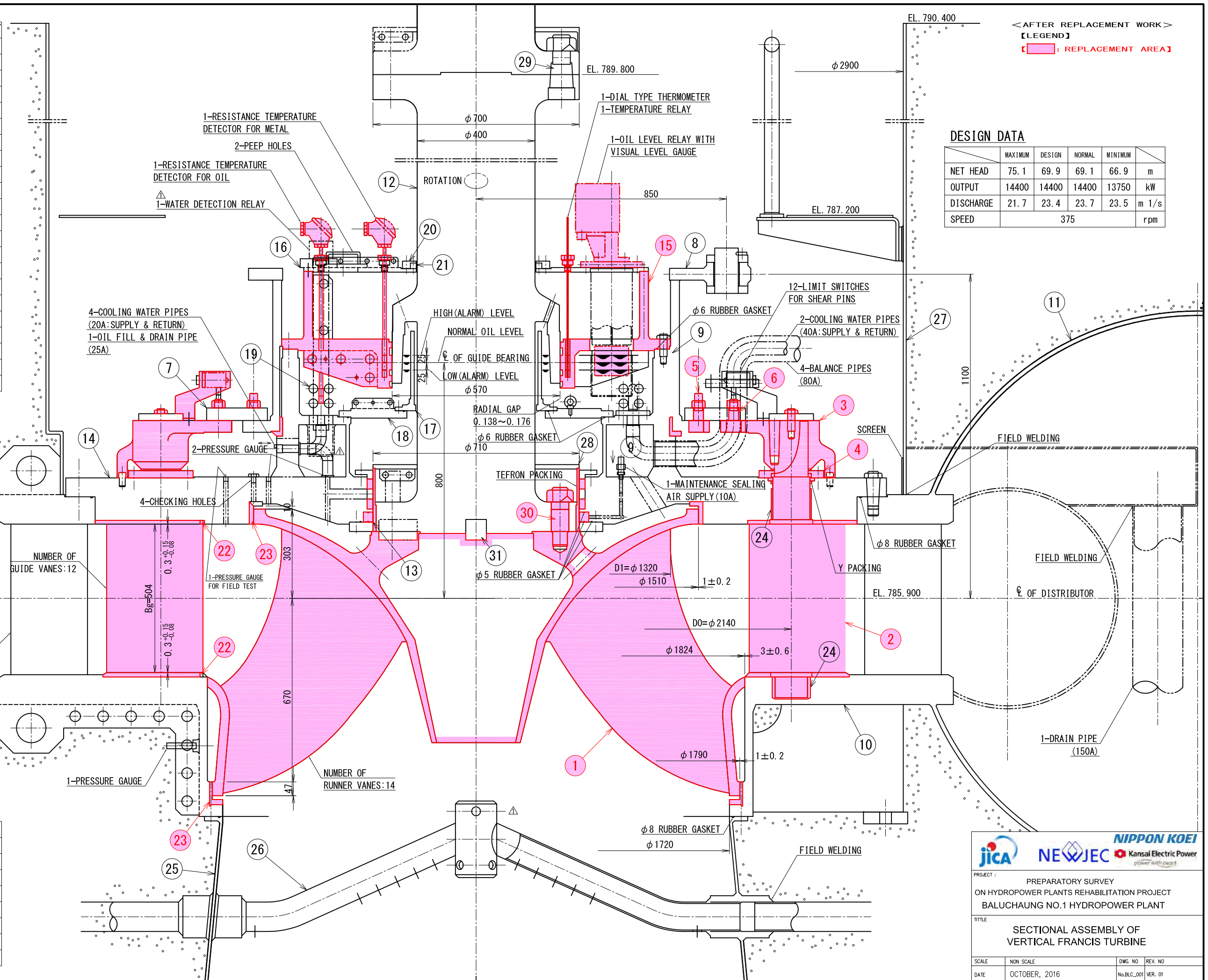


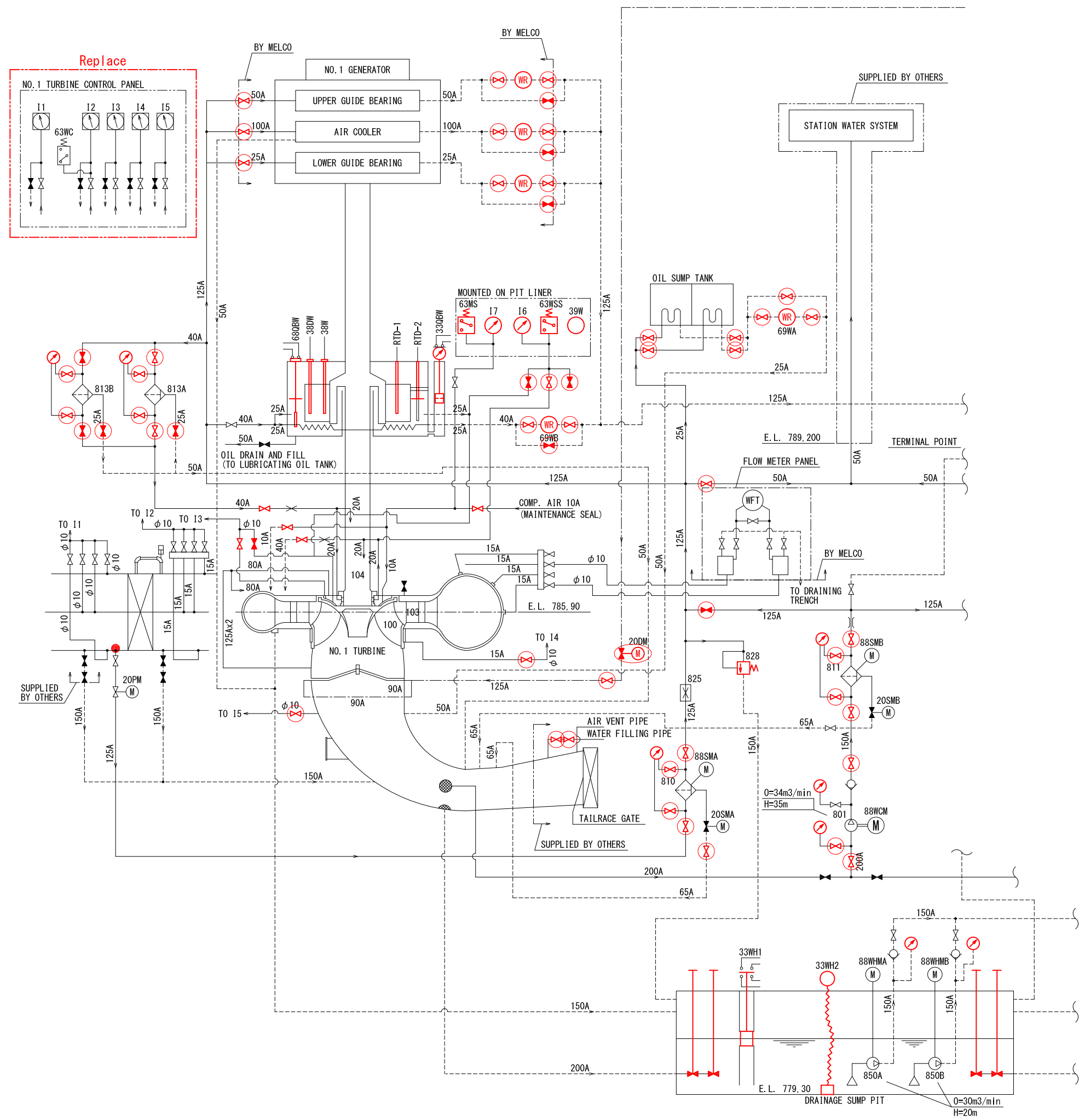
# DRAWINGS

# BALUCHAUNG No.1 HPP

23	WEARING RING	SUS403 ㉠	1SET
24	BUSHING	01LLESS 500SP, SL-4	1SET
25	DRAFT TUBE LINER	SS41	1SET
26	AIR ADMISSION PIPE	SUS304TP	1SET
27	PIT LINER	SS41	1SET
28	COUPLING COVER	SS41	1SET
29	COUPLING BOLT	S45C ㉠	12
30	COUPLING BOLT	S45C ㉠	10
31	KEY	S45C ㉠	2



FOR REFERENCE ONLY



LEGEND	
SYMBOL	DESCRIPTION
	WATER PIPE
	AIR PIPE
	DISCHARGE PIPE
	MANUAL OPERATING VALVE (NORMALLY OPENED)
	MANUAL OPERATING VALVE (NORMALLY CLOSED)
	MOTOR OPERATED VALVE
	CHECK VALVE
	PRESSURE GAUGE
	PRESSURE SWITCH
	STATIONARY STRAINER
	MOTOR OPERATED STRAINER
	SAFETY VALVE
	THROTTLE VALVE
	WATER FLOW RELAY

QUANTITY OF COOLING WATER	
GEN. UPPER GUIDE BEARING	250 lit/min
GEN. AIR COOLER	1200 lit/min
GEN. LOWER GUIDE BEARING	50 lit/min
TURBINE BEARING	60 lit/min
TURBINE PACKING BOX	80 lit/min
GOVERNOR OIL SUMP TANK	30 lit/min

- (1) This drawing shows only for 1 unit based on the supplier's drawing.
- (2) The portions marked in red denote the future rehabilitation items.

PROJECT : PREPARATORY SURVEY  
ON HYDROPOWER PLANTS REHABILITATION PROJECT  
BALUCHAUNG NO.1 HYDROPOWER PLANT

TITLE : SCHEMATIC DIAGRAM FOR WATER  
SUPPLY AND DRAINAGE SYSTEM

SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.BLC_002	VER. 01





【  : REPLACEMENT AREA】

**【EXISTING】**

**【RENOVATION】**

Colored parts shall be renewed

**【EXISTING】**

AC EXCITER (NEW)

SSG (NEW)

UPPER OIL COOLING TUBE (NEW)

UPPER BRACKET (NEW)

THRUST SPRING (NEW)

THRUST BEARING (NEW)

ROTOR COIL (NEW)

AIR COOLER (NEW)

LOWER BRACKET (NEW)

LOWER OIL COOLING TUBE (NEW)

LOWER GUIDE BEARING (NEW)

COLLECTOR RING

UPPER GUIDE BEARING

THRUST BEARING


AIR COOLER

LOWER GUIDE BEARING

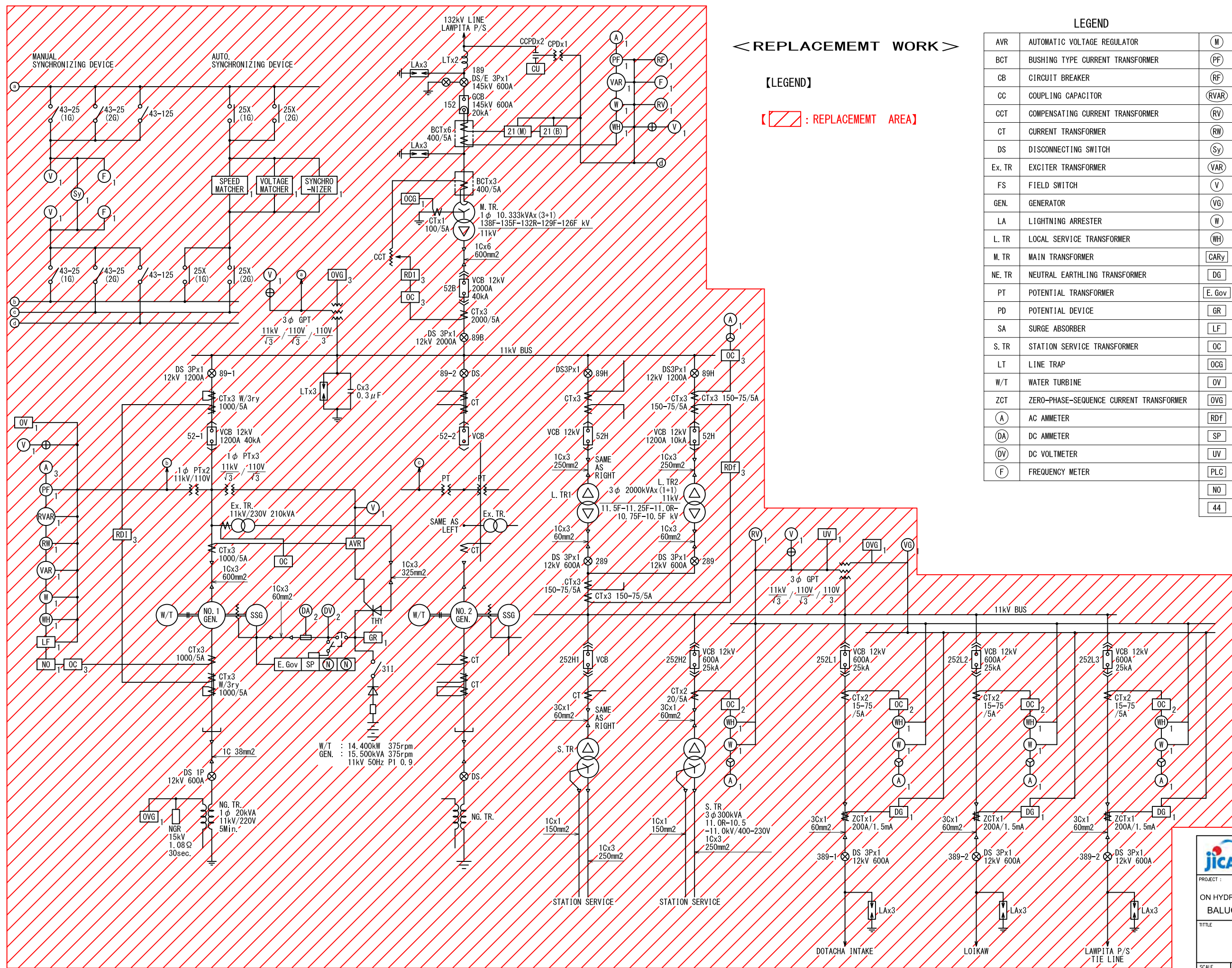
BRAKE & JACK

Dimensions:

- 1300
- 860
- 1970
- 875
- 1950
- 2650
- 1000
- 600
- 2550
- 2150
- 4700
- 6700
- 2900
- 4000
- 4500
- 791.400
- EL. 789.800
- 6800

			
<p>PROJECT :                      PREPARATORY SURVEY</p> <p>ON HYDROPOWER PLANTS REHABILITATION PROJECT</p> <p>BALUCHAUNG NO.1 HYDROPOWER PLANT</p>			
<p>TITLE</p> <p>SECTIONAL ASSEMBLY OF</p> <p>GENERATOR</p>			
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No.BLC_004	VER. 01		

FOR REFERENCE ONLY



< REPLACEMENT WORK >

[LEGEND]

[REPLACEMENT AREA]

LEGEND		LEGEND	
AVR	AUTOMATIC VOLTAGE REGULATOR	(M)	SPEED METER
BCT	BUSHING TYPE CURRENT TRANSFORMER	(PF)	POWER FACTOR METER
CB	CIRCUIT BREAKER	(RF)	RECORDING FREQUENCY
CC	COUPLING CAPACITOR	(RVAR)	RECORDING VAR METER
CCT	COMPENSATING CURRENT TRANSFORMER	(RV)	RECORDING VOLTMETER
CT	CURRENT TRANSFORMER	(RW)	RECORDING WATTMETER
DS	DISCONNECTING SWITCH	(Sy)	SYNCHRO SCOPE
Ex. TR	EXCITER TRANSFORMER	(VAR)	VAR METER
FS	FIELD SWITCH	(V)	AC VOLTMETER
GEN.	GENERATOR	(VG)	GROUND VOLTMETER
LA	LIGHTNING ARRESTER	(W)	WATTMETER
L. TR	LOCAL SERVICE TRANSFORMER	(WH)	WATT HOUR METER
M. TR	MAIN TRANSFORMER	[CARy]	CARRIER RELAY
NE. TR	NEUTRAL EARTHLING TRANSFORMER	[DG]	DIRECTIONAL GROUND RELAY (67)
PT	POTENTIAL TRANSFORMER	[E. Gov]	ELECTRIC GOVERNOR
PD	POTENTIAL DEVICE	[GR]	GROUND RELAY (64)
SA	SURGE ABSORBER	[LF]	LOSS OF FIELD RELAY (40)
S. TR	STATION SERVICE TRANSFORMER	[OC]	OVERCURRENT RELAY (51)
LT	LINE TRAP	[OCG]	OVERCURRENT GROUND RELAY (51G)
W/T	WATER TURBINE	[OV]	OVERVOLTAGE RELAY (59)
ZCT	ZERO-PHASE-SEQUENCE CURRENT TRANSFORMER	[OVG]	OVERVOLTAGE GROUND RELAY (64)
(A)	AC AMMETER	[RDF]	RATIO DIFFERENTIAL RELAY (87)
(DA)	DC AMMETER	[SP]	SPEED RELAY (12, 13, 14, 14L)
(DV)	DC VOLTMETER	[UV]	UNDERVOLTAGE RELAY (27)
(F)	FREQUENCY METER	[PLC]	POWER LINE CARRIER SET
		[NO]	NEGATIVE-PHASE SEQUENCE
		[44]	DISTANCE RELAY

