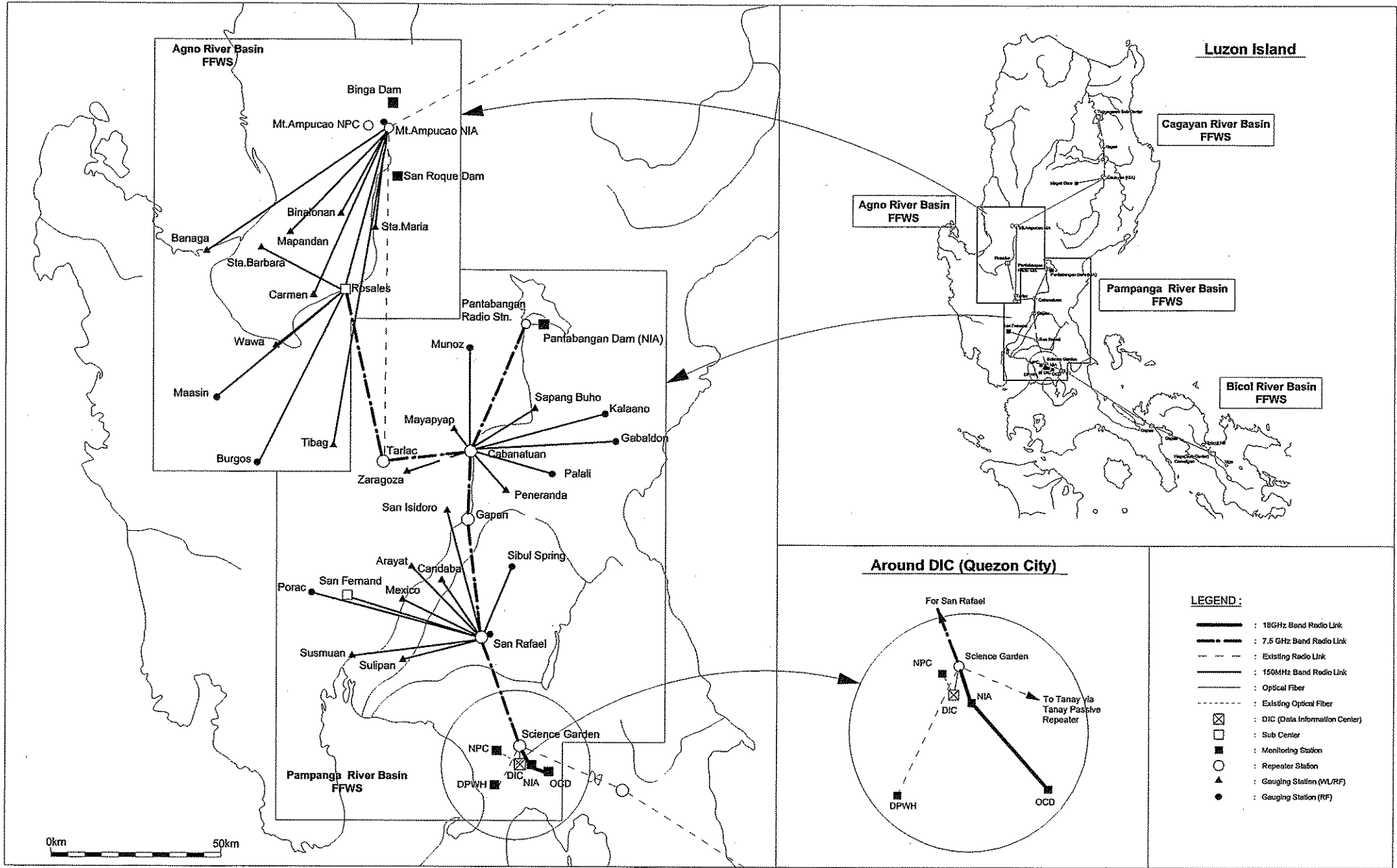


Appendix 8

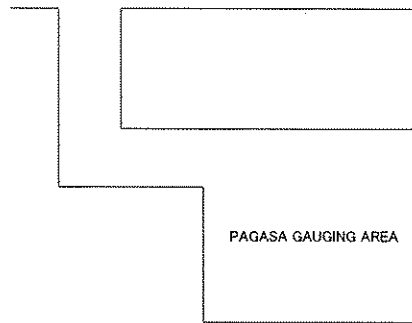
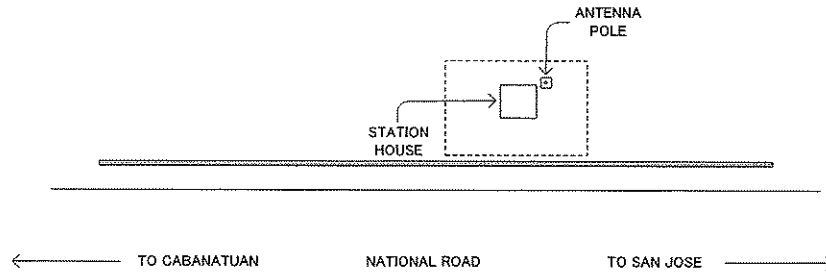
Basic Design Drawings

THE PROJECT FOR UPGRADING OF FLOOD FORECASTING AND WARNING SYSTEM IN THE PAMPANGA AND AGNO RIVER AND BASINS
BASIC DESIGN DRAWING LIST (TELECOMMUNICATION WORKS)

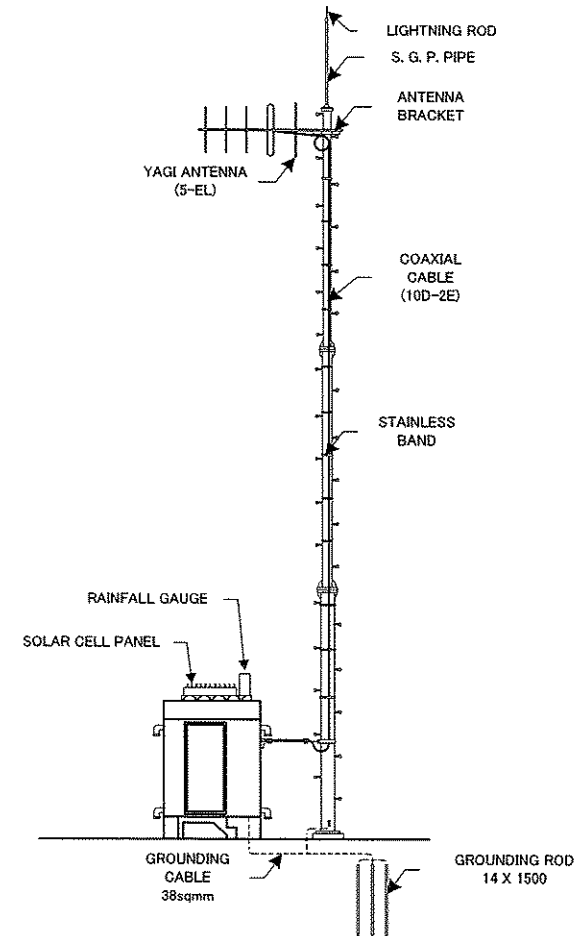
No.	Drawing No.	Title	No.	Drawing No.	Title	No.	Drawing No.	Title
1	T-1	PROJECT NETWORK AND LAYOUT PLAN	24	T-PM-M2	PAMPANGA SUB CENTER (SAN FERNANDO)	47	T-AG-M1	AGNO SUB CENTER (ROSALES)
2	T-PM-G1	MUNOZ RAIN GAUGE STATION SITE LAYOUT	25	T-PM-M3	OCD MONITORING STATION SITE LAYOUT PLAN	48	T-AG-R1	TARLAC REPEATER STATION SITE LAYOUT PLAN
3	T-PM-G2	MUNOZ RAIN GAUGE STATION EQUIPMENT LAYOUT PLAN	26	T-PM-M4	DPWH MONITORING STATION SITE LAYOUT PLAN			
4	T-PM-G3	SAPANG BUHO RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT	27	T-PM-M5	NPC HEADQUARTER SITE LAYOUT PLAN			
5	T-PM-G4	SAPANG BUHO RAIN GAUGE AND WATER LEVEL GAUGE STATION EQUIPMENT LAYOUT PLAN	28	T-PM-M6	NIA FFWS CENTER SITE LAYOUT PLAN			
6	T-PM-G5	MAYAPYAP RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT PLAN	29	T-PM-M7	PANTABANGAN DAM FFWS OFFICE SITE LAYOUT PLAN			
7	T-PM-G6	GABALDON RAIN GAUGE STATION SITE LAYOUT	30	T-PM-M8	SAN ROQUE DAM MANAGEMENT OFFICE SITE LAYOUT PLAN			
8	T-PM-G7	GABALDON RAIN GAUGE STATION EQUIPMENT LAYOUT PLAN	31	T-PM-M9	BINGA DAM FFWS OFFICE SITE LAYOUT PLAN			
9	T-PM-G8	ZARAGOSA RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT PLAN	32	T-PM-R1	SCIENCE GARDEN RADIO STATION SITE LAYOUT PLAN			
10	T-PM-G9	PENARANDA RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT PLAN	33	T-PM-R2	SAN RAFAEL GARDEN RADIO STATION SITE LAYOUT PLAN			
11	T-PM-G10	SAN ISIDRO RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT PLAN	34	T-PM-R3	GAPAN REPEATER STATION SITE LAYOUT PLAN			
12	T-PM-G11	CANDABA RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT PLAN	35	T-PM-R4	CABAMATUAN REPEATER STATION SITE LAYOUT PLAN			
13	T-PM-G12	ARAYAT RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT PLAN	36	T-AG-G1	Mt. AMPUCAO RAIN GAUGE AND REPEATER STATION SITE LAYOUT PLAN			
14	T-PM-G13	SIBUL SPRING RAIN GAUGE STATION SITE LAYOUT	37	T-AG-G2	STA. MARIA RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT PLAN			
15	T-PM-G14	SIBUL SPRING RAIN GAUGE STATION EQUIPMENT LAYOUT PLAN	38	T-AG-G3	STA. BARBARA RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT PLAN			
16	T-PM-G15	SASNUAN RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT PLAN	39	T-AG-G4	BAÑAGA RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT			
17	T-PM-G16	SULIPAN RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT	40	T-AG-G5	CARMEN RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT PLAN			
18	T-PM-G17	SULIPAN RAIN GAUGE AND WATER LEVEL GAUGE STATION EQUIPMENT LAYOUT PLAN	41	T-AG-G6	WAWA RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT PLAN			
19	T-PM-G18	MEXICO RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT PLAN	42	T-AG-G7	TIBAG RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT PLAN			
20	T-PM-G19	KALAAANON RAIN GAUGE STATION SITE LAYOUT PLAN	43	T-AG-G8	MAPANDAN RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT PLAN			
21	T-PM-G20	PALALI RAIN GAUGE STATION SITE LAYOUT PLAN	44	T-AG-G9	BINARONAN RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT PLAN			
22	T-PM-G21	PORAC RAIN GAUGE STATION SITE LAYOUT PLAN	45	T-AG-G10	MAASIN RAIN GAUGE STATION SITE LAYOUT PLAN			
23	T-PM-M1	PAGASA DIC EQUIPMENT AND SITE LAYOUT PLAN	46	T-AG-G11	BURGOS RAIN GAUGE STATION SITE LAYOUT PLAN			



CLSU



VICINITY MAP
SCALE : NTS



JAPAN INTERNATIONAL COOPERATION AGENCY

PROJECT&LOCATION

UPGRADING OF FLOOD FORECASTING AND WARNING SYSTEM IN THE PAMPANGA AND AGNO RIVER BASINS

SHEET CONTENTS

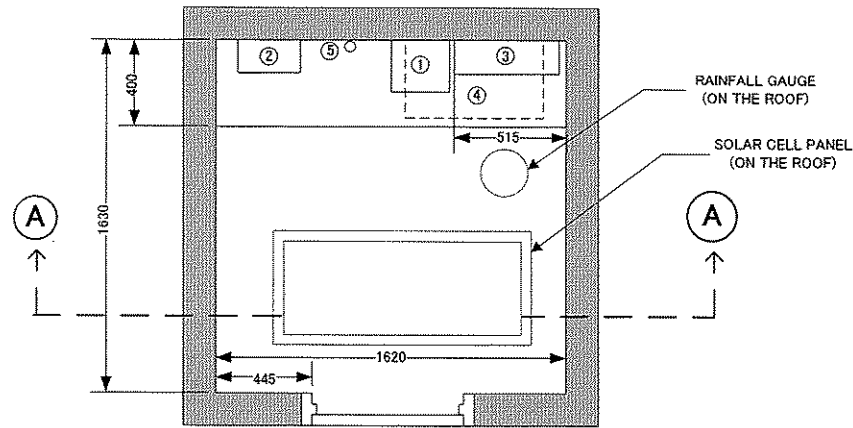
MUNOZ RAIN GAUGE STATION SITE LAYOUT

SET

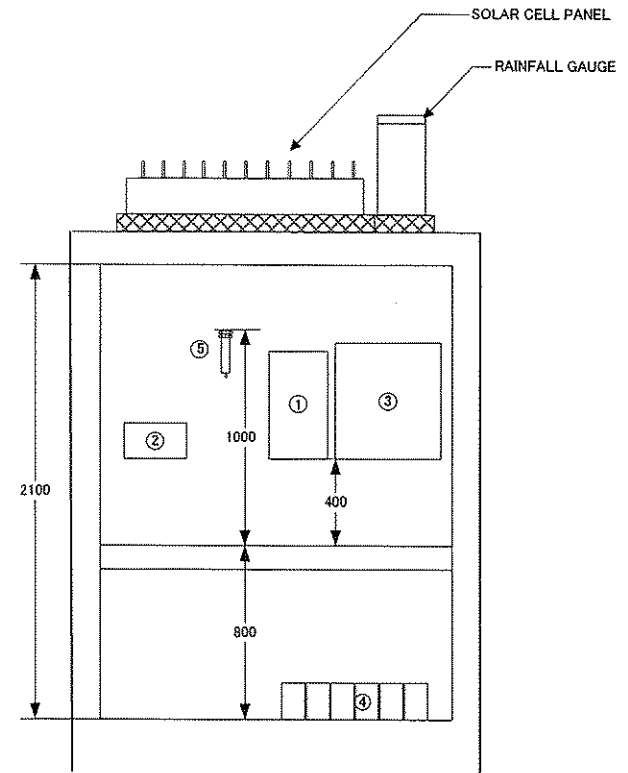
T-PM-G1

SHT.NO.

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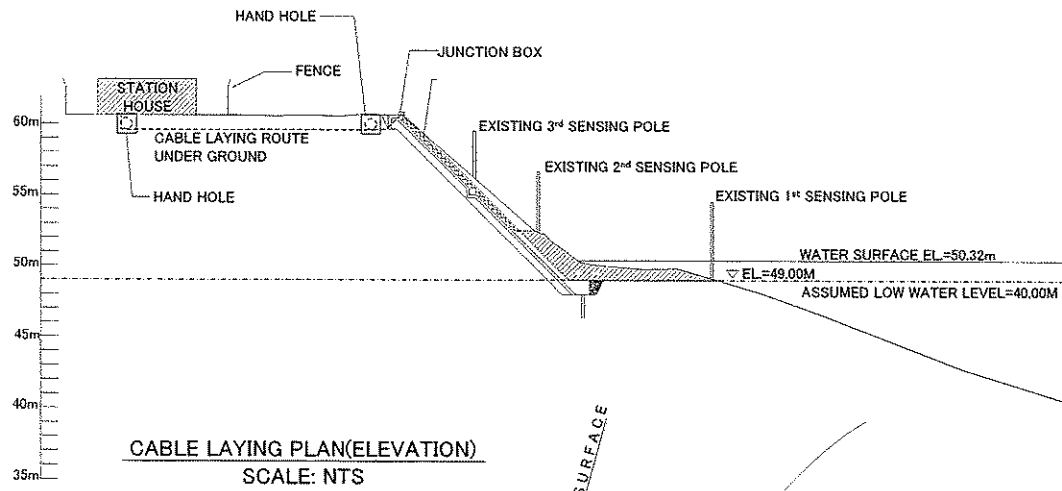
EQUIPMENT LAYOUT
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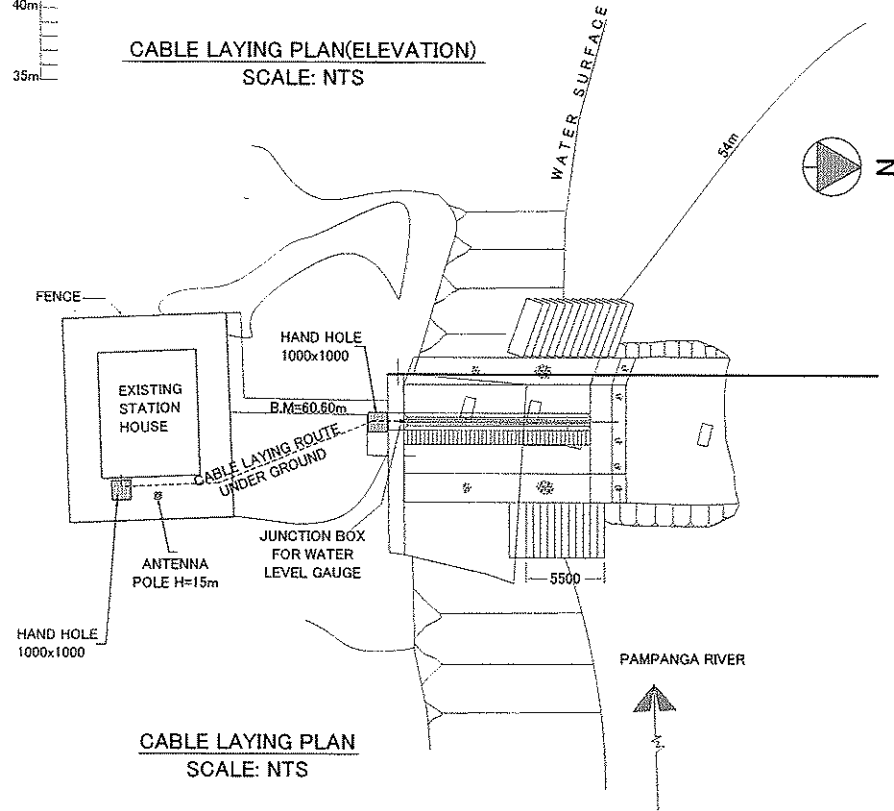
ELEVATION: A - A
SCALE: NTS

LEGEND:

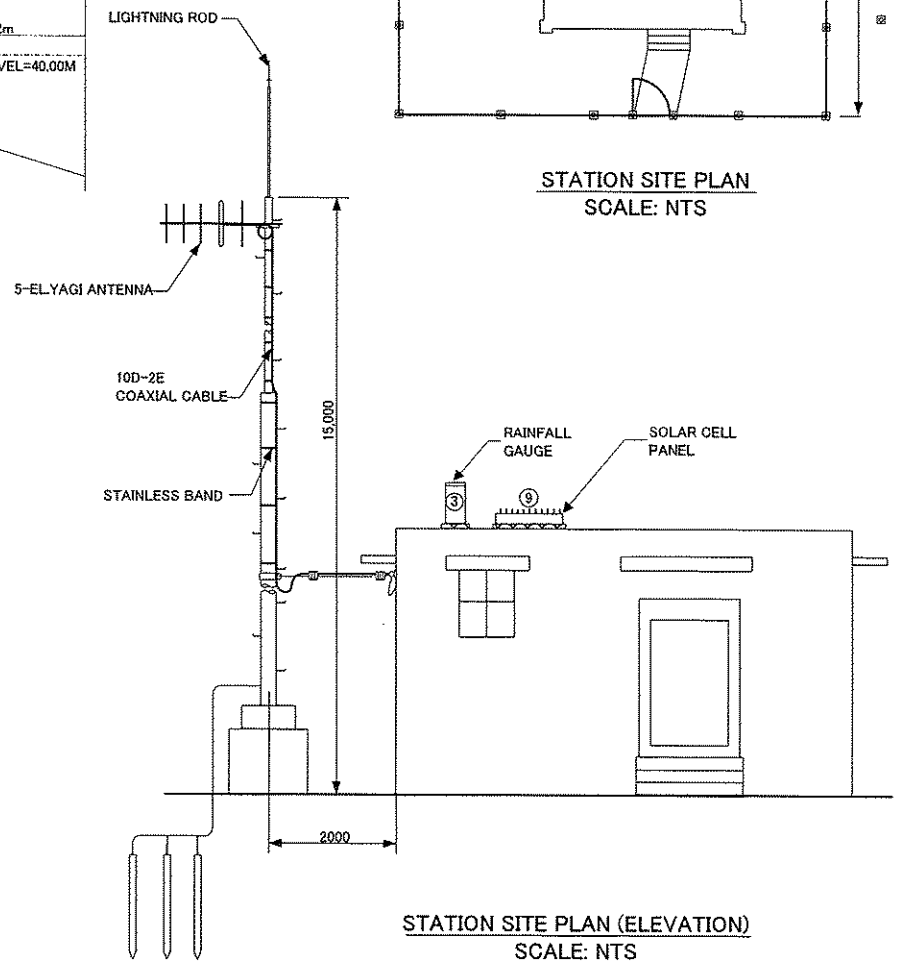
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2. DIGITAL DATA MEMORY EQUIPMENT
3. POWER DISTRIBUTION BOARD
4. STORAGE BATTERY
5. COAXIAL ARRESTER



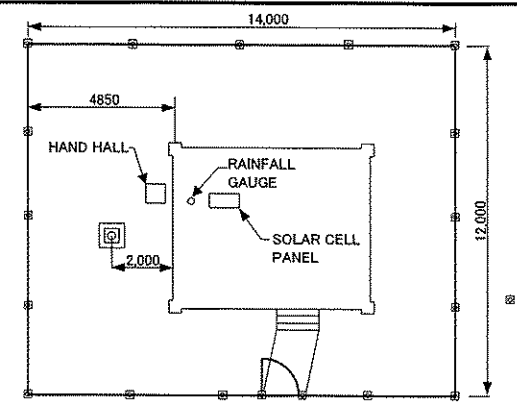
CABLE LAYING PLAN(ELEVATION)
SCALE: NTS



CABLE LAYING PLAN
SCALE: NTS



STATION SITE PLAN (ELEVATION)
SCALE: NTS

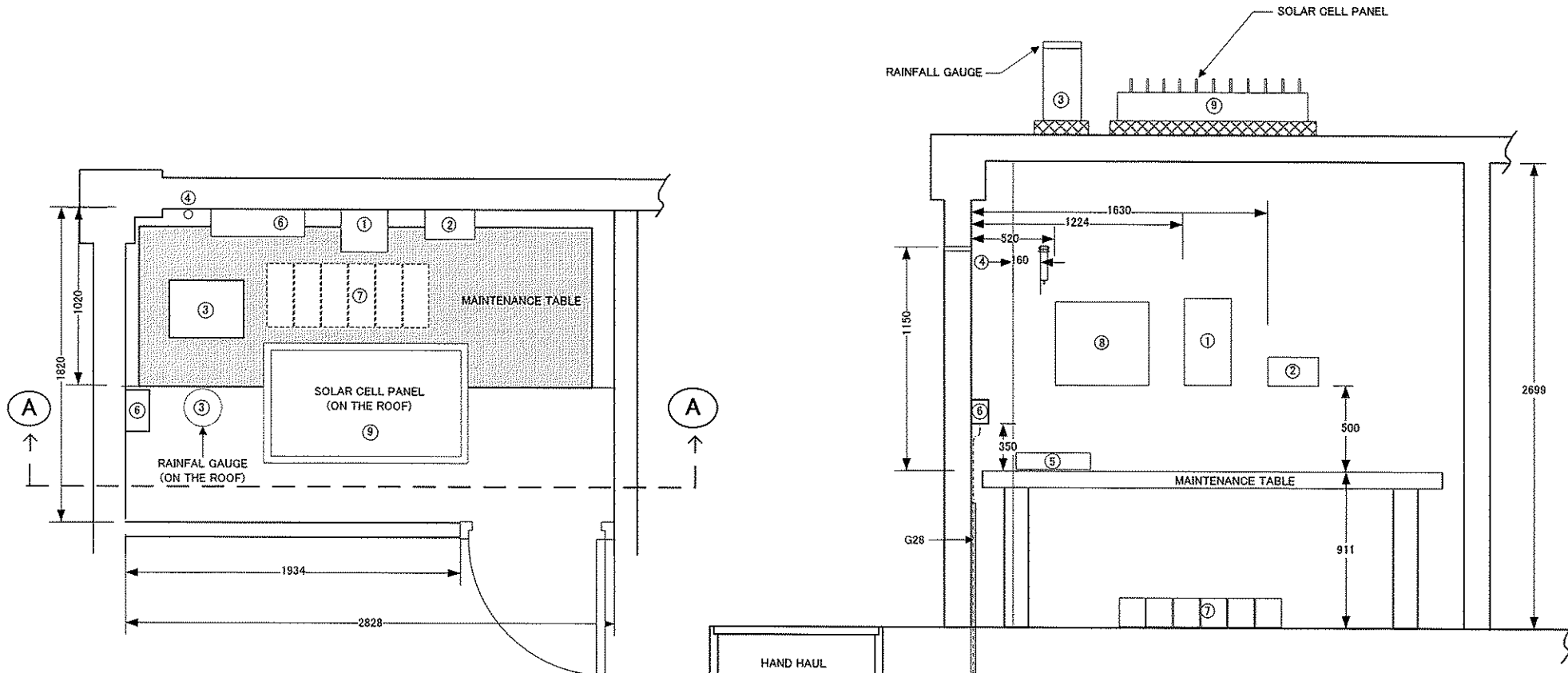


STATION SITE PLAN
SCALE: NTS



JAPAN INTERNATIONAL COOPERATION AGENCY

PROJECT&LOCATION	SHEET CONTENTS	SET	SHT.NO.
UPGRADING OF FLOOD FORECASTING AND WARNING SYSTEM IN THE PAMPANGA AND AGNO RIVER BASINS	SAPANG BUHO RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT PLAN	T-PM-G3	4/48



EQUIPMENT LAYOUT
SCALE: NTS

ELEVATION (A) - (A)
SCALE: NTS

- LEGEND:
1. TELEMETERING EQUIPMENT
 2. DIGITAL DATA MEMORY EQUIPMENT
 3. RAINFALL GAUGE
 4. COAXIAL ARRESTER
 5. DATA CONVERTER FOR WATER LEVEL GAUGE
 6. CABLE PROTECTOR FOR INSIDE USE
 7. STORAGE BATTERY
 8. POWER DISTRIBUTION BOARD
 9. SOLAR CELL PANEL

NOTE:
SOLAR CELL PANEL FACE SHALL BE FACED TO THE SOUTH DIRECTION.



JAPAN INTERNATIONAL COOPERATION AGENCY

PROJECT & LOCATION

UPGRADING OF FLOOD FORECASTING AND WARNING SYSTEM IN THE PAMPANGA AND AGNO RIVER BASINS

SHEET CONTENTS

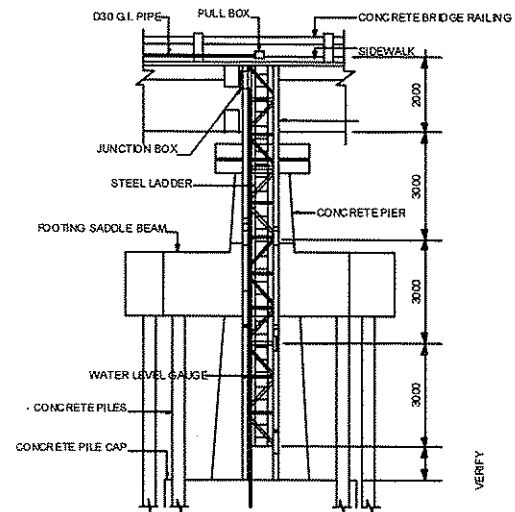
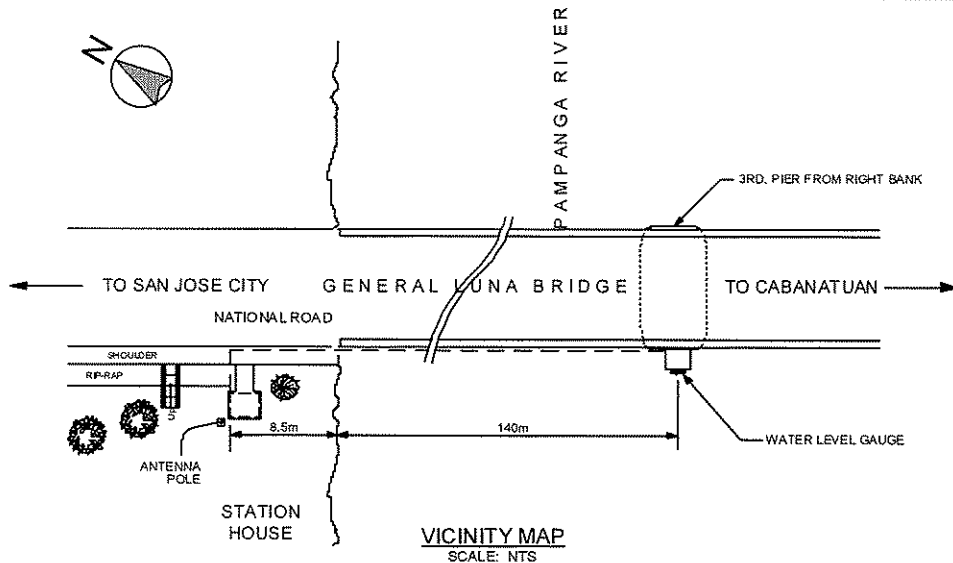
SAPANG BUHO RAIN GAUGE AND WATER LEVEL GAUGE STATION EQUIPMENT LAYOUT PLAN

SET

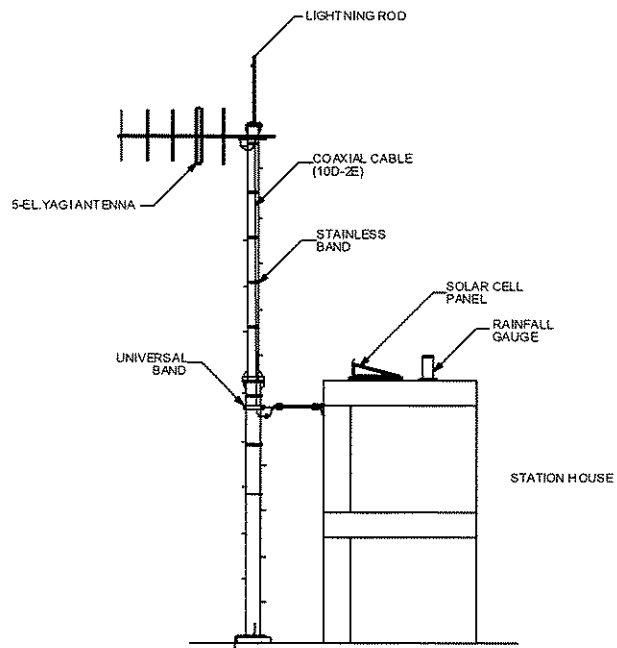
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SHT. NO.

