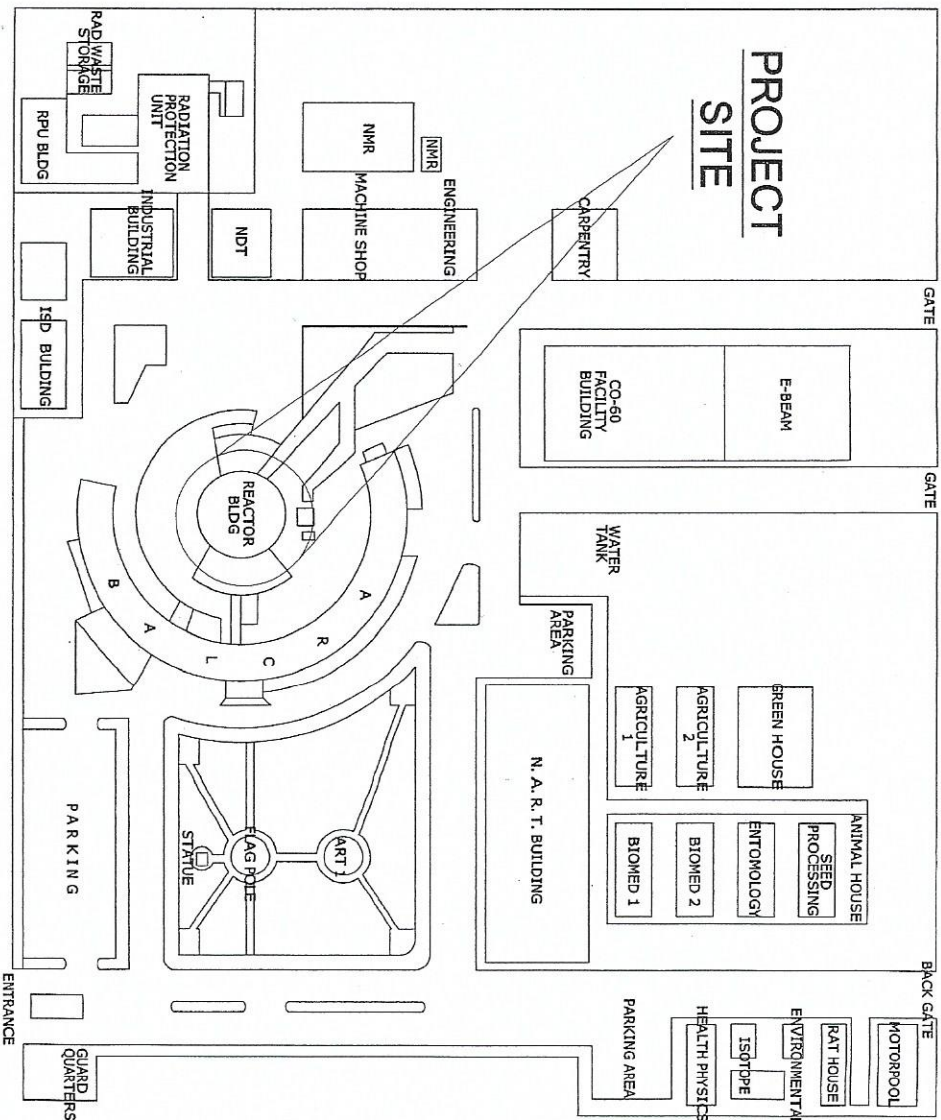
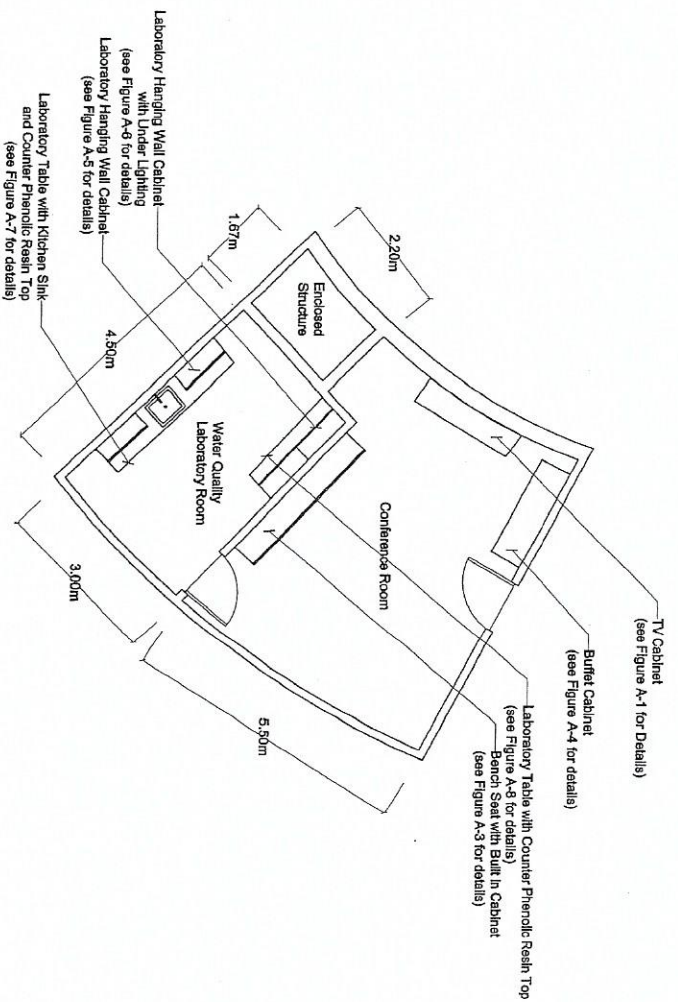


GENERAL NOTES:

1. All civil works herein shall be done in accordance with the latest edition of the Philippine Building Code.
2. All materials shall be new and of approved type for the location intended.
3. All works shall be done in a neat and workmanlike manner and parallel or perpendicular to the building lines.
4. All works shall be done using standard tools/power tools, equipment, methods and good engineering practices. Completed works shall be ready for operation.
5. All painting works shall be done using standard scaffolding for personnel support on elevated areas
6. All personnel working on elevated areas shall be provided with safety harness. Safety harness shall be in very good condition and shall be worn properly.
7. If necessary, workers shall be provided with mask, gloves, safety glasses and safety shoes.
8. Erection of scaffolding shall be supervised by an scaffolding expert foreman. The foreman shall be present at all times for the entire duration of the project.
9. Since the site is classified as controlled area, all works shall be coordinated with the Committee on Construction and/or End-user.
10. Hauling and cleaning of all debris shall be performed everyday for the duration of the project. Hauling and transfer of heavy items shall be performed using pallet truck or forklift.
11. Cleaning and clearing of works areas shall be performed everyday for the duration of the project.
12. The Contractor shall cover the reactor pool and storage tank inside the Reactor Building with an industrial plastic sheet to prevent dust from entering these areas.

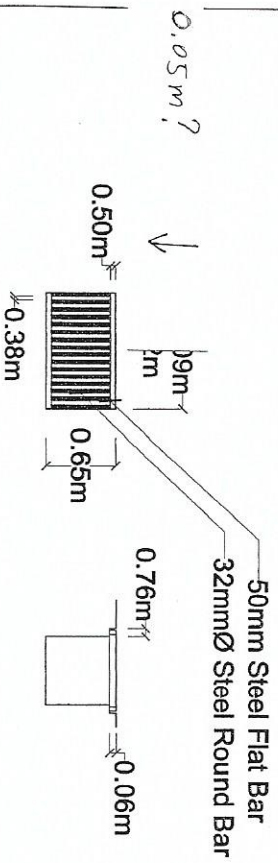
	Republic of the Philippines Department of Science and Technology PHILIPPINE NUCLEAR RESEARCH INSTITUTE	PROJECT: CAPACITY BUILDING TO UTILIZE THE PHILIPPINE RESEARCH REACTOR - 1 (PRR-1) TRIGA REACTOR IN A SUBCRITICAL ASSEMBLY (CY 2010)	OWNER: PHILIPPINE NUCLEAR RESEARCH INSTITUTE (PNRI)	SHEET CONTENT: GENERAL NOTES VICINITY MAP	PREPARED BY: Engr. ROSALINDO B. REJAS Vice Chairman Committee on Construction Engr. GUILLERMO FILAM O. DEAN Vice Chairman Committee on Construction	RECOMMENDING APPROVAL: ALVIE A. ESPINOSA, Ph.D. End-User/Head, NROS Chief, NSD PRECIOUS CORAZON B. PABROA, Ph.D. Chief, NSD GRACIELA DE LEON CUEVAS, DPA SOLENOID S. CASTANEDA, Ph.D. Chief, F&D Deputy Director	APPROVED BY: CARLO A. ARCILLA, Ph.D. Director	DRAWN BY: SHEET NO L. LALLO J. GUILLERMO R. REJAS G. DEAN
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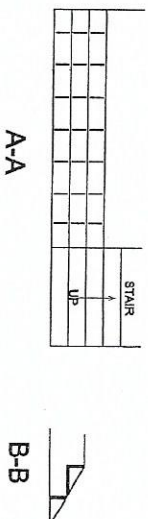
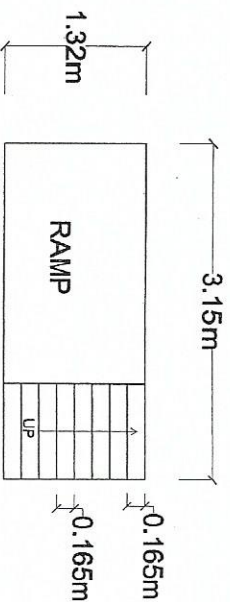
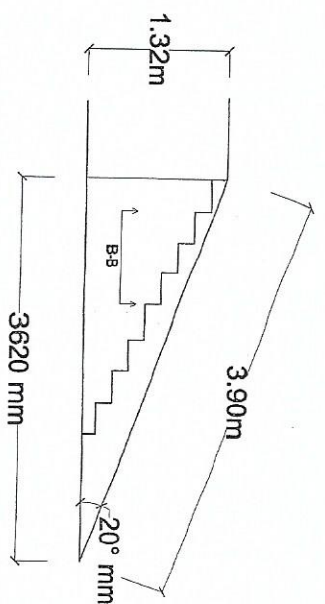
CONFERENCE ROOM AND WATER QUALITY LABORATORY ROOM FLOOR PLAN

