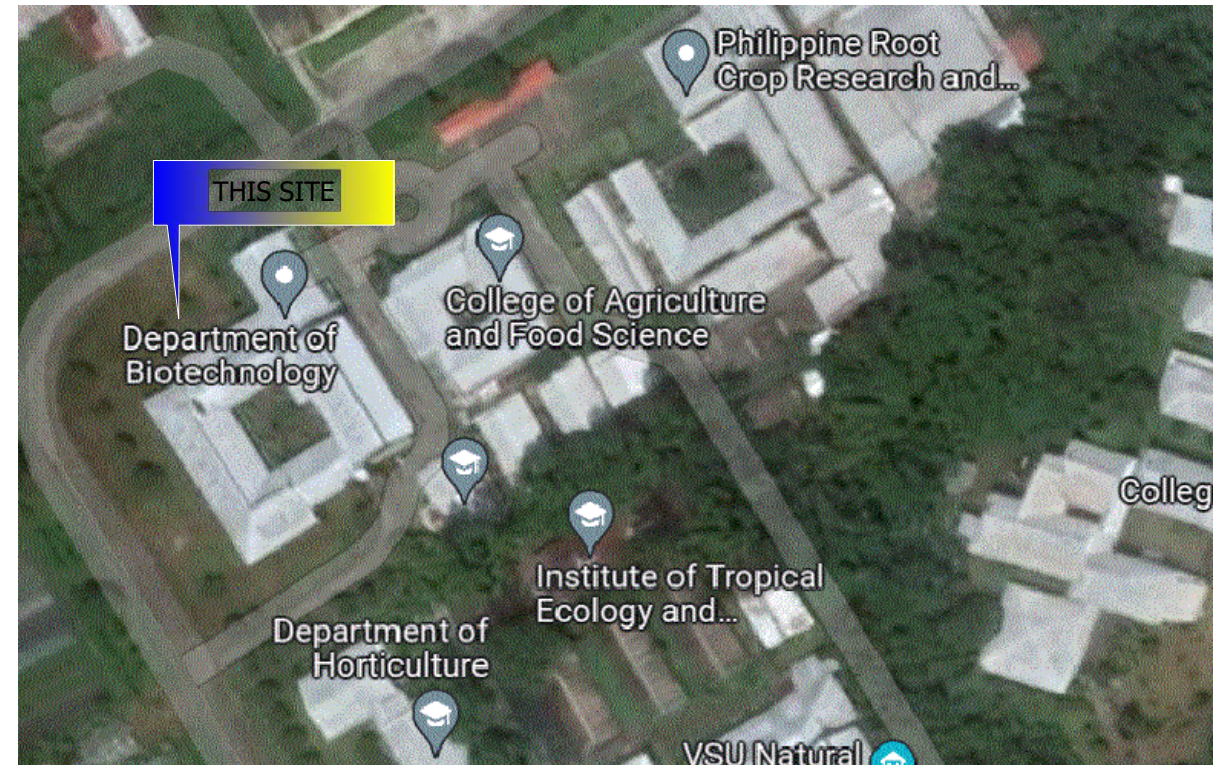
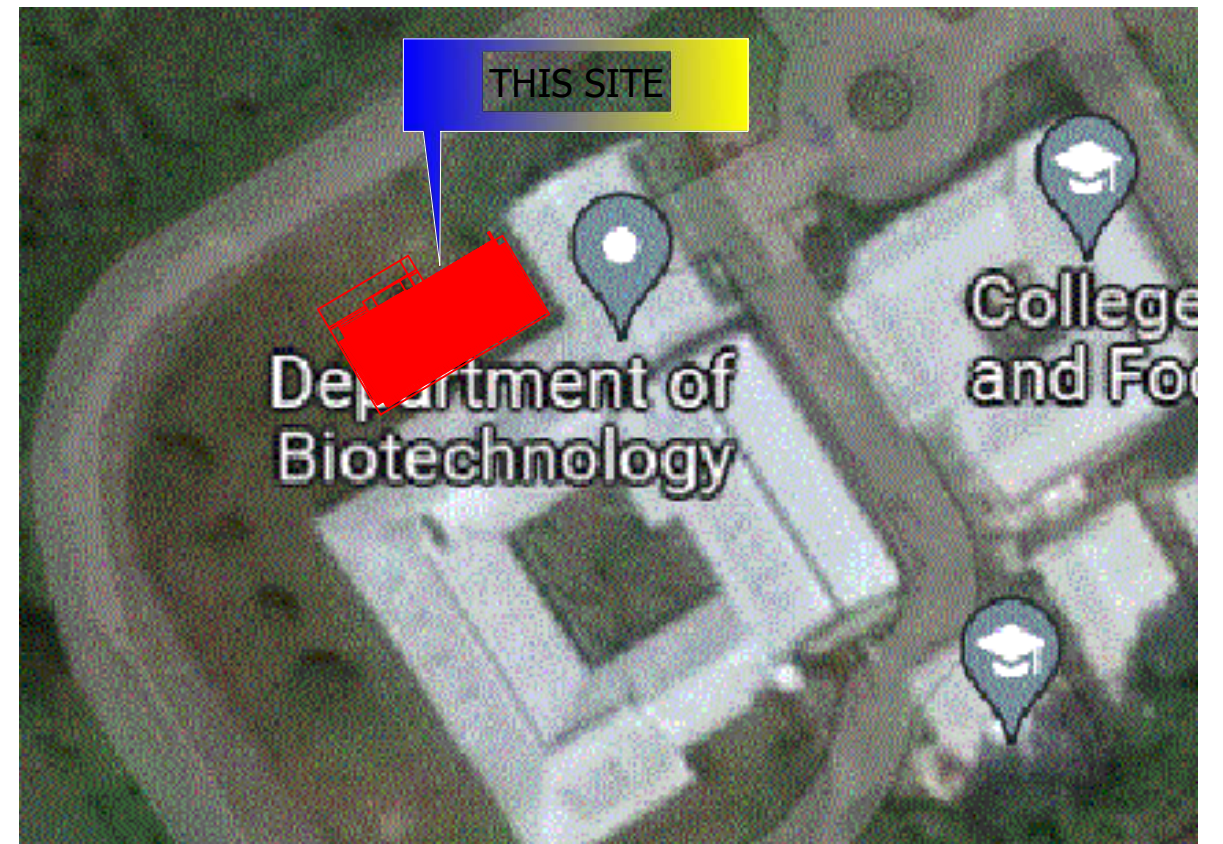




1 **PERSPECTIVE**
AR1 SCALE N.D.T.S

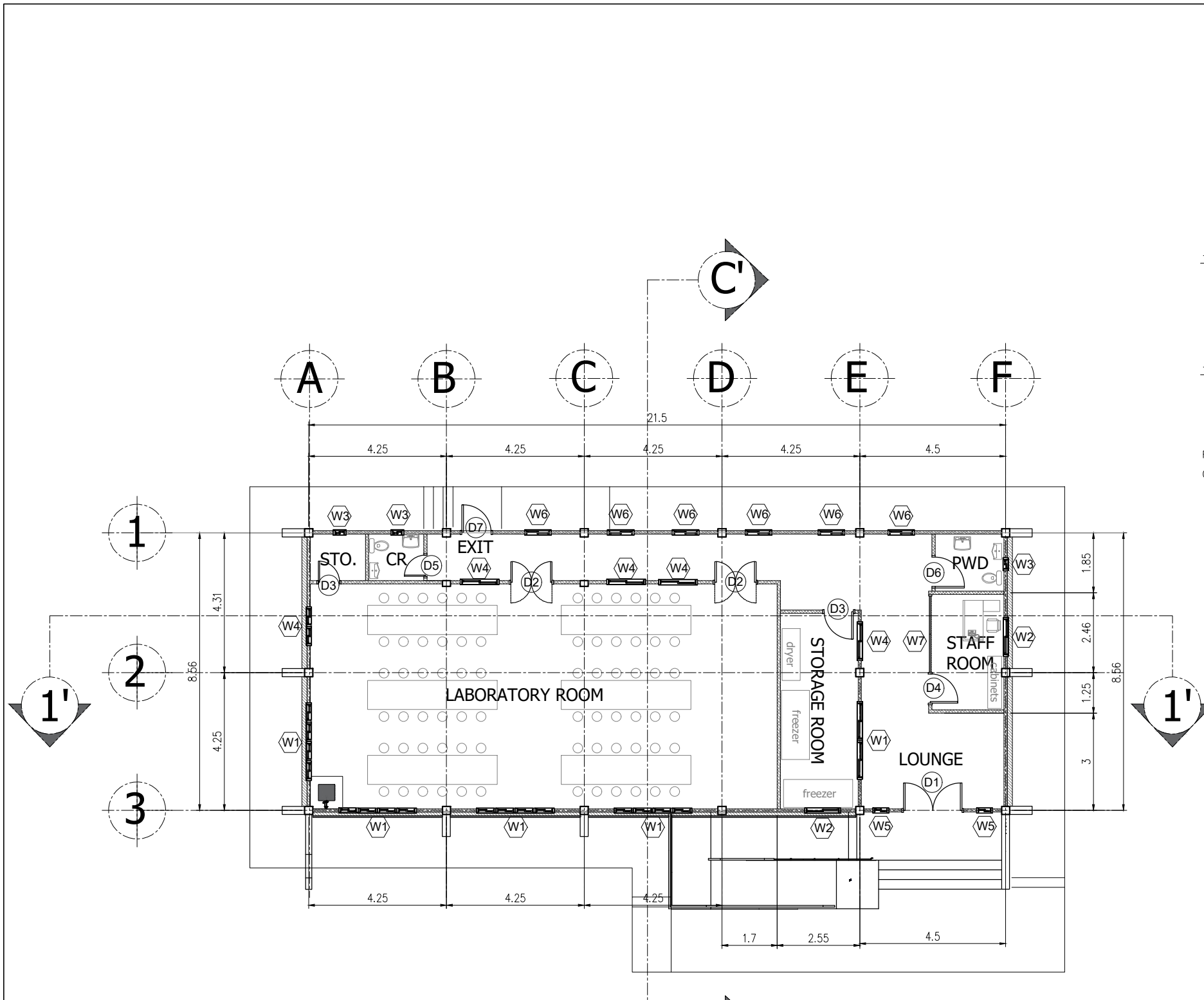


2 **LOCATION PLAN**
AR1 SCALE 1:175M

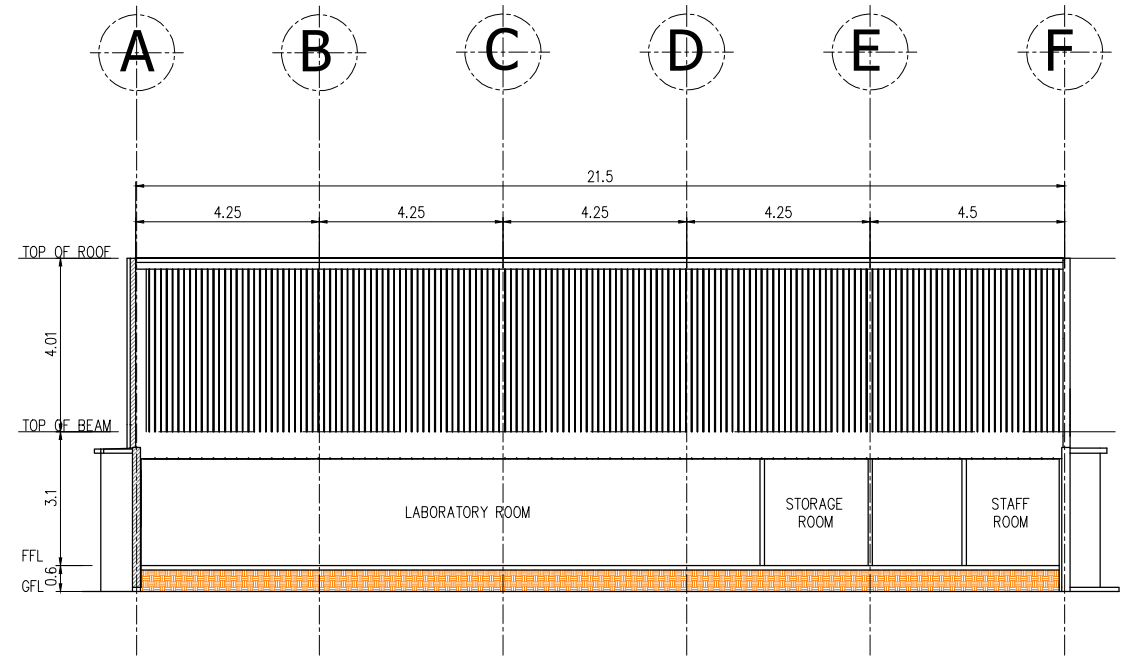


3 **SITE DEVELOPMENT PLAN**
AR1 SCALE N.D.T.S

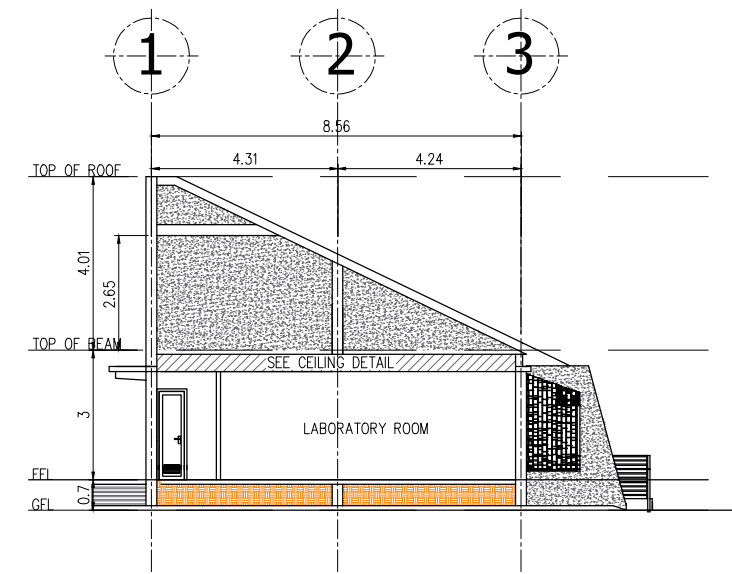
	TIN : 930-953-275	Design & Sealed:	Project Title :	Checked by :	Approved by :	SHEET CONTENTS: PERSPECTIVE LOCATION PLAN SITE DEVELOPMENT PLAN	AR6 01 SHEET NO. 01 22
	PRC : 0018370	ARCH. ELVIN A. CABAÑERO ARCHITECT II - PPDMO	"PROPOSED"	ENGR. MARCELO T. ABRERA JR. DIRECTOR - PPDMO	Dr. DANIEL LESLIE S. TAN OIC - VSU PRESIDENT/ VICE PRESIDENT, ADMINISTRATION AND FINANCE		
	PTR : 3695759		CONSTRUCTION OF DBS VERTEBRAE ANATOMY BUILDING				
	Date : 20 JANUARY 2021		LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY				
PL. ISS. : JAVIER, LEYTE							



