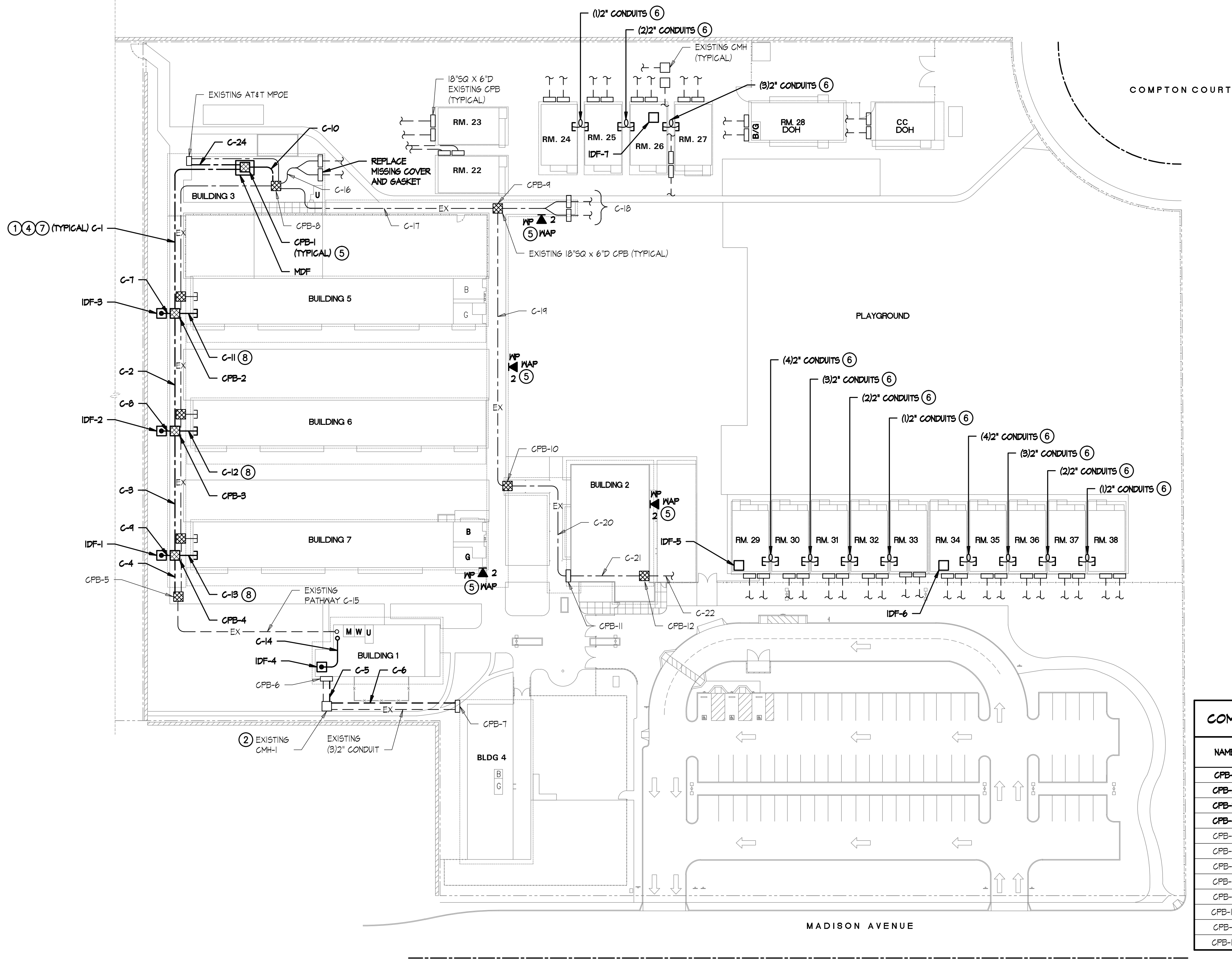




COMMUNICATION FULLBOX SCHEDULE			
NAME	NAME	TYPE	DETAIL REFERENCE
CPB-1	24\"SQ. X 10\"D	NEMA_3R	D/E-12.3
CPB-2	24\"SQ. X 10\"D	NEMA_3R	D/E-12.3
CPB-3	24\"SQ. X 10\"D	NEMA_3R	D/E-12.3
CPB-4	24\"SQ. X 10\"D	NEMA_3R	D/E-12.3
CPB-5	EXISTING		N/A
CPB-6	EXISTING		
CPB-7	EXISTING		
CPB-8	EXISTING		
CPB-9	EXISTING		
CPB-10	EXISTING		
CPB-11	EXISTING		
CPB-12	EXISTING		

CONDUIT BREAKDOWN								
CONDUIT SEGMENT NAME	FIBER CONDUITS W/3 1/4\" INNERDUCTS EA. *			COPPER DATA/VOICE/TV/ SECURITY/CLOCK/BKGS			GROUND	SPARE
	F1	F2	F3	C1	C2	C3		
C-1	2"	2"	-	-	-	-	2"	2"
C-2	2"	2"	-	-	-	-	2"	2"
C-3	2"	2"	-	-	-	-	2"	2"
C-4	2"	-	-	-	-	-	2"	2"
C-5	-	-	-	2"	2"	-	-	2"
C-6	-	-	-	2"	2"	-	-	2"
C-7	2"	-	-	3"	3"	3"	2"	2"
C-8	2"	-	-	3"	3"	3"	2"	2"
C-9	2"	-	-	3"	3"	3"	2"	2"
C-10	2"	2"	-	2"	2"	-	2"	2"
C-11	-	-	-	3"	3"	3"	-	2"
C-12	-	-	-	3"	3"	3"	-	2"
C-13	-	-	-	3"	3"	3"	-	2"
C-14	2"	-	-	-	-	-	2"	2"

* PROVIDE MAXCELL 2\" 3-CELL FABRIC INNERDUCT IN 2\" CONDUITS. USE (1) CELL PER CABLE TYPE.

CONDUIT BREAKDOWN								
CONDUIT SEGMENT NAME	FIBER CONDUITS W/3 1/4\" INNERDUCTS EA. *			COPPER DATA/VOICE/TV/ SECURITY/CLOCK/BKGS			GROUND	SPARE
	F1	F2	F3	C1	C2	C3		
C-15	-	-	-	-	-	-	-	-
C-16	-	-	-	-	-	-	-	-
C-17	-	-	-	-	-	-	-	-
C-18	-	-	-	-	-	-	-	-
C-19	-	-	-	-	-	-	-	-
C-20	-	-	-	-	-	-	-	-
C-21	-	-	-	-	-	-	-	-
C-22	-	-	-	-	-	-	-	-
C-23	-	-	-	-	-	-	-	-
C-24	-	-	-	-	-	-	-	2"

* PROVIDE MAXCELL 2\" 3-CELL FABRIC INNERDUCT IN 2\" CONDUITS. USE (1) CELL PER CABLE TYPE.

COMMUNICATIONS DUCT BANK SCHEDULE						
CONDUIT SEGMENT NAME	FROM	TO	TOTAL NUMBER OF CONDUITS			
			4"	3"	2"	
C-1	CPB-1/MDF	CPB-2	-	-	4	
C-2	CPB-2	CPB-3	-	-	4	
C-3	CPB-3	CPB-4	-	-	4	
C-4	CPB-4	CPB-5	-	-	3	
C-5	CPB-5	CMH-1	-	-	3	
C-6	CMH-1	CPB-7	-	-	3	
C-7	CPB-7	IDF-3	-	3	3	
C-8	CPB-8	IDF-2	-	3	3	
C-9	CPB-9	IDF-1	-	3	3	
C-10	CPB-10/MDF	CPB-8	-	-	6	
C-11	CPB-11	BLDG-5	-	3	1	
C-12	CPB-12	BLDG-6	-	3	1	
C-13	CPB-13	BLDG-7	-	3	1	
C-14	BLDG-1	IDF-4	-	-	3	

COMMUNICATIONS DUCT BANK SCHEDULE						
CONDUIT SEGMENT NAME	FROM	TO	TOTAL NUMBER OF CONDUITS			
			4"	3"	2"	
C-15	CPB-5	BLDG-1	-	-	EXISTING 2\" CONDUITS	
C-16	CPB-6	PORT. 22/23	-	-	EXISTING 2\" CONDUITS	
C-17	CPB-7	CPB-9	-	-	EXISTING 2\" CONDUITS	
C-18	CPB-8	PORT. 21	-	-	EXISTING 2\" CONDUITS	
C-19	CPB-9	CPB-10	-	-	EXISTING 2\" CONDUITS	
C-20	CPB-10	CPB-11	-	-	EXISTING 2\" CONDUITS	
C-21	CPB-11	CPB-12	-	-	EXISTING 2\" CONDUITS	
C-22	CPB-12	PORT. 24-38	-	-	EXISTING 2\" CONDUITS	
C-24	AT&T MPOE	MDF	-	-	1	



1/8" = 1'-0"

KEYNOTES

- SEE DETAIL C/ET-5.3 FOR CABLE DISTRIBUTION.
- SEE DETAIL F/ET-5.3 FOR LABELING REQUIREMENTS.
- SEE DETAIL D/ET-5.3 FOR LABELING REQUIREMENTS.
- SEE DETAIL E/ET-5.3 FOR LABELING REQUIREMENTS.
- SEE BUILDING SIGNAL SHEET FOR ADDITIONAL DETAIL.
- SEE DETAIL D/E-12.1 FOR FLEX CONDUIT INSTALLATION.
- SEE DETAIL E/E-12.1 FOR CONDUIT SUPPORT.
- SEE DETAIL F/E-12.1 FOR PENETRATION.

