



- NOTES:**
- THIS DRAWING SHOWS THE CONTROL, PROTECTION AND SIGNALING CABLING WHICH IS TO BE USED IN CITY CONTROL POINTS AND HIGH LEVEL DISTRIBUTION SUBSTATIONS WITH OPTICAL ARC FLASH DETECTION DISTRIBUTION SUBSTATIONS WITH OPTICAL ARC FLASH DETECTION INFORMATION PACKAGE.
 - THE HV DIFF CT'S ARE GENERALLY MOUNTED ON EACH HV SWITCH, HOWEVER THEY CAN BE MOUNTED ADJACENT TO THE TRANSFORMER HV CONNECTIONS IF THERE IS INADEQUATE SPACE ON THE HV SWITCH.
 - THE TRANSFORMER LV DIFF CT'S & CUSTOMER SUPPLY CT'S ARE LOCATED IN THEIR RESPECTIVE LV SWITCHBOARD PANEL.
 - THE CUSTOMER SUPPLY IS TO BE BY AN AIR CIRCUIT BREAKER OVERCURRENT CT'S ARE INSTALLED IN THE CUSTOMER SUPPLY PANEL WHERE THERE ARE 2 CUSTOMER OVERCURRENT PROTECTIONS REFERRED THEY ARE TO BE LOCATED ON THE SAME CUSTOMER OVERCURRENT PROTECTION PANEL SEE DRAWING 227381 SH1.
 - CABLE 11A IS TO BE SIZED TO MEET VOLTAGE DROP REQUIREMENTS OUTLINED IN AS 3000.
 - FOR CLARITY, TRANSFORMERS ARE REFERENCED AS 1st TRANSFORMER, 2nd TRANSFORMER & 3rd TRANSFORMER. ACTUAL DESIGNATION WILL DEPEND ON WHICH CITY TRIPLEX FEEDERS ARE SUPPLYING THE DISTRIBUTION SUBSTATION. TYPICAL DESIGNATION FOR 1st, 2nd, & 3rd TRANSFORMERS ARE 'A', 'B', & 'C'; 'D', 'E', 'F'; 'G', 'H', 'J'; or 'K', 'L', & 'M'. SEE DESIGN PACKAGE FOR PROJECT DETAIL.
 - SCADA AND AUTOCLOSING ARE INTEGRATED INTO A NEW PANEL, THE DISTRIBUTION LOCAL AUTOMATION CONTROL PANEL (DLAC) IT PROVIDES FOR CUSTOMERS SEEKING CO-GENERATION CONNECTIONS TO THE AUSGRID NETWORK. SEE THE SUBSTATION DESIGN PACKAGE AND NETWORK STANDARD.
 - 'B' BATTERY TERMINATION BOX (BTB) INSTALLED TO ENABLE SIMPLIFIED BATTERY REPLACEMENT. REFER DRAWING 227379.
 - THE FAN CONTROL THERMOSTATS ARE TO BE INSTALLED ONLY IF REQUIRED.
 - CERTAIN CABLES, AS NOTED IN DRAWING, ARE OPTIONAL:
CABLES REQUIRED ONLY WHERE CUST OC No2 IS INSTALLED:
2CS, C2ACB, C0D2, DLACPC2/F, C1ZACB.
CABLES REQUIRED ONLY WITH SUBSTATION FAN INSTALLATION (CHAMBER/UNDERGROUND STATIONS):
12A, 1FC, 2FC, 3FC, 4FC, 3S.
CABLES REQUIRED ONLY WITH CUSTOMER CO-GENERATION:
DLACC/F.
 - A WATER LEVEL SWITCH IS ONLY REQUIRED IN BASEMENT CONTROL POINTS.