SCALE 1:500ms



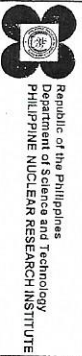
STEEL FRAME DRAIN COVER DETAIL

SCALE 1:500ms



RAMP DETAIL

SCALE 1:500ms



Republic of the Philippines
Department of Science and Technology
PHILIPPINE NUCLEAR RESEARCH INSTITUTE

PROJECT: CAPACITY BUILDING TO UTILIZE THE PHILIPPINE RESEARCH REACTOR-1 (PHRR-1) TRIGA FUEL IN A SUBCRITICAL ASSEMBLY (CY 2019)

OWNER: PHILIPPINE NUCLEAR RESEARCH INSTITUTE (PNRI)

SHEET CONTENT: CONFERENCE ROOM & WATER QUALITY LABORATORY ROOM FLOOR PLAN
STEEL FRAME DRAIN COVER DETAIL

PREPARED BY: ENGR. ROSALINDA REYES, Vice Chairperson, Committee on Construction

ENGR. JOSEPH FILAM O. DEAN, Vice-Chairperson

RECOMMENDING APPROVAL: ALVIN A. ASTORONOMO, PH.D., PRECIOUS CORA L. FABRO, PH.D., End-User/Head, INOS

GRACETA DE LEON QUEVIA, DPA, Chief, FAD

SOLEDA S. CASTAÑEDA, PH.D., Deputy Director

APPROVED BY: CARLO A. ARCILLA, PH.D., Director

DRAWN BY: SHEET NO. L. LALO, J. GUILLERMO R. REYES, G. DEAN



PROJECT:
CAPACITY BUILDING TO
UTILIZE THE PHILIPPINE
RESEARCH REACTOR - 1
(PRR-1) TRIGA FUEL IN A
SUBCRITICAL ASSEMBLY
(CY 2018)

OWNER:
PHILIPPINE NUCLEAR
RESEARCH INSTITUTE
(PNRI)

SHEET CONTENT:

REACTOR BASEMENT FLOOR PLAN

PREPARED BY:

 Eng. ROSALINO B. REIAS
 Vice Chairperson
 Committee on Construction
 Eng. GIUSEPPE FILAM O. DEAN

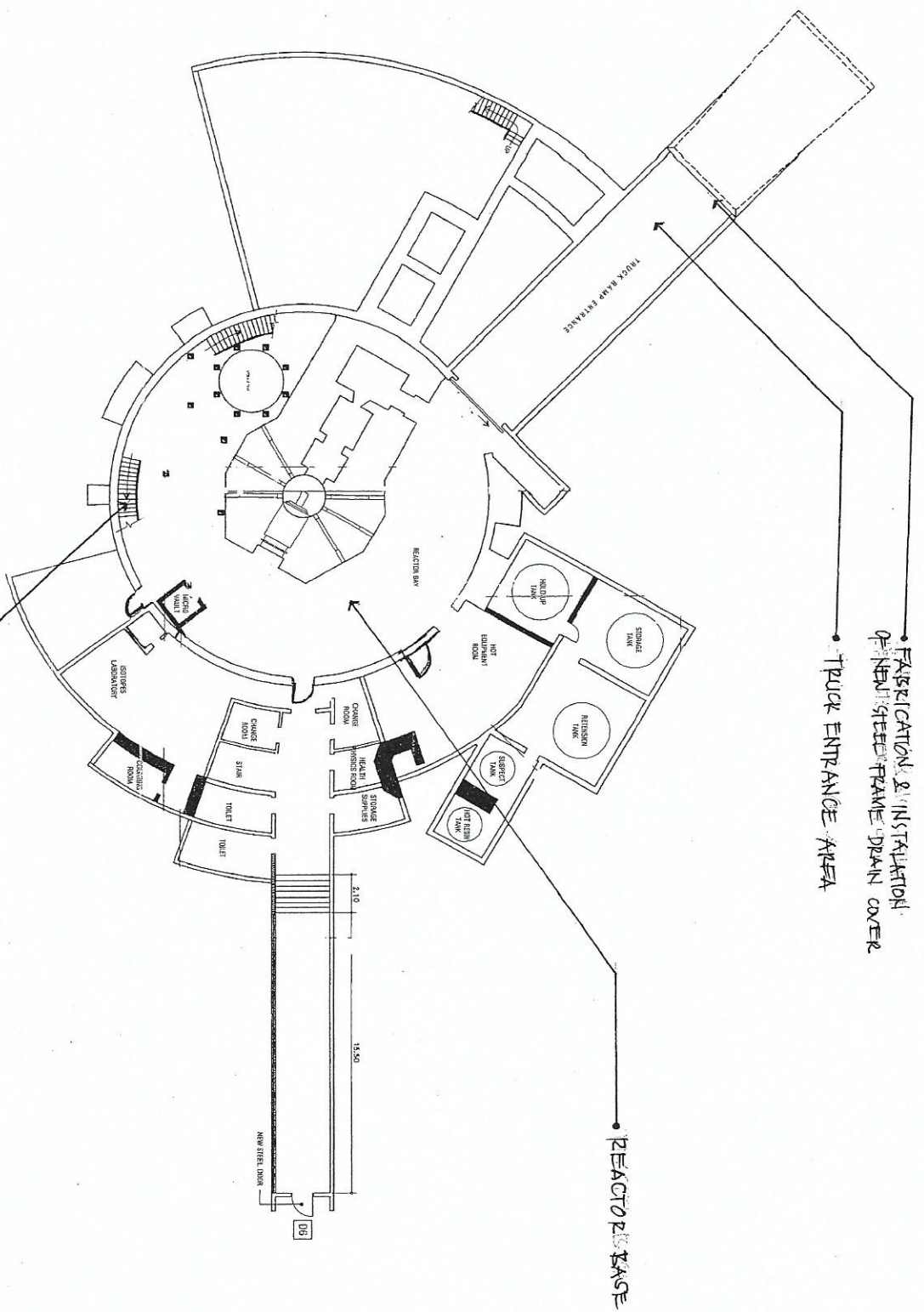
RECOMMENDING APPROVAL: 
ALVIA, J. M. RODRIGUEZ, Ph.D. PRECIOUS CORPORATION B. PABROA, Ph.D.
End-User/Head, NROS Chief, NSD

APPROVED BY: 
CARLO A. ARCILLA, Ph.D.
Director

DRAWN BY:	SHEET NO
.. LAILO	
I. GUILLERMO	
REJAS	

REACTOR BASEMENT FLOOR PLAN

SCALE 1:250MTS



- FABRICATION & INSTALLATION
- OPEN STEEL FRAME DRAIN COVER

- TRUCK ENTRANCE AREA

REACTOR BASE



PROJECT:
CAPACITY BUILDING TO
UTILIZE THE PHILIPPINE
RESEARCH REACTOR - 1
(PRR-1) TRIGA FUEL IN A
SUBCRITICAL ASSEMBLY
(CY 2018)

OWNER:
PHILIPPINE NUCLEAR
RESEARCH INSTITUTE
(PNRI)

SHEET CONTENT:

REACTOR GROUND FLOOR PLAN

PREPARED BY: 
Engr. ROSALINO B. RELIAS
Vice Chairperson,
Committee on Construction


