



College of Law

PROJECT PROPOSAL

Project Title: **COMPLETION OF THE COLLEGE OF LAW BUILDING**
Project Cost: **Eighty-Five Million Pesos (P85,000,000.00)**
Gross Floor Area: **1,800 sq.m.****



I. RATIONALE

The Province of Tawi-Tawi represents both a geographic frontier and a development priority of the Philippine government. As the southernmost province of the country, composed of more than one hundred islands, it faces structural constraints that directly affect the delivery of public services, including education, justice, and governance.

According to the Philippine Statistics Authority, Tawi-Tawi has a population of 440,276 as of 2020¹. Despite its strategic location within the Bangsamoro Autonomous Region in Muslim Mindanao, the province continues to register a poverty incidence of approximately 36.5%, significantly higher than the national average². This disparity reflects longstanding structural gaps in infrastructure, access to education, and availability of professional services.

¹ PSA & Philippine Institute for Development Studies (PIDS), Regional Poverty Statistics.

² Integrated Bar of the Philippines (IBP), legal profession estimates.



College of Law

Within this context, the Mindanao State University system plays a critical role in advancing inclusive development. The MSU TCTO campus serves as the primary institution of higher learning in Tawi-Tawi, positioning it as a key instrument of state presence and nation-building in a geographically isolated area.

II. THE PROBLEM: LIMITED ACCESS TO JUSTICE AND LEGAL SERVICES

Access to legal services in Tawi-Tawi remains severely constrained. While the Philippines maintains an estimated lawyer-to-population ratio of 1:2,500 to 1:3,000, legal professionals are heavily concentrated in urban centers³.

In Tawi-Tawi, fewer than 50 practicing lawyers serve a population exceeding 440,000, resulting in a ratio of approximately 1:8,000 to 1:10,000. This imbalance manifests in delayed court proceedings, limited access to legal representation, and weakened enforcement of rights—particularly in remote island communities.

The situation is further complicated by the coexistence of Philippine civil law and Shariah law within the Bangsamoro. The absence of adequately trained professionals who can navigate both systems creates gaps in legal service delivery and institutional effectiveness.

III. THE RESPONSE: EXPANDING LEGAL EDUCATION IN TAWI-TAWI

The MSU College of Law at MSU TCTO was established as a direct response to these challenges. By bringing legal education closer to the people of Tawi-Tawi, it removes the financial and geographic barriers associated with studying in urban centers.

Currently, the MSU College of Law at MSU TCTO serves approximately 50 to 70 students, despite operating without a dedicated facility. This demonstrates both the viability of the program and the strong demand for legal education in the region.

³ Philippine labor market estimates for legal professionals.



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Upon completion of the proposed College of Law building, enrollment is projected to increase to 200 to 250 students by 2028, with annual admissions of 80 to 100 students. The College is expected to produce its first batch of graduates by June 2028, followed by 40 to 60 graduates annually.

Over a ten-year period, this will result in approximately 400 to 600 graduates, significantly strengthening the legal workforce in Tawi-Tawi and the broader Bangsamoro region. Even with conservative retention estimates, this expansion will substantially improve access to justice.

IV. ECONOMIC JUSTIFICATION AND RETURN ON INVESTMENT

The requested ₱85,000,000 additional funding represents a highly efficient and high-impact public investment.

Practicing lawyers in the Philippines earn an estimated ₱500,000 to ₱1,000,000 annually⁴. With the projected output of graduates, the MSU College of Law at MSU TCTO is expected to generate additional economic activity once fully operational.

Beyond direct economic gains, the project will:

- a. Reduce transaction costs associated with legal disputes
- b. Improve contract enforcement and investor confidence
- c. Strengthen local governance and institutional capacity

These outcomes align with national fiscal priorities emphasizing efficiency, equity, and long-term value creation.

V. CONTRIBUTION TO PEACEBUILDING AND GOVERNANCE

The project directly supports the government's peace and development agenda in the Bangsamoro.

⁴ Republic Act No. 7277, Magna Carta for Persons with Disabilities.



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Access to justice is a foundational element of sustainable peace. By producing lawyers trained in both civil and Shariah law, the MSU College of Law at MSU TCTO strengthens the integration of formal and customary legal systems, enhancing institutional legitimacy.

The establishment of a law clinic within the building will provide free legal assistance to indigent residents, ensuring immediate and tangible community impact. This initiative will also serve as a training platform for students, reinforcing practical legal skills while expanding access to justice.

VI. MODERN, INCLUSIVE, AND SUSTAINABLE INFRASTRUCTURE

The proposed College of Law building is designed to meet contemporary standards of higher education and public infrastructure.

It will incorporate smart classrooms, a moot court, and a digital law library, enabling technology-driven and experiential learning. These features are essential in overcoming the geographic isolation of Tawi-Tawi, ensuring that students have access to the same quality of education as their counterparts in urban centers.

The building will also include accessibility features in compliance with Republic Act No. 7277 (Magna Carta for Persons with Disabilities), as well as solar energy systems to promote sustainability and reduce long-term operational costs.

VII. BUDGET JUSTIFICATION

The total additional funding requirement of ₱85,000,000 is necessary to complete the project initiated under the ₱35,000,000 allocation in the 2026 General Appropriations Act (GAA).

Component	Description	Amount (₱)
Building Completion	Structural works, architectural finishing, utilities, compliance systems	50,000,000



College of Law

Smart E-Classrooms	ICT-enabled classrooms and hybrid learning systems	10,000,000
Audio-visual Function Hall & Moot Court	Simulation courtroom and multi-purpose facility	5,000,000
Digital Library and Reading Commons	E-resources, workstations, research commons	5,000,000
Elevator, Solar, Fire Systems A/C, Generator	Accessibility, sustainability, climate control and fire prevention	10,000,000
Office Furniture, Fixtures and Equipment	Faculty and administrative equipment	5,000,000
TOTAL		85,000,000

The proposed allocation reflects cost-efficiency while ensuring full operational readiness. Given the logistical challenges inherent in island provinces, the budget remains both realistic and fiscally prudent.

VIII. CONCLUSION: A STRATEGIC PRIORITY FOR 2027

The completion of the College of Law building for the MSU College of Law at MSU TCTO represents a high-impact, evidence-based, and time-sensitive investment.

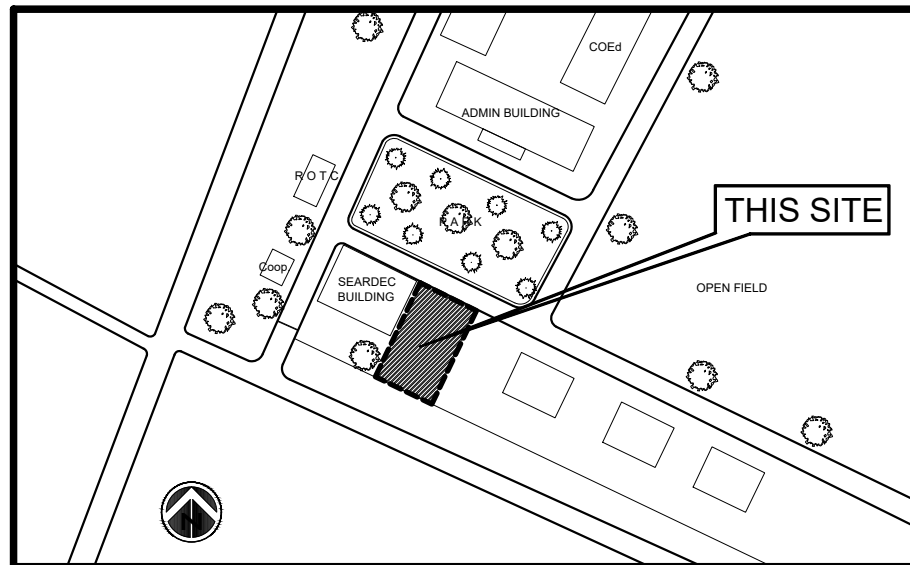
It directly addresses a critical shortage of legal professionals, strengthens institutional capacity in a priority region, and generates substantial economic and social returns. More importantly, it ensures that access to justice, education, and opportunity reaches one of the most geographically isolated provinces of the country.

In view of the foregoing, the MSU TCTO respectfully requests the Department of Budget and Management to approve the ₱85,000,000 additional funding for FY 2027.

This project is not merely the completion of a building—it is a strategic investment in justice, peace, and inclusive national development.



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PERSPECTIVE
NTS



2
A15
SITE DEVELOPMENT PLAN
SCALE 1:500 M



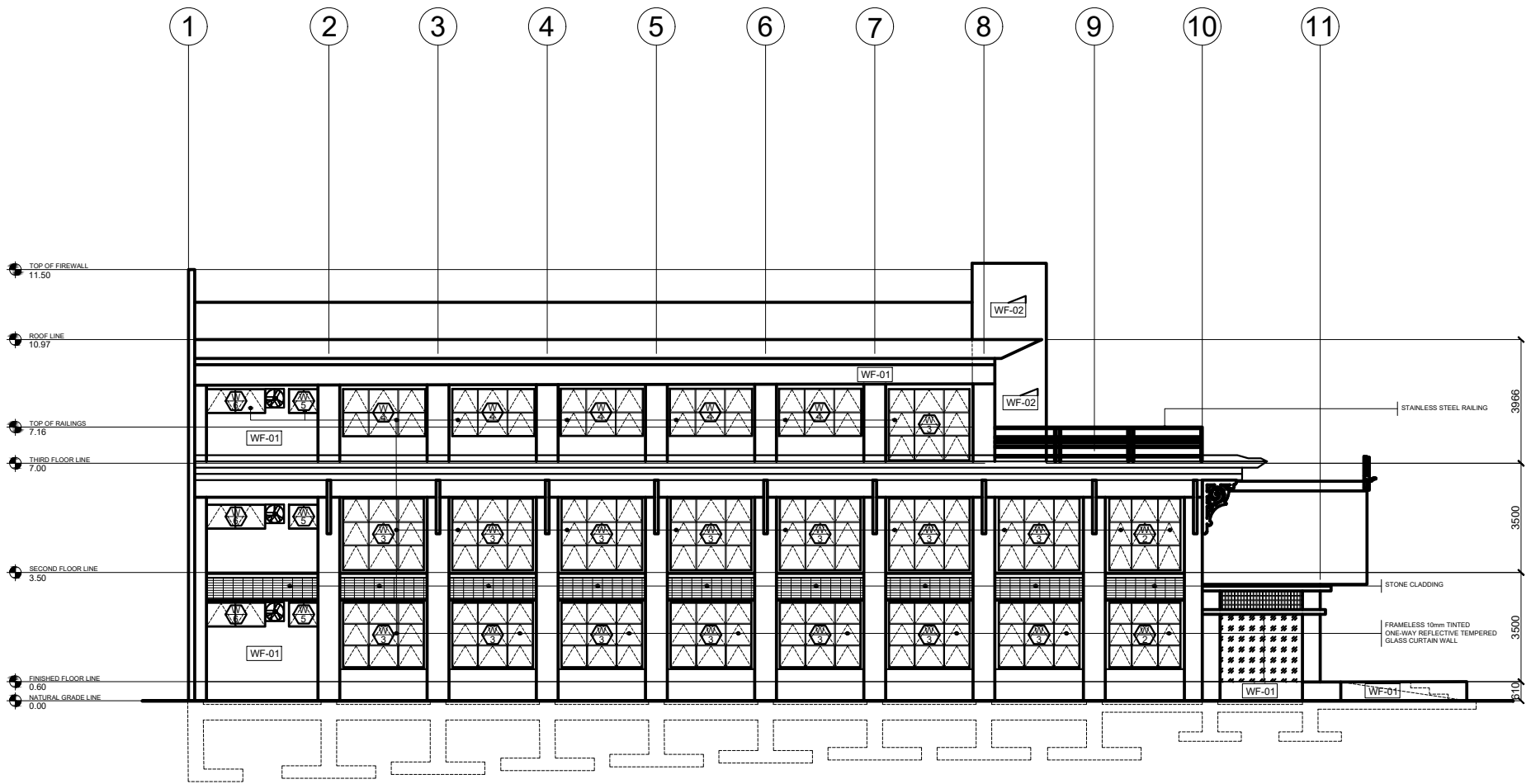
3
A15
LOCATION MAP
NOT TO SCALE



4
A15
VICINITY MAP
NOT TO SCALE

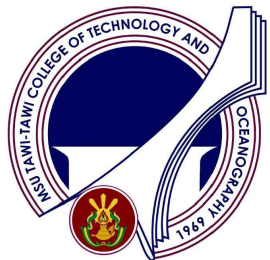
C O N T E N T S			OFFICE OF THE MUNICIPAL ENGINEER MUNICIPALITY OF BONGAO BONGAO, TAWI-TAWI	
A R C H I T E C T U R A L	A-1	PERSPECTIVE AND SITE DEVELOPMENT PLAN		
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	A-12	MAIN STAIR AND FIRE EXIT DETAILS		
	A-13	MALE CR AND FEMALE CR AND PWD CR DETAILS		
A-14	SCHEDULE OF WINDOWS AND DOORS			

WALL FINISH SCHEDULE	
WF-01	SMOOTH PLAIN CEMENT PLASTER GLOSS PAINT FINISH
WF-02	WITH WATERPROOFING COMPOUND, SMOOTH PLAIN CEMENT PLASTER, GLOSS PAINT FINISH

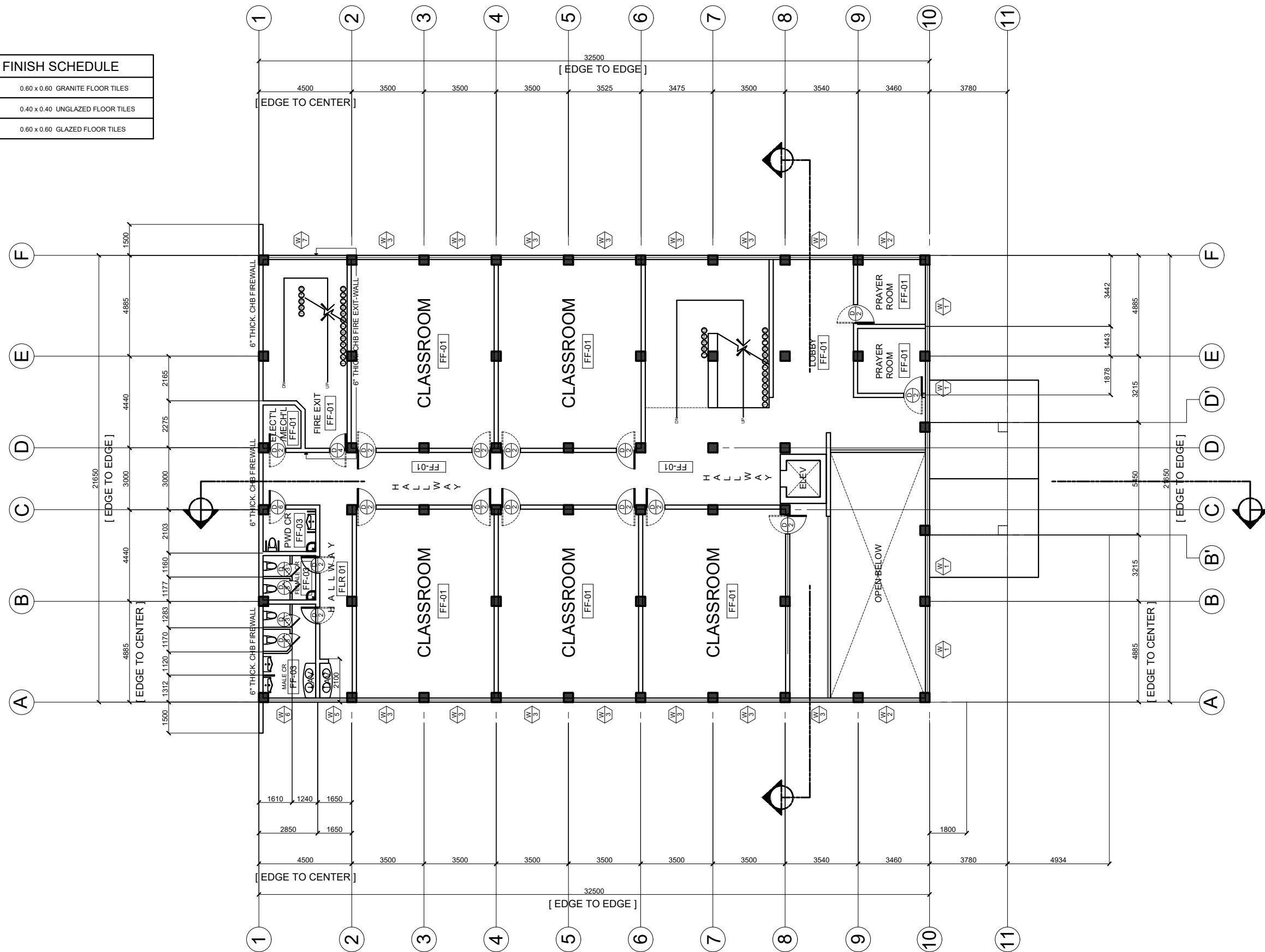


1
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LEFT SIDE ELEVATION
SCALE : 1 : 100 M

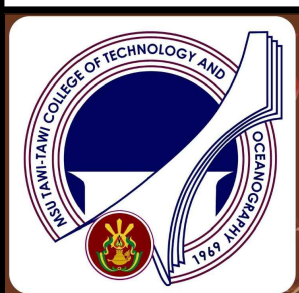
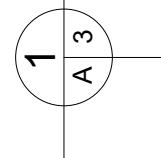
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	ENGR. ALLAN S.CAGUIOA, MPA PLANNING OFFICER V, INFRASTRUCTURE SERVICES OFFICE					

FLOOR FINISH SCHEDULE	
FF-01	0.60 x 0.60 GRANITE FLOOR TILES
FF-02	0.40 x 0.40 UNGLAZED FLOOR TILES
FF-03	0.60 x 0.60 GLAZED FLOOR TILES



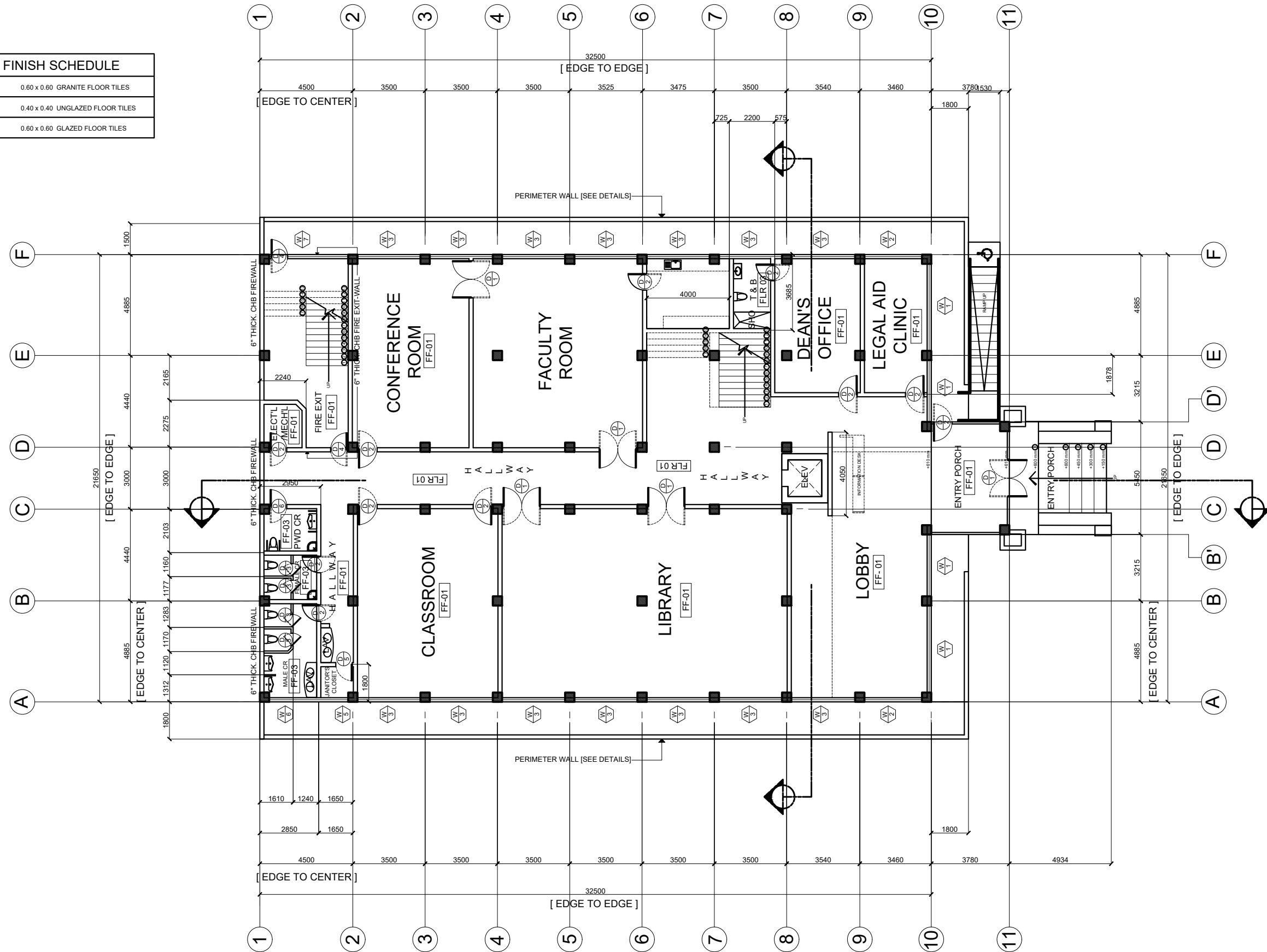
SECOND FLOOR PLAN

SCALE : 1 : 100 M



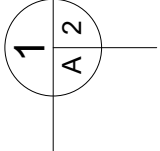
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FLOOR FINISH SCHEDULE	
FF-01	0.60 x 0.60 GRANITE FLOOR TILES
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FF-03	0.60 x 0.60 GLAZED FLOOR TILES



GROUND FLOOR PLAN

SCALE : 1 : 100 M



PREPARED BY

AR AL-RAJAN S. ABDUHASAN
ARCHITECT III,
INFRASTRUCTURE SERVICES OFFICE

ENGR. ALLAN S. CAGUIOA, MPA
PLANNING OFFICER V,
INFRASTRUCTURE SERVICES OFFICE

PROJECT NAME AND LOCATION

CONSTRUCTION OF 3-STOREY COLLEGE
OF LAW BUILDING, MINDANAO STATE
UNIVERSITY, SANGA-SANGA, BONGAO,
TAWI-TAWI

SHEET CONTENTS

GROUND FLOOR PLAN

RECOMMENDING APPROVAL

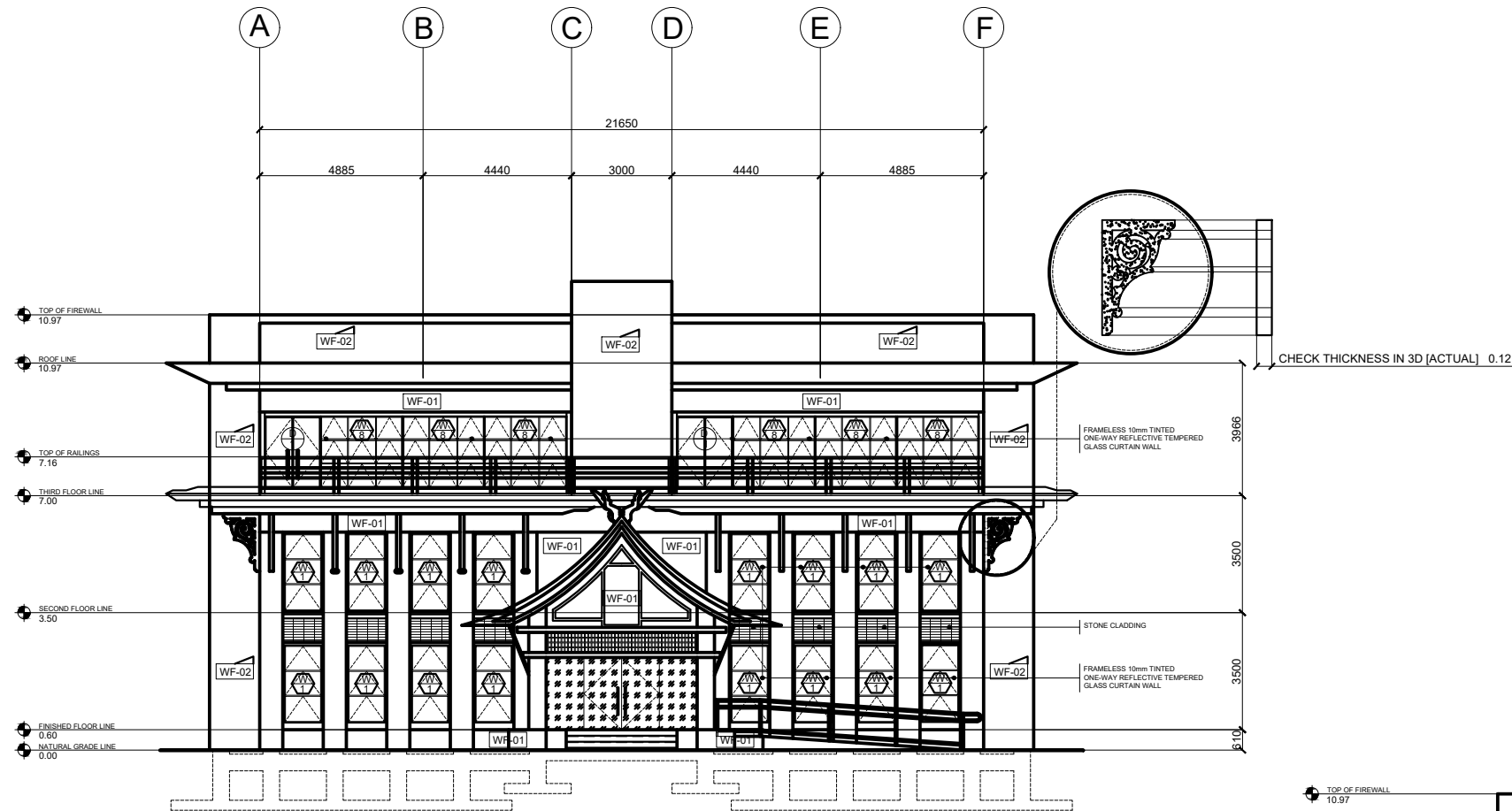
(SGD) ATTY. DATU ESMA MIKEE P. MARUHOM
END-USER

APPROVED

MARY JOYCE Z. GUINTO-SALI, Ph D
CHANCELLOR, MSU-TCTO

SHEET

2
A 15

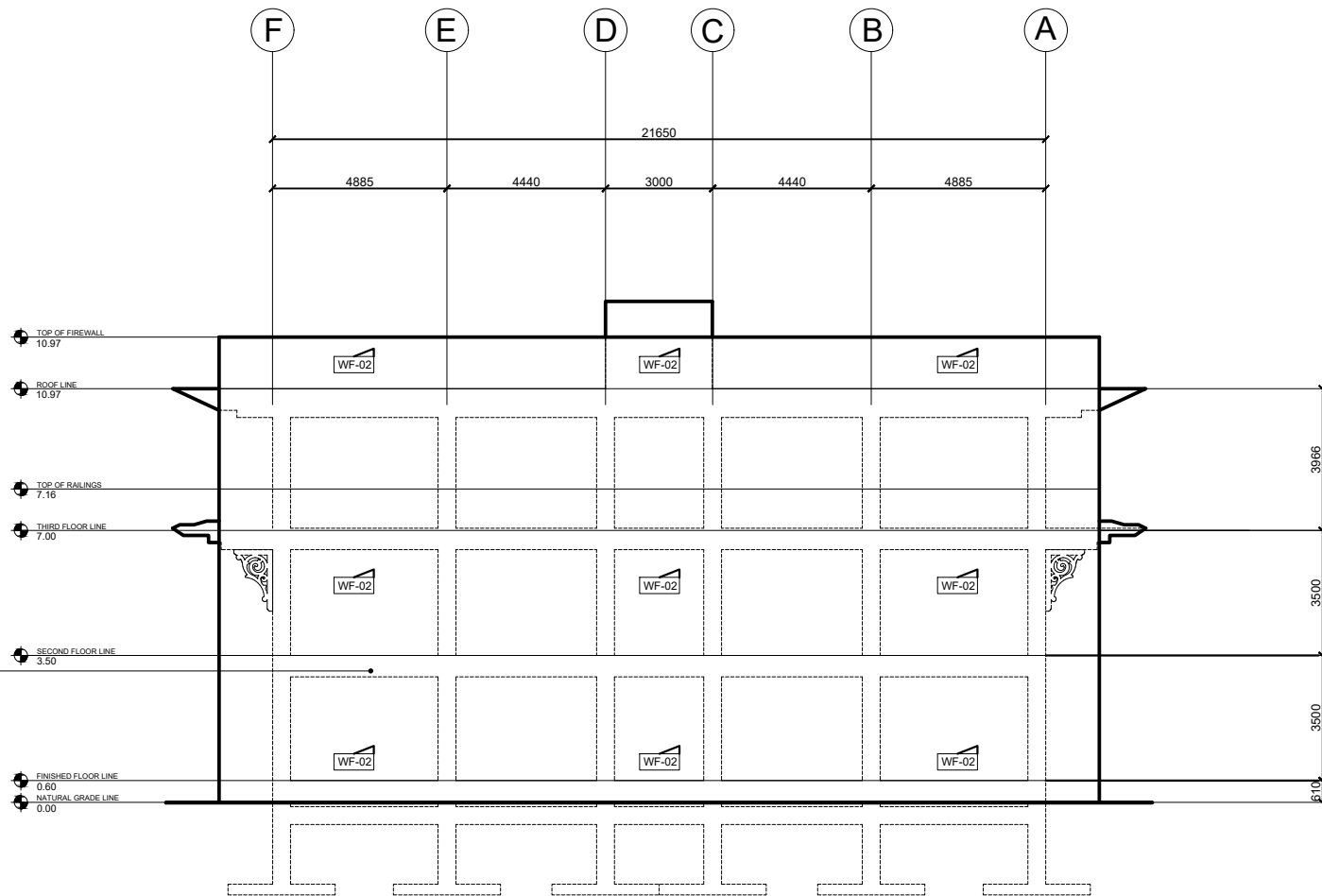


1
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FRONT ELEVATION
SCALE : 1 : 100 M

WALL FINISH SCHEDULE	
WF-01	SMOOTH PLAIN CEMENT PLASTER GLOSS PAINT FINISH
WF-02	WITH WATERPROOFING COMPOUND, SMOOTH PLAIN CEMENT PLASTER, GLOSS PAINT FINISH

FLOOR FINISH SCHEDULE	
FF-01	0.60 x 0.60 GRANITE FLOOR TILES
FF-02	0.40 x 0.40 UNGLAZED FLOOR TILES
FF-03	0.60 x 0.60 GLAZED FLOOR TILES



