

DRAWINGS

1st STAGE

DRAWING LIST


DWG.NO.	TITLE
1-G-00-01	LOCATION MAP FOR OBJECTIVE SUM CENTERS
1-G-00-02	EQUIPMENT SPARE PARTS AND TOOLS SUPPLY LIST
1-G-01-01	GENERAL ARRANGEMENT OF POWER PLANT AT BAYANDALA (UMUNOGOV)
1-G-02-01	GENERAL ARRANGEMENT OF POWER PLANT AT BAYAN OVOO (UMUNOGOV)
1-G-03-01	GENERAL ARRANGEMENT OF POWER PLANT AT BULGAN (UMUNOGOV)
1-G-04-01	GENERAL ARRANGEMENT OF POWER PLANT AT NOMCON (UMUNOGOV)
1-G-05-01	GENERAL ARRANGEMENT OF POWER PLANT AT KHANBOG (UMUNOGOV)
1-G-06-01	GENERAL ARRANGEMENT OF POWER PLANT AT TSQOT OVOO (UMUNOGOV)
1-G-07-01	GENERAL ARRANGEMENT OF POWER PLANT AT KHURMAN (UMUNOGOV)
1-G-08-01	GENERAL ARRANGEMENT OF POWER PLANT AT TSQOT TSETSHI (UMUNOGOV)
1-G-09-01	GENERAL ARRANGEMENT OF POWER PLANT AT TAYSHIR (GOV-ALTAI)
1-G-10-01	GENERAL ARRANGEMENT OF POWER PLANT AT BUGAT (GOV-ALTAI)
1-G-11-01	GENERAL ARRANGEMENT OF POWER PLANT AT TUGRUG (GOV-ALTAI)
1-G-12-01	GENERAL ARRANGEMENT OF POWER PLANT AT SHARGA (GOV-ALTAI)
1-G-13-01	GENERAL ARRANGEMENT OF POWER PLANT AT KHALUM (GOV-ALTAI)
1-G-14-01	GENERAL ARRANGEMENT OF POWER PLANT AT BAYAN-JUL (GOV-ALTAI)
1-G-15-01	GENERAL ARRANGEMENT OF POWER PLANT AT QULUN (GOV-ALTAI)
1-G-16-01	GENERAL ARRANGEMENT OF POWER PLANT AT JAGALAN (GOV-ALTAI)
1-G-17-01	GENERAL ARRANGEMENT OF POWER PLANT AT DELGER (GOV-ALTAI)
1-G-18-01	GENERAL ARRANGEMENT OF POWER PLANT AT BAYANTOORQI (GOV-ALTAI)
1-G-19-01	GENERAL ARRANGEMENT OF POWER PLANT AT QURVANBUJAG (BAYANKHONGOR)
1-G-20-01	GENERAL ARRANGEMENT OF POWER PLANT AT ZAG (BAYANKHONGOR)
1-G-21-01	GENERAL ARRANGEMENT OF POWER PLANT AT DALSELEKH (DORNOD)
1-G-22-01	GENERAL ARRANGEMENT OF POWER PLANT AT ULANBADRAKH (DORNOD)
1-G-23-01	GENERAL ARRANGEMENT OF POWER PLANT AT SUKHAABAAR (SUKHAABAAR)
1-G-24-01	GENERAL ARRANGEMENT OF POWER PLANT AT TUVSHINSHREE (SUKHAABAAR)
1-G-25-01	GENERAL ARRANGEMENT OF POWER PLANT AT UULEYAN (SUKHAABAAR)
1-G-26-01	GENERAL ARRANGEMENT OF POWER PLANT AT MUNKHRAAM (SUKHAABAAR)
1-G-27-01	GENERAL ARRANGEMENT OF POWER PLANT AT ASQOT (SUKHAABAAR)
1-G-28-01	GENERAL ARRANGEMENT OF POWER PLANT AT MATAD (DORNOD)
1-G-29-01	GENERAL ARRANGEMENT OF POWER PLANT AT CHULUNKHOROOT (DORNOD)
1-G-30-01	GENERAL ARRANGEMENT OF POWER PLANT AT BAYAN-JUL (DORNOD)
1-G-31-01	GENERAL ARRANGEMENT OF POWER PLANT AT SERGELIN (DORNOD)
1-G-32-01	GENERAL ARRANGEMENT OF POWER PLANT AT SUMBER (DORNOD)
1-G-33-01	GENERAL ARRANGEMENT OF POWER PLANT AT DORNOD (DORNOD)
1-G-34-01	GENERAL ARRANGEMENT OF POWER PLANT AT DASHBALBAR (DORNOD)
1-G-35-01	GENERAL ARRANGEMENT OF POWER PLANT AT ADAATSAG (DUNDGOV)
1-G-36-01	GENERAL ARRANGEMENT OF POWER PLANT AT DELGERHANGAI (DUNDGOV)
1-G-37-01	GENERAL ARRANGEMENT OF POWER PLANT AT TUMURBUJAG (KHUVSUL)
1-G-38-01	GENERAL ARRANGEMENT OF POWER PLANT AT BURENTOGTOKH (KHUVSUL)
1-G-39-01	GENERAL ARRANGEMENT OF POWER PLANT AT TSESERLEG (KHUVSUL)
1-G-40-01	GENERAL ARRANGEMENT OF POWER PLANT AT TSAAGAN-JUL (KHUVSUL)
1-G-41-01	GENERAL ARRANGEMENT OF POWER PLANT AT TUNEL (KHUVSUL)
1-G-42-01	GENERAL ARRANGEMENT OF POWER PLANT AT TOSONTSENDEL (KHUVSUL)
1-G-43-01	GENERAL ARRANGEMENT OF POWER PLANT AT ALAG-ERDENE (KHUVSUL)
1-G-44-01	GENERAL ARRANGEMENT OF POWER PLANT AT TUGRUG (UURKHANGAI)

DWG.NO.	TITLE
1-E-00-01	ELECTRICAL SYMBOLS AND ABBREVIATIONS
1-E-00-02	TYPICAL SINGLE LINE DIAGRAM FOR POWER STATION (DG 60KW X 2)
1-E-00-03	TYPICAL SINGLE LINE DIAGRAM FOR POWER STATION (DG 100KW X 2)
1-E-00-04	TYPICAL SINGLE LINE DIAGRAM FOR POWER STATION (DG 100KW X 3)
1-E-00-05	OUTLINE OF LOW VOLTAGE PANEL
1-E-00-06	TYPICAL DIAGRAM FOR BATTERY CHARGER
1-E-00-07	OUTLINE OF BATTERY CHARGER FOR SUM CENTER
1-E-00-08	TYPICAL CABLE TERMINATION OF EXIST. OVERH. LINES
1-M-00-01	TYPICAL EQUIPMENT ARRANGEMENT IN POWER HOUSE (ELEVATION)
1-M-00-02	OUTLINE OF STOVE
1-M-00-03	OUTLINE OF WASTE OIL INCINERATOR
1-C-00-01	SCOPE OF WORK FOR DG 60KW AND DG100KW FOUNDATIONS
1-C-00-02	STANDARD DETAILS FOUNDATION FOR DG 60KW AND DG 100KW
1-V-00-01	OUTLINE OF MAINTENANCE VEHICLE
1-S-00-01	SPARE PARTS FOR EQUIPMENT
1-T-00-01	TOOLS FOR MOBILE TEAM
1-T-00-02	TOOLS FOR MOBILE TEAM AND SUM CENTER

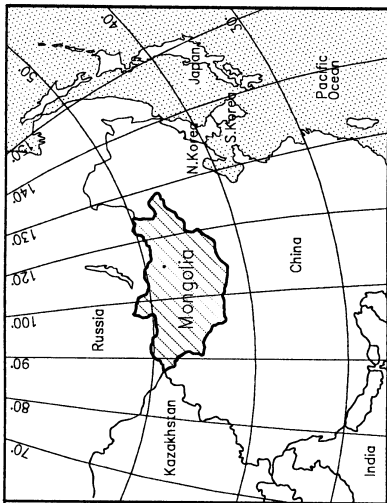
DWG.NO.	TITLE
1-G-73-01	GENERAL ARRANGEMENT OF THE SITE AT TOSONTSENDEL (ZABKHAH)
1-G-73-02	GENERAL ARRANGEMENT OF POWER PLANT AT TOSONTSENDEL (ZABKHAH)
1-E-73-01	ELECTRICAL SYMBOLS AND ABBREVIATIONS
1-E-73-02	SINGLE LINE DIAGRAM FOR POWER PLANT
1-E-73-03	SINGLE LINE DIAGRAM FOR LOW VOLTAGE PANEL AND DG 30KW
1-E-73-04	OUTLINE OF GENERATOR PANELS
1-E-73-05	OUTLINE OF AT BATTERY CHARGER
1-M-73-01	MECHANICAL SYMBOLS AND ABBREVIATIONS
1-M-73-02	COMPRESSED AIR SYSTEM DIAGRAM
1-M-73-03	COOLING WATER SYSTEM DIAGRAM
1-M-73-04	FUEL OIL SYSTEM DIAGRAM
1-M-73-05	AIR EXHAUST GAS SYSTEM DIAGRAM
1-M-73-06	FUEL OIL DAILY TANK
1-C-73-01	SCOPE OF WORK FOR DG 500KW FOUNDATIONS
1-C-73-02	DG 500KW RE-BAR ARRANGEMENT
1-C-73-03	DG 500KW FOUNDATION
1-S-73-01	SPARE PARTS FOR DG 500KW
1-T-73-01	TOOLS FOR DG 500KW

TENDER PURPOSE ONLY

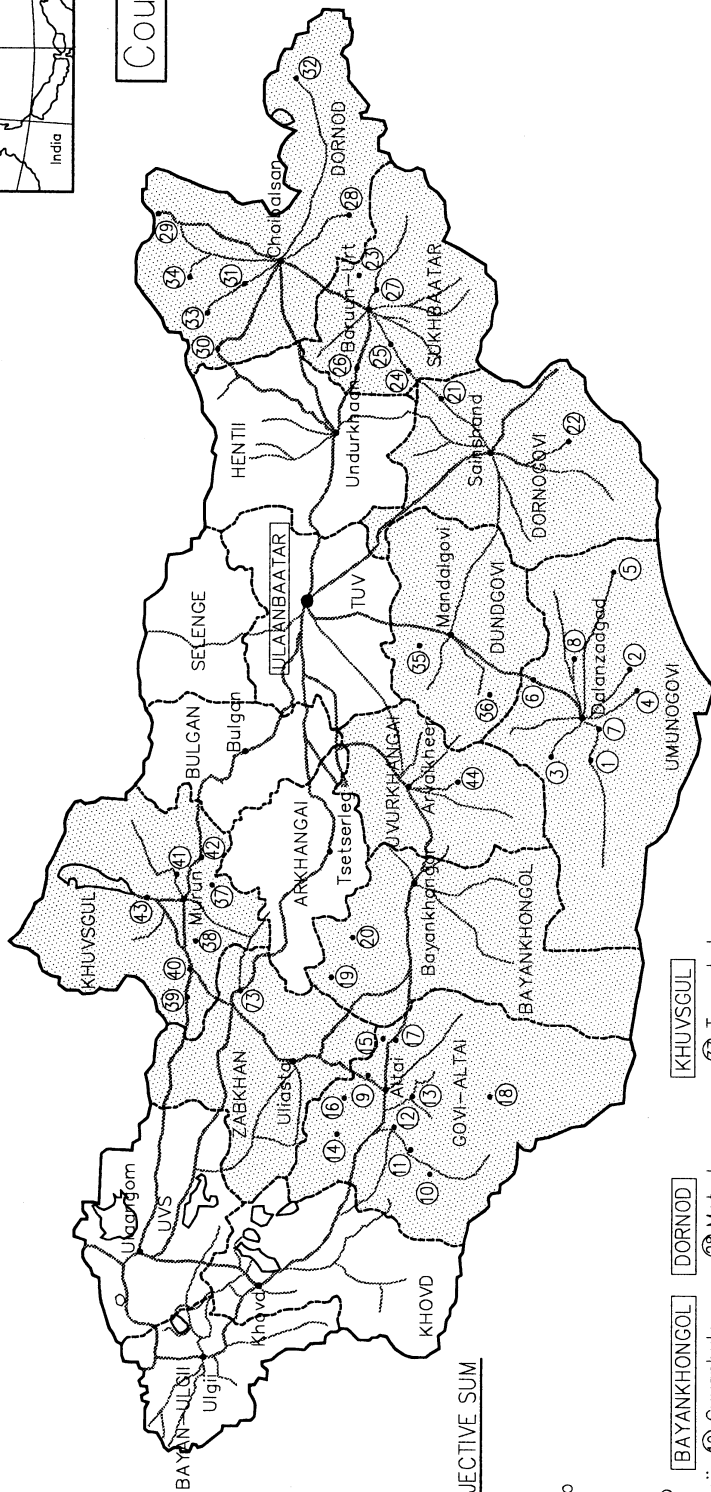
NO.	DATE	CONTENTS	SCALE	APPROVED BY	CHECKED BY	TITLE
5			NIS			REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4			NA			DRAWING LIST
3						
2						
1						


 PACIFIC CONSULTANTS INTERNATIONAL
 Tokyo, Japan

DRAWING NO. 1-G-00-00



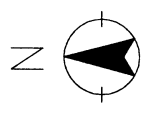
Country Map



Site Location Map



TENDER PURPOSE ONLY



NO. STAGE 1 OBJECTIVE SUM

UMUNOGVI

- 1 Bayandalai
- 2 Bayan-Ovoo
- 3 Bulgan
- 4 Nomgon
- 5 Khanbogd
- 6 Tsogt-Ovoo
- 7 Khurmen
- 8 Tsogt Isetgii

GOVI-ALTAI

- 9 Taishir
- 10 Bugat
- 11 Tugrug
- 12 Sharga
- 13 Khaliin
- 14 Bayan-Uul
- 15 Gulin
- 16 Jargalan
- 17 Delger
- 18 Bayantooroy

BAYANKHONGOL

- 29 Guvanbulag
- 30 Zag

DORNOD

- 29 Matad
- 29 Chuluunkhorooh
- 30 Bayan-Uul
- 31 Sergelen
- 32 Sumber
- 33 Bayandun
- 34 Dashbalbar

KHUVSUL

- 37 Tumrubulag
- 38 Burentogtokh
- 39 Isetserleg
- 40 Tsagaan-Uul
- 41 Tunel
- 42 Toson tsengel
- 43 Alag-Erdene

UVURKHANGAI

- 44 Tugrug

ZABKHAN

- 73 Tosontsengel

DUNDGOVI

- 35 Adaatsag
- 35 Delgerhangai

SUKHBAATAR

- 23 Sukhbaatar
- 24 Tuvshinshree
- 25 Uulibayan
- 26 Munkhkhagan
- 27 Asgat

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	UNITS	DESIGNED BY	DRAWN BY	TITLE
3				LOCATION MAP FOR OBJECTIVE SUM CENTERS
2				DRAWING NO.
1	NO. DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-G-00-01
		CONTENTS		0

AIMAG	SUM	60kW DG				100kW DG				L.V. Panel A		L.V. Panel B		L.V. Panel C		Battery Charger		For SUM		Maintenance Vehicle		Waste Oil				
		Nos.	A	B	C	D	Nos.	A	B	C	D	Nos.	E	F	Nos.	E	F	CH2	CH3	Tools (Set)	Nos.	Spare Parts (Set)	Tools (Set)	Incinerator (Nos)	Slove (Nos)	
	Bayandun																									
	Bayan-Uul																									
	Chuluunkhoroost																									
	Dashbalbar	2	1																							
	Matad	2	2																							
	Sergelen	2	1																							
	Sumber																									
AIMAG Center																										
Dornogovi	Dalgerekh	2	2	2																						
	Ulaanbadrakh	2	2																							
AIMAG Center																										
Sukhbaatar	Asgot	2	1																							
	Munkhkhayan																									
	Sukhbaatar	2	3																							
	Tuvshinshiree	2	3																							
	Uulbayan	2	2																							
AIMAG Center																										
Umunogovi	Bayan Ovoo	2	3																							
	Bayandalai	2	3																							
	Bulgan	2	3																							
	Khanbogd	2	4																							
	Khurman	2	4																							
	Nomgon	2	2																							
	Tsagt Ovoo	2	2																							
	Tsagt Tsetegi	2	3																							
AIMAG Center																										
Uvurkhangai	Tugrug	2	4																							
AIMAG Center																										
Dundugovi	Adaatsag	2	1																							
	Dejgerhangai	2	1																							
AIMAG Center																										
Bayanhongor	Gurvanbulag	2	1																							
	Zag	2	1																							
AIMAG Center																										
Govt-Altai	Delger	2	3																							
	Guelin																									
	Bayan-Uul																									
	Bugat	2	1																							
	Jagalan	2	2																							
	Khaliim	2	2																							
	Sharga	2	1																							
	Tyeshir	2	2																							
	Tugrug	2	2																							
	Bayanooroy	2	2																							
AIMAG Center																										
Khuisgul	Alag-Erdone	2	14	4	6																					
	Burentogtokh																									
	Tosonsengel	2	3																							
	Tsagaan-Uul	2	1																							
	Tseerideg	2	3																							
	Tunurhulag	2	2																							
	Tunel	2	1																							
AIMAG Center																										
	Total	62	69	51	27	25	28	32	22	12	11	31	11	31	11	2	1	2	42	2	44	6	6	6	44	131

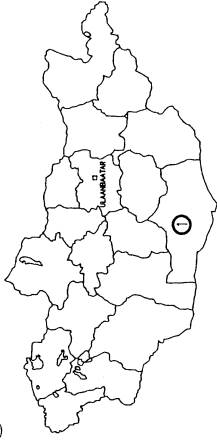
Note:

For the contents of supply list, see DWG No. 1-S-00-01, 1-T-00-01 and 1-T-00-02.

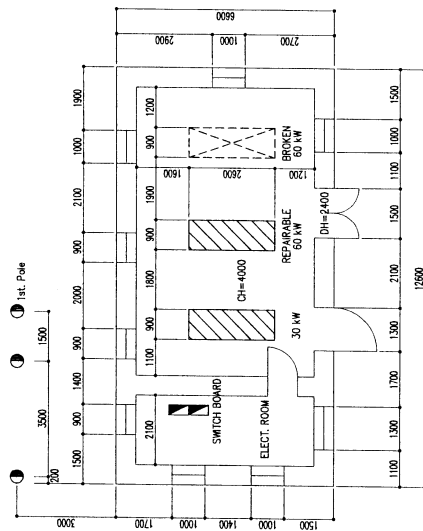
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	UNITS	DESIGNED BY	DRAWN BY	TITLE
3				EQUIPMENT, SPARE PARTS AND TOOLS SUPPLY LIST
2				DRAWING NO.
1				1-G-00-02
INC.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		CONTENTS

KEY PLAN

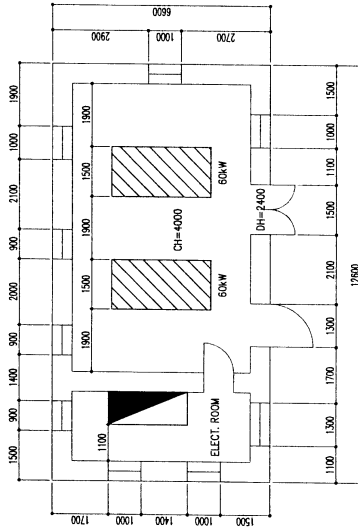
AIMAG : UMUNGOVI
SUM : OBAYANDALAI



Existing Layout



Layout Plan



★ Scope of Work

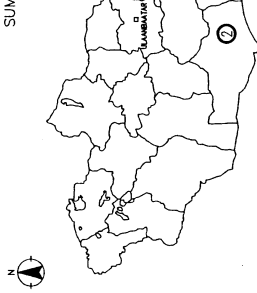
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

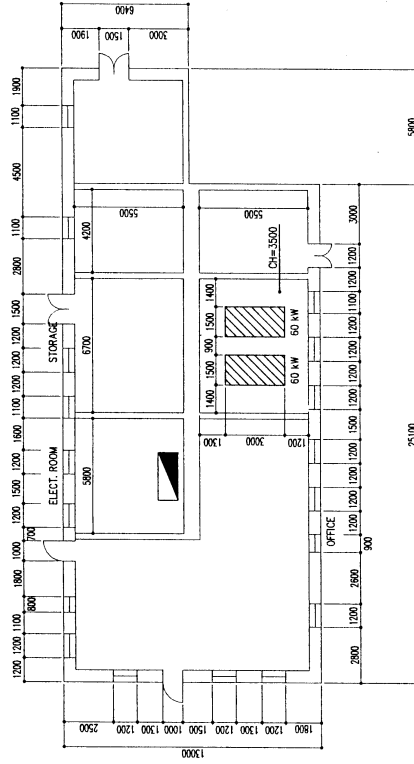
5	SCALE	1 : 150	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	UNITS	MM	DESIGNED BY	DRAWN BY	TITLE
3					GENERAL ARRANGEMENT OF POWER PLANT AT BAYANDALA (UMUNGOVI)
2					DRAWING NO.
1	NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-G-01-01
			CONTENTS		0

KEY PLAN

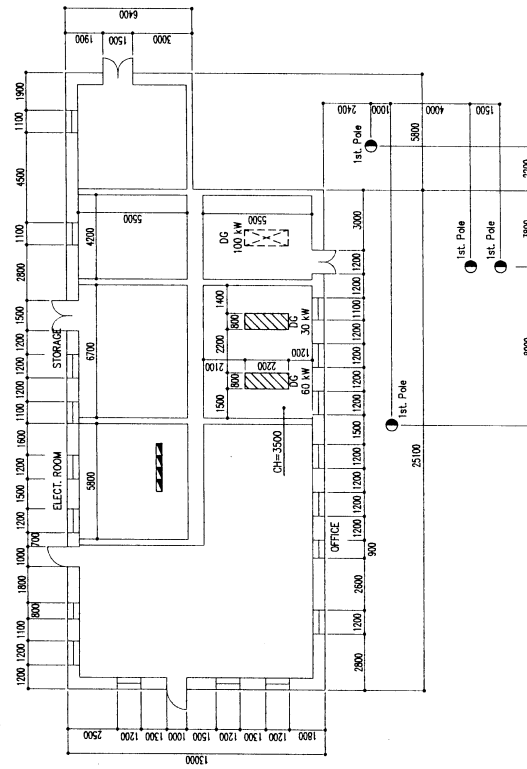
AIMAG : UMUNGOVI
SUM : ② BAYAN OV00



Layout Plan



Existing Layout



* Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

NO.	DATE	CONTENTS	APPROVED BY	CHECKED BY
5				
4				
3				
2				
1				

THE PROJECT FOR	
REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)	
TITLE	
GENERAL ARRANGEMENT OF POWER PLANT AT BAYAN OV00 (UMUNGOVI)	
DRAWING NO.	
1-G-02-01	0

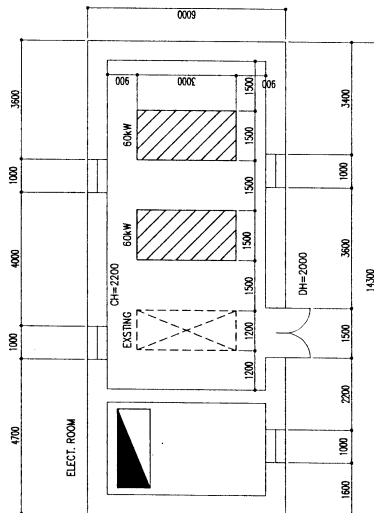
PACIFIC CONSULTANTS INTERNATIONAL	
Tokyo, Japan	

KEY PLAN

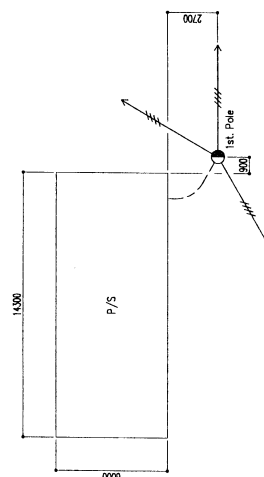
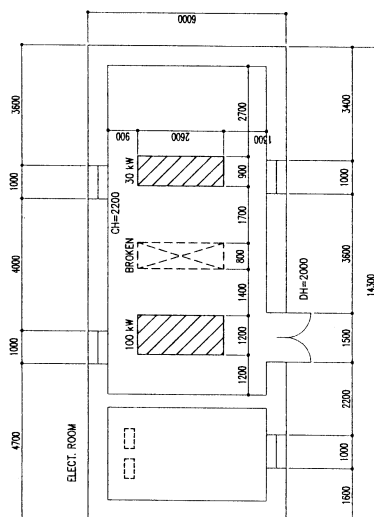
AIMAG : UMUNGOVI
SUM : ③ BULGAN



Layout Plan



Existing Layout



Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

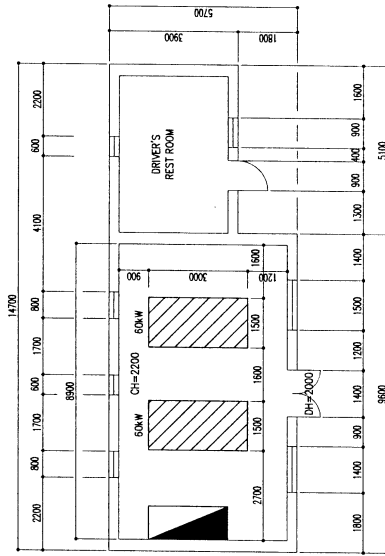
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4	1 : 150			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT BULGAN (UMUNGOVI)
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-G-03-01
		CONTENTS		0

KEY PLAN

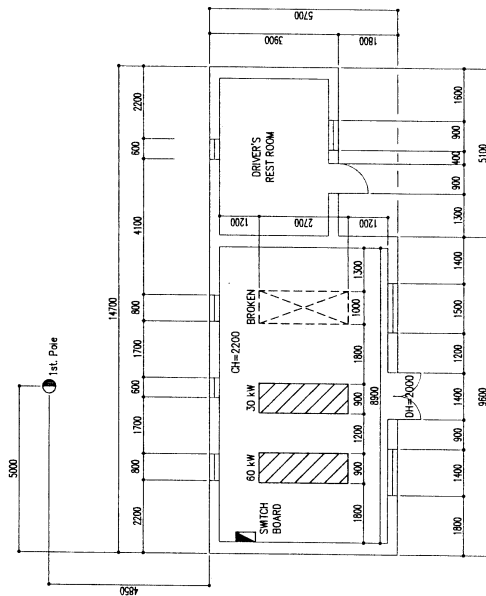
AIMAG : UMNUGOVI
SUM : ④ NOMGON



Layout Plan



Existing Layout



★ Scope of Work

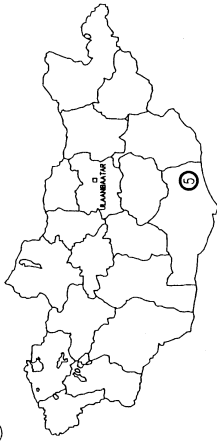
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator , Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

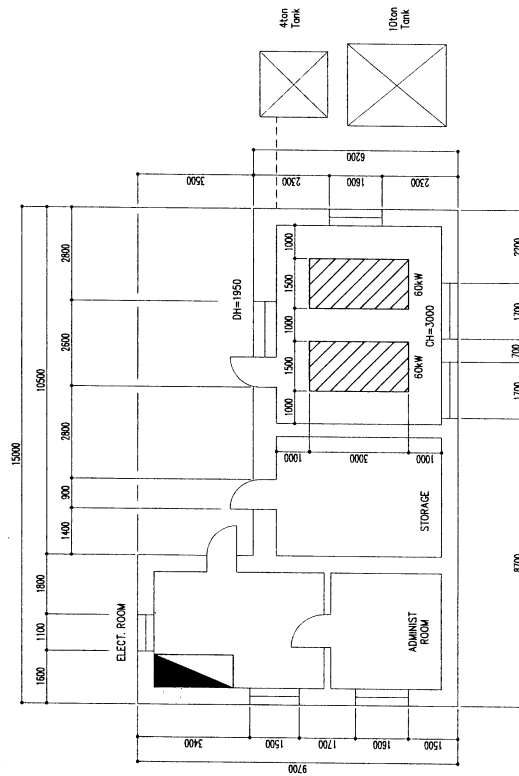
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3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT NOMGON (UMNUGOVI)
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-G-04-01
		CONTENTS		0

KEY PLAN

AIMAG : UMNUGOVI
SUM : KHANBOGD



Layout Plan



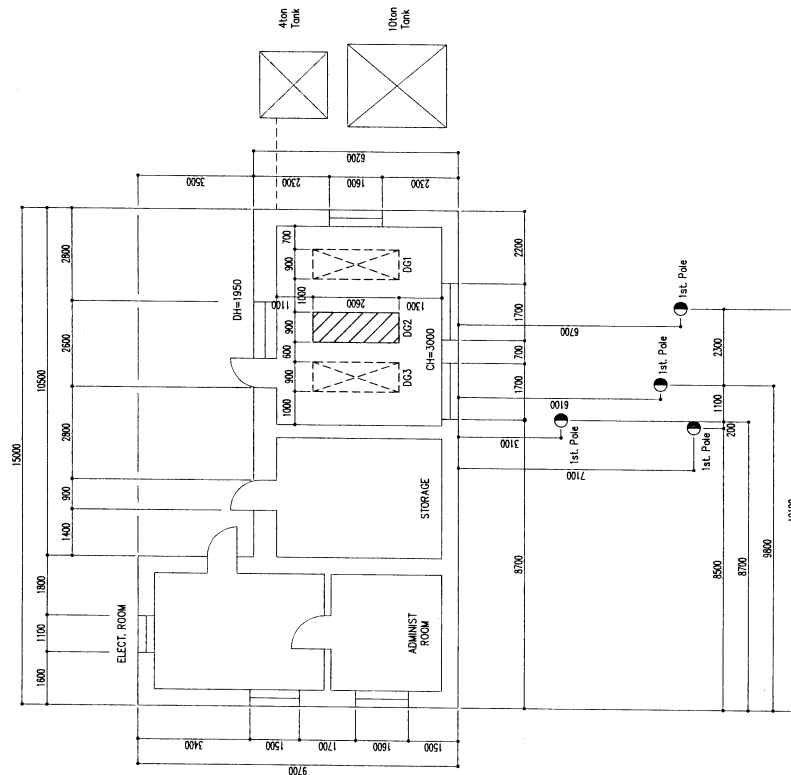
★ Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

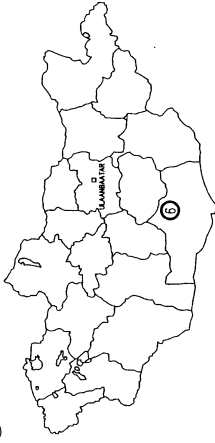
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3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT KHANBOGD (UMNUGOVI)
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-G-05-01
		CONTENTS		0

Existing Layout

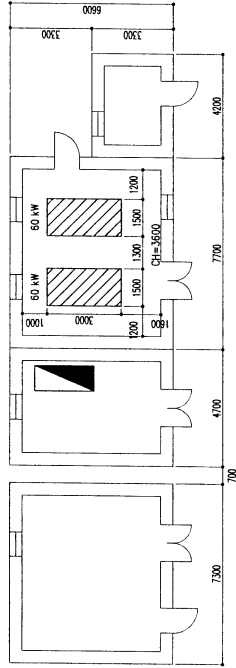


KEY PLAN

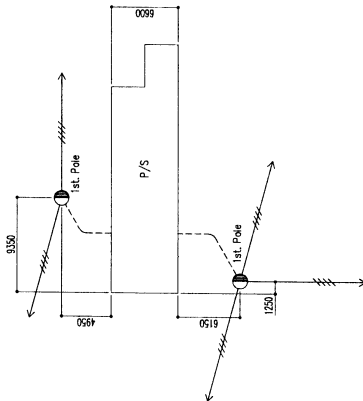
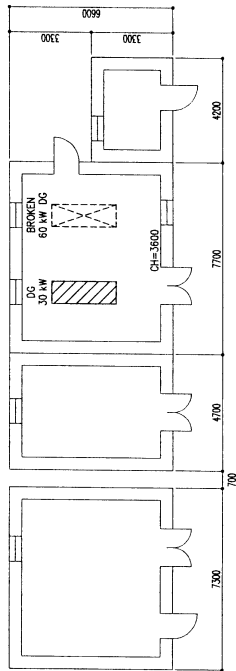
AIMAG : UMUNGOVI
SUM : ⑥ TSOGT OV00



Layout Plan



Existing Layout



Scope of Work

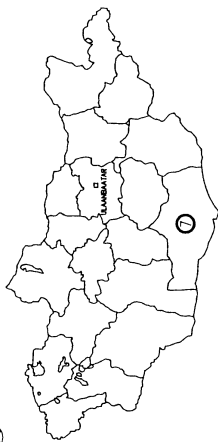
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

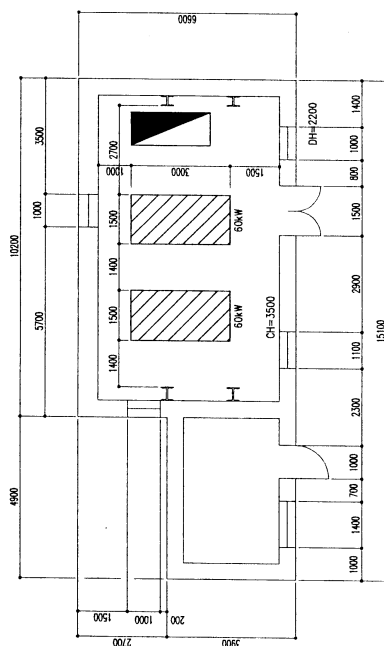
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4	1 : 200			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT TSOGT OV00 (UMUNGOVI)
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-G-06-01
		CONTENTS		0

KEY PLAN

AIMAG : UMUNGOVI
SUM : KHURMAN



Layout Plan



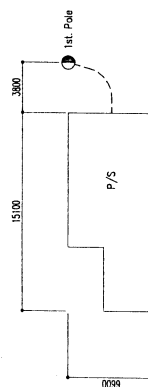
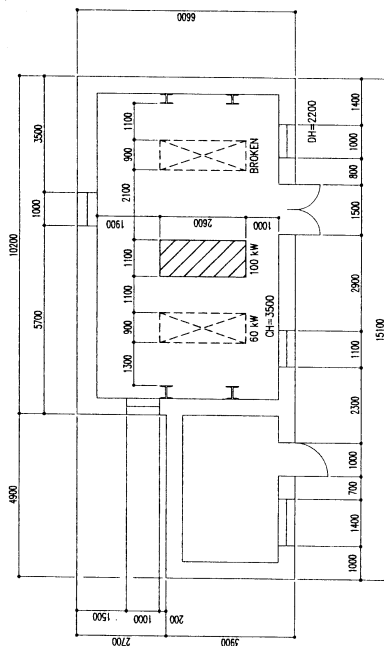
* Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

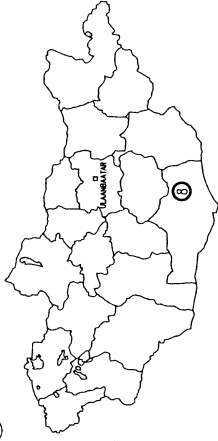
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 150			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT KHURMAN (UMUNGOVI)
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-G-07-01
		CONTENTS		0

Existing Layout

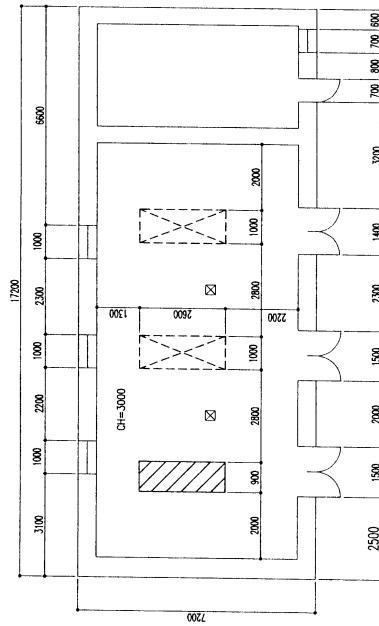


KEY PLAN

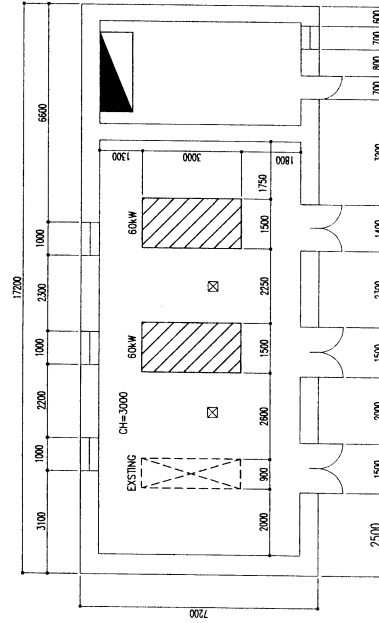
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SUM : ③ TSOGT TSETSGII



Existing Layout

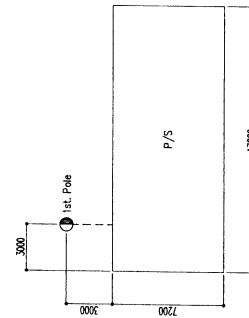


Layout Plan



★ Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Charger and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

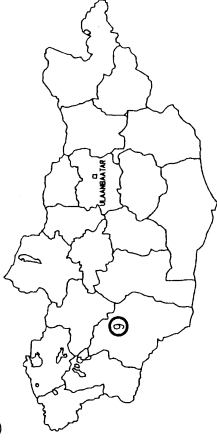


TENDER PURPOSE ONLY

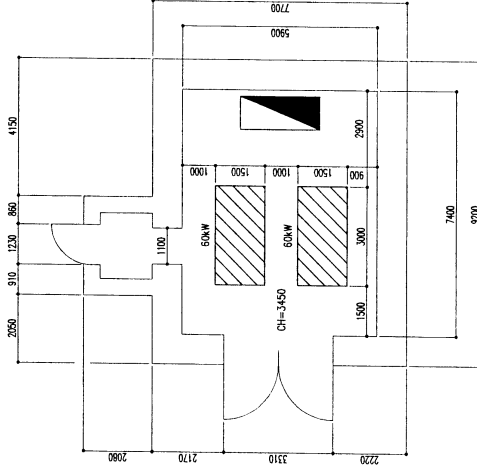
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3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT TSOGT TSETSGII (UMUNGOVI)
1	NO.	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
	DATE	CONTENTS		1-G-08-01

KEY PLAN

AIMAG : GOVI-ALTAI
SUM : TAISHIR



Layout Plan



※ Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Charger and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

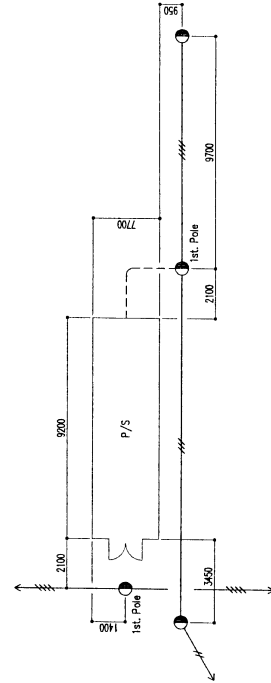
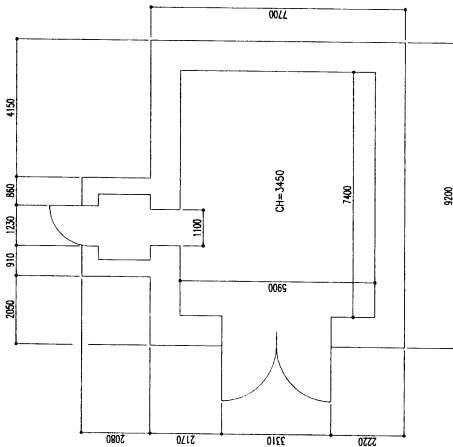
TENDER PURPOSE ONLY

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3					GENERAL ARRANGEMENT OF POWER PLANT AT TAISHIR (GOVI-ALTAI)
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					1-G-09-01
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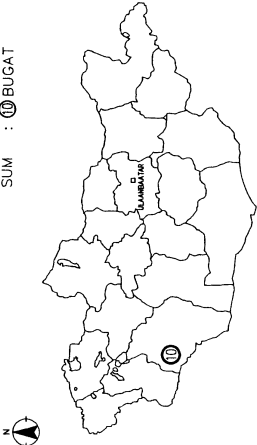
PACIFIC CONSULTANTS INTERNATIONAL
Tokyo, Japan

Existing Layout

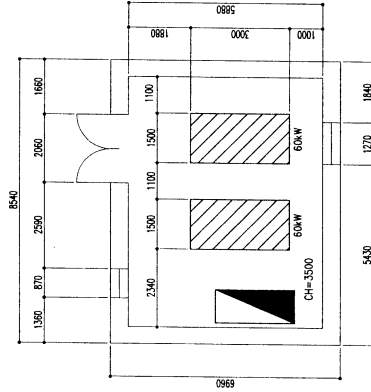


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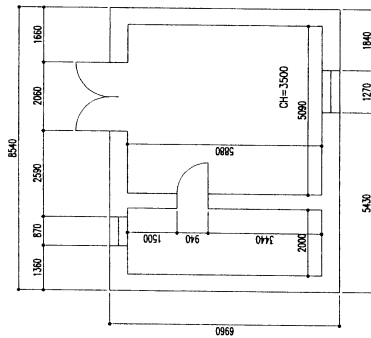
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SUM : 10 BUGAT



Layout Plan

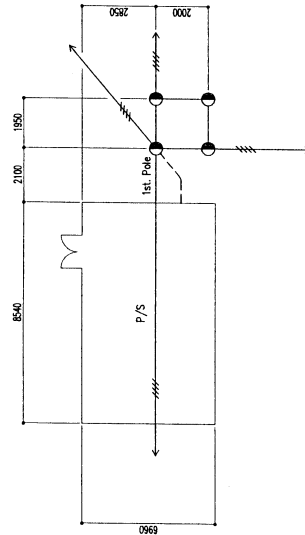


Existing Layout



★ Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

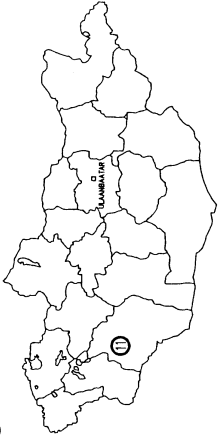


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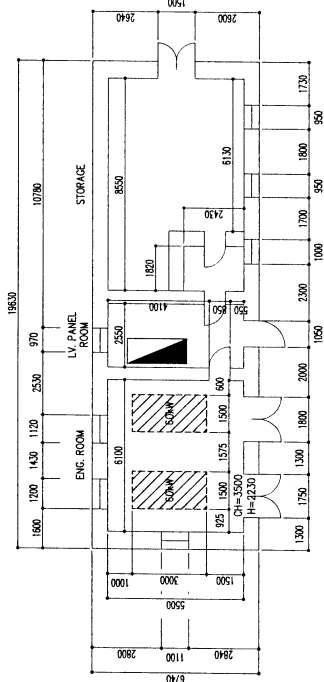
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NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-C-10-01
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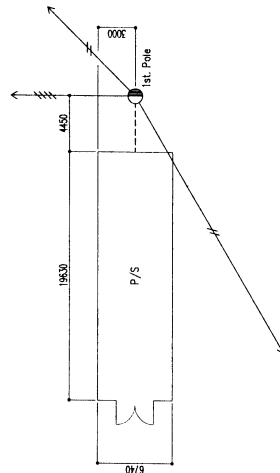
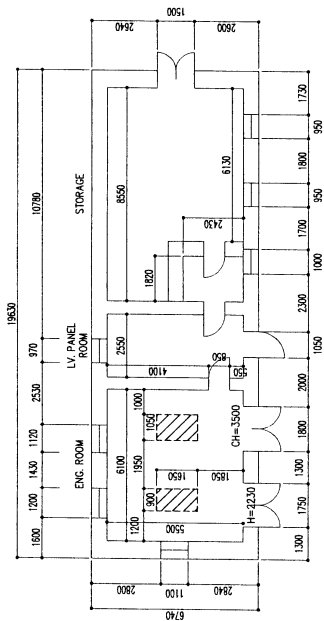
AIMAG : GOVI-ALTAI
SUM : TUGRUG



Layout Plan



Existing Layout



* SCOPE OF WORK

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

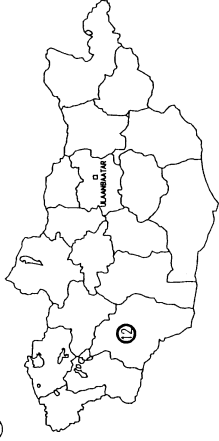
TENDER PURPOSE ONLY

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2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT TUGRUG (GOVI-ALTAI)
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
NO.	DATE	CONTENTS		1-C-11-01

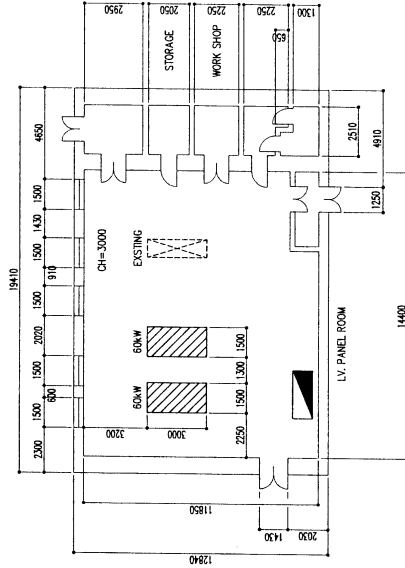
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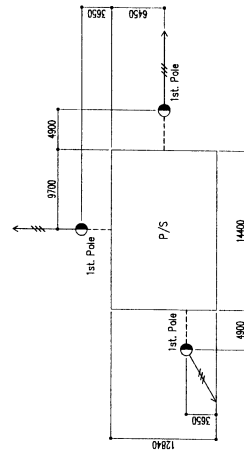
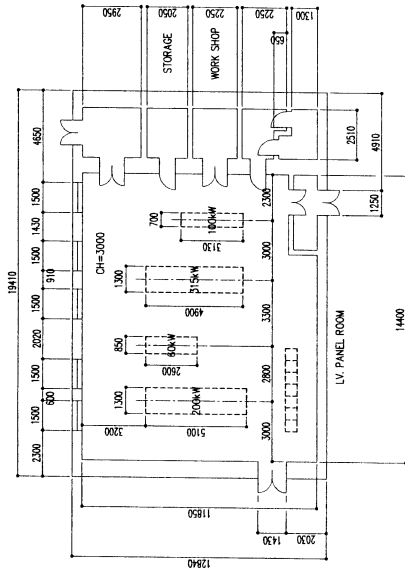
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SUM : SHARGA



Layout Plan



Existing Layout



Scope of Work

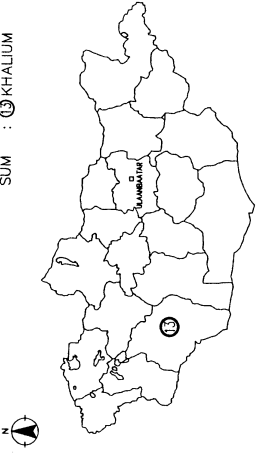
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

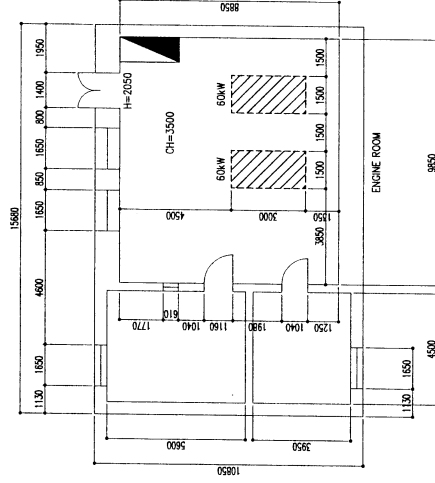
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NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-G-12-01
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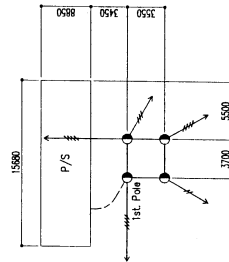
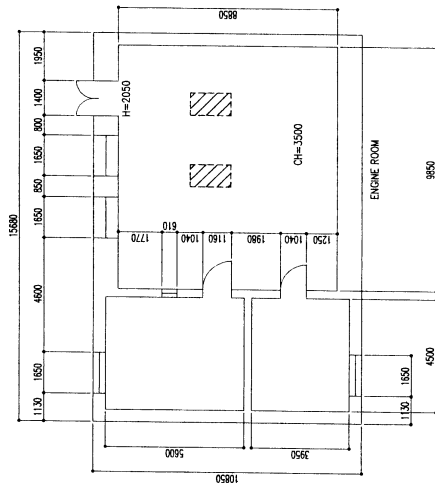
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SUM : KHALIUM



Layout Plan



Existing Layout



★ Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

5	SCALE	1 : 200	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
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3					GENERAL ARRANGEMENT OF POWER PLANT AT KHALIUM (GOVI-ALTAI)
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1					1-G-13-01
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					PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan

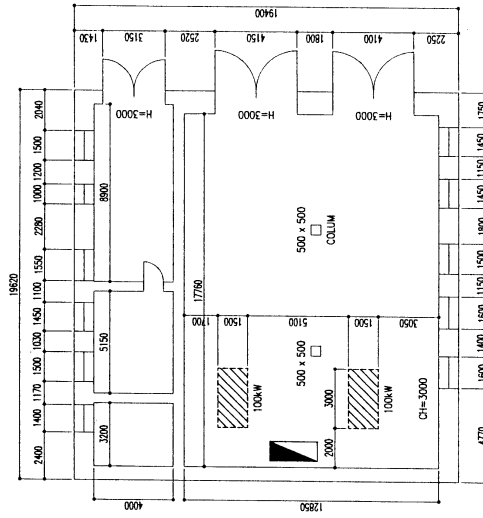
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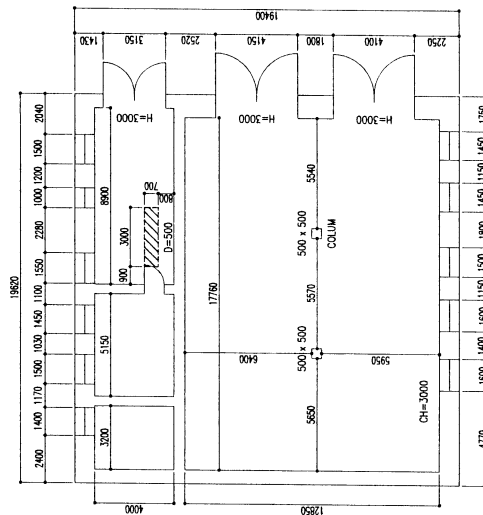
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SUM : 03 BAYAN-UUL



Layout Plan



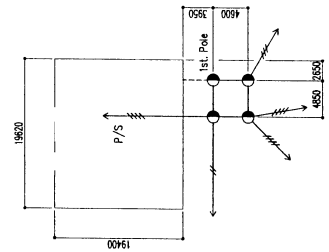
Existing Layout



★ Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

INDICATE SUMP PIT FOR LUB. OIL OF ENGINE.



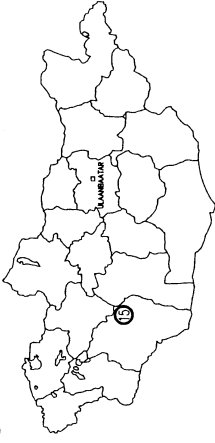
TENDER PURPOSE ONLY

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NO.	DATE	CONTENTS		1-G-14-01

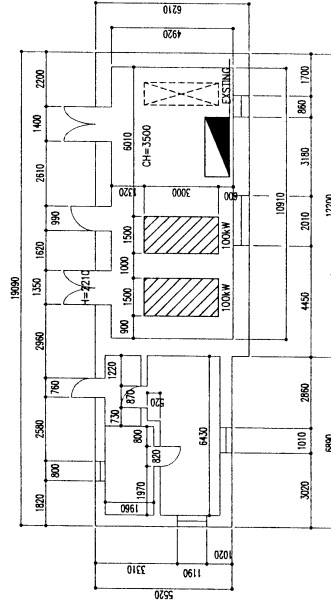
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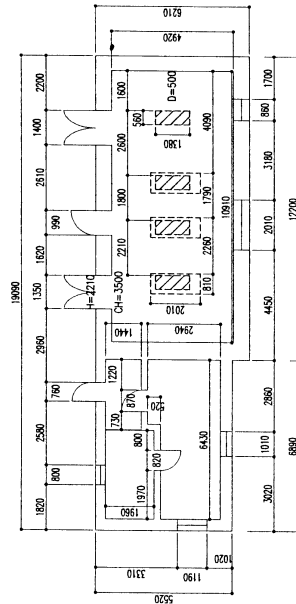
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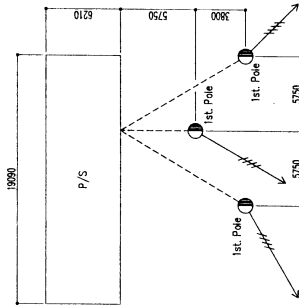
Layout Plan



Existing Layout



INDICATE SUMP PIT FOR LUB. OIL OF ENGINE.



* Scope of Work

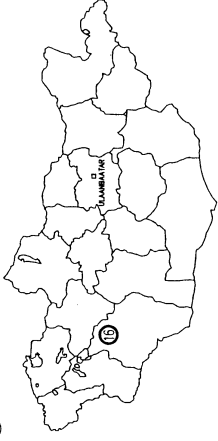
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Charger and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

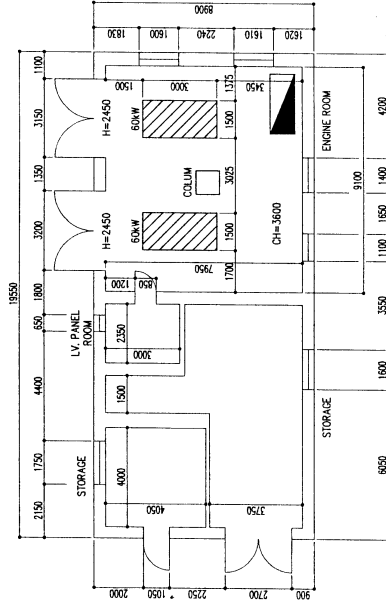
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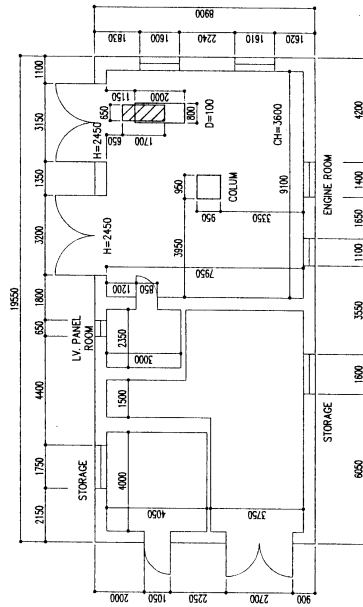
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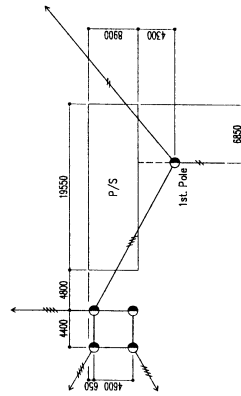
Layout Plan



Existing Layout



INDICATE MAINTENANCE PIT FOR ENGINE.