1 FLOOR PLAN
SCALE 1:150M

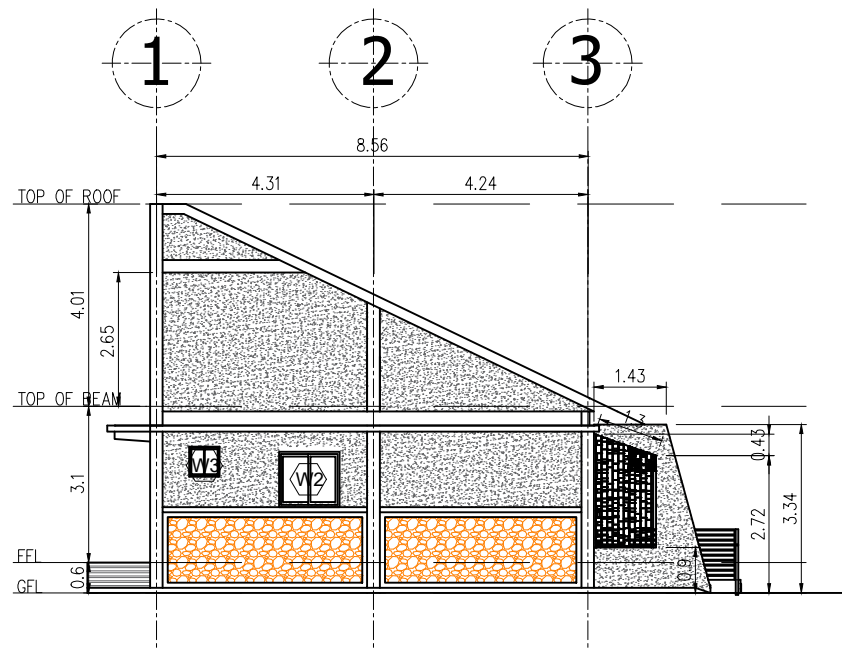


2 SECTION 1'-1'
SCALE 1:175M

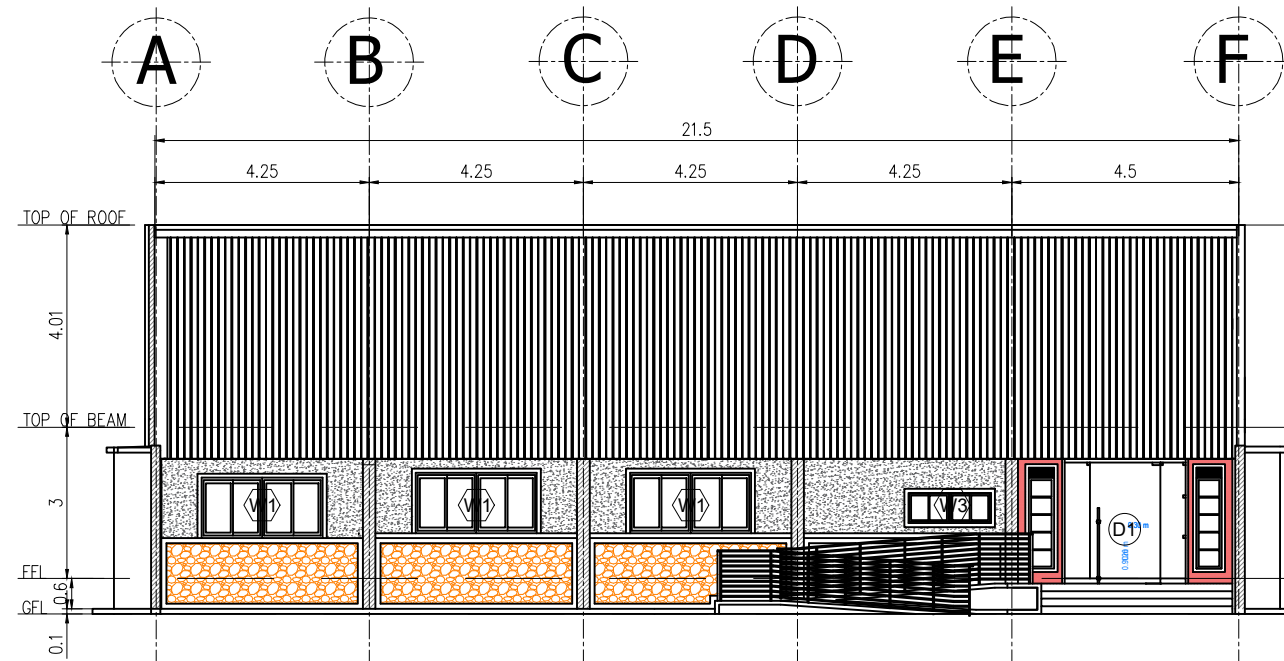


3 SECTION C'-C'
SCALE 1:175M

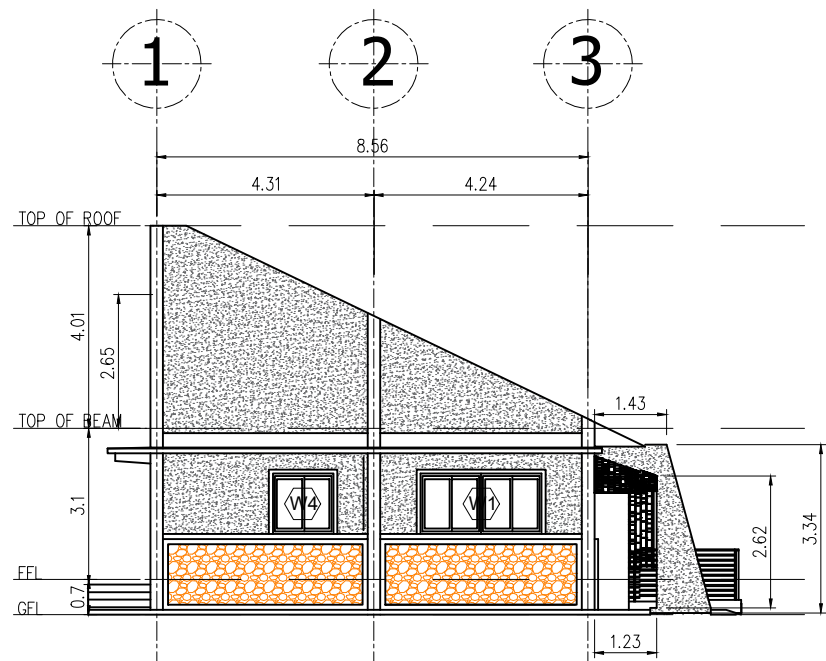
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	PRC : 0018370 PTR : 3695759 Date : 20 JANUARY 2021 PL. ISS. : JAVIER, LEYTE	ARCH. ELVIN A. CABAÑERO ARCHITECT II - PPDMO	"PROPOSED" CONSTRUCTION OF DBS VERTEBRAE ANATOMY BUILDING LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY	ENGR. MARCELO T. ABRERA JR. DIRECTOR - PPDMO	Dr. DANIEL LESLIE S. TAN OIC-VSU PRESIDENT/ VICE PRESIDENT, ADMINISTRATION AND FINANCE		



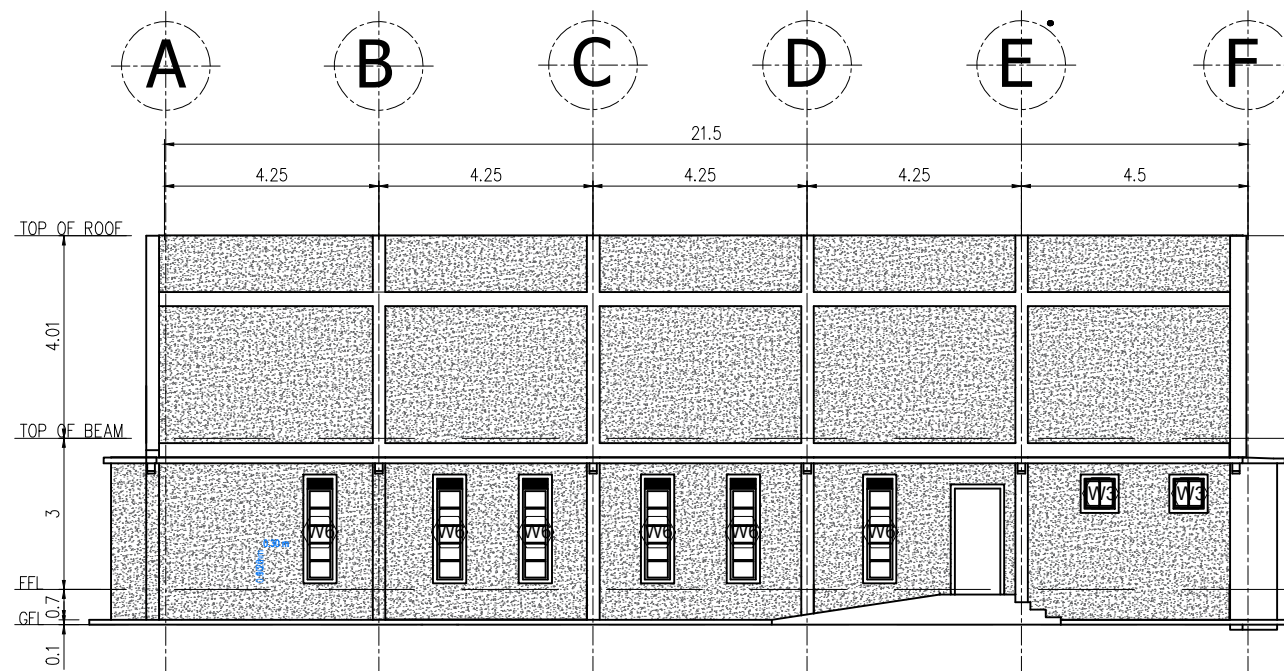
1
AR3
RIGHT SIDE VIEW
SCALE 1:150M



3
AR3
FRONT VIEW
SCALE 1:150M

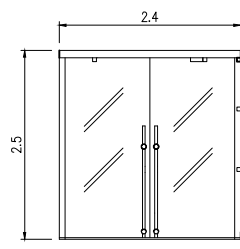


2
AR3
LEFT SIDE VIEW
SCALE 1:175M

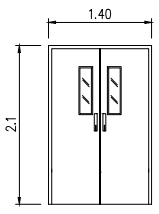


4
AR3
REAR VIEW
SCALE 1:175M

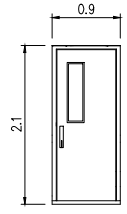
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	PRC : 0018370	ARCH. ELVIN A. CABAÑERO ARCHITECT II - PPDMO	"PROPOSED" CONSTRUCTION OF DBS VERTEBRAE ANATOMY BUILDING LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY	ENGR. MARCELO T. ABRERA JR. DIRECTOR - PPDMO	Dr. DANIEL LESLIE S. TAN OIC - VSU PRESIDENT/ VICE PRESIDENT, ADMINISTRATION AND FINANCE		
	PTR : 3695759						
	Date : 20 JANUARY 2021						
PL. ISS. : JAVIER, LEYTE							



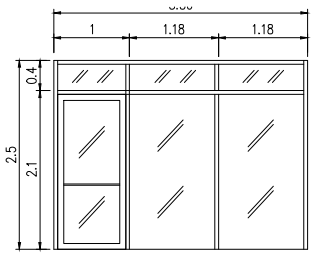
D1
ALUMINUM GLASS DOOR
ANALOK
(1 UNIT)



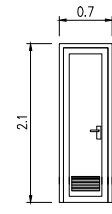
D2
WOODEN FLUSHED DOOR
W/ GLASS WINDOW
(DOUBLE SWING)
(1 UNIT)



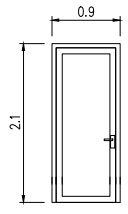
D3
WOODEN PANEL DOOR
W/ GLASS WINDOW
(3 UNITS)



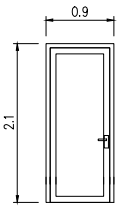
D4
ALUMINUM FRAME GLASS DOOR
W/ TRANSM WINDOW AND FROSTED WALL
(1 UNIT)



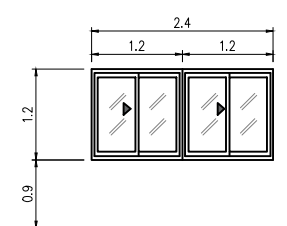
D5
PVC DOOR
(1 UNIT)



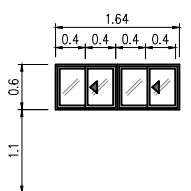
D6
PWD DOOR
(1 UNIT)



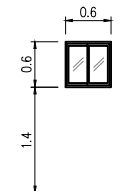
D7
PANIC DOOR
EXIT
(1 UNIT)



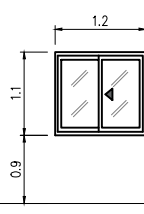
W1
ALUMINUM SLIDING GLASS
WINDOW
(analok frame, 4 panels)
(5 UNIT)



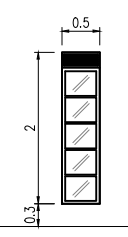
W2
ALUMINUM SLIDING GLASS
WINDOW
(analok frame, 4 panels)
(1 UNIT)



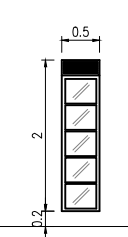
W3
ALUMINUM SLIDING GLASS
WINDOW
(analok frame, 2 panels)
(3 UNITS)



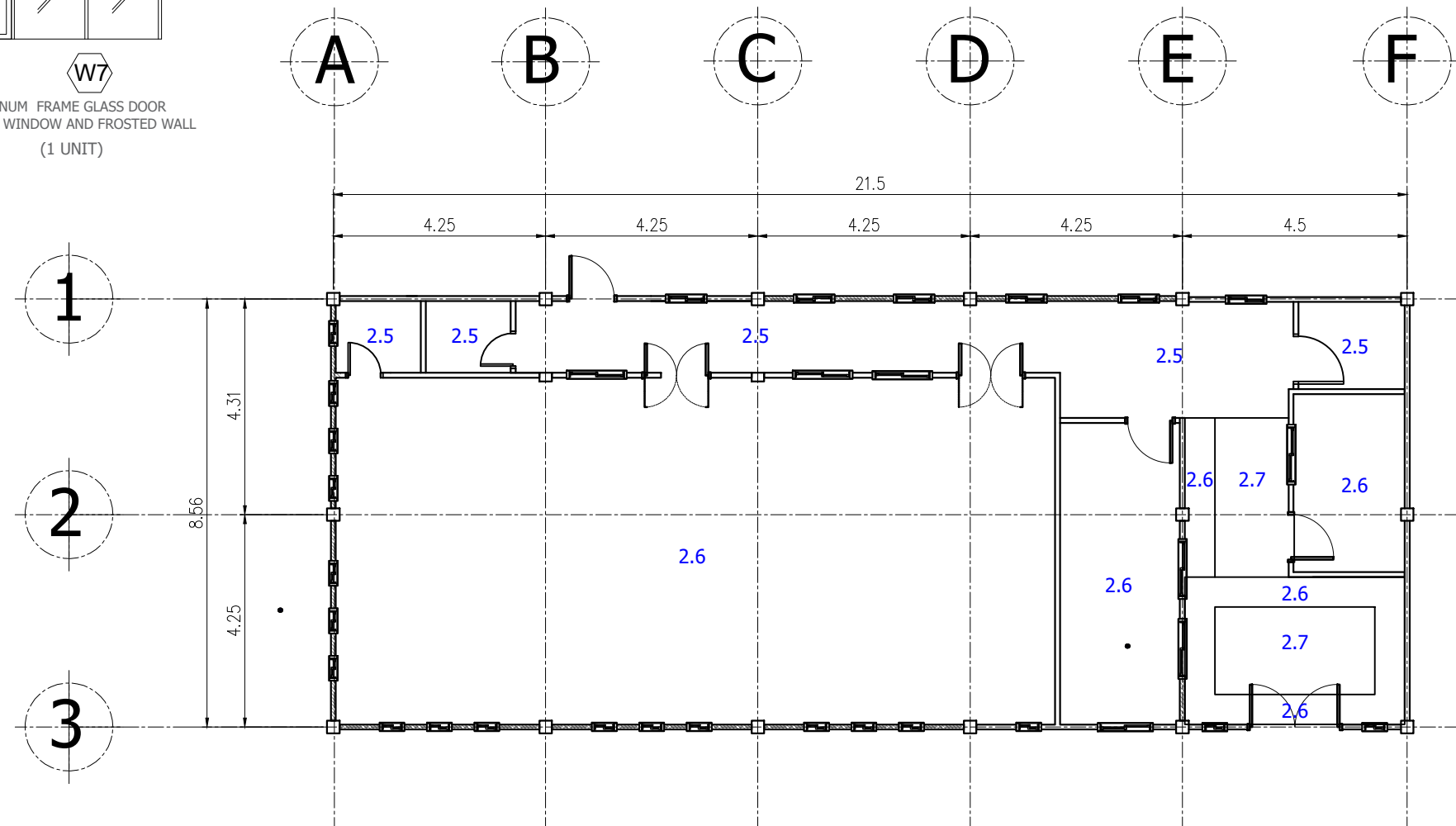
W4
ALUMINUM SLIDING GLASS
WINDOW
(analok frame, 2 panels)
(4 UNIT)



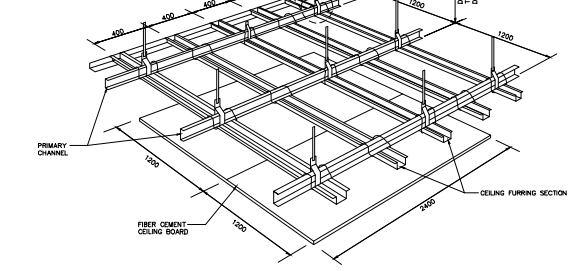
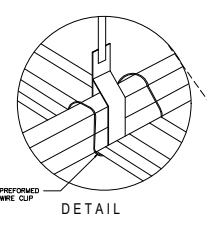
W5
ALUMINUM FIXED GLASS
WINDOW
(analok frame, 4 panels)
(2 UNIT)



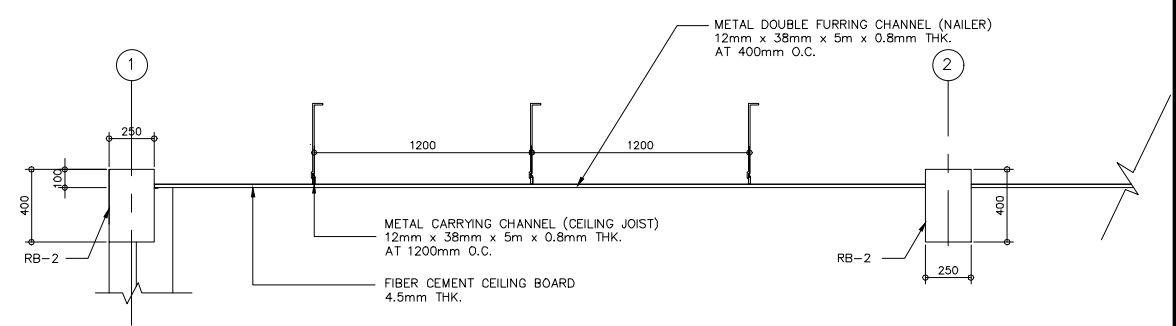
W6
ALUMINUM FIXED GLASS
WINDOW
(analok frame, 2 panels)
(6 UNITS)



2
AR4
CEILING PLAN
SCALE 1:125M



PERSPECTIVE

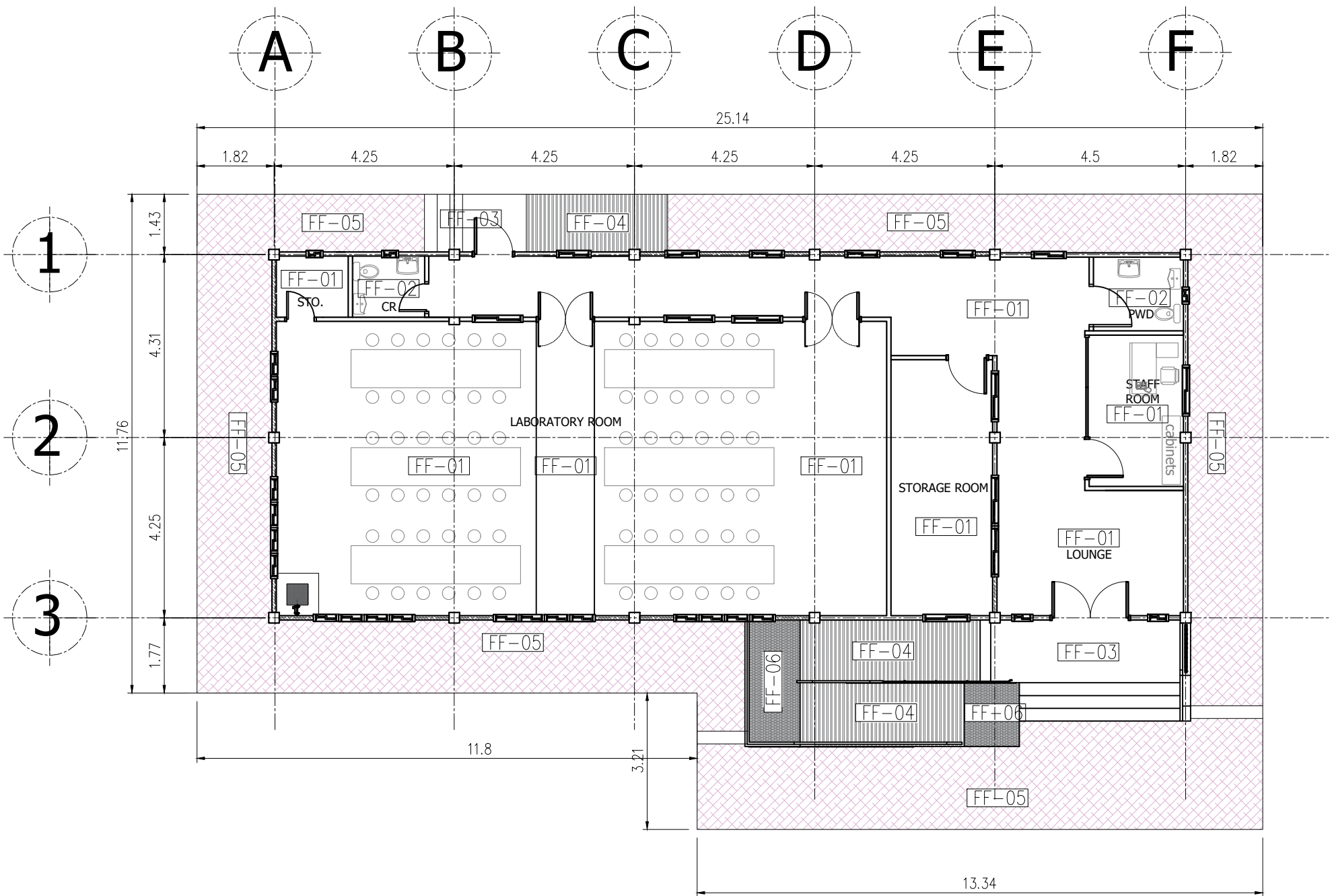


SECTION

3
AR4
TYP. CEILING DETAIL
SCALE N.D.T.S

1
AR4
SCHEDULE OF DOORS AND WINDOWS
SCALE N.D.T.S


	TIN : 930-953-275	Design & Sealed:	Project Title :	Checked by :	Approved by :	SHEET CONTENTS: SCHEDULE OF DOORS AND WINDOWS CEILING PLAN TYP. CEILING DETAIL	A6 04 SHEET NO. 04 22
	PRC : 0018370 PTR : 3695759 Date : 20 JANUARY 2021 PL. ISS. : JAVIER LEYTE	ARCH. ELVIN A. CABAÑERO ARCHITECT II - PPDMO	"PROPOSED" CONSTRUCTION OF DBS VERTEBRAE ANATOMY BUILDING LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY	ENGR. MARCELO T. ABRERA JR. DIRECTOR - PPDMO	Dr. DANIEL LESLIE S. TAN OIC - VSU PRESIDENT/ VICE PRESIDENT, ADMINISTRATION AND FINANCE		

