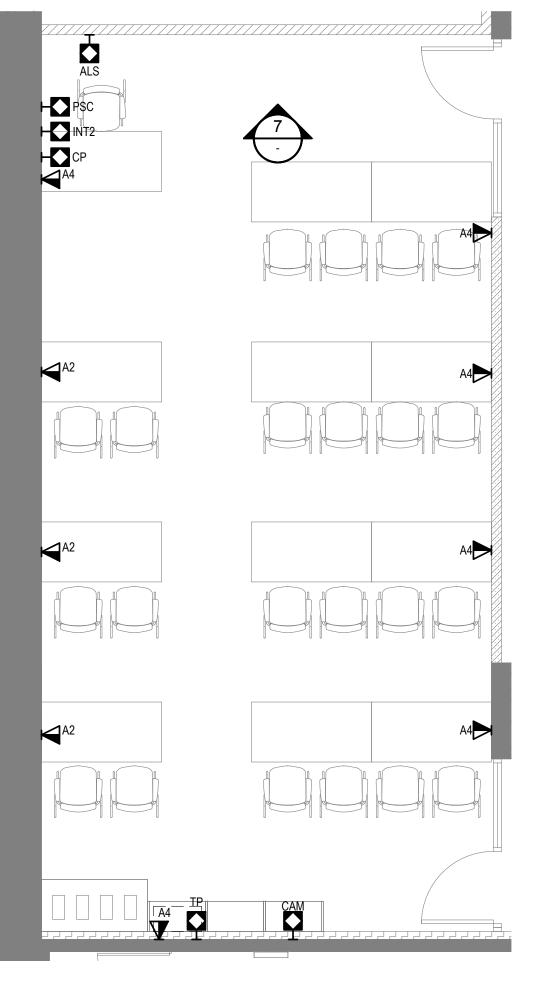
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DATE: 3/31/2017

PROJECT NO.:

T4.16





REFLECTED CEILING PLAN -FLOOR PLAN -TRAINING/LARGE CONFERENCE 215 TRAINING/LARGE CONFERENCE 215 (1) 1" CONDUIT -(2) 1 1/4" CONDUIT — (1) 1" CONDUIT — (1) 1" CONDUIT CAMERA INTERFACE INTERFACE PLATE - CONTROL PANEL TERMINAL PANEL — PATHWAYS ELEVATION -**DISPLAY ELEVATION -**TRAINING/LARGE CONFERENCE 215 TRAINING/LARGE CONFERENCE 215 SCALE: 1/2"=1'0"

SHEET NOTES

- COORDINATE FLOOR BOX AND FEED POINT LOCATIONS WITH ARCHITECTURAL AND ELECTRICAL
- FIRESTOP PENETRATIONS (SLEEVES AND CONDUITS) THROUGH RATED WALLS AND FLOORS TO MATCH WALL RATING AS REGULATION REQUIRES.
- REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF TECHNOLOGY SYSTEMS
- LABEL PATHWAYS AT BOTH ENDS. LABEL MUST INDICATE PATHWAY'S DEDICATED USE FOR TECHNOLOGY SYSTEMS CABLING AND LOCATION OF THE PATHWAY'S FAR END.
- PROVIDE KNOCK-ON BUSHINGS ON PATHWAY AND SLEEVE ENDS.
- PROVIDE BLANK COVER PLATE ON ELECTRICAL BOXES INTENDED FOR FUTURE AUDIOVISUAL CONTROL OR INTERFACE.





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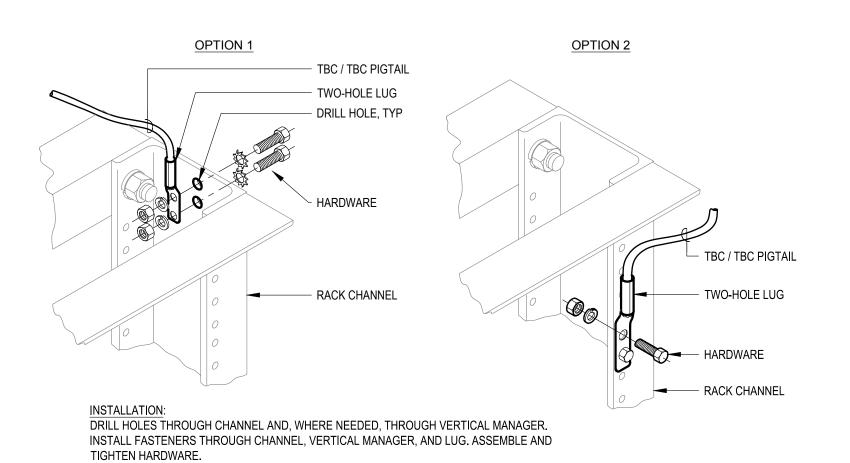
PROJECT NO.:

T4.17

REQUIREMENT:
PROVIDE BONDING STRAP OR TBC CORD BETWEEN SECTIONS AT EACH JUNCTION.

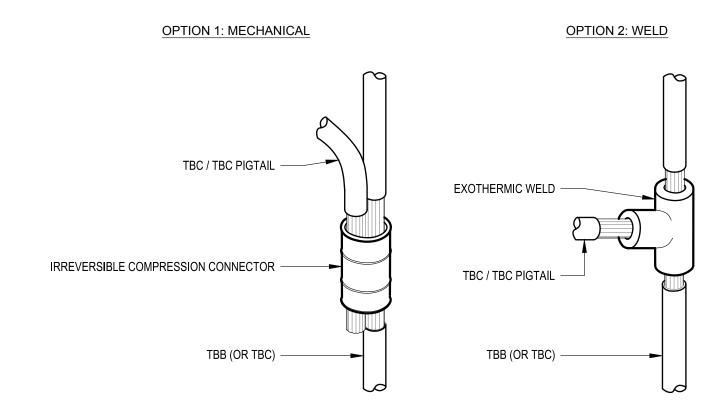
RUNWAY BONDING CONNECTIONS

SCALE: NON



EQUIPMENT RACK BONDING CONNECTION

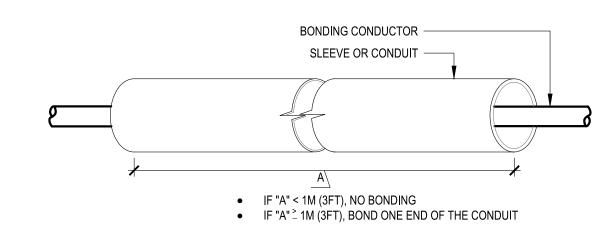
SCALE: NONE



CONDUCTOR-TO-CONDUCTOR CONN.

SCALE: NONE

BONDING REQUIREMENT, WHEN ROUTING BONDING CONDUCTORS THROUGH SLEEVES/CONDUITS



GROUND BUSHING CONDUCTOR CONNECTION

TBB/BONDING CONDUCTOR

CONDUIT LUG TBC/BONDING JUMPER

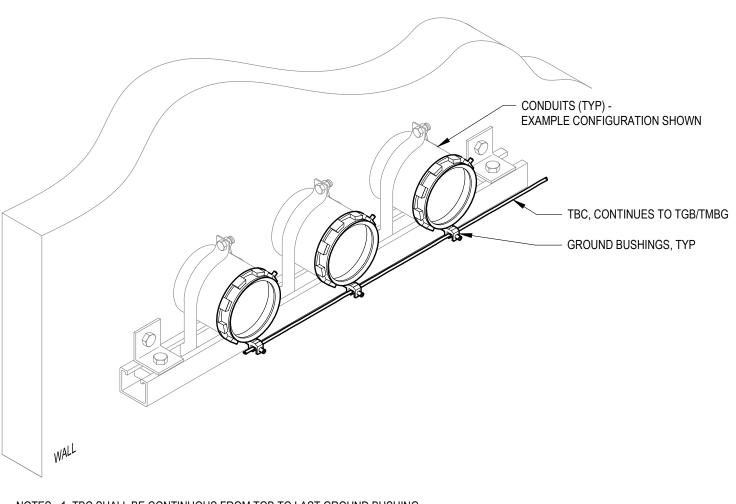
TBC, CONTINUES TO TGB/TMBG

GROUND BUSHINGS, TYP

CONDUITS (TYP)EXAMPLE CONFIGURATION SHOWN

CONFIGURATION 1: BONDING FLOOR CONDUITS IN SERIES

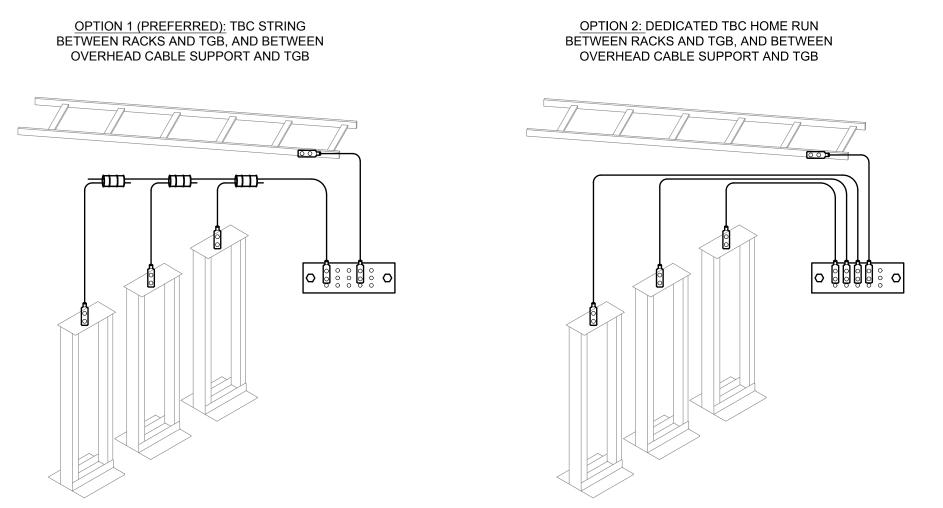
CONFIGURATION 2: BONDING WALL CONDUITS IN SERIES



NOTES: 1. TBC SHALL BE CONTINUOUS FROM TGB TO LAST GROUND BUSHING.
2. CONNECT GROUND BUSHINGS IN SERIES.
3. TRIM INSULATION AND LAY TBC INTO LUG AT EACH BUSHING.
4. REFER TO PATHWAYS DIAGRAM FOR CONDUIT SIZES AND QUANTITIES.
5. REFER TO ROOM PLANS FOR CONDUIT LOCATIONS.

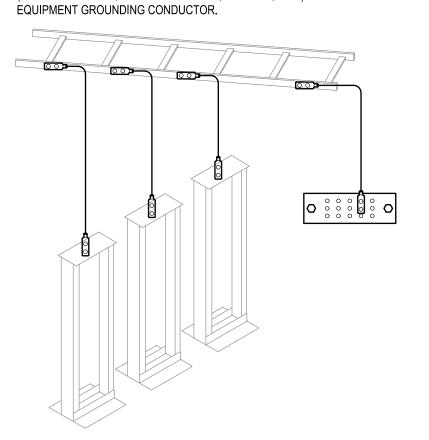
CONDUIT AND SLEEVE BONDING REQUIREMENTS AND CONFIGURATIONS

SCALE: NONE



OPTION 3: SERIES VIA OVERHEAD CABLE SUPPORT

NOTE: THIS CONFIGURATION REQUIRES THE OVERHEAD CABLE SUPPORT SYSTEM (TRAY OR RUNWAY, SPLICE JUNCTIONS, FITTINGS, ETC.) BE UL LISTED AS AN



THESE APPROVED CONFIGURATIONS APPLY TO EQUIPMENT RACKS AND IT CABINETS, AND TO CABLE TRAY AND RUNWAY (AS OVERHEAD CABLE SUPPORT)

EQUIPMENT RACK BAY AND OVERHEAD CABLE SUPPORT BONDING CONFIGURATIONS

DOME NONE

393 13TF

BID SET

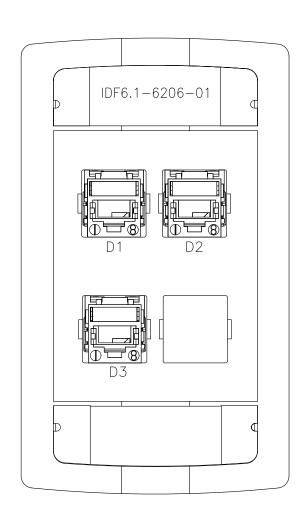
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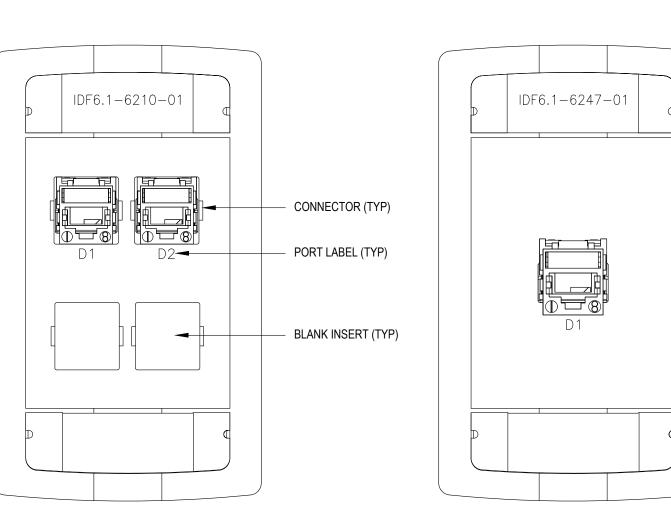
DATE: 3/31/2017

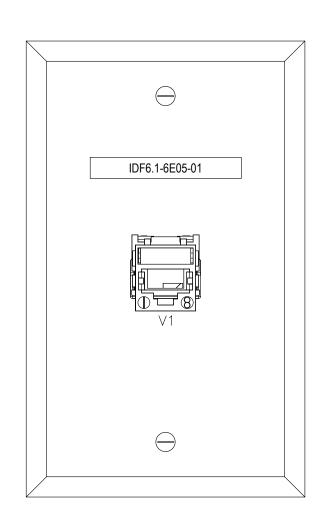
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PROJECT NO.: 1203.2

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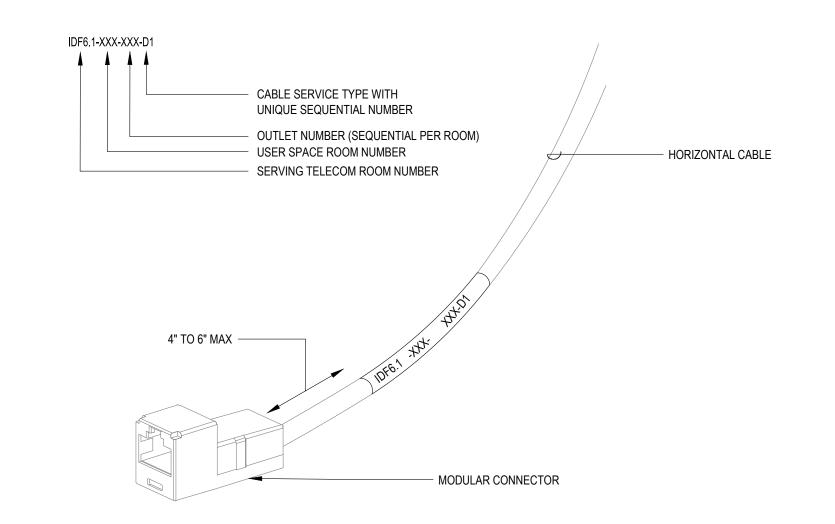




2. NOT ALL FACEPLATE CONFIGURATION SHOW HERE. FOLLOWS SAME LABELING FORMAT FOR FACEPLATES NOT SHOWN.

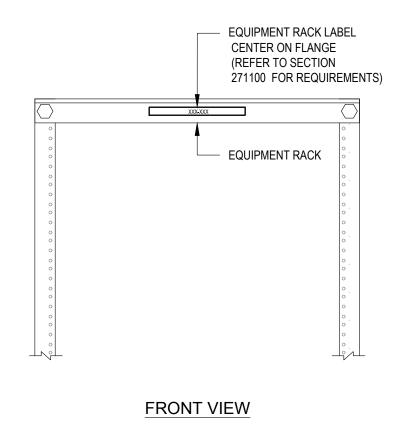
NOTES: 1. ROOM NUMBER SHOWN HERE AS EXAMPLE. REFER TO ARCHITECTURAL PLANS FOR PROJECT ROOM NUMBERS.

