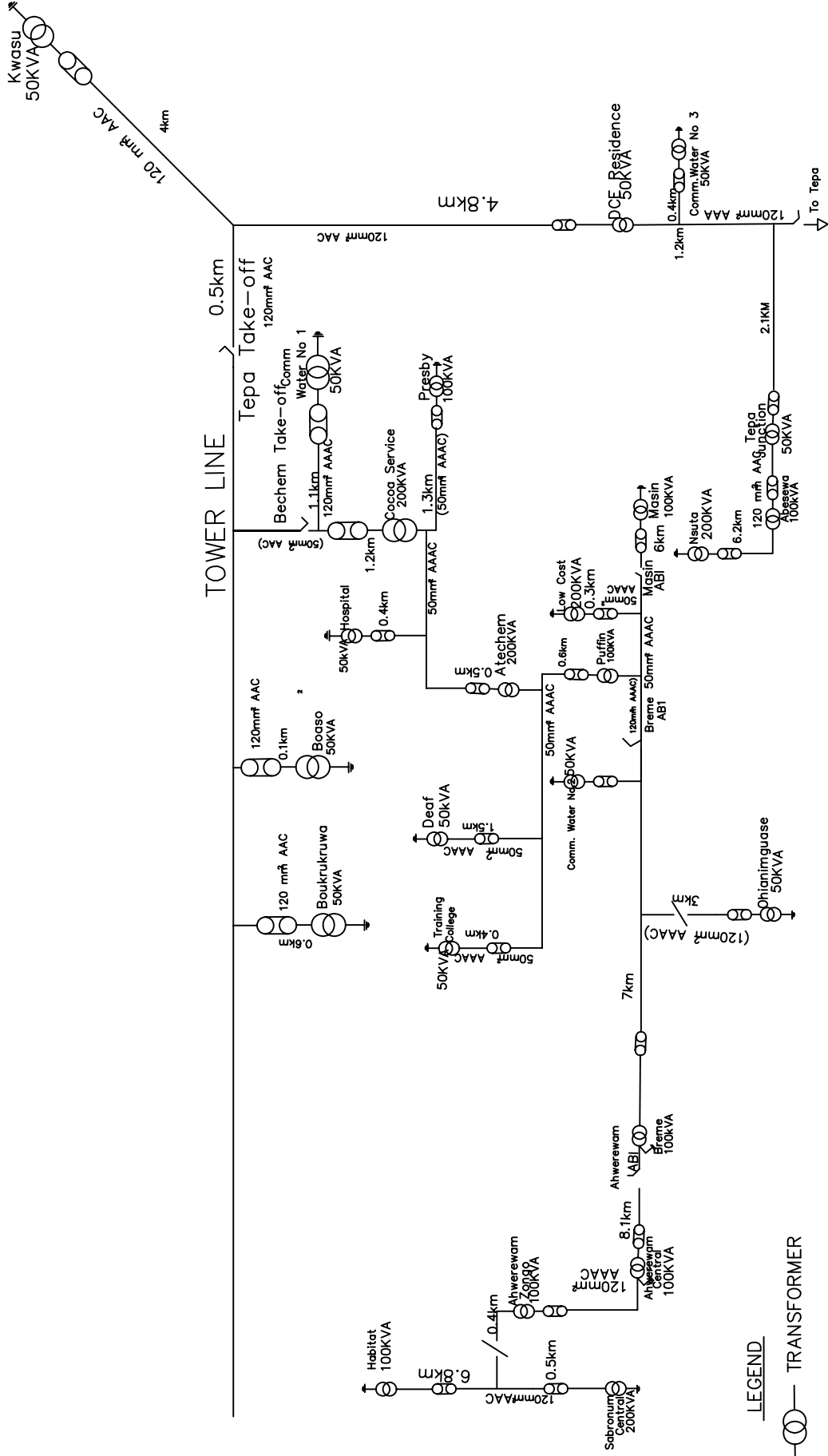


Single Line Diagram

Sunyani

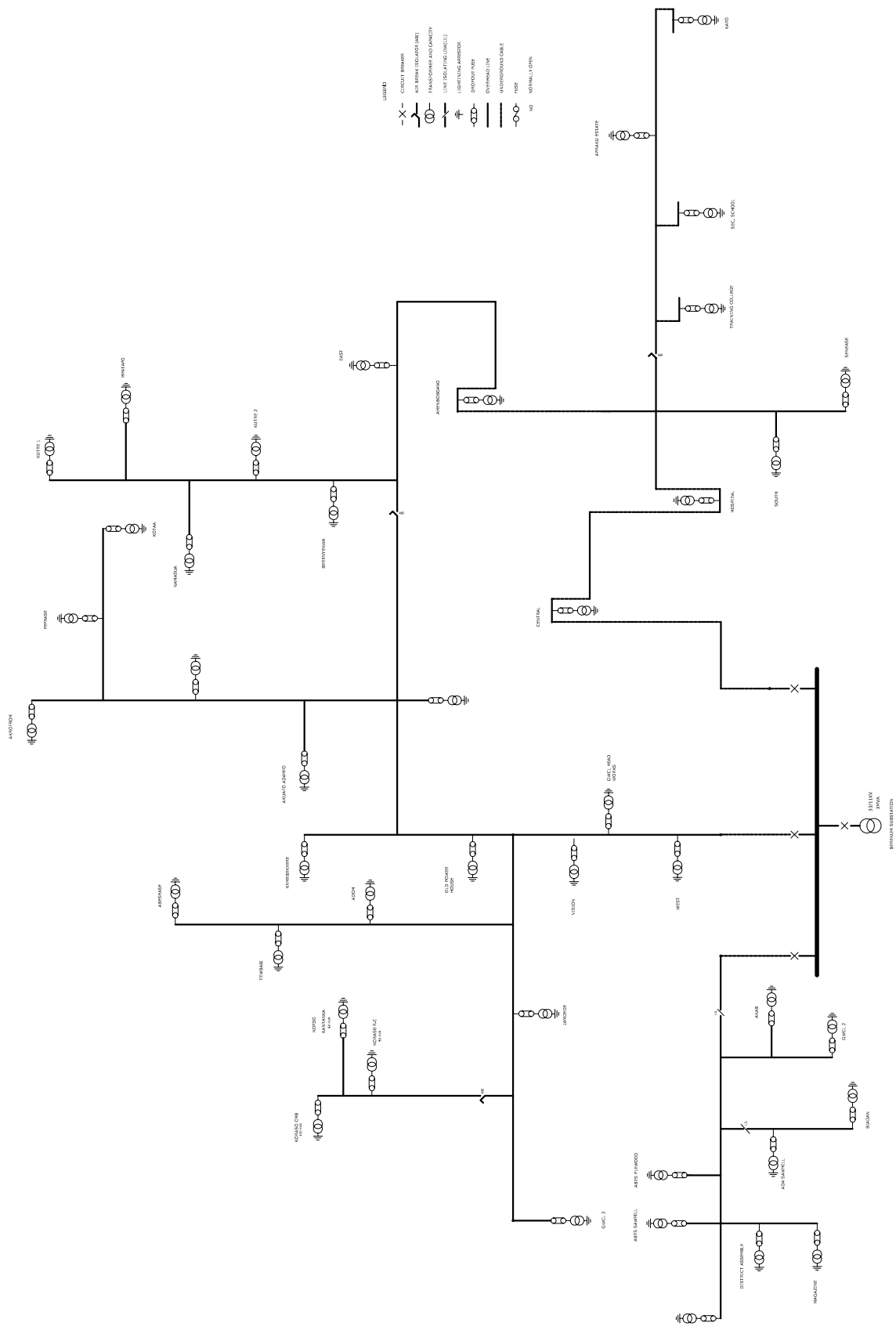
# SINGLE LINE DIAGRAM FOR BECHEM OPERATING AREA



NB: Total Distance = 57.8km

Cable Size 50mm<sup>2</sup> AAC = 7.8km

Cable Size 20 mm AAC = 50km



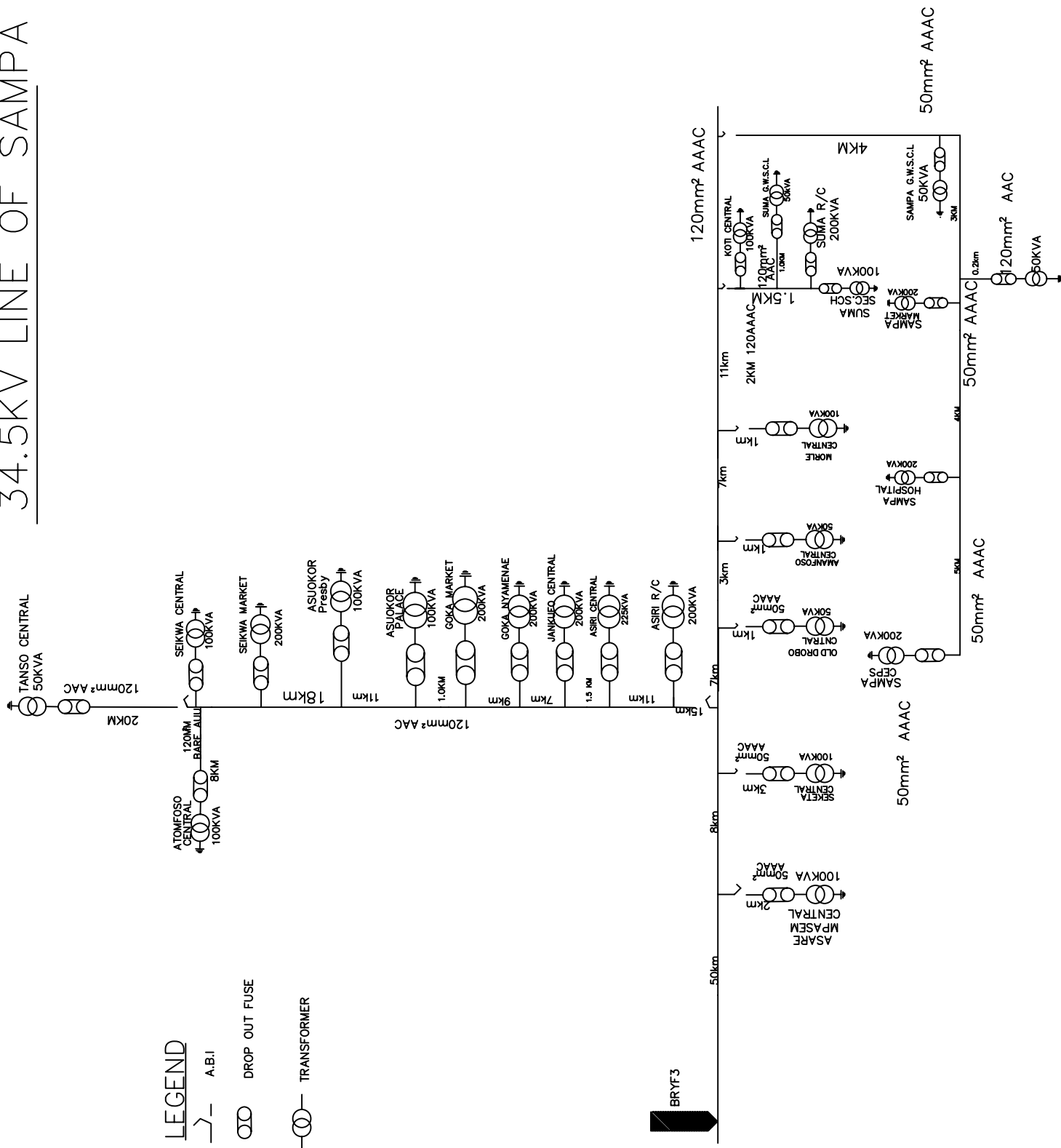
- LEGEND
- X- CIRCUIT BREAKER
  - AIR BREAK (ISOLATING) (A.B.)
  - TRANSFORMER AND CAPACITY
  - LINE ISOLATING (ISOL.)
  - LIGHTNING ARRESTOR
  - DRAW-OUT FUSE
  - OVERHEAD LINE
  - UNDERGROUND CABLE
  - FUSE
  - NORMALLY OPEN




NORFOLK RIVER AUTHORITY  
NORTHERN ELECTRICITY DEPT.  
11kV NETWORK DIAGRAM

NO.	DATE	BY	CHECKED	REVISIONS
1				
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NOTES

# 34.5KV LINE OF SAMPA

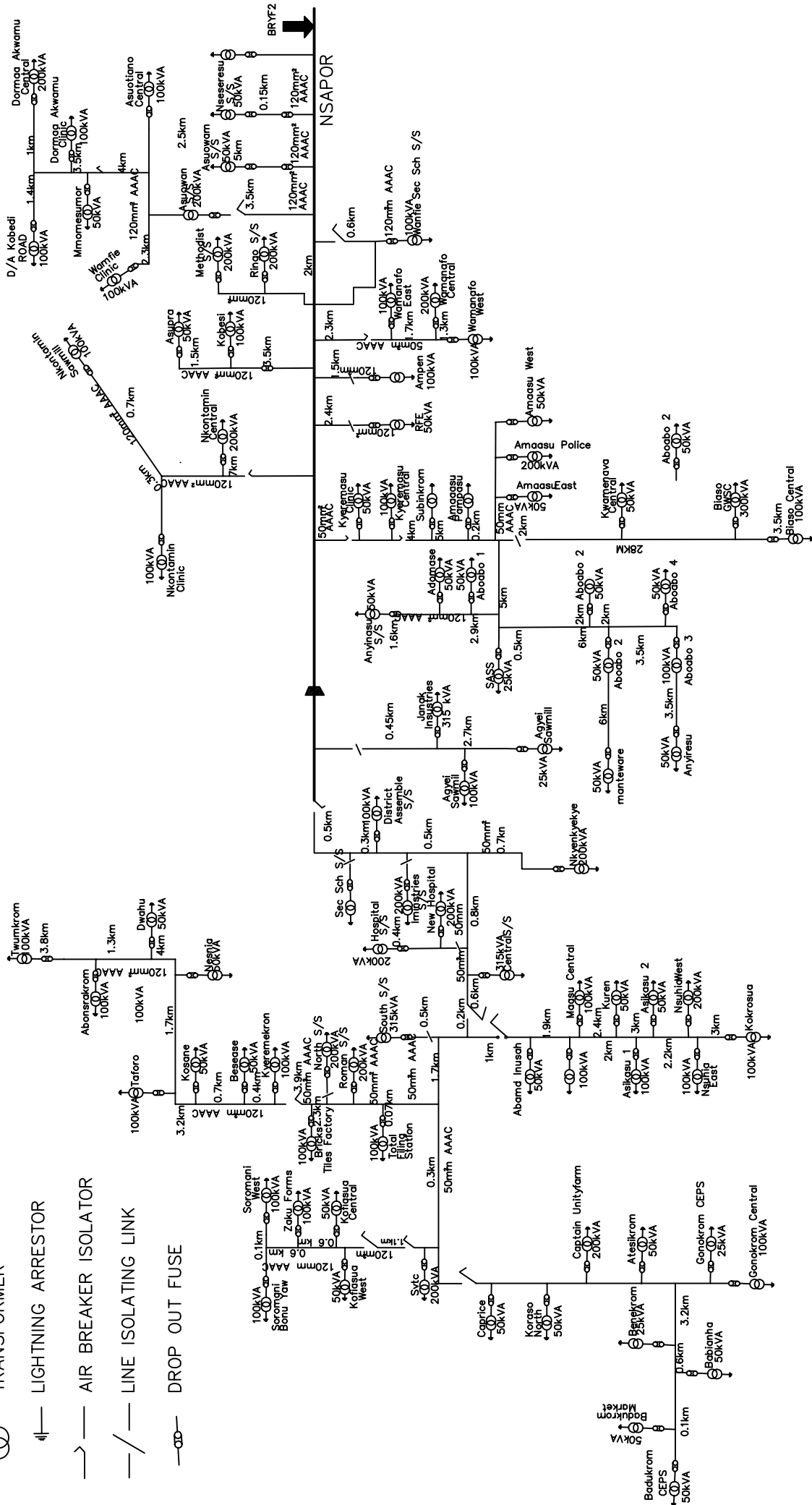
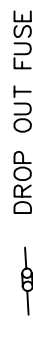
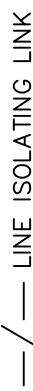
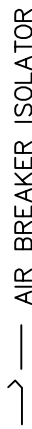
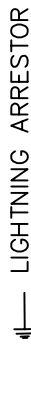


**LEGEND**  
 A.B.I.  
 DROP OUT FUSE  
 TRANSFORMER

BRYF3

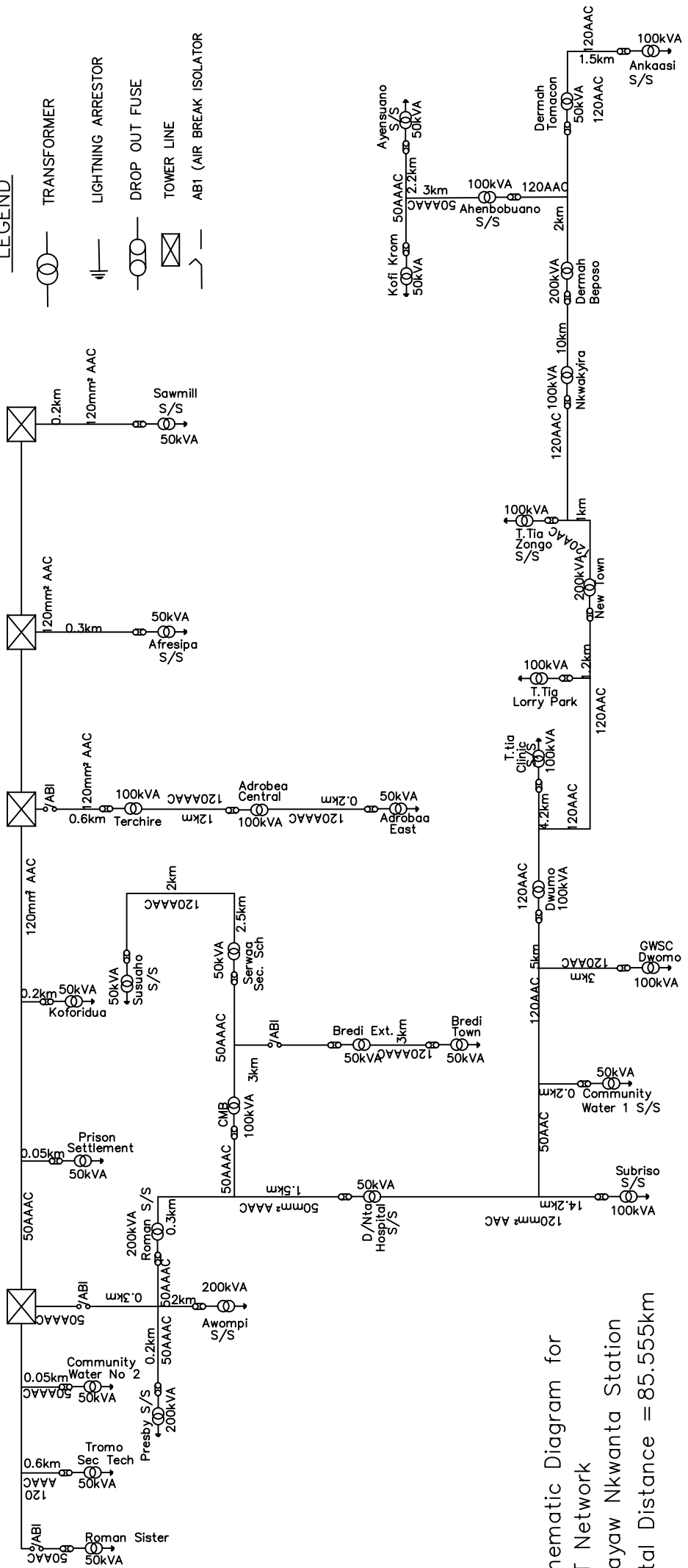
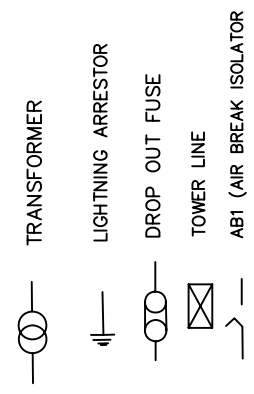
VOLTA RIVER AUTHORITY  
 NORTHERN ELECTRICITY DEPARTMENT  
 SINGEL LINE DIAGRAM FOR DORMAA OPERATIONAL STATION