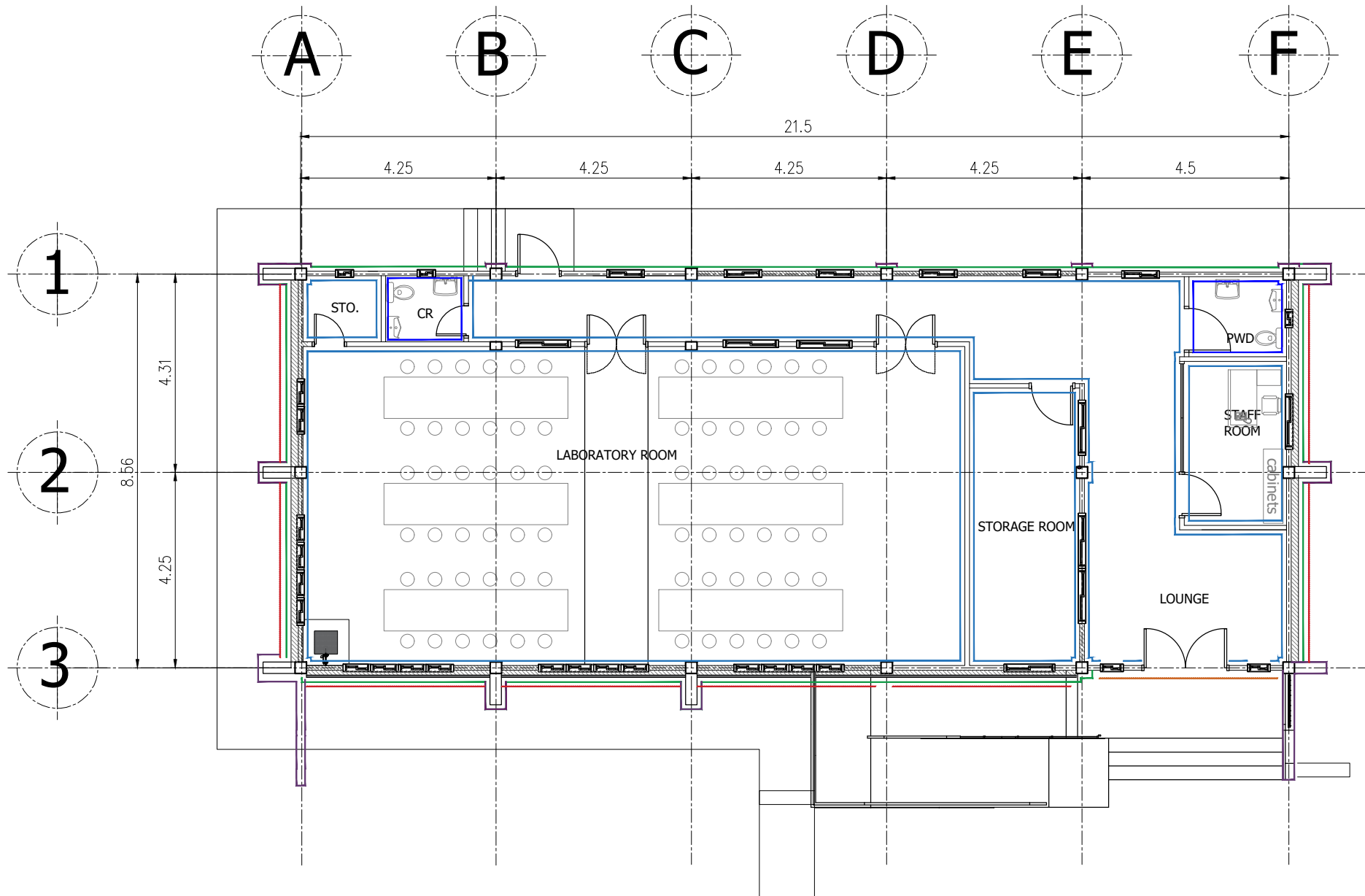


FLOOR FINISHES LEGEND

- FF-01 Tile Ceramic Floor Tiles (60cm x 60cm)
- FF-02 Unglazed Tile Ceramic Floor Tiles (60cm x 60cm)
- FF-03 Tile Ceramic Floor Tiles (40cm x 40cm)
- FF-04 Concrete ramp (w/ groove)
- FF-05 0.10 M Thk Polished Concrete (block type)
- FF-06 Polished Concrete

1 **FLOOR FINISHES**
AR5 SCALE N.D.T.S

	TIN : 930-953-275	Design & Sealed:	Project Title :	Checked by :	Approved by :	SHEET CONTENTS: FLOOR FINISHES	A6 05 SHEET NO. 05 22
	PRC : 0018370 PTR : 3695759 Date : 20 JANUARY 2021 PL. ISS. : JAVIER, LEYTE	ARCH. ELVIN A. CABAÑERO ARCHITECT II - PPDMO	"PROPOSED" CONSTRUCTION OF DBS VERTEBRAE ANATOMY BUILDING LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY	ENGR. MARCELO T. ABRERA JR. DIRECTOR - PPDMO	Dr. DANIEL LESLIE S. TAN OIC - VSU PRESIDENT/ VICE PRESIDENT, ADMINISTRATION AND FINANCE		



WALL FINISHES LEGEND

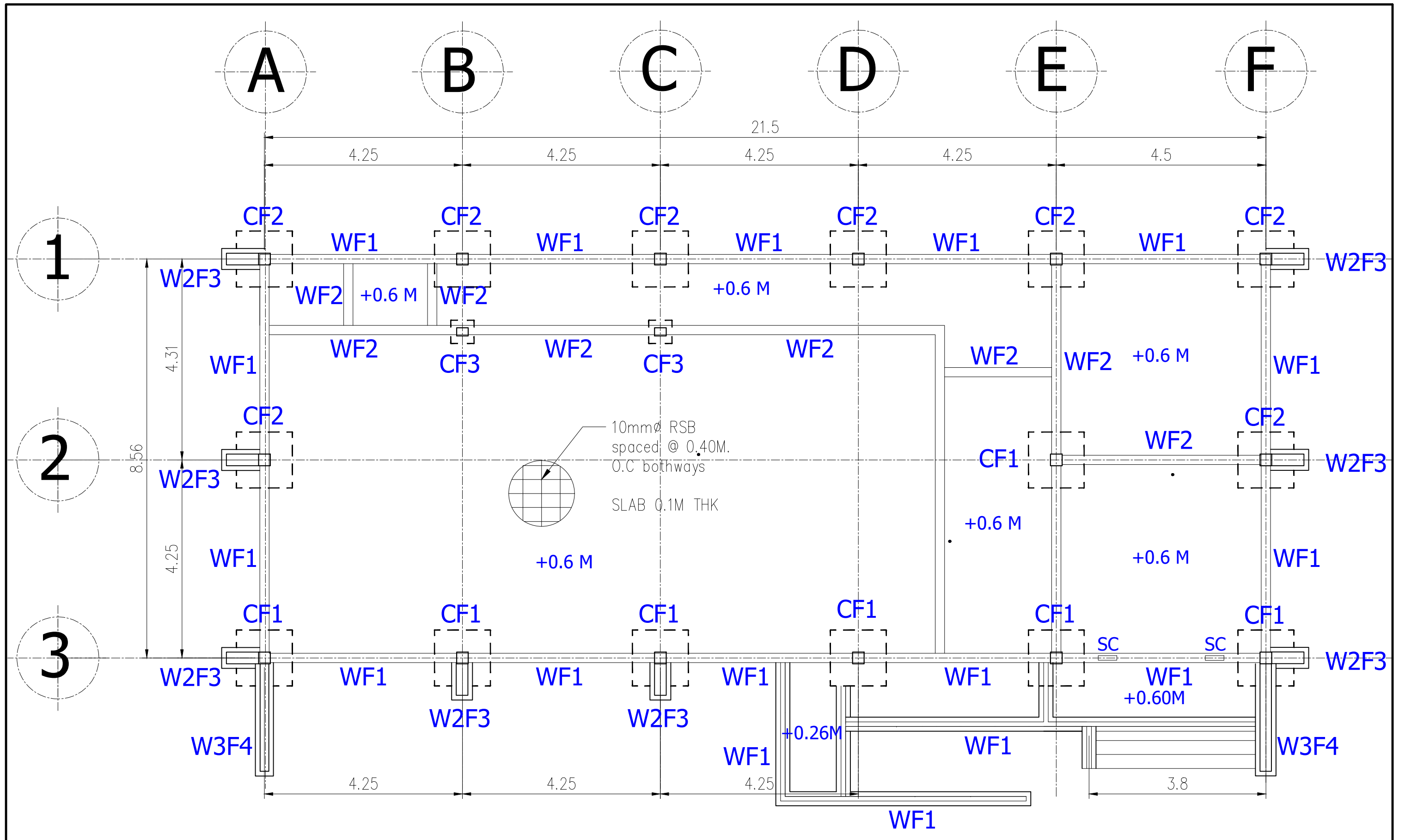
- WF-01 WALL PAINT (consult Architect/Engineer for color)
- WF-02 Glazed Tile , 30cm x 60cm (consult Architect /Engineer for design)
- WF-03 Sandblast natural concrete color (consult Architect /Engineer for design)
- WF-04 Sandblast Stucco color (consult Architect /Engineer for design)
- WF-05 Rock cladding (consult Architect /Engineer for design)
- WF-06 Brick cladding (consult Architect /Engineer for design)

1
AR6

WALL FINISHES

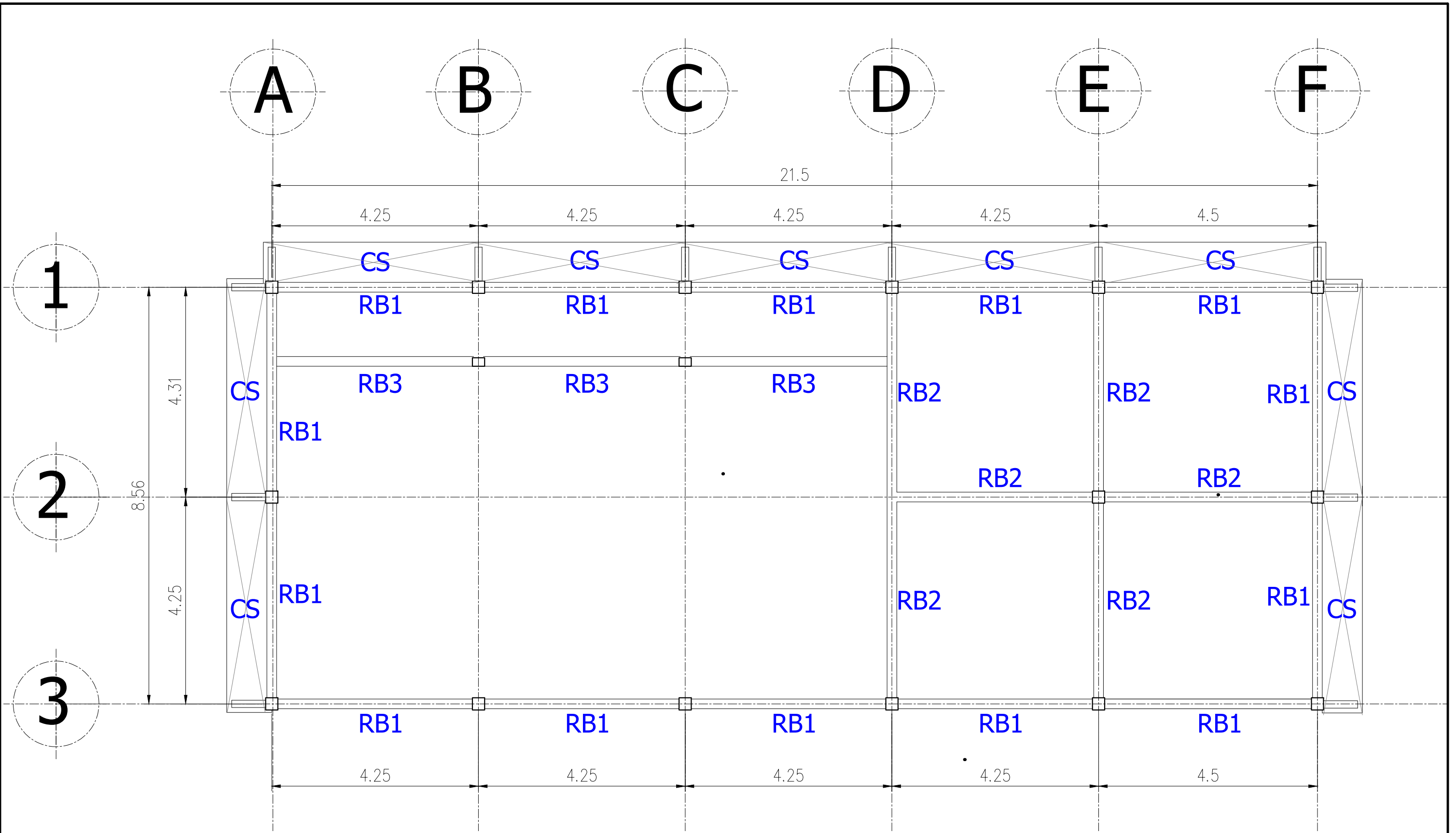
SCALE N.D.T.S

	TIN : 930-953-275	Design & Sealed:	Project Title :	Checked by :	Approved by :	SHEET CONTENTS: WALL FINISHES	A6 06 SHEET NO. 06 22
	PRC : 0018370 PTR : 3695759 Date : 20 JANUARY 2021 PL. ISS. : JAVIER, LEYTE	ARCH. ELVIN A. CABAÑERO ARCHITECT III - PPDMO	"PROPOSED" CONSTRUCTION OF DBS VERTEBRAE ANATOMY BUILDING LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY	ENGR. MARCELO T. ABRERA JR. DIRECTOR - PPDMO	Dr. DANIEL LESLIE S. TAN OIC - VSU PRESIDENT/ VICE PRESIDENT, ADMINISTRATION AND FINANCE		



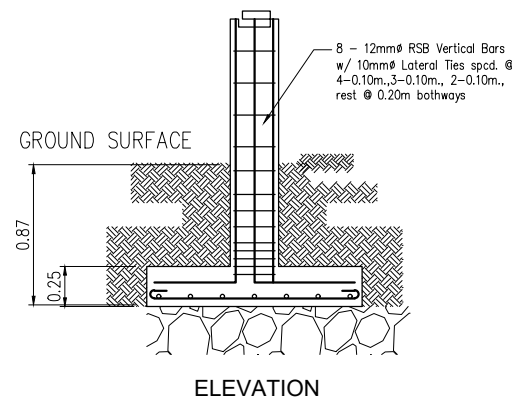
1 FOUNDATION PLAN
 ST1 SCALE 1:175M

	TIN : 474-984-480	Design & Sealed:	Project Title :	Checked by :	Approved by :	SHEET CONTENTS: FOUNDATION PLAN ST701 SHEET NO. 07 22
	PRC : 0141581	ENGR. JIEN APRIL B. JUALO	"PROPOSED"	ENGR. MARCELO T. ABRERA JR.	Dr. DANIEL LESLIE S. TAN	
	PTR : 470692		CONSTRUCTION OF DBS VERTEBRAE ANATOMY BUILDING			
Date : 2/06/2023	ENGINEER-PPDMO	LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY	DIRECTOR-PPDMO	OIC-VSU PRESIDENT/VICE PRESIDENT, ADMINISTRATION AND FINANCE		
PL. ISS. : MAASIN CITY						

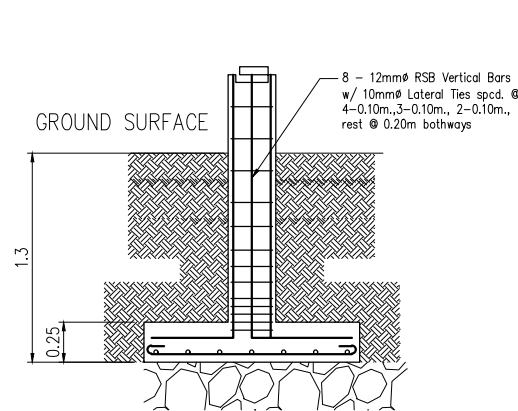


1
ST2
ROOF BEAM PLAN
 SCALE 1:75M

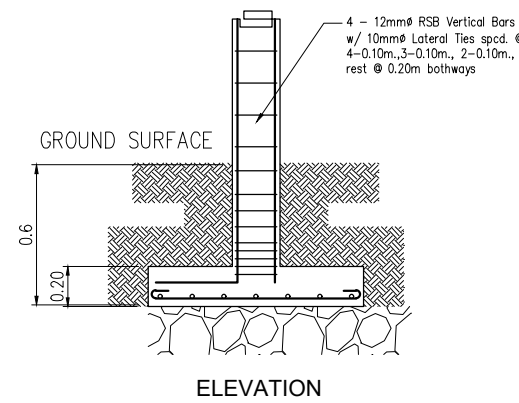
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	PRC : 0141581	ENGR. JIEN APRIL B. JUALO <small>ENGINEER-PPDMO</small>	"PROPOSED" CONSTRUCTION OF DBS VERTEBRAE ANATOMY BUILDING			ROOF BEAM
	PTR : 470692		ENGR. MARCELO T. ABRERA JR. <small>DIRECTOR-PPDMO</small>	Dr. DANIEL LESLIE S. TAN <small>OIC-VSU PRESIDENT/VICE PRESIDENT, ADMINISTRATION AND FINANCE</small>	ST7 02 <small>SHEET NO.</small> 08 22	
Date : 2/06/2023	LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY					
PL. ISS. : MAASIN CITY						