LABELING - OUTLET FACEPLATES

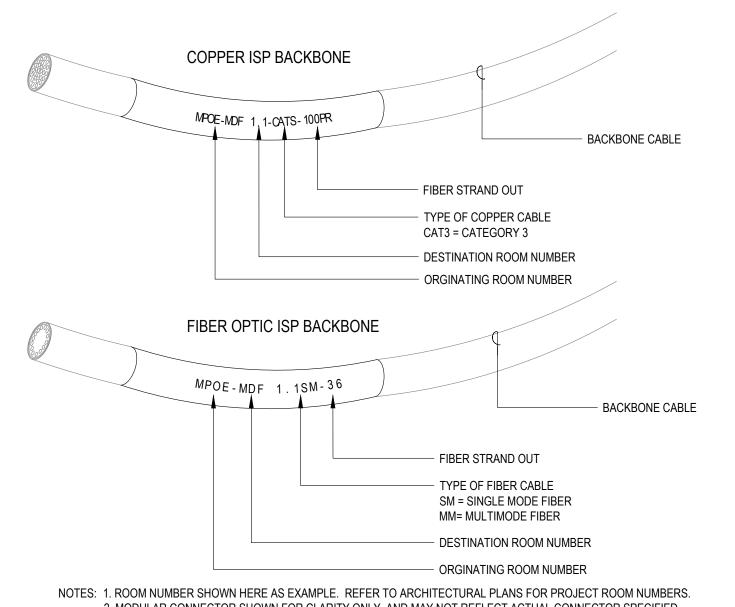


NOTES: 1. ROOM NUMBER SHOWN HERE AS EXAMPLE. REFER TO ARCHITECTURAL PLANS FOR PROJECT ROOM NUMBERS. 2. MODULAR CONNECTOR SHOWN FOR CLARITY ONLY, AND MAY NOT REFLECT ACTUAL CONNECTOR SPECIFIED FOR

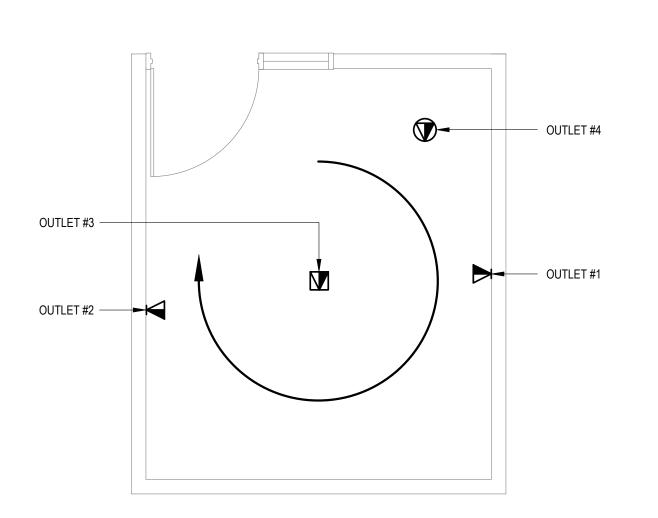
LABELING - HORIZONTAL CABLE



LABLING - EQUIPMENT RACK



2. MODULAR CONNECTOR SHOWN FOR CLARITY ONLY, AND MAY NOT REFLECT ACTUAL CONNECTOR SPECIFIED FOR THIS PROJECT. LABELING - CABLE FORMAT (BOTH ENDS)



NOTES: 1. SEQUENTIAL OUTLET NUMBER TO START CLOCKWISE FROM DOOR STARTING WITH WALL OUTLETS, THEN FLOOR BOXES, THEN CEILING OUTLETS. 2. ROOM PLAN SHOWN HERE AS EXAMPLE.

LABELING - ROOM OUTLET ORIENTATION



(E)

S INSTALLATION DETAIL TELECOM

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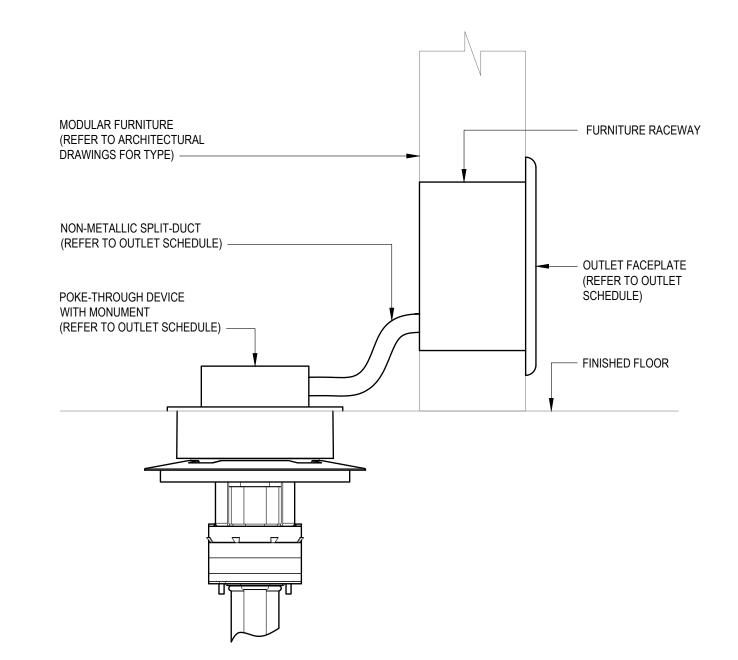
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PROJECT NO.: 1203.22

TYPICAL OUTLET RING N' STRING, FRAMED WALL

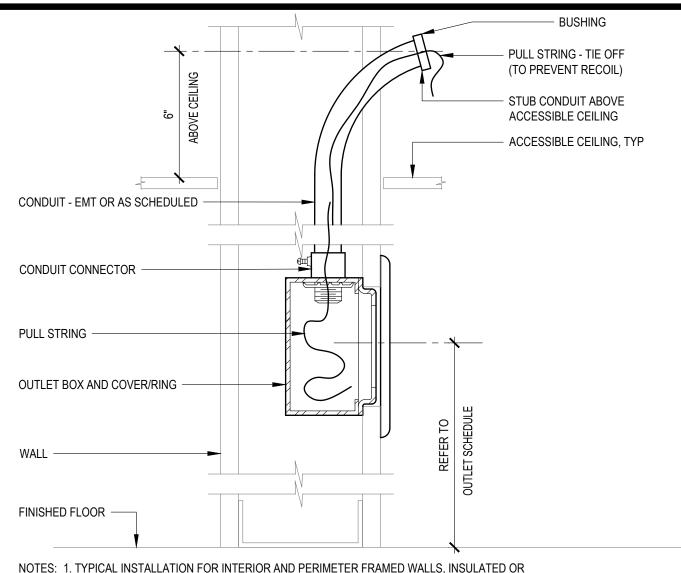
SCALE: NO



NOTE: 1. POKE-THROUGH DEVICE SHOWN FOR REFERENCE ONLY. DEVICE TYPE MAY VARY.

OUTLET - POKE THROUGH TO FURNITURE FEED

SCALE: NO

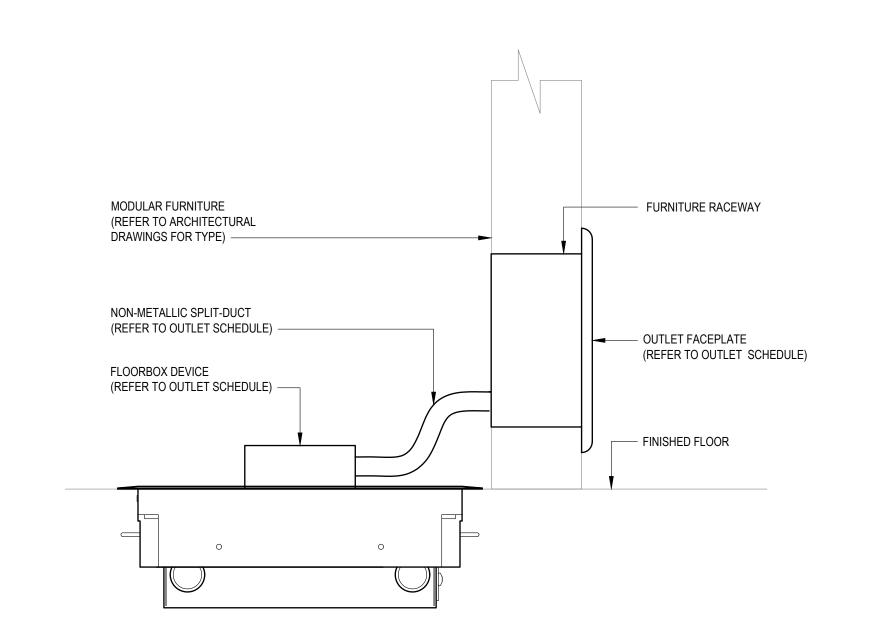


NOTES: 1. TYPICAL INSTALLATION FOR INTERIOR AND PERIMETER FRAMED WALLS, INSULATED OR NON-INSULATED.

2. STUB CONDUIT ABOVE ACCESSIBLE CEILING.
3. REFER TO OUTLET SCHEDULE FOR OUTLET BOX, COVER/RING, CONDUIT REQUIREMENTS.

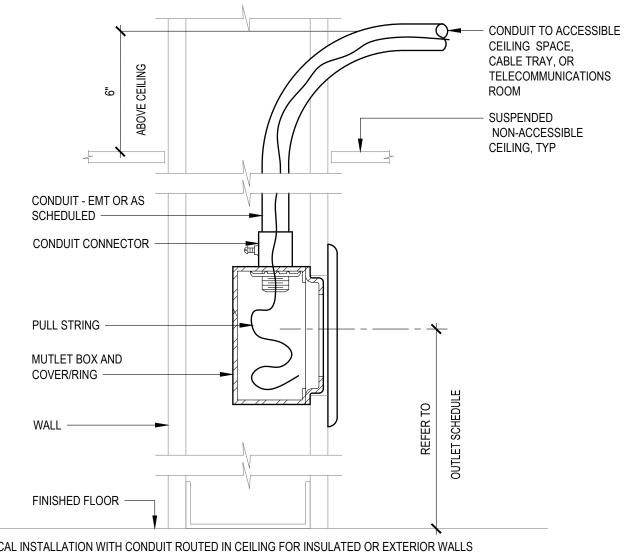
OUTLET - WALL, ACCESSIBLE CEILING

SCALE: NONE



OUTLET - FLOOR BOX TO FURNITURE FEED

NONE



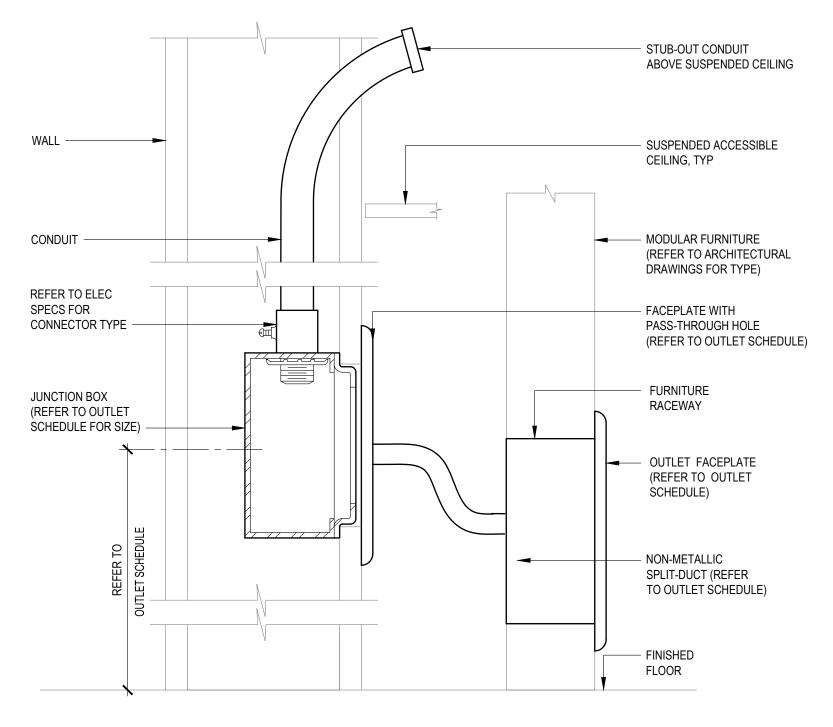
NOTES: 1. TYPICAL INSTALLATION WITH CONDUIT ROUTED IN CEILING FOR INSULATED OR EXTERIOR WALLS UNLESS OTHERWISE SHOWN ON PLANS.

2. WORK BY EC EXCEPT WHERE NOTED.

3. REFER TO OUTLET SCHEDULE FOR BOX, CONDUIT, AND RING SIZES.

TYPICAL OUTLET ROUGH-IN, FRAMED WALL

SCALE: NONE



OUTLET - FLOOR TO FURNITURE FEED

LE: NONE

KOMOROUS-TOW

A R C H I T E C T

A 10 TWELFTH STREET, SUITE 30

OAKLAND, CA 94612

Ph: 510.446.2244 Fx: 510.446.224

TEECOM
1333 Broadway, Suite 601
0akland, CA 94612
510-337-2800
510-337-2804 fax

STALLATION DETAILS TELECOM

TD HEADQUARTERS 393 13TH STREET OAKLAND, CA 94612

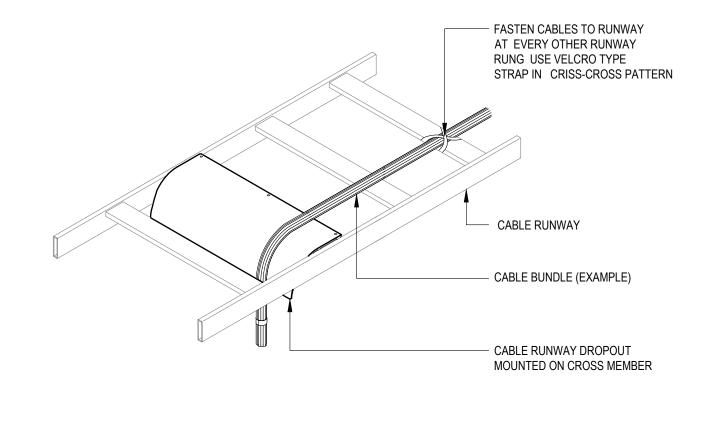
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PROJECT NO.: 1203.2

T5.03

2. REFER TO ROOM PLANS AND DETAILS FOR CABLE RUNWAY SIZE AND LOCATION. 3. REFER TO ROOM PLANS AND DETAILS FOR SLEEVE/CONDUIT SIZES AND QUANTITIES. 4. REFER TO ARCHITECTURAL DRAWINGS FOR WALL AND DECK TYPE. SHOWN HERE FOR CLARITY ONLY.

