



PROPOSED TESDA ASSAT INNOVATION CENTER

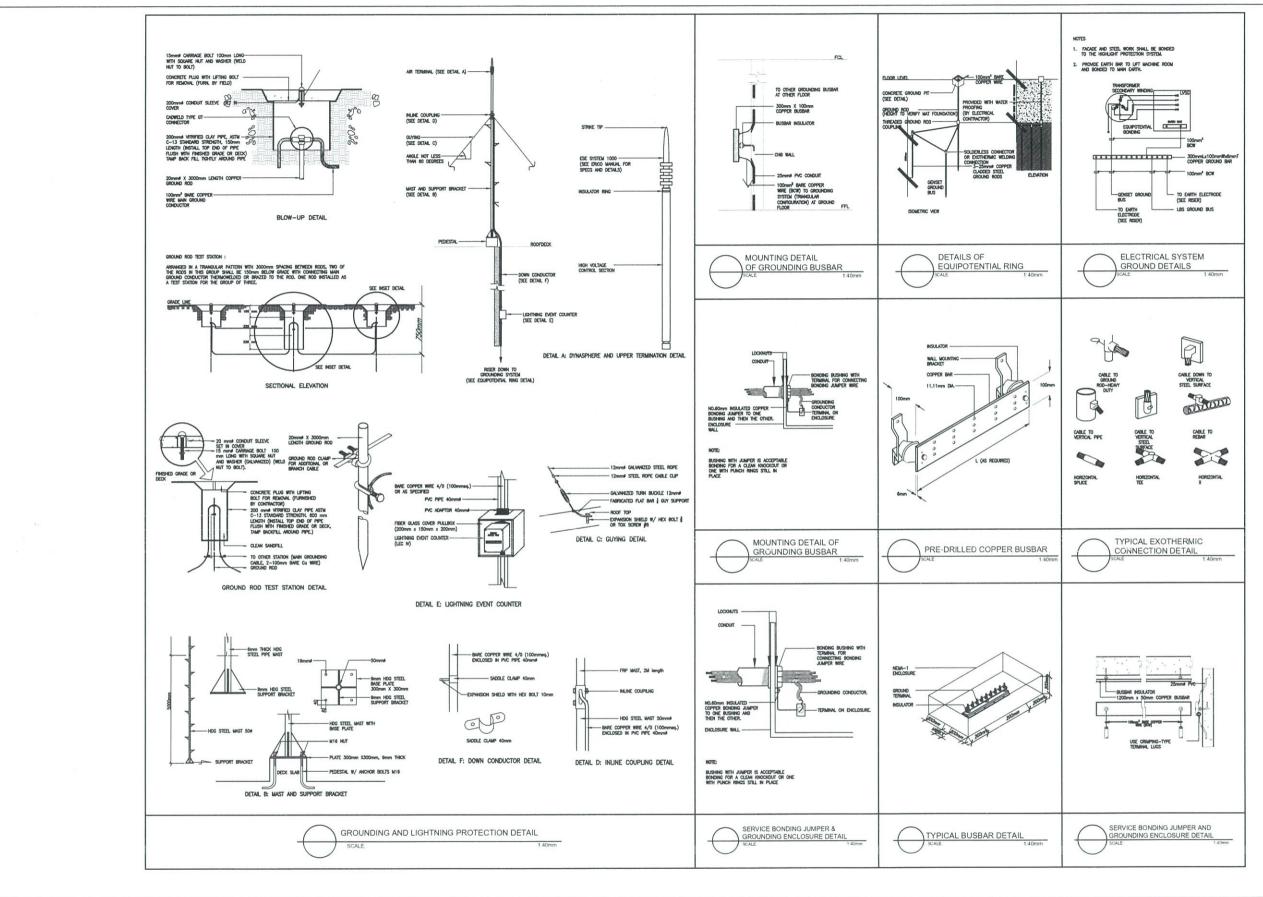




SEC. SUHARTO T. MANGUDADATU, Ph.D. PMU-SIPTVETS

SHEET CONTENTS: SHEET NO.
MISCELLANEOUS DETAILS TYPICAL LIGHTING
DETAILS

E-6

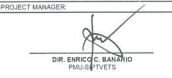


TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY

PROPOSED TESDA ASSAT INNOVATION CENTER

PROJECT TITLE:

ENGR. JOHN ADRAN C. SANTOS
PMU-SIPTVETS
ENGINEERING SECTION



SEC. SUHARTO T. MANGUDADATU, Ph.D. PMU-SIPTVETS

SHEET CONTENTS:

MISCELLANEOUS DETAILS TYPICAL GROUNDING AND
LIGHTNING PROTECTION
DETAILS

E-7

GENERAL NOTES AND SPECIFICATIONS

- ALL WORKS HEREIN INCLUDED SHALL BE EXECUTED IN ACCORDANCE WITH THE PROVISION OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE, THE RULES AND REQUILATIONS OF THE LOCALITY AND THE REQUIREMENTS OF THE CLIENT/OWNER.
- ALL WORKS HEREN INCLUDED SHALL BE EXECUTED BY EXPERIENCED MEN UNDER THE DIRECT SUPERVISION OF A FULL TIME LICENSED ELECTRONICS AND COMMUNICATIONS ENGINEER (ECS). ALL WORKS SHALL BE NEATLY PLACED, SECURELY FASTENED AND PROPERLY FINISHED.
- 4. ALL EXPOSED & CEILING CONCEALED CONDUITS SHALL BE OF INTERMEDIATE METALLIC CONDUIT ON HIGH STRENGTH AND GALVANIZED WITH AN ADDITIONAL INTERIOR PROTECTIVE COATING SHALL BE USED OR AS INDICATED IN THE PLANS, ALL EMPEDDED CONDUITS SHALL BE OF POLYMING CHLORIDE, ALL EXPOSED AND NOT PRONE TO DIMANGE CONDUITS SHALL BE OF ELECTRICAL METALLIC TUBRICS.
- 5. WOICE AND DATA WIRING SHALL BE SEPARATED FROM ANY OTHER BUILDING OR POWER WIRING, TO PREVENT HUMMING AND ELECTROMAGNETIC INTERFERENCE (EMI), TO MEET OR EXCEED THE EIA/TIA 568A CABLING STANDARD.
- 5. ALL CONDUITS AND WIRE WAYS SHALL BE PROTECTED AGAINST DAMAGES BY THE ENTRANCE OF WATER AND FOREIGN MATTER DURING CONSTRUCTION. ALL ENDS OF CONDUITS SHALL BE PROPERLY PLUGGED TO EXCLUDE MOISTURE AND DUST MANEDIATELY AFTER THE CONDUITS ARE PLACED.
- 7. ALL CONDUIT BENDS SHALL BE FIELD-MADE USING HYDRAULIC BENDERS. MINIMUM BENDING RADIUS SHALL BE IN ACCORDANCE WITH THE CODE.
- 8. ALL PIPES AND FITTINGS ON EXPOSED WORK SHALL BE SUPPORTED AND SECURED BY MEANS OF C-CHANNELS AND CLAMPS.
- 9. THE POSITION OF ALL ELECTRONCS EQUIPMENT AS SHOWN IN THE DRAWINGS ARE APPROXIMATE ONLY. THE EXACT POSITIONS SHALL BE DETERMINED ON SITE.
- 10. ALL MDF'S AND IDF'S SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION PF PHILIPPINE ELECTRICAL/ELECTRONICS, EA AND BICSI CODE. THEY SHALL BE PAINTED WITH A COAT OF ANTI-RUST PAINT AND TWO COATS OF SEMI-GLASS TEAK PAINT OF BEST QUALITY TO THE APPROVAL OF THE CONSULTANT.
- ALL ELECTRONCS EQUIPMENT AND DEVICES LOCATIONS SHOWN ARE INDICATIVE ONLY AND THE ELECTRICAL CONTRACTOR MUST COORDINATE WITH THE ARCHITECT AND OR THE INTERIOR DESIGNER, AS WELL AS EQUIPMENT SUPPLIERS.
- 12. ALL ELECTRONICS EQUIPMENT & ACCESSORIES THAT ARE EXPOSED OR LESS THAN 2.0m AWAY FROM WATER SOURCES SHALL BE OF WATERPROOF TYPE.
- 13. COLOR FOR ALL TELECOMMUNICATION FACE PLATES SHALL BE AS PER ARCHITECT'S/INTERIOR DESIGNER'S SELECTION.
- 14. SIZING OF ALL PULLBOXES SHALL BE COMPUTED BASED ON THE CODE REQUIREMENTS. SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION, LOCATION OF PULLBOXES SHALL BE AS APPROVED BY THE ARCHITECT/ENGINEER AND MUST BE REFLECTED ON THE "AS-BUILT" PLANS.
- 15. MOUNTING HEIGHTS OF DEVICES (RJ-45 JACKS) SHALL BE AS APPROVED BY THE ARCHITECT OR AS FOLLOWS:

- 16. ALL ITEMS OF MATERIAL NOT FURNISHED BY REQUISITION AND REQUIRED TO COMPLETE THE INSTALLATION IN A GOOD, WORKMANLIKE MANNER SHALL BE PROVIDED BY THE IT CARLING CONTRACTOR.
- 17. THE PLANS AS DRAWN ARE BASED UPON THE ARCHITECTURAL PLANS AND THE DETAILS AND SHOWN CONDITIONS AS ACCURATELY AS IT IS POSSIBLE TO MINICATE THEM IN SCALE THE PLANS ARE DIAGRAMMATICAL AND DO NOT NECESSARILY SHOW ALL FITTINGS NECESSARY TO FIT TO THE BUILDING CONDITIONS. THE LOCATIONS OF OUTLIEST, APPRABATIS AND APPLANCES KNOWN ON THE PLANS ARE APPRABATES ANTERIOR THEORY OF THE BUILDING RESPONSIBLE FOR THEIR PROPER LOCATION IN ORDER TO MAKE THEM FIT WITH THE ARCHITECTURAL DETAILS AND INSTRUCTIONS FROM THE
- 18. UPON COMPLETION OF IT CABLING WORKS, THE FOLLOWING TESTS SHALL BE PERFORMED BY THE CONTRACTOR INCLUSIVE OF THE INSTALLATION TO BE REPORTED IN DETAILS AND IN FORMS APPROVED BY THE OWNERS REPRESENTATIVE;

LOCATION MAP

A. SIGNAL ATTENUATION TEST B. CONTINUITY TEST C. NEAR-END CROSSTALK TEST

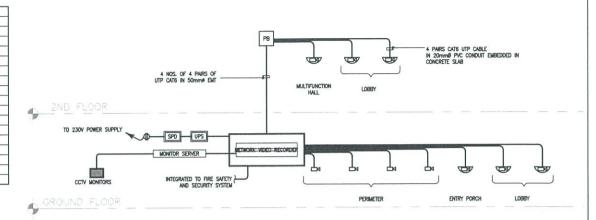
D. IMPEDANCE TEST E. RESISTANCE TEST F. WIRE MAP TEST

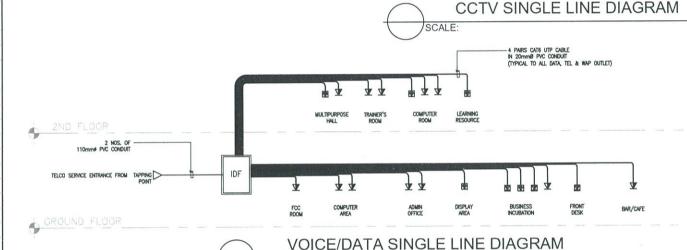
ABBREVIATIONS

ACP	ACCESS CONTROL PANEL			
ACS	ACCESS CONTROL SYSTEM			
BGM	BACKGROUND MUSIC			
С	CONDUIT			
CAT	CATEGORY			
COP	COMMUNICATION DISTRIBUTION PANEL			
CATV	COMMUNITY ANTENNA TELEVISION			
CCTV	CLOSED CIRCUIT TELEVISION			
DC	DOOR CONTACT			
DOL	DIRECT ON LINE			
EMT	ELECTROMETALLIC TUBING			
ELV	EXTRA LOW VOLTAGE			
EVAC	EMERGENCY VOICE ALARM COMMUNICATION			
FA	FIRE ALARM			
FR	FIRE RATED			
NVR	NETWORK VIDEO RECORDER			
PVC	POLYVINYL CHLORIDE			
PATB	PUBLIC ASDRESS TERMINAL BOARD			
TEL.	TELEPHONE			
ттс	TELEPHONE TERMINAL CABINET			
THEN	THERMOPLASTIC HEAT RESISTANT (90°C) WITH NYLON JACKET			
FCC	FIRE COMMAND CENTER			
FACP	FIRE ALARM CONTROL PANEL			
FATB	FIRE ALARM TERMINAL BOARD			
FDAS	FIRE ALARM AND DETECTION SYSTEM			
IDF	INTERMEDIATE DISTRIBUTION FRAME			
IMC	INTERMEDIATE METALLIC CONDUIT			
NAP	NETWORK ACCESS POINT			
ODF	OPTICAL DISTRIBUTION FRAME			
PA	PUBLIC ASDRESS			
RD	RISER DOWN			
RU	RISER UP			
RSC	RIGID STEEL CONDUIT			

AUXILIARY SYSTEMS LEGEND AND SYMBOL

SIMBULS	DESCRIPTION			
	DOME-TYPE, IP-BASED CCTV CAMERA			
	IP BASED CAMERA, FIXED TYPE, WEATHER PROOF			
¥	VOICE/DATA OUTLET			
-	FLOOR MOUNTED VOICE/DATA OUTLET			
M	INPUT MODULE			
TT	GROUND BAR			
0	SMOKE DETECTOR			
0	HEAT DETECTOR			
DE04	STROBE LIGHT WITH SOUNDER			
Ø	MANUAL PULL STATION			
~	FIREMAN'S TELEPHONE JACK			
D4	HORN TYPE SPEAKER			
2	CEILING-MOUNTED SPEAKER			
	INTERCOM UNIT			
(FIGP	FIRE ALARM CONTROL PANEL			
• RU/RD	RISER UP/DOWN			
Hill	PA MICROPHONE			



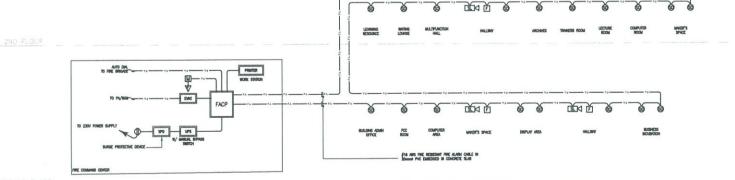




PROJECT TITLE:

FIBER DISTRIBUTION BOARD

VICINITY MAP NTS



FDAS SINGLE LINE DIAGRAM SCALE

FOR APPROVAL PLANS OF **REGIONAL TVET INNOVATION** CENTERS (RTICs) 2023



TECHNICAL EDUCATION AND SKILLS DEVELOPMENT **AUTHORITY**

PROPOSED TESDA ASSAT

ENGINEERING SECTION

FLECTRICAL ENGINEER

DIR. ENRICO C. BANARI

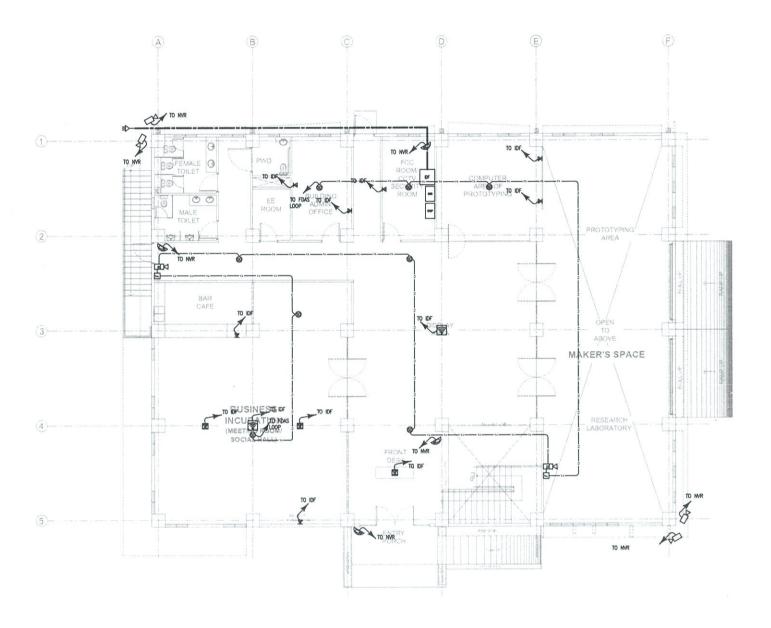
PROJECT MANAGER



GENERAL NOTES
ABBREVIATION
LOCATION & VICINITY MAP
CCTV SINGLE LINE DIAGRAM
VOICE/DATA SINGLE LINE DIAGRAM

EC-0

LEGENDS AND SYMB	OLS
®	SMOKE DETECTOR
Ē	MANUAL PULL STATION
	STROBE LIGHT
∇	FIREMAN'S TELEPHONE JACK
BA	INPUT MODULE
DM	OUTPUT MODULE
S	CEILING MOUNTED SPEAKER
®	PA MICROPHONE
⊗RU/RD	RISER UP/DOWN
	FIXED TYPE, IP-BASED CCTV CAMERA
U	DOME TYPE, IP-BASED CCTV CAMERA
¥	WALL MOUNTED, VOICE/DATA OUTLET
•	FLOOR MOUNTED. VOICE/DATA OUTLET
*	WIRELESS ACCESS POINT







PROPOSED TESDA ASSAT INNOVATION CENTER



PROJECT MANAGER:

DIR. ENRICQ C. BANARIO

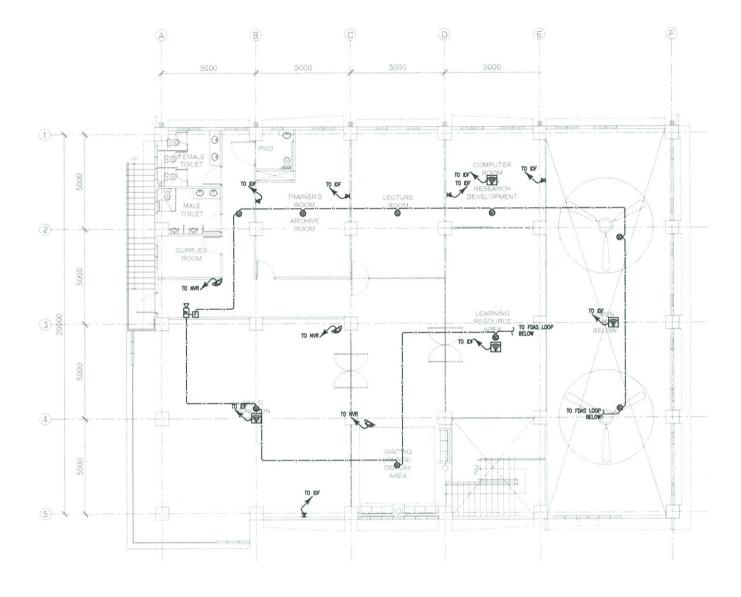
DMILSIMVETS

SEC. SUHARTO T. MANGUDADATU, Ph.D. PMU-SIPTVETS

SHEET CONTENTS:
GROUND FLOOR AUXILIARY LAYOUT

EC-1

LEGENDS AND SYM	BOLS	
89	SMOKE DETECTOR	
F	MANUAL PULL STATION	
(SL)	STROBE LIGHT	
₹	FIREMAN'S TELEPHONE JACK	
IM	INPUT MODULE	
OM	OUTPUT MODULE	
8	CEILING MOUNTED SPEAKER	
®	PA MICROPHONE	
⊗RU/RD	RISER UP/DOWN	
	FIXED TYPE, IP-BASED CCTV CAMERA	
D	DOME TYPE, IP-BASED CCTV CAMERA	
¥	WALL MOUNTED, VOICE/DATA OUTLET	
•	FLOOR MOUNTED. VOICE/DATA OUTLET	
?	WIRELESS ACCESS POINT	- V.





TECHNICAL EDUCATION
AND
SKILLS DEVELOPMENT
AUTHORITY

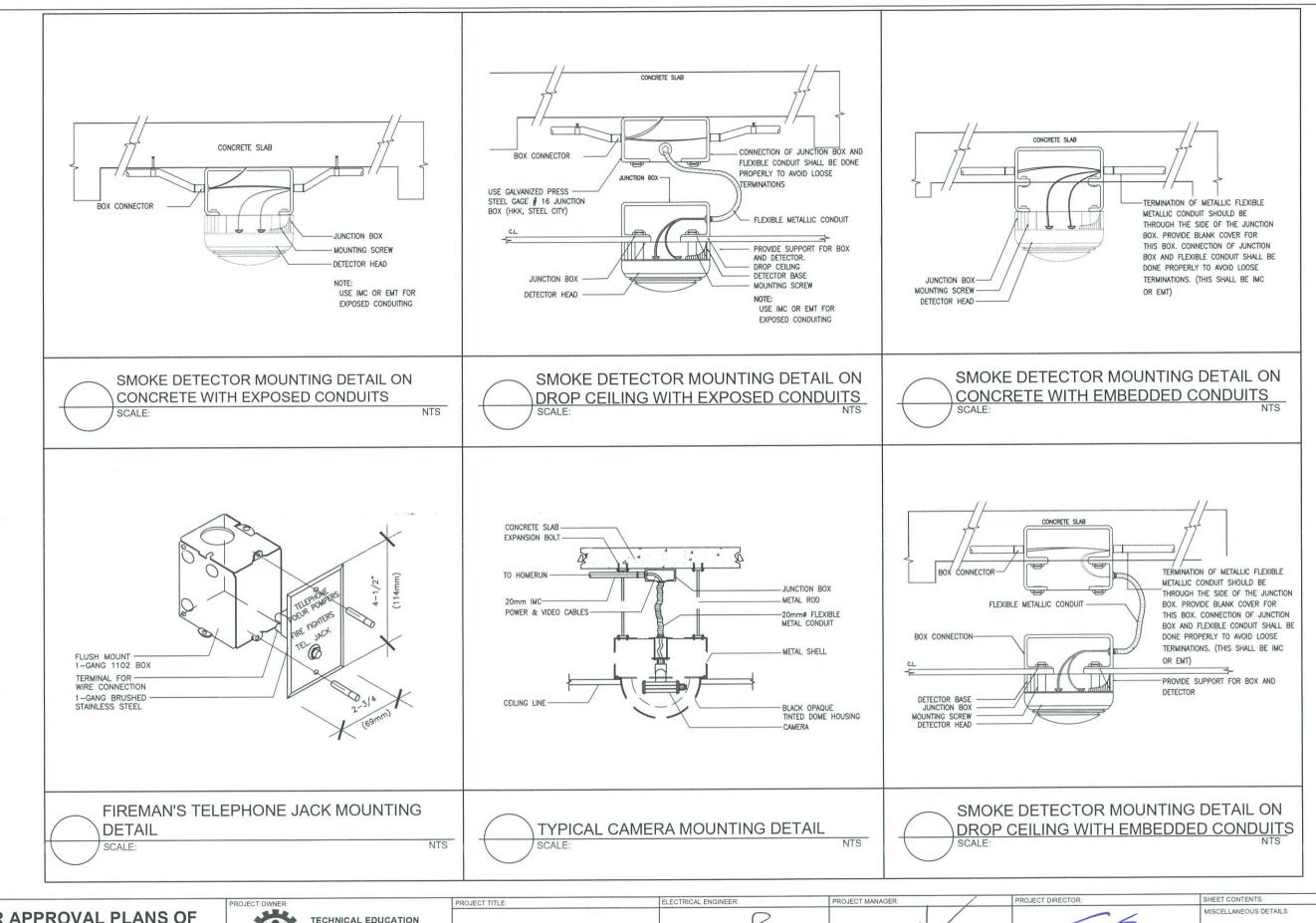
PROPOSED TESDA ASSAT INNOVATION CENTER ENGR. JOHNADRIAN C. SANTOS
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SHEET CONTENTS: SHEET NO.

2ND FLOOR AUXILIARY LAYOUT





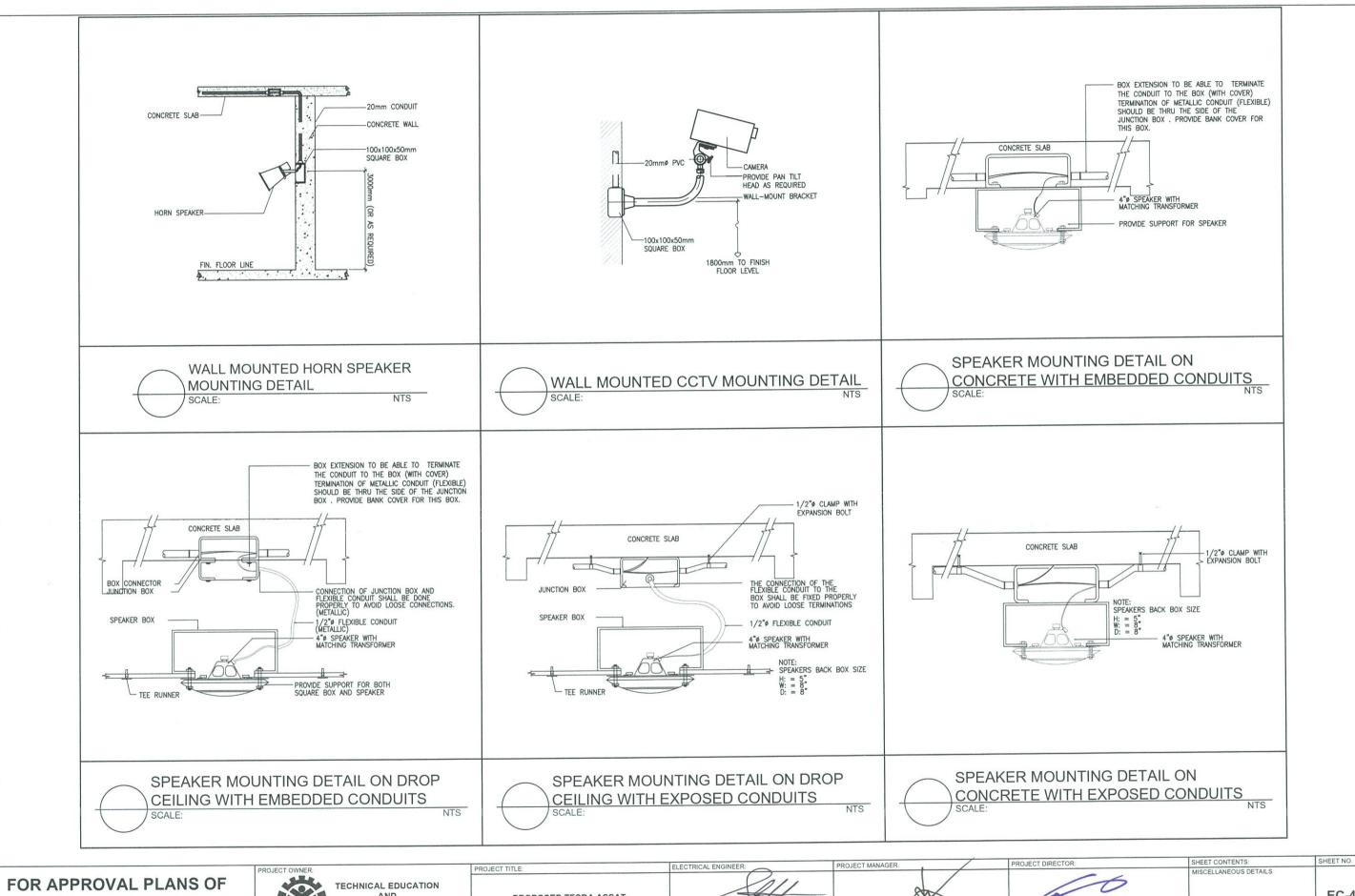
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SEC. SUHARTO T. MANGUDADATU, Ph.D.