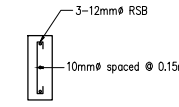
ELEVATION



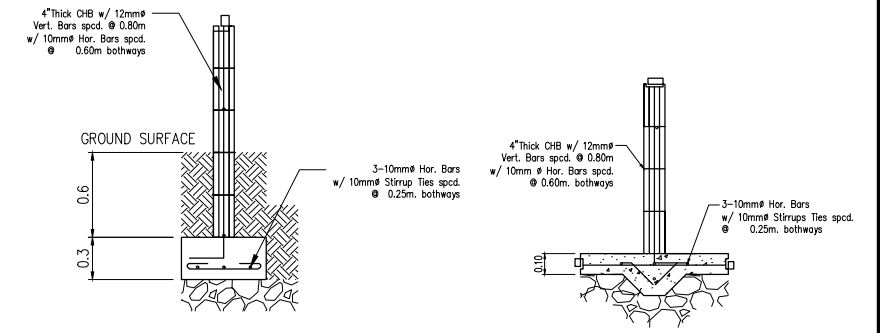
ELEVATION



ELEVATION

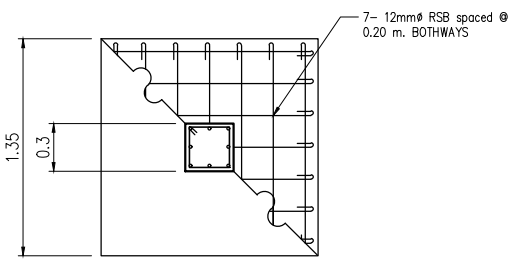


STIFFENER COLUMN
SC



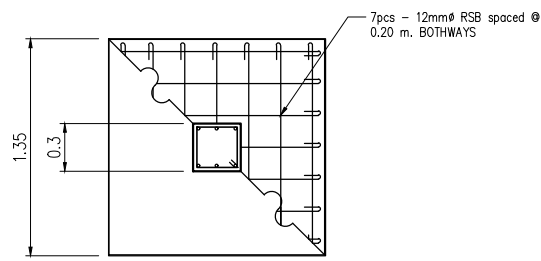
DETAIL OF WF1

DETAIL OF WF2



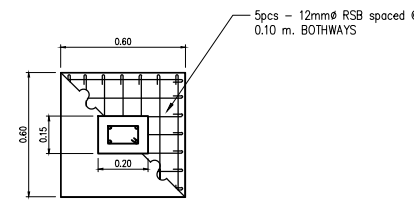
PLAN

DETAIL OF CF1

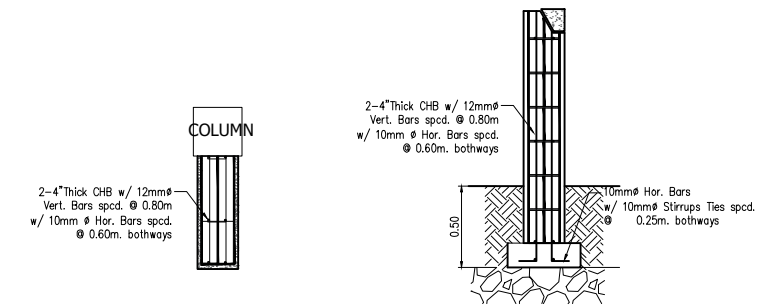


PLAN

DETAIL OF CF2



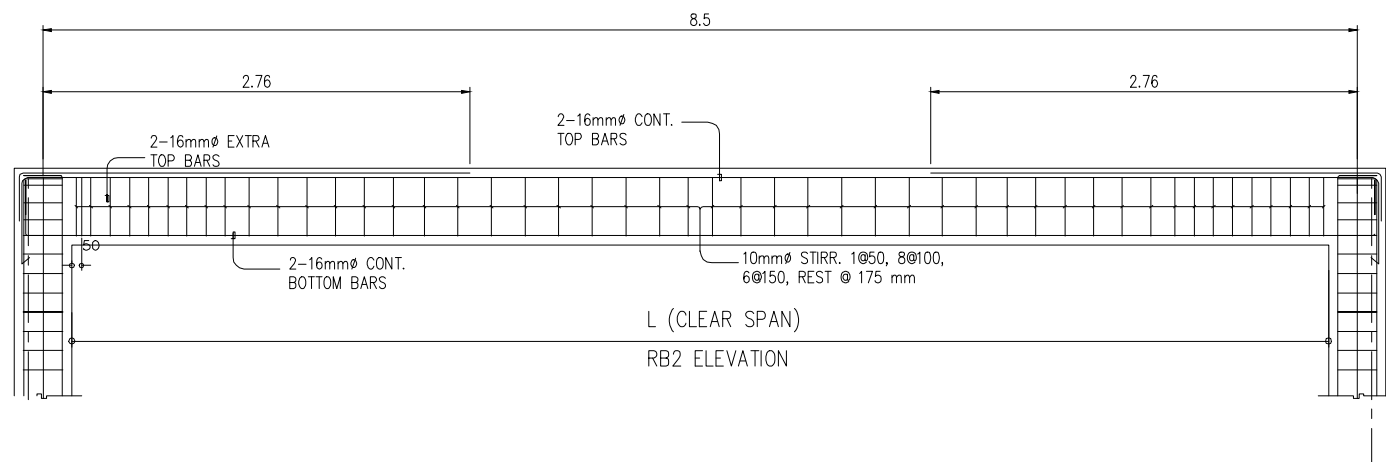
DETAIL OF CF3



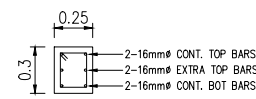
TYP DETAIL OF W2/W3

1
ST3
COLUMN/ FOOTING DETAIL
SCALE N.D.T.S

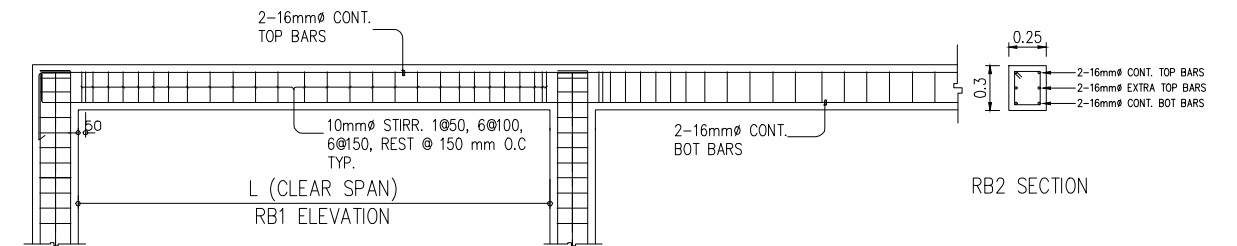
3
ST3
WALL FOOTING DETAIL
SCALE N.D.T.S



L (CLEAR SPAN)
RB2 ELEVATION



RB2 SECTION

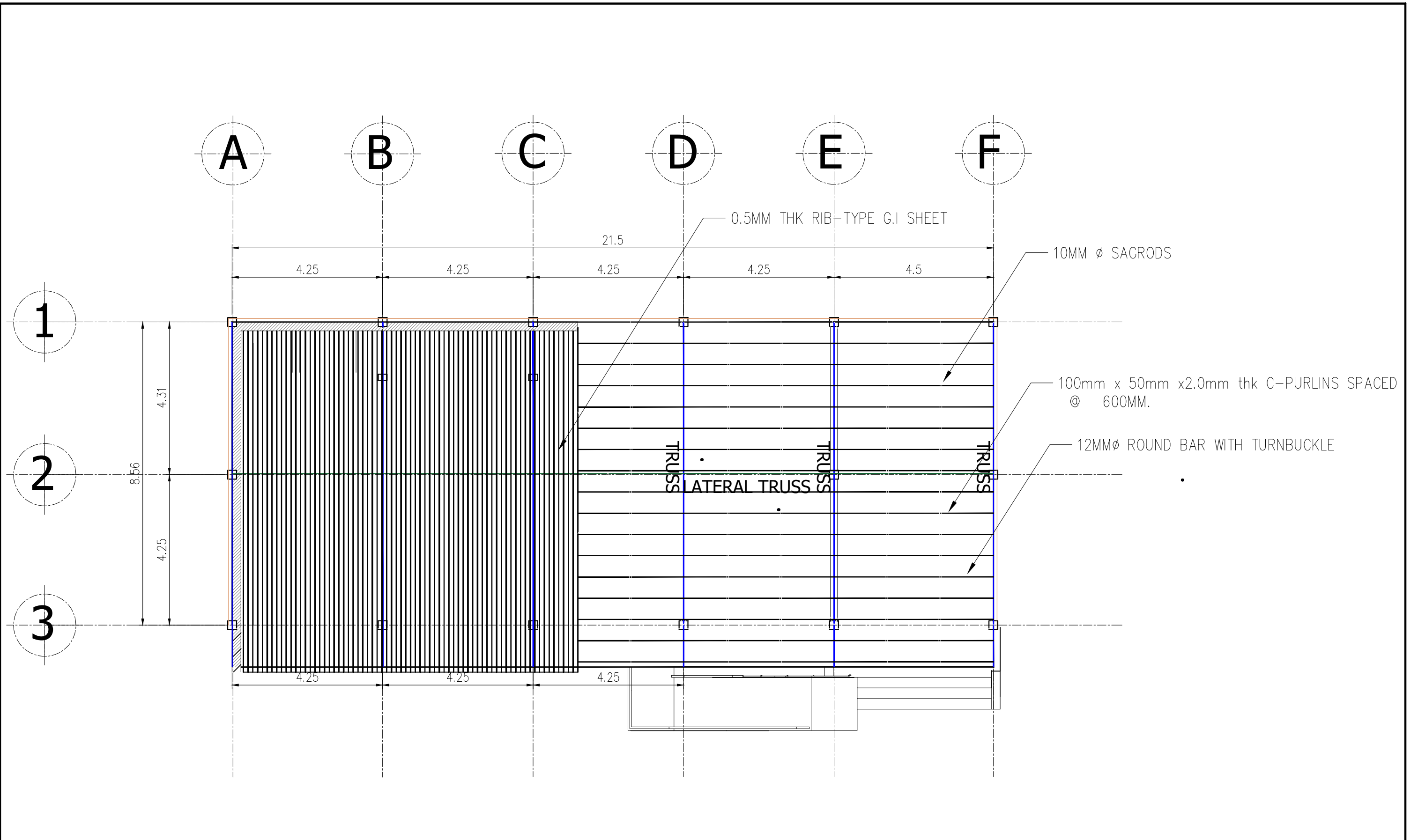


L (CLEAR SPAN)
RB1 ELEVATION

RB2 SECTION

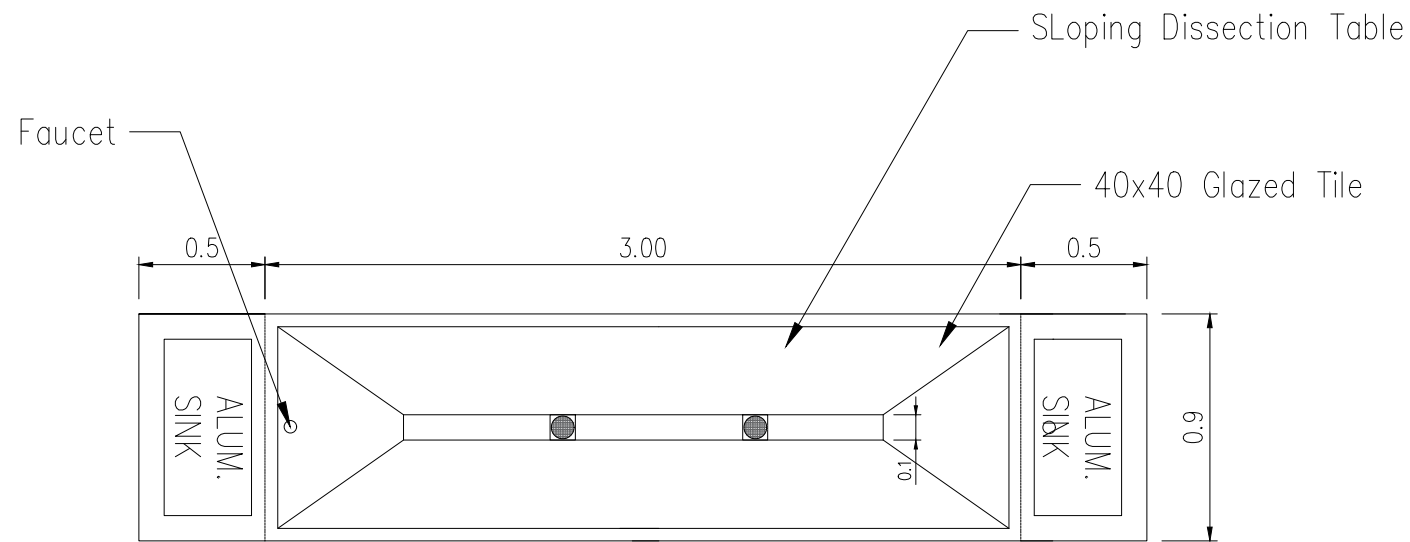
2
ST3
ROOF BEAM DETAIL
SCALE N.D.T.S

	TIN : 474-984-480	Design & Sealed:	Project Title :	Checked by :	Approved by :	SHEET CONTENTS: COLUMN/FOOTING DETAIL WALL FOOTING DETAIL ROOF BEAM PLAN	ST703 SHEET NO. 09 22
	PRC : 0141581	ENGR. JIEN APRIL B. JUALO ENGINEER-PPDMO	"PROPOSED" CONSTRUCTION OF DBS VERTEBRAE ANATOMY BUILDING	ENGR. MARCELO T. ABRERA JR. DIRECTOR-PPDMO	Dr. DANIEL LESLIE S. TAN OIC-ASU PRESIDENT/VICE-PRESIDENT, ADMINISTRATION AND FINANCE		
	PTR : 470692						
	Date : 2/06/2023						
PL. ISS. : MAASIN CITY	LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY						

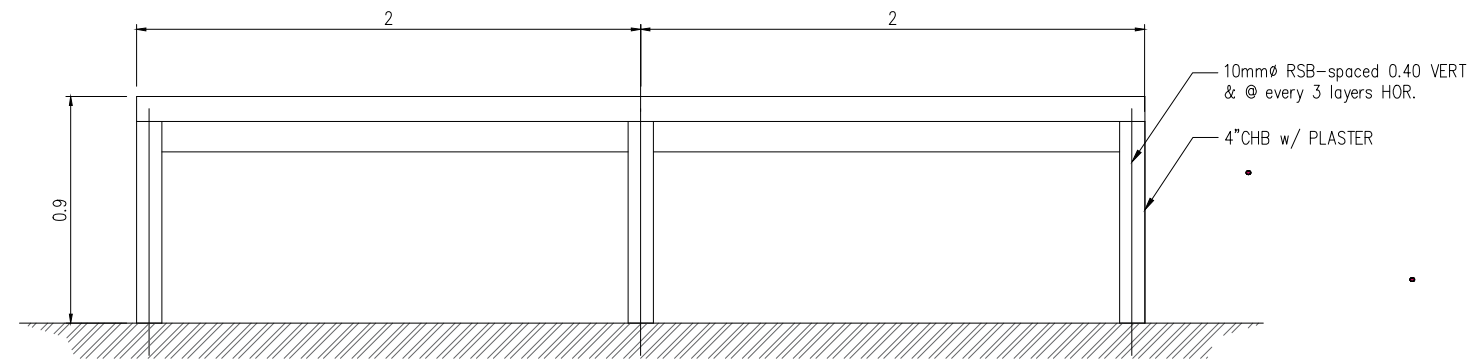
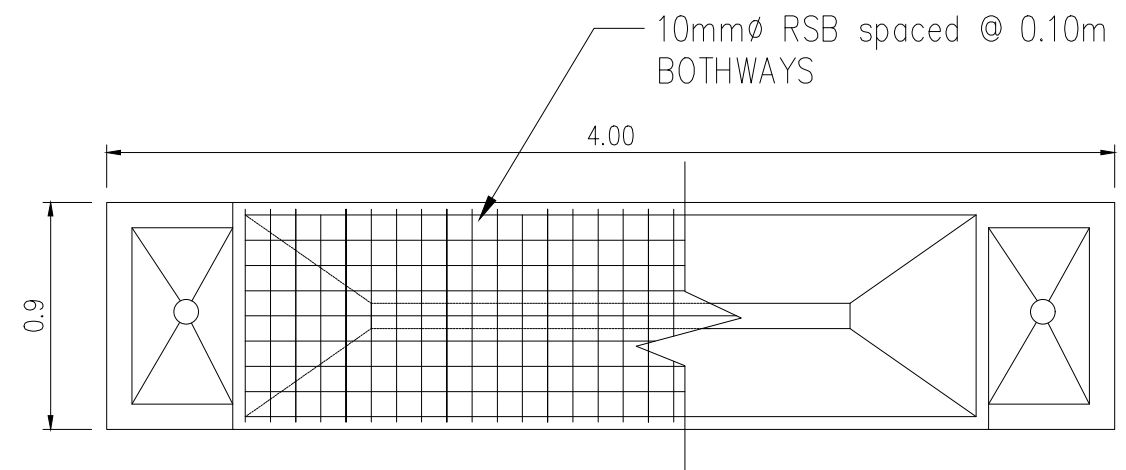