* Scope of Work

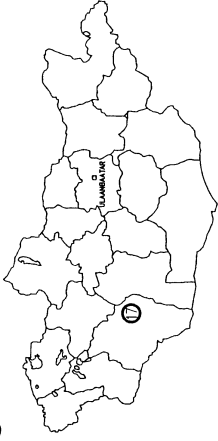
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

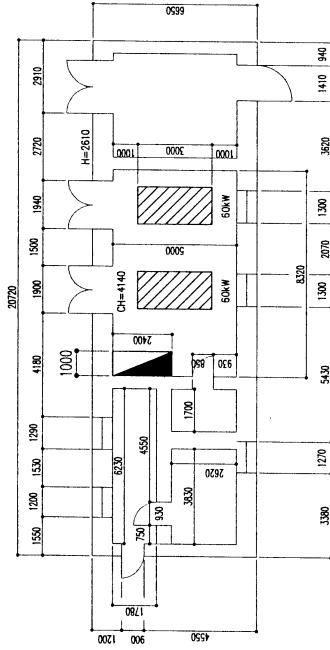
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NO.	DATE			1-C-16-01
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KEY PLAN

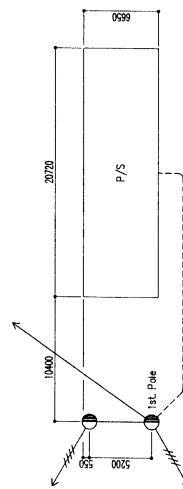
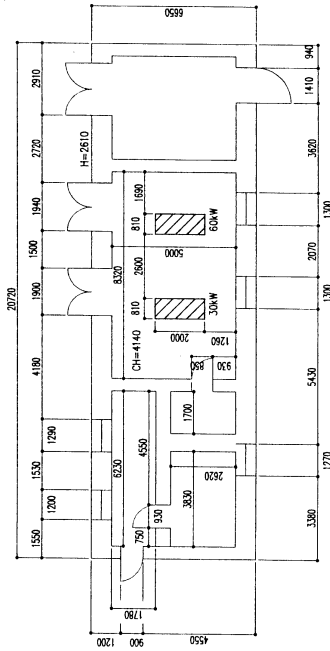
AIMAG : GOVI-ALTAI
SUM : DELGER



Layout Plan



Existing Layout



Scope of Work

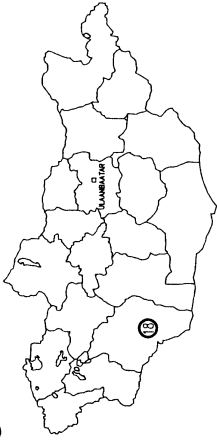
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

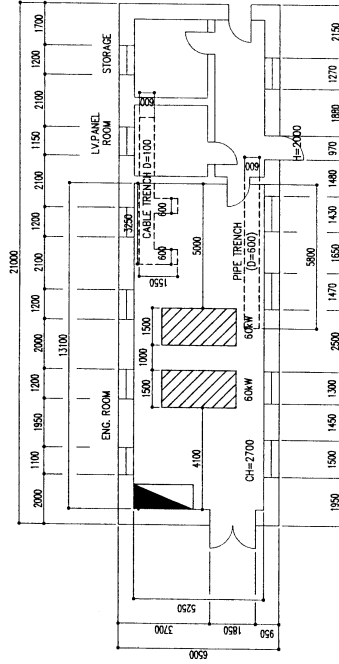
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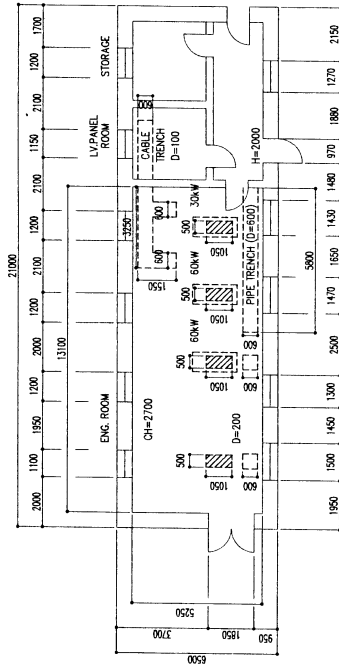
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SUM : 13 BAYANTOOROY



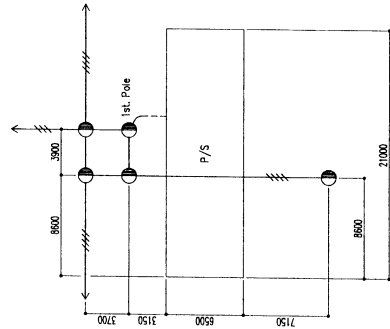
Layout Plan



Existing Layout



INDICATE SUMP PIT FOR LUB. OIL OF ENGINE.



Scope of Work

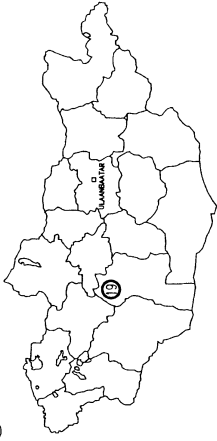
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

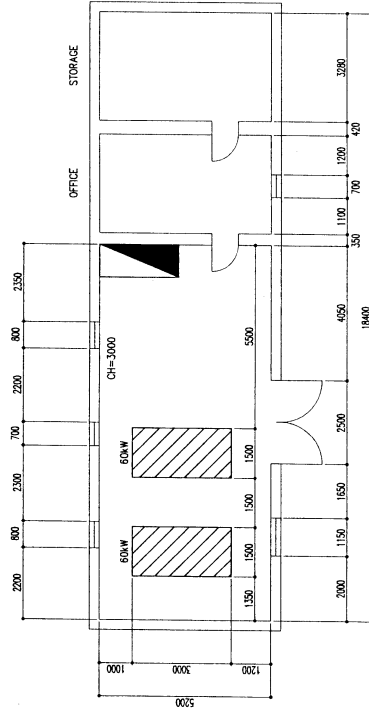
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2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT BAYANTOOROY (GOVI-ALTAI)
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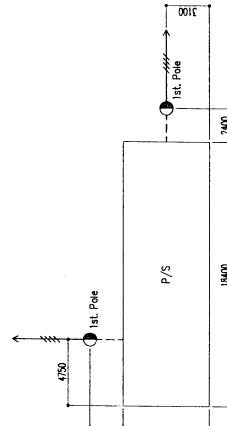
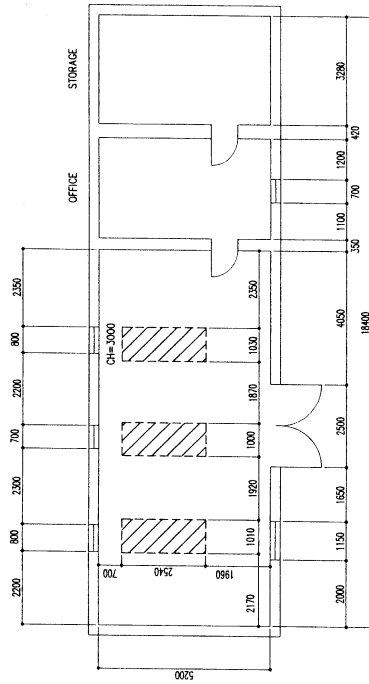
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SUM : GURVANBULAG



Layout Plan



Existing Layout



★ Scope of Work

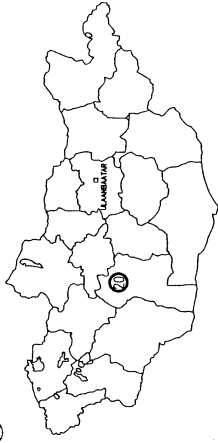
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator , Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

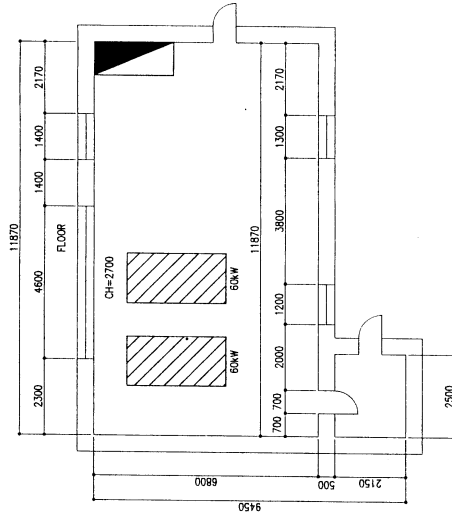
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2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT GURVANBULAG (BAYANKHONGOR)
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-C-19-01
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KEY PLAN

AIMAG : BAYANKHONGOR
SUM : ZAG



Layout Plan

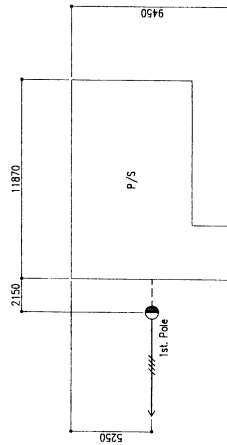
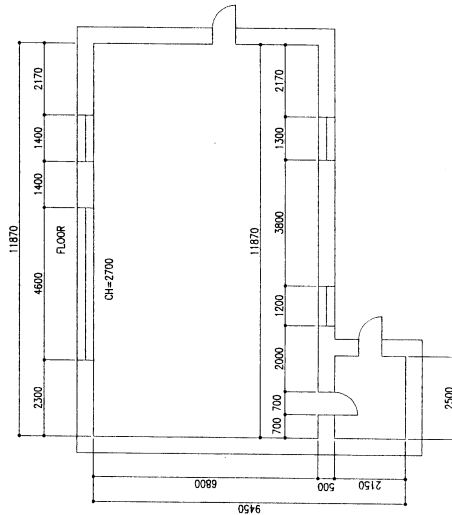


Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

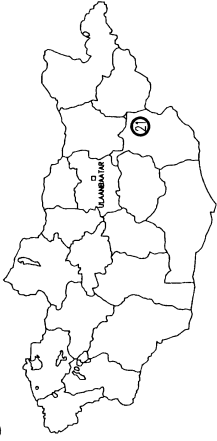
Existing Layout



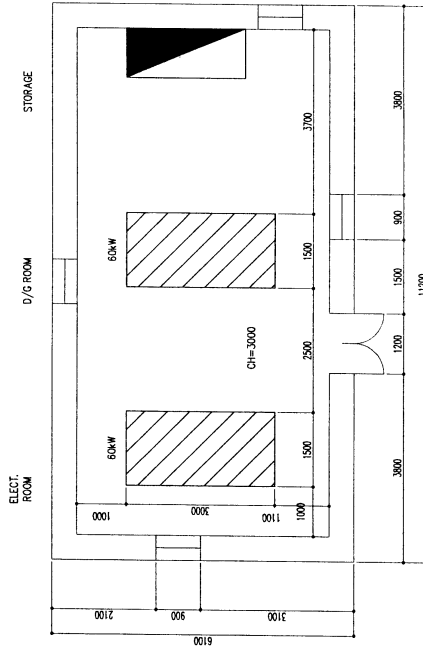
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1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-G-20-01
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KEY PLAN

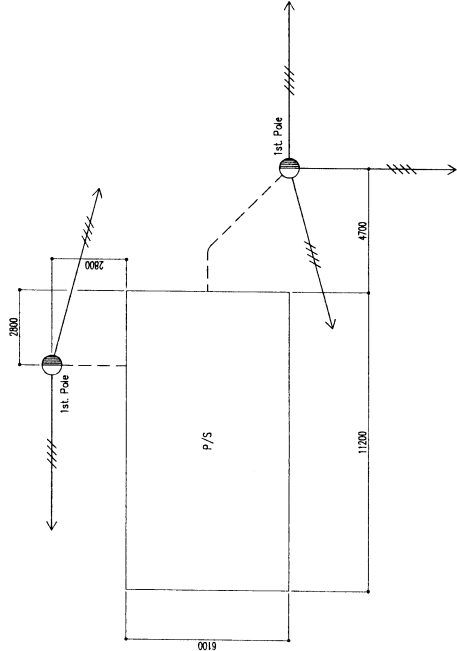
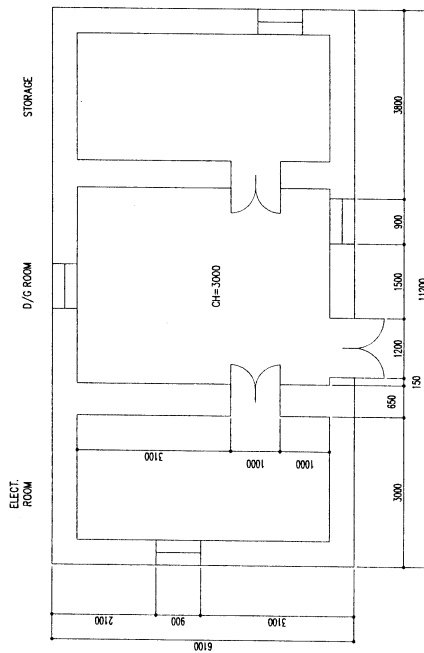
AIMAG : DORNOGOVI
 SUM : DALGEREKH



Layout Plan



Existing Layout



* Scope of Work

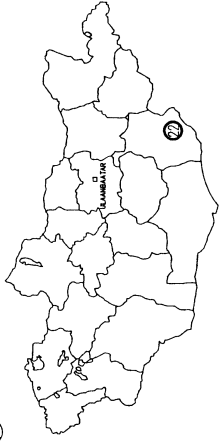
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

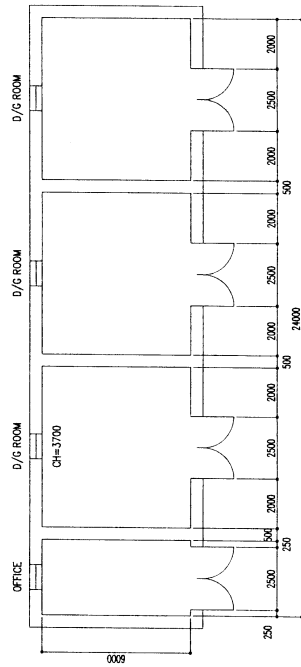
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2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT DALGEREKH (DORNOGOVI)
1				DRAWING NO.
		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		
NO.	DATE	CONTENTS		DRAWING NO.
				1 - G - 21 - 01
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KEY PLAN

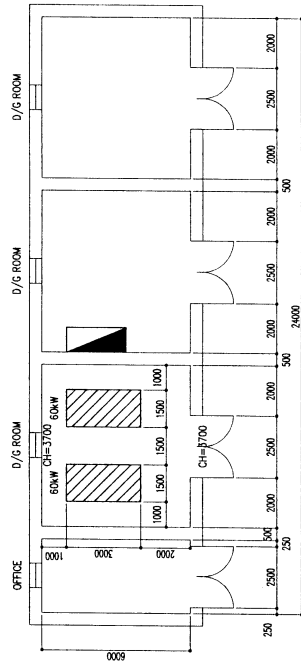
AIMAG : DORNIGOVI
SUM : ULAANBADRAKH



Existing Layout

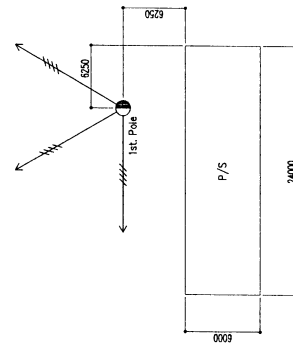


Layout Plan



■ SCOPE OF WORK

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator , Distribution Panel and Existing First Pole

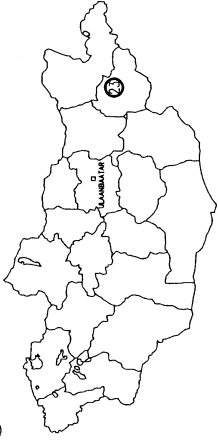


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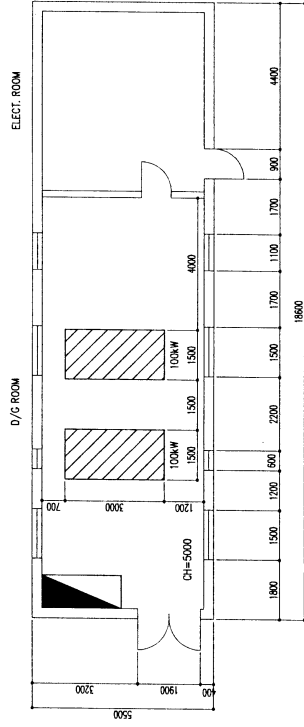
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1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-G-22-01
NO.	DATE	CONTENTS		0

KEY PLAN

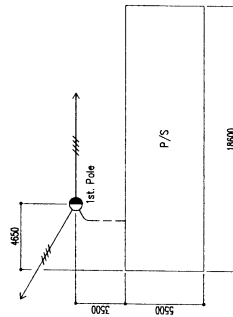
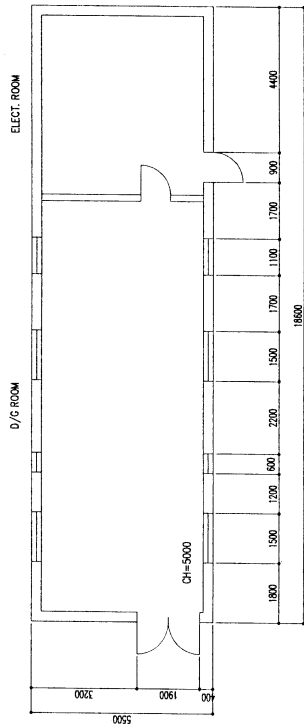
AIMAG : SUKHBAATAR
SUM : SUKHBAATAR



Layout Plan



Existing Layout



Scope of Work

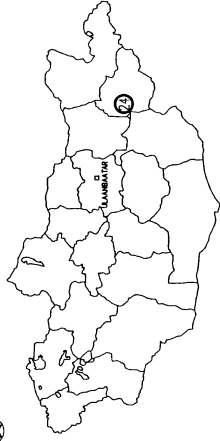
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 150			TITLE
3	UNITS	DESIGNED BY	DRAWN BY	GENERAL ARRANGEMENT OF POWER PLANT AT SUKHBAATAR (SUKHBAATAR)
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1				1 - C - 23 - 01
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		0
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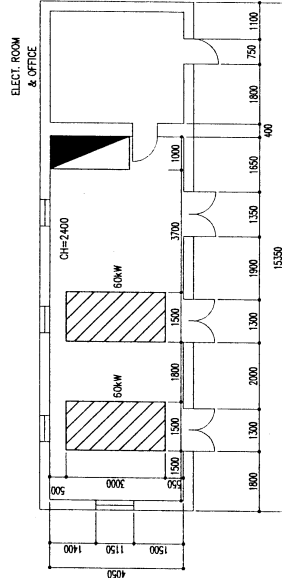
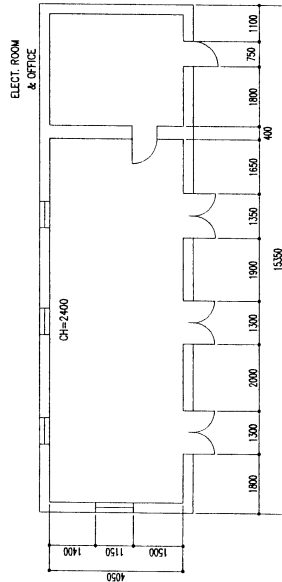
KEY PLAN

AIMAG : SUKHBAATAR
SUM : ТУВШИНШИРЕЕ



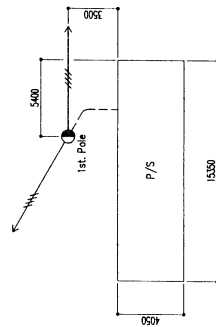
Layout Plan

Existing Layout



*** Scope of Work**

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole



TENDER PURPOSE ONLY

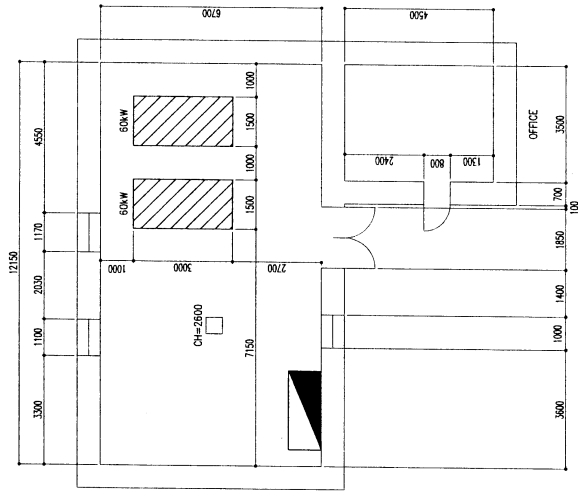
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3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT TUVSHINSHIREE (SUKHBAATAR)
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
NO.	DATE	CONTENTS		1-G-24-01
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KEY PLAN

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SUM : BULBAYAN

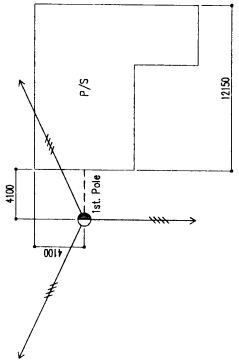
Layout Plan

Existing Layout



*** Scope of Work**

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Charger and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator , Distribution Panel and Existing First Pole

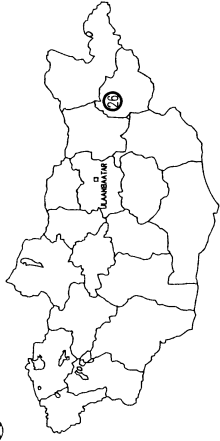


TENDER PURPOSE ONLY

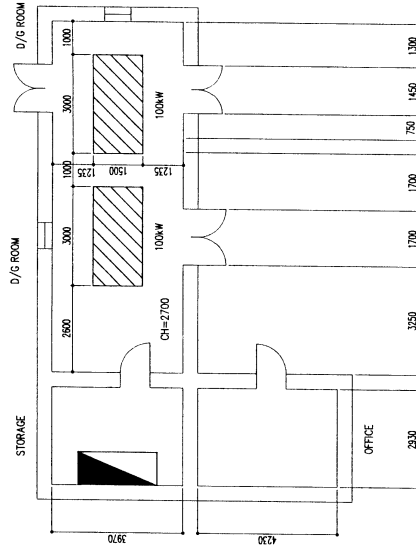
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3	UNITS	MM	DESIGNED BY	DRAWN BY	TITLE
2					GENERAL ARRANGEMENT OF POWER PLANT AT BULBAYAN (SUUKHBAATAR)
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					1-G-25-01
NO.	DATE		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		0

KEY PLAN

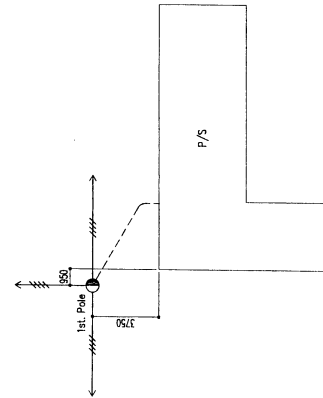
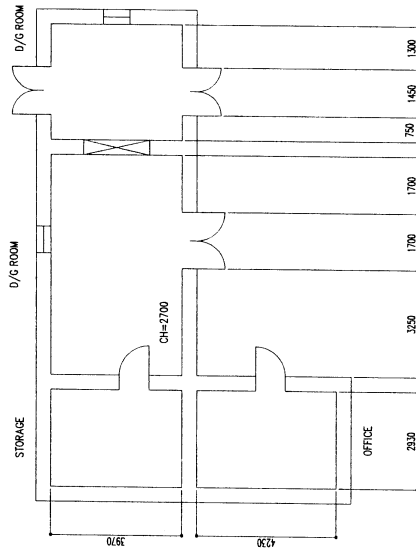
AIMAG : SUKHBAATAR
SUM : MUNKHHAAN



Layout Plan



Existing Layout



★ Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

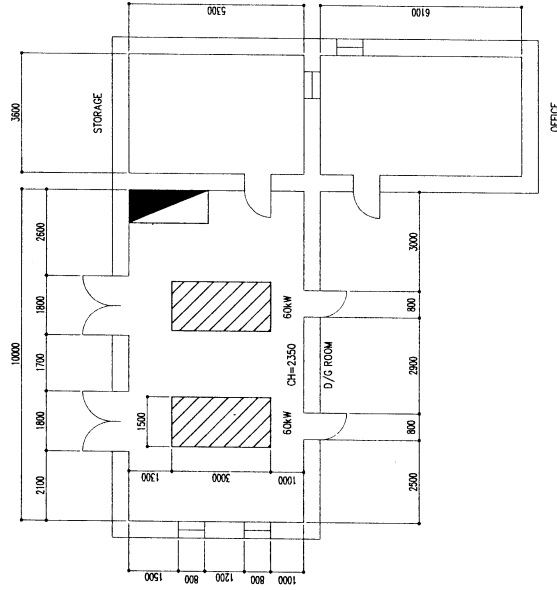
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2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT MUNKH-KHAAN (SUKHBAATAR)
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1 - G - 26 - 01
		CONTENTS		0

KEY PLAN

AMAG : SUKHBAATAR
SUM : ASGOT



Layout Plan



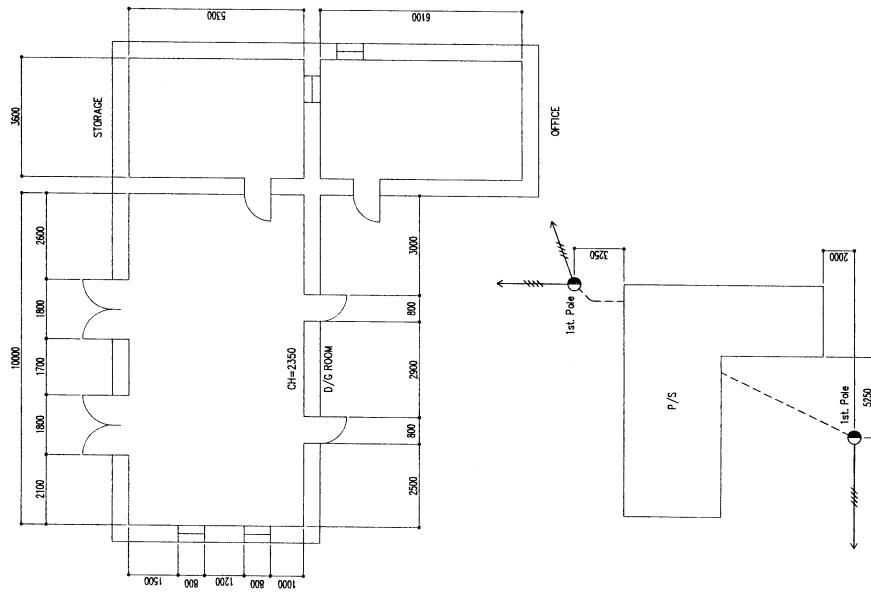
■ Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Charger and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
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3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT ASGOT (SUKHBAATAR)
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Existing Layout

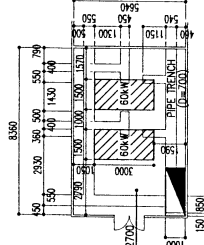
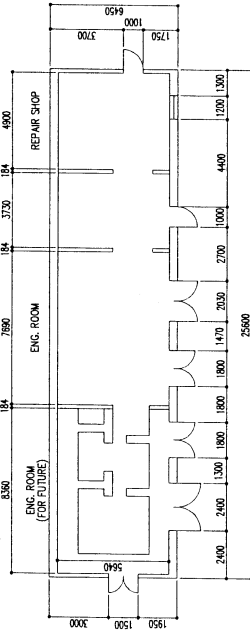


KEY PLAN

AIMAG : DORNOD
SUM : MATAD



Layout Plan

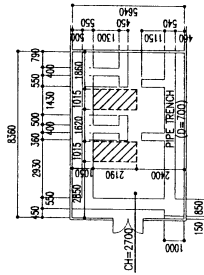
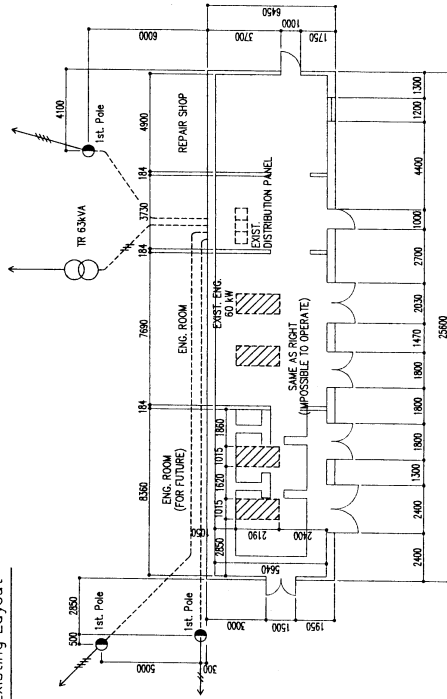


Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

Existing Layout

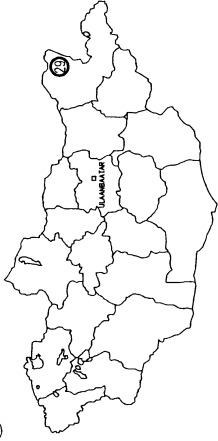


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2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT MATAD (DORNOD)
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
	NO. DATE	CONTENTS		1-G-28-01

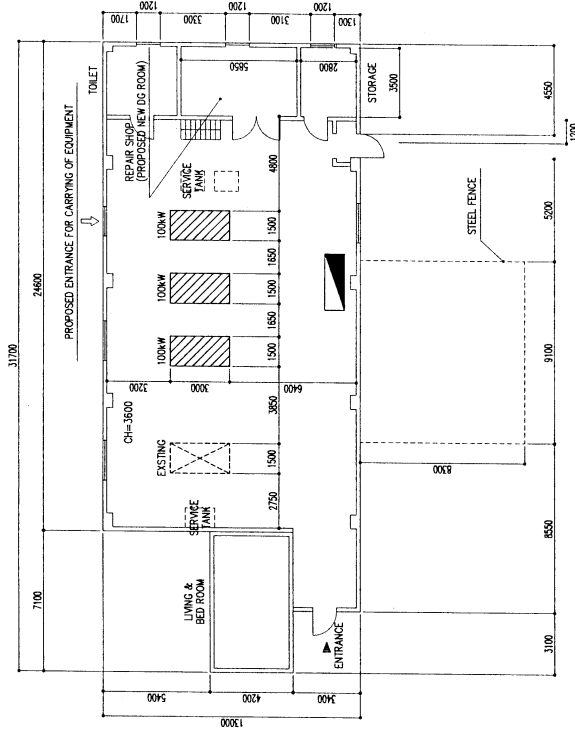
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KEY PLAN

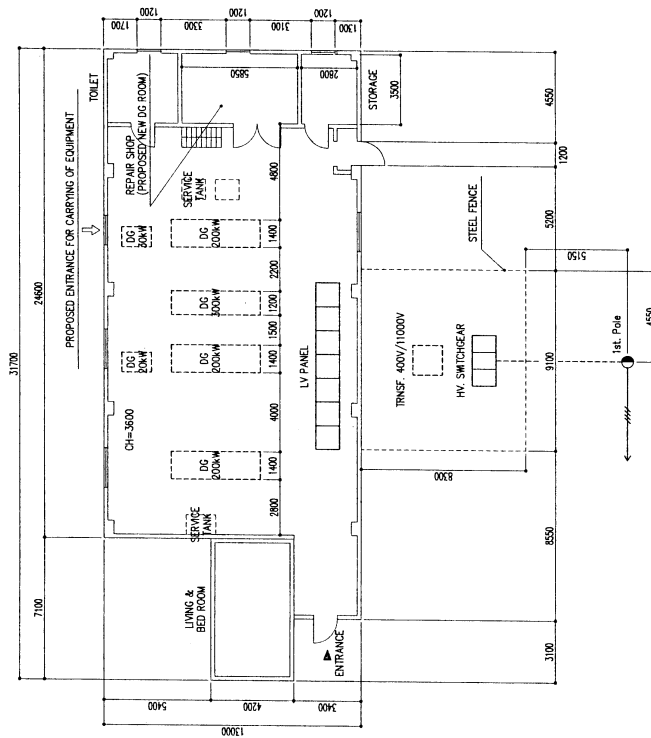
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SUM : CHULUUNKHOROOT



Layout Plan



Existing Layout



★ Scope of Work

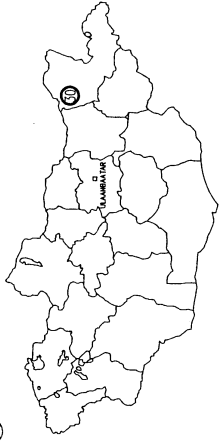
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

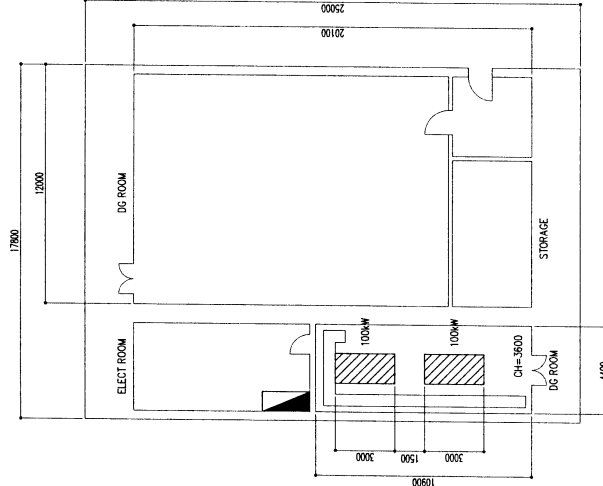
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1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-G-29-01
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KEY PLAN

AIMAG : DORNOD
SUM : БAYAN-UUL



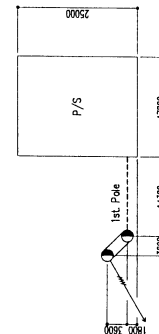
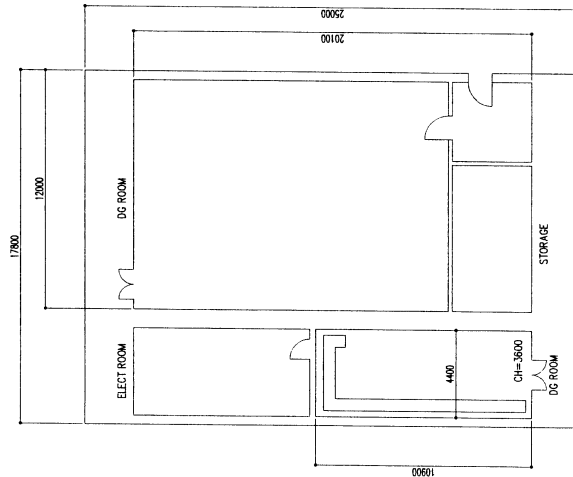
Layout Plan



■ Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

Existing Layout



TENDER PURPOSE ONLY

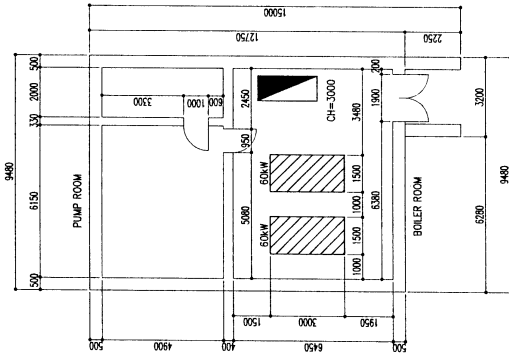
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1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-G-30-01
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KEY PLAN

AIMAG : DORNOD
SUM : SERGELEN



Layout Plan

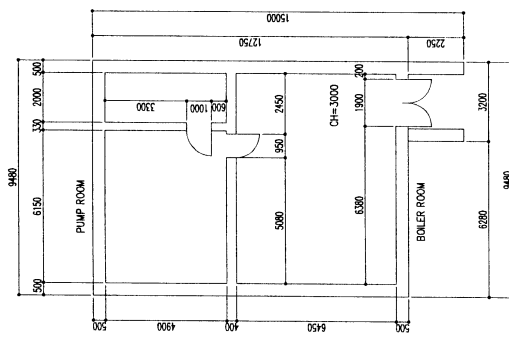


Scope of Work

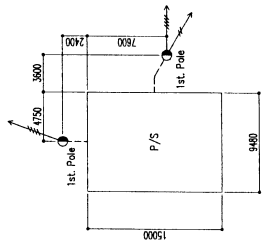
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

Existing Layout



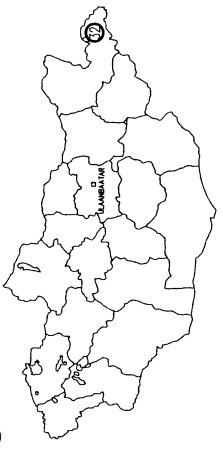
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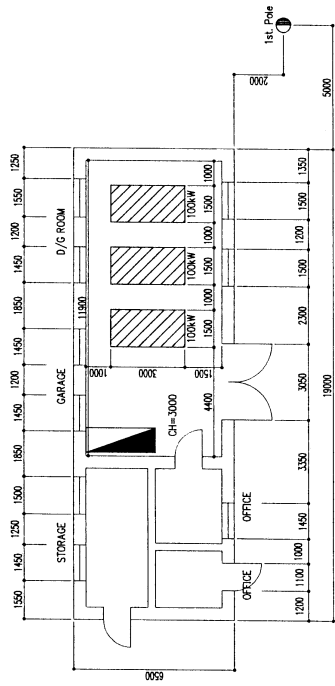
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2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT SERGELEN (DORNOD)
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KEY PLAN

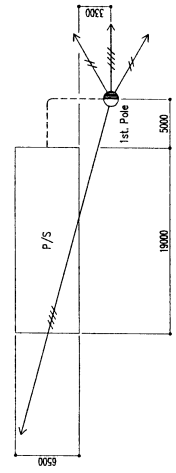
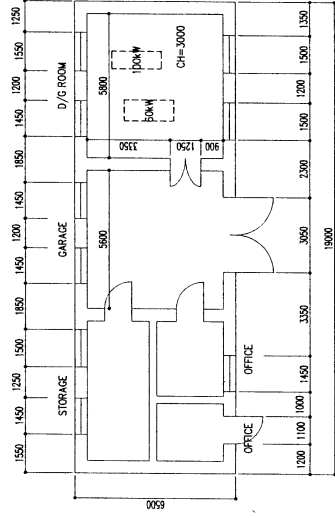
AIMAG : DORNOD
SUM : SUMBER



Layout Plan



Existing Layout



Scope of Work

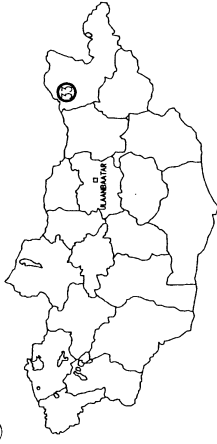
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

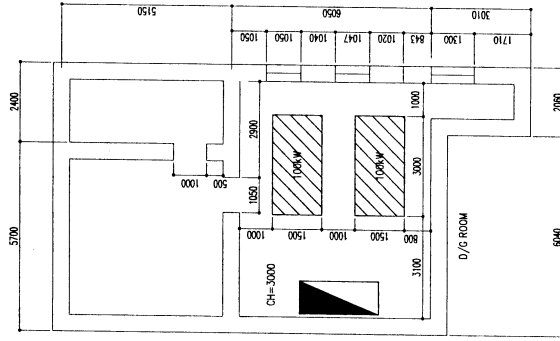
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2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT SUMBER (DORNOD)
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KEY PLAN

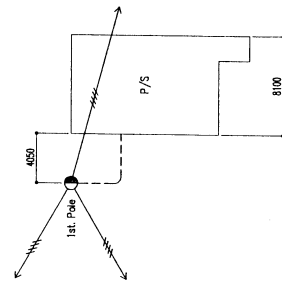
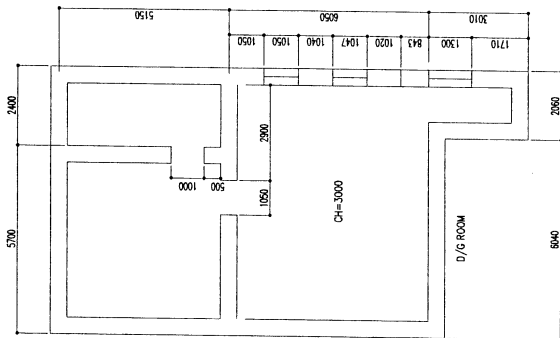
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SUM : BAYANDUN



Layout Plan



Existing Layout



★ Scope of Work

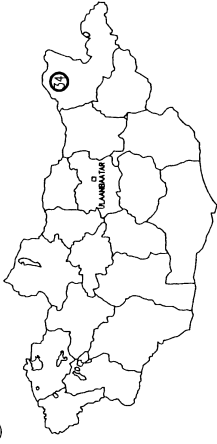
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

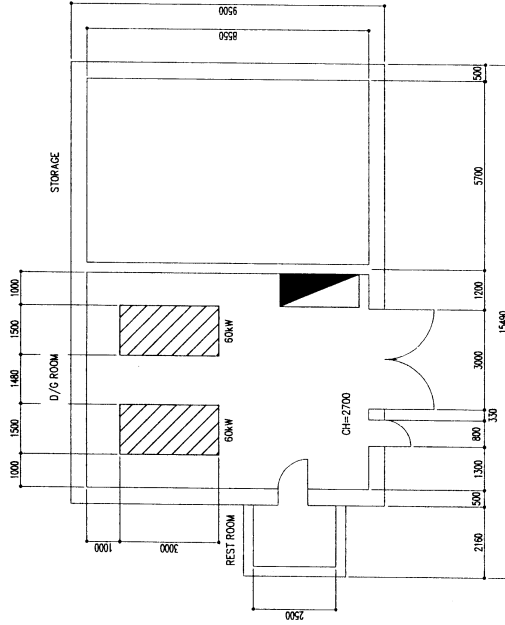
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2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT BAYANDUN (DORNOD)
1	NO. DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
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KEY PLAN

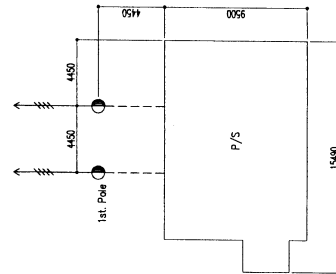
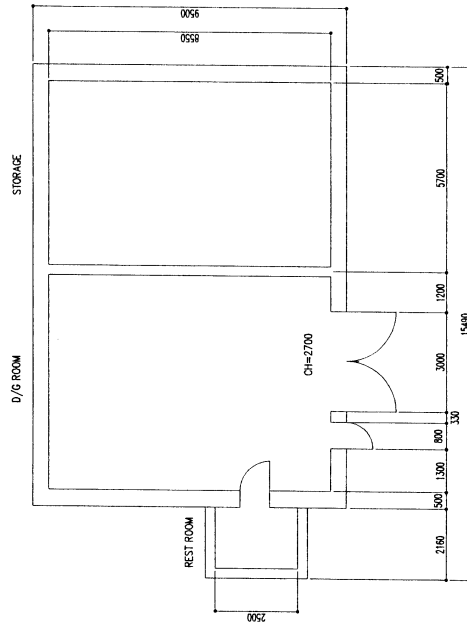
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SUM : DASHBALBAR



Layout Plan



Existing Layout



★ Scope of Work

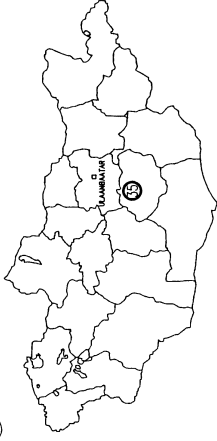
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

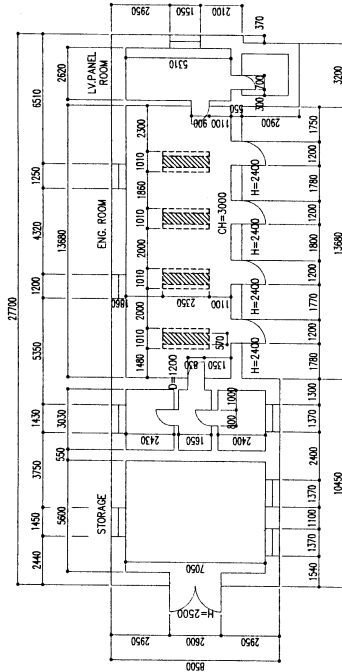
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3	UNITS MM			GENERAL ARRANGEMENT OF POWER PLANT AT DASHBALBAR (DORNOD)
2				DRAWING NO.
1				1 - G - 34 - 01
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		0
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KEY PLAN

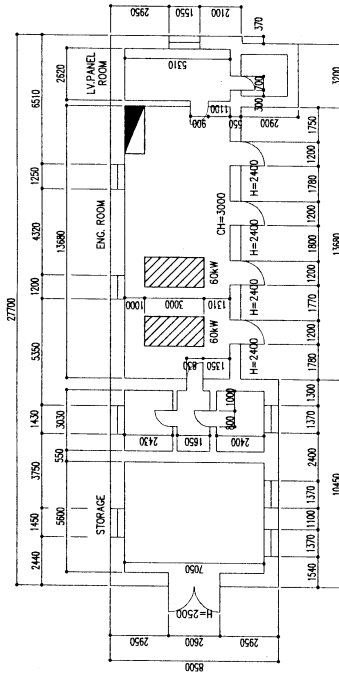
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SUM : ADAATSAG



Layout Plan



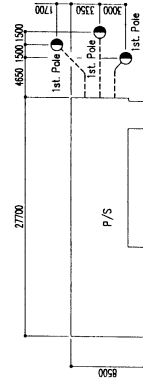
Existing Layout



★ Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

||||| INDICATE MAINTENANCE PIT FOR ENGINE



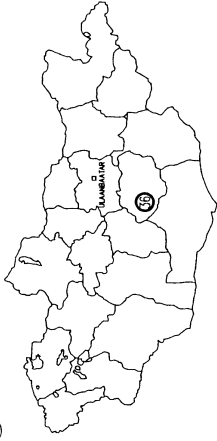
TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE V)
4	1 : 250			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT ADAATSAG (DUNDGOVI)
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
	NO. DATE	CONTENTS		1-C-35-01

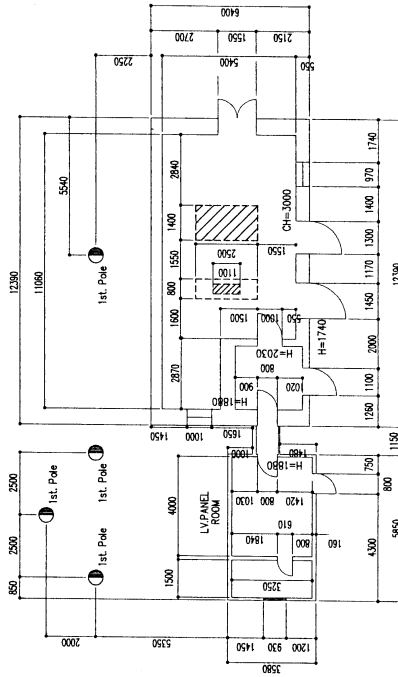
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KEY PLAN

AIMAG : DUNDGOVI
SUM : DELGERHANGAI

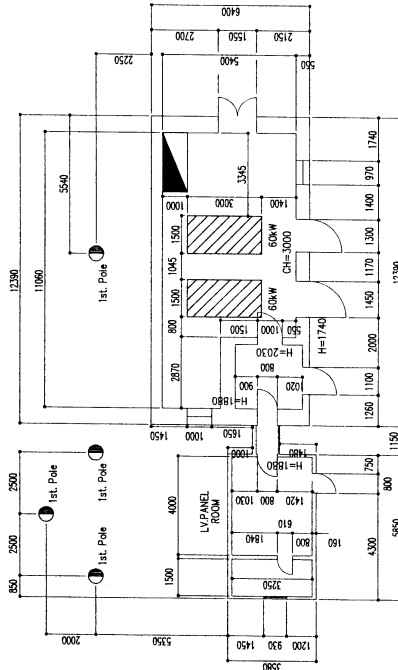


Existing Layout



||||| INDICATE SUMP PIT FOR LUB. OIL OF ENGINE

Layout Plan



★ Scope of Work

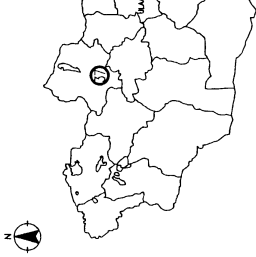
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

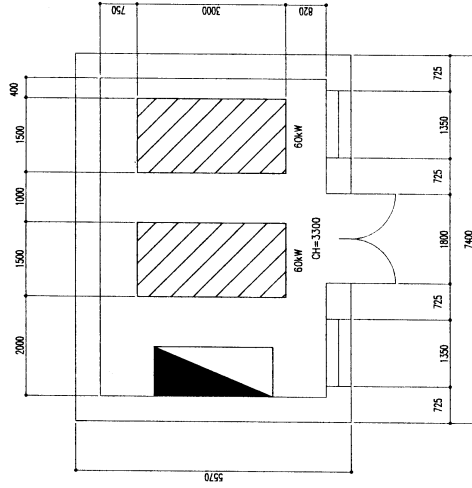
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 200			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT DELGERHANGAI (DUNDGOVI)
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
	CONTENTS			1-G-36-01
	DATE			0

KEY PLAN

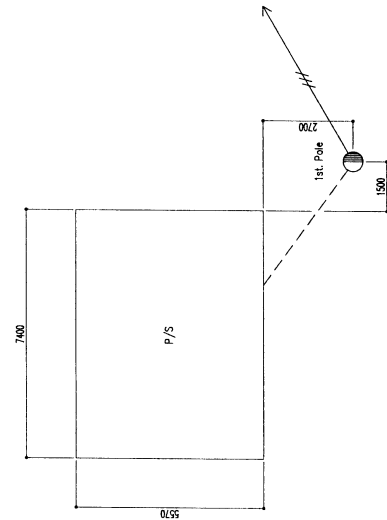
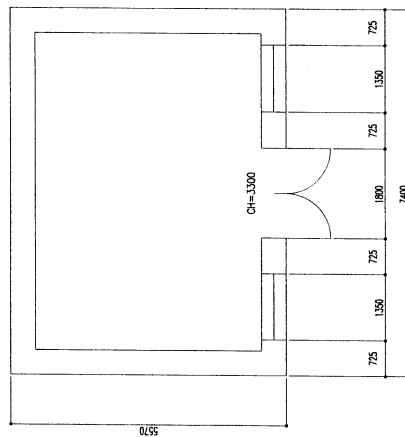
AIMAG : KHUVSUL
SUM : TUMURBULAG



Layout Plan



Existing Layout



Scope of Work

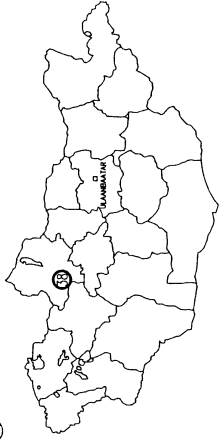
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

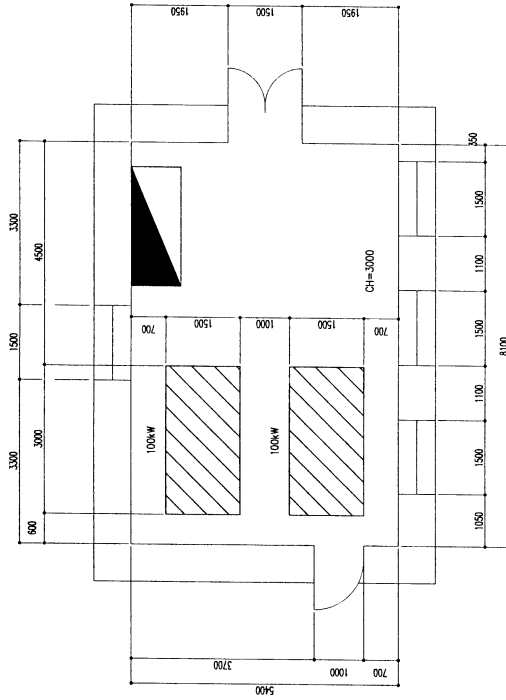
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 100			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT TUMURBULAG (KHUVSUL)
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
NO.	DATE	CONTENTS		1-G-37-01
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KEY PLAN

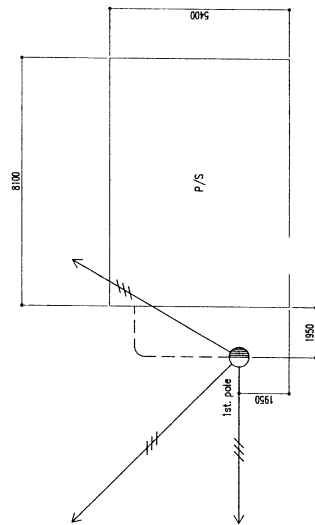
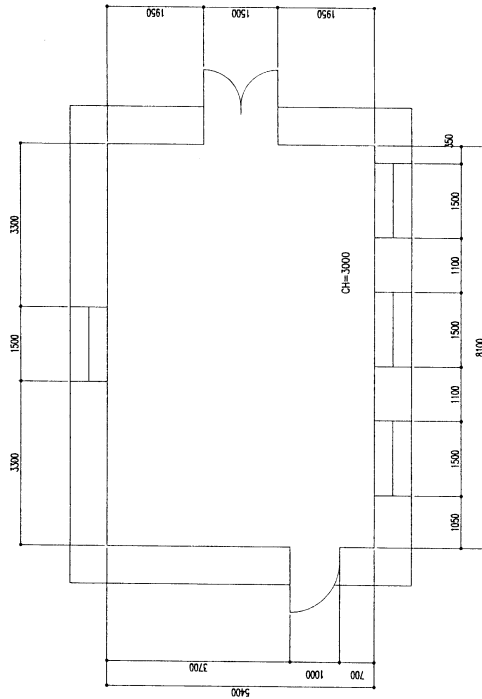
AIMAG : KHUVSGUL
SUM : BURENTOGTOKH



Layout Plan



Existing Layout



Scope of Work

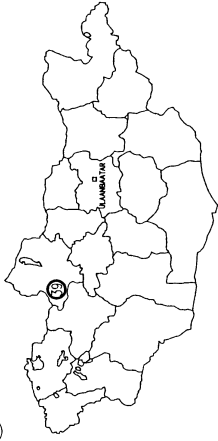
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

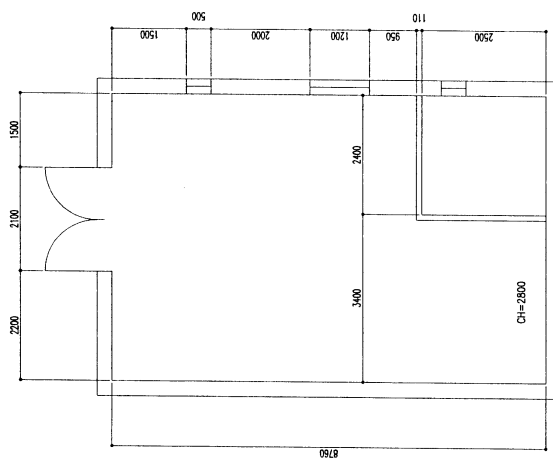
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 100			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT BURENTOGTOKH (KHUVSGUL)
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-G-38-01
		CONTENTS		0

KEY PLAN

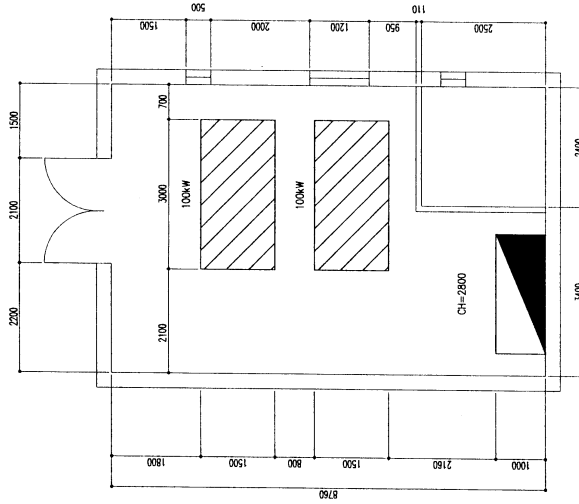
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SUM : TSETSERLEG



Existing Layout

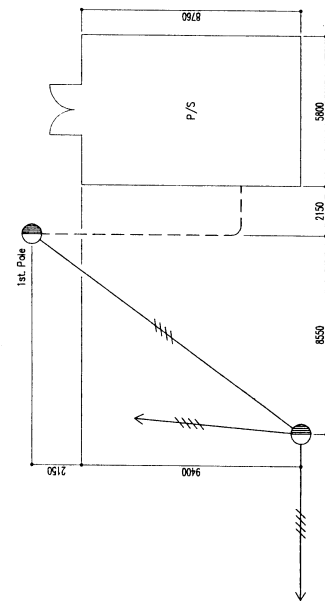


Layout Plan



Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Charger and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

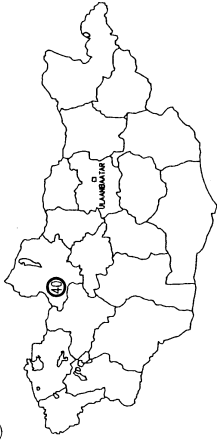


TENDER PURPOSE ONLY

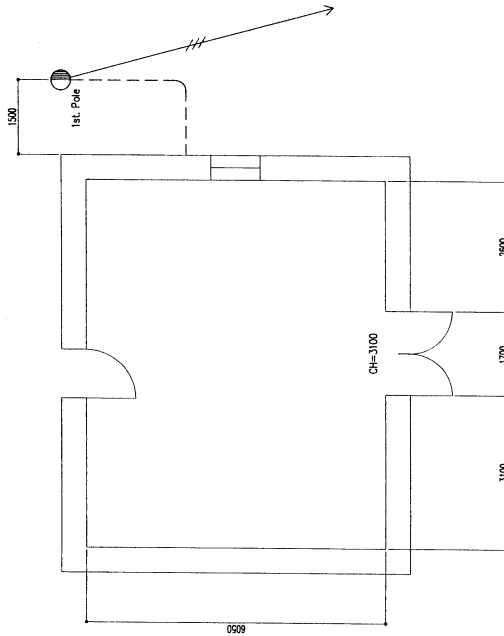
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 100			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT TSETSERLEG (KHUVSGUL)
1	NO.	DATE	CONTENTS	DRAWING NO.
				1-G-39-01
				PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan
				0