Engr. GIUSEPPE FILAM O. DEAÑO
Vice Chairperson

RECOMMENDING APPROVAL: 
 ALVIE A. ASHLEY, M.D., PRECIOSA CORDERON B. PABROA, Ph.D.
 End-User/Head, NIOS Chief, NSD

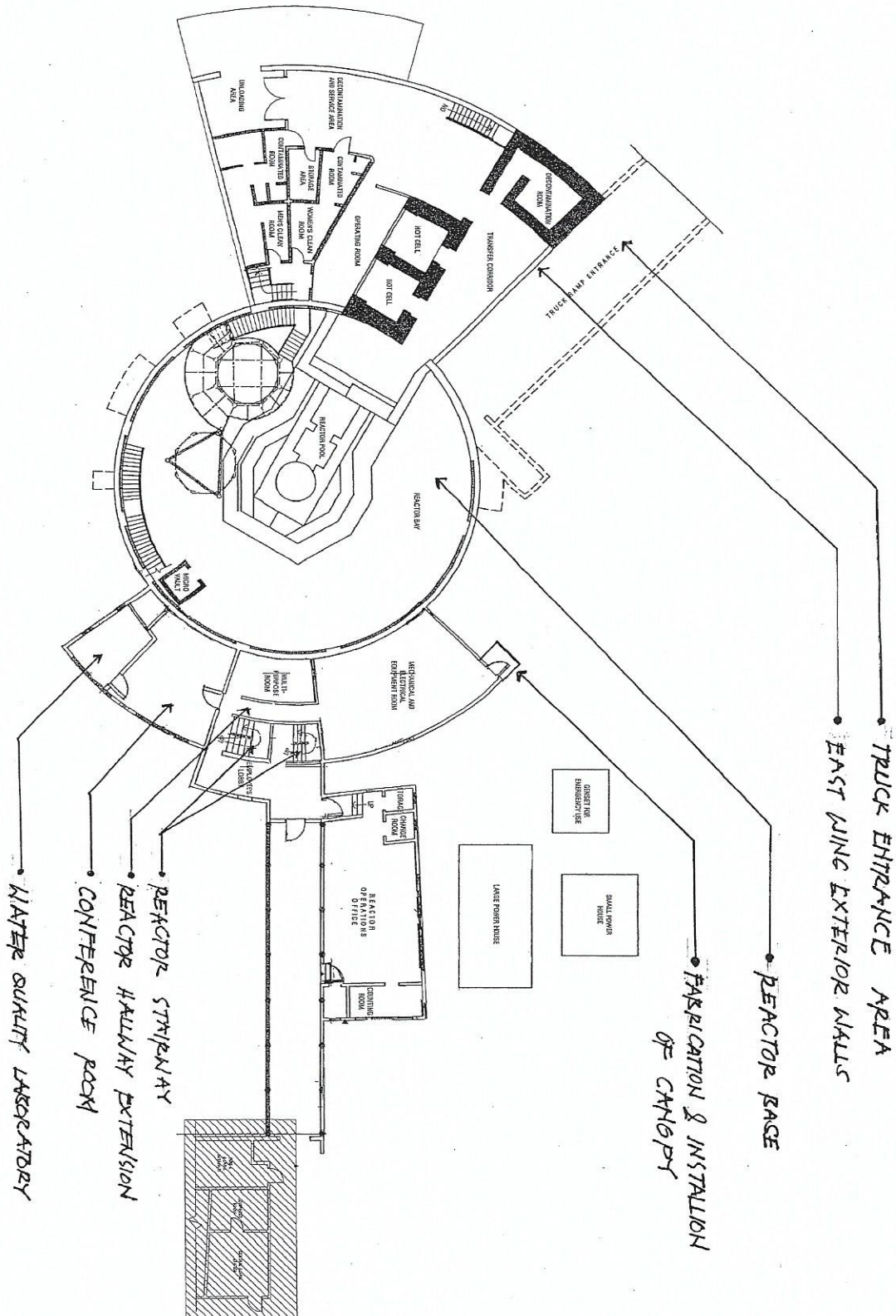
GRACETA DE LEON CUEVAS, DPA SOLEDAD S. CASTAÑEDA, Ph.D.
 Chief FAD Deputy Director

APPROVED BY: 
CARLO A. ARCILLA, Ph.D.
Director

DRAWN BY:	SHEET NO.
L. LALO	
J. GUILLERMO	
R. REJAS	
G. DEAN	

REACTOR GROUND FLOOR PLAN

SCALE 1:250MTS





PROJECT:	OWNER:	SHEET CONTENT:
CAPACITY BUILDING TO UTILIZE THE PHILIPPINE REACTOR-1 (PRR-1) THIRD FLOOR SUBSTRUCTURE ASSEMBLY (CY 2019)	PHILIPPINE NUCLEAR RESEARCH INSTITUTE (PNRI)	REACTOR SECOND FLOOR PLAN

PREPARED BY:

RECOMMENDING APPROVAL:

APPROVED BY:

DRAWN BY: SHEET NO

REACTOR SECOND FLOOR PLAN

SCALE 1:250MTS

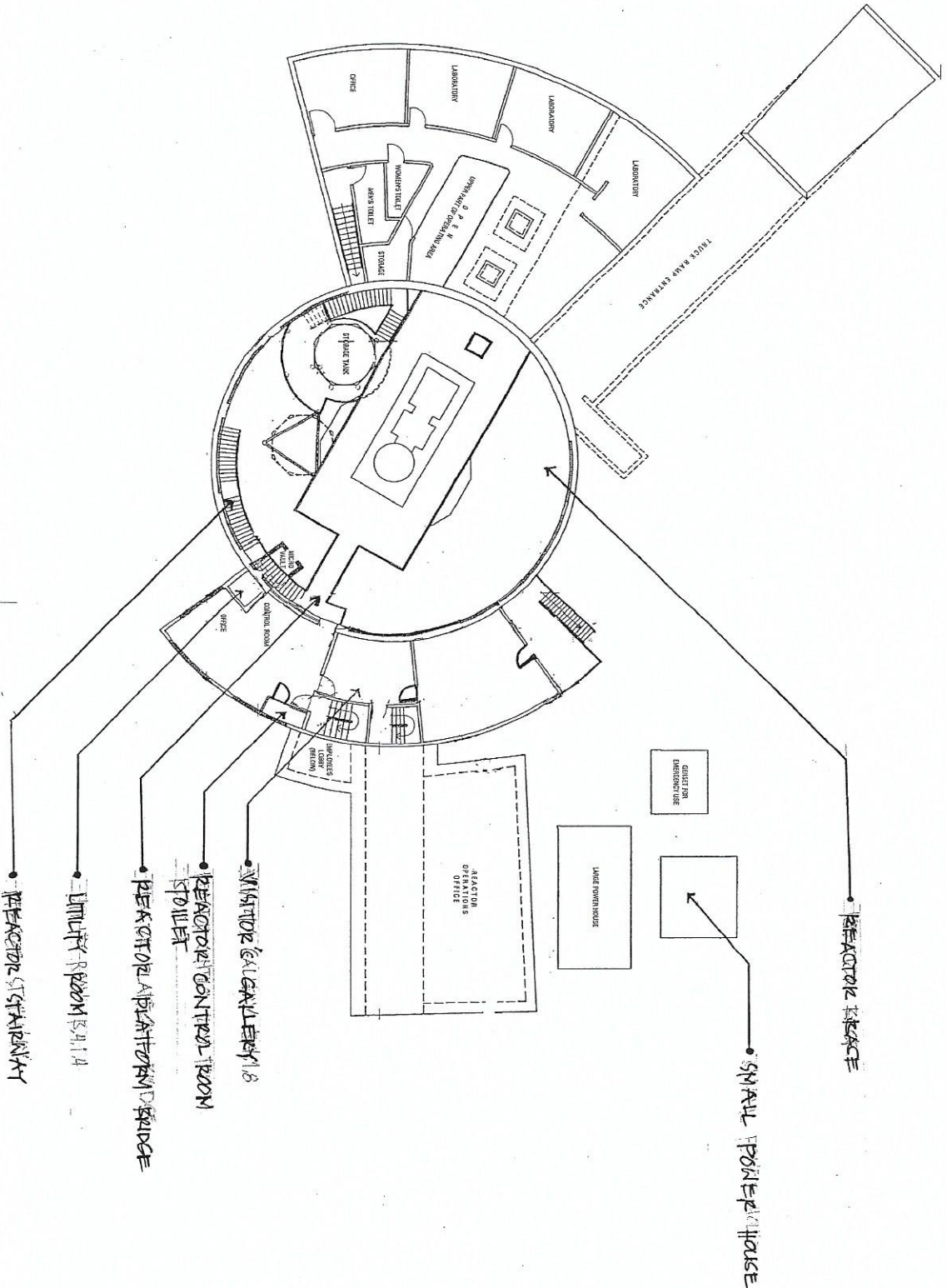
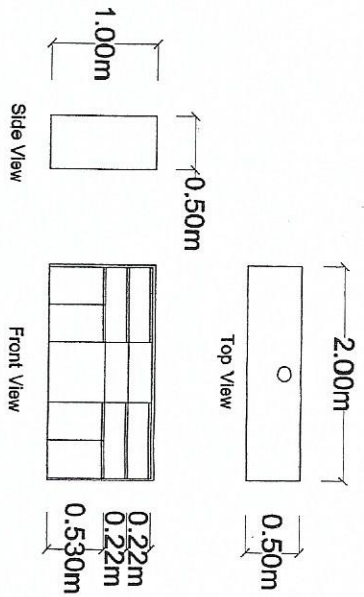
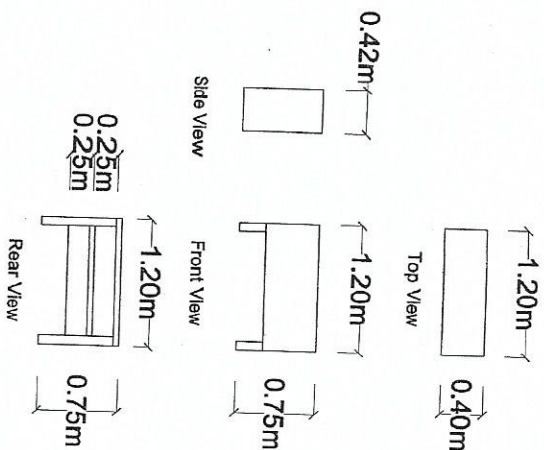