1 **ROOF FRAMING PLAN**
 ST4 SCALE 1:100M

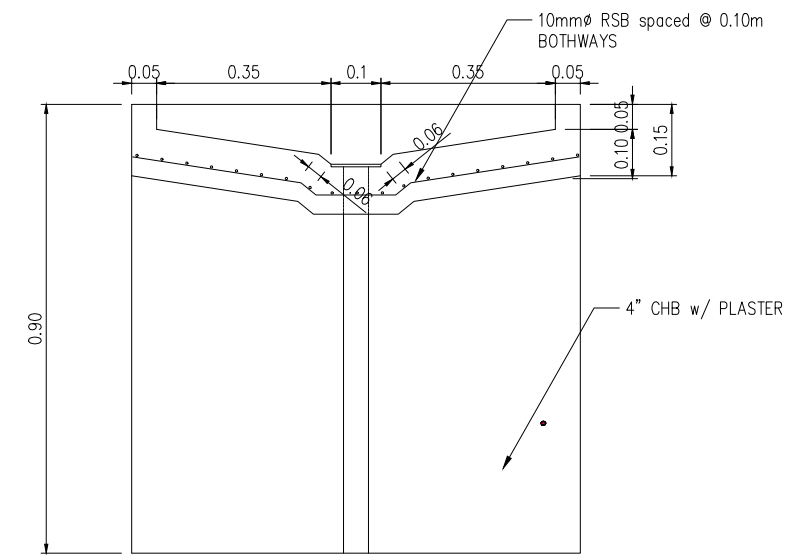
	TIN : 474-984-480	Design & Sealed:	Project Title :	Checked by :	Approved by :	SHEET CONTENTS:
	PRC : 0141581 PTR : 470692 Date : 2/06/2023 PL. ISS. : MAASIN CITY	ENGR. JIEN APRIL B. JUALO ENGINEER-PPDMO	"PROPOSED" CONSTRUCTION OF DBS VERTEBRAE ANATOMY BUILDING LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY	ENGR. MARCELO T. ABRERA JR. DIRECTOR-PPDMO	Dr. DANIEL LESLIE S. TAN OIC-VSU PRESIDENT/VICE PRESIDENT, ADMINISTRATION AND FINANCE	ROOF FRAMING PLAN



TOP VIEW

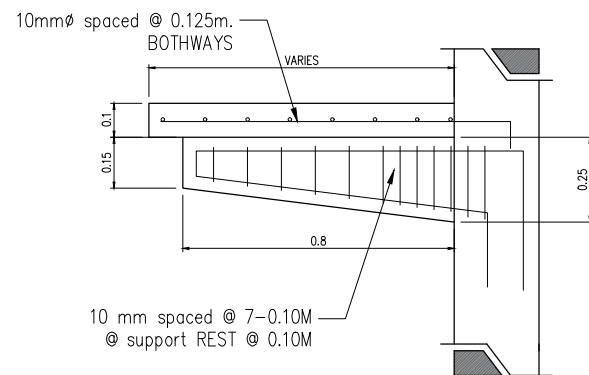


ELEVATION

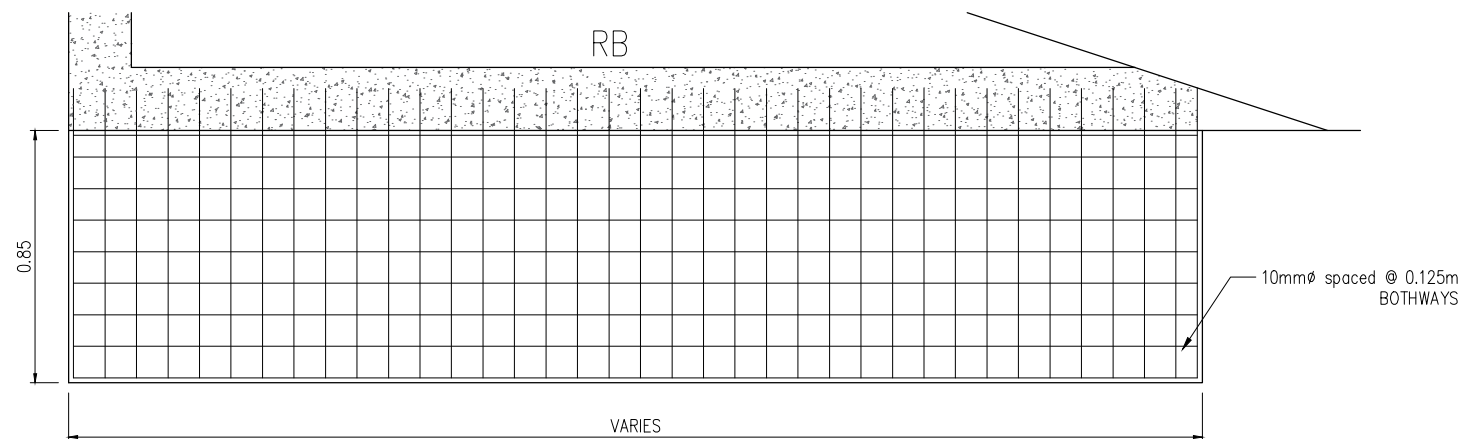


SECTION

1 ANIMAL DISSECTION TABLE DETAILS
SCALE 1:30M



2 CONCRETE CORBEL DETAILS
SCALE 1:30M



3 CONCRETE CANOPY DETAILS
SCALE 1:30M



TIN : 474-984-480
PRC : 0141581
PTR : 470692
Date : 2/06/2023
PL. ISS. : MAASIN CITY

Design & Sealed:
ENGR. JIEN APRIL B. JUALO
ENGINEER-PPDMO

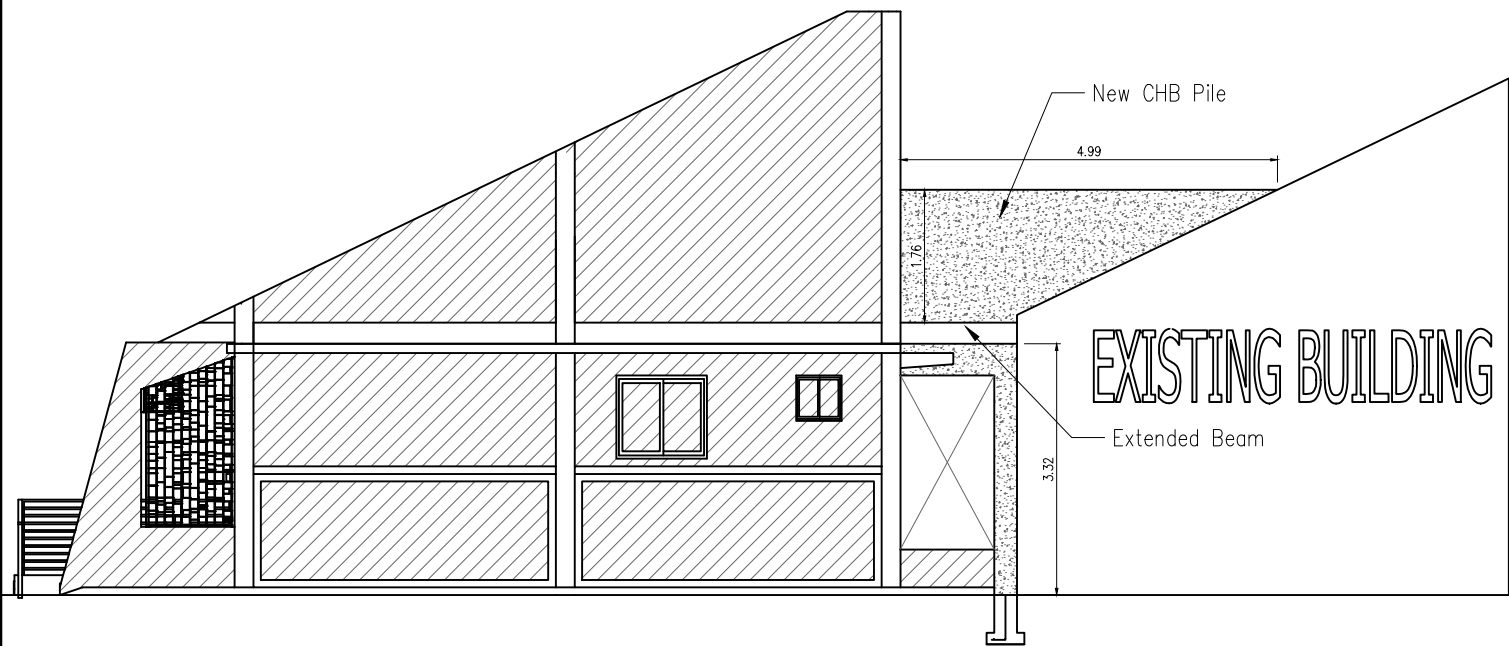
Project Title:
"PROPOSED"
CONSTRUCTION OF DBS VERTEBRAE ANATOMY BUILDING
LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY

Checked by:
ENGR. MARCELO T. ABRERA JR.
DIRECTOR-PPDMO

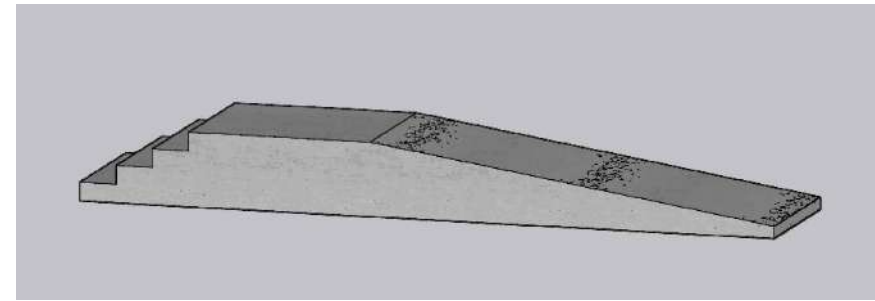
Approved by:
Dr. DANIEL LESLIE S. TAN
OIC-VSU PRESIDENT/VICE PRESIDENT, ADMINISTRATION AND FINANCE

SHEET CONTENTS:
ANIMAL DISSECTION TABLE DETAILS
CONCRETE CORBEL DETAILS
CONCRETE CANOPY DETAILS

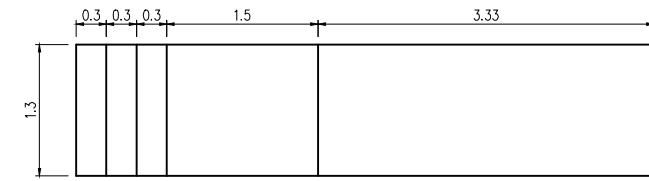
ST7 06
SHEET NO.
12 22



1
ST7
EXTENDED WALL PLAN
SCALE N.D.T.S



PERSPECTIVE

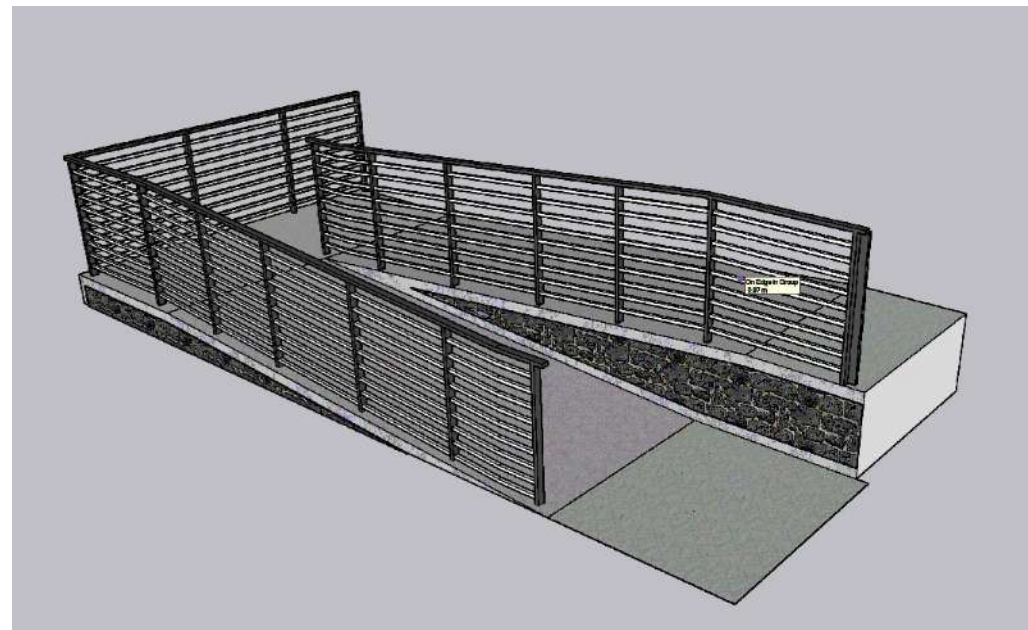


PLAN

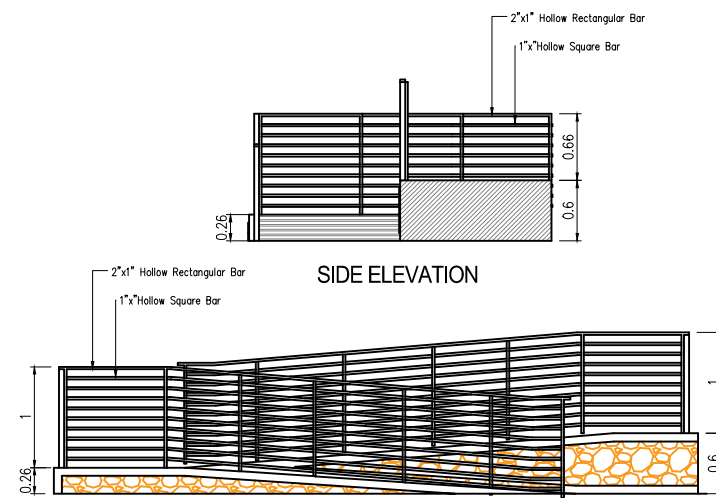


ELEVATION

1
ST7
RAMP1 PLAN DETAIL
SCALE N.D.T.S

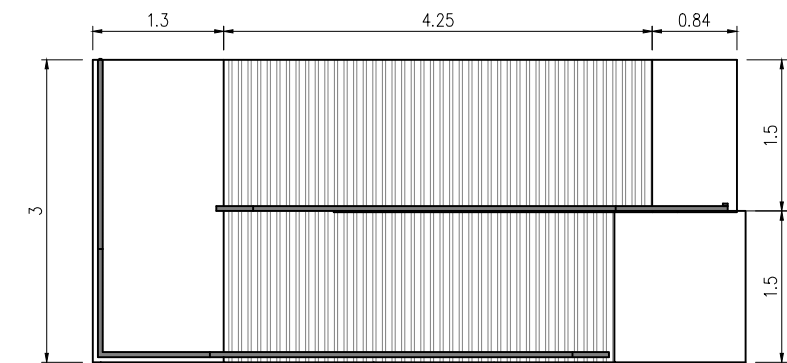


PERSPECTIVE



SIDE ELEVATION

FRONT ELEVATION



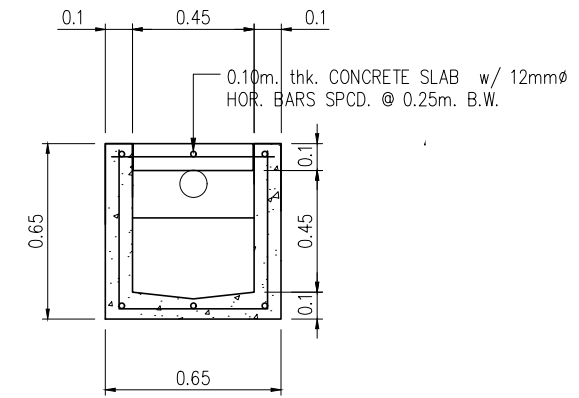
PLAN

3
ST7
RAMP 2 PLAN DETAIL
SCALE N.D.T.S

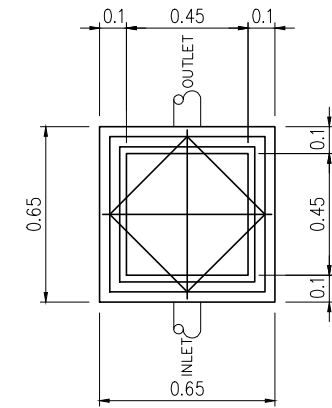
	TIN : 474-984-480	Design & Sealed:	Project Title :	Checked by :	Approved by :	SHEET CONTENTS: EXTENDED WALL PLAN RAMP 1 PLAN DETAIL RAMP 2 PLAN DETAIL	ST707 SHEET NO. 13 22
	PRC : 0141581	ENGR. JIEN APRIL B. JUALO ENGINEER-PPDMO	"PROPOSED"	ENGR. MARCELO T. ABRERA JR. DIRECTOR-PPDMO	Dr. DANIEL LESLIE S. TAN OIC-VSU PRESIDENT/VICE PRESIDENT, ADMINISTRATION AND FINANCE		
	PTR : 470692		CONSTRUCTION OF DBS VERTEBRAE ANATOMY BUILDING				
	Date : 2/06/2023		LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY				
PL. ISS. : MAASIN CITY							

PLUMBING NOTES

- 1 - ALL WORKS SHALL CONFORM TO THE RULES AND REGULATION OF THE NATIONAL PLUMBING CODE.
- 2 - PLUMBING INSTALLATIONS SHALL BE DONE THRU THE DIRECT SUPERVISION OF A DULY LICENSED MASTER PLUMBER.
- 3 - ALL MATERIALS TO BE USED SHALL BE NEW AND APPROVED TYPE OF LOCATION AND PURPOSE.
- 4 - RUN ALL HORIZONTAL PIPINGS IN PERFECT ALIGNMENT AND AT A FORM GRADE NOT LESS THAN TWO PERCENT (2%).
- 5 - THE DIGESTION CHAMBER OF SEPTIC TANK MUST BE WATERPROOFED.
- 6 - NO SEPTIC TANK SHALL BE CONSTRUCTED UNDER THE BUILDING.
TANK ROOF SLAB.
- 7 - NOT LESS THAN 300MM. OF AIR SPACE MUST BE LEFT BETWEEN THE TOP OF THE SEWAGE AND THE UNDER PART OF
- 8 - ALL PLUMBING WORKS SHALL BE UNDER THE DIRECT SUPERVISION OF A LICENSED MASTER PLUMBER AND ARCHITECT.