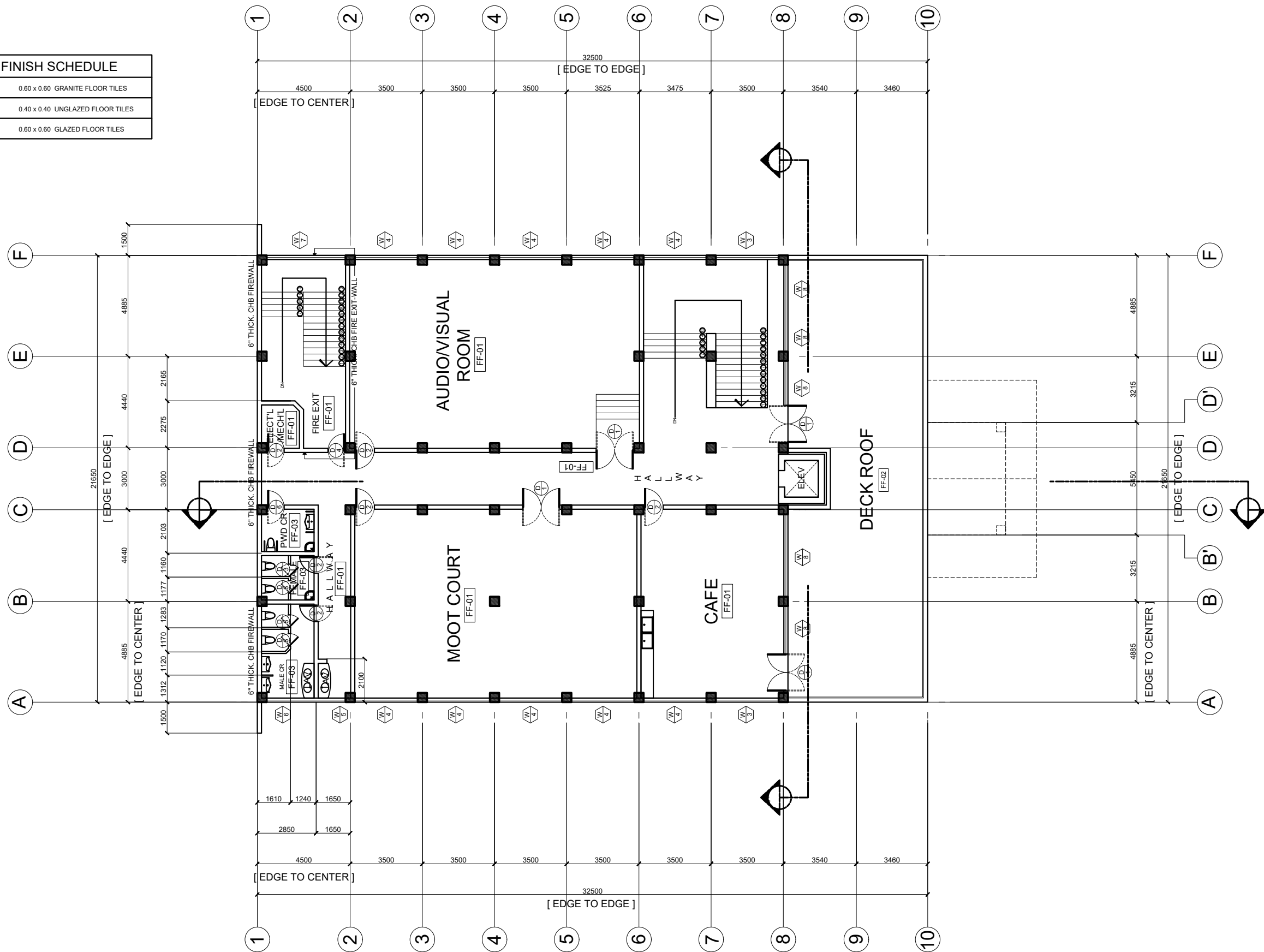
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REAR ELEVATION
SCALE : 1 : 100 M



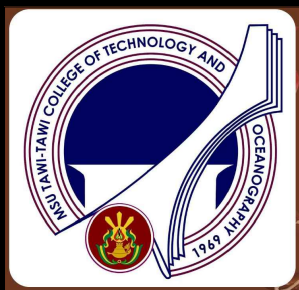
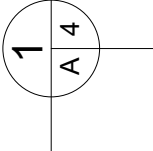
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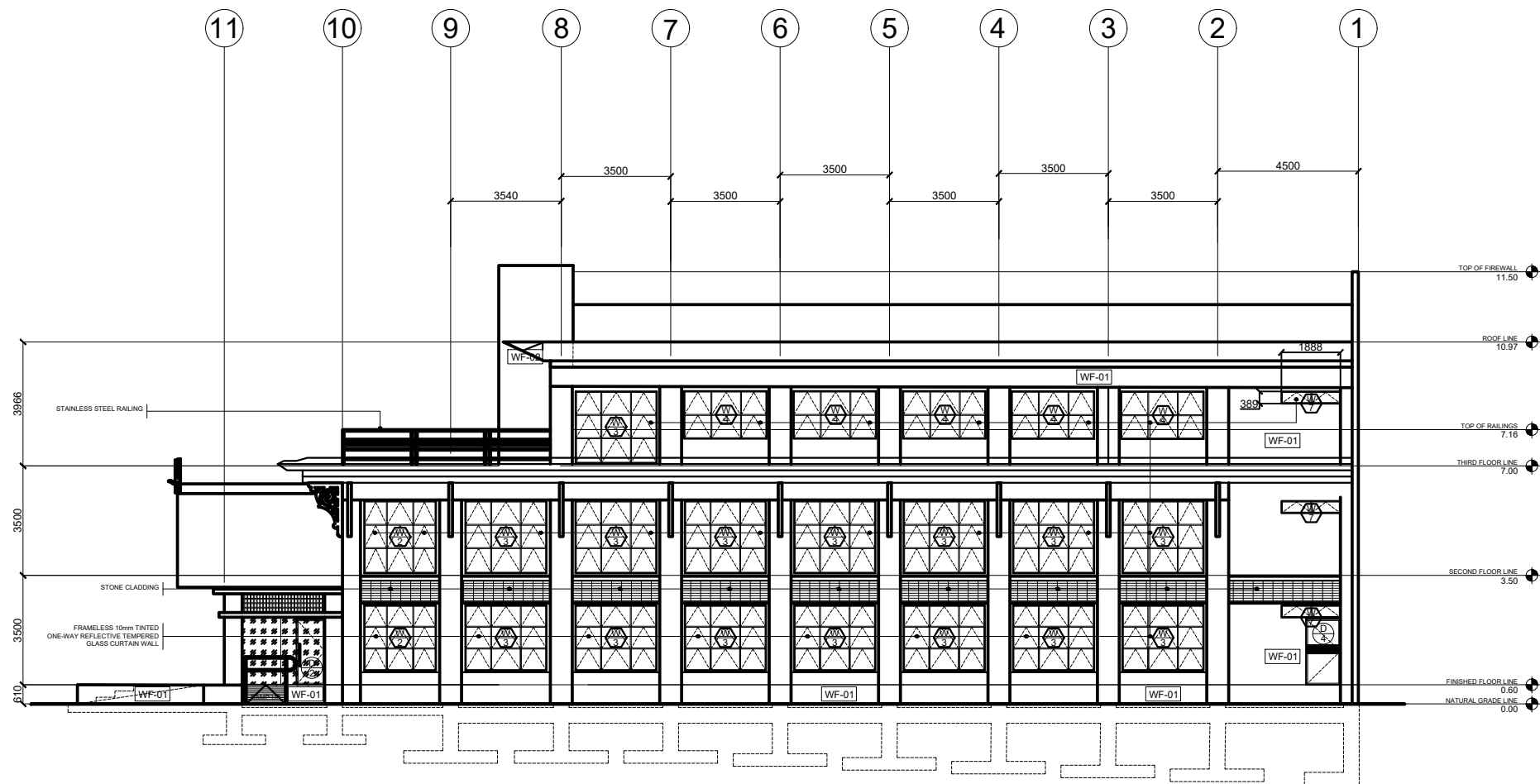
THIRD/DECK ROOF PLAN

SCALE : 1 : 100 M



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WALL FINISH SCHEDULE	
WF-01	SMOOTH PLAIN CEMENT PLASTER GLOSS PAINT FINISH
WF-02	WITH WATERPROOFING COMPOUND, SMOOTH PLAIN CEMENT PLASTER, GLOSS PAINT FINISH

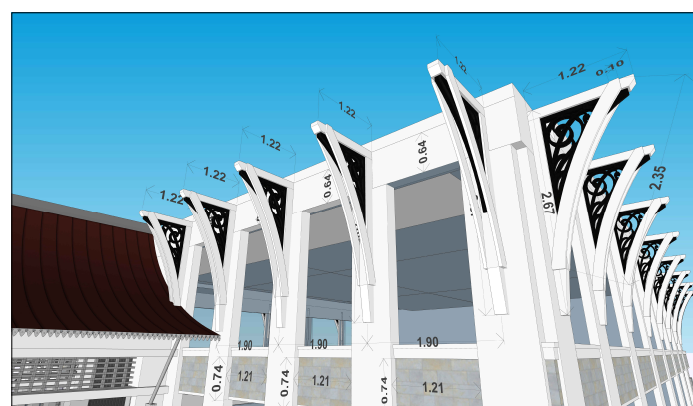
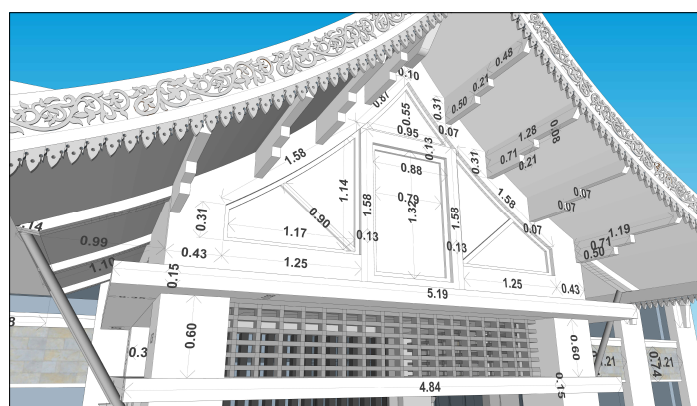
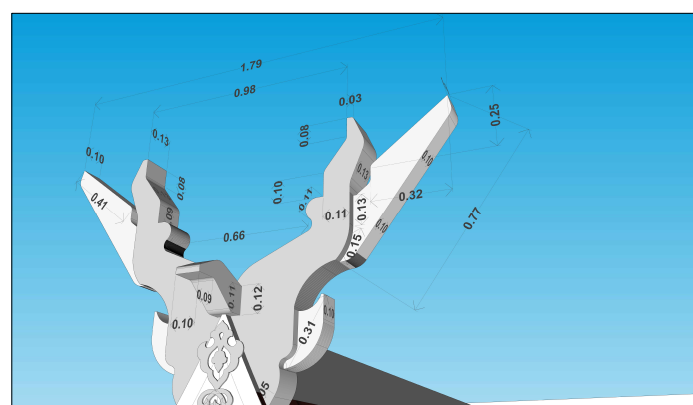
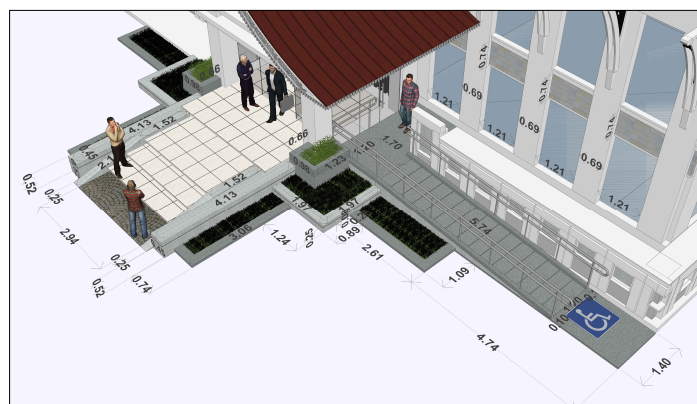


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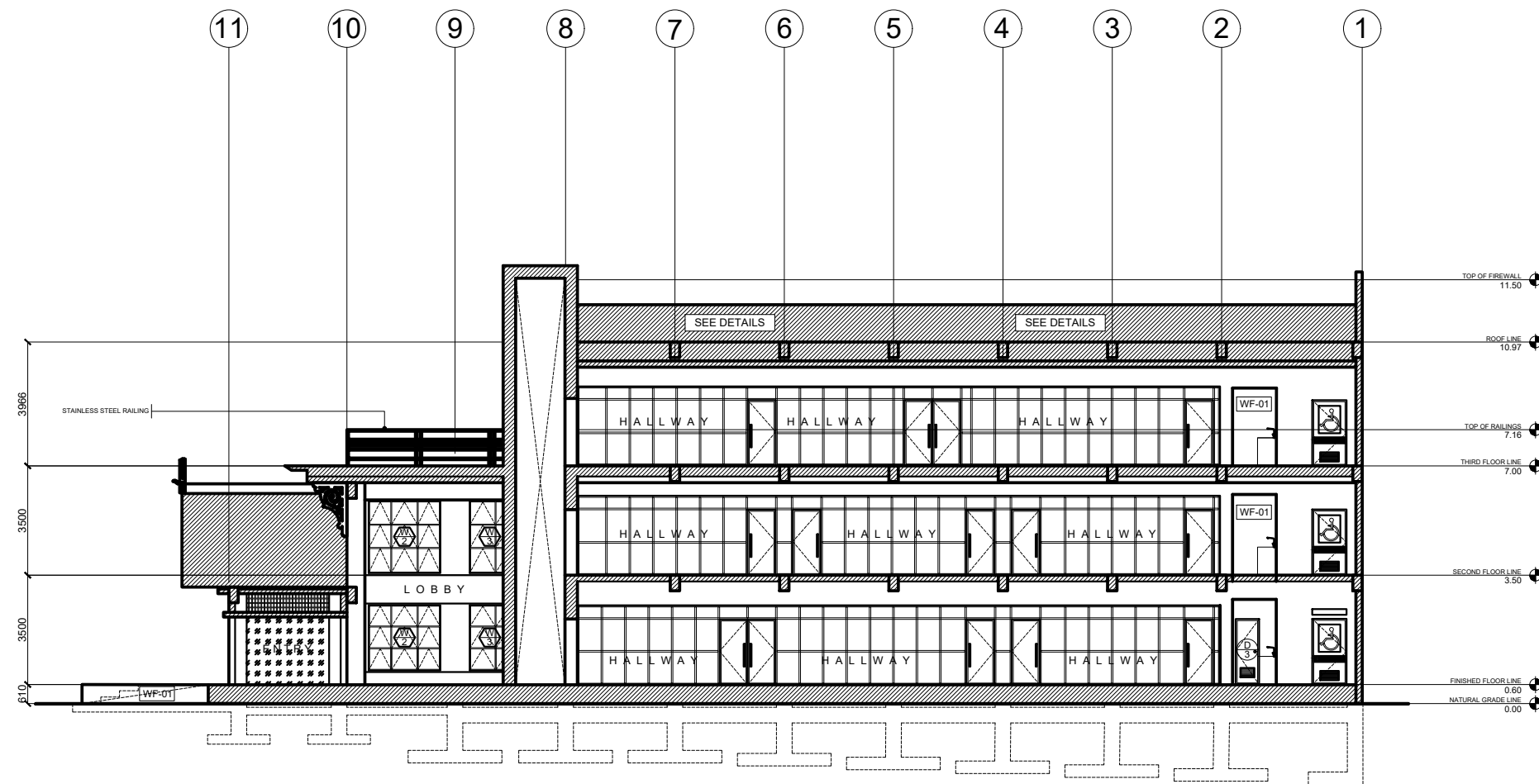
RIGHT SIDE ELEVATION
SCALE : 1 : 100 M



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AR AL-RAJAN S. ABDUHASAN ARCHITECT III, INFRASTRUCTURE SERVICES OFFICE ENGR. ALLAN S.CAGUIOA, MPA PLANNING OFFICER V, INFRASTRUCTURE SERVICES OFFICE	CONSTRUCTION OF 3-STOREY COLLEGE OF LAW BUILDING, MINDANAO STATE UNIVERSITY, SANGA-SANGA, BONGAO, TAWI-TAWI	RIGHT SIDE ELEVATION	(SGD) ATTY. DATU ESMA MIKEE P. MARUHOM END-USER	 MARY JOYCE Z. GUINTO-SALI, Ph D CHANCELLOR, MSU-TCTO	6 A 15

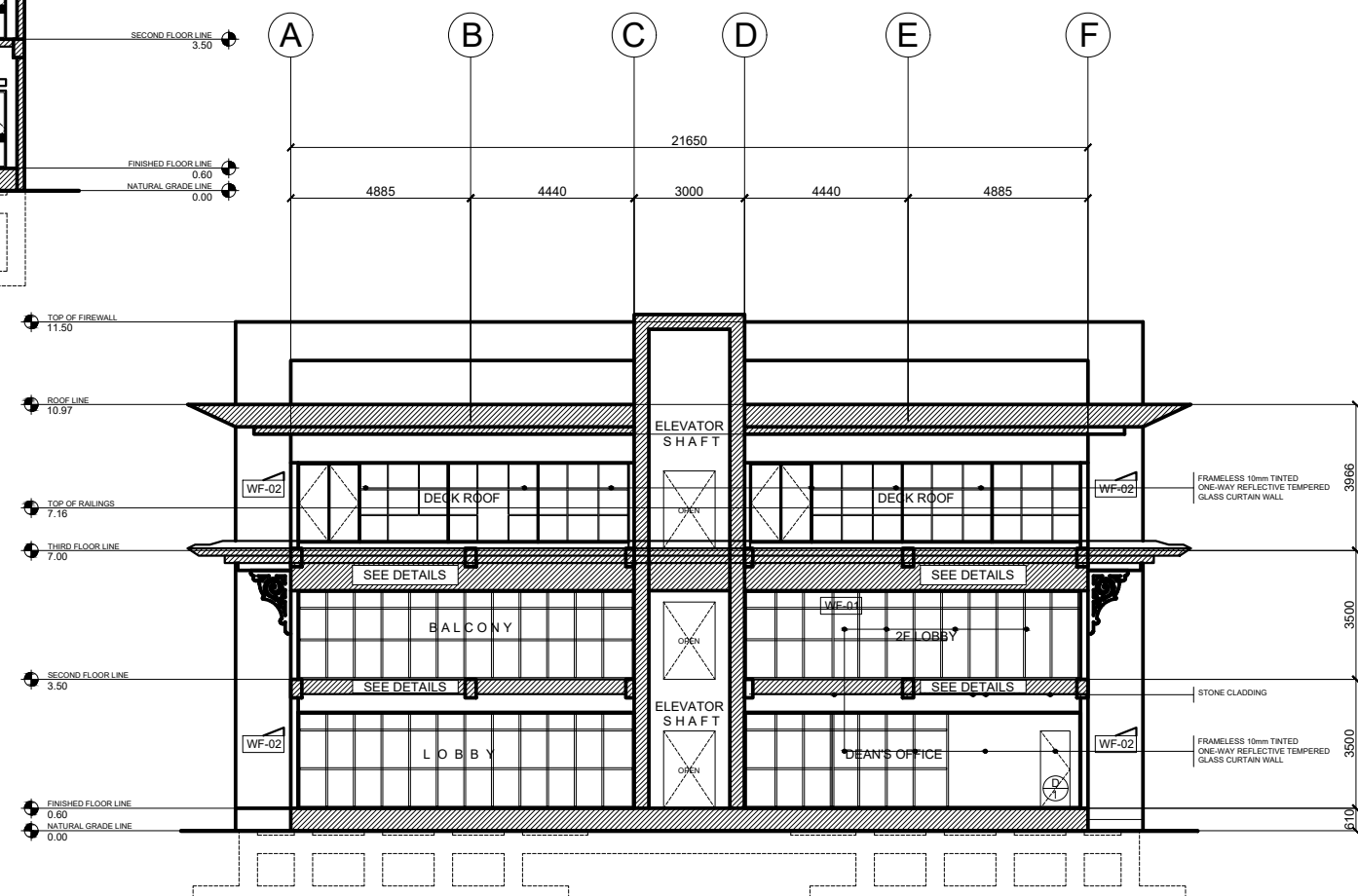


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WALL FINISH SCHEDULE	
WF-01	SMOOTH PLAIN CEMENT PLASTER GLOSS PAINT FINISH
WF-02	WITH WATERPROOFING COMPOUND, SMOOTH PLAIN CEMENT PLASTER, GLOSS PAINT FINISH

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A 8
LONGITUDINAL SECTION
SCALE : 1 : 100 M



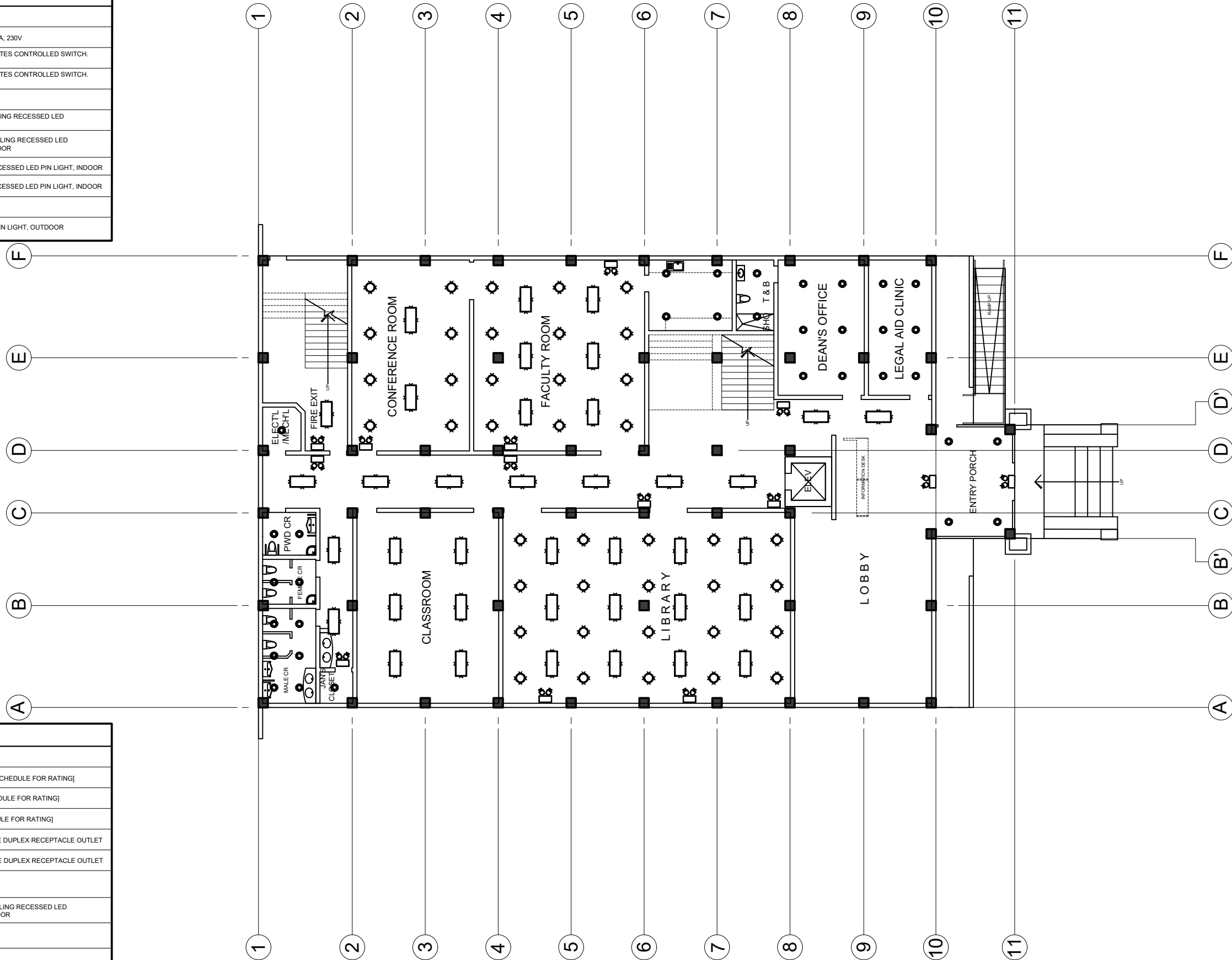
2
A 8
CROSS-SECTION
SCALE : 1 : 100 M



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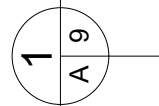
LEGEND & SYMBOLS	
LIGHTING	
	SINGLE POLE TOGGLE SWITCH, 15A, 230V
2Sab	TWO GANG SWITCH LETTER DENOTES CONTROLLED SWITCH.
3Sab	TWO GANG SWITCH LETTER DENOTES CONTROLLED SWITCH.
	EXIT SIGN
	24W 600mm x 300mm 5000K CEILING RECESSED LED RECTANGULAR LIGHT
	40W 1200mm x 600mm 5000K CEILING RECESSED LED RECTANGULAR PANEL LIGHT, INDOOR
	20W 155mm DIA 5000K CEILING RECESSED LED PIN LIGHT, INDOOR
	15W 155mm DIA 5000K CEILING RECESSED LED PIN LIGHT, INDOOR
	EMERGENCY LIGHT
	40W 155mm DIA 5000K WALL LED PIN LIGHT, OUTDOOR

LEGEND & SYMBOLS	
POWER	
	DISTRIBUTION PANEL [SEE LOAD SCHEDULE FOR RATING]
	LIGHTING PANEL [SEE LOAD SCHEDULE FOR RATING]
	POWER PANEL [SEE LOAD SCHEDULE FOR RATING]
	15A, 250V 2P + G GROUNDING TYPE DUPLEX RECEPTACLE OUTLET
	20A, 250V 2P + G GROUNDING TYPE DUPLEX RECEPTACLE OUTLET
	TRANSFER SWITCH
	40W 1200mm x 600mm 5000K CEILING RECESSED LED RECTANGULAR PANEL LIGHT, INDOOR
	COPPER WIRING
	CIRCUIT HOMERUN



GROUND FLOOR REFLECTED CEILING PLAN

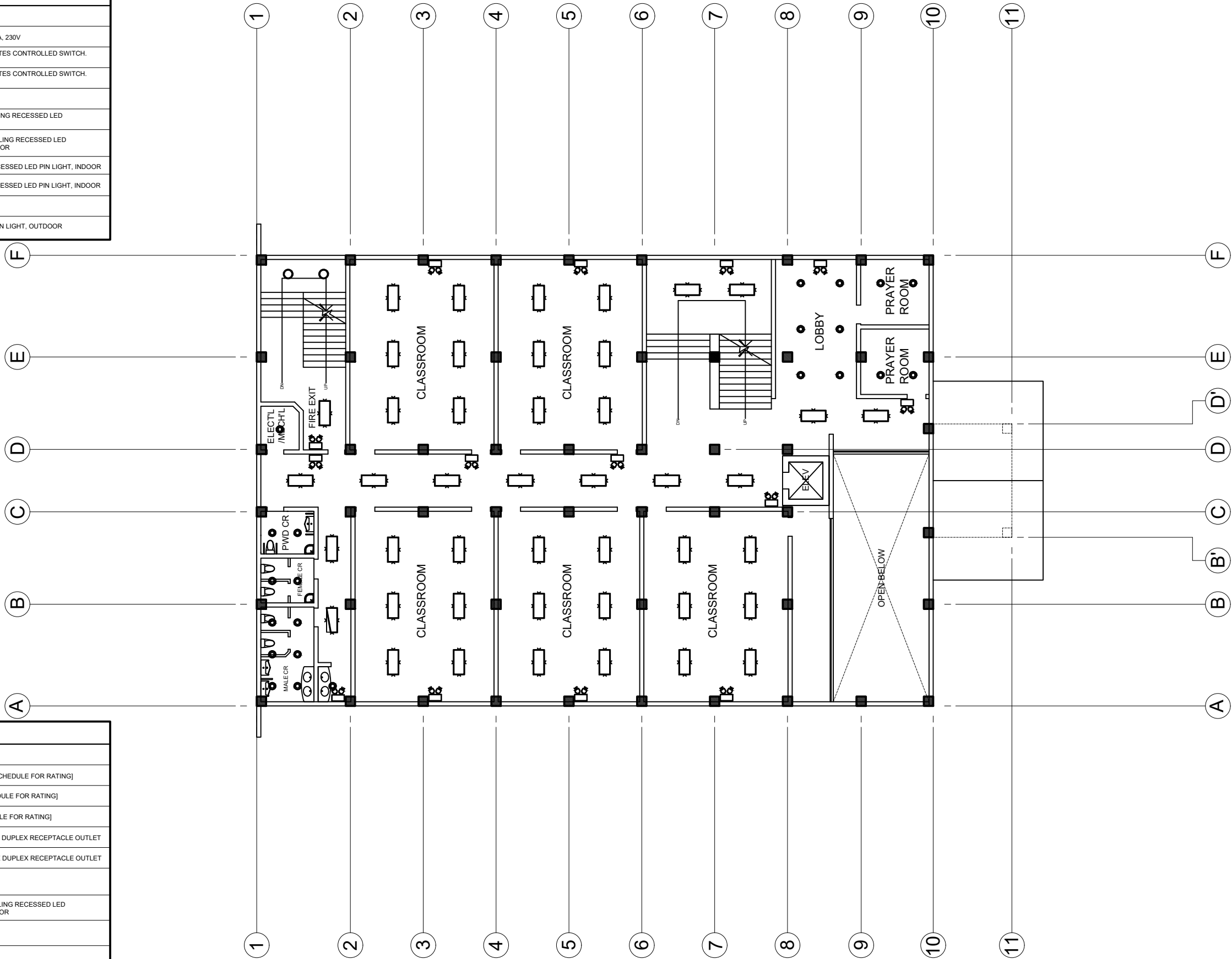
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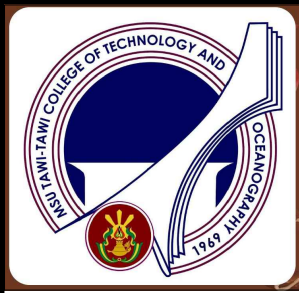
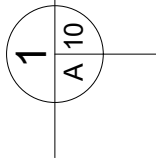
LEGEND & SYMBOLS	
LIGHTING	
	SINGLE POLE TOGGLE SWITCH, 15A, 230V
	TWO GANG SWITCH LETTER DENOTES CONTROLLED SWITCH.
	TWO GANG SWITCH LETTER DENOTES CONTROLLED SWITCH.
	EXIT SIGN
	24W 600mm x 300mm 5000K CEILING RECESSED LED RECTANGULAR LIGHT
	40W 1200mm x 600mm 5000K CEILING RECESSED LED RECTANGULAR PANEL LIGHT, INDOOR
	20W 155mm DIA 5000K CEILING RECESSED LED PIN LIGHT, INDOOR
	15W 155mm DIA 5000K CEILING RECESSED LED PIN LIGHT, INDOOR
	EMERGENCY LIGHT
	40W 155mm DIA 5000K WALL LED PIN LIGHT, OUTDOOR

LEGEND & SYMBOLS	
POWER	
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	LIGHTING PANEL [SEE LOAD SCHEDULE FOR RATING]
	POWER PANEL [SEE LOAD SCHEDULE FOR RATING]
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	20A, 250V 2P + G GROUNDING TYPE DUPLEX RECEPTACLE OUTLET
	TRANSFER SWITCH
	40W 1200mm x 600mm 5000K CEILING RECESSED LED RECTANGULAR PANEL LIGHT, INDOOR
	COPPER WIRING
	CIRCUIT HOMERUN