PROJECT : PREPARATORY SURVEY  
ON HYDROPOWER PLANTS REHABILITATION PROJECT  
BALUCHAUNG NO.1 HYDROPOWER PLANT

TITLE : SINGLE LINE DIAGRAM OF  
BALUCHAUNG NO. 1  
HYDROPOWER PLANT

SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.BLC_005	VER. 01





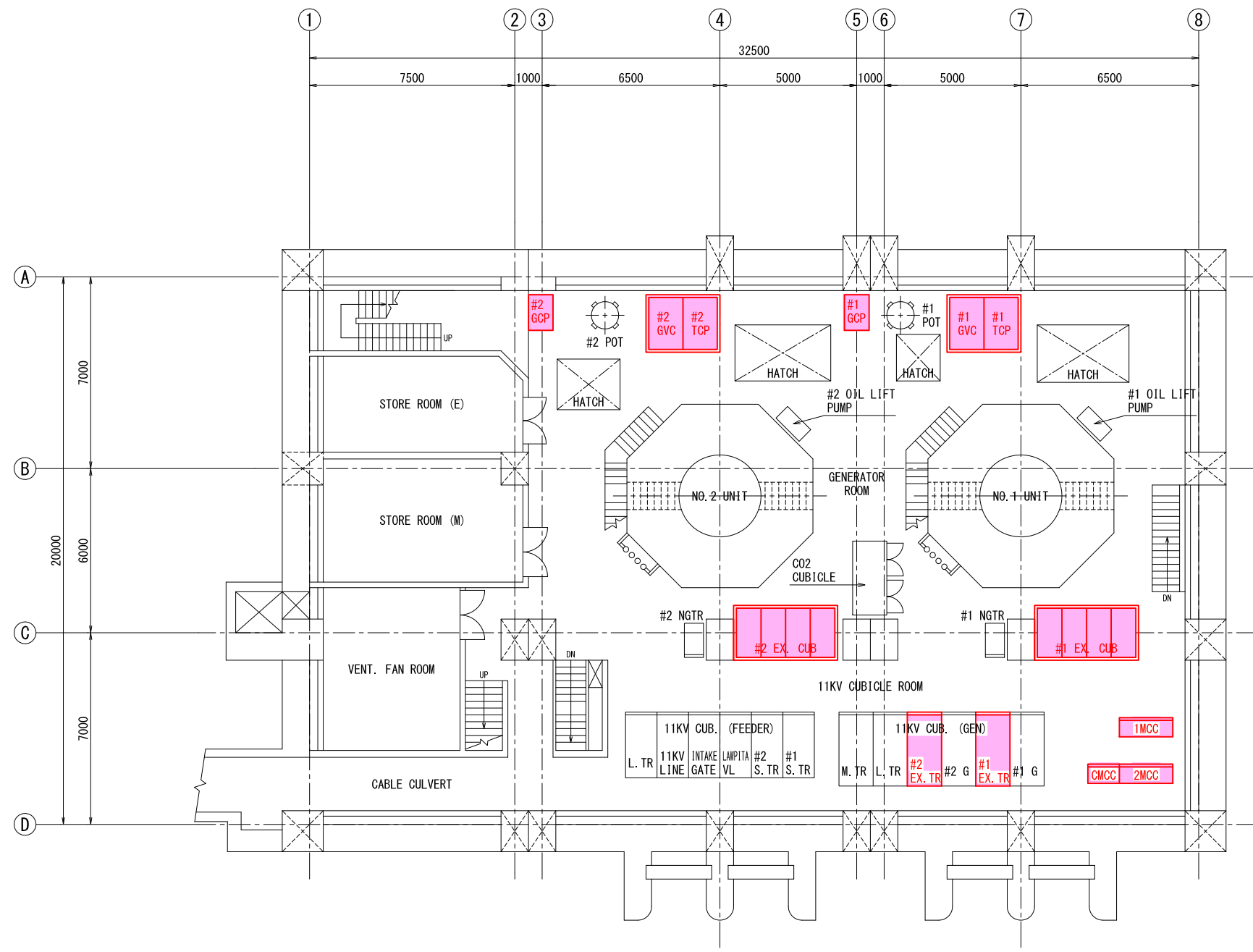




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【 】: REPLACEMENT AREA

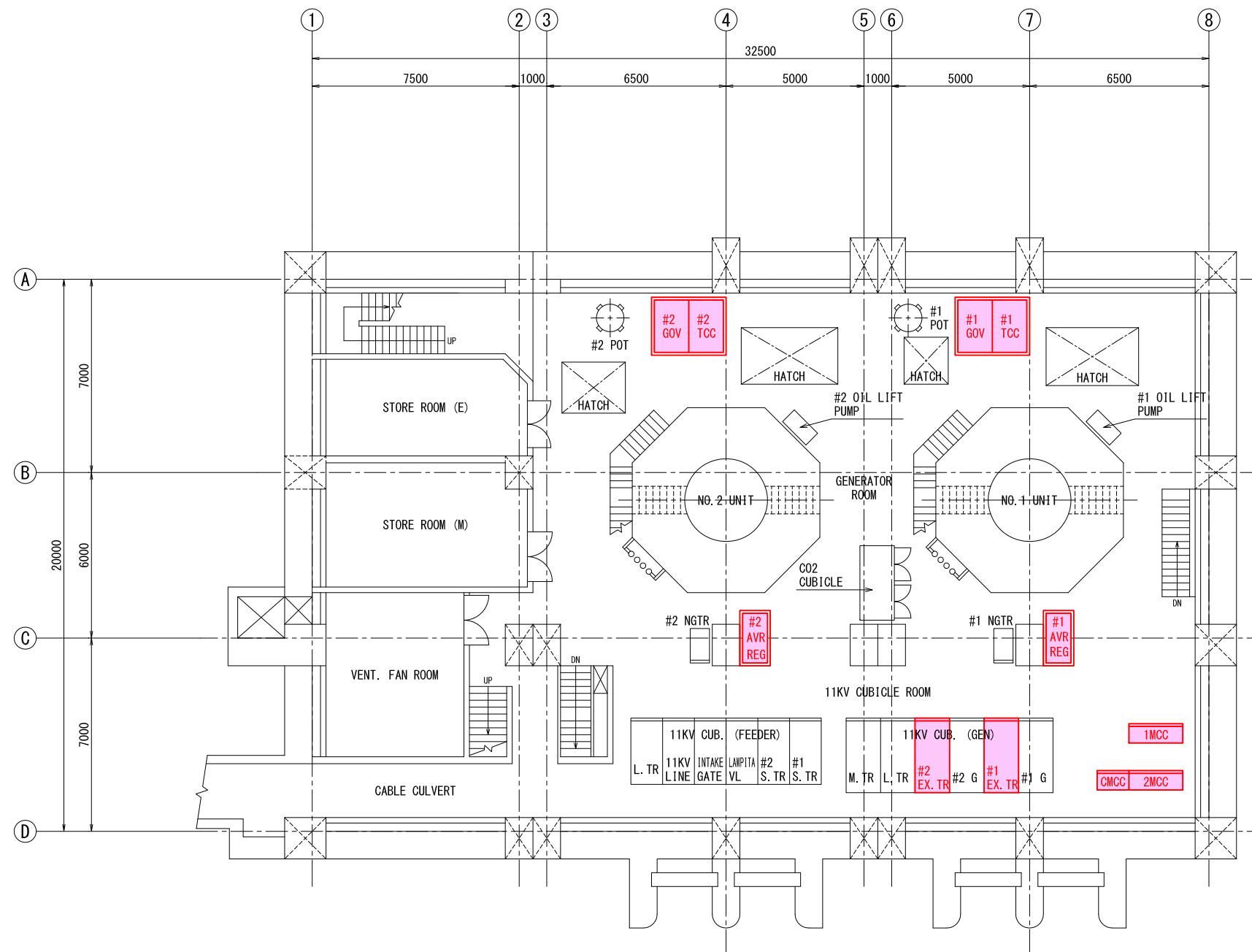


LEGEND	
GVC	GOVERNOR CABINET
TCP	TURBINE CONTROL PANEL
GCP	GOVERNOR CONTROL PANEL
POT	PRESSURE OIL TANK
NGTR	NEUTRAL GROUNDING TRANSFORMER
EX. CUB	EXCITER CUBICLE
L. TR	LOCAL SERVICE TRANSFORMER
M. TR	MAIN TRANSFORMER
G	GENERATOR
1MCC	#1 MOTOR CONTROL CENTER
2MCC	#2 MOTOR CONTROL CENTER
CMCC	COMMON CONTROL CENTER



PROJECT : PREPARATORY SURVEY ON HYDROPOWER PLANTS REHABILITATION PROJECT BALUCHAUNG NO.1 HYDROPOWER PLANT			
TITLE FLOOR PLAN OF EQUIPMENT ARRANGEMENT B1F EL. 788.900 (BEFORE REHABILITATION)			
SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.BLC_009	VER. 01





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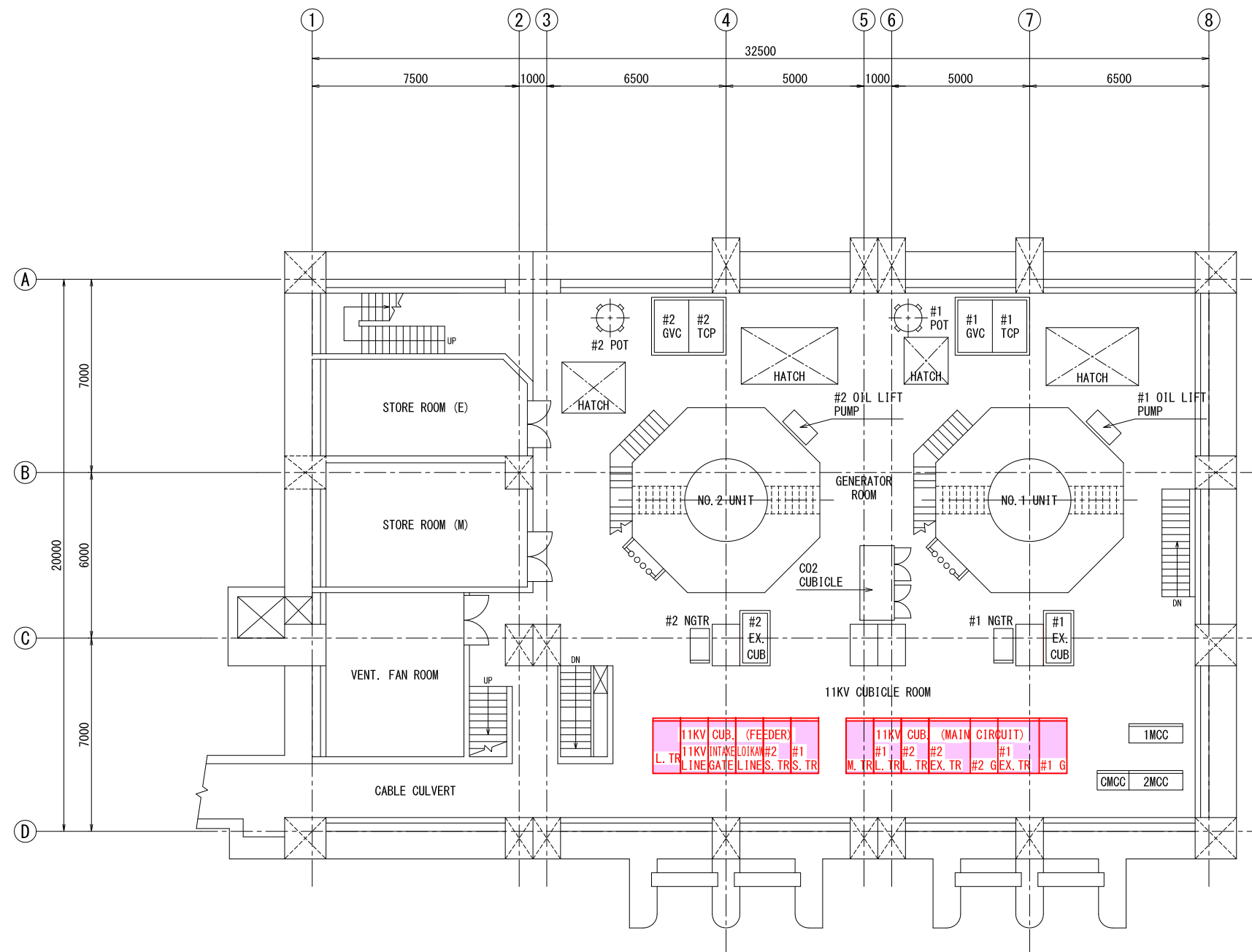
【REPLACEMENT AREA】

LEGEND	
GOV	GOVERNOR ACTUATOR BOARD
TCC	TURBINE CONTROL BOARD
Ex. Tr	EXCITATION TRANSFORMER
POT	PRESSURE OIL TANK
NGTR	NEUTRAL GROUNDING TRANSFORMER
AVR - REG	AVR & GOV REGULATOR CONTROL BOARD
L. TR	LOCAL SERVICE TRANSFORMER
M. TR	MAIN TRANSFORMER
G	GENERATOR
1MCC	#1 MOTOR CONTROL CENTER
2MCC	#2 MOTOR CONTROL CENTER
CMCC	COMMON CONTROL CENTER

PROJECT :  
PREPARATORY SURVEY  
ON HYDROPOWER PLANTS REHABILITATION PROJECT  
BALUCHAUNG NO.1 HYDROPOWER PLANT

TITLE  
FLOOR PLAN OF CONTROL AND  
PROTECTION EQUIPMENT ARRANGEMENT  
B1F EL. 788.900 (AFTER REHABILITATION)

SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.BLC_010	VER. 01



< AFTER REPLACEMENT WORK >

【LEGEND】

【REPLACEMENT AREA】

LEGEND	
GVC	GOVERNOR CABINET
TCP	TURBINE CONTROL PANEL
POT	PRESSURE OIL TANK
NGTR	NEUTRAL GROUNDING TRANSFORMER
EX. CUB	EXCITER CUBICLE
S. TR	SATATION SERVICE TRANSFORMER
L. TR	LOCAL SERVICE TRANSFORMER
M. TR	MAIN TRANSFORMER
G	GENERATOR
1MCC	#1 MOTOR CONTROL CENTER
2MCC	#2 MOTOR CONTROL CENTER
CMCC	COMMON CONTROL CENTER

PROJECT :

PREPARATORY SURVEY  
ON HYDROPOWER PLANTS REHABILITATION PROJECT  
BALUCHAUNG NO.1 HYDROPOWER PLANT

TITLE

FLOOR PLAN OF CUBICLE  
ARRANGEMENT  
B1F EL. 788.900 (AFTER REHABILITATION)

SCALE

NON SCALE

DWG. NO

REV. NO

DATE

OCTOBER, 2016

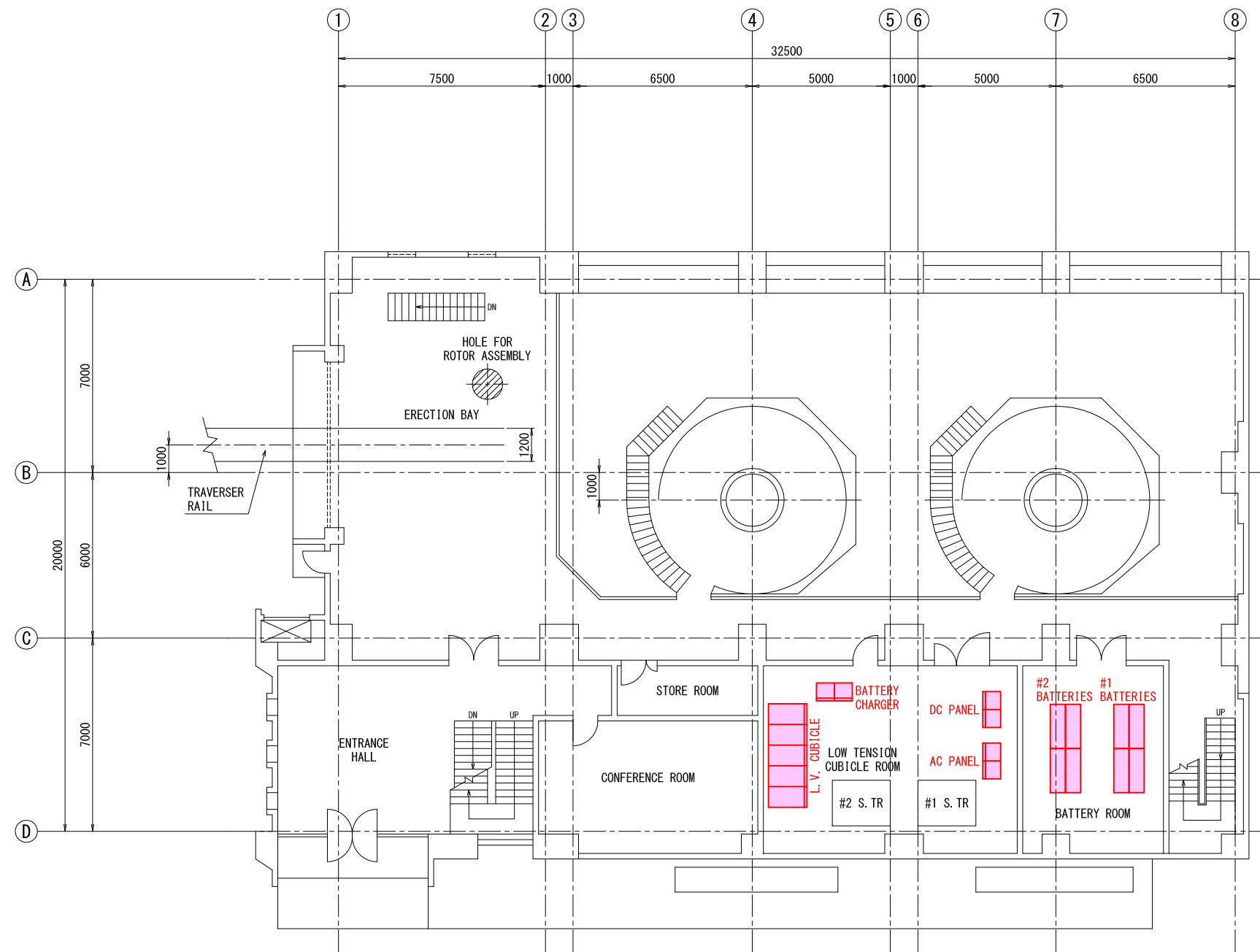
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VER. 01