KEY PLAN

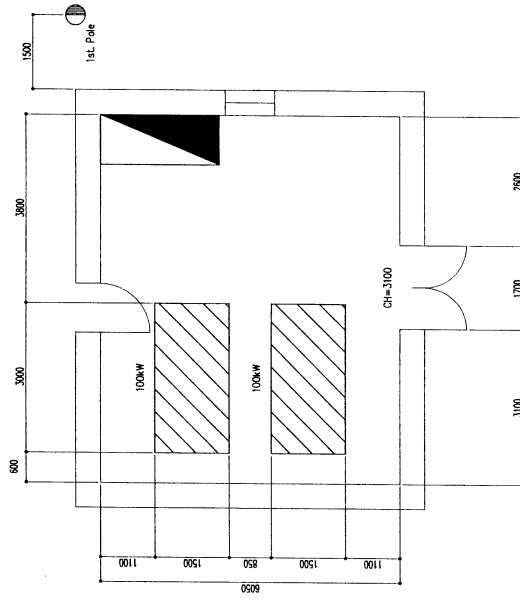
AIMAG : KHUVSGUL
SUM : TSAGAAN-UUL



Existing Layout



Layout Plan



* Scope of Work

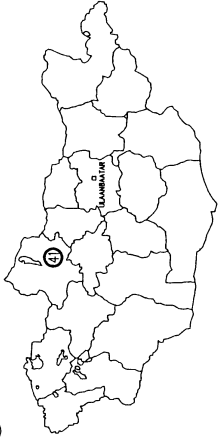
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

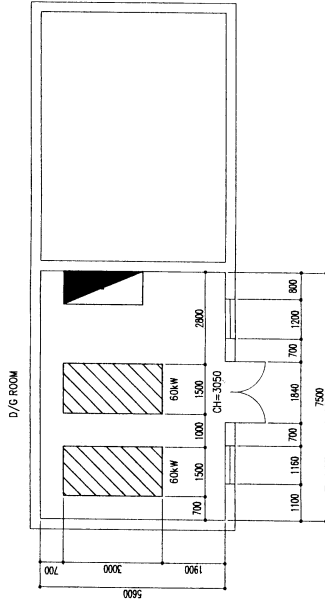
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4	1 : 100			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT TSAGAAN-UUL (KHUVSGUL)
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-G-40-01
		CONTENTS		0

KEY PLAN

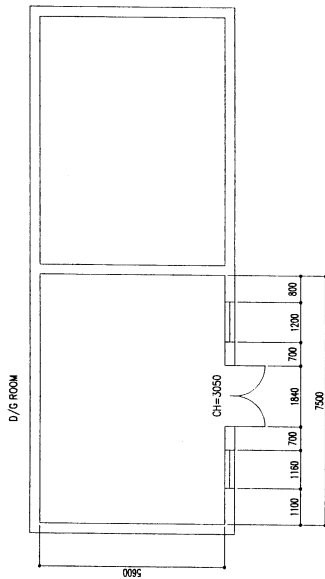
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SUM : ④ TUNEL



Layout Plan

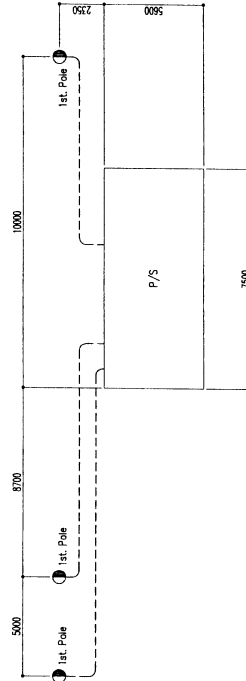


Existing Layout



Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Charger and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

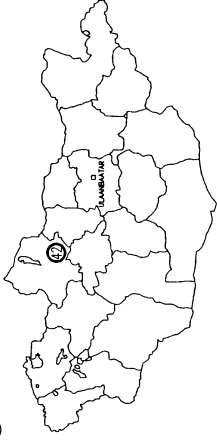


TENDER PURPOSE ONLY

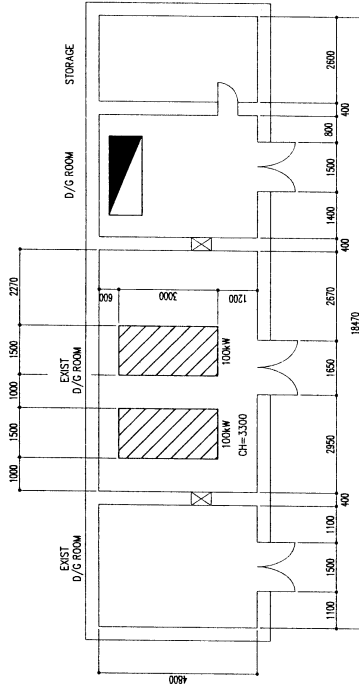
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 150			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT TUNEL (KHUVSGL)
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-G-41-01
		CONTENTS		0

KEY PLAN

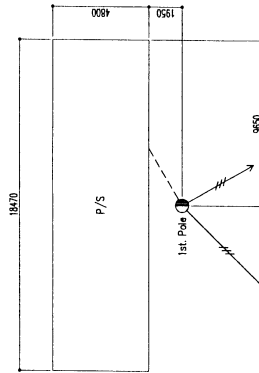
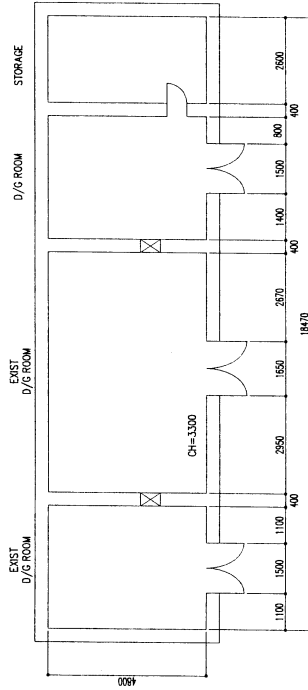
AIMAG : KHUVSGUL
SUM : TOSONTSENDEL



Layout Plan



Existing Layout



■ Scope of Work

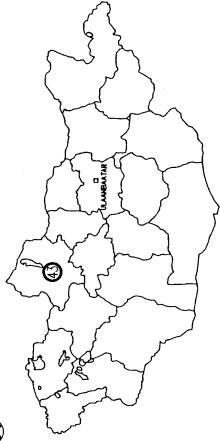
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

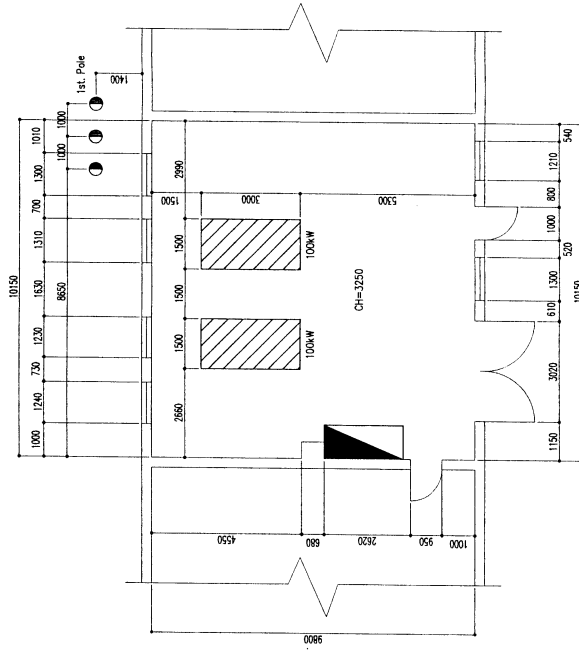
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 150			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT TOSONTSENDEL (KHUVSGUL)
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
NO.	DATE	CONTENTS		1 - C - 42 - 01
				0

KEY PLAN

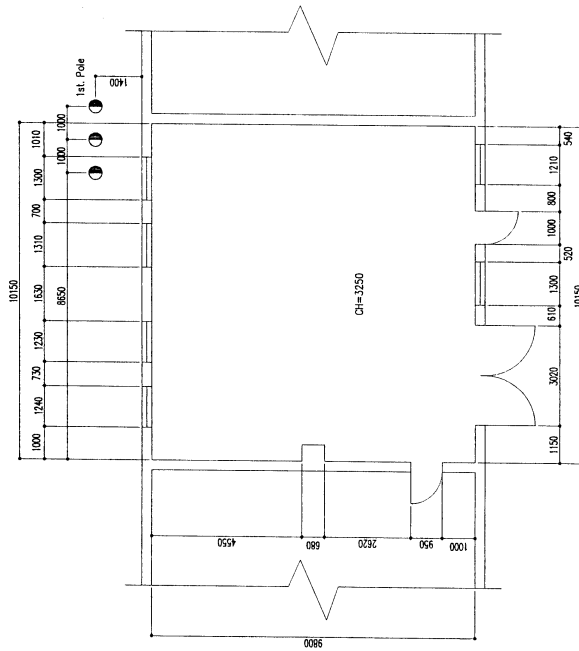
AIMAG : KHUVSGUL
SUM : ③ ALAG-ERDENE



Layout Plan



Existing Layout



* Scope of Work

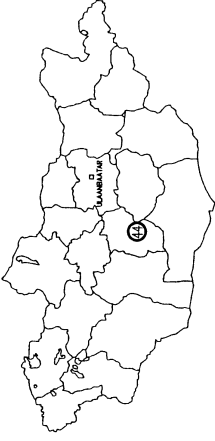
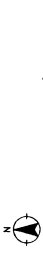
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 150			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT ALAG-ERDENE (KHUVSGUL)
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
NO.	DATE	CONTENTS		1-G-43-01
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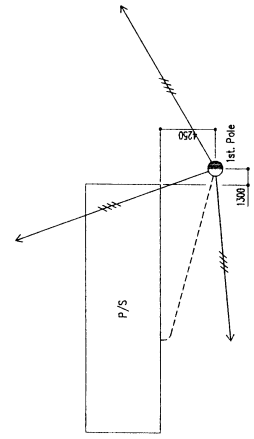
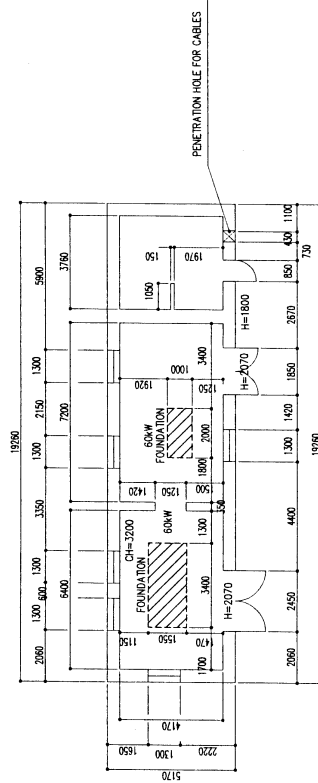
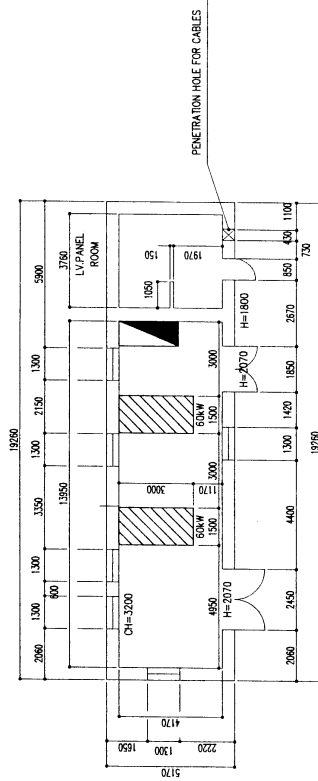
KEY PLAN

AIMAG : UVURKHANGAI
SUM : ТУГРУГ



Layout Plan

Existing Layout



* Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator , Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

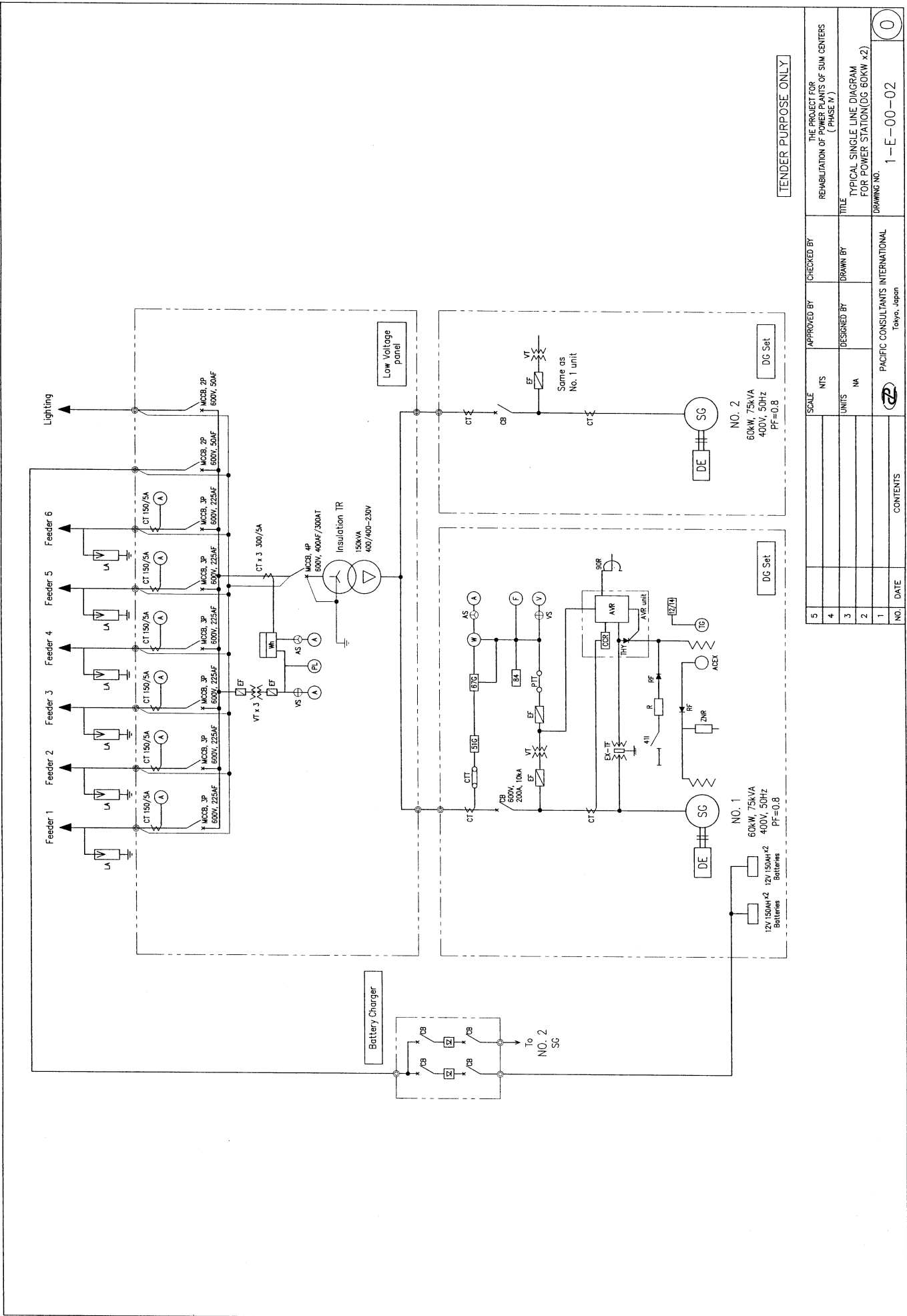
NO.	DATE	CONTENTS	DESIGNED BY	CHECKED BY	APPROVED BY	SCALE	TITLE	THE PROJECT FOR
5						1 : 200	REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)	
4						MM	GENERAL ARRANGEMENT OF POWER PLANT AT TUGRUG (UVURKHANGAI)	
3								
2								
1								
 PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan							DRAWING NO.	
							1-G-44-01	0

Symbol	Name
[DE]	Diesel Engine
[SG]	Synchronous Generator
[TG]	Tacho Generator
ACEX	AC Excitor
ZNR	Surge Absorber (Varistor)
TR	Insulation Transformer
CT	Current Transformer
VT	Voltage Transformer
EF	Fuse
LA	Lightning Arrestor
[AVR]	Automatic Voltage Regulator
[51G]	Over Current Relay
[84]	Voltage Relay
[67G]	Reverse Power Relay
[V]	Voltmeter
⊕ VS	Voltmeter COS
[A]	Ammeter
⊗ AS	Ammeter COS
[WH]	Watt-hour Meter

Symbol	Name
[F]	Frequency Meter
[12/14]	Over/Low Speed Relay
[W]	Watt Meter
$\frac{x}{y}$ MCCB	Breaker
[Σ]	Rectifier Unit
[PL]	Pilot Lamp

TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	NTS			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE ELECTRICAL SYMBOLS AND ABBREVIATIONS
2	NA			
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO. 1-E-00-01
NO.	DATE	CONTENTS		0



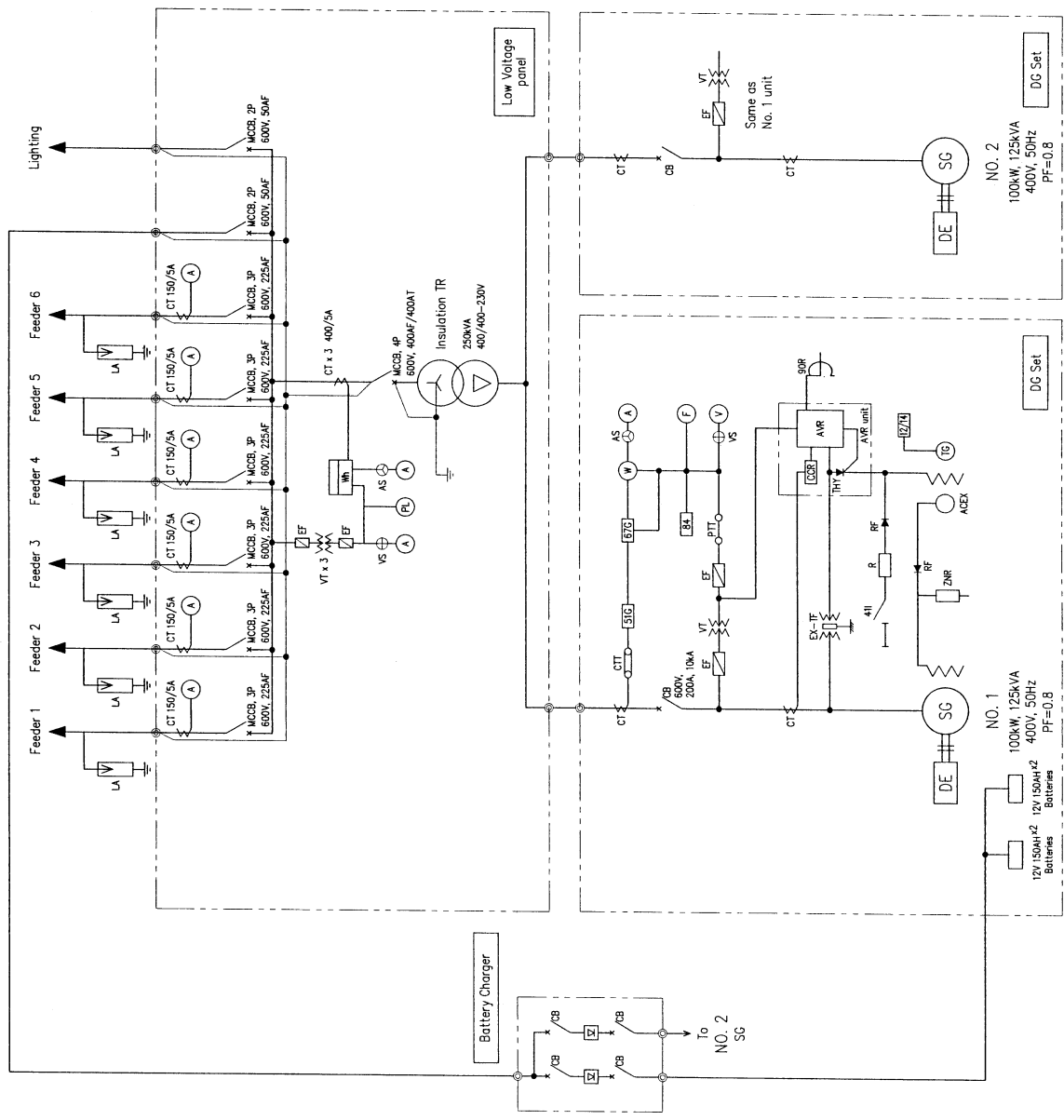
TENDER PURPOSE ONLY

NO.	DATE	CONTENTS
5		
4		
3		
2		
1		

SCALE	CHECKED BY	APPROVED BY
NTS		
UNITS	MA	

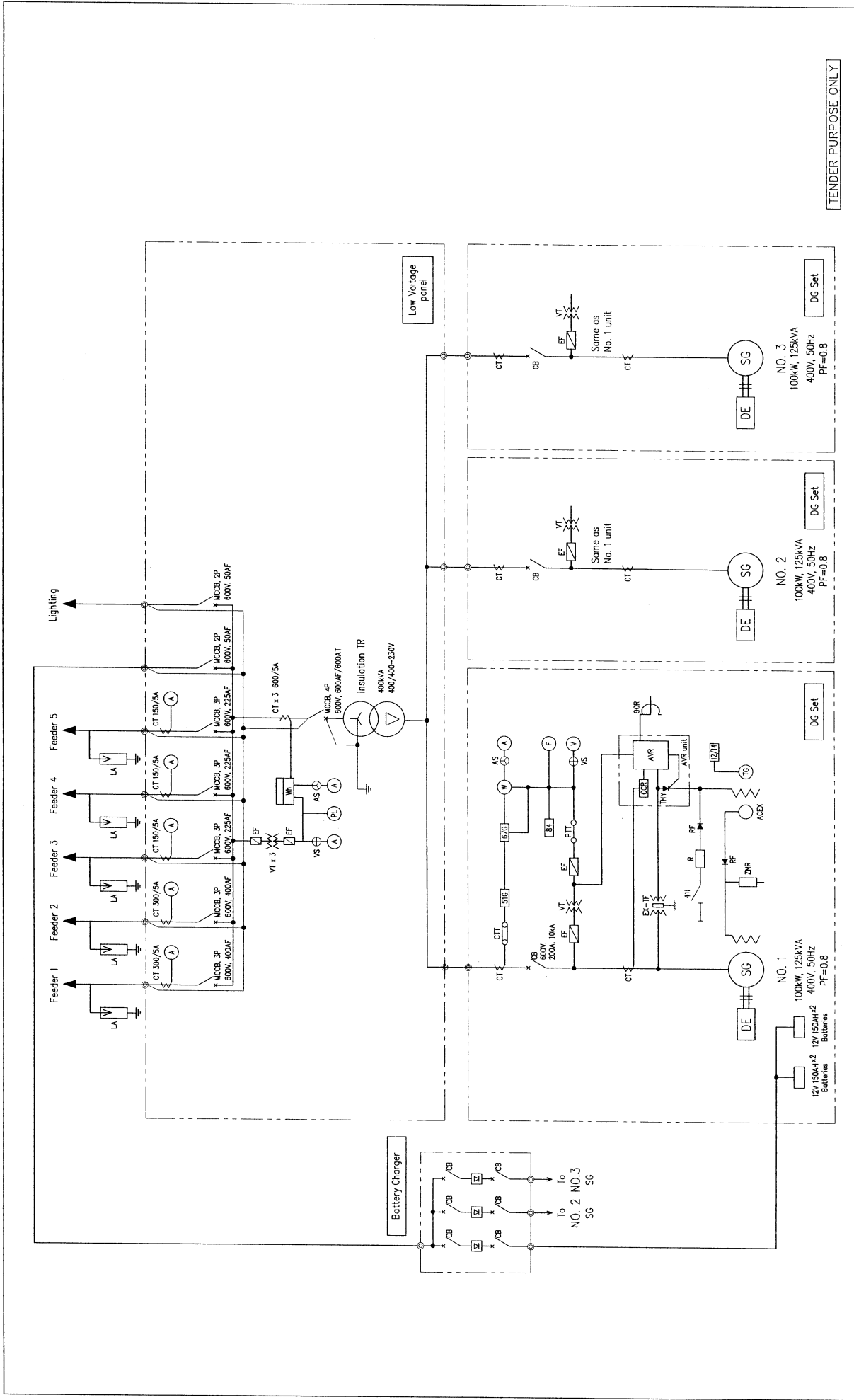
THE PROJECT FOR
 REHABILITATION OF POWER PLANTS OF SUM CENTERS
 (PHASE IV)
 TITLE
 TYPICAL SINGLE LINE DIAGRAM
 FOR POWER STATION (DS 60KW x2)
 DRAWING NO.
 1-E-00-02

PACIFIC CONSULTANTS INTERNATIONAL
 Tokyo, Japan



TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	NTS			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MA			TYPICAL SINGLE LINE DIAGRAM FOR POWER STATION (DC 100KW x2)
1	NO. DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
				1-E-00-03
	CONTENTS			0

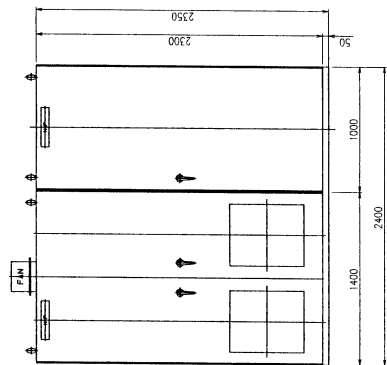


TENDER PURPOSE ONLY

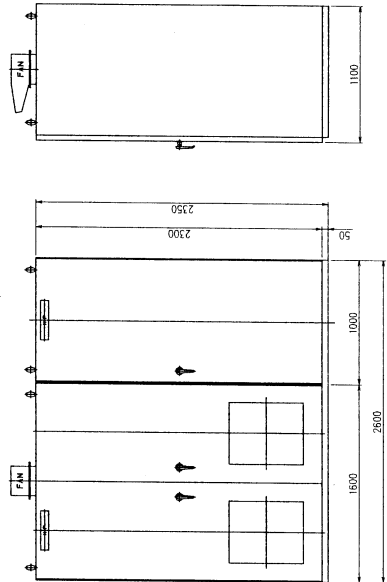
NO.	DATE	CONTENTS	APPROVED BY	CHECKED BY
5				
4				
3				
2				
1				

SCALE	NIS	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
UNITS	NA	DESIGNED BY	TITLE
		DRAWN BY	TYPICAL SINGLE LINE DIAGRAM FOR POWER STATION(DC 100kW x3)
			DRAWING NO.
			1-E-00-04

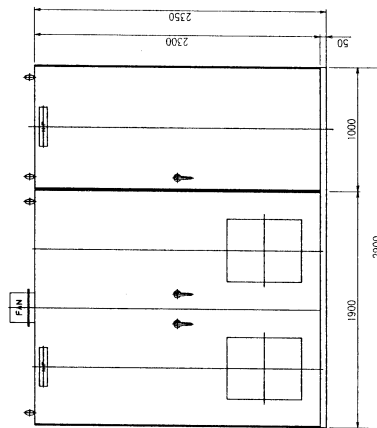
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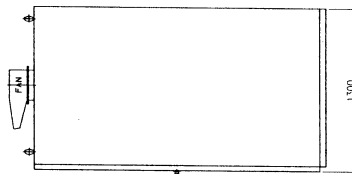
TYPE A (FOR DG 60kW x 2)



TYPE B (FOR DG 100kW x 2)



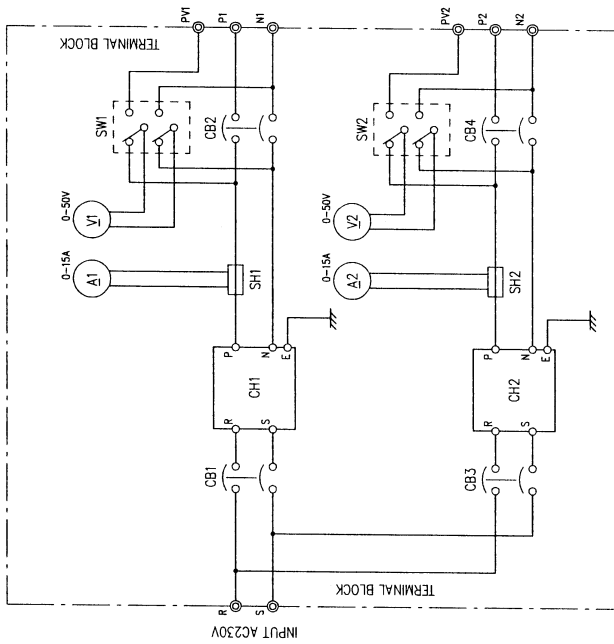
TYPE C (FOR DG 100kW x 3)



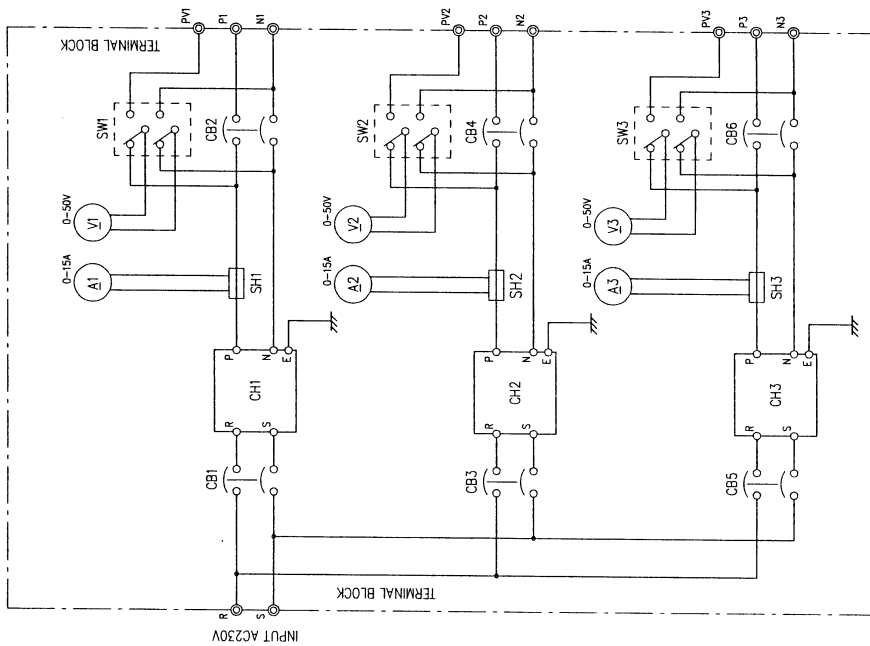
TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 40	DESIGNED BY	DRAWN BY	
3	UNITS MM			TITLE OUTLINE OF LOW VOLTAGE PANEL
2				
1				
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO. 1-E-00-05
		CONTENTS		0

LEGEND	
SYMBOL	DESCRIPTION
CB	CIRCUIT BREAKER
CH	CHARGER UNIT
A1	DC AMMETER
SH	SHUNT
V1	DC VOLTMETER
SW	VOLTMETER CHANGE-OVER SWITCH



BATTERY CHARGER WITH 2 UNITS

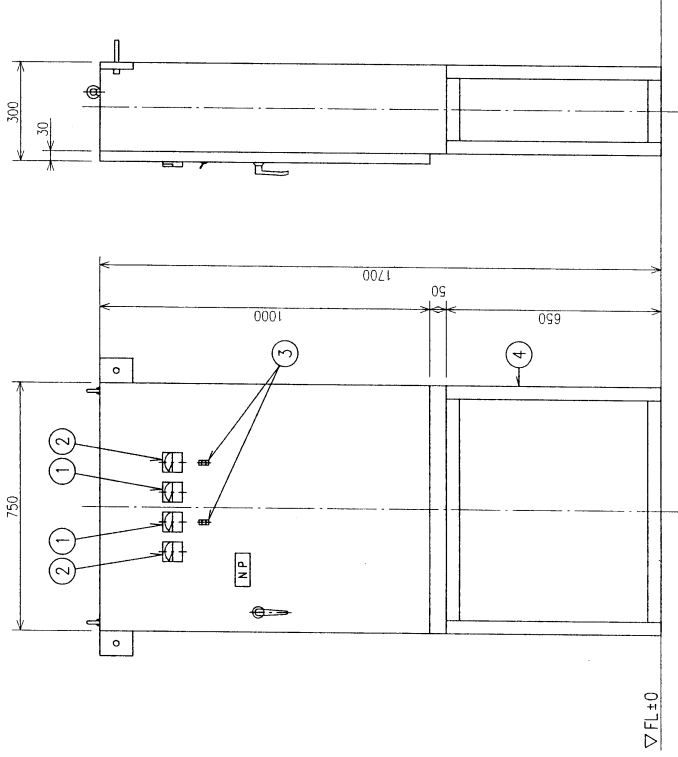


BATTERY CHARGER WITH 3 UNITS

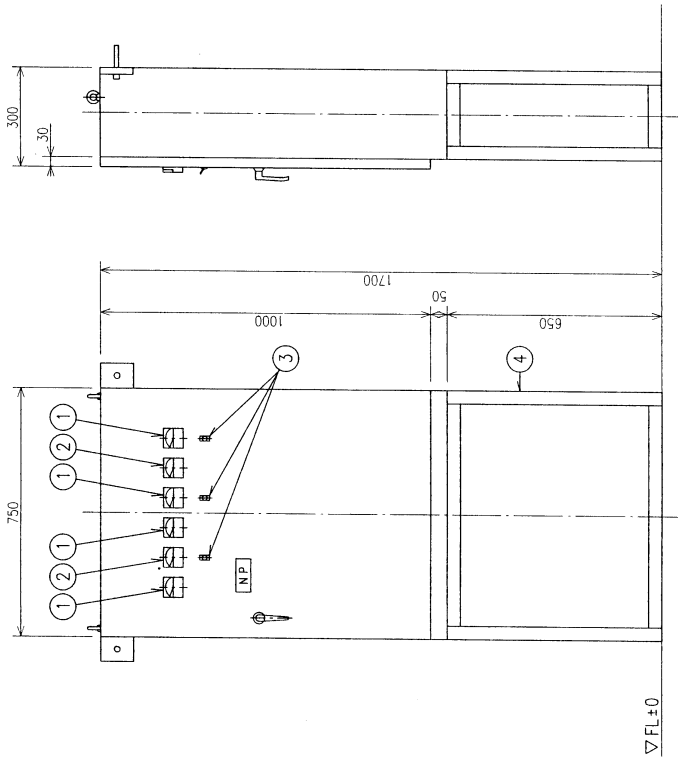
TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY
4	NTS		
3	UNITS	DESIGNED BY	DRAWN BY
2	NA		
1			
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan	
	CONTENTS		
		DRAWING NO. 1-E-00-06	
		0	

LEGEND	
NO.	DESCRIPTION
①	DC AMMETER
②	DC VOLTMETER
③	VOLTMETER CHANGE-OVER SWITCH
④	STEEL STRUCTURE



BATTERY CHARGER WITH 2 UNITS

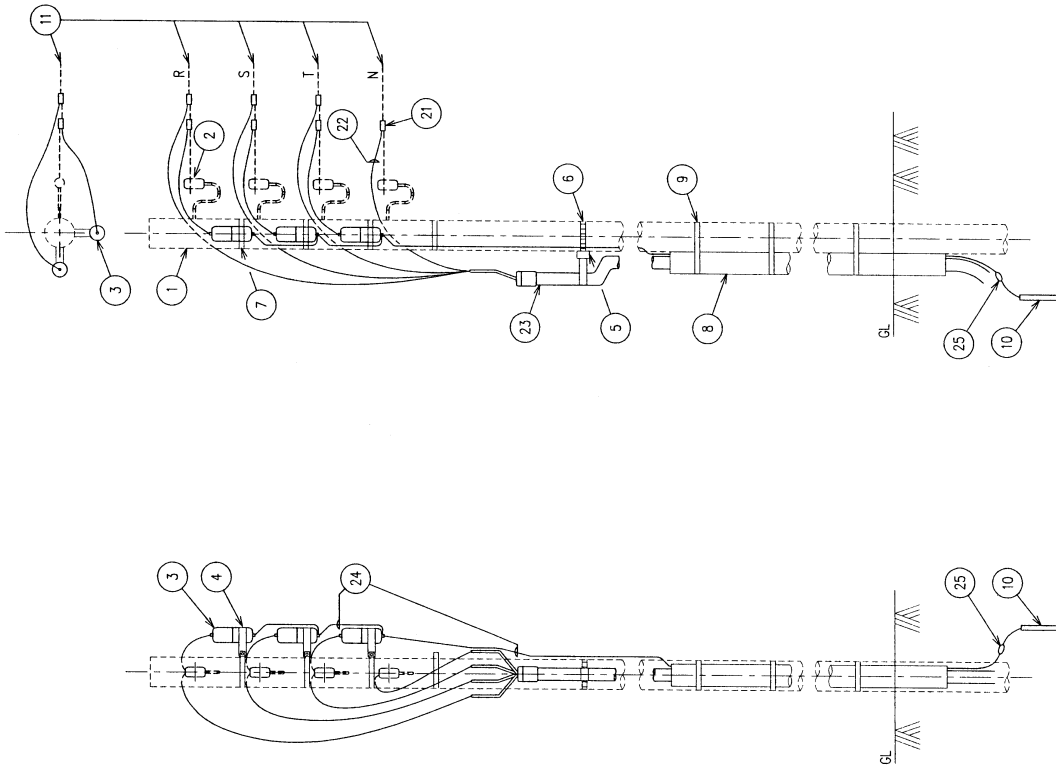


BATTERY CHARGER WITH 3 UNITS

TENDER PURPOSE ONLY

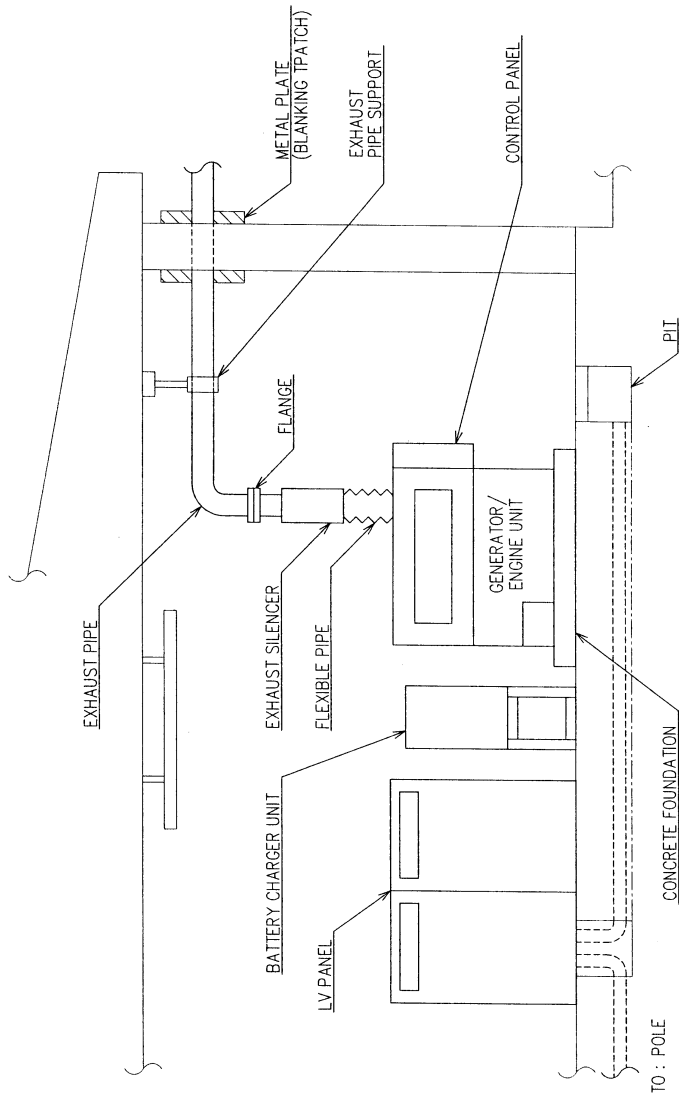
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4	1 : 15			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			OUTLINE OF BATTERY CHARGER FOR SUM CENTER
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-E-00-07
		CONTENTS		0

Legend	
No.	Description
1	Existing Pole
2	Existing LV Pin Insulator
3	Lightning Arrester
4	Support for Arrester
5	Cable Bracket Support
6	Band
7	Stainless Steel Band with Cover
8	Cable Protection Pipe
9	Stainless Steel Band for Pipe
10	Grounding Rod
11	Existing Overhead Line
21	PG Clamp
22	Insulation Wire
23	600V Power Cable
24	600V TE Cable
25	Bolt Connector



TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	NTS			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	NA			TYPICAL CABLE TERMINATION OF EXIST. OVERH. LINES
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
	NO. DATE			1-E-00-08
	CONTENTS			0

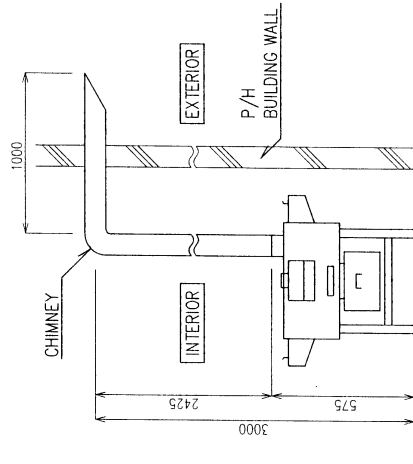
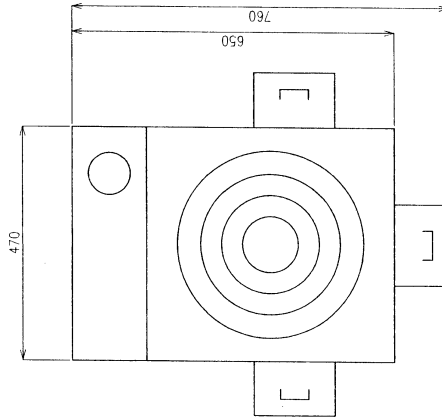
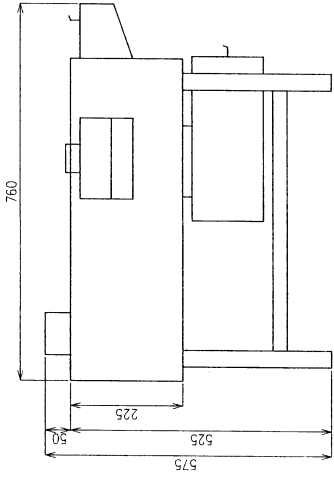
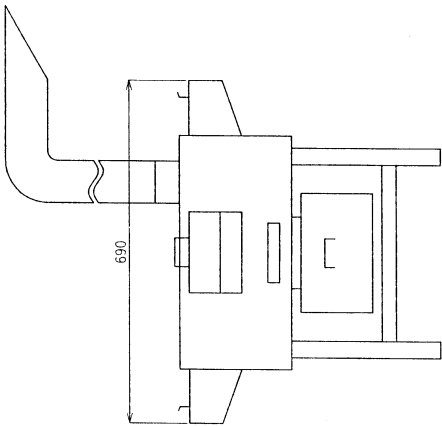


TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	UNITS	DESIGNED BY	DRAWN BY	TITLE
3	UNITS	NA		TYPICAL EQUIPMENT ARRANGEMENT IN POWER HOUSE (ELEVATION)
2				DRAWING NO.
1	NO. DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-M-00-01
	CONTENTS	0		

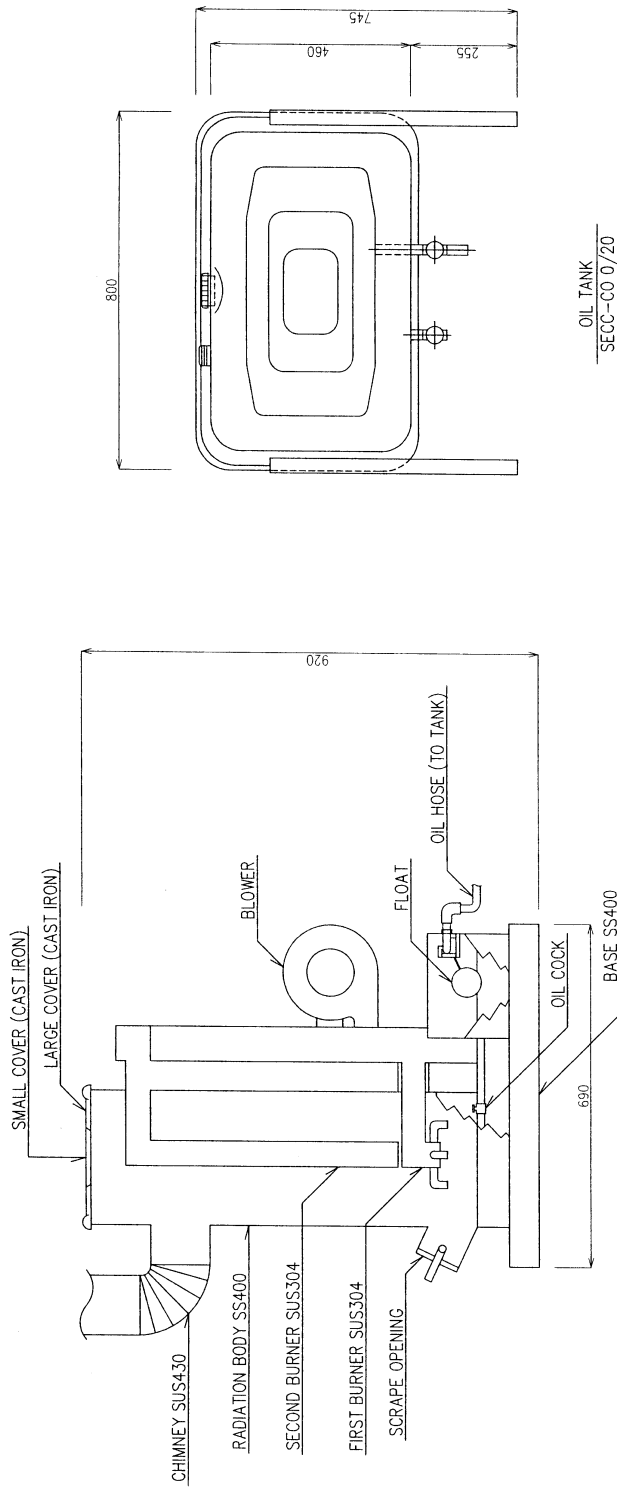
NOTE :

- 1) STOVE BODY : CAST IRON OR IRON PLATE
- 2) CHIMNEY : GALV. STEEL



TENDER PURPOSE ONLY.

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)	
4	NTS				
3	UNITS	DESIGNED BY	DRAWN BY		
2	MM				
1					
		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		TITLE	
					OUTLINE OF STOVE
					DRAWING NO.
					1-M-00-02
					0

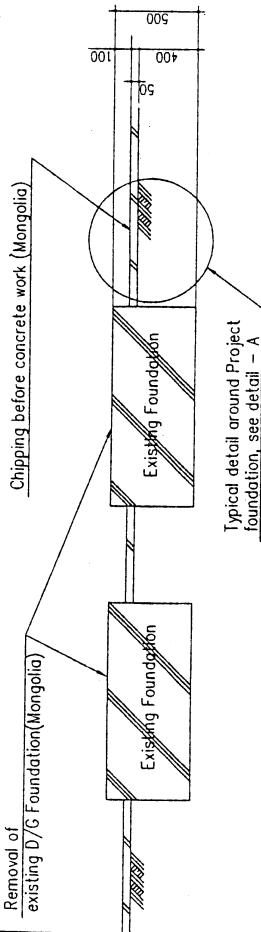


OIL TANK
SECC-CO 0/20

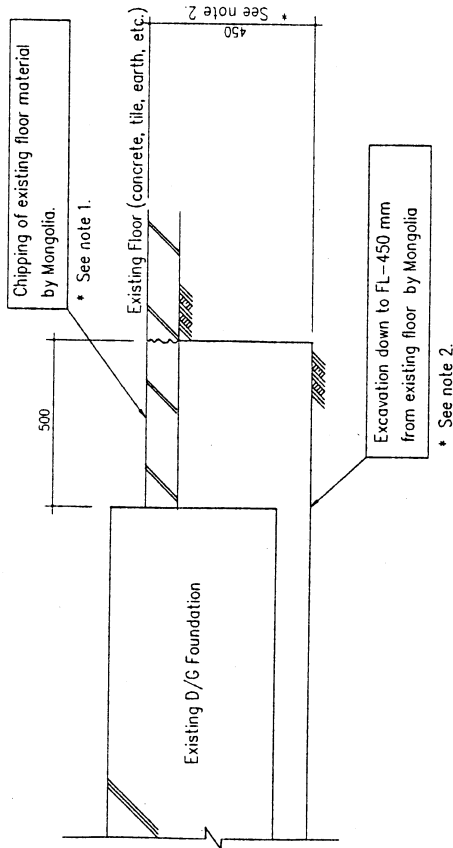
TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF FURNACE PARTS OF SUM CENTERS (PHASE IV)
4	NTS	DESIGNED BY	DRAWN BY	TITLE
3	MM	OUTLINE OF WASTE OIL INCINERATOR		
2		DRAWING NO.		
1	DATE	1-M-00-03		
	CONTENTS	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		
		0		

Removal of existing D/G Foundation (Mongolia)

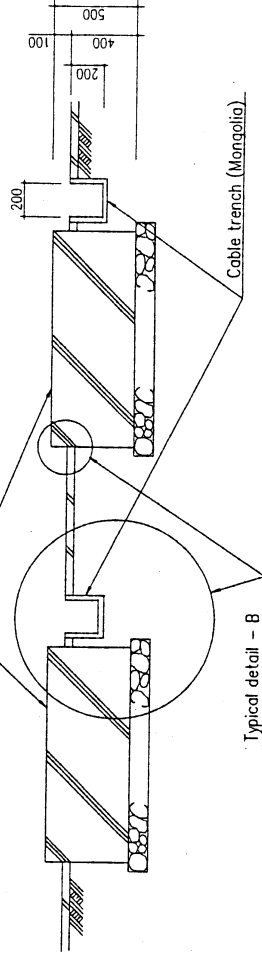


Typical Section for Preparation Work

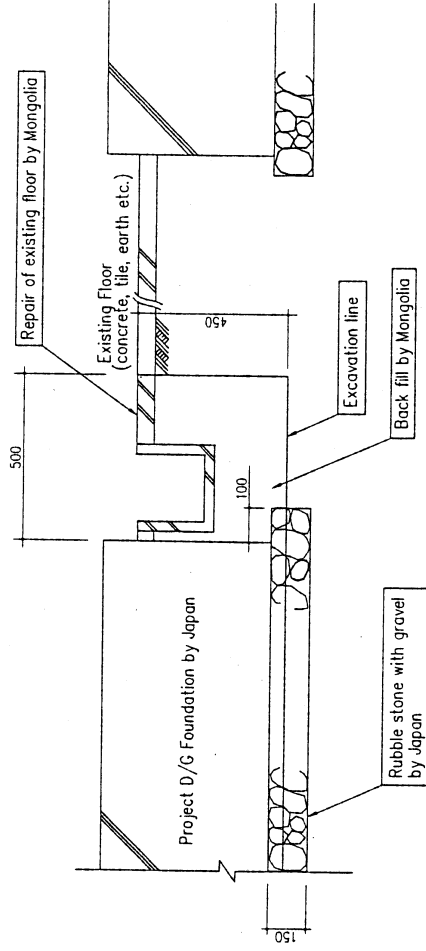


Detail A

Project D/G Foundation (Japan)



Typical Section of Construction Work



Detail B

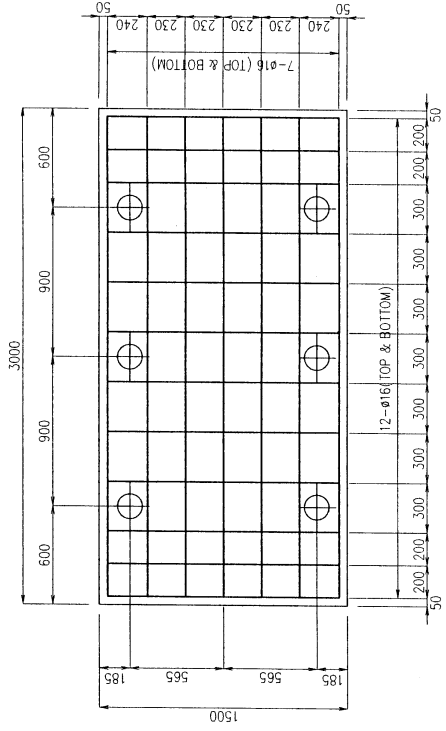
- Note :
1. When clear distance of each foundation is less than 1500mm, chipping and excavation shall be continuous between the foundations.
 2. At locations where bottom of the existing D/G foundation is lower than FL-450, the entire foundation must be demolished by Mongolia.
 3. At locations mentioned in above note 2, the Contractor shall backfill the foundation area up to the level required with approved material.