SECOND FLOOR REFLECTED CEILING PLAN

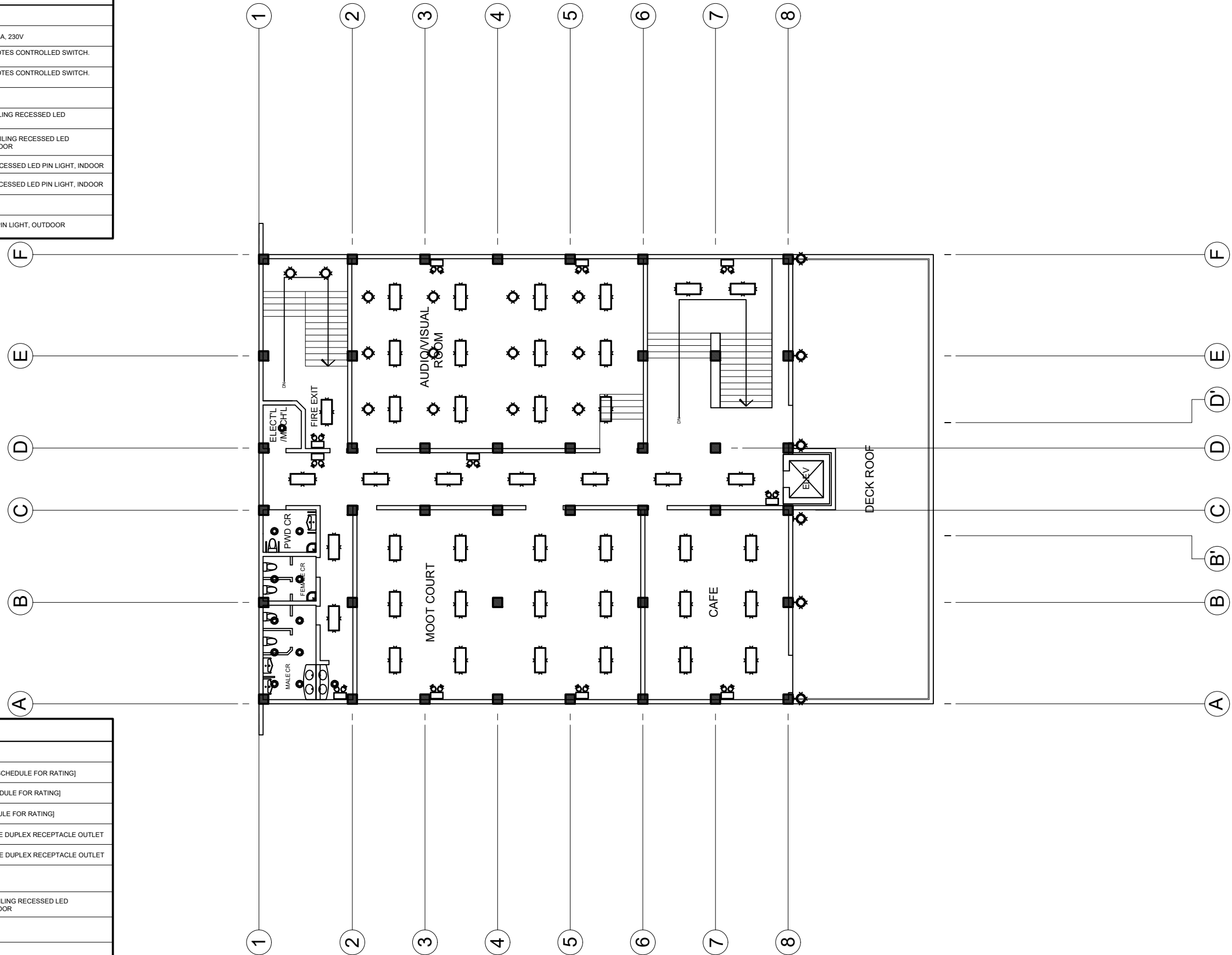
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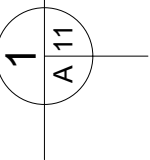
LEGEND & SYMBOLS	
LIGHTING	
	SINGLE POLE TOGGLE SWITCH, 15A, 230V
	TWO GANG SWITCH LETTER DENOTES CONTROLLED SWITCH.
	TWO GANG SWITCH LETTER DENOTES CONTROLLED SWITCH.
	EXIT SIGN
	24W 600mm x 300mm 5000K CEILING RECESSED LED RECTANGULAR LIGHT
	40W 1200mm x 600mm 5000K CEILING RECESSED LED RECTANGULAR PANEL LIGHT, INDOOR
	20W 155mm DIA 5000K CEILING RECESSED LED PIN LIGHT, INDOOR
	15W 155mm DIA 5000K CEILING RECESSED LED PIN LIGHT, INDOOR
	EMERGENCY LIGHT
	40W 155mm DIA 5000K WALL LED PIN LIGHT, OUTDOOR

LEGEND & SYMBOLS	
POWER	
	DISTRIBUTION PANEL [SEE LOAD SCHEDULE FOR RATING]
	LIGHTING PANEL [SEE LOAD SCHEDULE FOR RATING]
	POWER PANEL [SEE LOAD SCHEDULE FOR RATING]
	15A, 250V 2P + G GROUNDING TYPE DUPLEX RECEPTACLE OUTLET
	20A, 250V 2P + G GROUNDING TYPE DUPLEX RECEPTACLE OUTLET
	TRANSFER SWITCH
	40W 1200mm x 600mm 5000K CEILING RECESSED LED RECTANGULAR PANEL LIGHT, INDOOR
	COPPER WIRING
	CIRCUIT HOMERUN

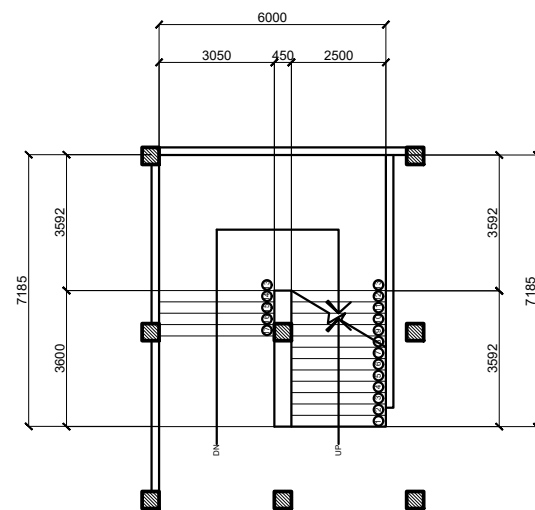


THIRD FLOOR REFLECTED CEILING PLAN

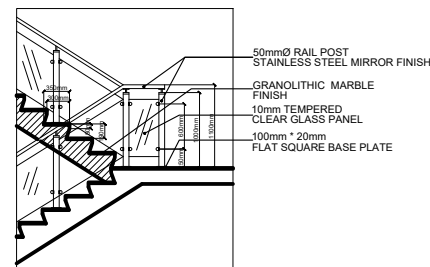
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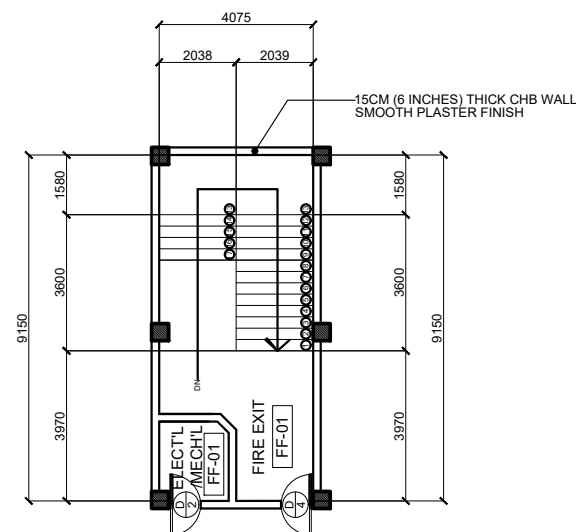
PREPARED BY	PROJECT NAME AND LOCATION	SHEET CONTENTS	RECOMMENDING APPROVAL	APPROVED	SHEET
AR AL-RAJAN S. ABDUHASAN ARCHITECT III, INFRASTRUCTURE SERVICES OFFICE ENGR. ALLAN S.CAGUIOA, MPA PLANNING OFFICER V, INFRASTRUCTURE SERVICES OFFICE	CONSTRUCTION OF 3-STOREY COLLEGE OF LAW BUILDING, MINDANAO STATE UNIVERSITY, SANGA-SANGA, BONGAO, TAWI-TAWI	THIRD FLOOR REFLECTED CEILING PLAN	(SGD) ATTY. DATU ESMA MIKEE P. MARUHOM END-USER	 MARY JOYCE Z. GUINTO-SALI, Ph D CHANCELLOR, MSU-TCTO	11 A 15



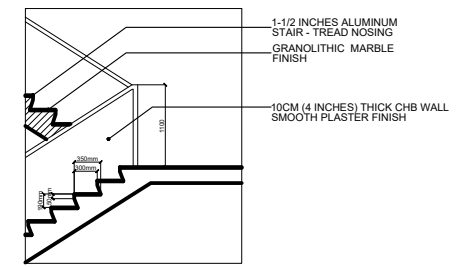
STAIR PLAN



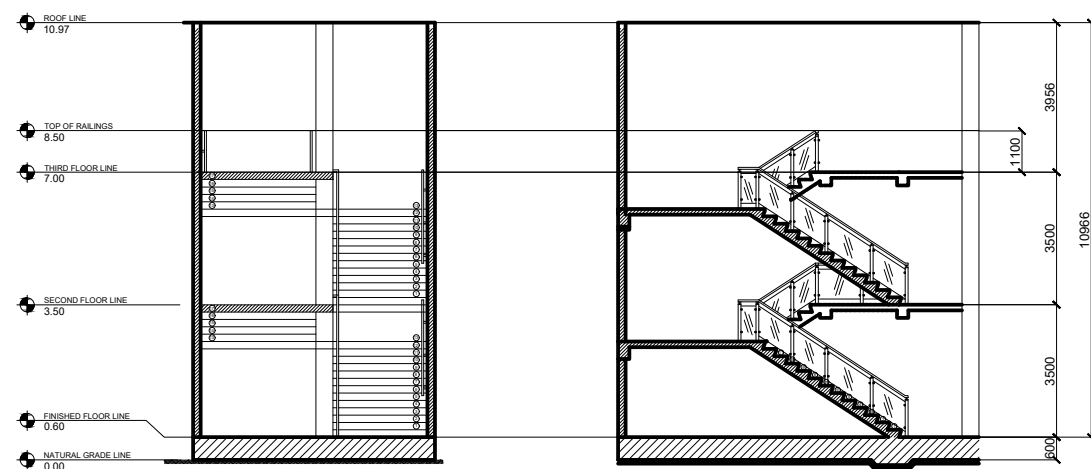
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STAIR PLAN

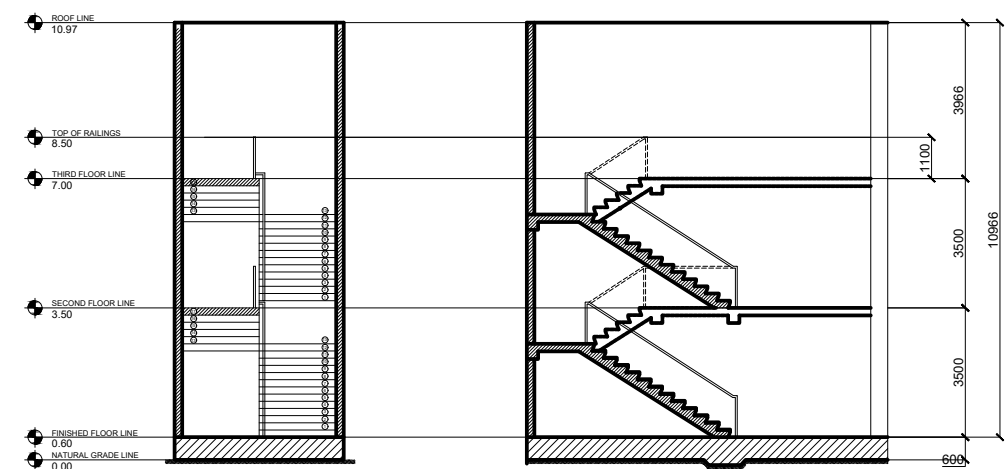


D-02



FRONT ELEVATION

GROUND TO THIRD FLOOR MAIN STAIRS



FRONT ELEVATION

GROUND TO THIRD FLOOR MAIN STAIRS

1
A 12

MAIN STAIR DETAILS

SCALE : 1 : 100 M

2
A 12

FIRE EXIT STAIR DETAILS

SCALE : 1 : 100 M



PREPARED BY

AR AL-RAJAN S. ABDUHASAN
ARCHITECT III,
INFRASTRUCTURE SERVICES OFFICE

ENGR. ALLAN S. CAGUIOA, MPA
PLANNING OFFICER V,
INFRASTRUCTURE SERVICES OFFICE

PROJECT NAME AND LOCATION

CONSTRUCTION OF 3-STOREY COLLEGE
OF LAW BUILDING, MINDANAO STATE
UNIVERSITY, SANGA-SANGA, BONGAO,
TAWI-TAWI

SHEET CONTENTS

THIRD FLOOR
REFLECTED CEILING PLAN

RECOMMENDING APPROVAL

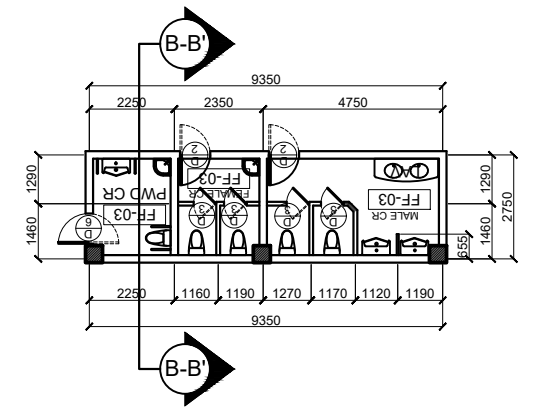
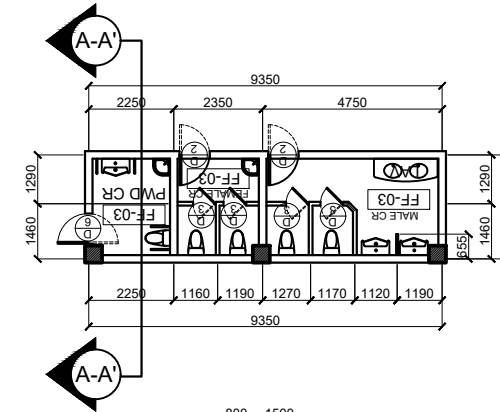
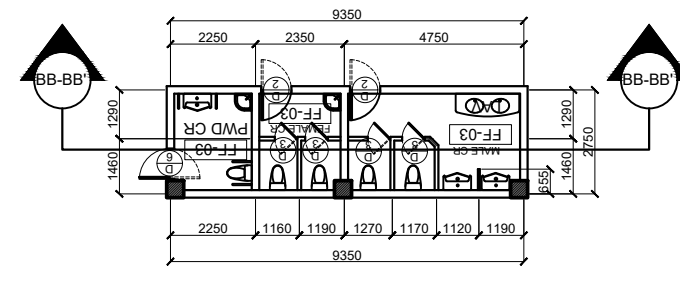
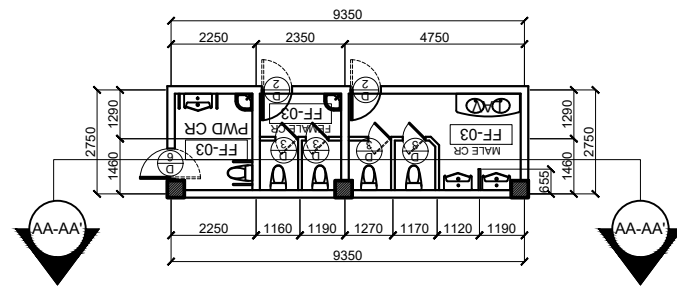
(SGD) ATTY. DATU ESMA MIKEE P. MARUHOM
END-USER

APPROVED

MARY JOYCE Z. GUINTO-SALI, Ph D
CHANCELLOR, MSU-TCTO

SHEET

12
A 15

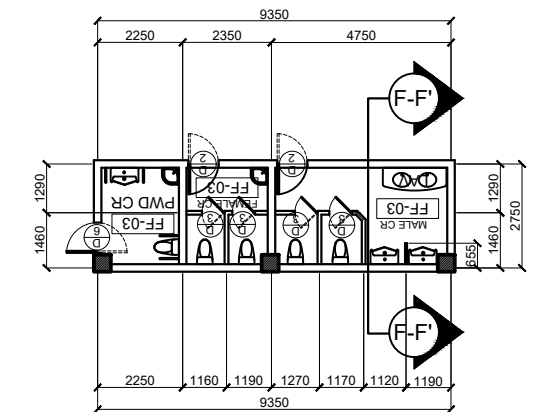
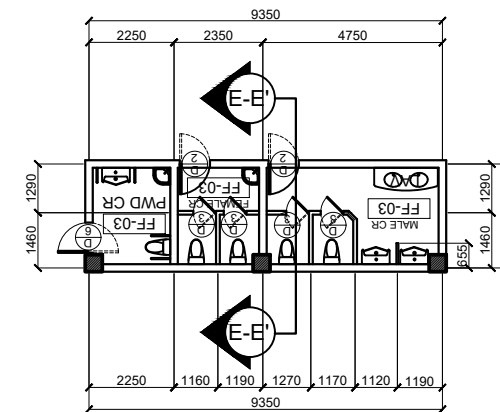
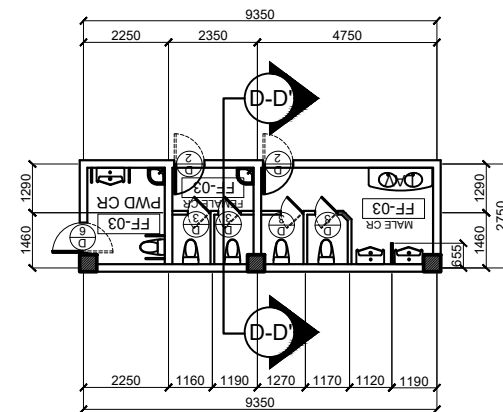
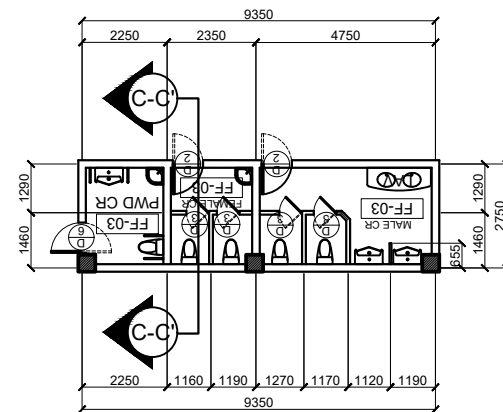


1
A 13
SECTION AA-AA'
SCALE : 1 : 50 M

2
A 13
SECTION BB-BB'
SCALE : 1 : 50 M

3
A 13
SECTION A-A'
SCALE : 1 : 50 M

14
A 13
SECTION B-B'
SCALE : 1 : 50 M



5
A 13
SECTION C-C'
SCALE : 1 : 50 M

6
A 13
SECTION D-D'
SCALE : 1 : 50 M

7
A 13
SECTION E-E'
SCALE : 1 : 50 M

8
A 13
SECTION F-F'
SCALE : 1 : 50 M



PREPARED BY	PROJECT NAME AND LOCATION	SHEET CONTENTS	RECOMMENDING APPROVAL	APPROVED	SHEET
AR AL-RAJAN S. ABDUHASAN ARCHITECT III, INFRASTRUCTURE SERVICES OFFICE ENGR. ALLAN S. CAGUIOA, MPA PLANNING OFFICER V, INFRASTRUCTURE SERVICES OFFICE	CONSTRUCTION OF 3-STOREY COLLEGE OF LAW BUILDING, MINDANAO STATE UNIVERSITY, SANGA-SANGA, BONGAO, TAWI-TAWI	MALE CR. AND FEMALE CR. AND PWD CR. DETAILS	(SGD) ATTY. DATU ESMA MIKEE P. MARUHOM END-USER	 MARY JOYCE Z. GUINTO-SALI, Ph D CHANCELLOR, MSU-TCTO	13 A 15

PLAN											
ELEVATION											
MARK	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11
TYPE	THREE-PANEL ALUMINUM AWNING WINDOW	NINE-PANEL ALUMINUM AWNING WINDOW	NINE-PANEL ALUMINUM AWNING WINDOW	SIX-PANEL ALUMINUM AWNING WINDOW	SINGLE-PANEL ALUMINUM AWNING WINDOW	DOUBLE-PANEL ALUMINUM AWNING WINDOW	DOUBLE-PANEL ALUMINUM AWNING WINDOW	NINE-PANEL ALUMINUM AWNING WINDOW	FOUR-PANEL FIXED FRAMELESS GLASS CURTAIN WALL	THREE-PANEL FIXED FRAMELESS GLASS CURTAIN WALL	TWO-PANEL FIXED FRAMELESS GLASS CURTAIN WALL
DESCRIPTION	10mm THK FRAMELESS, TEMPERED GLASS WITH ALUMINUM FRAMING	10mm THK FRAMELESS, TEMPERED GLASS WITH ALUMINUM FRAMING	10mm THK FRAMELESS, TEMPERED GLASS WITH ALUMINUM FRAMING	10mm THK FRAMELESS, TEMPERED GLASS WITH ALUMINUM FRAMING	10mm THK FRAMELESS, TEMPERED GLASS WITH ALUMINUM FRAMING	10mm THK FRAMELESS, TEMPERED GLASS WITH ALUMINUM FRAMING	10mm THK FRAMELESS, TEMPERED GLASS WITH ALUMINUM FRAMING	10mm THK FRAMELESS, TEMPERED GLASS WITH ALUMINUM FRAMING	10mm THK FRAMELESS, ONE-WAY REFLECTIVE GLASS CURTAIN WALL	10mm THK FRAMELESS, ONE-WAY REFLECTIVE GLASS CURTAIN WALL	10mm THK FRAMELESS, ONE-WAY REFLECTIVE GLASS CURTAIN WALL
QUANTITY	SIXTEEN [16]	FOUR [4]	THIRTY [30]	TEN [10]	THREE [3]	THREE [3]	THREE [3]	SIX [6]	ONE [1]	ONE [1]	ONE [1]
LOCATION	LOBBY, LEGAL-AID CLINIC, PRAYER ROOMS	LOBBY, LEGAL AID CLINIC	LOBBY, DEAN'S OFFICE, LIBRARY, CLASSROOMS, FACULTY ROOM, CONFERENCE ROOM	CAFE, MOOT COURT, AUDIO-VISUAL ROOM	JANITORS CLOSET, UTILITY ROOM, CR HALLWAY	COMFORT ROOMS	FIRE EXIT STAIRWELL	CAFE, DECK	ENTRANCE PORCH	ENTRANCE PORCH	ENTRANCE PORCH

1
A 14

SCHEDULE OF WINDOWS

SCALE : 1 : 35 M

PLAN						
ELEVATION						
MARK	D1	D2	D3	D4	D5	D6
TYPE	DOUBLE LEAF GLASS PANEL DOORS	SINGLE LEAF GLASS DOOR	SINGLE LEAF PVC DOOR	SINGLE LEAF FIRE-RATED STEEL DOOR	SINGLE LEAF WOODEN PANEL DOOR	SINGLE LEAF WOODEN PANEL DOOR
DESCRIPTION	DOUBLE LEAF FRAMELESS GLASS PANEL DOORS WITH DOUBLE-PIVOT HINGES WITH STAINLESS STEEL PULL BARS, WITH LOCKSET AND AUTOMATIC DOOR CLOSER	SINGLE LEAF GLASS PANEL DOOR WITH STAINLESS STEEL PULL BAR, WITH DOUBLE-PIVOT HINGES, WITH LOCKSET, AND AUTOMATIC DOOR CLOSER	SINGLE LEAF PVC PANEL DOOR WITH DOUBLE-PIVOT HINGES WITH PUSH-BAR, WITH LOCKSET AND AUTOMATIC DOOR CLOSER	SINGLE LEAF FIRE-RATED STEEL DOOR WITH PANIC PUSH-BAR WITH CONCEALED VERTICAL ROD, LEVER TRIM, AND AUTOMATIC DOOR CLOSER	SINGLE LEAF WOODEN PANEL DOOR WITH PULL-BAR WITH LOCKSET, AND AUTOMATIC DOOR CLOSER	SINGLE LEAF WOODEN PANEL DOOR WITH PULL-BAR WITH LOCKSET, AND AUTOMATIC DOOR CLOSER
QUANTITY	NINE [9]	THIRTY TWO [32]	TWELVE [12]	FOUR [4]	ONE [1]	THREE [3]
LOCATION	ENTRANCE, LIBRARY, FACULTY ROOM, CONFERENCE ROOM, MOOT COURT, AUDIO-VISUAL ROOM, DECK	ENTRANCE, FACULTY ROOM, LEGAL-AID CLINIC, DEAN'S OFFICE, CLASSROOMS, CONFERENCE ROOM, COMFORT ROOMS		FIRE EXIT	JANITOR'S CLOSET	PWD [COMFORT ROOMS]

2
A 14

SCHEDULE OF DOORS

SCALE : 1 : 35 M



PREPARED BY	PROJECT NAME AND LOCATION	SHEET CONTENTS	RECOMMENDING APPROVAL	APPROVED	SHEET
AR AL-RAJAN S. ABDUHASAN ARCHITECT III, INFRASTRUCTURE SERVICES OFFICE ENGR. ALLAN S.CAGUIOA, MPA PLANNING OFFICER V, INFRASTRUCTURE SERVICES OFFICE	CONSTRUCTION OF 3-STOREY COLLEGE OF LAW BUILDING, MINDANAO STATE UNIVERSITY, SANGA-SANGA, BONGAO, TAWI-TAWI		(SGD) ATTY. DATU ESMA MIKEE P. MARUHOM END-USER	 MARY JOYCE Z. GUINTO-SALI, Ph D CHANCELLOR, MSU-TCTO	14 A 15

GENERAL NOTES:

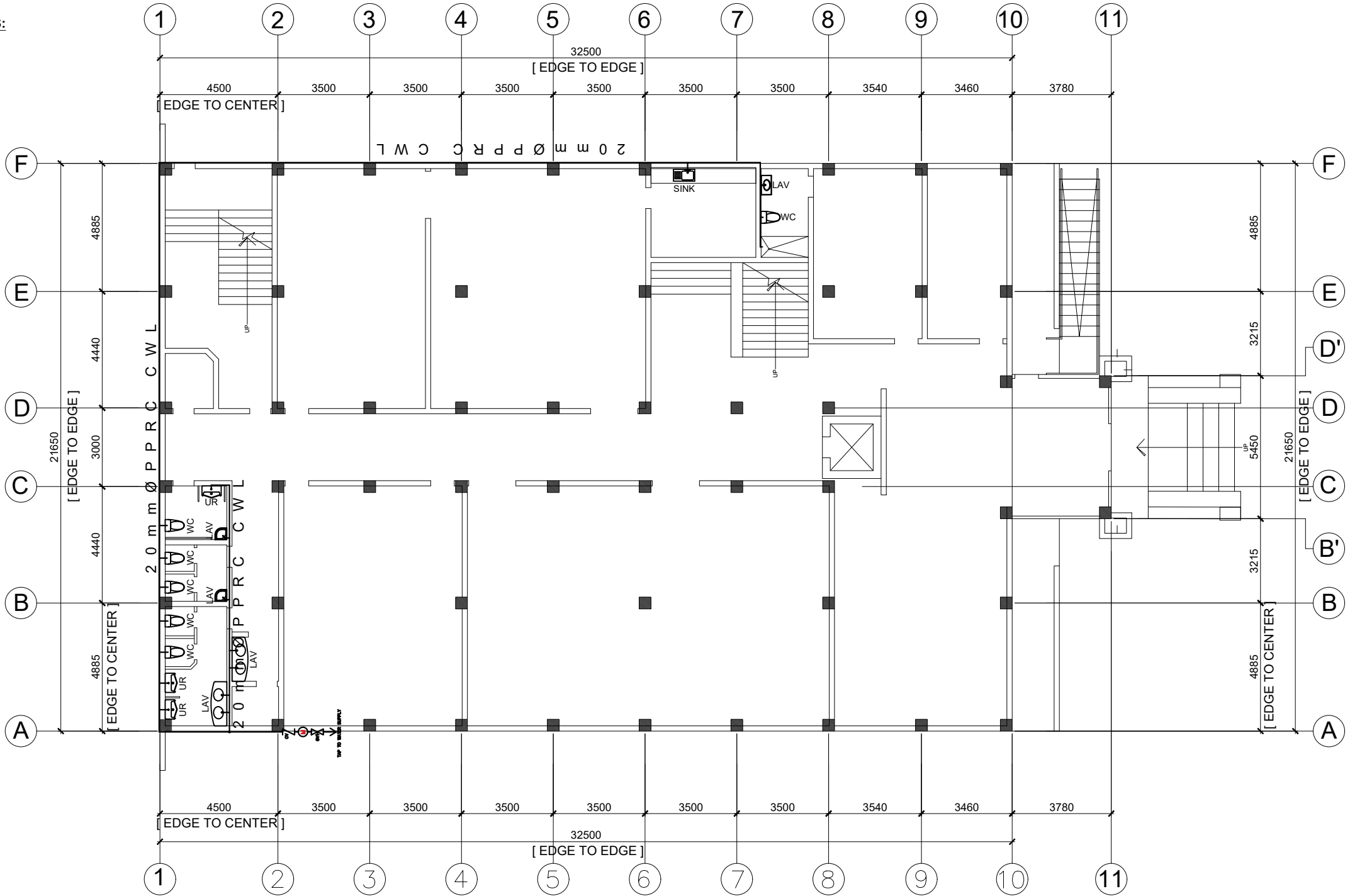
1. ALL PLUMBING WORKS INCLUDED HEREIN SHALL BE EXECUTED ACCORDING TO THE PHILIPPINE PLUMBING CODE, THE NATIONAL BUILDING CODE, AND THE RULES AND REGULATION OF THE LOCAL GOVERNMENT AUTHORITIES CONCERNED.
2. COORDINATE THE DRAWING WITH OTHER RELATED DRAWINGS AND SPECIFICATIONS, THE DESIGNER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY FOUND HEREIN.
3. ALL PIPES SHALL BE INSTALLED AS INDICATED ON PLANS, ANY RELOCATIONS REQUIRED FOR PROPER EXECUTIONS OF OTHER TRADES SHALL BE WITH PRIOR APPROVAL OF THE ARCHITECT OR ENGINEER.
4. PROPOSED UTILITIES SHALL CONFORM TO THE ACTUAL LOCATION, DEPTH AND INVERT ELEVATION OF ALL EXISTING PIPES AND STRUCTURES AS VERIFIED BY THE CONTRACTOR.
5. ALL SLOPES FOR HORIZONTAL DRAINAGES SHALL MAINTAIN 2% AS MINIMUM UNLESS NOTED OTHERWISE.
6. ALL FIXTURES SHALL BE VENTED, UNLESS OTHERWISE INDICATED.
7. AIR CHAMBER, ALL INDIVIDUAL BRANCHES TO FIXTURES OR GROUP OF FIXTURES AND/OR EQUIPMENTS SHALL BE PROVIDED WITH AIR CHAMBER OF CAPPED VERTICAL PIPE EXTENSION OF DIMENSION AS SHOWN IN DETAILS.
8. ALL SEWER LINES SHALL BE PVC SERIES 1000, "NELTEX", "SANIMOLD EXTRA" OR APPROVED EQUAL.
9. ALL VENT STACK AND VENT SHALL BE PVC PIPE SERIES 1000, "NELTEX", "SANIMOLD" OR APPROVED EQUAL.
10. ALL GALVANIZED IRON PIPES LAID UNDERGROUND AND WITH DIRECT CONTACT WITH THE SOIL SHALL BE PROVIDED WITH THE THREE PROTECTIVE TAR-COVERING THEN WRAP WITH BURLAP.
11. MAIN WATER DISTRIBUTION LINE SHALL BE POLYPROPYLENE PIPE (PPR) ALL OTHER PIPES TO BE USED SHALL BE AS PER PLAN AND SPECIFICATIONS.
12. ALL COLD WATER LINES SHALL BE TESTED 100 PSI FOR A PERIOD OF TWO (2) HOURS BEFORE COVERING.
13. ALL HOT WATER LINES SHALL BE PROPERLY INSULATED.
14. ALL WET AREAS SHALL BE WATERPROOFED THRO-SESAL, HYGARD, OR APPROVED EQUAL AND SHALL BE TESTED FOR TWENTY-FOUR (24) HOURS PRIOR TO FLOOR TAPPING.
15. ALL SEWER/WASTE SHALL BE TESTED AT 1.5M HEAD.
16. WASTE LINES SHALL BE HYDRO-STATIC TESTED AT LEAST 100PSI PRIOR TO TAPPING.
17. ALL SINKS (KITCHEN, PANTRY, ETC.) SHALL BE PROVIDED WITH CAST-IRON "METMA" OR STAINLESS STEEL, GREASE TRAP WITH 10GPM MINIMUM CAPACITY, IF NEEDED.
18. ALL SEWER/WASTE LINES, VENT AND WATER LINES SHALL BE PROVIDED WITH ADEQUATE STANDARD PIPE HANGER SUPPORT.
19. PROVIDE PIPE SLEEVES, AS NEEDED IN WALL PENETRATIONS.
20. NO PIPE SHALL PASS THROUGH EXISTING BEAMS AND COLUMNS.