THROUGH FLOOR ROUTING



NOTES: 1. REFER TO ROOM PLANS AND DETAILS FOR CABLE RUNWAY SIZE AND INSTALLATION HEIGHTS. 2. MATCH DROPOUT WIDTH TO CABLE RUNWAY CROSS MEMBER WIDTH. 3. PROVIDE A DROPOUT WHENEVER CABLES TRANSITION DOWNWARD OFF OF RUNWAY.

RUNWAY DROP OUT

CONSTRUCTION CHANNEL

CHANNEL SUPPORT INCL. ANGLE BRACKET, SCREWS, CONCRETE ANCHOR,

SPRING NUT (TYP FOR 2)

SLEEVES OR CONDUITS

CONDUIT STRAPS, TYP

- FIRESTOP MATERIAL, TYP

- CORE BASED ON

CONDUIT/SLEEVE SIZE, TYP

DECK/FLOOR

NOTES: 1. REFER TO PATHWAYS RISER DIAGRAM SLEEVES/CONDUITS SIZE AND QUANTITY.

3. REFER TO FIRESTOP DETAILS FOR DECK PENETRATION AND RISER SLEEVE/CONDUIT FIREPROOFING.

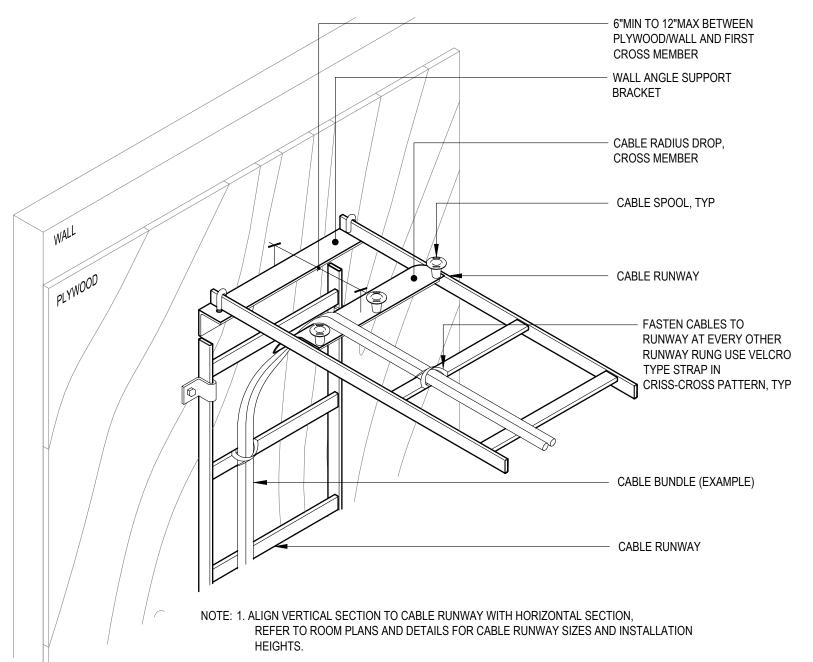
5. REFER TO ARCHITECTURAL DRAWINGS FOR WALL AND DECK TYPE. SHOWN HERE FOR CLARITY ONLY.

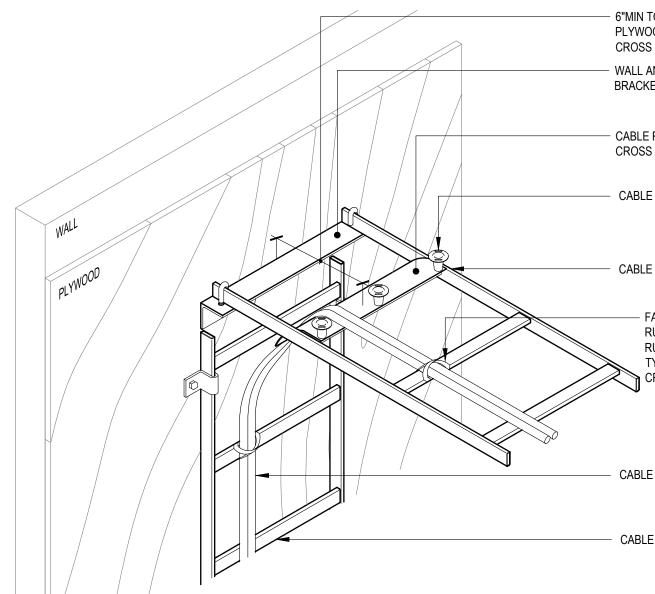
2. REFER TO ROOM PLANS FOR RISER SLEEVES/CONDUITS LOCATION.

4. BUSH AND SUPPORT SLEEVES/CONDUITS AT BOTH ENDS.

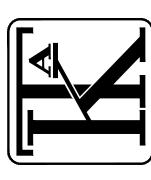
RISER CONDUIT CORES

WITH BUSHINGS THROUGH, TYP





VERT. TO HORIZ. TRANSITION



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BID SET

REVISIONS

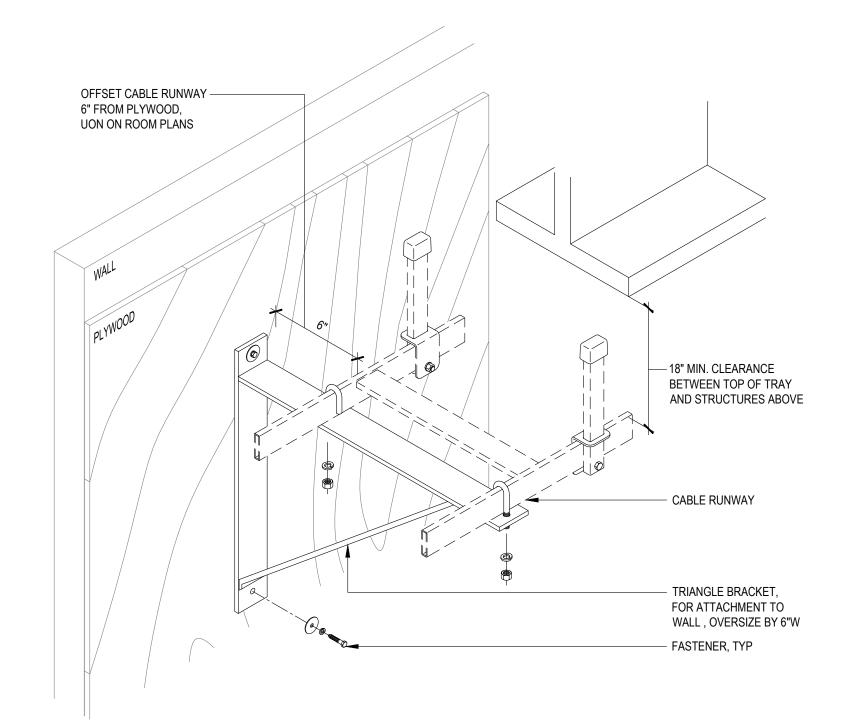
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DRAWN BY: PROJECT NO.: 1203.22

NOTES: 1. REFER TO ROOM PLANS AND DETAILS FOR CABLE RUNWAY SIZE AND INSTALLATION HEIGHTS. 2. SECURE VERTICAL WALL BRACKET TO PLYWOOD USING APPROPRIATE FASTENERS. 3. REFER TO ARCHITECTURAL DRAWINGS FOR WALL TYPE. SHOWN HERE FOR CLARITY ONLY.

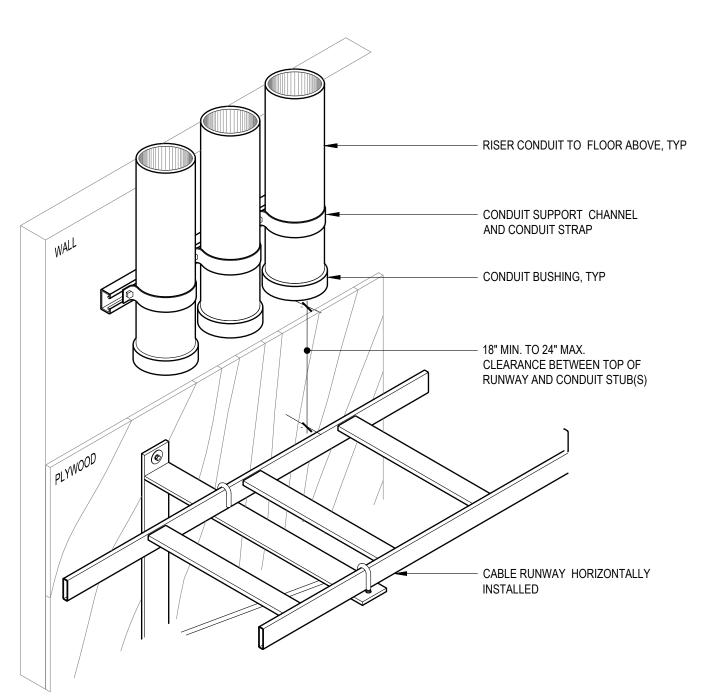
VERTICAL RUNWAY BRACING



NOTES: 1. REFER TO ROOM PLANS AND DETAILS FOR CABLE RUNWAY SIZE AND INSTALLATION HEIGHTS. 2. SECURE TRIANGLE BRACKET TO PLYWOOD USING APPROPRIATE FASTENERS. 3. REFER TO ARCHITECTURAL DRAWINGS FOR WALL TYPE. SHOWN HERE FOR CLARITY ONLY.

RUNWAY BRACING

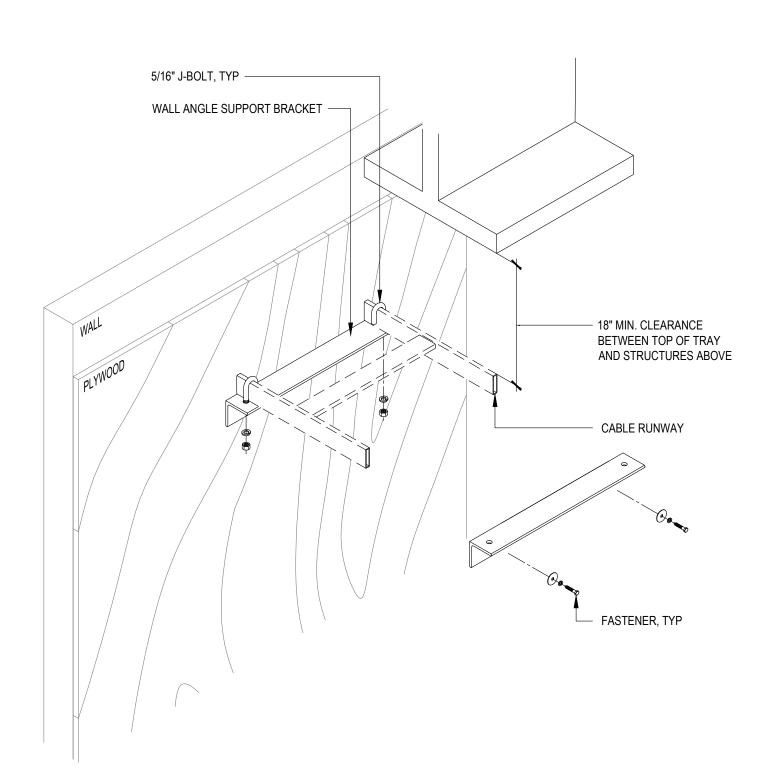




NOTES: 1. REFER TO ROOM PLANS AND DETAILS FOR CABLE RUNWAY SIZE AND INSTALLATION HEIGHT. 2. REFER TO ROOM PATHWAYS RISER DIAGRAM FOR RISER CONDUITS SIZE AND QUANTITY. 3. REFER TO ADDITIONAL ROOM DETAILS FOR CABLE RUNWAY MOUNTING REQUIREMENTS, MOUNTING SHOWN HERE AS EXAMPLE.

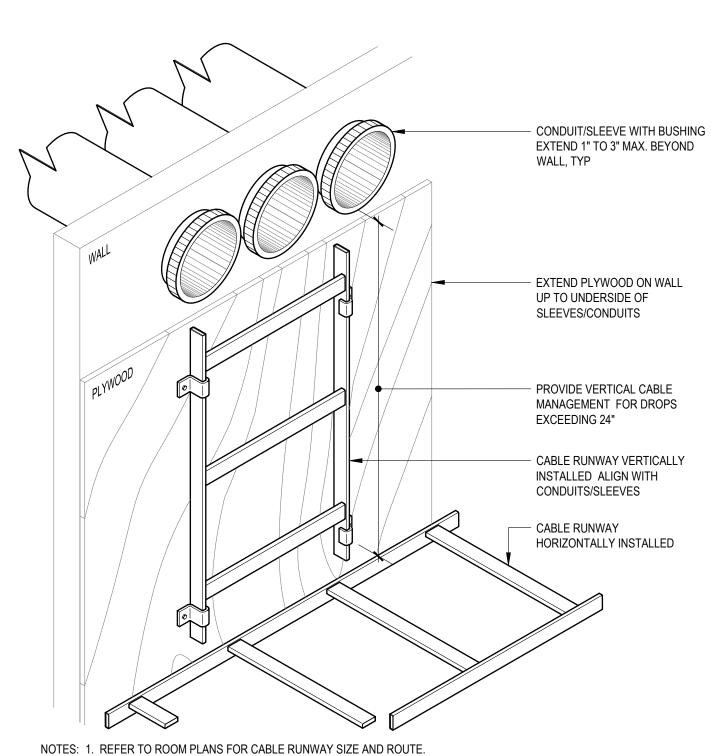
4. REFER TO FIRESTOP DETAILS FOR APPLICABLE FIREPROOFING OF RISER CONDUITS.5. REFER TO ARCHITECTURAL DRAWINGS FOR WALL TYPE. SHOWN HERE FOR CLARITY ONLY.

RISER CONDUITS TO RUNWAY



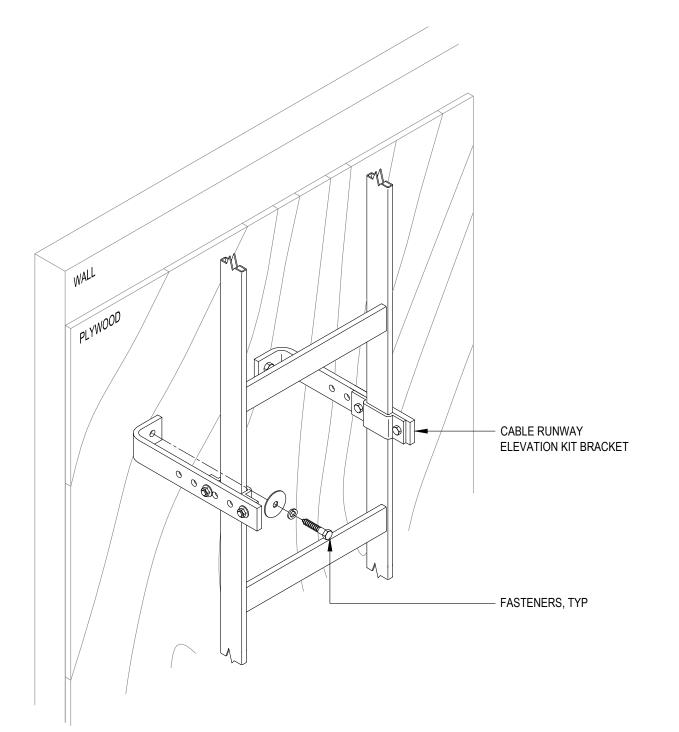
NOTES: 1. REFER TO ROOM PLANS AND DETAILS FOR CABLE RUNWAY SIZE AND INSTALLATION HEIGHTS. 2. SECURE WALL ANGLE BRACKET TO PLYWOOD USING APPROPRIATE FASTENERS. 3. REFER TO ARCHITECTURAL DRAWINGS FOR WALL TYPE. SHOWN HERE FOR CLARITY ONLY.