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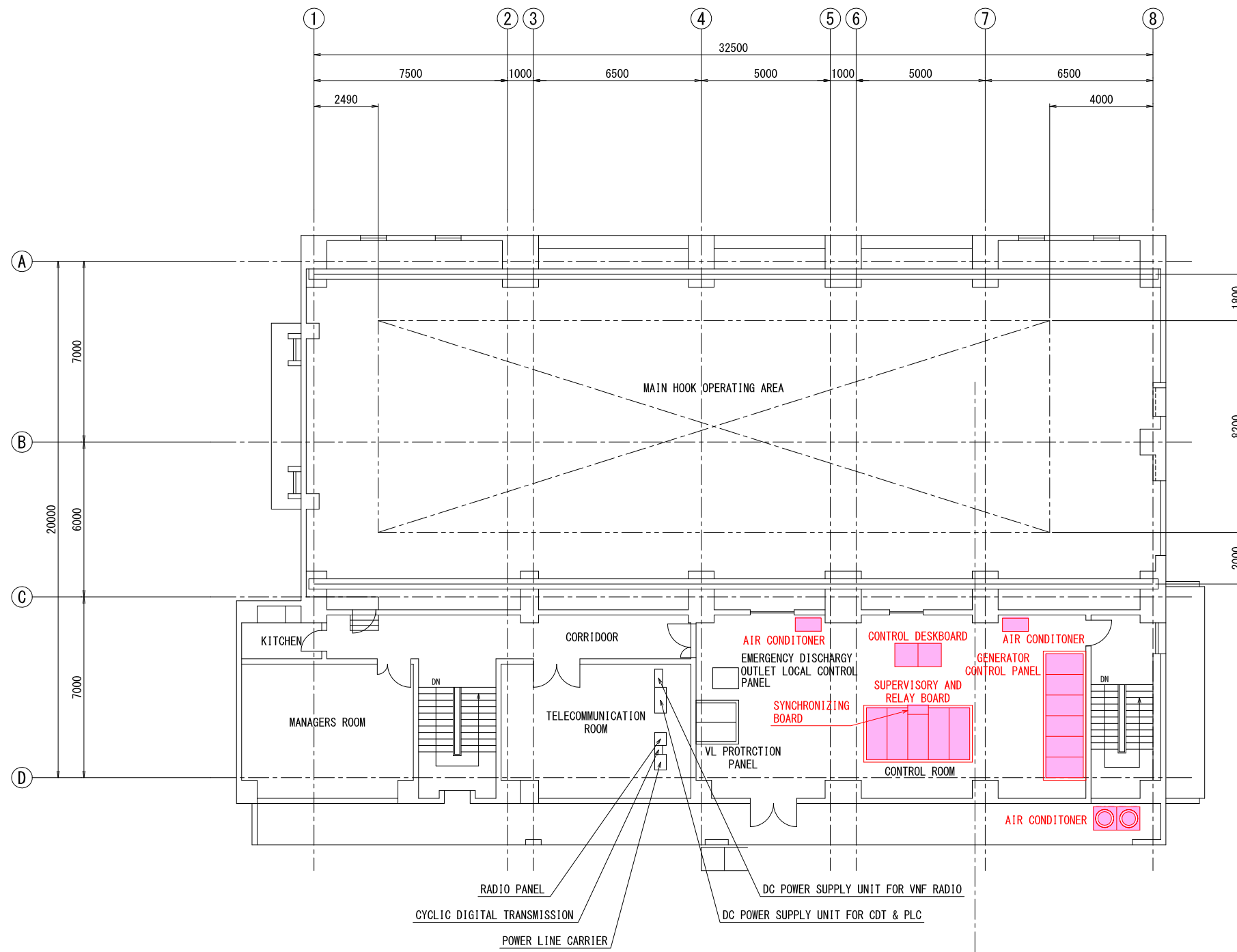
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【: REPLACEMENT AREA】



			
PROJECT :                      PREPARATORY SURVEY ON HYDROPOWER PLANTS REHABILITATION PROJECT BALUCHAUNG NO.1 HYDROPOWER PLANT			
TITLE FLOOR PLAN OF EQUIPMENT ARRANGEMENT EL. 794.200 (AFTER REHABILITATION)			
SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.BLC_012	VER. 01

FOR REFERENCE ONLY



< BEFORE REPLACEMENT WORK >

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【REPLACEMENT AREA】

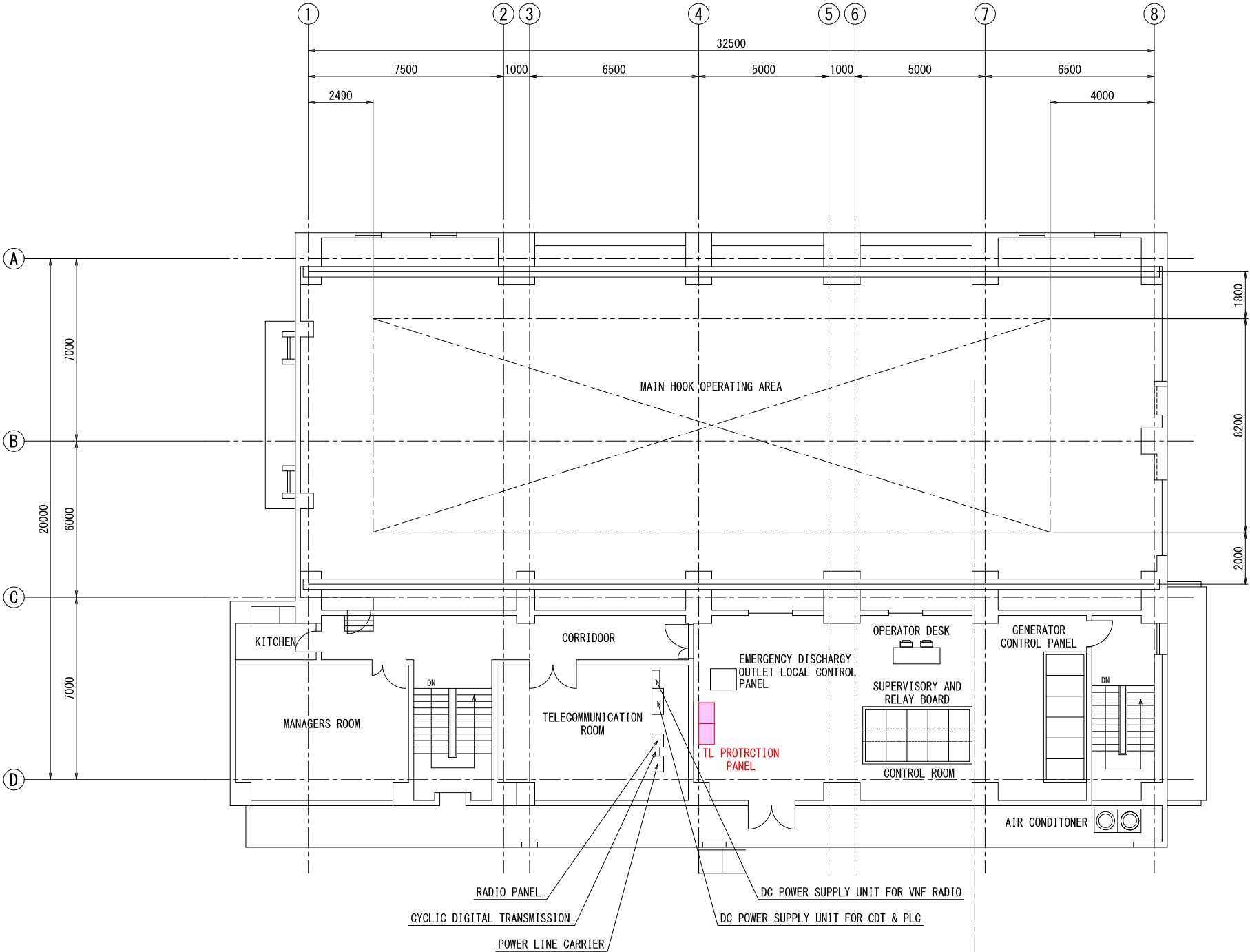
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TITLE FLOOR PLAN OF CONTROL AND PROTECTION EQUIPMENT ARRANGEMENT 3F EL. 801.900 (BEFORE REHABILITATION)			
SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.BLC_013	VER. 01


FOR REFERENCE ONLY

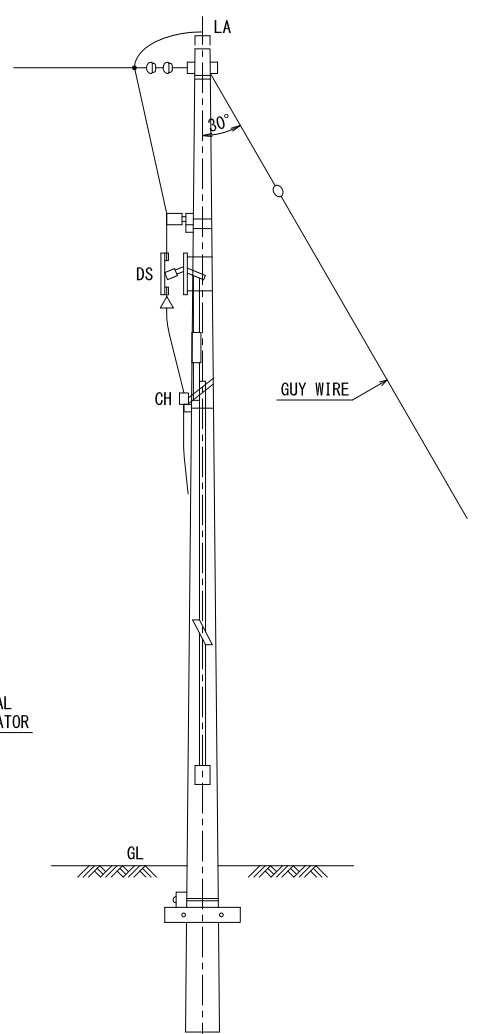
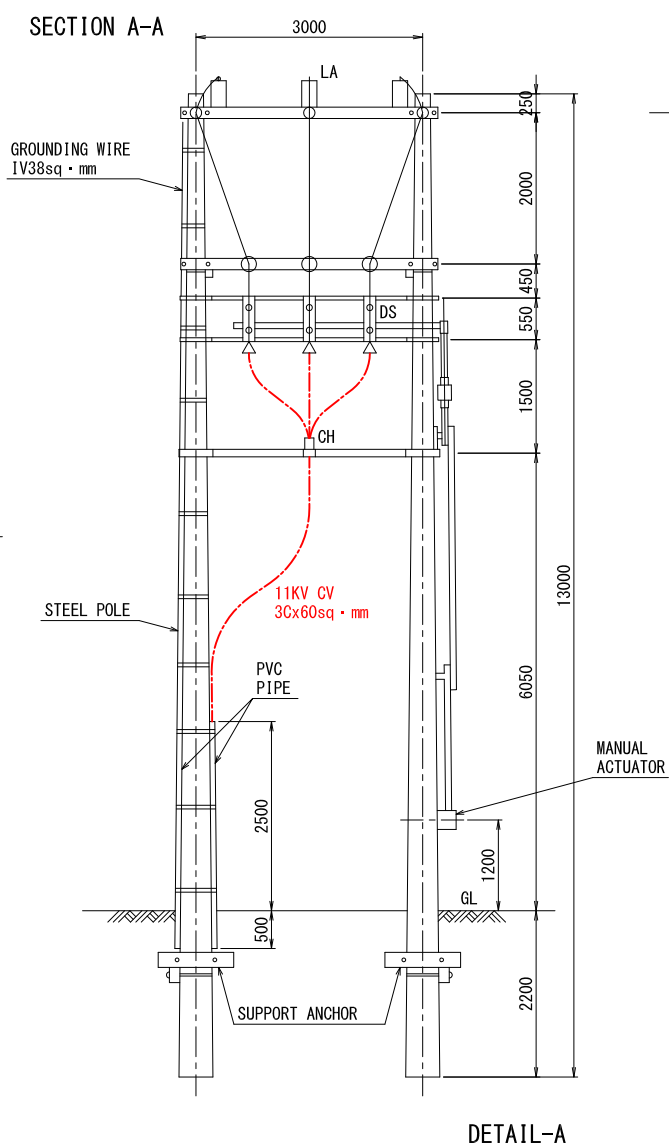
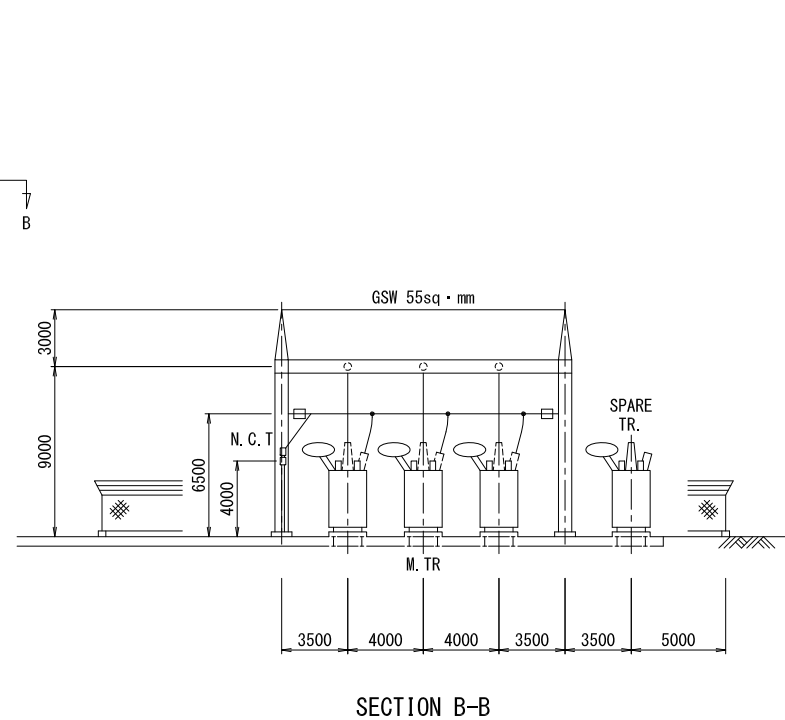
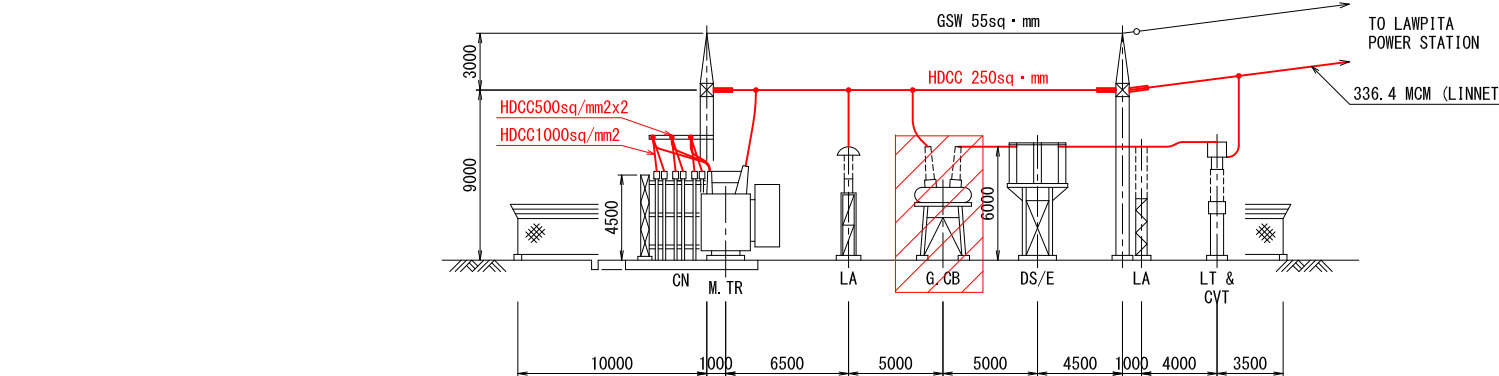
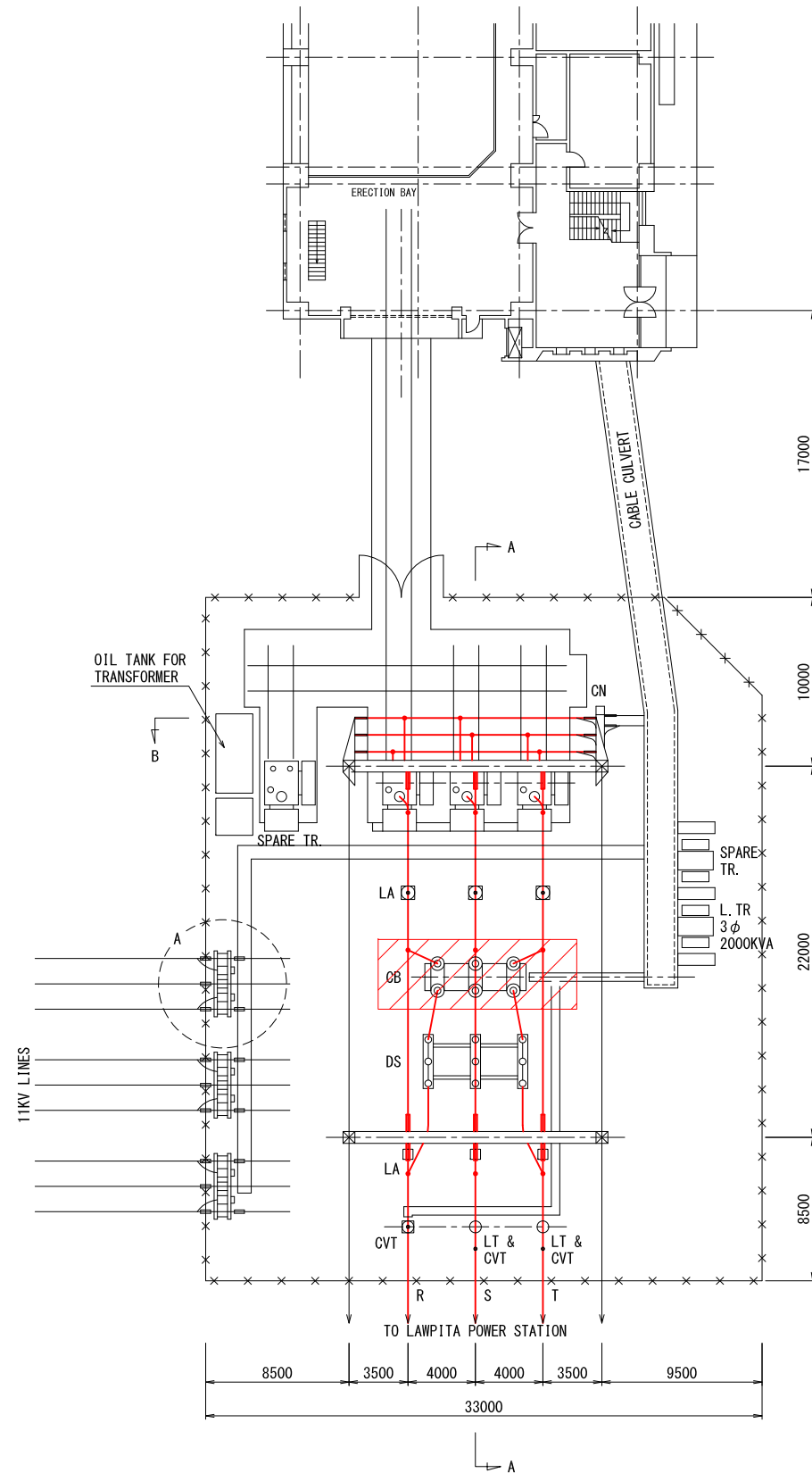
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【LEGEND】

