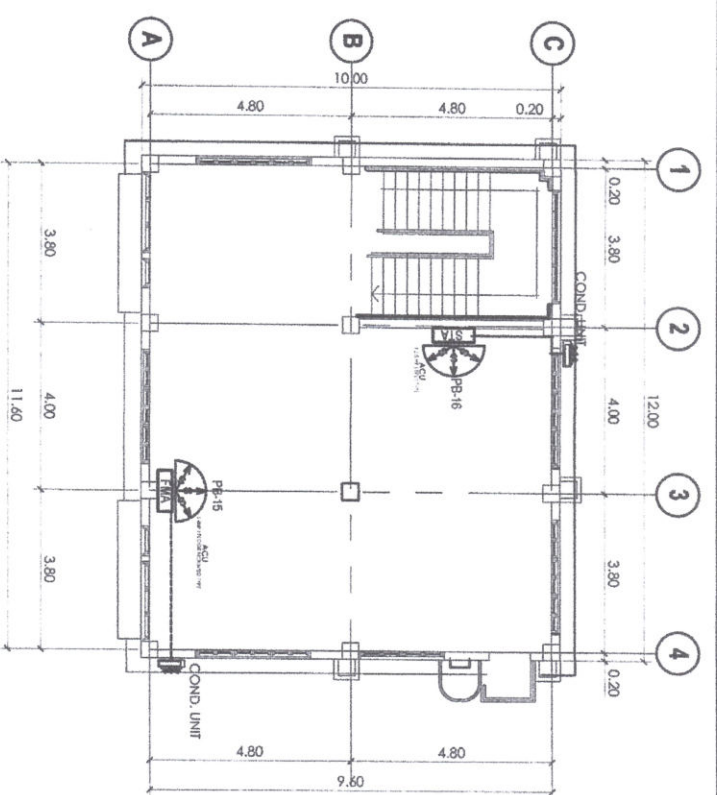
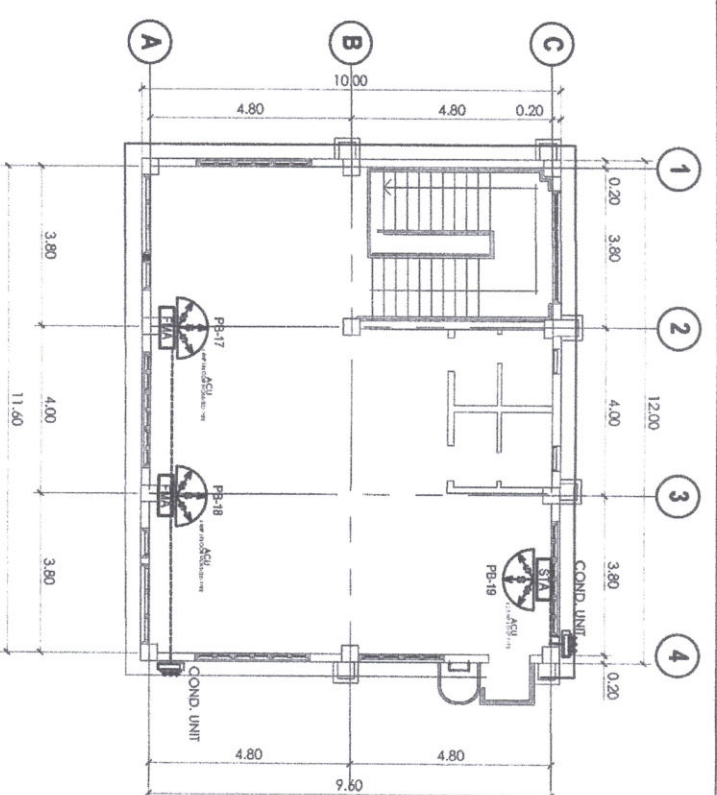


**M 11** SCALE: 1:100  
**GROUND FLOOR AIRCONDITIONING UNIT LAYOUT PLAN**  
 METERS



**M 12** SCALE: 1:100  
**SECOND FLOOR AIRCONDITIONING UNIT LAYOUT PLAN**  
 METERS



**M 13** SCALE: 1:100  
**THIRD FLOOR AIRCONDITIONING UNIT LAYOUT PLAN**  
 METERS

**GENERAL SPECIFICATIONS FOR CARGO LIFT ELEVATOR:**

TYPE	SPECIFICATION
CARGO LIFT	1
NO. OF UNITS	1000 KG
CAPACITY	5.8 M/S
SPEED	2
NO. OF STOPS/OPENINGS	SEND AND CALL
CONTROL	1750MM X 1500MM
SHAFT DIMENSION	1600MM X 1400MM
CAR DIMENSION	500MM
PIT	CENTER OPENING
CAR DOOR	STANDARD SIZE CHAIN
ROPIING	STEEL MATTING WITH 2mm
CAR CAGE	304 Stainless Steel
BLDG. POWER SUPPLY	Checked Plate Flooring
BLDG. LIGHTING SUPPLY	SINGLE PHASE 220 VOLTS 60HZ
BLDG. LIGHTING SUPPLY	220 VOLTS SINGLE PHASE 60HZ

**GENERAL SPECIFICATIONS:**

- INSTALLATION OF ALL WORKS SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER. IMPROPERLY SETWORK OR FINISH AS DETERMINED BY THE ARCHITECT SHALL BE REMOVED AND REPLACED AT NO EXTRA COST.
- ALL MATERIALS TO BE USED SHALL BE BRAND NEW & CLEAN.
- DEVIATIONS AND REVISIONS FROM PLANS SHALL BE REFERRED TO THE ARCHITECT FOR REVIEW AND APPROVAL.
- ALL NECESSARY PERMITS SHALL BE SECURED AND PAID FOR BY THE OWNER.
- ALL DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE SPECIFIED.
- ALL MECHANICAL WORKS SHALL BE IN ACCORDANCE WITH THE LATEST MECHANICAL ENGINEERS CODE AS/VE, SMAACNA AND ASHRAE STANDARD.
- MECHANICAL CONTRACTOR SHALL BE OBSERVED ALWAYS SAFETY AND ORDERLINESS.
- MECHANICAL CONTRACTOR SHALL VERIFY SITE PRIOR TO ACTUAL INSTALLATIONS.
- ALL SUPPLY, FRESH AIR AND RETURN DUCTS SHALL BE AS PER SMAACNA USING GI SHEET MATERIALS COMPLETE WITH FITTINGS AND HANGER.
- INSULATIONS FOR SUPPLY AND RETURN DUCT SHALL BE OF FIBERGLASS MATERIALS 25mm WITH A DENSITY OF 45 kg/cum. AND WITH ALUMINIUM FOIL VAPOR BARRIER.
- THE MECHANICAL CONTRACTOR SHALL CONDUCT TESTING AND COMMISSIONING WORKS.

**LEGEND:**

- DL - DRAIN LINE
- RL - REFRIGERANT LINE
- ACU - AIR CONDITIONING UNIT
- ACCU - CONDENSING UNIT



**LEGENDS AND SYMBOLS: SAFETY VAULT:**

SPECIFICATION				
	HEIGHT	WIDTH	DEPTH	WEIGHT
EXTERIOR	72"	39"	29"	900KG
INTERIOR	60"	33"	19"	

REPUBLIC OF THE PHILIPPINES  
 DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
 REGION IX  
 1ST DISTRICT ENGINEERING OFFICE  
 SEGABE, PUKAN, ZAMBANGA DEL NORTE

