

TOP VIEW

*(Kamrul Ahsan Mohtak)*  
Asst. Secy. (Board), BREB.

*(Debasish Chakraborty)*  
PD, TAPP, BREB

*(Md. Ahsanul Haque)*  
Consultant TAPP BREB

*(Md. Mozammel Haque)*  
Consultant TAPP BREB

*(Md. Abdul Khaleque)*  
Consultant TAPP BREB

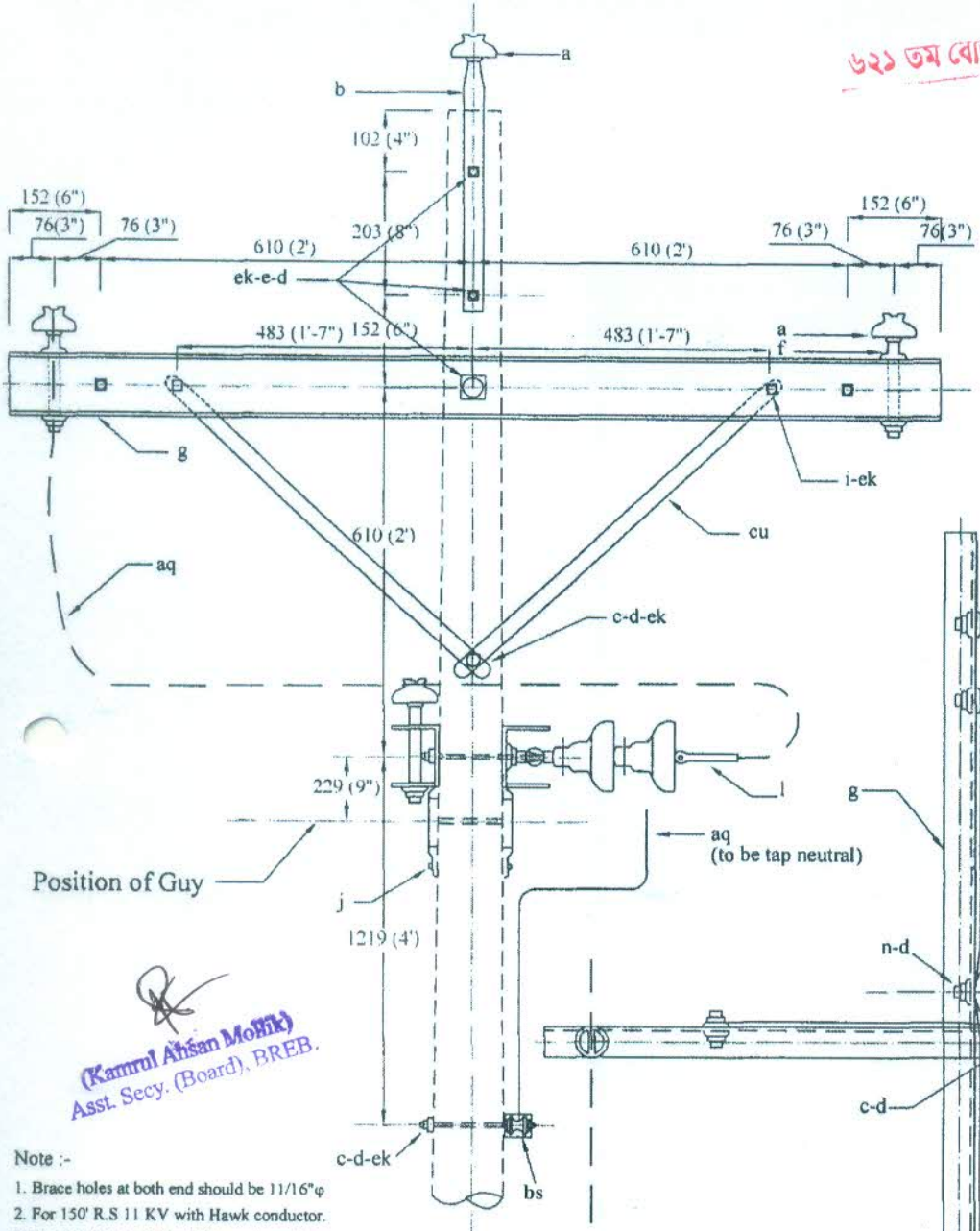
*(Md. Duhidul Islam)*  
Consultant TAPP BREB

*(Md. Mozibur Rahman)*  
Consultant TAPP BREB

BANGLADESH RURAL ELECTRIFICATION BOARD

Unit Description: 6.35/ 11 KV. PRIMARY, 3-PHASE STEEL CROSSARM(X7) CONSTRUCTION SINGLE CIRCUIT 1-PHASE TAP

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	C23A Sheet 2 of 2



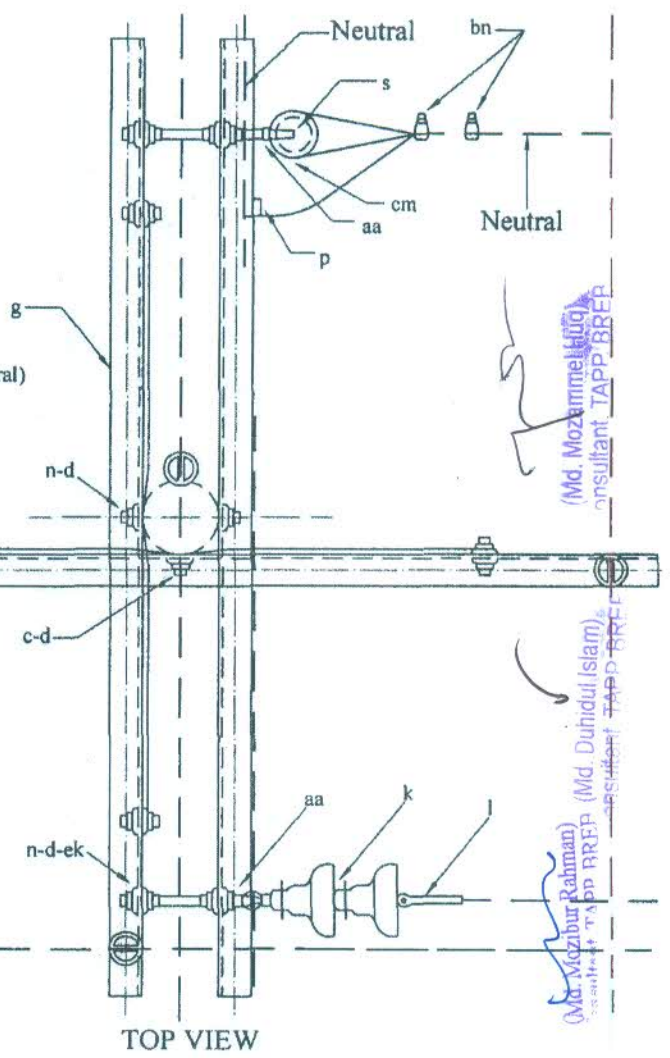
*(Md. Abdul Khaleque)*  
Consultant TAPP, BREB

*(Md. Ahsanul Haque)*  
Consultant TAPP, BREB

*(Debash Chakraborty)*  
D.O TAPP, BREB

*(Kamrul Ahsan Mohtak)*  
Asst. Secy. (Board), BREB.

- Note :-
1. Brace holes at both end should be 11/16"φ
  2. For 150' R.S 11 KV with Hawk conductor.
  3. For 150' R.S 11 KV with Penguin conductor.
  4. Tap take-off angle between top and bottom circuit may vary from what is shown on this drawing.
  5. Refer to A7 drawing for deadend requirements.
  6. Location of jumpers will be determined by the phase to be tapped.
  7. At certain location this connection will Bolt Carriage/ Bolt, M/C, 1/2" x 1 1/2"
  8. See drawing M42-11 for deadend assembly details.
  9. Normally Bolts will be used to fix the hardware. If not possible use of G I Clamps (duly approved by BREB) shall be made.
  10. Screw lag is required when the unit is installed on wooden pole only.



*(Md. Mozammel Huj)*  
Consultant TAPP, BREB

*(Md. Mozibur Rahman)*  
Consultant TAPP, BREB

TOP VIEW

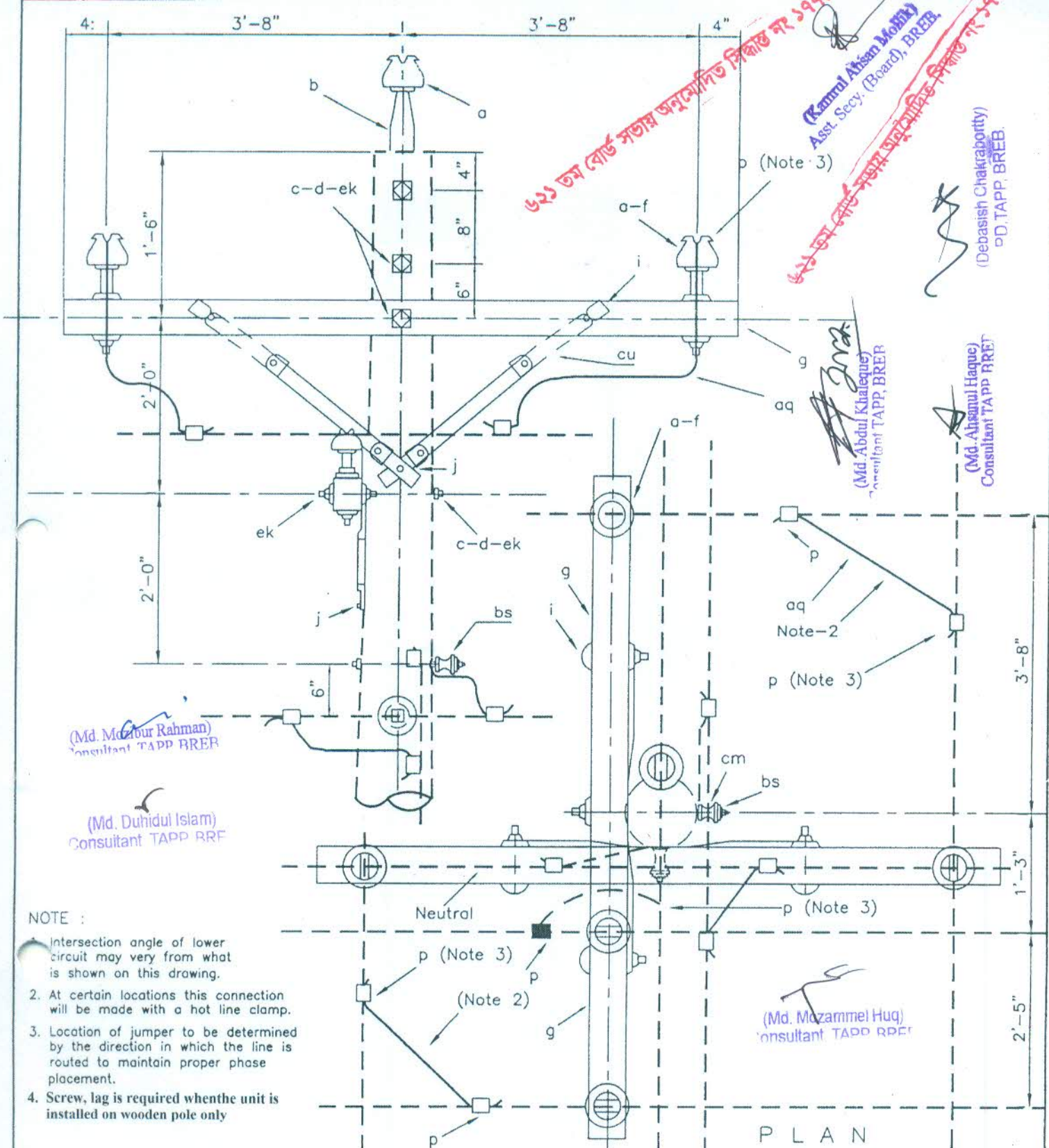
ITEM	MAT. CODE	Qty.	MATERIAL	ITEM	Mat. Code	Qty.	MATERIAL
a	C1	04	Insulator, pin type	s	B73	01	Clevis, secondary, swinging
b	B2	01	Pin, pole top, 20"	aa	B53	02	Nut, eye, 5/8"
c	B 6/7/8	06	Bolt, machine, 5/8" x Required length	c	B3	06	Bolt, M/C, 1/2" x 1 1/2"
d	B 46/118	06	Washer, square, 2 1/4"	c	B4/ B4.1-4.3	03	Bolt, M/C, 1/2" x as req length
f	B1	03	Pin, crossarm, steel, 5/8" x 10-3/4"	bn	B85/86	02	Clamp, loop deadend
g	X6	03	Crossarm, steel channel 4" x 2" x 2" x 1/4" x 5'-0"	cm	C3/2	02	Spool, Insulator, 1-3/4" or 3" dia groove
j	B 40	06	Screw, lag (for wood pole)	cu	B41/B41.1/B44	06	Brace, Steel/Wood, 28" x 1/4"
k	C10	02	Insulator, suspension	ek	B50/ 138	22	Locknuts, 5/8" bolt size
l	B 81/132/133	01	Clamp, deadend	n	B26/27/28	03	Bolt double arming, 5/8" x required length
				bs	B33/34/35	01	Bolt, Single Upset, 5/8" x as req'd length

**BANGLADESH RURAL ELECTRIFICATION BOARD**

Unit Description: 6.35/11 KV PRIMARY, 3-PHASE STEEL CROSSARM (X6) CONSTRUCTION- SINGLE DEADEND

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	<b>C23B</b>

৬২১ ভা বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৯৯০/০০  
 (Kamrul Ahsan Mobity)  
 Asst. Secy. (Board), BREB.  
 ৬২১ ভা বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৯৯০/০০  
 (Debasish Chakraborty)  
 PD, TAPP, BREB.



(Md. Mazhar Rahman)  
 Consultant TAPP BREB

(Md. Duhidul Islam)  
 Consultant TAPP BREB

**NOTE :**

1. Intersection angle of lower circuit may vary from what is shown on this drawing.
2. At certain locations this connection will be made with a hot line clamp.
3. Location of jumper to be determined by the direction in which the line is routed to maintain proper phase placement.
4. Screw, lag is required when the unit is installed on wooden pole only

(Md. Mazammel Haq)  
 Consultant TAPP BREB

ITEM	MAT. CODE	NO	MATERIAL	ITEM	MAT. CODE	NO.	MATERIAL
a	C1	6	Insulator, pin type	i	B32	4	Bolt, carriage, 3/8"x4 1/2"
b	B2	1	Pin, pole top, 20"	i/c	B40/B4/4.1-4.3	2	Screw, lag, 1/2"x4" Bolt, m/c, 1/2"x 6"-12"
c	B/6/7/8	4	Bolt, machine, 5/8"xreq'd length	p	I5/I6		Connectors as required
d	B46/118	8	Washer, square, 2 1/4"	aq			Jumpers and leads as required
f	B1	5	Pin, crossarm, steel, 5/8"x10-3/4"	bs	B33/34/35	2	Bolt, single upset
g	X1	2	Crossarm, 3-1/2"x 4-1/2"x 8'-0"	cm	C3/2	2	Spool insulator, 1 3/4" or 3" dia groove
cu	B41/B41.1/B44	4	Brace, Steel/Wood, 28" x 1/4"	ek			Locknuts, as required

**BANGLADESH RURAL ELECTRIFICATION BOARD**

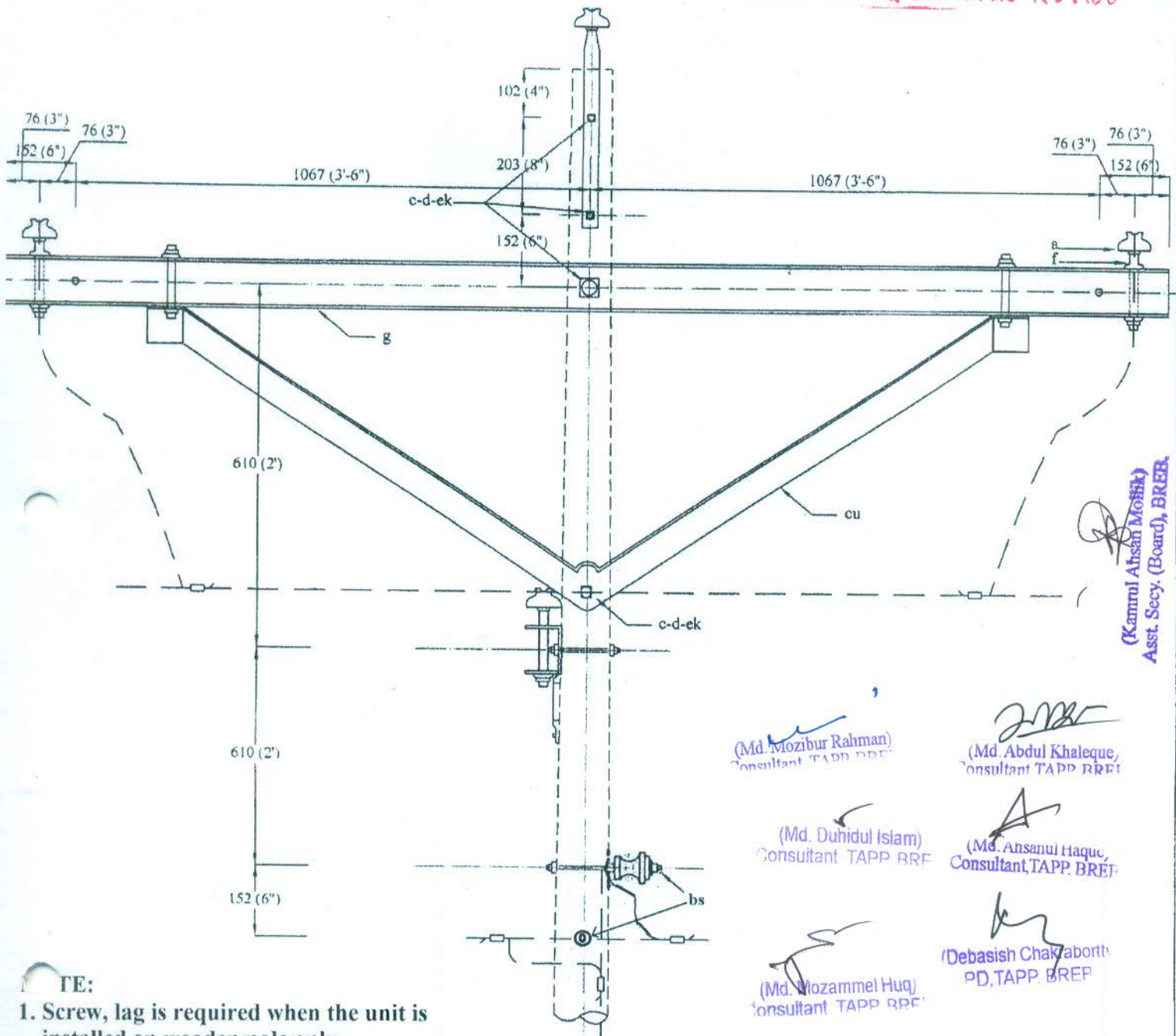
**Unit Description: 6.35/11 KV PRIMARY, 3-PHASE WOODEN CROSSARM CONSTRUCTION WITH 3-PHASE JUNCTION**

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020

2438 (8')

৬২১ ভম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

(Kamrul Ahsan Mobin)  
Asst. Secy. (Board), BREB.(Md. Mozibur Rahman)  
Consultant TAPP BREB(Md. Abdul Khaleque)  
Consultant TAPP BREB(Md. Duhidul Islam)  
Consultant TAPP BREB(Md. Ansanul Haque)  
Consultant TAPP BREB(Md. Mozammel Haq)  
Consultant TAPP BREB(Debasish Chakraborty)  
PD, TAPP BREB

NOTE:

1. Screw, lag is required when the unit is installed on wooden pole only.

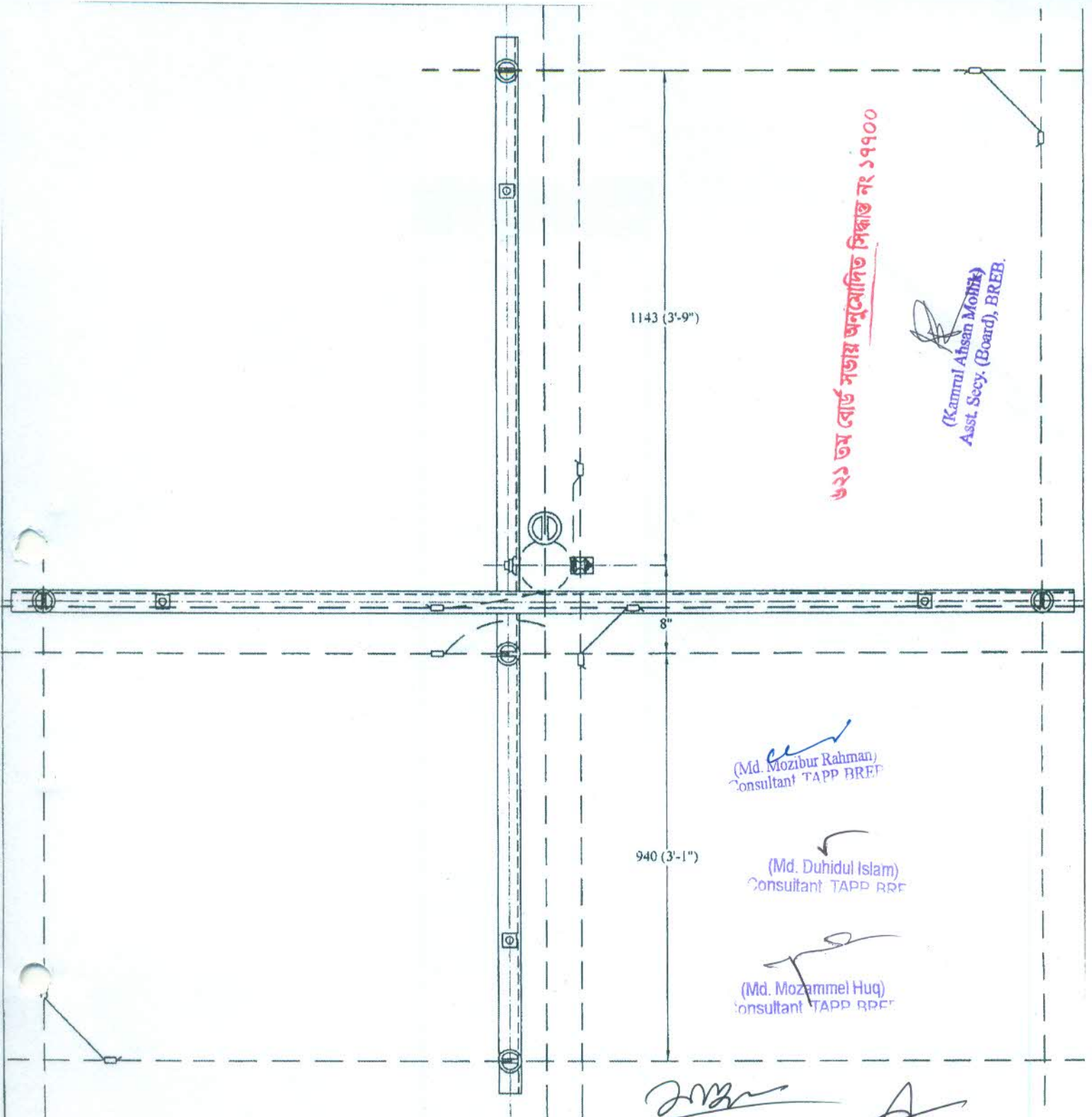
Item	Mat. Code	Qty.	MATERIAL	ITEM	Mat. Code	Qty.	MATERIAL
a	C1	06	Insulator, pin type	p	15/16	-	Connectors as required
b	B2	01	Pin, pole top, 20"	ag		-	Jumpers, and leads as required
c	B 6/7/8	04	Bolt, machine, 5/8" x Required length	cm	C 3/2	02	Spool, Insulator, 1-3/4" or 3" dia groove
d	B 46/118	08	Washer, square, 2 1/4"	ek	B 50	12	Locknuts as required 5/8" φ
f	B1	05	Pin, crossarm, steel, 5/8" x 10-3/4"	c	B4/4.1-4.3	02	Bolt, M/C, 1/2" x 6"-12"
g	X7	02	Crossarm, steel channel 4" x 2" x 2" x 1/4" x 8'-0"	cu	B42/42.1/45	02	Brace, steel /Wood 60" span
c	B3	04	Bolt, M/C, 1/2" x 1 1/2"	bs	B33/34/35	02	Bolt, Single Upset, 5/8" x as req'd length
j	B40	02	Screw, lag (for wood pole only)				

## BANGLADESH RURAL ELECTRIFICATION BOARD

Unit Description: 6.35/ 11 KV PRIMARY, 3-PHASE STEEL CROSSARM (X7) CONSTRUCTION WITH 3-PHASE JUNCTION

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	C25A Sheet 1 of 2

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020



৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

(Kamrul Ahsan Mollah)  
Asst. Secy. (Board), BREB.

(Md. Mozibur Rahman)  
Consultant TAPP BREB

(Md. Duhidul Islam)  
Consultant TAPP BREB

(Md. Mozammel Haq)  
Consultant TAPP BREB

(Md. Abdul Khaleque)  
Consultant TAPP BREB

(Md. Ahsanur Raque)  
Consultant TAPP BREB

(Debasish Chakraborty)  
PD, TAPP, BREB.

TOP VIEW

Note :-

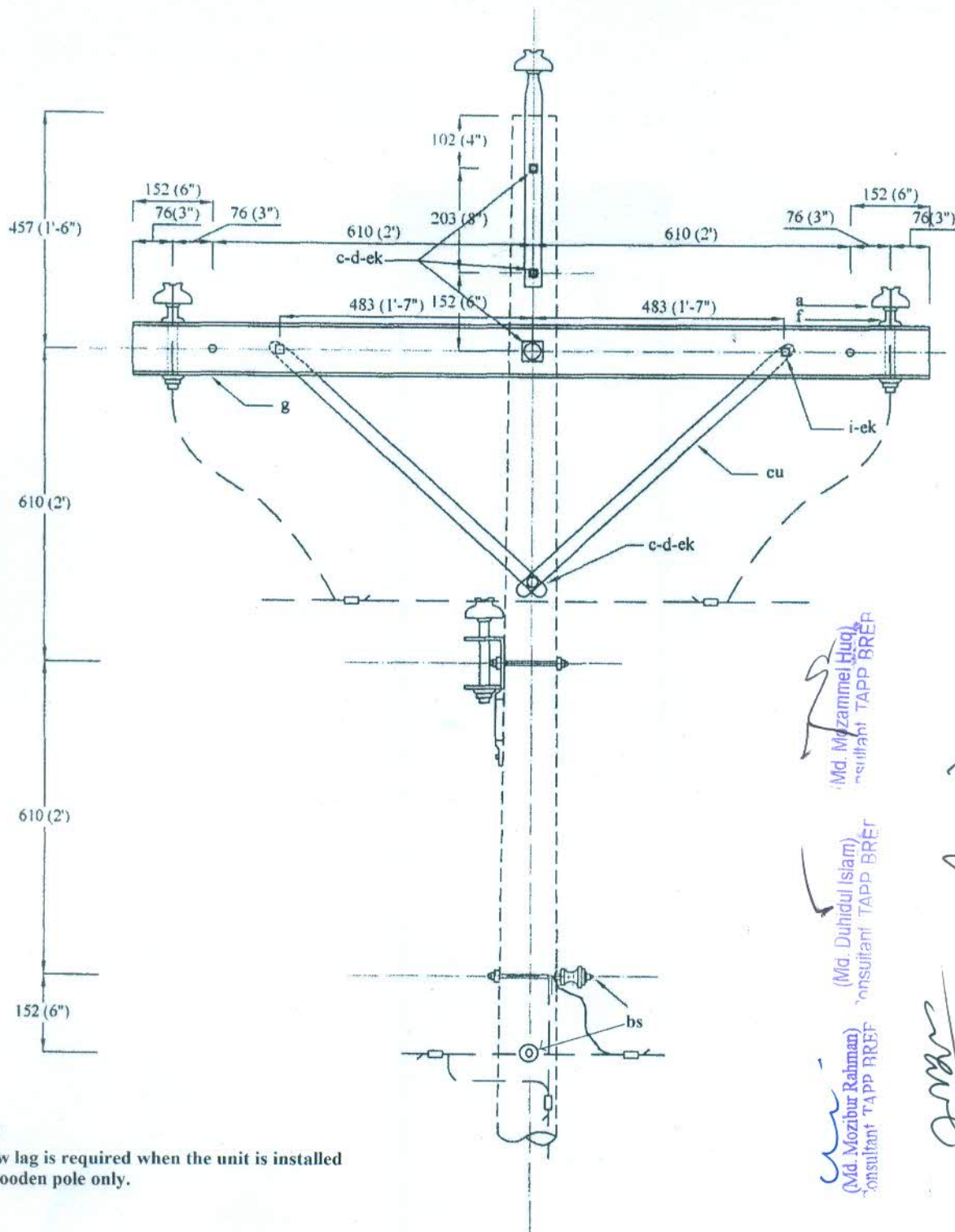
1. Brace holes at both end should be 11/16"φ
2. For 300' R.S with Penguin conductor.
3. Intersection angle of lower circuit may vary from what is shown on this dwg.
4. At certain location this connection will be made with a hot line clamp.
5. Location of jumper to be determined by the direction in which the line is routed to maintain proper phase placement.
6. Normally Bolts will be used to fix the hardwares. If not possible use of G I Clamps (duly approved by BREB) shall be made.

**BANGLADESH RURAL ELECTRIFICATION BOARD**

Unit Description: 6.35/ 11 KV PRIMARY, 3-PHASE STEEL CROSSARM (X7) CONSTRUCTION WITH 3- PHASE JUNCTION

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	C25A Sheet 2 of 2

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020



(Kamrul Ahsan Mollah)  
Asst. Secy. (Board), BREB.

(Md. Mozammel Haque)  
Consultant TAPP, BREB

(Md. Duhidul Islam)  
Consultant TAPP, BREB

(Md. Mozibur Rahman)  
Consultant TAPP, BREB

(Debashish Chakraborty)  
PD, TAPP, BREB

(Md. Ahsanul Haque)  
Consultant TAPP, BREB

(Md. Abdul Khaleque)  
Consultant TAPP, BREB

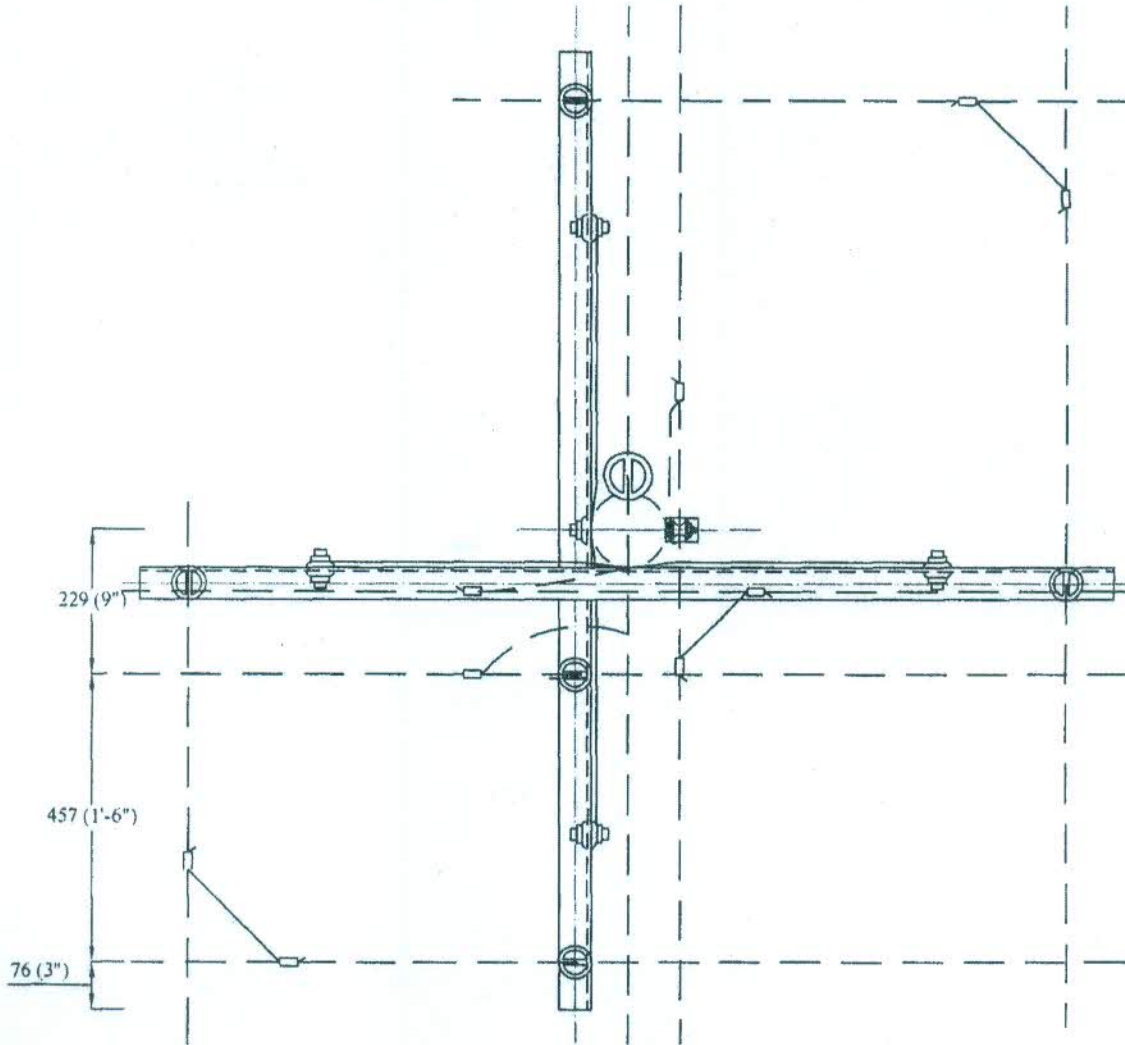
৬২২ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

ITEM	MAT. CODE	Qty.	MATERIAL	Item	Mat. Code	Qty.	MATERIAL
a	C1	06	Insulator, pin type	p	15/16	-	Connectors as required
b	B2	01	Pin, pole top, 20"	ag	-	-	Jumpers, and leads as required
c	B 6/7/8	04	Bolt, machine, 5/8" x Required length	cm	C 3/2	02	Spool, Insulator, 1-3/4" or 3" dia groove
d	B 46/118	08	Washer, square, 2 1/4"	ek	B 50	12	Locknuts as required 5/8"φ
f	B1	05	Pin, crossarm, steel, 5/8" x 10-3/4"	bs	B33/34/35	02	Bolt, Single Upset, 5/8" x as req'd length
g	X6	02	Crossarm, steel channel 4" x 2" x 2" x 1/4" x 5'-0"	c	B3	04	Bolt, M/C, 1/2" x 1 1/2"
cu	B41/B41.1/B44	04	Brace, Steel / Wood, 28" x 1/4"	j	B40	02	Screw, lag (for wood pole only)
c	B4/4.1-4.3	02	Bolt, M/C, 1/2" x 6" - 12"				

BANGLADESH RURAL ELECTRIFICATION BOARD

Unit Description: 6.35/11 KV PRIMARY, 3-PHASE STEEL CROSSARM (X6) CONSTRUCTION WITH 3-PHASE JUNCTION

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	<b>C25B</b>



(Kamrul Ahsan Molik)  
Asst. Secy. (Board), BREB.

TOP VIEW

Note :-

1. Brace holes at both end should be  $11/16'' \phi$
2. For 150' R.S with Penguin conductor.
3. Intersection angle of lower circuit may vary from what is shown on this dwg.
4. At certain location this connection will be made with a hot line clamp.
5. Location of jumper to be determined by the direction in which the line is routed to maintain proper phase placement.
6. Normally Bolts will be used to fix the hardware. If not possible use of G I Clamps (duly approved by BREB) shall be made.

