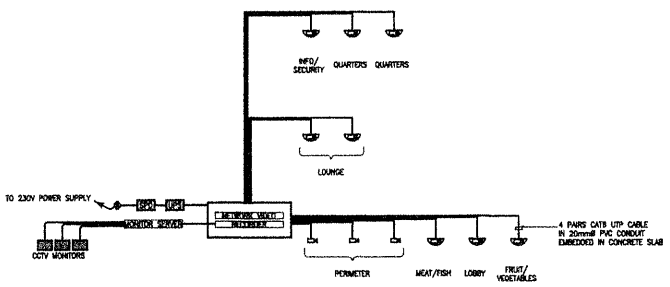
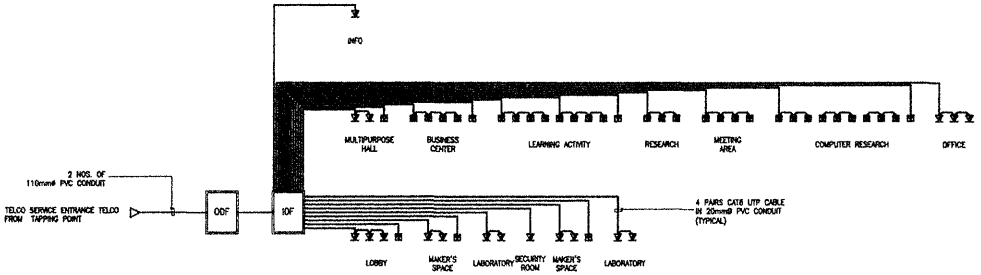


TESDA INNOVATION CENTER - ISAT

VOICE AND DATA SINGLE LINE DIAGRAM

SCALE: NTS



TESDA INNOVATION CENTER - ISAT

CLOSED CIRCUIT TELEVISION SINGLE LINE DIAGRAM

SCALE: NTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVID B. BUNGALLON, EXECUTIVE DIRECTOR, NITESD	RECOMMENDING APPROVAL: DIR. JULIET D. DROZCO, DIRECTOR III, AS CHIEF OF STAFF, ODG, DIRECTOR-IN-CHARGE, SPU	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL, TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - ISAT; LOCATION: Isabela School of Arts and Trades (ISSOA -SAT), Cabagan, Isabela City	DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS ARE THE COLLECTIVE PROPERTY AND DOCUMENTS OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE ON THESE PROJECTS OR ANOTHER, WHETHER EXECUTED PARTLY OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PREPARED BY: ENGR. JOHN ADRIAN C. SANTOS, ELECTRICAL ENGINEER, SPU-ODG	REVIEWED AND SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, SPU-ODG	SHEET CONTENTS: VOICE AND DATA SINGLE LINE DIAGRAM, CLOSED CIRCUIT TELEVISION SINGLE LINE DIAGRAM	SHEET NO. EC2-02

GENERAL PLUMBING NOTES:

1. GENERAL NOTES ARE APPLICABLE TO ALL PLUMBING WORKING DRAWINGS
2. 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.
3. 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.
6. 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.
10. ALL WORK SHALL BE PROPERLY TESTED, BALANCED AND CLEANED. PROVIDE ONE YEAR WARRANTY FROM DATE OF FINAL INSPECTION ON ALL PARTS AND LABOR.
11. ALL FIXTURES TO BE SUPPLIED & INSTALLED BY PLUMBING CONTRACTOR.
12. GENERAL CONTRACTOR SHALL COORDINATE WATER METER LOCATION AND INSTALLATION WITH LOCAL AUTHORITIES AND CIVIL DRAWINGS.
13. TRAP SEAL PRIMERS ARE TO BE PROVIDED AT NO ADDITIONAL COST TO OWNER/ CLIENT , IF REQUIRED BY LOCAL BUILDING CODE OFFICIALS.
14. ALL VENT PIPE SHALL BE EXHAUST OVER THE CEILING OF ROOF OVERHANG, NO VENT SHALL EXTENDED THRU ROOF.
15. APPLY A BEAD OF SEALANT AROUND ALL FIXTURES WHERE THEY MEET FLOORS, WALLS, ETC. PROVIDE PIPE SLEEVES AT ANY WALL/ FLOOR PENETRATION.
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 FIXTURES, ETC.
17. 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.
20. 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 HAND OR FIXTURES.
23. ALL PENETRATIONS OF CONCRETE FOUNDATIONS & FOOTINGS SHALL BE MINIMUM OF 50MM DIAMETER.
24. ALL SANITARY SEWER PIPING UNDER CONCRETE SLAB SHALL BE MINIMUM OF 50MM DIAMETER.
25. REFER TO ARCHITECTURAL SPECIFICATIONS FOR SOIL COMPACTING, CONCRETE AND ASPHALT REPAIR.
26. SUBMIT SHOP DRAWINGS ON ALL PLUMBING FIXTURES, SEE ARCHITECTURAL FOR QUANTITY.
27. USE POLYPROPYLENE FOR ALL WATER SUPPLY LINES.
28. 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:

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

MATERIAL SPECIFICATIONS:

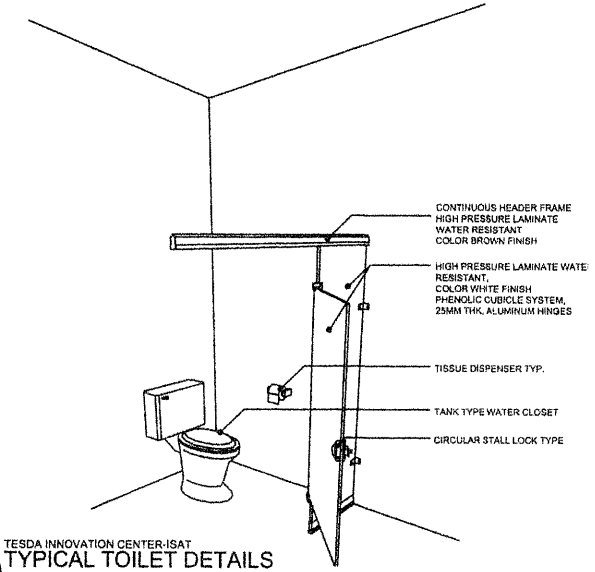
COLD WATER LINE (INTERIOR) - SHALL BE POLYPROPYLENE RANDOM (TYPE 3) HIGH RESISTANCE TO PRESSURE AND TEMPERATURE, CONFORMING TO EN ISO 15874, SIMILAR TO GEORGE FISCHER PP-R PIPE, UNITEC PP-R PIPE OR APPROVED EQUAL.

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.



TESDA INNOVATION CENTER-ISAT
TYPICAL TOILET DETAILS
SCALE: 1:200mm

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
CO ----------	FLOOR CLEANOUT	PVC	POLYVINYL CHLORIDE
Ø	DIAMETER	CWL	COLD WATER LINE
ABBREVIATION		FD	FLOOR DRAIN
		SH	SHOWER HEAD
AC	AIR CHAMBER	DD	DECK DRAIN
WC	WATER CLOSET	BD	BALCONY DRAIN
URI	URINAL	mm	MILLIMETER

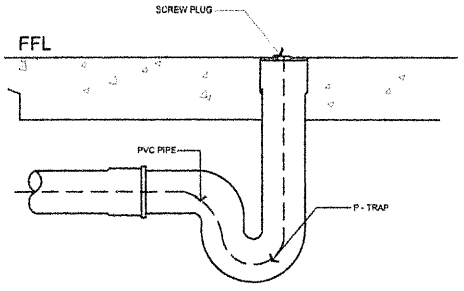
PLUMBING FIXTURES CONNECTION SIZE SCHEDULE

LEGEND	SYMBOL	MIN. PIPE CONNECTION SIZE MM DIAMETER				REMARKS
		WASTE/ SOIL	VENT	STORM	COLD WATER	
WC	WATER CLOSET	100	50	-	20	TANK TYPE
LAV	LAVATORY	50	50	-	20	-
KS	KITCHEN SINK	50	50	-	20	-
SHO/ SO	SHOWER/ SHOWER DRAIN	50	50	-	20	-
FD	FLOOR DRAIN	50	50	-	-	WITH P-TRAP
HB	HOSE BIBB	-	-	-	20	-

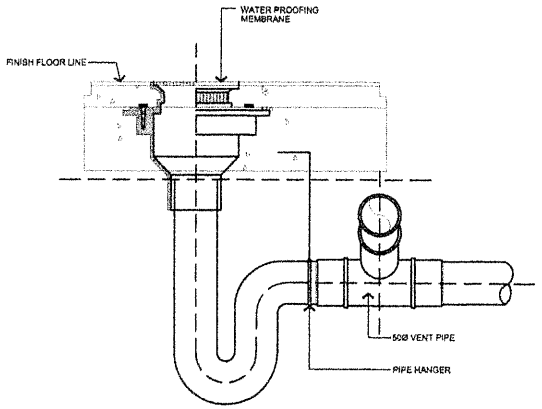
SPECIFICATION

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

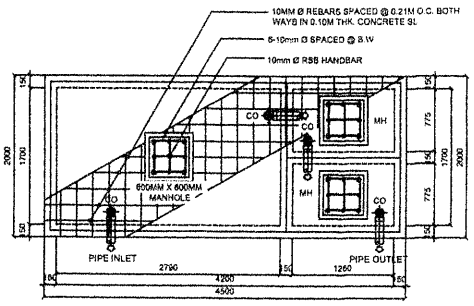
TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PROJECT TITLE:	CADD & PREPARED BY:	REVIEWED BY:	SUBMITTED BY:	SHEET CONTENTS:	SHEET NO.
	DIR. DANILO B. BUNDALLON EXECUTIVE DIRECTOR NITESD	DIR. JULIETO O. OROZCO DIRECTOR IV, AS CHIEF OF STAFF,ODG DIRECTOR-IN-CHARGE, SPU	SEC. ISIDRO S. LAPEÑA, PHD., CSEE DIRECTOR GENERAL TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROPOSED TESDA INNOVATION CENTER - ISAT LOCATION: Dasmariñas II, Region IV-A(CALABARZON), Dasmariñas City	ARCH. DANIEL A. MENDOZA ARCHITECT, SPU-ODG	ENGR. FRANCISCO B. NARAG, JR. CIVIL ENGINEER, TESDA-ISAT	ENGR. ROY LOUIE P. MINGARACAL HEAD, PEU-ODG	AS SHOWN	P- 1



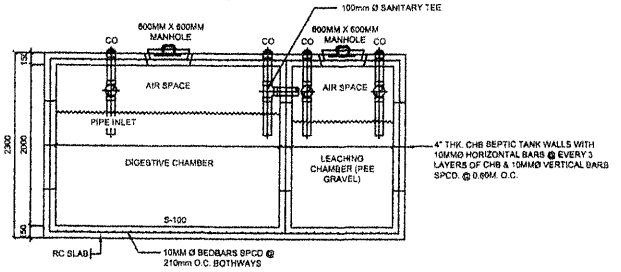
TESDA INNOVATION CENTER-ISAT
DETAIL OF CLEANOUT
SCALE: 1:30mm



TESDA INNOVATION CENTER-ISAT
DETAIL OF DRAIN LAYOUT
SCALE: 1:30mm



PLAN



SECTION

TESDA INNOVATION CENTER-ISAT
SEPTIC TANK DETAILS
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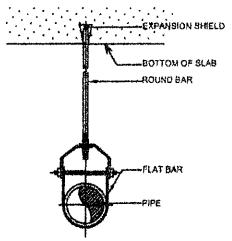
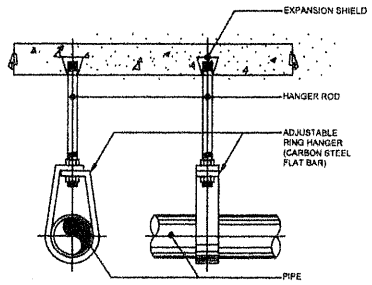
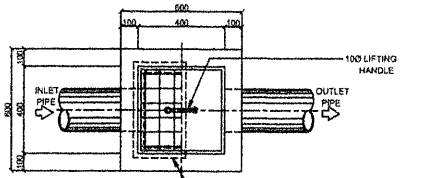




PIPE SIZE (MM)	FLAT BAR		ROUND BAR (MM)
	LOWER (MM)	UPPER (MM)	
65	4.8 x 32	4.8 x 32	12.7
80	4.8 x 32	4.8 x 32	12.7
100	4.8 x 32	6.4 X 32	15.9
150	4.8 x 32	6.4 X 32	19
200	4.8 x 32	6.4 X 32	25.4

PIPE SIZE (MM)	ROD SIZE (MM)	SIZE OF STEEL FLAT BAR (MM)	PIPE SIZE (MM)	ROD SIZE (MM)	SIZE OF STEEL FLAT BAR (MM)
15	10	3.2x25	65	12	6x32
20	10	3.2x25	80	12	6x32
25	10	3.2x25	100	16	6x32
32	10	3.2x25	125	16	6x32
40	10	3.2x25	150	20	6x40
50	10	3.2x25	200	22	6x50

