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 DEPARTMENT OF PLANNING AND DEVELOPMENT
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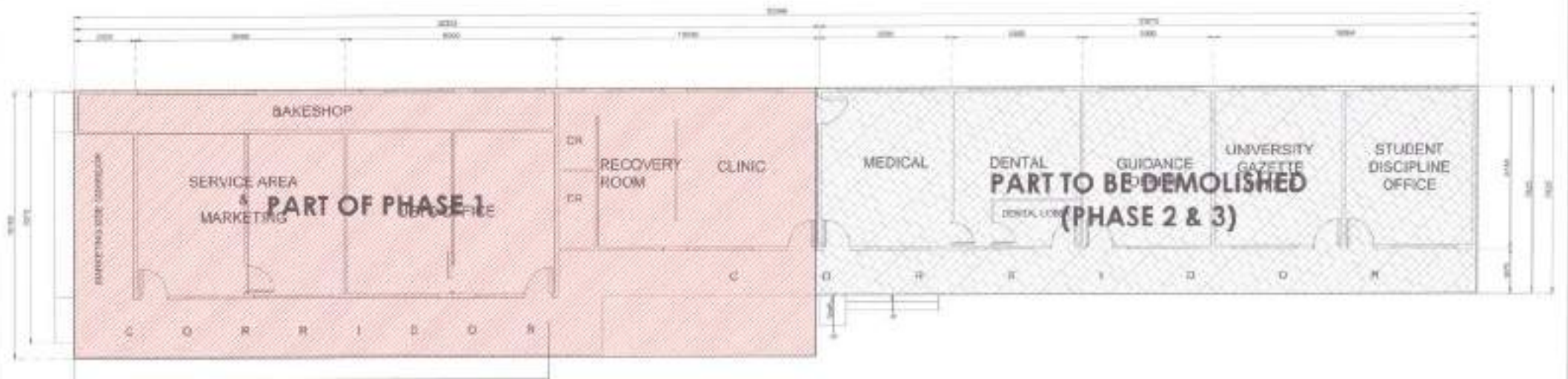
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STRUCTURAL

SANITARY

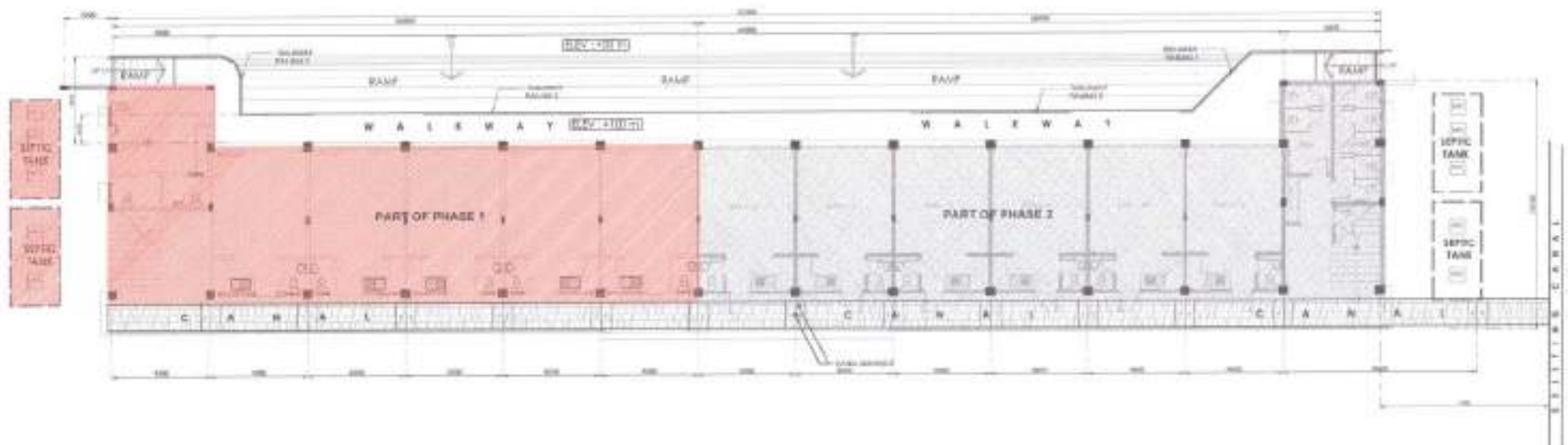
ELECTRICAL

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	 COMPLETION OF BUSINESS STALLS & CLASSROOMS QUEZON CITY GOVERNMENT, BUSINESS CENTER	 BARCELMO D. QUIMBA GENEVA VALDEZ	 OPHELIA S. BUNO EDUARDO S. BUNO	 GERALDO L. PEREZ Complex Administrator	 CARLO D. VADIL Off. in Charge, Inspection and Construction Section	 WILFREDO A. DOMALE, JR. Building Official	A-1 1



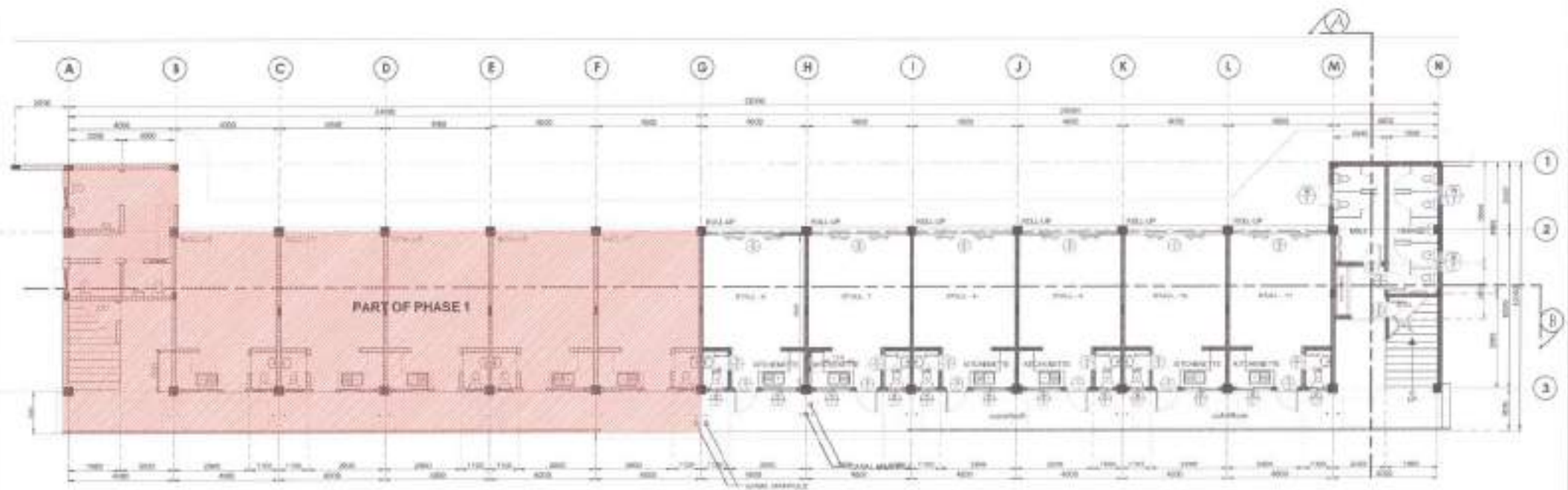

PLAN OF EXISTING STRUCTURE
 SCALE: 1/8" = 1'-0"

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PREPARED BY: _____ CHECKED BY: _____ DATE: _____ TITLE: _____	 <p>COMPLETION OF BUSINESS STALLS & CLASSROOMS MINDANAO STATE UNIVERSITY - MARIKINA CAMPUS</p>	 RAMELE N. VALDEZ ARCHITECT	 GERALD L. PEREZ ARCHITECT	 GERALD L. PEREZ ARCHITECT	 CARLOS F. VASIL ARCHITECT	 WILFREDO A. DURALLE, JR. UNIVERSITY PRESIDENT	<div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;"> A-2 2 </div>



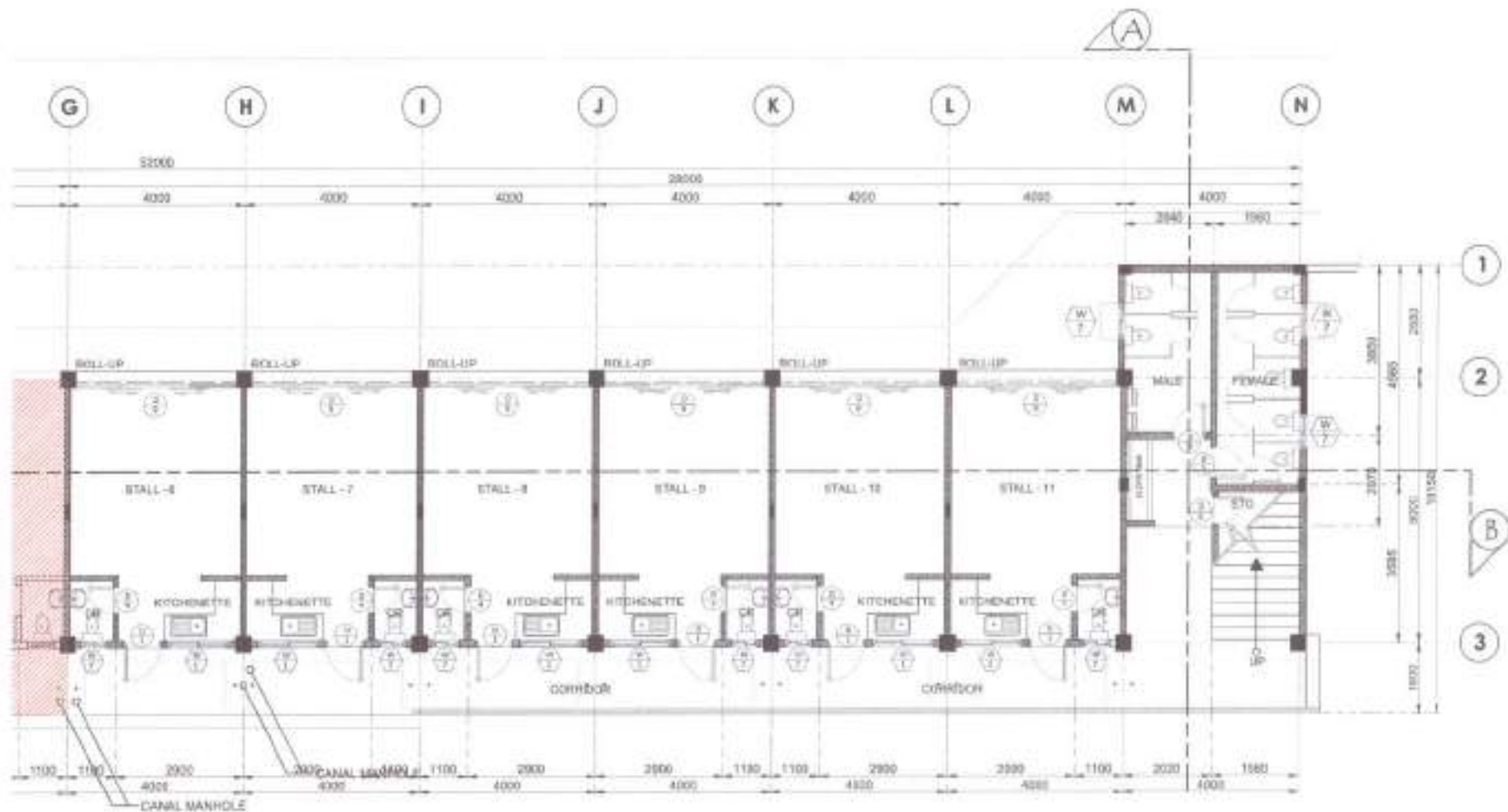

SITE DEVELOPMENT PLAN
 SCALE: 1/8" = 1'-0"


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_____ <small>PRO. SEAL NO. _____ DATE: _____ P.E. NO. _____ DATE: _____ PLACE OF BIRTH _____ DATE BORN _____ TALL _____</small>	 COMPLETION OF BUSINESS STALLS & CLASSROOMS <small>NEW MEXICO STATE UNIVERSITY, EMBAJADO CAMPUS</small>	_____ <small>RAMEL DAVID C. GONDRAN _____ _____</small>	 <small>DHELIA E. RABIO _____</small>  <small>EDWIN E. ORTIZ _____</small>	 <small>GERALD L. PEREZ _____</small>	 <small>CARLOS E. YANEZ _____</small>	 <small>WILFREDO A. ZUMALTE, JR. _____</small>	<div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> A-3 3 </div>



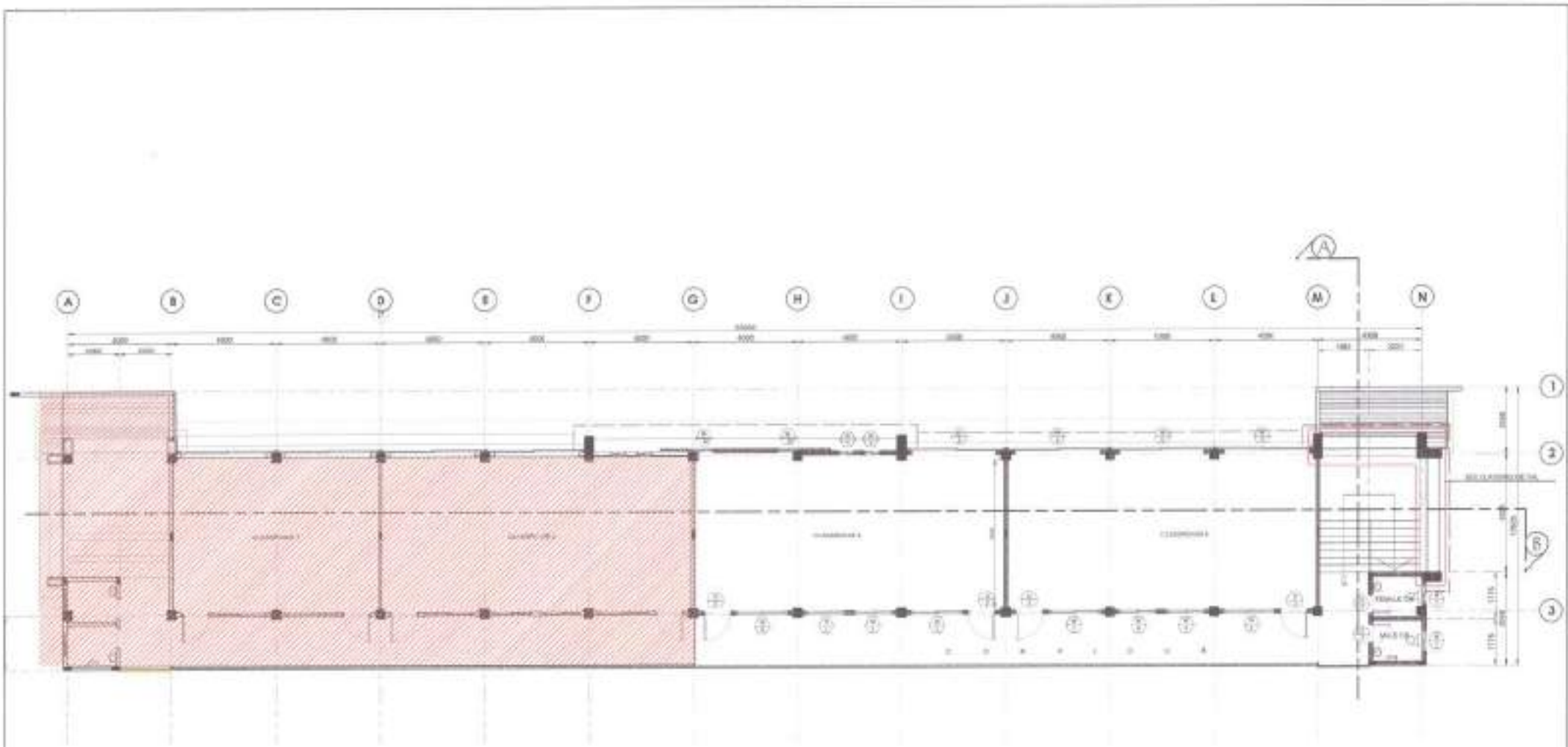

GROUND FLOOR PLAN
 SCALE: 1:100

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PROJECT NO.: _____ DATE: _____ DRAWN BY: _____ CHECKED BY: _____ TITLE: _____	 <p>COMPLETION OF BUSINESS STALLS & CLASSROOMS</p> <p>NUEVA ECIPA STATE UNIVERSITY - SANMIGUEL CAMPUS</p>	RAMEL PABLO C. BUNGHAN  DEAN OF COLLEGE	 STELLA S. RUBIO <small>Head of Office</small>	 GERALD L. PEREZ <small>Supervisor</small>	 CARLO V. VANI <small>UPM Planning, Development and the Public Space</small>	 WILFREDO A. DUMAILE, JR. <small>University President</small>	<div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> A-4 4 </div>



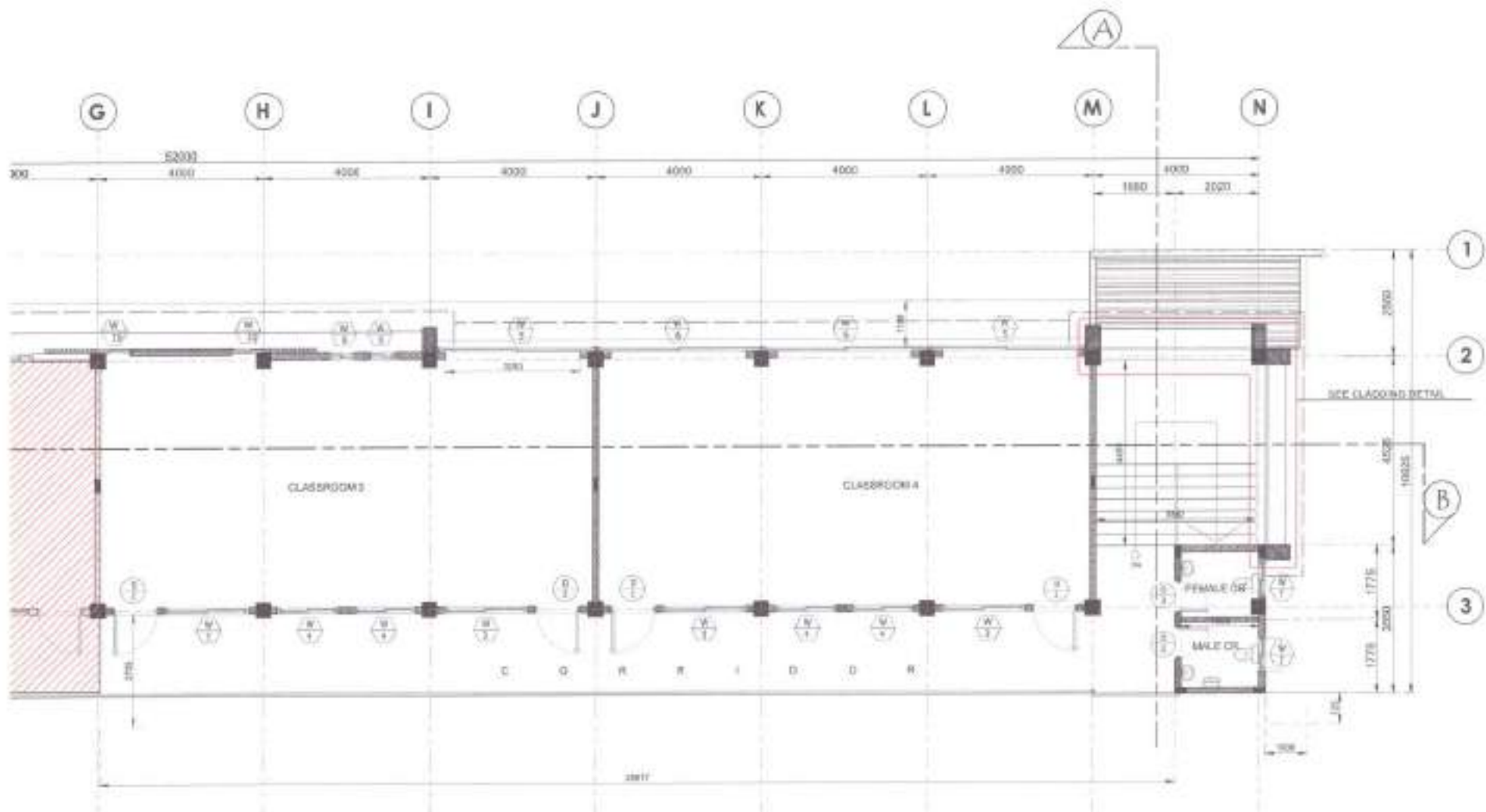

**GROUND FLOOR
BLOW UP PLAN**
 SCALE: 1/8" = 1'-0"

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PROJECT NO.: 1748-0174 DATE: 04/18/2018 PLACE OF SALE: DATE 01/08/2018	 COMPLETION OF BUSINESS STALLS & CLASSROOMS DELTA STATE UNIVERSITY, BIWAYI CAMPUS	NAME: RAMEL P. DELA ROSA DESIGN: DERMOTON VALDEZ	 CHELA S. RUBIO Civil, Mechanical  STEVEN R. WENZEL Design, PECC	 GERALD D. PEREZ Professional Engineer	 CARLOS PADI VP of Planning, Development and Construction System	 WILFREDO A. DURBALE, JR. University President	<div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;"> A-5 5 </div>