(Md. Abdul Khaleque)  
Consultant TAPP BREB

(Md. Ahsanul Haque,  
Consultant TAPP BREB

Debasish Chakraborty  
PD, TAPP BREB

(Md. Mozibur Rahman)  
Consultant TAPP BREB

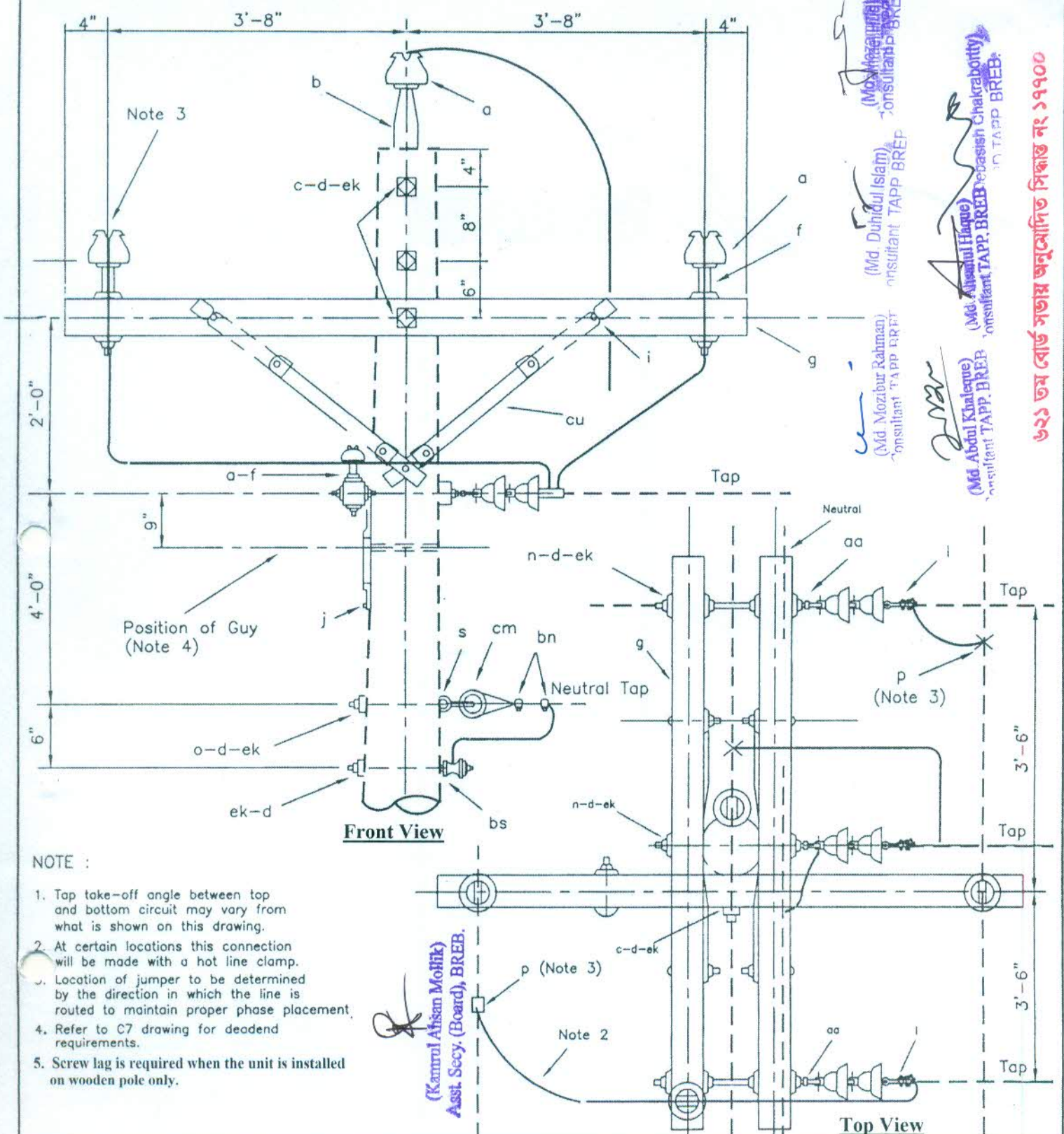
(Md. Duhidul Islam)  
Consultant TAPP BREB

(Md. Mozammel Hossain)  
Consultant TAPP BREB

BANGLADESH RURAL ELECTRIFICATION BOARD

Unit Description: 6.35/ 11 KV PRIMARY, 3-PHASE STEEL CROSSARM (X6) CONSTRUCTION WITH 3-PHASE JUNCTION

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	<b>C25B</b>



(Md. Mozibur Rahman)  
consultant TAPP BREB

(Md. Duhidul Islam)  
consultant TAPP BREB

(Md. Abul Kalam)  
consultant TAPP BREB

(Md. Abul Haque)  
consultant TAPP BREB

(Md. Abul Kalam)  
consultant TAPP BREB

(Md. Abul Kalam)  
consultant TAPP BREB

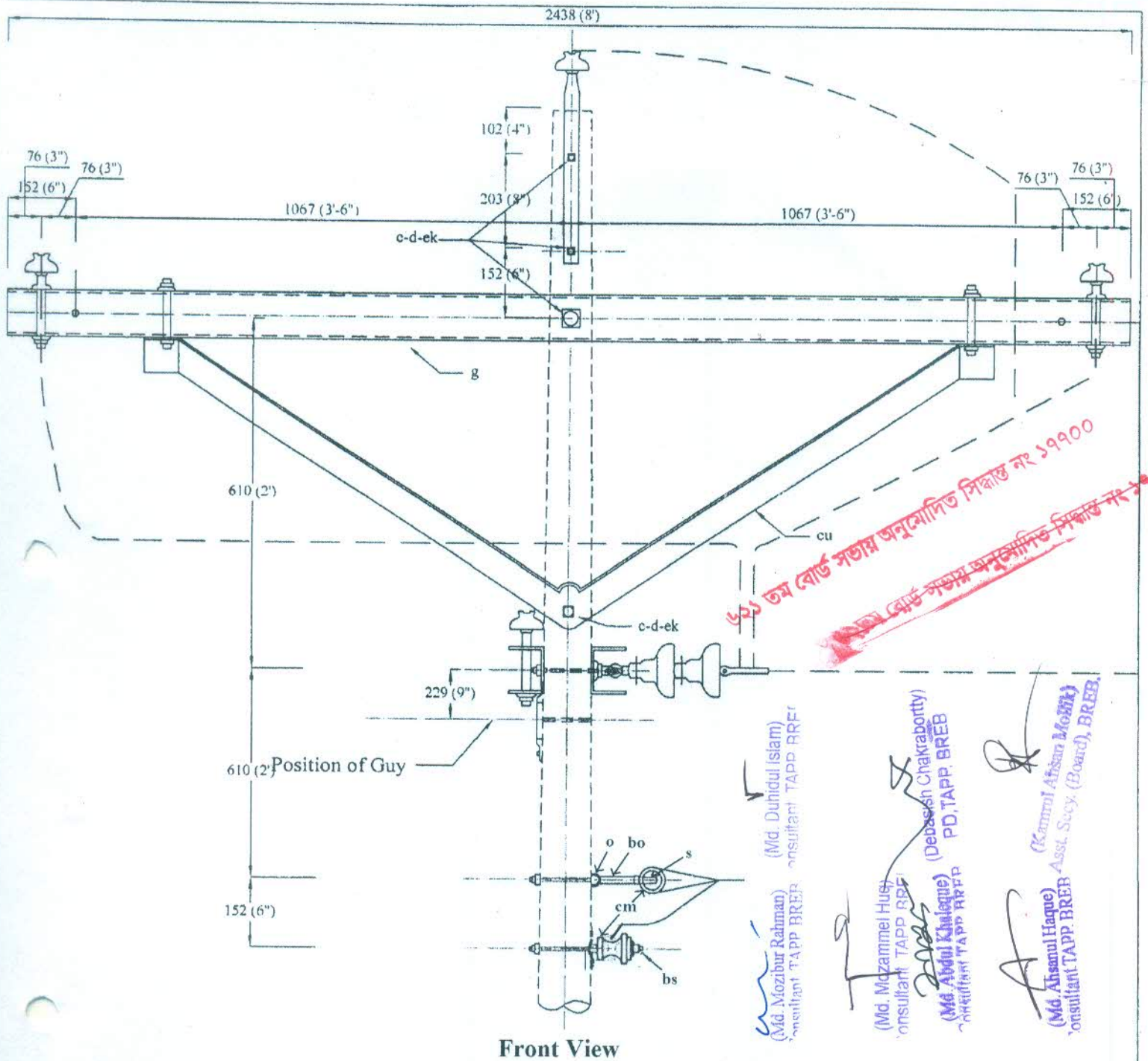
৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

- NOTE :
1. Tap take-off angle between top and bottom circuit may vary from what is shown on this drawing.
  2. At certain locations this connection will be made with a hot line clamp.
  3. Location of jumper to be determined by the direction in which the line is routed to maintain proper phase placement.
  4. Refer to C7 drawing for deadend requirements.
  5. Screw lag is required when the unit is installed on wooden pole only.

ITEM NO	MATERIAL	MAT.CODE	ITEM NO	MAT.CODE	
k	6 Insulator, suspension	C10	l	3 B81/132/133	Clamp, deadend
a	4 Insulator, pin type	C1	i	6 B32	Bolt, carriage, 3/8"x4 1/2"
b	1 Pin, pole top, 20"	B2	c	3 B4/B4.1-4.3	Bolt, m/c, 1/2"x 6" - 12"
c	3 Bolt, machine, 5/8"xreq'd length	B6/7/8	p	15/16	Connectors as required
d	16 Washer, square, 2 1/4"	B46/118	aa	3 B53	Nut, eye, 5/8"
f	3 Pin, crossarm, steel, 5/8"x10-3/4"	B1	bs	1 B33/34/35	Bolt, single upset
g	3 Crossarm, 3 1/2"x4 1/2"x8'-0"	X1	cm	2 C3/2	Spool insulator, 1 3/4" or 3" dia groove
cu	6 Brace, Steel/ Wood, 28" x 1/4"	B41/41.1/44	ek	B50	Locknuts, as required
o	1 Bolt, Eye, as req'd length	B18-22	s	B73	Clevis Secondary, Swinging
j	3 Screw, lag (for wood pole only)				

BANGLADESH RURAL ELECTRIFICATION BOARD				
Unit Description: 6.35/11 KV PRIMARY, 3-PHASE WOODEN CROSSARM CONSTRUCTION WITH 3-PHASE TAP				
Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	C26
Revision Date: July 1980, June 1981, August 1980, July 1995, August 2013, February 2020				





**NOTE: 1. Screw, lag is required when the unit is installed on wooden pole only**

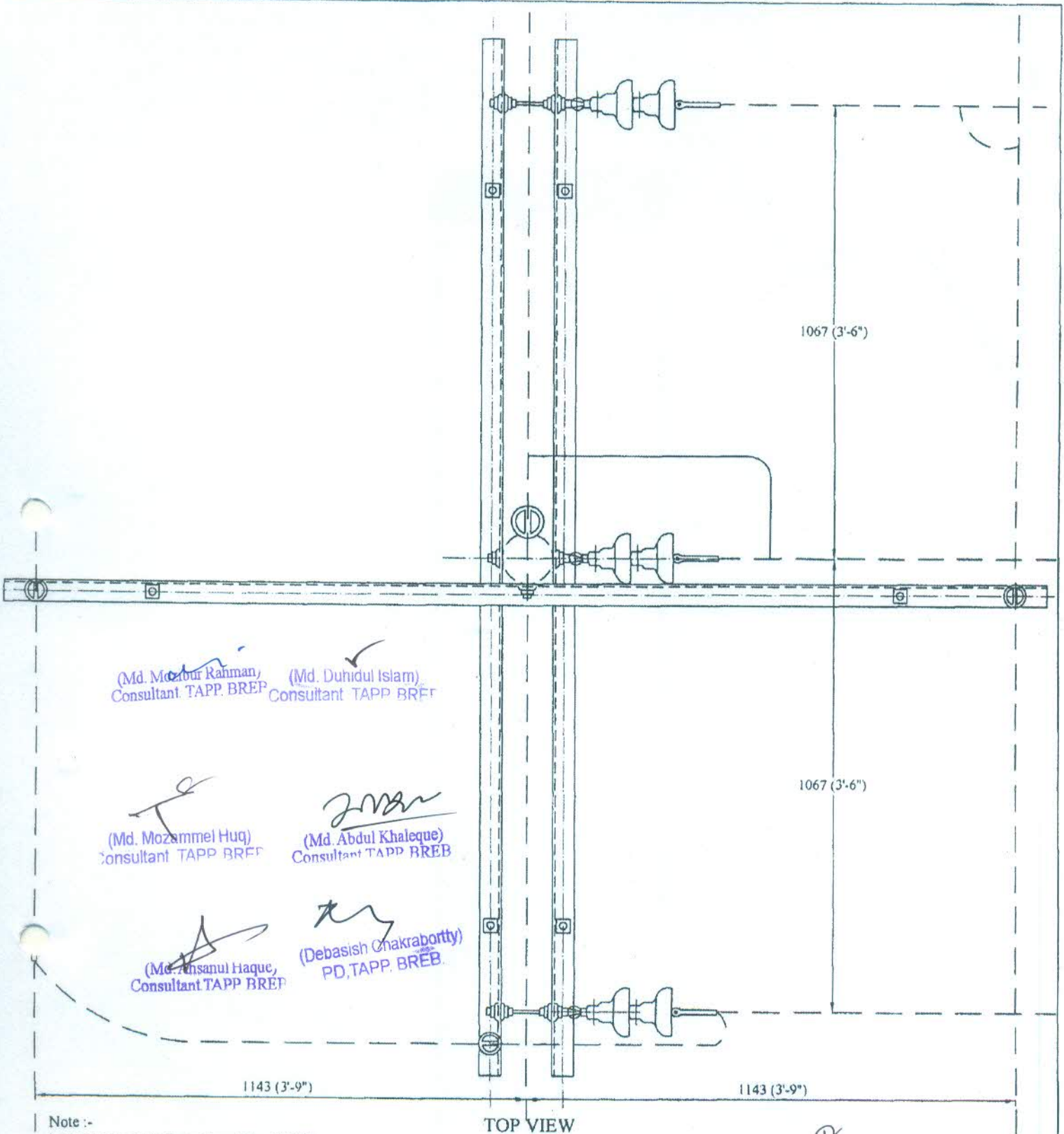
ITEM	MAT. CODE	Qty.	MATERIAL	ITEM	MAT. CODE	Qty.	MATERIAL
k	C10	06	Insulator, suspension 11 KV	l	B 81/132/133	03	Clamp, deadend
a	C1	04	Insulator, pin type 11 KV	p	15/16	-	Connectors as required
b	B 2	01	Pin, pole top, 20"	aa	B 53	03	Nut, eye, 5/8"
c	B 6/7/8	03	Bolt, machine, 5/8" x Required length	o	B 18-20	01	Bolt, eye 5/8"φ
d	B 46/118	06	Washer, square, 2 1/4"	cm	C 3/2	02	Spool, Insulator, 1-3/4" or 3" dia groove
f	B 1	03	Pin, crossarm, steel, 5/8" x 10-3/4"	ek	B 50 / 138	22	Locknuts as required
g	X7	03	Crossarm, steel channel 4" x 2" x 2" x 1/4" x 8'-0"	bo	B 55	03	Anchor, shackle
cu	B42/B42.1/B45	03	Brace, steel / Wood, 60" span	bs	B33/34/35	01	Bolt, Single Upset, 5/8" x as req'd length
s	B 73	01	Clevis, secondary swinging	n	B26/B27/B28	03	Bolt, Double arming 5/8"φ
j	B40	03	Screw, lag (for wwood pole only)	e	B4/B4.1-4.3	08	Bolt, m/c, 1/2" x 6" - 12"

**BANGLADESH RURAL ELECTRIFICATION BOARD**

**Unit Description: 6.35/11 KV PRIARY, 3-PHASE STEEL CROSSARM(X7) CONSTRUCTION WITH 3-PHASE TAP**

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	<b>C26A</b> Sheet 1 of 2

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020



TOP VIEW

Note :-

1. Brace holes at both end should be 11/16"φ
2. For 300' R.S with Penguin conductor.
3. Top take-off angle between top and bottom circuit may vary from what is shown on this dwg.
4. At certain location this connection will be made with a hot line clamp.
5. Location of jumper to be determined by the direction in which the line is routed to maintain proper phase placement
6. Refer to C7 drawing for deadend requirements.
7. Normally Bolts will be used to fix the hardwares. If not possible use of G I Clamps (duly approved by BREB) shall be made.

(Kamrul Ahsan Mollik)  
Asst. Secy. (Board), BREB.

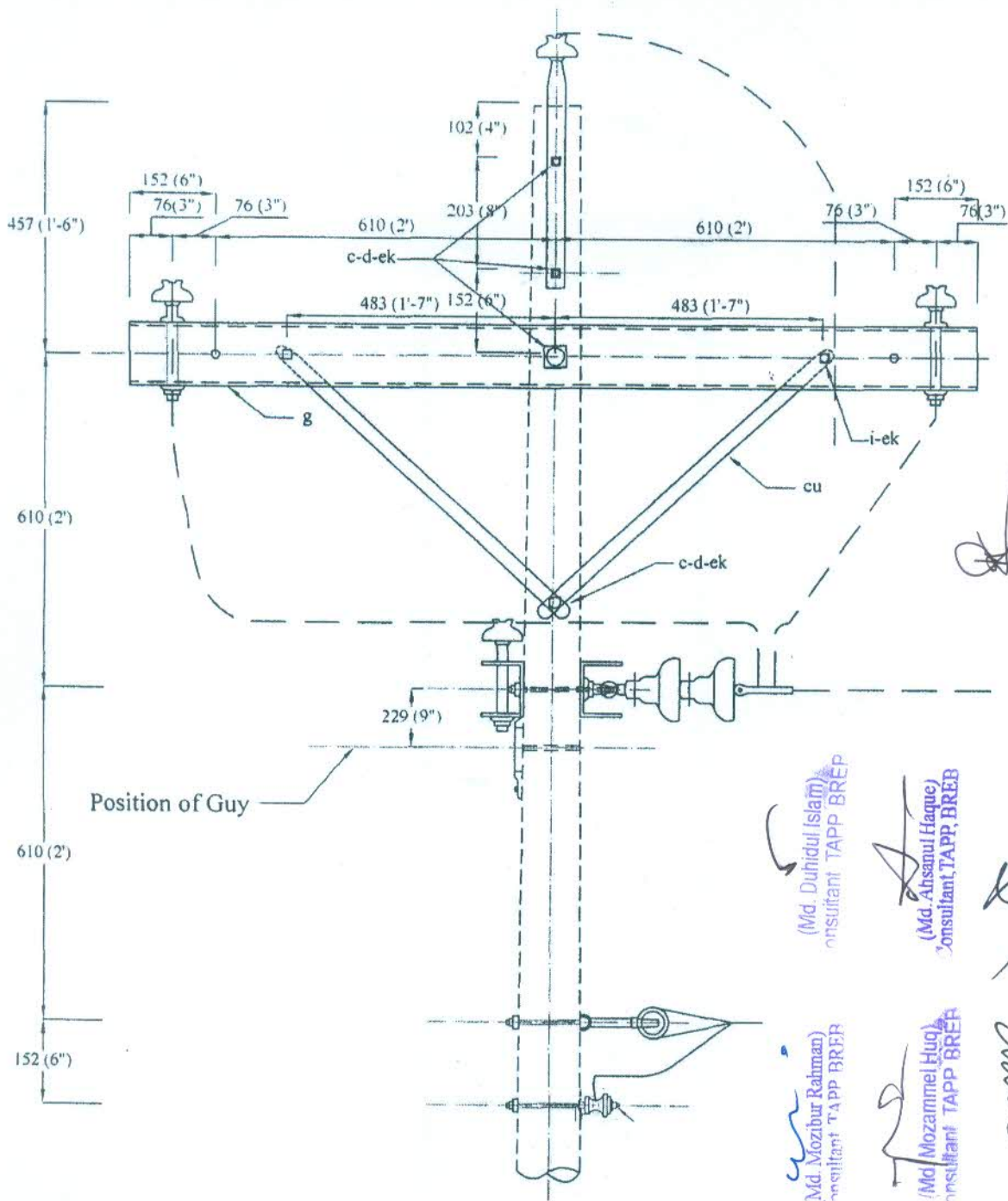
৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

BANGLADESH RURAL ELECTRIFICATION BOARD

Unit Description: 6.35/11 KV PRIARY, 3-PHASE STEEL CROSSARM(X7) CONSTRUCTION WITH 3-PHASE TAP

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	C26A Sheet 2 of 2

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020



(Kamrul Ahsen MoHik)  
Asst. Secy. (Board), BREB.  
৯২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

(Md. Duhidul Islam)  
Consultant TAPP BREB

(Md. Ahsanul Haque)  
Consultant TAPP BREB

(Debasish Chakraborty)  
TAPP BREB

(Md. Mozibur Rahman)  
Consultant TAPP BREB

(Md. Mozammel Huda)  
Consultant TAPP BREB

(Md. Abdul Kalam)  
Consultant TAPP BREB

Front View

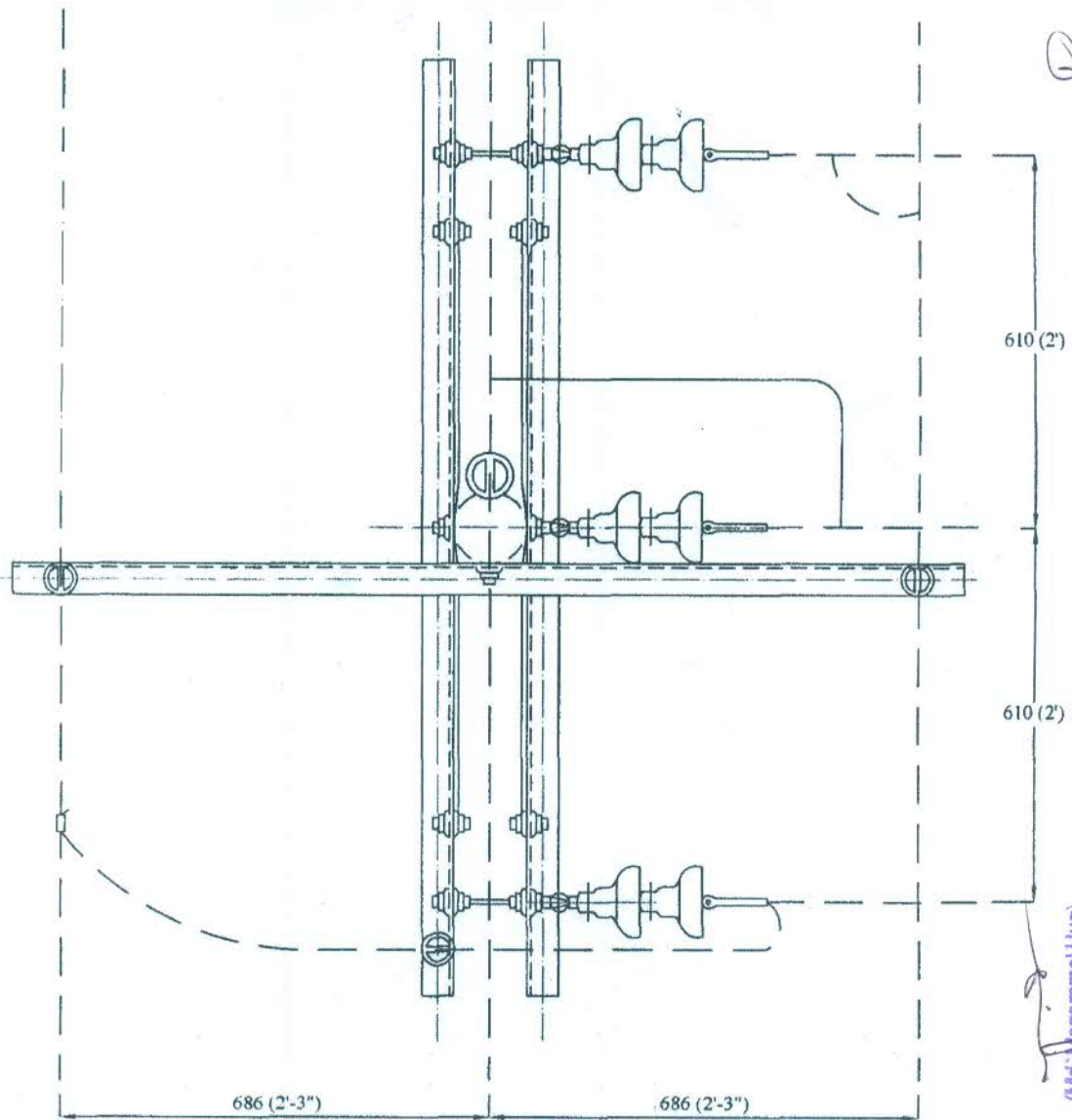
NOTE:  
1. Screw, lag is required when the unit is installed on wooden pole only

ITEM	MAT. CODE	Qty.	MATERIAL	ITEM	MAT. CODE	Qty.	MATERIAL
k	C10	06	Insulator, suspension 11 KV	l	B 81/132/133	03	Clamp, deadend
a	C1	04	Insulator, pin type 11 KV	c	B3	06	Bolt, m/c, 1/2" x 1-1/2"
b	B2	01	Pin, pole top, 20"	p	15/16	-	Connectors as required
c	B 6/7/8	03	Bolt, machine, 5/8" x Required length	aa	B 53	03	Nut, eye, 5/8"
d	B 46/118	07	Washer, square, 2 1/4"	o	B 18 / 19 / 20	01	Bolt, eye 5/8"φ
f	B1	03	Pin, crossarm, steel, 5/8" x 10-3/4"	cm	C 3/2	02	Spool, Insulator, 1-3/4" or 3" dia groove
g	X6	03	Crossarm, steel channel 4" x 2" x 2" x 1/4" x 5'-0"	ek	B 50	20	Locknuts as required
cu	B41/B41.1/B44	06	Brace, steel / Wood, 28" x 1/4"	bo	B 55	03	Anchor, shackle
s	B73	01	Clevis, secondary swinging	s	B73	01	Clevis secondary Swinging
bs	B33/34/35	01	Bolt, Single Upset, 5/8" x aqs req'd length	n	B 26 / 27 / 28	03	Bolt, Double arming
c	B4/4.1-4.3	02	Bolt, M/C, 1/2" x 6"- 12"	j	B40	02	Screw, lag (for wood pole only)

BANGLADESH RURAL ELECTRIFICATION BOARD

Unit Description: 6.35/11 KV PRIMARY, 3-PHASE STEEL CROSSARM (X6) CONSTRUCTION - SINGLE DEADEND

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	<b>C26B</b>



TOP VIEW

Note :-

1. Brace holes at both end should be  $11/16" \phi$ .
2. For 150' R.S with Penguin conductor.
3. Top take-off angle between top and bottom circuit may vary from what is shown on this dwg.
4. At certain location this connection will be made with a hot line clamp.
5. Location of jumper to be determined by the direction in which the line is routed to maintain proper phase placement.
6. Refer to C7 drawing for deadend requirements.
7. Normally Bolts will be used to fix the hardwares. If not possible use of G I Clamps (duly approved by BREB) shall be made.

(Md. Abdul Khaleque)  
Consultant TAPP BREB

(Debasish Chakraborty)  
PD, TAPP, BREB

(Md. Ahsanul Haque)  
Consultant, TAPP, BREB

(Md. Mozibur Rahman)  
Consultant TAPP BREB

(Md. Duhidul Islam)  
Consultant TAPP BREB

(Kamrul Ahsan Mohtik)  
Asst. Secy. (Board), BREB.  
৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭০০

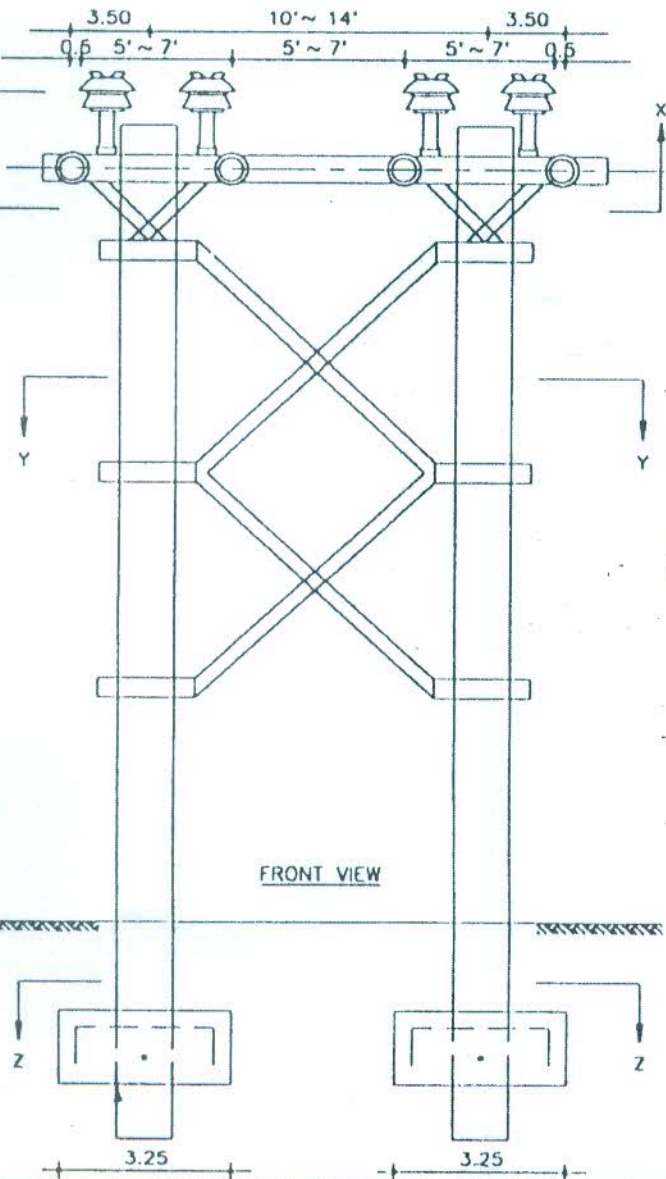
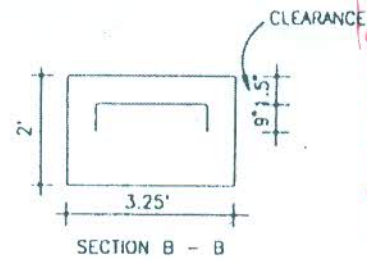
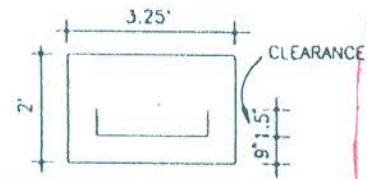
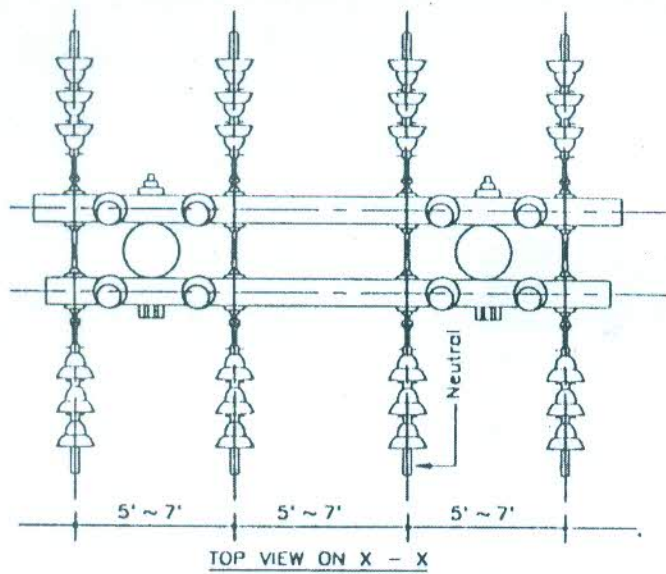
BANGLADESH RURAL ELECTRIFICATION BOARD

Unit Description: 6.35/11 KV PRIMARY, 3-PHASE STEEL CROSSARM (X6) CONSTRUCTION - SINGLE DEADEND

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	<b>C26B</b>

Sheet 2 of 2

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020



(Md. Mozibur Rahman)  
Consultant TAPP, BREB

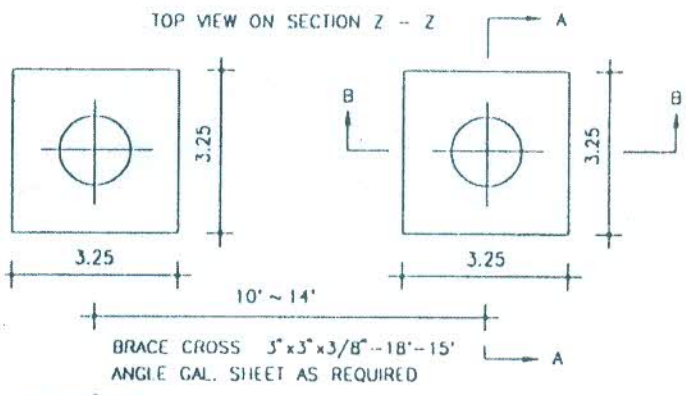
(Md. Durhul Islam)  
Consultant TAPP, BREB

(Kamrul Ahsan Mollik)  
Asst. Secy. (Board), BREB.