TRENCHING NOTE

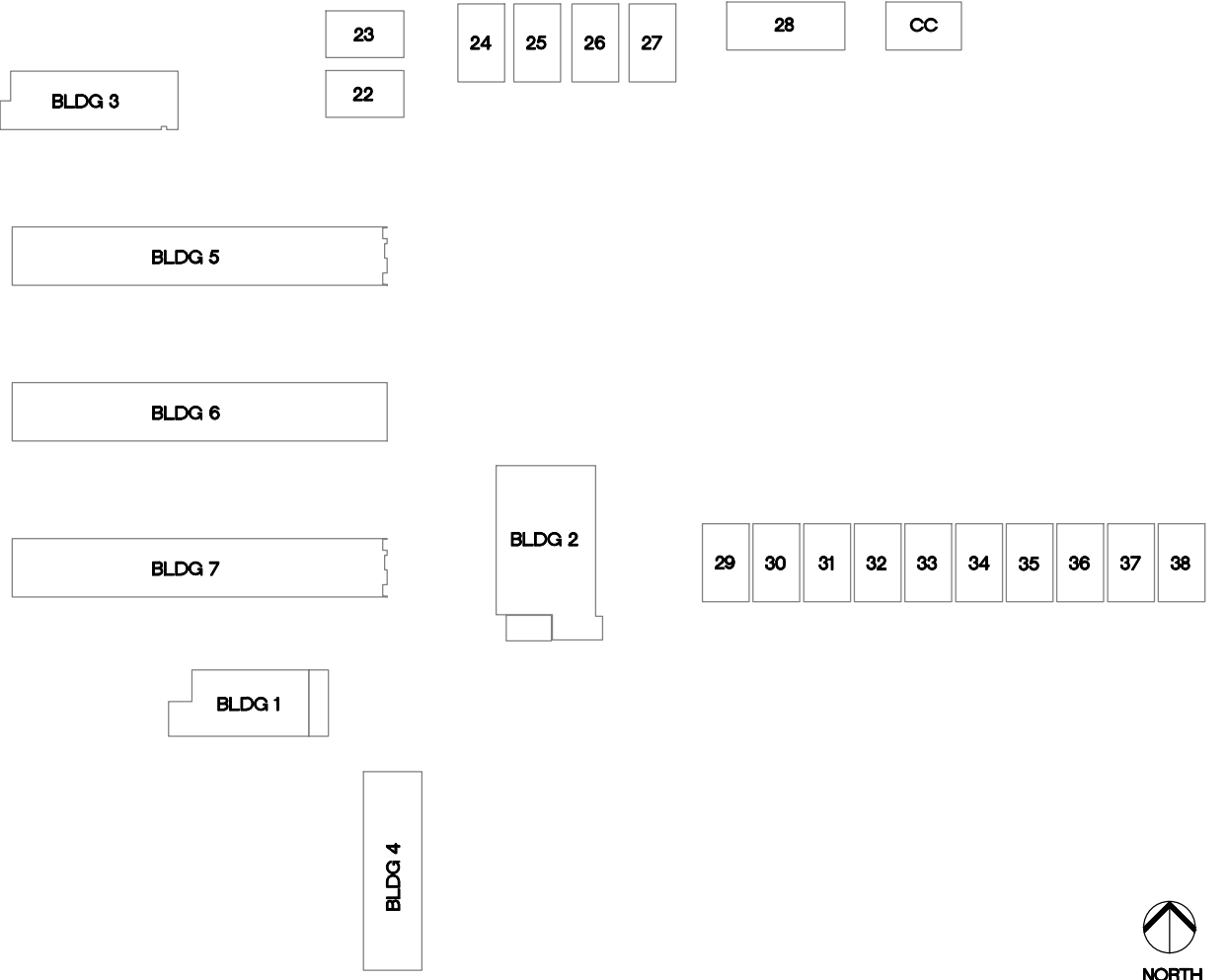
LOCATIONS OF EXISTING UNDERGROUND UTILITY AND OTHER UNDERGROUND OBSTRUCTIONS AND CONDITIONS ARE GENERALLY UNKNOWN. HIRE A UTILITY LOCATING SERVICE TO LOCATE ALL EXISTING UNDERGROUND UTILITIES PRIOR TO DIGGING. VERIFY EXACT LOCATION SIZE AND EXTENT OF ALL OBSTRUCTIONS AND OTHER CONDITIONS WHICH MAY AFFECT THE PROPOSED WORK UNDER THE PROJECT. TAKE EVERY PRECAUTION TO PREVENT DAMAGE TO EXISTING WORK, INCLUDING HAND DIGGING AROUND EXISTING UTILITIES, TREE ROOT SYSTEMS, AND HARDSCAPE FEATURES. ANY DAMAGE TO EXISTING UTILITIES OR STRUCTURES SHALL BE IMMEDIATELY REPAIRED OR REPLACED IN ACCORDANCE WITH THE CLIENT'S DIRECTION AT THE CONTRACTOR'S EXPENSE.

SPECIAL NOTE

IT IS THE INTENT OF THIS CONTRACT TO LOCATE ALL DATA OUTLETS IN THIS BUILDING AND REPLACE THE DATA OUTLETS AND CABLING WITH CATEGORY 6 JACKS AND CABLE. CONTRACTOR SHALL ALLOW FOR AN ADDITIONAL 5% FOR DATA OUTLETS NOT IDENTIFIED ON THESE PLANS AND NOTIFY THE OWNER SHOULD ADDITIONAL OUTLETS ABOVE THE 5% ALLOWANCE BE FOUND DURING CONSTRUCTION. ALL EXISTING VOICE OUTLETS ARE TO REMAIN IN SERVICE.

GENERAL NOTES

- ALL EXISTING SYSTEMS NOT UPGRADED UNDER THIS CONTRACT TO REMAIN OPERATIONAL DURING CONSTRUCTION.
- REMOVE ALL DISCONNECTED CABLING BACK TO SOURCE. NO CABLES ARE TO BE ABANDONED IN PLACE.
- SEE DEMOLITION RISER, SHEETS ET-1.0 & ET-1.1
- EXISTING CONDUITS NOT VERIFIED TO HAVE INNER DUCTS.



KEYPLAN

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TREI # 12160
V.PHATHANAK 10/12/12 - 9:45AM

REGISTERED PROFESSIONAL ENGINEER
DATE: 11/1/2011
No.11533
exp.6/30/2014
ELECTRICAL
STATE OF CALIFORNIA

MARK FORTIE, RCDD
REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
BICSI
EXPIRES 12/31/13
Regis. No. 081432



CONSULTANT

APPROVALS

DESCRIPTION

SIGNAL SITE PLAN

DATE

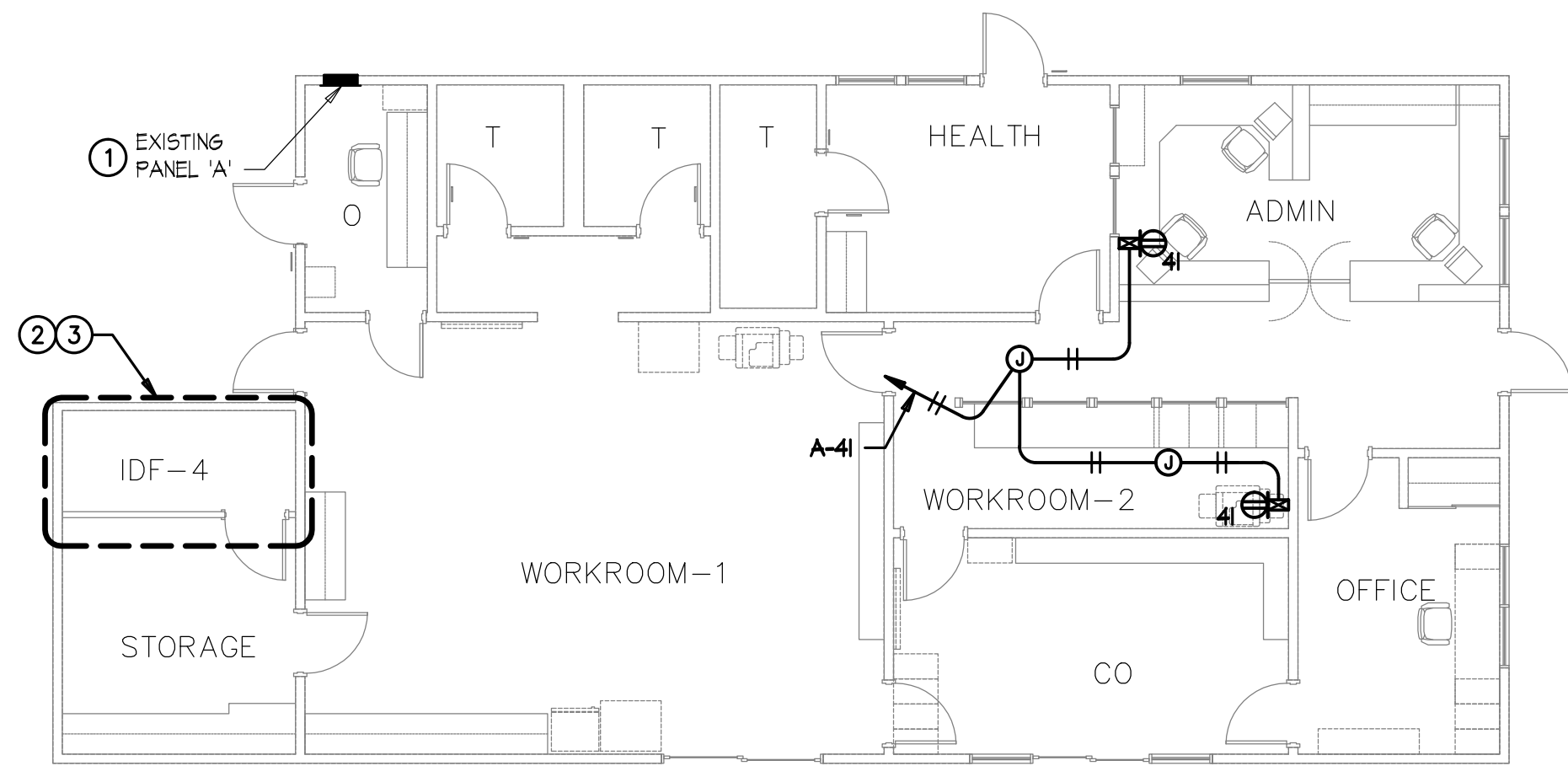
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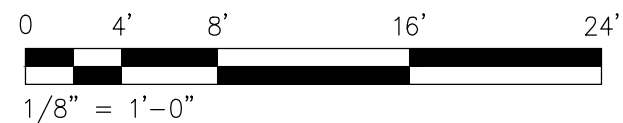
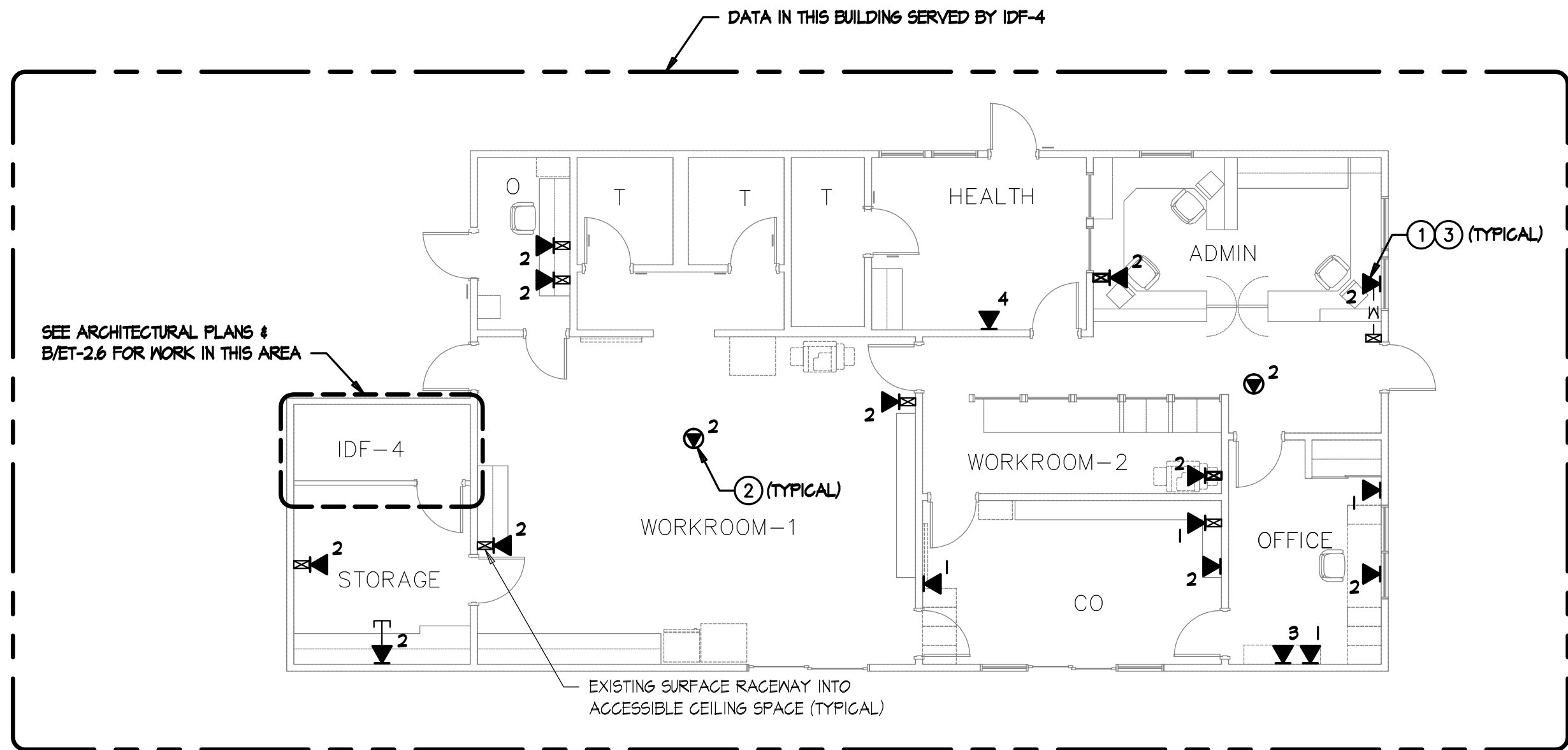
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SHEET #