【REPLACEMENT AREA】




			
PROJECT : PREPARATORY SURVEY ON HYDROPOWER PLANTS REHABILITATION PROJECT BALUCHAUNG NO.1 HYDROPOWER PLANT			
TITLE : FLOOR PLAN OF CONTROL AND PROTECTION EQUIPMENT ARRANGEMENT 3F EL. 801.900 (AFTER REHABILITATION)			
SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.BLC_014	VER. 01



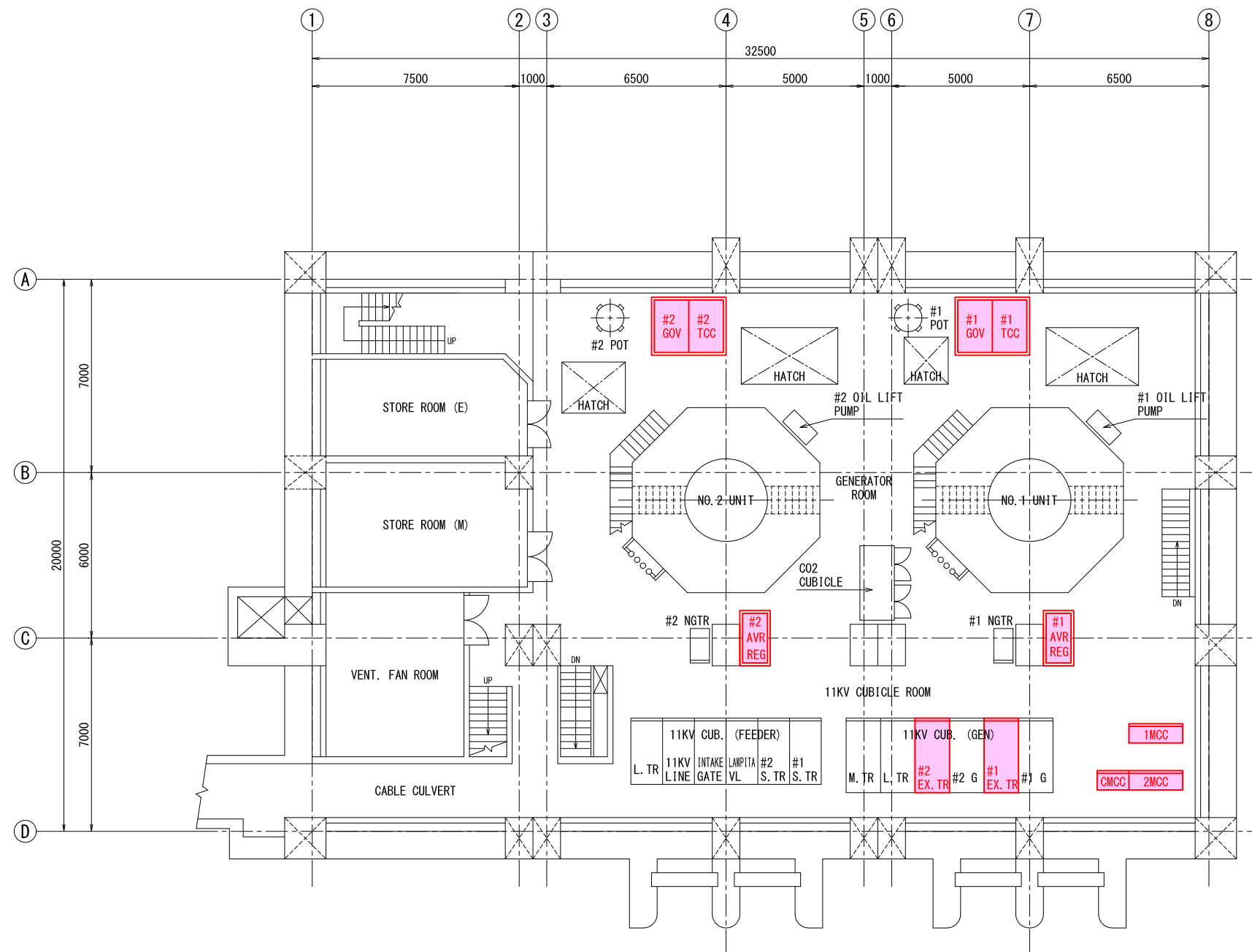
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【LEGEND】

【 : REPLACEMENT AREA】

			
PROJECT : PREPARATORY SURVEY ON HYDROPOWER PLANTS REHABILITATION PROJECT BALUCHAUNG NO.1 HYDROPOWER PLANT			
TITLE OUTDOOR ARRANGEMENT OF 132/11KV SWITCHYARD EQUIPMENT			
SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.BLC_015	VER. 01

FOR REFERENCE ONLY



<AFTER REPLACEMENT WORK>

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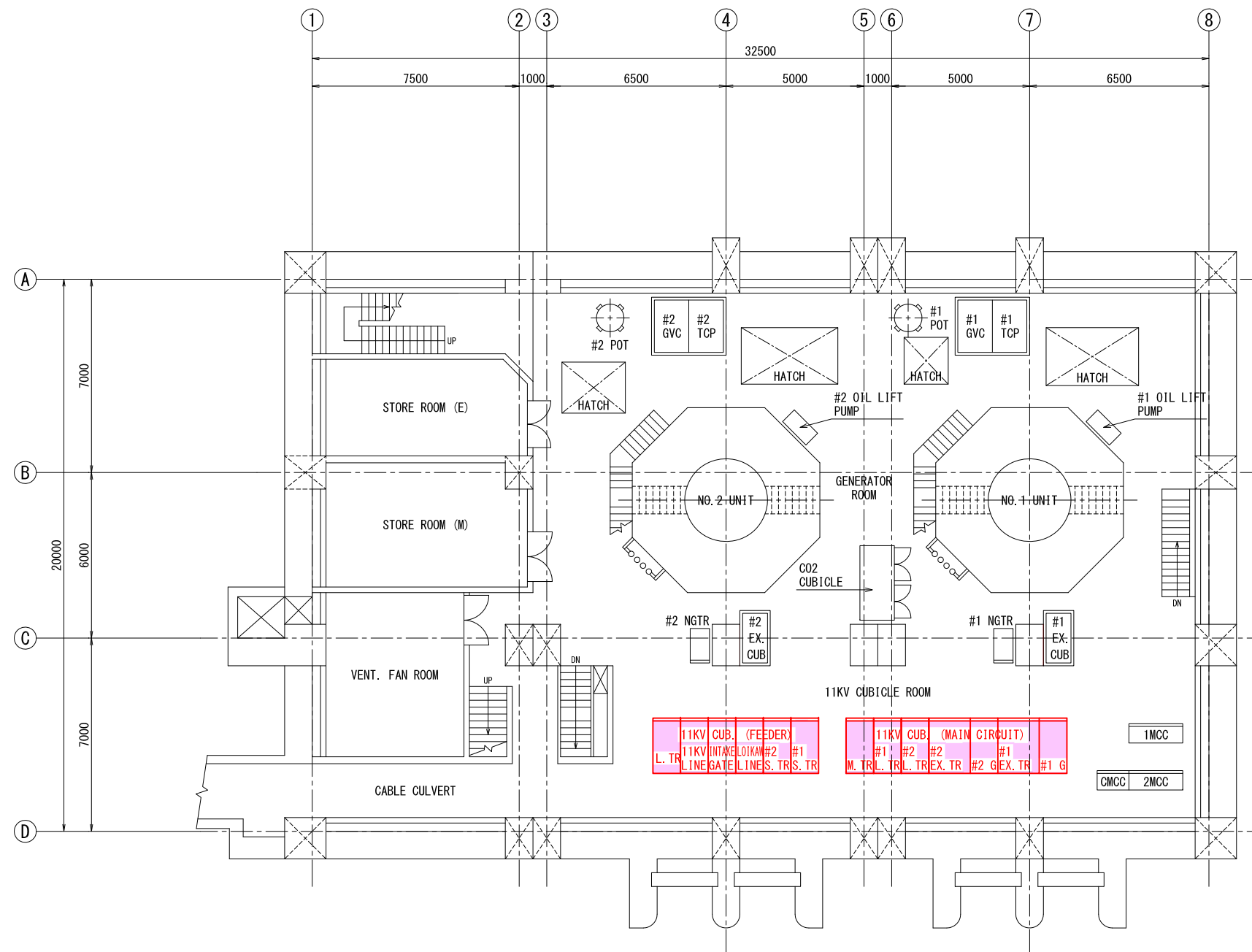
【REPLACEMENT AREA】

LEGEND	
GOV	GOVERNOR ACTUATOR BOARD
TCC	TURBINE CONTROL BOARD
Ex. Tr	EXCITATION TRANSFORMER
POT	PRESSURE OIL TANK
NGTR	NEUTRAL GROUNDING TRANSFORMER
AVR - REG	AVR & GOV REGULATOR CONTROL BOARD
L. TR	LOCAL SERVICE TRANSFORMER
M. TR	MAIN TRANSFORMER
G	GENERATOR
1MCC	#1 MOTOR CONTROL CENTER
2MCC	#2 MOTOR CONTROL CENTER
CMCC	COMMON CONTROL CENTER

<div><div></div><div></div><div></div><div></div></div>			
PROJECT : PREPARATORY SURVEY ON HYDROPOWER PLANTS REHABILITATION PROJECT BALUCHAUNG NO.1 HYDROPOWER PLANT			
TITLE FLOOR PLAN OF CONTROL AND PROTECTION EQUIPMENT ARRANGEMENT B1F EL. 788.900 (AFTER REHABILITATION)			
SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.BLC_010	VER. 01

FOR REFERENCE ONLY





< AFTER REPLACEMENT WORK >

【LEGEND】

【REPLACEMENT AREA】

LEGEND	
GVC	GOVERNOR CABINET
TCP	TURBINE CONTROL PANEL
POT	PRESSURE OIL TANK
NGTR	NEUTRAL GROUNDING TRANSFORMER
EX. CUB	EXCITER CUBICLE
S. TR	SATATION SERVICE TRANSFORMER
L. TR	LOCAL SERVICE TRANSFORMER
M. TR	MAIN TRANSFORMER
G	GENERATOR
1MCC	#1 MOTOR CONTROL CENTER
2MCC	#2 MOTOR CONTROL CENTER
CMCC	COMMON CONTROL CENTER

PROJECT : PREPARATORY SURVEY ON HYDROPOWER PLANTS REHABILITATION PROJECT BALUCHAUNG NO.1 HYDROPOWER PLANT			
TITLE : FLOOR PLAN OF CUBICLE ARRANGEMENT B1F EL. 788.900 (AFTER REHABILITATION)			
SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.BLC_011	VER. 01

FOR REFERENCE ONLY

**【LEGEND】**


Architectural floor plan of the 1000-ton rotor assembly building. The plan shows a large central area for the rotor assembly, flanked by an erection bay and a traverser rail. Below this are rooms including an entrance hall, store room, conference room, low tension cubicle room, battery room, and various electrical panels and batteries. Dimensions are provided for the overall building and specific sections.

**Dimensions:**

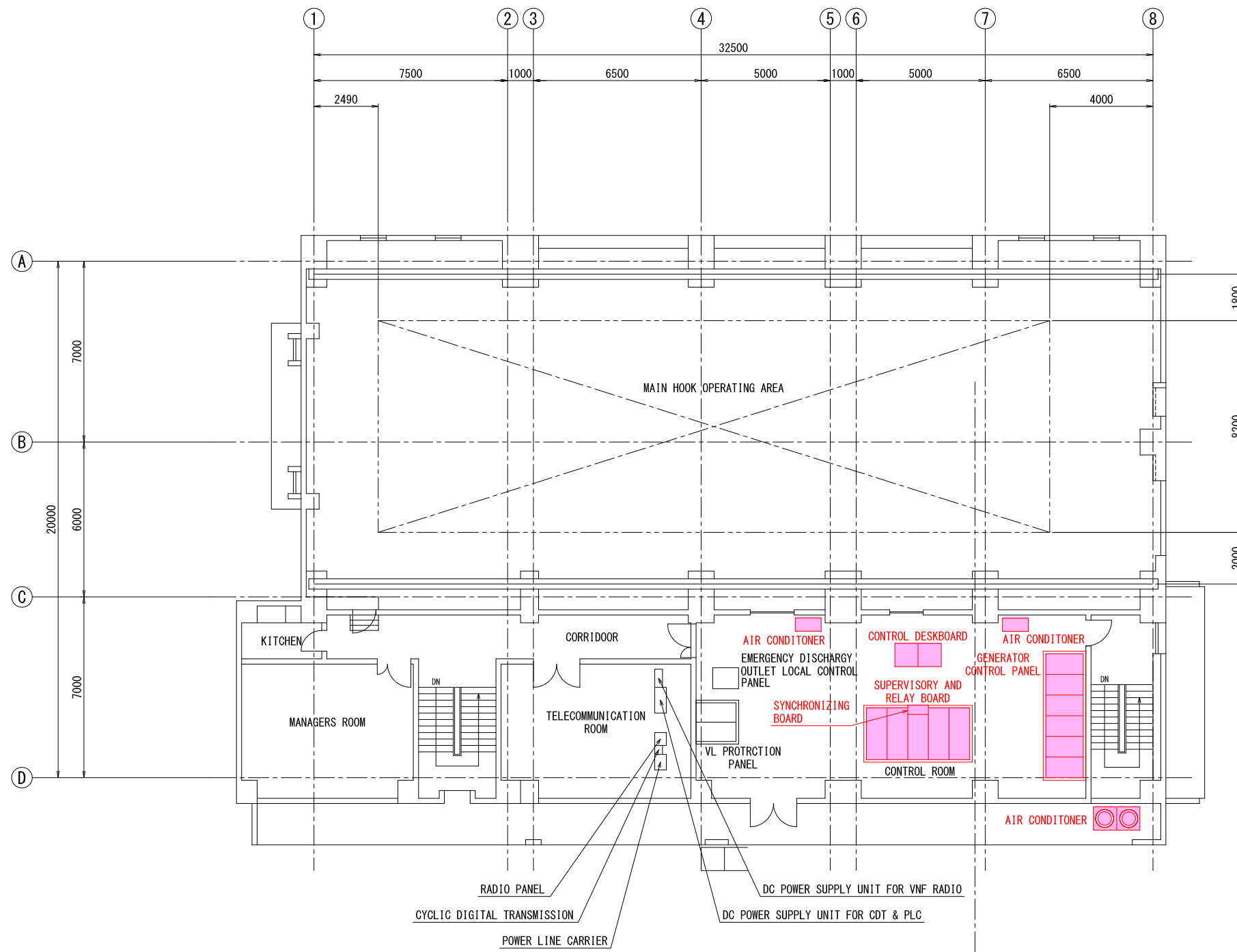
- Overall width: 32500
- Overall height: 20000
- Top section width segments: 7500, 1000, 6500, 5000, 1000, 5000, 6500
- Left section height segments: 7000, 6000, 7000

**Rooms and Features:**

- Top Section:** HOLE FOR ROTOR ASSEMBLY, ERECTION BAY, TRAVERSER RAIL.
- Bottom Section:** ENTRANCE HALL, STORE ROOM, CONFERENCE ROOM, LOW TENSION CUBICLE ROOM, BATTERY ROOM.
- Electrical Equipment:** BATTERY CHARGER, DC PANEL, AC PANEL, #2 S. TR, #1 S. TR, #2 BATTERIES, #1 BATTERIES.
- Other Features:** L.V. CUBICLE, DN (Down), UP (Up) stairs.