LEGEND



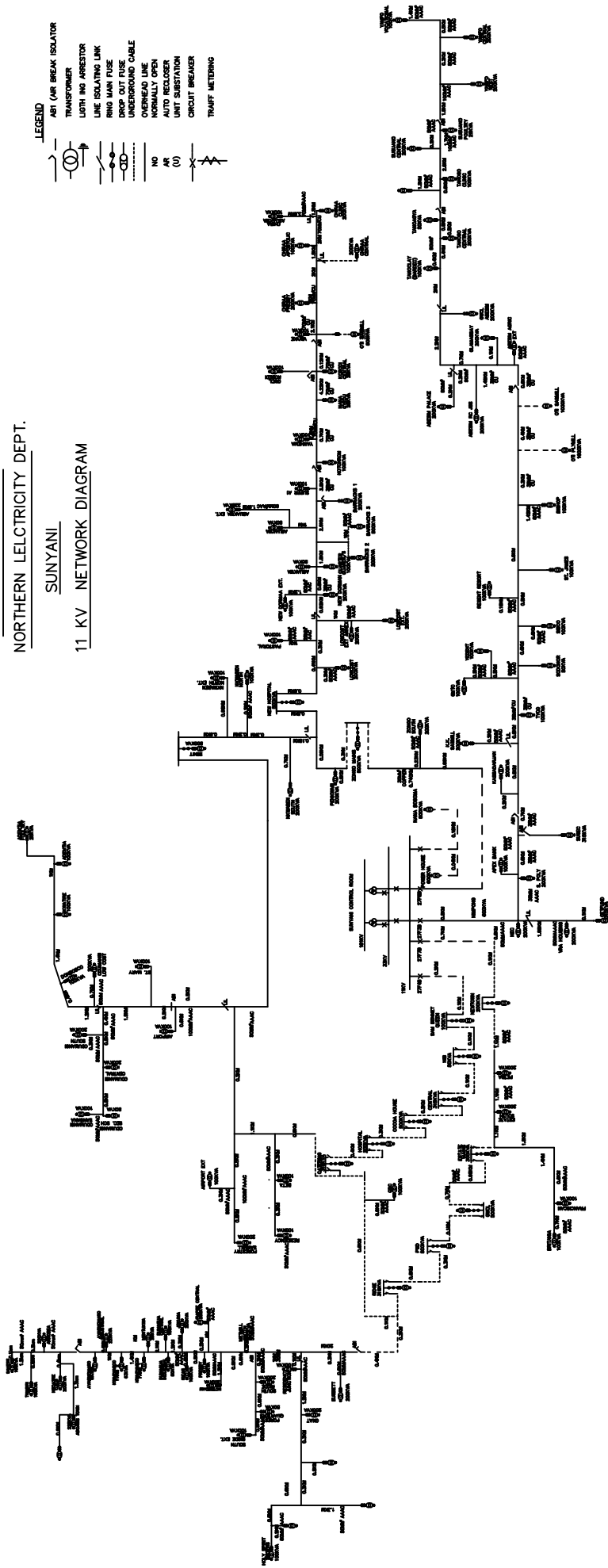
# DUAYAW NKWANTA (34.5KM LINE)

## LEGEND



Schematic Diagram for  
H.T Network  
Duayaw Nkwanta Station  
Total Distance = 85.555km

VOLTA RIVER AUTHORITY  
 NORTHERN ELECTRICITY DEPT.  
SUNYANI  
 11 KV NETWORK DIAGRAM



**LEGEND**

ABI

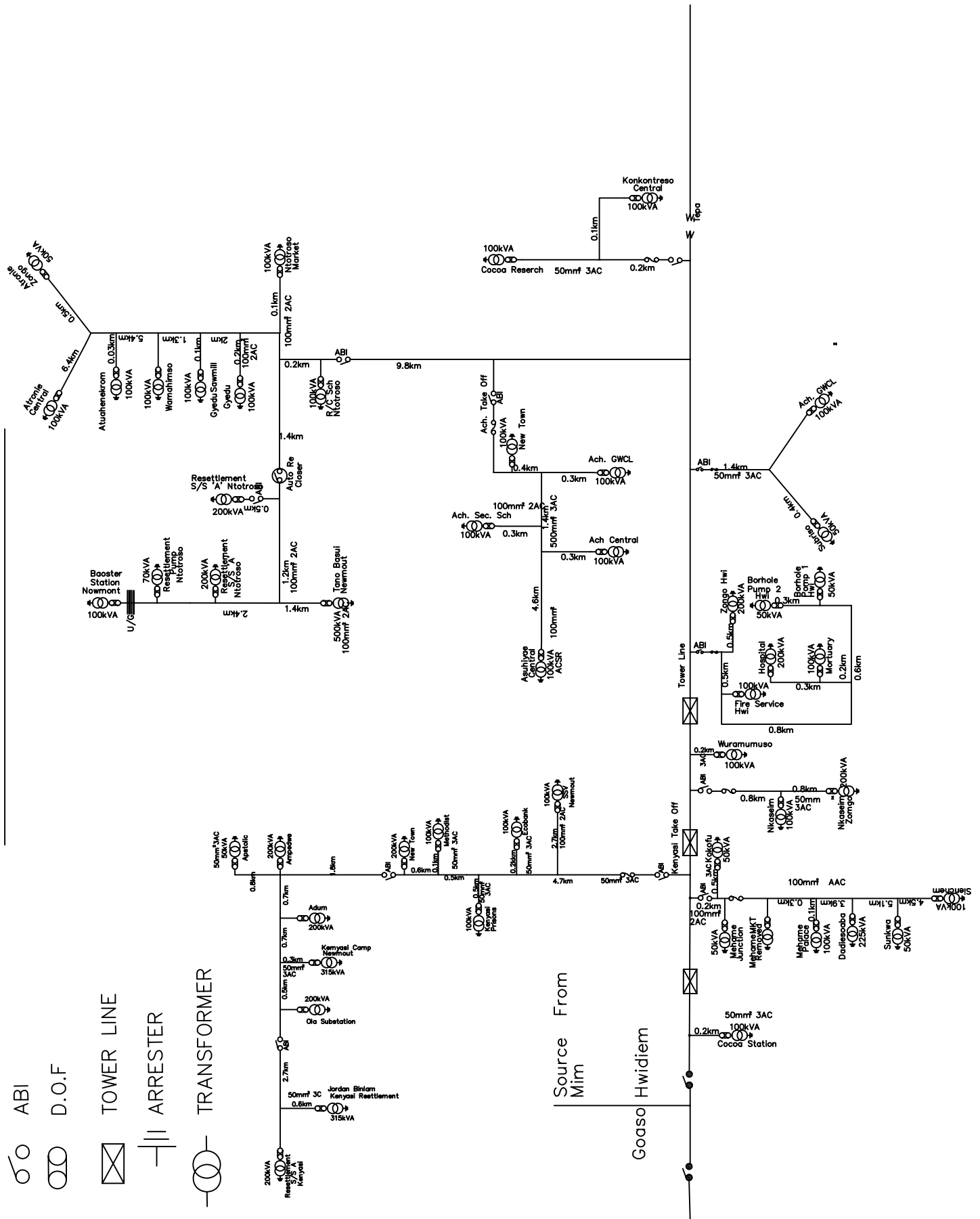
D.O.F

TOWER LINE

ARRESTER

TRANSFORMER

**HWIDIEM STATION LAYOUT**

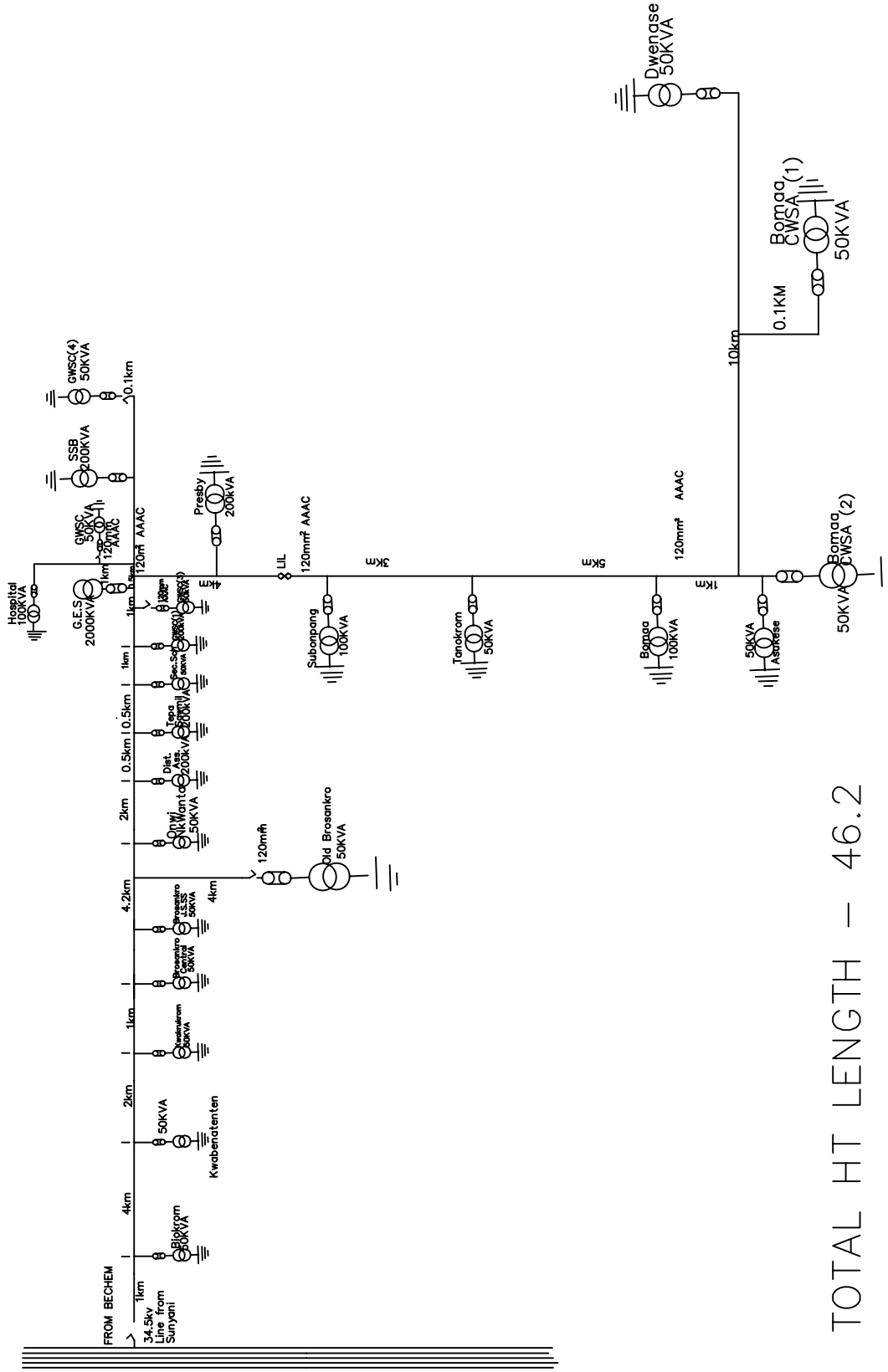








# HIGH TENSION LINE DIAGRAM FOR TEPA OPERATIONAL STATION

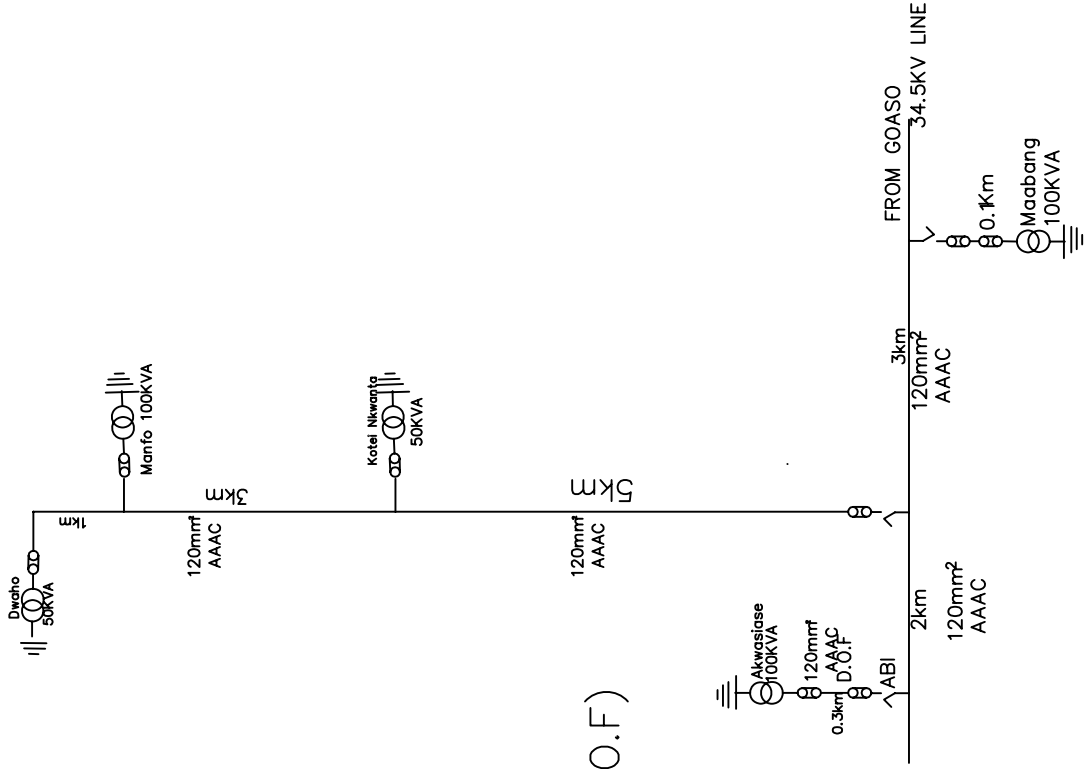


## LEGEND

- ⊖ Transformer
- Air Break Isolator (ABI)
- ∞ Drop Out Fuse (D.O.F)
- ∞ Line Isolating Link (LIL)

TOTAL HT LENGTH – 46.2

# HT LINE DIAGRAM FOR TEPA OPERATIONAL ST



## LEGEND

—○— Transformer

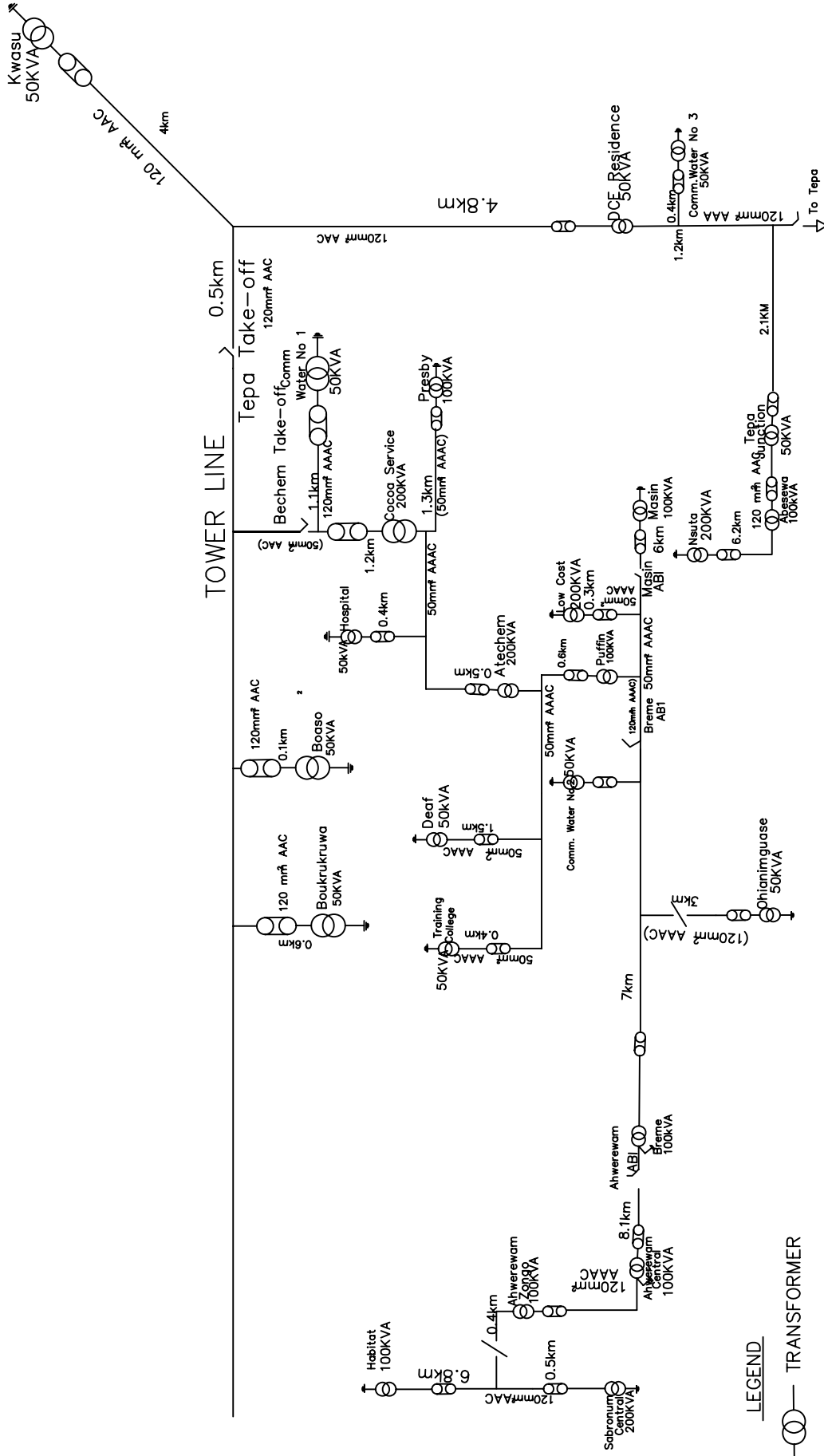
↘- ABI

∞ Drop Out Fuse (D.O.F)