SHEET NO.

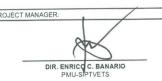


REGIONAL TVET INNOVATION CENTERS (RTICs) 2023

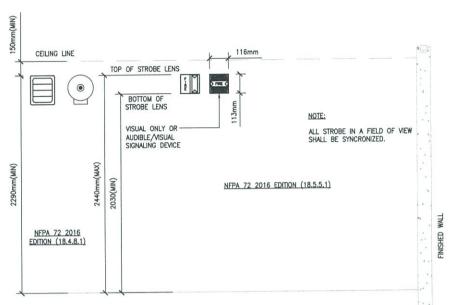


PROPOSED TESDA ASSAT INNOVATION CENTER









NFPA 72 2016 EDITION (18.4): AUDIBLE CHARACTERISTICS

NFPA 72 2016 EDITION (18.4.8): LOCATION OF AUDIBLE NOTIFICATION APPLIANCES FOR BUILDING OR STRUCTURES.

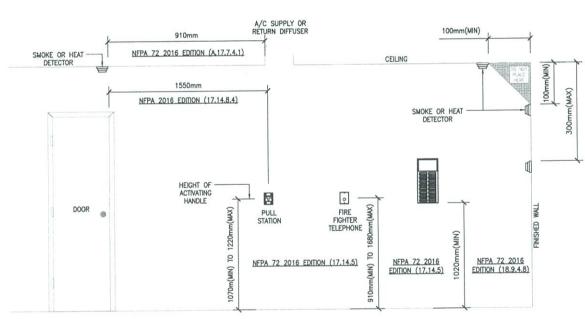
NFPA 72 2016 EDITION (18.4.8.1): IF CEILING HEIGHTS ALLOW, AND UNLESS OTHERWISE PERMITTED BY 18.4.8.2 THROUGH 18.4.8.5, WALL—MOUNTED APPLIANCES SHALL HAVE THEIR TOPS ABOVE THE FINISHED FLOORS AT HEIGHTS OF NOT LESS THAN 2290mm(90in.) AND BELOW THE FINISHED CEILING AT DISTANCES OF NOT LESS THAN 150mm(6in.)

NFPA 72 2016 EDITION (18.4.8.3): IF COMBINATION AUDIBLE/VISIBLE APPLIANCES ARE INSTALLED, THE LOCATION OF THE APPLIANCE SHALL BE DETERMINED BY THE REQUIREMENTS OF 18.5.5

NFPA 72 2016 EDITION (18.5.5); APPLIANCES LOCATION.

NFPA 72 2016 EDITION (18.5.5.1): WALL MOUNTED APPLIANCES SHALL BE MOUNTED SUCH THAT THE EMTRE LENS IS NOT LESS THAN 2030mm (80in) AND NOT GREATER THAN 2440mm (96in). ABOVE THE FINISHED FLOOR OR AT THE MOUNTING HEIGHT SPECIFIED USING THE PERFORMANCE BASED ALTERNATIVE. AT NFPA 2016 EDITION (A7.5.4.5).

NFPA 72 2016 EDITION (18.5.5.5.5): VISIBLE NOTIFICATION APPLIANCES SHALL BE LOCATED NOT MORE THAN 4570mm(15ft.) FROM THE END OF THE CORRIDOR WITH A SEPARATION NOT GREATER THAN 30500mm(100ft) BETWEEN APPLIANCES.



NFPA 72 2016 EDITION
17.6.3.1.3.1 HEAT — UNLESS OTHERWISE MODIFIED BY 17.6.3.2.2 OR
17.6.3.3.2 OR 17.6.3.7 SPOT—TYPE HEAT—SENSING FIRE DETECTORS
SHALL BE LOCATED ON THE CEILING NOT LESS THAN 100mm (4in)
FROM THE SIDEWALL OR ON THE SIDEWALLS BETWEEN 100mm AND
300mm (4in. AND 12 in.) FROM THE CEILING.

NFPA 72 2016 EDITION (A.17.7.4.1): DETECTORS SHOULD NOT BE LOCATED IN A DIRECT AIRFLOW OR CLOSER THAN 910mm(36in.) FROM AN AIR SUPPLY DIFFUSER OR RETURN AIR OPENING, SUPPLY OR RETURN SOURCES LARGER THAN THOSE COMMONLY FOUND IN RESIDENTIAL AND SMALL COMMERCUL ESTABLISHMENT CAN BE REQUIRE GREATER CLEARANCE TO SMOKE DETECTORS.

NFPA 72 2016 EDITION (17.14.8.4): MANUAL FIRE ALARM BOXES SHALL BE LOCATED WITHIN 1.5m (5ft.) OF EACH EXIT DOORWAY ON EACH FLOOR.

NFPA 72 2016 EDITION (17.14.5): THE OPERABLE PART OF A MANUALLY ACTIVATED ALARM INITIATING DEVICE SHALL BE NOT LESS THAN 42in. (1070mm) AND NOT MORE THAN 48in. (1220mm) FROM THE FINISHED FLOOR.

NFPA 72 2016 EDITION (17.7.3.2.1); SPOT-TYPE SMOKE DETECTORS SHALL BE LOCATED ON THE CEILING OR, IF ON A SIDEWALL, BETWEEN THE CEILING AND 12in. (300mm) DOWN FROM THE CEILING TO THE TOP OF DETECTOR

NFPA 72 2016 EDITION (24.8.17); WALL MOUNTED TELEPHONE APPLIANCES OR RELATED JACKS SHALL BE NOT LESS THAN 910mm(36in.) AND NOT MORE THAN 1680mm(66in.) ABOVE FLOOR LEVEL WITH CLEAR ACCESS TO THE APPLIANCE THAT IS AT LEAST 760mm(30in.) WIDE.

NFPA 72 2016 FOITION (18.9.4.8°): ALL CHARACTERS AND GRAPHICAL VISIBLE NOTIFICATION APPLIANCES SHALL BE A MINIMUM OF 1020mm(40in.) ABOVE THE GROUND OR FINISHED FLOOR.

NFPA 72 2016 EDITION (18.11); STANDARD EMERGENCY SERVICE INTERFACE. WHERE REQUIRED BY THE ENFORCING AUTHORITY; GOVERNING LAWS, CODES, OR STANDARDS; OR OTHER PARTS OF THIS CODE, ANNUNCATORS, INFORMATION DISPLAY SYSTEMS, AND CONTROL FOR PORTIONS OF A SYSTEM PROVIDED FOR USE BY EMERGENCY SERVICE PERSONNEL SHALL BE DESIGNED, ARRANGED, AND LOCATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ORGANIZATIONS INTENDED TO USE THE EQUIPMENT.

FIRE ALARM SYSTEM DEVICE MOUNTING HEIGHTS AND LIMITATIONS

FOR APPROVAL PLANS OF **REGIONAL TVET INNOVATION CENTERS (RTICs) 2023**



PROPOSED TESDA ASSAT

PROJECT TITLE:





SEC. SUHARTO T. MANGUDADATU, Ph.D. PMU-SIPTVETS

SHEET NO. FIRE ALARM SYSTEM DEVICE MOUNTING HEIGHTS AND LIMITATIONS

GENERAL PLUMBING NOTES:

- 1. GENERAL NOTES ARE APPLICABLE TO ALL PLUMBING WORKING DRAWINGS
- THE WORK SHALL BE EXECUTED IN STRICT CONFORMITY WITH BASE BUILDING SPECIFICATION AND WITH THE LATEST EDITION OF CONFLICT BETWEEN THE CONTRACT DOCUMENTS AND COVERING CODE OR ORDINANCE THE MORE STRINGENT STANDARD SHALL APPLY.
- ALL PLUMBING WORK SHALL BE COORDINATED WITH ALL OTHER TRADES BEFORE PROCEEDING WITH INSTALLATION.
- 4. NO CHARGES ARE TO BE MADE IN PLUMBING LAYOUT WITHOUT WRITTEN PERMISSION BY THE ENGINEER OR RECORDS/MASTER PLUMBER.
- 5. NO PIPING SHALL RUN EXPOSED IN SALES OR FINISHED AREA.
- PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR PAYING RELATED FEES.
- 7. ROUGH-IN DIMENSIONS OF TOILET FIXTURES MUST BE COORDINATED WITH GENERAL CONTRACTOR AND FIELD SUPERVISOR.
- 8. INSTALL GATE VALVES/ BALL VALVES ON ALL BRANCH SUPPLY LINES.
- 9. PROVIDE ACCESS PANELS ON ALL INACCESSIBLE VALVES AND CLEANOUTS. ACCESS PANELS SHALL BE PROVIDED BY GENERAL CONTRACTOR, PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR LOCATION.
- ALL WORK SHALL BE PROPERLY TESTED, BALANCED AND CLEANED. PROVIDE ONE YEAR WARRANTY FROM DATE OF FINAL INSPECTION ON ALL PARTS AND
- 11. ALL FIXTURES TO BE SUPPLIED & INSTALLED BY PLUMBING CONTRACTOR.
- 12. GENERAL CONTRACTOR SHALL COORDINATE WATER METER LOCATION AND NSTALLATION WITH LOCAL AUTHORITIES AND CIVIL DRAWINGS
- TRAP SEAL PRIMERS ARE TO BE PROVIDED AT NO ADDITIONAL COST TO OWNER/ CLIENT, IF REQUIRED BY LOCAL BUILDING CODE OFFICIALS.
- ALL VENT PIPE SHALL BE EXHAUST OVER THE CEILING OF ROOF OVERHANG. NO VENT SHALL EXTENDED THRU ROOF.
- APPLY A BEAD OF SEALANT AROUND ALL FIXTURES WHERE THEY MEET FLOORS, WALLS, ETC. PROVIDE PIPE SLEEVES AT ANY WALL/ FLOOR
- 16. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND REPRESENT ONLY THE GENERAL AND APPROXIMATE LOCATIONS OF FIXTURES, PIPING, ETC. REFER TO THE ARCHITECTURAL PLANS AND ACTUAL CONDITIONS FOR LOCATING
- THAT ALL WATER SUPPLIES TO FIXTURES ARE ANCHORED TO PREVENT ANY LATERAL MOVEMENT.
- 18. SUPPORT ALL PIPING EQUIPMENT, ETC. AS PER CODE REQUIREMENTS.
- 19. REFER TO ARCHITECTURAL PLANS FOR MOUNTING HEIGHTS OF PLUMBING.
- FURNISH AS REQUIRED FOR ALL FIXTURES, INCLUDING ONES FURNISHED BY OTHERS, P-TRAPS, ANGLE STOPS, RISERS, ESCUTCHEONS, ETC.
- 21. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE PRIOR TO BIDDING IN ORDER TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND DISCREPANCIES OR QUESTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO BIDDING.
- 22. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING RIGHT OR LEFT
- 23. ALL PENETRATIONS OF CONCRETE FOUNDATIONS & FOOTINGS SHALL BE MINIMUM OF 50MM DIAMETER.
- 24. ALL SANITARY SEWER PIPING UNDER CONCRETE SLAB SHALL BE MINIMUM
- REFER TO ARCHITECTURAL SPECIFICATIONS FOR SOIL COMPACTING, CONCRETE AND ASPHALT REPAIR.
- SUBMIT SHOP DRAWINGS ON ALL PLUMBING FIXTURES, SEE ARCHITECTURAL FOR QUANTITY.
- 27. USE POLYPROPYLENE FOR ALL WATER SUPPLY LINES.
- USE, POLYVINYL CHLORIDE (PVC) SERIES 1000 FOR ALL DRAINAGE LINE, OBSERVE SLOPE OF 1% FOR LONG RUNNING DRAINAGE LINE AND SLOPE OF 2% FOR SHORT RUN DRAINAGE LINE, VERIFY.

GENERAL PLUMBING NOTES:

- ALL PLUMBING WORKS INCLUDED HEREIN SHALL BE EXECUTED ACCORDING TO THE REQUIREMENTS OF THE PHILIPPINE PLUMBING CODE AND RULES AND REGULATIONS OF THE GOVERNMENT.
- COORDINATE DRAWINGS WITH OTHER RELATED DRAWINGS AND SPECIFICATIONS.
- THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY FOUND THEREIN
- POUND I HEREIN
 PIPES SHALL BE INSTALLED AS INDICATED, ANY RELOCATION REQUIRED FOR
 PROPER EXECUTION OF OTHER TRADES SHALL BE PIPE STRUCTURE.
 ALL HORIZONTAL BRANCHES SHALL MAINTAIN 1% AS MINIMUM UNLESS NOTED OTHERWISE
- ALL FIXTURES SHALL VENTED, UNLESS INDICATED.
 ALL INDIVIDUAL BRANCHES TO FIXTURES OR GROUP OF FIXTURES OR
 EQUIPMENT SHALL BE PROVIDED WITH AIR CHAMBER.

MATERIAL SPECIFICATIONS:

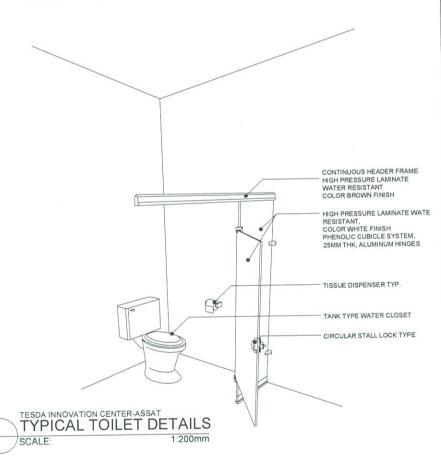
COLD WATER LINE (INTERIOR) - SHALL BE POLYPROPYLENE RANDOM (TYPE 3). HIGH RESISTANCE TO PRESSURE AND TEMPERATURE, CONFORMING TO EN ISO 15874, SIMILAR TO GEORGE FISCHER PP-R PIPE, UNITEC PP-R PIPE OR APPROVED

COLD WATER LINE (EXPOSED) - SHALL BE GALVANIZED STEEL PIPE, SCHEDULE 40, CONFORMING TO ASTM A 53 A 120. SIMILAR TO APO PIPE SCHEDULE 40 OR APPROVED EQUAL.

SOIL, WASTE AND VENT LINES- SHALL BE UNPLASTICIZED POLYVINYL CHLORIDE (UPVC) PIPE CONFIRMING TO ASTM D2729, SIMILAR TO NELTEX SERIES 100 UPVC PIPE OR APPROVED EQUAL.

DOWNSPOUTS- SHALL BE UNPLASTICIZED POLYVINYL, CHLORIDE (UPVC) PIPE CONFORMING TO ASTM D2729. SIMILAR TO NELTEX/ EMERALD/ MOLDEX SERIES 100 UPVC PIPE OR APPROVED EQUAL.

DRAINAGE LINE- SHALL BE UNPLASTICIZED POLYVINYL CHLORIDE (UPVC) PIPE CONFORMING TO ASTM D2729, SIMILAR TO NELTEX/EMERALD/ MOLDEX SERIES 1000 UPVC PIPE OR APPROVED EQUAL.



LEGEND		ABBREVIATION	
	SANITARY LINE	LAV	LAVATORY
	WATER LINE	KS	KITCHEN SINK
	DRAINAGE LINE	VAC	VENT ABOVE CEILING
	VENT PIPE	VP	VENT PIPE
	GATE VALVE	VTR/VTC	VENT THRU ROOF/VENT THRU CEILING
	CHECK VALVE	ss	SOIL STACK/ WASTE PIPE
	WATER METER	AAV	AIR ADMITTANCE VALVE
	FLOOR CLEANOUT	PVC	POLYVINYL CHLORIDE
co	DIAMETER	CWL	COLD WATER LINE
U		FD	FLOOR DRAIN
ABBREVIATION		SH	SHOWER HEAD
AC	AIR CHAMBER	DD	DECK DRAIN
WC	WATER CLOSET	BD	BALCONY DRAIN
URI	URINAL	mm	MILLIMETER

DI LIMBINIO EL	XTURES CONNECTIO	N SIZE SCHEE	DULE			
PLUMBING FI	ATURES CONNECTION	MIN. PIPE C	ONNECTIO	N SIZE MM	DIAMETER	DEMARKS
LEGEND	SYMBOL	WASTE/ SOIL	VENT	STORM	COLD WATER	REMARKS
wc	WATER CLOSET	100	50	-	20	TANK TYPE
LAV	LAVATORY	50	50	-	20	-
KS	KITCHEN SINK	50	50		20	-
SHO/ SD	SHOWER/ SHOWER DRAIN	50	50	-	20	
FD	FLOOR DRAIN	50	50	-	-	WITH P-TRAP
НВ	HOSE BIBB	-		1=1	20	-

SPECIFICATION

ITEMS	MATERIAL	THICKNESS	
WASTE/ SEWAGE LINE	POLYVINYL CHLORIDE (PVC)	SERIES 1000	
VENT PIPES	POLYVINYL CHLORIDE (PVC)	SERIES 1000	
STORM DRAINAGE LINE (DS)	POLYVINYL CHLORIDE (PVC)	SERIES 1000	
RAINWATER COLLECTOR	POLYVINYL CHLORIDE (PVC)	SERIES 1000	
WATERLINE (HOT/COLD)	PPR-C	PN 10	

