

DELHI DEVELOPMENT AUTHORITY
OFFICE OF SUPERINTENDING ENGINEER (E) PLG.
VASANT KUNJ, NEW DELHI.

No. W-26/SE (E) P/2013-14/DDA/ 891

Date: 30-10-2013

MINUTES OF MEETING

Subject: Pre-bid meeting for the work of D/o land at Rohini Ph. IV & V – C/o full width of Master Plan Road 80 mtr. right of way (UER-III) at Rohini Ph. IV & V & 60 mtr. R/W and 45 Mtr. R/W of road.

(SH: Providing street lighting on 80 mtr. R/W from Western Yamuna Canal to Prem Adhar)

Pre Bid meeting was held in the office of Chief Engineer (Elect.) on 22.10.2013 at 3 PM. List of participants who attended the meeting is attached.

After due discussions and deliberations, following decisions were taken:

1. **Schedule of Work:** Revised schedule of work is enclosed.
2. **List of Acceptable Makes:** Revised list of acceptable makes is enclosed.
3. **Additional Terms & Conditions:**
 - a) **Para 1 General:** Para 1.2 iv) is deleted.
 - b) **Para 2 Scope of Work:** It is clarified that works deemed to be included within scope of work are those not mentioned in the schedule of work.
 - c) **Para 11 Completeness of Tender:** Following is added:

“Successful tenderer within one month of award of work shall obtain and submit certificate for achieving illuminance criteria (E-Average; E-minimum / E-Average; E-Minimum / E-maximum) from the manufacturer of lighting fixtures, intended for the work for demonstration at site after execution of work by the tenderer.

“Grid size of 5 mtr. and pole to pole distance of at least 35 mtr. shall be considered for measurement of horizontal lux level at GL (Elevation Zero) ”.
 - d) **Para 14 Completion Plan & Data:** Following is added in Para 14 i):

1. General layout showing route of cables, location of feeder pillars along with schedule of lengths, types & sizes of cables in various circuits, pole nos. on each circuit and position of cable joints etc.

2. Maintenance schedules of fittings, panels and other equipments as applicable.

4. **Technical specifications:**

a) Para 1 Door opening: 'The door shall be flush with hinged and locking facility' shall be read as '*The door shall be flush with hinges and locking facility*'.

'The pole shall be additionally reinforced with a welded steel section, so that the section at door is unaffected and undue buckling of the cut section is prevented' may be read as '*The pole shall be additionally reinforced with a welded steel section, so that the section at door is unaffected and undue buckling of the cut section is prevented*'.

b) Para 1.1 is deleted.

c) **Para 2 Street Light Luminaire vi) Glass Cover:** This is modified as: '**Curved & toughened glass cover of lamp compartment to give smaller flash and better glare control shall be acceptable**'.

d) **Para 3 Feeder Pillar:** Sub-Para xi) is modified as under.

The feeder pillar shall be provided with a danger notice plate.

Following Sub Para is added.

xiv) All connections & interconnections wires inside the feeder pillar shall be provided with tags / ferrules for identification.

5. **Schedule F 2 (xi) Standard Schedule of Rates:** 'Market Rates / DSR' may be read as '*Market Rates / DSR (E) 2012*'

6. As regards registration with EPFO & ESIC, instructions issued vide letter no. W-30/SE (E) P/DDA/2013-14/865 dated: 19.09.2013 may be referred vide which contractors not registered with EPFO & ESIC were permitted to bid till further development in the matter.

7. Drawings of pole, pole bracket and typical feeder pillar (main and service) are enclosed.

Changes / Modifications / Additions made above shall be considered by all the intending tenderers for filling up the rates in the "**Revised Schedule of Work**" enclosed herewith. This letter shall form part of the tender. Therefore, this letter duly stamped and signed by the tenderers in lieu of their acceptance, shall be submitted by all the tenderers failing which their tenders will not be opened.

EE (E), ED-10




EE (E) P

EE (E) P, EC-1



SE (E) P




SE (E), EC-1



Chief Engr. (Elect.)