Figure A-1 TV Cabinet



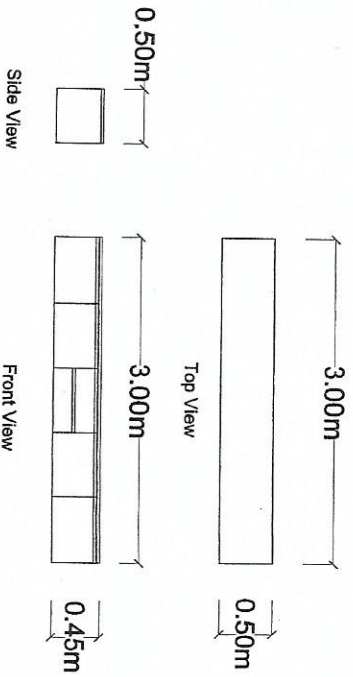
- Details:**
- 3" Marine Plywood
 - 18mm Laminated Marine Plywood Counter Top
 - SS Hand Grab
 - SS Concealed Hinges
 - 2-Fold Ball Bearing Drawer Slides
 - Duco Finish (Color as approved)

Figure A-2 Conference Table



- Details**
- 8 Pcs, Fabricated Table
 - 3" Marine Plywood
 - 18mm Laminated Marine Plywood Table Top
 - Duco Finish (Color as approved)

Figure A-3 Bench Seat with Built-In Stock Cabinet



- Details:**
- 3" Marine Plywood
 - 18mm Laminated Marine Plywood Top
 - SS Hand Grab
 - SS Concealed Hinges
 - 2-Fold Ball Bearing Drawer Slides
 - Duco Finish (Color as approved)

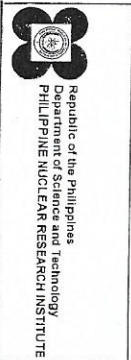
 Republic of the Philippines Department of Science and Technology PHILIPPINE NUCLEAR RESEARCH INSTITUTE	PROJECT: CAPACITY BUILDING TO RESEARCH IN THE PHILIPPINE RESEARCH INSTITUTE IN A SUBCRITICAL ASSEMBLY (CY 2019)	OWNER: PHILIPPINE NUCLEAR RESEARCH INSTITUTE (PNRI)	SHEET CONTENT: TV CABINET CONFERENCE TABLE BENCH SEAT WITH BUILT-IN STOCK CABINET	PREPARED BY: Engr. ROSALIND B. REJAS Vice-Chief, Research Committee of Construction	RECOMMENDING APPROVAL: ALVIE A. ROSARIO, Ph.D. Engr. (Mechanical), P.E. GRACETA DE LEON CUEVAS, CPA Chief, EAO	APPROVED BY: CARLO A. ARCILLA, Ph.D. Director	DRAWN BY: L. LAJO J. GUILLERMO R. REJAS G. DEAN	SHEET NO
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Figure A-4 Buffet Cabinet

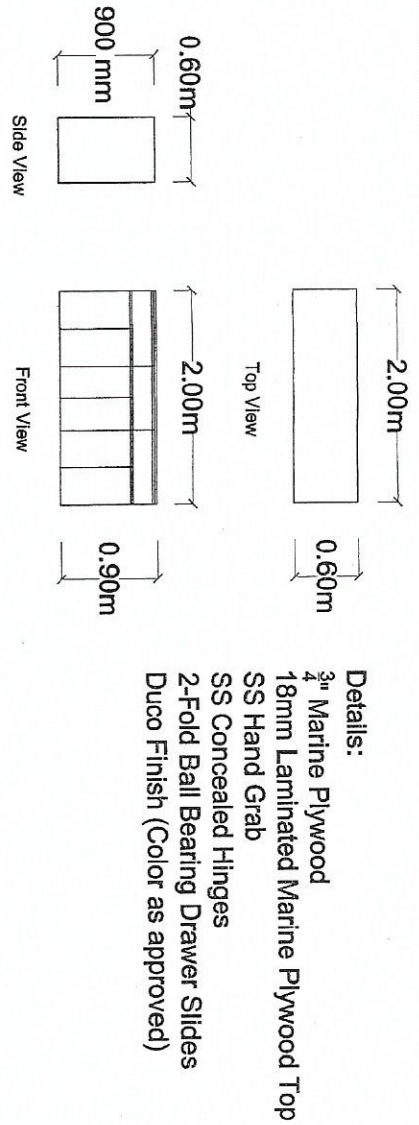


Figure A-5 Laboratory Hanging Wall Cabinet

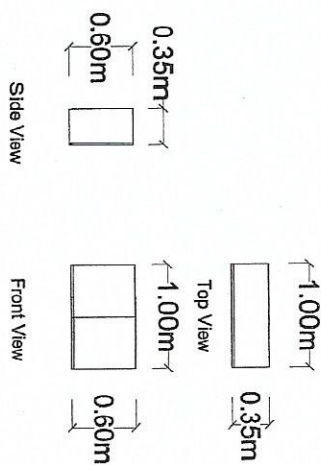
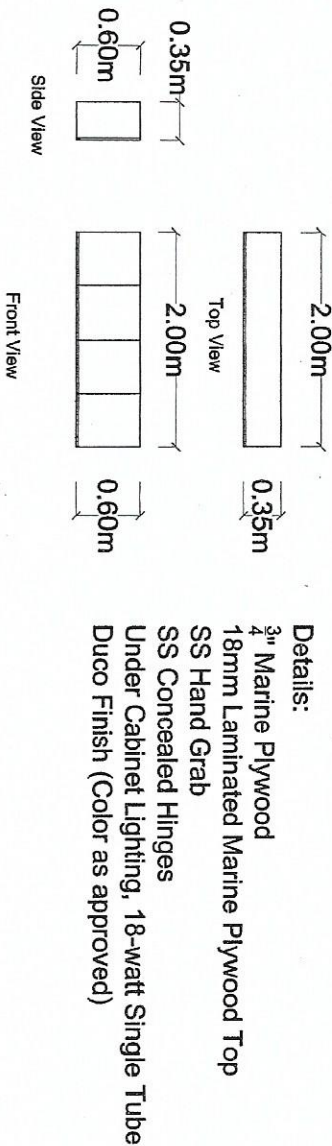
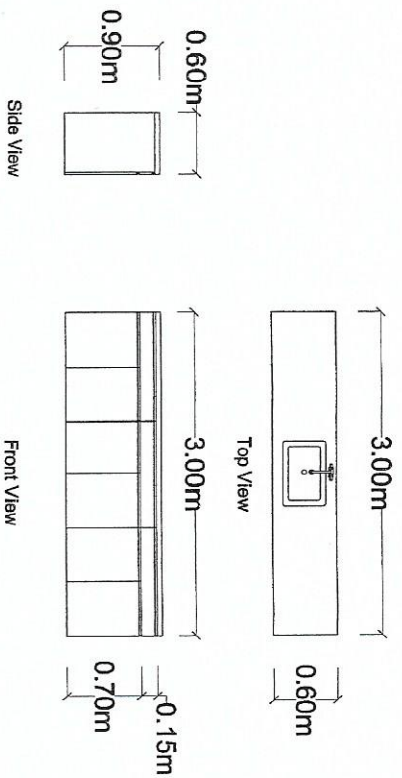


Figure A-6 Laboratory Hanging Wall Cabinet with Under Lighting



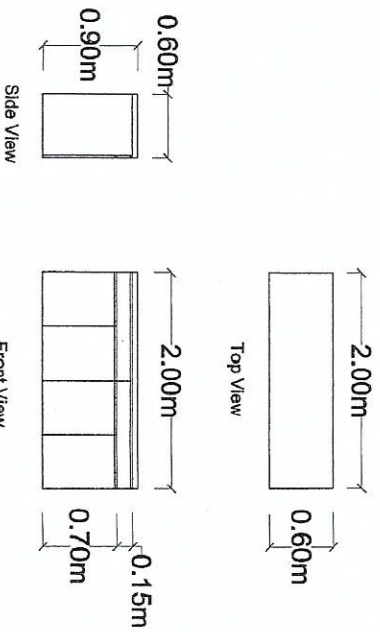
 Republic of the Philippines Department of Science and Technology PHILIPPINE NUCLEAR RESEARCH INSTITUTE	PROJECT: CAPACITY BUILDING TO UTILIZE THE PHILIPPINE RESEARCH REACTOR-1 (PRR-1) TRIGA FUEL IN A SUBCRITICAL ASSEMBLY (CT 2019)	OWNER: PHILIPPINE NUCLEAR RESEARCH INSTITUTE (PNRI)	SHEET CONTENT: BUFFET CABINET LABORATORY HANGING WALL CABINET WITH UNDER LIGHT CABINET	PREPARED BY: Engr. ROSALIND B. REAS Vice Chairperson, Committee on Construction Engr. GUERRERO FILAM O. DEAN Vice Chairperson	RECOMMENDING APPROVAL: ALVIE A. ESPERONOMO, Ph.D. End-User/Field NROS GRACETA DE LEON CUEVAS, DPA Chief, FEA SOLEDAD S. CASTAÑEDA, Ph.D. Assistant Director	APPROVED BY: CARLO A. ARCILLA, Ph.D. Director	DRAWN BY: SHEET NO L. LALLO J. GUILLERMO R. REAS G. DEAN
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Figure A-7 Laboratory Table with Kitchen Sink and Counter Phenolic Resin Top



