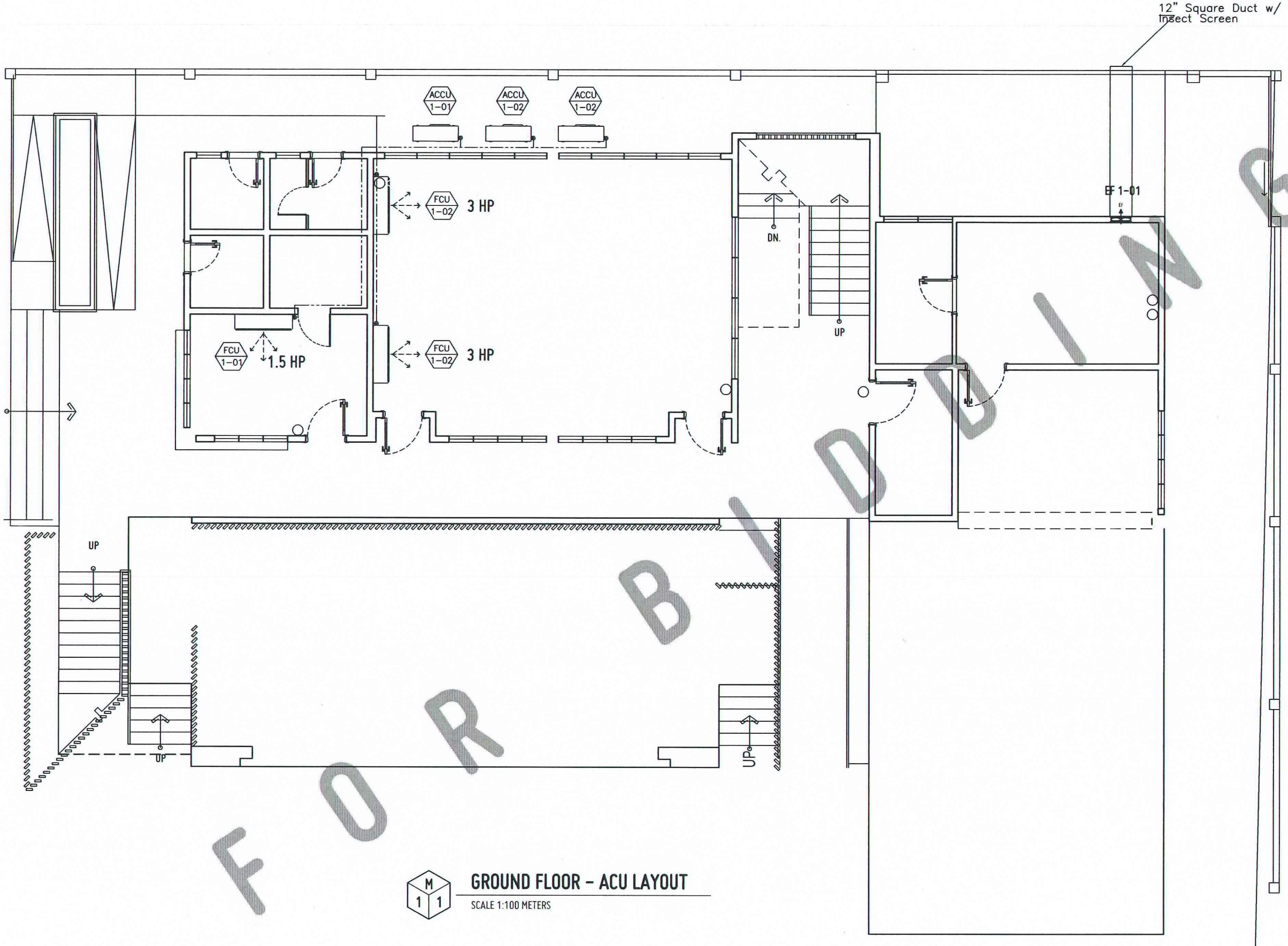
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Approved by:



FOR BIDDING

M 1 1

GROUND FLOOR – ACU LAYOUT

SCALE 1:100 METERS

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UNIVERSITY OF SCIENCE AND TECHNOLOGY OF SOUTHERN PHILIPPINES
CAGAYAN DE ORO CAMPUS
INFRASTRUCTURE PLANNING AND FACILITY DEVELOPMENT UNIT

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PRC NO. | PTR NO.
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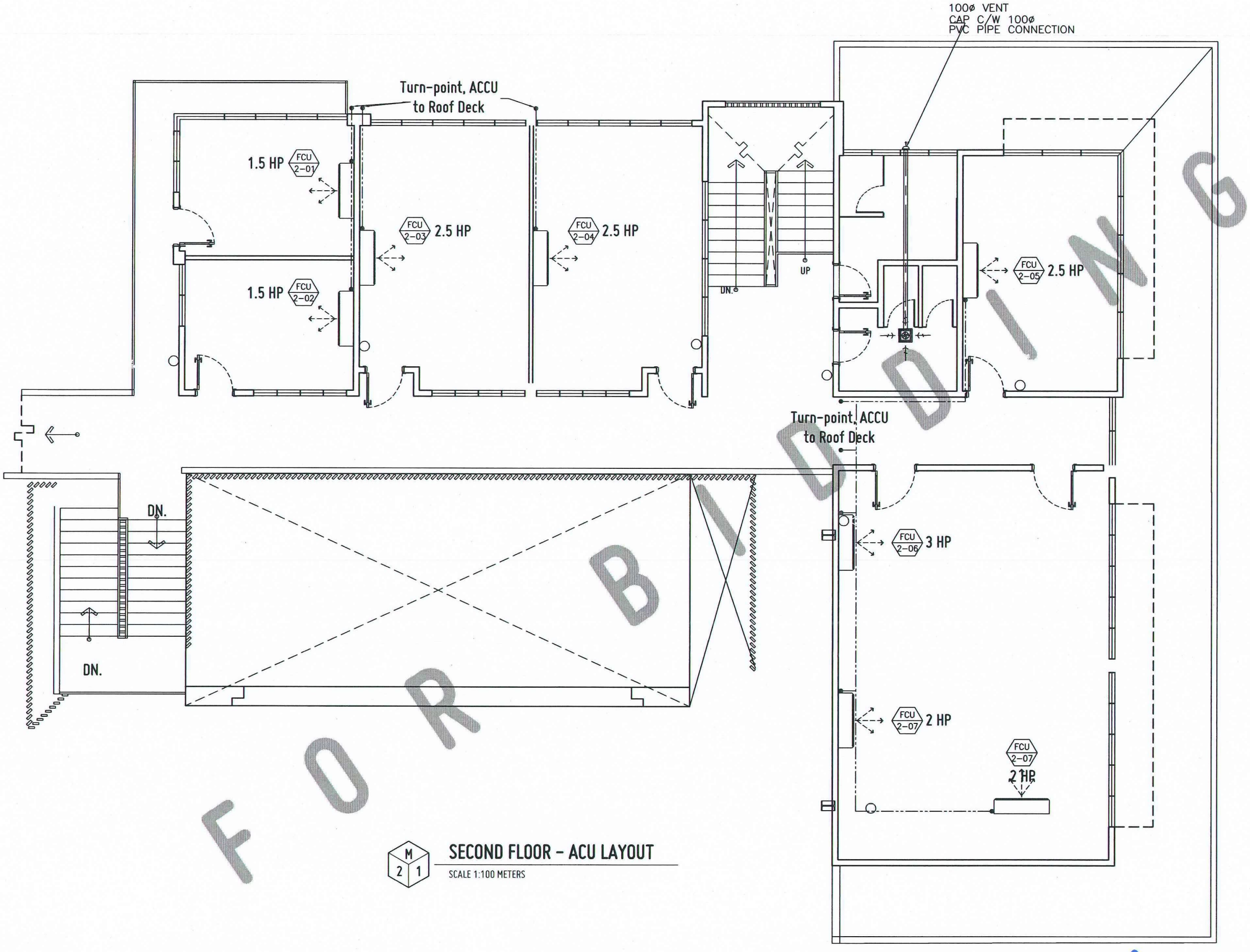
PROJECT	PROVISION FUNDING FOR CONSTRUCTION OF MULTI-PURPOSE BUILDING
LOCATION	USTP JASAAN CAMPUS, UPPER JASAAN, MISAMIS ORIENTAL
OWNER	UNIVERSITY OF SCIENCE & TECHNOLOGY OF SOUTHERN PHILIPPINES

RECOMMENDING APPROVAL:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENTS:	DRAWN BY:
ENGR. GRACE C. BABA	ATTY. JONATHAN S. OCHE	AMBROSIO B. CULTURA II, PH.D	GROUND FLOOR ACU LAYOUT	DATE DRAWN:
DIRECTOR, INFRASTRUCTURE PLANNING & FACILITY DEVELOPMENT OFFICE	VP FOR ADMINISTRATION & LEGAL AFFAIRS	PRESIDENT, USTP SYSTEM		FNT:

M1

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FOR BIDDING

M 2 1 **SECOND FLOOR – ACU LAYOUT**

SCALE 1:100 METERS

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PROJECT	PROVISION FUNDING FOR CONSTRUCTION OF MULTI-PURPOSE BUILDING
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OWNER	UNIVERSITY OF SCIENCE & TECHNOLOGY OF SOUTHERN PHILIPPINES