REPUBLIC OF THE PHILIPPINES  
 COMMISSION ON AUDIT  
 REGION IX

PROJECT & LOCATION: CONSTRUCTION OF A RAEMU BUILDING  
 DAVITAN CITY, ZAMBANGA DEL NORTE

SHEET CONTENT: GROUND FLOOR ACU LAYOUT PLAN  
 GENERAL SPECIFICATIONS  
 FLOOR MOUNTED TYPE ACU SPOT DETAIL  
 LEGEND

DESIGNED: PROF. MECHANICAL ENGINEER  
 OSCAR R. CALABRES, JR.  
 ENGINEERING ASSISTANT II

CHECKED: FERRANDO C. MIRASOL  
 ARCHITECT II

SUBMITTED: EVELYN A. TRANI  
 ENGINEER III  
 CHIEF, PLANNING & DESIGN SECTION

RECOMMENDED: CHRISTOPHER L. EBAL  
 ASST. DISTRICT ENGINEER

APPROVED: VERONICA MACARANDAYO  
 DISTRICT ENGINEER

RECOMMENDING APPROVAL: AMELIA P. VALDEZ  
 DIRECTOR IV

APPROVED: LORNA D. CABOCHAN  
 ASSISTANT COMMISSIONER  
 ADMINISTRATION SECTION

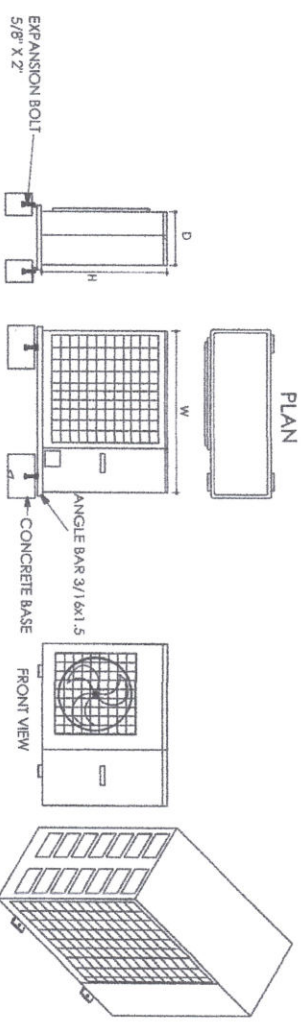
SET NO.: M 15  
 SHEET NO.: 28

**AIR CONDITIONING EQUIPMENT SPECIFICATION:**

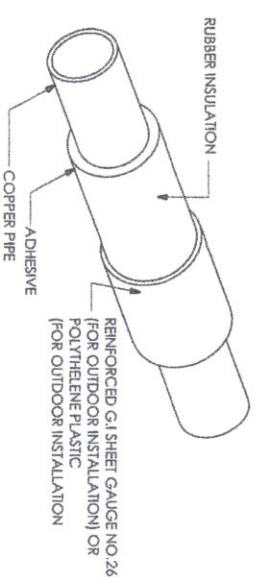
EQ	BRAND	DESIGNATION	QTY	MODEL	TYPE	AREA SERVED	CAPACITY	REF.	POWER SUPPLY	PHASE	HERTZ	GAS	PRING	DM (H/W/D)H	WEIGHT(LB)		
		RECORDS AREA	1	ACCU	FLOOR MOUNTED TYPE	m <sup>2</sup>	BTU/HR	HP	VOLTS	PHASE	HERTZ	GAS <td>LIQUID</td> <td>ACCU</td> <td>FCU</td> <td>ACCU</td> <td>FCU</td>	LIQUID	ACCU	FCU	ACCU	FCU
UNIT 1		RECORDS AREA	1		FLOOR MOUNTED TYPE			4	220/230	1	60						
UNIT 2		RECORDS AREA	1		SPLIT-TYPE			2.5	220/230	1	60						
UNIT 3		RECORDS AREA	1		FLOOR MOUNTED TYPE			4	220/230	1	60						
UNIT 4		RECORDS AREA	1		SPLIT-TYPE			2.5	220/230	1	60						
UNIT 5		FUNCTION HALL	1		FLOOR MOUNTED TYPE			4	220/230	1	60						
UNIT 6		FUNCTION HALL	1		FLOOR MOUNTED TYPE			4	220/230	1	60						
UNIT 7		FUNCTION HALL	1		SPLIT-TYPE			2.5	220/230	1	60						

**REMARKS:**

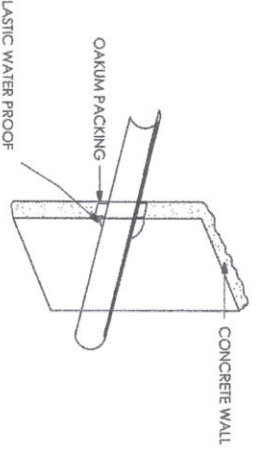
UNITS SHALL BE PROVIDED WITH SAFETY DEVICES, TIMER MOTOR FOR COMPRESSOR, ANTI-CYCLING HIGH & LOW PRESSURE CONTROLS AND OTHER STANDARD ACCESSORIES CONTROLS AND OTHER STANDARD AND VIBRATION INSULATOR



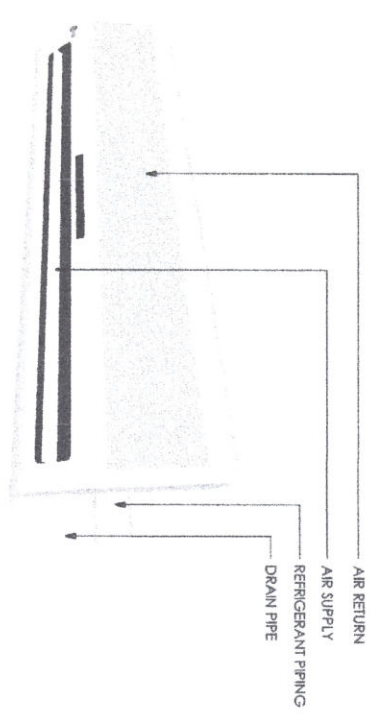
**HORIZONTAL THROW ACU DETAIL**



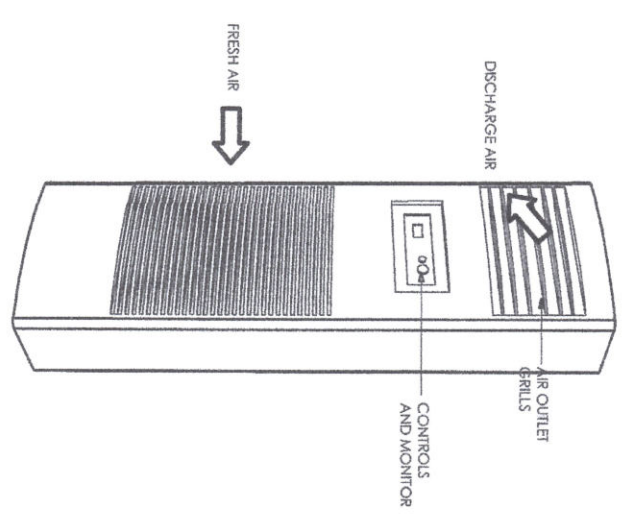
**REFRIGERANT PIPE INSULATION DETAIL**



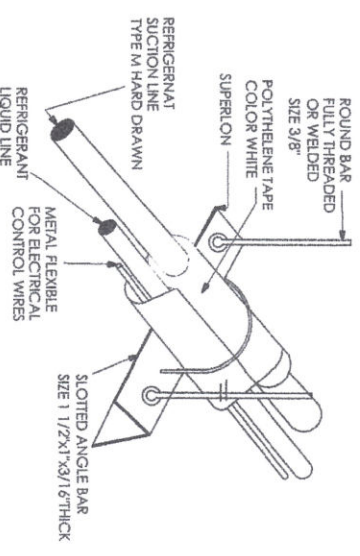
**PIPE THRU WALL DETAIL**



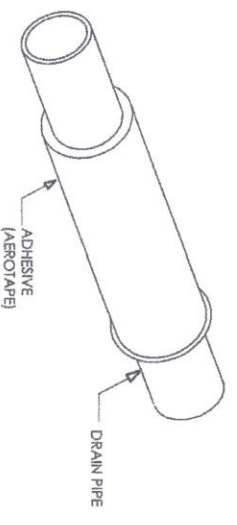
**WALL MOUNTED SPLIT-TYPE ACU SPOT DETAIL**  
SCALE: 1/2" = 1'-0" NTS.



**FLOOR MOUNTED TYPE ACU SPOT DETAIL**  
SCALE: 1/2" = 1'-0" NTS.



**REFRIGERANT PIPE HANGER DETAIL**



**DRAIN PIPE INSULATION DETAIL**

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DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
REGION IX  
1ST DISTRICT ENGINEERING OFFICE  
SEGADE, PIRAN, ZAMBOANGA DEL NORTE



REPUBLIC OF THE PHILIPPINES  
COMMISSION ON AUDIT  
REGION IX

PROJECT & LOCATION :

CONSTRUCTION OF A KAMNU BUILDING  
DAMIAN CITY, ZAMBOANGA DEL NORTE

SHEET CONTENT :

AIRCONDITIONING EQUIPMENT SPECIFICATION  
HORIZONTAL THROW ACU DETAIL  
REFRIGERANT PIPE INSULATION DETAIL  
REFRIGERANT PIPE HANGER DETAIL  
DRAIN PIPE INSULATION DETAIL

DESIGNED:

PROF. MECHANICAL ENGINEER  
OSCAR B. SANCHEZ JR.  
ENGINEERING ASSISTANT II

CHECKED:

ARCHITECT II  
FRANZ M. C. MIPASOL

SUBMITTED:

ENGINEER III  
EVA A. TRANI  
CHIEF, PLANNING & DESIGN SECTION  
RECOMMENDING APPROVAL :

RECOMMENDED:

ASSIST. DISTRICT ENGINEER  
JAMES O. HERNANDEZ  
RECOMMENDING APPROVAL :

APPROVED:

DISTRICT ENGINEER  
VERONICA O. RIVERA  
APPROVED :

SET NO. :

M 21

SHEET NO. :

29

REPUBLIC OF THE PHILIPPINES  
COMMISSION ON AUDIT  
REGION IX

CONSTRUCTION OF A KAMNU BUILDING  
DAMIAN CITY, ZAMBOANGA DEL NORTE

AIRCONDITIONING EQUIPMENT SPECIFICATION  
HORIZONTAL THROW ACU DETAIL  
REFRIGERANT PIPE INSULATION DETAIL  
REFRIGERANT PIPE HANGER DETAIL  
DRAIN PIPE INSULATION DETAIL

DESIGNED:

CHECKED:

SUBMITTED:

RECOMMENDED:

APPROVED:

SET NO. :

SHEET NO. :

# GENERAL NOTES FOR FIRE DETECTION AND ALARM SYSTEM

1. ALL FIRE DETECTION AND ALARM SYSTEM INSTALLATION WORKS HEREIN SHALL BE DONE IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS, THE APPLICABLE PROVISIONS OF THE LATEST EDITION OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) FIRE CODE AND THE RULES AND REGULATIONS OF THE LOCAL FIRE BUREAU.

2. THE FIRE DETECTION AND ALARM SYSTEM SHALL BE DESIGNED AND CONSTRUCTED SO THAT THERE ARE APPROPRIATE PROVISIONS FOR THE EARLY WARNING OF FIRE, AND APPROPRIATE MEANS OF ESCAPE IN CASE OF FIRE FROM THE BUILDING TO A PLACE OF SAFETY OUTSIDE THE BUILDING CAPABLE OF BEING SAFELY AND EFFECTIVELY USED AT ALL MATERIAL TIMES.