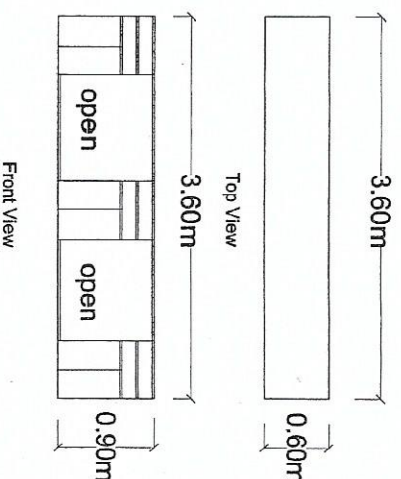
- Details:
- 1 Pc Fabricated Table w/ Phenolic Resin Top
 - SS Single Kitchen Sink (24" x 19" x 20")
 - Single Handle Pull Down Kitchen Faucet
 - 3/4" Marine Plywood
 - 18mm Laminated Marine Plywood Top
 - SS Hand Grab
 - SS Concealed Hinges
 - Duco Finish (Color as approved)

Figure A-8 Laboratory Table with Counter Phenolic Resin Top



- Details:
- 1 Pc Fabricated Table w/ Phenolic Resin Top
 - 3/4" Marine Plywood
 - 18mm Laminated Marine Plywood Top
 - SS Hand Grab
 - SS Concealed Hinges
 - 2-fold Ball Bearing Drawer Slide
 - Duco Finish (Color as approved)

Figure B-1 Reactor Control Room Cabinet



 Republic of the Philippines Department of Science and Technology PHILIPPINE NUCLEAR RESEARCH INSTITUTE	PROJECT: CAPACITY BUILDING TO RESEARCH REACTOR-1 (PRR-1) TRIGA PUEL IN A SUBCRITICAL ASSEMBLY (CY 2018)	OWNER: PHILIPPINE NUCLEAR RESEARCH INSTITUTE (PNRI)	SHEET CONTENT: LABORATORY TABLE WITH KITCHEN SINK & PHENOLIC RESIN TOP LABORATORY TABLE WITH COUNTER PHENOLIC RESIN TOP REACTOR CONTROL ROOM CABINET	PREPARED BY: Engr. ROSALINDO B. REJAS Vice-Chief Engineer Committee of Construction Engr. GUSEPPE P. LAYO O. DEAN Vice-Chief Engineer	RECOMMENDING APPROVAL: ALVIERA, J. J. DOMONO, Ph.D., PRECIOSA, E. RAZON, Ph.D., Chief, NSD GRACETA DE LEON, CUEVAS, DPA, SOLEADO S. CASTANEDA, Ph.D., Deputy Director	APPROVED BY: CARLO A. ARCILLA, Ph.D., Director	DRAWN BY: SHEET NO
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Republic of the Philippines
Department of Science and Technology/
PHILIPPINE NUCLEAR RESEARCH INSTITUTE

PROJECT: CAPACITY BUILDING TO
UTILIZE THE PHILIPPINE
RESEARCH REACTOR - 1
(PNRR-1) IN A REMEDIATION
SUB-CENTRE (C-2418)

OWNER: PHILIPPINE NUCLEAR
RESEARCH INSTITUTE
(PNRI)

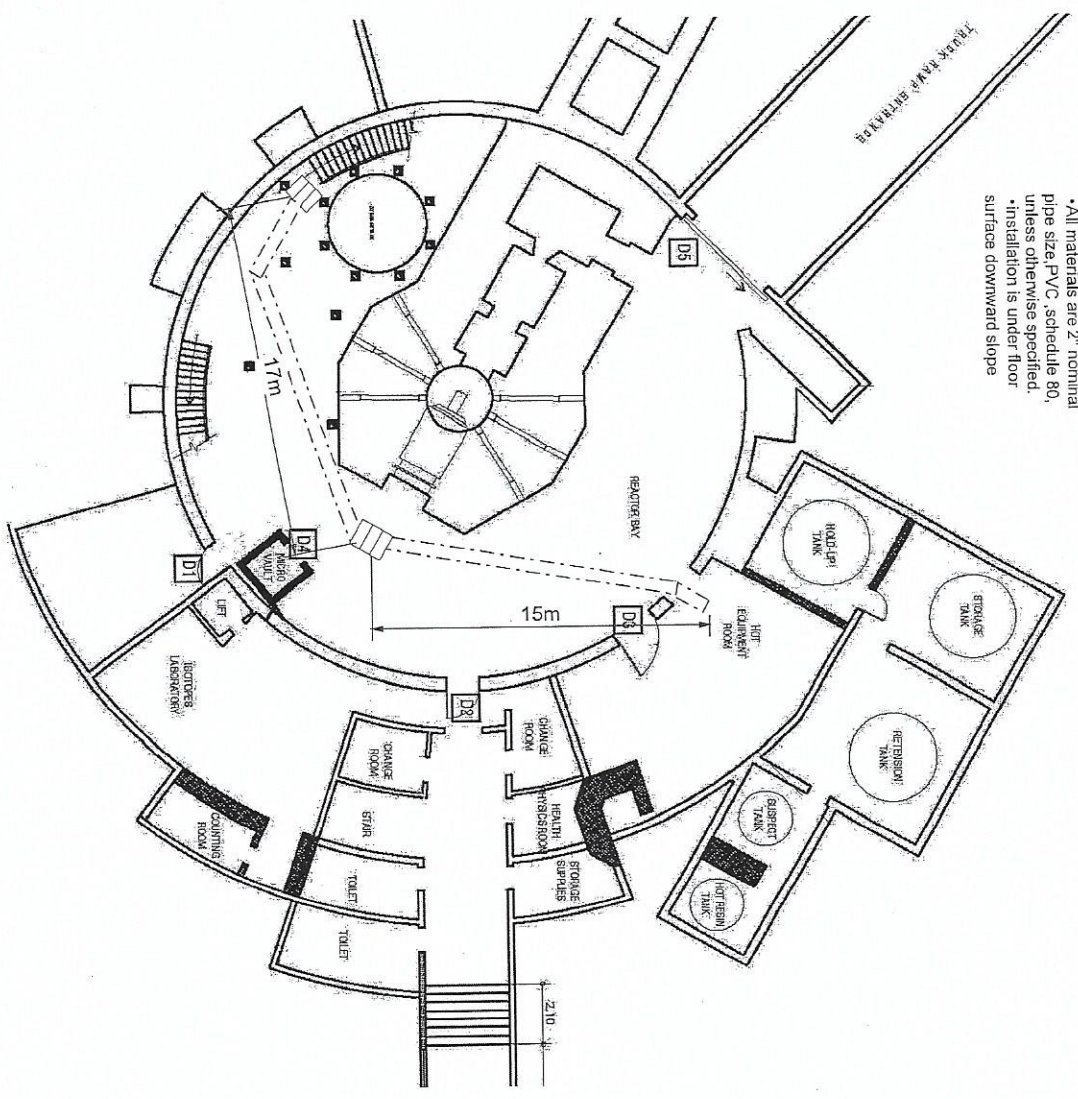
SHEET CONTENT: PLUMBING LAYOUT

PREPARED BY: *Engr. ROLANDO B. REAS*
Via Chairperson
Committee of Construction
Engr. GUSEPPE PLAMO, DEAN

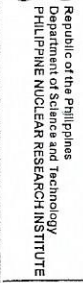
RECOMMENDING APPROVAL: *ALVIE A. AGUIRRE, PH.D.*
Engr. AGUIRRE, PH.D.
PRECIOSA CORAZON B. PABROA, PH.D.
Chief, NSD
GRACETA DE LEON CUEVAS, DPA
SOFEDAD S. CASTANEDA, PH.D.

APPROVED BY: *Carlo A. Arcilla*
CARLO A. ARCILLA, PH.D.
Director

DRAWN BY: SHEET NO
L. LALO
J. GUILLERMO
R. REAS
G. DEAN



- Details:
- 32 m. pipe length
 - 2 pcs elbow
 - 2 pcs. clean out
 - 1 pc. tee
 - 2 pcs. 4" square brass black floor drain
 - All materials are 2" nominal pipe size PVC, schedule 80, unless otherwise specified.
 - Installation is under floor surface downward slope



CAPACITY BUILDING TO
UTILIZE THE PHILIPPINE
RESEARCH REACTOR - 1
(PRR-1) TRIGA FUEL IN A
SUBCRITICAL ASSEMBLY
(CY 2018)

PHILIPPINE NUCLEAR
RESEARCH INSTITUTE
(PNRI)