Copy to: along with copy of revised BOQ & Revised list of acceptable makes

1. SE (E) EC-1
2. EE (E) Elect. Divn.-10



SE (E) P
o/c

REVISED SCHEDULE OF WORK

NAME OF WORK: Development of land at Rohini Phase IV & V. C/O Full width of Master Plan Roads 80 Mtr. right of way (UER-III) at Rohini Phase- IV & V and 60 Mtr. R/W and 45 Mtr. of road.

SH: Providing street lighting on 80 Mtr. R/W Road. (UER-III) from Western Yamuna Canal to Prem Adhar in Rohini Phase- IV & V

Sr. No.	Description of Item	Qty.	Rate	Unit	Amount
1	12 mtr. height Pole Supply, erection, testing and commissioning of hot dip Galvanized Octagonal Poles of 12 mtr. height made from 4 mm. thick sheet having bottom 200mm OAF & top 100 mm OAF and provided with welded base plate of size 320 mm x 320 mm x 20 mm thick; with built in control box with flush cover with 3 nos. mounting strips with tapped holes on existing RCC foundation, numbering of poles etc. complete as per drawings & technical specifications attached i/c providing and fixing of following accessories mounted inbuilt in control box. NOTE: On this pole brackets shall be installed at height of 12 mtr. and 7 mtr. so suitable arrangement for fixing of these brackets shall be made while fabricating the pole	266		No.	
a)	6 mm thick phenolic laminated / bakelite sheet inside the window mounted on the existing mounting strips inside the flush door.				
b)	2 nos. 63 Amp terminal block suitable for following conductor / cable, on the existing phenolic laminated / bakelite sheet.				
i)	25sq mm conductor – 2 nos (incoming and outgoing looping)				
ii)	3C x 2.5sq mm (for fitting)				
iii)	Terminal suitable for 6 SWG GI wire / 2.5sq mm wire.				
c)	6 Amp, SP MCB, 10 KA, 'C' Series – 2 nos. including mountings on suitable DIN channel, Earth stud 2 Nos. welded at suitable height i/c washers, springs washers & nuts etc.				
d)	Suitable arrangement for saddling of incoming / outgoing cables				
2	Supplying & fixing of Galvanized single arm bracket made out of suitable sized round pipe on existing octagonal pole, galvanized overhang with tightening bolts etc. as per drawing attached etc. as reqd. Tilt angle shall be between 5 to 15 degree.				
a)	1000 mm long (to be installed at 12 mtr. height)	266		No.	
b)	500 mm long (to be installed at 7 mtr. height on opposite side of the same pole)	266		No.	

3	Providing and laying in position M25 reinforced cement concrete foundation of size 750 mm (L) x 750mm (W) and 1800mm deep i/c excavation of earth, refilling, providing cutting, bending and placing in position, reinforcement of cold twisted bars of 12mm. dia-1960mm long (approx) 8Nos, and reinforcement ring of cold twisted bar of 8mm dia -2800mm long (approx) - 10nos, (with 150mm spacing) including centering & shuttering as required with positioning of foundation bolts (as per item no. 4) and providing 75mm,(O.D) DWC pipe for cable entry & exit etc. complete as required.	266	No.	
	Foundation nuts & bolts for 12 mtr. Height poles			
4	Supplying of 4Nos. M 24 x 800mm. long plus 100 mm Bent (150 mm top Threaded portion)G.I. foundation bolt (EN8 grade) with 2 nos. nuts and 2 no washers per bolt along with 2Nos. Template/anchor plate of size 320 mm x 320 mm., 4mm thick having 4Nos. 28mm.dia holes, to match with P.C.D of Poles & base plate etc. complete as required.	266	Set	
	Light Fixture			
5	Supplying, installation, testing and commissioning of street light fitting complete with pressure die-cast aluminium housing, high-grade reflector, control gear, ignitor, condensor, protective glass cover with accessories including tubular lamp, making connection and complete as per technical specification attached.			
	Lamp compartment IP- 66			
	Gear compartment IP- 54			
a)	HPSV fitting with 400 watt SONT Plus Lamp			
b)	HPSV fitting with 70 watt SONT Plus Lamp	266	No.	
	Wiring from pole to fitting	266	No.	
6	Supplying and drawing following sizes of FR PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit/ pole etc. as required. (Connection with suitable size of annealed copper lugs is in scope of item)			
a)	3x2.5 sq. mm			
	DWC Pipe (from main feeder pillar to service pillar & service pillar to first pole)	5300	Mtr.	
7	Supplying and laying of one number double walled corrugated High Density polyethylene (HDPE) pipe having corrugation of the outer wall and plain surface on inner wall ISI marked (IS: 14930(Part I & II)) complete with necessary HDPE fitting for protection of 1.1KV grade underground cable directly in ground at a depth of 50cm including excavation and refilling the trench etc as required			
a)	90 mm. outer dia. nominal size.	8000	Mtr.	


