



APPROVED BY:

DR. EDGARDO E. TULIN

VSU PRESIDENT

REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

OFFICE OF THE BUILDING OFFICIAL CITY OF BAYBAY BAYBAY CITY

DISTRICT / MUNICIPALITY / CITY

DATE

DATE

DATE

LAND USE AND ZONING

APPROVED

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DESIGNED BY:

A7 01

SHEET NO.

01 | 16

CADD BY:

STARTED:

FINISHED:

PLACE:

ARCHITECTURAL

LINE AND GRADE

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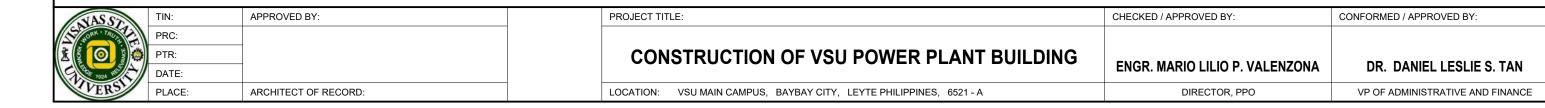
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PERSPECTIVE VICINITY MAP SITE DEVELOPMENT PLAN

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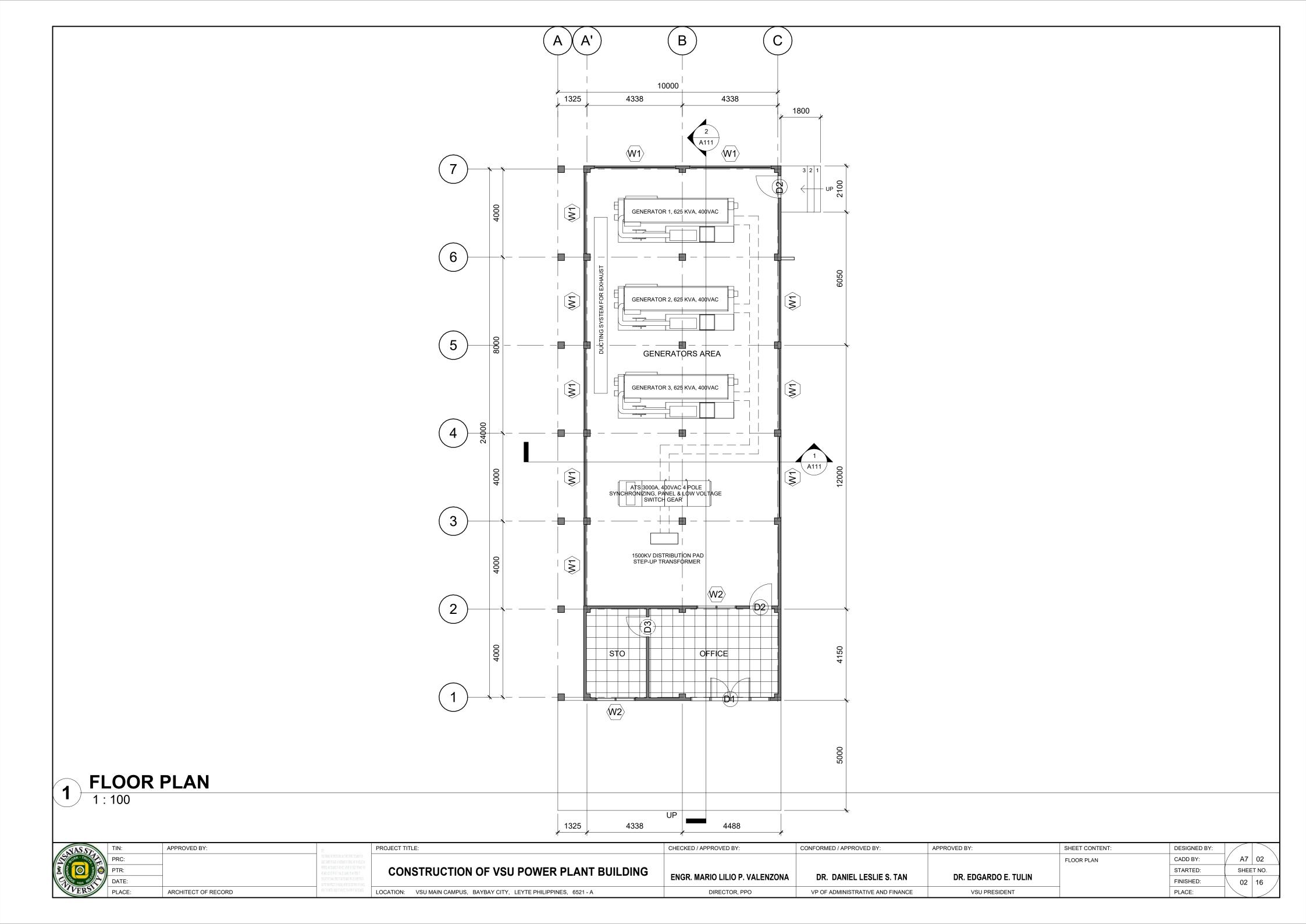
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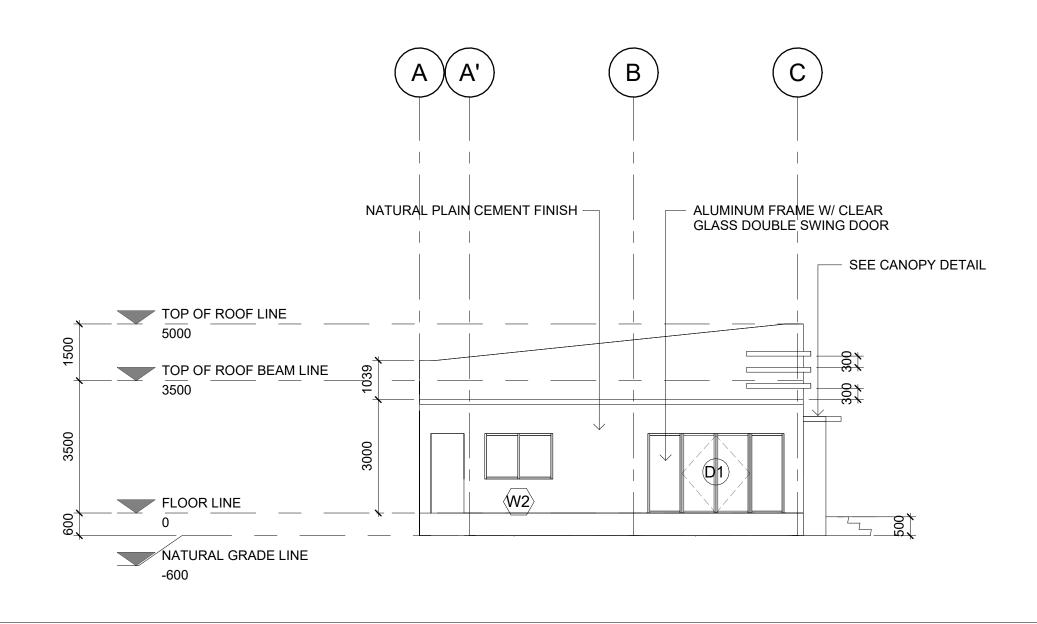
ROOF FRAMING PLAN SCHEDULE OF R.C. ROOF BEAMS DETAIL OF STEEL TRUSSES DETAIL OF WALLS