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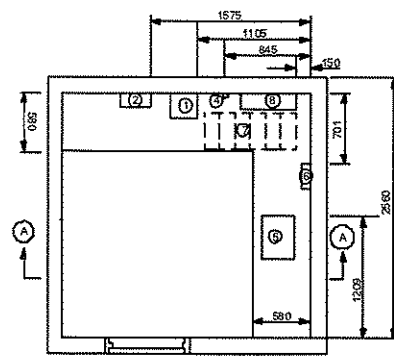


ELEVATION OF W/L STRUCTURE
SCALE: 1:150

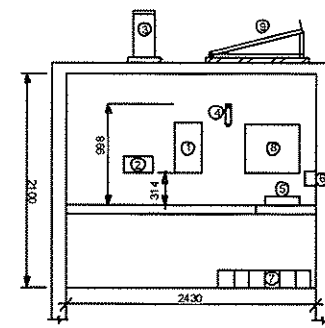


ELEVATION
SCALE: 1:100

- LEGEND:
- ① TELEMETRY EQUIPMENT
 - ② DATA LOGGER
 - ③ RAINFALL GAUGE
 - ④ COAXIAL ARRESTER
 - ⑤ DATA CONVERTER FOR WATER LEVEL GAUGE
 - ⑥ CABLE PROTECTOR
 - ⑦ STORAGE BATTERY
 - ⑧ POWER DISTRIBUTION BOARD
 - ⑨ SOLAR CELL PANEL

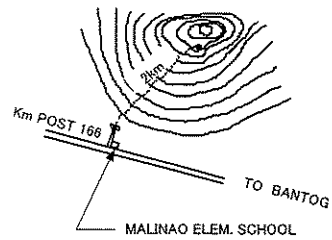
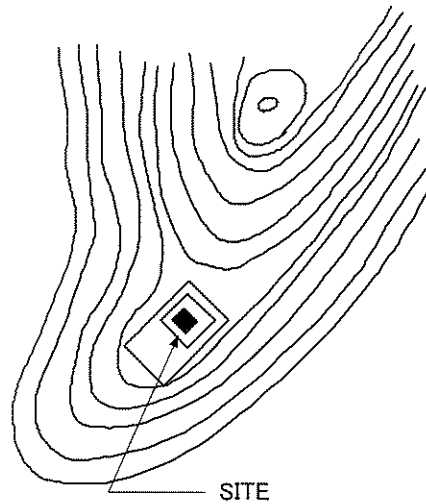
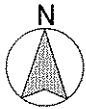


EQUIPMENT LAYOUT PLAN
SCALE: 1:50

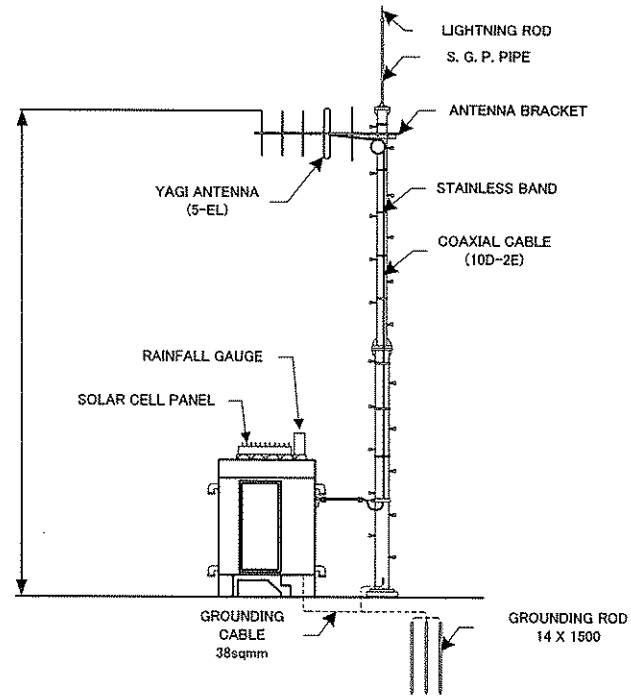


ELEVATION A - A
SCALE: 1:50

PROJECT & LOCATION:	SHEET CONTENTS	SET	SHT. NO.
UP GRADING OF FLOOD FORECASTING AND WARNING SYSTEM IN THE PAMPANGA AND AGNO RIVER BASINS	MAYAP YAP RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT PLAN	T-PM-G5	6/48



VICINITY MAP
SCALE : NTS



ELEVATION
SCALE : NTS



JAPAN INTERNATIONAL COOPERATION AGENCY

PROJECT&LOCATION

UPGRADING OF FLOOD FORECASTING AND WARNING SYSTEM IN THE PAMPANGA AND AGNO RIVER BASINS

SHEET CONTENTS

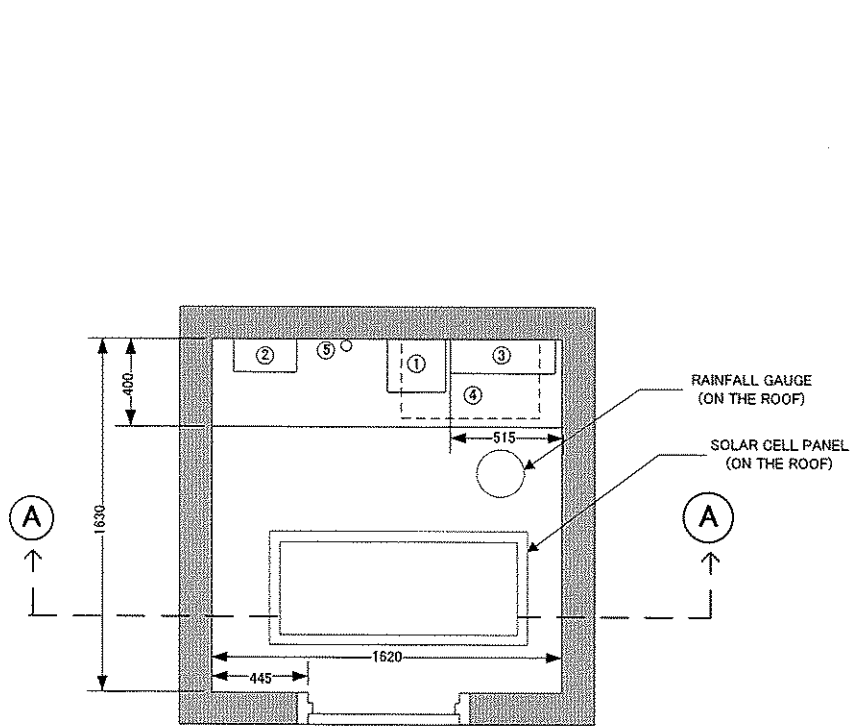
GABALDON RAIN GAUGE STATION SITE LAYOUT

SET

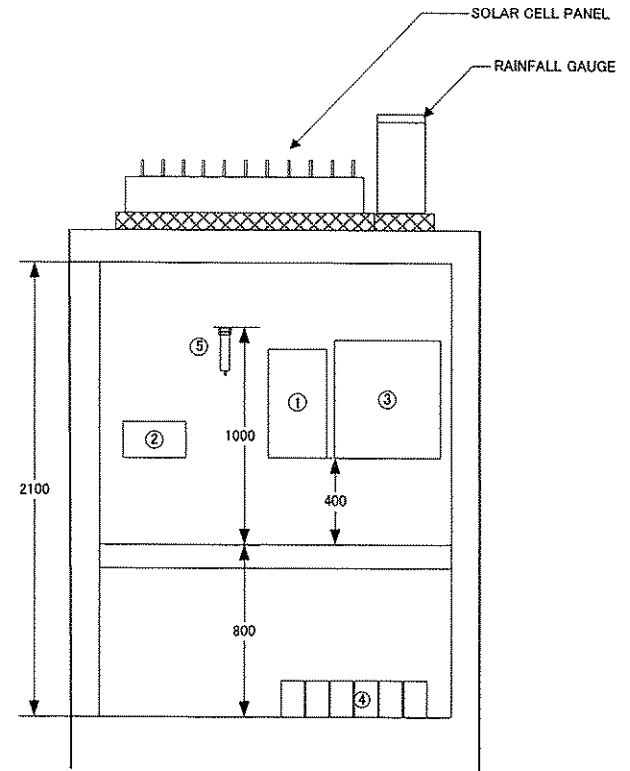
T-PM-G6

SHT.NO.

7/48



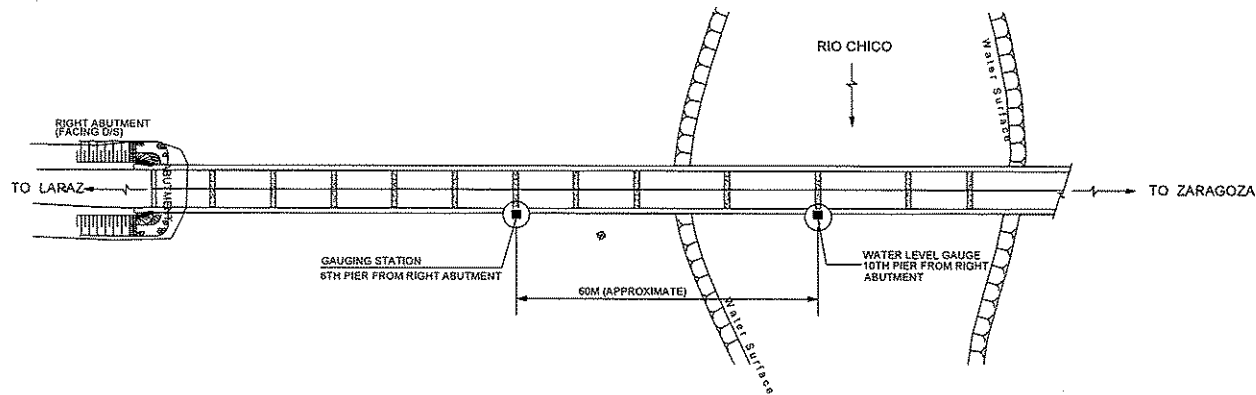
EQUIPMENT LAYOUT
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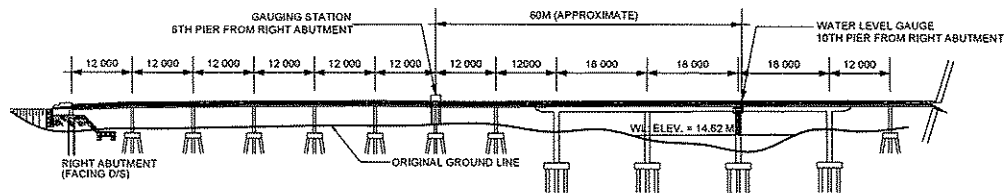
ELEVATION A - A
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LEGEND:

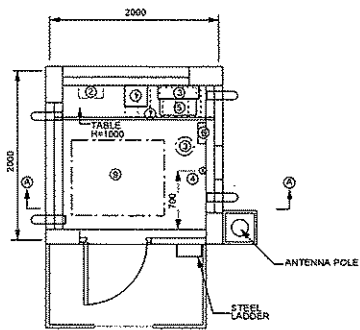
- 1. TELEMETERING EQUIPMENT
- 2. AUTOMATIC RECORDER
- 3. POWER DISTRIBUTION BOARD
- 4. STORAGE BATTERY
- 5. COAXIAL ARRESTER



LAYOUT PLAN
SCALE: 1:1000



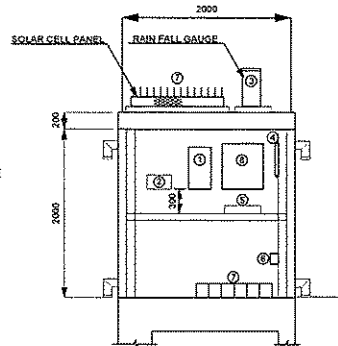
ELEVATION 1
SCALE: 1:1000



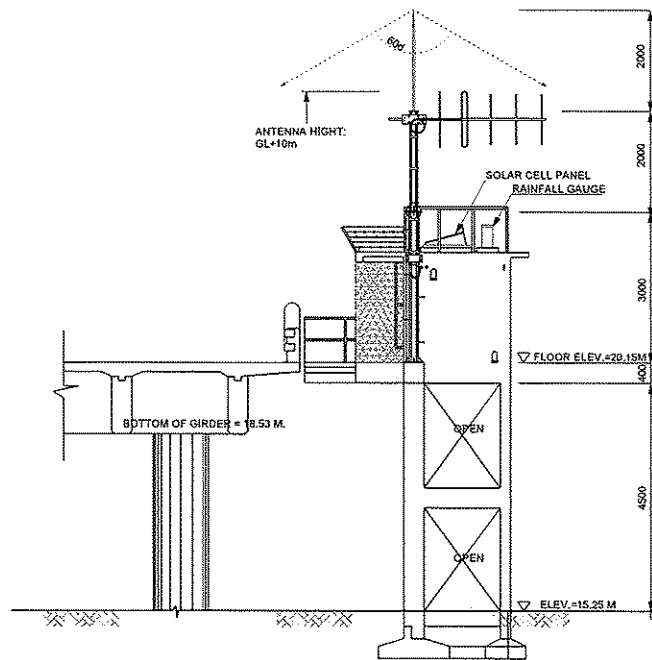
EQUIPMENT LAYOUT PLAN
SCALE: 1:60

- LEGEND:
1. TELEMETERING EQUIPMENT
 2. DIGITAL DATA MEMORY EQUIPMENT
 3. RAINFALL GAUGE
 4. COAXIAL ARRESTER
 5. DATA CONVERTER FOR WATER LEVEL GAUGE
 6. CABLE PROTECTOR FOR INSIDE USE
 7. STORAGE BATTERY
 8. POWER DISTRIBUTION BOARD
 9. SOLAR CELL PANEL
- [ON THE ROOF]

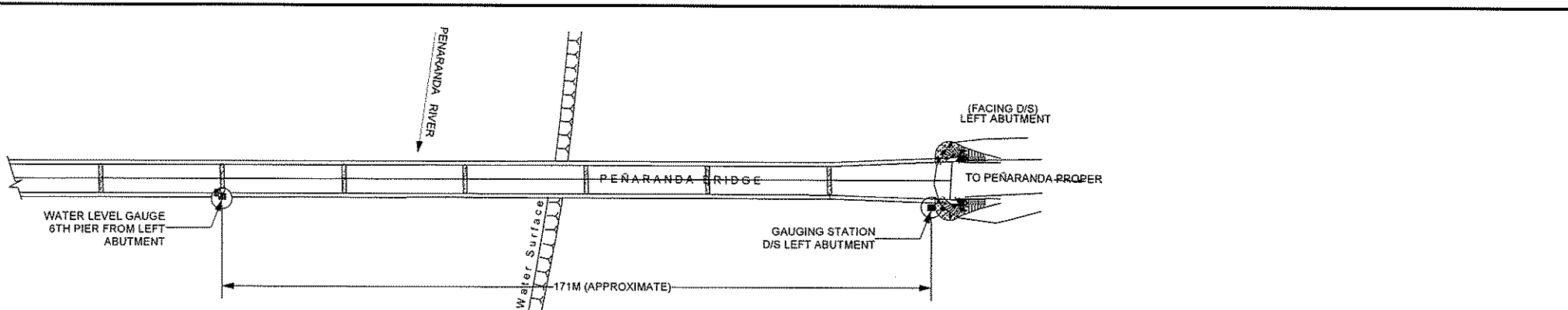
NOTE:
SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.



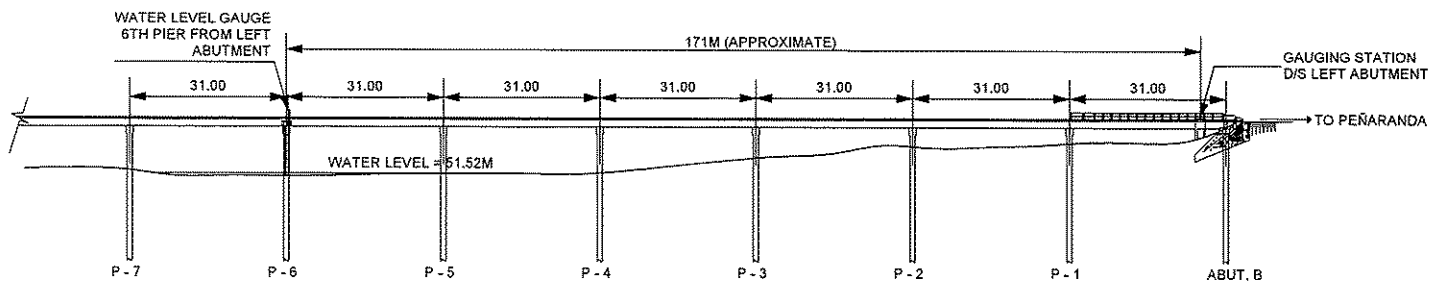
ELEVATION (A) - (A)
SCALE: 1:60



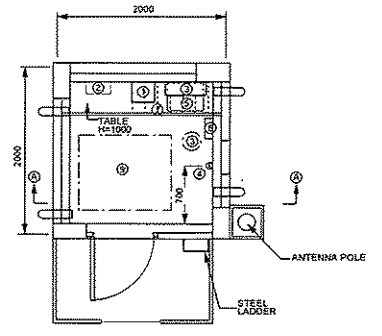
ELEVATION 2
SCALE: 1:100



LAYOUT PLAN
SCALE: 1:1000

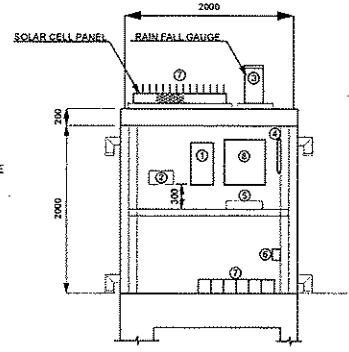


ELEVATION 1
SCALE: 1:1000

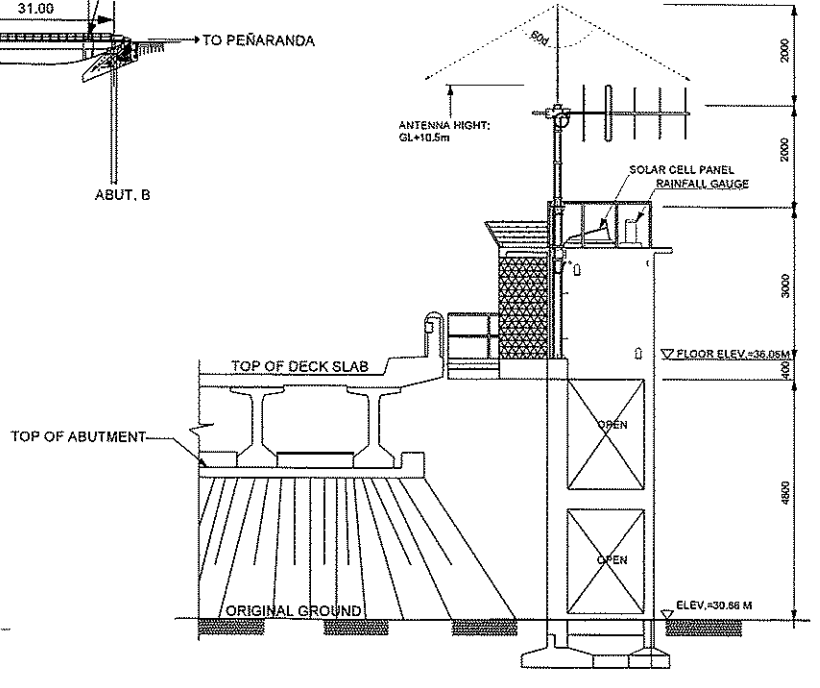


EQUIPMENT LAYOUT PLAN
SCALE: 1:60

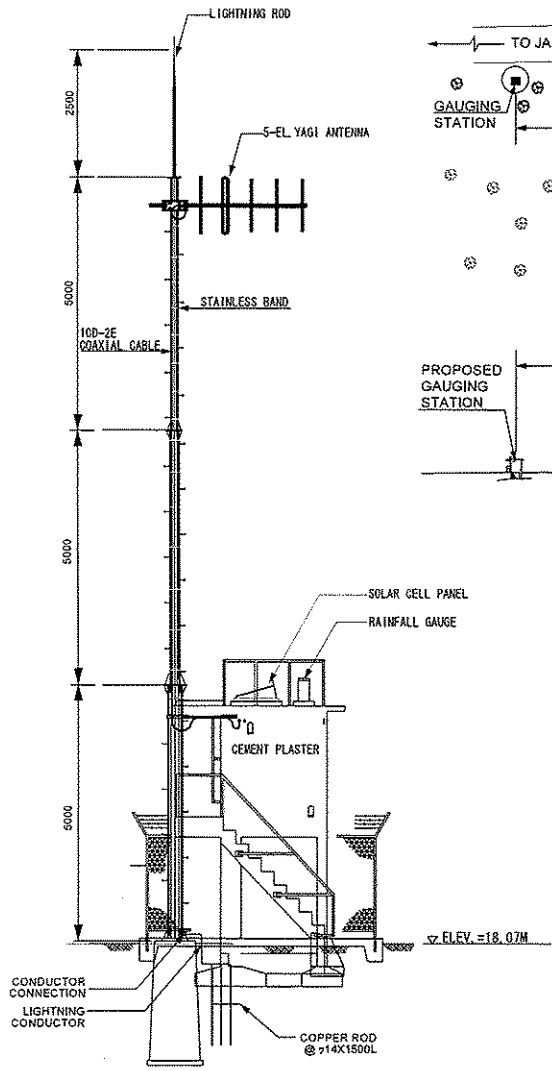
- LEGEND:
1. TELEMETERING EQUIPMENT
 2. DIGITAL DATA MEMORY EQUIPMENT
 3. RAINFALL GAUGE
 4. COAXIAL ARRESTER
 5. DATA CONVERTER FOR WATER LEVEL GAUGE
 6. CABLE PROTECTOR FOR INSIDE USE
 7. STORAGE BATTERY
 8. POWER DISTRIBUTION BOARD
 9. SOLAR CELL PANEL
- ON THE ROOF
- NOTE:
SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.



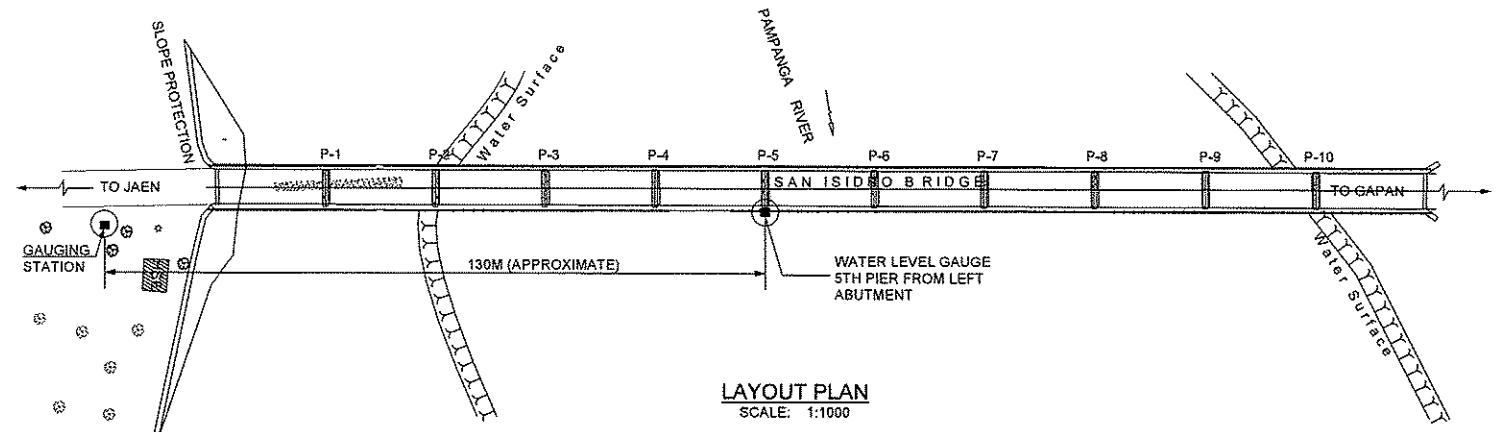
ELEVATION (A) - (A)
SCALE: 1:60



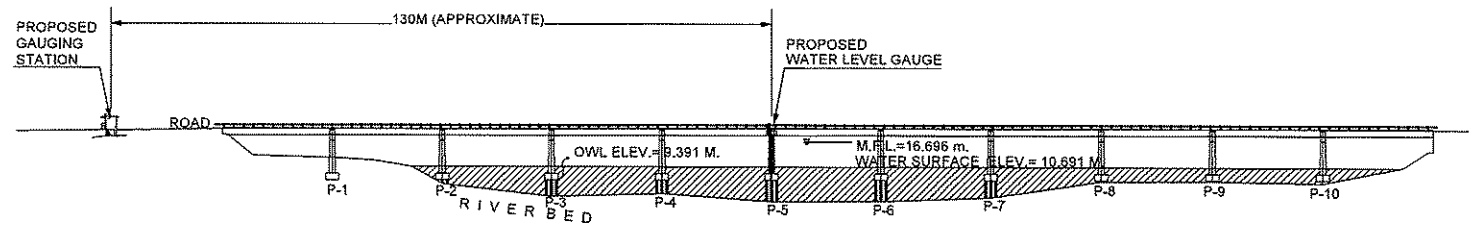
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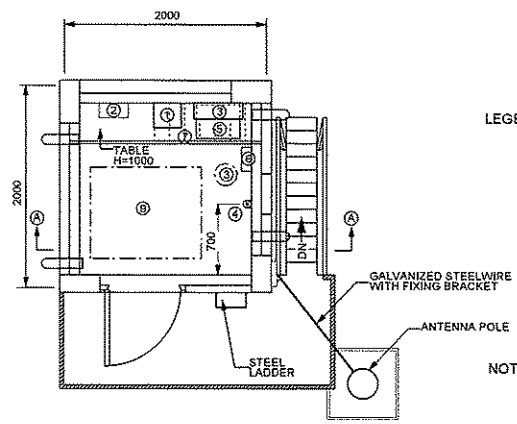
ELEVATION 2
SCALE: 1:100



LAYOUT PLAN
SCALE: 1:1000



ELEVATION 1
SCALE: 1:1000



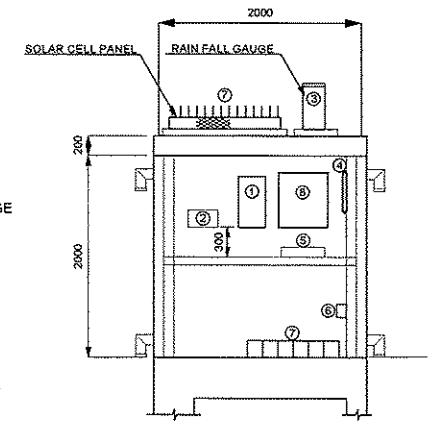
FLOOR LAYOUT PLAN
SCALE: 1:50

LEGEND:

1. TELEMETERING EQUIPMENT
2. DIGITAL DATA MEMORY EQUIPMENT
3. RAINFALL GAUGE
4. COAXIAL ARRESTER
5. DATA CONVERTER FOR WATER LEVEL GAUGE
6. CABLE PROTECTOR FOR INSIDE USE
7. STORAGE BATTERY
8. POWER DISTRIBUTION BOARD
9. SOLAR CELL PANEL

ON THE ROOF

NOTE:
SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.



ELEVATION A - A
SCALE: 1:50



JAPAN INTERNATIONAL COOPERATION AGENCY

PROJECT & LOCATION:

UPGRADING OF FLOOD FORECASTING AND WARNING SYSTEM IN THE PAMPANGA AND AGNO RIVER BASINS

SHEET CONTENTS

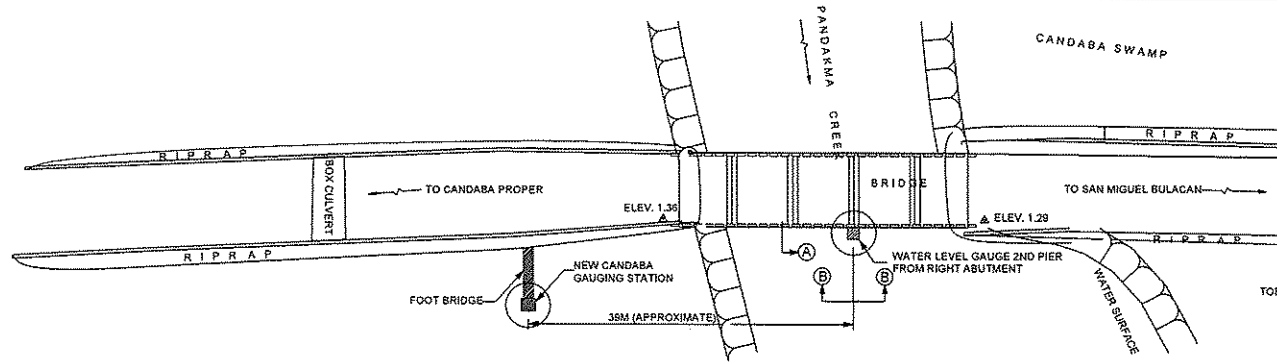
SAN ISIDRO RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT PLAN

SET

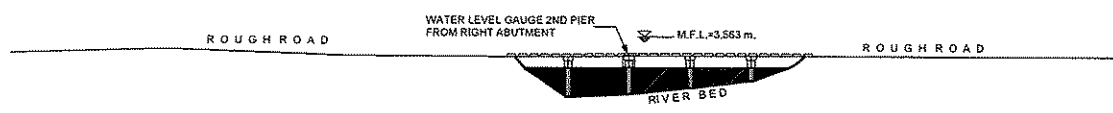
T-PM-G10

SHT. NO.

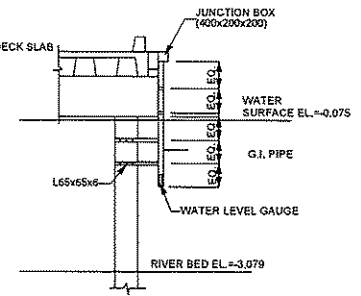
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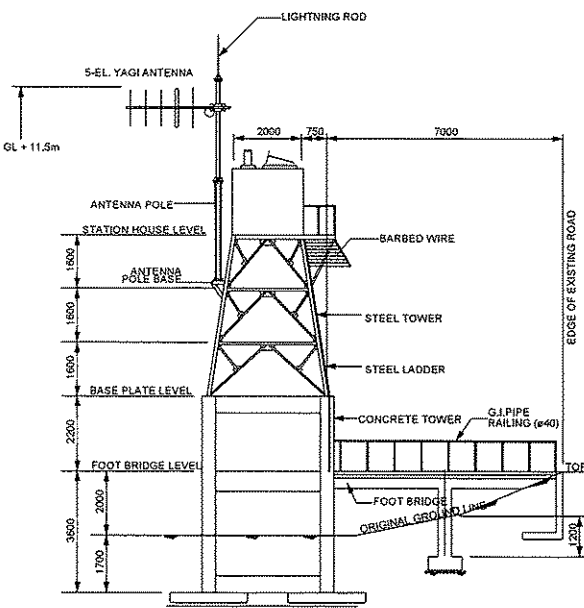
LAYOUT PLAN
SCALE: 1:600



ELEVATION (A)
SCALE: 1:100

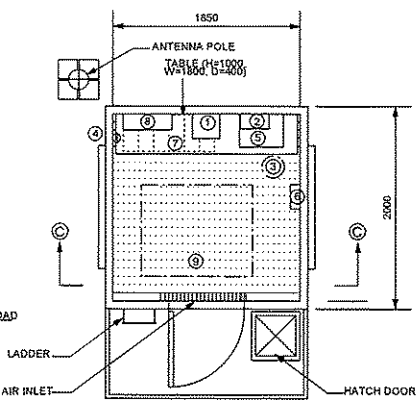


ELEVATION (B) - (B)
SCALE: 1:100



ELEVATION
SCALE: 1:150

ELEVATION
SCALE: 1:600

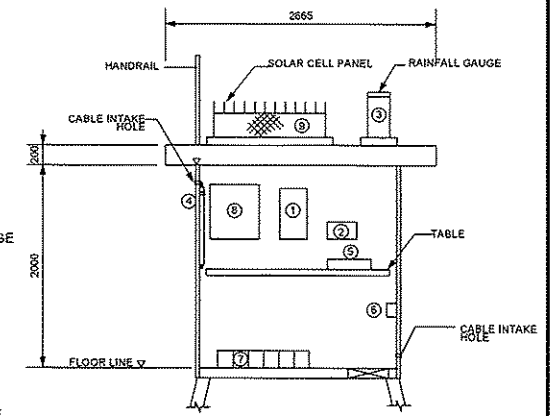


FLOOR LAYOUT PLAN
SCALE: 1:50

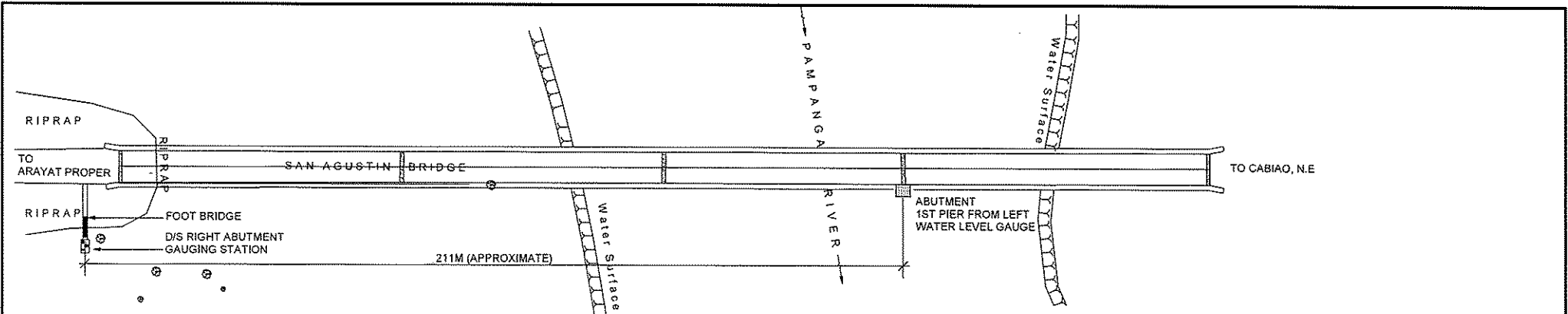
LEGEND:

1. TELEMETERING EQUIPMENT
2. DIGITAL DATA MEMORY EQUIPMENT
3. RAINFALL GAUGE
4. COAXIAL ARRESTER
5. DATA CONVERTER FOR WATER LEVEL GAUGE
6. CABLE PROTECTOR FOR INSIDE USE
7. STORAGE BATTERY
8. POWER DISTRIBUTION BOARD
9. SOLAR CELL PANEL

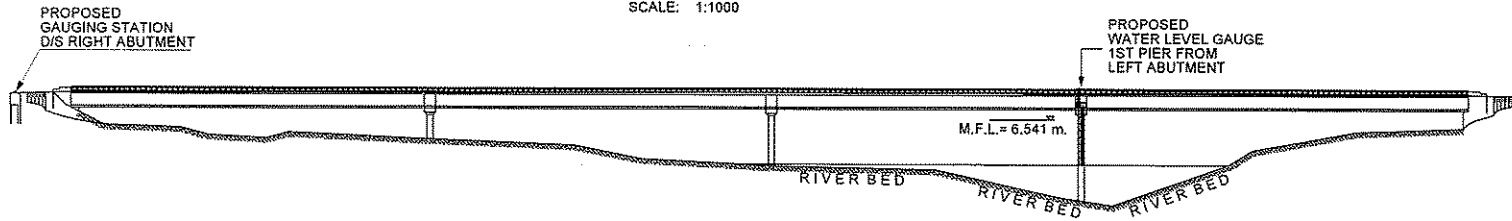
NOTE:
SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.