∞ LIL

TOTAL HT LENGTH - 14.4

# SINGLE LINE DIAGRAM FOR BECHEM OPERATING AREA

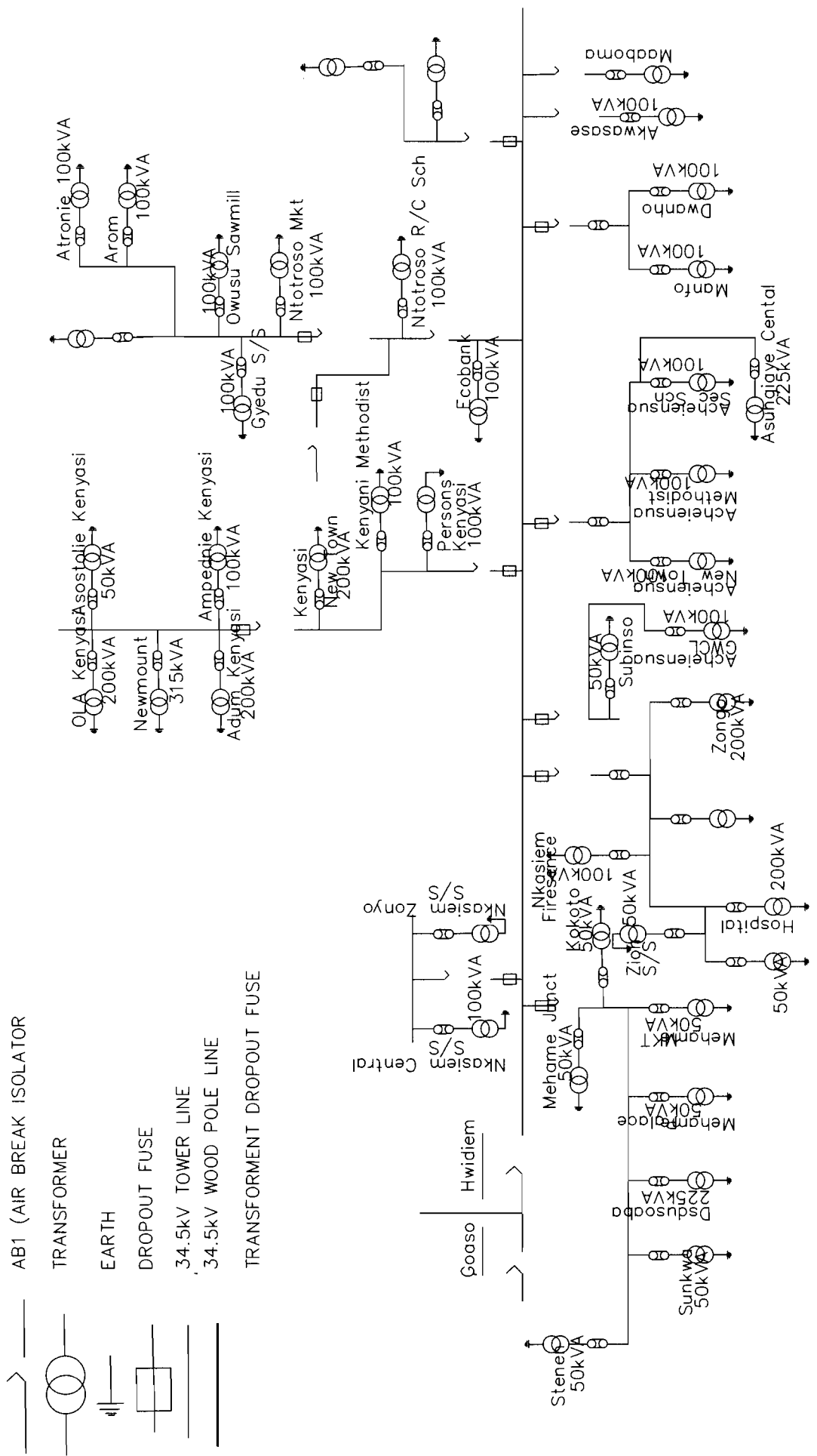


NB: Total Distance = 57.8km

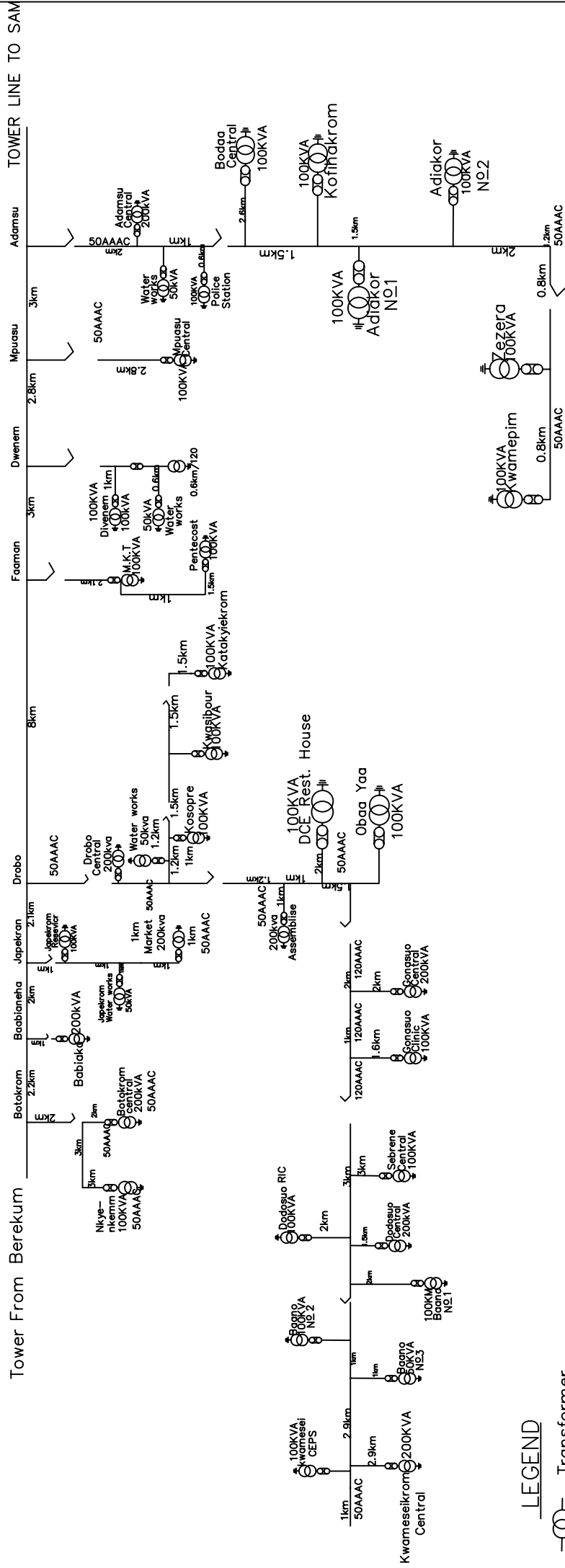
Cable Size 50mm² AAAC = 7.8km

Cable Size 20mm AAC = 50km

# — LINE DIAGRAM FOR HWIDIEM OPERATING AREA



# SINGLE LINE DIAGRAM FOR DROBO-OPERATIONAL STATION



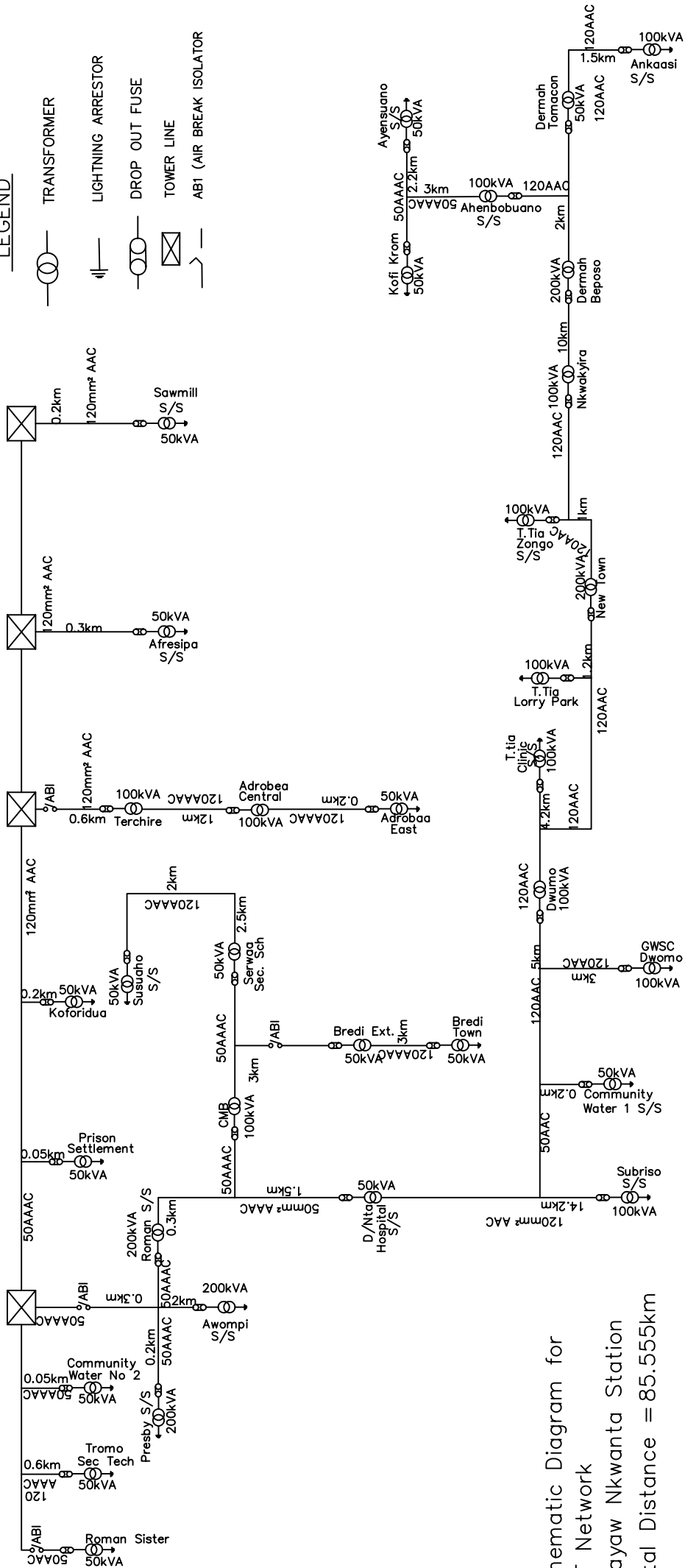
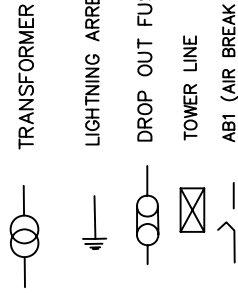
NOTE: TOTAL LENGTH (HV)=59.3km  
 -50AAAC=52.1(kms)  
 -120AAAC=7.2(kms)

## LEGEND

- Transformer
- Air Break Isolator(ABI)
- Drop Out Fuse(D.O.F)

# DUAYAW NKWANTA (34.5KM LINE)

## LEGEND



Schematic Diagram for

H.T Network

Duayaw Nkwanta Station

Total Distance = 85.555km





# — LINE DIAGRAM FOR HWDIEM OPERATING AREA

AB1 (AIR BREAK ISOLATOR)

TRANSFORMER

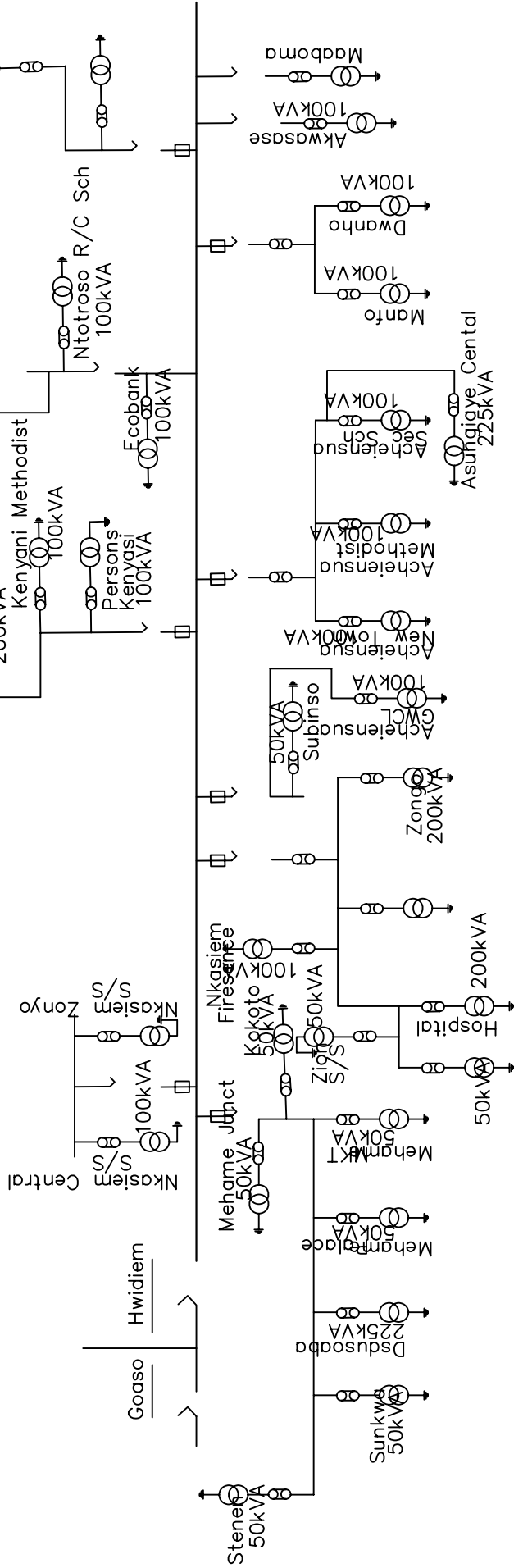
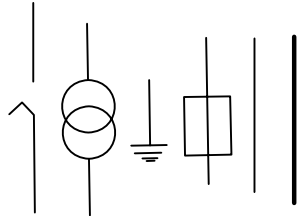
EARTH