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APPROVED BY:
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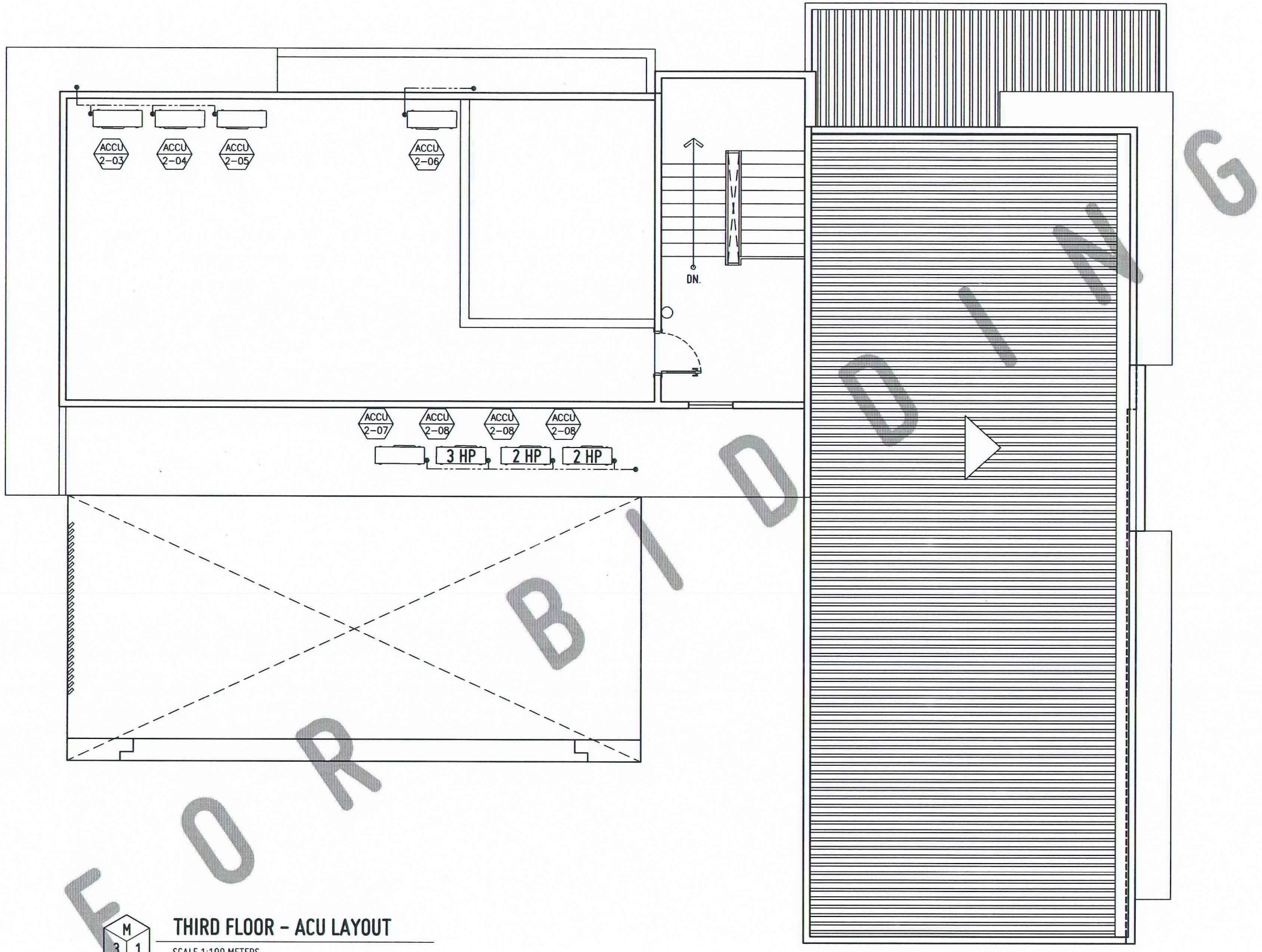
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SECOND FLOOR ACU LAYOUT

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DATE DRAWN:
FNT:

M2

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M 3 1

THIRD FLOOR - ACU LAYOUT

SCALE 1:100 METERS

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PROJECT	PROVISION FUNDING FOR CONSTRUCTION OF MULTI-PURPOSE BUILDING
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DIRECTOR, INFRASTRUCTURE PLANNING & FACILITY DEVELOPMENT OFFICE

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ATTY. JONATHAN S. OCHE
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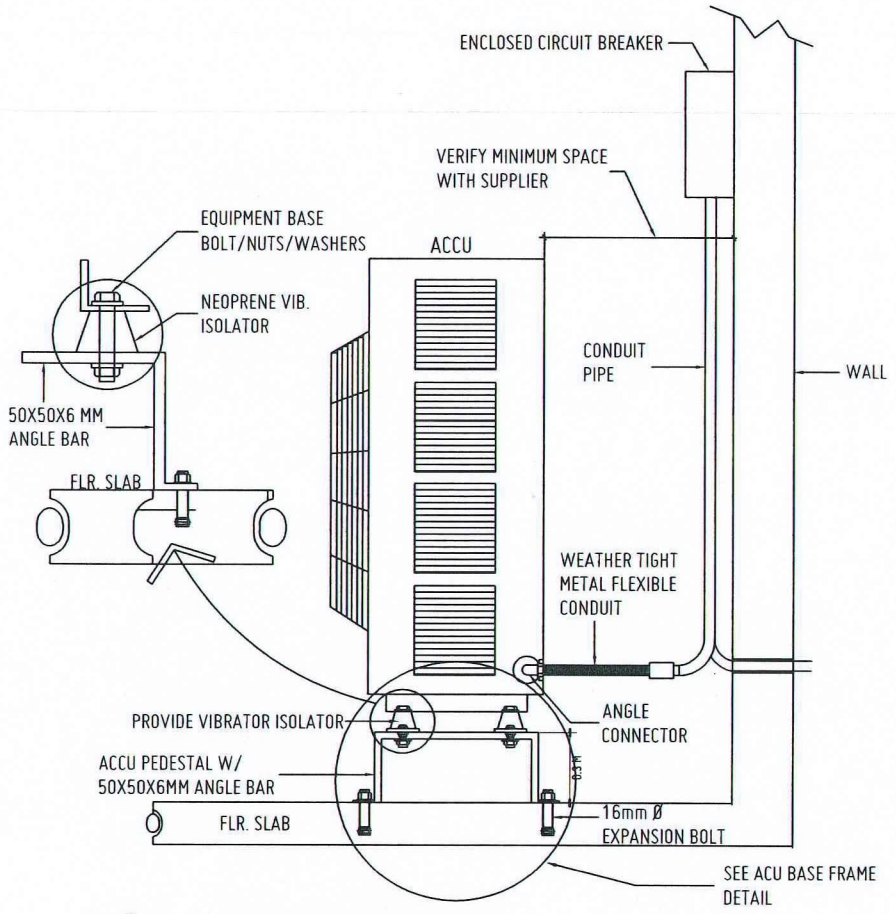
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ROOF DECK ACU LAYOUT

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DATE DRAWN:
FNT:

M3

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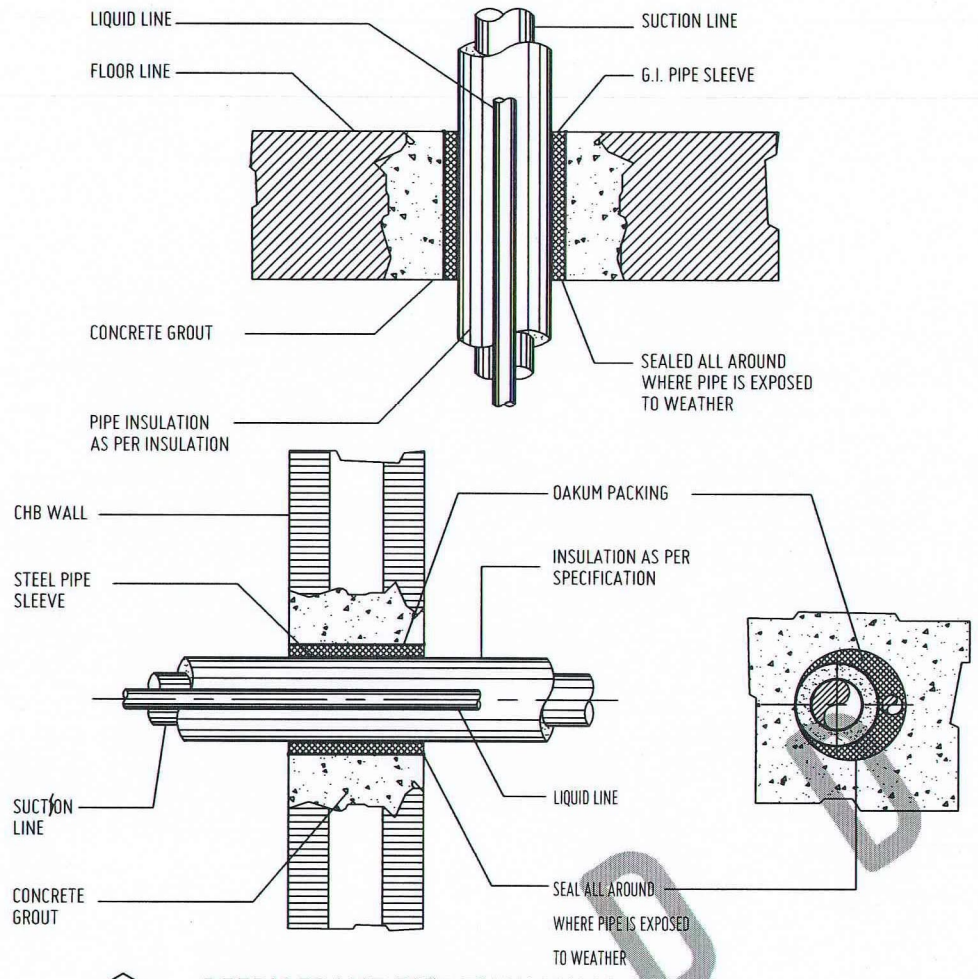
Approved by:



M 4 1

ACU MOUNTING DETAIL

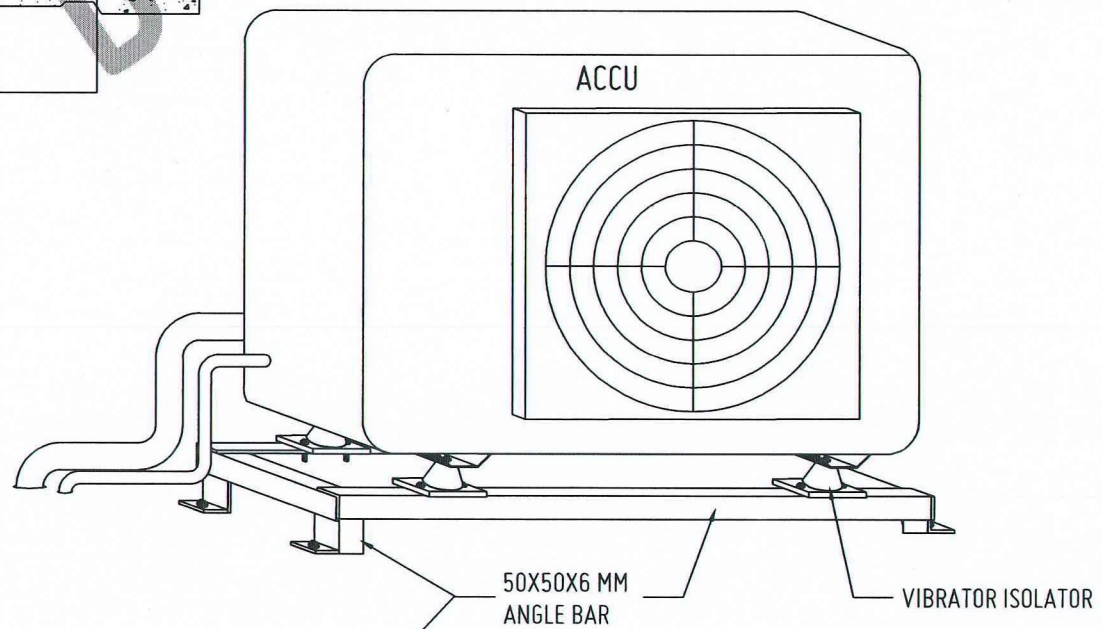
NOT TO SCALE



M 4 2

REFRIGERANT PIPE THRU WALL DETAIL

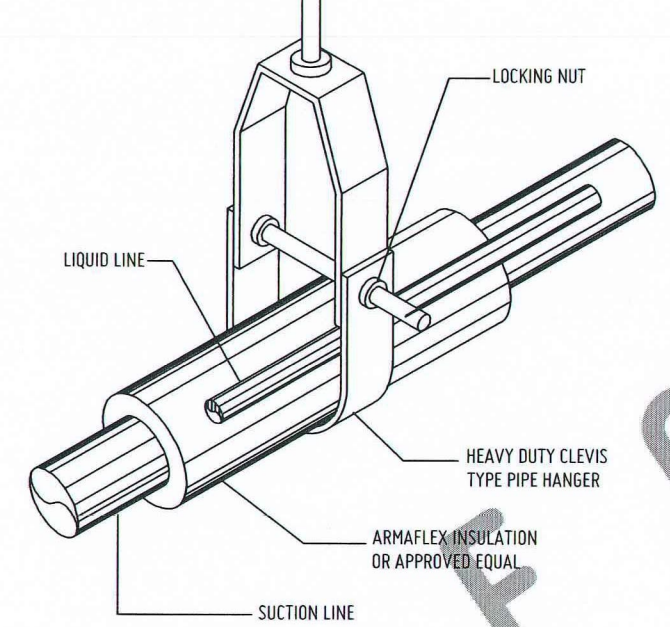
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M 4 5

ACU BASE FRAME DETAIL

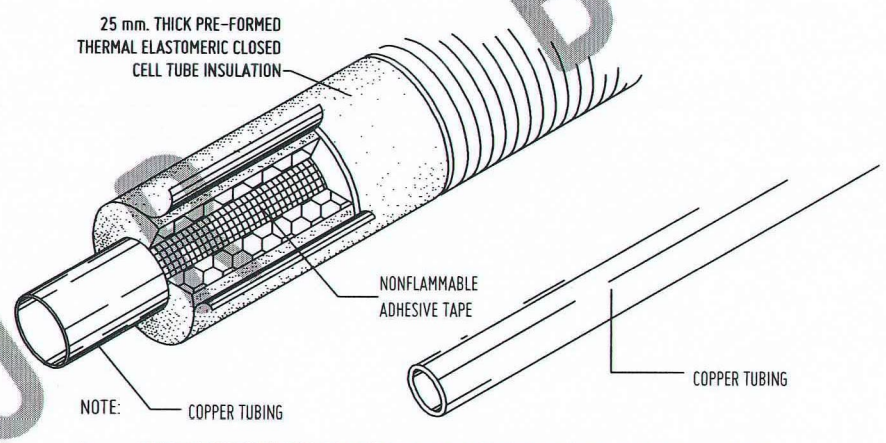
NOT TO SCALE



M 4 3

REFRIGERANT PIPE HANGER DETAIL

NOT TO SCALE



NOTE:

1. CONDENSATE DRAIN PIPE INSULATION SHALL BE OF SIMILAR MATERIAL BUT 19 mm. THICK.
2. PROVIDE ALUMINUM CLADDING FOR OUTDOOR REFRIGERANT PIPING.

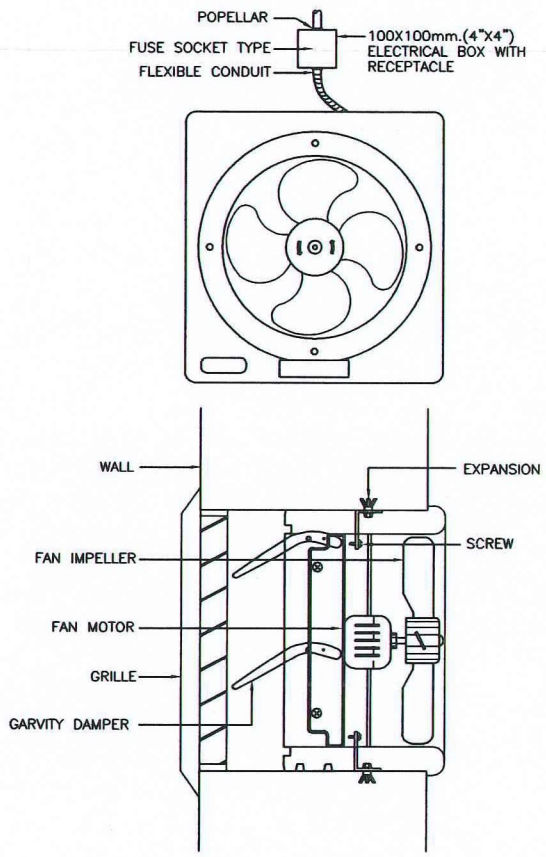
M 4 4

REFRIGERANT PIPE INSULATION DETAIL

NOT TO SCALE

FOR BIDDING

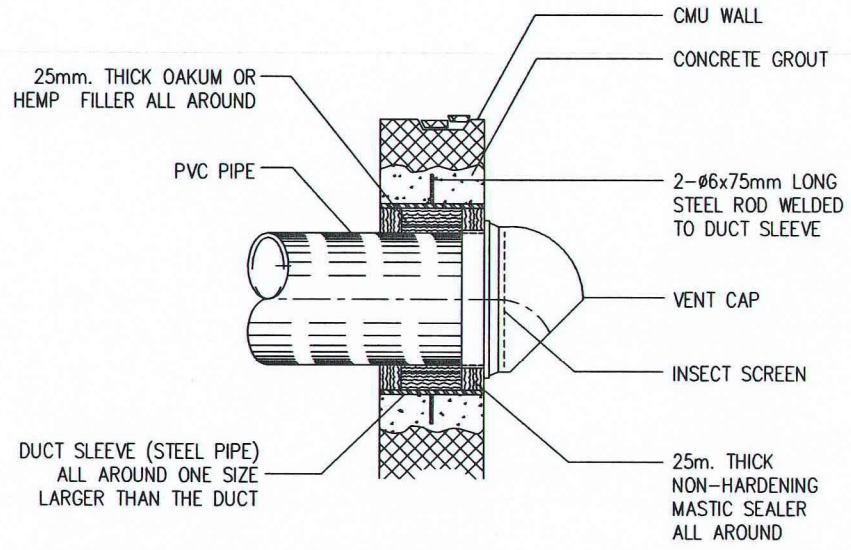
REPUBLIC OF THE PHILIPPINES UNIVERSITY OF SCIENCE AND TECHNOLOGY OF SOUTHERN PHILIPPINES CAGAYAN DE ORO CAMPUS INFRASTRUCTURE PLANNING AND FACILITY DEVELOPMENT UNIT CLARO M. RECTO AVENUE, LAPASAN, CAGAYAN DE ORO CITY 9000 TELEPHONE # (088822) 72-60-65 / (088) 856-1738 / 856-1739 | TELE FAX (088) 856-4696 WEBSITE: www.ustp.edu.ph	PROFESSIONAL MECHANICAL ENGINEER PRC NO. / PTR NO. DATE: TIN: / PLACE:	PROJECT	PROVISION FUNDING FOR CONSTRUCTION OF MULTI-PURPOSE BUILDING	RECOMMENDING APPROVAL: ENGR. GRACE C. BABA DIRECTOR, INFRASTRUCTURE PLANNING & FACILITY DEVELOPMENT OFFICE	RECOMMENDING APPROVAL: ATTY. JONATHAN S. OCHE VP FOR ADMINISTRATION & LEGAL AFFAIRS	APPROVED BY: AMBROSIO B. CULTURA II, PH.D PRESIDENT, USTP SYSTEM	SHEET CONTENTS: EQUIPMENT/MECHANICAL DETAILS	DRAWN BY: DATE DRAWN: FNT:	M4
		LOCATION	USTP JASAAN CAMPUS, UPPER JASAAN, MISAMIS ORIENTAL						
		OWNER	UNIVERSITY OF SCIENCE & TECHNOLOGY OF SOUTHERN PHILIPPINES						



M 5 1

WALL MOUNTED EXHAUST FAN DETAIL

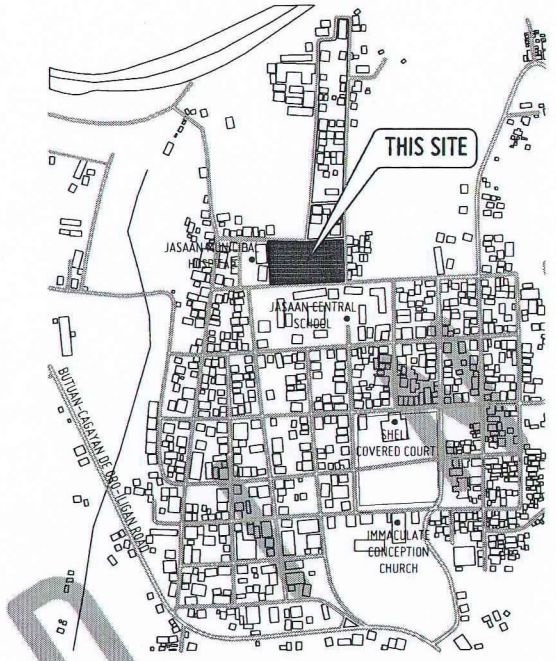
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M 5 3

