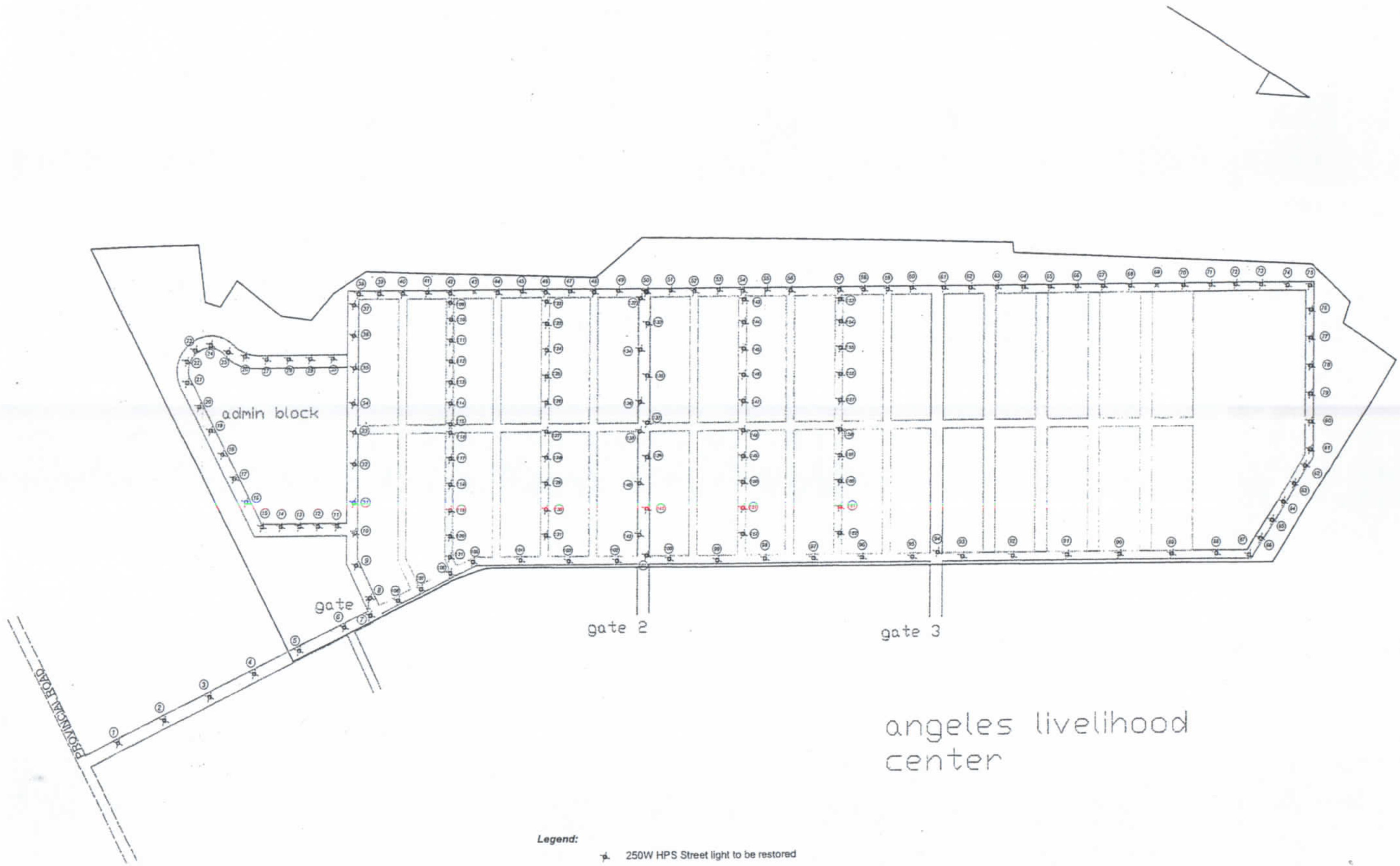
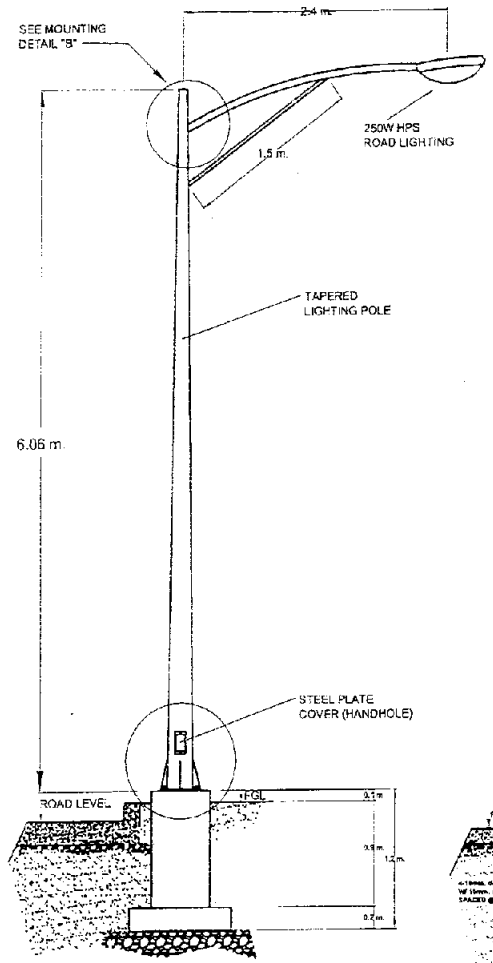
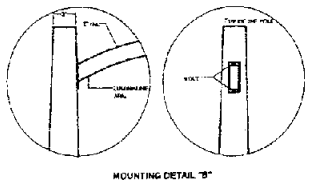
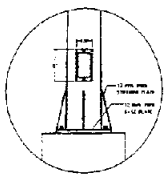
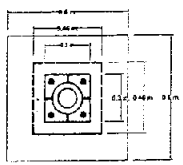


