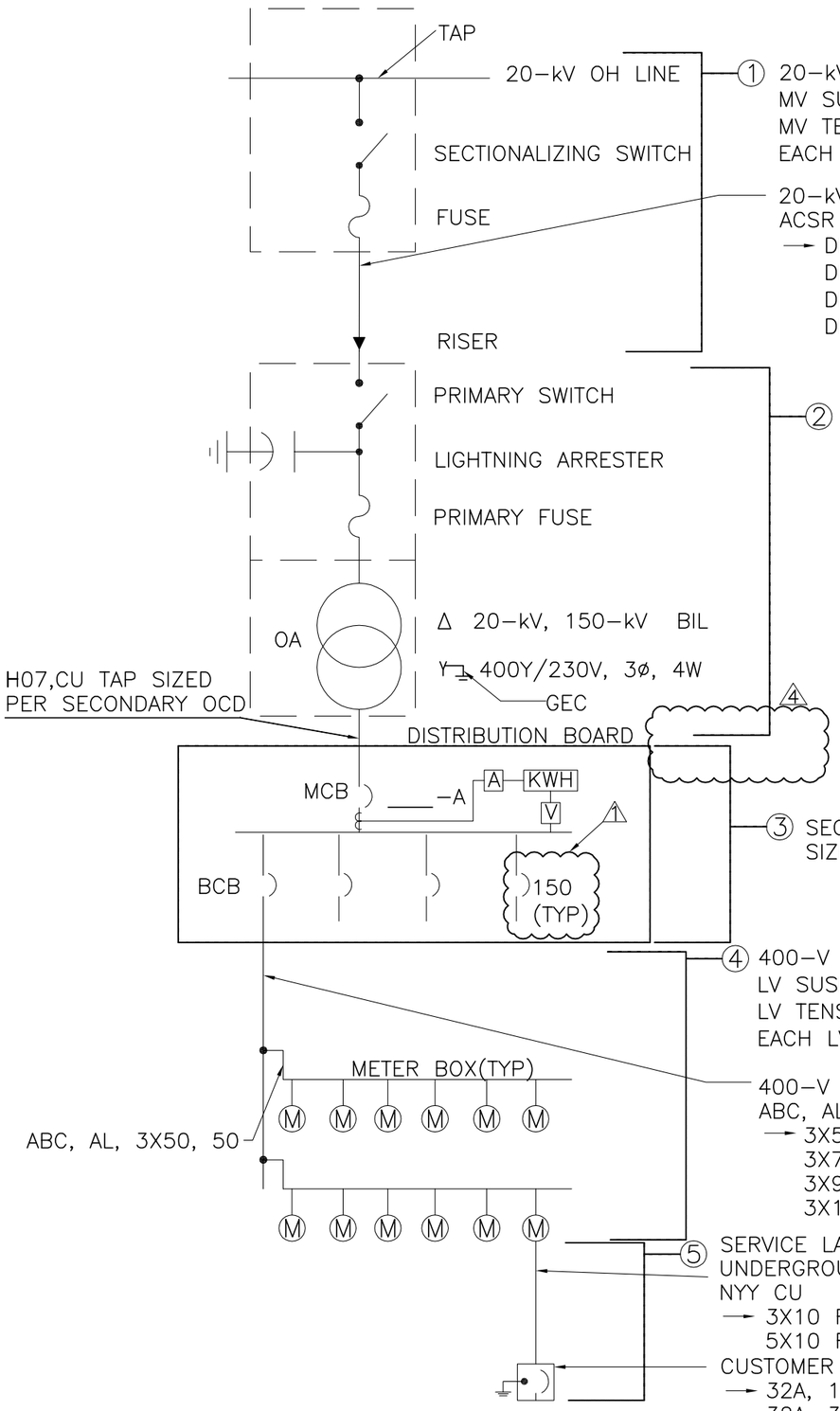


① 20-kV OHL
MV SUSPENSION (TANGENT) POLES, SINGLE 2,000-mm CROSS ARM, DABS AS-01, 2XAS-05, AS-07, MV-301C
MV TENSION (ANGLE) POLES, DOUBLE 2,000-mm CROSS ARMS, DABS AS-03, 1XAS-05, 6XAS-09, MV-308C
EACH MV TENSION (ANGLE) POLE IS GUYED. MV GUY; DABS AN-S1, GU-S1, GU-102C

