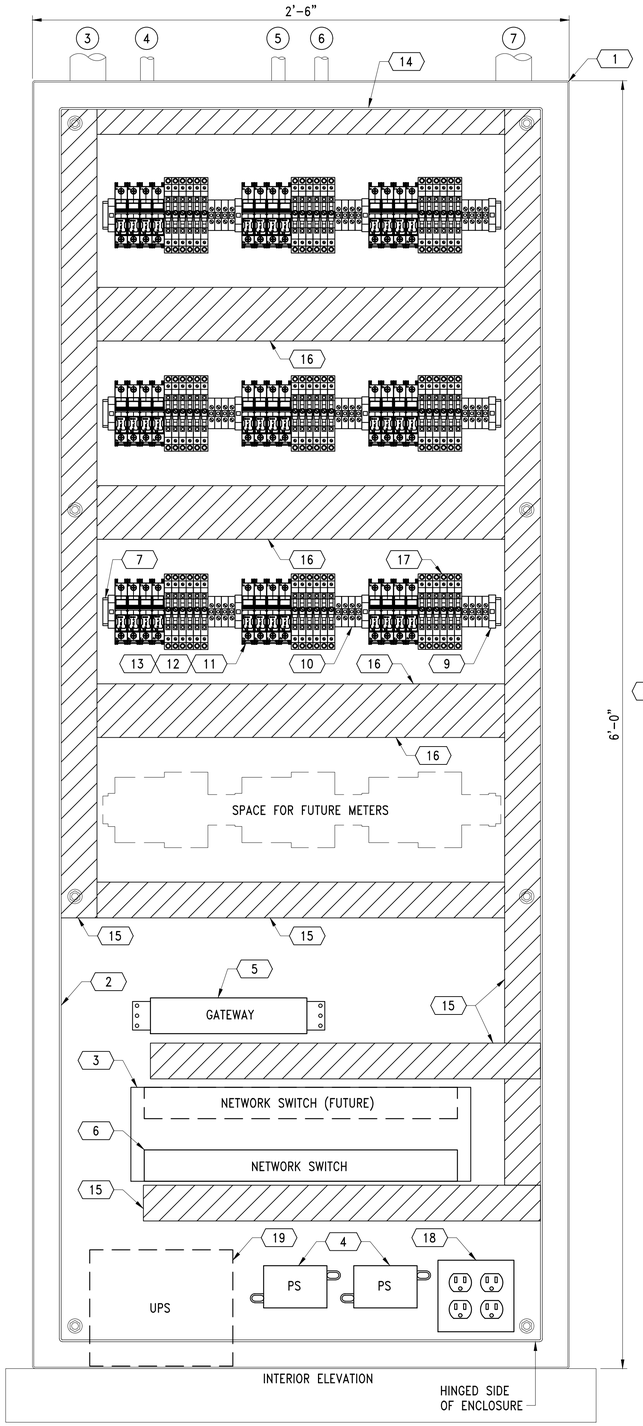

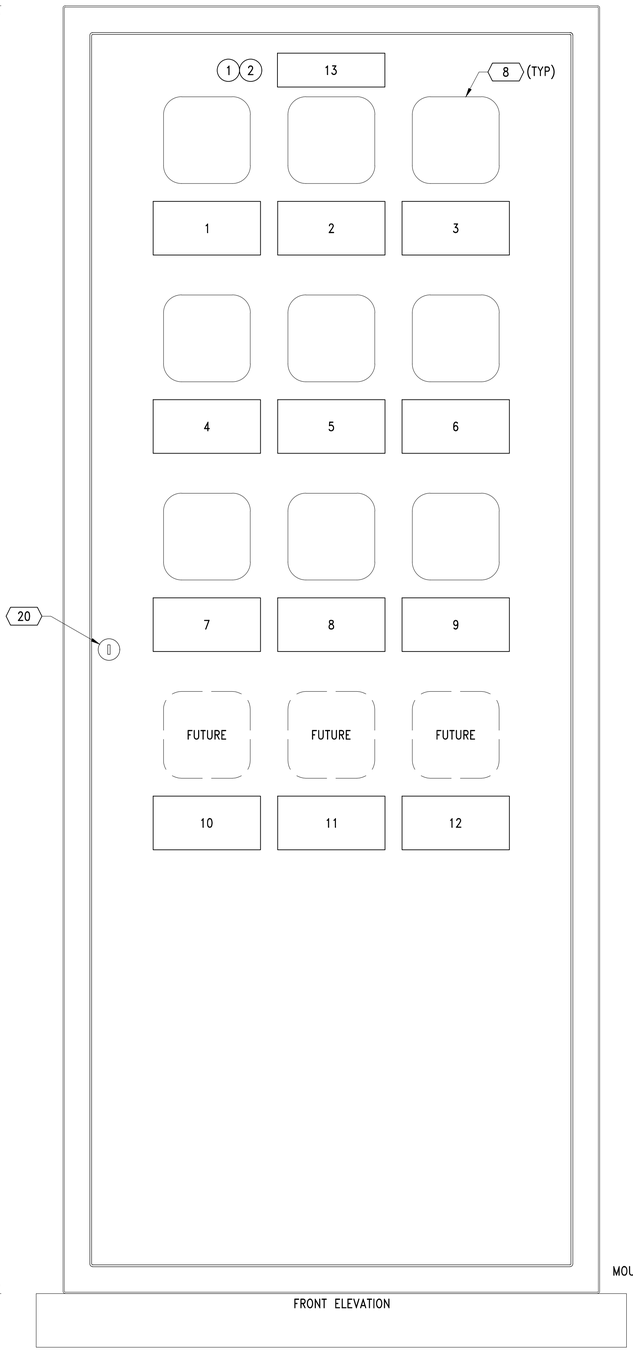