PLUMBING LAYOUT

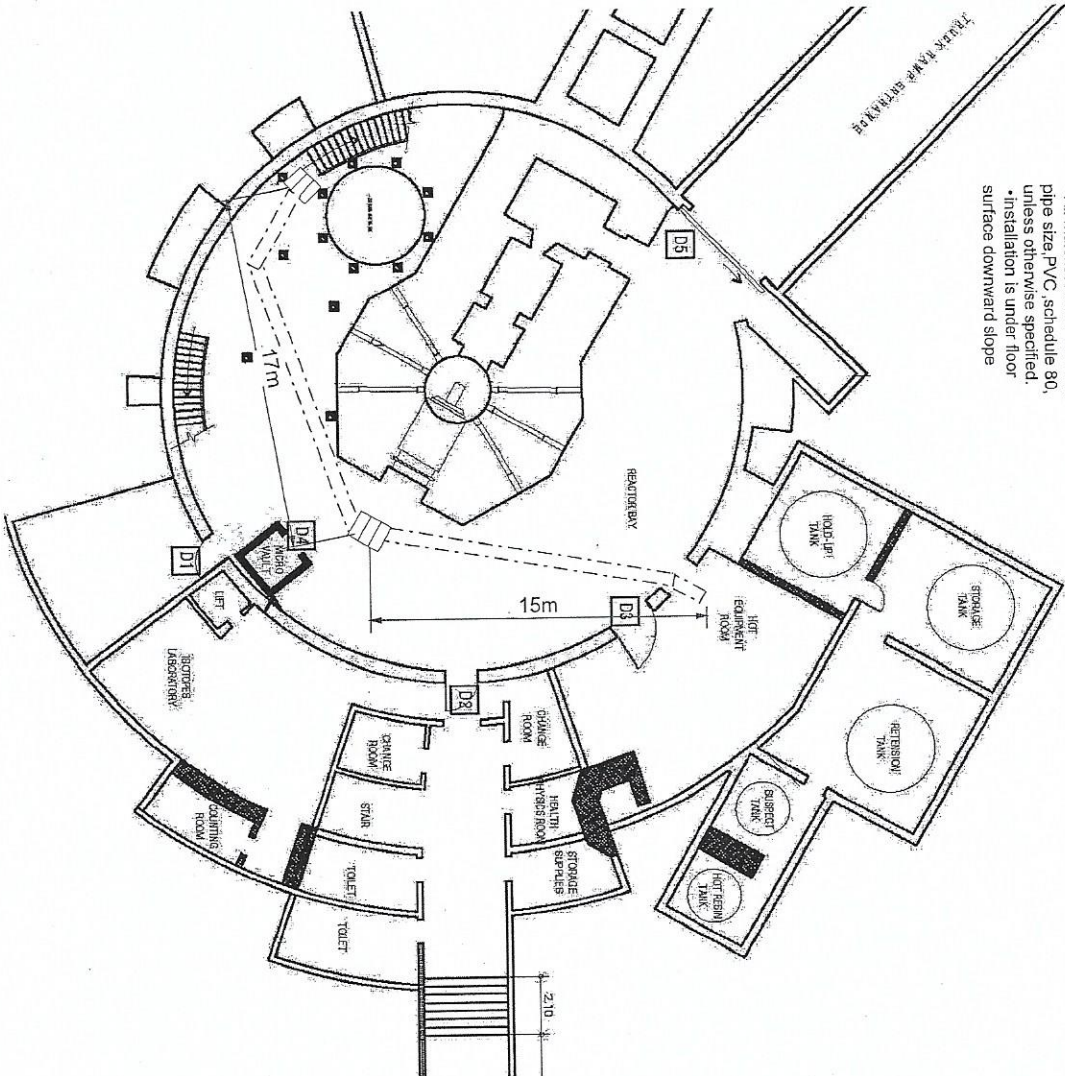
PREPARED BY:
ENGR. ROSALIND B. REJAS
 Vice Chairperson,
 Committee of Construction
ENGR. GIUSEPPE FILAM O. DEAN
 Vice Chairperson

RECOMMENDING APPROVAL: 
ALVIE A. SASTRONGOMO, Ph.D. PRECIOSA CORZON E. PABRICA, Ph.D.
End-User/Head, NROS Chief, NSD
GRACETA DE LEON CIEVAS, DPA SOCIEDAD S. CASTAÑEDA, Ph.D.
Chief, NSD President, Director

APPROVED BY: *Carla L.*
CARLO A. ARCILLA, Ph.D.
Director

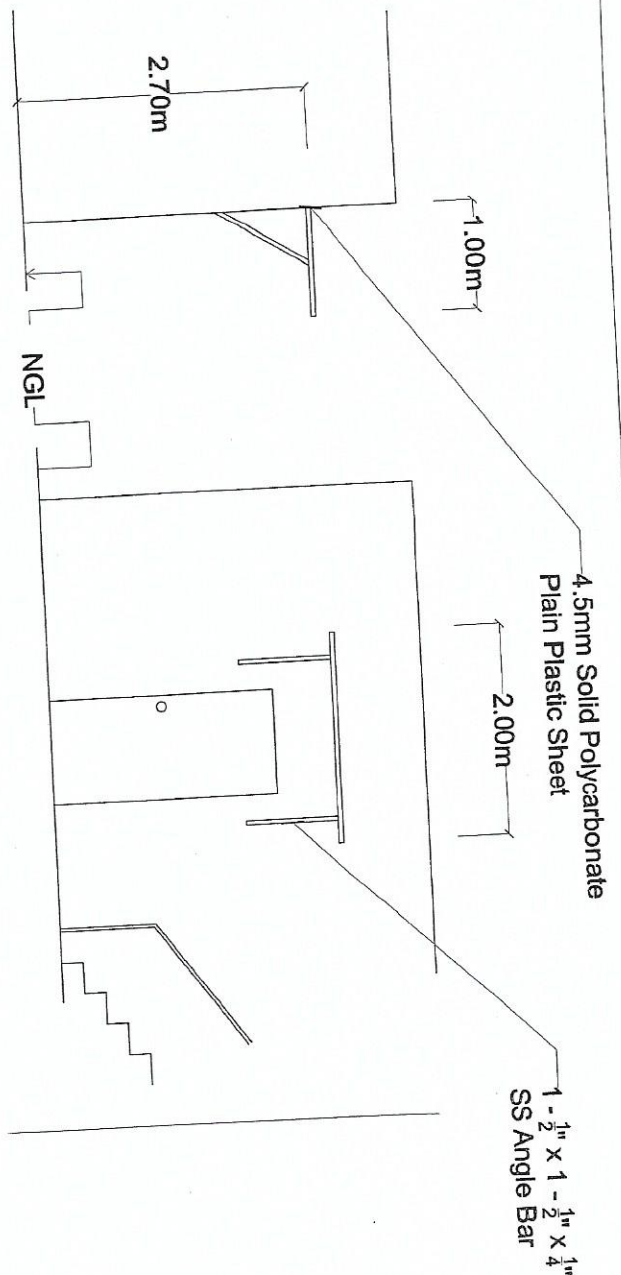
DRAWN BY:
L. LALO
J. GUILLERMO
R. REJAS
G. DEAN

SHEET NO.

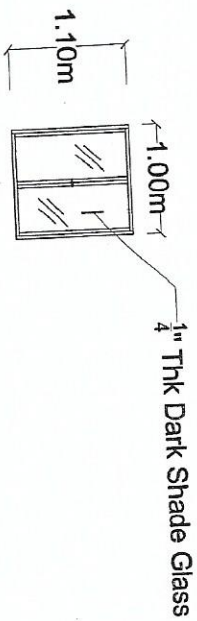


Details:

- 32 m pipe length
- 2 pcs elbow
- 2 pcs clean out
- 1 pc. tee
- 2 pcs. 4" square brass black floor drain
- All materials are 2" nominal pipe size PVC, schedule 80, unless otherwise specified.
- installation is under floor surface downward slope