TENDER PURPOSE ONLY

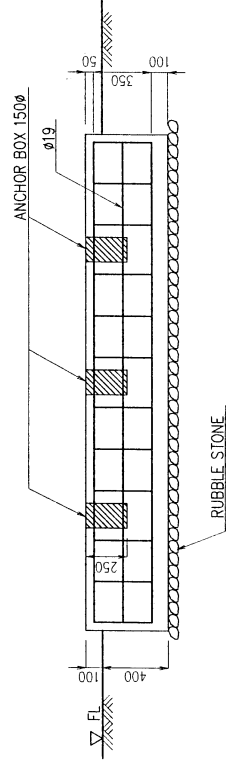
NO.	DATE	CONTENTS	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PAGE IV)
5			M/S			SCOPE OF WORK FOR DG 60KW & DG 100KW FOUNDATION DRAWING NO.
4			MM			
3						
2						
1						
						1-C-00-01

0

DC 100kW



PLAN

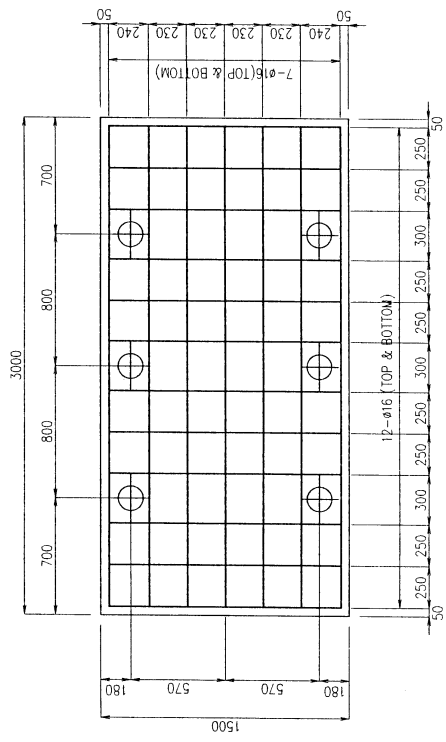


SECTION

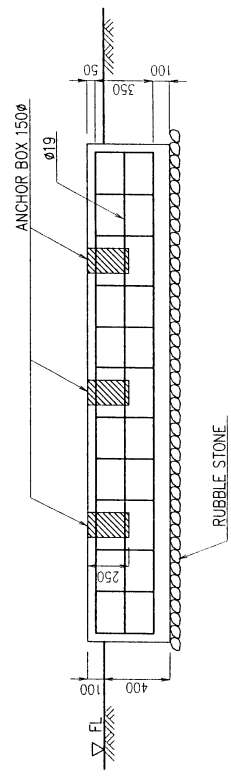
DIMENSION 3000mm x 1500mm x 500mm

REINFORCEMENT
 φ16mm : 3550 x 14
 φ16mm : 2050 x 24
 φ16mm : 4970 x 2

DC 60kW



PLAN



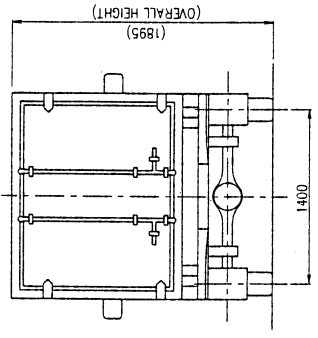
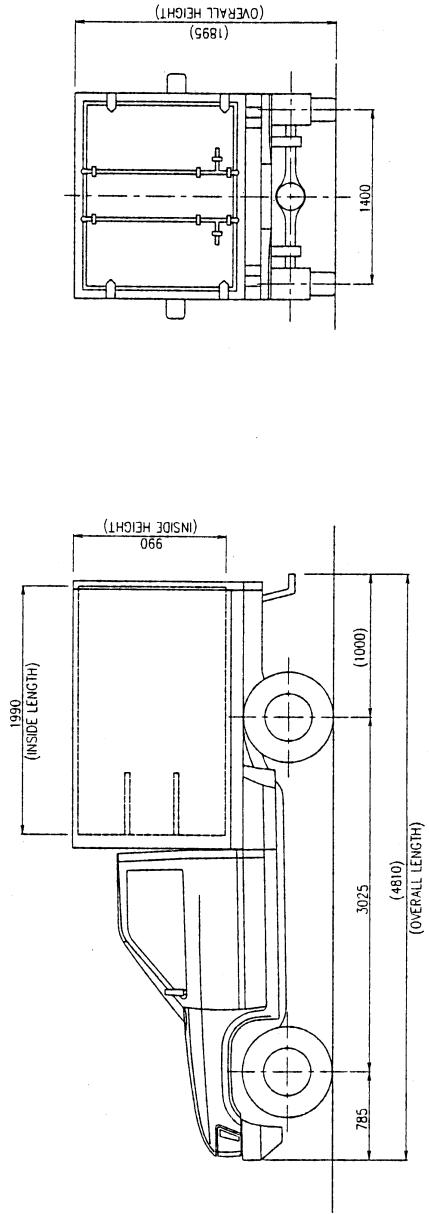
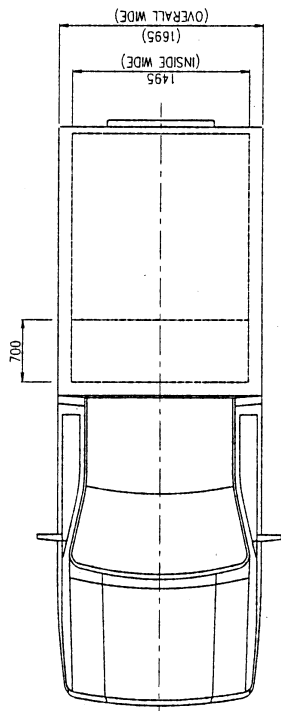
SECTION

DIMENSION 3000mm x 1500mm x 500mm

REINFORCEMENT
 φ16mm : 3550 x 14
 φ16mm : 2050 x 24
 φ16mm : 4970 x 2

TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE 'N')
4	1 : 30			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			STANDARD DETAILS FOUNDATION FOR DG 60kW AND DG 100kW
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
	NO. DATE	CONTENTS		1-C-00-02
				0



TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF PUBLIC WORKS OF SUM CENTERS (PHASE IV)
4	INS			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			OUTLINE OF MAINTENANCE VEHICLE
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
NO.	DATE	CONTENTS		1-V-00-01
				0

Description	60 kw DG	100 kw DG
Category A (Replacement: 2,000 hours)	pcs	pcs
(1) Oil filter cartridge	30	30
(2) Fuel filter cartridge	15	15
(3) Corrosion resistor cartridge	15	15
(4) Air cleaner element	6	6
Category B (Replacement: 8,000 hours)		
(1) Fuel hose	4	4
(2) Nozzle holder assembly	3	3
Category C (Replacement: 10,000 hours)		
(1) Oil pump assembly	1	1
(2) Piston ring assembly	6	6
(3) Cylinder head cover O-ring	6	6
(4) Cylinder head gasket kit	1	1
(5) Cylinder block gasket kit	1	1
(6) Engine alternator assembly	1	1
(7) Water pump assembly	1	1
(8) Damper	1	1
Category D (Replacement: Undefined)		
(1) Bulb for panel light	5	5
(2) Rectifier	2	2
(3) ZNR (Varistor)	1	1
(4) AVR	1	1
(5) Radiator cap	1	1
(6) Volt meter	1	1
(7) Ammeter	1	1
(8) Fuel injection pump	1	1
(9) Turbo charger	1	1
(10) Gasket for turbo charger	2	2
(11) Engine starter assembly	1	1

Description	L.V. Panel A	L.V. Panel B	L.V. Panel C
Category E (For Aimag)	pcs	pcs	pcs
(1) MCCB 4P 600AF/600AT	-	-	1
(2) MCCB 4P 400AF/400AT	-	1	-
(3) MCCB 4P 300AF/300AT	1	-	-
(4) MCCB 3P 225AF/150AT	2	2	2
(5) MCCB 2P 50AF/50AT	2	2	2
(6) Voltmeter 0-600V Class 1.5	1	1	1
(7) Ammeter 0-600A Class 1.5	1	1	1
(8) Ammeter 0-200A Class 1.5	2	2	2
(9) Watt-Hour meter 3 φ 4W 600/5A (CT, VT)	-	-	1
(10) Watt-Hour meter 3 φ 4W 400/5A (CT, VT)	-	-	1
(11) Watt-Hour meter 3 φ 4W 300/5A (CT, VT)	1	-	-
Category F (For Sum Center)			
(1) Pilot lamp AC 110V Red	9	9	9
(2) Fuse VT primary	5	5	5
(3) Fuse VT secondary	5	5	5

LOW VOLTAGE (L.V.) PANEL

Description	Qty
For Maintenance Vehicle	
(1) Gasket kit-Engine repair	1
(2) Gasket kit-Valve regrind	1
(3) Fan belt-Fan & alternator	1
(4) Belt-compressor	1
(5) Filter assembly-Oil	2
(6) Strainer assembly-Fuel	1
(7) Element assembly-Air	1
(8) Thermostat assembly	1
(9) Bulb	2
(10) Lamp assembly-Side combination, RH	1

DIESEL GENERATOR SET

Note:

For distribution of spare parts, see DWG No. 1-G-00-02.

(11) Lamp assembly-Side combination, LH	1
(12) Lamp assembly-Side flasher	1
(13) Lamp assembly-Rear combination, RH	1
(14) Lamp assembly-Rear combination, LH	1
(15) Lamp assembly-License	1
(16) Disk assembly-Clutch	1
(17) Cover assembly-Clutch	1
(18) Cylinder assembly-Clutch master	1
(19) Cylinder assembly-Clutch operating	1
(20) Bearing-Clutch release	1
(21) Seal-Grease, front hub	1
(22) Absorber kit-Shock, front	2
(23) Absorber kit-Shock, rear	2
(24) Seal-oil, rear axle shaft	1
(25) Pad kit-Disk brake	1
(26) Seal kit-Disk brake	2
(27) Shoe set-Rear brake	2
(28) Cylinder assembly-Brake master	1
(29) Hose assembly brake, front	1
(30) Hose assembly brake, rear	1
(31) Seal kit-Oil, rear housing steering gear	1
(32) Glass-Windshield	1
(33) Drain rubber-Sealant	1
(34) Molding-Windshield upper, center	1
For Waste Oil Incinerator	
(1) Oil filter	1

MAINTENANCE VEHICLE/OIL INCINERATOR

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	UNITS	DESIGNED BY	DRAWN BY	TITLE
3				SPARE PARTS FOR EQUIPMENT
2				DRAWING NO.
1				1-S-00-01
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		0

Description	Qty
For Mobile Maintenance Team	(1 set)
Meter for Test and Inspection	1
(1) Injection nozzle tester (0-500 kg/sqcm)	1
(2) Compression gauge (0-70 kg/cm ²)	1
(3) Cylinder gauge (50-150mm)	1
(4) Piston filler gauge (230mm, 0.05-0.38mm)	1
(5) Outside micrometer (100-125mm)	1
(6) Dial gauge (0-10 mm, 1/1000mm)	1
(7) Thickness gauge (Dial type)	2
(8) Digital multilevel meter (40M Ω , 1000V)	1
(9) Clamp ammeter (100/1000A, AC750V, DC1000V)	1
(10) Megohmmeter (250/500/1000V, 100M Ω)	1
(11) Face meter	1
(12) Pressure meter (0-10kg/sqcm)	1
(13) Thermometer	2
(14) Coolant tester	1
(15) Screw pitch meter	1
(16) Surface gauge (300mm)	1
(17) Fuel leak checker	1
(18) Multi tachometer	1
(19) Blow-by pressure gauge	1
(20) Radiator cap tester	1
(21) Hydrometer	1
(22) Sound scope	2

Description	Qty
Tools for Overhaul, Assembly and Electrical Work	(1 set)
(1) Polyethylene vessel	1
(2) Drum pump (Hand revolution type)	1
(3) Oil jug (2L)	1
(4) Oiler (180 cc)	2
(5) Level type grease gun (500ml)	1
(6) Tool set for maintenance of engine (75)	1
(7) Piston ring compressor (100-130mm)	1
(8) Piston ring tool (Max. 135mm)	1
(9) Bearing puller set	1
(10) Hydraulic jack (Cap. 4 ton)	2
(11) Convex (5.5m)	1
(12) Files set (5 files)	2
(13) Frame of bow type saw (250mm)	2
(14) Flashlight	2
(15) Extra cord (30m)	1
(16) Polyethylene tank (20L)	1
(17) Wire brush (150mm)	2
(18) Paint brush (50mm)	4
(19) Torque wrench (4-20 kgf.m)	1
(20) Torque wrench (10-50 kgf.m)	1
(21) Vernier micrometer (300mm)	1
(22) Magnetic stand for dial gauge	2
(23) V block	1
(24) Straight rule (1m)	1
(25) Test pump (50kg/sqcm)	1
(26) Chain block (3 ton)	2
(27) Wire (ϕ 10mm, L 3m)	4
(28) Vise pliers (200mm)	1
(29) Tap for use (M6, M8, M10, M12)	2
(30) Tap dies (6, 8, 10, 12M)	1
(31) Tap dies (Handle type)	1
(32) Noga deburring cutter	2
(33) Electric drill (13mm)	1
(34) Drill (6.0-13.0mm, 0.5mm)	1
(35) Soldering iron set (220V, 200W)	1

Description	Qty
(36) Pliers for crimp contact (1.25-8sqmm)	1
(37) Nipple	1
(38) Cable stripper	1
(39) Cutter knife	1
(40) Piston ring tool (100-130mm)	1
(41) Cylinder liner rimber	1
(42) Nipple PT 1/8	1
(43) Socket wrench kit	1
(44) Oil filter wrench	1
(45) Rubber hammer	1
(46) Double face sledge (8LB)	1
(47) Jimmy bar	1
(48) Straight edge	1
(49) Magnetic base	1
(50) Push tool kit	1
(51) Polyester sling (20W, 1.5m)	2
(52) Polyester sling (25W, 2.0m)	2
(53) Polyester sling (40W, 2.0m)	2
(54) Work bench	1
(55) Air impact wrench	1
(56) Needle scalar	1
(57) Screw plate set	1
(58) Tool tray (10 pcs)	1
(59) Magnetic finger	1
(60) Tube flaring & cutting tools	1
(61) 25 ton press water pump	1
(62) Air compressor (5.5kW)	1
(63) Hose band	2
(64) Compressor oil	2
(65) Hose band	2
(66) Socket for hose	2
(67) Socket for piping	2
(68) Plug for hose	2
(69) Plug for piping	2
(70) 1/2 Drive impact socket (10 pcs)	1
(71) Parts washing stand	1

Note:

For distribution of maintenance tools, see DWG No. 1-G-00-02.

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	UNITS	DESIGNED BY	DRAWN BY	TITLE
3				TOOLS FOR MOBILE TEAM
2				DRAWING NO.
1				1-T-00-01
NO	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		0
	CONTENTS			

Description	Qty
(72) Engine cleaning gun	1
(73) Water pump	1
(74) Piston heater	1
(75) Valve spring tester	1
(76) Connecting rod aligner	1
(77) Air valve lopper	1
(78) Valve refacer	1
(79) Sealant repair kit	6
(80) Dust & mist respirator	10
(81) Industrial goggle	10
Consumables Materials	(1 set)
(1) Grease (No.6) 1 kg	2
(2) Penetration spray (CR-5) 480ml	5
(3) Color check spray (6/set)	5
(4) Liquid packing (200g)	10
(5) Insulating tape 20m, black	50
(6) Insulating tape 20m, red	10
(7) Insulating tape 20m, yellow	10
(8) Insulating tape 20m, green	10
(9) Crimp contact 1.25, 2, 5.5, 8 sqmm/set	5
(10) Sand paper #100, 10 sheet/case	20
(11) Saw blade for bow type saw 250mm	20
(12) Waste 1kg	10
(13) Work gloves	10
(14) Rubber gloves	5
(15) Oil stone	1
(16) Vise	1
(17) Abrasive cloth	10

Description	Qty
For Sum	(1 set)
(1) Digital tester DC 1000V, AC 750V, 10A, 50MΩ	1
(2) Clamp meter AC/DC 100/1000A AC 750V, DC 1000V	1
(3) Diesel engine maintenance tool sets with lockable box, 40 tools for more than	1
(4) Cotton work gloves	5
(5) Rubber work gloves	3
(6) Soldering iron (220V, 200W) w/solder 1kg	1
(7) Stepladder, Aluminium 2m or more than	1

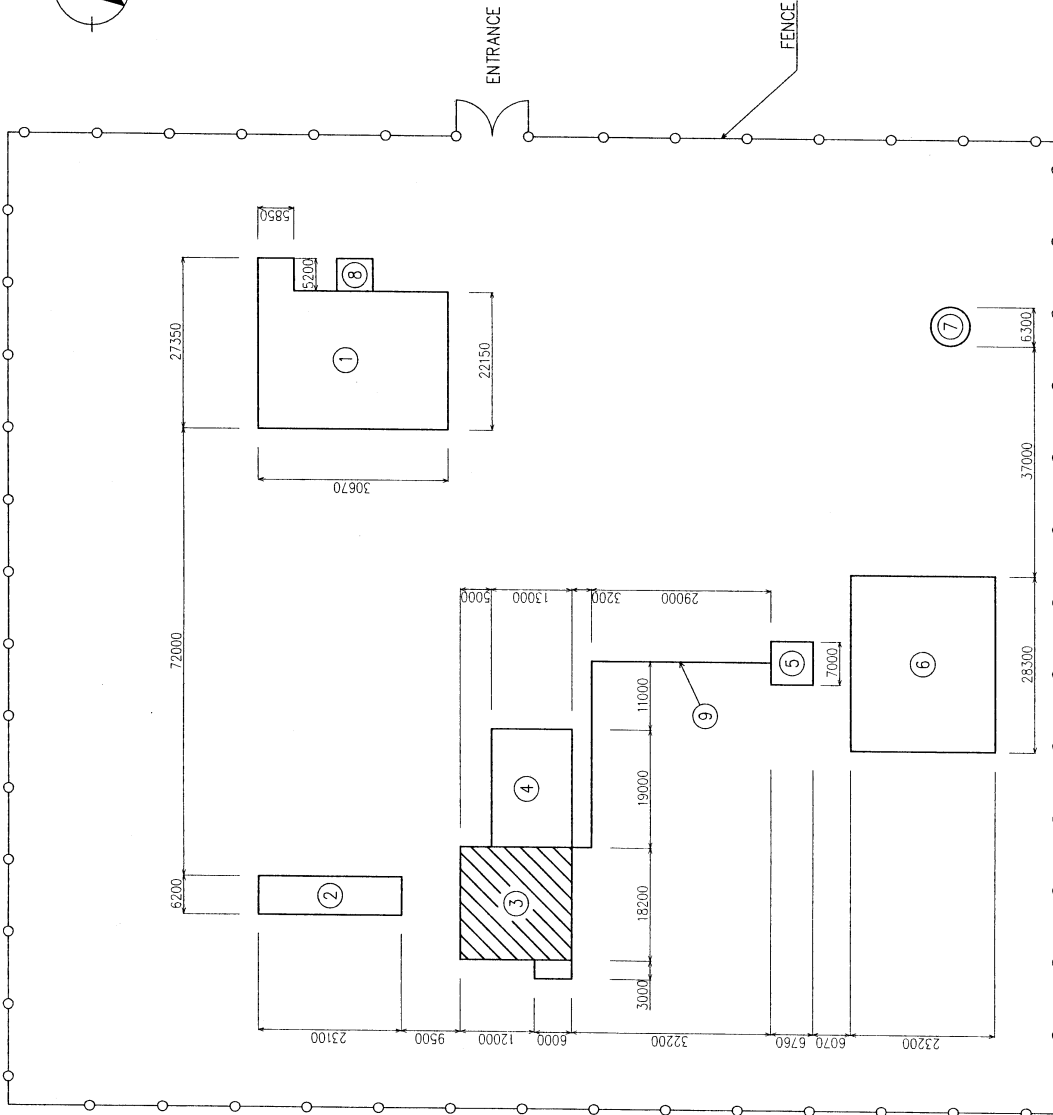
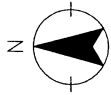
Note:

For distribution of maintenance tools, see DWG No. 1-G-00-02.

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4				
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2				TOOLS FOR MOBILE TEAM AND SUM
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-T-00-02
	CONTENTS	0		

KEY PLAN

AIMAG : ZABKHAN
SUM : TOSONTSENDEL



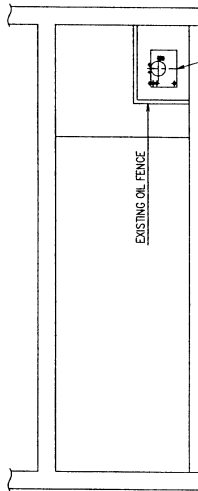
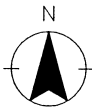
- ① POWER HOUSE (OPERATING)
- ② COOLING TOWER
- ③ EXISTING POWER HOUSE FOR PROJECT
- ④ WARE HOUSE
- ⑤ FUEL PUMP HOUSE
- ⑥ FUEL TANK YARD
- ⑦ WATER PUMP HOUSE
- ⑧ TRANSFORMER YARD
- ⑨ FUEL PIPE

TENDER PURPOSE ONLY

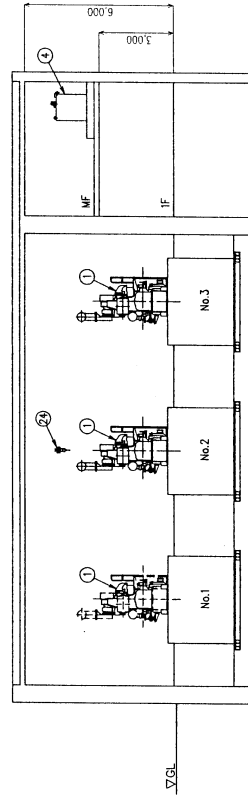
NO.	DATE	CONTENTS	SCALE	APPROVED BY	CHECKED BY	TITLE
5			1:800			REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4						
3			MM			GENERAL ARRANGEMENT OF THE SITE AT TOSONTSENDEL (ZABKHAN)
2						
1						
PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan			DRAWING NO. 1-C-73-01			

No.	Name	Qty	Remarks
1	Diesel Generator Set	2	500kW
2	Exhaust Gas Silencer	2	98 dB (A) at 1m from outlet
3			
4	Fuel oil Daily Tank	1	1950L
5			
6	Fuel oil Transfer Pump	2	3.7 kW (1 for stand-by)
7			
8			
9	Pre-Heating Unit	2	15 kW
10	Cooler water Pump	2	5.5kW
11	Radiator	2	15 kW
12	Expansion Tank	2	100L
13	Air Compressor	1	4.4 kW (Engine Driven)
14	Air Compressor	1	3.7 kW (Motor Driven)
15	Air Receiver	3	200L
16	Waste oil Stove	1	
17			
18	Generator Control Panel	2	
19	Synchronizing Panel	1	
20	Feeder Panel	1	
21	Station Transformer Panel	1	
22	Low Voltage Panel	1	
23	Battery and Battery Changer	1	
24	Chain Block	1	5ton
25			
26	Generator(30kW)	1	
27	Boiler	1	(By Mongolia)

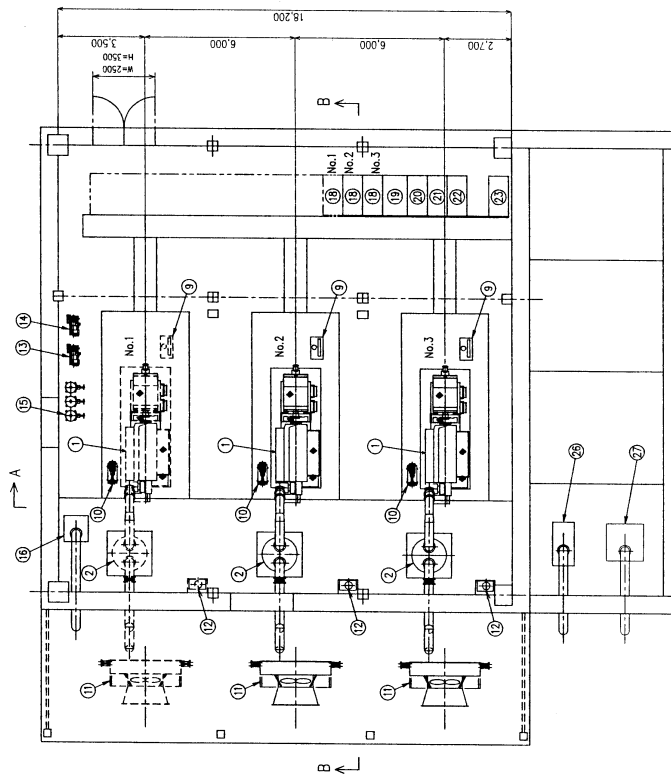
Note : No.1 DG Set as indicated with dashed lines to be installed in the future.



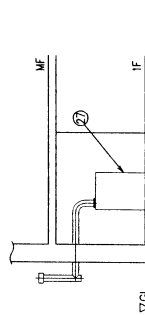
MF



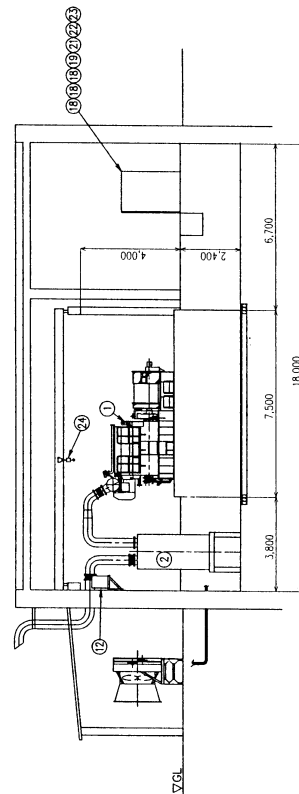
A-A VIEW



IF



P SECTION



B-B VIEW

TENDER PURPOSE ONLY

5	CHECKED BY	APPROVED BY	SCALE	1:200
4			UNITS	MM
3	DRAWN BY	DESIGNED BY		
2				
1				
NO.	DATE	CONTENTS		

THE PROJECT FOR
REHABILITATION OF POWER PLANTS OF SUM CENTERS
(PHASE IV)

TITLE
GENERAL ARRANGEMENT OF POWER PLANT
AT USOMTSENDEL (ZABKHAN)

DRAWING NO.
1-G-73-02

0

PACIFIC CONSULTANTS INTERNATIONAL
Tokyo, Japan

Symbol	Name
[DE]	Diesel Engine
[SG]	Synchronous Generator
[EX]	AC Excitor
[PMG]	Permanant Magnet Generator
VCB	Vacuum Circuit Breaker
TR	Transformer
CT	Current Transformer
ZCT	Zero Phase Current Transformer
VT	Voltage Transformer
EVT	Earthed Voltage Transformer
LBS	Load Break Switch
F	Fuse
[AVR]	Automatic Voltage Regulator
[ASD]	Automatic Synchronizing Device
[ALBD]	Automatic Load Balance Device
[27G]	Undervoltage Relay
[51G]	Over Current Relay
[59G]	Over Voltage Relay
[64G]	Over Voltage Ground Relay

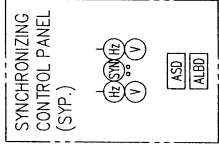
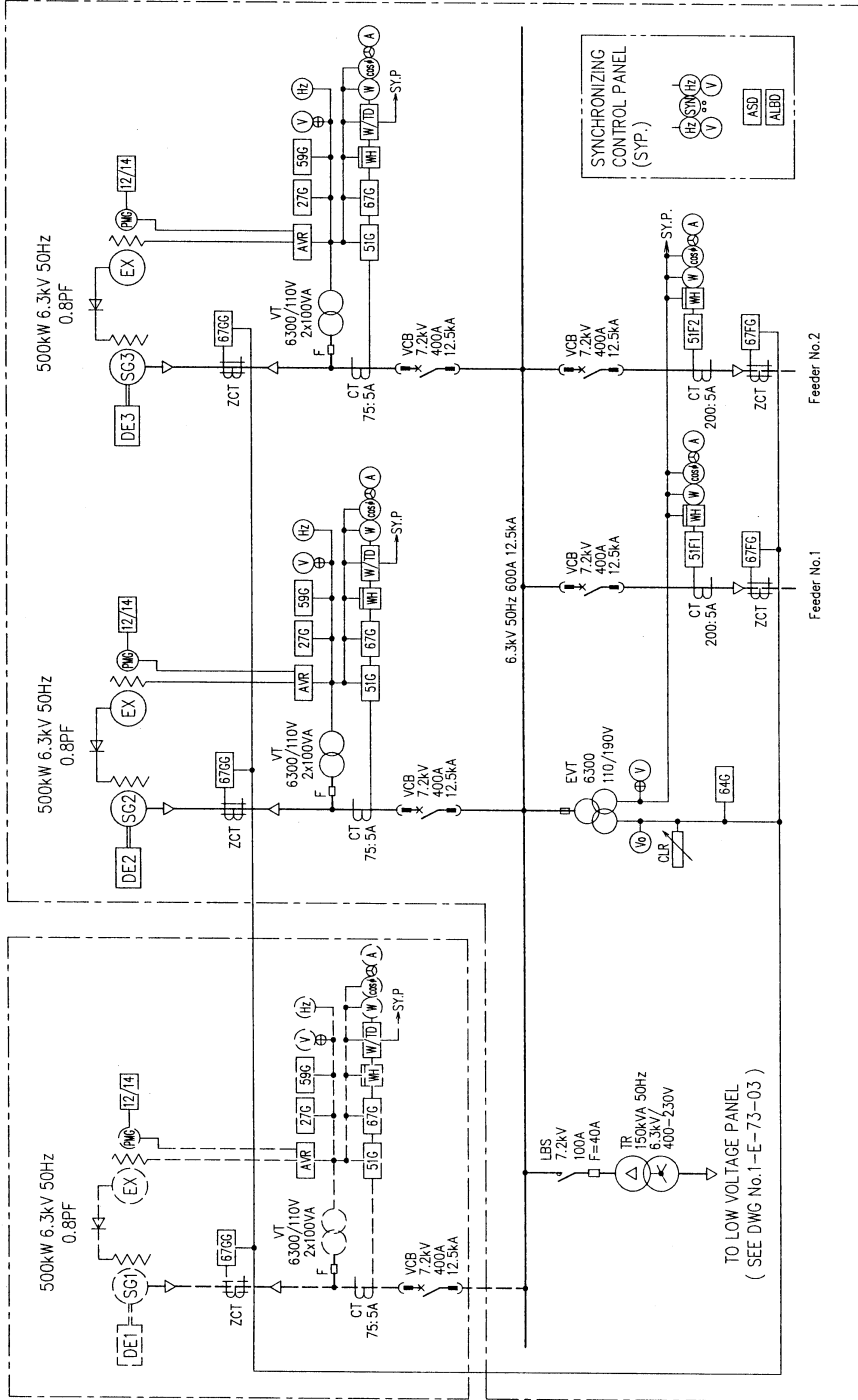
Symbol	Name
[67G]	Reverse Power Relay
[67GG]	Directional Ground Relay
[W/ID]	Watt Transducer
CLR 	Current Limiting Resistor
[Vo]	Zero-Phase Voltmeter
[V]	Voltmeter
[A]	Ammeter
[W]	Watt Meter
[PFM]	Power Factor Meter
[WH]	Watt-hour Meter
[Hz]	Frequency Meter
[SYN]	Synchronizing Relay
[12/14]	Over Speed Relay/Low Speed Relay
Ctt	Contacto
Thr	Thermal Relay

TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	NTS			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	NA			ELECTRICAL SYMBOLS AND ABBREVIATIONS
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-E-73-01
		CONTENTS		0

THIS PROJECT

FUTURE



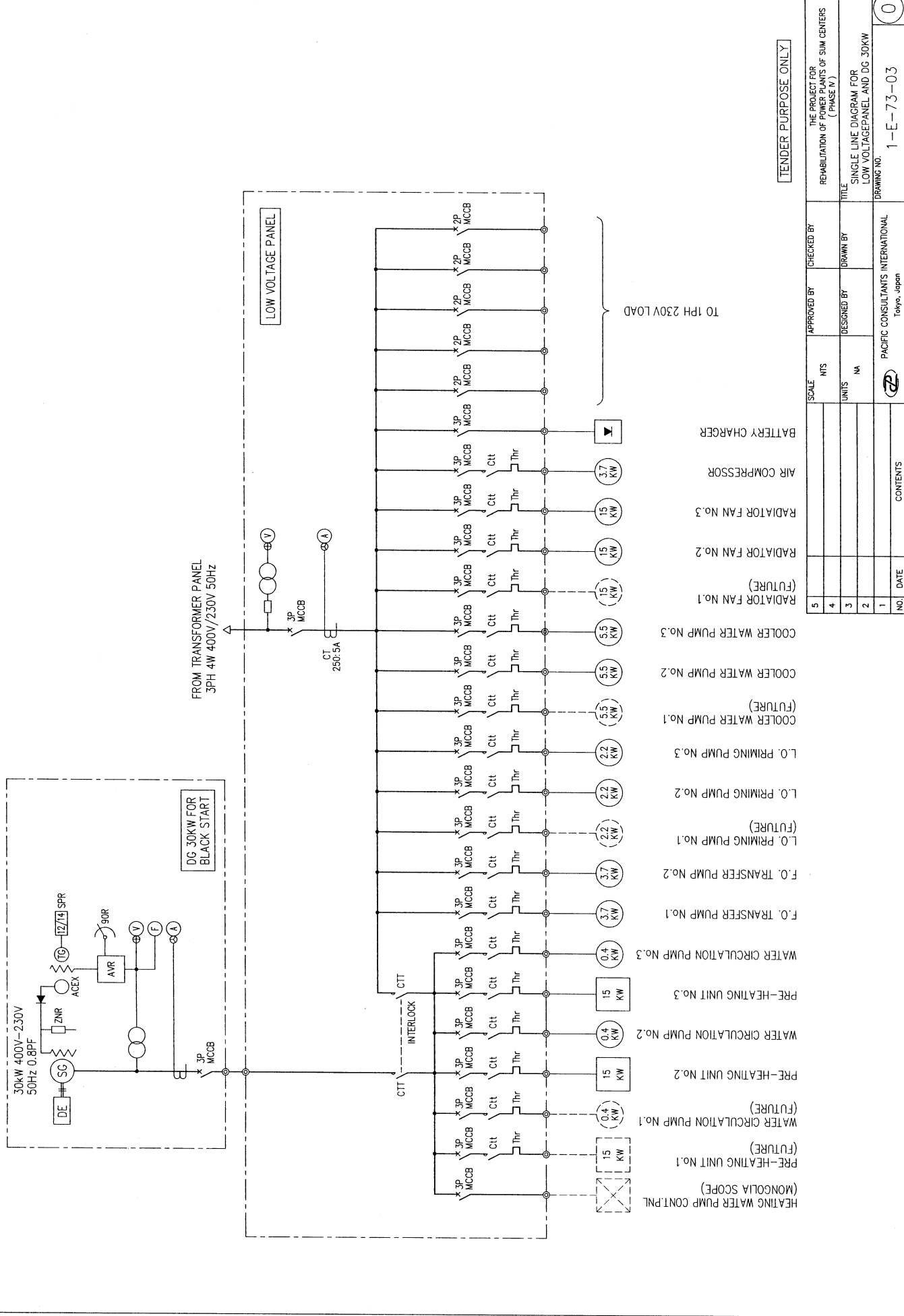
TENDER PURPOSE ONLY

NO.	DATE	CONTENTS	SCALE	APPROVED BY	CHECKED BY	DESIGNED BY	DRAWN BY
5			NTS				
4			NTS				
3			NA				
2							
1							

THE PROJECT FOR
REHABILITATION OF POWER PLANTS OF SUM CENTERS
(PHASE IV)
TITLE
SINGLE LINE DIAGRAM FOR POWER PLANT
DRAWING NO. 1-E-73-02

PACIFIC CONSULTANTS INTERNATIONAL
Tokyo, Japan

ASD
ALBD



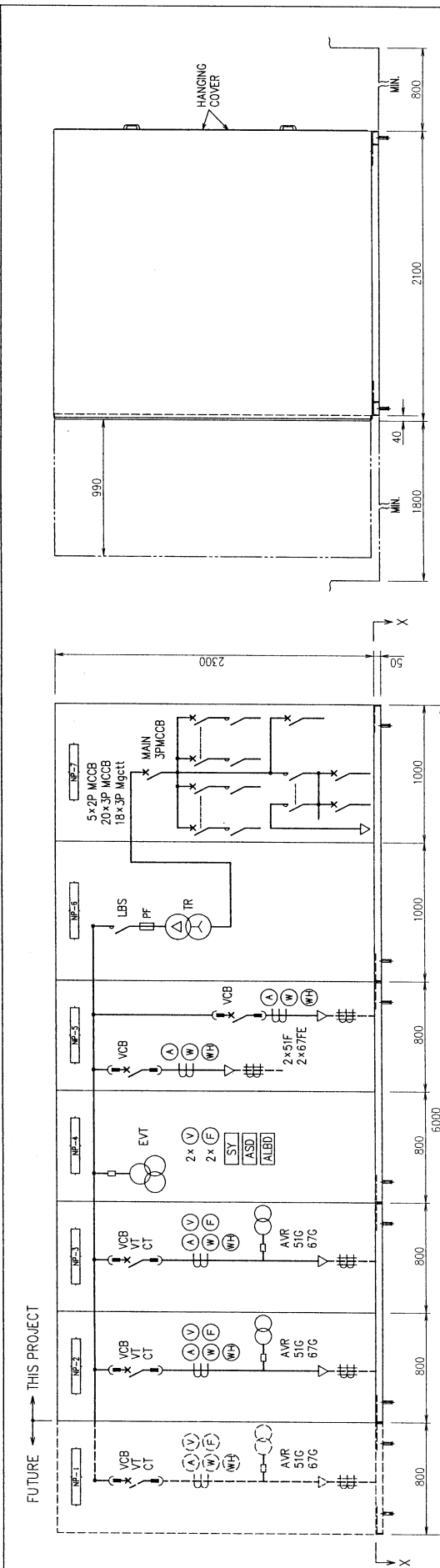
TENDER PURPOSE ONLY

5	SCALE	NTS	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	UNITS	NA	DESIGNED BY	TITLE
3	UNITS	NA	DRAWN BY	SINGLE LINE DIAGRAM FOR LOW VOLTAGE PANEL AND DG 30KW
2				DRAWING NO.
1				

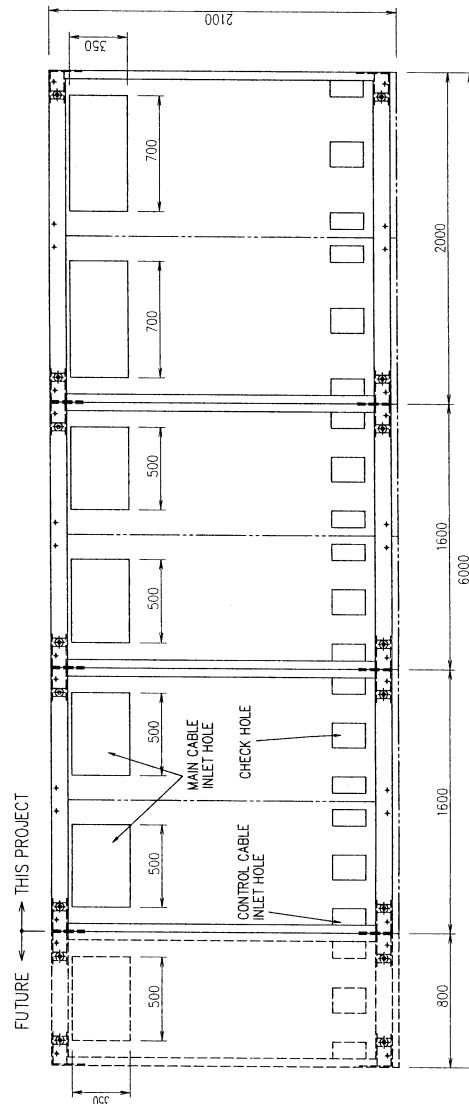
PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan	
NO.	DATE
CONTENTS	

0

1-E-73-03



FRONT VIEW

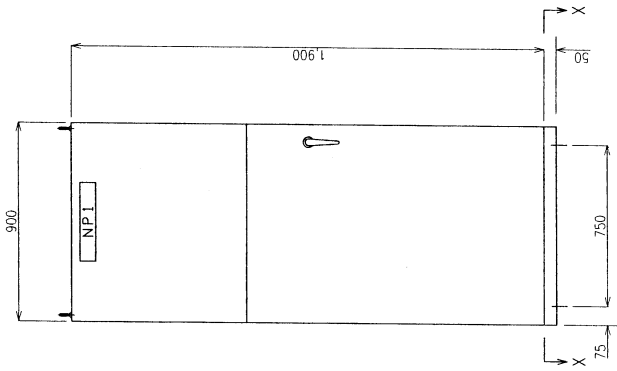


SIDE VIEW

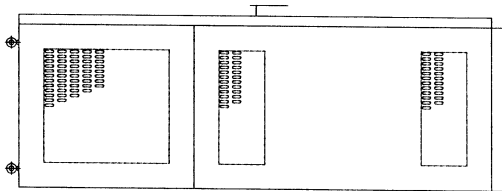
NP-NO	PANEL NAME
NP-1	NO.1 GENERATOR PANEL
2	NO.2 GENERATOR PANEL
3	NO.3 GENERATOR PANEL
4	SYNCHRONIZING PANEL
5	FEEDER PANEL NO.1/NO.2
6	TRANSFORMER PANEL
7	LOW VOLTAGE PANEL

TENDER PURPOSE ONLY

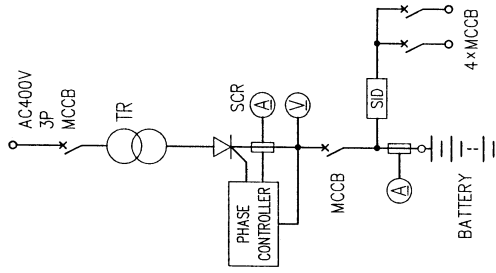
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 30			
3	UNITS MM	DESIGNED BY	DRAWN BY	TITLE OUTLINE OF GENERATOR PANELS
2				
1	NO.	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO. 1-E-73-04
	DATE	CONTENTS		0



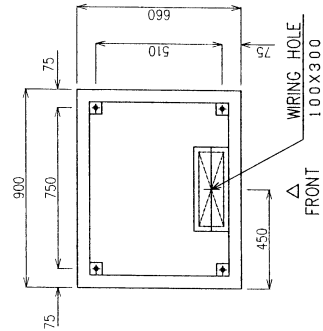
FRONT VIEW



LEFT SIDE VIEW



BATTERY CHARGER SINGLE LINE DIAGRAM



CHANNEL BASE
SECTION X-X

TENDER PURPOSE ONLY

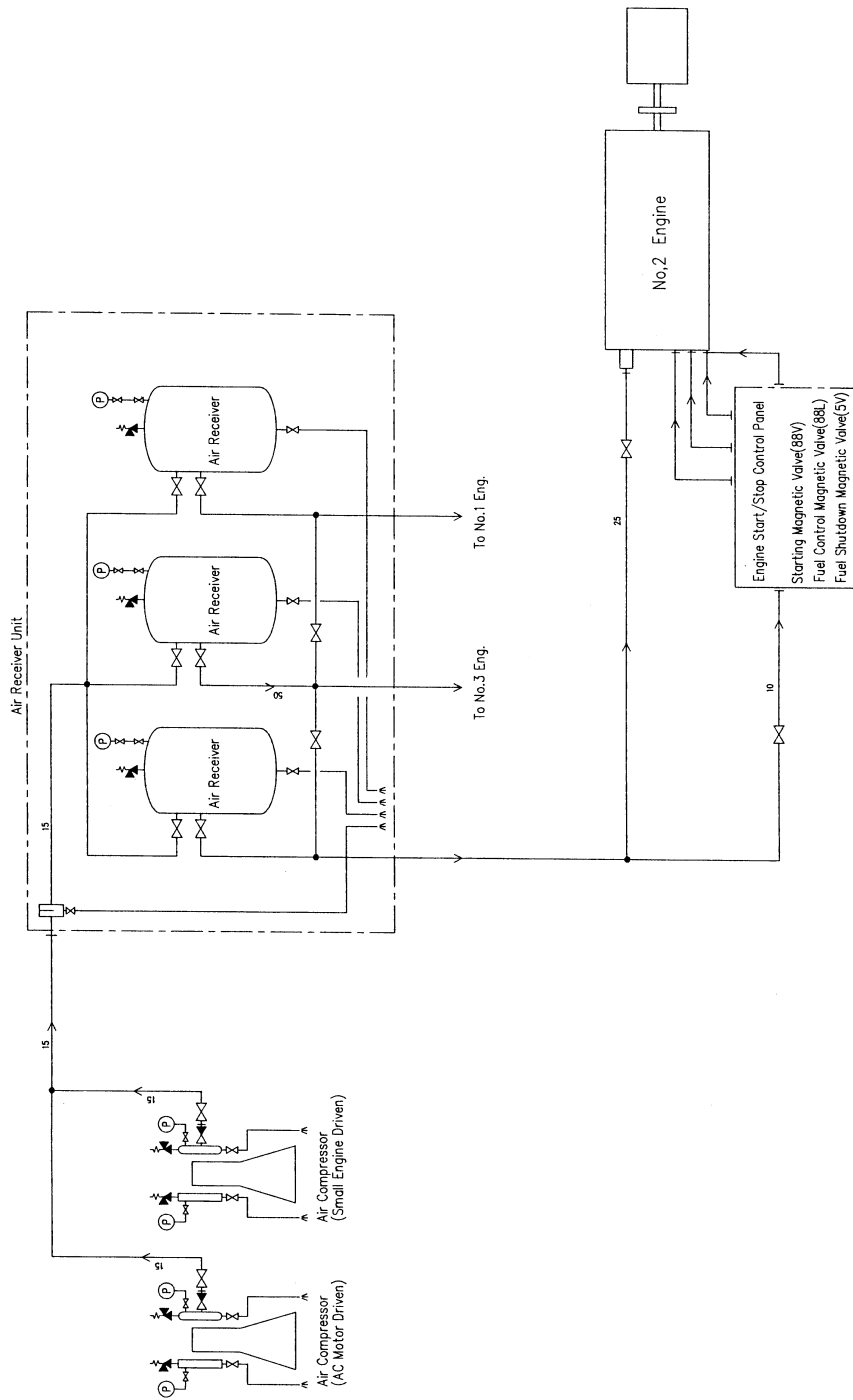
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	NTS	DESIGNED BY	DRAWN BY	TITLE
3	MM			OUTLINE OF BATTERY CHARGER
2				DRAWING NO.
1				1-E-73-05
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		0
	CONTENTS			

Symbol	Name
	Wax Type Temperature Control Valve
	Cock
	Simplex Strainer
	Duplex Strainer
	Orifice
	Flexible Pipe
	Pressure Gauge
	Compound Gauge
	Scupper
	Seal Pot
	Flow Meter
	Thermometer
	Blank Flange
	Air Pipe
	Oil Tray or Coaming
	Stop Valve
	Stop Check Valve
	Lift Check Valve
	Air Chamber

Symbol	Name
	Butter-fly Valve
	Three Way Valve
	Crossing Pipes, Connected
	Crossing Pipes, not Connected
	To Bilge or Drain
	Boss
	Safety Valve
	Relief Valve
	Oil or Water Level Alarm

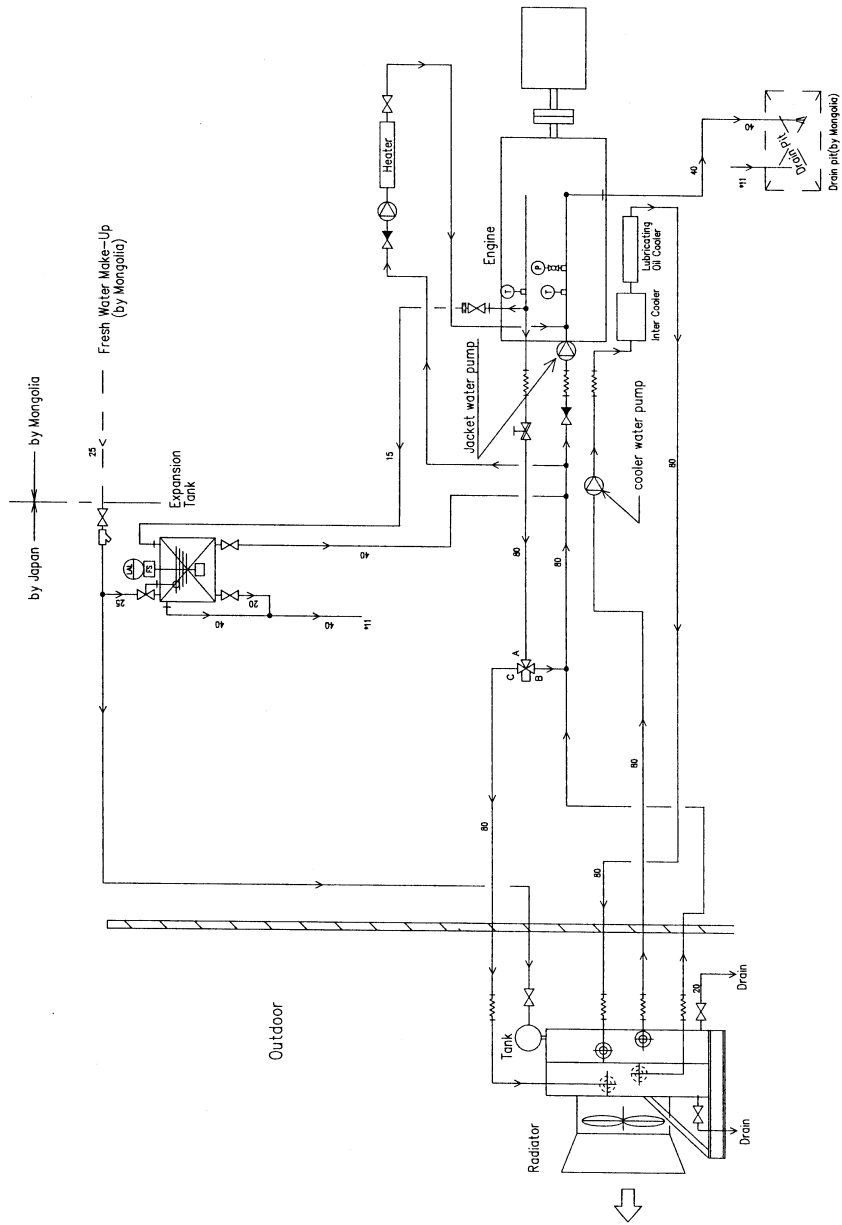
TENDER PURPOSE ONLY

NO.	DATE	CONTENTS	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
5						
4			NTS			
3			UNITS			TITLE
2			NA			MECHANICAL SYMBOLS AND ABBREVIATIONS
1						DRAWING NO.
IND.			PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan			1-M-73-01
						0



TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	NTS	DESIGNED BY	DRAWN BY	TITLE
3	UNITS	MA		COMPRESSED AIR SYSTEM DIAGRAM
2				DRAWING NO.
1				1-M-73-02
NO.	DATE	CONTENTS		0
		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		

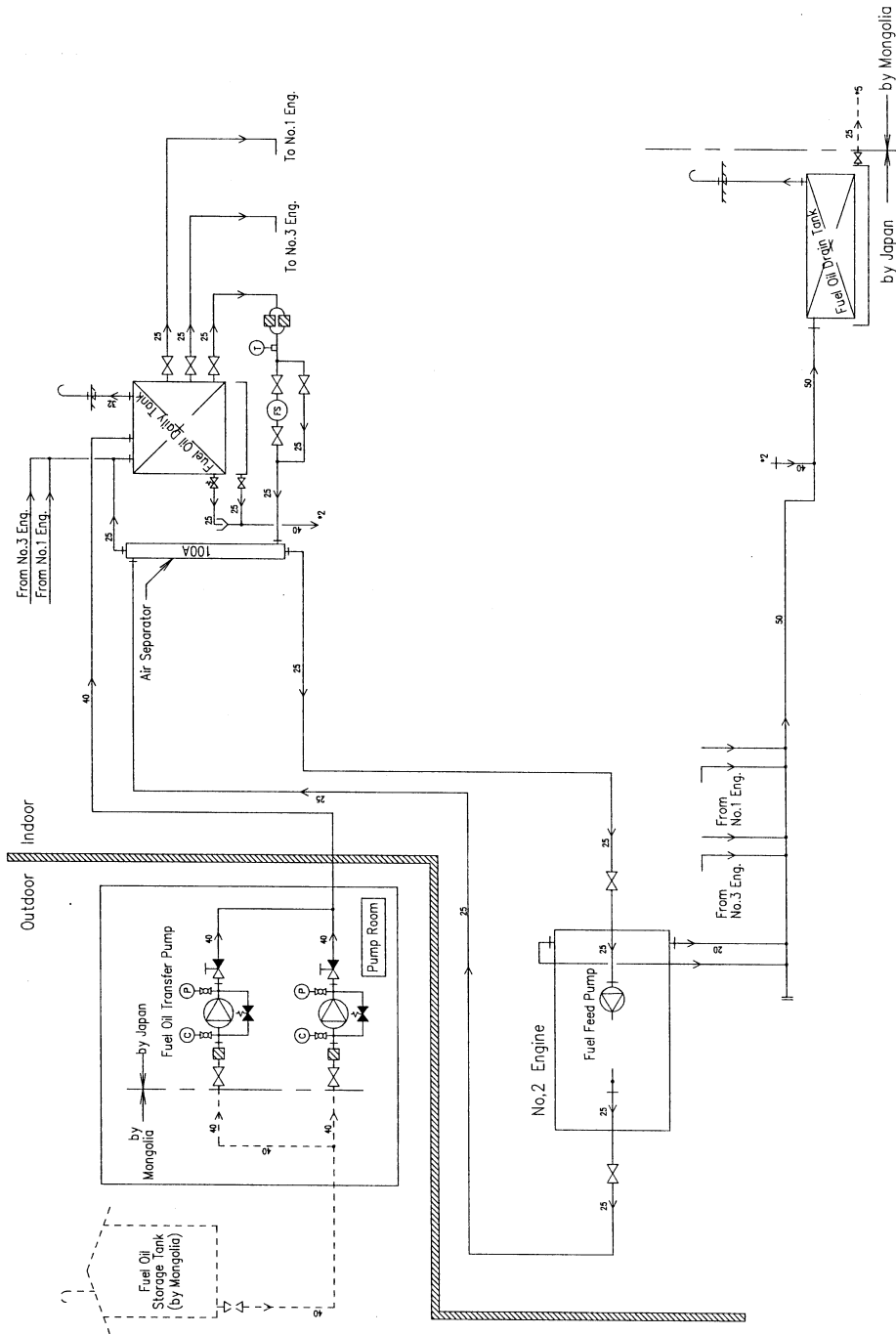


TENDER PURPOSE ONLY

SCALE		APPROVED BY	CHECKED BY
5	NTS		
4			
3	MA	DESIGNED BY	DRAWN BY
2			
1			
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan	
		CONTENTS	

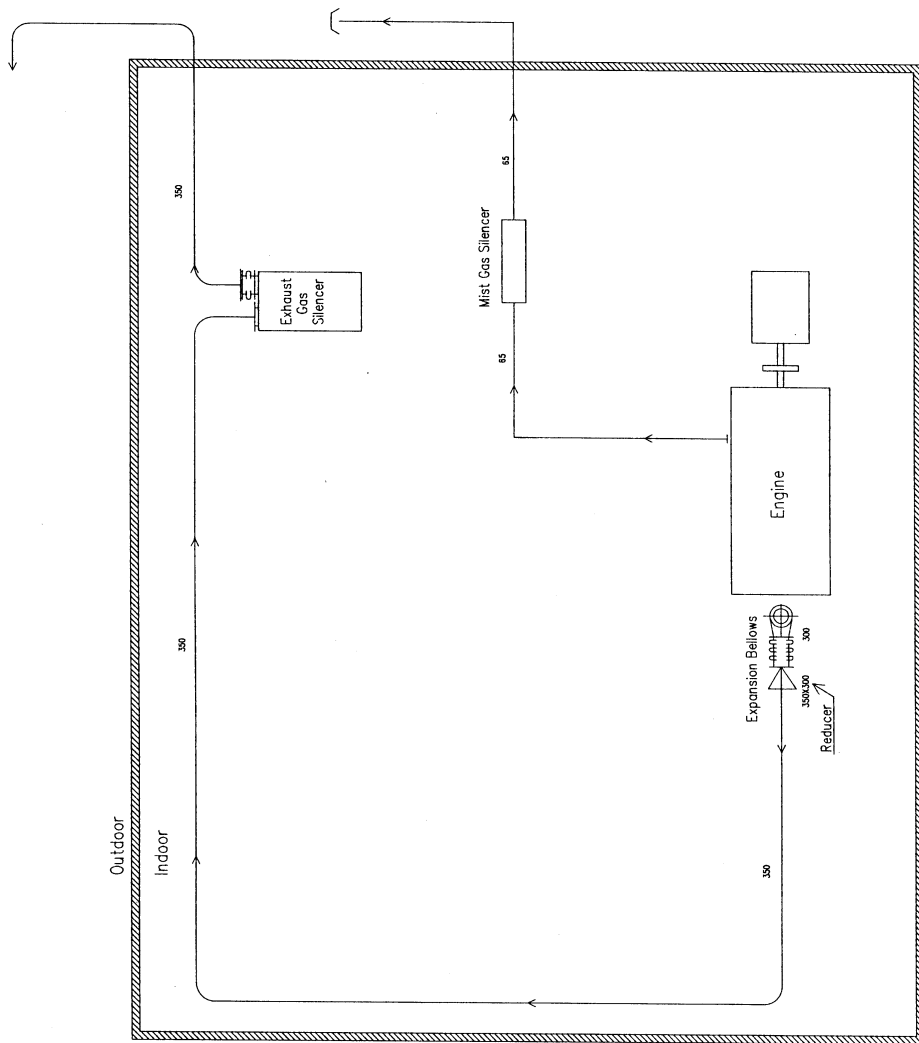
THE PROJECT FOR
REHABILITATION OF POWER PLANTS OF SUM CENTERS
(PHASE IV)
TITLE
COOLING WATER SYSTEM DIAGRAM
DRAWING NO.
1-M-73-03

0



TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	NTS			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2		NA		FUEL OIL SYSTEM DIAGRAM
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
NO.1	DATE	CONTENTS		1-M-73-04
				0



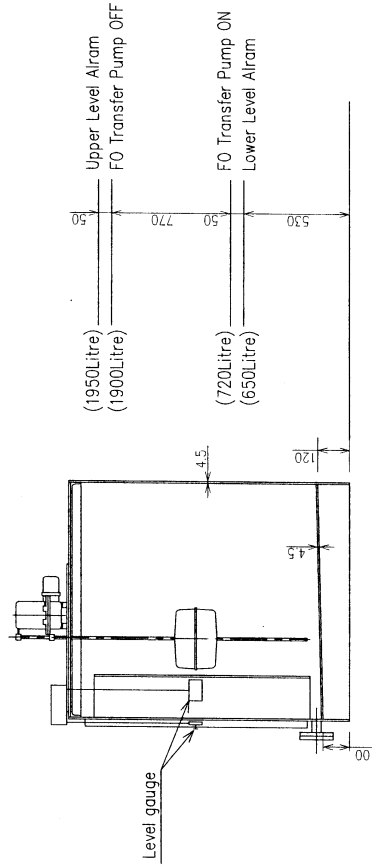
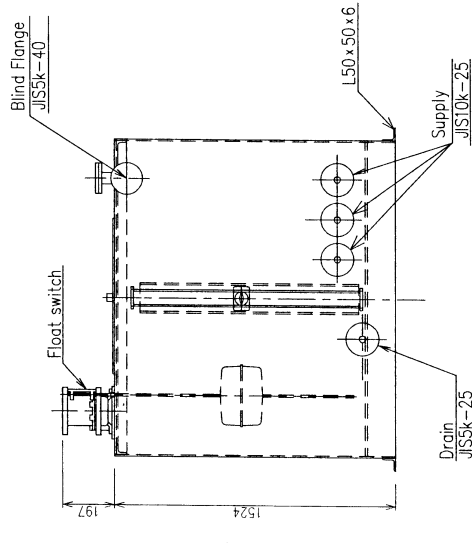
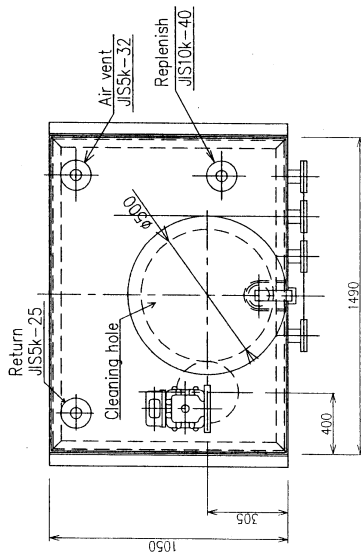
TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	NTS	DESIGNED BY	DRAWN BY	TITLE
3	UNITS	MA		AIR EXHAUST GAS SYSTEM DIAGRAM
2				
1	NO.	DATE	CONTENTS	DRAWING NO.
				1-M-73-05
				0

PACIFIC CONSULTANTS INTERNATIONAL
Tokyo, Japan

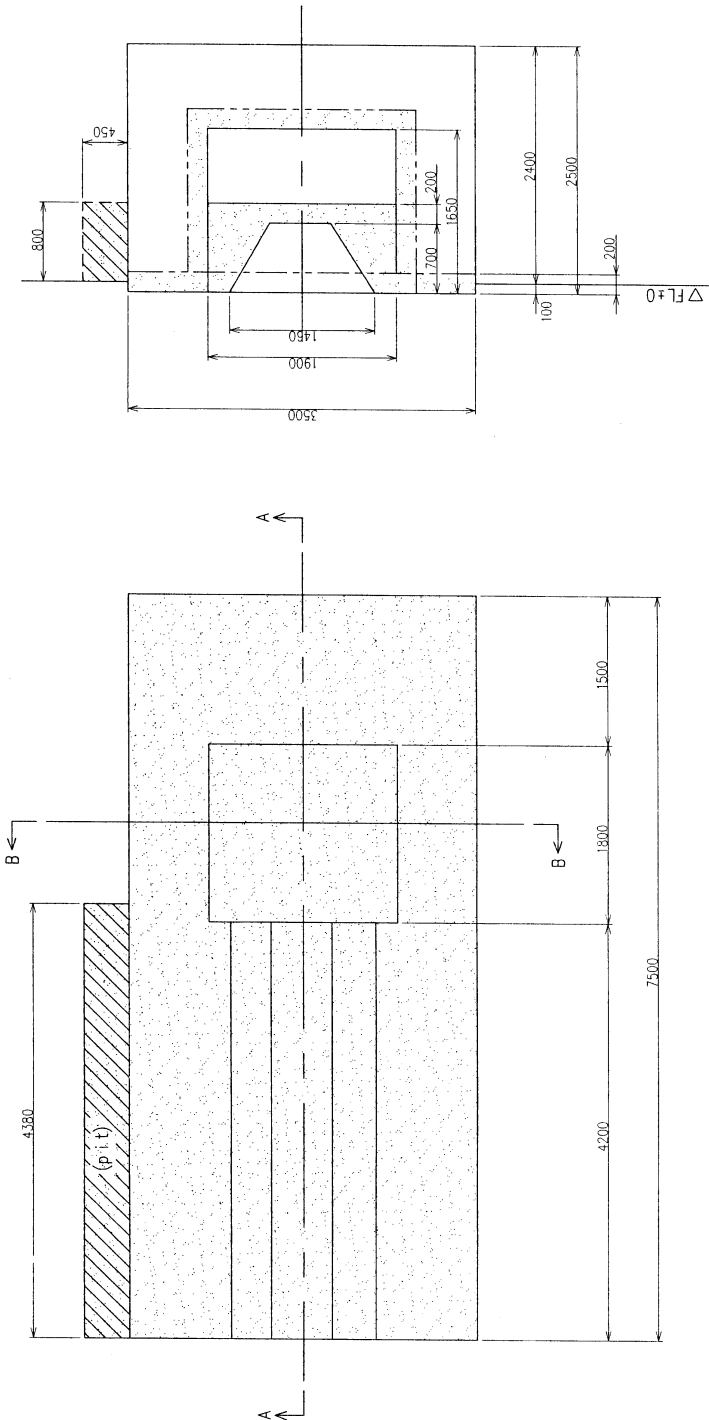
Note:

- 1) Tank material : SS400
(Rolled steels for general structure)
- 2) Daily Tank Capacity : 1950Litre



TENDER PURPOSE ONLY

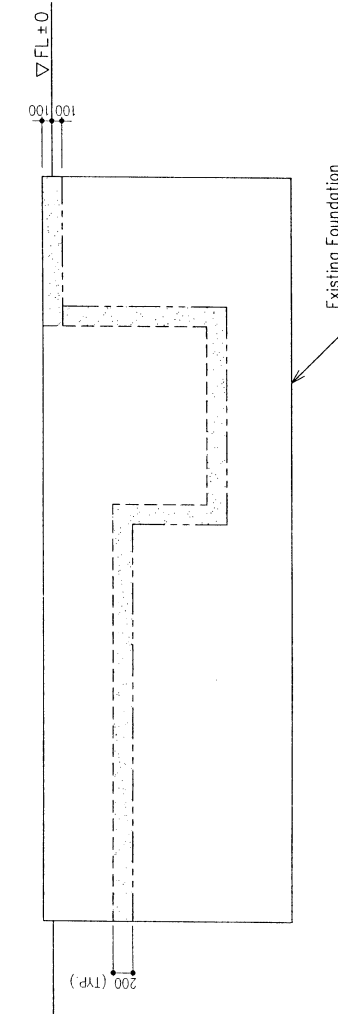
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	NTS	DESIGNED BY	DRAWN BY	
3	UNITS MM			TITLE FUEL OIL DAILY TANK
2				DRAWING NO. 1-M-73-06
1				
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		CONTENTS



NOTE

1. This drawing shows typical work for one unit of the existing foundation.
2. The preparation work shall be carried out for all three foundations.
3. FL±0 Shown on this drawing shall be confirmed by the Owner.