3. FIRE ALARM CONTROL PANEL (FACP) MUST BE PRESET IN SUCH A WAY THAT THE ZONE IN EACH DETECTOR FOLLOWS SIMILARLY AS INDICATED ON THE RERER DIAGRAM, AND THE CONTROL PANEL IS PROGRAMMED TO DISPLAY THE INFORMATION REQUIRED WHEN THAT PARTICULAR DETECTOR IS OPERATED. ADDITIONAL FIELD DEVICES ARE AVAILABLE WHICH MAY BE WIRED TO THE LOOP FOR DETECTION ONLY IF IT IS NECESSARY.

4. SOUNDERS ARE WIRED IN A WAY THAT THESE ARE EXACTLY CONNECTED TO LOOP ISOLATION MODULES OR SIGNALING DEVICES ADAPTER COMMONLY. MOREOVER, SOUNDER ARE CONNECTED IN A CLASS "A" MANNER AND LOOP ISOLATION MODULES ARE VALUABLE FOR FITTING ON TO THE DETECTION LOOP/LOOPS SUCH THAT THE LOOP IS A SECTIONED IN ORDER TO ENSURE THAT A EVERY BUILDING LEVEL MUST BE PROVIDED WITH SEPARATE OUTPUT DEVICE SIGNAL, WHEREVER ONE LOOP IS SHORT CIRCUITED OR THE OTHER WAY AROUND.

5. MOUNTING HEIGHTS OF FIRE DETECTION DEVICES ARE THE FOLLOWING:

- DETECTORS (CEILING-MOUNTED), VARIES
- SOUNDERS 2.00 meters
- MANUAL PULL STATION 1.40 meters
- REHNGHERS TELEPHONE JACK 1.40 meters
- CONTROL PANEL 1.40 meters
- FIRE ALARM CABLES SHOULD ALWAYS BE SEGREGATED FROM CABLES FOR OTHER SYSTEMS TO MINIMIZE HARMONIC INTERFERENCE, AS FAR AS POSSIBLE, JOINTS SHOULD BE AVOIDED EXCEPT WHERE A JOINT IS INSIDE ONE OF THE SYSTEMS COMPONENTS (eg: CONTROL PANEL, DETECTOR, CALL POINT, SOUNDER ETC.), WHERE JOINTS ARE REQUIRED ELSEWHERE THEY SHOULD BE ENCLOSED IN A SUITABLE JUNCTION BOX MARKED FIRE ALARM TO ENSURE THAT THE FIRE ALARM SYSTEMS IS NOT ACCIDENTALLY INTERFERED WITH, GOOD WIRING INSTALLATION PRACTICES MUST BE OBSERVED DURING THE ENTIRE DURATION OF INSTALLATION.

7. ALL KINDS OF CURRENT-CARRYING CONDUCTORS MUST BE OF FIRE-RETARDANT TYPE. CONDUCTOR SIZE SHOULD TAKE VOLTAGE DROP INTO ACCOUNT. IN ANY CASE CONDUCTORS SHOULD HAVE A CROSS SECTIONAL AREA OF NOT LESS THAN 1 SQUARE MILLIMETER, UNLESS A DETECTION CIRCUIT OR DETECTOR LOOP EXCEEDS 1 KILOMETER IN LENGTH. IT IS UNLIKELY TO GIVE RISE TO A CONCERN ABOUT VOLTAGE DROP IF THERE ARE FAIRLY LONG SOUNDER CIRCUITS OR A SOUNDER CIRCUIT HAS A LARGE NUMBER OF SOUNDERS/BUZZERS. VOICE ALARMS OR FLASHING BEACONS ETC. ON IT. THEN VOLTAGE DROPS CAN CAUSE PROBLEMS, PROVIDING THE VOLTAGE VOL DROP DOES NOT EXCEED 4 VOLTS ON SOUNDER CIRCUIT THEN THE SYSTEM SHOULD OPERATE SATISFACTORILY.

WHERE POSSIBLE CABLES SHOULD BE ROUTED THROUGH AREAS OF LOW FIRE RISK. CABLES INSTALLED IN DAMP, CORROSIVE OR UNDERGROUND MECHANICAL DAMAGE SHOULD BE PROTECTED ACCORDINGLY. IF CABLES ARE INSTALLED LESS THAN 1.40 M ABOVE THE FLOOR SHOULD THEY NORMALLY BE PROTECTED. ELECTRICAL METALLIC TUBING (EMT) PIPES SHALL BE USED ON ALL EXPOSED TYPE OF RACEWAYS. FLEXIBLE METALLIC TUBING MUST BE USED ON EXPOSED CABLE DROPPING.

ALL WIRING AND FIRE ALARM DEVICES INSTALLATIONS HEREIN SHALL DONE UNDER THE DIRECT SUPERVISION OF A LICENSED ELECTRONICS ENGINEER AND ELECTRICAL ENGINEER.

THE INTENTION OF THIS PLAN, NOTES AND SPECIFICATION IS TO KEEP THE INFORMATION GIVEN AS SIMPLE AS POSSIBLE. THIS NECESSITATES THE OMISSION OF MUCH INFORMATION CONTAINED WITHIN THE VARIOUS FIRE BUREAU STANDARDS AND THE REQUIREMENT OF THE VARIOUS FIRE ACTS.

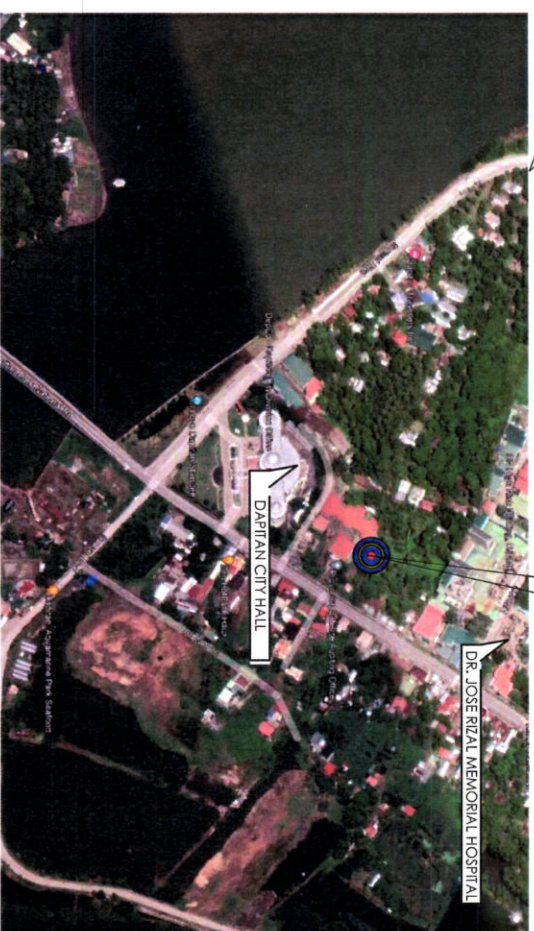
ALL COMPONENTS, CIRCUITS, SYSTEM OPERATIONS AND PRE-SET CONTROL PANEL SOFTWARE FUNCTIONS KNOWN TO BE AFFECTED BY CHANGES OR MODIFICATIONS MADE TO THE SYSTEM MUST BE 100 PERCENT TESTED. ALL FIXTURES REFLECTED HEREIN ARE REPRESENTATION DRAWINGS ONLY. THIS DRAWING DOES NOT DIRECTLY SHOW THE ACTUAL APPEARANCE OF EACH FIXTURES WHILE ACTUAL DETERMINATION OF EXACT LOCATION MUST BE DONE BY THE CONTRACTOR DURING PRE-BID CONFERENCE AND DURING THE START OF INSTALLATION.

## FIRE ALARM SYSTEM ABBREVIATIONS

- FA \_\_\_\_\_ FIRE ALARM
- FACP \_\_\_\_\_ FIRE ALARM CONTROL PANEL
- PB \_\_\_\_\_ PULL BOX
- SD \_\_\_\_\_ SMOKE DETECTOR
- HD \_\_\_\_\_ HEAT DETECTOR

## LEGEND & SYMBOLS:

SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
F	MANUAL PULL STATION
B	VIBRATING BELL OUTLET, 230mm DIAMETER 230V, 50HZ 10-36 INSTALLED 300mm BELOW CEILING LINE
PB	PULLBOX
SD	SMOKE DETECTOR
HD	HEAT DETECTOR