8	<p>Providing, boring and laying of HDPE pipes (ISI marked) of the following size confirming to IS: 4984 with pressure rating of 6kg./Sq. cm. by trenchless technology with no dig. method by making bore hole in horizontal direction across the road with boring equipment including jointing, cleaning, rodding of pipe performing mandrel test, providing suitable covers on mouth of pipes, excavation of pits of required. size & depth of 80 c.m. (minimum) etc. as required.</p>					
a)	90 mm. outer dia. nominal size.	500		Mtr.		
9	<p>Constructing brick masonry road gully chamber 110 cms x 50 cms x 77.5 cms with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500 mm x 450 mm pre - cast R. C. C. horizontal grating with frame and vertical grating complete as per standard design : with common burnt clay F.P.S (non modular) bricks of class designation 7.5</p> <p>Note: To be provided at both ends of the road for road crossings etc.</p>	2		No.		
	Cables					
10	<p>Supplying of following sizes of XLPE Aluminium conductor armoured power cable of 1.1 KV grade including making connection with suitable size of annealed copper lugs, testing etc. as required.</p>					
a)	4 C x 70 sq mm (from Main Feeder Pillar to Service Feeder Pillar)	6600		Mtr.		
b)	2C x 25 sq mm (to poles)	29000		Mtr.		
	Main feeder pillar					
11	<p>Supplying, installation, testing & commissioning of floor mounted free standing type, LT cubical main feeder pillar suitable for operation on 415 V, 50 Hz AC supply, duly compartmentalized (out door type) made out of 2mm thick MS CRCA sheet making connection, interconnection of the accessories mounted thereon with suitable size of copper wire/ strip duly PVC sleeved with thimble/ lugs, earthing the body of the feeder pillar, including supplying & fixing of the following items and as per technical specification & schematic drawing enclosed.</p>	2		Set		
a)	250 Amp., TP & N,415 volts switch disconnector unit with HRC fuses (interior only)-1 no. (in corner)					
b)	125 Amp., TP & N,415 volts switch disconnector unit with HRC fuses (interior only)-4 nos. (outgoing to SFP) (including 2 no. spares)					
c)	Compartment having space for DISCOM energy meter with 6mm thick bakelite sheet for mounting of energy meter					
d)	Voltmeter(0 - 500 V) 96 sq. mm. with selector switch. - 1 Set					
e)	Ammeter (0 - 150 A). 96 sq. mm. with selector switch & 150/5 Amp ratio CTs. - 1 Set					