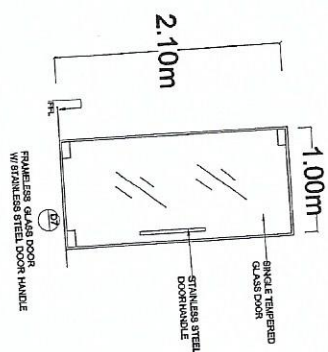


MECHANICAL-ELECTRICAL DOOR CANOPY DETAIL
SCALE 1:150mbs



VINYL SWING WINDOW

REACTOR CONTROL ROOM WINDOW
SCALE 1:150mbs



DOOR DETAIL

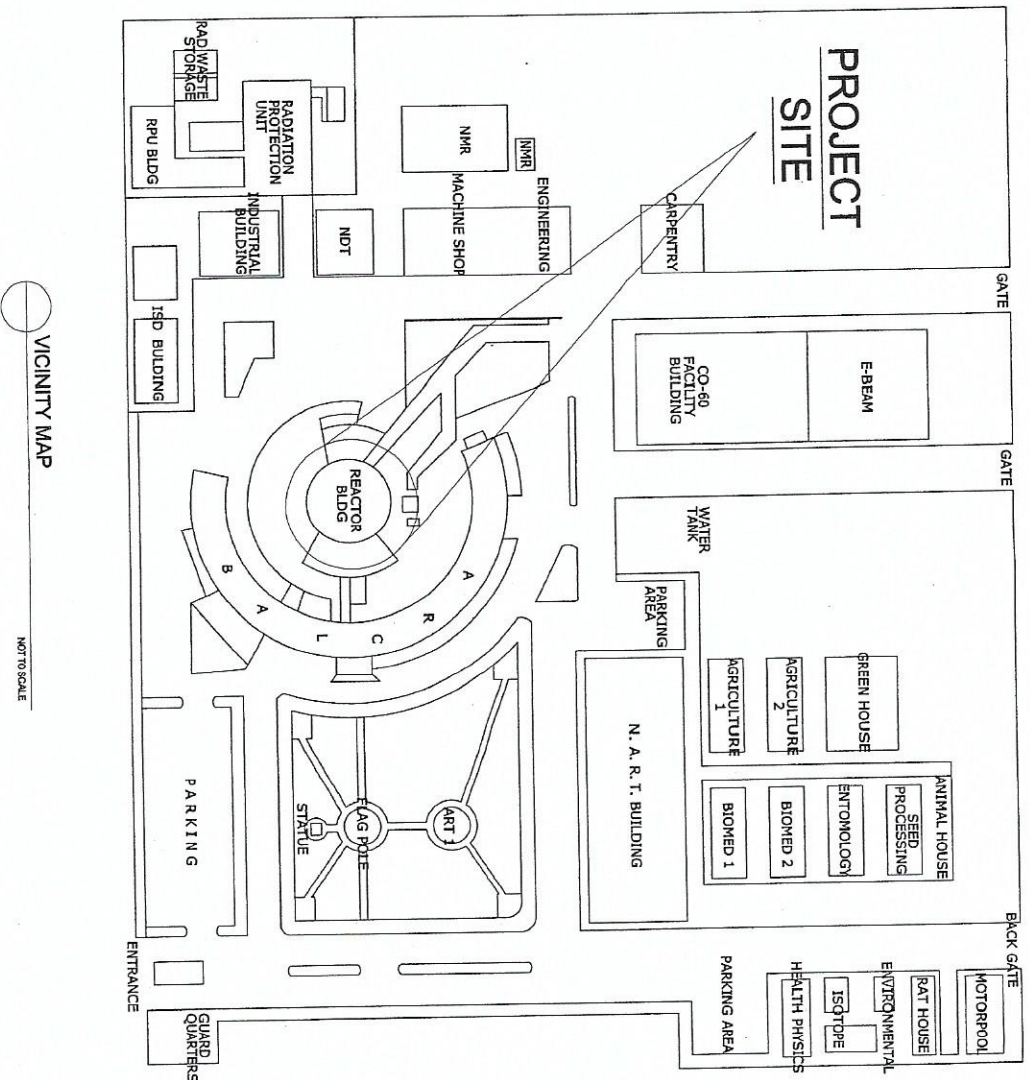
SCALE 1:150mbs

 Republic of the Philippines Department of Science and Technology PHILIPPINE NUCLEAR RESEARCH INSTITUTE (CT 2016)		CAPACITY BUILDING TO UTILIZE THE PHILIPPINE RESEARCH REACTOR - 1 (PFR-1) TRIAXIAL SURFICIAL ASSEMBLY		PHILIPPINE NUCLEAR RESEARCH INSTITUTE (PNRI)		MECHANICAL-ELECTRICAL DOOR CANOPY DETAIL, VINYL SWING WINDOW DETAIL		PREPARED BY: Engr. ROSALINDO B. REJAS Vice Chairperson/ Committee on Certification		RECOMMENDING APPROVAL: ALVIN A. S. MONOMO, Ph.D. PRECIOUS CORAZON, Ph.D. Engr. (Mech. Eng.) NROS Chief, NSD		APPROVED BY: CARLO A. ARCILLA, Ph.D. Director		DRAWN BY: SHEET	
PROJECT:		OWNER:		SHEET CONTENT:		PREPARED BY:		RECOMMENDING APPROVAL:		APPROVED BY:		DRAWN BY:			
PROJECT:		OWNER:		SHEET CONTENT:		PREPARED BY:		RECOMMENDING APPROVAL:		APPROVED BY:		DRAWN BY:			
PROJECT:		OWNER:		SHEET CONTENT:		PREPARED BY:		RECOMMENDING APPROVAL:		APPROVED BY:		DRAWN BY:			

GENERAL NOTES:

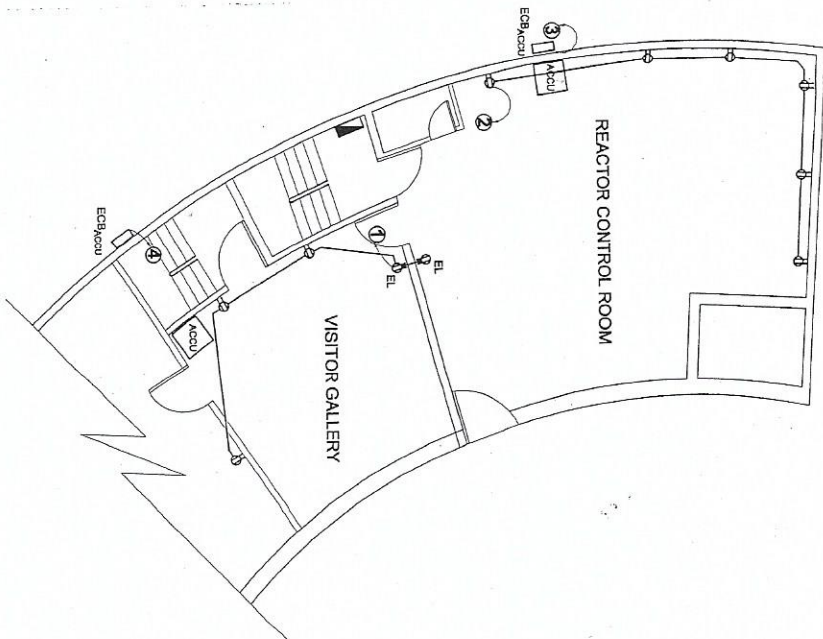
1. All electrical works herein shall be done in accordance with the latest edition of the Philippine Electrical Code (PEC)
2. All materials shall be new and of approved type for the location intended.
3. Unless otherwise specified in the plan, the minimum size of wire and conduit to be used shall be 3.5 mm² THHN/THWN and 15 mm dia (1/2"), respectively.
4. All exposed conduits for lighting shall be EMT except for conduits embedded on concrete which shall be UPVC. Conduits for convenience outlets and special purpose outlets auxiliary outlets shall be UPVC.
5. All convenience unit outlets shall be tandem-type, 240 volts and of grounding-type.
6. All circuit breakers shall be rated at 460 volts.
7. All main circuit breakers shall be industrial-type and all panelboards shall be bolt-on.
8. All wiring devices shall be rated at 240 volts and UL listed.
9. Pullboxes may be installed if necessary although not indicated in the plan.
10. All works shall be done in a neat and workmanlike manner and parallel or perpendicular to the building lines.
11. All works shall be done using standard tools/power tools, equipment, methods and good engineering practices. Completed works shall be ready for operation.
12. All electrical works shall be done under the immediate supervision of a Registered Electrical Engineer or a Registered Master Electrician.
13. Mounting heights:
 - a. Switches – 140 cm (at center)
 - b. Convenience outlet – 30 cm (at center)
 - c. Emergency light and outlet – for verification
 - d. Exhaust fan and outlet – for verification
 - e. Panelboard - 180 cm (on top)
14. Color coding of wires:
 - Black - line 1
 - Red - line 2
 - Blue - line 3
 - Green - ground

 Republic of the Philippines Department of Science and Technology PHILIPPINE NUCLEAR RESEARCH INSTITUTE	PROJECT: CAPACITY BUILDING TO UTILIZE THE PHILIPPINE RESEARCH REACTOR - 1 (PRR-1) TRIGA TUBE IN A SUBCRITICAL ASSEMBLY (CST-2000)	OWNER: PHILIPPINE NUCLEAR RESEARCH INSTITUTE (PNRI)	SHEET CONTENT: GENERAL NOTES VICINITY MAP	PREPARED BY: Engr. ROSALINDA REJAS Vice Chairperson Committee on Construction Engr. JOSEPEPE PLAM O. DEAN Chair, FAD	RECOMMENDING APPROVAL: ALVIN A. BARRONOMO, Ph.D. PREGOSA GOKAZON B. PABROK, Ph.D. Engr. J. BARRONOMO, Ph.D. Engr. J. BARRONOMO, Ph.D. Chief, NSD Chief, NSD GRACETA DE LEON CUEVAS, DPA SOLEDAD S. CASTAÑEDA, Ph.D. Chief, FAD Deputy Director	APPROVED BY: CARLO A. ARCILLA, Ph.D. Director	DRAWN BY: L. LAJO J. GUILLERMO R. REJAS G. DEAN
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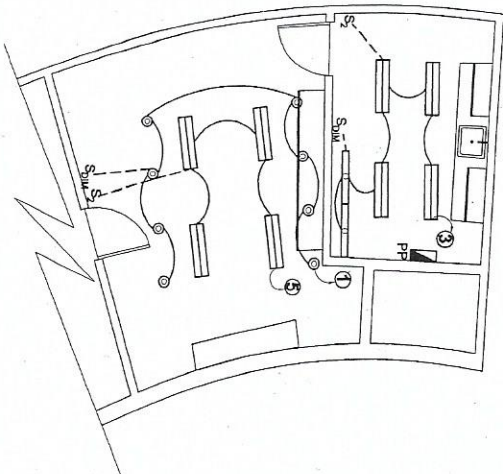
L. LAILO J. GUILLERMO R. REJAS G. DEAN	
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REACTOR CONTROL ROOM AND
VISITOR GALLERY POWER LAYOUT