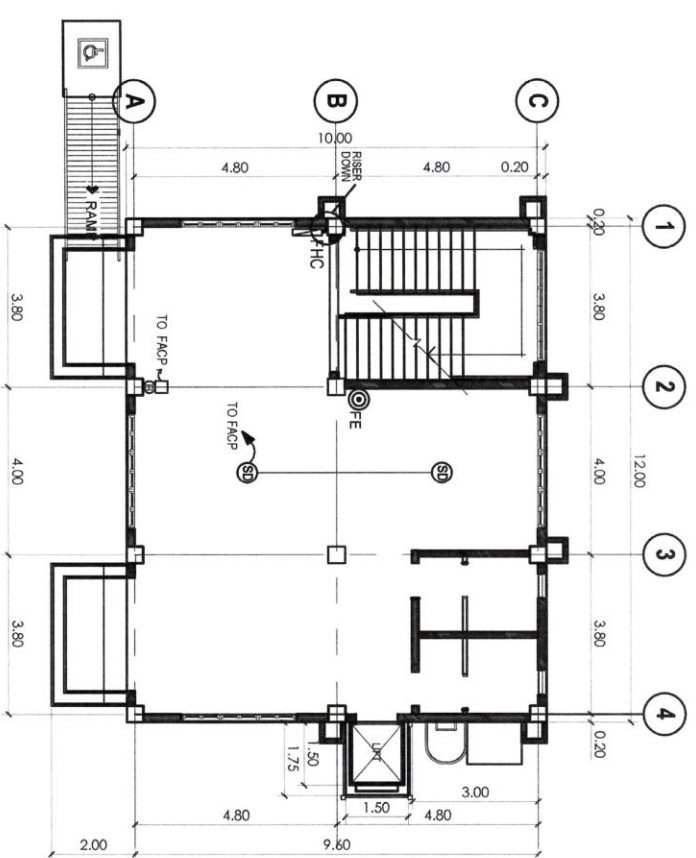
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TO BRGY. POLO

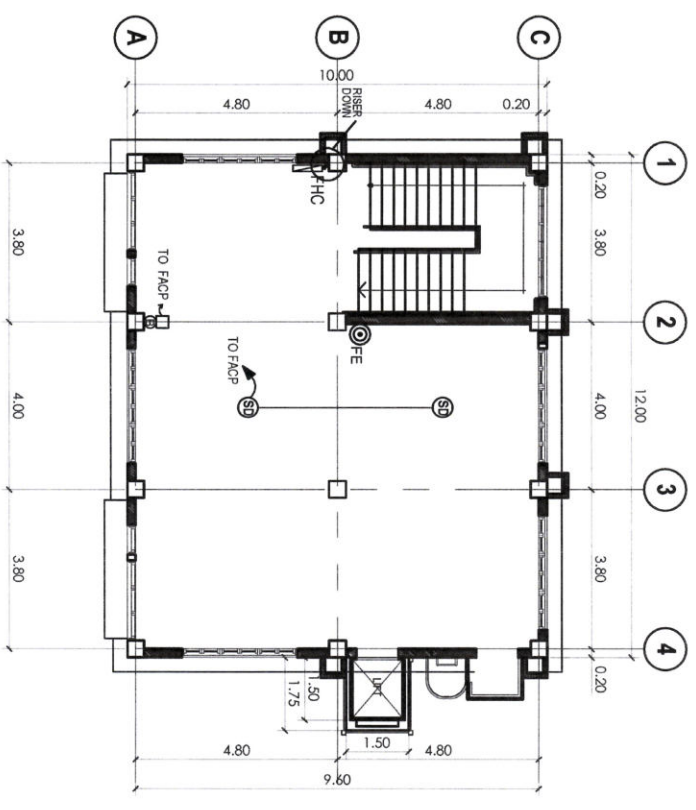
**PF LOCATION PLAN**

11 NTS.

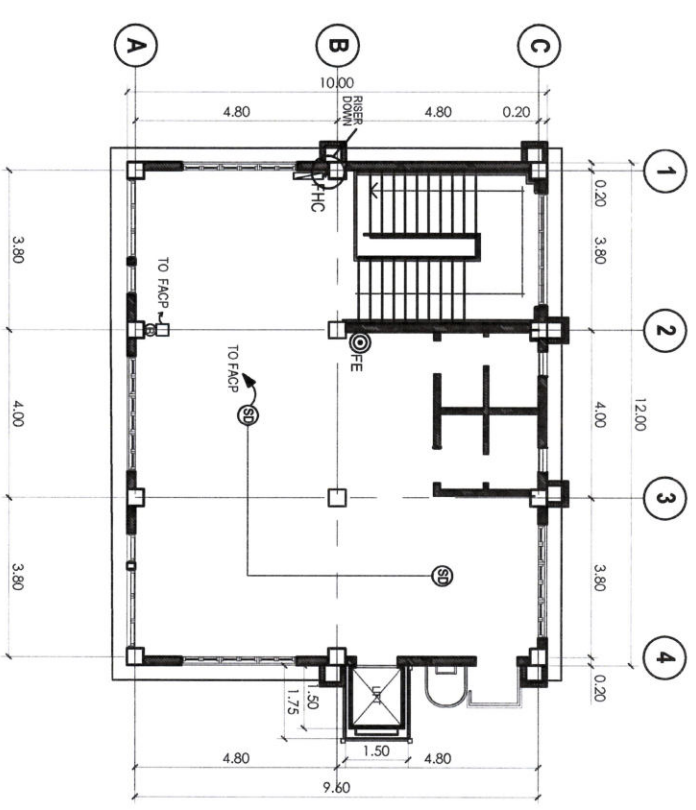
<p>REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGION IX 1ST DISTRICT ENGINEERING OFFICE SEGADE, PIVAN, ZAMBOANGA DEL NORTE</p>		<p>PROJECT &amp; LOCATION :</p> <p>CONSTRUCTION OF A RAEMU BUILDING DARTAN CITY, ZAMBOANGA DEL NORTE</p>		<p>SHEET CONTENT :</p> <p>SITE DEVELOPMENT PLAN LOCATION PLAN LEGENDS/SYMBOLS GENERAL NOTES FOR FIRE DETECTION &amp; ALARM SYSTEM</p>	
<p>DESIGNED :</p> <p>PROFESSIONAL ELECTRICAL ENGINEER    <b>CLARENDON BONDOYANO</b>                  ENGINEER I             </p>		<p>CHECKED :</p> <p>   <b>FERNANDO C. MIRASOL</b>                  ARCHITECT II             </p>		<p>SUBMITTED :</p> <p>   <b>EVA A. TRANI</b>                  ENGINEER III                  CHIEF, PLANNING &amp; DESIGN SECTION                  RECOMMENDING APPROVAL :             </p>	
<p>APPROVED :</p> <p>   <b>VERONICO O. MICABANDAYO</b>                  DISTRICT ENGINEER             </p>		<p>RECOMMENDED :</p> <p>   <b>AMELJA P. VALDEZ</b>                  DIRECTOR IV                  GSO             </p>		<p>APPROVED :</p> <p>   <b>LORNA D. CABOCHAN</b>                  ASSISTANT COMMISSIONER                  ADMINISTRATION SECTOR             </p>	
<p>REPUBLIC OF THE PHILIPPINES COMMISSION ON AUDIT REGION IX</p>		<p>SET NO. : PF 16</p>		<p>SHEET NO. : 29-1 29f</p>	



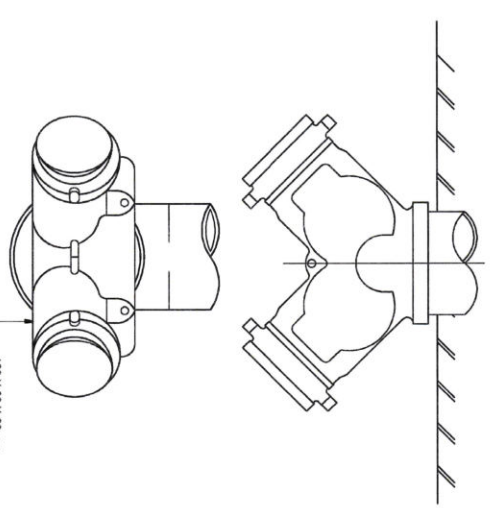
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FIRE PROTECTION & ALARM  
SYSTEM LAYOUT PLAN**  
SCALE: 1:100 MTRS.



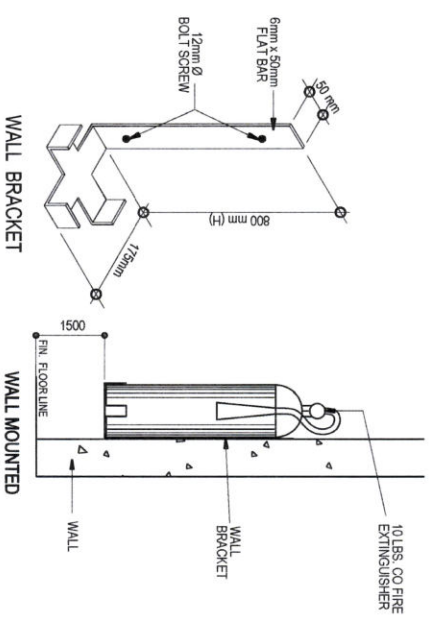
**SECOND FLOOR  
FIRE PROTECTION & ALARM  
SYSTEM LAYOUT PLAN**  
SCALE: 1:100 MTRS.



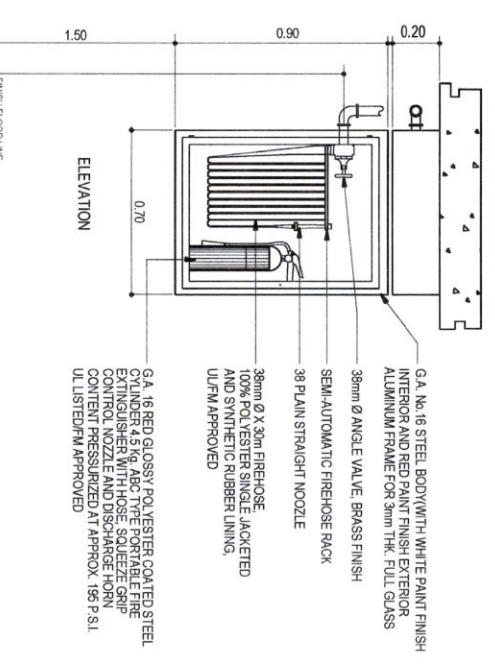
**THIRD FLOOR  
FIRE PROTECTION & ALARM  
SYSTEM LAYOUT PLAN**  
SCALE: 1:100 MTRS.