			
PROJECT :			
<p style="text-align: center;">PREPARATORY SURVEY ON HYDROPOWER PLANTS REHABILITATION PROJECT BALUCHAUNG NO.1 HYDROPOWER PLANT</p>			
TITLE			
<p style="text-align: center;">FLOOR PLAN OF EQUIPMENT ARRANGEMENT EL. 794.200 (AFTER REHABILITATION)</p>			
SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.BLC_012	VER. 01

FOR REFERENCE ONLY



< BEFORE REPLACEMENT WORK >

【LEGEND】

【REPLACEMENT AREA】

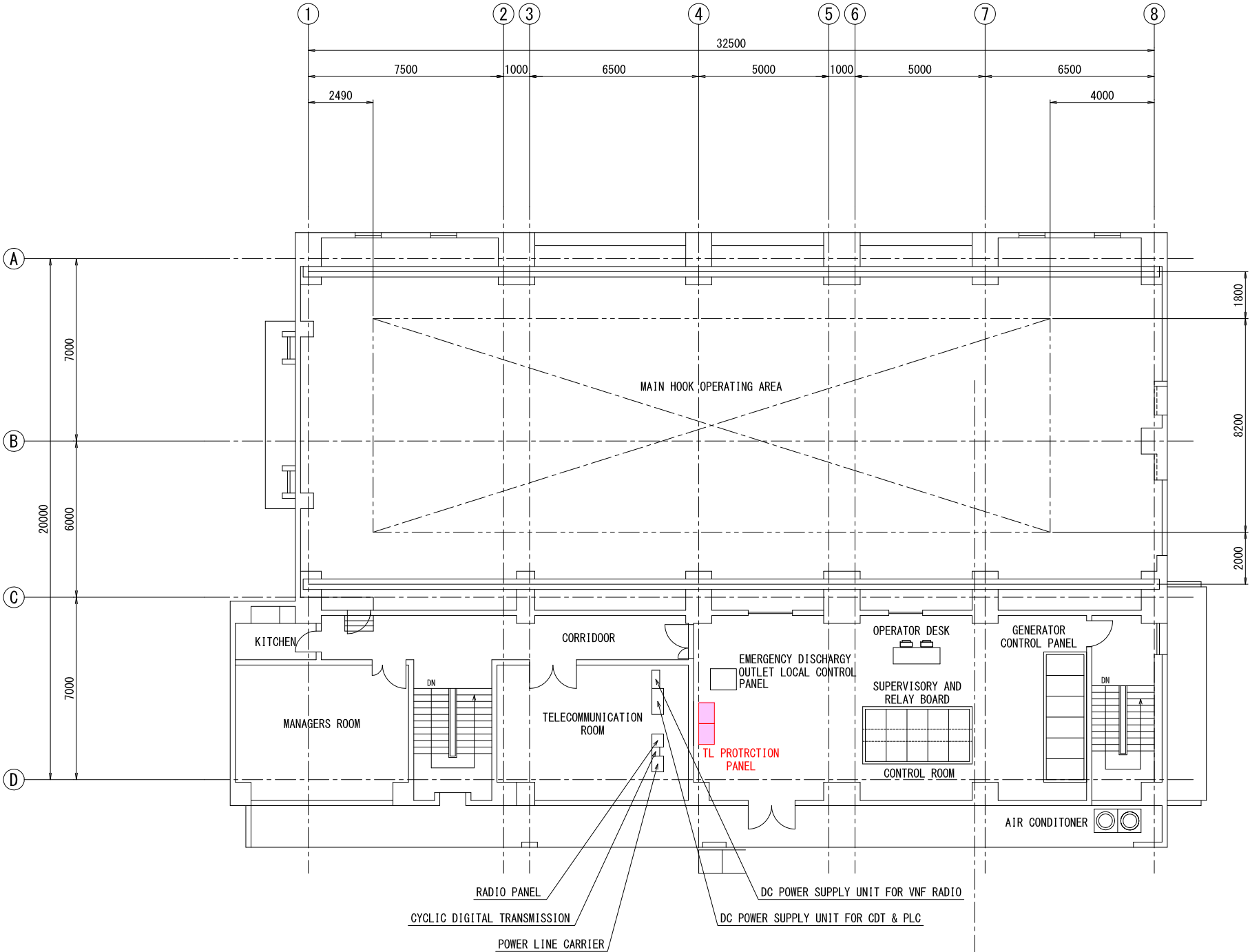
PROJECT : PREPARATORY SURVEY ON HYDROPOWER PLANTS REHABILITATION PROJECT BALUCHAUNG NO.1 HYDROPOWER PLANT			
TITLE FLOOR PLAN OF CONTROL AND PROTECTION EQUIPMENT ARRANGEMENT 3F EL. 801.900 (BEFORE REHABILITATION)			
SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.BLC_013	VER. 01

FOR REFERENCE ONLY

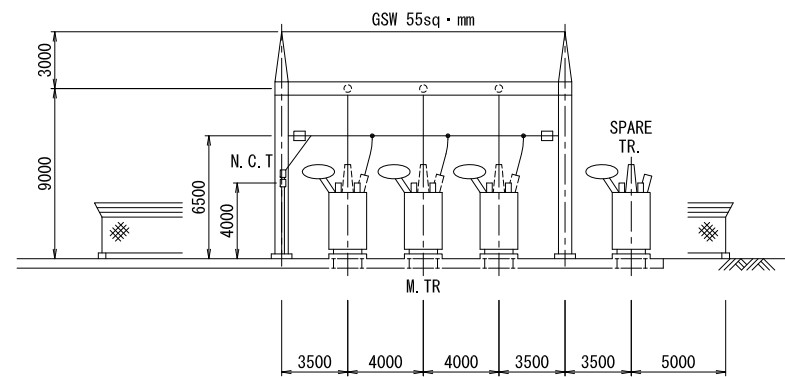
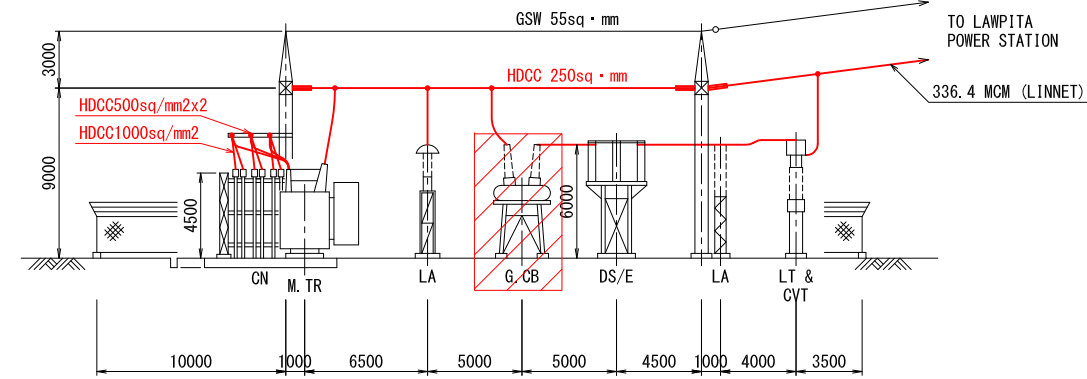
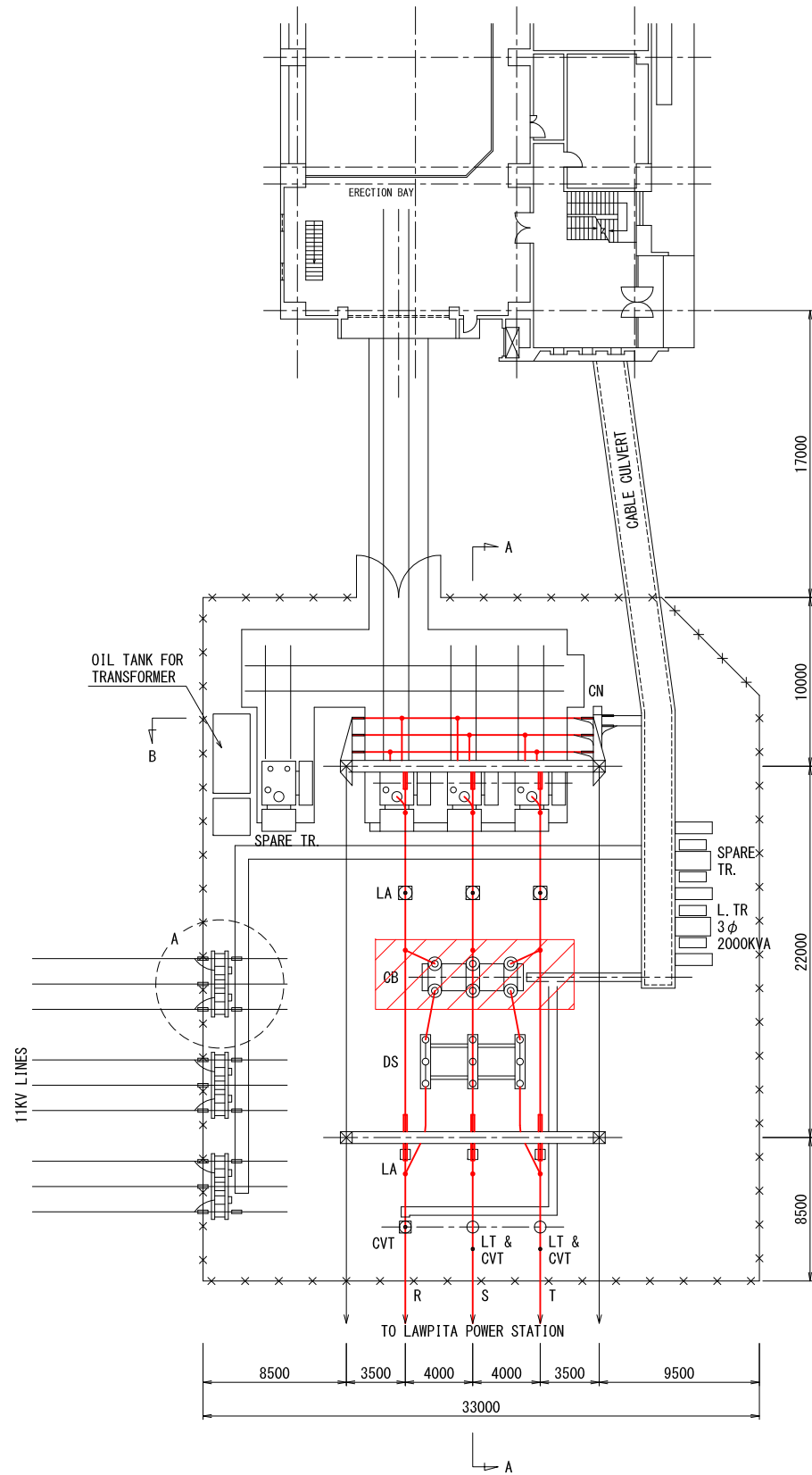
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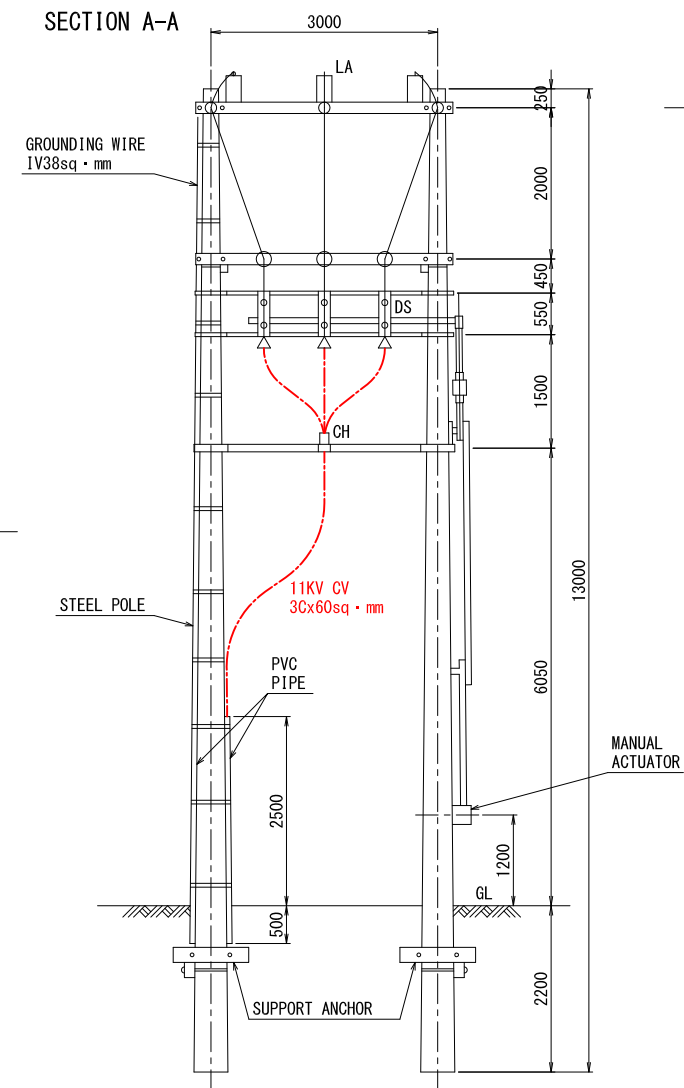
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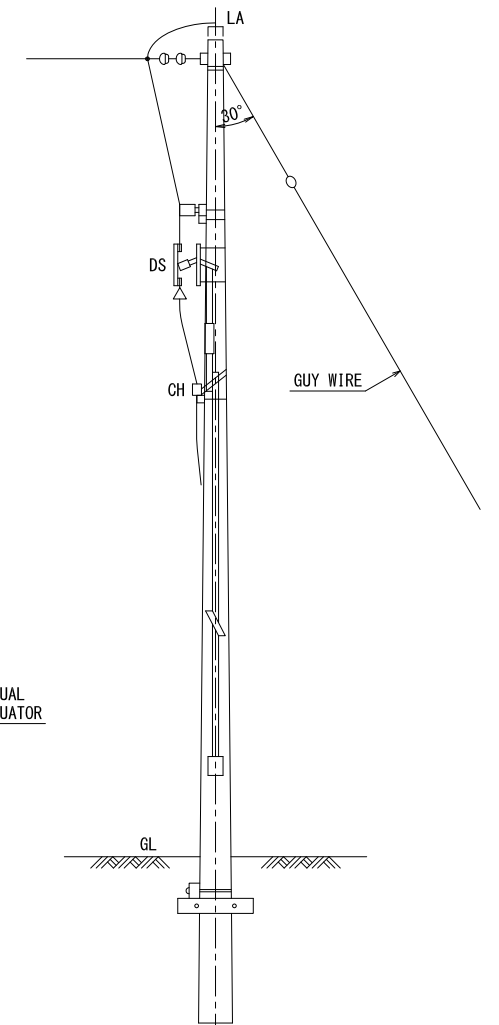
PROJECT : PREPARATORY SURVEY ON HYDROPOWER PLANTS REHABILITATION PROJECT BALUCHAUNG NO.1 HYDROPOWER PLANT			
TITLE : FLOOR PLAN OF CONTROL AND PROTECTION EQUIPMENT ARRANGEMENT 3F EL. 801.900 (AFTER REHABILITATION)			
SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.BLC_014	VER. 01



SECTION B-B




DETAIL-A



# < REPLACEMENT WORK >

【LEGEND】

【 : REPLACEMENT AREA】

			
PROJECT : PREPARATORY SURVEY ON HYDROPOWER PLANTS REHABILITATION PROJECT BALUCHAUNG NO.1 HYDROPOWER PLANT			
TITLE OUTDOOR ARRANGEMENT OF 132/11KV SWITCHYARD EQUIPMENT			
SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.BLC_015	VER. 01

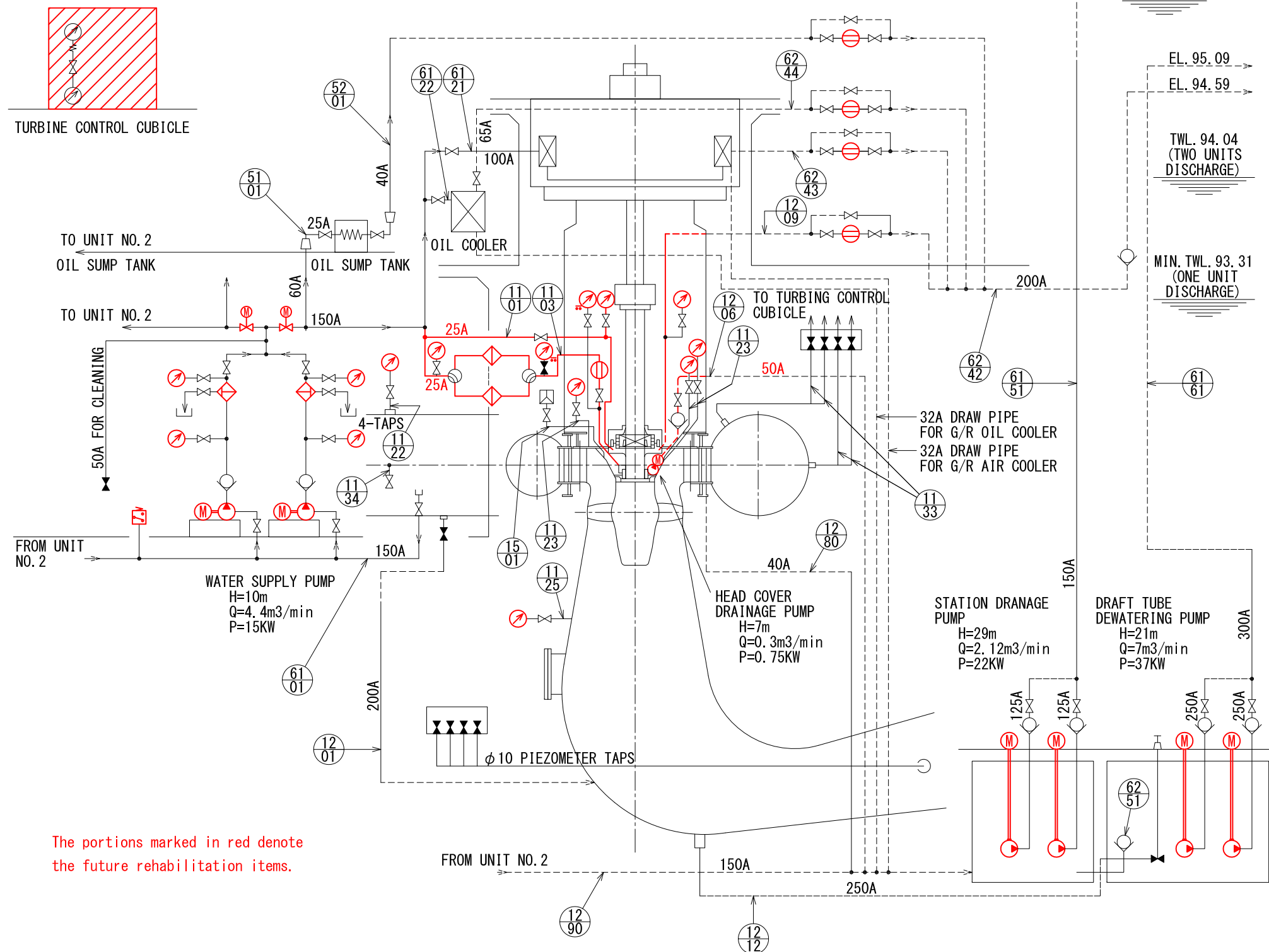
FOR REFERENCE ONLY

# SEDAWGYI HPP





SYMBOL	LEGND	SYMBOL	LEGND	SYMBOL	LEGND	SYMBOL	LEGND
	WATER SUPPLY PIPE		VALVE (NORMAL OPEN)		PRESS. SWITCH		PRESSURE GAUGE
	WATER DISCHARGE PIPE		VALVE (NORMAL CLOSE)		STRAINER (MANUAL)		PRESSURE GAUGE WITH ELECTRIC CONTACT
	AIR PIPE				STRAINER (FIXED)		MOTER
	JUNCTION OR BRANCH POINT				FLOW RELAY		PUMP
	REDUCER		AUTOMATIC VALVE (MOTOR OPERATED)				COOLER
	SELECTOR VALVE		CHECK VALVE		ANGLE VALVE		VACUUM BREAKER VALVE

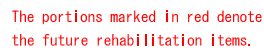


PIPENO	DESCRIPTION	SIZE & MATERIAL
11-01	GUIDE BEARING COOLING WATER SUPPLY PIPE	25A SGP
11-03	SHAFT SEALING BOX WATER SUPPLY PIPE	25A SGP
11-22	PIPE TO PRESSURE GAUGE FOR CASING	4-φ 10 SUS
11-23	PIPE TO PRESSURE GAUGE FOR HEAD COVER	3-φ 10 SUS
11-25	PIPE TO PRESSURE GAUGE FOR DRAFT TUBE	2-φ 10 SUS
11-33	PIPE FOR FLOWMETER	6-φ 10 SUS
11-34	PIPE FOR PRESSURE TIME METHOD	2-φ 10 SUS
12-01	SPIRAL CASE DRAIN PIPE	200A SGP
12-06	HEAD COVER DRAIN PIPE	2-50A SGP
12-09	DISCHARGE PIPE FOR GUIDE BEARING COOLING WATER	25A SGP
12-12	DRAFT TUBE DRAIN PIPE	250A SGP
12-80	STAYRING DRAIN PIPE	2-40A SGP
12-90	MAIN DRAIN PIPE	150A SGP
15-01	PIPE FOR VACUUM BREAKER VALVE	2-125A SGP
51-01	OIL SUMP TANK COOLING WATER SUPPLY PIPE	25A SGP 40A SGP
52-01	OIL SUMP TANK COOLING WATER DISCHARGE PIPE	25A SGP 40A SGP
61-01	MAIN WATER SUPPLY PIPE	150A SGP
61-21	WATER SUPPLY PIPE FOR G/R AIR COOLER	100A SGP
61-22	WATER SUPPLY PIPE FOR G/R OIL COOLER	65A SGP
61-51	DISCHARGE PIPE FOR STATION DRAINAGE PUMP	150A SGP
61-61	DISCHARGE PIPE FOR DRAFT TUBE DRAINAGE PUMP	250A SGP 300A SGP
62-42	MAIN WATER DISCHARGE PIPE	200A SGP
62-43	DISCHARGE PIPE FOR G/R AIR COOLER	100A SGP
62-44	DISCHARGE PIPE FOR G/R OIL COOLER	65A SGP
62-51	INTERCONNECTING PIPE BETWEEN TOW SUMPS	250A SGP

The portions marked in red denote the future rehabilitation items.