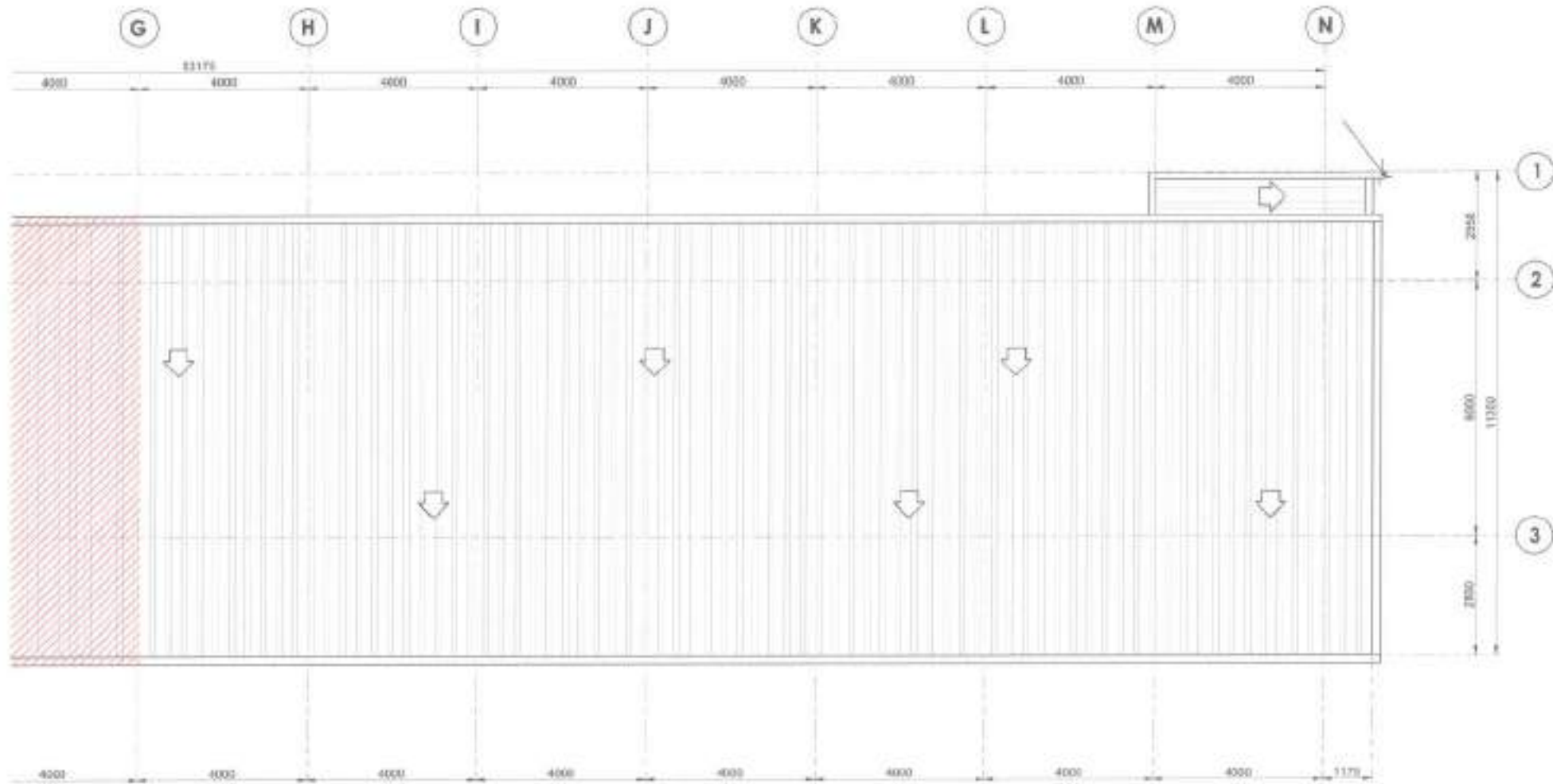
SECOND FLOOR PLAN
 SCALE: 1/8" = 1'-0"

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PREPARED BY: _____ DATE: _____ CHECKED BY: _____ DATE: _____ SEAL NO.: _____	 COMPLETION OF BUSINESS STALLS & CLASSROOMS <small>MARIKINA CITY GOVERNMENT, MARIKINA CITY</small>	RAMEL P. S. SUNDAM DESIGNER	 CHELA S. RUBIO <small>Project Architect</small> EDWIN S. WAMAL <small>Structural Engineer</small>	 GERALD P. PEREZ <small>Structural Engineer</small>	 CARLO F. VAIB <small>Professional Engineer</small>	 WILFREDO A. SUMALE, JR. <small>City Engineer</small>	 A-6 6



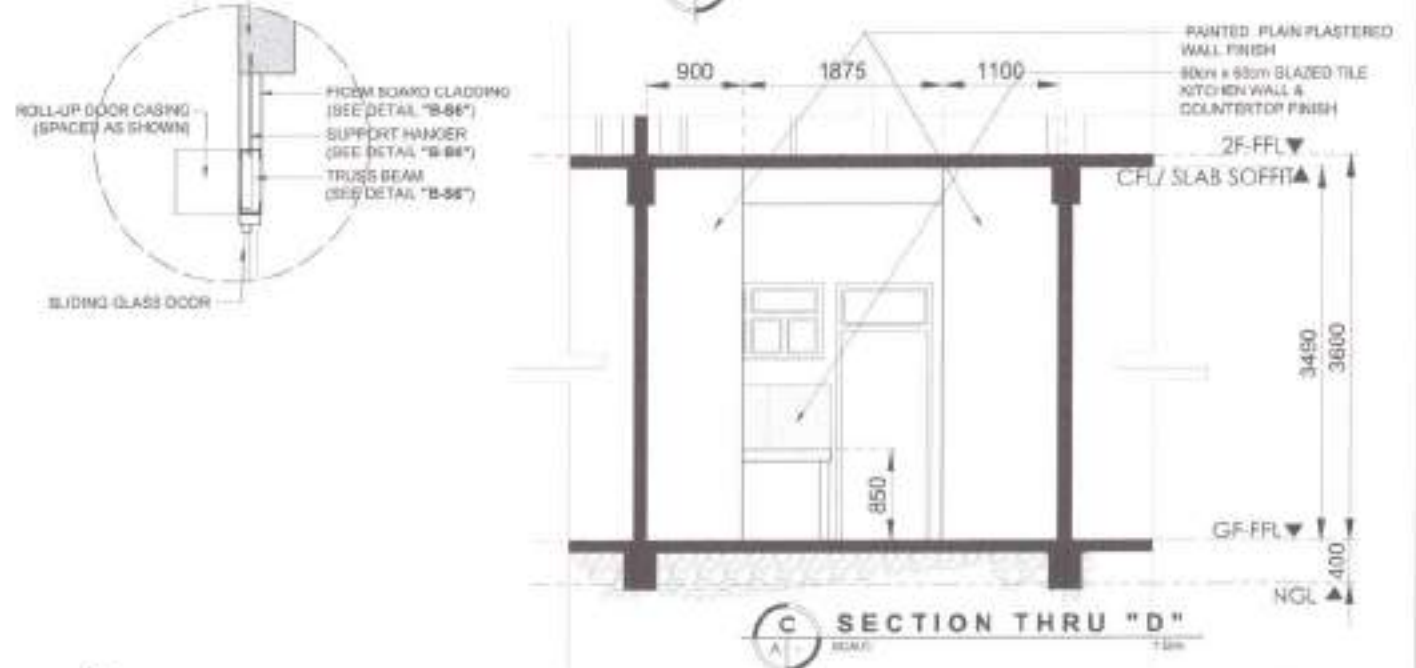
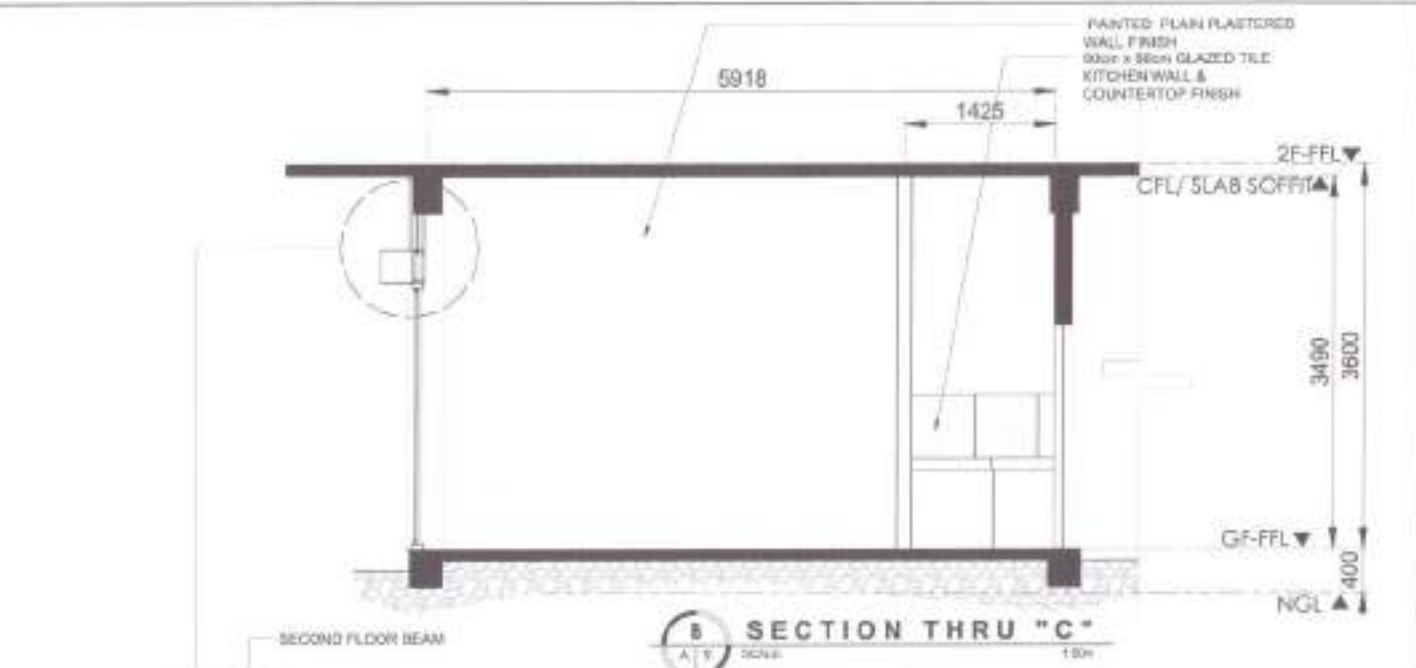
**SECOND FLOOR
BLOW UP PLAN**
 SCALE: 1/8" = 1'-0"

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PRC NO. _____ PTA NO. _____ SCALE OF SHEET _____ DATE _____	COMPLETION OF BUSINESS STALLS & CLASSROOMS <small>SOUTHERN ILLINOIS STATE UNIVERSITY, CARBONDALE</small>	RAMEL PABLO C. SINDRAM DENISE M. WILDER	GELSIA S. RUBIO <small>Principal Architect</small> EDNA M. CASAL <small>Structural Engineer</small>	DANILLO J. PEREZ <small>Civil Architect</small>	CARLO S. VADIL <small>UP of the Planning, Construction and Maintenance System</small>	WILFREDO A. DUMALE, JR. <small>University President</small>	<div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> A-7 7 </div>




ROOF PLAN
 SCALE: 1/8"=1'-0"

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PROJECT NO: 1040 ENR DATE: 11/19/2018 SCALE: 1/8"=1'-0"	 COMPLETION OF BUSINESS STALLS & CLASSROOMS <small>ALABANG VETERINARY STATE UNIVERSITY, BARANGAY LAKHANG, MARIKINA CITY</small>	BARCEL RANAL DOMINIC VALERIE	GEORGE S. RUILO EDWIN RANAL	RONALD L. PEREZ <small>REGISTERED ARCHITECT</small>	CARLOS VARELA <small>REGISTERED ARCHITECT</small>	WILFREDO A. DUMALE, JR. <small>REGISTERED ARCHITECT</small>	A-2 B



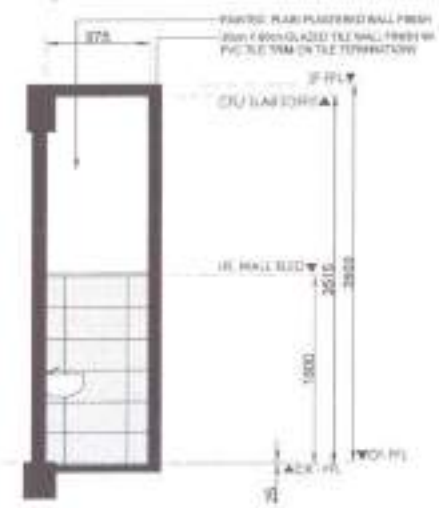
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PNO. NO. _____ PNO. DATE _____ PNO. OF SETS _____ DATE _____	 COMPLETION OF BUSINESS STALLS & CLASSROOMS NUEVA VIZCAYA STATE UNIVERSITY - BANGALIPALAN CAMPUS	RANIEL P. C. COMORAN GENERAL ENGINEER	 GERALD L. PINEDA CIVIL ENGINEER	 CARON V. MADRI CIVIL ENGINEER	 GERALD L. PINEDA CIVIL ENGINEER	 CARON V. MADRI CIVIL ENGINEER	 WILFREDO A. DIMALA, JR. UNIVERSITY PRESIDENT	A-9 9



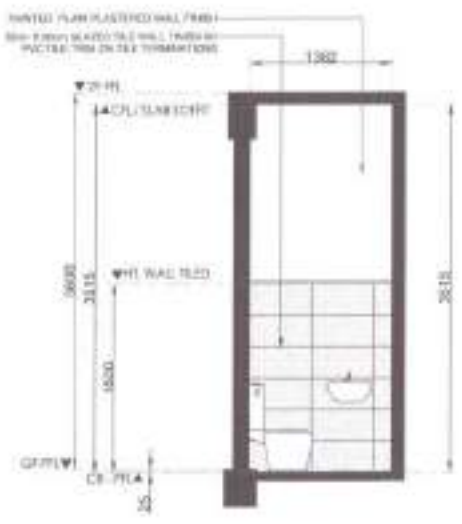
A ELEVATION "A"
A/10 SCALE



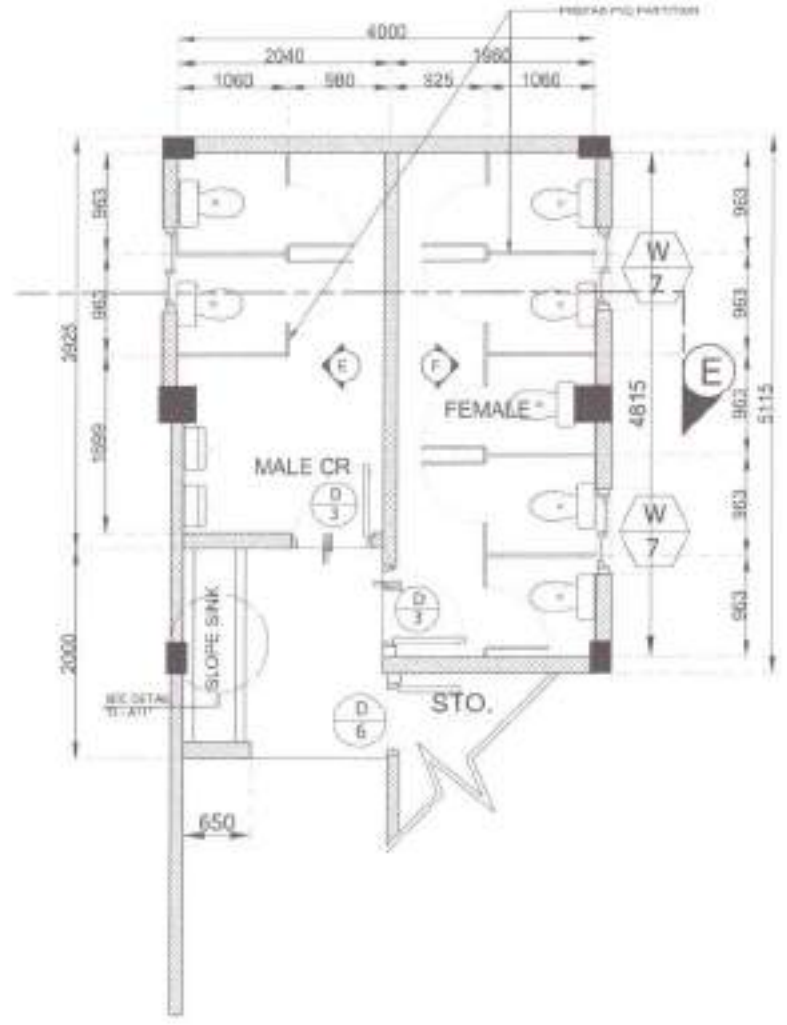
B ELEVATION "D"
A/10 SCALE



C ELEVATION "C"
A/10 SCALE

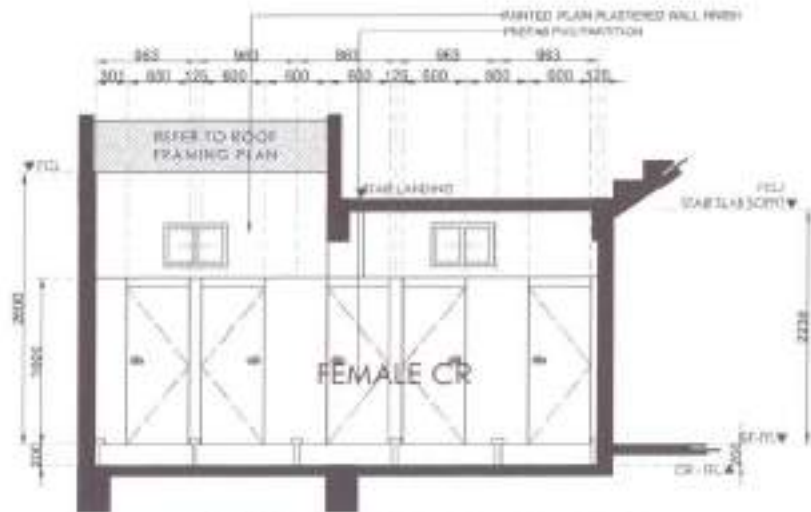


D ELEVATION "B"
A/10 SCALE



E BLOW-UP PLAN OF COMMON COMFORT ROOM
A/10 SCALE

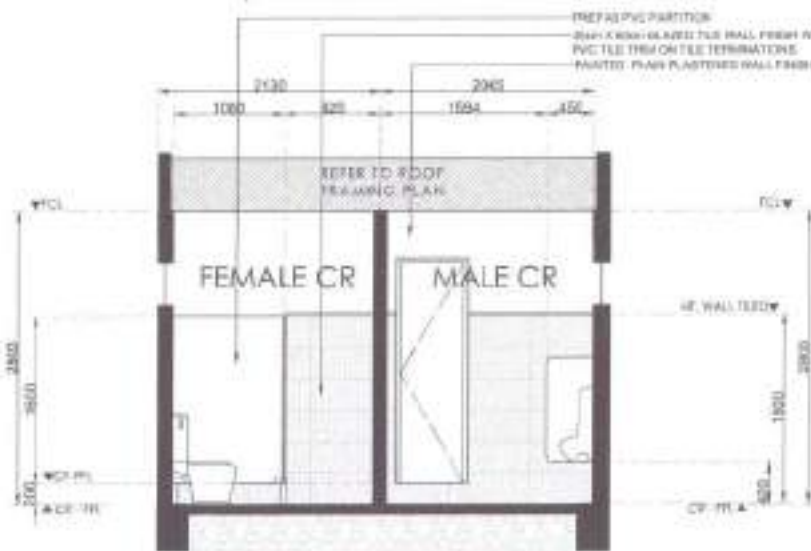
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	 <p>COMPLETION OF BUSINESS STALLS & CLASSROOMS</p> <p>MARINA VALDEA STATE UNIVERSITY, BUILDING 2, MARIKINA CITY</p>	<p>MARIELA C. GONZALEZ</p> <p>ENRILYN VALDEZ</p>	<p>ofredo DELA CRUZ</p> <p>Sarah BARRAL</p>	<p>GERALD L. PUECO</p>	<p>CARLOS YANE</p>	<p>MARIELA C. GONZALEZ</p>	<p>A-10</p> <p>10</p>