**PF DETAIL OF FIRE DEPT. CONNECTION**  
SCALE: 2/4 NOT TO SCALE

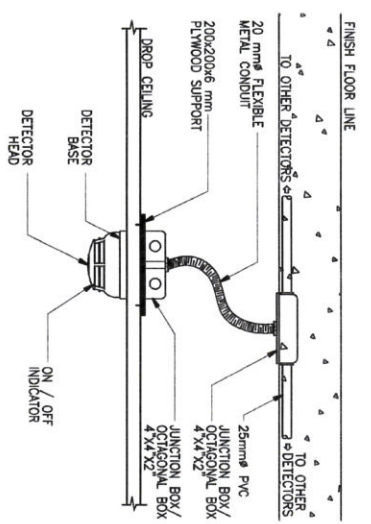


**PF FIRE EXTINGUISHER DETAIL**  
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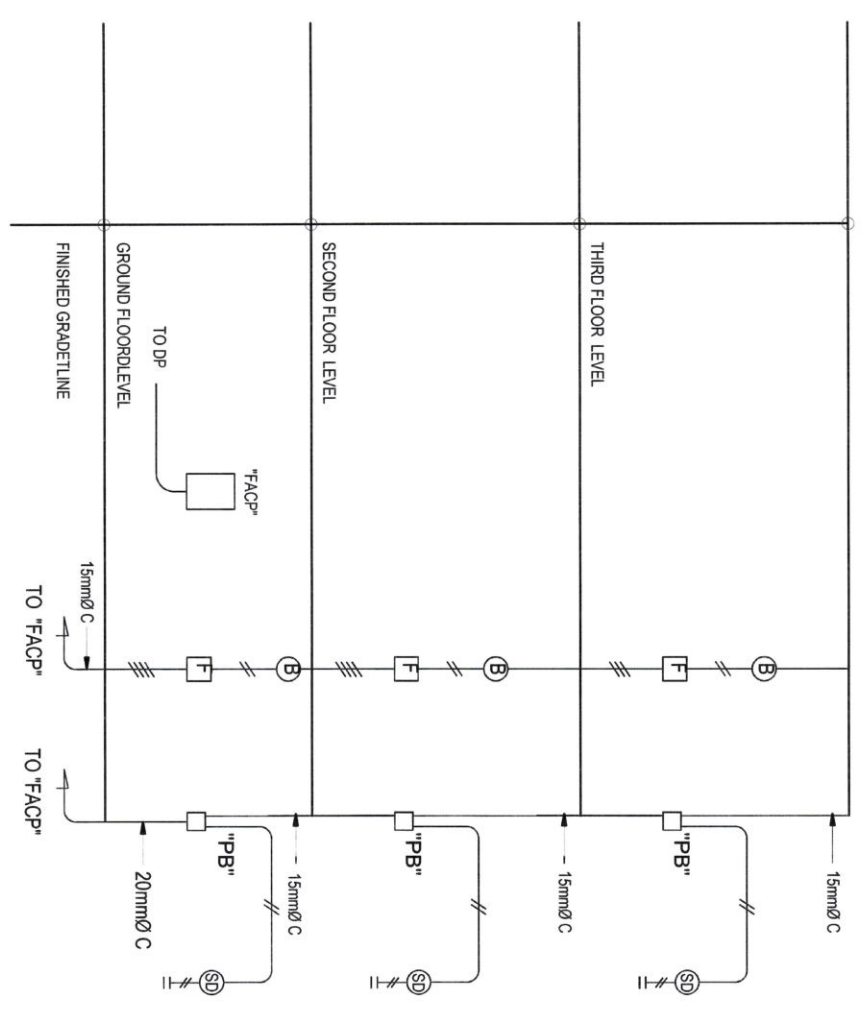


**PF FIRE HOSE CABINET DETAIL**  
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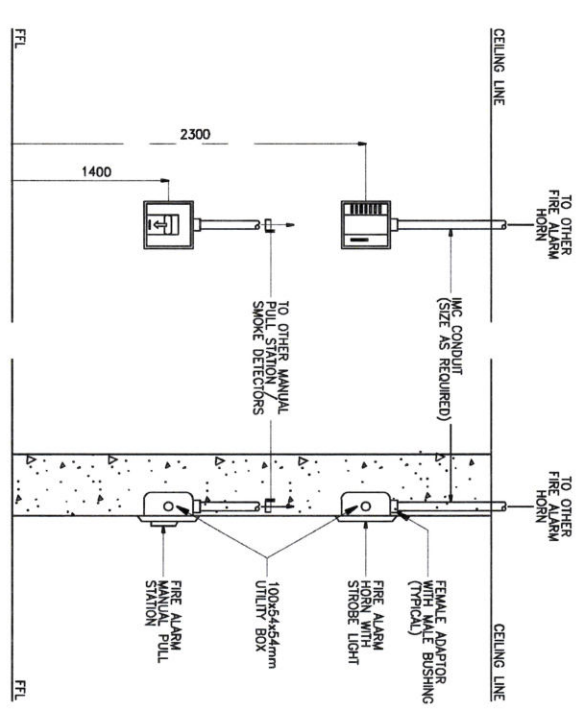
<p>REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGION IX 1ST DISTRICT ENGINEERING OFFICE SEGABE, PINAN, ZAMBOANGA DEL NORTE</p>		<p>REPUBLIC OF THE PHILIPPINES COMMISSION ON AUDIT REGION IX</p>	
<p>PROJECT &amp; LOCATION: <b>CONSTRUCTION OF A RAEMU BUILDING DAPITAN CITY, ZAMBOANGA DEL NORTE</b></p>		<p>SHEET CONTENT: GROUND FLOOR FDAS LAYOUT PLAN SECOND FLOOR FDAS LAYOUT PLAN THIRD FLOOR FDAS LAYOUT PLAN FIRE ALARM SYSTEM RISER DIAGRAM SMOKE/HEAT DETECTOR MOUNTING DETAIL ON DROP CEILING WITH CONDUIT EMBEDDED FIRE ALARM MANUAL STATION &amp; HORN DETAIL</p>	
<p>DESIGNED: PROFESSIONAL ELECTRICAL ENGINEER PREPARED: <b>CLARENCE R. BONDYANO</b> ENGINEER</p>		<p>CHECKED: <b>FERNANDO C. MIBASOL</b> ARCHITECT II</p>	
<p>SUBMITTED: <b>EVA A. TRANI</b> ENGINEER III CHIEF, PLANNING &amp; DESIGN SECTION</p>		<p>RECOMMENDED: <b>CHRISTOPHER L. FEAL</b> ASST. DISTRICT ENGINEER</p>	
<p>RECOMMENDING APPROVAL: <b>ATTY. MARISOL D. LEGASPI</b> R/DIRECTOR IV REGIONAL DIRECTOR</p>		<p>APPROVED: <b>VERONICO Q. MIBRAMAYO</b> DISTRICT ENGINEER</p>	
<p>RECOMMENDING APPROVAL: <b>AMELIA P. VALDEZ</b> DIRECTOR IV GSO</p>		<p>APPROVED: <b>LORNA D. CABOCHAN</b> ASSISTANT COMMISSIONER ADMINISTRATION SECTOR</p>	
<p>SET NO.: <b>PF 1/6</b></p>		<p>SHEET NO.: <b>29-2 29/2</b></p>	