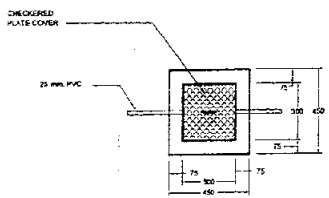
PROVINCIAL ROAD
admin block
gate
gate 2
gate 3
angeles livelihood
center
Legend:
250W HPS Street light to be restored

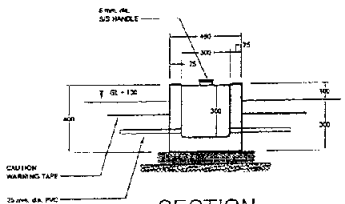


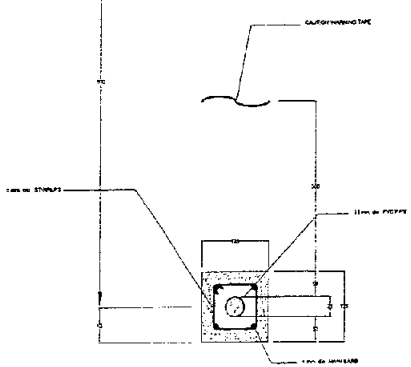


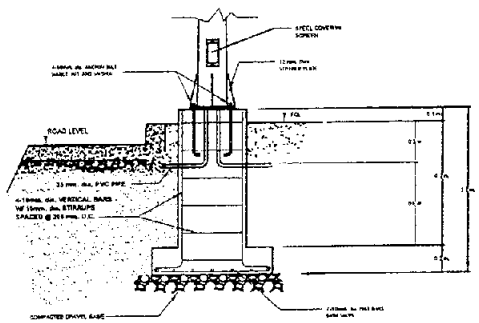


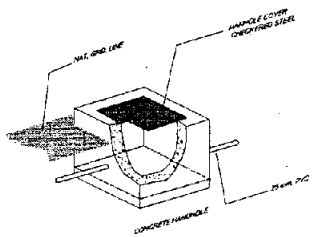








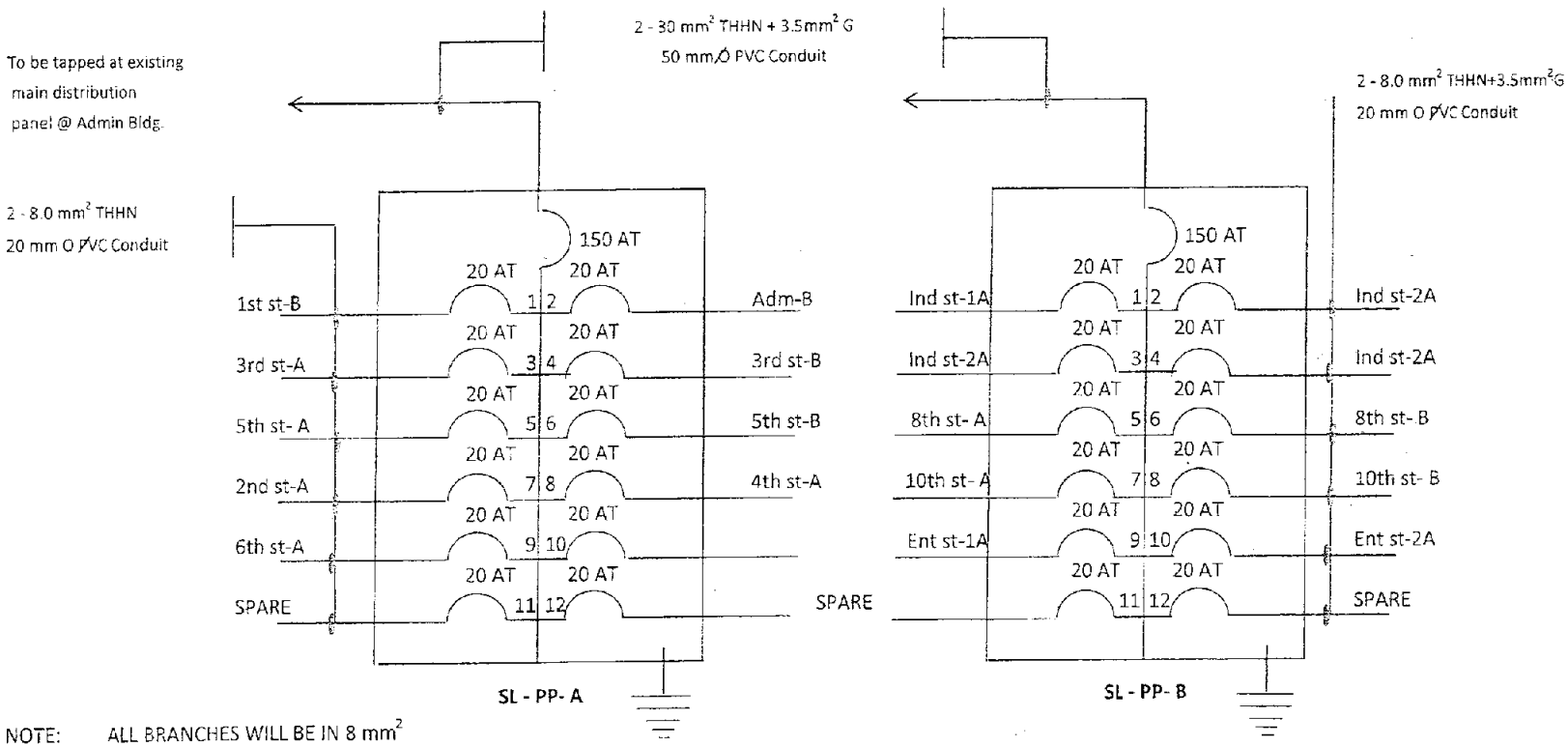




PERIMETER LIGHTING DETAIL

CONCRETE FOUNDATION DETAIL

STREET LIGHTING REHABILITATION
LOCATION: PAMPANGA



NOTE: ALL BRANCHES WILL BE IN 8 mm²
FOR VOLTAGE DROP CONSIDERATION

SINGLE LINE DIAGRAM

PROJECT : PAMPANGA ECONOMIC ZONE AUTHORITY
STREET LIGHTING REHABILITATION
LOCATION: PAMPANGA

Panel : SL - PP - A (TYPICAL TO SL-PP-B)
Location: -
Enclosure: NEMA3R

MAIN CB: 150AT
FEEDER: 2-30mm^2 THHN+3.5G
CODUIT SIZE: 50mm O PVC

VOLTAGE: 230
PHASE: 2

CKT NO.	LOAD DESCRIPTION	VA	AMPERES	VOLTS	CKT BREAKER		FEDDER (THHN)	CONDUIT
					AT	POLES		
1	7 - 250W HPS L.OUTLET	2500	10.87	230	20	2	2-8.0mm^2 THHN+3.5mm^{2}G	20mm O PVC
2	7 - 250W HPS L.OUTLET	2500	10.87	230	20	2	2-8.0mm^2 THHN+3.5mm^{2}G	20mm O PVC
3	7 - 250W HPS L.OUTLET	2500	10.87	230	20	2	2-8.0mm^2 THHN+3.5mm^{2}G	20mm O PVC