MATERIAL SPECIFICATIONS:

SEWER AND VENT	POLY VINYL CHLORIDE (PVC) PIPES SERIES 1000, "NELTEX", "SANIMOLD EXTRA" OR APPROVED EQUAL.
DRAIN, WASTE & VENT PIPE (DWV)	POLY VINYL CHLORIDE (PVC) PIPES SERIES 1000, AND CLASS 35 SIMILAR TO EMEERALD OR ITS APPROVED EQUAL.
COLD WATER LINE	POLYPROPYLENE (PPR) PIPES BY "VESBO" PR APPROVED EQUAL
HOT WATER LINE	POLYPROPYLENE (PPR) PIPES BY "VESBO" PR APPROVED EQUAL
VALVES	MANUFACTURED BY "LITZ" BRAND OR APPROVED EQUAL
FLOOR DRAINS	MANUFACTURED BY "METMA" BRAND OR APPROVED EQUAL
HWL INSULATION	25mm FIBERGLASS, 65 Kg/m2 DENSITY, WITH FACTORY APPLIED SERVICE VAPOR BARRIER JACKET
FCU INSULATION	25mm THK RUBBER INSULATION
WATER TANK	"BESTANK" 600 GALS STAINLESS CYLINDER TANK

DESIGN LEGENDS:

GV	GATE VALVE
M	WATER METER
CV	CHECK VALVE
WC	WATER CLOSET
LAV.	LAVATORY
KS	KITCHEN SINK
GT	GREASE TRAP
SHO	SHOWER
HB	HOSE BIBB
CO	CLEAN OUT
FCO	FLOOR-CLEAN OUT
F	FAUCET
WP	WATER PUMP
WT	WATER TANK
1	TOILET NO.
MH	MANHOLE
BP	BUSTER PUMP
FLV	FLOAT VALVE
FV	FOOT VALVE
LD	LAUNDRY DRAIN
BS	BIDET SPRAY
VSTR	VENT THRU ROOF
TD	TUB DRAIN
FD	FLOOR DRAIN
GD	GUTTER DRAIN
CB	CATCH BASIN
DS	DOWN SPOUT
SV	SEPTIC VAULT
WC	WATER CISTERN
SS	SOIL STACK
BT	BATH TUB
FC	FLEX. CONNECTOR
PT	PRESSURE TANK
HT	HYDRO PNEUMATIC
WP	WATER PUMP
	WATER LINE
	SEWER LINE
	STORM LINE
GT	GREASE TRAP
CD	COKE DISPENSER
CDD	COKE DISP. DRAIN
WF	WATER FILTER
CAP	CAP
THSP	TOI. HOR. SOIL PIPE



GROUND FLOOR PLAN
(WATER LINE)

SCALE : 1 : 100 M



PROJECT TITLE:
PROPOSED LAW SCHOOL BUILDING

LOCATION: MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

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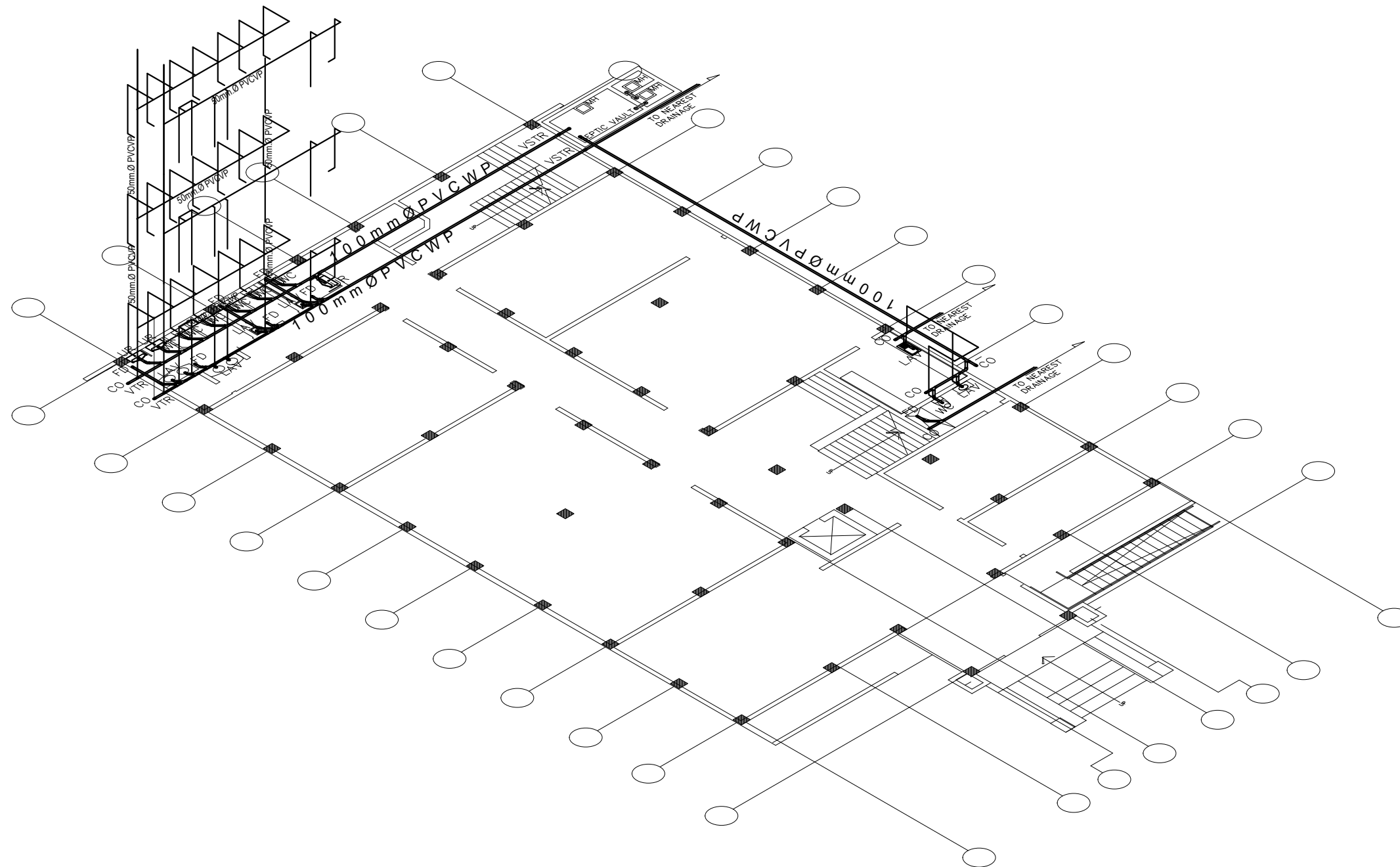
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RECOMMENDING APPROVAL:

APPROVED BY:
PROF. MARY JOYCE Z. GUINTO-SALI, Ph.D
CHANCELLOR
MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

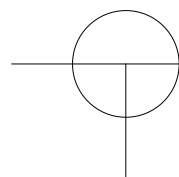
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-GROUND FLOOR PLAN (WATER LINE)

SHEET NUMBER:
P 1 / 12



ISOMETRIC PLAN LAY-OUT (SEWER LINE)

SCALE : 1 : 100 M



PROJECT TITLE:
PROPOSED LAW SCHOOL BUILDING

LOCATION: MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

DRAFTED BY:

CHECKED BY:

RECOMMENDING APPROVAL:

APPROVED BY:

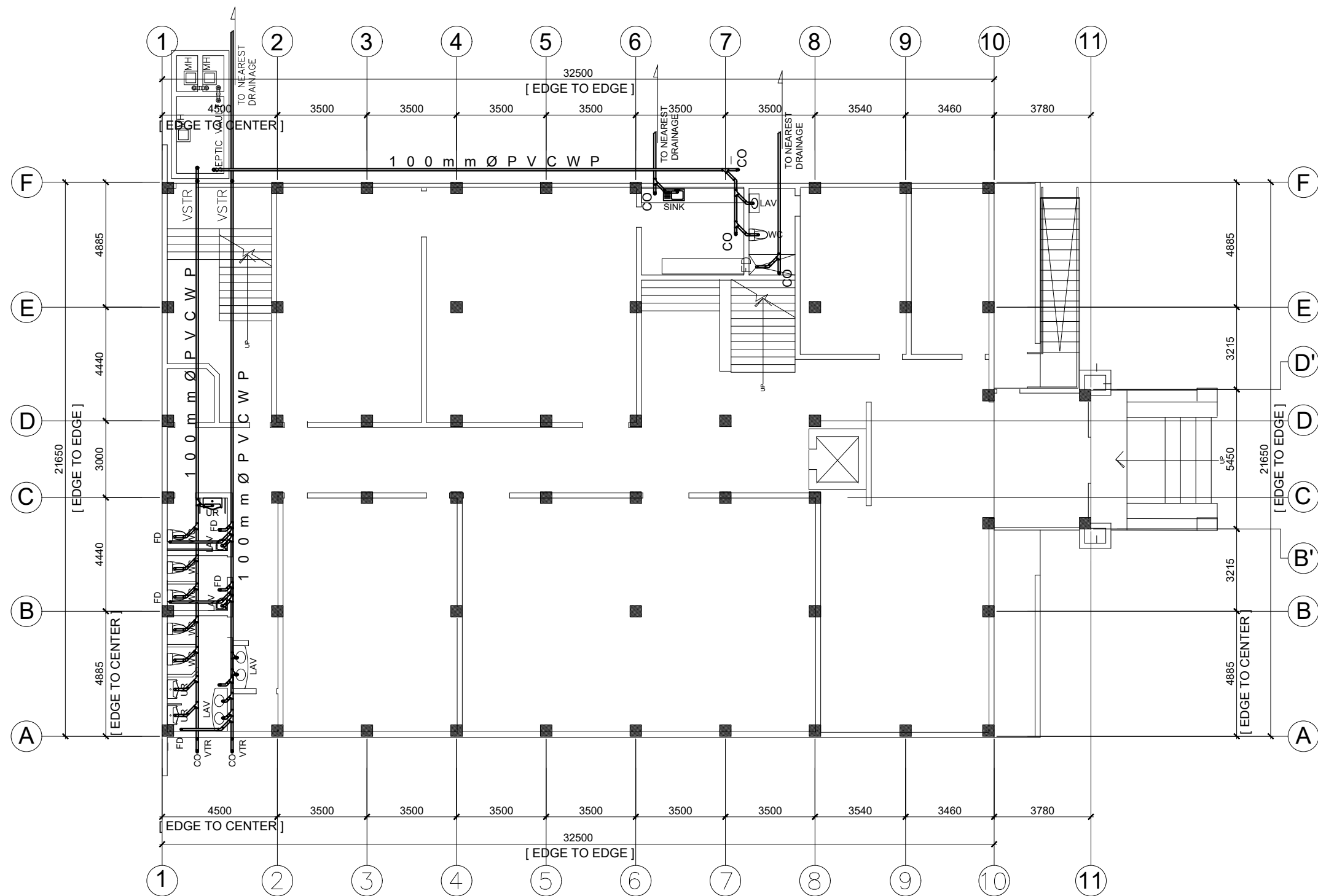
PROF. MARY JOYCE Z. GUINTO-SALI, Ph.D
CHANCELLOR
MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

SHEET CONTENT:

-ISOMETRIC LAY-OUT PLAN (SEWER LINE)

SHEET NUMBER:

P 10
12



GROUND FLOOR PLAN (SEWER LINE)

SCALE : 1 : 100 M



PROJECT TITLE:
PROPOSED LAW SCHOOL BUILDING
LOCATION: MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

DRAFTED BY:

CHECKED BY:

RECOMMENDING APPROVAL:

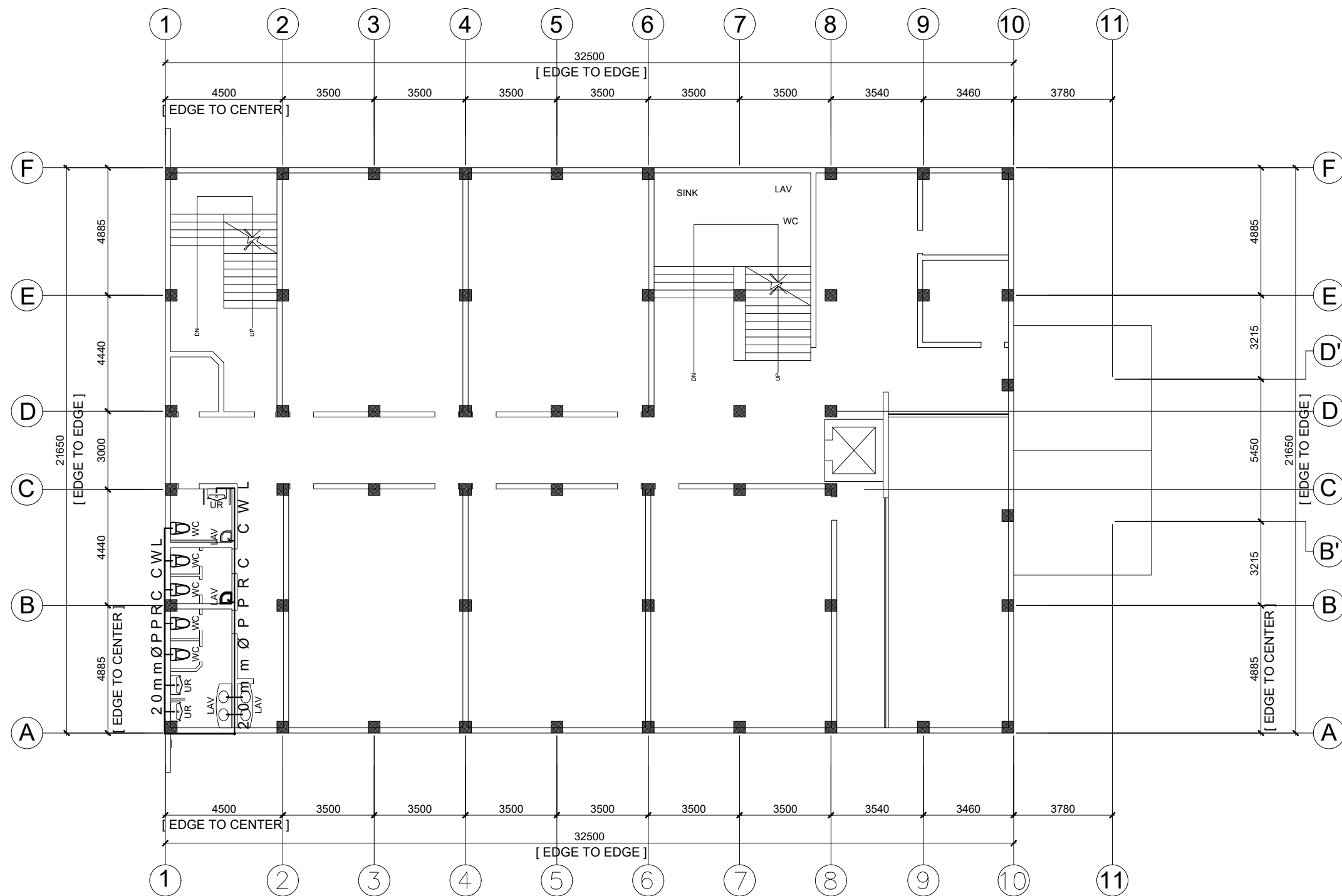
APPROVED BY:

PROF. MARY JOYCE Z. GUINTO-SALI, Ph.D.
CHANCELLOR
MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

SHEET CONTENT:
-GROUND FLOOR PLAN (SEWER LINE)

SHEET NUMBER:

P 4
12



SECOND FLOOR PLAN (WATER LINE)

SCALE : 1 : 100 M



PROJECT TITLE:
PROPOSED LAW SCHOOL BUILDING
LOCATION: MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

DRAFTED BY:

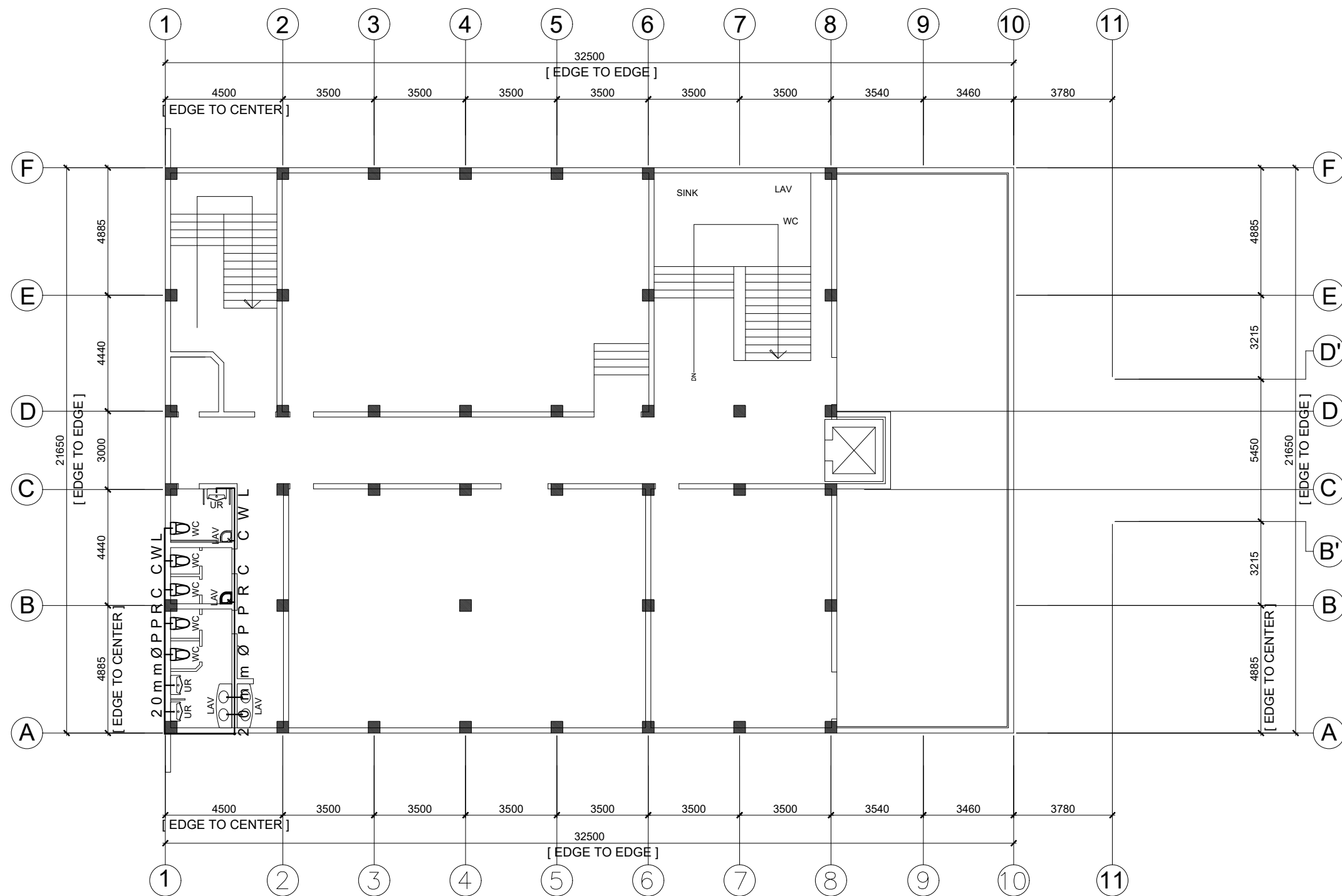
CHECKED BY:

RECOMMENDING APPROVAL:

APPROVED BY:
PROF. MARY JOYCE Z. GUINTO-SALI, Ph.D.
CHANCELLOR
MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

SHEET CONTENT:
-SECOND FLOOR PLAN (WATER LINE)

SHEET NUMBER:
P 2
12



THIRD/DECK FLOOR PLAN (WATER LINE)

SCALE : 1 : 100 M



PROJECT TITLE:
PROPOSED LAW SCHOOL BUILDING
LOCATION:

DRAFTED BY:

CHECKED BY:

RECOMMENDING APPROVAL:

APPROVED BY:

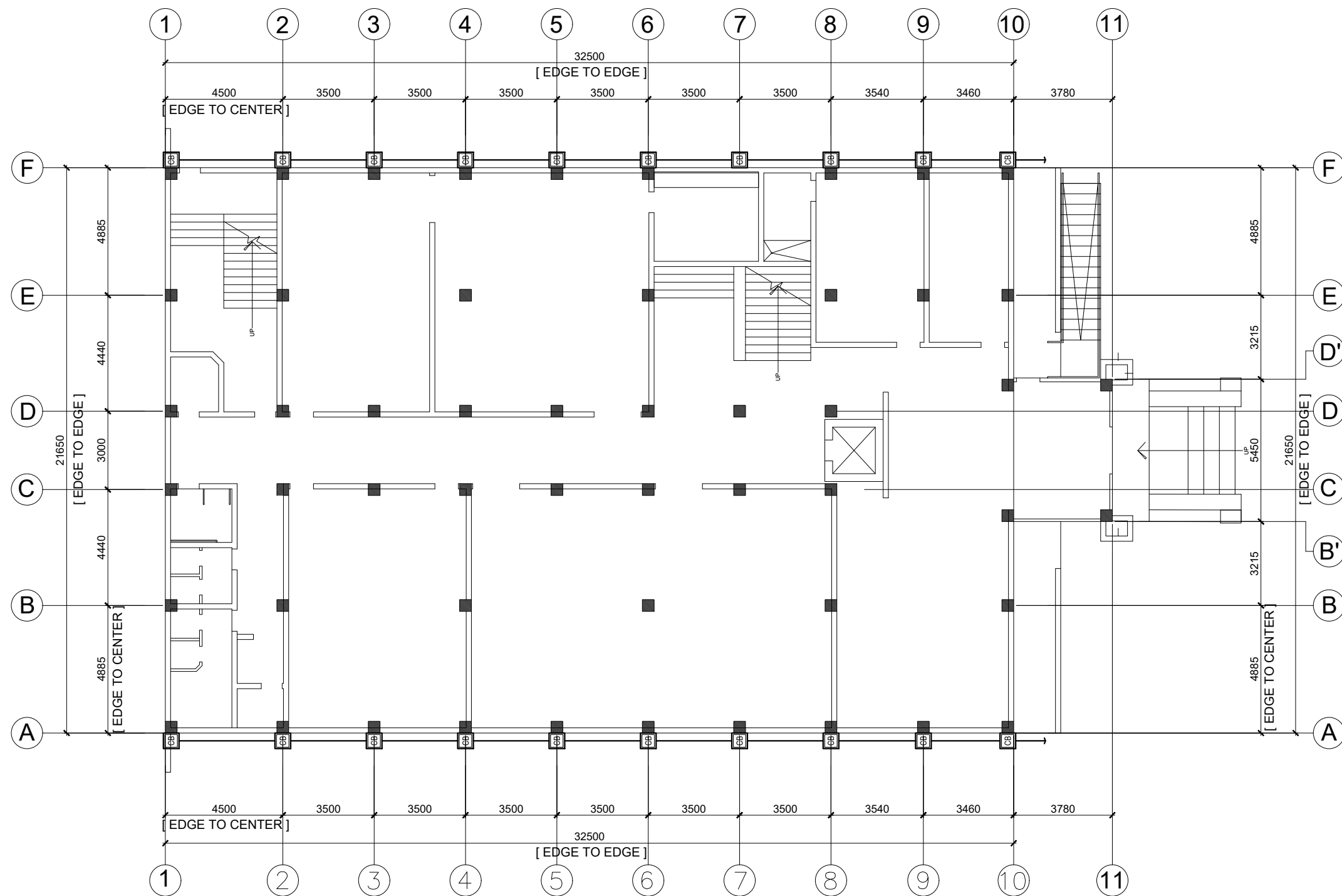
PROF. MARY JOYCE Z. GUINTO-SALI, Ph.D.
CHANCELLOR
MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

SHEET CONTENT:

-THIRD FLOOR / DECK PLAN (WATER LINE)

SHEET NUMBER:

P 3
12



GROUND FLOOR PLAN (STORM DRAIN LINE)

SCALE : 1 : 100 M



PROJECT TITLE:
PROPOSED LAW SCHOOL BUILDING

LOCATION: MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

DRAFTED BY:

CHECKED BY:

RECOMMENDING APPROVAL:

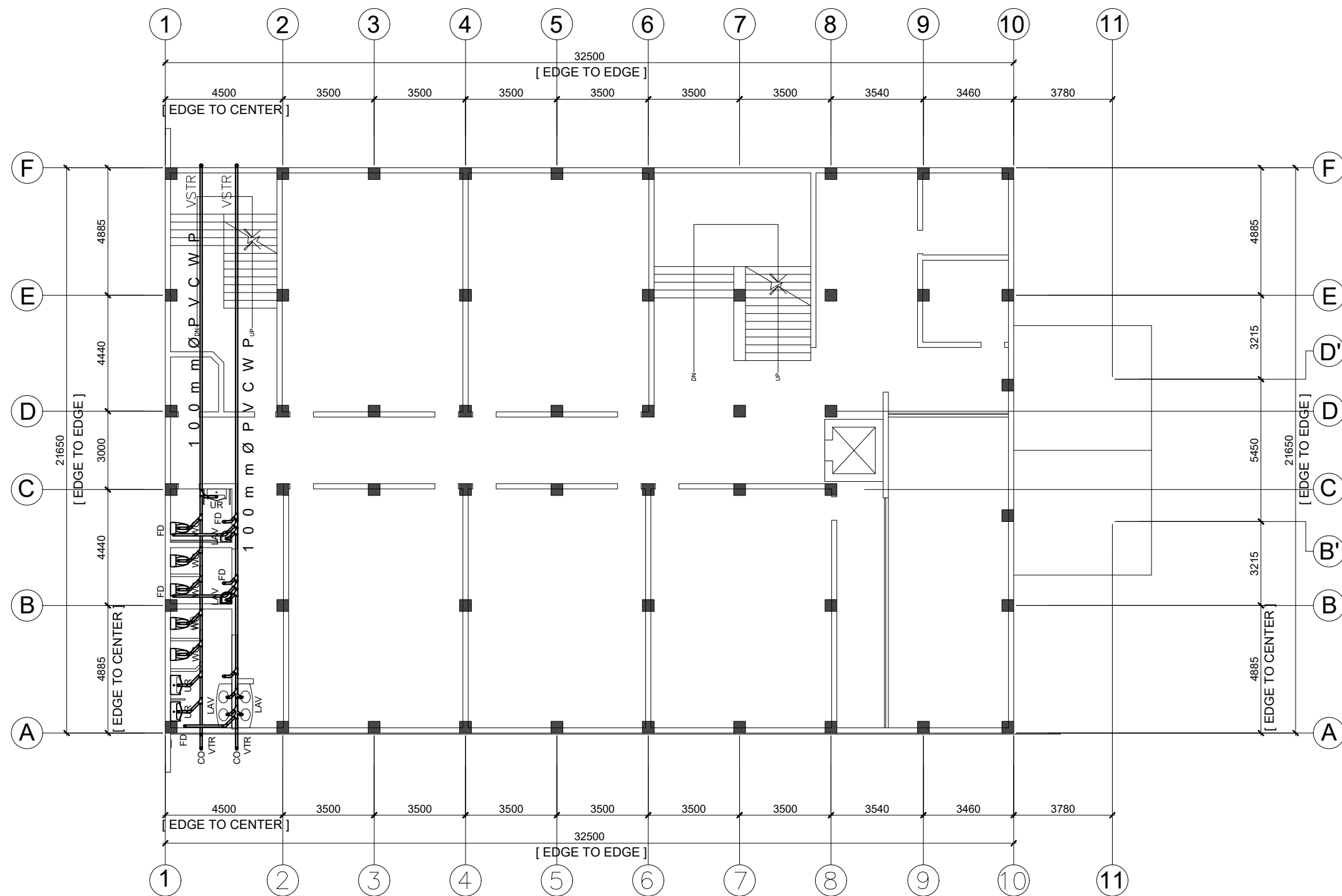
APPROVED BY:

PROF. MARY JOYCE Z. GUINTO-SALI, Ph.D.
CHANCELLOR
MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

SHEET CONTENT:
-THIRD FLOOR / DECK PLAN (STORM DRAIN LINE)

SHEET NUMBER:

P 7
12



SECOND FLOOR PLAN (SEWER LINE)

SCALE : 1 : 100 M



PROJECT TITLE:
PROPOSED LAW SCHOOL BUILDING

LOCATION: MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

DRAFTED BY:

CHECKED BY:

RECOMMENDING APPROVAL:

APPROVED BY:

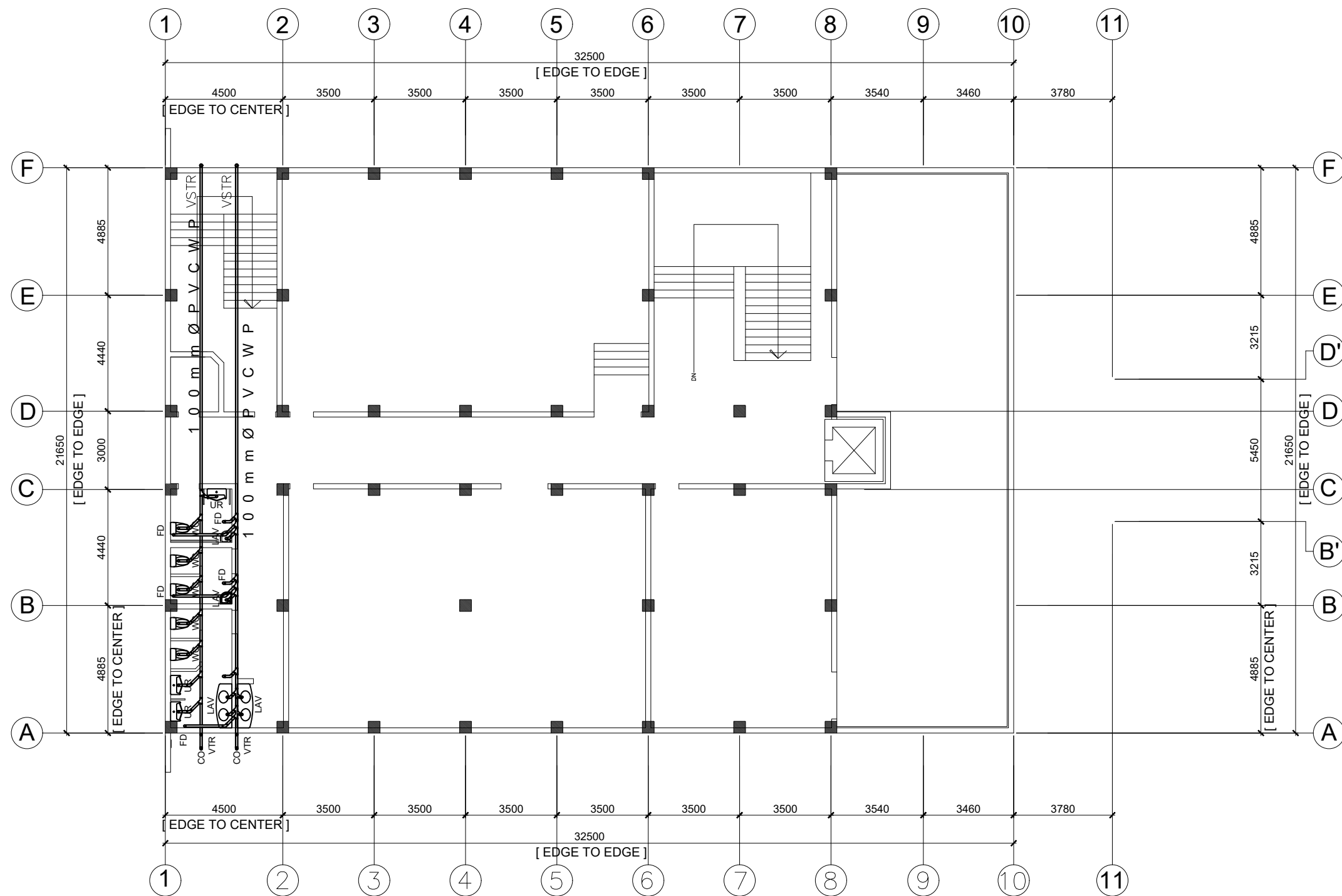
PROF. MARY JOYCE Z. GUINTO-SALI, Ph.D.
CHANCELLOR
MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