1:500

**VICINITY MAP** 





## **FRONT ELEVATION**

SEE SD CANOPY

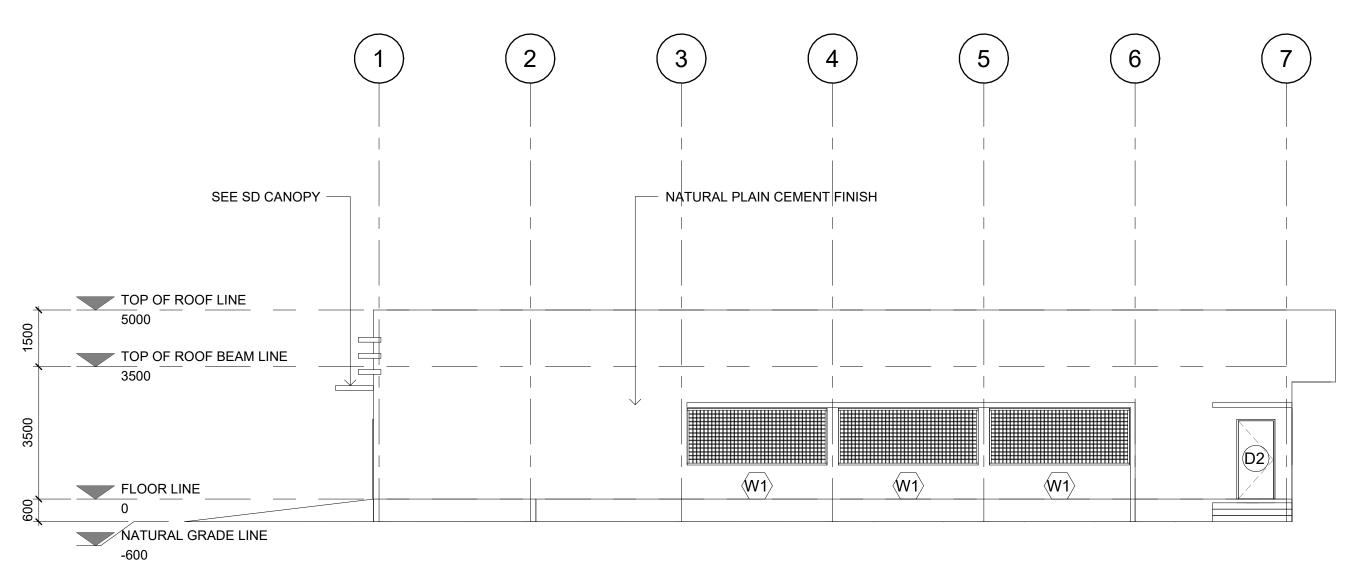
TOP OF ROOF LINE
5000

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3500

NATURAL GRADE LINE
600

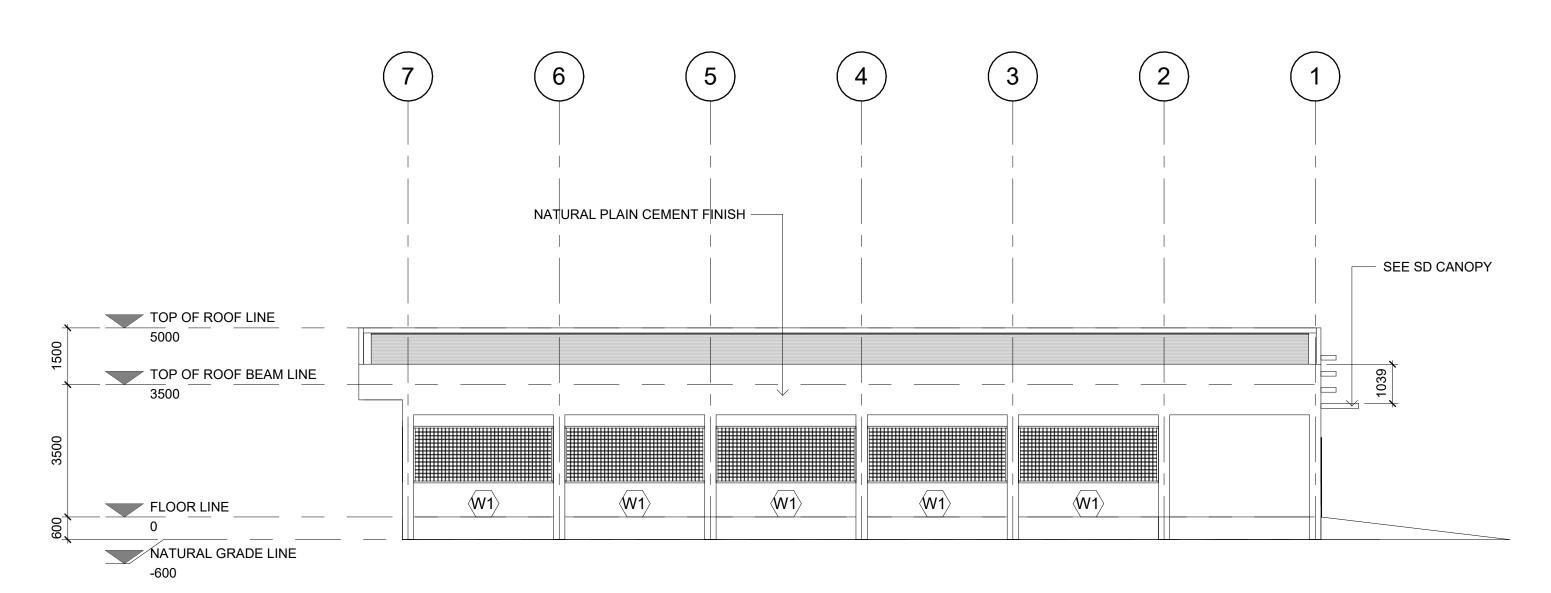
# REAR ELEVATION 1:100

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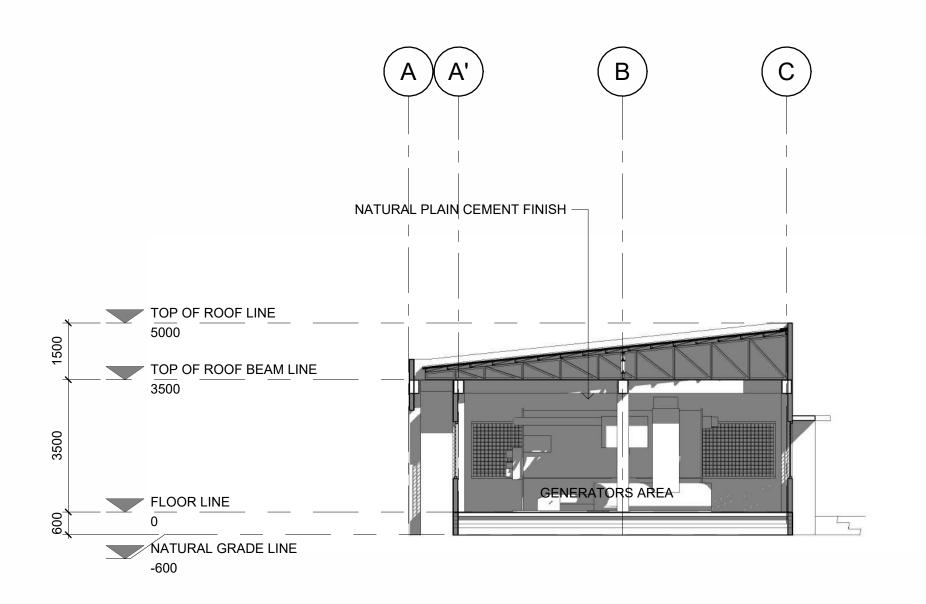
## **RIGHT SIDE ELEVATION**

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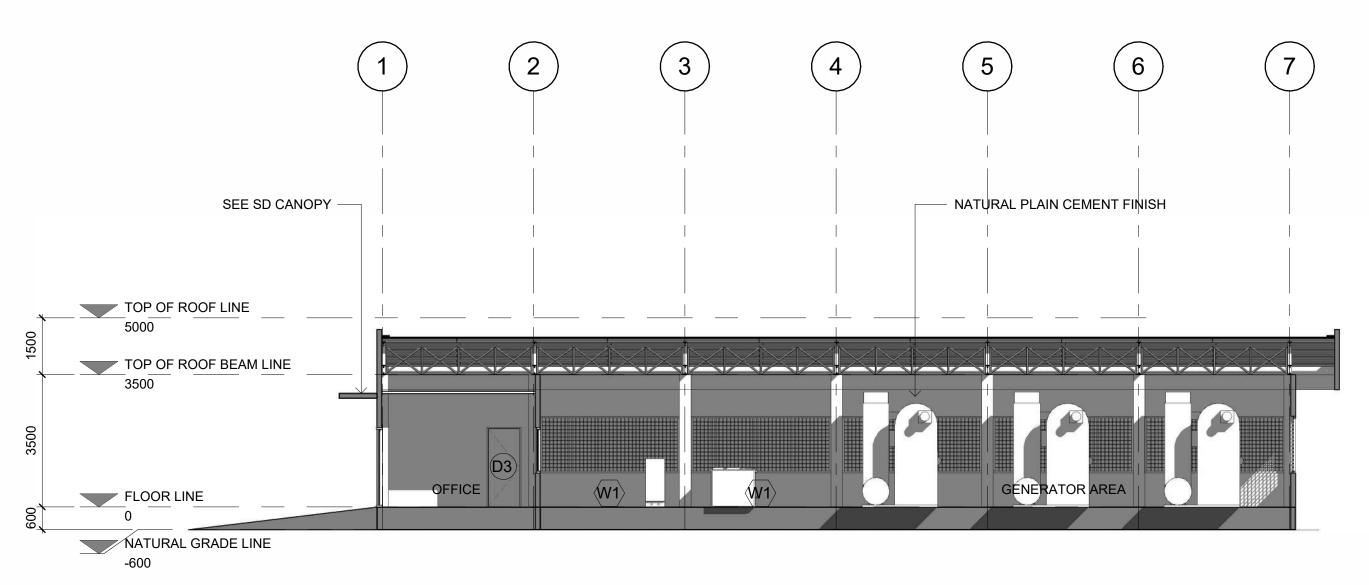
## **LEFT SIDE ELEVATION**

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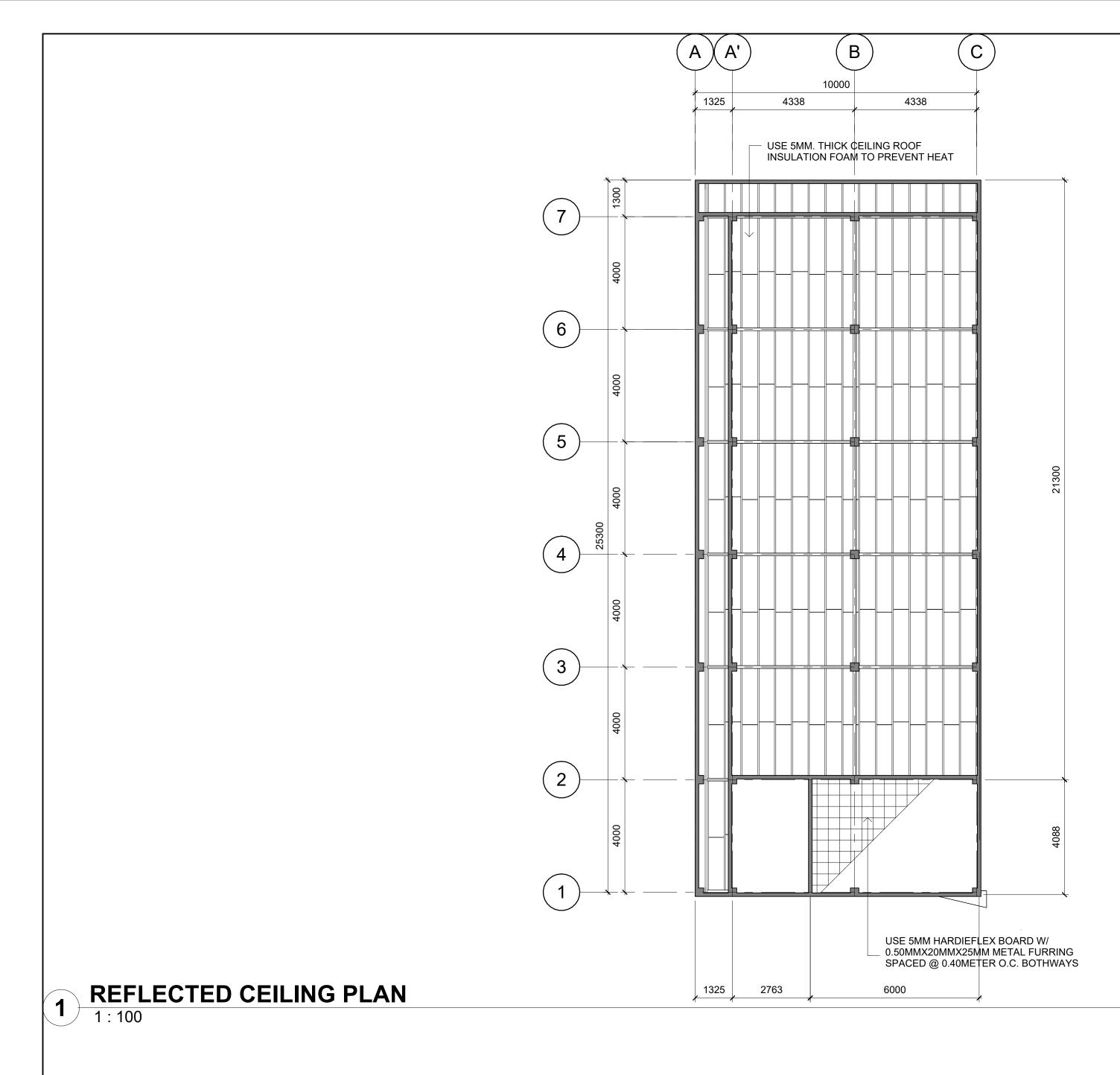
**CROSS SECTIONAL - XX** 