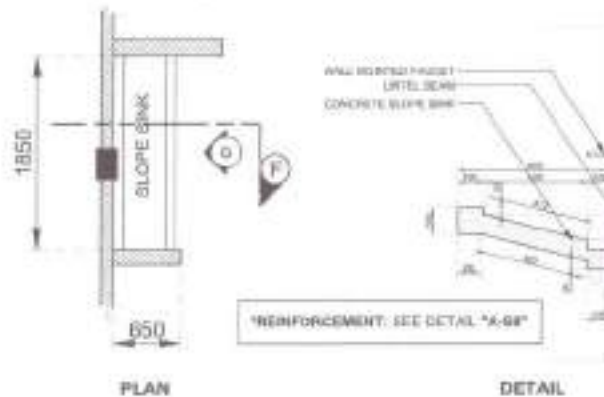
A ELEVATION "F"
SCALE: 1/8" = 1'-0"



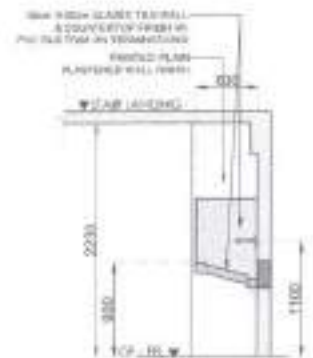
B ELEVATION "E"
SCALE: 1/8" = 1'-0"



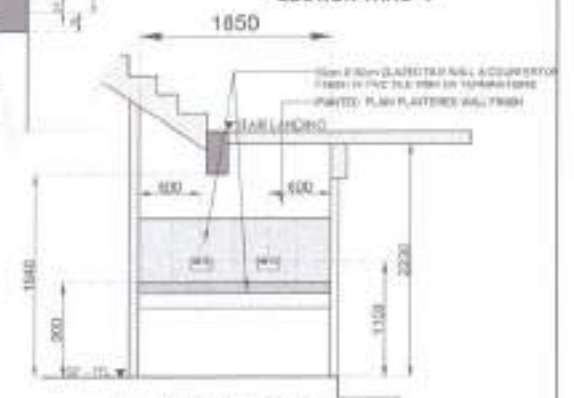
C SECTION THRU "E"
SCALE: 1/8" = 1'-0"



D SLOPE SINK DETAIL
SCALE: 1/8" = 1'-0"

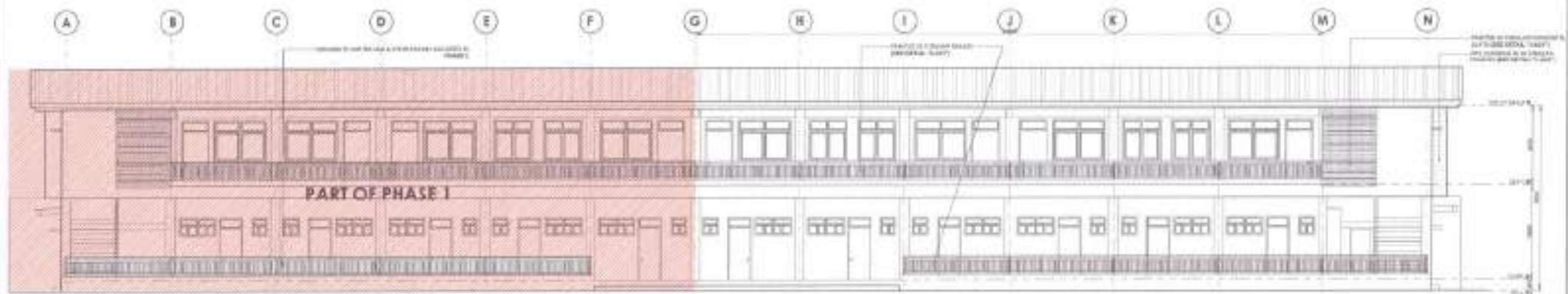


SECTION THRU "F"

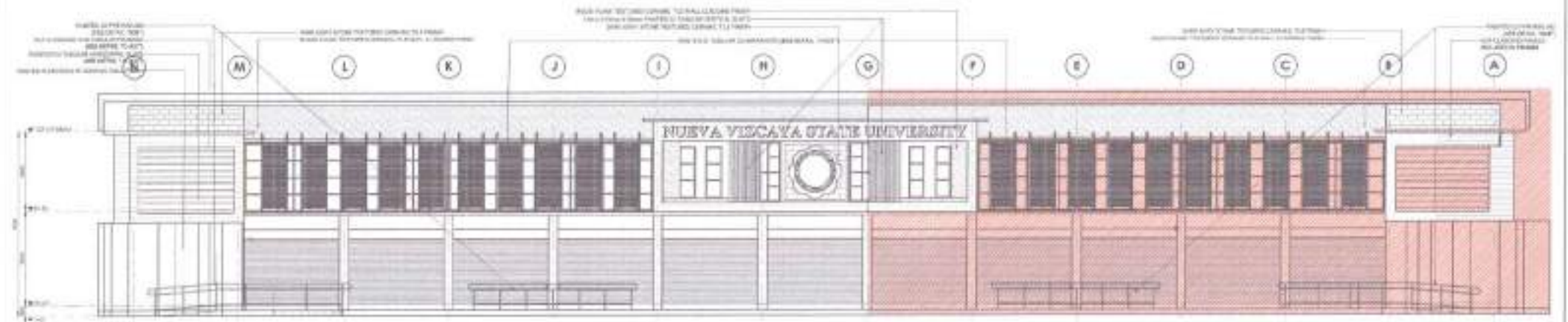


ELEVATION THRU "G"

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PROJECT NO: _____ P.T. NO: _____ PLANS OF THIS PROJECT: _____ DATE: _____	 COMPLETION OF BUSINESS STALLS & CLASSROOMS <small>DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION</small>	NAME: <i>DR. J. J. MURPHY</i> SIGNATURE: <i>[Signature]</i> TITLE: REGISTERED ARCHITECT	 GERALD L. PERNA <small>REGISTERED ARCHITECT</small>	 CARLOT YARE <small>REGISTERED ARCHITECT</small>	 ALFREDO A. DURALE, JR. <small>REGISTERED ARCHITECT</small>		A-11 11

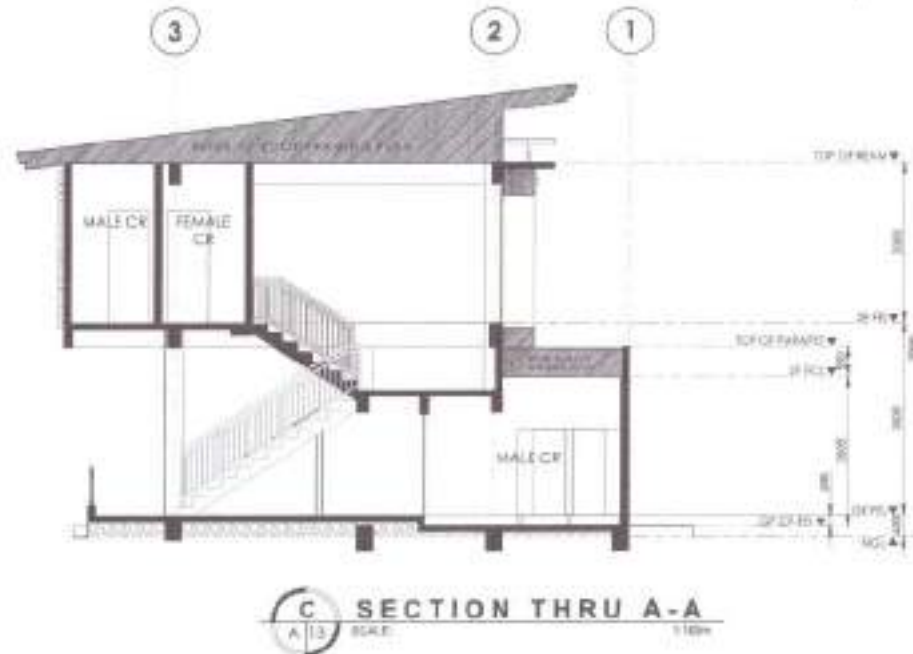
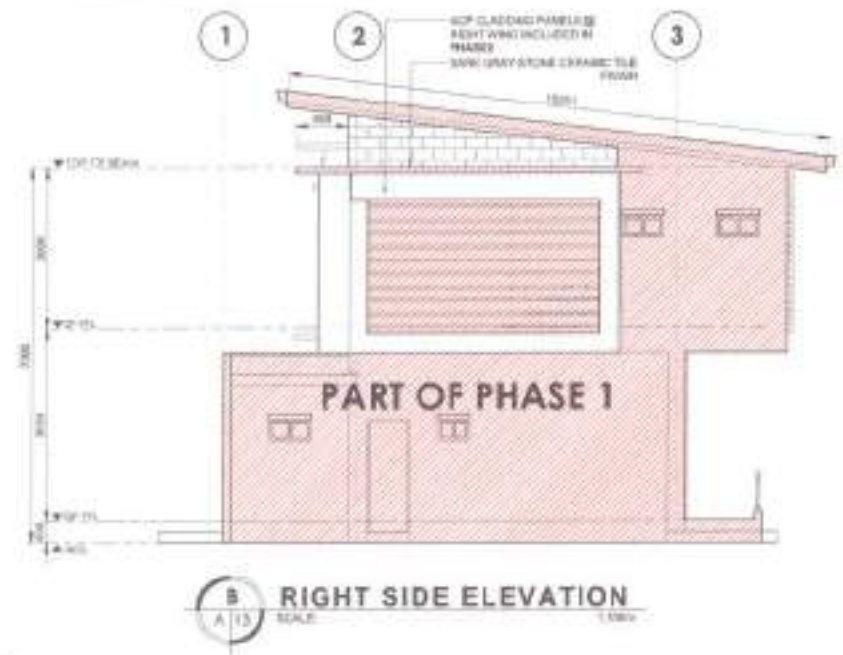
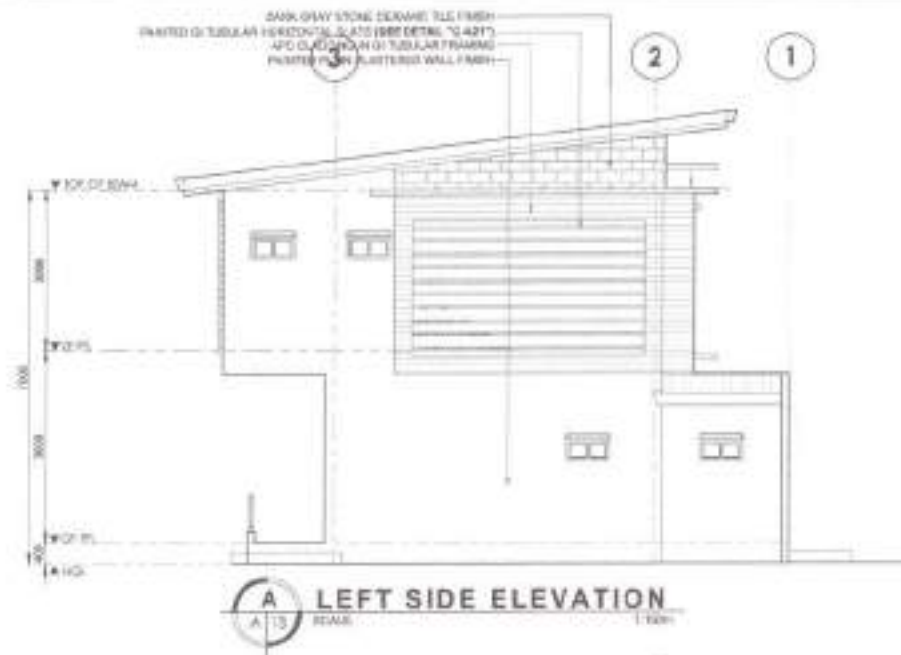


A REAR SIDE ELEVATION
SCALE 1:1000



B FRONT SIDE ELEVATION
SCALE 1:1000

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REG. NO. _____ DATE _____ PLACE OF SIGN. _____ DESIG. _____	 COMPLETION OF BUSINESS STALLS & CLASSROOMS NUOVA VISCAYA STATE UNIVERSITY, BARANGAY CANTON, ORIENTAL PANGASINAN	RANIEL M. DE GUARDIA ARCHITECT	 STELLA S. MUNDO ARCHITECT	 GERALD L. PEREZ ARCHITECT	 CARL O. VADIL ARCHITECT	 RAIMUNDO A. DIMALA, JR. UNIVERSITY PRESIDENT	A-12 12



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 DANIEL M. CARLEEZ ARCHITECT	 COMPLETION OF BUSINESS STALLS & CLASSROOMS UNIVERSITY OF THE PHILIPPINES - DILIMAN	 DANIEL M. CARLEEZ ARCHITECT	 DARIA B. TUMBOK ARCHITECT	 GENALD L. PEREZ ARCHITECT	 CARLO F. VANA ARCHITECT	 WILFREDO A. DUMAILE, JR. ARCHITECT	A-13 13



A SECTION THRU B-B
 A-14 SCALE: 1/8"=1'-0"

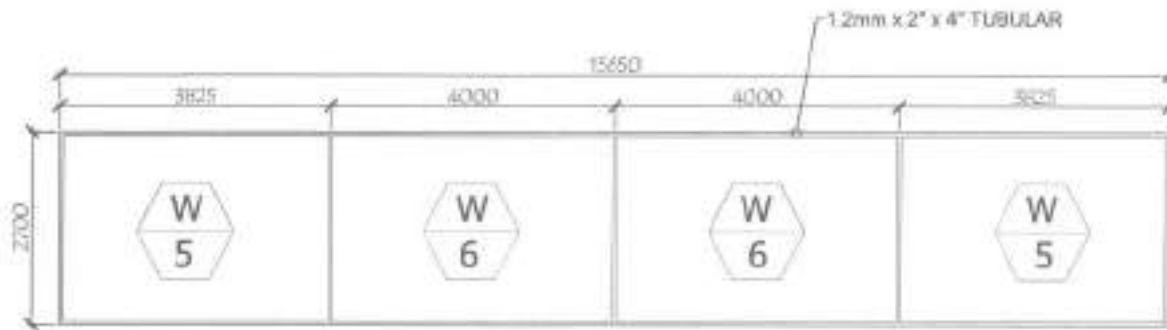
ELEVATION	DOOR 1	DOOR 2	DOOR 3	DOOR 4	DOOR 5
SPECIFICATION DOOR TYPE: WOODEN PANEL DOOR WITH FRAME, DOOR KNOB, TRANSOM, 1/2" THICK CLEAR GLASS AND ACCESSORIES DOOR SIZE (W x H) AS SHOWN NO. OF DOOR: 5 SETS D 1	DOOR TYPE: WOODEN PANEL DOOR WITH FRAME, DOOR KNOB, TRANSOM, 1/2" THICK CLEAR GLASS AND ACCESSORIES DOOR SIZE (W x H) AS SHOWN NO. OF DOOR: 4 SETS D 2	DOOR TYPE: PVC DOOR WITH FRAME AND ACCESSORIES DOOR SIZE (W x H) AS SHOWN NO. OF DOOR: 4 SETS D 3	DOOR TYPE: PVC DOOR WITH FRAME AND ACCESSORIES DOOR SIZE (W x H) AS SHOWN NO. OF DOOR: 2 SETS D 4	DOOR TYPE: WOODEN FLUSH DOOR WITH FRAME AND ACCESSORIES DOOR SIZE (W x H) AS SHOWN NO. OF DOOR: 1/2 D 5	

B SCHEDULE OF DOORS
 A-14 SCALE: 1/8"=1'-0"

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<small>PRL 002-001</small> <small>PRL 001-001</small> <small>PRL 001-002</small> <small>PRL 001-003</small>	COMPLETION OF BUSINESS STALLS & CLASSROOMS <small>ATENEDE MANILA STATE UNIVERSITY - MARICOR CAMPUS</small>	RAMEL MENDOZA-DANORAS <small>DESIGNER</small> GENIE S. WALDEZ <small>DESIGNER</small>	 OFELIA S. RUNDO <small>DESIGNER</small> EMMER DAVA <small>DESIGNER</small>	 GERARDO L. PEREZ <small>DESIGNER</small>	 CARLO F. VASS <small>VP Planning, Development and Construction</small>	 WILFREDO A. SUMALE, JR. <small>Principal Engineer</small>	A-14 14





ELEVATION	DOOR 6	DOOR 7	DOOR 8	DOOR 9
SPECIFICATION	DOOR TYPE: WOODEN FLUSH DOOR WITH FRAME AND ACCESSORIES DOOR SIZE (w x h) AS SHOWN NO. OF DOOR: 1 SET (D/6)	DOOR TYPE: WOODEN PANEL DOOR WITH FRAME DOOR KIND AND ACCESSORIES DOOR SIZE (w x h) AS SHOWN NO. OF DOOR: 1/4 (D/7)	DOOR TYPE: COMMERCIAL STEEL DOOR WITH STEEL FRAMED JAMB AND ACCESSORIES DOOR SIZE (w x h) AS SHOWN NO. OF DOOR: 1/4 (D/8)	DOOR TYPE: ALUMINUM FRAMED SLIDING GLASS DOOR W/ AWNING & FIXED WINDOWS & ACCESSORIES & W/ SAME-SIZE GLIDE-UP DOOR DOOR SIZE (w x h) AS SHOWN NO. OF DOOR: 6 SETS (D/9)

A SCHEDULE OF DOORS
 A-15 SCALE: 1/8" = 1'-0"



B WINDOW FRAME OF W5 & W6
 A-15 SCALE: 1/8" = 1'-0"