(Md. Abdul Khaleque)  
Consultant, TAPP, BREB

(Md. Ahsanul Haque)  
Consultant, TAPP, BREB

(Debasish Chakraborty)  
PD, TAPP, BREB



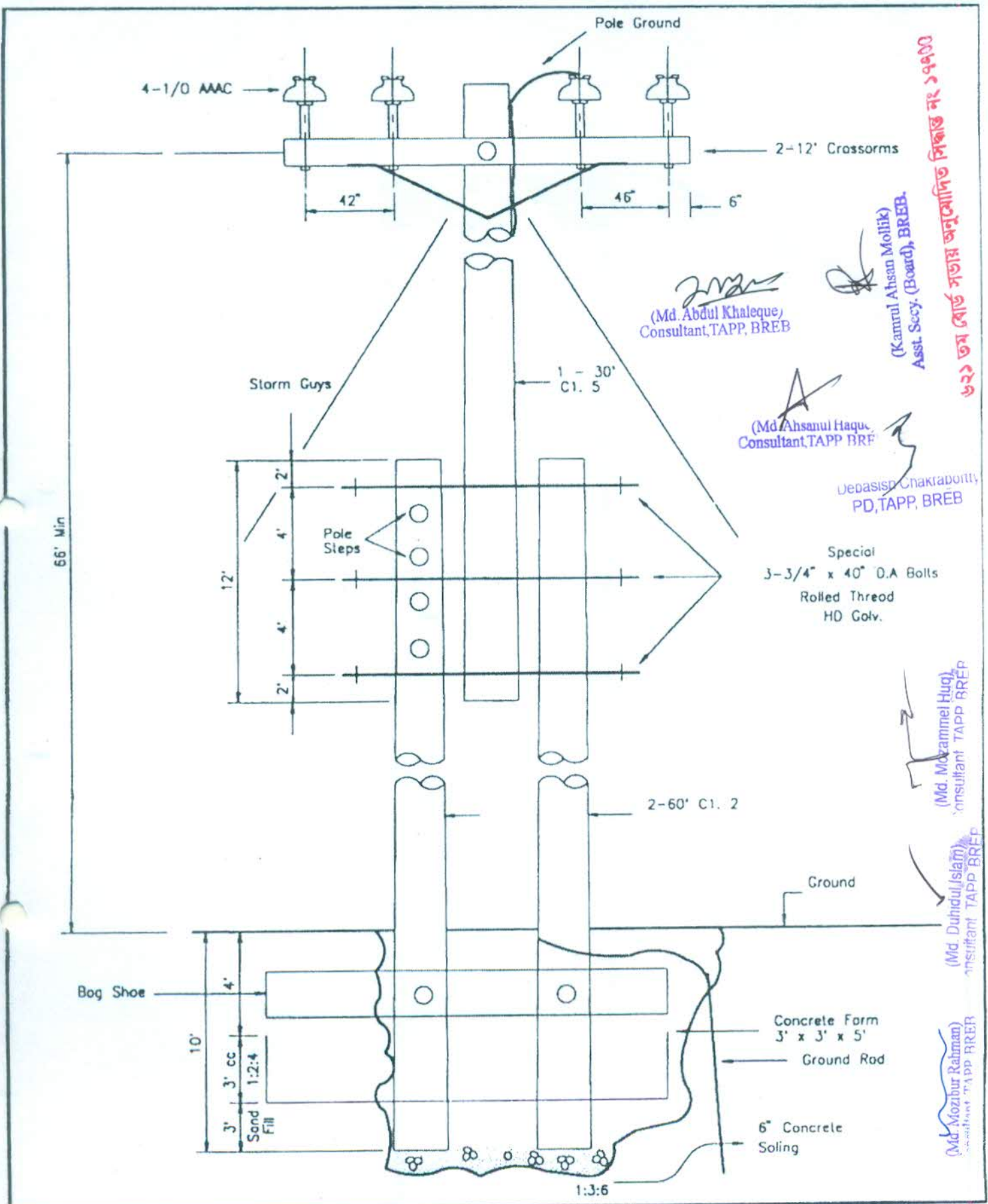
ITEM	NO.	MATERIAL	UNIT
		MS rod, 1" dia x 4.5' long for RCC, as req'd	
		Brace, gal steel angle, 3"x3"x 3/8"x15'-18' as req'd	
		Pole Band, round, gal steel of diff. size, as required	
	02	Crossarm, Gal Steel Channel, 4"x2"x2"x1/4"x 16'-18'	
B1	08	Pin, Crossarm, Steel, 5/8"x 10-3/4"	
C1	08	Insulator, Pin Type, 11 KV	
C10	16	Insulator, Suspension	
B26-30	04	Bolt, Double Arming, 5/8"x as required length	
	02	Bolt, Machine, 1"x as required length (gal)	
		Bolt, Machine, 1"x 2-1/2" (gal)	
	02	Pole, 60'-2	
		Lock Nuts, 1" grove dia, as required	
B50/138		Lock Nuts, 5/8" grove dia, as required	
		RCC (1:1.5:3) as required	

**BANGLADESH RURAL ELECTRIFICATION BOARD**

Unit Description: 11 KV RIVER CROSSING DESIGN FOR 500' ~ 890' SPAN

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	C40

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০৭

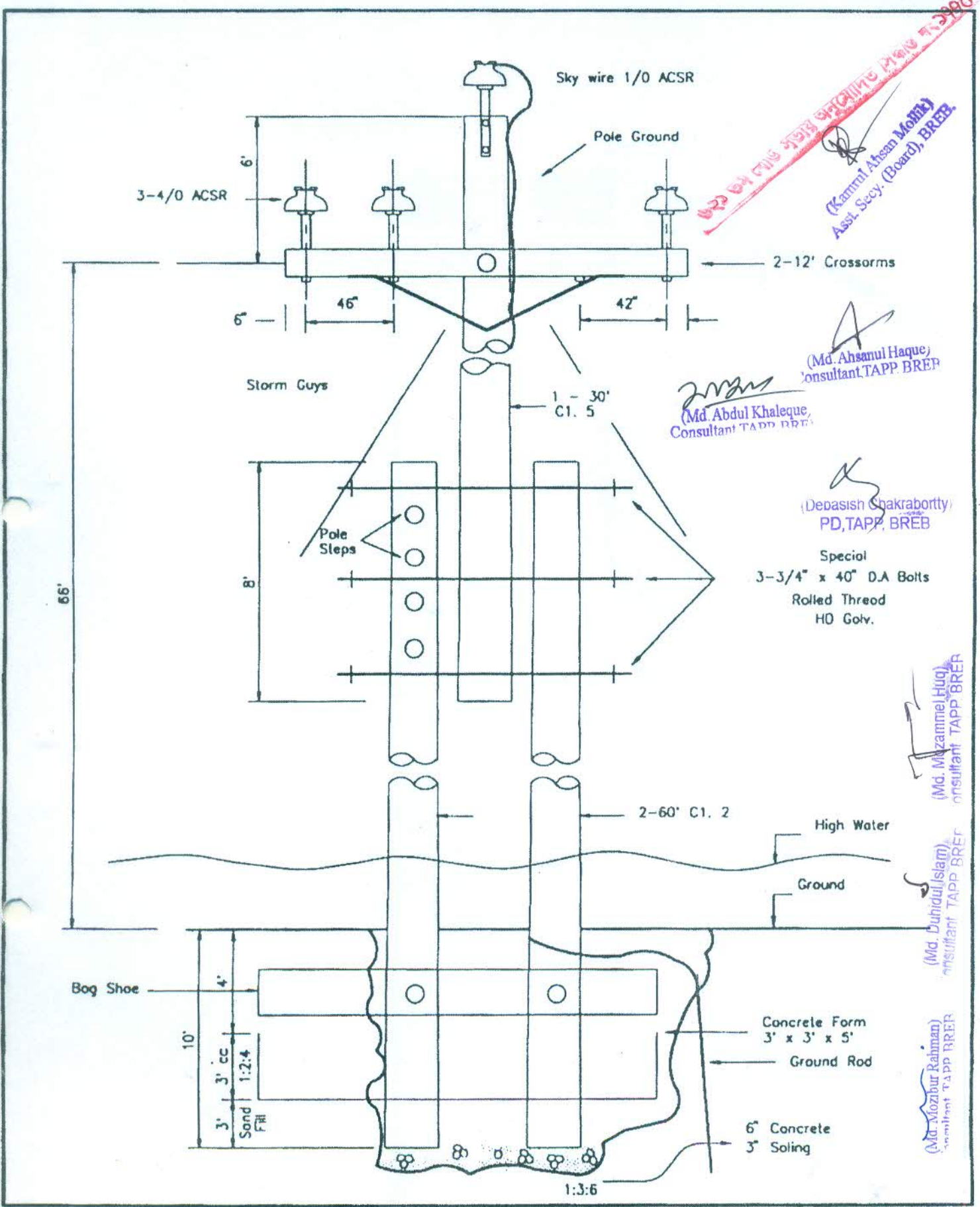


**BANGLADESH RURAL ELECTRIFICATION BOARD**

Unit Description: **TEMPORARY SPLICED POLE FOR 11 KV RIVER CROSSING SPAN - 750'**

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	<b>C41</b>

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, **February 2020**

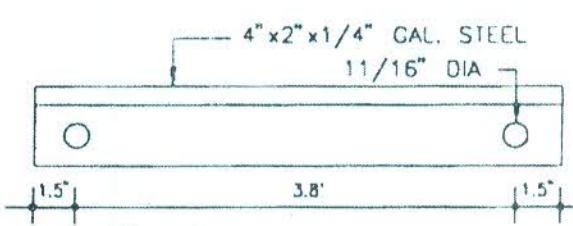
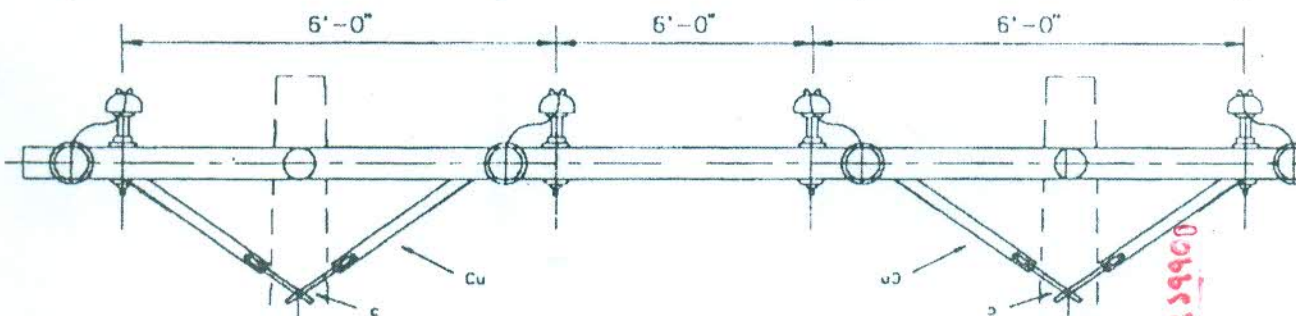
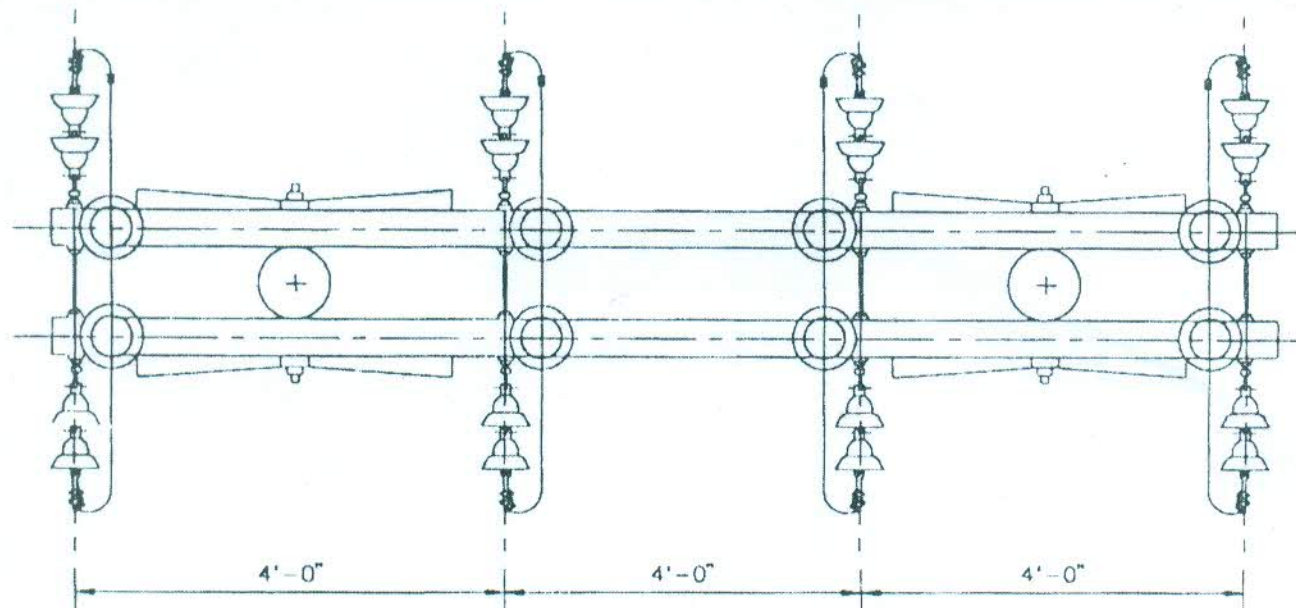


**BANGLADESH RURAL ELECTRIFICATION BOARD**

**Unit Description: TEMPORARY SPLICED POLE FOR 11KV RIVER CROSSING SPAN - 600'**

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	C42

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020



(Kamrul Ahsan Mollik)  
Asst. Secy. (Board), BREB.

(Md. Abdul Khaleque)  
Consultant TAPP, BREB

(Md. Ansanur Raque,  
Consultant, TAPP, BREB) Debasish Chakraborty  
PD, TAPP, BREB

কক্স ভোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৯৯০

(Md. Mozammel Hossain)  
Consultant, TAPP, BREB  
(Md. Duhidul Islam)  
Consultant, TAPP, BREB  
(Md. Mozibur Rahman)  
Consultant, TAPP, BREB

NOTE: Screw, lag is required when the unit is installed on wooden pole only.

ITEM	NO	MATERIAL	CODE	ITEM	NO.	CODE	MATERIAL
f	8	Pin, crossarm, steel	B1	p	3	1-1	Compression connector (4/0)
c	-	Bolt, machine (5/8" x 12" x 10")	B6/7/8	P	1	1-4	Compression connector (1/0)
m	6	Bolt, double arming (5/8" x 20")	B26/27/28	9	2		Crossarm, channel, gal. steel (4" x 2" x 1/4" x 19")
d	20	Washer, square (2-1/4" x 2-1/4")	B46				
ex	36	Locknut, 5/8" dia	B50/138	Cu	8	B42/42.1/45	Brace, Steel/Wood, 60" Span (2" x 2" x 1/4" x 4.11')
aa	8	Nut, eye, oval, 5/8" dia.	B53	i	8	B32/ B3	Bolt Carriage/ Bolt, M/C, 1/2" x 1 1/2"
ba	8	Anchor, shackle	B55	c	10	B4/4.1-4.3	Bolt, M/C, 1/2" x 6 - 12"
l	8	Clamp, tension	B81/132/133	j	4	B40	Screw, lag (for wood pole only)
a	8	Insulator, pin type	C1				
k	16	Insulator, suspension	C10				

**BANGLADESH RURAL ELECTRIFICATION BOARD**

Unit Description: CROSSARM INSTALLATION ON TWO POLE CONSTRUCTION

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	C43

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020



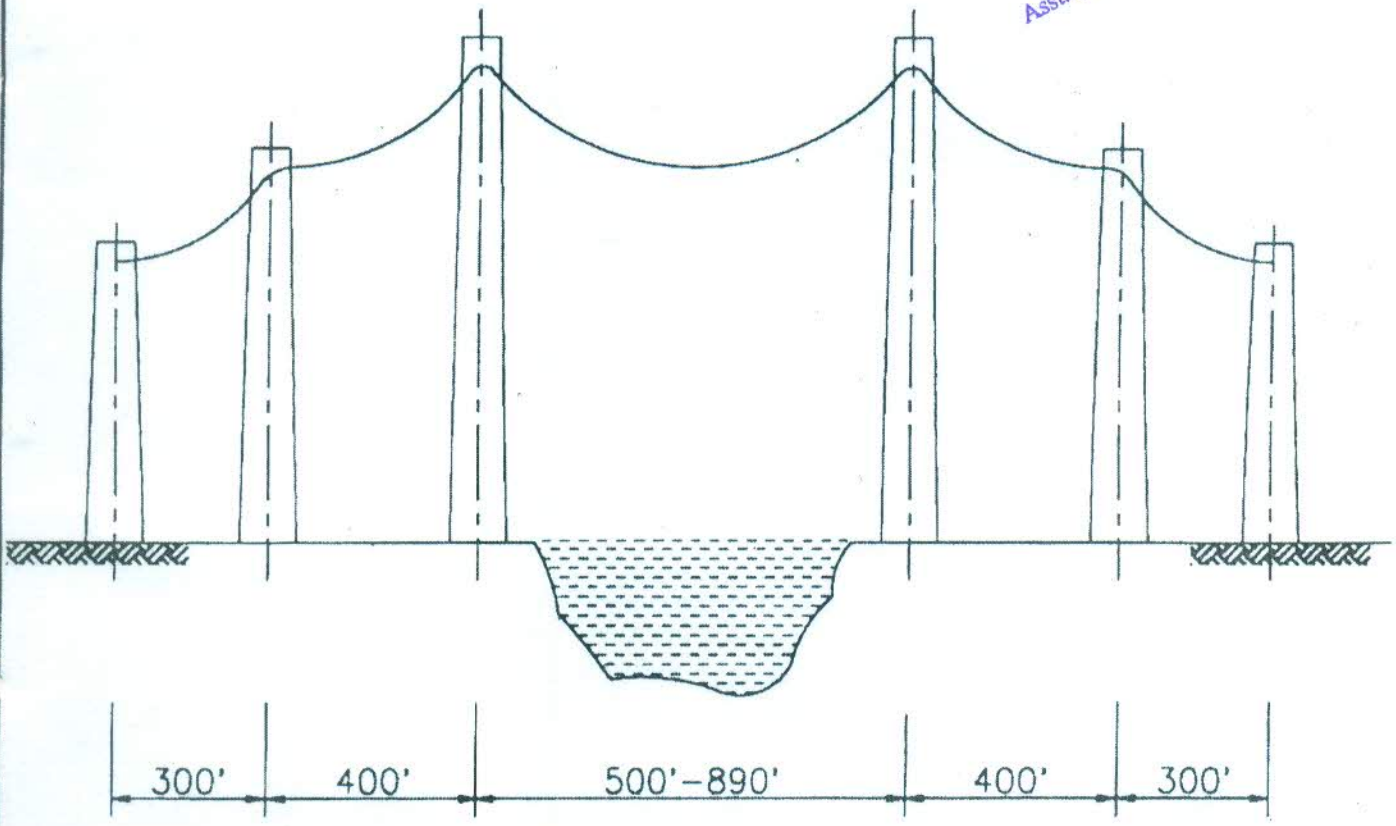
(Md. Ahsanul Haque)  
Consultant TAPP, BREB

(Md. Abdul Khaleque)  
Consultant TAPP, BREB

(Debasish Chakraborty)  
PD, TAPP, BREB

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

(Kamrul Ahsan Mollik)  
Asst. Secy. (Board), BREB.



(Md. Mozibur Rahman)  
Consultant TAPP, BREB

(Md. Dumdul Islam)  
Consultant TAPP, BREB

PROFILE

(Md. Mozammel Haq)  
Consultant TAPP, BREB

RIVER CROSSING VIEW

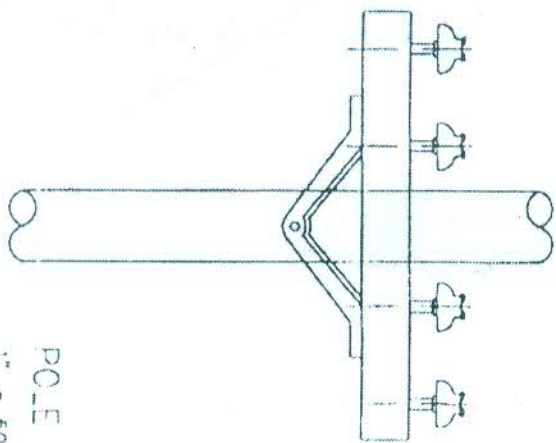
BANGLADESH RURAL ELECTRIFICATION BOARD

Unit Description: **RIVER CROSSING VIEW 500' - 890'**

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	C44

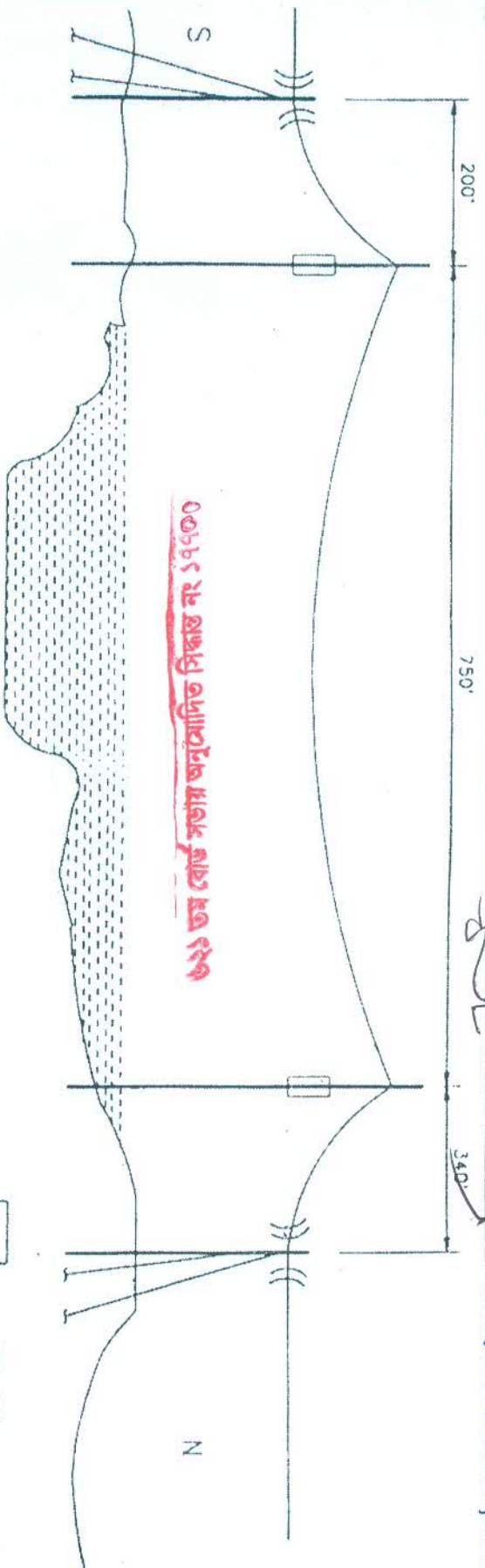
Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020

POLE TOP  
1" = 50'



(Debasish Chakraborty)  
PD, TAPP, BREB.

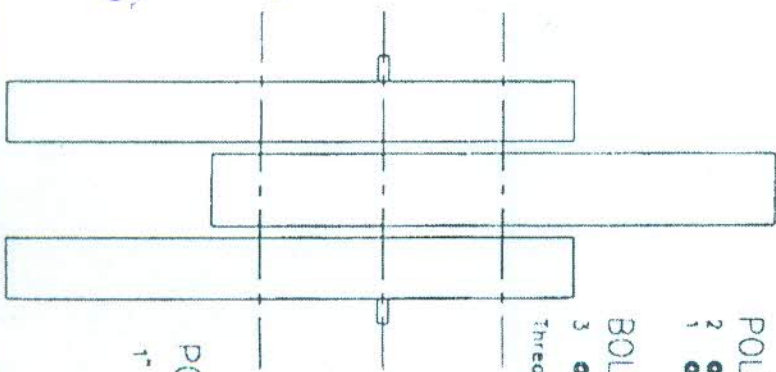
PROFILE  
HOR 1" = 200'  
VER 1" = 50'



০৩৬৫২ সত্য সমস্যা অনুবাদিত সিদ্ধান্ত নং ৩২১৫২

(Md. Abdul Khaleque)  
Consultant, TAPP, BREB

(Md. Ahsanul Haque)  
Consultant, TAPP, BREB



POLE SPLICE  
1" = 50'

POLES  
2 60' cl. 2  
1 30' cl. 6

BOLTS  
3 3/4" x 40"  
Threaded 12" both ends

(Kamrul Ahsan Mollik)  
Asst. Secy. (Board), BREB.

(Md. Muzammel Hujj)  
Consultant, TAPP, BREB

(Md. Duhidul Islam)  
Consultant, TAPP, BREB

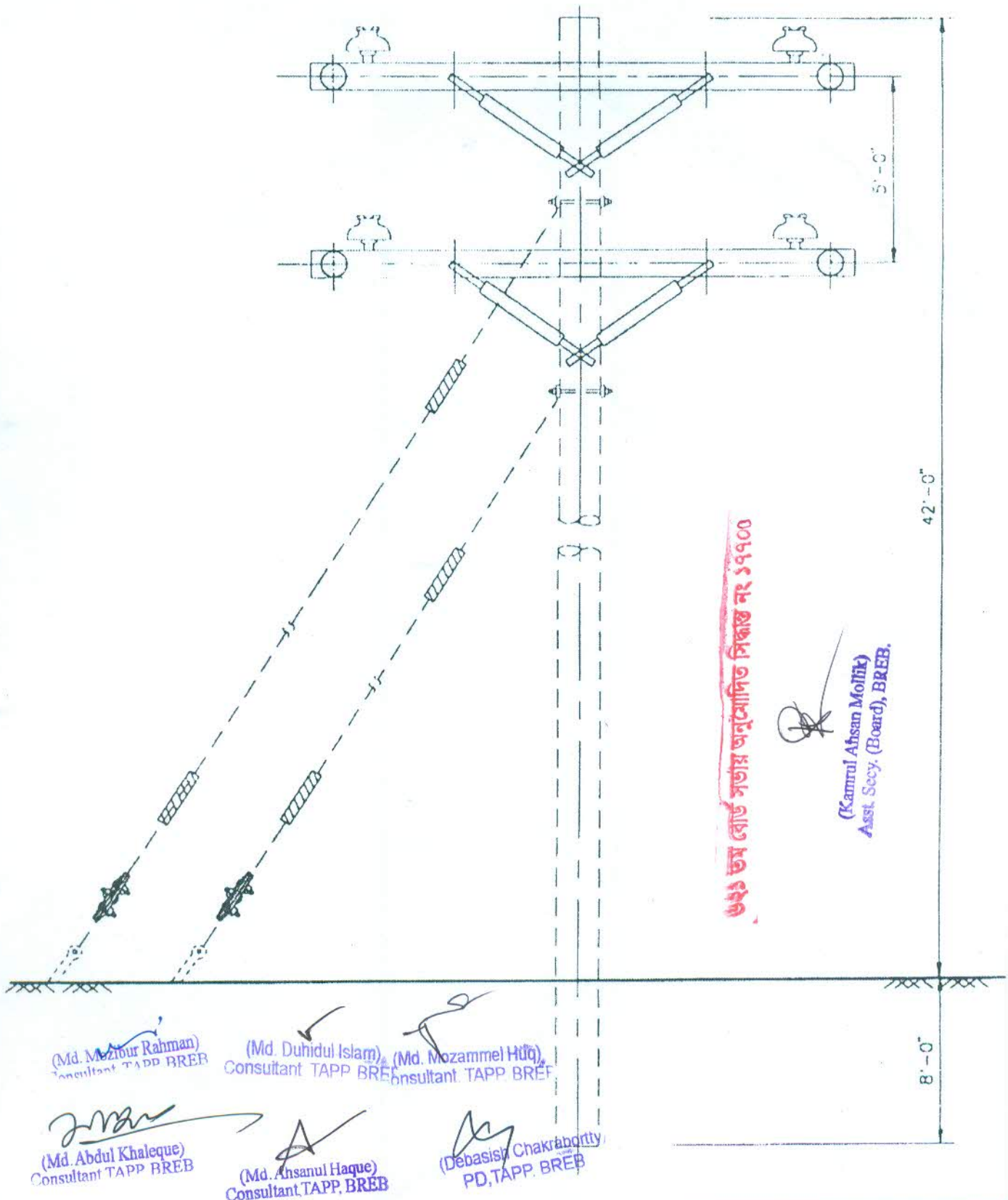
(Md. Mozibur Rahman)  
Consultant, TAPP, BREB

**BANGLADESH RURAL ELECTRIFICATION BOARD**

Unit Description: TEMPORARY SPLICED POLE FOR 11 KV RIVER CROSSING  
SPAN - 750'

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	C45

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020

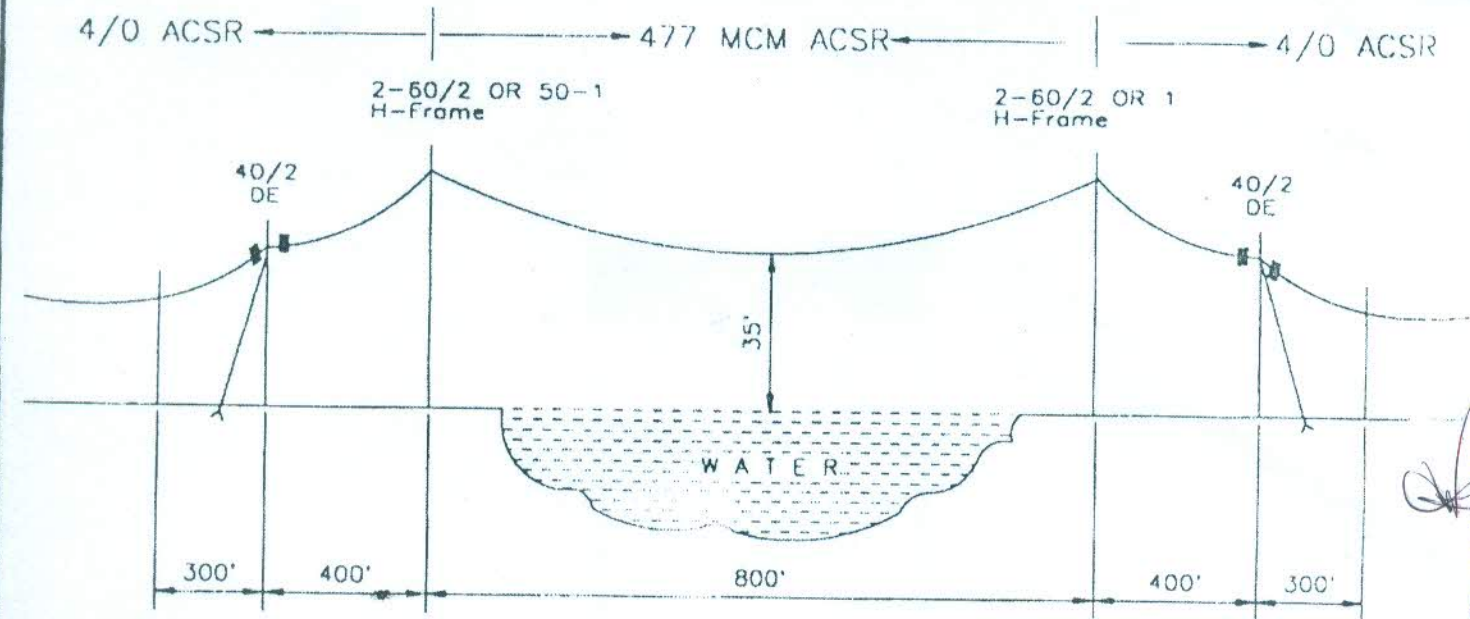


**BANGLADESH RURAL ELECTRIFICATION BOARD**

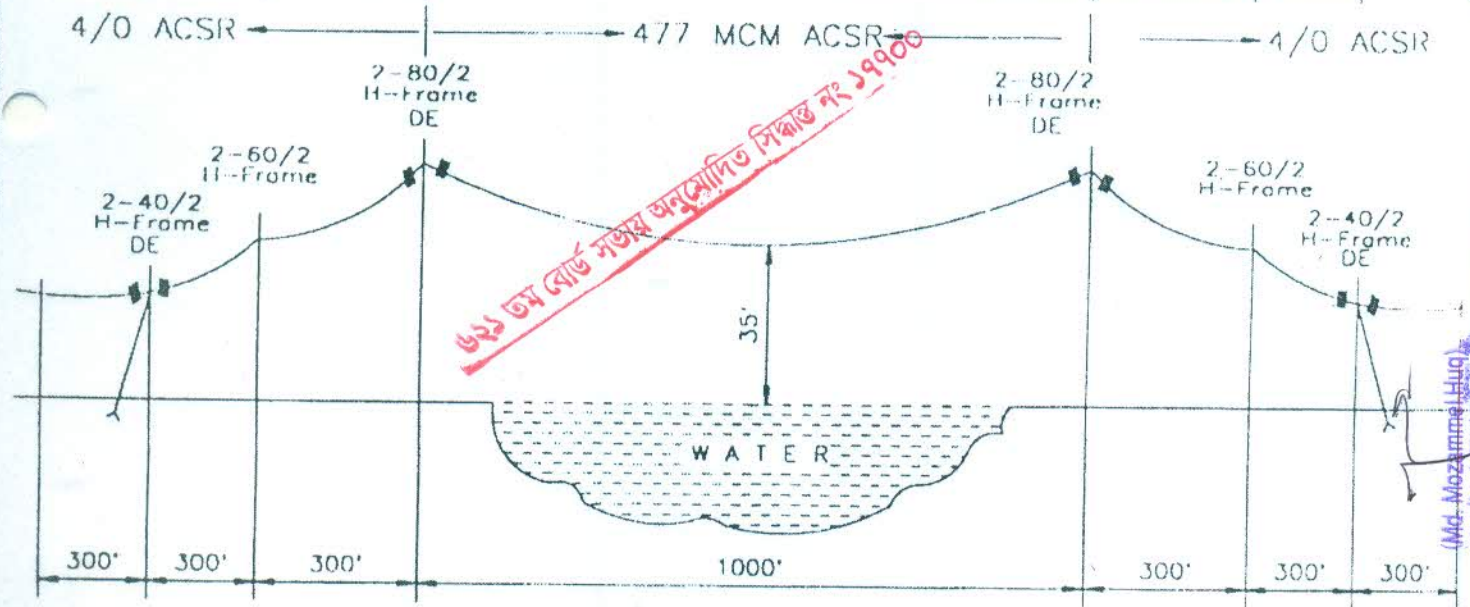
**Unit Description:** RIVER CROSSING WITH 50'-0" POLE

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	<b>C46</b>

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020

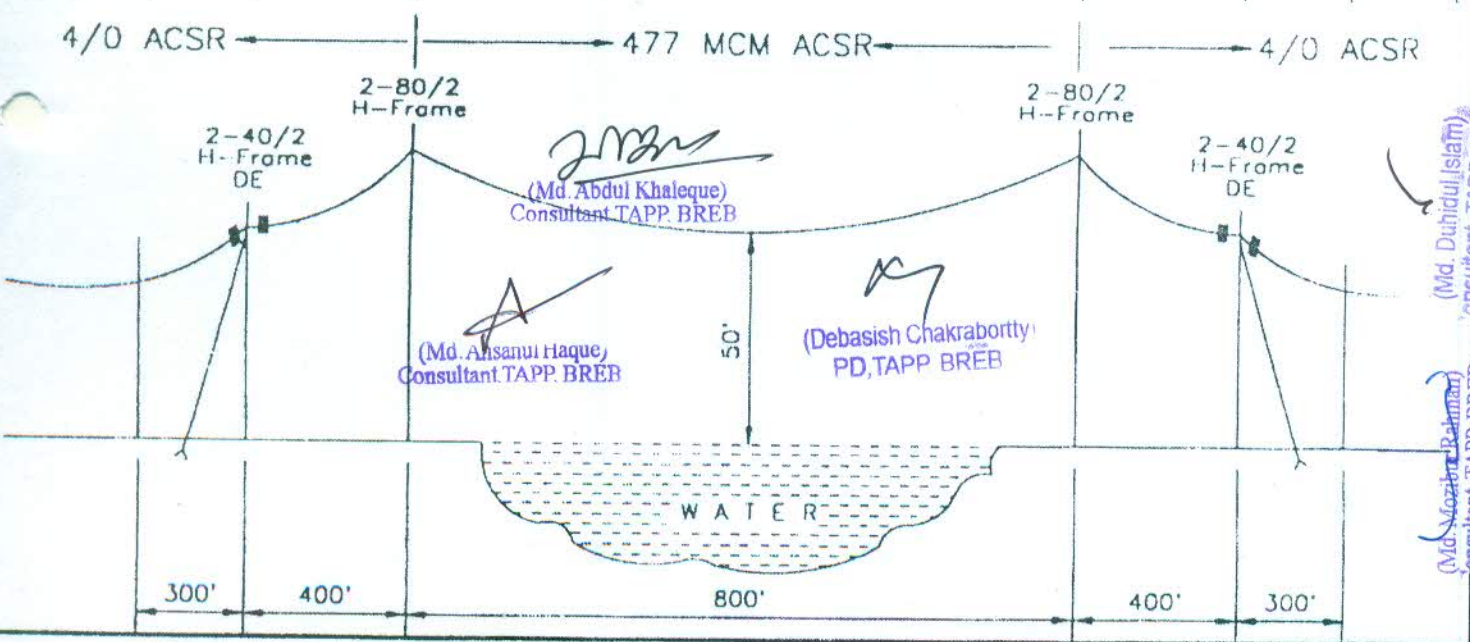


(Kamrul Ahsan Mohtai)  
Asst. Secy. (Board), BREB.