TESDA INNOVATION CENTER-ISAT
DETAIL OF HANGERS
SCALE: 1:30mm



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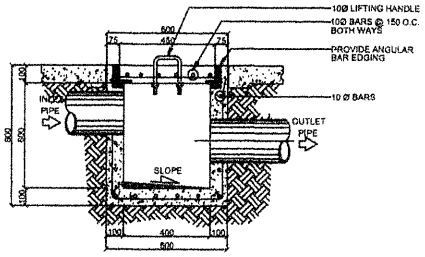
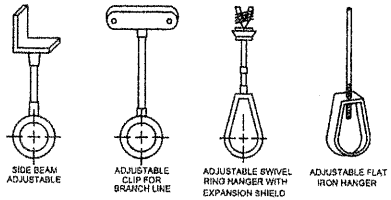
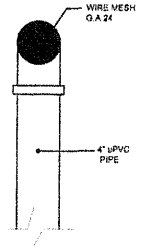


SECTION

TESDA INNOVATION CENTER-ISAT
CATCH BASIN DETAILS
SCALE: 1:30mm

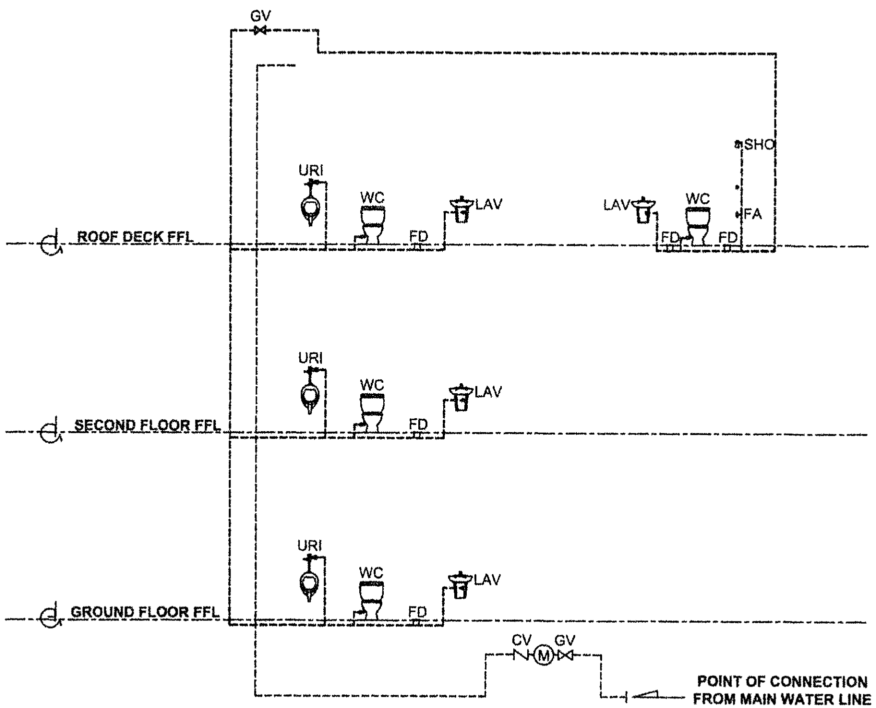


TESDA INNOVATION CENTER-ISAT
ACCEPTABLE HANGERS
SCALE: 1:30mm

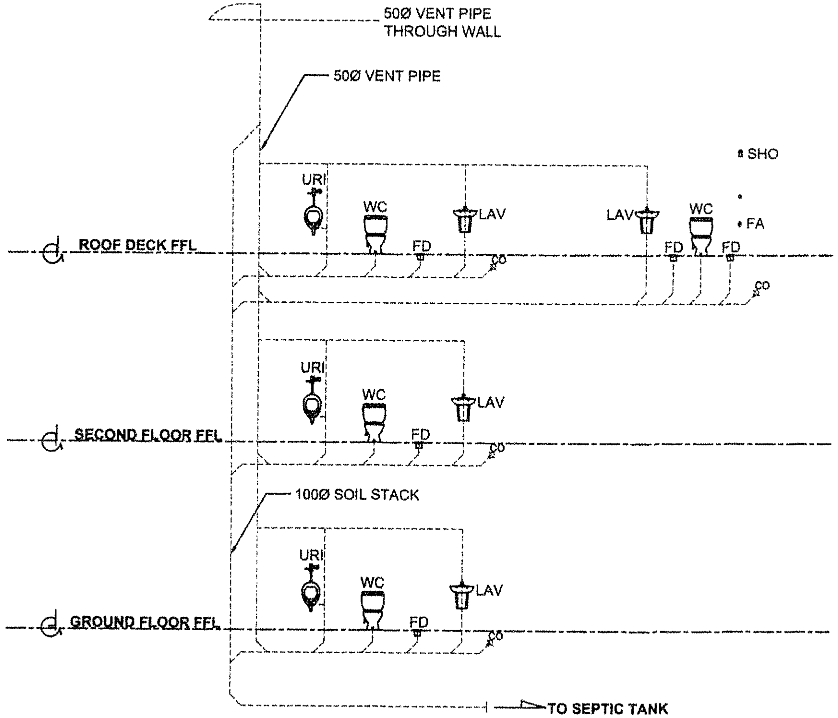


TESDA INNOVATION CENTER-ISAT
VENT THRU ROOF DETAIL
SCALE: 1:30mm

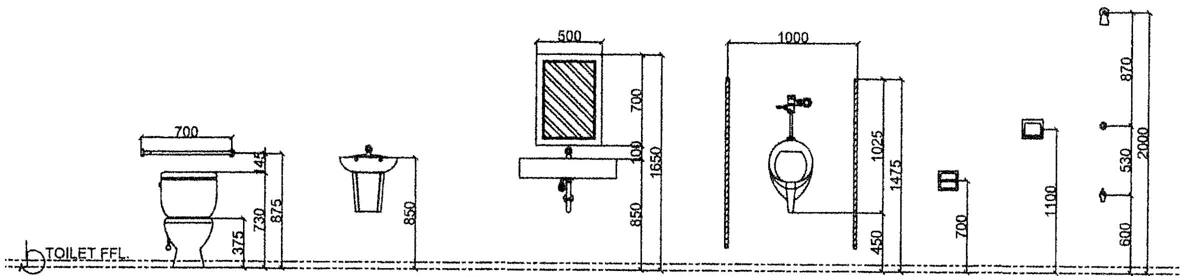
TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVID S. BUNGALLON, EXECUTIVE DIRECTOR, NITESD	RECOMMENDING APPROVAL: DIR. JUDITH C. OROZCO, DIRECTOR IV, AS CHIEF OF STAFF, ODG; DIRECTOR-IN-CHARGE, EPU	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL, TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - ISAT; LOCATION: Calbayog & Bagan Islands City	DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY, WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE PROJECTS OR BUILDINGS OTHER THAN EXECUTED PARTLY OR WHOLLY WITHOUT THE WRITTEN CONSENT OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY.	CADD & PREPARED BY: ARCH. DANIEL A. MENDOZA, ARCHITECT, EPU-ODG	REVIEWED BY: ENGR. FRANCISCO B. NARAG, JR., CIVIL ENGINEER, TESDA-BEAT	SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, EPU-ODG	SHEET CONTENTS: AS SHOWN	SHEET NO. P- 2



TESDA INNOVATION CENTER-ISAT
WATERLINE RISER DIAGRAM
SCALE: 1:100mm



TESDA INNOVATION CENTER-ISAT
SANITARY RISER DIAGRAM
SCALE: 1:100mm



TESDA INNOVATION CENTER-ISAT
PLUMBING FIXTURES HEIGHT
SCALE: 1:40mm

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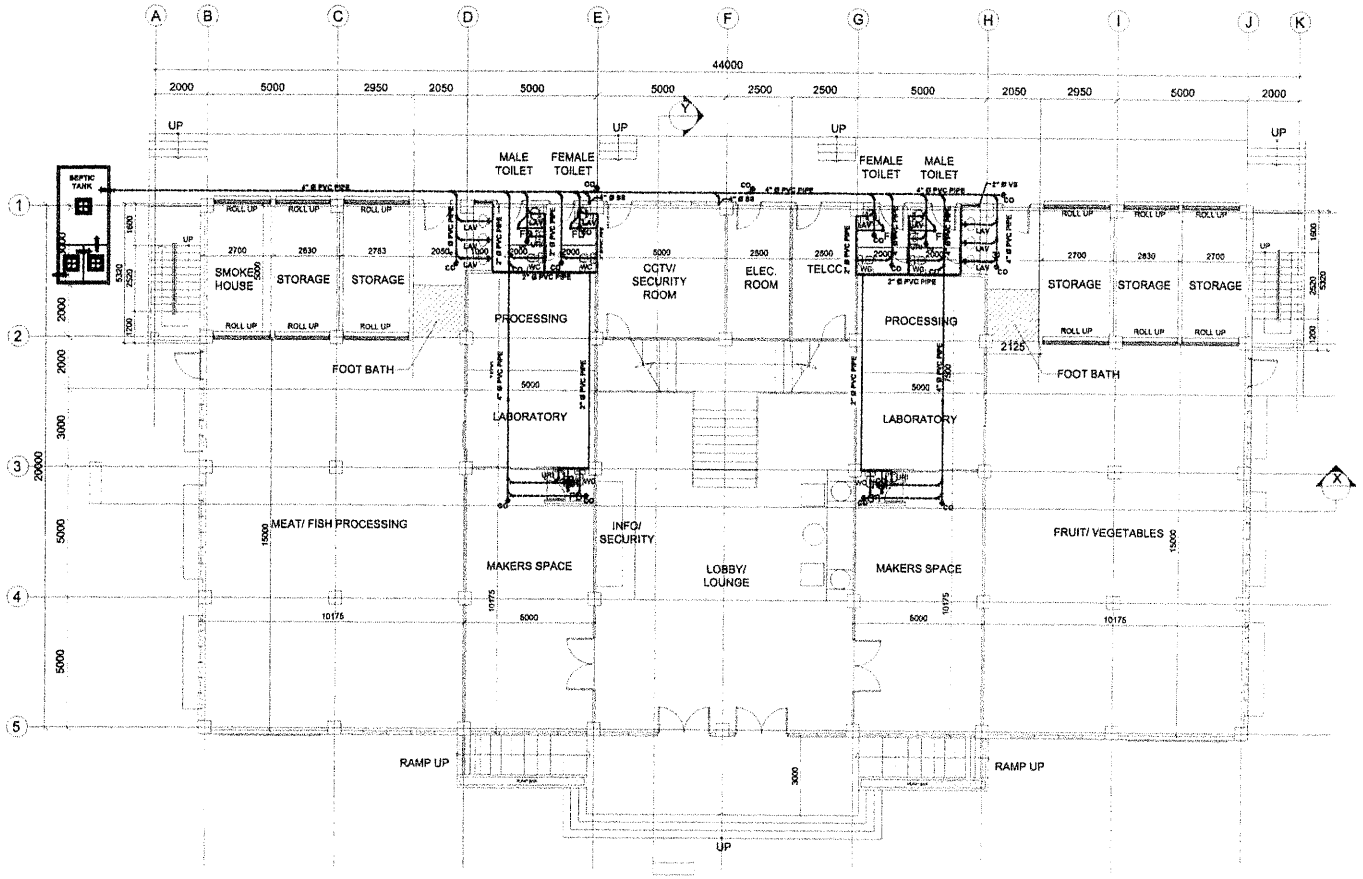
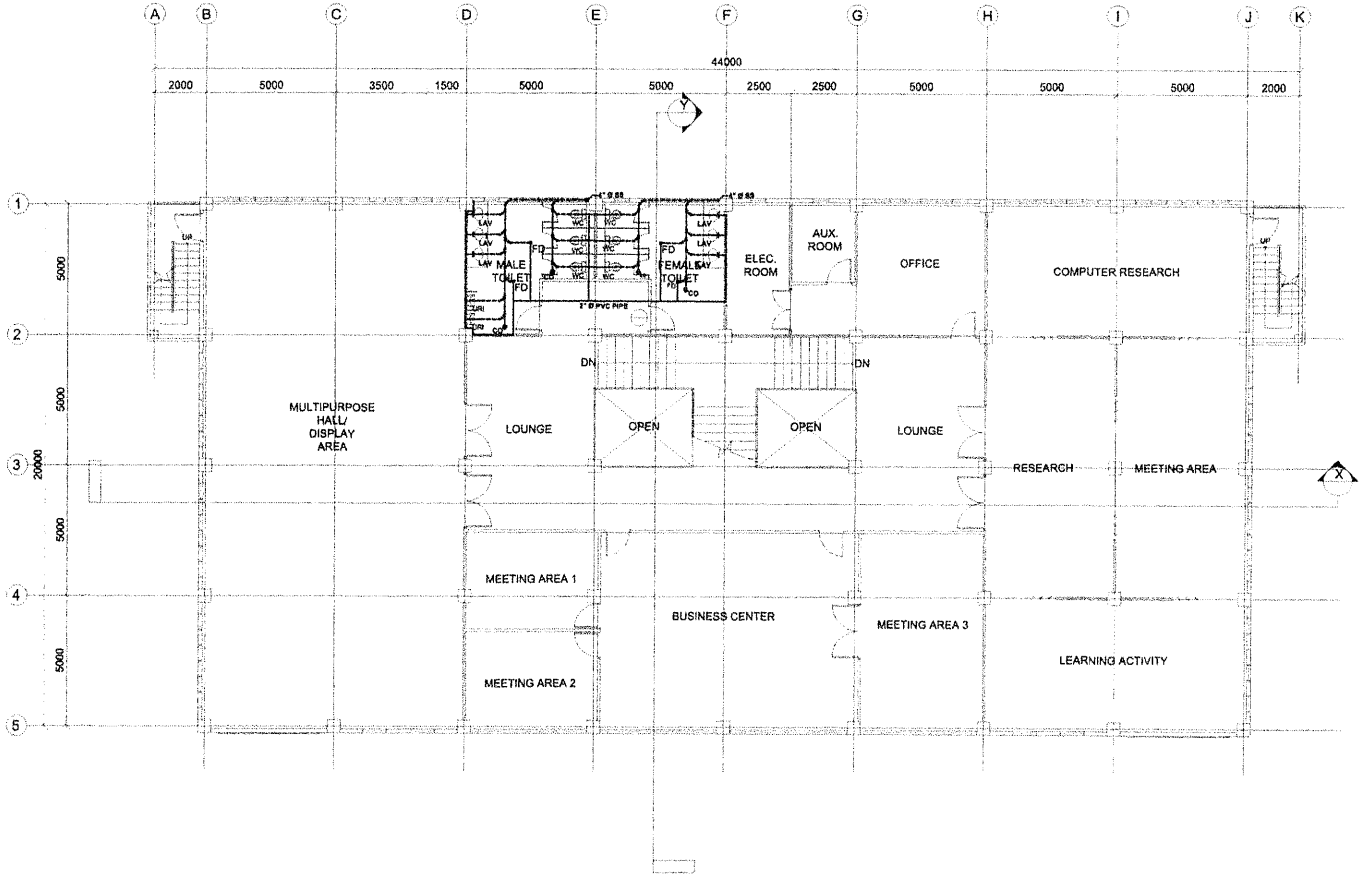