VENT CAP DETAIL

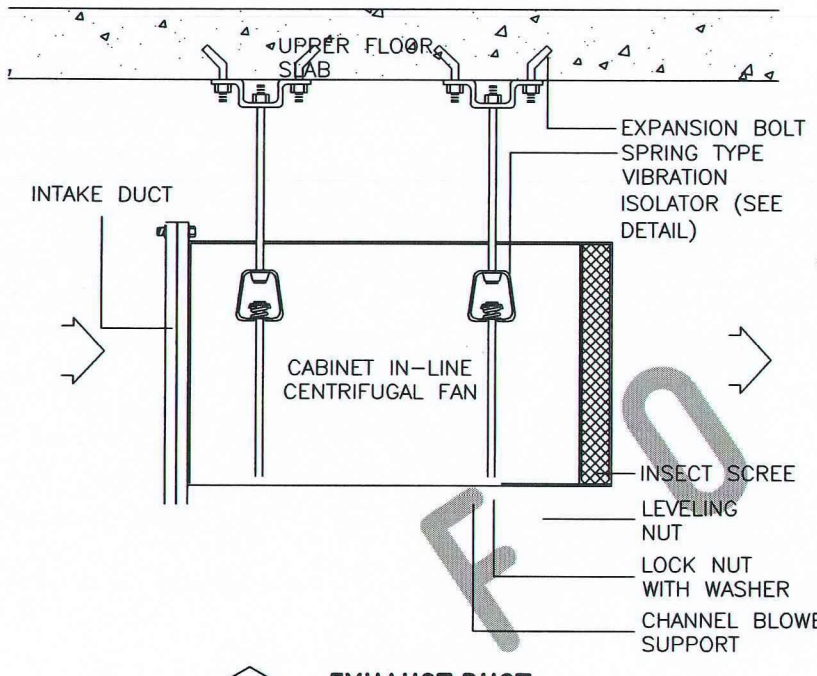
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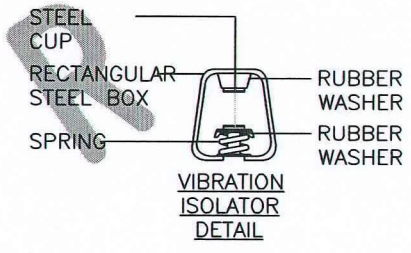


M 3 1

VICINITY MAP

NOT TO SCALE

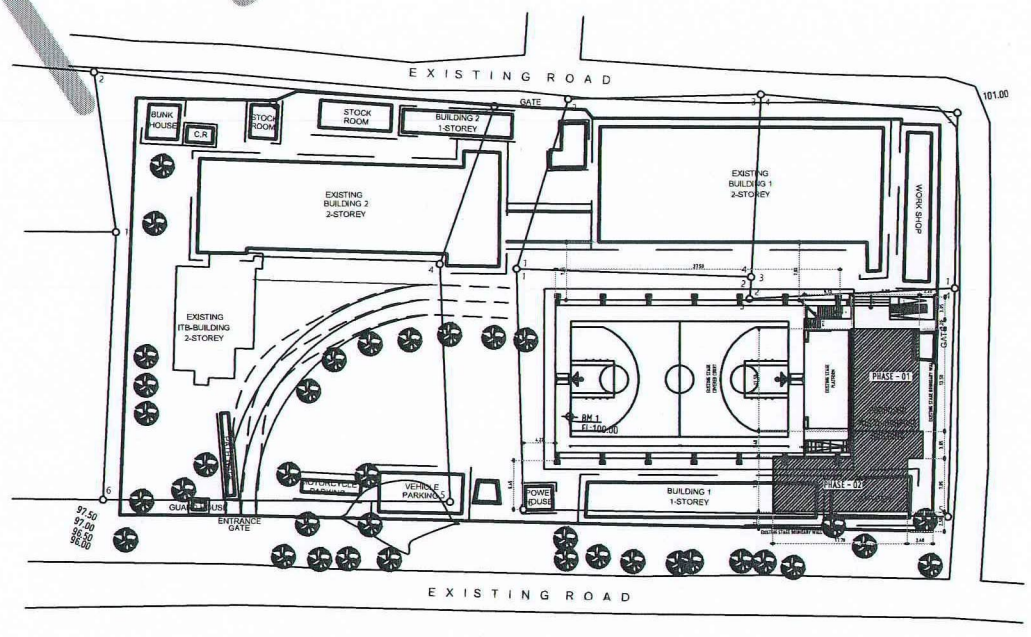




M 5 2

EXHAUST DUCT

NOT TO SCALE



M 5 4

LOCATION MAP

NOT TO SCALE

REPUBLIC OF THE PHILIPPINES
OFFICE OF THE BUILDING OFFICIAL

Approved by:

GENERAL NOTES :

1. ALL MECHANICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE PHILIPPINES NATIONAL BUILDING CODE, PSME CODE, PSVARE ASHRAE, SMACNA, FIRE CODE OF THE PHILIPPINES AND OTHER REGULATION OF THE LOCAL COMMUNITY.

2. THE TOTAL SCOPE OF WORKS SHALL INCLUDE ALL WORKS DESCRIBED IN THE PLANS LISTED IN THE TECHNICAL SPECIFICATIONS FOR MECHANICAL WORKS.

3. THE WORKS SHALL BE EXECUTED IN CLOSED COORDINATION WITH ALL OTHER TRADES.

4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, EQUIPMENT CATALOG, SAMPLES OF ALL THE MATERIAL TO BE USED BEFORE EXECUTION OF THE WORKS.

5. THE CONTRACTOR OR SUPPLIER SHALL INSTALL ALL MATERIAL AND EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.

6. ALL PIPE AND DUCT PENETRATION SHALL BE CAULKED WITH FIRE SEALANT.

7. ALL EQUIPMENT REST ON SLAB AND CEILING SHALL BE PROVIDED WITH VIBRATION ISOLATOR TO PREVENT VIBRATION AND NOISE TRANSMISSION.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONCRETE PAD AND SUPPORT OF ALL MECHANICAL EQUIPMENT.

9. THE CONTRACTOR SHALL ARRANGED THE PIPING, DUCTING AND EQUIPMENT TO HAVE EASY ACCESS FOR REMOVING, CLEANING AND SERVICING WITHOUT DISMANTLING THE SYSTEM.

10. ALL POWER WIRING UP TO SPLICE BOX SHALL BE THE ELECTRICAL CONTRACTOR FROM SPLICE BOX TO THE EQUIPMENT BY MECHANICAL CONTRACTOR.

11. PROVIDE AND INSTALL CONTROLS AND CONTROL WIRINGS FOR ALL AIR-CONDITIONING EQUIPMENT.

12. PROVIDE THERMOSTAT TO ALL INDOOR UNITS.

13. PROVIDE SEPARATE CONDENSER DRAIN RISER.

3. PIPE ALL EQUIPMENT DRAIN TO THE NEAREST FLOOR DRAIN PROVIDED BY PLUMBING CONTRACTOR.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BALANCING, TESTING AND COMMISSIONING OF THE WHOLE AIR CONDITIONING, VENTILATION SYSTEM AND SUBMIT WRITTEN DATA PRIOR TO TURN OVER.

15. WORKMANSHIP : THE WORK THROUGHOUT SHALL BE EXECUTED IN THE BEST & MOST THOROUGH MANNER KNOWN TO TRADE & TO THE SATISFACTION OF THE ARCHITECT AND THE ENGINEER.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL GOVERNMENT/LOCAL CONSTRUCTION AND OPERATION PERMITS AND PAY ALL THE REQUIRED FEES.

NOTES ON PIPING INSTALLATION:

1. REFRIGERANT PIPES SHALL BE INTERNALLY CLEANED BY SWABBING WITH CLEAN COTTON CLOTH TO REMOVE ALL DUST, BURRS, AND OTHER MISCELLANEOUS DIRT.

2. WHILE SOLDERING JOINTS, A SWEEP OF INERT NITROGEN GAS SHOULD BE PASSED THROUGH PIPES TO PREVENT OXIDATION DEPOSITS INSIDE.

3. FITTINGS:
   - A. USE STANDARD LONG RADIUS COPPER ELBOWS, REDUCERS, ETC. DO NOT USE FIELD-FORMED ELBOWS, REDUCERS, ETC.
   - B. JOINTS BETWEEN PIPES SHOULD BE THROUGH STANDARD COPPER COUPLING FORMED FITTING MADE BY SWAGING OR ENLARGING ONE PIPE END TO BE ABLE TO RECEIVE THE OTHER PIPE SECTION WOULD NOT BE ALLOWED.
   - C. JOINTS TO SCREWED ACCESSORIES SUCH AS EXPANSION VALVES, FILTER DRIER, ETC. SHALL BE MADE WITH STANDARD FLARED FITTINGS.

4. THE COMPLETED PIPING INSTALLATION SHOULD BE LEAK TESTED BY SUBJECTING THE SAME (BOTH LIQUID AND SUCTION LINE) TO A PRESSURE OF 3100 Pa USING DRY NITROGEN GAS. THIS PRESSURE SHOULD BE LEFT FOR 24 HOURS AND IF THERE IS NO NOTICEABLE REDUCTION IN PRESSURE WITHIN THE PERIOD, THE NITROGEN CHARGE SHALL BE RELIEVED DOWN TO 140KPa TO SERVE AS HOLDING CHARGE WHILE WAITING FOR THE EQUIPMENT CONNECTION. IF THERE IS NOTICEABLE REDUCTION IN THE TEST PRESSURE, LEAK SHOULD BE LOCATED AND REPAIRED.

5. PROPERLY TESTED PIPING SHOULD BE SECURELY CAPPED AT BOTH ENDS AND WITH HOLDING CHARGED AS STATED IN ITEM 4 ABOVE WHILE WAITING FOR FINAL CONNECTION TO EQUIPMENT. INSULATE SUCTION PIPING ONLY AFTER PROPER LEAK TESTING.