PLAN



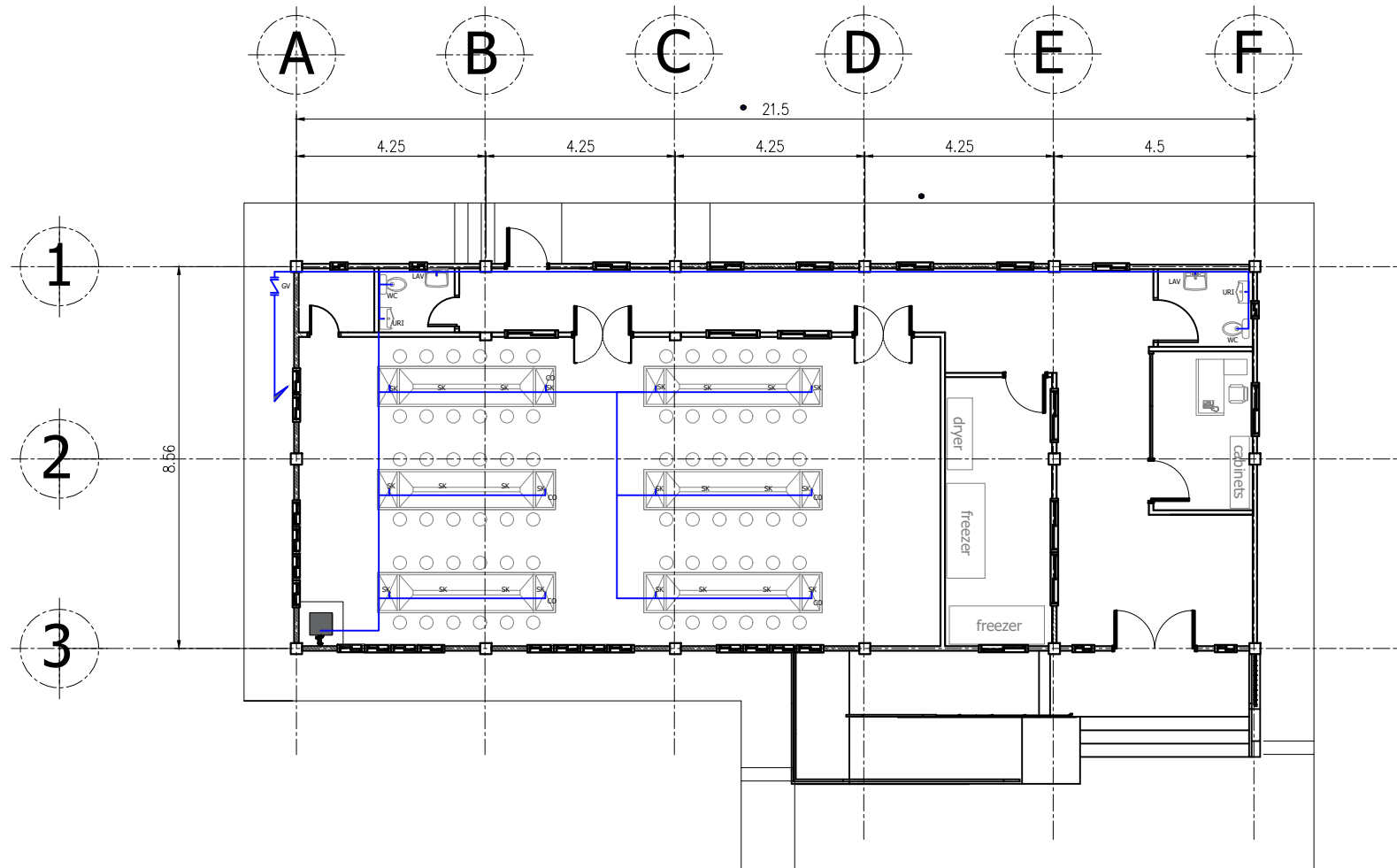
SECTION

2
PL1

DETAIL OF R.C. CATCH BASIN

SCALE

N.D.T.S.



1
PL1

WATERLINE LAY-OUT PLAN

SCALE

1:150M

LEGEND :

- CV CHECK VALVE
- F FAUCET
- FD FLOOR DRAIN
- GCO GROUND CLEANOUT
- GV GATE VALVE
- HB HOSE BIBB
- LAV LAVATORY
- MH MANHOLE
- SH SHOWER HEAD
- SV SEPTIC VAULT
- VSTR VENT STACH THRU ROOF
- WC WATER CLOSET
- WM WATER METER



TIN : 408-793-887
 PRC : 0010946
 PTR : 7925078
 Date : 2/2/2023
 PL. ISS. : BAYBAY CITY

Design & Sealed:
ENGR. MARCELO T. ABRERA, JR.
 MASTER PLUMBER

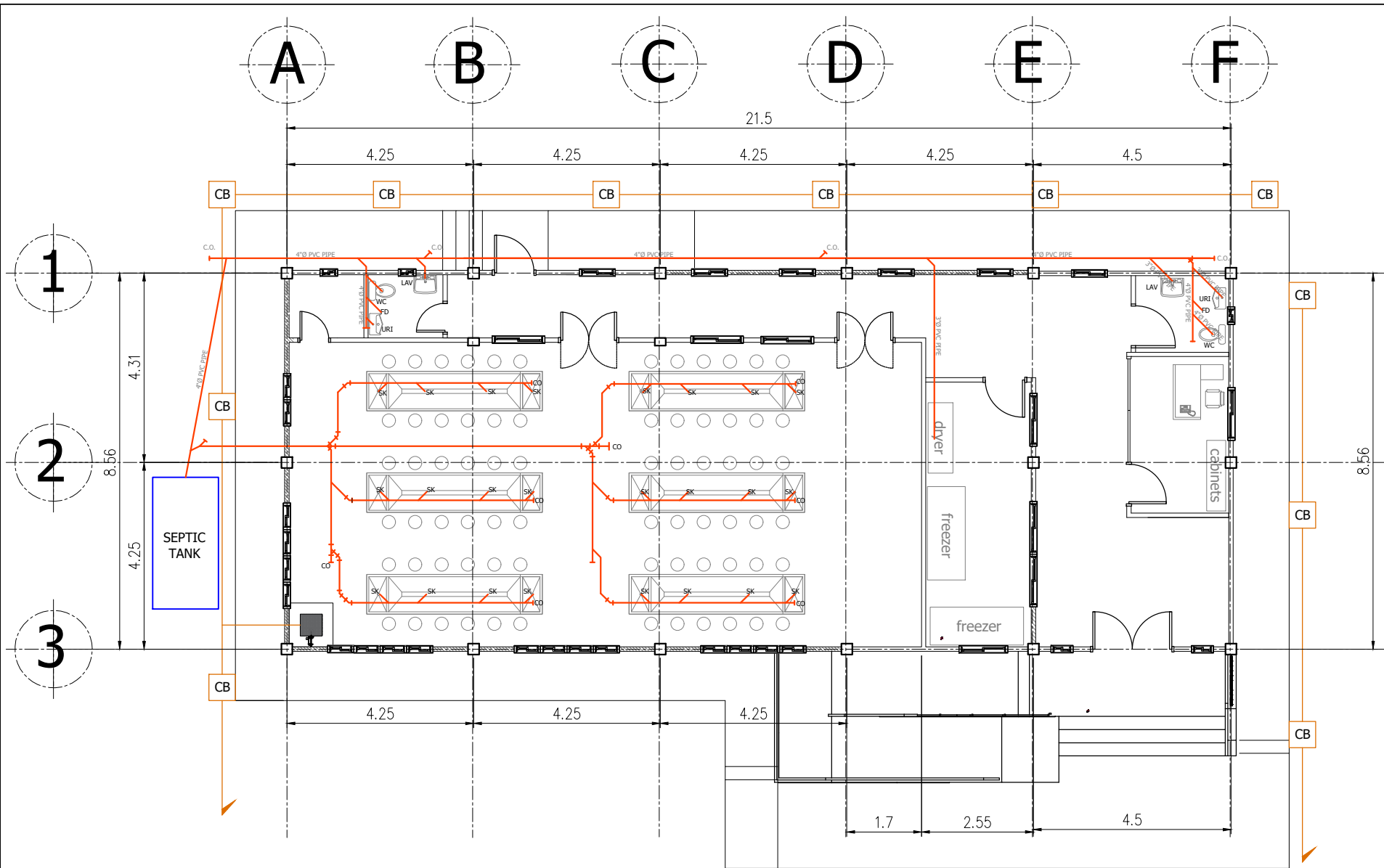
Project Title:
"PROPOSED"
CONSTRUCTION OF DBS VERTEBRAE ANATOMY BUILDING
 LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY

Checked by:
ENGR. MARCELO T. ABRERA JR.
 DIRECTOR-PIPDMO

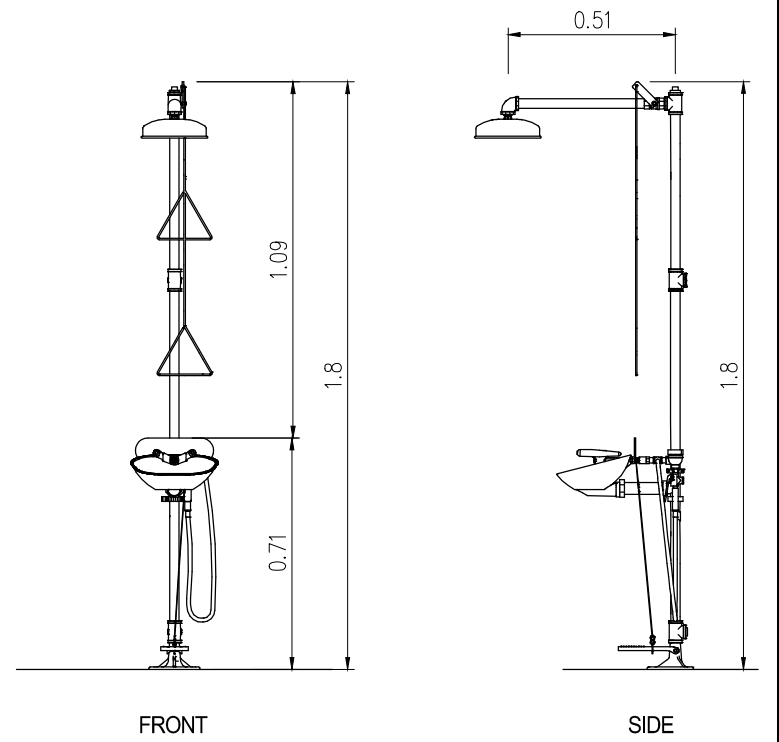
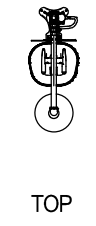
Approved by:
Dr. DANIEL LESLIE S. TAN
 OIC-VSU PRESIDENT/VICE PRESIDENT, ADMINISTRATION AND FINANCE

SHEET CONTENTS:
 PLUMBING NOTES
 LEGEND
 WATERLINE LAY-OUT PLAN
 DETAIL OF R.C. CATCH BASIN

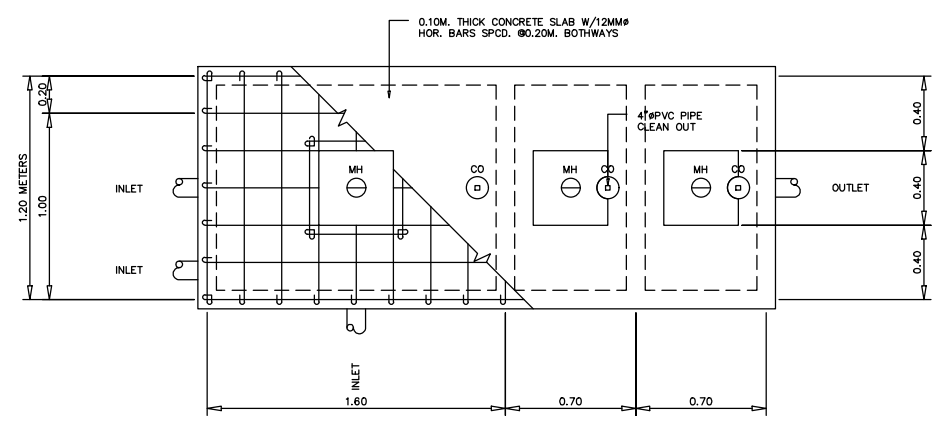
PL2 01
 SHEET NO.
 14 22



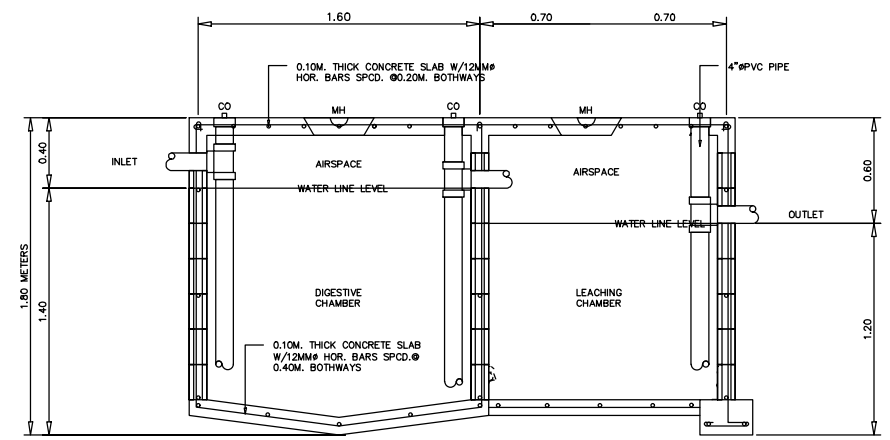
1 SEWER LAY-OUT & DRAINAGE PLAN
 PL2 SCALE 1:125M



2 TYP. EMERGENCY SHOWER DETAIL
 PL2 SCALE 1:30M

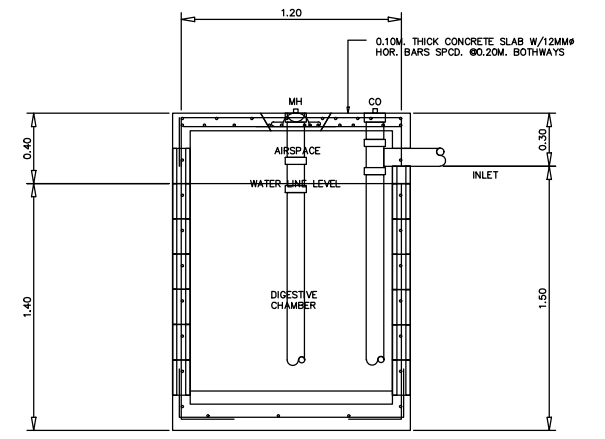


SECTION

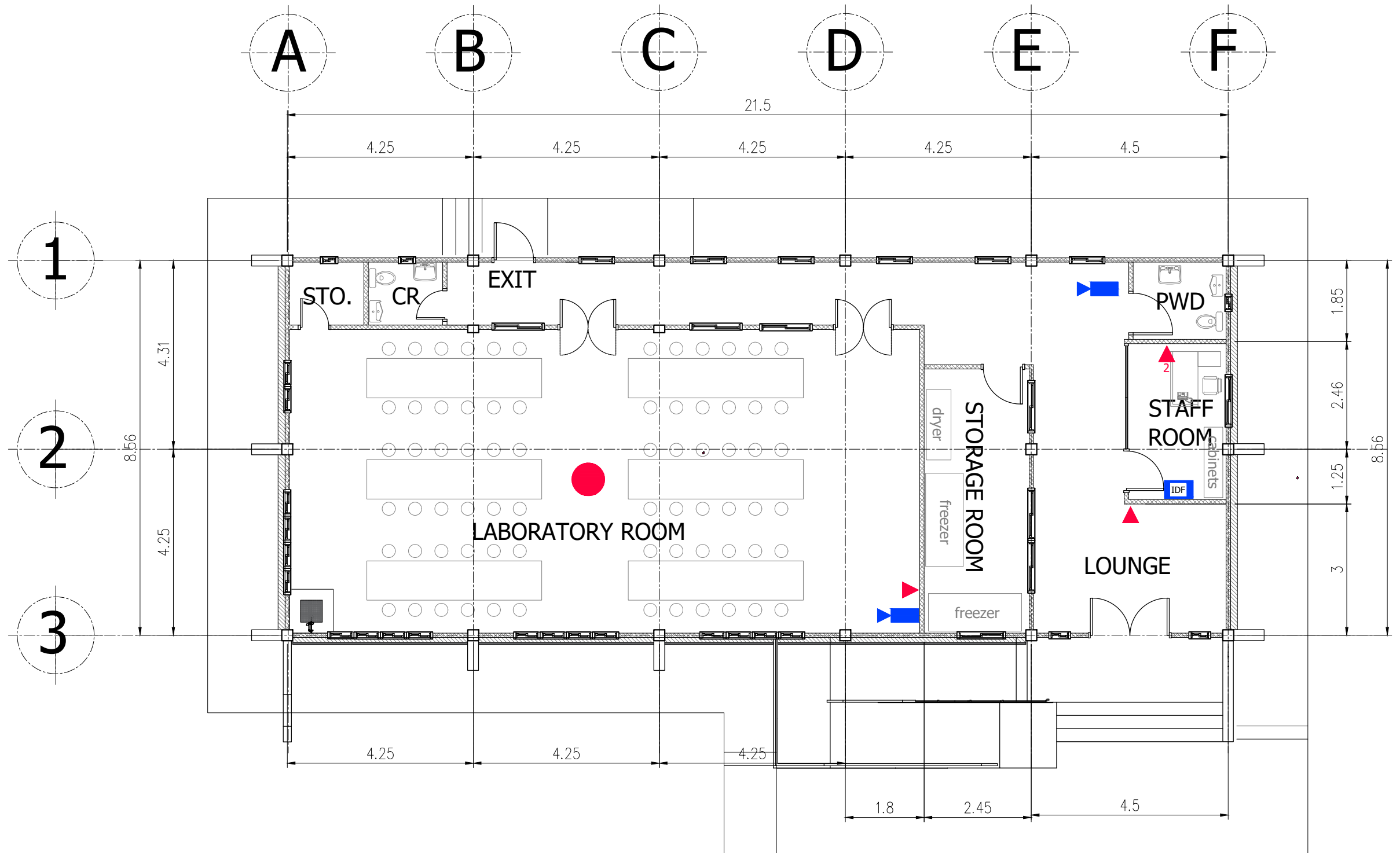


3 SEPTIC TANK DETAIL
 PL2 SCALE 1:40M

SECTION



TIN : 408-793-887	Design & Sealed:	Project Title :	Checked by :	Approved by :	SHEET CONTENTS: SEWER LAY-OUT PLAN SEPTIC TANK DETAIL TYP. EMERGENCY SHOWER DETAIL	PL2 02 SHEET NO. 15 22
PRC : 0010946	ENGR. MARCELO T. ABRERA , JR. MASTER PLUMBER	"PROPOSED" CONSTRUCTION OF DBS VERTEBRAE ANATOMY BUILDING LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY	ENGR. MARCELO T. ABRERA JR. DIRECTOR-PIPDMO	Dr. DANIEL LESLIE S. TAN OIC-VSU PRESIDENT/ VICE PRESIDENT, ADMINISTRATION AND FINANCE		
PTR : 7925078						
Date : 2/2/2023						
PL.ISS. : BAYBAY CITY						