PLAN OF EXISTING FOUNDATION



SECTION A-A

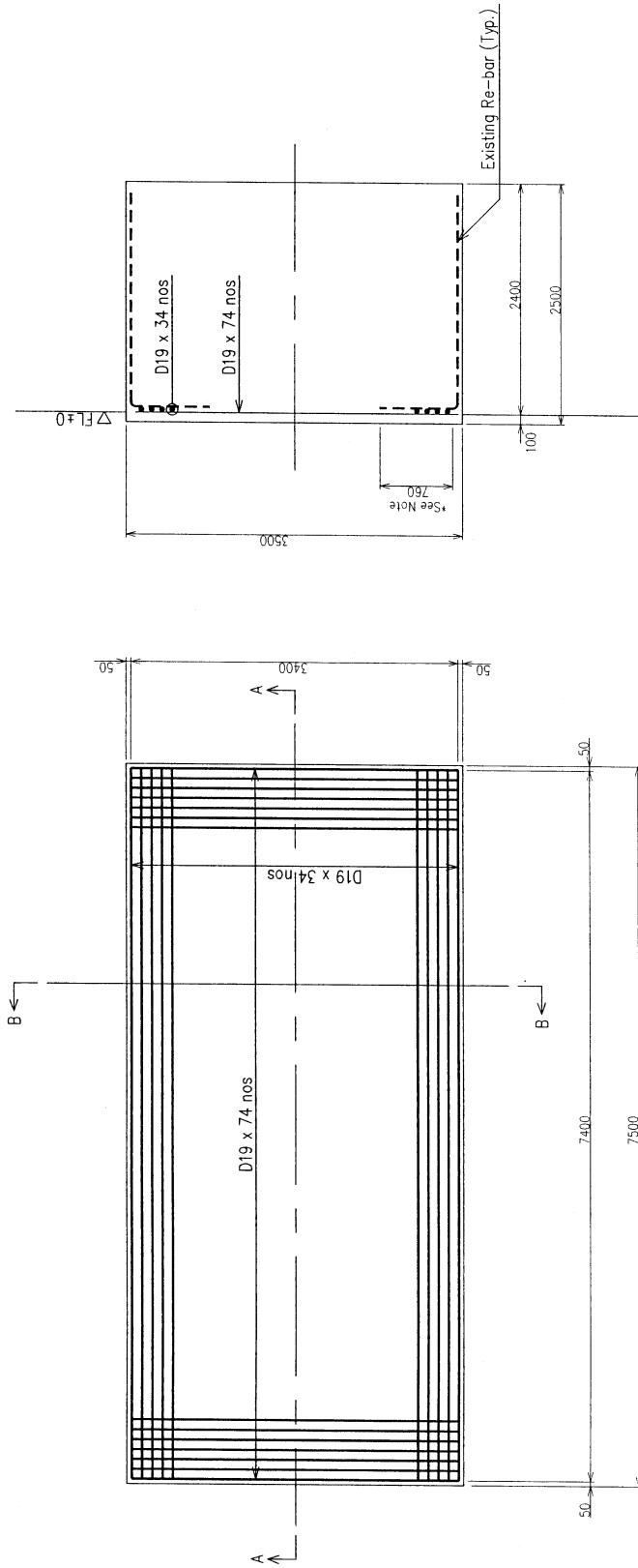
SECTION B-B

Legend

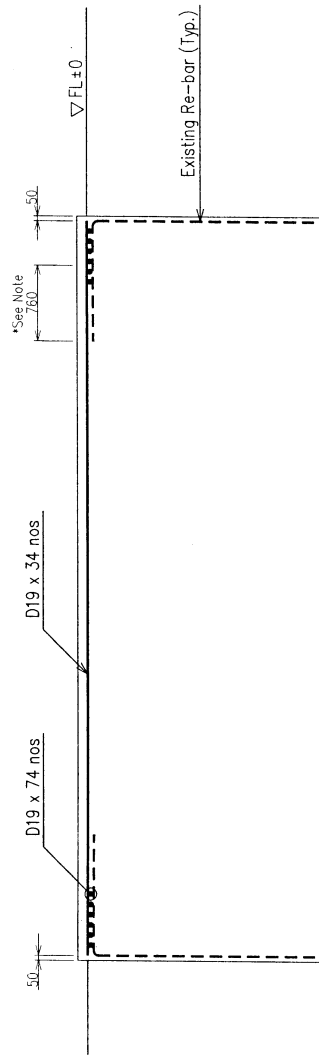
- Chipping of existing foundation by Mongolia (t=200mm)
- Filling of existing pit by Mongolia (lean concrete)

TENDER PURPOSE ONLY

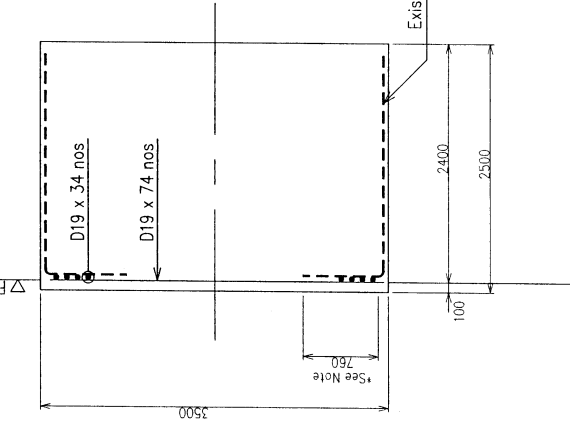
5	SCALE	1 : 50	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	UNITS	MM	DESIGNED BY	DRAWN BY	TITLE
3					SCOPE OF WORK FOR DG 500KW FOUNDATIONS
2					DRAWING NO.
1	NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		1-C-73-01
			CONTENTS		0



PLAN



SECTION A-A



SECTION B-B

NOTE

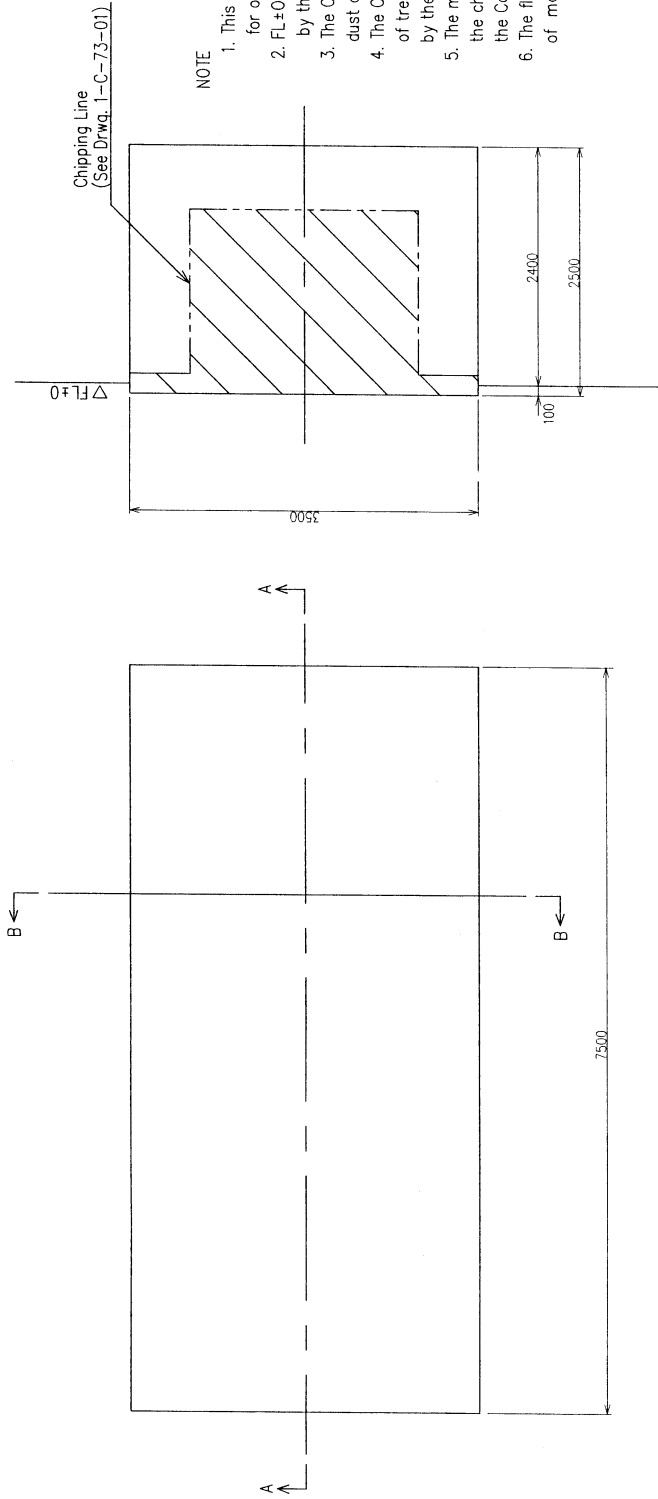
1. This drawing shows typical work for one unit of the existing foundation.
2. FL ± 0 Shown on this drawing shall be confirmed by the Owner.
3. New re-bar shall have lap length with existing re-bar at least 40D.

TENDER PURPOSE ONLY

5	SCALE	1 : 50	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	UNITS	MM	DESIGNED BY	DRAWN BY	TITLE
3					DG 500KW RE-BAR ARRANGEMENT
2					DRAWING NO.
1					1-C-73-02
	NO.	DATE	CONTENTS		



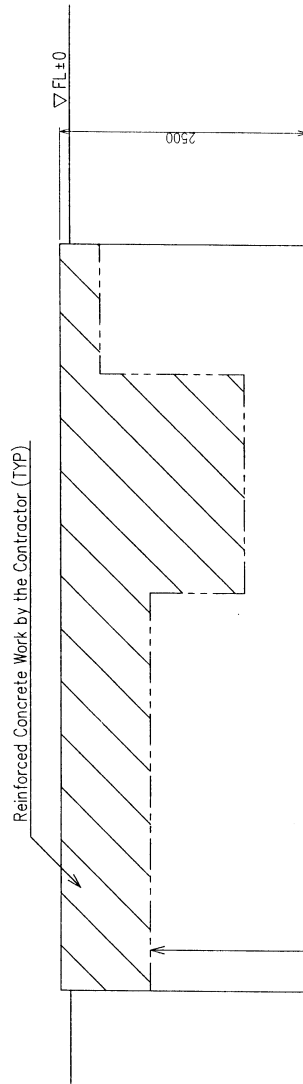
PACIFIC CONSULTANTS INTERNATIONAL
Tokyo, Japan



PLAN

NOTE

1. This drawing shows typical work for one unit of the existing foundation.
2. FL±0 Shown on this drawing shall be confirmed by the Owner.
3. The Contractor shall remove all sand and dust of the chipped surface of concrete.
4. The Contractor shall propose the method of treating the chipped surface for approval by the Consultant.
5. The material and Work of the foundation above the chipped surface shall be the scope of the Contractor.
6. The floor finishing work shall be the scope of Mongolia.



SECTION A-A

SECTION B-B

Chipping Line
(See Drwg. 1-C-73-01)

TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 50	DESIGNED BY	DRAWN BY	TITLE
3	UNITS MM			DC 500KW FOUNDATION
2				DRAWING NO.
1				1-C-73-03
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		
		CONTENTS		

Description	Qty	Description	Qty	Description	Qty	Description	Qty
For 2x500kw DG Sets							
Division I	14 units	Engine frame	14	Fuel shutdown & piston control device	1	Thermometer	1 set
Nozzle holder	6	(1) O-ring	4	(1) Air filter	1 set	(1) Exhaust gas thermometer	1 set
(1) Rubber seal for head cover	1 set	(2) Intake air manifold cover gasket	1	(2) O-ring	1	(2) 100° C thermometer	1 set
(2) Gasket	1 set	(3) Gear case cover gasket	1	Cooling water pump	1 set	Fuel injection pump assembly	1
(3) O-ring	1 set	(4) Cam gear cover gasket	1	(1) Gasket	1	Generator & panels	1
Turbocharger lube oil filter	2	(5) Frame side cover gasket	1	(2) O-ring	1	(1) Bearing	1
(1) Packing (filter case)	2	Governor	1	(3) Mechanical seal	1	(2) Rotating rectifier	1 set
(2) Packing (tightening nut)	2	(1) Bearing	2	(4) Special clawed washer	1	(3) Fuse	1 set
(3) Packing (air drain)	2	(2) O-ring	1 set	(5) Oil seal	1 set	(4) Auxiliary relay	1 set
(4) Element packing	2	(3) Shim	1 set	(6) Bearing	1	(5) Operation switches	1 set
Lube oil filter	2	FO feed pump	1 set	(7) Key	1	(6) Lamp	1 set
(1) Packing (filter case)	2	(1) O-ring	1	(8) Snap ring	1	(7) MCCB	2
(2) Element packing	2	(2) Coupling key	1	(9) Collar	1	(8) YCB (400A)	1 set
(3) Packing (tightening nut)	2	(3) Bearing	1 set	(10) Clawed washer	1		
FO primary filter	2	(4) Packing	1 set	Others			
(1) Packing (filter case)	2	(5) Mechanical seal	1	(1) Gasket	1 set		
(2) Packing (tightening nut)	2	(6) Rotor key	1	(2) O-ring	1 set		
(3) Packing (tightening nut)	2	(7) Oil seal	1	Division IV	1 unit		
(4) Element packing	2	(8) Key	1	Lube oil pump	1		
Division II	7 units	(9) Split pin	1 set	(1) Gasket	5		
Cylinder head	6	(10) Toothed washer	1 set	(2) Bearing	1		
(1) Cylinder head packing	1 set	(11) Gasket	1	(3) Key	1		
(2) O-ring	6	(12) Coupling rubber	1	(4) Packing	1 set		
(3) Gasket, intake air manifold	6	Starting rotary valve	1	(5) Snap ring	1 set		
(4) Intake air bend seal	6	(1) Cam bearing packing	1 set	(6) Oil seal	1		
(5) Split pin	6	(2) Gasket	1 set	(7) Washer	1		
(6) Packing	1 set	Starting valve & starting control valve	1 set	(8) Split pin	1		
(7) Snap ring	6	(1) Spring washer	1 set	Fuel injection pump	6		
(8) Exhaust manifold gasket	6	(2) O-ring	1 set	(1) Plunger assembly	6		
(9) Packing exhaust manifold	7	(3) Filter	1	(2) Devilry valve assembly	6		
(10) Turbocharger packing	1	(4) Split pin	1 set	(3) Set screw	6		
(11) Push rod rubber seal	12	(5) Stop ring	1	(4) Gasket	6		
		(6) Valve	1				

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUN CENTERS (PAGE IV)
4				
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2				SPARE PARTS FOR DG 500 KW
1	NO. DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO. 1-S-73-01
		CONTENTS		0

Description	Qty
For Engine	
(1) Piston insert guide	1
(2) Liner extraction, fitting tool	1
(3) Valve spring disassemble tool	1
(4) Spanner for FO nozzle	1
(5) Pin for main bearing	1
(6) Eye bolt	1
(7) Nozzle holder extraction tool	1
(8) Nozzle holder joint	1
(9) Turning bar	3
(10) Socket	1
(11) Valve stem seal fitting tool	1
(12) Valve seat fitting tool	1
(13) Hydraulic ram supporter	1 set
(14) Hydraulic ram	1
(15) Box spanner	1
(16) Snap ring pliers	1
(17) Valve re-conditioning tool	1
(18) Spanner for FO pump	1
(19) Hex-spanner	1
(20) Adapter	1
(21) Jack cylinder	4
(22) Jack stand	4
(23) Jack handle	1
(24) Pull bolt	4
(25) Jack stand	2
(26) Hydraulic pump	1
(27) High pressure hose	6
(28) Female couple	2
(29) Male couple	7
(30) Terminal	1
(31) Protection ring extraction tools	1
(32) Eye bolt M10	1
(33) Socket 24x19.0	1
(34) Open ended spanner 8x10	1

Description	Qty
(35) Open ended spanner 11x13	1
(36) Open ended spanner 17x19	1
(37) Open ended spanner 22x24	1
(38) Open ended spanner 27x30	1
(39) Double offset wrench 17x19	1
(40) Hex-spanner 4	1
(41) Hex-spanner 5	1
(42) Hex-spanner 8	1
(43) Hex-spanner 10	1
(44) Hex-spanner 14	1
(45) Box spanner 19x180	1
(46) Monkey wrench 250	1
(47) Set screw 8x150	1
(48) Set screw 2	1
(49) Oil feeder	1
(50) Nozzle cleaning kit	1
(51) Max. pressure meter	1
(52) Bore gauge	1
(53) Measuring point gauge	1
(54) Thickness gauge	1
(55) Nozzle test pump	1
(56) Deflection gauge	1
(57) Blower cylinder	1
(58) Torque wrench	1
(59) Joint	1
(60) Tool box	1

Description	Qty
For Generator & Panels	
(1) Supporting shaft	1
(2) Gap gauge	1
For Meters and others	
(1) AC ammeter	1
(2) Mini digital clamp meter	1
(3) AC voltmeter	1
(4) AC volt-ammeter	1
(5) DC voltmeter	1
(6) DC ammeter	1
(7) Voltage detector	1
(8) 3-phase wattmeter	1
(9) Insulation resistance meter 500V/1000MΩ	1
(10) Insulation resistance meter 1000V/2000MΩ	1
(11) Test plug RY	1
(12) Test plug CT	1
(13) Test plug VT	1

5	SCALE	APPROVED BY	CHECKED BY	THE REQUEST FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	UNITS	DESIGNED BY	DRAWN BY	TITLE
3				TOOLS FOR DG 500 KW
2				DRAWING NO. 1-T-73-01
1	CONTENTS	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		0
NO.	DATE			

2nd STAGE

DRAWING LIST


DWG.NO.	TITLE
2-G-00-01	LOCATION MAP FOR OBJECTIVE SUM CENTERS
2-G-00-02	EQUIPMENT SPARE PARTS AND TOOLS SUPPLY LIST
2-G-45-01	GENERAL ARRANGEMENT OF POWER PLANT AT UNDIRKHANGA (UVS)
2-G-46-01	GENERAL ARRANGEMENT OF POWER PLANT AT BARJUNTURUUN (UVS)
2-G-47-01	GENERAL ARRANGEMENT OF POWER PLANT AT BUKHURUUN (UVS)
2-G-48-01	GENERAL ARRANGEMENT OF POWER PLANT AT DAVST (UVS)
2-G-49-01	GENERAL ARRANGEMENT OF POWER PLANT AT KHODV (UVS)
2-G-50-01	GENERAL ARRANGEMENT OF POWER PLANT AT ZAKHIAN (UVS)
2-G-51-01	GENERAL ARRANGEMENT OF POWER PLANT AT YARUU (ZABKHAN)
2-G-52-01	GENERAL ARRANGEMENT OF POWER PLANT AT IKH-JUL (ZABKHAN)
2-G-53-01	GENERAL ARRANGEMENT OF POWER PLANT AT TSAGAANCHULIUT (ZABKHAN)
2-G-54-01	GENERAL ARRANGEMENT OF POWER PLANT AT TSAGAANKHARKHAN (ZABKHAN)
2-G-55-01	GENERAL ARRANGEMENT OF POWER PLANT AT TELMCH (ZABKHAN)
2-G-56-01	GENERAL ARRANGEMENT OF POWER PLANT AT OTIGON (ZABKHAN)
2-G-57-01	GENERAL ARRANGEMENT OF POWER PLANT AT ALDARKHAN (ZABKHAN)
2-G-58-01	GENERAL ARRANGEMENT OF POWER PLANT AT SHILUUSTEI (ZABKHAN)
2-G-59-01	GENERAL ARRANGEMENT OF POWER PLANT AT BAYANTES (ZABKHAN)
2-G-60-01	GENERAL ARRANGEMENT OF POWER PLANT AT BAYANKHARKHAN (ZABKHAN)
2-G-61-01	GENERAL ARRANGEMENT OF POWER PLANT AT TUBEVTEI (ZABKHAN)
2-G-62-01	GENERAL ARRANGEMENT OF POWER PLANT AT ALTAI (KHODV)
2-G-63-01	GENERAL ARRANGEMENT OF POWER PLANT AT UENCH (KHODV)
2-G-64-01	GENERAL ARRANGEMENT OF POWER PLANT AT MANKHAN (KHODV)
2-G-65-01	GENERAL ARRANGEMENT OF POWER PLANT AT DURGUN (KHODV)
2-G-66-01	GENERAL ARRANGEMENT OF POWER PLANT AT DUUT (KHODV)
2-G-67-01	GENERAL ARRANGEMENT OF POWER PLANT AT TOLBO (BAYAN-UJGL)
2-G-68-01	GENERAL ARRANGEMENT OF POWER PLANT AT TSAGAANNUUR (BAYAN-UJGL)
2-G-69-01	GENERAL ARRANGEMENT OF POWER PLANT AT ALTAI (BAYAN-UJGL)
2-G-70-01	GENERAL ARRANGEMENT OF POWER PLANT AT BAYANNUUR (BAYAN-UJGL)
2-G-71-01	GENERAL ARRANGEMENT OF POWER PLANT AT ALTANTSIGIS (BAYAN-UJGL)
2-G-72-01	GENERAL ARRANGEMENT OF POWER PLANT AT NOGONNUUR (BAYAN-UJGL)

DWG.NO.	TITLE
2-E-00-01	ELECTRICAL SYMBOLS AND ABBREVIATIONS
2-E-00-02	TYPICAL SINGLE LINE DIAGRAM FOR POWER STATION (DG 60KW X 2)
2-E-00-03	TYPICAL SINGLE LINE DIAGRAM FOR POWER STATION (DG 100KW X 2)
2-E-00-04	TYPICAL SINGLE LINE DIAGRAM FOR POWER STATION (DG 100KW X 3)
2-E-00-05	OUTLINE OF LOW VOLTAGE PANEL
2-E-00-06	TYPICAL DIAGRAM FOR BATTERY CHARGER
2-E-00-07	OUTLINE OF BATTERY CHARGER FOR SUM CENTER
2-E-00-08	TYPICAL CABLE TERMINATION OF EXIST. OVERH. LINES
2-M-00-01	TYPICAL EQUIPMENT ARRANGEMENT IN POWER HOUSE (ELEVATION)
2-M-00-02	OUTLINE OF STOVE
2-M-00-03	OUTLINE OF WASTE OIL INCINERATOR
2-C-00-01	SCOPE OF WORK FOR DG 60KW AND DG100KW FOUNDATIONS
2-C-00-02	STANDARD DETAILS FOUNDATION FOR DG 60KW AND DG 100KW
2-V-00-01	OUTLINE OF MAINTENANCE VEHICLE
2-S-00-01	SPARE PARTS FOR EQUIPMENT
2-T-00-01	TOOLS FOR MOBILE TEAM
2-T-00-02	TOOLS FOR MOBILE TEAM AND SUM CENTER

DWG.NO.	TITLE
2-G-73-01	GENERAL ARRANGEMENT OF THE SITE AT TOSONTSENDEL (ZABKHAN)
2-G-73-02	GENERAL ARRANGEMENT OF POWER PLANT AT TOSONTSENDEL (ZABKHAN)
2-E-73-01	ELECTRICAL SYMBOLS AND ABBREVIATIONS
2-E-73-02	SINGLE LINE DIAGRAM FOR POWER PLANT
2-E-73-03	SINGLE LINE DIAGRAM FOR LOW VOLTAGE PANEL AND DG 30KW
2-E-73-04	OUTLINE OF GENERATOR PANELS
2-M-73-01	MECHANICAL SYMBOLS AND ABBREVIATIONS
2-M-73-02	COMPRESSED AIR SYSTEM DIAGRAM
2-M-73-03	COOLING WATER SYSTEM DIAGRAM
2-M-73-04	FUEL OIL SYSTEM DIAGRAM
2-M-73-05	AIR EXHAUST GAS SYSTEM DIAGRAM
2-C-73-01	SCOPE OF WORK FOR DG 500KW FOUNDATIONS
2-C-73-02	DG 500KW RE-BAR ARRANGEMENT
2-C-73-03	DG 500KW FOUNDATION
2-S-73-01	SPARE PARTS FOR DG 500KW
2-T-73-01	TOOLS FOR DG 500KW

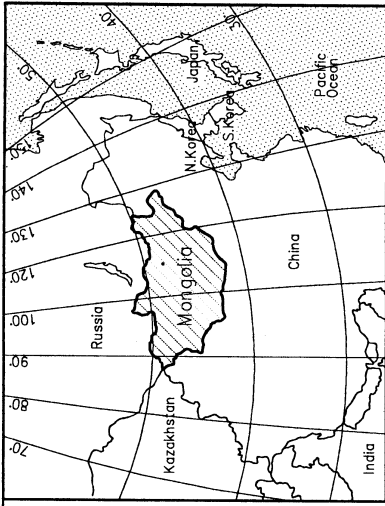
TENDER PURPOSE ONLY

NO.	DATE	CONTENTS	SCALE	APPROVED BY	CHECKED BY	TITLE
5			NTS			THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4						
3			MA			DRAWING LIST
2						
1						

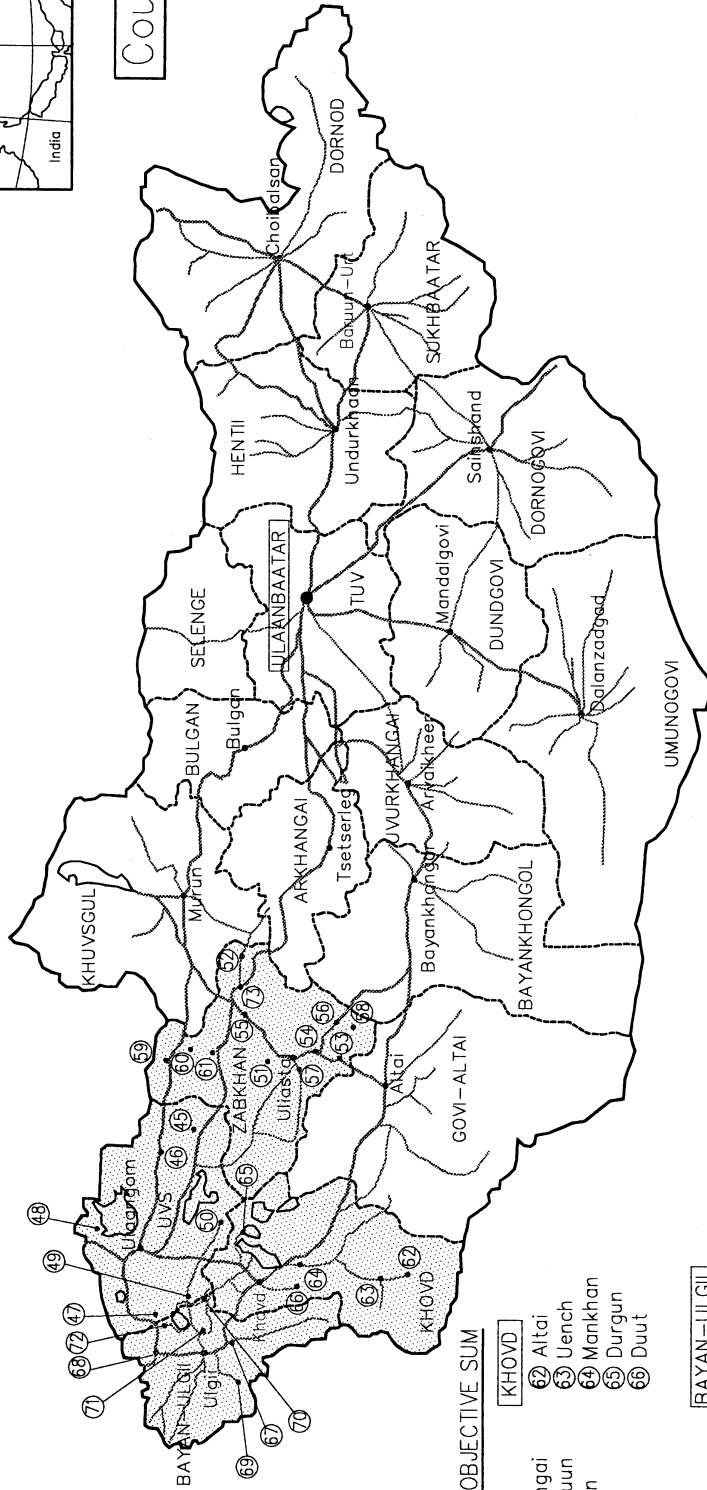

 PACIFIC CONSULTANTS INTERNATIONAL
 Tokyo, Japan

DRAWING NO. 2-G-00-00

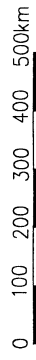
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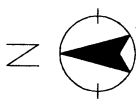
Country Map



Site Location Map



TENDER PURPOSE ONLY



STAGE 2 OBJECTIVE SUM

- UVS**
 - 45 Undurkhangai
 - 46 Baruunturuun
 - 47 Bukhmurun
 - 48 Davst
 - 49 Khovd
 - 50 Zavkhan
- ZABKHAN**
 - 51 Yaruu
 - 52 Ikh-Uul
 - 53 Tsagaanchuluut
 - 54 Tsagaankhairkhan
 - 55 Telmen
 - 56 Otgon
 - 57 Aidarkhaan
 - 58 Shiluuste
 - 59 Bayantes
 - 60 Bayankhairkhan
 - 61 Tudevtei
 - 73 Tosontsengel
- KHOVD**
 - 62 Altai
 - 63 Uench
 - 64 Mankhan
 - 65 Durgun
 - 66 Duut
- BAYAN-ULGII**
 - 67 Tolbo
 - 68 Tsagaannuur
 - 69 Altai
 - 70 Bayannuur
 - 71 Altantsugts
 - 72 Nagoonnuur

5	SCALE	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	UNITS	DESIGNED BY	TITLE
3		DRAWN BY	LOCATION MAP FOR OBJECTIVE SUM CENTERS
2			DRAWING NO.
1	NO. DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan	2-G-00-01
	CONTENTS		0

AIMAG	SUM	60KW DG Spare Parts Category (Set)				100KW DG Spare Parts Category (Set)				LV Panel A Spare Parts (Set)				LV Panel B Spare Parts (Set)				LV Panel C Spare Parts (Set)			Battery Charger Unit		For SUM Tools (Set)		Maintenance Vehicle Spare Parts (Set)		Waste Oil Incinerator (Nos)		Slove (Nos)						
		Nos.	A	B	C	D	Nos.	A	B	C	D	Nos.	E	F	Nos.	E	F	CH2	CH3	Nos.	Tools (Set)	Nos.	Tools (Set)	Nos.	Tools (Set)	Nos.	Tools (Set)								
KHOVD	Alhai	2																																	
	Durgun	2																																	
	Duat	2																																	
	Mankhan	2																																	
	Uyanch	2																																	
AIMAG Center																																			
UVS	Barunhulun	2	2	5	3	3		2			1																								
	Daest	2	1								1																								
	Undarkhaugai	2									1																								
	Zavkhan	2	1								1																								
	Buikhorin	2	2								1																								
	Khovi	2	2	6	3	3		2		2	1																								
AIMAG Center																																			
BAYAN-ULGII	Altai	2									1																								
	Altantsigs	2	2								2																								
	Bayanmuru	2	2								2																								
	Ngosomur	2	2								2																								
	Tsaganamuur	2	2								2																								
	Tolbo	2	2								2																								
AIMAG Center																																			
ZAVKHAN	Aldarkhan	2	1								2																								
	Bayankhairkhan	2	1								2																								
	Byanes	2	1								2																								
	Tsaganulhul	2	1								2																								
	Tudvevi	2	1								2																								
	Yantu	2	1								2																								
	Tsaganbhairkhan	2	3								2																								
	Olgon	2	1								2																								
	Ikhi-Uul	2	2								2																								
	Felmien	2	1								2																								
	Shilestei	2	1								2																								
AIMAG Center	Total	38	32	24	14	14	14	14	14	14	19	21	17	8	8	8	8	8	19	6	19	8	5	8	1	1	1	1	1	28	3	3	3	28	87

Note: For the contents of supply list, see DWG No. 2-S-00-01, 2-T-06-01 and 2-T-06-02.

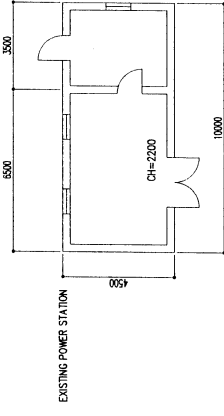
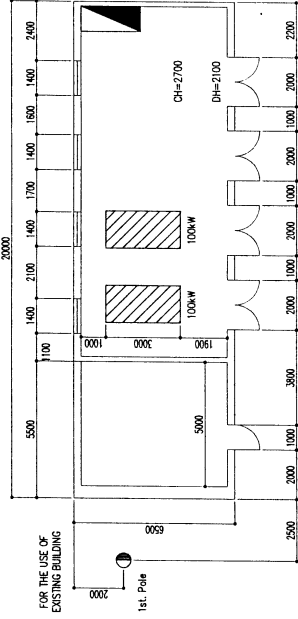
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF SUM CENTERS (PHASE II)
4	UNITS	DESIGNED BY	DRAWN BY	TITLE
3				EQUIPMENT, SPARE PARTS AND TOOLS SUPPLY LIST
2				DRAWING NO.
1	NO. DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan	2-G-00-02	0

KEY PLAN

AIMAG : UVS
SUM : ⑤ UNDIRKHANGAI



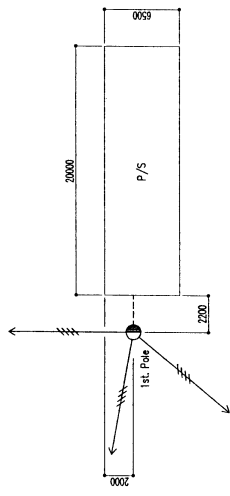
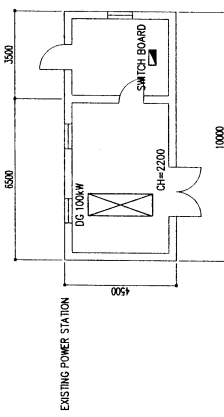
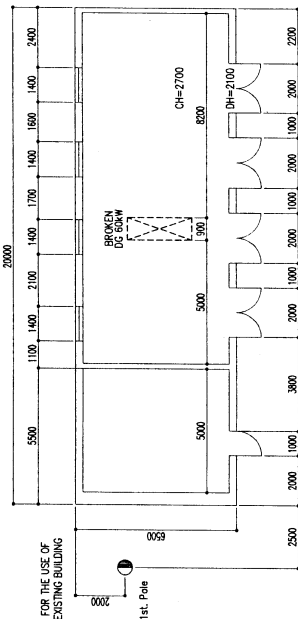
Layout Plan



★ Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

Existing Layout

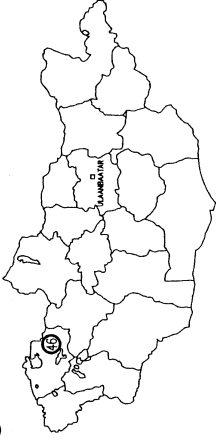


TENDER PURPOSE ONLY

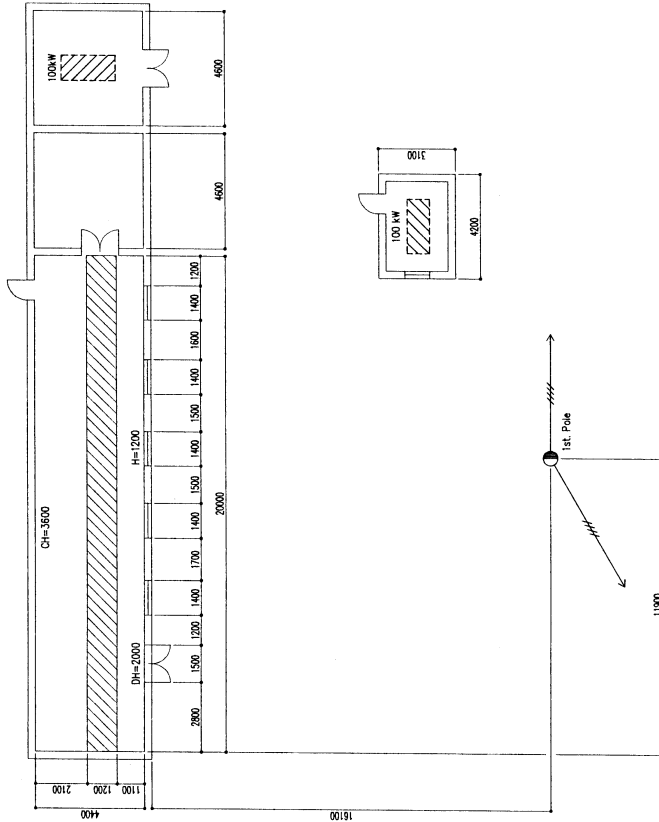
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 200			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT UNDIRKHANGAI (UVS)
1				DRAWING NO.
				2-G-45-01
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		
		CONTENTS		

KEY PLAN

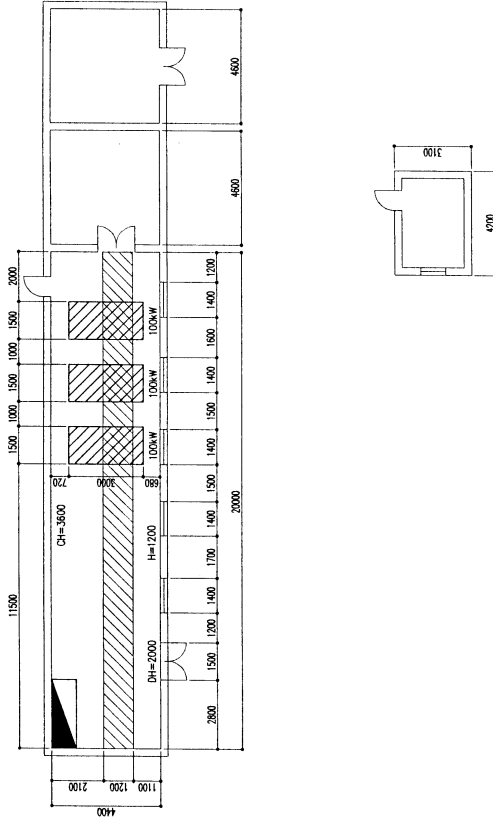
AIMAG : UVS
SUM : BARUUNTURUUN



Existing Layout



Layout Plan



Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Charger and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 200			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT BARUUNTURUUN (UVS)
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
NO.	DATE	CONTENTS		2-C-46-01
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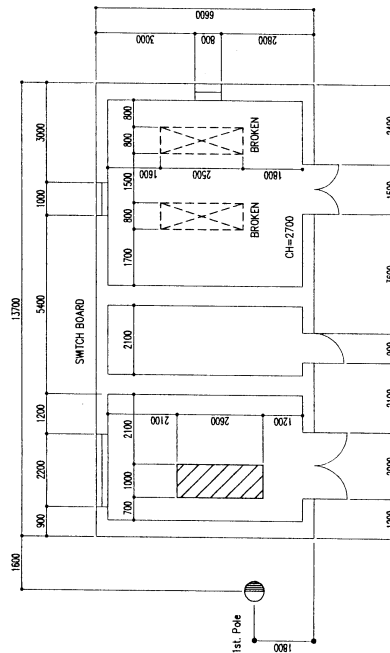
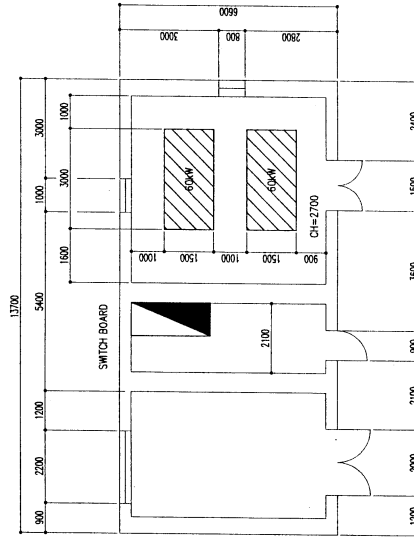
KEY PLAN

AIMAG : UVS
SUM : БУХИМОРУН



Layout Plan

Existing Layout



★ Scope of Work

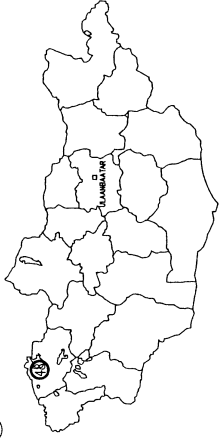
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

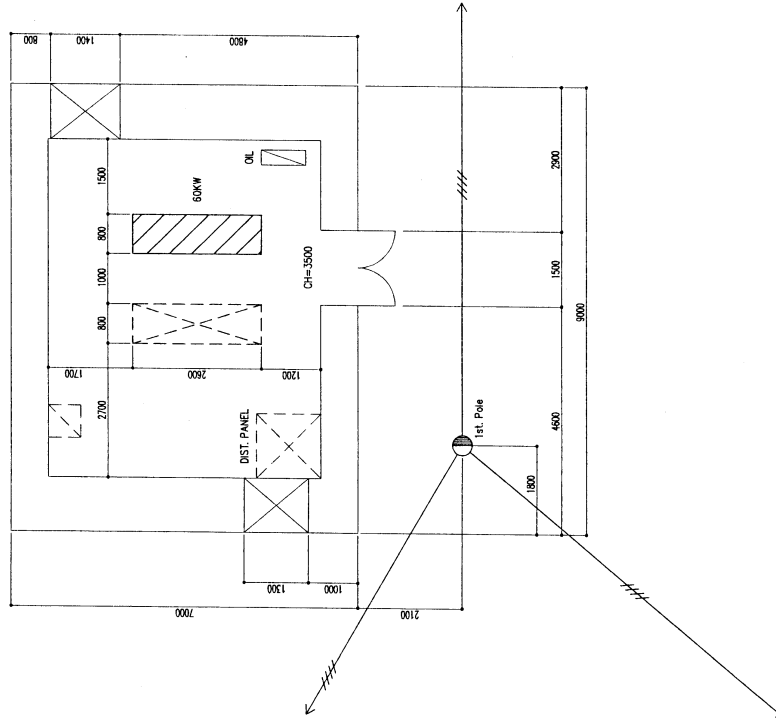
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR
4	1 : 150			REHABILITATION OF POWER PLANTS OF SUM CENTERS
3	UNITS	DESIGNED BY	DRAWN BY	(PHASE IV)
2	MM			TITLE
1				GENERAL ARRANGEMENT OF POWER PLANT
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
		CONTENTS		2-G-47-01
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KEY PLAN

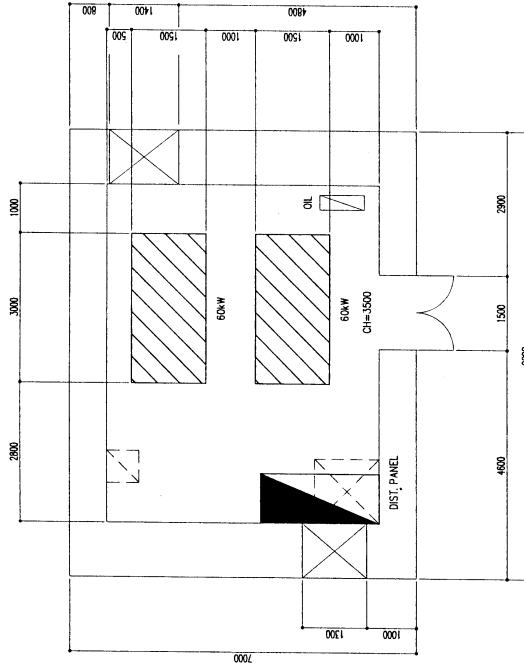
AIMAG : UVS
SUM : DAVAST



Existing Layout



Layout Plan



Scope of Work

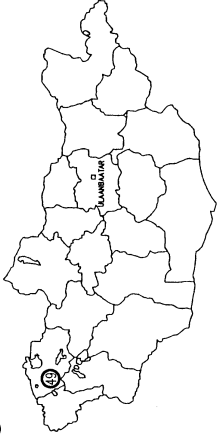
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

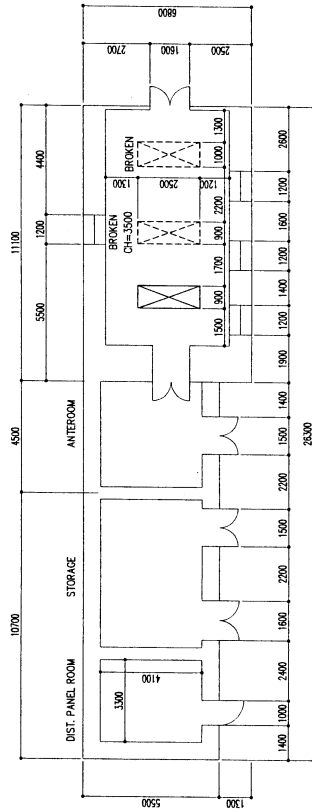
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3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT DAVAST (UVS)
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		2-G-48-01
		CONTENTS		0

KEY PLAN

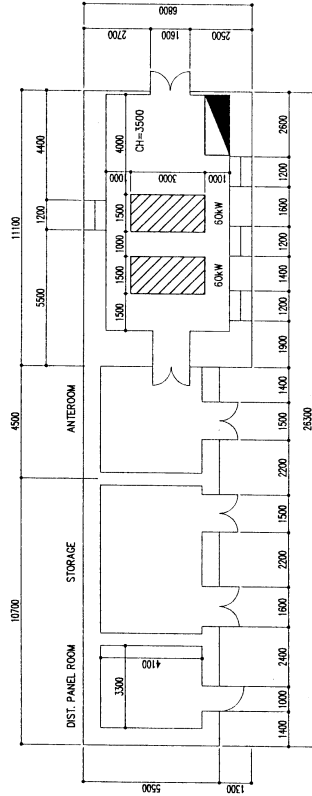
AIMAG : UVS
SUM : KHOVY



Existing Layout

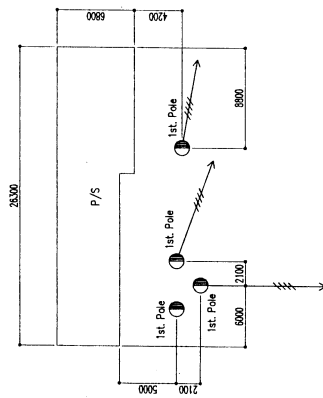


Layout Plan



★ Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

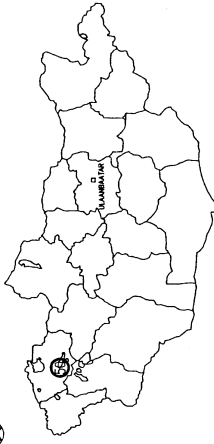


TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 200			
3	UNITS MM	DESIGNED BY	DRAWN BY	TITLE GENERAL ARRANGEMENT OF POWER PLANT AT KHOVYT (UVS)
2				
1				DRAWING NO. 2 - G - 49 - 01
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		0
		CONTENTS		

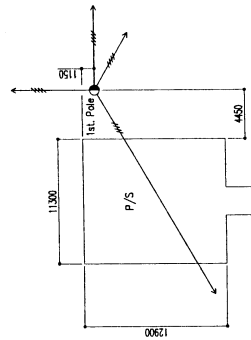
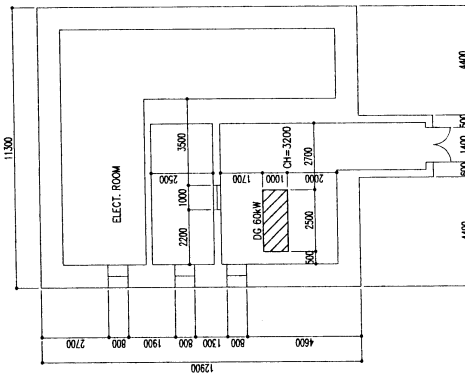
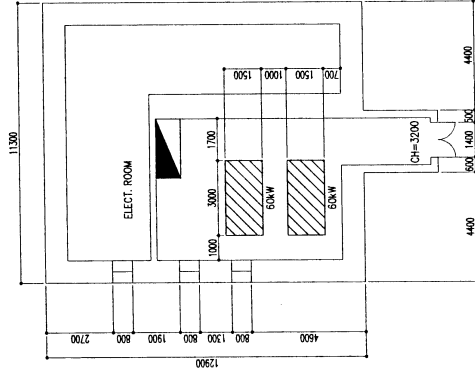
KEY PLAN

AIMAG : UVS
SUM : ZAVKHAN



Layout Plan

Existing Layout



■ Scope of Work

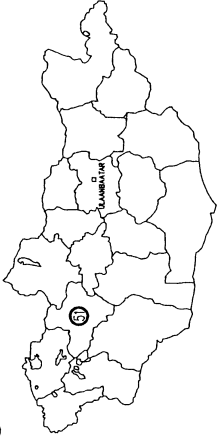
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

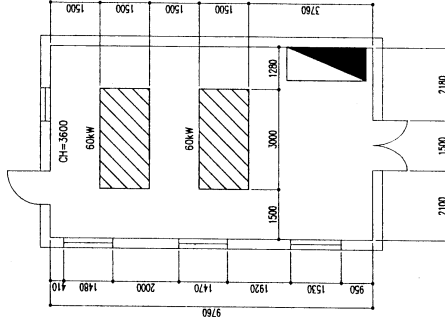
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4	1 : 200			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT ZAVKHAN (UVS)
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		2-G-50-01
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KEY PLAN

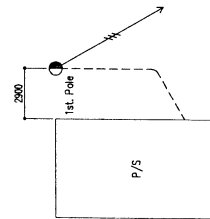
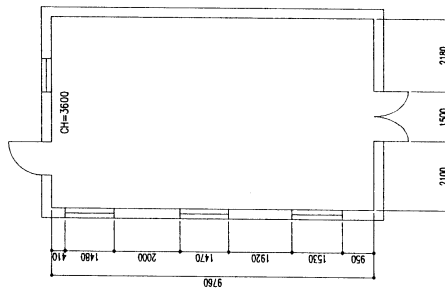
AIMAG : ZABKHKAN
SUM : ⑤ YARUU



Layout Plan



Existing Layout



Scope of Work

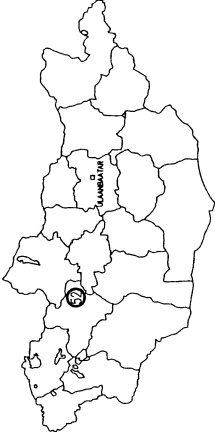
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Charger and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

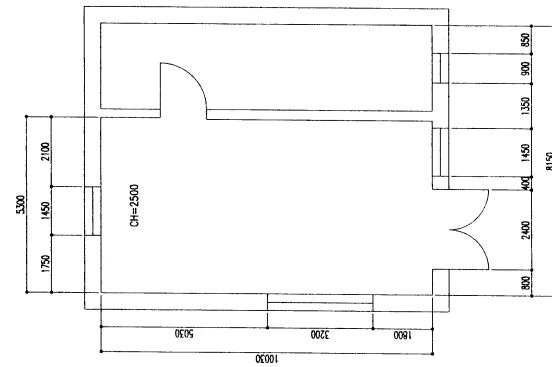
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR
4	1 : 150			REHABILITATION OF POWER PLANTS OF SUM CENTERS
3	UNITS	DESIGNED BY	DRAWN BY	(PHASE IV)
2	MM			TITLE
1				GENERAL ARRANGEMENT OF POWER PLANT
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		AT YARUU (ZABKHKAN)
		CONTENTS		DRAWING NO.
				2-G-51-01
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KEY PLAN