DROPOUT FUSE

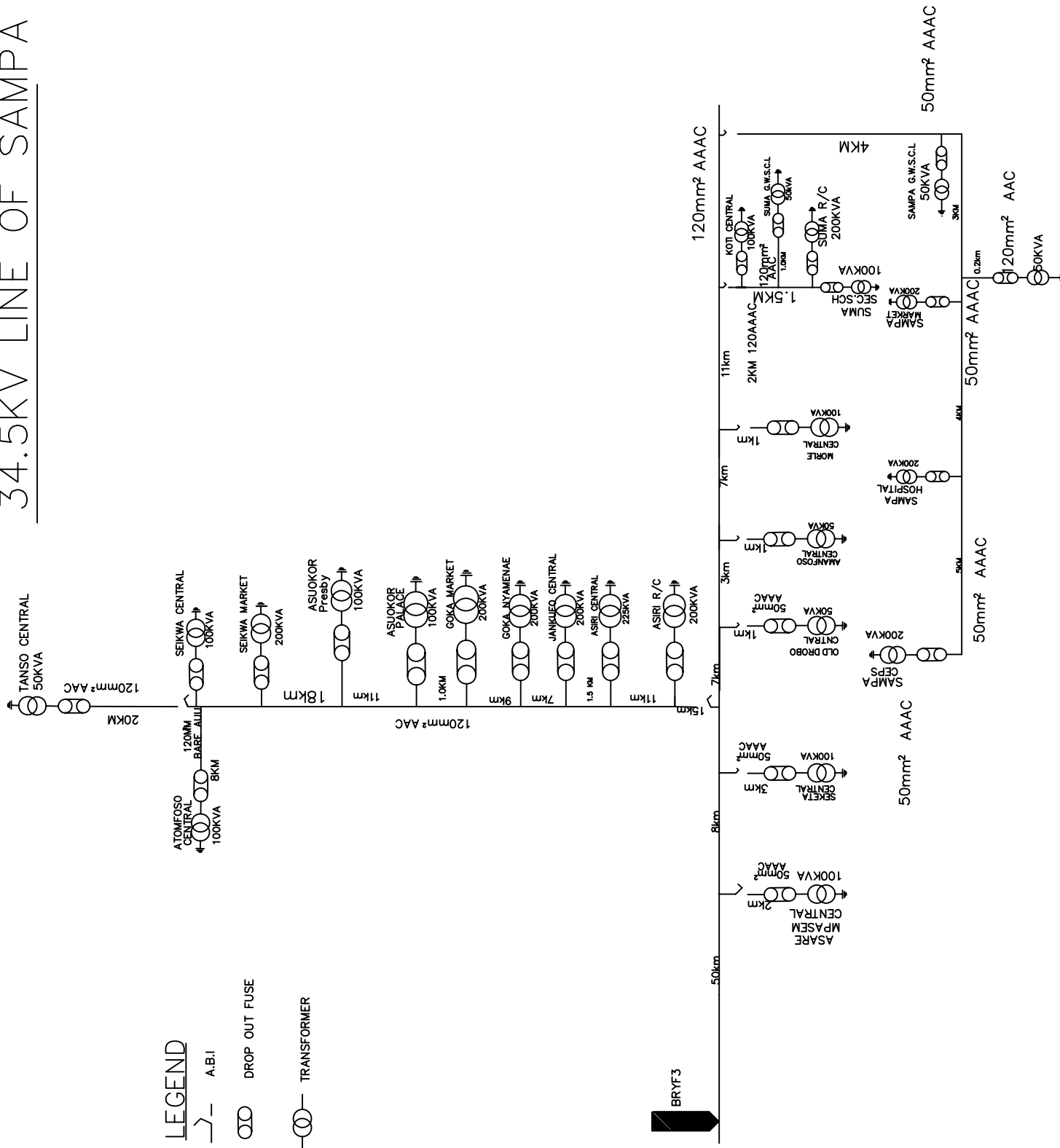
34.5kV TOWER LINE

34.5kV WOOD POLE LINE

TRANSFORMER DROPOUT FUSE

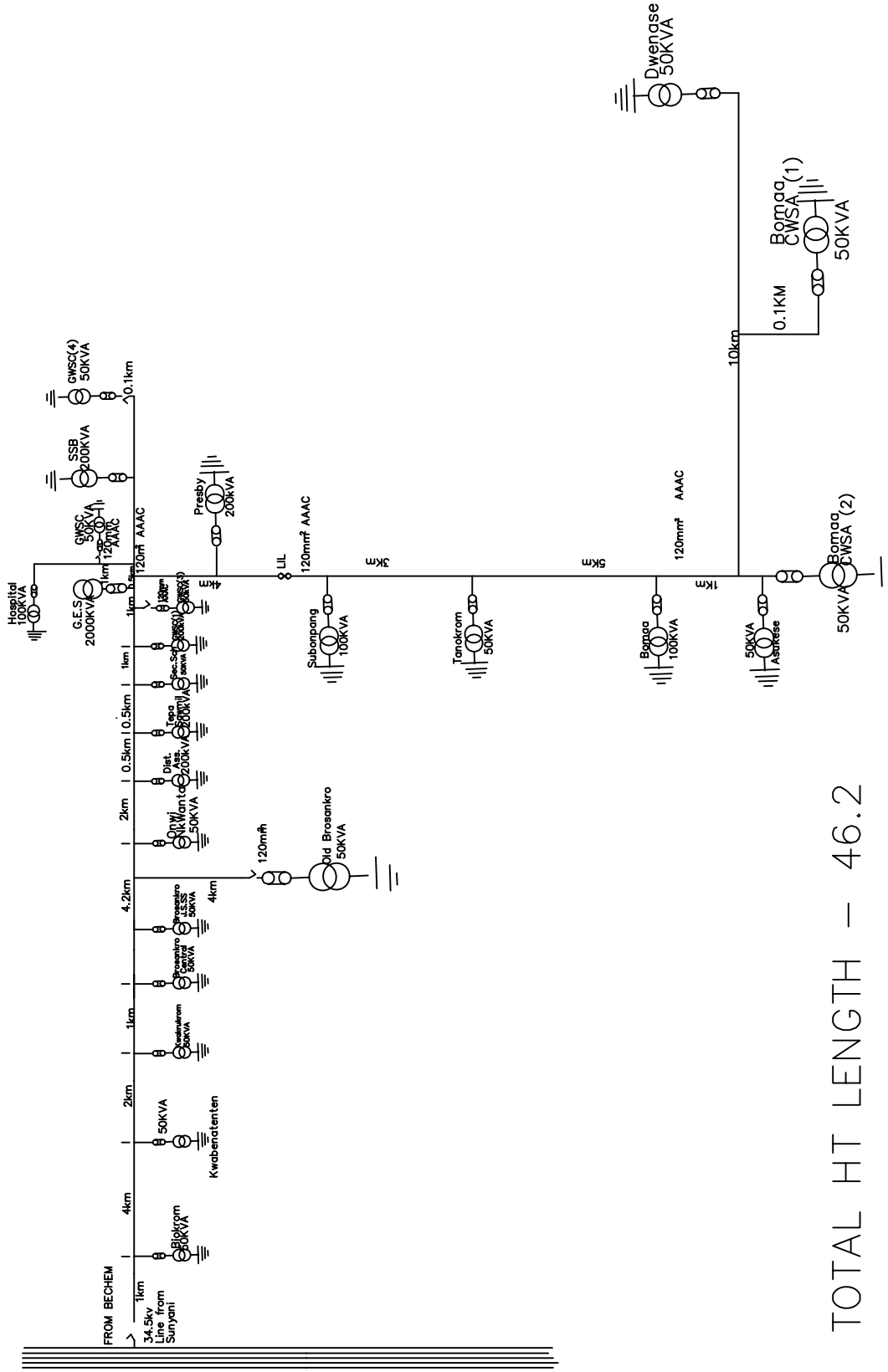


# 34.5KV LINE OF SAMPA





# HIGH TENSION LINE DIAGRAM FOR TEPA OPERATIONAL STATION

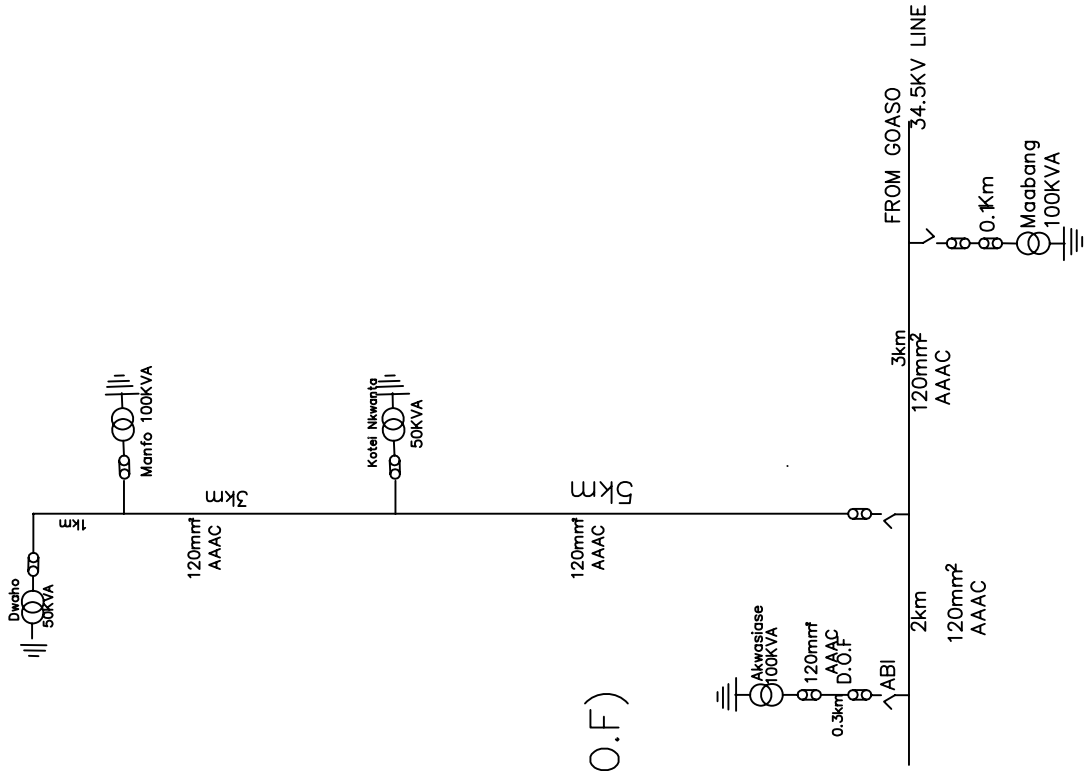


## LEGEND

- ⊖ Transformer
- Air Break Isolator (ABI)
- ∞ Drop Out Fuse (D.O.F)
- ∞ Line Isolating Link (LIL)

TOTAL HT LENGTH – 46.2

# HT LINE DIAGRAM FOR TEPA OPERATIONAL ST



## LEGEND

—○— Transformer

↘- ABI

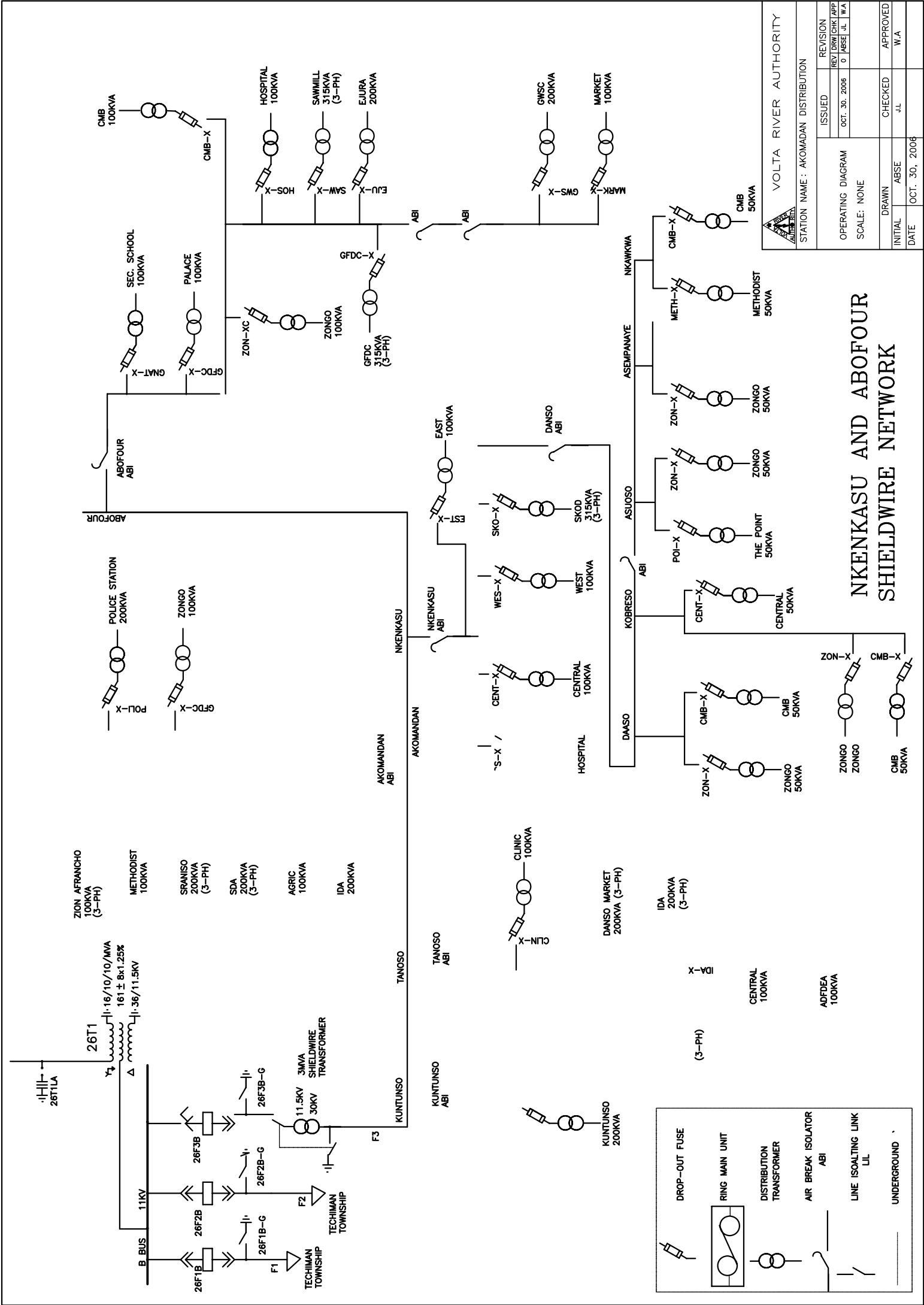
∞ Drop Out Fuse (D.O.F)

∞ LIL

TOTAL HT LENGTH - 14.4

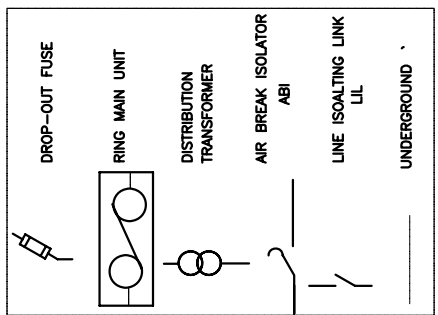
Single Line Diagram

Techiman

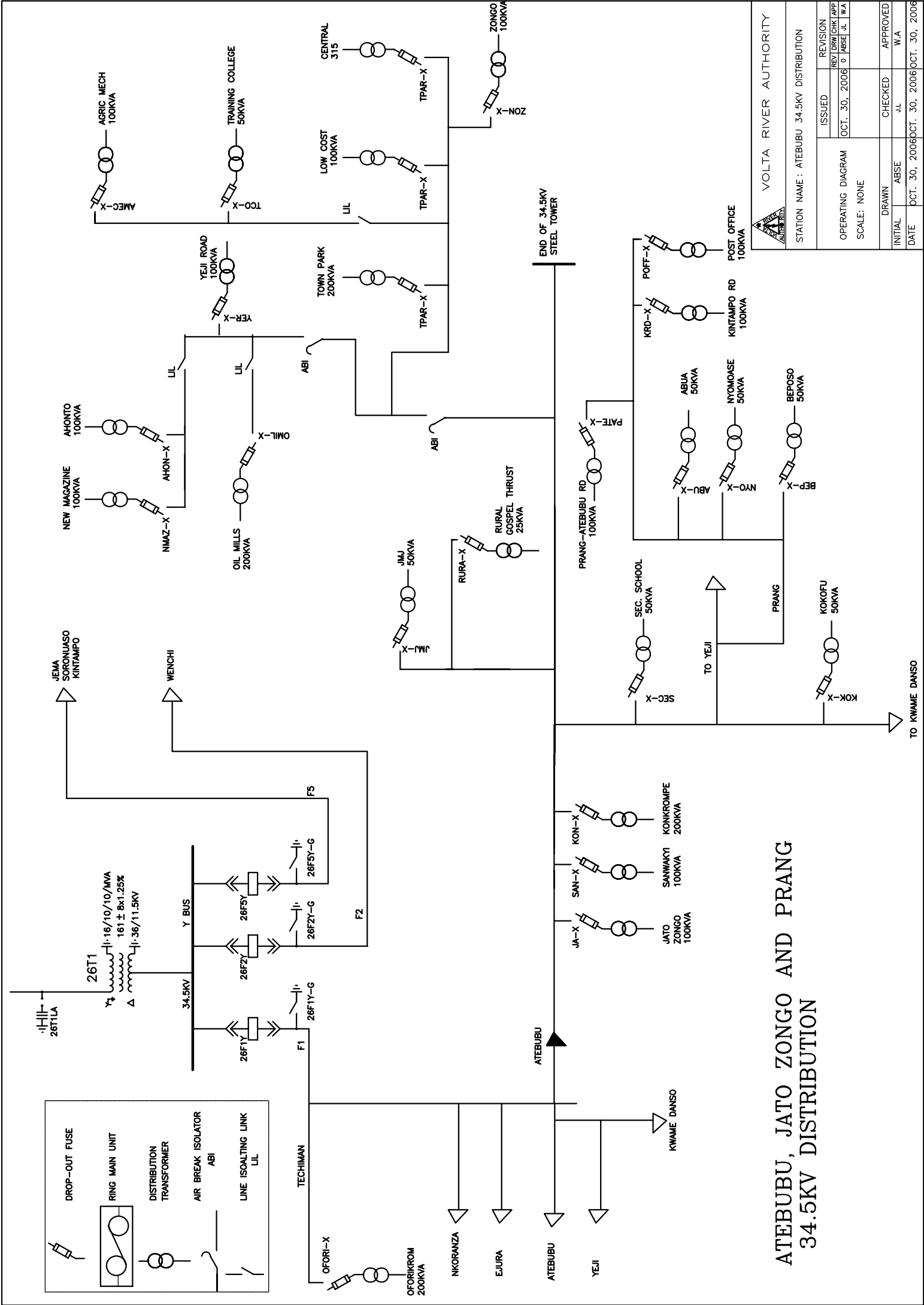


		VOLTA RIVER AUTHORITY	
		STATION NAME : AKOMANDAN DISTRIBUTION	
ISSUED	REVISION	REST DRW/CRK/APP	
OPERATING DIAGRAM	OCT. 30. 2006	0	MBSF JL 1 WA
SCALE: NONE		CHECKED	APPROVED
DRAWN	ABSE	J.L.	W.A.
DATE	OCT. 30. 2006		

# NKENKASU AND ABOFOUR SHIELDWIRE NETWORK







**VOLTA RIVER AUTHORITY**

STATION NAME : ATEBUBU 34.5KV DISTRIBUTION

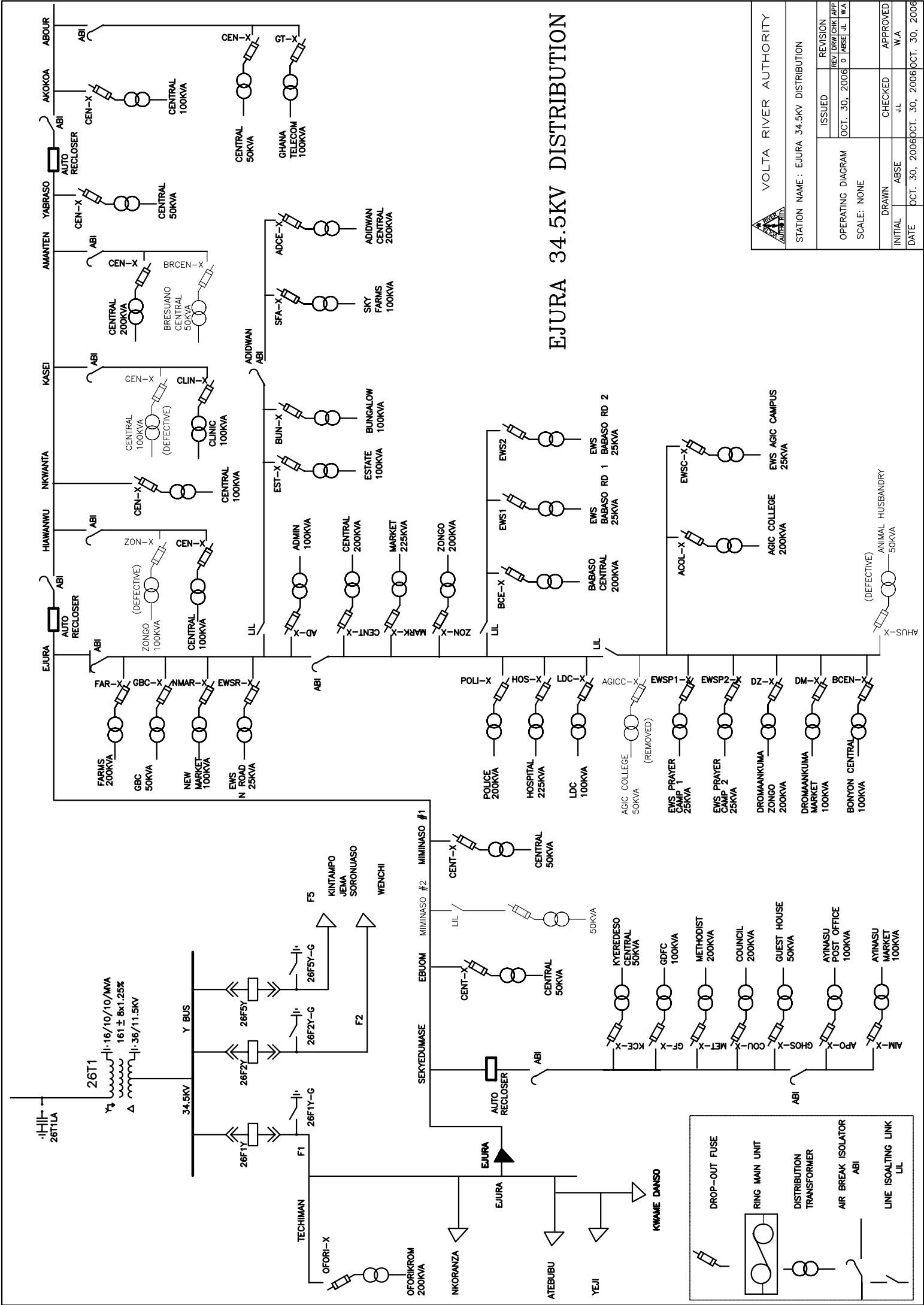
ISSUED	REVISION
OCT. 30, 2006	REV'DR/CRK/APP
	0 / MSF JL / WA

OPERATING DIAGRAM  
SCALE: NONE

INITIAL	DRAWN	CHECKED	APPROVED
	ABSE	JL	W.A

DATE OCT. 30, 2006 OCT. 30, 2006

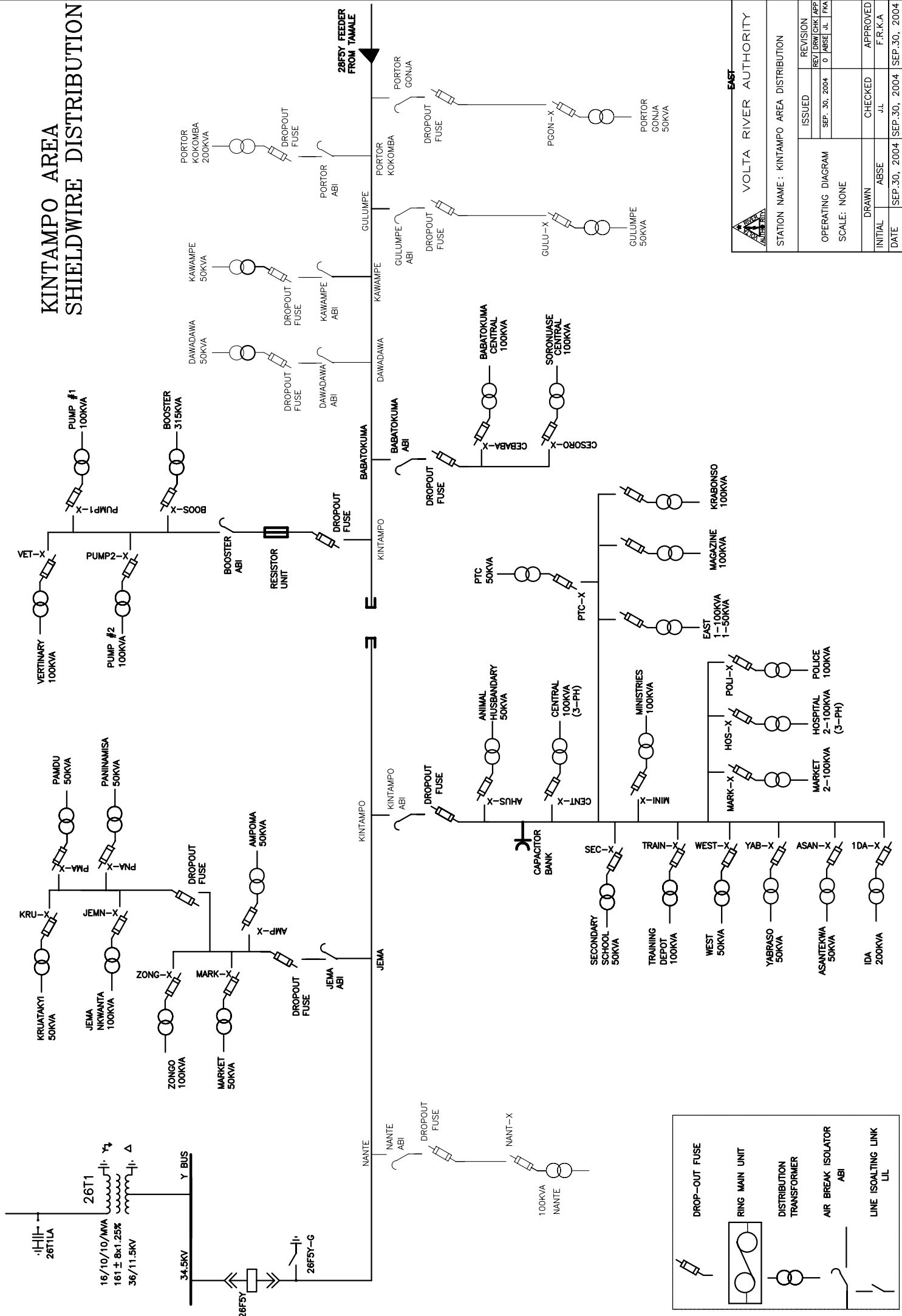
## ATEBUBU, JATO ZONGO AND PRANG 34.5KV DISTRIBUTION