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 <small>PRC NO. 017 10/15/14 PRC NO. 1010 10/15/14 PLACE OF ISSUE: CBTI BANG DA. NO.</small>	 COMPLETION OF BUSINESS STALLS & CLASSROOMS <small>PLANNING DIVISION, CIVIL ENGINEERING DIVISION, NATIONAL CAPITAL DEVELOPMENT AUTHORITY</small>	 RABEL SAMSON QUIMRAN <small>DESIGNER</small> JHONNY BALDEZA <small>CHECKER</small>	 ORLINA S. RIANO <small>PROJECT MANAGER</small> EDMAR S. JERMAL <small>DESIGNER</small>	 GERALD T. PEARE <small>PROJECT MANAGER</small>	 CARLO T. WIDO <small>VP in Planning, Development and Information System</small>	 WENCESLAO A. DUMALE, JR. <small>Division President</small>	A-15 15

ELEVATION				
SPECIFICATION	<p>WINDOW TYPE: ALUMINUM FRAMED SLIDING WINDOW & ACCESSORIES</p> <p>WINDOW SIZE (w x H): AS SHOWN</p> <p>NO. OF WINDOW: 4 SETS</p> 	<p>WINDOW TYPE: ALUMINUM FRAMED SLIDING WINDOW & ACCESSORIES</p> <p>WINDOW SIZE (w x H): AS SHOWN</p> <p>NO. OF WINDOW: 2 SETS</p> 	<p>WINDOW TYPE: ALUMINUM FRAMED SLIDING WINDOW & ACCESSORIES</p> <p>WINDOW SIZE (w x H): AS SHOWN</p> <p>NO. OF WINDOW: 2 SETS</p> 	<p>WINDOW TYPE: ALUMINUM FRAMED SLIDING WINDOW & ACCESSORIES</p> <p>WINDOW SIZE (w x H): AS SHOWN</p> <p>NO. OF WINDOW: 4 SETS</p> 
WINDOW GRILL	<p>NO. OF WINDOW GRILL: 11 SETS</p>	<p>NO. OF WINDOW GRILL: 11 SETS</p>	<p>NO. OF WINDOW GRILL: 9 SETS</p>	<p>NO. OF WINDOW GRILL: 9 SETS</p>


SCHEDULE OF WINDOWS
 SCALE: 1:16

Note: Window Grills in Phase 1 include in Phase 2 (per Schedule of Windows)

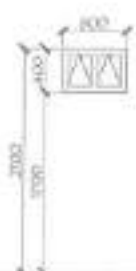





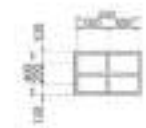
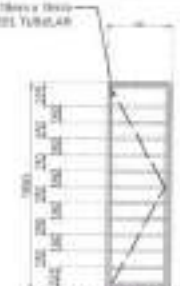

SIGNED AND SEALED BY:  <small>PRO. REG. NO. _____ SEAL DATE: _____ PTA NO. _____ VALID UNTIL: _____ PLACE OF ISSUE: _____ DATE ISSUED: _____ TITLE: _____</small>	PROJECT AND LOCATION  COMPLETION OF BUSINESS STALLS & CLASSROOMS <small>HO-SVA-02048 STATE WAREHOUSE, BARBERS POINT, TERRELL</small>	PREPARED BY: BARCEL PANGLOSS  DEBRA M. SALDICE	SUBMITTED BY:  DEBRA M. SALDICE EDWARD B. GILMAN	CONCURRED BY:  GERALD L. PERAZ	RECOMMENDING APPROVAL:  CARLO VASIL	APPROVED BY:  WENDEE A. DUMALE, JR.	SHEET NO.: 
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ELEVATION			
SPECIFICATION	<p>WINDOW TYPE: ALUMINIUM FRAMED AWNING WINDOW AND FIXED WINDOW & ACCESSORIES WINDOW SIZE (W x H) AS SHOWN NO. OF WINDOW: 3 SETS</p> <p style="text-align: center;">W 5</p>	<p>WINDOW TYPE: ALUMINIUM FRAMED AWNING WINDOW AND FIXED WINDOW & ACCESSORIES WINDOW SIZE (W x H) AS SHOWN NO. OF WINDOW: 3 SETS</p> <p style="text-align: center;">W 6</p>	<p>WINDOW TYPE: ALUMINIUM FRAMED AWNING WINDOW & ACCESSORIES WINDOW SIZE (W x H) AS SHOWN NO. OF WINDOW: 3 SETS</p> <p style="text-align: center;">W 7</p>
WINDOW GRILL	<p style="text-align: center;">NO. OF WINDOW GRILL: 4 SETS</p>	<p style="text-align: center;">NO. OF WINDOW GRILL: 6 SETS</p>	<p style="text-align: center;">NO. OF WINDOW GRILL: 10 SETS</p>


SCHEDULE OF WINDOWS
 SCALE: 1:200

Note: Window Grills of Phase 1 include in Phase 2 (refer Schedule of Windows)

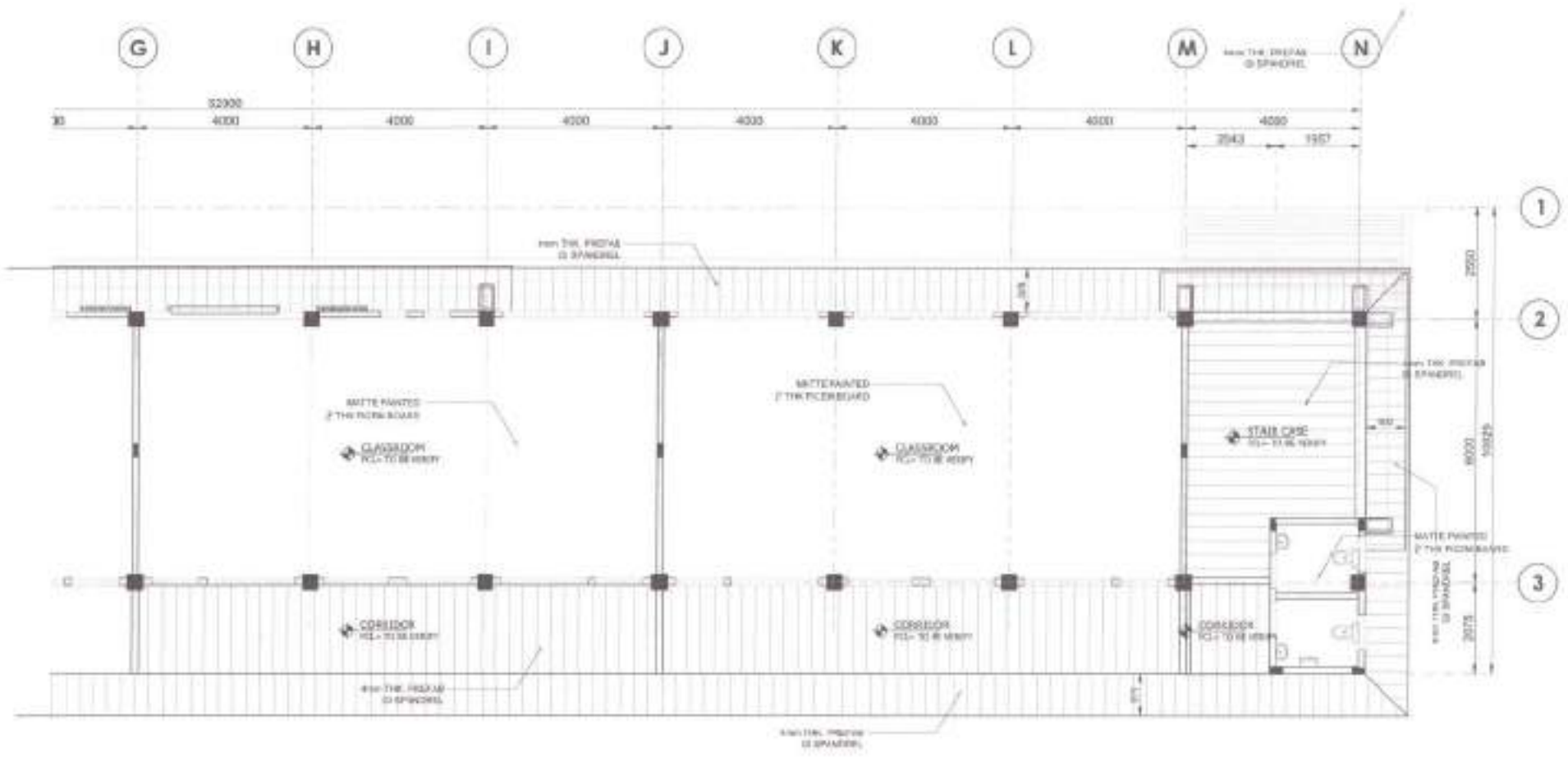
SIGNED AND SEALED BY: <small>PRC NO. / DATE / SLD DATE / PWD DATE / PLAT OF BSE / INT BSE / TRNG</small>	PROJECT AND LOCATION: COMPLETION OF BUSINESS STALLS & CLASSROOMS <small>NOIDA EDUCATION TRUST, NOIDA, UTTAR PRADESH</small>	PREPARED BY: RAMESH CHANDRA MISHRA <small>DESIGNER</small>	SUBMITTED BY: GEETA S. RANA <small>DESIGNER</small>	CONCURRED BY: GERALD L. PEREZ <small>DESIGNER</small>	RECOMMENDING APPROVAL: CHANDAN VAID <small>OFFICE IN CHARGE, ARCHITECT AND STRUCTURE ENGINEER</small>	APPROVED BY: VINOD K. DIMALA <small>STRUCTURE ENGINEER</small>	SHEET NO: <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> A-17 17 </div>
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ELEVATION			
SPECIFICATION	<p>WINDOW TYPE: ALUMINUM FRAMED AWNING WINDOW & ACCESSORIES</p> <p>WINDOW SIZE (W x H) AS SHOWN</p> <p>NO. OF WINDOW: 4 SETS</p> 	<p>WINDOW TYPE: ALUMINUM FRAMED AWNING WINDOW & ACCESSORIES</p> <p>WINDOW SIZE (W x H) AS SHOWN</p> <p>NO. OF WINDOW: 2 SETS</p> 	<p>WINDOW TYPE: ALUMINUM FRAME CAMBMENT WINDOW with STEEL GRILLS</p> <p>WINDOW SIZE (W x H) AS SHOWN</p> <p>NO. OF WINDOW: 2 SETS</p> 
WINDOW GRILL	 <p>NO. OF WINDOW GRILL: 1 SETS</p>	<p>1 Meter x 1 Meter x 10mm PAINTED STEEL TUBULAR</p>  <p>NO. OF WINDOW GRILL: 4 SETS</p>	<p>1 Meter x 1 Meter x 10mm PAINTED STEEL TUBULAR</p>  <p>NO. OF WINDOW GRILL: 2 SETS</p>

Note: Window Grills in Phase 1 include in Phase 2 (see Schedule of Windows)

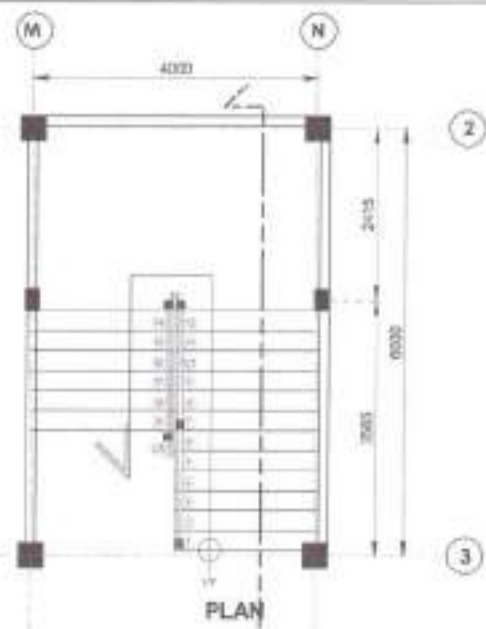

SCHEDULE OF WINDOWS

SIGNED AND SEALED BY: 	PROJECT AND LOCATION  COMPLETION OF BUSINESS STALLS & CLASSROOMS NUEVA VIZCAYA STATE UNIVERSITY, MARBAGUO CAMPUS	PREPARED BY:  RANEE ANGELO G. OSORIO JENNY RITA G. VALDEZ	SUBMITTED BY:  ODELIA RIBO JENNY RITA G. VALDEZ	CONCURRED BY:  GERALD L. PEREZ Campus Administrator	RECOMMENDING APPROVAL:  CARLOS VAGIL UP for Business Development and Innovation System	APPROVED BY:  WILSONIC A. DUBALE, JR. Licensed Architect	SHEET NO. 
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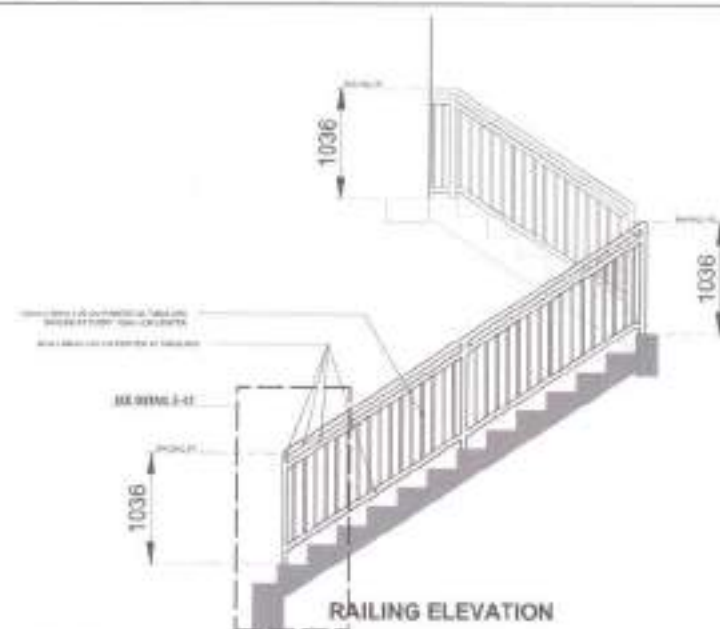


A-19
CEILING PLAN
 SCALE: 1/8"=1'-0"

SIGNED AND SEALED BY:	PROJECT AND LOCATION:	PREPARED BY:	SUBMITTED BY:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO:
<small> REG. NO. _____ P.E. NO. _____ PLACE OF BIRTH _____ DATE BORN _____ SEX _____ </small>	COMPLETION OF BUSINESS STALLS & CLASSROOMS <small>SOUTH WESTERN STATE UNIVERSITY, BARKER CAMPUS</small>	RANIEL FERRER, GENERAL ENGINEER <small>REGISTERED PROFESSIONAL ENGINEER</small>	 OPELIA S. RUBIO <small>Chief Architect</small>	 BERNARD L. PESERA <small>Chief Architect</small>	 CANDY VADA <small>VP of Planning and Development, Southwestern State University</small>	 ALFREDO S. DUMALE, JR. <small>University President</small>	A-19 19

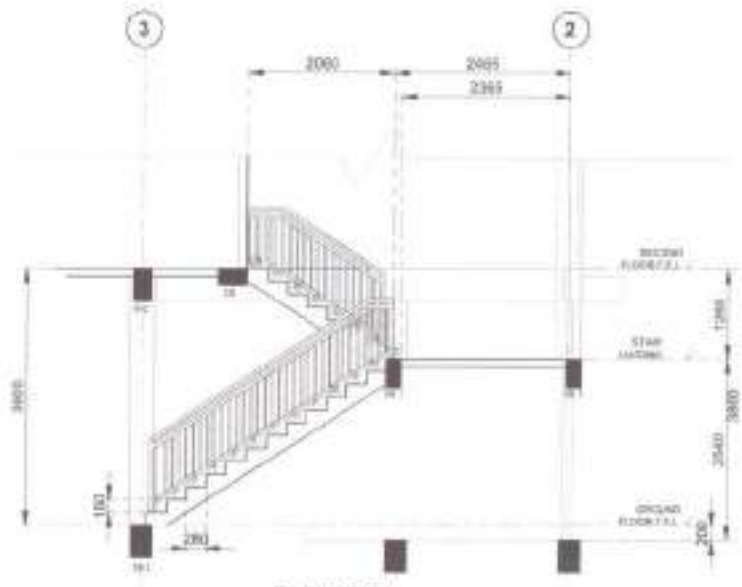


PLAN



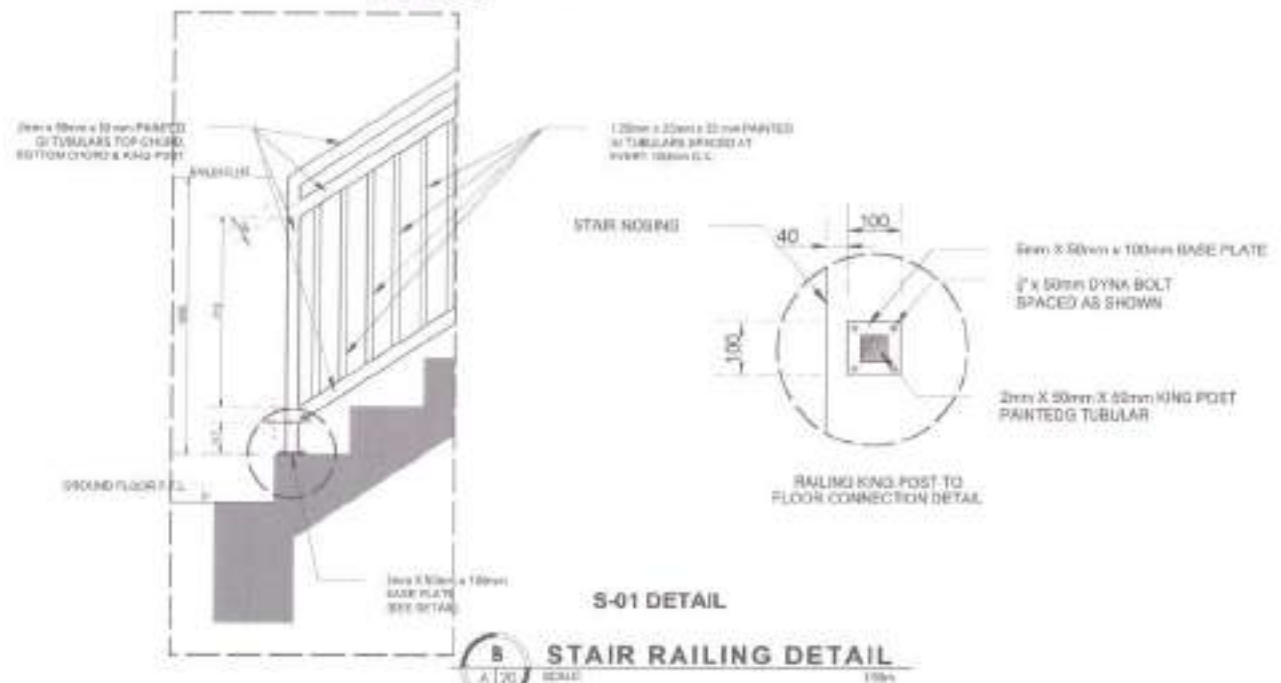
RAILING ELEVATION

Note: Stair Railing and Ground Floor Railing in Plans 1 include in Phase 2.
 (Refer to Note 10.22 & 10.23)