f)	Indication lamp (RYB) with control HRC fuse with fuse fitting - 1 Set				
g)	32Amp. DP MCB, C series, 10KA- 9 nos. (outgoing circuit)				
h)	6 Amp. SP MCB -1 No.				
i)	Power contactor, 3 pole, 200 Amp.- 1 No. along with CTs, if required.				
j)	Time switch- 1 no.				
k)	Auto /Manual toggle switch- 1 No. (Timer bypass switch)				
l)	300 Amp., 4 strip aluminium busbar- 1 set.				
m)	Danger notice plate.-1 No.				
n)	6 Pin 15 A Switch / Socket outlet - 1 Set				
o)	Lighting inside the feeder pillar				
	Note: Foundation shall be made as per site requirement for which nothing extra shall be paid.				
	Service feeder pillar				
12	Supplying, installation, testing & commissioning of floor mounted free standing type, LT cubical service feeder pillar suitable for operation on 415 V, 50 Hz AC supply, duly compartmentalized (out door type) made out of 2mm thick MS CRCA sheet making connection, interconnection of the accessories mounted thereon with suitable size of copper wire/ strip duly PVC sleeved with thimble/ lugs, earthing the body of the feeder pillar, including supplying & fixing of the following items and as per technical specification & schematic drawing enclosed.	4		Set	
a)	125 Amp. TP & N,415 volts switch disconnecter unit with HRC fuses (interior only)-1 no.				
b)	32Amp. DP MCB, C series, 10KA- 9 nos.				
c)	200 Amp., 4 strip aluminium busbar- 1 set.				
d)	Indication lamp (RYB) with control HRC fuse with fuse fitting - 1 Set				
e)	Danger notice plate.-1 No.				
f)	6 Pin 15 A Switch / Socket outlet - 1 Set				
g)	Lighting inside the feeder pillar				
	Note: Foundation shall be made as per site requirement for which nothing extra shall be paid.				
	Cable & Cable laying				
13 a)	Laying of one no. PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of size not exceeding 35 sq:mm in the existing DW/CRCC/Hume/Stoneware/Metal pipe etc. as required	2000		Mtr.	
13 b)	Laying of one no. PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of size exceeding 35 sq:mm but not exceeding 95 sq:mm in the existing Dw/Rec/Hume/Stoneware/Metal pipe etc. as required	6600		Mtr.	

14	Laying of one no. PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of size not exceeding 35 sq.mm direct in ground including excavation, sand cushioning, protective covering & refilling the trench etc. as required.	27000		Mtr.	
15	Supplying and making end termination with brass compression glande and aluminium lugs for following sizes of PVC insulataed and PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade as required.				
a)	4 C x 70 sq.mm	8		Set	
b)	2C x 25 sq.mm	36		Set	
	Earthing				
16	Earthing with G.I. earth pipe 4.5 mtr long x 40 mm dia i/c accessories and providing masonry enclosure with cover plate, having locking arrangement and watering pipe etc. but with charcoal / coke and salt etc as reqd.	56		Set	
17	Providing & fixing 25mmx 5mm G.I strip in 40 m.m. dia G.I. pipe from earth electrode including connection with G.I. nut , bolt, spring washer, excavation and refilling etc.as required.	100		Mtr.	
18	Providing and fixing 6 SW/G G.I. wire on surface or in recess for loop earthing along with existing surface/DWC pipe / recessed conduit / submain wiring / cable as reqd.	42200		Mtr.	
19	Supplying & fixing of anti climbing device suitable for G.I. octagonal poles made out of 40 m.m. x 6 m.m. thick M.S. flat and 16 nos. spikes of 10 m.m. M.S. round 300 m.m. long with upward and downward spikes including galvanising, nut & bolts . washers etc.etc. complete as	266		No.	
	Total				Rs.

 AE (E) P

 EE (E) P


 SE (E) P


 CE (E)