PROJECT : PREPARATORY SURVEY ON HYDROPOWER PLANTS REHABILITATION PROJECT SEDAWGYI HYDROPOWER PLANT			
TITLE : SCHEMATIC DIAGRAM FOR WATER PIPING			
SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.SDW_002	VER. 01

FOR REFERENCE ONLY



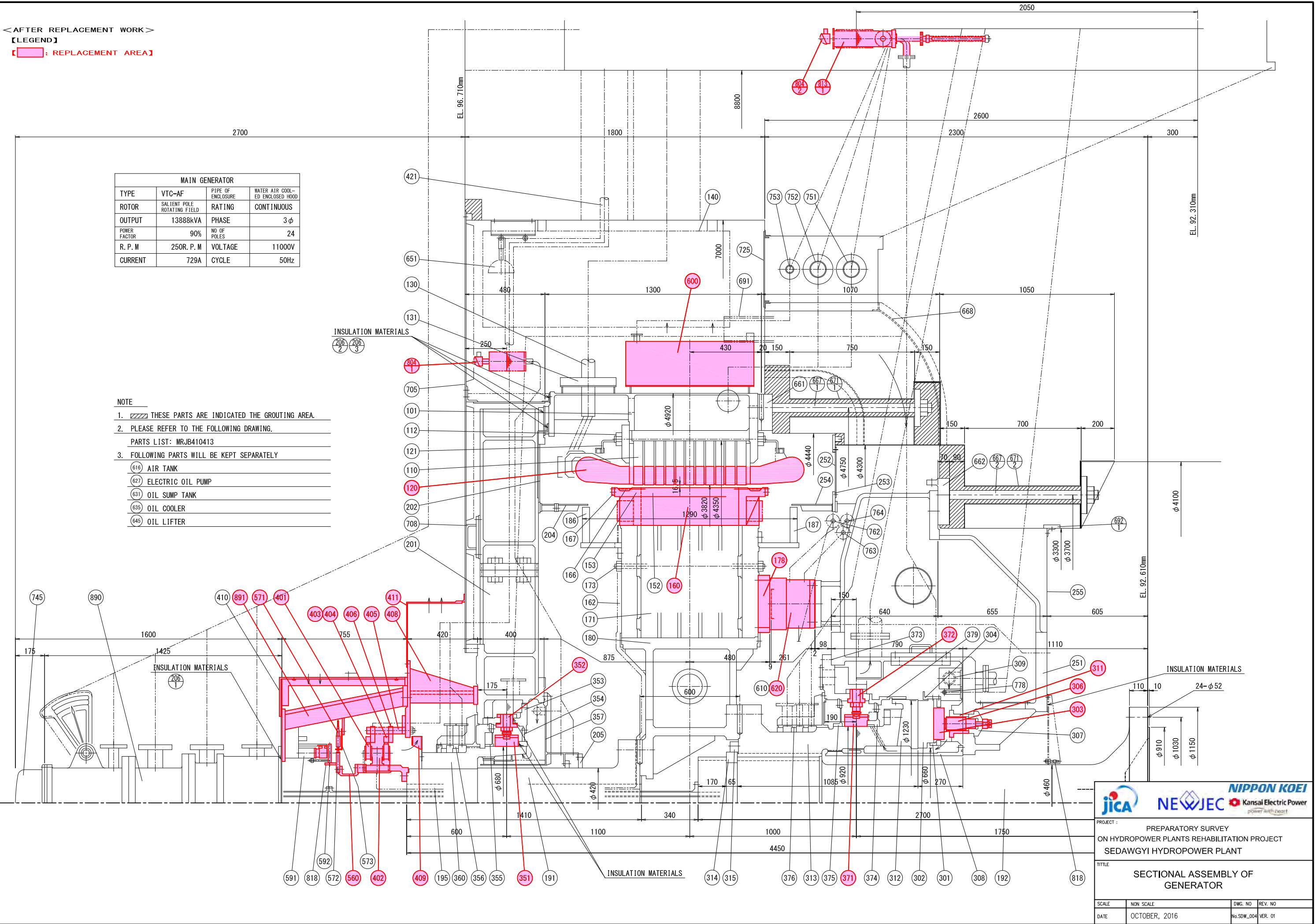
   **NIPPON KOEI**  
Kansai Electric Power  
power with heart

SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.SDW_003	VER. 01

<AFTER REPLACEMENT WORK>  
【LEGEND】  
[REPLACEMENT AREA]

MAIN GENERATOR			
TYPE	VTC-AF	PIPE OF ENCLOSURE	WATER AIR COOL-ED ENCLOSED HOOD
ROTOR	SALTENT POLE ROTATING FIELD	RATING	CONTINUOUS
OUTPUT	13888kVA	PHASE	3 φ
POWER FACTOR	90%	NO OF POLES	24
R. P. M	250R. P. M	VOLTAGE	11000V
CURRENT	729A	CYCLE	50Hz

- NOTE
- THESE PARTS ARE INDICATED THE GROUTING AREA.
  - PLEASE REFER TO THE FOLLOWING DRAWING.  
PARTS LIST: MRJB410413
  - FOLLOWING PARTS WILL BE KEPT SEPARATELY
- |     |                   |
|-----|-------------------|
| 616 | AIR TANK          |
| 627 | ELECTRIC OIL PUMP |
| 631 | OIL SUMP TANK     |
| 635 | OIL COOLER        |
| 645 | OIL LIFTER        |



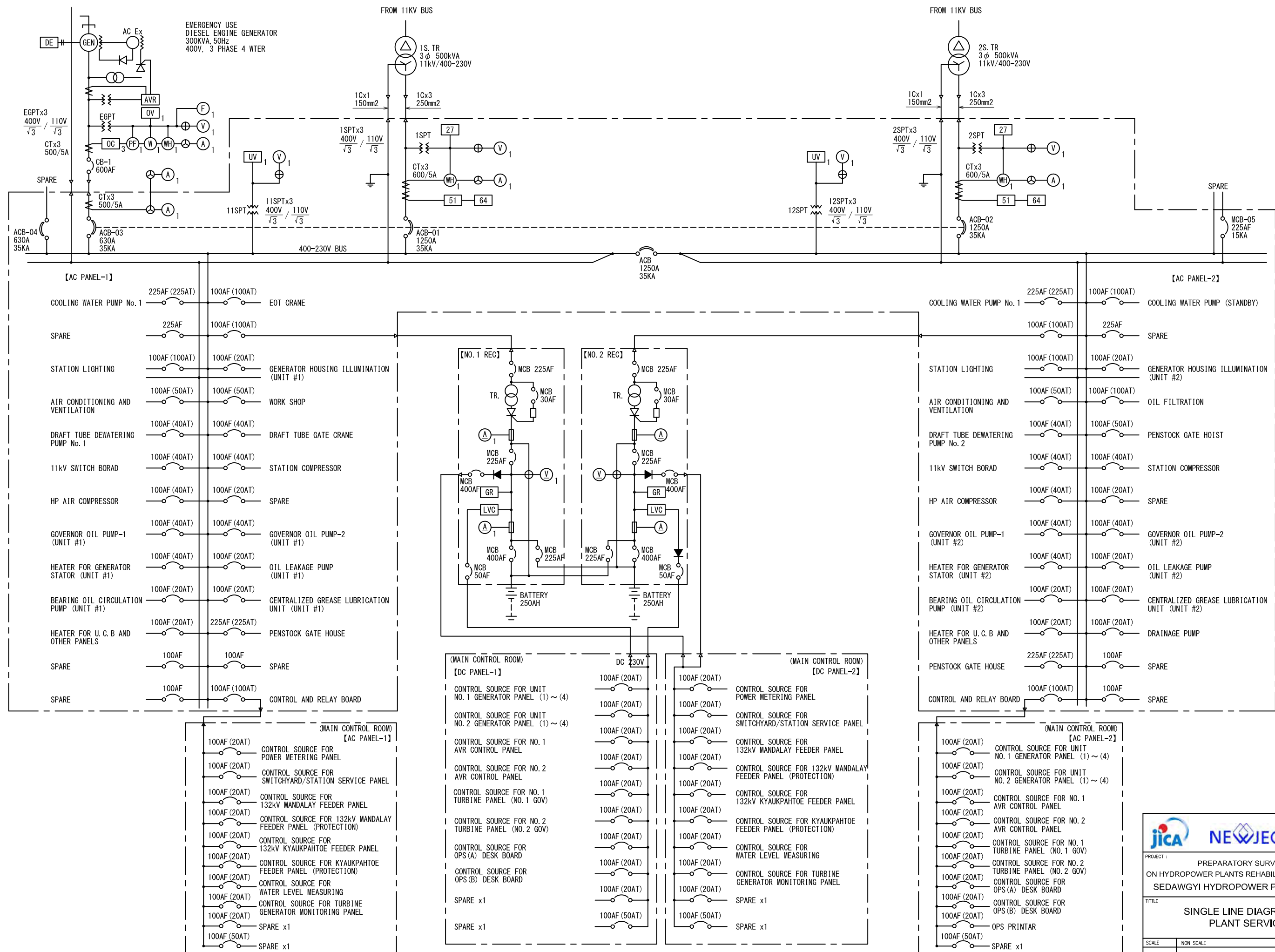
PROJECT : PREPARATORY SURVEY  
ON HYDROPOWER PLANTS REHABILITATION PROJECT  
SEDAGYI HYDROPOWER PLANT

TITLE : SECTIONAL ASSEMBLY OF GENERATOR

SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.SDW_004	VER. 01







PROJECT : PREPARATORY SURVEY ON HYDROPOWER PLANTS REHABILITATION PROJECT SEDAWGYI HYDROPOWER PLANT			
TITLE : SINGLE LINE DIAGRAM OF PLANT SERVICE			
SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.SDW_006	VER. 01

FOR REFERENCE ONLY

< BEFORE REPLACEMENT WORK >

【LEGEND】

【REPLACEMENT AREA】

LEGEND

- CABLE LADDERS  
CEILING OPENING

- GV11-GOVERNOR REGULATOR-UNIT-1
- GV12-GOVERNOR ACTUATOR-UNIT-1
- GV21-GOVERNOR REGULATOR-UNIT-2
- GV22-GOVERNOR ACTUATOR-UNIT-2
- WB11-LEAKAGE WATER DRAINAGE PUMPS PANEL FOR UNIT-1
- WB21-LEAKAGE WATER DRAINAGE PUMPS PANEL FOR UNIT-1
- AH-H. P. AIR COMPRESSOR PANEL
- AL-STATION AIR COMPRESSOR PANEL

REFERENCE DRGS :-

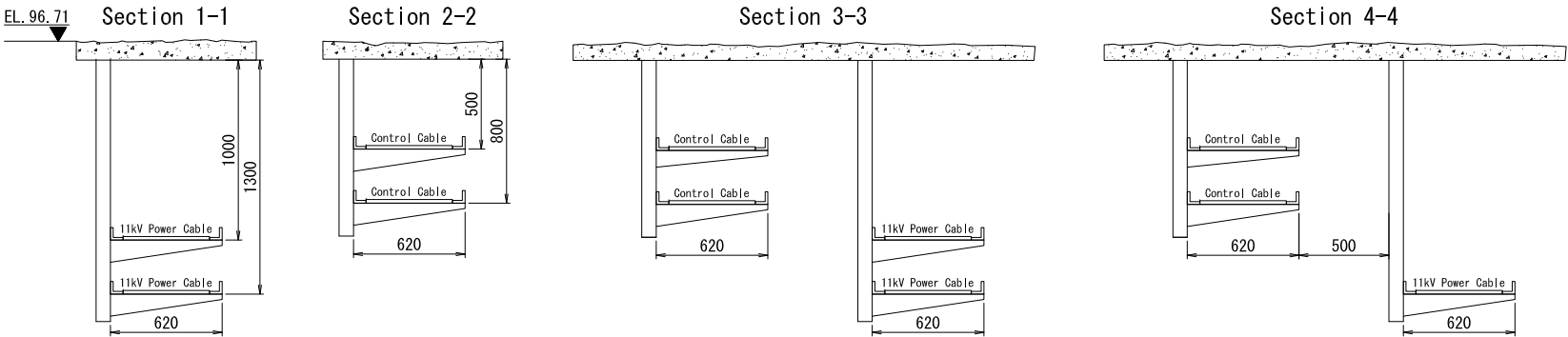
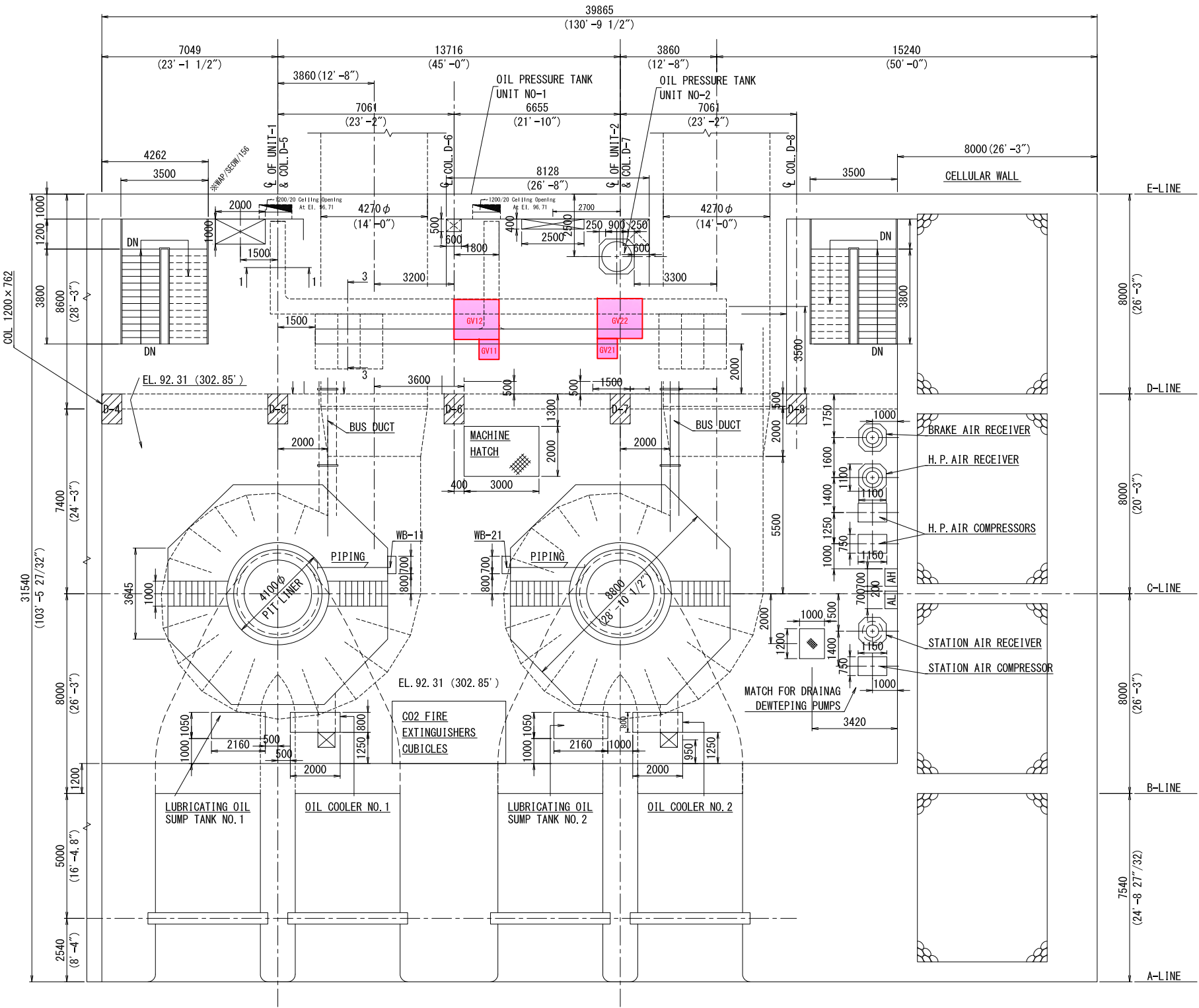
- DRG. NO. MG 5P 251885 "GOVERNOR REGULATOR (GV11) AND GOVERNOR ACTUATOR (GV12)"
- DRG. NO. MG 5P 251886 "GOVERNOR REGULATOR (GV21) AND GOVERNOR ACTUATOR (GV22)"
- DRG. NO. MG 5P 350788 "UNIT 1 LEAKAGE WATER DRAINAGE PUMPS PANEL (WB11)"
- DRG. NO. MG 5P 350789 "UNIT 2 LEAKAGE WATER DRAINAGE PUMPS PANEL (WB21)"
- DRG. NO. 5P 350787 "HP. AIR COMPRESSOR PANEL (AH)"
- DRG. NO. 60015048 "FOUNDATION LAY-OUT OF AIR TANK"
- DRG. NO. K-60015049 "FOUNDATION LAY-OUT OF AIR COMPRESSOR"
- DRG. NO. M-60015908 "FOUNDATION LAY-OUT OF PRESSURE OIL TANK"

