

Project: Maintenance of Passenger Terminal Building Lightning Protection System (MPF-MOC-26-2025)

Location: Port of Cagayan de Oro

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT
1.0	Upgrading of Lightning Protection System at Passenger Terminal Building	1.00	Lot		

Work Description

To supply materials, labor, tools and equipment for the fabrication and installation of lightning arrester (ESE) mounting pole, Lay-out and cable laying of down conductor, installation of grounding grid and rod, Installation of ESE and lightning counter.

Materials

Early Streamer Emission (ESE) Lightning Arrester

Discharge Capacity: 300KA (10/350µs)

Amplitude Damping Ratio: ≥ 70%

Gradient Damping Multiplying Ratio: ≥ 48

Time of Activate in Advance: 40µs

Currents Limiting Impedance Value: ≤3Ω

Earthing Resistance: ≤10Ω

Wind Load: ≤36m/s

Height(m) 0.4m+0.9m+Installation of Accessories

Gross Weight(kg): 11kg

1.00 pc

Earthing Downlead: One piece or multi pieces of steel bar (steel flat). Diameter (or equal sectional area) shall be no less than 8mm

60mm2 Copper Wire

300.00 mtr

Lightning Counter

1.00 set

GI Pipe 4" Schedule 40

3.00 l

4" Flange

2.00 pcs

Guy Wire 1/4" 7 Strands

200.00 mtr

3/4 Diameter Turn Buckle

24.00 pcs

Guy Grip

24.00 pcs

Bolts and Nuts

64.00 set

Welding Rod

20.00 kgs

12mm Diameter Round Bar

15.00 l

Grounding Rod 5/8" x 10ft

12.00 pcs

Grounding Clamp

20.00 set

CAD Weld Powder

2.00 bag

CAD Weld Mould

1.00 set

Equipment

1 Electric Drill

10.00 day(s)

1 - Welding Machine

10.00 day(s)

Manpower

1 - Electrical Engineer

15.00 day(s)

4 - Skilled Labor

15.00 day(s)

6 - Unskilled Labor

15.00 day(s)

ESTIMATED DIRECT COST P

ESTIMATED INDIRECT COST P

TOTAL COST OF WORK ITEM 1 P

TOTAL AMOUNT P