REVISED LIST OF ACCEPTABLE MAKES

S. N.	ITEM	MAKE / MODEL
1	Street Light Fitting (400 W) Lamp compartment IP- 66 Gear compartment IP- 54	Philips (VELOCITY SGP 338) / Bajaj (JET BJENP RL-1) / Schreder (MC- 3) / Wipro (WST 42400 AERO) / Crompton (SSGP 1140 IHN)
2	Street Light Fitting (70 W) Lamp compartment IP- 66 Gear compartment IP- 54	Philips (SGP 301) / Bajaj (Wave) BGWRL / Schreder (Nano-1) / Wipro (WST 50070) / Crompton (SSGP 1207 IH 09) / Crompton (SSGP 1207 IH09)
3	GI Octagonal Pole & Pole bracket	Bajaj / Mastech Technologies Pvt. Ltd. / Surya Roshni / Valmont / Paruthi / Transrail Lighting Ltd.
4	HPSV / Metal Halide Lamp	Philips / OSRAM / GE
5	Capacitor and Ballast for Control Gear Compartment	As per standard fitment of the fixture
6	XLPE insulated aluminum conductor power cable	Skytone / Havell's / NICCO / KEI / Universal / Polycab / Finolex / R.R. Kable
7	PVC insulated copper conductor wire (FR)	Skytone / National / Ecko / Havell's / NICCO / KEI / Asian / Universal / Polycab
8	Miniature Circuit breaker	LEGRAND (LEXIC) / SCHNEIDER (M.G.) MULTI-9 / HAGER / SIEMENS (BETA GUARD)
9	Time Switch	L. & T / MDS / SCHNEIDER / SIEMENS
10	LT Switchgear (Contactor, Switch Disconnector Fuse Unit)	LEGRAND / A.B.B. / SIEMENS / SCHNIEDER) / L & T
11	DWC Pipe	DURALINE / REX
12	Feeder Pillar	ADVANCE PANELS & SWITCHGEARS (P) LTD./ TRICOLITE / ASSOCIATED SWITCH GEAR & PROJECTS .LTD.(ASPL) / ADLEC SYSTEMS PVT. LTD. / MILESTONE / AMBIT
13	LED indicating lamp	C&S / Siemens / L&T / Kaycee / A.E./ SCHNEIDER(MG)
14	Auto Manual Selector Switch	ABB / Schneider / Siemens / L&T
15	HDPE Pipe	Any ISI marked
16	G.I Pipe	TATA / Prakash Surya / Jindal (Hissar)


AE (E) P

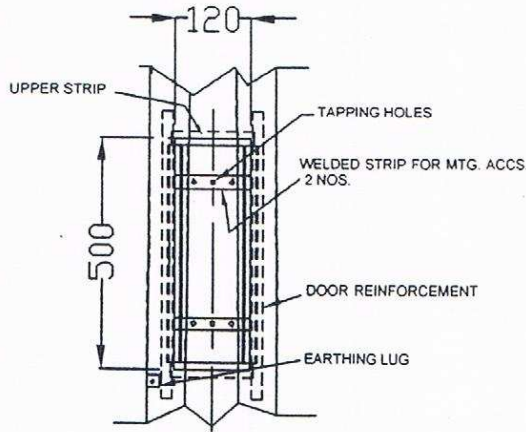
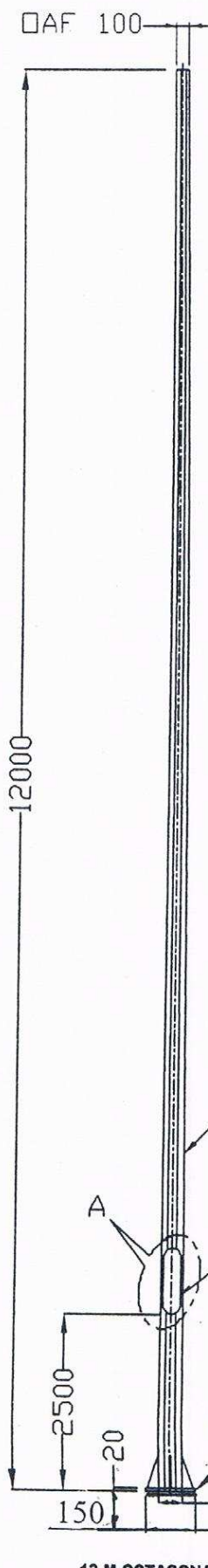