ELEVATION

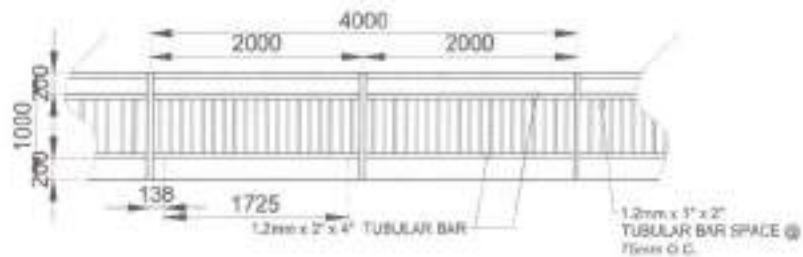
A STAIR DETAIL
 1/20 SCALE



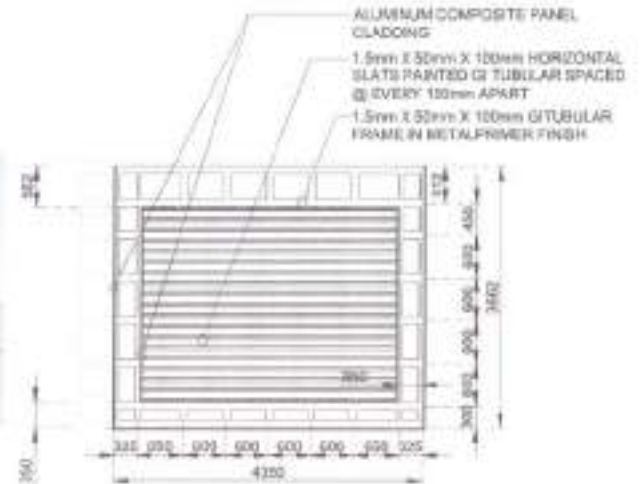
S-01 DETAIL

B STAIR RAILING DETAIL
 1/20 SCALE

SIGNED AND SEALED BY:	PROJECT AND LOCATION:	PREPARED BY:	SUBMITTED BY:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO.	
PRC: [Signature] PTL: [Signature] PLG: [Signature]	 COMPLETION OF BUSINESS STALLS & CLASSROOMS SULTAN KUDAT STATE UNIVERSITY, SAMPANG CAMPUS	RABEL RABALA SIBERAN ENGR. RYAN BALOGZ	 ORELIA S. RUBIO Civil Engineer	 EDWIN AMAL Civil Engineer	 RICARDO L. PERALTA Civil Engineer	 CARLO P. VADA Head of Department Development and Safety Services	 WILFREDO A. DUMALE, JR. University President	

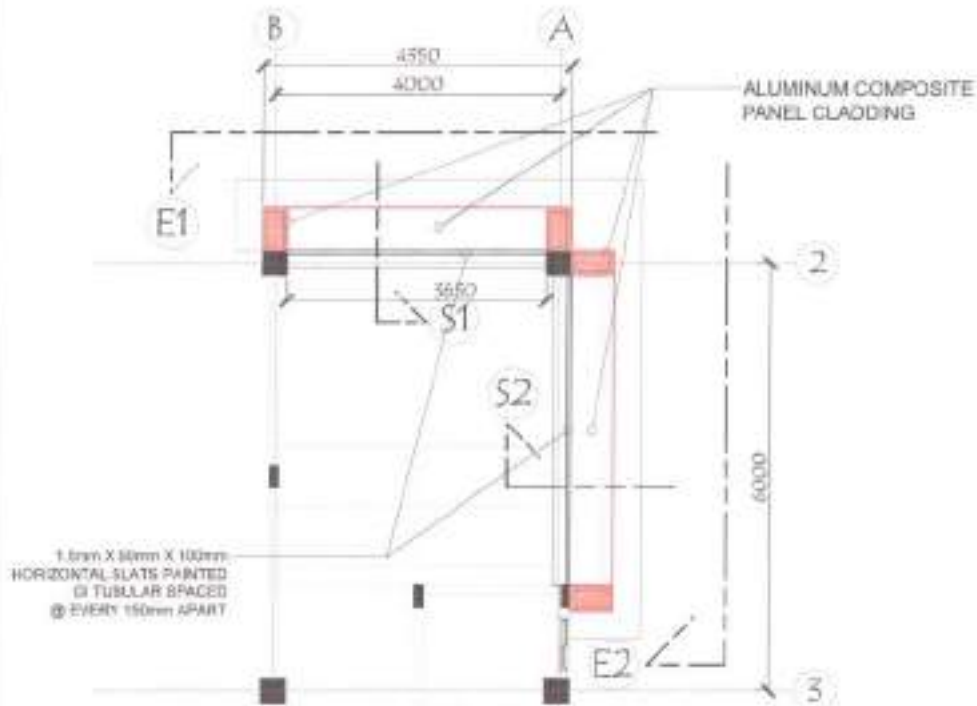


A CORRIDOR RAILING DETAIL
SCALE: 1/8" = 1'-0"

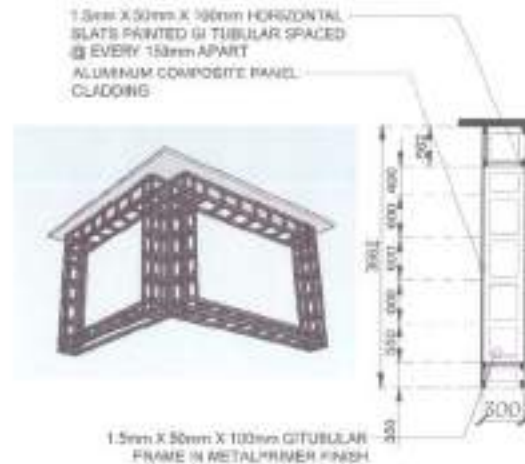


B ELEVATION THRU "E1"
SCALE: 1/8" = 1'-0"

Note: Quantity of ACP Panel in Phase 1 include in Phase 2
(Similar Quantity & Detail of Phase 2)



C FALSE COLUMN AT SIDE PLAN
SCALE: 1/8" = 1'-0"

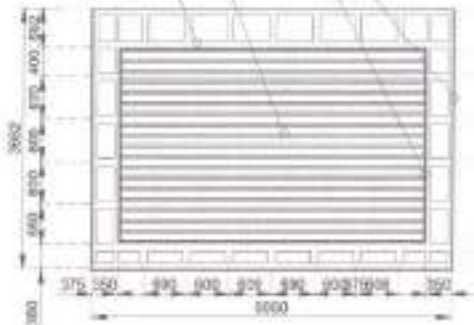


D SECTION THRU "S1"
SCALE: 1/8" = 1'-0"

SIGNED AND SEALED BY:	PROJECT AND LOCATION	PREPARED BY:	SUBMITTED BY:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO.:
PRC NO. _____ PFS NO. _____ PLACE OF ISSUE _____ DATE _____ TITLE _____	 COMPLETION OF BUSINESS STALLS & CLASSROOMS NEW VIRGINIA STATE UNIVERSITY - SALEM CAMPUS	BAREL P. A. C. TORRES DESIGNER UNIVERSITY COLLEGE	 CARLOS E. RIANO OWNER	 GERALD L. PEREZ CIVIL ARCHITECT	 CARL G. F. VADI ARCHITECT	 WILFREDO A. DUMALA, JR. UNIVERSITY PRESIDENT	A-21 21

ALUMINUM COMPOSITE PANEL CLADDING

1.5mm X 50mm X 100mm HORIZONTAL
SLATS PAINTED & TUBULAR
SPACED @ EVERY 50mm APART
1.5mm X 50mm X 100mm GUTTULAR
FRAME IN METALPRIMER FINISH



A ELEVATION THRU "E2"
SCALE: 1/20

Note: Quantity of ACP Panel in Phase 1 include in Phase 1
(Similar Quantity & Detail of Phase 2)

ALUMINUM COMPOSITE PANEL CLADDING

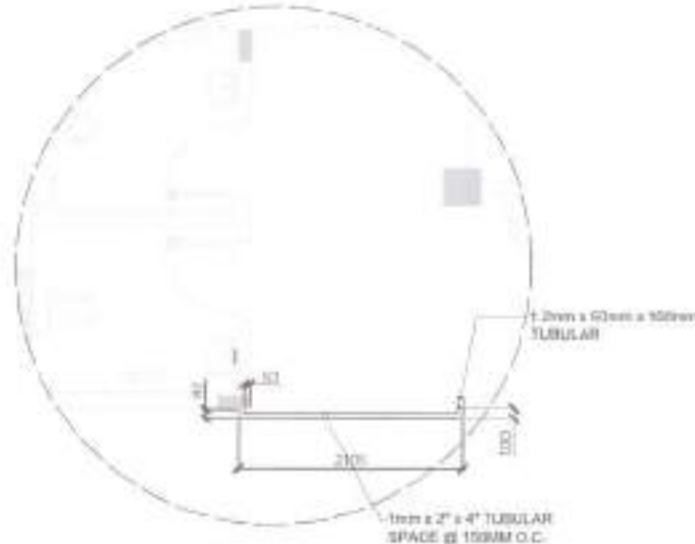
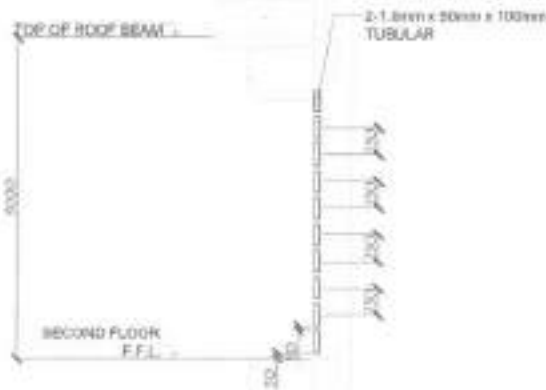
1.5mm X 50mm X 100mm HORIZONTAL
SLATS PAINTED & TUBULAR SPACED
@ EVERY 150mm APART



1.5mm X 50mm X 100mm GUTTULAR
FRAME IN METALPRIMER FINISH



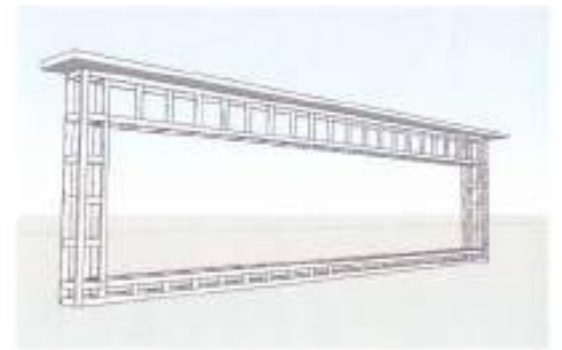
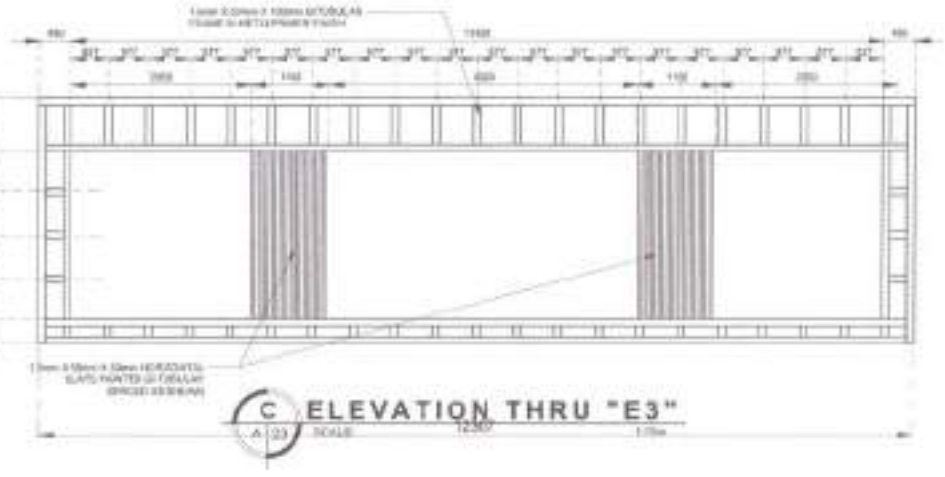
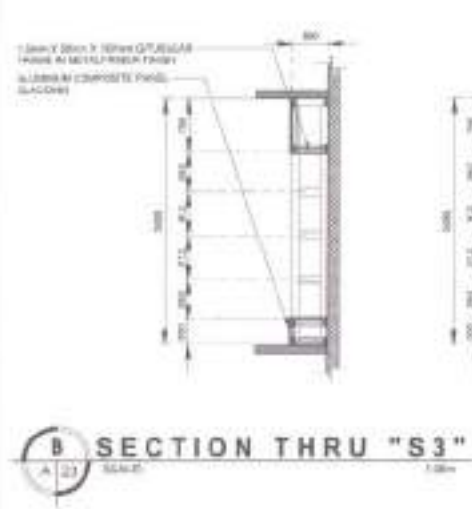
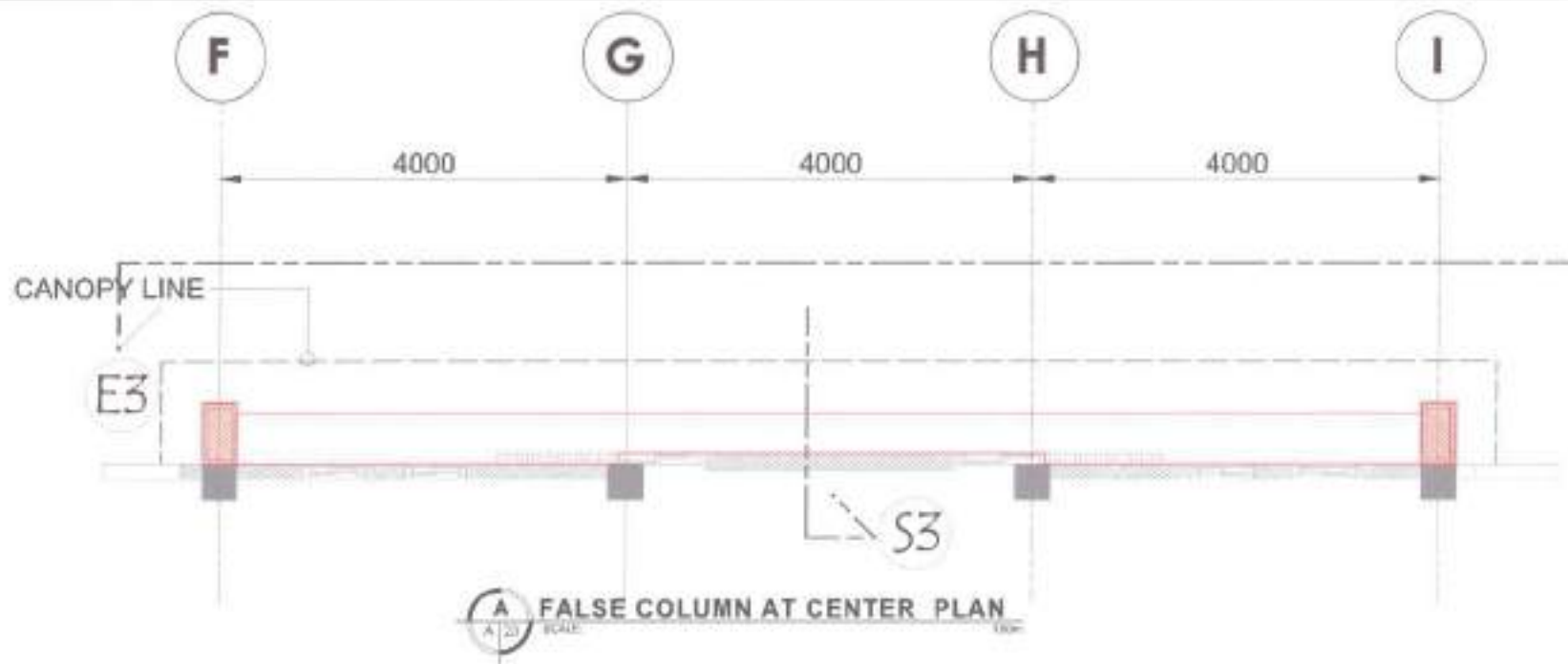
B SECTION THRU "S2"
SCALE: 1/20



C TUBULAR DETAIL @ CORRIDOR
SCALE: 1/20



SIGNED AND SEALED BY:	PROJECT AND LOCATION:	PREPARED BY:	SUBMITTED BY:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO:
<p>PRC REG. NO. _____ VALID UNTIL _____</p> <p>PTS. ACQ. _____ VALID UNTIL _____</p> <p>PLACE OF BIRTH _____ DATE BIRTH _____</p> <p>SEX: _____</p>	 <p>COMPLETION OF BUSINESS STALLS & CLASSROOMS</p> <p>KARNATAKA STATE GOVERNMENT - BANGALORE DISTRICT</p>	<p>DANIEL RAJESH C. GONDAR</p> <p>GEORGE S. V. KALDEE</p>	<p>DEEPA S. WINDU</p> <p>REKHA S. SURESH</p>	<p>SHRINATH S. SURESH</p>	<p>CAN. DR. RAMESH</p> <p>Officer in Charge, Transformation and Digitization System</p>	<p>MA. NEEDA A. SIMALA, B.E.</p> <p>Drawing Profession</p>	<p>A-22 22</p>



SIGNED AND SEALED BY:	PROJECT AND LOCATION:	PREPARED BY:	SUBMITTED BY:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO.:
PNC REG. NO. _____ PNL NO. _____ PLACE OF ISSUE _____ DATE _____	 COMPLETION OF BUSINESS STALLS & CLASSROOMS NEVADA STATE UNIVERSITY, SPANISH SPRINGS	RANIEL PARRA, ARCHITECT DENISE M. VALDEZ, ARCHITECT	 DESHA S. RUBIO, ARCHITECT  EDWIN B. KINNEL, ARCHITECT	 GERALD L. PEREZ, CIVIL ENGINEER	 CARL O. VADI, DEPUTY CHIEF OF POLICE	 WILFREDO A. DIMALA, JR., ARCHITECT	A-23 23

GENERAL CONSTRUCTION NOTES

GENERAL NOTES

1. STANDARDS AND REFERENCES

THE FOLLOWING SHALL GOVERN THE DESIGN FABRICATION AND CONSTRUCTION OF THE PROJECT
 1.1 NATIONAL STRUCTURAL CODE OF THE PHILIPPINES (N.S.C.P. 2015) VOL. 1, SEVENTH EDITION.