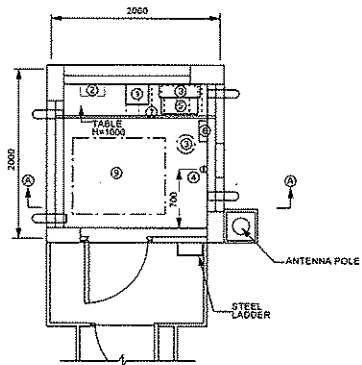
ELEVATION (C) - (C)
SCALE: 1:50



LAYOUT PLAN
SCALE: 1:1000



ELEVATION 1
SCALE: 1:1000

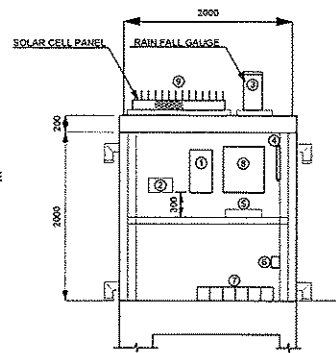


EQUIPMENT LAYOUT PLAN
SCALE: 1:60

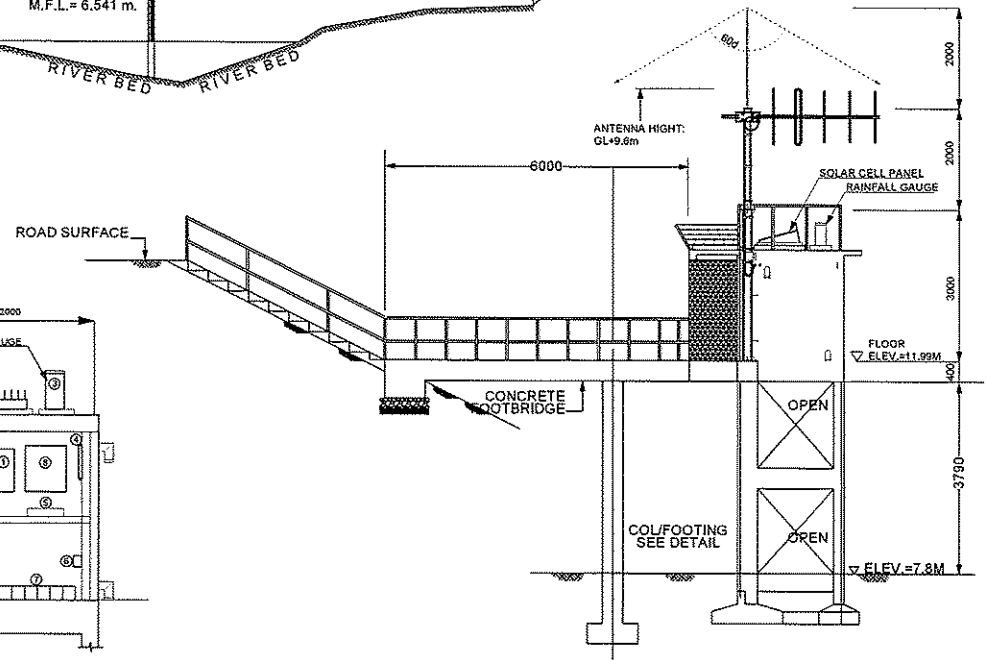
- LEGEND:
1. TELEMETERING EQUIPMENT
 2. DIGITAL DATA MEMORY EQUIPMENT
 3. RAINFALL GAUGE
 4. COAXIAL ARRESTER
 5. DATA CONVERTER FOR WATER LEVEL GAUGE
 6. CABLE PROTECTOR FOR INSIDE USE
 7. STORAGE BATTERY
 8. POWER DISTRIBUTION BOARD
 9. SOLAR CELL PANEL

[ON THE ROOF]

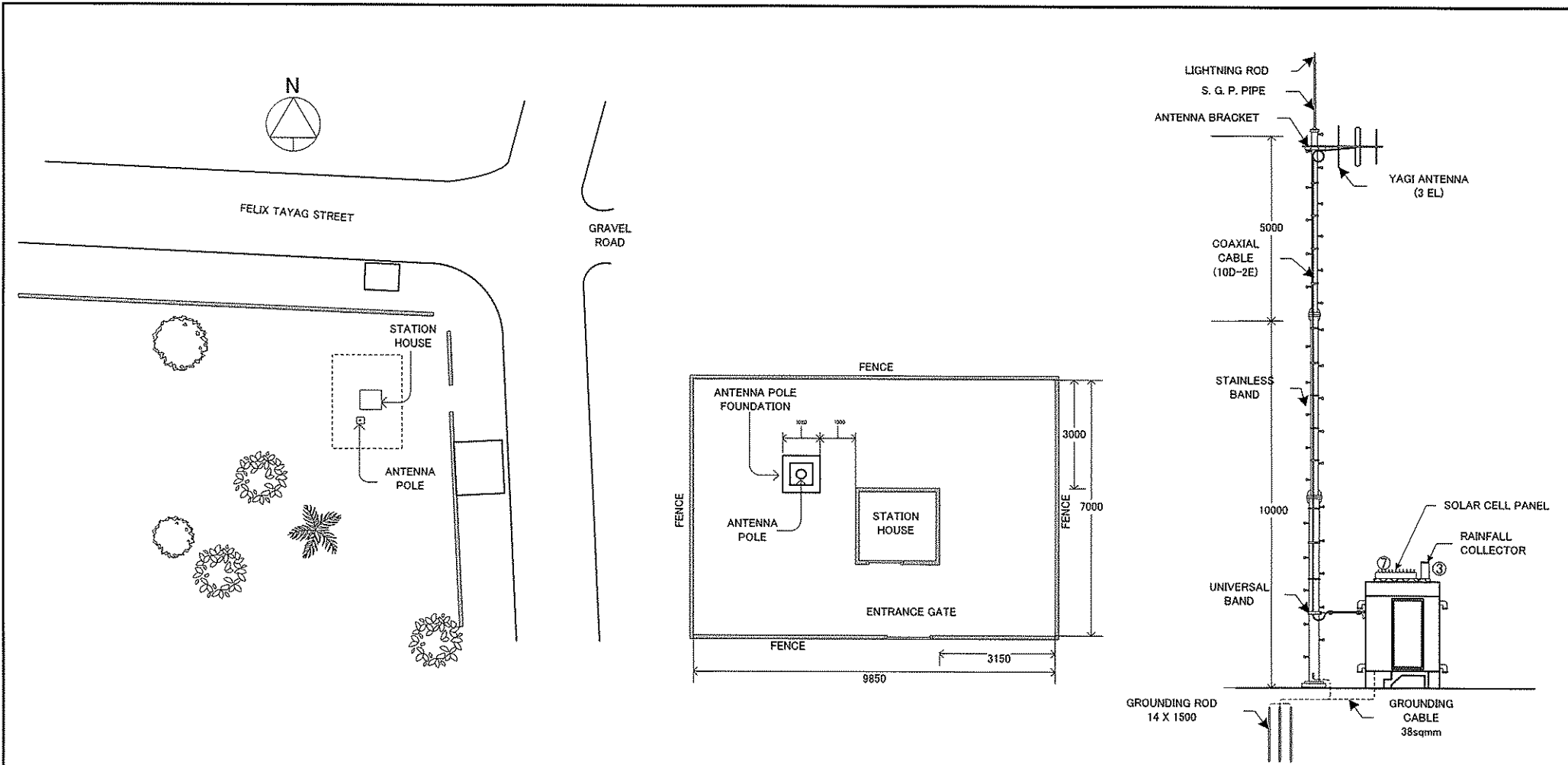
NOTE:
SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.



ELEVATION (A) - (A)
SCALE: 1:60



ELEVATION 2
SCALE: 1:100



VICINITY MAP
SCALE : NTS

STATION SITE
SCALE: NTS

ELEVATION
SCALE: NTS



JAPAN INTERNATIONAL COOPERATION AGENCY

PROJECT&LOCATION

UPGRADING OF FLOOD FORECASTING AND WARNING SYSTEM IN THE PAMPANGA AND AGNO RIVER BASINS

SHEET CONTENTS

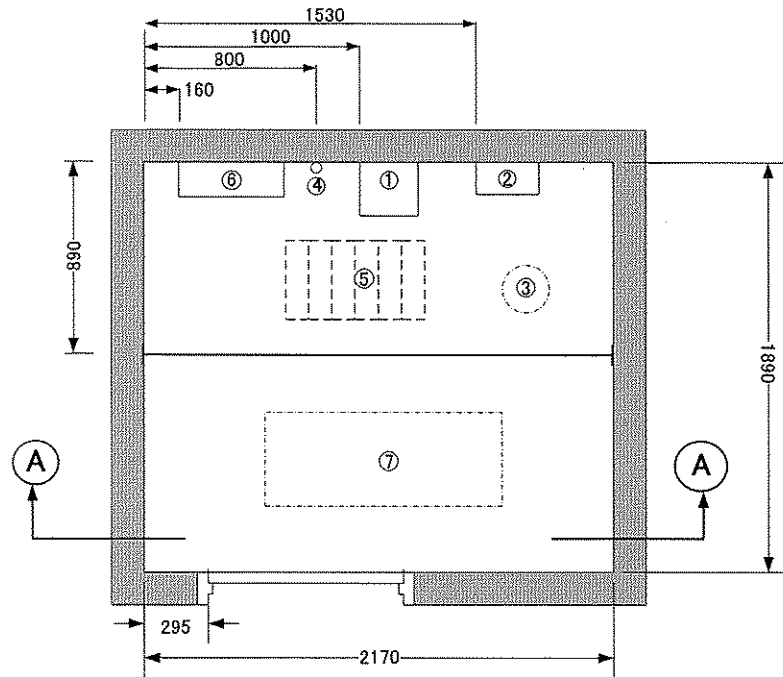
SIBUL SPRING RAIN GAUGE STATION SITE LAYOUT

SET

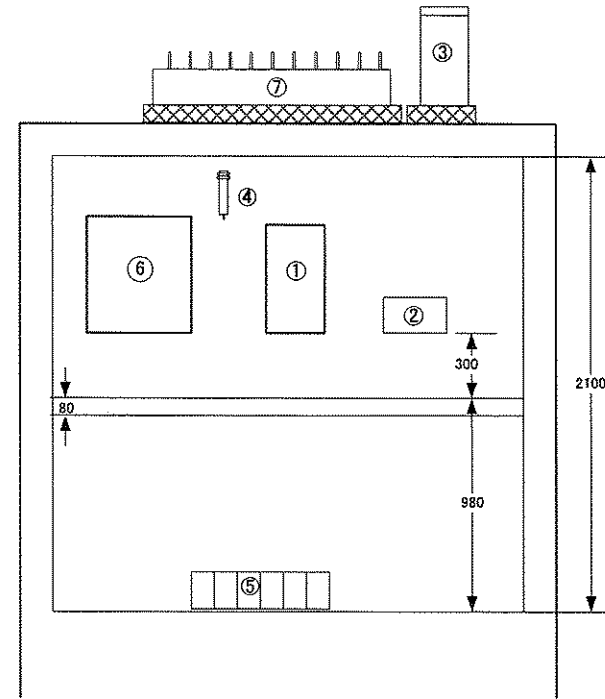
T-PM-G13

SHT.NO.

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48



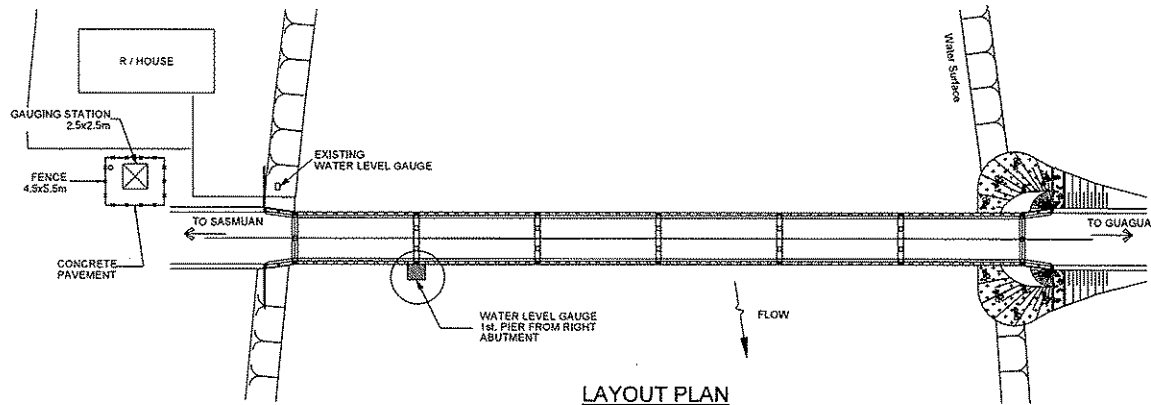
EQUIPMENT LAYOUT
SCALE: NTS



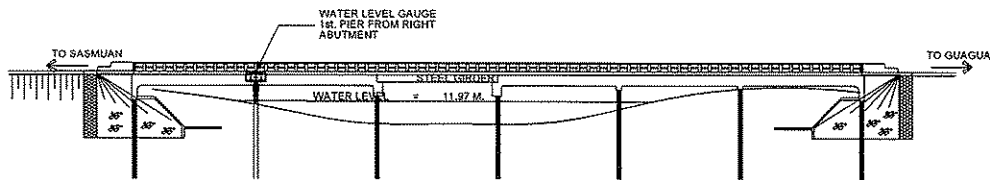
SECTION A - A
SCALE: NTS

LEGEND:

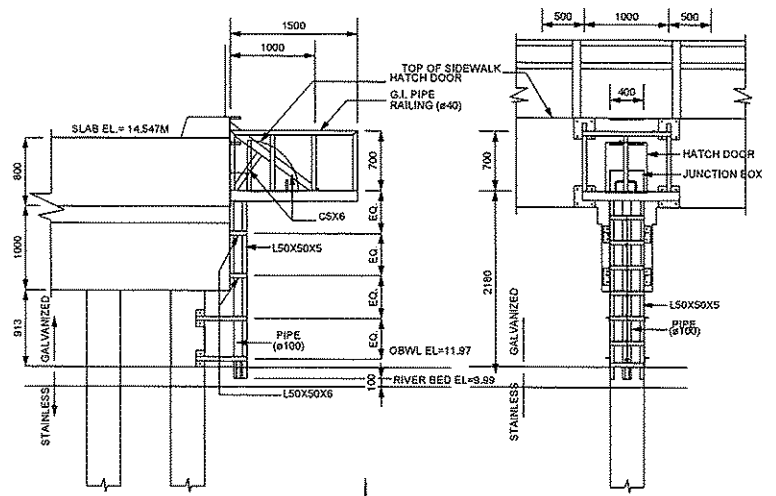
1. TELEMETERING EQUIPMENT (GWD-550)
2. AUTOMATIC RECORDER (NKA-140)
3. RAINGAUGE (RT-10S)
4. COAXIAL ARRESTER (NYZ-150-L)
5. STORAGE BATTERY
6. POWER DISTRIBUTION BOARD (BP-H4C-1)
7. SOLAR CELL PANEL



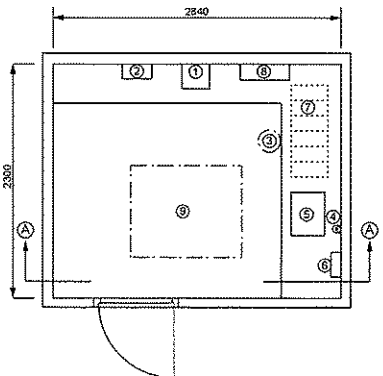
LAYOUT PLAN
SCALE: 1:1000



ELEVATION 1
SCALE: 1:1000



ELEVATION 2
SCALE: 1:100



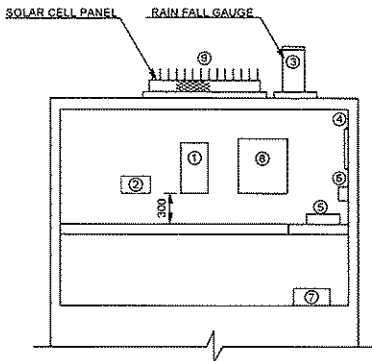
EQUIPMENT LAYOUT PLAN
SCALE: 1:50

LEGEND:

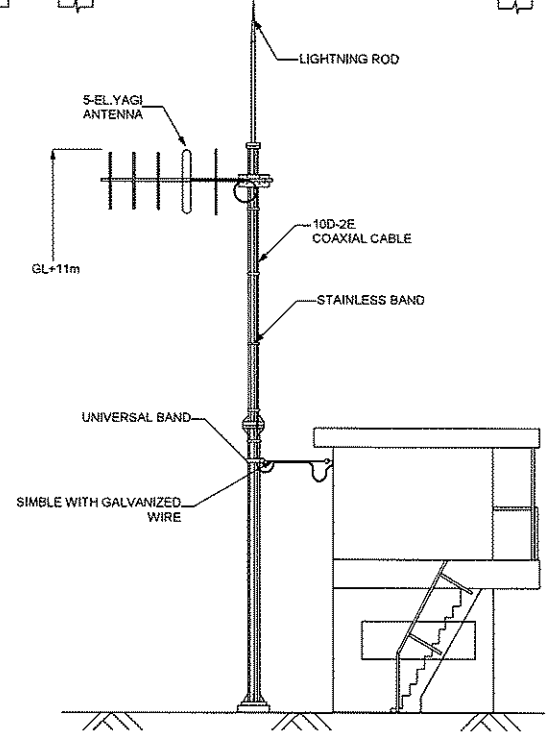
1. TELEMETERING EQUIPMENT
2. DIGITAL DATA MEMORY EQUIPMENT
3. RAINFALL GAUGE
4. COAXIAL ARRESTER
5. DATA CONVERTER FOR WATER LEVEL GAUGE
6. CABLE PROTECTOR FOR INSIDE USE
7. STORAGE BATTERY
8. POWER DISTRIBUTION BOARD
9. SOLAR CELL PANEL

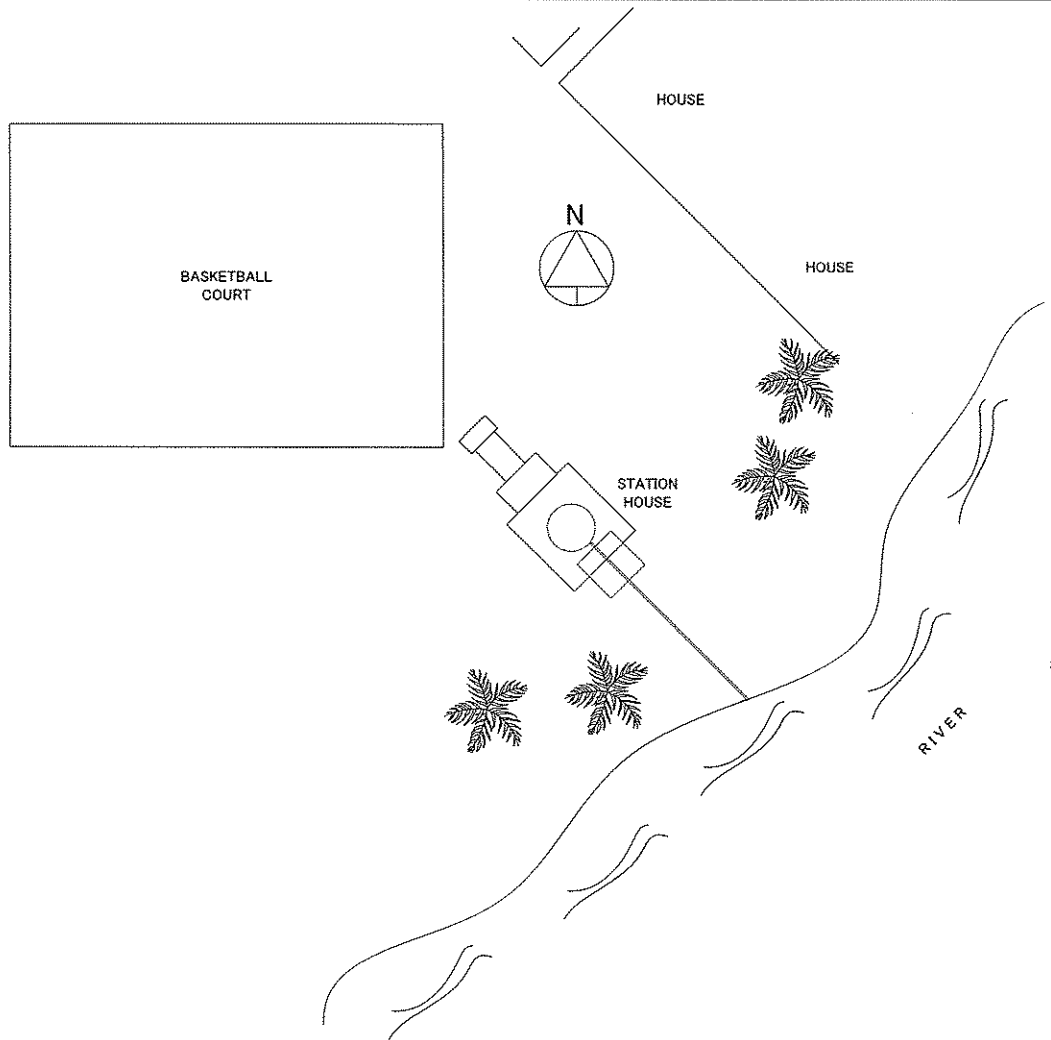
ON THE ROOF

NOTE:
SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.

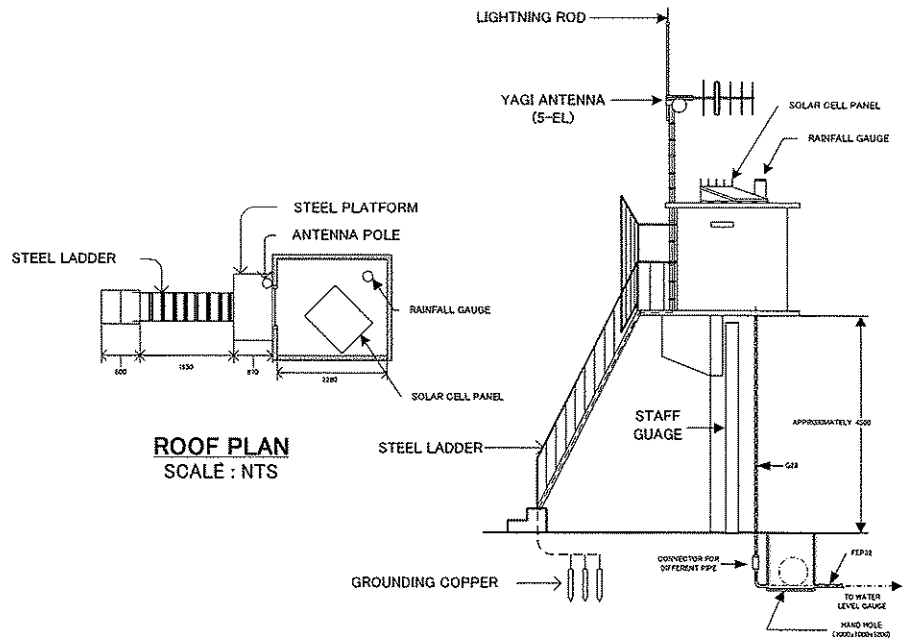


ELEVATION (A) - (A)
SCALE: 1:50





VICINITY MAP
SCALE : NTS



ROOF PLAN
SCALE : NTS

ELEVATION
SCALE : NTS



JAPAN INTERNATIONAL COOPERATION AGENCY

PROJECT&LOCATION

UPGRADING OF FLOOD FORECASTING AND WARNING SYSTEM IN THE PAMPANGA AND AGNO RIVER BASINS

SHEET CONTENTS

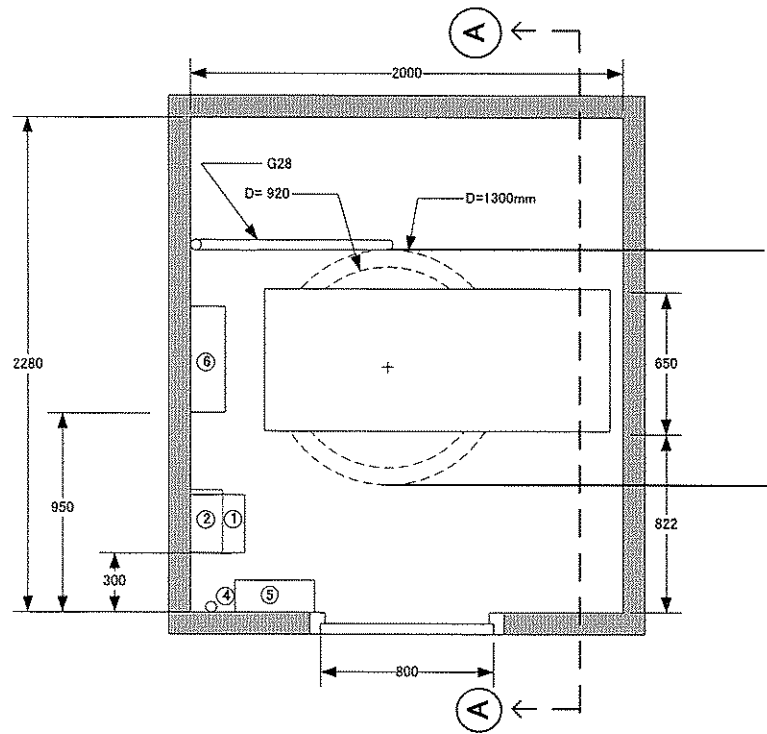
SULIPAN RAIN GAUGE AND WATER LEVEL GAUGE STATION SITE LAYOUT

SET

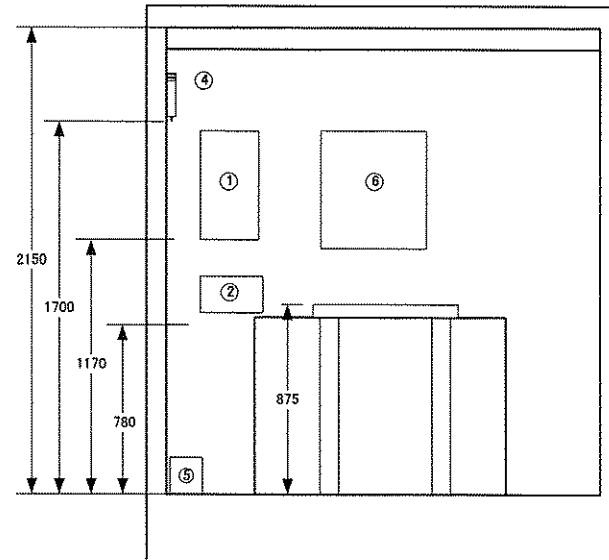
T-PM-G16

SHT.NO.

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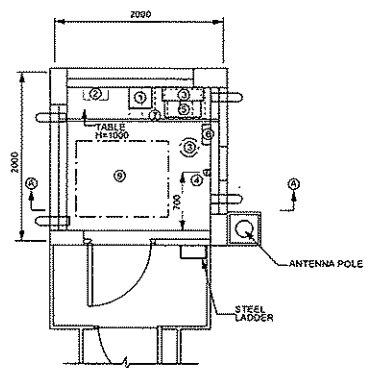
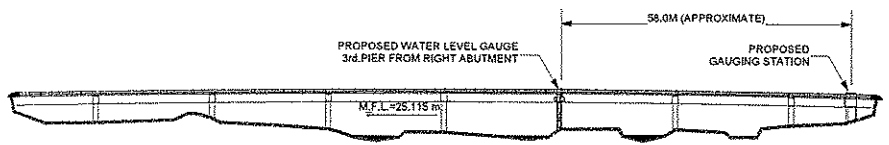
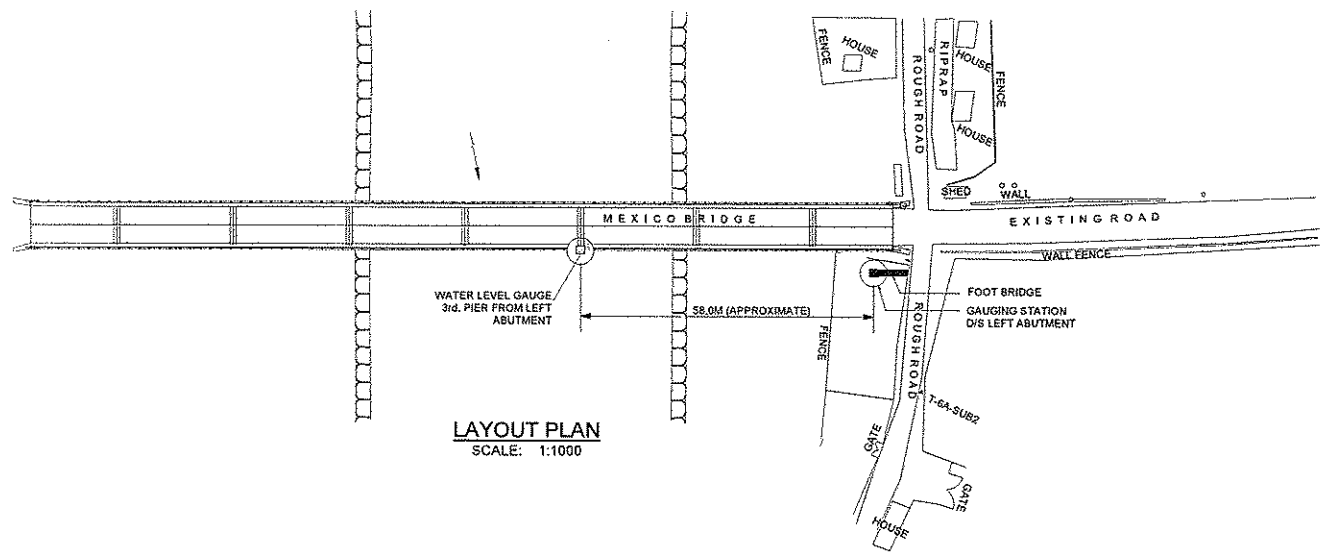
EQUIPMENT LAYOUT
SCALE: NTS



SECTION A — A
SCALE: NTS

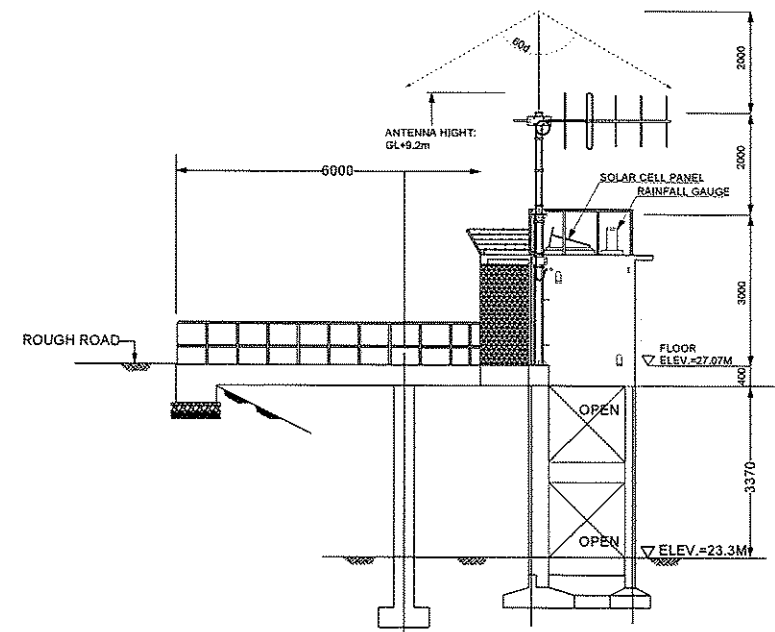
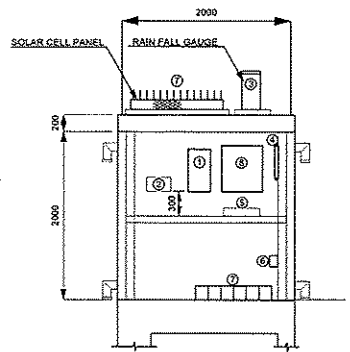
LEGEND:

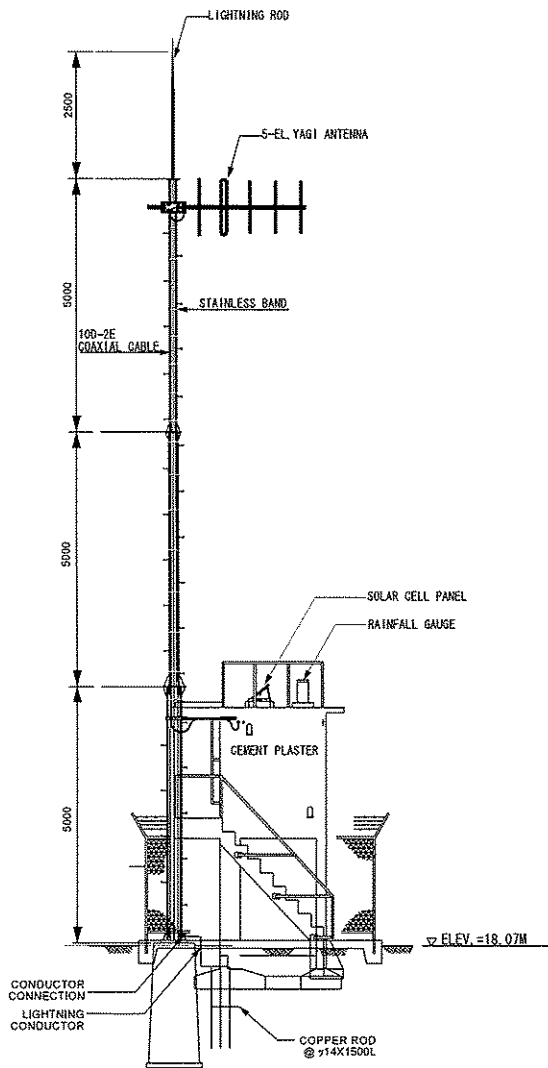
1. TELEMETERING EQUIPMENT
2. DIGITAL DATA MEMORY EQUIPMENT
3. RAINGAUGE
4. COAXIAL ARRESTER
5. STORAGE BATTERY
6. POWER DISTRIBUTION BOARD



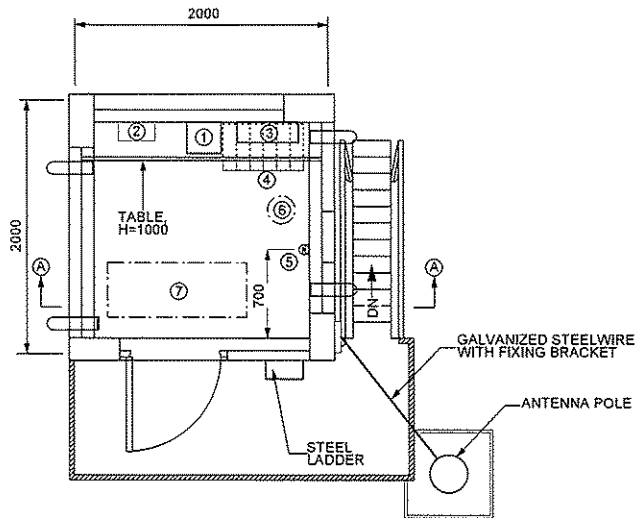
- LEGEND:
1. TELEMETERING EQUIPMENT
 2. DIGITAL DATA MEMORY EQUIPMENT
 3. RAINFALL GAUGE
 4. COAXIAL ARRESTER
 5. DATA CONVERTER FOR WATER LEVEL GAUGE
 6. CABLE PROTECTOR FOR INSIDE USE
 7. STORAGE BATTERY
 8. POWER DISTRIBUTION BOARD
 9. SOLAR CELL PANEL
- [ON THE ROOF]

NOTE:
SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.