৬৬৬ টম বেডে সড়ক অনুমোদিত সিফার্ড নং ১৭৭০০

(Md. Mozammel Huj)  
Asst. Secy. TAPP BREB



(Md. Abdul Khaleque)  
Consultant TAPP BREB

(Md. Ansanur Raque)  
Consultant TAPP BREB

(Debasish Chakraborty)  
PD, TAPP BREB

(Md. Duhidul Islam)  
Consultant TAPP BREB

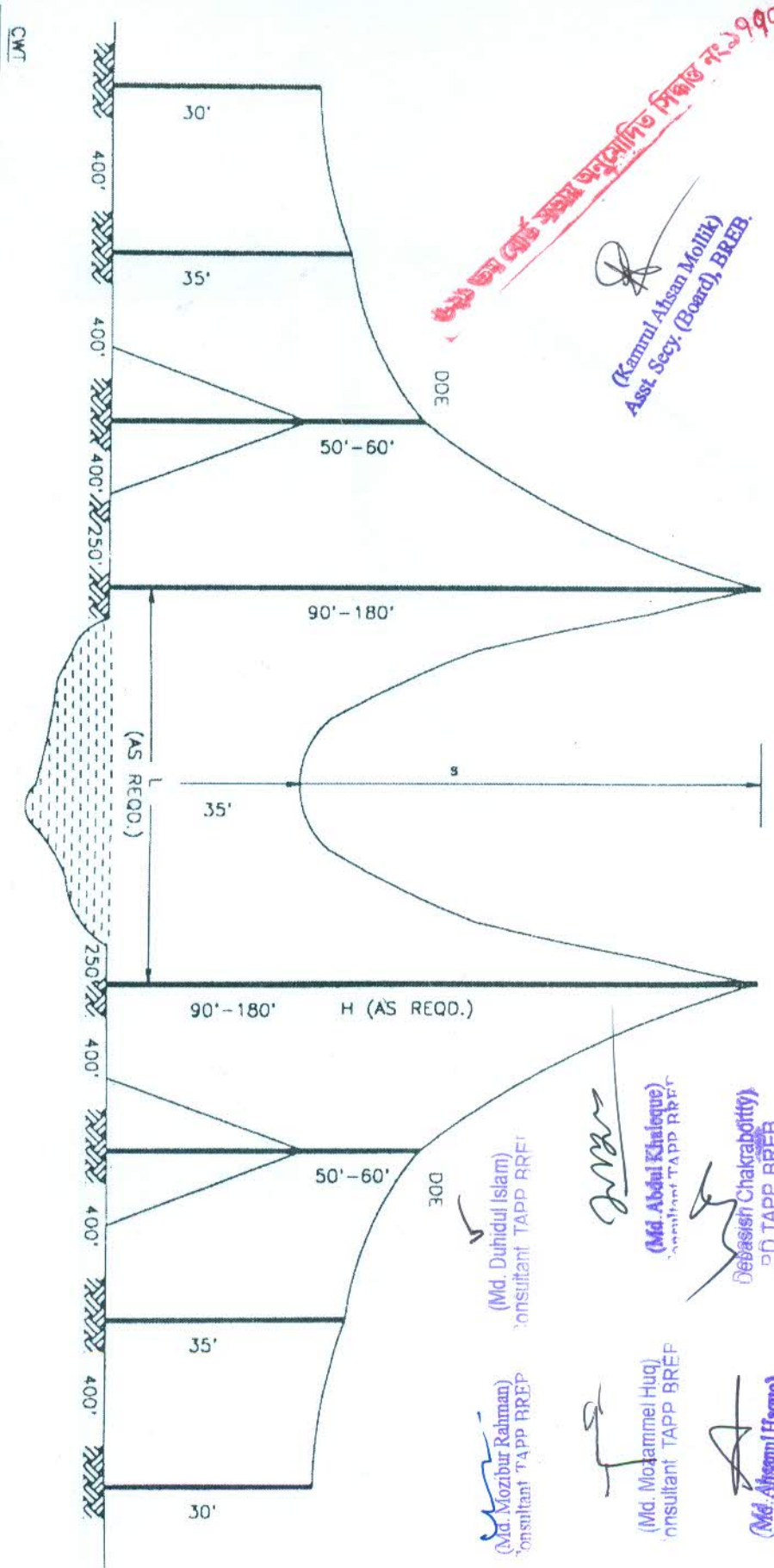
(Md. Mozammel Huj)  
Asst. Secy. TAPP BREB

**BANGLADESH RURAL ELECTRIFICATION BOARD**

Unit Description: **RIVER CROSSING WITH WOODEN POLE**

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	C47

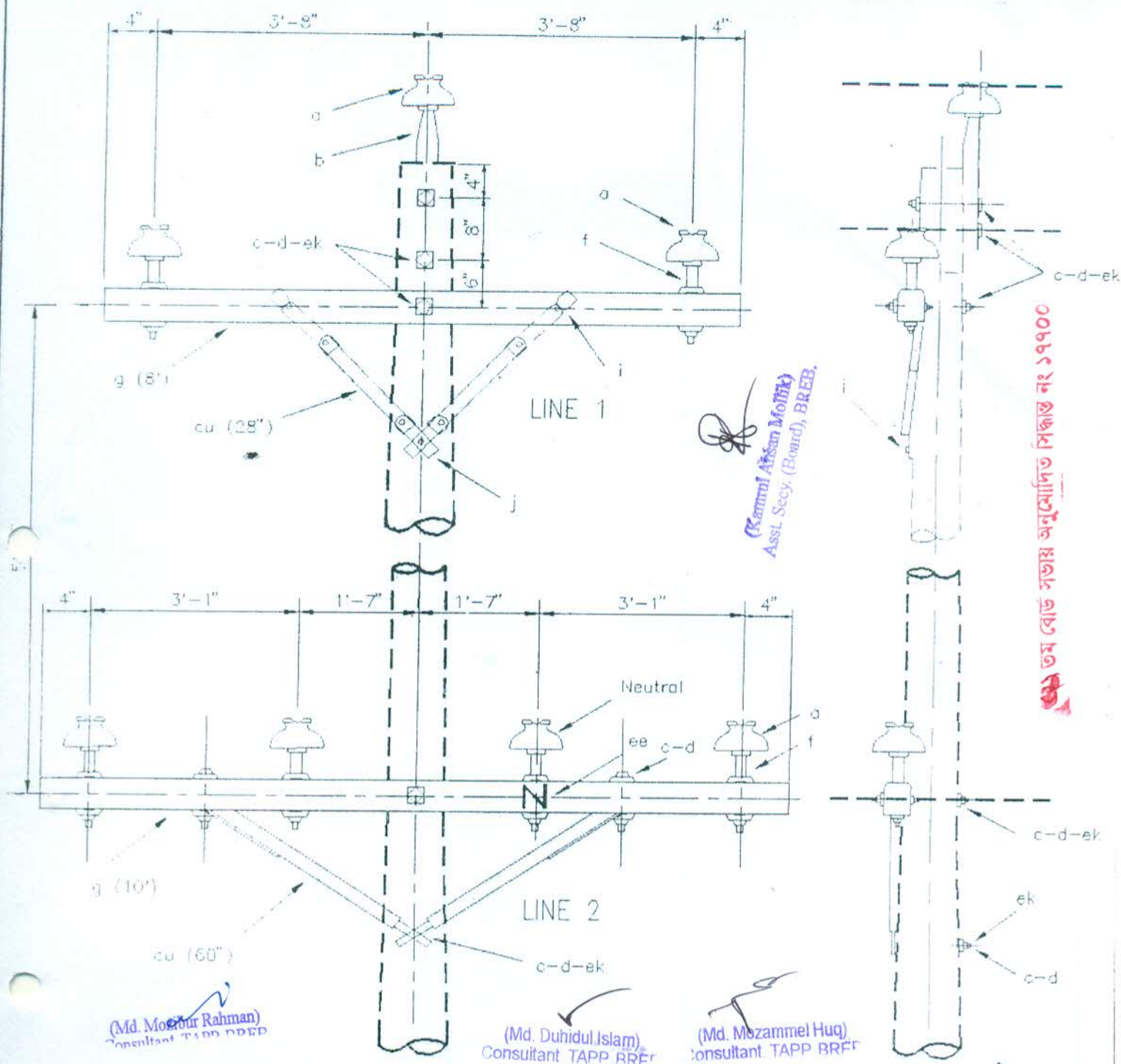
৬৬৬ ক্যা লোট অফ অসম কলোনিজ পিকার নং ৭২৭০০০  
 (Kamrul Ahsan Mollik)  
 Asst. Secy. (Board), BREB.



TOWER	SPAN	WT	ESTIMATED COST (Tk.)	SPAN	TOWER HT
RC	1000'	4.8 TON	1,72,000/-	1.1 = 1000'	H = 90'
AC	1000'	8.5 TON	34,000/-	2.7 = 1200'	H = 110'
RC	1500'	6.8 TON	2,72,000/-	3.7 = 1500'	H = 130'
AC	1500'	3.0 TON	1,20,000/-	4.1 = 1800'	H = 140'
RC	2000'	9.0 TON	3,60,000/-	5.1 = 2000'	H = 180'
AC	2000'	3.0 TON	1,20,000/-		

(Md. Duhidul Islam)  
 consultant TAPP BR/ET  
 (Md. Mozibur Rahman)  
 consultant TAPP BR/EP  
 (Md. Abul Khatique)  
 consultant TAPP BR/EP  
 Debasish Chakraborty  
 D.O. TAPP, BREB.  
 (Md. Ahsanul Haque)  
 consultant TAPP BR/EP

BANGLADESH RURAL ELECTRIFICATION BOARD				
Unit Description:		RIVER CROSSING 900' - 2000' (BY TOWER)		
Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	C48
Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020				



৩৯ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

NOTE: Screw lag is required when unit is installed on wooden pole only.

ITEM	MAT. CODE	No	MATERIAL	ITEM	MAT. CODE	No	MATERIAL
a	C1	7	Insulator, Pin Type	g	X2	1	Crossarm, 3-3/4" x 4-3/4" x 10'-0"
b	B2	1	Pin, Pole Top, 20"	i	B32	4	Bolt, Carriage, 3/8" x 4-1/2"
c	B4/115/B4/4.1-4.3	2	Bolt, Machine, 1/2" x 6" - 12"	j	B40	2	Screw, Lag, 1/2" x 4" (for wood pole only)
d	B6/7/8	4	Bolt, Machine, 5/8" x Required Length	cu	B42/B42.1/B45	1	Brace, Steel / Wood, 60" Span
e	B48	2	Washer, Square, 1-3/8" Diameter	cu	B41/B41.1/B44	2	Brace, Steel / Wood, 28" x 1/4"
f	B46/118	7	Washer, Square, 2-1/4"	ee		1	Letter N With Nails
f	B1	6	Pin, Crossarm, Steel, 5/8" x 10-3/4"	ek	B50	-	Lock Nuts, 5/8" Bolt Size, as required
g	X1	1	Crossarm, 3-1/2" x 4-1/2" x 8'-0"				

**BANGLADESH RURAL ELECTRIFICATION BOARD**

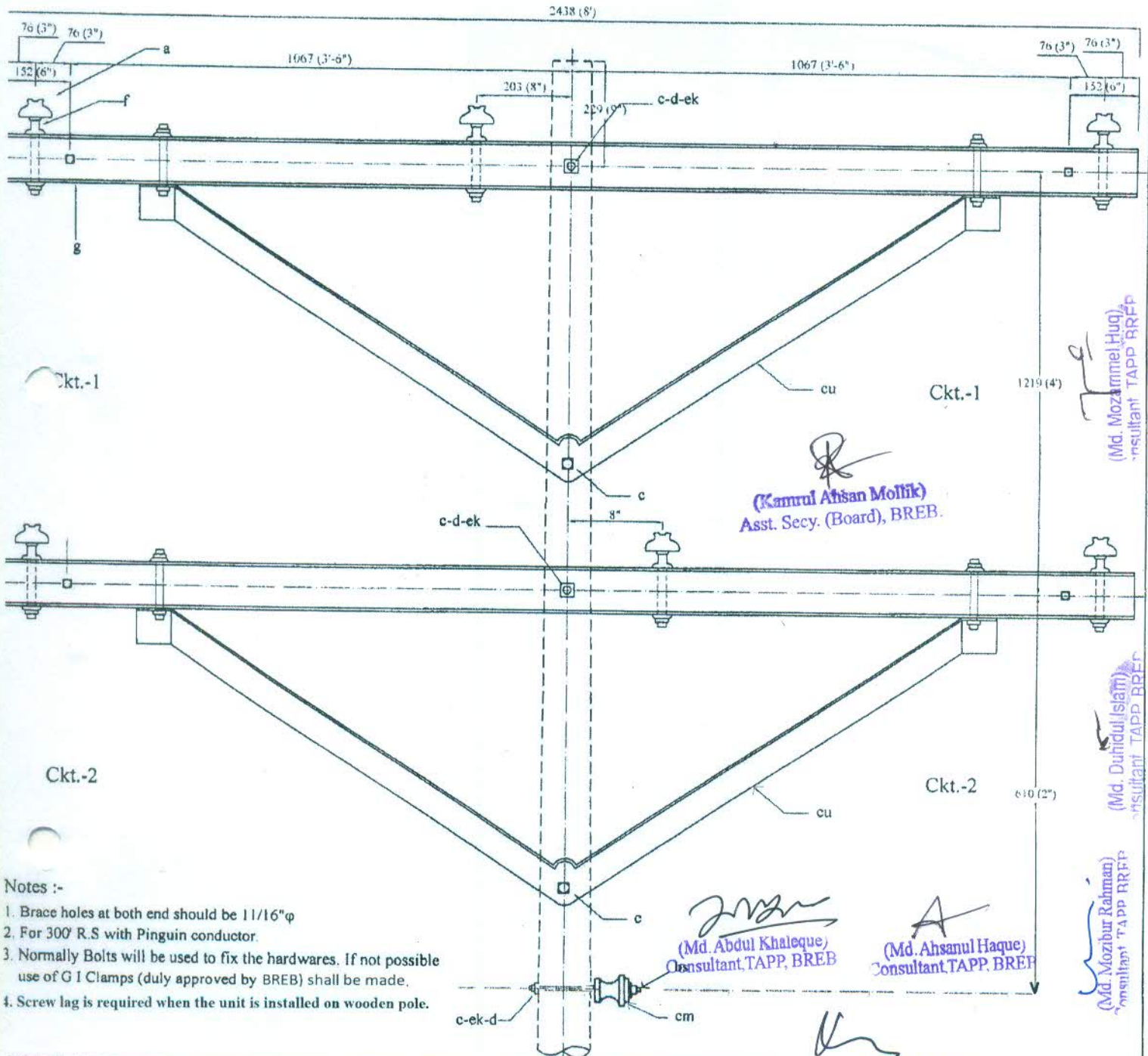
**Unit Description: 6.35/11 KV PRIMARY, 3-PHASE WOODEN CROSSARM CONSTRUCTION DOUBLE CIRCUIT TANGENT**

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	DC-C1

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020

TOP VIEW

৬২১ তম বোর্ড সভায় অনুমোদিত সঙ্কল্প নং ১৭৭০০



- Notes :-
1. Brace holes at both end should be 11/16"φ
  2. For 300' R.S with Pinguin conductor.
  3. Normally Bolts will be used to fix the hardwares. If not possible use of G I Clamps (duly approved by BREB) shall be made.
  4. Screw lag is required when the unit is installed on wooden pole.

(Md. Mozammel Haque)  
Consultant TAPP BREB

(Kamrul Ahsan Mollik)  
Asst. Secy. (Board), BREB.

(Md. Duhidul Islam)  
Consultant TAPP BREB

(Md. Mozibur Rahman)  
Consultant TAPP BREB

(Md. Abdul Khaleque)  
Consultant TAPP BREB

(Md. Ahsanul Haque)  
Consultant TAPP BREB

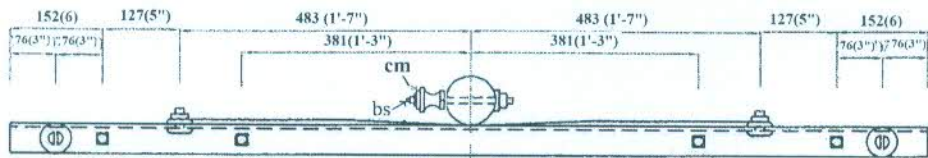
ITEM	MAT. CODE	Qty.	MATERIAL	ITEM	MAT. CODE	Qty.	MATERIAL
a	C 1	06	Insulator, pin type	cu	B42/B42.1/B45	02	Brace, steel / Wood, 60" span
cm	C 2/3	01	Insulator, spool	f	B 1	06	Pin, crossarm, steel, 5/8" x 10-3/4"
c	B 6/7/8	02	Bolt, machine, 5/8" x Required length	ek	B50 /138	09	Locknuts, 5/8" bolt size
b	X-7	02	Crossarm, steel channel 4" x 2" x 2" x 1/4" x 8'-0"	bs	B33/34/35	01	Bolt, Single Upset, 5/8"x as req'd length
c	B3	4	Bolt, M/C, 1/2" x 1 1/2"	d	B 46/118	05	Washer, square 2- 1/4"
c	B4/4.1-4.3	2	Bolt, M/C, 1/2" x as req length	j	B40/	02	Screw, lag (for wood pole only)

BANGLADESH RURAL ELECTRIFICATION BOARD

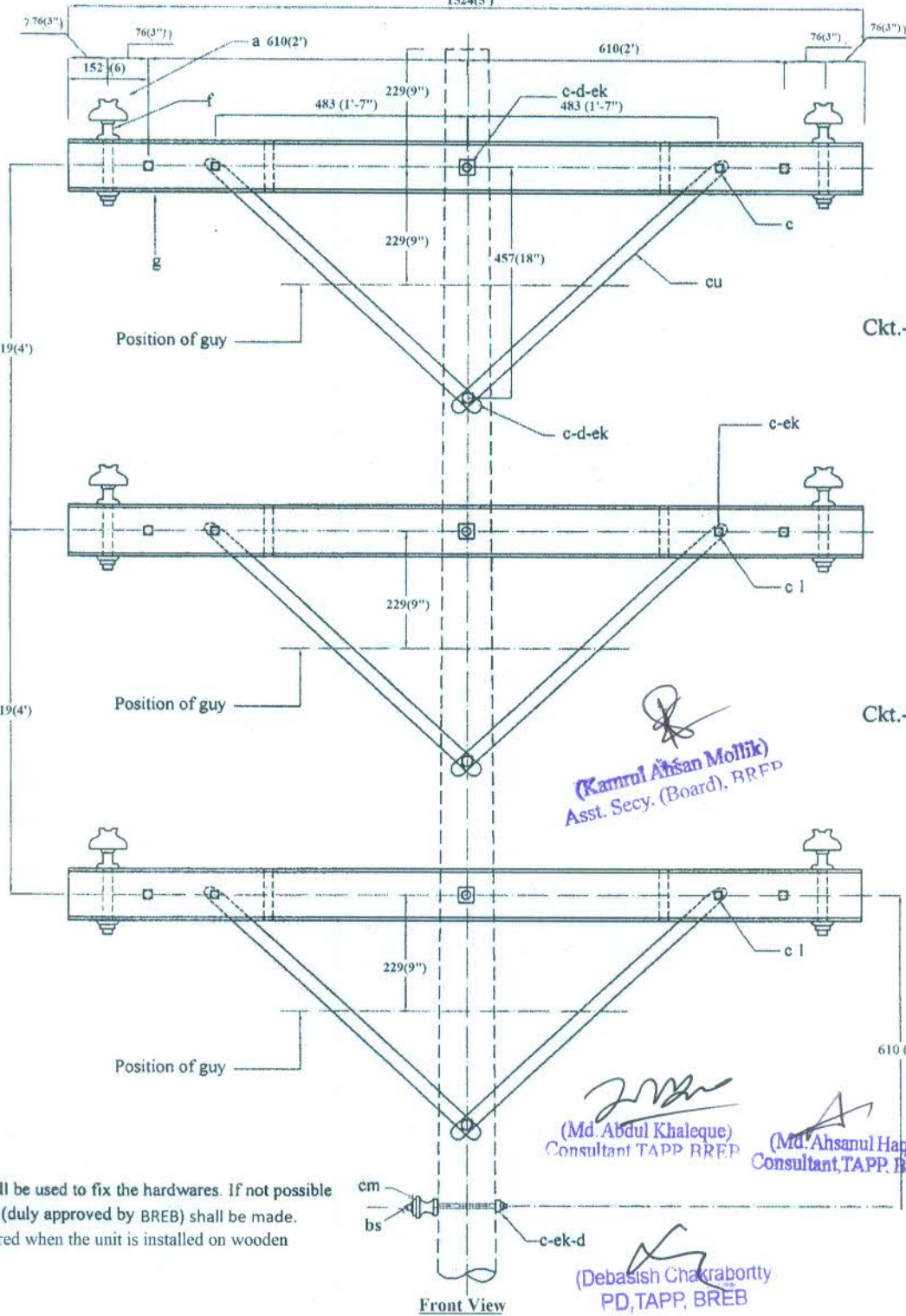
Unit Description: 6.35/ 11 KV PRIMARY, 3-PHASE STEEL CROSSARM(X7) CONSTRUCTION  
DOUBLE CIRCUIT -TANGENT

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	DC-C1A

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020



TOP VIEW  
1524(5')



Front View

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৯০০

(Md. Mozammel Huda)  
Consultant TAPP BREB

(Md. Duhidul Islam)  
Consultant TAPP BREB

(Md. Mozammar Rahman)  
Consultant TAPP BREB

(Kamrul Ahsan Mollik)  
Asst. Secy. (Board), BRFB

(Md. Abdul Khaleque)  
Consultant TAPP BREB

(Md. Ahsanul Haque,  
Consultant TAPP BREB

(Debasish Chakraborty)  
PD, TAPP, BREB

Notes :-

1. Normally Bolts will be used to fix the hardware. If not possible use of G I Clamps (duly approved by BREB) shall be made.
2. Screw lag is required when the unit is installed on wooden pole only.

ITEM	MAT. CODE	Qty.	MATERIAL	ITEM	MAT. CODE	Qty.	MATERIAL
a	C 1	06	Insulator, pin type	cu	B41/B41.1/B44	06	Brace, steel/ Wood, 28" span
cm	C 2/3	01	Insulator, spool	f	B 1	06	Pin, crossarm, steel, 5/8" x 10-3/4"
c	B3	06	Bolt, machine, 1/2" x 1 1/2"	ek	B50	13	Locknuts, 5/8" bolt size
c	B 6/7/8	03	Bolt, machine, 5/8" x Required length	bs	B33/34/35	01	Bolt, Single Upset, 5/8" x as req'd
g	X-6	03	Crossarm, steel channel 4" x 2" x 2" x 1/4" x 5'-0"	d	B 46/118	07	Washer, square 2- 1/4"
c	B4/B4.1-4.3	03	Bolt, M/C, 1/2" x as req length	j	B40	03	Screw, lag (for wood pole only)

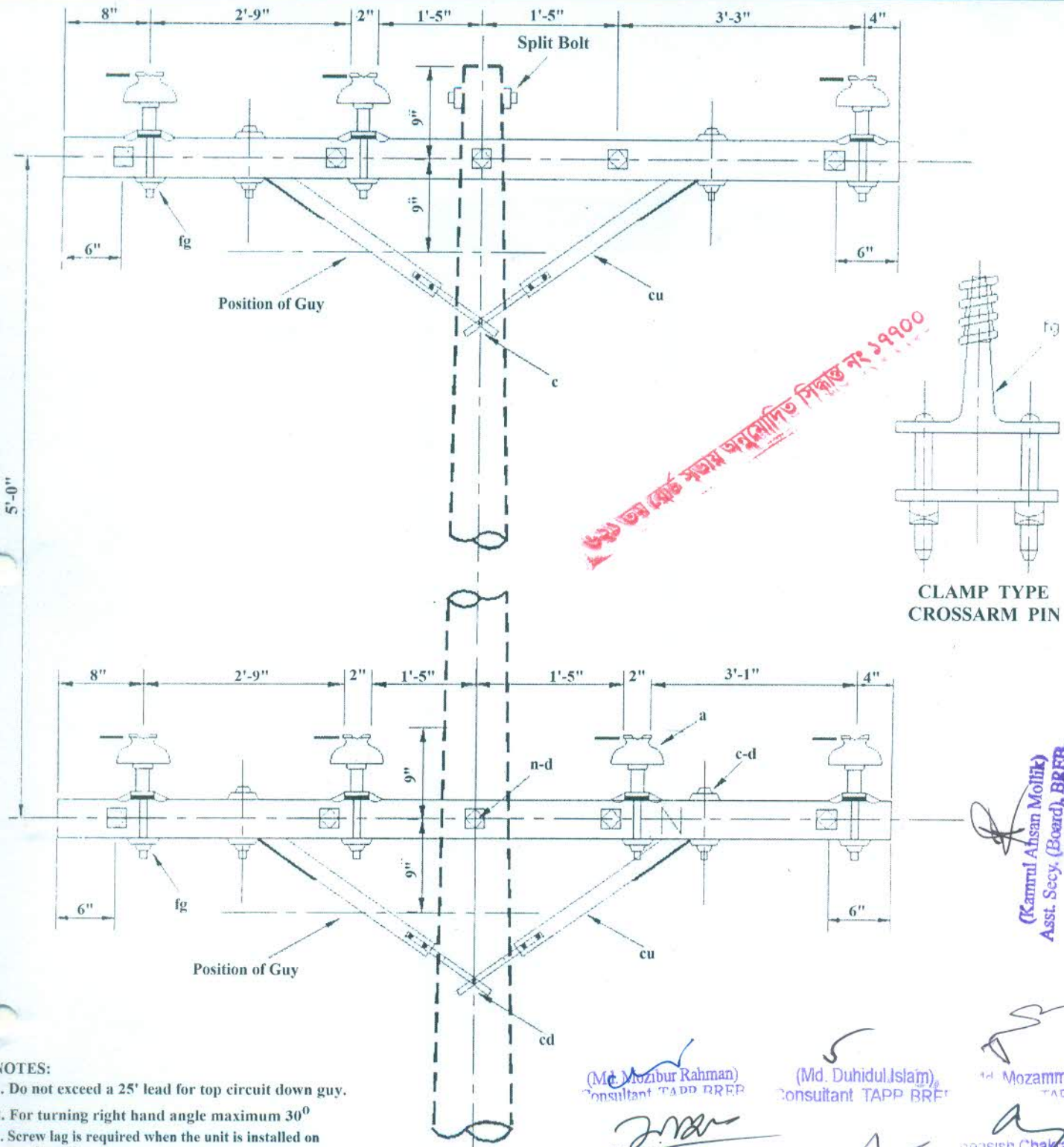
BANGLADESH RURAL ELECTRIFICATION BOARD

Unit Description: 6.35/ 11 KV PRIMARY, 3-PHASE STEEL CROSSARM (X6) CONSTRUCTION DOUBLE CIRCUIT- TANGENT

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	DC-C1B

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020





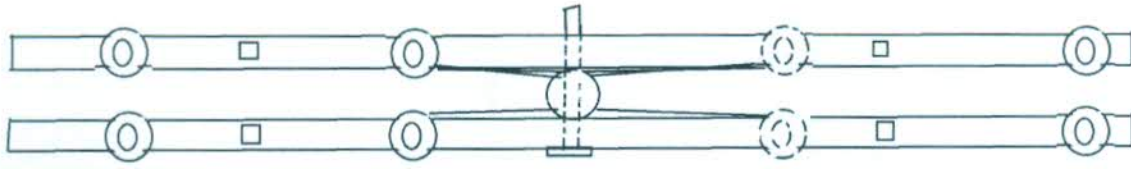
- NOTES:**
1. Do not exceed a 25' lead for top circuit down guy.
  2. For turning right hand angle maximum 30°
  3. Screw lag is required when the unit is installed on wooden pole only,

ITEM NO.	CODE	MATERIAL	ITEM NO.	CODE	MATERIAL
a	14	C1 Insulator, Pin Type	g	4	X2 Crossarm, 3-3/4" x 4-3/4" x 10'-0" 4"
c	2	B4/B4.1-4.3 Bolt, machine, 1/2" x 6" - 12"	ec	1	Letter N. with nails
c	1	B6/7/8 Bolt, machine, 5/8" x req'd length (for wood pole)	cu	4	B42/B42.1/B45 Brace, Steel / Wood, 60" Span
d	8	B48 Washer, round, 1-3/8" diameter	fg	14	Pin, Crossarm, Steel Clamp Type
d	58	B46/118 Washer, Square, 2-1/4" x 2-1/4"	ek	-	B50/138 Locknuts, as required
i	08	B32 Bolt Carriage for wooden crossarm only)	n	10	B26-30 Bolt, Double Arming, 5/8" x as req'd length
			j	4	B40 Screw, lag (for wood pole only)

**BANGLADESH RURAL ELECTRIFICATION BOARD**

Unit Description: 6.35/11 KV PRIMARY, 3-PHASE DOUBLE CIRCUIT-GRADE B WITH WOODEN CROSSARM CONSTRUCTION 0° To 30° MAXIMUM ANGLE

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	<b>DC-C2(L)</b>



**Top View**

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

*(Md. Mozibur Rahman)*  
Consultant TAPP BREB

*(Md. Dunidul Islam)*  
Consultant TAPP BREB

*(Md. Mozammel Haq)*  
Consultant TAPP BREB

*(Md. Abdul Khaleque)*  
Consultant, TAPP, BREB

*(Md. Ahsanul Haque)*  
Consultant TAPP BREB

*(Debasish Chakraborty)*  
PD, TAPP BREB

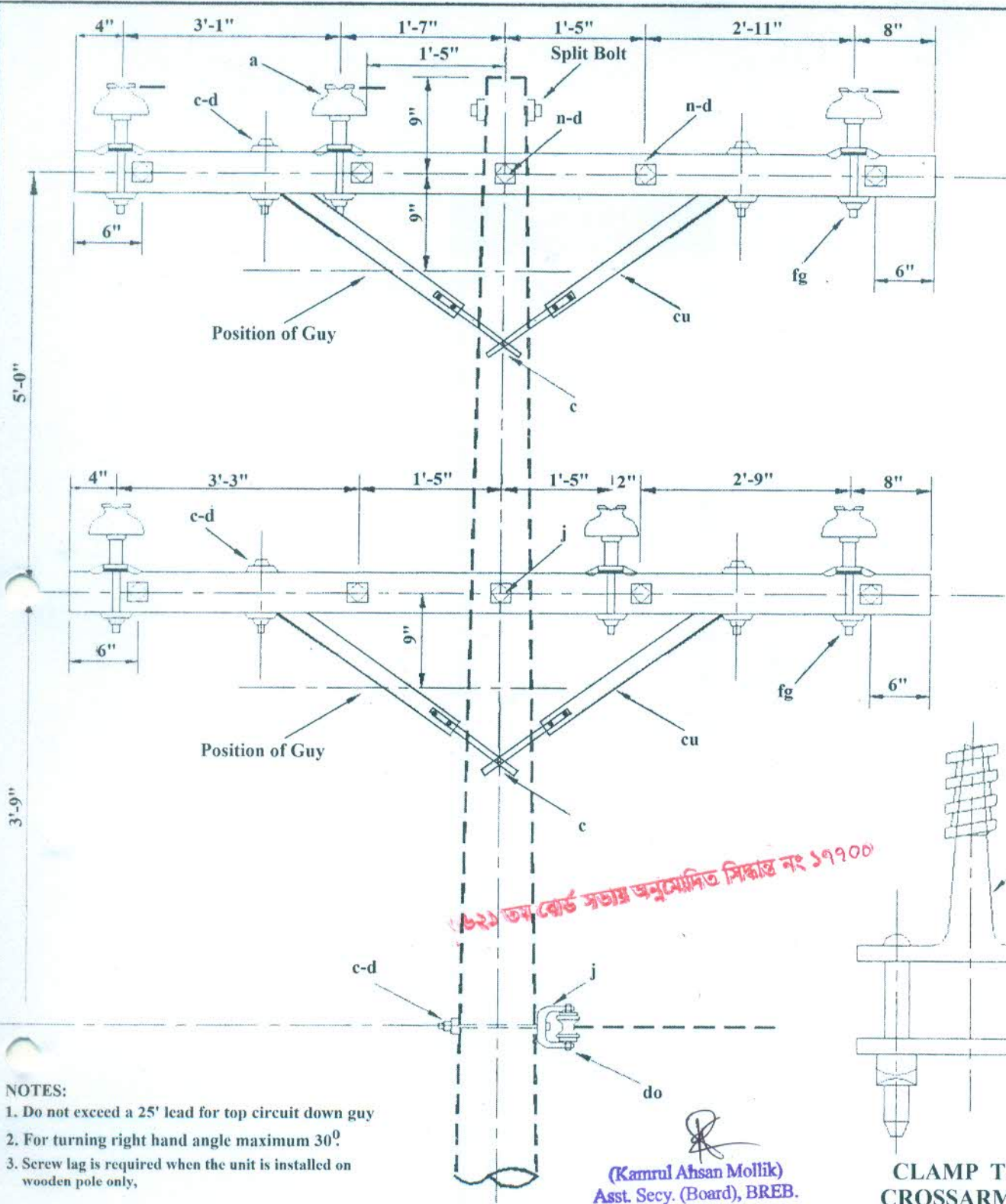
*(Kamrul Ahsan Mollik)*  
Asst. Secy. (Board), BREB.

**BANGLADESH RURAL ELECTRIFICATION BOARD**

Unit Description: 6.35/11 KV PRIMARY, 3-PHASE DOUBLE CIRCUIT- GRADE B WITH WOODEN CROSSARM CONSTRUCTION 0° To 30° MAXIMUM ANGLE

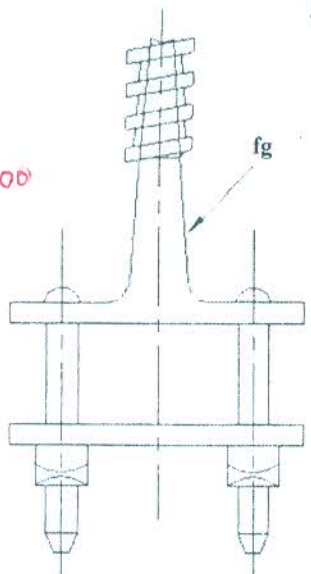
Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	DC-C2(L)

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020



- NOTES:**
1. Do not exceed a 25° lead for top circuit down guy
  2. For turning right hand angle maximum 30°
  3. Screw lag is required when the unit is installed on wooden pole only,

৳২১ তম বোর্ড সভায় অনুমোদিত নিক্সন নং ১৭৭০০



**CLAMP TYPE CROSSARM PIN**

ITEM	NO.	CODE	MATERIAL	ITEM	NO.	CODE	MATERIAL
a	12	C1	Insulator, Pin Type	g	4	X2	Crossarm, 3-3/4" x 4-3/4" x 10'-0"
c	2	B4/B4.1-4.3	Bolt, machine, 1/2" x 6" - 12"	cm	1	C3/2	Insulator, Spool Type, 1-3/4"/ 3" groove dia
c	2	B6/B7/B8	Bolt, machine, 5/8" x as req'd length	da	1	B72	Bracket, Secondary
d	8	B48	Washer, round, 1-3/8" diameter	cu	4	B42/B42.1/B45	Brace, Steel / Wood, 60" Span
d	63	B46/118	Washer, Square, 2-1/4" x 2-1/4"	fg	12		Pin, Crossarm, Steel Clamp Type
i	8	B32	Bolt, Carriage (for wooden crossarm)	ee	1		Letter N with nails
j	4	B40	Screw, lag (for wooden pole only)	ek	—	B50/138	Locknuts
				n	10	B26-30	Bolt, Double arming, 5/8" as req'd length

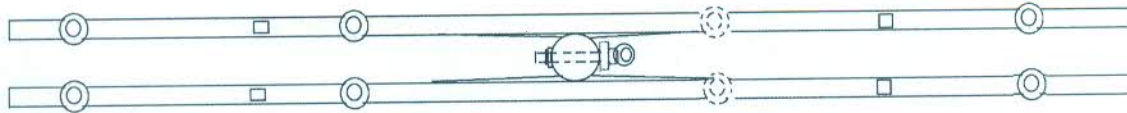
**BANGLADESH RURAL ELECTRIFICATION BOARD**

**Unit Description:** 6.35/11 KV, 3-PHASE WOODEN CONSTRUCTION- DOUBLE PRIMARY SUPPORT 0° To 30° MAXIMUM ANGLE

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	<b>DC-C2(R)</b>

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020

Md. Ahsanul Haque  
 Consultant TAPP, BREB  
 Md. Abdul Khaleque  
 Consultant TAPP, BREB  
 Md. Mozammel Haque  
 Consultant TAPP, BREB  
 Md. Duhrul Islam  
 Consultant TAPP, BREB  
 Md. Mozibur Rahman  
 Consultant TAPP, BREB



**Top View**

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

(Md. Mozibur Rahman)  
Consultant TAPP BREB

(Md. Duhidul Islam)  
Consultant TAPP BREB

(Md. Mozammel Huj)  
Consultant TAPP BREB

(Md. Abdul Khaleque)  
Consultant TAPP BREB

(Md. Ahsanul Haque)  
Consultant TAPP BREB

(Debasish Chakraborty)  
PD, TAPP BREB

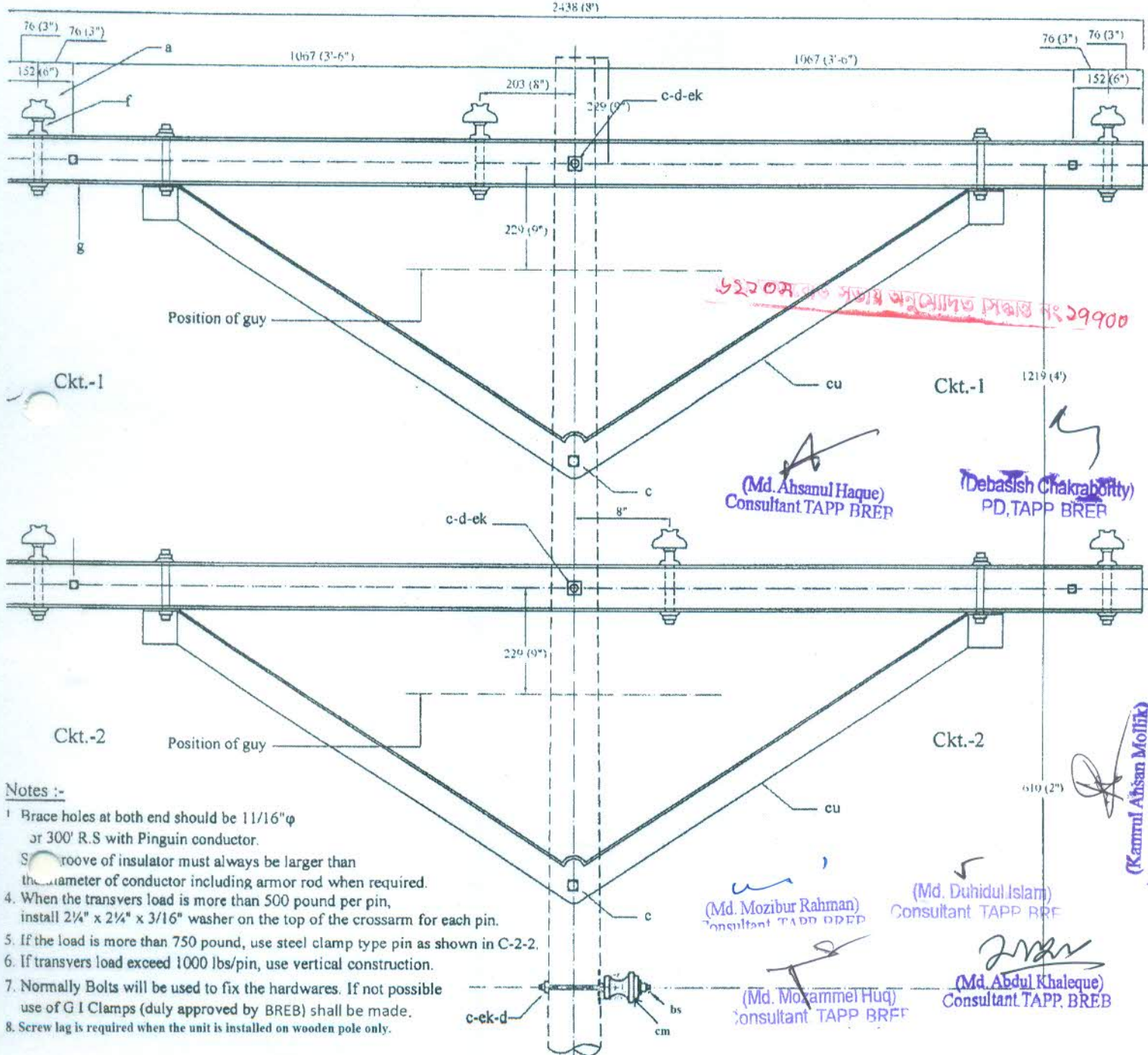
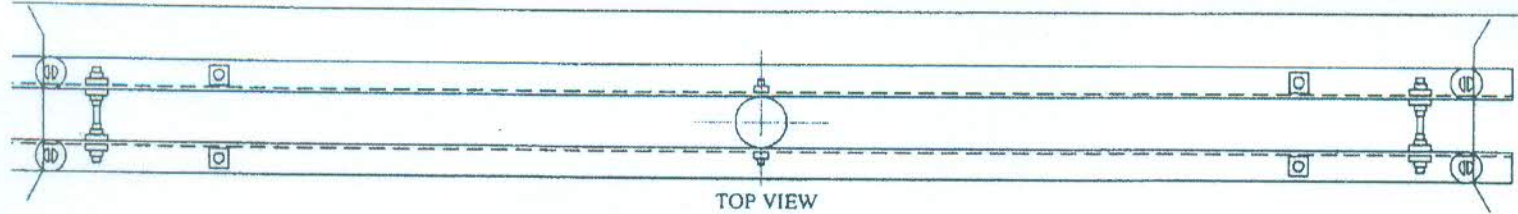
(Kamrul Ahsan Mollik)  
Asst. Secy. (Board), BREB.