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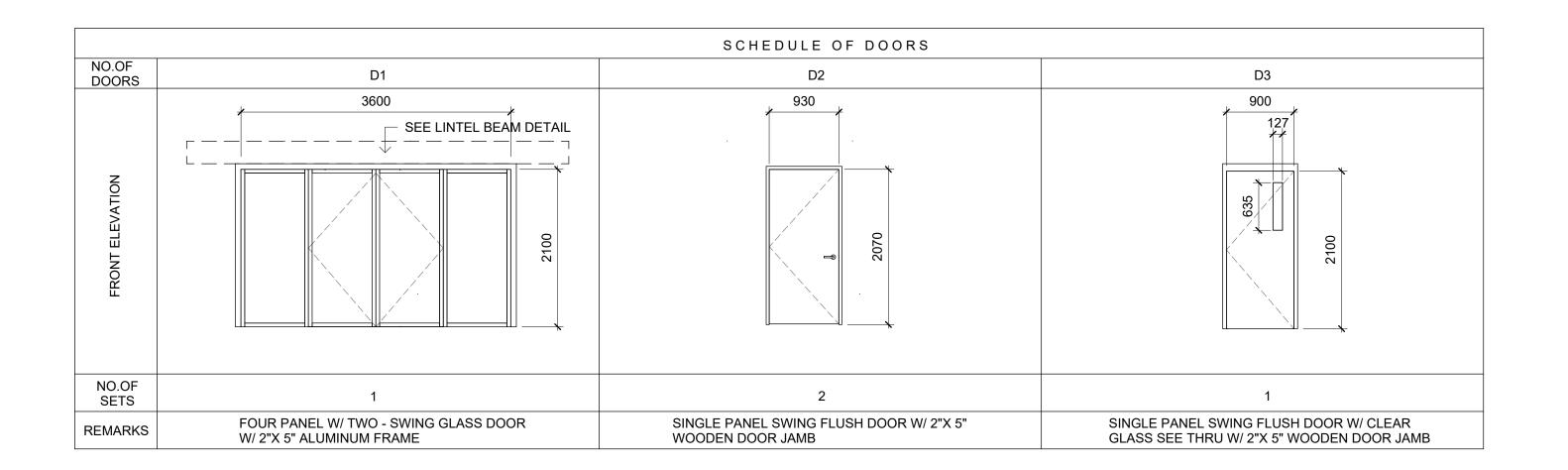


## LONGITUDINAL SECTION - YY

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1924 (C)	DATE:		PRESENT OF THE CORE OF SHIP CORES FOR USE OF THE CORE	CONCINCOTION OF VOOT OWERT EART BOILDING	ENGR. MARIO LILIO P. VALENZONA	DR. DANIEL LESLIE S. TAN	DR. EDGARDO E. TULIN		FINISHED:	05 16
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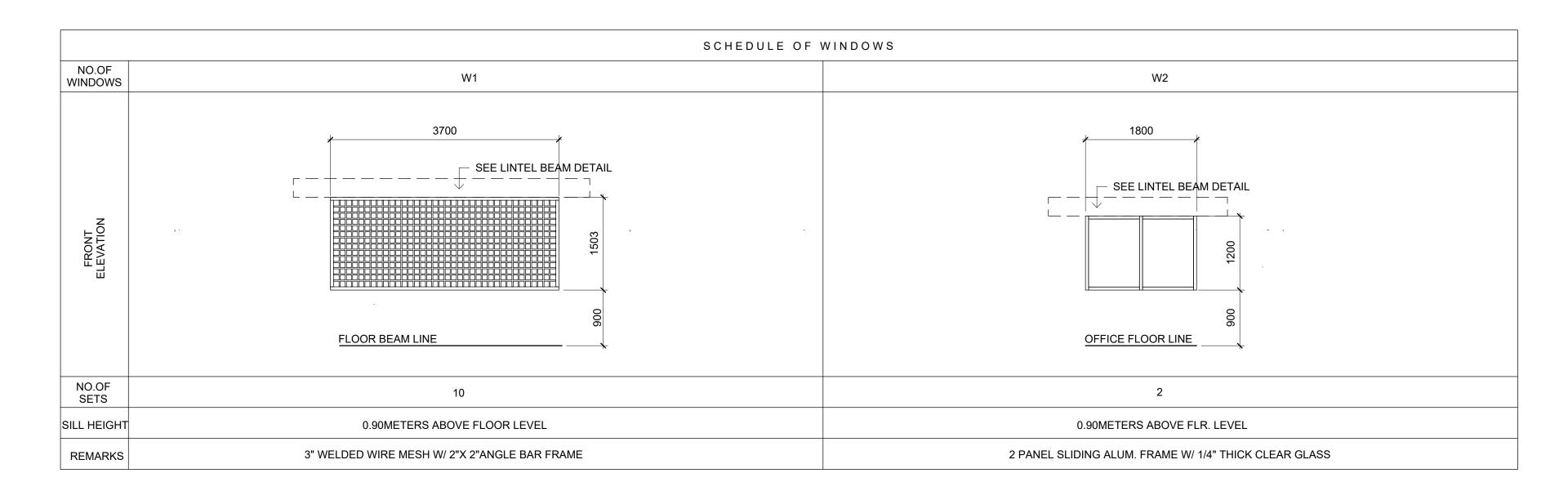


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### **DOOR LEGEND**

1:50



### WINDOW LEGEND

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VERS	PLACE:	ARCHITECT OF RECORD	WHAT THE MATEL CONSENT OF ACHIECT OR A FIRST OF SAD DOCUMENTS.	LOCATION: VSU MAIN CAMPUS, BAYBAY CITY, LEYTE PHILIPPINES, 6521 - A	DIRECTOR, PPO	VP OF ADMINISTRATIVE AND FINANCE	VSU PRESIDENT		PLACE:	

#### **GENERAL NOTES**

#### 1 WORKING DRAWINGS

THIS "GENERAL NOTES FOR STRUCTURAL WORKS" SHALL FORM A PART OF THE STRUCTURAL WORKING DRAWING.

IN THE INTERPRETATION OF THIS DRAWING, INDICATED DIMENSIONS SHALL GOVERN AND DISTANCE OR SIZES SHALL NOT BE SCALED FOR CONSTRUCTION PURPOSES.

IN CASES OF CONFLICT IN DETAILS AND DIMENSIONS BETWEEN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS, REFER TO THE ARCHITECT OR HIS AUTHORIZED REPRESENTATIVE FOR

IN CASES OF CONFLICT BETWEEN THE DRAWINGS, GENERAL NOTES AND SPECIFICATIONS, THE WORKING DRAWING SHALL

IN CASES OF CONFLICT BETWEEN THIS GENERAL NOTES AND SPECIFICATIONS, THE GENERAL NOTES SHALL GOVERN.

#### DESIGN LOADS\_

THE DESIGN DEAD LOAD UNLESS OTHERWISE SPECIFIED IN THE STRUCTURAL PLANS ARE AS FOLLOWS:

FLOOR MORTAR FINISH = 10 psf OF FLOOR AREA FLOOR ARCHITECTURAL FINISH = 10 psf OF FLOOR AREA CEILING AND UTILITIES = 5 psf OF FLOOR AREA DRYWALL PARTITIONS = 20 psf OF FLOOR AREA WATERPROOFING AND = 25 psf OF FLOOR AREA CONCRETE COVER

THE ARCHITECTURAL AND BUILDING CONTRACTOR SHALL GET THE APPROVAL OF THE STRUCTURAL ENGINEER OF ANY LOADING DIFFERENT FROM OR EXCEEDING THE DESIGN LOADS.

THE DESIGN LIVE LOAD UNLESS OTHERWISE SPECIFIED IN THE PLANS ARE AS FOLLOWS :

= 100 psfMECHANICAL & ELECTRICAL = 250 psf ROOF DECK = 100 psf ROOF DECK (NON-ACCESSIBLE) = 30 psf

THESE DESIGN LIVE LOADS SHALL NEVER BE EXCEEDED AT ANY TIME DURING THE LIFE OF THE STRUCTURE WITHOUT THE WRITTEN CONSENT OF THE STRUCTURAL ENGINEER.

IT SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE BUILDING TO GET THE APPROVAL OF THE STRUCTURAL ENGINEER OF ANY LIVE LOAD WHICH WILL BE IMPOSED ON AN AREA OF THE BUILDING DIFFERENT FROM AND OR EXCEEDING THE DESIGN LIVE LOADS SPECIFIED HEREIN.