RUNWAY BRACING



2. REFER TO ROOM PLANS FOR SLEEVE/CONDUITS SIZE, QUANTITY, AND ROUTE. 3. REFER TO ADDITIONAL ROOM INSTALLATION DETAILS FOR CABLE RUNWAY MOUNTING REQUIREMENTS. 4. REFER TO FIRESTOP DETAILS FOR CONDUIT/SLEEVE WALL PENETRATION FIREPROOFING. 5. REFER TO ARCHITECTURAL DRAWINGS FOR WALL TYPE. SHOWN HERE FOR CLARITY ONLY.

CONDUIT TO RUNWAY



1. REFER TO ROOM PLANS AND DETAILS FOR CABLE RUNWAY SIZE AND INSTALLATION HEIGHTS. SECURE WALL ANGLE BRACKET TO PLYWOOD USING APPROPRIATE FASTENERS.
 REFER TO ROOM PLANS AND DETAILS FOR OFFSET BRACKET REQUIRED. 4. REFER TO ARCHITECTURAL DRAWINGS FOR WALL TYPE. SHOWN HERE FOR CLARITY ONLY.

VERTICAL RUNWAY BRACING



REVISIONS

BID SET

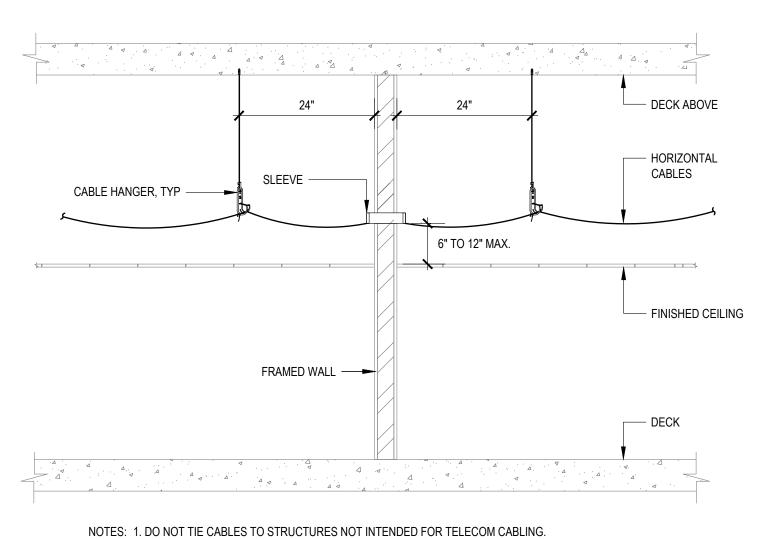
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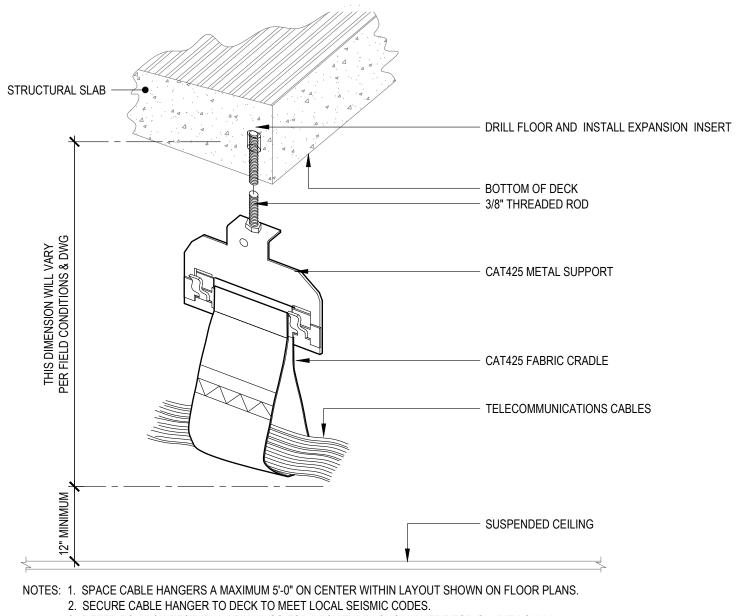
NOTES: 1. SPACE CABLE HANGERS A MAXIMUM 5'-0" ON CENTER WITHIN LAYOUT SHOWN ON FLOOR PLANS. 2. SECURE CABLE HANGER TO DECK USING APPROPRIATE FASTENERS TO MEET LOCAL SEISMIC CODES. 3. REFER TO ARCHITECTURAL DRAWINGS FOR DECK TYPE. SHOWN HERE FOR CLARITY ONLY. 4. REFER TO ARCHITECTURAL DRAWINGS FOR SUSPENDED CEILING TYPE. SHOWN HERE FOR CLARITY ONLY.

CABLE HANGER - WIRE SUPPORTED



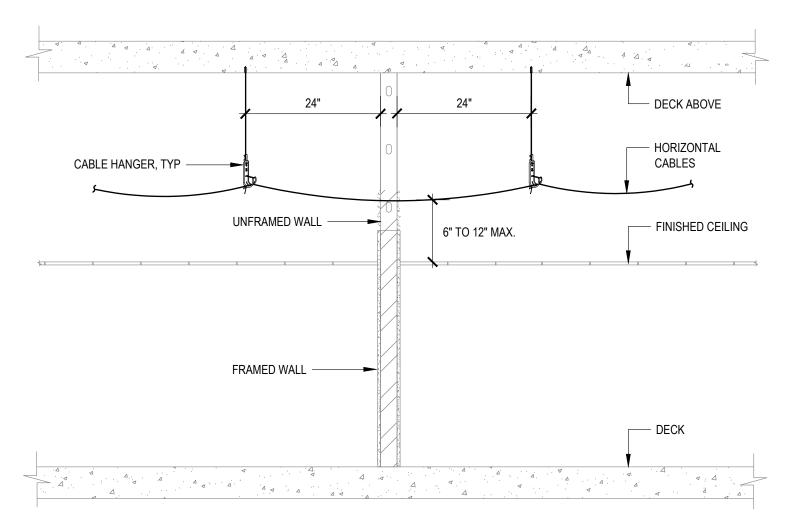
2. REFER TO ARCHITECTURAL DRAWINGS FOR WALL AND CEILING TYPES. 3. SIZE SLEEVE BASED ON QUANTITY OF CABLE PLUS 50% SPARE CAPACITY. 4. PROVIDE BUSHING ON CONDUIT AND SLEEVE ENDS. 5. PROVIDE CABLE RETAINING CLIP ON CABLE HANGERS.

CABLE ROUTE FULL HEIGHT WALL



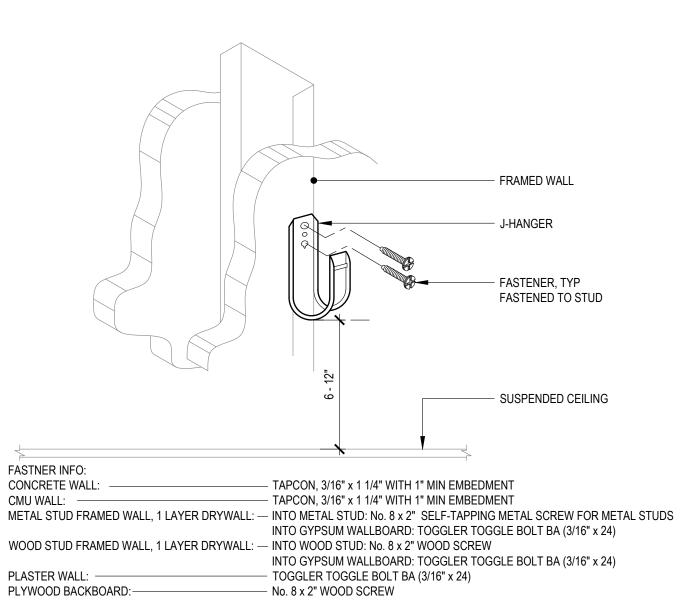
REFER TO ARCHITECTURAL DRAWINGS FOR DECK TYPE. SHOWN HERE FOR CLARITY ONLY.
 REFER TO ARCHITECTURAL DRAWINGS FOR SUSPENDED CEILING TYPE. SHOWN HERE FOR CLARITY ONLY.

CABLE HANGER - STRAP TYPE



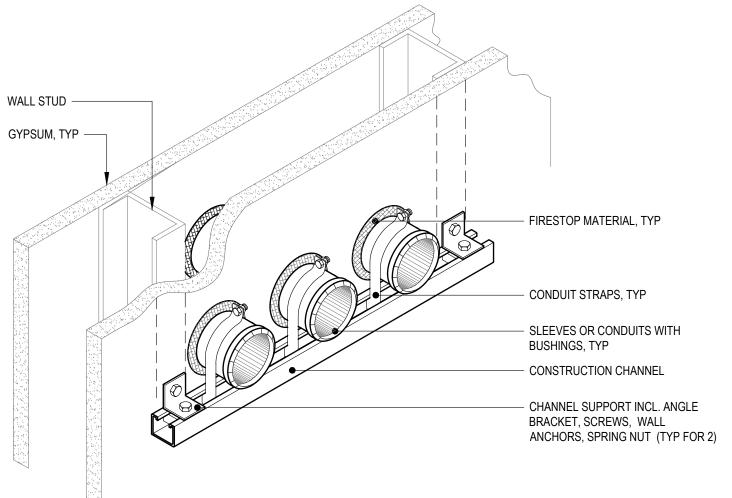
NOTES: 1. DO NOT TIE CABLES TO STRUCTURES NOT DESIGNED FOR TELECOM CABLING. 2. CABLES SHALL NOT TOUCH WALL. 2. REFER TO ARCHITECTURAL DRAWINGS FOR WALL AND CEILING TYPES. 3. PROVIDE CABLE RETAINING CLIP ON CABLE HANGERS.

CABLE ROUTING HALF HEIGHT WALL



CABLE HANGER - WALL MOUNTED

SCALE: NONE



WALL PENETRATION SUPPORT, TYPICAL BOTH SIDES

NOTES: 1. REFER TO PATHWAYS RISER DIAGRAM SLEEVES/CONDUITS SIZE AND QUANTITY. 2. REFER TO ROOM PLANS FOR RISER SLEEVES/CONDUITS LOCATION. 3. REFER TO FIRESTOP DETAILS FOR WALL PENETRATION AND SLEEVE/CONDUIT FIREPROOFING. 4. BUSH AND SUPPORT SLEEVES/CONDUITS AT BOTH SIDES OF THE WALL.

5. REFER TO ARCHITECTURAL DRAWINGS FOR WALL TYPE. SHOWN HERE FOR CLARITY ONLY.

CONDUIT PENETRATION SUPP.



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5. MAINTAIN FIRE RATING OF PARTITION BEING PENETRATED. 6. REFER TO ARCHITECTURAL DRAWINGS FOR WALL AND CEILING TYPE (SHOWN HERE FOR CLARITY ONLY). CONDUIT TO BASKET TRAY

NOTES: 1. ALIGN SLEEVES/CONDUITS WITH HORIZONTAL SECTION OF CABLE BASKET.

3. WALL TERMINATION BRACKET MAY DIFFER BETWEEN MANUFACTURERS (EXAMPLE ONLY).

4. REFER TO FLOOR PLANS FOR SLEEVES/CONDUITS SIZE, QUANTITY, AND ROUTING.

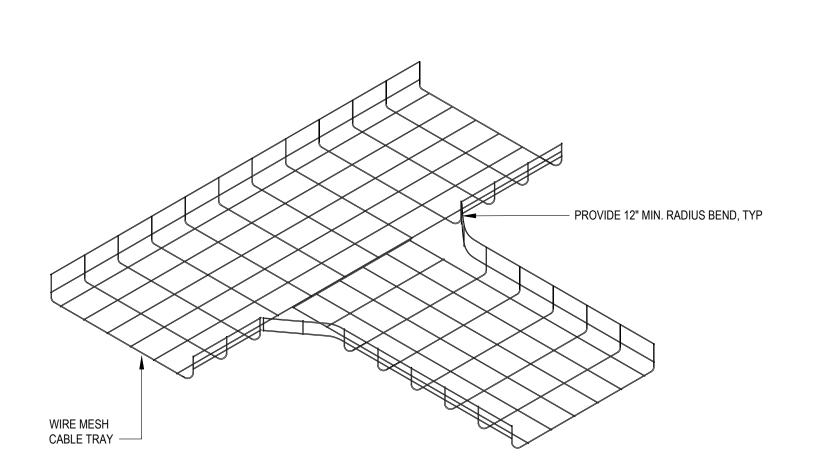
2. REFER TO FLOOR PLANS FOR CABLE BASKET SIZE AND ROUTING.

THREADED ROD ANCHORED TO STRUCTURE ABOVE (SIZED FOR STRUCTURAL SUPPORT) WIRE MESH CABLE TRAY TRAPEZE CHANNEL - 6" BETWEEN TOP OF CEILING AND BOTTOM OF CABLE TRAY

NOTES: 1. REFER TO PLANS FOR CABLE TRAY SIZE(S) AND ROUTING. 2. TRAPEZE SUPPORT BRACKET MAY VARY. SHOWN HERE AS EXAMPLE ONLY. 3. DETERMINE SPAN BETWEEN CABLE BASKET SUPPORTS ACCORDING TO MANUFACTURER'S REQUIREMENTS OR GUIDELINES AND LOCAL SEISMIC CODES. 4. ALSO DETERMINE BRACING REQUIREMENTS BASED ON LOCAL SEISMIC CODES. 5. SUPPORT CABLE BASKET WITHIN 24" ON BOTH SIDES OF ANY TWO JOINED SECTIONS.

6. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPE AND HEIGHT. SHOWN HERE FOR CLARITY ONLY.