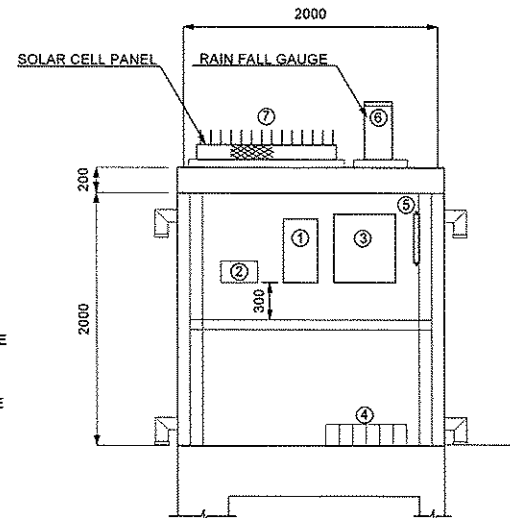




ELEVATION
SCALE: 1:100



EQUIPMENT LAYOUT
SCALE: 1:40



ELEVATION A - A
SCALE: 1:40

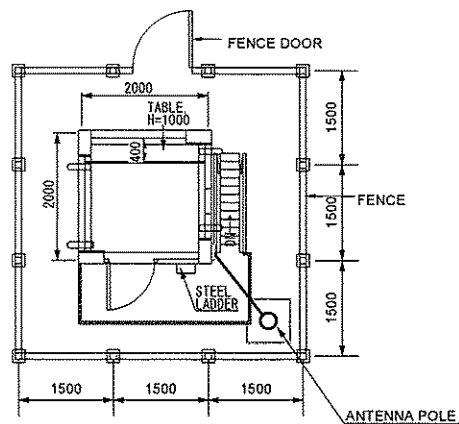
LEGEND:

- 1. TELEMETERING EQUIPMENT
- 2. DIGITAL DATA MEMORY EQUIPMENT
- 3. POWER DISTRIBUTION BOARD
- 4. STORAGE BATTERY
- 5. COAXIAL ARRESTER
- 6. RAINFALL GAUGE EQUIPMENT
- 7. SOLAR CELL PANEL

ON THE ROOF

NOTE:

SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.



LAYOUT PLAN
SCALE: 1:80



JAPAN INTERNATIONAL COOPERATION AGENCY

PROJECT & LOCATION:

UPGRADING OF FLOOD FORECASTING AND WARNING SYSTEM IN THE PAMPANGA AND AGNO RIVER BASINS

SHEET CONTENTS

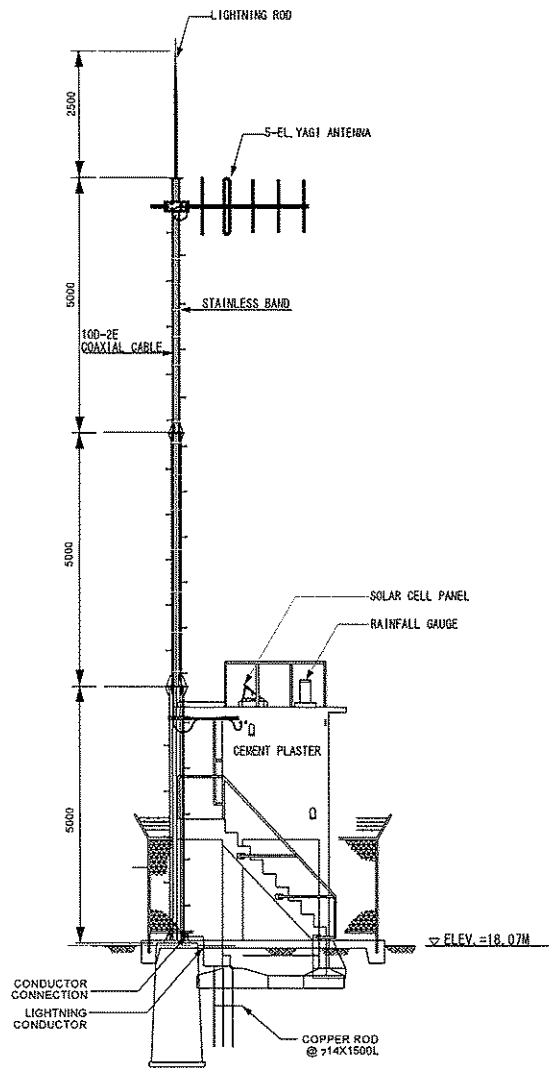
KALAANON RAIN GAUGE STATION SITE LAYOUT PLAN

SET

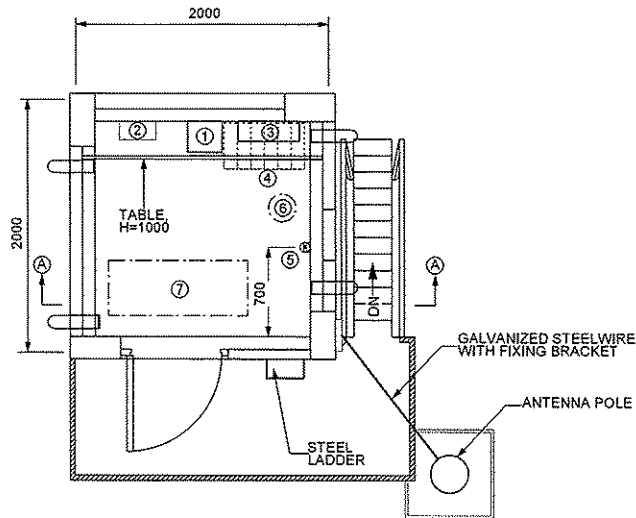
T-PM-G19

SHT. NO.

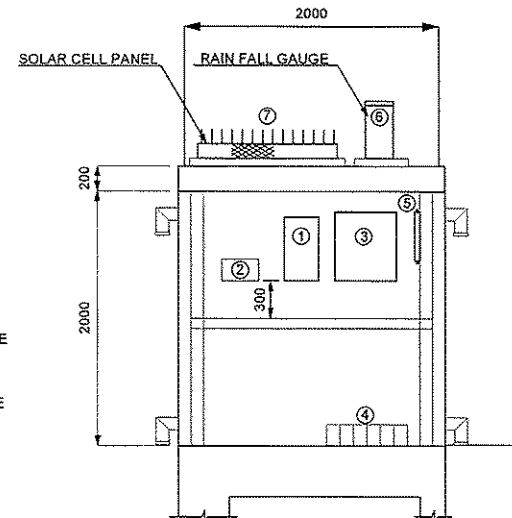
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ELEVATION
SCALE: 1:100



EQUIPMENT LAYOUT
SCALE: 1:40



ELEVATION A - A
SCALE: 1:40

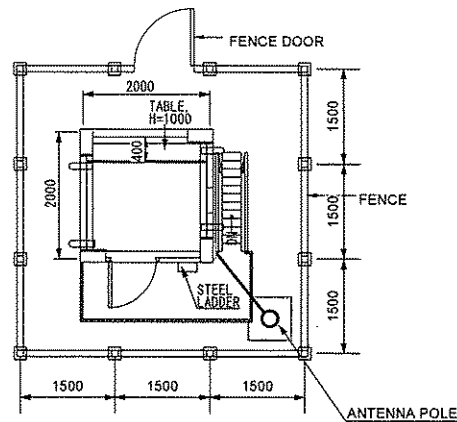
LEGEND:

- 1. TELEMETERING EQUIPMENT
- 2. DIGITAL DATA MEMORY EQUIPMENT
- 3. POWER DISTRIBUTION BOARD
- 4. STORAGE BATTERY
- 5. COAXIAL ARRESTER
- 6. RAINFALL GAUGE EQUIPMENT
- 7. SOLAR CELL PANEL

ON THE ROOF

NOTE:

SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.



LAYOUT PLAN
SCALE: 1:80



JAPAN INTERNATIONAL COOPERATION AGENCY

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UPGRADING OF FLOOD FORECASTING AND WARNING SYSTEM IN THE PAMPANGA AND AGNO RIVER BASINS

SHEET CONTENTS

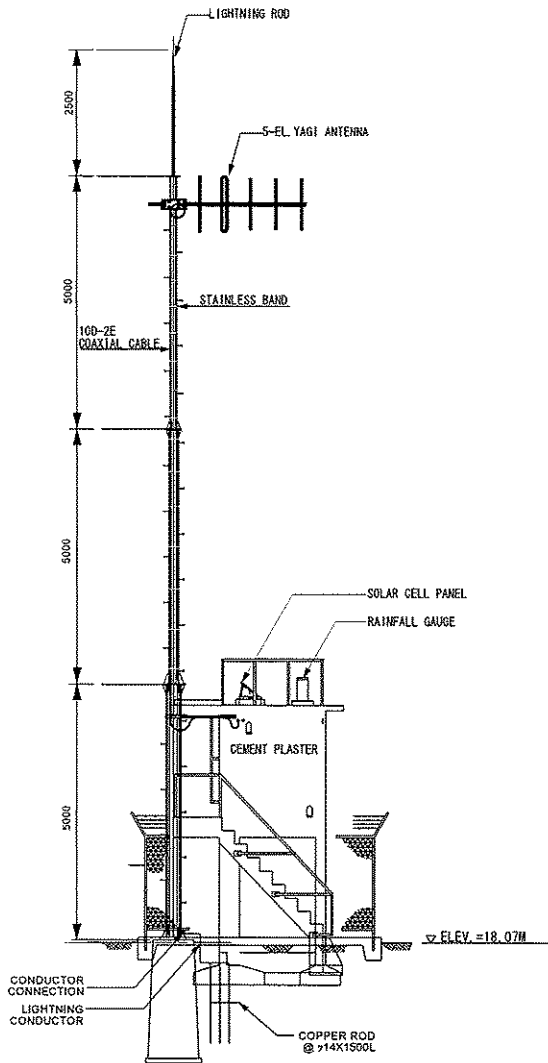
PALALI RAIN GAUGE STATION SITE LAYOUT PLAN

SET

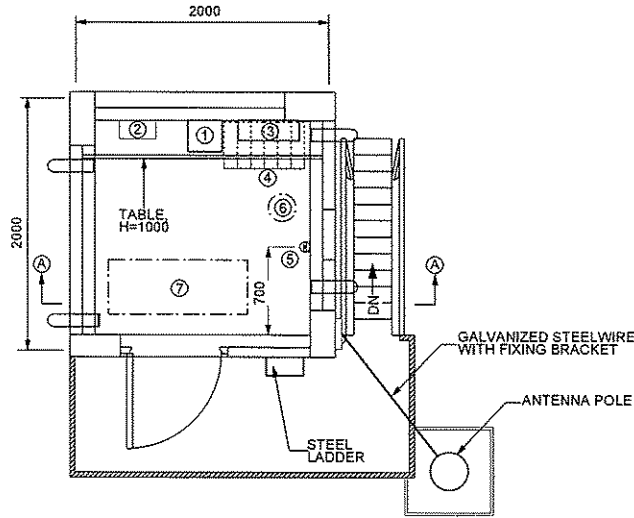
T-PM-G20

SHT. NO.

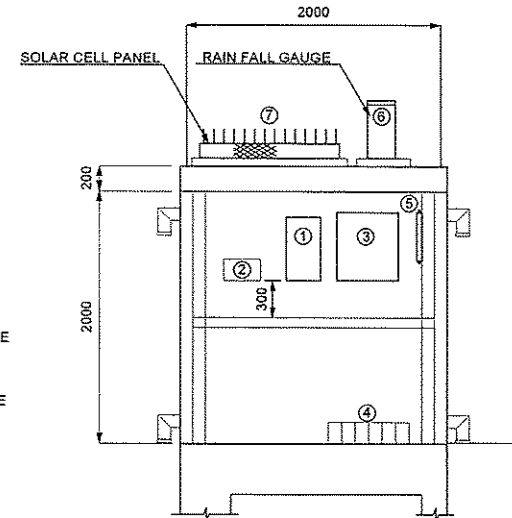
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ELEVATION
SCALE: 1:100



EQUIPMENT LAYOUT
SCALE: 1:40



ELEVATION A - A
SCALE: 1:40

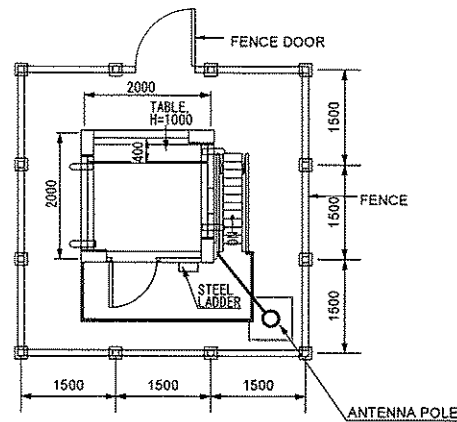
LEGEND:

- 1. TELEMETERING EQUIPMENT
- 2. DIGITAL DATA MEMORY EQUIPMENT
- 3. POWER DISTRIBUTION BOARD
- 4. STORAGE BATTERY
- 5. COAXIAL ARRESTER
- 6. RAINFALL GAUGE EQUIPMENT
- 7. SOLAR CELL PANEL

ON THE ROOF

NOTE:

SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.



LAYOUT PLAN
SCALE: 1:80



JAPAN INTERNATIONAL COOPERATION AGENCY

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UPGRADING OF FLOOD FORECASTING AND WARNING SYSTEM IN THE PAMPANGA AND AGNO RIVER BASINS

SHEET CONTENTS

PORAC RAIN GAUGE STATION SITE LAYOUT PLAN

SET

T-PM-G21

SHT. NO.

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LEGEND :

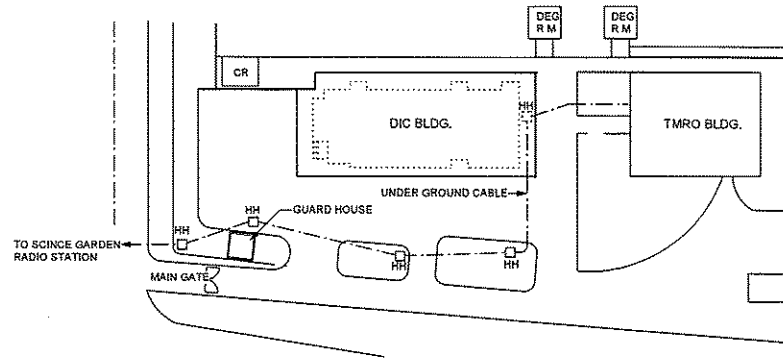
FOR EXISTING

1. CAGAYAN TELEPRINTER (REMOVE)
2. AGNO TELEPRINTER (REMOVE)
3. BICOL TELEPRINTER (REMOVE)
4. GRAPHIC DISPLAY EQUIPMENT (CAGAYAN AND MAGAT); REMOVE
5. DATA DISPLAY EQUIPMENT (CAGAYAN AND MAGAT); REMOVE
6. GRAPHIC DISPLAY EQUIPMENT (AGNO AND BINGA); RELOCATE
7. DATA DISPLAY (AGNO AND BINGA); RELOCATE
8. GRAPHIC DISPLAY EQUIPMENT (PAMPANGA); REMOVE
9. DATA DISPLAY EQUIPMENT(PAMPANGA) REMOVE
10. DATA DISPLAY EQUIPMENT(ANGAT AND PANTABANGAN); RELOCATE
11. GRAPHIC DISPLAY EQUIPMENT (BICOL); REMOVE
12. DATA DISPLAY EQUIPMENT (BICOL); REMOVE
13. DATA DISPLAY EQUIPMENT (METRO MANILA)
14. DATA DISPLAY EQUIPMENT (METRO MANILA)
15. AGNO, BICOL, CAGAYAN, OPERATOR CONSOLE; REMOVE
16. PAMPANGA OPERATOR CONSOLE; REMOVE
17. ANGAT TELEPRINTER (RELOCATE)
18. BINGA TELEPRINTER (RELOCATE)
19. PANTABANGAN TELEPRINTER (RELOCATE)
20. ANGAT TELEPRINTER (RELOCATE)
21. PAMPANGA TELEPRINTER; REMOVE
22. RAINFALL RECORDER
23. RAINFALL RECORDER
24. PAMPANGA AUTOMATIC RECORDER
25. AGNO, BICOL, CAGAYAN SMS
26. SAN ROQUE DAM MONITORING EQUIPMENT

LEGEND :

FOR NEWLY INSTALLED EQUIPMENT

- ① TELEMETRY RECEIVER AND SUPERVISORY EQUIPMENT
- ② PC TYPE OPERATION CONSOLE (HARD AND SOFTWARE)
- ③ SERIAL PRINTER
- ④ DATA AND MEMORY READER
- ⑤ LIQUID DISPLAY (LCD)
- ⑥ LCD CONTROLLER
- ⑦ ENCLOSURE (19-INCH RACK)
- 7.1 FFWS SERVER
- 7.2 WEB SERVER
- 7.3 GPS RECEIVER
- ⑧ SERVER FOR FLOOD FORECASTING
- ⑨ SERVER FOR DATA MANAGEMENT
- ⑩ NETWORK MONITORING PC
- ⑪ IP-PBX
- ⑫ TELEPHONE UNIT
- ⑬ FAX UNIT
- ⑭ ENCLOSURE (19-INCH RACK)
- 14.1 L3-SW
- 14.2 L2-SW(16-PORT)
- 14.3 BIT PARALLEL / IP CONVERTOR
- 14.4 NETWORK MONITORING AND CONTROLLER
- ⑮ COLOR LASER PRINTER
- ⑯ ENCLOSURE (19-INCH RACK)
- 16.1 ADRS CONNECTING EQUIPMENT
- 16.2 TELEMETRY / IP CONVERTOR
- 16.3 SERIAL / IP CONVERTOR
- 16.4 IP CONVERTOR FOR MAKE CONTACT
- ⑰ UPS (0.5kVA) EACH OF UPS UNIT SHALL BE ASSIGNED TO CLIENT PC/SERVER.
- ⑱ UPS (2kVA)
- ⑲ UPS (3kVA)
- ⑲ UPS (4kVA)
- ⑲ UPS (4kVA)
- ⑲ AVR (40kVA) POWER SUPPLY EQUIPMENT ROOM
- ⑲ AVR (40kVA) POWER SUPPLY EQUIPMENT ROOM

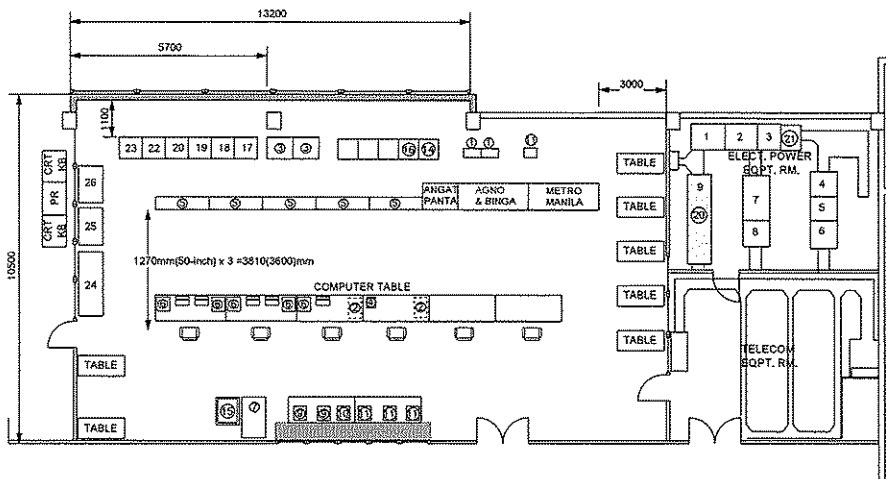


SITE LAYOUT
SCALE: NTS

LEGEND :

FOR EQUIPMENT ROOM

1. SUPERVISORY EQUIPMENT (AGNO AND BICOL); REMOVE
2. SUPERVISORY EQUIPMENT (CAGAYAN AND PAMPANGA); REMOVE
3. TELEMETERING MONITOR
4. TELEMETERING MONITOR
5. TELEMETERING MONITOR
6. MULTIPLEX TERMINAL EQUIPMENT (REMOVE)
7. FTM TERMINAL EQUIPMENT(REMOVE)
8. FS RINGER AND COMPANDOR EQUIPMENT(REMOVE)
9. POWER SUPPLY UNIT
10. REMOTE SUPERVISORY AND CONTROL EQUIPMENT(REMOVE)
11. REMOTE SUPERVISORY AND CONTROL EQUIPMENT (MASTER); REMOVE
12. DIGITAL EXCHANGE EQUIPMENT(REMOVE)
13. INTERFACE BAY
14. DISTRIBUTION FRAME
15. DC DISTRIBUTION BOARD
16. POWER DISTRIBUTION BOARD- A
17. POWER DISTRIBUTION BOARD- B
18. MAIN DISTRIBUTION FRAME
19. MAIN DISTRIBUTION FRAME
20. PULSE TRANSFORMER BOX
21. PAGASA MONITORING EQUIPMENT
22. NPC LINK EQUIPMENT

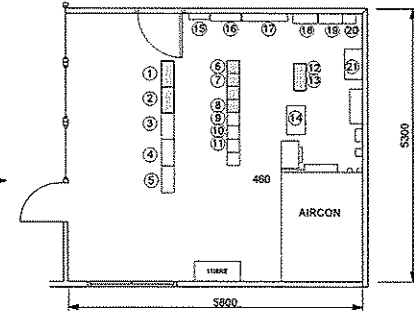


EQUIPMENT LAYOUT
SCALE: 1:150

LEGEND :

FOR ELECT. POWER EQUIPMENT ROOM

1. UPS PDB (EMERGENCY PDB)
2. LOWTENSION BOARD
3. POWER INTAKE BOARD
4. DC24V POWER SUPPLY EQUIPMENT
5. AVR (10kVA)
6. AVR (15kVA)
7. BATTERY FOR CVCF
8. CVCF FOR MTS
9. CVCF (20kVA). UPGRADE TO 40kVA



EQUIPMENT LAYOUT
SCALE: 1:100

LEGEND:

FOR MONITOR ROOM

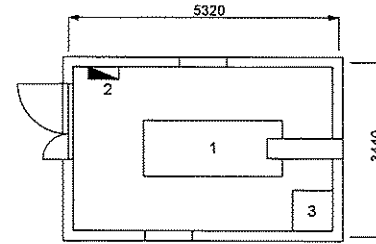
1. LCD DISPLAY 45-INCH WITH STAND
2. PC OPERATING CONSOLE WITH LCD
3. SERIAL PRINTER
4. COLOR LASER PRINTER
5. LOG CONTROLLER
6. FFWS SERVER
7. POWER DISTRIBUTION BOARD
8. FLODE FORECASTING SERVER
9. FAX
10. TELEPHONE UNIT (5 UNITS ARE TO BE INSTALLED)

FOR DEG ROOM

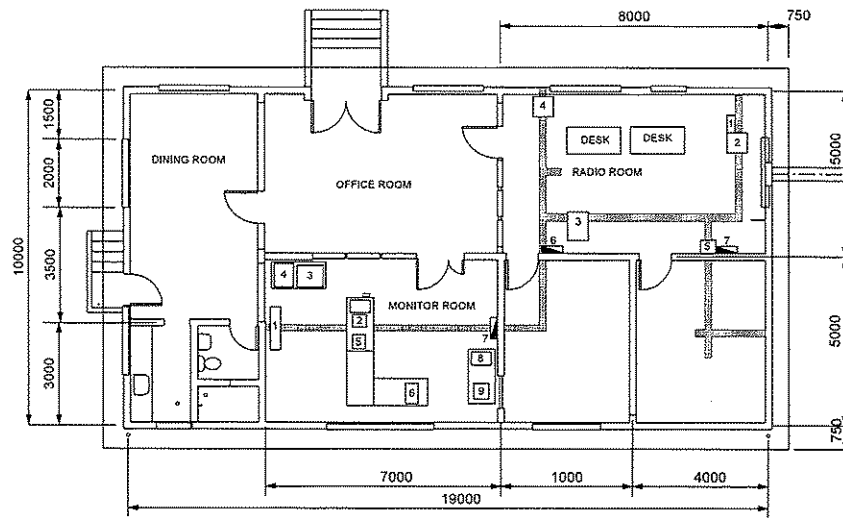
1. DIESEL ENGINE GENERATOR (50KVA)
2. POWER DISTRIBUTION BOARD
3. FUEL TANK

FOR RADIO ROOM

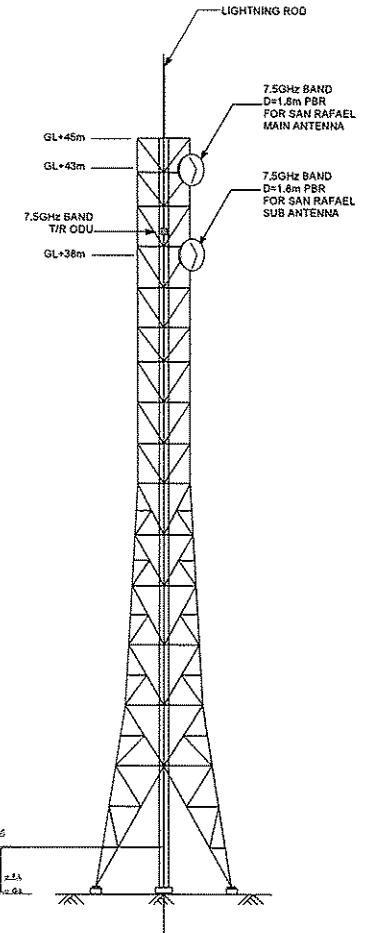
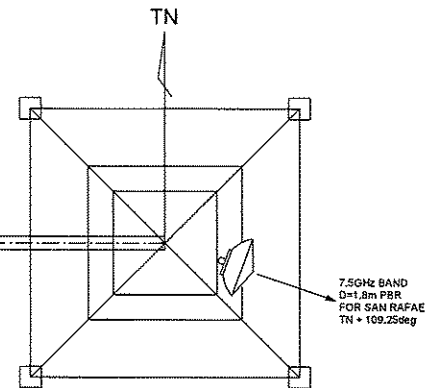
1. TELEMETRY SUPERVISORY AND CONTROL EQUIPMENT
2. ENCLOSURE (19-INCH RACK)
 - 2.1 7.5GHz BAND MULTIFLEX RADIO EQUIPMENT (10)
 - 2.2 VIF CONVERTOR FOR TELEMETRY
 - 2.3 VIF CONVERTOR FOR MAKE CONTACT
 - 2.4 VoIP GATEWAY
 - 2.5 L3-SW
 - 2.6 L2-SW (16-PORT)
 - 2.7 GFS RECEIVER
3. ENCLOSURE (19-INCH RACK)
 - 3.1 UPS (0.5KVA x 4)
 - 3.2 UPS (2KVA x 2)
 - 3.3 UPS (3KVA x 1)
4. ISOLATION TRANSFORMER
5. DC POWER SUPPLY EQUIPMENT
6. POWER DISTRIBUTION BOARD
7. AIRCON UNIT (NON-OPERATIONAL)
8. AIRCON UNIT (OPERATIONAL)
9. POWER DISTRIBUTION BOARD
10. DC POWER DISTRIBUTION BOARD



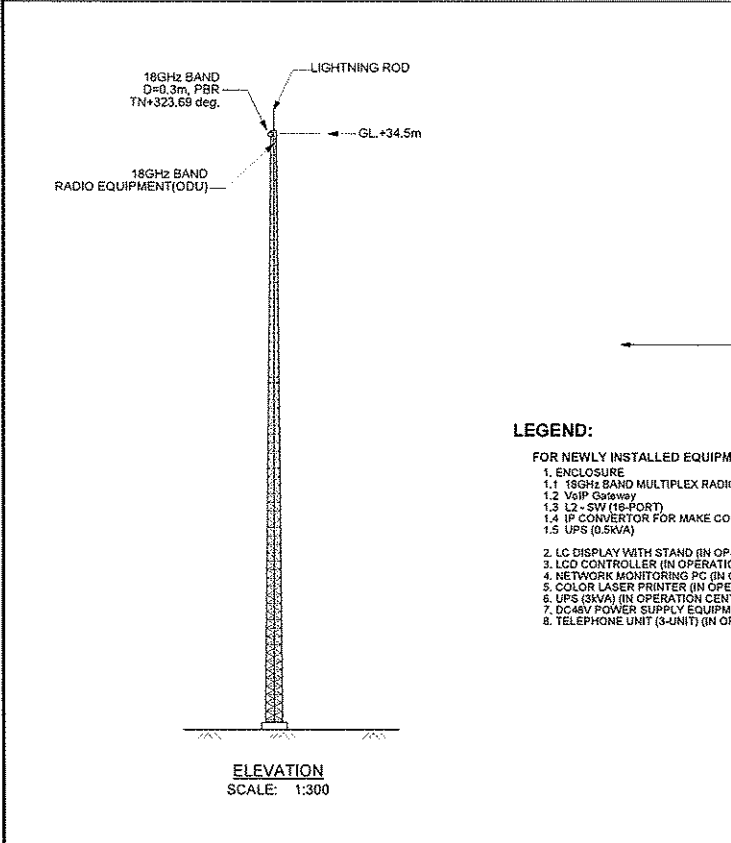
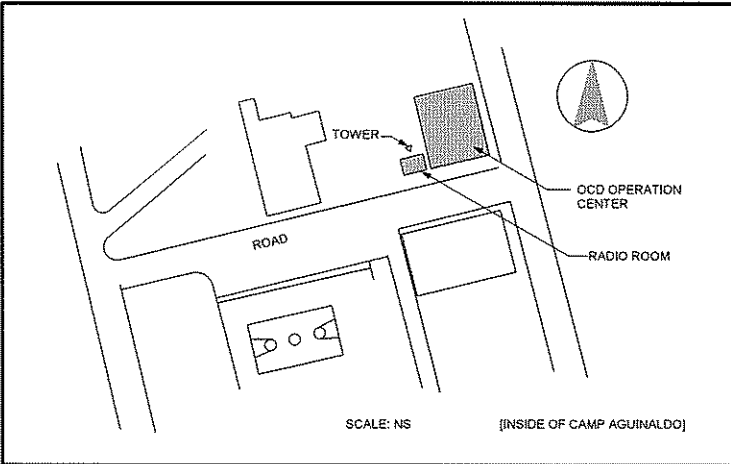
DEG ROOM LAYOUT
SCALE: 1:100