E-04



BUILDING 1 - POWER PLAN



1/8" = 1'-0"

BUILDING 1 - SIGNAL PLAN

POWER PLAN KEYNOTES

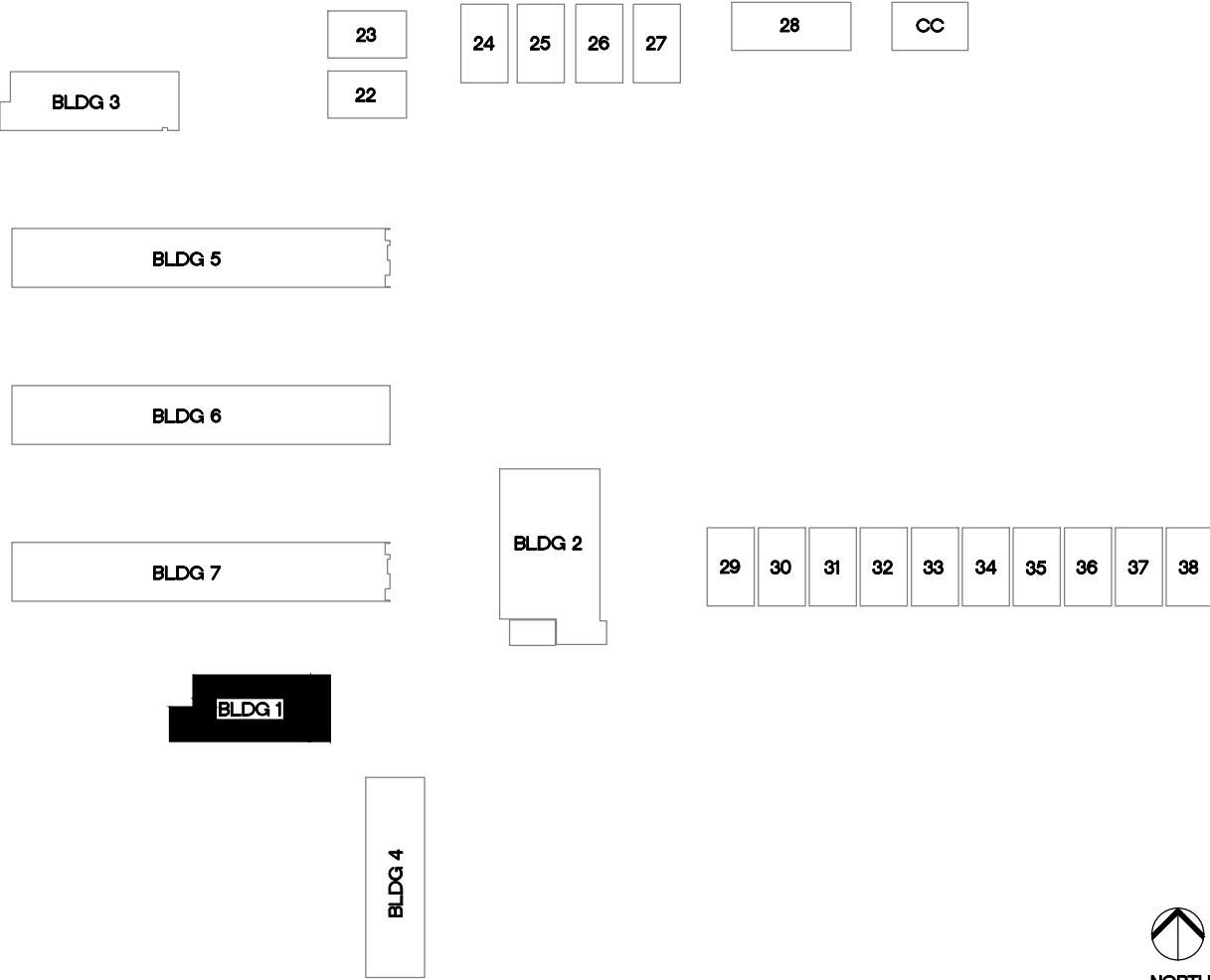
- SEE RESPECTIVE PANEL SCHEDULE FOR ADDITIONAL WORK AT EXISTING PANEL.
- PROVIDE NEW POWER OUTLETS FOR IDF. SEE E-10.1 FOR POWER AND LIGHTING WORK IN THIS AREA.
- PROVIDE NEW FIRE ALARM DEVICES FOR IDF ROOM. SEE EF-10.1 FOR FIRE ALARM WORK IN THIS AREA.

SIGNAL PLAN KEYNOTES

- CATEGORY 6 DATA OUTLET. PROVIDE NEW CATEGORY 6 JACKS AND CABLES TO IDF. UTILIZE EXISTING PATHWAYS U.O.N. FOR INSTALLATION IN WALLS.
- CATEGORY 6 DATA OUTLET MOUNTED ABOVE LAY-IN CEILING DESIGNATED FOR WIRELESS NETWORK. PROVIDE NEW CATEGORY 6 JACKS AND CABLES TO IDF. SEE DETAIL F/ET-5.2.
- PROVIDE NEW FACEPLATES, DEVICE BRACKETS (SURFACE RACENAY) AND OR DEVICE BOXES. SEE DETAIL A/B/ET-5.3 FOR FACEPLATE & LABELING REQUIREMENTS.
- EXISTING PHONE (BOSEN HANDSET), TO REMAIN.
- DATA OUTLET WITHIN WEATHER PROOF ENCLOSURE FOR EXTERIOR WIRELESS ACCESS POINT. COORDINATE MOUNTING HEIGHT/LOCATION WITH WIRELESS ACCESS POINT INSTALLER.
- SEE D/ET-5.3 FOR LABELING REQUIREMENTS.

GENERAL NOTES

- SEE DATA RISER DIAGRAM ON ET-1.3 FOR CABLING DETAILS.
- SUPPORT CATEGORY 6 & AUDIO/VISUAL CABLING WITH 'U-HOOK' SUPPORTS EVERY 4' WHERE CABLES ARE NOT SUPPORTED, ROUTED THROUGH CONDUIT OR CABLE TRAY. MAINTAIN 12" CLEARANCE FROM ELECTRICAL & LIGHTING. SEE DETAIL D/ET-5.2.

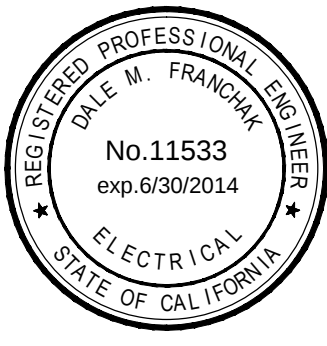


KEYPLAN

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CAJON VALLEY UNION SCHOOL DISTRICT
500 WEST MADISON AVENUE
EL CAJON, CA 92020

