

REPUBLIC OF INDONESIA
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF LAND TRANSPORT
AND INLAND WATERWAYS

**TENDER DOCUMENTS
FOR
NEW RAILWAY LINE FOR CENGKARENG AIRPORT
CONSTRUCTION PROJECT**

PACKAGE III ELECTRICAL WORK

PART F DRAWINGS

AUGUST 1984

**JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)**

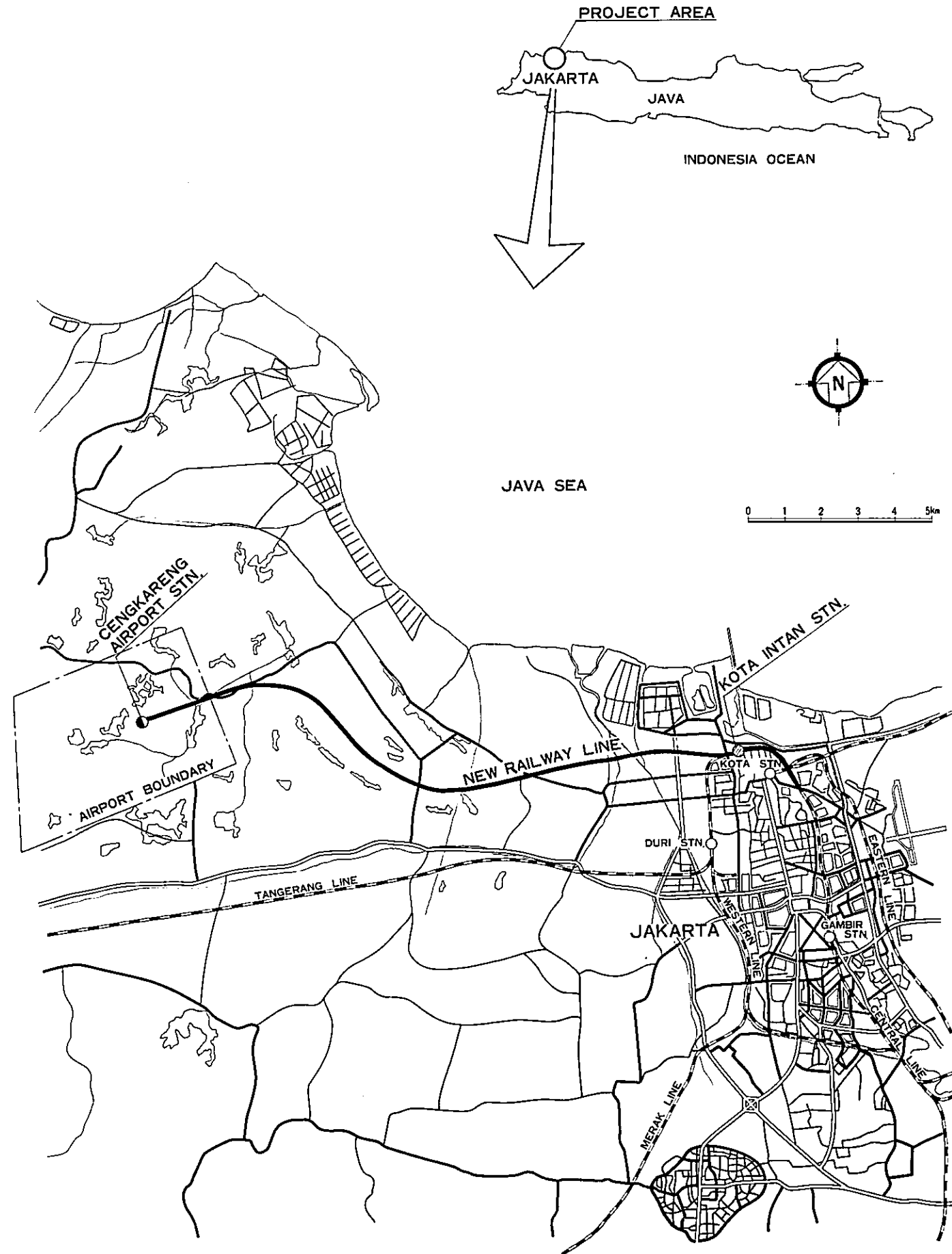
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GENERAL ABBREVIATIONS

- A.T.S. AUTOMATIC TRAIN STOP
- B BRIDGE
- Bc BOX CULVERT
- EL. ELEVATION
- FL FORMATION LEVEL
- JIAC. JAKARTA INTERNATIONAL AIRPORT CENKARENG
- L C LEVEL CROSSING
- Mri. MANGGARAI
- R L RAIL LEVEL
- R.O.W. RIGHT-OF-WAY
- SS SUBSTATION
- S.STN. SIGNAL STATION
- STN. STATION
- T. TIMUR (EAST)
- T.B. TERMINAL BOX
- U. UTARA (NORTH)

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 Aug 89	M.S.	M.S.	K.M.	K.K.
A	15 Feb 87	M.S.	M.S.	K.M.	K.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
GENERAL LOCATION MAP AND ABBREVIATIONS					
PACKAGE: III ELECTRICAL WORK					
SCALE		DRAWING NO.			
1 : 70,000		EG - 001			

SYMBOLS FOR TRACTION AND UTILITY POWER DISTRIBUTION SYSTEMS

SYMBOL	DESCRIPTION	REMARKS	SYMBOL	DESCRIPTION	REMARKS
	STEEL PIPE MAST			INSULATOR INSERTION	MESSENGER AND TROLLEY WIRE
	COMPOUND STEEL MAST	ANGLE MAST		FEEDER WIRE	Cu 300mm ²
	COMPOUND STEEL MAST	CHANNEL MAST		FEEDING BRANCH	
	H-SECTION STEEL MAST			CABLE	
	CONCRETE POLE			LIGHTNING ARRESTER	FOR FEEDER
	RIGID CANTILEVER	SINGLE STEEL ANGLE		DO	FOR DISTRIBUTION LINE
	RIGID CANTILEVER	DOUBLE STEEL ANGLE		WIRE CAUTION MARKER DEVICE	
	V-TRUSS BEAM			SIGNAL	
	CROSS CATENARY BEAM			OBSTRUCTIONS	LC : LEVEL CROSSING
	ARM				B : BRIDGE
	ANGLE FRAME	FOR FEEDER WIRE SUPPORT			BO : OVER-BRIDGE
	GUY	St 135mm ² SINGLE TYPE			Bc : BOX CULVERT
	GUY	St 90mm ² V-TYPE		GROUNDING DEVICE	
	OVERHEAD CATENARY	MESSENGER WIRE: St 90mm ² TROLLEY WIRE : Cu 110mm ²		DISTRIBUTION LINE 6kV OE 38mm ² X3	
	OUT OF SCOPE OF OVERHEAD CATENARY INSTALLATION			OVERHEAD GROUND WIRE St 55mm ²	
	OVERLAP AIR SECTION			7.2kV AIR LOAD BREAK SWITCH	
	OVERLAP AIR JOINT			CABLE GROUND FAULT DETECTOR	
	SECTION INSULATOR	FRP-TYPE		TRANSFORMER 6kV/220V (LIGHTING) 5kVA (20kVA)	
	AUTOMATIC TENSIONING DEVICE	PULLEY TYPE		DO (SIGNALLING) 3kVA, 10kVA	
	AUTOMATIC TENSIONING DEVICE	SPRING TYPE		ANCHORAGE OF DISTRIBUTION LINE	
	TROLLEY STEADYING (CURVED SECTION)	PULL OFF		DEAD END OF DISTRIBUTION LINE	
	DO (STRAIGHT SECTION)	PULL OFF (FOR MOVABLE PIPE)		INSULATOR WITH HORN (180mm C TYPE)	FOR OVERHEAD GROUND WIRE
	DO (DO)	STEADY BRACE (FOR SPAN WIRE)		WATCHMAN'S SHED	
	CROSSING DEVICE			SIGNAL CABIN	
	INSULATOR INSERTION	MESSENGER WIRE		CONCRETE POLE	FOR DISTRIBUTION LINE 12m

NOTE :

SYMBOLS SHALL BE APPLIED TO ALL OVERHEAD CATENARY SYSTEM AND POWER DISTRIBUTION LINES DWGS. UNLESS OTHERWISE INDICATED.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND, TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 AUG 84	SH	S.H	KIL	KVA	KVA
A	15 FEB 84	S.H	S.H	KV	KVA	KVA
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	APPROVED	APPROVED
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PACKAGE : ELECTRICAL WORK						
SCALE : NON SCALE DRAWING NO : E/G-0.02						

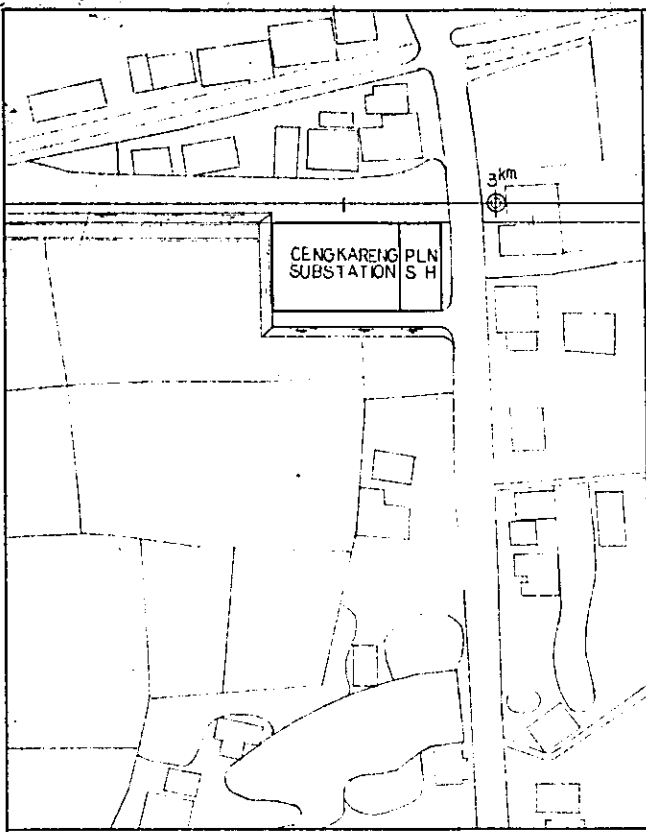
SYMBOLS FOR SIGNAL EQUIPMENT

SYMBOLS	REMARKS	SYMBOLS	REMARKS
	RUNNING SIGNAL		WATCHMAN'S SHED
	RED ASPECT		LEVEL CROSSING SIGNAL
	YELLOW ASPECT		LEVEL CROSSING BARRIER
	GREEN ASPECT		X-MARK INDICATOR
	EMERGENCY SIGNAL		CONTROL DEVICE
	DISTANT SIGNAL MARKER		CONTROL PANEL
	REPEATING SIGNAL MARKER		TRAIN DETECTOR (CLOSED CIRCUIT TYPE)
	RESTRICTED SPEED RELEASE MARKER		DO (OPEN CIRCUIT TYPE)
	SHUNTING LIMIT MARKER		SIGNAL TRANSFORMER (INSTALLED BY POWER DISTRIBUTION LINE SECTION)
	CAR STOP MARKER		APPARATUS CASE
	SHUNTING SIGNAL (TYPE A)		JOINT BOX
	DO (TYPE B)		SIGNAL CABLE (CROSS SECTION 1.25mm ² NO.OF CONDUCTORS 2 ~ 80)
	NAME OF TRACK CIRCUIT		CORRUGATED TYPE SIGNAL CABLE (DITTO)
	ATS WAYSIDE DEVICE		SIGNAL CABLE (CROSS SECTION 10mm ² NO.OF CONDUCTORS 2)
	SIGNAL CABIN		SIGNAL CABLE UNDERGROUND INSTALLATION
	INSULATED RAIL JOINT		SIGNAL CABLE GROUND SURFACE INSTALLATION WITHIN TROUGH
	ELECTRIC SWITCH MACHINE		SIGNAL CABLE INSTALLATION WITHIN DUCT
	IMPEDANCE BOND		UNDERGROUND DUCT
	MATCHING TRANSFORMER		HANDHOLE
	SEMAPHORE SIGNAL		

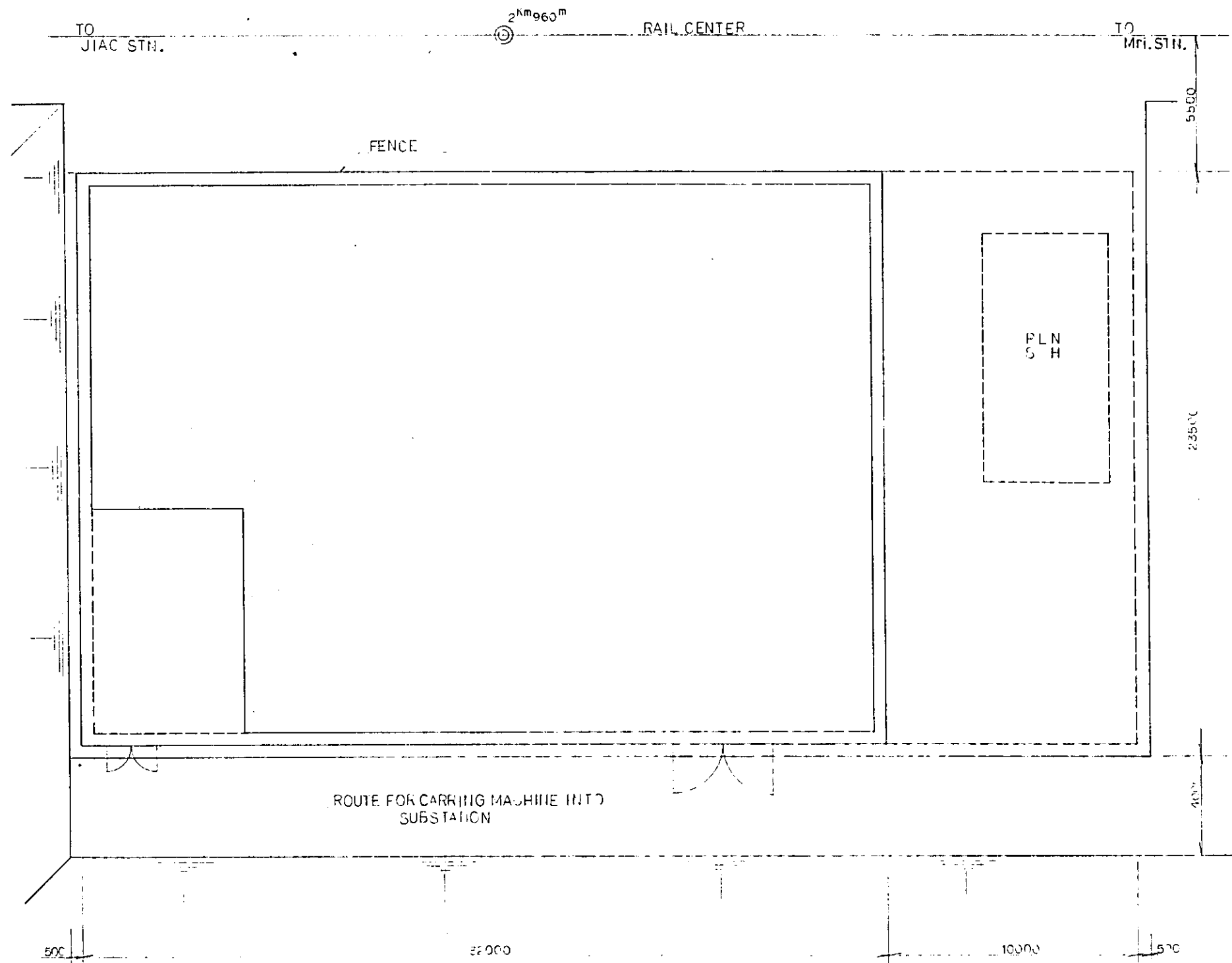
NOTE :

SYMBOLS SHALL APPLY TO ALL SIGNAL DWGS.UNLESS OTHERWISE INDICATED

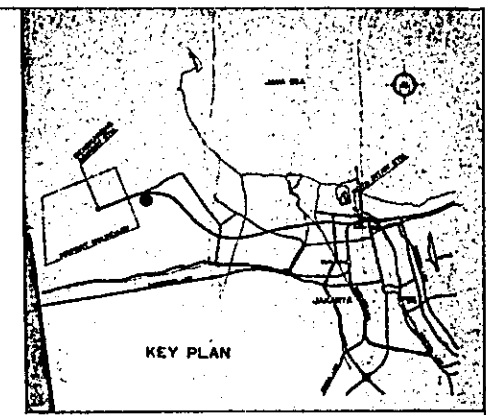
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 Aug. '86	Tajima	J.Z.G.	K.M.	K.K.
A	15 Feb. '86	Tajima	J.Z.G.	K.M.	K.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
SYMBOLS FOR SIGNAL EQUIPMENT.					
PACKAGE: <input checked="" type="checkbox"/> ELECTRICAL WORK					
SCALE	DRAWING NO.				
NON SCALE	EG-003				



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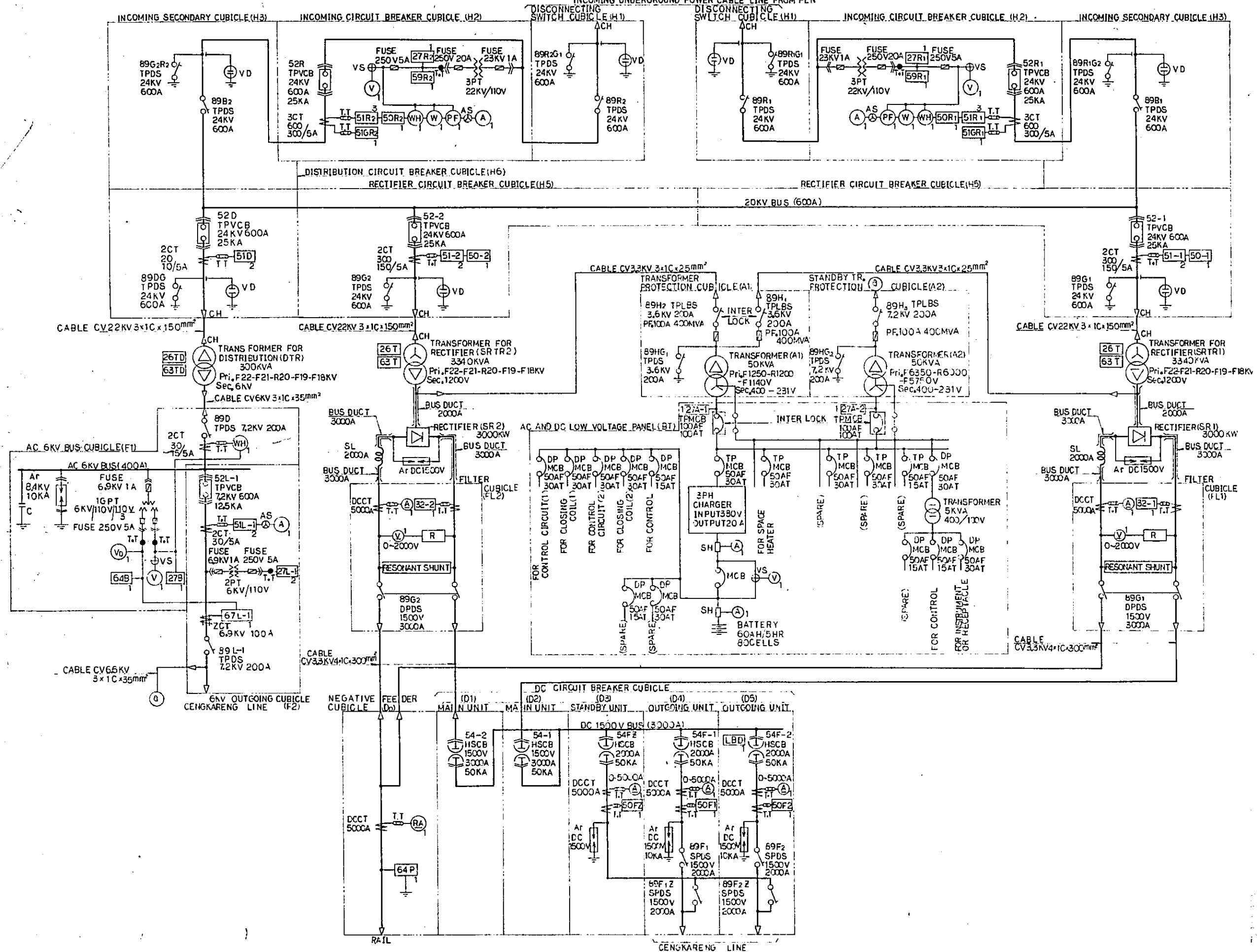
SITE PLAN SCALE: 1:100



KEY PLAN

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 Aug 20	N.T.	N.T.	K.H.	K.M.	M.K.
A	15 Feb 20	N.T.	N.T.	K.H.	K.M.	M.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
CENKARENG SUBSTATION SITE PLAN						
PACKAGE: <input checked="" type="checkbox"/> ELECTRICAL WORK						
SCALE: AS NOTED		DRAWING NO: EP-001				

3-PHASE, 3-WIRE NOMINAL 20KV, 50 HZ
INCOMING UNDERGROUND POWER CABLE LINE FROM PLN



NOTE:
DEVICE FUNCTION NUMBERS ON THE DIAGRAM ARE CONFORMED WITH ANSI/JEM STANDARD.

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NEW RAILWAY LINE FOR CENKARENG AIRPORT
CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

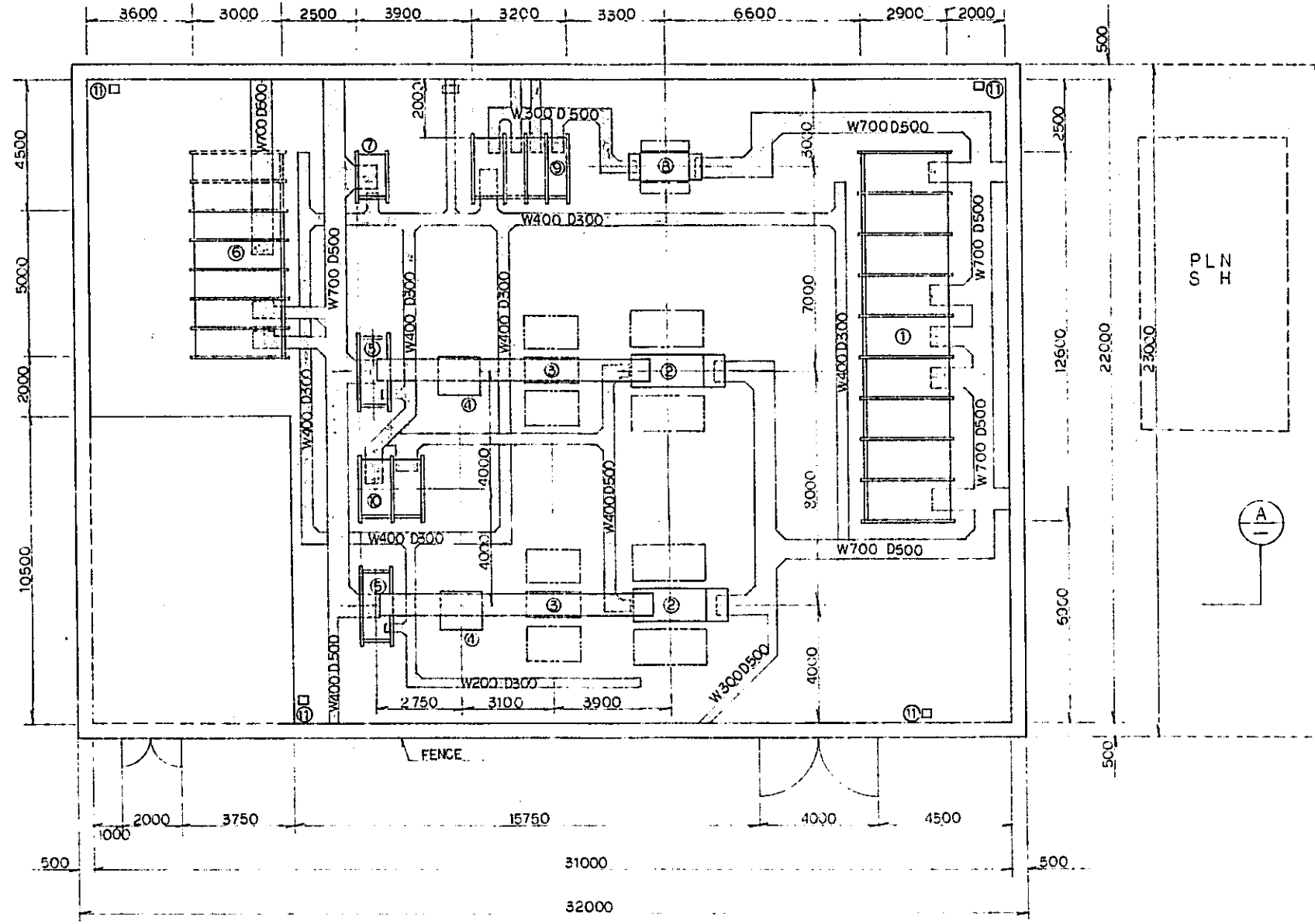
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A	15 Feb 82	AK	NT	AK	UM	AK

REVISIONS DATE DESIGNED DRAWN CHECKED ESTIMATED SUBMITTED

CENKARENG
SUBSTATION
SINGLE LINE DIAGRAM

PACKAGE: ELECTRICAL WORK

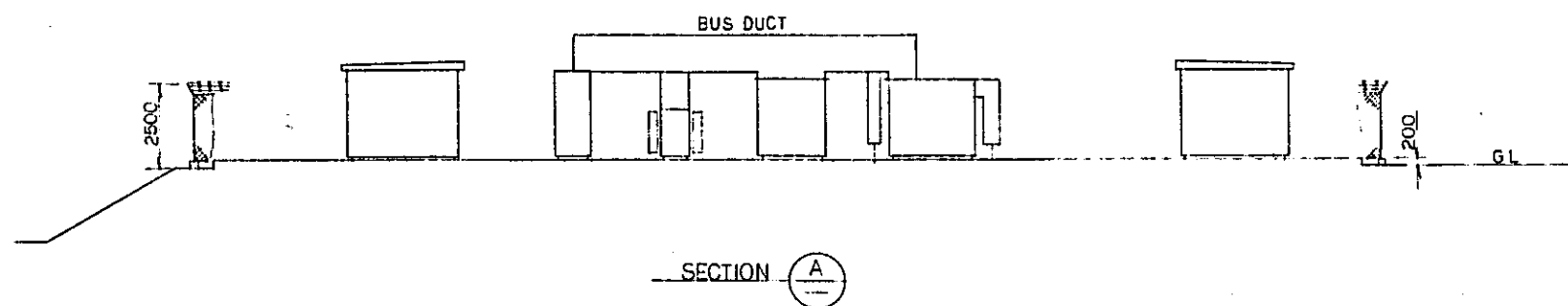
SCALE: NON SCALE DRAWING NO: EP-002



DEVICE TABLE

NO	NAME
①	20KV CUBICLE
②	TRANSFORMER 3340KVA
③	SILICON RECTIFIER 3000 KW
④	DC SERIES REACTOR 2000A
⑤	FILTER CUBICLE
⑥	DC CIRCUIT BREAKER CUBICLE
⑦	NEGATIVE FEEDER CUBICLE AND REMOTE CONTROL PANEL
⑧	TRANSFORMER 300KVA
⑨	AC 6KV CUBICLE
⑩	AC AND DC LOW VOLTAGE FEEDER PANEL
⑪	LAMP POSTS

LEGEND:
 --- : FUTURE PLAN



REPUBLIC OF INDONESIA
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NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

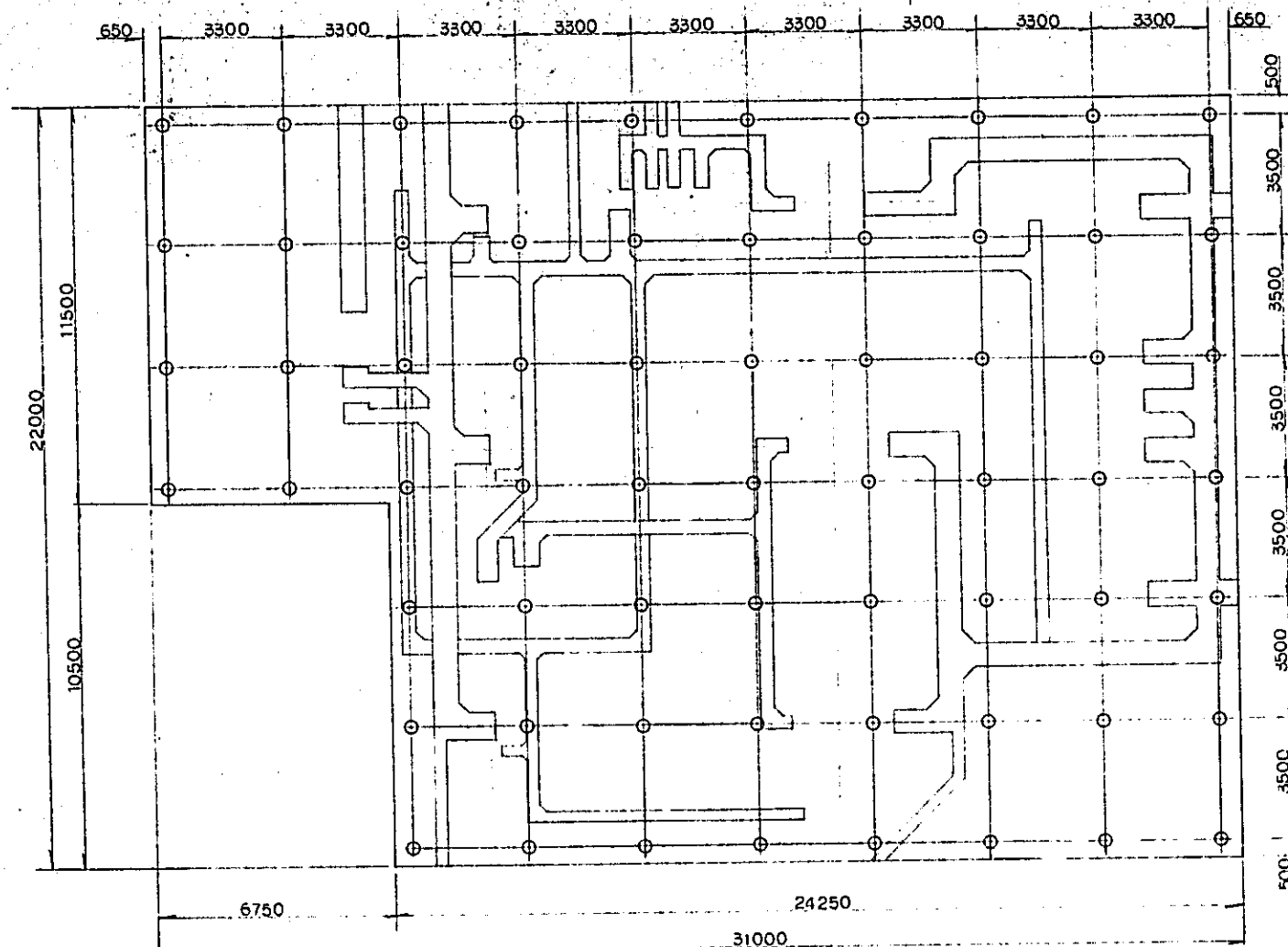
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REVISIONS DATE CHECKED BY

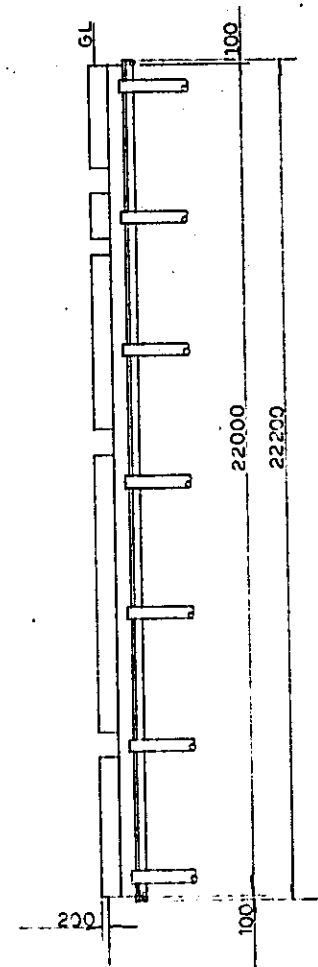
CENKARENG SUBSTATION EQUIPMENT LAYOUT

PACKAGE: ELECTRICAL WORK

SCALE: 1:100 DRAWING NO: EP-003

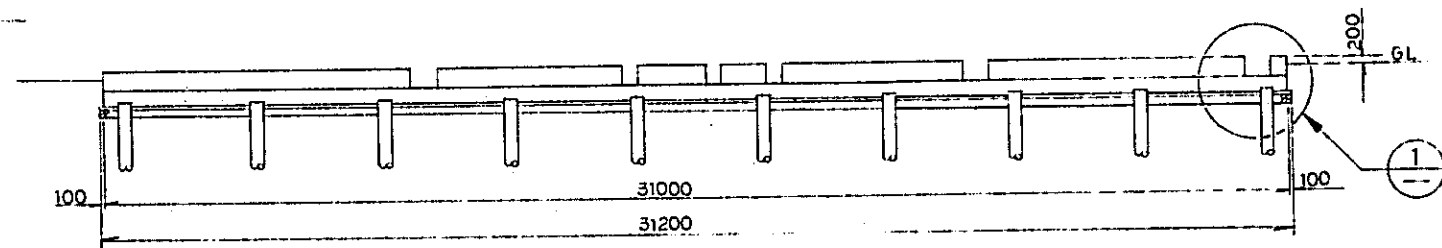


PILE ARRANGEMENT SCALE 1:100

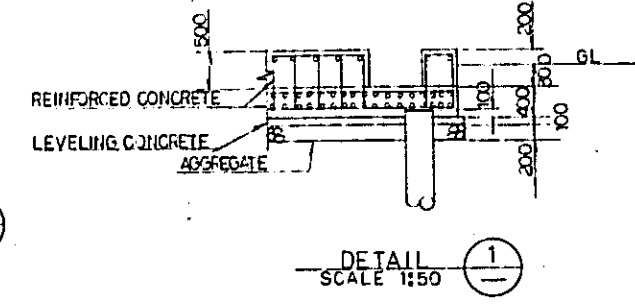


SECTION C-C
SCALE 1:100

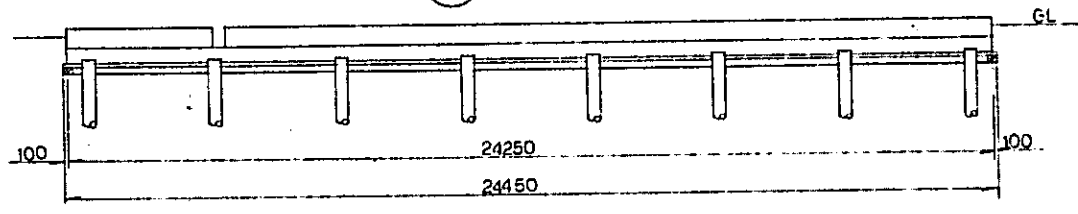
- NOTES:
1. THE TYPE OF PILES ARE AS FOLLOWS:
PC 350mm CLASS B 7m TOP PILE
PC 350mm CLASS A 12m BOTTOM PILE
 2. THE LONG TERM BEARING STRENGTH OF PILES SHALL BE 25T/Piece OR MORE.
 3. CONCRETE CLASS SHALL BE AS FOLLOWS:
REINFORCED : CLASS D
LEVELING : CLASS F



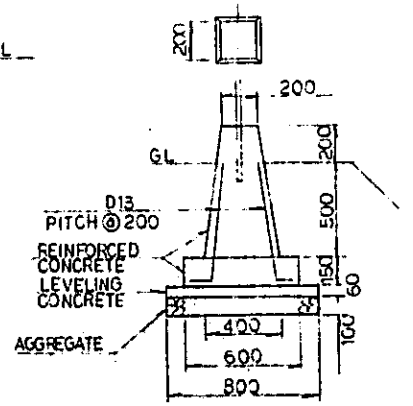
SECTION A-A
SCALE 1:100



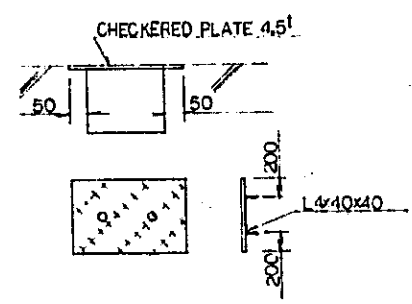
DETAIL 1
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SECTION B-B
SCALE 1:100



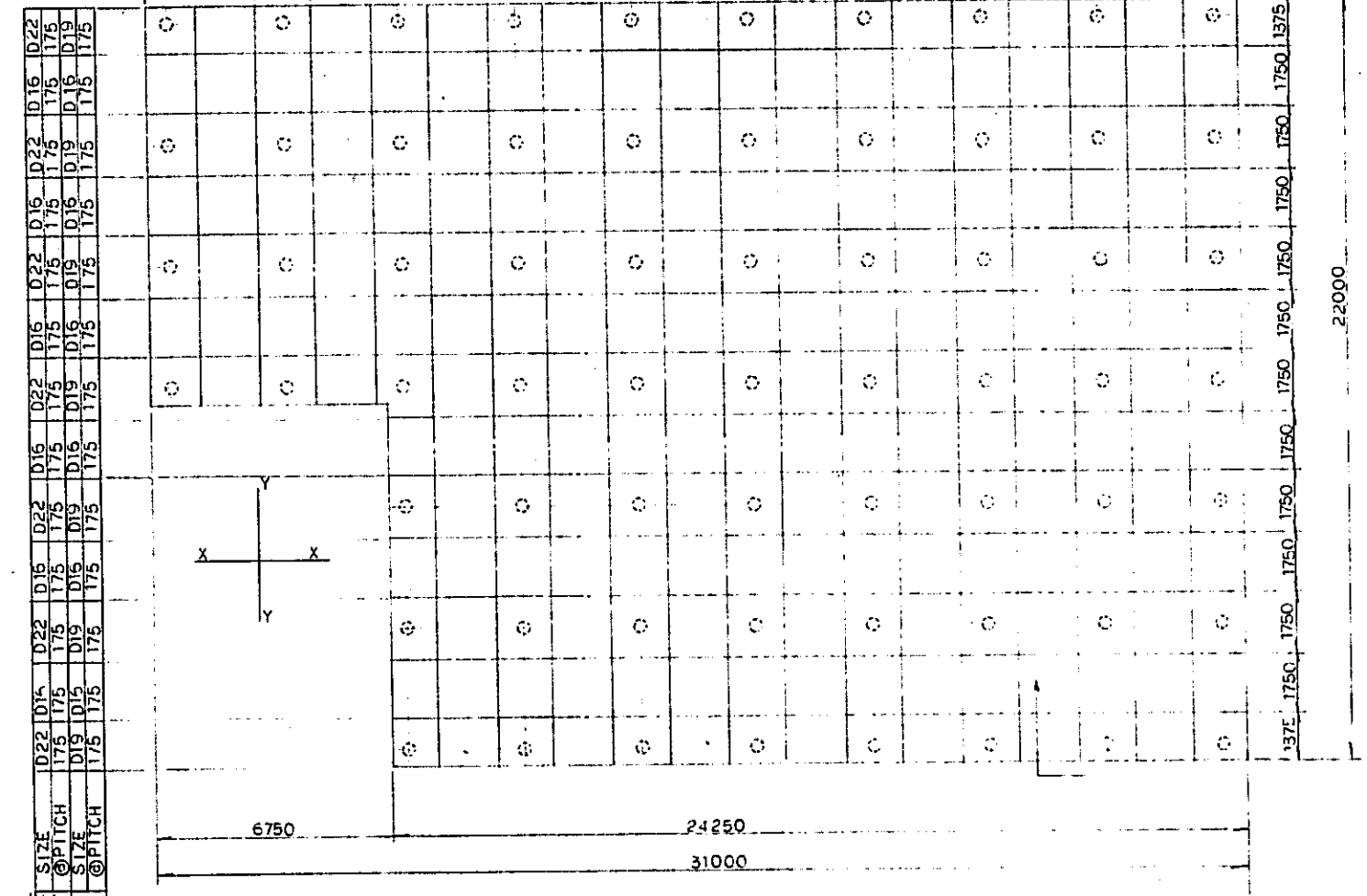
FOUNDATION OF FENCE SCALE 1:20



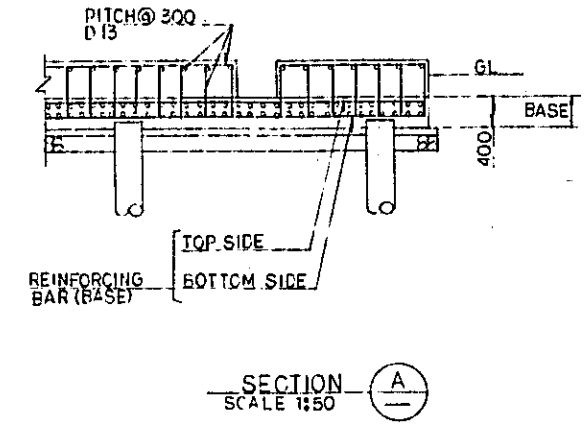
DETAIL OF CABLE TRENCH NON SCALE

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 Aug 84	N.T	N.T	FK	K.M	1/15
A	16 Feb 84	N.T	N.T	KU	K.M	1/15
REVISIONS	DATE	DESIGNED	CHECKED	APPROVED	REVISIONS	DATE
CENGKARENG SUBSTATION FOUNDATION DETAILS (SHEET 1 OF 2)						
PACKAGE: ELECTRICAL WORK						
SCALE: AS NOTED DRAWING NO: EP-004						

TOP SIDE	SIZE	D22	D16	D22	D16	D22	D16	D22	D16	D22	D16	D22	D16	D22	D16	D22	D16	D22	D16	D22
BOTTOM SIDE	SIZE	D19	D16	D19	D16	D19	D16	D19	D16	D19	D16	D19	D16	D19	D16	D19	D16	D19	D16	D19
	@ PITCH	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165



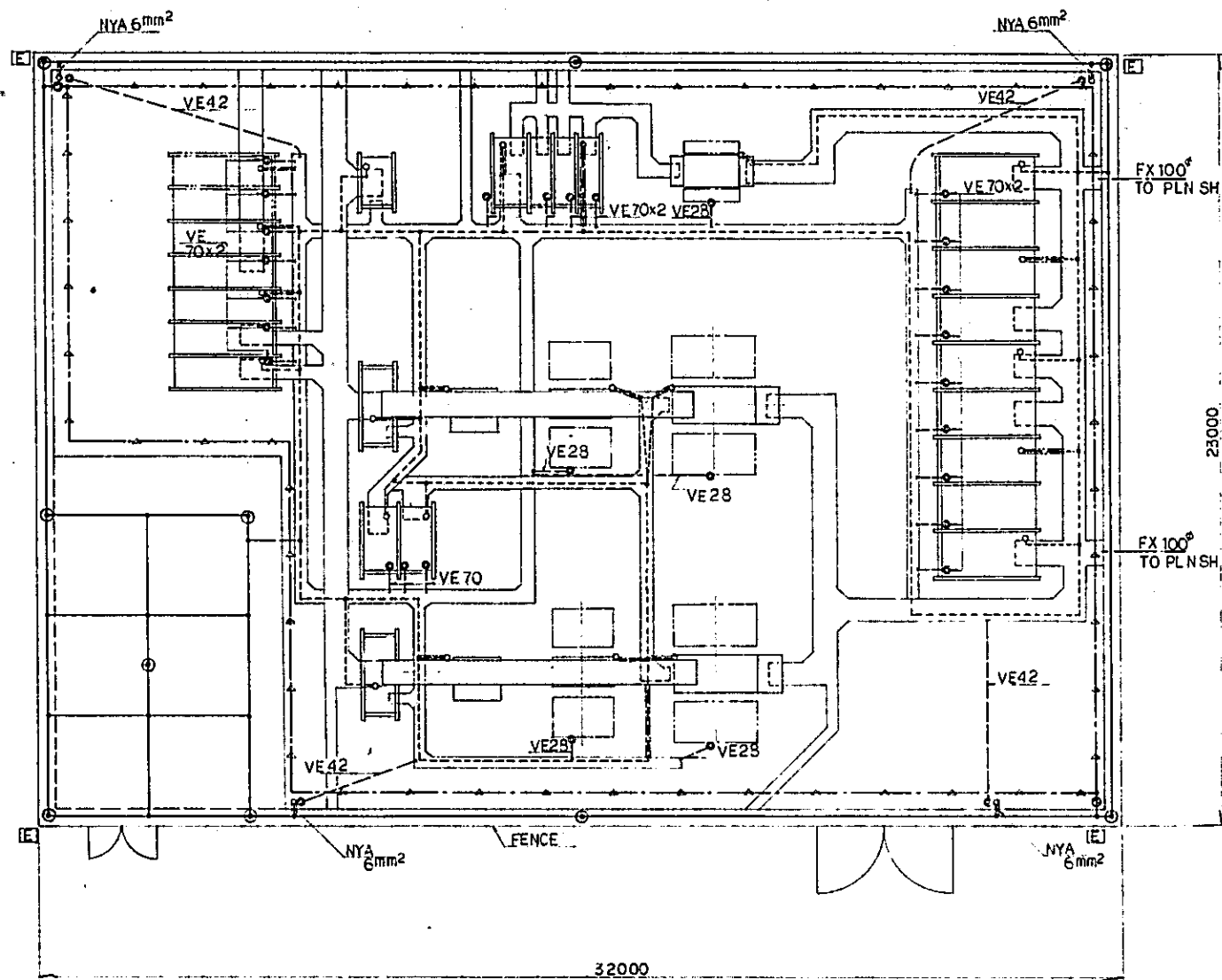
REINFORCING BAR ARRANGEMENT (BASE) SCALE 1:100



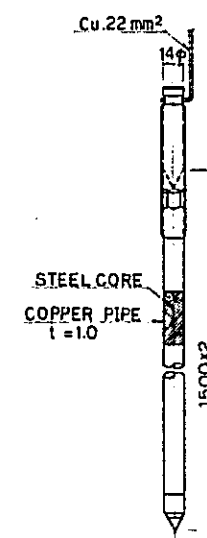
SECTION A-A
SCALE 1:50

NOTE:
THE TYPE OF REINFORCEMENTS
SHALL BE SD30.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 Aug 80	N.T	J.T	ru	K.M
A	15 Feb 80	N.T	N.T	K.U	K.M
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	APPROVED
CENGKARENG SUBSTATION FOUNDATION DETAILS (SHEET 2 OF 2)					
PACKAGE: ELECTRICAL WORK					
SCALE: AS NOTED DRAWING NO: EP-005					



GROUND WIRE PLAN SCALE 1:100

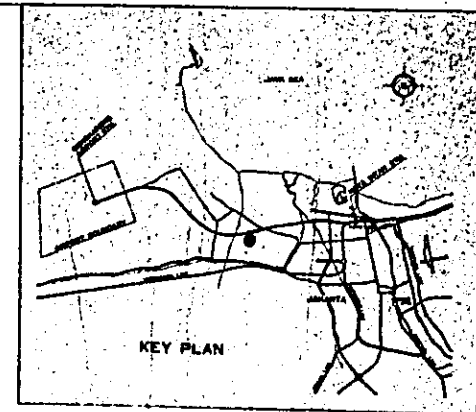
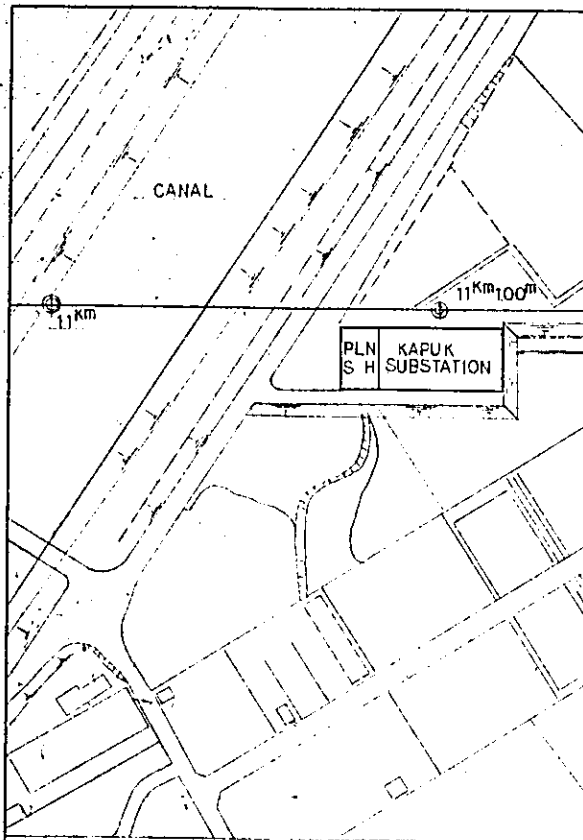


GROUND ROD. NON. SCALE.

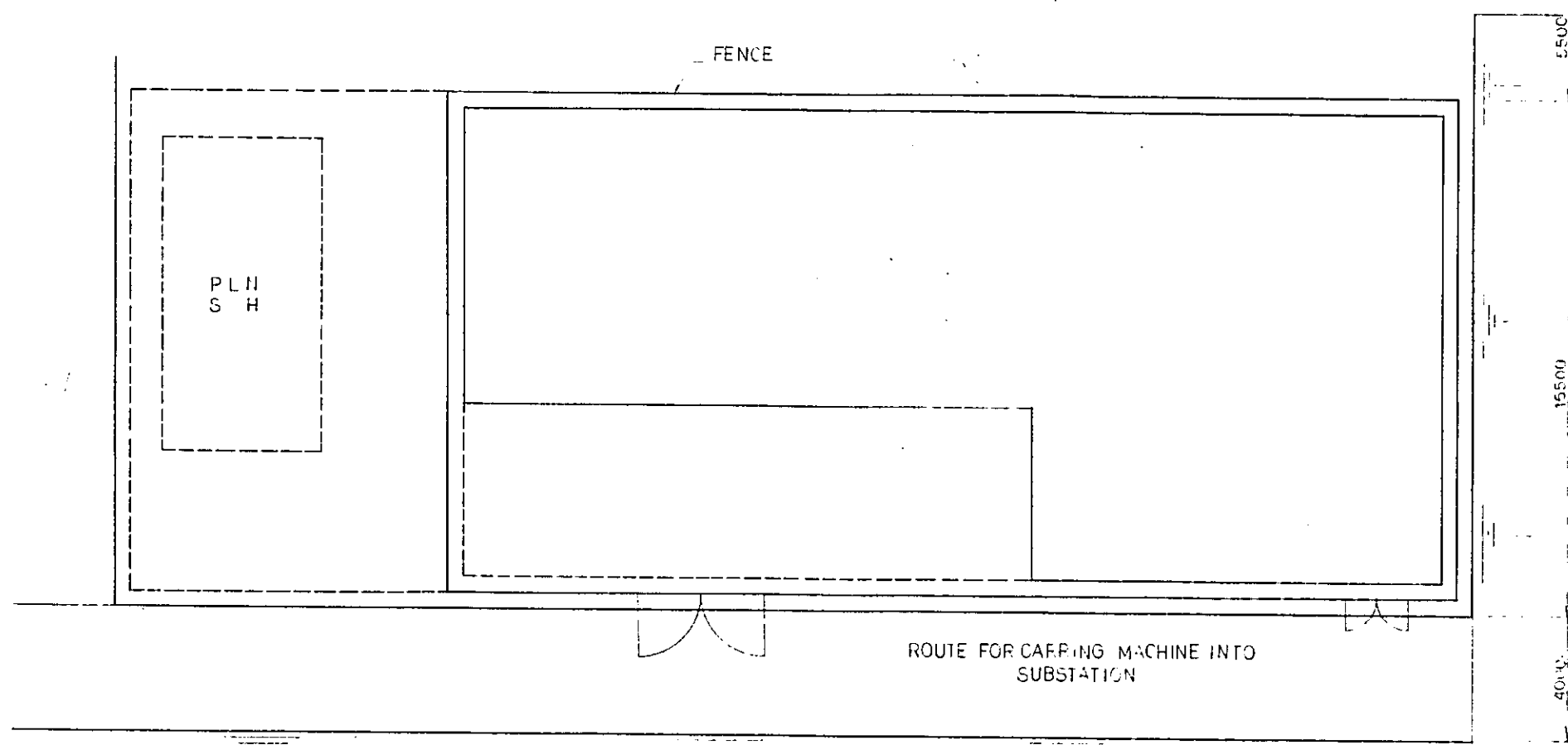
LEGEND:

- : GROUND ROD
- : Cu. 60mm² (ANNEALED COPPER STRANDED CONDUCTOR)
BURIED CABLE 750mm UNDER GROUND LEVEL
- - - : NYA 70mm² (600V P.V.C INSULATED WIRE)
INSTALLED IN THE TRENCH
- : VE 28 (28mm HARD P.V.C CONDUIT)
- : VE CONDUITS FOR CONTROL CABLE
- : FX FLEXIBLE TUBE
- : FASTENING TERMINAL
- : SOLDER
- : COMPRESSION SLEEVE FOR CONNECTING GROUND WIRE
- ▲ : BINDING POINT TO REINFORCEMENT
- ⓔ : MARKER OF GROUND ROD

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1.10.84	N.P.	N.T.	W.M.	W.M.
A	1.10.84	N.T.	N.T.	W.M.	W.M.
REVISIONS	DATE	BY	CHECKED	APPROVED	REVISIONS
CENKARENG SUBSTATION GROUND WIRE PLAN					
PACKAGE: ELECTRICAL WORK					
SCALE	AS NOTED	GRAPHIC NO.	EP-006		



TO JIAC STN. RAIL CENTER TO Mri. STN.



KEY MAP SCALE 1:1000

SITE PLAN SCALE 1:100

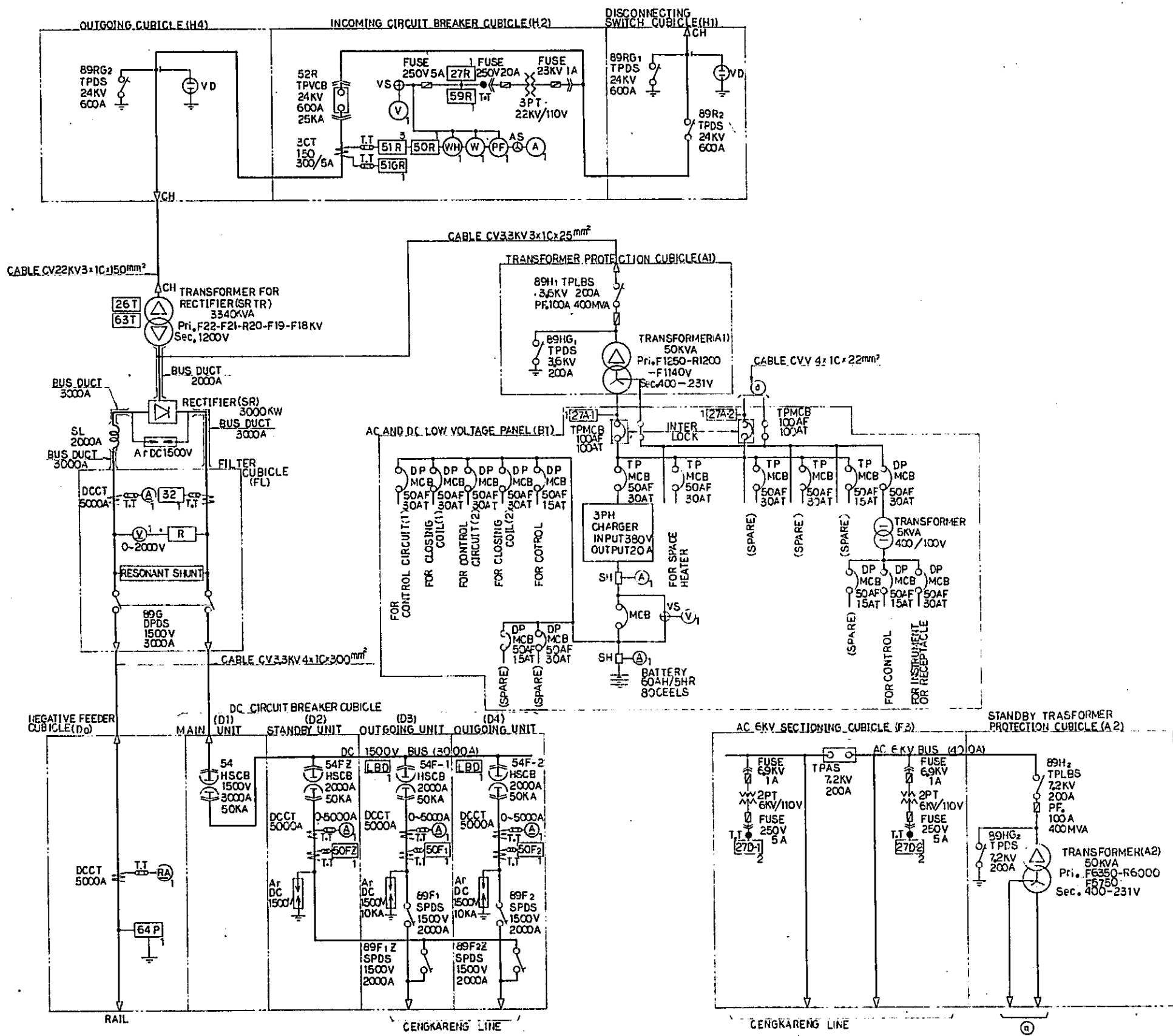
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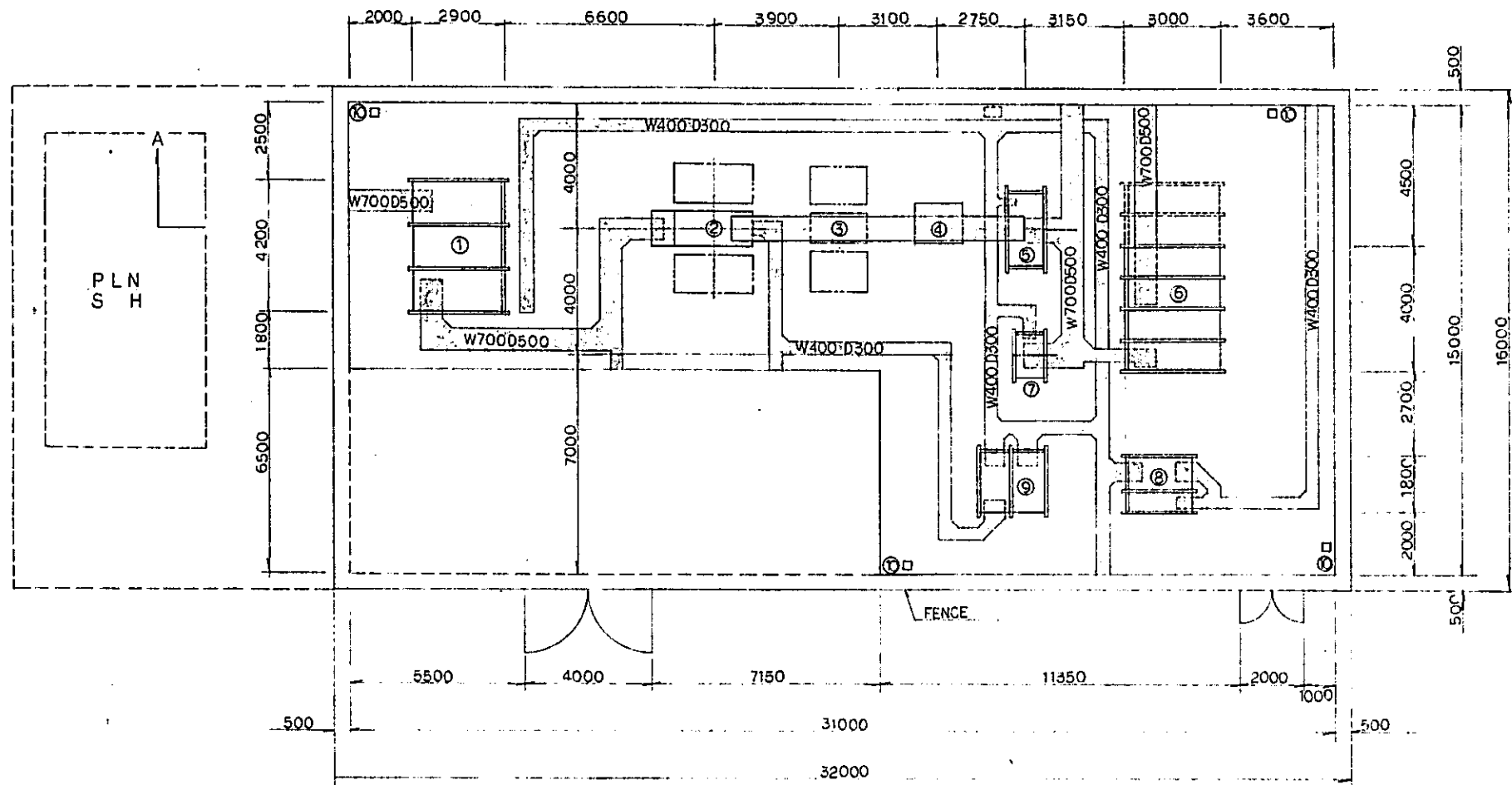
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1. Aug. '84	N.T.	N.T.	K.U.	K.M.	ink
A	12 Feb. '84	N.T.	N.T.	K.U.	K.M.	ink
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
KAPUK SUBSTATION SITE PLAN						
PACKAGE: <input checked="" type="checkbox"/> ELECTRICAL WORK						
SCALE AS NOTED		DRAWING NO. EP-007				

3-PHASE, 3-WIRE NOMINAL 20KV, 50HZ
INCOMING UNDERGROUND POWER CABLE LINE FROM PLN



NOTE:
DEVICE FUNCTION NUMBERS ON THE DIAGRAM ARE CONFORMED WITH ANSI/JEM STANDARD.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS	
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT	
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	
B	1/10/2010
A	15/10/2010
REVISIONS	DATE
KAPUK SUBSTATION SINGLE LINE DIAGRAM	
ELECTRICAL WORK	
SCALE: NON SCALE	DRAWING NO: EP-008

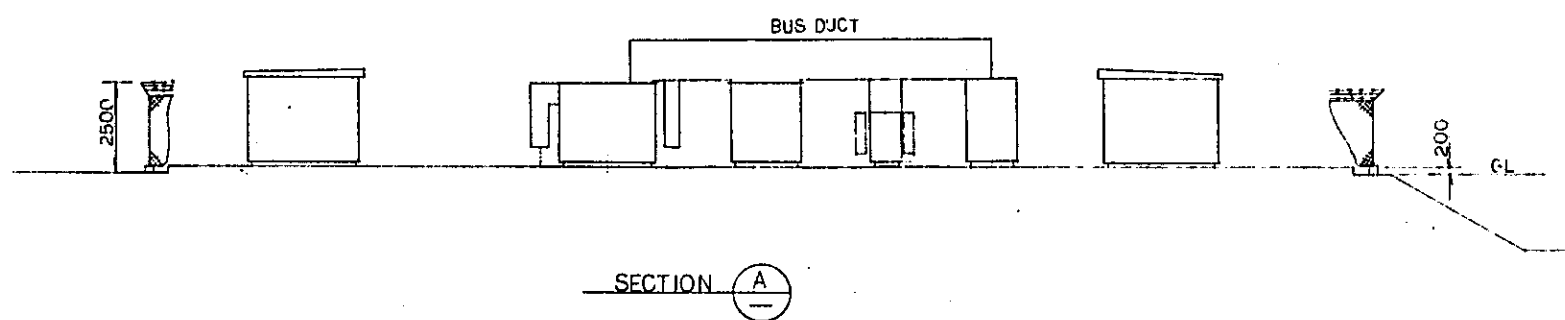


DEVICE TABLE

NO	NAME
①	20KV CUBICLE
②	TRANSFORMER 3340 KVA
③	SILICON RECTIFIER 3000 KW
④	DC SERIES REACTOR 2000A
⑤	FILTER CUBICLE
⑥	DC CIRCUIT BREAKER CUBICLE
⑦	NEGATIVE FEEDER CUBICLE AND REMOTE CONTROL PANEL
⑧	AC 6KV CUBICLE
⑨	AC AND DC LOW VOLTAGE FEEDER PANEL
⑩	LAMP POST

LEGEND:

----- : FUTURE PLAN



SECTION A

REPUBLIC OF INDONESIA
 MINISTRY OF COMMUNICATIONS
 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

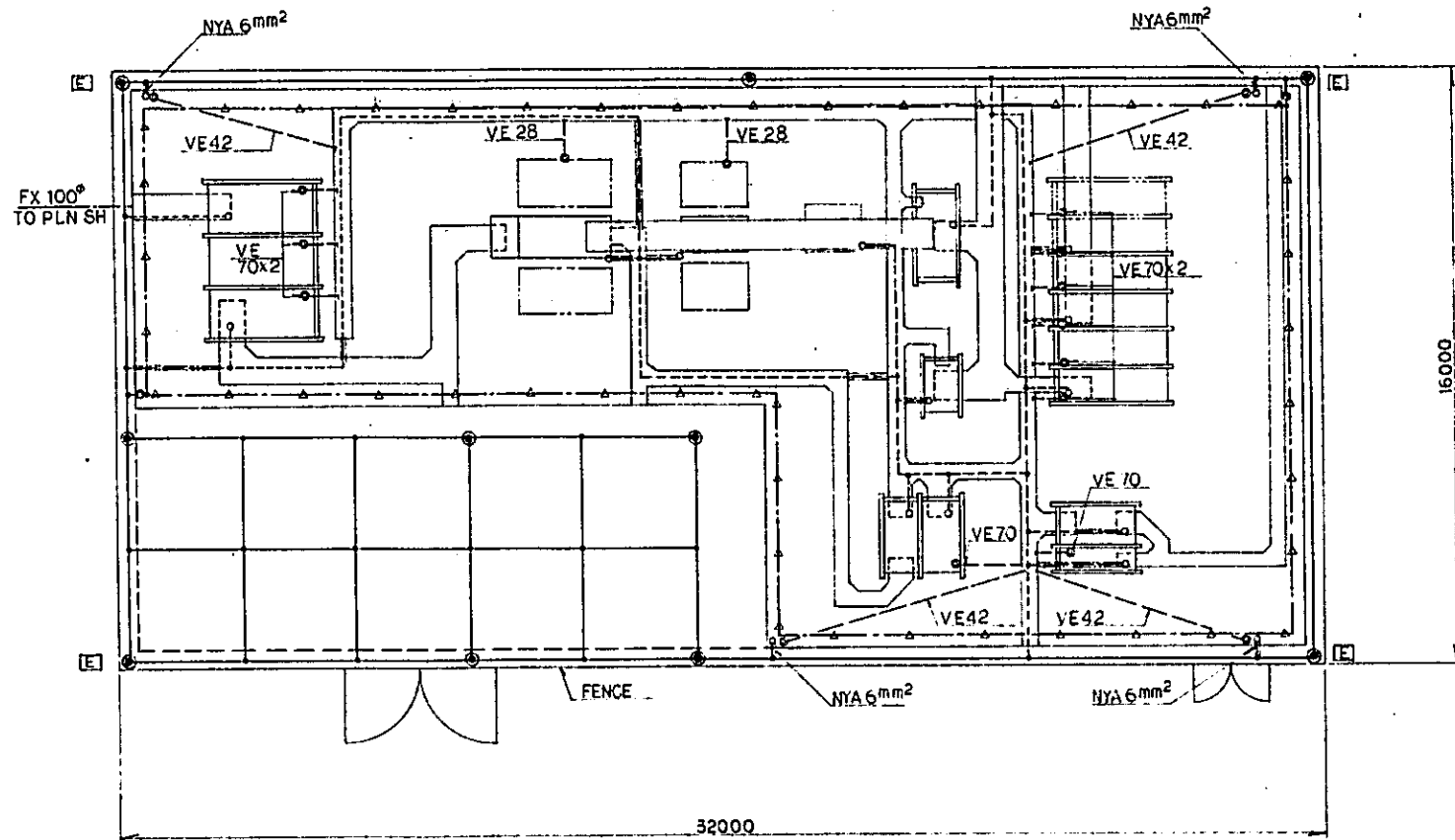
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A	1	1	1	1	1	1	1

REVISIONS DATE DESIGNED DRAWN CHECKED REVISIONS

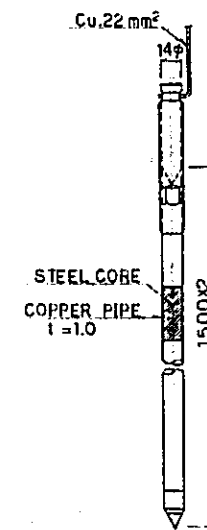
KAPUK
 SUBSTATION
 EQUIPMENT LAYOUT

PACKAGE: ELECTRICAL WORK

SCALE: 1:100 DRAWING NO: EP-009



GROUND WIRE PLAN SCALE 1:100



GROUND ROD NON SCALE

LEGEND:

- : GROUND ROD
- : Cu.60mm² (ANNEALED COPPER STRANDED CONDUCTOR)
BURIED CABLE 750mm UNDER GROUND LEVEL
- : NYA 70mm² (600V P.V.C INSULATED WIRE) INSTALLED IN THE TRENCH
- - - : VE 28 (28mm HARD PVC CONDUIT)
- : VE CONDUITS FOR CONTROL CABLE
- : FX FLEXIBLE TUBE
- : FASTENING TERMINAL
- : SOLDER
- : COMPRESSION SLEEVE FOR CONNECTING GROUND WIRE
- ▲ : BINDING POINT TO REINFORCEMENT
- : MARKER OF GROUND ROD

REPUBLIC OF INDONESIA
 MINISTRY OF COMMUNICATIONS
 DIRECTORATE GENERAL OF LAND TRANSPORT
 AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

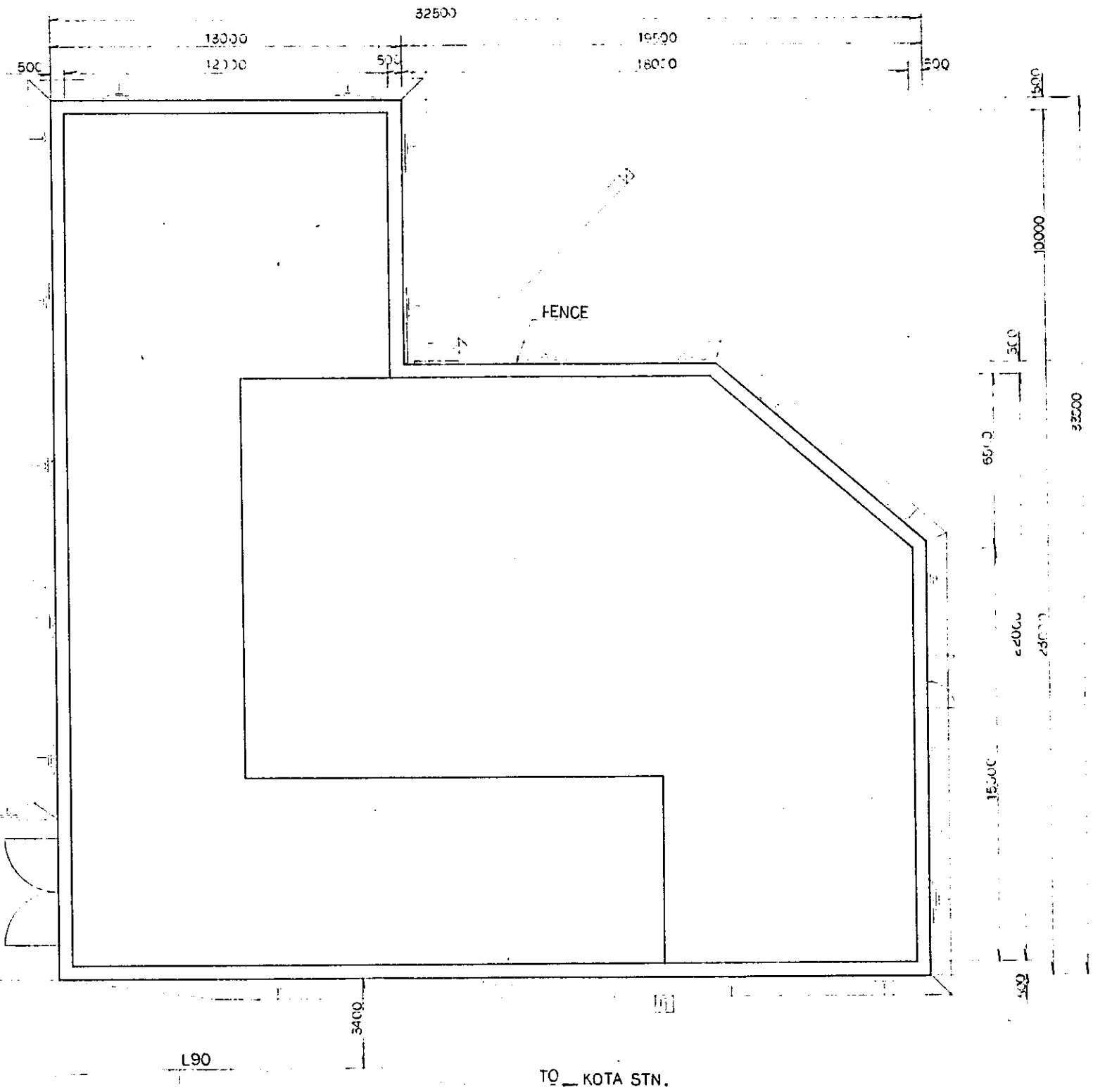
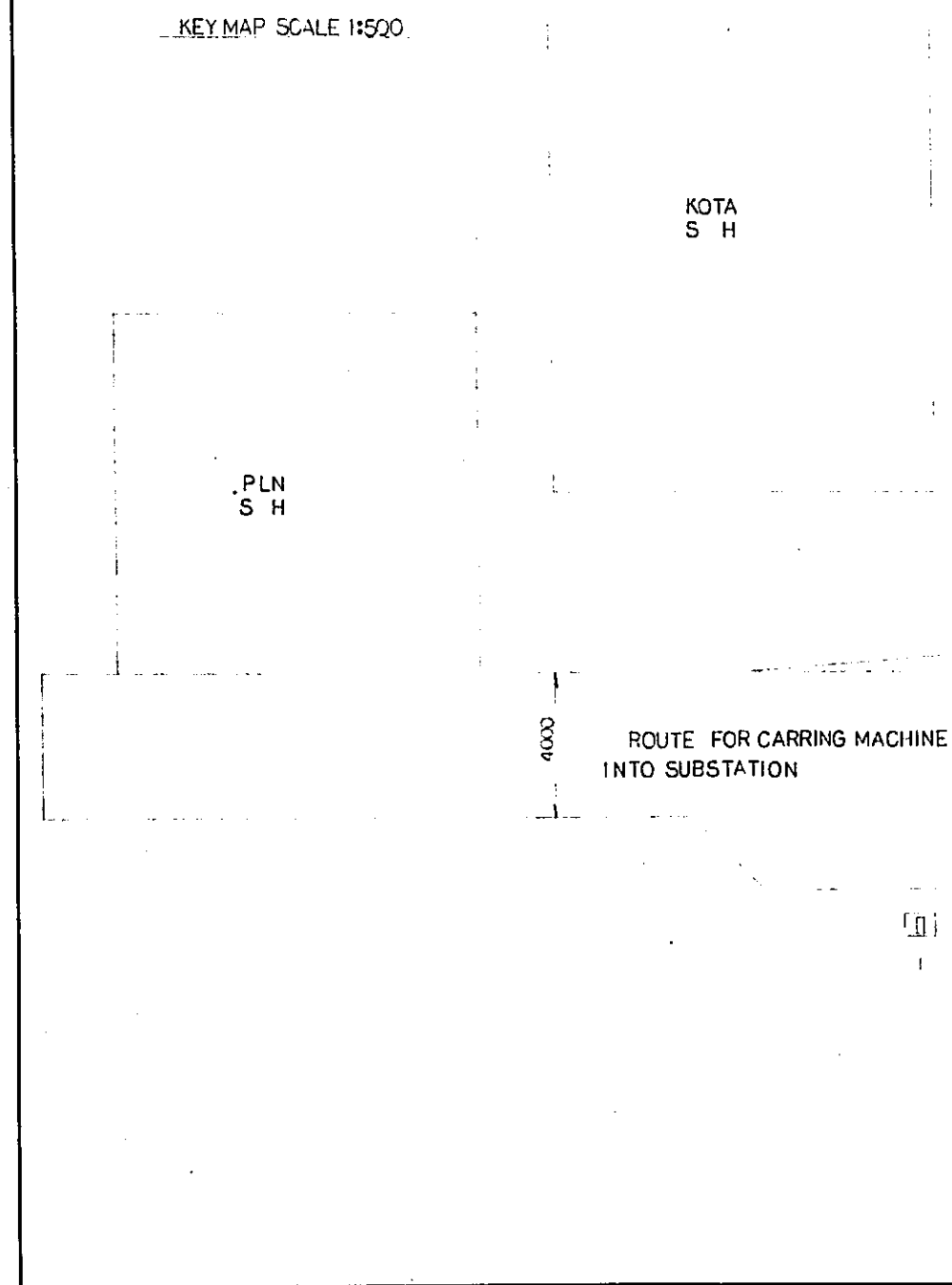
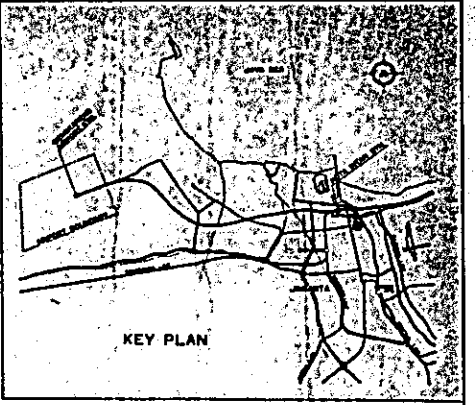
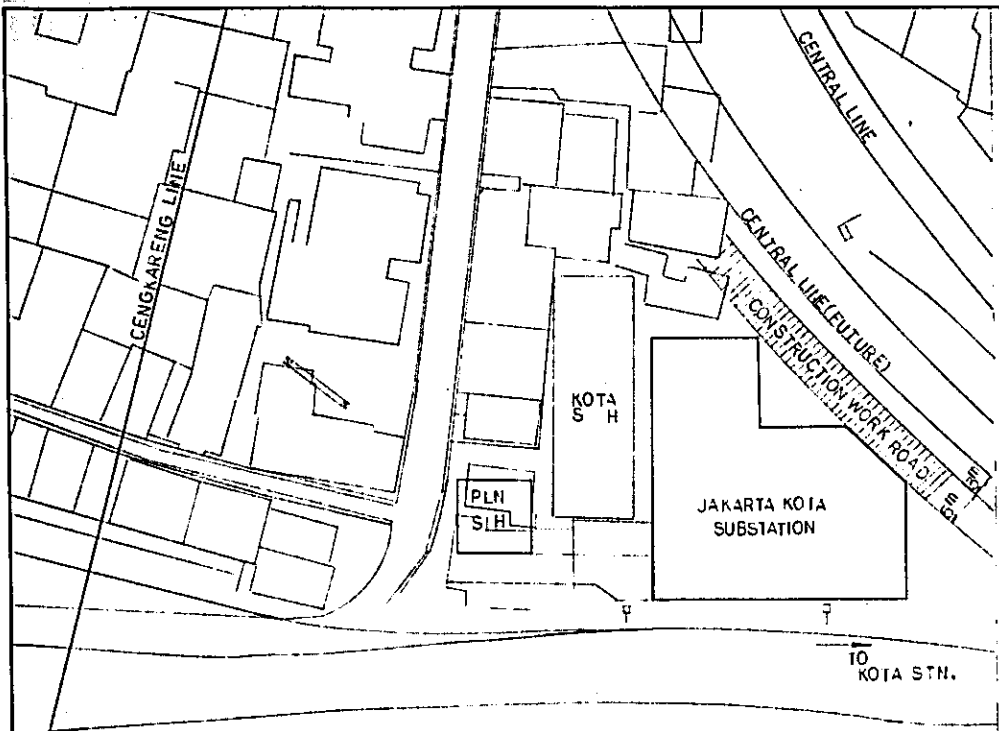
JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

B	A	K	N	T	S	K	M	S
A	K	N	T	S	K	M	S	K
REVISIONS	DATE							

KAPUK
 SUBSTATION
 GROUND WIRE PLAN

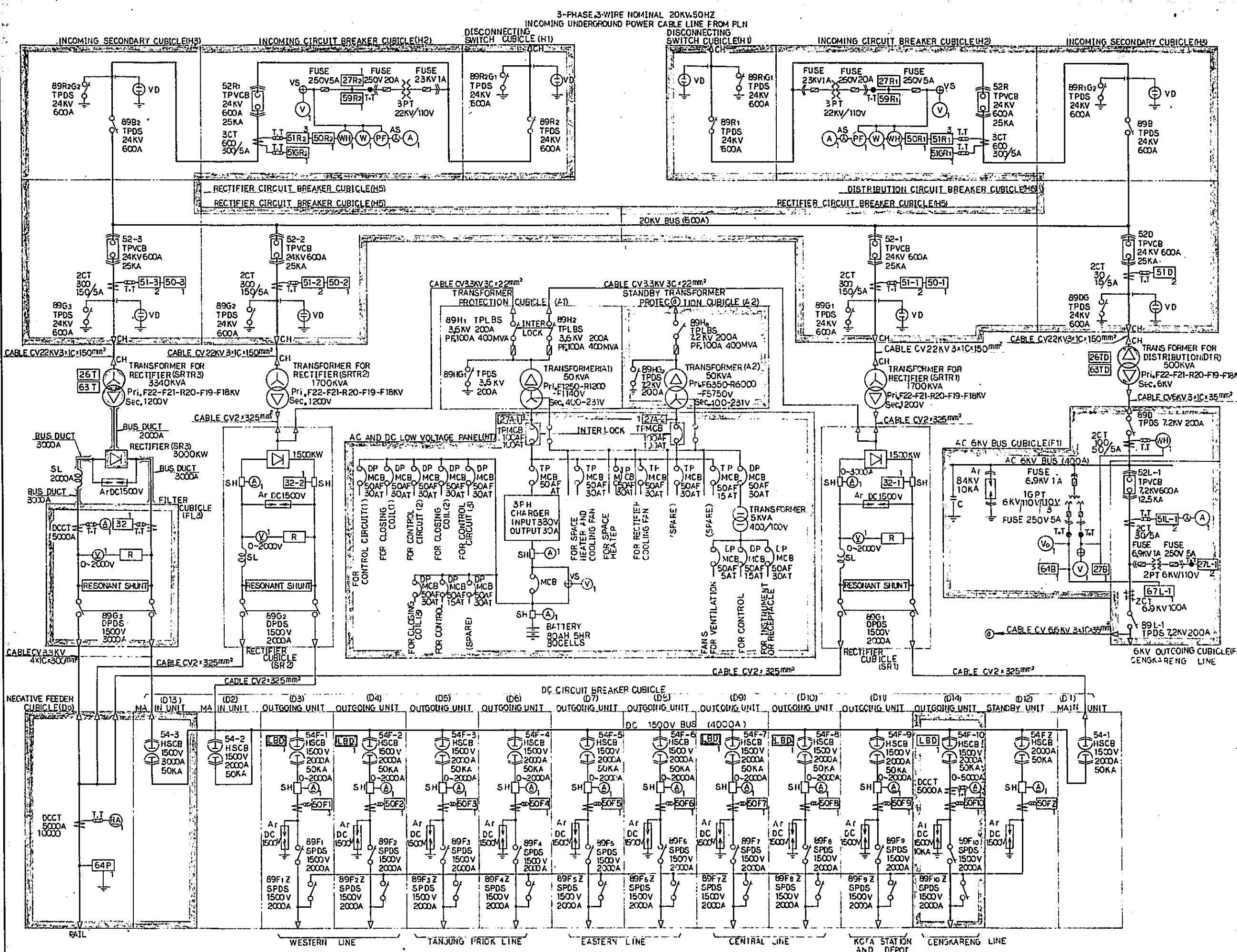
ELECTRICAL WORK

SCALE: AS NOTED
 DRAWING NO: EP-011



SITE PLAN SCALE 1:100

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 Aug 84	NT	NT	KH	KM	AK
A	15 Feb 84	NT	NT	KH	UM	AK
REVISIONS	DATE	DESIGNED	CHECKED	APPROVED	REVIEWED	DATE
JAKARTA KOTA SUBSTATION SITE PLAN						
PACKAGE: ELECTRICAL WORK						
SCALE: AS NOTED		DRAWING NO: EP-012				



- NOTES:
1. DEVICE FUNCTION NUMBERS ON THE DIAGRAM ARE CONFORMED WITH ANSI/JEM STANDARD.
 2. [Symbol] INDICATES THE EQUIPMENT TO BE INSTALLED IN THIS CONTRACT.