SHEET CONTENT:

-SECOND FLOOR PLAN (SEWER LINE)

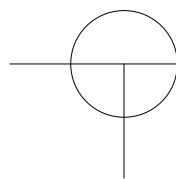
SHEET NUMBER:

P 5
12



THIRD FLOOR PLAN (SEWER LINE)

SCALE : 1 : 100 M



PROJECT TITLE:
PROPOSED LAW SCHOOL BUILDING
LOCATION: MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

DRAFTED BY:

CHECKED BY:

RECOMMENDING APPROVAL:

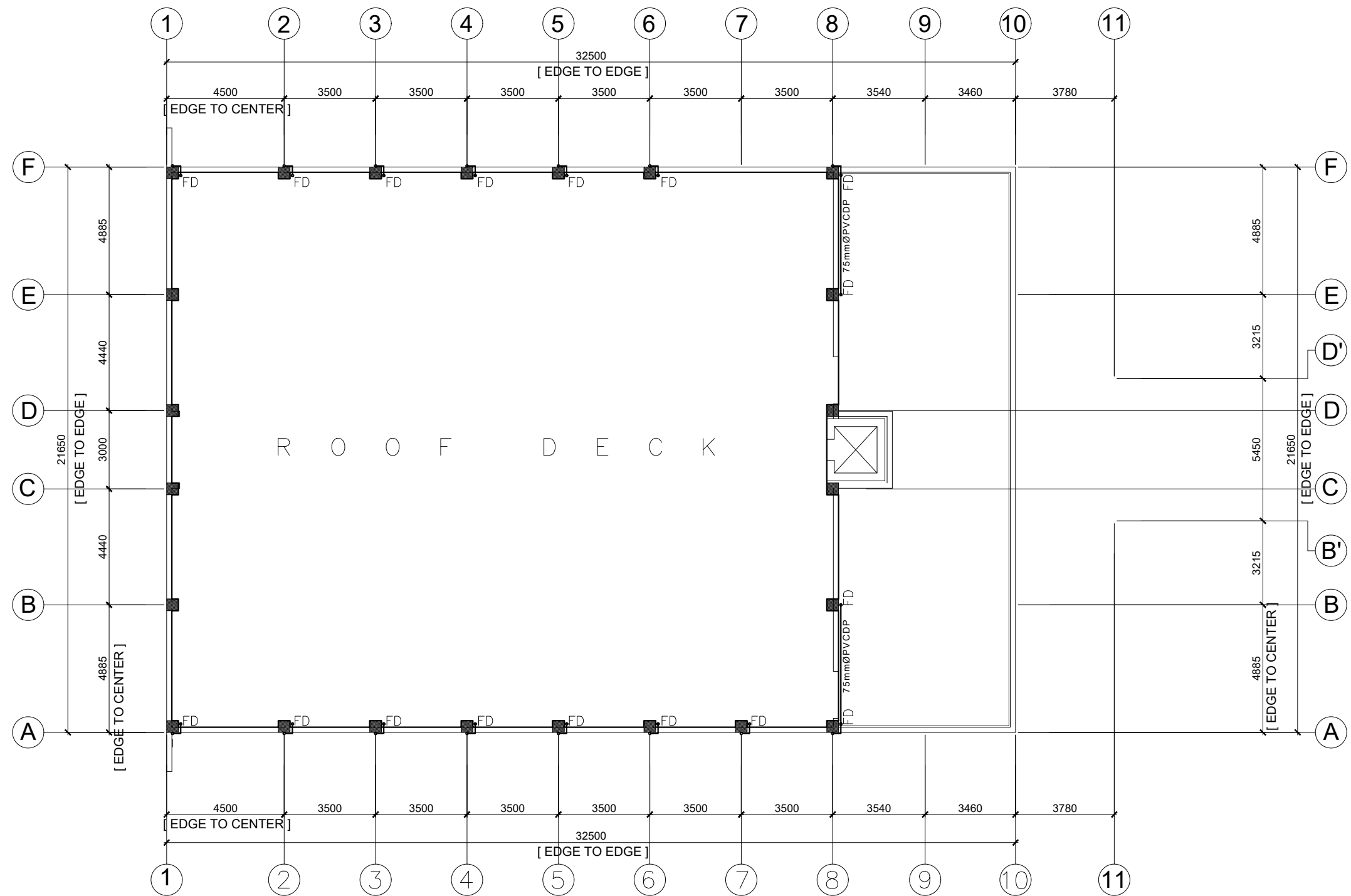
APPROVED BY:

PROF. MARY JOYCE Z. GUINTO-SALI, Ph.D
CHANCELLOR
MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

SHEET CONTENT:
-THIRD FLOOR / DECK PLAN (SEWER LINE)

SHEET NUMBER:

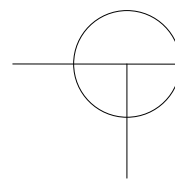
P ⁶/₁₂



THIRD/ROOF DECK FLOOR PLAN

(STORM DRAIN LINE)

SCALE : 1 : 100 M



PROJECT TITLE:
PROPOSED LAW SCHOOL BUILDING
LOCATION: MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

DRAFTED BY:

CHECKED BY:

RECOMMENDING APPROVAL:

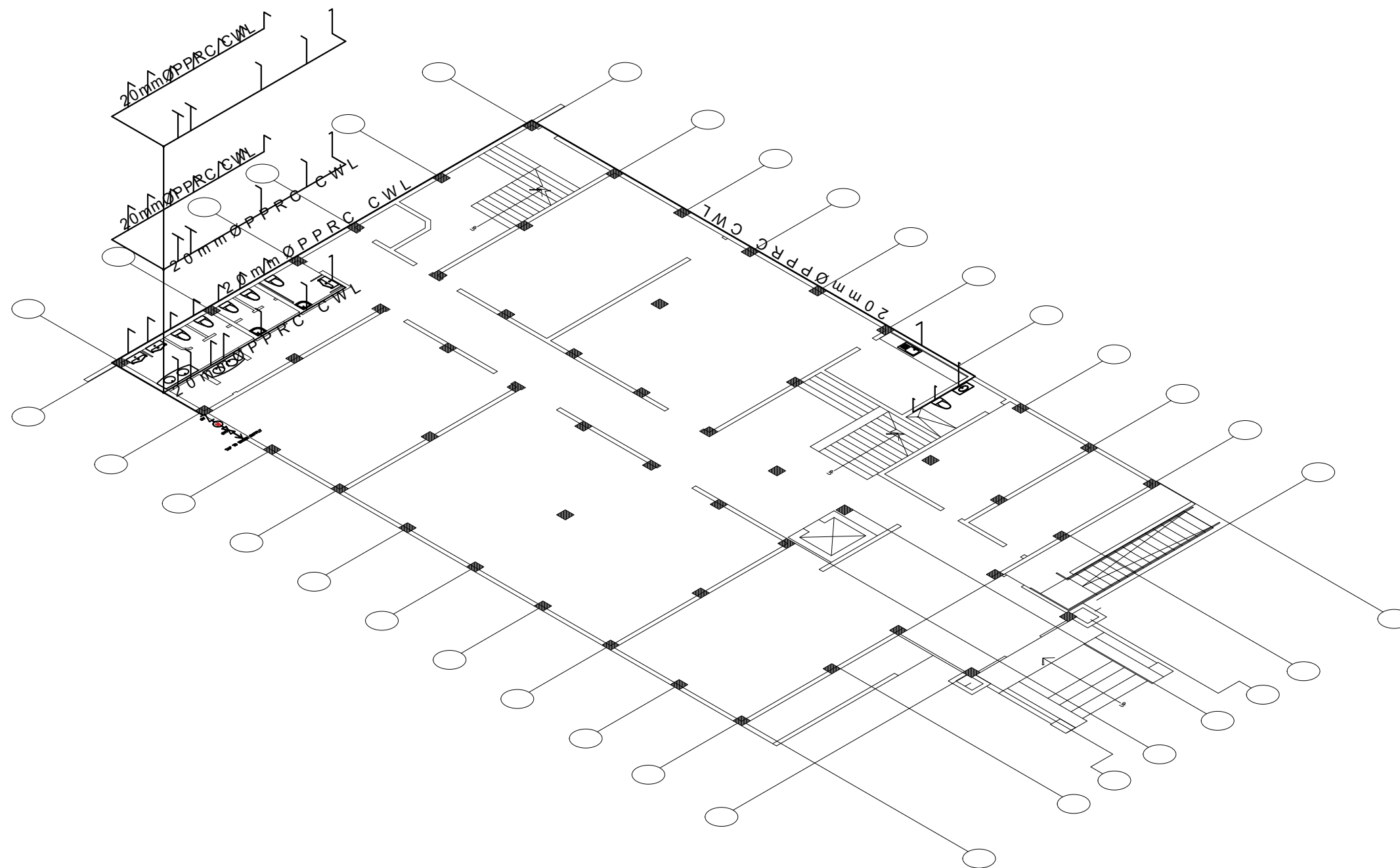
APPROVED BY:

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CHANCELLOR
MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

SHEET CONTENT:
THIRD FLOOR / DECK PLAN (STORM DRAIN LINE)

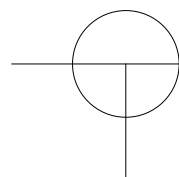
SHEET NUMBER:

P 8 / 12



ISOMETRIC PLAN LAY-OUT (WATER LINE)

SCALE : 1 : 100 M



PROJECT TITLE:
PROPOSED LAW SCHOOL BUILDING

LOCATION: MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

DRAFTED BY:

CHECKED BY:

RECOMMENDING APPROVAL:

APPROVED BY:

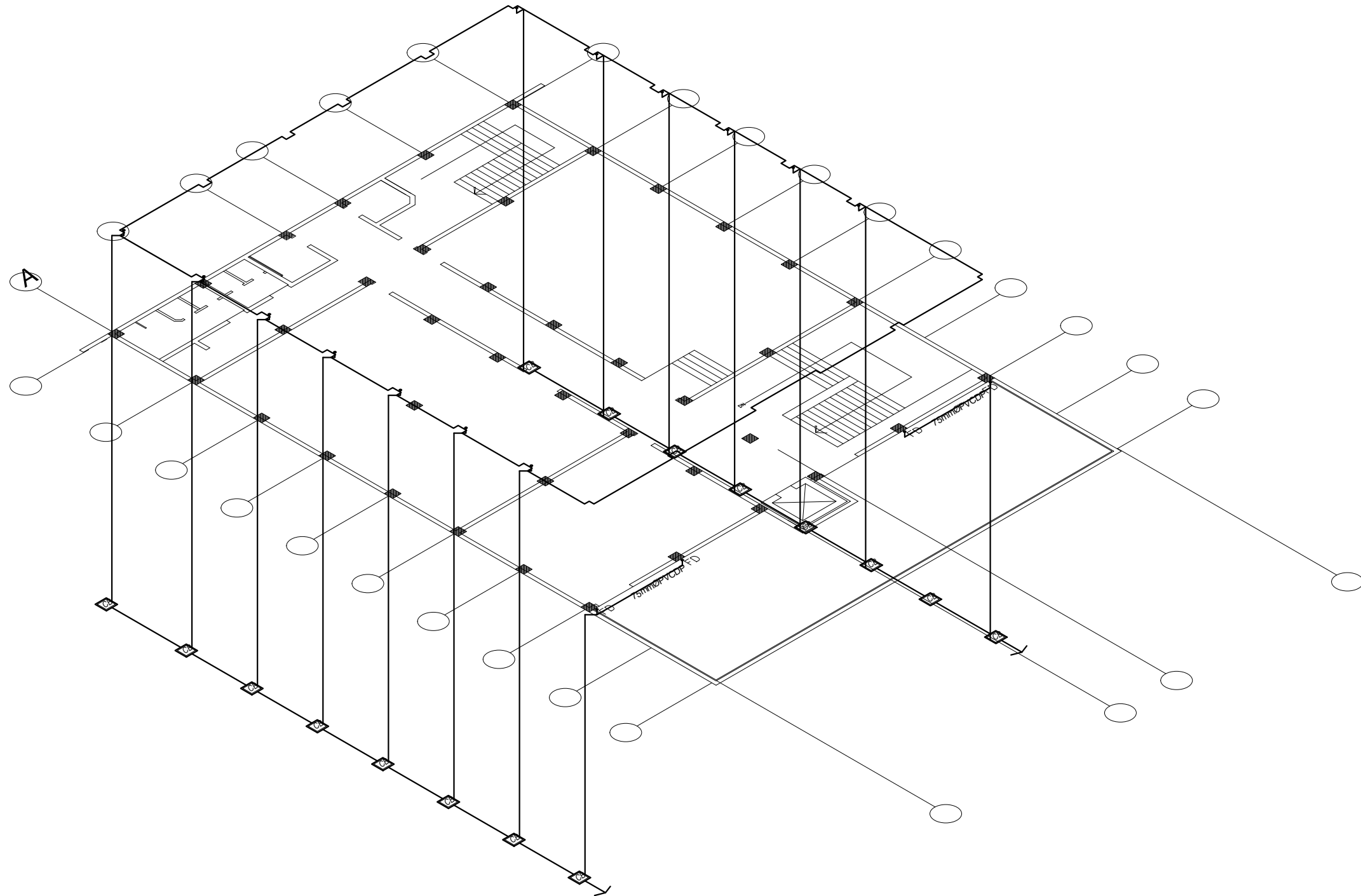
PROF. MARY JOYCE Z. GUINTO-SALI, Ph.D
CHANCELLOR
MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

SHEET CONTENT:

-ISOMETRIC LAY-OUT PLAN (WATER LINE)

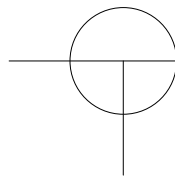
SHEET NUMBER:

P 9
12



ISOMETRIC PLAN LAY-OUT (STORM DRAIN LINE)

SCALE : 1 : 100 M



PROJECT TITLE:
PROPOSED LAW SCHOOL BUILDING

LOCATION: MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

DRAFTED BY:

CHECKED BY:

RECOMMENDING APPROVAL:

APPROVED BY:

PROF. MARY JOYCE Z. GUINTO-SALI, Ph.D
CHANCELLOR
MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

SHEET CONTENT:

-ISOMETRIC LAY-OUT PLAN (STORM DRAIN LINE)

SHEET NUMBER:

P 11
12

CONSTRUCTION NOTES:

1. MAINTAIN MINIMUM CONCRETE COVER FOR REINFORCING STEEL AS FOLLOWS :
- | | |
|--|------|
| SUSPENDED SLABS | 20mm |
| SLAB ON GRADE | 40mm |
| WALLS ABOVE GRADE | 25mm |
| BEAM STIRRUPS AND COLUMN TIES | 40mm |
| WHERE CONCRETE IS EXPOSED TO EARTH BUT
POURED AGAINST FORMS | 50mm |
| WHERE CONCRETE IS DEPOSITED
DIRECTLY AGAINST EARTH | 75mm |
2. STRIPPING OF FORMS AND SHORES :
- | | |
|--|---------|
| FOUNDATION | 24 HRS. |
| SUSPENDED SLAB EXCEPT WHEN
ADDITIONAL LOADS ARE IMPOSED | 8 DAYS |
| BEAMS | 14 DAYS |
| COLUMNS | 21 DAYS |
| WALLS | 18 DAYS |

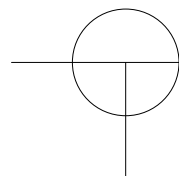
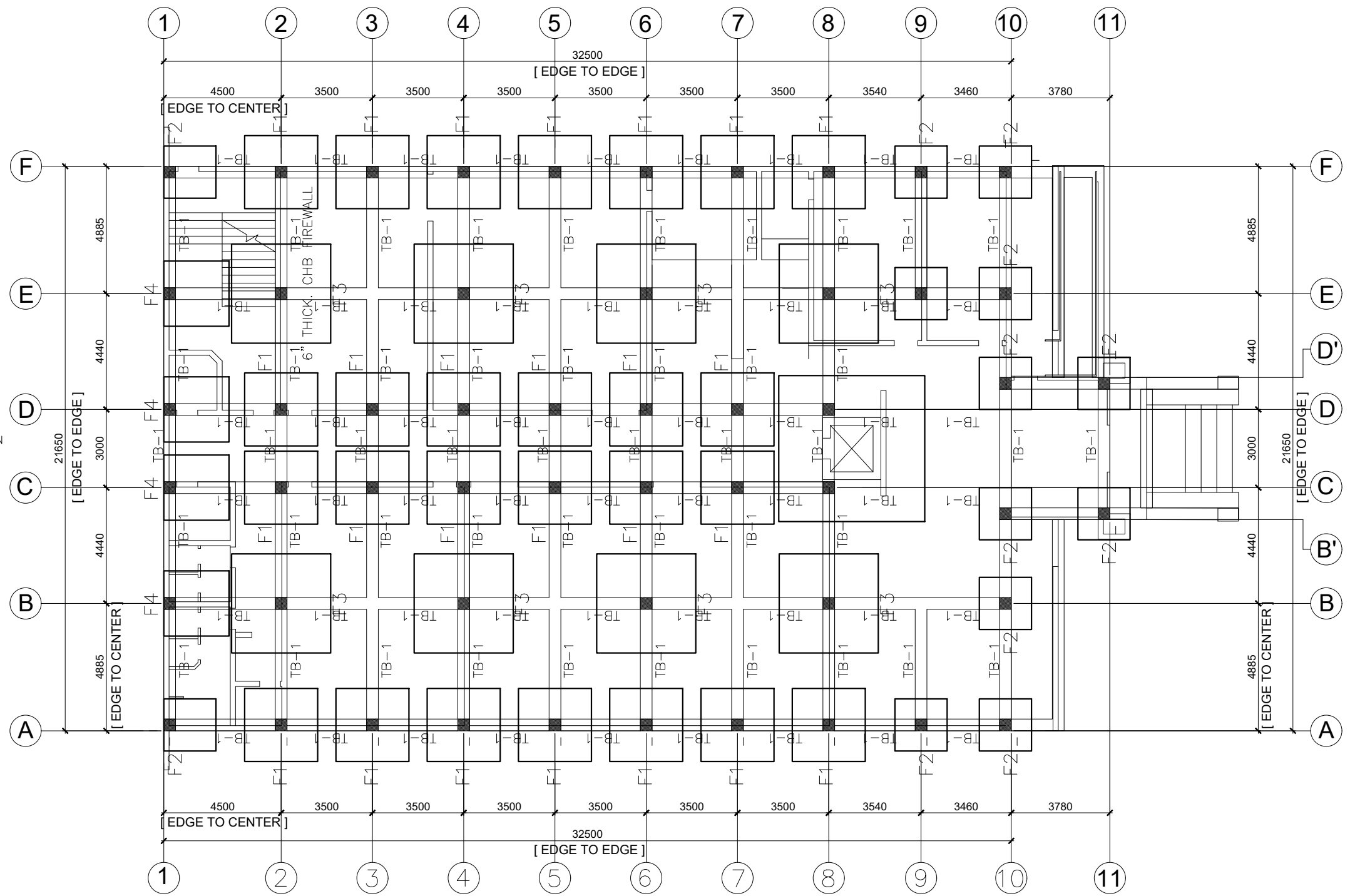
FOOTINGS

1. FOOTING SHALL REST AT LEAST 1.50 meters BELOW NATURAL GRADE LINE UNLESS OTHERWISE INDICATED IN PLANS. NO FOOTING SHALL REST ON FILL.
2. MINIMUM CONCRETE PROTECTION FOR REINFORCEMENTS SHALL BE 75mm CLEAR FOR CONCRETE DEPOSITED DIRECTLY AGAINST THE GROUND AND 50mm FOR CONCRETE DEPOSITED AGAINST A FORMWORK.
3. ALL CONCRETE HOLLOW BLOCKS (CHB) EXCEEDING THREE METERS (3.00 M.) IN WIDTH AND HEIGHT SHALL BE PROVIDED WITH STIFFENERS (STIFF.) AT LEAST EQUAL TO THE WALL THICKNESS, THE STIFFENERS SHALL BE POSITIONED THAT THE INTERVAL SHALL BE EQUALLY DIVIDED. (SEE DETAIL)
4. ALL TIES SHALL BE FASTENED TO COLUMN VERTICAL REINFORCEMENT BY WIRES AT ALL INTERSECTION POINTS OF TIES AND COLUMN REBARS.
5. ALL DOWN SPOUTS/PIPES EMBEDDED IN COLUMNS SHALL NOT EXCEED 75mm IN DIAMETER AND SHALL BE PLACED AT CENTER.
CONCRETE STRENGTH : MINIMUM 28-DAY COMPREHENSIVE STRENGTH OF F'C = 21Mpa

REINFORCING STEEL: DEFORMED BARS SHALL CONFORM TO APPLICABLE STANDARDS.

MAIN REINFORCEMENT: GRADE 60 ($f_y = 415\text{Mpa}$)

TIES/STIRRUPS: GRADE 40 ($f_y = 275\text{Mpa}$) MAY BE USED.



FOUNDATION PLAN

SCALE : 1 : 100 M

NOTE:
SLAB ON FILL
t= 100mm + FINISH W/ 10mmØ @250
O.C., BOTHWAYS TEMP. BARS

NOTE:
FOR SHEAR WALL
5.60m x 5.60m x 0.35m, 21-16mmØ
@250mm O.C TOP AND BOTTOM



PROJECT TITLE:
PROPOSED LAW SCHOOL BUILDING

LOCATION: MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

DRAFTED BY:

CHECKED BY:

(SGD) ENGR. NURWIN ADAM MUHAMMAD
STRUCTURAL DESIGNER

RECOMMENDING APPROVAL:

APPROVED BY:

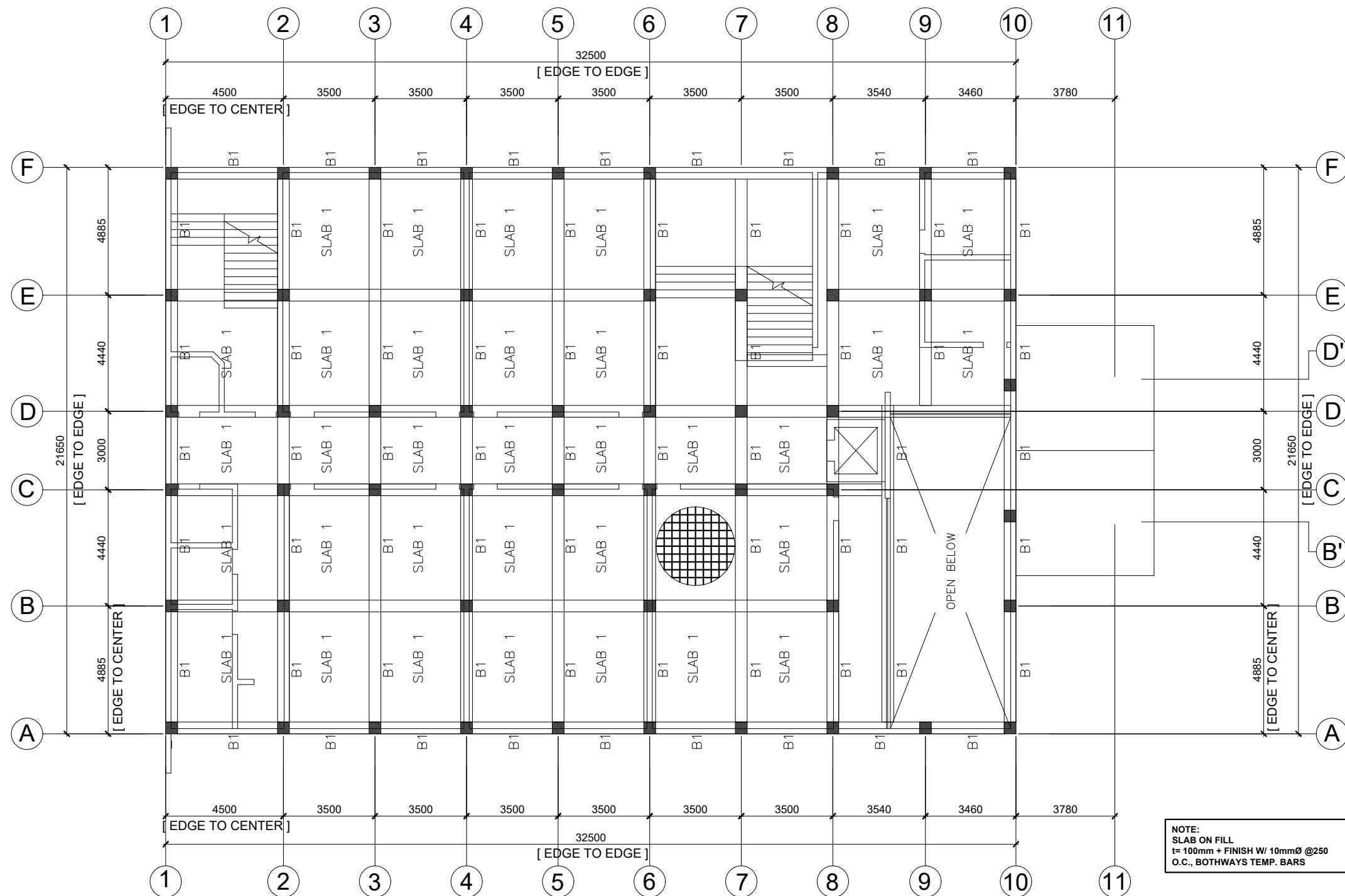
PROF. MARY JOYCE Z. GUINTO-SALI, Ph.D.
CHANCELLOR
MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

SHEET CONTENT:

-CONSTRUCTION NOTES
-FOUNDATION PLAN

SHEET NUMBER:

S 1
9



SECOND FLOOR FRAMING

SCALE : 1 : 100 M



PROJECT TITLE:
PROPOSED LAW SCHOOL BUILDING

LOCATION: MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

DRAFTED BY:

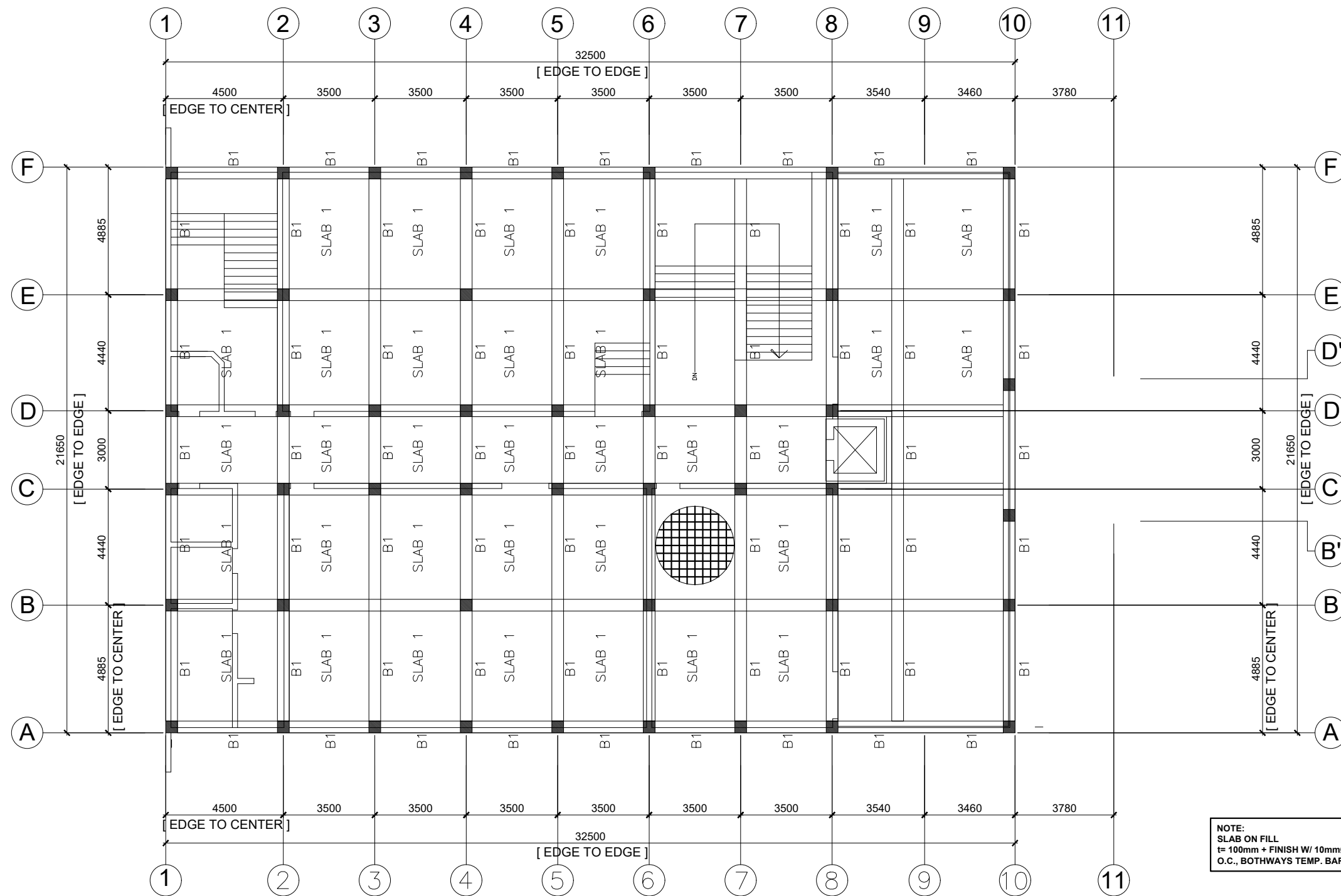
CHECKED BY:
(SGD) ENGR. NURWIN ADAM MUHAMMAD
STRUCTURAL DESIGNER

RECOMMENDING APPROVAL:

APPROVED BY:
PROF. MARY JOYCE Z. GUINTO-SALI, Ph.D
CHANCELLOR
MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

SHEET CONTENT:
-SECOND FLOOR FRAMING PLAN

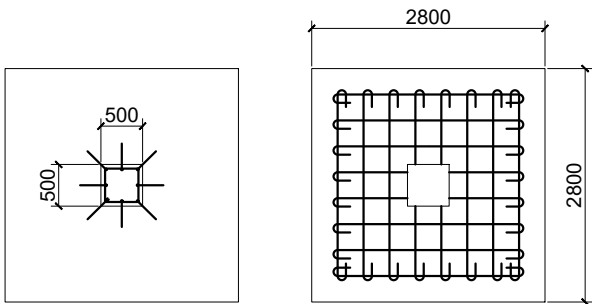
SHEET NUMBER:
S 2 / 9



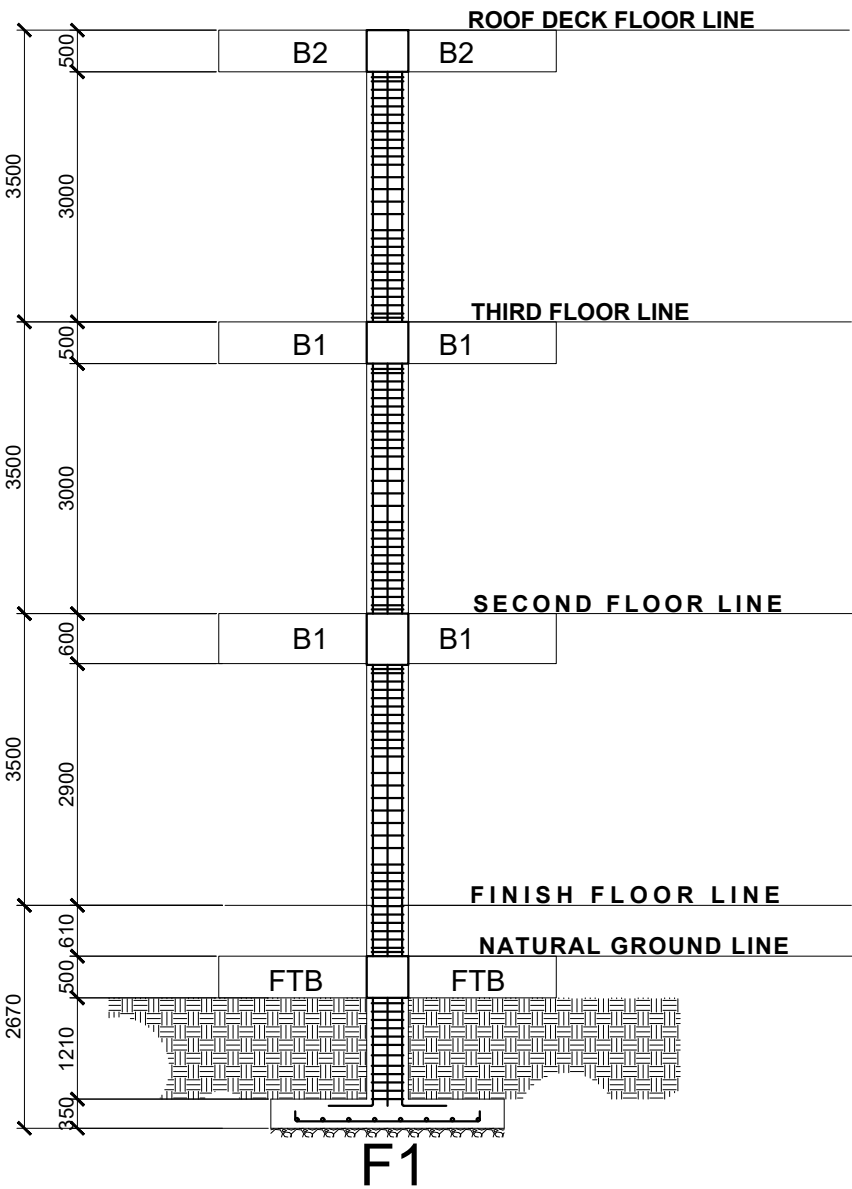
THIRD FLOOR FRAMING PLAN
SCALE : 1 : 100 M

	PROJECT TITLE: PROPOSED LAW SCHOOL BUILDING LOCATION: MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI	DRAFTED BY: CHECKED BY: (SGD) ENGR. NURWIN ADAM MUHAMMAD STRUCTURAL DESIGNER	RECOMMENDING APPROVAL: APPROVED BY: PROF. MARY JOYCE Z. GUINTO-SALI, Ph.D. CHANCELLOR MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI	SHEET CONTENT: -THIRD FLOOR FRAMING PLAN	SHEET NUMBER: 3 9
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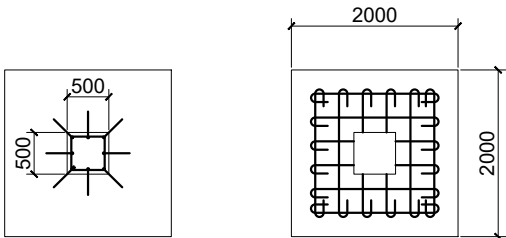
NOTE:
COLUMN: 8- 25mmØ Rebars
STIRRUPS: 4- 50mm, 5- 100mm, REST @150mm O.C.
FOOTING: 16- 16mmØ Rebars,@ 311mm SPACING



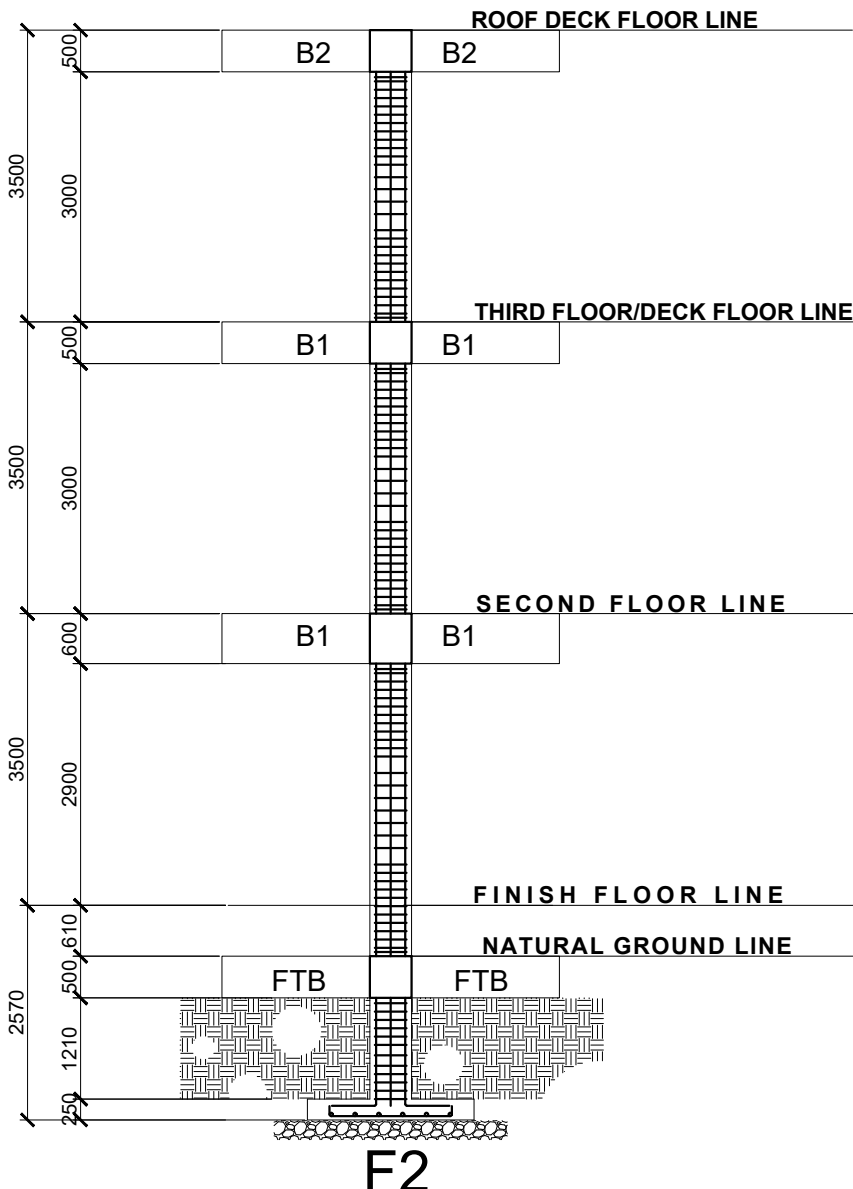
C1-F1



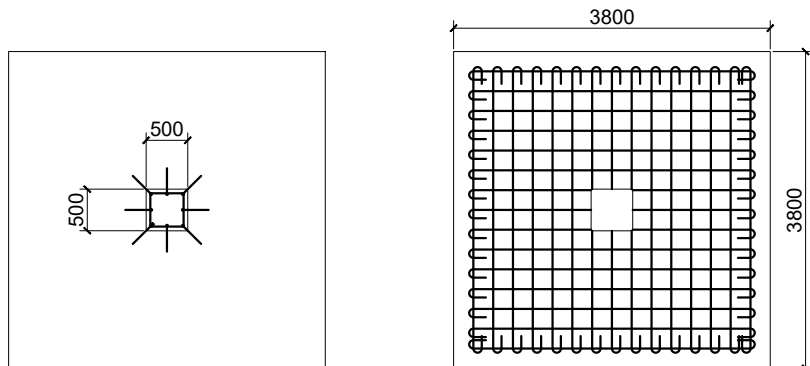
NOTE:
COLUMN: 8- 25mmØ Rebars
STIRRUPS: 4- 50mm, 5- 100mm, REST @ 150mm O.C.
FOOTING: 6- 20mmØ Rebars, @ 286mm SPACING



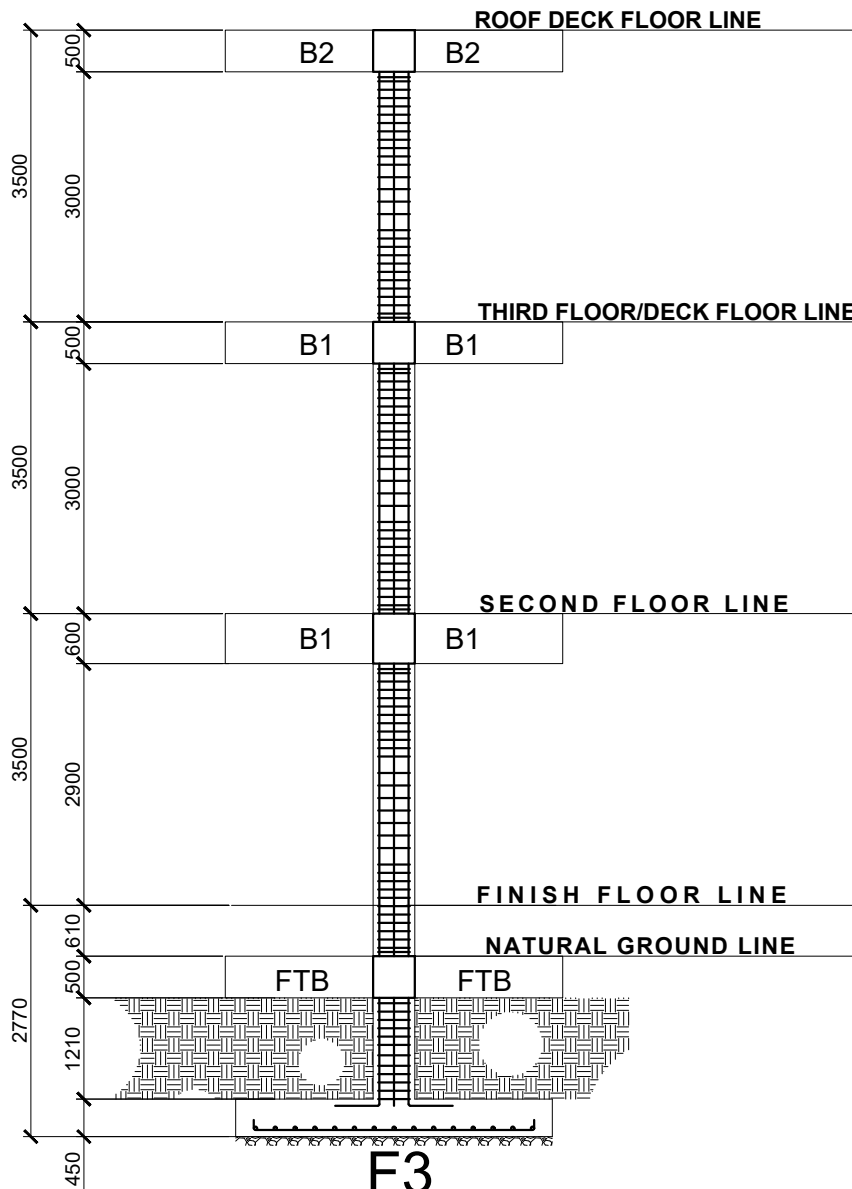
C1-F2



NOTE:
COLUMN: 8- 25mmØ Rebars
STIRRUPS: 4- 50mm, 5- 100mm, @ REST @150mm O.C.
FOOTING: 15- 20mmØ Rebars, @ 238mm SPACING



C1-F3



PROJECT TITLE:
PROPOSED LAW SCHOOL BUILDING
LOCATION: MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

DRAFTED BY:

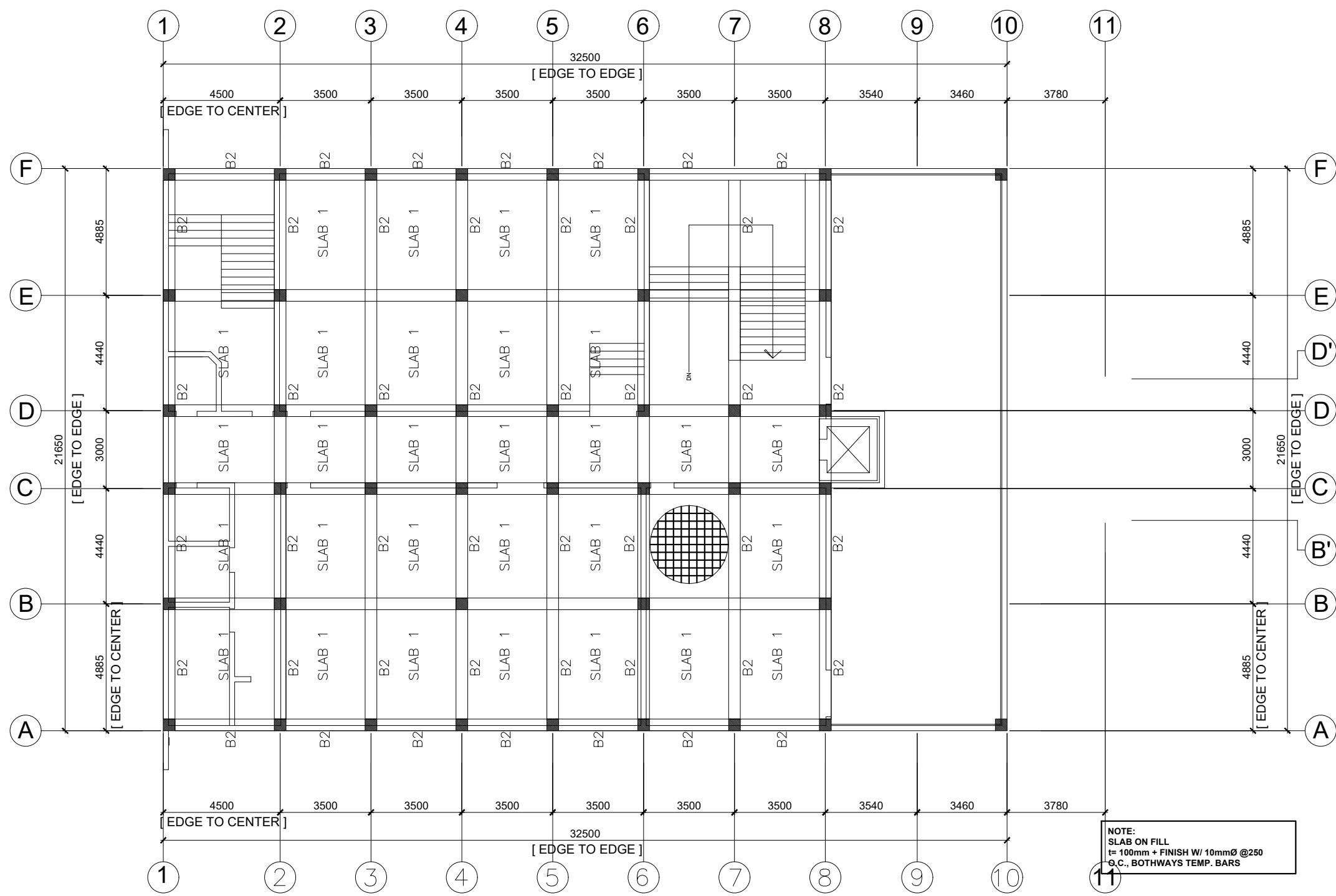
CHECKED BY:
(SGD) ENGR. NURWIN ADAM MUHAMMAD
STRUCTURAL DESIGNER

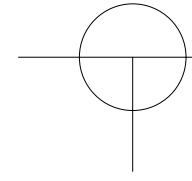
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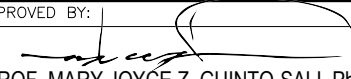
APPROVED BY:
PROF. MARY JOYCE Z. GUINTO-SALI, Ph.D.
CHANCELLOR
MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

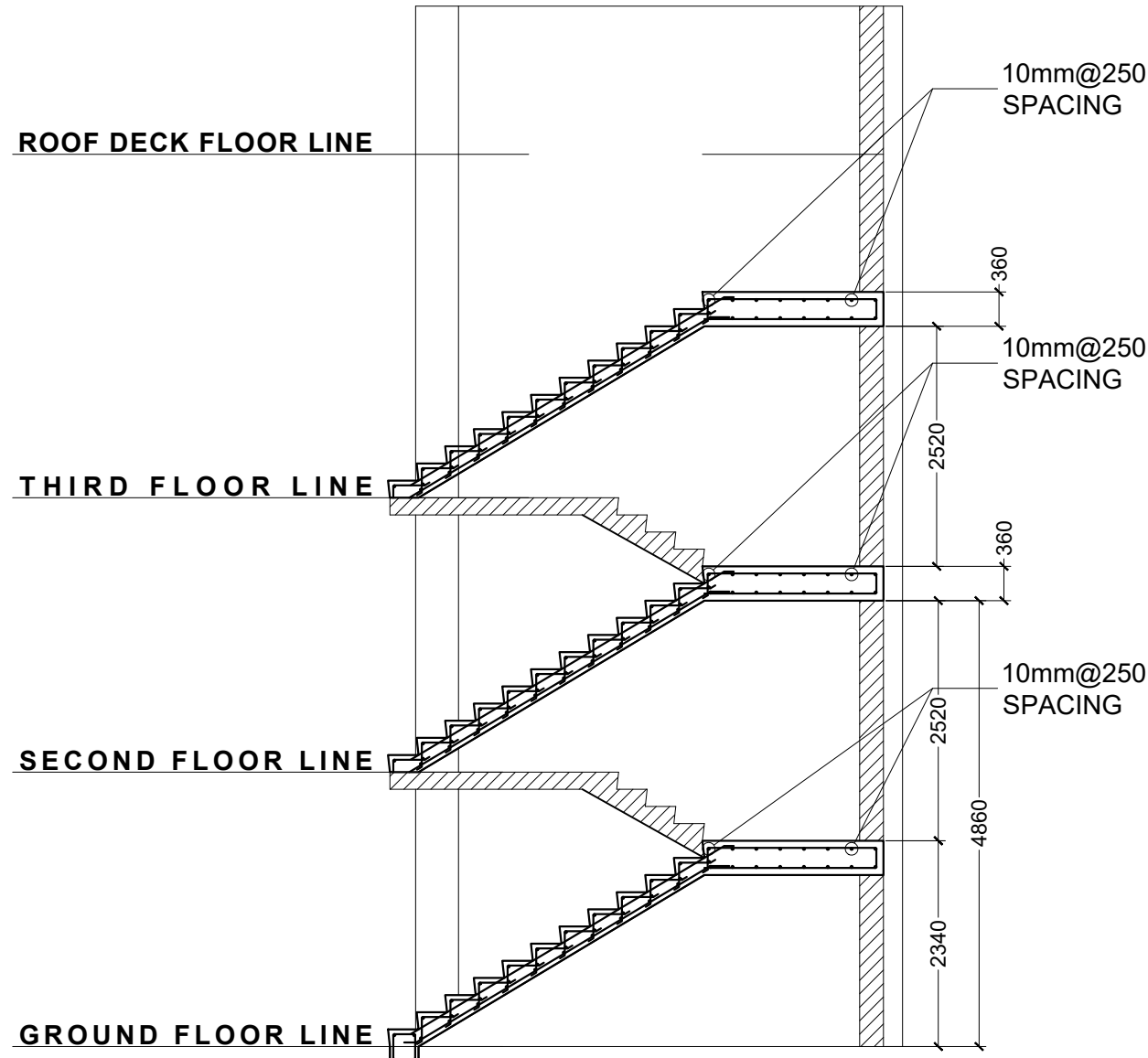
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-C1-F1 DETAILS
-C1-F2 DETAILS
-C1-F3 DETAILS

SHEET NUMBER:
S 5
9

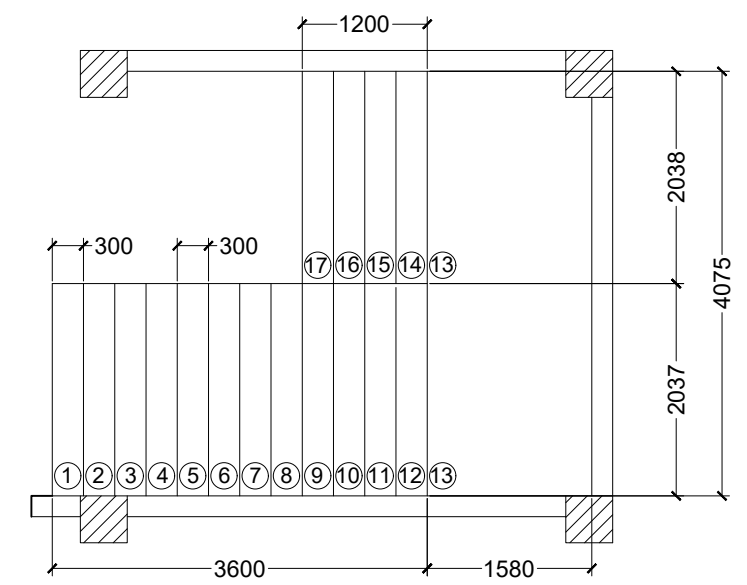


 **DECK FRAMING PLAN**
SCALE : 1 : 100 M

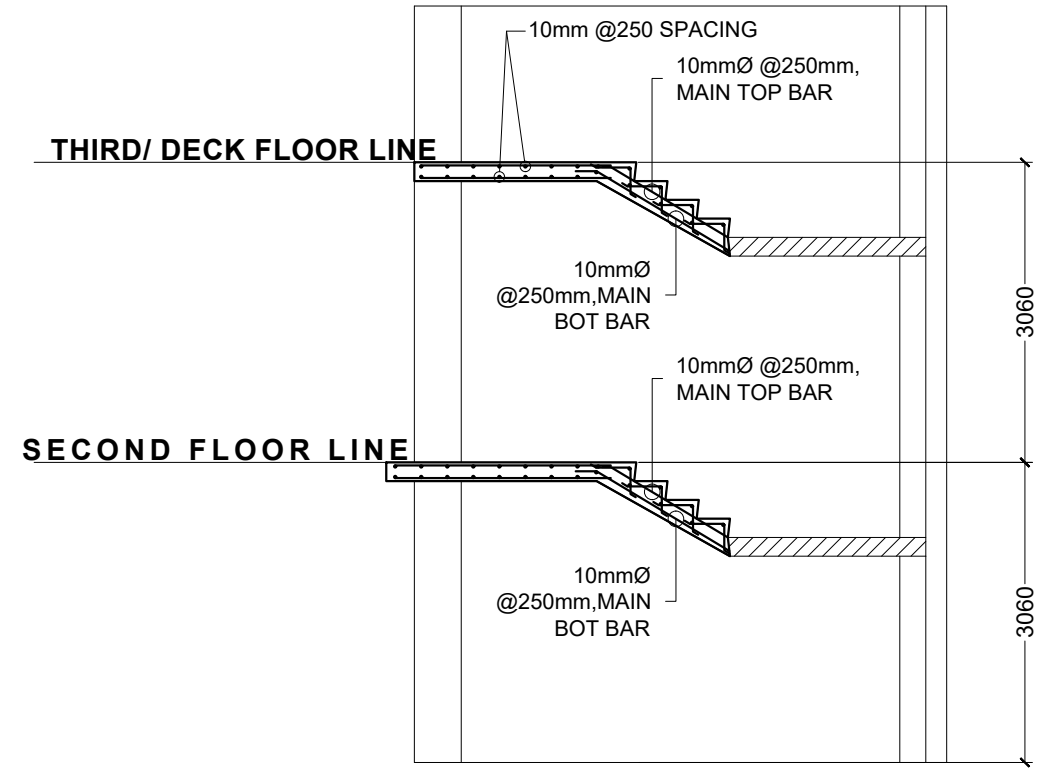
	PROJECT TITLE: PROPOSED LAW SCHOOL BUILDING LOCATION: MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI	DRAFTED BY:	CHECKED BY: (SGD) ENGR. NURWIN ADAM MUHAMMAD STRUCTURAL DESIGNER	RECOMMENDING APPROVAL:	APPROVED BY:  PROF. MARY JOYCE Z. GUINTO-SALI, Ph.D CHANCELLOR MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI	SHEET CONTENT: -DECK FRAMING PLAN	SHEET NUMBER: S 4 9
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SECTION - 1



PLAN



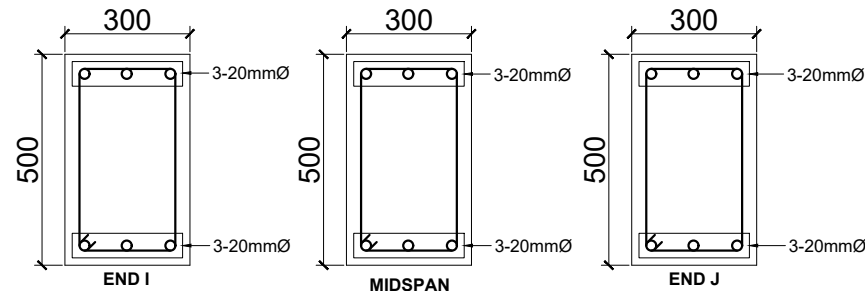
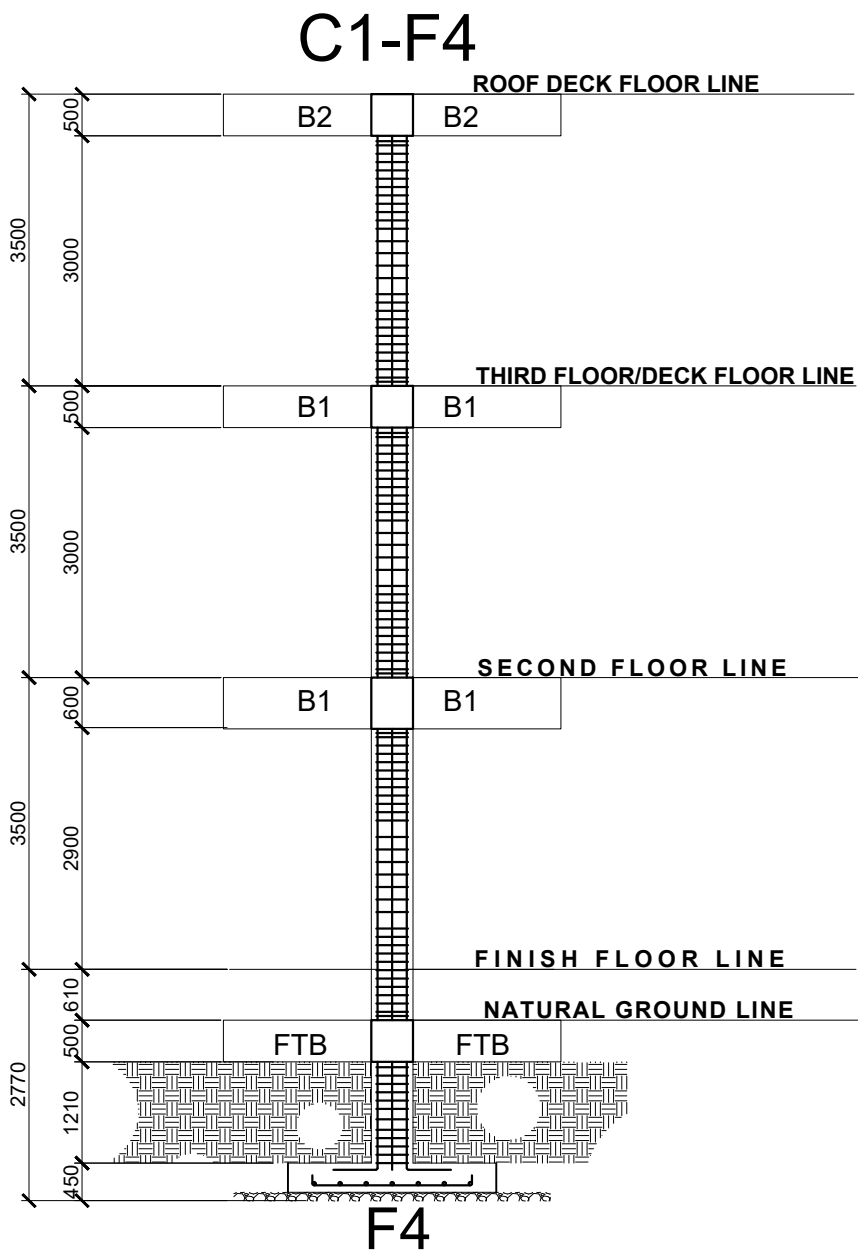
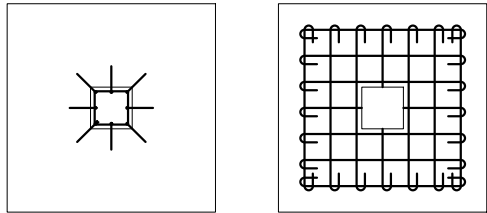
SECTION - 2

STAIR SECTION DETAILS

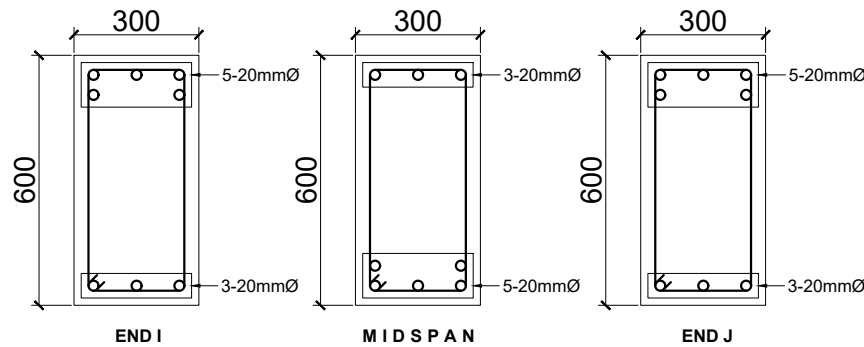
SCALE : 1 : 40 M

	PROJECT TITLE: PROPOSED LAW SCHOOL BUILDING LOCATION: MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI	DRAFTED BY: 	CHECKED BY: (SGD) ENGR. NURWIN ADAM MUHAMMAD STRUCTURAL DESIGNER	RECOMMENDING APPROVAL: 	APPROVED BY: PROF. MARY JOYCE Z. GUINTO-SALI, Ph.D. CHANCELLOR MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI	SHEET CONTENT: -STAIR SECTION DETAILS	SHEET NUMBER: S 8 9
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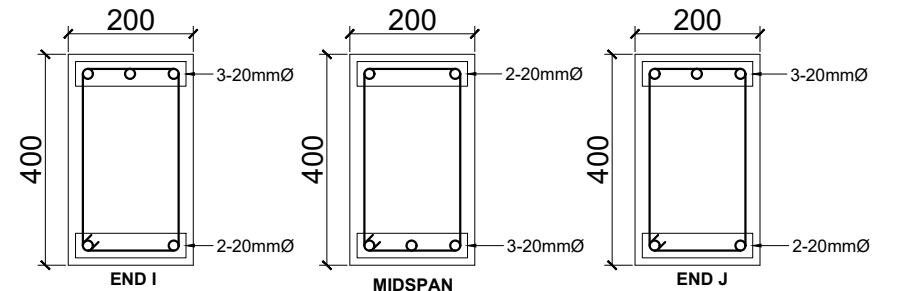
NOTE:
COLUMN: 8- 25mmØ Rebars
STIRRUPS: 4- 50mm, 5- 100mm, @ REST @ 150mm O.C.
FOOTING: 7- 20mmØ Rebars, @ 312mm SPACING