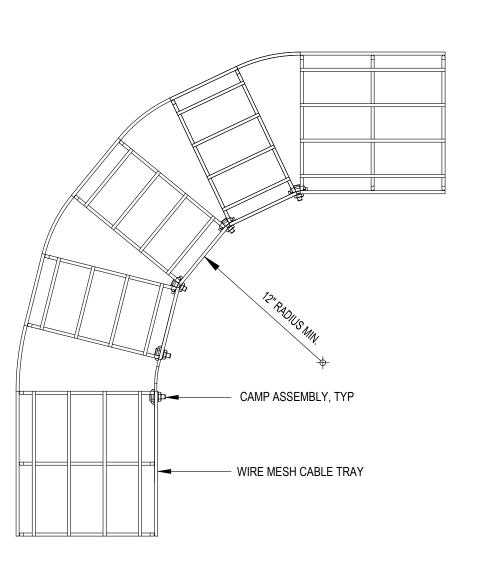
WIRE MESH CABLE TRAY TRAPEZE SUPPORT



WIRE MESH CABLE TRAY TEE INTERSECTION

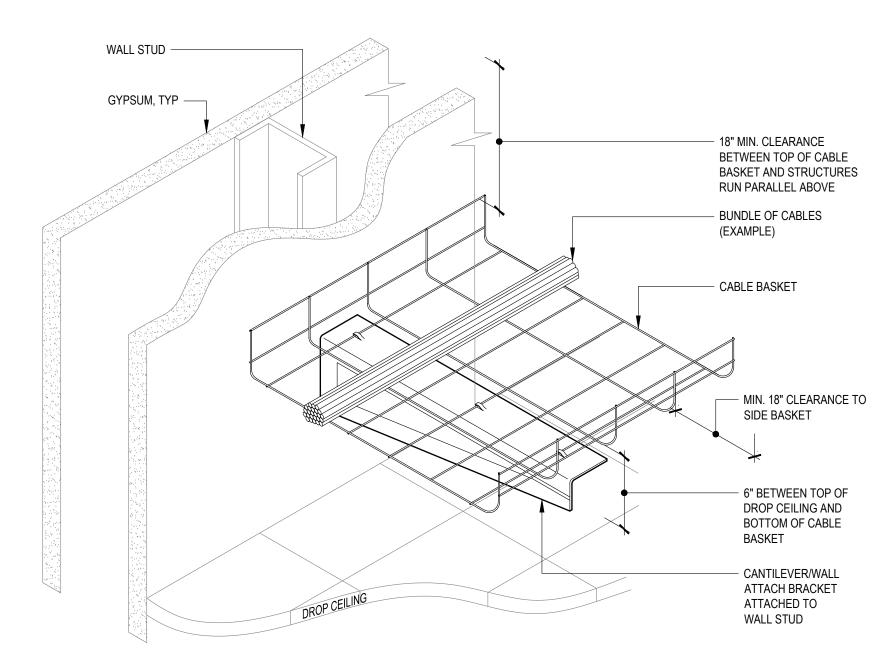
2. REFER TO MANUFACTURER INSTALLATION PROCEDURES FOR FIELD ASSEMBLY INSTRUCTIONS.

NOTES: 1. REFER TO FLOOR PLANS FOR CABLE TRAY SIZE AND ROUTE(S).



NOTES: 1. REFER TO PLANS FOR CABLE TRAY SIZE AND ROUTE. 2. REFER TO MANUFACTURER INSTALLATION PROCEDURES FOR FIELD ASSEMBLY INSTRUCTIONS. 3. CABLE TRAY ASSEMBLIES MAY DIFFER BY MANUFACTURER. SHOWN HERE AS EXAMPLE.

WIRE MESH CABLE TRAY 90 DEGREE BEND

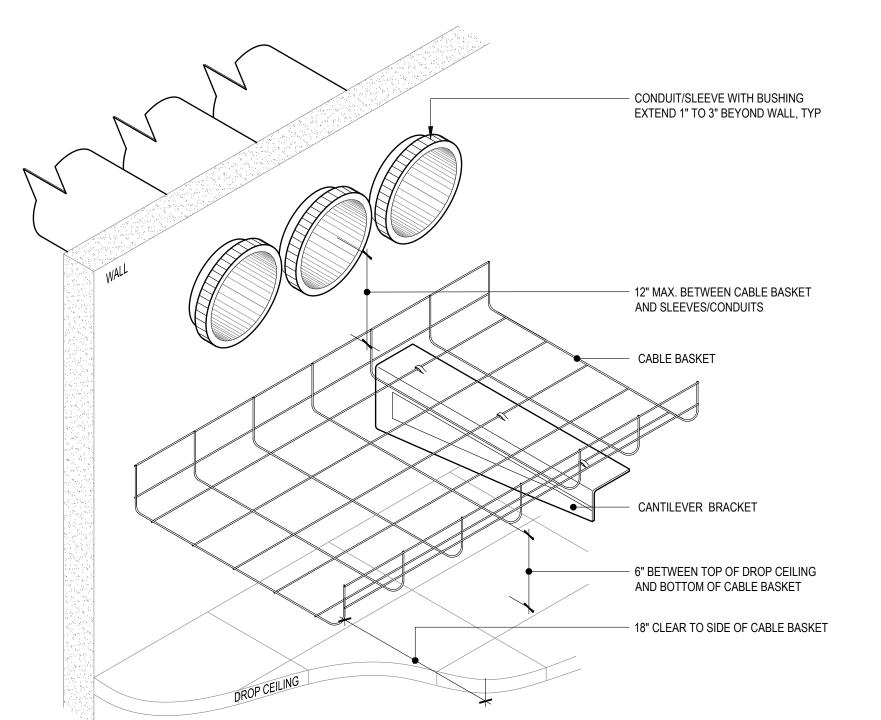


NOTES: 1. SECURE CANTILEVER BRACKET TO WALL USING FASTENERS APPROPRIATE TO STUD TYPE. 2. DETERMINE CANTILEVER BRACKET SEPARATION ACCORDING TO CABLE BASKET LOAD AND SPAN AND TYPE OF STUD. 3. ALSO DETERMINE SUPPORT REQUIREMENTS BASED ON LOCAL SEISMIC CODES. 4. SUPPORT CABLE BASKET WITHIN 24" ON BOTH SIDES OF ANY CONNECTION TO A FITTING.

6. REFER TO ARCHITECTURAL DRAWINGS FOR WALL TYPE AND CEILING TYPE. SHOWN HERE FOR CLARITY ONLY.

5. REFER TO TELECOM FLOOR PLANS FOR CABLE BASKET SIZE(S) AND ARCHITECTURAL PLANS FOR DROP CEILING HEIGHT.

BASKET WALL SUPPORT



NOTES: 1. REFER TO FLOOR PLANS FOR CABLE BASKET SIZE AND ROUTE(S). 2. REFER TO FLOOR PLANS FOR SLEEVES/CONDUITS SIZE, QUANTITY, AND ROUTING. 3. CANTILEVER BRACKET MAY DIFFER BETWEEN MANUFACTURERS. SHOWN HERE AS AN EXAMPLE. 4. REFER TO FIRESTOP DETAILS FOR CONDUIT PENETRATION FIREPROOFING. 5. REFER TO ARCHITECTURAL DRAWINGS FOR WALL TYPE AND CEILING TYPE. SHOWN HERE FOR CLARITY ONLY.

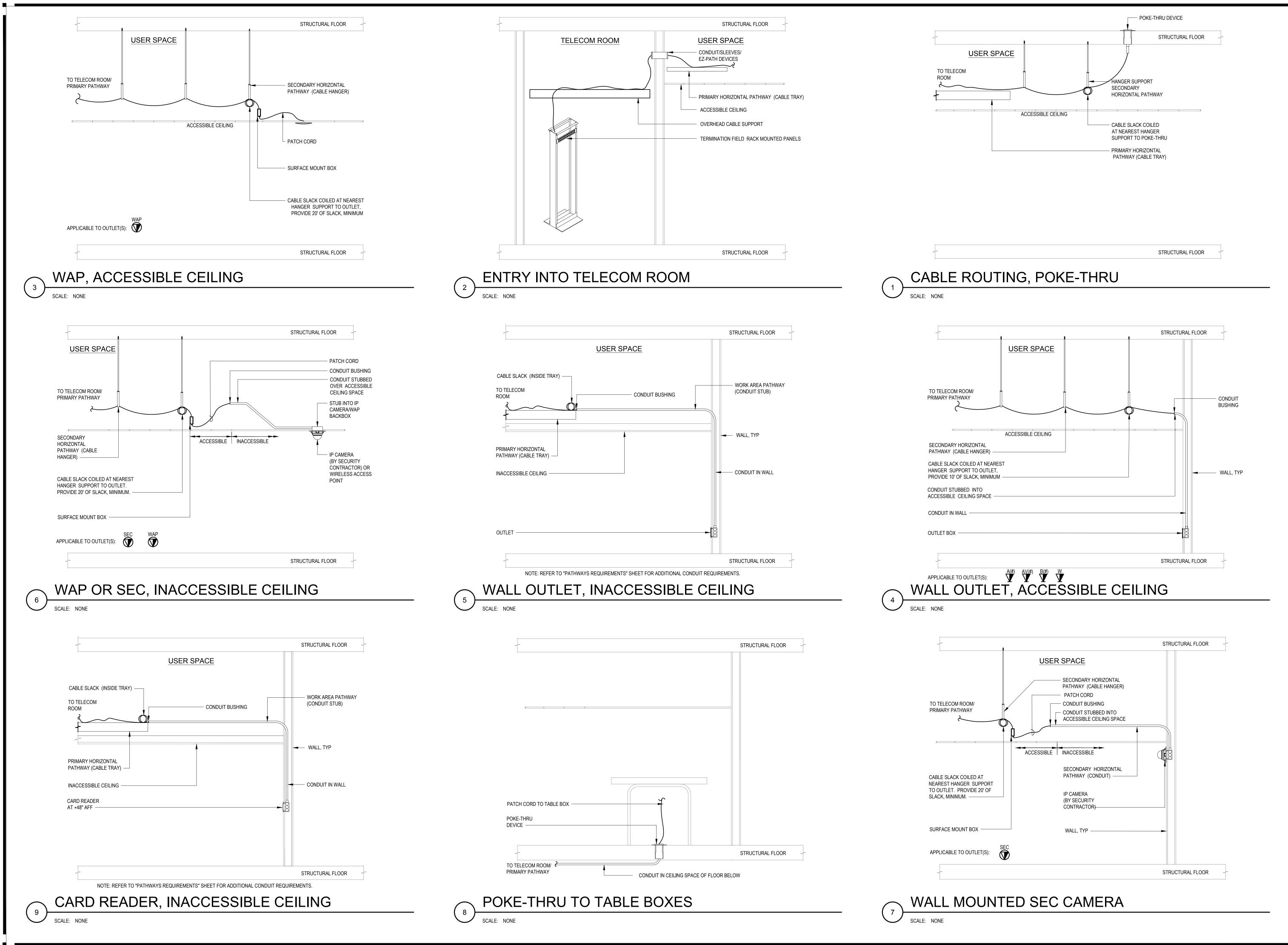
CONDUIT TO BASKET

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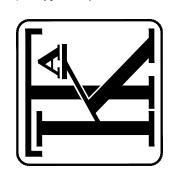
A R C H I T E C T

410 TWELFTH STREET, SUITE 300

OAKLAND, CA 94612

Ph: 510.446.2244 Fx: 510.446.2242

kta@ktarch.com www.ktarch.com



TEECOM
1333 Broadway, Suite 601
Oakland, CA 94612
510-337-2800

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INSTALLATION DETAILS TELECOM

D HEADQUARTERS 393 13TH STREET

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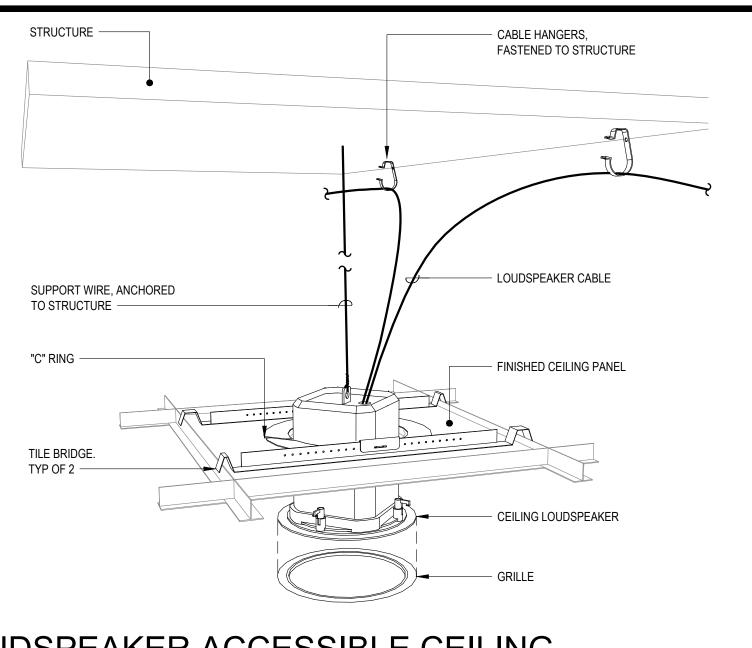
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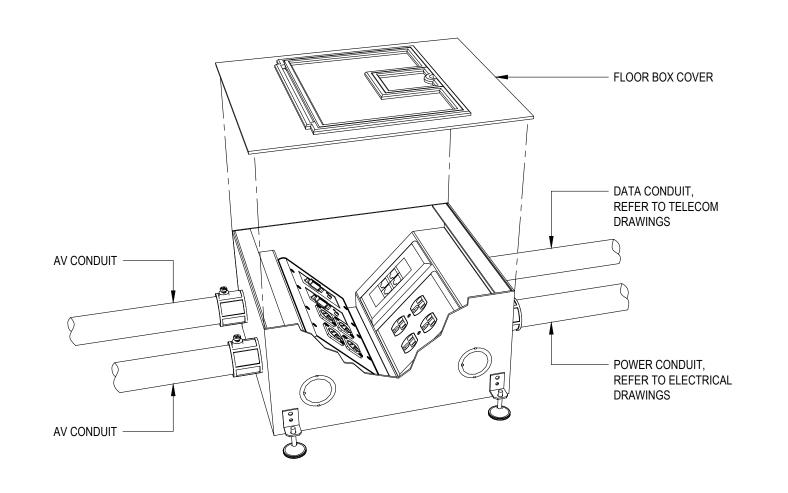
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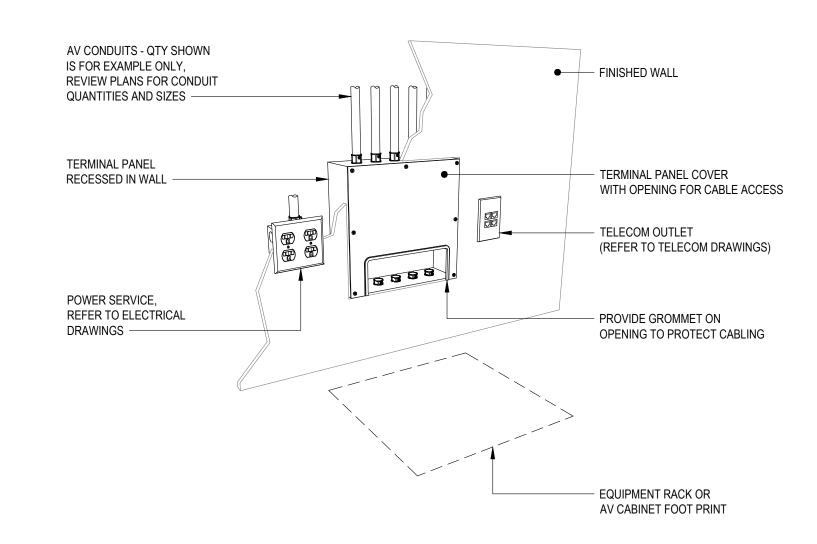


LOUDSPEAKER ACCESSIBLE CEILING

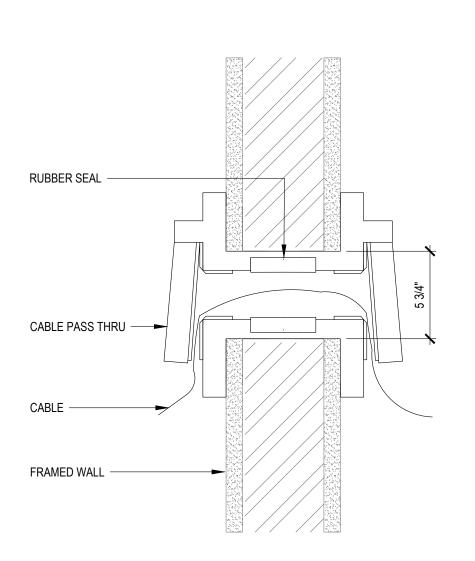


1. REFER TO AUDIOVISUAL DETAILS FOR INTERFACE PLATE LAYOUT. FLOOR BOX AND FLOOR BOX COVER MANUFACTURED BY FSR INC. WWW.FSRINC.COM