SCALE 1:100METER

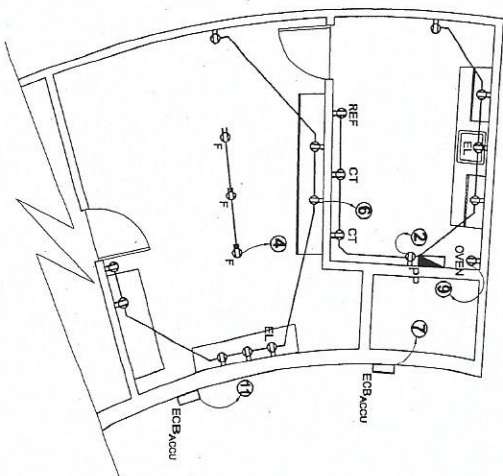
- Fluorescent Light
- Fluorescent Light (Double)
- Pin Light
- Duplex Convenience Outlet
- Emergency Light Outlet
- Current Transformer Outlet
- Duplex Convenience Outlet (Floor Mounted)
- Convenience Outlet (Oven)
- Convenience Outlet (Refrigerator)
- Enclosed Circuit Breaker
- Power Panel
- 2 Gang Switch
- Dimmer Switch

LEGEND:



CONFERENCE ROOM AND WATER QUALITY
LABORATORY LIGHTING LAYOUT

SCALE: 1:100MTR



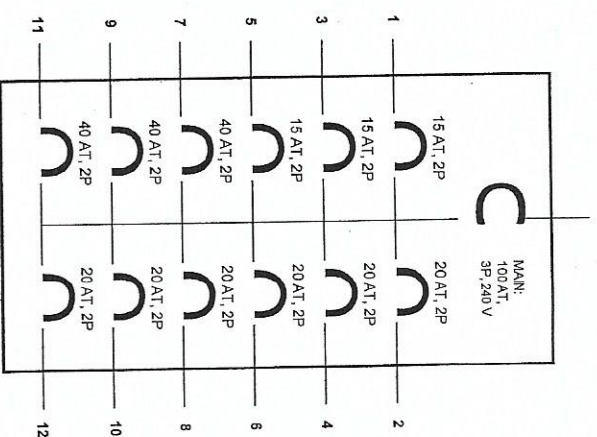
CONFERENCE ROOM AND WATER QUALITY
LABORATORY POWER LAYOUT

SCALE: 1:100MTR

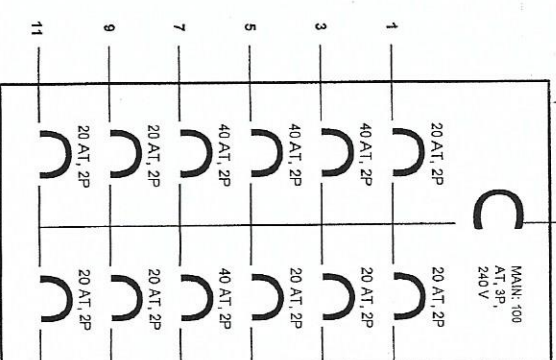
	Republic of the Philippines Department of Science and Technology PHILIPPINE NUCLEAR RESEARCH INSTITUTE	PROJECT: CAPACITY BUILDING TO UTILIZE THE PHILIPPINE RESEARCH INSTITUTE (PNRI) TRIGA FUEL IN A SUBCRITICAL ASSEMBLY (CV 2019)	OWNER: PHILIPPINE NUCLEAR RESEARCH INSTITUTE (PNRI)	SHEET CONTENT: CONFERENCE ROOM & WATER QUALITY LABORATORY LIGHTING LAYOUT & POWER LAYOUT	PREPARED BY: Engr. ROSALINDO B. REJAS Vice-Chief, Construction Committee on Construction Engr. EUSEPIO FILAM O. DEAN Vice-Chief, Construction Committee on Construction	RECOMMENDING APPROVAL: ALVIE A. ASISTONOMO, Ph.D. End-User/Head, INROS GRACETA DE LEON QUEVAS, DPA Chief, FAD Preciosa Sorajona Paerok, Ph.D. Chief, NSO Soledad S. Castañeda, Ph.D. Deputy Director	APPROVED BY: CARLO A. ARCILLA, Ph.D. Director	DRAWN BY: SHEET NO L. LAJO J. GUILLERMO R. REJAS G. DEAN
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PANELBOARD DETAILS

PP1



PP2



PP1: 230 volts, three-phase, 60 Hz., Bolt-on, NEMA-1, surface mounted, Industrial-type MCB

Ckt No.	Description of loads	Watts	Volts	Amperes			CB	Pole	Sizes of Wires and Conduits
				AB	BC	CA			
1	LED bulb (9 W) - 8	72	230	0.3			15	2	2-3.5- sq mm THHN/THWN
2	Conv. Outlets - 6	600	230	2.6			20	2	2-3.5- sq mm THHN/THWN, 1-3.5 THW
3	LED tube (2 x 18 W) - 4	180	230		0.8		15	2	2-3.5- sq mm THHN/THWN
4	LED tube (1 x 18 W) - 2, EL - 1	600	230			2.6	20	2	2-3.5- sq mm THHN/THWN, 1-3.5 THW
5	Conv. Outlets - 3	600	230				15	2	2-3.5- sq mm THHN/THWN
6	LED tube (2 x 18 W) - 4, EL - 1	154	230		0.7		15	2	2-3.5- sq mm THHN/THWN
7	Conv. Outlets - 7	600	230		2.6		20	2	2-3.5- sq mm THHN/THWN, 1-3.5 THW
8	ECB, ACCU (3 TR)	4,000	230	17.4			40	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW
9	Spare	1,000	230	4.3			20	2	2-3.5- sq mm THHN/THWN, 1-3.5 THW
10	Over	3,000	230			13.0	40	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW
11	Spare	1,000	230		4.3		20	2	2-3.5- sq mm THHN/THWN, 1-3.5 THW
12	ECB, ACCU (3 TR)	4,000	230	17.4			40	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW
	Spare	1,000	230	4.3			20	2	2-3.5- sq mm THHN/THWN, 1-3.5 THW
total		24.66	25.02	20.83	0				

COMPUTATION:
It = [25 (1.73) + 0.25 (17.4) (1.73)] 80 %DF = 41 Amperes

SERVICE FEEDER:
Three- 38.0 sq. mm THHN/THWN, One- 8.0 sq. mm THW wires, 25 mm dia uPVC
MAIN CIRCUIT BREAKER:
Use 100 AT, 3P, 240 volt air circuit breaker.

PP2: 230 volts, three-phase, 60 Hz., Bolt-on, NEMA-1, flushed mounted, Industrial-type MCB

Ckt No.	Description of loads	Watts	Volts	Amperes			CB	Pole	Sizes of Wires and Conduits
				AB	BC	CA			
1	Conv. Outlets - 2, Emer. Light - 2	600	230	2.6			20	2	2-3.5- sq mm THHN/THWN, 1-3.5 THW
2	Conv. Outlets - 6	600	230	2.6			20	2	2-3.5- sq mm THHN/THWN, 1-3.5 THW
3	ECB, ACCU (3 TR)	4,000	230		17.4		40	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW
4	Spare	500	230		2.2		20	2	2-3.5- sq mm THHN/THWN, 1-3.5 THW
5	ECB, ACCU (3 TR)	4,000	230		17.4		40	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW
6	Spare	500	230		2.2		20	2	2-3.5- sq mm THHN/THWN, 1-3.5 THW
7	Spare	2,000	230	8.7			40	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW
8	Spare	2,000	230	8.7			40	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW
9	Spare	1,000	230		4.3		20	2	2-3.5- sq mm THHN/THWN, 1-3.5 THW
10	Spare	1,000	230		4.3		20	2	2-3.5- sq mm THHN/THWN, 1-3.5 THW
11	Spare	1,000	230		4.3		20	2	2-3.5- sq mm THHN/THWN, 1-3.5 THW
12	Spare	1,000	230		4.3		20	2	2-3.5- sq mm THHN/THWN, 1-3.5 THW
total		22.61	28.26	28.26	0				

COMPUTATION:
It = [29 (1.73) + 0.25 (17.4) (1.73)] 80 %DF = 47 Amperes

SERVICE FEEDER:
Three- 38.0 sq. mm THHN/THWN, One- 8.0 sq. mm THW wires, 25 mm dia uPVC
MAIN CIRCUIT BREAKER:
Use 100 AT, 3P, 240 volt air circuit breaker.



Republic of the Philippines
Department of Science and Technology
PHILIPPINE NUCLEAR RESEARCH INSTITUTE

CAPACITY BUILDING TO
UTILIZE THE PHILIPPINE
RESEARCH REACTOR - 1
(RRR-1) TRIGA FUEL IN A
SUBCRITICAL ASSEMBLY
(CY 2018)

PROJECT:
OWNER:
PHILIPPINE NUCLEAR
RESEARCH INSTITUTE
(PNRI)

SHEET CONTENT:
PANELBOARD DETAILS
LOAD SCHEDULE

PREPARED BY:
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Committee in Construction
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DRAWN BY: SHEET N
L. LALIO
J. GUILLERMO
R. REAS
G. DEAN

Section VIII. Bill of Quantities

ITEM	DESCRIPTION	COST
A.	GENERAL REQUIREMENTS	_____
B.	ARCHITECTURAL/CIVIL WORKS	_____
C.	PLUMBING WORKS	_____
D.	ELECTRICAL WORKS	_____
E.	MECHANICAL WORKS	_____
	DIRECT COST	_____
	TOAL DIRECT COST	_____
	INDIRECT COST	_____
	CONTINGENCY	_____
	OH/SUPERVISION	_____
	PROFIT	_____
	TOTAL INDIRECT COST	_____
	TOTAL DIRECT AND INDIRECT COST	_____
	VAT (5%)	_____
	TOTAL PROJECT COST	_____