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PROFESSIONAL MECHANICAL ENGINEER
PRC NO. | PTR NO.
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PROJECT	PROVISION FUNDING FOR CONSTRUCTION OF MULTI-PURPOSE BUILDING
LOCATION	USTP JASAAN CAMPUS, UPPER JASAAN, MISAMIS ORIENTAL
OWNER	UNIVERSITY OF SCIENCE & TECHNOLOGY OF SOUTHERN PHILIPPINES

RECOMMENDING APPROVAL:
ENGR. GRACE C. BABA
DIRECTOR, INFRASTRUCTURE PLANNING & FACILITY DEVELOPMENT OFFICE

RECOMMENDING APPROVAL:
ATTY. JONATHAN S. OCHE
VP FOR ADMINISTRATION & LEGAL AFFAIRS

APPROVED BY:
AMBROSIO B. CULTURA II, PH.D
PRESIDENT, USTP SYSTEM

SHEET CONTENTS:
MECHANICAL/EQUIPMENT DETAILS

DRAWN BY:
DATE DRAWN:
FNT:

M5

REPUBLIC OF THE PHILIPPINES
OFFICE OF THE BUILDING OFFICIAL

Approved by:

GENERAL NOTES:

1. FFL = FINISH FLOOR LINE. VERIFY FLOOR FINISHES/MATERIALS.
2. ALL INTERIOR PARTITIONS AND FURNITURE LAYOUT ARE INDICATIVE ONLY AND MAY CHANGE. VERIFY INTERIOR DESIGN DRAWINGS.
3. ALL LANDSCAPE ARCHITECTURE ELEMENTS ARE INDICATIVE ONLY AND MAY CHANGE. VERIFY LANDSCAPE ARCHITECTURE DRAWINGS.
4. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TO GOVERN.
5. INCASE OF DISCREPANCY IN THE FIGURES AND DRAWINGS THE MATTER SHALL BE SUBMITTED IMMEDIATELY TO THE ARCHITECT BEFORE ADJUSTMENTS ARE TO BE MADE.
6. VERIFY ACTUAL TECHNICAL SITE CONDITIONS.
7. VERIFY ACTUAL ELEVATION MARKS AND LOT BOUNDARIES PRIOR TO COMMENCING WORK.
8. ALL WORKS HEREIN SHALL BE DONE UNDER THE STRICT SUPERVISION OF DULY LICENSED AND EXPERIENCED ARCHITECT/ENGINEER.
9. LOT AND BUILDING BOUNDARIES SHOULD BE SUPPORTED BY RETAINING WALLS AND FENCES. VERIFY EXISTING HEIGHTS, ELEVATIONS ANDOTHER SITE CONDITIONS.
10. THE GENERAL CONTRACTOR, SUB-CONTRACTORS INCLUDING SPECIALTY CONTRACTORS, SHALL SUBMIT PROPER SHOP DRAWINGS INCLUDING MATERIALS SAMPLE PRIOR TO INSTALLATIONS FOR ARCHITECTS APPROVAL.

MARK NO.	QTY	TYPE	LOCATION	CAPACITY	STATIC PRESSURE	MOTOR DATA		
				LPS	PA	WATTS	RPM	V/P/HZ
EF 1-01	1	WALL MOUNTED	KITCHEN	450	250	VARIABLE	1750	230/1/60
EF 2-01	1	CEILING MOUNTED	LADIES W.R.-1	85	50	VARIABLE	650	230/1/60

MARK NO.		QTY	TYPE	LOCATION	CAPACITY	UNIT	SUPPLY FAN		OPERATING TEMPERATURE					COPRESSOR DATA				REFRIGERANT DATA
						HP/TR	AIR FLOW	MOTOR	E.A.T.	EVAPORATING		CONDENSING		MOTOR INPUT	V	PH	HZ	
OUTDOOR	INDOOR						LPS	WATTS	deg.C	deg.C	deg.F	deg.C	deg.F	(KW)				
ACCU 1-01	FCU 1-01	1	Wall Mounted	Cashier Office	1.5	HP	VARIABLE	VARIABLE	37	4.44	40	48.8	120	**1.06**	230	1	60	R410 OR APPROVE EQUAL
ACCU 1-02	FCU 1-02	2	Wall Mounted	Laboratory	3	HP	VARIABLE	VARIABLE	37	4.44	40	48.8	120	**5.37**	230	1	60	R410 OR APPROVE EQUAL
ACCU 2-01	FCU 2-01	1	Wall Mounted	Office 5	1.5	HP	VARIABLE	VARIABLE	37	4.44	40	48.8	120	**1.24**	230	1	60	R410 OR APPROVE EQUAL
ACCU 2-02	FCU 2-02	1	Wall Mounted	Office 6	1.5	HP	VARIABLE	VARIABLE	37	4.44	40	48.8	120	**1.18**	230	1	60	R410 OR APPROVE EQUAL
ACCU 2-03	FCU 2-03	1	Wall Mounted	Office 4	2.5	HP	VARIABLE	VARIABLE	37	4.44	40	48.8	120	**2.33**	230	1	60	R410 OR APPROVE EQUAL
ACCU 2-04	FCU 2-04	1	Wall Mounted	Office 3	2.5	HP	VARIABLE	VARIABLE	37	4.44	40	48.8	120	**2.34**	230	1	60	R410 OR APPROVE EQUAL
ACCU 2-05	FCU 2-05	1	Wall Mounted	Office 2	2.5	HP	VARIABLE	VARIABLE	37	4.44	40	48.8	120	**1.91**	230	1	60	R410 OR APPROVE EQUAL
ACCU 2-06	FCU 2-06	1	Wall Mounted	Office 7/Hall	3.0	HP	VARIABLE	VARIABLE	37	4.44	40	48.8	120	**5.76**	230	1	60	R410 OR APPROVE EQUAL
ACCU 2-07	FCU 2-08	2	Wall Mounted	Office 7/Hall	2.0	HP	VARIABLE	VARIABLE	37	4.44	40	48.8	120	**5.76**	230	1	60	R410 OR APPROVE EQUAL

M 6 1

EQUIPMENT SCHEDULES

SCALE: NTS

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PROJECT: PROVISION FUNDING FOR CONSTRUCTION OF MULTI-PURPOSE BUILDING
LOCATION: USTP JASAAN CAMPUS, UPPER JASAAN, MISAMIS ORIENTAL
OWNER: UNIVERSITY OF SCIENCE & TECHNOLOGY OF SOUTHERN PHILIPPINES

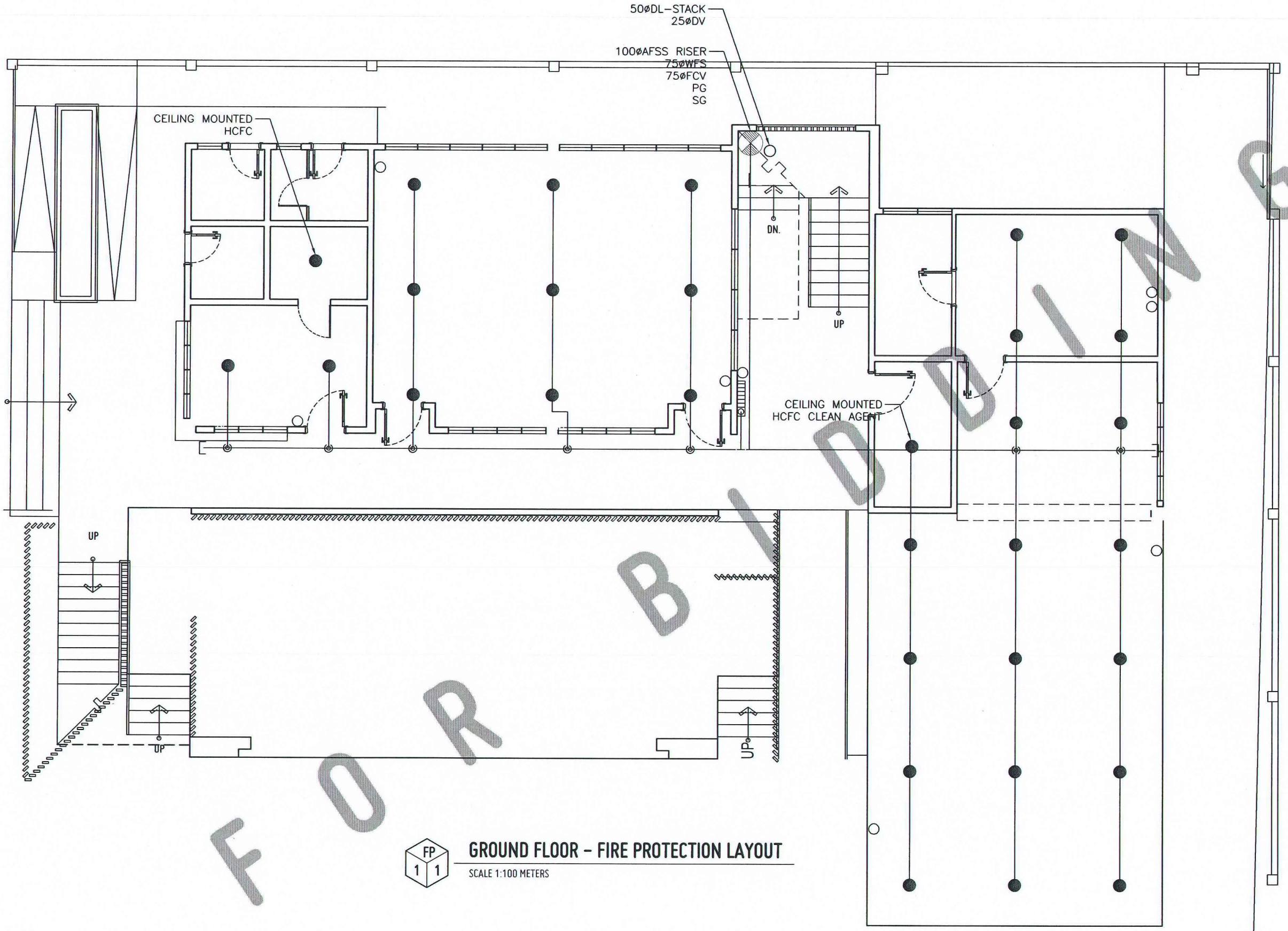
RECOMMENDING APPROVAL: ENGR. GRACE C. BABA — DIRECTOR, INFRASTRUCTURE PLANNING & FACILITY DEVELOPMENT OFFICE
RECOMMENDING APPROVAL: ATTY. JONATHAN S. OCHE — VP FOR ADMINISTRATION & LEGAL AFFAIRS
APPROVED BY: AMBROSIO B. CULTURA II, PH.D — PRESIDENT, USTP SYSTEM

SHEET CONTENTS: EQUIPMENT SCHEDULES
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DATE DRAWN:
FNT:

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REPUBLIC OF THE PHILIPPINES
OFFICE OF THE BUILDING OFFICIAL

Approved by:



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FP 1 1

GROUND FLOOR – FIRE PROTECTION LAYOUT

SCALE 1:100 METERS

NOTES:

1. FIRE ALARM SYSTEM SHALL BE CONVENTIONAL TYPE
2. MINIMUM CONDUIT SIZE SHALL BE 20MM (3/4")Ø. USE IMC FOR ALL EXPOSED CONDUIT OR INSIDE DRY WALL AND PVC IF CONRETE EMBEDDED.
3. ALL RISER CONDUIT SHALL BE IMC. PROVIDE 50MM (2")Ø SPARE IMC RISER CONDUIT.
4. FDAS WIRING AND CONDUIT SCHEDULE.