2. DESIGN CRITERIA

2.1 LOADINGS	
A. DEAD LOAD	
CONCRETE	25 kN/m ²
STEEL	78.50 kN/m ²
100mm THK. CHB WALL	2.75 kPa
100mm THK. CHB WALL	2.11 kPa

B. LIVE LOAD	
ROOF	1.50 kPa
CLASSROOMS	1.80 kPa
TOILETS	1.80 kPa
CORRIDORS ABOVE STAIRS	3.80 kPa
CORRIDORS ON GROUND	4.80 kPa

C. WIND LOAD	
BUILDING CATEGORY = I (ESSENTIAL FACILITIES)	
EXPOSURE CAT	OPTION 1 FLAT UNOBSTRUCTED AREAS AND/OR NEAR SCENES OF VARIETY 17-180 KM/H OR OPTION 2 URBAN OR SUBURBAN AREAS WITH NUMEROUS TO CLOSELY SPACED OBSTRUCTIONS 140 KM/H
WIND VELOCITY	$V = Kz(Cd)(Vb)(I)$ (SEE WIND PRESSURE)

WHERE: V = WIND VELOCITY PRESSURE (MPH)

Kz = EXPOSURE COEFFICIENT

Cd = WIND PRESSURE COEFFICIENT

Vb = BASIC WIND VELOCITY

I = IMPORTANCE FACTOR

Kz = EXPOSURE COEFFICIENT

Cd = WIND PRESSURE COEFFICIENT

Vb = BASIC WIND VELOCITY

I = IMPORTANCE FACTOR

Kz = EXPOSURE COEFFICIENT

Cd = WIND PRESSURE COEFFICIENT

Vb = BASIC WIND VELOCITY

I = IMPORTANCE FACTOR

Kz = EXPOSURE COEFFICIENT

Cd = WIND PRESSURE COEFFICIENT

Vb = BASIC WIND VELOCITY

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Cd = WIND PRESSURE COEFFICIENT

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Kz = EXPOSURE COEFFICIENT

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Cd = WIND PRESSURE COEFFICIENT

Vb = BASIC WIND VELOCITY

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Kz = EXPOSURE COEFFICIENT

Cd = WIND PRESSURE COEFFICIENT

Vb = BASIC WIND VELOCITY

I = IMPORTANCE FACTOR

Kz = EXPOSURE COEFFICIENT

Cd = WIND PRESSURE COEFFICIENT

Vb = BASIC WIND VELOCITY

I = IMPORTANCE FACTOR

NOTES ON CONCRETE MIXES & PLACING

- ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH AT THE END OF TWENTY (20) DAYS.
DATE OF CORRESPONDING WORKMAN SIZE AGGREGATE & SLAB AS FOLLOWS:

LOCATION	28 DAYS STRENGTH	MIN. SORT OF AGGREGATE	MIN. SLAB
ALL OTHERS INCLUDING SUSPENDED SLAB	4000 PSI (27.6 MPa)	20 mm	100mm
COLUMN	4000 PSI (27.6 MPa)	20mm	100mm
BEAM	4000 PSI (27.6 MPa)	20mm	100mm
SLAB ON FILL	3000 PSI (21.0 MPa)	20mm	100mm

- MAINTAIN MINIMUM CONCRETE COVER FOR REINFORCING STEEL AS FOLLOWS:
SUSPENDED SLAB: -20mm
SLAB ON GRADE: -40mm
WALLS ABOVE THE GRADE: -20mm
BEAM STRUTS AND COLUMN TIES WHERE CONCRETE IS EXPOSED TO ENVIRONMENT: -40mm
WHERE CONCRETE IS DEPOSITED DIRECTLY AGAINST EARTH: -100mm
- CONCRETE SHALL BE DEPOSITED IN ITS FINAL POSITION WITHOUT SEGREGATION. BE AMBLED OR PLACING SHALL BE DONE PREPARABLY WITH DROGGERS, BUCKETS OR WHEEL BARROWS. NO CHUTES WILL BE ALLOWED EXCEPT TO TRANSFER CONCRETE FROM MIXERS TO SCAFFOLD. IN SCAFFOLDING OR SUPPORTS APPROXIMATE CASE THEY SHALL NOT EXCEED 60% OF THE STRENGTH IN AGGREGATE LENGTH.
- NO SUPPORTS OF CONCRETE SHALL BE ALLOWED WITHOUT THE USE OF UNIFORM UNLESS AUTHORIZED IN WRITING DESIGNER AND ONLY FOR PERMISSIBLE CONDITIONS. WORKMAN SHALL BE EXTREMELY CAREFUL TO ACCOMPLISH.
- ALL ANCHOR BOLTS, STAYS, AND OTHER DEVICES SHALL BE PROPERLY POSITIONED AS REQUIRED IN PLACE PRIOR TO PLACING OF CONCRETE.
- ALL CONTRACTORS SHALL VERIFY MOST FOR A MINIMUM OF 28 DAYS COMpressive STRENGTH IMMEDIATELY AFTER POURING BY THE USE OF TEST SLABS, TOO SPANNING, CURING SCHEDULES OF OTHER APPROVED METHODS.
- STARTING OF FORMS AND SHOES FOUNDATION: -24 HOURS
SUSPENDED SLAB EXCEPT WHEN FOOTING LOADS ARE IMPOSED: -8 DAYS
WALLS: -12 DAYS
BEAMS: -14 DAYS
COLUMNS: -14 DAYS
- THE CONTRACTOR SHALL SUBMIT THE SCHEDULE OF WORKING AND THE LOCATION OF THE CONSTRUCTION JOBS TO THE STRUCTURAL ENGINEER AT LEAST 14 DAYS PRIOR TO THE POURING FOR APPROVAL.
- THE CONTRACTOR SHALL TURNISH AND MAINTAIN SUFFICIENT FORMS AND SHORES UNTIL THE CONCRETE MEMBERS HAVE ATTAINED THEIR DESIGN COMpressive STRENGTH.

NOTES ON FOOTINGS

- FOOTINGS ARE DESIGNED FOR AN ALLOWABLE SOLE BEARING PRESSURE OF 15000 PSF. THE CONTRACTOR SHALL REPORT TO THE ENGINEER IN WRITING THE ACTUAL SOLE BEARING PRESSURE AND COMPARE WITH THE ALLOWABLE SOLE BEARING PRESSURE. DEPOSITING CONCRETE.
- FOOTINGS SHALL REST AT LEAST 100MM BELOW THE FINISH GRADE LINE. WHERE OTHERS INDICATED IN PLANS, NO FOOTING SHALL REST ON FILL.
- MINIMUM CONCRETE PROTECTION FOR REINFORCING STEEL SHALL BE 25MM FOR CLEAR CONCRETE DEPOSITED ON GROUND AND 50MM FOR CONCRETE DEPOSITED AGAINST FORMWORK.
- IN CASES WHERE THE SOLE CONDITION IS SUCH THAT THE MINIMUM ALLOWABLE SOLE BEARING PRESSURE OF 15000 PSF CAN NOT BE ATTAINED AT A PRACTICAL DEPTH, THE USE OF MORTAR BEDS, FILL OR OTHER MEASURES MAY BE ADOPTED IN LIEU OF STRAINED BEARING FOOTINGS.

NOTES ON REINFORCEMENT

- UNLESS OTHERWISE NOTED IN PLANS, THE YIELD STRENGTH OF REINFORCING BARS SHALL BE:
 - A. FOOTINGS, FOOTING BEAMS AND GIRDERS: $f_y = 275 \text{ MPa (40,000 psi)}$
 - B. COLUMNS AND BEAM WALLS: $f_y = 275 \text{ MPa (40,000 psi)}$
 - C. BEAMS AND GIRDERS: $f_y = 275 \text{ MPa (40,000 psi)}$
 - D. PERMISSIBLE BEARING WALL PARTITIONS, BESSID SLAB FLOOR & ROOF SLABS, HANGERS, HATCH BARS, SEE PLAN: $f_y = 275 \text{ MPa (40,000 psi)}$
- CUT OFF BARS WILL BE MINIMUM OF 1/4
- SPICES SHALL BE SECURELY WELDED TOGETHER & SHALL LAP UP OR OFFEND IN ACCORDANCE WITH TABLE 5 (TABLE OF LAP SPLICES & END-COVER LENGTH) UNLESS OTHERWISE SHOWN ON DRAWINGS. SPLICES SHALL BE STaggered ALTERNATELY POSSIBLE.

NOTES ON CONCRETE SLABS

- ALL SLAB REINFORCEMENT SHALL BE 20mm CLEAR MINIMUM FROM BOTTOM AND FROM THE TOP OF SLAB.
- IF SLABS ARE REINFORCED BOTHWAYS, BARS ALONG THE SHORTER SPAN SHALL BE PLACED BELOW THOSE ALONG THE LONGER SPAN AT THE CENTER AND OVER THE LONGER SPAN FOR REINFORCED BARS NEAR THE SUPPORTS. THE SPACING OF THE BARS AT THE COLUMN LINE SHALL NOT BE MORE THAN ONE AND A HALF SLAB THICKNESS.

- INSTEAD OF REINFORCEMENT IN THE PLANS ALL SLAB ON GRADE SHALL BE REINFORCED WITH 10mm @ 475mm @ C/C.

NOTES ON COLUMNS

- PROVIDE SECTION SET UP FOR THE COLUMN REINFORCEMENT ABOVE AND BELOW BEAM COLUMN CONNECTIONS.
- COLUMNS SHALL BE PROTECTED EVERYWHERE BY A COVERING OF CONCRETE CAST MONOLITHICALLY WITH THE CORE WITH A MINIMUM THICKNESS OF 50MM AND NOT LESS THAN AT LEAST THE MINIMUM THICKNESS OF COLUMN REINFORCEMENT.
- WHERE COLUMNS CHANGE IN SIZE VERTICAL REINFORCEMENT SHALL BE OFFSET FROM THE SMALLER COLUMN SIZE TO MAINTAIN THE VERTICAL REINFORCEMENT WILL BE BARS LAPPED OTHERWISE INDICATED IN THE PLANS. LAP SPLICES FOR VERTICAL COLUMN REINFORCEMENT SHALL BE MADE WITHIN THE CENTER HALF OF COLUMN HEIGHT. AND THE SPLICE LENGTH SHALL BE LESS THAN 4 TIMES BAR DIAMETER.

NOTES ON BEAMS AND GIRDERS

- WHERE OTHERWISE NOTED IN PLANS, GANTRY ALL BEAMS AND GIRDERS AT LEAST 300mm FOR EVERY 4% OF SPAN. EXCEPT CASES WHERE FOR WHICH THE COVER SHALL BE AS NOTED IN PLANS FOR AS ORDERED BY THE ENGINEER BUT IN NO CASE LESS THAN 25mm FOR EVERY 3.2% OF FREE SPAN. IF THE BEAM REINFORCEMENT BARS END IN A WALL, THE CLEAR DISTANCE FROM THE BAR TO THE PARTIAL FACE OF THE WALL IS NOT LESS THAN 25mm. EMBEDMENT LENGTH SHALL BE SHOWN IN TABLE 5 FOR TENSION BARS AND TABLE 6 FOR COMPRESSIVE BARS UNLESS SPECIFIED IN PLAN. TOP BARS SHALL NOT BE SPLICED WITHIN THE COLUMN.

TABLE 5 TENSION BARS					
TABLE OF LAP SPICES & ANCHORAGE LENGTHS (mm)					
BAR SIZE (EXTENDED mm)	S ₁ = 20 T.Mm (800psi)		S ₂ = 27.5 T.Mm (1000psi)		
	EMBEDMENT	LAPPS	EMBEDMENT	LAPPS	LAPPS
600	300	300	300	300	300
675	300	300	300	300	300
750	300	300	300	300	300
825	300	300	300	300	300
900	300	300	300	300	300
975	300	300	300	300	300
1050	300	300	300	300	300

NOTE:
 1. TOP PLAIN BARS, SEE ONLY VALUE IN 2.
 2. NOT MORE THAN 1/4 OF THE BARS SHALL BE SPLICED WITHIN THE REQUIRED LAP LENGTH.

TABLE 6 COMPRESSION BARS					
TABLE OF LAP SPICES & ANCHORAGE LENGTHS (mm)					
BAR SIZE (EXTENDED mm)	S ₁ = 20 T.Mm (800psi)		S ₂ = 27.5 T.Mm (1000psi)		
	EMBEDMENT	LAPPS	EMBEDMENT	LAPPS	LAPPS
600	225	300	225	300	300
675	225	300	225	300	300
750	225	300	225	300	300
825	225	300	225	300	300
900	225	300	225	300	300
975	225	300	225	300	300
1050	225	300	225	300	300

NOTE:
 1. TOP PLAIN BARS, SEE ONLY VALUE IN 2.
 2. NOT MORE THAN 1/4 OF THE BARS SHALL BE SPLICED WITHIN THE REQUIRED LAP LENGTH.
 3. WELDED SPICES MUST BE STaggered ALTERNATELY.

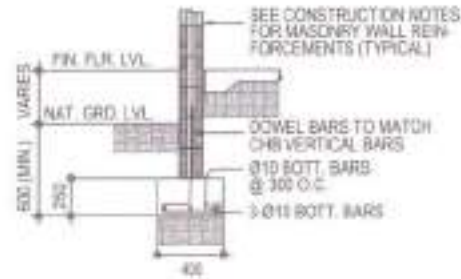
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	COMPLETION OF BUSINESS STALLS & CLASSROOMS	BANGSALAN, S. DUNDAS					S-1 26

GENERAL CONSTRUCTION DETAILS

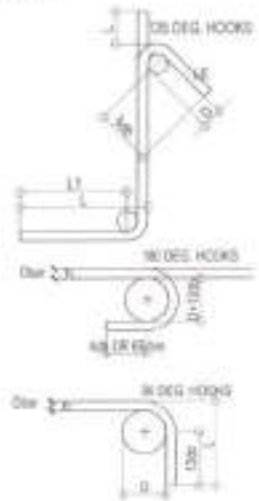
NOTES ON CONCRETE HOLLOW BLOCK WALLS

- UNLESS OTHERWISE SHOWN IN PLANS ALL CONCRETE HOLLOW BLOCKS AND CERAMIC BLOCKS SHALL BE REINFORCED AS SHOWN IN THE SCHEDULE OF CONCRETE HOLLOW BLOCKS AND CERAMIC BLOCK REINFORCEMENT

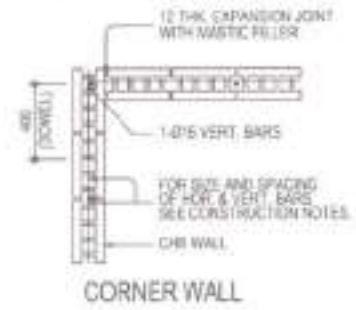
NOTES ON CONCRETE HOLLOW BLOCK WALLS REINFORCEMENT			
BLOCK THICKNESS	REINFORCEMENT		NOTES
	HORIZONTAL	VERTICAL	
75mm	10mm @ EVERY 3RD LEVEL	10mm Ø @ 800mm O.C.	A. MINIMUM HEIGHT SHALL BE 1.8m B. FINISH EACH SIDE WITH 12mm MESH REINFORCEMENT AT CORNER & 30mm L/WAVE
125mm	10mm @ EVERY 3RD LEVEL	10mm Ø @ 800mm O.C.	C. WHERE THE BLOCK WALL JOINTS WITH FRAMEWORK ALL JOINTS OR INTERSECTIONS SHALL BE REINFORCED
150mm	10mm @ EVERY 3RD LEVEL	10mm Ø @ 800mm O.C.	
200mm	12mm @ EVERY 3RD LEVEL	10mm Ø @ 800mm O.C.	



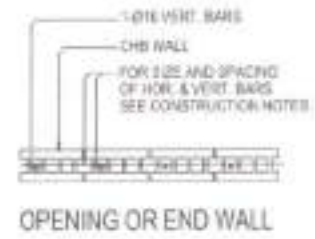
TYPICAL CHB FOOTING DETAILS
Scale N15



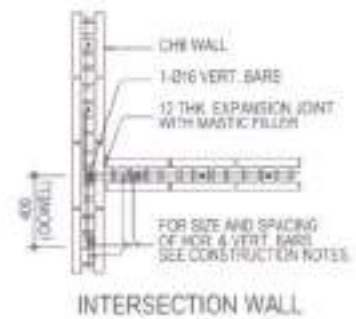
TYPICAL SECTION OF MASONRY PARTITION REINFORCEMENTS
Scale N15



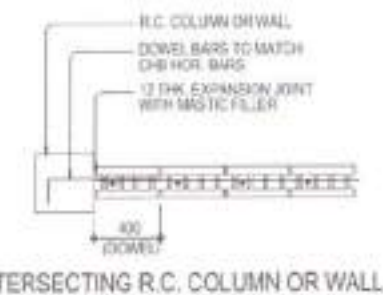
CORNER WALL



OPENING OR END WALL



INTERSECTION WALL



INTERSECTING R.C. COLUMN OR WALL

TYPICAL DETAIL OF MASONRY WALL
Scale N15

SIZE OF BAR (mm)	SIZE OF BAR (mm)	SIZE OF BAR (mm)	SIZE OF BAR (mm)
10mm	12	16	20
12mm	16	20	25
16mm	20	25	32
20mm	25	32	40
25mm	32	40	50

TYPICAL STIRRUP BEND DETAIL
Scale N15

NOTES ON WELDS

- USE ER70 ELECTRODES FOR ALL WELDS WELDED.
- WELDS SHALL DEVELOP THE FULL STRENGTH OF MEMBER JOINED UNLESS OTHERWISE SHOWN OR DETAILED IN THE DRAWINGS.

NOTES ON STRUCTURAL STEEL

- STRUCTURAL STEEL TO BE USED FOR FABRICATION AND ERECTION OF THE STRUCTURE SHALL COMPLY WITH ALL THE PERTINENT PROVISIONS OF ADD SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDING LA 2017 EDITION.
- ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 STRUCTURAL STEEL UNLESS OTHERWISE INDICATED.
- ALL WELDED CONNECTIONS SHALL DEVELOP THE FULL STRENGTH OF THE MEMBERS CONNECTED.
- UNLESS OTHERWISE SPECIFIED ALL WELDING SHALL CONFORM WITH E60 ELECTRODES.
- ALL BOLTS USED UNLESS OTHERWISE SPECIFIED SHALL BE WITH ANST 8.8.

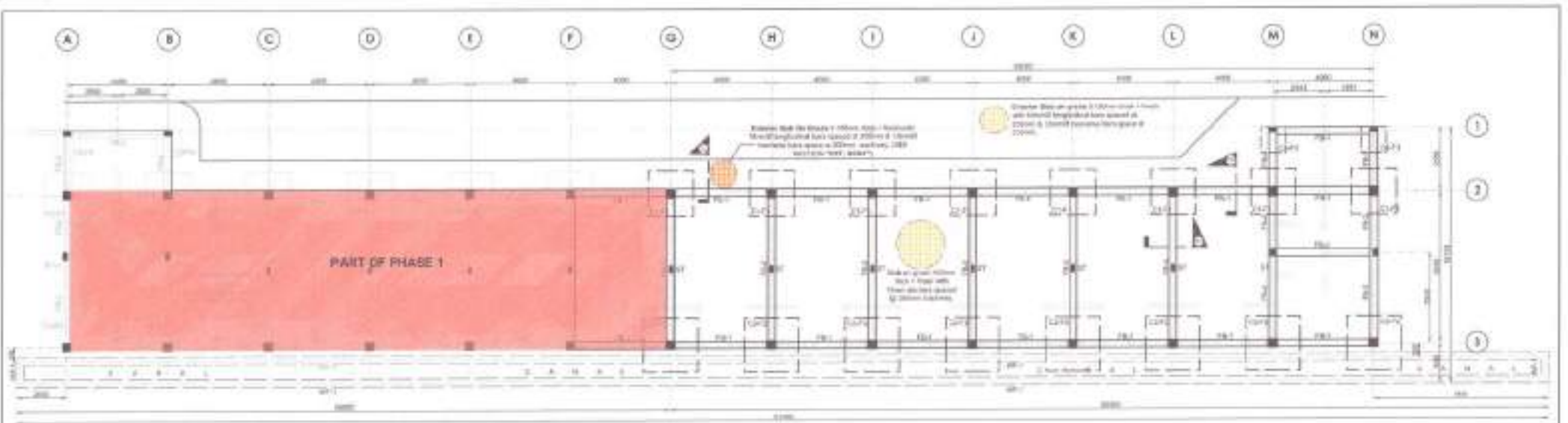
NOTES ON EMBEDDED PIPES

- NO PIPES SHALL BE ALLOWED TO PASS THRU BEAMS VERTICALLY.
- NO PIPES SHALL BE EMBEDDED IN COLUMNS.

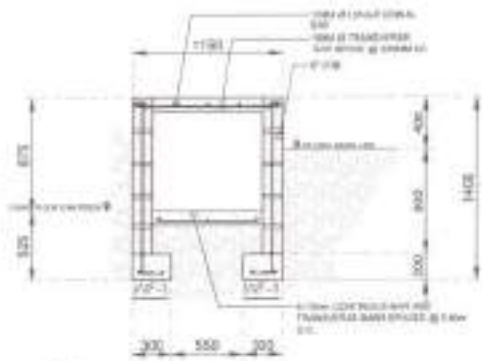
NOTES ON STIRRUPS

- ALL REINFORCEMENT SHALL BE BENT (45°) UNLESS OTHERWISE PERMITTED BY THE STRUCTURAL ENGINEER.
- AS SHOWN IN THE ORIGINAL DRAWINGS OR PERMITTED BY THE STRUCTURAL ENGINEER.
- 100% CLOSE STIRRUPS MUST BE AT 100%.