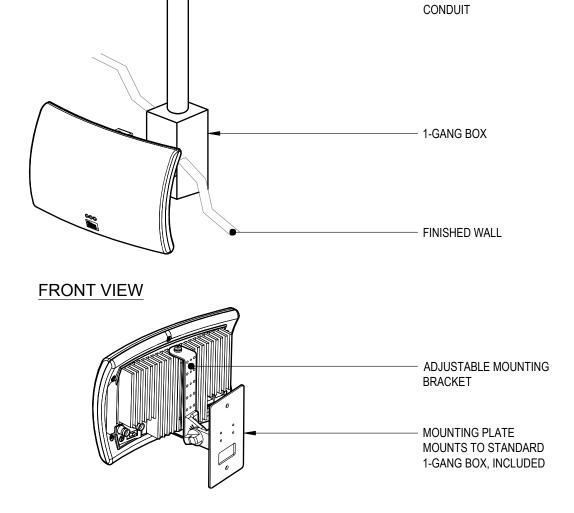


TERMINAL PANEL



MOUSE HOLE - SIDE VIEW CROSS SECTION

- AUDIO SIGNAL



REAR VIEW

ASSISTIVE LISTENING DEVICE

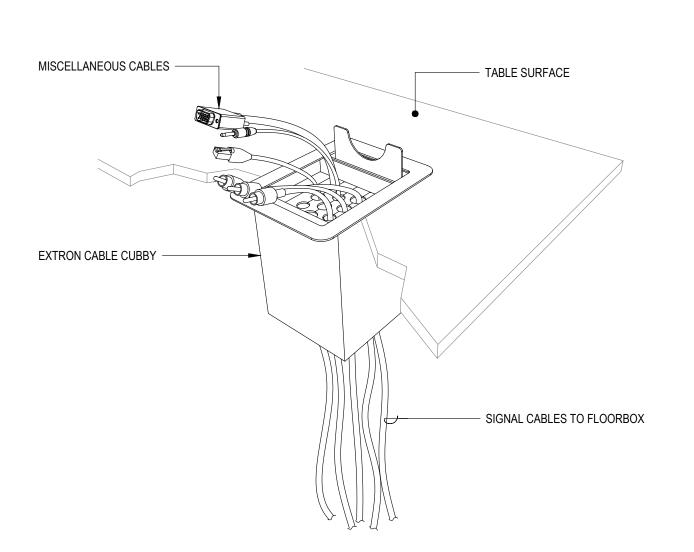
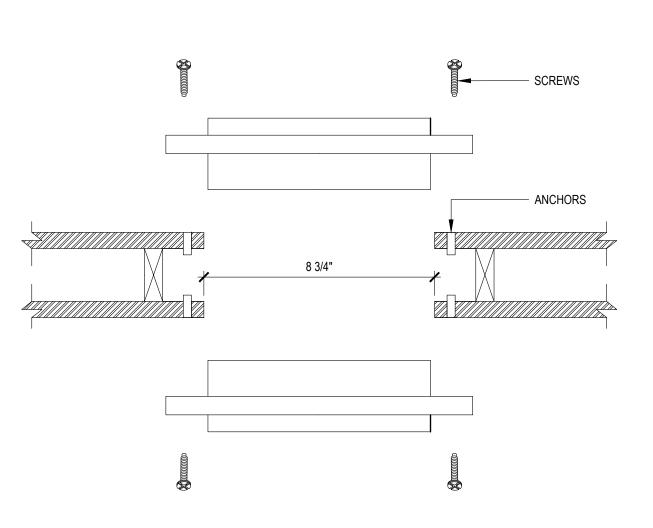
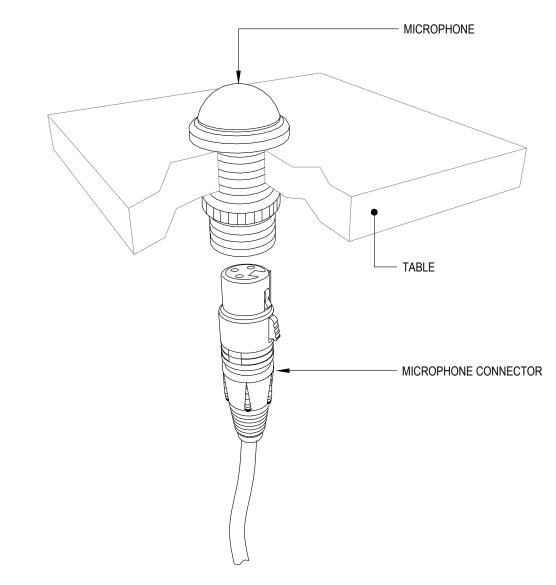


TABLE BOX

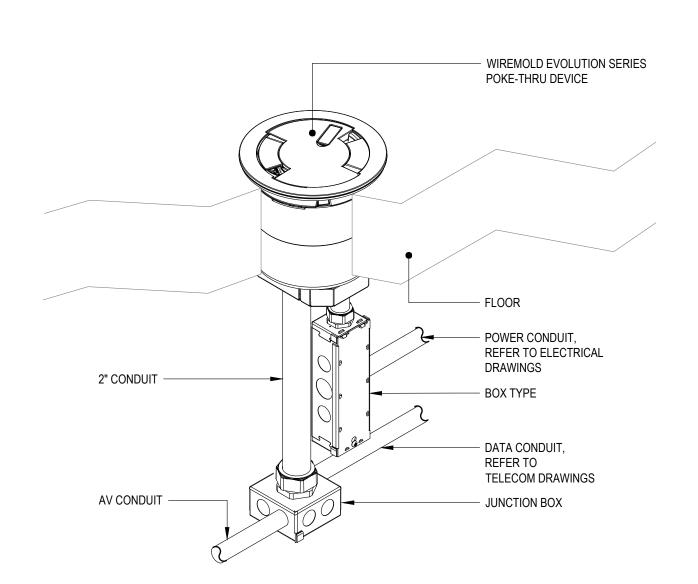


MOUSE HOLE - TOP VIEW CROSS SECTION



DRILL 1 INCH, ON CENTER, HOLE FOR MICROPHONE.
 COORDINATE QUANTITY AND SPACING DIMENSIONS WITH TABLE VENDOR.

TABLE MIC

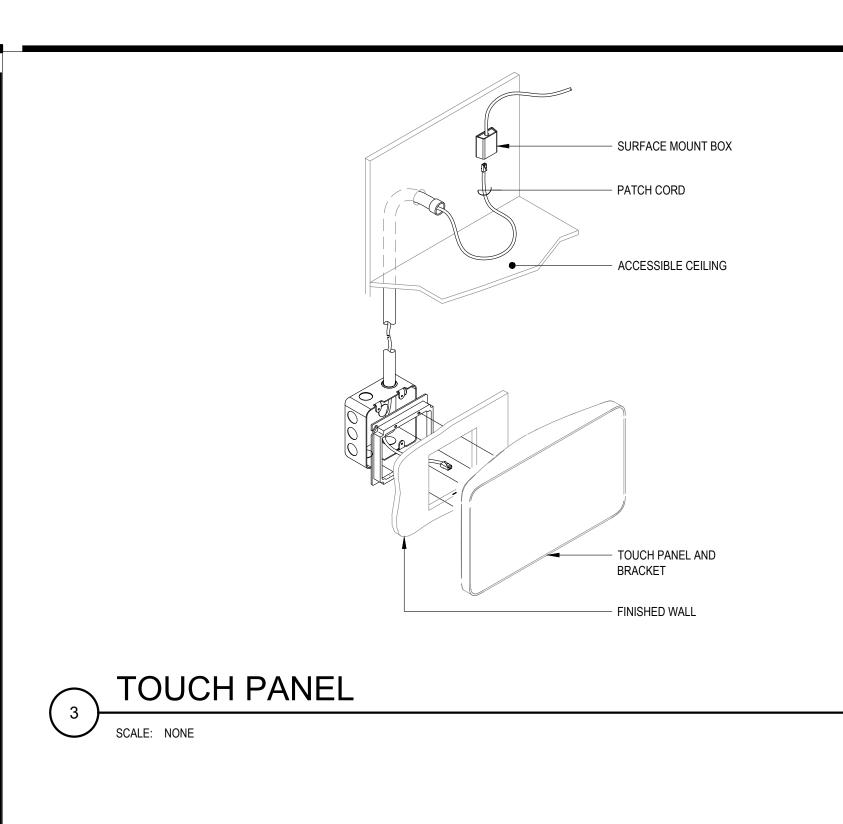


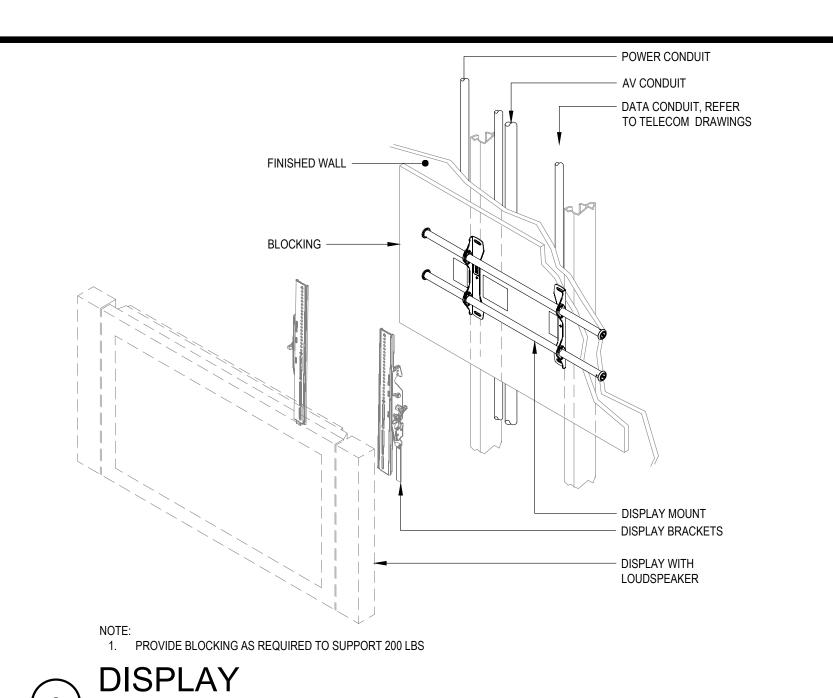
POKE-THRU DEVICE

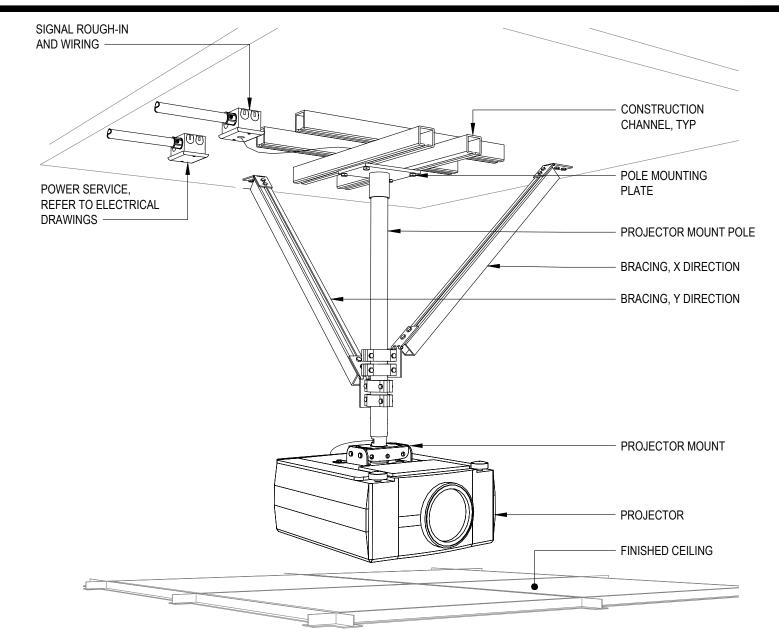
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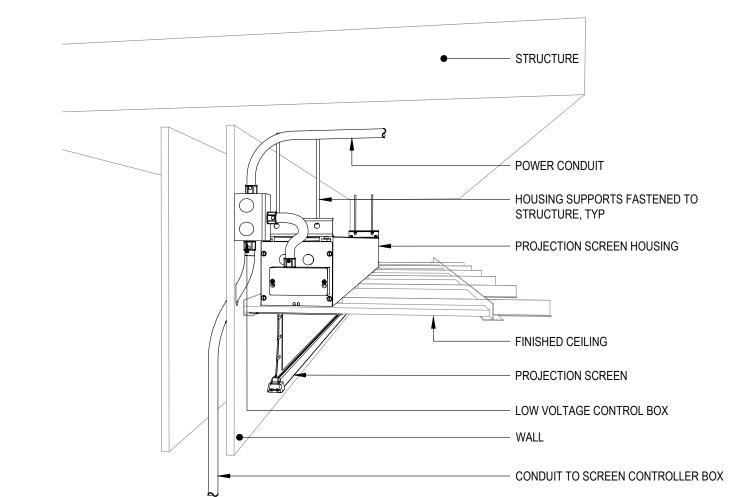
PROJECT NO.: 1203.22







PROJECTOR - CEILING MOUNT



PROJECTION SCREEN -MOTORIZED SUSPENDED

> BISCUIT BLOCK FINISHED CEILING CONTROL PANEL FINISHED WALL

- AV CONDUIT (E) WALL -CAMERA -CAMERA WALL MOUNT

PTZ CAMERA - WALL MOUNT

— WALL STUD AMX BACK BOX CB-MVPWDS FINISHED WALL AMX MVP-WDS WALL
 MOUNTED DOCKING STATION - FACEPLATE AMX MVP-8400TOUCH PANEL NOTE:
1. BACK BOX MANUFACTURED BY AMX www.AMX.com

CONTROL PANEL

SCALE: NONE

T5.22

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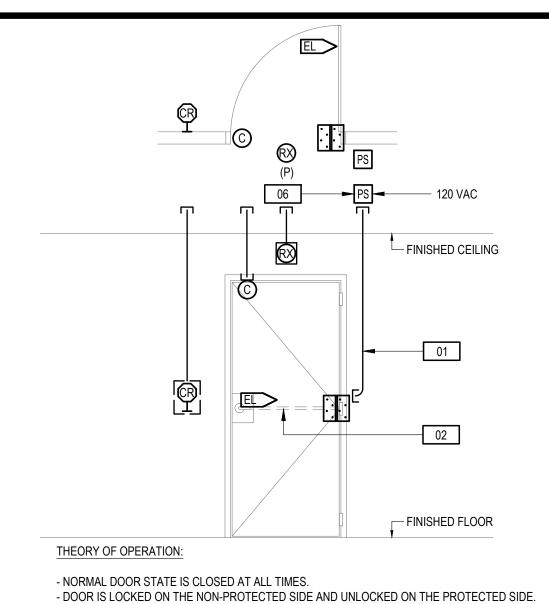
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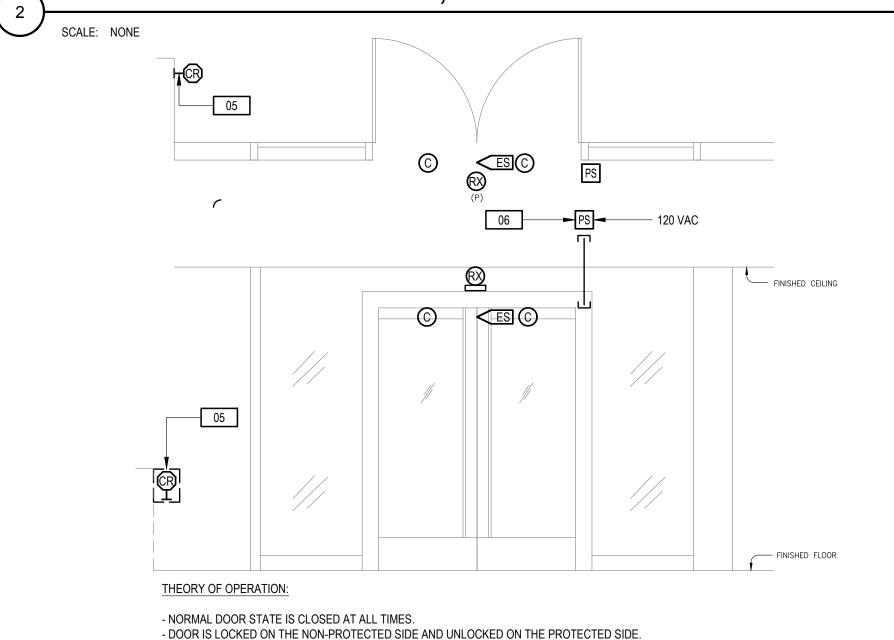
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CONTROL PANEL