**BANGLADESH RURAL ELECTRIFICATION BOARD**

**Unit Description:** 6.35/11 KV, 3-PHASE WOODEN CONSTRUCTION- DOUBLE PRIMARY SUPPORT 0° To 30° MAXIMUM ANGLE

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	<b>DC-C2(R)</b> Page 2 of 2

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020



- Notes :-**
1. Brace holes at both end should be 11/16"φ or 300' R.S with Penguin conductor.
  2. Groove of insulator must always be larger than the diameter of conductor including armor rod when required.
  3. When the transverse load is more than 500 pound per pin, install 2 1/4" x 2 1/4" x 3/16" washer on the top of the crossarm for each pin.
  4. If the load is more than 750 pound, use steel clamp type pin as shown in C-2-2.
  5. If transverse load exceed 1000 lbs/pin, use vertical construction.
  6. Normally Bolts will be used to fix the hardware. If not possible use of G I Clamps (duly approved by BREB) shall be made.
  7. Screw lag is required when the unit is installed on wooden pole only.

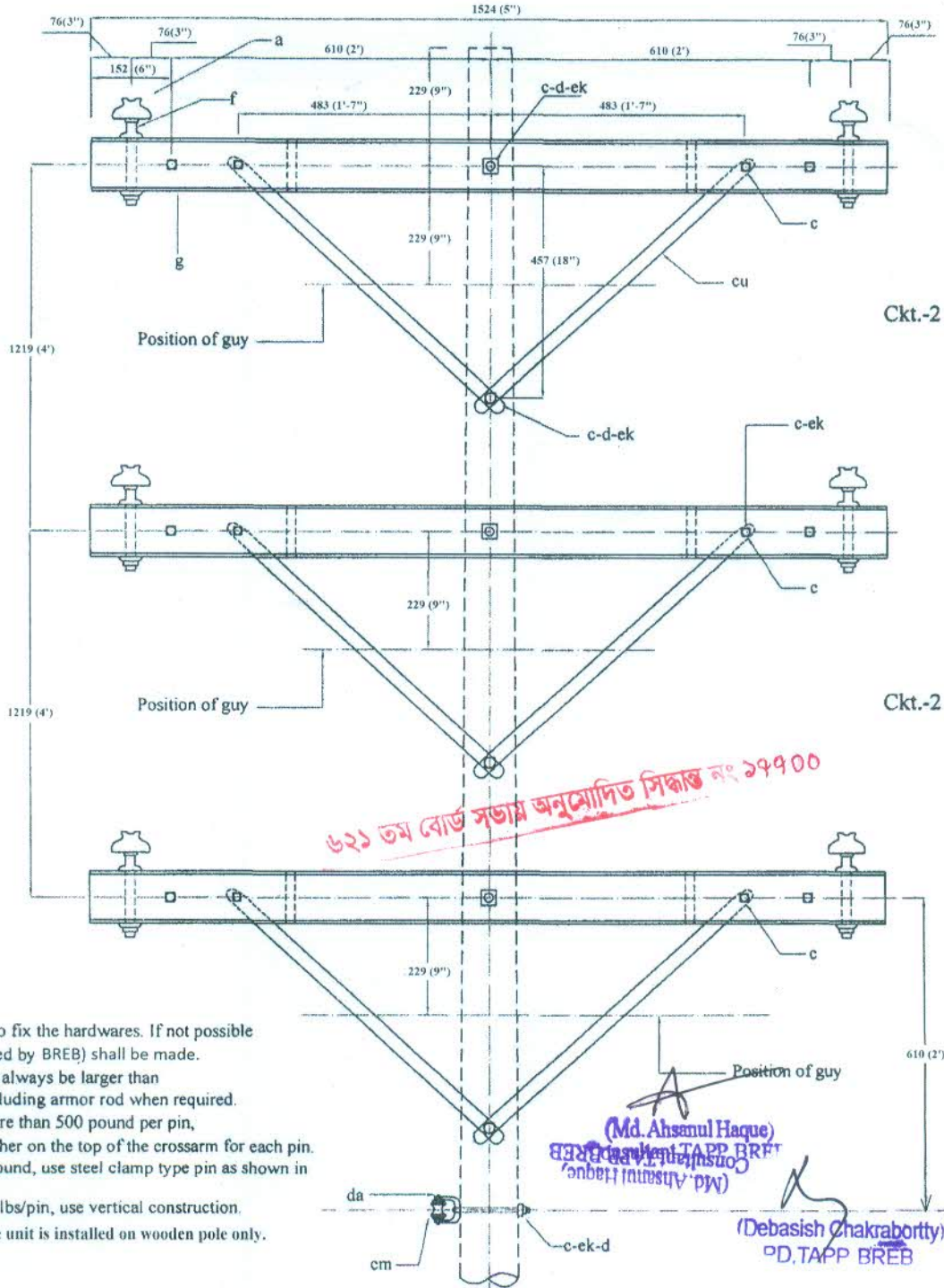
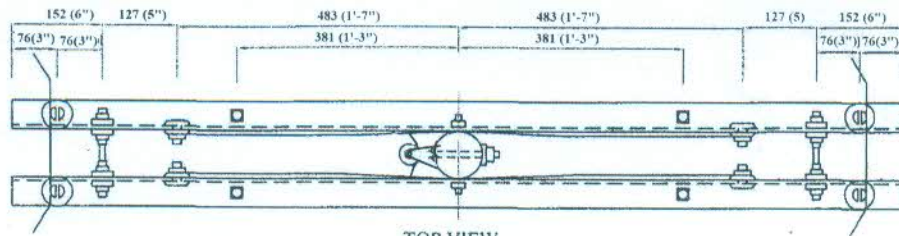
ITEM	MAT. CODE	Qty.	MATERIAL	ITEM	MAT. CODE	Qty.	MATERIAL
a	C 1	06	Insulator, pin type	cu	B42/ B42.1/ B45	04	Brace, steel / Wood, 60" span
cm	C 2/3	01	Insulator, spool	f	B 1	06	Pin, crossarm, steel, 5/8" x 10-3/4"
c	B4/4.1-4.3	02	Bolt, M/C, 1/2" x 6" - 12"	ek	B50 /138	31	Locknuts, 5/8" bolt size
g	X-7	04	Crossarm, steel channel 4" x 2" x 2" x 1/4" x 8'-0"	bs	B33/34/35	01	Bolt, Single Upset, 5/8" x as req'd length
e	B3	08	Bolt, M/C, 1/2" x 1 1/2"	d	B 46/118	01	Washer, square 2- 1/4"
j	B40	02	Screw, lag (for wood pole only)	n	B26/B27/B28	06	Bolt, Double arming

**BANGLADESH RURAL ELECTRIFICATION BOARD**

**Unit Description: 6.35/ 11 KV PRIMARY, 3-PHASE STEEL CROSSARM(X7) CONSTRUCTION  
DOUBLE CIRCUIT - 0° TO 30° MAX. ANGLE**

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	DC-C2A

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020



৬২১ তম বোর্ড সভায় অনুমোদিত সিকার নং ১৭৭০০

(Md. Ahsanul Haque)  
Asst. Socy. (Board), BREB  
(Debasish Chakraborty)  
D.D. TAPP BREB

Notes :-

1. Normally Bolts will be used to fix the hardwares. If not possible use of G I Clamps (duly approved by BREB) shall be made.
2. Side groove of insulator must always be larger than the diameter of conductor including armor rod when required.
3. When the transvers load is more than 500 pound per pin, install 2 1/4" x 2 1/4" x 3/16" washer on the top of the crossarm for each pin.
4. If the load is more than 750 pound, use steel clamp type pin as shown in C-2-2.
5. If transvers load exceed 1000 lbs/pin, use vertical construction.
6. Screw, lag is required when the unit is installed on wooden pole only.

ITEM	CODE	Qty.	MATERIAL	ITEM	CODE	Qty.	MATERIAL
a	C 1	12	Insulator, pin type	cu	B41/B41.1/B44	12	Brace, steel / Wood, 28" span
cm	C 2/3	01	Insulator, spool	f	B 1	12	Pin, crossarm, steel, 5/8" x 10-3/4"
c	B4/B4.1-4.3	03	Bolt, machine, 1/2" x 6"-12"	ek	B50/138	45	Locknuts, 5/8" dia
c	B 6/7/8	01	Bolt, machine, 5/8" x Required length	da	B 72	01	Bracket, secondary
g	X-6	06	Crossarm, steel channel 4" x 2" x 2" x 1/4" x 5'-0"	d	B 46/118	01	Washer, square 2-1/4"
c	B3	12	Bolt, M/C, 1/2" x 1 1/2"	n	B26/B27/B28	09	Bolt, Double arming, 5/8" x as req'd / length
j	B40	06	Screw, lag (for wood pole only)				

BANGLADESH RURAL ELECTRIFICATION BOARD

Unit Description: 6.35/ 11 KV PRIMARY, 3-PHASE STEEL CROSSARM (X6) CONSTRUCTION DOUBLE CIRCUIT - 0° TO 30° MAX. ANGLE

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	DC-C2B

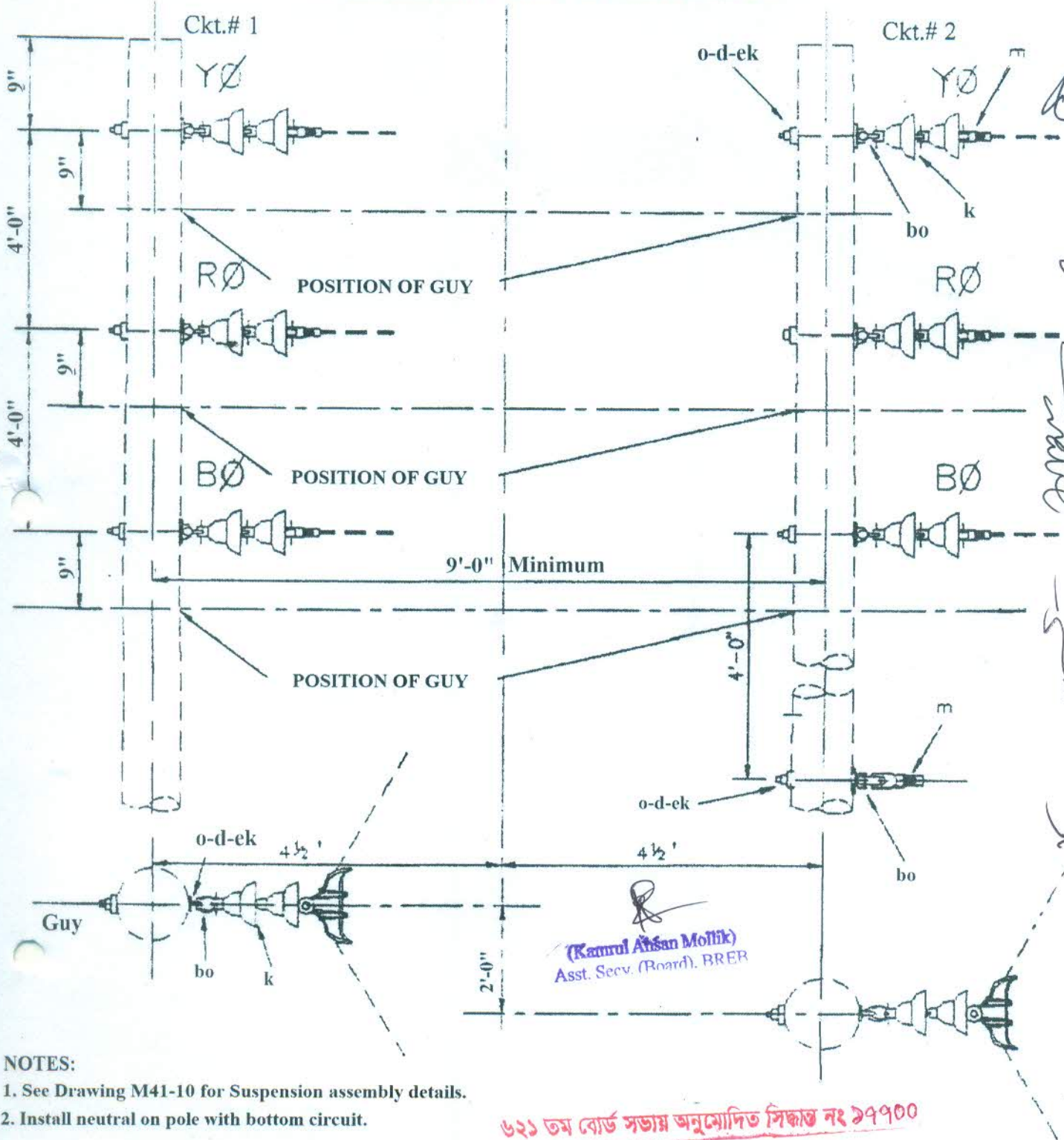
(Kamrul Ahsan Mollah)  
Asst. Socy. (Board), BREB

(Md. Mozammel Haque)  
Consultant TAPP BREB

(Md. Duhiul Islam)  
Consultant TAPP BREB

(Md. Mozammar Rahman)  
Consultant TAPP BREB

# 5' HIGHER POLE THAN Ckt. # 2



- NOTES:**
1. See Drawing M41-10 for Suspension assembly details.
  2. Install neutral on pole with bottom circuit.

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ITEM	MAT. CODE	Qty.	MATERIAL	ITEM	MAT. CODE	Qty.	MATERIAL
d	B 46	07	Washer, square, 2 1/4"	bo	B 55	07	Shackle, Anchor
k	C 10	12	Insulator, suspension	ek	B 50	07	Locknuts, 5/8" bolt size
o	B 18/19/20	07	Bolt, eye, 5/8" φ x required length	m	B 82/83/84	06	Clamp, suspension
cm	C 2 / 3	01	Insulator, Spool, 1-3/4"/3" g. dia	s	B 73	01	Clevis, secondary, swinging

## BANGLADESH RURAL ELECTRIFICATION BOARD

Unit Description: 11 KV PRIMARY, 3-PHASE, DOUBLE CIRCUIT 30° TO 60° ANGLE

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	DC-C3

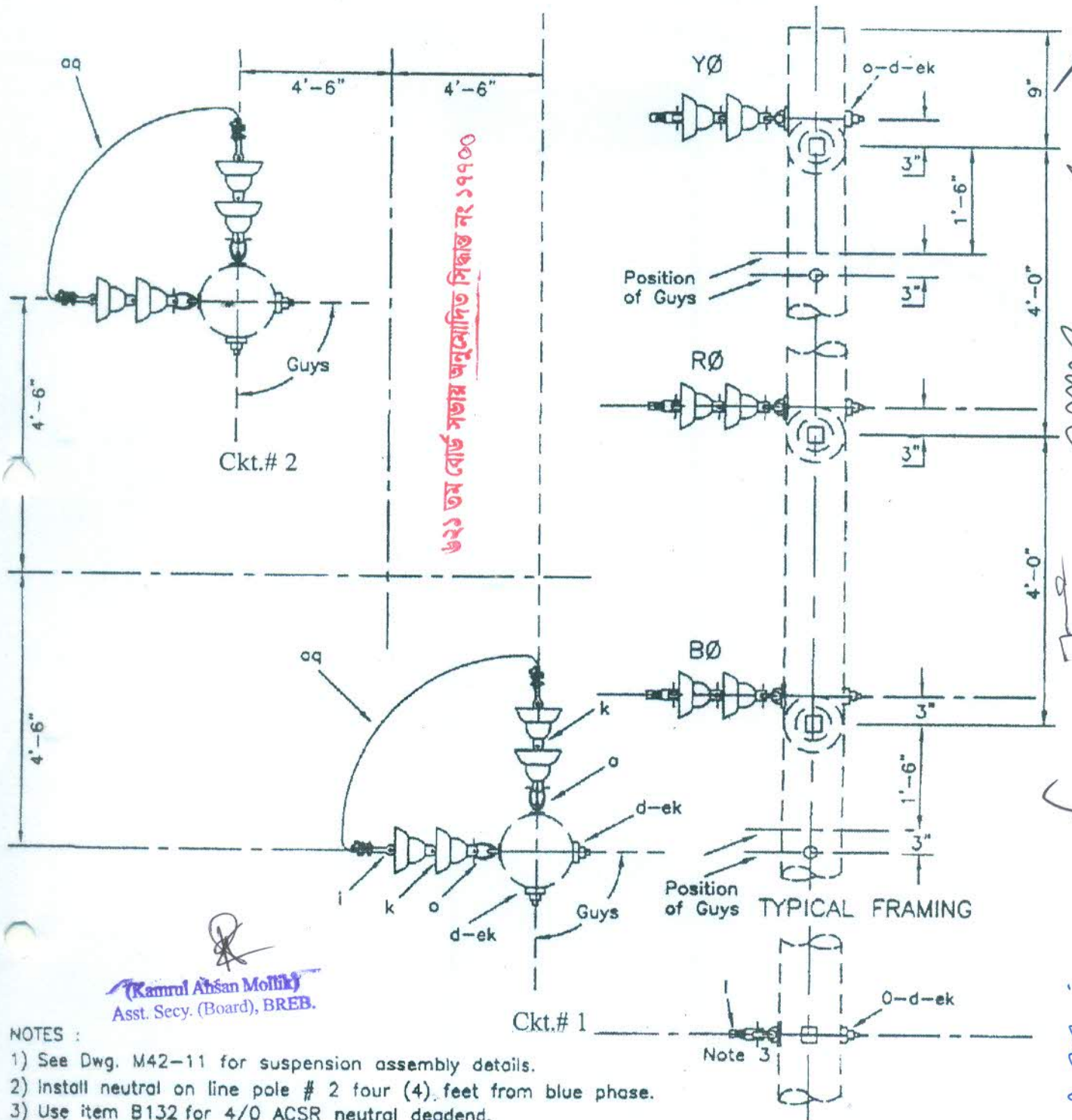
Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020

(Md. Mozibur Rahman) Consultant TAPP BREB  
 (Md. Duhidul Islam) Consultant TAPP BREB  
 (Md. Mazammel Huq) Consultant TAPP BREB  
 (Md. Abdul Khaleque) Consultant TAPP BREB  
 (Md. Ansumul Haque) Consultant TAPP BREB  
 (Md. Tapp. BREB)

Ckt. # 1

POLE 5' HIGHER THAN

Ckt. # 2



৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

**(Kamrul Ahsan Mollik)**  
Asst. Secy. (Board), BREB.

- NOTES :
- 1) See Dwg. M42-11 for suspension assembly details.
  - 2) Install neutral on line pole # 2 four (4) feet from blue phase.
  - 3) Use item B132 for 4/0 ACSR neutral deadend.

(Md. Mozibur Rahman) Consultant TAPP, BREB  
 (Md. Durdulul Islam) Consultant TAPP, BREB  
 (Md. Mozammel Huj) Consultant TAPP, BREB  
 (Md. Abul Kibaleque) Consultant TAPP, BREB  
 (Md. Tapp, BREB)

ITEM	MAT. CODE	Qty.	MATERIAL	ITEM	MAT. CODE	Qty.	MATERIAL
d	B 46	14	Washer, square, 2 1/4"	l	B 81/132/133	14	Clam, deadend
k	C 10	24	Insulator, suspension	ek	B 50	14	Locknuts
o	B 18/19/20	14	Bolt, eye, 5/8"φ x required length	aq	D 3/2/26	07	Jumpers, as required
p	11/68/4	07	Connectors, as required	cm	C2/3	02	Insulator, Spool, 1-3/4"/3" g. dia
s	B73	02	Clevis Secondary Swinging	bn	B85/86	04	Clamp, Loop Deadend

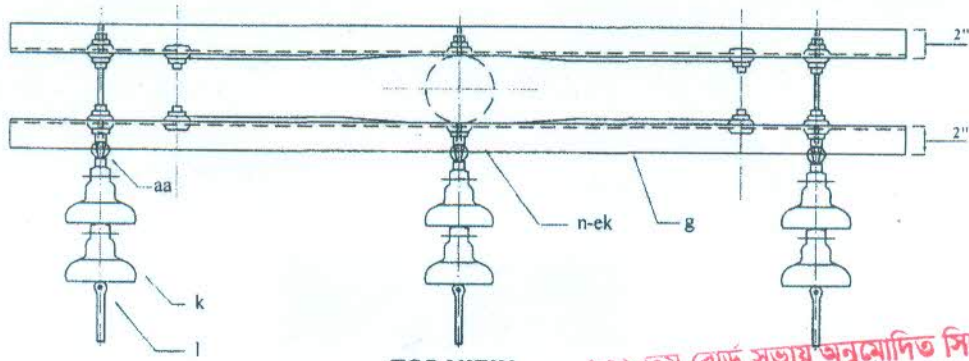
**BANGLADESH RURAL ELECTRIFICATION BOARD**

**Unit Description: 11 KV PRIMARY, 3-PHASE, DOUBLE CIRCUIT 60° TO 90° ANGLE**

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	DC-C4

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020





TOP VIEW

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০

Hebashesh Chakraborty  
D. TAPP, BREB

(Mu. Ansarui Haque)  
Consultant TAPP, BREB

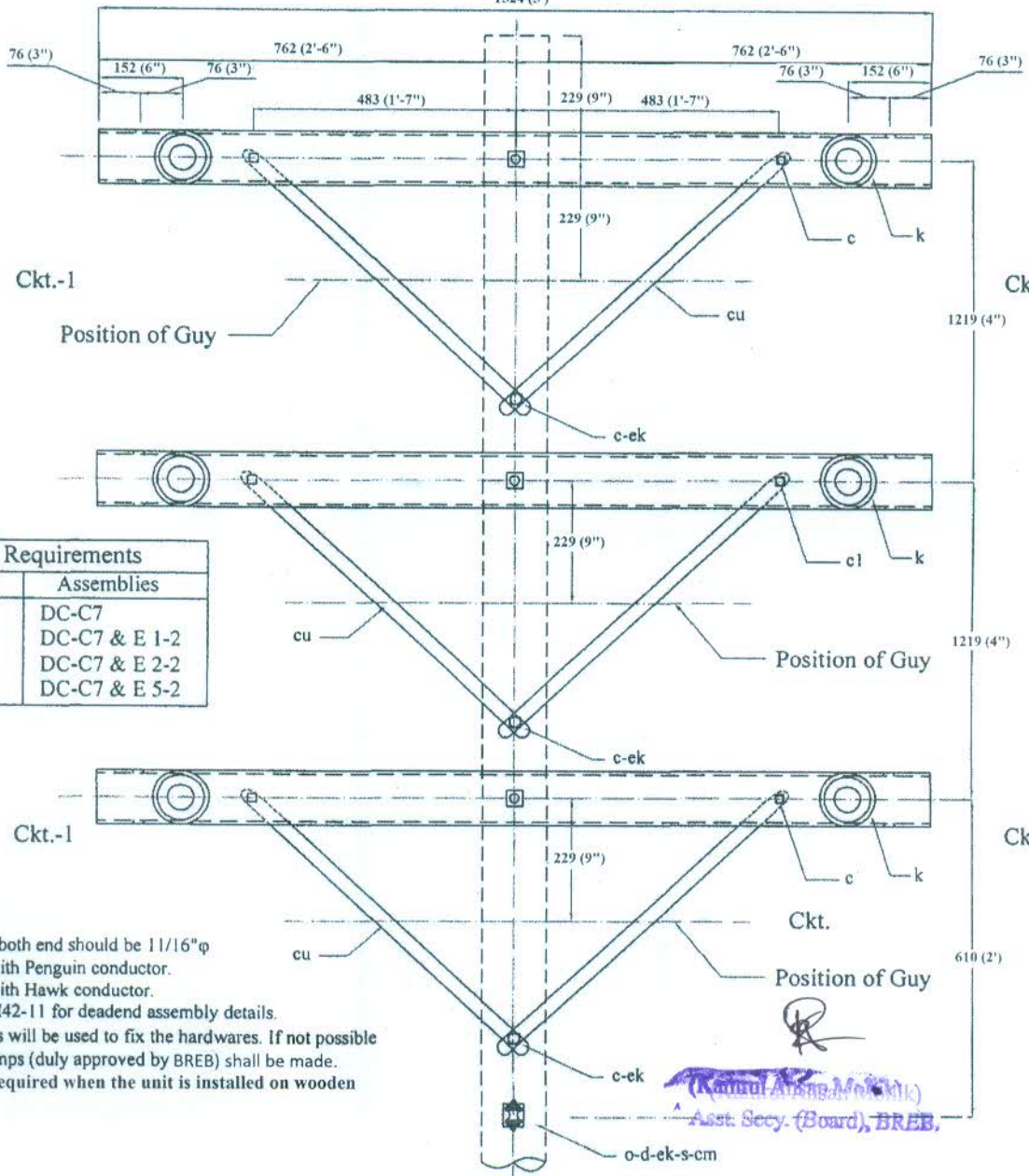
(Md. Abdul Kalamque)  
Consultant TAPP, BREB

(Md. Mozammel Haque)  
Consultant TAPP, BREB

(Md. Duhidul Islam)  
Consultant TAPP, BREB

(Md. Mozibur Rahman)  
Consultant TAPP, BREB

76 (3")



Deadend Requirements	
Conductors	Assemblies
1 # 3	DC-C7
2 # 1/0	DC-C7 & E 1-2
3 # 4/0	DC-C7 & E 2-2
4 # 477 MCM	DC-C7 & E 5-2

Notes :-

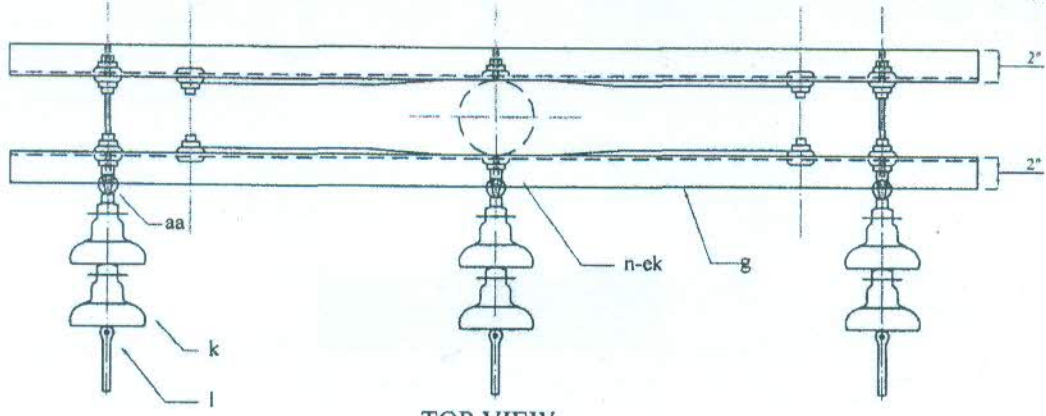
1. Brace holes at both end should be 11/16"φ
2. For 300' R.S with Penguin conductor.
3. For 300' R.S with Hawk conductor.
4. See drawing M42-11 for deadend assembly details.
5. Normally Bolts will be used to fix the hardware. If not possible use of G I Clamps (duly approved by BREB) shall be made.
6. Screw lag is required when the unit is installed on wooden pole only.

ITEM	MAT. CODE	Qty.	MATERIAL	ITEM	MAT. CODE	Qty.	MATERIAL
d	B46/118	31	Washer, square 2 1/4"	l	B 81/132/133	06	Clamp, deadend
g	X6	06	Crossarm, steel 4" x 2" x 2" x 1/4" x 5'-0"	n	B26/B27/B28	09	Bolt, Double arming, 5/8" x Required length
cl	B3	12	Bolt, m/c, 1/2" x 1 1/2"	s	B 73	01	Clevis, Secondary, swinging
k	C10	12	Insulator, Suspension	aa	B 53	06	Nut, eye, 5/8"φ
o	B18-20	01	Bolt, eye, 5/8" x req'd length	bn	B 85/86	02	Clamp, Loop deadend
c	B 6/7/8	-	Bolt, m/c, 5/8"φ x req'd length	cm	C 3/2	01	Spool Insulator, 1-1/4" 3" dia groove
ek	B 50	46	Locknuts, 5/8"φ	cu	B41 / B41.1 / B44	12	Brace, Steel / Wood, 28" x 1/4"
j	B40	06	Screw, lag (for wood pole only)	c	B4/B4.1-4.3	03	Bolt, M/C, 1/2" x 6" - 12"

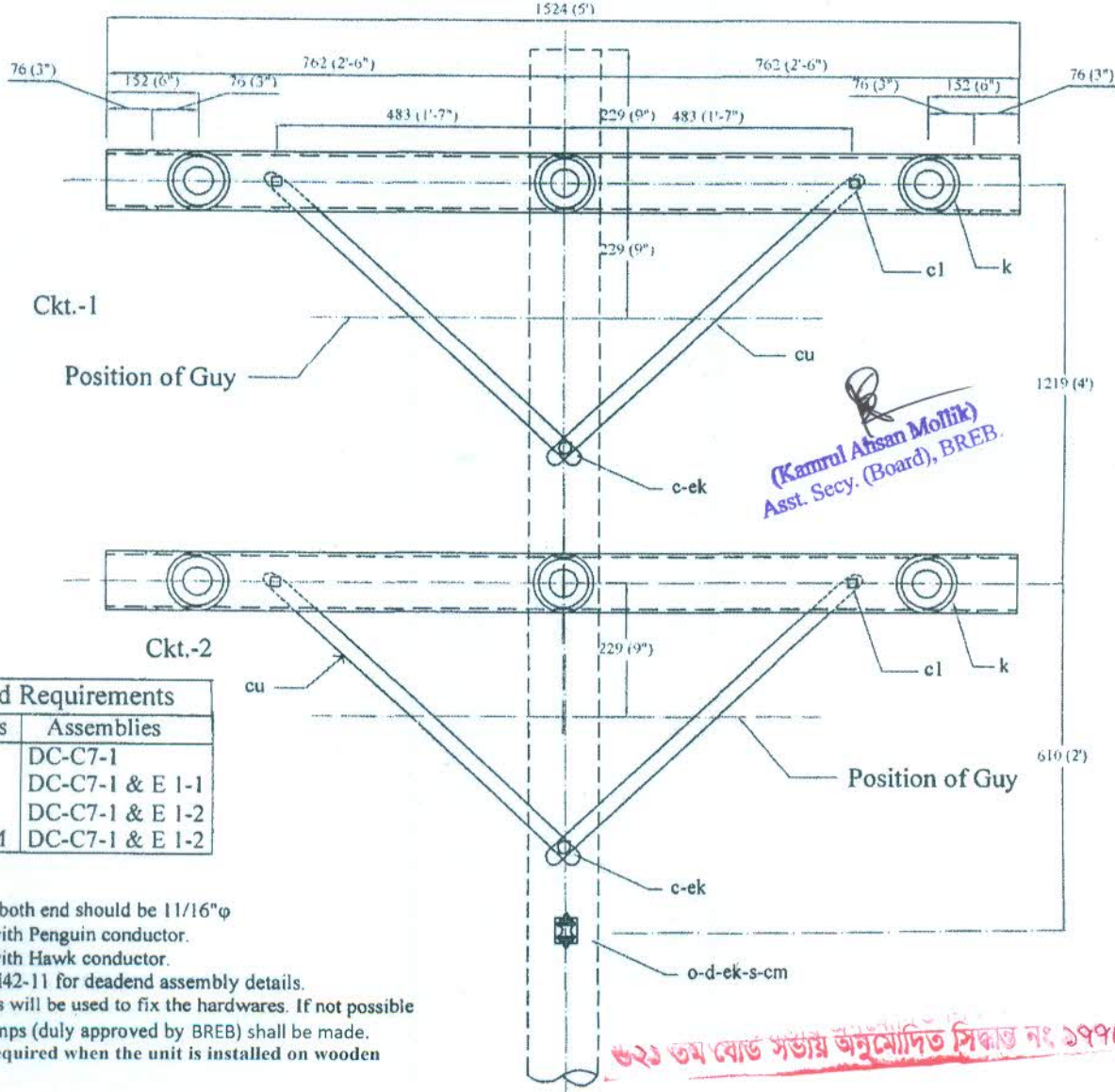
BANGLADESH RURAL ELECTRIFICATION BOARD

Unit Description: 6.35/11 KV PRIMARY, 3-PHASE STEEL CROSSARM (X6) CONSTRUCTION- DOUBLE PRIMARY SINGLE DEADEND

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	DC-C7



TOP VIEW



Deadend Requirements	
Conductors	Assemblies
3 # 3	DC-C7-1
3 # 1/0	DC-C7-1 & E 1-1
3 # 4/0	DC-C7-1 & E 1-2
3 # 477 MCM	DC-C7-1 & E 1-2

TE 1 :-

1. Brace holes at both end should be 11/16"φ
2. For 200' R.S with Penguin conductor.
3. For 150' R.S with Hawk conductor.
4. See drawing M42-11 for deadend assembly details.
5. Normally Bolts will be used to fix the hardware. If not possible use of G I Clamps (duly approved by BREB) shall be made.
6. Screw lag is required when the unit is installed on wooden pole only.