TESDA INNOVATION CENTER-URDANETA (ISAT)

P **GROUND FLOOR SANITARY LAYOUT**

SCALE 1:200MTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVID B. BUNGALLON, EXECUTIVE DIRECTOR, NTESD	RECOMMENDING APPROVAL: DIR. JULIET O. ORDOZCO, DIRECTOR IV, AB, CHIEF OF STAFF, OOG, DIRECTOR-IN-CHARGE, SPU	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL, TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - ISAT, LOCATION: Barangay B. Region Ilocos 1 City	DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY. WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF THESE DRAWINGS FOR USE IN THE ERECTION OF ANY OTHER PROJECTS OR BUILDINGS WHETHER EXECUTED PARTLY OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY.	CADD & PREPARED BY: ARCH. MUNIER A. MENDOZA, ARCHITECT - SPECIALIST	REVIEWED BY: ENGR. FRANCISCO B. NARAG, JR., CIVIL ENGINEER, TESDA-ISAT	SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, SPU-OOG	SHEET CONTENTS: AS SHOWN	SHEET NO. P-4



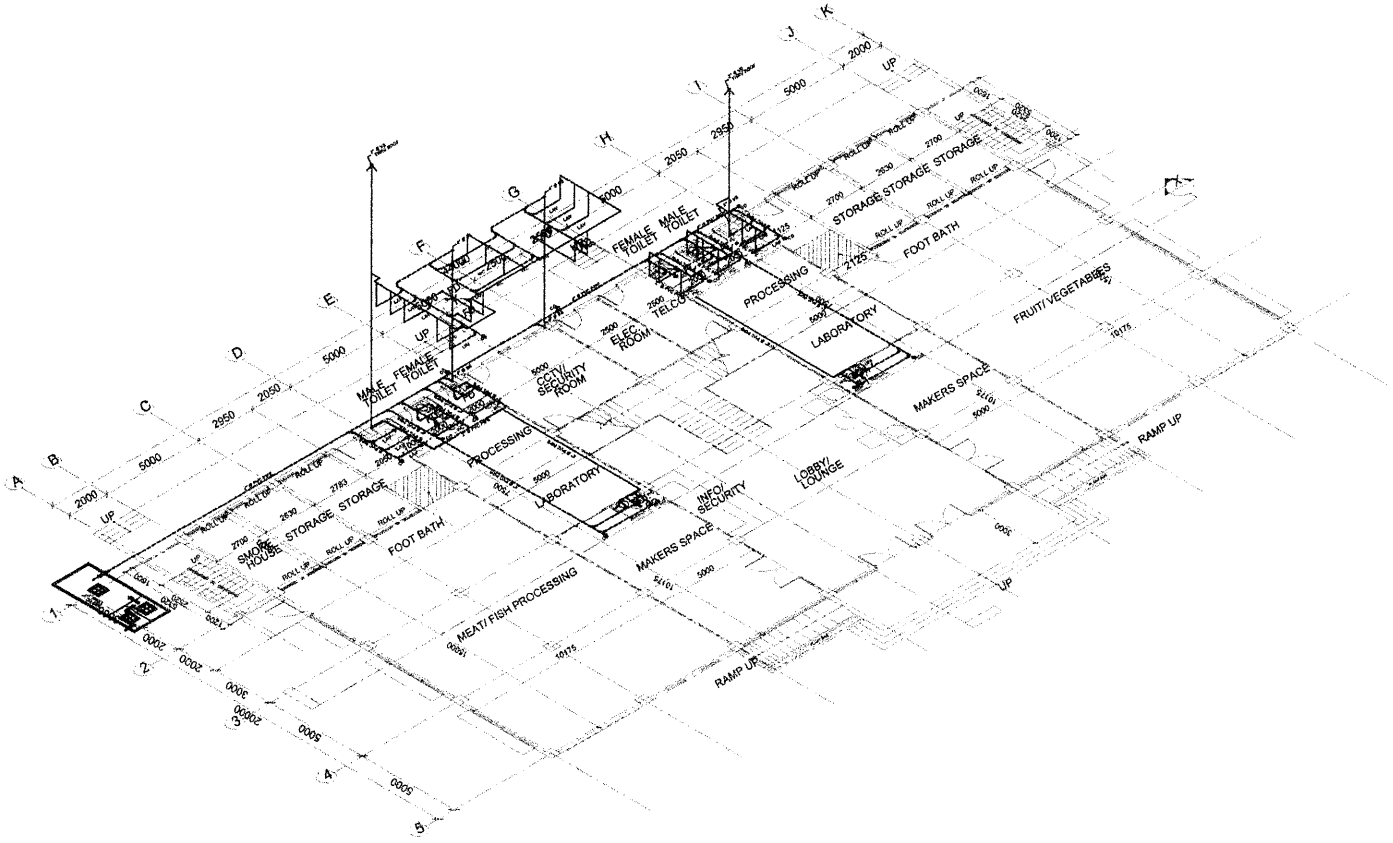
TESDA INNOVATION CENTER-URDANETA (ISAT)

P

SECOND FLOOR SANITARY LAYOUT

SCALE 1:200MTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVID D. BUNCIALLON, EXECUTIVE DIRECTOR, NTESD	RECOMMENDING APPROVAL: DIR. JULIET C. OROZCO, DIRECTOR IV, AS CHIEF OF STAFF, OOG; DIRECTOR-IN-CHARGE, SPU	APPROVED BY: SEC. ISIDRO D. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL, TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - ISAT; LOCATION: Catarungan E. Segundo Brgy.	DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS ARE THE INTELLECTUAL PROPERTY AND COPYRIGHT OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS ON BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY.	CADD & PREPARED BY: ARCH. RONIEL A. MENDOZA, ARCHITECT, OOG	REVIEWED BY: ENGR. FRANCISCO B. NARAG, JR., CIVIL ENGINEER, TESDA-ISAT	SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, SPU-OOG	SHEET CONTENTS: AS SHOWN	SHEET NO. P- 5



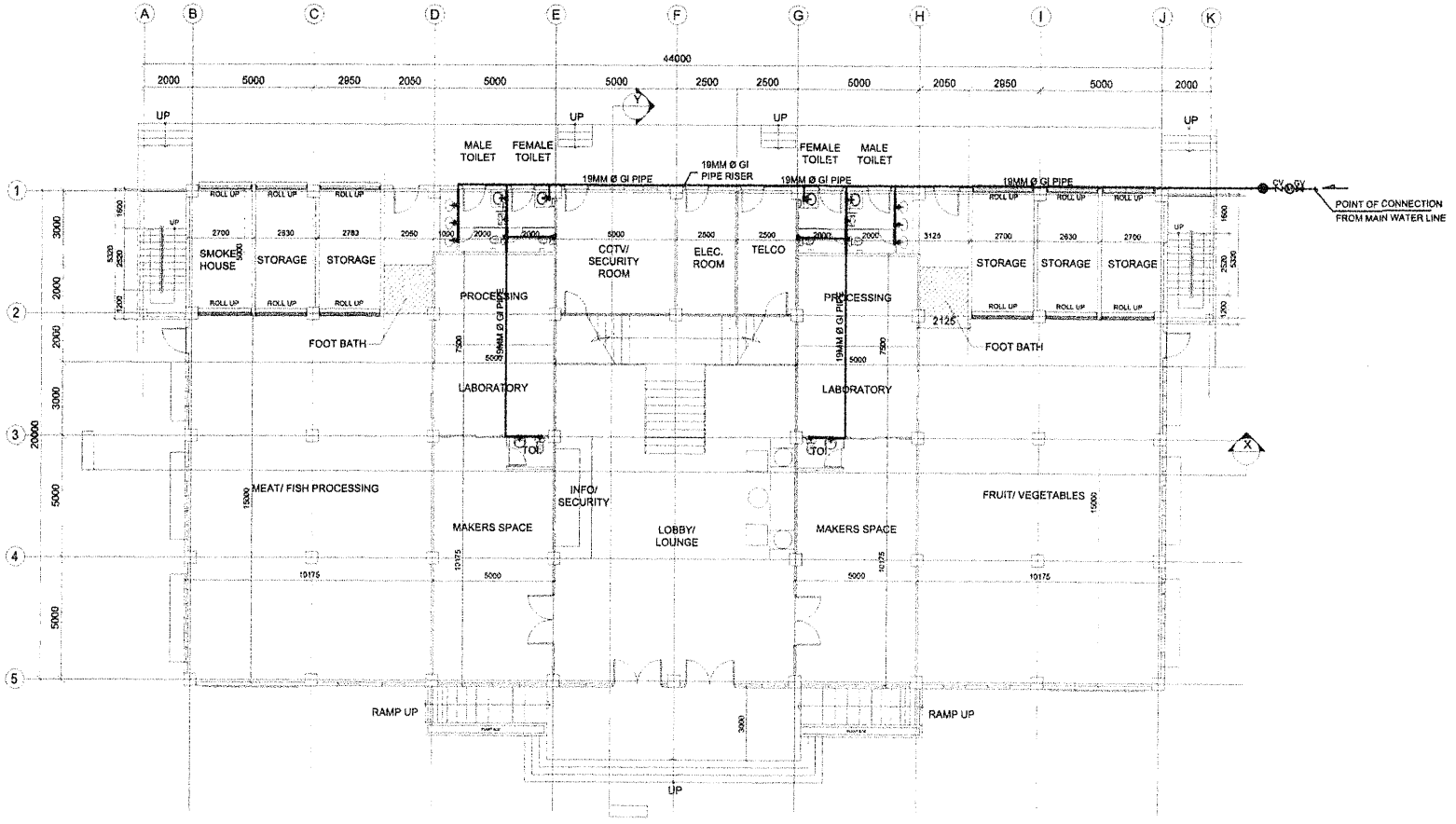
TESDA INNOVATION CENTER-URDANETA (ISAT)

P

SANITARY ISOMETRIC LAYOUT

SCALE 1:200MTS

	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PROJECT TITLE:		CADD & PREPARED BY:	REVIEWED BY:	SUBMITTED BY:	SHEET CONTENTS:	SHEET NO.
TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	DIR. DAVIDA L. BUNGALLON EXECUTIVE DIRECTOR, NTESD	DIR. JULIETO C. ROZCO DIRECTOR I, AS CHIEF OF STAFF, ODG DIRECTOR-IN-CHARGE, SPU	SEC. ISIDRO S. LAPEÑA, PHD., CSEE DIRECTOR GENERAL TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROPOSED TESDA INNOVATION CENTER - ISAT	DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. IT SHALL BE UNLAWFUL FOR ANY PERSON TO USE, REPRODUCE OR COPY THE SAID DRAWINGS OR TO MAKE ANY EXHIBITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY.	ARCH. DANIEL A. MENDOZA ARCHITECT, 307 PRC	ENGR. FRANCISCO B. NARAG, JR. CIVIL ENGR/DEP, TESDA-BAT	ENGR. ROY LOUIE P. MINGARACAL HEAD, SPU-DOO	AS SHOWN	P- 6