# EJURA 34.5KV DISTRIBUTION

		VOLTA RIVER AUTHORITY	
		STATION NAME : EJURA 34.5KV DISTRIBUTION	
ISSUED	REVISION	OPERATING DIAGRAM SCALE: NONE	
OCT. 30, 2006	REST/DRAW/CHK/APP 0/MSB/JL/1/WA		
INITIAL	DRAWN	CHECKED	APPROVED
DATE	OCT. 30, 2006	DATE	OCT. 30, 2006

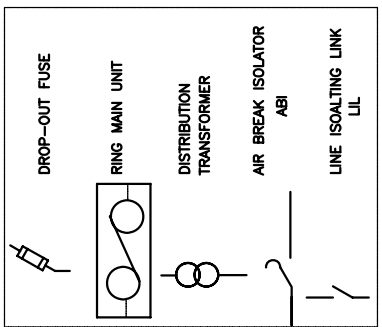
# KINTAMPO AREA SHIELDWIRE DISTRIBUTION

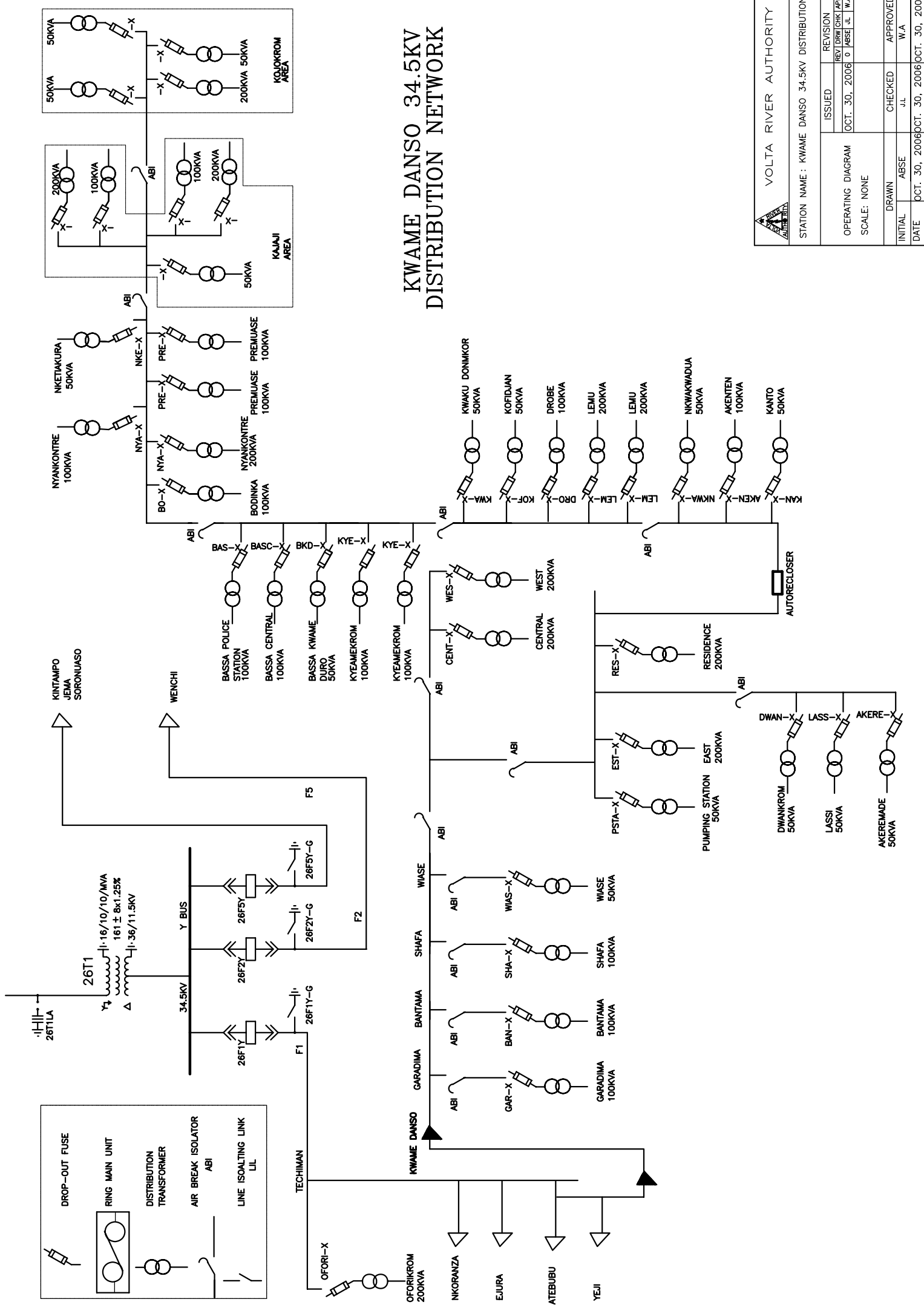


**EAST**  
VOLTA RIVER AUTHORITY

STATION NAME : KINTAMPO AREA DISTRIBUTION

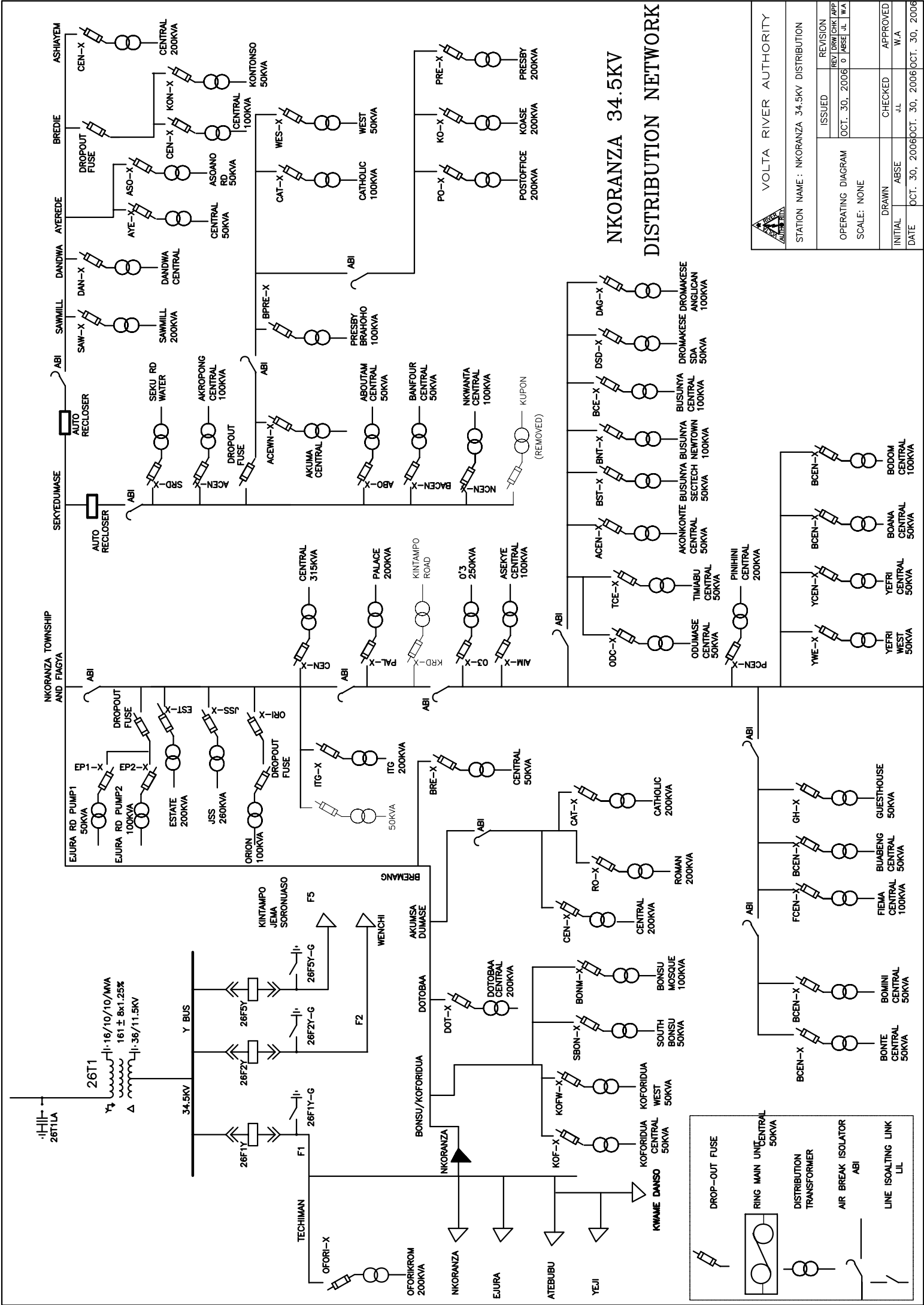
ISSUED		REVISION	
OPERATING DIAGRAM	SEP. 30, 2004	REV. 01	REV. 01
SCALE: NONE			
DRAWN	ABSE	CHECKED	J.L.
DATE	SEP. 30, 2004	APPROVED	F.R.K.A
	SEP. 30, 2004		SEP. 30, 2004





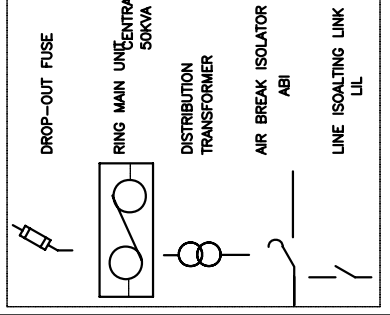
# KWAME DANSO 34.5KV DISTRIBUTION NETWORK

VOLTA RIVER AUTHORITY	
STATION NAME : KWAME DANSO 34.5KV DISTRIBUTION	
ISSUED	REVISION
OCT. 30, 2006	REV. DRW. CRK. APP. JMSF. JL. TWA
OPERATING DIAGRAM	
SCALE: NONE	
DRAWN	CHECKED
ABSE	J.L.
INITIAL	APPROVED
DATE	W.A.
OCT. 30, 2006	OCT. 30, 2006

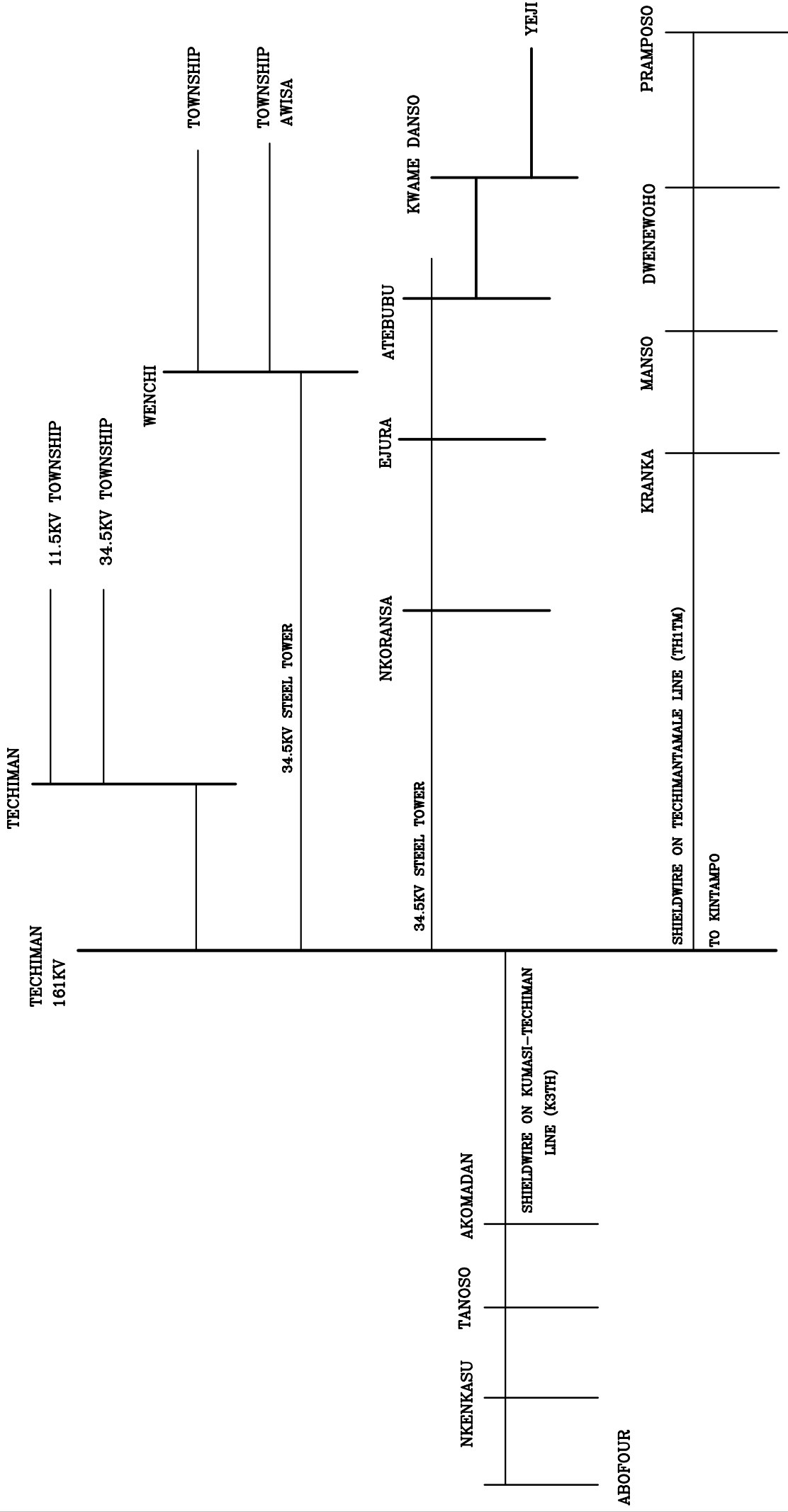


# NKORANZA 34.5KV DISTRIBUTION NETWORK

<b>VOLTA RIVER AUTHORITY</b>	
STATION NAME : NKORANZA 34.5KV DISTRIBUTION	
ISSUED	REVISION
OCT. 30, 2006	REV. DRAW. CRK. APP. JMS. J. L. WA.
OPERATING DIAGRAM	
SCALE: NONE	
DRAWN	CHECKED
ABSE	J.L.
INITIAL	APPROVED
ABSE	W.A.
DATE	DATE
OCT. 30, 2006	OCT. 30, 2006