**PF ON DROP CEILING Q/ CONDUIT MOUNTING DETAIL**  
 312 NOT TO SCALE



**PF FIRE ALARM SYSTEM RISER DIAGRAM**  
 311 NOT TO SCALE



**PF FIRE ALARM MANUAL STATION & HORN DETAIL**  
 313 NOT TO SCALE

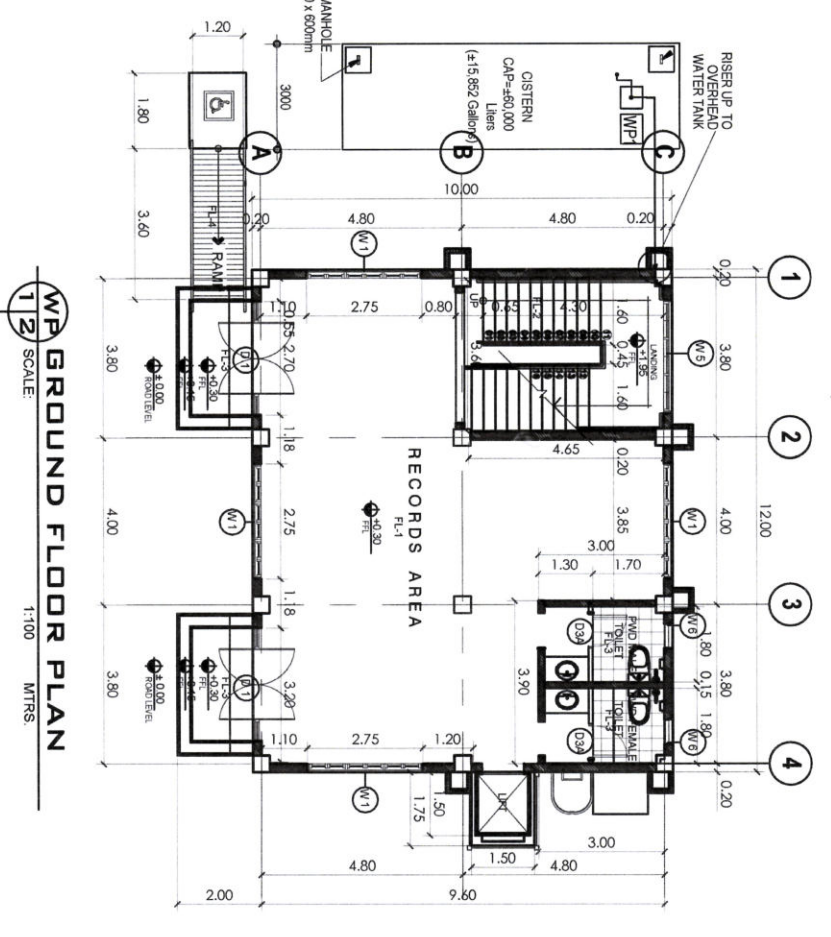
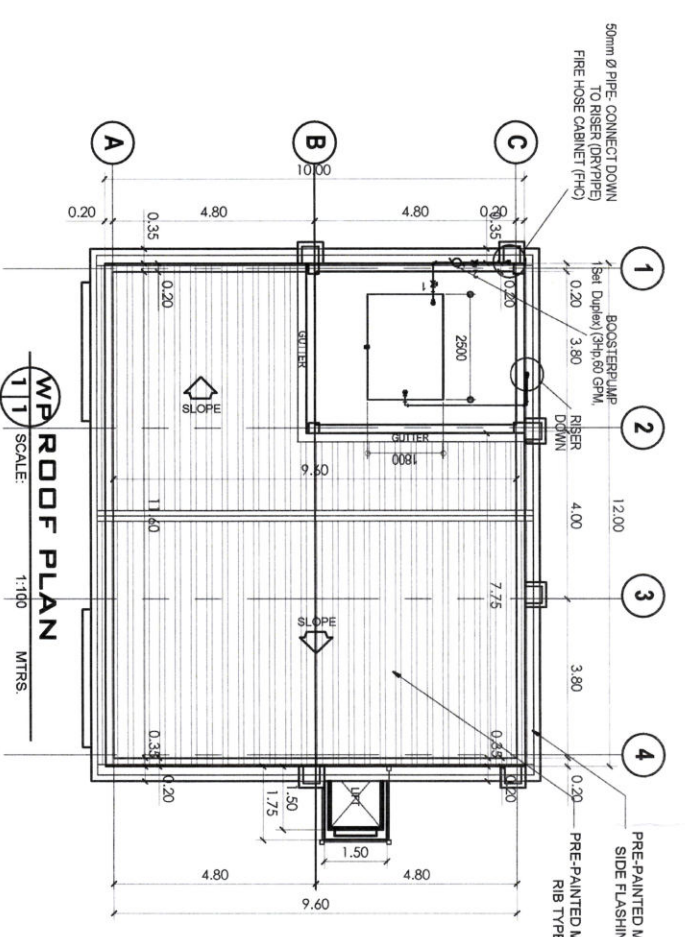
<p>DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS          REGION IX          1ST DISTRICT ENGINEERING OFFICE          SEGABE PINAN, ZAMBOANGA DEL NORTE</p>	PROJECT & LOCATION :	CONSTRUCTION OF A RAEMU BUILDING DAPITAN CITY, ZAMBOANGA DEL NORTE		
	SHEET CONTENT :	FIRE ALARM SYSTEM DIAGRAM SMOKE/HEAT DETECTOR MOUNTING DETAIL ON DROP CEILING Q/ CONDUIT EMBEDDED FIRE ALARM MANUAL STATION & HORN DETAIL		
<p>REPUBLIC OF THE PHILIPPINES          COMMISSION ON AUDIT          REGION IX</p>	DESIGNED :	<p>PROFESSIONAL ELECTRICAL ENGINEER</p> <p>PREPARED BY: CLARENCE R. ENDOVIANO          ENGINEER III</p>	CHECKED :	<p>ARCHITECT II</p> <p>HERNANDO C. MINASOL</p>
	SUBMITTED :	<p>ENGINEER III</p> <p>EVA A. TRANI</p>	RECOMMENDED :	<p>RECOMMENDING APPROVAL :</p> <p>CHIEF PLANNING &amp; DESIGN SECTION</p> <p>ASST. DISTRICT ENGINEER</p> <p>CHIRI OPHERIL BEAL</p>
	APPROVED :	<p>DISTRICT ENGINEER</p> <p>VERONICO O. MICALADAYO</p>	RECOMMENDING APPROVAL :	<p>DIRECTOR IV</p> <p>AMELIA P. VALDEZ</p>
	SET NO. :	PF 16	APPROVED :	<p>ASSISTANT COMMISSIONER</p> <p>ADMINISTRATION SECTION</p> <p>LORNA D. CABOCHAN</p>
	SHEET NO. :	29-3 29h		

**SCHEDULE OF EQUIPMENT**

WATER PUMP		MOTOR RATING		REMARKS	
DESIGNATION	QTY	CAPACITY (l/min / gpm)	TDH (meters)	HP (kW)	VOLTS / PHASE / HERTZ
WP	1	303(80)	23	3500	1.5 / 230 / SINGLE / 60
BRAND NEW AND OF THE APPROVED TYPE COMPLETE WITH STANDARD ACCESSORIES READY FOR SERVICE					

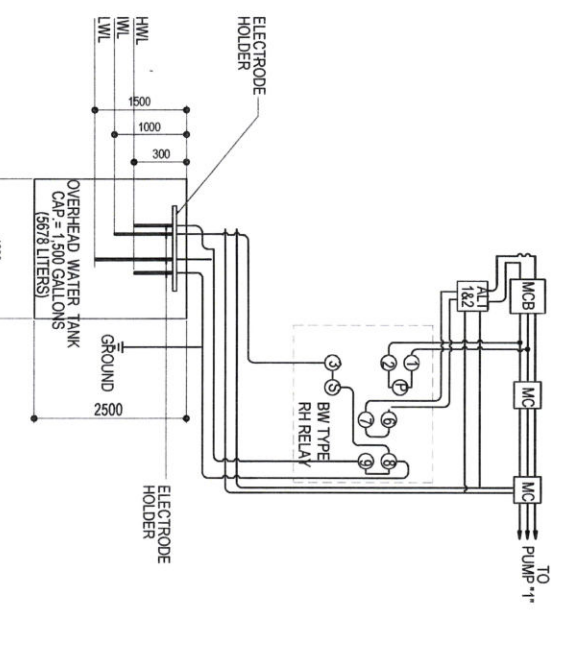
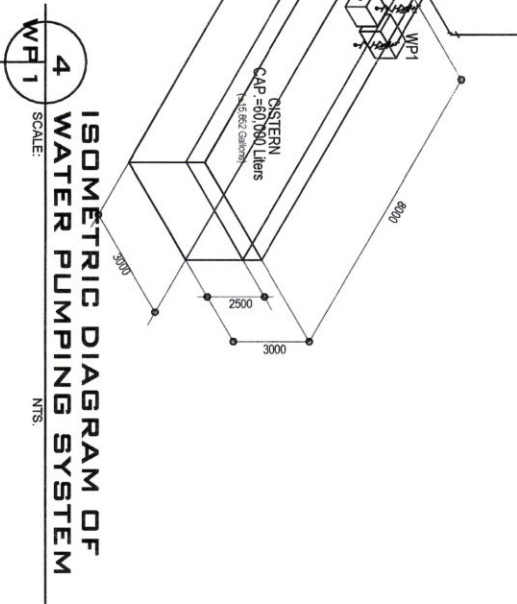
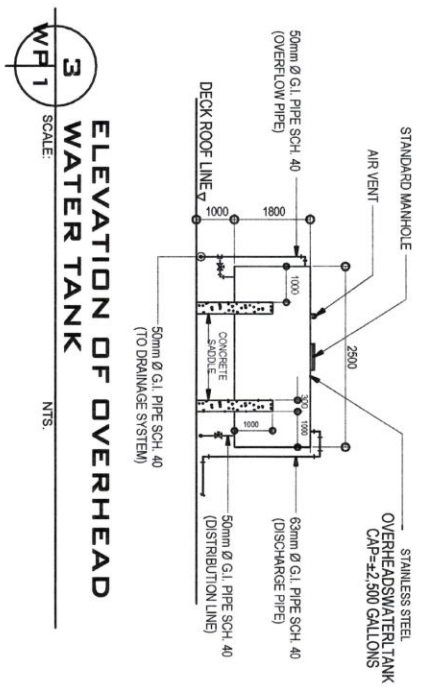
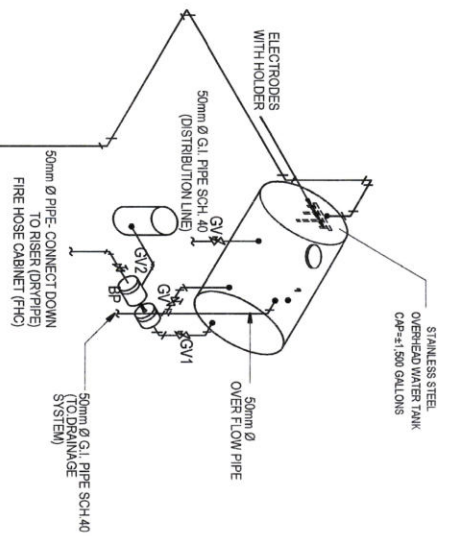
  