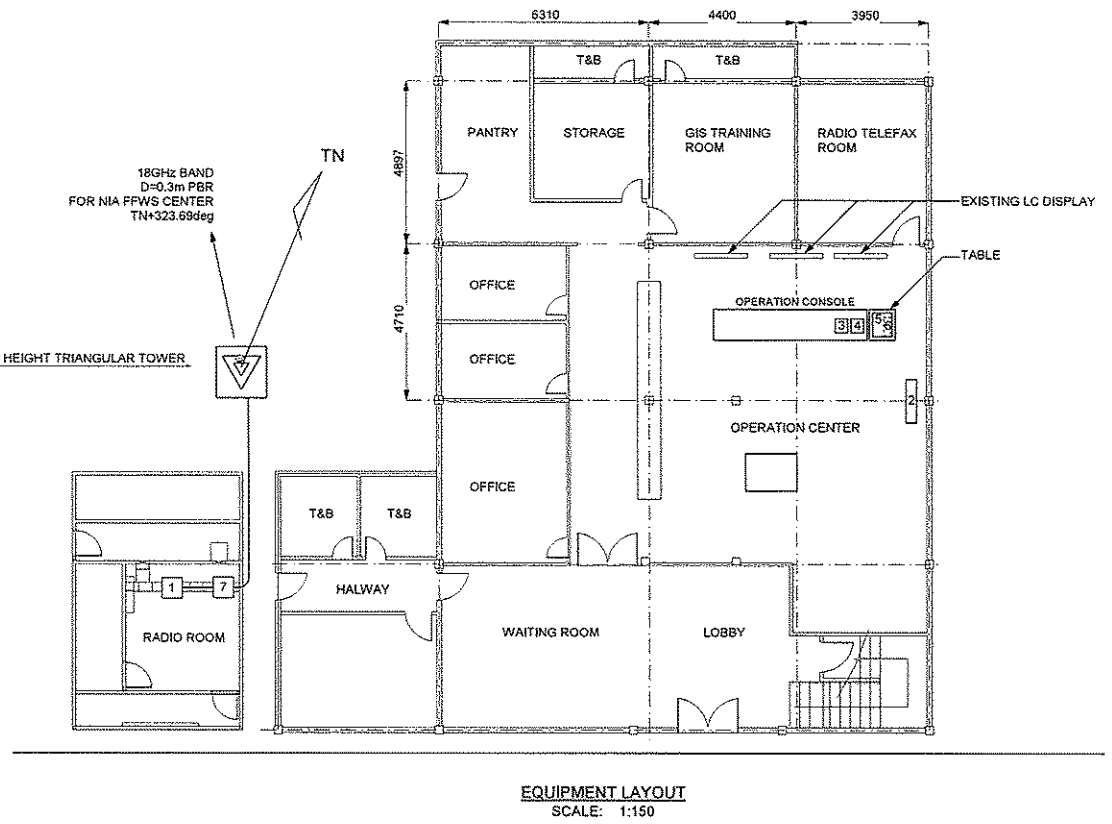
EQUIPMENT LAYOUT
SCALE: 1:150

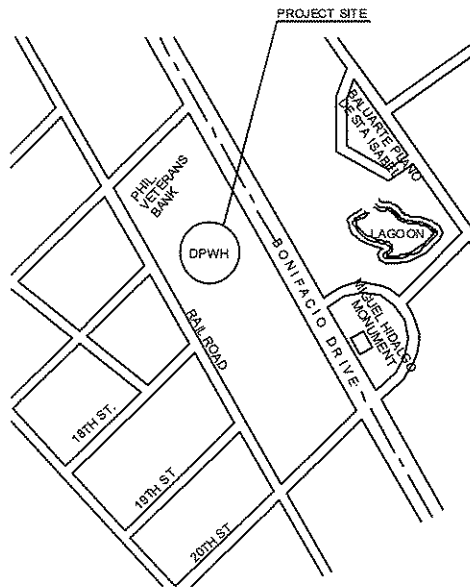


ELEVATION
SCALE: 1:300

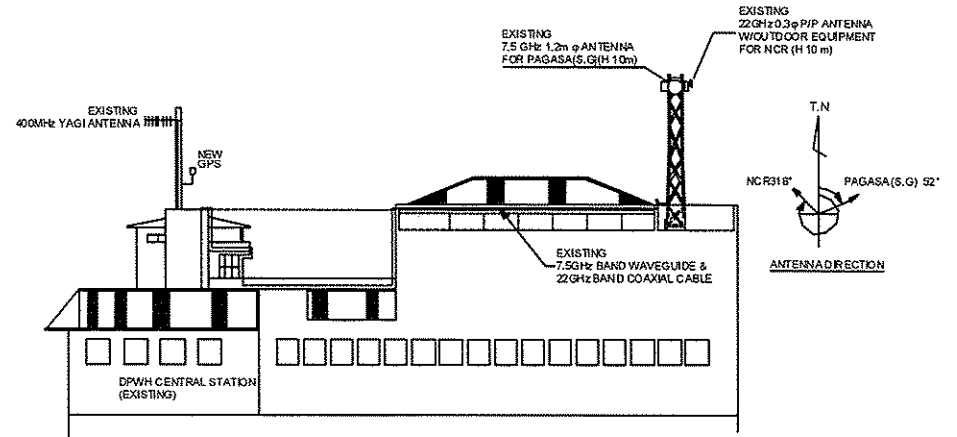


- LEGEND:**
- FOR NEWLY INSTALLED EQUIPMENT**
1. ENCLOSURE
 - 1.1 18GHz BAND MULTIPLEX RADIO EQUIPMENT (IDU)
 - 1.2 VoIP Gateway
 - 1.3 L2 - SW (16-PORT)
 - 1.4 IP CONVERTOR FOR MAKE CONTACT
 - 1.5 UPS (0.5KVA)
 2. LC DISPLAY WITH STAND (IN OPERATION CENTER)
 3. LCD CONTROLLER (IN OPERATION CENTER)
 4. NETWORK MONITORING PC (IN OPERATION CENTER)
 5. COLOR LASER PRINTER (IN OPERATION CENTER)
 6. UPS (3KVA) (IN OPERATION CENTER)
 7. DC&V POWER SUPPLY EQUIPMENT
 8. TELEPHONE UNIT (3-UNIT) (IN OPERATION CENTER)

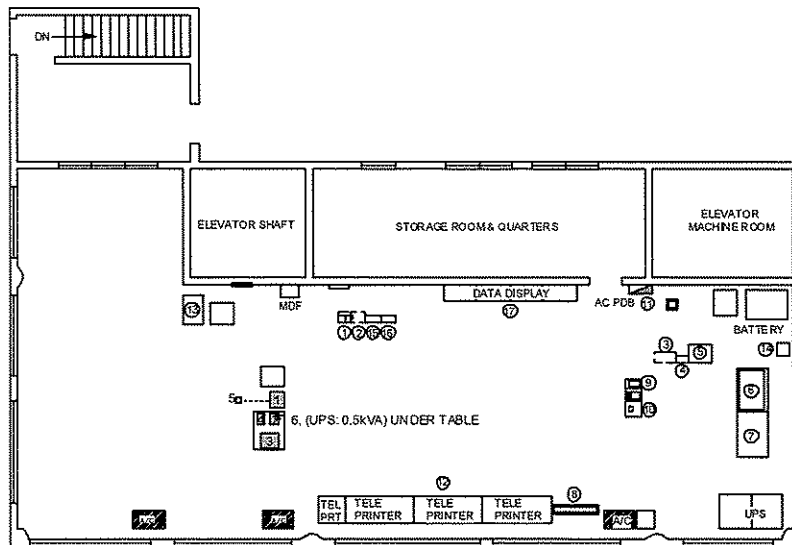




VICINITY MAP
SCALE: NTS



ELEVATION (5F)
SCALE: NTS



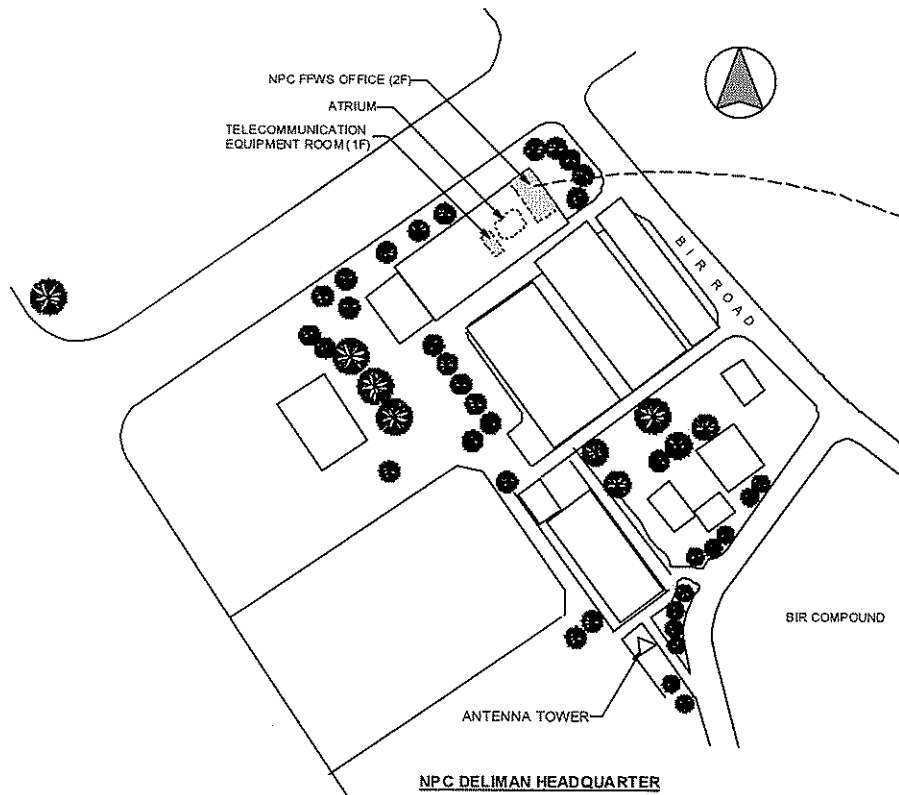
EQUIPMENT LAYOUT
SCALE: 1:200

LEGEND FOR NEWLY INSTALLED:

1. CLOSURE
- 1.1 VoIP GATEWAY
- 1.2 L2-SW
- 1.3 SERIAL/UP CONVERTOR
- 1.4 MAKE CONTACT/UP CONVERTOR
- 1.5 UPS (3kVA)
2. MONITORING PC
3. COLOR LASER PRINTER
4. FAX
5. TELEPHONE UNIT

LEGEND FOR EXISTING EQUIPMENT :

- | | |
|--|---|
| ① 7.5 GHz MULTIPLEX RADIO EQUIPMENT & 22GHz INDOOR EQUIPMENT | ⑫ AVR 1KVA |
| ② DIGITAL TERMINAL EQUIPMENT | ⑬ TELEPRINTER (TRANSFER TO NAPINDAN) |
| ③ TELEMETRY MONITOR EQUIPMENT | ⑭ AVR 20KVA |
| ④ TELEPHONE REPEATER EQUIPMENT & DIGITAL TERMINAL EQUIPMENT (TRANSFER TO NAPINDAN) | ⑮ MDF |
| ⑤ TELEPHONE EXCHANGE | ⑯ TELEMETRY MONITOR EQUIPMENT (ABC SYSTEM) |
| ⑥ DATA DISPLAY | ⑰ TELEMETRY MONITOR EQUIPMENT (PAMPANGA SYSTEM) |
| ⑦ DATA DISPLAY | ⑱ DATA DISPLAY (ABC & PAMPANGA) |
| ⑧ PLASMA DISPLAY | |
| ⑨ WORK STATION | |
| ⑩ RADIO (EMERGENCY COMMUNICATION NETWORK SYSTEM) | |



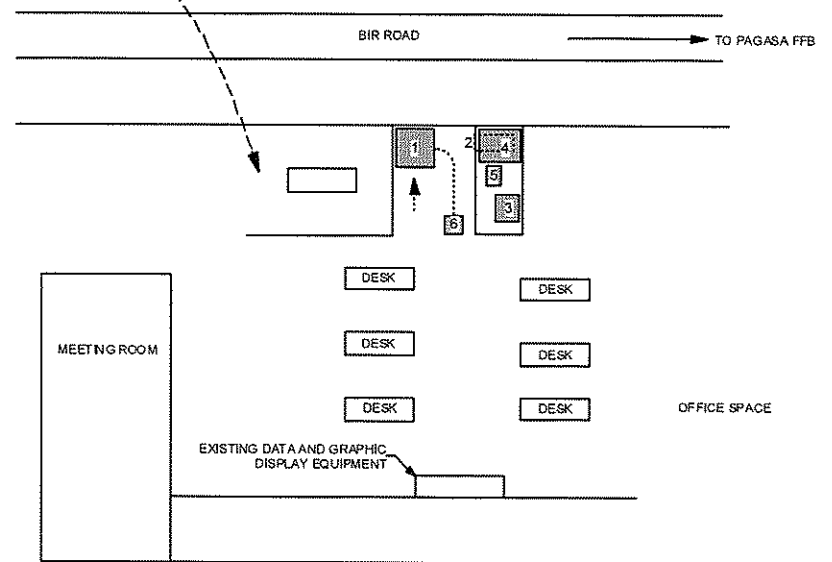
VICINITY MAP
 SCALE: NTS

LEGEND:

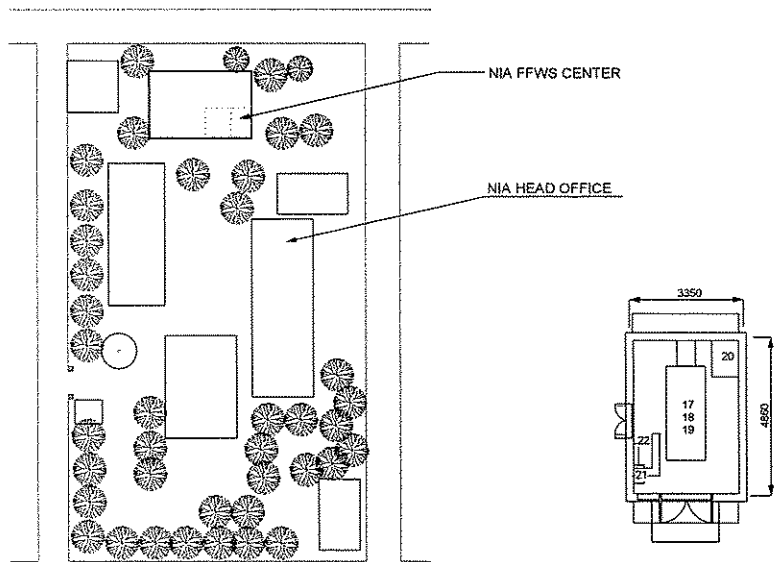
- 1. CLOSURE
- 1.1 VoIP GATEWAY
- 1.2 L2-SW
- 1.3 L3-SW
- 1.4 SERIAL/IP CONVERTOR
- 1.5 MAKE CONTACT/IP CONVERTOR
- 1.6 UPS (1kVA)
- 2. UPS (0.5kVA) UNDER TABLE
- 3. MONITORING PC
- 4. COLOR LASER PRINTER
- 5. FAX
- 6. TELEPHONE UNIT

NOTE:

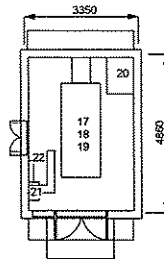
Wiring is required from FFWS OFFICE to the telecommunication equipment room of the first floor.



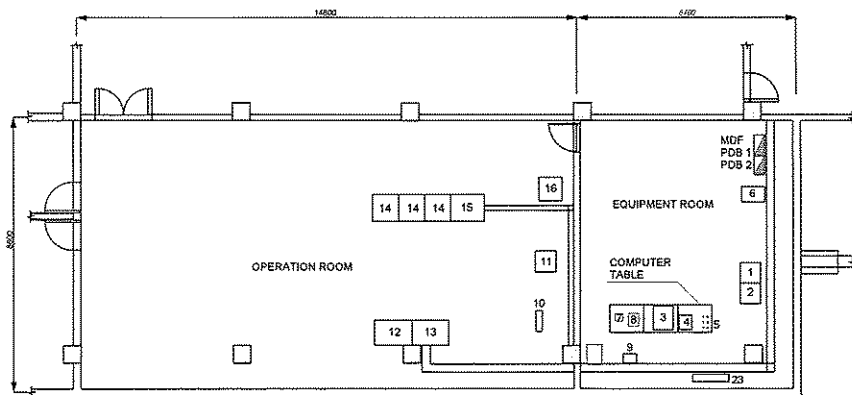
EQUIPMENT LAYOUT PLAN OF THE FFWS OFFICE
 SCALE: NTS



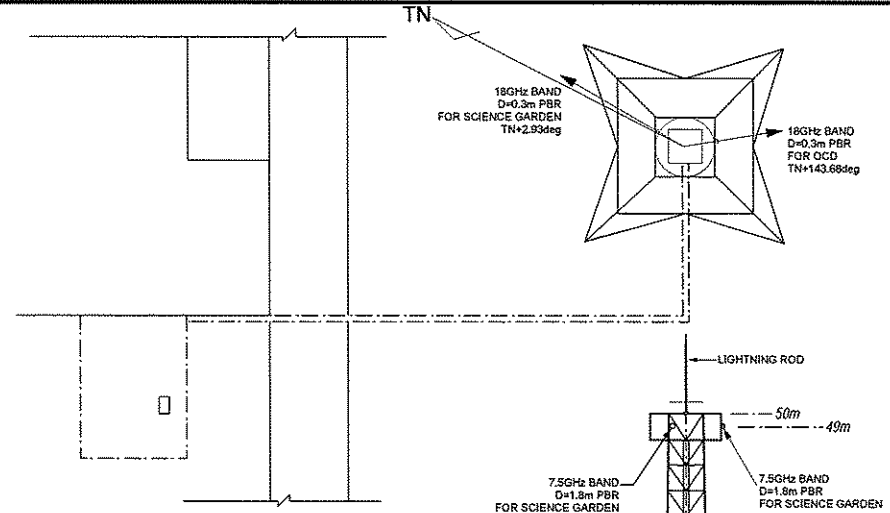
LAYOUT PLAN
SCALE: NON



DEG. LAYOUT PLAN
SCALE: 1:150



EQUIPMENT LAYOUT
SCALE: 1:150



LEGEND:

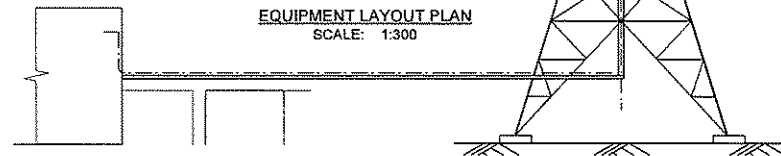
FOR EXISTING EQUIPMENT

- 9. MDF
- 10. TELEMETRY MONITORING EQUIPMENT
- 11. TELEPRINTER
- 12. DATA DISPLAY EQUIPMENT
- 13. GRAPHIC DISPLAY EQUIPMENT
- 14. COMPUTER SYSTEM
- 15. FACSIMILE
- 16. CVCF
- 17. DIESEL ENGINE GENERATOR
- 18. GENERATOR CONTROL EQUIPMENT
- 19. CHARGE OVER PANEL
- 20. FUEL OIL TANK
- 21. LOW TENSION PANEL
- 22. PDB
- 23. AIRCON

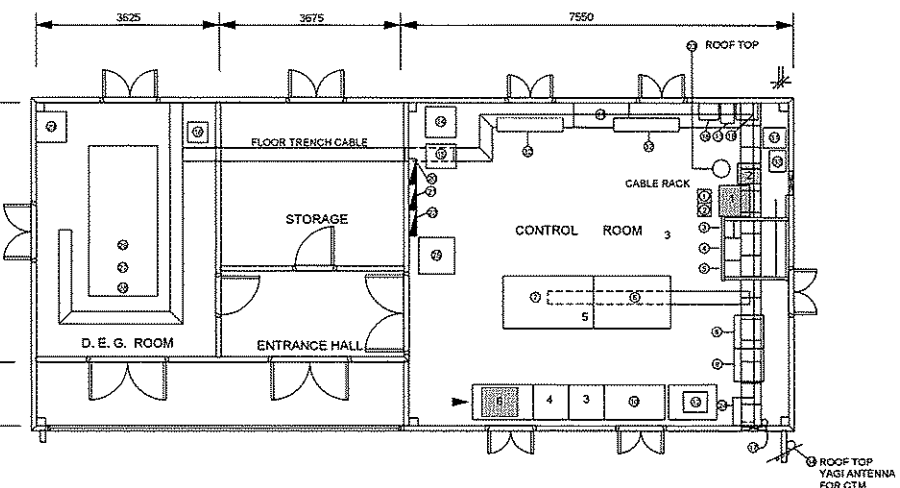
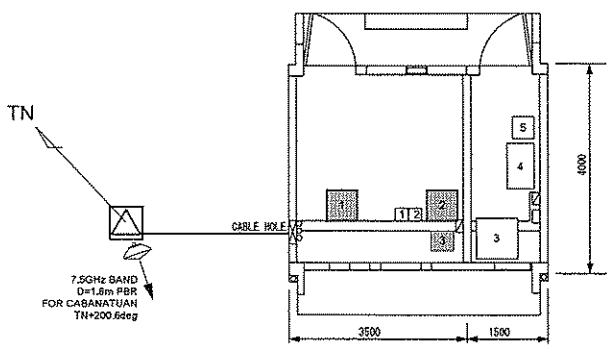
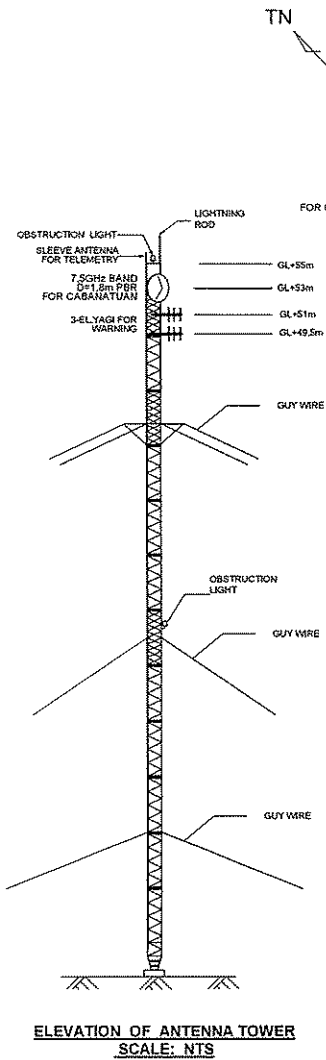
NOTE:
ALL THE EXISTING EQUIPMENT WHICH ARE NOT SHOWN IN A LEFT FIGURE SHALL BE REMOVED.

FOR NEWLY INSTALLED EQUIPMENT

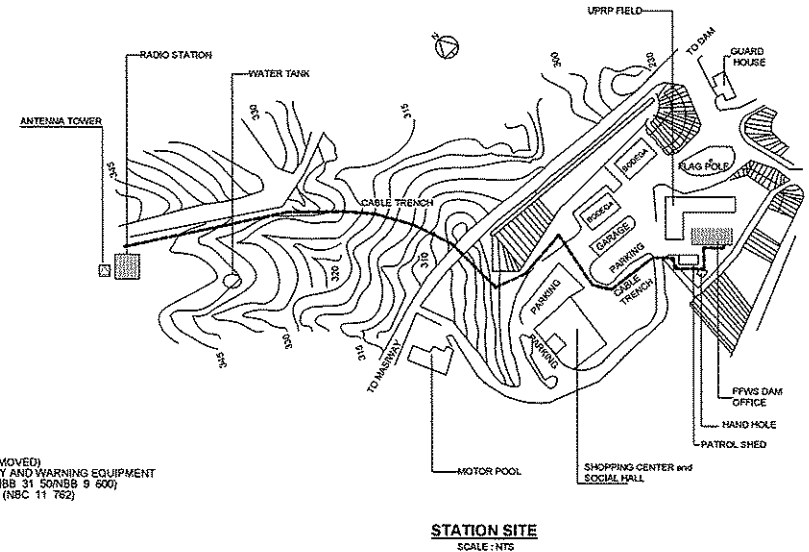
- 1. CLOSURE
- 1.1 VoIP Gateway
- 1.2 L3-SW
- 1.3 L2-SW WITH 16-PORT
- 1.4 UPS (3kVA)
- 2. CLOSURE
- 2.1 18GHz BAND MULTIPLEX RADIO EQUIPMENT (IDU) FOR SCIENCE GARDEN
- 2.2 18GHz BAND MULTIPLEX RADIO EQUIPMENT (IDU) FOR GCD.
- 2.3 IP CONVERTOR FOR MAKE CONTACT
- 3. COLOR LASER PRINTER
- 4. MONITORING PC
- 5. UPS (0.5kVA)
- 6. DC 48V POWER SUPPLY EQUIPMENT
- 7. TELEPHONE UNIT
- 8. FACSIMILE UNIT



EQUIPMENT LAYOUT PLAN
SCALE: 1:300



- LEGEND**
- : EXISTING EQUIPMENT
 - ▨ : NEWLY INSTALLED
1. MULTIPLEX RADIO EQUIPMENT (REMOVED)
2. RADIO EQUIPMENT FOR TELEMETRY AND WARNING EQUIPMENT
3. D/C POWER SUPPLY EQUIPMENT (NBB 31 50NBB 9 600)
4. AUTOMATIC VOLTAGE REGULATOR (NBC 11 762)
5. ISOLATION TRANSFORMER
1. CLOSURE
1.1 7.5GHz BAND MULTIPLEX RADIO EQUIPMENT (IDU)
1.2 V6ip GATEWAY
1.3 L3-SW
1.4 L2-SW
1.5 TELEPHONE UNIT
1.6 IP CONVERTOR FOR MAKE CONTACT
1.7 UPS (3KVA)
2. DC POWER SUPPLY EQUIPMENT
3. ISOLATION TRANSFORMER



- LEGEND**
- : EXISTING EQUIPMENT
 - ▨ : NEWLY INSTALLED
1. MULTIPLEX CARRIER TERMINAL EQUIPMENT (REMOVED)
2. REMOTE CONTROL AND SUPERVISORY EQUIPMENT (REMOVED)
3. TELEMETERING SUPERVISORY AND CONTROL EQUIPMENT (GWD 600 TT)
4. CYCLIC TELEMETERING SUPERVISORY EQUIPMENT (GWD 978 DR)
5. WARNING SUPERVISORY AND CONTROL EQUIPMENT (GWD 600 AV)
6. OPERATING CONSOLE (GWD -971 CD)
7. OPERATING CONSOLE (GWD -976 CD)
8. TELEPRINTER (INDG -131)
9. TELEPRINTER (INDG -131)
10. COMPUTER SYSTEM
11. DATA DISPLAY EQUIPMENT (GWD 973 DE)
12. FACSIMILE EQUIPMENT (JAX 820)
13. KEY TELEPHONE MASTER UNIT (ET 816) AND POWER SUPPLY
14. D/C POWER SUPPLY EQUIPMENT (NSB 31 50NBB 9 600)
15. AUTOMATIC VOLTAGE REGULATOR (NBC 11 762)
16. ISOLATION TRANSFORMER (MS 10AC)
17. COAXIAL ARRESTER (NYZ 159)
18. JOINT BOX
19. M. D. F.
20. P. D. B. A
21. P. D. B. B
22. P. D. B. C
23. RAIN GAUGE (NKC 5050) ROOF TOP
24. AUTOMATIC RECORDER (NKA 110 Q)
25. C.V.C.F.
26. DIESEL ENGINE GENERATOR
27. GENERATOR CONTROL PANEL
28. CHANGE OVER PANEL
29. DAILY FUEL OIL TANK
30. LOW TENSION PANEL
31. STORAGE BATTERY FOR D/C POWER SUPPLY EQUIPMENT
32. AIRCON
33. THERMOSTAT FOR FAN BLOWER
34. 3EL YAGI ANTENNA (TO WATER LEVEL GAUGE STATION)
1. CLOSURE
1.1 V6ip GATEWAY
1.2 L3-SW
1.3 L2-SW
1.4 UPS (3KVA)
2. ISOLATION TRANSFORMER
3. FACSIMILE UNIT
4. MONITORING PC
5. TELEPHONE UNIT
6. COLOR LASER PRINTER



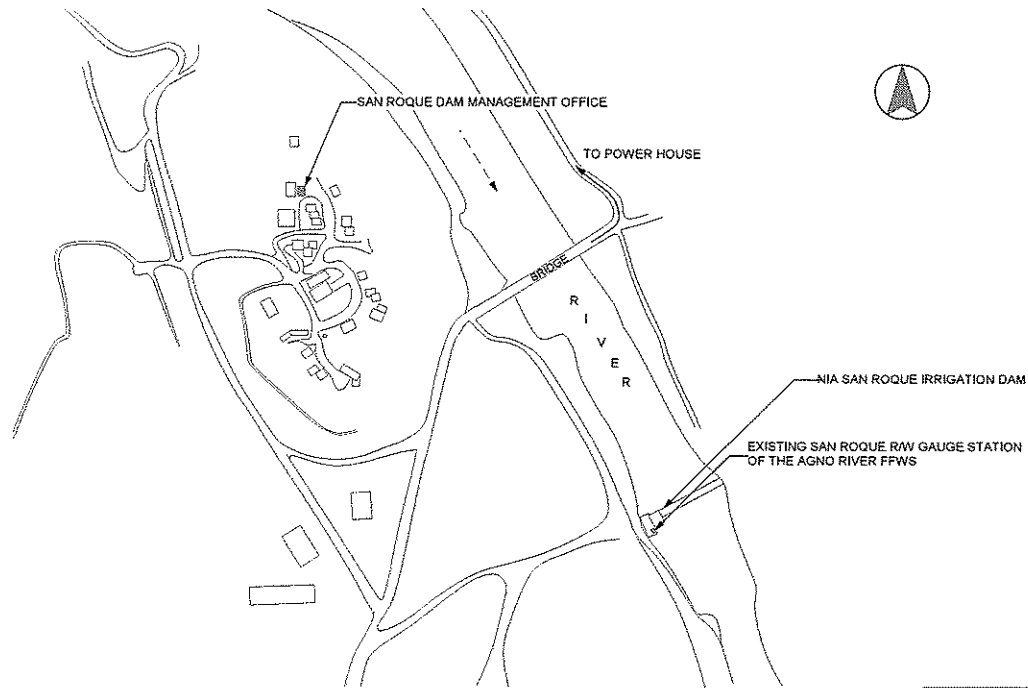
JAPAN INTERNATIONAL COOPERATION AGENCY

PROJECT & LOCATION:
UPGRADING OF FLOOD FORECASTING AND WARNING SYSTEM IN THE PAMPANGA AND AGNO RIVER BASINS

SHEET CONTENTS
PANTABANGAN FFWS DAM OFFICE SITE LAYOUT PLAN

SET
T-PM-M7

SHT. NO.
29/48



VICINITY MAP
SCALE: NTS

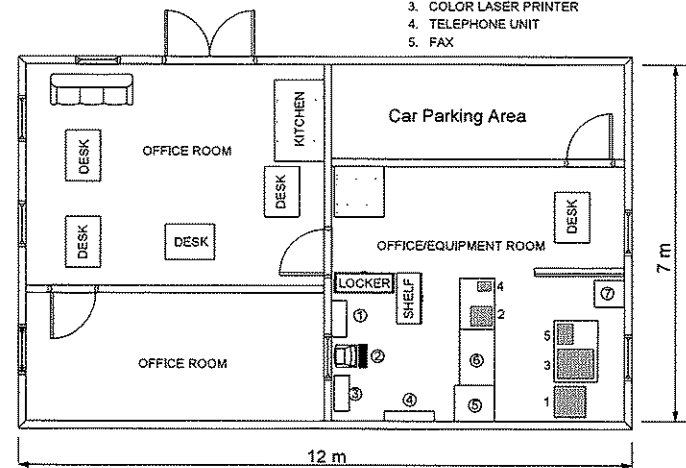
LEGEND FOR EXISTING EQUIPMENT:

- ① FFWSDO TELEMETRY CONTROL PANEL
- ② FFWSDO OPERATING CONSOLE (PC)
- ③ MICROWAVE MULTIPLEX EQUIPMENT
- ④ BATTERY RACK AND OTHER PANELS ON WALL
- ⑤ CVCF EQUIPMENT WITHOUT BATTERY
- ⑥ WARNING CONSOLE DESK (NO OPERATION)
- ⑦ WARNING SUPERVISORY AND CONTROL EQUIPMENT

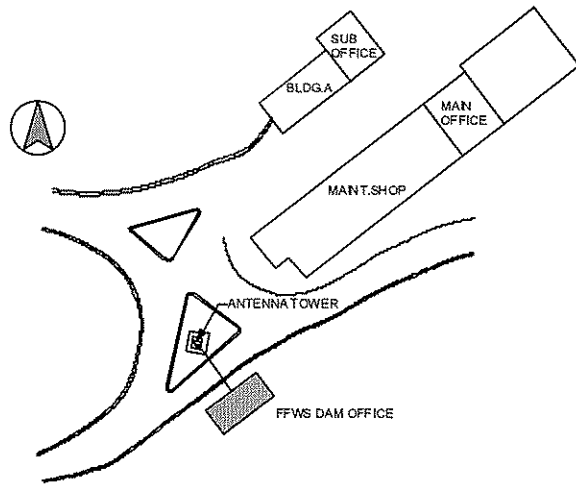


LEGEND FOR EXISTING EQUIPMENT:

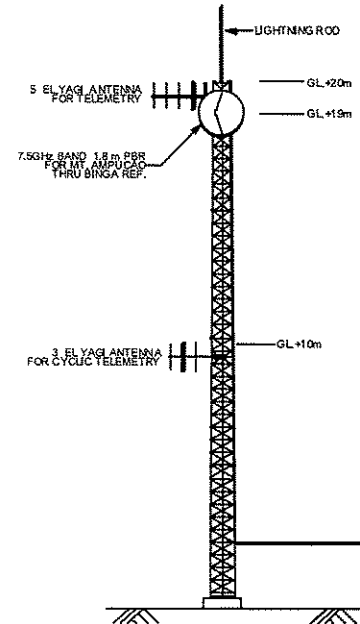
- 1. CLOSURE (19-INCH RACK)
- 1.1 DIGITAL/IP CONVERTOR
- 1.2 VoIP GATEWAY
- 1.3 L2-SW
- 1.4 UPS (0.5KVA)
- 2. MONITORING PC
- 3. COLOR LASER PRINTER
- 4. TELEPHONE UNIT
- 5. FAX



EQUIPMENT LAYOUT
SCALE: 1:100



SITE LAYOUT
SCALE: NTS



ELEVATION
SCALE: 1:200

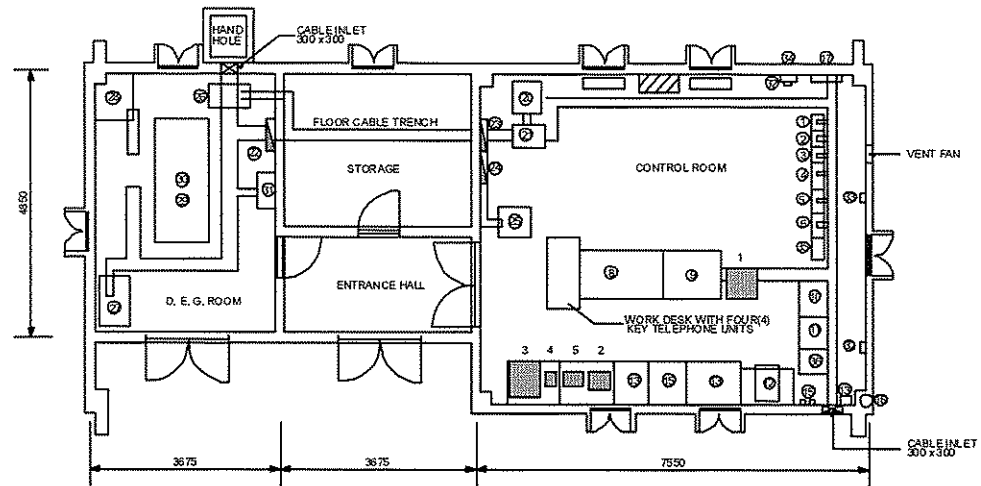
LEGEND FOR EXISTING EQUIPMENT:

LEGEND FOR NEWLY INSTALLED:

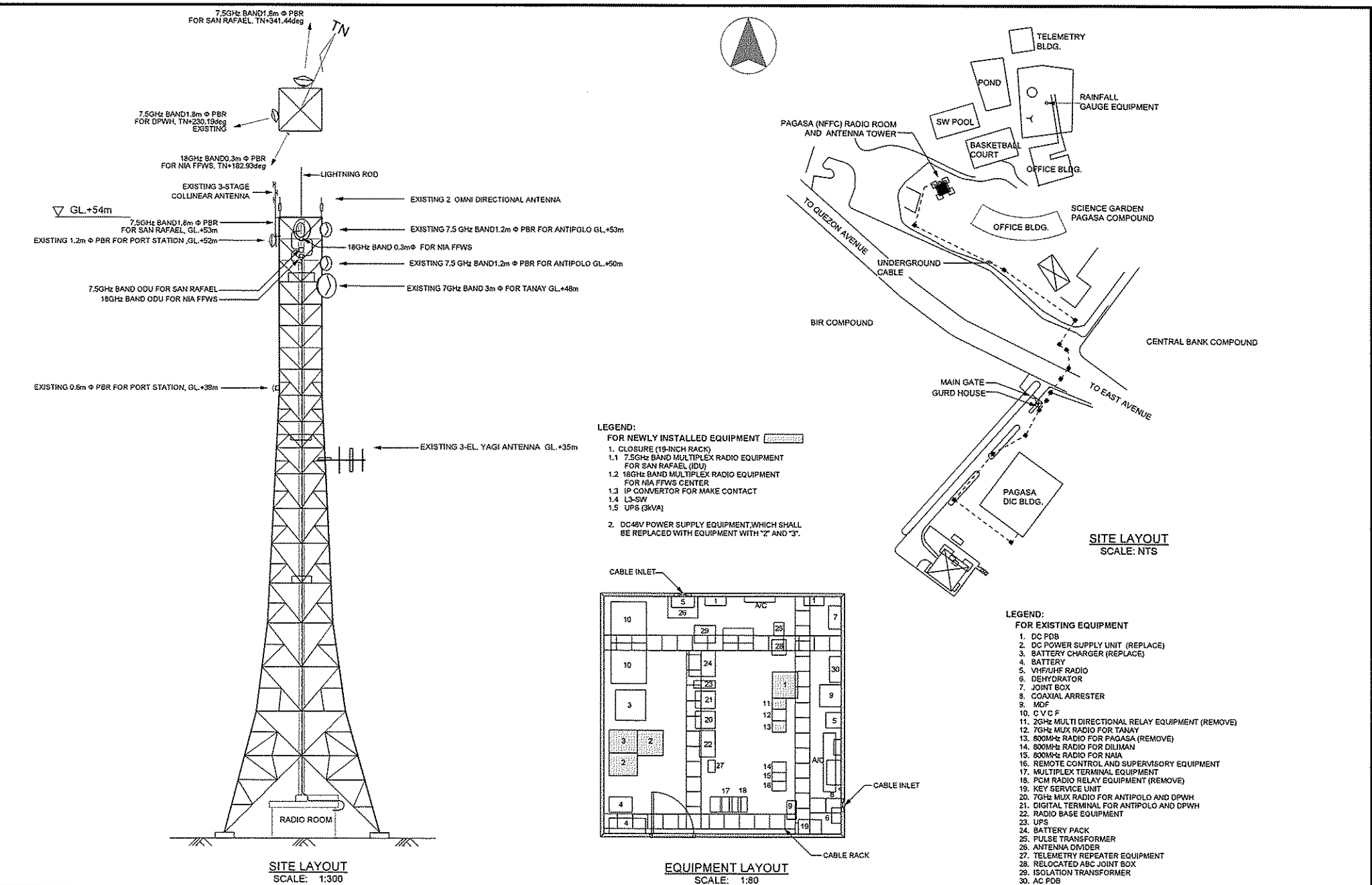
- ① MULTIPLEX RADIO EQUIPMENT (JUG-107J)
- ② CARRIER TERMINAL EQUIPMENT (JUF-5A)
- ③ REMOTE SUPERVISORY & CONTROL EQUIPMENT (JUD-12A5)
- ④ TELEMETERING SUPERVISORY AND CONTROL EQUIPMENT (GWD-600 TT)
- ⑤ CYCLIC TELEMETERING SUPERVISORY EQUIPMENT (GWD-978-DR)
- ⑥ WARNING SUPERVISORY AND CONTROL EQUIPMENT (GWD-500-AT)
- ⑦ DATA DISPLAY EQUIPMENT (GWD-973-DE)
- ⑧ OPERATING CONSOLE FOR WARNING SYSTEM (GWD-976-CD)
- ⑨ OPERATING CONSOLE FOR TELEMETERING SYSTEM (GWD-971-CD)
- ⑩ TELEPRINTER (NDG-121)
- ⑪ TELEPRINTER FOR WARNING (NDG-121)
- ⑫ FACSIMILE EQUIPMENT (JAX-930)
- ⑬ COMPUTER EQUIPMENT 985 W
- ⑭ DEHYDRATOR (DBP-L5841)
- ⑮ COAXIAL ARRESTER (NYZ-150 H/L)
- ⑯ RAIN GAUGE "ROOF TOP" (NK-C-500)
- ⑰ MAIN DISTRIBUTOR FRAME
- ⑱ KEY TEL. MASTER UNIT (NA-ET-320E)
- ⑲ AUTOMATIC RECORDER (NKA-140)
- ⑳ DC POWER SUPPLY EQUIPMENT (NBB-31-50)
- ㉑ AUTOMATIC VOLTAGE REGULATOR (NBC-11-30Z)
- ㉒ P. D. B. A. (AC)
- ㉓ P. D. B. B. (AC)
- ㉔ P. D. B. C. (DC)
- ㉕ C.V.C.F. (E2WDO 1185)
- ㉖ ISOLATION TRANSFORMER (MS-10AC)
- ㉗ STORAGE BATTERY FOR DC POWER SUPPLY EQUIP. (CS-130)
- ㉘ DAILY FUEL OIL TANK
- ㉙ GENERATOR CONTROL PANEL
- ㉚ DIESEL ENGINE GENERATOR
- ㉛ LOW TENSION PANEL
- ㉜ B. E. F. (FOR CTM ANT)
- ㉝ THERMOSTAT CONTROL SWITCH FOR FAN BLOWER
- ㉞ TERMINAL BOARD NO. 3
- ㉟ TELEMETERING MONITOR EQUIPMENT (FOR AGND)
- ⓫ TELEPRINTER (FOR AGNO)

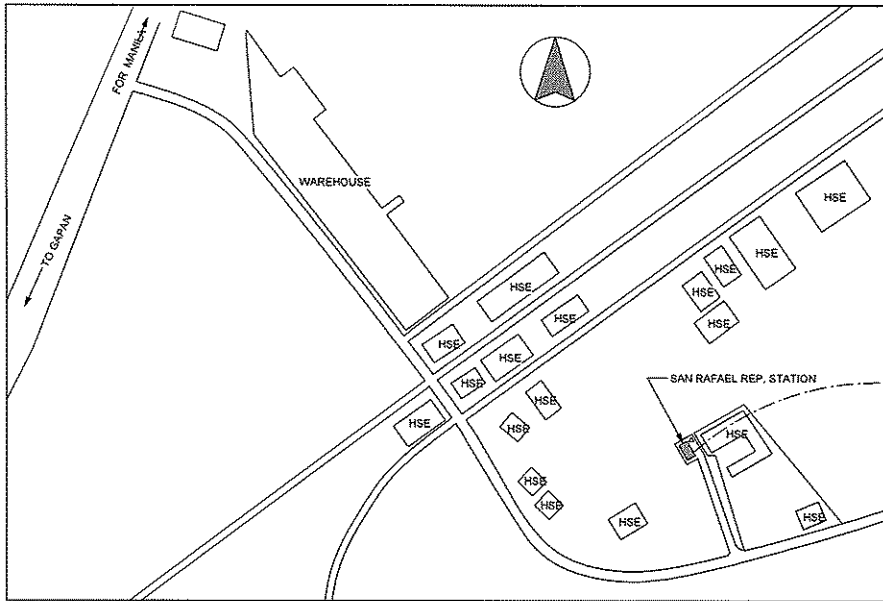
LEGEND FOR EXISTING EQUIPMENT:

- 1. CLOSURE (18 INCH RACK)
- 1.1 MODEM CONVERTOR
- 1.2 MODEM
- 1.3 L2-SW
- 1.4 UPS (0.5KVA)
- 2. MONITORING PC
- 3. COLOR LASER PRINTER
- 4. TELEPHONE UNIT
- 5. FAX

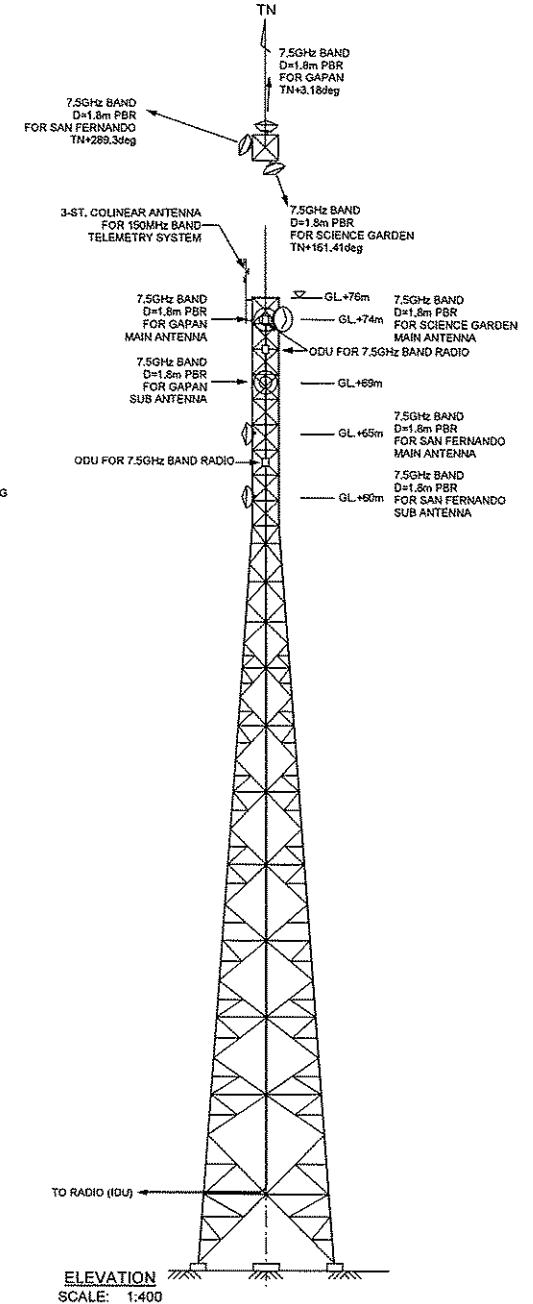
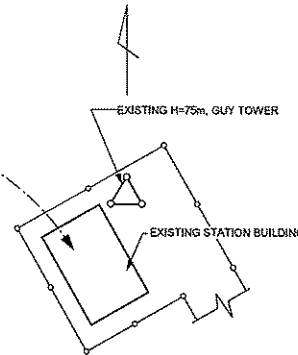


EQUIPMENT LAYOUT
SCALE: 1:100

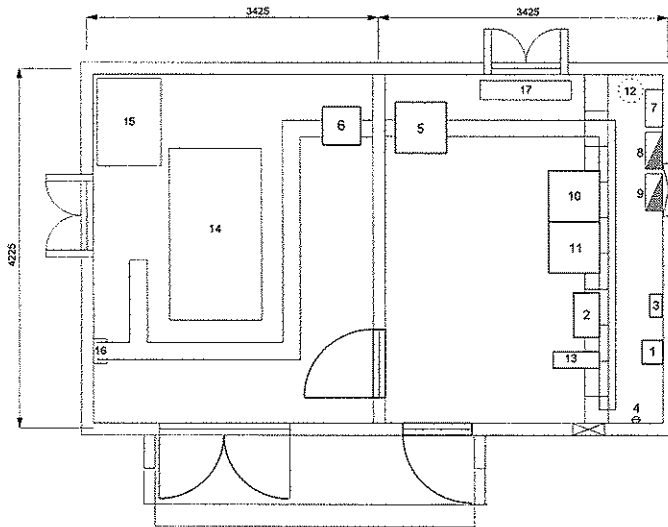




VICINITY MAP
SCALE: NO

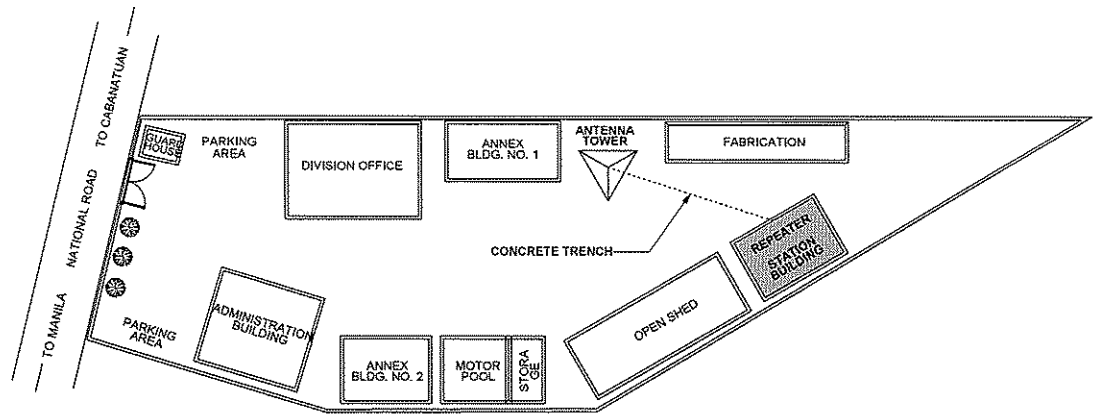
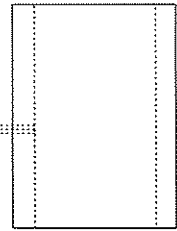
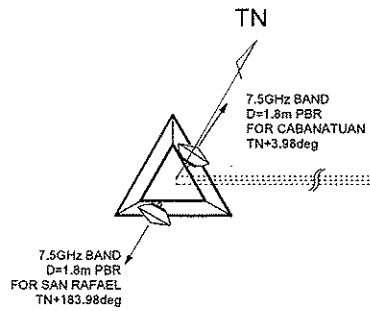


ELEVATION
SCALE: 1:400

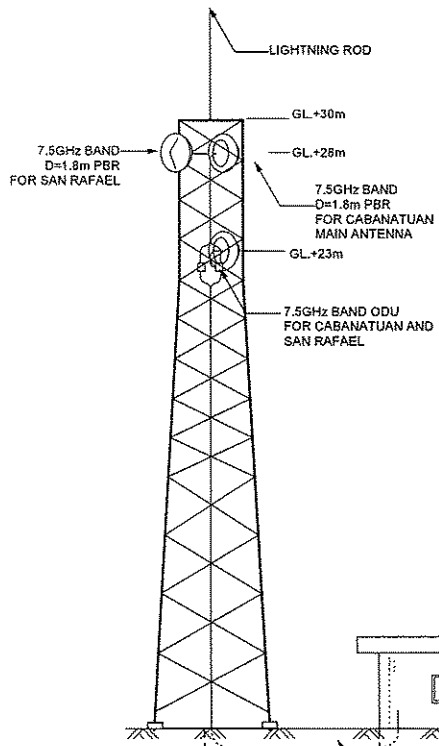


EQUIPMENT LAYOUT
SCALE: 1:60

1. TELEMETRY EQUIPMENT
2. REPEATER EQUIPMENT (U - V TYPE)
3. DATA MEMORY RECORDER
4. COAXIAL ARRESTER
5. D/C POWER SUPPLY EQUIPMENT
6. ISOLATION TRANSFORMER
7. MDF
8. PDB - A
9. PDB - B
10. CLOSURE
- 10.1 VoIP Gateway
- 10.2 L3 - SW
- 10.3 L2 - SW (16-PORT)
- 10.4 TELEPHONE UNIT
11. CLOSURE
- 11.1 7.5GHz BAND MULTIPLEX RADIO EQUIPMENT FOR SCIENCE GARDEN(IDU)
- 11.2 7.5GHz BAND MULTIPLEX RADIO EQUIPMENT FOR GAPAN (IDU)
- 11.3 7.5GHz BAND MULTIPLEX RADIO EQUIPMENT FOR SAN FERNANDO(IDU)
- 11.4 IP CONVERTOR FOR TELEMETRY
- 11.5 IP CONVERTOR FOR MAKE CONTACT
12. RAINGAUGE (ROOF TOP)
13. UPS (30VA)
14. DIESEL ENGINE GENERATOR
15. DAILY FUEL OIL TANK
16. LOW TENSION PANEL
17. AIRCON



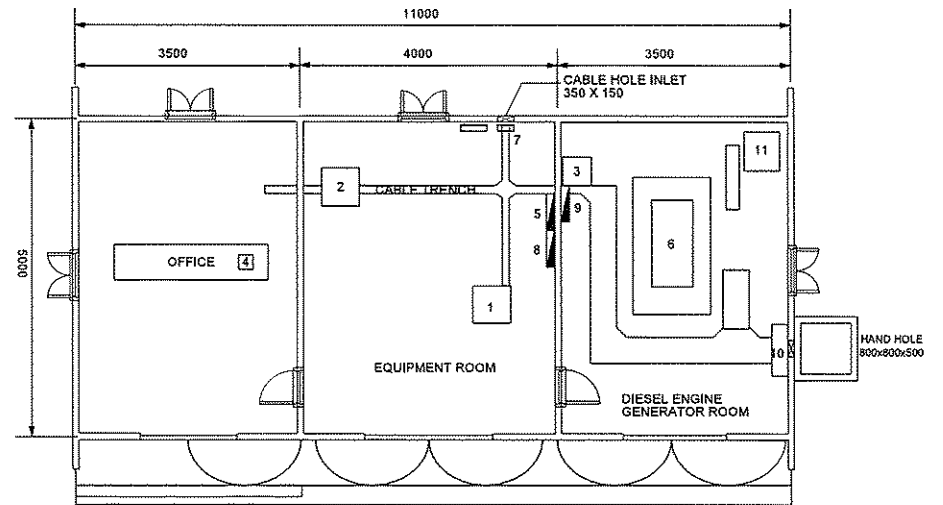
SITE LAYOUT
SCALE: NTS



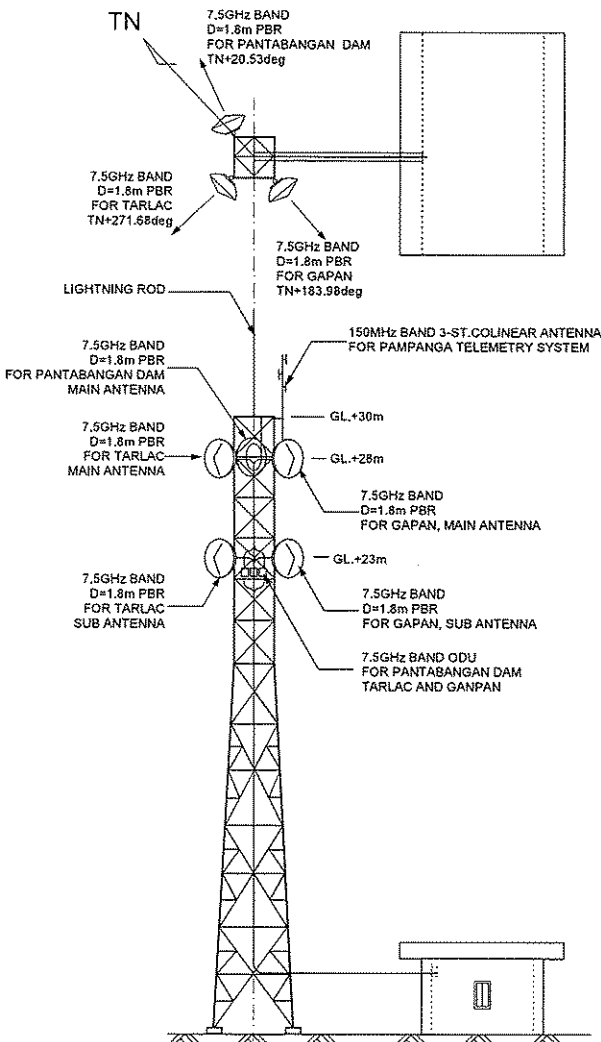
ELEVATION
SCALE: 1:250

LEGEND:

- FOR NEWLY INSTALLED EQUIPMENT**
1. ENCLOSURE
 - 1.1 7.5GHz BAND MULTIPLEX RADIO EQUIPMENT (IDU FOR CABANATUAN)
 - 1.2 7.5GHz BAND MULTIPLEX RADIO EQUIPMENT (ODU FOR SAN RAFAEL)
 - 1.3 VoIP Gateway
 - 1.4 L2-SW (16-PORT)
 - 1.5 IP CONVERTOR FOR MAKE CONTACT
 - 1.6 UPS (3KVA)
- 2. DC48V POWER SUPPLY EQUIPMENT**
3. ISOLATION TRANSFORMER
 4. TELEPHONE UNIT
 5. DC POWER DISTRIBUTION BOARD
 6. DIESEL ENGINE GENERATOR (10KVA)
- FOR EXISTING FACILITIES**
7. MAIN DISTRIBUTION FRAME
 8. POWER DISTRIBUTION BOARD
 9. POWER DISTRIBUTION BOARD
 10. LOW TENSION PANEL
 11. DAILY FUEL OIL TANK



EQUIPMENT LAYOUT
SCALE: 1:80



ELEVATION
SCALE: 1:250

LEGEND:

FOR NEWLY INSTALLED EQUIPMENT

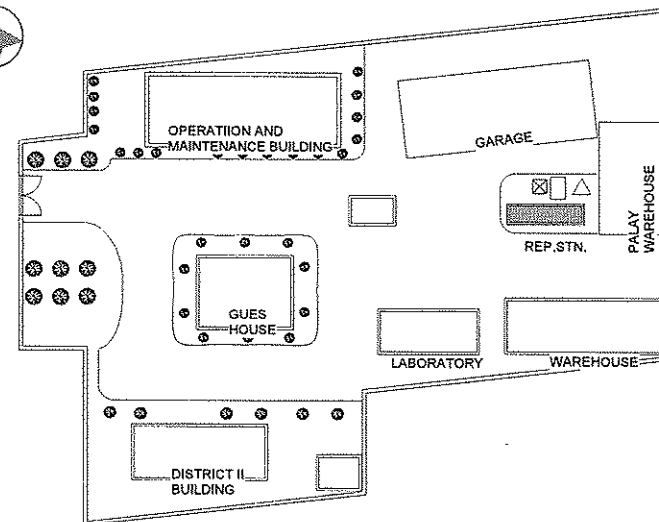
1. ENCLOSURE
- 1.1 7.5GHz BAND MULTIPLEX RADIO EQUIPMENT (IDU FOR PANTABANGAN)
- 1.2 7.5GHz BAND MULTIPLEX RADIO EQUIPMENT (IDU FOR TARLAC)
- 1.3 7.5GHz BAND MULTIPLEX RADIO EQUIPMENT (IDU FOR GAPAN)
- 1.4 VoIP Gateway
- 1.5 L2 - SW (16-PORT)

2. ENCLOSURE
- 2.1 IP CONVERTOR FOR TELEMETRY EQUIPMENT
- 2.2 IP CONVERTOR FOR WAKE CONTACT
- 2.3 UPS (3kVA)

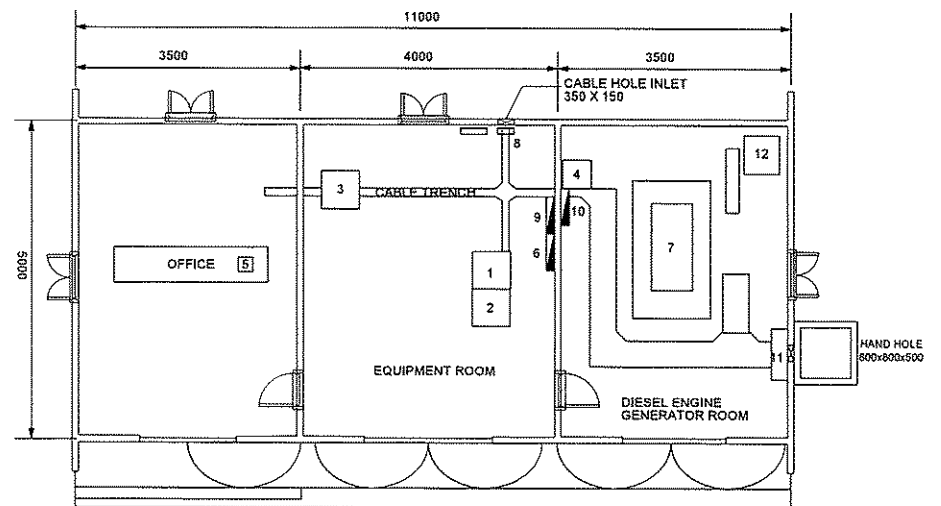
3. DC48V POWER SUPPLY EQUIPMENT
4. ISOLATION TRANSFORMER
5. TELEPHONE UNIT
6. DC POWER DISTRIBUTION BOARD
7. DIESEL ENGINE GENERATOR (10kVA)

FOR EXISTING FACILITIES

8. MAIN DISTRIBUTION FRAME
9. POWER DISTRIBUTION BOARD
10. POWER DISTRIBUTION BOARD
11. LOW TENSION PANEL
12. DAILY FUEL OIL TANK



SITE LAYOUT
SCALE: NTS



EQUIPMENT LAYOUT
SCALE: 1:80



JAPAN INTERNATIONAL COOPERATION AGENCY

PROJECT & LOCATION:

UPGRADING OF FLOOD FORECASTING AND WARNING SYSTEM IN THE PAMPANGA AND AGNO RIVER BASINS

SHEET CONTENTS

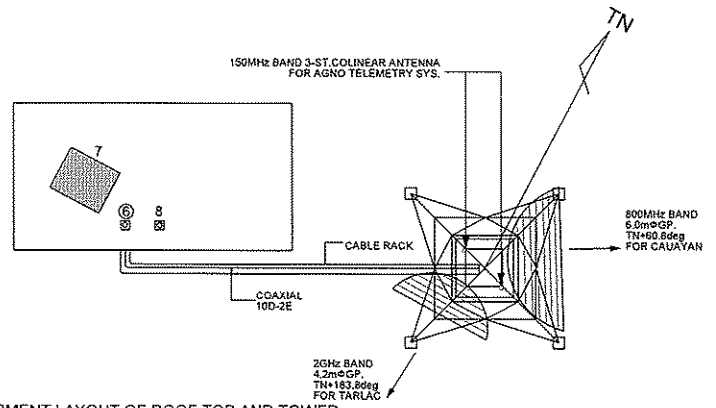
CABANATUAN REPEATER STATION SITE LAYOUT PLAN

SET

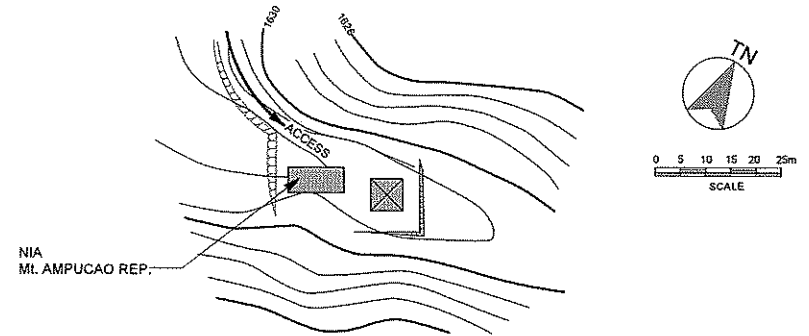
T-PM-R4

SHT. NO.

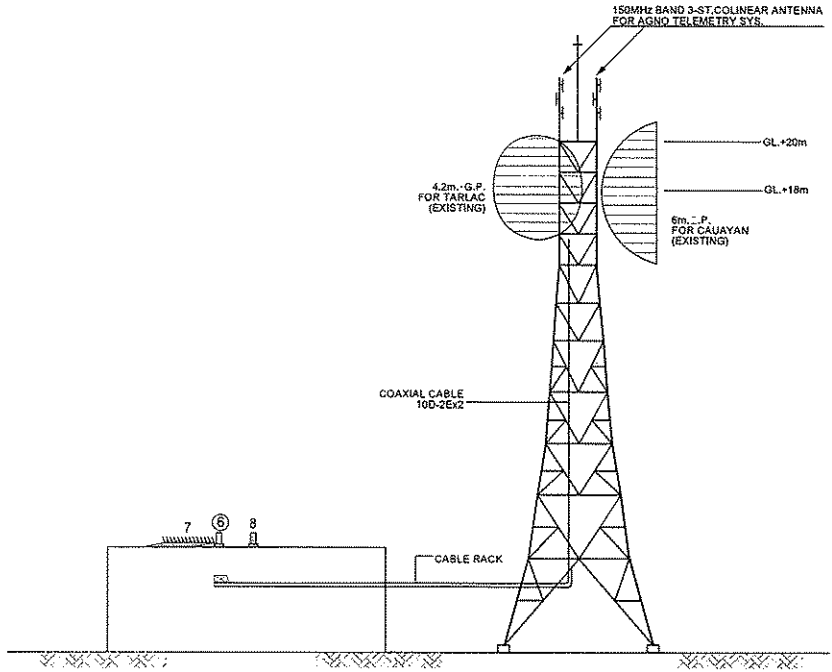
35
48



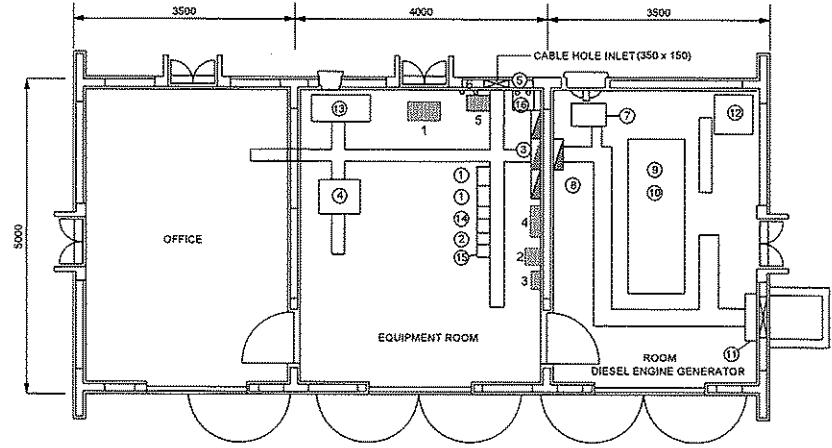
EQUIPMENT LAYOUT OF ROOF TOP AND TOWER
SCALE: 1:200



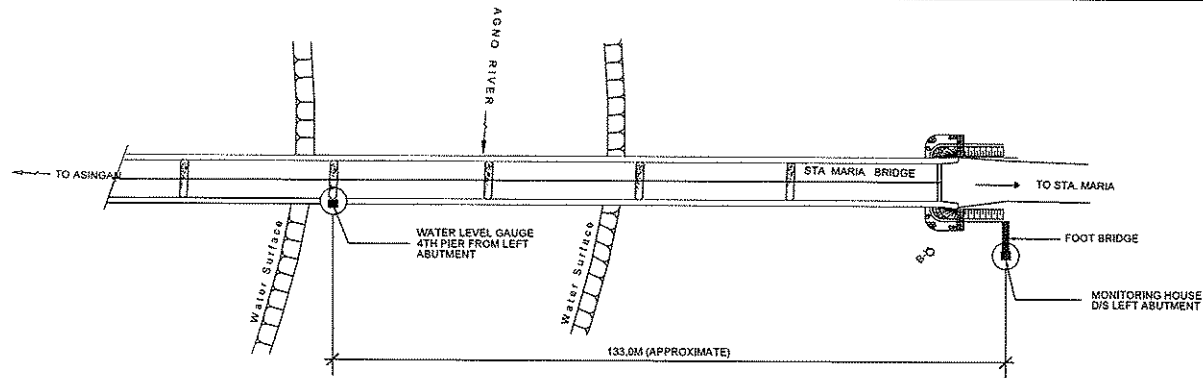
- LEGEND FOR EXISTING EQUIPMENT: [Symbol]
- LEGEND FOR NEWLY INSTALLED: [Symbol]
- ① MULTIPLEX RADIO EQUIPMENT (JUK-114A) (FOR FARLAC) (JUK-802) (FOR CAUAYAN)
 - ② REMOTE SUPERVISORY & CONTROL EQUIPMENT (JUD-12AS)
 - ③ POWER DISTRIBUTION BOARD
 - ④ D/C POWER SUPPLY EQUIPMENT (HBB-31-TS) (FOR MULTIPLEX RADIO SYSTEM EQUIPMENT)
 - ⑤ COAXIAL ARRESTER
 - ⑥ RAIN GAUGE (ON THE ROOF) (NKC-500)
 - ⑦ ISOLATION TRANSFORMER (HS-10 AC)
 - ⑧ POWER DISTRIBUTION BOARD
 - ⑨ DIESEL ENGINE GENERATOR
 - ⑩ GENERATOR CONTROL PANEL
 - ⑪ LOW TENSION PANEL
 - ⑫ DAILY FUEL OIL TANK
 - ⑬ STORAGE BATTERY FOR SUPPLY EQUIPMENT (CS-170)
 - ⑭ POWER AMPLIFIER
 - ⑮ P C MULTIPLEX TERMINAL EQUIPMENT
 - ⑯ MAIN DISTRIBUTION FRAME
 - 1. V - V REPEATER EQUIPMENT (AGNO TELEMETRY SYSTEM)
 - 2. TELEMETRY EQUIPMENT
 - 3. DIGITAL DATA LOGGER
 - 4. SOLAR CELLS POWER DISTRIBUTION BOARD
 - 5. STORAGE BATTERY
 - 6. COAXIAL ARRESTER
 - 7. SOLAR CELL PANEL
 - 8. RAIN GAUGE EQUIPMENT