NO PORTION OF THE BUILDING SHALL BE USED AS TEMPORARY STORAGE OF CONSTRUCTION MATERIALS IN EXCESS OF THE DESIGN LIVE LOADS WIHOUT THE CONSENT OF THE STRUCTURAL

THE DESIGN EATHQUAKE LOADS ARE AS PER NATIONAL STRUCTURAL CODE OF THE PHILIPPINES 2001 EDITION

THE DESIGN WIND LOADS ARE AS PER NATIONAL STRUCTURAL CODE OF THE PHILIPPINES 2001 EDITION

.5 EQUIPMENT LOADING EQUIPMENT NOT INDICATED IN THE PLANS SHALL NOT BE INSTALLED WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER

THE MANUFACTURER SHALL SUBMIT EQUIPMENT DATA SPECIFYING THE WEIGHT, AND ITS REACTION AT THE BASE, AND ITS VIBRATION CHARACTERISTICS.

### REINFORCED CONCRETE CONSTRUCTION\_

- 1 CEMENT SHALL CONFORM TO PORTLAND CEMENT ASTM C150.
- .2 CONCRETE AGGREGATE SHALL CONFORM TO ASTM C33 EXCEPT THAT AGGREGATES FAILING TO MEET THOSE SPECIFICATION BUT WHICH HAVE PRODUCED CONCRETE OF ADEQUATE STRENGTH AND DURABILITY MAYBE USED SUBJECT TO THE APPROVAL OF THE
- .3 WATER USED IN MIXING CONCRETE SHALL BE CLEAN AND FREE FROM INJURIOUS AMOUNT OF OILS, ACIDS, ALKALIS, SALTS, ORGANIC MATERIALS OR OTHER SUBSTANCES DELETERIOUS TO CONCRETE AND STEEL
- 4 REINFORCING BARS SHALL CONFORM TO ASTM A615.
- .5 ADMIXTURES TO BE USED IN CONCRETE SHALL BE SUBJECT TO PRIOR APPROVAL BY THE STRUCTURAL ENGINEER.
- 6 CEMENT AND AGGREGATES SHALL BE STORED IN SUCH A MANNER AS TO PREVENT THEIR DETERIORATION OR THE INTRU-SION OF FOREIGN MATTER.

- 7 CONCRETE CYLINDER SAMPLES FOR STRENGTH TESTS OF EACH CLASS OR CONCRETE SHALL BE TAKEN NOT LESS THAN TWICE A DAY OR NOR LESS THAN ONCE FOR EACH 50 CU. m. OF
- 8 THE CYLINDER SAMPLES FOR STRENGTH TESTS SHALL BE TAKEN CURED AND TESTED IN ACCORDANCE WITH ASTM C172, ASTM
- 9 ACCEPTANCE OF CONCRETE. CONCRETE POURED WILL BE CONSIDERED SATISFACTORY IF THE AVERAGES OF ALL SETS OF THREE CONSECUTIVE STRENGTH TEST RESULTS EQUAL OR EXCEED THE REQUIRED fc' AND NO INDIVIDUAL STRENGTH TEST RESULTS FALL BELOW THE REQUIRED fc' BY MORE THAN 500
- 10 CORE TESTS AND LOAD TESTS. IF INDIVIDUAL TESTS OF LABORATORY CURED CYLINDER SAMPLES PRODUCED STRENGTH MORE THAN 500 psi BELOW fc' CORE TESTS MAY BE RESORTED SUBJECT TO THE APPROVAL BY THE STRUCTURAL ENGINEER.
- 11 MIXING OF CONCRETE. ALL CONCRETE SHALL BE MIXED UNTIL THERE IS UNIFORM DISTRIBUTION OF THE MATERIALS AND SHALL BE DISCHARGED COMPLETELY BEFORE THE MIXER IS RECHARGED
- 12 CONVEYING OF CONCRETE. CONCRETE SHALL BE CONVEYED FROM THE MIXER TO THE PLACE OF FINAL DEPOSIT BY METHODS WHICH WILL PREVENT THE SEPARATION OR LOSS OF MATERIALS.
- 13 DEPOSITING OF CONCRETE. CONCRETE SHALL BE DEPOSITED AS NEARLY AS PRACTICABLE IN ITS FINAL POSITION TO AVOID SEGREGATION DUE TO REHANDLING OR FLOWING.
- CURING. CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR AT LEAST 7 DAYS AFTER PLACING. WET BURLAP MAYBE LAYED OVER THE SLAB CONSTANTLY APPLIED WITH

### CONCRETE MIXES\_

UNLESS OTHERWISE INDICATED IN THE DRAWINGS, THE MINIMUM 28-DAYS CYLINDER COMPRESSIVE STRENGTH SHALL BE AS

FOUNDATION, CONCRETE WALLS, COLUMNS, UNDERGROUND TANKS, SUSPENDED BEAMS AND SLABS fc' = 4,000 psi

SLAB ON GRADE fc' = 3,000 psi

- THE ALLOWABLE SOIL BEARING PRESSURE IS 6,000 PSF
- EXCAVATION FOR FOOTINGS SHALL BE CARRIED TO A DEPTH AS
- EXISTING UNDERGROUND PIPES, TUNNELS, ETC. SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER
- ALL EARTH FILL SUPPORTING BASEMENT SLABS FOR FLOORING, PARKING, SIDEWALK, ETC. SHALL BE COMPACTED TO 95% PROCTOR UNLESS OTHERWISE SPECIFIED BY THE STRUCTURAL **ENGINEER**

### REINFORCED CONCRETE BEAMS

- UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIFICATIONS CAMBER ALL RC BEAMS AT LEAST 6 mm FOR EVERY 4.5 m. OF SPAN EXCEPT CANTILEVERS WHICH SHALL BE 18 mm FOR EVERY
- IF THERE ARE TWO OR MORE LAYERS OF REINFORCING BARS, USE 25¢ SEPARATORS SPACED AT 1200 mm O.C.
- IF BEAMS REINFORCING BARS ENDS IN A WALL, THE CLEAR DISTANCE FROM THE BAR TO THE FARTHER FACE OF THE WALL SHALL BE NOT LESS THAN 5 DIAMETERS. THE REINFORCING BARS SHALL TERMINATE ON A STANDARD OF 90° HOOK
- SPLICES FOR TOP BARS SHALL BE LOCATED AT MID-SPAN AND BOTTOM BARS SHALL BE SPLICED AT THE DISTANCE OF TWICE THE MEMBER DEPTH FROM THE FACE OF THE COLUMN. LENGTH OF SPLICE SHALL BE HELD TO PROVIDE A MINIMUM OF TWO STIRRUPS TIES AT SPLICE. SPLICES INDICATE MAYBE STAGGERED A DISTANCE OF AT LEAST 40 BARS DIAMETER A MAXIMUM OF 50% OF TOP OR BOTTOM BAR MAY BE SPLICED AT ANY ONE LOCATION

### REINFORCED CONCRETE SLABS

- UNLESS OTHERWISE NOTED IN PLANS OR SPECIFICATIONS, CAMBER ALL R.C. SLABS 3 mm PER 3.0 m. OF SHORTER SPAN. 2 IF SLABS ARE REINFORCED BOTH WAYS, THE SHORTER SPAN
- REBAR SHALL BE THE BOTTOM BARS. CONCRETE COVERING SHALL BE 19 mm FOR TOP AND
- UNLESS OTHERWISE SPECIFIED BY THE ENGINEER BAR CHAIRS SHALL BE PROVIDED AT LEAST 0.90 m. EACH WAY TO SUPPORT TOP AND BOTTOM SLAB SEPARATELY.

#### REINFORCED CONCRETE COLUMNS\_

- CONSTRUCTION JOINTS IN COLUMNS SHALL BE LOCATED AT MIDHEIGHT OF COLUMN ( BETWEEN FLOOR LINE. )
- ALL TIES SHALL BE FASTENED TO COLUMN VERTICAL REINFORCE-MENT BY MEANS OF WIRES AT ALL INTERSECTION POINTS OF TIES AND COLUMN REBARS.
- NOT MORE THAN ONE-THIRD (1/3) OF THE TOTAL NUMBER OF BARS SHALL BE SPLICED AT THE SAME LEVEL. THE LAP SPLICE SHALL BE 1.2 Ld. WHERE Ld IS THE DEVELOPMENT LENGTH AS TABULATED IN THE STANDARD DETAILS. SPLICES SHALL BE STAGGERED A DISTANCE OF AT LEAST Ld.
- 4 CONFINEMENT TIES SHALL BE PROVIDED ON ALL COLUMNS AT BEAM COLUMN INTERSECTIONS AS SHOWN IN STANDARD DETAILS.

#### REINFORCED CONCRETE WALLS

STANDARD 90° DEGREE HOOK.

- UNLESS OTHERWISE INDICATED IN THE PLANS THE R.C. WALL HORIZONTAL BARS SHALL ENCLOSE THE VERTICAL BARS.
- CONCRETE CLEARANCES FOR REINFORCING BARS ( SEE ITEM 12 ) FOR 100 mm WALL OR LESS REINFORCING BARS SHALL BE
- 3 CARRY VERTICAL BARS 0.60 m. ABOVE FLOOR LEVEL TO PROVIDE FOR SPLICES WHEN NECESSARY. ELSEWHERE STOP AT 50 mm BELOW THE TOP OF THE SLAB. THE BAR SHALL TERMINATE ON
- HORIZONTAL AND VERTICAL BARS CONFORMING TO ASTM A615 SHALL BE SPLICED BY LAPPING AND WIRED WITH NO.16 G.I. WIRE AND CONFORMING SECTION 1 PROVIDED THAT SPLICES IN ADJACENT BARS ARE STAGGERED AT LEAST 1.50 m. O.C. NOT MORE THAN ONE-HALF (1/2) OF THE TOTAL NUMBER OF BARS SHALL BE SPLICED AT THE SAME LINE.
- ALL OPENINGS ON WALL OR SLABS LESS THAN 200 mm. THICK SHALL BE REINFORCED AS SHOWN IN THE STANDARD DETAILS.