TITLE	DWG No.
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD AND OPTICAL ARC FLASH DETECTION AC SCHEMATIC	227380 SH1
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD & OPTICAL ARC FLASH DETECTION TRANSFORMER DC SCHEMATIC	227380 SH2
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD & OPTICAL ARC FLASH DETECTION CUSTOMER OVERCURRENT DC SCHEMATIC	227380 SH3
CITY DISTRIBUTION SUB WITH E TYPE LV BOARD AND OAFD, DLAC PANEL SCHEMATIC, GENERAL DC SUPPLIES INTER-PANEL WIRING, FIBRE COMMS & CABLING DIAGRAM	227380 SH4
CITY CONTROL POINT, DLAC PANEL SCHEMATIC, GENERAL DC SUPPLIES INTER-PANEL WIRING, FIBRE COMMS & CABLING DIAGRAM	227380 SH5
CITY DISTRIBUTION SUBSTATIONS WITH OPTICAL ARC FLASH DETECTION (E TYPE LV) TRANSFORMERS AND CUSTOMER OVERCURRENT FREE STANDING PANELS LAYOUT DETAILS	227381 SH1
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD & OAFD, TRANSFORMERS AND CUSTOMER OVERCURRENT PROTECTION PANELS LABEL DETAILS	227382 SH1
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD, DRY TYPE TX & OAFD, TRANSFORMER PROTECTION PANEL WIRING DIAGRAM	227383 SH1
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD, DRY TYPE TX & OAFD, TRANSFORMER PROTECTION PANEL CABLE CONNECTION DIAGRAM	227384 SH1
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD AND OAFD CUSTOMER OC No 1 (8 No 2) PROTECTION PANEL WIRING AND CABLE CONNECTIONS	227385 SH1
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD AND OPTICAL ARC FLASH DETECTION CABLE CONNECTIONS	227386 SH1
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD AND OPTICAL ARC FLASH DETECTION CABLE SCHEDULE	227386 SH2
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD AND OAFD 1500V VA TX'S AND VENTILATION FAN AC SERVICE BOARD LAYOUT, WIRING, & CONNECTIONS	227387 SH1
CITY CONTROL POINT CABLING DIAGRAM	227386 SH3
CITY CONTROL POINT CABLE & WATER-PANEL WIRING SCHEDULE	227386 SH4
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD AND OAFD DISTRIBUTION LOCAL AUTOMATION CONTROL PANEL LAYOUT AND LABEL DETAILS	227388 SH1
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD, OAFD, & CUSTOMER OC No 1 & No 2 PROTECTION, DISTRIBUTION AUTOMATION CONTROL PANEL WIRING & CABLING	227389 SH1
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD, OAFD, & CUSTOMER OC No 1 PROTECTION, DISTRIBUTION AUTOMATION CONTROL PANEL WIRING & CABLING DIAGRAM	227389 SH2
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD AND OAFD TRANSFORMER ACB INTERNAL WIRING AND ACB PANEL CONTROL WIRING SCHEMATIC	227390 SH1
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD AND OAFD CUSTOMER ACB INTERNAL WIRING AND ACB PANEL CONTROL WIRING SCHEMATIC	227390 SH2
RMCB SUBSTATIONS WITH E TYPE LV BOARD WITH OPTICAL ARC FLASH DETECTION FIBRE LOOPING AND GENERAL MOUNTING DETAILS	227390 SH5
EPOXY RESIN ENCASED PROTECTION CURRENT TRANSFORMER OUTLINE AND DETAILS	125190

CLASSIFICATION
 DRAWING NO. 227386
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**CITY DISTRIBUTION SUBSTATIONS
 (HIGH LEVEL)
 WITH E TYPE LV BOARD
 AND OPTICAL ARC FLASH DETECTION
 CABLING DIAGRAM**

ISSUED FOR	SCALE	DATE	PROJECT NUMBER
CONSTRUCTION	NTS	20/05/2020	SJ-00313

DRAWING No **227386** SHEET 3 AMD 1 SIZE A0
 C&P - DISTRIBUTION SUBS