CONSULTANT

APPROVALS

DESCRIPTION

BUILDING 1
POWER AND
SIGNAL PLANS

DATE

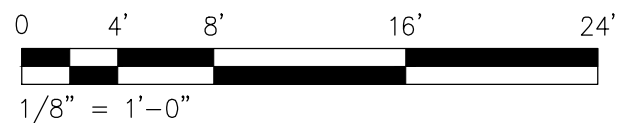
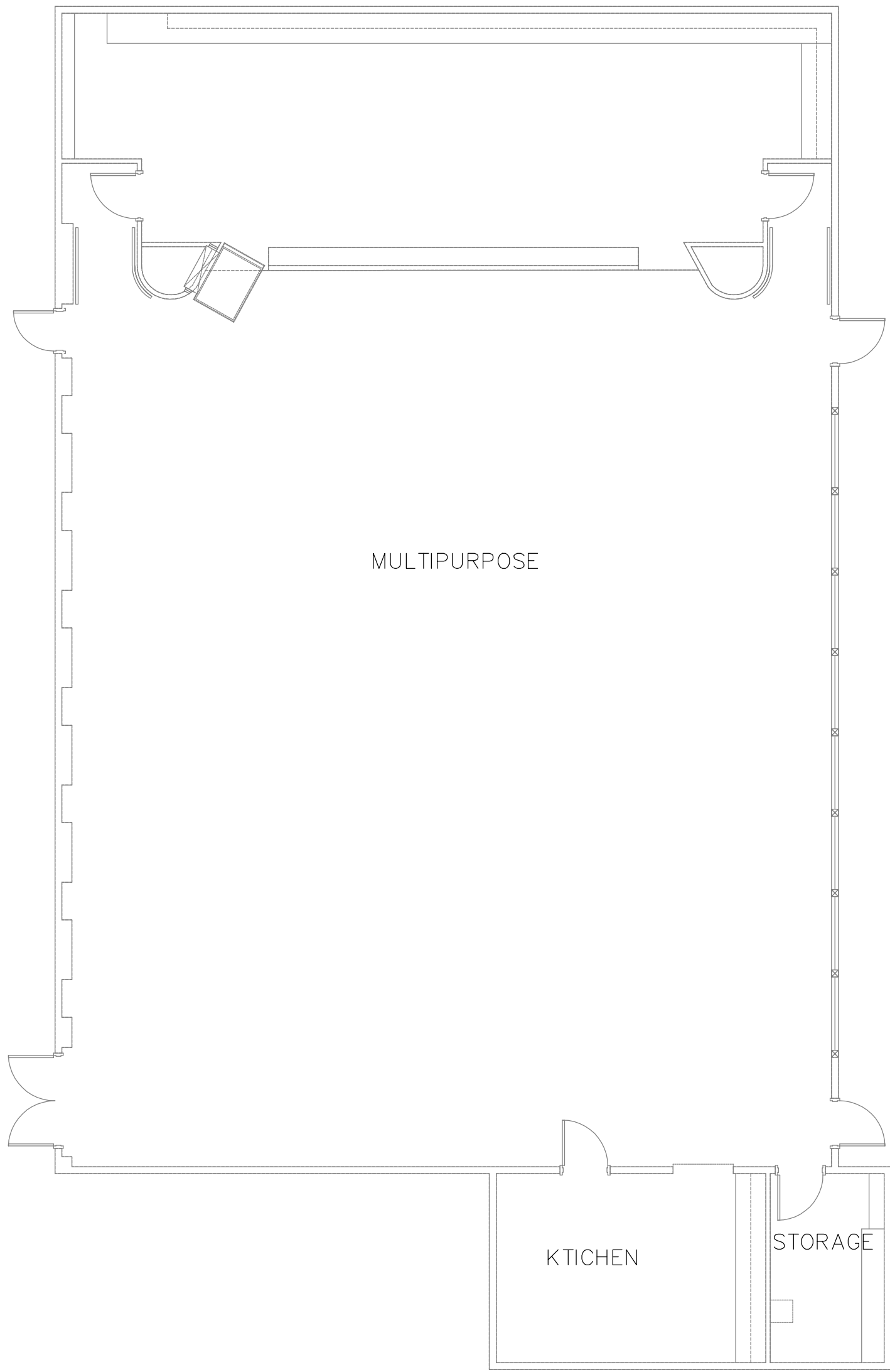
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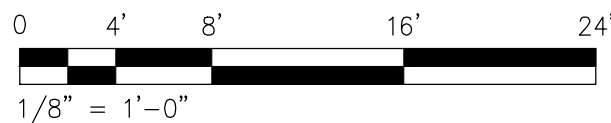
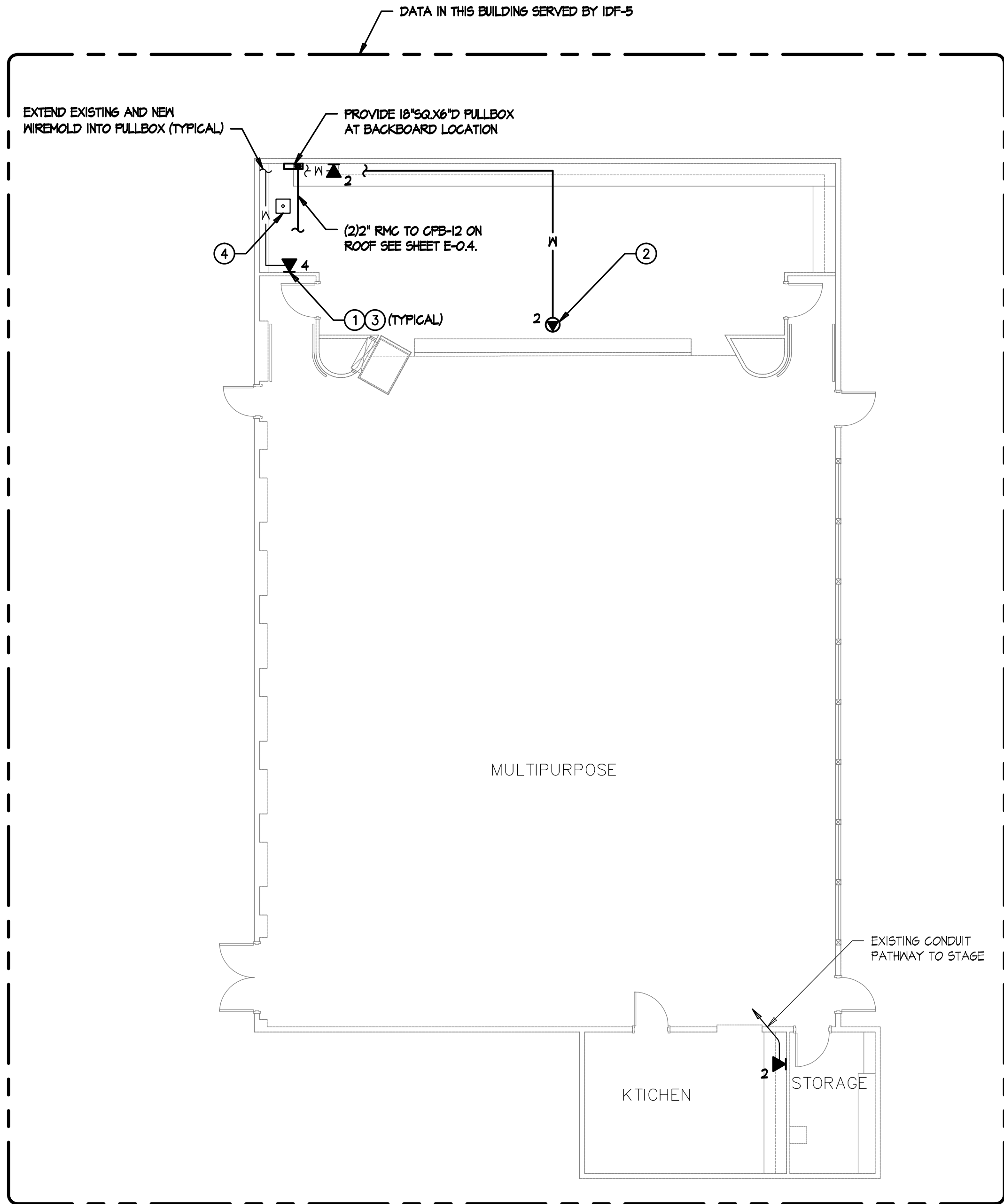
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SHEET #

E-11

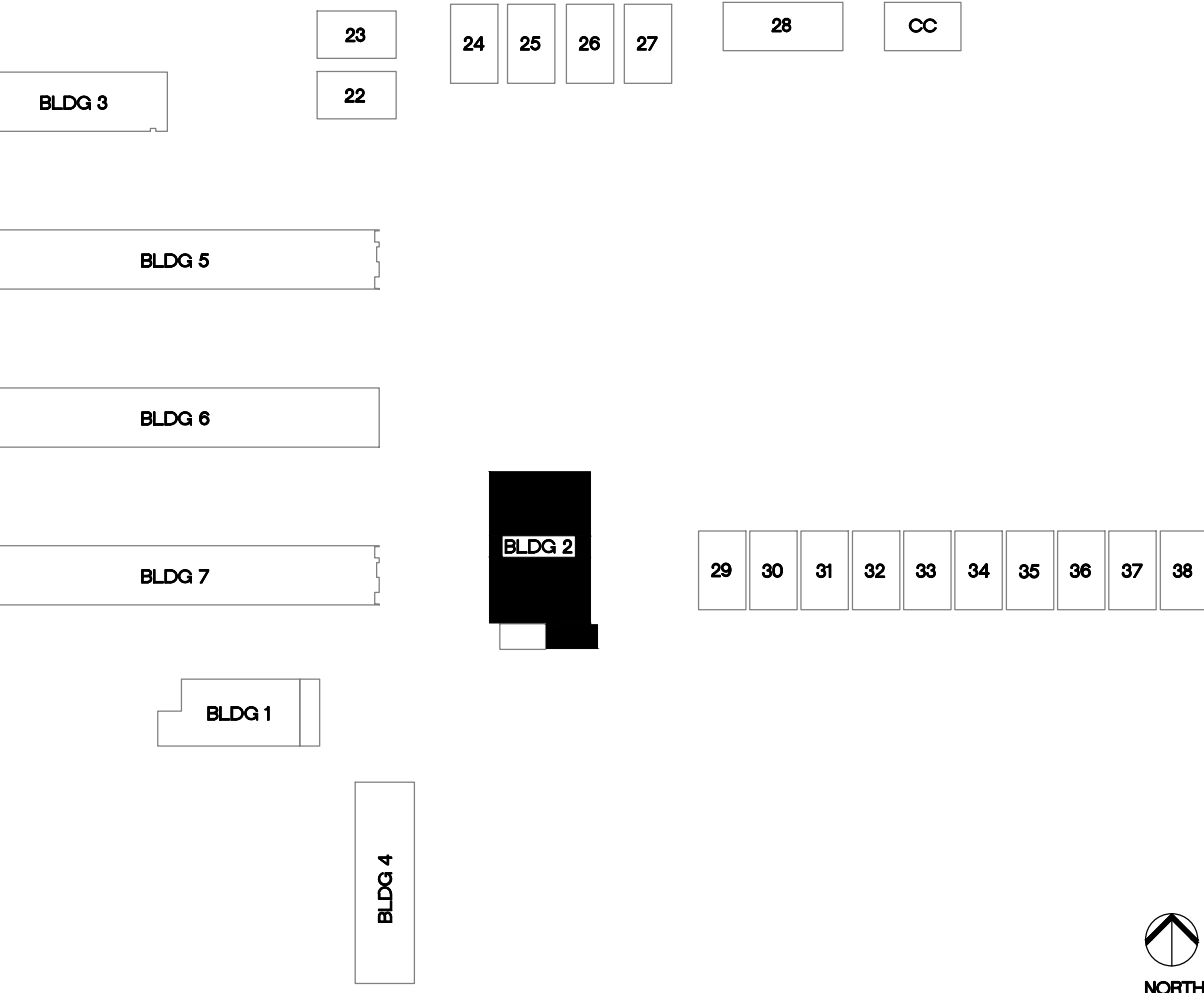


BUILDING 2 - POWER PLAN



BUILDING 2 - SIGNAL PLAN

- SIGNAL PLAN KEYNOTES**
- ① CATEGORY 6 DATA OUTLET. PROVIDE NEW CATEGORY 6 JACKS AND CABLES TO IDF. UTILIZE EXISTING PATHWAYS U.O.N. FOR INSTALLATION IN WALLS.
 - ② CATEGORY 6 DATA OUTLET MOUNTED TO HARD LID CEILING DESIGNATED FOR WIRELESS NETWORK. PROVIDE NEW CATEGORY 6 JACKS AND CABLES TO IDF.
 - ③ PROVIDE NEW FACEPLATES, DEVICE BRACKETS (SURFACE RACEWAY) AND/OR DEVICE BOXES. SEE DETAIL A/B/ET-5.3 FOR FACEPLATE & LABELING REQUIREMENTS.
 - ④ EXISTING PHONE (BOSEN HANDSET), TO REMAIN.
 - ⑤ DATA OUTLET WITHIN WEATHER PROOF ENCLOSURE FOR EXTERIOR WIRELESS ACCESS POINT. COORDINATE MOUNTING HEIGHT/LOCATION WITH WIRELESS ACCESS POINT INSTALLER.
 - ⑥ SEE D/ET-5.3 FOR LABELING REQUIREMENTS.
- GENERAL NOTES**
1. SEE DATA RISER DIAGRAM ON ET-1.3 AND ET-1.4 FOR CABLING DETAILS.
 2. SUPPORT CATEGORY 6 & AUDIO/VISUAL CABLING WITH 'J-HOOK' SUPPORTS EVERY 4' WHERE CABLES ARE NOT SUPPORTED, ROUTED THROUGH CONDUIT OR CABLE TRAY. MAINTAIN 12" CLEARANCE FROM ELECTRICAL & LIGHTING. SEE DETAIL D/ET-5.2.