৬২৩ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

ITEM	MAT. CODE	Qty.	MATERIAL	ITEM	MAT. CODE	Qty.	MATERIAL
d	B46/118	01	Washer, square 2 1/4"	l	B 81/132/133	06	Clamp, deadend
g	X6	04	Crossarm, steel 4" x 2" x 2" x 1/4" x 5'-0"	n	B26/B27/B28	06	Bolt, Double arming, 5/8" x Required length
c	B3	08	4 1/2" Bolt, M/C, 1/2" x 1 1/2"	s	B 73	01	Clevis, Secondary, swinging
k	C10	12	Insulator, Suspension	aa	B 53	06	Nut, eye, 5/8"φ
o	B18-20	01	Bolt, eye, 5/8" x req'd length	bn	B 85/86	02	Clamp, Loop deadend
c	B 6/7/8	-	Bolt, m/c 5/8"φ x req'd length	cm	C 3/2	01	Spool Insulator, 1-3/4" 3" dia groove
ek	B 50	31	Locknuts, 5/8"φ	cu	B41 / B41.1 / B44	08	Brace, Steel / Wood, 28" x 1/4"
c	B4/B4.1-4.3	02	Bolt, M/C, 1/2" x 6"- 12"	j	B40	04	Screw, lag (for wood pole only)

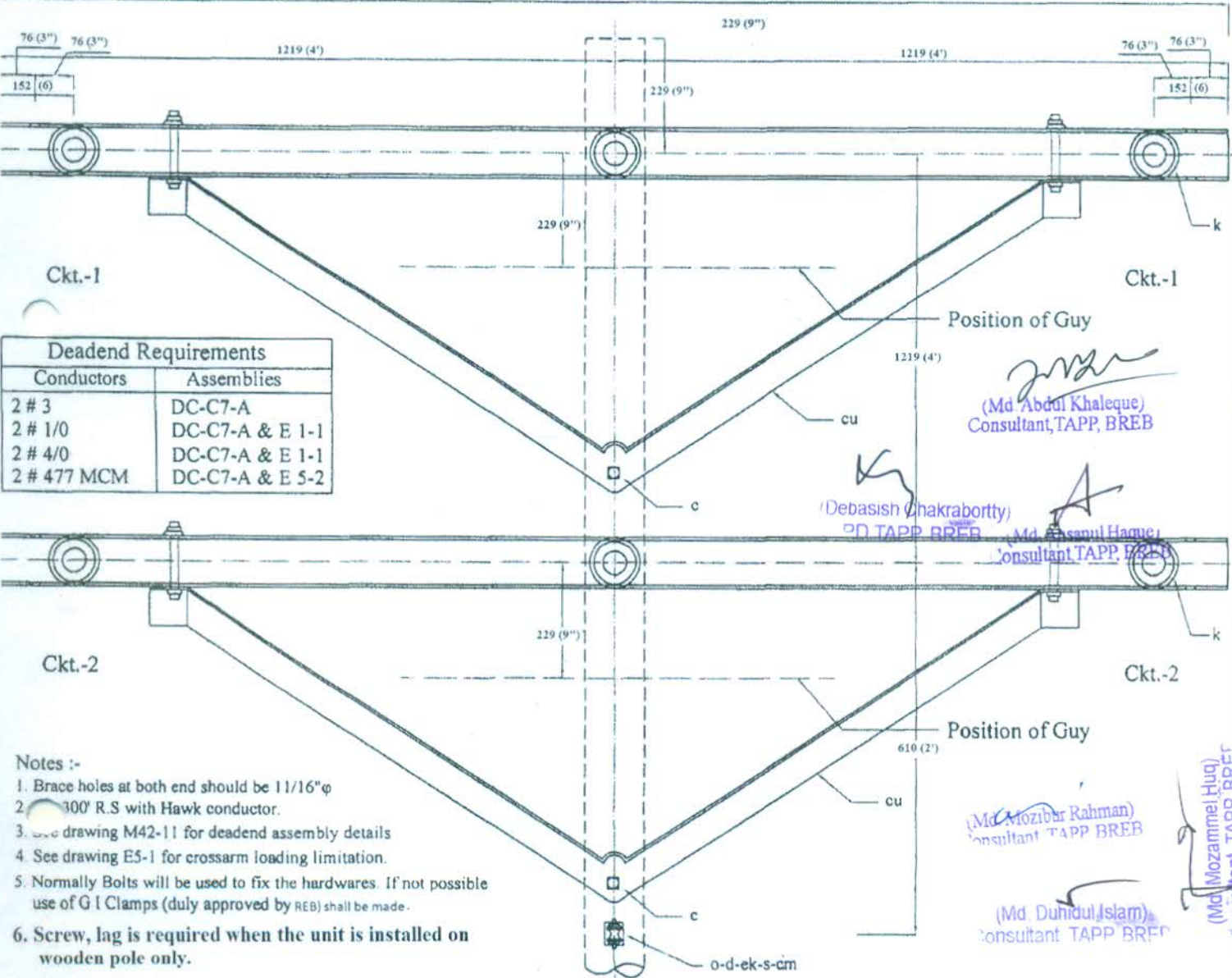
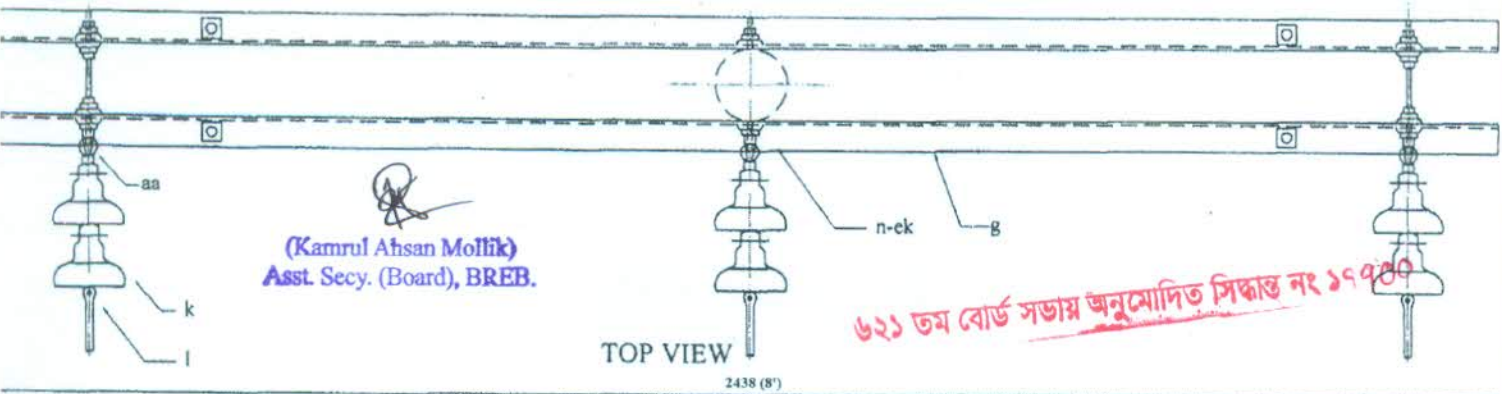
BANGLADESH RURAL ELECTRIFICATION BOARD

Unit Description: 6.35/11 KV PRIMARY 3-PHASE STEEL CROSSARM (X6) CONSTRUCTION- SINGLE DEADEND

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	DC-C7-1

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020

(Md. Ahsanul Haque) Consultant TAPP, BREB  
 (Md. Abdul Khaleque) Consultant TAPP, BREB  
 (Md. Mozammel Huda) Consultant TAPP, BREB  
 (Md. Duhidul Islam) Consultant TAPP, BREB  
 (Md. Mozibur Rahman) Consultant TAPP, BREB



Deadend Requirements	
Conductors	Assemblies
2 # 3	DC-C7-A
2 # 1/0	DC-C7-A & E 1-1
2 # 4/0	DC-C7-A & E 1-1
2 # 477 MCM	DC-C7-A & E 5-2

- Notes :-
1. Brace holes at both end should be 11/16"φ
  2. 300' R.S with Hawk conductor.
  3. See drawing M42-11 for deadend assembly details
  4. See drawing E5-1 for crossarm loading limitation.
  5. Normally Bolts will be used to fix the hardware. If not possible use of G I Clamps (duly approved by REB) shall be made.
  6. Screw, lag is required when the unit is installed on wooden pole only.

ITEM	MAT. CODE	Qty.	MATERIAL	ITEM	MAT. CODE	Qty.	MATERIAL
d	B46/118	01	Washer, square 2 1/4"	l	B 81/132/133	06	Clamp, deadend
g	X7	04	Crossarm, steel 4" x 2" x 2" x 1/4" x 8'-0"	n	B26/B27/B28	06	Bolt, Double arming, 5/8" x Required length
k	C10	12	Insulator, Suspension	s	B 73	01	Clevis, Secondary, swinging
o	B18-20	01	Bolt, eye, 5/8" x req'd length	aa	B 53	06	Nut, eye, 5/8"φ
ek	B 50	31	Locknuts, 5/8"φ	bn	B 85/86	02	Clamp, Loop deadend
cm	C 3/2	01	Spool Insulator, 1-3/4" 3" dia groove	cu	B42/B42.1/B45	04	Brace, Steel/ Wood, 60" Span
c	B3	08	Bolt, M/C, 1/2" x 1 1/2"	c	B 6/7/8	10	Bolt, m/c, 5/8"φ x req'd length
e	B4/B4.1-4.3	10	Bolt, M/C, 1/2" x 6" - 12"	j	B40	04	Screw, lag (for wood pole only)

**BANGLADESH RURAL ELECTRIFICATION BOARD**

Unit Description: 6.35/ 11 KV PRIMARY, 3-PHASE STEEL CROSSARM (X7) CONSTRUCTION-  
DOUBLE PRIMARY SINGLE DEADEND

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	DC-C7A

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020

৬২২ তম নোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

(Debash Chakraborty)  
PD, TAPP BREB

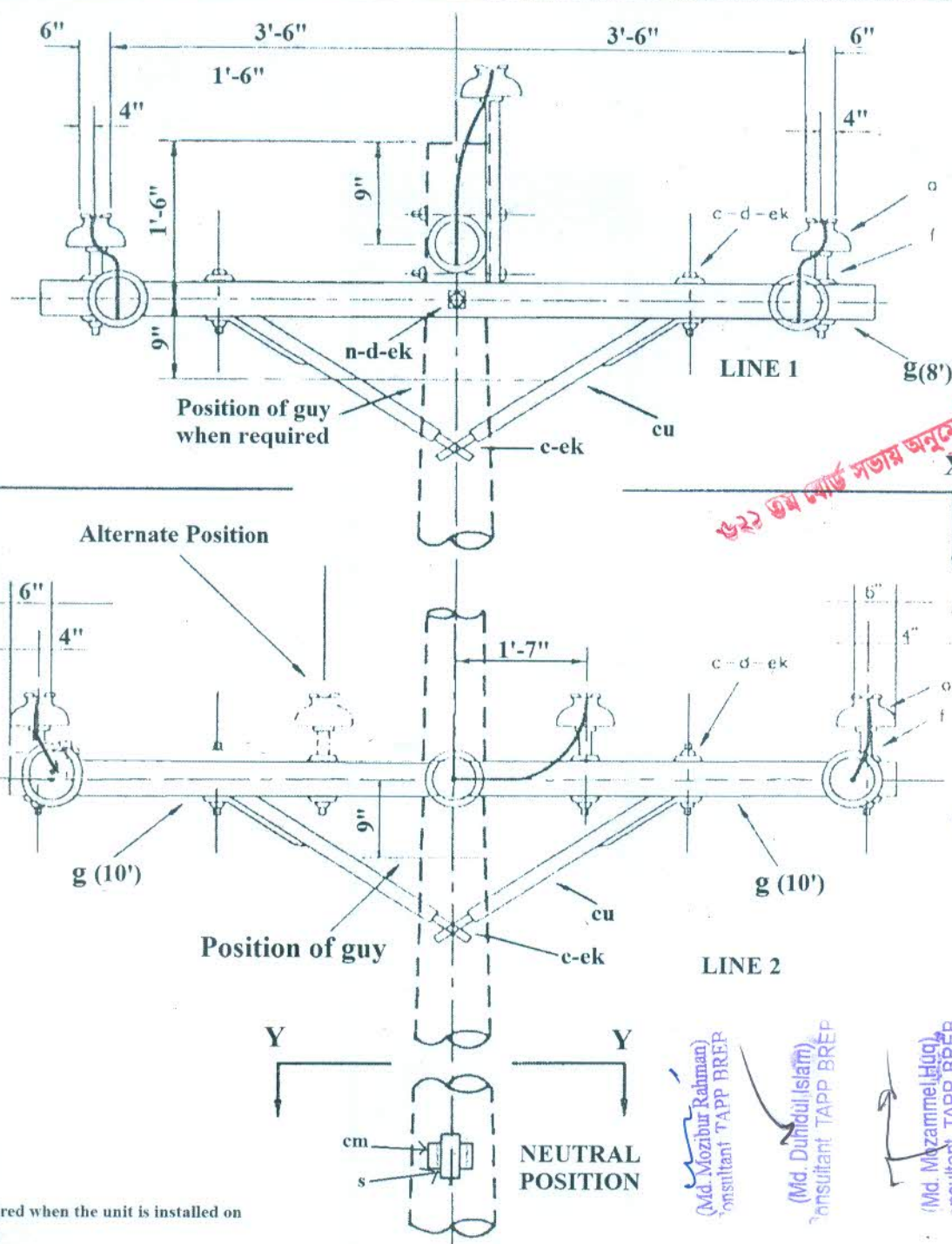
(Md. Ahsanul Haque)  
Consultant TAPP BREB

(Md. Mozibur Rahman)  
Consultant TAPP BREB

(Md. Durdul Islam)  
Consultant TAPP BREB

(Md. Mozammel Haq)  
Consultant TAPP BREB

(Md. Abdul Khaleque)  
Consultant TAPP BREB



NOTE:  
1. Screw lag is required when the unit is installed on wooden pole only.

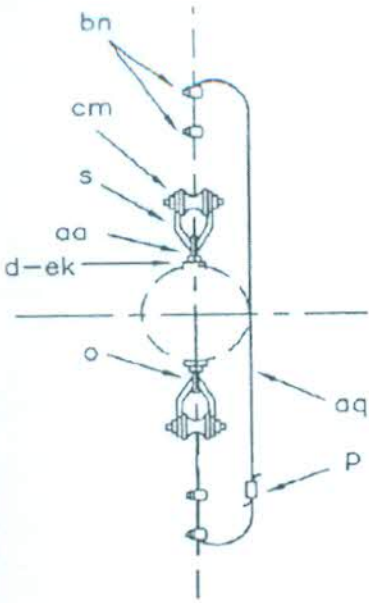
ITEM	MAT. CODE	NO	MATERIAL	ITEM	MAT. CODE	NO	MATERIAL
a	C1	11	Insulator, Pin Type	k	C10	24	Insulator, suspension
b	B2	1	Pin, Pole Top 20"	l	B81/132/133	12	Clamp, deadend
c	B4/B4.1-4.3	2	Bolt, machine, 1/2"x 6"- 12"	n	B26-30	6	Bolt, double arming, 5/8"x as req'd length
c	B6/7/8	2	Bolt, machine, 5/8"x as req'd length	o	B18-22	2	Bolt, eye, 5/8"x as req'd length
d	B48	8	Washer, round, 1-3/8" diameter	cu	B42/42.1/45	4	Bruce, steel/ wood, 60" span
d	B46	24	Washer, square, 2-1/4"x 2-1/4"	p	I1/2/3/4	-	Connectors
f	B1	10	Pin, Crossarm, 5/8"x 10-3/4"	ek	B50/138	-	Locknuts, as required
g	X1	2	Crossarm, 3-1/2"x 4-1/2"x 8'-0"	aa	B53	12	Nut, eye, 5/8"
g	X2	2	Crossarm, 3-3/4"x 4-3/4"x 10'-0"	bo	B55	14	Shackle anchor
i	B32	8	Bolt, Carriage	j	B40	4	Screw, lag (for wood pole only)
cm	C2/3	2	Insulator, Spool type, 1-3/4"/ 3" groove dia	s	B73	2	Clevis secondary swinging

**BANGLADESH RURAL ELECTRIFICATION BOARD**

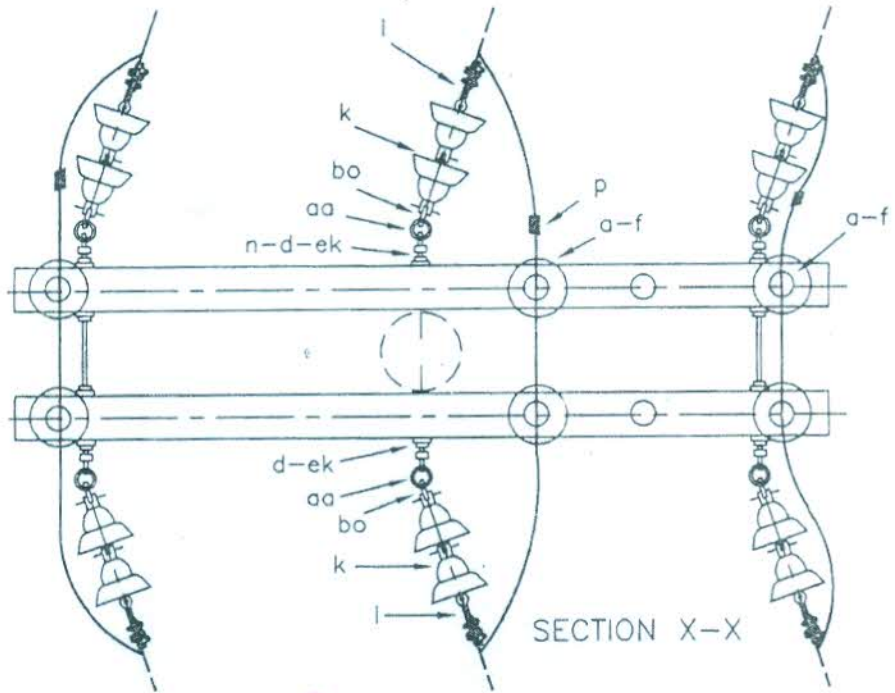
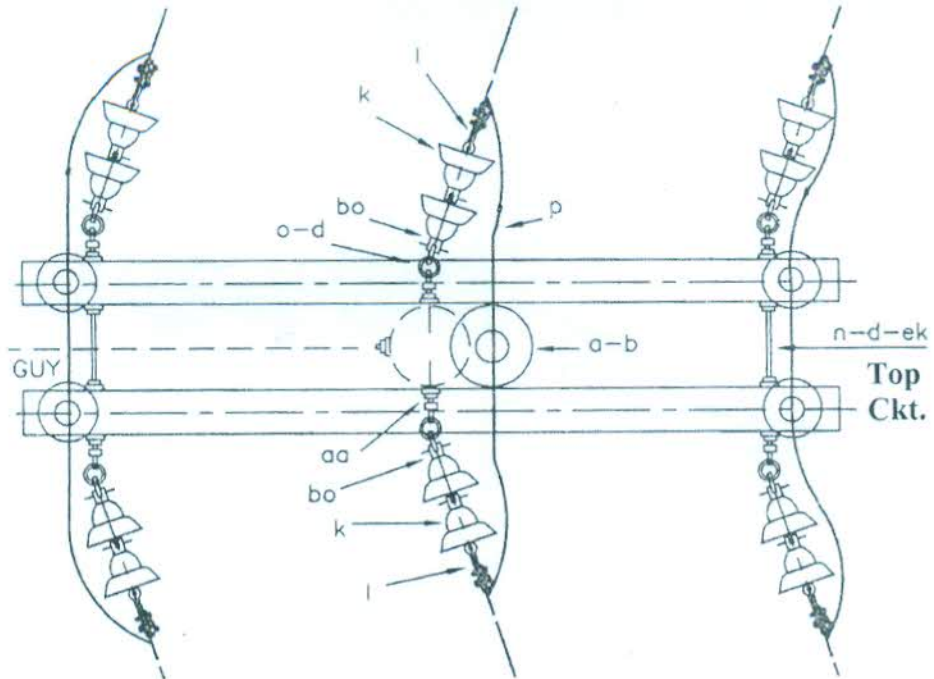
[Unit Description: 6.35/11KV PRIMARY, WOODEN CROSSARM CONSTRUCTION, DOUBLE CIRCUIT, DOUBLE DEADEND, 10° TO 30° ANGLE

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	DC-C8 Page 1 of 2

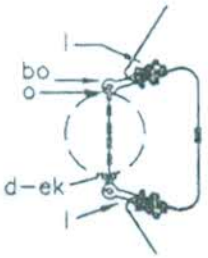
Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020



Neutral



SECTION X-X



SECTION Y-Y

৬২১ ডায়ালগ পতন অনুমোদিত নিকাত নং ১৭৭০০

- NOTES :
1. If the top circuit is down-guyed position the center phase jumper support insulators on the side of the pole away from the guy.
  2. Do not exceed a 30 feet lead for the top corcuit down guy.

*(Kamrul Ahsan Mollah)*  
Asst. Secy. (Board), BREB.

*(Debasish Chakraborty)*  
PD, TAPP, BREB.

*(Md. Ahsanul Haque)*  
Consultant TAPP BREB

*(Md. Abdul Khaleque)*  
Consultant TAPP BREB

*(Md. Mozammel Haq)*  
onsultant TAPP BREB

*(Md. Duhidul Islam)*  
onsultant TAPP BREB

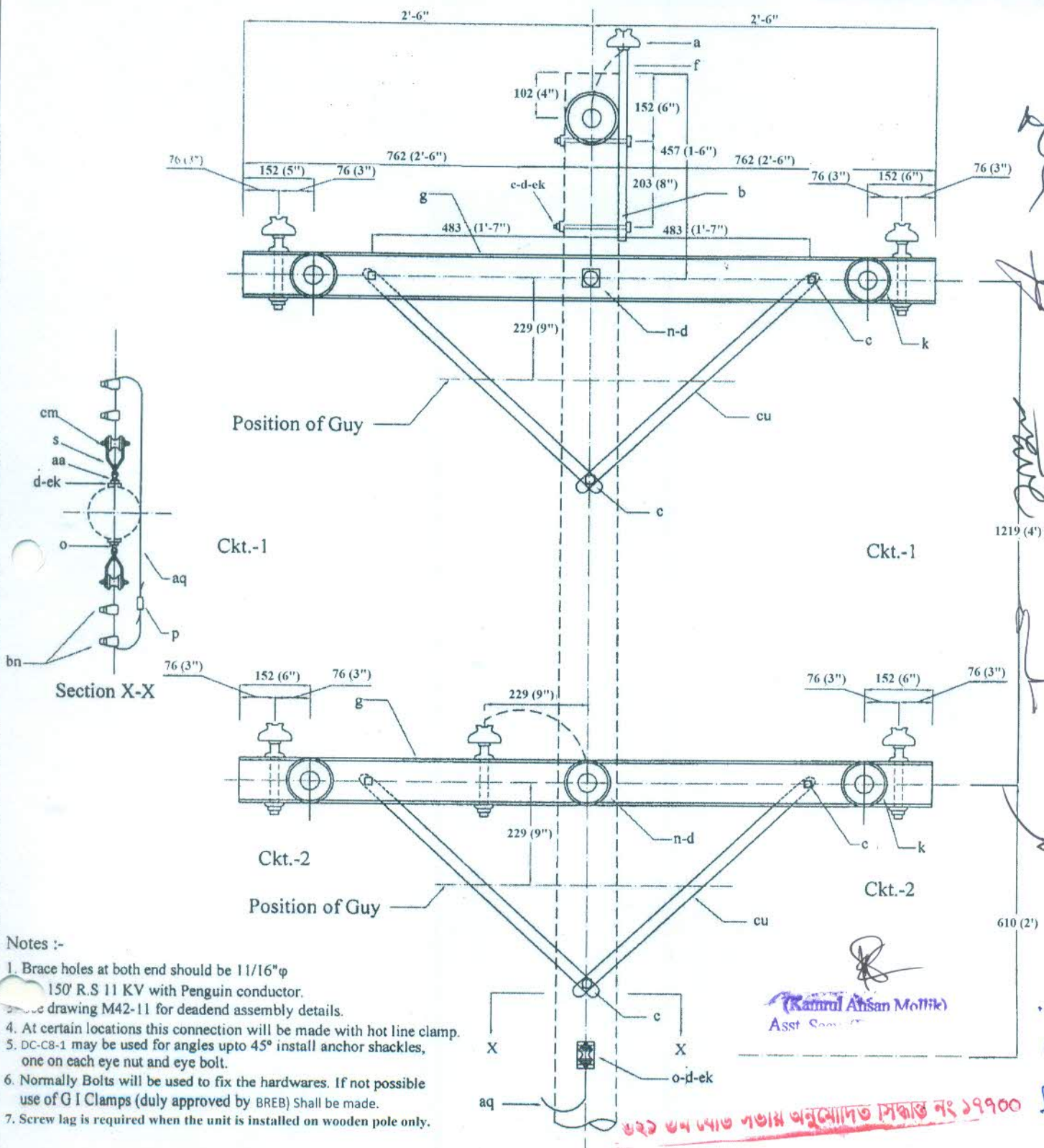
*(Md. Mozibur Rahman)*  
onsultant TAPP BREB

BANGLADESH RURAL ELECTRIFICATION BOARD

Unit Description: 6.35/11 KV PRIMARY, Double Circuit Double Deadend 10° To 30° Angle

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	DC-C8 Sheet 2 of 2

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020



- Notes :-
1. Brace holes at both end should be 11/16" φ
  2. 150' R.S 11 KV with Penguin conductor.
  3. See drawing M42-11 for deadend assembly details.
  4. At certain locations this connection will be made with hot line clamp.
  5. DC-C8-1 may be used for angles upto 45° install anchor shackles, one on each eye nut and eye bolt.
  6. Normally Bolts will be used to fix the hardware. If not possible use of G I Clamps (duly approved by BREB) Shall be made.
  7. Screw lag is required when the unit is installed on wooden pole only.

ITEM	MAT. CODE	Qty.	MATERIAL	ITEM	MAT. CODE	Qty.	MATERIAL
d	B 46/118	22	Washer, square 2 1/4"	l	B 81/132/133	12	c clamp, deadend
a	C 1	11	Insulator, pin type 11 kv	n	B26/B27/B28	06	Bolt, Double arming, 5/8" x Required length
c	B 6/7/8	02	Bolt, Machine, 1/2" x 6"	s	B 73	02	c levis, Secondary, swinging
cl	B3	08	Bolt, Machine, 1/2" x 1 1/2"	aa	B 53	12	Nut, eye, 5/8"
f	B 1	10	Pin x-arm, Steel pin,	bn	B 85/86	04	c clamp, Loop deadend
g	X6	04	Crossarm, steel channel 4" x 2" x 2" x 1/4" x 5'-0"	cm	C 3/2	02	Spool Insulator, 1-3/4" 3" dia groove
k	C 10	24	Insulator, Suspension	cu	B41 / B41.1 / B44	08	Brace, Steel / Wood, 28" x 1/4"
o	B 18-20	02	Bolt, eye, 5/8" x req'd length	ek	B 50/138	32	Locknuts, as required
b	B 2	01	Pin, Pole top	c	B4/B4.1-4.3	02	Bolt, machine, 1/2" x 6" - 12"
j	B40	04	Screw, lag (for wood pole only)				

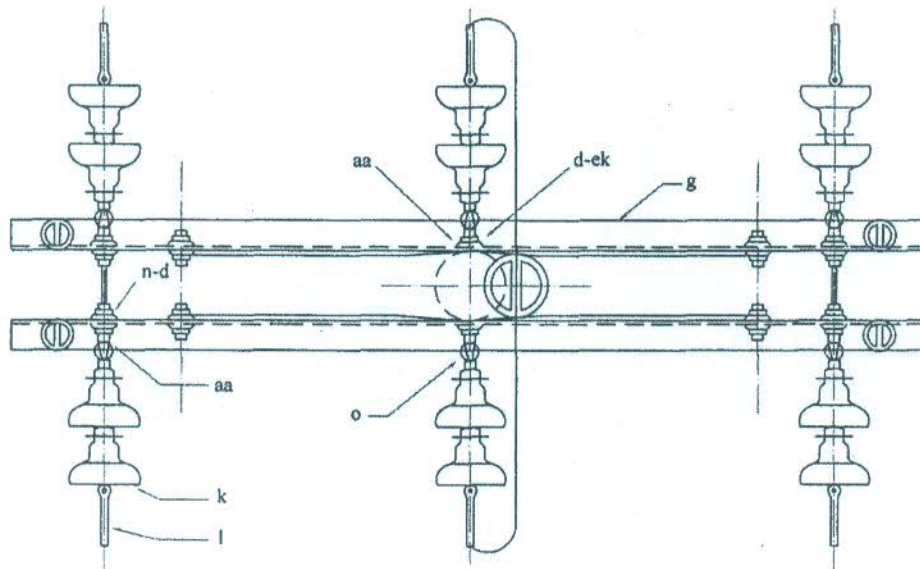
**BANGLADESH RURAL ELECTRIFICATION BOARD**

Unit Description: 6.35/11 KV PRIMARY, 3-PHASE STEEL CROSSARM (X6) CONSTRUCTION DOUBLE DEADEND

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	<b>DC-C8-1</b> Page 1 of 2

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020

(Md. Ahsanul Haque) (Debasish Chakraborty)  
 Consultant TAPP, BREB PD, TAPP, BREB  
 (Md. Abdul Khaleque)  
 Consultant TAPP, BREB  
 (Md. Mizammel Haque)  
 Consultant TAPP, BREB  
 (Md. Duhidul Islam)  
 Consultant TAPP, BREB  
 (Md. Mozibur Rahman)  
 Consultant TAPP, BREB



TOP VIEW

(Md. Mozibur Rahman)  
Consultant TAPP BREB

(Md. Dunidul Islam)  
Consultant TAPP BREB

(Md. Mozammel Haq)  
Consultant TAPP BREB

(Md. Abdul Khaleque)  
Consultant TAPP BREB

(Md. Ahsanul Haque,  
Consultant, TAPP, BREB

(Debasish Chakrabortty)  
PD, TAPP BREB

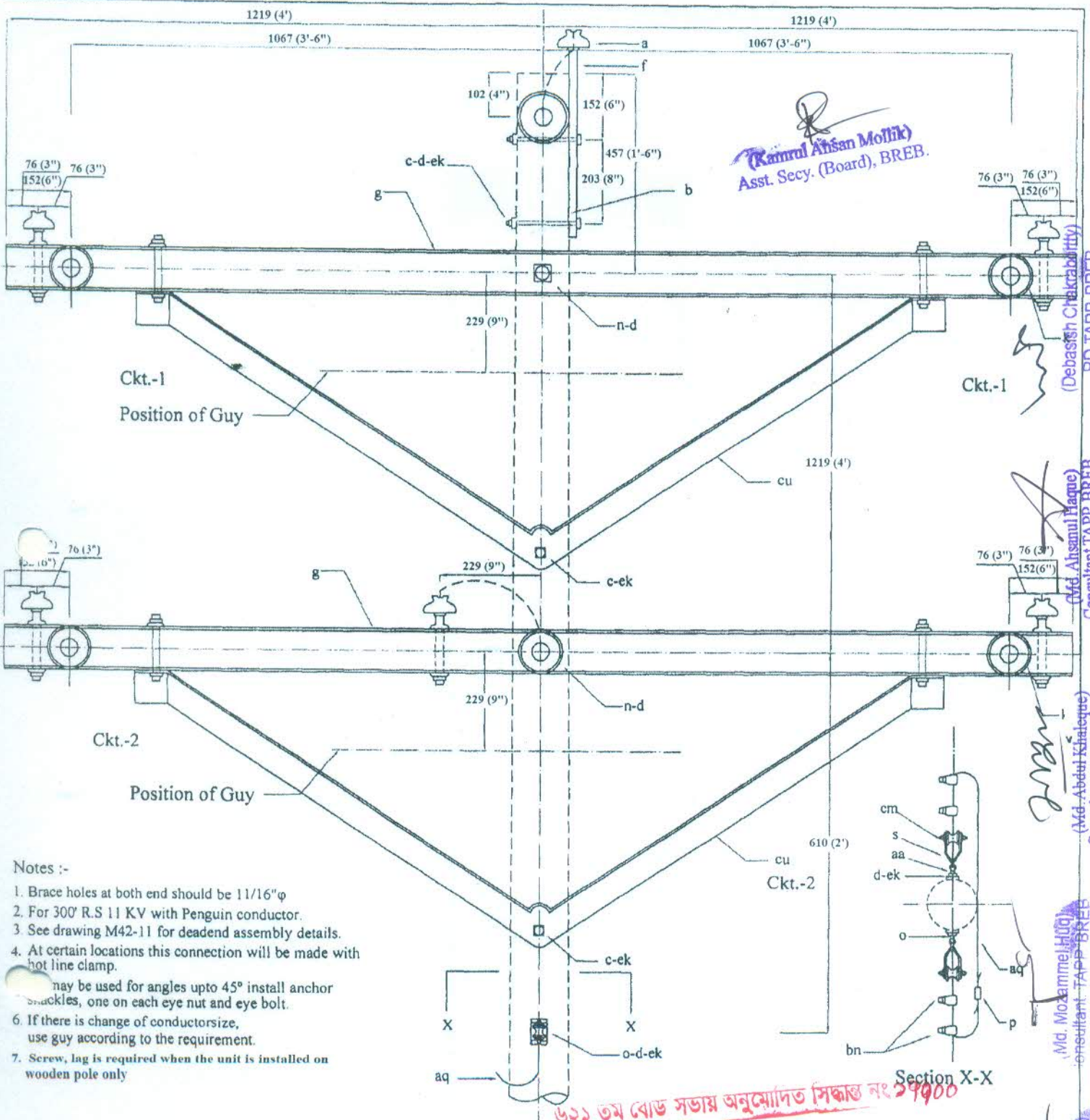
৬২১ তম বোর্ড সভায় অনুমোদিত সনাক্ত নং ১৭৭০০

(Kamrul Ahsan Mollik)  
Asst. Secy. (Board), BREB.

BANGLADESH RURAL ELECTRIFICATION BOARD

Unit Description: 6.35/11 KV PRIMARY, 3-PHASE STEEL CROSSARM (X6) CONSTRUCTION DOUBLE DEADEND

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	DC-C8-1



- Notes :-
1. Brace holes at both end should be 11/16"φ
  2. For 300' R.S 11 KV with Penguin conductor.
  3. See drawing M42-11 for deadend assembly details.
  4. At certain locations this connection will be made with hot line clamp.
  5. may be used for angles upto 45° install anchor shackles, one on each eye nut and eye bolt.
  6. If there is change of conductor size, use guy according to the requirement.
  7. Screw, lag is required when the unit is installed on wooden pole only

ITEM	MAT. CODE	Qty.	MATERIAL	ITEM	MAT. CODE	Qty.	MATERIAL
d	B 46/118	24	Washer, square 2 1/4"	l	B 81/132/133	12	cl amp, deadend
a	C 1	11	Insulator, pin type 11 kv	n	B26/B27/B28	06	Bolt, Double arming, 5/8" x Required length
c	B4/B4.1-4.3	10	Bolt, Machine, 1/2" x 6" - 12"	s	B 73	02	clevis, Secondary, swinging
f	B 1	10	Pin x-arm, Steel pin,	aa	B 53	12	Nut, eye, 5/8"
g	X7	04	Crossarm, steel channel 4" x 2" x 2" x 1/4" x 8'-0"	bn	B 85/86	04	cl amp, Loop deadend
k	C10	24	Insulator, Suspension	cm	C 3/2	02	Spool insulator, 1-1/2" 3" dia groove
o	B 18-20	02	Bolt, eye, 5/8" x req'd length	cu	B42/B42.1/B45	04	Brace, Steel/ Wood, 60" Span
b	B 2	01	Pin, Pole top	ek	B 50/138	34	Locknuts, as required
j	B40	04	Screw, lag (for wood pole only)				

**BANGLADESH RURAL ELECTRIFICATION BOARD**

**Unit Description: 6.35/ 11 KV PRIMARY, 3-PHASE STEEL CROSSARM(X7) CONSTRUCTION, DOUBLE DEADEND**

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	DC-C8A Sheet 1 of 2

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020

(Kamrul Ahsan Mollik)  
Asst. Secy. (Board), BREB.