REPUBLIC OF INDONESIA
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

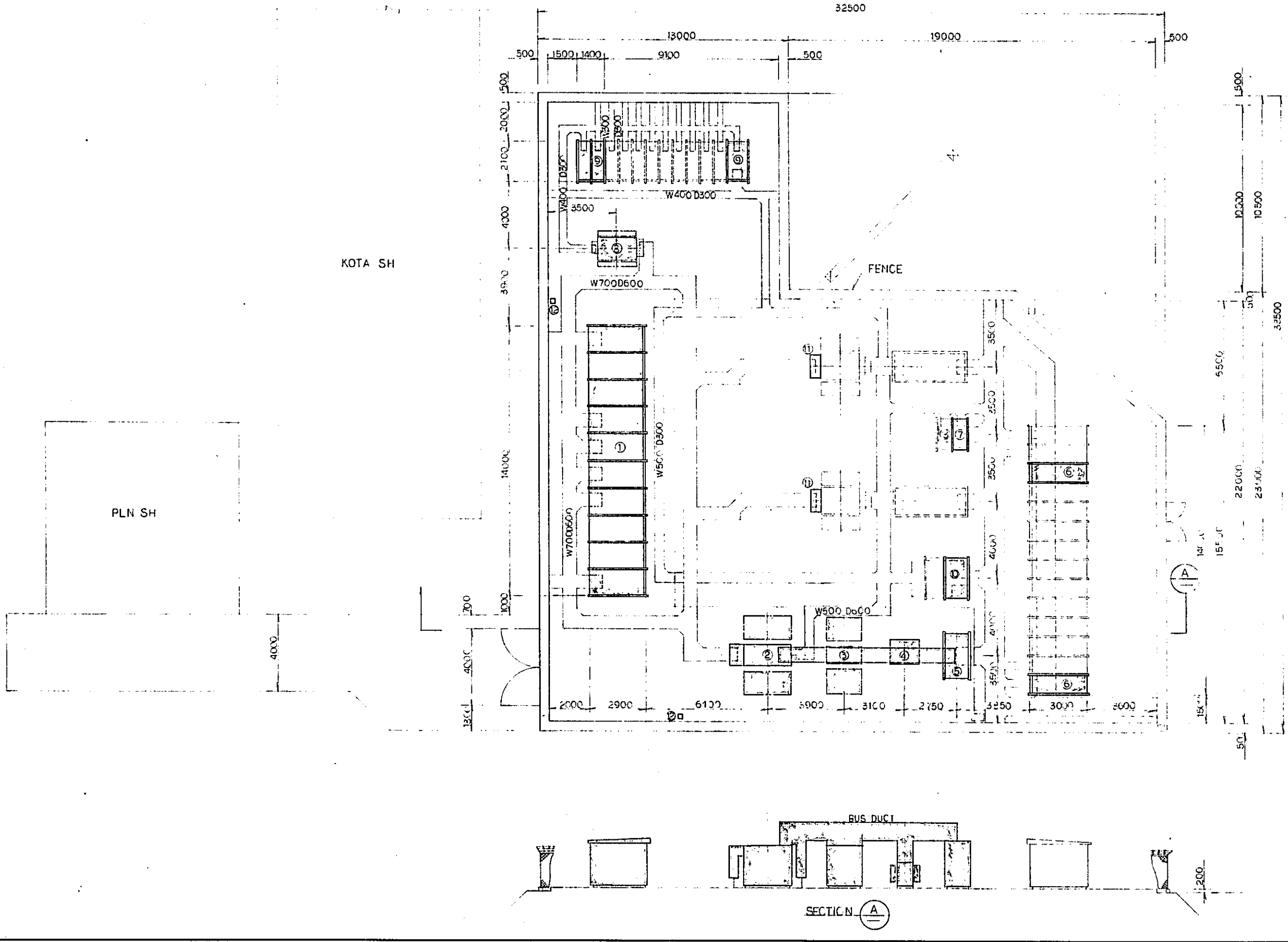
NEW RAILWAY LINE FOR CENGKARENG AIRPORT
CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1/29/84	N.T	N.T	K.M	K.M	K.K
A	15 Feb 84	N.T	N.T	K.M	K.M	K.K
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED

JAKARTA KOTA
SUBSTATION
SINGLE LINE DIAGRAM

PACKAGE: ELECTRICAL WORK
SCALE: NON SCALE
DRAWING NO: EP-013



DEVICE TABLE

NO	NAME
①	20KV CUBICLE
②	TRANSFORMER 3340 KVA
③	SILICON RECTIFIER 3000KW
④	DC SERIEL REACTOR 2000 A
⑤	FILTER CUBICLE
⑥	DC CIRCUIT BREAKER CUBICLE
⑦	NEGATIVE FEEDER CUBICLE
⑧	TRANSFORMER 500KVA
⑨	AC 6KV CUBICLE
⑩	AC AND DC LOW VOLTAGE FEEDER PANEL
⑪	CABLE DUCT
⑫	LAMP POSTS
⑬	REMOTE CONTROL PANEL

NOTES:
 — INDICATES THE EQUIPMENT TO BE INSTALLED IN THIS CONTRACT.

LEGEND:
 - - - : FUTURE PLAN

REPUBLIC OF INDONESIA
 MINISTRY OF COMMUNICATIONS
 DIRECTORATE GENERAL OF LAND TRANSPORT
 AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

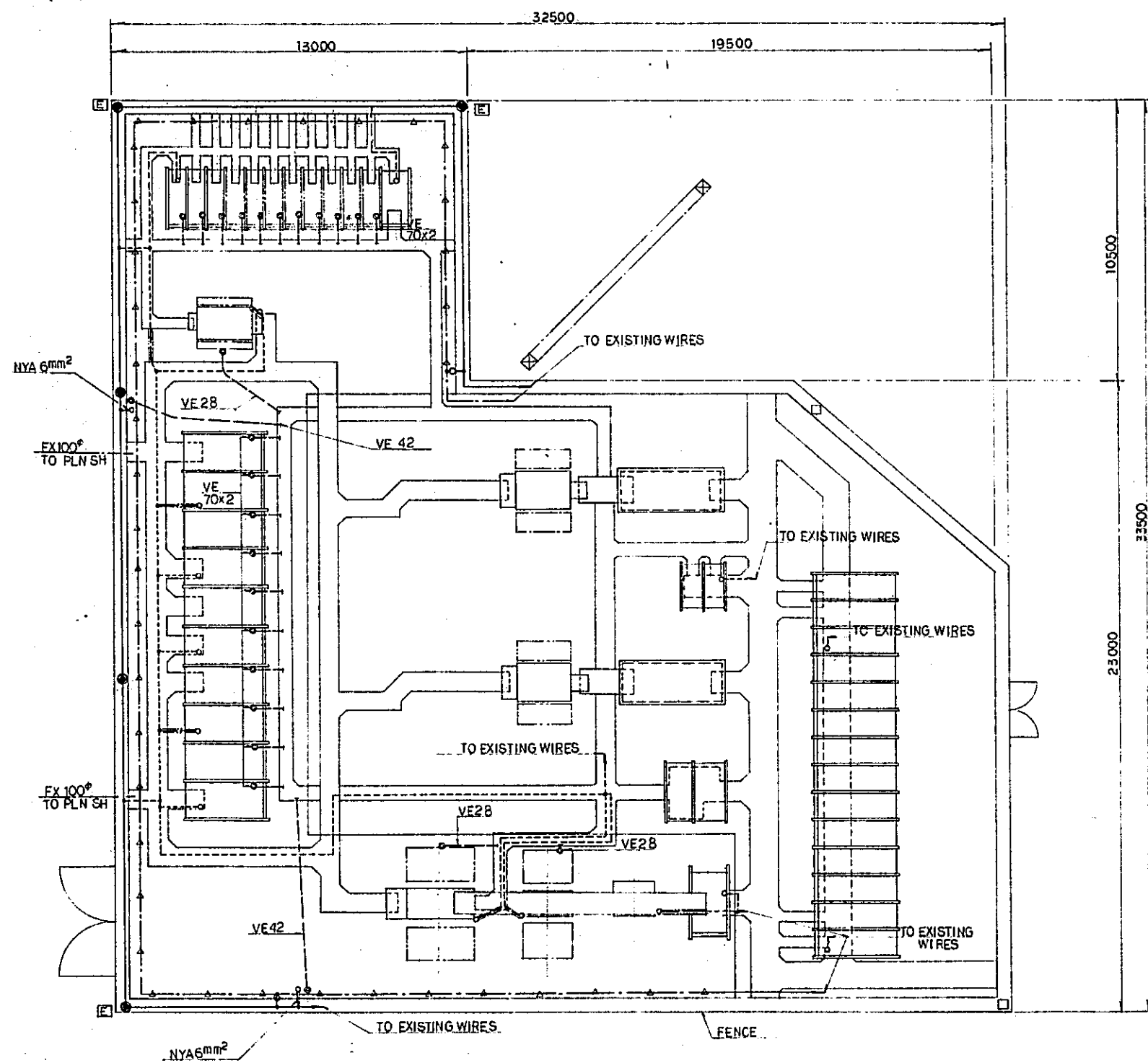
JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

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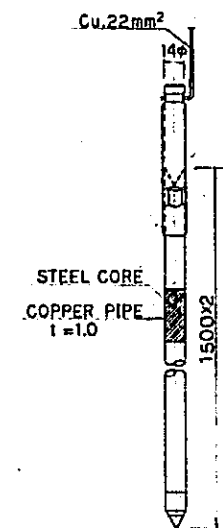
REVISIONS	DATE	BY	CHECKED	EXTENDED	APPROVED

JAKARTA KOTA
 SUBSTATION
 EQUIPMENT LAYOUT

PACKAGE: III ELECTRICAL WORK
 SCALE: 1:100 DRAWING NO: EP-014



GROUND WIRE PLAN SCALE 1:100



GROUND ROD NON SCALE

LEGEND:

- : GROUND ROD
- : Cu, 60mm² (ANNEALED COPPER STRANDED CONDUCTOR) BURIED CABLE 750mm UNDER GROUND LEVEL
- - - : NYA 70mm² (600V P.V.C INSULATED WIRE) INSTALLED IN THE TRENCH
- : VE 28 (28mm HARD P.V.C CONDUIT)
- : VE CONDUITS FOR CONTROL CABLE
- - - : FX FLEXIBLE TUBE
- : FASTENING TERMINAL
- : SOLDER
- : COMPRESSION SLEEVE FOR CONNECTING GROUND WIRE
- △ : BINDING POINT TO REINFORCEMENT
- [E] : MARKER OF GROUND ROD

NOTE:

GROUND WIRES INSTALLED IN THIS CONTRACT SHALL BE CONNECTED WITH EXISTING GROUND WIRES.

REPUBLIC OF INDONESIA
 MINISTRY OF COMMUNICATIONS
 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

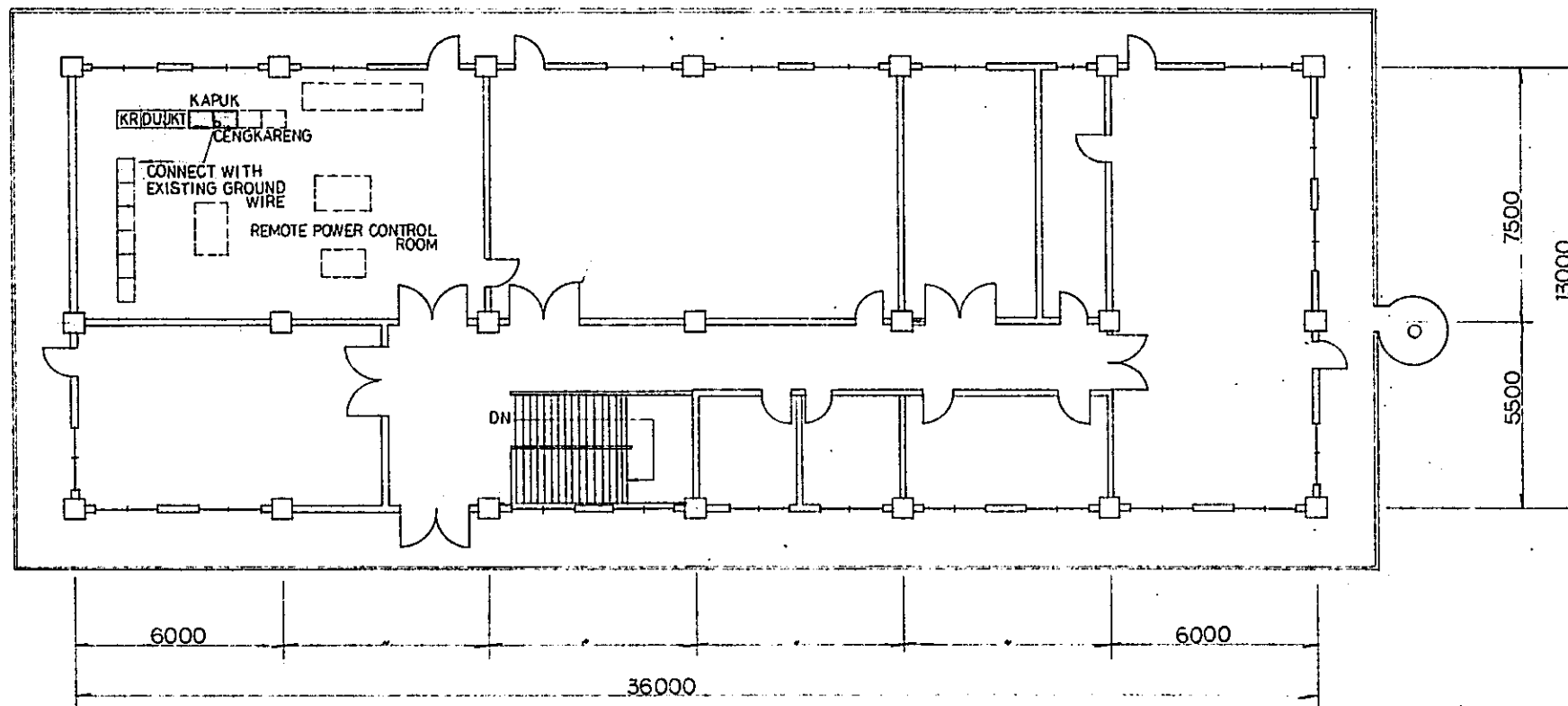
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

REVISIONS	DATE	BY	CHECKED

JAKARTA KOTA
 SUBSTATION
 GROUND WIRE PLAN

PACKAGE: ELECTRICAL WORK

SCALE: AS NOTED DRAWING NO: EF-016



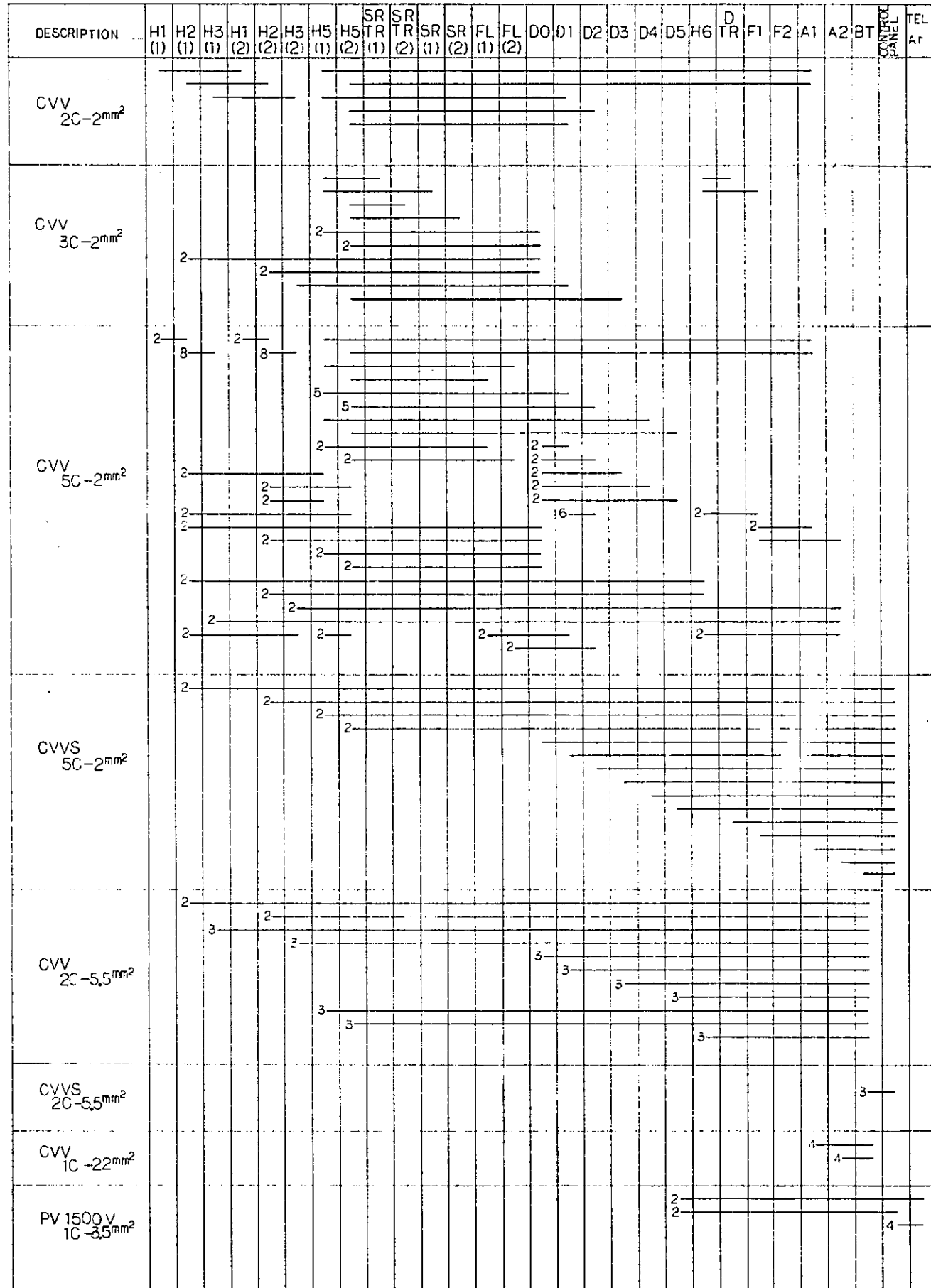
MANGGARAI OPERATION CENTER 3RD FLOOR

NOTE:

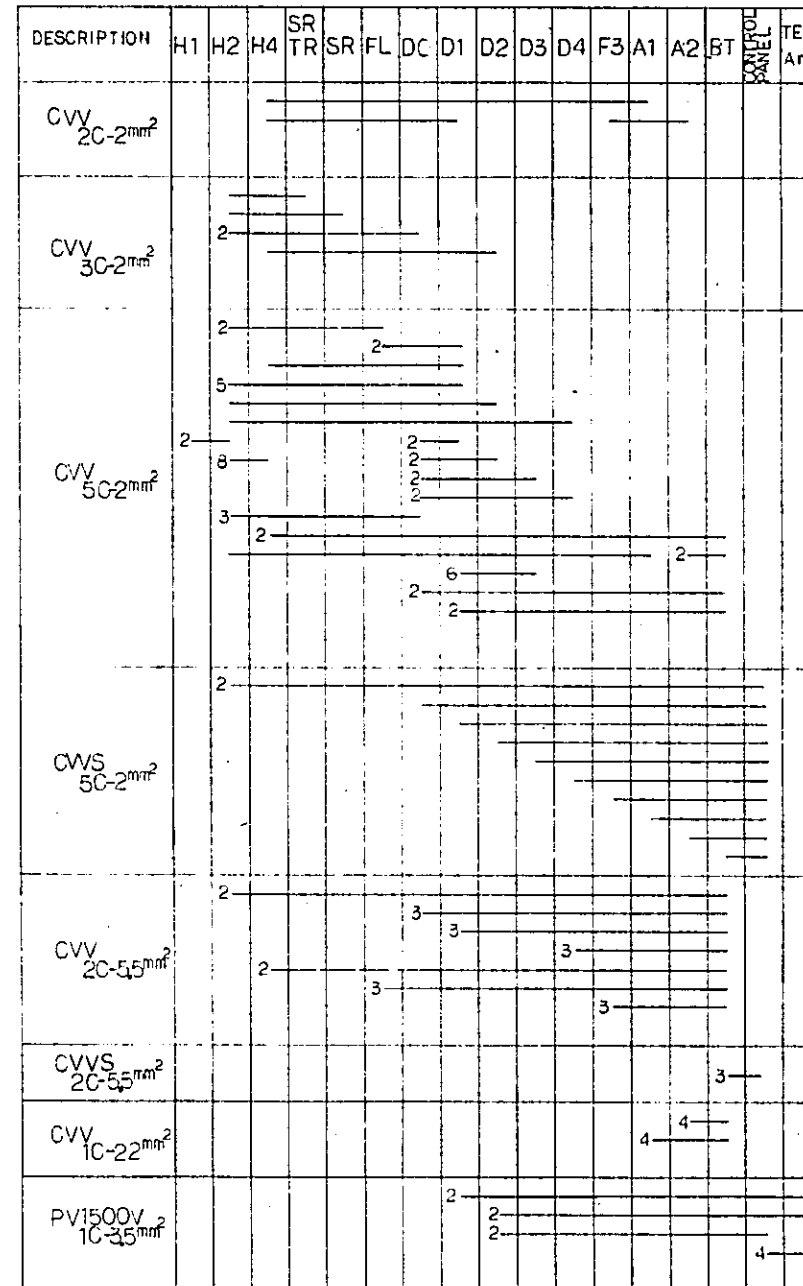
1. — INDICATES THE EQUIPMENT TO BE INSTALLED IN THIS CONTRACT.
2. ARCHITECTURAL WORK IS NOT IN THIS CONTRACT.

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07
A	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07
REVISIONS	DATE					
MANGGARAI CONTROL CENTER EQUIPMENT LAYOUT						
PACKAGE: ELECTRICAL WORK						
SCALE: 1:100	DRAWING NO: EP-017					

GENGKARENG SUBSTATION



KAPUK SUBSTATION



REPUBLIC OF INDONESIA
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF LAND TRANSPORT
AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

B	1 Aug. '84	N.T	N.T	K.H	K.M	M.K
A	15 Feb. '84	N.T	N.T	K.H	K.M	M.K

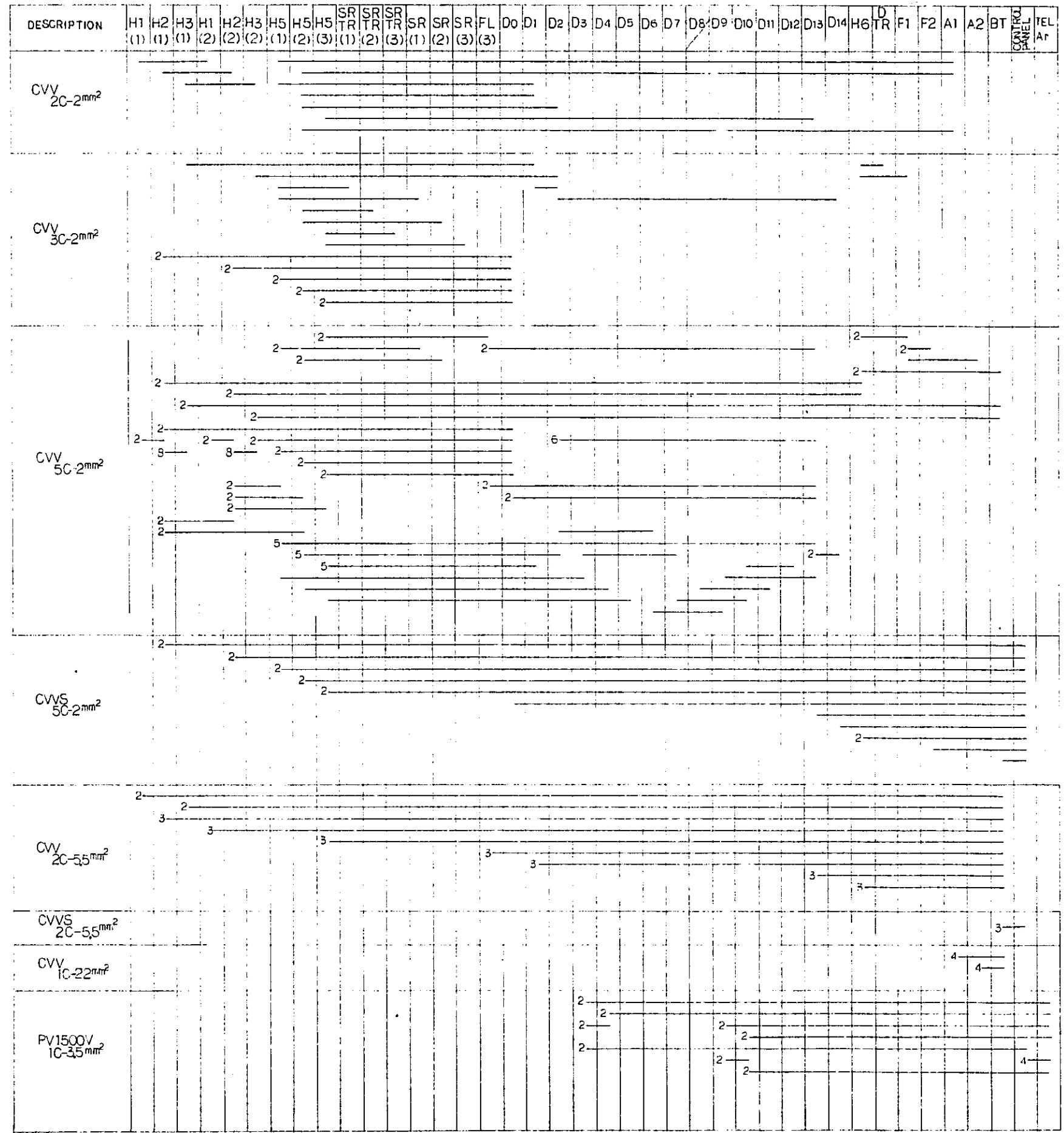
REVISIONS	DATE	DESIGNED	CHECKED	REVIEWED	SUBMITTED

CONTROL CABLE
CONNECTION DIAGRAM
(SHEET 1 OF 2)

PACKAGE: ELECTRICAL WORK

SCALE: NON SCALE DRAWING NO: EP-019

JAKARTA KOTA SUBSTATION



MANGGARAI REMOTE CONTROL ROOM

DESCRIPTION	CONTROL PANEL	CHARGER PANEL	TELECOMMUNICATION TERMINAL BOX
CVVS 5C-2mm²	2		
CVVS 2C-5.5mm²	2		

DURI SUBSTATION

DESCRIPTION	DC CIRCUIT BREAKER CUBICLE	TEL Ar
PV1500V 1C-3.5mm²	4	

GMBIR SUBSTATION

DESCRIPTION	DC CIRCUIT BREAKER CUBICLE	TEL Ar
PV1500V 1C-3.5mm²	4	

REPUBLIC OF INDONESIA
MINISTRY OF COMMUNICATIONS
 DIRECTORATE GENERAL OF LAND TRANSPORT
 AND INLAND WATERWAYS

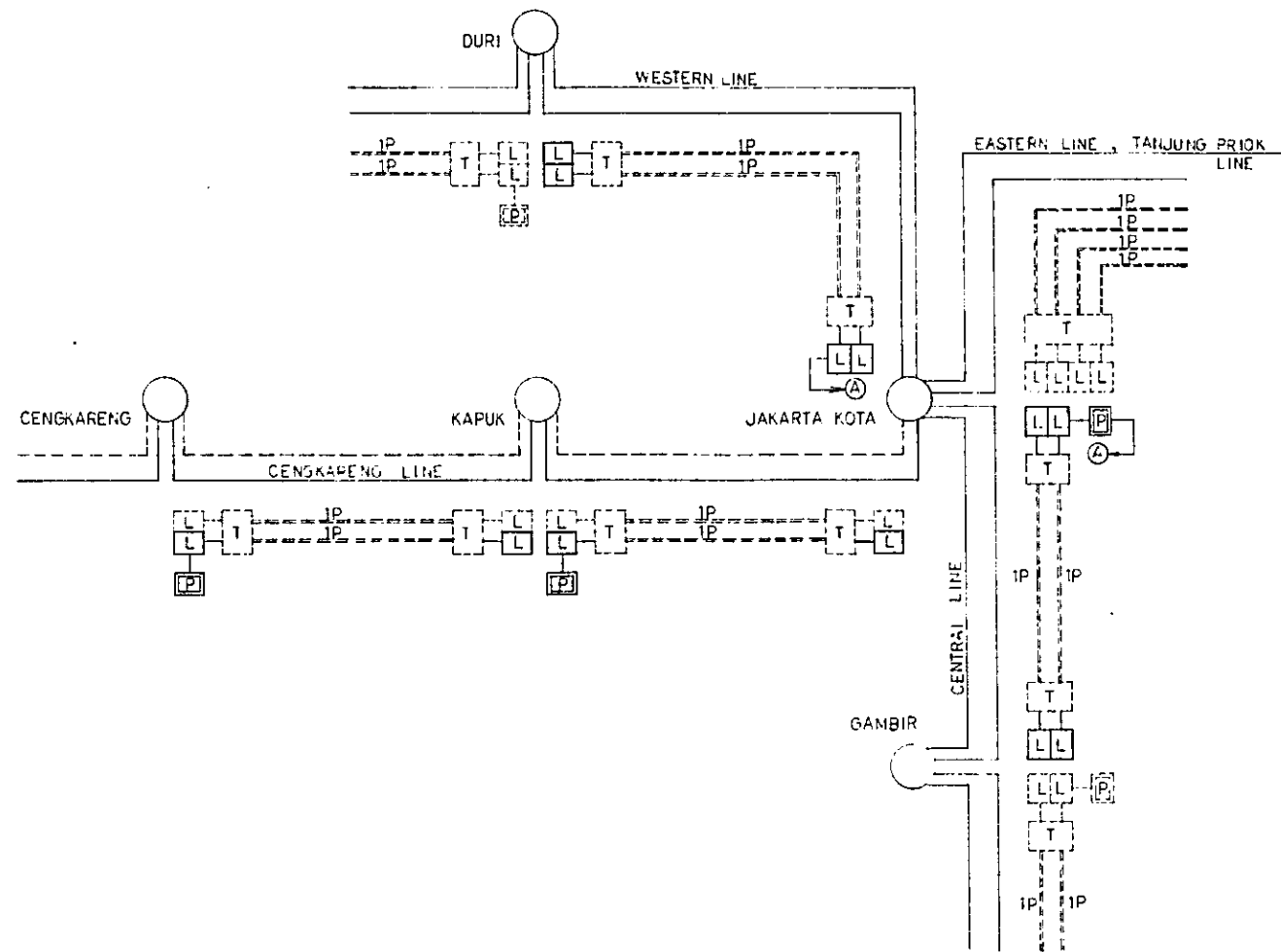
**NEW RAILWAY LINE FOR CENKARENG AIRPORT
 CONSTRUCTION PROJECT**

JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

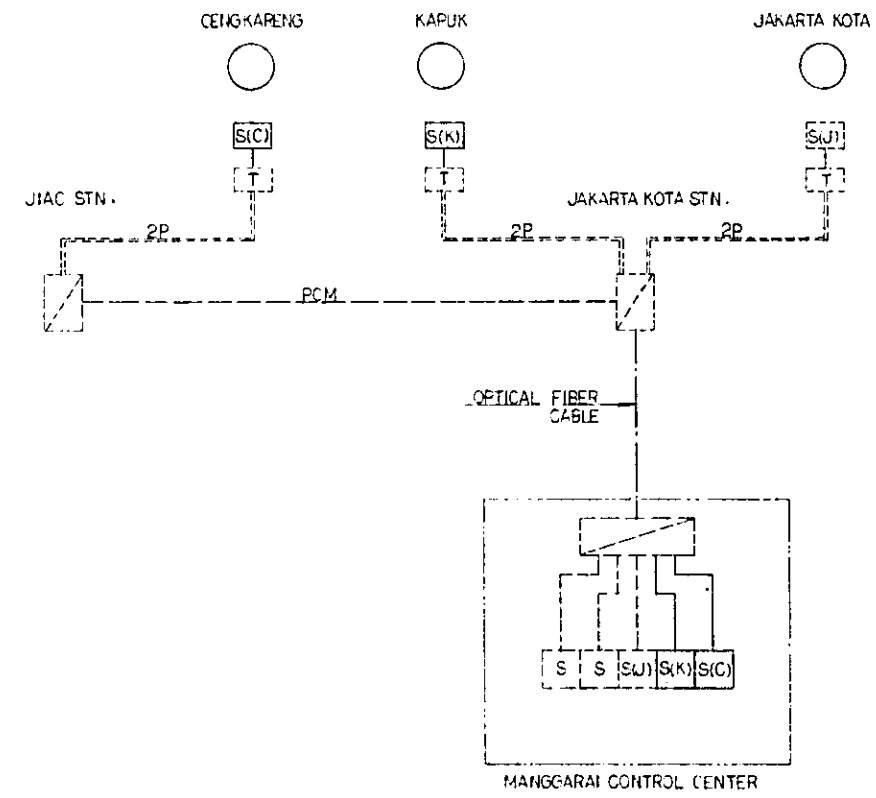
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
B	1 Aug '94	N.T.	N.T.	KU	K.M.	K.K.
A	15 Feb '94	N.T.	N.T.	KU	K.M.	K.K.

**CONTROL CABLE
 CONNECTION DIAGRAM
 (SHEET 2 OF 2)**

PACKAGE: **ELECTRICAL WORK**
 SCALE: **NON SCALE** DRAWING NO.: **EP-020**



LINKED BREAKING SYSTEM



REMOTE CONTROL SYSTEM

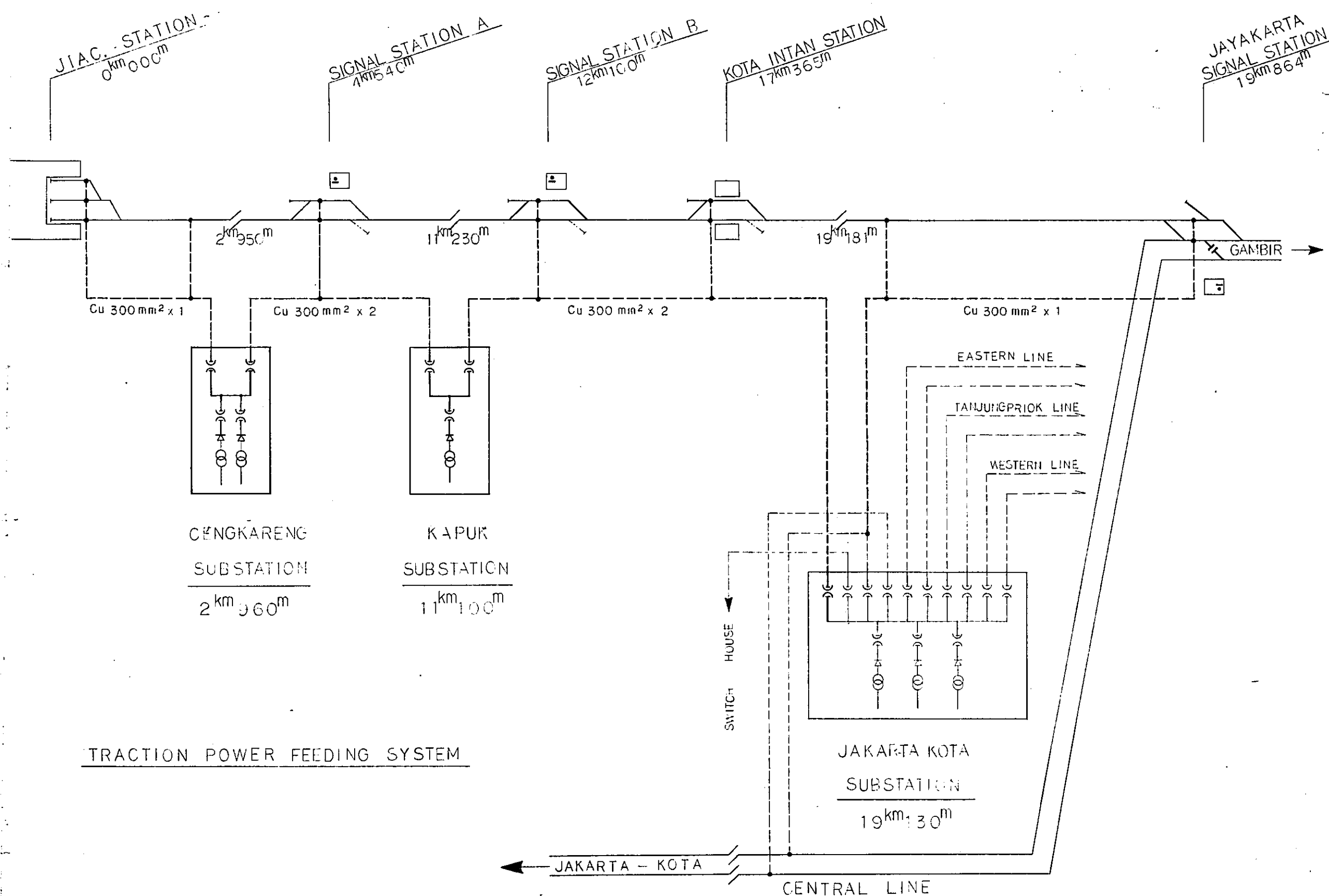
LEGEND:

- : SUBSTATION
- (with L) : LINKED BREAKING DEVICE (LBD)
- (with T) : TELECOMMUNICATION ARRESTER
- (with P) : POWER SOURCE FOR LBD
- (with S) : REMOTE CONTROL PANEL
- : TELECOMMUNICATION CABLE

NOTE:

□ (with diagonal line) INDICATES THE DEVICE TO BE INSTALLED IN THIS CONTRACT.

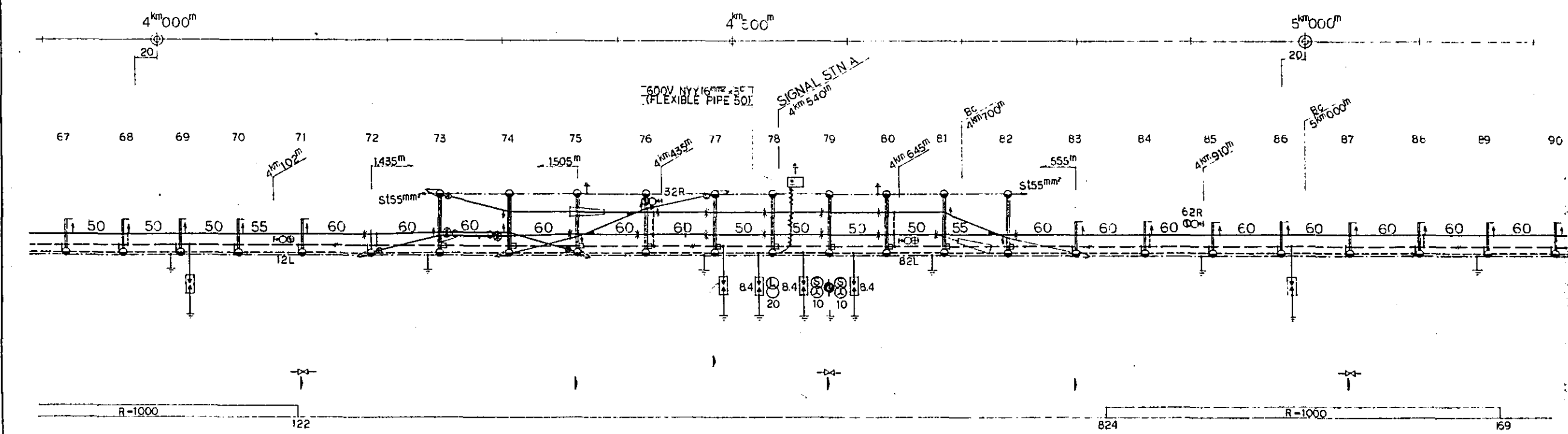
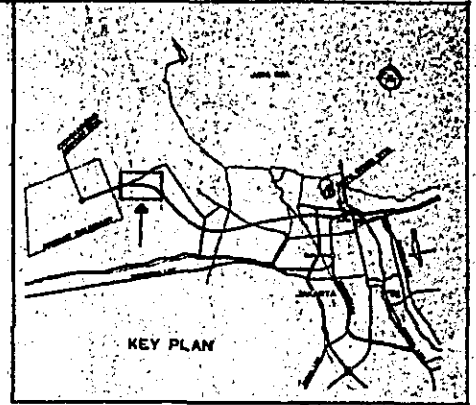
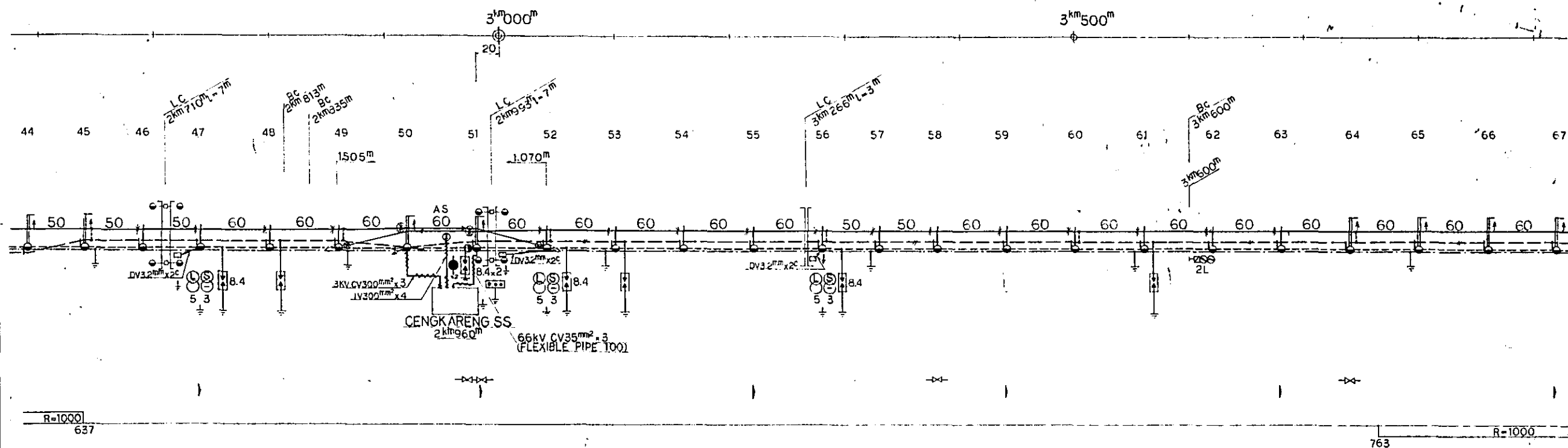
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	Aug '84	U.T	U.T	E.U	K.M	K.K
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
LINKED BREAKING SYSTEM AND REMOTE CONTROL SYSTEM						
PACKAGE: <input checked="" type="checkbox"/> ELECTRICAL WORK						
SCALE		DRAWING NO.				
NON SCALE		EP-21				



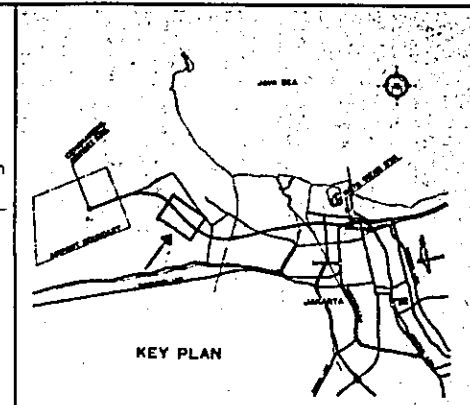
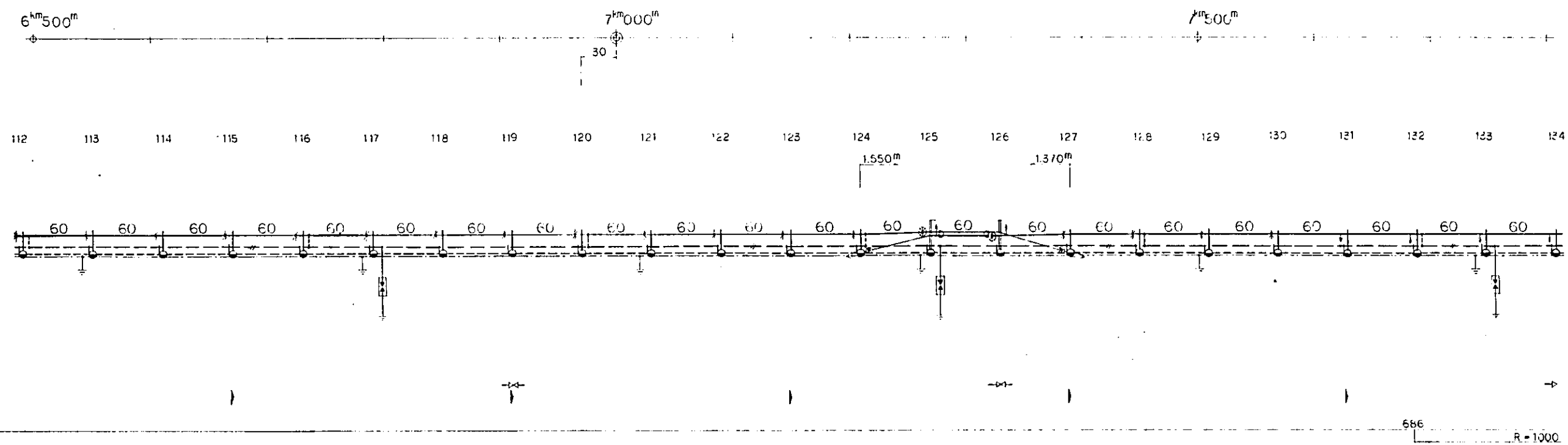
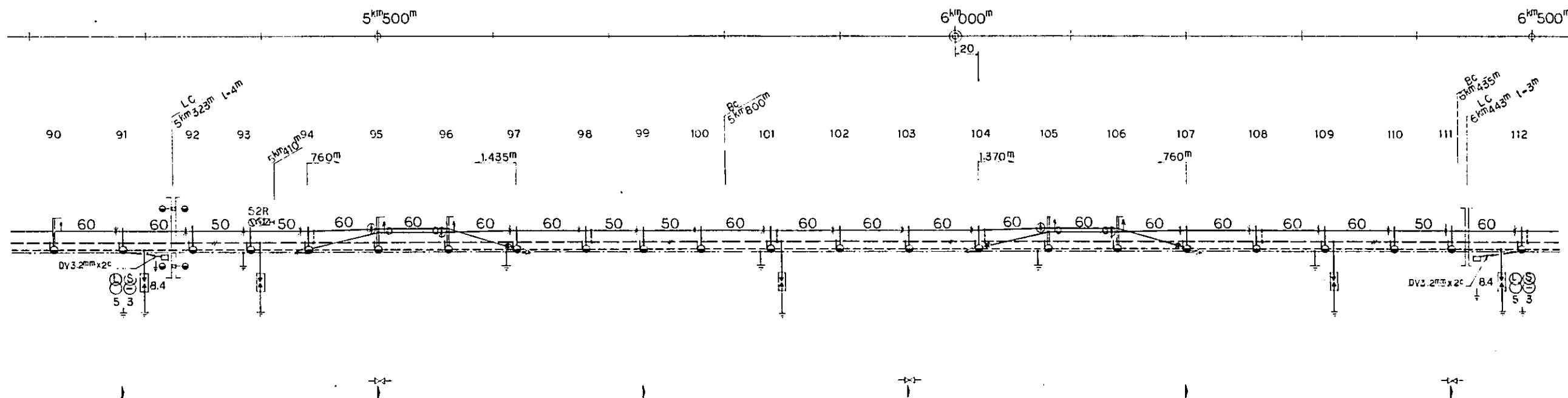
- LEGEND:
- : FEEDER
 - : TROLLEY
 - : FEEDER (EXISTING LINE)
 - : TROLLEY (EXISTING LINE)

TRACTION POWER FEEDING SYSTEM

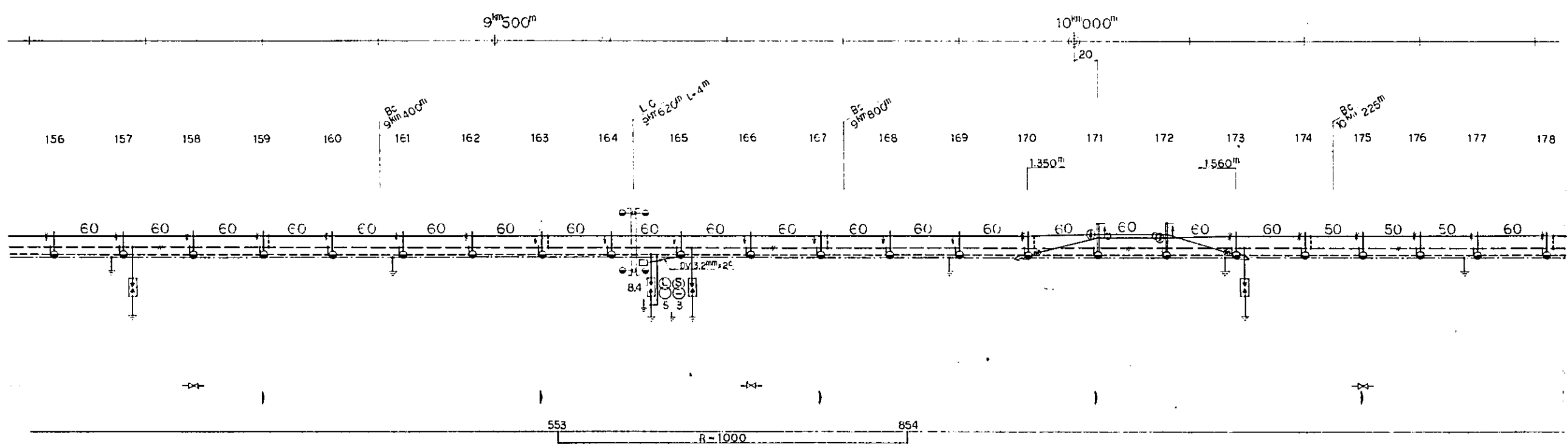
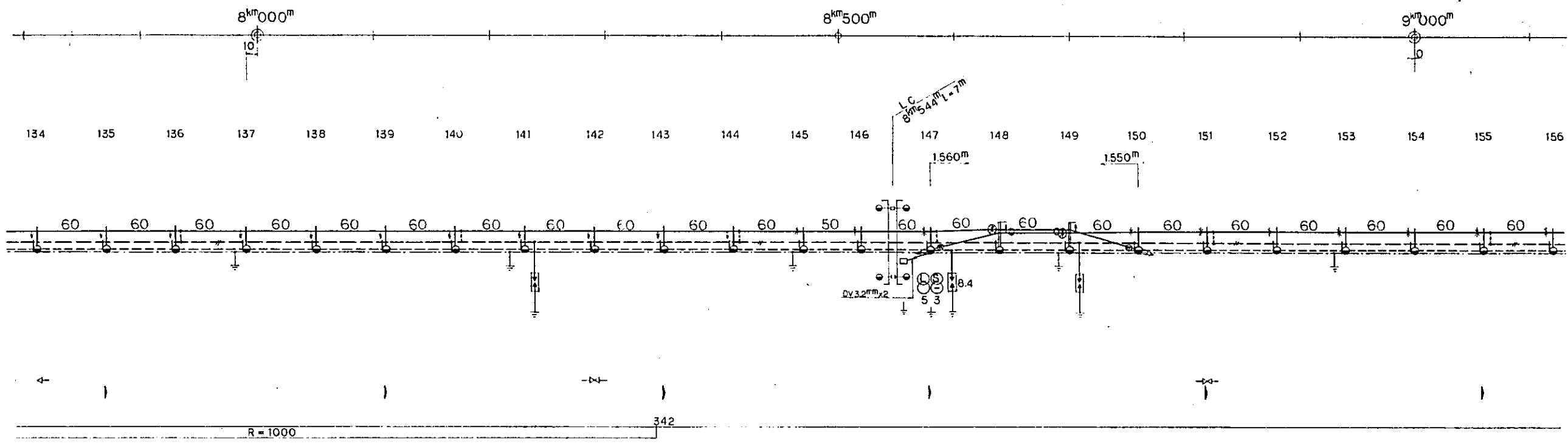
REPUBLIC OF INDONESIA					
MINISTRY OF COMMUNICATIONS					
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B.	1989	SH	SH	KU	UM
A.	1988	SH	SH	KU	UM
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	APPROVED
TRACTION POWER FEEDING SYSTEM					
PACKAGE: ELECTRICAL WORK					
SCALE: NON SCALE	DRAWING NO: EC-001				

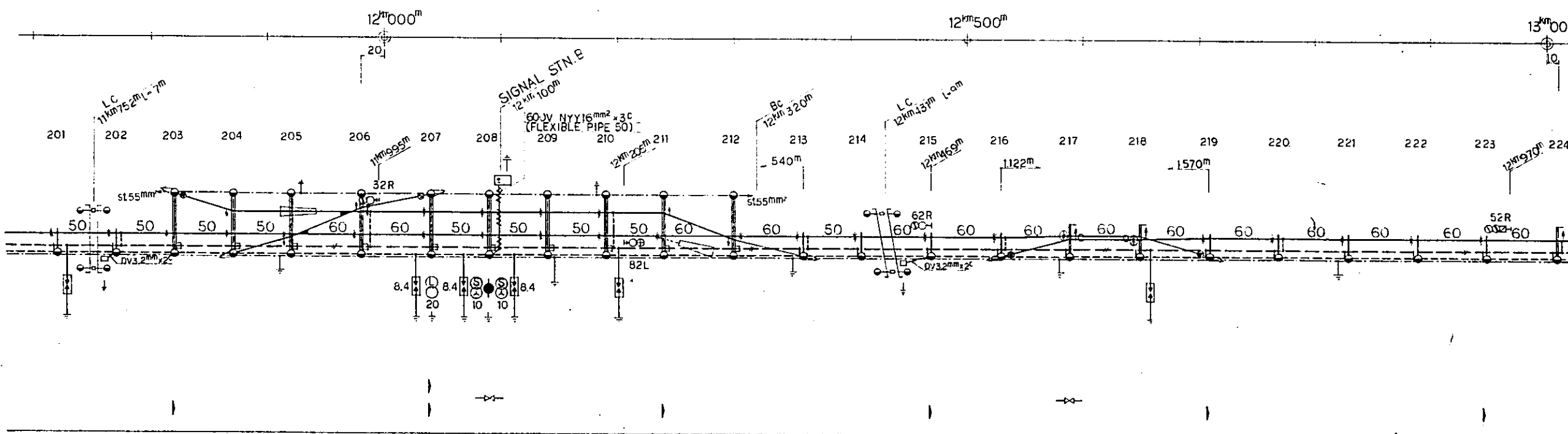
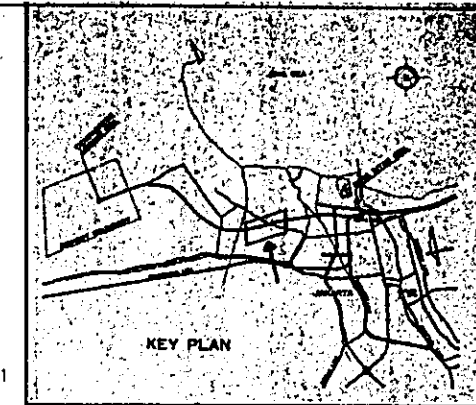
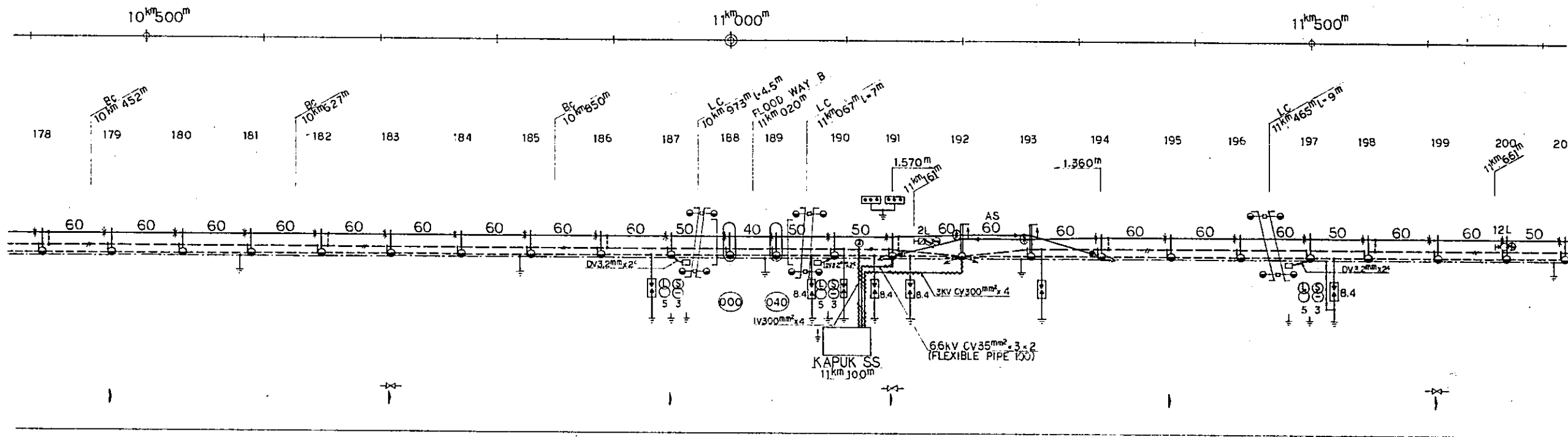


REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 Aug '80	S.H	S.H	X.H	V.M	M.K
A	10 Feb '80	S.H	S.H	X.H	V.M	M.K
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
DIAGRAMMATIC PLAN OF TRACTION AND UTILITY POWER DISTRIBUTION LINES (SHEET 2 OF 8)						
PACKAGE: ELECTRICAL WORK						
SCALE: NON SCALE		DRAWING NO: E.G. 003				



REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 Aug. '84	S.H	S.H	K.U	U.M	K
A	15 Feb. '84	S.H	S.H	K.U	U.M	K
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
DIAGRAMMATIC PLAN OF TRACTION AND UTILITY POWER DISTRIBUTION LINES (SHEET 3 OF 8)						
PACKAGE: III ELECTRICAL WORK						
SCALE NON SCALE		DRAWING NO. EC-004				





REPUBLIC OF INDONESIA
 MINISTRY OF COMMUNICATIONS
 DIRECTORATE GENERAL OF LAND TRANSPORT
 AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

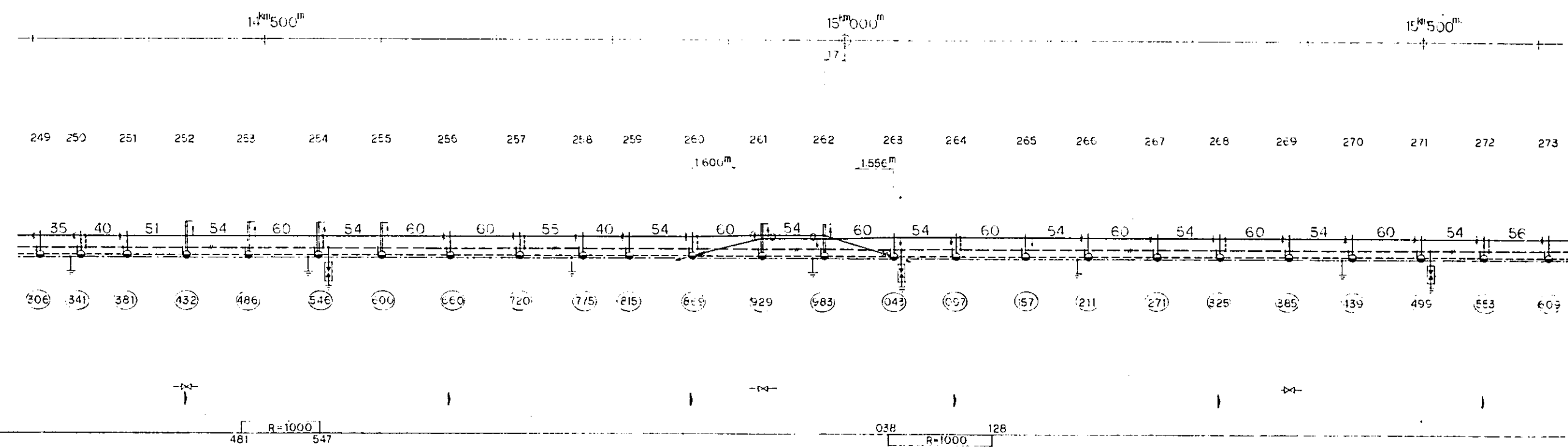
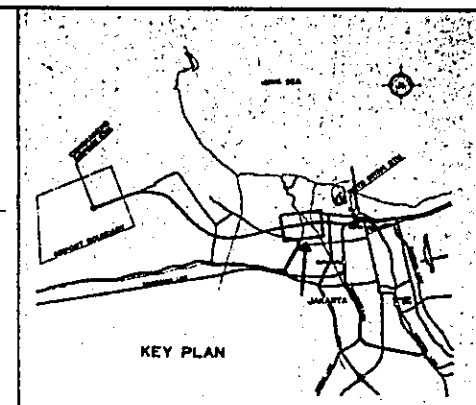
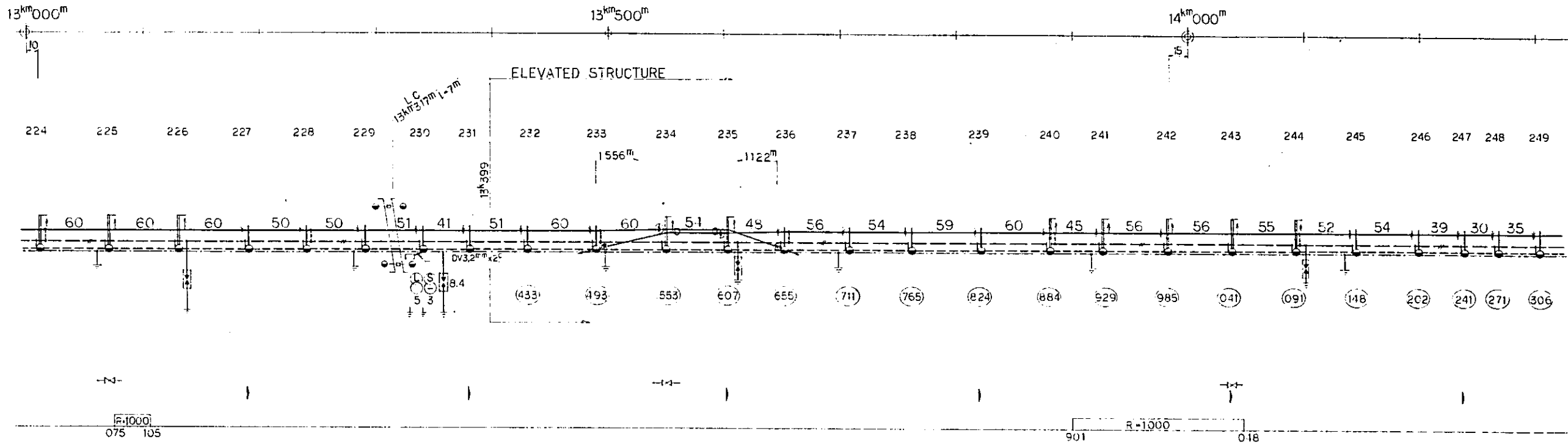
JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

B	1 Aug. 88	S.H.	S.H.	K.H.	K.M.	M.K.
A	15 Feb. 88	S.H.	S.H.	K.H.	K.M.	M.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED

DIAGRAMMATIC PLAN OF
 TRACTION
 AND
 UTILITY POWER DISTRIBUTION LINES
 (SHEET 5 OF 8)

PACKAGE: ELECTRICAL WORK

SCALE: NON SCALE DRAWING NO.: E C - 006



REPUBLIC OF INDONESIA
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF LAND TRANSPORT
AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

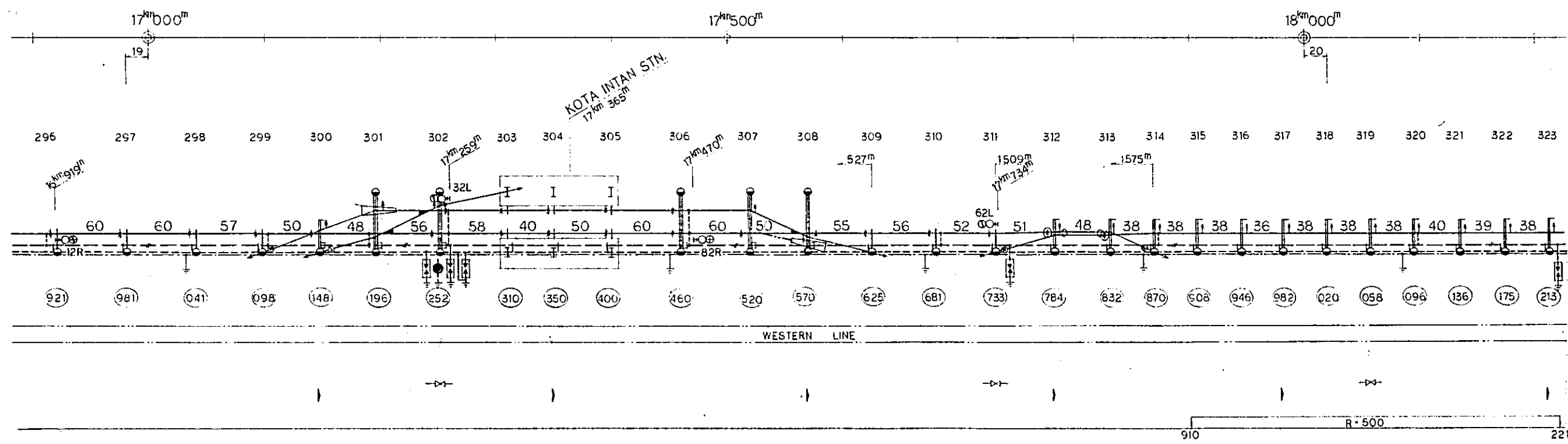
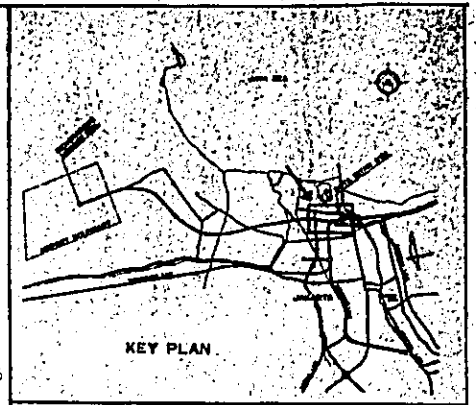
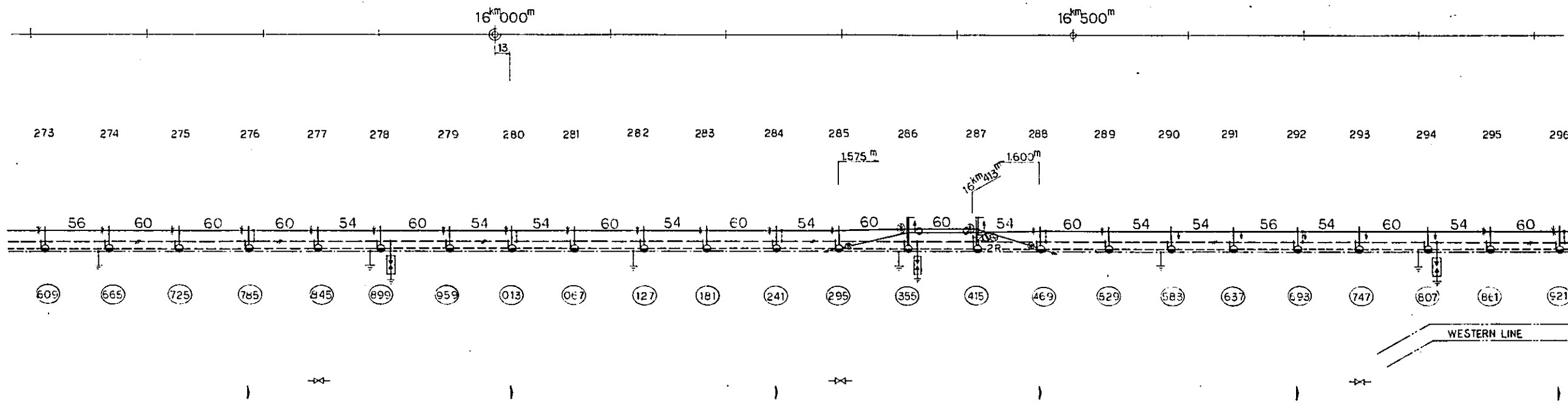
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A	15 Feb. 88	S.H.	S.H.	K.U.	K.M.	M.K.

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVISED	SUBMITTED
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DIAGRAMMATIC PLAN OF
TRACTION
AND
UTILITY POWER DISTRIBUTION LINES
(SHEET 6 OF 8)

PACKAGE: ELECTRICAL WORK

SCALE: NON SCALE DRAWING NO.: EC-007



REPUBLIC OF INDONESIA
 MINISTRY OF COMMUNICATIONS
 DIRECTORATE GENERAL OF LAND TRANSPORT
 AND INLAND WATERWAYS

**NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT**

JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

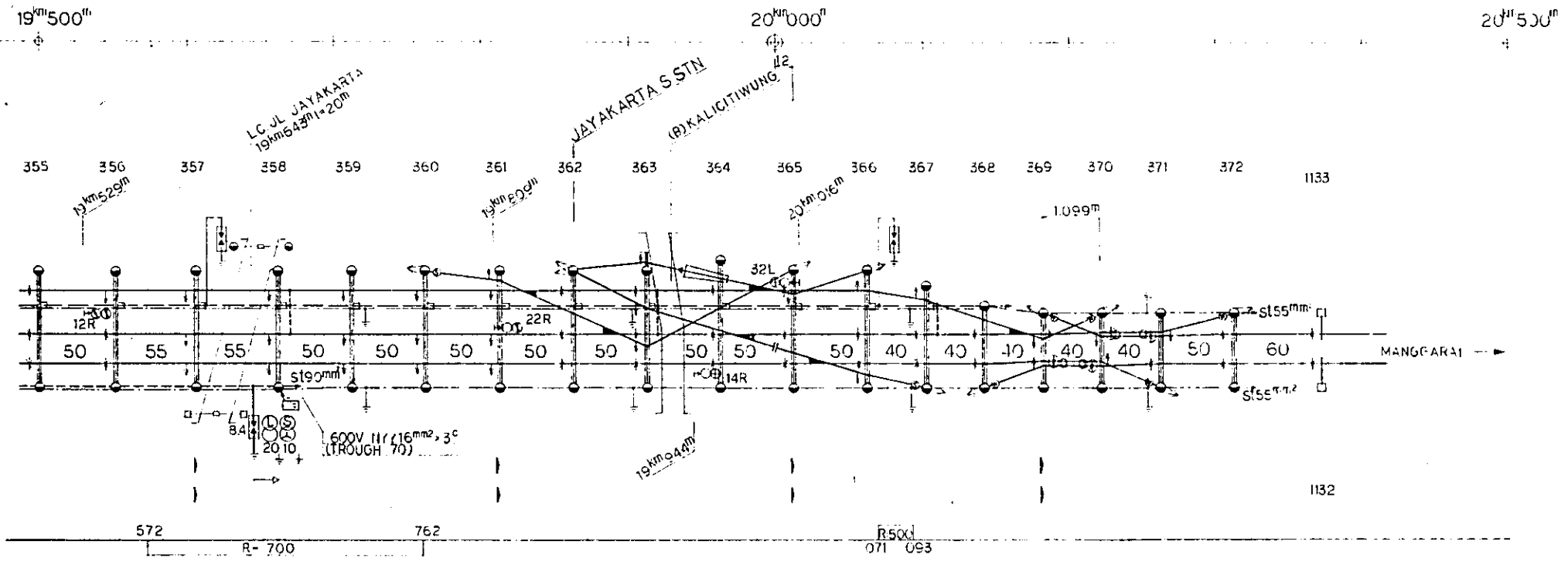
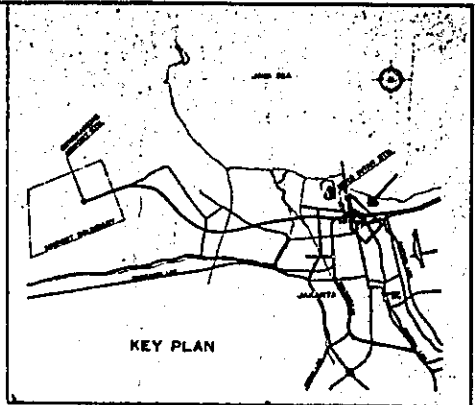
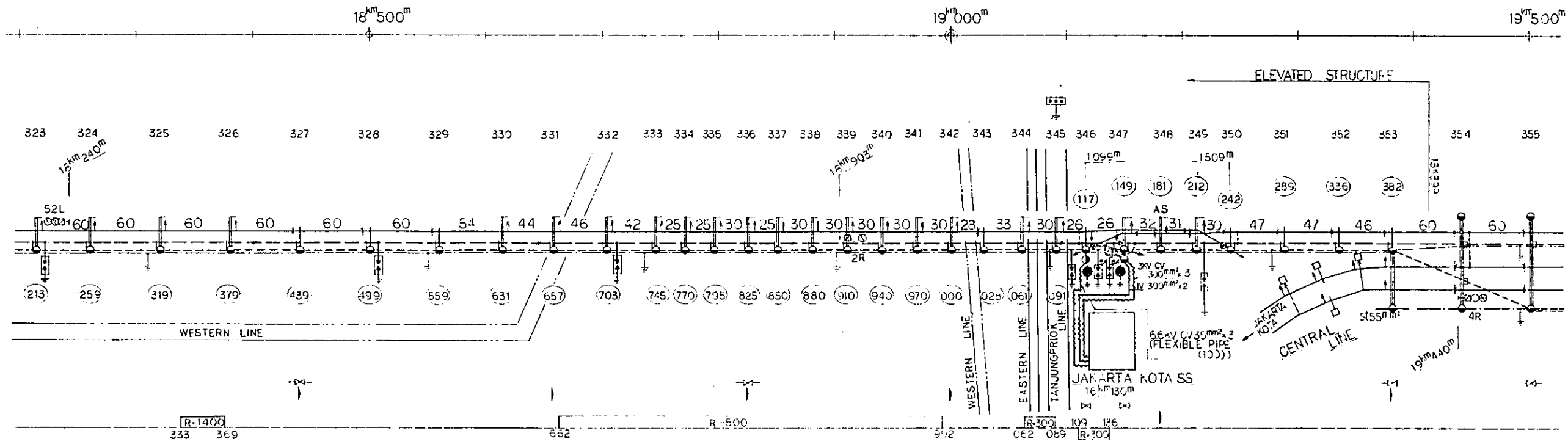
B	1 Aug. '80	S.H.	S.H.	S.K.	K.M.	M.K.
A	15 Feb. '80	S.H.	S.H.	K.U.	K.M.	M.K.

REVISORS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED

**DIAGRAMMATIC PLAN OF
 TRACTION
 AND
 UTILITY POWER DISTRIBUTION LINES
 (SHEET 7 OF 8)**

PACKAGE: **ELECTRICAL WORK**

SCALE: **NON SCALE** DRAWING NO: **EC-008**



REPUBLIC OF INDONESIA
 MINISTRY OF COMMUNICATIONS
 DIRECTORATE GENERAL OF LAND TRANSPORT
 AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

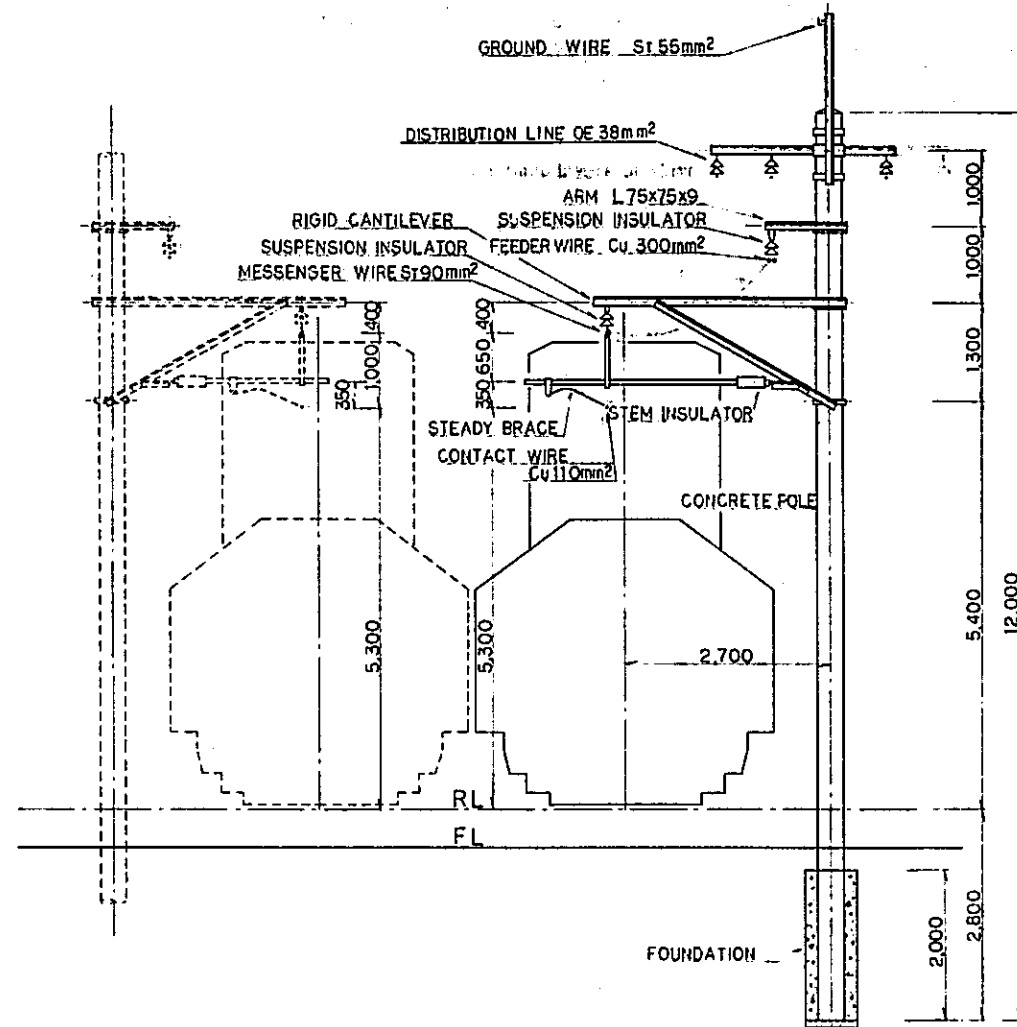
JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
B	1 Aug 84	S.H.	S.H.	Kul	V.M.	K.
A	15 Feb 84	S.H.	S.H.	Kul	V.M.	K.