FOR APPROVAL PLANS OF REGIONAL TVET INNOVATION **CENTERS (RTICs) 2023**



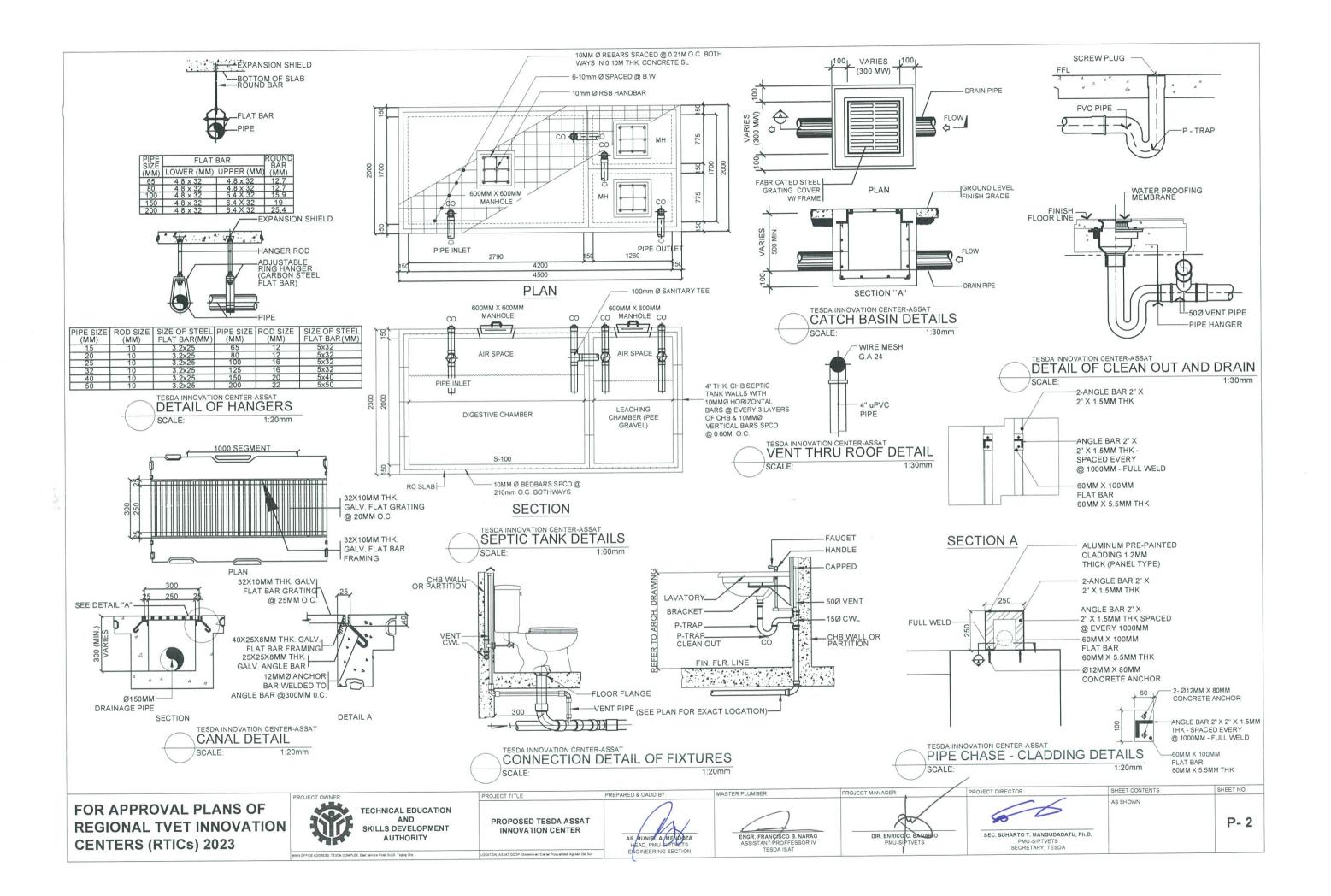
PROPOSED TESDA ASSAT INNOVATION CENTER

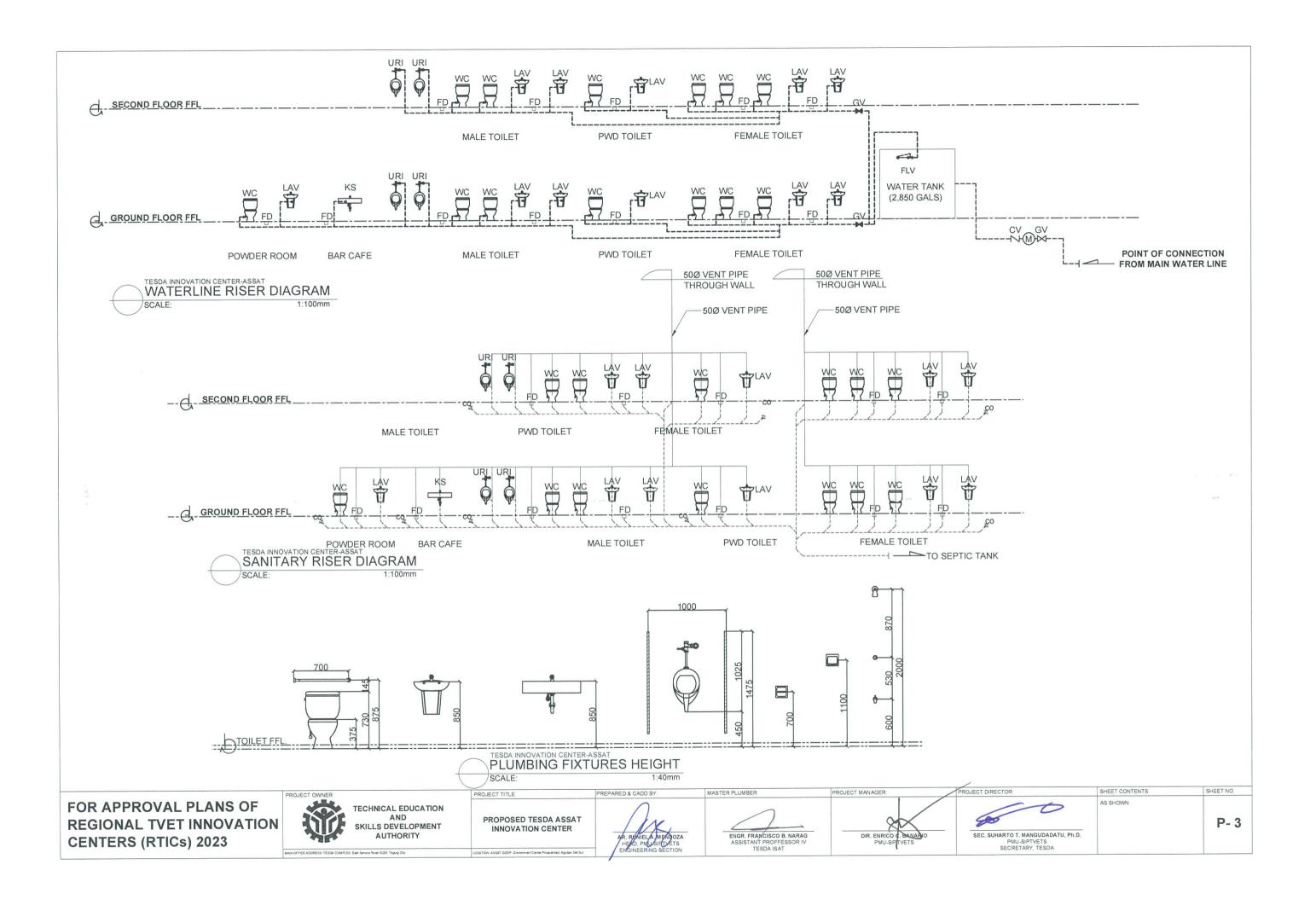
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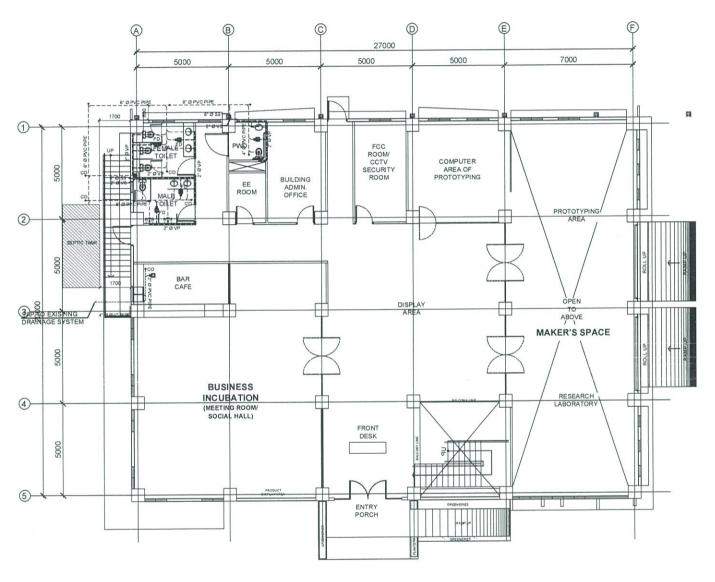
MASTER PLUMBER