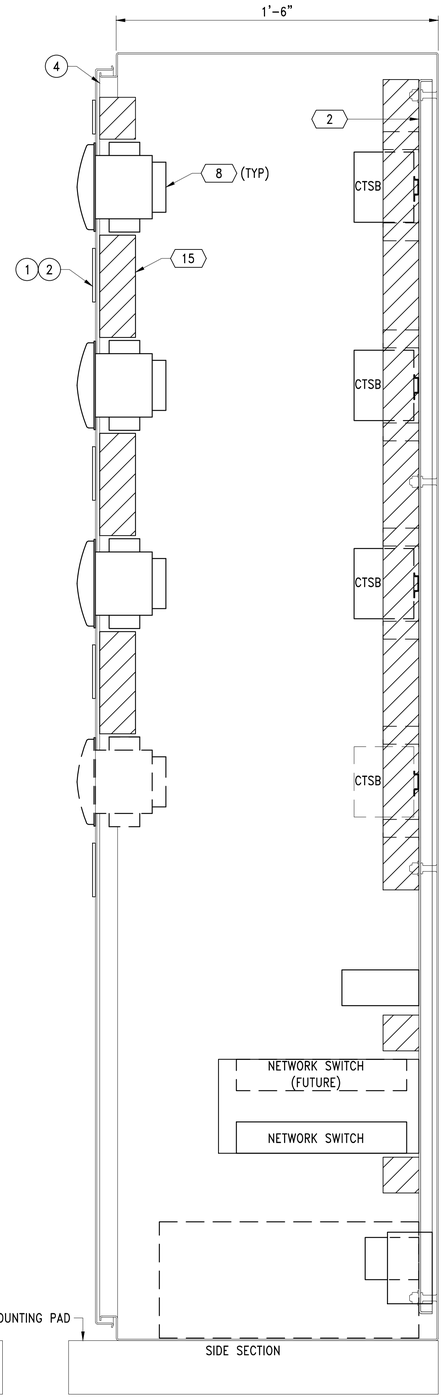

GENERAL NOTES:

1. METERING ENCLOSURE DESCRIPTION: UL LISTED NEMA 12 ENCLOSURE WITH POWER METERS, NETWORK SWITCH AND GATEWAY, PRE-WIRED WITH POWER SUPPLY, TERMINAL BLOCKS AND CT SHORTING BLOCKS. METER DISPLAY MOUNTS ON PANEL DOOR. ETHERNET CONNECTIONS TERMINATE ON SWITCH AND GATEWAY. METERS, NETWORK, GATEWAY ENCLOSURES AND ALL ASSOCIATED EQUIPMENT SHALL BE PROVIDED BY DIVISION 26.
2. METERING ENCLOSURE FABRICATOR SHALL COORDINATE INSTALLATION OF EQUIPMENT WITH MANUFACTURER OF POWER METERS PRIOR TO CONSTRUCTION.
3. METERING ENCLOSURE FABRICATOR SHALL PROVIDE INSTALLATION OF ALL DEVICES INDICATED REQUIRING ONLY THE CUSTOMER'S EXTERNAL CONNECTIONS TO PRODUCE A FULLY OPERATIONAL METERING ENCLOSURE. PROVIDE ALL INTERNAL WIRING INCLUDING CONNECTIONS FROM CT SHORTING BLOCKS TO METERS MOUNTED ON FRONT OF ENCLOSURE. PROVIDE CAT 6 CABLE WITH RJ45 CONNECTORS FROM EACH METER TO NETWORK SWITCH INSIDE ENCLOSURE.
4. FABRICATOR FURNISHED ITEMS ARE LISTED BUT ARE NOT NECESSARILY LIMITED TO THE BILL OF MATERIALS.
5. POWER WIRING SHALL BE MINIMUM 12 AWG, CU, 600V, 41/30 STRANDED MTW WIRE. 24V WIRING SHALL BE 16 AWG, MTW WIRE, CU, 600V, STRANDED.
6. ALL WIRING SHALL BE NEATLY TIE WRAPPED IN TRUNKS AND SECURED TO PANEL.
7. OPTIMUM LOCATIONS OF TERMINAL STRIPS ARE LEFT TO THE DISCRETION OF THE FABRICATOR. LABEL AND NUMBER TERMINALS PER SCHEMATIC.
8. MAINTAIN MIN CONDUCTOR BENDING RADIUS PER NEC. CUSTOMER CONDUIT ENTRIES ARE ANTICIPATED AT THE TOP OF THE ENCLOSURE.
9. REFER TO SPECIFICATION SECTION 260553 FOR NAMEPLATE LABELING REQUIREMENTS INCLUDING COLOR, MATERIAL AND THICKNESS.
10. NAMEPLATES SHALL HAVE SLIGHTLY CHAMFERED EDGES AND SHALL BE FASTENED TO PANEL USING S.S. SCREWS.
11. COMPLETED ENCLOSURE SHALL MEET UL508A REQUIREMENTS AND SHALL BE LABELED ACCORDINGLY.
12. PLACE WARNING PLACARD ON FRONT OF METER ENCLOSURE, PER SECTION 260553.
13. ROUTE 480V CONDUCTORS AND CAT 6A CABLES IN SEPARATE WIRING DUCTS.
14. WIRING DUCT SIZES ARE TYPICAL. FABRICATOR TO ENSURE DUCT SIZE IS ADEQUATE FOR FUTURE METER ADDITIONS.

KEYED NOTES

1. REFER TO METER NAMEPLATE SCHEDULE ON SHEET EXXX FOR NAMEPLATE ID NAME AND NUMBER.
2. REFER TO DRAWING EXXX FOR TYPICAL NAMEPLATE DETAILS
3. 2" CONDUIT WITH PULL STRING FOR CT WIRING FROM PANELBOARD/SWITCHBOARD.
4. 3/4" CONDUIT FOR VOLTAGE CONDUCTORS. PROVIDE CONNECTION FROM 480V POWER CIRCUIT TO SUPPLY POWER FOR METERS.
5. 3/4" CONDUIT WITH 2#12, #12G. PROVIDE 120V POWER FOR METERS.
6. 3/4" CONDUIT WITH PULL STRING UP TO JUNCTION BOX ON CEILING.
7. 2" CONDUIT (TYP) WITH PULL STRING FOR COMM CABLING. SIZE CONDUIT AS NEEDED.