KEYPLAN

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V.PHATHANAK 10/12/12 - 9:46AM



MARK FORTIE, RCDD
REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
BICSI
EXPIRES 12/31/13
Regis. No. 081432

CONSULTANT

APPROVALS

DESCRIPTION

BUILDING 2
POWER AND
SIGNAL PLANS

DATE

10/26/12

JOB #

12160

SHEET #

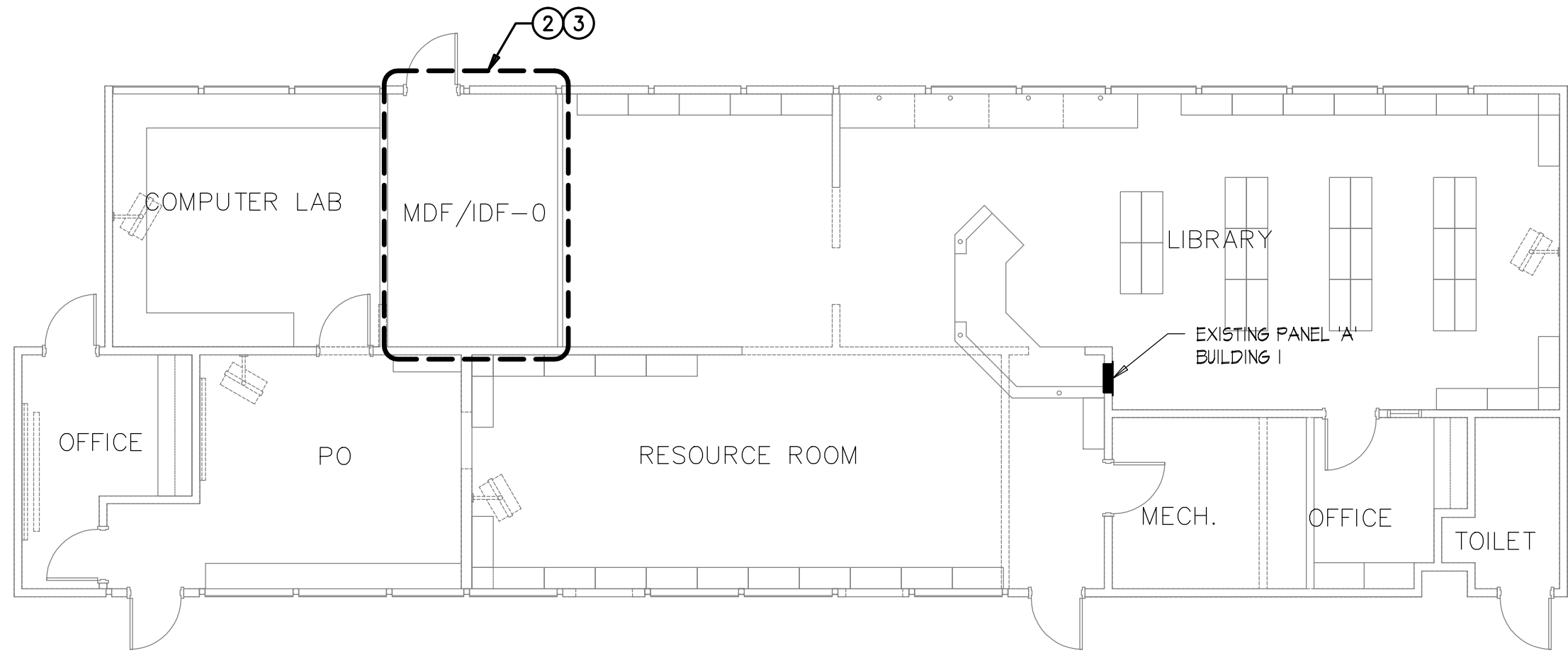
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SPROTTE WATSON
ARCHITECTURE | PLANNING

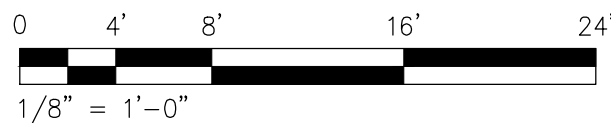
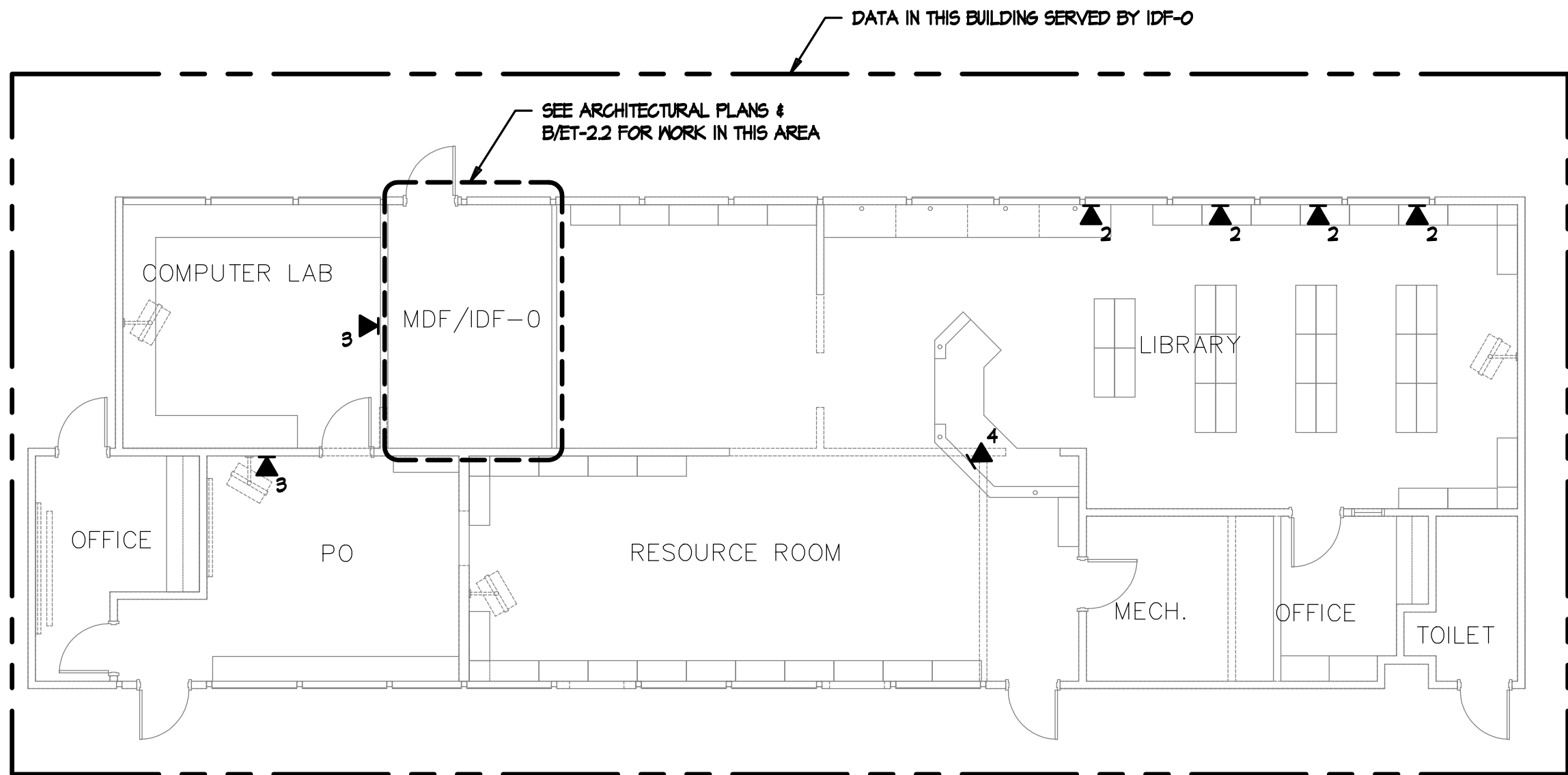
450 S. Main Street, Suite 200, Vista, California 92081 | 760.639.4120 | www.sprottewatson.com



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BUILDING 3 - POWER PLAN



1/8" = 1'-0"

POWER PLAN KEYNOTES

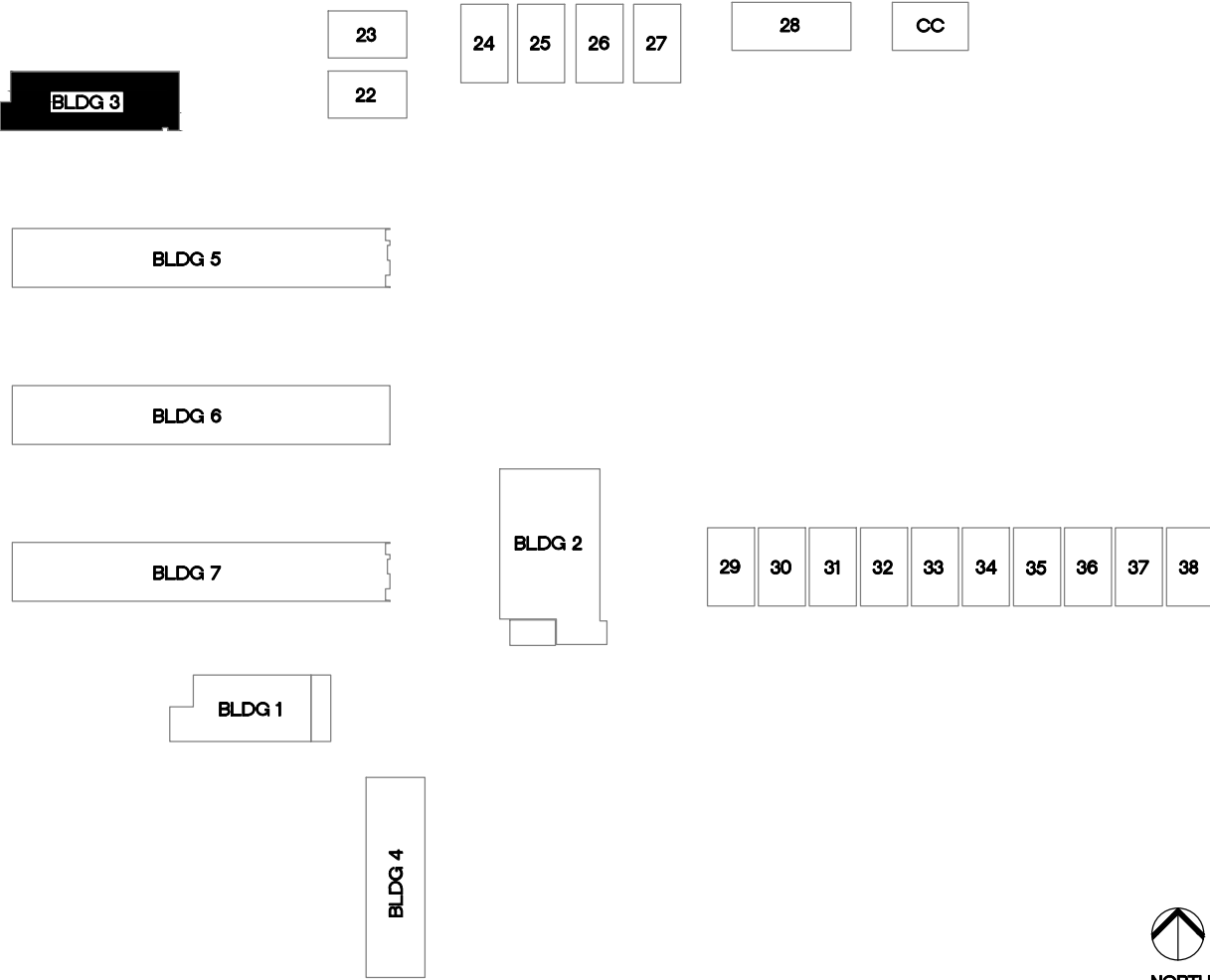
- 1 PROVIDE NEW POWER OUTLETS FOR MDF. SEE E-10.1 FOR POWER AND LIGHTING WORK IN THIS AREA.
- 2 PROVIDE NEW FIRE ALARM DEVICES FOR IDF ROOM. SEE EF-10.1 FOR FIRE ALARM WORK IN THIS AREA.

SIGNAL PLAN KEYNOTES

- 1 CATEGORY 6 DATA OUTLET. PROVIDE NEW CATEGORY 6 JACKS AND CABLES TO IDF. UTILIZE EXISTING PATHWAYS U.O.N. FOR INSTALLATION IN WALLS.
- 2 CATEGORY 6 DATA OUTLET MOUNTED ABOVE LAY-IN CEILING DESIGNATED FOR WIRELESS NETWORK. PROVIDE NEW CATEGORY 6 JACKS AND CABLES TO IDF. SEE DETAIL F/ET-5.2.
- 3 PROVIDE NEW FACEPLATES, DEVICE BRACKETS (SURFACE RACEWAY) AND OR DEVICE BOXES. SEE DETAIL A/B/ET-5.3 FOR FACEPLATE & LABELING REQUIREMENTS.
- 4 EXISTING PHONE (BOSEN HANDSET), TO REMAIN.
- 5 DATA OUTLET WITHIN WEATHER PROOF ENCLOSURE FOR EXTERIOR WIRELESS ACCESS POINT. COORDINATE MOUNTING HEIGHT/LOCATION WITH WIRELESS ACCESS POINT INSTALLER.
- 6 SEE D/ET-5.3 FOR LABELING REQUIREMENTS.