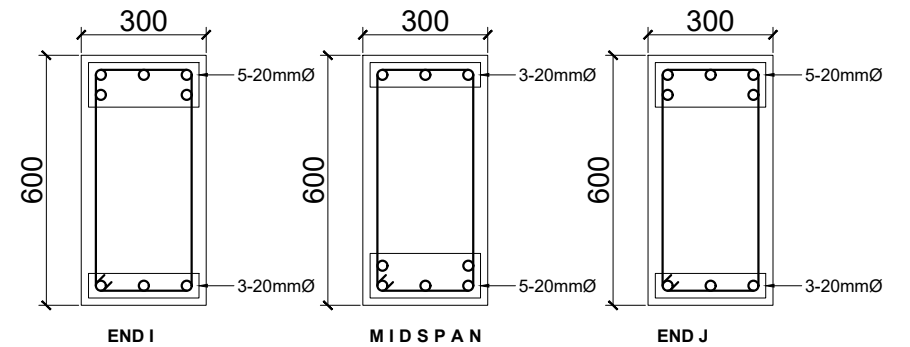
B2
T I E B E A M



B1
SECOND FLOOR FRAMING



B2
ROOF DECK FRAMING



B1
THIRD FLOOR FRAMING

BEAM SCHEDULE

FLOOR LEVEL	BEAM MARKS	DIAMETER (Ø)		REBAR DIAMETER	END I		MIDSPAN		END J		WEB
		B,mm	H,mm		TOP	BOT	TOP	BOT	TOP	BOT	
FOUNDATION	TB-1	300	500	20mmØ	3	3	3	3	3	3	1-10mm
SECOND FLOOR	B1	300	600	20mmØ	5	3	3	5	5	3	1-10mm
THIRD FLOOR	B1	300	600	20mmØ	5	3	3	5	5	3	1-10mm
DECK	B2	300	500	20mmØ	3	2	2	3	3	2	1-10mm

SLAB SCHEDULE

SLAB NUMBERS	THK	TYPE	BOTTOM REINFORCEMENT		TOP REINFORCEMENT		TEMPERATURE BAR
			SHORT SPAN (BENT UP)	LONG SPAN (BENT UP)	SS CONT.	LS CONT.	
S1	125	2-WAY SLAB (CONT.)	Ø10mm @ 250 c/c (bend up over supports)	Ø10mm @ 250 c/c (bend up over supports)	Ø10mm @ 250 c/c	Ø10mm @ 250 c/c	Ø10mm @ 250 c/c



PROJECT TITLE:
PROPOSED LAW SCHOOL BUILDING
LOCATION: MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

DRAFTED BY:

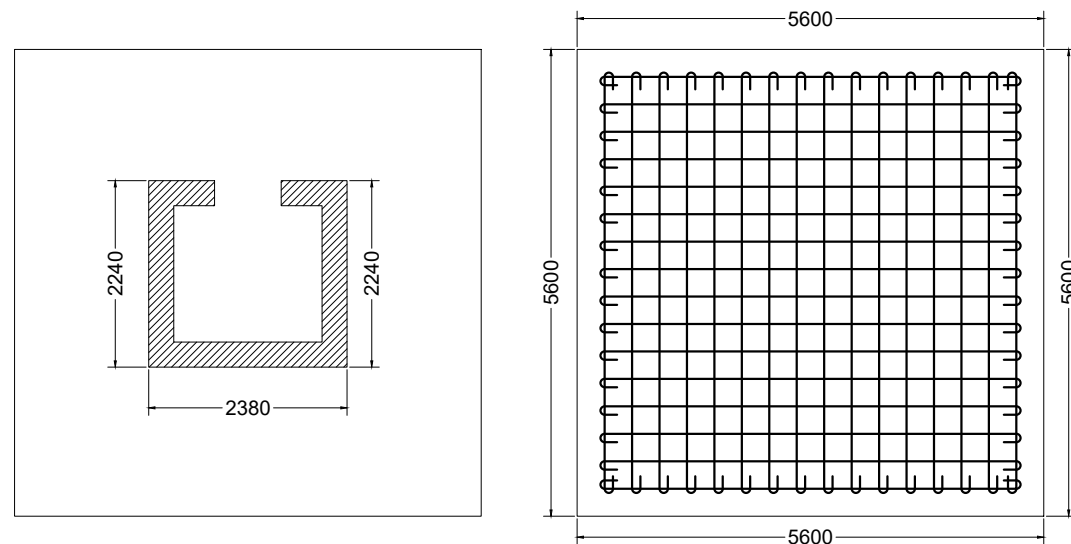
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(SGD) ENGR. NURWIN ADAM MUHAMMAD
STRUCTURAL DESIGNER

RECOMMENDING APPROVAL:

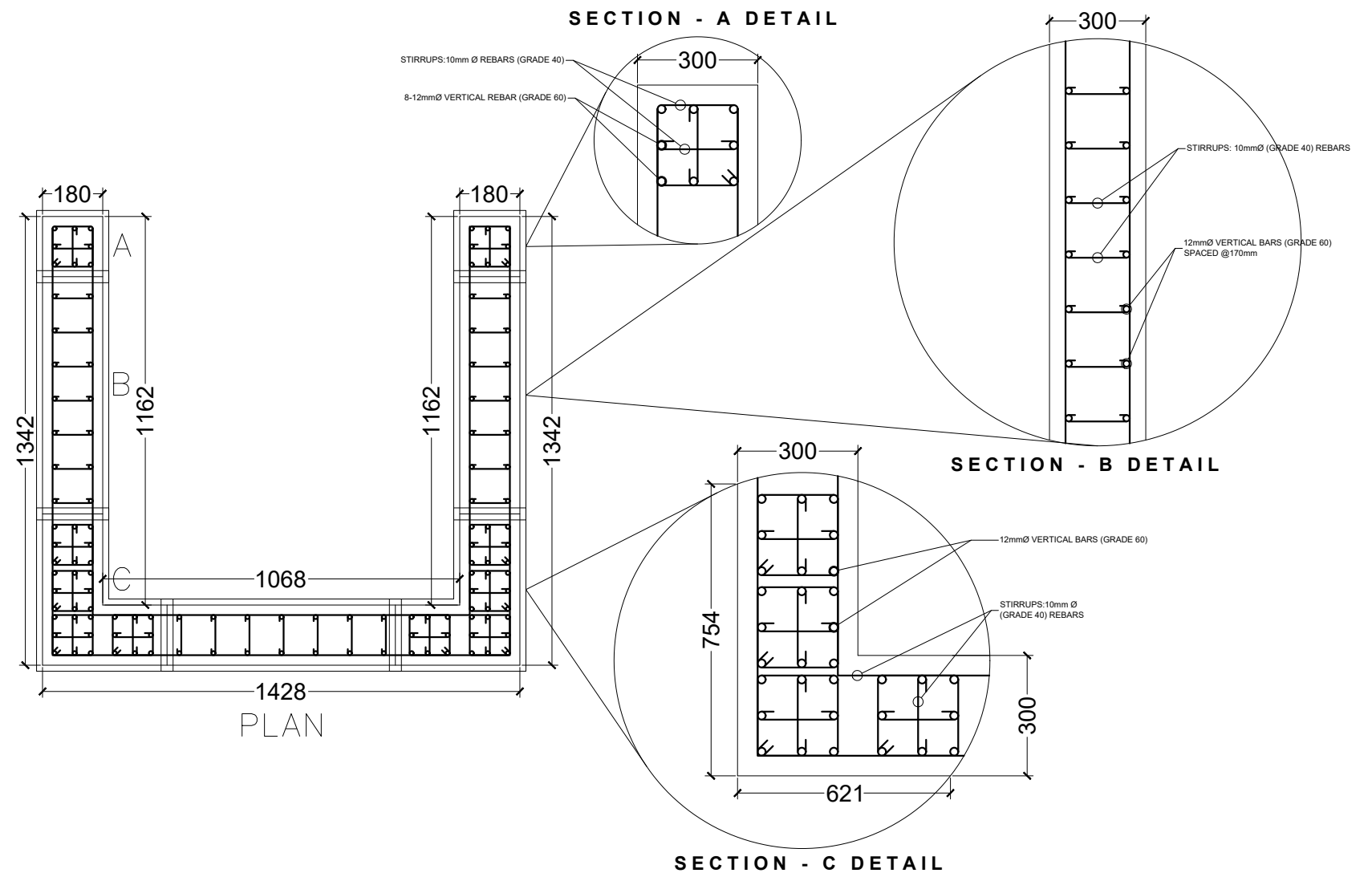
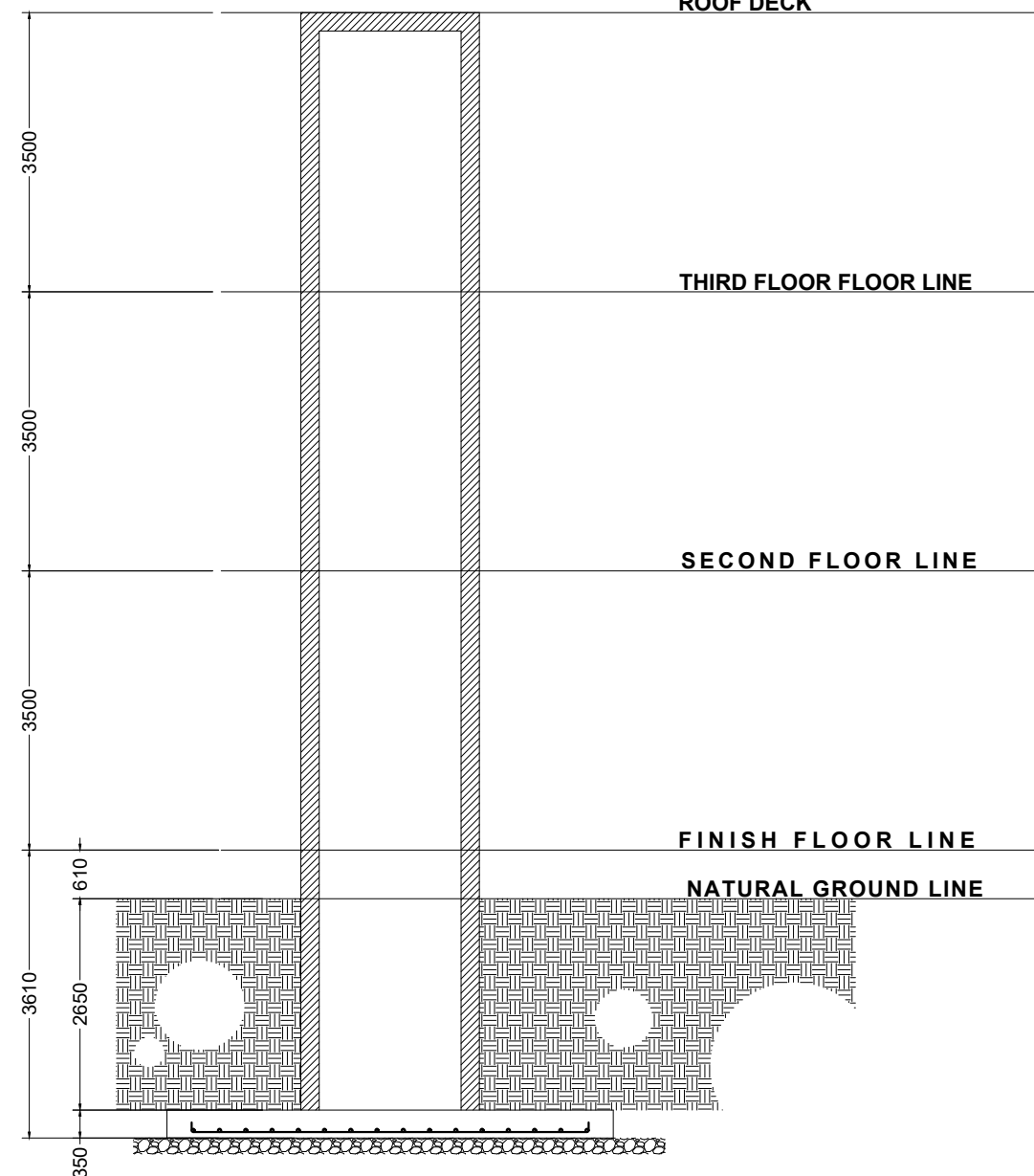
APPROVED BY:
PROF. MARY JOYCE Z. GUINTO-SALI, Ph.D
CHANCELLOR
MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI

SHEET CONTENT:
-C1-F4 DETAILS
-BEAM SCHEDULE
-BEAM DETAILS
-SLAB SCHEDULE

SHEET NUMBER:
S 6/9



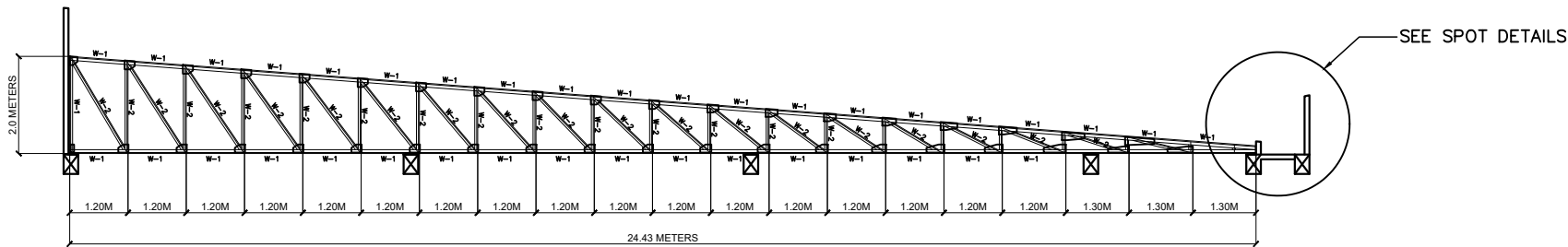
NOTE:
21-16mmØ @250 mm O.C TOP & BOTTOM



SHEAR WALL DETAILS

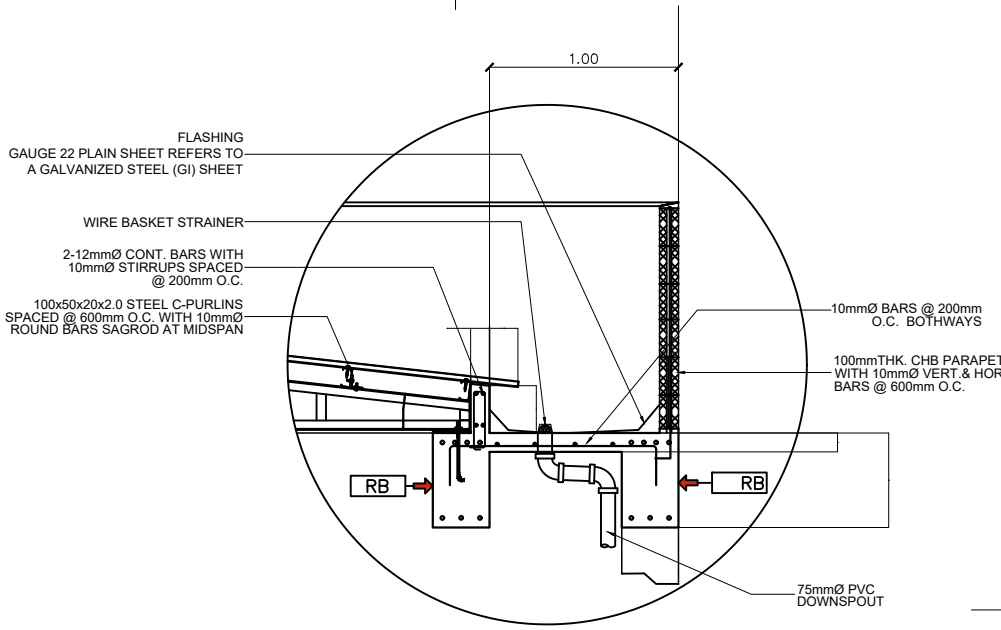
SCALE : 1 : 10 M

	PROJECT TITLE: PROPOSED LAW SCHOOL BUILDING LOCATION: MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI	DRAFTED BY: 	CHECKED BY: (SGD) ENGR. NURWIN ADAM MUHAMMAD STRUCTURAL DESIGNER	RECOMMENDING APPROVAL: 	APPROVED BY: PROF. MARY JOYCE Z. GUINTO-SALI, Ph.D. CHANCELLOR MSU-TCTO, SANGA-SANGA, BONGAO, TAWI-TAWI	SHEET CONTENT: -SHEAR WALL PLAN AND DETAILS	SHEET NUMBER: S 7 9
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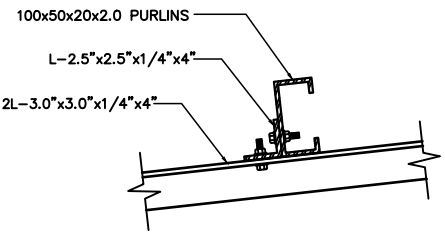


6 ELEVATION OF MAIN TRUSS
S 9 SCALE : 1 : 100 M

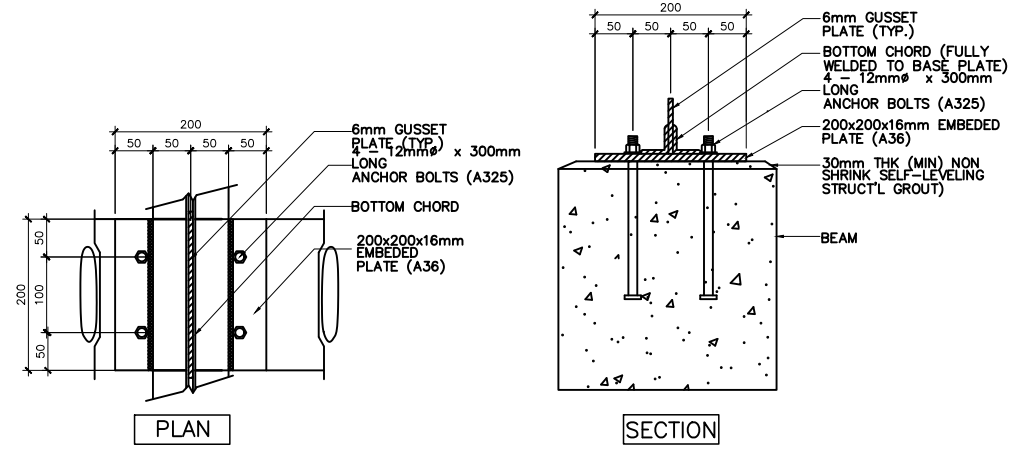
SCHEDULE OF TRUSS MEMBERS			
MARK	DESCRIPTION	QTY	SIZE
W-1	TOP & BOT. CHORDS	2L	3.0"x3.0"x1/4"
W-2	WEB MEMBERS	2L	2.5"x2.5"x1/4"



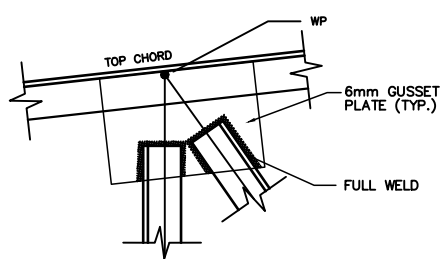
7 FLUSHING SPOT DETAILS
S 9



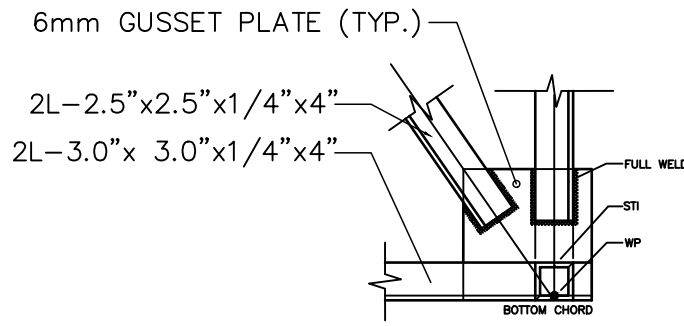
4 PURLIN CONNECTION DETAIL
S 9



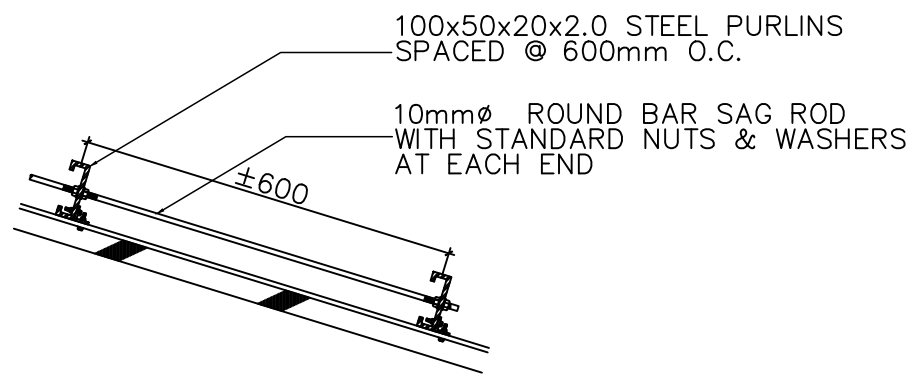
5 TYPICAL TRUSS ANCHORAGE DETAIL
S 9



1 CONNECTION DETAIL
S 9



2 CONNECTION DETAIL
S 9



3 SAG ROD CONNECTION DETAIL
S 9

GENERAL NOTES AND SPECIFICATIONS

1. ALL WORKS HEREIN SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE(PEC), CITY ORDINANCES ENFORCED BY THE OFFICE OF BUILDING OFFICIALS, RULES AND REGULATIONS OF THE LOCAL ELECTRIC COOPERATIVE.
2. SERVICE VOLTAGE SHALL BE 230V, 3Ø, 60Hz.
3. GROUNDING SYSTEM INSTALLATION METHODS SHALL COMPLY WITH THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE (PEC) AND OTHER RELEVANT REFERENCES FOR ALL WIRING SYSTEM. INSULATION RESISTANCE SHALL NOT BE LESS THAN 25MΩ AND EARTH GROUND RESISTANCE SHALL NOT EXCEED 5 Ω.
4. ALL WIRES SHALL BE COPPER AND THERMOPLASTIC INSULATED TYPE "THW,THHN,THWN UNLESS OTHERWISE INDICATED. ANDTHE MINIMUM SIZE FOR POWER OUTLETS AND LIGHTINGS SHALL BE 3.5 mm² AND 2.0 mm² RESPECTIVELY AND SHALL BE COLOR CODED AS FOLLOWS:

LINE A

LINE B

LINE C

EQUIPMENT GROUNDING

- RED

- YELLOW

- BLUE

- GREEN
5. THE MOUNTING HEIGHT OF ALL WIRING DEVICES SHALL BE AS FOLLOWS:

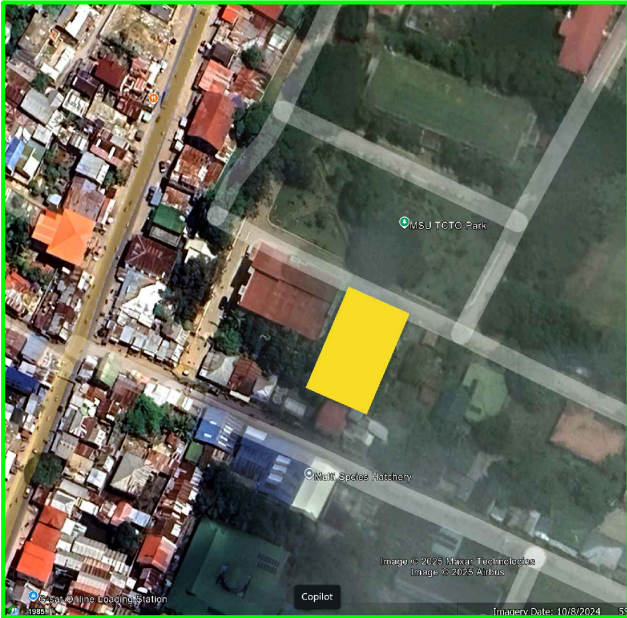
A. LIGHT SWITCHES 1400 MM ABOVE FLOOR FINISHED;

B. CONVENIENCE OUTLETS 300 MM ABOVE FLOOR FINISHED OR AS REQUIRED; AND

C. PANEL BOARDS SHALL BE INSTALLED 1800mm ABOVE FLOOR FINISHED LINE
6. ALL SERVICE ENTRANCE EQUIPMENTS, SWITCHES, PANEL BOARDS AND ALL NON-CURRENT CARRYING METAL PARTS SHALL BE PROPERLY GROUNDED IN ACCORDANCE WITH THE LATEST EDITION OF THE PEC.
7. ALL ELECTRICAL WORKS HEREIN SHALL BE DONE UNDER THE DIRECT SUPERVISION OF A DULY LICENSED AND EXPERIENCED ELECTRICAL ENGINEER .

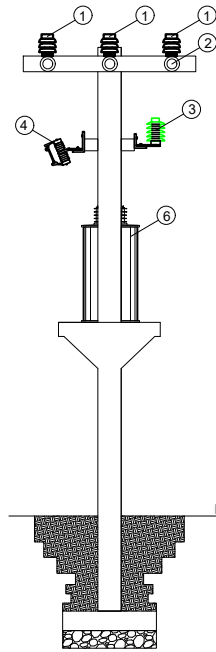
LEGEND/SYMBOLS

	EXHAUST FAN		INDUCTION MOTOR
	DOWNLIGHT WITH LED		TRANSFORMER
	RECESSED ALU REFLECTOR WITH LED LAMPS		GROUNDING (GROUND ELECTRODE)
	EMEGENCY LAMP		IMPEDANCE
	SPLIT TYPE ACU		FAULT POINT
	CONVENIENCE OUTLET		HEAT DETECTOR
	CIRCUIT HOMERUN		SMOKE DETECTOR
	PANEL BOARD		FIRE ALARM CONTROL PANEL
	CIRCUIT BREAKER		FIRE ALARM BELL WITH PUSH BUTTON

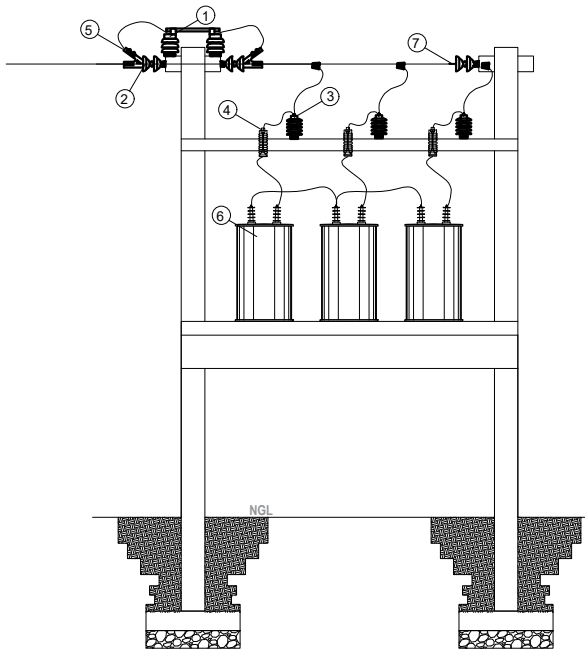


LOCATION PLAN

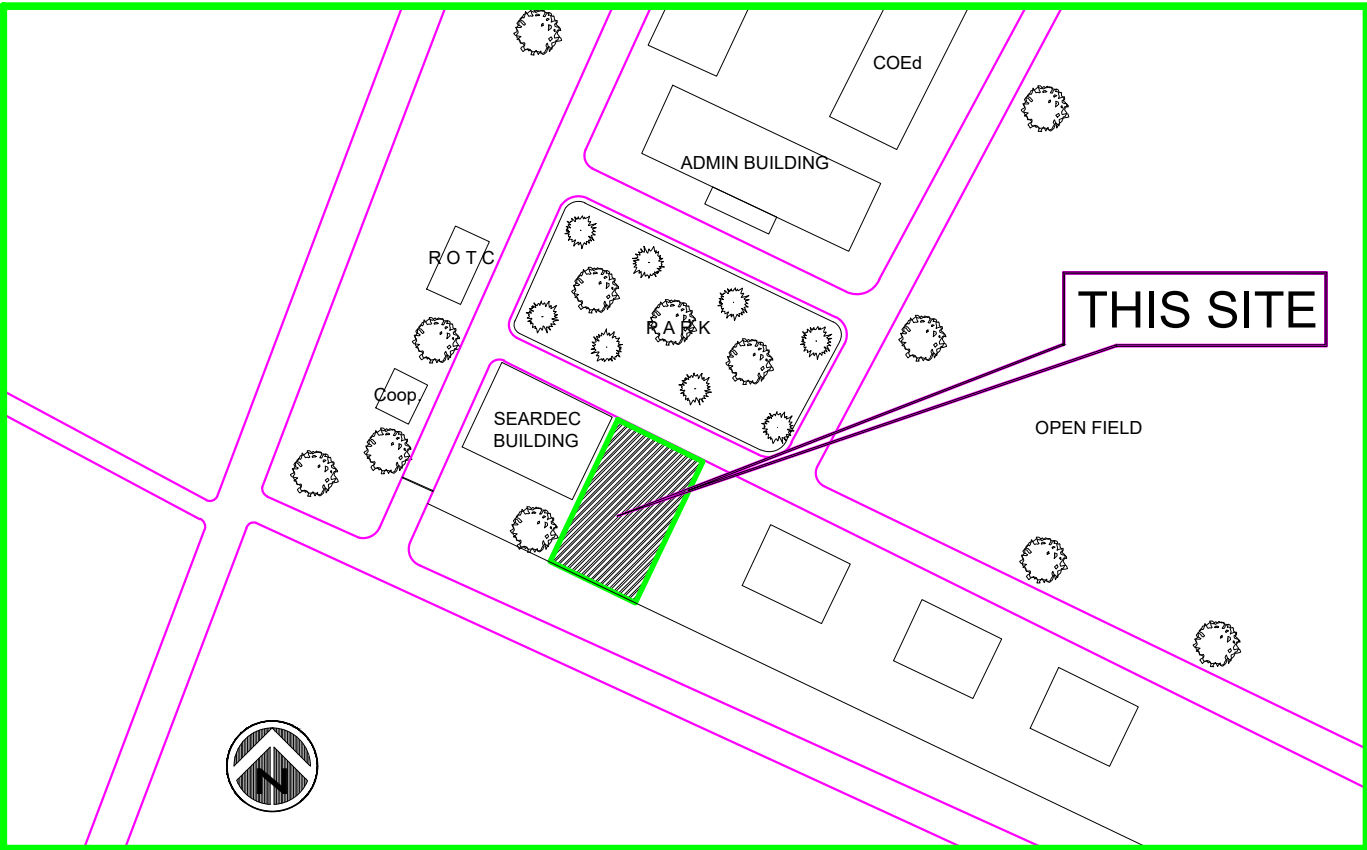
3-37.5KVA Transformer Substation	
1	LOAD BREAK SWITCH
2	SUSPENSION INSULATOR
3	LIGHTNING ARRESTER
4	CUT OUT FUSE
5	STRAIN CLAMP GUN TYPE
6	37.5 KVA DISTRIBUTION TRANSFORMER
7	DEAD END LOOP CLAMP
12	SWINGING CLEVIS
13	FM 12S KV2C ENERGY METER