CONDUIT SIZE MMØ (INCH Ø)		NUMBER OF TF WIRES (C.I. CABLE TYPE)		CONDUIT SIZE MMØ (INCH Ø)		NUMBER OF TF WIRES (C.I. CABLE TYPE)	
METAL	uPVC	#18	#16	METAL	uPVC	#18	#16
20	25(3/4)	25	18	60	75(2-1/2)	234	172
25	32(1)	41	30	80	90(3)	363	266
32	40(1-1/4)	72	53	90	100(3-1/2)	486	357
40	50(1-1/2)	99	72	100	110(4)	627	460
50	63(2)	164	120				

5. SYMBOLS
   - A = #18/2 AWG. CIRCUIT INTEGRITY (CI) CABLE TYPE, UL LISTED BRAND
   - FACP — FIRE ALARM CONTROL PANEL, UL LISTED BRAND
   - (S) — SMOKE DETECTOR- CEILING MOUNTED
   - SMOKE DETECTOR- WALL MOUNTED
   - (H) — HEAT DETECTOR, CEILING MOUNTED
   - (SL) — FIRE ALARM STROBE AND HORN, UL LISTED BRAND
   - MP — FIRE ALARM MANUAL PULL STATION, UL LISTED BRAND
   - FPB — FIRE ALARM SYSTEM WIRING PULL BOX
6. PROVIDE SUPERVISORY WIRES TO THE FOLLOWING:
   - A. ELEVATOR/S
   - B. FIRE PROTECTION FLOW SWITCH CONTROL PANEL OR INDIVIDUAL FLOW SWITCH(VERIFY LOCATION)
   - C. STAIR PRESSURIZATION BLOWER/S OR FAN/S(VERIFY EXACT LOCATION)
   - D. SMOKE VENTILATION SYSTEM AND/OR SMOKE CONTROL SYSTEM.
   - E. FIRE PUMP CONTROL PANEL
7. PROVIDE WIRING FROM FACP TO GENERATOR CONTROL PANEL TO MONITOR THE FOLLOWING CONDITIONS:
8. FINAL WIRING SHALL BE AS PER MANUFACTURER'S STANDARDS.

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OWNER	UNIVERSITY OF SCIENCE & TECHNOLOGY OF SOUTHERN PHILIPPINES

RECOMMENDING APPROVAL:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENTS:	DRAWN BY:
ENGR. GRACE C. BABA	ATTY. JONATHAN S. OCHE	AMBROSIO B. CULTURA II, PH.D	GROUND FLOOR FIRE PROTECTION LAYOUT	DATE DRAWN:
DIRECTOR, INFRASTRUCTURE PLANNING & FACILITY DEVELOPMENT OFFICE	VP FOR ADMINISTRATION & LEGAL AFFAIRS	PRESIDENT, USTP SYSTEM		FNT:

FP1

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Approved by:

50ØDL–STACK
25ØDV

100ØAFSS RISER
75ØWFS
75ØFCV
PG
SG

50ØDL–STACK
25ØITC

6938

7573

UP

DN.

12964

9199

10725

DN.

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FP 2 1

SECOND FLOOR – FIRE PROTECTION LAYOUT

SCALE 1:100 METERS

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VP FOR ADMINISTRATION & LEGAL AFFAIRS

APPROVED BY:
AMBROSIO B. CULTURA II, PH.D
PRESIDENT, USTP SYSTEM

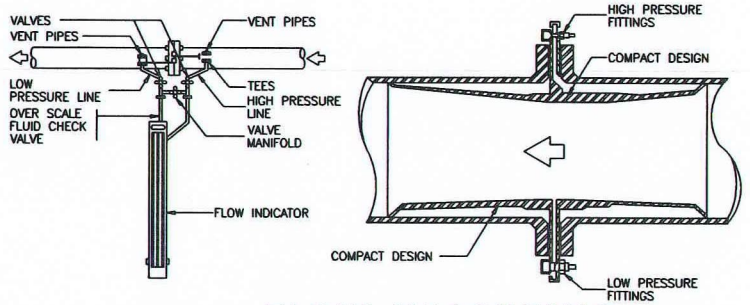
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GROUND FLOOR FIRE PROTECTION LAYOUT

DRAWN BY:
DATE DRAWN:
FNT:

FP2

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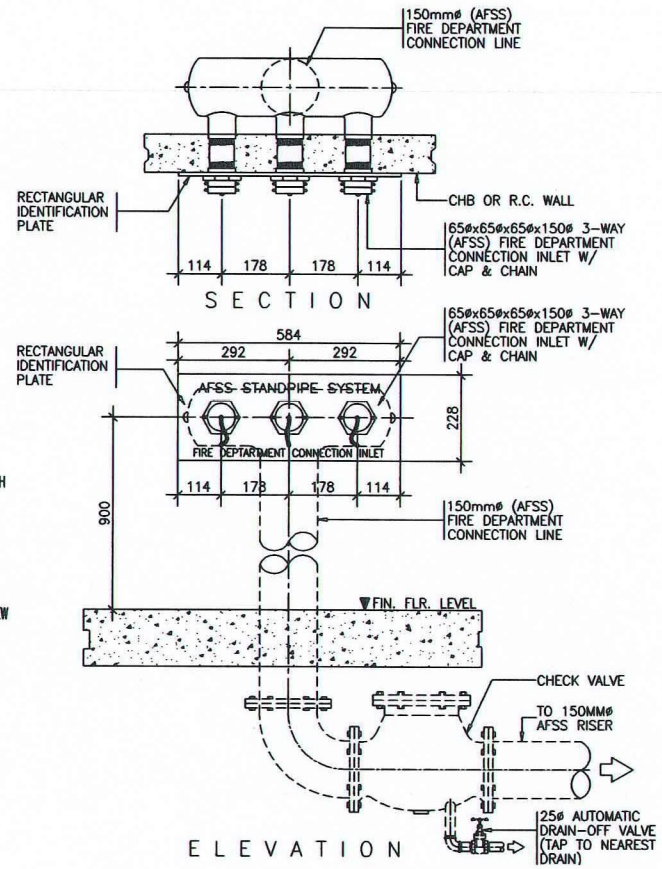
Approved by:



FP 3 1

FLOW MEASURING DEVICE DETAIL

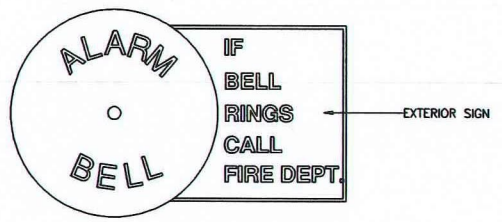
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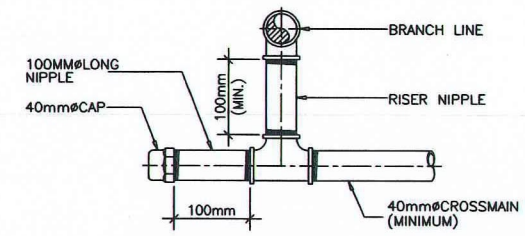


FP 3 2

AFSS FIRE DEPT. INLET DETAIL

SCALE: 1:10 MTS

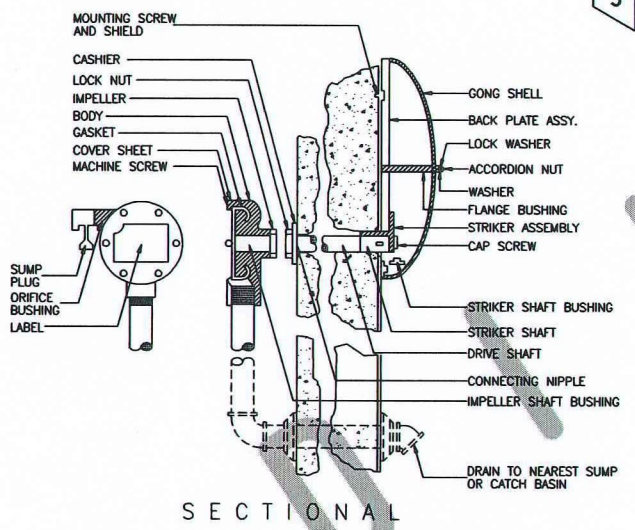




FP 3 5

FLUSHING CONNECTION DETAIL

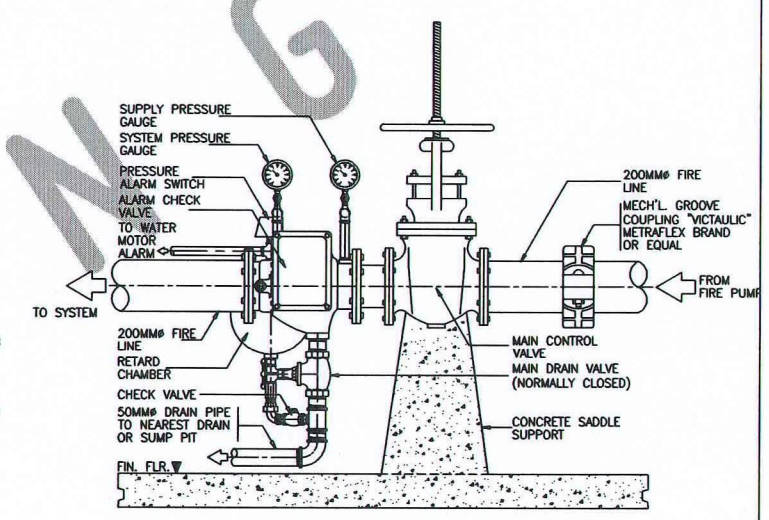
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FP 3 6