PD, TAPP, BREB  
(Debasish Chakraborty)

Consultant TAPP, BREB  
(Md. Ahsanul Haque)

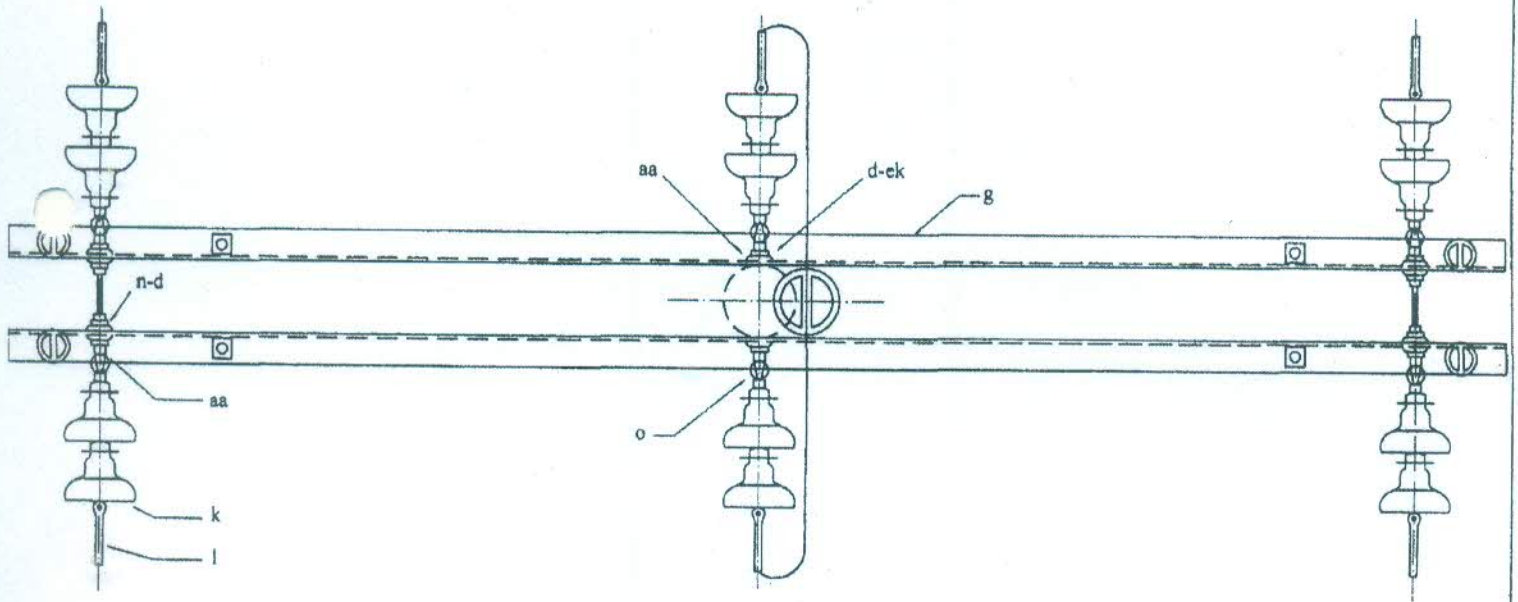
Consultant TAPP, BREB  
(Md. Abdur Khabir)

Consultant TAPP, BREB  
(Md. Mozammel Hossain)

Consultant TAPP, BREB  
(Md. Danubir Islam)

Consultant TAPP, BREB  
(Md. Mozibur Rahman)





TOP VIEW

(Md. Mozibur Rahman)  
Consultant TAPP BREB

(Md. Duhidul Islam)  
Consultant TAPP BREB

(Md. Mozammel Haq)  
Consultant TAPP BREB

(Md. Abdul Khaleque)  
Consultant TAPP BREB

(Md. Ahsanul Haque)  
Consultant TAPP BREB

(Debasish Chakraborty)  
PD, TAPP BREB

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

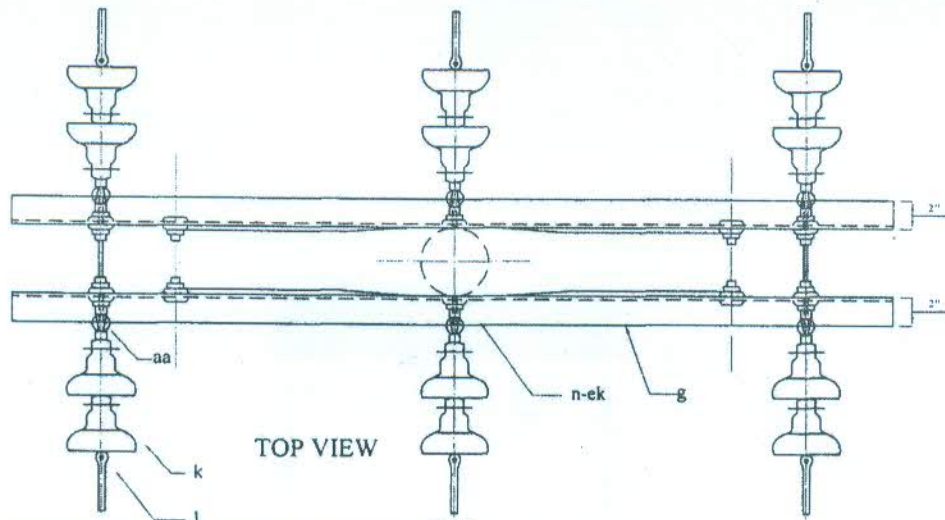
(Kamrul Ahsan Mollik)  
Asst. Secy (Tech) BREB.

BANGLADESH RURAL ELECTRIFICATION BOARD

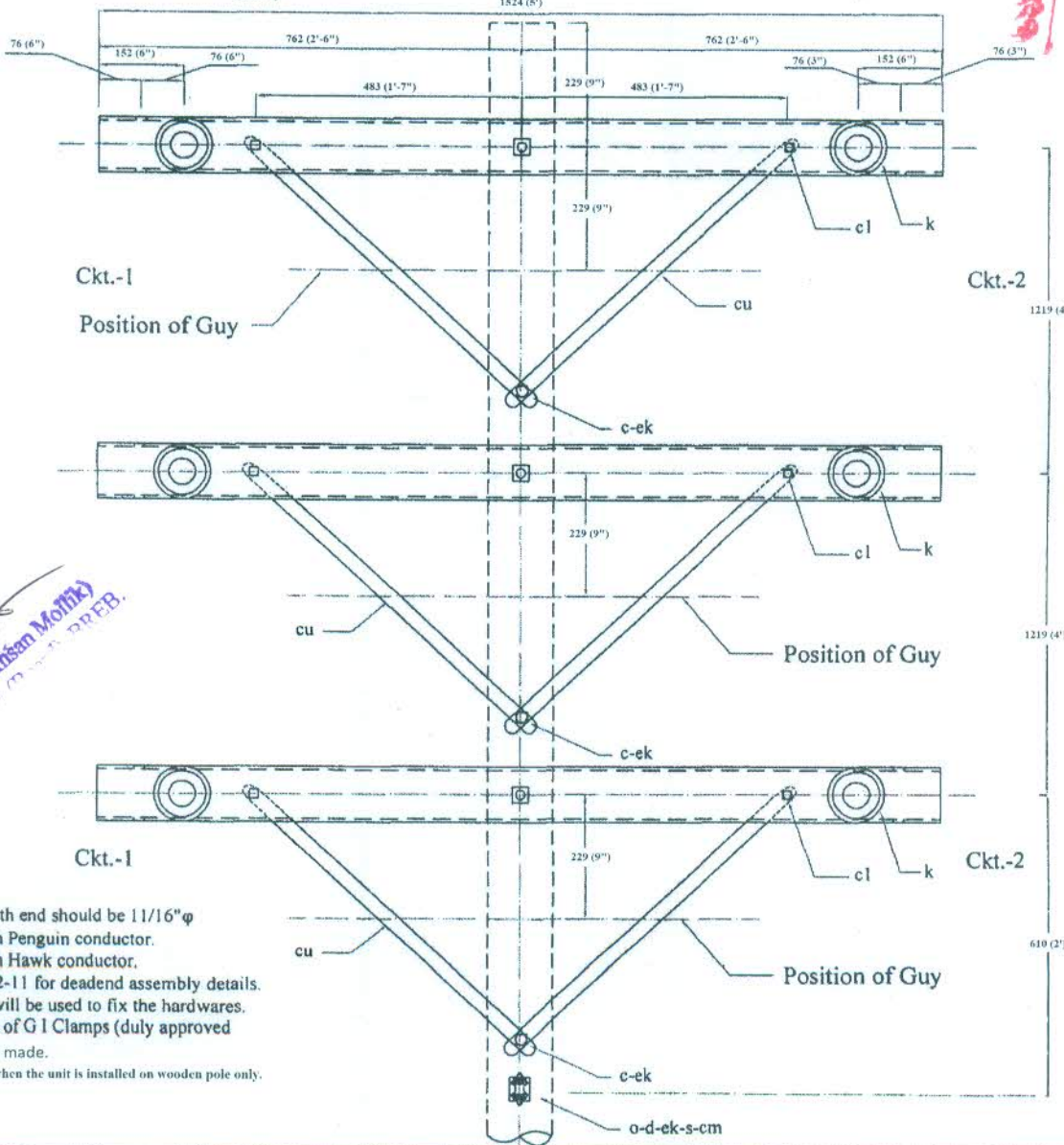
Unit Description: 6.35/ 11 KV PRIMARY, 3-PHASE STEEL CROSSARM(X7) CONSTRUCTION, DOUBLE DEADEND

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	DC-C8A Sheet 2 of 2

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020



TOP VIEW



Notes :-

1. Brace holes at both end should be 11/16"φ
2. For 300' R.S with Penguin conductor.
3. For 300' R.S with Hawk conductor.
4. See drawing M42-11 for deadend assembly details.
5. Normally Bolts will be used to fix the hardwares.  
If not possible use of G I Clamps (duly approved by BREB) shall be made.
6. Screw lag is required when the unit is installed on wooden pole only.

**Kamrul Ahsan Mollah**  
Asst. Secy. (M. & E.) BREB.

১৯৯০ সালে স্থাপিত বিদ্যুৎ লাইন নং ১৯৯০

(Debasish Chakraborty)  
PD, TAPP, BREB.

(Md. Aheganul Haque)  
Consultant, TAPP, BREB.

(Md. Abdul Khaleque)  
Consultant, TAPP, BREB.

(Md. Mozammel Huda)  
Consultant, TAPP, BREB.

(Md. Duhidul Islam)  
Consultant, TAPP, BREB.

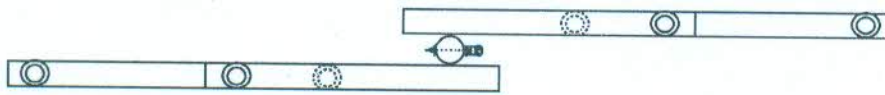
(Md. Mozibur Rahman)  
Consultant, TAPP, BREB.

ITEM	MAT. CODE	Qty.	MATERIAL	ITEM	MAT. CODE	Qty.	MATERIAL
d	B46/118	30	Washer, square 2 1/4"	l	B 81/132/133	12	Clamp, deadend
g	X6	06	Crossarm, steel 4" x 2" x 2" x 1/4" x 5'-0"	n	B26/B27/B28	09	Bolt, Double arming, 5/8" x Required length
i/c	B3	12	Bolt, M/C, 1/2" x 1 1/2"	s	B 73	02	Clevis, Secondary, swinging
k	C10	24	Insulator, Suspension	aa	B 53	13	Nut, eye, 5/8"φ
o	B 18-20	01	Bolt, eye, 5/8" x req'd length	bn	B 85/86	04	Clamp, Loop deadend
c	B4/B4.1-4.3	03	Bolt, machine, 1/2" x 6" - 12"	cm	C 3/2	02	Spool Insulator, 1-1/4" 3" dia groove
ek	B 50 /138		Locknuts, 5/8"φ, as required	cu	B41/B41.1/B44	12	Brace, Steel/ Wood, 28"/1/4"
j	B40	03	Screw, lag (for wood pole only)				

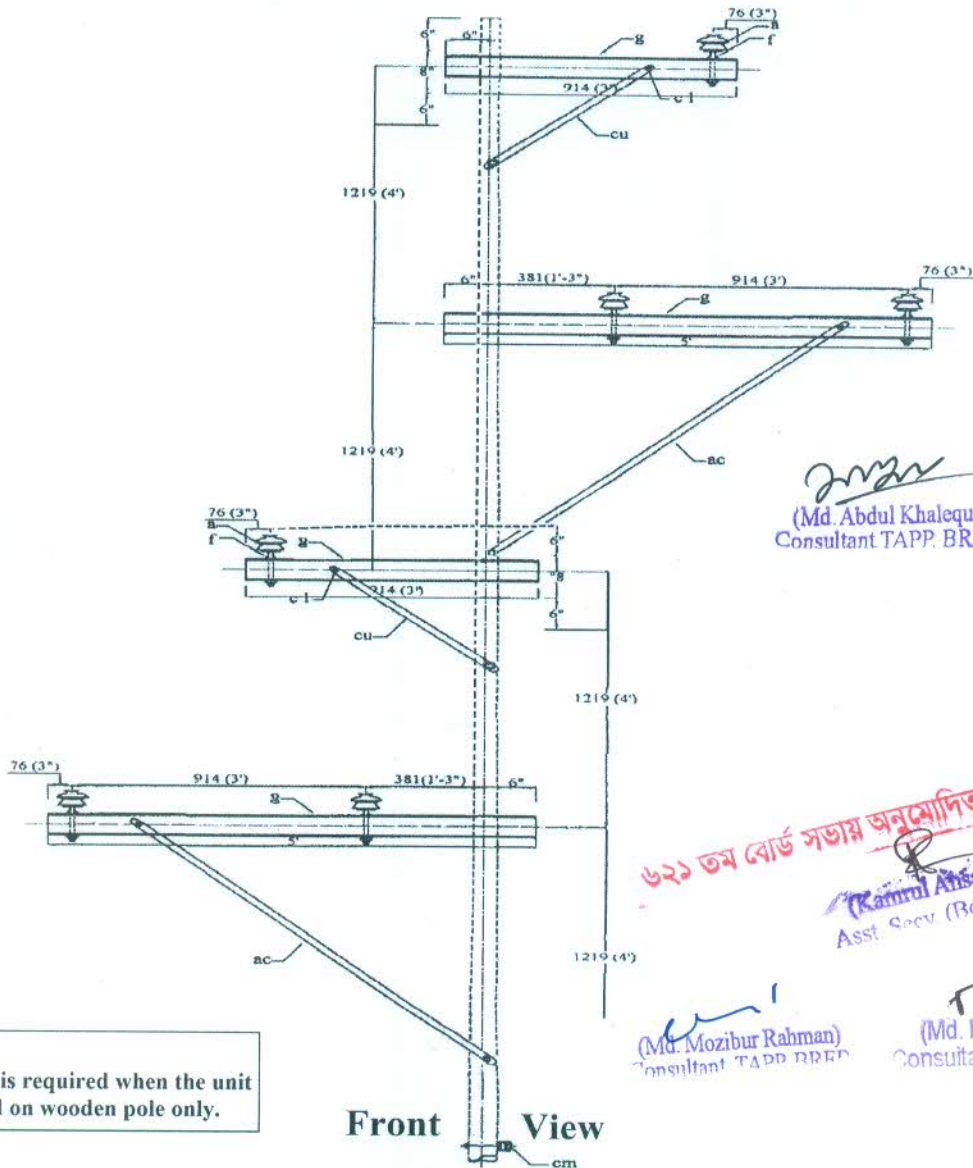
**BANGLADESH RURAL ELECTRIFICATION BOARD**

Unit Description: 6.35/ 11 KV PRIMARY, 3-PHASE STEEL CROSSARM(X6) CONSTRUCTION, DOUBLE CIRCUIT, DOUBLE DEADEND

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	<b>DC-C8B</b>



Top View



Front View

**NOTE:**

1. Screw lag is required when the unit is installed on wooden pole only.

(Md. Abdul Khaleque)  
Consultant TAPP BREB

(Md. Ahsanul Haque)  
Consultant TAPP BREB

৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ৩৭৭০০

(Kamrul Ahsan Mollik)  
Asst. Secy (Board), RBREB

(Md. Mozibur Rahman)  
Consultant TAPP BREB

(Md. Duhidul Islam)  
Consultant TAPP BREB

(Md. Mozammel Haque)  
Consultant TAPP BREB

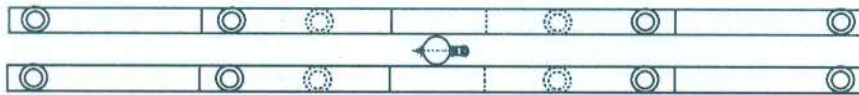
Item Code	Item No.	Material	Unit	Qty
a	C1	Insulator, Pin Type	No.	6
f	B1	Pin, Crossarm, 5/8"×10¾"	No.	6
cu	B42.1/42.2	Brace, Steel 60"/25"	No.	4
c	B6/7/8	Bolt Machine, 5/8"× Req Length	No.	4
d	B46	Washer, Square, 2¼"×2¼", as required	No.	-
e	B3	Bolt Machine, 1/2"× 1½"	No.	4
c	B4/4.1/4.2/4.3	Bolt Machine, 1/2"× Req Length	No.	4
bs	B33/34/35	Bolt, Single Upset, 5/8"× Req Length	No.	1
cm	C2/C3	Insulator, Spool, 1¾" groove dia	No.	1
ek	B50/138	Lock Nut, 5/8" dia, as required	No.	-
ek		Lock Nut, 1/2" dia, as required	No.	-
g	X5	Crossarm, Steel 4"×2"×2"×¼"×3'-0"	No.	2
g	X6	Crossarm, Steel 4"×2"×2"×¼"×5'-0"	No.	2
j	B40	Screw, lag (for wood pole only)	No.	4

BANGLADESH RURAL ELECTRIFICATION BOARD

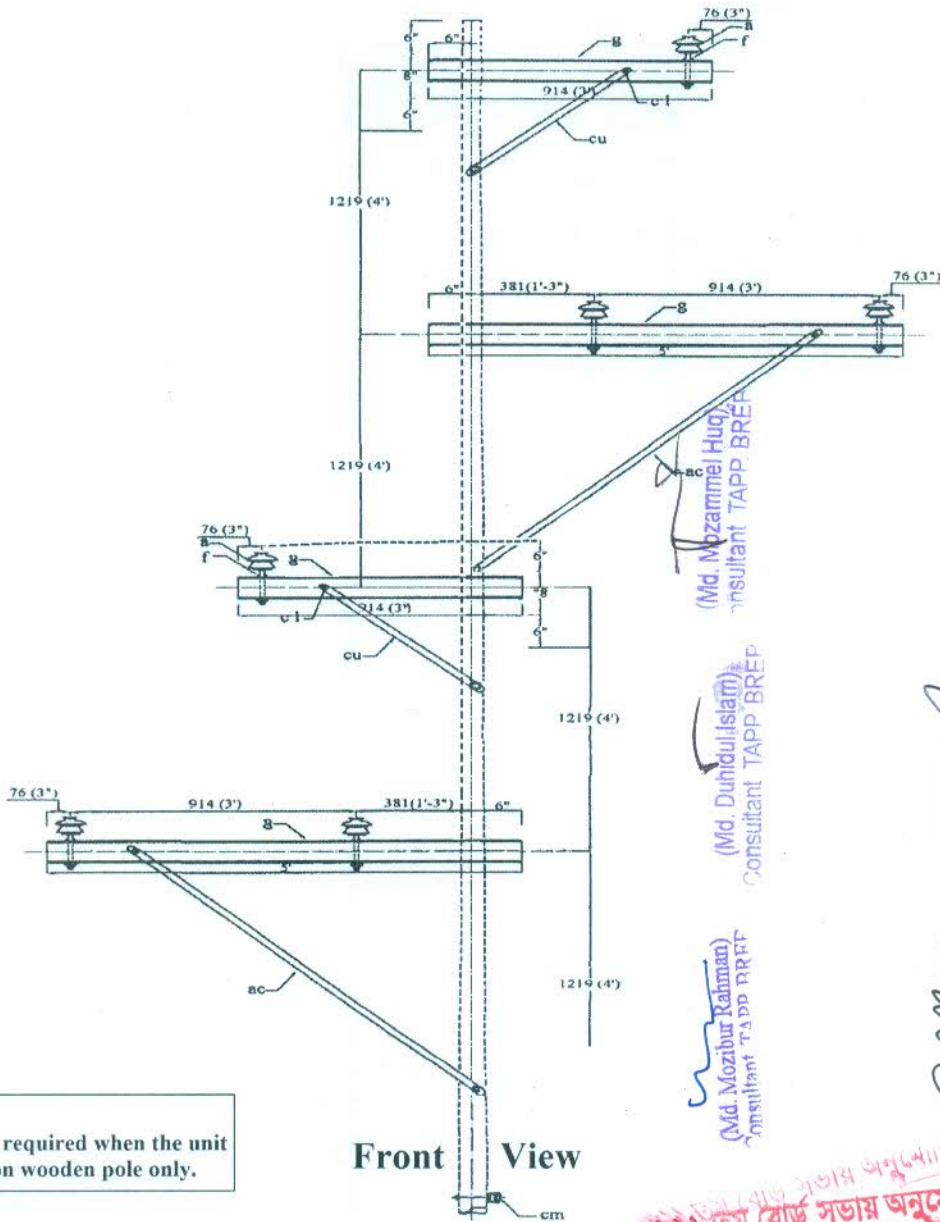
Unit Description: 6.35/11 KV PRIMARY, 3-PHASE, Double Circuit, Single Support

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation:
	BREB	BREB	-	DC-C13A

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020



Top View



Front View

**NOTE:**

1. Screw lag is required when the unit is installed on wooden pole only.

*(Signature)*  
(Kamrul Ahsan Moim)  
Asst. Secy. (Board), BREB.

*(Signature)*  
(Debasish Chakraborty)  
PD, TAPP, BREB.

*(Signature)*  
(Md. Mozammel Huda)  
Consultant TAPP, BREB.

*(Signature)*  
(Md. Ahsanul Haque)  
Consultant TAPP, BREB.

*(Signature)*  
(Md. Duhdul Islam)  
Consultant TAPP, BREB.

*(Signature)*  
(Md. Mozibur Rahman)  
Consultant TAPP, BREB.

*(Signature)*  
(Md. Abdul Khaleque)  
Consultant TAPP, BREB.

৩১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

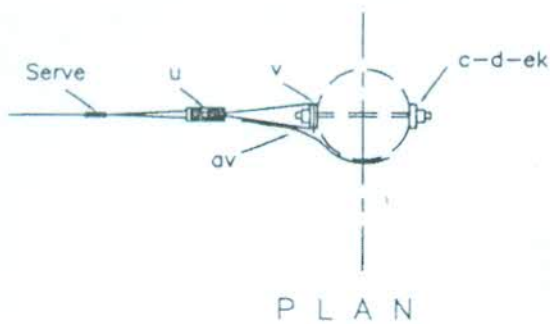
Item Code	Item No.	Material	Unit	Qty
a	C1	Insulator, Pin Type	No.	12
f	B1	Pin, Crossarm, 5/8"×10¾"	No.	12
cu	B41/41.1	Brace, Steel 60"/25"	No.	8
c	B6/7/8	Bolt Machine, 5/8"× Req Length	No.	4
d	B46	Washer, Square, 2¼"×2¼" as required	No.	-
c	B3	Bolt Machine, 1/2"× 1½"	No.	8
c	B4/4.1/4.2/4.3	Bolt Machine, 1/2"× Req Length	No.	4
bs	B33/34/35	Bolt, Single Upset, 5/8"× Req Length	No.	1
cm	C2/C3	Insulator, Spool, 1¾" groove dia	No.	1
ek	B50/138	Lock Nut, 5/8" dia, as required	No.	-
ek		Lock Nut, 1/2" dia, as required	No.	-
g	X5	Crossarm, Steel 4"×2"×2"×¼"×3'-0"	No.	4
g	X6	Crossarm, Steel 4"×2"×2"×¼"×5'-0"	No.	4
j	B40	Screw, lag (for wood pole only)	No.	8

BANGLADESH RURAL ELECTRIFICATION BOARD

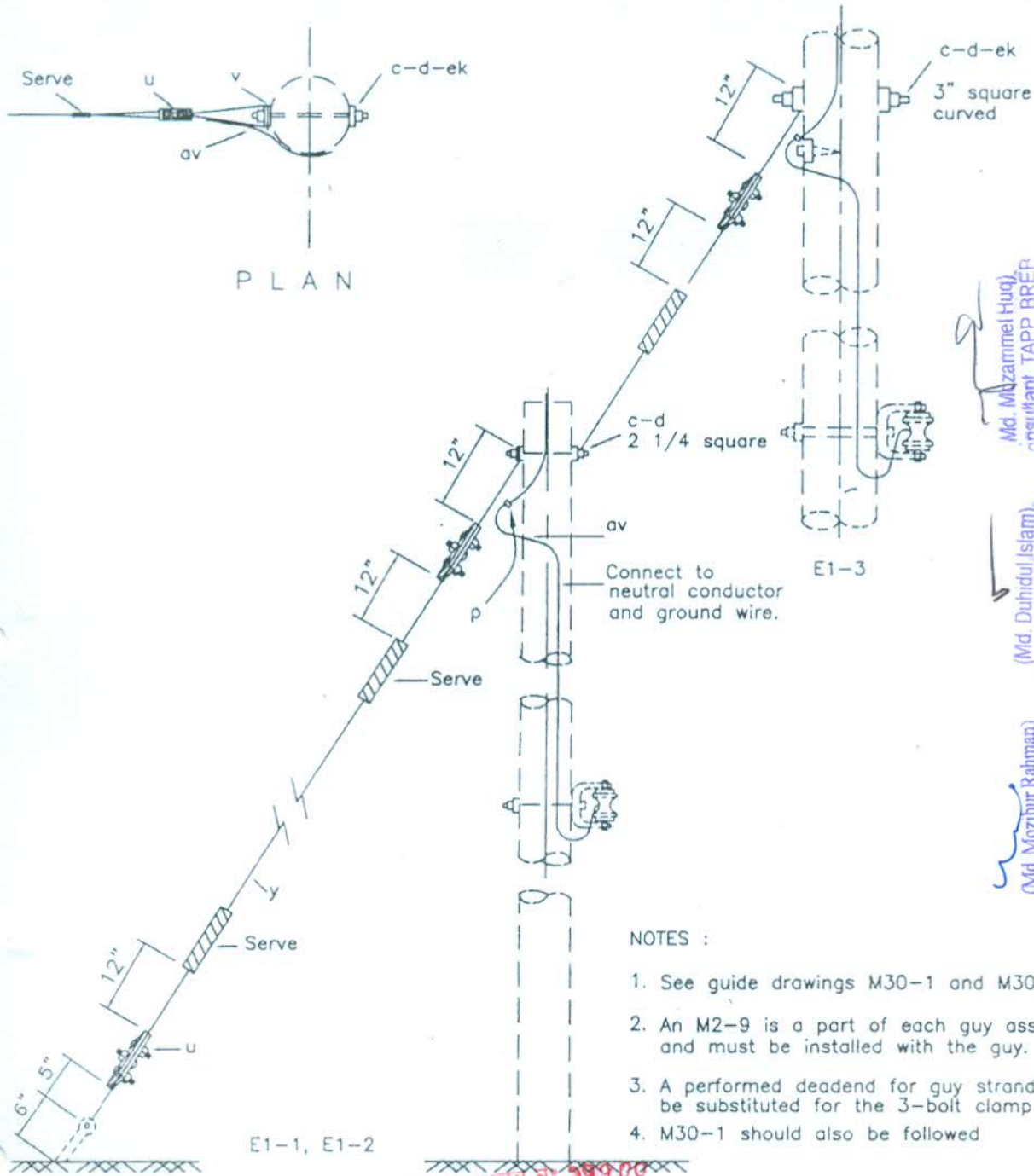
Unit Description: 6.35/ 11 KV PRIMARY, 3-PHASE Double Circuit, Double Support

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation:
	BREB	BREB	-	DC-C14A

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020



P L A N



E1-1, E1-2

E1-3

NOTES :

1. See guide drawings M30-1 and M30-2.
2. An M2-9 is a part of each guy assembly and must be installed with the guy.
3. A performed deadend for guy strand may be substituted for the 3-bolt clamp shown.
4. M30-1 should also be followed

০২১ ভা বেড সভায় অনুমোদিত প্রকল্প নং ১৭৭০০

(Kamrul Ahsan Mollik)  
Asst. Secy. (Board), BREB.

(Debasish Chakraborty)  
Asst. Secy. (Board), BREB.

(Md. Muzammel Haq)  
Consultant TAPP BREB

(Md. Duhidul Islam)  
Consultant TAPP BREB

(Md. Mozibur Rahman)  
Consultant TAPP BREB

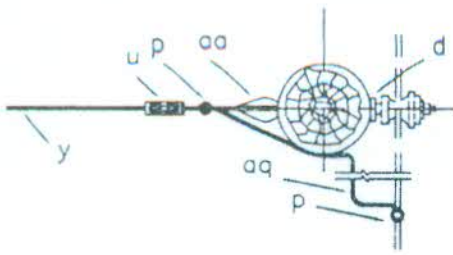
(Md. Abdul Khaleque)  
Consultant TAPP BREB

		ASSEMBLY UNIT		
		E1-1 1/4" Guy Wire	E1-2 3/8" Guy Wire	E1-3 7/16" Guy Wire
ITEM	MATERIAL	No. REQ'D.	No. REQ'D.	No. REQ'D.
c	Bolt, machine, 5/8" x req'd. length	1	1	1
d	Washer, 2 1/4" square	1	1	
d	Washer, 3" Curved		1	1
j	Screw, lag, 1/2" req'd. length			1
p	Connectors	16	as req'd.	as req'd.
u	Deadend for guy strand	2 Light duty	2 Light duty	2 Heavy duty
v	Guy attachment	1 Light duty	1 Light duty	1 Heavy duty
y	Guy wire, H.S., 7 strand	req'd. length	req'd. length	req'd. length
av	Jumper, No. 4 stranded Al alloy or equiv.	1	1	1
ek	Locknuts, as required			

**BANGLADESH RURAL ELECTRIFICATION BOARD**

Unit Description: 6.35/11 KV SINGLE DOWN GUY THROUGH BOLT TYPE

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	E1-1, E1-2, E1-3

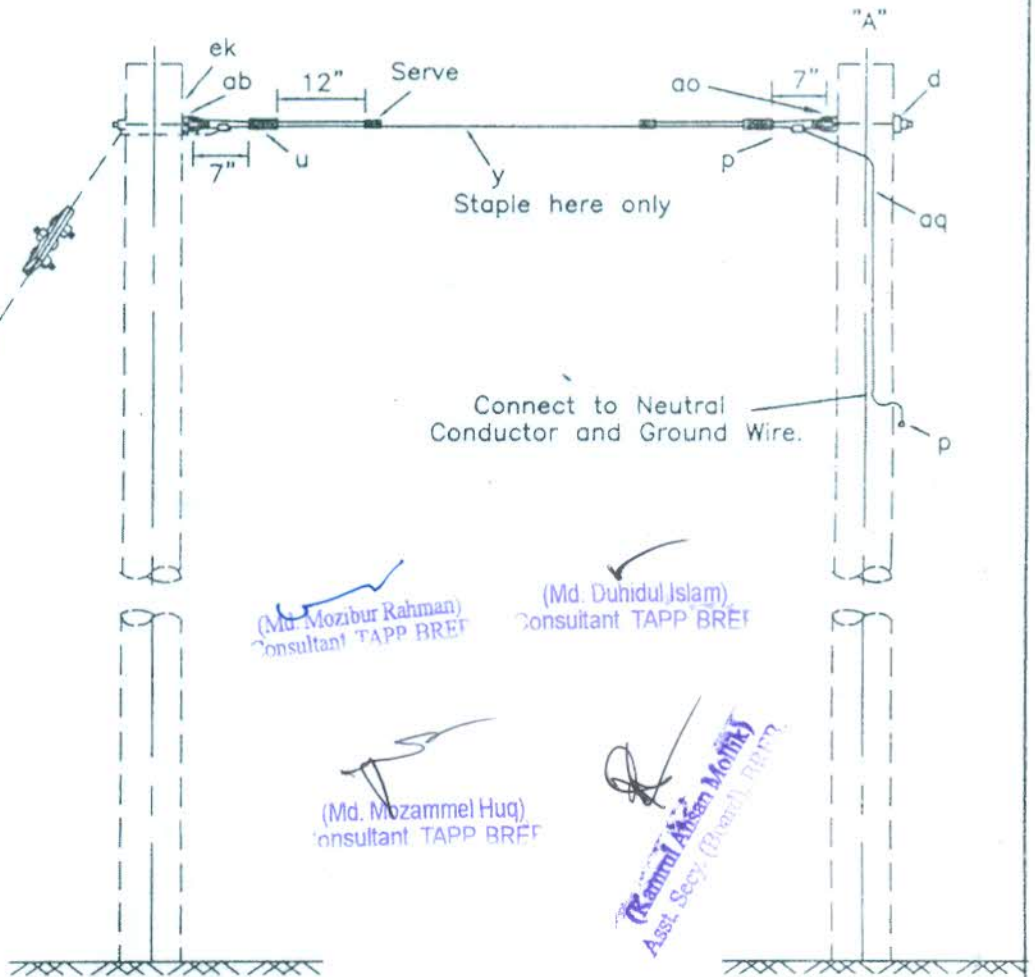


PLAN OF POLE "A"

*(Md. Abdul Khaleque)*  
Consultant, TAPP, BREB

*(Md. Ahsanul Haque)*  
Consultant, TAPP, BREB

*(Debasish Chakraborty)*  
PD, TAPP, BREB



*(Md. Mozibur Rahman)*  
Consultant TAPP BREB

*(Md. Duhidul Islam)*  
Consultant TAPP BREB

*(Md. Mozammel Haq)*  
Consultant TAPP BREB

*(Rahmatul Ahsan Morshed)*  
Asst. Secy. (Electr.) BREB

NOTE :

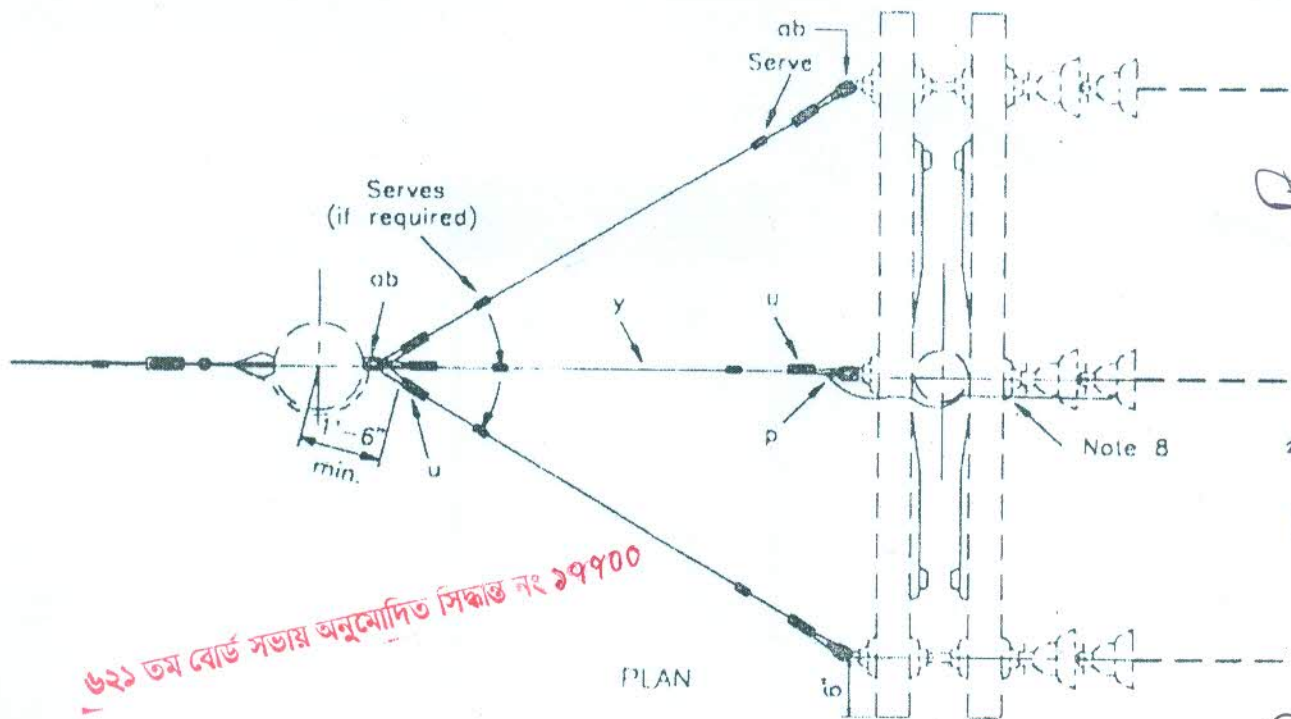
1. Other accepted and equivalent items of deadend material may be substituted for 3-bolt clamp shown.
2. M30-1 should also be followed

ITEM	MATERIAL	MAT. CODE	ASSEMBLY UNIT		
			E2-1 1/4" Guy Wire	E2-2 3/8" Guy Wire	E2-3 7/16" Guy Wire
al	Staples	B-67	No. REQ'D. 4	No. REQ'D. 4	No. REQ'D. 4
d	Washer, 2 1/4" square	B-46/118	1		
d	Washer, 3" Curved	B-49		1	1
ao	Bolt, thimble eye, 5/8" x req'd. length	B-24	1	1	1
p	Connectors	I-6	2	2	2
u	Deadend for guy strand	B69/E-21	2 Light duty	2 Light duty	2 Heavy duty
ab	Nut, thimble type eye, 5/8"	B-54	1	1	1
y	Guy wire, H.S., 7 strand	N-1/2/3	req'd. length	req'd. length	req'd. length
aq	Jumper, 4 Al. Alloy. Meter	D-4	2.66	2.66	2.66
ek	Locknuts, as required	B50	1	1	1