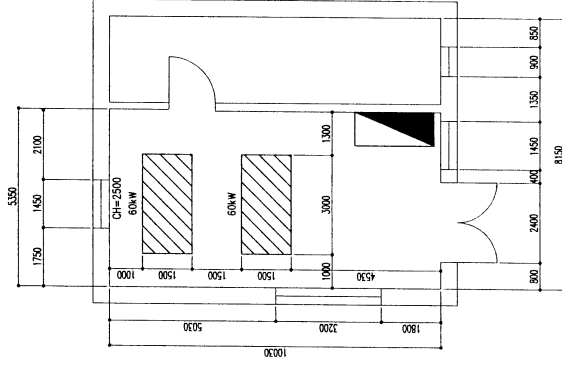
AIMAG : ZABKHAN
SUM : IKH-UUL



Existing Layout



Layout Plan

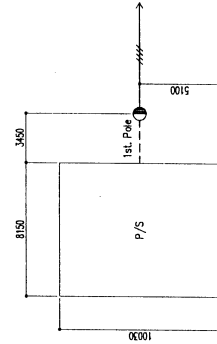


* SCOPE OF WORK

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

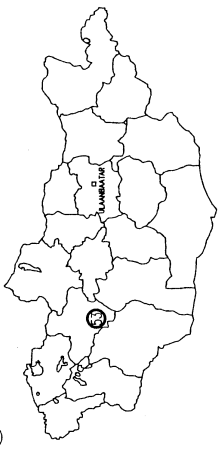
TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 150			
3	UNITS	DESIGNED BY	DRWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT IKH-UUL (ZABKHAN)
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		2-G-52-01
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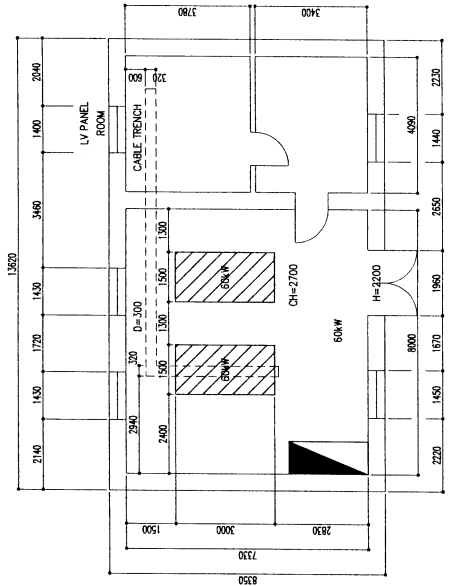


KEY PLAN

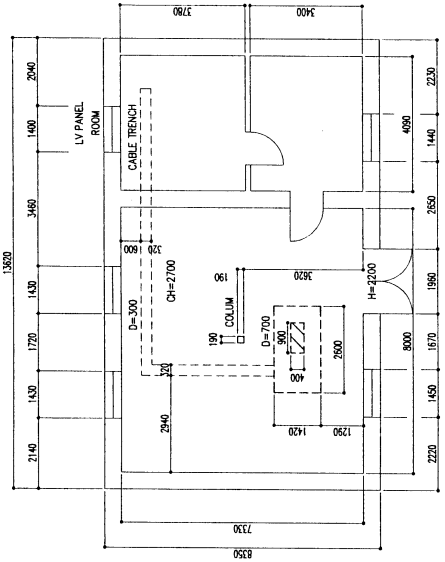
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SUM : TSAGAANGHULUUT



Layout Plan



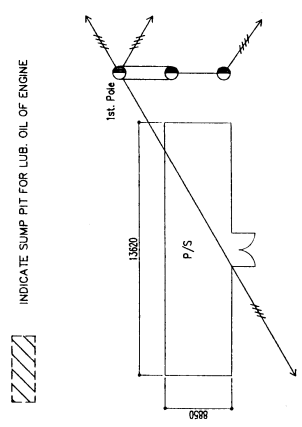
Existing Layout



* Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Charger and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

INDICATE SUMP PIT FOR LUB. OIL OF ENGINE

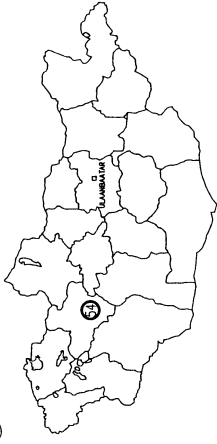


TENDER PURPOSE ONLY

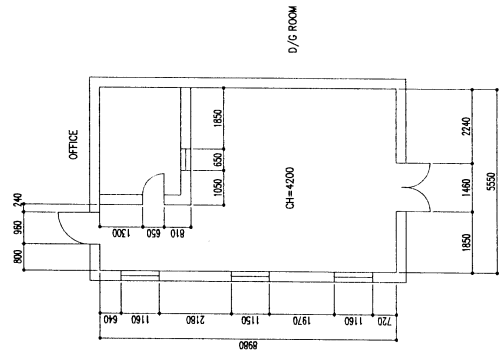
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3	UNITS MM	DESIGNED BY	DRAWN BY	TITLE
2				GENERAL ARRANGEMENT OF POWER PLANT AT TSAGAANGHULUUT (ZABKHAN)
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
	NO. DATE	CONTENTS		2-G-53-01
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KEY PLAN

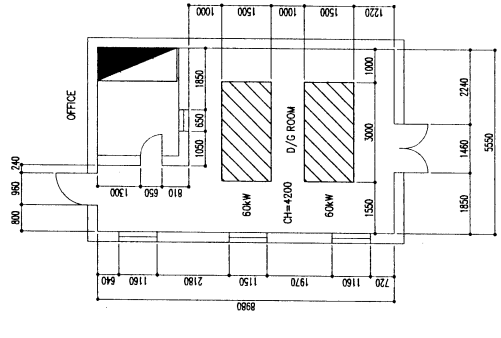
AIMAG : ZABKHAN
SUM : TSAGANKHAIRKHAHN



Existing Layout



Layout Plan



★ Scope of Work

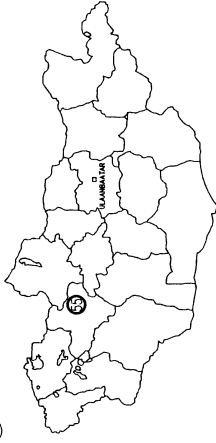
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

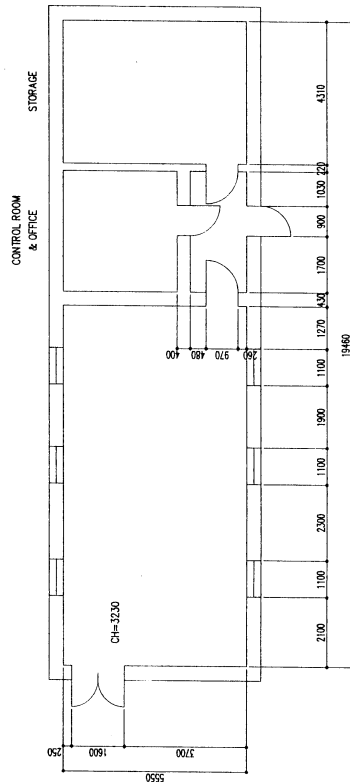
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2				DRAWING NO. 2-G-54-01
1				
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		
		CONTENTS		0

KEY PLAN

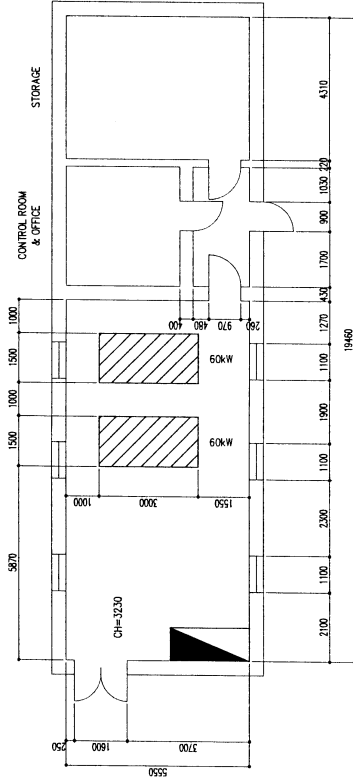
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SUM : TELMEN



Existing Layout

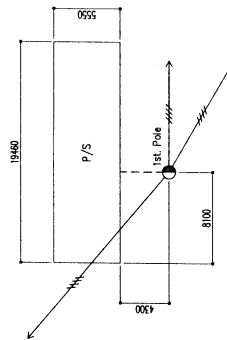


Layout Plan



★ Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

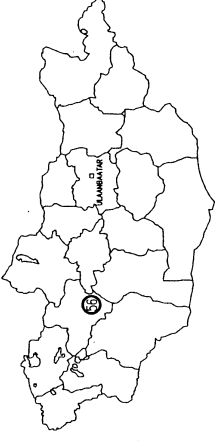


TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 150			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT TELMEN (ZABKHAN)
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
				2-G-55-01
NO.	DATE	CONTENTS		0

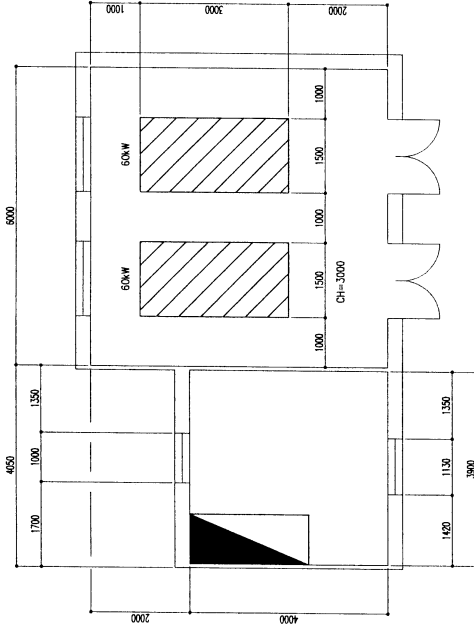
KEY PLAN

AIMAG : ZABKHAN
SUM : OTGON



Layout Plan

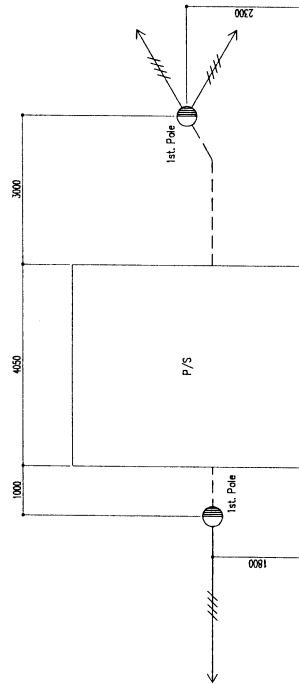
Existing Layout



★ Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY



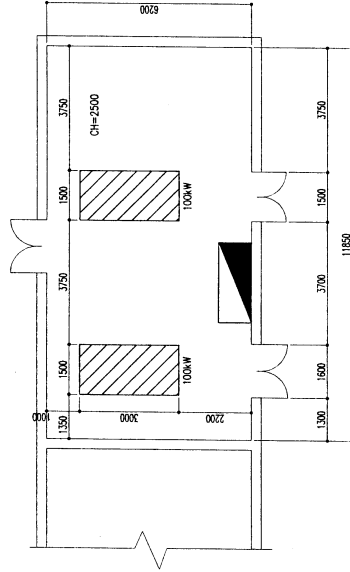
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3					GENERAL ARRANGEMENT OF POWER PLANT AT OTGON (ZABKHAN)
2					DRAWING NO.
1	NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		2-G-56-01
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KEY PLAN

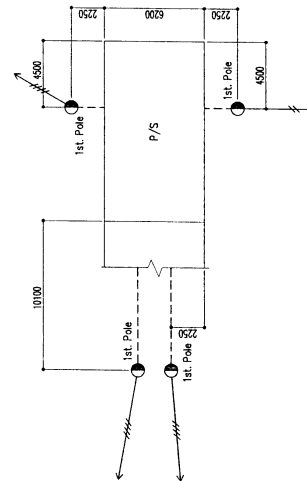
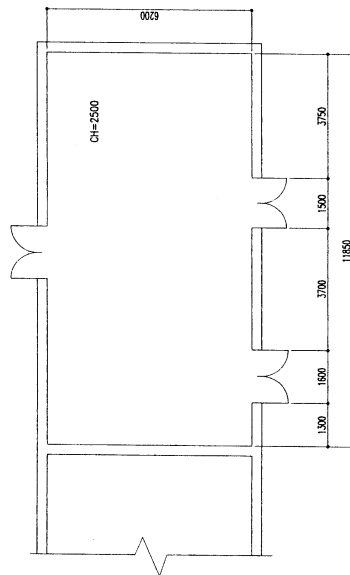
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SUM : ⑥ ALDARKHAAN



Layout Plan



Existing Layout



*** Scope of Work**

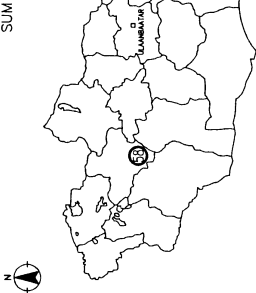
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

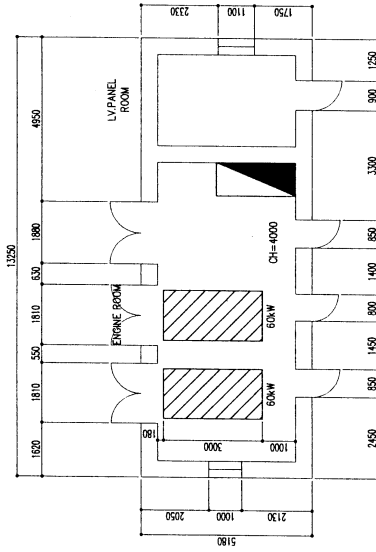
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1				2-G-57-01
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		0
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KEY PLAN

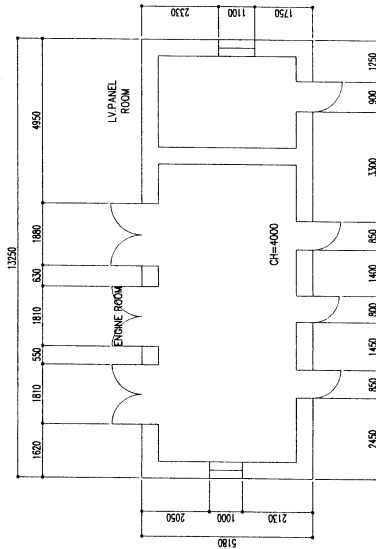
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SUM : SHILUUSTEI



Layout Plan

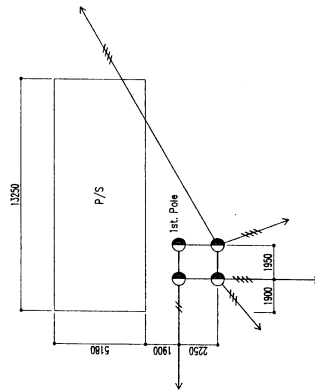


Existing Layout



Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

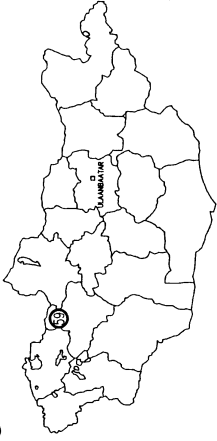


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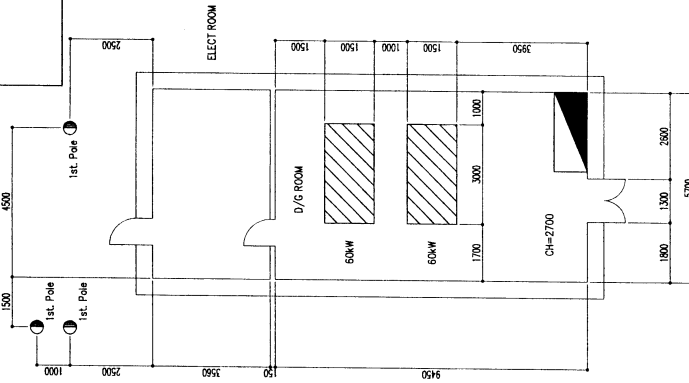
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2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT SHILUUSTEI (ZABKHAN)
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NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		2-G-58-01
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KEY PLAN

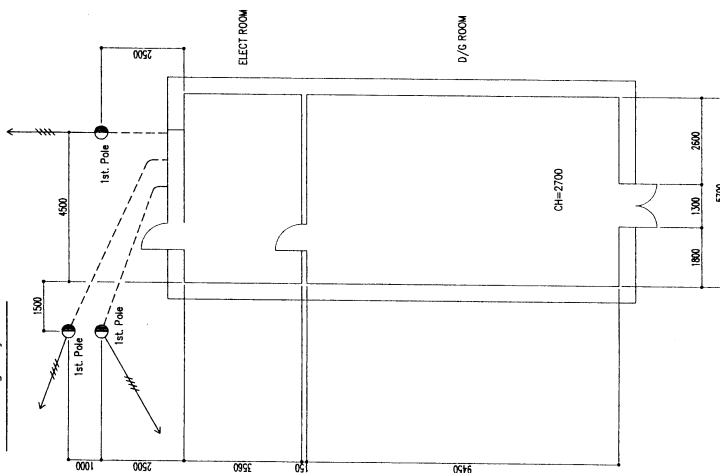
AIMAG : ZABKHAN
SUM : BYYANTES



Layout Plan



Existing Layout



■ Scope of Work

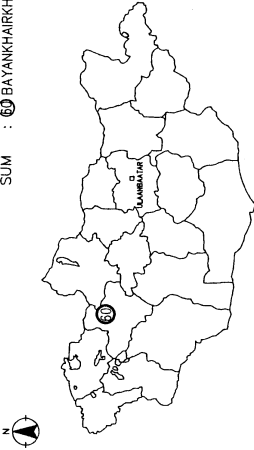
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Charger and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator , Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

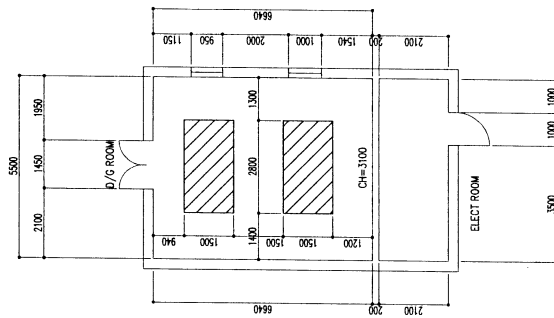
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4	1 : 150			REABILITATION OF POWER PLANTS OF SUM CENTERS
3	UNITS	DESIGNED BY	DRAWN BY	(PHASE 'N')
2	MM			TITLE
1				GENERAL ARRANGEMENT OF POWER PLANT
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		AT BYYANTES (ZABKHAN)
		CONTENTS		DRAWING NO.
				2-G-59-01
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KEY PLAN

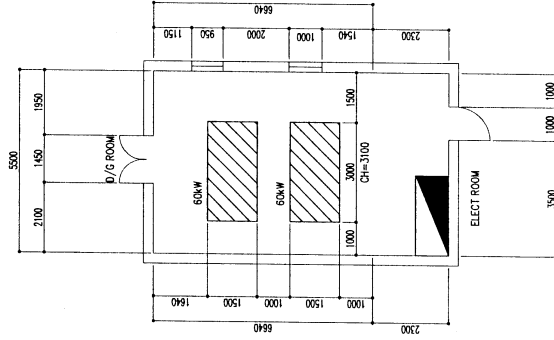
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SUM : 60 BAYANKHAIKHKHAN



Existing Layout

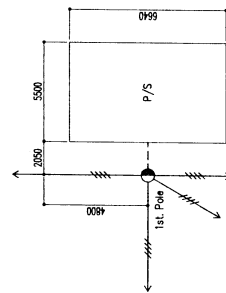


Layout Plan



Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Charger and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

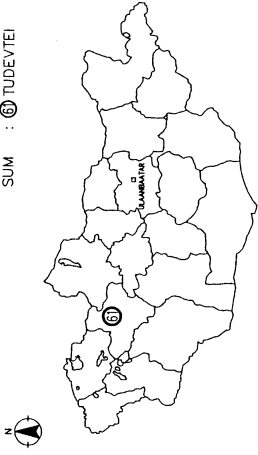


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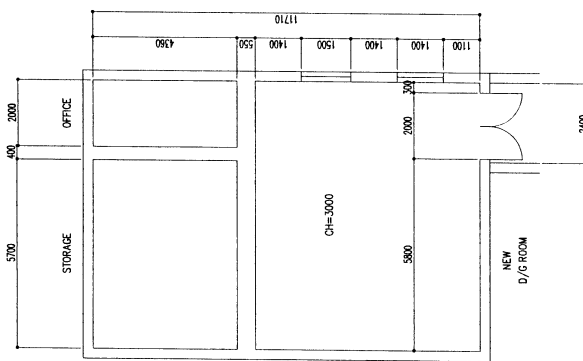
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				2 - G - 60 - 01
NO.	DATE	CONTENTS		
		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		0

KEY PLAN

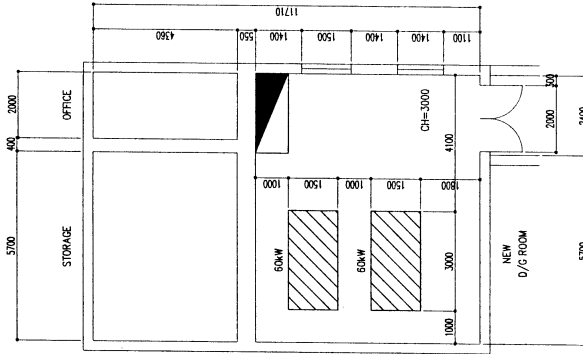
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SUM : ⑥ TUDEVTEI



Existing Layout

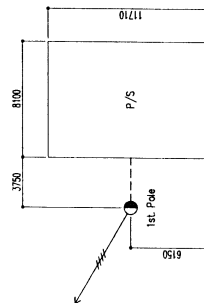


Layout Plan



★ Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole



TENDER PURPOSE ONLY

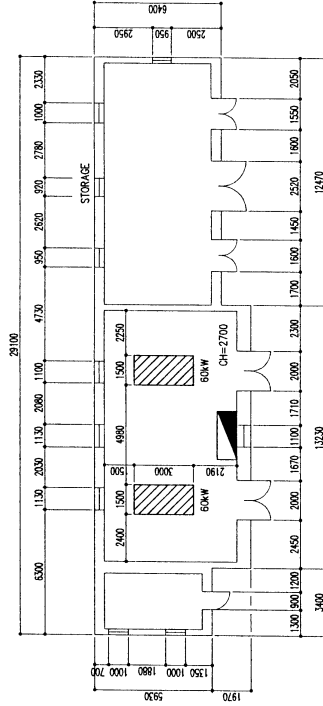
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NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		2-G-61-01
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KEY PLAN

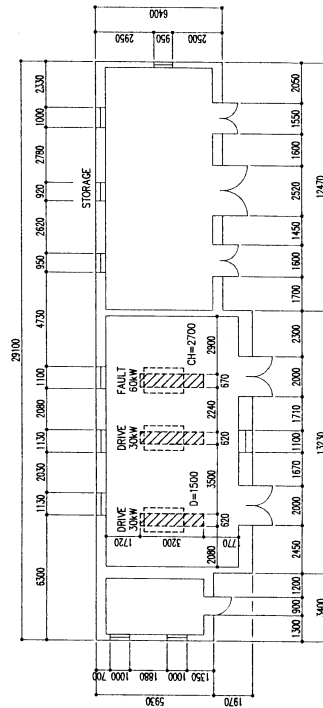
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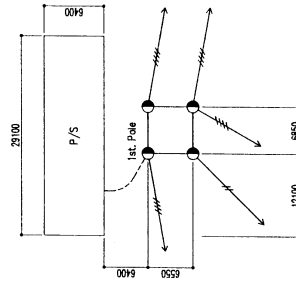
Layout Plan



Existing Layout



||||| INDICATE MAINTENANCE PIT FOR ENGINE.



★ Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY.

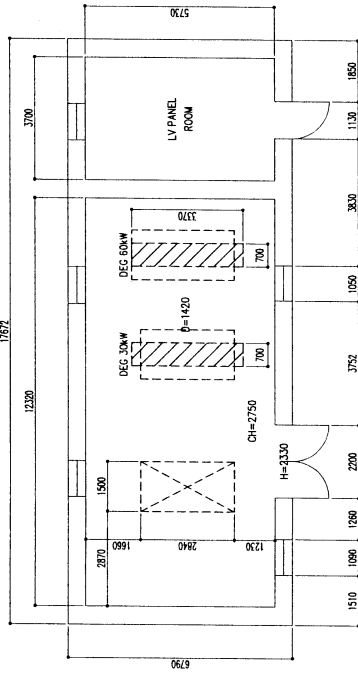
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2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT ALTAI (KHOVD)
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NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		2-G-62-01
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KEY PLAN

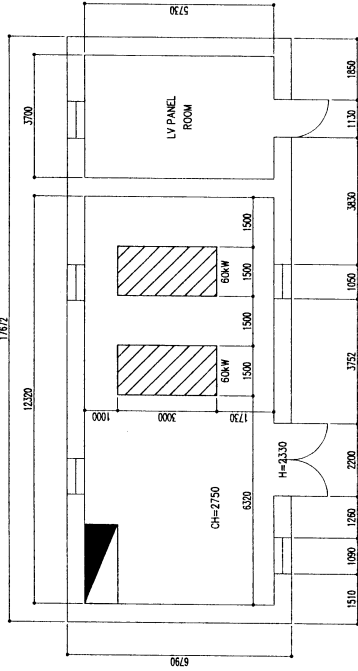
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SUM : UYENCH



Existing Layout



Layout Plan

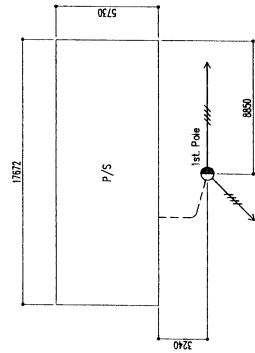


INDICATE MAINTENANCE PIT FOR ENGINE.



★ Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Charger and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

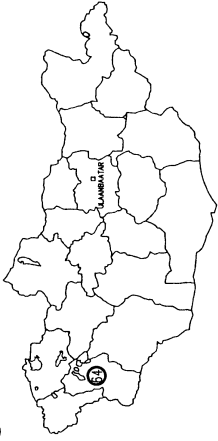


TENDER PURPOSE ONLY

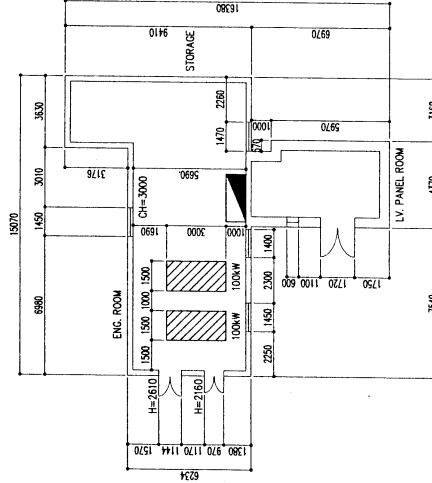
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1				DRAWING NO. 2-G-63-01
NO.	DATE	CONTENTS		
		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		

KEY PLAN

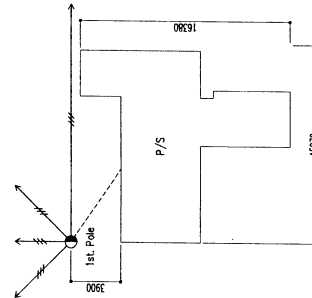
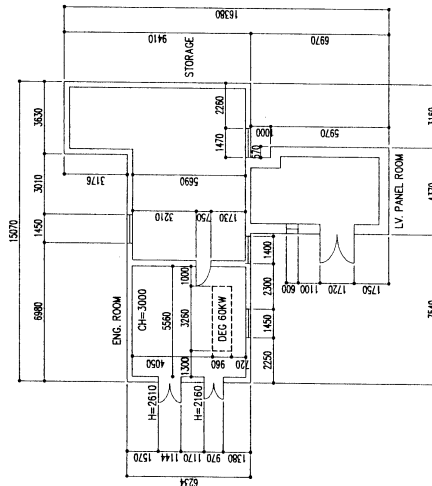
AIMAG : KHOVD
SUM : MANKHAN



Layout Plan



Existing Layout



Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 250			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT MANKHAN (KHOVD)
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
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NO.	DATE			0

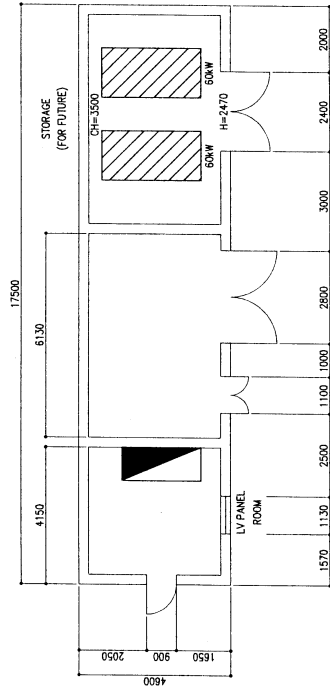
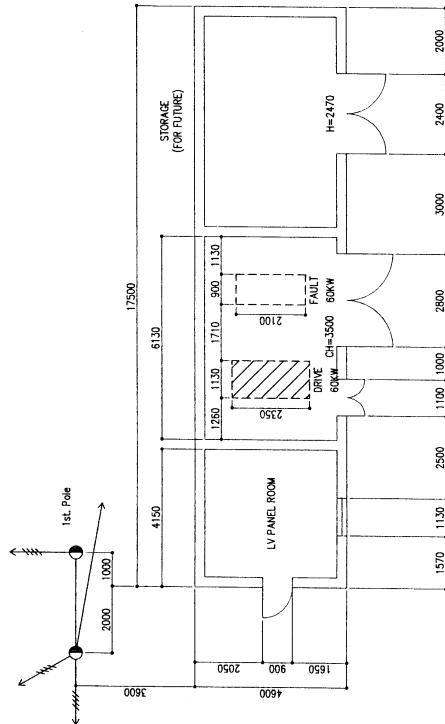
KEY PLAN

AIMAG : KHOVD
SUM : DURGUN



Layout Plan

Existing Layout



★ Scope of Work

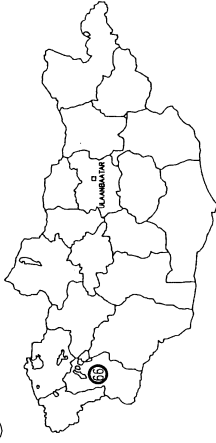
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

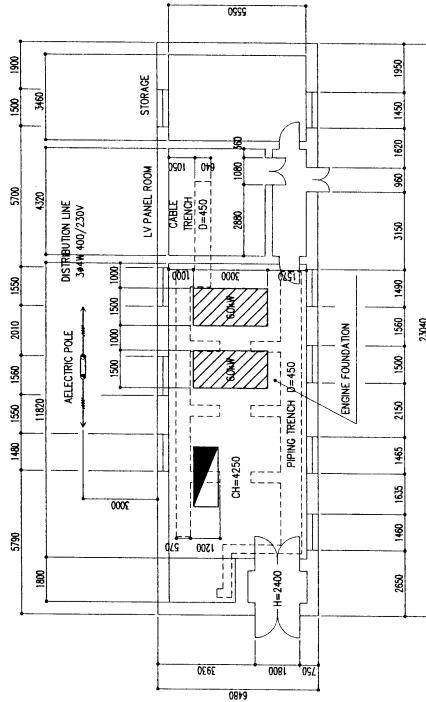
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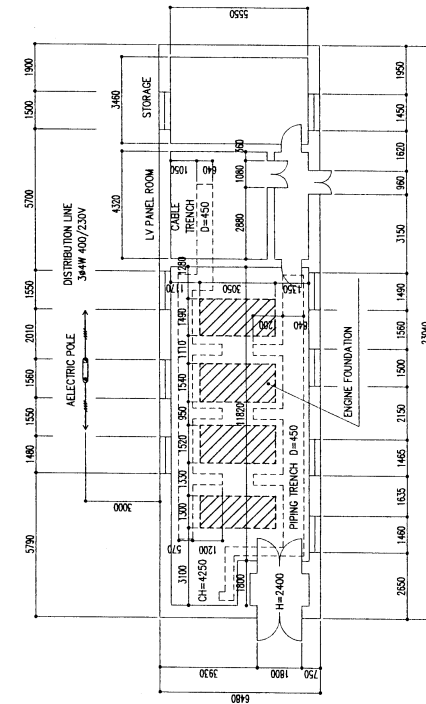
AIMAG : KHOVD
SOM : DUUT



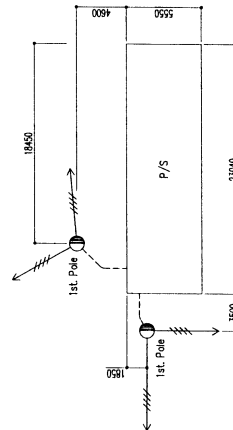
Layout Plan



Existing Layout



INDICATE EXISTING ENGINE FOUNDATION.



* Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM GENERS (PHASE IV)
4	1 : 200			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT DUUT (KHOVD)
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		2-G-66-01
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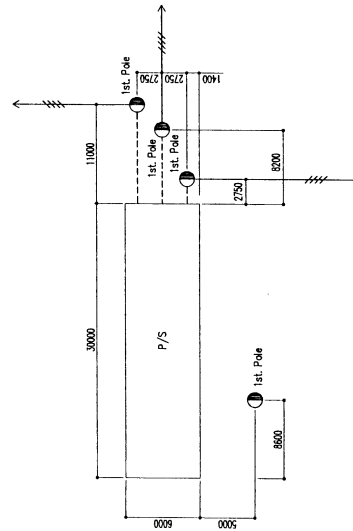
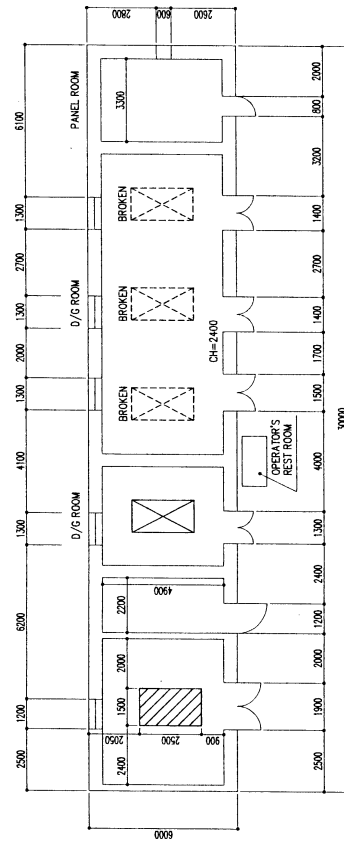
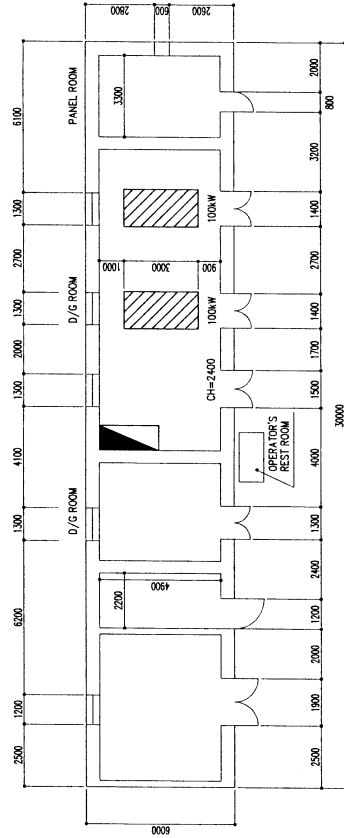
KEY PLAN

AIMAG : BAYAN-ULGII
SUM : 7 TOLBO



Layout Plan

Existing Layout



★ Scope of Work

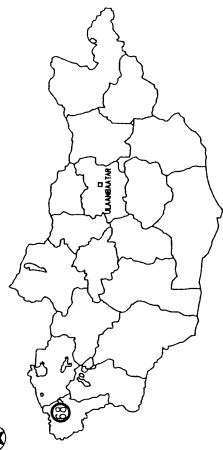
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

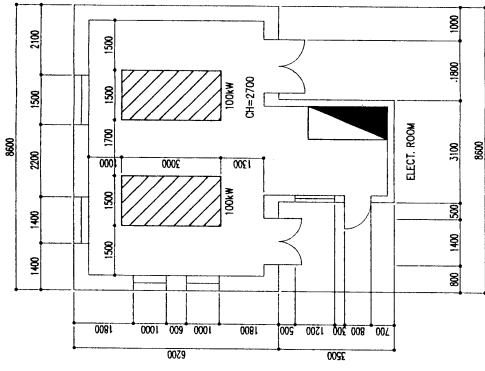
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 200			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT TOLBO (BAYAN-ULGII)
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
INC.	DATE	CONTENTS		2-G-67-01
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KEY PLAN

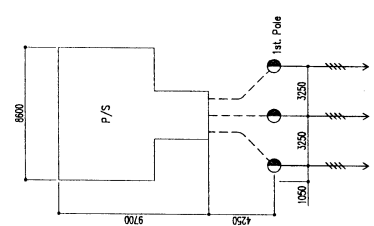
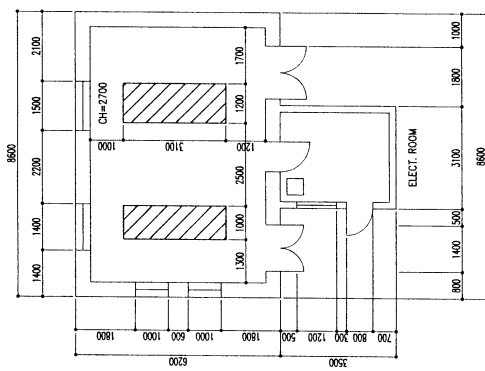
AIMAG : BAYAN-ULGII
SUM : TSAGAANUIUR



Layout Plan



Existing Layout



* Scope of Work

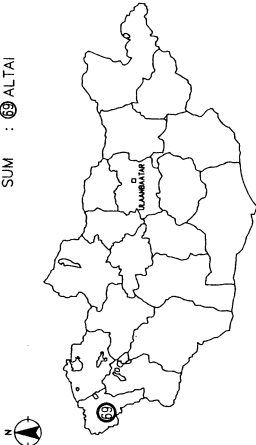
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

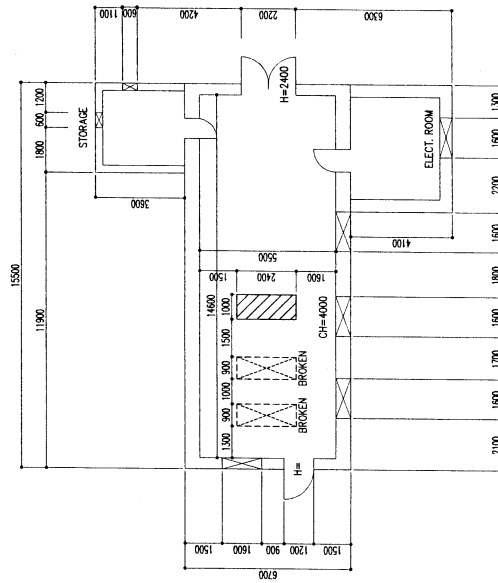
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3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT TSAGAANUIUR (BAYAN-ULGII)
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
NO.	DATE	CONTENTS		2-G-68-01
				0

KEY PLAN

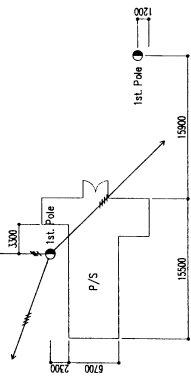
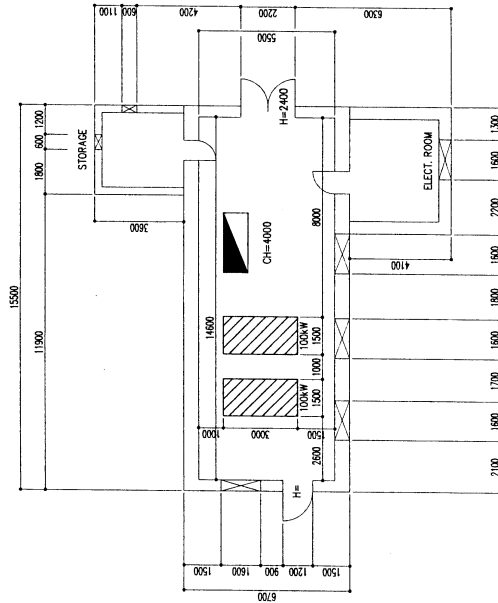
AIMAG : BAYAN-ULGII
SUM : ALTAI



Existing Layout



Layout Plan



* Scope of Work

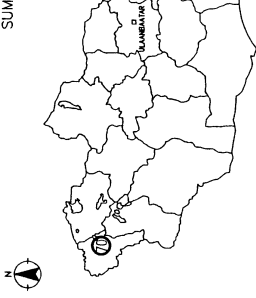
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

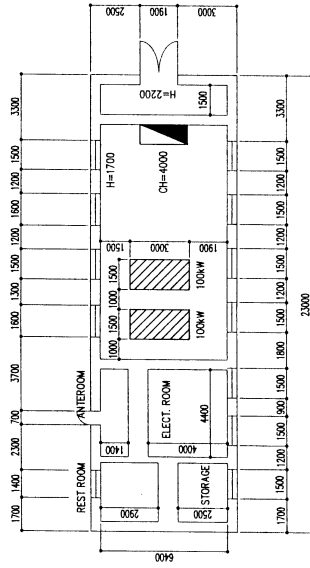
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 200			
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2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT ALTAI (BAYAN-ULGII)
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		2-G-69-01
		CONTENTS		0

KEY PLAN

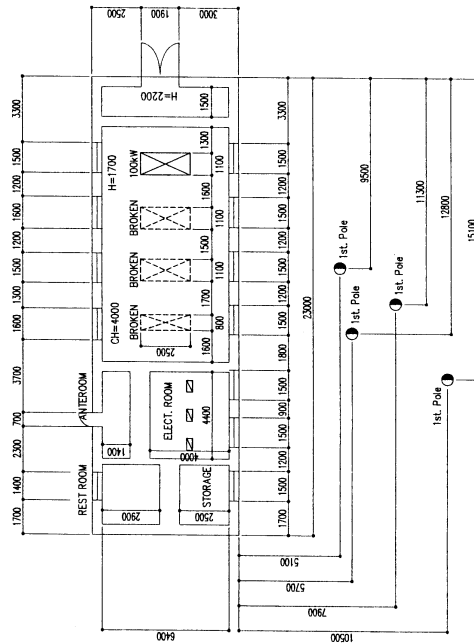
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SUM : BAYANNUUR



Layout Plan



Existing Layout



★ Scope of Work

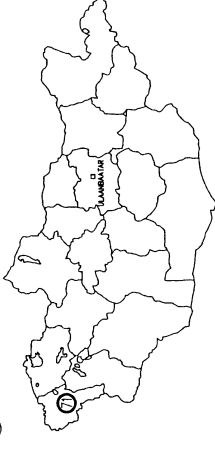
1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

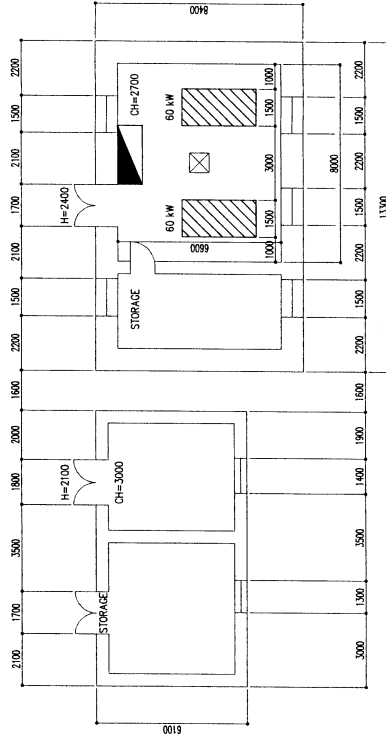
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4	1 : 250			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT BAYANNUUR (BAYAN-ULGI)
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		2-G-70-01
		CONTENTS		0

KEY PLAN

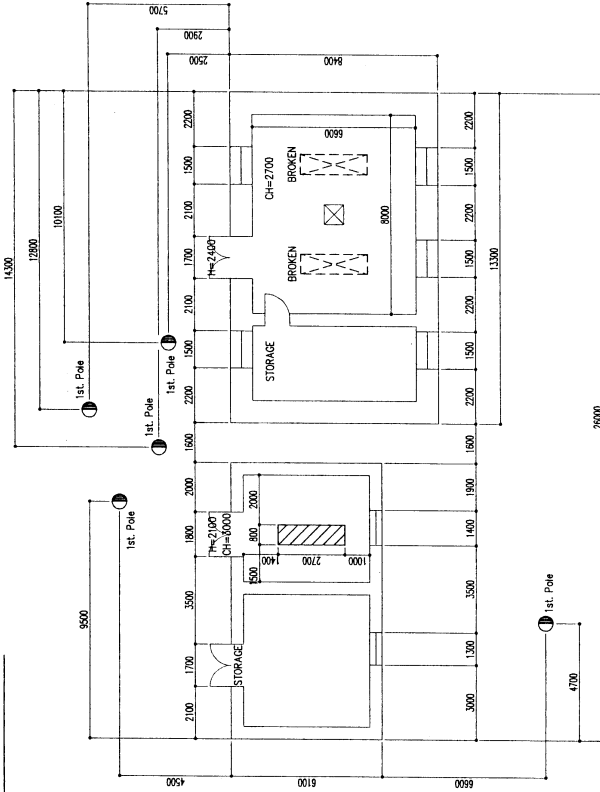
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SUM : ALTANTSIGTS



Layout Plan




Existing Layout



* Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Changer and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

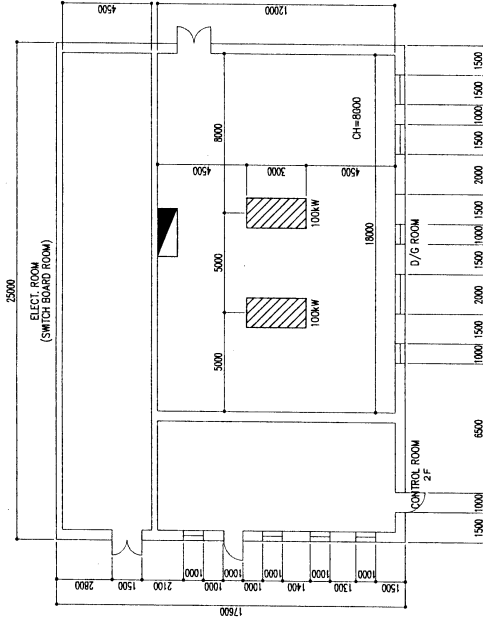
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2		 PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		
1	CONTENTS			
NO.	DATE	DRAWING NO. 2-G-71-01		
				0

KEY PLAN

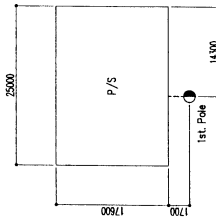
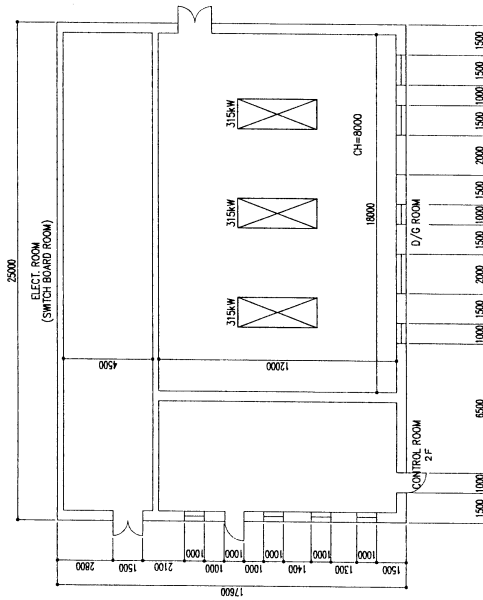
AIMAG : BAYAN-ULGII
SUM : NOGONNUUR



Layout Plan



Existing Layout



Scope of Work

1. Concrete Foundation Work for Diesel Generator and Distribution Panel
2. Installation of Diesel Generator, Battery Charger and Distribution Panel
3. Installation of the Exhaust Pipe of Diesel Generator
4. Wiring Work between Diesel Generator, Distribution Panel and Existing First Pole

TENDER PURPOSE ONLY

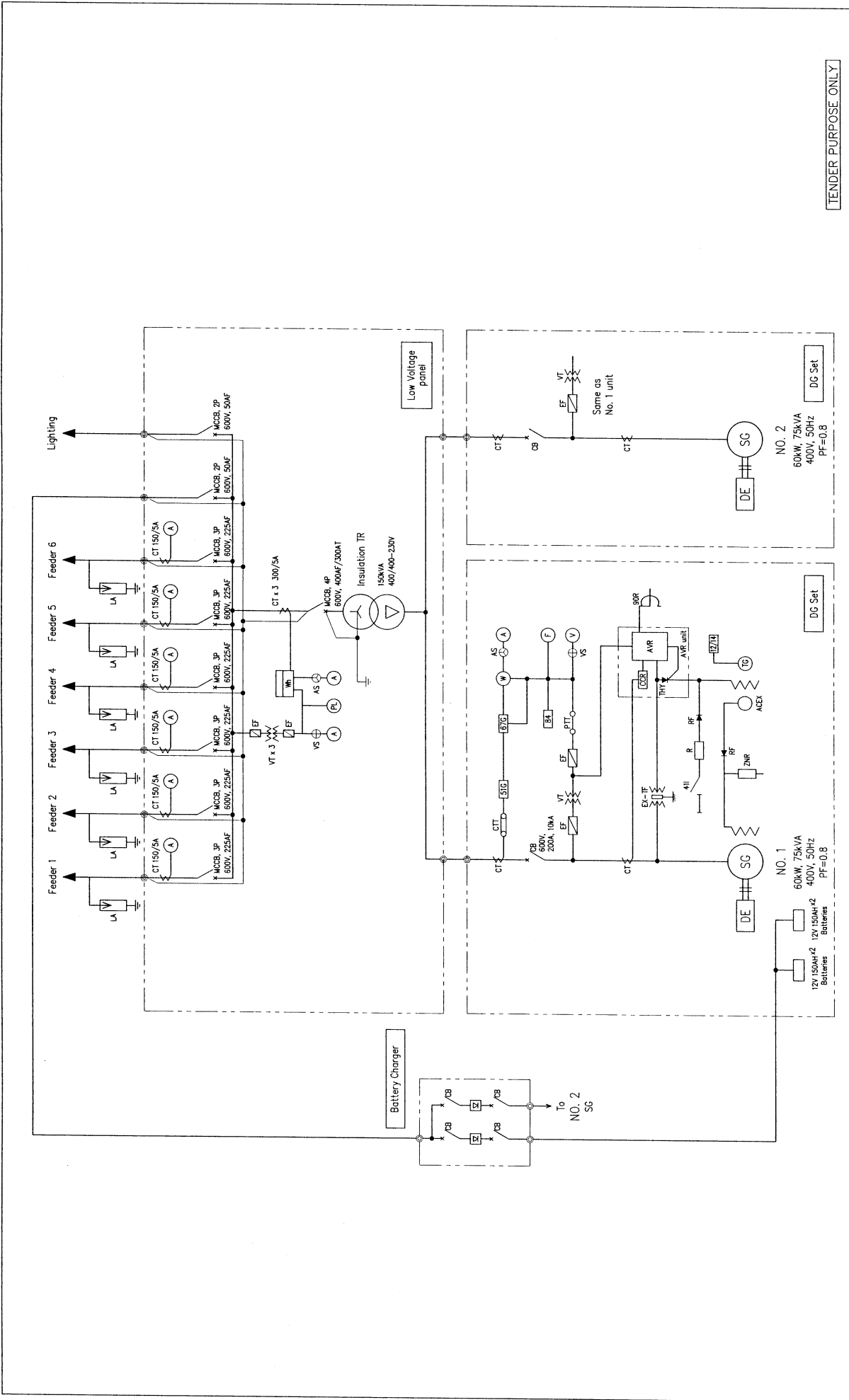
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4	1 : 250			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			GENERAL ARRANGEMENT OF POWER PLANT AT NOGONNUUR (BAYAN-ULGII)
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		2-G-72-01
		CONTENTS		0

Symbol	Name
DE	Diesel Engine
SG	Synchronous Generator
TG	Tacho Generator
ACEX	AC Excitor
ZNR	Surge Absorber (Varistor)
TR	Insulation Transformer
CT	Current Transformer
VT	Voltage Transformer
EF	Fuse
LA	Lightning Arrestor
AVR	Automatic Voltage Regulator
51G	Over Current Relay
84	Voltage Relay
67G	Reverse Power Relay
V	Voltmeter
⊕VS	Voltmeter COS
A	Ammeter
⊕AS	Ammeter COS
WH	Watt-hour Meter

Symbol	Name
E	Frequency Meter
12/14	Over/Low Speed Relay
W	Watt Meter
[*] /MCCB	Breaker
Z	Rectifier Unit
PL	Pilot Lamp

TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	NTS			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	NA			ELECTRICAL SYMBOLS AND ABBREVIATIONS
1				DRAWING NO.
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		2-E-00-01
		CONTENTS		0



TENDER PURPOSE ONLY

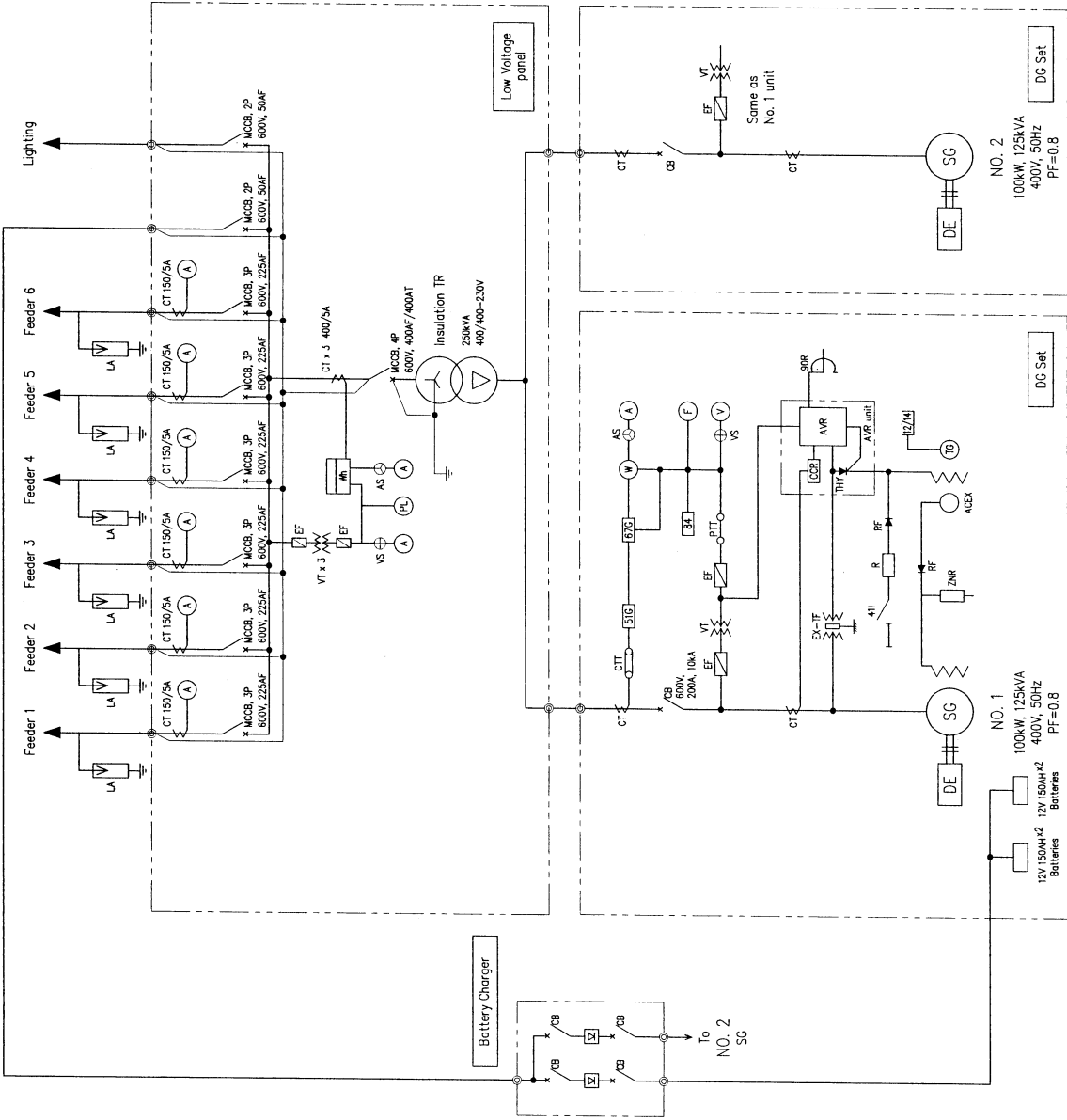
NO.	DATE	CONTENTS
5		
4		
3		
2		
1		

SCALE	APPROVED BY	CHECKED BY
NTS		
UNITS		
NA		

THE PROJECT FOR	
REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)	
TITLE	
TYPICAL SINGLE LINE DIAGRAM FOR POWER STATION(DG 60KW x2)	
DRAWING NO.	
2-E-00-02	