EE (E) P


SE (E) P

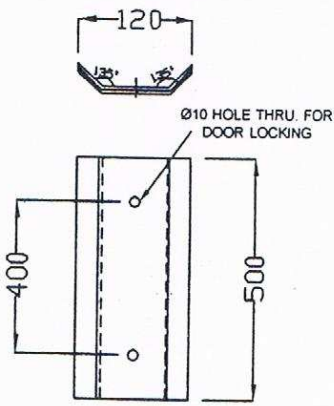
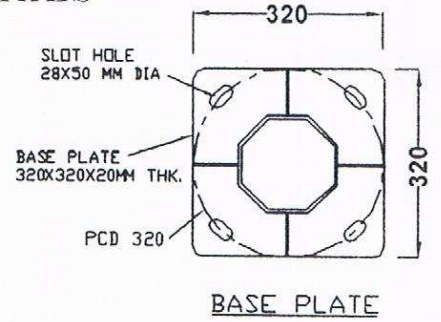

CE (E)

ITEM NO. 1

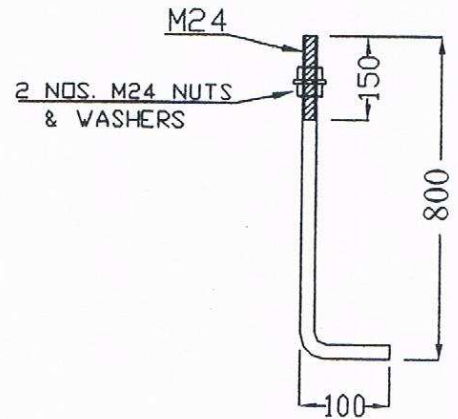
G.I. POLE & ACCESSORIES



DETAIL - A
(AFTER REMOVING DOOR COVER)



DOOR COVER



FOUNDATION BOLT
(4 NOS. PER POLE)

POLE SHAFT MATERIAL:

HOT ROLLED PRODUCT OF NON ALLOY STRUCTURAL STEEL GR. S355
AS PER BSEN 10025 OR AN EQUIVALENT INDIAN STANDARD

NOTES:-

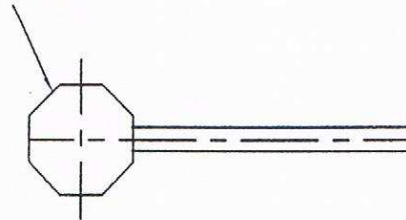
1. ALL DIMENSIONS ARE IN MM. UNLESS OTHERWISE MENTIONED.
2. TOLERANCE ON POLE TOTAL LENGTH SHALL BE ± 2.5 MM.
3. TOLERANCE ON DIAMETERS (OUTER A/F) SHALL BE ± 2.5 %.

12 M OCTAGONAL POLE

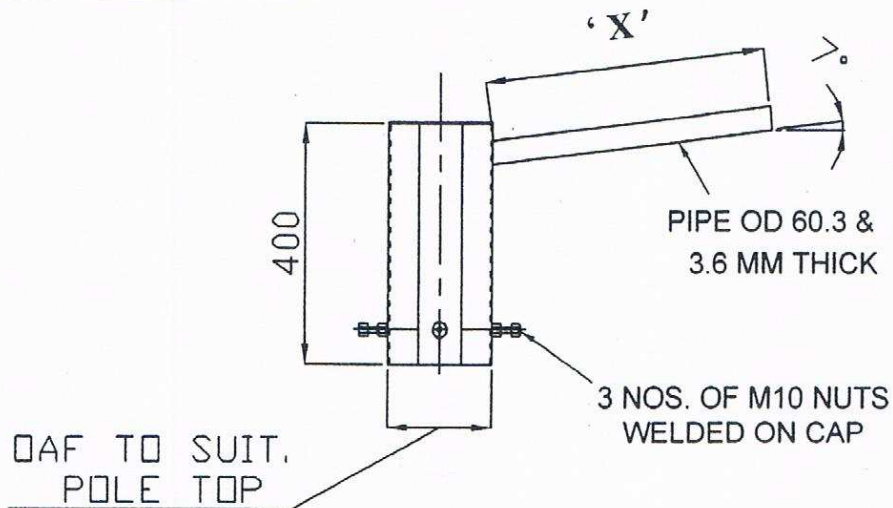
G. A. Ch.
A.E.(E) Plg.