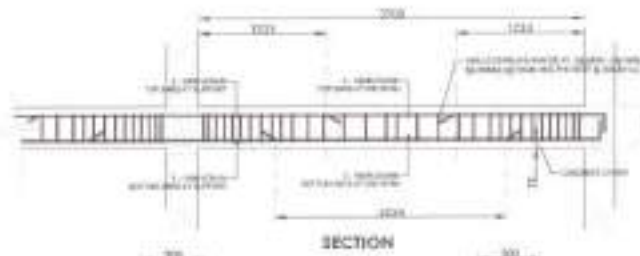
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	COMPLETION OF BUSINESS STALLS & CLASSROOMS	RABEL P. PANGALAN	DELLA S. RIBRO	EDWIN S. DAVILA	BERNARD L. PEREZ	WILFREDO A. DUMALE JR.	S-2 27



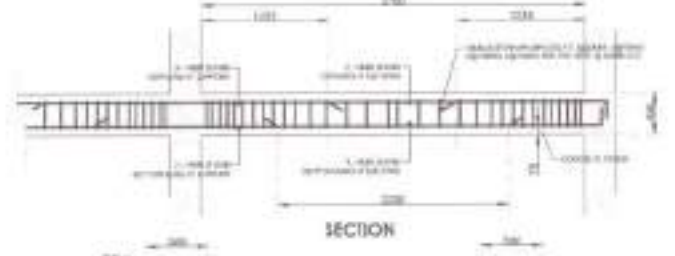
A FOUNDATION PLAN
SCALE: 1:100



D CANAL DETAILS
SCALE: 1:100

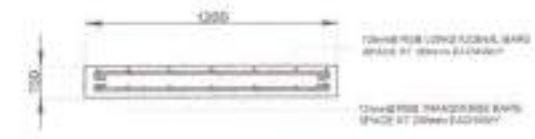


FB-1 TYPICAL BEAM DETAIL
AT SUPPORT: 2-12#1 @ 150mm TOP BARS, 2-12#1 @ 150mm BOTTOM BARS
AT MIDSPAN: 2-12#1 @ 150mm TOP BARS, 2-12#1 @ 150mm BOTTOM BARS



FB-2 TYPICAL BEAM DETAIL
AT SUPPORT: 2-12#1 @ 150mm TOP BARS, 2-12#1 @ 150mm BOTTOM BARS
AT MIDSPAN: 2-12#1 @ 150mm TOP BARS, 2-12#1 @ 150mm BOTTOM BARS

B GROUND BEAM DETAILS
SCALE: 1:100



D EXT. SOG1 SECTION
SCALE: 1:100

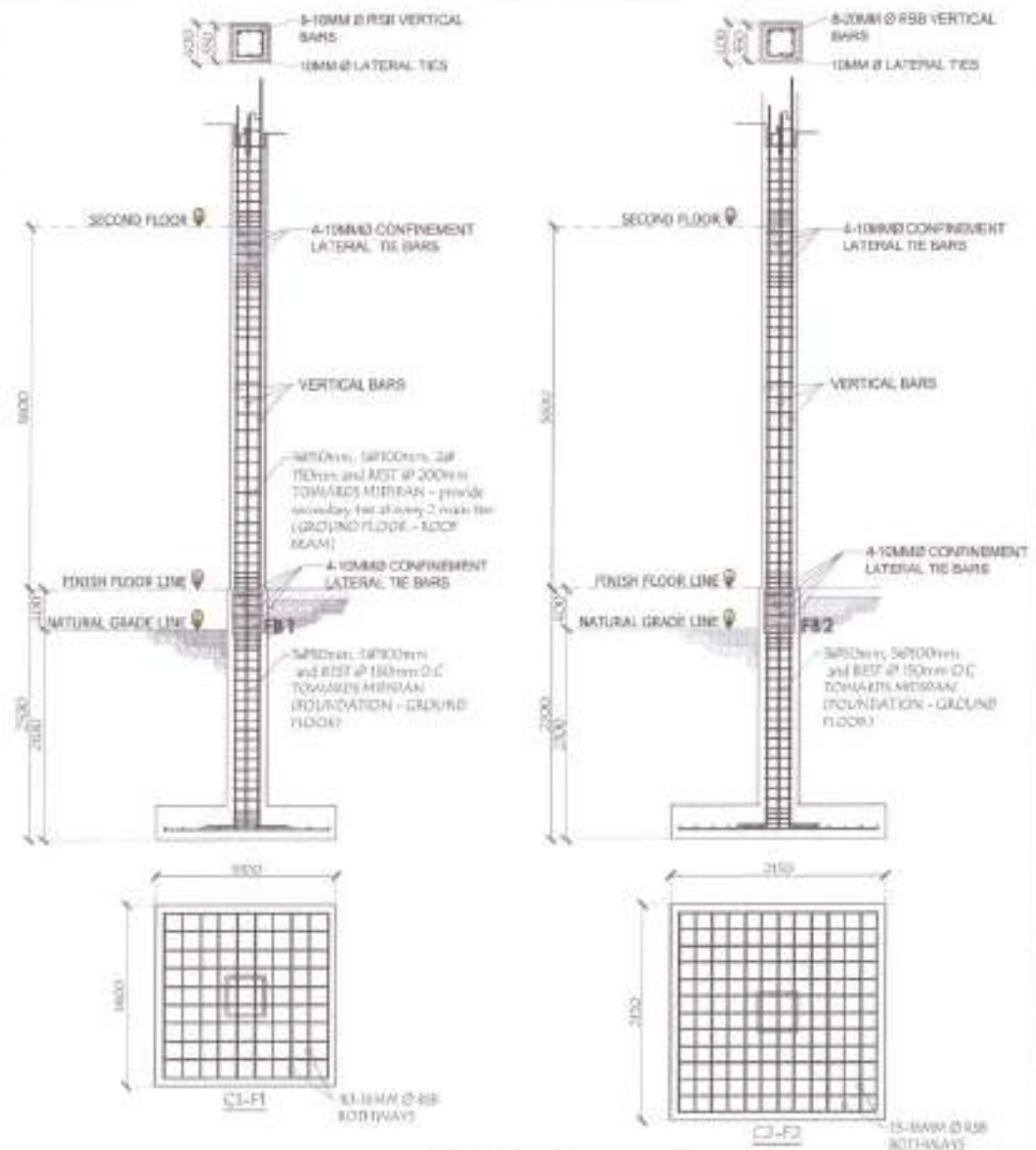
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	 COMPLETION OF BUSINESS STALLS & CLASSROOMS MALAYSIAN AIRWAYS BERHAD, KUALA LUMPUR	RAMEL MOHAMED S. JORDAN ENGINEER RAMEL MOHAMED S. JORDAN	 DELFA CHURO  REMY DAMA	 GERALD L. PEREZ	 CARLO J. VAZ	 WILFREDO A. DURALE, PE LICENSED PROFESSIONAL ENGINEER	S-3 28

SCHEDULE OF FOOTING							
DESIGNATION	SIZE (mm)				REINFORCEMENT USE RSI GRADE 40 (FOOTING BAR)	DESCRIPTION	QUANTITY
	W	L	D	HT OF ENCASUREMENT			
F1	1000	800	350	200	8 FC2 + 2Ø10mm RSB bothways	isolated Footing	14
F2	200	250	350	200	15 FC2 + 2Ø10mm RSB bothways	isolated Footing	14
F3	1000	1500	350	200	8 FC2 + 2Ø10mm RSB bothways	isolated Footing	1

A SCHEDULE OF FOOTING
SCALE: 1/4" = 1'-0"

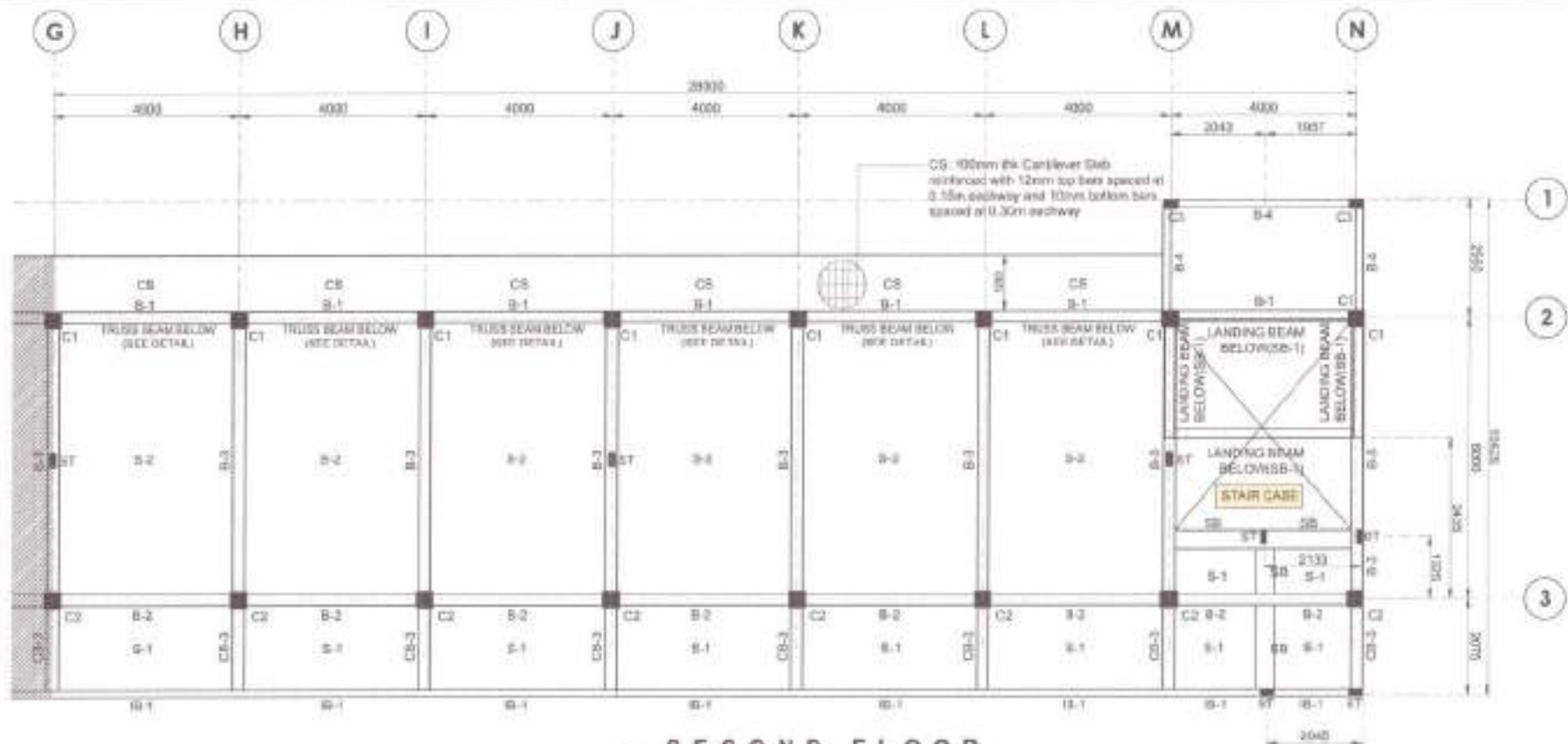
SCHEDULE OF COLUMNS						
COLUMN MARK	COLUMN DIMENSIONS (mm)		RFTL REINFORCEMENT AREA (mm ²)	COLUMN DESIGNATION	TIES Xmm o/c	
	WIDTH (B)	DEPTH (D)				
C1	400	400	8-16mm Ø16 RSB	FOUNDATION TO GROUND FLOOR	5Ø150mm, 5Ø100mm and REST @ 150mm O.C TOWARDS MIDSPAN	
	350	350	8-16mm Ø16 RSB	GROUND FLOOR TO ROOF BEAM	5Ø150mm, 5Ø100mm, 2Ø150mm and REST @ 200mm TOWARDS MIDSPAN - provide secondary tie at every 2 main ties	
C2	400	400	8-20mm Ø20 RSB	FOUNDATION TO GROUND FLOOR	5Ø150mm, 5Ø100mm and REST @ 150mm O.C TOWARDS MIDSPAN	
	350	350	8-20mm Ø20 RSB	GROUND FLOOR TO ROOF BEAM	5Ø150mm, 5Ø100mm, 2Ø150mm and REST @ 200mm TOWARDS MIDSPAN - provide secondary tie at every 2 main ties	
C3	200	100	4-16mm Ø16 RSB	FOUNDATION TO GROUND FLOOR	5Ø150mm, 5Ø100mm and REST @ 150mm O.C TOWARDS MIDSPAN	
				GROUND FLOOR TO SECOND FLOOR	5Ø150mm, 5Ø100mm, 2Ø150mm and REST @ 200mm TOWARDS MIDSPAN - provide secondary tie at every 2 main ties	
ST	150	100	2-10mm Ø10 RSB	GROUND FLOOR TO SECOND FLOOR	5Ø150mm and REST @ 200mm	
ST-2	200	100	4-8mm Ø8 RSB	GROUND FLOOR TO SECOND FLOOR	5Ø150mm, 5Ø100mm, 2Ø150mm and REST @ 200mm TOWARDS MIDSPAN - provide secondary tie at every 2 main ties	

B SCHEDULE OF COLUMNS
SCALE: 1/4" = 1'-0"

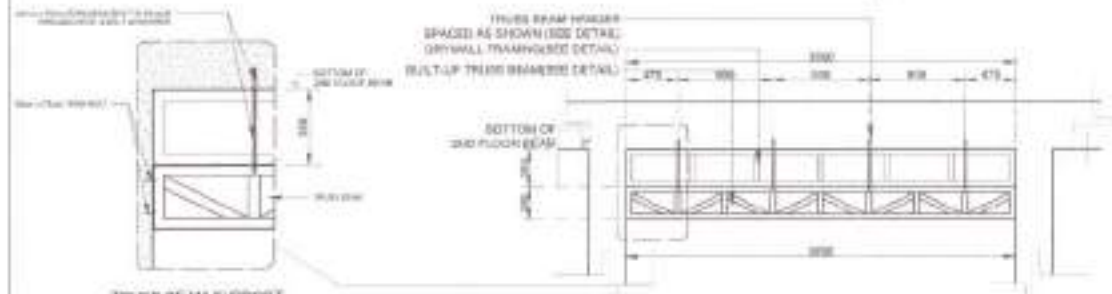


C COLUMN & FOOTING
DETAIL
SCALE: 1/8" = 1'-0"

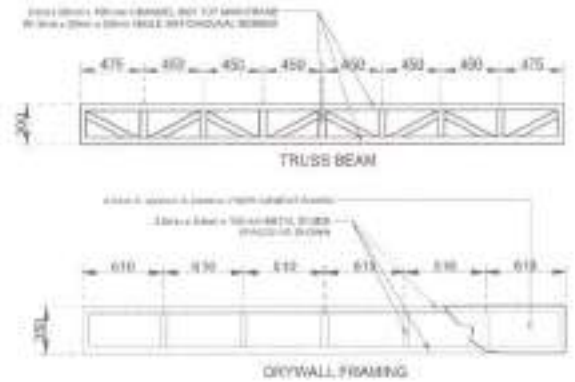
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	COMPLETION OF BUSINESS STALLS & CLASSROOMS MAA-VEDA-PRANTE UNIVERSITY, MAHARAJA CAMPUS	RANJAN K. GUPTA ENGINEERING COLLEGE	SHELLA S. KUMAR Project In-charge SURESH K. SHARMA Senior P.E.	GERALD L. PERRE Senior In-charge	CARLOS F. VARGAS VP of Planning, Development and Maintenance Services	WILFREDO A. DIMASAL, JR. University President	8-4 29



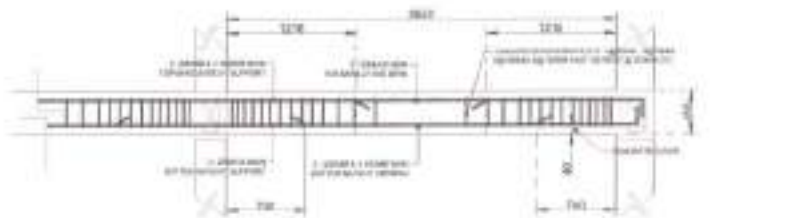
A SECOND FLOOR BEAM LAYOUT
SCALE: 1:100



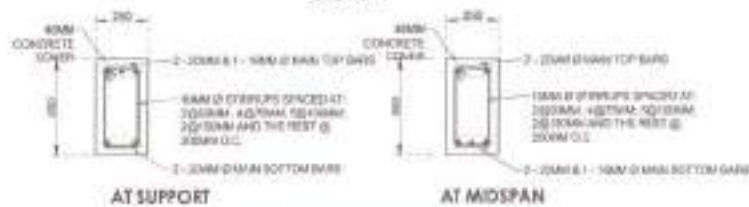
B TRUSS BEAM DETAIL
SCALE: 1:100



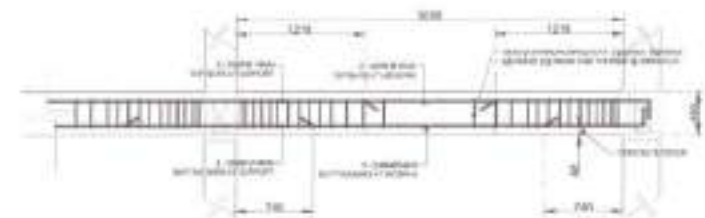
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PREPARED BY: _____ CHECKED BY: _____ DATE OF ISSUE: _____ DATE: _____	 COMPLETION OF BUSINESS STALLS & CLASSROOMS NUEVA VIZCAYA STATE UNIVERSITY, BANGALIP CAMPUS	RANIEL P. MANORAN RANIEL P. MANORAN	DEILA S. RUDDO DEILA S. RUDDO RANIEL P. MANORAN	 RANIEL P. MANORAN	 CARLOS J. VITO	 MILNER A. DUMALE, JR. University President	S-6 31



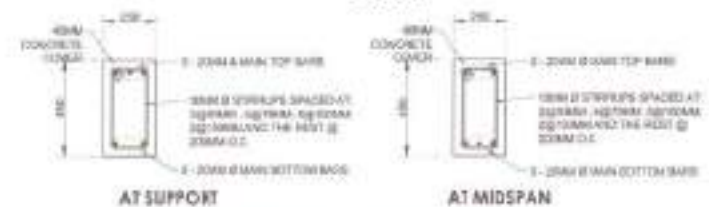
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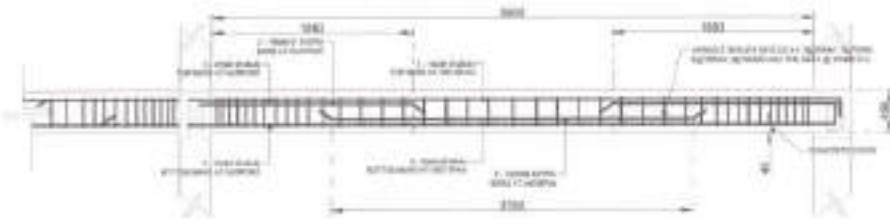
B-1 TYPICAL BEAM DETAIL



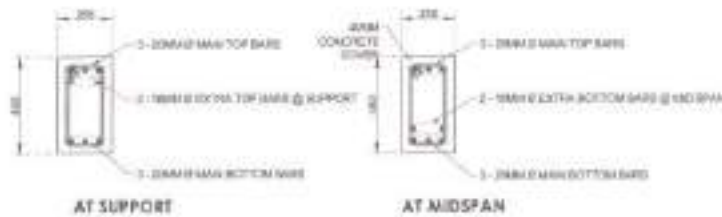
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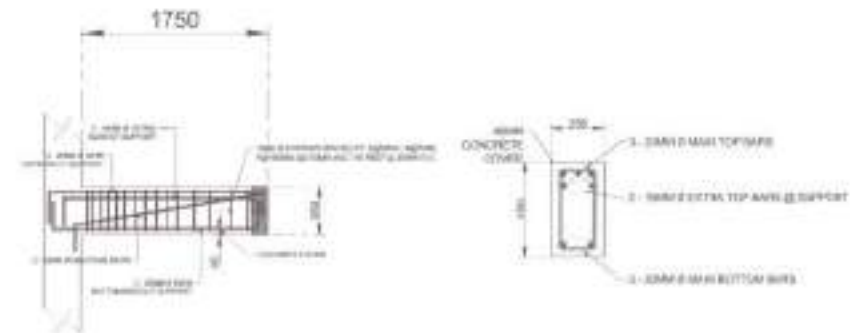
B-2 TYPICAL BEAM DETAIL