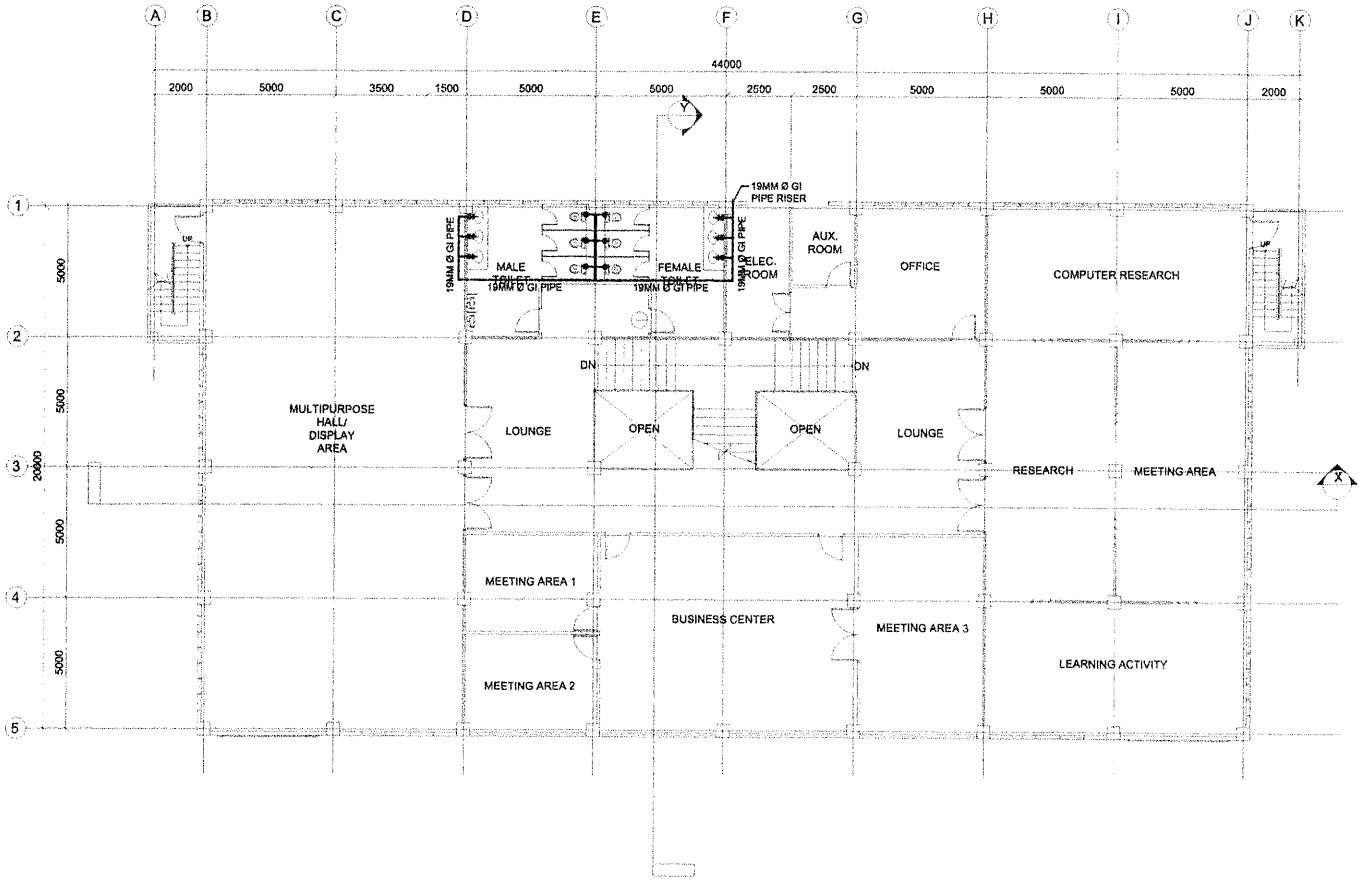
TESDA INNOVATION CENTER-URDANETA (ISAT)

P

GROUND FLOOR WATER LINE LAYOUT

SCALE 1:200MTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVID B. BUENGALLON, EXECUTIVE DIRECTOR, NITESO	RECOMMENDING APPROVAL: DIR. JULIET I. OROZCO, OIC-DIRECTOR, AS CHIEF OF STAFF, ODG, DIRECTOR-IN-CHARGE, SPU	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD, CSEE, DIRECTOR GENERAL, TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - ISAT LOCATION: Cybergate I-E Zapper Isabella City	DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY WHETHER THE OBJECT FOR WHICH THEY WERE MADE HAS BEEN EXECUTED OR NOT. IT SHALL REMAIN, AND NO COPIES OR TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS WHETHER EXECUTED PARTLY OR IN WHOLE WITHOUT THE WRITTEN CONSENT OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY.	CADD & PREPARED BY: ARCH. RUMEL A. MENDOZA, ARCHITECT, SPU-SSG	REVIEWED BY: ENGR. FRANCISCO B. NARAG, JR., CIVIL ENGINEER, TESDA-ISAT	SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, SPU-ODG	SHEET CONTENTS: AS SHOWN	SHEET NO. P-7



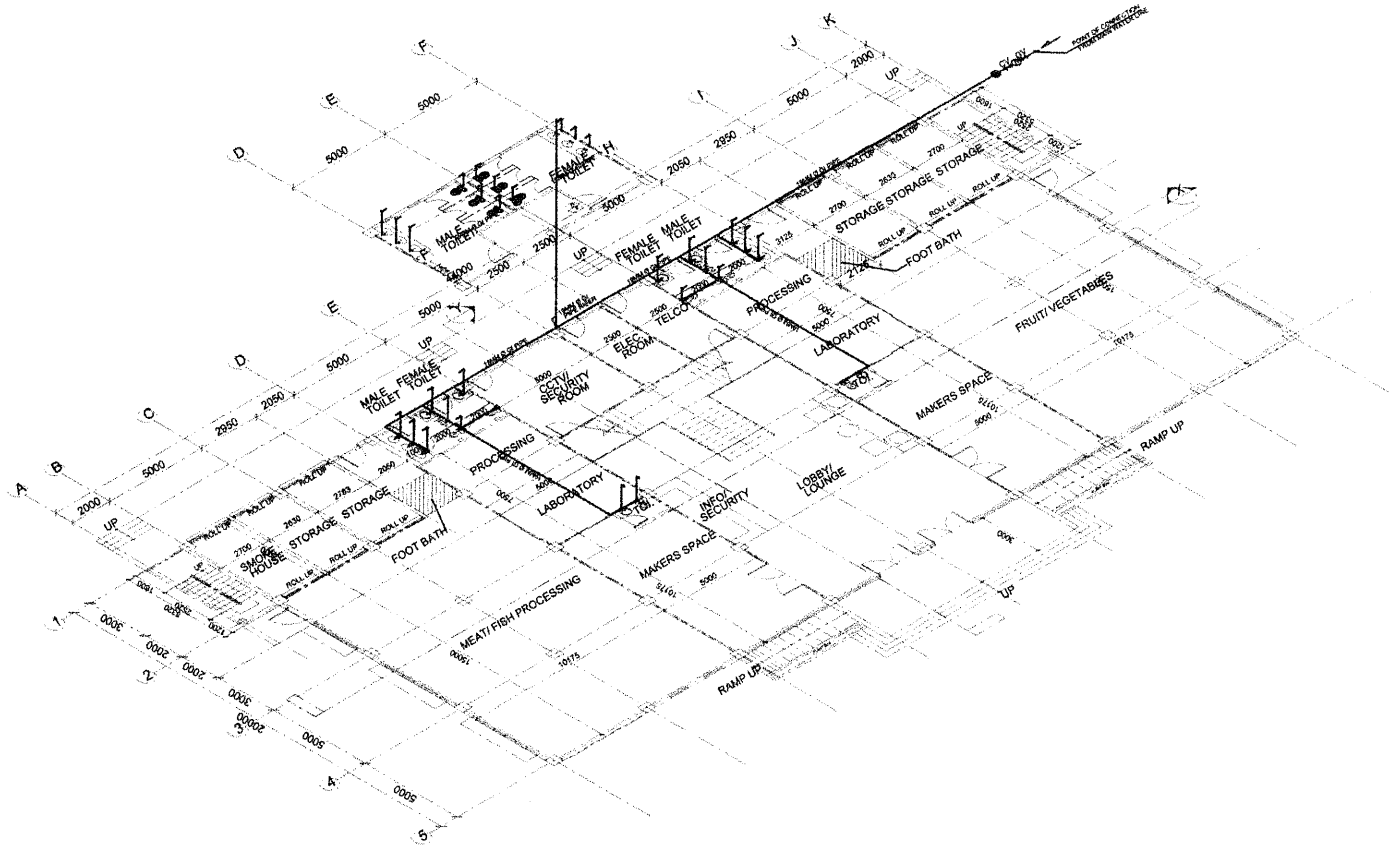
P

TESDA INNOVATION CENTER-URDANETA (ISAT)

SECOND FLOOR WATER LINE LAYOUT

SCALE 1:200MTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVID B. BUNGALLON, EXECUTIVE DIRECTOR, NITESD	RECOMMENDING APPROVAL: DIR. JUANITO G. CROZCO, DIRECTOR IV, AS CHIEF OF STAFF,COO, DIRECTOR-IN-CHARGE, BPU	APPROVED BY: SEC. ISIDRO S. LAPEÑA PHD., CSEE, DIRECTOR GENERAL, TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - ISAT, LOCATION: Urdaneta, Pangasinan	DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY AND SHALL BE SUBJECT FOR ANALYSIS ARE MADE IN EXECUTED OR NOT. IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS WHETHER EXECUTED PARTLY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CADD & PREPARED BY: ARCH. DANIEL A. MENDOZA, ARCHITECT, BPU-COO	REVIEWED BY: ENGR. FRANCISCO B. NARAG, JR., CIVIL ENGINEER, TESDA-ISAT	SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, BPU-COO	SHEET CONTENTS: AS SHOWN	SHEET NO. P- 8

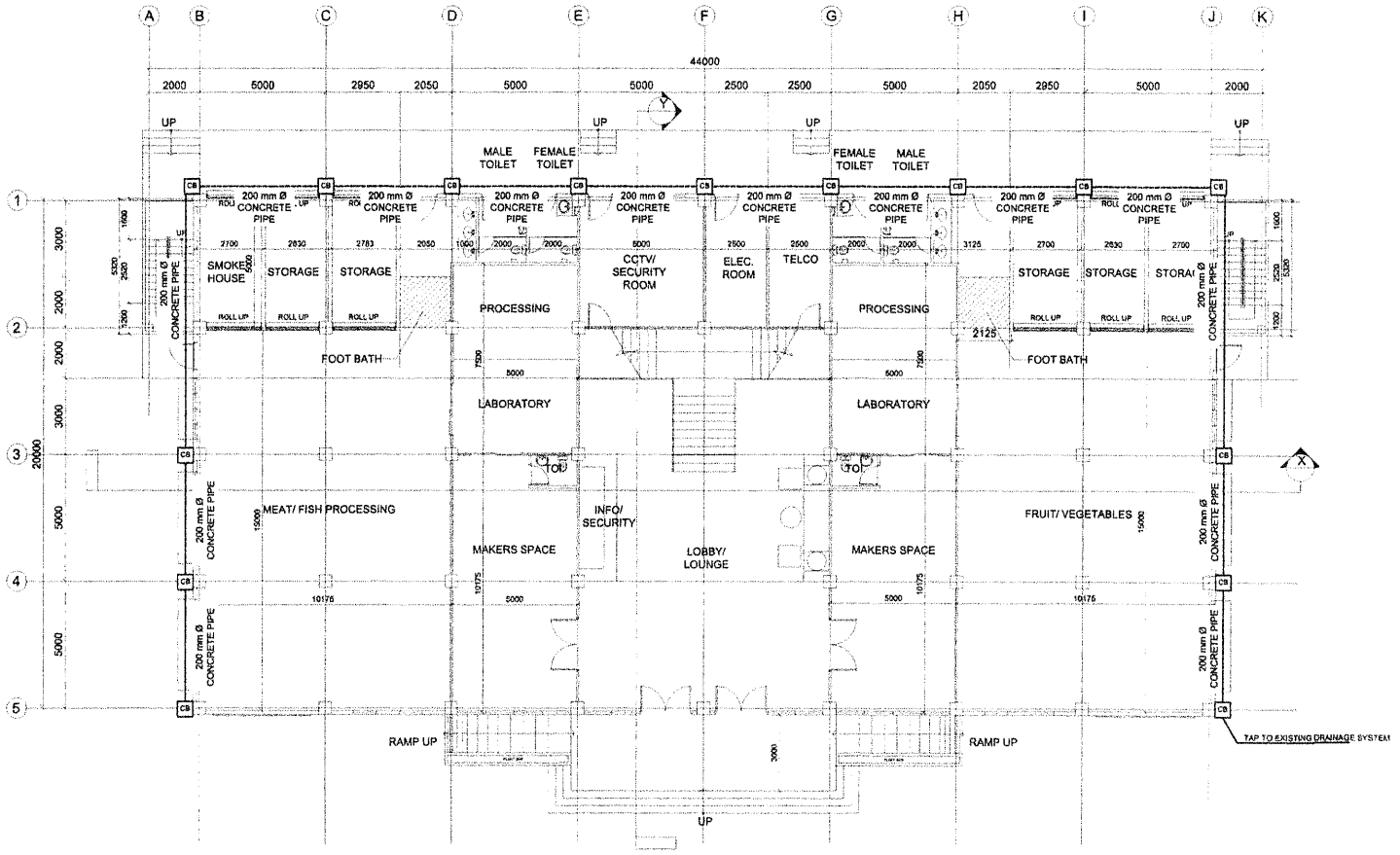


TESDA INNOVATION CENTER-URDANETA (ISAT)