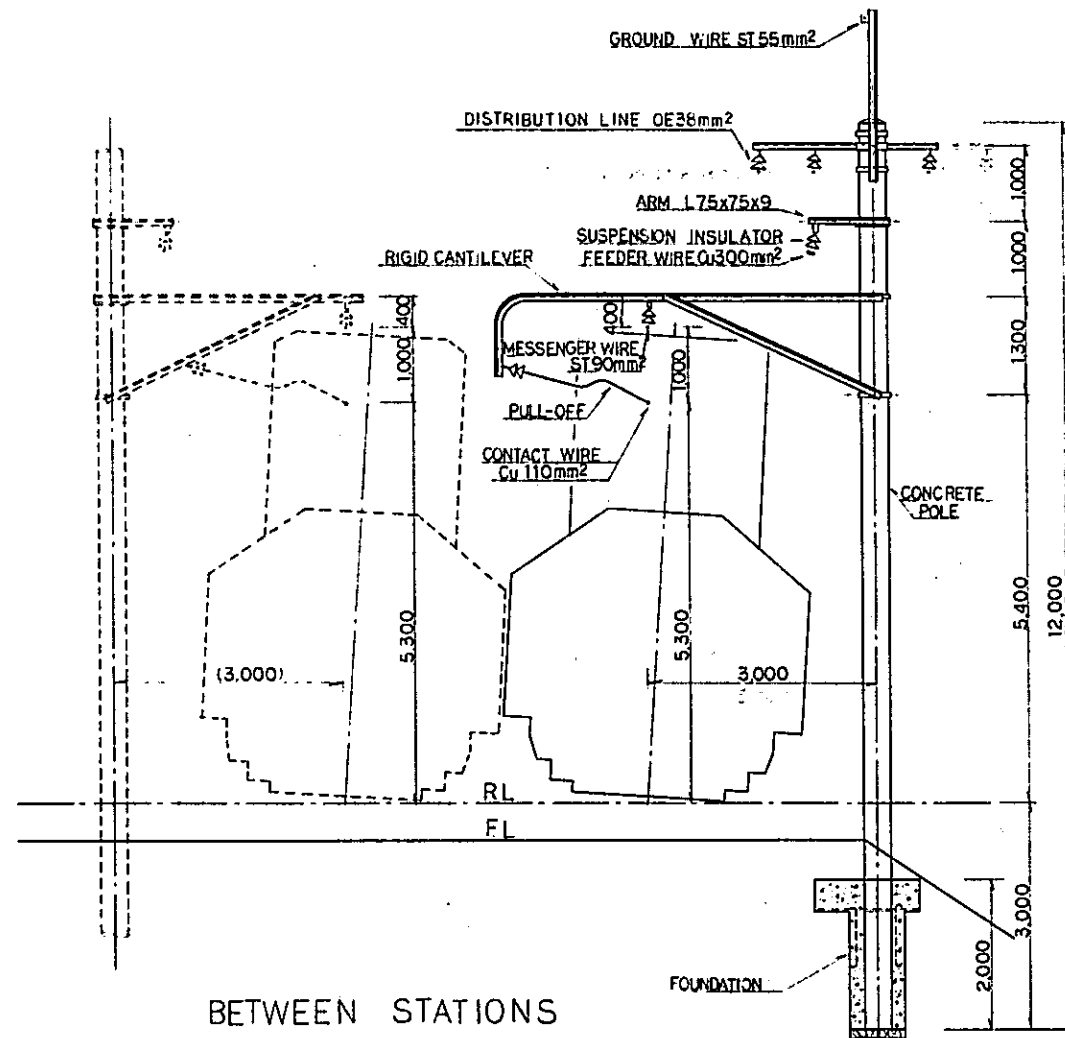
DIAGRAMMATIC PLAN OF
 TRACTION
 AND
 UTILITY POWER DISTRIBUTION LINES
 (SHEET 8 OF 8)

PACKAGE: ELECTRICAL WORK

SCALE: NON SCALE DRAWING NO: EC-009

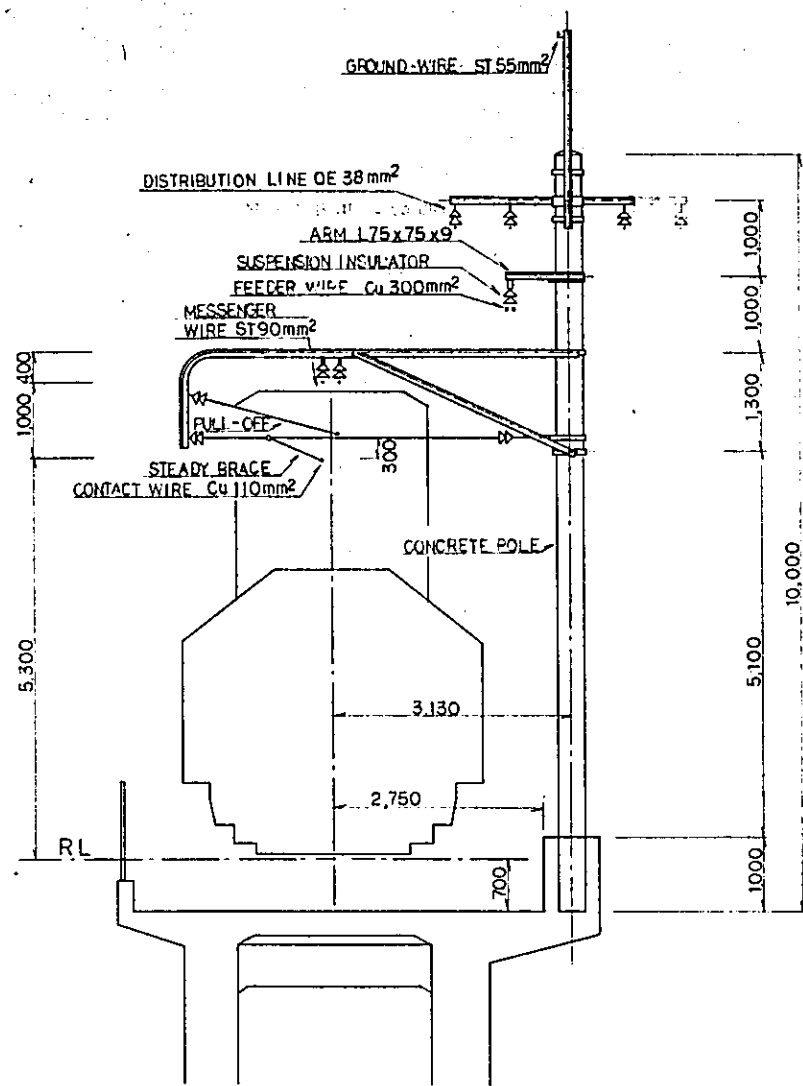


BETWEEN STATIONS
(STRAIGHT SECTION)

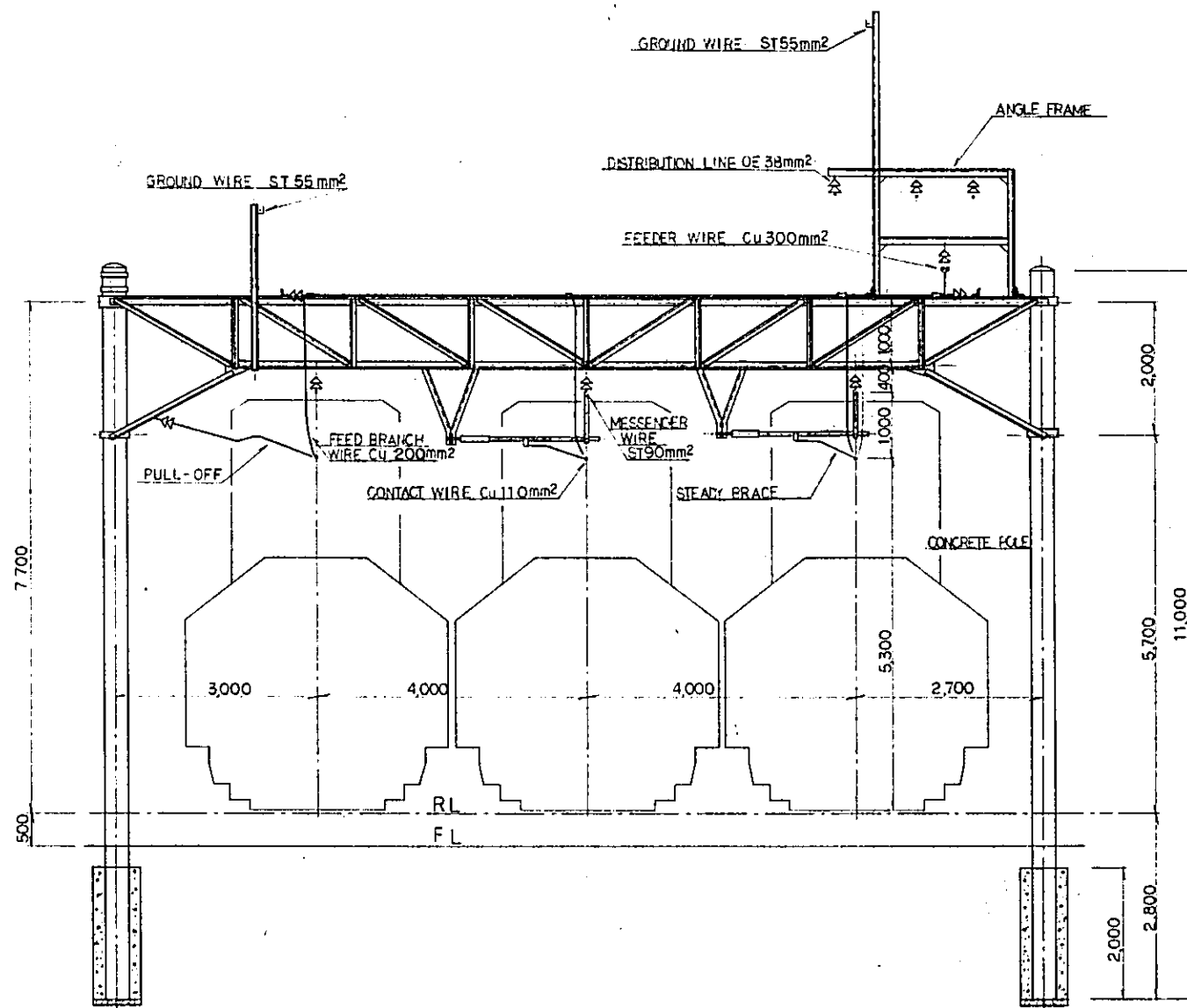


BETWEEN STATIONS
(CURVED SECTION)

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1/11/84	S.H.	S.H.	K.W.	K.M.
A	2/2/84	S.H.	S.H.	K.W.	K.M.
REVISIONS	DATE				
STANDARD SUPPORTING STRUCTURE (SHEET 1 OF 3)					
PACKAGE: ELECTRICAL WORK					
SCALE	1:50	DRAWING NO.	EG-010		



ELEVATED STRUCTURE



INSIDE OF STATION

REPUBLIC OF INDONESIA
 MINISTRY OF COMMUNICATIONS
 DIRECTORATE GENERAL OF LAND TRANSPORT
 AND INLAND WATERWAYS

NEW RAILWAY LINE FOR GENGKARENG AIRPORT
 CONSTRUCTION PROJECT

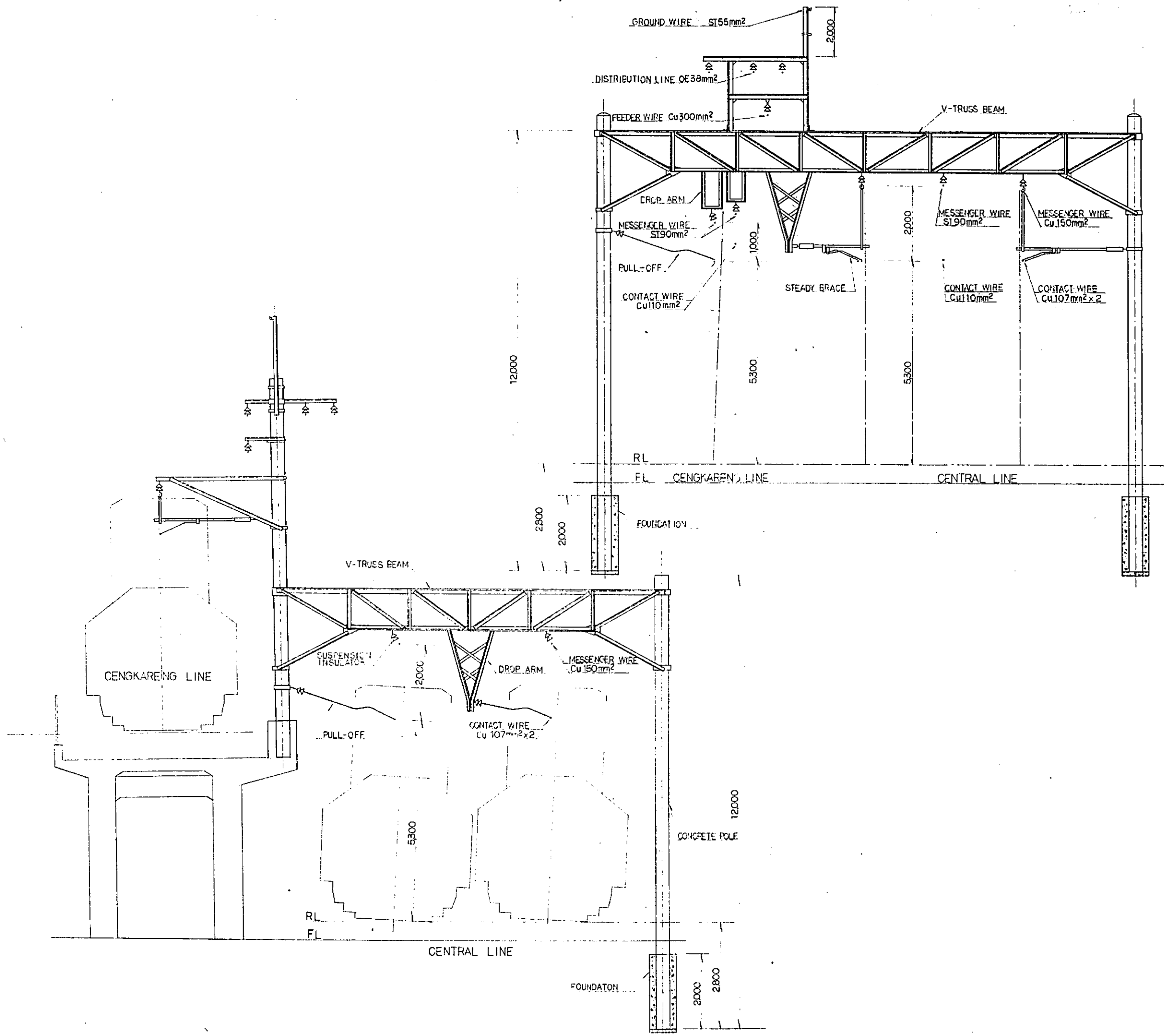
JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

B	1. Aug. 80	S.H.	S.H.	K.L.	K.M.	K.K.
A	15 Feb. 80	S.H.	S.H.	K.L.	K.M.	K.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED

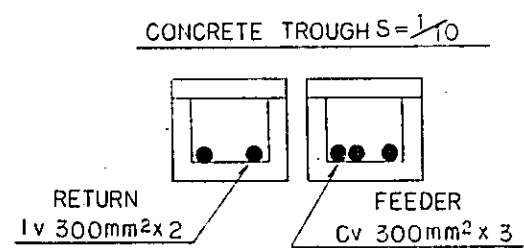
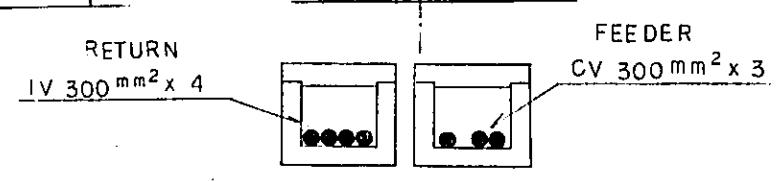
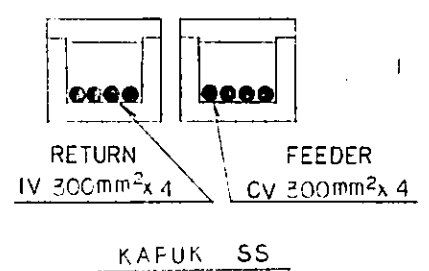
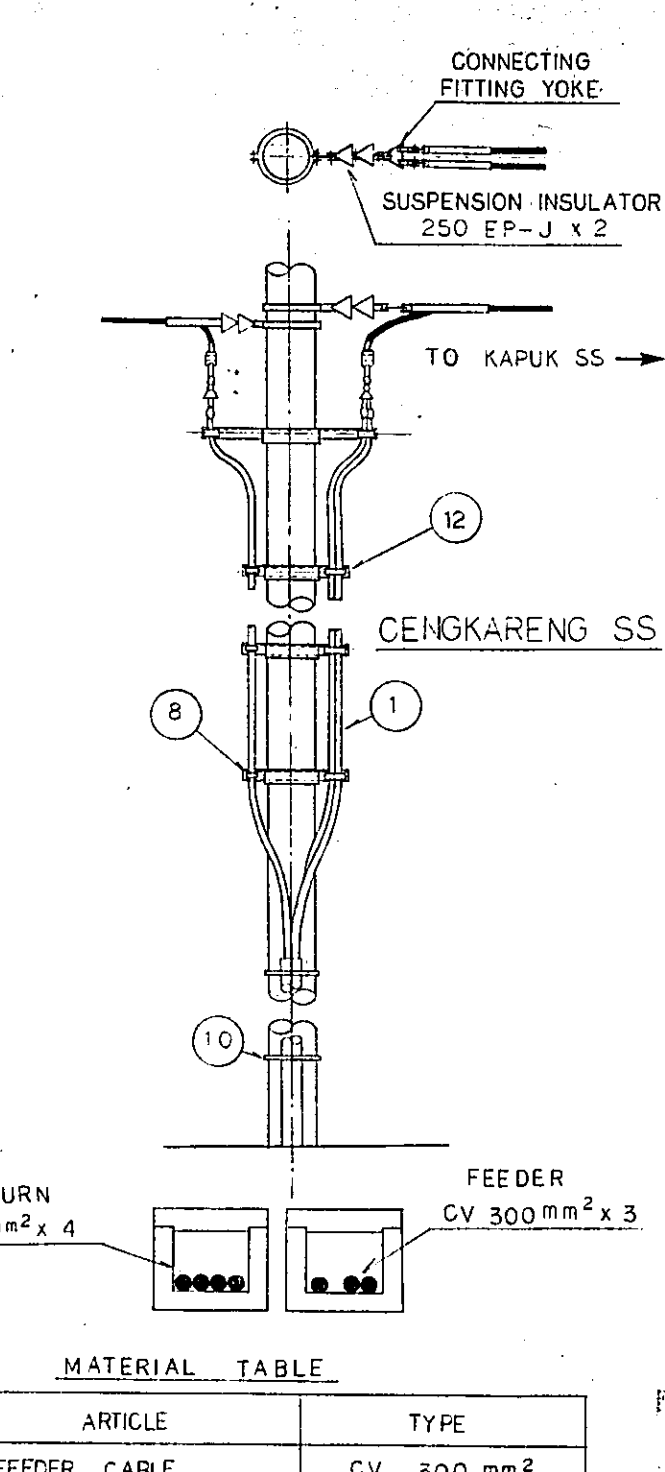
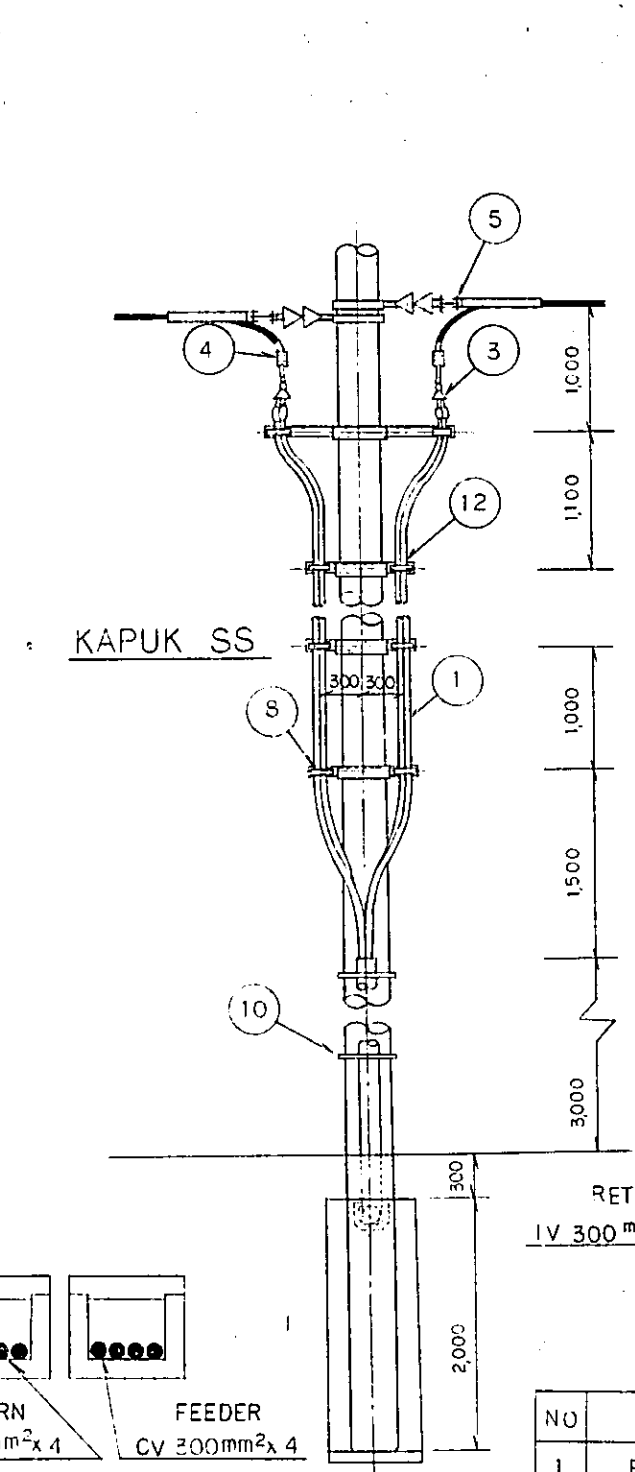
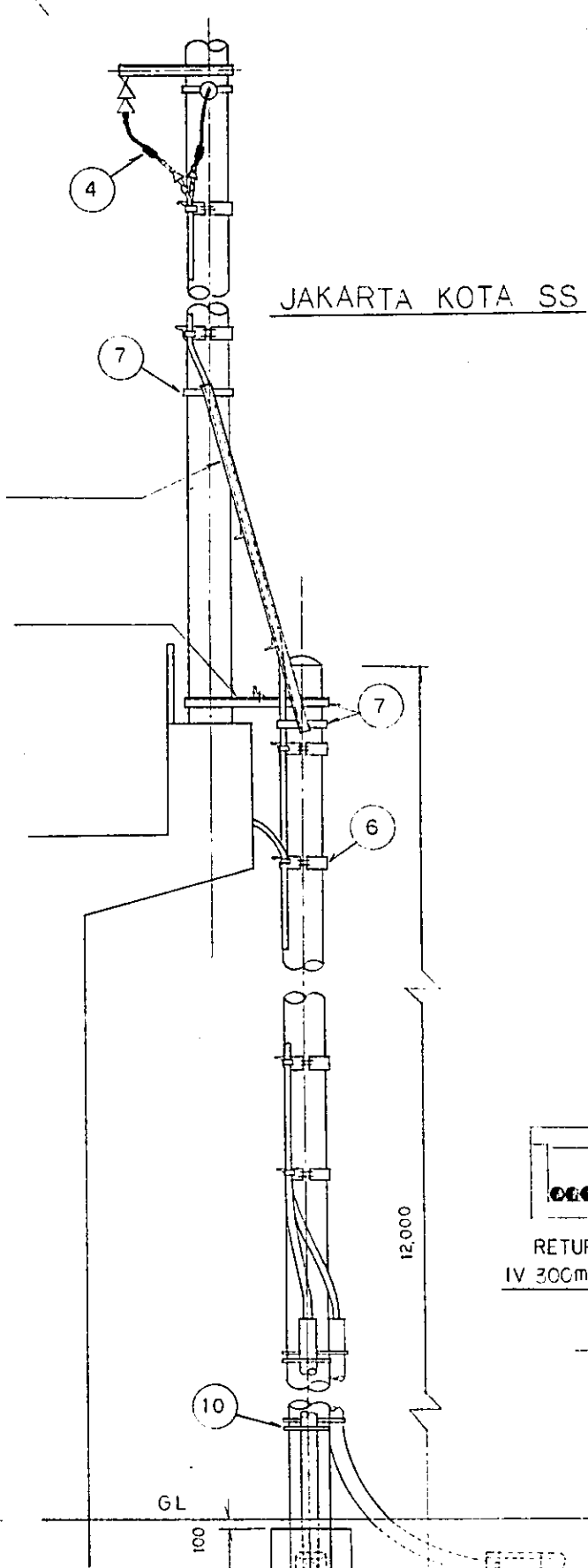
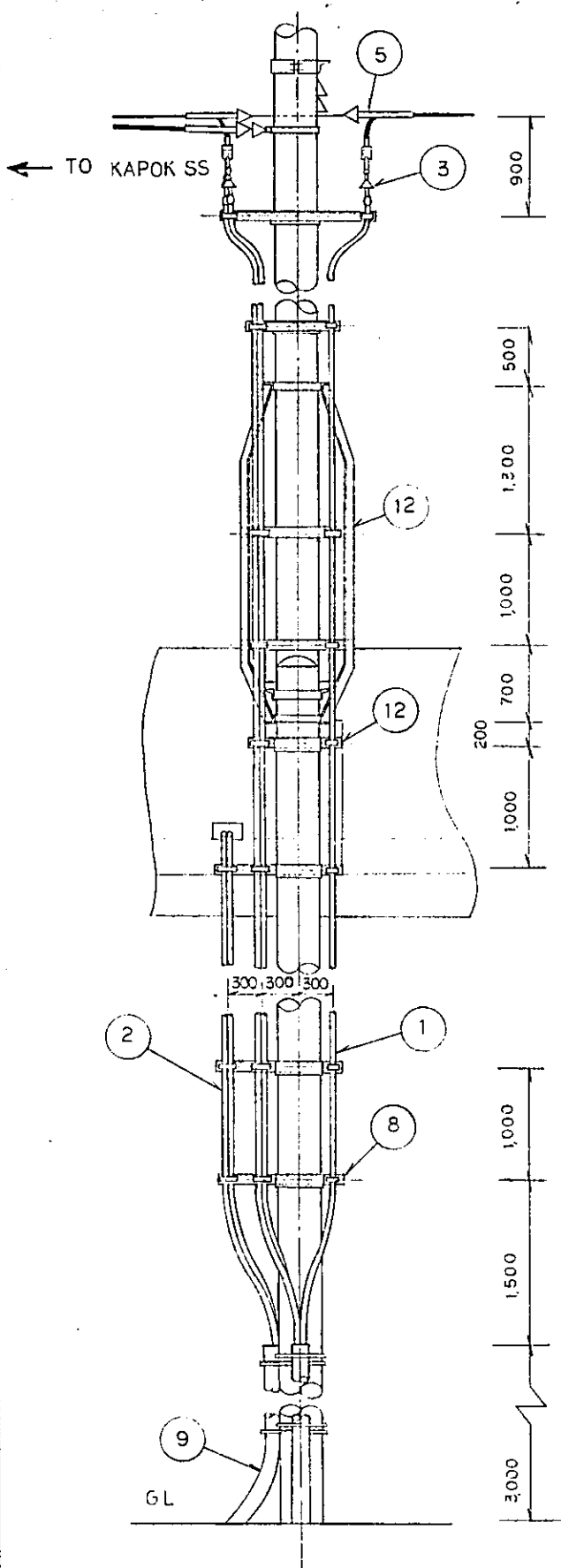
STANDARD SUPPORTING
 STRUCTURE
 (SHEET 2 OF 3)

PACKAGE: ELECTRICAL WORK

SCALE: 1:50 DRAWING NO: EC-01



REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 Aug '89	S.H.	S.H.	K.U.	K.M.	K.R.
A	15 Feb '89	S.H.	S.H.	K.U.	K.M.	K.R.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
STANDARD SUPPORTING STRUCTURE (SHEET 3 OF 3)						
PACKAGE: ■ ELECTRICAL WORK						
SCALE	DRAWING NO.					
1:50	EQ-012					



MATERIAL TABLE

NO	ARTICLE	TYPE
1	FEEDER CABLE	CV 300 mm ²
2	RETURN CABLE	IV 300 mm ²
3	CABLE HEAD	FOR 300 mm ²
4	COMPRESSION TERMINAL	C4-TYPE FOR CU 300mm ²
5	DEAD-END FITTING	FOR CU 300 mm ²
6	POLE BAND	D2
7	DO	A
8	CLEAT	OF SYNTHETIC RESIN
9	FLEXIBLE CONDUIT	150 mm ²
10	STAINLESS STEEL BAND	20mm WITH BINDING FITTING
11	CONCRETE TROUGH	200 x 170 L=500
12	ARM	FOR FOUR CABLES

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 DIRECTORATE GENERAL OF LAND TRANSPORT
 AND INLAND WATERWAYS

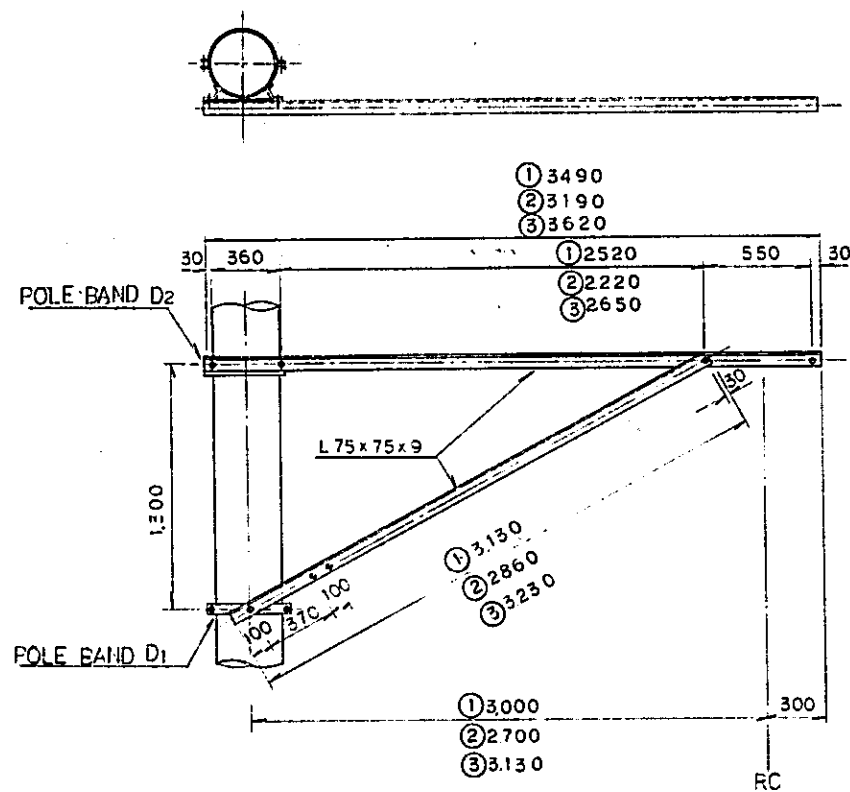
NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

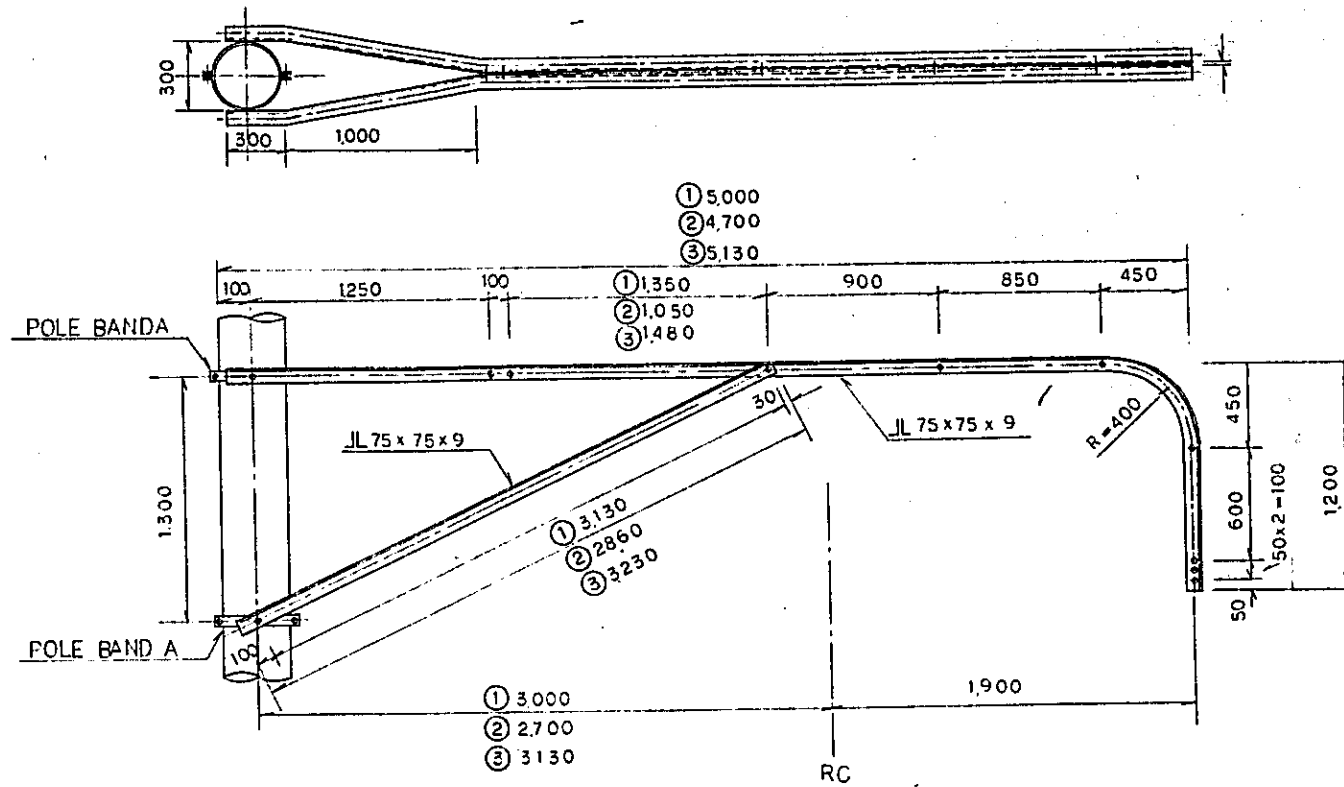
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
B	1 Aug '84	S.H.	S.H.	K.L.	U.M.	M.K.
A	15 Feb '84	S.H.	S.H.	K.L.	U.M.	M.K.

STANDARD DRAW-OUT
 ASSEMBLIES AT SUBSTATION

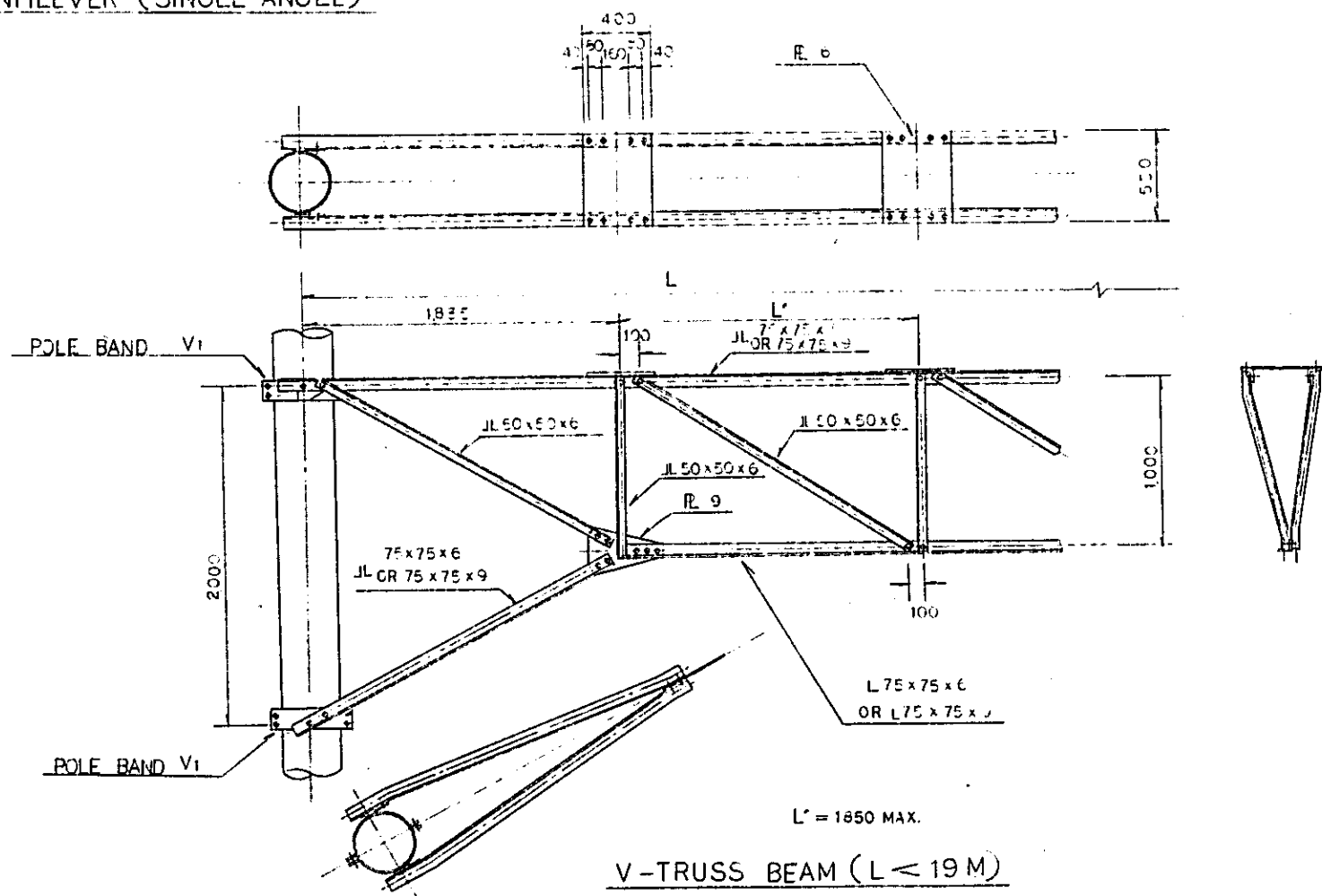
PACKAGE: ELECTRICAL WORK
 SCALE: 1:30 DRAWING NO: EC-013



RIGID CANTILEVER (SINGLE ANGLE)



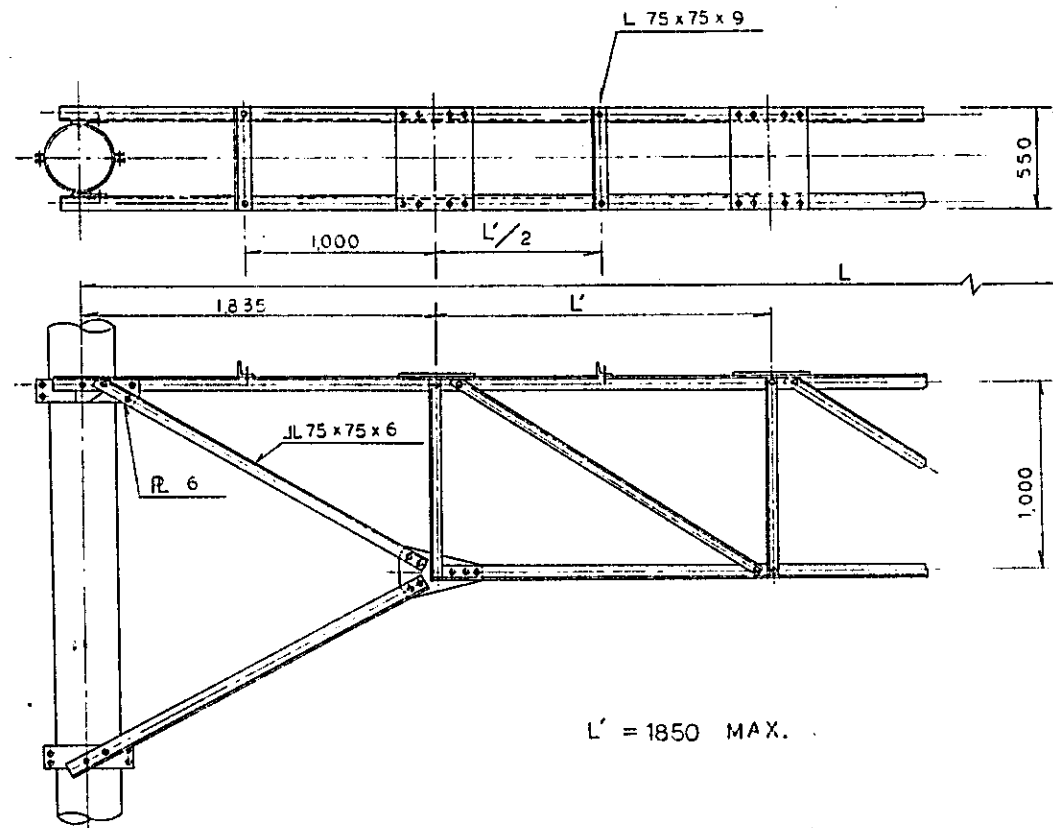
RIGID CANTILEVER (DOUBLE ANGLES)



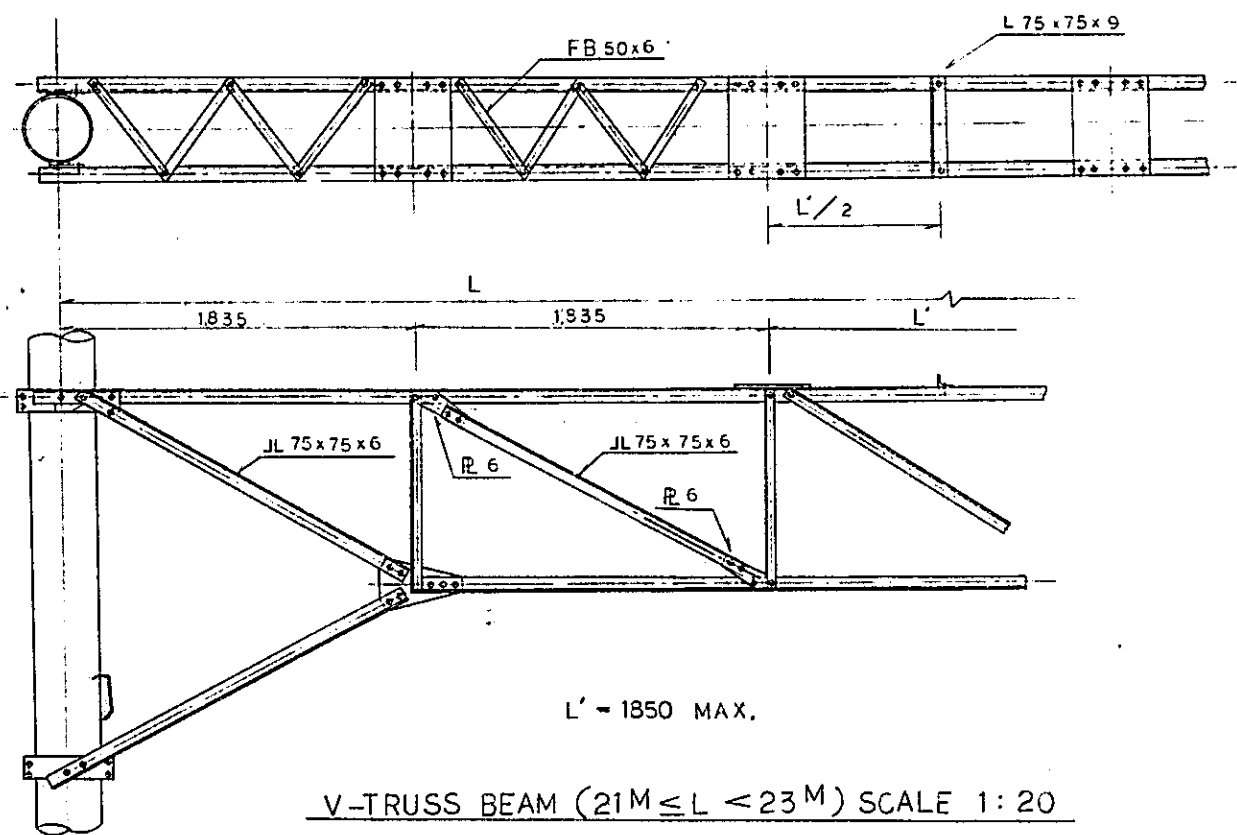
V-TRUSS BEAM (L < 19 M)

- NOTES:
- EACH DIMENSION OF RIGID CANTILEVER IS ADOPTED FOR THE FOLLOWING CONDITION:
 - ① CURVED SECTION
 - ② STRAIGHT SECTION
 - ③ ELEVATED SECTION
 - SIZE OF MAIN BAR FOR V-TRUSS BEAM IS GIVEN BY LENGTH OF "L" AS FOLLOWS:
 - 15m OR LESS: L75x75x6
 - MORE THAN 15m: L75x75x9

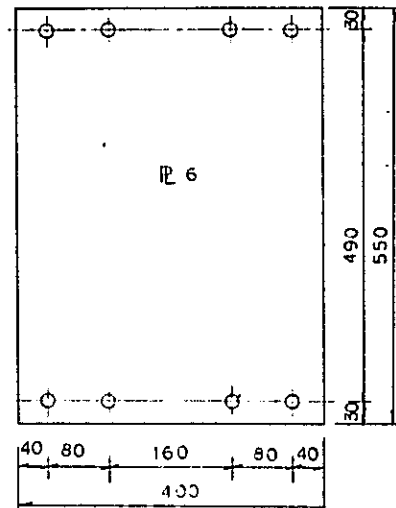
REPUBLIC OF INDONESIA					
MINISTRY OF COMMUNICATIONS					
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 Aug 80	S.H.	S.H.	K.M.	K.R.
A	15 Feb 79	S.H.	S.H.	K.M.	K.R.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	APPROVED
DETAILS OF RIGID CANTILEVER ARM V-TRUSS BEAM (1)					
PACKAGE: ELECTRICAL WORK					
SCALE	1:20	DRAWING NO. EC-014			



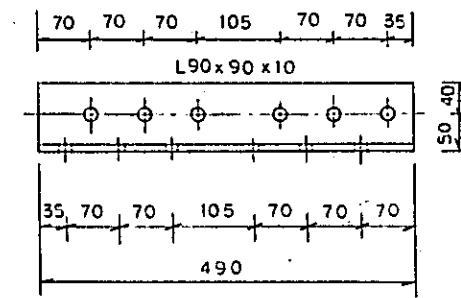
V-TRUSS BEAM ($19M \leq L < 21M$) SCALE 1:20



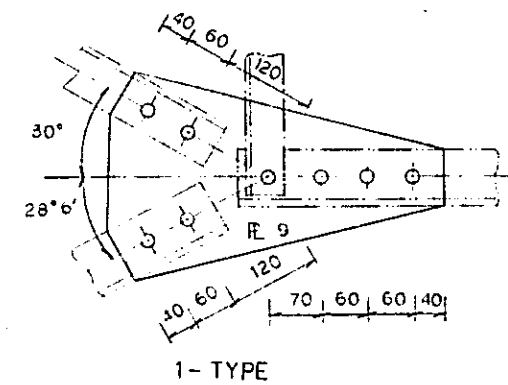
V-TRUSS BEAM ($21M \leq L < 23M$) SCALE 1:20



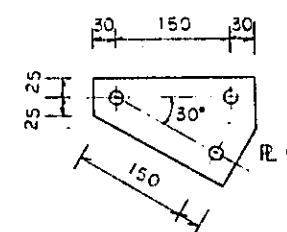
TRUSS BEAM PLATE SCALE 1:5



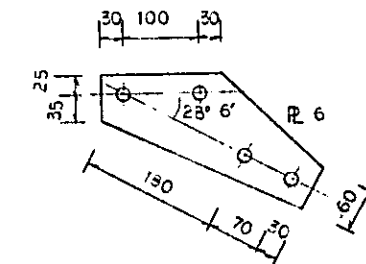
JOINTING ANGLE SCALE 1:5



1-TYPE



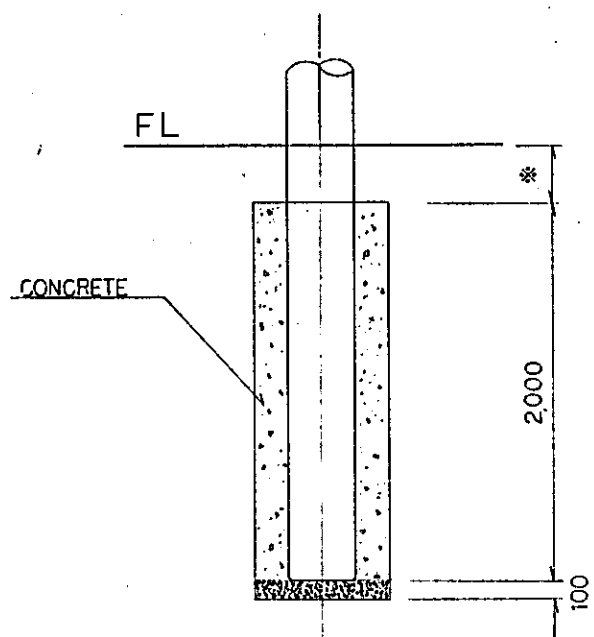
2-TYPE



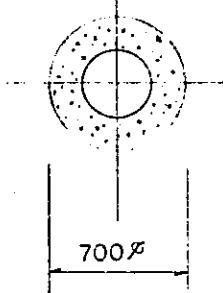
3-TYPE

GUSSET PLATES SCALE 1:5

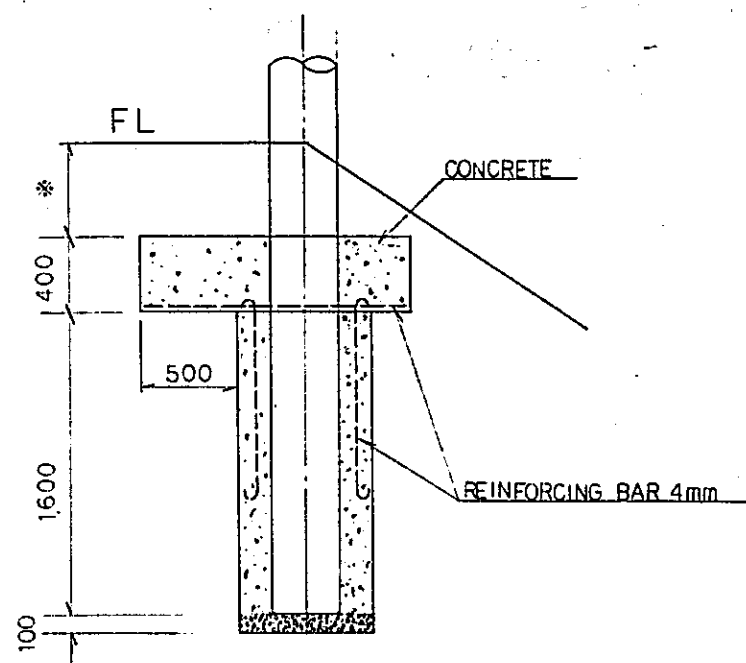
REPUBLIC OF INDONESIA					
MINISTRY OF COMMUNICATIONS					
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 Aug 1980	S.H.	S.H.	K.M.	K.M.
A	15 Feb 1980	S.H.	S.H.	K.M.	K.M.
REVISIONS	DATE	BY	CHECKED	APPROVED	DATE
DETAILS OF V-TRUSS BEAM (2)					
PACKAGE: ELECTRICAL WORK					
SCALE: AS NOTED	DRAWING NO: ECG-015				



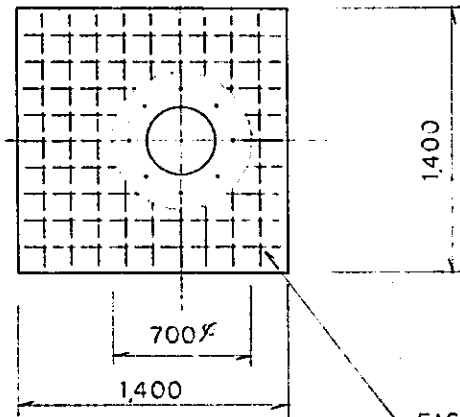
* 100 ~ 300
STANDARD 300



I - TYPE

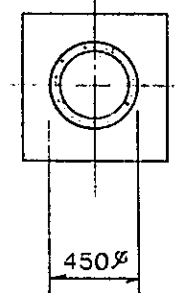
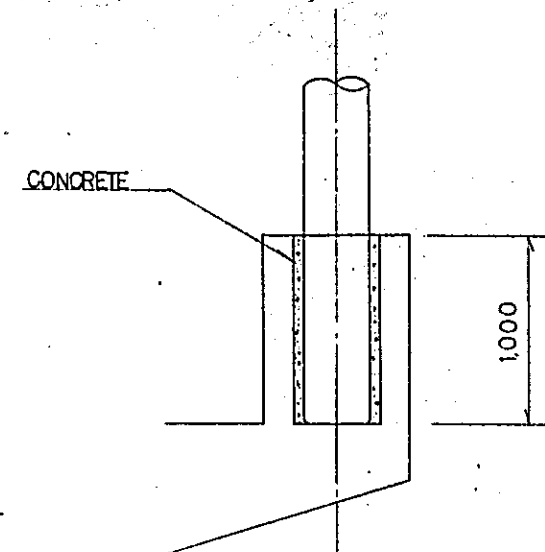


* 300 ~ 600
STANDARD 500



EACH JOINT SHALL BE
BINDED OR WELDED

T - TYPE



E - TYPE

NOTE:
CONCRETE CLASS SHALL BE CLASS F

MATERIAL TABLE

SECTION	BEAM TYPE	CONCRETE POLE	POLE FOUNDATION		
			FLAT	EMBANKMENT BANK	ELEVATED STRUCTURE
INSIDE OF STATION	RIGID CANTILEVER	10-35-N5000			E - TYPE
		12-35-N5000	I - TYPE	T - TYPE	
	V-TRUSS BEAM	10-35-N5000	I - TYPE		E - TYPE
		11-35-N5000	I - TYPE		
BETWEEN STATIONS	RIGID CANTILEVER	10-35-N5000			E - TYPE
		12-35-N5000	I - TYPE	T - TYPE	
	V-TRUSS BEAM	10-35-N5000			E - TYPE
		11-35-N5000	I - TYPE		
		12-35-N5000	I - TYPE		

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NEW RAILWAY LINE FOR CENGKARENG AIRPORT
CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

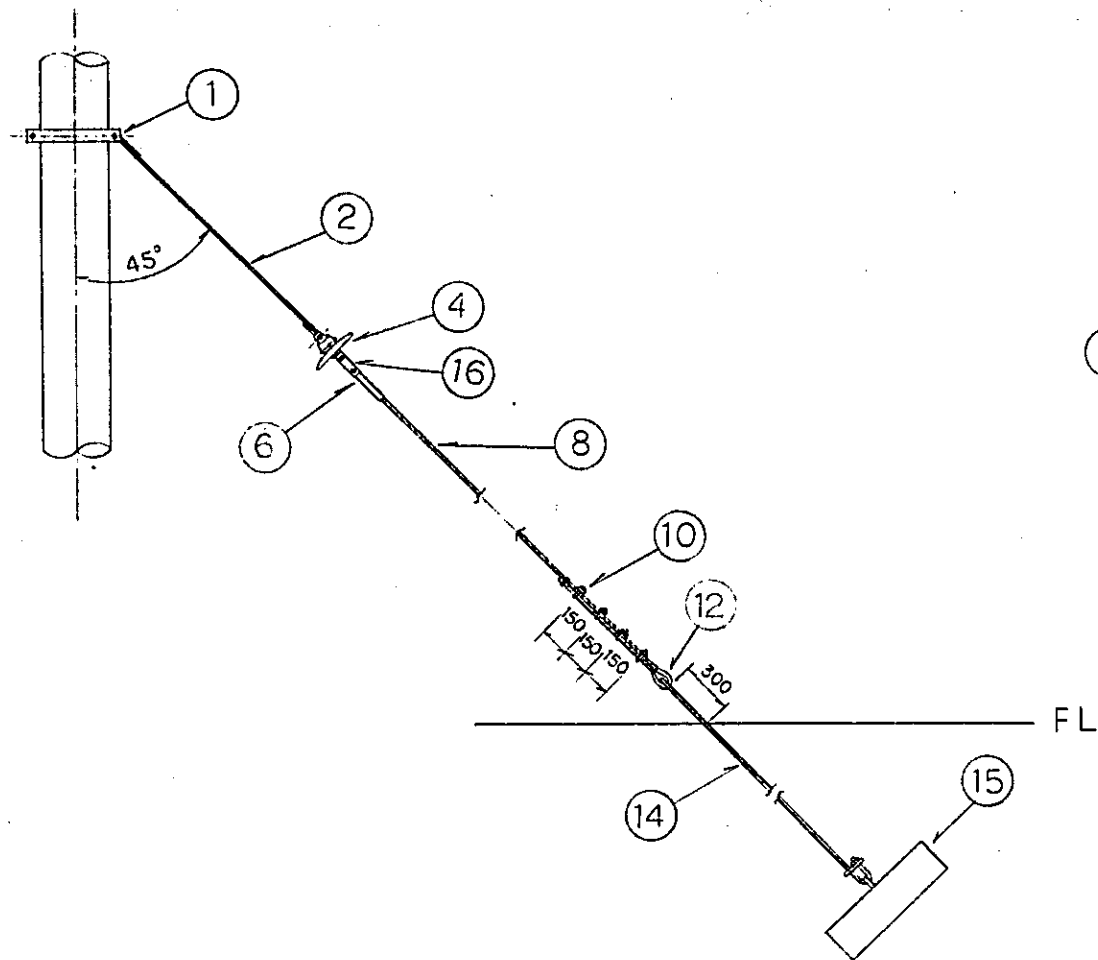
B	1/11/84	S.H.	S.H.	Y.K.	K.M.	S.K.
A	16/10/82	S.H.	S.H.	K.U.	K.M.	S.K.

REVISIONS DATE

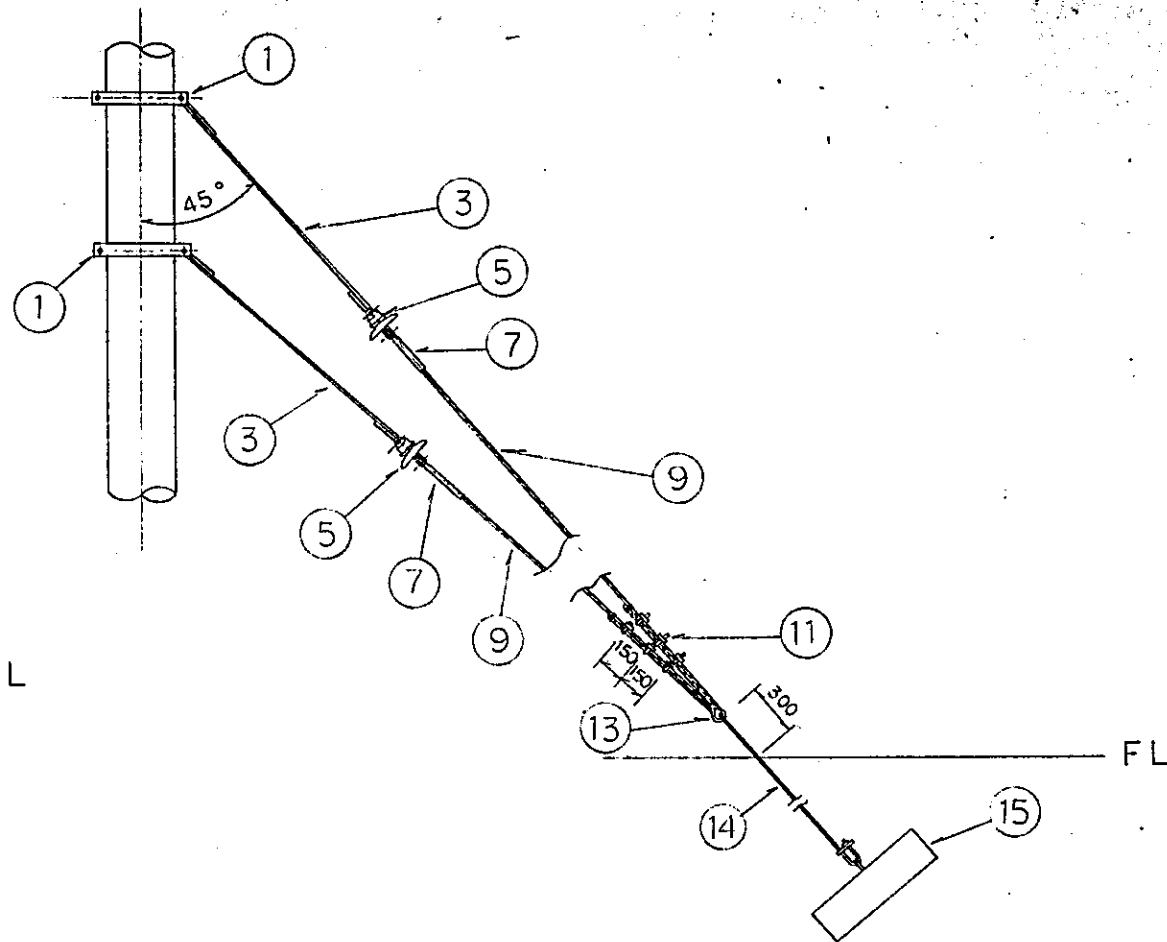
DETAILS OF CONCRETE
POLE FOUNDATION

PACKAGE: ELECTRICAL WORK

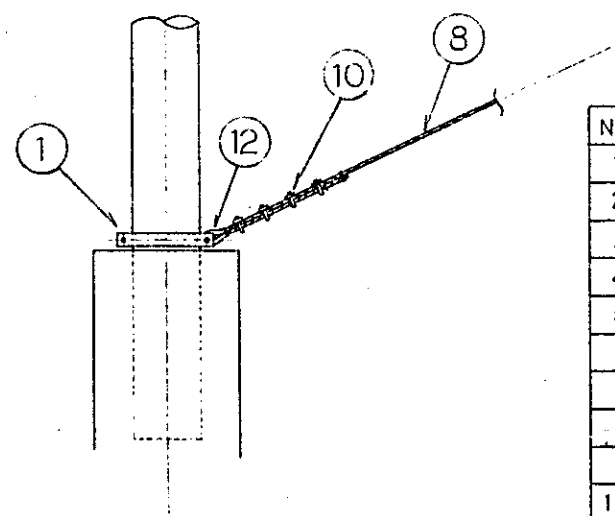
SCALE: 1:20 DRAWING NO: EC-016



ST 135 mm² SINGLE TYPE SCALE 1:20



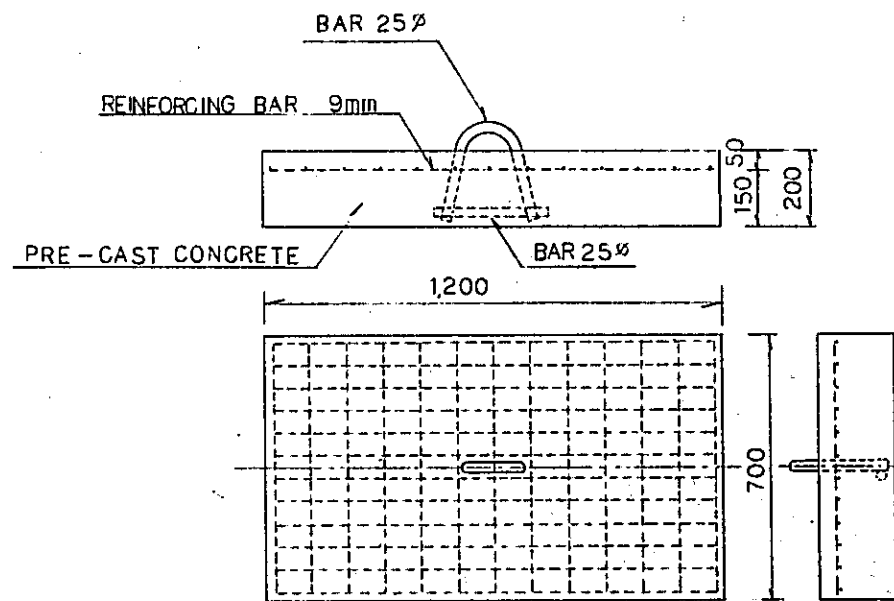
ST 90 mm² V-TYPE SCALE 1:20



ELEVATED STRUCTURE SCALE 1:20

MATERIAL TABLE

No	ARTICLE	TYPE
1	POLE BAND	B 2
2	CONNECTING ROD	19 ^ø x 1500
3	— DO —	16 ^ø x 1500
4	SUSPENSION INSULATOR	250 EP-J
5	— DO —	180 C
6	COMPRESSION DEAD-END FITTING	FOR 135 mm ²
7	— DO —	FOR 90 mm ²
8	GALVANIZED STEEL WIRE STRANDS	135 mm ²
9	— DO —	90 mm ²
10	WIRE CLIP	FOR 135 mm ² x 2
11	— DO —	FOR 90 mm ² x 2
12	GUY THIMBLE	FOR 135 mm ² x 1
13	— DO —	FOR 90 mm ² x 2
14	GUY ROD	25 ^ø x 3000
15	GUY ANCHOR	CONCRETE TYPE
16	CONNECTING FITTING	H TYPE



GUY ANCHOR SCALE 1:10

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 AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

B	1/Aug/84	S.H.	S.H.	K.H.	K.M.	K.S.
A	15/Feb/84	S.H.	S.H.	K.H.	K.M.	K.S.

REVISIONS: DATE

DETAILS OF GUY

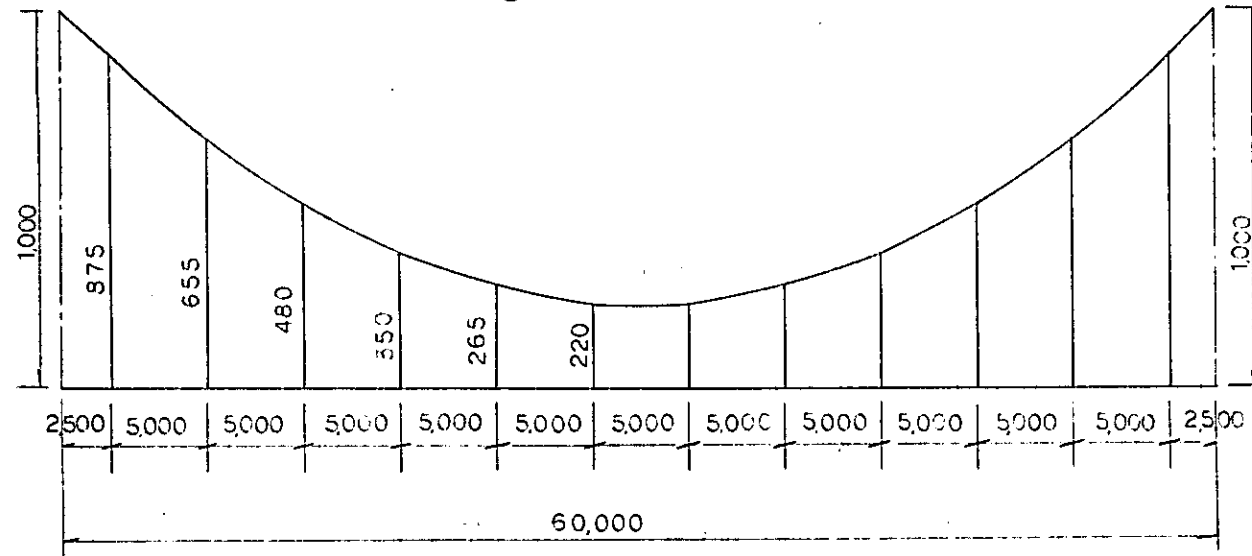
PACKAGE: ELECTRICAL WORK

SCALE: AS NOTED DRAWING NO: EC-017

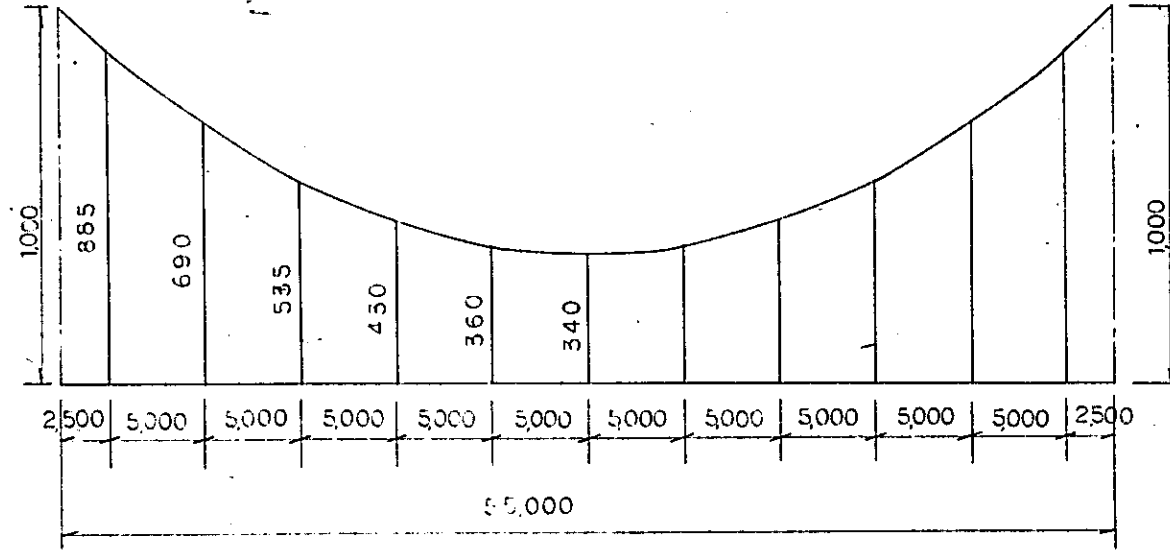
ABBREVIATION :

S: SPAN
(H): HORIZONTAL
(V): VERTICAL

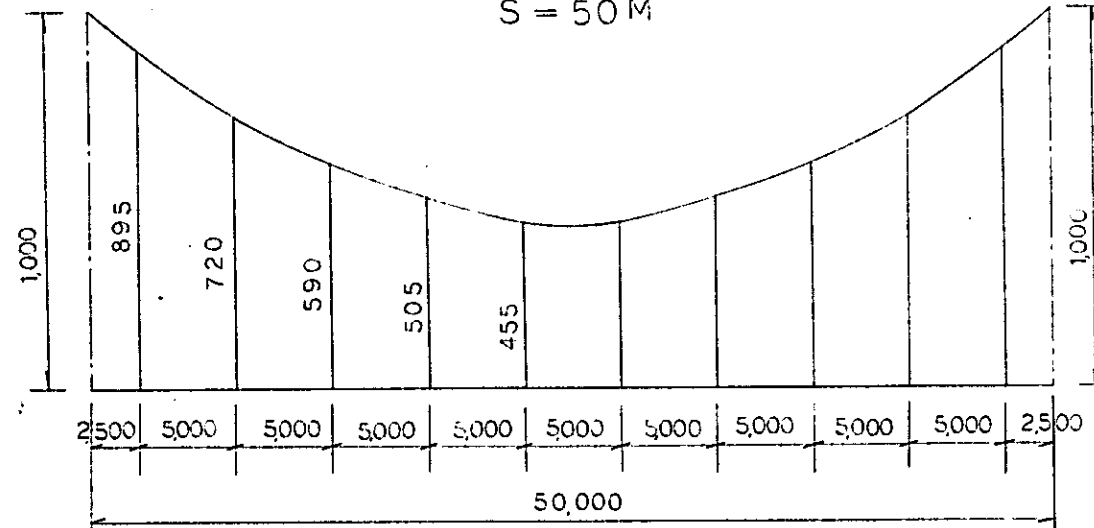
S = 60 M



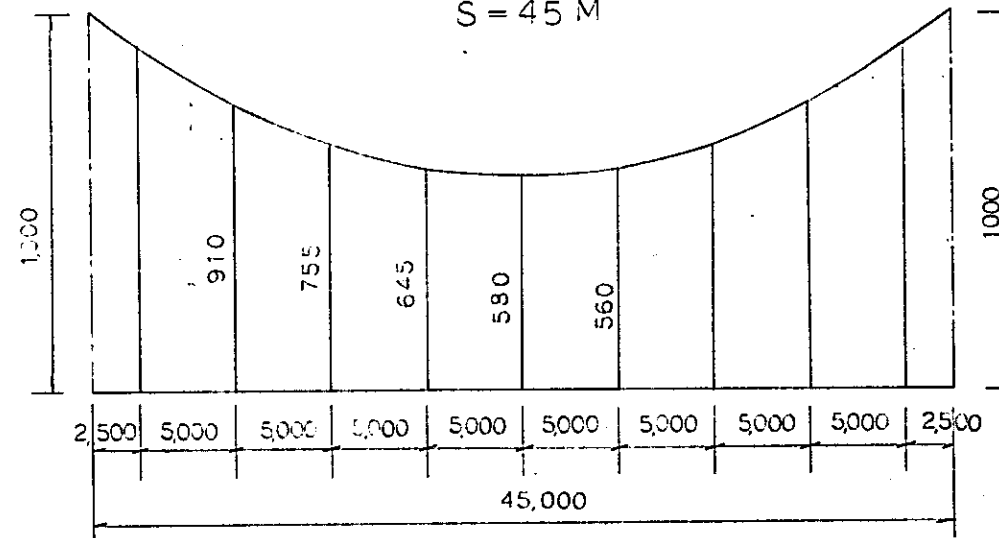
S = 55 M



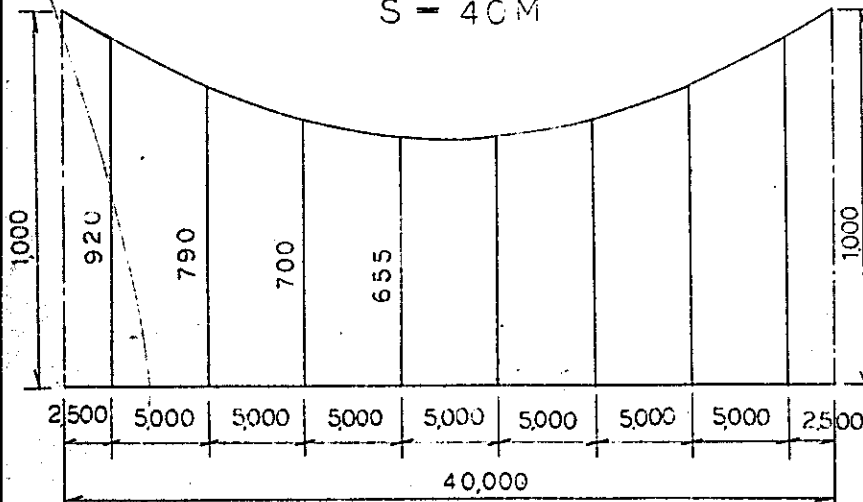
S = 50 M



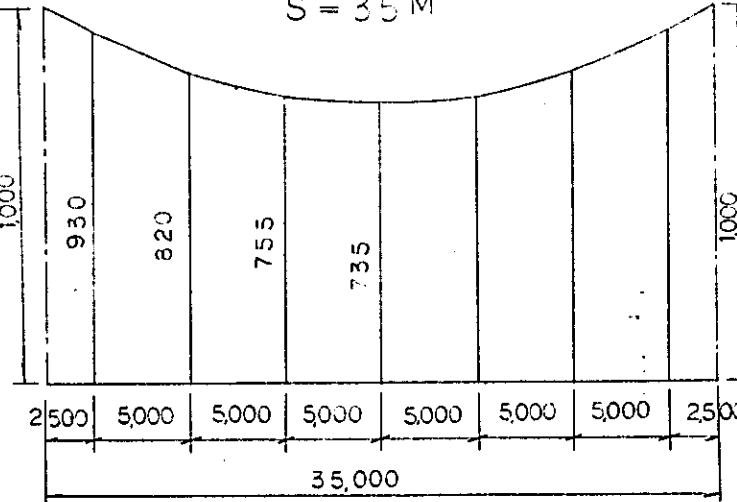
S = 45 M



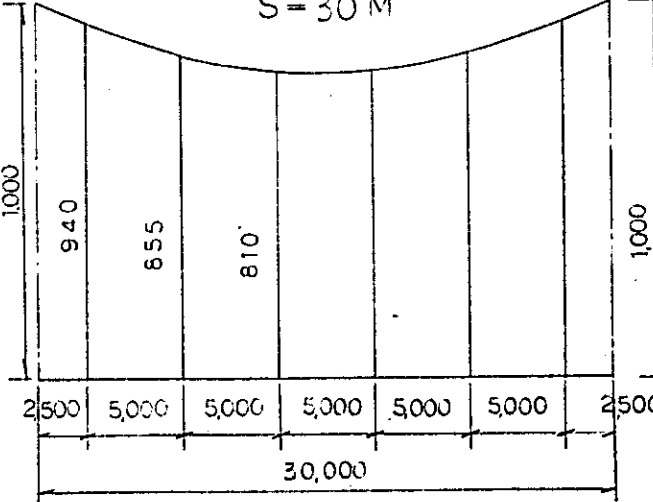
S = 40 M



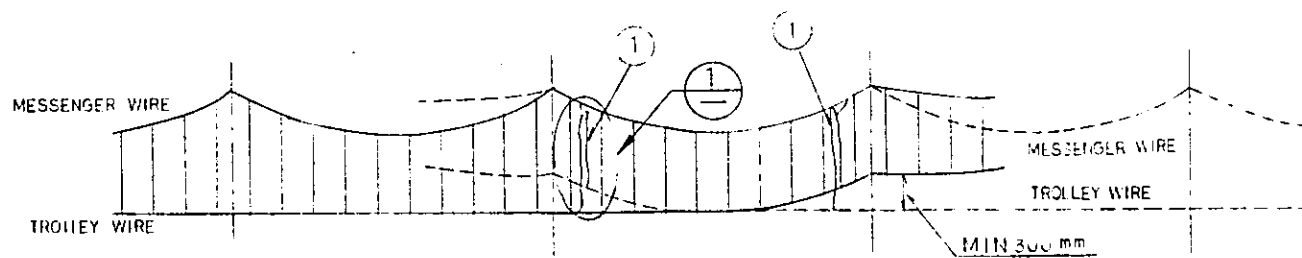
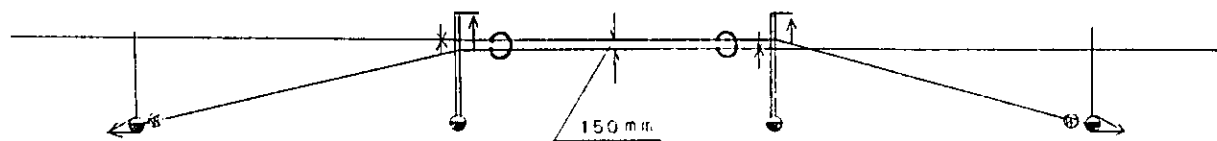
S = 35 M



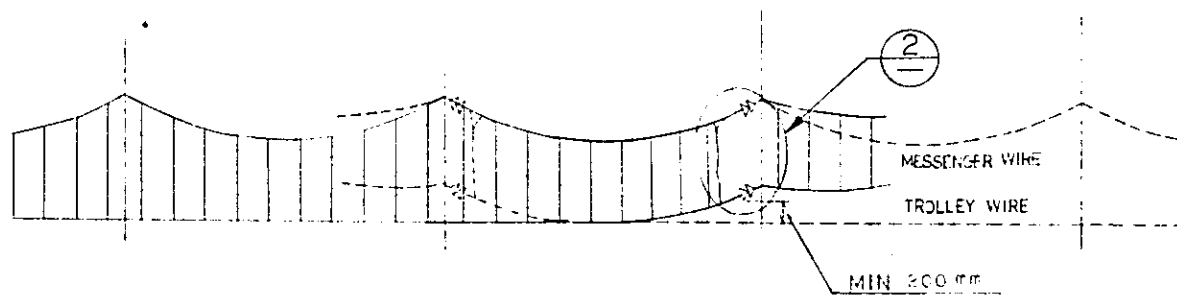
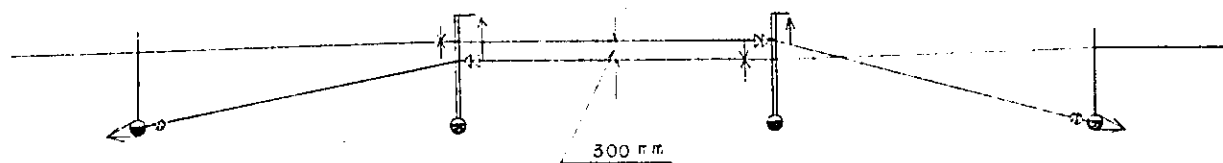
S = 30 M



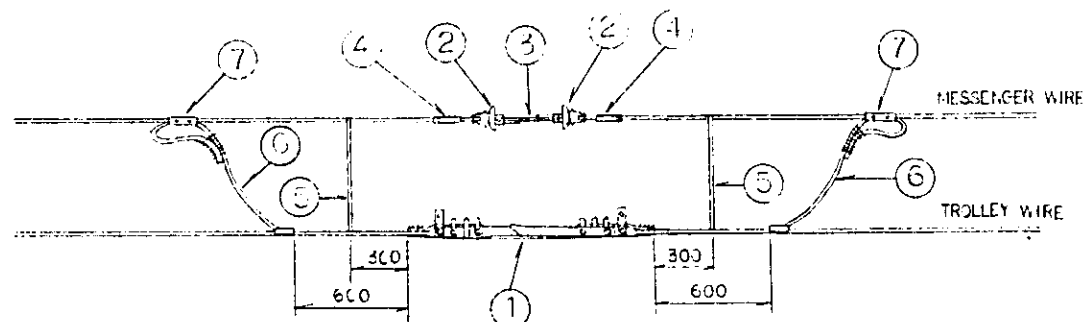
REPUBLIC OF INDONESIA					
MINISTRY OF COMMUNICATIONS					
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1/19/88	S.H	S.H	K.W	K.M
A	15/01/88	S.J	S.H	K.W	K.M
REVISIONS	DATE	BY	CHKD	APPR	APPR
DETAILS OF CATENARIES					
ELECTRICAL WORK					
SCALE	DRAWING NO.				
(H) 1:200	EO-018				
(V) 1:10					



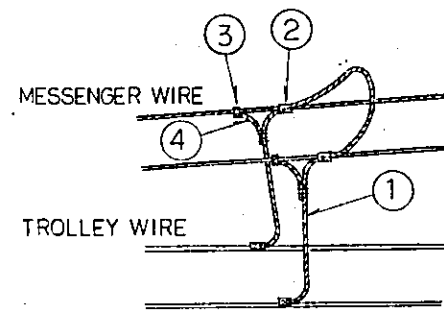
OVERLAP AIR JOINT



OVERLAP AIR SECTION



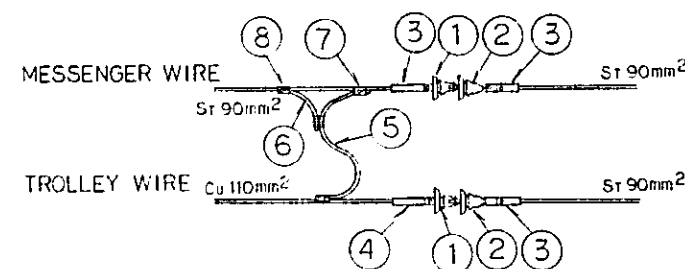
SECTION INSULATOR



DETAIL 1

MATERIAL TABLE

NO	ARTICLE	TYPE
1	FLLDER EAR	Cu 100 mm ² L = 3200
2	CLAMP	ST 90 mm ² : Cu 100 mm ²
3	DO	ST 90 mm ² : Cu 40 mm ²
4	ANNEALED COPPER STRANDED CONDUCTOR	Cu 40 mm ²



DETAIL 2

MATERIAL TABLE

No	ARTICLE	TYPE
1	SUSPENSION INSULATOR	180 C
2	DO	180 EP
3	DEAD-END FITTING	BS 90
4	DO	WTS 90
5	CONNECTOR	Cu 100 mm ²
6	ANNEALED COPPER STRANDED CONDUCTOR	Cu 40 mm ²
7	CLAMP	ST 90 mm ² : Cu 100 mm ²
8	DO	ST 90 mm ² : Cu 100 mm ²

SECTION INSULATOR MATERIAL TABLE

No	ARTICLE	TYPE
1	SECTION INSULATOR	FRP
2	SUSPENSION INSULATOR	180 C
3	CONNECTING ROD	16 φ x 300
4	DEAD-END FITTING	BS 90
5	HANGER EAR	
6	CONNECTOR	Cu 40 mm ²
7	CLAMP	ST 90 mm ² : Cu 40 mm ²

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NEW RAILWAY LINE FOR CENGKARENG AIRPORT
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JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

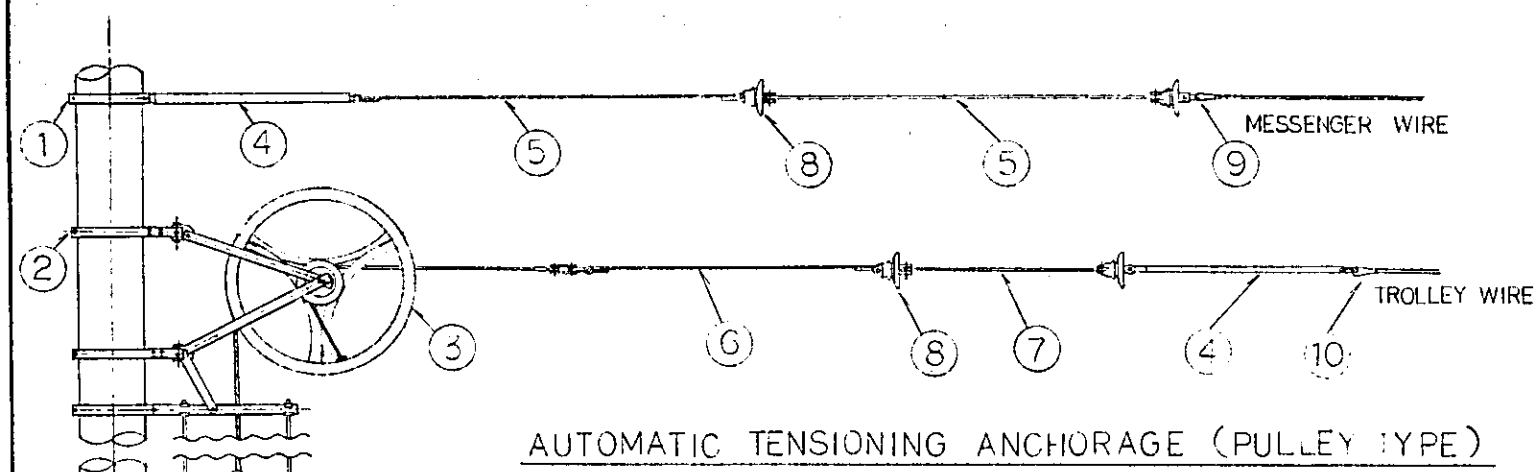
B	1 Aug '82	SH	SH	KU	K.M	M.K
A	15 Feb '82	SH	SH	KU	K.M	M.K

REVISIONS: DATE, DESIGNED, DRAWN, CHECKED, REVIEWED, QUANTITY

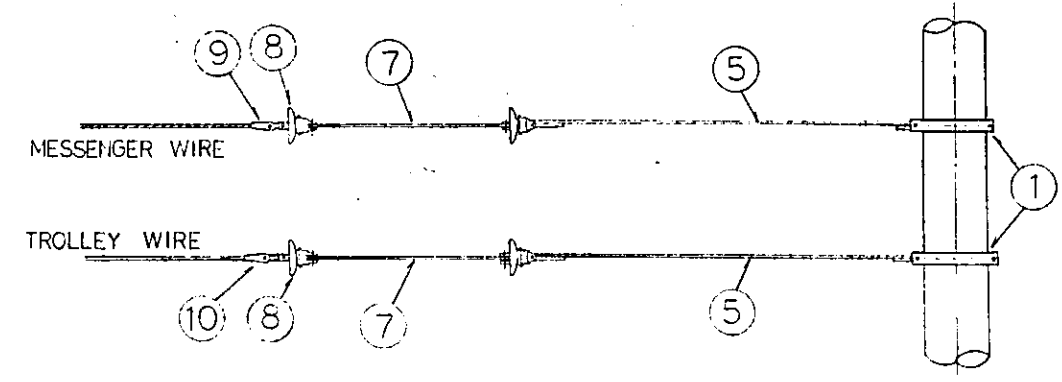
DETAILS OF OVERLAP AND SECTION INSULATOR

PACKAGE: ELECTRICAL WORK

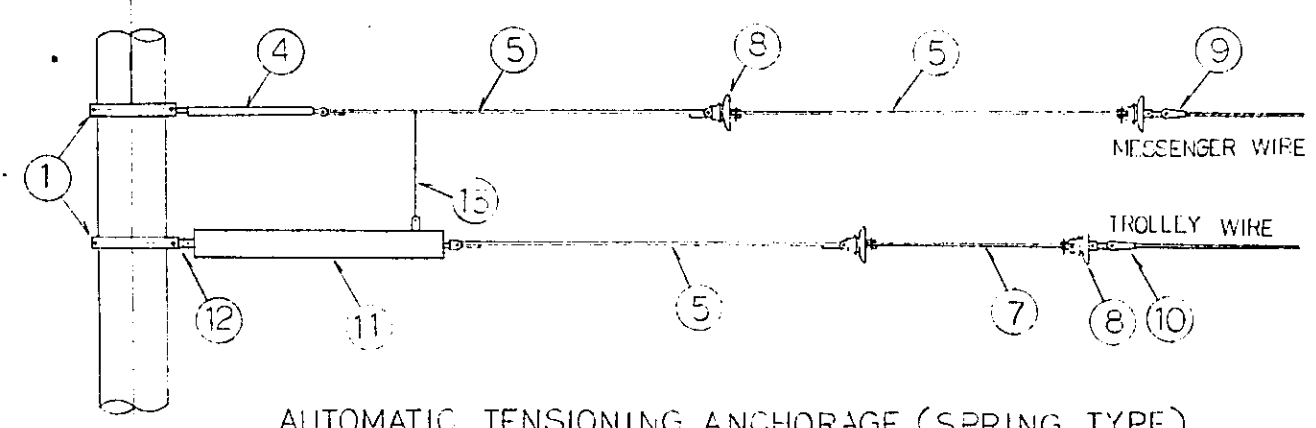
SCALE: NON SCALE DRAWING NO: EC-019



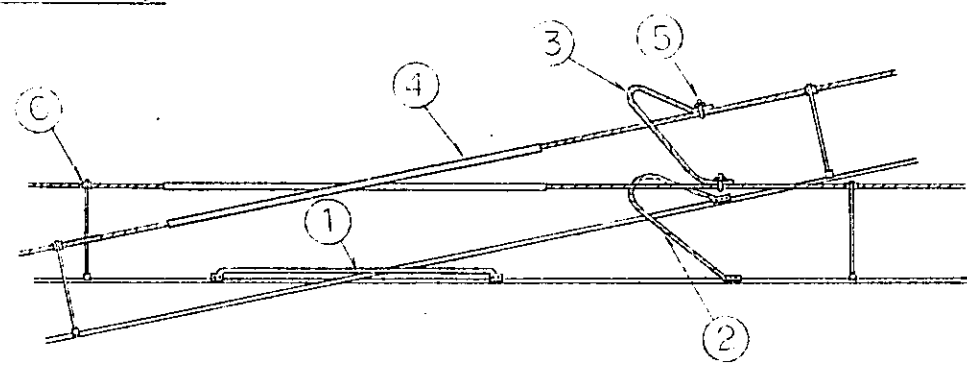
AUTOMATIC TENSIONING ANCHORAGE (PULLEY TYPE)



FIXED ANCHORAGE



AUTOMATIC TENSIONING ANCHORAGE (SPRING TYPE)



CROSSOVER EQUIPMENT

ANCHORAGE MATERIAL TABLE

NO	ARTICLE	TYPE
1	POLE BAND	B2
2	DO	TK 1
3	AUTOMATIC TENSIONING DEVICE	PULLEY TYPE
4	TURNBUCKLE	L = 600 mm
5	CONNECTING ROD	16 ϕ x 2000
6	DO	16 ϕ x 1500
7	DO	16 ϕ x 1000
8	SUSPENSION TYPE INSULATOR	180 C
9	DEAD-END FITTING	BS 90
10	DO	WTS 90
11	AUTOMATIC TENSIONING DEVICE	SPRING TYPE
12	CONNECTING FITTING	9 x 50 x 200

MATERIAL TABLE

NO	ARTICLE	TYPE
1	CROSS CLAMP	
2	FEEDER EAR	Cu 100 mm ² L=800
3	CONNECTOR	St 90 mm ²
4	LINE GUARD	St 90 mm ² L=2000
5	WIRE CLIP	St 90 mm ² x 2
6	MESSENGER WIRE PROTECTOR	

REPUBLIC OF INDONESIA
 MINISTRY OF COMMUNICATIONS
 DIRECTORATE GENERAL OF LAND TRANSPORT
 AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT,
 CONSTRUCTION PROJECT

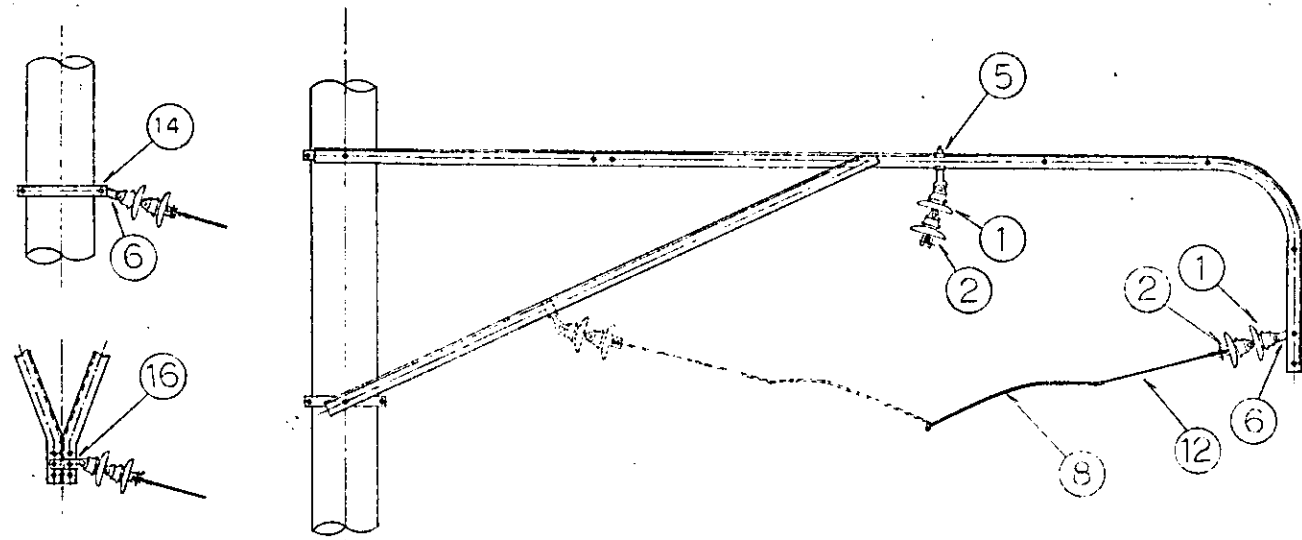
JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	EXTENDED	SUBMITTED
B	1 Aug '80	S.H.	S.H.	K.H.	K.M.	M.K.
A	15 Aug '80	S.H.	S.H.	K.H.	K.M.	M.K.