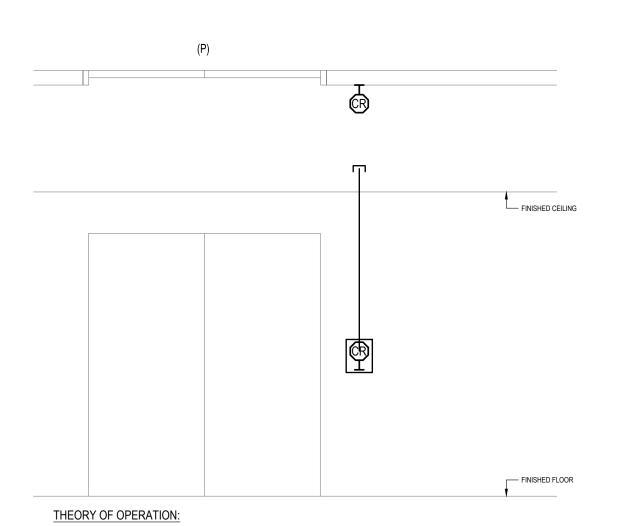


- TO OPEN DOOR FROM NON-PROTECTED SIDE, CARD MUST BE PRESENTED TO UNLOCK DOOR. - REQUEST TO EXIT MOTION DETECTOR BYPASSES ALARM ONLY ON EXIT. CARD READER SINGLE, W/ ELECTRIC LOCK



- TO OPEN DOOR FROM NON-PROTECTED SIDE, CARD MUST BE PRESENTED TO UNLOCK DOOR. - REQUEST TO EXIT MOTION DETECTOR BYPASSES ALARM ONLY ON EXIT. - LOCK IS POWERED CENTRALLY FROM SECURITY FOURIEMENT HUB.

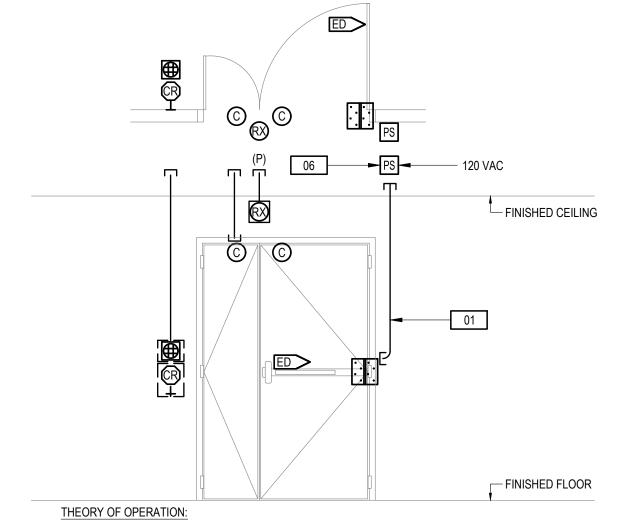
CARD READER SF PAIR



- DURING BUSINESS HOURS CALL BUTTON CALLS ELEVATOR.
- AFTER HOURS CALL BUTTON DEACTIVATED UNTIL VALID CARD READ.
- CARD READER UNLOCK OUTPUT ENABLES CALL BUTTON.

ELEVATOR HALL CALL CARD READER

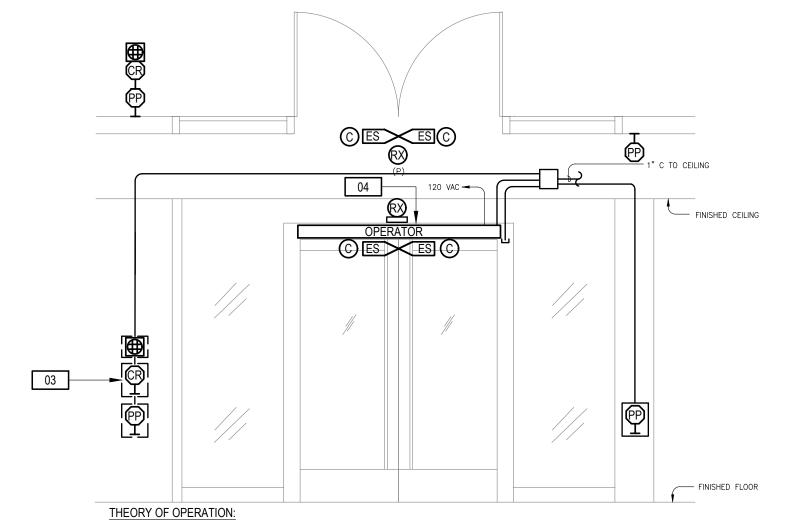
NIE



- NORMAL DOOR STATE IS CLOSED AND LOCKED AT ALL TIMES.
- DOOR IS LOCKED ON THE NON-PROTECTED SIDE AND UNLOCKED ON THE PROTECTED SIDE.
- TO OPEN DOOR FROM THE NON-PROTECTED SIDE AFTER HOURS, CARD MUST BE PRESENTED TO UNLOCK DOOR.
- REQUEST TO EXIT MOTION DETECTOR BYPASSES ALARM ONLY ON EXIT.

CARD READER UNEQUAL PAIR

SCALE: NONE



- NORMAL DOOR STATE IS CLOSED AND LOCKED AT ALL TIMES.

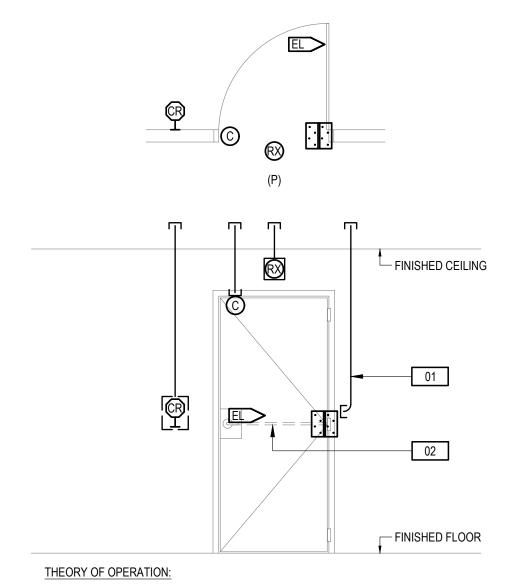
NORMAL DOOR STATE IS CLOSED AND LOCKED AT ALL TIMES.
 DOOR IS LOCKED ON THE NON-PROTECTED SIDE AND UNLOCKED ON THE PROTECTED SIDE.

- TO OPEN DOOR FROM THE NON-PROTECTED SIDE, CARD MUST BE PRESENTED TO UNLOCK DOOR - REQUEST TO EXIT MOTION DETECTOR BYPASSES ALARM ONLY ON EXIT.

- EXTERIOR ADA ACTUATOR IS INTERLOCKED WITH DOOR LOCKS AND DISABLED WHEN LOCKED.

- INTERIOR ADA ACTUATOR BYPASSES ALARM CONTACT AND OPERATES DOOR AT ALL TIMES.
- REFER TO WIRING SCHEMATIC FOR INTEGRATION TO OPERATOR.

CARD READER SF PAIR ADA ENTRANCE



NORMAL DOOR STATE IS CLOSED AT ALL TIMES.
DOOR IS LOCKED ON THE NON-PROTECTED SIDE AND UNLOCKED ON THE PROTECTED SIDE.
TO OPEN DOOR FROM NON-PROTECTED SIDE, CARD MUST BE PRESENTED TO UNLOCK DOOR.
REQUEST TO EXIT MOTION DETECTOR BYPASSES ALARM ONLY ON EXIT.

CARD READER SINGLE, W/ ELECTRIC LOCK

SHEET NOTES

- 1. THE DIAGRAMS ON THIS SHEET ARE TYPICAL AND SHOWN AS A GUIDELINE FOR ROUGH-IN AND CONFIGURATION. INDIVIDUAL DOORS VARY. ADJUST THE INSTALLATION TO SUIT EACH DOOR INSTANCE, INCLUDING CONDUIT CONFIGURATION AND QUANTITY, DEVICE LOCATIONS, ETC. ALSO, REFER TO ARCHITECTURAL DRAWINGS FOR EXACT INSTALLATION DIMENSIONS.
- 2. REFER TO THE DOOR SCHEDULE FOR DOOR COMPONENTS.
- . SUBMIT INDIVIDUAL DOOR DETAILS TO MATCH PROJECT REQUIREMENTS.
- 4. IN DOOR ELEVATIONS, VIEWS ARE FROM THE PROTECTED SIDE, UON. IN DOOR PLANS, "(P)" INDICATES THE PROTECTED SIDE.
- 5. DOOR CONTACTS MOUNTED 6" AWAY FROM THE LATCH SIDE OF THE DOOR, UON.
- 6. DOOR HARDWARE AND OPERATOR PROVIDED BY DOOR HARDWARE CONTRACTOR. SHOWN FOR REFERENCE.
- 7. DASHED SYMBOLS, JUNCTION BOXES, AND LINES INDICATE DEVICES ON THE OPPOSITE SIDE OF THE WALL.
- 8. PROVIDE 4" SQUARE X 2 1/8" D (MIN) JUNCTION BOXES, UON.
- PROVIDE ONE 1" EMT CONDUIT FOR SECURITY PATHWAYS, UON. FMC ("FLEX") CONDUIT WILL NOT BE ACCEPTED.
- 10. INSTALL JUNCTION BOXES 6" ON CENTER FROM THE LATCH SIDE OF THE DOOR, UON.
- 11. INSTALL JUNCTION BOXES AND POWER SUPPLIES ABOVE ACCESSIBLE CEILINGS ON THE PROTECTED SIDE OF DOORS. WHERE THEY OCCUR BELOW CEILINGS, INSTALL JUNCTION BOXES FLUSH TO WALL AND INSTALL CONDUIT CONCEALED WITHIN THE WALL.
- 12. TERMINATE SECURITY CABLE TO TRANSFER HINGE AND LOCK BODY. COORDINATE
 INSTALLATION WITH THE DOOR HARDWARE PROVIDER AS THE LOCKS GET INSTALLED
- 13. AT DOORS THAT ARE FAIL SAFE WITHOUT A LOCAL POWER SUPPLY, FIRE ALARM SYSTEM ACTIVATION SHALL RELEASE THE LOCK VIA A LOCAL RELAY POWERED FROM A CENTRAL POWER SUPPLY. AT DOORS THAT ARE FAIL SAFE WITH A LOCAL POWER SUPPLY, FIRE ALARM SYSTEM ACTIVATION SHALL RELEASE THE LOCK VIA A RELAY. THE FIRE ALARM CONTRACTOR SHALL PROVIDE THE FIRE ALARM INTERFACE RELAY AND SIGNAL CONNECTION FROM THE FIRE ALARM SYSTEM TO THE RELAY. COORDINATE WHICH DOORS ARE FAIL SAFE WITH THE ARCHITECT.

NUMBERED NOTES

- 01 STUB PATHWAY TO ABOVE ELECTRIC THROUGH-WIRE HINGE FOR WIRE TO ELECTRIC LOCK.
- 02 FACTORY-DRILLED BORE (~3/8") THROUGH DOOR FOR LOCK WIRE.
- 03 INSTALL CARD READER 2" ABOVE ADA PUSH PLATE. COORDINATE INSTALLATION (SUCH AS SHARED FACEPLATE).
- 04 DOOR HARDWARE AND OPERATOR PROVIDED BY DOOR HARDWARE CONTRACTOR. SHOWN
- 05 INSTALL CARD READER AT THE RECEPTION DESK. COORDINATE INSTALLATION WITH ARCHITECT FOR EXACT LOCATION.
- 06 LOCAL POWER SUPPLY PROVIDED BY DOOR HARDWARE.

EDGE OF DOOR, UON.

ROUGH-IN AND INSTALLATION

- CARD READER, WALL MOUNTED: PROVIDE ONE BOX WITH A 1-GANG RING. INSTALL BOX +42" OC AFF, UON, WITHIN 6 INCHES OF DOOR FRAME.
- CARD READER, MULLION MOUNTED: INSTALL SLIMLINE READER TO MULLION AT +42" OC AFF, UON.
- CONTACT SWITCH: PROVIDE 1" DIAMETER DOUBLE POLE DOUBLE THROW MAGNETIC CONTACT SWITCH. INSTALL CONTACTS RECESS MOUNTED AT THE TOP OF THE DOOR 6" FROM SWING
- REQUEST-TO-EXIT DEVICE, WALL MOUNTED: PROVIDE ONE BOX WITH 1-GANG RING. INSTALL BOX CENTERED ABOVE THE DOOR AT 8 INCHES ABOVE DOOR FRAME, UON. INSTALL THE RING HORIZONTALLY.
- REQUEST-TO-EXIT DEVICE, FRAME/JAMB MOUNTED: INSTALL DEVICE CENTERED ON TOP FRAME/JAMB/MULLION LOCATED ABOVE THE DOOR.
- LOCAL ALARM, WALL MOUNTED: PROVIDE ONE 2.75" DEEP BOX WITH 3-GANG RING. INSTALL BOX +42" OC AFF, UON, WITHIN 6 INCHES OF DOOR FRAME.
- KEY SWITCH (FOR LOCAL ALARM), WALL MOUNTED: PROVIDE ONE DEEP BOX WITH 1-GANG RING. INSTALL BOX +42" OC AFF, UON, ADJACENT TO LOCAL ALARM.
- —FEED PATHWAY FEED: PROVIDE ONE 1" C TO ACCESSIBLE CEILING, CABLE TRAY, OR NEAREST SEC
- INTERCOM, WALL MOUNTED: PROVIDE ONE BOX WITH A 2-GANG RING. INSTALL BOX +48" OC AFF, UON. ABOVE CARD READER.