LAN LAY-OUT PLAN
SCALE 1:100



TIN :
 PRC :
 PTR :
 Date :
 PL. ISS. :
ENGR. SEAN O. VILLAGONZALO
 HEAD, ICT

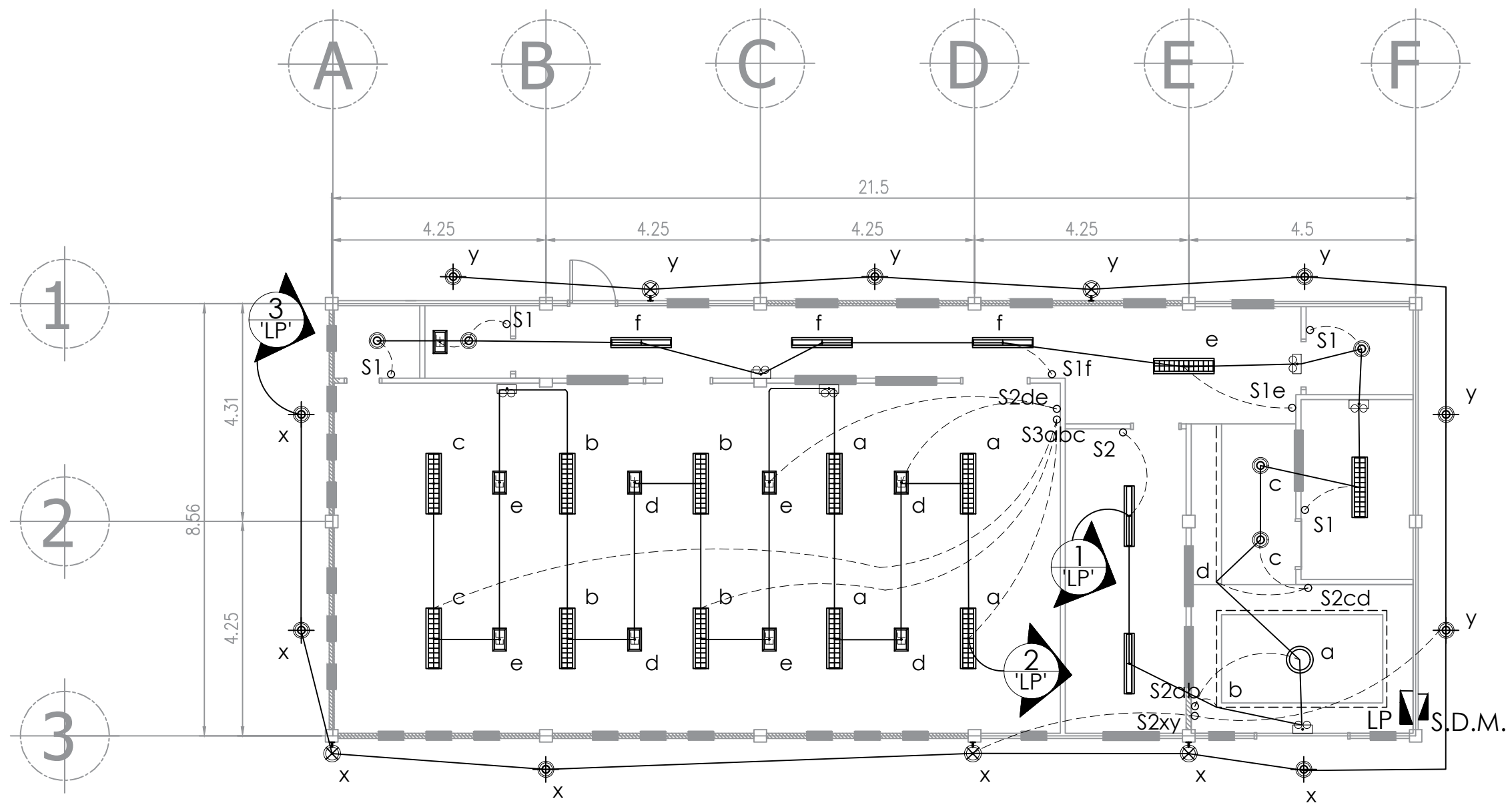
Project Title :
"PROPOSED"
CONSTRUCTION OF DBS VERTEBRAE ANATOMY
BUILDING
 LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY

Checked by :
ENGR. MARCELO T. ABRERA JR.
 DIRECTOR - PIPDMO

Approved by :
Dr. DANIEL LESLIE S. TAN
 OIC-VSU PRESIDENT/ VICE PRESIDENT, ADMINISTRATION AND FINANCE

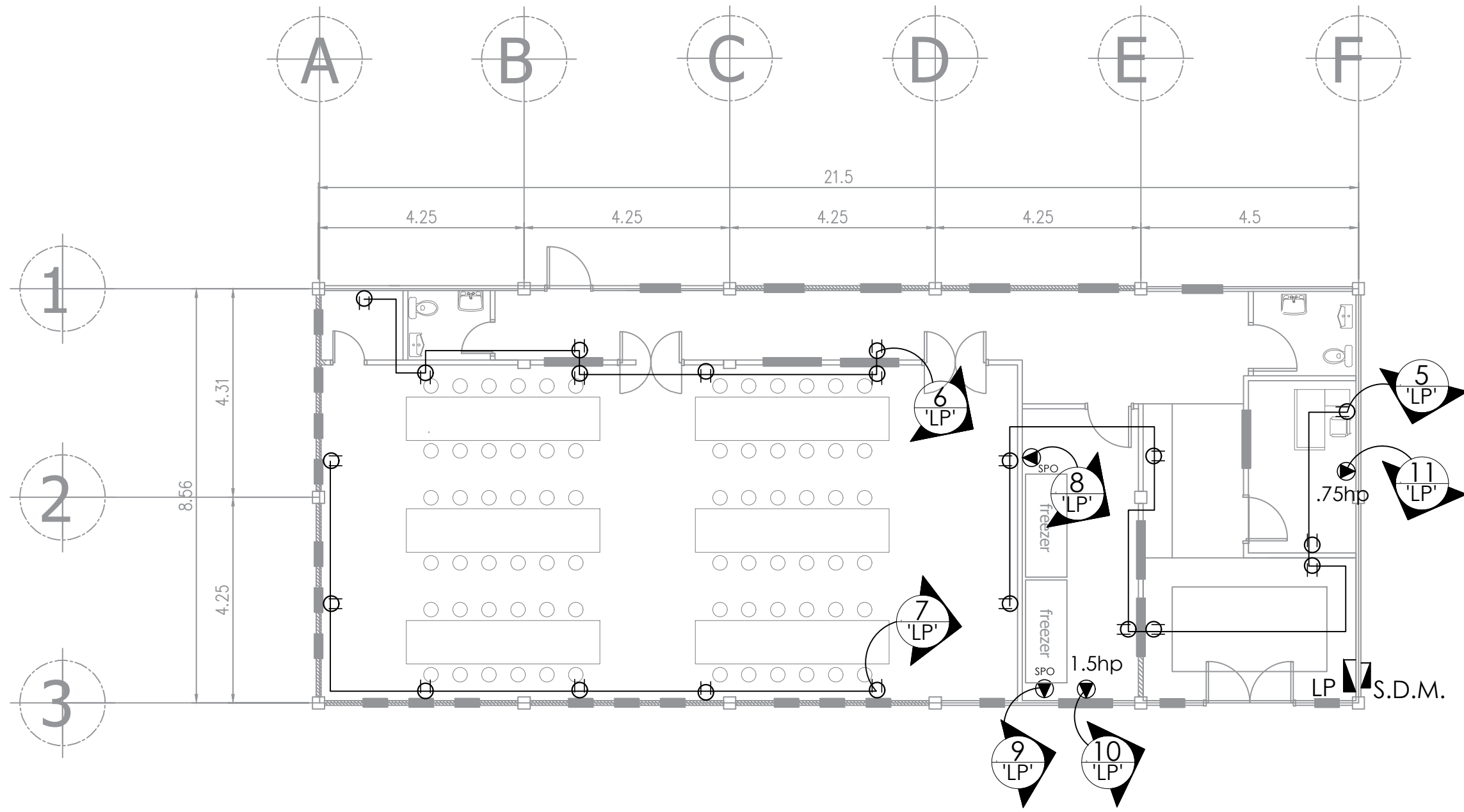
SHEET CONTENTS:
 LAN LAY-OUT PLAN

ICT 01 01
 SHEET NO.
 16 22



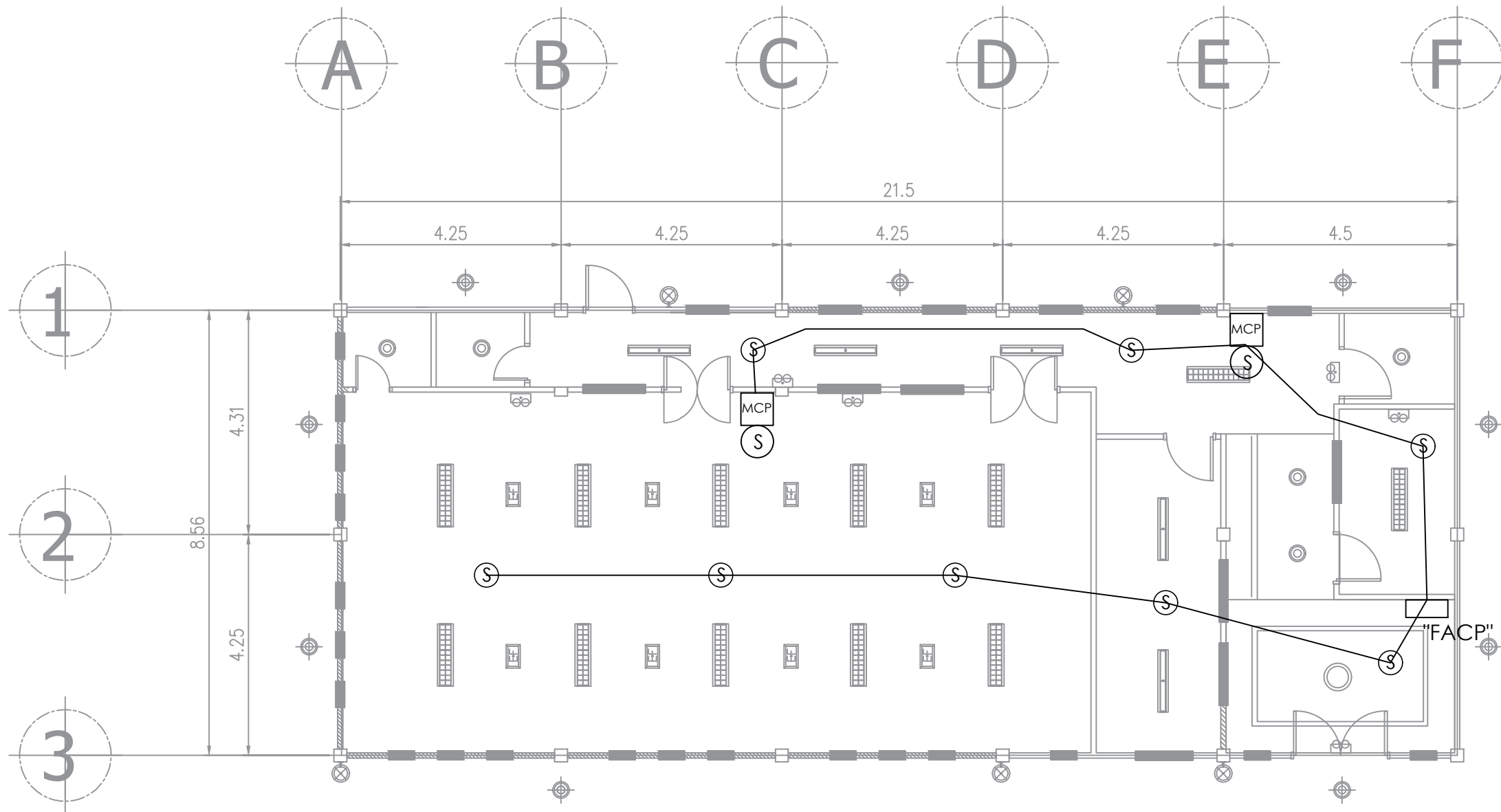
1 LIGHTING LAYOUT
E-1 SCALE 1:100 M

	TIN:	Prepared by:	Project Title:	Checked by:	Approved by:	SHEET CONTENTS. LIGHTING LAYOUT	E1 06 SHEET NO. 17 22
	PRC: 0059366	Engr. CLINT C. SARVDA	"PROPOSED" CONSTRUCTION OF DBS VERTEBRAE ANATOMY BUILDING	ENGR. MARCELO T. ABRERA JR. DIRECTOR-PPDM	Dr. DANIEL LESLIE S. TAN OIC-ASUPPRESIDENT/VICE PRESIDENT, ADMINISTRATION AND FINANCE		
	PTR:						
	Date: 09/30/2015						
Place: Osmoc City	Electrical Engineer	LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY					




1 POWER LAYOUT
E-2 SCALE 1:100 M

	TIN:	Prepared by:	Project Title:	Checked by:	Approved by:	SHEET CONTENTS. POWER LAYOUT	E2 01 SHEET NO. 18 22
	PRC: 0059366	Engr. CLINT C. SARVDA	"PROPOSED" CONSTRUCTION OF DBS VERTEBRAE ANATOMY BUILDING	ENGR. MARCELO T. ABRERA JR. DIRECTOR-PPDM	Dr. DANIEL LESLIE S. TAN OIC-ASUPRESDENT/VICEPRESIDENT, ADMINISTRATION AND FINANCE		
	PTR:						
	Date: 09/30/2015						
Place: Osmoc City	Electrical Engineer	LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY					



1 FIRE ALARM LAYOUT
E-3 SCALE 1:100 M

	TIN: PRC: 0059366	Prepared by: Engr. CLINT C. SARVIDA	Project Title: "PROPOSED" CONSTRUCTION OF DBS VERTEBRAE ANATOMY BUILDING	Checked by: ENGR. MARCELO T. ABRERA JR. DIRECTOR-PPDM	Approved by: Dr. DANIEL LESLIE S. TAN	SHEET CONTENTS: FIRE ALARM LAYOUT	<table border="1"> <tr> <td>E3 01</td> </tr> <tr> <td>SHEET NO.</td> </tr> <tr> <td>19 22</td> </tr> </table>	E3 01	SHEET NO.	19 22
	E3 01									
SHEET NO.										
19 22										
Date: 09/30/2015	Place: Ormoc City	Electrical Engineer	LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY		Dr. DANIEL LESLIE S. TAN VIC-ASUPRESIDENT/VICEPRESIDENT, ADMINISTRATION AND FINANCE					

1 SCHEDULE OF LOADS
E-4 NOT TO SCALE

PROJECT NAME: DBS VERTABRAE	SYSTEM: SINGLE PHASE	WIRE COLOR CODING:	TYPE: BOLT-ON TYPE
ADDRESS: VSU, BAYBAY CITY, LEYTE	CONNECTION: L-N (GROUNDED L2)	L1- RED N- WHITE	MOUNTING TYPE: FLUSHED TYPE
PANEL NAME: LP	L-L VOLTAGE: 240 VAC	L2- WHITE	ENCLOSURE TYPE: NEMA 3R
	FREQUENCY: 60 HZ	G- GREEN	

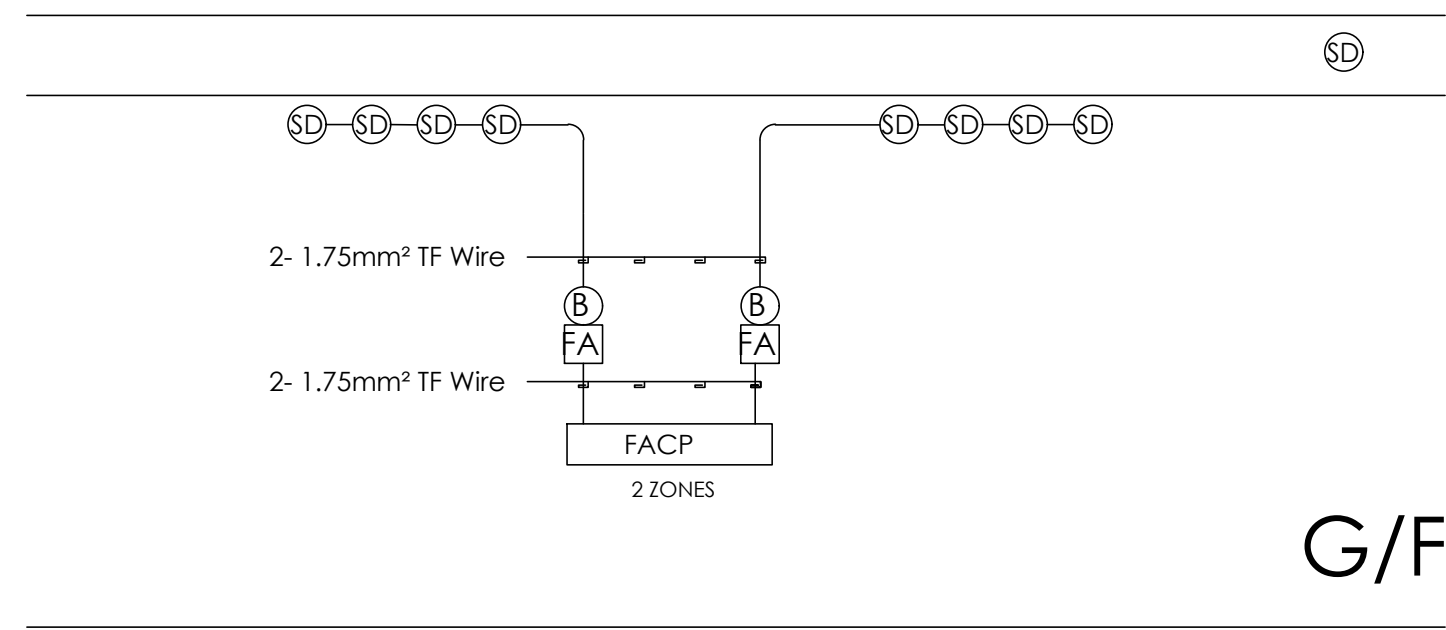
CKT NO	DESCRIPTION	LIGHT S,EM. &FAN	SWITCH	C.O.	SPECIAL LOADS	LOAD DETAILS				I(A)	CIRCUIT BREAKER					WIRES				CONDUIT		% VD	TERMINAL #				
						LOAD VA	PHASE NO.	LOAD P.F.	TYPE (C, N-C)		VOLTS	L-N	AT	AF	P	KAIC	TYPE	SETS	PHASE	EGC	TYPE			RUN (mtrs)	SIZE	TYPE	
																					INSULATION						Cu/Al
1	LIGHTING OUTLET	20	9			467	1	1	C	240	2.43	20	50	2	8	MCCB	1	3.5 mm2	2.0 mm2	THHN/THW	Cu	46	20 mm. dia.	PVC	0.31	1,3	
2	LIGHTING OUTLET	12	2			1052	1	1	C	240	5.48	20	50	2	8	MCCB	1	3.5 mm2	2.0 mm2	THHN/THW	Cu	60	20 mm. dia.	PVC	0.90	2,4	
3	LIGHTING OUTLET	14	1			335	1	1	N-C	240	1.40	20	50	2	8	MCCB	1	3.5 mm2	2.0 mm2	THHN/THW	Cu	48	20 mm. dia.	PVC	0.18	5,7	
4	FIRE ALARM CKT.					500	1	1	C	240	2.60	20	50	2	8	MCCB	1	3.5 mm2	2.0 mm2	THHN/THW	Cu	6	20 mm. dia.	PVC	0.04	6,8	
5	RECEPTACLE OUTLET			8		1440	1	0.98	N-C	240	5.88	20	50	2	8	MCCB	1	3.5 mm2	2.0 mm2	THHN/THW	Cu	28	20 mm. dia.	PVC	0.44	9,11	
6	RECEPTACLE OUTLET			7		1260	1	0.98	N-C	240	5.15	20	50	2	8	MCCB	1	3.5 mm2	2.0 mm2	THHN/THW	Cu	30	20 mm. dia.	PVC	0.42	10,12	
7	RECEPTACLE OUTLET			6		1080	1	0.98	N-C	240	4.41	20	50	2	8	MCCB	1	3.5 mm2	2.0 mm2	THHN/THW	Cu	30	20 mm. dia.	PVC	0.36	13,15	
8	S.P.O (FREEZER)					2000	1	0.95	C	240	9.90	20	50	2	8	MCCB	1	3.5 mm2	2.0 mm2	THHN/THW	Cu	12	20 mm. dia.	PVC	0.31	14,16	
9	S.P.O (FREEZER)					2000	1	0.95	C	240	9.90	20	50	2	8	MCCB	1	3.5 mm2	2.0 mm2	THHN/THW	Cu	11	20 mm. dia.	PVC	0.29	17,19	
10	ACU OUTLET(1.5HP)					1231	1	0.92	C	240	5.90	30	50	2	8	MCCB	1	5.5 mm2	2.0 mm2	THHN/THW	Cu	12	20 mm. dia.	PVC	0.11	18,20	
11	ACU OUTLET(0.75HP)					850	1	0.92	C	240	4.07	20	50	2	8	MCCB	1	3.5 mm2	2.0 mm2	THHN/THW	Cu	7	20 mm. dia.	PVC	0.07	21,23	
12	SPARE					1000	1	0.9	N-C	240	3.75	20	50	2	8	MCCB							20 mm. dia.	PVC		22,24	
TOTAL						13215					60.86																