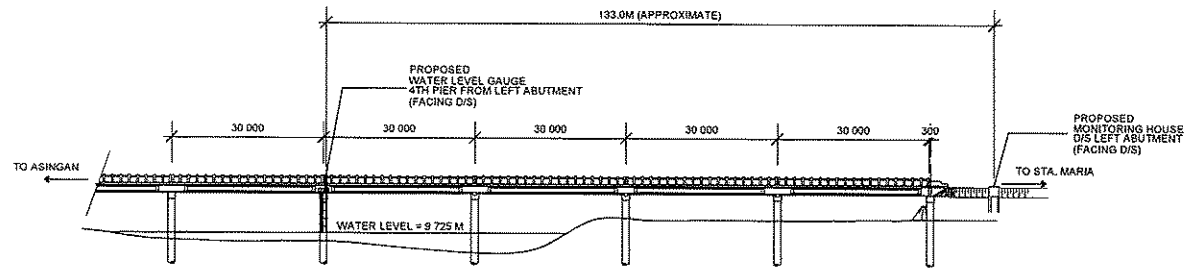
ELEVATION OF ANTENNA TOWER
SCALE: 1:200



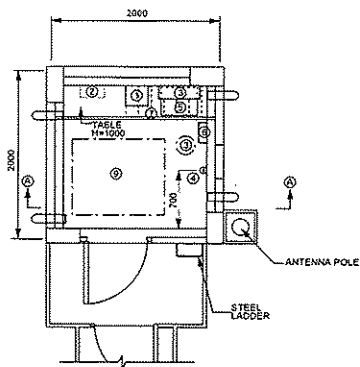
EQUIPMENT LAYOUT
SCALE: 1:80



LAYOUT PLAN
SCALE: 1:1000



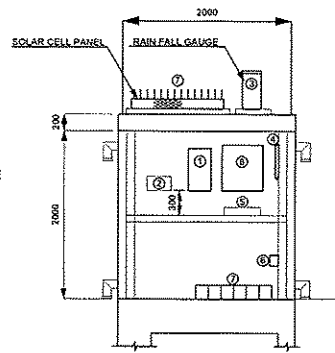
ELEVATION 1
SCALE: 1:1000



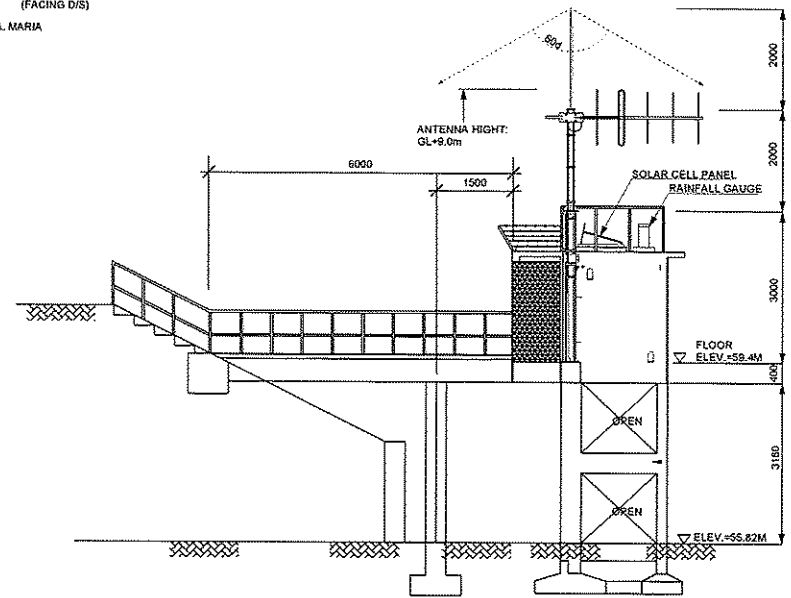
EQUIPMENT LAYOUT
SCALE: 1:60

- LEGEND:
1. TELEMETERING EQUIPMENT
 2. DIGITAL DATA MEMORY EQUIPMENT
 3. RAINFALL GAUGE
 4. COAXIAL ARRESTER
 5. DATA CONVERTER FOR WATER LEVEL GAUGE
 6. CABLE PROTECTOR FOR INSIDE USE
 7. STORAGE BATTERY
 8. POWER DISTRIBUTION BOARD
 9. SOLAR CELL PANEL

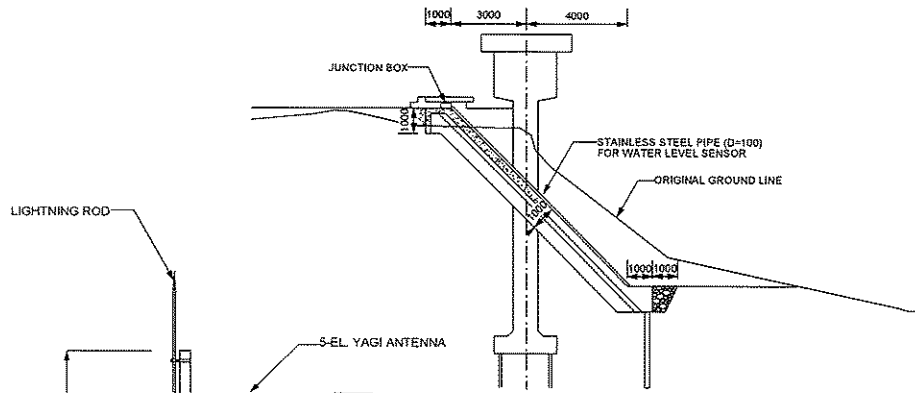
NOTE:
SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.



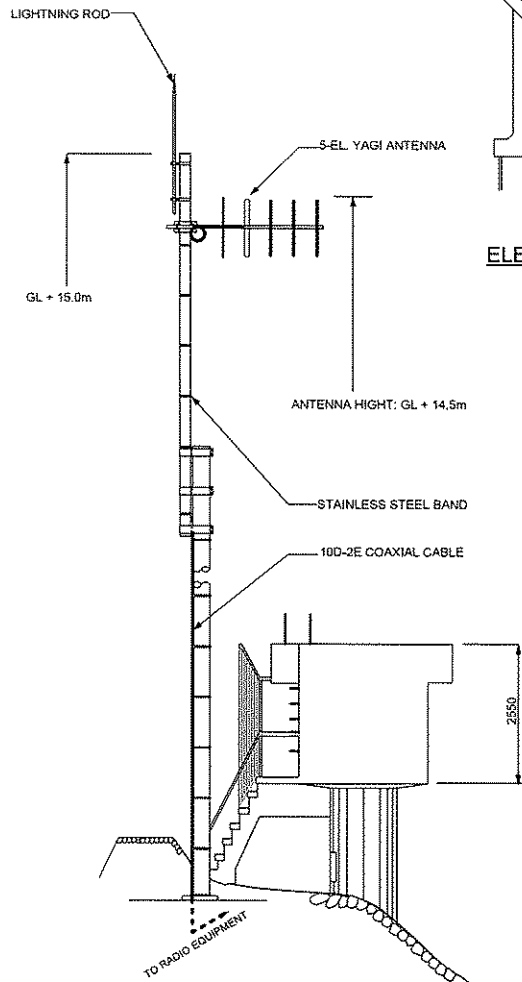
ELEVATION (A) - (A)
SCALE: 1:60



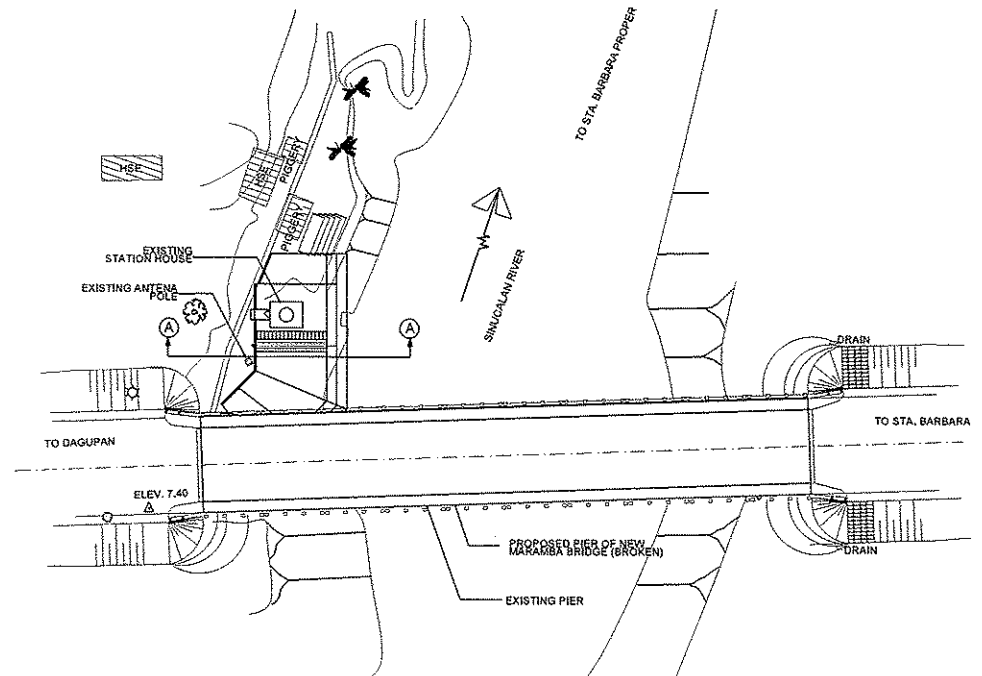
ELEVATION 2
SCALE: 1:100



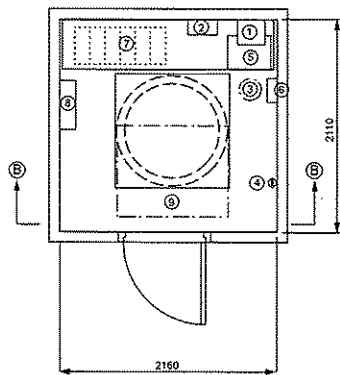
ELEVATION (A) - (A)
SCALE: 1:200



ELEVATION
SCALE: 1:100



LAYOUT PLAN
SCALE: 1:500



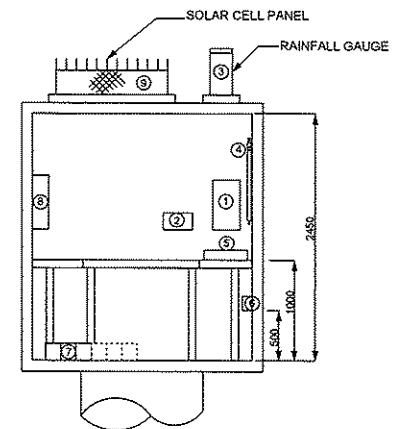
EQUIPMENT LAYOUT
SCALE: 1:50

LEGEND:

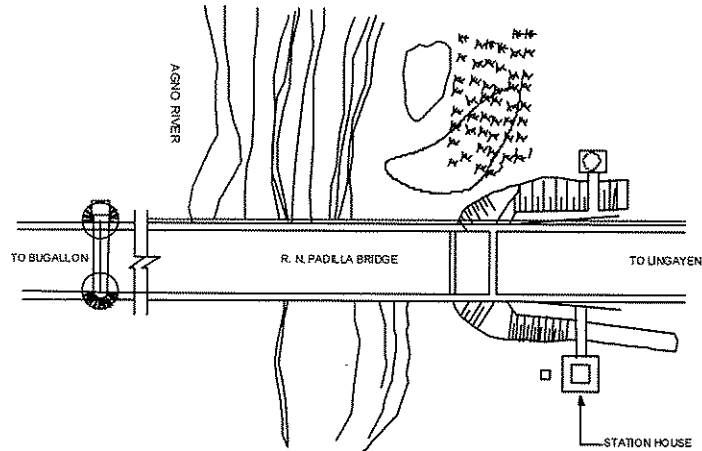
1. TELEMETERING EQUIPMENT
2. DIGITAL DATA MEMORY EQUIPMENT
3. RAINFALL GAUGE
4. COAXIAL ARRESTER
5. DATA CONVERTER FOR WATER LEVEL GAUGE
6. CABLE PROTECTOR FOR INSIDE USE
7. STORAGE BATTERY
8. POWER DISTRIBUTION BOARD
9. SOLAR CELL PANEL

ON THE ROOF

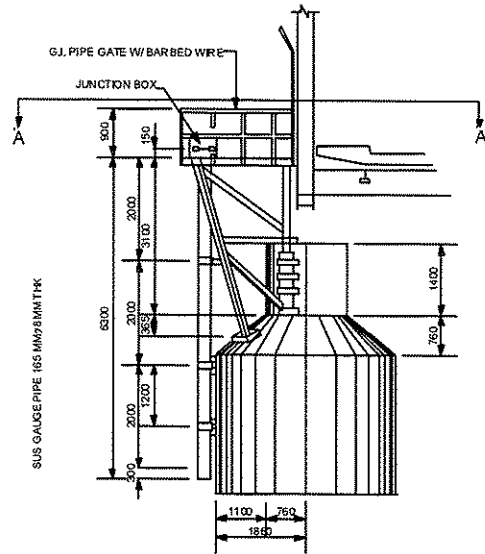
NOTE:
SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.



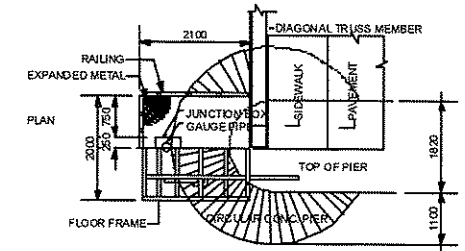
ELEVATION (B) - (B)
SCALE: 1:50



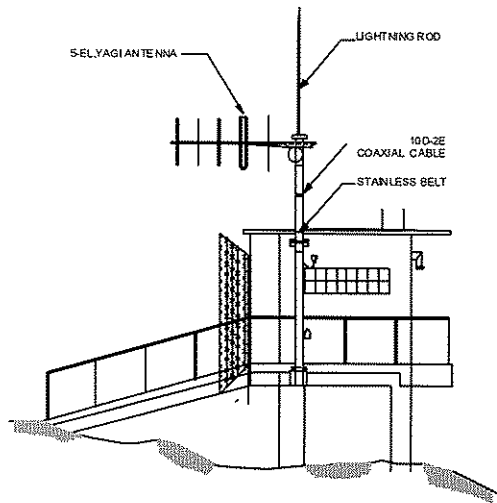
VICINITY MAP
SCALE: NTS



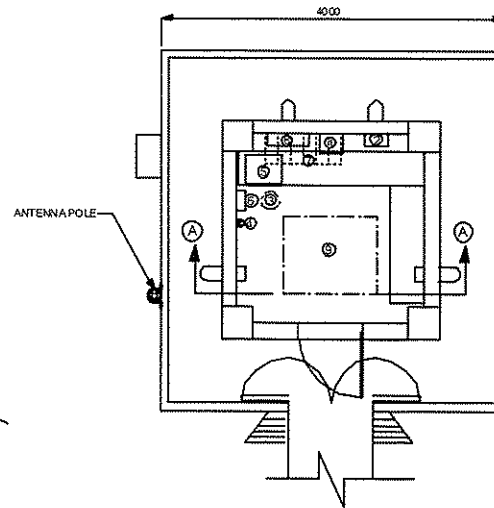
ELEVATION (STRUCTURE OF W/L SENSOR)
SCALE: 1:100



SECTION THRU A - A
SCALE: 1:100



ELEVATION
SCALE: 1:100



EQUIPMENT LAYOUT
SCALE: 1:60

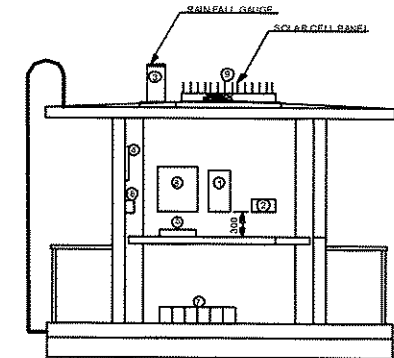
LEGEND:

1. TELEMETERING EQUIPMENT
2. DIGITAL DATA MEMORY EQUIPMENT
3. RAINFALL GAUGE
4. COAXIAL ARRESTER
5. DATA CONVERTER FOR WATER LEVEL GAUGE
6. CABLE PROTECTOR FOR INSIDE USE
7. STORAGE BATTERY
8. POWER DISTRIBUTION BOARD
9. SOLAR CELL PANEL

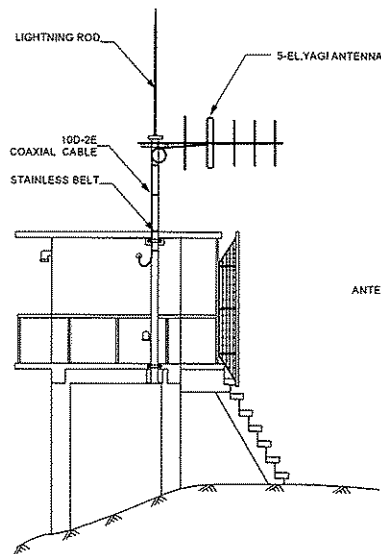
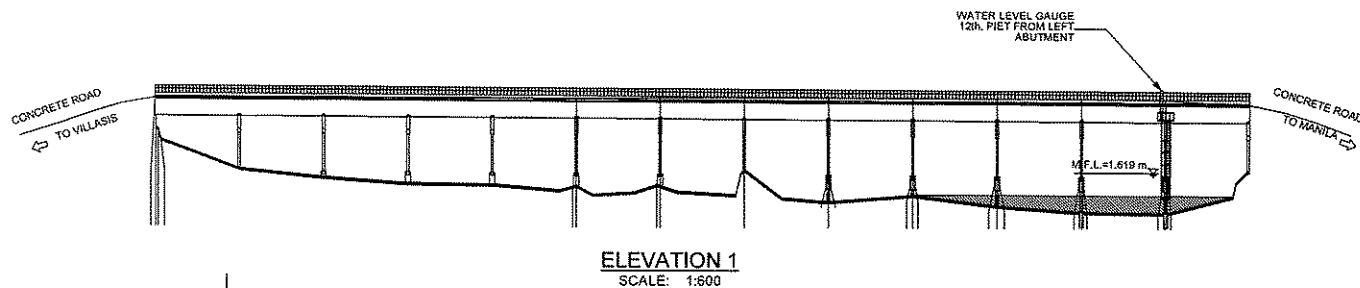
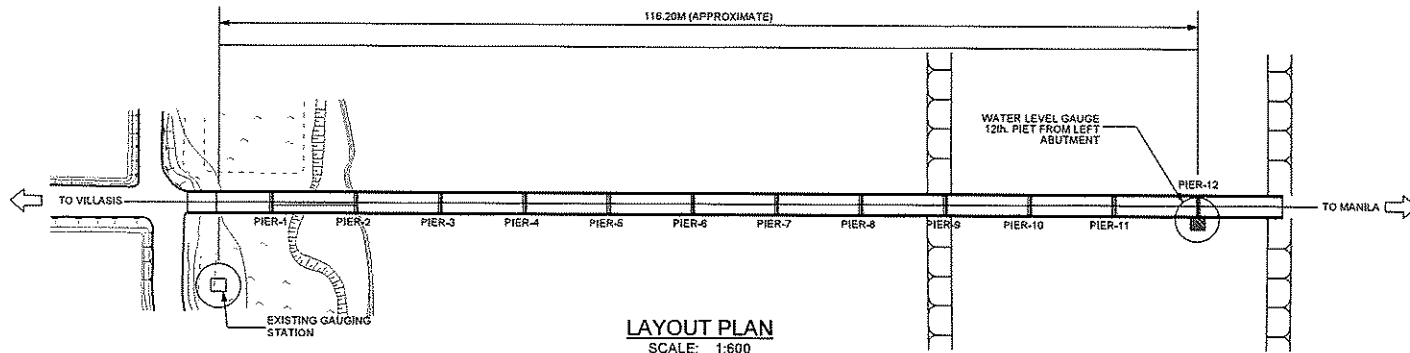
ON THE ROOF

NOTE:

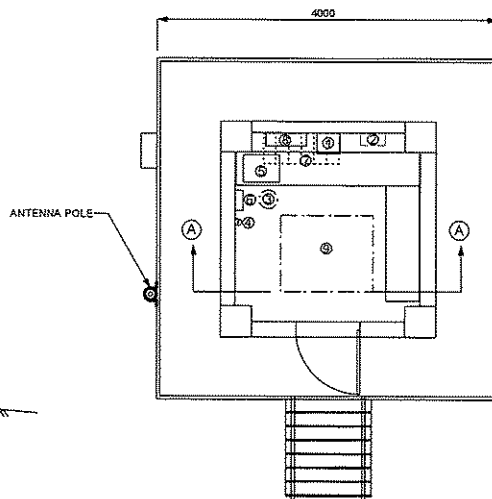
SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.



ELEVATION A - A
SCALE: 1:60



ELEVATION 2
SCALE: 1:100



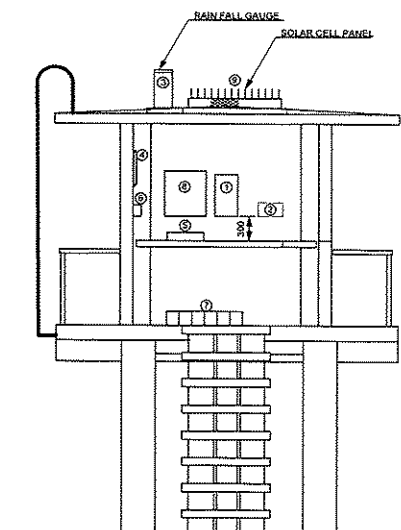
EQUIPMENT LAYOUT
SCALE: 1:60

LEGEND:

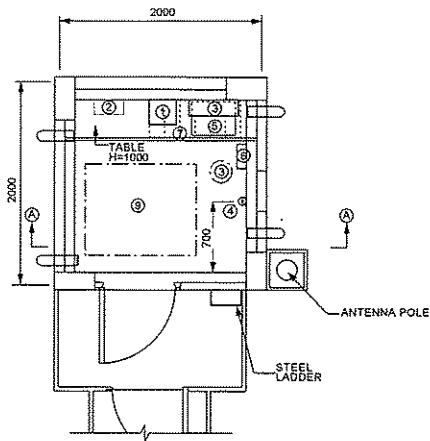
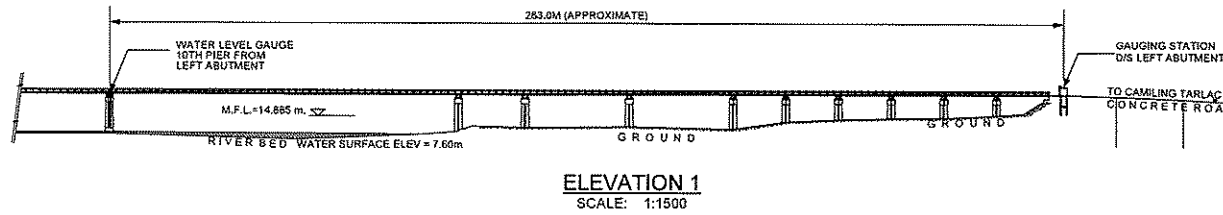
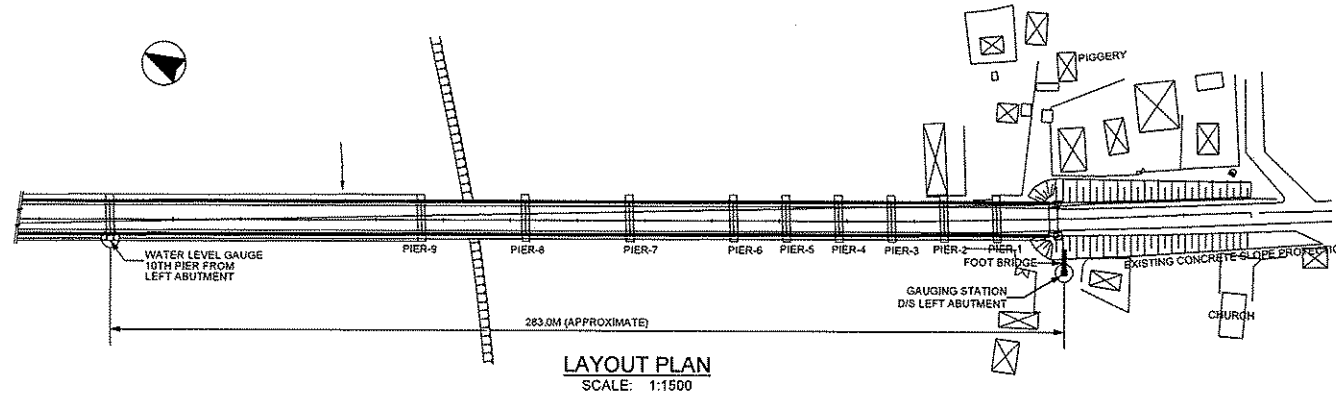
1. TELEMETERING EQUIPMENT
2. DIGITAL DATA MEMORY EQUIPMENT
3. RAINFALL GAUGE
4. COAXIAL ARRESTER
5. DATA CONVERTER FOR WATER LEVEL GAUGE
6. CABLE PROTECTOR FOR INSIDE USE
7. STORAGE BATTERY
8. POWER DISTRIBUTION BOARD
9. SOLAR CELL PANEL

ON THE ROOF

NOTE:
SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.

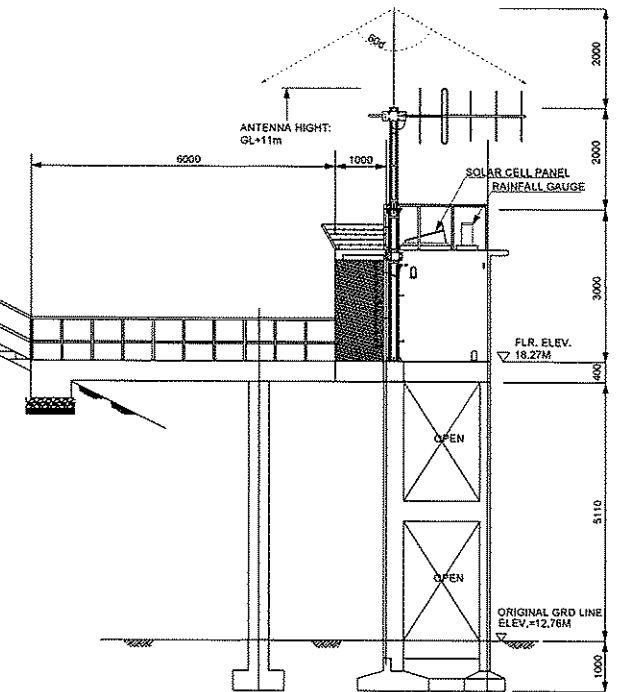
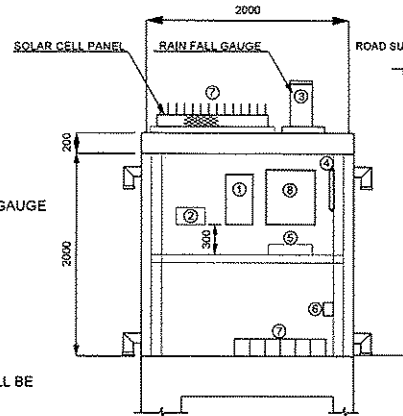


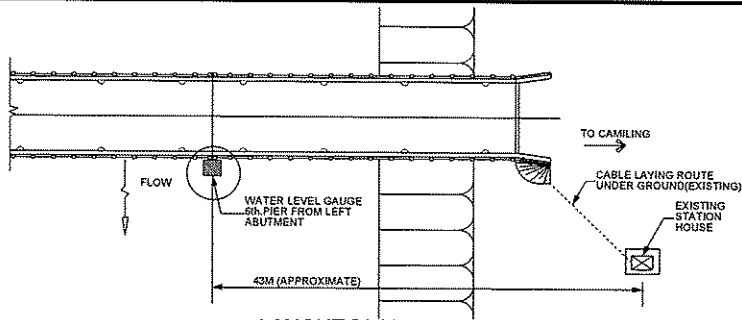
ELEVATION (A) - (A)
SCALE: 1:60



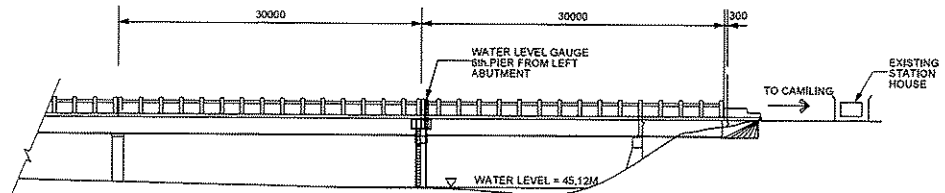
- LEGEND:**
1. TELEMETERING EQUIPMENT
 2. DIGITAL DATA MEMORY EQUIPMENT
 3. RAINFALL GAUGE
 4. COAXIAL ARRESTER
 5. DATA CONVERTER FOR WATER LEVEL GAUGE
 6. CABLE PROTECTOR FOR INSIDE USE
 7. STORAGE BATTERY
 8. POWER DISTRIBUTION BOARD
 9. SOLAR CELL PANEL
- ON THE ROOF

NOTE:
SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.

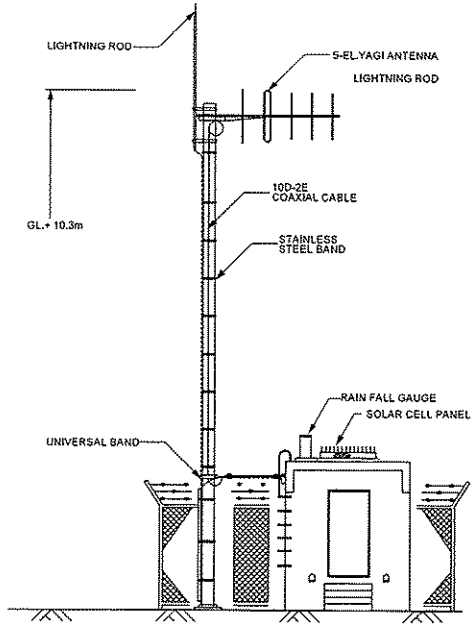




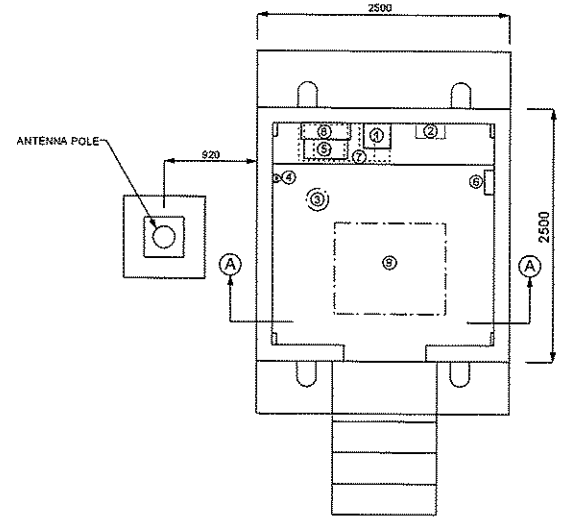
LAYOUT PLAN
SCALE: 1:500



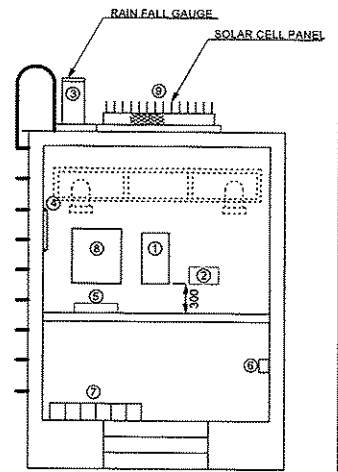
ELEVATION 1
SCALE: 1:500



ELEVATION 2
SCALE: 1:100



EQUIPMENT LAYOUT
SCALE: 1:50



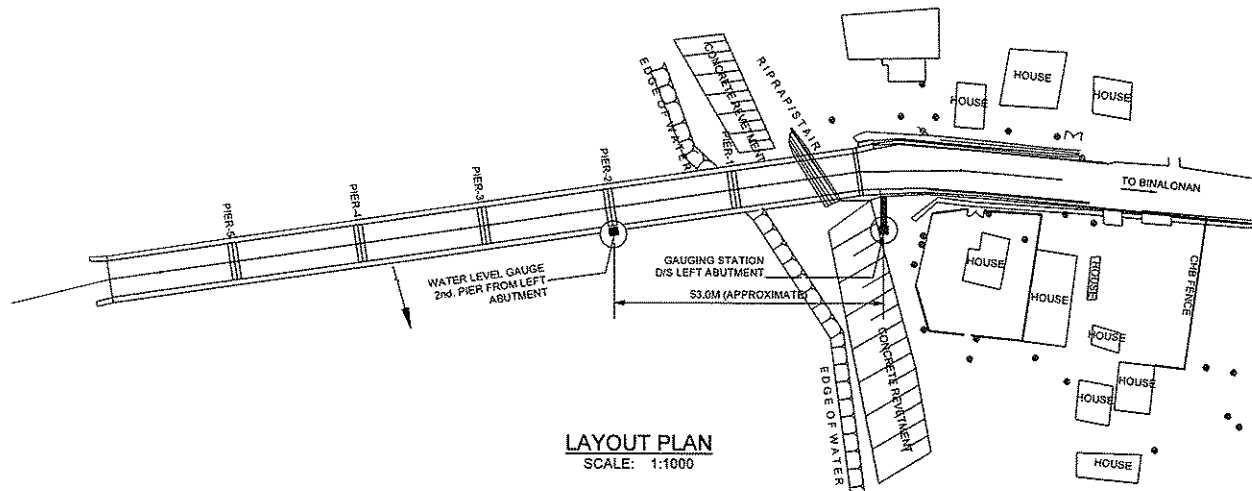
ELEVATION (A) - (A)
SCALE: 1:50

LEGEND:

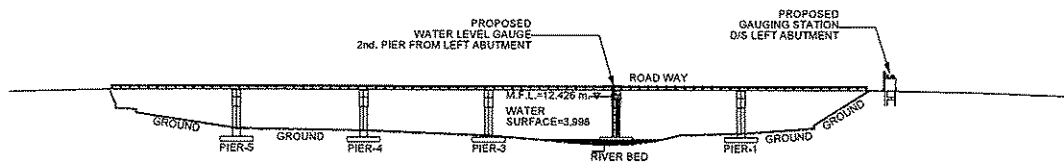
- 1. TELEMETERING EQUIPMENT
- 2. DIGITAL DATA MEMORY EQUIPMENT
- 3. RAINFALL GAUGE
- 4. COAXIAL ARRESTER
- 5. DATA CONVERTER FOR WATER LEVEL GAUGE
- 6. CABLE PROTECTOR FOR INSIDE USE
- 7. STORAGE BATTERY
- 8. POWER DISTRIBUTION BOARD
- 9. SOLAR CELL PANEL

ON THE ROOF

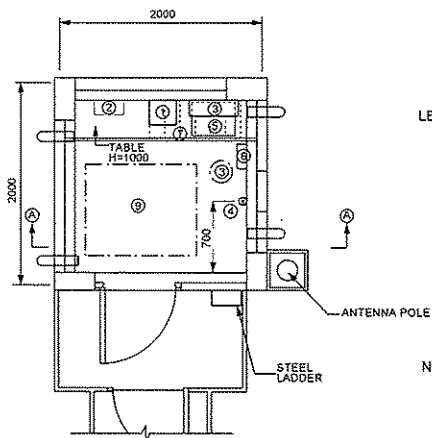
NOTE:
SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.