4	7 - 250W HPS L.OUTLET	2500	10.87	230	20	2	2-8.0mm^2 THHN+3.5mm^{2}G	20mm O PVC
5	7 - 250W HPS L.OUTLET	2500	10.87	230	20	2	2-8.0mm^2 THHN+3.5mm^{2}G	20mm O PVC
6	7 - 250W HPS L.OUTLET	2500	10.87	230	20	2	2-8.0mm^2 THHN+3.5mm^{2}G	20mm O PVC
7	7 - 250W HPS L.OUTLET	2500	10.87	230	20	2	2-8.0mm^2 THHN+3.5mm^{2}G	20mm O PVC
8	7 - 250W HPS L.OUTLET	2500	10.87	230	20	2	2-8.0mm^2 THHN+3.5mm^{2}G	20mm O PVC
9	7 - 250W HPS L.OUTLET	2500	10.87	230	20	2	2-8.0mm^2 THHN+3.5mm^{2}G	20mm O PVC
10	7 - 250W HPS L.OUTLET	2500	10.87	230	20	2	2-8.0mm^2 THHN+3.5mm^{2}G	20mm O PVC
11	SPARE							
12	SPARE							
	TOTAL	25000	108.7					

COMPUTATION:

I = 2500/230
= 108.7 Amperes

7 - 250W PER CKT @ 8mm^2 THHN

$VD = \frac{2 \times 394 \times 1.28 \times 7.6}{1000}$

= 7.69 VOLTS

VD% = 3.30%

VOLTAGE DROP CALCULATION: SINGLE P PHASE

$VD = \frac{2 \times L \times R \times I}{1000}$

L = Length of cable in ft.

R = Resistance factor from NEC Chapter9 Table 8

where 30mm^2 = .201 ; 8.0mm2 = 1.28

V = Voltage Source

$VD\% = \frac{VD}{\text{SOURCE VOLTAGE}} \times 100$

NOTE: PART OF ALV RD CKT, ADMIN LOOP AND 1ST STREET TO BE TAPPED @ ADMIN SOURCE