(P) WATER LINE ISOMETRIC LAYOUT

SCALE 1:200MTS

	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PROJECT TITLE:		CADD & PREPARED BY:	REVIEWED BY:	SUBMITTED BY:	SHEET CONTENTS:	SHEET NO.
TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	DIR. DAVID B. BUNGALLON EXECUTIVE DIRECTOR, NTESD	DIR. JULIET O. OROZCO DIRECTOR IV, AS CHIEF OF STAFF, ODG DIRECTOR-IN-CHARGE, SPU	SEC. ISIDRO S. LAPEÑA, PHD., CSEE DIRECTOR GENERAL TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROPOSED TESDA INNOVATION CENTER - ISAT LOCATION: Catacdegan II, Pagsanjan, Laguna	DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY (TESDA) AND THE USE THEREOF BY ANY PERSON OR ENTITY FOR ANY PURPOSE SHALL BE UNLAWFUL FOR ANY PERSON TO REPRODUCE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE ERECTION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	ARCH. DANIEL A. MENDOZA ARCHITECT/SPU-ODG	ENGR. FRANCISCO B. NARAG, JR. CIVIL ENGINEER, TESDA-ISAT	ENGR. ROYLOUIE P. MINGARACAL HEAD, SPU-ODG	AS SHOWN	P- 9

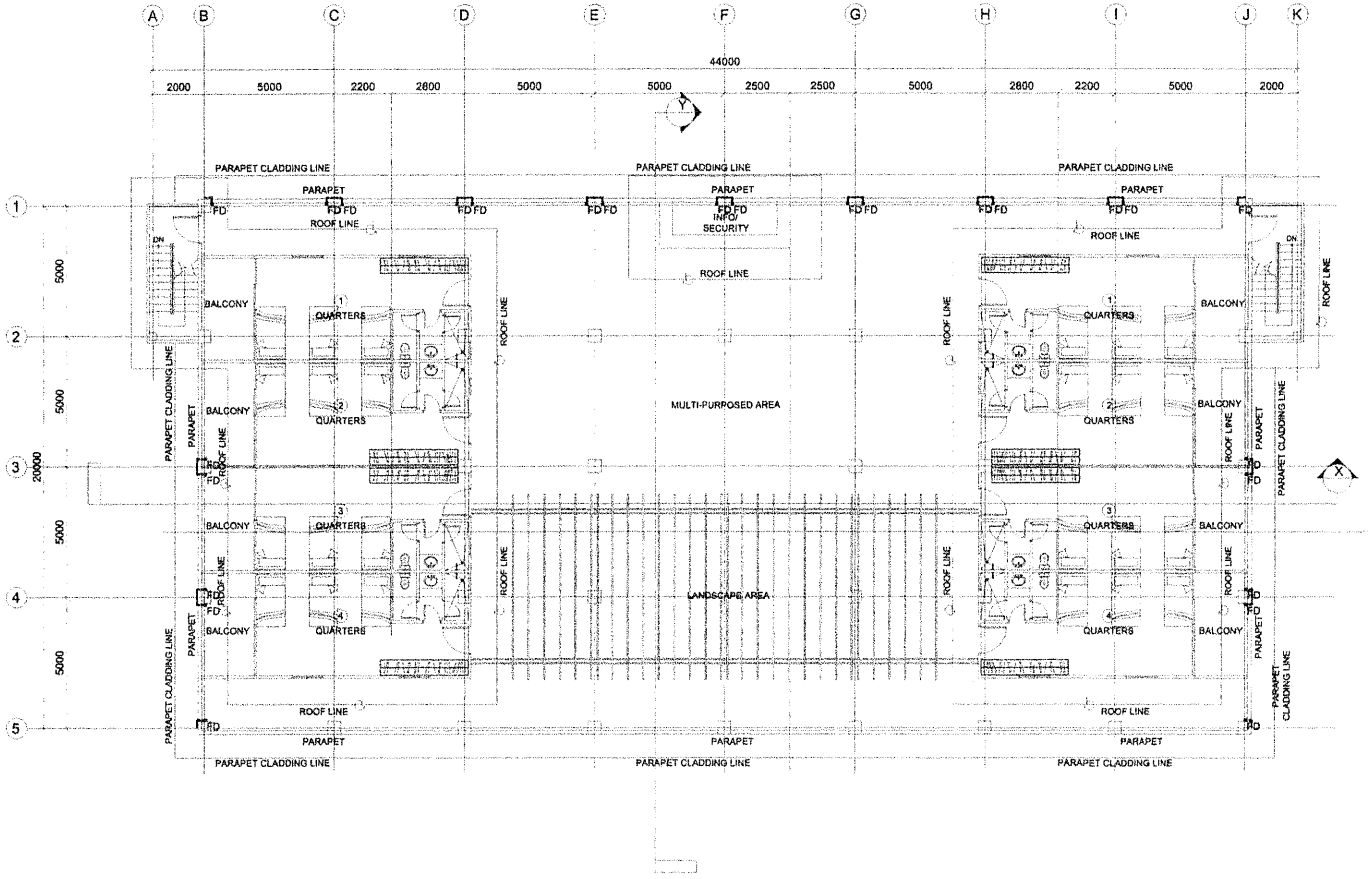


TESDA INNOVATION CENTER-URDANETA (ISAT)

P GROUND FLOOR STORM WATER DRAINAGE LAYOUT

SCALE 1:200MTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVID S. BUNGALLON, EXECUTIVE DIRECTOR, NITESD	RECOMMENDING APPROVAL: DIR. JULIET D. OROZCO, DIRECTOR IV, AS CHIEF OF STAFF, OOG, DIRECTOR-IN-CHARGE, SPU	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL, TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - ISAT, LOCATION: Calasiao II, Sapa, Isabela City	DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS ARE THE PROPERTY, INTELLECTUAL PROPERTY AND COPYRIGHT OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY AND SHALL BE USED FOR ANOTHER PROJECT OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY.	CADD & PREPARED BY: ARCH. DANIEL A. MENDOZA, ARCHITECT, PRC 19004	REVIEWED BY: ENGR. FRANCISCO B. NARAG, JR., CIVIL ENGINEER, TESDA-ISAT	SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, SEU-OOG	SHEET CONTENTS: AS SHOWN	SHEET NO. P- 10

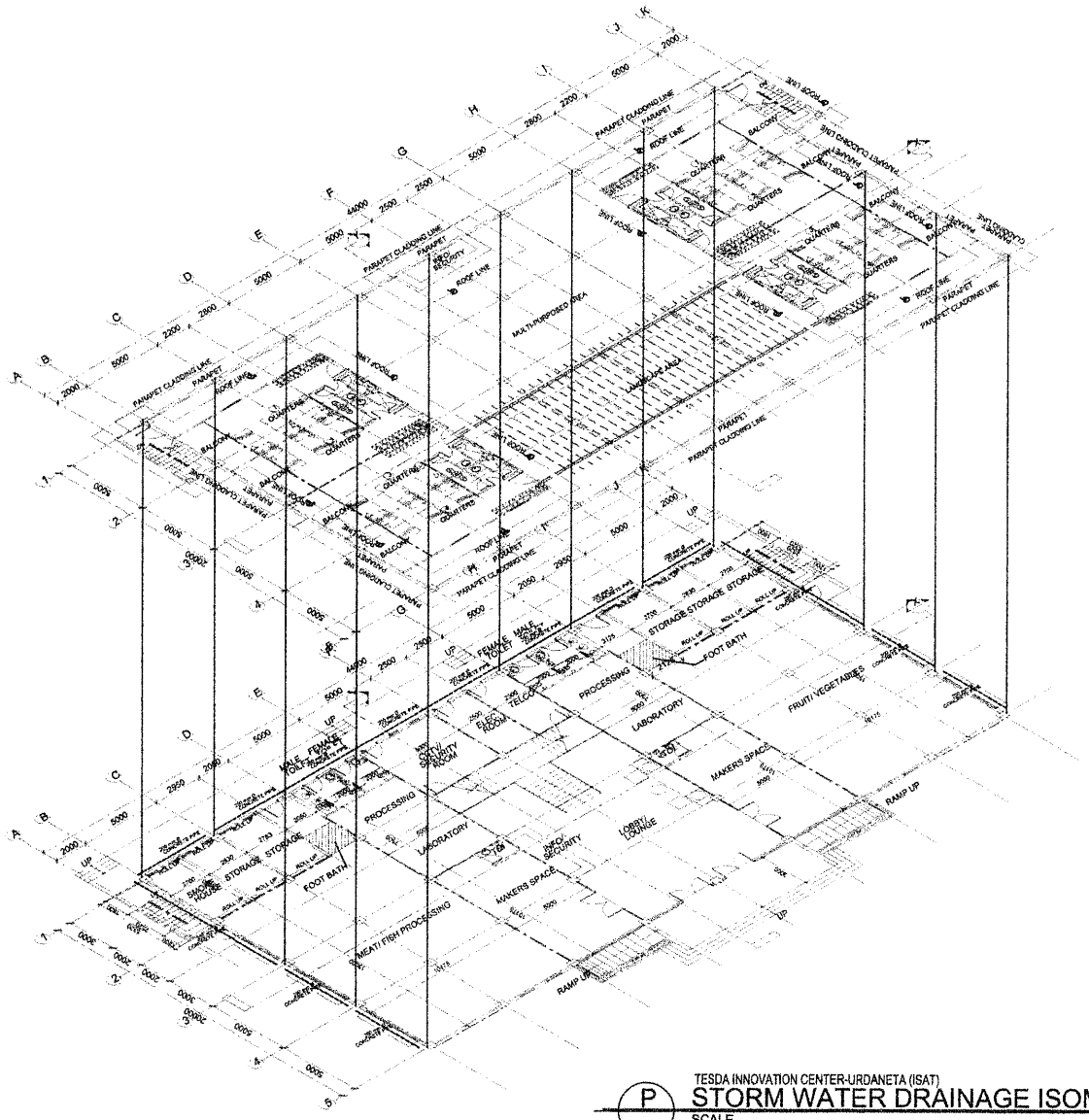


TESDA INNOVATION CENTER-URDANETA (ISAT)

P ROOF DECK STORM WATER DRAINAGE LAYOUT

SCALE 1:200MTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY: DIR. DAVID B. BUNGALLON, EXECUTIVE DIRECTOR, NITESO	RECOMMENDING APPROVAL: DIR. JUNICE O. OROZCO, DIRECTOR IV, AS CHIEF OF STAFF, ODG / DIRECTOR-IN-CHARGE, SPU	APPROVED BY: SEC. ISIDRO S. LAPEÑA, PHD., CSEE, DIRECTOR GENERAL, TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROJECT TITLE: PROPOSED TESDA INNOVATION CENTER - ISAT, LOCATION: Catarungan B. Region Ilocandia City	DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. IT IS UNLAWFUL FOR ANY PERSON TO REPRODUCE, CHANGE OR COPY ANY OF SAID DOCUMENTS FOR USE IN THE MONETION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY.	CADD & PREPARED BY: ARCH. DANIEL A. MENDOZA, ARCHITECT, SPU-ODG	REVIEWED BY: ENGR. FRANCISCO B. NARAG, JR., CIVIL ENGINEER, TESDA-ISAT	SUBMITTED BY: ENGR. ROY LOUIE P. MINGARACAL, HEAD, SPU-ODG	SHEET CONTENTS: AS SHOWN	SHEET NO. P- 11



TESDA INNOVATION CENTER-URDANETA (ISAT)

P **STORM WATER DRAINAGE ISOMETRIC LAYOUT**

SCALE 1:250MTS

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PROJECT TITLE:	DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS ARE THE INTELLECTUAL PROPERTY AND DOCUMENTS OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. IT SHALL BE UNLAWFUL FOR ANY PERSON TO USE, REPRODUCE OR COPY ANY OF SAID DOCUMENTS FOR USE IN ANY REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY.	CADD & PREPARED BY:	REVIEWED BY:	SUBMITTED BY:	SHEET CONTENTS:	SHEET NO.
	DIR. DANILO B. BUNGALLON EXECUTIVE DIRECTOR, NTESD	DIR. JULIETO. OROZCO DIRECTOR IV, AS CHIEF OF STAFF, ODG DIRECTOR-IN-CHARGE, SPU	SEC. ISIDRO S. LAPEÑA, PHD., CSEE DIRECTOR GENERAL TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY	PROPOSED TESDA INNOVATION CENTER - ISAT LOCATION: Catarungan E. Pagasa-asawa City		ARCH. RUMIEL A. MENDOZA ARCHITECT, SPU-ODG	ENGR. FRANCISCO B. NARAG, JR. CIVIL ENGINEER, TESDA-ISAT	ENGR. ROY LOUIE P. MINGARACAL HEAD, SPU-ODG	AS SHOWN	P- 12