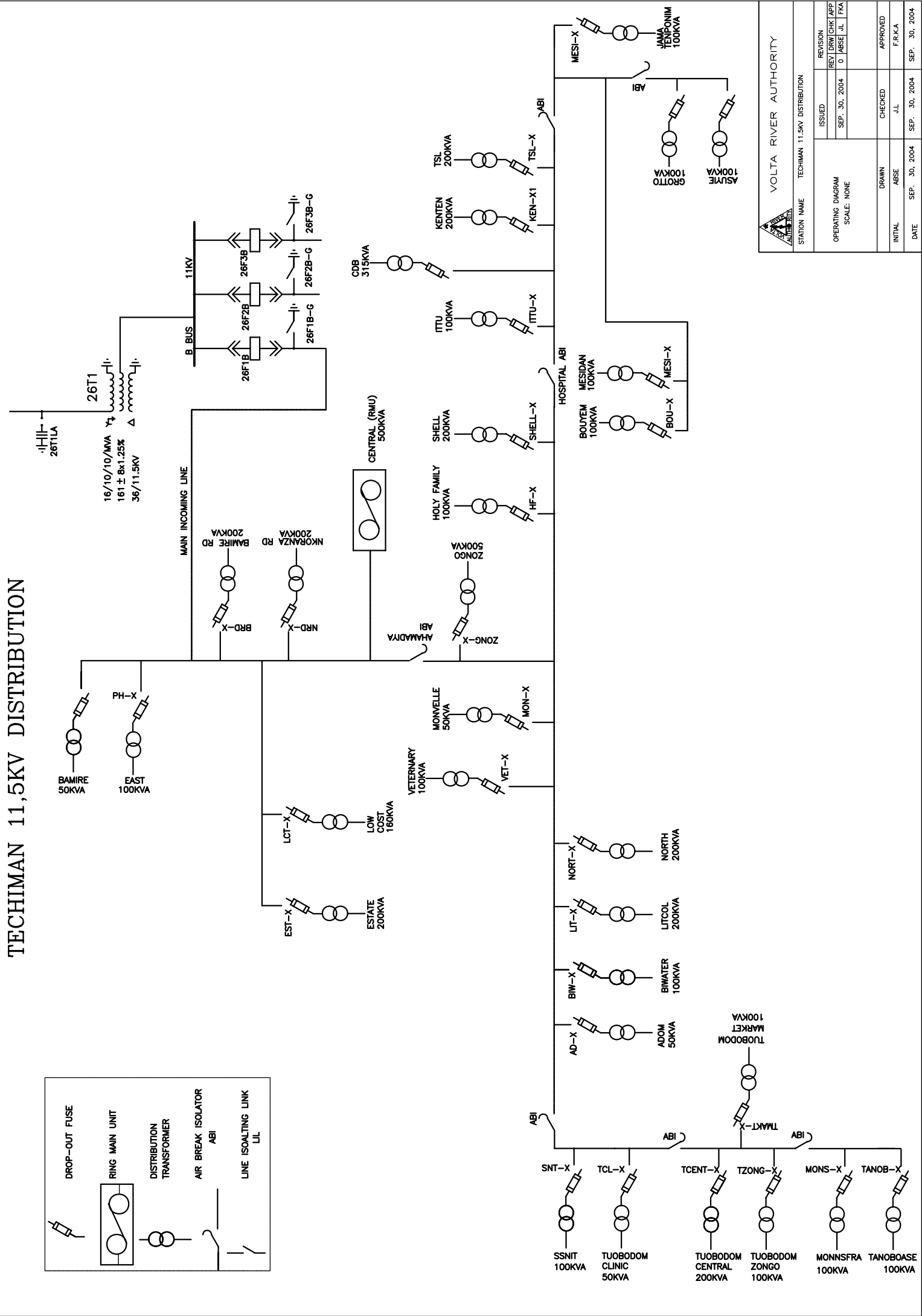


# VOLTA RIVER AUTHORITY

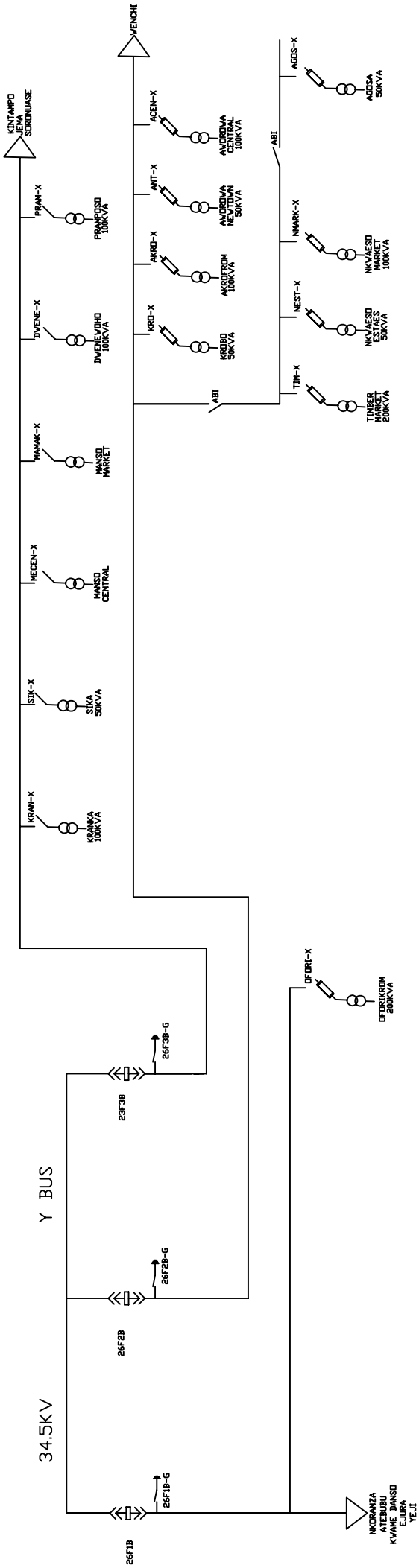


TECHIMAN AREA DISTRIBUTION NETWORK

# TECHIMAN 11,5KV DISTRIBUTION



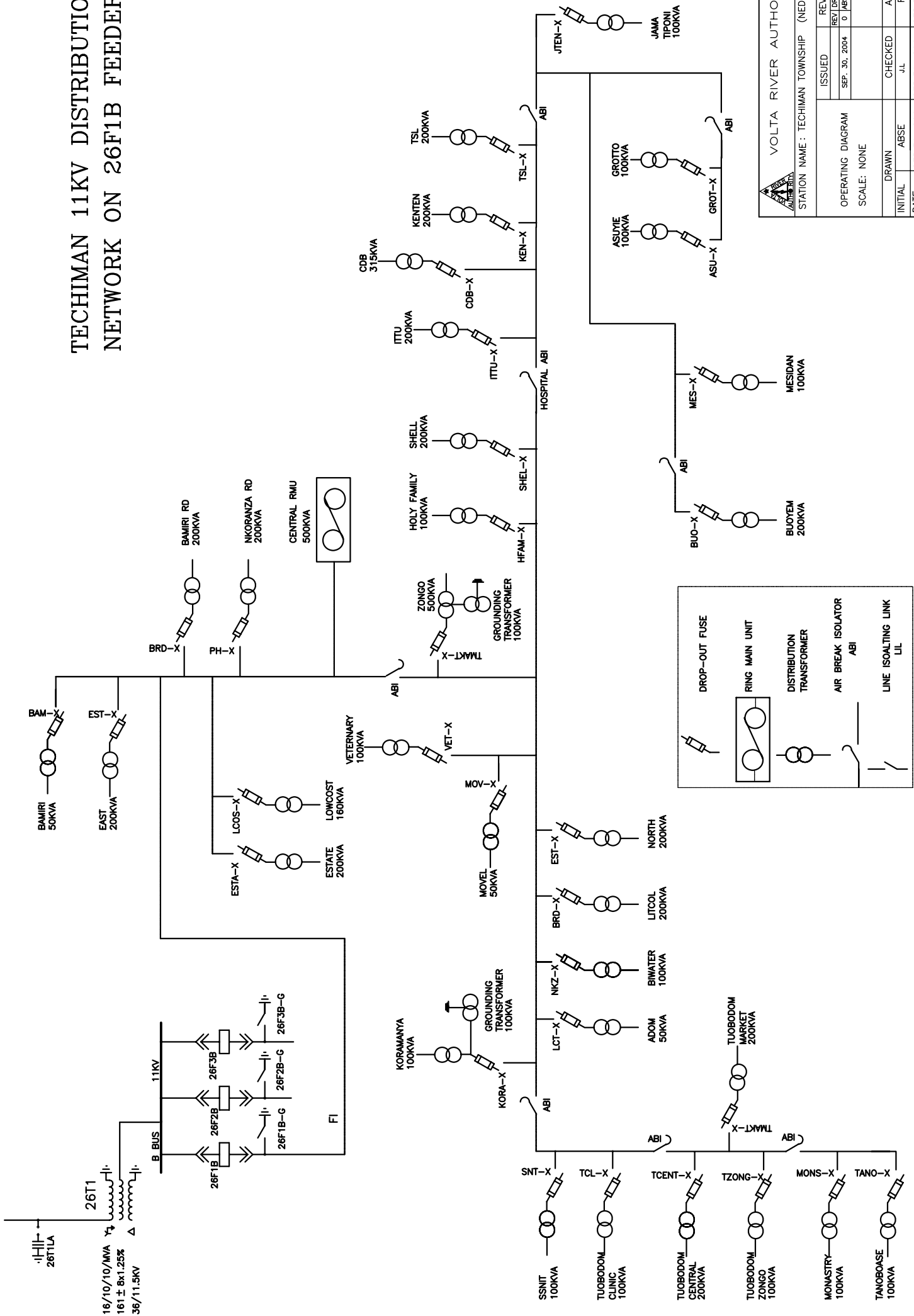
		STATION NAME		TECHIMAN 11.5KV DISTRIBUTION	
		ISSUED		REVISED	
OPERATING DIAGRAM		SCALE: NONE		DRAWN	
DATE		SEP. 30, 2004		CHECKED	
INITIAL		ABSE		APPROVED	
DATE		SEP. 30, 2004		F.R.K.A	
DATE		SEP. 30, 2004		SEP. 30, 2004	



VOLTA RIVER AUTHORITY \				NORTHERN ELECTRICITY DEPARTMENT.	
TECHIMAN				34.5KV NETWORK DIAGRAM	
2006					
NO	DATE	REVISION	APP	APP	APP
THIS DRAWING IS THE PROPERTY OF VOLTA RIVER AUTHORITY/AND IS NOT TO BE COPIED OR USED WITHOUT ITS WRITTEN PERMISSION.			APPROVED BY TECHNICAL MANAGER		
			DATE		
SCALE	NONE	DWG.	002	SHT.	1 OF 1
REV					

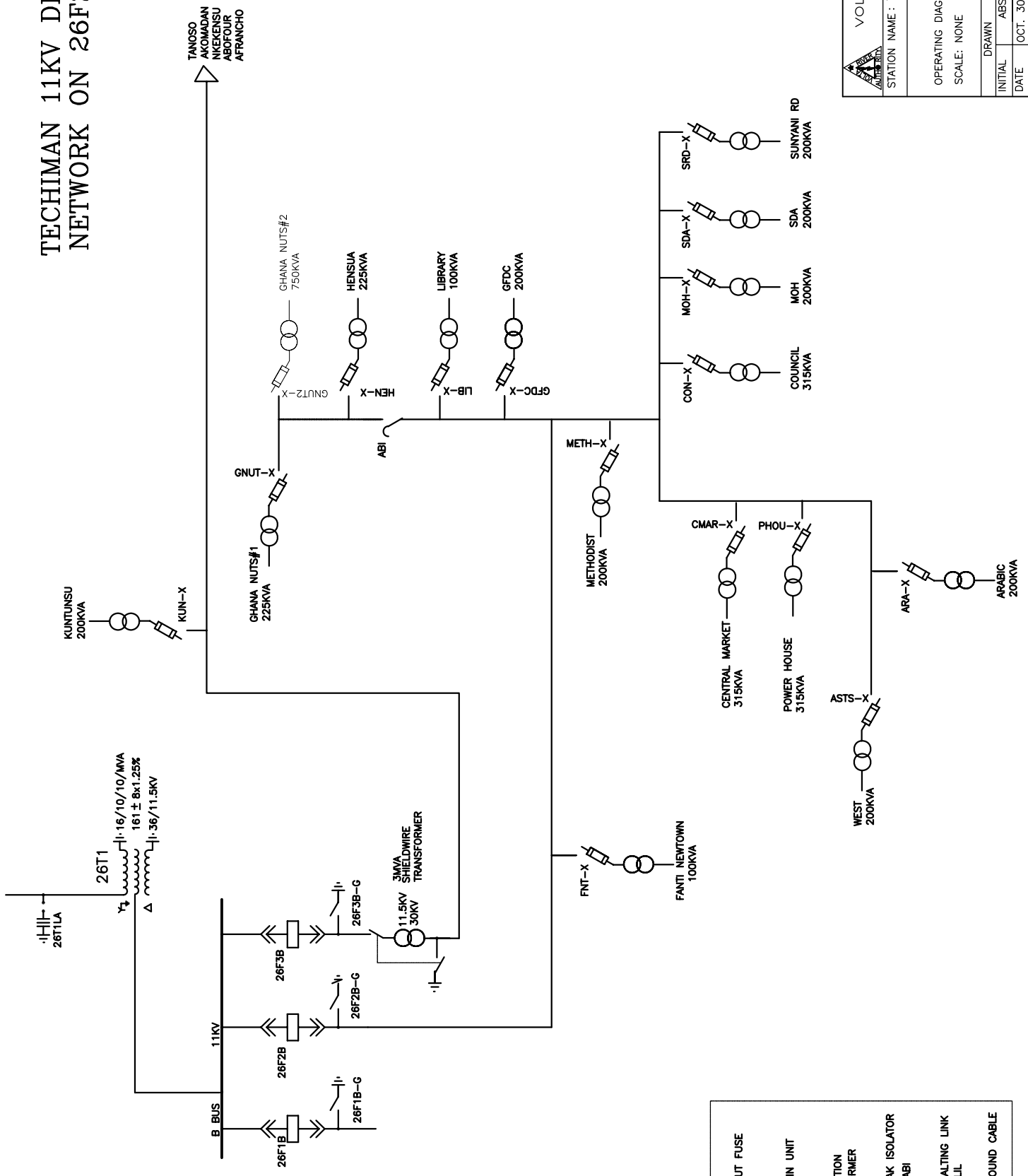


# TECHIMAN 11KV DISTRIBUTION NETWORK ON 26F1B FEEDER

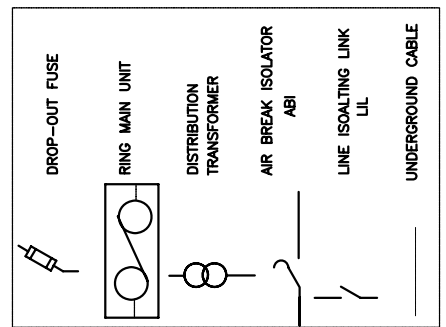


VOLTA RIVER AUTHORITY	
STATION NAME : TECHIMAN TOWNSHIP (NED)	
ISSUED	REVISION
SEP. 30, 2004	REV. DRAW/CHK/APP
	0 / MESH/ JL / FKA
OPERATING DIAGRAM	
SCALE: NONE	
DRAWN	CHECKED
ABSE	JL
APPROVED	F.R.K.A
DATE	SEP. 30, 2004
	SEP. 30, 2004

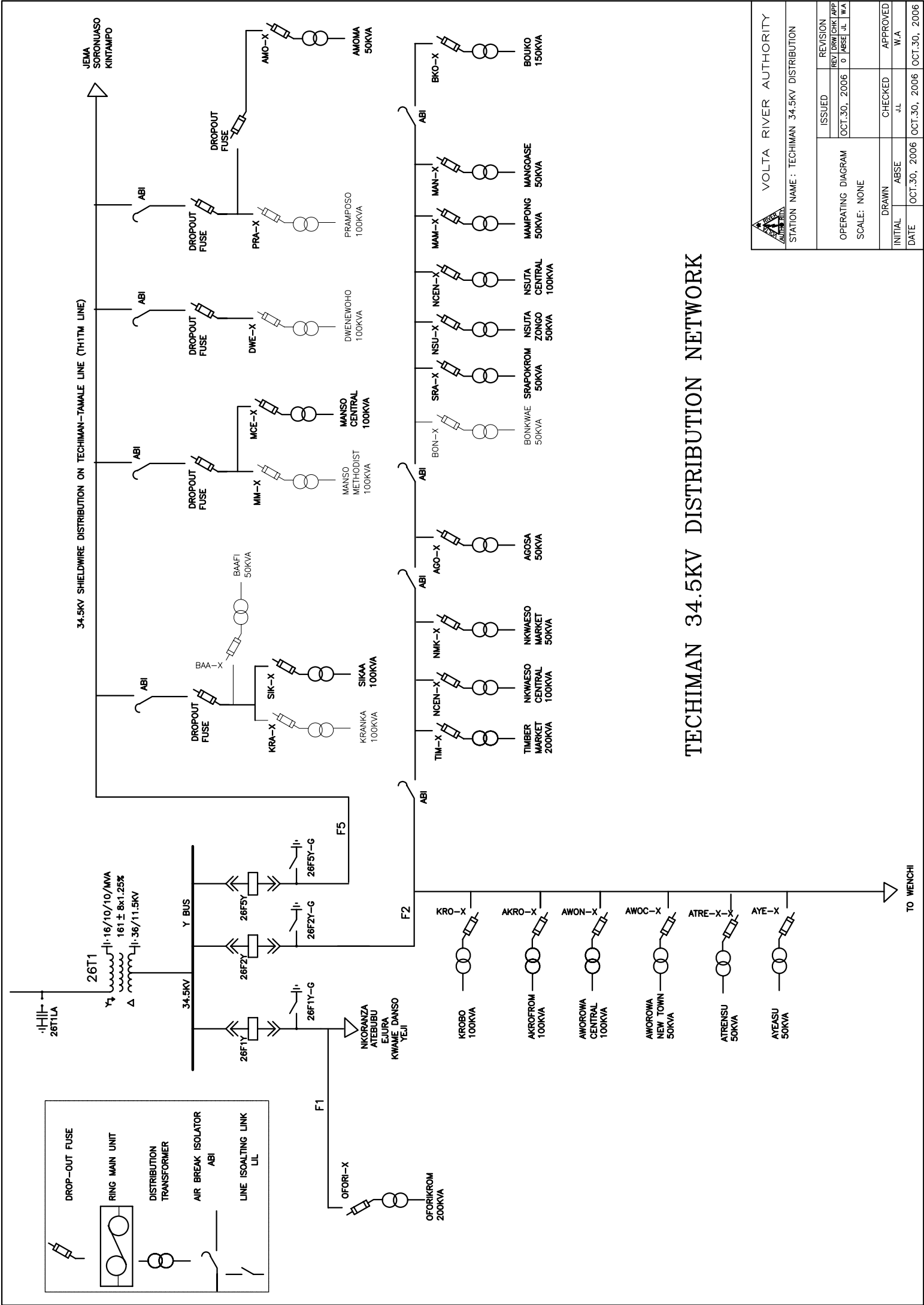
# TECHIMAN 11KV DISTRIBUTION NETWORK ON 26F2B FEEDER



TANDOSO  
AKOMADAN  
NKEKENSU  
ABOFLOUR  
AFRANCHO



VOLTA RIVER AUTHORITY	
STATION NAME : TECHIMAN 11.5KV DISTRIBUTION ON 26F2B	
ISSUED	REVISION
OCT. 30. 2006	REV'DRAW/CORR/APP D/ABSE/JL/WA
OPERATING DIAGRAM	
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DRAWN	CHECKED
ABSE	JL
INITIAL	APPROVED
DATE	W.A
OCT. 30. 2006	OCT. 30. 2006

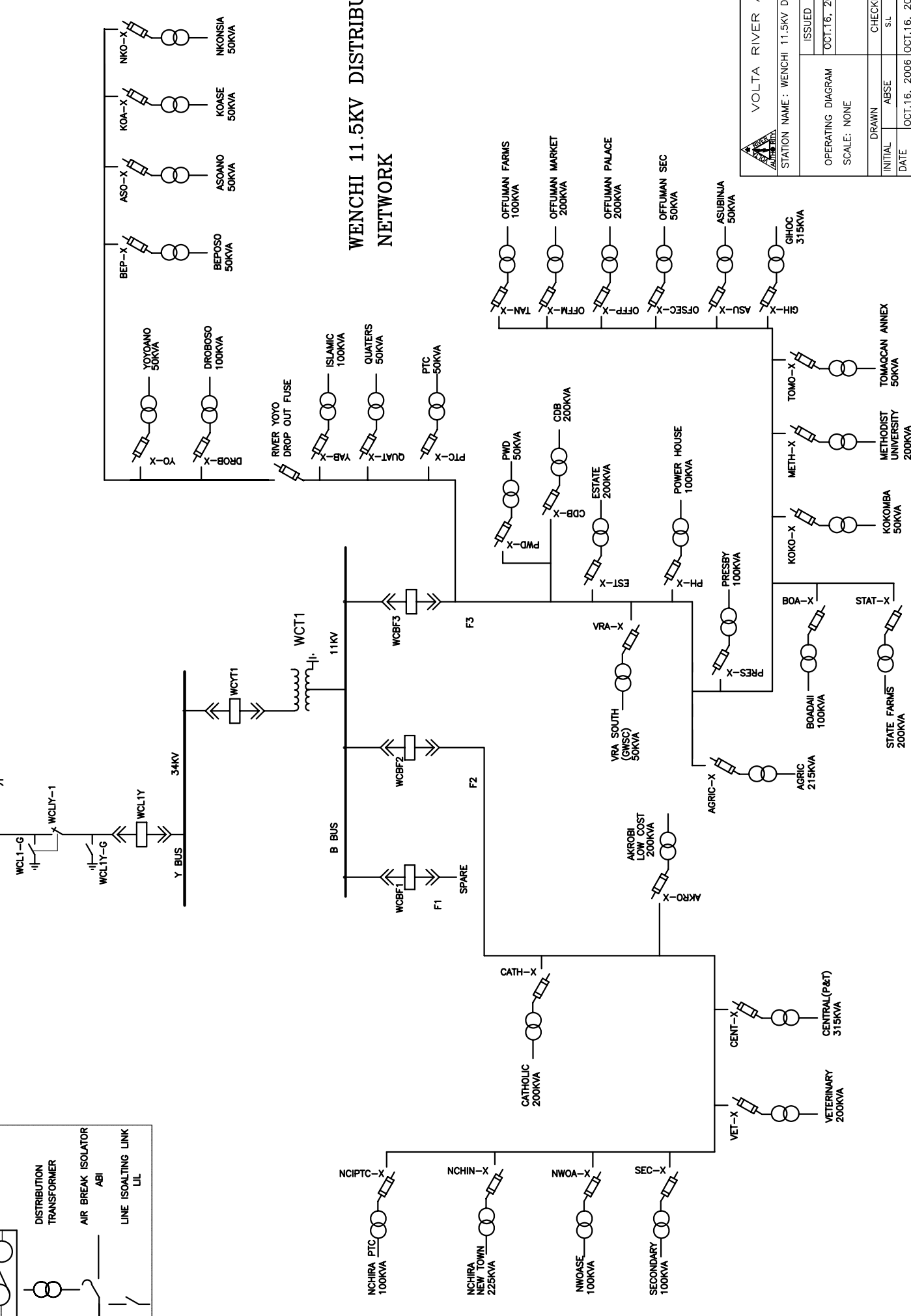
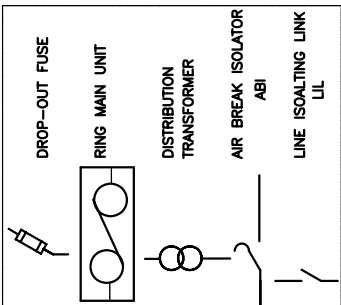


# TECHIMAN 34.5KV DISTRIBUTION NETWORK

VOLTA RIVER AUTHORITY	
STATION NAME : TECHIMAN 34.5KV DISTRIBUTION	
ISSUED OCT.30, 2006	REVISION REV'DRAWN/CORR/APP D/MSB/JL/WA
OPERATING DIAGRAM SCALE: NONE	
DRAWN ABSE	CHECKED J.L.
DATE OCT.30, 2006	APPROVED W.A.
OCT.30, 2006	



34KV FEEDER LINE FROM TECHIMAN TO WENCHI (26F2Y)