GENERAL NOTES

- 1. SEE DATA RISER DIAGRAM ON ET-1.2, ET-1.3, ET-1.4, AND ET-1.5 FOR CABLING DETAILS.
- 2. SUPPORT CATEGORY 6 & AUDIO/VISUAL CABLING WITH 'J-HOOK' SUPPORTS EVERY 4' WHERE CABLES ARE NOT SUPPORTED, ROUTED THROUGH CONDUIT OR CABLE TRAY. MAINTAIN 12" CLEARANCE FROM ELECTRICAL & LIGHTING. SEE DETAIL D/ET-5.2.



KEYPLAN

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500 WEST MADISON AVENUE
EL CAJON, CA 92020

CONSULTANT

APPROVALS

DESCRIPTION

BUILDING 3
POWER AND
SIGNAL PLANS

DATE

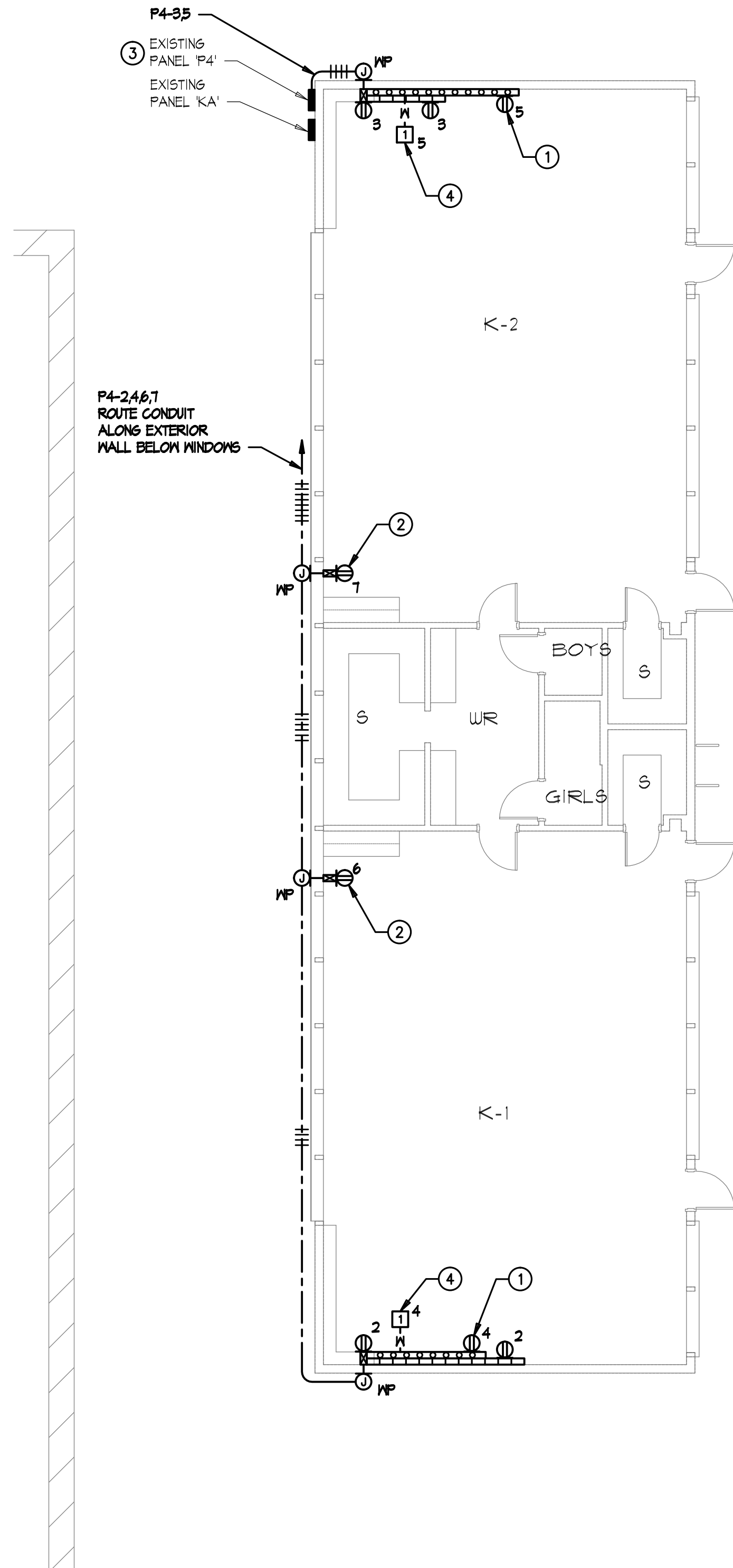
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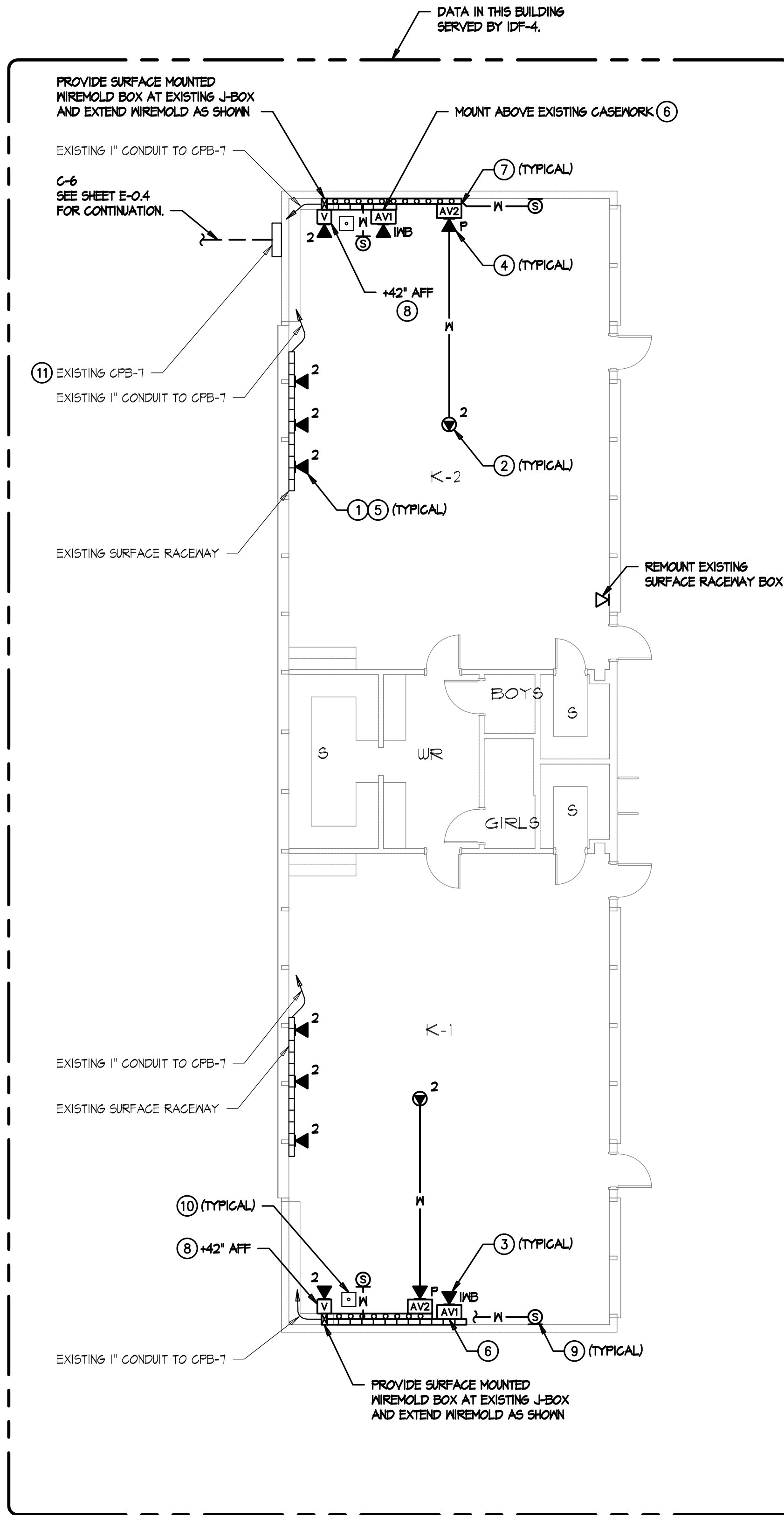
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SHEET #

E-31



BUILDING 4 - POWER PLAN



BUILDING 4 - SIGNAL PLAN



POWER PLAN KEYNOTES

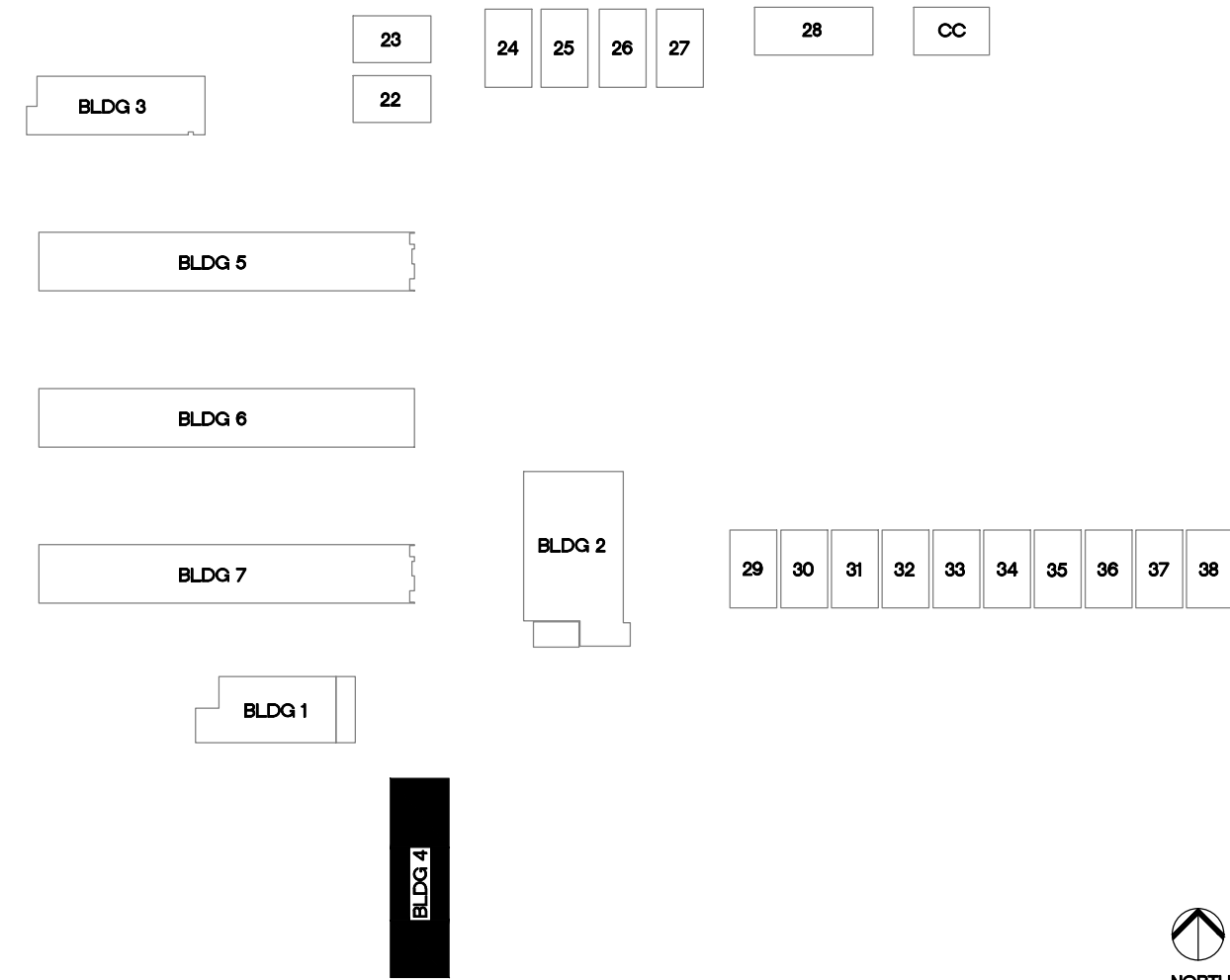
- 1 PROVIDE RECEPTACLE FOR WALL MOUNTED PROJECTOR. SEE DETAIL C/ET-5.5. REFER TO ARCHITECTURAL PLANS FOR MOUNTING HEIGHT AND ADDITIONAL DETAILS.
- 2 PROVIDE RECEPTACLE MOUNTED AT +18" AFF FOR LAPTOP CART. PROVIDE DEDICATED BRANCH CIRCUIT.
- 3 SEE RESPECTIVE PANEL SCHEDULE FOR ADDITIONAL WORK AT EXISTING PANEL.
- 4 AUDIO/VISUAL POWER SUPPLY CABINET. SEE DETAIL D/ET-5.5.