Section VIII. Bill of Quantities

DETAILED ESTIMATES OF PROPOSED WORKS

NO.	DESCRIPTION	AMOUNT
A	GENERAL REQUIREMENTS	
B	DIRECT COST	
I	Earthworks	
II	Concreting Works	
III	Steel Works	
IV	Masonry Works	
V	Formworks	
VI	Roofing Works	
VII	Finishing Works	
VIII	Painting Works	
IX	Doors and Windows	
X	Aluminum Composite Panel and Facade	
XI	Electrical Works	
XII	Plumbing Works	
XIII	Equipment Rentals	
C	INDIRECT COST	
I	Overhead Contingencies and Miscellaneous (12%)	
II	Contractor's Profit (8%)	
III	Value Added Tax (5%)	
D	TOTAL CONSTRUCTION COST (A+B+C)	
TOTAL ESTIMATED COST		

BILL OF QUANTITIES

	DESCRIPTION	QUANTITY	UNIT	UNIT COST	MATERIAL COST	LABOR COST	TOTAL COST
GROUND FLOOR							
A	**GENERAL REQUIREMENTS**						
	Mobilization and Demobilization	1	lot				
	Occupational Safety and Health Program	1	lot				
	Permits and Clearances	1	lot				
	Project Billboard	1	lot				
						Total, General Requirements	
B	**DIRECT COST**						
	I. Earthworks						
	Structure Excavation (common soil)	2097	cum				
	Embankment (From Structure Excavation)	1802	cum				
						Subtotal, Earthworks	
	II. Concreting Works						
	Structural Concrete, Class "A" 28 Mpa	375	cum				
	Structural Concrete, Class "A" 21 Mpa	0	cum				
						Subtotal, Concreting Works	
	III. Steel Works						
	Reinforcing Steel - Grade 40	17721	kg				
	Reinforcing Steel - Grade 60	32008	kg				
	#16 Galvanized Iron Wire	742	kg				
	Consumables						
						Subtotal, Steel Works	
	IV. Masonry Works						
	6"CHB	1880	pc				
	4" CHB	5772	pc				
	Cement (40kg)	451	bag				
	Sand, Screened	24	cum				
	10mm ø x 6m RSB (Def)	1908	kg				
	#16 G.I. Tie wire	31	kg				
	Consumable s		pc				
						Subtotal, Masonry Works	
	V. Form Works						
	3/4" Phenolic Board (Plyboard)- 5 uses	366	pc				
	Good lumber- 3 uses	4984	boft				
	Consumables						
						Subtotal, Form Works	
	VI. Roofing Works						
						Subtotal, Roofing Works	
	VII. Finishing Works						
	Cement Plaster Finish						
	Cement	389	pc				
	Fine Sand	32	cum				
	Ceiling Works						
	Hardiflex board	47	pc				
	Gypsum Board	55	pc				

	Metal furring (3m)	315	pc				
	Carrying Channels	100	pc				
	Hanger Bars/Rod	279	pc				
	Channel Clip	1670	pc				
	Wall Angle	67	pc				
	Rivets	3897	pc				
	1" Metal Screw	1114	pc				
	Floor Finish (Plain Cement)						
	Cement	280	bags				
	Sand	21	cum				
	Epoxy Primer	30	gal				
	Tiling Works (Floor Finish)						
	Unglazed tiles (600mm x 600mm)	370	sqm				
	Unglazed tiles (300mm x 300mm)	37	sqm				
	Cement	129	bag				
	Sand	11	cum				
	Tile Grout	50	bags				
	Tiling Works (Wall Finish)						
	Glazed Tiles	43	sqm				
	Cement	14	bags				
	Sand	2	cum				
	Tile Grout	6	bags				
	Tile Adhesive	6	bags				
	Consumables						
						Subtotal, Finishing Works	
	VIII. Painting Works						
	Masonry Painting						
	Concrete Neutralizer	25	gal				
	Concrete Sealer/Primer	48	gal				
	Patching Compound	59	kg				
	Semi Gloss Latex (two coats only)	95	gal				
	Ceiling Painting						
	Glazzing Putty	41	gal				
	Flat Wall Enamel	33	gal				
	Enamel Quick Dry	33	gal				
	Paint Thinner	200	L				
	Consumables						
						Subtotal, Painting Works	
	IX. Doors and Windows						
	D-01, Double Swing Glass Door	10.00	sqm				
	D-02, Double Sliding Door	8.40	sqm				
	D-03, Single Swing Steel Door	4.20	sqm				
	D-04, Steel Roll-Up Garage Door	14.04	sqm				
	D-04a, Steel Roll-up Garage Door	4.42	sqm				
	D-05, Steel Roll-up Garage Door	19.76	sqm				
	D-06, Steel Roll-up Garage Door	22.88	sqm				
	D-07, Hollow Core Metal Flush Swing Door	4.20	sqm				

	D-08, Single Swing uPVC Flush Door	7.56	sqm				
	D-09, Hollow Core Metal Flush Type Swing	4.20	sqm				
	D-10, Single Swing Panel Louvered Door	5.67	sqm				
	D-11, Double Sliding Door	16.80	sqm				
	D-16, Single Swing uPVC Flush Door	2.52	sqm				
	W-1, Frameless-Fixed, Glass Window	28.8	sqm				
	W-2, Frameless-Fixed, Glass Window	24.92	sqm				
	W-3, Casement Window	17.28	sqm				
	W-4, Casement Window	5.76	sqm				
	W-5, Awning type, Glass Window	0.72	sqm				
						Subtotal, Doors and Windows	
	X. Aluminum Composite Panel and Facade						
	Canopy						
	Aluminum Metal Cladding	64	sqm				
	1 1/2"X 1 1/2"X3mm THK ANGLE BAR	1008	kg				
	Acetylene	12	kg				
	Oxygen	23	kg				
	Welding rod	21	kg				
	Anchor Bolt	36	pcs				
	Aluminum Metal Screw	700	pcs				
	16mm thk base Plate	0.6	sqm				
	20mm Tension rod	15	lm				
	Glass Wall						
	Tempered Glass Walls/Barriers, 10mm	35	sqm				
	Consumables		lot				
						Subtotal, Aluminum Composite Panel and Facade	
	XI. Electrical Works						
	LIGHTING & SMALL POWER SYSTEM						
	1200mmx300mm, 2x20W Ceiling Recessed Fluorescent Lighting Fixture	26	pc/s				
	1200mmx300mm, 2x20W Dust Tight Fluorescent Lighting Fixture	42	pc/s				
	1200mm, 20W Surface mounted LED Fluorescent Light	16	pc/s				
	13W, Recessed mounted LED Down light	26	pc/s				
	Twin head Emergency light w/ 2hrs battery pack	14	pc/s				
	8W LED Strip @ 5m	6	pc/s				
	1 Gang switch, 15A, 230V	19	set/s				
	2 Gang switch, 15A, 230V	4	set/s				

	3 Gang switch, 15A, 230V	1	set/s				
	Convenience Outlet Outlet, Simplex, 15A, 220V	28	set/s				
	Convenience Outlet, Duplex, 15A, 220V	38	set/s				
	Special Purpose Outlet	2	set/s				
	Floor Mounted Convenience Outlet, Duplex, 15A, 220V	6	set/s				
	15A, 230V Disconnect Switch	2	set/s				
	20AT, 1Ø, 230V Enclosed Circuit Breaker	9	set/s				
	Utility Box	91	pc/s				
	Junction Box	106	pc/s				
	Consumables		lot/s				
					Subtotal, Lighting & Small Power System		
	AUXILIARY SYSTEM						
	Conventional Smoke Detector with standard detector base	17	pc/s				
	Addressable Sounder with Strobe light	2	pc/s				
	Addressable Manual Pull Station	2	pc/s				
	Fireman's Telephone Jack	2	pc/s				
	Fire Alarm Control Panel with Fire fighter's Telephone Control Unit	1	assy				
	Voice/Data outlet	12	set/s				
	Fixed type, IP based, CCTV Camera	3	assy				
	Dome type, IP based, CCTV Camera	3	assy				
	Wireless Access Point	3	pc/s				
	Junction Box	28	pc/s				
	Utility Box	16	pc/s				
	Consumables		lot/s				
					Subtotal, Auxiliary System		
	ELECTRICAL WIRES, CONDUITS AND FITTINGS						
	3.5mm² THWN	2250	lm/s				
	14mm² THWN	84	lm/s				
	22mm² THWN	3	lm/s				
	30mm² THWN	7	lm/s				
	200mm² THWN	99	lm/s				
	3.5mm² TW	1350	lm/s				
	8.0mm² TW	28	lm/s				
	22mm² TW	32	lm/s				
	3m x 20mmØ PVC	450	lm/s				
	3m x 70mmØ PVC	44	lm/s				
	3m x 20mmØ IMC	27	lm/s				
	3m x 25mmØ IMC	21	lm/s				
	Consumables		lot/s				
					Subtotal, Electrical Wires, Conduits and Fittings		
	AUXILIARY WIRES, CONDUITS AND FITTINGS						

	18 AWG Fire resistant Fire Alarm Cable	1325	lm/s				
	CAT6 UTP Cable	940	lm/s				
	3m x 20mmØ PVC	1098	lm/s				
	3m x 32mmØ PVC	23	lm/s				
	Consumables		lot/s				
					Subtotal, Auxiliary Wires, Conduits and Fittings		
	DISTRIBUTION SYSTEM						
	MDP-GF, MAIN: 200AT, 225AF, 3P, 400V, MCCB. BRANCHES: 1 - 100AT, 150AF, 3P,400V MCCB; 1- 70AT, 100AF, 3P,400V MCCB; 6 - 50AT, 100AF, 3P,400V MCCB;	1	assy				
	PP-GF-CA, MAIN: 70AT, 100AF, 3P, 400V, MCCB. BRANCHES: 2 - 30AT, 100AF, 3P, 400V MCCB 2 - 20AT, 100AF, 3P, 400V MCCB 22 - 20AT, 100AF, 1P, 230V MCB;	1	assy				
	PP-GF-MF, MAIN: 50AT, 100AF, 3P, 400V, MCCB. BRANCHES: 3 - 30AT, 100AF, 1P, 230V MCB 13 - 20AT, 100AF, 1P, 230V MCB;	1	assy				
	PP-3F-DORM, MAIN: 50AT, 100AF, 3P, 400V, MCCB. BRANCHES: 8 - 20AT, 100AF, 1P, 230V MCB;	1	assy				
	PP-TELCO, MAIN: 100AT, 100AF, 3P, 400V, MCCB. BRANCHES: 6 - 20AT, 100AF, 1P, 230V MCCB 2 - 70AT, 100AF, 1P,230V MCCB	1	assy				
	Kilowatt-hour Meter	1	assy				
	MDP-GF, MAIN: 200AT, 225AF, 3P, 400V, MCCB. BRANCHES: 1 - 100AT, 150AF, 3P,400V MCCB; 1- 70AT, 100AF, 3P,400V MCCB; 6 - 50AT, 100AF, 3P,400V MCCB;						
					Subtotal, Distribution System		
	MISCELLANEOUS ITEMS						
	Minor Tools and equipment	1	lot/s				
	Hangers and supports	1	lot/s				
	Fittings						
	Labels						

	Flexible Metallic Conduit						
	Electrical Tape						
	Mica tube						
					Subtotal, Miscellaneous Items		
					Total, Electrical Works		
	XII. Plumbing Works						
	SANITARY SEWER, WASTE & VENT						
	PVC Pipe - 101mm Ø x 10 ft	34	pc/s				
	PVC Coupling - 101 mm Ø	25	pc/s				
	PVC Bend - 6mm, 87.5deg x 101mm	19	pc/s				
	PVC Seep Tee - 101 mm x 101mm Ø	27	pc/s				
	PVC TEE - 101 mm Ø	24	pc/s				
	PVC Double Branch Tee - 101 mm Ø	16	pc/s				
	PVC Clean out - w/plug & Seal Ring 101 mm Ø	21	pc/s				
	PVC Pipe - 50mm Ø x 10 ft	38	pc/s				
	PVC Coupling - 50 mm Ø	20	pc/s				
	PVC Bend - 6mm, 87.5deg x 50mm	19	pc/s				
	PVC Double Branch TEE - 50 mm Ø	16	pc/s				
	PVC P-TRAP w/Plug & Seal Ring -	10	pc/s				
	Consumables (Hangers, Supports etc.)						
					Subtotal, Sanitary Sewer, Waste & Vent		
	WATER DISTRIBUTION SYSTEM						
	GI PIPE - 19mm Ø	38	pc/s				
	GI Union, Flat Seat - 19mm Ø	16	pc/s				
	GI Elbow Coupling - 19mm Ø	18	pc/s				
	GI TEE, Banded - 19mm Ø	16	pc/s				
	Gate Valve	8	pc/s				
	Water Meter	2	pc/s				
	Consumables (Hangers, Supports etc.)		lot/s				
					Subtotal, Water Distribution System		
	STORM WATER DRAINAGE SYSTEM						
	PVC Pipe - 101 mm Ø	35	pc/s				
	PVC Coupling - 101 mm Ø	30	pc/s				
	Concrete Pipe - Perforated, 200mm Ø	77	pc/s				
	Consumables (Hangers, Supports etc.)		lot/s				
					Subtotal, Storm Water Drainage System		
	PLUMBING FIXTURES						
	Lavatory - Inc. fittings & Accessories, American STD or Equivalent, Slop Sink typ.	12	set/s				