BOOSTER PUMP		MOTOR RATING		REMARKS	
DESIGNATION	QTY	CAPACITY (l/min / gpm)	TDH (meters)	HP (kW)	VOLTS / PHASE / HERTZ
BP	1	227(60)	38	40-80	2.2(3) / 230 / SINGLE / 60
BRAND NEW AND OF THE APPROVED TYPE COMPLETE WITH STANDARD ACCESSORIES READY FOR SERVICE					



**LEGEND:**

- |— GATE VALVE
- |— CHECK VALVE
- |— PRESSURE GAUGE
- |— TEE
- |— ELBOW
- |— FOOT VALVE
- |— LOW WATER LEVEL
- |— INTERMEDIATE WATER LEVEL
- |— HIGH WATER LEVEL
- |— MAIN CIRCUIT BREAKER
- |— CIRCUIT BREAKER
- |— MAGNETIC CONTACTOR



**OPERATION:**

1. WATER LEVEL BELOW LOW WATER LEVEL (LWL) ELECTRODE PUMPS 1 & 2 START TO OPERATE UP TO HIGH WATER LEVEL (HWL) ELECTRODES & STOPS.
2. WATER LEVEL BELOW INTERMEDIATE WATER LEVEL (IML) ELECTRODE EITHER PUMP 1 OR 2 OPERATES AS INDICATED BY ALTERNATOR & RELAY RH. FURTHER DRAIN OF WATER BELOW LOW WATER LEVEL (LWL) ELECTRODE WILL START PUMP 1 & 2 AS INDICATED BY RELAY RH.
3. ALTERNATOR ALTERNATE THE OPERATION OF PUMPS 1 & 2 AT SPECIFIC TIME SCHEDULE OF OPERATION.



REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
REGION IX  
1ST DISTRICT ENGINEERING OFFICE  
SEGAPE, PIVAN, ZAMBOANGA DEL NORTE

REPUBLIC OF THE PHILIPPINES  
COMMISSION ON AUDIT  
REGION IX

PROJECT & LOCATION:  
CONSTRUCTION OF A RAEMU BUILDING  
DAPITAN CITY, ZAMBOANGA DEL NORTE

SHEET CONTENT:  
ROOF PLAN  
GROUND FLOOR PLAN (WATER TANK)  
ELEV. OF OVERHEAD WATER TANK  
ISOMETRIC DIAGRAM OF WATER PUMPING SYSTEM  
SCHEMATIC DIAGRAM OF WATER LEVEL CONTROL