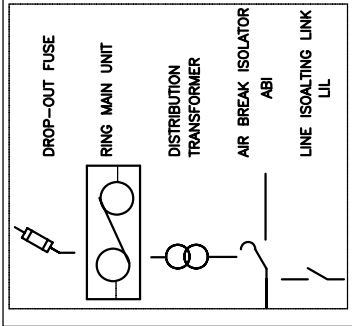
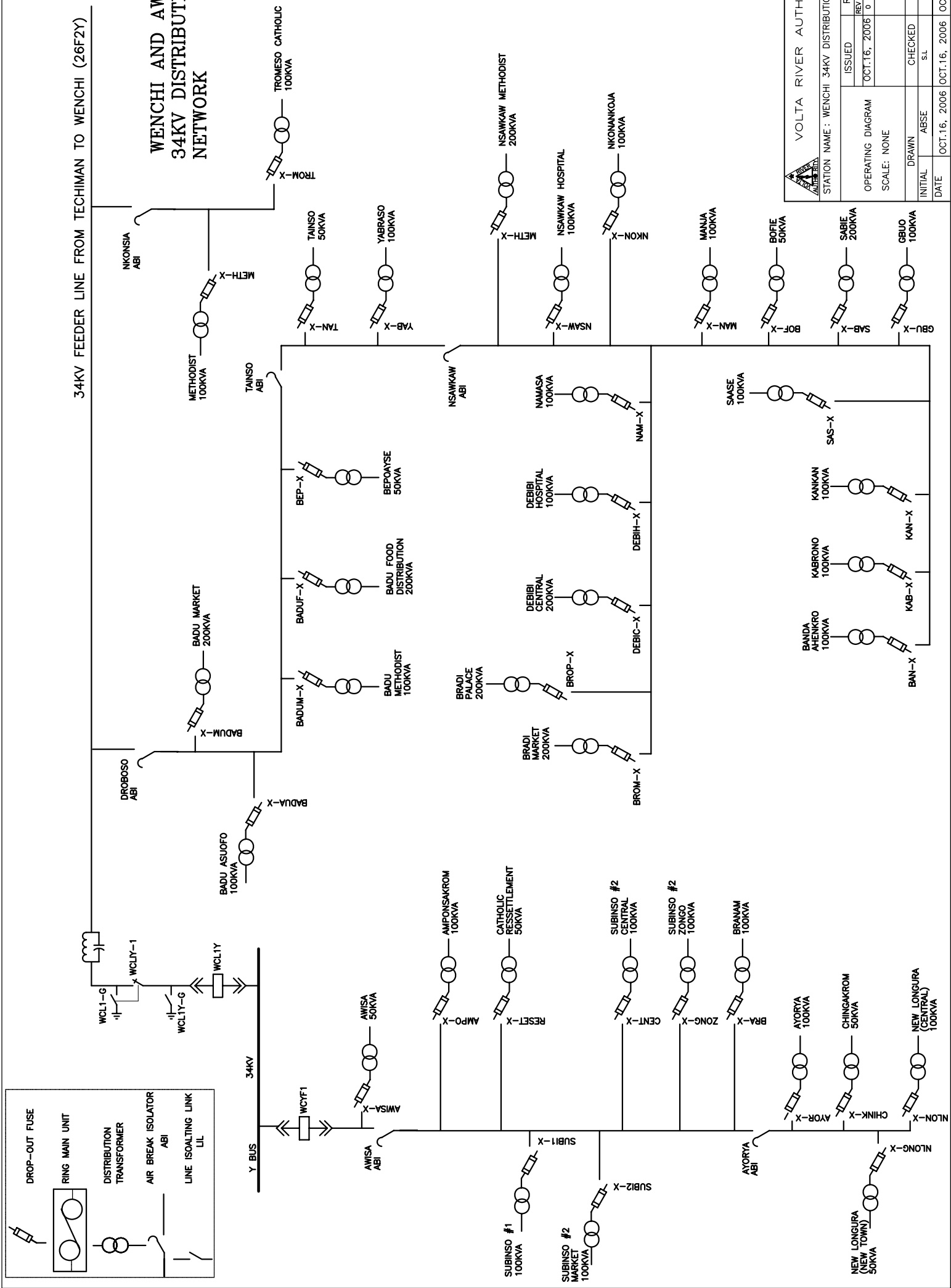


WENCHI 11.5KV DISTRIBUTION NETWORK

		VOLTA RIVER AUTHORITY	
		STATION NAME : WENCHI 11.5KV DISTRIBUTION	
ISSUED	REVISION		
OCT.16, 2006	REV'DRW/CRK/APP		
OPERATING DIAGRAM		SCALE: NONE	
DRAWN		CHECKED	APPROVED
INITIAL	ABSE	S.L	W.A
DATE	OCT.16, 2006	OCT.16, 2006	OCT.16, 2006

34KV FEEDER LINE FROM TECHIMAN TO WENCHI (26FY)

# WENCHI AND AWISA 34KV DISTRIBUTION NETWORK



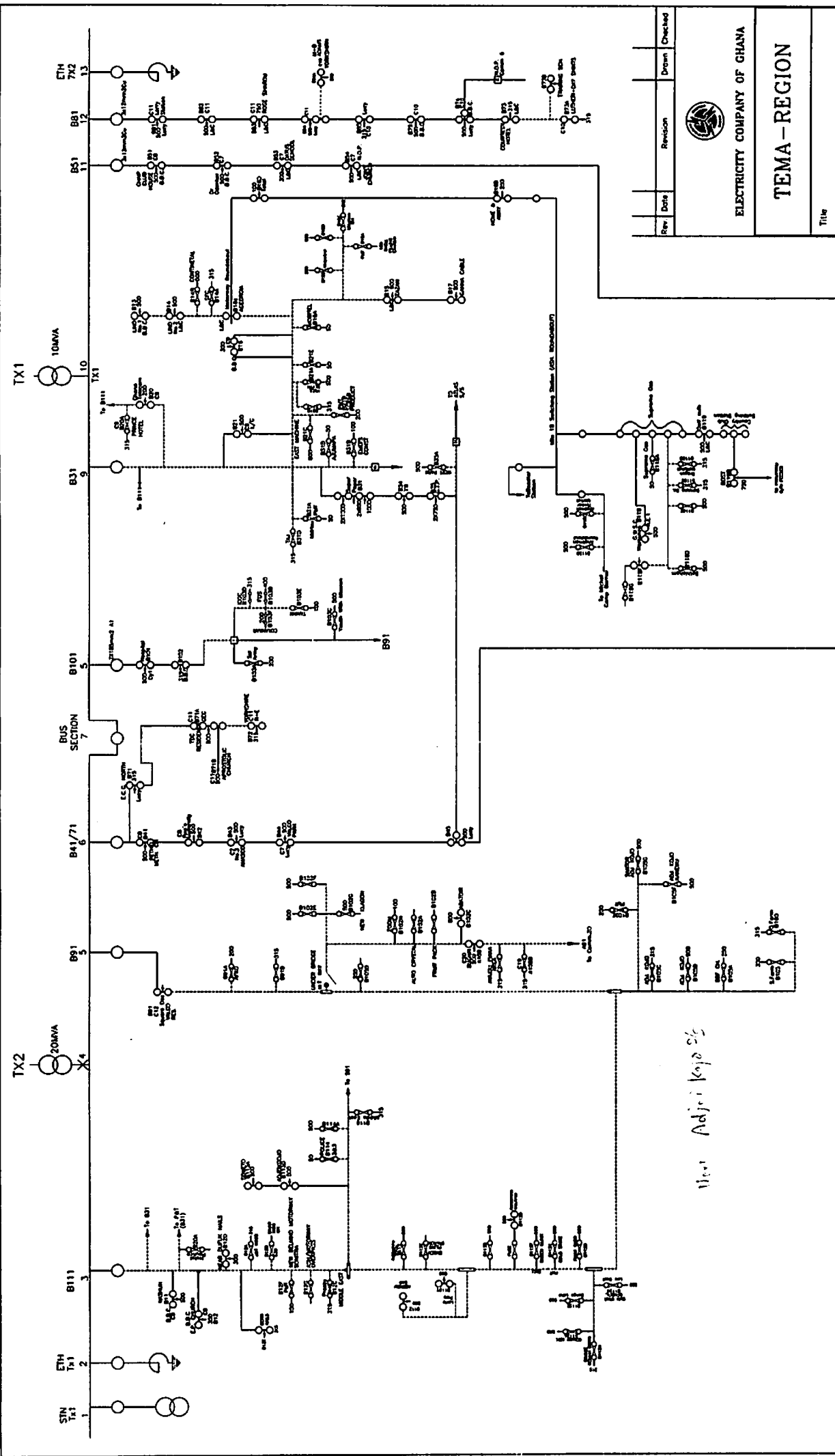
		VOLTA RIVER AUTHORITY	
		STATION NAME : WENCHI 34KV DISTRIBUTION	
OPERATING DIAGRAM	ISSUED	REVISION	
	OCT.16, 2006	RET DRW / CRK / APP	
SCALE: NONE	DRAWN	CHECKED	APPROVED
	ABSE	S.L	W.A
DATE	OCT.16, 2006	OCT.16, 2006	OCT.16, 2006

Single Line Diagram


Tema







Rev.	Date	Revision	Drawn	Checked

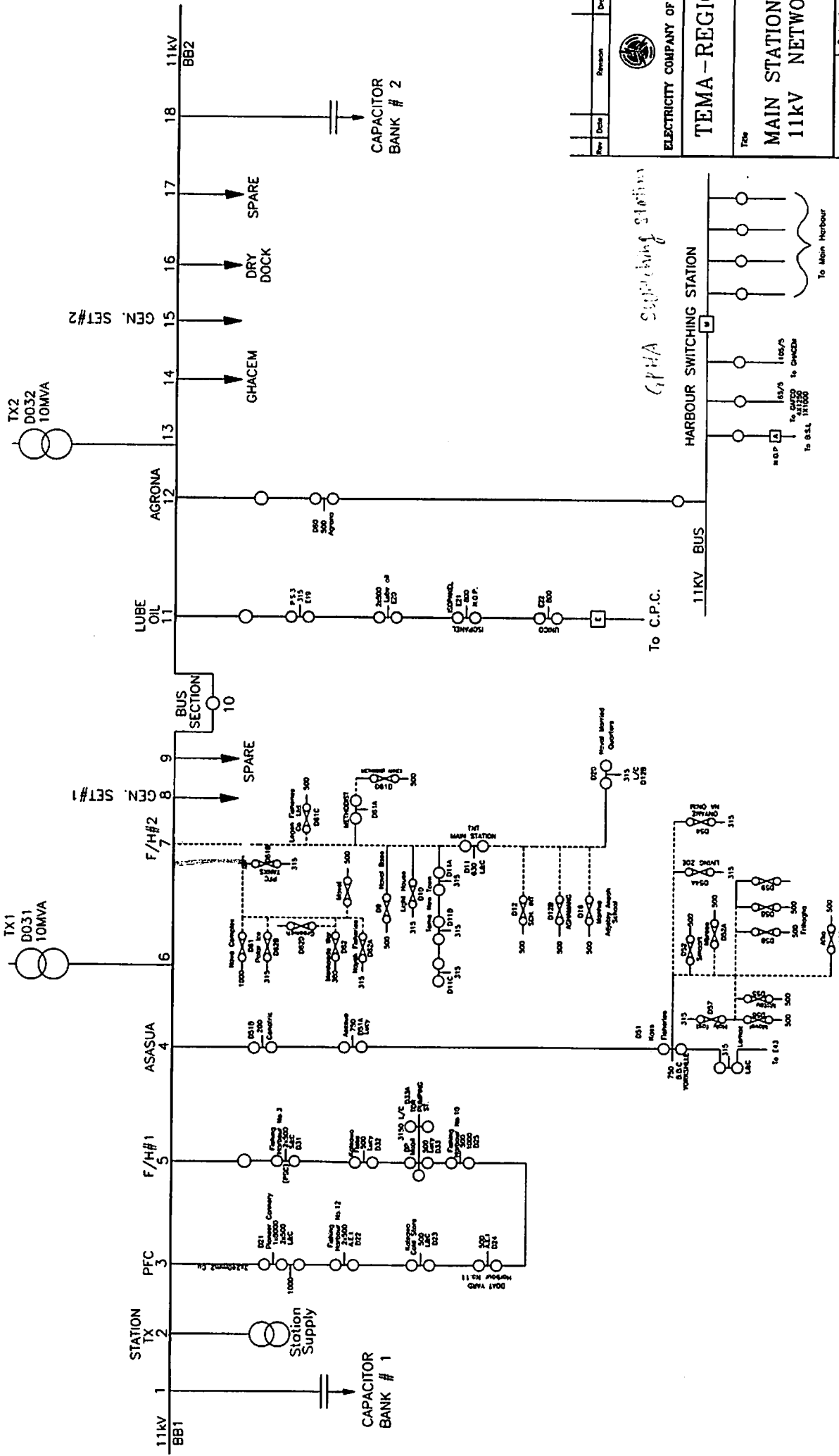
  
**ELECTRICITY COMPANY OF GHANA**

**TEMA - REGION**

Title  
**MAIN STATION 'B'**  
**11kV NETWORK**

Scale:	Not to Scale	Designed:	
Drawn:	DERRICK OWUSU	Checked:	D. Oklu
Date:	August, 2007	Approved:	Dr. Smart-Yeboah
Drawing No.:		Rev.:	

11kV Adjei Kpo 2/3



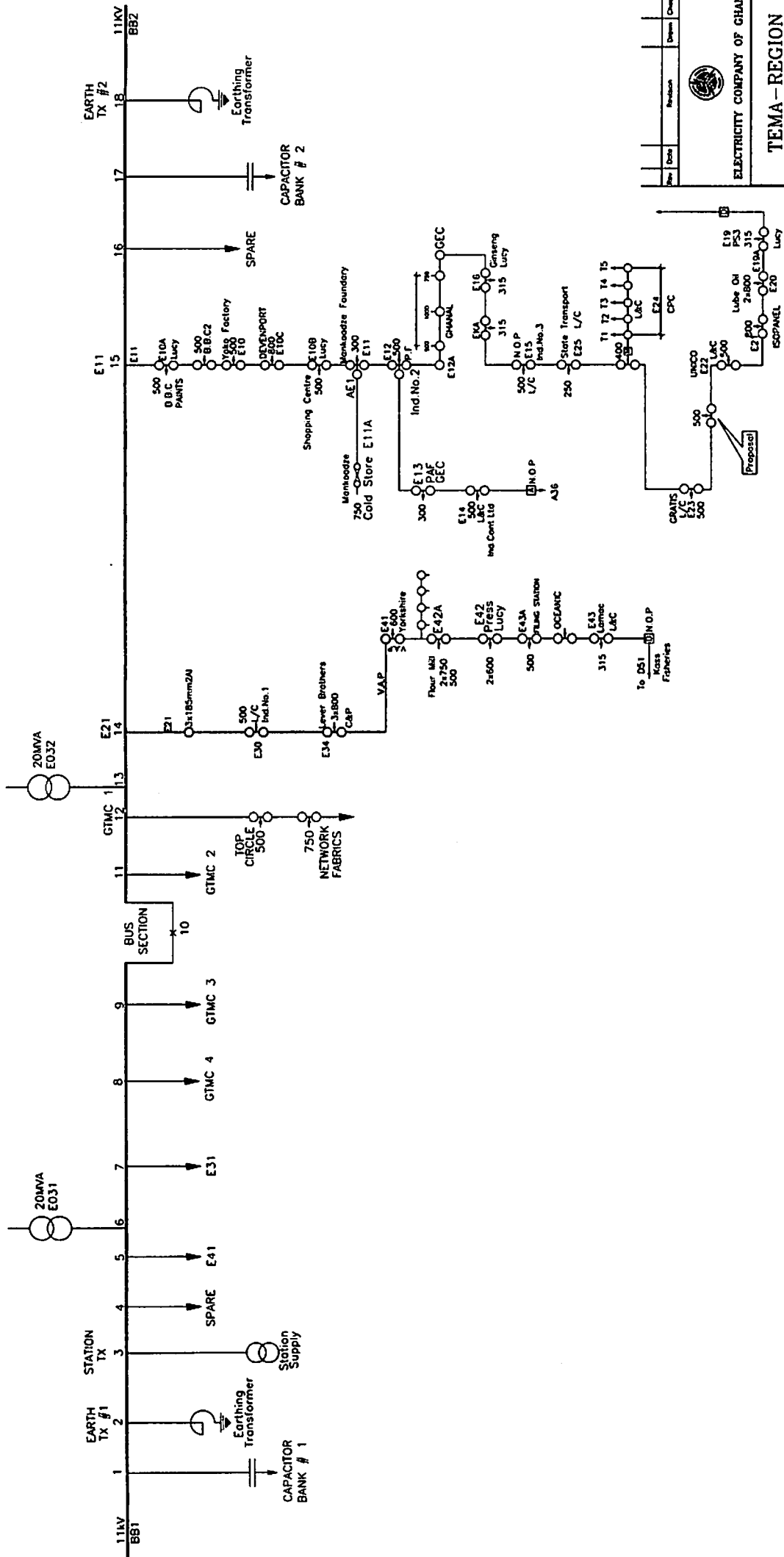
Rev	Date	Revision	Drawn	Checked

**ELECTRICITY COMPANY OF GHANA**

**TEMA - REGION**

**Title**  
**MAIN STATION 'D'**  
**11kV NETWORK**

Scale: Not to Scale	Designed: E. OCHIRE
Drawn: Derrick Osei	Checked: D. Odu
Date: August, 2007	Approved: Dr. Smart-Yeboah
Drawing No.:	Rev.:



No.	Date	Revision	Drawn	Checked

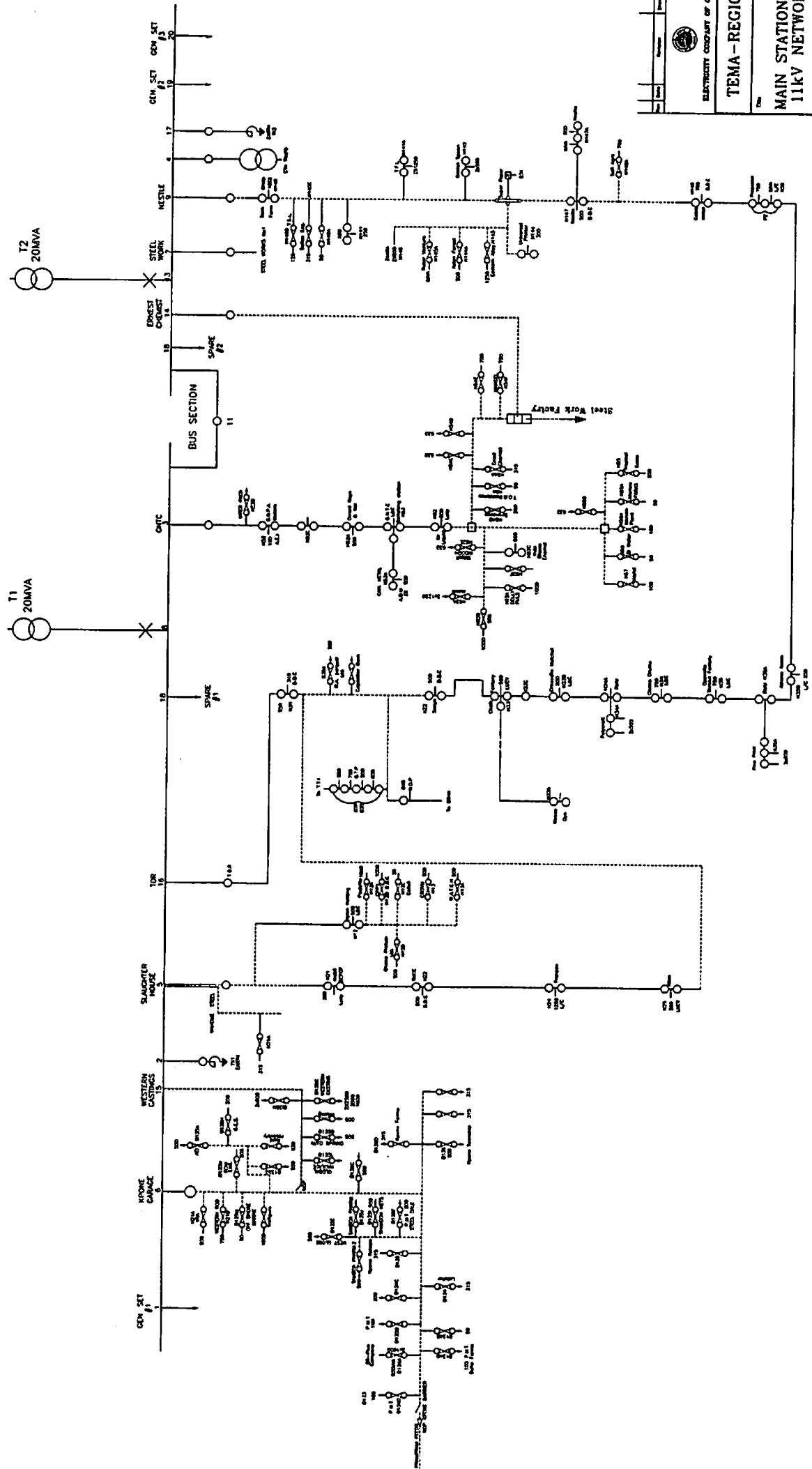
**ELECTRICITY COMPANY OF GHANA**

**TEMA - REGION**

**MAIN STATION 'E'**  
**11kV NETWORK**

Title

Scale	Not to Scale	Designed	Edward Ochieng
Drawn	Derrick Owusu	Checked	D. Oku
Date	August, 2007	Approved	Dr. Smart-Yeboah
Drawing No.			