- .1 UNLESS OTHERWISE INDICATED THE VERTICAL AND HORIZONTAL REINFORCEMENTS FOR C.H.B. SHALL BE 10 mm. AT 600 O.C. FOR 0.15 m. THICK BLOCKS. MINIMUM LAP SPLICE SHALL BE 300 mm. ( REFER TO ARCHITECTURAL FLOOR PLAN FOR LOCATION OF C.H.B. WALLS )
- 2 LINTEL BEAMS TO BE USED SHALL BE ( T X 0.40 m. )
  REINFORCED BY 4-16 mm WITH 10 mm AT 250 TIES WHERE
  "T" IS THE CHB WALL THICKNESS. (UNLESS OTHERWISE SPECI-
- .3 LINTEL BEAMS SHALL BE PROVIDED AT TOP OF CHB WALL OPENINGS IT SHALL BE EXTENDED AT LEAST 0.20 m. BEYOND THE OPENINGS.
- FOR HIGH WALLS, LINTEL BEAMS INTERVAL SHALL BE PROVIDED AT 3.0 m.
- 3.0 m. VERTICAL
- .5 FOR LONG WALLS, LINTEL BEAMS ACTING AS COLUMN SHALL BE PROVIDED EVERY 6 METERS 6 WHERE CHB WALLS ADJOIN R.C. COLUMNS AND BEAMS, PROVIDE
- DOWELS ON R.C. COLUMN AND BEAMS PRIOR TO POURING TO MATCH CHB WALL REINFORCEMENT. WHERE THE TOP OF A CHB WALL ADJOIN A BEAM OR SLAB,
- REBARS AS REQUIRED IN 10.6 SHALL BE RETAINED FOR STABILITY. (SEE STANDARD DETAIL)
  WHERE SIDES OF A CHB WALL ADJOIN A COLUMN OR RC WALL
- SEE CONTROL JOINT DETAIL AT STANDARD DETAILS. REBARS AS REQUIRED IN 10.6 SHALL BE RETAINED FOR STABILITY. FOR HIGH WALLS, LINTEL BEAMS INTERVAL SHALL BE PROVIDED AT 3.0 m.
- .9 NO CHIPPING OFF OF CONCRETE COLUMNS AND BEAMS ARE ALLOWED UNLESS OTHERWISE PERMITTED BY THE ENGINEER WHERE COLUMNS AND BEAMS HAVE BEEN POURED WITHOUT DOWELS FOR THE CHB WALL PROVIDE 120 DRILLED DOWELS @ 600mm O.C. WITH EPOXY GROUT

#### STRUCTURAL TOLERANCES\_

UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, THE FOLLOWING ARE THE ACCEPTABLE STRUCTURAL TOLERANCES FOR CAST-IN-PLACE CONCRETE CONSTRUCTION.

- CROSS SECTIONAL DIMENSIONS AND LOCATION TO REINFORCEMENT. DIMENSION LESS THAN
- 200 mm TO 600 mm MEMBER LENGTH OR HEIGHT = ± 12 mm
- (MAXIMUM LIMITATION = 12 mm)DEVIATION FROM STRAIGHT LINE = 6 mm PER 3.0 METERS
- (SWEEP AND OR PLUMBNESS) LOCATION OF BAR CUT-OFFS= ± 50 mm OR BENDS

#### CONCRETE PROTECTION FOR REINFORCEMENT\_

THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING BARS FOR BAR BLINDLES THE MININMUM COVER SHALL EQUAL THE EQUIVALENT DIAMETER OF THE BUNDLE BUT NEED NOT BE MORE THAN 50 mm ON THE TABULATED MINIMUM WHICHEVER IS GREATER.

1 CAST-IN-PLACE CONCRETE (REINFORCED CONCRETE CONSTRUCTION.)

- A. CAST AGAINST AND PERMANENTLY MINIMUM COVER EXPOSED TO EARTH
- B. EXPOSED TO EARTH OR WEATHER 20ø AND LARGER

50 mm

20 mm

40 mm

C. NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND SLABS, WALL AND JOISTS

BEAMS, GIRDERS AND COLUMNS PRINCIPAL REINFORCEMENT, TIES STIRRUPS OR SPIRALS

#### REINFORCING BARS\_

- ALL MAIN REINFORCING BARS SHALL BE DEFORMED CONFORMING TO ASTM A615-68
- UNLESS OTHERWISE NOTED IN THE PLANS THE MINIMUM YIELD STRENGTH OF THE MAIN REINFORCING BARS SHALL BE AS
- 12ø mm AND SMALLER fy = 40,000 psi 16ø mm AND LARGER fy = 60,000 psi
- IN STANDARD DETAILS.

### STANDARD HOOK

- 1 A STANDARD HOOK FOR REBARS IF REQUIRED SHALL BE EITHER OF THE FOLLOWING:
- A. A SEMI-CIRCULAR TURN PLUS AN EXTENSION OF AT LEAST 4 DIAMETER BUT NOT LESS THAN 62 mm AT THE FREE END OF THE BAR.
- B. A 90° TURN PLUS EXTENSION OF AT LEAST 12 BAR DIAMETERS AT THE FREE END OF THE BAR.
  - 6 BAR DIAMETERS 8 BAR DIAMETERS
- 2 MINIMUM DIAMETERS OF BEND MEASURED ON THE INSIDE OF THE BAR TO THE FREE END OF THE BAR.

10 mm TO 25 mm

#### 28 mm TO 36 mm CONSTRUCTION JOINTS

- CONSTRUCTION JOINTS SHALL BE LOCATED NEAR THE MIDDLE OF SPAN OF SLABS, BEAMS OR GIRDER.
- 2 AT BEAM-GIRDER INTERSECTION, THE CONSTRUCTION JOINT ON THE GIRDER SHALL BE OFFSET A DISTANCE EQUAL TO TWICE THE WIDTH OF THE BEAM. DIAGONAL BARS SHALL BE PROVIDED TO RESIST 100 % SHEAR AT THE CONSTRUCTION JOINT.
- THE TOTAL LENGTH OF THE DIAGONAL BAR SHALL BE AT LEAST TWICE THE DEVELOPMENT LENGTH REQUIRED FOR THE BAR. THE ENDS OF THE BAR SHALL BE HOOKED.
- WHERE A JOINT IS TO BE MADE THE SURFACE OF THE CONCRETE SHALL BE THOROUGHLY CLEANED AND ALL LAITANCE AND STANDING WATER REMOVED. VERTICAL COATED WITH NEAT CEMENT GROUT IMMMEDIATELY BEFORE PLACING OF NEW CONCRETE.

#### **ELECTRICAL CONDUITS\_**

- ELECTRICAL CONDUITS MAY BE PLACED BETWEEN THE TOP AND BOTTOM REINFORCEMENT IN SLABS AND R.C. WALLS. 2 THE SPACING OF THESE CONDUITS SHALL BE NOT CLOSER
- THAN 3 BARS DIAMETER

### PIPES EMBEDDED IN CONCRETE\_

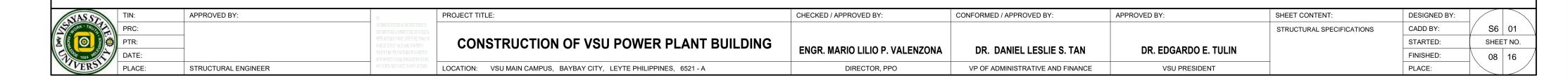
- PIPES TO BE EMBEDDED ON COLUMNS SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER.
- NO VERTICAL PIPES ARE ALLOWED TO PUNCH THROUGH A BEAM OR GIRDER.
- HORIZONTAL PIPES MAY PUNCH THROUGH A BEAM OR GIRDER SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE ACTUAL LOCATION WHERE PIPES CROSS A BEAM OR GIRDER, WHERE PERMITTED BY THE ENGINEER PROVIDE AT LEAST 16 mm (600 mm LONG) U-BARS TO ENCLOSE THE PIPE AT THE POINT OF INTERSECTION AT EACH FACE OF THE BEAM.
- PIPES OF ALUMINUM SHALL NOT BE EMBEDDED IN CONCRETE.
- CONCRETE COVER FOR PIPES SHALL BE AT LEAST 38 mm FOR CONCRETE SURFACE EXPOSED TO THE WEATHER OR IN CONTACT WITH THE GROUND 18 mm FOR CONCRETE SURFACE NOT EXPOSED TO THE GROUND OR WEATHER.

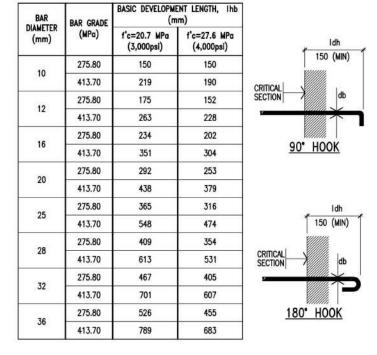
#### REMOVAL OF FORMS AND SHORES\_

- FORMS SHALL BE REMOVED IN SUCH MANNER AS TO ENSURE COMPLETE SAFETY OF THE STRUCTURE.
- 2 UNLESS OTHERWISE SPECIFIED BY THE STRUCTURAL ENGINEER THE FOLLOWING SHALL BE THE BASIS OF FORMS AND SHORINGS REMOVAL FOR REINFORCED CONCRETE (R.C.) CONSTRUCTION.

COLUMN SIDE FORMS AGE OF CONCRETE SLAB BOTTOM FORMS 5 DAYS BEAM SHORING 8 DAYS SLAB SHORING 8 DAYS

### STRUCTURAL SPECIFICATIONS





### DEVELOPMENT LENGTH, Idh SHALL BE AS FOLLOWS: a. FOR BARS W/ SIDE COVER (NORMAL TO PLANE HOOK) NOT LESS THAN 65mm AND FOR 90" HOOK, COVER ON BAR

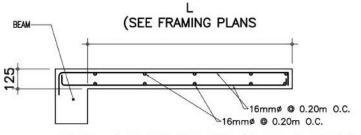
- Ind.

  b. For Bars W/ Hook enclosed vertically or or Horizontally W/In ties or stirrup ties spaced along the full development length Idn not greater than 3th lise 0.8 lbb.
- c. FOR BARS NOT INCLUDED IN (a) & (b), USE 1.0 Ihb.