SIGNAL PLAN KEYNOTES

- 1 CATEGORY 6 DATA OUTLET. PROVIDE NEW CATEGORY 6 JACKS AND CABLES TO IDF. UTILIZE EXISTING PATHWAYS U.O.N. FOR INSTALLATION IN WALLS.
- 2 CATEGORY 6 DATA OUTLET MOUNTED ON HARD LID CEILING DESIGNATED FOR WIRELESS NETWORK. PROVIDE NEW CATEGORY 6 JACKS AND CABLES TO IDF.
- 3 (1) PORT CATEGORY 6 DATA OUTLET DESIGNATED FOR FUTURE INTERACTIVE WHITEBOARD. PROVIDE NEW CATEGORY 6 JACK AND CABLE TO IDF. LOCATION TO BE AT CENTER OF TEACHING WALL AT +18" AFF. SEE DETAIL B/ET-5.5.
- 4 (1) PORT CATEGORY 6 DATA OUTLET AT WALL MOUNTED PROJECTOR DESIGNATED FOR PROJECTOR MONITORING. PROVIDE NEW CATEGORY 6 JACK AND CABLE TO IDF. CONTRACTOR TO COORDINATE EXACT LOCATION WITH WALL MOUNTED PROJECTOR MOUNTING PLATE. SEE C/ET-5.5.
- 5 PROVIDE NEW FACEPLATES, DEVICE BRACKETS (SURFACE RACEWAY) AND OR DEVICE BOXES. SEE DETAIL A/B/ET-5.3 FOR FACEPLATE & LABELING REQUIREMENTS.
- 6 AVI INTERFACE MOUNTED AT CENTER OF TEACHING WALL AT +18" AFF. PROVIDE EXTRON 2-GANG EMB SERIES WALL BOX FOR AVI INTERFACE. SEE ET-5.4 & B/ET-5.5 FOR DETAILS.
- 7 AUDIO/VISUAL INTERFACE AT WALL MOUNTED PROJECTOR LOCATION. SEE ET-5.4 & C/ET-5.5 FOR DETAILS.
- 8 AUDIO VOLUME CONTROL OUTLET MOUNTED AT TEACHER'S STATION LOCATION AT +45" AFF. SEE ET-5.4 & C/ET-5.5 FOR DETAILS.
- 9 AUDIO/VISUAL SPEAKER MOUNTED TO WALL. SEE ET-5.4 AND C/ET-5.5 FOR DETAILS.
- 10 EXISTING PHONE (BOSEN HANDSET), TO REMAIN.
- 11 SEE D/ET-5.3 FOR LABELING REQUIREMENTS.

GENERAL NOTES

1. SEE DATA RISER DIAGRAM ON ET-1.3 FOR CABLING DETAILS.
2. SUPPORT CATEGORY 6 & AUDIO/VISUAL CABLING WITH 'U-HOOK' SUPPORTS EVERY 4' WHERE CABLES ARE NOT SUPPORTED, ROUTED THROUGH CONDUIT OR CABLE TRAY. MAINTAIN 12" CLEARANCE FROM ELECTRICAL & LIGHTING. SEE DETAIL D/ET-5.2.



KEYPLAN

NTS

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DATE M. FRANKOW
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MARK FORTIE, RCDD
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500 WEST MADISON AVENUE
EL CAJON, CA 92020

CONSULTANT

APPROVALS

DESCRIPTION

BUILDING 4
POWER AND
SIGNAL PLAN

DATE

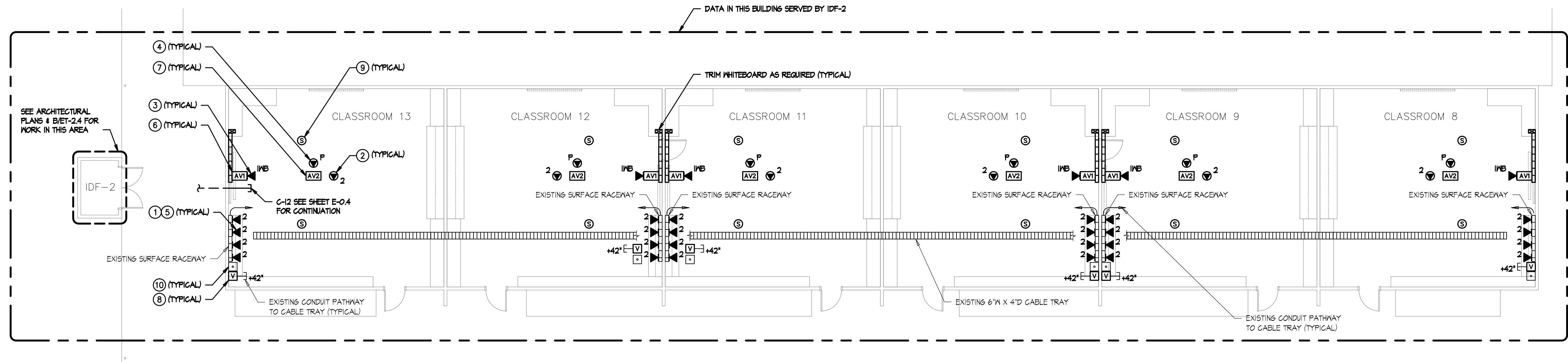
10/26/12

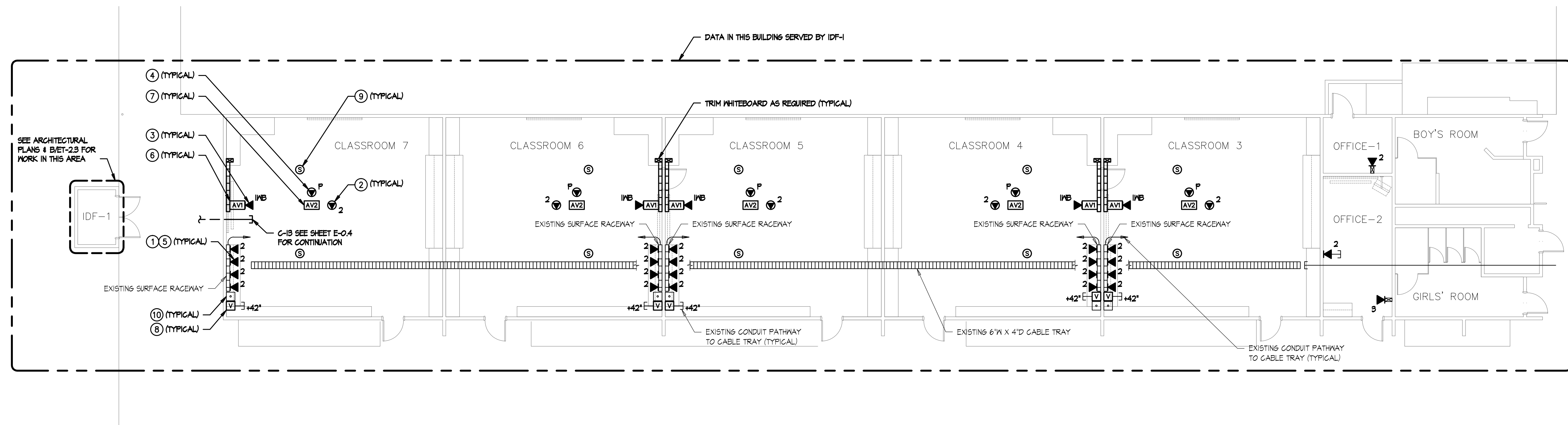
JOB #

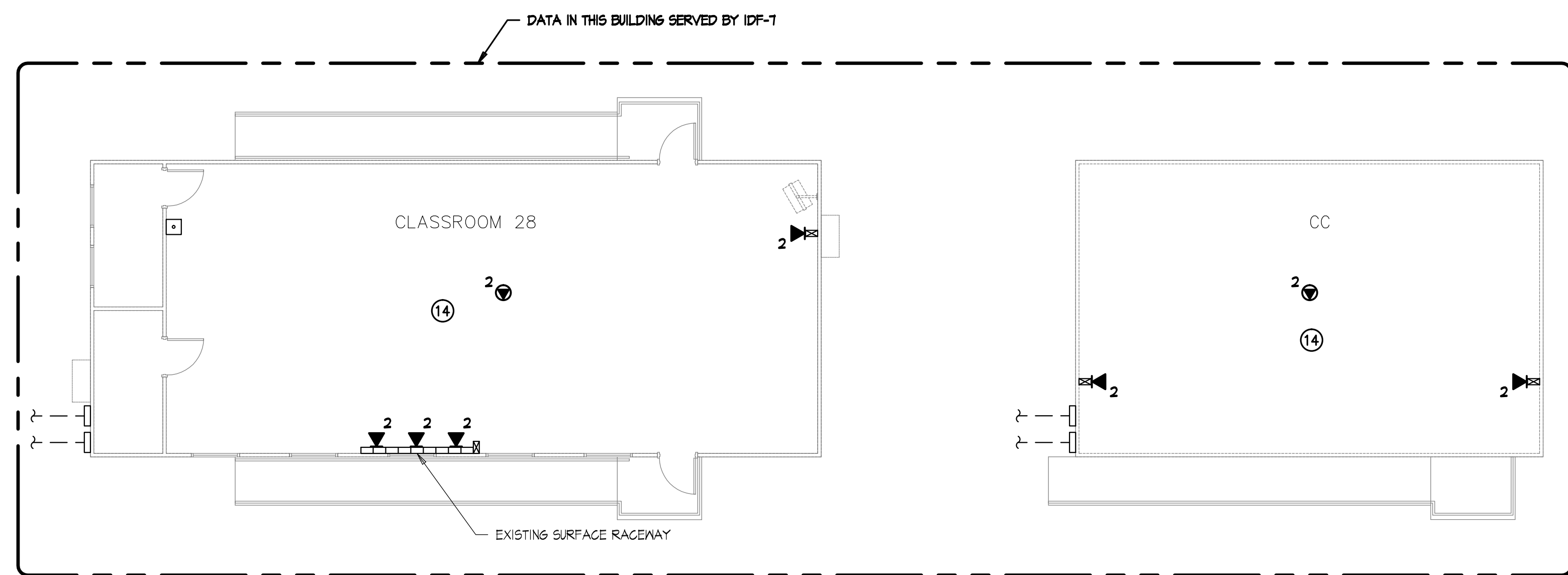
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SHEET #