LAYOUT PLAN
SCALE: 1:1000



ELEVATION 1
SCALE: 1:1000



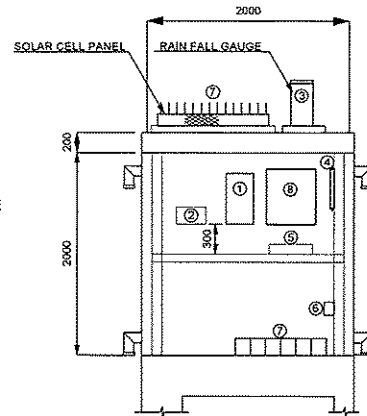
EQUIPMENT LAYOUT
SCALE: 1:50

LEGEND:

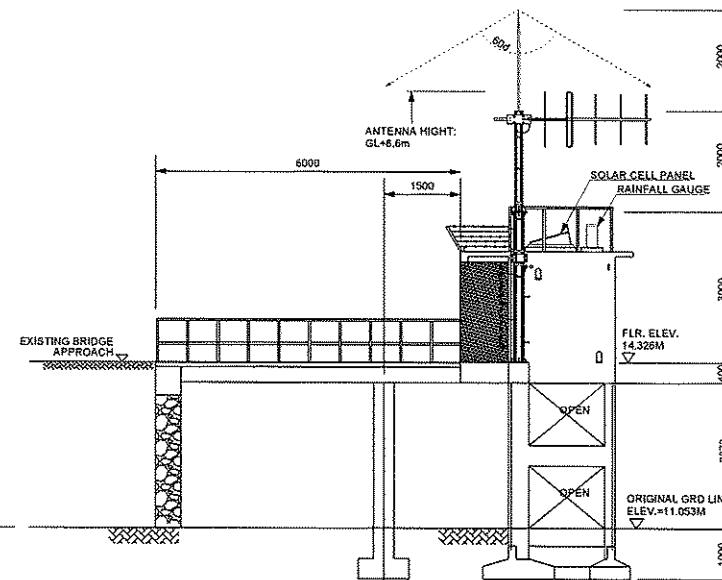
1. TELEMETERING EQUIPMENT
2. DIGITAL DATA MEMORY EQUIPMENT
3. RAINFALL GAUGE
4. COAXIAL ARRESTER
5. DATA CONVERTER FOR WATER LEVEL GAUGE
6. CABLE PROTECTOR FOR INSIDE USE
7. STORAGE BATTERY
8. POWER DISTRIBUTION BOARD
9. SOLAR CELL PANEL

ON THE ROOF

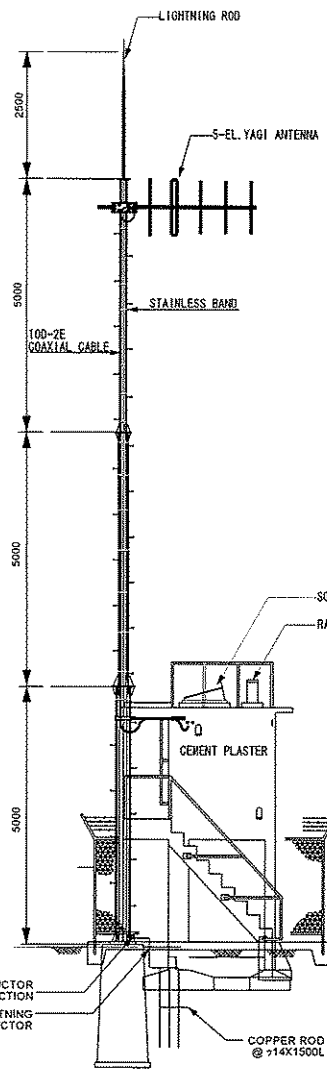
NOTE:
SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.



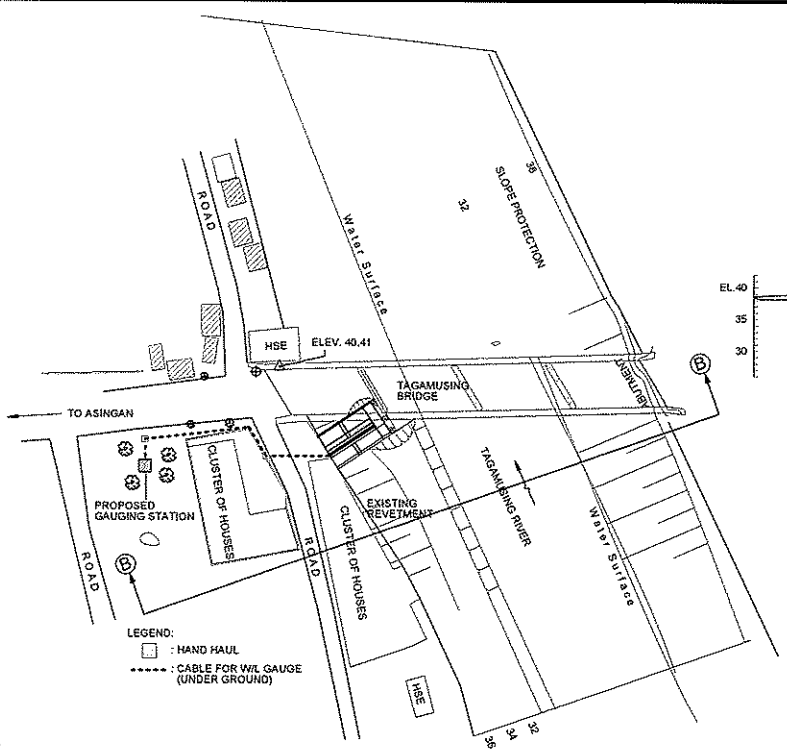
ELEVATION (A) - (A)
SCALE: 1:50



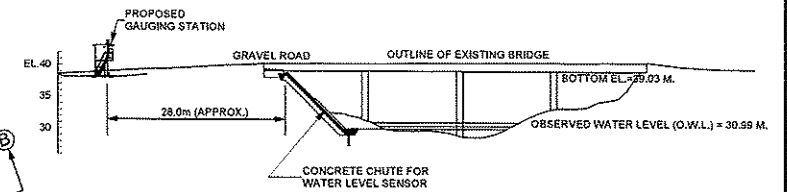
ELEVATION 2
SCALE: 1:100



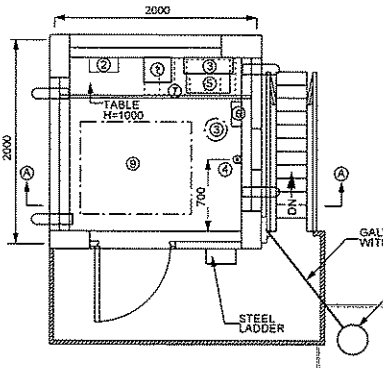
ELEVATION 2
SCALE: 1:100



LAYOUT PLAN
SCALE: 1:800

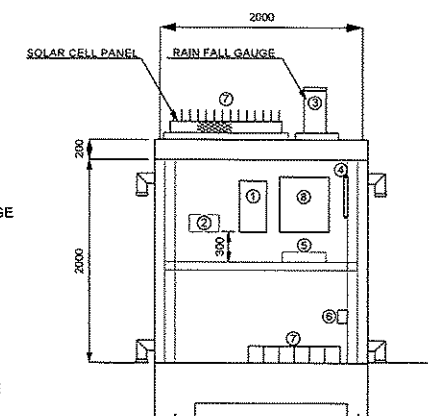


ELEVATION B - B
SCALE: 1:800

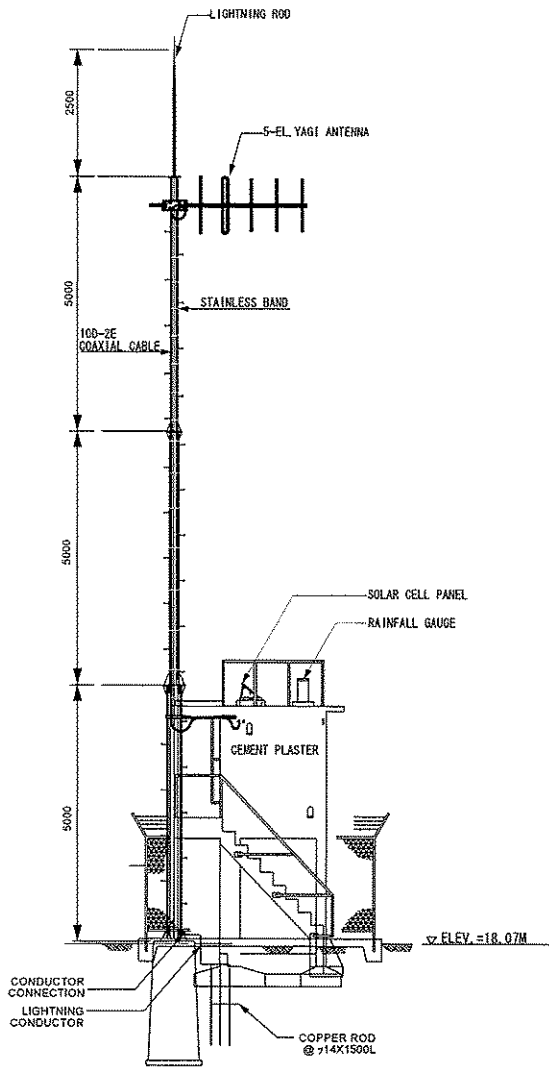


EQUIPMENT LAYOUT
SCALE: 1:50

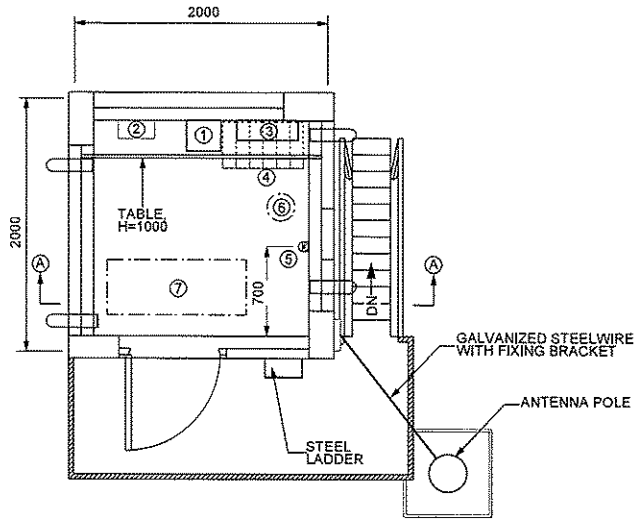
- LEGEND:**
1. TELEMETERING EQUIPMENT
 2. DIGITAL DATA MEMORY EQUIPMENT
 3. RAINFALL GAUGE
 4. COAXIAL ARRESTER
 5. DATA CONVERTER FOR WATER LEVEL GAUGE
 6. CABLE PROTECTOR FOR INSIDE USE
 7. STORAGE BATTERY
 8. POWER DISTRIBUTION BOARD
 9. SOLAR CELL PANEL
- ON THE ROOF**
- NOTE:**
SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.



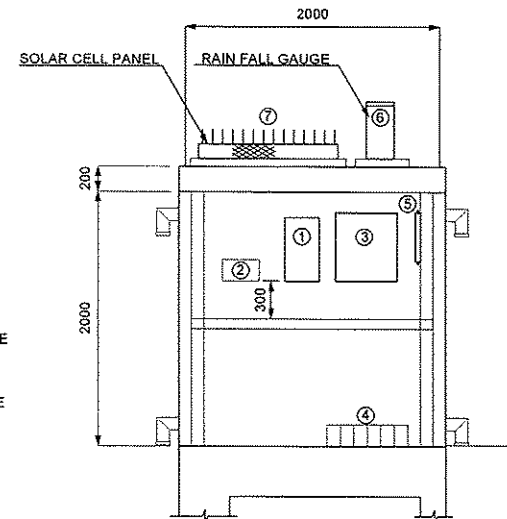
ELEVATION A - A
SCALE: 1:50



ELEVATION 2
SCALE: 1:100



EQUIPMENT LAYOUT
SCALE: 1:40



ELEVATION (A) - (A)
SCALE: 1:40

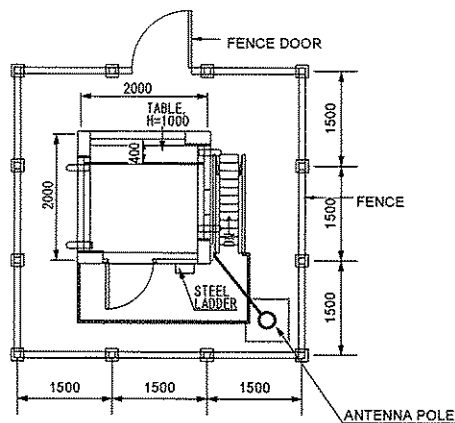
LEGEND:

- 1. TELEMETERING EQUIPMENT
- 2. DIGITAL DATA MEMORY EQUIPMENT
- 3. POWER DISTRIBUTION BOARD
- 4. STORAGE BATTERY
- 5. COAXIAL ARRESTER
- 6. RAINFALL GAUGE EQUIPMENT
- 7. SOLAR CELL PANEL

ON THE ROOF

NOTE:

SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.



LAYOUT PLAN
SCALE: 1:80



JAPAN INTERNATIONAL COOPERATION AGENCY

PROJECT & LOCATION:

UPGRADING OF FLOOD FORECASTING AND WARNING SYSTEM IN THE PAMPANGA AND AGNO RIVER BASINS

SHEET CONTENTS

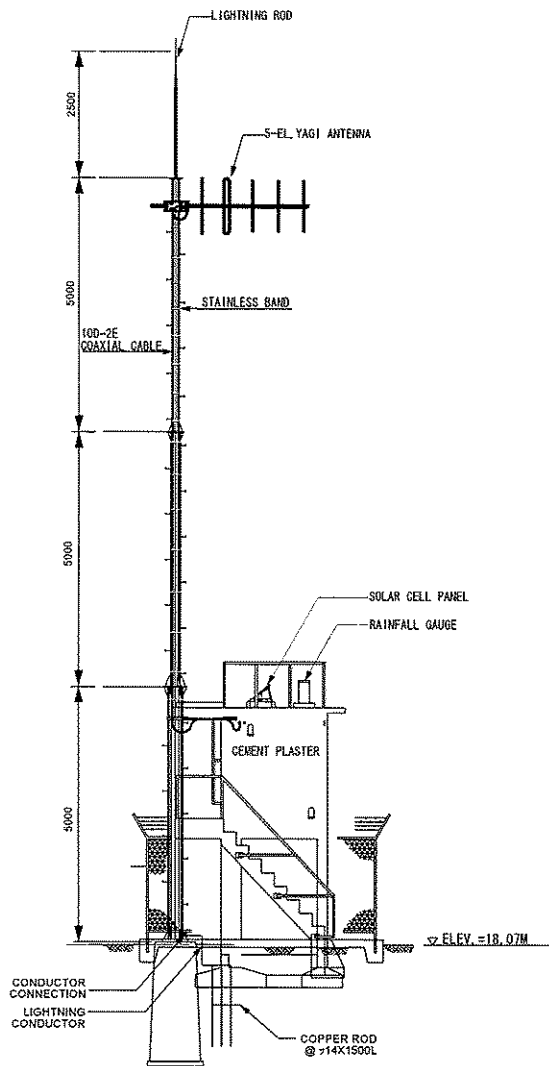
MAASIN RAIN GAUGE STATION SITE LAYOUT PLAN

SET

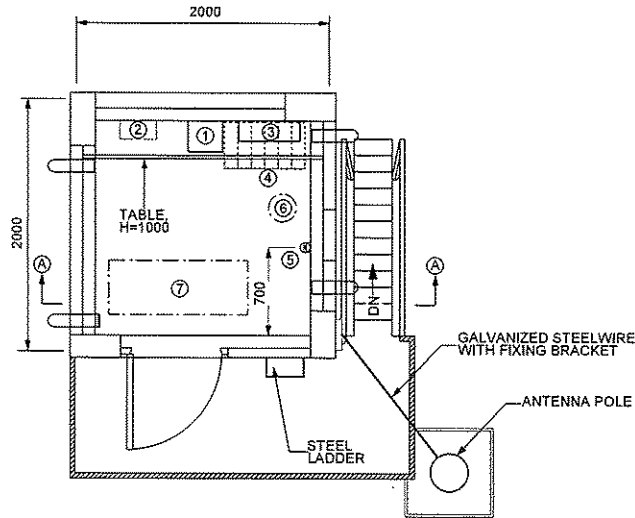
T-AG-G10

SHT. NO.

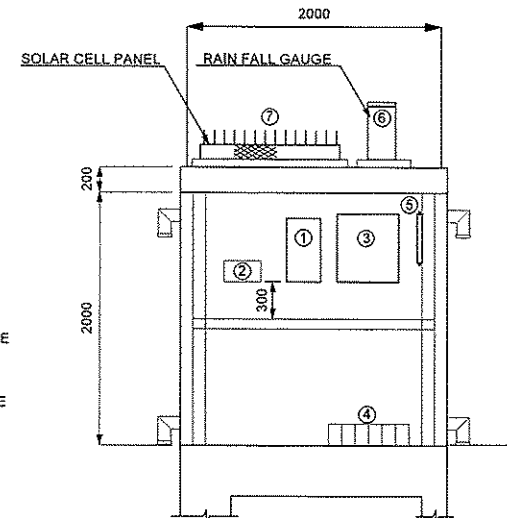
45
48



ELEVATION 2
SCALE: 1:100



EQUIPMENT LAYOUT
SCALE: 1:40



ELEVATION (A) - (A)
SCALE: 1:40

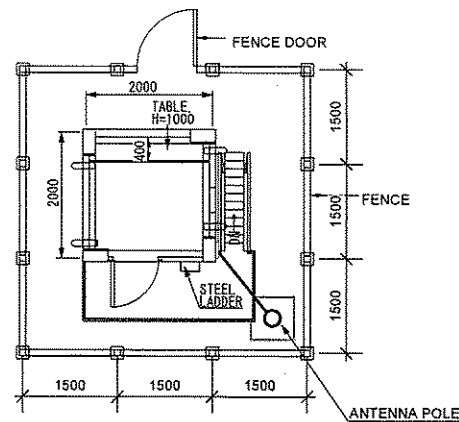
LEGEND:

1. TELEMETERING EQUIPMENT
2. DIGITAL DATA MEMORY EQUIPMENT
3. POWER DISTRIBUTION BOARD
4. STORAGE BATTERY
5. COAXIAL ARRESTER
6. RAINFALL GAUGE EQUIPMENT
7. SOLAR CELL PANEL

ON THE ROOF

NOTE:

SURFACE OF THE SOLAR CELL PANEL SHALL BE FACED TO THE SOUTH DIRECTION.



LAYOUT PLAN
SCALE: 1:80



JAPAN INTERNATIONAL COOPERATION AGENCY

PROJECT & LOCATION:

UPGRADING OF FLOOD FORECASTING AND WARNING SYSTEM IN THE PAMPANGA AND AGNO RIVER BASINS

SHEET CONTENTS

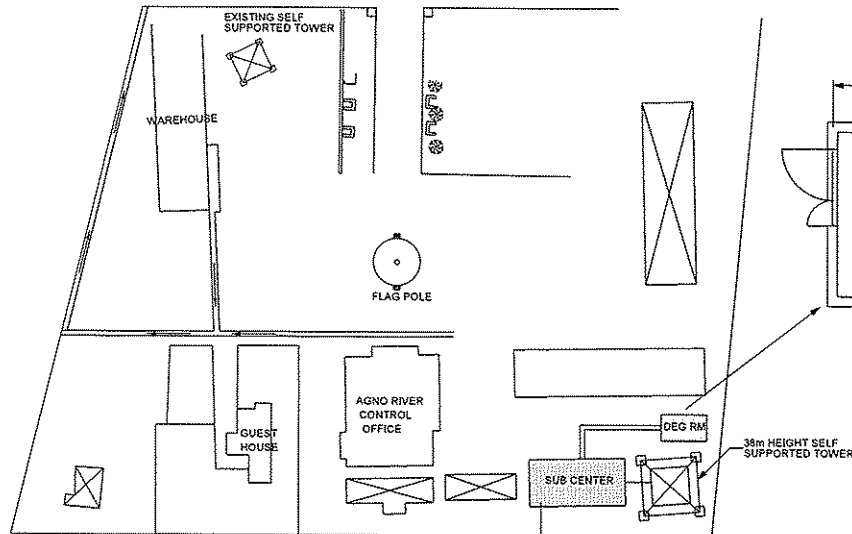
BURGOS RAIN GAUGE STATION SITE LAYOUT PLAN

SET

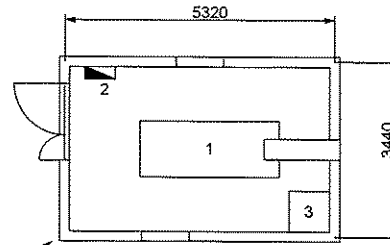
T-AG-G11

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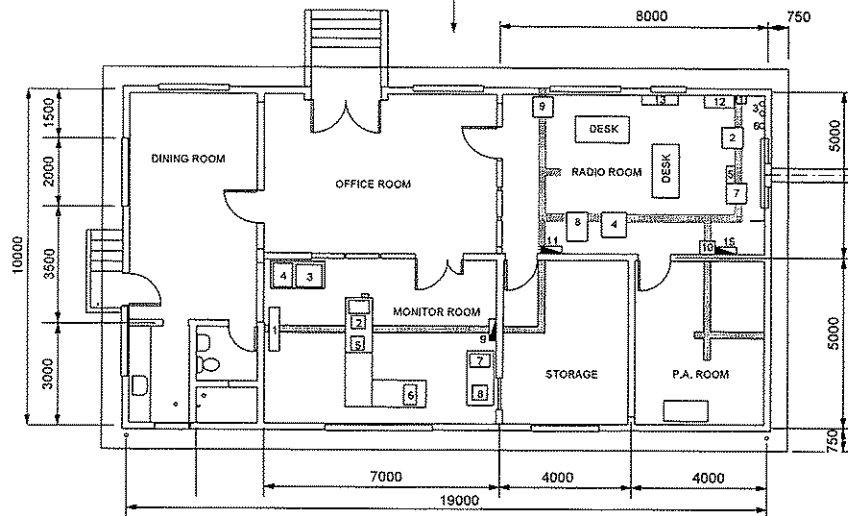
46 / 48



SITE LAYOUT
SCALE: NTS



DEG ROOM LAYOUT
SCALE: 1:100



EQUIPMENT LAYOUT
SCALE: 1:150

LEGEND:

FOR MONITOR ROOM

1. LCD DISPLAY 45-inch WITH STAND
2. PC OPERATING CONSOLE WITH LCD
3. SERIAL PRINTER
4. COLOR LASER PRINTER
5. LCD PANEL CONTROLLER
6. PPWS SERVER
7. FLOOD FORECASTING SERVER
8. FAX
9. POWER DISTRIBUTION BOARD
10. TELEPHONE UNIT (5 UNITS ARE TO BE INSTALLED)

FOR RADIO ROOM

1. WARNING EQUIPMENT (EXISTING FOR BINGA DAM WARNING SYSTEM)
2. DC POWER SUPPLY EQUIPMENT (EXISTING)
3. COAXIAL ARRESTER FOR WARNING EQUIPMENT (EXISTING)
4. DATA TRANSMISSION SYSTEM (EXISTING)
5. TELEMETRY SUPERVISORY AND CONTROL EQUIPMENT
6. COAXIAL ARRESTER FOR TELEMETRY
7. ENCLOSURE (19-inch RACK)
 - 7.1 7.5GHz BAND MULTIPLEX RADIO EQUIPMENT (RDU)
 - 7.2 IP CONVERTOR FOR TELEMETRY
 - 7.3 IP CONVERTOR FOR MAKE CONTACT
 - 7.4 VoIP GATEWAY
 - 7.5 L3-SW
 - 7.6 L2-SW (16-PORT)
 - 7.7 GPS RECEIVER

8. ENCLOSURE (19-inch RACK)

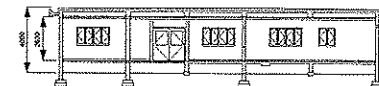
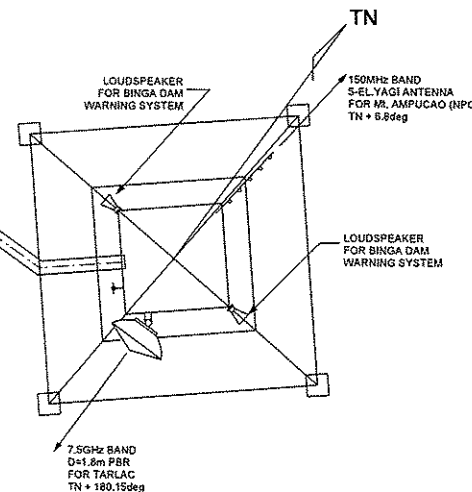
- 8.1 UPS (0.5kVA x 4)
- 8.2 UPS (2kVA x 2)
- 8.3 UPS (3kVA x 1)

9. ISOLATION TRANSFORMER

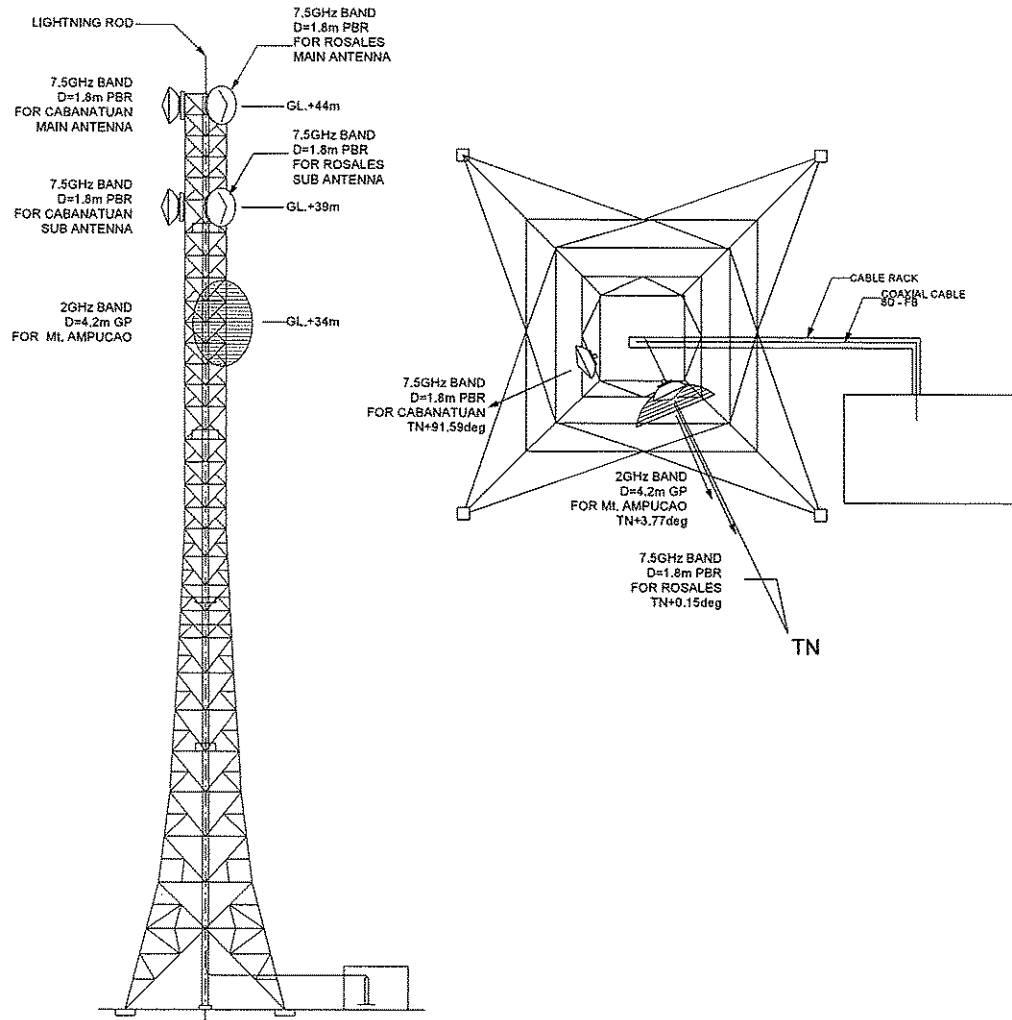
10. DC POWER SUPPLY EQUIPMENT
11. POWER DISTRIBUTION BOARD
12. AIRCON UNIT (NON-OPERATIONAL)
13. AIRCON UNIT (OPERATIONAL)
14. POWER DISTRIBUTION BOARD
15. DC POWER DISTRIBUTION BOARD

FOR DEG ROOM

1. DIESEL ENGINE GENERATOR (50kVA)
2. POWER DISTRIBUTION BOARD
3. EXISTING FUEL TANK



ELEVATION
SCALE: 1:300



ELEVATION
SCALE: 1:250

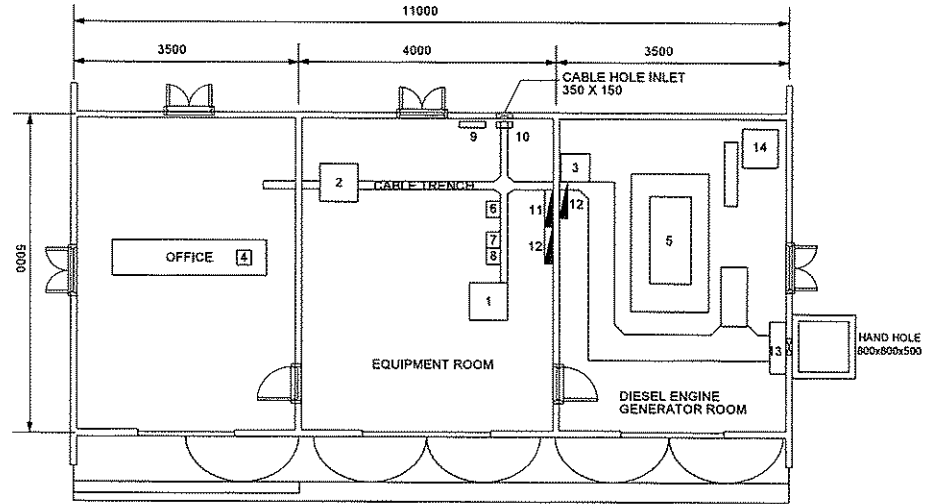
LEGEND:

FOR NEWLY INSTALLED EQUIPMENT

1. ENCLOSURE
- 1.1 7.5GHz BAND MULTIPLEX RADIO EQUIPMENT (IDU)
- 1.2 VoIP Gateway
- 1.3 L2 - SW (16-PORT)
- 1.4 IP CONVERTOR FOR MAKE CONTACT
- 1.5 UPS (3KVA)
2. DC48V POWER SUPPLY EQUIPMENT
3. ISOLATION TRANSFORMER
4. TELEPHONE UNIT
5. DIESEL ENGINE GENERATOR (10KVA)

FOR EXISTING FACILITIES

6. MULTIPLEX RADIO EQUIPMENT (JUP-850) FOR MT. AMPUGAO
7. CARRIER TERMINAL EQUIPMENT (JUF-5A)
8. REMOTE SUPERVISORY & CONTROL EQUIPMENT (JUD-12AS)
9. KEY TELEPHONE MASTER UNIT (NA-ET-32-DE)
10. MAIN DISTRIBUTION FRAME
11. POWER DISTRIBUTION BOARD
12. POWER DISTRIBUTION BOARD
13. LOW TENSION PANEL
14. DAILY FUEL OIL TANK



EQUIPMENT LAYOUT
SCALE: 1:80