LINKED DRGS :-

- DRG. NO. HTD-V/83-SED-1027-P-38 LAY-OUT PLAN OF POWER HOUSE AT EL. 86.11 (282.50')
- DRG. NO. HTD-V/83-SED-1027-P-40 LAY-OUT PLAN OF POWER HOUSE AT EL. 96.71 (317.29')

NOTES :-

- ALL DIMENSIONS ARE IN MM AND EL. IN METERS. WITH FEET CONVERSIONS GIVEN IN BRACKETS.
- THE DIMENSIONS OF STATION AIR COMPRESSOR, AIR RECEIVER AND CONTROL PANEL (AL) ARE SUBJECT TO CONFIRMATION



PROJECT : PREPARATORY SURVEY ON HYDROPOWER PLANTS REHABILITATION PROJECT SEDAGYI HYDROPOWER PLANT			
TITLE : FLOOR PLAN OF EQUIPMENT ARRANGEMENT B3F EL. 92.31 (BEFORE REHABILITATION)			
SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No. SDW_007	VER. 01

FOR REFERENCE ONLY

<AFTER REPLACEMENT WORK>

【LEGEND】

【REPLACEMENT AREA】

LEGEND

- CABLE LADDERS  
□ CEILING OPENING

1. GV11-GOVERNOR REGULATOR-UNIT-1
2. GV12-GOVERNOR ACTUATOR-UNIT-1
3. GV21-GOVERNOR REGULATOR-UNIT-2
4. GV22-GOVERNOR ACTUATOR-UNIT-2
5. WB11-LEAKAGE WATER DRAINAGE PUMPS PANEL FOR UNIT-1
6. WB21-LEAKAGE WATER DRAINAGE PUMPS PANEL FOR UNIT-1
7. AH-H. P. AIR COMPRESSOR PANEL
8. AL-STATION AIR COMPRESSOR PANEL

REFERENCE DRGS :-

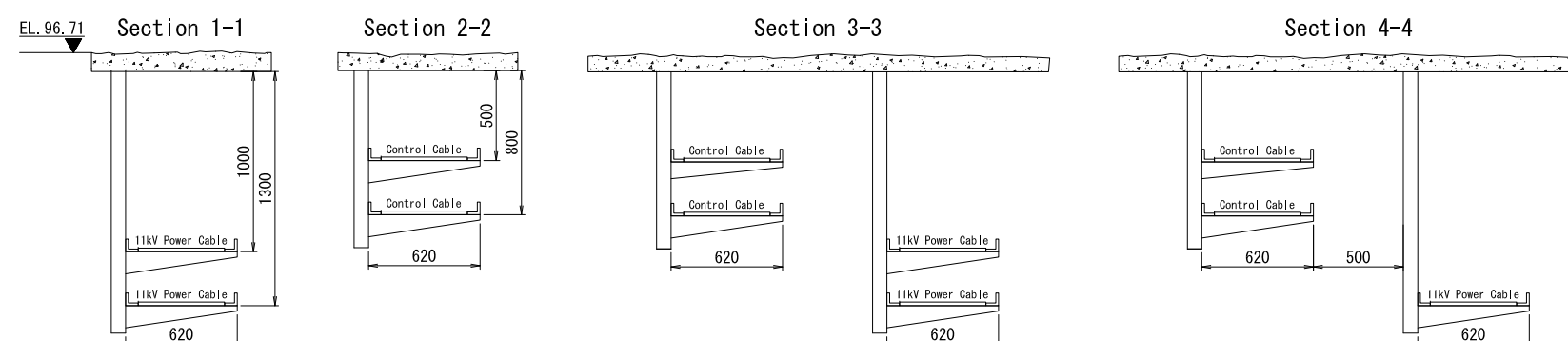
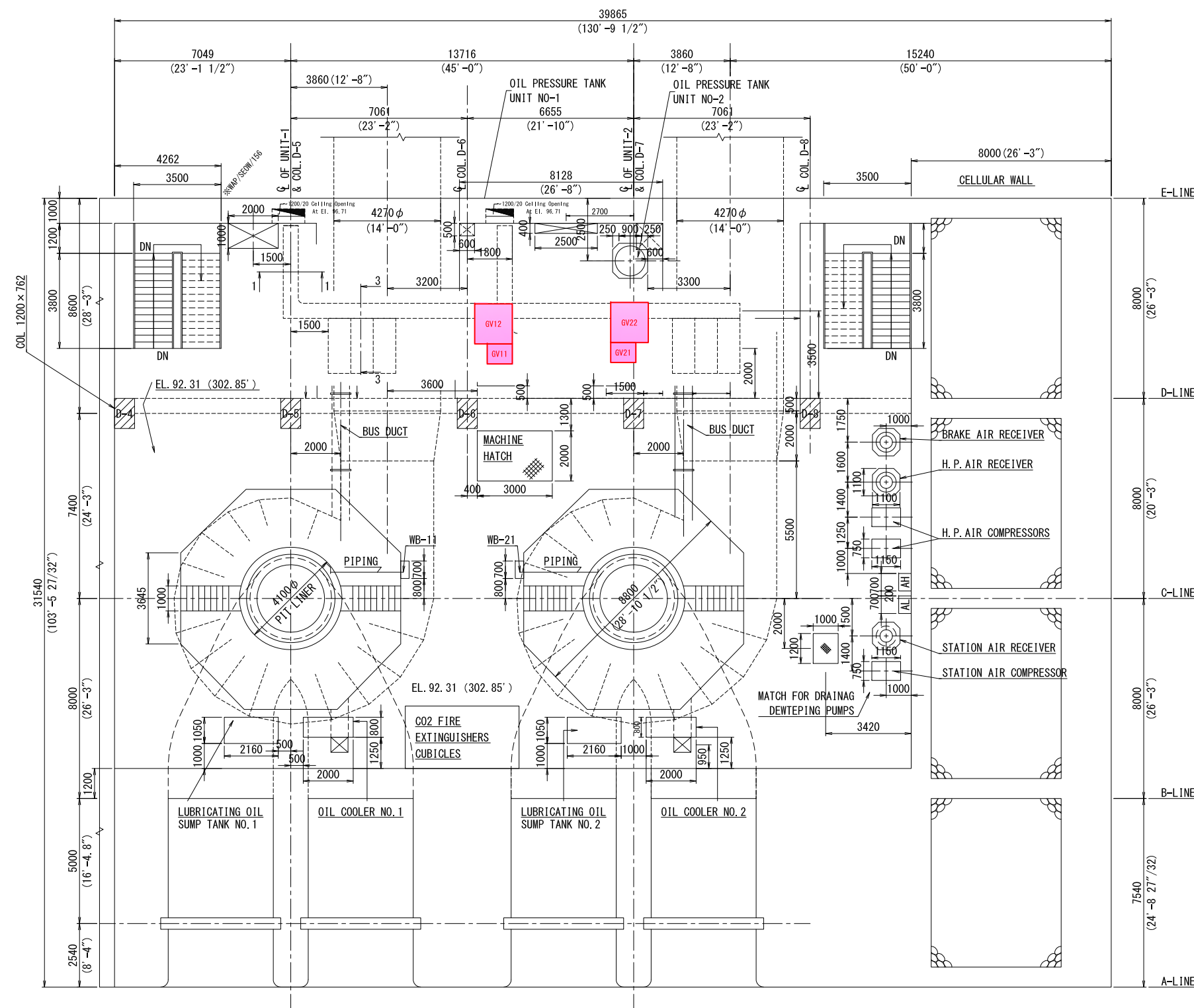
1. DRG. NO. MG 5P 251885 "GOVERNOR REGULATOR (GV11) AND GOVERNOR ACTUATOR (GV12)"
2. DRG. NO. MG 5P 251886 "GOVERNOR REGULATOR (GV21) AND GOVERNOR ACTUATOR (GV22)"
3. DRG. NO. MG 5P 350788 "UNIT 1 LEAKAGE WATER DRAINAGE PUMPS PANEL (WB11)"
4. DRG. NO. MG 5P 350789 "UNIT 2 LEAKAGE WATER DRAINAGE PUMPS PANEL (WB21)"
5. DRG. NO. 5P 350787 "HP. AIR COMPRESSOR PANEL (AH)"
6. DRG. NO. 60015048 "FOUNDATION LAY-OUT OF AIR TANK"
7. DRG. NO. K-60015049 "FOUNDATION LAY-OUT OF AIR COMPRESSOR"
8. DRG. NO. M-60015908 "FOUNDATION LAY-OUT OF PRESSURE OIL TANK"

LINKED DRGS :-

1. DRG. NO. HTD-V/83-SED-1027-P-38 LAY-OUT PLAN OF POWER HOUSE AT EL. 86.11 (282.50')
2. DRG. NO. HTD-V/83-SED-1027-P-40 LAY-OUT PLAN OF POWER HOUSE AT EL. 96.71 (317.29')

NOTES :-

1. ALL DIMENSIONS ARE IN MM AND EL. IN METERS. WITH FEET CONVERSIONS GIVEN IN BRACKETS.
2. THE DIMENSIONS OF STATION AIR COMPRESSOR, AIR RECEIVER AND CONTROL PANEL (AL) ARE SUBJECT TO CONFIRMATION



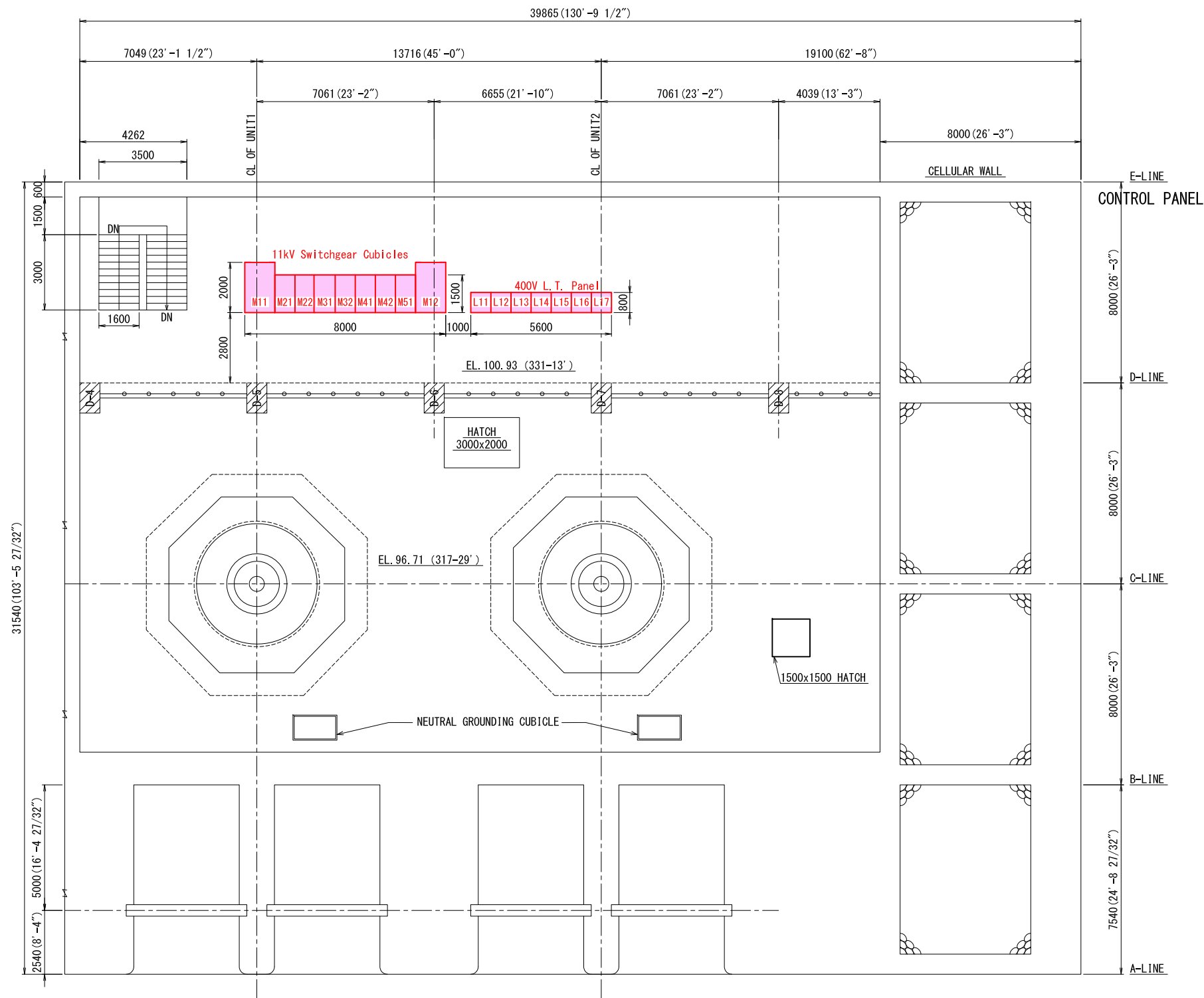
PROJECT : PREPARATORY SURVEY ON HYDROPOWER PLANTS REHABILITATION PROJECT SEDAWGYI HYDROPOWER PLANT			
TITLE : FLOOR PLAN OF CONTROL AND PROTECTION EQUIPMENT ARRANGEMENT B3F EL. 92.31 (AFTER REHABILITATION)			
SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No. SDW_008	VER. 01

FOR REFERENCE ONLY









## < AFTER REPLACEMENT WORK >

### 【LEGEND】

【REPLACEMENT AREA】

#### 11kV SWITCHGEAR CUBICLE

M11 : STATION SERVICE TRANSFORMER UNIT #1  
M12 : STATION SERVICE TRANSFORMER UNIT #2  
M21 : GENERATOR #1  
M22 : GENERATOR #2  
M31 : 11/11kV LOCAL TRANSFORMER OUTGOING  
M32 : 11/11kV LOCAL TRANSFORMER INCOMING  
M41 : 11kV DISTRIBUTION LINE TO IRRIGATION GATE  
M42 : 11kV DISTRIBUTION LINE TO LOCAL AREA  
M51 : VOLTAGE TRANSFORMER

#### LV SWITCHGEAR CUBICLE

L11 : AC CIRCUIT 1&2  
L12 : STATION SERVICE TRANSFORMER UNIT #1  
L13 : EMERGENCY DIESEL GENERATOR CIRCUIT  
L14 : BUS TIE CUBICLE  
L15 : STATION SERVICE TRANSFORMER UNIT #2  
L16 : AC CIRCUIT 3&4  
L17 : MAIN LIGHTING PANEL

#### NOTES

- ALL DIMENSIONS ARE IN MM AND EL. IN METRES WITH FEET CONVERSIONS GIVEN IN BRACKETS

#### REFERENCE DRWG.

NO. 216-SF-01.1008/1009 FLOOR FRAME & FLOOR OPENINGS FOR 11kV SWITCHGEAR CUBICLE  
400V L. T. PANELS & MAIN LIGHTING PANEL

#### LEGEND:

□ PANEL (SUPPLIER SAG)

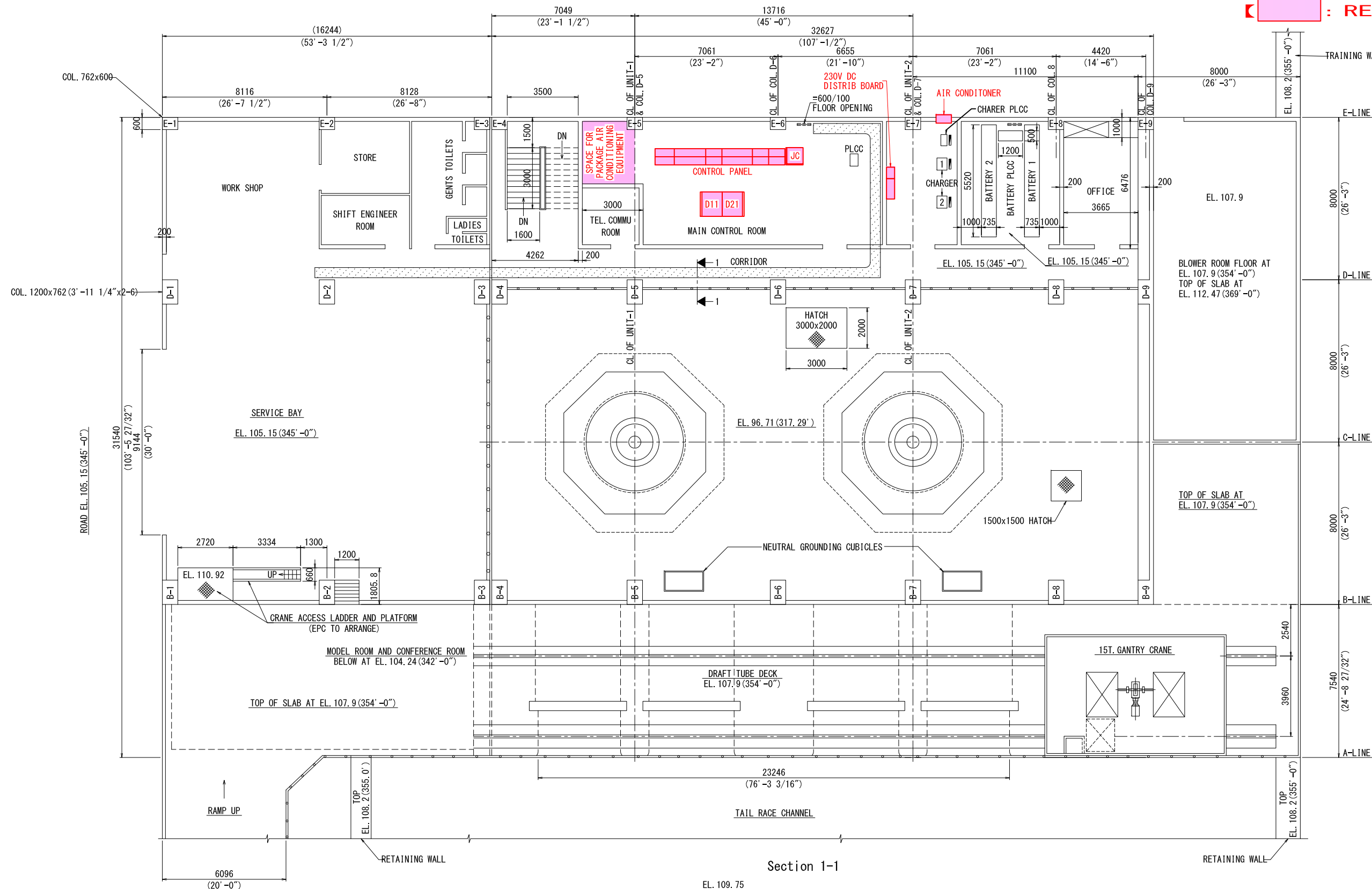
PROJECT : PREPARATORY SURVEY ON HYDROPOWER PLANTS REHABILITATION PROJECT SEDAWGYI HYDROPOWER PLANT			
TITLE : FLOOR PLAN OF EQUIPMENT ARRANGEMENT B1F EL. 100.93 (AFTER REHABILITATION)			
SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.SDW_011	VER. 01