E-4.1





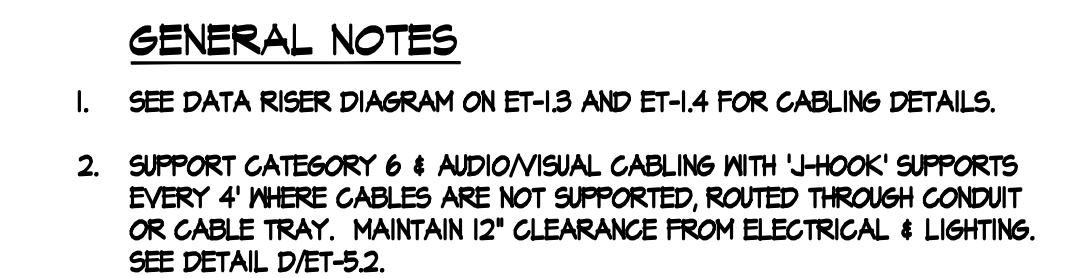
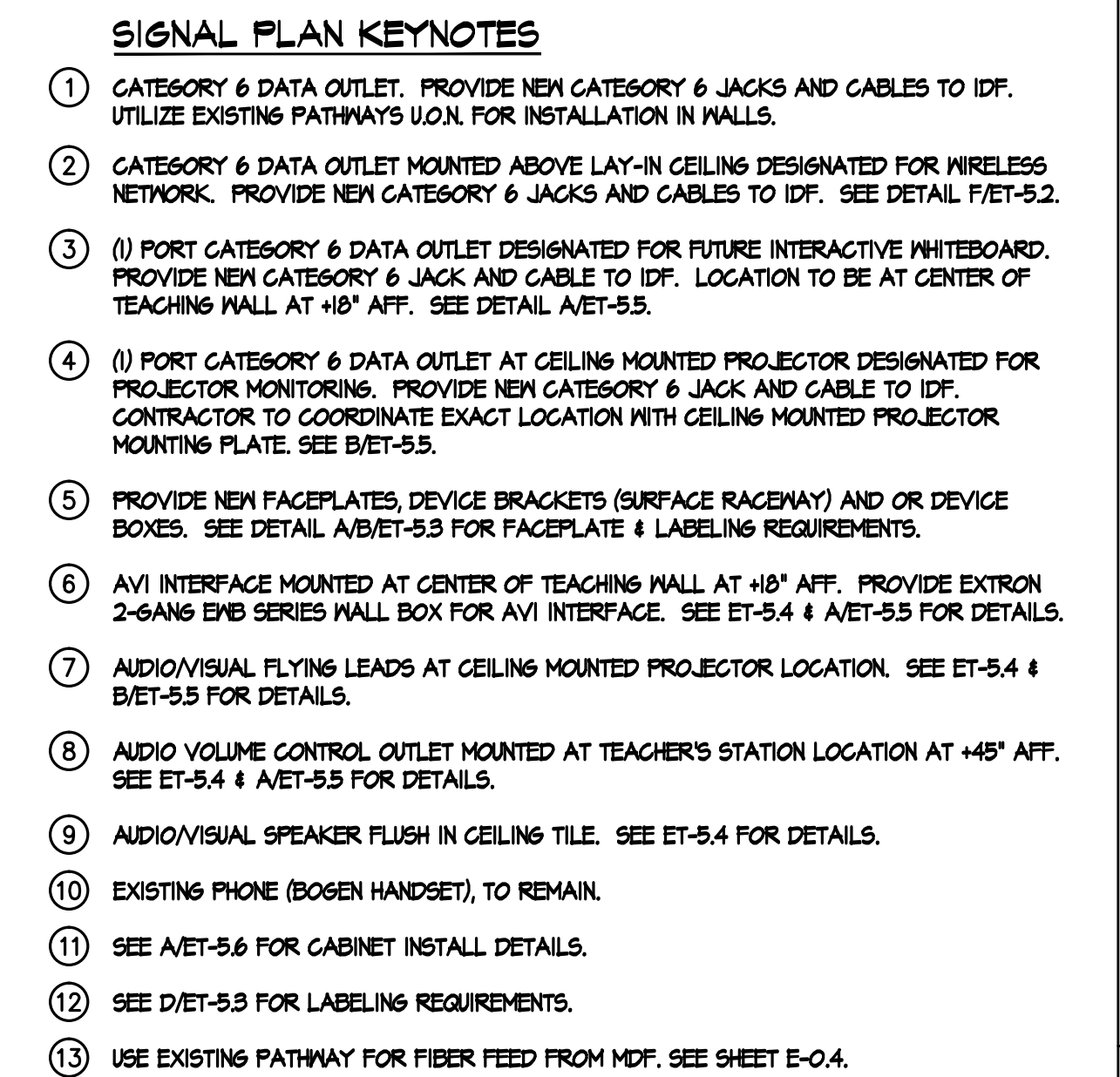


- ## GENERAL NOTES
1. SEE DATA RISER DIAGRAM ON ET-1.3 FOR CABLING DETAILS.
 2. SUPPORT CATEGORY 6 & AUDIO/VISUAL CABLING WITH 'U-HOOK' SUPPORTS EVERY 4' WHERE CABLES ARE NOT SUPPORTED, ROUTED THROUGH CONDUIT OR CABLE TRAY. MAINTAIN 12" CLEARANCE FROM ELECTRICAL & LIGHTING. SEE DETAIL D12-5.
 3. USE EXISTING 2" CONDUIT PATHWAYS TO FEED OUTLYING BUILDINGS FROM MDF & IDF-1.

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E-8.2





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TREI # 12160

V. PHATHANAK 10/12/12 - 9:48AM



MARK FORTIE, RCDD

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DISTRIBUTION DESIGNER

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CAJON VALLEY UNION SCHOOL DISTRICT
500 WEST MADISON AVENUE
EL CAJON, CA 92020

CONSULTANT

APPROVALS

DESCRIPTION	
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PORTABLE 29-38 SIGNAL PLAN

DATE _____

10/26/12

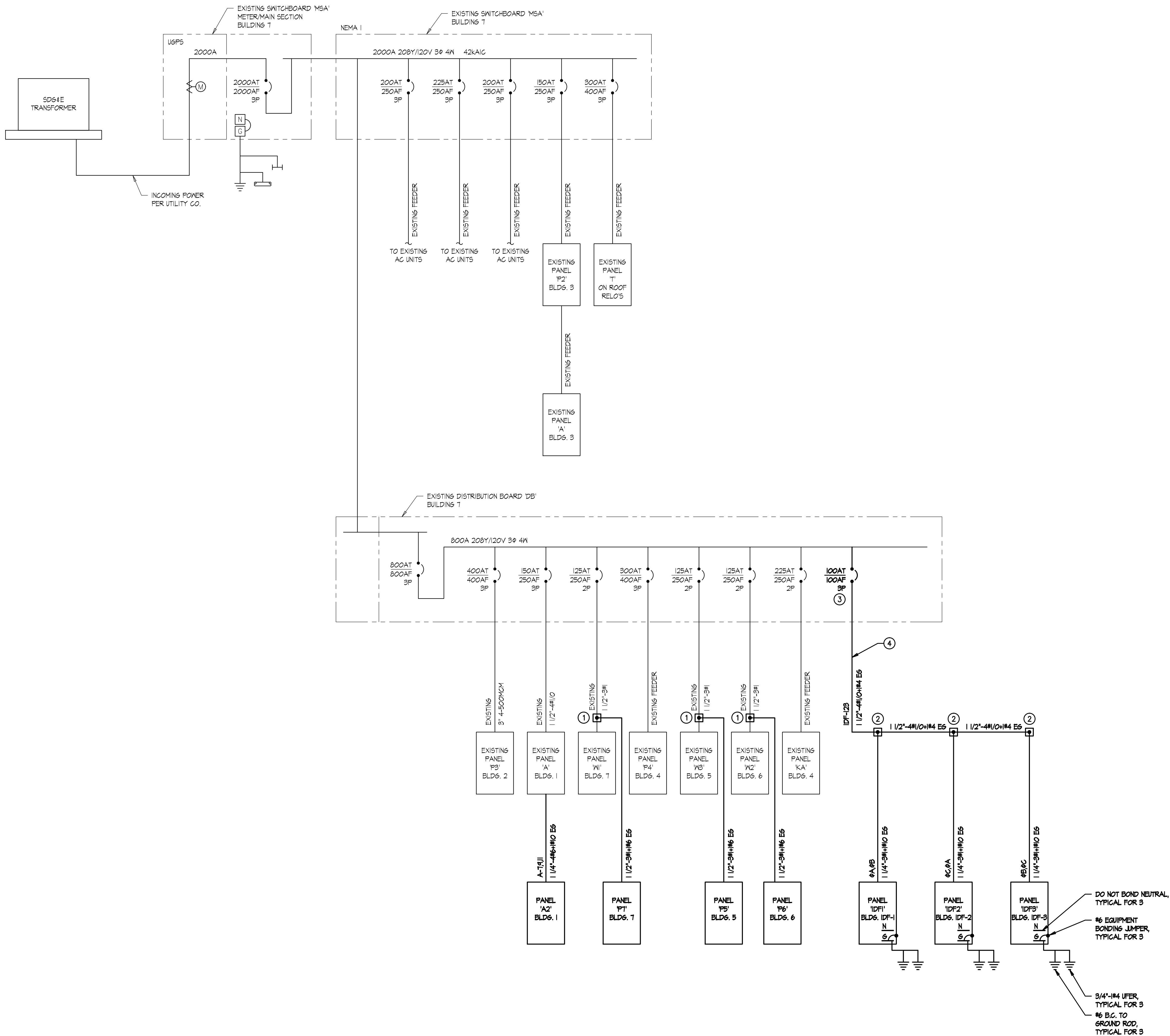
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E-9.2

PORTABLE 29-38 - SIGNAL PLAN



SINGLE LINE DIAGRAM

- KEYNOTES**
- ① 18"x18"x6" NEMA 3R PULLBOX. SPLICE EXISTING FEEDER AND EXTEND TO NEW PANEL. SEE DETAIL D/E-121.
 - ② 18"x18"x6" NEMA 4 PULLBOX MOUNTED TO TOP OF EXISTING WALKWAY CANOPY. SEE DETAIL D/E-123.
 - ③ PROVIDE CIRCUIT BREAKER OF SIZE INDICATED TO MATCH EXISTING SWITCHBOARD. PROVIDE ALL NECESSARY HARDWARE INCLUDING SUITABLE LOAD LUGS REQUIRED FOR COMPLETE INSTALLATION.
 - ④ REFER TO LOAD CALCULATION ON THIS SHEET.

LOAD CALCULATION FEEDER 'IDF-123'			
PANEL	CONNECTED LOAD (VA)		
	ØA	ØB	ØC
IDF1	4845	3640	
IDF2	3640		4845
IDF3		4845	3640
TOTAL PER Ø	8535	8535	8535
TOTAL:	25605 VA	25605 AT 208V, 3Ø = 71.1 AMPS	

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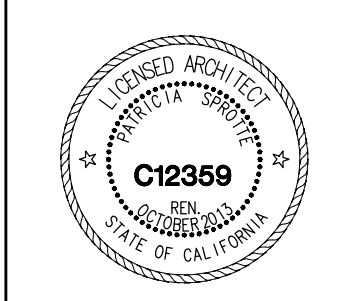
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E-11.1