



GENERAL NOTES:

- 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.
- METERING ENCLOSURE FABRICATOR SHALL COORDINATE INSTALLATION OF EQUIPMENT WITH MANUFACTURER OF POWER METERS PRIOR TO CONSTRUCTION.
- 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.
- FABRICATOR FURNISHED ITEMS ARE LISTED BUT ARE NOT NECESSARILY LIMITED TO THE BILL OF MATERIALS.
- 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.
- ALL WIRING SHALL BE NEATLY TIE WRAPPED IN TRUNKS AND SECURED TO PANEL.
- OPTIMUM LOCATIONS OF TERMINAL STRIPS ARE LEFT TO THE DISCRETION OF THE FABRICATOR. LABEL AND NUMBER TERMINALS PER SCHEMATIC.
- MAINTAIN MIN CONDUCTOR BENDING RADIUS PER NEC. CUSTOMER CONDUIT ENTRIES ARE ANTICIPATED AT THE TOP OF THE ENCLOSURE.
- REFER TO SPECIFICATION SECTION 260553 FOR NAMEPLATE LABELING REQUIREMENTS INCLUDING COLOR, MATERIAL AND THICKNESS.
- NAMEPLATES SHALL HAVE SLIGHTLY CHAMFERED EDGES AND SHALL BE FASTENED TO PANEL USING S.S. SCREWS.
- COMPLETED ENCLOSURE SHALL MEET UL508A REQUIREMENTS AND SHALL BE LABELED ACCORDINGLY.
- PLACE WARNING PLACARD ON FRONT OF METER ENCLOSURE, PER SECTION 260553.
- ROUTE 480V CONDUCTORS AND CAT 6A CABLES IN SEPARATE WIRING DUCTS.
- WIRING DUCT SIZES ARE TYPICAL. FABRICATOR TO ENSURE DUCT SIZE IS ADEQUATE FOR FUTURE METER ADDITIONS.

KEYED NOTES

- REFER TO METER NAMEPLATE SCHEDULE ON SHEET EXXX FOR NAMEPLATE ID NAME AND NUMBER.
- REFER TO DRAWING EXXX FOR TYPICAL NAMEPLATE DETAILS
- 2" CONDUIT WITH PULL STRING FOR CT WIRING FROM PANELBOARD/SWITCHBOARD.
- 3/4" CONDUIT FOR VOLTAGE CONDUCTORS. PROVIDE CONNECTION FROM 480V POWER CIRCUIT TO SUPPLY POWER FOR METERS.
- 3/4" CONDUIT WITH 2#12, #12G. PROVIDE 120V POWER FOR METERS.
- 3/4" CONDUIT WITH PULL STRING UP TO JUNCTION BOX ON CEILING.
- 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 3000 MA15 |
| 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
METERING ENCLOSURE
SCALE: 1/4" = 1'-0"

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| *CONSULTANT'S LOGO | PROJECT ENGR./ARCH: | REVISIONS | | | | | | | | | | PROJECT MANAGER: | 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. |
| | DESIGNER: SEAN MCKEE | NO. | DATE | BY | DESCRIPTION | APP'D | NO. | DATE | BY | DESCRIPTION | APP'D | PROJECT ENGINEER: | | CONSULTANT'S NO. |
| | DRAWN BY: KYLE MADSON | 1 | 03/01/2019 | KDM | 2019 F&I STANDARD DETAILS | | | | | | | DESIGN ENGINEER: | | |
| | SCALE: AS NOTED | 2 | 03/01/2020 | KDM | 2020 F&I STANDARD DETAILS | | | | | | | DRAFTER: | | |
| | DATE: 03/01/2020 | 3 | 03/01/2023 | KDM | 2023 F&I STANDARD DETAILS | | | | | | | SCALE: | | |
| | CHECKED BY: SEAN MCKEE | | | | | | | | | | | DATE: | | PORT OF SEATTLE NO. |
| | CHECKED/APPROVED BY: | | | | | | | | | | | CHECKED/APPROVED BY: | | 262713-01 |