PROJECT MANAGER DIR. ENRICO C. BANARIO SEC. SUHARTO T. MANGUDADATU, Ph.D. PMU-SIPTVETS SECRETARY, TESDA

AS SHOWN P-1











PROPOSED TESDA ASSAT INNOVATION CENTER



PREPARED & CADD BY

ENGR. FRANCISCO B. NARAG ASSISTANT PROFFESSOR IV TESDA ISAT

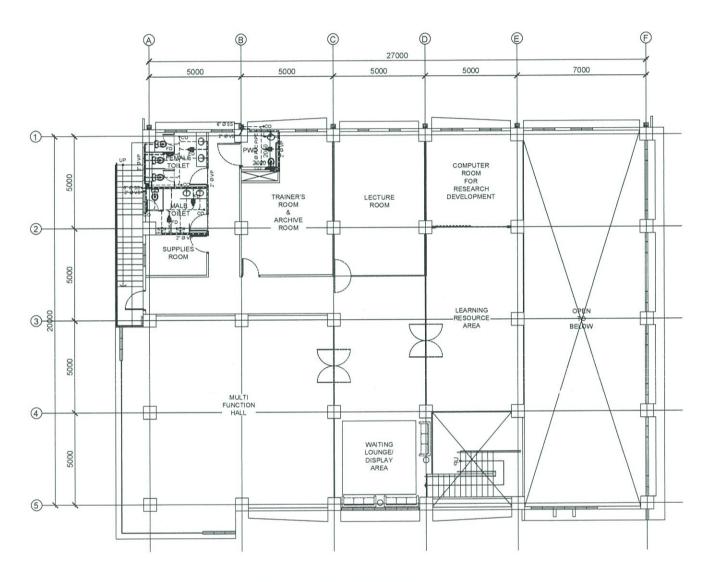
PROJECT MANAGER:

DIR. ENRICO C. BANARIO
PMU-SIPTVETS

OJECT DIRECTOR:

SEC. SUHARTO T. MANGUDADATU, Ph.D.

AS SHOWN SHEET NO.







PROPOSED TESDA ASSAT INNOVATION CENTER

PROJECT TITLE

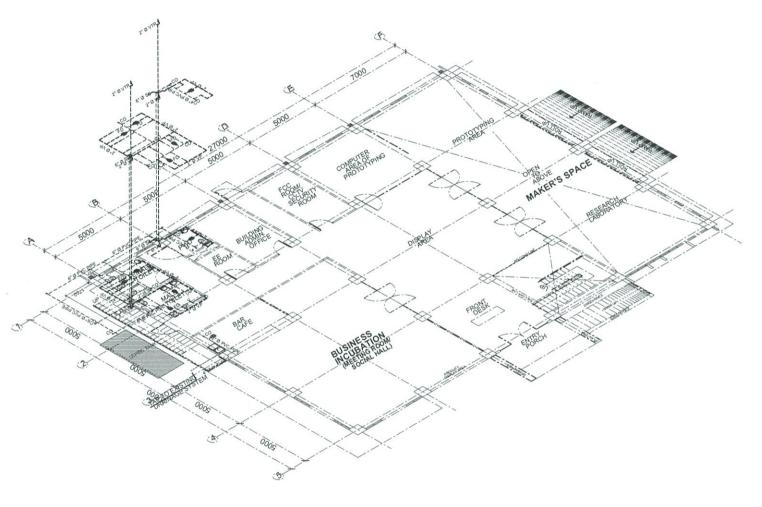
AP RUVIEL A MENCOZA
HEAD PMU-SEPTVETS
ENGINEERING SECTION

ENGR. FRANCISCO B. NARAG ASSISTANT PROFFESSOR IV TESDA ISAT



SEC, SUHARTO T, MANGUDADATU, Ph.D.
PMU-SIPTVETS
SECRETARY, TESDA

AS SHOWN SHEET NO.



P SANITARY ISOMETRIC LAYOUT
SCALE 1:200MTS

FOR APPROVAL PLANS OF REGIONAL TVET INNOVATION CENTERS (RTICs) 2023

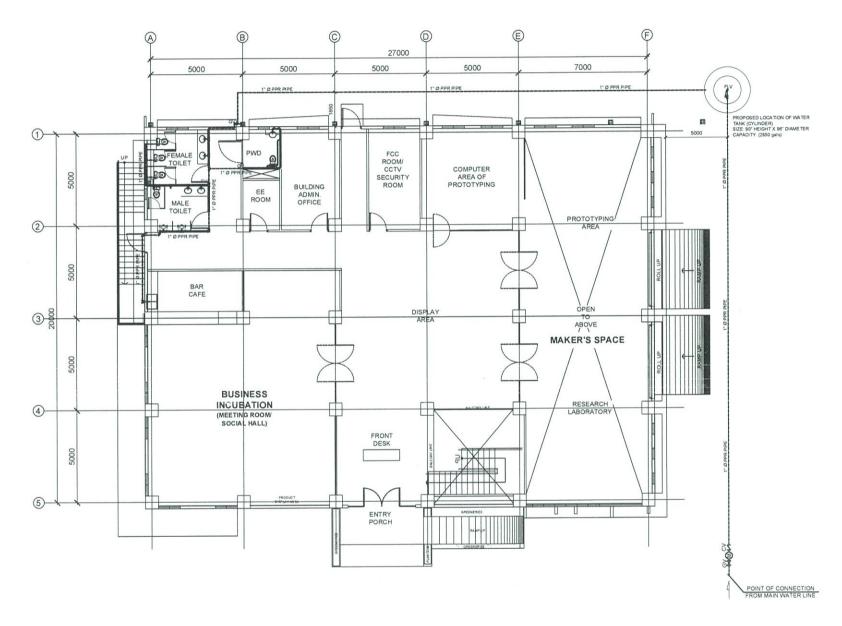


PROPOSED TESDA ASSAT INNOVATION CENTER AR RUNIEL A. MENDOZA MEAD, PMU-SIRD/ETS ENGINEERING SECTION ENGR. FRANCISCO B. NARAG ASSISTANT PROFFESSOR IV TESDA ISAT



SEC. SUHARTO T. MANGUDADATU, Ph.D. PMU-SIPTVETS

AS SHOWN P-6





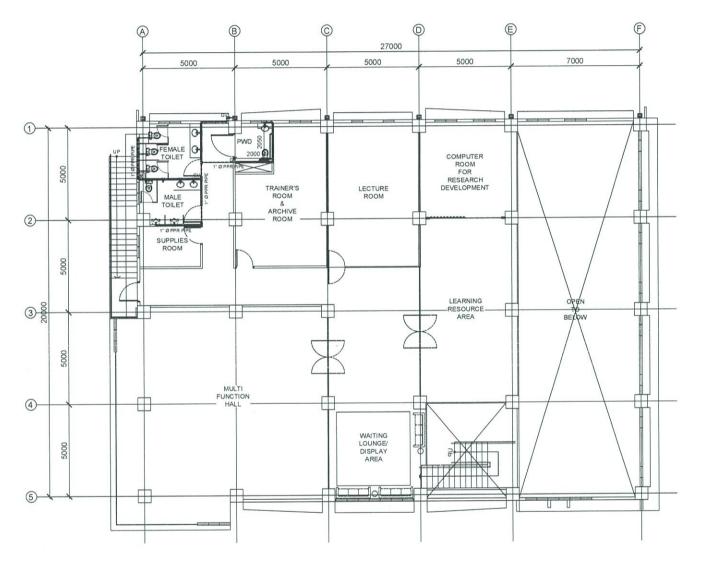
TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY

PROPOSED TESDA ASSAT INNOVATION CENTER AR. RUMEL A MENDOZA HEAD, PMUSHEDVETS ENGINEERING SECTION ENGR. FRANCISCO B. NARAG
ASSISTANT PROFFESSOR IV
TESDA ISAT

DIR. ENRICO C. BANARIO
PMU-SINTVETS

SEC. SUHARTO T. MANGUDADATU, Ph.D.
PMU-SIPTVETS
SECRETARY, TESDA

AS SHOWN P-7



P SCALE TESDA INNOVATION CENTER-ASSAT SECOND FLOOR WATER LINE LAYOUT 1:200MTS

FOR APPROVAL PLANS OF REGIONAL TVET INNOVATION CENTERS (RTICs) 2023



PROPOSED TESDA ASSAT INNOVATION CENTER AR RINIEU A MENDOZA HEAD, PIMO SIPTVETS ENGINEERING SECTION

PREPARED & CADD BY:

MASTER PLUMBER

ENGR. FRANCISCO B. NARAG
ASSISTANT PROFFESSOR IV

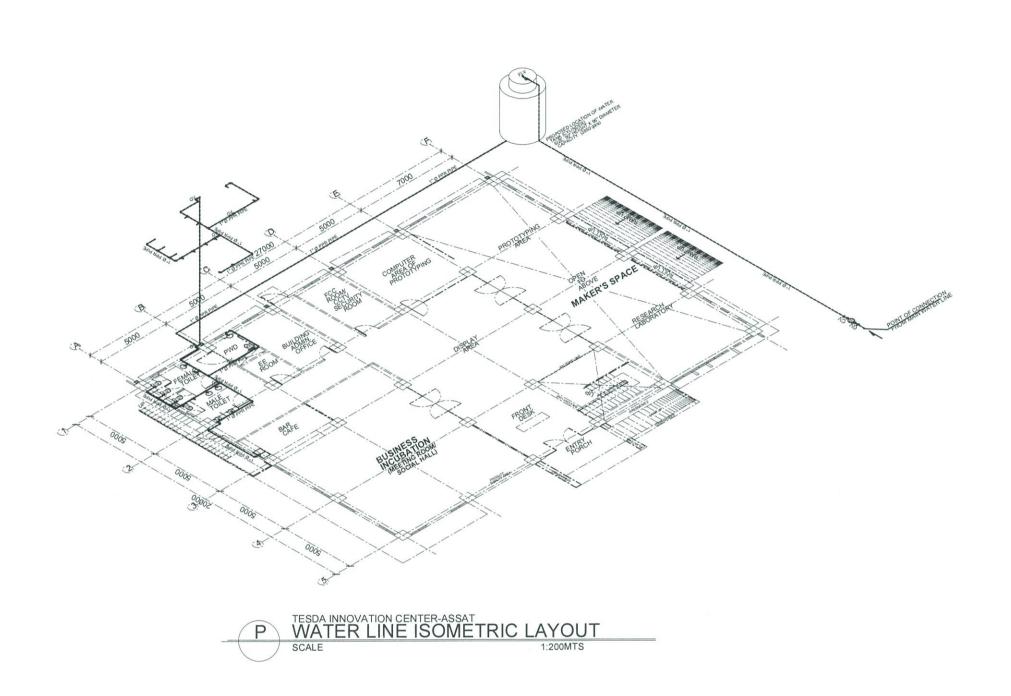
DIR, ENRICO C. BANADIO
PMU-SIRTVETS

SEC, SUHARTO T. MANGUDADATU, Ph.D.
PMU-SIPTVETS
SECRETARY, TESDA

SHEET CONTENTS: SHEET NO.

AS SHOWN

P- 8





PROPOSED TESDA ASSAT INNOVATION CENTER

PROJECT TITLE:

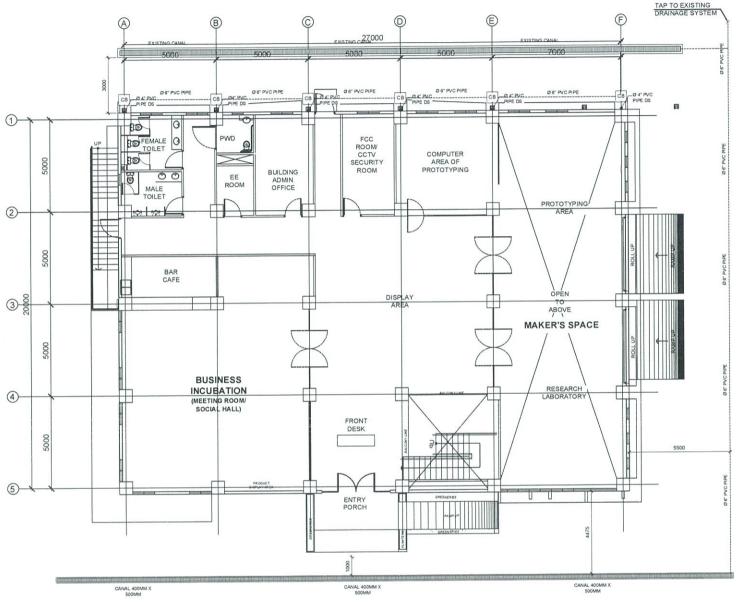


ENGR, FRANCISCO B, NARAG ASSISTANT PROFFESSOR IV TESDA ISAT



SEC, SUHARTO T. MANGUDADATU, Ph.D.
PMU.SIPTVETS
SECRETARY, TESDA

SHEET CONTENTS: SHEET NO
AS SHOWN
P-9





TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY

PROPOSED TESDA ASSAT INNOVATION CENTER

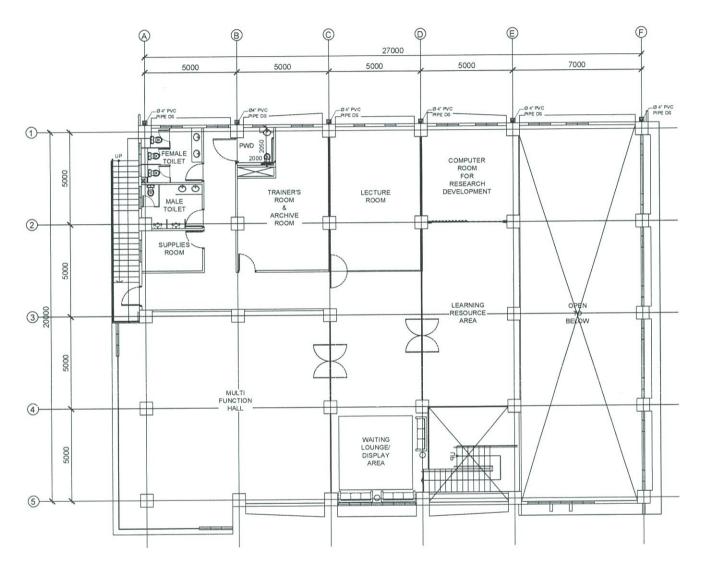
ARI. RUYEL A. MENOOZA HEARI PMU SIBITUTIS ENGINEERING SESTION ENGR. FRANCISCO B. NARAG ASSISTANT PROFFESSOR IV TESDA ISAT

MASTER PLUMBER

DIR. ENRICO G. BANARIO PMU-SIPTVETS

SEC, SUHARTO T, MANGUDADATU, Ph.D.
PMU-SIPTVETS
SECRETARY, TESDA

AS SHOWN SHEET NO.



TESDA INNOVATION CENTER-ASSAT SECOND FLOOR STORM WATER DRAINAGE LAYOUT SCALE 1:200MTS

FOR APPROVAL PLANS OF REGIONAL TVET INNOVATION **CENTERS (RTICs) 2023**



PROPOSED TESDA ASSAT

PREPARED & CADD BY

ENGR. FRANCISCO B. NARAG ASSISTANT PROFFESSOR IV TESDA ISAT

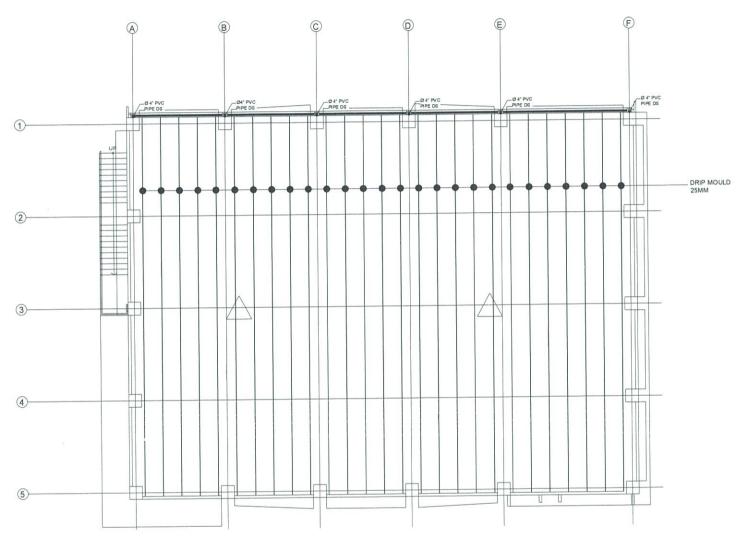
MASTER PLUMBER

PROJECT MANAGER

PROJECT DIRECTOR: SEC. SUHARTO T. MANGUDADATU, Ph.D. PMU-SIPTVETS SECRETARY, TESDA

SHEET NO. SHEET CONTENTS: P-11

INNOVATION CENTER DIR, ENRICO C, BANARIO PMU-SIR TVETS



P TESDA INNOVATION CENTER-ASSAT ROOF DECK STORM WATER DRAINAGE LAYOUT SCALE 1:200MTS

FOR APPROVAL PLANS OF REGIONAL TVET INNOVATION CENTERS (RTICs) 2023



PROPOSED TESDA ASSAT INNOVATION CENTER

PROJECT TITLE

AR/RUNEZ A ME HEAD PMUSEPT ENGINEERING SE

PREPARED & CADD BY

ENGR. FRANCISCO B. NARAG ASSISTANT PROFFESSOR IV TESDA ISAT

MASTER PLUMBER:

DIR. ENRICO C. BANABIO PMU-SIFTVETS

SEC. SUHARTO T. MANGUDADATU, Ph.D.
PMU-SIPTVETS
SECRETARY, TESDA

T. MANGUDADATU, Ph.D.
U.SIPTVETS