BILL OF MATERIALS (METERING ENCLOSURE)

ITEM	DESCRIPTION	QTY	MANUFACTURER	PART NO.
1	UL LISTED NEMA 12 SINGLE DOOR ENCLOSURE 72"H x 30"W x 18"D	1	HOFFMAN, MIDWEST OR APPROVED EQUAL	A72H3118FS
2	BACKPANEL (INTERIOR)	1	HOFFMAN, MIDWEST OR APPROVED EQUAL	AP30
3	19" RACK PANEL WITH 3 RACK UNITS 19"W x 5.25"H	1	HOFFMAN, CHATSWORTH OR APPROVED EQUAL	P1J9RP3UA
4	POWER SUPPLY (PS), 24VDC, 48 VA, SIZE 5.3"W x 3.75"D x 3.21"H	2	EATON	ELC-P502
5	GATEWAY	1	EATON	POWER EXPERT 600A
6	NETWORK SWITCH, SIZE 1.73"H x 17.7"W x 9.52"D	1	CISCO	WS-C2960+24TC-L
7	TYPE 3 DIN RAIL	VARIES	COOPER OR APPROVED EQUAL	
8	POWER METER	VARIES	EATON	PXM 2260 MA65105
9	END BRACKET	VARIES	MARATHON SPECIAL PRODUCTS OR APPROVED EQUAL	
10	TERMINAL BLOCK	VARIES	MARATHON SPECIAL PRODUCTS OR APPROVED EQUAL	603GP03
11	FUSED DISCONNECT SWITCH	VARIES	MARATHON SPECIAL PRODUCTS OR APPROVED EQUAL	FDS-30-C-1, FDS-30-C-3
12	FAST ACTING FUSES, 0.1A	VARIES	LITTELFUSE, BUSSMAN OR APPROVED EQUAL	OKLK.100
13	TIME DELAY FUSES, 3A	VARIES	LITTELFUSE, BUSSMAN OR APPROVED EQUAL	FLQ003
14	WIRING DUCT, LIGHT GRAY W/COVER, 1.25"W x 3"H	VARIES	PANDUIT, THOMAS & BETTS OR APPROVED EQUAL	
15	WIRING DUCT, LIGHT GRAY W/COVER, 1.75"W x 3"H	VARIES	PANDUIT, THOMAS & BETTS OR APPROVED EQUAL	
16	WIRING DUCT, LIGHT GRAY W/COVER, 2.75"W x 3"H	VARIES	PANDUIT, THOMAS & BETTS OR APPROVED EQUAL	
17	CT SHORTING BLOCKS (CTSB)	VARIES	MARATHON SPECIAL PRODUCTS OR APPROVED EQUAL	1506SC
18	DOUBLE GANG BACKBOX W/ NEMA 5-20R RECEPTACLES AND COVER	1	HUBBELL, LEVITON OR APPROVED EQUAL	5-20R
19	UPS, SIZE 6.34"H x 5.43"W x 14.29"D	1	APC OR APPROVED EQUAL	SMT750
20	LOCK FOR METER ENCLOSURE	1	COORDINATE WITH PORT ELECTRIC SHOP	

NOTE TO DESIGNER:
COORDINATE WITH F&I FOR CAPACITY REQUIREMENTS OF METERING CABINET.

DETAIL 1/–
METERING ENCLOSURE
SCALE: 1/4" = 1'-0"

*CONSULTANT'S LOGO

PROJECT ENGR./ARCH:	
DESIGNER:	SEAN MCKEE
DRAWN BY:	KYLE MADSON
SCALE:	AS NOTED
DATE:	03/01/2020
CHECKED BY:	SEAN MCKEE
CHECKED/APPROVED BY:	

REVISIONS

NO.	DATE	BY	DESCRIPTION	APP'D	NO.	DATE	BY	DESCRIPTION	APP'D
1	03/01/2019	KDM	2019 F&I STANDARD DETAILS						
2	03/01/2020	KDM	2020 F&I STANDARD DETAILS						

PROJECT MANAGER:	
PROJECT ENGINEER:	
DESIGN ENGINEER:	
DRAFTER:	
SCALE:	
DATE:	
CHECKED/APPROVED BY:	

Port of Seattle **SEA-TAC INTERNATIONAL AIRPORT**

PROJECT: **F&I STANDARD DETAILS**

SHEET TITLE: **METER ENCLOSURE ELEVATIONS AND DETAILS TYPICAL OF CABINET WITH CAPACITY FOR 12 METERS**

WORK PROJECT NO.	
CONSULTANT'S NO.	
PORT OF SEATTLE NO.	262713-01