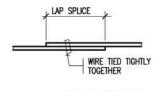
## DEVELOPMENT LENGTH OF HOOKED BARS

2021		MINIMUM D	EVELOPM	ENT LENGTH	d (mm)		
BAR DAIMETER (mm)	BAR GRADE (MPa)	f'c=20. (3,000		f'c=27.			
(mm)	28 11/28/2	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS		
10	275.80	300	300	300	300		
10	413.70	427	329	370	300		
40	275.80	342	300	300	300		1 Id
12	413.70	513	394	444	342		300 (MIN
10	275.80	456	351	395	304	CRITICAL	VIII 1
16	413.70	684	526	592	455	SECTION	db
00	275.80	570	438	493	379	1/2	
20	413.70	854	657	740	569		
O.E.	275.80	734	565	636	489		
25	413.70	1101	847	953	733		
28	275.80	921	708	797	613		
20	413.70	1381	1062	1196	920		
70	275.80	1202	925	1041	801		
32	413.70	1804	1387	1562	1202		
76	275.80	1522	1171	1318	1014		
36	413.70	2283	1756	1977	1521		

DEVELOPMENT LENGTH OF STRAIGHT BARS



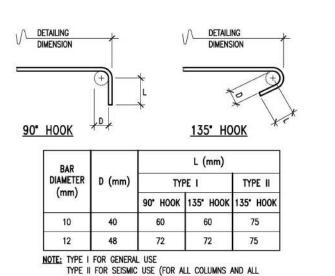
TYP. CANTIVELER SLAB DETAIL



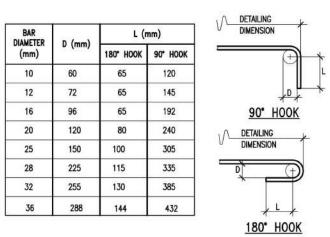
**OFFSET** 



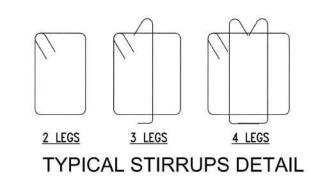
**OFFSET** 

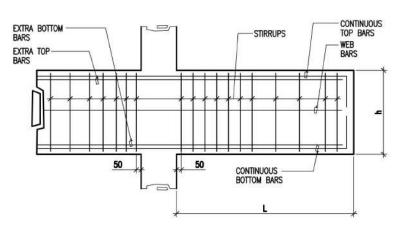


BEAMS CONNECTED TO COLÜMNS)
STIRRUPS
AND TIE HOOK DIMENSIONS

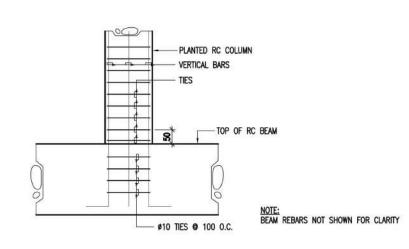


STANDARD HOOK DIMENSIONS

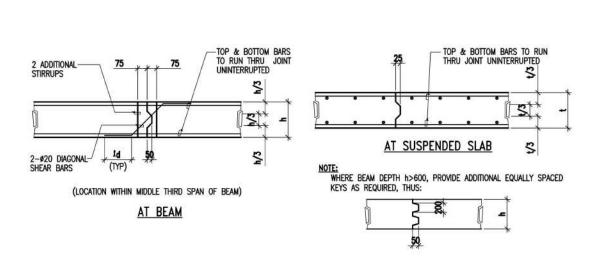




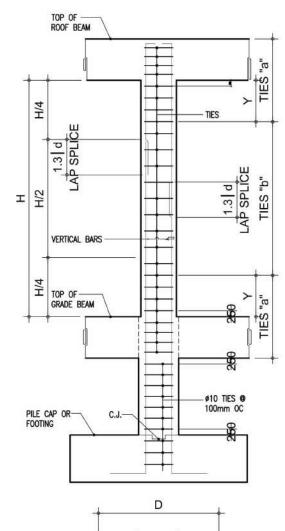
TYPICAL CANTILEVER BEAM DETAIL

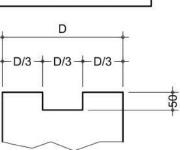


TYPICAL PLANTED RC COLUMN DETAIL



TYPICAL CONSTRUCTION JOINT DETAILS



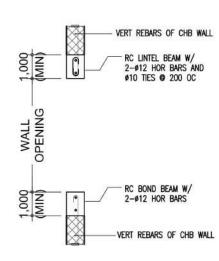


C.J. = CONSTRUCTION JOINT

### NOTES: 1. Y=MAX OF THE FF:

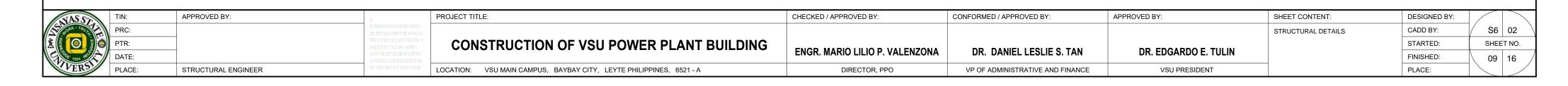
- A. H/6
  B. 450 MM
  C. MAXIMUM COLUMN DIMENSION
  SPLICES ARE PERMITTED ONLY WITHIN THE CENTER HALF OF COLUMN HEIGHT (H)
  STAGGER BAR SPLICES BY 600 MM OR MORE
- 4. PROMOTE TIES @ 100 MM O.C. (MAX) OVER THE FULL LAP SPLICE LENGTH
  5. SPECIAL TIES @ BEAM-COLUMN JOINT TO CONFORM TO THE SAME CONFIGURATION OF TIES AS INDICATED IN THE SCHEDULE OF COLUMNS