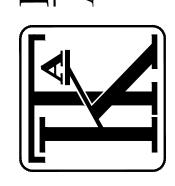
MOROUS-IOWE

R C H I T E C T

TO TWELFTH STREET, SUITE 300

OAKLAND, CA 94612

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1333 Broadway, Suite 601
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510-337-2804 fax

URITY DOOR

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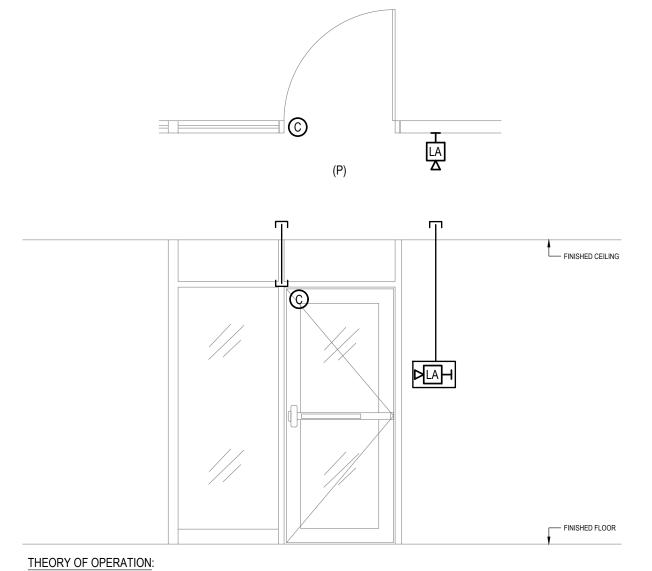
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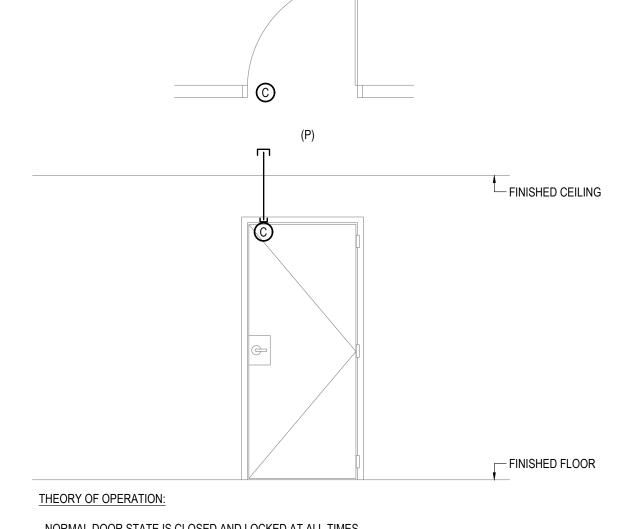
- NORMAL DOOR STATE IS CLOSED AT ALL TIMES. - DOOR IS LOCKED ON THE NON-PROTECTED SIDE AND UNLOCKED ON THE PROTECTED SIDE. - TO OPEN DOOR FROM NON-PROTECTED SIDE, CARD MUST BE PRESENTED TO UNLOCK DOOR.

CARD READER SINGLE, W/ ELECTRIC STRIKE



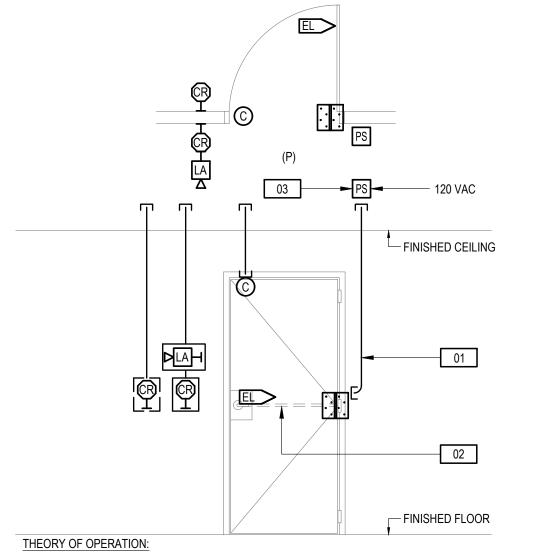
- NORMAL DOOR STATE IS CLOSED AND LOCKED AT ALL TIMES. - DOOR IS MONITORED FOR ENTRANCE AND EXIT AT ALL TIMES. - LOCAL ALARM IS ON THE INTERIOR OF THE SPACE FOR WEATHER PROOFING.

MONITORED SF DOOR SINGLE W/ LOCAL ALARM



- NORMAL DOOR STATE IS CLOSED AND LOCKED AT ALL TIMES. - DOOR IS MONITORED FOR ENTRANCE AND EXIT AT ALL TIMES.

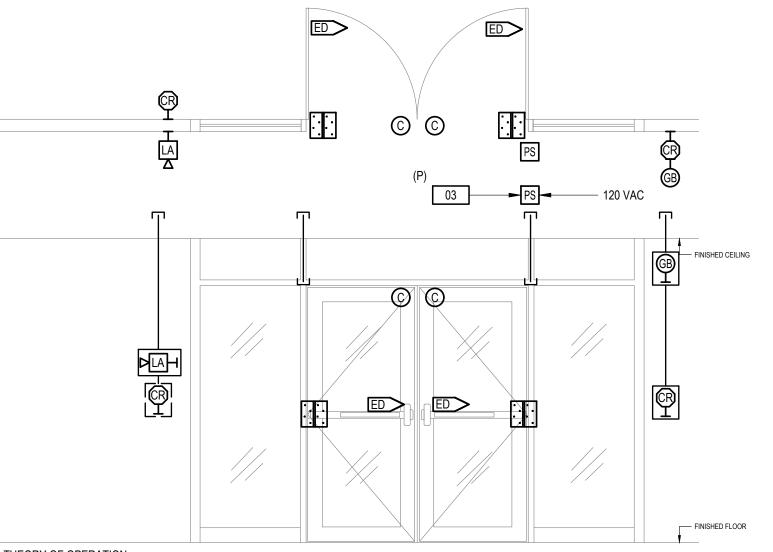
MONITORED DOOR SINGLE



- NORMAL DOOR STATE IS CLOSED AND LOCKED AT ALL TIMES.

- DOOR IS LOCKED TO THE ROOF DECK. - TO OPEN DOOR TO ROOF DECK, CARD MUST BE PRESENTED TO UNLOCK DOOR. - TO OPEN DOOR TO STAIRWELL, CARD MUST BE PRESENTED TO SHUNT LOCAL ALARM AND DOOR FORCED OPEN ALARM.

CARD READER IN/OUT SINGLE, W/ LOCAL ALARM



THEORY OF OPERATION:

- DOOR IS UNLOCKED DURING BUSINESS HOURS AND LOCKED AFTER HOURS.
- DOOR IS LOCKED TO THE ROOF DECK AFTER HOURS. - TO OPEN DOOR TO ROOF DECK AFTER HOURS, CARD MUST BE PRESENTED TO UNLOCK DOOR. - TO OPEN DOOR TO BREAK ROOM AFTER HOURS, CARD MUST BE PRESENTED TO SHUNT LOCAL ALARM AND DOOR FORCED OPEN ALARM.

CARD READER IN/OUT PAIR, W/ LOCAL ALARM

SHEET NOTES

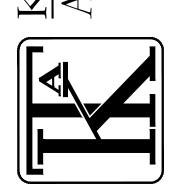
- THE DIAGRAMS ON THIS SHEET ARE TYPICAL AND SHOWN AS A GUIDELINE FOR ROUGH-IN AND CONFIGURATION. INDIVIDUAL DOORS VARY. ADJUST THE INSTALLATION TO SUIT EACH DOOR INSTANCE, INCLUDING CONDUIT CONFIGURATION AND QUANTITY, DEVICE LOCATIONS, ETC. ALSO, REFER TO ARCHITECTURAL DRAWINGS FOR EXACT INSTALLATION DIMENSIONS.
- REFER TO THE DOOR SCHEDULE FOR DOOR COMPONENTS.
- SUBMIT INDIVIDUAL DOOR DETAILS TO MATCH PROJECT REQUIREMENTS.
- IN DOOR ELEVATIONS, VIEWS ARE FROM THE PROTECTED SIDE, UON. IN DOOR PLANS, "(P)" INDICATES THE PROTECTED SIDE.
- 5. DOOR CONTACTS MOUNTED 6" AWAY FROM THE LATCH SIDE OF THE DOOR, UON.
- DOOR HARDWARE AND OPERATOR PROVIDED BY DOOR HARDWARE CONTRACTOR. SHOWN
- DASHED SYMBOLS, JUNCTION BOXES, AND LINES INDICATE DEVICES ON THE OPPOSITE SIDE OF
- 8. PROVIDE 4" SQUARE X 2 1/8" D (MIN) JUNCTION BOXES, UON.
- PROVIDE ONE 1" EMT CONDUIT FOR SECURITY PATHWAYS, UON. FMC ("FLEX") CONDUIT WILL NOT BE ACCEPTED.
- 10. INSTALL JUNCTION BOXES 6" ON CENTER FROM THE LATCH SIDE OF THE DOOR, UON.
- INSTALL JUNCTION BOXES AND POWER SUPPLIES ABOVE ACCESSIBLE CEILINGS ON THE PROTECTED SIDE OF DOORS. WHERE THEY OCCUR BELOW CEILINGS, INSTALL JUNCTION BOXES FLUSH TO WALL AND INSTALL CONDUIT CONCEALED WITHIN THE WALL
- 12. TERMINATE SECURITY CABLE TO TRANSFER HINGE AND LOCK BODY. COORDINATE
- ACTIVATION SHALL RELEASE THE LOCK VIA A LOCAL RELAY POWERED FROM A CENTRAL POWER SUPPLY. AT DOORS THAT ARE FAIL SAFE WITH A LOCAL POWER SUPPLY, FIRE ALARM SYSTEM ACTIVATION SHALL RELEASE THE LOCK VIA A RELAY. THE FIRE ALARM CONTRACTOR SHALL PROVIDE THE FIRE ALARM INTERFACE RELAY AND SIGNAL CONNECTION FROM THE FIRE

NUMBERED NOTES

- 01 STUB PATHWAY TO ABOVE ELECTRIC THROUGH-WIRE HINGE FOR WIRE TO ELECTRIC LOCK.
- 02 FACTORY-DRILLED BORE (~3/8") THROUGH DOOR FOR LOCK WIRE.
- 03 LOCAL POWER SUPPLY PROVIDED BY DOOR HARDWARE.

ROUGH-IN AND INSTALLATION

- CARD READER, WALL MOUNTED: PROVIDE ONE AFF, UON, WITHIN 6 INCHES OF DOOR FRAME. CARD READER, WALL MOUNTED: PROVIDE ONE BOX WITH A 1-GANG RING. INSTALL BOX +42" OC
- CARD READER, MULLION MOUNTED: INSTALL SLIMLINE READER TO MULLION AT +42" OC AFF, UON.
- CONTACT SWITCH: PROVIDE 1" DIAMETER DOUBLE POLE DOUBLE THROW MAGNETIC CONTACT SWITCH. INSTALL CONTACTS RECESS MOUNTED AT THE TOP OF THE DOOR 6" FROM SWING EDGE OF DOOR, UON.
- REQUEST-TO-EXIT DEVICE, WALL MOUNTED: PROVIDE ONE BOX WITH 1-GANG RING. INSTALL BOX CENTERED ABOVE THE DOOR AT 8 INCHES ABOVE DOOR FRAME, UON. INSTALL THE RING
- REQUEST-TO-EXIT DEVICE, FRAME/JAMB MOUNTED: INSTALL DEVICE CENTERED ON TOP
- LOCAL ALARM, WALL MOUNTED: PROVIDE ONE 2.75" DEEP BOX WITH 3-GANG RING. INSTALL BOX +42" OC AFF, UON, WITHIN 6 INCHES OF DOOR FRAME. KEY SWITCH (FOR LOCAL ALARM), WALL MOUNTED: PROVIDE ONE DEEP BOX WITH 1-GANG RING. INSTALL BOX +42" OC AFF, UON, ADJACENT TO LOCAL ALARM.
- -FEED → PATHWAY FEED: PROVIDE ONE 1" C TO ACCESSIBLE CEILING, CABLE TRAY, OR NEAREST SEC
- INTERCOM, WALL MOUNTED: PROVIDE ONE BOX WITH A 2-GANG RING. INSTALL BOX +48" OC AFF, UON. ABOVE CARD READER.



BID SET REVISIONS

DATE: 3/31/2017

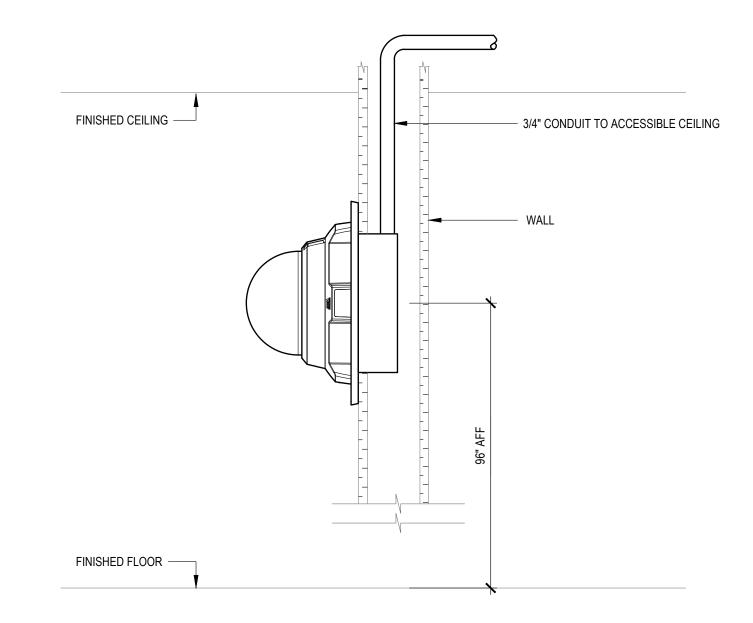
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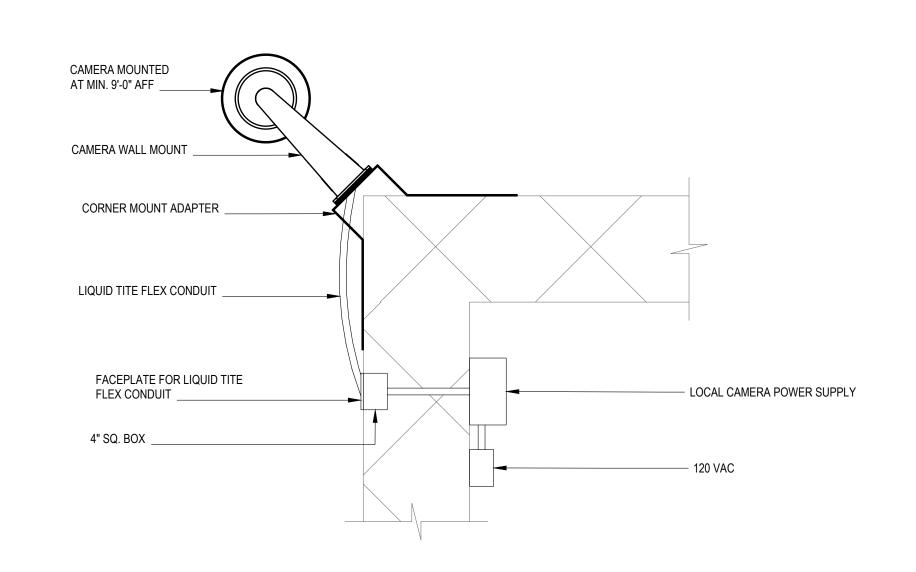
PROJECT NO.:

VSS - FIXED DOME IP INTERIOR SOFFIT MNT

SCALE: NONE



VSS - FIXED DOME IP INTERIORWALL MNT



EXTERIOR IP PTZ [CORNER MOUNT - TOP VIEW]

SCALE: NONE

A R C H I T E C T

A R C H I T E C T

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BID SET

PROJECT NO.: 1203.22

T5.32