NO.	DATE	CONTENTS

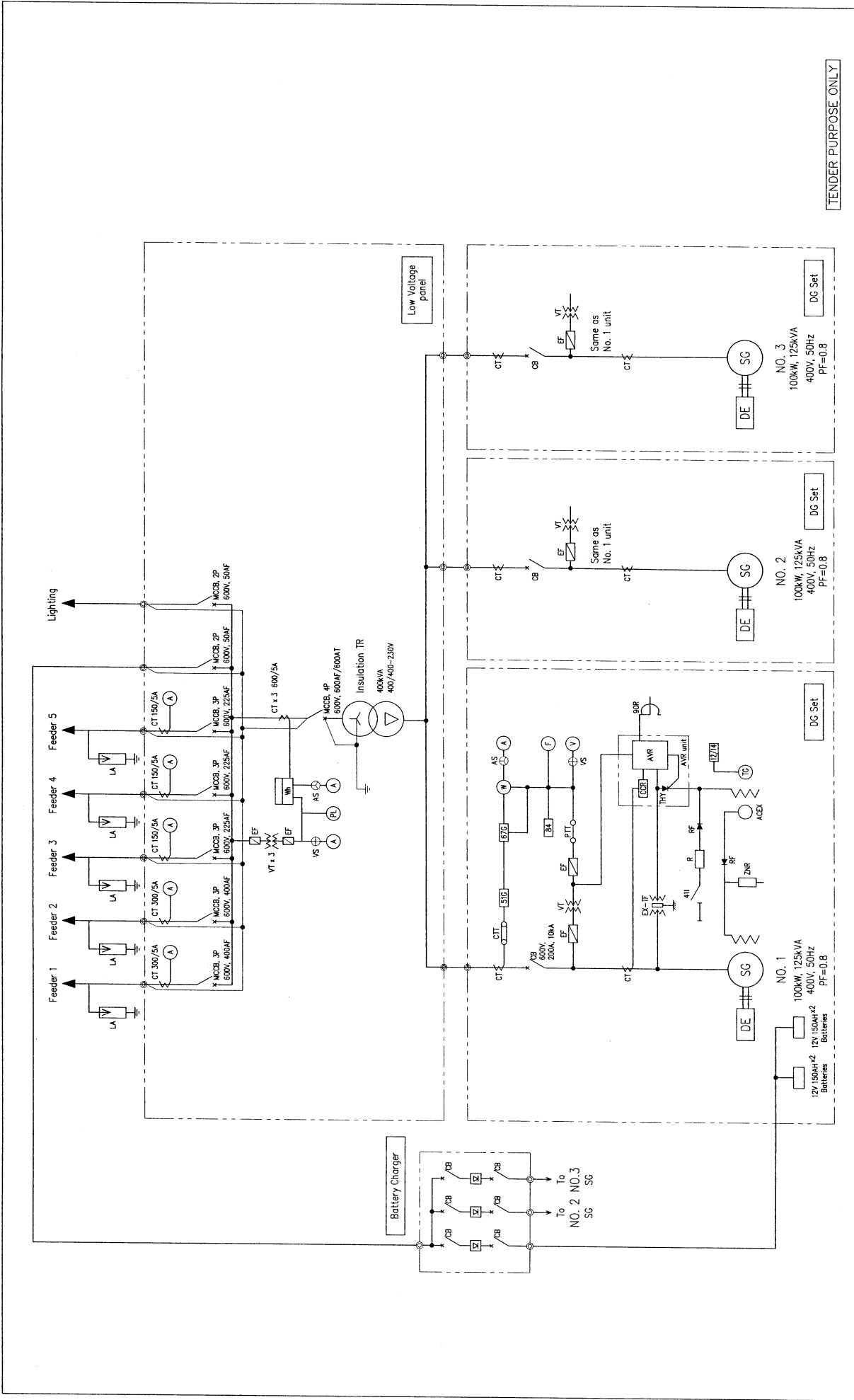
PACIFIC CONSULTANTS INTERNATIONAL
Tokyo, Japan



TENDER PURPOSE ONLY

NO.	DATE	CONTENTS	SCALE	APPROVED BY	CHECKED BY	TITLE
5			NTS			THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4						
3			NA			TYPICAL SINGLE LINE DIAGRAM FOR POWER STATION(DC 100KW x2)
2						
1						
						DRAWING NO. 2-E-00-03

NO.	DATE	CONTENTS
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan



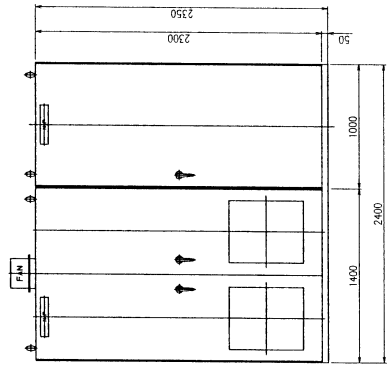
TENDER PURPOSE ONLY

NO.	DATE	CONTENTS	APPROVED BY	CHECKED BY
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4				
3				
2				
1				

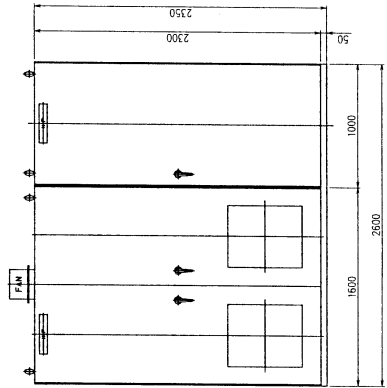
SCALE	APPROVED BY	CHECKED BY
NIS		
UNITS		
NA		

THE PROJECT FOR	
REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)	
TITLE	
TYPICAL SINGLE LINE DIAGRAM FOR POWER STATION(DG 100KW x3)	
DRAWING NO.	
2-E-00-04	

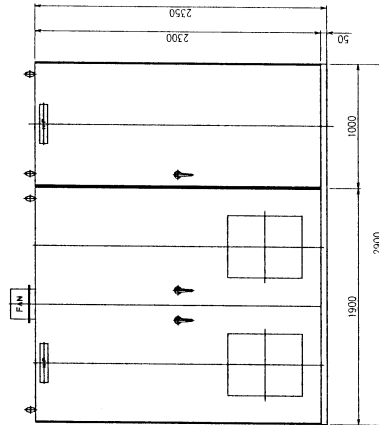
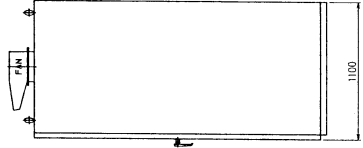
PACIFIC CONSULTANTS INTERNATIONAL	
Tokyo, Japan	



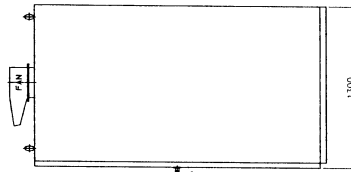
TYPE A (FOR DG 60kW x 2)



TYPE B (FOR DG 100kW x 2)



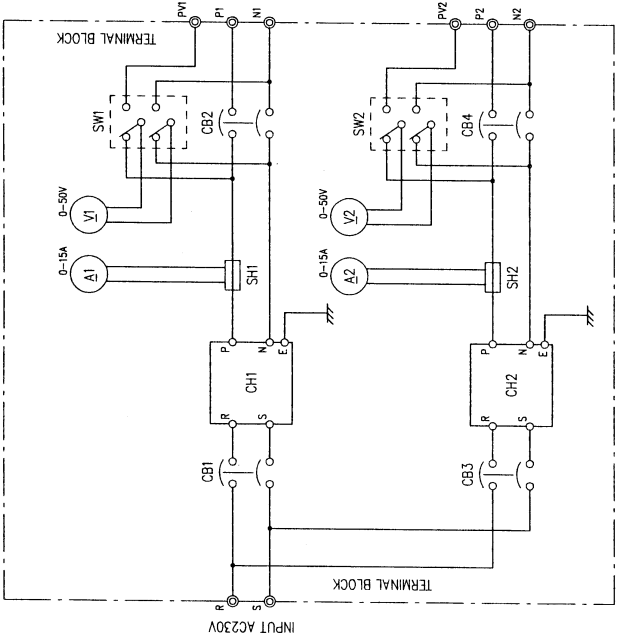
TYPE C (FOR DG 100kW x 3)



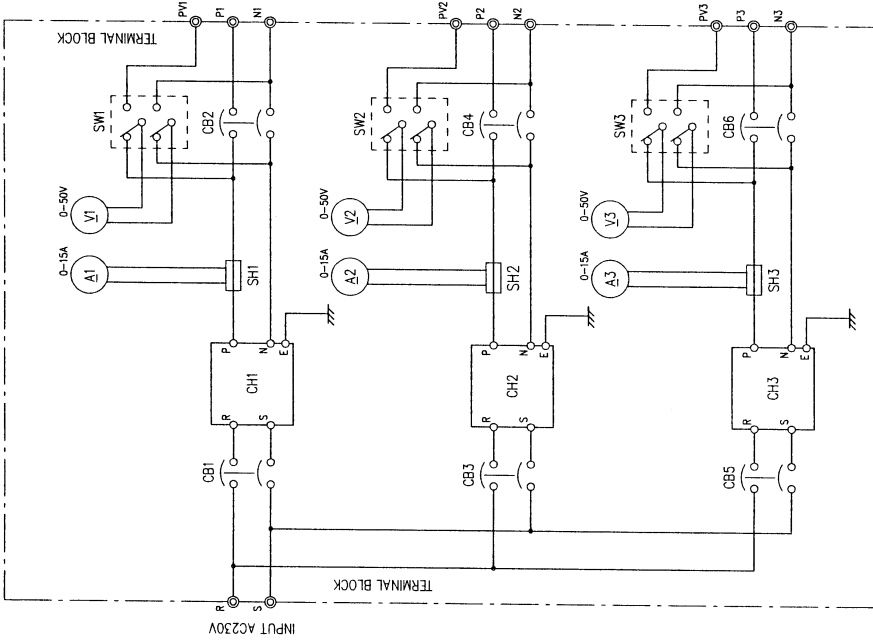
TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 40			
3	UNITS MM	DESIGNED BY	DRAWN BY	TITLE OUTLINE OF LOW VOLTAGE PANEL
2				
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO. 2-E-00-05
NO.	DATE	CONTENTS		0

LEGEND	
SYMBOL	DESCRIPTION
CB	CIRCUIT BREAKER
CH	CHARGER UNIT
A1	DC AMMETER
SH	SHUNT
V1	DC VOLTMETER
SW	VOLTMETER CHANGE-OVER SWITCH



BATTERY CHARGER WITH 2 UNITS

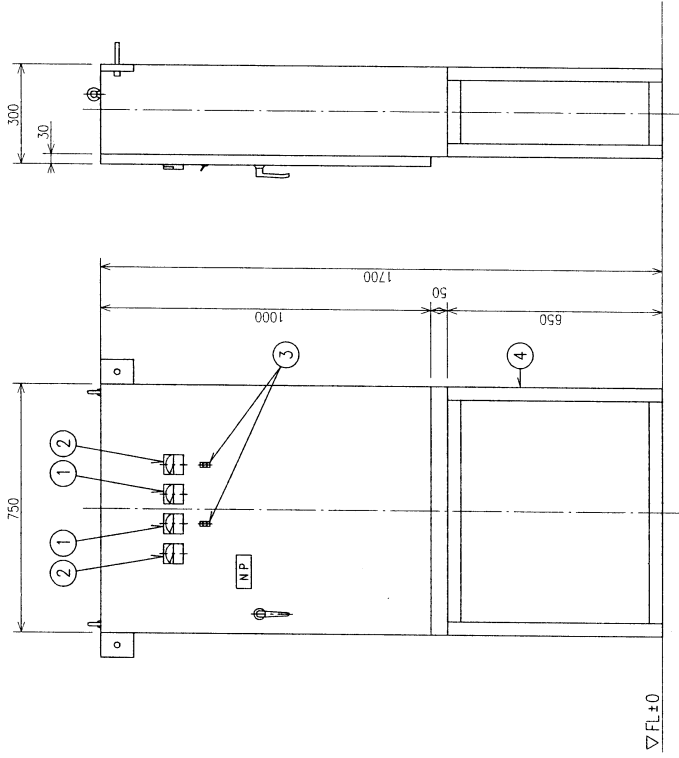


BATTERY CHARGER WITH 3 UNITS

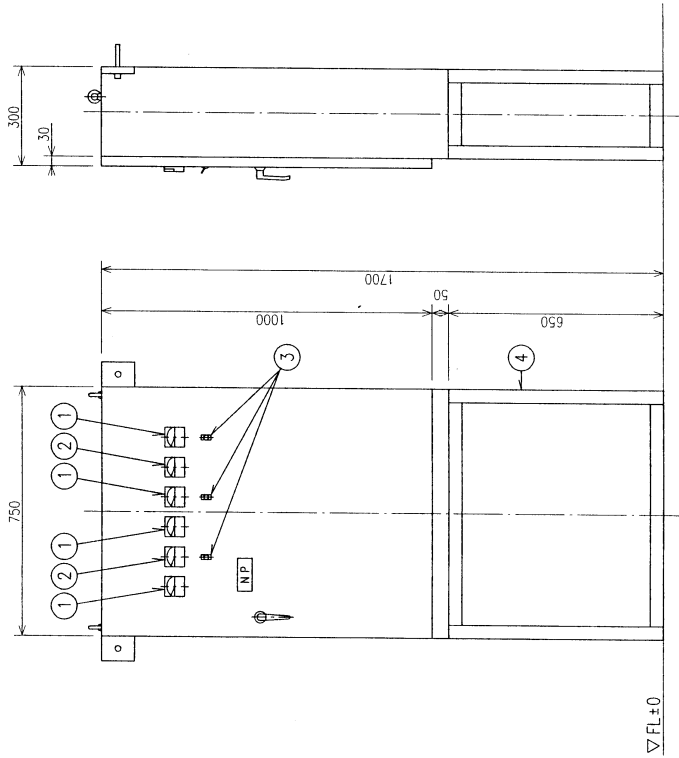
TENDER PURPOSE ONLY

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4	NIS			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	NA			TYPICAL DIAGRAM FOR BATTERY CHARGER
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
NO.	DATE	CONTENTS		2-E-00-06
				0

LEGEND	
NO.	DESCRIPTION
①	DC AMMETER
②	DC VOLTMETER
③	VOLTMETER CHANGE-OVER SWITCH
④	STEEL STRUCTURE



▽ FL±0



▽ FL±0

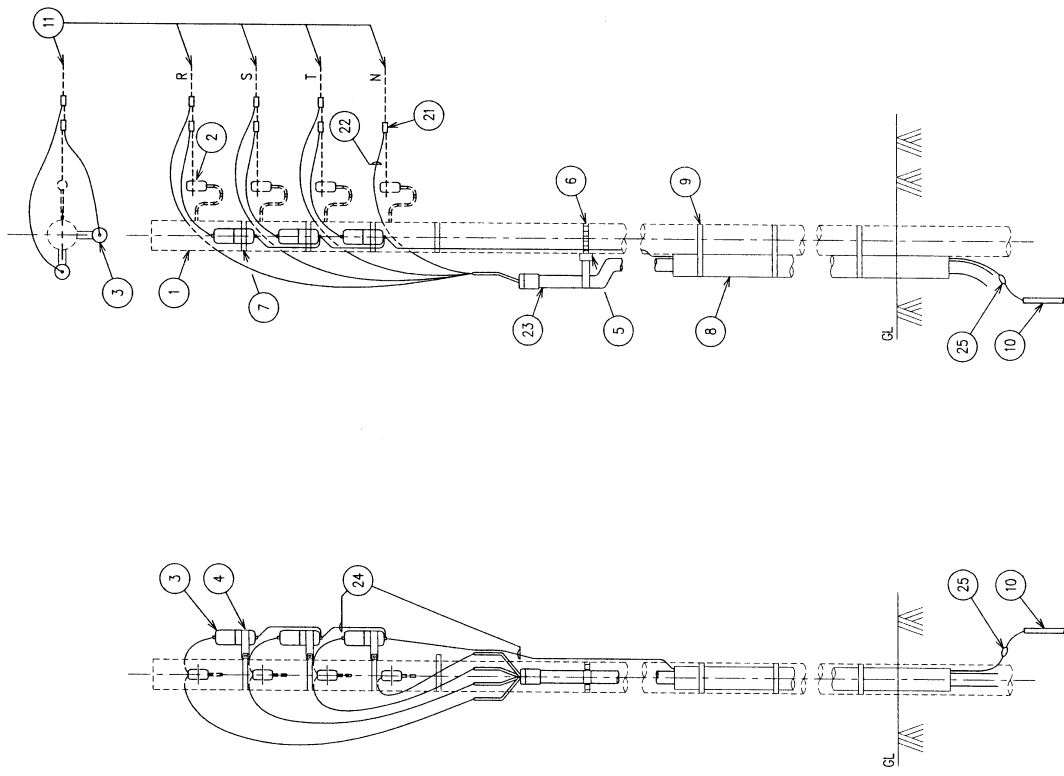
BATTERY CHARGER WITH 2 UNITS

BATTERY CHARGER WITH 3 UNITS

TENDER PURPOSE ONLY

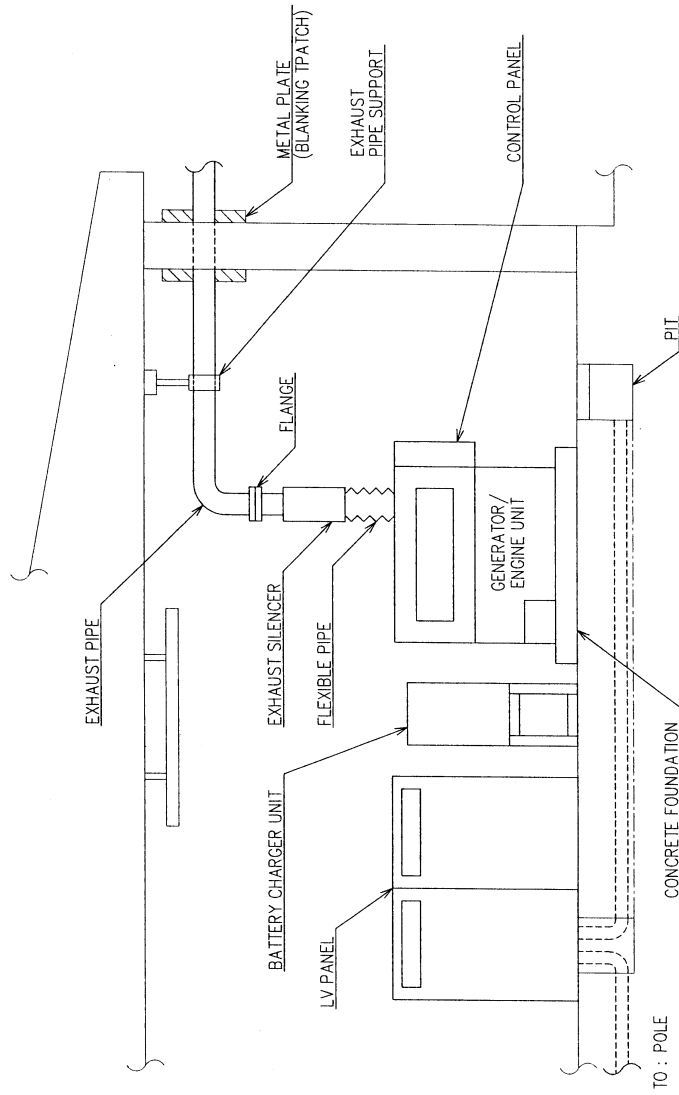
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 15			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			OUTLINE OF BATTERY CHARGER FOR SUM CENTER
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
NO.	DATE	CONTENTS		2-E-00-07
				0

Legend	
No.	Description
1	Existing Pole
2	Existing LV Pin Insulator
3	Lightning Arrester
4	Support for Arrester
5	Cable Bracket Support
6	Band
7	Stainless Steel Band with Cover
8	Cable Protection Pipe
9	Stainless Steel Band for Pipe
10	Grounding Rod
11	Existing Overhead Line
21	PG Clamp
22	Insulation Wire
23	600V Power Cable
24	600V TE Cable
25	Bolt Connector



TENDER PURPOSE ONLY

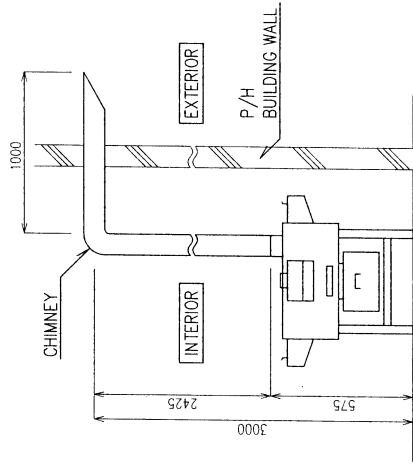
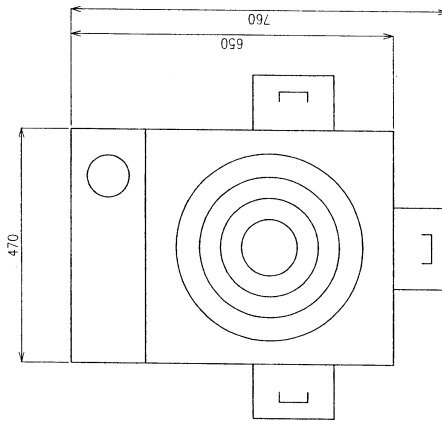
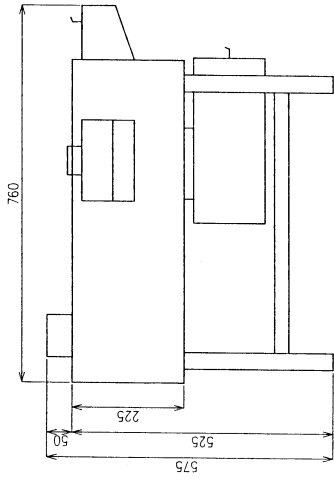
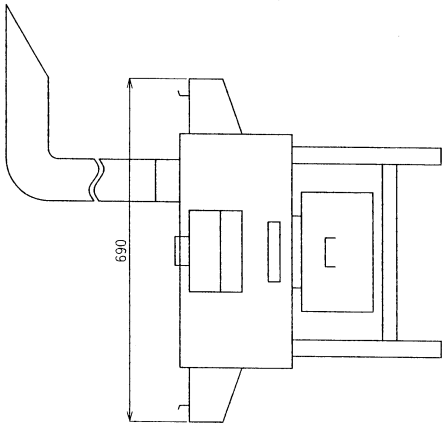
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	NTS			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	NA			TYPICAL CABLE TERMINATION OF EXIST. OVERH. LINES
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
NO.	DATE	CONTENTS		2-E-00-08
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TENDER PURPOSE ONLY

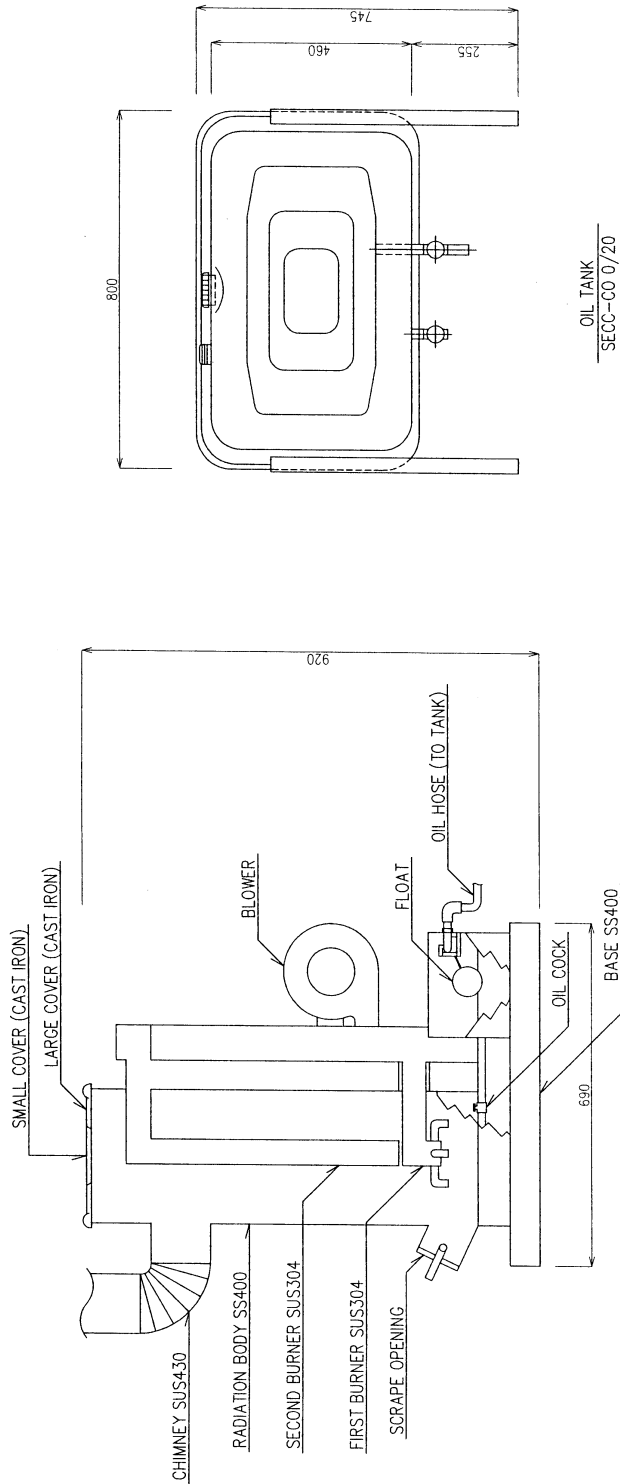
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4			APPROVED BY	
3	UNITS	NA	DESIGNED BY	TITLE
2			DRAWN BY	TYPICAL EQUIPMENT ARRANGEMENT IN POWER HOUSE (ELEVATION)
1				DRAWING NO.
NO.	DATE		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan	2-M-00-01
			CONTENTS	0

NOTE :
 1) STOVE BODY : CAST IRON OR IRON PLATE
 2) CHIMNEY : GALV. STEEL



TENDER PURPOSE ONLY

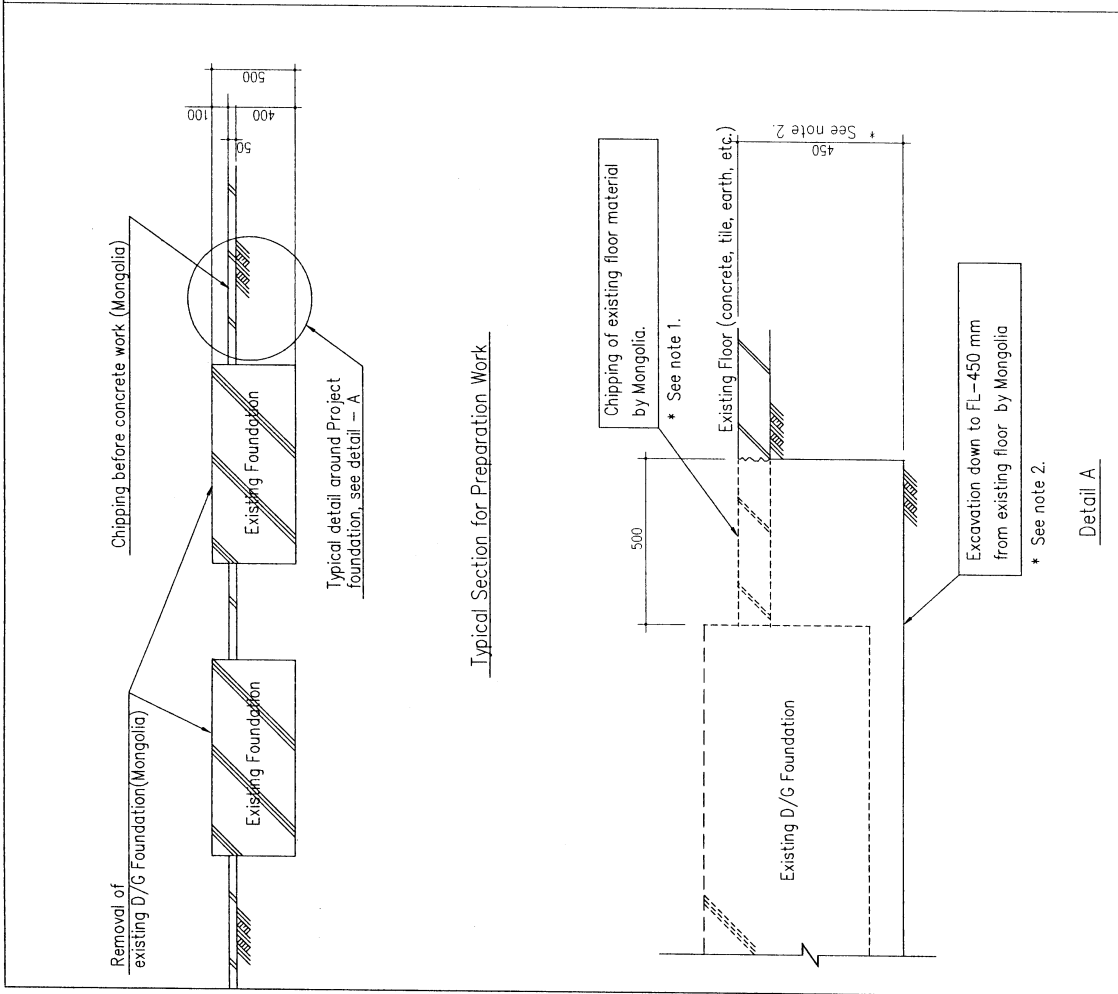
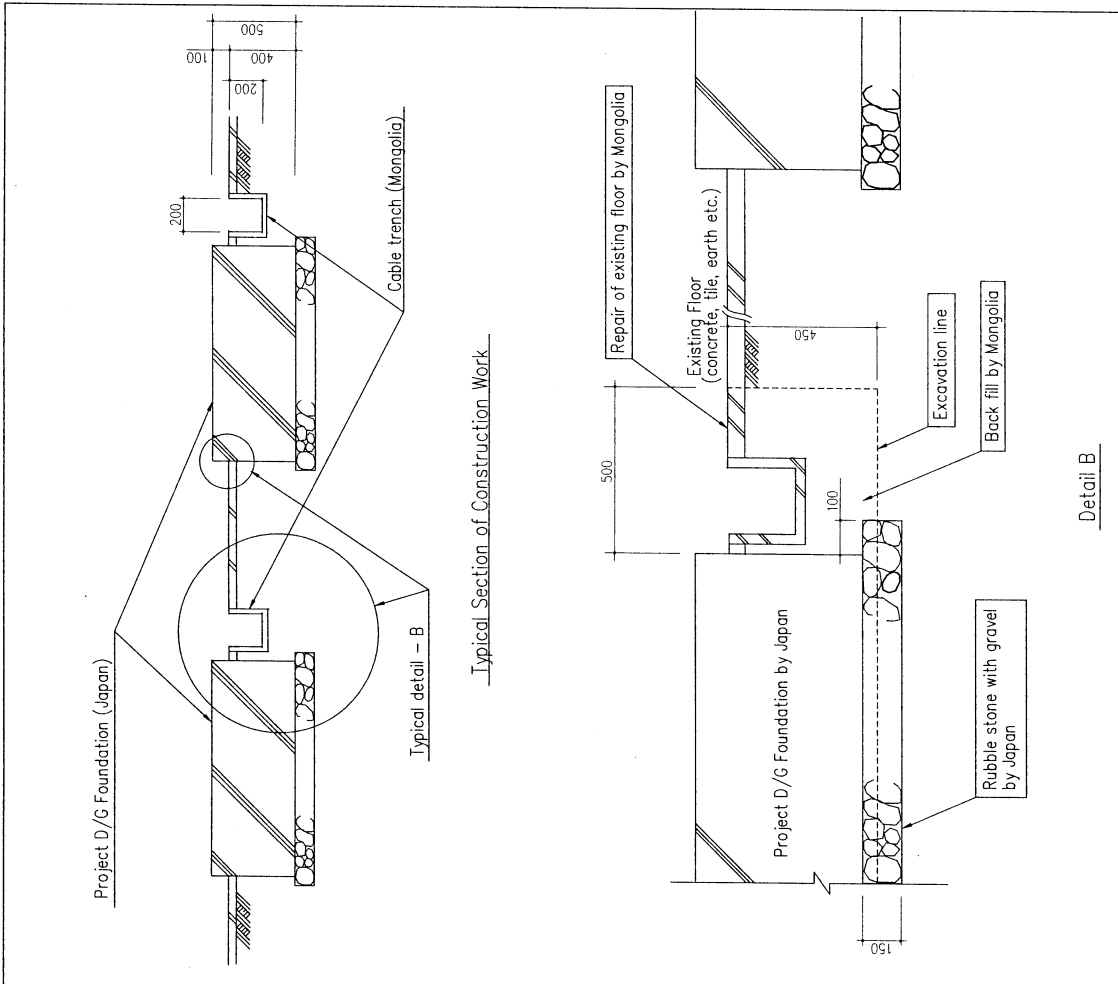
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	NTS			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			OUTLINE OF STOVE
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
NO.	DATE	CONTENTS		2-M-00-02
				0



OIL TANK
SECC-CO 0/20

TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	NTS			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			OUTLINE OF WASTE OIL INCINERATOR
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
NO.	DATE	CONTENTS		0
				2-M-00-03

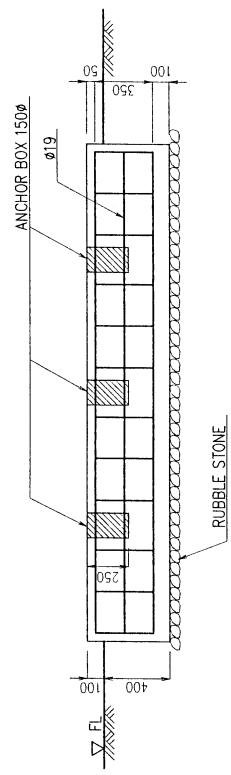
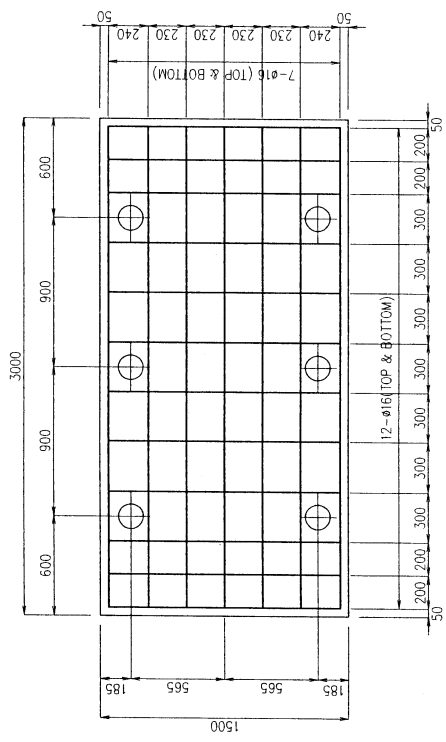


- Note : 1. When clear distance of each foundation is less than 1500mm, chipping and excavation shall be continuous between the foundations.
2. At locations where bottom of the existing D/G foundation is lower than FL-450, the entire foundation must be demolished by Mongolia.
3. At locations mentioned in above note 2, the Contractor shall backfill the foundation area upto the level required with approved material.

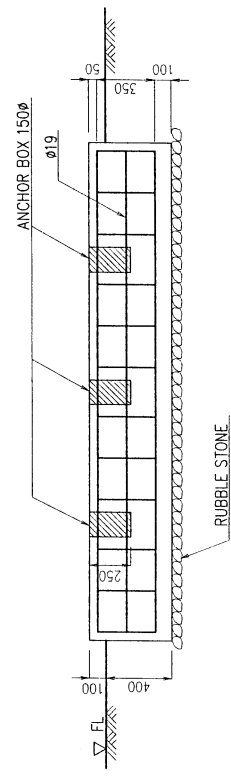
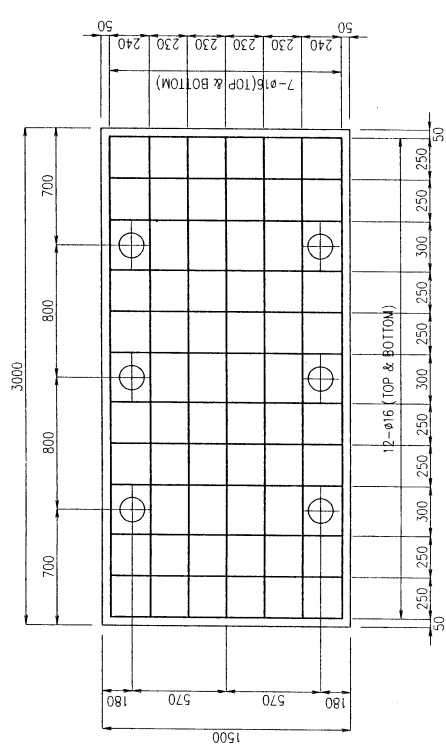
TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUMI GENERS (PHASE IV)
4	UNITS	DESIGNED BY	DRAWN BY	TITLE
3	MM			SCOPE OF WORK FOR DG 60KW & DG 100KW FOUNDATION
2				DRAWING NO.
1				2-C-00-01
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		0
		CONTENTS		

DG 100kW

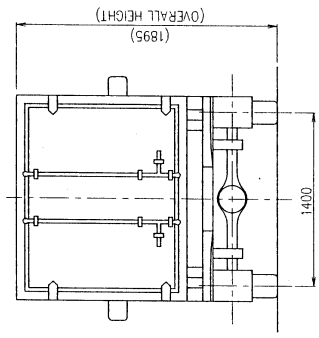
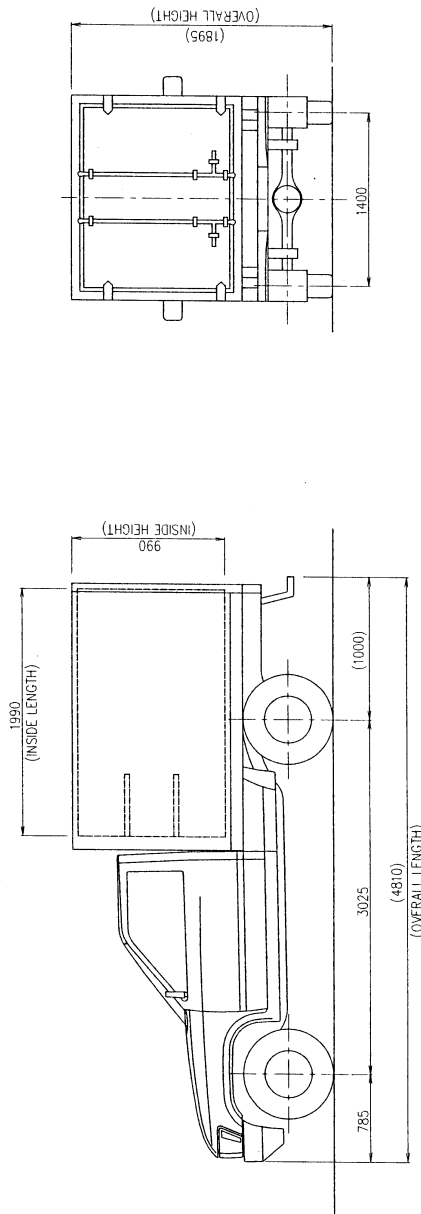
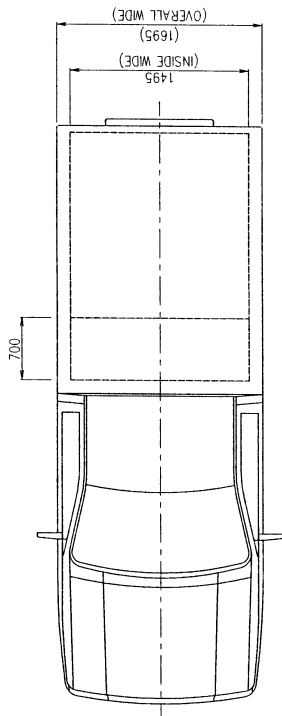


DG 60kW



TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF PUMP STATIONS OF SUM CENTERS (PHASE IV)
4	1 : 30			
3	UNITS MM	DESIGNED BY	DRAWN BY	TITLE STANDARD DETAILS FOUNDATION FOR DG 60kW AND DG 100kW
2				DRAWING NO. 2-C-00-02
1				
NO.	DATE	CONTENTS		
		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		



TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	NTS			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			OUTLINE OF MAINTENANCE VEHICLE
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
NO.	DATE	CONTENTS		2-V-00-01
				0

Description	60 kw DG	100 kw DG
Category A (Replacement: 2,000 hours)	pcs	pcs
(1) Oil filter cartridge	30	30
(2) Fuel filter cartridge	15	15
(3) Corrosion resistor cartridge	15	15
(4) Air cleaner element	6	6
Category B (Replacement: 8,000 hours)		
(1) Fuel hose	4	4
(2) Nozzle holder assembly	3	3
Category C (Replacement: 10,000 hours)		
(1) Oil pump assembly	1	1
(2) Piston ring assembly	6	6
(3) Cylinder head cover O-ring	6	6
(4) Cylinder head gasket kit	1	1
(5) Cylinder block gasket kit	1	1
(6) Engine alternator assembly	1	1
(7) Water pump assembly	1	1
(8) Damper	1	1
Category D (Replacement: Undefined)		
(1) Bulb for panel light	5	5
(2) Rectifier	2	2
(3) ZNR (Varistor)	1	1
(4) AVR	1	1
(5) Radiator cap	1	1
(6) Volt meter	1	1
(7) Ammeter	1	1
(8) Fuel injection pump	1	1
(9) Turbo charger	1	1
(10) Gasket for turbo charger	2	2
(11) Engine starter assembly	1	1

DIESEL GENERATOR SET

Note:
For distribution of spare parts, see DWG No. 2-G-00-02.

Description	L.V. Panel A	L.V. Panel B	L.V. Panel C
Category E (For Aimag)	pcs	pcs	pcs
(1) MCCB 4P 600AF/600AT	-	-	1
(2) MCCB 4P 400AF/400AT	-	1	-
(3) MCCB 4P 400AF/300AT	1	-	-
(4) MCCB 3P 225AF/150AT	2	2	2
(5) MCCB 2P 50AF/50AT	2	2	2
(6) Voltmeter 0-600V Class 1.5	1	1	1
(7) Ammeter 0-600A Class 1.5	1	1	1
(8) Ammeter 0-200A Class 1.5	2	2	2
(9) Wait-Hour meter 3φ 4W 600/5A (CT, VT)	-	-	1
(10) Wait-Hour meter 3φ 4W 400/5A (CT, VT)	-	1	-
(11) Wait-Hour meter 3φ 4W 300/5A (CT, VT)	1	-	-
Category F (For Sum Center)			
(1) Pilot lamp AC 110V Red	9	9	9
(2) Fuse VT primary	5	5	5
(3) Fuse VT secondary	5	5	5

LOW VOLTAGE (L.V.) PANEL

Description	Qty
For Maintenance Vehicle	
(1) Gasket kit-Engine repair	1
(2) Gasket kit-Valve regrind	1
(3) Fan belt-Fan & alternator	1
(4) Belt-compressor	1
(5) Filter assembly-Oil	2
(6) Strainer assembly-Fuel	1
(7) Element assembly-Air	1
(8) Thermostat assembly	1
(9) Bulb	2
(10) Lamp assembly-Side combination, RH	1

MAINTENANCE VEHICLE

(11) Lamp assembly-Side combination, LH	1
(12) Lamp assembly-Side flasher	1
(13) Lamp assembly-Rear combination, RH	1
(14) Lamp assembly-Rear combination, LH	1
(15) Lamp assembly-License	1
(16) Disk assembly-Clutch	1
(17) Cover assembly-Clutch	1
(18) Cylinder assembly-Clutch master	1
(19) Cylinder assembly-Clutch operating	1
(20) Bearing-Clutch release	1
(21) Seal-Grease, front hub	1
(22) Absorber kit-Shock, front	2
(23) Absorber kit-Shock, rear	2
(24) Seal-oil, rear axle shaft	1
(25) Pad kit-Disk brake	2
(26) Seal kit-Disk brake	2
(27) Shoe set-Rear brake	2
(28) Cylinder assembly-Brake master	1
(29) Hose assembly brake, front	1
(30) Hose assembly brake, rear	1
(31) Seal kit-Oil, rear housing steering gear	1
(32) Glass-Windshield	1
(33) Drain rubber-Sealant	1
(34) Molding-Windshield upper, center	1
For Waste Oil Incinerator	
(1) Oil filter	1

MAINTENANCE VEHICLE/OIL INCINERATOR

5	SCALE	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PAGE 4)
4		APPROVED BY	
3	UNITS	DESIGNED BY	TITLE
2		DRAWN BY	SPARE PARTS FOR EQUIPMENT
1			DRAWING NO. 2-S-00-01
NO. DATE	CONTENTS	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan	
		0	

Description	Qty
For Mobile Maintenance Team	
Meter for Test and Inspection	(1 set)
(1) Injection nozzle tester (0-500 kg/sqcm)	1
(2) Compression gauge (0-70 kg/cm ²)	1
(3) Cylinder gauge (50-150mm)	1
(4) Piston filler gauge (230mm, 0.05-0.38mm)	1
(5) Outside micrometer (100-125mm)	1
(6) Dial gauge (0-10 mm, 1/1000mm)	1
(7) Thickness gauge (Dial type)	2
(8) Digital multilevel meter (40Mc, 1000V)	1
(9) Clamp ammeter (100/1000A, AC750V, DC1000V)	1
(10) Megohmmeter (250/500/1000V, 100Mc)	1
(11) Face meter	1
(12) Pressure meter (0-10kg/sqcm)	1
(13) Thermometer	2
(14) Coolant tester	1
(15) Screw pitch meter	1
(16) Surface gauge (300mm)	1
(17) Fuel leak checker	1
(18) Multi tachometer	1
(19) Blow-by pressure gauge	1
(20) Radiator cap tester	1
(21) Hydrometer	1
(22) Sound scope	2

Description	Qty
Tools for Overhaul, Assembly and Electrical Work	1 sets
(1) Polyethylene vessel	1
(2) Drum pump (Hand revolution type)	1
(3) Oil jug (2L)	1
(4) Oiler (180 cc)	2
(5) Level type grease gun (500ml)	1
(6) Tool set for maintenance of engine (75)	1
(7) Piston ring compressor (100-130mm)	1
(8) Piston ring tool (Max. 135mm)	1
(9) Bearing puller set	2T
(10) Hydraulic jack (Cap. 4 ton)	2
(11) Convex (5.5m)	2
(12) Files set (5 files)	2
(13) Frame of bow type saw (250mm)	2
(14) Flashlight	2
(15) Extra cord (30m)	1
(16) Polyethylene tank (20L)	1
(17) Wire brush (150mm)	2
(18) Paint brush (50mm)	4
(19) Torque wrench (4-20 kgf.m)	1
(20) Torque wrench (10-50 kgf.m)	1
(21) Vernier micrometer (300mm)	1
(22) Magnetic stand for dial gauge	1
(23) V block	2
(24) Straight rule (1m)	1
(25) Test pump (50kg/sqcm)	1
(26) Chain block (3 ton)	2
(27) Wire (φ 10mm, L 3m)	4
(28) Vise pliers (200mm)	1
(29) Tap for use (M6, M8, M10, M12)	2
(30) Tap dies (6, 8, 10, 12M)	1
(31) Tap dies (Handle type)	1
(32) Noga deburring cutter	1
(33) Electric drill (13mm)	2
(34) Drill (6.0-13.0mm, 0.5mm)	1
(35) Soldering iron set (220V, 200W)	1

Description	Qty
(36) Pliers for crimp contact (1.25-8sqmm)	1
(37) Nipple	1
(38) Cable stripper	1
(39) Cutter knife	1
(40) Piston ring tool (100-130mm)	1
(41) Cylinder liner rimber	1
(42) Nipple PT 1/8	1
(43) Socket wrench kit	1
(44) Oil filter wrench	1
(45) Rubber hammer	1
(46) Double face sledge (8LB)	1
(47) Jimmy bar	1
(48) Straight edge	1
(49) Magnetic base	1
(50) Push tool kit	1
(51) Polyester sling (20W, 1.5m)	2
(52) Polyester sling (25W, 2.0m)	2
(53) Polyester sling (40W, 2.0m)	2
(54) Work bench	1
(55) Air impact wrench	1
(56) Needle scalar	1
(57) Screw plate set	1
(58) Tool tray (10 pcs)	1
(59) Magnetic finger	1
(60) Tube flaring & cutting tools	1
(61) 25 ton press water pump	1
(62) Air compressor (5.5kW)	1
(63) Hose band	2
(64) Compressor oil	2
(65) Hose band	2
(66) Socket for hose	2
(67) Socket for piping	2
(68) Plug for hose	2
(69) Plug for piping	2
(70) 1/2 Drive impact socket (10 pcs)	1
(71) Parts washing stand	1

Note:
For distribution of maintenance tools, see DWG No. 2-G-002.

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4				
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2				TOOLS FOR MOBILE TEAM
1				DRAWING NO.
NO	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		2-T-00-01
	CONTENTS			
		0		

Description	Q'ty
(72) Engine cleaning gun	1
(73) Water pump	1
(74) Piston heater	1
(75) Valve spring tester	1
(76) Connecting rod aligner	1
(77) Air valve lopper	1
(78) Valve refacer	1
(79) Sealant repair kit	6
(80) Dust & mist respirator	10
(81) Industrial goggle	10
Consumables Materials	(1 set)
(1) Grease (No.6) 1 kg	2
(2) Penetration spray (CR-5) 480ml	5
(3) Color check spray (6/set)	5
(4) Liquid packing (200g)	10
(5) Insulating tape 20m, black	50
(6) Insulating tape 20m, red	10
(7) Insulating tape 20m, yellow	10
(8) Insulating tape 20m, green	10
(9) Crimp contact 1.25, 2, 5.5, 8 sqmm/set	5
(10) Sand paper #100, 10 sheet/case	20
(11) Saw blade for bow type saw 250mm	20
(12) Waste 1kg	10
(13) Work gloves	10
(14) Rubber gloves	5
(15) Oil stone	1
(16) Vise	1
(17) Abrasive cloth	10

Description	Q'ty
For Sum Center	(1 set)
(1) Digital tester DC 1000V, AC 750V, 10A, 50MΩ	1
(2) Clamp meter AC/DC 100/1000A AC 750V, DC 1000V	1
(3) Diesel engine maintenance tool sets with lockable box, 40 tools for more than	1
(4) Cotton work gloves	5
(5) Rubber work gloves	3
(6) Soldering iron (220V, 200W) w/solder 1kg	1
(7) Stepladder, Aluminium 2m or more than	1

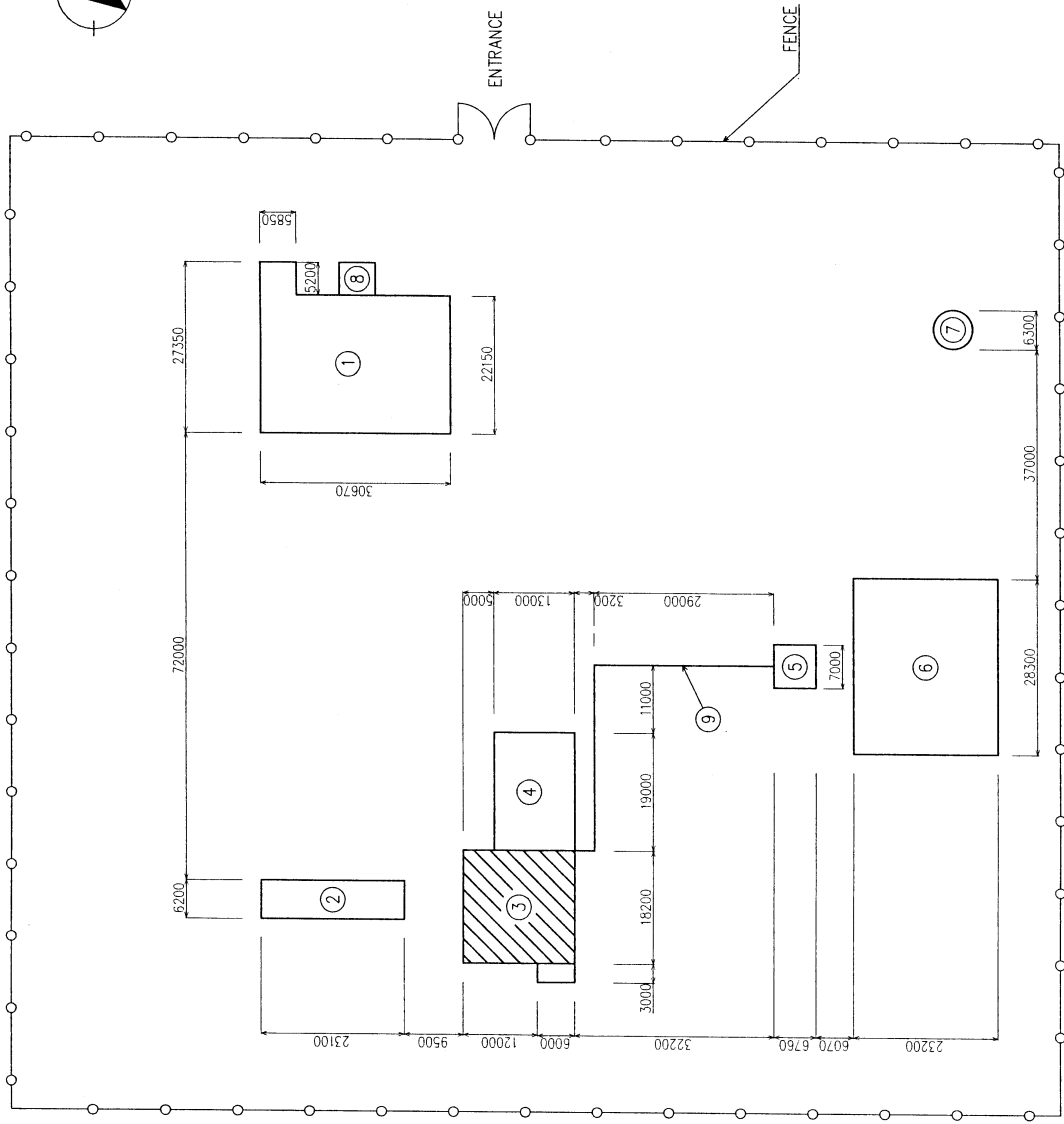
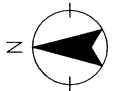
Note:

For distribution of maintenance tools, see DWG No. 2-G-002.