20-kV OH LINE
ACSR
→ DIN 70/12
DIN 95/15
DIN 120/20
DIN 185/30

② 

SECONDARY TRANSFORMER SUBSTATION & DISTRIBUTION BOARD

| TRANSFORMER kVA | MCB (A) | TAP C/ø, 3P+N ($mm^2$) | BCB (A) | GEC ($mm^2$) |
|---|---|---|---|---|
| 25 | 50 | 1 X 50 | NONE | 25 |
| 40 | 80 | 1 X 50 | NONE | 35 |
| 63 | 120 | 1 X 50 | NONE | 35 |
| 100 | 200 | 1 X 120 | 2 X 150 | 35 |
| 160 | 300 | 1 X 240 | 3 X 150 | 70 |
| 250 | 500 | 2 X 150 | 5 X 150 | 70 |
| 400 | 800 | 3 X 185 | 7 X 150 | 95 |
| 630 | 1200 | 5 X 185 | 12 X 150 | 95 |
| 1000 | 2000 | 8 X 240 | 10 X 250 | 95 |

③ SECONDARY 400-V DISTRIBUTION
SIZE TRANSFORMER SECONDARY OCD PER TRANSFORMER SIZE

④ 400-V OH TO METER BOXES
LV SUSPENSION (TANGENT) POLES, DABS AS-11, LV-101
LV TENSION (ANGLE) POLES, DABS AS-12, AS-13, LV-102
EACH LV TENSION (ANGLE) POLE IS GUYED. LV GUY, DABS AN-S1, GU-S1, GU-101C

400-V OH LINE
ABC, AL
→ 3X50, 50
3X70, 50
3X95, 70
3X120, 70

⑤ SERVICE LATERALS AND SE DISCONNECTS
UNDERGROUND SERVICE LATERAL
NYY CU
→ 3X10 RE
5X10 RE
CUSTOMER SERVICE DISCONNECT
→ 32A, 1P
32A, 3P

NOTE:
MATERIALS SHALL CONFORM TO DABS DISTRIBUTION STANDARDS, CHAPTER U DABS STANDARD TECHNICAL DATA SHEETS, CHAPTER Y, DABS TECHNICAL SPECIFICATIONS, CHAPTERS A THROUGH S, AND DABS CHAPTER Z-3 INFORMATION ON SPECIFIC ITEMS OF SUPPLY, CHAPTERS D,H,I,N,O,S.

NOT FOR CONSTRUCTION

UNLESS OTHERWISE NOTED, LINEAR DIMENSIONS SHOWN ARE IN MILLIMETERS.

CONCEPT DESIGN

This project was made possible by the United States Agency for International Development and the generous support of the American People through USAID Global Architecture and Engineering IQC Contracts.

| SYMB | DESCRIPTION | DATE | APR |
|---|---|---|---|
| 4 | ADJUSTED SECTIONS | 01/08/2011 | |
| 3 | ADDED GEC SIZES | 01/03/2011 | |
| 2 | ADDED SECONDARY TABLE | 12/20/2010 | |
| 1 | CHANGED SIZE OF OCD | 12/18/2010 | |

DESIGNED BY: MAL
DATE: 12/31/2010
DWN BY: AS
SUBMITTED BY: TETRA TECH
CHK BY: MAL
FILE NO.: LT0025-E-100

USAID FROM THE AMERICAN PEOPLE
AESP

USAID - OIEE
42 VILLAGES ELECTRIFICATION
ELECTRICAL
ONE-LINE DIAGRAM

SHEET REFERENCE NUMBER:
LT0025
E-100

DRAFT 2/1/2011 10:50 AM

P:\1298\Work Orders\WO-LT\WO-LT-0025 RC-East Villages Electrification\SupportDocs_MEP_FP\Parwan\Bagram\Jwazsang\Conceptual\110201 WOLT0025 Jwazsang_E100.dwg 2/1/2011 10:50:01 AM Ahmadyar, Ahmad Shabir