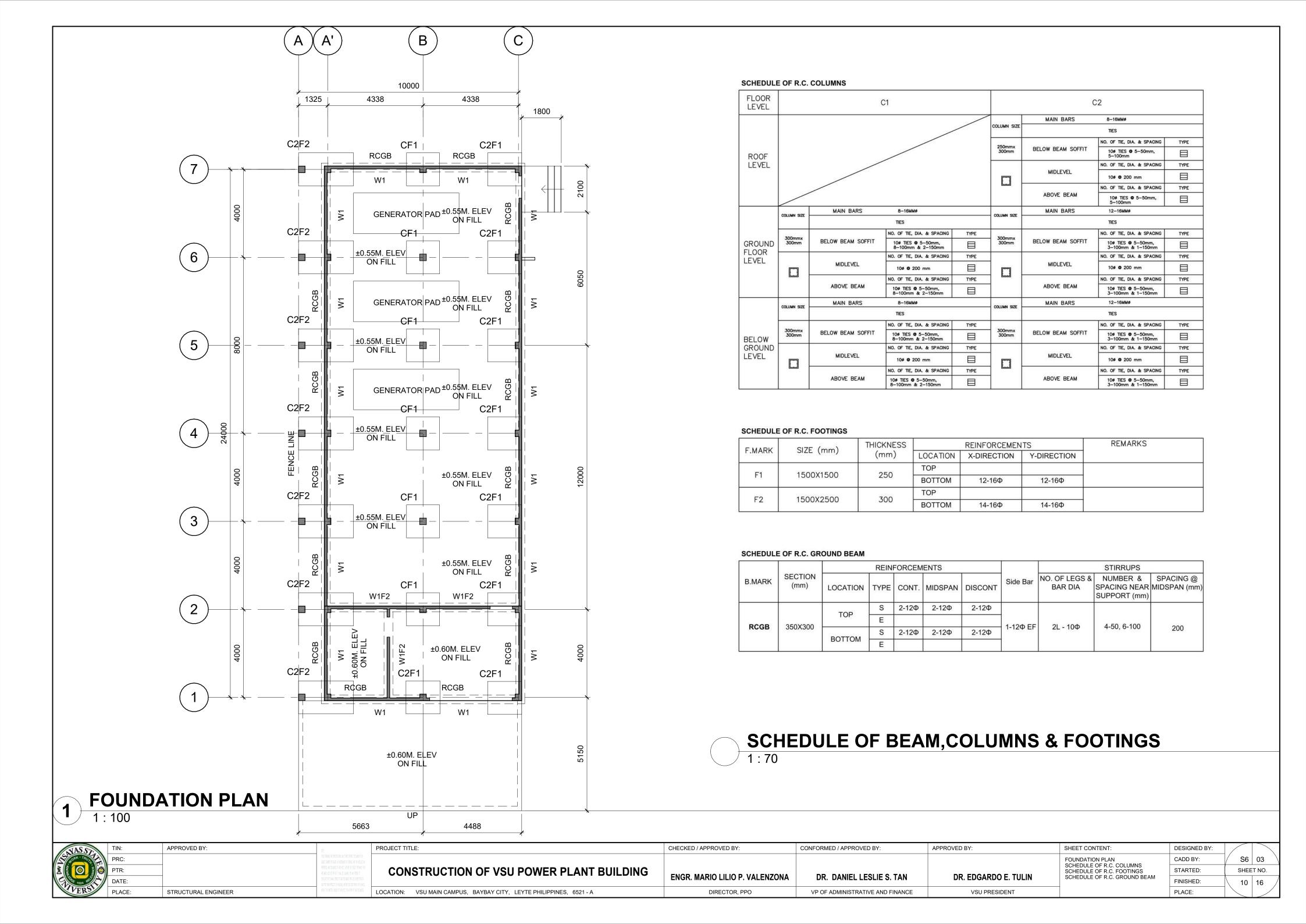
### TYPICAL RC COLUMN ELEVATION

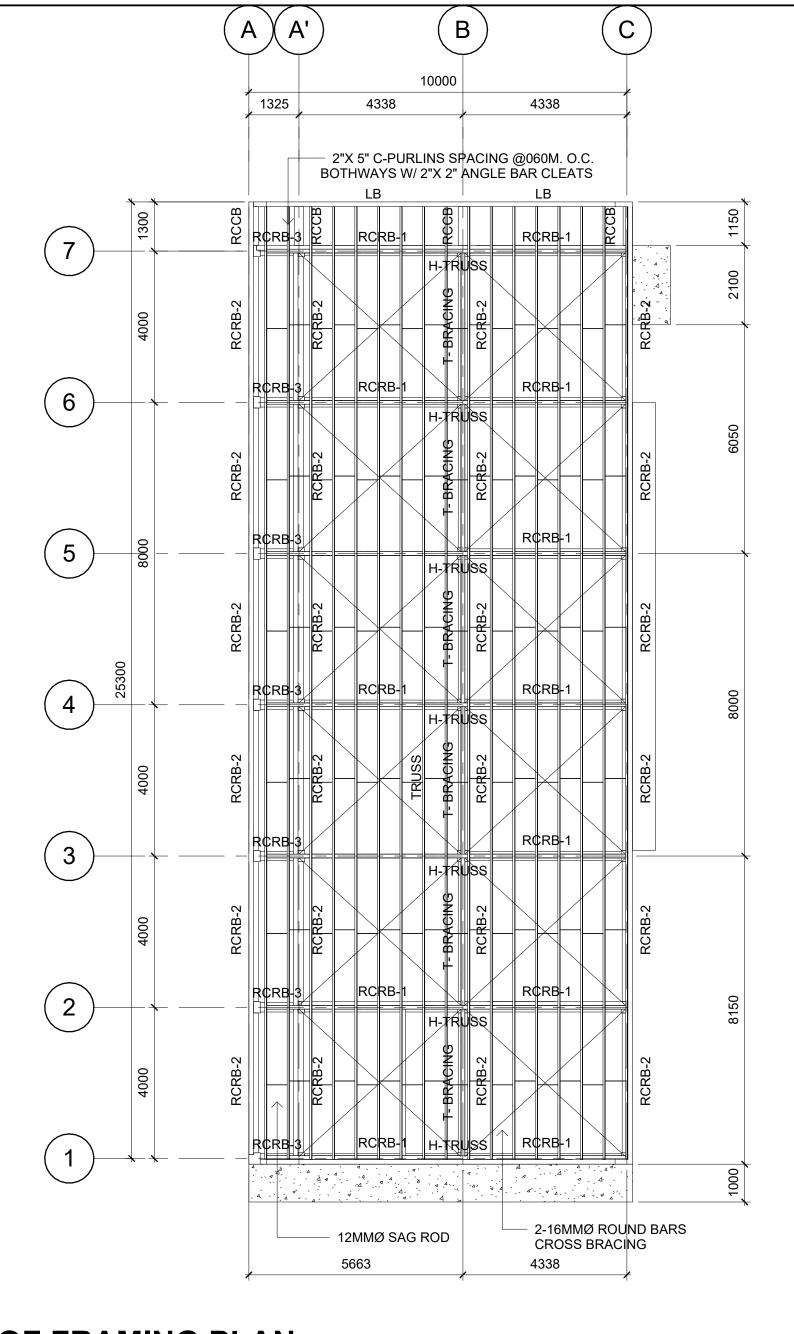


TYPICAL WALL OPENING DETAIL

### STRUCTURAL DETAILS





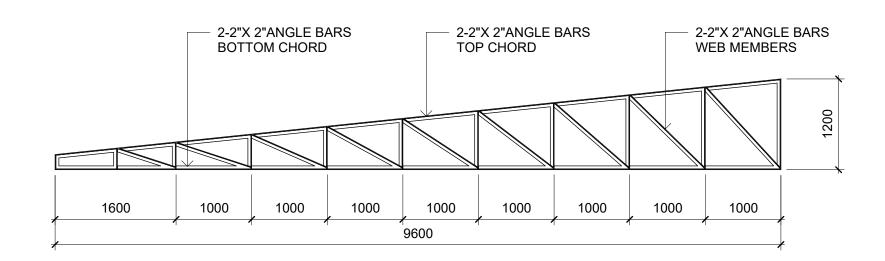


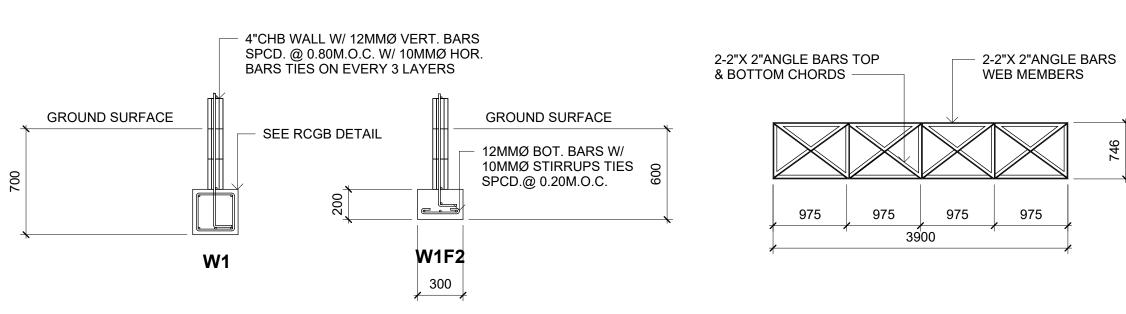
#### SCHEDULE OF CANTILIVER, LINTEL & ROOF BEAM

			REINF	ORCEM	ENTS				STIRRUPS		
BEAM MARK	SECTION (mm)	LOCATION	TYPE	CONT.	MIDSPAN	DISCONT	Side Bar	NO. OF LEGS & BAR DIA	NUMBER & SPACING NEAR SUPPORT (mm)	SPACING @ MIDSPAN (mm)	REMARKS
		TOP	S	2-16Ф	2-16Ф	2-16Ф					
RCRB-1	450X250		E		1-16Ф		1-16Ф EF	21 - 100	4-50, 6-100	200	USE #16 TIE WIRE AND SPECIFY THE
KOKD-1	400N200	воттом	S	2-16Ф	2-16Ф	2-16Ф		ΖΕ - 10Φ	4 00, 0 100	200	STIRRUPS SPACING
		BOTTOM	E								
	400X250	TOP	S	2-16Ф	2-16Ф	2-16Ф					
RCRB-2			E		1-16Ф		1-16Ф EF	2L - 10Φ	4-50, 6-100	200	USE #16 TIE WIRE AND SPECIFY THE
		воттом	S	2-16Ф	2-16Ф	2-16Ф	Att mosesswith mattain		19 (George School Globerto)	200	STIRRUPS SPACING
		50110111	E								
		TOP	S	2-12Ф	2-12Ф	2-12Ф	1-12Ф EF	2L - 10Ф			
RCRB-3	350X250		E	0.40+	0.40+	0.404			4-50, 6-100	200	USE #16 TIE WIRE AND SPECIFY THE
		воттом	S	2-12Ф	2-12Ф	2-12Ф					STIRRUPS SPACING
		475.460m41 000,4114,010,41	E	0.404	0.404	0.404					
		TOP	S	2-16Ф	2-16Ф	2-16Ф					
<b>RCCB</b>	400X250		E	0.400	0.400	0.400	1-16Ф EF	2L - 10Ф	4-50, 6-100	200	USE #16 TIE WIRE AND SPECIFY THE
		воттом	S	2-16Ф	2-16Ф	2-16Ф	-			555.45	STIRRUPS SPACING
	1		E S	2-12Ф	2-12Ф	2-12Ф					
		TOP	E	2-12Ψ	2-12Ψ	2-12Ψ			A 200.000 1000 A 444.00.00		
LB	300X200		S	2-12Ф	2-12Ф	2-12Ф	1-12Ф EF	2L - 10Ф	3-50, 5-100	200	USE #16 TIE WIRE AND SPECIFY THE
		воттом		2-12Ψ	2-12Ψ	2-12Ψ					STIRRUPS SPACING
		ė.	E		×						