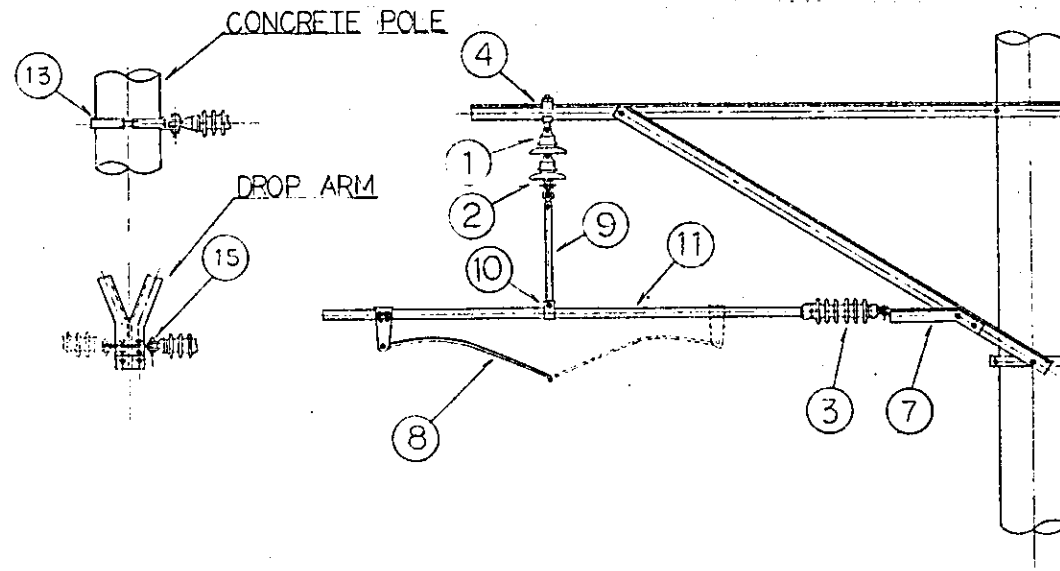
DETAILS OF AUTOMATIC
 TENSIONING EQUIPMENT

PACKAGE: III ELECTRICAL WORK

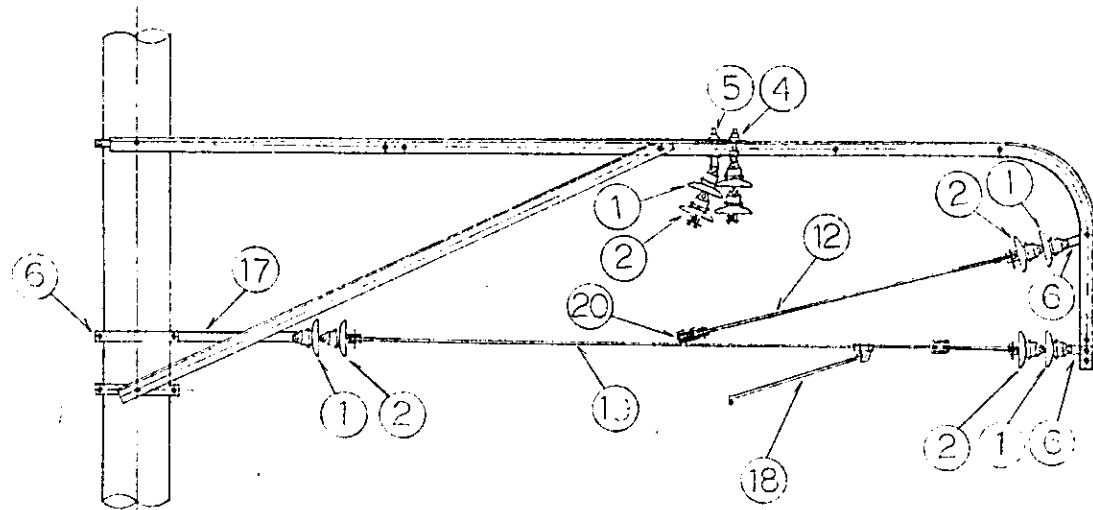
SCALE: NON SCALE DRAWING NO: EC-020



PULL - OFF



STEADY BRACE (FOR MOVABLE PIPE)



STEADY BRACE (FOR SPAN WIRE)

MATERIAL TABLE

No	ARTICLE	TYPE
1	SUSPENSION INSULATOR	180 EP
2	DO	180 C
3	STEM INSULATOR	D C
4	INSULATOR SUSPENSION FITTING	FOR STRAIGHT SECTION
5	DO	FOR CURVED SECTION
6	CONNECTING FITTING	6 x 50 x 100
7	INSULATOR INSTALLING FITTING	FOR RIGID CANTILEVER
8	PULL-OFF	BOWED - TYPE L=900
9	DROPPER	6 x 38 x 565
10	DROPPER FITTING	48.6 ϕ
11	PIPE	48.6 ϕ
12	HARD DRAWN COPPER WIRE	CU 35mm ²
13	POLE BAND	F 1
14	DO	B 1
15	INSULATOR INSTALLING FITTING	FOR DROP ARM
16	CONNECTING FITTING	6 x 50 x 150
17	DO	6 x 50 x 150
18	STEADY BRACE	
19	ROD FOR SPAN WIRE	13 ϕ
20	PULLEY FOR PULL-OFF	

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 AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

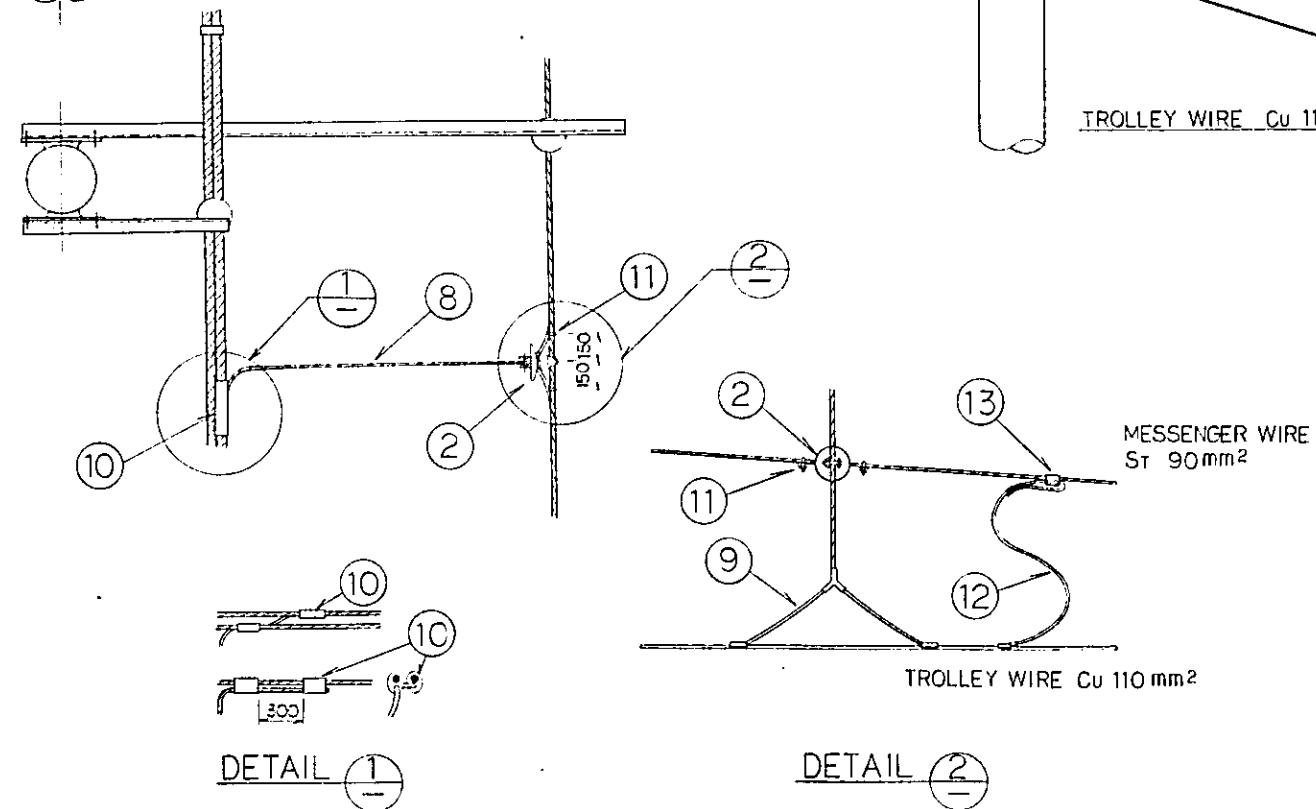
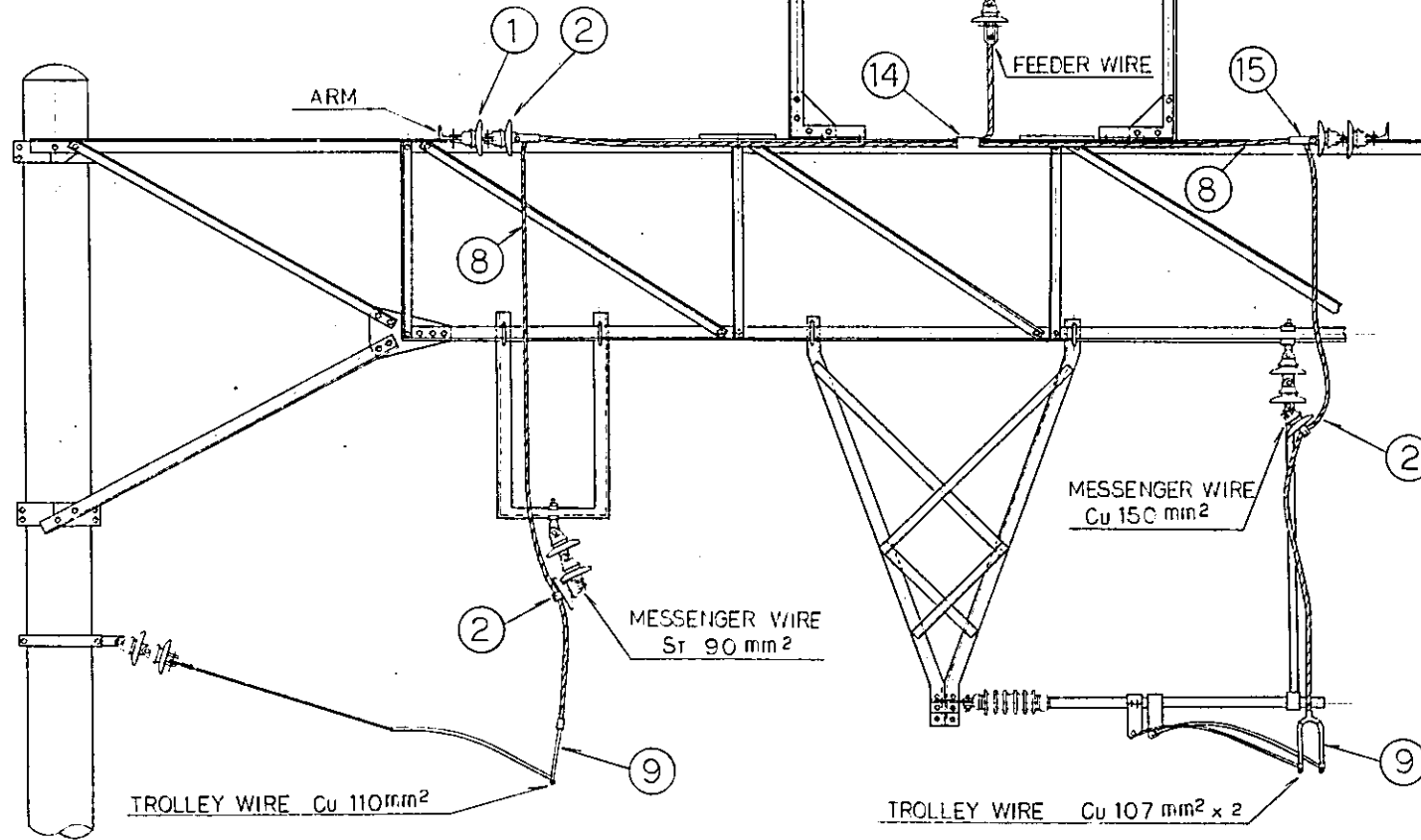
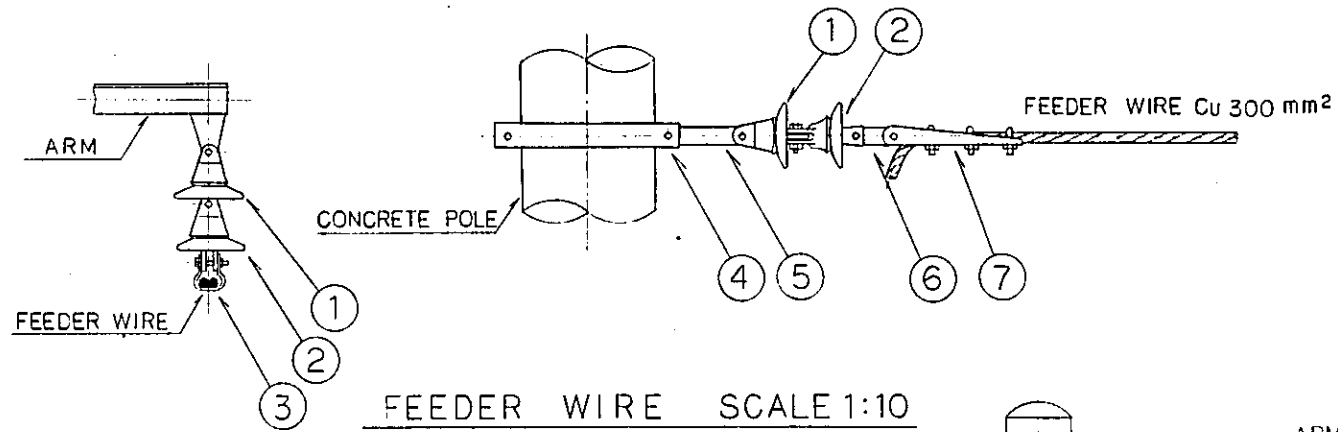
B	1 Aug. 80	S.H.	S.H.	K.U.	K.M.	K.K.
A	15 Feb. 80	S.H.	S.H.	K.U.	K.M.	K.K.

REVISIONS DATE DESIGNED DRAWN CHECKED APPROVED

DETAILS OF PULL-OFF
 AND
 STEADY BRACE

PACKAGE: ELECTRICAL WORK

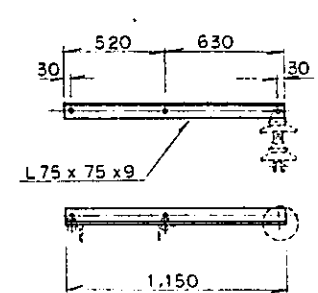
SCALE: 1:20 DRAWING NO: EG-02



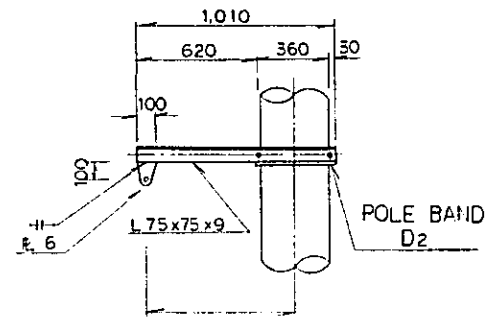
MATERIAL TABLE

ARTICLE	TYPE
1 SUSPENSION INSULATOR	180 EP
2 DO	180 C
3 FEEDER WIRE SUSPENSION FITTING	U-TYPE FOR Cu 300 mm ²
4 POLE BAND	B 2
5 CONNECTING FITTING	9 x 50 x 200
6 DO	9 x 50 x 100
7 DEAD-END FITTING	FOR Cu 300 mm ²
8 HARD DRAWN COPPER WIRE	Cu 200 mm ²
9 FEEDER EAR	FOR FEEDING BRANCH Cu 200 mm ²
10 COMPRESSION PARALLEL SLEEVE	Cu 300 mm ² : Cu 200 mm ²
11 WIRE CLIP	St 90 mm ² x 1
12 CONNECTOR	Cu 40 mm ² L = 1400
13 CLAMP	St 90 mm ² : Cu 40 mm ²
14 COMPRESSION PARALLEL SLEEVE	Cu 200 mm ² : Cu 200 mm ²
15 DEAD-END FITTING	FOR Cu 200 mm ²

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 Aug 86	S.H	S.H	K.U	K.M	K.K
A	15 Feb 86	S.H	S.H	K.U	K.M	K.K
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
STANDARD ASSEMBLIES OF FEEDER WIRE AND BRANCH						
PACKAGE: ■ ELECTRICAL WORK						
SCALE	DRAWING NO.					
AS NOTED	EC-022					



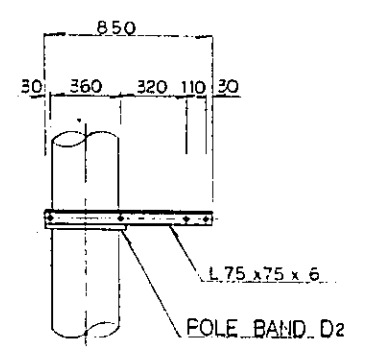
FOR FEEDING BRANCH (V-TRUSS BEAM)



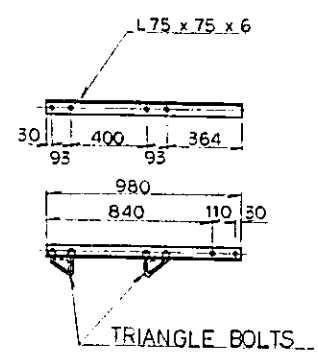
FOR FEEDER WIRE

MATERIAL TABLE

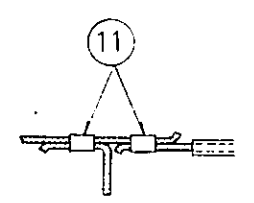
NO	ARTICEL	TYPE
1	CONNECTING FITTING	FOR LIGHTNING ARRESTER
2	HARD DRAWN COPPER WIRE	Cu 38 mm ²
3	LIGHTNING ARRESTER	DC 1500 V
4	ARM	FOR LIGHTNING ARRESTER
5	POLE BAND	D2
6	STAINLESS STEEL BAND	10mm WITH BINDING FITTING
7	PVC INSULATED CABLE	600 V 22 mm ²
8	UNPLASTICIZED PVC CONDUIT	22 mm ²
9	GROUNDING ROD	O-TYPE 14 ^φ x 1,500
10	HARD DRAWN COPPER WIRE	Cu 22 mm ²
11	COMPRESSTON PARALLEL SLFEVE	C-TYPE Cu 22 mm ²



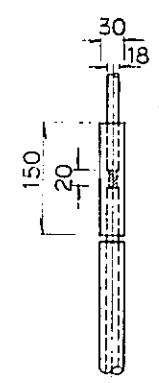
FOR LIGHTNING ARRESTER



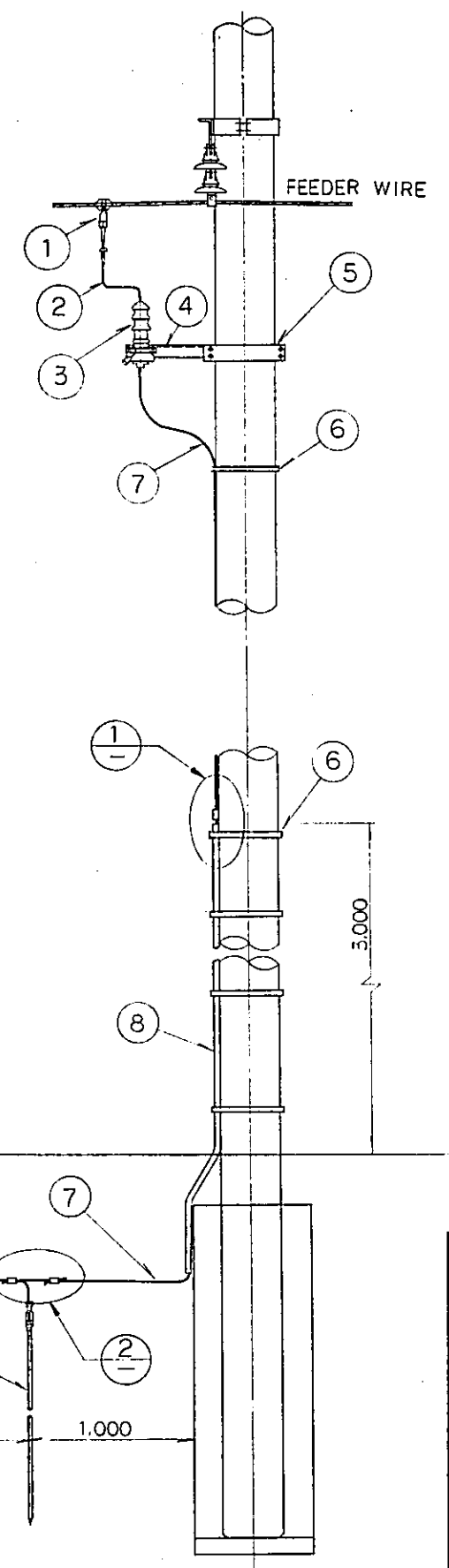
FOR LIGHTNING ARRESTER (V-TRUSS BEAM)



DETAIL 11 SCALE 1:5

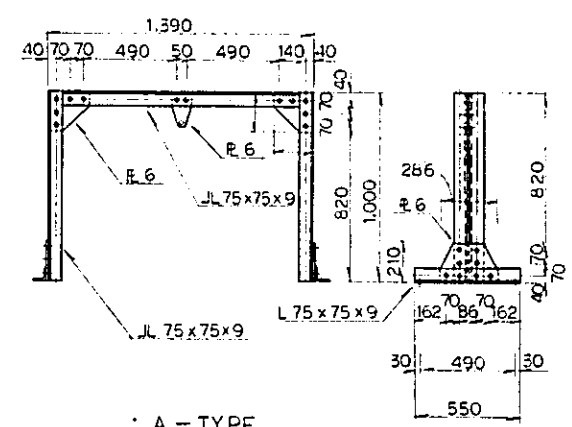


DETAIL 1 SCALE 1:5

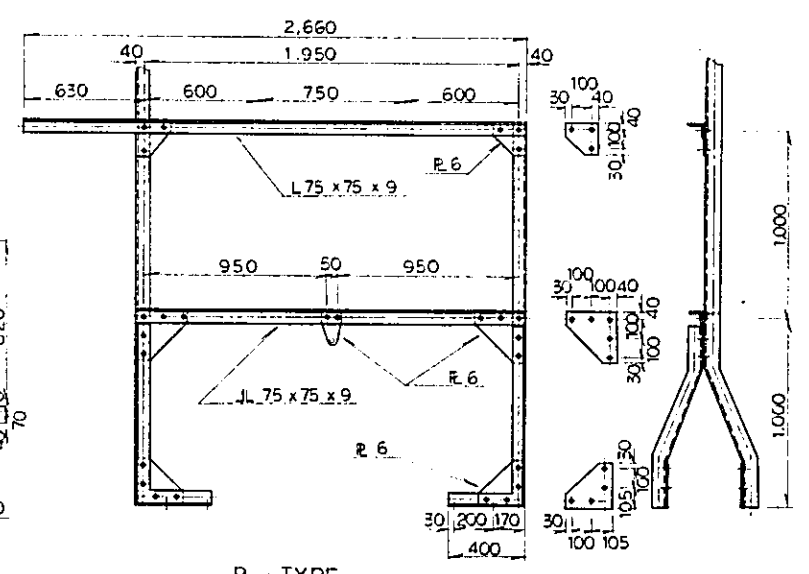


LIGHTNING ARRESTER AND GROUNDING DEVICE SCALE 1:20

POLE ARMS SCALE 1:20



A - TYPE



B - TYPE

ANGLE FRAME FOR FEEDER WIRES SCALE 1:20

REPUBLIC OF INDONESIA
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DIRECTORATE GENERAL OF LAND TRANSPORT
AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

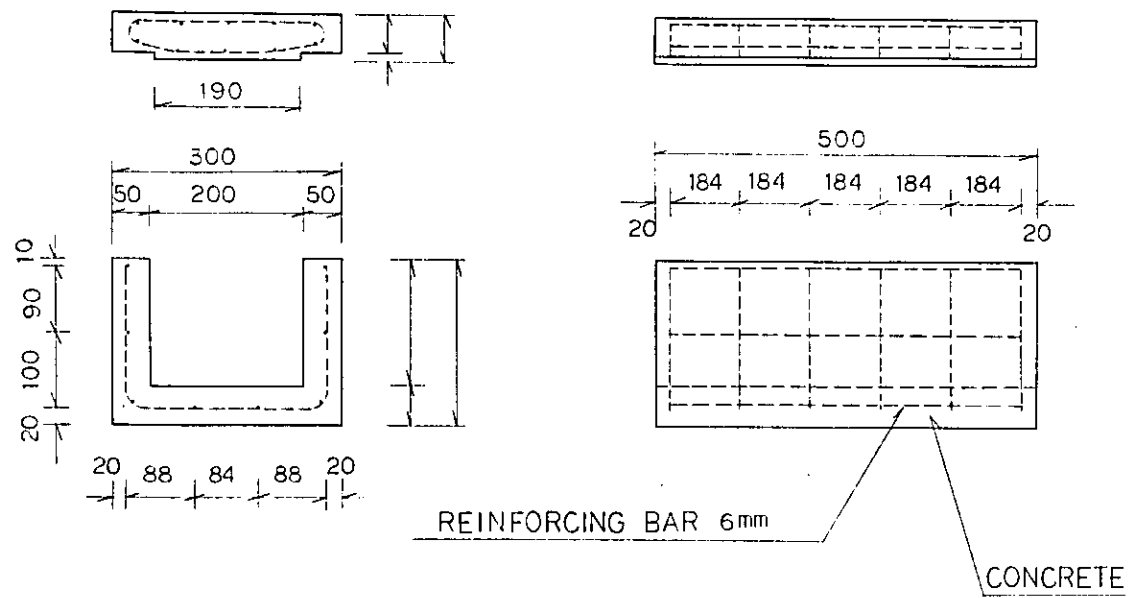
B	1 Aug. '82	S.H	S.H	K.M	K.M	K.M
A	15 Feb. '82	S.H	S.H	K.M	K.M	K.M

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED

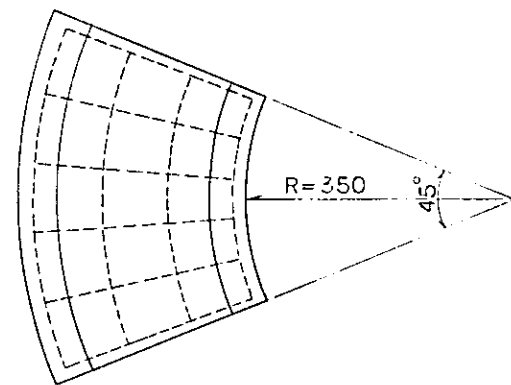
STANDARD ASSEMBLIES OF ARM
ANGLE FRAMES LIGHTNING
ARRESTERS AND GROUNDING

PACKAGE: ELECTRICAL WORK

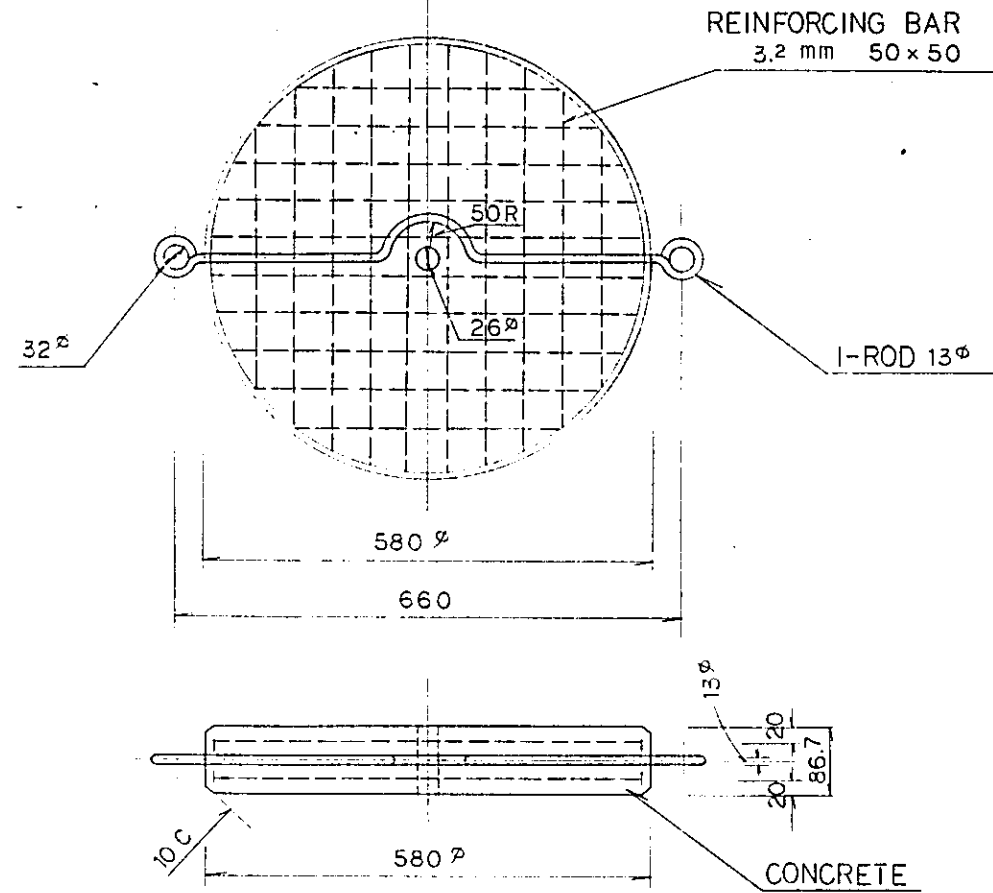
SCALE: AS NOTED DRAWING NO: EC-023



FOR CURVED SECTION

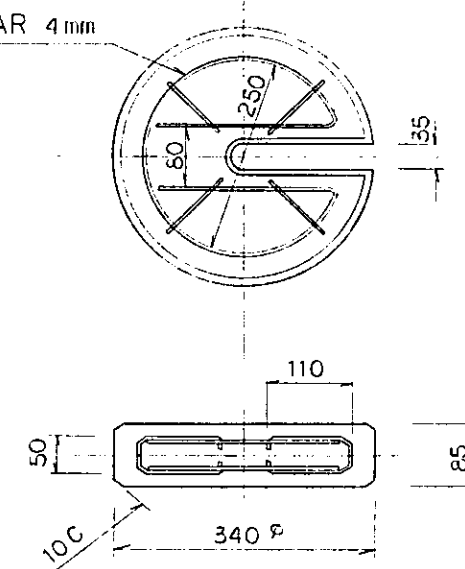


CONCRETE TROUGH SCALE 1:5



① STANDARD WEIGHT

REINFORCING BAR 4mm



② AUXILIARY WEIGHT

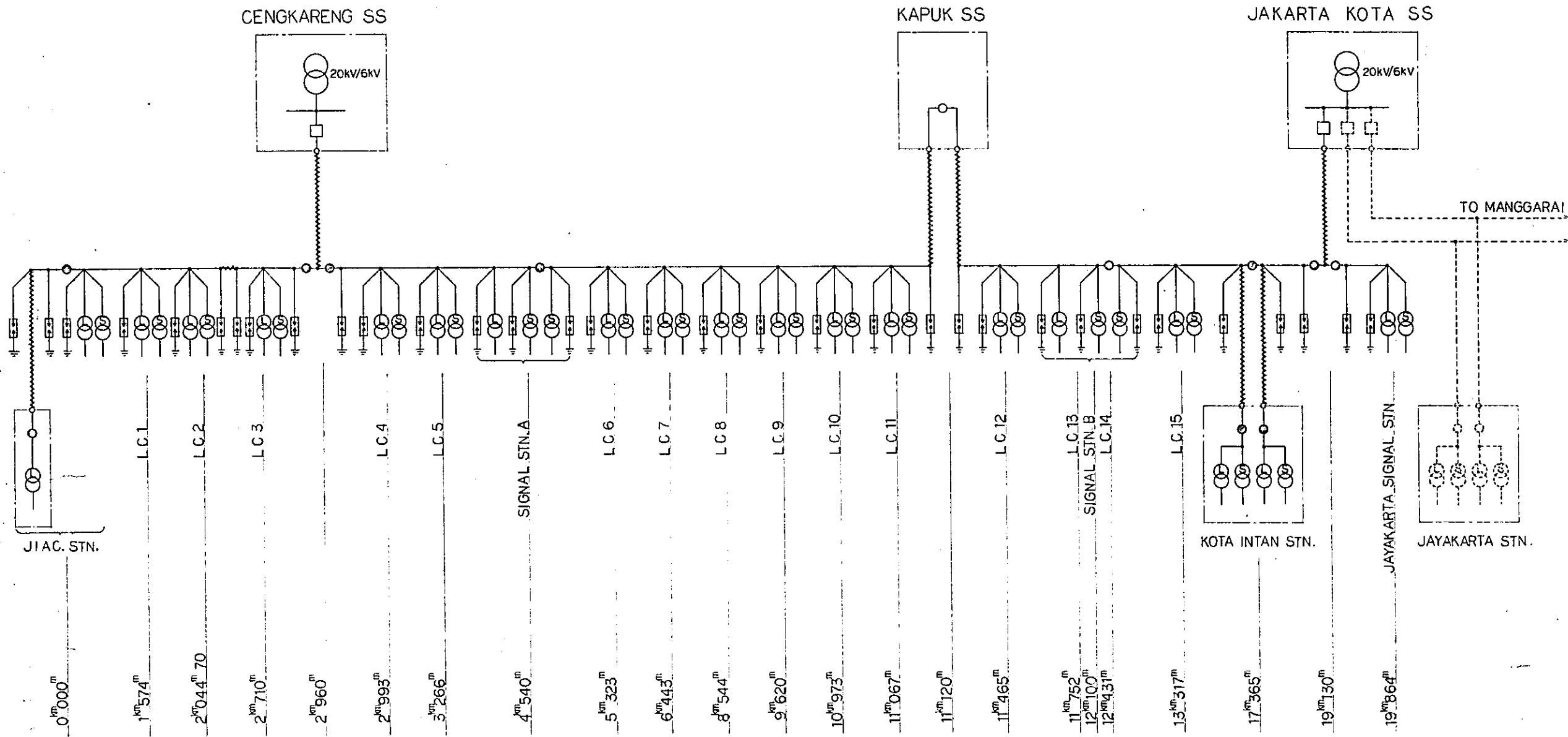
CONCRETE WEIGHT

WEIGHT FOR AUTOMATIC TENSIONING EQUIPMENT SCALE 1:5

NOTES:

1. WEIGHT
STANDARD — 45 kg
AUXILIARY — 15 kg
2. EACH JOINT OF REINFORCING BAR SHALL BE BINDED/WELDED
3. CONCRETE CLASS SHALL BE CLASS F

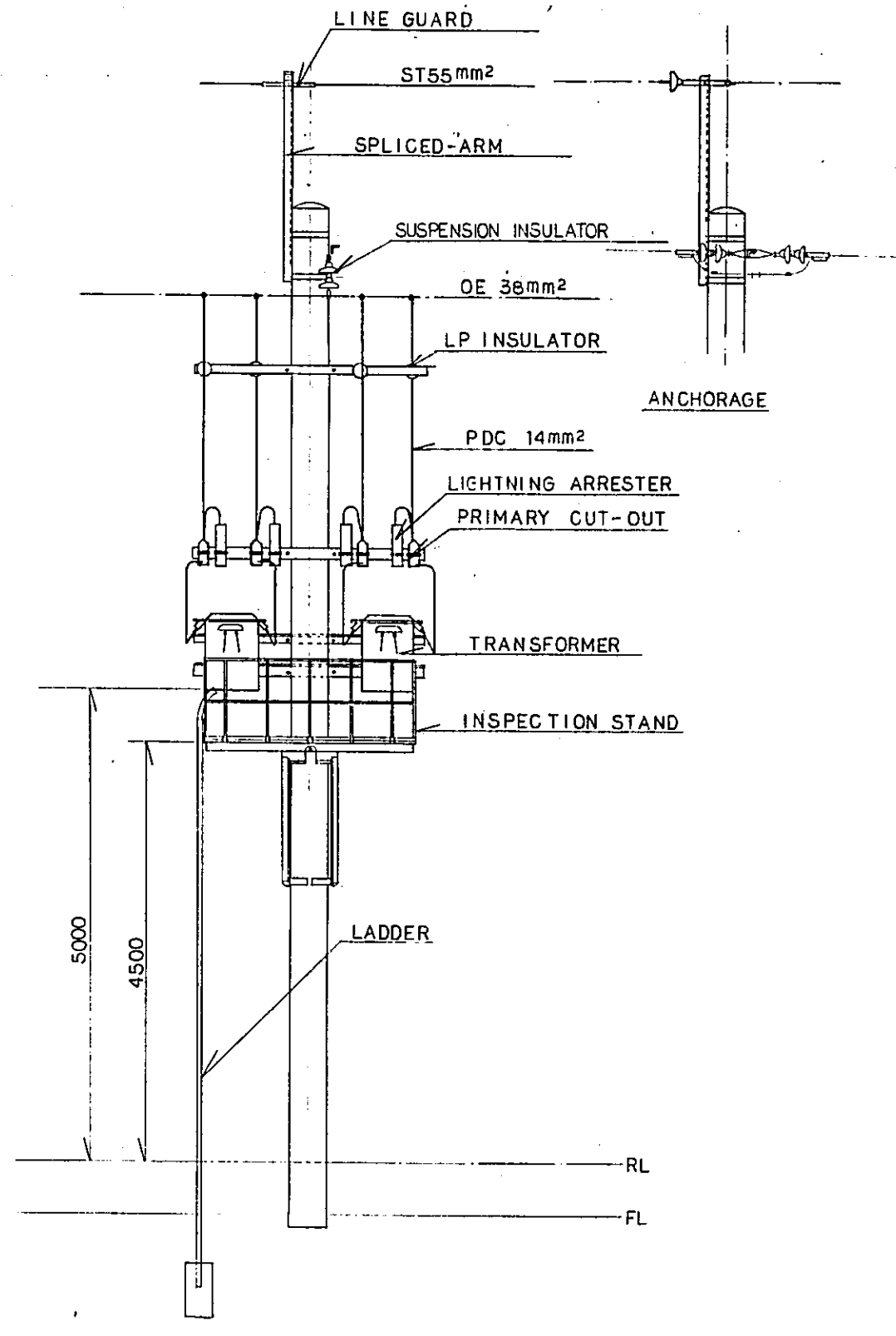
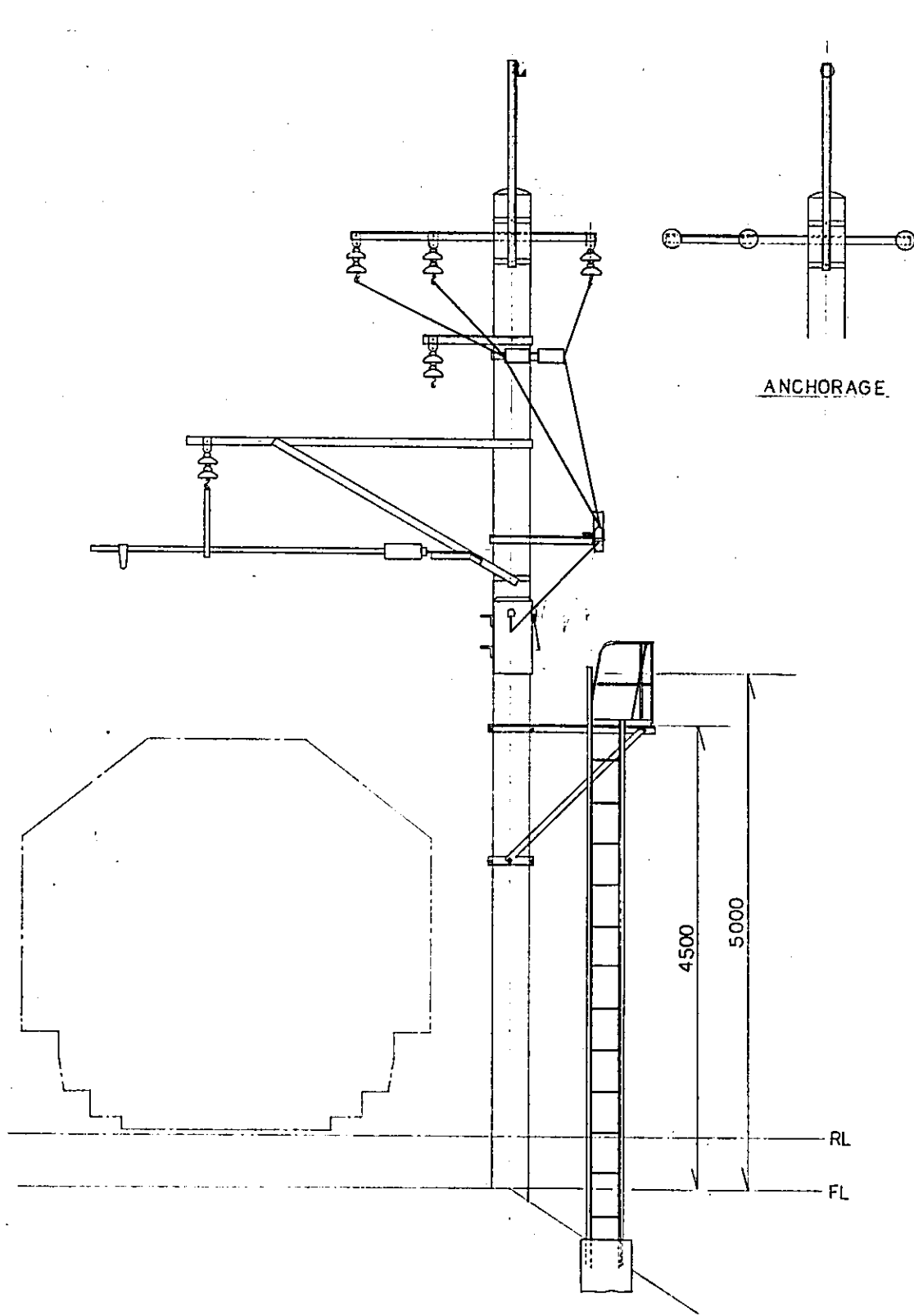
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 Aug 82	SH	SH	K.H	K.M	M.K
A	15 Feb 82	SH	SH	K.H	K.M	M.K
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
DETAILS OF CONCRETE TROUGH AND WEIGHT FOR AUTOMATIC TENSIONING EQUIPMENT						
PACKAGE: <input checked="" type="checkbox"/> ELECTRICAL WORK						
SCALE	DRAWING NO.					
1:5	EC-024					



- LEGEND :
- : 72kV VACUUM CIRCUIT BREAKER
 - : 72kV AIR LOAD BREAK SWITCH (NORMALLY OPEN)
 - : DO (NORMALLY CLOSED)
 - : LIGHTNING ARRESTER WITH GROUNDING DEVICE
 - : TRANSFORMER 6kV/220V (LIGHTING)
 - : DO (SIGNALLING)

UTILITY POWER DISTRIBUTION NETWORK DIAGRAM

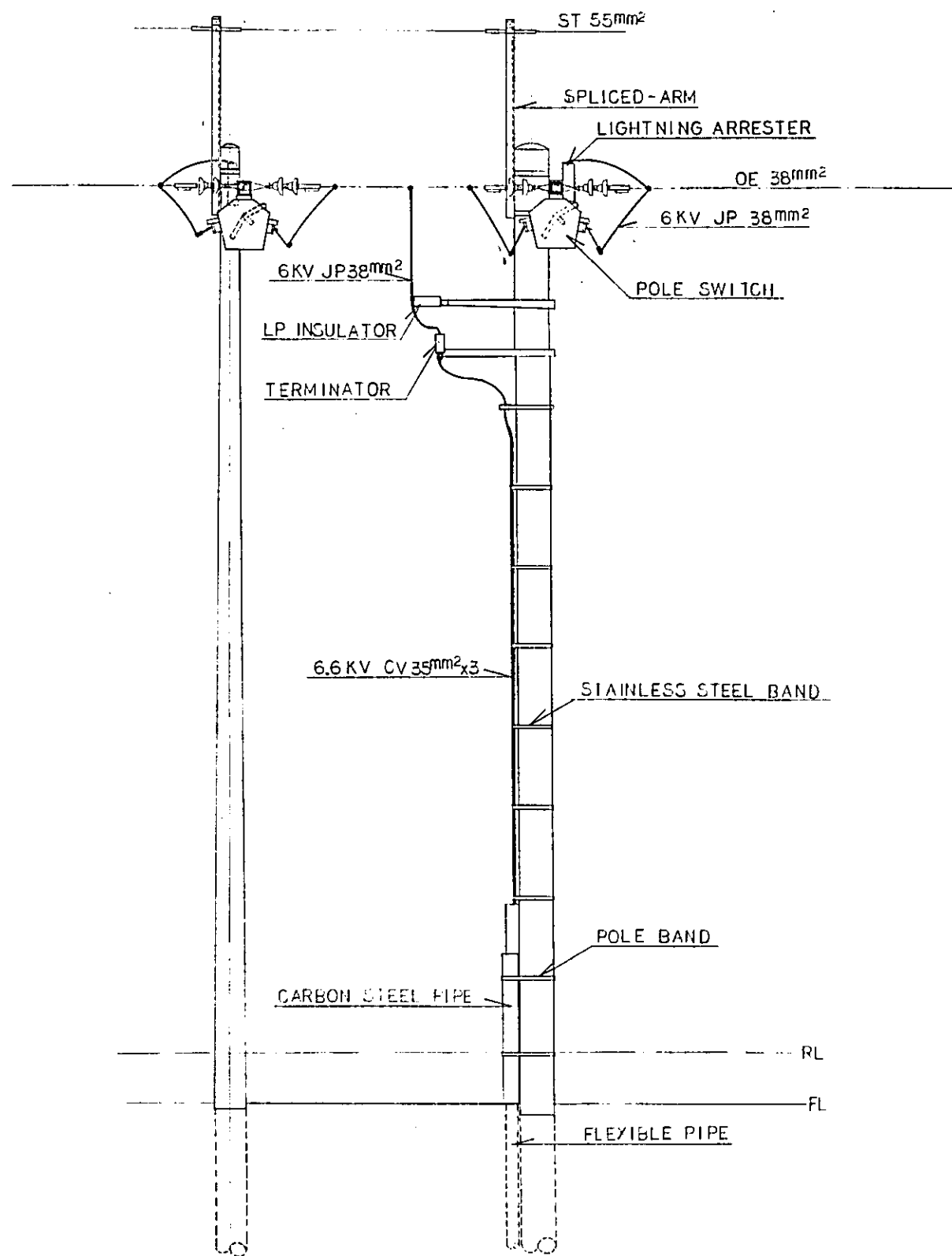
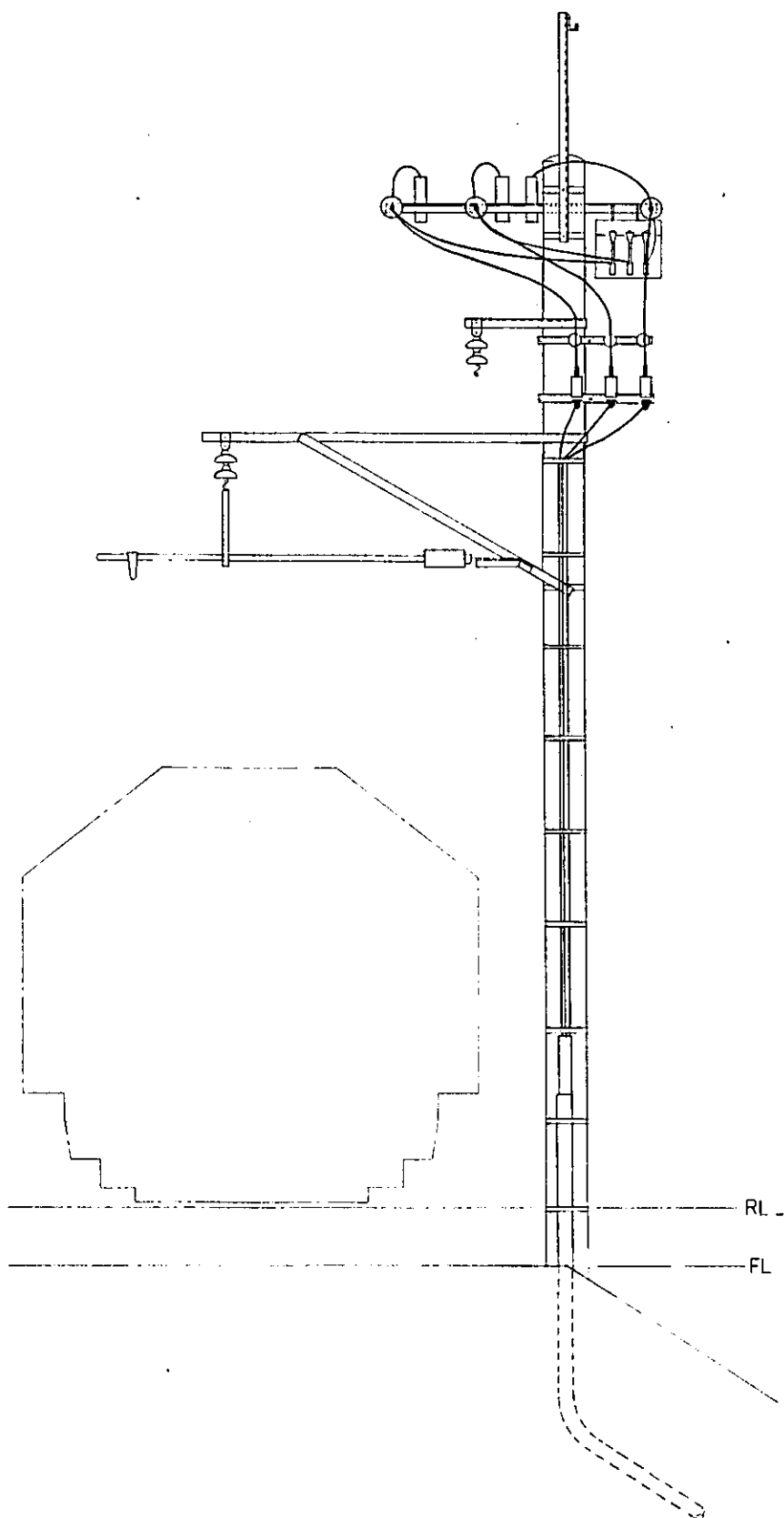
REPUBLIC OF INDONESIA (MINISTRY OF COMMUNICATIONS) DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 Aug '88	T. Kusnadi	RCC	K.M.	
A	15 FEB '87	T. Kusnadi	RCC	K.M.	
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	EXTENDED
UTILITY POWER DISTRIBUTION NETWORK DIAGRAM					
PACKAGE: ELECTRICAL WORK					
SCALE: NON SCALE		DRAWING NO: ED-001			



NOTE:
ALL DIMENSIONS ARE SHOWN IN MILLIMETRES UNLESS OTHERWISE INDICATED

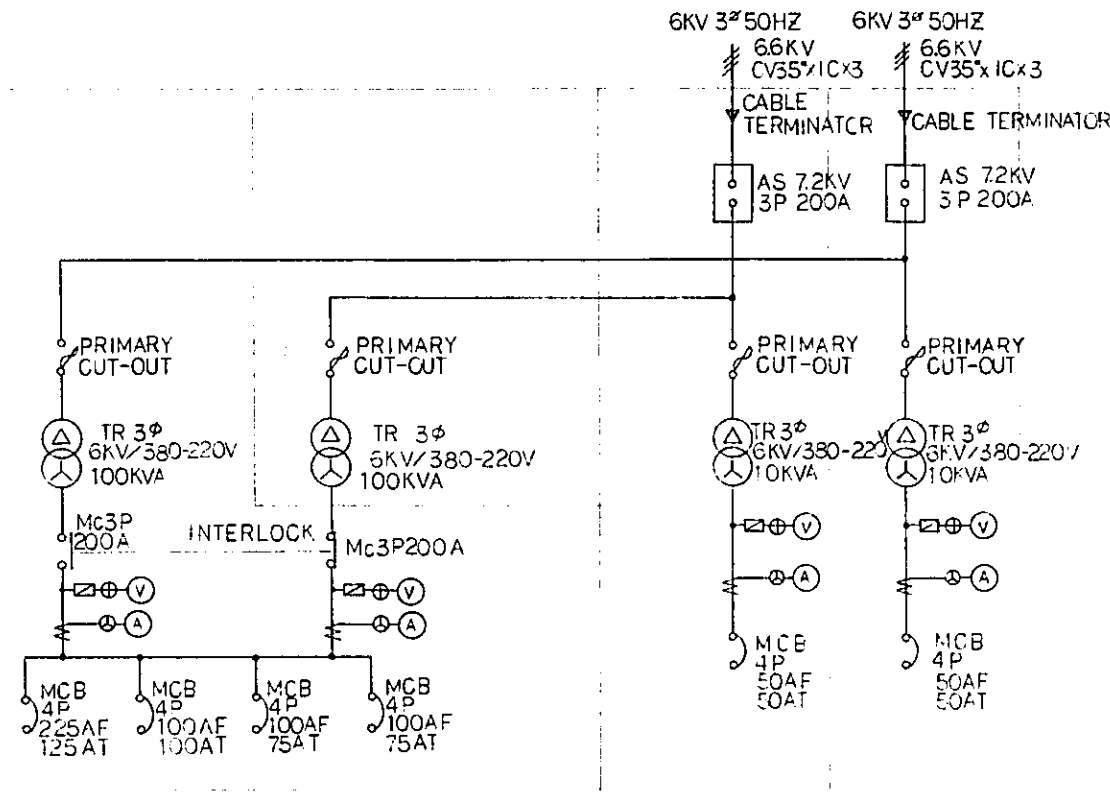
STANDARD ASSEMBLIES OF POLE TRANSFORMER SCALE 1:30

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 Aug 82	T. Kondo	R. K. U. M.		
A	15 FEB 82	T. Kondo	K. U. U. M.		
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
STANDARD ASSEMBLIES OF POLE TRANSFORMER					
PACKAGE: ■ ELECTRICAL WORK					
SCALE	DRAWING NO.				
1:30	E D - 002				

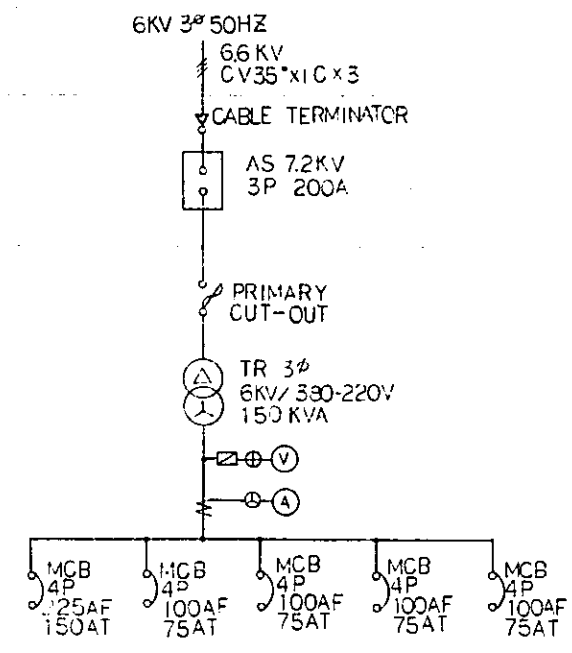


STANDARD ASSEMBLIES OF POLE SWITCH SCALE 1:30

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 Aug '81		T. Kaneko	R.K.	V.M.	M.K.
A	15 FEB '81		T. Kaneko	R.U.	R.M.	M.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVISED	SUBMITTED
STANDARD ASSEMBLIES OF POLE SWITCH						
PACKAGE: III ELECTRICAL WORK						
SCALE	DRAWING NO.					
1:30	ED-003					



KOTA INTAN

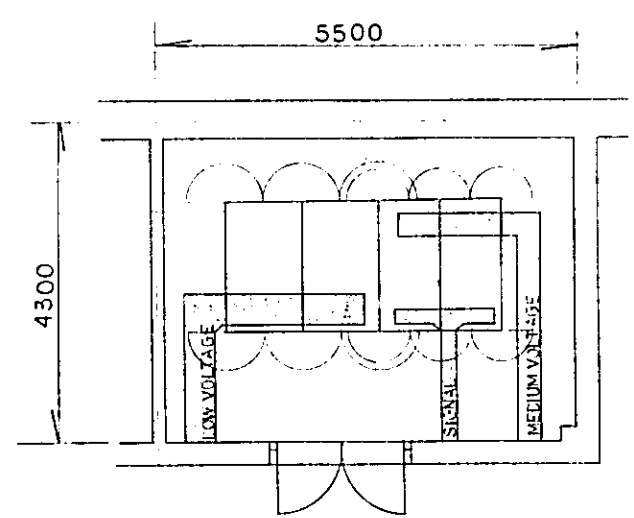


JIAC

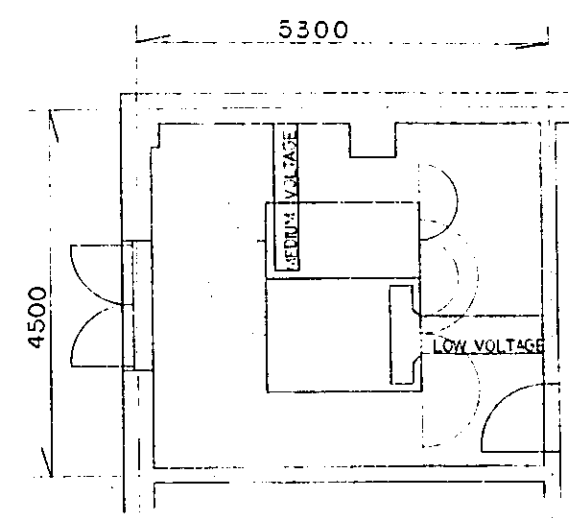
SINGLE LINE DIAGRAM OF POWER DISTRIBUTION CUBICLE

ABBREVIATIONS:
 AS: AIR LOAD BREAK SWITCH
 TR: TRANSFORMER
 MCB: MOLDED CASE CIRCUIT BREAKER
 MC: ELECTROMAGNETIC CONTACTOR

NOTE:
 ALL DIMENSIONS ARE SHOWN IN MILLIMETRES UNLESS OTHERWISE INDICATED.



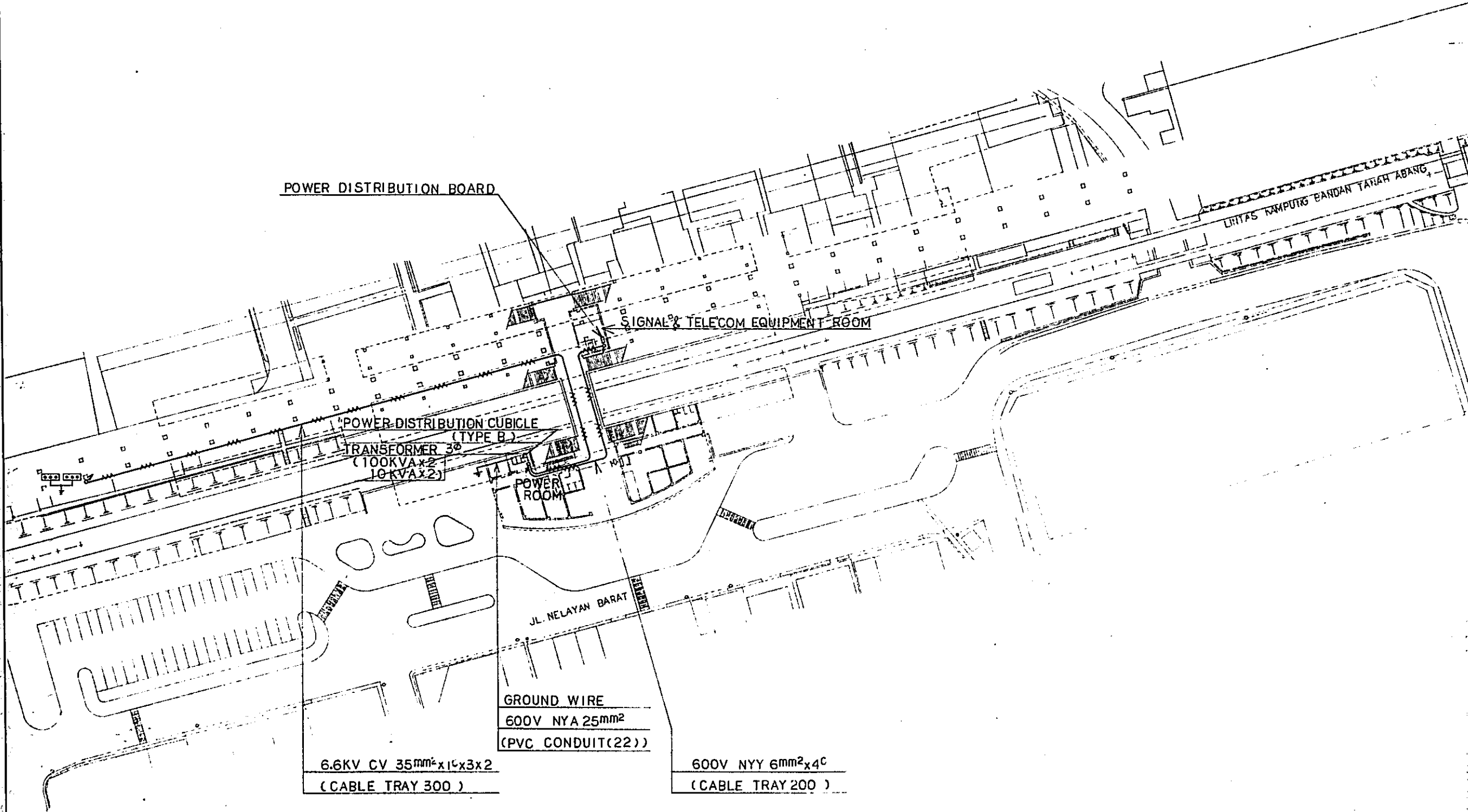
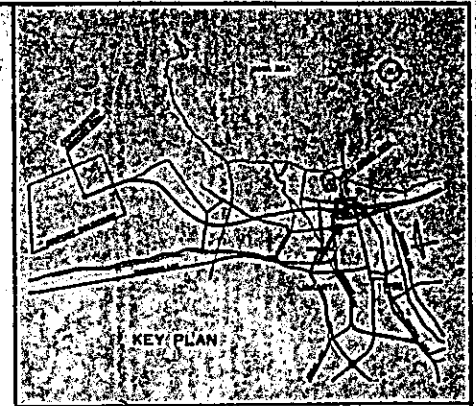
KOTA INTAN



JIAC

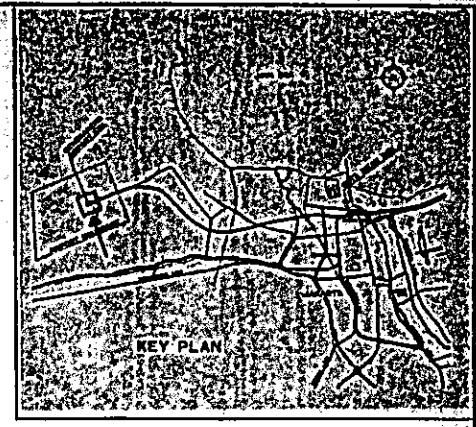
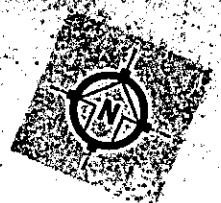
POWER ROOM LAYOUT SCALE 1:50

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 Aug '88	Y. Kudo	KU	K.M.	K.K.
A	16 FEB '87	T. Nishida	KU	K.M.	K.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
POWER ROOM LAYOUT					
PACKAGE: <input checked="" type="checkbox"/> ELECTRICAL WORK					
SCALE: AS NOTED		DRAWING NO: ED-004			

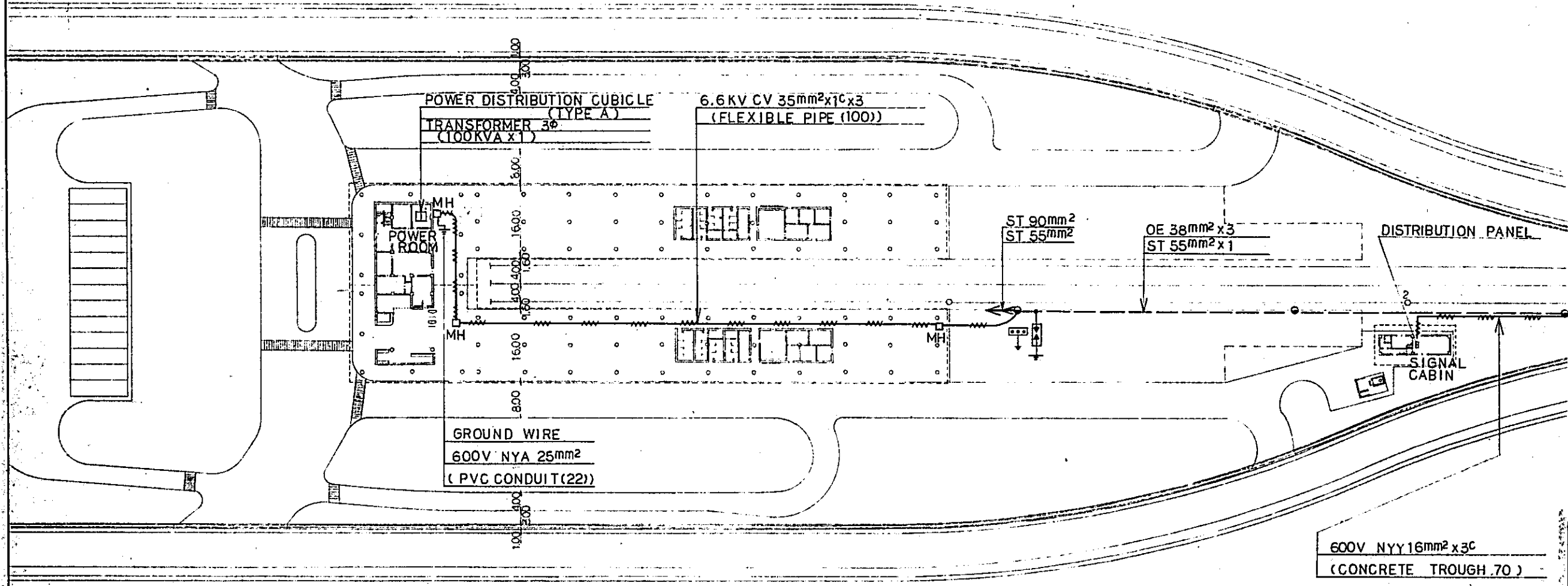


KOTA INTAN STATION, PLAN FOR UTILITY POWER DISTRIBUTION SCALE 1:500

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 Aug. 2011	T. Komoh	K. U.	K. M.	K. K.
A	15 FEB. 2011	T. Komoh	K. U.	K. M.	K. K.
REVISIONS	DATE	DESIGNED	CHECKED	APPROVED	REVIEWED
KOTA INTAN STATION PLAN FOR UTILITY POWER DISTRIBUTION					
PACKAGE: ELECTRICAL WORK					
SCALE	DRAWING NO.				
1:500	E.D. 0.05				



ABBREVIATION :
MH: MANHOLE



JIAC STATION PLAN FOR UTILITY POWER DISTRIBUTION SCALE 1:500

REPUBLIC OF INDONESIA
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
CONSTRUCTION PROJECT

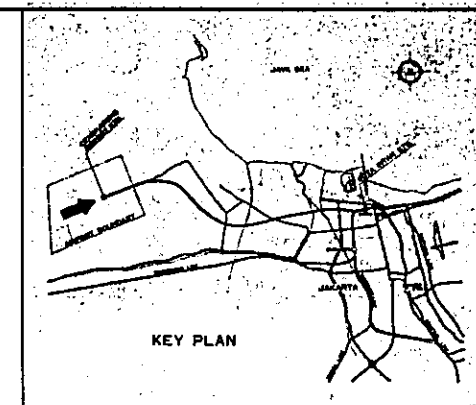
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1/Aug/88	1	1	1	1	1	1	1	1
PTA	1/10/88	1	1	1	1	1	1	1	1
REVISIONS	DATE	BY	CHKD	APPD	DATE	BY	CHKD	APPD	DATE

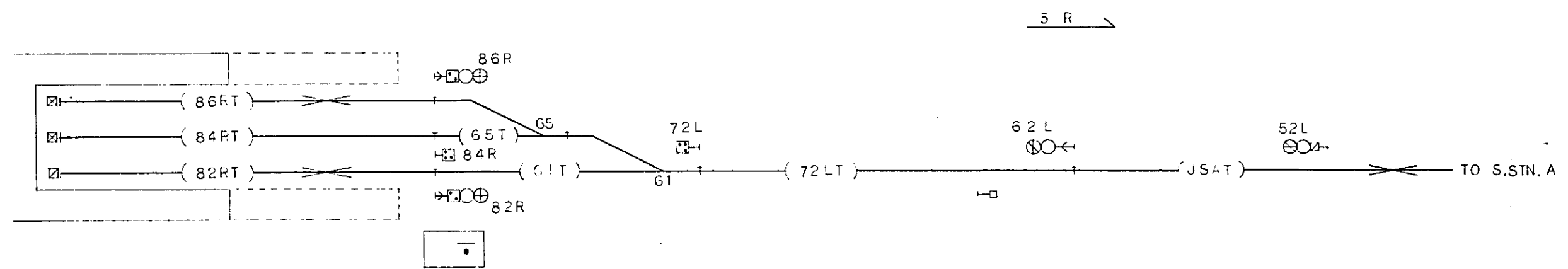
JIAC STATION PLAN FOR UTILITY POWER DISTRIBUTION

PACKAGE: ELECTRICAL WORK

SCALE: 1:500 DRAWING NO: ED-30.06



NOTE:
FOR SYMBOLS SEE DWG. NO.
EG - 003



DESCRIPTION		ROUTE	NOTE
NAME	NUMBER		
TRAFFIC LEVER	3 R	JIAC → S.STN.A	
STARTING SIGNAL	8 2 R	82RT → S.STN.A	
DO	8 6 R	86RT → S.STN.A	
HOME SIGNAL	6 2 L	S.STN.A → 82RT	
		S.STN.A → 86RT	
SHUNTING SIGNAL	8 2 R	82RT → 72LT	
DO	8 4 R	84RT → 72LT	
DO	8 6 R	86RT → 72LT	
DO	7 2 L	72LT → 82RT	
		72LT → 84RT	
		72LT → 86RT	

REPUBLIC OF INDONESIA
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF LAND TRANSPORT
AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
CONSTRUCTION PROJECT

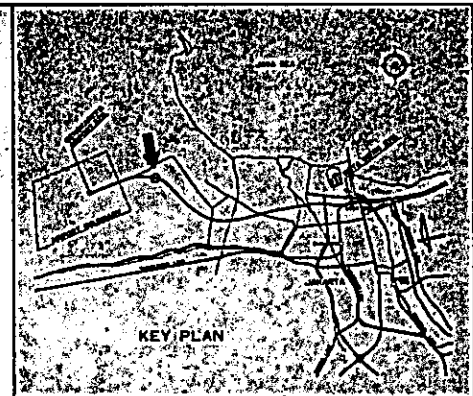
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

B	1 Aug '86	7/10	7/10	K.M	K.M	K.R
A	15 Feb '86	7/10	7/10	K.U.	K.M	K.R

ROUTE DIAGRAMS
FOR
JIAC STATION

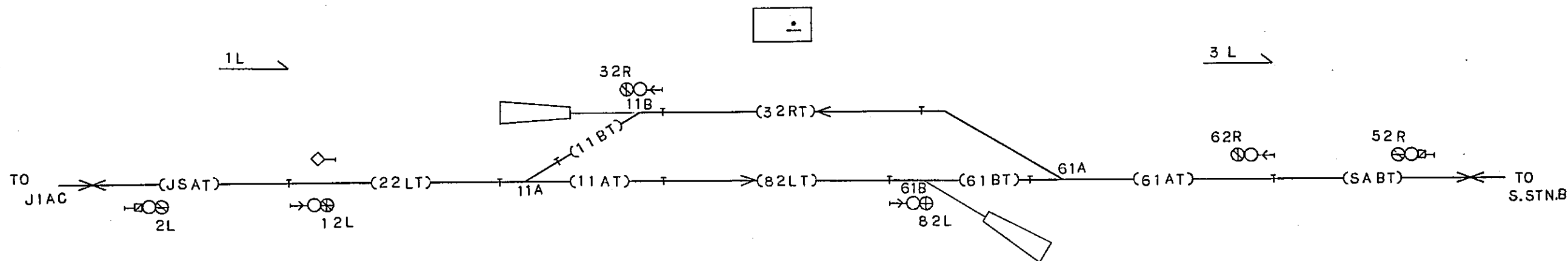
PACKAGE: ELECTRICAL WORK

SCALE: NOM SCALE DRAWING NO: ES-001



NOTE:

FOR SYMBOLS SEE DWG. NO.
EG - 003



DESCRIPTION		ROUTE	NOTE
NAME	NUMBER		
TRAFFIC LEVER	1 L	JIAC → S.STN.A	
HOME SIGNAL	12 L	JIAC → 82 LT	
STARTING SIGNAL	32 R	32 RT → JIAC	
STARTING SIGNAL	82 L	82 LT → S.STN.B	
HOME SIGNAL	62 R	S.STNB → 32 RT	
TRAFFIC LEVER	3 L	S.STNA → S.STN.B	

REPUBLIC OF INDONESIA
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF LAND TRANSPORT
AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

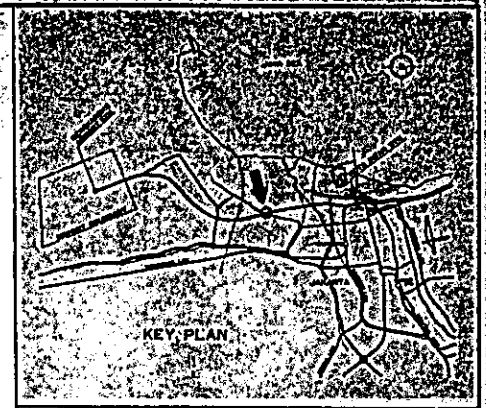
B	1.10.1966	Tajima	3.7.66	1.10.66	U.M.	1.10.66
A	15.10.1966	Tajima	1.10.66	2.10.66	U.M.	1.10.66

REVISIONS DATE

ROUTE DIAGRAMS
FOR
SIGNAL STATION A

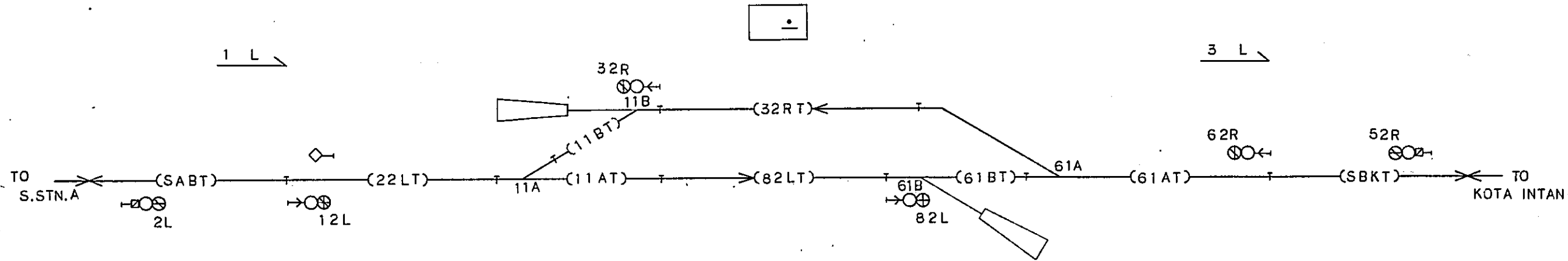
PACKAGE: ELECTRICAL WORK

SCALE: NON SCALE DRAWING NO: ES-002



NOTE:

FOR SYMBOLS SEE DWG. NO. EG-003



DESCRIPTION		ROUTE		NOTE
NAME	NUMBER			
TRAFFIC LEVER	1 L	S.STN.A	→ S.STN.B	
HOME SIGNAL	12 L	S.STN.A	→ 82 LT	
STARTING SIGNAL	32 R	32 RT	→ S.STN.A	
STARTING SIGNAL	82 L	82 LT	→ KOTA INTAN	
HOME SIGNAL	62 R	KOTA INTAN	→ 32 RT	
TRAFFIC LEVER	3 L	S.STN.B	→ KOTA INTAN	

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 CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

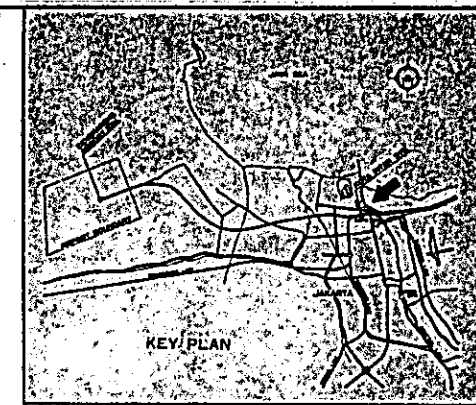
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A	7/20/77	7/20/77	7/20/77	7/20/77	7/20/77	7/20/77

REVISIONS DATE

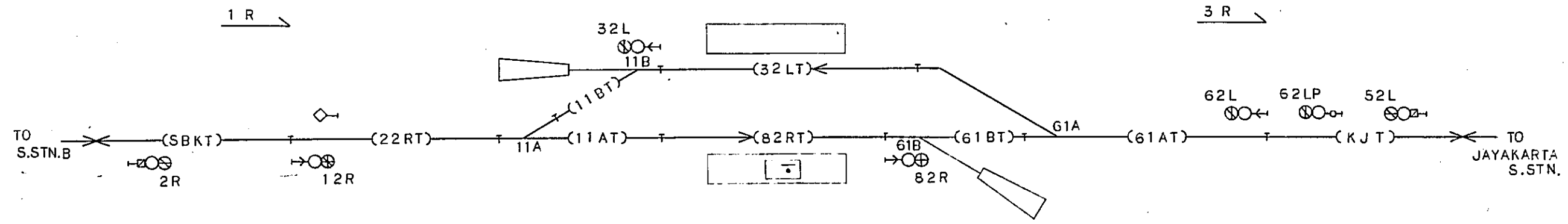
ROUTE DIAGRAMS
 FOR
 SIGNAL STATION B

PACKAGE: ELECTRICAL WORK

SCALE: NON SCALE
 DRAWING NO: EG-003



NOTE:
FOR SYMBOLS SEE DWG. NO.
EG - 003



DESCRIPTION		ROUTE	NOTE
NAME	NUMBER		
TRAFFIC LEVER	1 R	S.STN.B → KOTA INTAN	
HOME SIGNAL	12 R	S.STN.B → 82 RT	
STARTING SIGNAL	32 L	32 LT → S.STN.B	
STARTING SIGNAL	82 R	82 RT → JAYAKARTA S.STN.	
HOME SIGNAL	62 L	JAYAKARTA S.STN → 32 LT	
TRAFFIC LEVER	3 R	KOTA INTAN → JAYAKARTA S.STN.	