1. SERVICE WIRE SIZING
 DEMAND LOAD = [TOTAL LOAD x D.F. + 25% OF HIGHEST MOTOR LOAD]/SYSTEM VOLTAGE
 TOTAL LOAD = SUM OF -- EACH KVA LOAD MULTIPLIED BY ITS CORRESPONDING CONTINUOUS/NON- CONTINUOUS FACTOR --
 = [(15240.00)(0.78)+(0.25)(1231.00)] /240 A
 = 50.85 A

FOR FEEDER/SERVICE WIRE & CONDUIT, USE:
 1 set of 2-22 mm2 THHN/THW + 1-8.0 mm2 THHN/THW(G)

FOR FEEDER/SERVICE PROTECTION, USE:
 70AT/70AF,2P,12KAIC ,MCCB

2 FIRE ALARM RISER DIAGRAM
E-4 NOT TO SCALE



	TIN: PRC: 0059366	Prepared by: Engr. CLINT C. SARVIDA	Project Title: "PROPOSED"	Checked by: ENGR. MARCELO T. ABRERA JR.	Approved by: Dr. DANIEL LESLIE S. TAN	SHEET CONTENTS. SCHEDULE OF LOADS FIRE ALARM RISER DIAGRAM	E4 02 SHEET NO. 20 22
	Date: 09/30/2015	Place: Ormoc City	Electrical Engineer	LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY	ENGR. MARCELO T. ABRERA JR. DIRECTOR-PPMO		

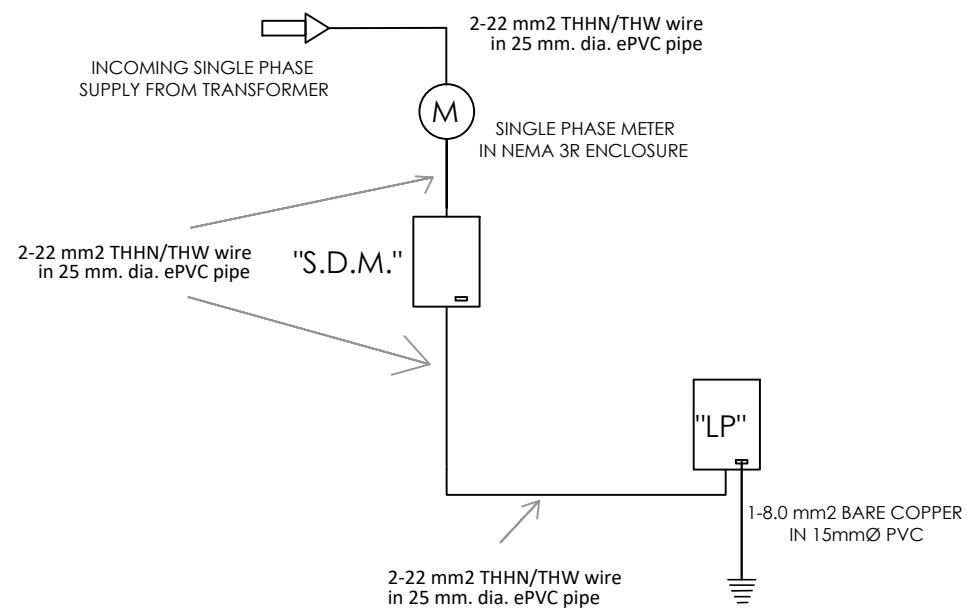
1 GENERAL NOTES AND SPECIFICATIONS
E-5 NOT TO SCALE

- ALL ELECTRICAL WORKS SHALL COMPLY IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS, THE APPLICABLE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE (PEC), THE RULES AND REGULATIONS OF THE LOCAL ENFORCING AUTHORITY AND THE REQUIREMENTS OF THE LOCAL POWER COMPANY. THE ELECTRICAL WORKS SHALL BE UNDER IMMEDIATE SUPERVISION OF A DULLY REGISTERED ELECTRICAL ENGINEER.
- THE ELECTRICAL SERVICE POWER IS 1 - PHASE, 2 WIRE + GROUND 230 V AC, 60Hz.
- WIRING METHOD SHALL BE AS FOLLOWS :
 - FEEDERS AND RISERS - POLYVINYL CHLORIDE CONDUIT
 - LIGHTING, POWER RECEPTACLE BRANCH CKT., & AUXILLARY - POLYVINYL CHLORIDE CONDUIT
- ALL WIRES SHALL BE COPPER AND THERMOPLASTIC INSULATED TYPE "THHN" UNLESS OTHERWISE INDICATED IN THE PLAN. THE MINIMUM SIZE OF WIRE FOR POWER AND LIGHTING CIRCUIT HOME RUN SHALL BE 3.5 mm AND INSULATED FOR 600 VOLTS. SMALLEST RACEWAY SHALL BE 15 mm² TRADE/NOMINAL SIZE. LIKewise ALL ELECTRICAL WIRES SHALL BE COLOR CODED.
- ALL OUTLET BOXES SHALL BE GALVANIZED GAGE NO. 16 DEEP TYPE WITH FACTORY KNOCKOUTS.
- ALL MATERIALS TO BE USED SHALL BE BRAND NEW AND APPROVED TYPE FOR THE PARTICULAR LOCATION AND PURPOSE OF USAGE.
- EQUIPMENT GROUNDING SYSTEM SHALL BE PROVIDED TO ELECTRICAL SYSTEM AS PER ELECTRICAL CODE REQUIREMENT.
- MOUNTING HEIGHT OF WIRING DEVICES SHALL BE AS FOLLOWS :
 - LIGHT SWITCH - 1.20 M ABOVE FINISHED FLOOR
 - CONVENIENCE OUTLET - 0.30 M ABOVE FINISHED FLOOR
 - PANELBOARD - 1.50 M ABOVE FINISHED FLOOR
 - FIRE ALARM STATION OUTLET - 1.50 ABOVE FINISHED FLOOR
 - PUSH BOTTON OUTLET - 1.20 M ABOVE FINISHED FLOOR
 - FIRE ALARM AND VIBRATING BELL - 0.30 M BELOW CEILING LINE

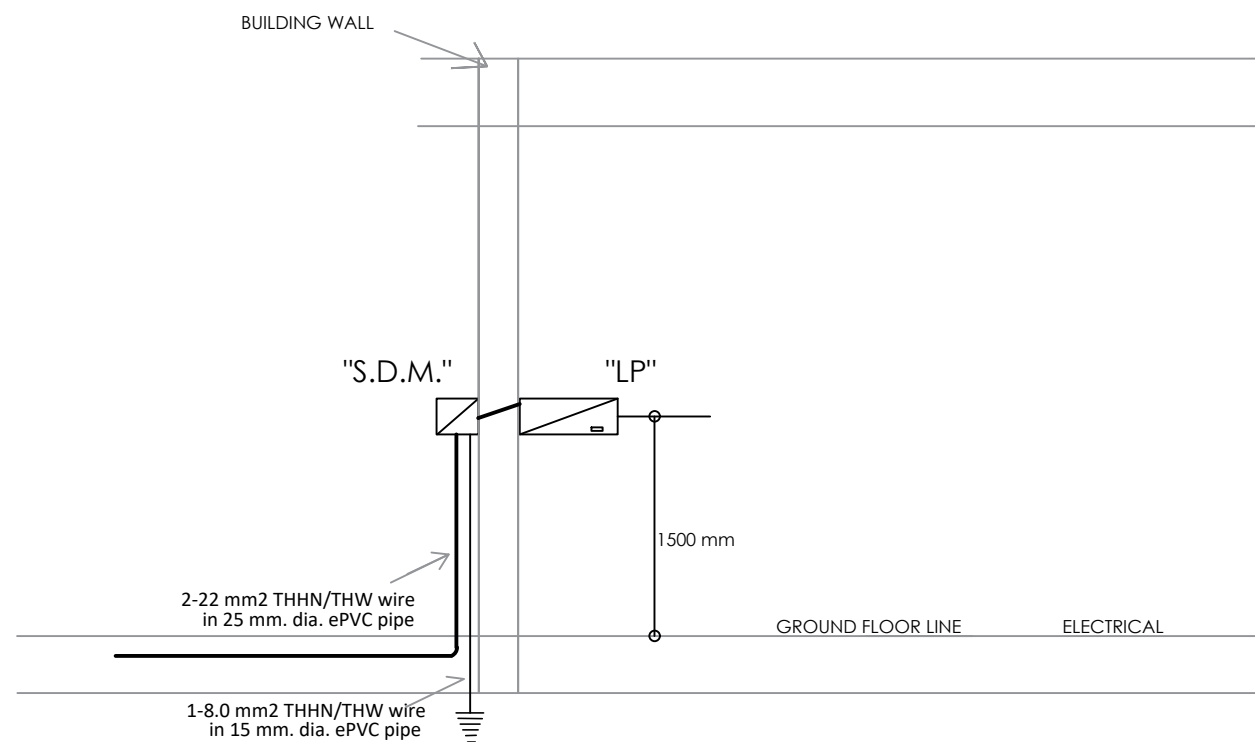
2 LEGEND AND SYMBOLS
E-5 NOT TO SCALE

- LED strip lights (tricolor)
- 7 WATTS OUTDOOR WALL LAMP
- 7 WATTS CIRCULAR PINLIGHT
- 9 WATTS CYLINDRICAL SURFACE MOUNTED LIGHTS (FOR OUTDOOR CEILING LIGHTS)
- 1x40 WATTS T8 LED IN LOUVER TYPE SURFACE MOUNT LIGHTING FIXTURE 1"x48"
- 2x40 WATTS T8 LED IN LOUVER TYPE SURFACE MOUNT LIGHTING FIXTURE 12"x48"
- EXHAUST FAN
- EMERGENCY LIGHT WITH BATTERY BACK-UP POWER SOURCE
- ONE GANG SWITCH WITH LED INDICATOR
- TWO GANG SWITCH WITH LED INDICATOR
- THREE GANG SWITCH WITH LED INDICATOR
- THREE WAY ONE GANG SWITCH
- THREE WAY TWO GANG SWITCH
- DUPLEX RECEPTACLE OUTLET WITH GROUND PRONG
- TABLE POP UP DUPLEX RECEPTACLE OUTLET WITH GROUND
- DUPLEX RECEPTACLE OUTLET WITH GROUND PRONG (COUNTER HEIGHT)
- SPECIAL PURPOSE OUTLET WITH GROUND PRONG
- AIRCON OUTLET
- SMOKE DETECTOR
- HEAT DETECTOR
- FIRE ALARM BELL & MANUAL CALL POINT
- FIRE ALARM CONTROL PANEL
- PANEL BOARD WITH NEMA ENCLOSURE

3 SINGLE LINE DIAGRAM
E-5 NOT TO SCALE



4 RISER DIAGRAM
E-5 NOT TO SCALE



	TIN : PRC : 0059366	Prepared by: Engr. CLINT C. SARVDA Electrical Engineer	Project Title: "PROPOSED" CONSTRUCTION OF DBS VERTEBRAE ANATOMY BUILDING LOCATION: NATIONAL HIGHWAY, VSU-MAIN, BAYBAY CITY	Checked by: ENGR. MARCELO T. ABRERA JR. DIRECTOR-PPDM	Approved by: Dr. DANIEL LESLIE S. TAN VIC-ASUPRESDENT/VICE PRESIDENT, ADMINISTRATION AND FINANCE	SHEET CONTENTS: GENERAL NOTES AND SPECIFICATIONS LEGEND AND SYMBOLS SINGLE LINE DIAGRAM RISER DIAGRAM	E5 04
	PTR : Date : 09/30/2015						SHEET NO.
	Place : Ormoc City						21 22

TRANSFORMER TO LP

ONE LINE
DIAGRAM

IMPEDANCE
DIAGRAM

SYSTEM VOLTAGE = 240 V
BASE KVA = 10000 KVA

	PUR	PUX
AVAILABLE UTILITY S.C. MVA = 1000	---	---
25 KVA TRANSFORMER 240 V, SINGLE PHASE [1L-1(L/N)]	---	0.02
1.6 %X 1.2 %R	4.8000	---
98.43 FEET - 22mm2(4 AWG) THHN/THW WIRES IN 25 MM.DIA. PVC PIPE	8.8514	1.2064
70 AT, 2 P, MCCB	---	0.4688
TOTAL PUR and PUX =	13.6514	8.1151
$PUZ = \sqrt{13.651^2 + 8.115^2} = 15.881$		
$I_{S.C. \text{ sym. RMS}} = \frac{10000}{1 \times 0.240 \times 15.881} = 2623.623 \text{ A}$		
$I_{\text{sym. Motor contr.}} = 4.000 \times 5.90 = 23.60 \text{ A}$		
$I_{\text{Total S.C. sym. RMS.}} = 2623.62 + 23.6 = 2,647.22 \text{ A}$		
$X/R_{\text{RATIO}} = \frac{8.1151}{13.651} = 0.5944535$		
ASYM FACTOR = 1.0003836 (TABLE 8)		
$I_{S.C. \text{ Asym. RMS.}} = 2623.62 \times 1.000384 = 2,624.63 \text{ A}$		
$I_{\text{Asym. Motor contr. (100% motor load)}} = 5 \times 5.900 = 29.50 \text{ A}$		
$I_{\text{Total S.C. Asym. RMS.}} = 2624.63 + 29.5000 = 2,654.13 \text{ A}$		

Use: **12 KAIC rating, Circuit Breaker SSC protection**

1 SHORT CIRCUIT ANALYSIS
E-6 NOT TO SCALE

1ST LOCATION POINTS	FROM: TRANSFORMER	TO: LP
SYSTEM TYPE:	SINGLE PHASE	
SYSTEM VOLTAGE TYPE (SECONDARY):	SINGLE VOLTAGE	
VOLTAGE (VOLTS):	240	
MATERIAL TYPE OF THE WIRE:	COPPER	
WIRE SIZE:	22 mm2 (4 AWG)	
NUMBER OF PARALLEL CONDUCTORS:	1	
DISTANCE IN METERS (ONE WAY):	30	
INSTALLATION TYPE:	PVC CONDUIT	
LOAD DETAILS	LOAD CURRENT (AMPERE): 50.85	
DESIRED VOLTAGE DROP PERCENTAGE:	DESIRED VD PERCENTAGE (%VD): 2	
TEMPERATURE AT CONDUCTOR(°C):	75	
FORMULA FOR VOLTAGE DROP (VD):	$VOLTAGE \ DROP \ (VD) = \frac{A \times I \times L \times \sqrt{R^2 + X^2}}{n}$	
where:	VD - is the L-N Voltage drop I - Load current L - Length of conductor R - Resistance of the conductor (using table having resistance(R) value every 305 meters @ 75 deg.celsius) X - Reactance of the conductor (using table having reactance(X) value every 305 meters @ 75 deg. celsius) n- Number of parallel conductors A - is 2 for single phase and 1.732 for three phase	
TEMPERATURE-RESISTANCE FORMULA:	$R_2 = R_{REF} (1 + \alpha_{REF} (T_2 - T_{REF}))$ $\alpha_{REF} = \text{Temperature Coefficient of Resistance at some reference temperature (usually } 0^\circ\text{C or } 20^\circ\text{C)}$ $\alpha_{20}^\circ\text{C} = 0.00386 \text{ for copper (@ } 20 \text{ deg.celsius)}$ $0.00429 \text{ for aluminum (@ } 20 \text{ deg.celsius)}$	
A. FROM:	TRANSFORMER	TO: LP
VOLTAGE DROP (VD) =	$2 \times 50.85 \times 30 \times \frac{\sqrt{0.310^2 + 0.048^2}}{305}$	
VOLTAGE DROP (VD) =	957.0808 / 305	
VOLTAGE DROP (VP) =	3.138 V	
CONSIDERING TEMPERATURE EFFECTS:	$R_{75} = R_{20}^\circ\text{C} (1 + \alpha_{20}^\circ\text{C} (T_{75}^\circ\text{C} - T_{20}^\circ\text{C}))$ $3.138 = R_{20}^\circ\text{C} (1 + .00386 \times (75 - 20))$ $R_{20}^\circ\text{C} = 2.588$ $\text{(FINAL VD) } R_{75} = 2.588 (1 + .00386 \times (75 - 20))$ $\text{(FINAL VD) } R_{75} = 3.138 \text{ V}$	
RECEIVING VOLTAGE = SENDING VOLTAGE - VOLTAGE DROP	$= 240.00 - 3.138 \text{ V}$ $= 236.862 \text{ V}$	
%VD =	3.1380 / 240 %	
%VD =	1.307 %	
ASSESSMENT =	PASSED	

2 VOLTAGE DROP ANALYSIS
E-6 NOT TO SCALE