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4				
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2				TOOLS FOR MOBILE TEAM AND SUM
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
NO.	DATE			2-T-00-02
CONTENTS				0

KEY PLAN

AIMAG : ZABKHAN
SUM : TOSONTSENDEL



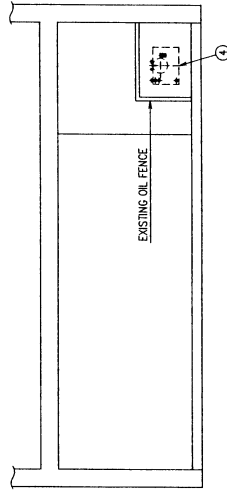
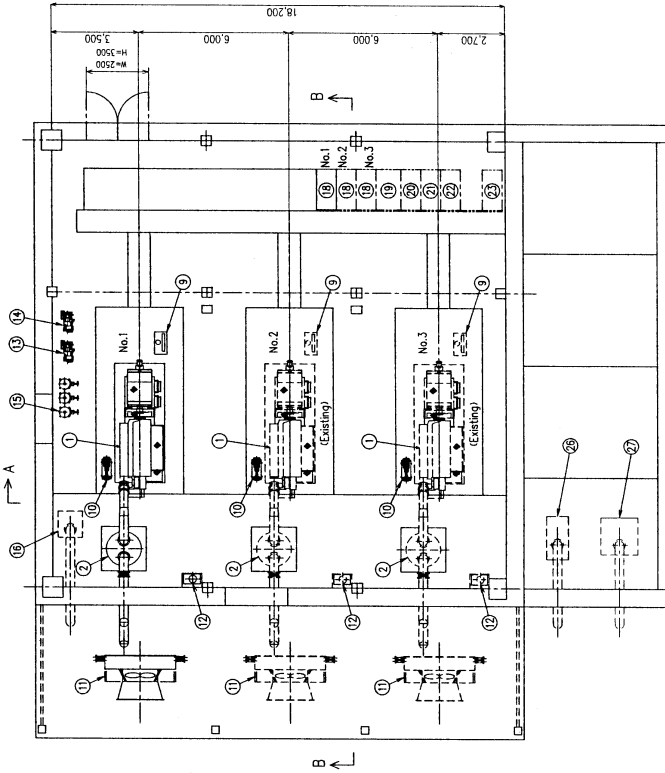
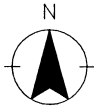
- ① POWER HOUSE (OPERATING)
- ② COOLING TOWER
- ③ EXISTING POWER HOUSE FOR PROJECT
- ④ WARE HOUSE
- ⑤ FUEL PUMP HOUSE
- ⑥ FUEL TANK YARD
- ⑦ WATER PUMP HOUSE
- ⑧ TRANSFORMER YARD
- ⑨ FUEL PIPE

TENDER PURPOSE ONLY

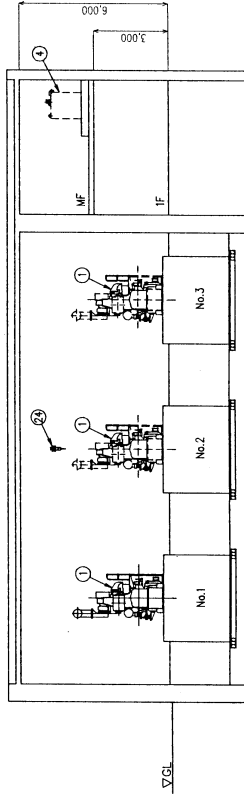
5	SCALE	1:800	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	UNITS	MM	DESIGNED BY	DRAWN BY	TITLE
3					GENERAL ARRANGEMENT OF THE SITE AT TOSONTSENDEL (ZABKHAN)
2					DRAWING NO.
1					2-G-73-01
	NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		0
	CONTENTS				

No.	Name	Qty	Remarks
1	Diesel Generator Set	1	500kW
2	Exhaust Gas Silencer	1	95 dB (A) at 1m from outlet
3			
4	Fuel oil Daily Tank	1	1950L (Existing)
5			
6	Fuel oil Transfer Pump	2	3.7 kW (Existing)
7			
8			
9	Pre-Heating Unit	1	15 kW
10	Cooler water Pump	1	5.5kW
11	Radiator	1	15 kW
12	Expansion Tank	1	100L
13	Air Compressor (Engine Driven)	1	4.4 kW (Existing)
14	Air Compressor (Motor Driven)	1	3.7 kW (Existing)
15	Air Receiver	3	200L (Existing)
16	Waste oil Stove	1	(Existing)
17			
18	Generator Control Panel	1	(Existing)
19	Synchronizing Panel	1	(Existing)
20	Feeder Panel	1	(Existing)
21	Station Transformer Panel	1	(Existing)
22	Low Voltage Panel	1	(Existing)
23	Battery and Battery Charger	1	(Existing)
24	Chain Block	1	5ton (Existing)
25			
26	Generator(30kW)	1	(Existing)
27	Boiler	1	(By Mongolia)

Note : No.1 DG Set to be installed in this project.

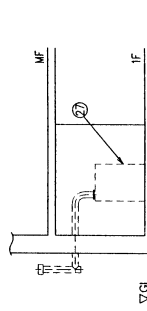


MF

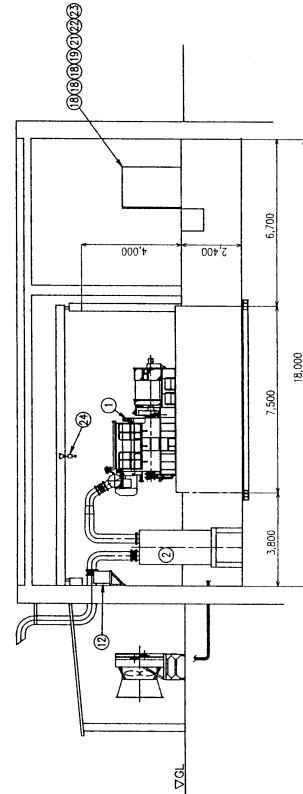


A-A VIEW

IF



P SECTION



B-B VIEW

TENDER PURPOSE ONLY

5	CHECKED BY	APPROVED BY	SCALE	1:200
4			UNITS	MM
3	DRAWN BY	DESIGNED BY		
2				
1	DATE		CONTENTS	


THE PROJECT FOR
REHABILITATION OF POWER PLANTS OF SUM CENTERS
(PHASE IV)

TITLE
GENERAL ARRANGEMENT OF POWER PLANT
AT TOSONTSENDEL (ZABKHHAN)


DRAWING NO. 2-G-73-02

PACIFIC CONSULTANTS INTERNATIONAL
Tokyo, Japan

Symbol	Name
[DE]	Diesel Engine
[SG]	Synchronous Generator
[EX]	AC Excitor
[MG]	Permanent Magnet Generator
VCB	Vacuum Circuit Breaker
TR	Transformer
CT	Current Transformer
ZCT	Zero Phase Current Transformer
VT	Voltage Transformer
EVT	Earthed Voltage Transformer
LBS	Load Break Switch
F	Fuse
[AVR]	Automatic Voltage Regulator
[ASD]	Automatic Synchronizing Device
[ALBD]	Automatic Load Balance Device
[27G]	Undervoltage Relay
[51G]	Over Current Relay
[59G]	Over Voltage Relay
[64G]	Over Voltage Ground Relay

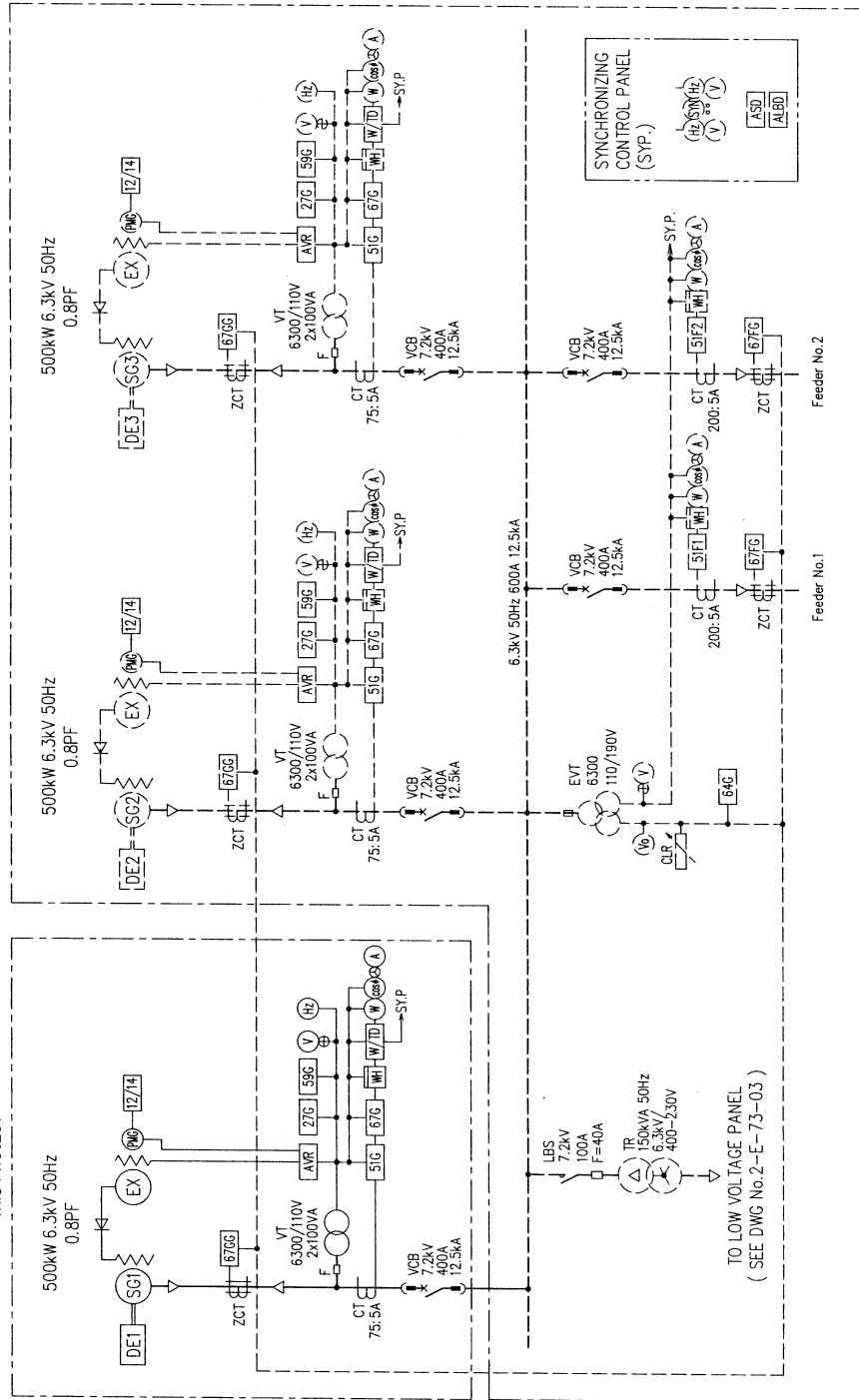
Symbol	Name
[67G]	Reverse Power Relay
[67GG]	Directional Ground Relay
[W/TD]	Watt Transducer
CLR 	Current Limiting Resistor
[V0]	Zero-Phase Voltmeter
[V]	Voltmeter
[A]	Ammeter
[W]	Watt Meter
[COSφ]	Power Factor Meter
[WH]	Watt-hour Meter
[HZ]	Frequency Meter
[SYN]	Synchronizing Relay
[12/14]	Over Speed Relay/Low Speed Relay
Ctt	Contactors
Thr	Thermal Relay

TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	NTS	DESIGNED BY	DRAWN BY	TITLE
3	UNITS			ELECTRICAL SYMBOLS AND ABBREVIATIONS
2	MA			DRAWING NO.
1				2-E-73-01
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		
		CONTENTS		0

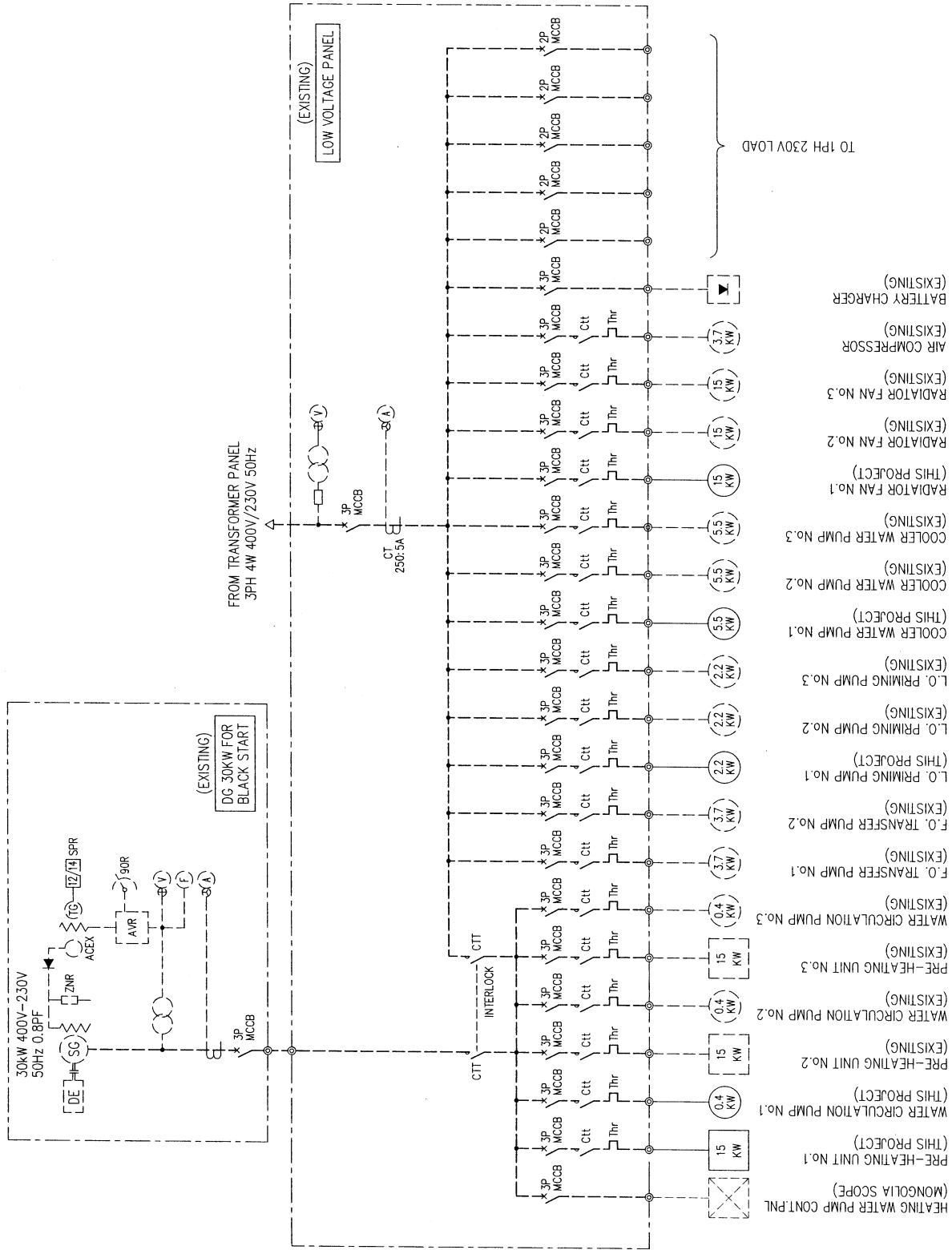
EXISTING

THIS PROJECT



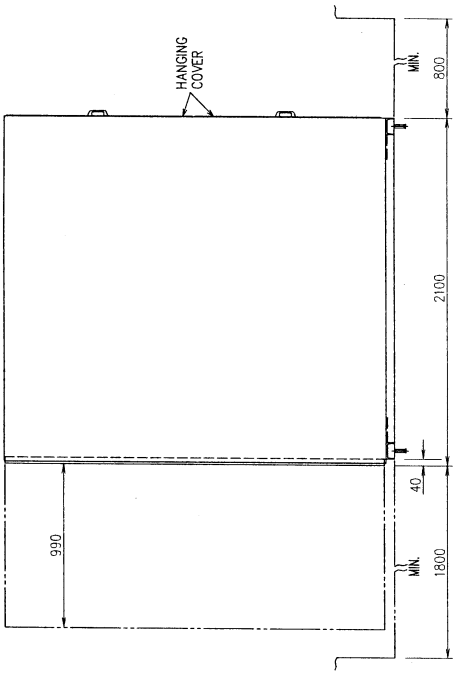
TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF PUMP STATIONS OF SUM CENTERS (PHASE IV)
4	NTS	DESIGNED BY	DRAWN BY	TITLE
3	UNITS	NA	NA	SINGLE LINE DIAGRAM FOR POWER PLANT
2				DRAWING NO.
1	DATE			2-E-73-02
NO.	CONTENTS	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		0

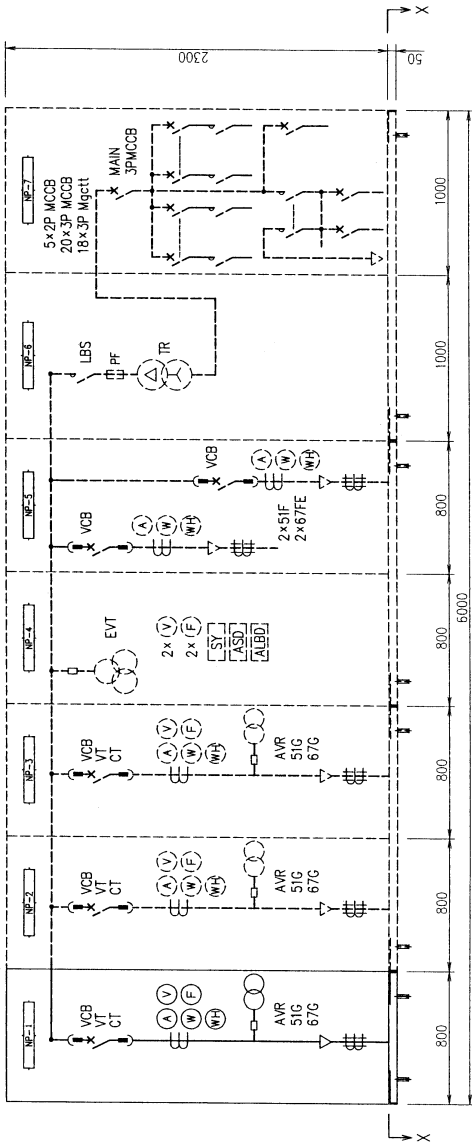


TENDER PURPOSE ONLY

5	SCALE	NIS	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4			APPROVED BY	
3	UNITS	NA	DESIGNED BY	TITLE
2			DRAWN BY	SINGLE LINE DIAGRAM FOR LOW VOLTAGE PANEL AND DG 30KW
1	NO.	DATE		DRAWING NO.
				2-E-73-03
	CONTENTS		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan	
				0

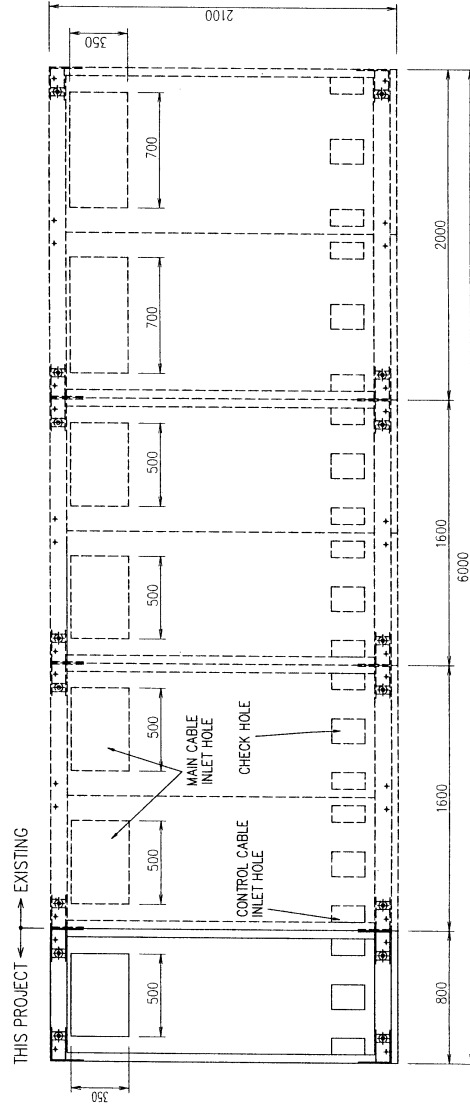


SIDE VIEW



FRONT VIEW

NP-NO	PANEL NAME
NP-1	NO.1 GENERATOR PANEL
2	NO.2 GENERATOR PANEL
3	NO.3 GENERATOR PANEL
4	SYNCHRONIZING PANEL
5	FEEDER PANEL NO.1/NO.2
6	TRANSFORMER PANEL
7	LOW VOLTAGE PANEL



CHANNEL BASE WITH SOLE PLATE SECTION X-X

TENDER PURPOSE ONLY

5	SCALE	1 : 30	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	UNITS	MM	DESIGNED BY	DRAWN BY	TITLE
3					OUTLINE OF GENERATOR PANELS
2					DRAWING NO.
1	NO. DATE		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		2-E-73-04
	CONTENTS				0

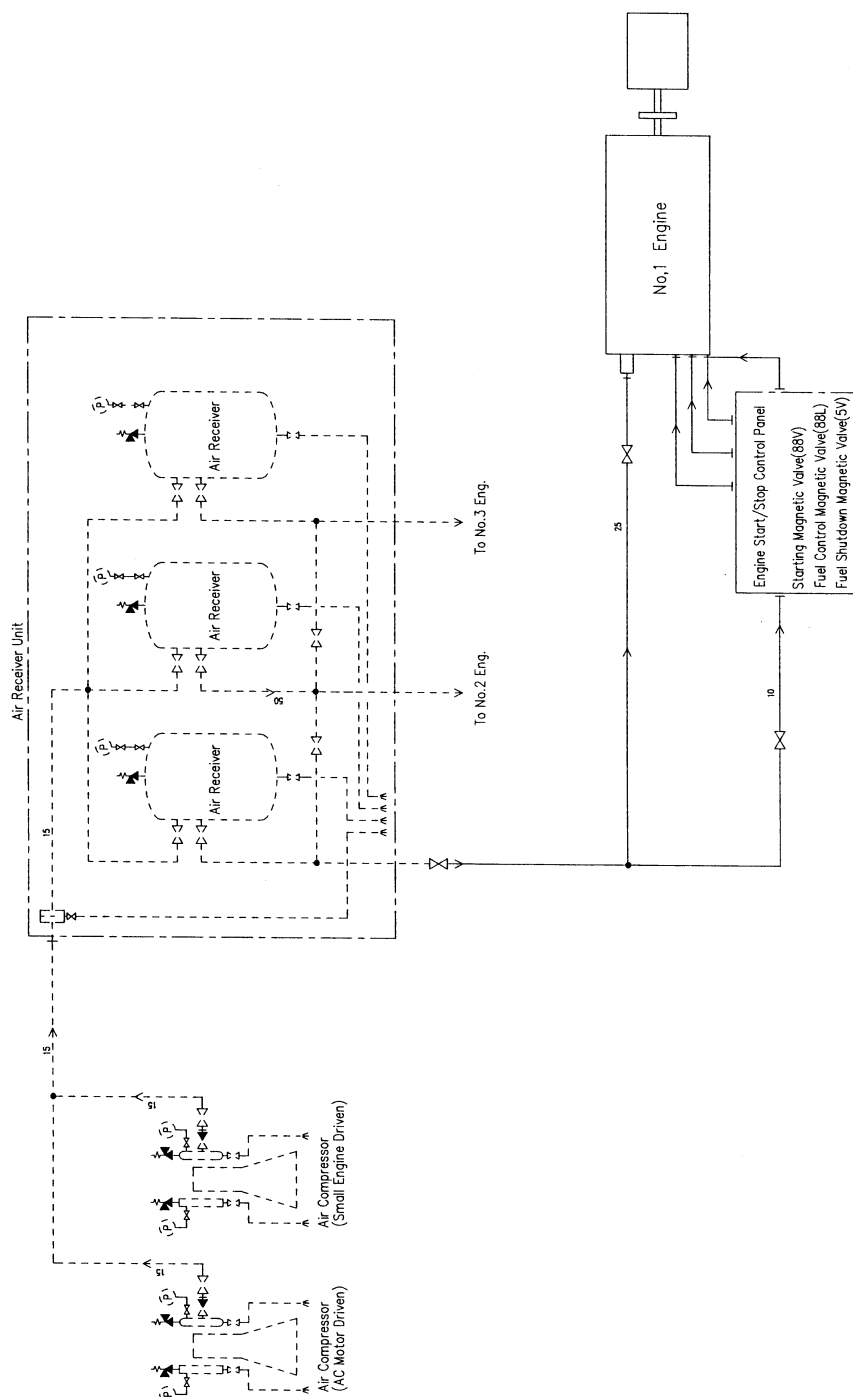
Symbol	Name
	Wax Type Temperature Control Valve
	Cock
	Simplex Strainer
	Duplex Strainer
	Orifice
	Flexible Pipe
	Pressure Gauge
	Compound Gauge
	Scupper
	Seal Pot
	Flow Meter
	Thermometer
	Blank Flange
	Air Pipe
	Oil Tray or Coaming
	Stop Valve
	Stop Check Valve
	Lift Check Valve
	Air Chamber

Symbol	Name
	Butter-fly Valve
	Three Way Valve
	Crossing Pipes, Connected
	Crossing Pipes, not Connected
	To Bilge or Drain
	Boss
	Safety Valve
	Relief Valve
LA	Oil or Water Level Alarm

TENDER PURPOSE ONLY

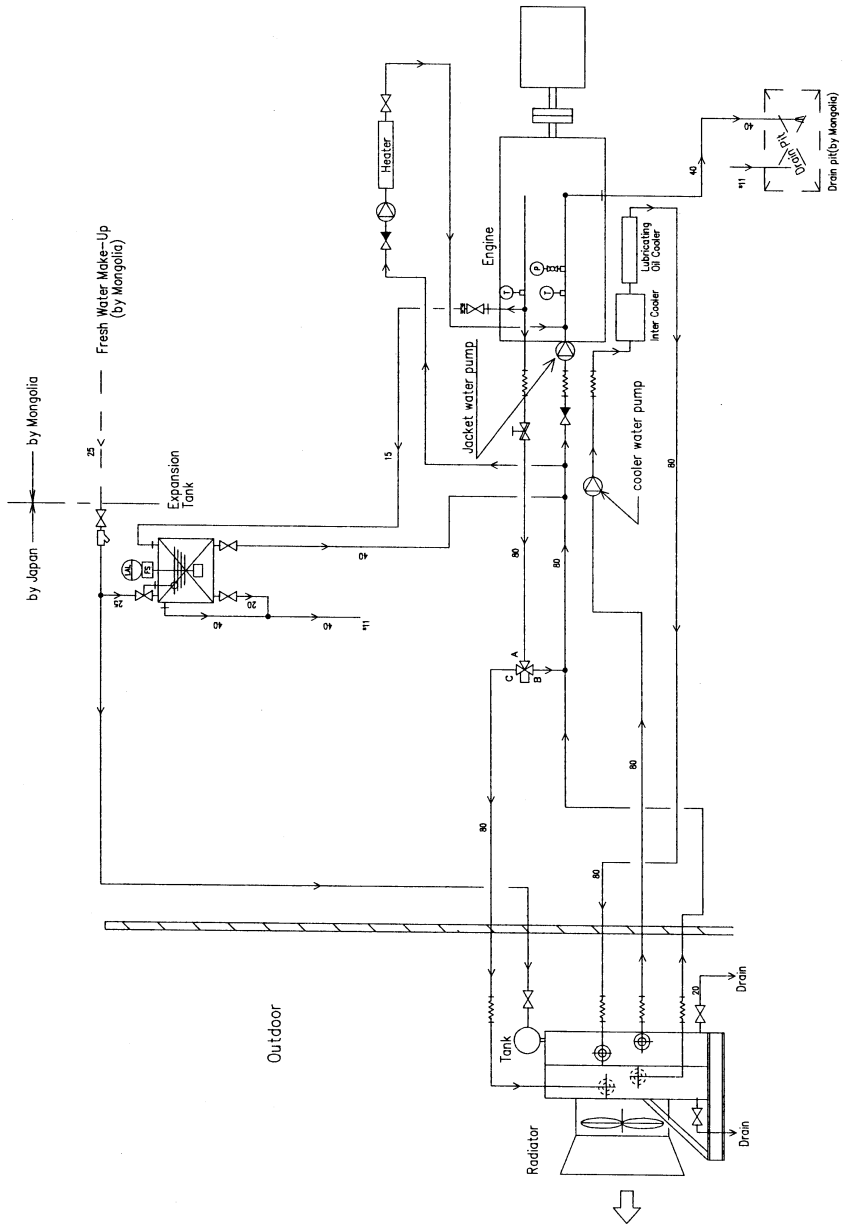
5	SCALE	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SJM CENTERS (PHASE IV)
4	UNITS	DESIGNED BY	TITLE
3	NA	DRAWN BY	MECHANICAL SYMBOLS AND ABBREVIATIONS
2			DRAWING NO.
1			2-M-73-01
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan	
		CONTENTS	

0



TENDER PURPOSE ONLY

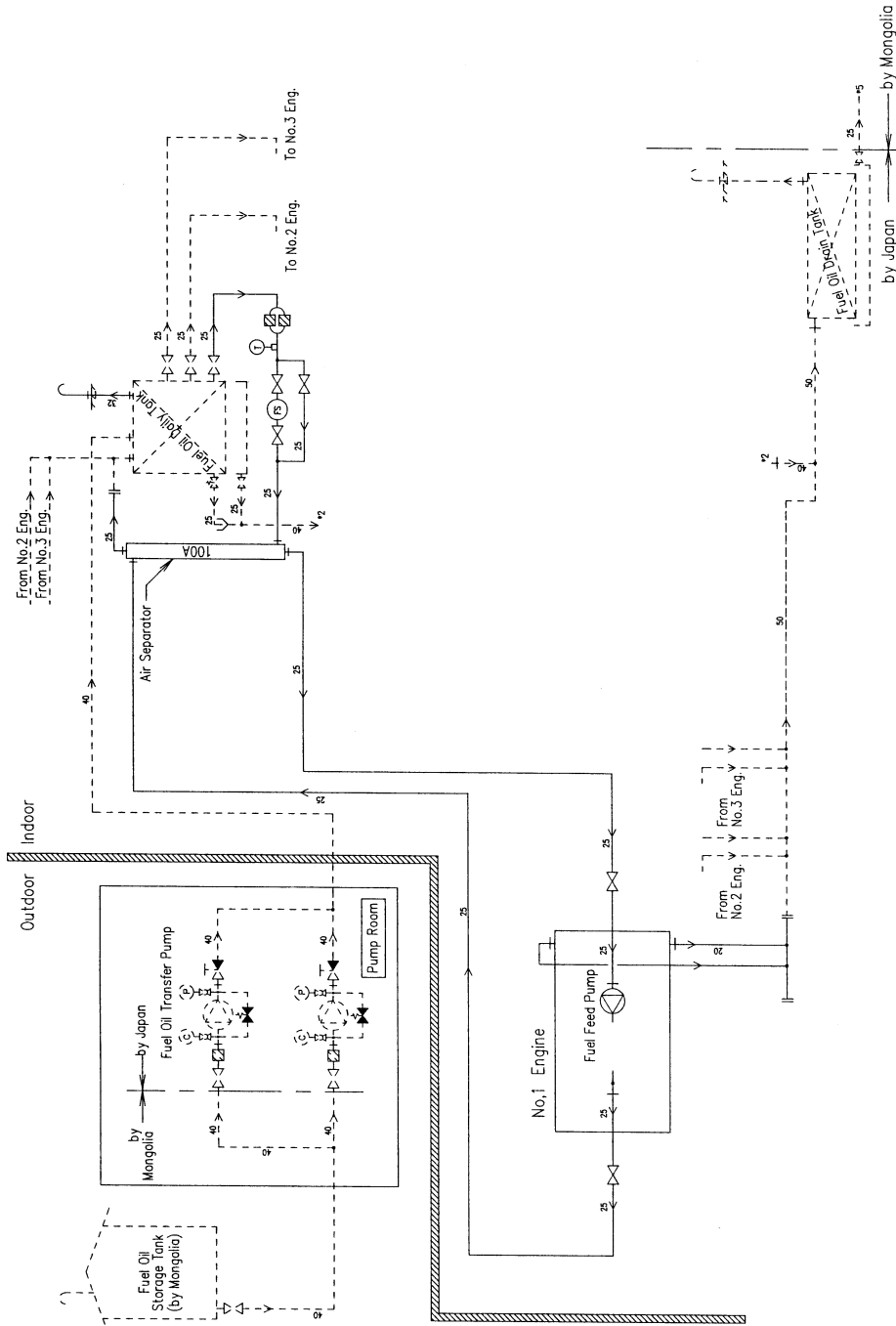
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	NTS	DESIGNED BY	DRAWN BY	TITLE
3	UNITS	COMPRESSED AIR SYSTEM DIAGRAM		
2	NA	DRAWING NO.		
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		
NO.	DATE	CONTENTS		
		2-M-73-02		
		0		



TENDER PURPOSE ONLY

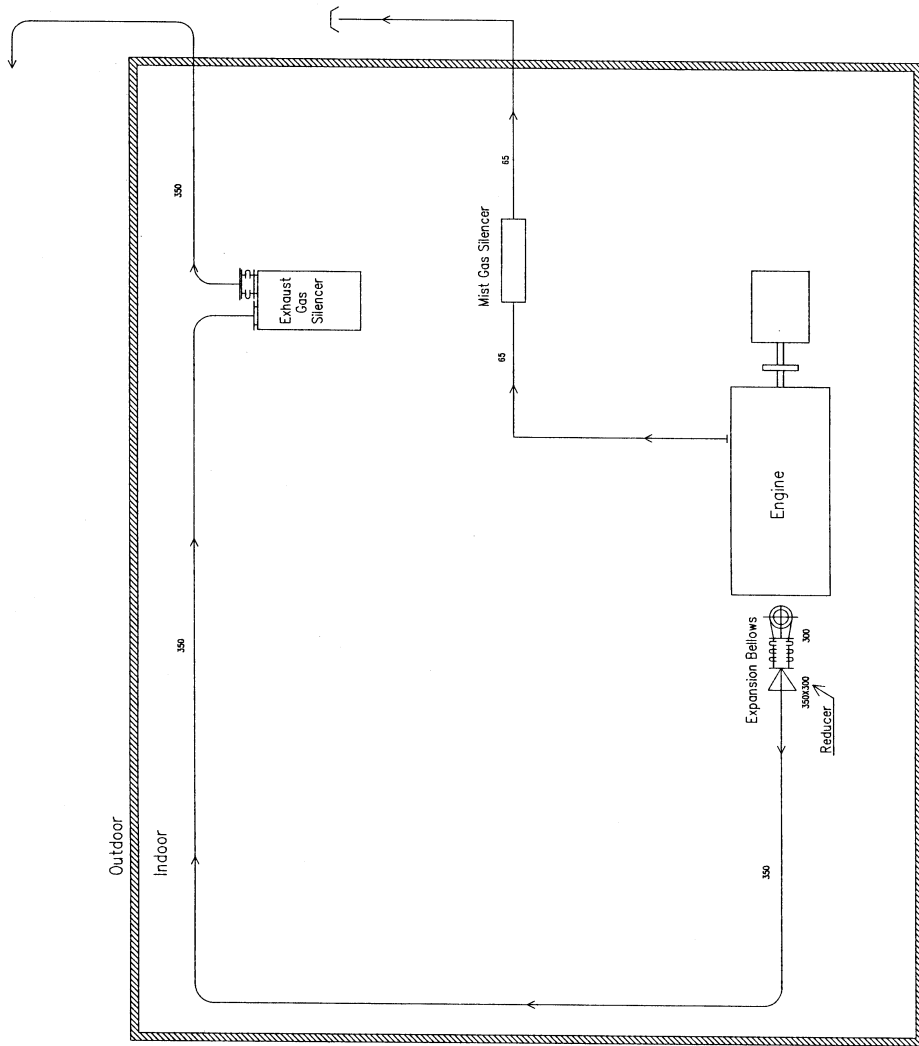
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	NTS	DESIGNED BY	DRAWN BY	TITLE
3	UNITS			COOLING WATER SYSTEM DIAGRAM
2	NA			DRAWING NO.
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		2-M-73-03
NO. DATE	CONTENTS			

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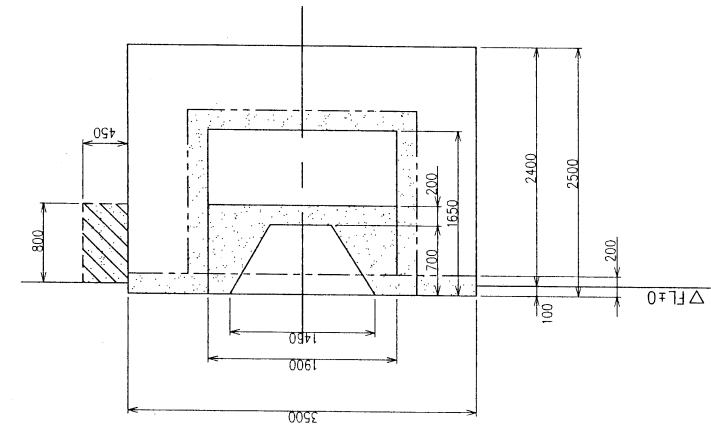
TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY
4	NTS		
3	UNITS	DESIGNED BY	DRAWN BY
2	NA		
1	NO. DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan	
CONTENTS		DRAWING NO. 2-M-73-04	
		THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV.)	
		TITLE FUEL OIL SYSTEM DIAGRAM	
		DRAWING NO. 2-M-73-04	
		0	



TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	NTS	DESIGNED BY	DRAWN BY	TITLE
3	UNITS			AIR EXHAUST GAS SYSTEM DIAGRAM
2	NA			DRAWING NO.
1				2-M-73-05
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		0
	CONTENTS			



SECTION B-B

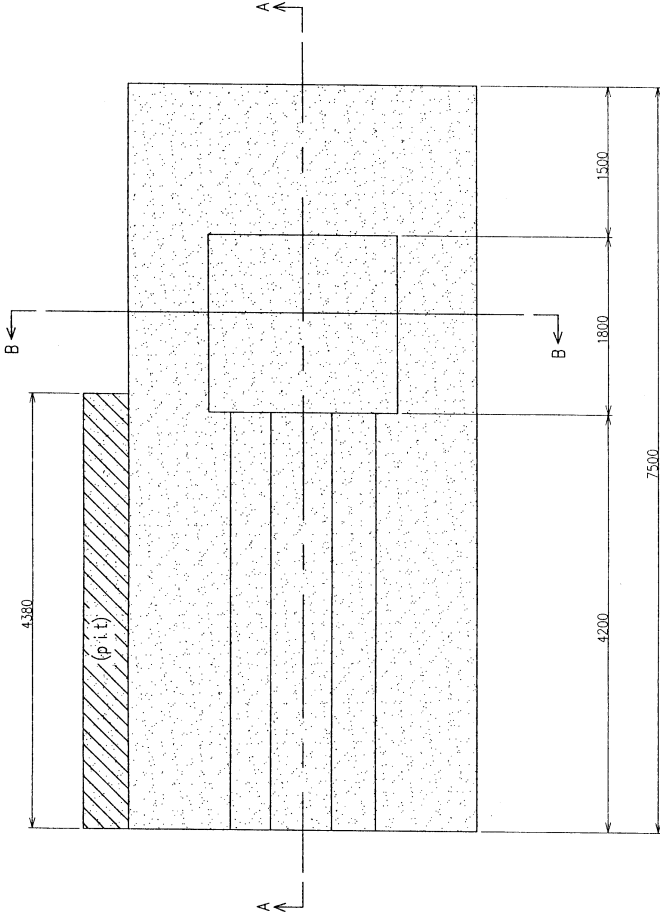
Legend

- Chipping of existing foundation by Mongolia ($t=200\text{mm}$)
- Filling of existing pit by Mongolia (lean concrete)

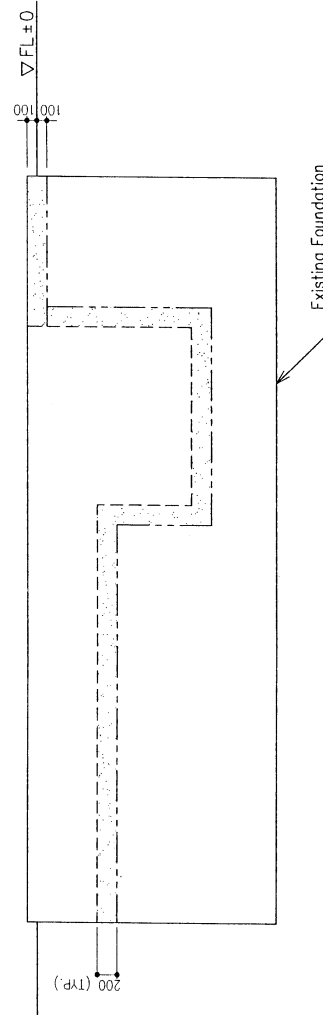
FOR REFERENCE

NOTE

1. This preparation work was carried out in stage 1. This Drawing shall be for reference.
2. FL \pm 0 Shown on this drawing shall be confirmed by the Owner.



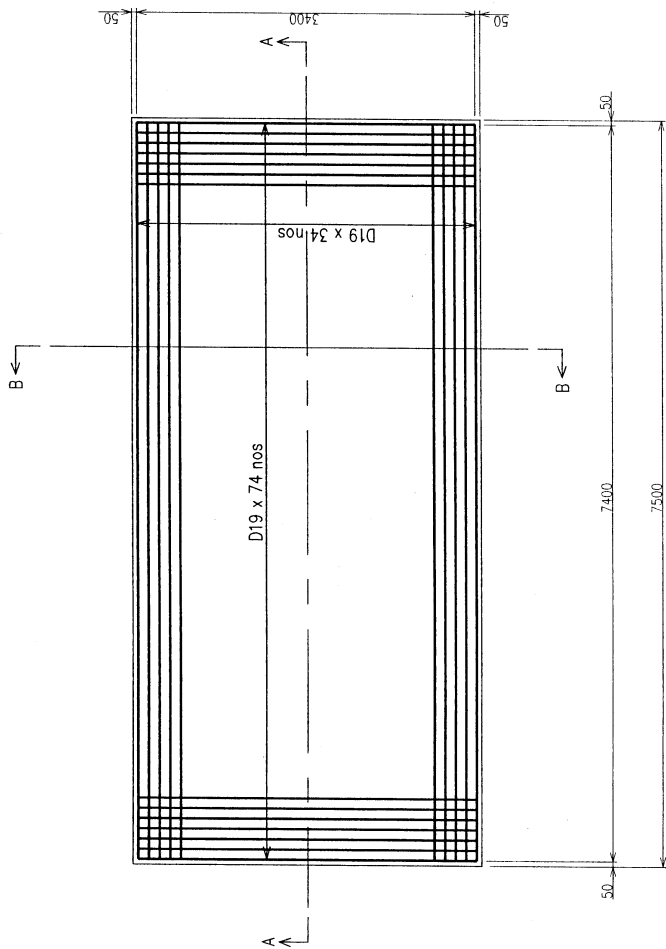
PLAN OF EXISTING FOUNDATION



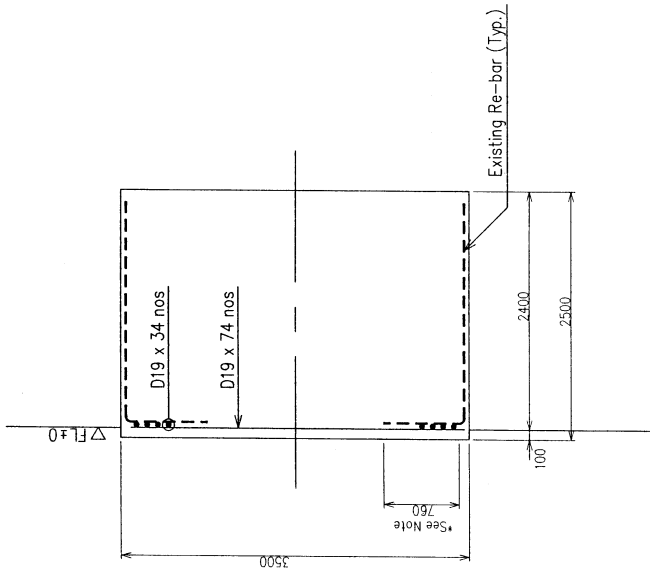
SECTION A-A

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 50	DESIGNED BY	DRAWN BY	TITLE
3	MM			SCOPE OF WORK FOR DG, 500KW FOUNDATIONS
2				DRAWING NO.
1				2-C-73-01
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		
		CONTENTS		

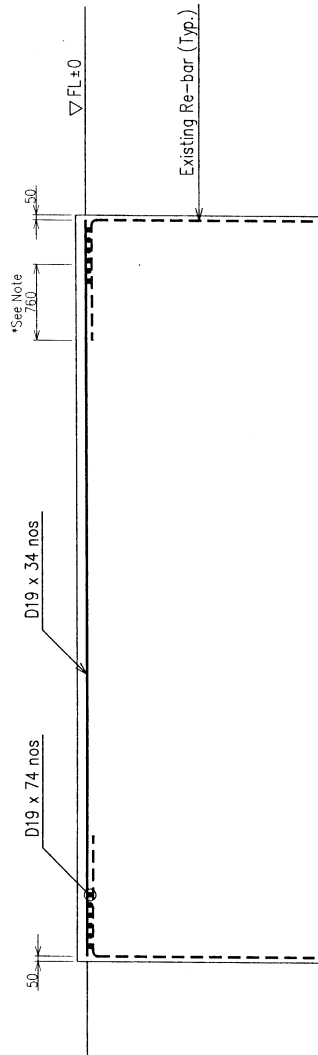
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PLAN



SECTION B-B



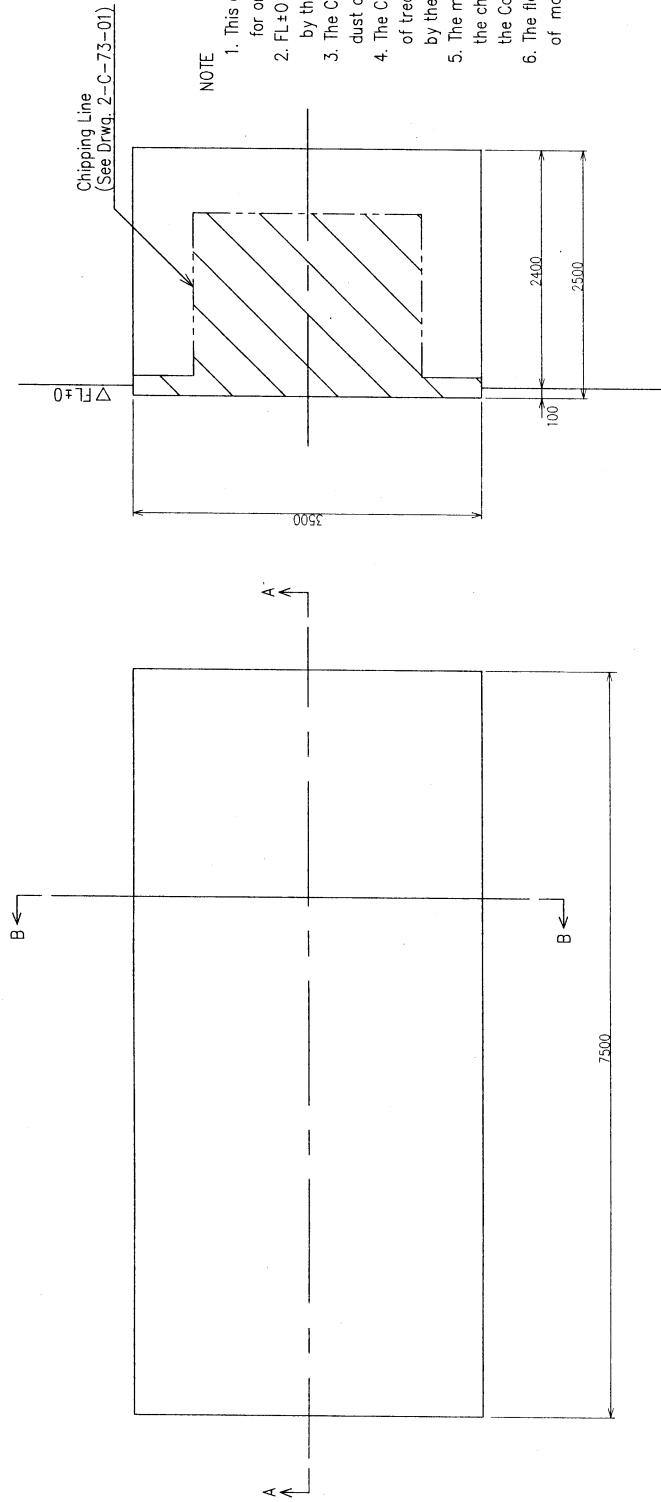
SECTION A-A

NOTE

1. This drawing shows typical work for one unit of the existing foundation.
2. FL±0 Shown on this drawing shall be confirmed by the Owner.
3. New re-bar shall have lap length with existing re-bar at least 40D.

TENDER PURPOSE ONLY

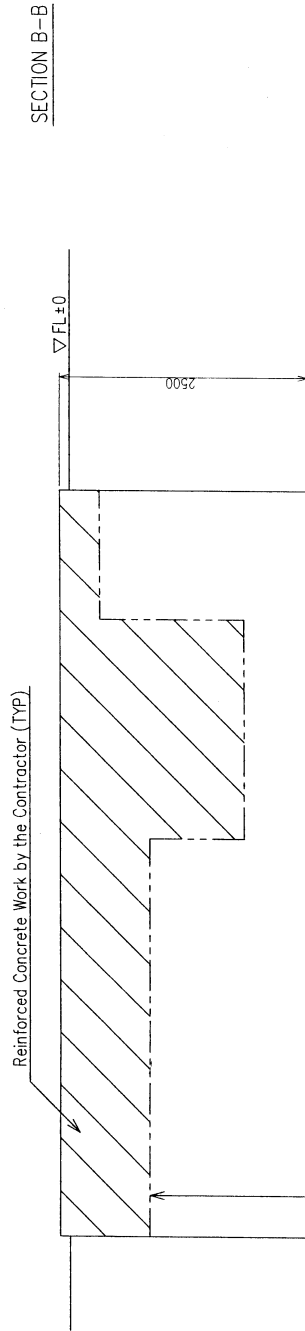
5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4	1 : 50			
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2	MM			DG 500KW RE-BAR ARRANGEMENT
1	NO. DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
		CONTENTS		2-C-73-02
				0



PLAN

NOTE

1. This drawing shows typical work for one unit of the existing foundation.
2. FL ± 0 Shown on this drawing shall be confirmed by the Owner.
3. The Contractor shall remove all sand and dust of the chipped surface of concrete.
4. The Contractor shall propose the method of treating the chipped surface for approval by the Consultant.
5. The material and Work of the foundation above the chipped surface shall be the scope of the Contractor.
6. The floor finishing work shall be the scope of mongolia.



SECTION A-A

SECTION B-B

TENDER PURPOSE ONLY

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR
4	1 : 50			REHABILITATION OF POWER PLANTS OF SUM CENTERS
3	UNITS	DESIGNED BY	DRAWN BY	(PHASE IV)
2	MM			TITLE
1				DC 500KW FOUNDATION
NO.	DATE	PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
				2-C-73-03
		CONTENTS		0

Description	Q'ty
Fuel shutdown & piston control device	
(1) Air filter	1
(2) O-ring	1 set
Cooling water pump	
(1) Gasket	1 set
(2) O-ring	1
(3) Mechanical seal	1
(4) Special clawed washer	1
(5) Oil seal	1
(6) Bearing	2
(7) Key	1 set
(8) Snap ring	1
(9) Collar	1
(10) Clawed washer	1
Others	
(1) Gasket	1 set
(2) O-ring	1 set

Description	Q'ty
Engine frame	
(1) O-ring	14
(2) Intake air manifold cover gasket	4
(3) Gear case cover gasket	1
(4) Cam gear cover gasket	1
(5) Frame side cover gasket	1
Governor	
(1) Bearing	1
(2) O-ring	2
(3) Shim	1 set
FO feed pump	
(1) O-ring	1 set
(2) Coupling key	1
(3) Bearing	1 set
(4) Packing	1 set
(5) Mechanical seal	1
(6) Rotor key	1
(7) Oil seal	1
(8) Key	1
(9) Split pin	1
(10) Toothed washer	1 set
(11) Gasket	1
(12) Coupling rubber	1
Starting rotary valve	
(1) Cam bearing packing	1
(2) Gasket	1 set
Starting valve & starting control valve	
(1) Spring washer	1 set
(2) O-ring	1 set
(3) Filter	1
(4) Split pin	1 set
(5) Stop ring	1
(6) Valve	1

Description	Q'ty
Nozzle	
(1) Nozzle	6
Lube oil cooler	
(1) Gasket	1 set
(2) O-ring	1 set
(3) Packing	1 set
Turbocharger	
(1) Blower outlet packing	1
Inter-cooler	
(1) Gasket	1 set
(2) O-ring	1
(3) I/C gasket	2
(4) Air intake manifold cover gasket	1
Others	
(1) Gasket	1 set
(2) Deflector	12
(3) O-ring	1 set
(4) Frame side cover gasket	3
Division III	
Piston	
(1) Piston ring	1 unit
(2) Oil ring (coil)	1 set
(3) Wire 1.8 x 200	6
Fuel injection pump	
(1) O-ring	1 set
(2) Back-up ring	12
(3) Gasket	1 set
(4) Shim	1 set

Description	Q'ty
For 1x500kw DG Set	
Division I	
Nozzle holder	
(1) Rubber seal for head cover	6 units
(2) Gasket	6
(3) O-ring	1 set
Turbocharger lube oil filter	
(1) Packing (filter case)	2
(2) Packing (tightening nut)	2
(3) Packing (air drain)	2
(4) Element packing	2
Lube oil filter	
(1) Packing (filter case)	2
(2) Element packing	2
(3) Packing (tightening nut)	2
FO primary filter	
(1) Packing (filter case)	2
(2) Packing (tightening nut)	2
(3) Packing (tightening nut)	2
(4) Element packing	2
Division II	
Cylinder head	
(1) Cylinder head packing	3 units
(2) O-ring	6
(3) Gasket, intake air manifold	1 set
(4) Intake air bend seal	6
(5) Split pin	6
(6) Packing	6
(7) Snap ring	1 set
(8) Exhaust manifold gasket	6
(9) Packing exhaust manifold	6
(10) Turbocharger packing	7
(11) Push rod rubber seal	1
	12

SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
5			
4			
3			TITLE
2			SPARE PARTS FOR DG 500 KW
1			DRAWING NO.
NO.	DATE	CONTENTS	

0

2-S-73-01

PACIFIC CONSULTANTS INTERNATIONAL
Tokyo, Japan

Description	Qty
For Engine	
(1) Piston insert guide	1
(2) Liner extraction, fitting tool	1
(3) Valve spring disassemble tool	1
(4) Spanner for FO nozzle	1
(5) Pin for main bearing	1
(6) Eye bolt	1
(7) Nozzle holder extraction tool	1
(8) Nozzle holder joint	1
(9) Turning bar	3
(10) Socket	1
(11) Valve stem seal fitting tool	1
(12) Valve seat fitting tool	1
(13) Hydraulic ram supporter	1 set
(14) Hydraulic ram	1
(15) Box spanner	1
(16) Snap ring pliers	1
(17) Valve re-conditioning tool	1
(18) Spanner for FO pump	1
(19) Hex-spanner	1
(20) Adapter	1
(21) Jack cylinder	4
(22) Jack stand	4
(23) Jack handle	1
(24) Pull bolt	4
(25) Jack stand	2
(26) Hydraulic pump	1
(27) High pressure hose	6
(28) Female couple	2
(29) Male couple	7
(30) Terminal	1
(31) Protection ring extraction tools	1
(32) Eye bolt M10	1
(33) Socket 24x19.0	1
(34) Open ended spanner 8x10	1

Description	Qty
(35) Open ended spanner 11x13	1
(36) Open ended spanner 17x19	1
(37) Open ended spanner 22x24	1
(38) Open ended spanner 27x30	1
(39) Double offset wrench 17x19	1
(40) Hex-spanner 4	1
(41) Hex-spanner 5	1
(42) Hex-spanner 8	1
(43) Hex-spanner 10	1
(44) Hex-spanner 14	1
(45) Box spanner 19x180	1
(46) Monkey wrench 250	1
(47) Set screw 8x150	1
(48) Set screw 2	1
(49) Oil feeder	1
(50) Nozzle cleaning kit	1
(51) Max. pressure meter	1
(52) Bore gauge	1
(53) Measuring point gauge	1
(54) Thickness gauge	1
(55) Nozzle test pump	1
(56) Deflection gauge	1
(57) Blower cylinder	1
(58) Torque wrench	1
(59) Joint	1
(60) Tool box	1

Description	Qty
For Generator & Panels	
(1) Supporting shaft	1
(2) Gap gauge	1
For Meters and others	
(1) AC ammeter	1
(2) Mini digital clamp meter	1
(3) AC voltmeter	1
(4) AC volt-ammeter	1
(5) DC voltmeter	1
(6) DC ammeter	1
(7) Voltage detector	1
(8) 3-phase wattmeter	1
(9) Insulation resistance meter 500V/1000MΩ	1
(10) Insulation resistance meter 1000V/2000MΩ	1
(11) Test plug RY	1
(12) Test plug CT	1
(13) Test plug VT	1

5	SCALE	APPROVED BY	CHECKED BY	THE PROJECT FOR REHABILITATION OF POWER PLANTS OF SUM CENTERS (PHASE IV)
4				
3	UNITS	DESIGNED BY	DRAWN BY	TITLE
2				TOOLS FOR DG 500 KW
1		PACIFIC CONSULTANTS INTERNATIONAL Tokyo, Japan		DRAWING NO.
NO.	DATE	CONTENTS		2-T-73-01
				0