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JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

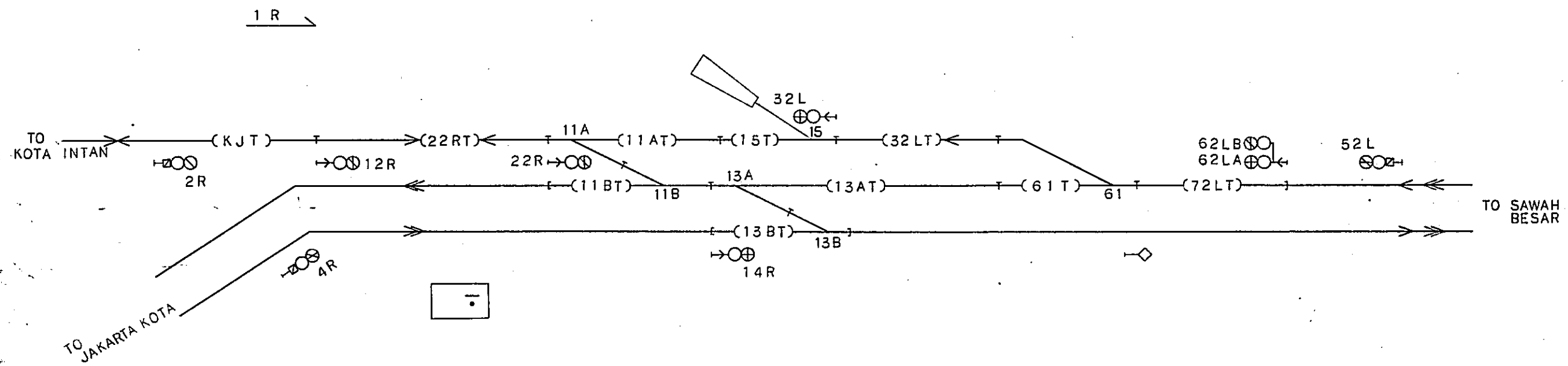
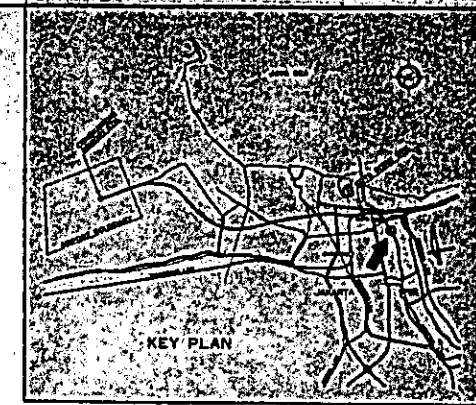
B	1 Aug. 82	7/20	RM	KM	JK
Ai	15 Feb. 82	7/20	RM	KM	JK

REVISIONS DATE

ROUTE DIAGRAMS
FOR
KOTA INTAN STATION

PACKAGE: ELECTRICAL WORK

SCALE: NONSCALE DRAWING NO: ES-004



NOTE:
FOR SYMBOLS SEE DWG. NO.
EG - 003

DESCRIPTION		ROUTE	NOTE
NAME	NUMBER		
TRAFFIC LEVER	1 R	KOTA INTAN → JAYAKARTA S. STN.	
HOME SIGNAL	12 R	KOTA INTAN → 22 RT	
DO	14 R	JAKARTA KOTA → SAWAH BESAR	
STARTING SIGNAL	22 R	22RT → SAWAH BESAR	
DO	32 L	32LT → KOTA INTAN	
HOME SIGNAL	62 LB	SAWAH BESAR → 32 LT	
	62 LA	SAWAH BESAR → JAKARTA KOTA	

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(JICA)

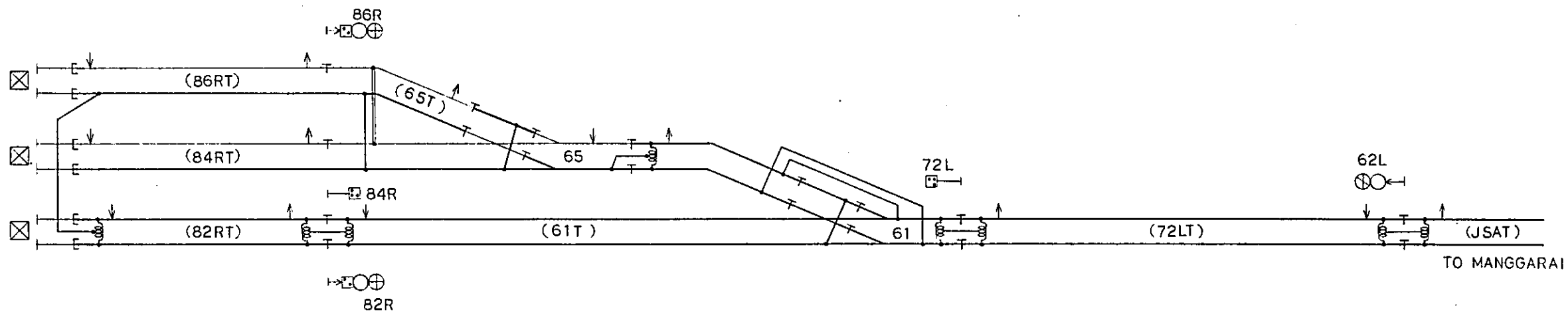
B	11 Aug 1964	Tanaka	320	K.M.	K.M.	K.M.
A	15 Feb 1964	Tanaka	320	K.M.	K.M.	K.M.

REVISIONS DATE

ROUTE DIAGRAMS
FOR
JAYAKARTA SIGNAL STATION

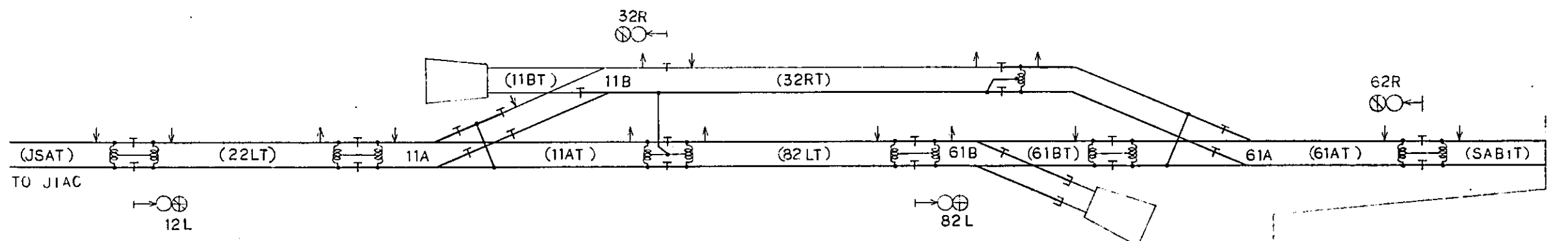
PACKAGE ELECTRICAL WORK

SCALE NON SCALE DRAWING NO. EG-005



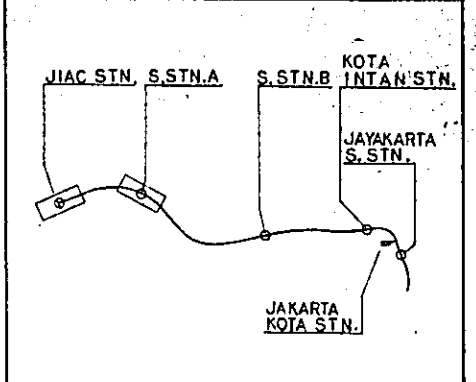
JIAC STN.

TO MANGGARAI



S. STN. A

TO MANGGARAI



- LEGEND:
- : IMPEDANCE BOND
 - INSULATED RAIL JOINT:
 - : TRACK CIRCUIT IN BOTH SIDES
 - : TRACK CIRCUIT ONLY IN ONE SIDE
 - TRACK CIRCUIT:
 - : DOUBLE RAIL TRACK CIRCUIT
 - : SINGLE RAIL TRACK CIRCUIT
 - (OOT) : NAME OF TRACK CIRCUIT
 - : JUMPER BOND
 - : CROSS BOND
 - : TRACK CIRCUIT TRANSMITTING POINT
 - : TRACK CIRCUIT RECEIVING POINT

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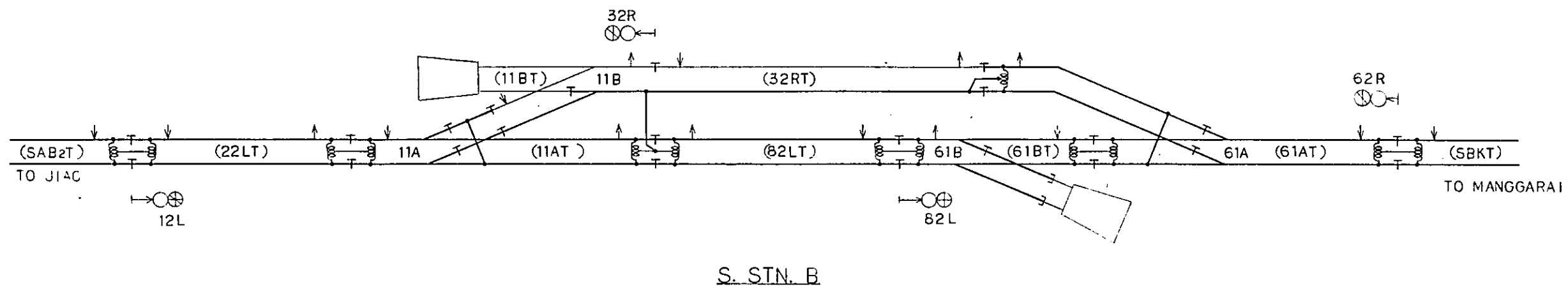
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1. Apr. 86	7/20/86	2/20/86	K.M.	K.M.	K.M.
A	16 Feb. 86	7/20/86	3/20/86	K.M.	K.M.	K.M.
REVISIONS	DATE	DESIGNED	CHECKED	APPROVED	REVIEWED	SUBMITTED

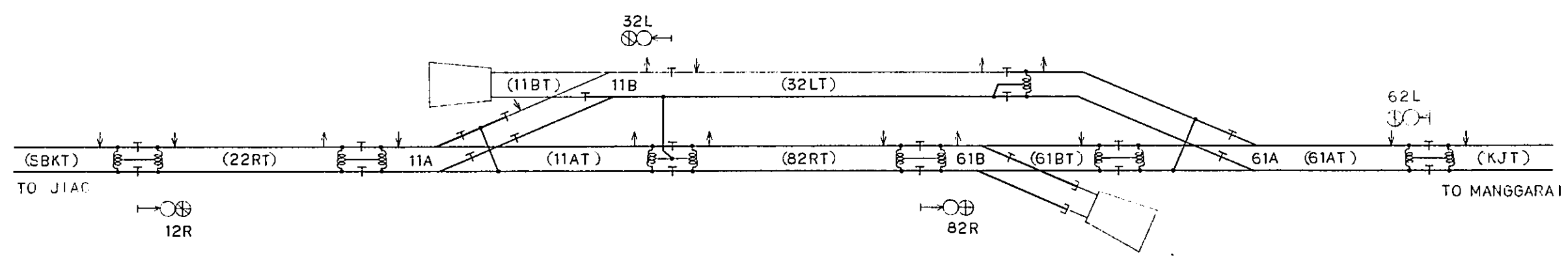
TRACK CIRCUIT DIAGRAMS
 FOR
 JIAC AND SIGNAL STATION A

PACKAGE: ELECTRICAL WORK

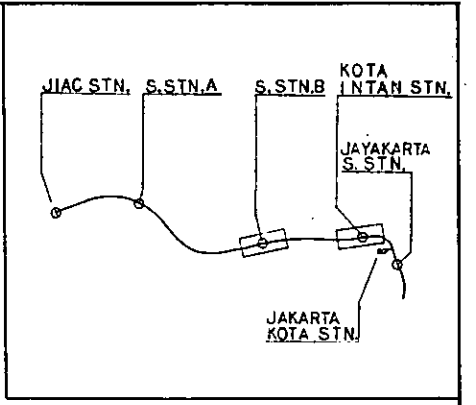
SCALE: NON-SCALE DRAWING NO: ES-006



S. STN. B



KOTA INTAN STN.



LEGEND:

- : IMPEDANCE BOND
- : INSULATED RAIL JOINT
- : TRACK CIRCUIT IN BOTH SIDES
- : DOUBLE RAIL TRACK CIRCUIT
- : SINGLE RAIL TRACK CIRCUIT
- : NAME OF TRACK CIRCUIT
- : JUMPER BOND
- : CROSS BOND
- : TRACK CIRCUIT TRANSMITTING POINT
- : TRACK CIRCUIT RECEIVING POINT

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 CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

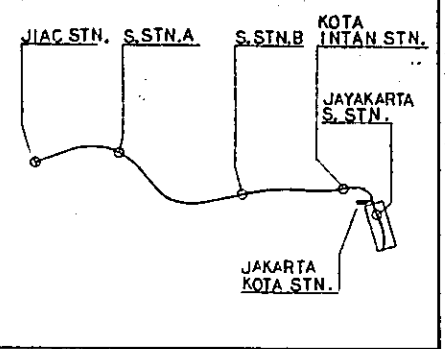
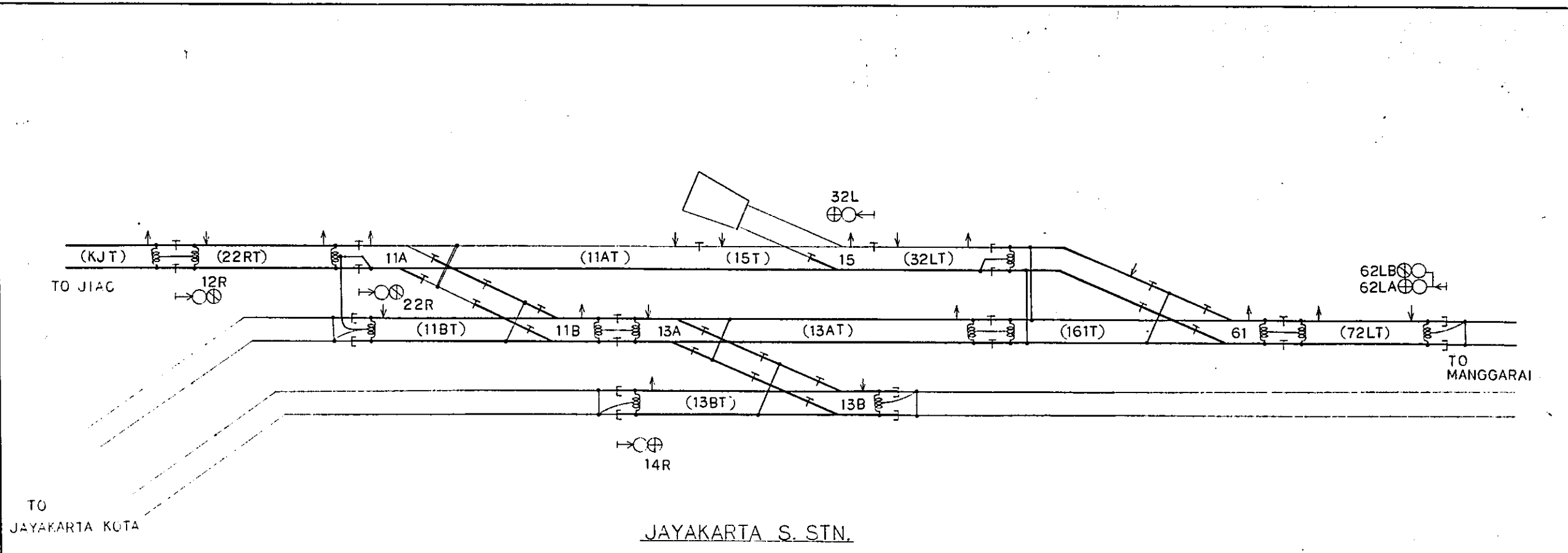
B	1 Aug '84	Tajima	JTD	KM	KM	AK
A	15 Feb '84	Tajima	JTD	KM	KM	AK

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED

TRACK CIRCUIT DIAGRAMS
 FOR
 KOTA INTAN AND SIGNAL STATION B

PACKAGE: ELECTRICAL WORK

SCALE: NON SCALE DRAWING NO: ES-Q07



- LEGEND:
- : IMPEDANCE BOND
 - : INSULATED RAIL JOINT
 - : TRACK CIRCUIT IN BOTH SIDES
 - : TRACK CIRCUIT ONLY IN ONE SIDE
 - : DOUBLE RAIL TRACK CIRCUIT
 - : SINGLE RAIL TRACK CIRCUIT
 - : NAME OF TRACK CIRCUIT
 - : JUMPER BOND
 - : CROSS BOND
 - : TRACK CIRCUIT TRANSMITTING POINT
 - : TRACK CIRCUIT RECEIVING POINT

JAYAKARTA S. STN.

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 CONSTRUCTION PROJECT

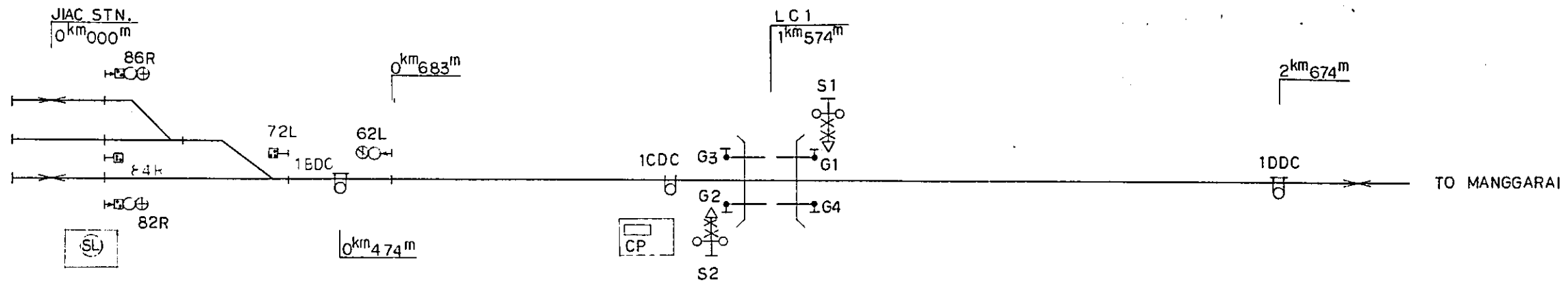
JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

B	1 Aug. '86	Tajima	J.Z.D.	K.M.	K.M.	M.K.
A	18 Feb. '86	Tajima	J.Z.D.	S.H.	K.M.	M.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED

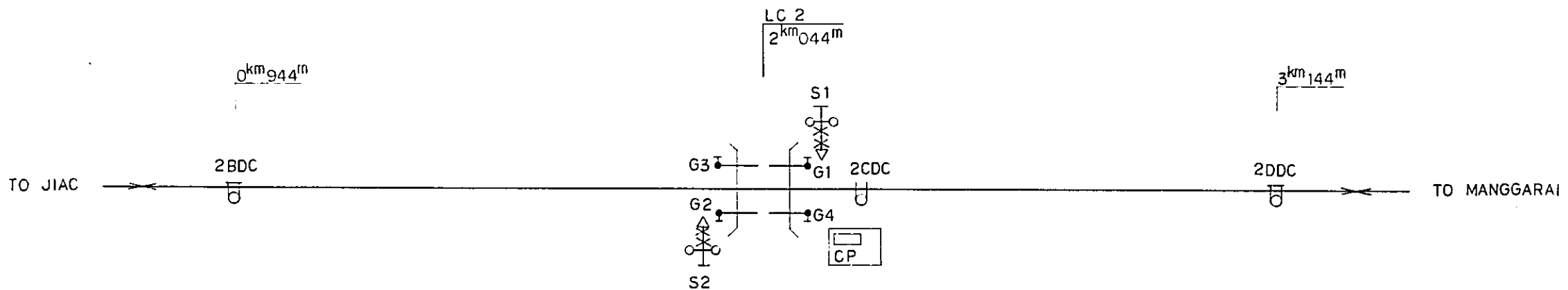
TRACK CIRCUIT DIAGRAMS
 FOR
 JAYAKARTA SIGNAL STATION

PACKAGE: ELECTRICAL WORK

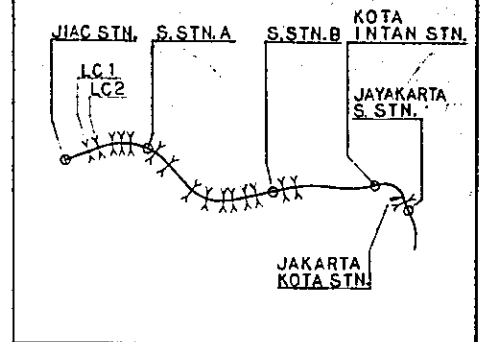
SCALE: NON SCALE DRAWING NO.: ES-008



NAME	DIRECTION OF CONTROL		ALARM CONDITIONS	OPERATING CONDITIONS	LENGTH OF ALARMING SECTION (m)	ALARMING TIME MINIMUM (sec)	REMARKS
S 1	TO Mng.	JIAC — MANGGARAI	1BDC - 1CDC	86R, 82R CN R OR (SL) CN R	1100	40	SEMI-AUTOMATIC
S 2	TO JIAC	MANGGARAI — JIAC	1DDC - 1CDC		1100	40	DO



NAME	DIRECTION OF CONTROL		ALARM CONDITIONS	LENGTH OF ALARMING SECTION (m)	ALARMING TIME MINIMUM (sec)	REMARKS
S 1	TO Mng.	JIAC — MANGGARAI	2BDC - 2CDC	1100	40	SEMI-AUTOMATIC
S 2	TO JIAC	MANGGARAI — JIAC	2DDC - 2CDC	1100	40	DO



- LEGEND :
- : SIGNAL CABIN OR WATCHMAN'S SHED
 - ⚡ : LEVEL CROSSING SIGNAL
 - : LEVEL CROSSING BARRIER
 - (SL) : SUBSTITUTION LEVER FOR STARTING TRAIN OPERATION
 - CP : CONTROL PANEL
 - U : TRAIN DETECTOR (CLOSED CIRCUIT TYPE)
 - U : DO (OPEN CIRCUIT TYPE)
 - : RUNNING SIGNAL
 - ⊕ : SHUNTING SIGNAL
 - ⊖ : EMERGENCY SIGNAL

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NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

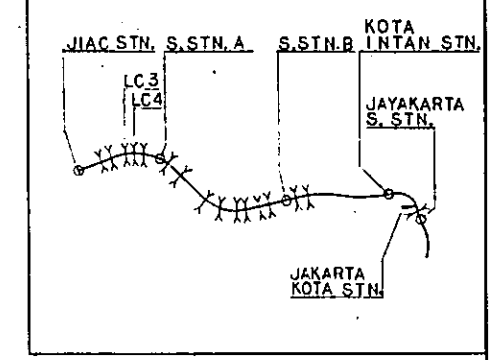
B	1 Aug. '86	JICA	3.20	MM	1.1	mm	R
A	15 Feb. '86	JICA	7.20	MM	1.1	mm	R

REVISIONS DATE ISSUED DRAWN CHECKED REVIEWED APPROVED

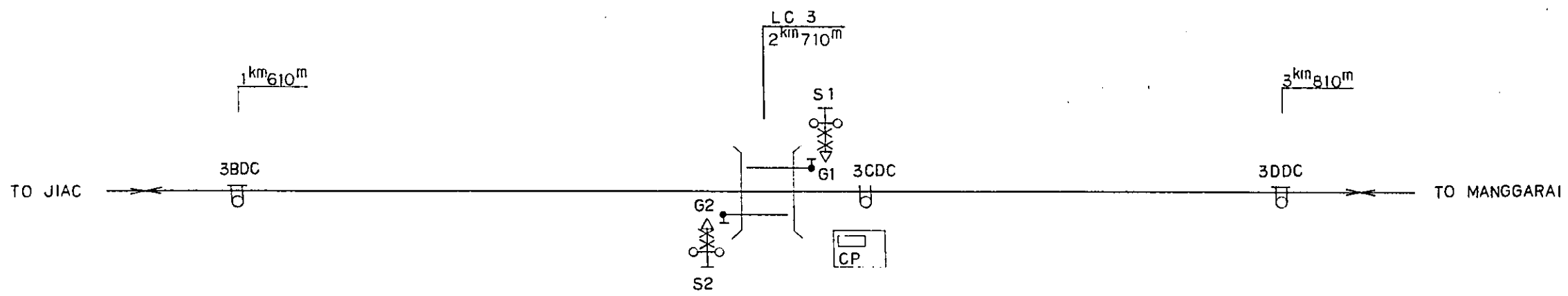
ALARM CONTROL DIAGRAMS FOR LEVEL CROSSING NO. 1 AND 2

PACKAGE: ELECTRICAL WORK

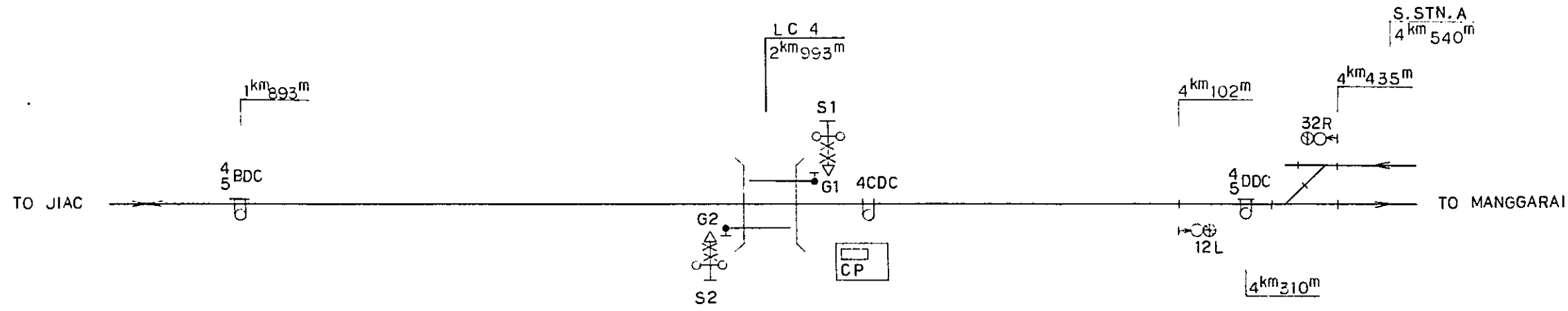
SCALE: NON SCALE DRAWING NO: ES-009



- LEGEND:
- : SIGNAL CABIN OR WATCHMAN'S SHED
 - ⚡ : LEVEL CROSSING SIGNAL
 - | : LEVEL CROSSING BARRIER
 - ⊙ : SUBSTITUTION LEVER FOR STARTING TRAIN OPERATION
 - CP : CONTROL PANEL
 - ⊞ : TRAIN DETECTOR (CLOSED CIRCUIT TYPE)
 - ⊘ : DO (OPEN CIRCUIT TYPE)
 - ⊙ : RUNNING SIGNAL
 - ⊙ : EMERGENCY SIGNAL



NAME	DIRECTION OF CONTROL		ALARM CONDITIONS	LENGTH OF ALARMING SECTION (m)	ALARMING TIME MINIMUM (sec)	REMARKS
S 1	TO Mri.	JIAC — MANGGARAI	3BDC - 3CDC	1100	40	SEMI-AUTOMATIC
S 2	TO JIAC	MANGGARAI — JIAC	3DDC - 3CDC	1100	40	DO



NAME	DIRECTION OF CONTROL		ALARM CONDITIONS	LENGTH OF ALARMING SECTION (m)	ALARMING TIME MINIMUM (sec)	REMARKS
S 1	TO Mri.	JIAC — MANGGARAI	4/5 BDC - 4CDC	1100	40	SEMI-AUTOMATIC
S 2	TO JIAC	MANGGARAI — JIAC	4/5 DDC - 4CDC	1317	47	DO

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JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

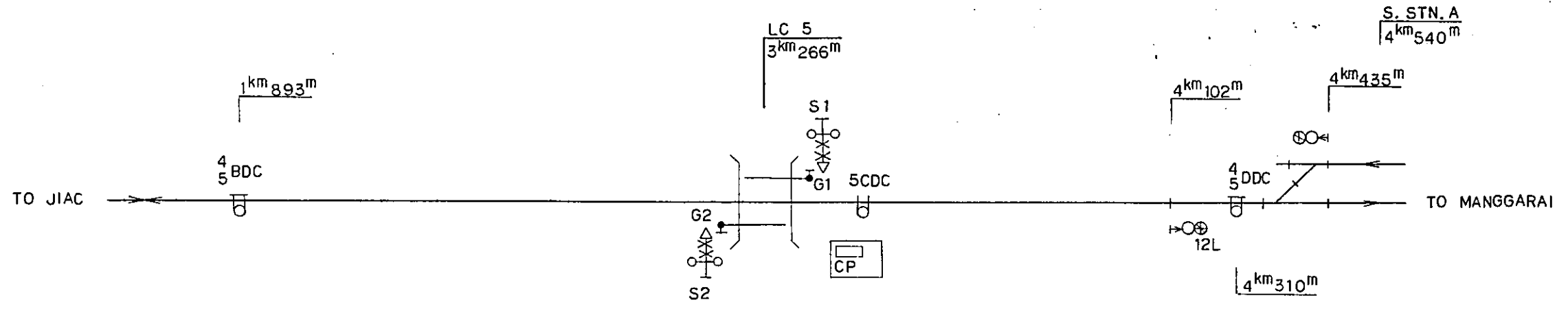
B	1 Aug. '96	Tajiri	3.2D	KM	U.M.	M.K.
A	13 Feb. '96	Tajiri	3.2D	KM	U.M.	M.K.

REVISIONS: DATE, DESIGNED, DRAWN, CHECKED, REVIEWED, APPROVED

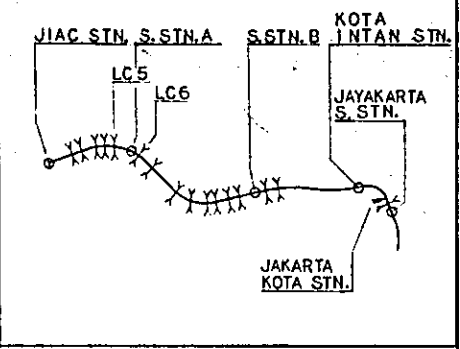
ALARM CONTROL DIAGRAMS FOR LEVEL CROSSING NO. 3 AND 4

PACKAGE: ELECTRICAL WORK

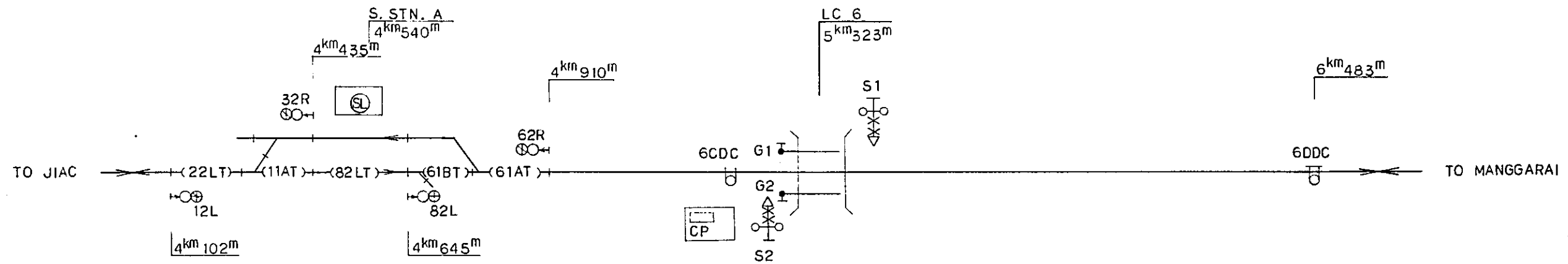
SCALE: NON SCALE DRAWING NO: ES-010



NAME	DIRECTION OF CONTROL	ALARM CONDITIONS	LENGTH OF ALARMING SECTION (m)	ALARMING TIME MINIMUM (sec)	REMARKS
S 1	TO Mri. JIAC — MANGGARAI	4/5 BDC - 5CDC	1373	50	SEMI-AUTOMATIC
S 2	TO JIAC MANGGARAI — JIAC	4/5 DDC - 5CDC	1044	40	DO



- LEGEND:
- : SIGNAL CABIN OR WATCHMAN'S SHED
 - △ : LEVEL CROSSING SIGNAL
 - : LEVEL CROSSING BARRIER
 - ⊙ (SL) : SUBSTITUTION LEVER FOR STARTING TRAIN OPERATION
 - (CP) : CONTROL PANEL
 - ⊕ (B) : TRAIN DETECTOR (CLOSED CIRCUIT TYPE)
 - ⊕ (D) : DO (OPEN CIRCUIT TYPE)
 - ⊙ (R) : RUNNING SIGNAL
 - ⊙ (E) : EMERGENCY SIGNAL



NAME	DIRECTION OF CONTROL	ALARM CONDITIONS	OPERATING CONDITIONS	LENGTH OF ALARMING SECTION (m)	ALARMING TIME MINIMUM (sec)	REMARKS
S 1	TO Mri. PASSING	JIAC - MANGGARAI	22LT, 11AT, 82LT, 61BT, 61AT - 6CDC	1221	44	SEMI-AUTOMATIC
S 2	TO Mri. OUT-GOING	82LT - MANGGARAI	82LT, 61BT, 61AT - 6CDC	678	40	DO
	TO JIAC	MANGGARAI - JIAC	6DDC - 6CDC	1160	40	DO

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NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

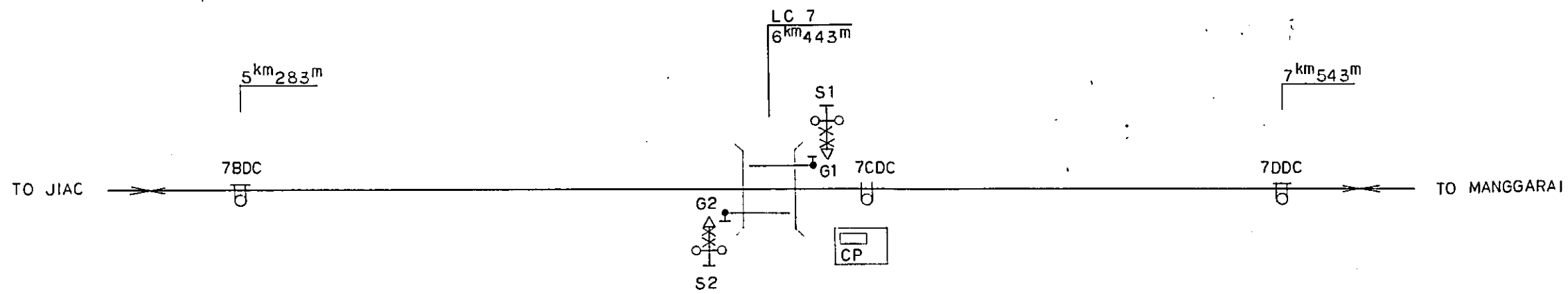
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1 Aug '82	TAM	3/20	KL	K.M	K.K
A	16 Feb '82	TAM	1/20	KL	K.M	K.K

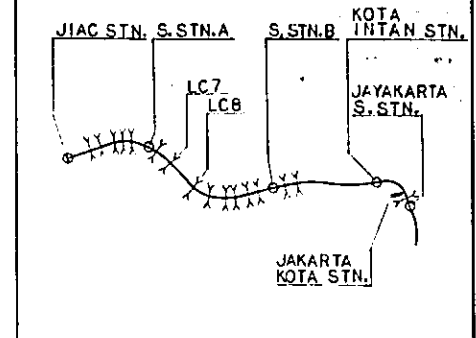
REVISIONS: DATE, CHECKED, DRAWN, CHECKED, REVIEWED, SUBMITTED

ALARM CONTROL DIAGRAMS FOR LEVEL CROSSING NO. 5 AND 6.

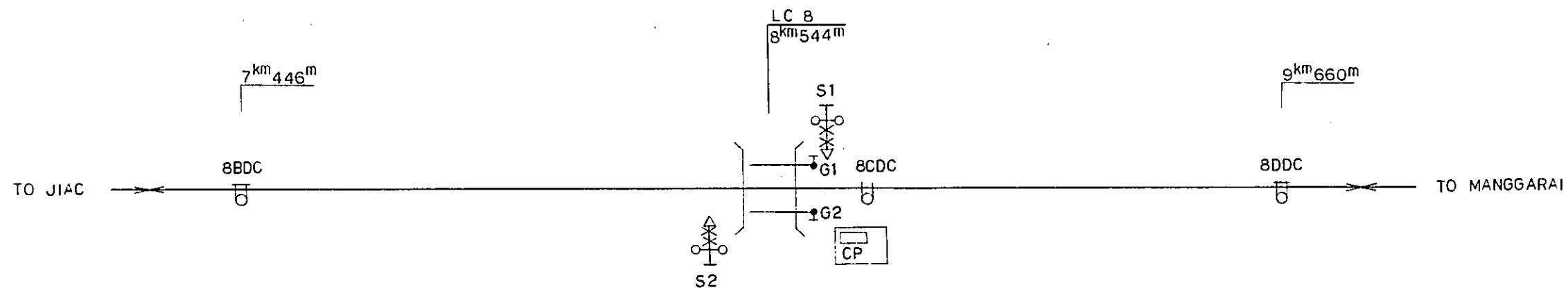
PACKAGE: ELECTRICAL WORK
 SCALE: NON SCALE
 DRAWING NO: ES-011



NAME	DIRECTION OF CONTROL		ALARM CONDITIONS	LENGTH OF ALARMING SECTION (m)	ALARMING TIME MINIMUM (sec)	REMARKS
S 1	TO Mgr.	JIAC — MANGGARAI	7BDC - 7CDC	1160	42	SEMI - AUTOMATIC
S 2	TO JIAC	MANGGARAI — JIAC	7DDC - 7CDC	1100	40	DC



- LEGEND:
- : SIGNAL CABIN OR WATCHMAN'S SHED
 - ⚡ : LEVEL CROSSING SIGNAL
 - : LEVEL CROSSING BARRIER
 - ⊙ : SUBSTITUTION LEVER FOR STARTING TRAIN OPERATION
 - CP : CONTROL PANEL
 - ⊞ : TRAIN DETECTOR (CLOSED CIRCUIT TYPE)
 - ⊞ : DO (OPEN CIRCUIT TYPE)



NAME	DIRECTION OF CONTROL		ALARM CONDITIONS	LENGTH OF ALARMING SECTION (m)	ALARMING TIME MINIMUM (sec)	REMARKS
S 1	TO Mgr.	JIAC — MANGGARAI	8BDC - 8CDC	1098	40	SEMI - AUTOMATIC
S 2	TO JIAC	MANGGARAI — JIAC	8DDC - 8CDC	1116	40	DO

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JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

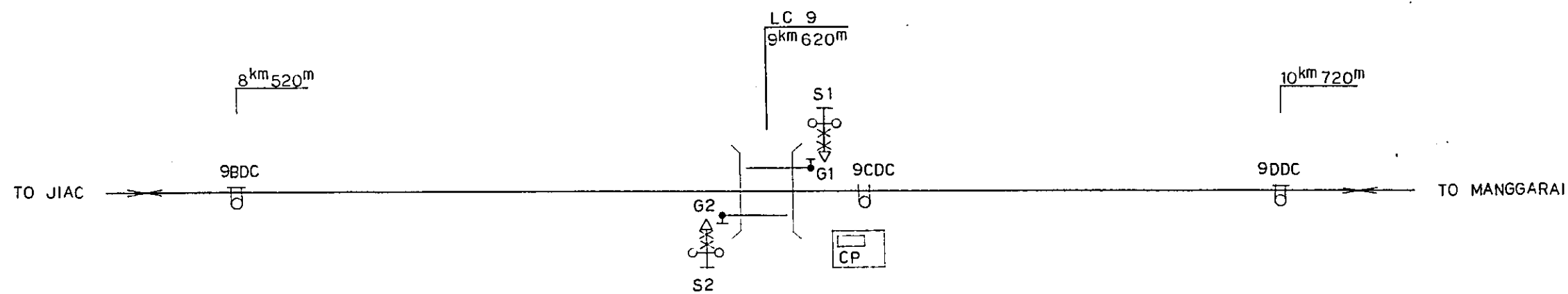
B	1 Aug. '86	Tajima	JZA	KU	KM	AK
A	15 Feb. '86	Tajima	JZA	KU	KM	AK

REVISIONS DATE DESIGNED DRAWN CHECKED REVIEWED SUBMITTED

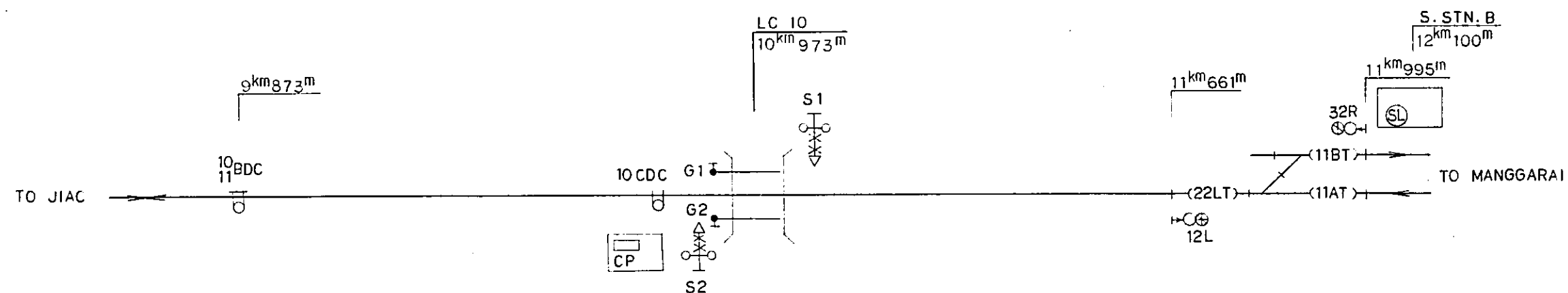
ALARM CONTROL DIAGRAMS FOR LEVEL CROSSING NO. 7 AND 8

PACKAGE: ■ ELECTRICAL WORK

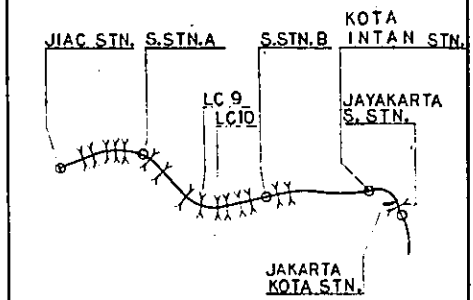
SCALE: NON SCALE DRAWING NO: ES-012



NAME	DIRECTION OF CONTROL	ALARM CONDITIONS	LENGTH OF ALARMING SECTION (m)	ALARMING TIME MINIMUM (sec)	REMARKS
S 1	TO Mfr. JIAC — MANGGARAI	9BDC - 9CDC	1100	40	SEMI - AUTOMATIC
S 2	TO JIAC MANGGARAI — JIAC	9DDC - 9CDC	1100	40	DO



NAME	DIRECTION OF CONTROL	ALARM CONDITIONS	OPERATING CONDITIONS	LENGTH OF ALARMING SECTION (m)	ALARMING TIME MINIMUM (sec)	REMARKS
S 1	TO Mfr. JIAC — MANGGARAI	10BDC - 10CDC		1100	40	SEMI - AUTOMATIC
S 2	TO JIAC MANGGARAI — JIAC	11BT, 11AT, 22LT - 10CDC	32R ON 'R' OR SL ON 'R'	1023	43	DO



LEGEND :

- : SIGNAL CABIN OR WATCHMAN'S SHED
- △ : LEVEL CROSSING SIGNAL
- : LEVEL CROSSING BARRIER
- ⊙ : SUBSTITUTION LEVER FOR STARTING TRAIN OPERATION
- CP : CONTROL PANEL
- ⊔ : TRAIN DETECTOR (CLOSED CIRCUIT TYPE)
- U : DO (OPEN CIRCUIT TYPE)
- : RUNNING SIGNAL
- ⊗ : EMERGENCY SIGNAL

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AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
CONSTRUCTION PROJECT

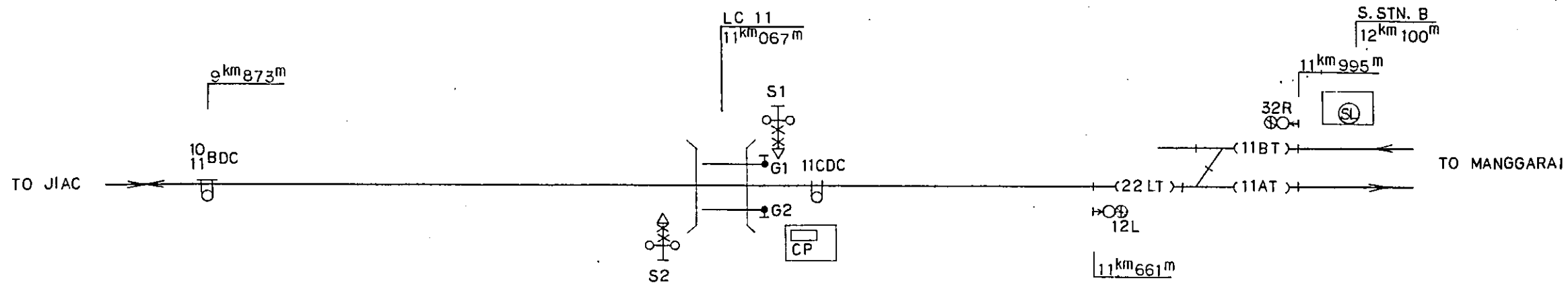
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

REVISORS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
B	1 Aug. '66	Tajima	S. S. D.	K. K.	K. M.	M. K.
A	15 Feb. '66	Tajima	S. S. D.	K. K.	K. M.	M. K.

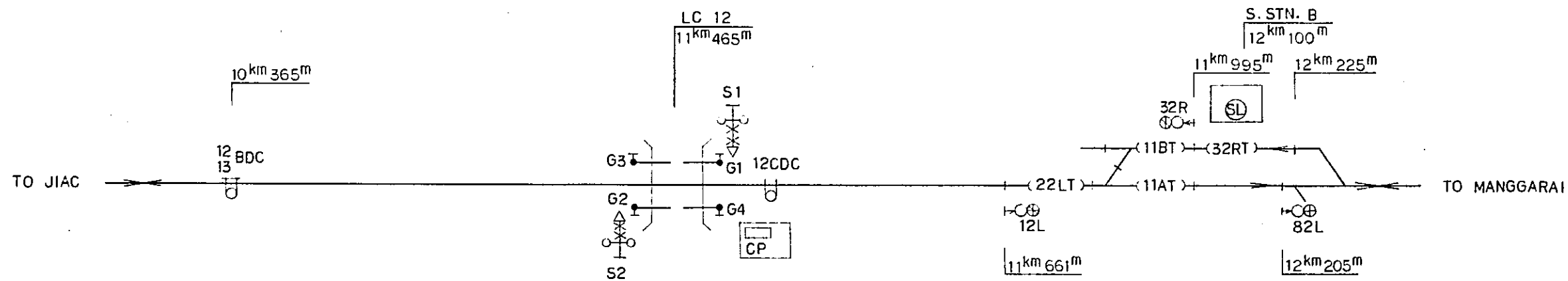
ALARM CONTROL DIAGRAMS
FOR
LEVEL CROSSING
NO. 9 AND 10

PACKAGE: ELECTRICAL WORK

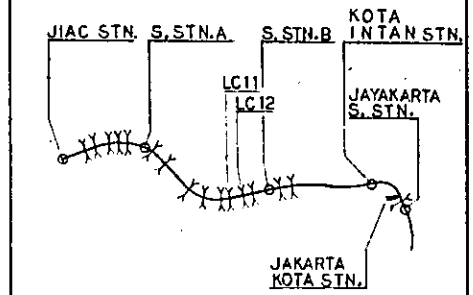
SCALE: NON SCALE
DRAWING NO.: ES-013



NAME	DIRECTION OF CONTROL	ALARM CONDITIONS	OPERATING CONDITIONS	LENGTH OF ALARMING SECTION (m)	ALARMING TIME MINIMUM (sec)	REMARKS
S 1	TO Mgr. JIAC — MANGGARAI	10/11 BDC-11CDC		1194	43	SEMI - AUTOMATIC
S 2	TO JIAC MANGGARAI — JIAC	11BT, 11AT, 22LT-11CDC	32R ON 'R' OR (SL) ON 'R'	928	40	DO



NAME	DIRECTION OF CONTROL	ALARM CONDITIONS	OPERATING CONDITIONS	LENGTH OF ALARMING SECTION (m)	ALARMING TIME MINIMUM (sec)	REMARKS
S 1	TO Mgr. JIAC — MANGGARAI	12/13 BDC-12CDC		1100	40	SEMI - AUTOMATIC
S 2	TO JIAC MANGGARAI — JIAC	32RT, 11BT, 11AT, 22LT-12CDC	32R ON 'R' OR (SL) ON 'R'	760	40	DO



LEGEND :

- : SIGNAL CABIN OR WATCHMAN'S SHED
- △ : LEVEL CROSSING SIGNAL
- : LEVEL CROSSING BARRIER
- (SL) : SUBSTITUTION LEVER FOR STARTING TRAIN OPERATION
- CP : CONTROL PANEL
- ⊕ : TRAIN DETECTOR (CLOSED CIRCUIT TYPE)
- ⊖ : DO (OPEN CIRCUIT TYPE)
- ⊙ : RUNNING SIGNAL
- ⊕⊖ : EMERGENCY SIGNAL

REPUBLIC OF INDONESIA
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF LAND TRANSPORT
AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENKARENG AIRPORT
CONSTRUCTION PROJECT

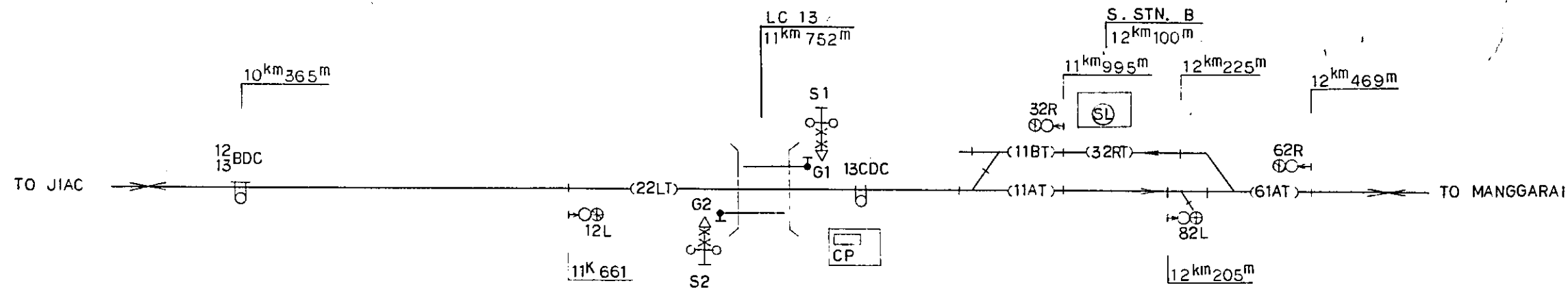
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

REVISORS	DATE	REVISION	REVISION	REVISION	REVISION
B	1 Aug. '96	Tjani	J. S. D.	R. U.	U. M.
A	13 Aug. '96	Tjani	J. S. D.	R. U.	R. U.
		DESIGNED	DRAWN	CHECKED	APPROVED

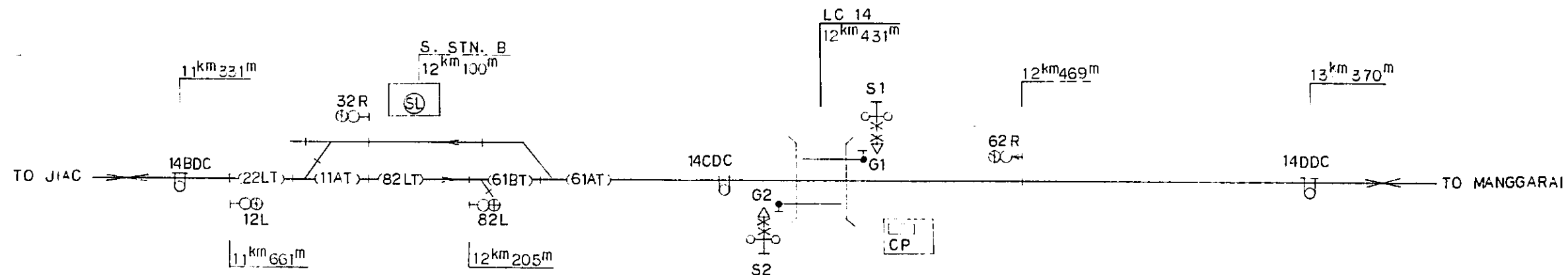
ALARM CONTROL DIAGRAMS
FOR
LEVEL CROSSING
NO. 11 AND 12

PACKAGE : ELECTRICAL WORK

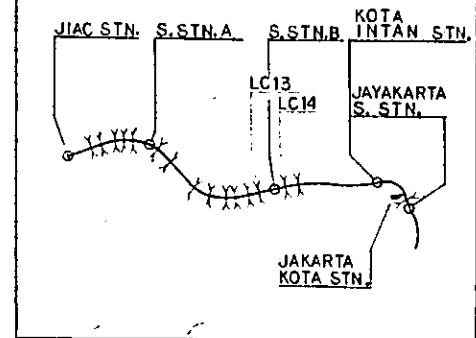
SCALE : NON SCALE
DRAWING NO. : ES-014



NAME	DIRECTION OF CONTROL	ALARM CONDITIONS	OPERATING CONDITIONS	LENGTH OF ALARMING SECTION (m)	ALARMING TIME MINIMUM (sec)	REMARKS
S 1	TO MPR.	JIAC - MANGGARAI	12BDC - 13CDC	1387	50	SEMI - AUTOMATIC
S 2	PASSING	MANGGARAI - JIAC	61AT, 32RT 11BT, 11AT - 13CDC	717	57	DO
	OUT - GOING	32RT - JIAC	32RT, 11BT, 11AT - 13CDC	243	40	DC



NAME	DIRECTION OF CONTROL	ALARM CONDITIONS	OPERATING CONDITIONS	LENGTH OF ALARMING SECTION (m)	ALARMING TIME MINIMUM (sec)	REMARKS
S 1	TO MPR.	JIAC - MANGGARAI	14BDC, 22LT, 11AT 82LT, 61BT, 61AT - 14DDC	1100	40	SEMI - AUTOMATIC
S 2	OUT - GOING	82LT - MANGGARAI	82LT, 61BT, 61AT - 14DDC	226	40	DO
	TO JIAC	MANGGARAI - JIAC	14DDC - 14DDC	939	40	DO



LEGEND :

- : SIGNAL CABIN OR WATCHMAN'S SHED
- △ : LEVEL CROSSING SIGNAL
- : LEVEL CROSSING BARRIER
- ⊙ (SL) : SUBSTITUTION LEVER FOR STARTING TRAIN OPERATION
- CP : CONTROL PANEL
- ⊔ : TRAIN DETECTOR (CLOSED CIRCUIT TYPE)
- U : DO (OPEN CIRCUIT TYPE)
- ⊙ (R) : RUNNING SIGNAL
- ⊙ (E) : EMERGENCY SIGNAL

REPUBLIC OF INDONESIA
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF LAND TRANSPORT
AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENKARENG AIRPORT
CONSTRUCTION PROJECT

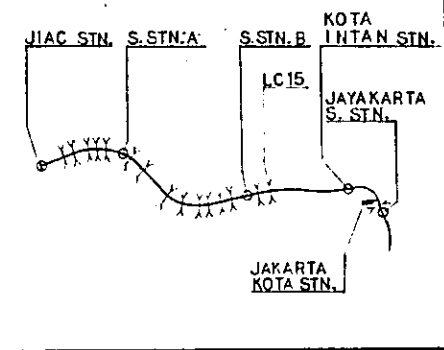
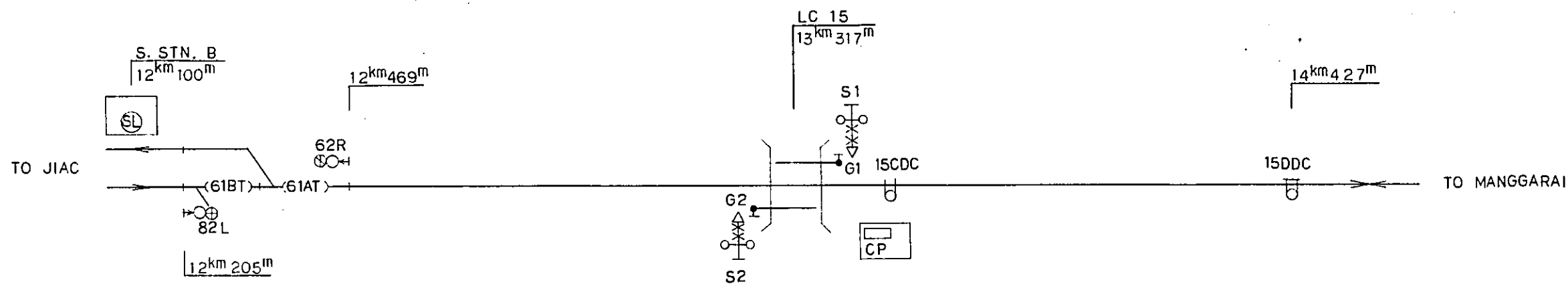
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
B	1 Aug. '84	Tajima	S. T. B.	R. H.	U. M.	K.
A	15 Feb. '86	Tajima	S. T. B.	R. H.	U. M.	K.

ALARM CONTROL DIAGRAMS
FOR
LEVEL CROSSING
NO. 13 AND 14

PACKAGE : ELECTRICAL WORK

SCALE : NON SCALE
DRAWING NO. : ES-015



- LEGEND:
- : SIGNAL CABIN OR WATCHMAN'S SHED
 - : LEVEL CROSSING SIGNAL
 - : LEVEL CROSSING BARRIER
 - SL : SUBSTITUTION LEVER FOR STARTING TRAIN OPERATION
 - CP : CONTROL PANEL
 - : TRAIN DETECTOR (CLOSED CIRCUIT TYPE)
 - : DO (OPEN CIRCUIT TYPE)
 - : RUNNING SIGNAL
 - : EMERGENCY SIGNAL

NAME	DIRECTION OF CONTROL		ALARM CONDITIONS	OPERATING CONDITIONS	LENGTH OF ALARMING SECTION (m)	ALARMING TIME MINIMUM (sec)	REMARKS
S 1	TO Mri.	JIAC — MANGGARAI	61BT 61AT - 15CDC	82L ON 'L' OR SL ON 'L'	1112	40	SEMI - AUTOMATIC
S 2	TO JIAC	MANGGARAI — JIAC	15DDC-15CDC		1110	40	DO

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AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

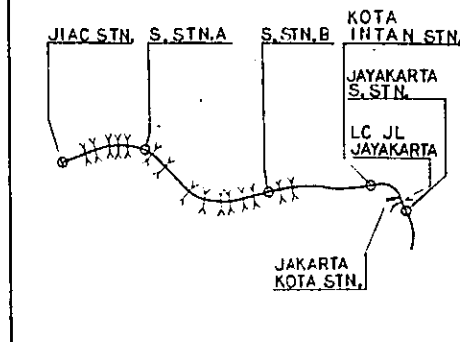
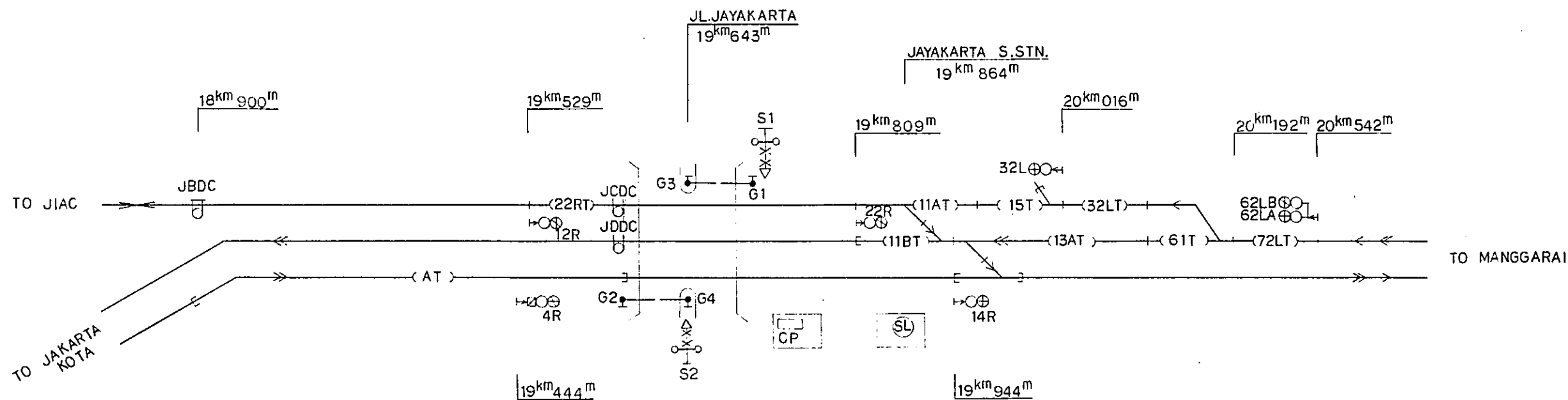
B	1 Aug. '86	Tajimi	JSD	KM	KK
A	18 Feb. '86	Tajimi	JSD	KU	KK

REVISIONS	DATE	DESIGNED	CHECKED	REVIEWED	SUBMITTED

**ALARM CONTROL DIAGRAMS
FOR
LEVEL CROSSING
NO. 15**

PACKAGE: ELECTRICAL WORK

SCALE: NON SCALE DRAWING NO: ES-016



- LEGEND:
- : SIGNAL CABIN OR WATCHMAN'S SHED
 - △ : LEVEL CROSSING SIGNAL
 - : LEVEL CROSSING BARRIER
 - ⊙ (SL) : SUBSTITUTION LEVER FOR STARTING TRAIN OPERATION
 - CP : CONTROL PANEL
 - ⊞ : TRAIN DETECTOR (CLOSED CIRCUIT TYPE)
 - ⊞ : DO (OPEN CIRCUIT TYPE)
 - ⊙ : RUNNING SIGNAL
 - ⊙ (X) : EMERGENCY SIGNAL

NAME	DIRECTION OF CONTROL		ALARM CONDITIONS	OPERATING CONDITIONS	LENGTH OF ALARMING SECTION (m)	ALARMING TIME		REMARKS
						MINIMUM (sec)		
S 1	TO Mri.	JIAC - MANGGARAI	JBDC - JCDC		743	40		SEMI-AUTOMATIC
	PASSING	MANGGARAI - JIAC	72LT. 61T. 32LT. 15T. 11AT. -JCDC	62LB. 32L ON 'L'	899	40		DO
S 2	TO JIAC	OUT-GOING	32LT - JIAC	32L ON 'L' OR (SL) ON 'L'	373	40		DO
	TO Mri.	JAKARTA KOTA - MANGGARAI	AT		566	40		DO
	TO JAKARTA KOTA	MANGGARAI - JAKARTA KOTA	61T. 13AT. 11BT - JDDC	62LA ON 'L' OR (SL) ON 'L'	549	40		DO

REPUBLIC OF INDONESIA
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 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

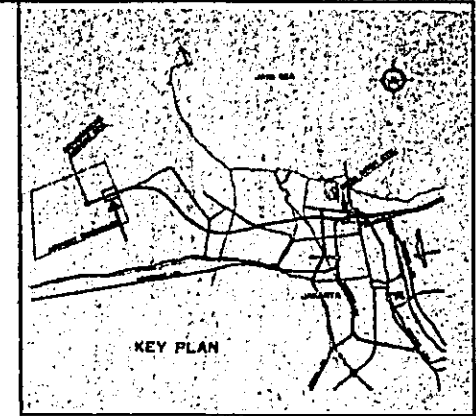
B	1 Aug. '86	Tajimi	J.F.D	K.H	K.M	K.K
A	15 Feb. '86	Tajimi	J.F.D	K.H	K.M	K.K

REVISIONS: DATE, REVISION, DRAWN, CHECKED, REVIEWED, SUBMITTED

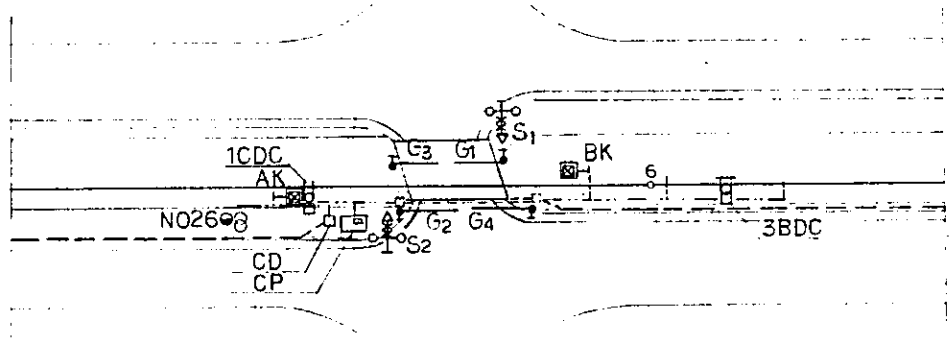
ALARM CONTROL DIAGRAMS FOR LEVEL CROSSING JL. JAYAKARTA

PACKAGE: ELECTRICAL WORK

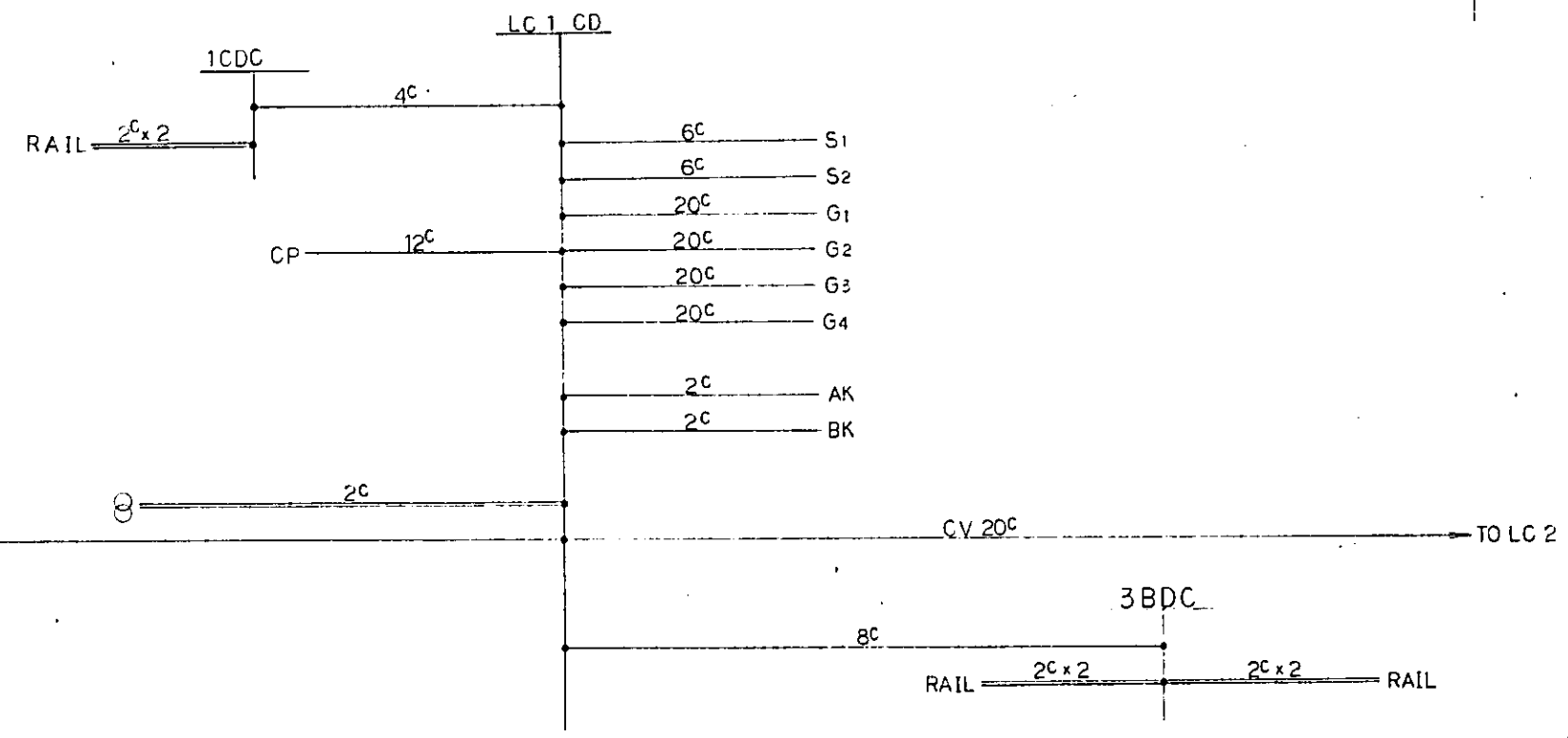
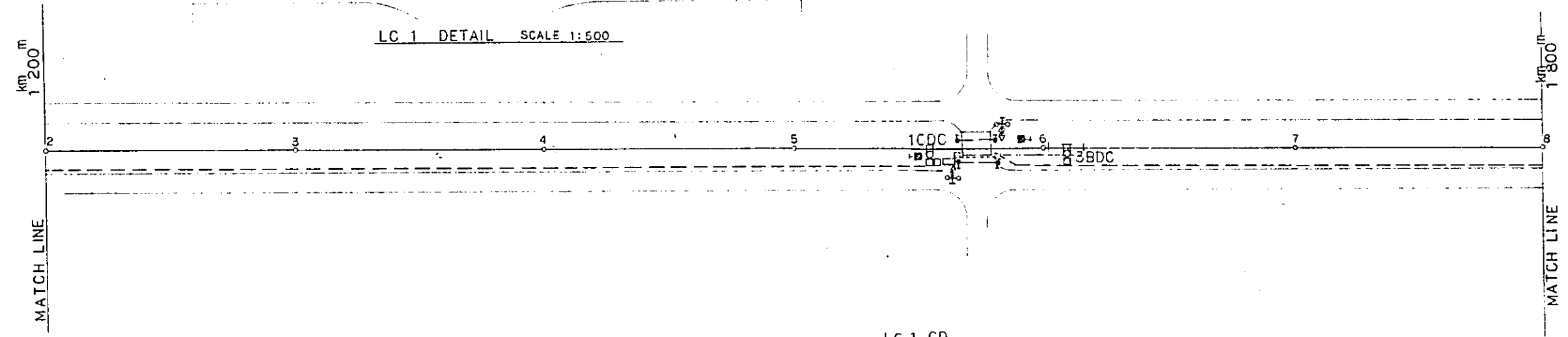
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NOTE :
FOR SYMBOLS SEE
DWG. NO. EG-003

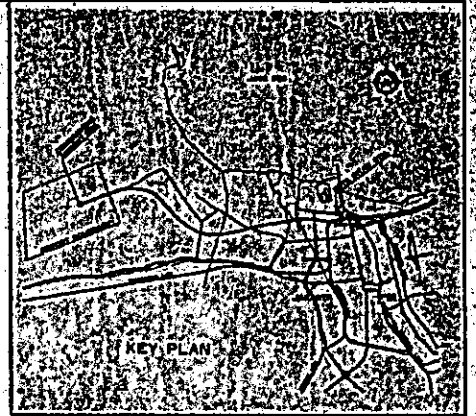
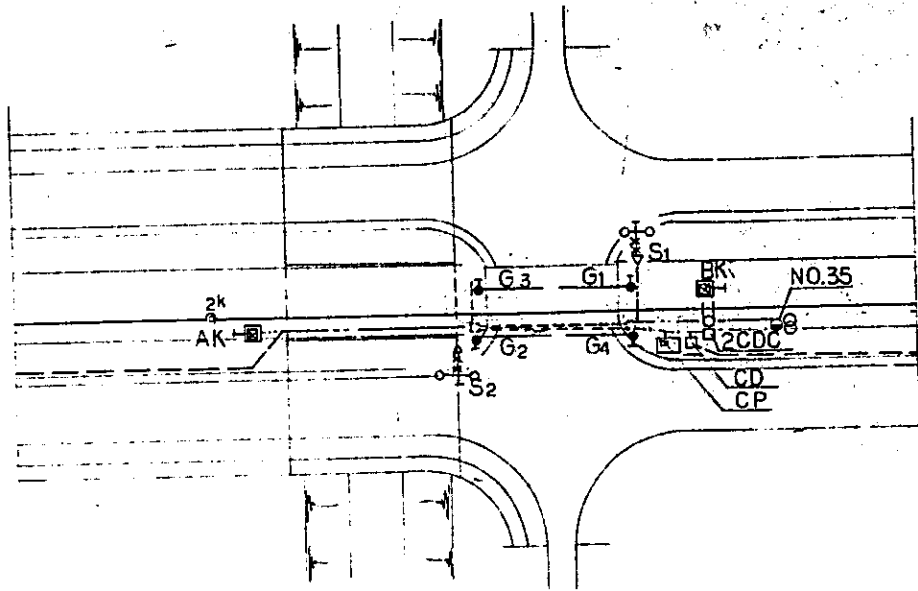


LC 1 DETAIL SCALE 1:500

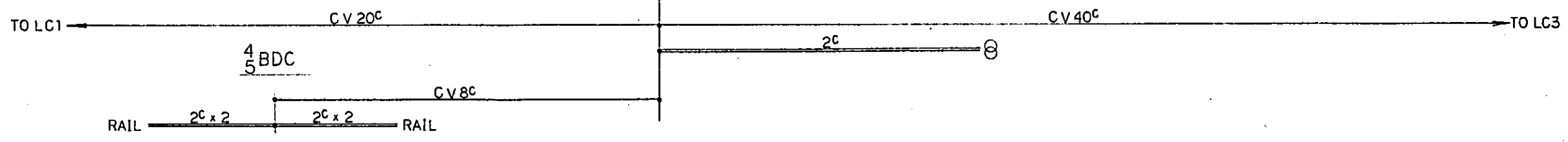
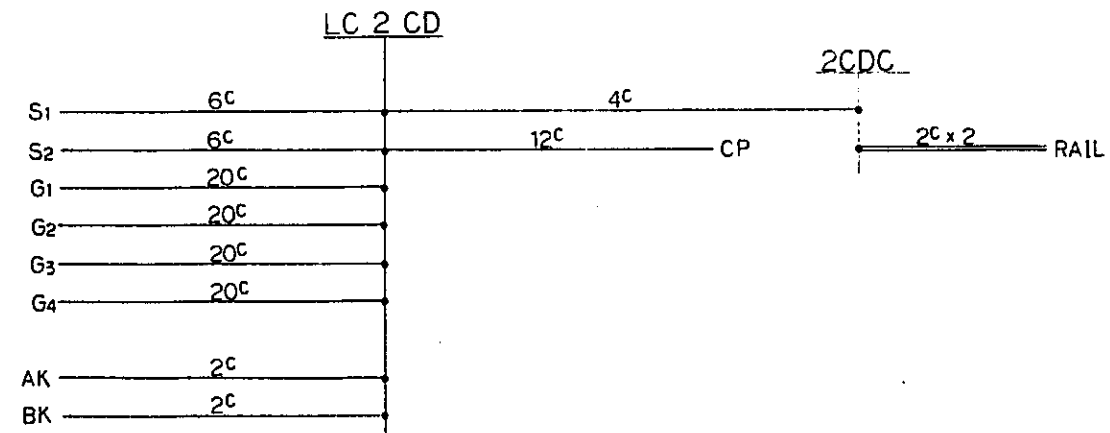
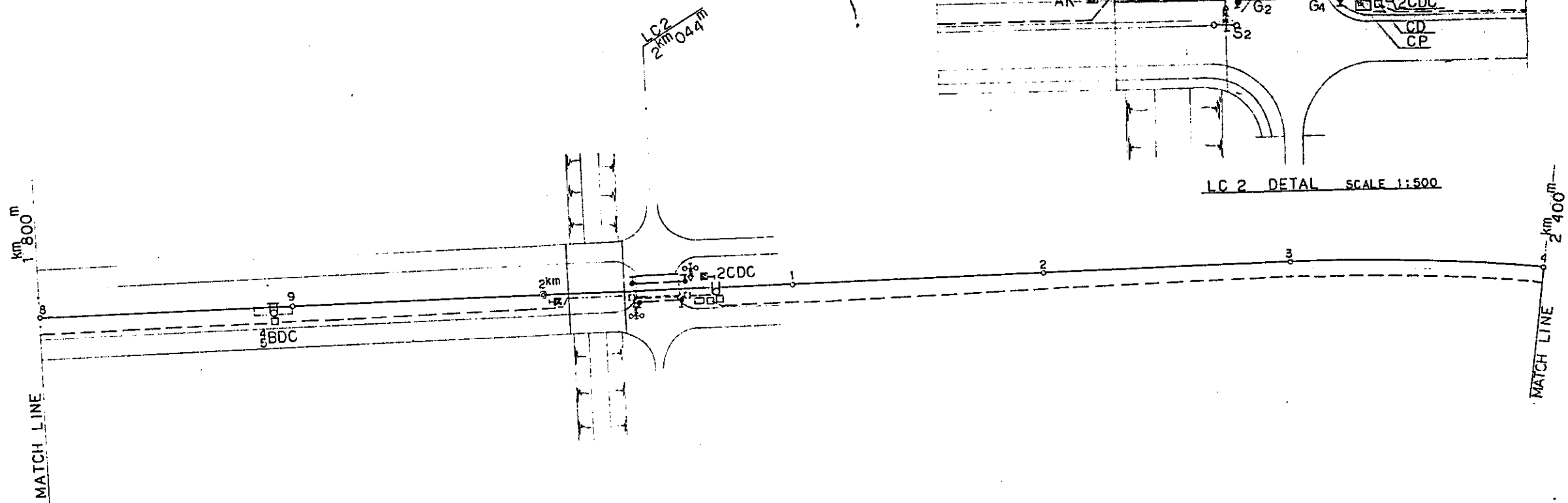