LEFT VIEW
SUBSTATION DETAILS
SCALE: NTS



FRONT VIEW
SUBSTATION DETAILS
SCALE: NTS

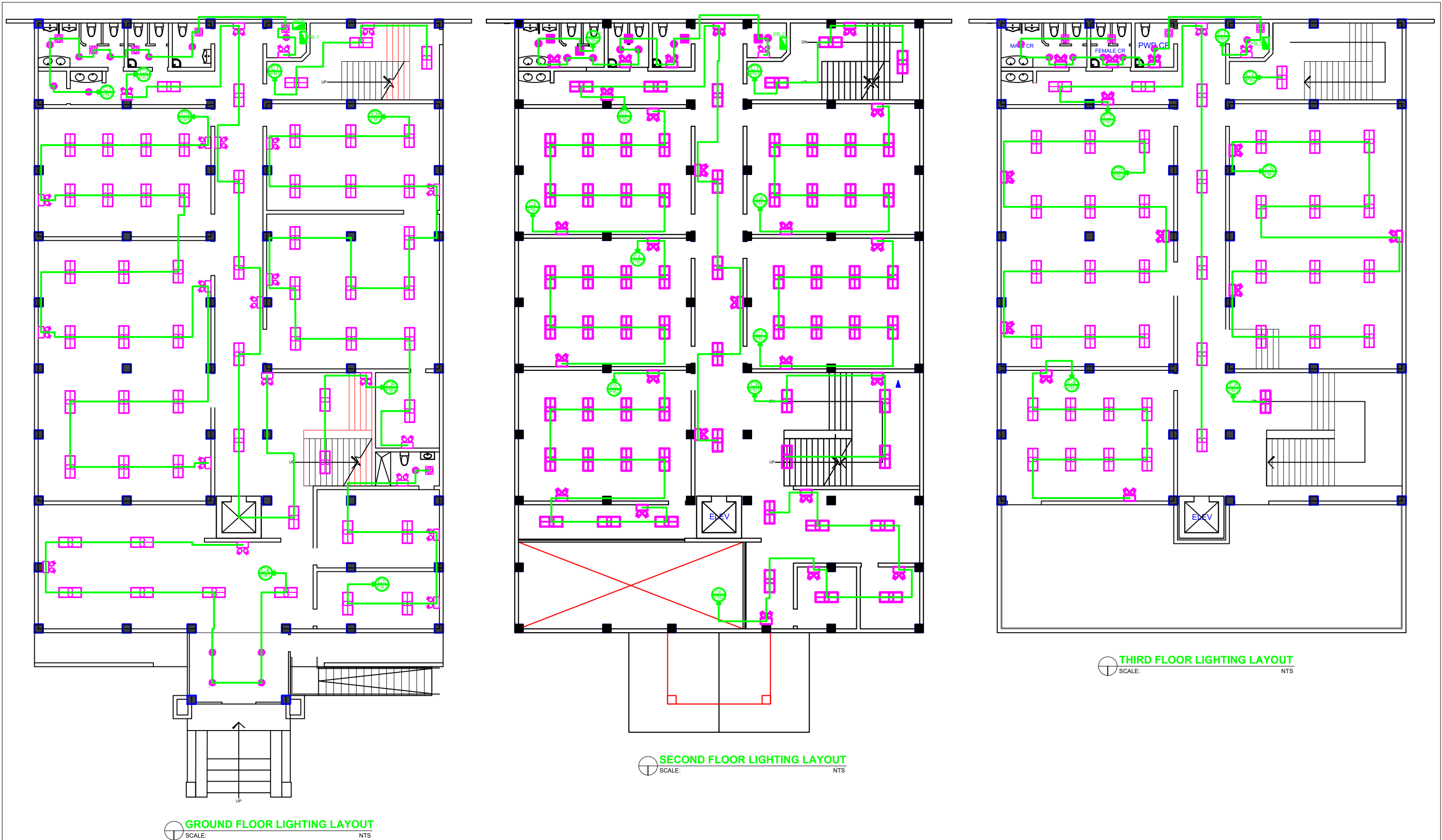


SITE DEVELOPMENT PLAN

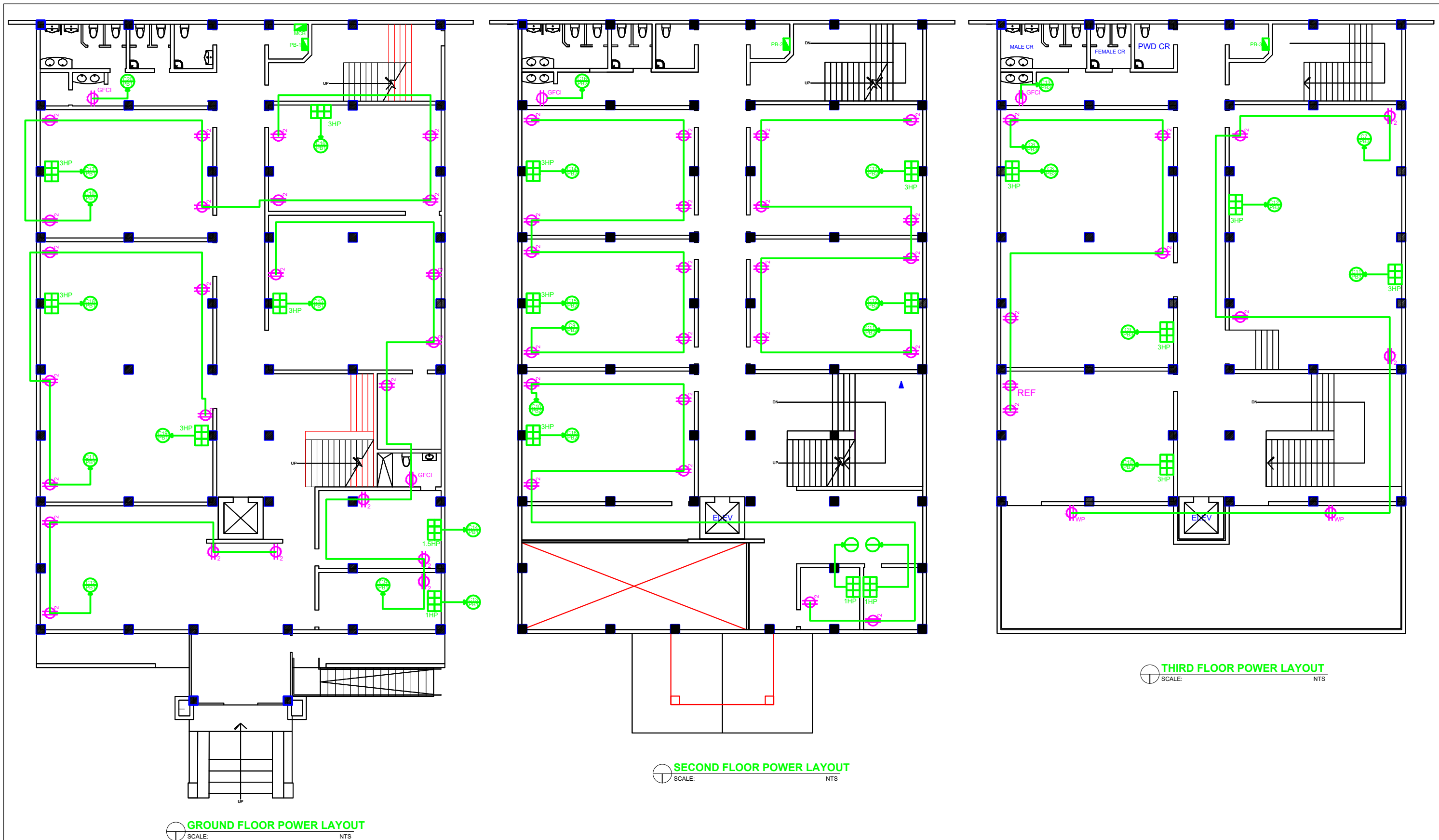


ENGINEERING AND SUPPLIES SERVICES
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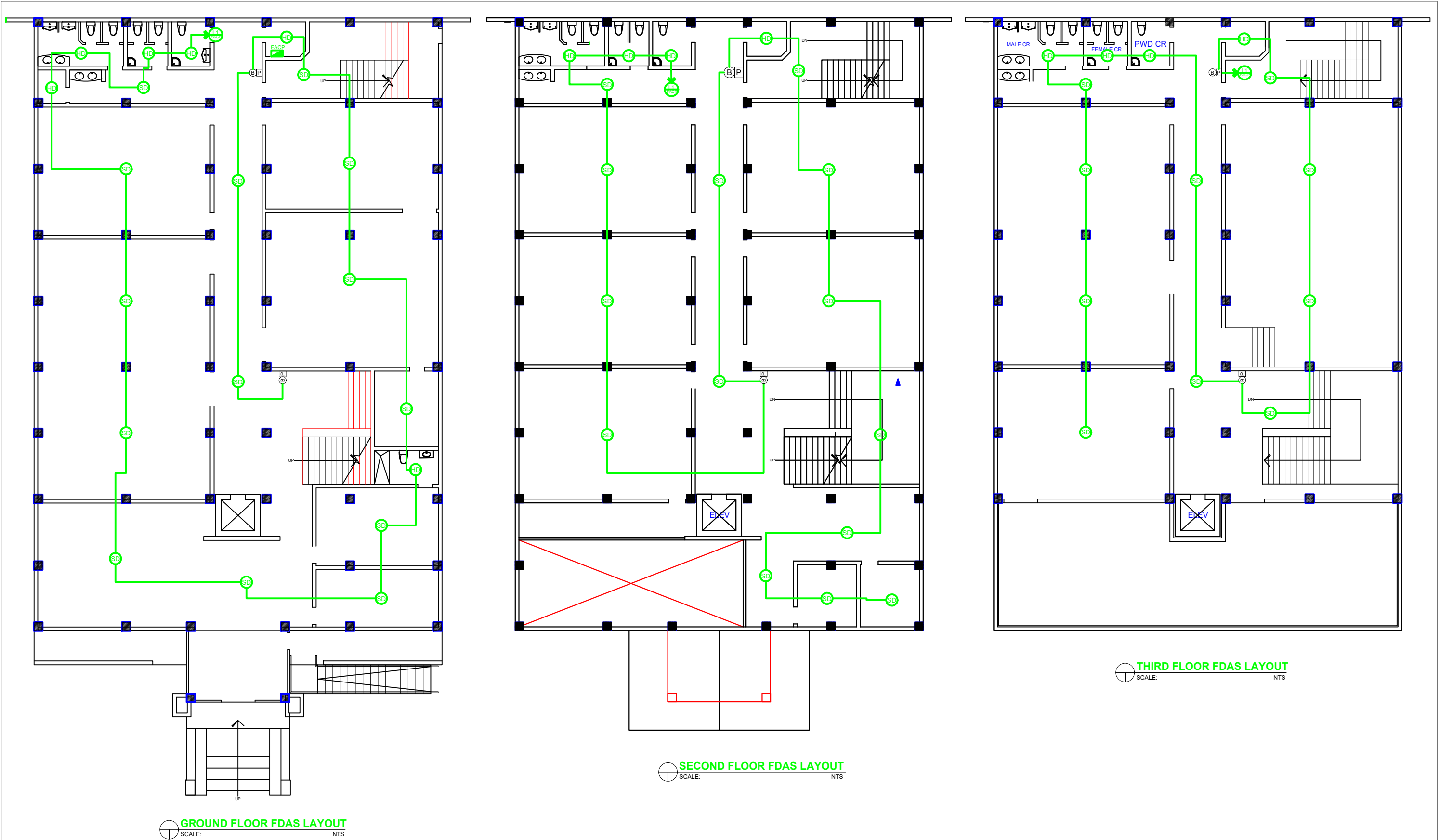
PROFESSIONAL ELECTRICAL ENGINEER		PREPARED BY:		PROJECT OWNER/OWNER'S REPRESENTATIVE	PROJECT TITLE	SHEET CONTENT	SHEET NO.
RICHARD O. LIZARDO (SGD)		BRYAN LLOYD C. PALLEGA (SGD)		MSU- TAWI-TAWI	PROPOSED POWER SYSTEM DESIGN OF MSU-COLLEGE OF LAW	GENERAL NOTES AND SPECIFICATIONS LEGEND/SYMBOLS LOCATION PLAN SITE DEVELOPMENT PLAN TRANSFORMER LAYOUT	17
PRC NO.: 003615	PTR NO : 311-6773	PRC NO.: 0064487	PTR NO : 259 9267				
VALIDITY: 14APR2026	ISSUED ON: 4 FEB 2026	VALIDITY: 27JAN2026	ISSUED ON: 17 JAN 2023				
TIN NO : 172 634 729	ISSUED AT: ZAMBO CITY	TIN NO : 313 977 084	ISSUED AT: ZAMBO CITY		Address: BRGY SANGA-SANGA, BONGAO, TAWI TAWI PROVINCE		



 ENGINEERING AND SUPPLIES SERVICES, INC. BUENAVISTA ST., STO NINO ZAMBOANGA CITY 7000 Tel: 955 6021/ 984 0565/990 1011 Mobile: 0917 777 2322 email: richard.lizardo@yahoo.com	PROFESSIONAL ELECTRICAL ENGINEER		PREPARED BY:		PROJECT OWNER/OWNER'S REPRESENTATIVE	PROJECT TITLE	SHEET CONTENT	SHEET NO.
	RICHARD O. LIZARDO (SGD)		BRYAN LLOYD C. PALLEGA (SDG)		MSU- TAWI-TAWI	PROPOSED POWER SYSTEM DESIGN OF MSU-COLLEGE OF LAW	- ELECTRICAL LAYOUT	2 7
	PRC NO.: 003615	PTR NO : 311-6773	PRC NO.: 0064487	PTR NO : 259 9267				
	VALIDITY: 14APR2026	ISSUED ON: 4 FEB 2026	VALIDITY: 27JAN2026	ISSUED ON: 17 JAN 2023				
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	RICHARD O. LIZARDO (SGD)		BRYAN LLOYD C. PALLEGA (SGD)		MSU- TAWI-TAWI	PROPOSED POWER SYSTEM DESIGN OF MSU-COLLEGE OF LAW	- ELECTRICAL LAYOUT	3 7
PRC NO.: 003615	PTR NO : 311-6773	PRC NO.: 0064487	PTR NO : 259 9267					
VALIDITY: 14APR2026	ISSUED ON: 4 FEB 2026	VALIDITY: 27JAN2026	ISSUED ON: 17 JAN 2023					
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	RICHARD O. LIZARDO (SGD)		BRYAN LLOYD C. PALLEGA (SGD)		MSU- TAWI-TAWI	PROPOSED POWER SYSTEM DESIGN OF MSU-COLLEGE OF LAW	- FDAS LAYOUT	4 7
	PRC NO.: 003615	PTR NO : 311-6773	PRC NO.: 0064487	PTR NO : 259 9267				
	VALIDITY: 14APR2026	ISSUED ON: 4 FEB 2026	VALIDITY: 27JAN2026	ISSUED ON: 17 JAN 2023				
	TIN NO : 172 634 729	ISSUED AT: ZAMBO CITY	TIN NO : 313 977 084	ISSUED AT: ZAMBO CITY				
	Address: BRGY SANGA-SANGA, BONGAO, TAWI TAWI PROVINCE							

PANEL BOARD-3 (PB-3)			DF	PANEL: 25 Branch, 3-Pole, Din Rail Type Enclosure Panel												
LOCATION: EE ROOM 3RD FLR			100 %	MAIN: 250 AT, 250AF, 25 kAIC, 3 Pole, 60Hz, Molded Case Circuit Breaker												
CKT NO	LOAD DESCRIPTION	PF	CONNECTED LOAD IN VA	CURRENT			NOMINAL	BREAKER RATING				CONDUCTOR		CONDUIT		
				I _{AB}	I _{BC}	I _{CA}	VOLTAGE	AT	AF	KAIC	POLE	SIZE (mm ²)	TYPE	SIZE (mmØ)	TYPE	
1	7 PCS DOWNLIGHT WITH LED 4 PCS EMERGENCY LIGHTS 4 PCS EXHAUST FAN	13 W 20 W 60 W	0.85	484	2.10		230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
2	7 PCS RECESSED TYPE ALUMINUM REFLECTOR 5 PCS EMERGENCY LIGHTS	2 - 18 W 20 W	0.85	414	1.80		230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
3	12 PCS RECESSED TYPE ALUMINUM REFLECTOR 3 PCS EMERGENCY LIGHTS	2 - 18 W 20 W	0.85	649		3	230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
4	8 PCS RECESSED TYPE ALUMINUM REFLECTOR 2 PCS EMERGENCY LIGHTS	2 - 18 W 20 W	0.85	433	2		230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
5	12 PCS RECESSED TYPE ALUMINUM REFLECTOR 3 PCS EMERGENCY LIGHTS	2 - 18 W 20 W	0.85	649	3		230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
6	6 PCS CONVENIENCE OUTLET	180 VA		1080		4.70	230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
7	6 PCS CONVENIENCE OUTLET	180 VA		1080		4.70	230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
8	SPLIT TYPE ACU	3 HP		3910		17	230	40	60	10	1	2- 5.5 1- 3.5(G)	THHN	20	PVC	
9	SPLIT TYPE ACU	3 HP		3910			230	40	60	10	1	2- 5.5 1- 3.5(G)	THHN	20	PVC	
10	SPLIT TYPE ACU	3 HP		3910	17		230	40	60	10	1	2- 5.5 1- 3.5(G)	THHN	20	PVC	
11	SPLIT TYPE ACU	3 HP		3910	17		230	40	60	10	1	2- 5.5 1- 3.5(G)	THHN	20	PVC	
12	SPLIT TYPE ACU	3 HP		3910		17	230	40	60	10	1	2- 5.5 1- 3.5(G)	THHN	20	PVC	
13	PROVISION FOR HAND DRYER	1000 VA		1000	4.35		230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
14	PROVISION OF ELEVATOR MOTOR	7.5 HP		9200		40	230	100	100	10	1	2- 30 1- 8.0(G)	THHN	32	RMC	
15	SPARE	1500 VA		1500		6.52	230	20	60	10	1			20	PVC	
16	SPARE	1500 VA		1500	6.52		230	20	60	10	1			20	PVC	
TOTAL CONNECTED LOAD				36,388	53.5	57.0	52.7	230	250	250	25	3- 60 1- 14(G)	THHN	50	RMC	

DESIGN COMPUTATION AND ANALYSIS

Sub Feeder

Full Load Current
[57A + 25%(40 A)]^{1/3} = 116.05 Amps
Conductor Size: 125% (116.05 Amps) = 145.06 Amps
Use: 3-60mm² THHN +1-14(G) mm² THHN in a 50 mm Dia RMC

Overcurrent Protective Device

[17 A + 250%(40 A)]^{1/3} = 202.65 Amps
Use: 250 AT, 250AF, 25 kAIC, 3 Pole, 60Hz, Molded Case Circuit Breaker

LOAD SCHEDULE
SCALE: NTS

MAIN DISTRIBUTION PANEL			DF	PANEL: 4 Branch, 3-Pole, Din Rail Type Enclosure Panel												
LOCATION: EE ROOM GROUND FLR			100 %	MAIN: 300 AT, 350AF, 35 kAIC, 3 Pole, 60Hz, Molded Case Circuit Breaker												
CKT NO	LOAD DESCRIPTION	PF	CONNECTED LOAD IN VA	CURRENT			NOMINAL	BREAKER RATING				CONDUCTOR		CONDUIT		
				I _{AB}	I _{BC}	I _{CA}	VOLTAGE	AT	AF	KAIC	POLE	SIZE (mm ²)	TYPE	SIZE (mmØ)	TYPE	
1	PANEL BOARD-1		37165	50.8	53.4	53.9	230	150	150	15	3	3- 50 1- 14(G)	THHN	50	RMC	
2	PANEL BOARD-2		37066	50.8	53.4	53.9	230	150	150	15	3	3- 50 1- 14(G)	THHN	50	RMC	
3	PANEL BOARD-3		36388	53.5	57.0	52.7	230	250	250	25	3	3- 60 1- 14(G)	THHN	50	RMC	
4	SPACE															
TOTAL CONNECTED LOAD			79,115	155.1	163.8	160.5	230	300	350	35	3	3- 150 1- 22(G)	THHN	75	RMC	

DESIGN COMPUTATION AND ANALYSIS

Main Feeder

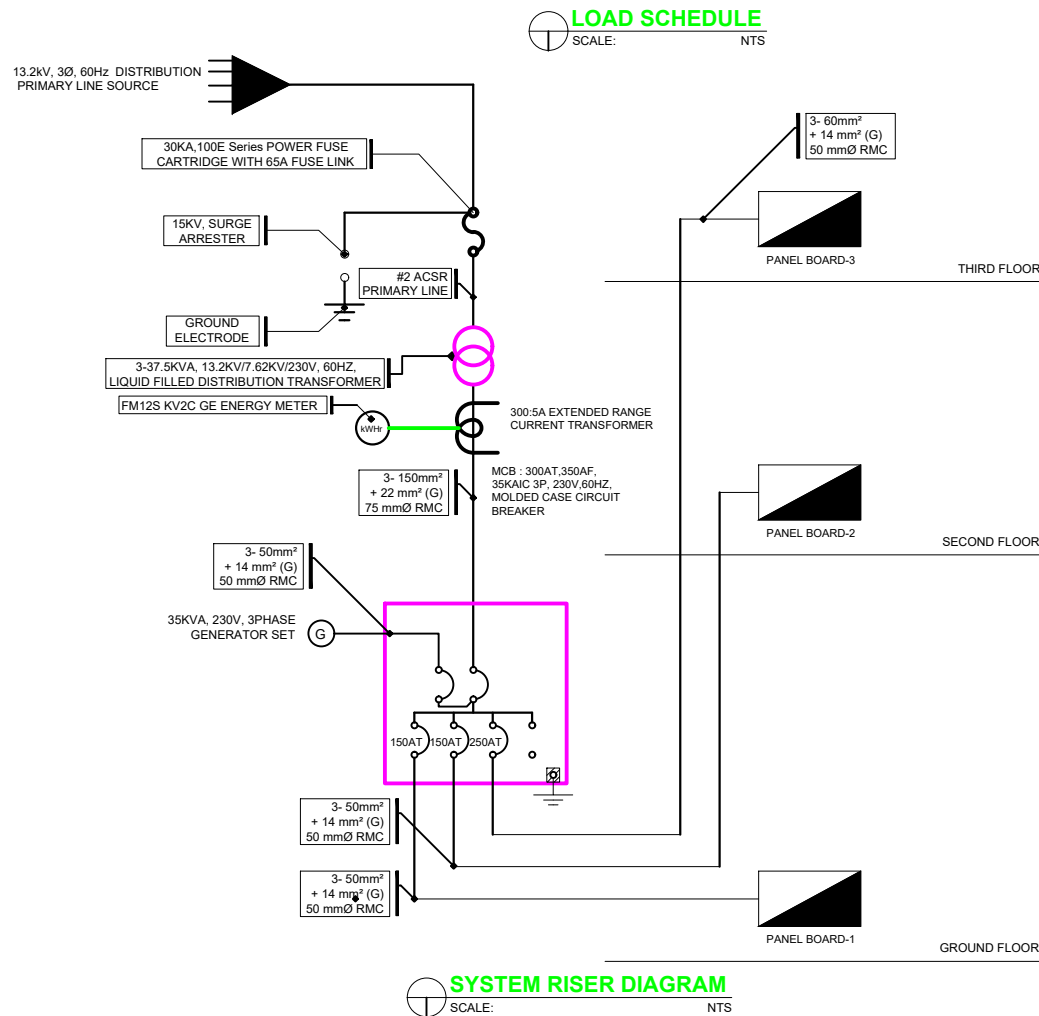
Full Load Current
[163A + 25%(40 A)]^{1/3} x 70% = 209.75 Amps
Conductor Size: 125% (209.75 Amps) = 262.19 Amps
Use: 3-150mm² THHN +1-22(G) mm² THHN in a 75 mm Dia RMC

Main Overcurrent Protective Device

[123 A + 250%(40 A)]^{1/3} x 70% = 270.37 Amps
Use: 300 AT, 350AF, 35 kAIC, 3 Pole, 60Hz, Molded Case Circuit Breaker

Transformer Rating

Use: 3-37.5kVA, 13.2kV/7.62kV/240V, 60Hz, Liquid Filled, Distribution Transformer



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PROFESSIONAL ELECTRICAL ENGINEER		PREPARED BY:		PROJECT OWNER/OWNER'S REPRESENTATIVE	PROJECT TITLE	SHEET CONTENT	SHEET NO.
RICHARD O. LIZARDO (SGD)		BRYAN LLOYD C. PALLEGA (SGD)		MSU- TAWI-TAWI	PROPOSED POWER SYSTEM DESIGN OF MSU-COLLEGE OF LAW	- LOAD SCHEDULE - SYSTEM RISER DIAGRAM	6 7
PRC NO.: 003615	PTR NO : 311-6773	PRC NO.: 0064487	PTR NO : 259 9267				
VALIDITY: 14APR2026	ISSUED ON: 4 FEB 2026	VALIDITY: 27JAN2026	ISSUED ON: 17 JAN 2023				
TIN NO : 172 634 729	ISSUED AT: ZAMBO CITY	TIN NO : 313 977 084	ISSUED AT: ZAMBO CITY		Address: BRGY SANGA-SANGA, BONGAO, TAWI TAWI PROVINCE		

PANEL BOARD-1 (PB-1)				DF	PANEL: 29 Branch, 3-Pole, Din Rail Type Enclosure Panel													
LOCATION: EE ROOM GND FLR				100 %	MAIN: 150 AT, 150AF, 15 kAIC, 3 Pole, 60Hz, Molded Case Circuit Breaker													
CKT NO	LOAD DESCRIPTION			PF	CONNECTED LOAD IN VA	CURRENT			NOMINAL		BREAKER RATING				CONDUCTOR		CONDUIT	
						IAB	IBC	ICA	VOLTAGE	AT	AF	KAIC	POLE	SIZE (mm²)	TYPE	SIZE (mmØ)	TYPE	
1	8 PCS	DOWNLIGHT WITH LED	13 W	0.85	546			2.37	230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
	3 PCS	EMERGENCY LIGHTS	20 W															
	5 PCS	EXHAUST FAN	60 W															
2	7 PCS	RECESSED TYPE ALUMINUM REFLECTOR	2 - 18 W	0.85	414		1.80		230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
	5 PCS	EMERGENCY LIGHTS	20 W															
3	20 PCS	RECESSED TYPE ALUMINUM REFLECTOR	2 - 18 W	0.85	1082			5	230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
	5 PCS	EMERGENCY LIGHTS	20 W															
4	4 PCS	DOWNLIGHT WITH LED	13 W	0.85	191	0.83			230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
	1 PCS	EMERGENCY LIGHTS	20 W															
	5 PCS	RECESSED TYPE ALUMINUM REFLECTOR	18 W															
5	1 PCS	DOWNLIGHT WITH LED	13 W	0.85	326		1.42		230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
	3 PCS	EMERGENCY LIGHTS	20 W															
	4 PCS	RECESSED TYPE ALUMINUM REFLECTOR	2 - 18 W															
	1 PC	EXHAUST FAN	60 W															
6	15 PCS	RECESSED TYPE ALUMINUM REFLECTOR	2 - 18 W	0.85	824		3.58		230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
	4 PCS	EMERGENCY LIGHTS	20 W															
7	7 PCS	RECESSED TYPE ALUMINUM REFLECTOR	2 - 18 W	0.85	391	1.70			230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
	2 PCS	EMERGENCY LIGHTS	20 W															
8	7 PCS	RECESSED TYPE ALUMINUM REFLECTOR	2 - 18 W	0.85	391		1.70		230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
	2 PCS	EMERGENCY LIGHTS	20 W															
9	8 PCS	CONVENIENCE OUTLET	180 VA		1440			6.26	230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
10	8 PCS	CONVENIENCE OUTLET	180 VA		1440	6.26			230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
11	5 PCS	CONVENIENCE OUTLET	180 VA		900		3.91		230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
12	4 PCS	CONVENIENCE OUTLET	180 VA		720		3.13		230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
13		SPLIT TYPE ACU	1 HP		1840	8			230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
14		SPLIT TYPE ACU	1.5 HP		2300		10		230	30	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
15		SPLIT TYPE ACU	3 HP		3910			17	230	40	60	10	1	2- 5.5 1- 3.5(G)	THHN	20	PVC	
16		SPLIT TYPE ACU	3 HP		3910	17			230	40	60	10	1	2- 5.5 1- 3.5(G)	THHN	20	PVC	
17		SPLIT TYPE ACU	3 HP		3910		17		230	40	60	10	1	2- 5.5 1- 3.5(G)	THHN	20	PVC	
18		SPLIT TYPE ACU	3 HP		3910			17	230	40	60	10	1	2- 5.5 1- 3.5(G)	THHN	20	PVC	
19		SPLIT TYPE ACU	3 HP		3910	17			230	40	60	10	1	2- 5.5 1- 3.5(G)	THHN	20	PVC	
20		PROVISION FOR HAND DRYER	1000 VA		1000		4.35		230	20	60	10	1	2- 3.5 1- 2.0(G)	THHN	20	PVC	
21		SPARE	1500 VA		1500		6.52		230	20	60	10	1	1- 2.0(G)	THHN	20	PVC	
22		SPARE	1500 VA		1500			6.52	230	20	60	10	1	2- 3.5	THHN	20	PVC	
TOTAL CONNECTED LOAD					37,165	50.8	53.4	53.9	230	150	150	15	3	3- 50 1- 14(G)	THHN	50	RMC	

DESIGN COMPUTATION AND ANALYSIS

Sub Feeder

Full Load Current

[53.9A + 25%(17.00 A)]√3

= 100.95 Amps

Conductor Size: 125% (100.95 Amps)

= 125.9 Amps

Use: 3-50mm² THHN +1-14(G) mm² THHN in a 50 mm Dia RMC

Overcurrent Protective Device

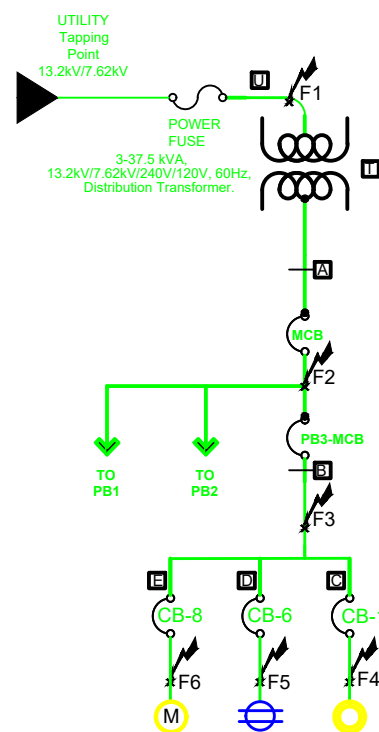
[36.9 A + 250%(17 A)]√3

= 137.52 Amps

Use: 150 AT, 150AF, 15 kAIC, 3 Pole, 60Hz, Molded Case Circuit Breaker

LOAD SCHEDULE

SCALE: NTS

[illegible]