	Watercloset - Inc. fittings & Accessories, American STD or Equivalent	6	set/s				
	Faucet - Bronze or Equivalent	12	pc/s				
	Urinal - Inc. fittings & Accessories, American STD or Equivalent	2	set/s				
	Soap Holder - Plastic, PVC Type	8	pc/s				
	Floor Drain - 4" x 4", Stainless	6	pc/s				
	Grab bar - Stainless, 1" L-type	4	set/s				
	Grab bar - Stainless, 1" x 24"	4	set/s				
	Mirror	57.585	sq.ft.				
	Consumables		lot/s				
						Subtotal, Plumbing Fixtures	
	SEPTIC TANK						
	Cement (40kg)	49	bag				
	Sand	4	cum				
	6"CHB	490	pc				
	12mm ø x 6m RSB (Def)	36	pc				
	#16 G.I. Tie wire	6	kg				
	Consumables		lot/s				
						Subtotal, Septic Tank	
	MISCELLANEOUS ITEMS						
	Cementitous Water Proofing (Sahara Cement)	56	bag				
	Water Proofing, with Fiber Glass, Epoxy Resin	12	gal/s				
	W.I STRAP	24	kg				
	Consumables		lot/s				
						Subtotal, Miscellaneous Items	
						Total, Plumbing Works	

	DESCRIPTION	CAPACITY	RENTAL RATE	NO. OF RENTAL HOURS	NO. OF RENTAL IN DAYS	RENTAL COST
	XIII. Equipment Operational and Rental Cost					
	EQUIPMENT RENTAL					
	Backhoe with Breaker	0.80 m^3				
	Bulldozer	1.50 m^3				
	Motorized Road Grader	G710A				
	Dump Truck	12 yd^3				
	Minor tools for Excavation	lot				
	Plate Compactor	5 Hp				
	Minor tools for Embankment	lot				
	Concrete Vibrator	Flexible Shaft type 2" head Ø with 5 amperes gaosiline drive unit				
	Minor tools for Concreting	lot				
	Bar Bender	Three Phase				
	Bar Cutter	Single Phase				

	Minor Tools for Steel works	lot				
	One Bagger Mixer	(4-6 ft^3/min)				
	Minor Tools for Masonry	lot				
	Scaffolding/H-frames and accessories	set				
	Welding Machine	Electric Driven / 500 amp				
	Minor Tools for Doors and Windows	lot				
	Minor Tools for Tiles works	lot				
	Minor Tools for Painting works	lot				
	Minor Tools for Floor Finish	lot				
	Minor Tools for Ceiling works	lot				
	Cutting Outfit					
	Minor Tools for Canopy	lot				
	Water Pump,100mm suction Ø	1800 lpm				
	Generator set	301-350 kW				
	Chainsaw	7 ft reach, 9 in standard blade				
	1 Air compressor w/ 2 Jack Hammer					
					Total, Equipment Operational and Rental Cost	
					Total, Direct Cost	

C	**INDIRECT COST**	
	I. Overhead Contingencies And Miscellaneous (12%)	
	II. Contractor's Profit (8%)	
	III. Value Added Tax (5%)	
	Total, Indirect Cost	
D	Total Construction Cost (A+B+C)	
	Total Estimated Cost	

I hereby commit to comply with all the above Bill of Quantities.

Name of Company/Bidder	**Signature over Printed Name of Authorized Representative**	**Date**

	DESCRIPTION	QUANTITY	UNIT	UNIT COST	MATERIAL COST	LABOR COST	TOTAL COST
SECOND FLOOR							
A	**GENERAL REQUIREMENTS**						
	Mobilization and Demobilization	1	lot				
						Total, General Requirements	
B	**DIRECT COST**						
	I. Earthworks						
						Subtotal, Earthworks	
	II. Concreting Works						
	Structural Concrete, Class "A" 28 Mpa	202	cum				
	Structural Concrete, Class "A" 21 Mpa		cum				
						Subtotal, Concreting Works	
	III. Steel Works						
	Reinforcing Steel - Grade 40	18939.2	kg				
	Reinforcing Steel - Grade 60	15096.08	kg				
	#16 Galvanized Iron Wire	511	kg				
	Consumables						
						Subtotal, Steel Works	
	IV. Masonry Works						
	6"CHB	2613	pc				
	4" CHB	1589	pc				
	Cement (40kg)	290	bag				
	Sand, Screened	14	cum				
	10mm ø x 6m RSB (Def)	1048	kg				
	#16 G.I. Tie wire	18	kg				
	Consumable s		pc				
						Subtotal, Masonry Works	
	V. Form Works						
	3/4" Phenolic Board (Plyboard)- 5 uses	264	pc				
	Good lumber- 3 uses	3595	boft				
	Consumables						
						Subtotal, Form Works	
	VI. Roofing Works						
						Subtotal, Roofing Works	
	VII. Finishing Works						
	Cement Plaster Finish						
	Cement	214	pc				
	Fine Sand	18	cum				
	Ceiling Works						
	Hardiflex board	116	sheet				
	Gypsum Board	160	pc				
	Metal furring (3m)	855	pc				
	Carrying Channels	270	pc				
	Hanger Bars/Rod	756	pc				
	Channel Clip	4533	pc				
	Wall Angle	180	pc				
	Rivets	10577	pc				
	1" Metal Screw	3022	pc				
	Floor Finish (Plain Cement)						
	Cement	14	bag				

	Sand	2	cum				
	Epoxy Primer	2	gal				
	Tiling Works (Floor Finish)						
	Unglazed tiles (600mm x 600mm)	720	sqm				
	Unglazed tiles (300mm x 300mm)	40	sqm				
	Cement	237	bag				
	Sand	20	cum				
	Tile Grout	91	bags				
	Tiling Works (Wall Finish)						
	Glazed Tiles	50	sqm				
	Cement	16	bags				
	Sand	2	cum				
	Tile Grout	7	bags				
	Tile Adhesive	8	bags				
	Mirror		sq.ft.				
	Consumables		lot				
						Subtotal, Finishing Works	
	VIII. Painting Works						
	Masonry Painting						
	Concrete Neutralizer	13	gal				
	Concrete Sealer/Primer	26	gal				
	Patching Compound	33	gal				
	Semi Gloss Latex (two coats only)	52	gal				
	Ceiling Painting						
	Glazzing Putty	38	gal				
	Flat Wall Enamel	31	gal				
	Enamel Quick Dry	31	L				
	Paint Thinner	189	gal				
	Consumables						
						Subtotal, Painting Works	
	IX. Doors and Windows						
	D-02, Double Sliding Door	21.00	sqm				
	D-03, Single Swing Steel Door	4.20	sqm				
	D-08, Single Swing uPVC Flush Door	3.78	sqm				
	D-10, Single Swing Panel Louvered Door	1.89	sqm				
	D-12, Single Swing Glass Door	9.45	sqm				
	D-13, Double Swing Panel Louvered Door	3.15	sqm				
	W-2, Frameless-Fixed, Glass Window	24.92	sqm				
	W-3, Casement Window	47.52	sqm				
	W-5, Awning type, Glass Window	2.16	sqm				
	W-6, uPVC Louver Panel Window	1.26	sqm				
	W-7, Frameless-Fixed, Glass Window	64.8	sqm				
						Subtotal, Doors and Windows	

	X. Aluminum Composite Panel and Facade						
	Tempered Glass Walls/Barriers, 10mm	91.32	sqm				
							Subtotal, Aluminum Composite Panel and Facade
							Total, Architectural & Civil Works
	XI. Electrical Works						
	LIGHTING & SMALL POWER SYSTEM						
	1200mmx300mm, 2x20W Ceiling Recessed Fluorescent Lighting Fixture	48	pc/s				
	1200mm, 20W Surface mounted LED Fluorescent Light	5	pc/s				
	13W, Recessed mounted LED Down light	73	pc/s				
	Twin head Emergency light w/ 2hrs battery pack	14	pc/s				
	8W LED Strip @ 5m	25	pc/s				
	1 Gang switch, 15A, 230V	8	set/s				
	2 Gang switch, 15A, 230V	5	set/s				
	3 Gang switch, 15A, 230V	2	set/s				
	Convenience Outlet Outlet, Simplex, 15A, 220V	16	set/s				
	Convenience Outlet, Duplex, 15A, 220V	17	set/s				
	Special Purpose Outlet	1	set/s				
	Floor Mounted Convenience Outlet, Duplex, 15A, 220V	32	set/s				
	15A, 230V Disconnect Switch	13	set/s				
	Utility Box	49	pc/s				
	Junction Box	201	pc/s				
	Consumables		lot/s				
							Subtotal, Lighting & Small Power System
	AUXILIARY SYSTEM						
	Conventional Smoke Detector with standard detector base	18	pc/s				
	Addressable Sounder with Strobe light	3	pc/s				
	Addressable Manual Pull Station	3	pc/s				
	Fireman's Telephone Jack	2	pc/s				
	Voice/Data outlet	5	set/s				
	Floor Mounted, Voice/Data Outlet	28	set/s				
	Intermediate Distribution Frame	1	assy				
	Dome type, IP based, CCTV Camera	2	assy				
	Wireless Access Point	4	pc/s				
	Junction Box	56	pc/s				
	Pull boxes 300mmx300mm	2	pc/s				
	Utility Box	10	pc/s				
	Consumables		lot/s				
							Subtotal, Auxiliary System
	ELECTRICAL WIRES, CONDUITS AND FITTINGS						

	3.5mm² THWN	1200	lm/s				
	3.5mm² TW	750	lm/s				
	3m x 20mmØ PVC	300	lm/s				
	Consumables		lot/s				
	Subtotal, Electrical Wires, Conduits and Fittings						
	DISTRIBUTION SYSTEM						
	PP-2F-DORM, MAIN: 50AT, 100AF, 3P, 400V, MCCB. BRANCHES: 8 - 20AT, 100AF, 1P, 230V MCB;	1	assy				
	Kilowatt-hour Meter						
	Subtotal, Distribution System						
	MISCELLANEOUS ITEMS						
	Minor Tools and equipment	1	lot/s				
	Hangers and supports	1	lot/s				
	Fittings						
	Labels						
	Flexible Metallic Conduit						
	Electrical Tape						
	Mica tube						
	Subtotal, Miscellaneous Items						
	Total, Electrical Works						
	XII. Plumbing Works						
	SANITARY SEWER, WASTE & VENT (CAST IRON)						
	PVC Pipe - 101mm Ø x 10 ft	19	pc/s				
	PVC Coupling - 101 mm Ø	20	pc/s				
	PVC Bend - 6mm, 87.5deg x 101mm	22	pc/s				
	PVC Seep Tee - 101 mm x 101mm Ø	23	pc/s				
	PVC TEE - 101 mm Ø	28	pc/s				
	PVC Double Branch Tee - 101 mm Ø	38	pc/s				
	PVC Clean out - w/plug & Seal Ring 101 mm Ø	9	pc/s				
	PVC Pipe - 50mm Ø x 10 ft	16	pc/s				
	PVC Coupling - 50 mm Ø	12	pc/s				
	PVC Bend - 6mm, 87.5deg x 50mm	20	pc/s				
	PVC Double Branch TEE - 50 mm Ø	16	pc/s				
	PVC P-TRAP w/Plug & Seal Ring -	10	pc/s				
	Consumables (Hangers, Supports etc.)		lot/s				
	Subtotal, Sanitary Sewer, Waste & Vent (Cast Iron)						
	WATER DISTRIBUTION SYSTEM						
	GI PIPE - 19mm Ø	55	pc/s				
	GI Union, Flat Seat - 19mm Ø	31	pc/s				
	GI Elbow Coupling - 19mm Ø	33	pc/s				

	GI TEE, Banded - 19mm Ø	38	pc/s				
	Gate Valve	14	pc/s				
	Water Meter	2	pc/s				
	Consumables (Hangers, Supports etc.)		lot/s				
						Subtotal, Water Distribution System	
	PLUMBING FIXTURES						
	Lavatory - Inc. fittings & Accessories, American STD or Equivalent, Slop Sink typ.	6	set/s				
	Watercloset - Inc. fittings & Accessories, American STD or Equivalent	6	set/s				
	Faucet (goose neck) - Stainless or Equivalent	6	pc/s				
	Urinal - Inc. fittings & Accessories, American STD or Equivalent	2	set/s				
	Soap Holder - Plastic, PVC Type	10	pc/s				
	Floor Drain - 4" x 4", Stainless	4	pc/s				
	Mirror	57.585	sq.ft.				
	Consumables		lot/s				
						Subtotal, Plumbing Fixtures	
	MISCELLANEOUS ITEMS						
	Cementitous Water Proofing (Sahara Cement)	56	bag				
	Water Proofing, with Fiber Glass, Epoxy Resin	10	gal/s				
	W.I STRAP	24	kg				
	Consumables		lot/s				
						Subtotal, Miscellaneous Items	
						Total, Plumbing Works	

	DESCRIPTION	CAPACITY	RENTAL RATE	NO. OF RENTAL HOURS	NO. OF RENTAL IN DAYS	RENTAL COST
	XIII. Equipment Operational and Rental Cost					
	EQUIPMENT RENTAL					
	Concrete Vibrator	Flexible Shaft type 2" head Ø with 5 amperes gaosiline drive unit				
	Minor tools for Concreting	lot				
	Bar Bender	Three Phase				
	Bar Cutter	Single Phase				
	Minor Tools for Steel works	lot				
	One Bagger Mixer	(4-6 ft^3/min)				
	Minor Tools for Masonry	lot				
	Scaffolding / H-frames and accessories	set				

	Minor Tools for Doors and Windows	lot				
	Minor Tools for Tiles works	lot				
	Minor Tools for Painting works	lot				
	Minor Tools for Floor Finish	lot				
	Minor Tools for Ceiling works	lot				
	Cutting Outfit					
	Water Pump,100mm suction Ø	1800 lpm				
	Generator set	301-350 kW				
	Chainsaw	7 ft reach, 9 in standard blade				
	1 Air compressor w/ 2 Jack Hammer					
	Total, Equipment Operational and Rental Cost					
	Total, Direct Cost					

C	**INDIRECT COST**	
	I. Overhead Contingencies And Miscellaneous (12%)	
	II. Contractor's Profit (8%)	
	III. Value Added Tax (5%)	
	Total, Indirect Cost	
D	Total Construction Cost (A+B+C)	
	Total Estimated Cost	

I hereby commit to comply with all the above Bill of Quantities.