FOR REFERENCE ONLY

< BEFORE REPLACEMENT WORK >

【LEGEND】

【REPLACEMENT AREA】



LEGEND:-

1. D11-UNIT-1 CONTROL DESK
2. D21-UNIT-2 CONTROL DESK
3. JC-UNIT JOINT CONTROL PANEL
4. CP-CONTROL PANEL
5. PLCC POWER LINE CARRIER COMMUNICATION EQUIPMENT

- PANEL, BOARD, BATTERY (SUPPLIER SAG)
- ▨ CABLE LADDER
- FLOOR & CEILING OPENING

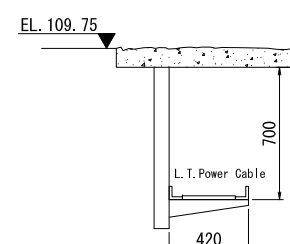
REFERENCE DRGS:-

1. DRG. NO. MG5P350782"UNIT NO. 1 CONTROL DESK D
2. DRG. NO. MG5P350782"UNIT NO. 2 CONTROL DESK D
3. DRG. NO. MG5P251882"UNIT JOINT CONTROL PANEL J
4. DRG. NO. MG5P251882"WATER LEVEL PANEL WL"
5. DRG. NO. GA-10002"DRAFT TUBE GATES AND GANT CRANE GENERAL ARRANGEMENT (2)
6. DRG. NO. 216-SE-01.1010/1011 FLOOR FRAME & FLOOR OPENING FOR CONTROL PANEL & 230V DC DISTRIBUTION BOARD

NOTES:-

1. ALL DIMENSIONS ARE IN MM AND ELEVATION IN MET WITH FEET CONVERSIONS SHOWN IN BRACKETS.
- 2.
3. THE EQUIPMENT OTHER THAN CONTROL DESK, UNIT JO CONTROL PANEL AND WATER LEVEL PANEL HAVE NO BEEN ORDERED THEIR DIMENSIONS ARE INDICATIVE ON

Section 1-1



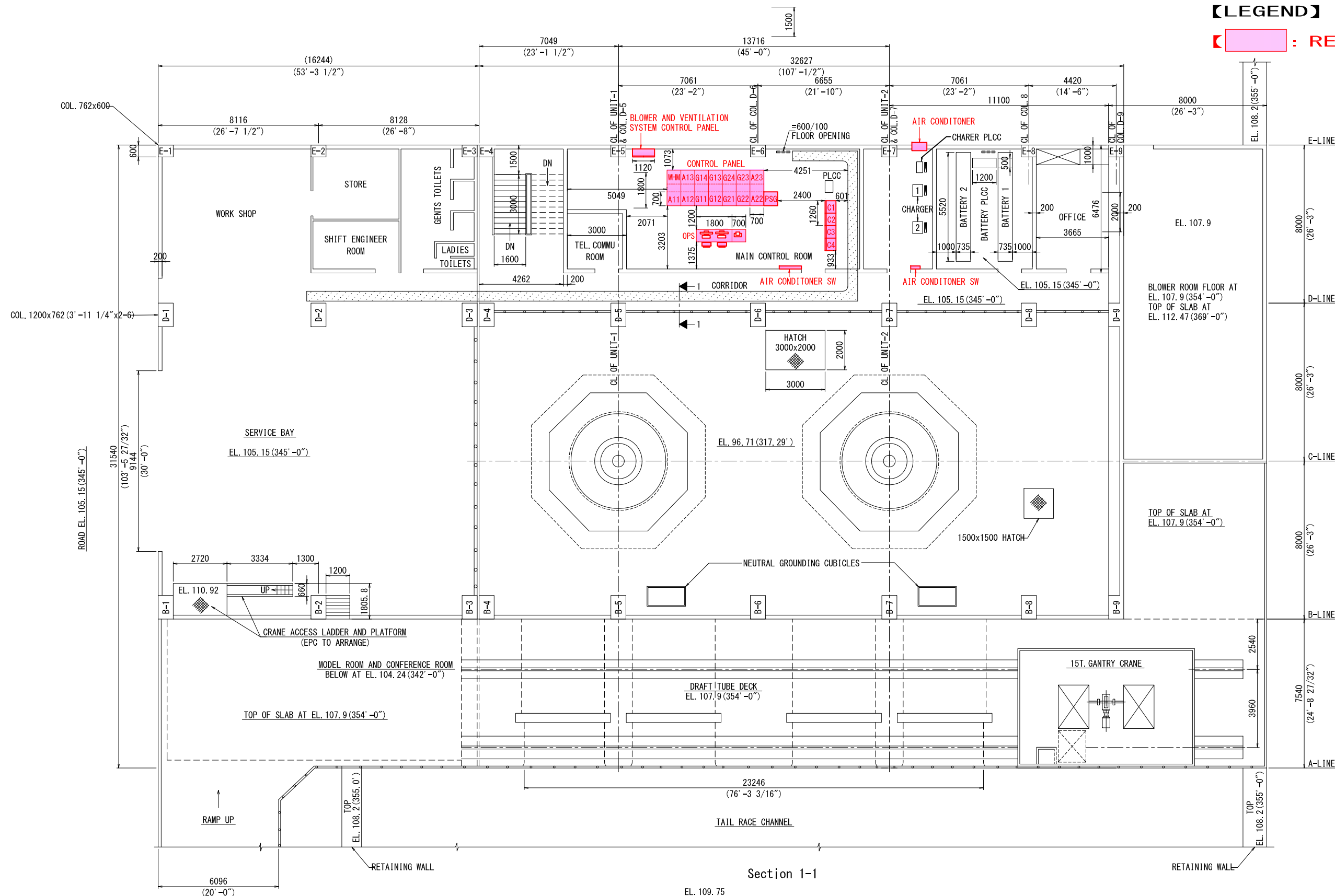
PROJECT : PREPARATORY SURVEY ON HYDROPOWER PLANTS REHABILITATION PROJECT SEDAWGYI HYDROPOWER PLANT			
TITLE : FLOOR PLAN OF EQUIPMENT ARRANGEMENT F1 EL. 105.15 & 107.90 (BEFORE REHABILITATION)			
SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.SDW_012	VER. 01

FOR REFERENCE ONLY

< AFTER REPLACEMENT WORK >

【LEGEND】

【REPLACEMENT AREA】



CONTROL PANEL

WHM : POWER METERING PANEL  
A11 : SWITCHYARD/STATION SERVICE PANEL  
A12 : 132kV MANDALAY FEEDER PANEL  
A13 : 132kV MANDALAY FEEDER PANEL (PROTECTION)  
A22 : 132kV KYAUKPAHTOE FEEDER PANEL  
A23 : 132kV KYAUKPAHTOE FEEDER PANEL (PROTECTION)  
G11 : No. 1 GENERATOR CONTROL PANEL (1)  
G12 : No. 1 GENERATOR CONTROL PANEL (2)  
G13 : No. 1 GENERATOR CONTROL PANEL (3)  
G14 : No. 1 GENERATOR CONTROL PANEL (4)  
G21 : No. 2 GENERATOR CONTROL PANEL (1)  
G22 : No. 2 GENERATOR CONTROL PANEL (2)  
G23 : No. 2 GENERATOR CONTROL PANEL (3)  
G24 : No. 2 GENERATOR CONTROL PANEL (4)  
PSG : WATER LEVEL MEASURING  
PC : TURBINE GENERATOR MONITORING PANEL  
C1 : DC PANEL (1)  
C2 : DC PANEL (2)  
C3 : AC PANEL (3)  
C4 : AC PANEL (4)

LEGEND:-

1. D11-UNIT-1 CONTROL DESK
2. D21-UNIT-2 CONTROL DESK
3. JC-UNIT JOINT CONTROL PANEL
- 4.
5. CP-CONTROL PANEL
6. PLCC POWER LINE CARRIER COMMUNICATION EQUIPMENT

- PANEL, BOARD, BATTERY (SUPPLIER SAG)
- ▨ CABLE LADDER
- FLOOR & CEILING OPENING

REFERENCE DRGS:-

1. DRG. NO. MG5P350782"UNIT NO. 1 CONTROL DESK D
2. DRG. NO. MG5P350782"UNIT NO. 2 CONTROL DESK D
3. DRG. NO. MG5P251882"UNIT JOINT CONTROL PANEL J
4. DRG. NO. MG5P251882"WATER LEVEL PANEL WL"
5. DRG. NO. GA-10002"DRAFT TUBE GATES AND GANT CRANE GENERAL ARRANGEMENT (2)
6. DRG. NO. 216-SE-01.1010/1011 FLOOR FRAME & FLOOR OPENING FOR CONTROL PANEL & 230V DC DISTRIBUTION BOARD

NOTES:-

1. ALL DIMENSIONS ARE IN MM AND ELEVATION IN MET WITH FEET CONVERSIONS SHOWN IN BRACKETS.
- 2.
3. THE EQUIPMENT OTHER THAN CONTROL DESK, UNIT JO CONTROL PANEL AND WATER LEVEL PANEL HAVE NO BEEN ORDERED THEIR DIMENSIONS ARE INDICATIVE ON

PROJECT : PREPARATORY SURVEY ON HYDROPOWER PLANTS REHABILITATION PROJECT SEDAWGYI HYDROPOWER PLANT			
TITLE FLOOR PLAN OF CONTROL AND PROTECTION EQUIPMENT ARRANGEMENT F1 EL. 105.15 & 107.90 (AFTER REHABILITATION)			
SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.SDW_013	VER. 01

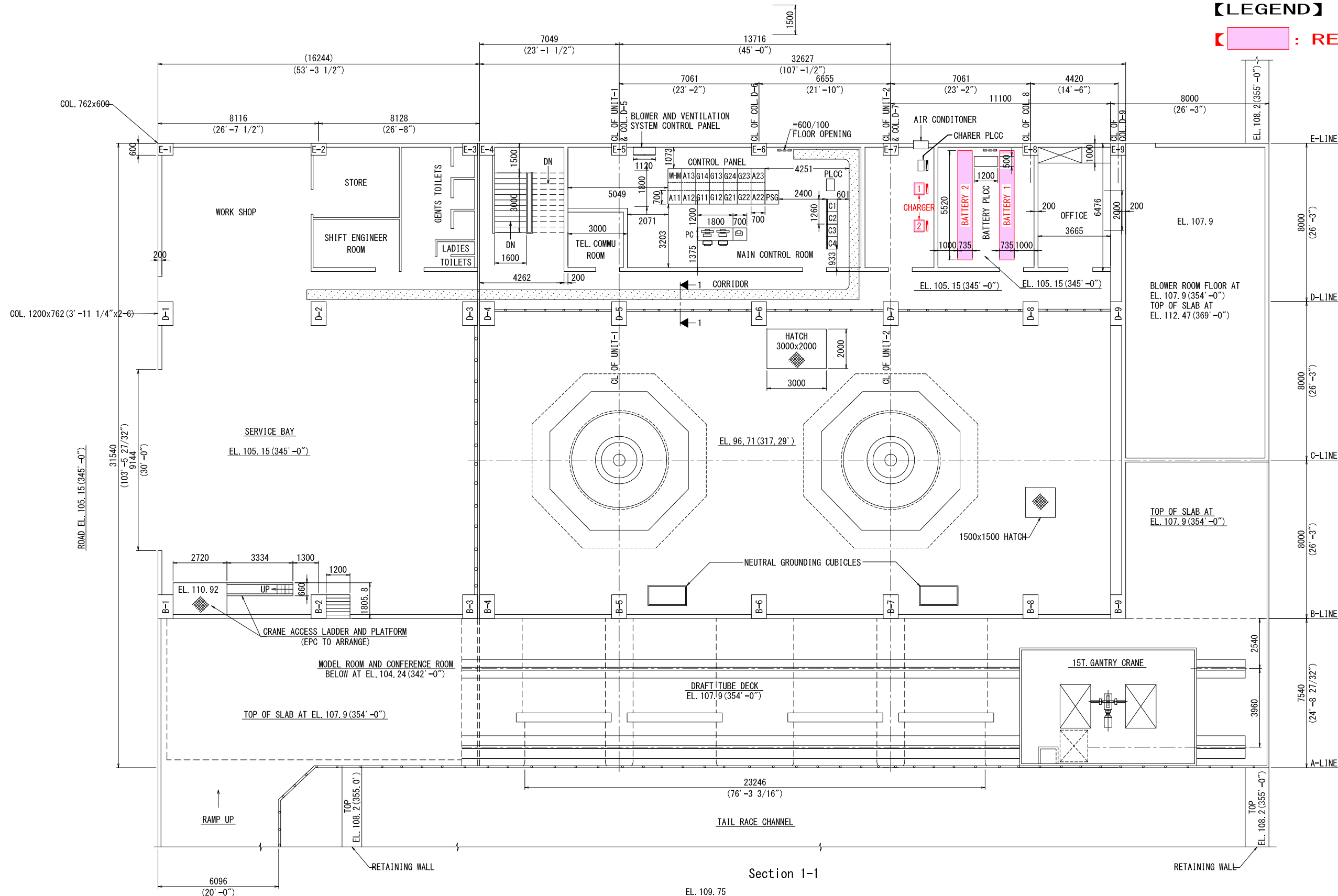
FOR REFERENCE ONLY



< AFTER REPLACEMENT WORK >

【LEGEND】

【REPLACEMENT AREA】



### CONTROL PANEL

WHM : POWER METERING PANEL  
A11 : SWITCHYARD/STATION SERVICE PANEL  
A12 : 132kV MANDALAY FEEDER PANEL  
A13 : 132kV MANDALAY FEEDER PANEL (PROTECTION)  
A22 : 132kV KYAUKPAHTOE FEEDER PANEL  
A23 : 132kV KYAUKPAHTOE FEEDER PANEL (PROTECTION)  
G11 : No. 1 GENERATOR CONTROL PANEL (1)  
G12 : No. 1 GENERATOR CONTROL PANEL (2)  
G13 : No. 1 GENERATOR CONTROL PANEL (3)  
G14 : No. 1 GENERATOR CONTROL PANEL (4)  
G21 : No. 2 GENERATOR CONTROL PANEL (1)  
G22 : No. 2 GENERATOR CONTROL PANEL (2)  
G23 : No. 2 GENERATOR CONTROL PANEL (3)  
G24 : No. 2 GENERATOR CONTROL PANEL (4)  
PSG : WATER LEVEL MEASURING  
PC : TURBINE GENERATOR MONITORING PANEL  
C1 : DC PANEL (1)  
C2 : DC PANEL (2)  
C4 : AC PANEL (3)  
C4 : AC PANEL (4)

### LEGEND

1. D11-UNIT-1 CONTROL DESK
2. D21-UNIT-2 CONTROL DESK
3. JC-UNIT JOINT CONTROL PANEL
4. CP-CONTROL PANEL
6. PLCC POWER LINE CARRIER COMMUNICATION EQUIPMENT

- PANEL, BOARD, BATTERY (SUPPLIER SAG)
- ▨ CABLE LADDER
- FLOOR & CEILING OPENING

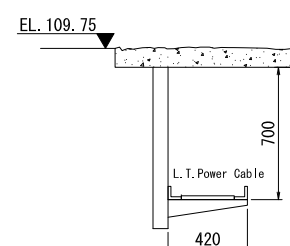
### REFERENCE DRGS:-

1. DRG. NO. MG5P350782"UNIT NO. 1 CONTROL DESK D
2. DRG. NO. MG5P350782"UNIT NO. 2 CONTROL DESK D
3. DRG. NO. MG5P251882"UNIT JOINT CONTROL PANEL J
4. DRG. NO. MG5P251882"WATER LEVEL PANEL WL"
5. DRG. NO. GA-10002"DRAFT TUBE GATES AND GANT CRANE GENERAL ARRANGEMENT (2)
6. DRG. NO. 216-SE-01.1010/1011 FLOOR FRAME & FLOOR OPENING FOR CONTROL PANEL & 230V DC DISTRIBUTION BOARD

### NOTES:-

1. ALL DIMENSIONS ARE IN MM AND ELEVATION IN MET WITH FEET CONVERSIONS SHOWN IN BRACKETS.
- 2.
3. THE EQUIPMENT OTHER THAN CONTROL DESK, UNIT JO CONTROL PANEL AND WATER LEVEL PANEL HAVE NO BEEN ORDERED THEIR DIMENSIONS ARE INDICATIVE ON

### Section 1-1



PROJECT : PREPARATORY SURVEY ON HYDROPOWER PLANTS REHABILITATION PROJECT SEDAWGYI HYDROPOWER PLANT			
TITLE : FLOOR PLAN OF EQUIPMENT ARRANGEMENT F1 EL. 105.15 & 107.90 (AFTER REHABILITATION)			
SCALE	NON SCALE	DWG. NO	REV. NO
DATE	OCTOBER, 2016	No.SDW_014	VER. 01

FOR REFERENCE ONLY