## SCHED. OF R.C. CANTILIVER, LINTEL & ROOF BEAMS

1:140





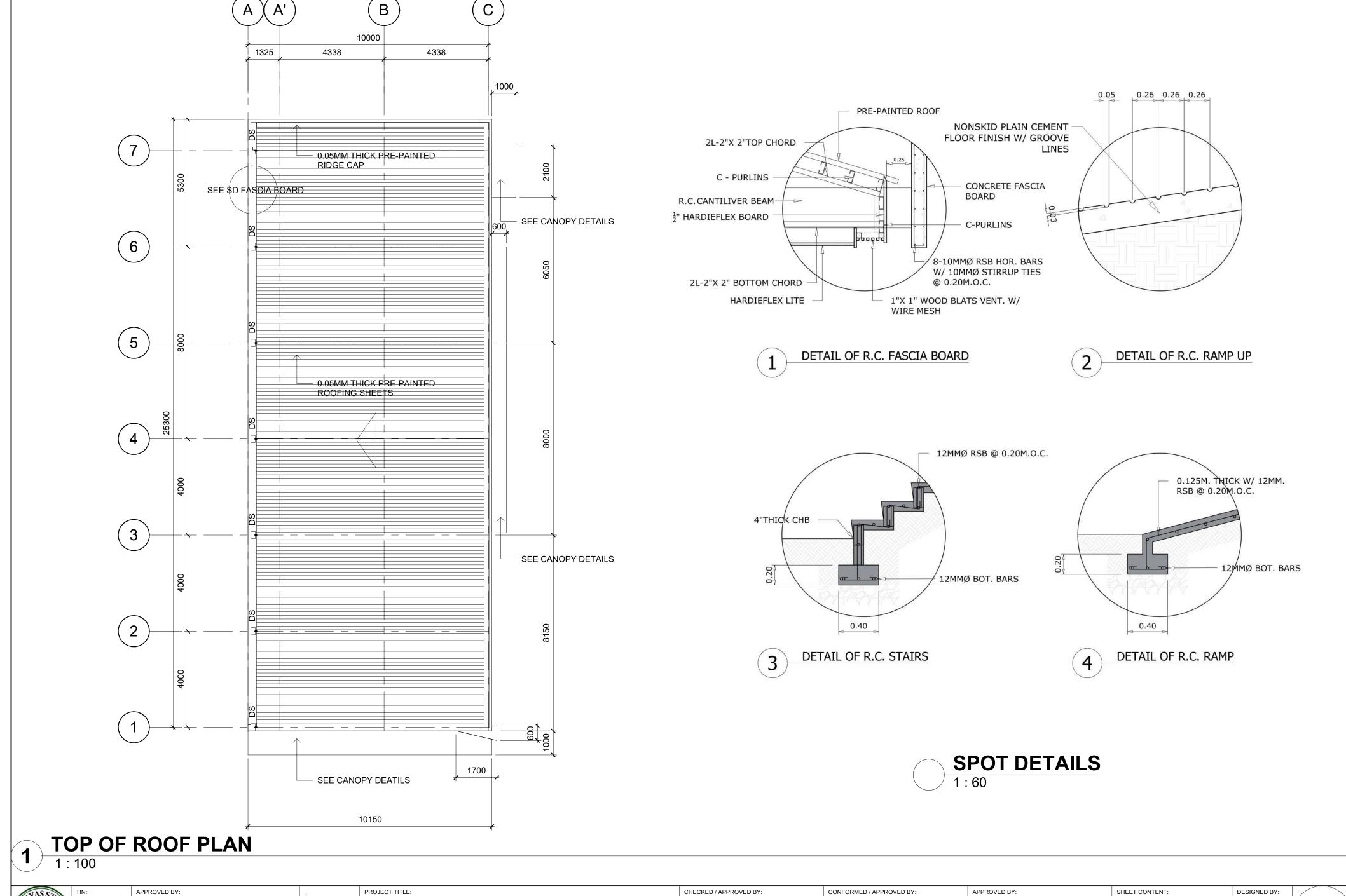
DETAIL OF WALL & FOOTINGS
1:25

## **DETAIL OF STEEL TRUSSES**

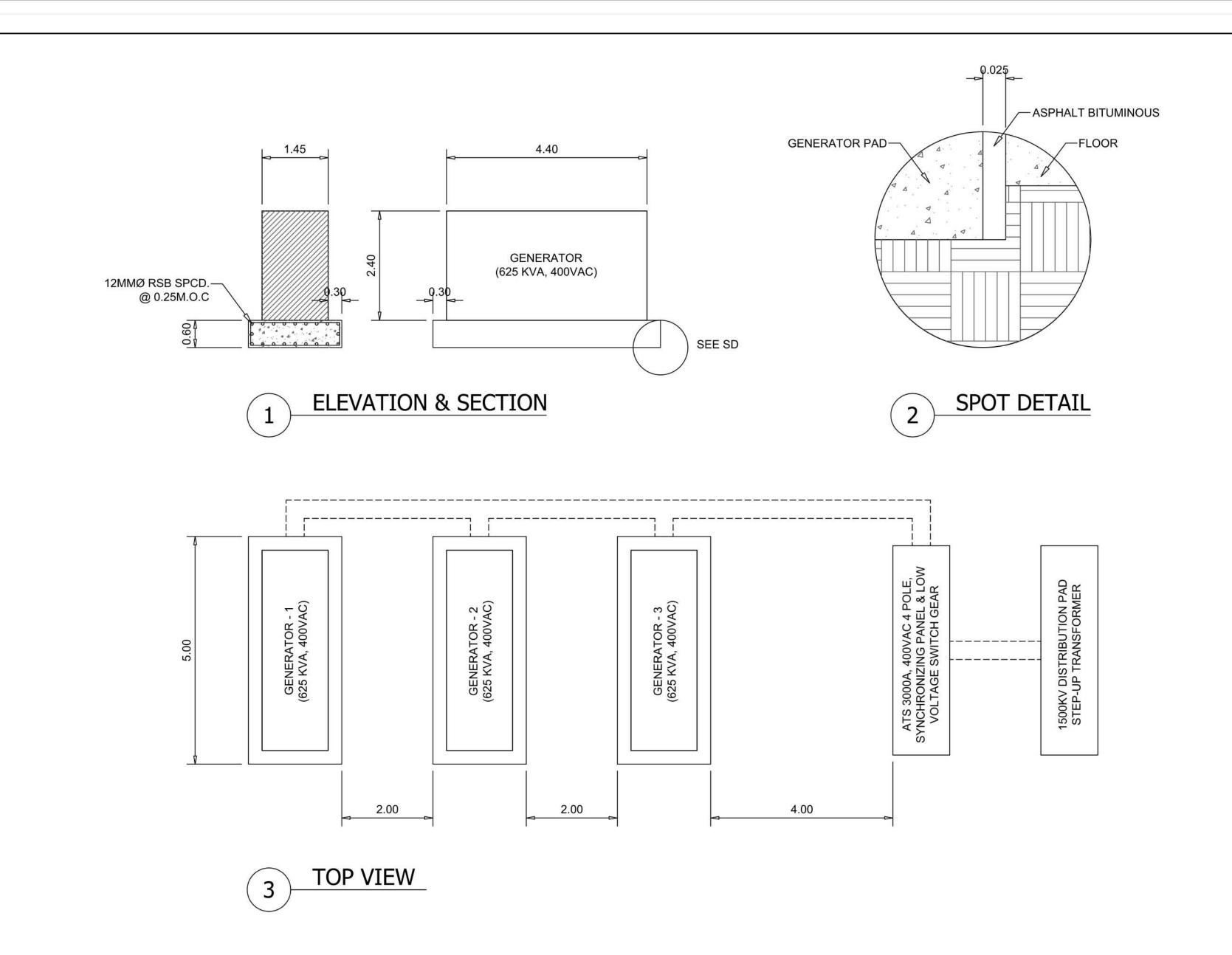
### **ROOF FRAMING PLAN**

1 · 100

NASST	TIN:	APPROVED BY:		PROJECT TITLE:	CHECKED / APPROVED BY:	CONFORMED / APPROVED BY:	APPROVED BY:	SHEET CONTENT:	DESIGNED BY:	
S JORN TRUTH	PRC:		THE DRAINS AND SPECKARDS AND THE CONTRACTION DIEST THAT Some states of states, as instructs of space, are are installation					ROOF FRAMING PLAN	CADD BY:	S6 04 \
₹ <b>©</b>	PTR:		PROPRIES AN OCCIDENT OF ACHIECT, NORM THE GREET FOR INCH HEY We have secure or not to shall be haved on an exercise to	CONSTRUCTION OF VSU POWER PLANT BUILDING	ENOR MARIO LILIO RIVALENZONA	DD DANIEL LEGUE O TAN	DD 5004000 5 THE IN	SCHEDULE OF R.C. ROOF BEAM DETAIL OF STEEL TRUSSES DETAIL OF WALLS	STARTED:	SHEET NO.
	DATE:		DAPLEE OF TO MAE CAPES OF SAD DICULATS FOR USE IN EXPETION OF And for orbe process of produces, merced decuped parts of in made.		ENGR. MARIO LILIO P. VALENZONA	DR. DANIEL LESLIE S. TAN	DR. EDGARDO E. TULIN		FINISHED:	11 16 /
VERS	PLACE:	STRUCTURAL ENGINEER	WHAT HE WITE COURT OF ACHIET OR WHAT OF SAD DOUBLES.	LOCATION: VSU MAIN CAMPUS, BAYBAY CITY, LEYTE PHILIPPINES, 6521 - A	DIRECTOR, PPO	VP OF ADMINISTRATIVE AND FINANCE	VSU PRESIDENT		PLACE:	



S6 05 ROOF PLAN SPOT DETAILS CADD BY: CONSTRUCTION OF VSU POWER PLANT BUILDING STARTED: SHEET NO. ENGR. MARIO LILIO P. VALENZONA DR. DANIEL LESLIE S. TAN DR. EDGARDO E. TULIN FINISHED: 12 | 16 PLACE: STRUCTURAL ENGINEER LOCATION: VSU MAIN CAMPUS, BAYBAY CITY, LEYTE PHILIPPINES, 6521 - A DIRECTOR, PPO VP OF ADMINISTRATIVE AND FINANCE VSU PRESIDENT PLACE:



### **DETAIL OF GENERATOR PAD**

CNYASST	TIN:	APPROVED BY:	TE:	PROJECT TITLE:	CHECKED / APPROVED BY:	CONFORMED / APPROVED BY:	APPROVED BY:	SHEET CONTENT:	DESIGNED BY:	
S ROOK TRUTH	PRC:		THESE DRAWES AND SPECIATIONS AND OTHER CONTRACT DOUBLESS DILLY Species, Stampe of Space, as instructors of Space, are the inelection					DETAIL OF GENERATOR PAD	CADD BY:	S6 06 \
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	DATE:		DURCATE OR TO IME COPES OF SAD DOCUENTS FOR ME IN EXPENDID OF And for orber process of rounding mether decorate party or in India.		ENGR. MARIO LILIO P. VALENZONA	DR. DANIEL LESLIE S. TAN	DANIEL LESLIE S. TAN DR. EDGARDO E. TULIN		FINISHED:	13 16
VERS	PLACE:	STRUCTURAL ENGINEER	NAVIT HE WITEN CONSIST OF ACHTECT OF ALFAR OF SAD DOCUMENTS.	LOCATION: VSU MAIN CAMPUS, BAYBAY CITY, LEYTE PHILIPPINES, 6521 - A	DIRECTOR, PPO	VP OF ADMINISTRATIVE AND FINANCE	VSU PRESIDENT		PLACE:	