TO 2BDC ← CV 20C CV 20C → TO LC 2

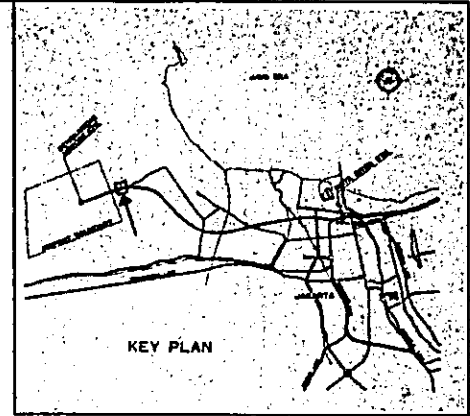
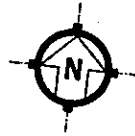
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1	10.10.06	7	3.20	K.K.	U.M.
A	15	10.10.06	10	3.20	K.K.	K.M.
REVISIONS	DATE	DESIGNED	CHECKED	APPROVED	REVIEWED	APPROVED
SIGNAL EQUIPMENT PLAN (SHEET 2 OF 15)						
PACKAGE: II ELECTRICAL WORK						
SCALE	DRAWING NO.					
1:1000	ES-019					



NOTE:
FOR SYMBOLS SEE
DWG. NO. EG-003

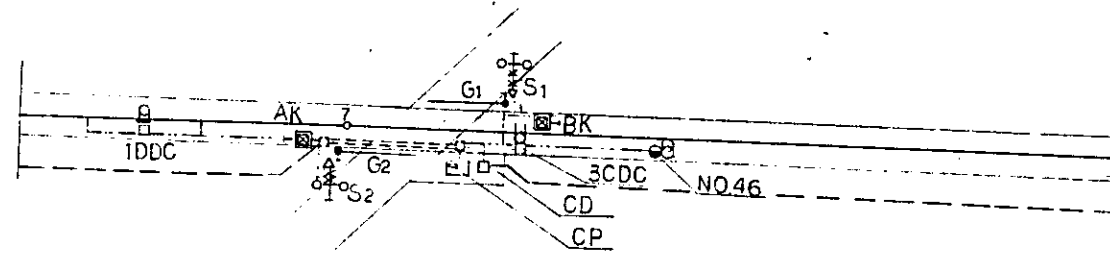


REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	14.10.06	14.10.06	14.10.06	14.10.06	14.10.06	14.10.06
A	15.10.06	15.10.06	15.10.06	15.10.06	15.10.06	15.10.06
REVISIONS	DATE					
SIGNAL EQUIPMENT PLAN (SHEET 13 OF 15)						
PACKAGE: ELECTRICAL WORK						
SCALE	1:1000		DRAWING NO.	EG-020		

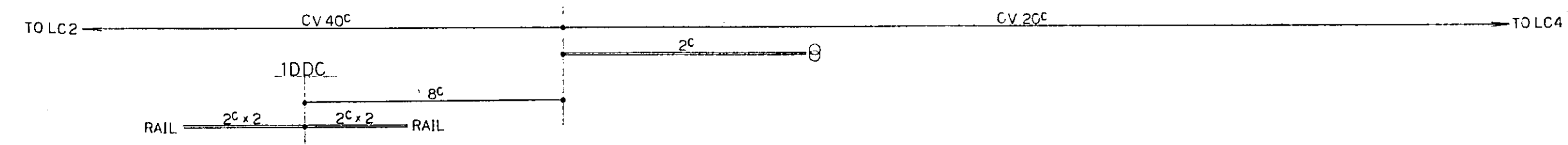
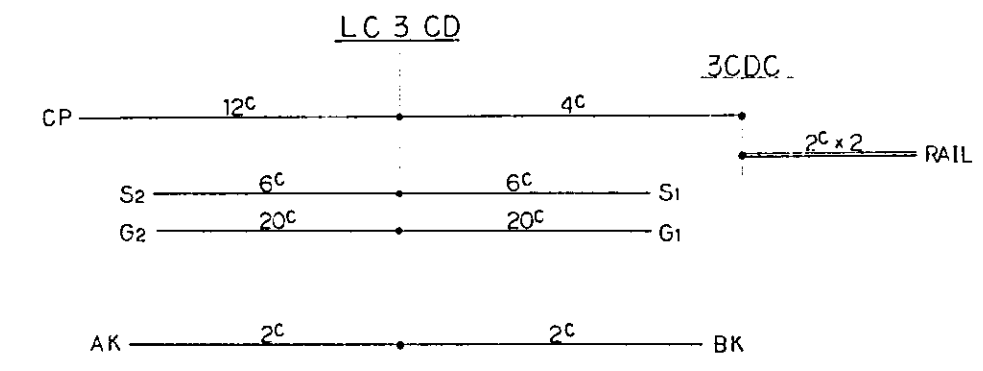
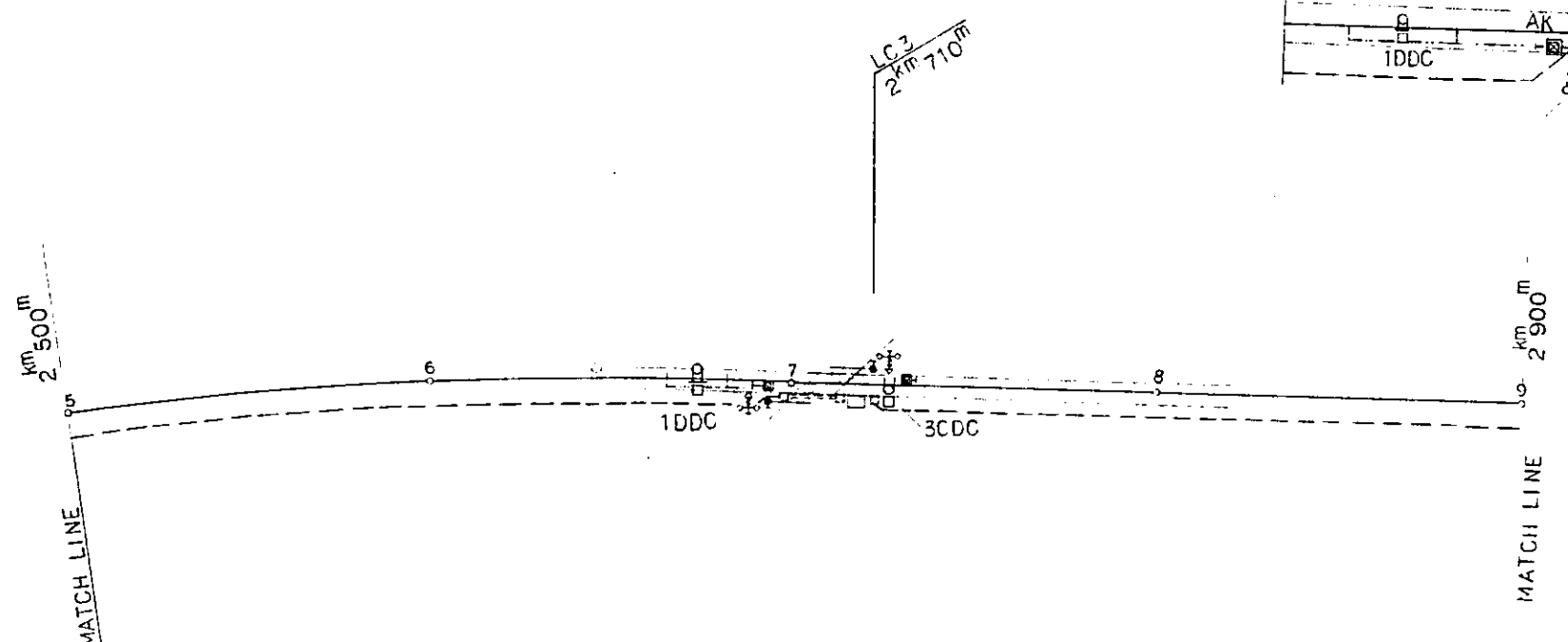


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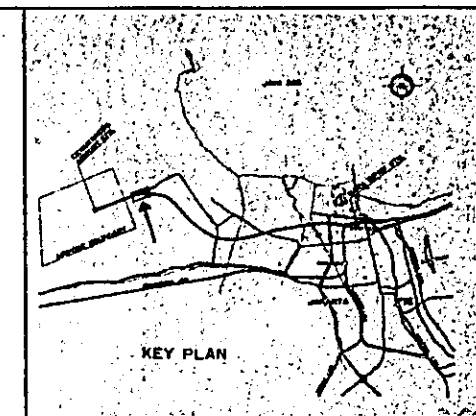
FOR SYMBOLS SEE
DWG. NO. EG-003



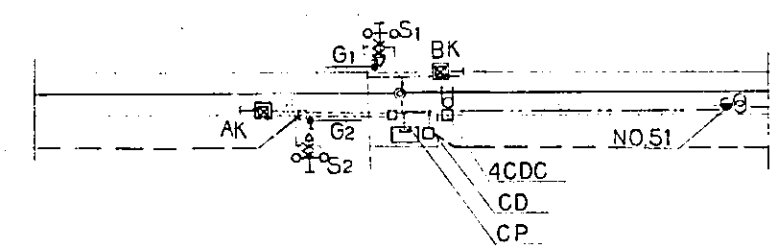
LC 3 DETAIL SCALE 1:500



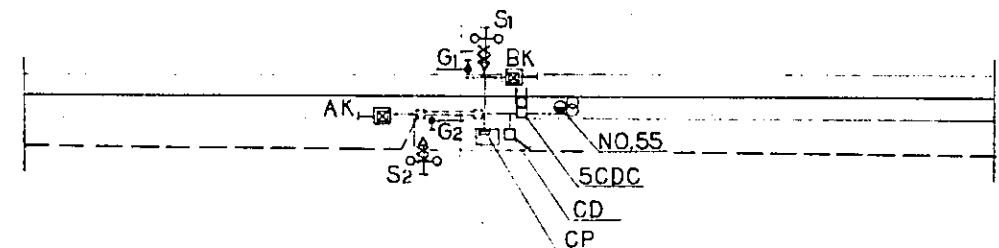
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
B	1 Aug. '76	Tajima	J. Tada	K. U.	K.M.	m.k.
A	15 Feb. '76	Tajima	J. Tada	Kul	K.M.	m.k.
SIGNAL EQUIPMENT PLAN (SHEET 4 OF 15)						
PACKAGE: II ELECTRICAL WORK						
SCALE	DRAWING NO.					
1:1000	ES-021					



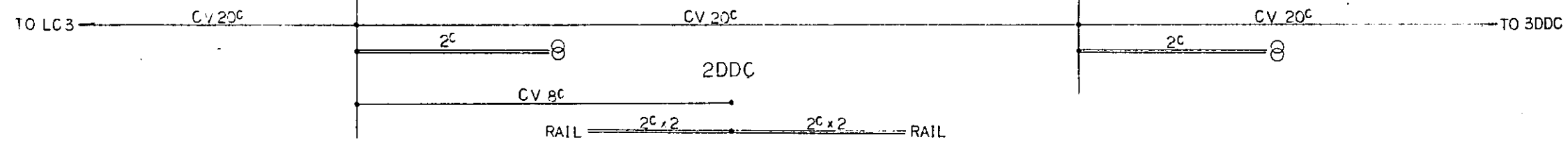
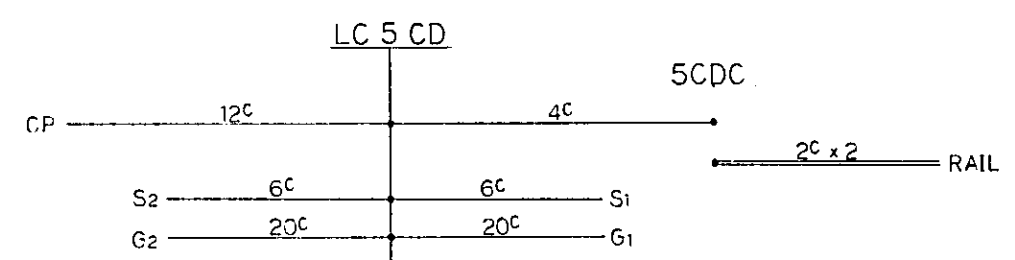
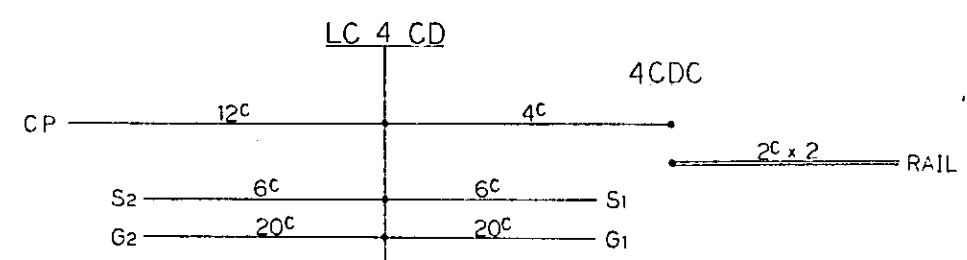
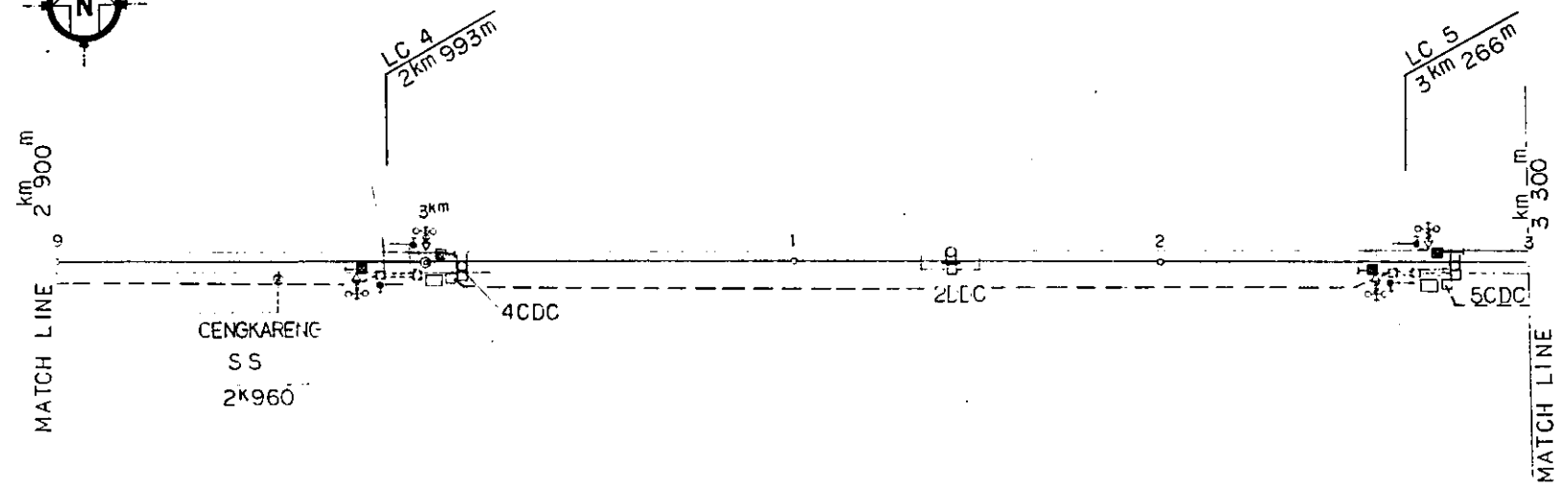
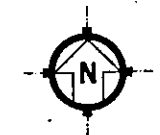
NOTE:
FOR SYMBOLS SEE
DWG. NO. EG-003



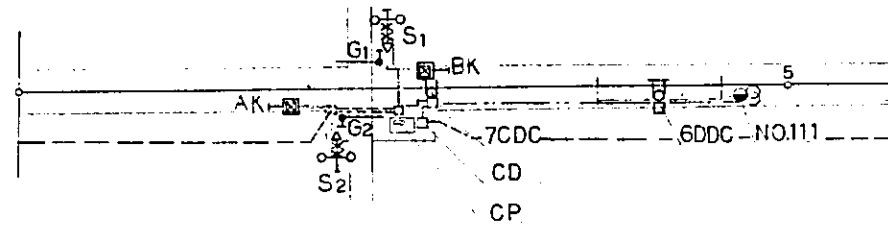
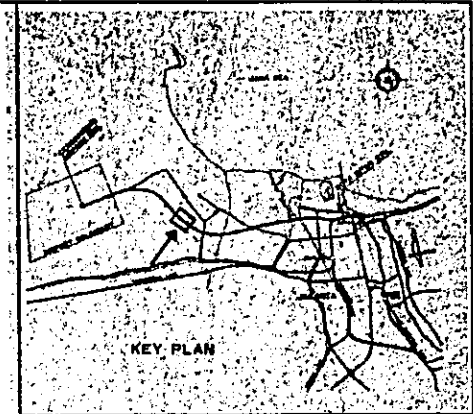
LC 4 DETAIL SCALE 1:500



LC 5 DETAIL SCALE 1:500



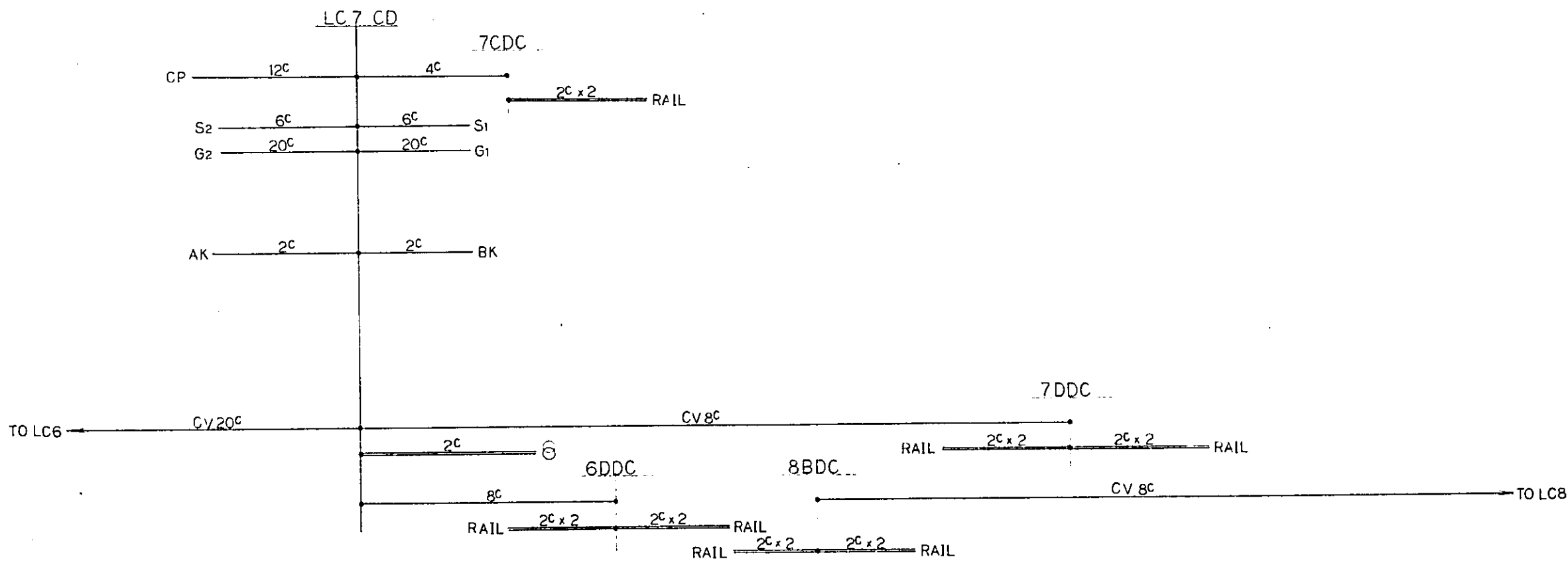
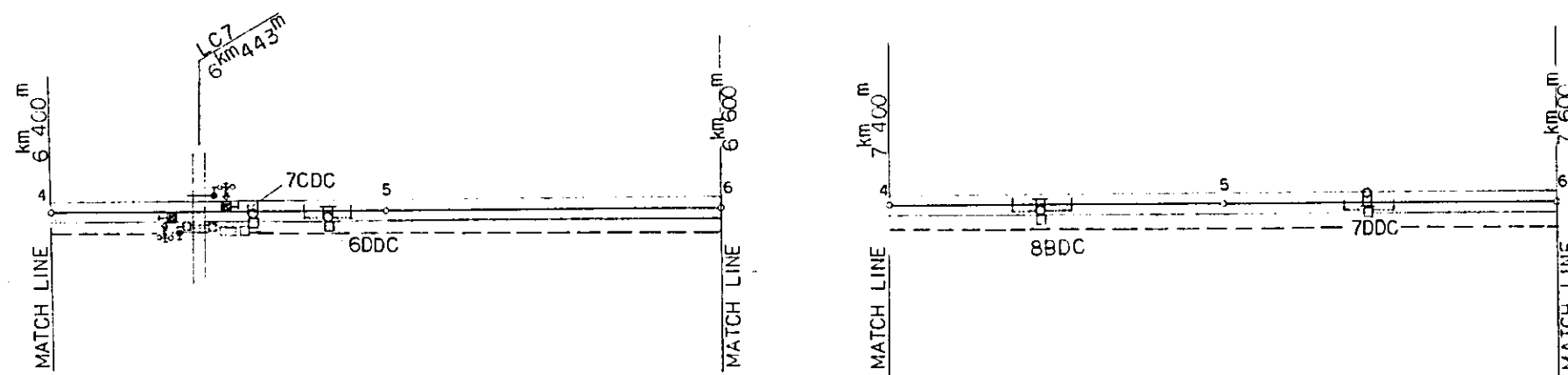
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 Aug. '86	Tajiri	3.25	KH	U.M. M.K.
A	15 Feb. '86	Tajiri	7.20	KH	U.M. M.K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	EXTENDED
SIGNAL EQUIPMENT PLAN (SHEET 5 OF 15)					
PACKAGE: III ELECTRICAL WORK					
SCALE: 1:1000		DRAWING NO: ES-022			



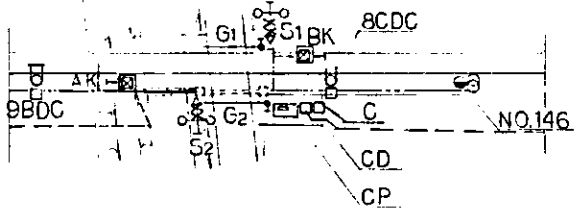
LC 7 DETAIL SCALE 1:500

NOTE:

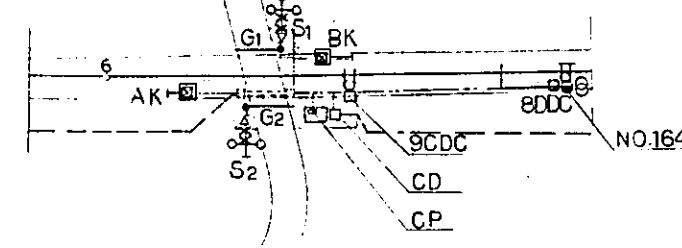
FOR SYMBOLS SEE
DWG. NO. EG-003



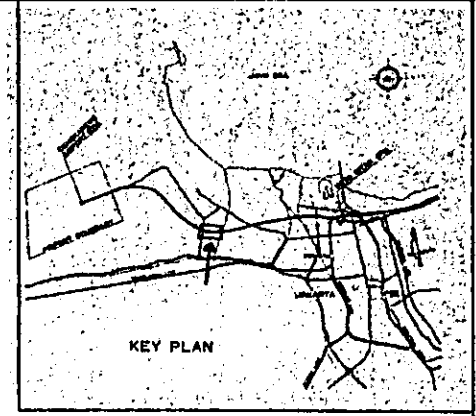
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 Aug. '04	Topical	3/20	K.M.	K.M.	K.M.
A	15 Feb. '04	Topical	3/20	K.M.	K.M.	K.M.
REVISIONS	DATE	REASON	ISSUED	DESIGNED	REVIEWED	APPROVED
SIGNAL EQUIPMENT PLAN (SHEET 7 OF 15)						
PACKAGE: <input checked="" type="checkbox"/> ELECTRICAL WORK						
SCALE	DRAWING NO.					
1:1000	ES-024					



LC 8 DETAIL SCALE 1:500

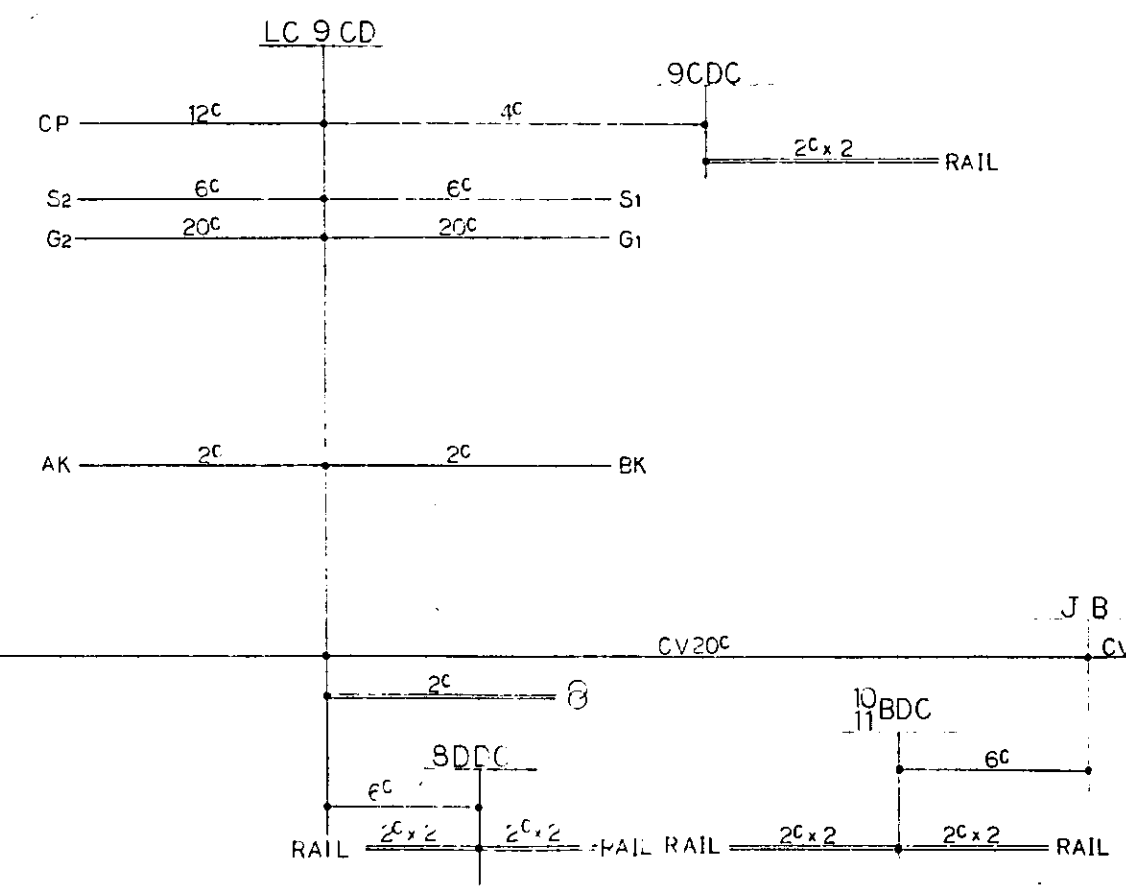
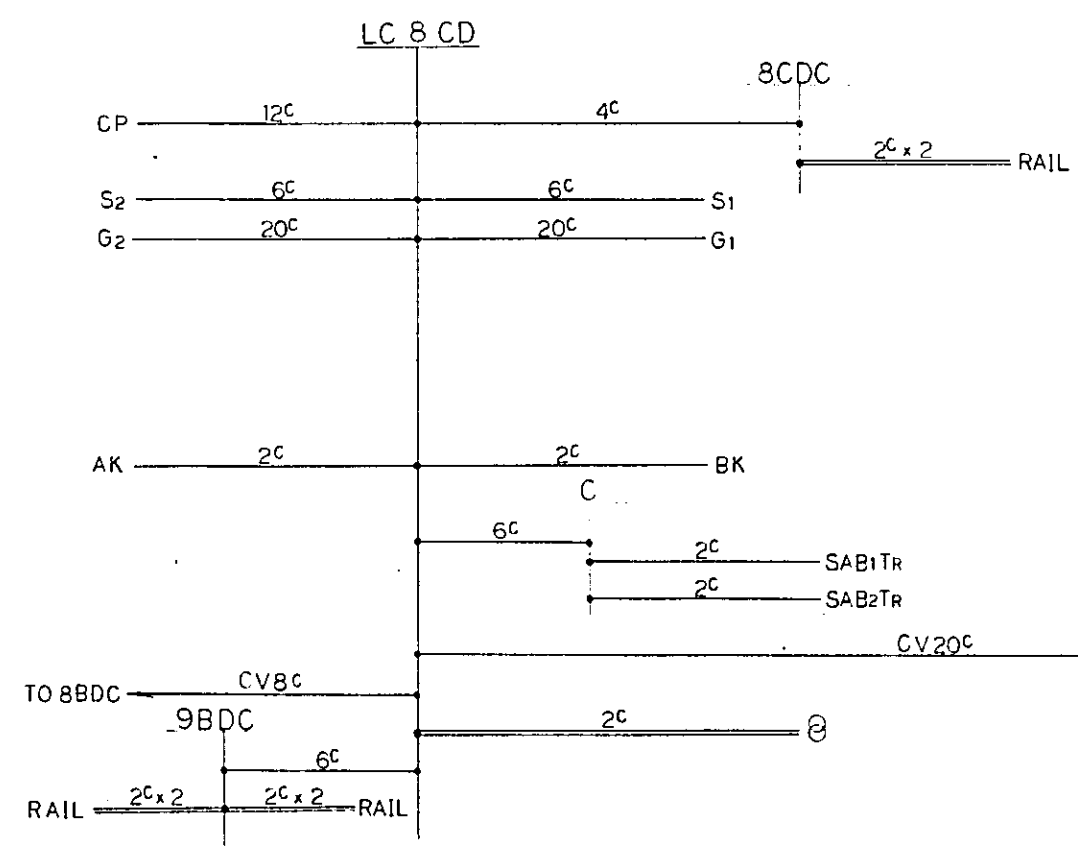
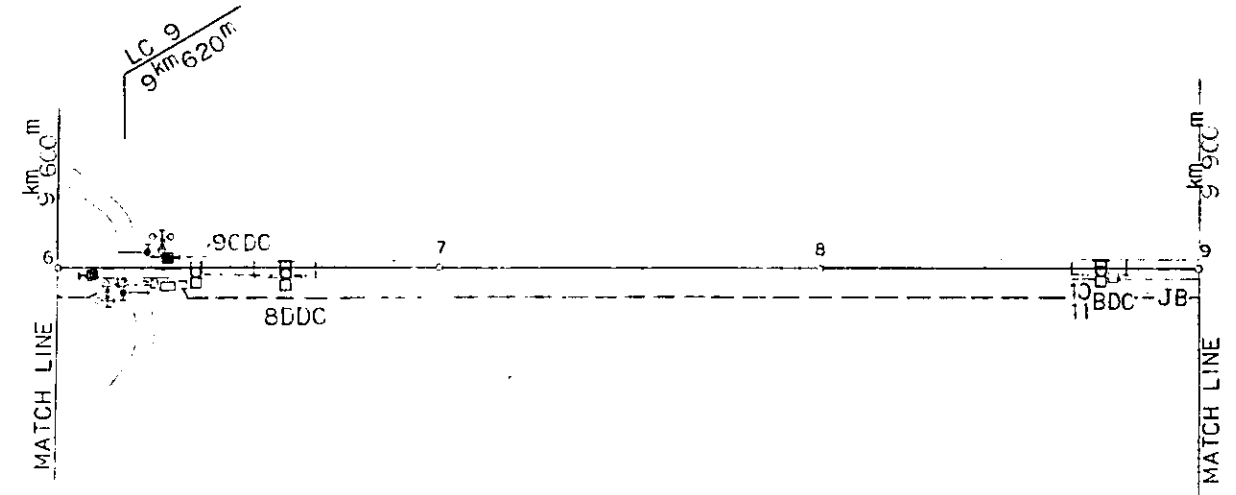
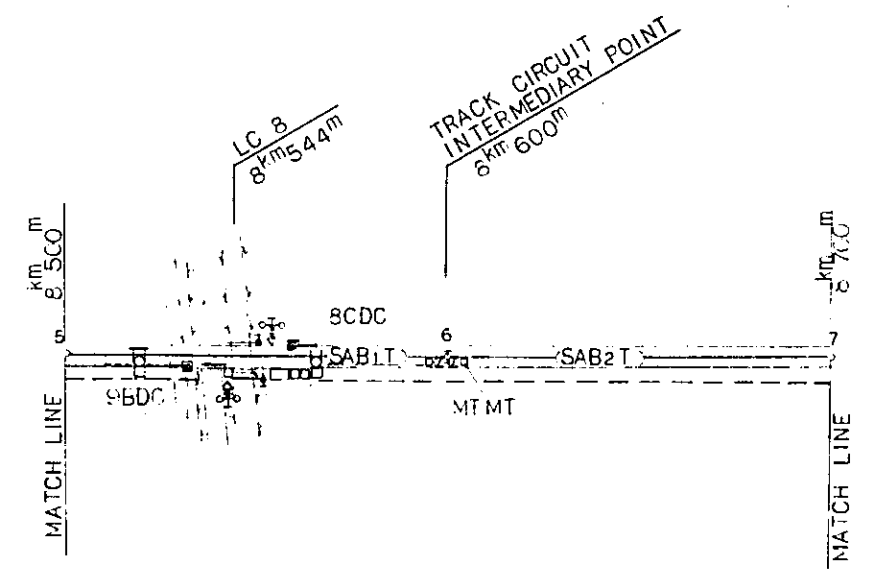


LC 9 DETAIL SCALE 1:500

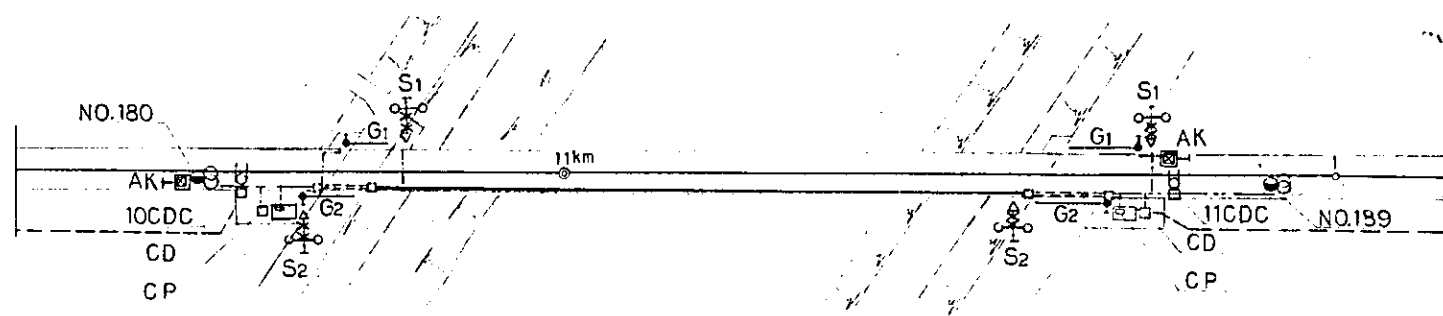


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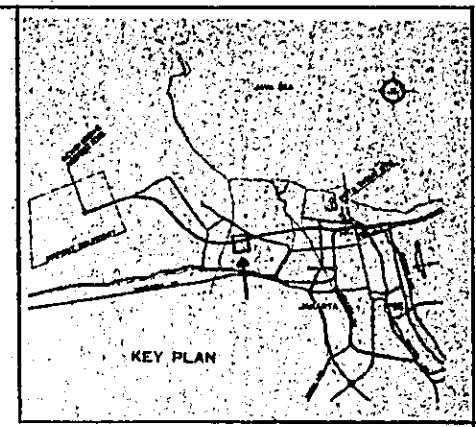
FOR SYMBOLS SEE
DWG. NO. EG-003



REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 Aug. '86	Tajimi	3/26	K.M.	K.M.	K.M.
A	15 Feb. '86	Tajimi	3/26	K.M.	K.M.	K.M.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVISED	SUBMITTED
SIGNAL EQUIPMENT PLAN (SHEET 8 OF 15)						
PACKAGE: <input checked="" type="checkbox"/> ELECTRICAL WORK						
SCALE: 1:1000			DRAWING NO: ES-025			



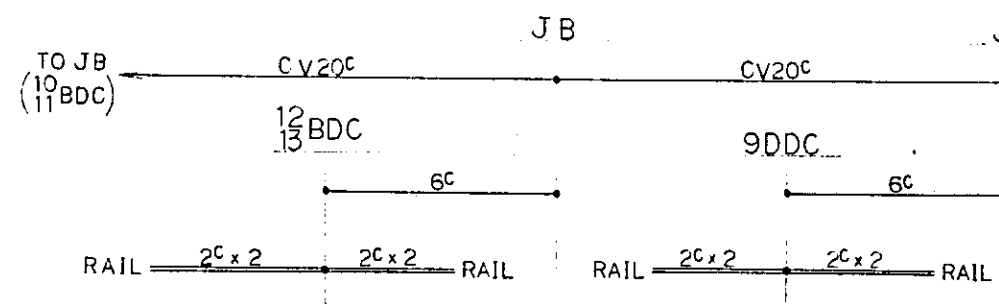
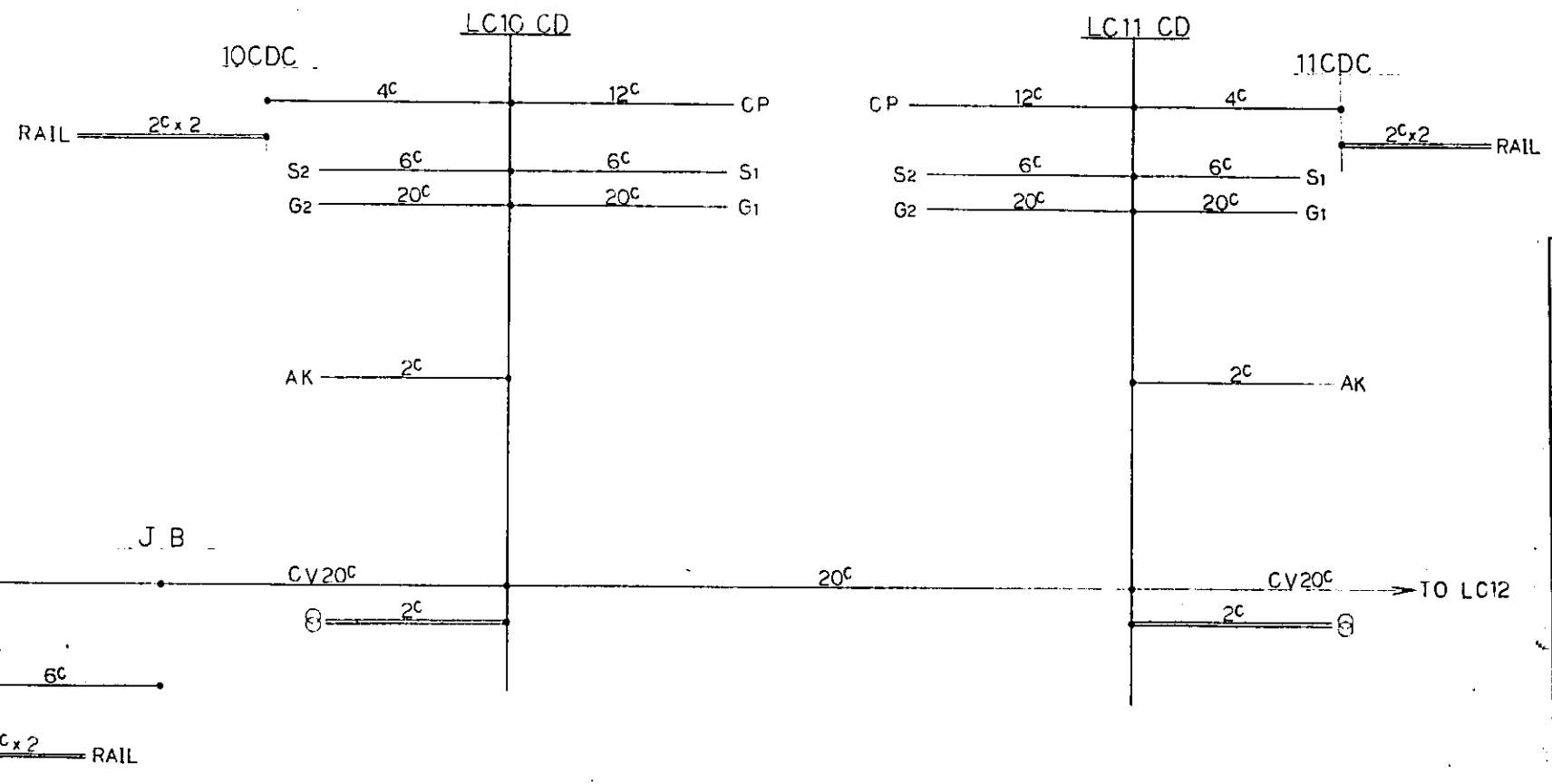
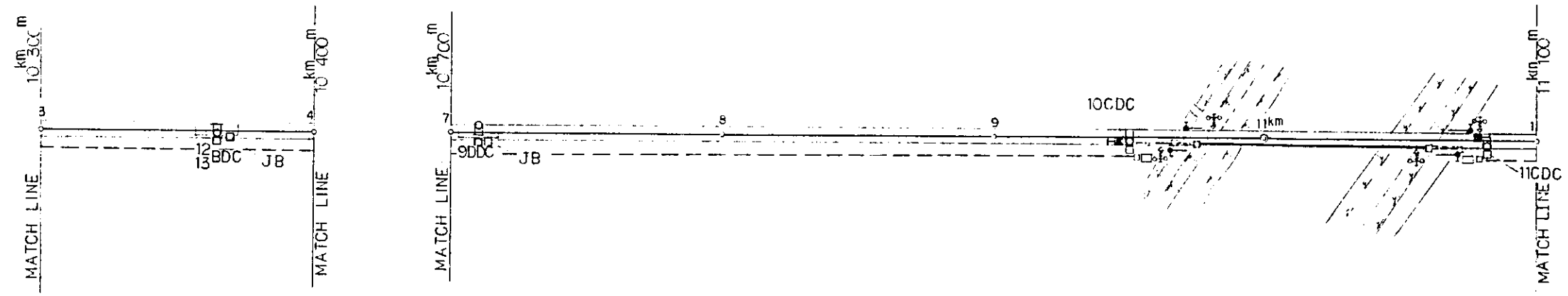
LC 10 AND 11 DETAIL SCALE 1:500



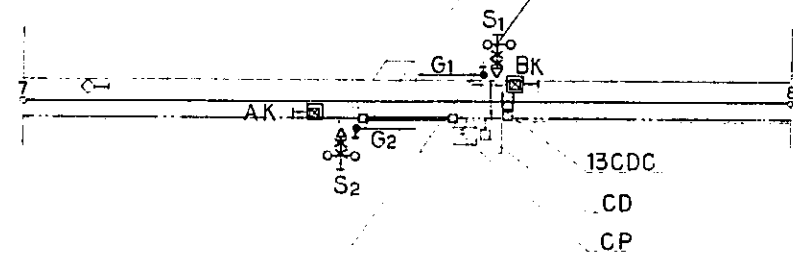
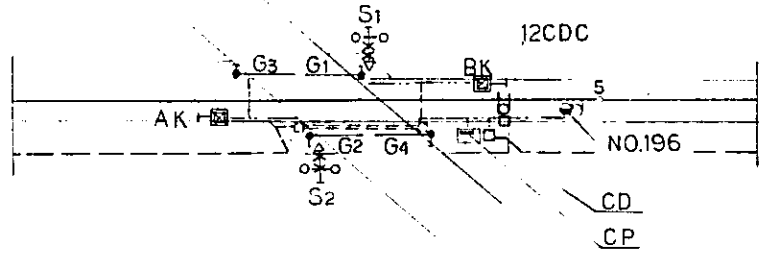
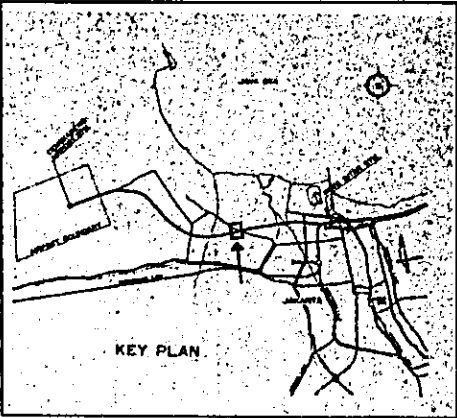
NOTE:
FOR SYMBOLS SEE
DWG. NO. EG-003

LC10
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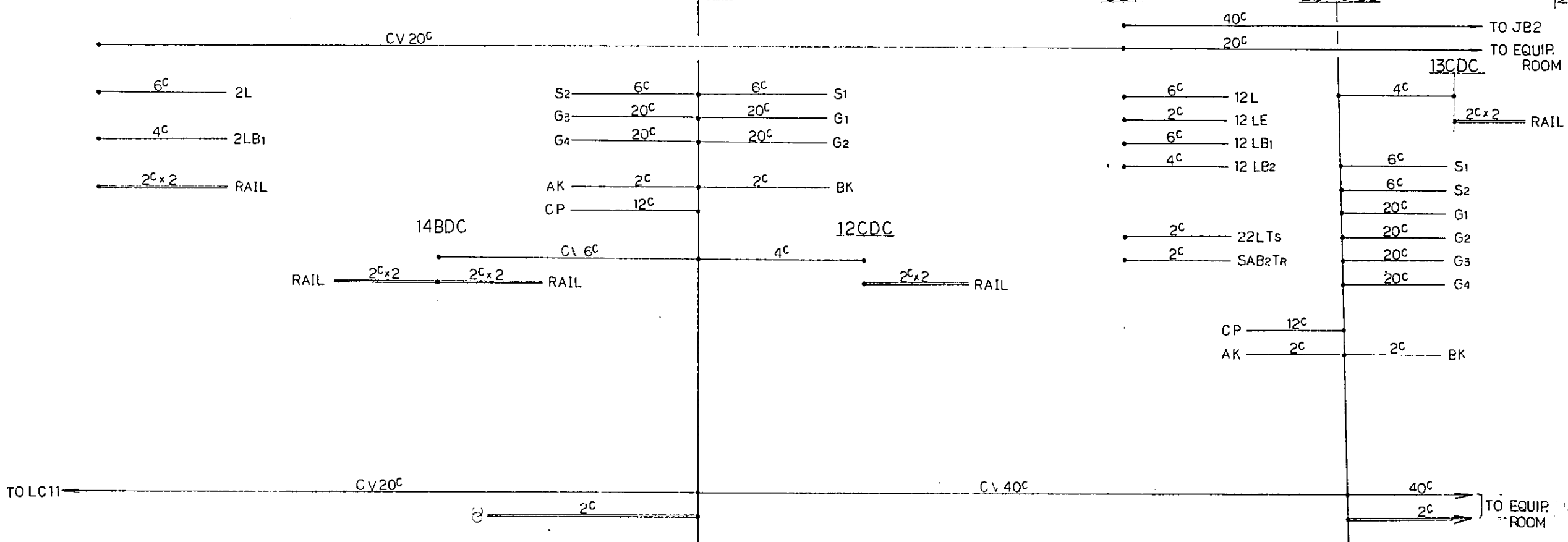
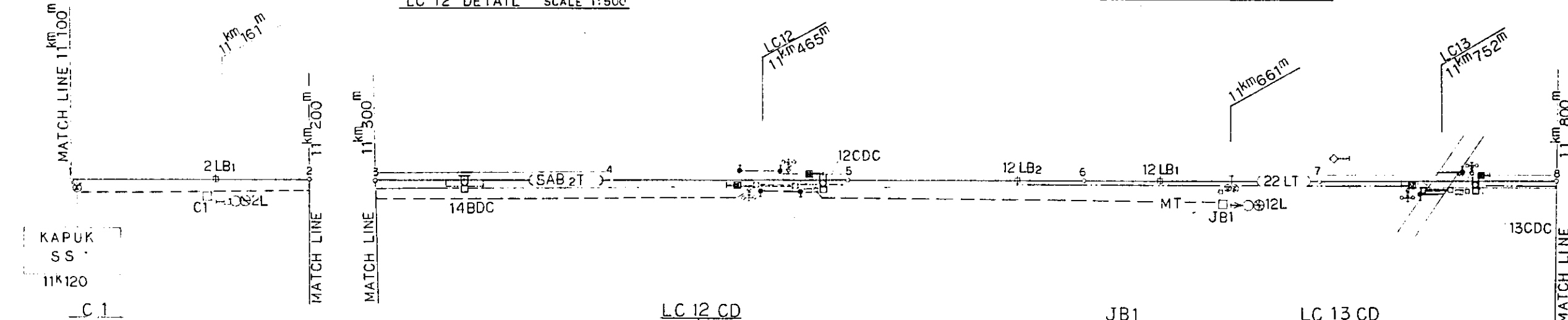
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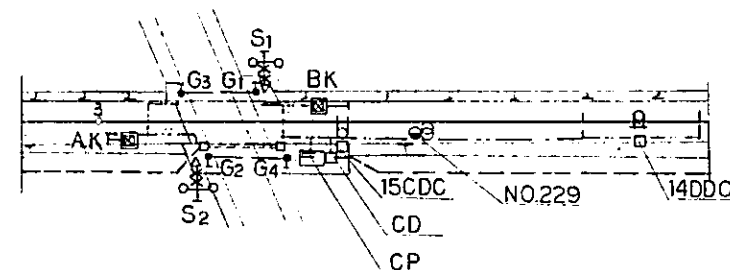
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 Aug. 86	Tajimi	9.20.20	K.M	AK
A	15 Feb. 86	Tajimi	9.20.20	K.M	AK
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
SIGNAL EQUIPMENT PLAN (SHEET 9 OF 15)					
PACKAGE: <input checked="" type="checkbox"/> ELECTRICAL WORK					
SCALE: 1:1000		DRAWING NO: ES-026			



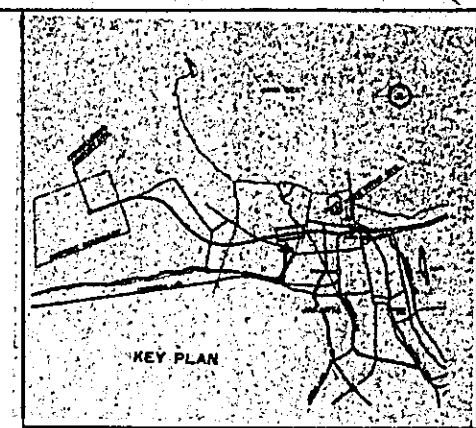
NOTE:
FOR SYMBOLS SEE
DWG. NO. EG-003



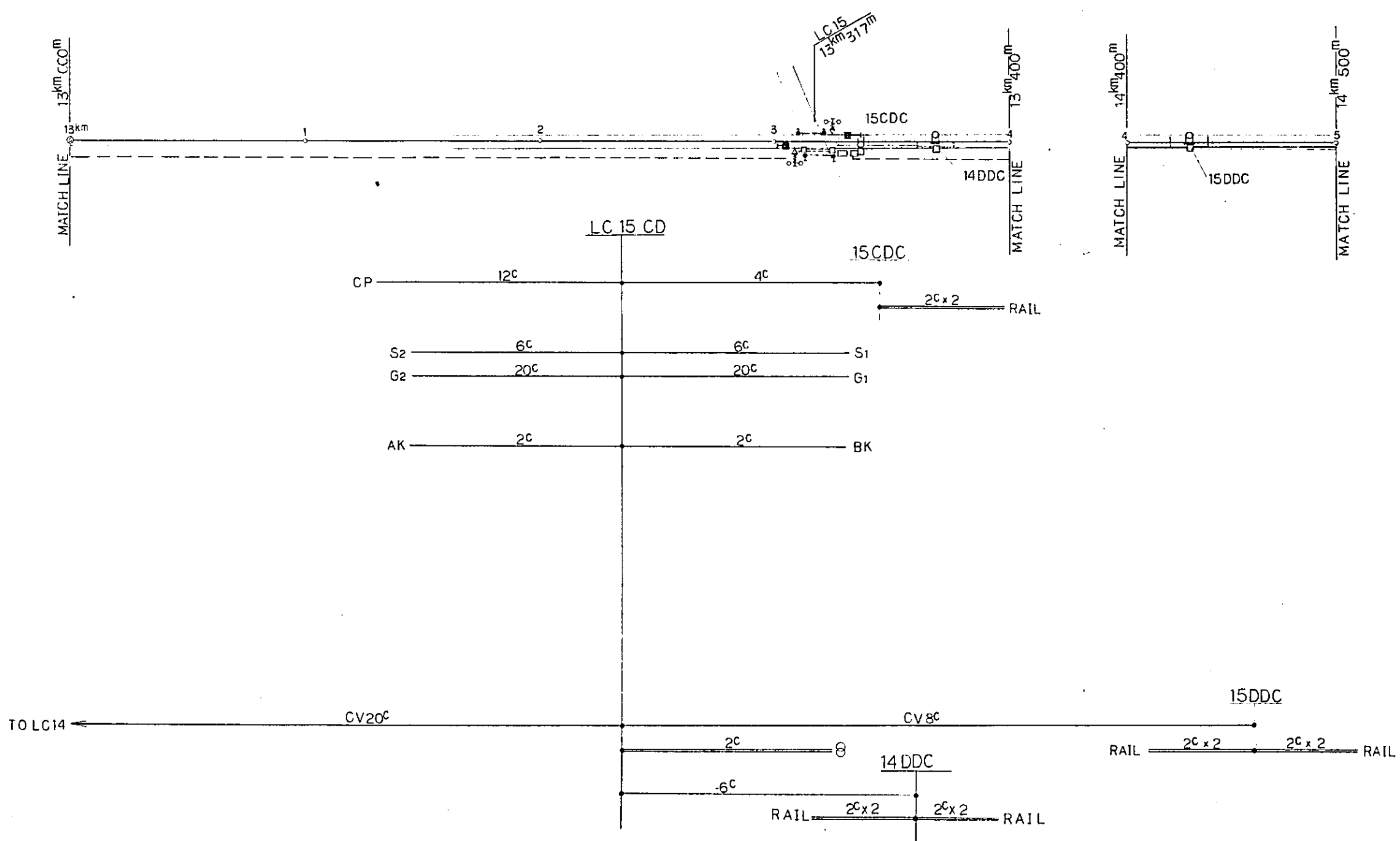
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 Aug. '86	Tajiri	3.7.86	A. H. K. M.	A. K.	
A	15 Feb. '86	Tajiri	3.7.86	H. H.	A. H. K. M.	
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
SIGNAL EQUIPMENT PLAN (SHEET 10 OF 15)						
PACKAGE: ■ ELECTRICAL WORK						
SCALE		DRAWING NO.				
1:1000		ES-027				



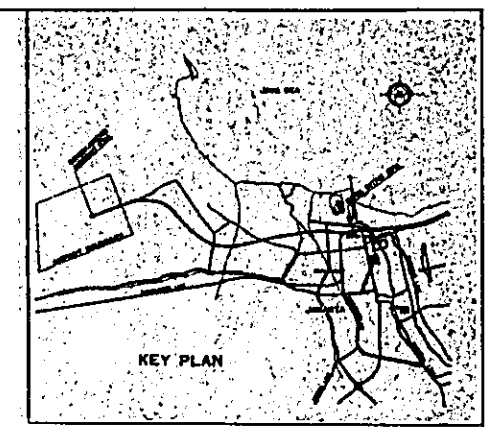
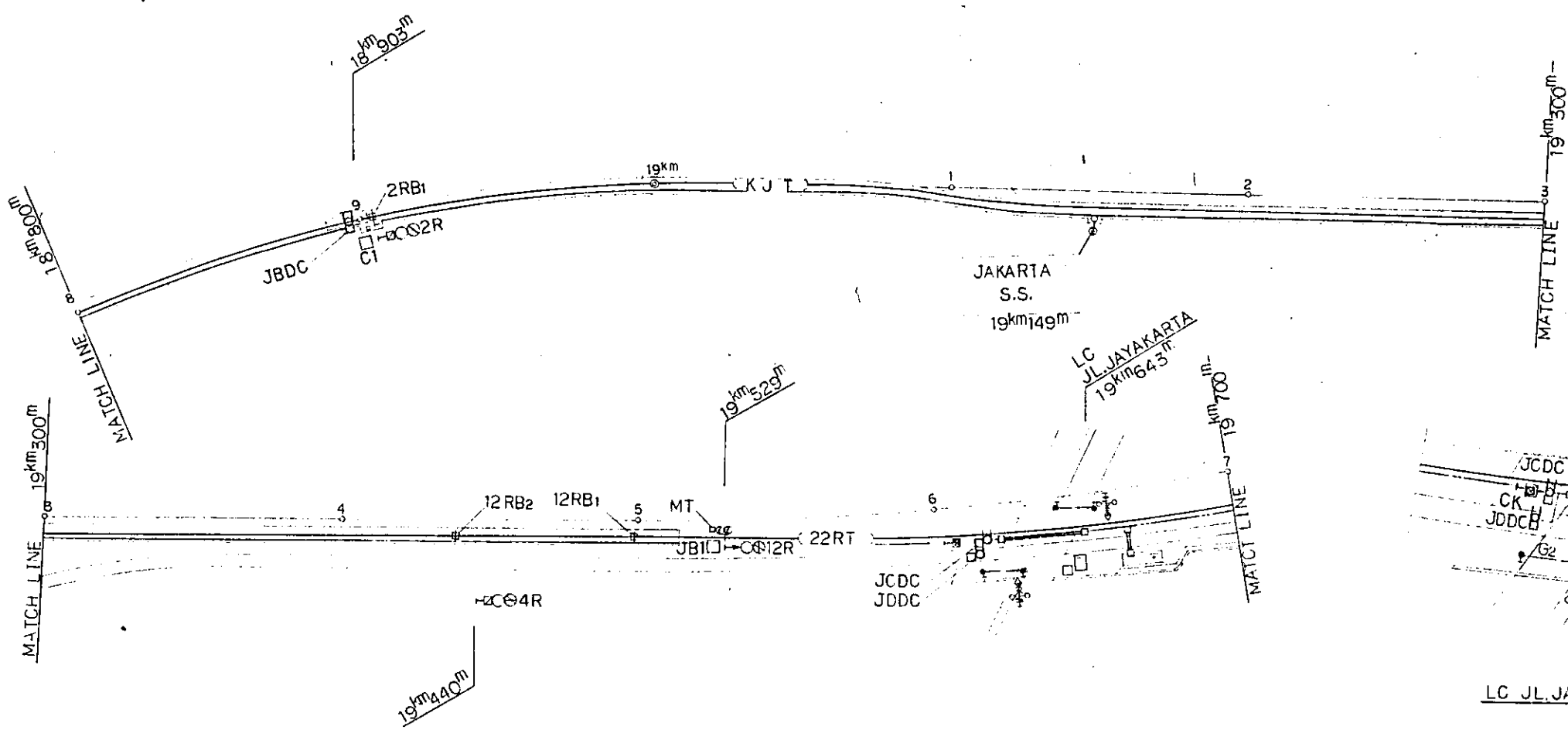
LC 15 DETAIL SCALE 1:500



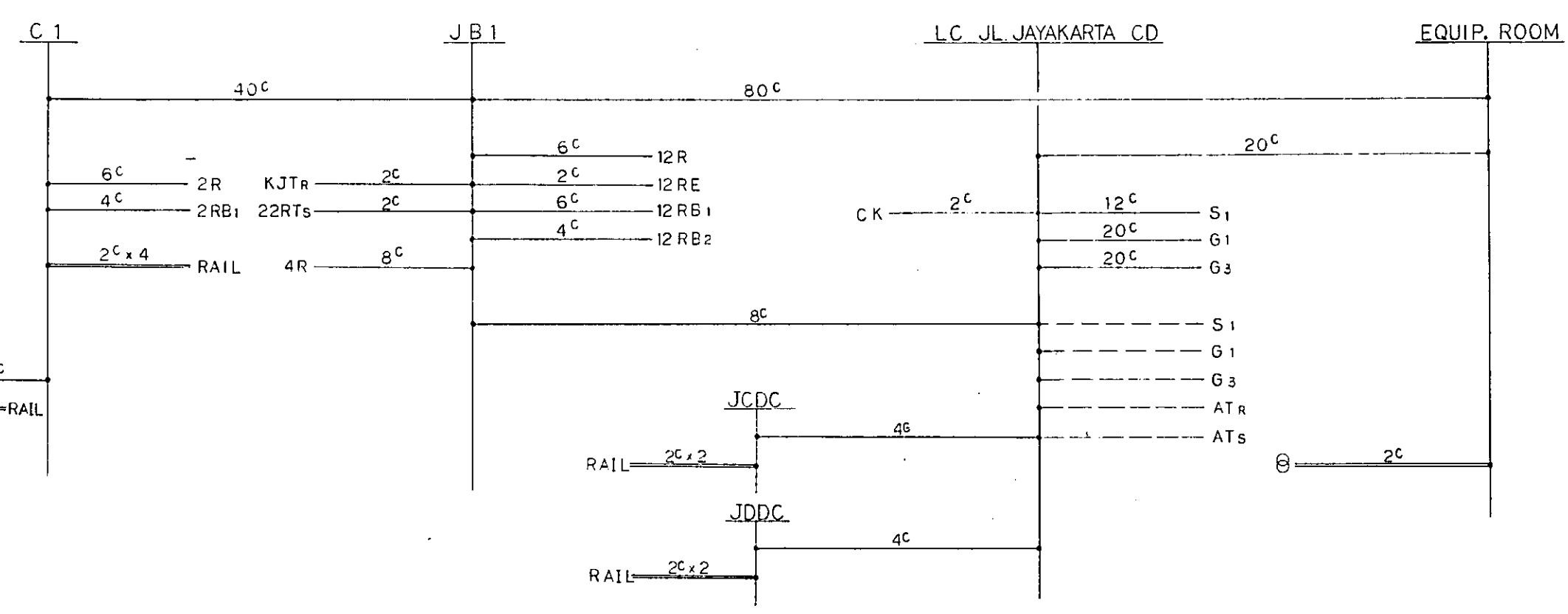
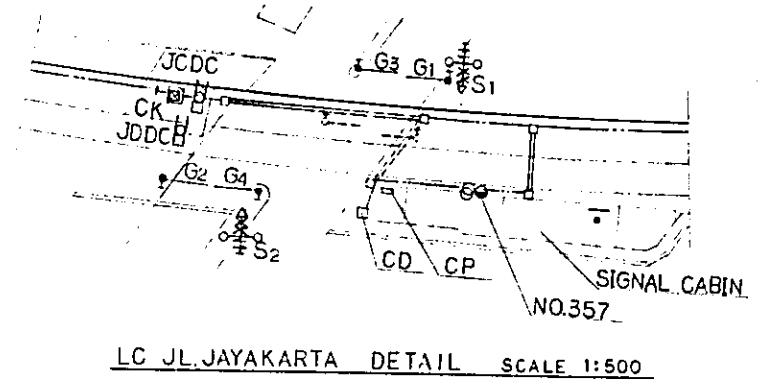
NOTE:
FOR SYMBOLS SEE
DWG. NO. EG-003



REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 Aug. '86	7/26	7/26	K.M.	K.M.
A	15 Feb. '86	7/26	7/26	K.M.	K.M.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
SIGNAL EQUIPMENT PLAN (SHEET 12 OF 15)					
PACKAGE: ■ ELECTRICAL WORK					
SCALE	DRAWING NO.				
1:1000	ES-029				



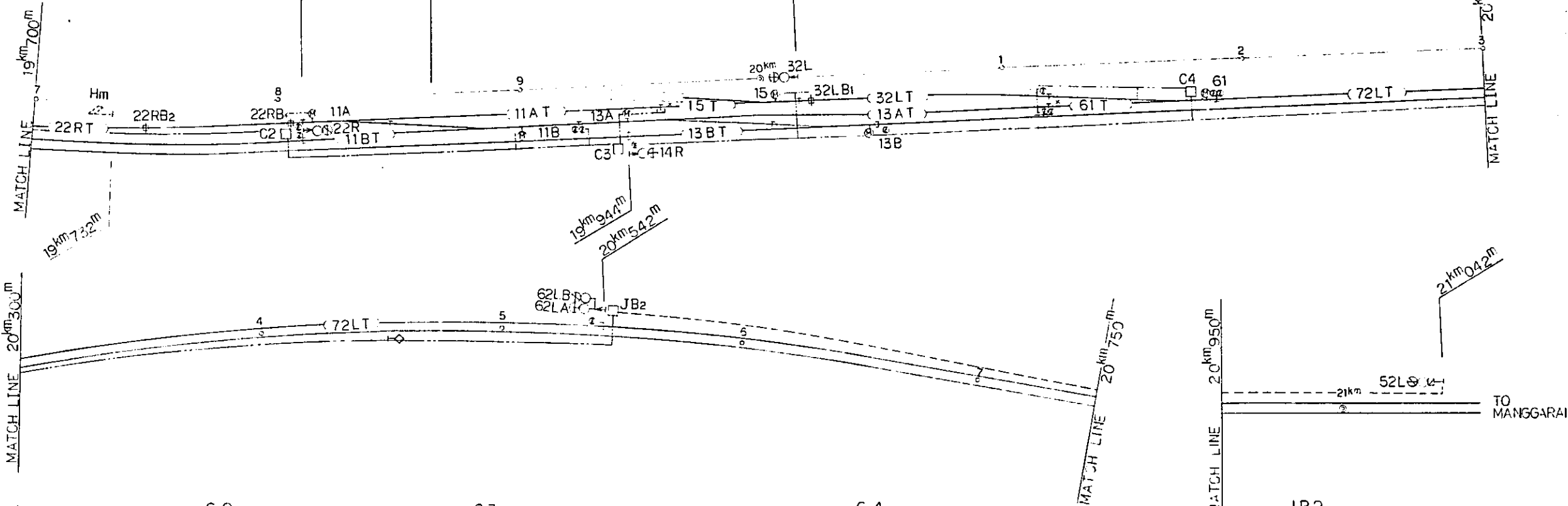
NOTE:
FOR SYMBOLS SEE
DWG. NO. EG-003



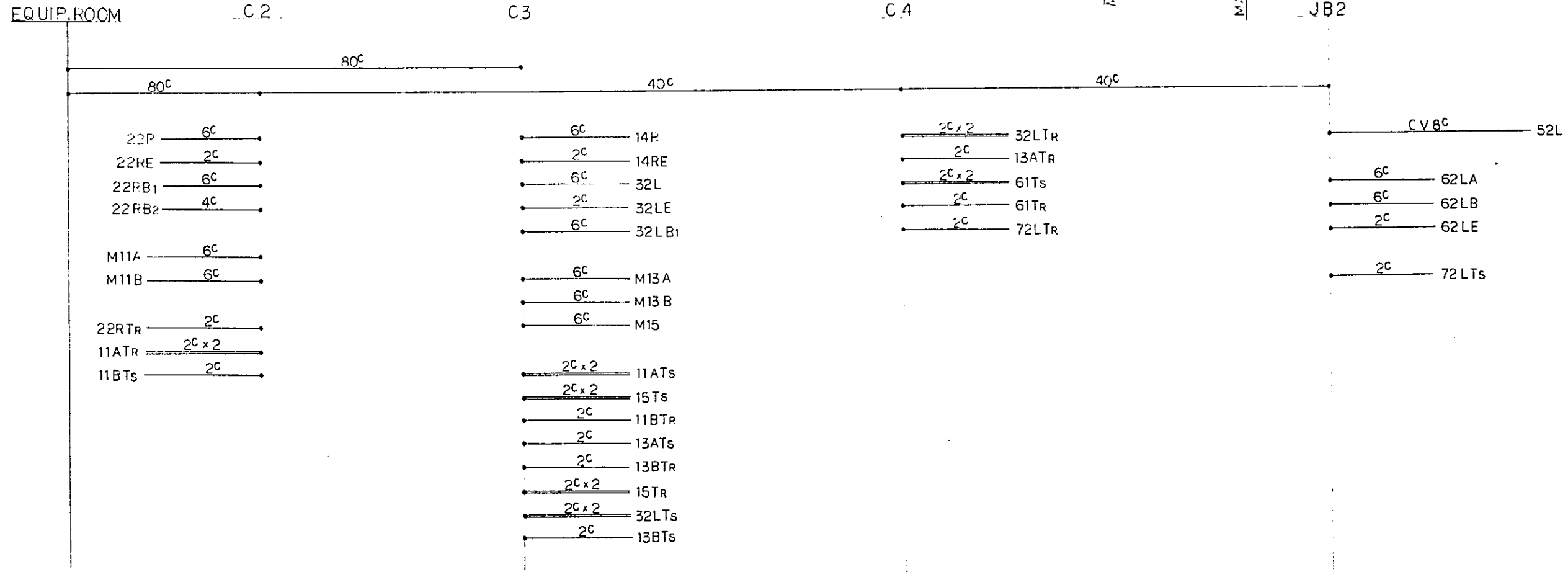
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 Aug '86	Tajima	JTD	K.U	K.M
A	15 Feb '86	Tajima	JTD	K.U	K.M
REVISIONS	DATE	DRAWN	CHECKED	REVIEWED	SUBMITTED
<p>SIGNAL EQUIPMENT PLAN (SHEET 14 OF 15)</p> <p>PACKAGE: <input checked="" type="checkbox"/> ELECTRICAL WORK</p> <p>SCALE: 1:1000 DRAWING NO.: ES-031</p>					

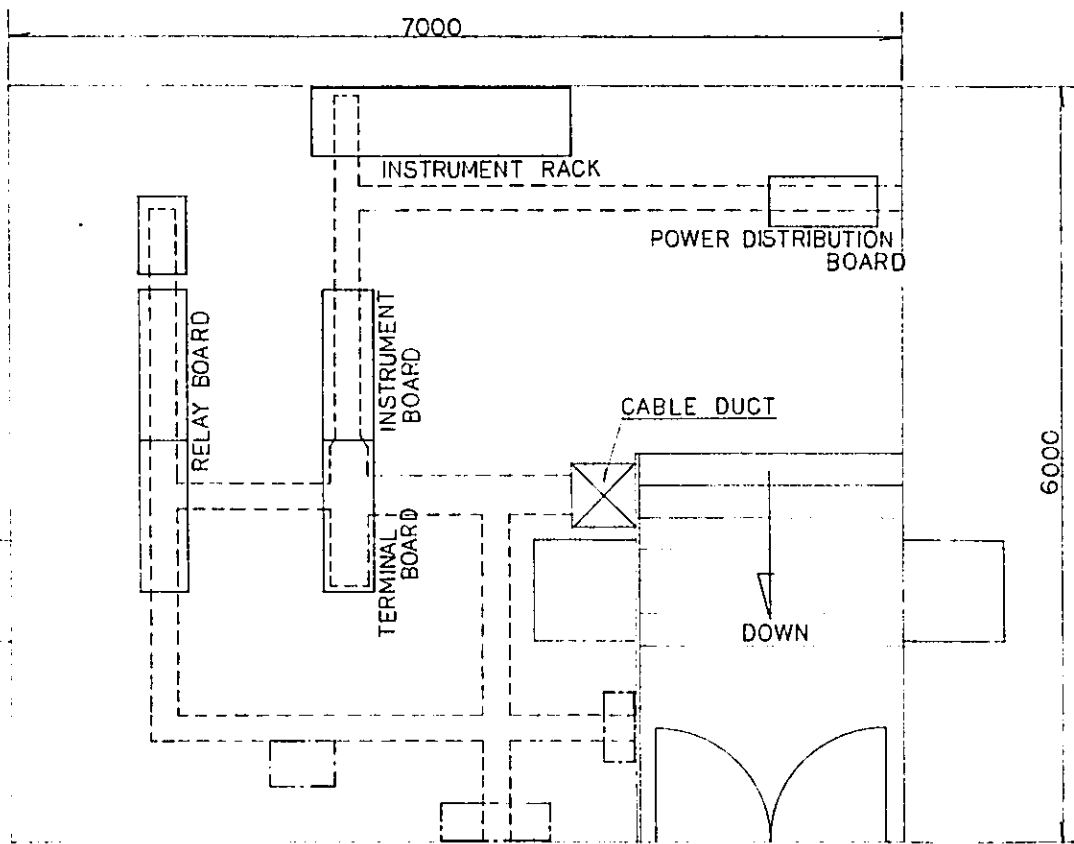


JAYAKARTA
S. STN.
19 km 864 m

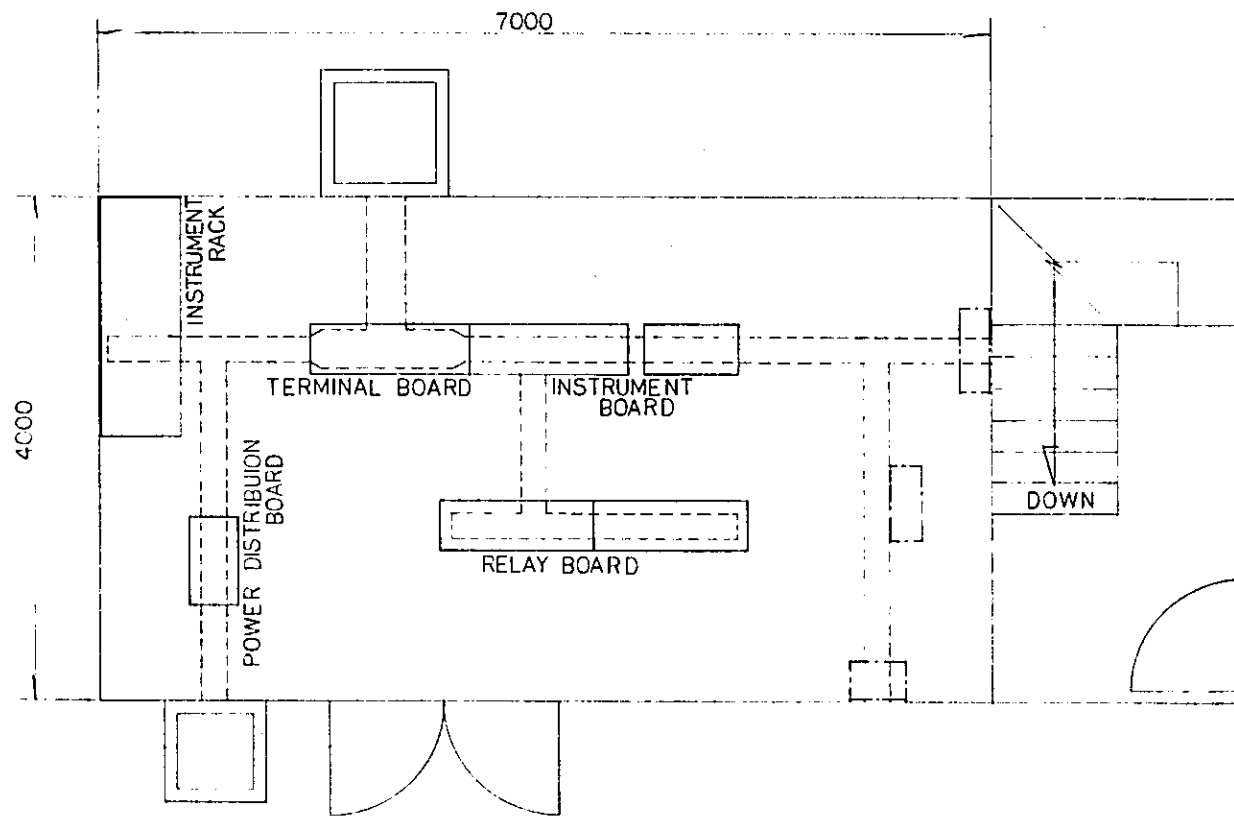


NOTE:
FOR SYMBOLS SEE
DWG. NO. EG-003

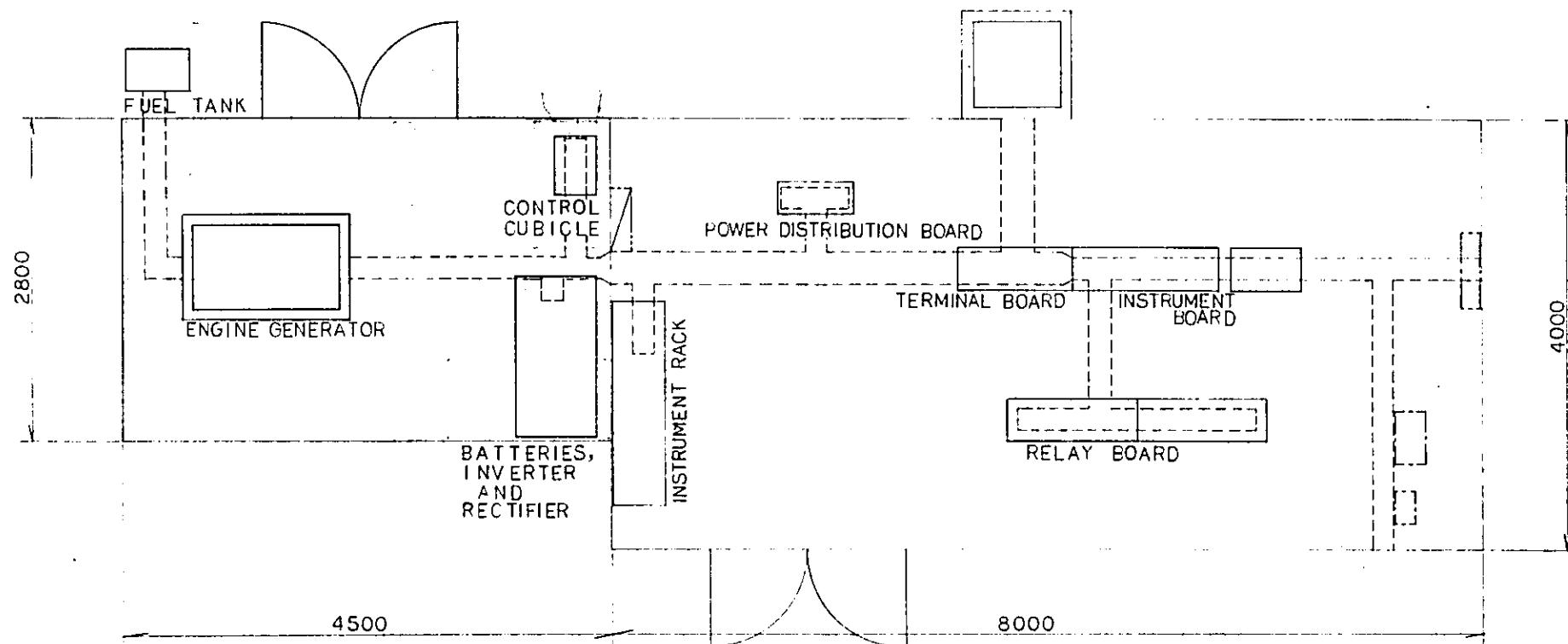




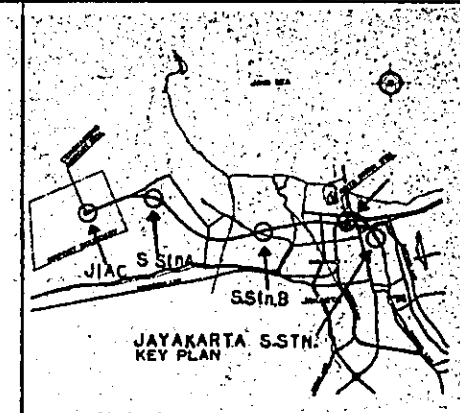
KOTA INTAN STN.



S. STN. A AND S. STN. B



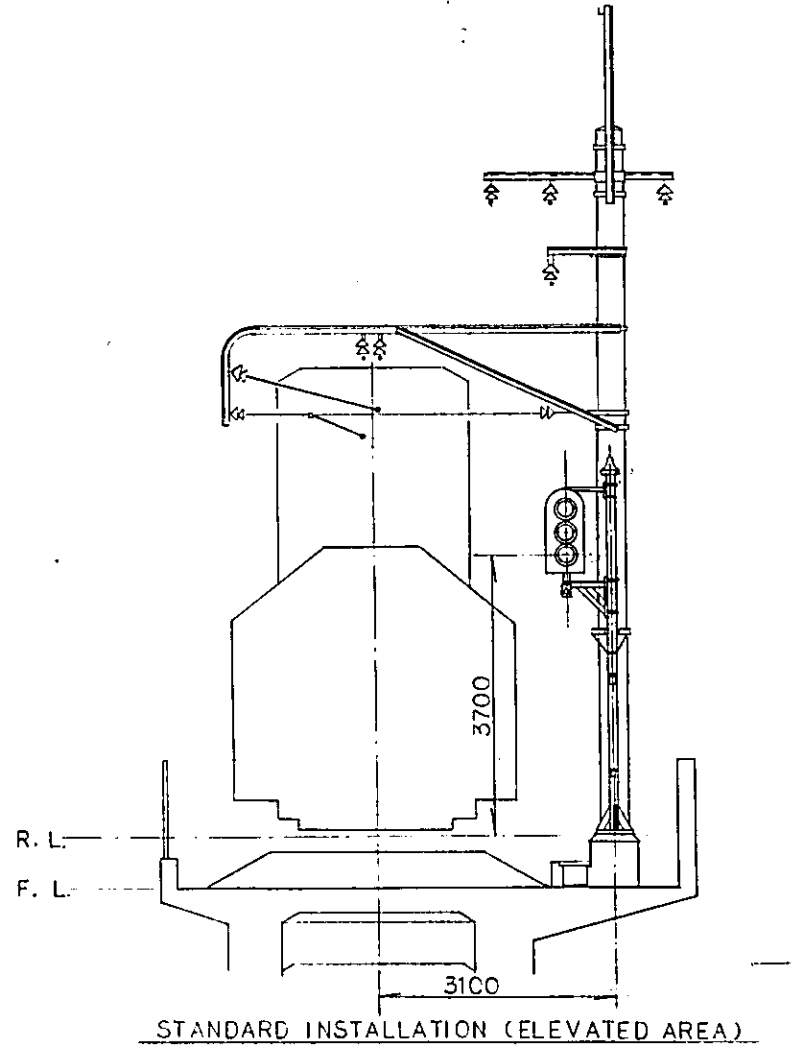
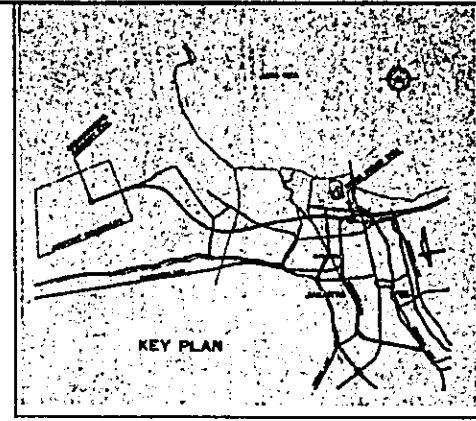
JIAC STN. AND JAYAKARTA S. STN.