Name of Company/Bidder	**Signature over Printed Name of Authorized Representative**	**Date**

	DESCRIPTION	QUANTITY	UNIT	UNIT COST	MATERIAL COST	LABOR COST	TOTAL COST
ROOF DECK							
A	**GENERAL REQUIREMENTS**						
	Mobilization and Demobilization	1	lot				
						Total, General Requirements	
B	**DIRECT COST**						
	I. Earthworks						
						Subtotal, Earthworks	
	II. Concreting Works						
	Structural Concrete, Class "A" 28 Mpa	75.84	cum				
						Subtotal, Concreting Works	
	III. Steel Works						
	Reinforcing Steel - Grade 40	7207	kg				
	Reinforcing Steel - Grade 60	7950	kg				
	#16 Galvanized Iron Wire	228	kg				
	Consumables						
						Subtotal, Steel Works	
	IV. Masonry Works						
	4" CHB	5741	pc				
	Cement (40kg)	232	bag				
	Sand, Screened	18	cum				
	10mm ø x 6m RSB (Def)	1431	kg				
	#16 G.I. Tie wire	23	kg				
	Consumable s		pc				
						Subtotal, Masonry Works	
	V. Form Works						
	3/4" Phenolic Board (Plyboard)-5 uses	180	pc				
	Good lumber- 3 uses	2510	boft				
	Consumables						
						Subtotal, Form Works	
	VI. Roofing Works						
						Subtotal, Roofing Works	
	VII. Finishing Works						
	Cement Plaster Finish						
	Cement	292	pc				
	Fine Sand	24	cum				
	Ceiling Works						
	Gypsum Board	95	pc				
	Metal furring (3m)	293	pc				
	Carrying Channels	93	pc				
	Hanger Bars/Rod	259	pc				
	Channel Clip	1554	pc				
	Wall Angle	62	pc				
	Rivets	3626	pc				
	1" Metal Screw	1036	pc				
	Tiling Works (Floor Finish)						
	Unglazed tiles (300mm x 300mm)	42	sqm				
	Vinyl tiles (300mm x 300mm)	227	sqm				
	Glue adhesive	108	L				
	Cement	173	bag				

	Sand	14	cum				
	Tile Grout	6	bags				
	Tiling Works (Wall Finish)						
	Glazed Tiles	134	sqm				
	Cement	42	bags				
	Sand	4	cum				
	Tile Grout	17	bags				
	Tile Adhesive	18	bags				
	Mirror		sq.ft.				
	Consumables		lot				
						Subtotal, Finishing Works	
	VIII. Painting Works						
	Masonry Painting						
	Concrete Neutralizer	18	gal				
	Concrete Sealer/Primer	36	gal				
	Patching Compound	45	gal				
	Semi Gloss Latex (two coats only)	71	gal				
	Ceiling Painting						
	Glazzing Putty	13	gal				
	Flat Wall Enamel	11	gal				
	Enamel Quick Dry	11	gal				
	Paint Thinner	65	L				
	Tinting Color (Optional)	3	pint				
	Consumables						
						Subtotal, Painting Works	
	IX. Doors and Windows						
	D-03, Single Swing Steel Door	4.20	sqm				
	D-11, Double Sliding Door	33.60	sqm				
	D-14, Single Swing uPVC Flush Door	15.12	sqm				
	D-15, Double Swing Leaf Panel Door	10.08	sqm				
	D-16, Single Swing uPVC Flush Door	20.16	sqm				
	W-5, Awning type, Glass Window	2.88	sqm				
	W-8, FCasement, Glass Window	11.52	sqm				
	W-9, Frameless-Fixed, Glass Window	32.256	sqm				
						Subtotal, Doors and Windows	
	X. Aluminum Composite Panel & Facade						
	Parapet						
	Aluminum Metal Cladding	345	sqm				
	1 1/2"X 1 1/2"X4mm THK ANGLE BAR	3008	kg				
	Acetylene	34	kg				
	Oxygen	67	kg				
	Welding rod	61	kg				
	Anchor Bolt	500	pcs				

	Aluminum Metal Screw	4000	pcs				
	Consumables		lot				
					Subtotal, Aluminum Composite Panel & Facade		
					Total Architectural and Civil Works		
	XII. Electrical Works						
	LIGHTING & SMALL POWER SYSTEM						
	13W, Recessed mounted LED Down light	70	pc/s				
	13W, Wall mounted LED Down light	8	pc/s				
	13W Surface mounted downlight	28	pc/s				
	Twin head Emergency light w/ 2hrs battery pack	8	pc/s				
	1 Gang switch, 15A, 230V	40	set/s				
	3 Gang switch, 15A, 230V	1	set/s				
	Convenience Outlet Outlet, Simplex, 15A, 220V	8	set/s				
	Convenience Outlet, Duplex, 15A, 220V	34	set/s				
	Weather proof Convenience Outlet, Duplex, 15A, 220V	4	set/s				
	20AT, 3Ø, 400V Enclosed Circuit Breaker	2	set/s				
	30AT, 3Ø, 400V Enclosed Circuit Breaker	2	set/s				
	40AT, 1Ø, 230V Enclosed Circuit Breaker		set/s				
	Utility Box	82	pc/s				
	Junction Box	94	pc/s				
	Consumables		lot/s				
					Subtotal, Lighting & Small Power System		
	AUXILIARY SYSTEM						
	Conventional Smoke Detector with standard detector base	8	pc/s				
	Addressable Sounder with Strobe light	2	pc/s				
	Addressable Manual Pull Station	2	pc/s				
	Fireman's Telephone Jack	2	pc/s				
	Fixed type, IP based, CCTV Camera	3	assy				
	Junction Box	13	pc/s				
	Pull boxes 300mmx300mm	2	pc/s				
	Utility Box	4	pc/s				
	Consumables		lot/s				
					Subtotal, Auxiliary System		
	ELECTRICAL WIRES, CONDUITS AND FITTINGS						
	3.5mm² THWN	1500	lm/s				
	5.5mm² THWN	300	lm/s				
	3.5mm² TW	900	lm/s				

	5.5mm² TW	150	lm/s				
	3m x 20mmØ PVC	250	lm/s				
	3m x 20mmØ IMC	50	lm/s				
	3m x 25mmØ IMC	50	lm/s				
	Consumables		lot/s				
					Subtotal, Electrical Wires, Conduits and Fittings		
	MISCELLANEOUS ITEMS						
	Minor Tools and equipment	1	lot/s				
	Hangers and supports	1	lot/s				
	Fittings						
	Labels						
	Flexible Metallic Conduit						
	Electrical Tape						
	Mica tube						
					Subtotal, Miscellaneous Items		
	XII. Plumbing Works						
	STORM WATER DRAINAGE SYSTEM						
	PVC Pipe - 101 mm Ø	8	pc/s				
	Floor Drain - 4" x 4", Stainless	27	pc/s				
	Consumables (Hangers, Supports etc.)		lot/s				
					Subtotal, Storm Water Drainage System		
	MISCELLANEOUS ITEMS						
	Cementitous Water Proofing (Sahara Cement)	22	bag				
	Water Proofing, with Fiber Glass, Epoxy Resin	7	gal/s				
	W.I STRAP	9	kg				
	Consumables		lot/s				
					Subtotal, Miscellaneous Items		
					Total, Plumbing Works		

	DESCRIPTION	CAPACITY	RENTAL RATE	NO. OF RENTAL HOURS	NO. OF RENTAL IN DAYS	RENTAL COST
	XIII. Equipment Operational & Rental Cost					
	EQUIPMENT RENTAL					
	Concrete Vibrator	Flexible Shaft type 2" head Ø with 5 amperes gaosiline drive unit				
	Minor tools for Concreting	lot				
	Bar Bender	Three Phase				
	Bar Cutter	Single Phase				
	Minor Tools for Steel works	lot				
	One Bagger Mixer	(4-6 ft^3/min)				
	Minor Tools for Masonry	lot				

	Scaffolding/H-frames and accessories	set				
	Welding Machine	Electric Driven / 500 amp				
	Minor Tools for Doors and Windows	lot				
	Minor Tools for Tiles works	lot				
	Minor Tools for Painting works	lot				
	Minor Tools for Ceiling works	lot				
	Cutting Outfit					
	Minor Tools for Parapet	lot				
	Water Pump,100mm suction Ø	1800 lpm				
	Generator set	301-350 kW				
	Chainsaw	7 ft reach, 9 in standard blade				
	1 Air compressor w/ 2 Jack Hammer					
					Subtotal, Equipment Operational and Rental Cost	
					Total, Direct Cost	

C	**INDIRECT COST**	
	I. Overhead Contingencies And Miscellaneous (12%)	
	II. Contractor's Profit (8%)	
	III. Value Added Tax (5%)	
	Total, Indirect Cost	
D	Total Construction Cost (A+B+C)	
	Total Estimated Cost	

I hereby commit to comply with all the above Bill of Quantities.

Name of Company/Bidder	**Signature over Printed Name of Authorized Representative**	**Date**

	DESCRIPTION	QUANTITY	UNIT	UNIT COST	MATERIAL COST	LABOR COST	TOTAL COST
ROOF BEAM							
A	**GENERAL REQUIREMENTS**						
	Mobilization and Demobilization	1	lot				
						Total, General Requirements	
B	**DIRECT COST**						
	I. Earthworks						
						Subtotal, Earthworks	
	II. Concreting Works						
	Structural Concrete, Class "A" 28 Mpa	21.1	cum				
						Subtotal, Concreting Works	
	III. Steel Works						
	Reinforcing Steel - Grade 40	2179	kg				
	Reinforcing Steel - Grade 60	2304	kg				
	#16 Galvanized Iron Wire	68	kg				
	Consumables						
						Subtotal, Steel Works	
	IV. Masonry Works						
						Subtotal, Masonry Works	
	V. Form Works						
	3/4" Phenolic Board (Plyboard)-5 uses	64	pc				
	Good lumber- 3 uses	861	boft				
	Consumables						
						Subtotal, Form Works	
	VI. Roofing Works						
	2"X2"X4mm THK ANGLE BAR	1037	kg				
	Structural Steel Purlin	980	kg				
	Acetylene	12	kg				
	Oxygen	23	kg				
	Welding rod	41	kg				
	Prepainted Roofing Sheet	454	sqm				
	Tek-screw/J-bolt with washers	4320	pc				
	Gutter	50	m				
	12" x 1" Plain GI Strap	150	pc				
	Blind Rivets	800	pc				
	Consumables						
						Subtotal, Roofing Works	
	XI. Electrical Works						
						Subtotal, Electrical Works	
	XII. Plumbing Works						
						Subtotal, Plumbing Works	

	DESCRIPTION	CAPACITY	RENTAL RATE	NO. OF RENTAL HOURS	NO. OF RENTAL IN DAYS	RENTAL COST
	XIII. Equipment Operational & Rental Cost					
	EQUIPMENT RENTAL					
	Concrete Vibrator	Flexible Shaft type 2" head Ø				

		with 5 amperes gaosiline drive unit				
	Minor tools for Concreting	lot				
	Bar Bender	Three Phase				
	Bar Cutter	Single Phase				
	Minor Tools for Steel works	lot				
	One Bagger Mixer	(4-6 ft^3/min)				
	Scaffolding / H-frames and accessories	set				
	Welding Machine	Electric Driven / 500 amp				
	Cutting Outfit					
	Minor Tools for Canopy	lot				
	Generator set	301-350 kW				
	1 Air compressor w/ 2 Jack Hammer					
					Subtotal, Equipment Operational and Rental Cost	
					Total, Direct Cost	

C	**INDIRECT COST**	
	I. Overhead Contingencies And Miscellaneous (12%)	
	II. Contractor's Profit (8%)	
	III. Value Added Tax (5%)	
	Total, Indirect Cost	
D	Total Construction Cost (A+B+C)	
	Total Estimated Cost	

I hereby commit to comply with all the above Bill of Quantities.

Name of Company/Bidder	**Signature over Printed Name of Authorized Representative**	**Date**