ALARM MOTOR GONG DETAIL

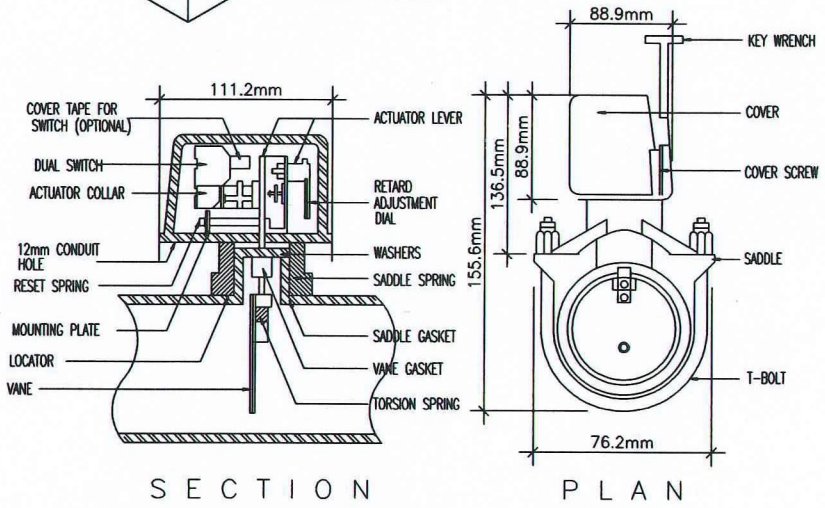
NOT DRAWN TO SCALE



FP 3 7

ALARM CHECK VALVE ASSEMBLY (WET TYPE)

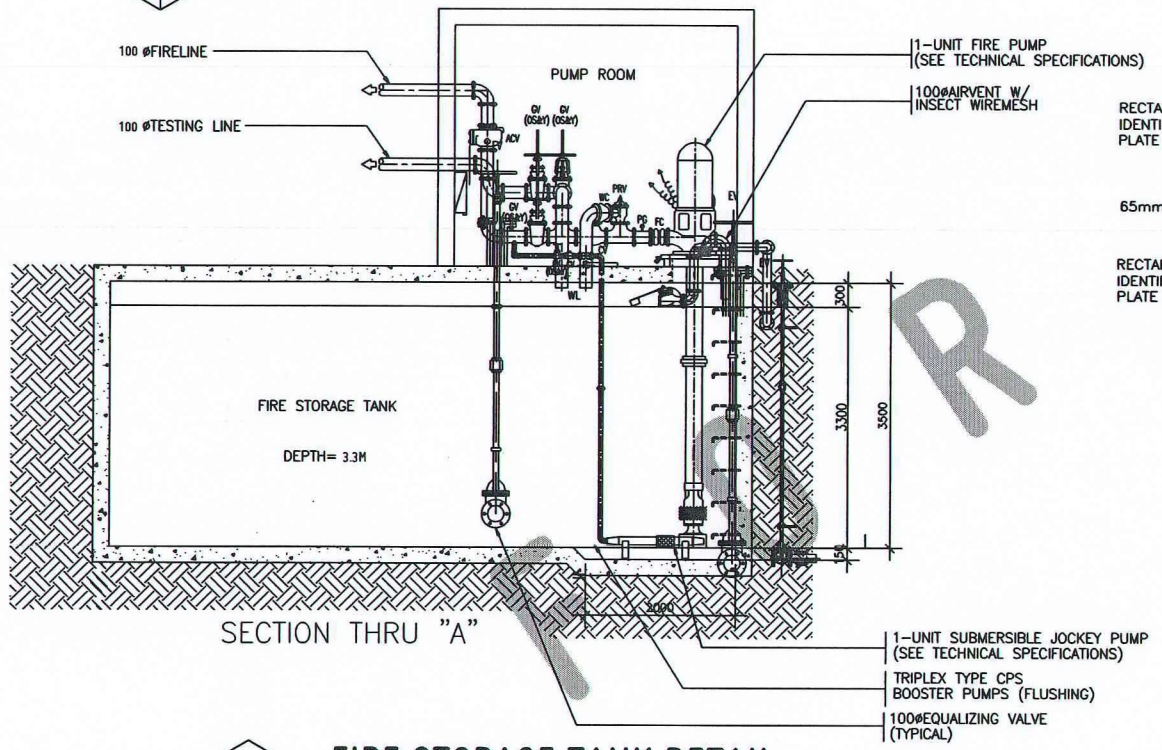
NOT DRAWN TO SCALE



FP 3 3

WATER FLOW SWITCH DETAIL

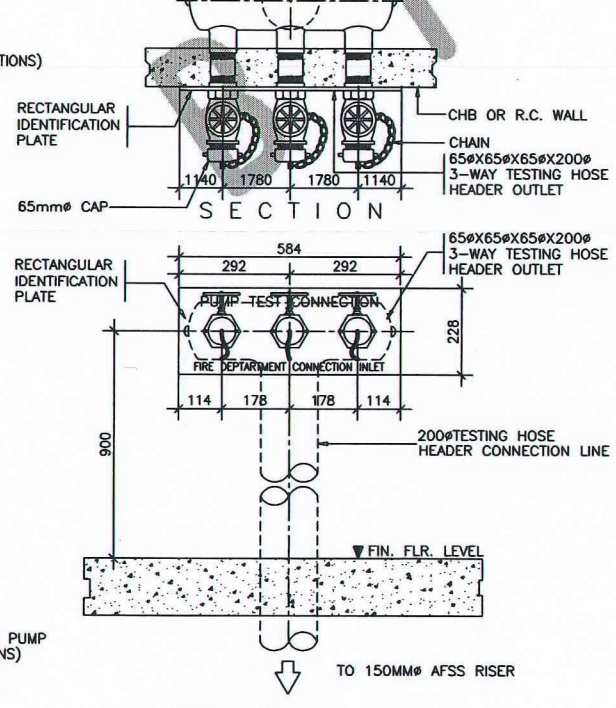
SCALE NTS



FP 3 4

FIRE STORAGE TANK DETAIL

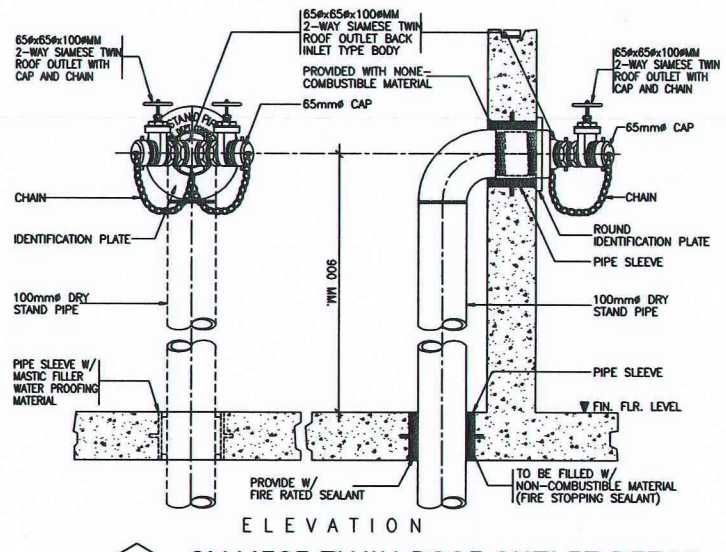
SCALE: 1:50 MTS



FP 3 8

PUMP TEST CONNECTION DETAIL

SCALE: NTS



FP 3 9

SIAMESE TWIN ROOF OUTLET DETAIL

SCALE: NTS

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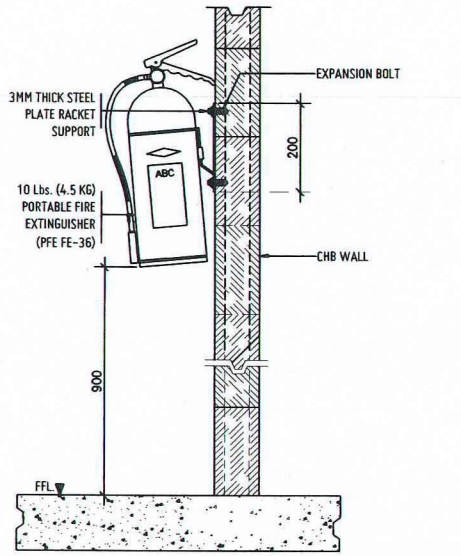
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ATTY. JONATHAN S. OCHE
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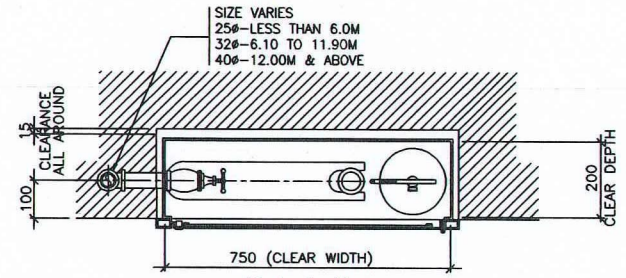
APPROVED BY:
AMBROSIO B. CULTURA II, PH.D
PRESIDENT, USTP SYSTEM

SHEET CONTENTS: GROUND FLOOR FIRE PROTECTION LAYOUT

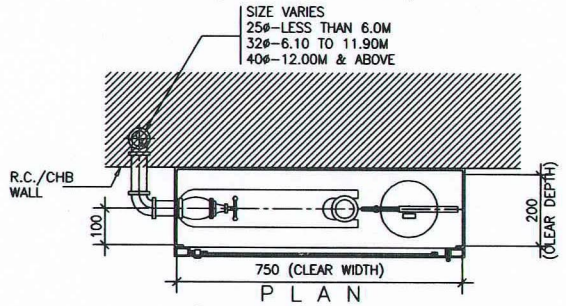
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DATE DRAWN:
FNT:

FP3

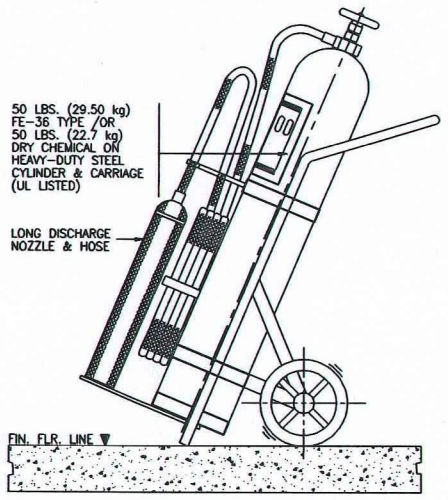




PLAN
(RECESSED TYPE)