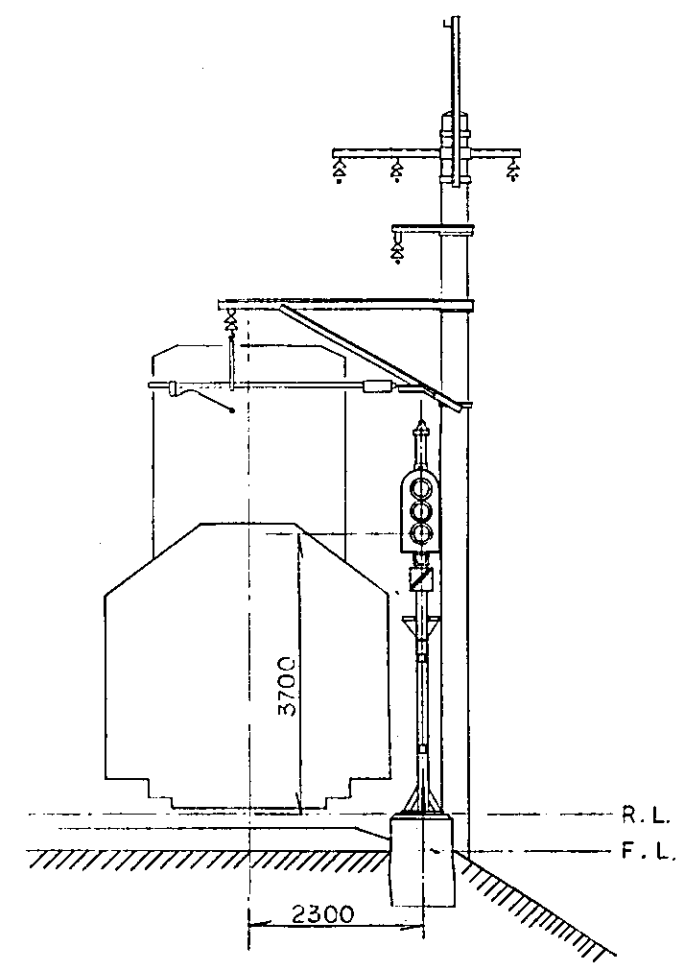
NOTE:

ALL DIMENSIONS ARE SHOWN IN MILLIMETRES UNLESS OTHERWISE INDICATED

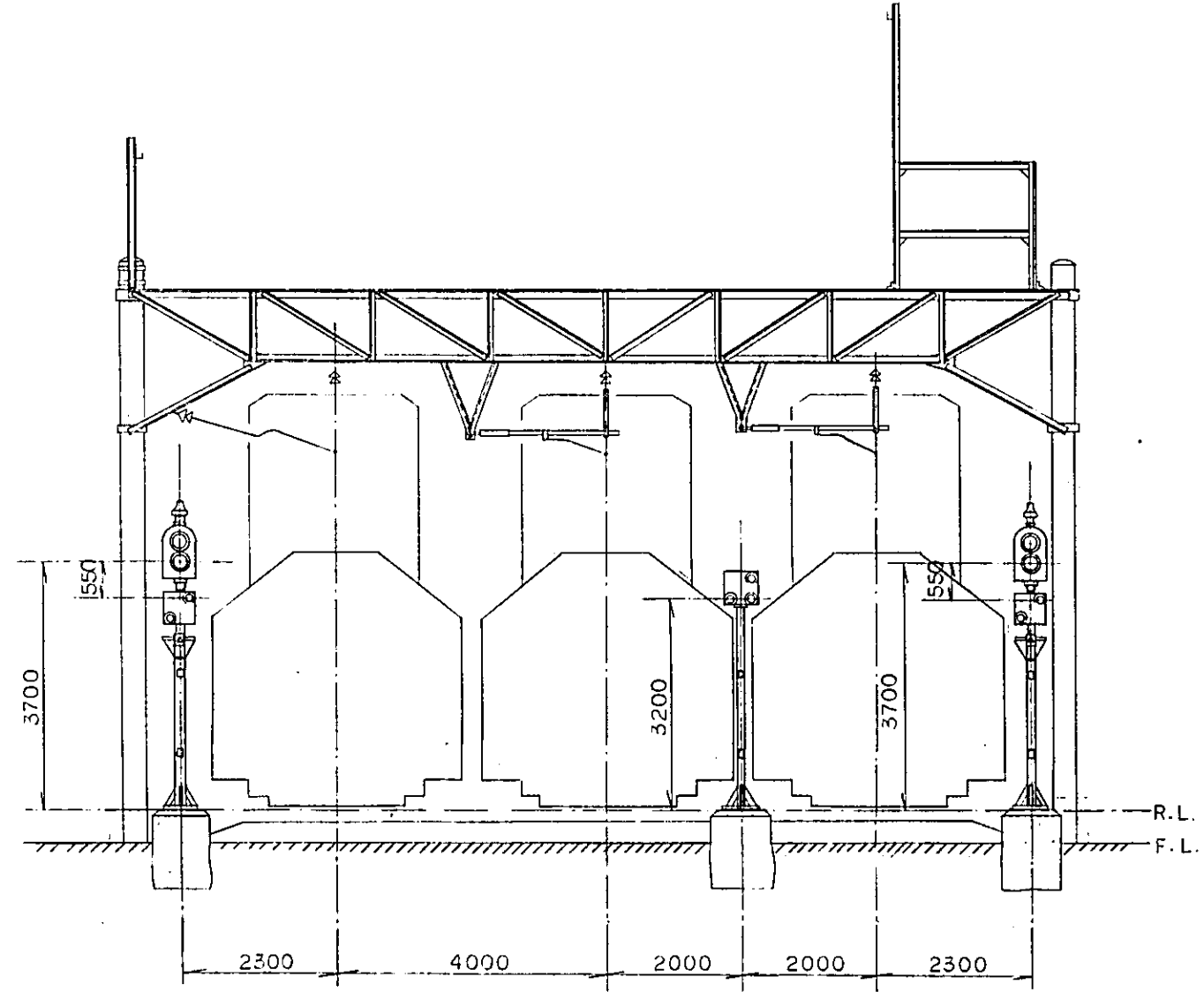
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 Aug. '66	T. Suda	J. Suda	K. U.	K. M.
A	18 Feb. '66	T. Suda	J. Suda	K. U.	K. M.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED
SIGNAL EQUIPMENT LAYOUT IN EQUIPMENT ROOM					
PACKAGE: <input checked="" type="checkbox"/> ELECTRICAL WORK					
SCALE: NON SCALE		DRAWING NO: ES-033			



STANDARD INSTALLATION (ELEVATED AREA)



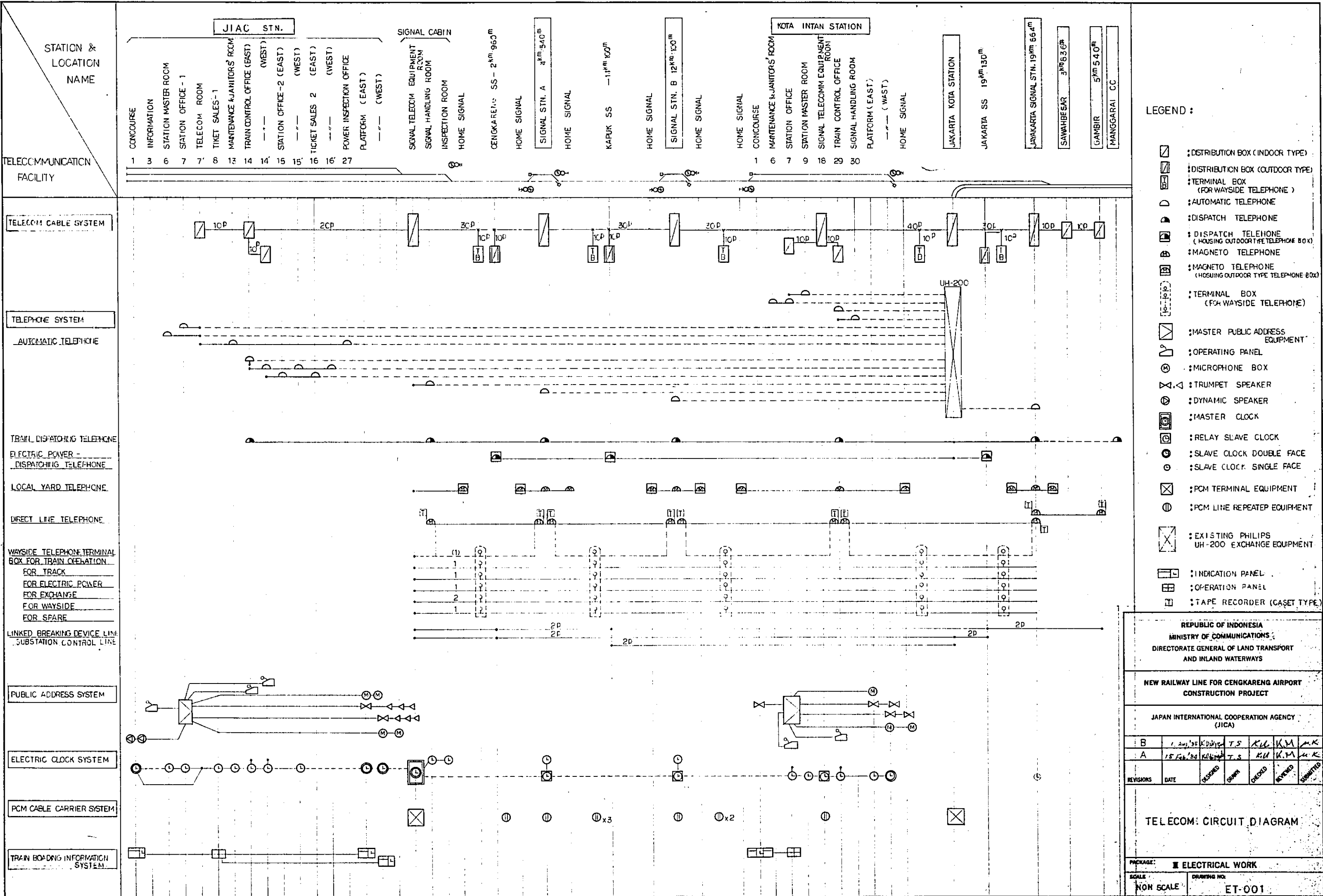
STANDARD INSTALLATION (GENERAL AREA)



INSTALLATION OF THE STARTING SIGNALS (JIAC STN.)

NOTE:
ALL DIMENSIONS ARE SHOWN IN MILLIMETRES UNLESS OTHERWISE INDICATED

REPUBLIC OF INDONESIA						
MINISTRY OF COMMUNICATIONS						
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 Aug. '86	Tajima	J. T. D.	K. H.	K. H.	K. H.
A	15 Feb. '86	Tajima	J. T. D.	K. H.	K. H.	K. H.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
STANDARD INSTALLATION OF SIGNALS						
PACKAGE: ELECTRICAL WORK						
SCALE: 1:50		DRAWING NO: ES-034				



STATION & LOCATION NAME

TELECOMMUNICATION FACILITY

TELECOMM CABLE SYSTEM

TELEPHONE SYSTEM

AUTOMATIC TELEPHONE

TRAIN DISPATCHING TELEPHONE

ELECTRIC POWER - DISPATCHING TELEPHONE

LOCAL YARD TELEPHONE

DIRECT LINE TELEPHONE

WAYSIDE TELEPHONE TERMINAL BOX FOR TRAIN OPERATION

FOR TRACK

FOR ELECTRIC POWER

FOR EXCHANGE

FOR WAYSIDE

FOR SPARE

LINKED BREAKING DEVICE LINE

SUBSTATION CONTROL LINE

PUBLIC ADDRESS SYSTEM

ELECTRIC CLOCK SYSTEM

PCM CABLE CARRIER SYSTEM

TRAIN BOARDING INFORMATION SYSTEM

- LEGEND :
- ☐ : DISTRIBUTION BOX (INDOOR TYPE)
 - ☐ : DISTRIBUTION BOX (OUTDOOR TYPE)
 - ☐ : TERMINAL BOX (FOR WAYSIDE TELEPHONE)
 - ⊙ : AUTOMATIC TELEPHONE
 - ⊙ : DISPATCH TELEPHONE
 - ⊙ : DISPATCH TELEPHONE (HOUSING OUTDOOR TYPE TELEPHONE BOX)
 - ⊙ : MAGNETO TELEPHONE
 - ⊙ : MAGNETO TELEPHONE (HOUSING OUTDOOR TYPE TELEPHONE BOX)
 - ☐ : TERMINAL BOX (FOR WAYSIDE TELEPHONE)
 - ☐ : MASTER PUBLIC ADDRESS EQUIPMENT
 - ☐ : OPERATING PANEL
 - ⊙ : MICROPHONE BOX
 - ⊙ : TRUMPET SPEAKER
 - ⊙ : DYNAMIC SPEAKER
 - ⊙ : MASTER CLOCK
 - ⊙ : RELAY SLAVE CLOCK
 - ⊙ : SLAVE CLOCK DOUBLE FACE
 - ⊙ : SLAVE CLOCK SINGLE FACE
 - ☐ : PCM TERMINAL EQUIPMENT
 - ⊙ : PCM LINE REPEATER EQUIPMENT
 - ☐ : EXISTING PHILIPS UH-200 EXCHANGE EQUIPMENT
 - ☐ : INDICATION PANEL
 - ☐ : OPERATION PANEL
 - ☐ : TAPE RECORDER (CASSET TYPE)

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 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

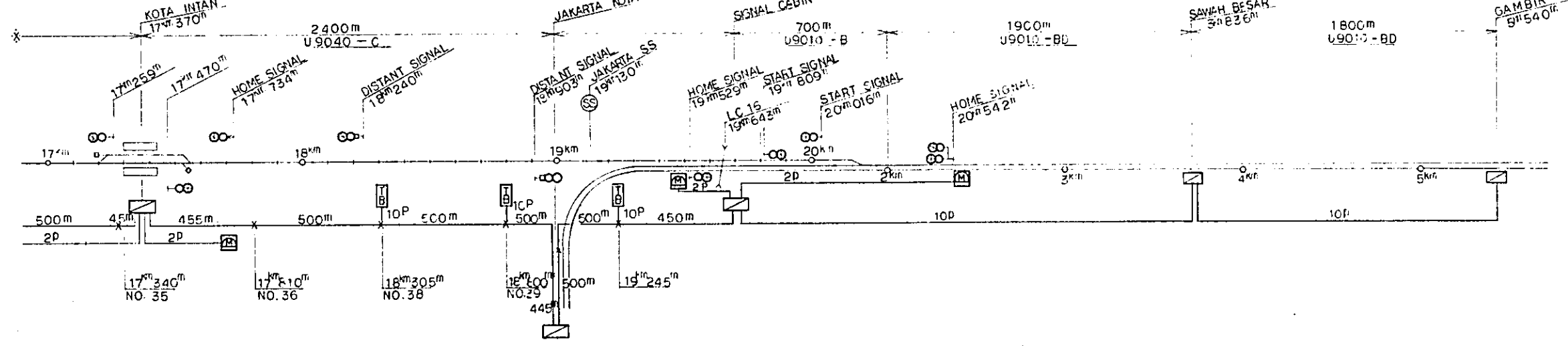
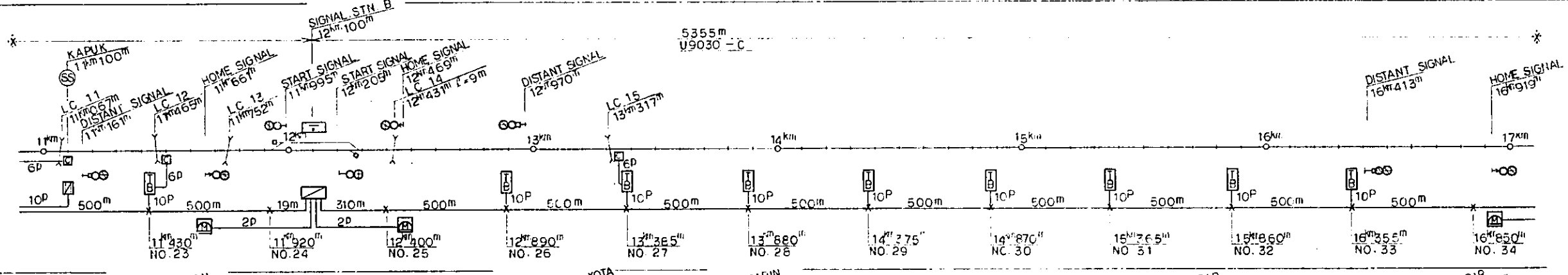
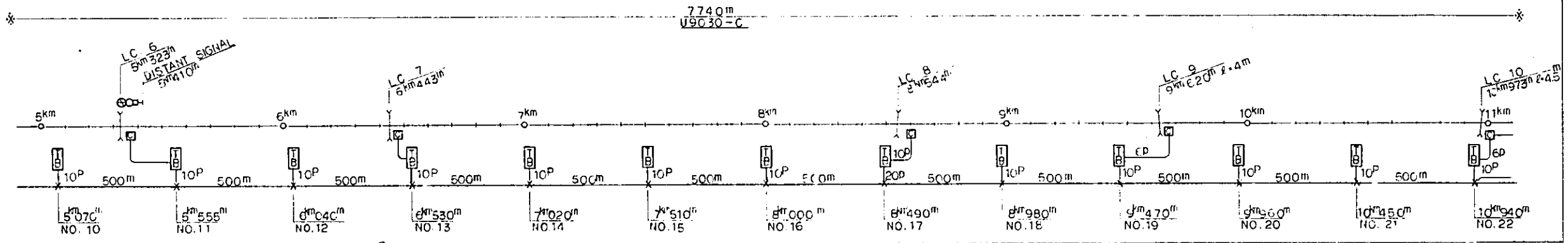
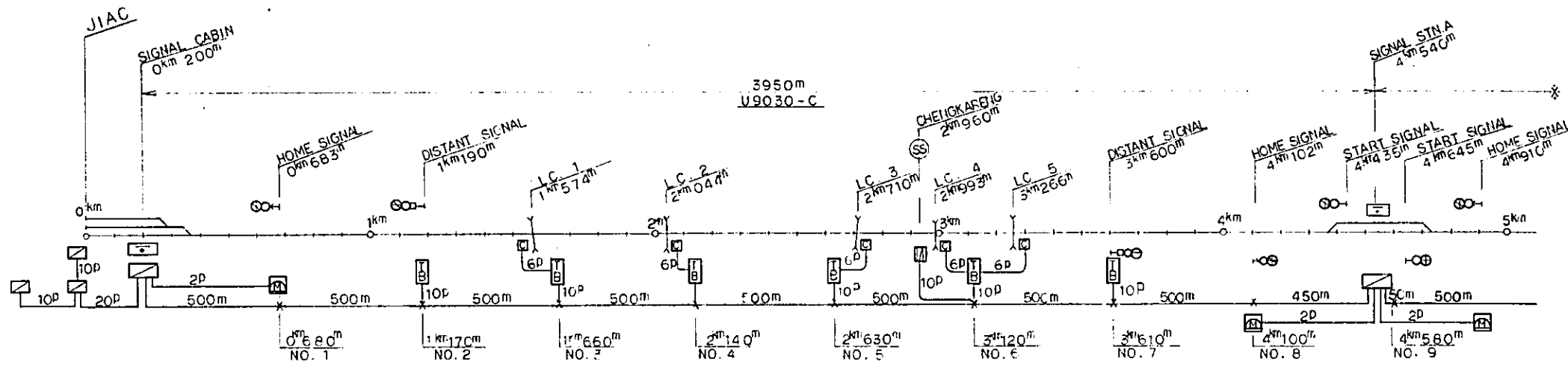
B	1 Aug 85	K. D. W. S.	T. S.	K. H.	K. M.	M. K.
A	15 Feb 84	K. D. W. S.	T. S.	K. H.	K. M.	M. K.

REVISIONS DATE DESIGNED DRAWN CHECKED REVISION SUBMITTED

TELECOM: CIRCUIT DIAGRAM

PACKAGE: ELECTRICAL WORK

SCALE: NON SCALE DRAWING NO: ET-001



LEGEND:

- : DISTRIBUTION BOX
- : TERMINAL BOX
- : MAGNETO TELEPHONE (HOUSING OUTDOOR TYPE TELEPHONE BOX)
- : DISTRIBUTION BOX (INDOOR TYPE)
- : SIGNAL APPARATUS CASE
- : CABLE JOINT; CABLE BRANCH

U9030-C

- HEATH: B = POLYETHYLENE SHEATH
- C = CORRUGATED SHEATH
- ED = POLYETHYLENE SHEATH WITH SELF SUPPORTING TYPE
- NUMBER OF PAIRS: 030 - 30P
- NOMINAL DIAMETER OF CONDUCTOR: 9 = 0.9mm
- COMPOSITION OF CONDUCTOR: U = UNIT TYPE, S = SMALL PAIR TYPE

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NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

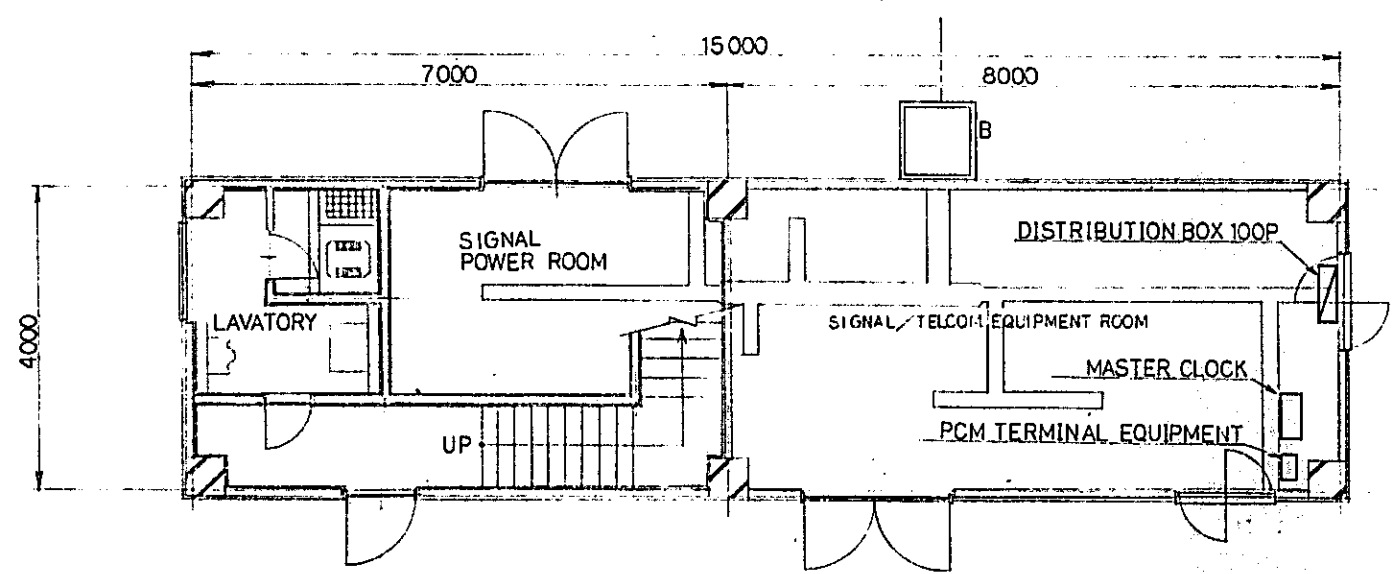
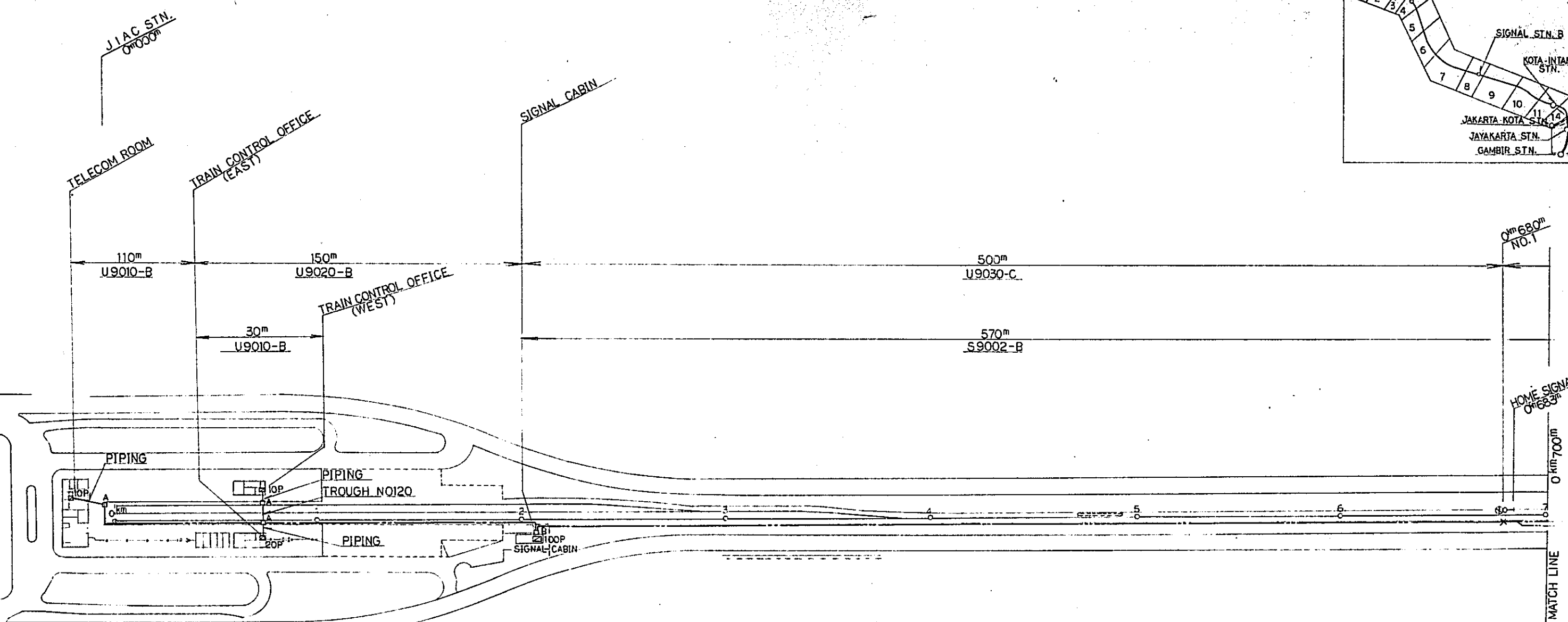
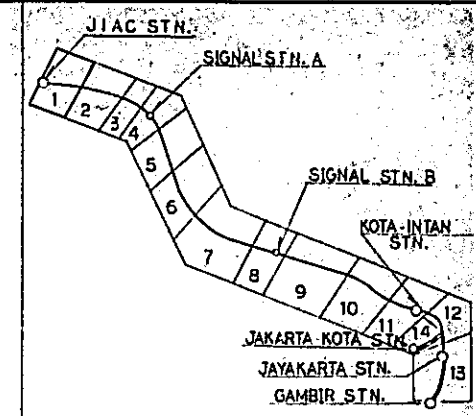
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1 Aug 77	Kusuma	T.S.	KU	KM	AK
A	15 Feb 77	Kusuma	T.S.	KU	KM	AK
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED

TELECOM CABLE NETWORK DIAGRAM

PACKAGE: **III ELECTRICAL WORK**

SCALE: NON SCALE DRAWING NO: ET-002



SIGNAL CABIN(SIGNAL/TELECOM EQUIPMENT ROOM)TELECOM PLAN (1st FLOOR)
SCALE 1:50

- LEGEND :
- — — : DIRECT-BURIAL CABLE
 - - - - : CABLE IN TROUGH (TROUGH PROVIDED BY SIGNAL WORK)
 - 10P : DISTRIBUTION BOX (10P SHOWS TERMINAL CAPACITY)
 - A : HANDHOLE TYPE A
 - B : HANDHOLE TYPE B
 - ✕ : CABLE JOINT

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MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

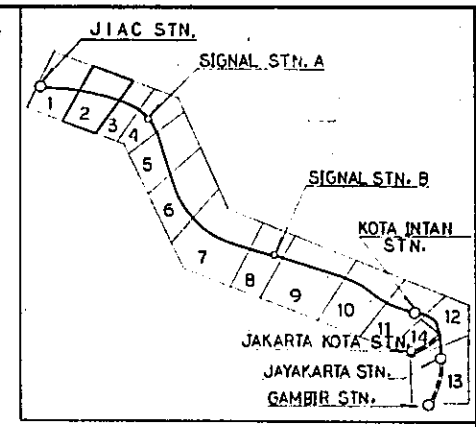
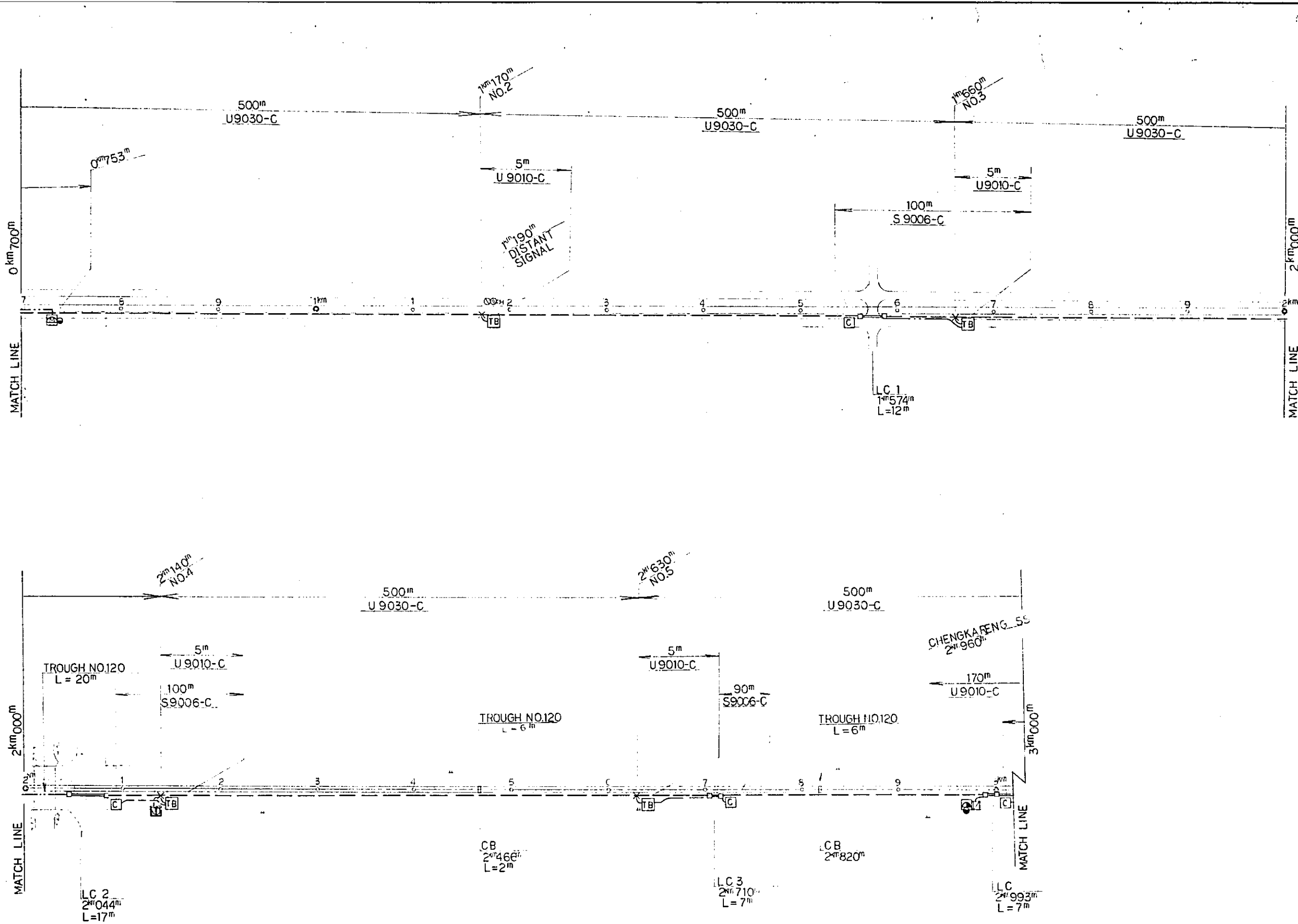
B	1/10/78	1/10/78	T.S	K.M	K.M	K.M
A	15/10/78	1/10/78	T.S	K.M	K.M	K.M

REVISIONS DATE

TELECOM CABLE PLAN
(SHEET 1 OF 14)

PACKAGE: ELECTRICAL WORK

SCALE: 1:1000
DRAWING NO: ET-003



- LEGEND:**
- : DIRECT BURIAL CABLE
 - - - : CABLE IN TROUGH
 - : HAND HOLE TYPE 'C' & STEEL PIPE
 - : DISTRIBUTION BOX OUTDOOR TYPE
 - : DISPATCH TELEPHONE (HOUSING OUTDOOR TYPE TELEPHONE BOX) & CONCRETE POLE
 - : MAGNETO TELEPHONE (HOUSING OUTDOOR TYPE TELEPHONE BOX) & CONCRETE POLE
 - : TERMINAL BOX
 - : SIGNAL APPARATUS CASE
 - ✱ : CABLE JOINT & CABLE BRANCH
 - : PCM LINE REPEATER EQUIPMENT (WITH MANHOLE)

REPUBLIC OF INDONESIA
 MINISTRY OF COMMUNICATIONS
 DIRECTORATE GENERAL OF LAND TRANSPORT
 AND INLAND WATERWAYS

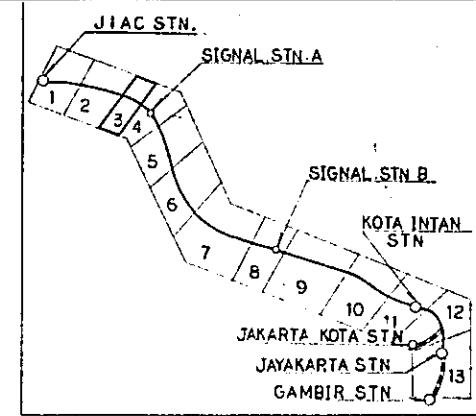
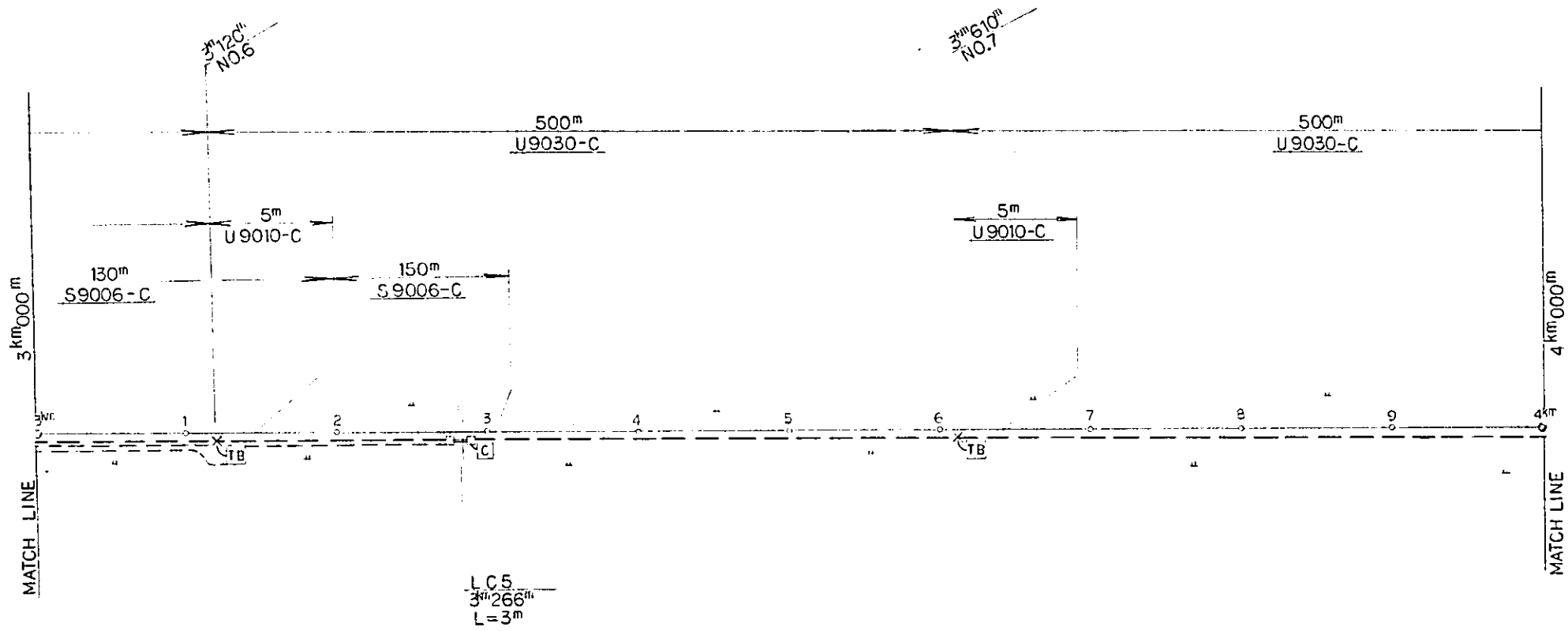
**NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT.**

JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVISED	SUBMITTED
B	1 Aug. 1981	K.M.	T.S.	K.K.	K.M.	K.
A	18 Feb. 1981	K.M.	T.S.	K.K.	K.M.	K.

TELECOM CABLE PLAN
 (SHEET 2 OF 14)

PACKAGE: **II ELECTRICAL WORK**
 SCALE: _____ DRAWING NO.: **ET-004**



- LEGEND :
- : DIRECT BURIAL CABLE
 - : HAND HOLE TYPE 'C' & STEEL PIPE
 - ⊠ : TERMINAL BOX
 - ⊞ : SIGNAL APPARATUS CASE
 - ✕ : CABLE JOINT CABLE BRANCH

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 MINISTRY OF COMMUNICATIONS
 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
 CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

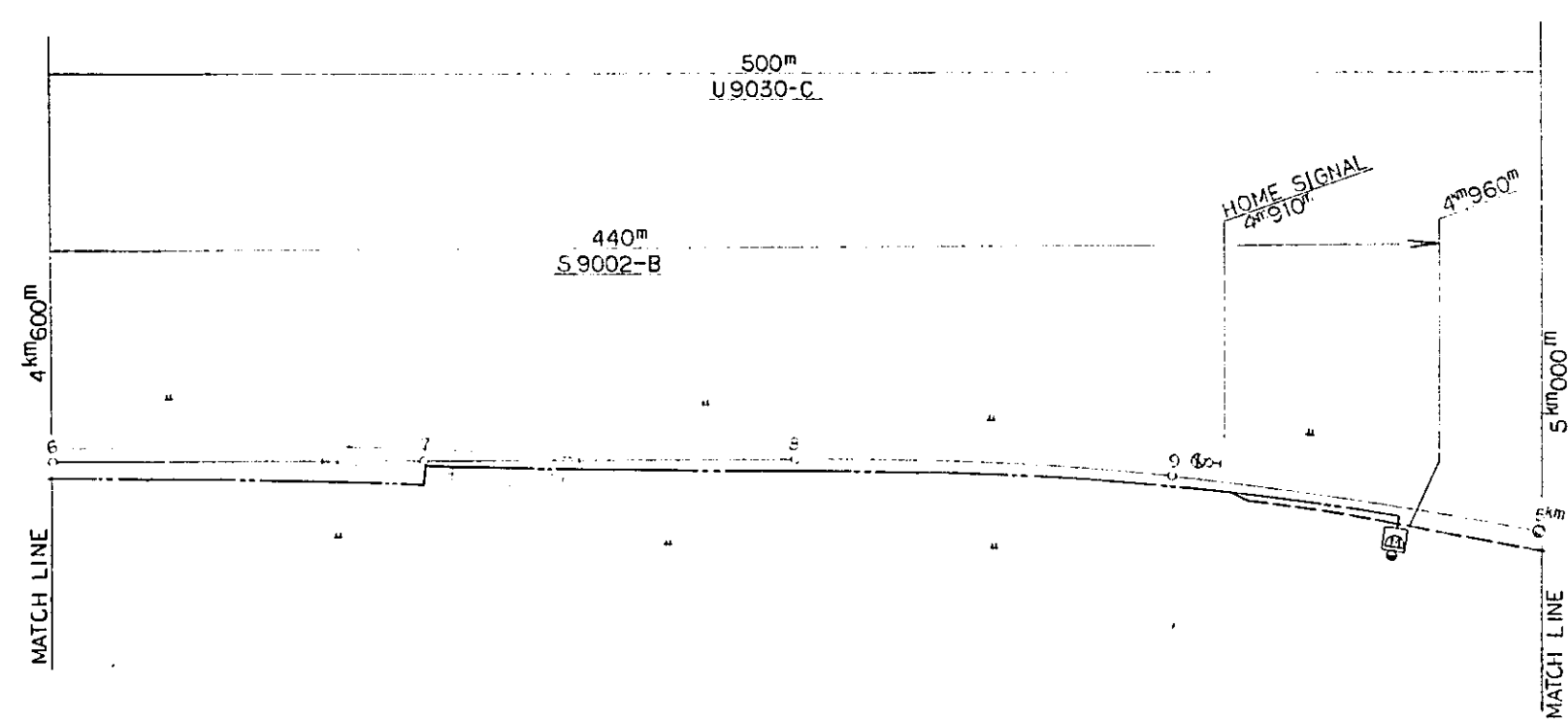
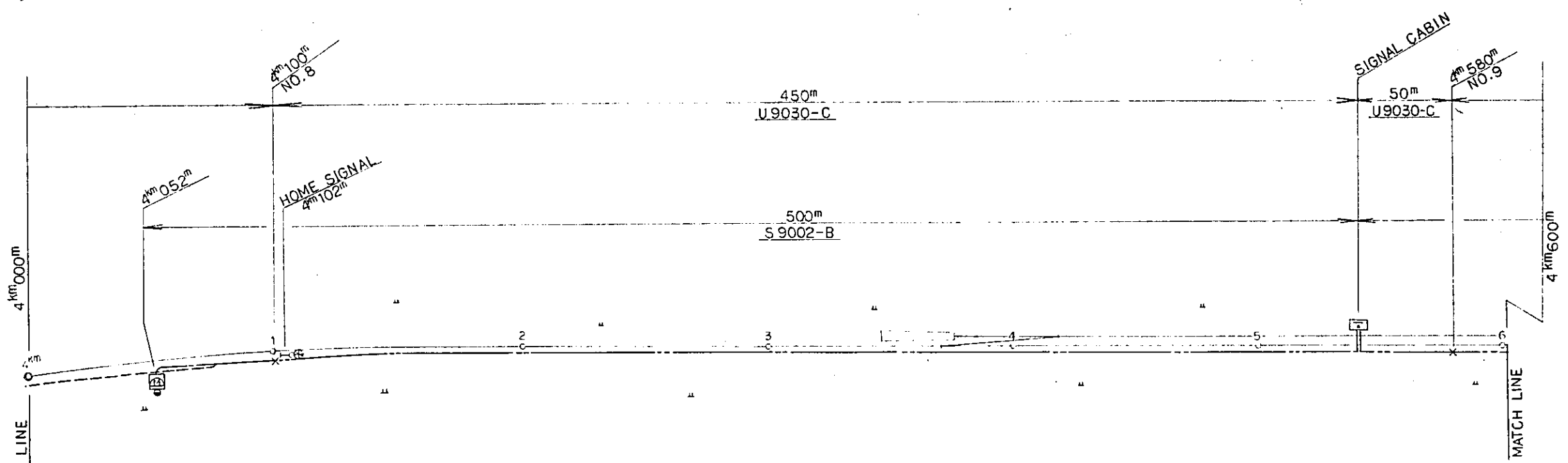
B	1 Aug '88	Final	T.S	K.H	K.H	K.H
A	15 Feb '88	Final	T.S	K.H	K.H	K.H

REVISIONS DATE DESIGNED DRAWN CHECKED REVISION SUBMITTED

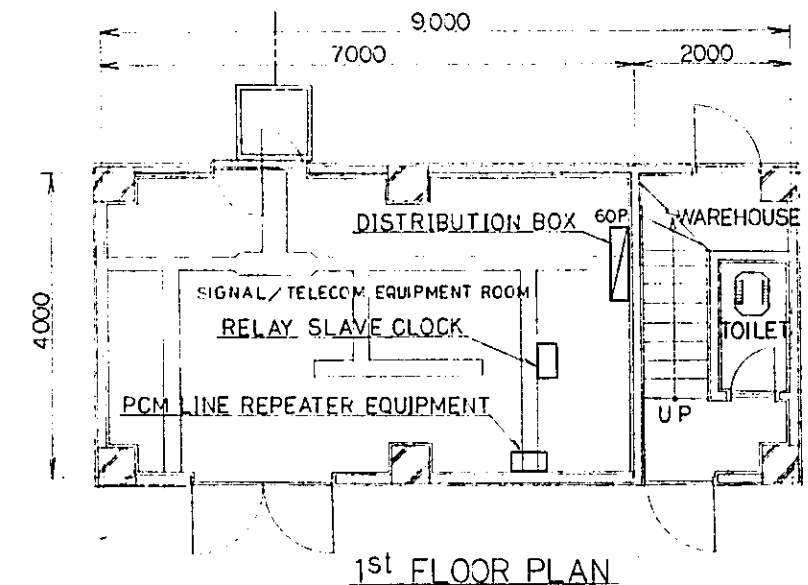
TELECOM CABLE PLAN
 (SHEET 3 OF 14)

PACKAGE: ■ ELECTRICAL WORK

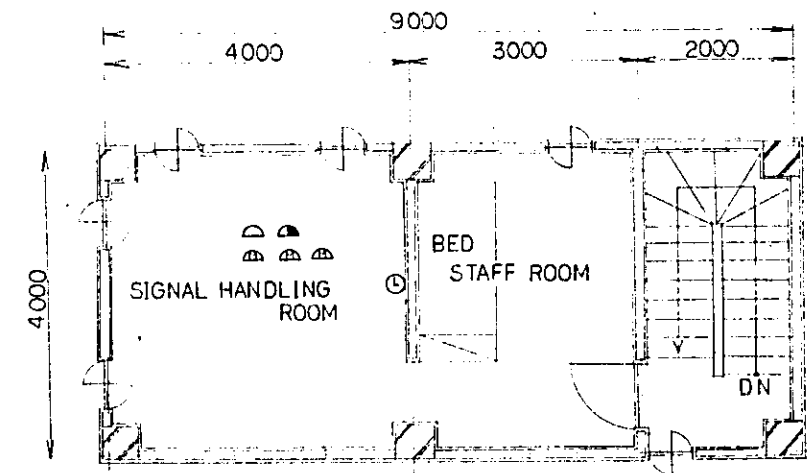
SCALE: 1 : 2000 DRAWING NO: ET-005



SIGNAL STN. A PLAN

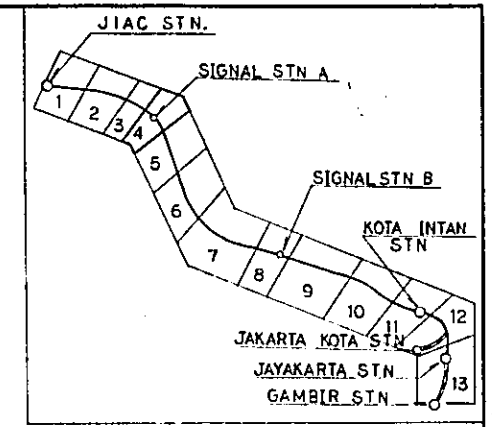


1st FLOOR PLAN



2nd FLOOR PLAN

SIGNAL CABIN
SCALE : 1 : 50



- LEGEND :
- : DIRECT BURIAL CABLE
 - - - : CABLE IN TROUGH (TROUGH PROVIDED BY SIGNAL WORK)
 - : HAND HOLE TYPE 'C' & STEEL PIPE
 - 10P : DISTRIBUTION BOX INDOOR TYPE
10P: SHOW TERMINAL CAPACITY
 - Ⓜ : MAGNETO TELEPHONE (HOUSING OUTDOOR TYPE TELEPHONE BOX) & CONCRETE POLE
 - ✕ : CABLE JOINT
 - Ⓜ : AUTOMATIC TELEPHONE
 - Ⓜ : DISPATCH TELEPHONE
 - Ⓜ : MAGNETO TELEPHONE
 - Ⓜ : SLAVE CLOCK SINGLE FACE

REPUBLIC OF INDONESIA
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

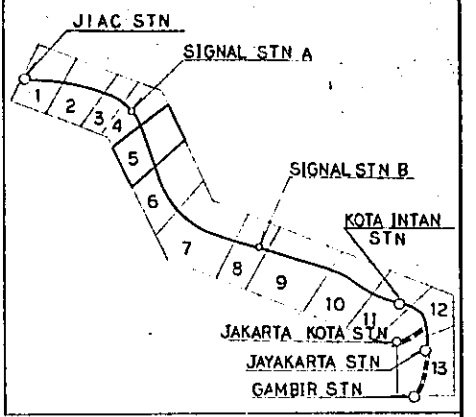
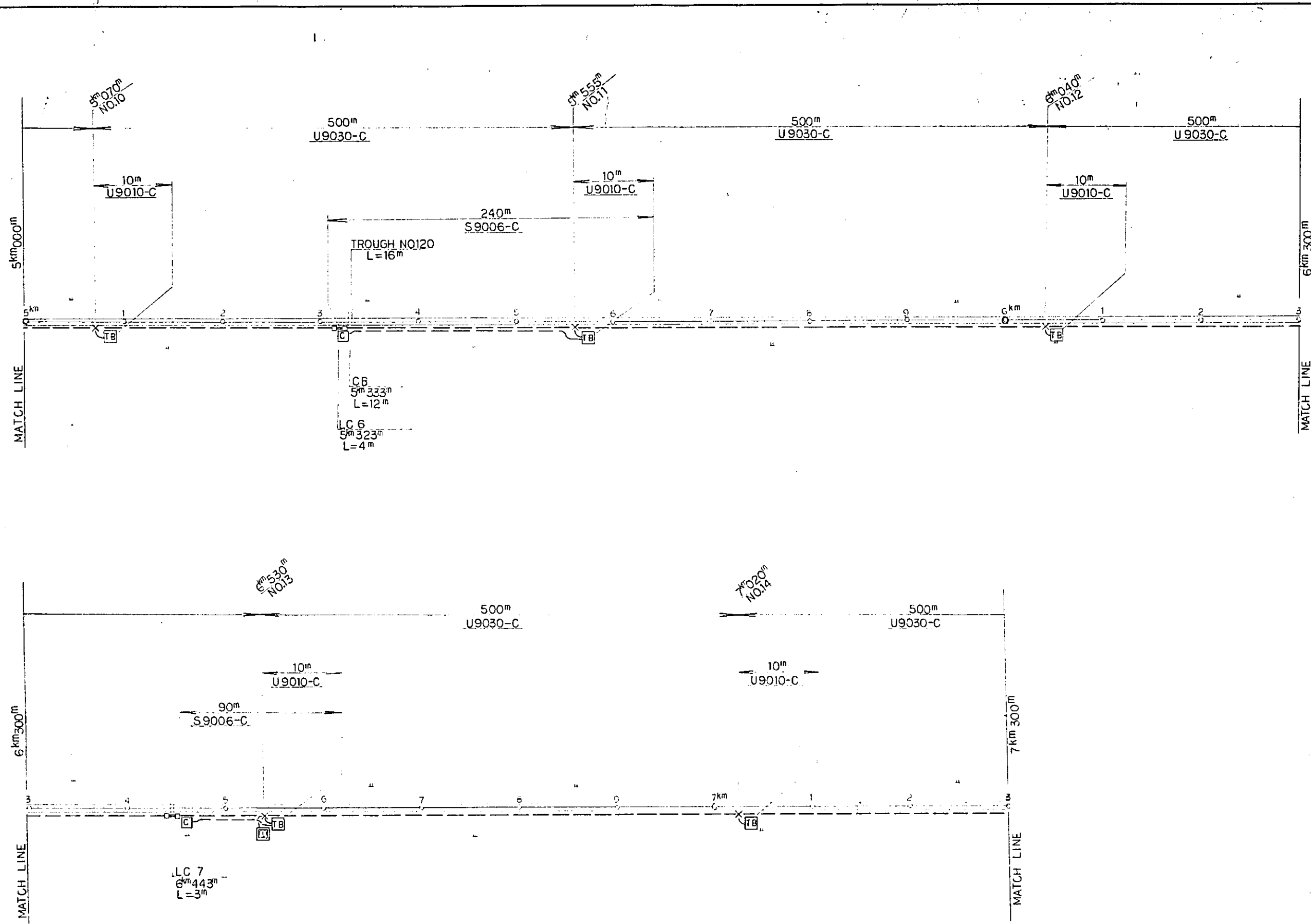
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1 Aug 87	Revised	T.S	K.H	K.M	K.K
A	15 Feb 86	Revised	T.S	K.H	K.M	K.K
REVISIONS	DATE	REASON	BY	CHECKED	APPROVED	SUBMITTED

TELECOM CABLE PLAN
(SHEET 4 OF 14)

PACKAGE: ELECTRICAL WORK

SCALE: 1 : 1000 DRAWING NO: ET-006



- LEGEND :
- : DIRECT BURIAL CABLE
 - - - : CABLE IN TROUGH
 - : HAND HOLE TYPE 'C' & STEEL PIPE
 - TB : TERMINAL BOX
 - C : SIGNAL APPARATUS CASE
 - * : CABLE JOINT & CABLE BRANCH
 - : PCM LINE REPEATER EQUIPMENT (WITH MANHOLE)

REPUBLIC OF INDONESIA
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF LAND TRANSPORT
AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
CONSTRUCTION PROJECT

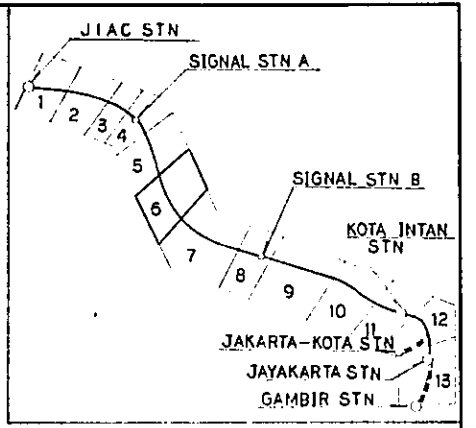
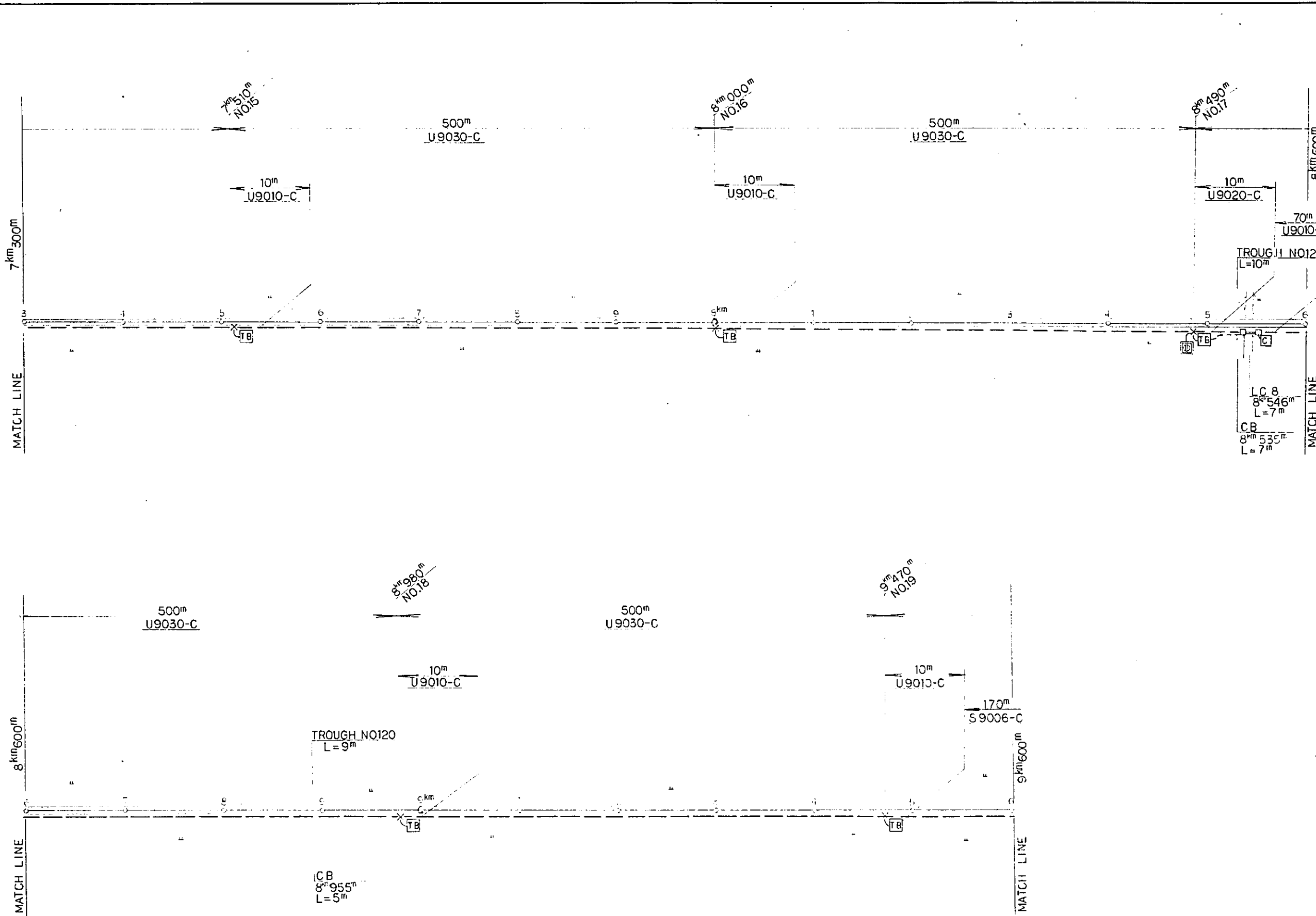
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

B	1 Aug '88	K. H. K.	T. S.	K. H.	K. M.	K. K.
A	15 Feb '88	K. H. K.	T. S.	K. H.	K. M.	K. K.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED

TELECOM CABLE PLAN
(SHEET 5 OF 14)

PACKAGE: ■ ELECTRICAL WORK

SCALE: 1:2000 DRAWING NO: ET-007



- LEGEND :
- : DIRECT BURIAL CABLE
 - - - : CABLE IN TROUGH
 - : HAND HOLE TYPE 'C' & STEEL PIPE
 - TB : TERMINAL BOX
 - C : SIGNAL APPARATUS CASE
 - X : CABLE JOINT & CABLE BRANCH
 - ⊕ : PCM LINE REPEATER EQUIPMENT (WITH MANHOLE)

REPUBLIC OF INDONESIA
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF LAND TRANSPORT
AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENKARENG AIRPORT
CONSTRUCTION PROJECT

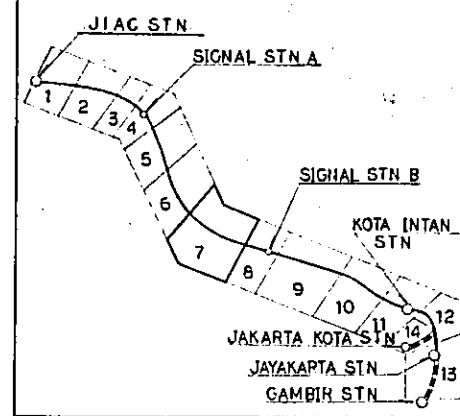
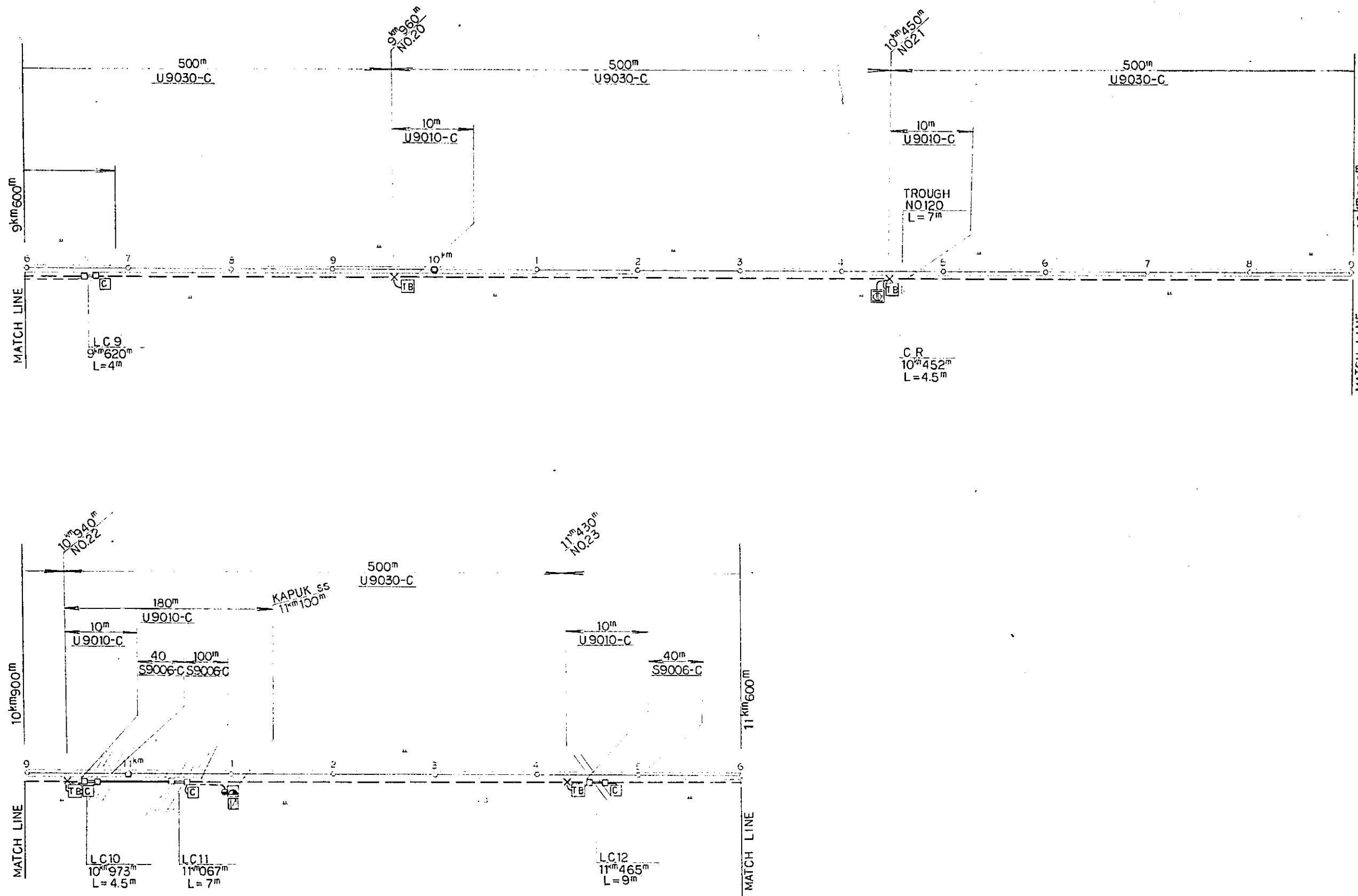
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

B	1 Aug '88	K. S. S.	T. S.	K. K.	K. M.	K. R.
A	15 Feb '88	K. S. S.	T. S.	K. K.	K. M.	K. R.
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED

TELECOM CABLE PLAN
(SHEET 6 OF 14)

PACKAGE: ■ ELECTRICAL WORK

SCALE: 1:2000 DRAWING NO: ET-008



- LEGEND :**
- : DIRECT BURIAL CABLE
 - : CABLE IN DUCT
 - - - : CABLE IN TROUGH
 - ⊕ : HANDHOLE TYPE 'C' & STEEL PIPE
 - ⊞ : DISTRIBUTION BOX OUTDOOR TYPE
 - ⊞ : DISPATCH TELEPHONE (ENCLOSURE OUTDOOR TYPE TELEPHONE BOX)
 - ⊞ : TERMINAL BOX
 - ⊞ : SIGNAL APPARATUS CASE
 - ⊞ : CABLE JOINT & CABLE BRANCH
 - ⊞ : PCM LINE REPEATER EQUIPMENT (WITH MANHOLE)

REPUBLIC OF INDONESIA
 MINISTRY OF COMMUNICATIONS
 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENKARENG AIRPORT
 CONSTRUCTION PROJECT

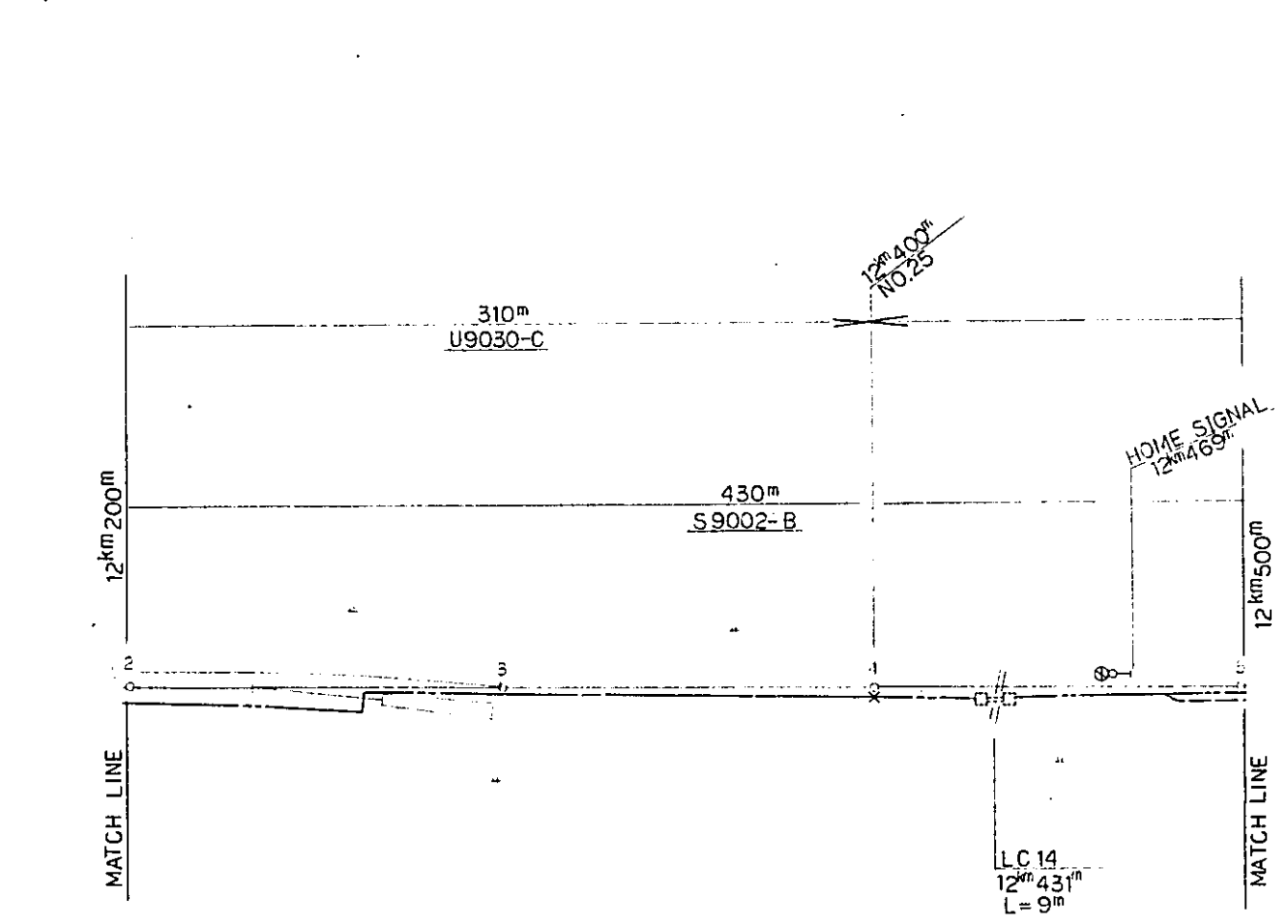
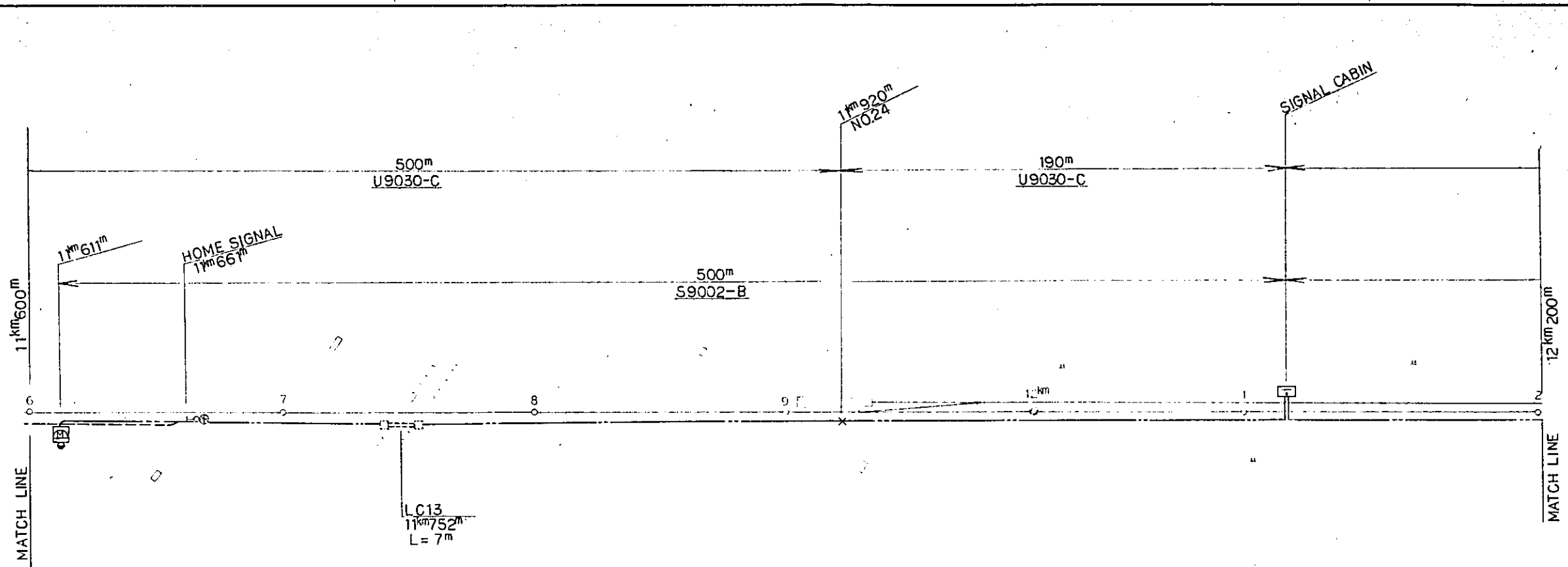
JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

B	1	10/10/88	T.S	K.M	K.M	K.M
A	2	10/10/88	T.S	K.M	K.M	K.M
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVISED	SUBMITTED

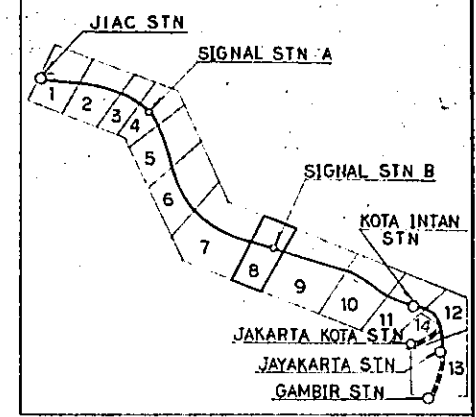
TELECOM CABLE PLAN
 (SHEET 7 of 14)

PACKAGE: ELECTRICAL WORK

SCALE: 1 : 2000 DRAWING NO: ET-009

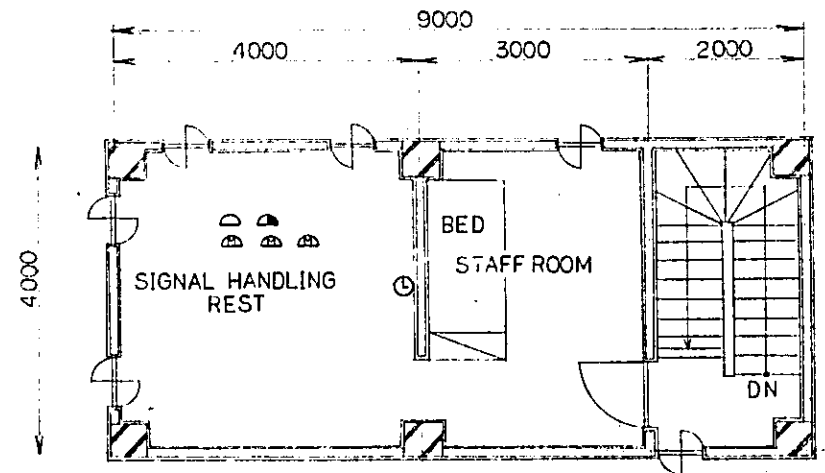
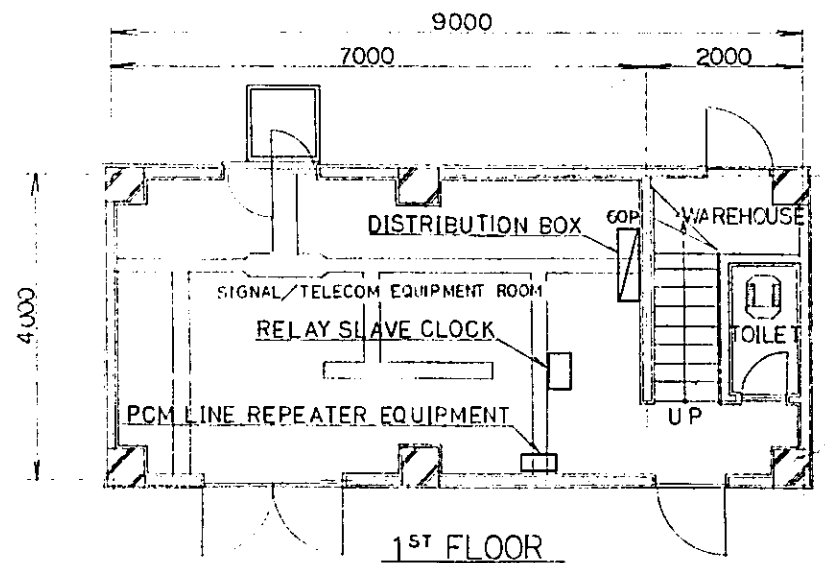


SIGNAL STN B PLAN



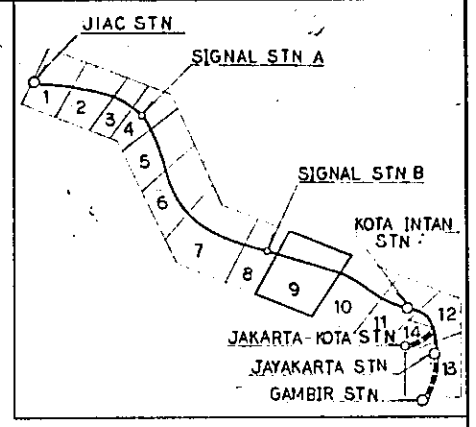
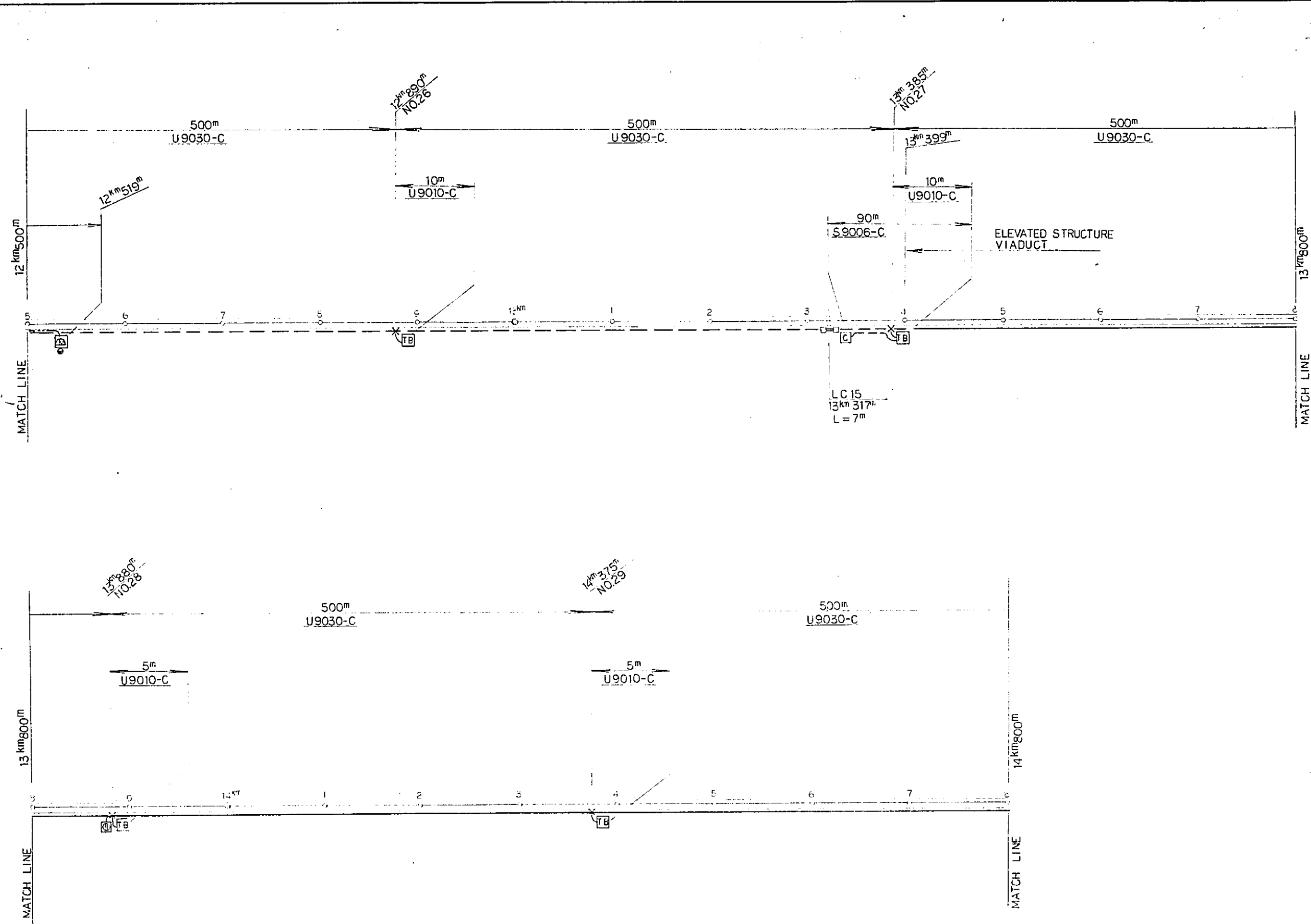
LEGEND

- : DIRECT BURIAL CABLE
- - - : CABLE IN TROUGH (TROUGH PROVIDED BY SIGNAL WORK)
- ☐_{60P} : DISTRIBUTION BOX INDOOR TYPE
60P: SHOW TERMINAL CAPACITY
- ☐₁₂ : MAGNETO TELEPHONE (HOUSING OUTDOOR TYPE TELEPHONE BOX) & CONCRETE POLE
- X : CABLE JOINT
- : HAND HOLE & STEEL PIPE (PROVIDED BY SIGNAL WORK)



SIGNAL CABIN 2ND FLOOR
SCALE 1 : 50

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 Aug '88	K. Sugi	T.S	KK	KM	AK
A	15 Feb '88	K. Sugi	T.S	KK	KM	AK
REVISORS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
TELECOM CABLE PLAN (SHEET 8 of 14)						
PACKAGE: ELECTRICAL WORK						
SCALE	DRAWING NO.					
1 : 1000	ET-010					



- LEGEND :**
- : DIRECT-BURIAL CABLE
 - : CABLE IN DUCT
 - : HAND HOLE TYPE 'C' & STEEL PIPE
 - TB : TERMINAL BOX
 - C : SIGNAL APPARATUS CASE
 - X : CABLE JOINT & CABLE BRANCH
 - Ⓚ : PCM LINE REPEATER EQUIPMENT
 - Ⓜ : MAGNETO TELEPHONE (HOUSING OUTDOOR TYPE TELEPHONE BOX) & CONCRETE POLE

REPUBLIC OF INDONESIA
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF LAND TRANSPORT
AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
CONSTRUCTION PROJECT

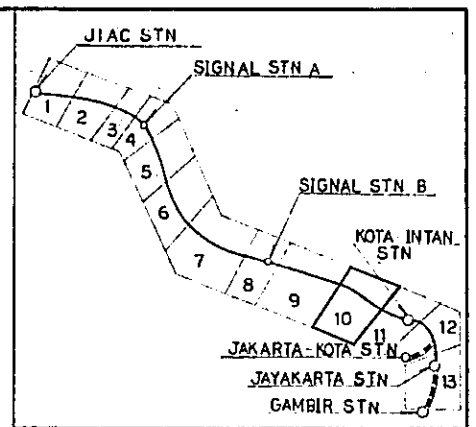
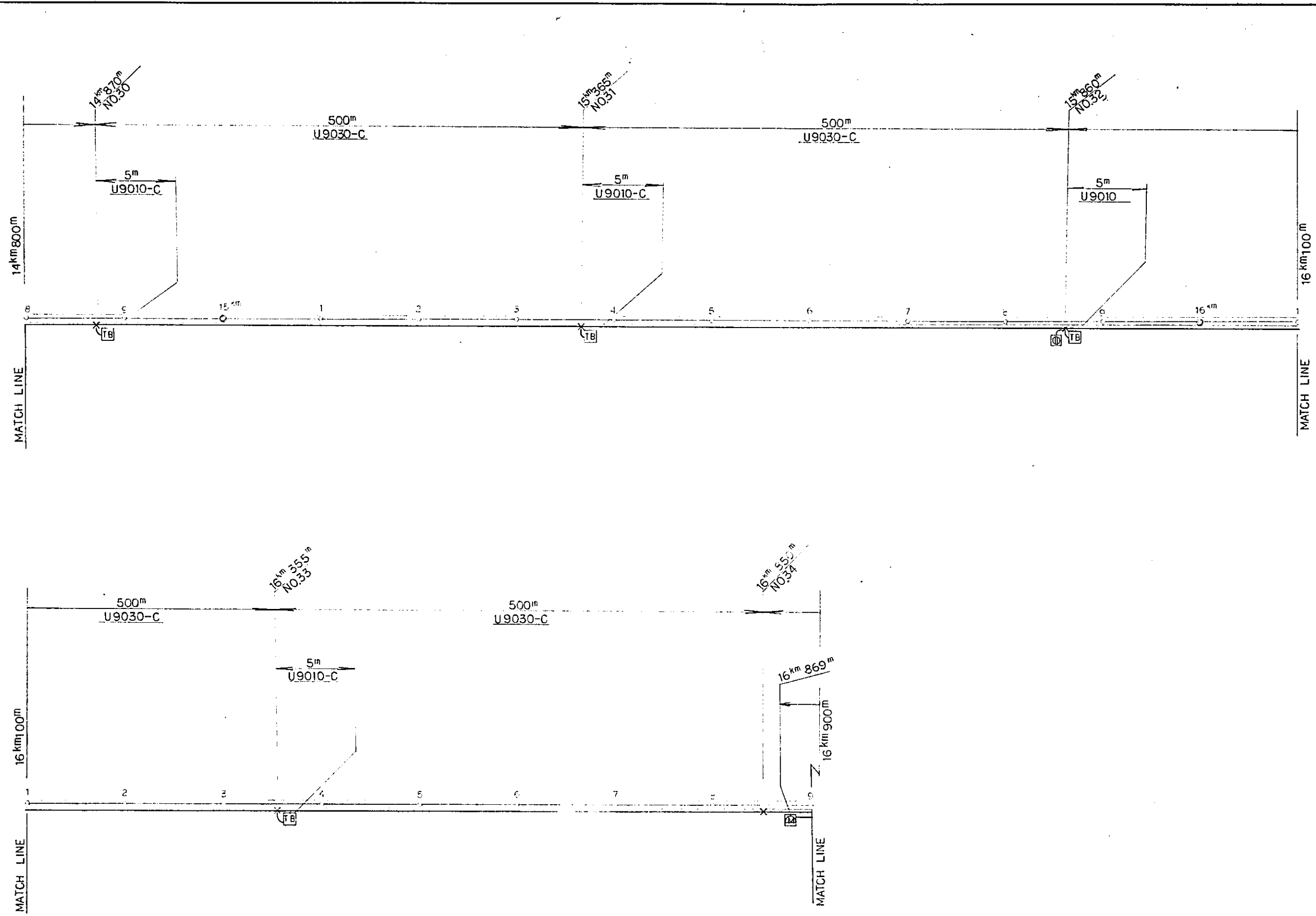
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
B	1 MAY 88	KUM	T.S	K.L	K.M	M.K
A	15 FEB 88	KUM	T.S	K.L	K.M	M.K