E. E. (El.)
E.E. (El.) Plg.

OCT. CAP SUITABLE
TO POLE TOP



' X '	
AT 12 MTR. TOP	1000mm. LONG
AT 7 MTR.	500mm. LONG



SINGLE ARM BRACKET

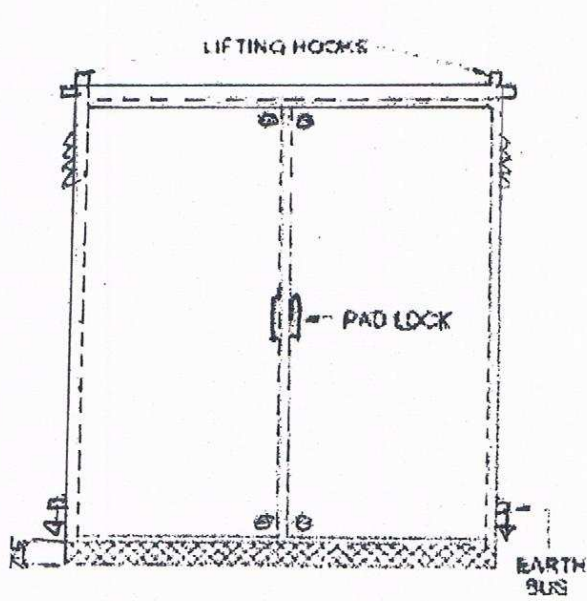
NOTES:-

1. ALL DIMENSIONS ARE IN MM.
2. MS PIPES AS PER IS 1161-1979.
3. MS PLATE AS PER IS-2062.
4. HOT DIP GALVANISING 65 MICRONS AVERAGE.
5. FOR BRACKET TO BE MOUNTED ON SAME POLE AT HEIGHT OF 7 MTR. SUITABLE ARRANGEMENT FOR CLAMP IS REQUIRED.

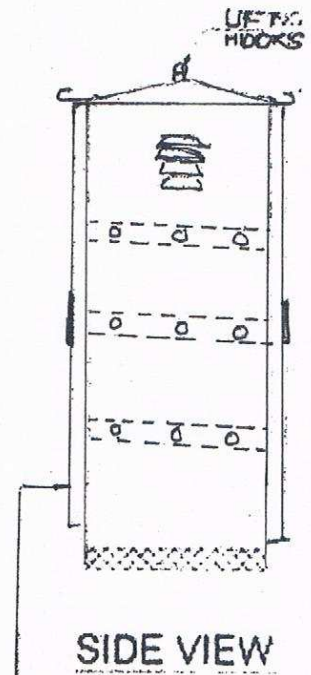
Asst. Engineer (F)

Ex. Engineer (F)

ITEM NO. 11 & 12



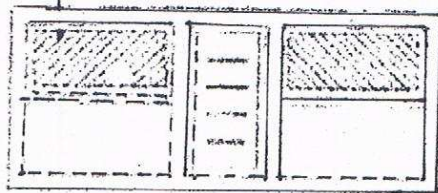
FEEDER PILLAR
FRONT VIEW WITH DOOR



SIDE VIEW

REAR DOOR HINGED
TYPE PANEL LOCKABLE
WITH PAD LOCK

REMOVABLE
GLAND PLATES
ON BOTTOM ONLY



BOTTOM VIEW

NOTE:-

DIMENSION SHOWN ARE INDICATIVE BUT
ACTUAL SHALL BE AS PER REQUIREMENT

(TYPICAL)

- | | |
|---|--------------|
| 1. THE PANEL SHALL BE FABRICATED WITH:- | |
| a. MAIN FRAME AND LOAD BEARING MEMBERS | 2mm CRCA |
| b. EXCISE AND PARTITIONS | 2mm CRCA |
| c. REMOVABLE GLAND PLATE | 3mm CRCA |
| d. BASE FRAME | 15MC 75x50mm |

[Signature]
Asst. Engineer (P)

[Signature]
Ex Engineer (P)