DESIGNED: MASTERPIECE LUMBER ARCHITECTURE  
PREPARED: OSCAR B. ABACARRAS, JR. ENGINEERING ASSISTANT II

CHECKED: FERNANDO C. MIRASOL ARCHITECT II

SUBMITTED: EVA A. TRANI ENGINEER III  
RECOMMENDING APPROVAL: CHIEF, PLANNING & DESIGN SECTION

RECOMMENDED: CHRISTOPHER L. EBAL ASST. DISTRICT ENGINEER

APPROVED: VERONICO O. MICARADAVO DISTRICT ENGINEER

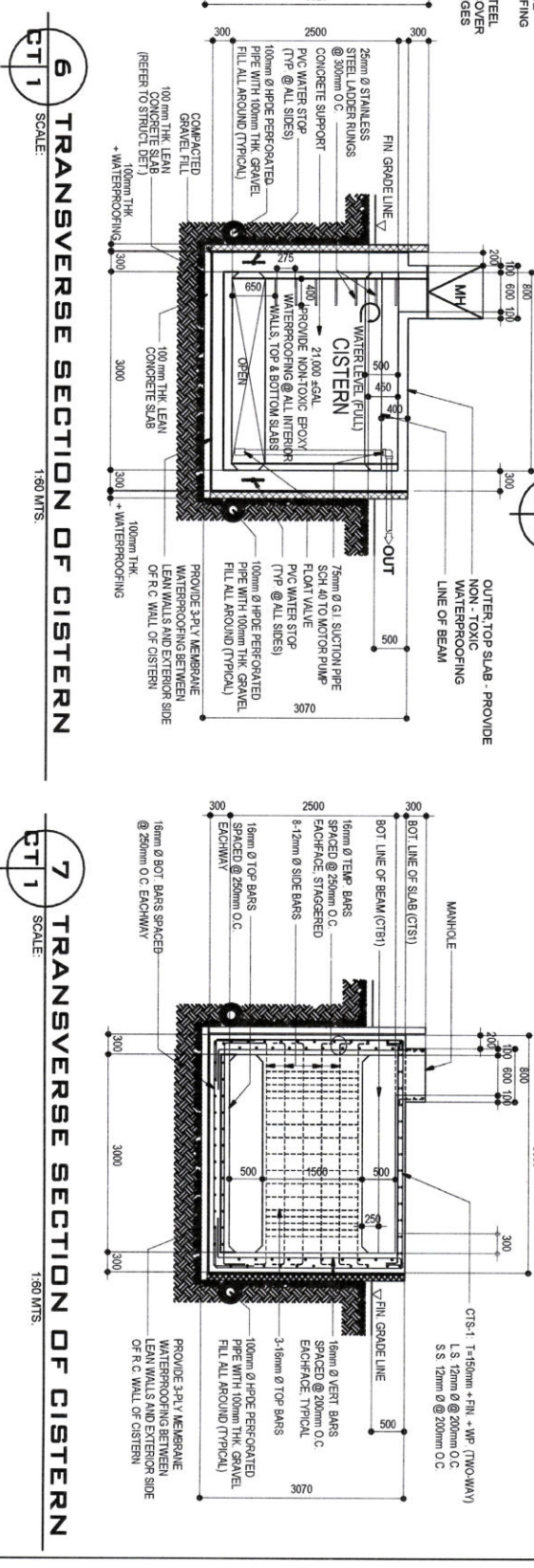
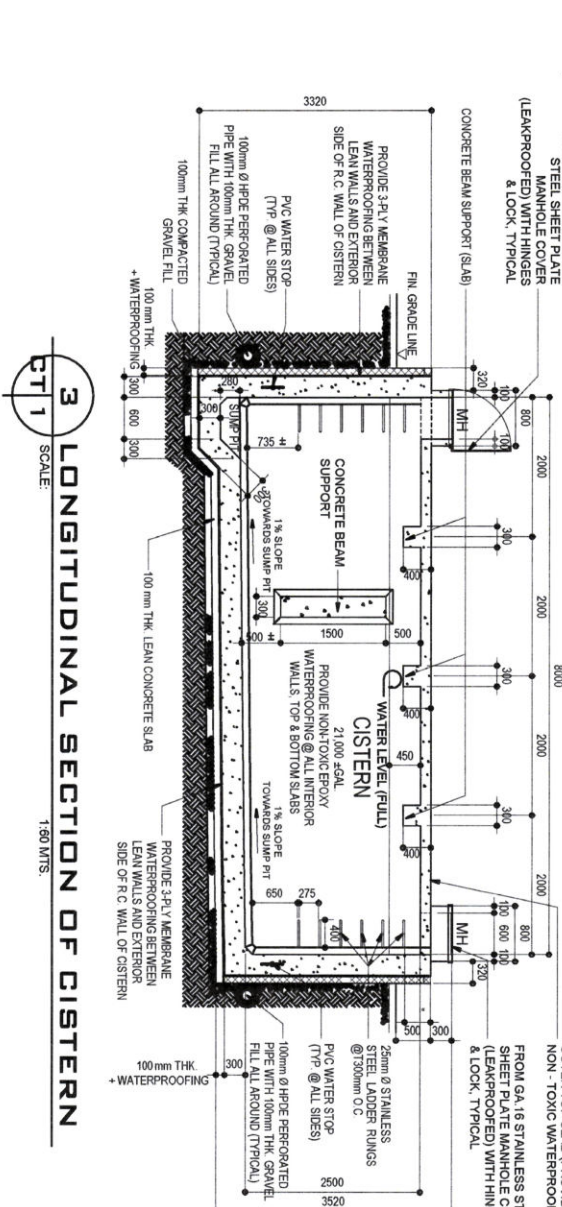
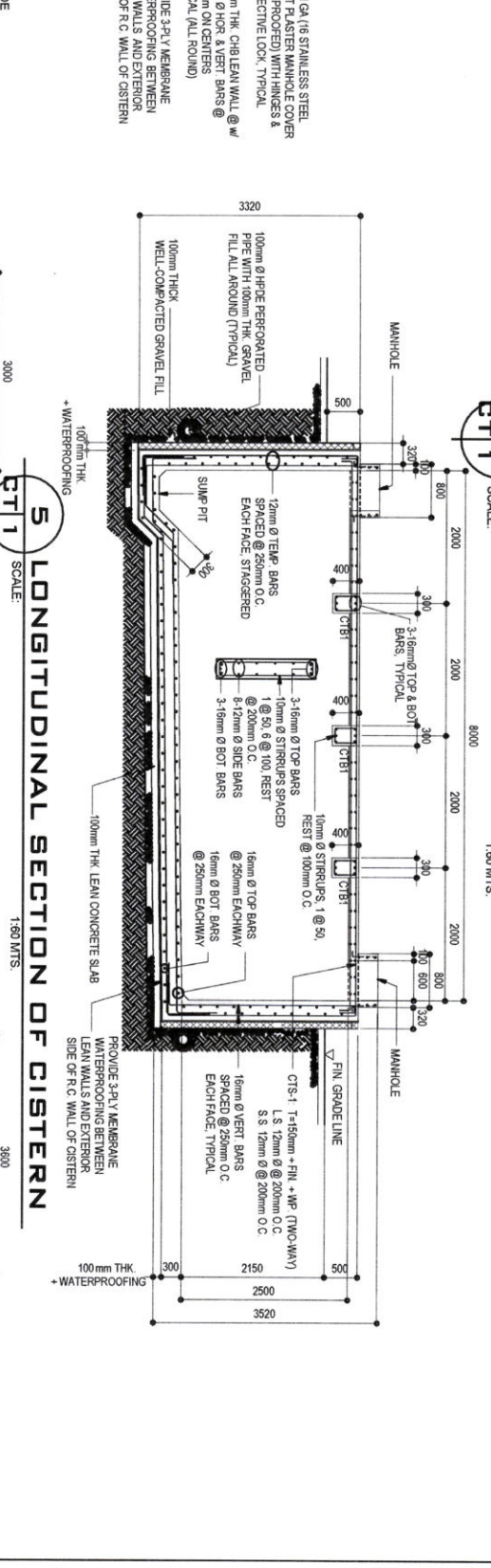
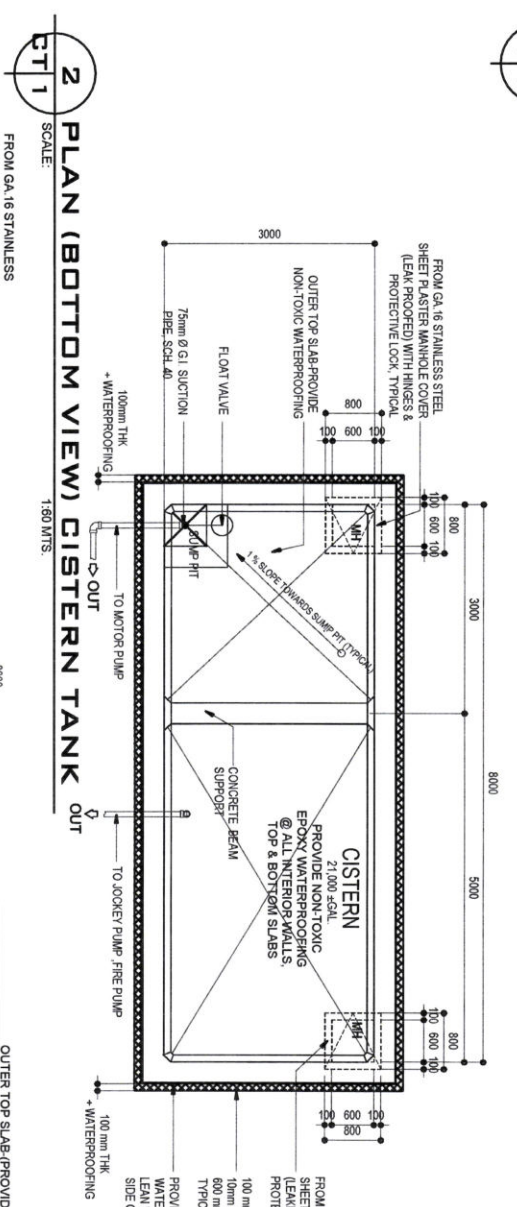
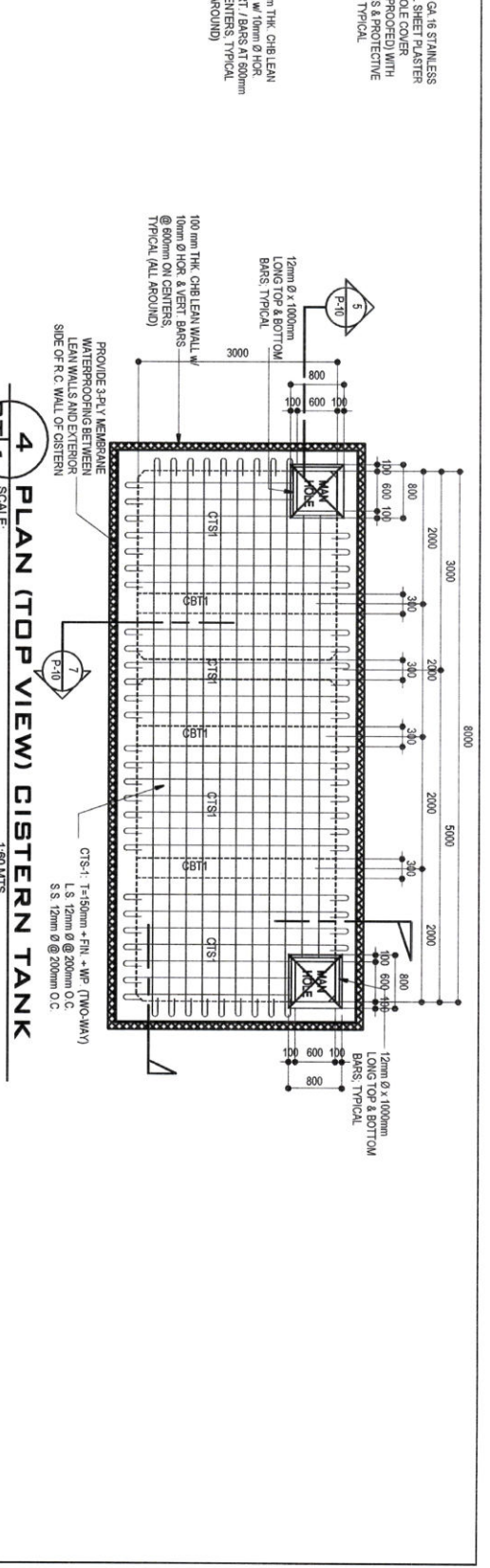
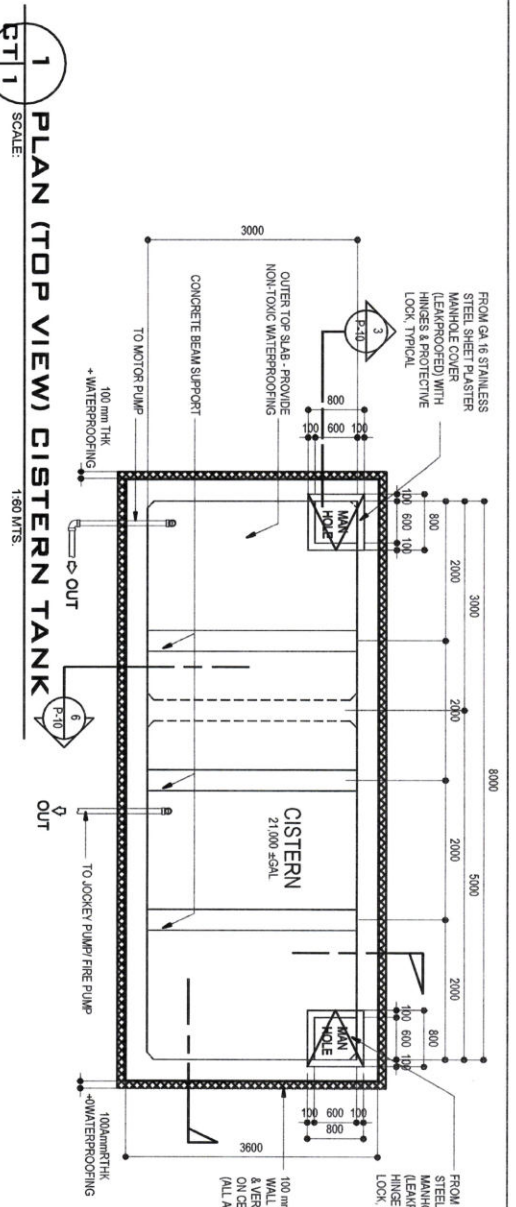
ATTY. MAURISOL D. LEGASPI OIC-DIRECTOR IV REGIONAL DIRECTOR

APPROVED: AMELIA P. VALDEZ DIRECTOR IV GSO

APPROVED: LORNA D. CABOCHIAN ASSISTANT COMMISSIONER ADMINISTRATION SECTOR

WP 1/6

29-4 291



		PROJECT & LOCATION : <b>CONSTRUCTION OF A RAEMU BUILDING DAPUAN CITY, ZAMBOANGA DEL NORTE</b>	
SHEET CONTENT : PLAN CISTERN TANK (TOP & BOTTOM) LONGITUDINAL SECTION OF CISTERN TRANSVERSE SECTION OF CISTERN		DESIGNED : MASTER DRAWER : PREPARED : ENGINEERING ASSISTANT II : <b>OSCAR F. SARGAS JR.</b>	
CHECKED : ARCHITECT II : <b>FERNANDO C. MIRASOL</b>		SUBMITTED : ENGINEER III : RECOMMENDING APPROVAL : <b>EVA A. TRANI</b> <b>CHRYSTYNE H. EBAL</b>	
APPROVED : DISTRICT ENGINEER : <b>VERONICO O. MINGRANDAYO</b>		APPROVED : ASSISTANT COMMISSIONER ADMINISTRATION SECTOR : <b>LORNA D. CAROCHAN</b>	
SET NO. : <b>CT 17</b>		SHEET NO. : <b>29-5 291</b>	

REPUBLIC OF THE PHILIPPINES  
 COMMISSION ON AUDIT  
 REGION IX