PLAN
(SURFACE MOUNTED)

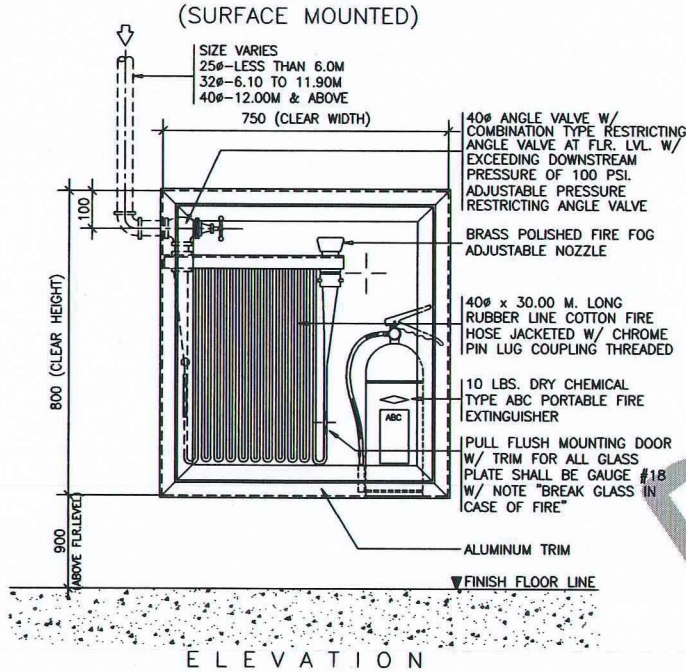


ELEVATION

10 lbs. (45kgs) PFE FE-36 PORTABLE FIRE EXTINGUISHER

FP 4 1

NOT DRAWN TO SCALE

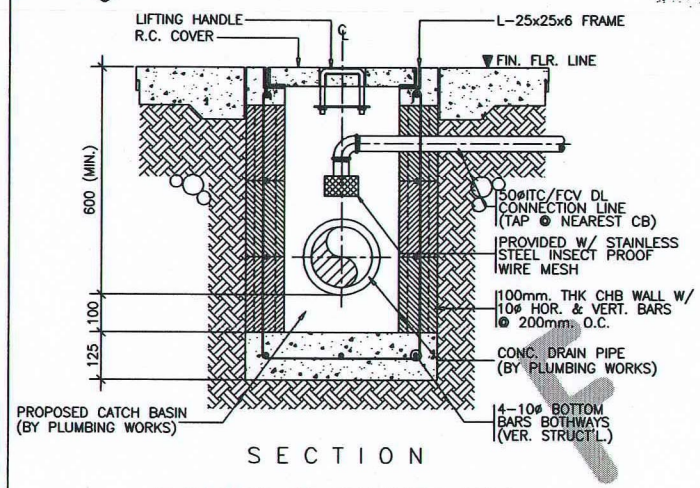


ELEVATION

FIRE HOSE CABINET DETAIL

FP 4 2

NOT DRAWN TO SCALE

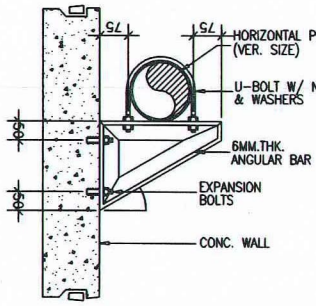


SECTION

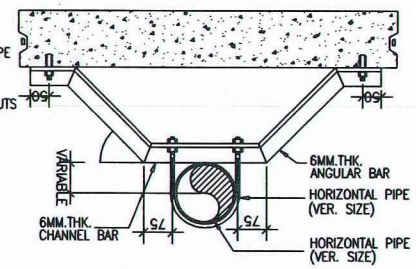
FTV/ITC DL CONNECTION TO CATCH BASIN

FP 4 3

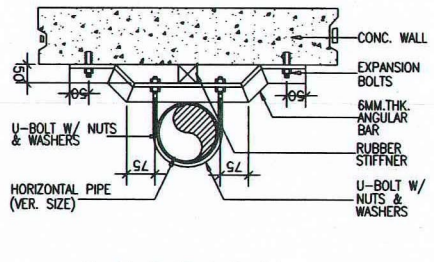
SCALE: 1:10 MTS



ELEVATION
PIPE BRACKET

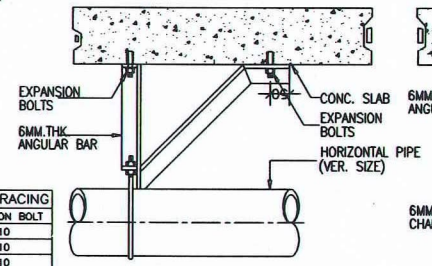


SECTION
LATERAL BRACE

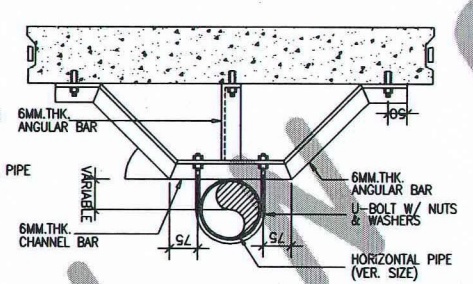


SECTION
4–WAY SWAY BRACE

SCHEDULE OF PIPE BRACKET/BRACING			
PIPE SIZE	U-BOLT DIA.	ANGLE BAR	EXPANSION BOLT
50	10	50 x 50	10
65	10	50 x 50	10
75	10	50 x 50	10
100	12	65 x 65	12



ELEVATION



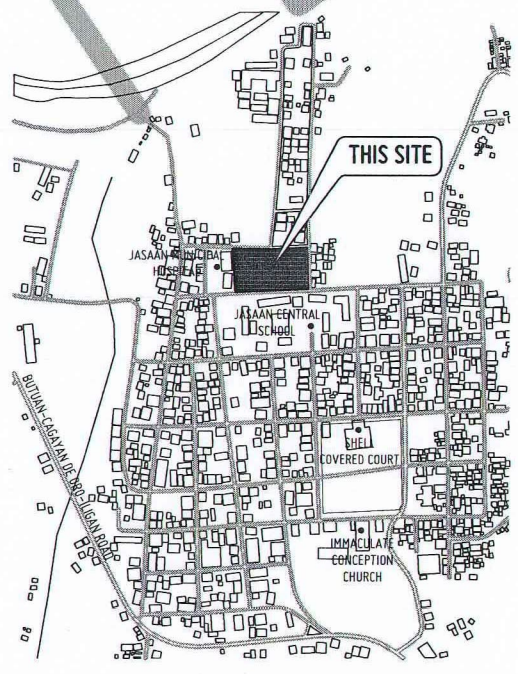
SECTION

LONGITUDINAL BRACE

SWAY BRACING DETAIL

FP 4 5

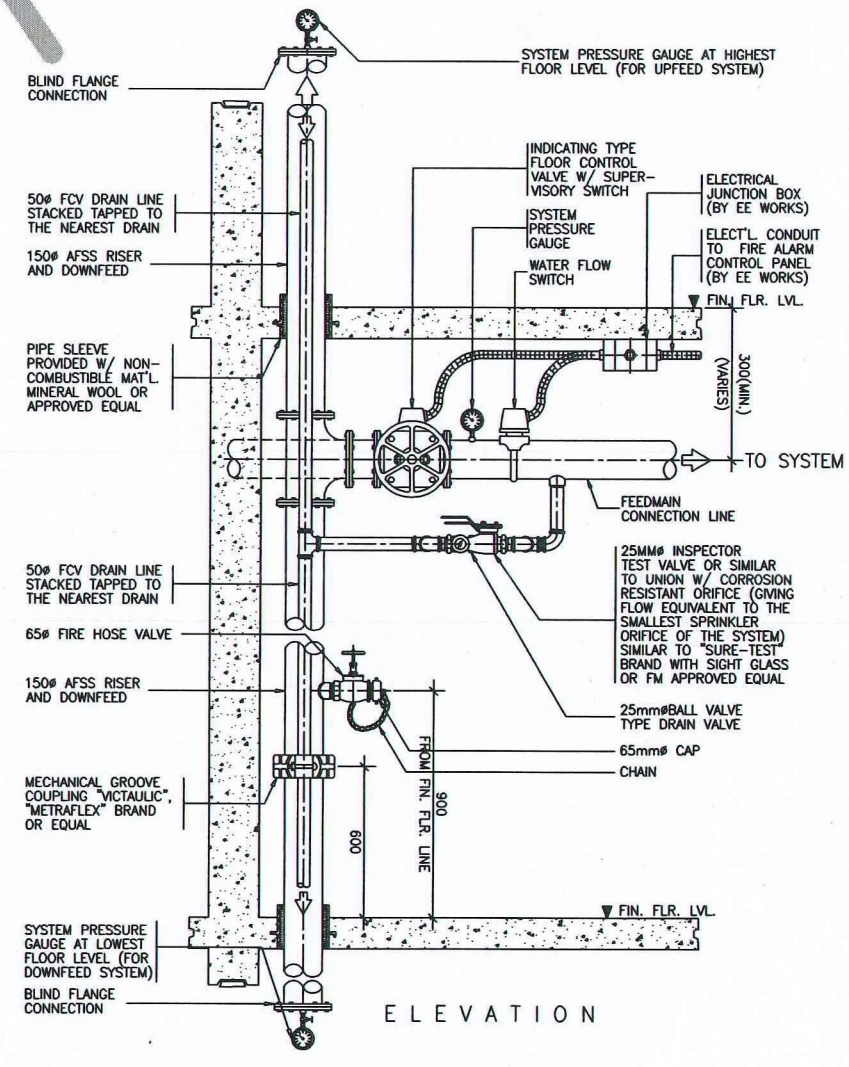
SCALE: 1:10 MTS



VICINITY MAP

FP 4 6

NOT TO SCALE



ELEVATION

SUPERVISORY FLOOR CONTROL VALVE ASSEMBLY & VALVE HOSE DETAIL

FP 4 5

SCALE NTS

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FNT:

FP4