**BANGLADESH RURAL ELECTRIFICATION BOARD**

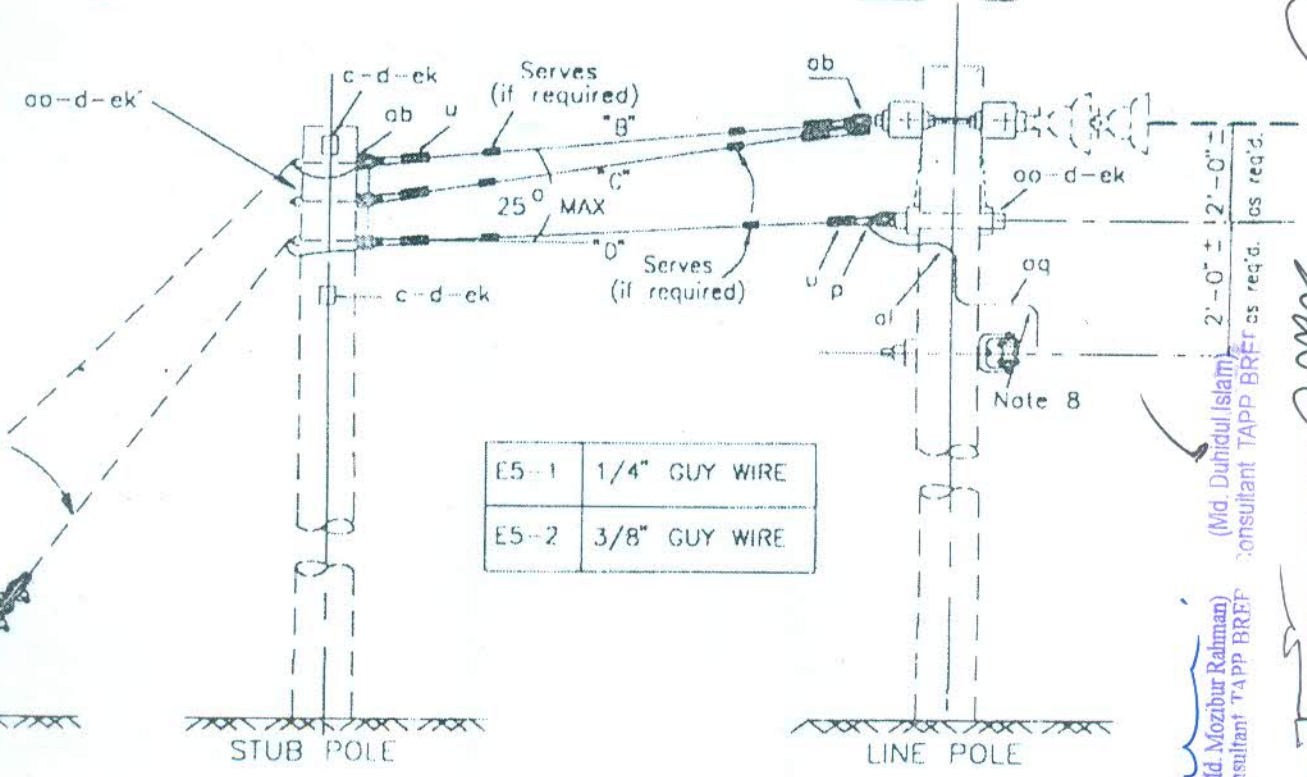
Unit Description: 6.35/11 KV SINGLE OVERHEAD GUY THROUGH BOLT TYPE

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	E2-1, E2-2, E2-3



৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

PLAN



E5-1	1/4" GUY WIRE
E5-2	3/8" GUY WIRE

REFER TO SHEET 2 FOR NOTES AND DETAILS

ITEM NO.	MATERIAL	MAT. CODE	ITEM NO.	MAT. CODE	MATERIAL
c 2	Bolt, machine, 5/8" x req'd length	B67/7/8	ab 4	B54	Nut, thimbleye, 5/8"
d 6	Washer, square, 2 1/4"	B46/118	al -	B67	Staple, ground wire
p -	Connectors, as required	15/6	oo 2	B24	Bolt, thimbleye, 5/8" x req'd length
u 6	Deadend for guy wire	B69/E-21	aq -	D-4	Jumper, as required
y -	Wire, guy, H.S. 7-strand	N-2/3	ek -	B50	Locknuts

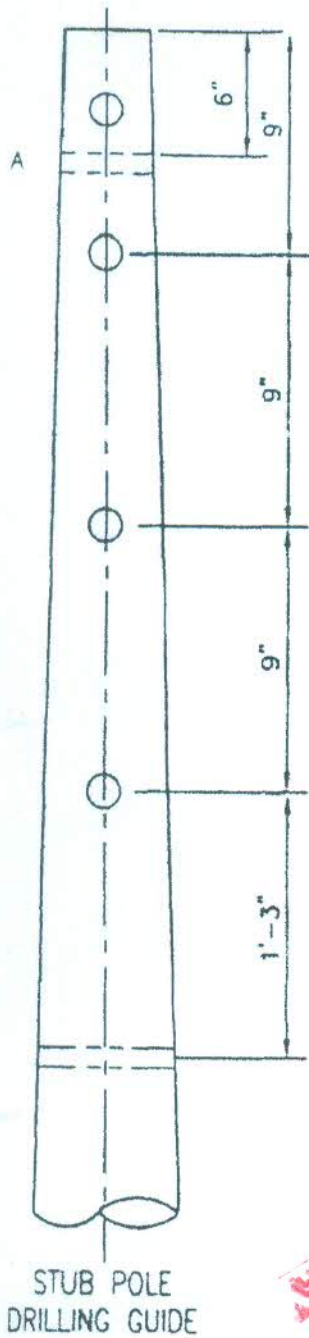
**BANGLADESH RURAL ELECTRIFICATION BOARD**

Unit Description: 6.35/11 KV CROSSARM GUYS FOR HORIZONTAL DEADENDS

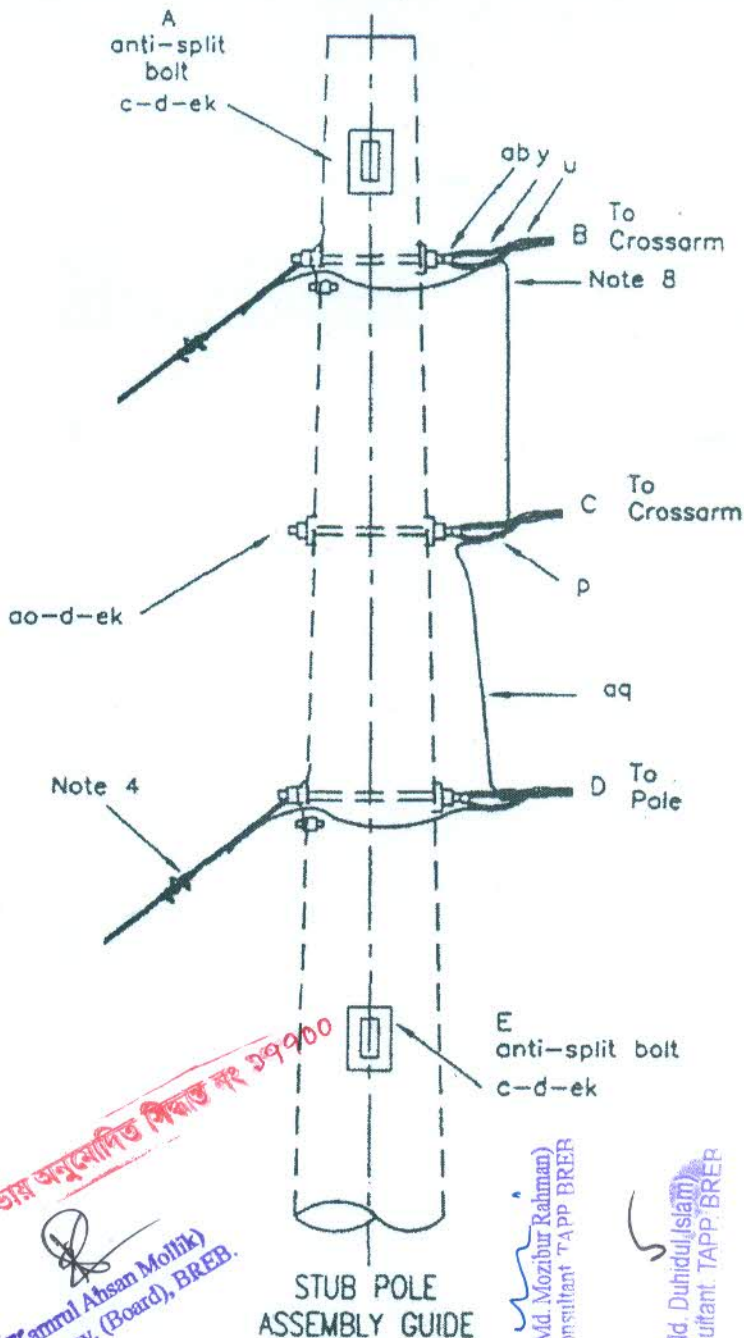
Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	E5-1, E5-2 Sheet No. 1 of 2

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020

(Kamrul Ahsan Mollah)  
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(Debasish Chakraborty)  
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(Md. Ahsanul Haque)  
Consultant TAPP BREB.  
(Md. Duhidul Islam)  
Consultant TAPP BREB as req'd.  
(Md. Mozibur Rahman)  
Consultant TAPP BREB.  
(Md. Mozarimee Huda)  
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STUB POLE DRILLING GUIDE



STUB POLE ASSEMBLY GUIDE

১১ জালালা সড়ক অনুবোধিত বিদ্যুত নং ১১৭০০

(Kamrul Ahsan Mollik)  
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(Md. Duhidul Islam)  
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(Md. Mizammel Huda)  
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(Debasish Chakraborty)  
PD, TAPP, BREB

(Md. Ahsanul Haque)  
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(Md. Abdul Khaleque)  
Consultant TAPP/BREB

NOTES :

- Stub pole holes A, B, C and E are pre-drilled as per pole framing guide M20.
- Observe the 25° max. angle from the horizontal. Normally this may be accomplished with a stub pole 5'-0" shorter than the deadend pole.
- This type of guy is req'd. for crossarm construction where the unbalanced loaded conductor tension is more than 1000 pounds per conductor for two 8 feet crossarms or 1500 pounds for three 8 feet x-arms. Guying req'ts for using this unit are depicted on individual pole top const'n assembly units.
- The down guy units E1-2 or E1-3 must be specified separately; Thimbleye nuts are added to the down guy machine bolts & the suspension insulator double arming bolts.
- Two anti-split bolts are req'd to be installed on the stub pole using holes identified as A & E.
- With multiple down guys two or more anchors may be req'd. If two anchors are req'd. the spacing between the anchors shall be sufficient to provide the max. holding power of each anchor. The absolute minimum anchor separation shall be 5 feet.
- A preformed deadend for guy wire may be substituted for the 3-bolt clamp depicted on the drawing.
- On the deadend pole connect lower guy to the neutral conductor and ground wire.  
On the stub pole interconnect all overhead down guys.

BANGLADESH RURAL ELECTRIFICATION BOARD

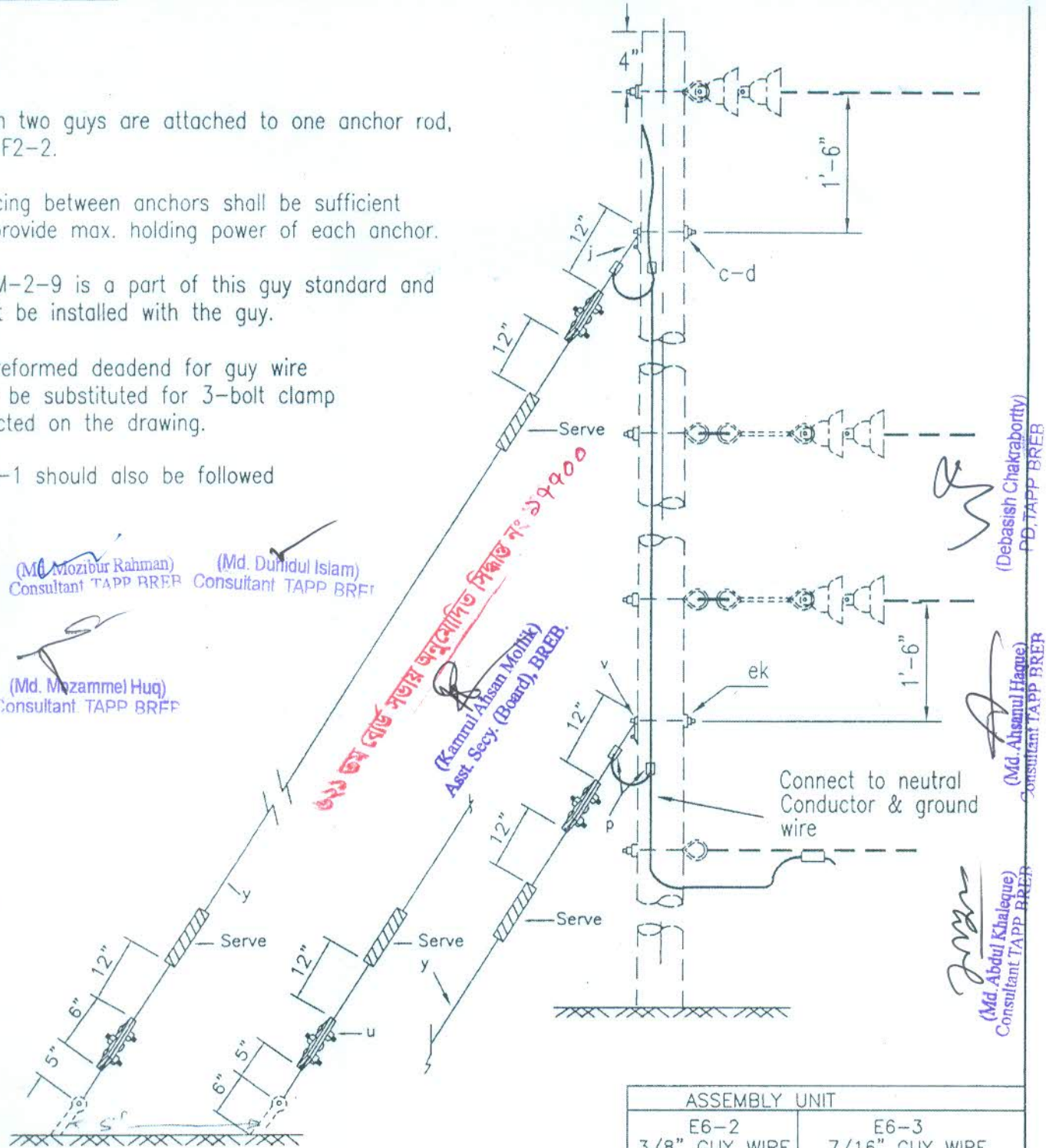
Unit Description: 6.35/11 KV CROSSARM GUYS FOR HORIZONTAL DEADENDS

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	E5-1, E5-2 Sheet No. 2 of 2



NOTES :

1. When two guys are attached to one anchor rod, use F2-2.
2. Spacing between anchors shall be sufficient to provide max. holding power of each anchor.
3. An M-2-9 is a part of this guy standard and must be installed with the guy.
4. A preformed deadend for guy wire may be substituted for 3-bolt clamp depicted on the drawing.
5. M30-1 should also be followed



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(Md. Duhidu Islam)  
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(Md. Mozammel Haq)  
Consultant TAPP BRER

৬৩৬ জম বোর্ড সভার অনুমোদিত সিদ্ধান্ত নং ১৭৭০০

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Consultant TAPP BRER

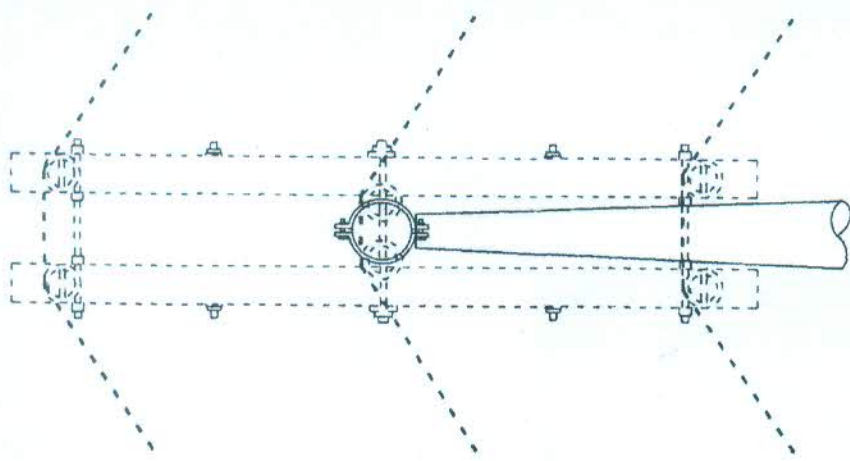
ASSEMBLY UNIT	
E6-2 3/8" GUY WIRE	E6-3 7/16" GUY WIRE
No. REQ'D.	No. REQ'D.
2	2
2	
	2
	2
1-6	
4 Light duty	4 Heavy duty
	2
req'd. length	req'd. length
as required	as required

ITEM	MATERIAL	MAT. CODE
c	Bolt, machine, 5/8" x req'd. length	B-7/8
d	Washer, 2 1/4" square	B-46
d	Washer, 3"x5/16" curved	B-49
j	Screw, lag, 1/2" req'd. length	B-40
p	Connectors	1-6
u	Deadend for guy strand	B69/70/E21
v	Guy attachment	B56/57/58
y	Guy wire, H.S., 7 strand	N-3/4
av	Jumper, No. 4 stranded Al alloy or equiv.	D-4
ek	Locknuts, as required	B50
ck	Clamp, guy bond, as required	

**BANGLADESH RURAL ELECTRIFICATION BOARD**

**Unit Description:** 6.35/11 KV DOUBLE DOWN GUY

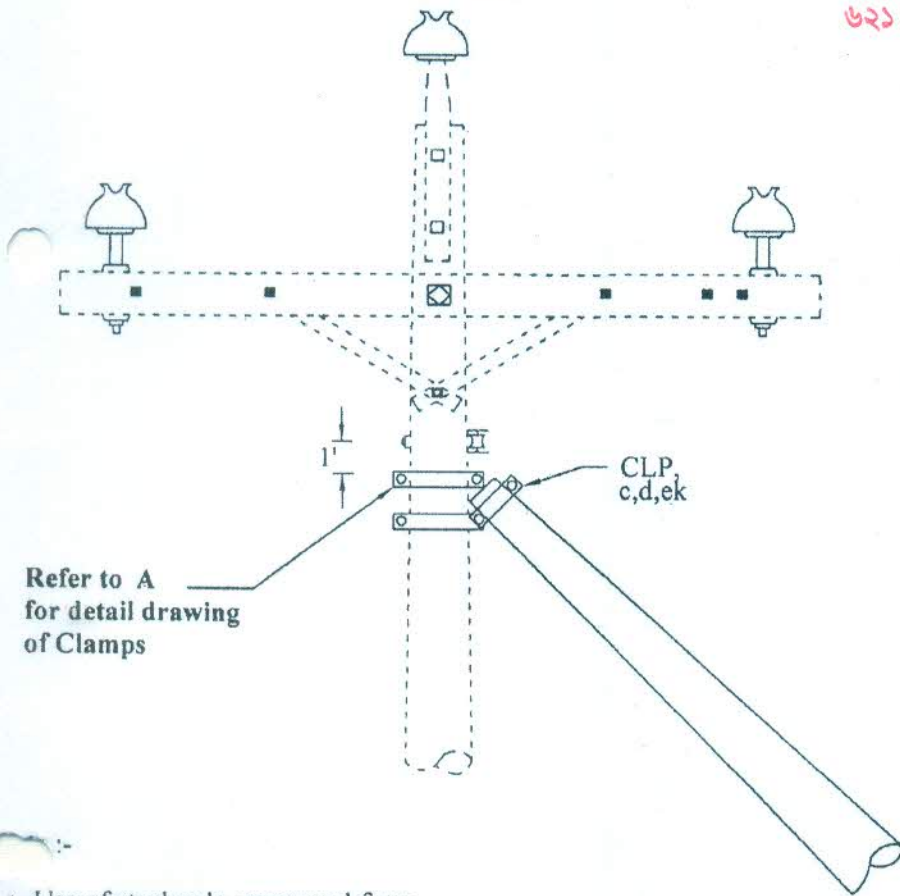
Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	E6-2, E6-3



Top View

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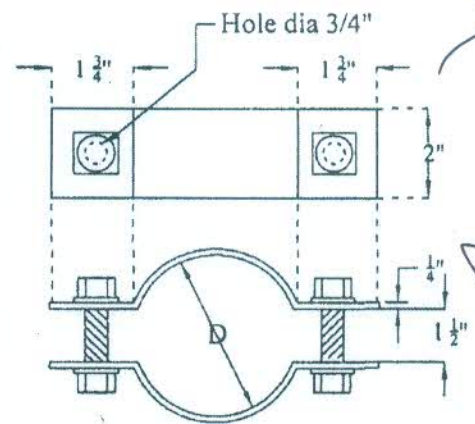
(Kamrul Ahsan Mollik)  
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Refer to A  
for detail drawing  
of Clamps

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(Md. Duhidul Islam)  
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Detail - A

Galvanized Clamp Set, dia 8" or 10"  
M5-25

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(Md. Mozammel Haq)  
Consultant, TAPP, BREB

(Md. Abdul Khaleque,  
Consultant, TAPP, BREB)

1. Use of steel pole recovered from DESA/PDB is preferred.
2. D is the diameter of the pole at the place of fixing of clamps

ITEM	NO	METARIAL	UNIT
LP	1	Leaning pole, req'd size & length.	NO
M5-25	3	GL Clamp for leaning pole, size as req'd.	PAIR

**BANGLADESH RURAL ELECTRIFICATION BOARD**

Unit Description: LAY POLE GUY FOR ANGLE POLE/TAP POLE  
(For areas where guy/overhead guy cannot be placed)

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	E-7

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020

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Consultant TAPP, BREB

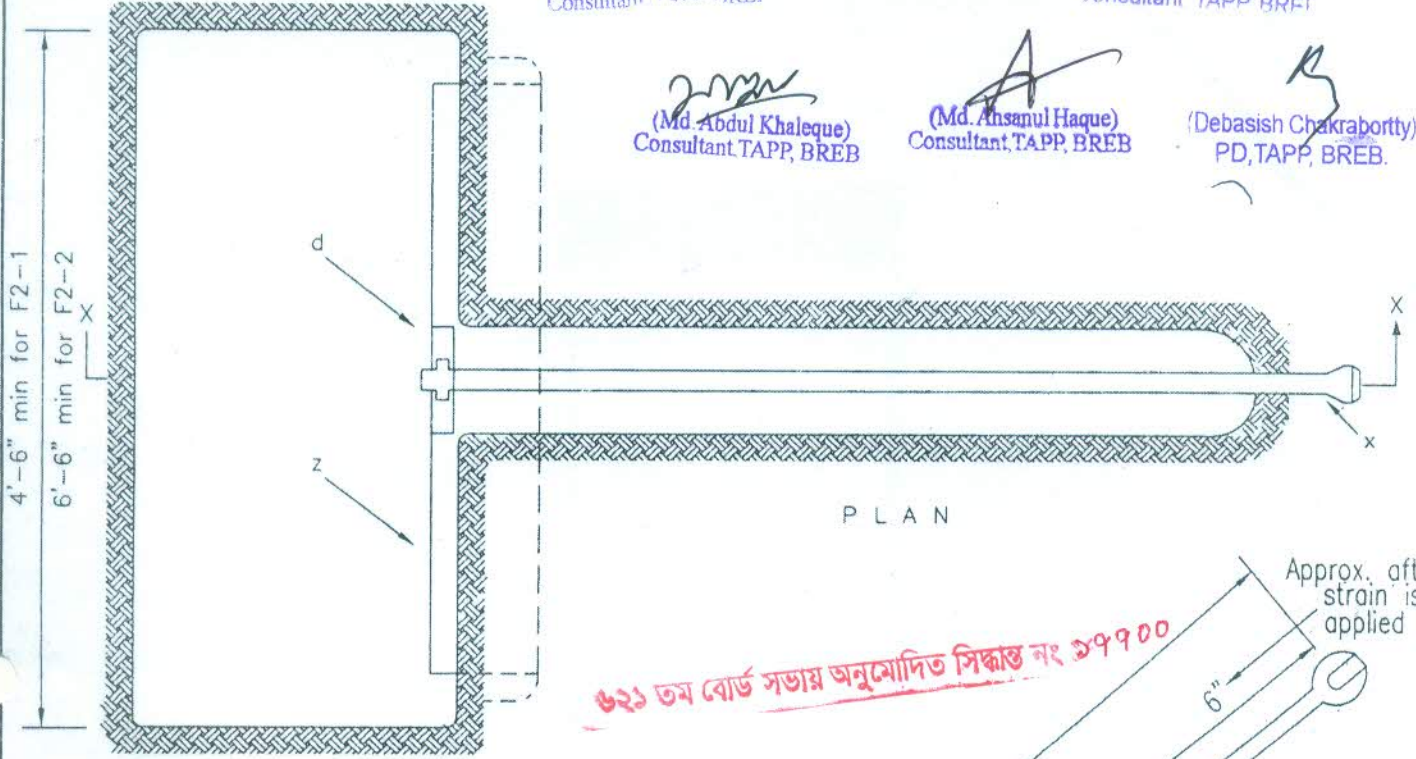
(Md. Duhidul Islam)  
Consultant TAPP, BREB

(Md. Mozammel Haq)  
Consultant TAPP, BREB

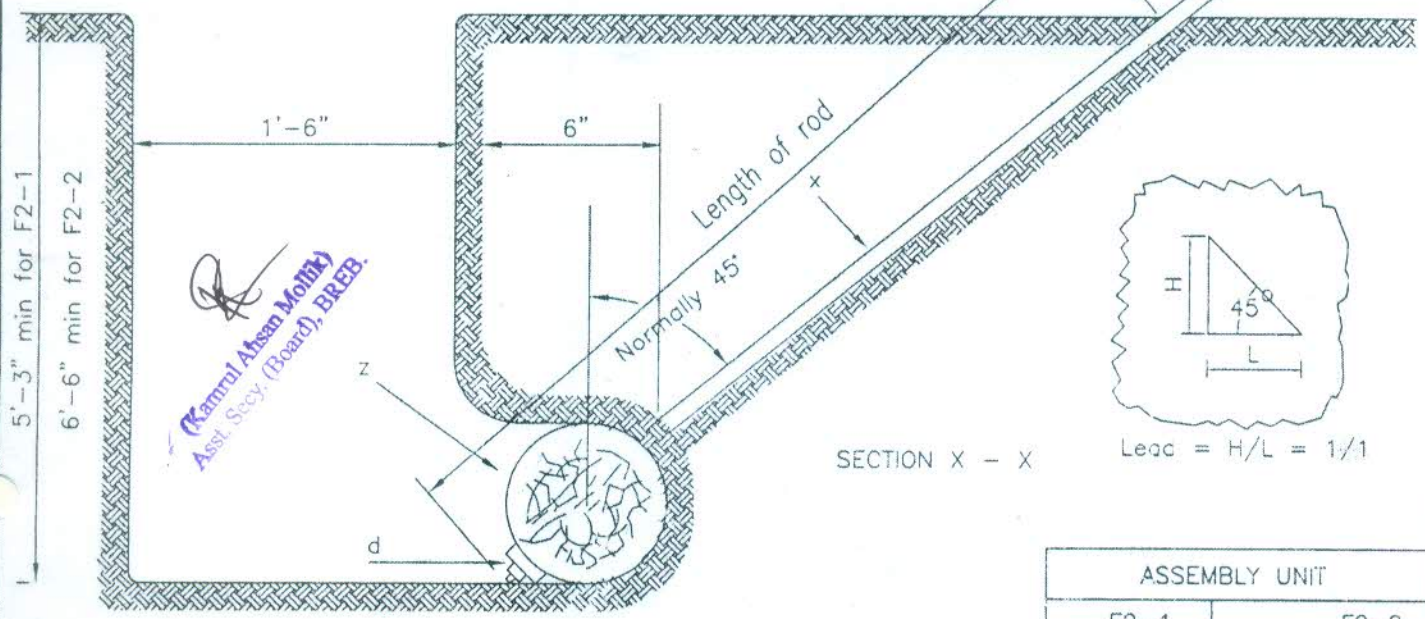
(Md. Abdul Khaleque)  
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(Md. Ansanul Haque)  
Consultant TAPP, BREB

(Debasish Chakraborty)  
PD, TAPP, BREB.



৬২১ তম বোর্ড সভায় অনুমোদিত সিদ্ধান্ত নং ১৭৭০০



ITEM	MATERIAL	MAT. CODE	ASSEMBLY UNIT	
			F2-1 NO.	F2-2 NO.
d	Washer square flat 4"x4"x1/2" with 13/16" dia hole	B-47/110	1	1
x	Rod, Anchor, twineye, 5/8"x8'-0"	B-62	1	
x	Rod, Anchor, twineye, 3/4"x10'-0"	B-63		1
z	Anchor, creosated Log, 8"x3'-6"	Z1	1	
z	Anchor creosated Log, 12"x6'-0"	Z2		1
Total Tension (1/1 Lead) Average soil (pounds)			7000	15,000
Total Tension (1/1 Lead) Poor soil (pounds)			4000	10,000

**BANGLADESH RURAL ELECTRIFICATION BOARD**

**Unit Description: LOG ANCHOR ASSEMBLY**

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	F2-1, F2-2

Revision Date: July 1980, June 1981, August 1989, July 1995, August 2013, February 2020

NOTES :

1. Refer to transformer guide drawings for secondary and service connections.
2. Refer to guide drawing M28-1 for transformer lead sizes and primary fuse sizes.
3. Increase this dimension to 2'-0" for spans over 300 feet in length.
4. The transformer grounding loop assures two separate connections to ground. See guide drawing M27 for details.
5. A ground rod is required for this installation. Specify separately as M2-11.
6. A 3" minimum separation is required between neutral and low tension jumpers.

(Debasish Chakraborty)  
D.D. TAPP. BREB.

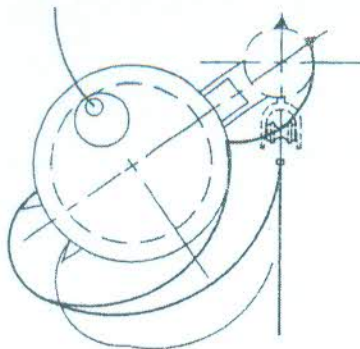
(Md. Anisul Haque)  
Consultant TAPP, BREB

(Md. Abul Khaleque)  
Consultant TAPP, BREB

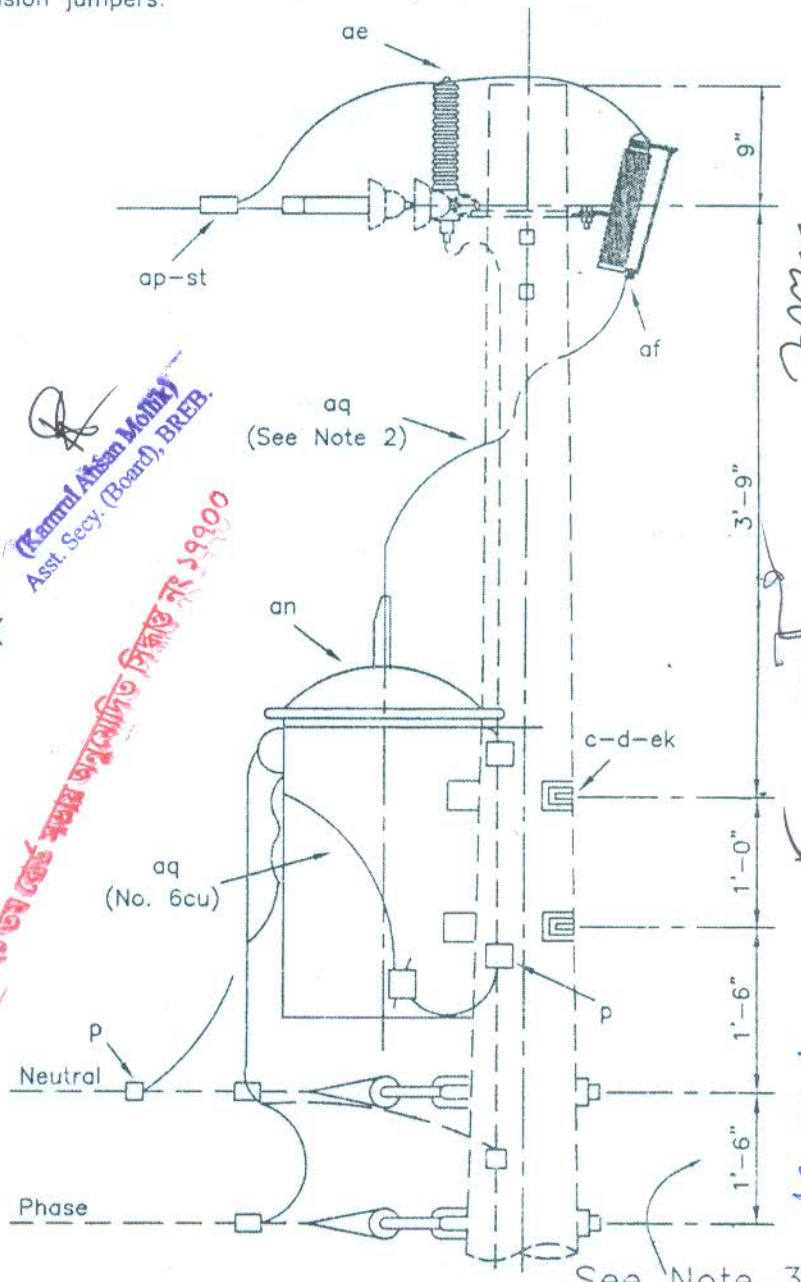
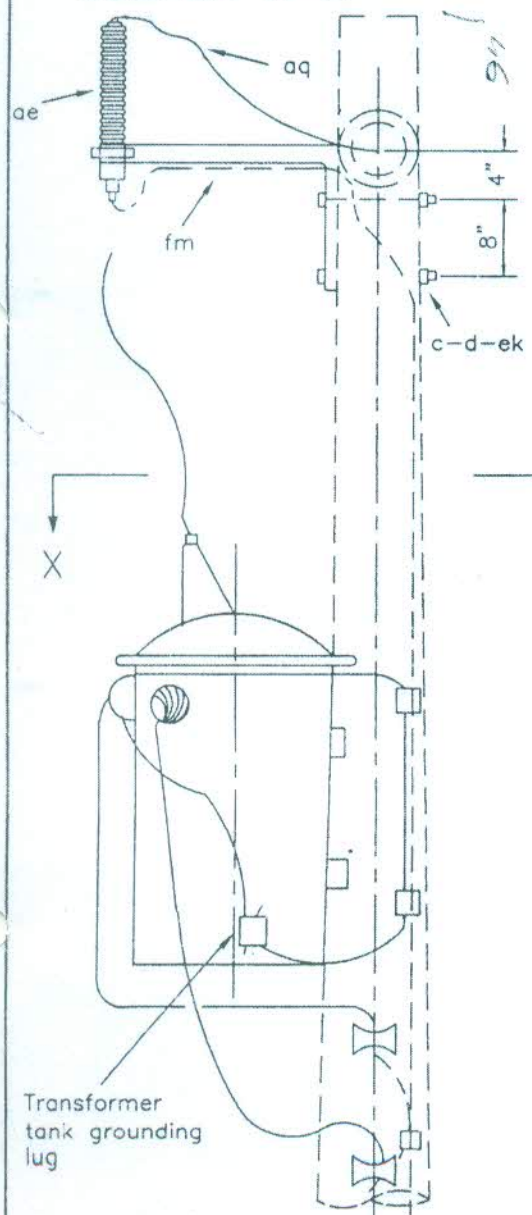
(Md. Mohammed Huda)  
Consultant TAPP, BREB

(Md. Duhidul Islam)  
Consultant TAPP, BREB

(Md. Mozibur Rahman)  
Consultant TAPP, BREB



SECTION X-X



(Kamrul Ahsan Mobin)  
Asst. Secy. (Board), BREB.

উপরে ভাবে সঠিক অনুমোদিত সিকিউর নং ১৭৭০০

ITEM	NO.	MAT.CODE	MATERIAL	ITEM	NO.	MAT.CODE	MATERIAL
c	4	B8/B	Bolt, machine, 5/8" x req'd length	ap	1	124/46	Clamp, hot line
d	4	B46/118	Washer, square, 2 1/4"	aq	-	D8	Jumpers, Cu6, Solid
p	-	15/6	Connectors, as required	ek	-	B50	Locknuts as required
ae	1	H2	Lightning arrester	fm	1	B90	Bracket, cutout and arrester
af	1	H1	Cutout	st	1	135/54	Stirrup for hot line clamp
an	1	G	Transformer, conventional type		1	H6	Fuse, desired rating

BANGLADESH RURAL ELECTRIFICATION BOARD

Unit Description: 6.35/11 KV SINGLE PHASE TRANSFORMER AT 1-PHASE DEADEND

Date of Origin	Reviewed by	Approved by	Revision No.	Unit Designation
July 1979	BREB	BREB Board	6	G106