TELECOM CABLE PLAN
(SHEET 9 OF 14)

PACKAGE: ELECTRICAL WORK

SCALE: 1:2000 DRAWING NO: ET-011



- LEGEND :**
- : CABLE IN DUCT
 - TB : TERMINAL BOX
 - X : CABLE JOINT & CABLE BRANCH
 - Ⓜ : PCM LINE REPEATER EQUIPMENT
 - Ⓜ : MAGNETO TELEPHONE (HOUSING OUTDOOR TYPE TELEPHONE BOX)

REPUBLIC OF INDONESIA
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

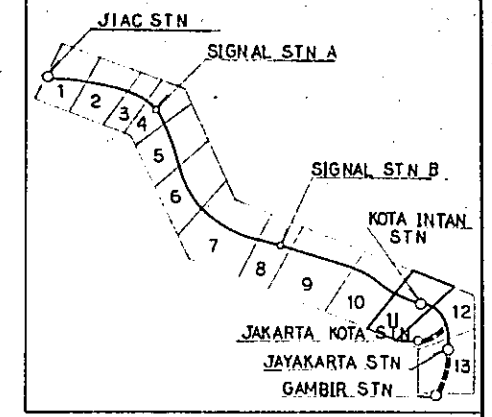
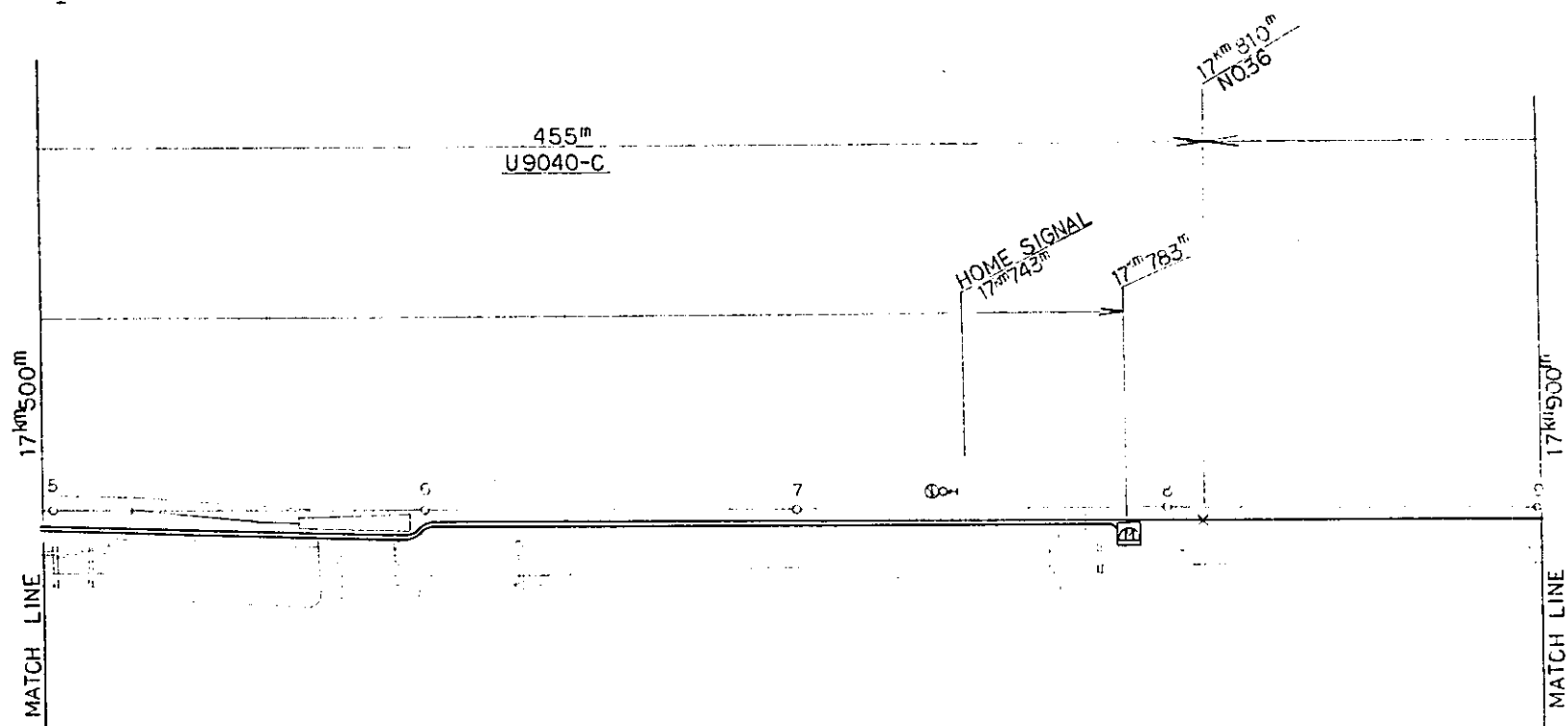
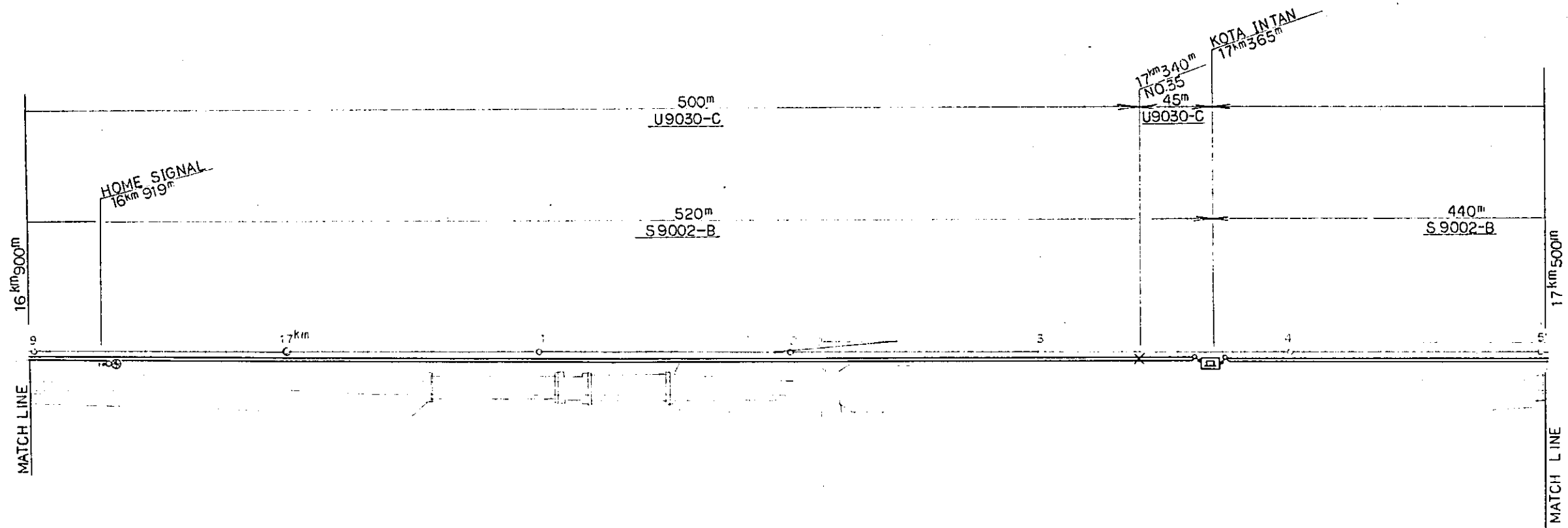
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

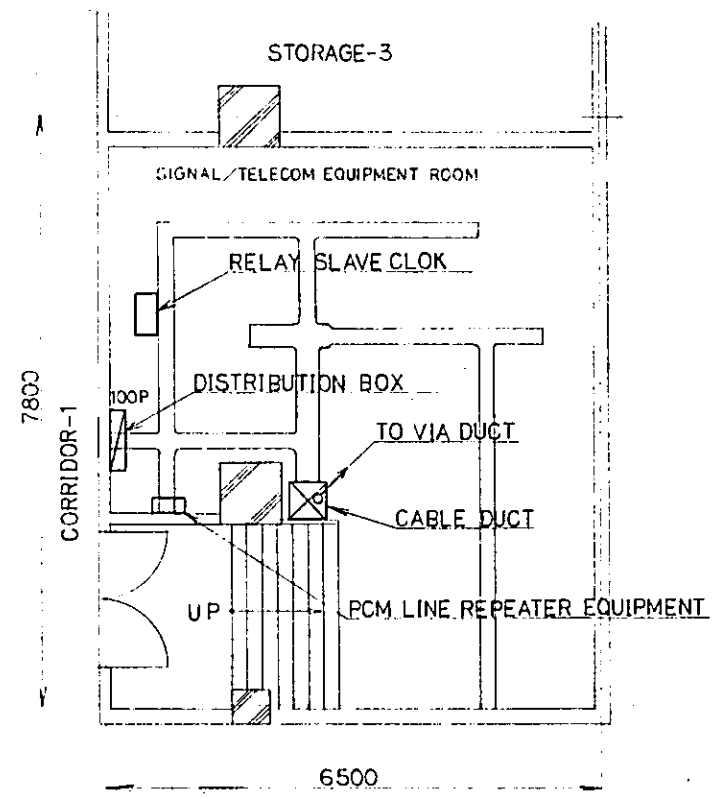
B	1 Aug 78	K. Sugi	T.S	R.H	U.M	K
A	15 Feb 78	K. Sugi	T.S	R.H	R.M	K
REVISIONS	DATE	DRAWN	CHECKED	REVIEWED	SUBMITTED	

TELECOM CABLE PLAN
(SHEET 10 OF 14)

PACKAGE: **ELECTRICAL WORK**
 SCALE: 1:2000 DRAWING NO: ET-012

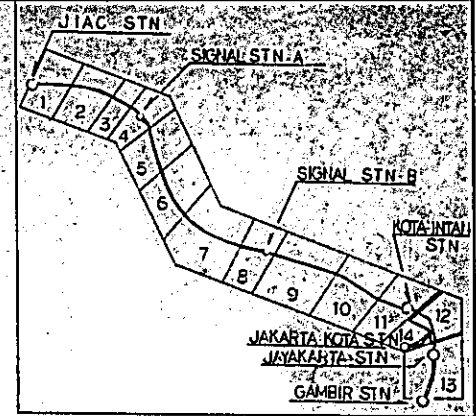
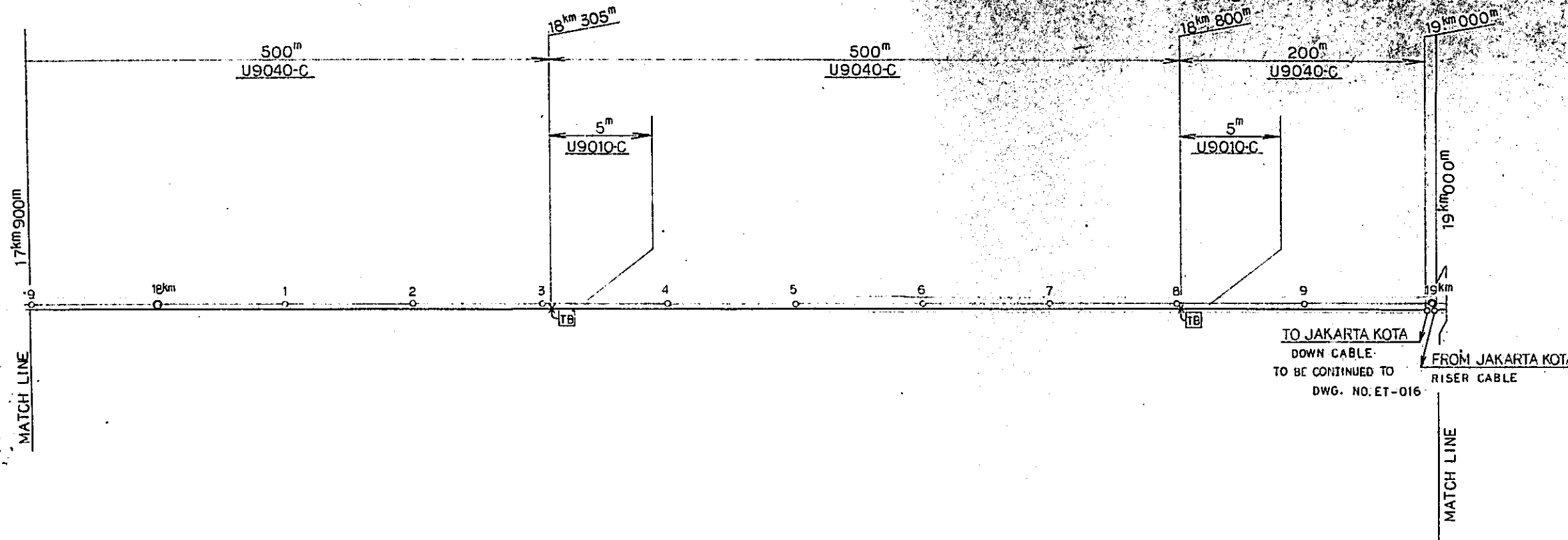


- LEGEND :
- : CABLE IN DUCT
 - _{10P} : DISTRIBUTION BOX INDOOR TYPE
10P: SHOW TERMINAL CAPACITY
 - ₁₀ : MAGNETO TELEPHONE (HOUSING OUTDOOR TYPE TELEPHONE BOX)
 - x— : CABLE JOINT

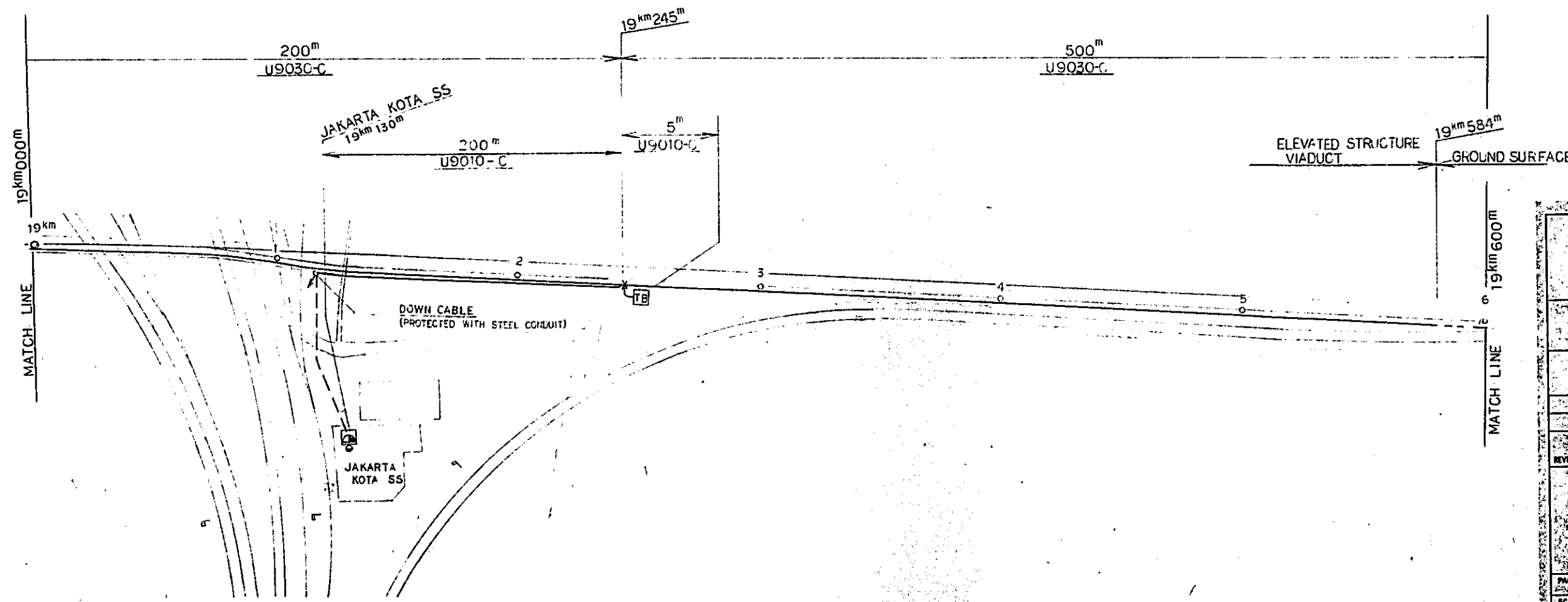


KOTA INTAN STN
SIGNAL/TELECOM EQUIPMENT ROOM PLAN
SCALE, 1:50

REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 Aug '88	Kishimoto	T.S	K.H	K.M	M.K
A	15 Aug '88	Kishimoto	T.S	K.H	K.M	M.K
REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED
TELECOM CABLE PLAN (SHEET 11 OF 14)						
PACKAGE: ELECTRICAL WORK						
SCALE: 1:1000		DRAWING NO: ET-013				



- LEGEND :
- : CABLE IN DUCT
 - - - : DIRECT BURIAL CABLE
 - · - · : CABLE IN TROUGH
 - TB : TERMINAL BOX
 - ⊥ : CABLE JOINT & CABLE BRANCH
 - ⊞ : DISPATCH TELEPHONE (HOUSING OUTDOOR TYPE) TELEPHONE BOX & CONCRETE POLE



REPUBLIC OF INDONESIA
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

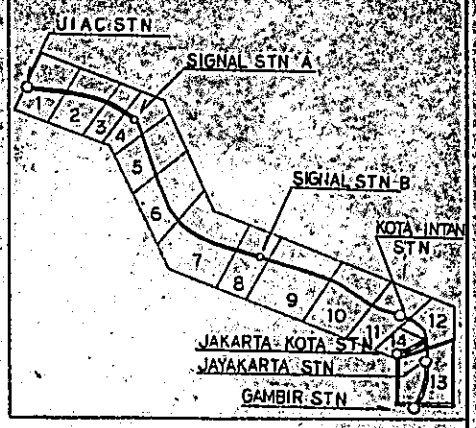
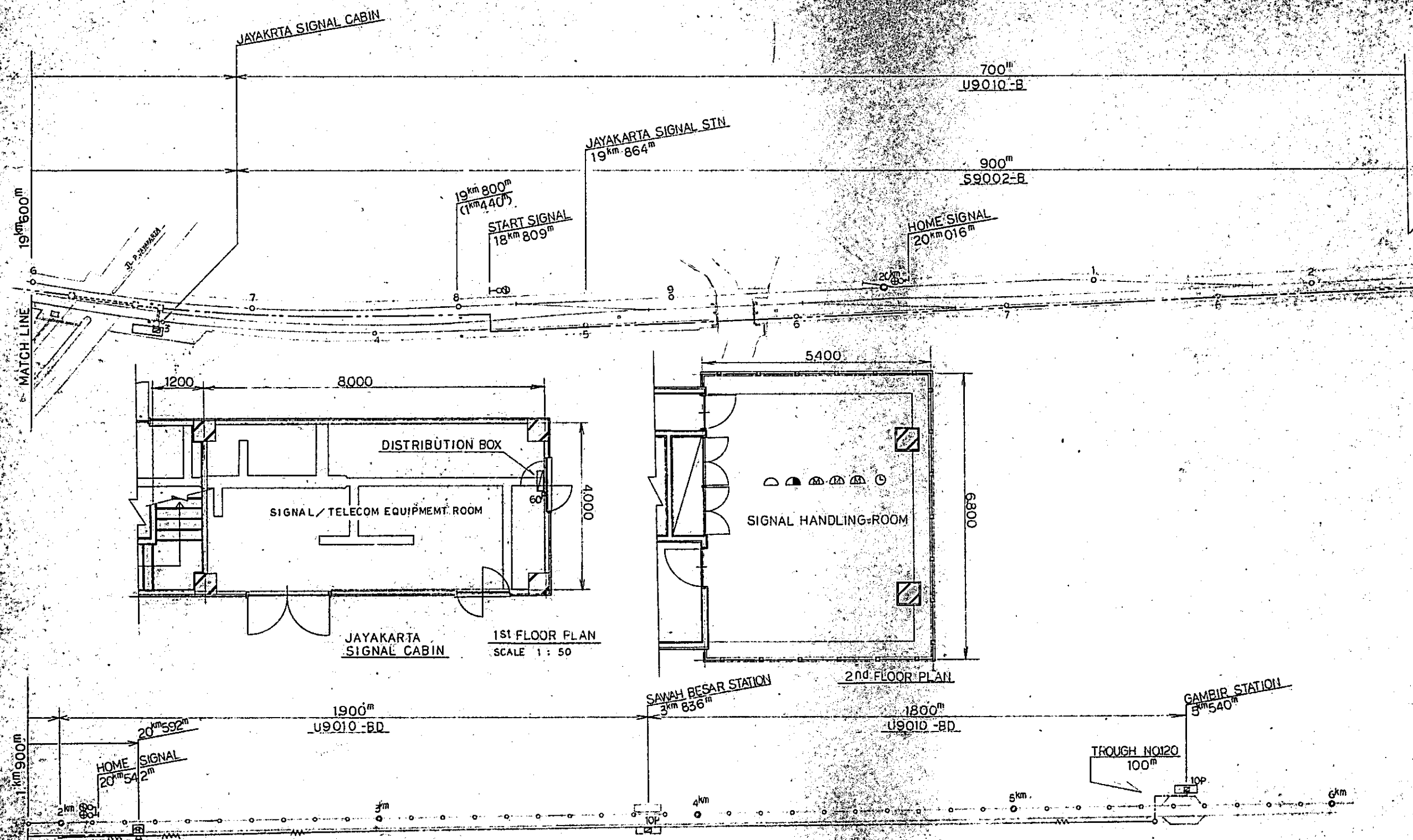
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1 Aug 88	KS	TS	KS	KS	KS	KS
A	10 Jul 88	KS	TS	KS	KS	KS	KS

TELECOM CABLE PLAN
(SHEET 12 of 14)

PACKAGE: ELECTRICAL WORK

SCALE: DRAWING NO.: ET-014



- LEGEND:**
- - - - - : CABLE IN TROUGH (TROUGH PROVIDED BY SIGNAL WORK)
 - ~~~~~ : OVERHEAD CABLE
 - 60P : DISTRIBUTION BOX (60 SHOW TERMINAL CAPACITY)
 - ⊠ : MAGNETO TELEPHONE HOUSING (OUTDOOR TYPE TELEPHONE BOX & CONCRETE POLE)
 - ⊠ : HANDHOLE STEEL PIPE (PROVIDED BY SIGNAL WORK)
 - ⊠ : AUTOMATIC TELEPHONE
 - ⊠ : DISPATCH TELEPHONE
 - ⊠ : MAGNETO TELEPHONE
 - ⊠ : SLAVE CLOCK

JAYAKARTA SIGNAL CABIN
1st FLOOR PLAN
SCALE 1 : 50

SIGNAL HANDLING ROOM
2nd FLOOR PLAN

REPUBLIC OF INDONESIA
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT
CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

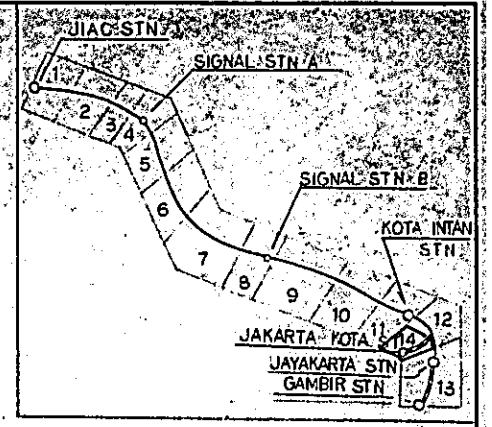
NO.	DATE	BY	CHKD
1			
2			
3			
4			
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7			
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12			
13			

TELECOM CABLE PLAN
(SHEET 13 OF 14)

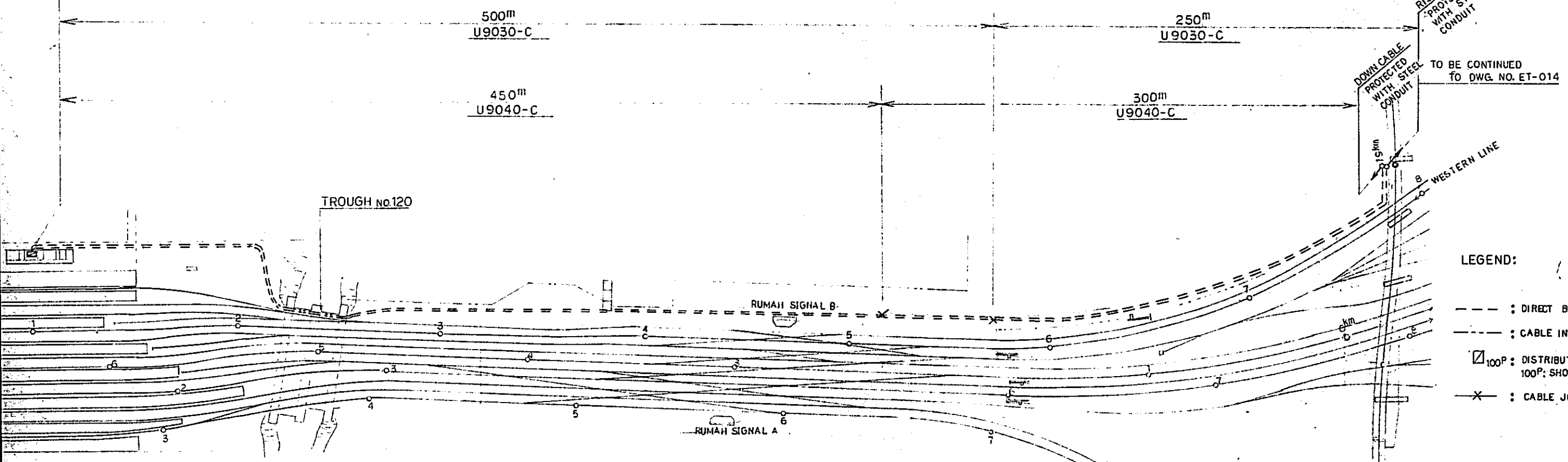
PROJECT : ELECTRICAL WORKS

SCALE : AS NOTED

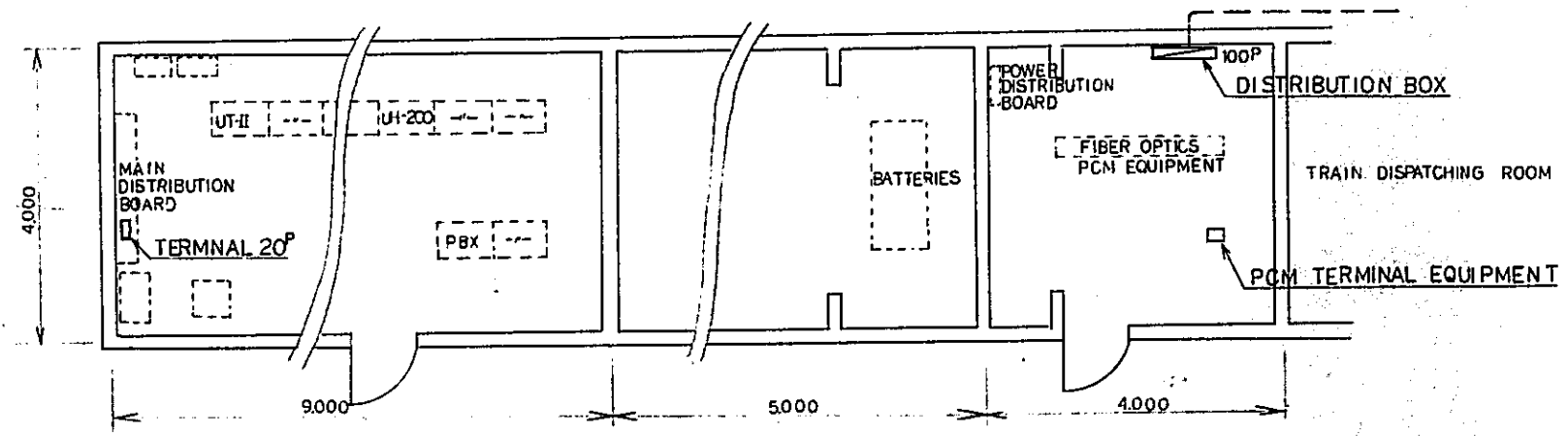
DRAWING NO. : ET-015



JAKARTA KOTA TELECOM ROOM



- LEGEND:
- - - : DIRECT BURIAL CABLE
 - . - . : CABLE IN TROUGH
 - 100P : DISTRIBUTION BOX
100P: SHOW TERMINAL CAPACITY
 - X : CABLE JOINT



TELECOM ROOM PLAN (JAKARTA KOTA)
SCALE 1 : 50

REPUBLIC OF INDONESIA
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

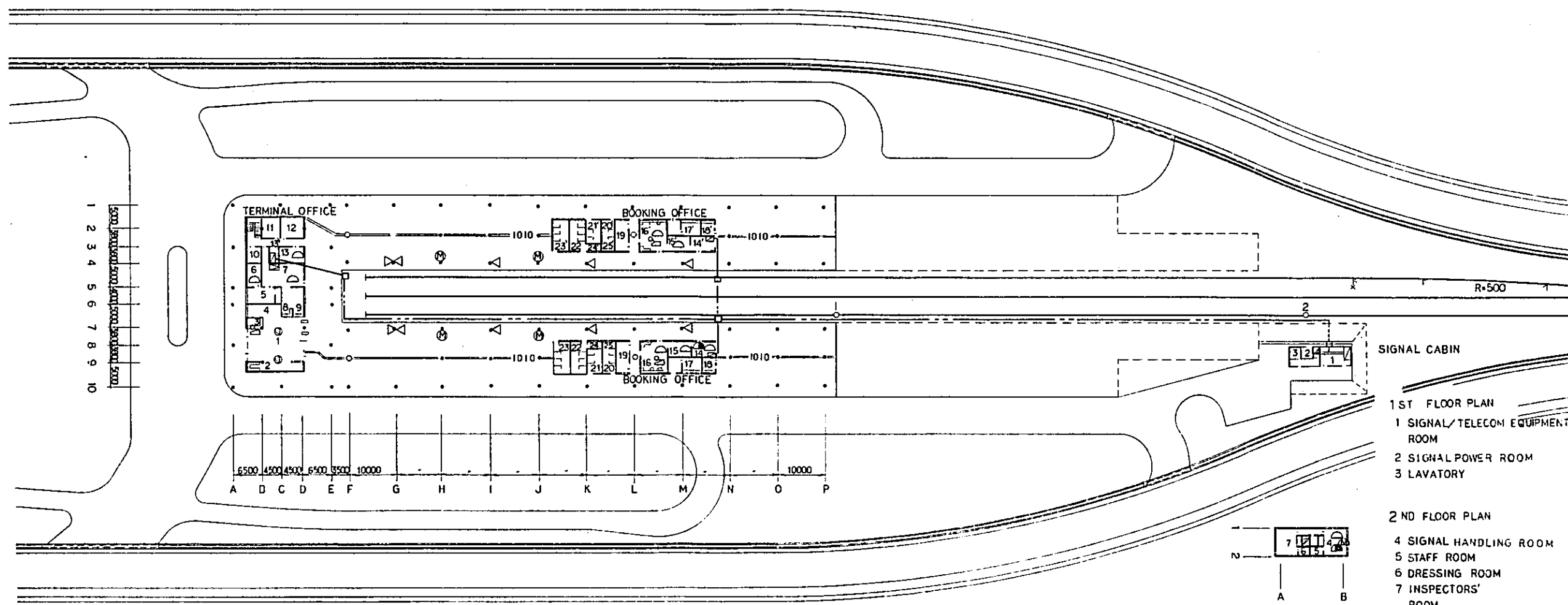
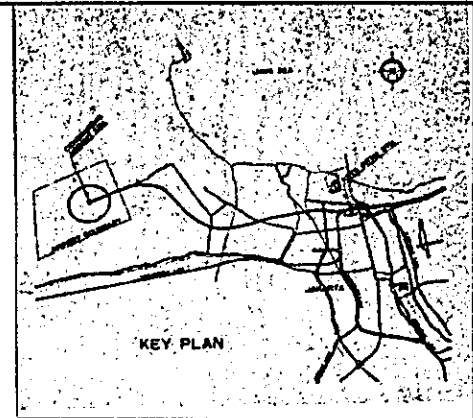
B	A
A	S
REVISOR	DATE				

TELECOM CABLE PLAN
(SHEET 14 OF 14)

PACKAGE: ELECTRICAL WORKS

SCALE: 1:1000

DRAWING NO: ET-016

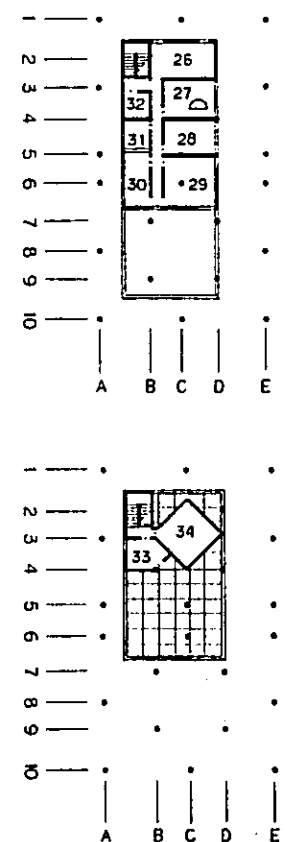


LEGEND :

- ⊙ : AUTOMATIC TELEPHONE
- ⊕ : DISPATCH TELEPHONE
- ⊖ : MAGNETO TELEPHONE
- ⊞ : MASTER PUBLIC ADDRESS EQUIPMENT
- ⊟ : OPERATING PANEL
- ⊠ : MICROPHONE BOX
- ⊡ : TRUMPET SPEAKER
- ⊢ : DYNAMIC SPEAKER
- ⊣ : DISTRIBUTION BOX
- : CABLE IN TROUGH
- : HANDHOLE
- : PIPING

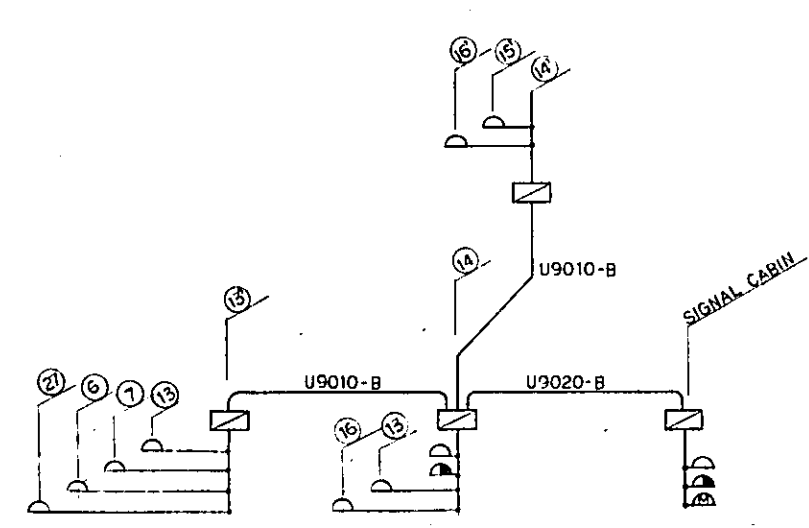
- SIGNAL CABIN
- 1ST FLOOR PLAN
- 1 SIGNAL/TELECOM EQUIPMENT ROOM
 - 2 SIGNAL POWER ROOM
 - 3 LAVATORY
- 2ND FLOOR PLAN
- 4 SIGNAL HANDLING ROOM
 - 5 STAFF ROOM
 - 6 DRESSING ROOM
 - 7 INSPECTORS' ROOM

- 1ST FLOOR PLAN
- 1 CONCOURSE
 - 2 LOCKER SPACE
 - 3 INFORMATION
 - 4 PASSENGER WAITING CAFETERIA
 - 5 VIP WAITING ROOM
 - 6 STATION MASTER OFFICE
 - 7 STATION OFFICE -1
 - 8 TICKET SALES -1
 - 9 TICKET CHECK
 - 10 STAFF LAVATORY
 - 11 MECHANICAL ROOM
 - 12 POWER ROOM
 - 13 MAINTENANCE AND JANITORS' ROOM
 - 13' TELECOM ROOM
 - 14 TRAIN CONTROL OFFICE
 - 15' 15 STATION OFFICE -2
 - 16' 16 TICKETS SALES -2
 - 17' 17 BUS TICKET SALES
 - 18' 18 SECURITY
 - 19' 19 PORTER
 - 20' 20 LAVATORY -1
 - 21' 21 LAVATORY -2
 - 22' 22 LAVATORY -3
 - 23' 23 LAVATORY -4
 - 24' 24 STORAGE -1
 - 25' 25 STORAGE -2

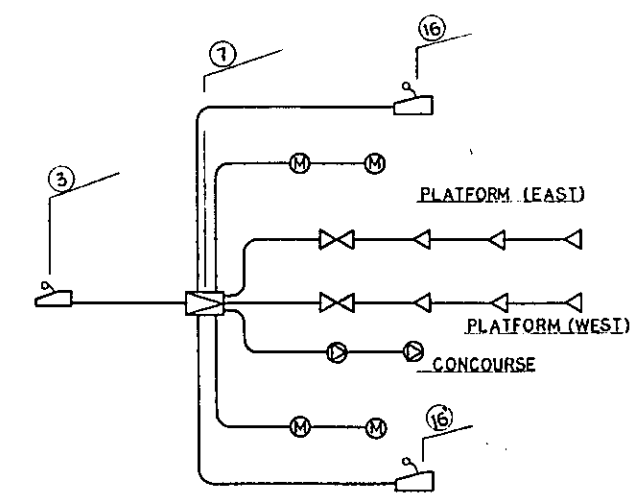


- 2ND FLOOR PLAN
- 26 MEETING ROOM
 - 27 POWER INSPECTION OFFICE
 - 28 SIGNAL TELECOM OFFICE
 - 29 STAFF ROOM
 - 30 DINING ROOM
 - 31 KITCHEN
 - 32 STAFF LAVATORY

- 3RD FLOOR PLAN
- 33 ABLUTION ROOM
 - 34 MUSHOLLA

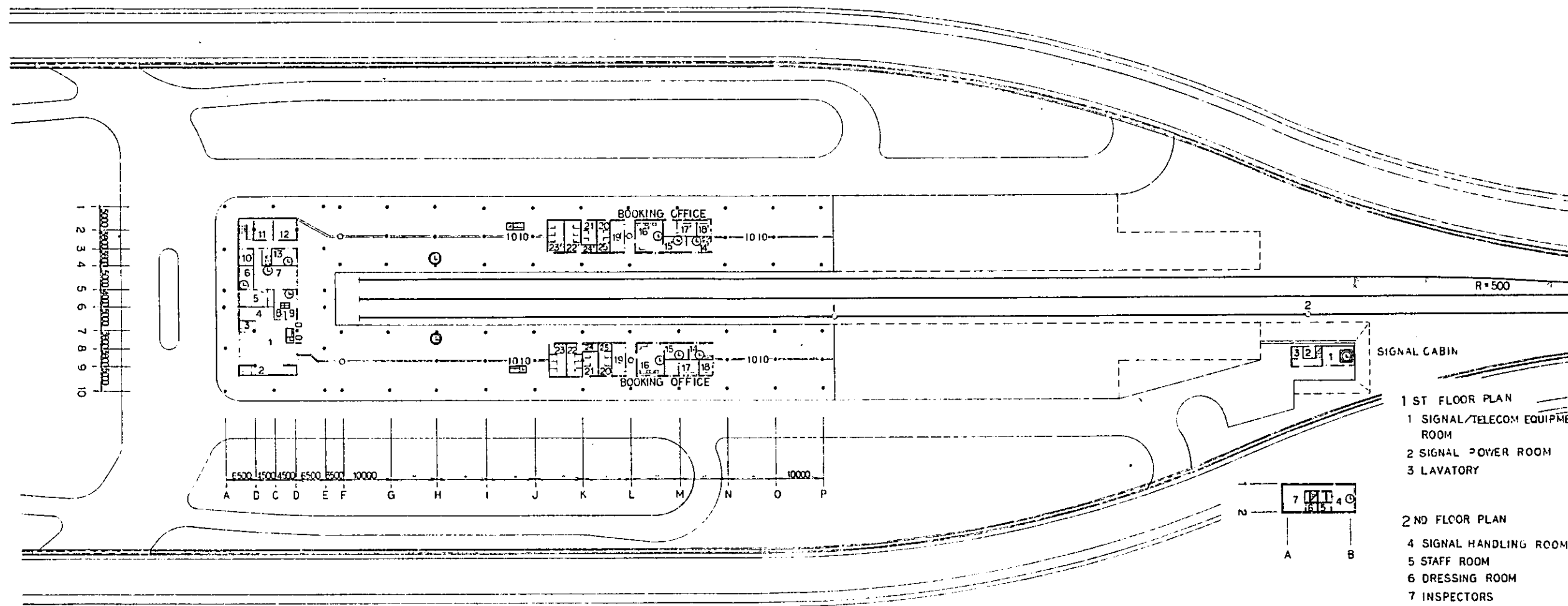
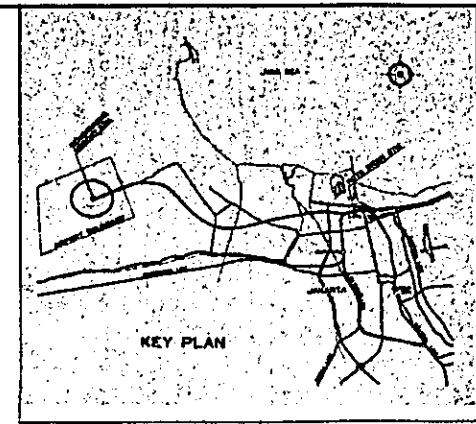


TELEPHONE EQUIPMENT WIRING DIAGRAM



PUBLIC ADDRESS EQUIPMENT WIRING DIAGRAM

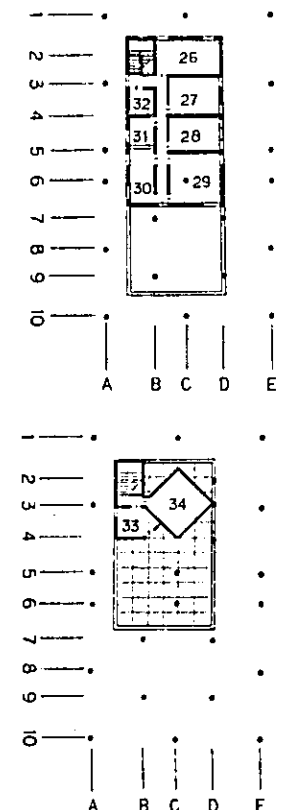
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS						
NEW RAILWAY LINE FOR CENKARENG AIRPORT CONSTRUCTION PROJECT						
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)						
B	1 Aug '88	K. S. S.	T. S.	M. K.	K. M.	M. K.
A	15 Feb '84	K. S. S.	T. S.	K. U.	K. M.	M. K.
REVISIONS	DATE	DESIGNED	CHECKED	APPROVED	REVIEWED	SUBMITTED
JIAC STATION PLAN FOR TELECOM (SHEET 1 OF 2)						
PACKAGE: ELECTRICAL WORK						
SCALE: 1:500		DRAWING NO: ET-017				



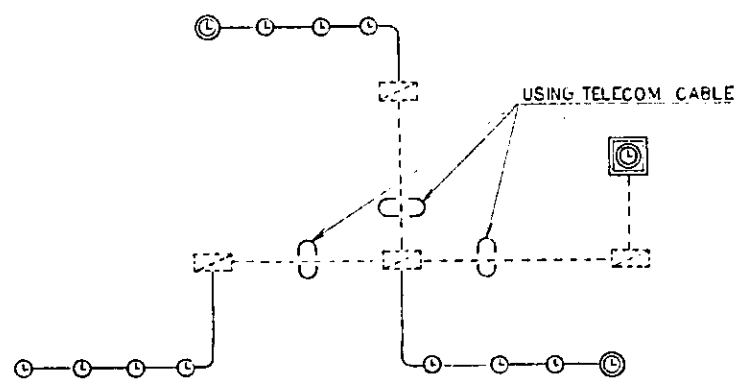
- LEGEND :**
- : MASTER CLOCK
 - : SLAVE CLOCK
 - : 300mm SIGNAL FACE TYPE
SLAVE CLOCK
600mm DOBULE FACE TYPE
 - : DISTRIBUTION BOX
 - : RELAY SLAVE CLOCK
 - : INDICATION PANEL
 - : OPERATION PANEL

- 1 ST FLOOR PLAN**
- 1 SIGNAL/TELECOM EQUIPMENT ROOM
 - 2 SIGNAL POWER ROOM
 - 3 LAVATORY
- 2 ND FLOOR PLAN**
- 4 SIGNAL HANDLING ROOM
 - 5 STAFF ROOM
 - 6 DRESSING ROOM
 - 7 INSPECTORS ROOM

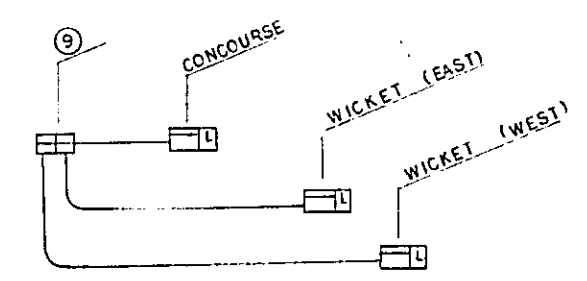
- 1 ST FLOOR PLAN**
- 1 CONCOURSE
 - 2 LOCKER SPACE
 - 3 INFORMATION
 - 4 PASSENGER WAITING CAFETERIA
 - 5 VIP WAITING ROOM
 - 6 STATION MASTER OFFICE
 - 7 STATION OFFICE -1
 - 8 TICKET SALES -1
 - 9 TICKET CHECK
 - 10 STAFF LAVATORY
 - 11 MECHANICAL ROOM
 - 12 POWER ROOM
 - 13 MAINTENANCE AND JANITORS' ROOM
 - 14 TRAIN CONTROL OFFICE
 - 15 STATION OFFICE -2
 - 16 TICKETS SALES -2
 - 17 17 BUS TICKET SALES
 - 18 18 SECURITY
 - 19 19 PORTER
 - 20 20 LAVATORY -1
 - 21 21 LAVATORY -2
 - 22 22 LAVATORY -3
 - 23 23 LAVATORY -4
 - 24 24 STORAGE -1
 - 25 25 STORAGE -2



- 2 ND FLOOR PLAN**
- 26 MEETING ROOM
 - 27 POWER INSPECTION OFFICE
 - 28 SIGNAL TELECOM OFFICE
 - 29 STAFF ROOM
 - 30 DINING ROOM
 - 31 KITCHEN
 - 32 STAFF LAVATORY
- 3 RD FLOOR PLAN**
- 33 ABLUTION ROOM
 - 34 MUSHOLLA

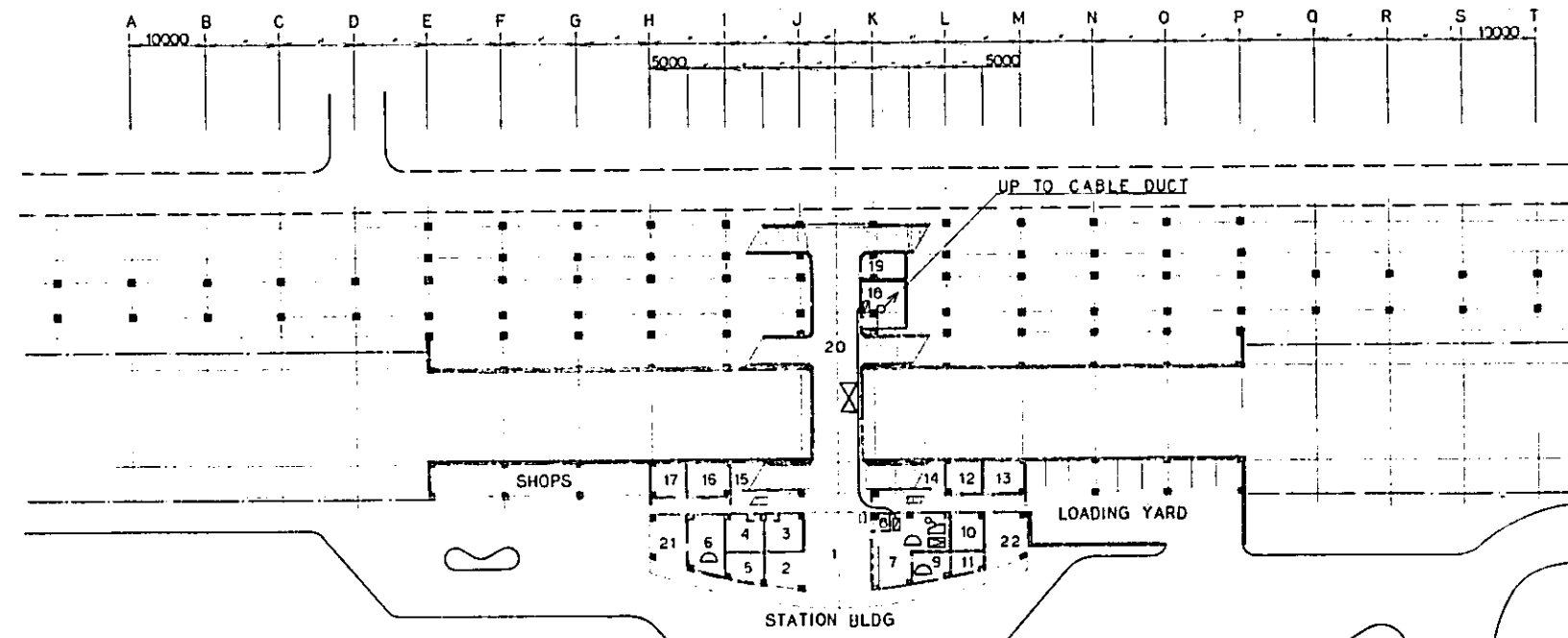
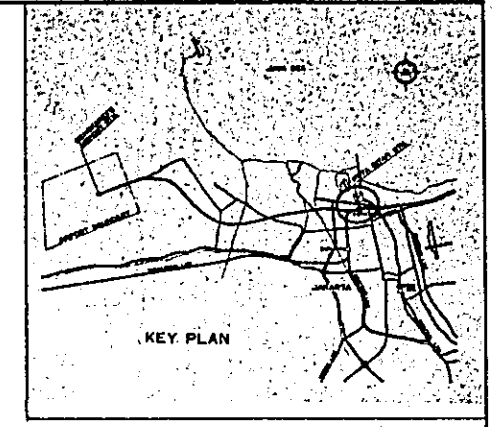


ELECTRIC CLOCK EQUIPMENT WIRING DIAGRAM

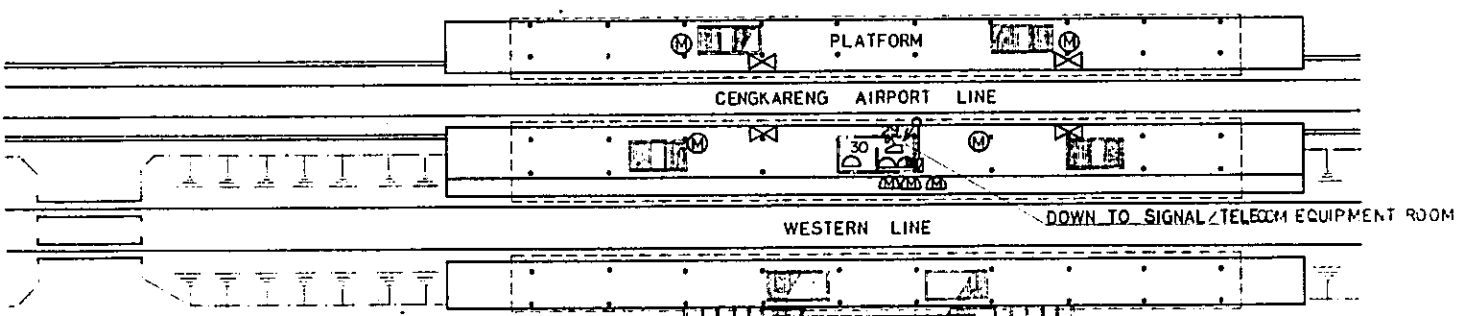


TRAIN BOARDING INFORMATION EQUIPMENT WIRING DIAGRAM

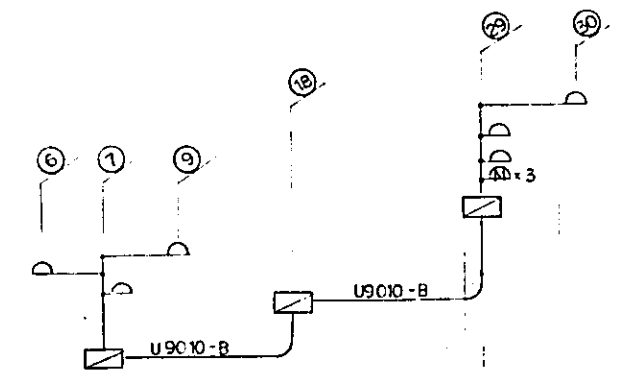
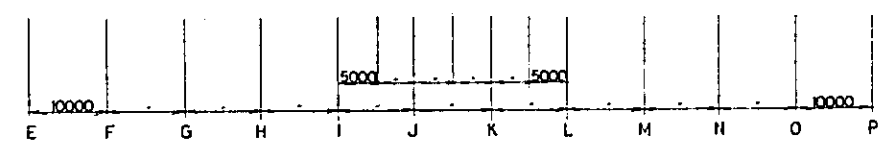
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
B	1 Aug '88	Reviewed	T.S	K.M	K.M
A	15 Feb '88	Checked	T.S	K.M	K.M
REVISIONS	DATE	DESCRIBED	DRAWN	CHECKED	REVIEWED
JIAC STATION PLAN FOR TELECOM (SHEET 2 OF 2)					
PACKAGE: ELECTRICAL WORK					
SCALE: 1:500			DRAWING NO: ET-018		



- 1 CONCOURSE
- 2 PASSENGERS WAITING AND CAFETERIA
- 3 PASSENGERS' LAVATORY (W)
- 4 PASSENGERS' LAVATORY (M)
- 5 PORTER
- 6 MAINTENANCE AND JANITORS' ROOM
- 7 STATION OFFICE
- 8 TICKET CHECK
- 9 STATION MASTER ROOM
- 10 MEETING ROOM
- 11 SECURITY
- 12 STAFF LAVATORY
- 13 STAFF LOCKER ROOM
- 14 STORAGE -1
- 15 STORAGE -2
- 16 POWER ROOM
- 17 MECHANICAL ROOM
- 18 SIGNAL/TELECOM EQUIPMENT ROOM
- 19 STORAGE -3
- 20 CORRIDOR -1
- 21 COVERED SERVICE AREA -1
- 22 COVERED SERVICE AREA -2

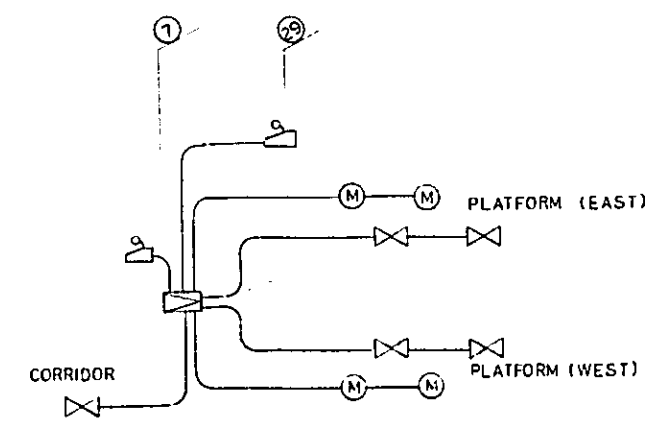


- 23 DINING ROOM
- 24 KITCHEN
- 25 ABLUTION ROOM
- 26 MUSHOLLA
- 27 STAFF ROOM
- 28 LAVATORY
- 29 TRAIN CONTROL OFFICE
- 30 SIGNAL HANDLING ROOM



TELEPHONE EQUIPMENT WIRING DIAGRAM

- LEGEND :
- ⊗ : AUTOMATIC TELEPHONE
 - ⊙ : DISPATCH TELEPHONE
 - ⊕ : MAGNETO TELEPHONE
 - ⊞ : MASTER PUBLIC ADDRESS EQUIPMENT
 - ⊟ : OPERATING PANEL
 - ⊠ : MICROPHONE BOX
 - ⊡ : TRUMPET SPEAKER
 - ⊢ : DISTRIBUTION BOX
 - : PIPING



PUBLIC ADDRESS EQUIPMENT WIRING DIAGRAM

REPUBLIC OF INDONESIA
 MINISTRY OF COMMUNICATIONS
 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

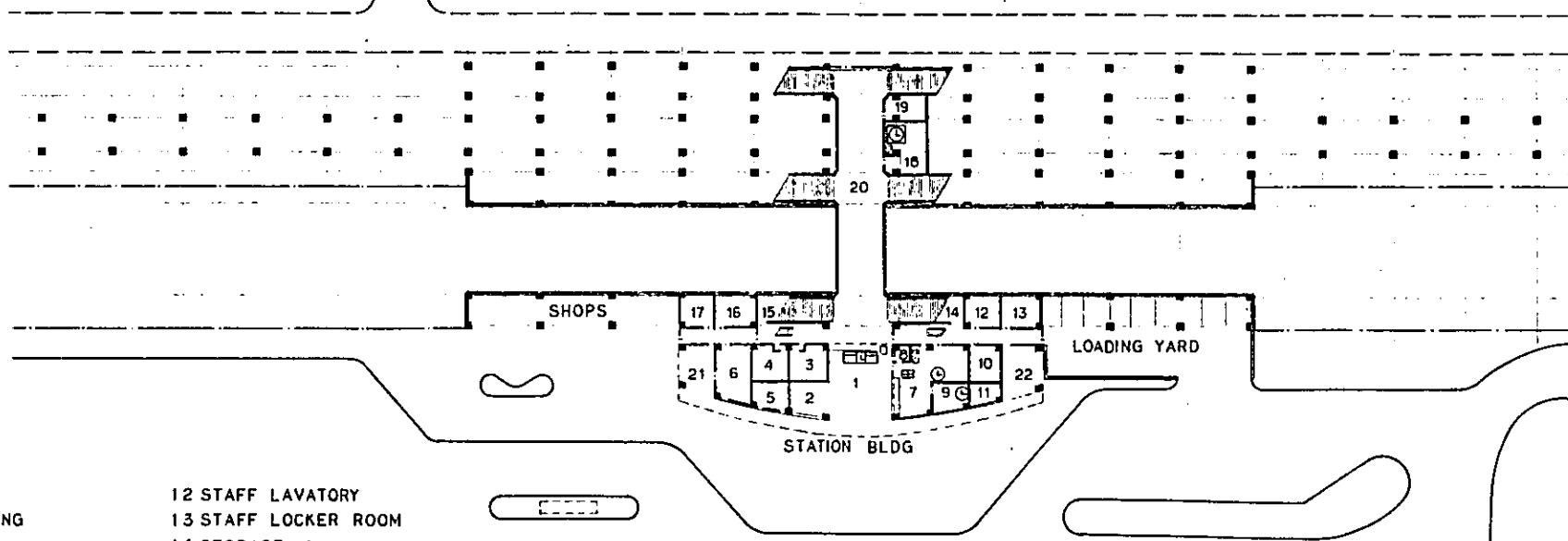
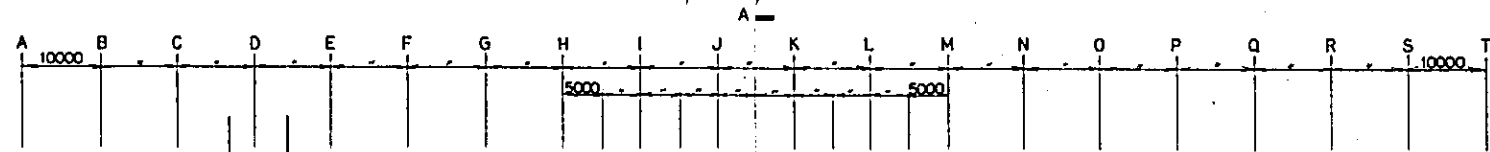
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

B	1.1.1978	REVISION	T.S	KU	K.M	A.K
A	15.11.1977	REVISION	T.S	KU	K.M	A.K
REVISIONS	DATE	REASON	DESIGNED	DRAWN	CHECKED	REVIEWED

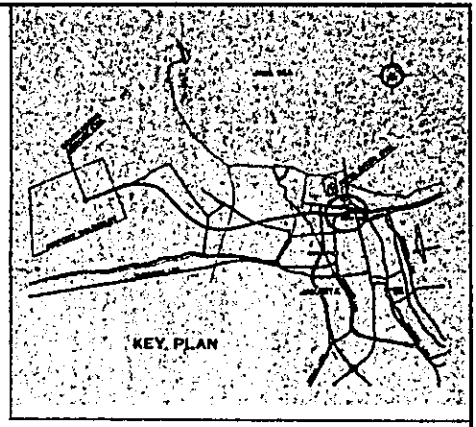
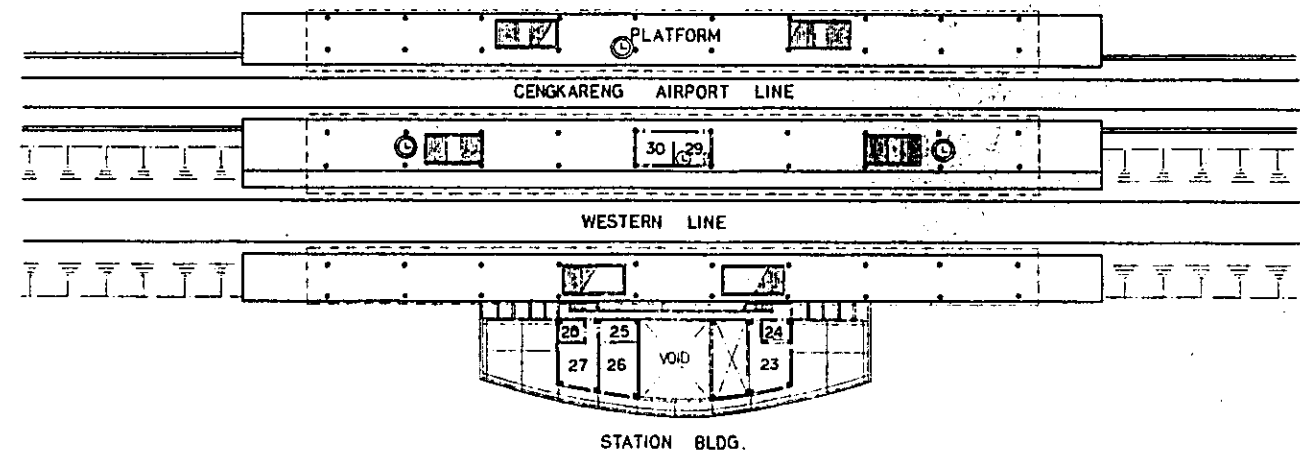
KOTA-INTAN STATION PLAN FOR TELECOM (SHEET 1 OF 2)

PACKAGE: ELECTRICAL WORK

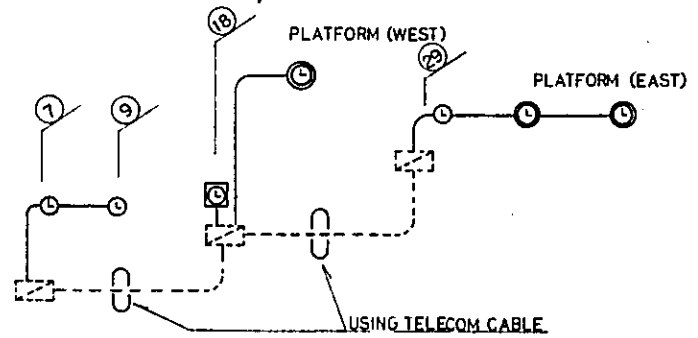
SCALE: 1:500 DRAWING NO: ET-019



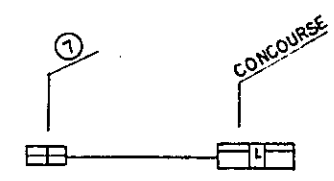
- 1 CONCOURSE
- 2 PASSENGERS' WAITING AND CAFETERIA
- 3 PASSENGERS' LAVATORY (W)
- 4 PASSENGERS' LAVATORY (M)
- 5 PORTER
- 6 MAINTENANCE AND JANITORS' ROOM
- 7 STATION OFFICE
- 8 TICKET CHECK
- 9 STATION MASTER ROOM
- 10 MEETING ROOM
- 11 SECURITY
- 12 STAFF LAVATORY
- 13 STAFF LOCKER ROOM
- 14 STORAGE -1
- 15 STORAGE -2
- 16 POWER ROOM
- 17 MECHANICAL ROOM
- 18 SIGNAL TELECOM EQUIPMENT ROOM
- 19 STORAGE -3
- 20 CORRIDOR -1
- 21 COVERED SERVICE AREA -1
- 22 COVERED SERVICE AREA -2



- LEGEND :
- | SYMBOL | DESCRIPTION |
|--------|--------------------------------------|
| ⊙ | : SLAVE CLOCK |
| ⊕ | : 300mm SINGLE FACE TYPE |
| ⊗ | : SLAVE CLOCK 600mm DOBULE FACE TYPE |
| ⊞ | : DISTRIBUTION BOX |
| ⊚ | : RELAY SLAVE CLOCK |
| ⊠ | : INDICATION PANEL |
| ⊡ | : OPERATION PANEL |



ELECTRIC CLOCK EQUIPMENT WIRING DIAGRAM



TRAIN BOARDING INFORMATION EQUIPMENT WIRING DIAGRAM

REPUBLIC OF INDONESIA
 MINISTRY OF COMMUNICATIONS
 DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

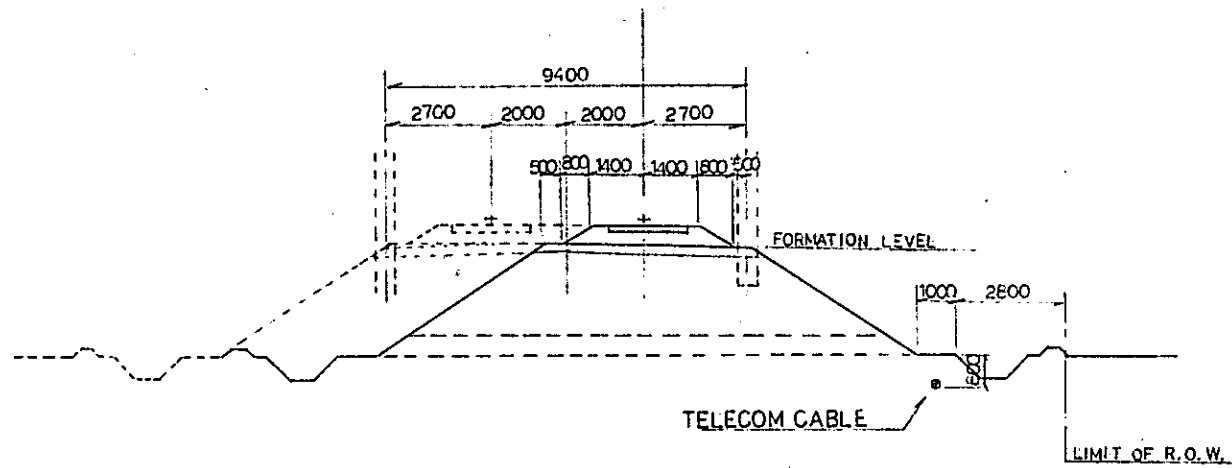
B	1 Aug '88	K.M.K	T.S	K.M	K.M	K.M
A	15 Feb '88	K.M.K	T.S	K.M	K.M	K.M

REVISIONS	DATE	DESIGNED	DRAWN	CHECKED	REVIEWED	SUBMITTED

KOTA-INTAN STATION PLAN FOR TELECOM (SHEET 2 OF 2)

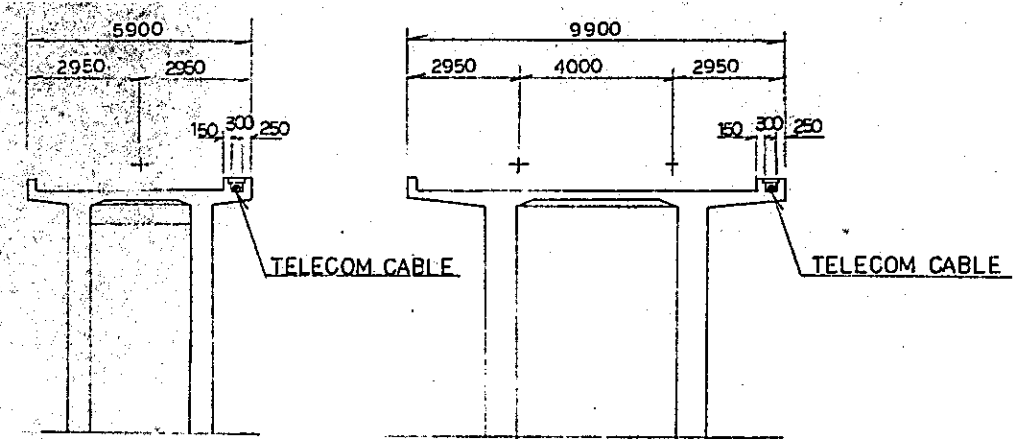
PACKAGE: ELECTRICAL WORK

SCALE: 1:500 DRAWING NO.: ET-020



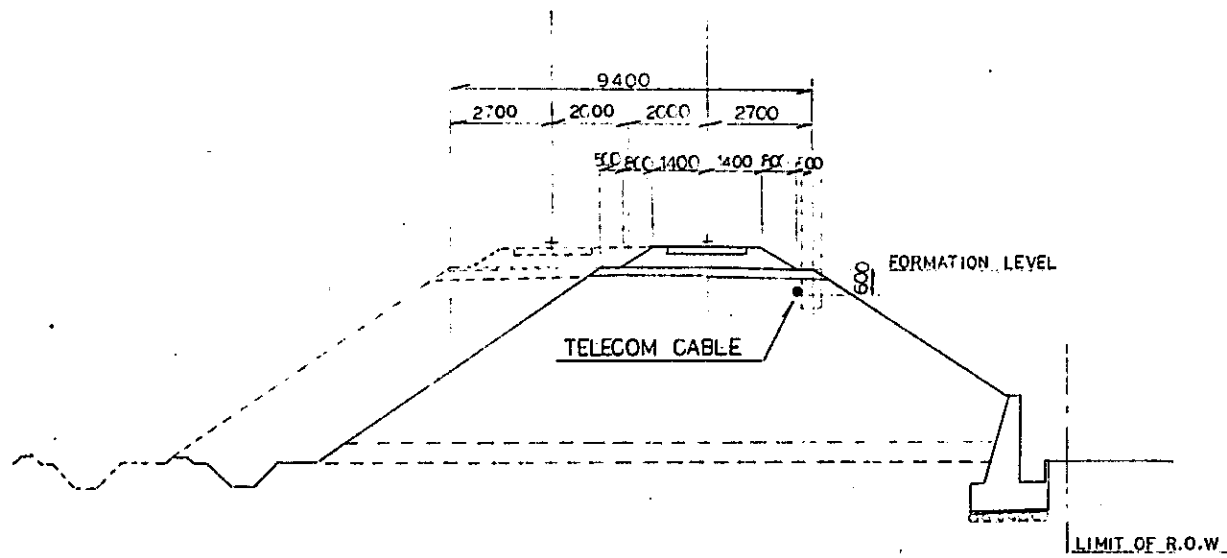
EMBANKED SECTION GENERAL AREA

SCALE 1 : 100



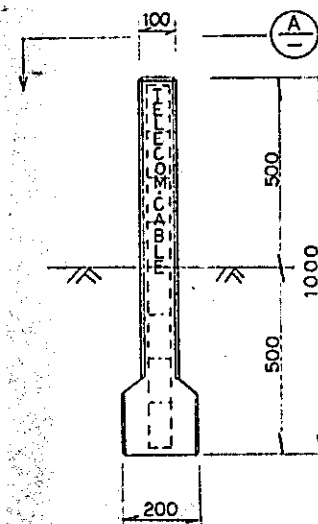
ELEVATED SECTION

SCALE 1 : 100



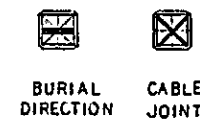
EMBANKED SECTION URBAN AREA

SCALE 1 : 100

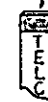


CABLE LOCATION POST

INDICATION METHOD OF HEAD

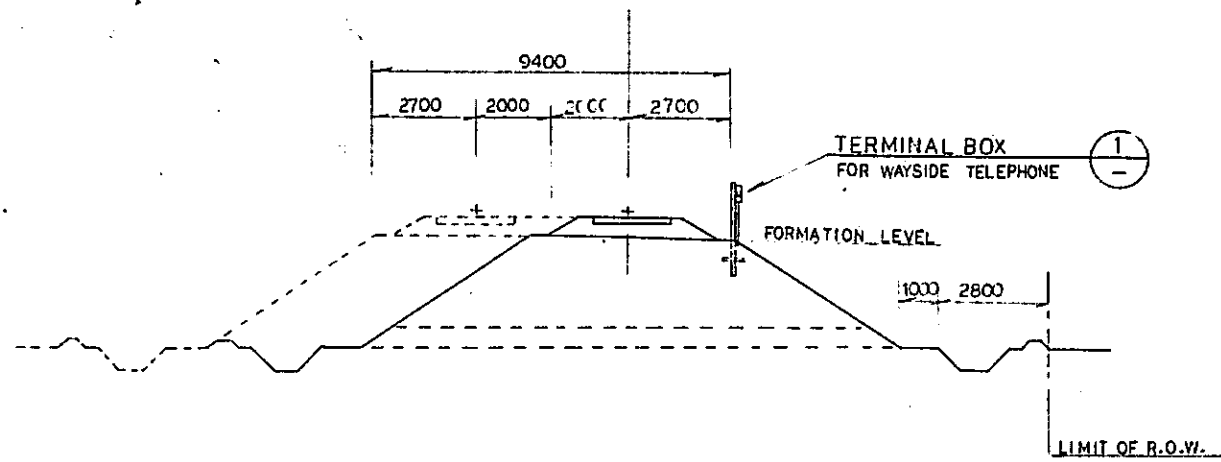


YELLOW COLOR MARK

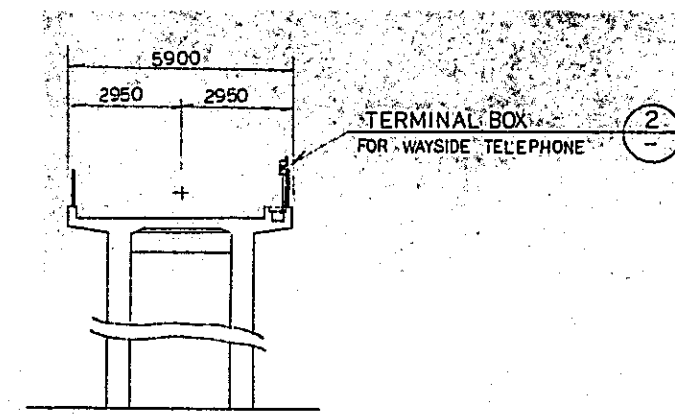


SECTION A-A

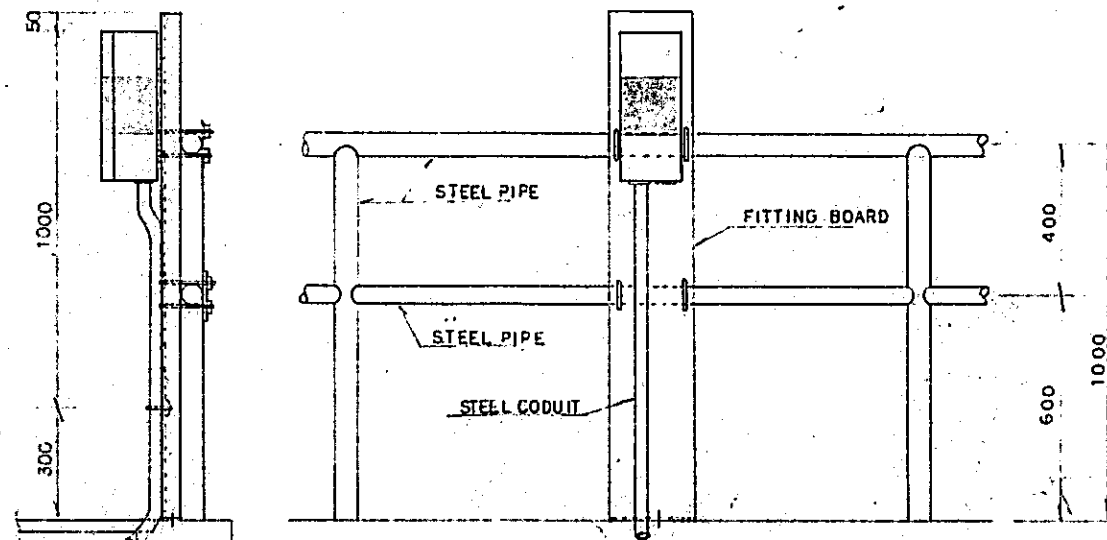
REPUBLIC OF INDONESIA MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS					
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT					
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)					
NO.	DATE	BY	CHECKED	DATE	BY
B	1.1.77	K. S.	T. S.	2.2.77	K. S.
A	1.1.77	K. S.	T. S.	2.2.77	K. S.
STANDARD INSTALLATION OF TELECOM CABLE					
PACKAGE: ELECTRICAL WORK					
SCALE: AS NOTED DRAWING NO.: ET-021					



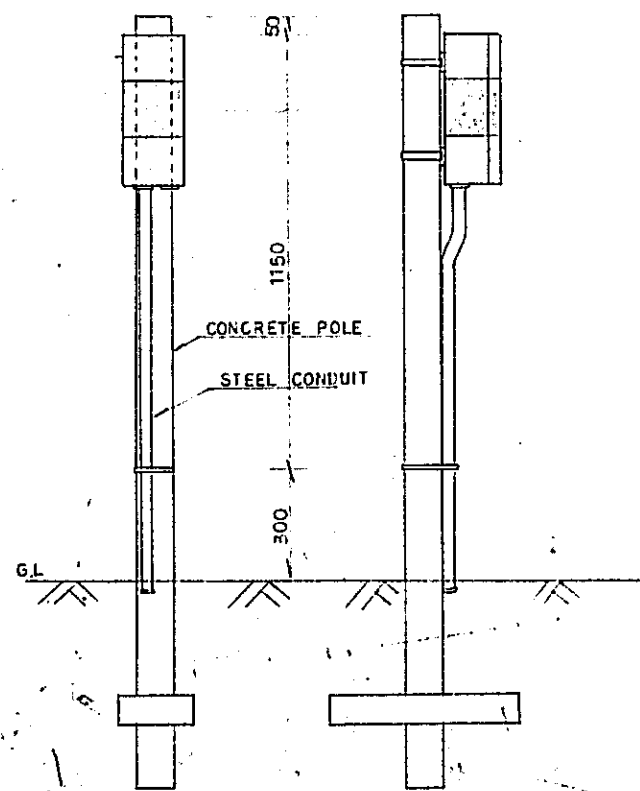
EMBANKED SECTION
SCALE 1:10



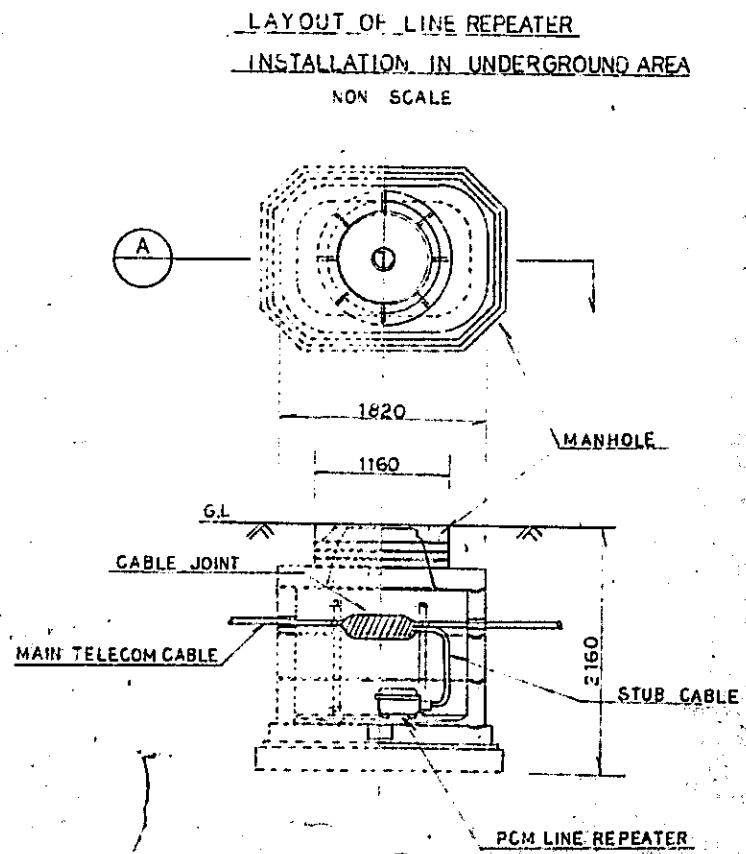
ELEVATED SECTION
SCALE 1:10



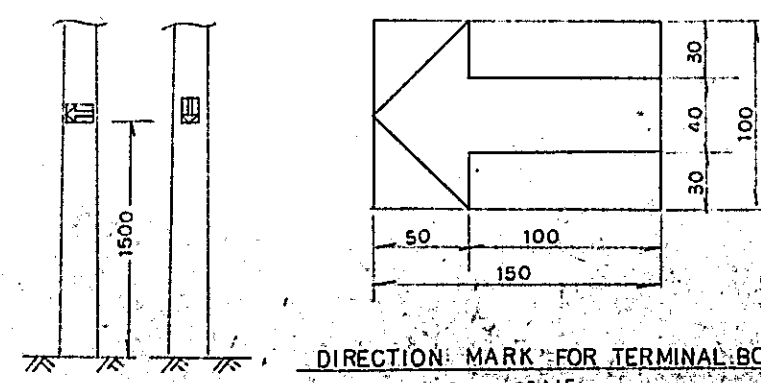
DETAIL 2 SCALE 1:10



DETAIL 1 SCALE 1:10



SECTION A



DIRECTION MARK FOR TERMINAL BOX
NON SCALE

REPUBLIC OF INDONESIA	
MINISTRY OF COMMUNICATIONS	
DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS	
NEW RAILWAY LINE FOR CENGKARENG AIRPORT CONSTRUCTION PROJECT	
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	
IB	TA
KA	LA
MA	NA
OB	OA
REVISIONS	DATE
STANDARD ASSEMBLIES OF TERMINAL BOX	
PACKAGE: ELECTRICAL WORK	
SCALE	DRAWING NO.
AS NOTED	ET-022