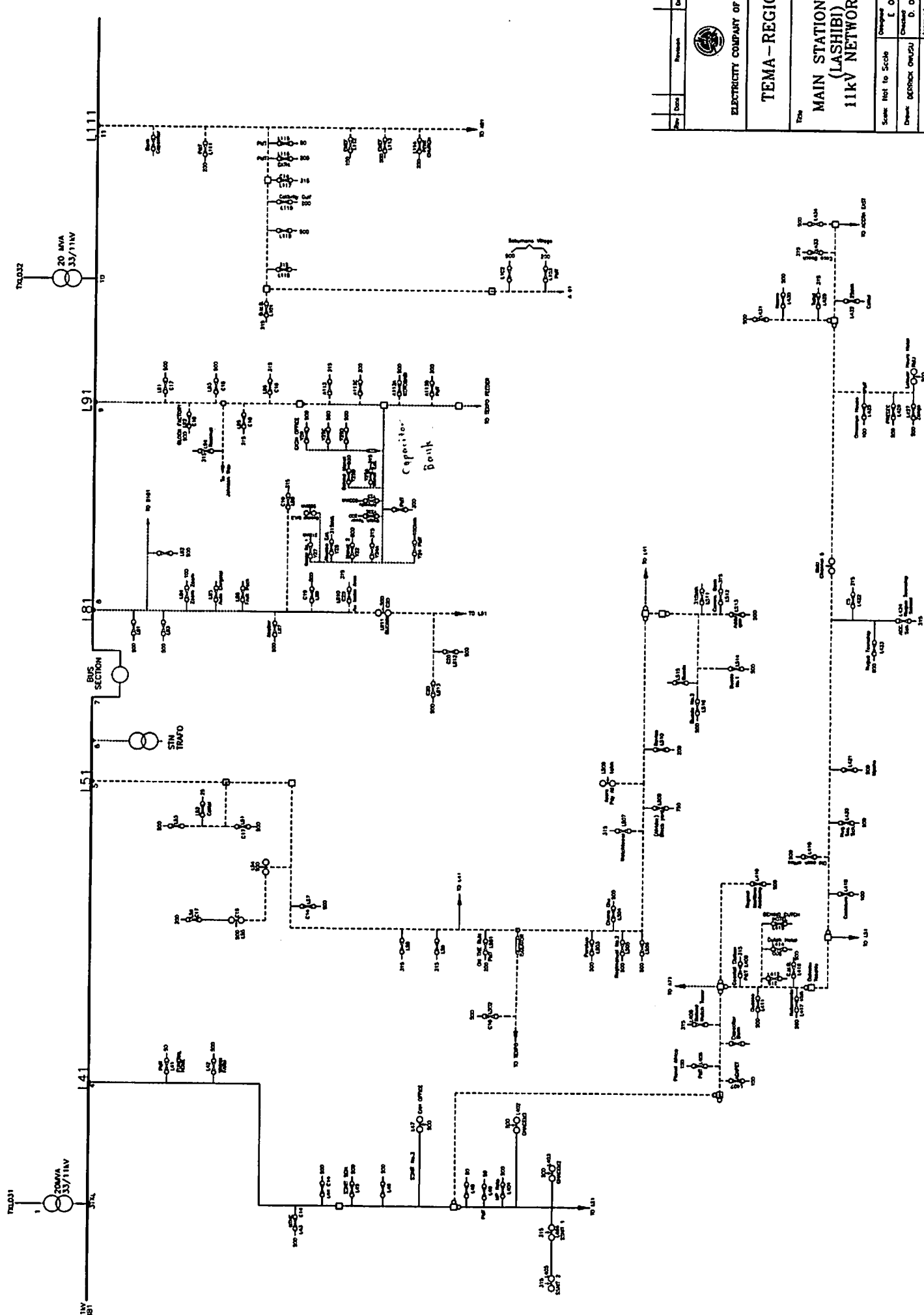


Rev.	Issued	By	Checked	Approved

ELECTRICITY COMPANY OF GUYANA  
**TEMA - REGION**  
**MAIN STATION 'H'**  
**11kV NETWORK**

Drawn	Checked	Approved

Date: 01 August, 2007  
 Scale: 1:1



Rev	Date	Revision	Drawn	Checked

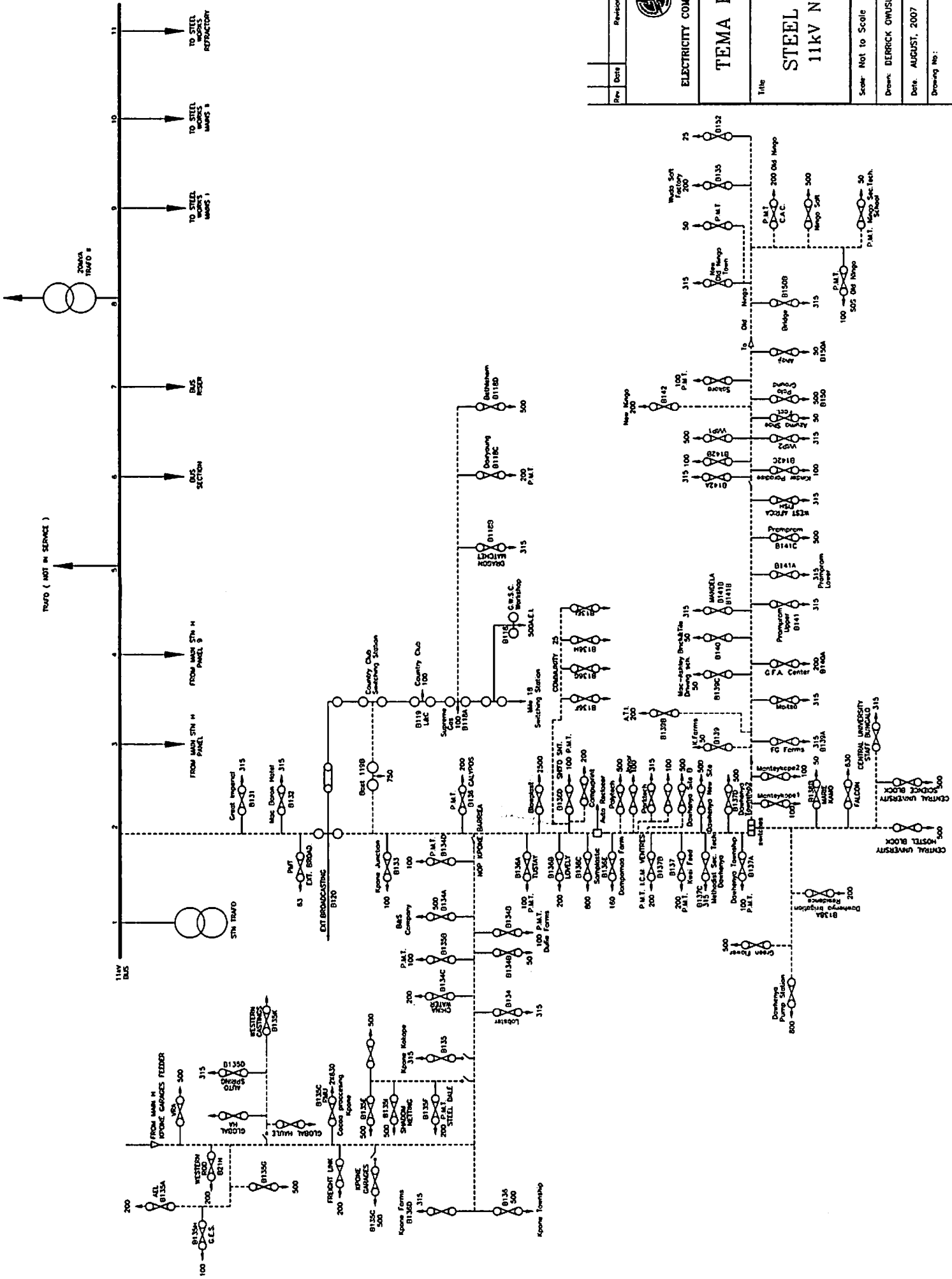
ELECTRICITY COMPANY OF GHANA

**TEMA - REGION**

**Main Station 'L' (LASHIBI) 11kV NETWORK**

Scale: Ref to Scale	Checked by: E. OCHOE
Drawn: DEBORAH OWUSU	Checked by: D. ODU
Date: AUGUST, 2007	Approved by: Dr. Smart-Teboach
Drawing No.:	Rev:





ELECTRICITY COMPANY OF GHANA

TEMA REGION

STEEL WORKS  
11KV NETWORK

Scale:	Not to Scale	Designed:	
Drawn:	DERRICK OWUSU	Checked:	D. Oklu
Date:	AUGUST, 2007	Approved:	Dr. Smart-Yeboah
Drawing No.:		Rev.:	

FROM KPONG BSP



K FEEDER

K00

K02

K03

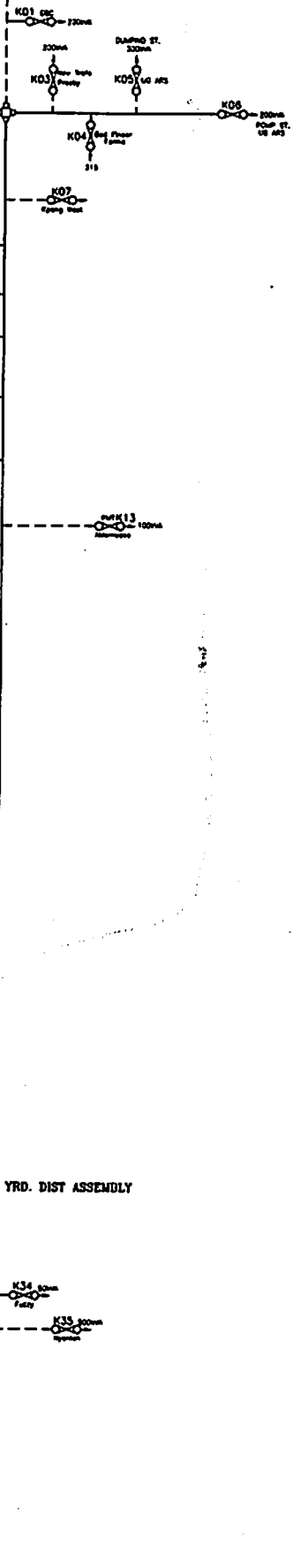
K04

11kV BUS BAR  
TAMCO

TO AKORLEY

OLD WORKS

SPARE



YRD. DIST ASSEMBLY

Rev	Date	Revision	Drawn	Checked
 ELECTRICITY COMPANY OF GHANA				
TEMA REGION				
Title <b>KROBO AREA FEEDER</b> <b>11kV NETWORK</b>				
Scale	Not to Scale		Designer	
Drawn	Derrick Ousu		Checked S. Odu	
Date	August 2007		Approved Dr. Smart Yeboah	
Drawing No.				Rev 1



FROM OKWENYA FEEDER

MAIN 'R' STATION

ASUTSUARE PRIMARY SUBSTATION

TAMCO

R100 FEEDER

MILT. CAMP

R 200 FEEDER ASUTSUARE

11kV BUS BAR

BOILER

R100 750kVA ASUTSUARE EST.

ASUTSUARE1

ASUTSUARE2

PMT R102 100kVA OSUMEM

50kVA VOLVO R202

LANOR R101 OSUMEM

100kVA BUR FRAMS R103

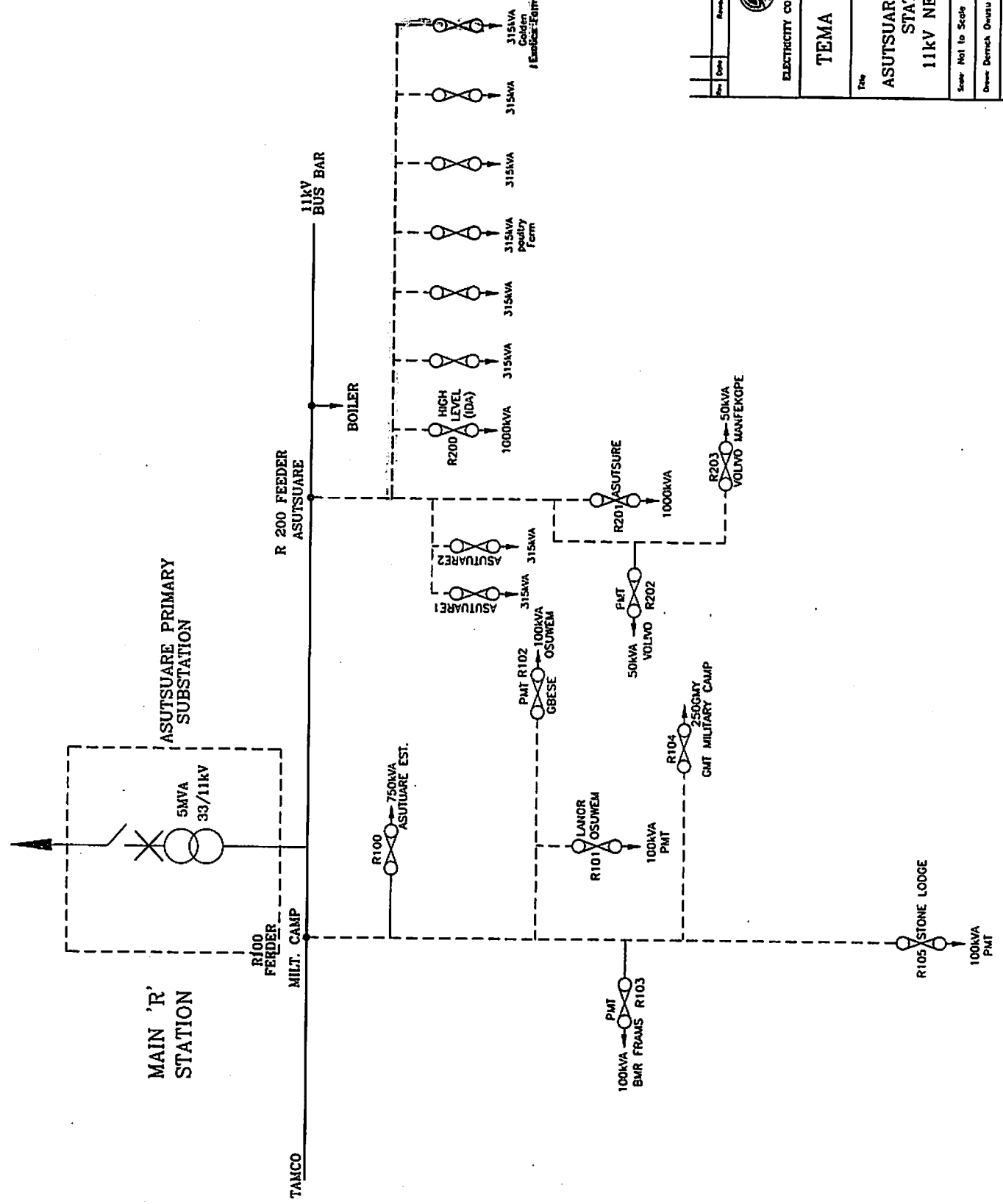
100kVA PMT

R104 250kVA GMT MILITARY CAMP

R201 ASUTSUARE 1000kVA

R203 50kVA VOLVO MANFENKPE

315kVA Golden  
315kVA  
315kVA  
315kVA Poultry Farm  
315kVA  
315kVA  
315kVA  
315kVA  
315kVA Golden  
315kVA  
# Electric Farm



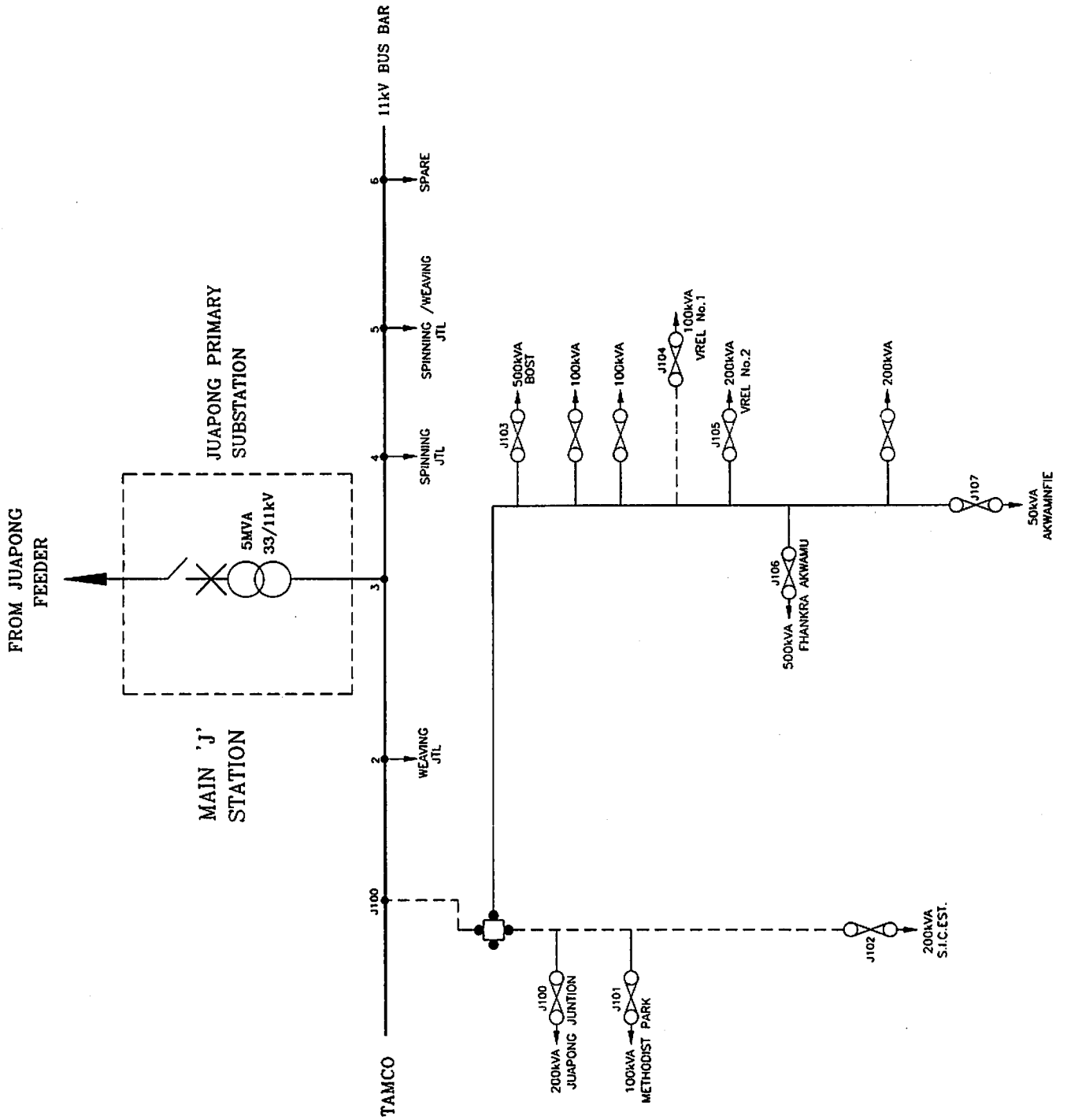
Per	Date	Revision	Drawn	Checked

ELECTRICITY COMPANY OF GHANA

**TEMA REGION**


**ASUTSUARE PRIMARY STATION  
11kV NETWORK**

Scale	Not to Scale	Designed	
Drawn	Demetrius Owusu	Checked	D. Odu
Date	August, 2007	Approved	Dr. Smart Yeboah
Drawing No.		Rev.	



Rev	Date	Revision	Drawn	Checked

 ELECTRICITY COMPANY OF GHANA	
TEMA REGION	
JUAPONG PRIMARY STATION 11KV NETWORK	
File	
Scale: Not to Scale	Overseer
Drawn: Derrick Osei	Checked: D. Oku
Date: August 2007	Approved: Dr. Smart Yeboah
Drawing No.	Rev.