SECTION



B-3 TYPICAL BEAM DETAIL



SECTION

AT SUPPORT

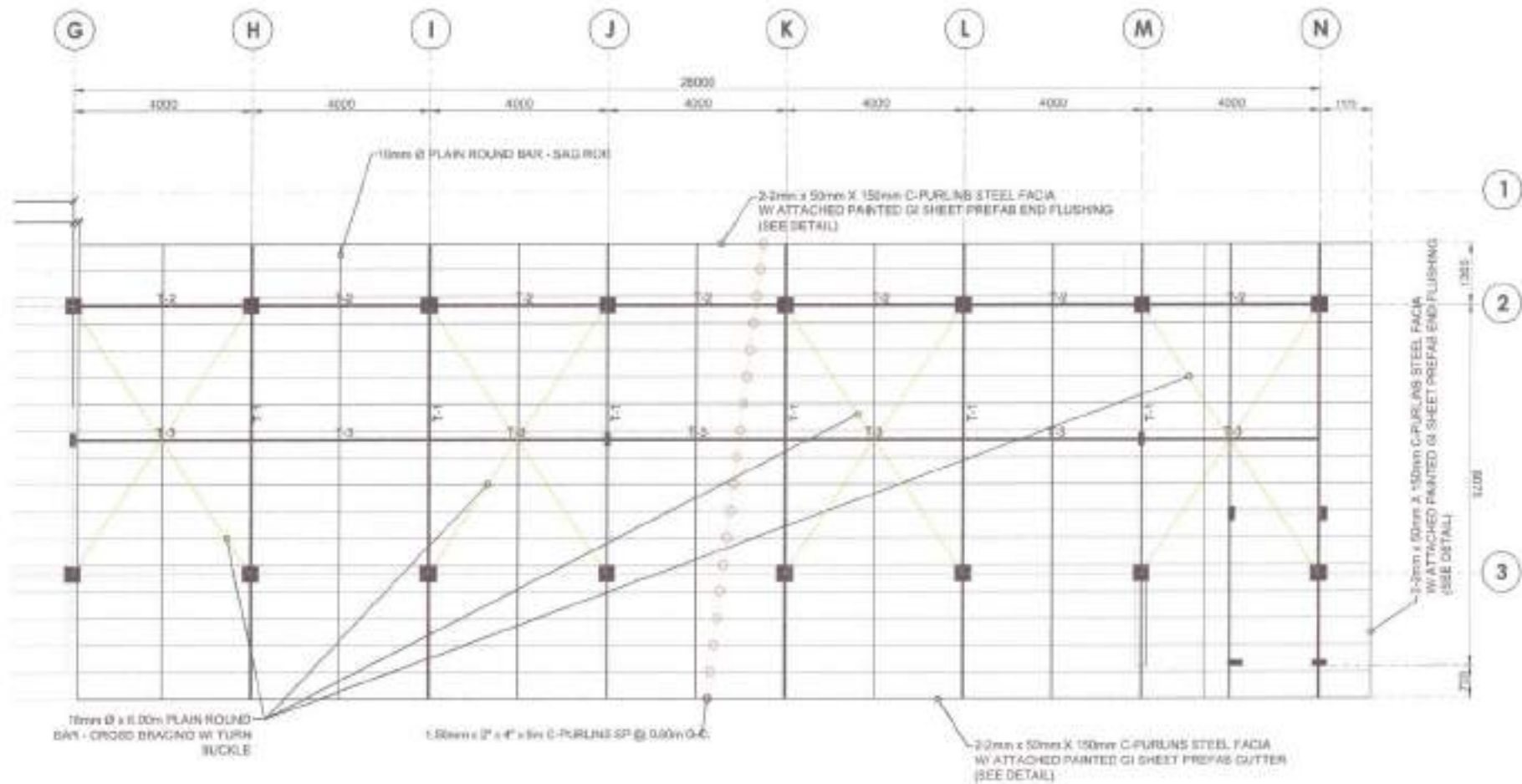
CB-3 TYPICAL BEAM DETAIL

SECOND FLOOR BEAM DETAILS



SCALE: 1/2

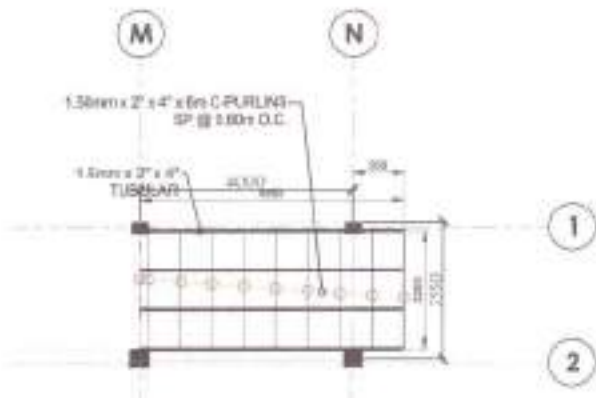
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 <small>DATE: _____</small> <small>TIME: _____</small>	 <p>COMPLETION OF BUSINESS STALLS & CLASSROOMS</p> <p>NARA STATE UNIVERSITY, MARAWAG CAMPUS</p>	 <small>DATE: _____</small>	 <small>DATE: _____</small>	 <small>DATE: _____</small>	 <small>DATE: _____</small>	 <small>DATE: _____</small>	<p>8-7</p> <p>32</p>



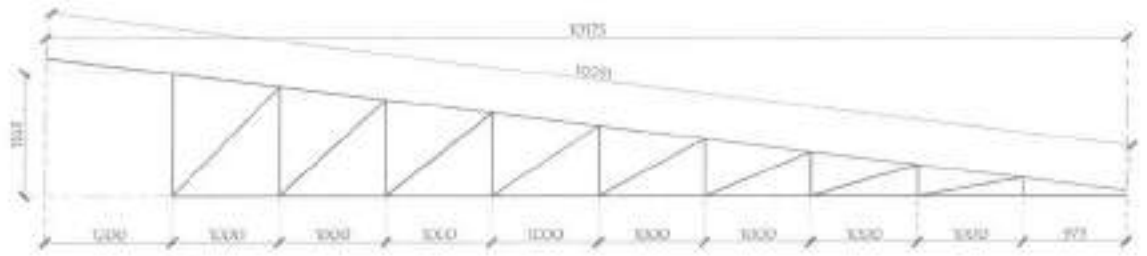
**SECOND FLOOR
ROOF FRAMING PLAN**

SCALE: 1:300

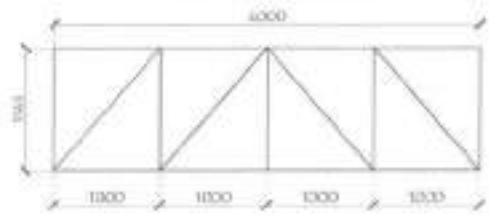
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PRC NO: _____ DATE: _____ PPR NO: _____ PLACE OF SIGN: _____ DATE: _____ TIME: _____	 COMPLETION OF BUSINESS STALLS & CLASSROOMS MARA STATE UNIVERSITY, SHINGO DAMB	NAME: MAWELI M. MUMUNAM  DESIGNER & DRAFTER	 CECILIA S. NJORO ARCHITECT	 GERALD L. PENDE ARCHITECT	 GARLOT VADI ARCHITECT	 WILFRED A. JUMALE, JR. ARCHITECT	S-10 34



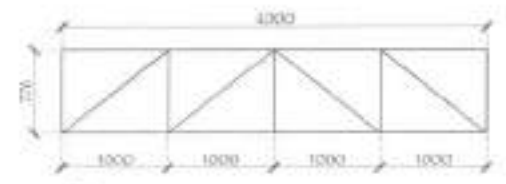
A GROUND FLOOR ROOF FRAMING PLAN
SCALE: 1/100



T-1
TOP CHORD & BOTTOM CHORD WILL BE 2 - 50mm x 50mm x 6mm THK ANGULAR BAR
VERTICAL & WEB MEMBERS WILL BE 1 - 50mm x 50mm x 6mm THK ANGULAR BAR SPACED ALTERNATELY

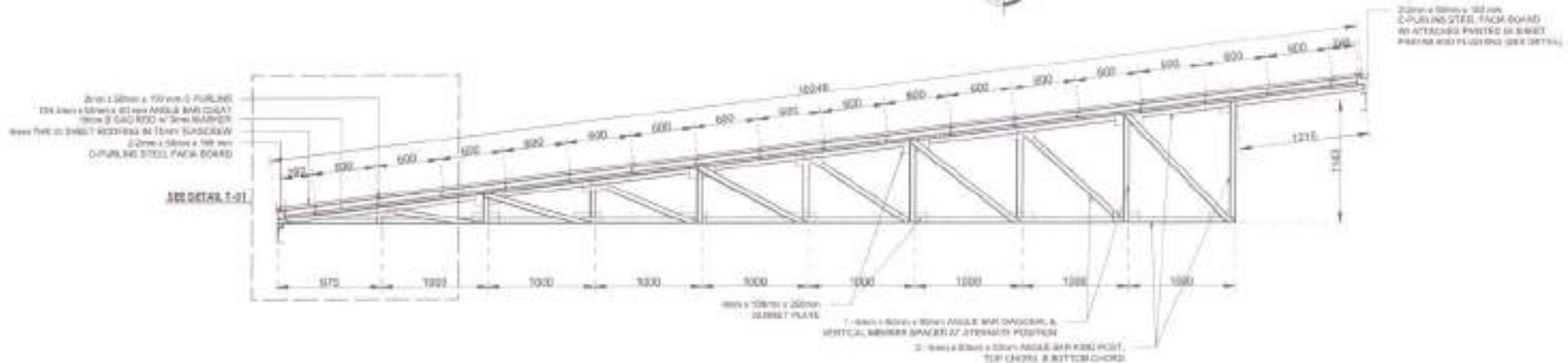


T-2
TOP & BOTTOM CHORD: 2 - 50mm x 50mm x 6mm THK ANGULAR BAR
VERTICAL & WEB MEMBERS: 2 - 38mm x 38mm x 6mm THK ANGULAR BAR



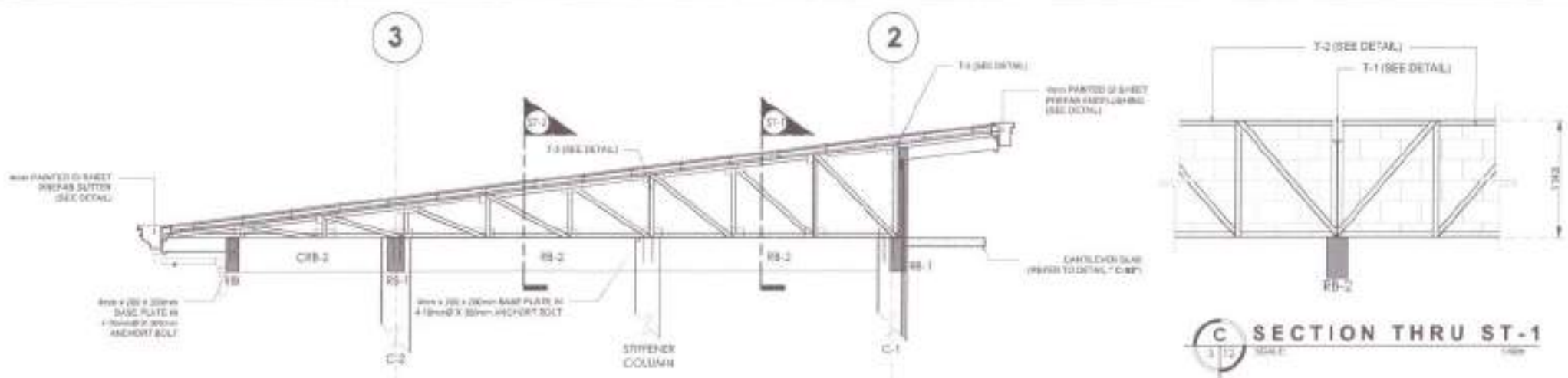
T-3
TOP & BOTTOM CHORD: 2 - 50mm x 50mm x 6mm THK ANGULAR BAR
VERTICAL & WEB MEMBERS: 2 - 38mm x 38mm x 6mm THK ANGULAR BAR

B SCHEMATIC TRUSS DIAGRAM
SCALE: 1/100

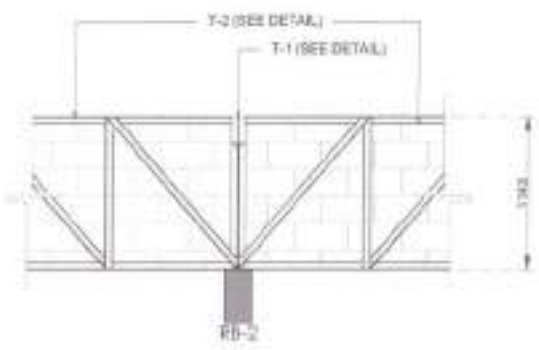


C TRUSS DETAIL
SCALE: 1/40

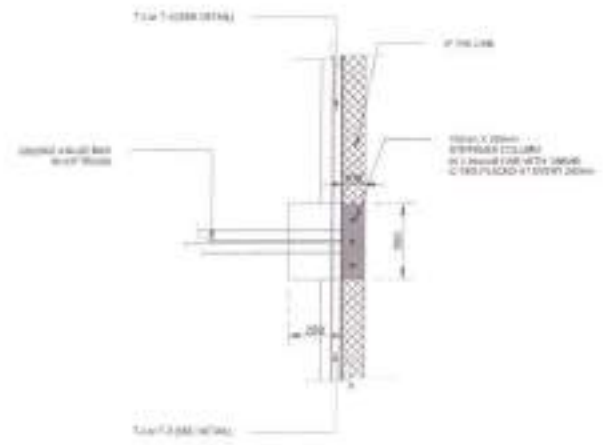
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PREPARED BY: _____ CHECKED BY: _____ DATE OF ISSUE: _____ DATE: _____	 COMPLETION OF BUSINESS STALLS & CLASSROOMS MALABON AREA STATE PROPERTY DAMMANG GANAP	SAMUEL P. C. NUMORAN ENGINEER	 SAMUEL P. C. NUMORAN Civil Engineer	 EDWIN S. NIVAL Structural Engineer	 CARLOS F. WADA Structural Engineer and Civil Engineer	 WILFREDO A. DUMALE, JR. (Project Engineer)	5-11 35



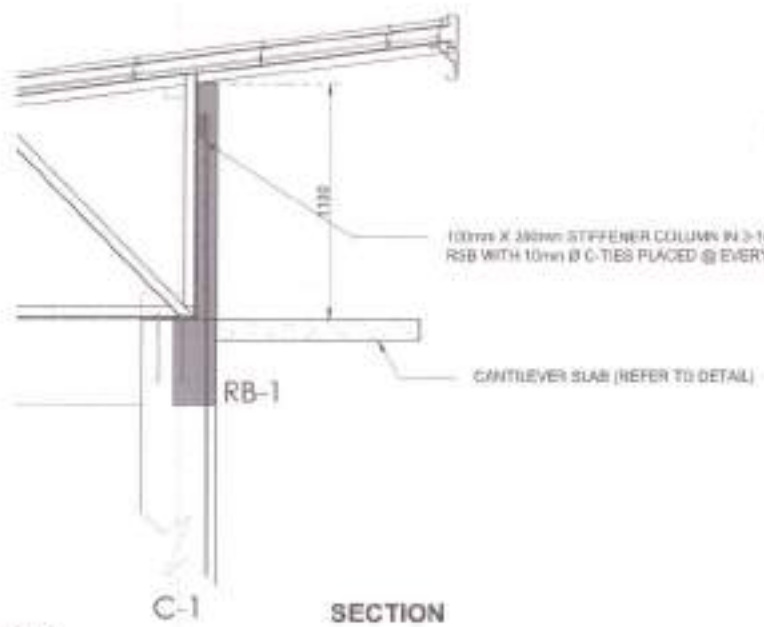
A SECTION ALONG "GRID M"
SCALE: 1/12



C SECTION THRU ST-1
SCALE: 1/12

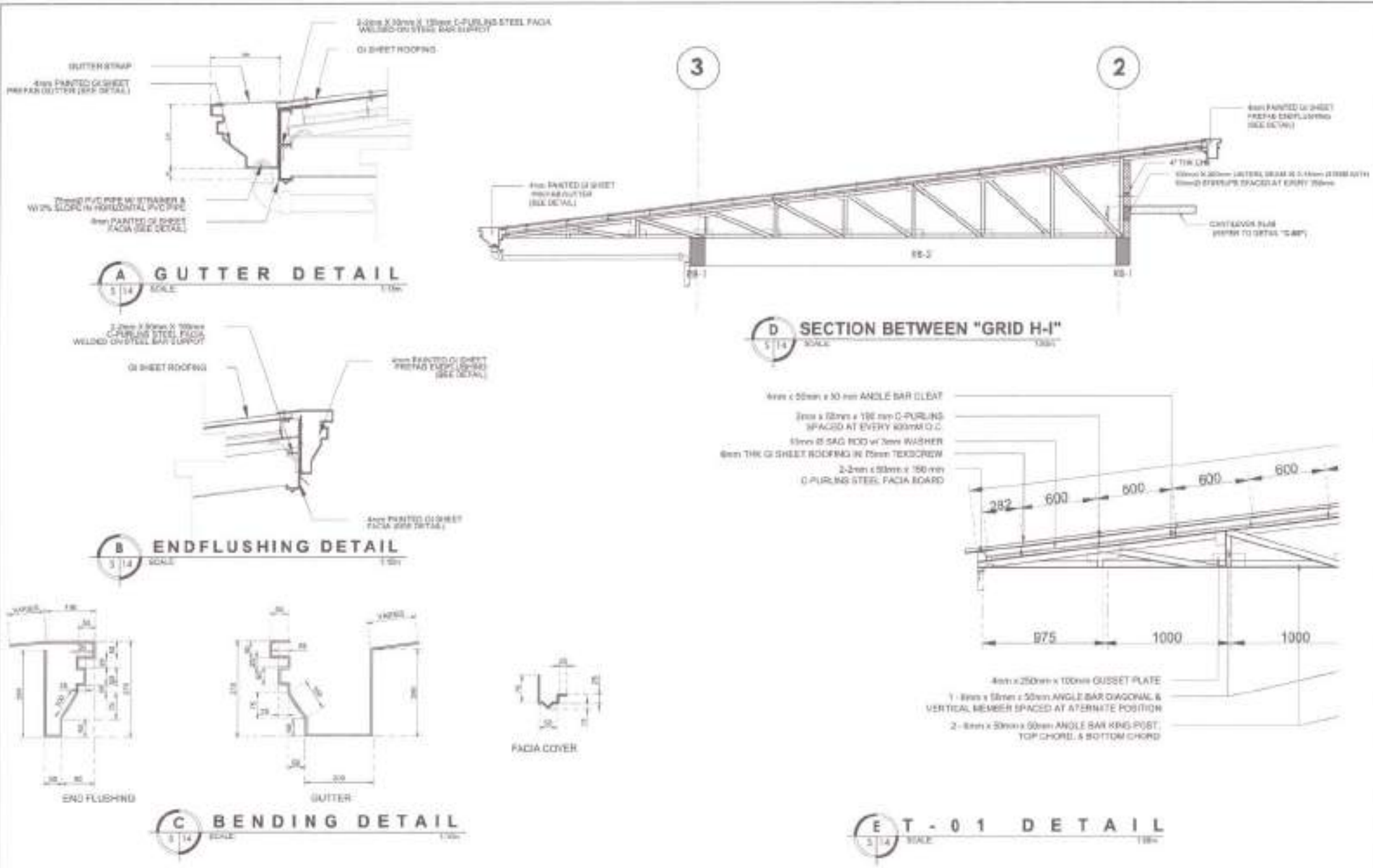


B TRUSS TO COLUMN CONNECTION DETAIL
SCALE: 1/12

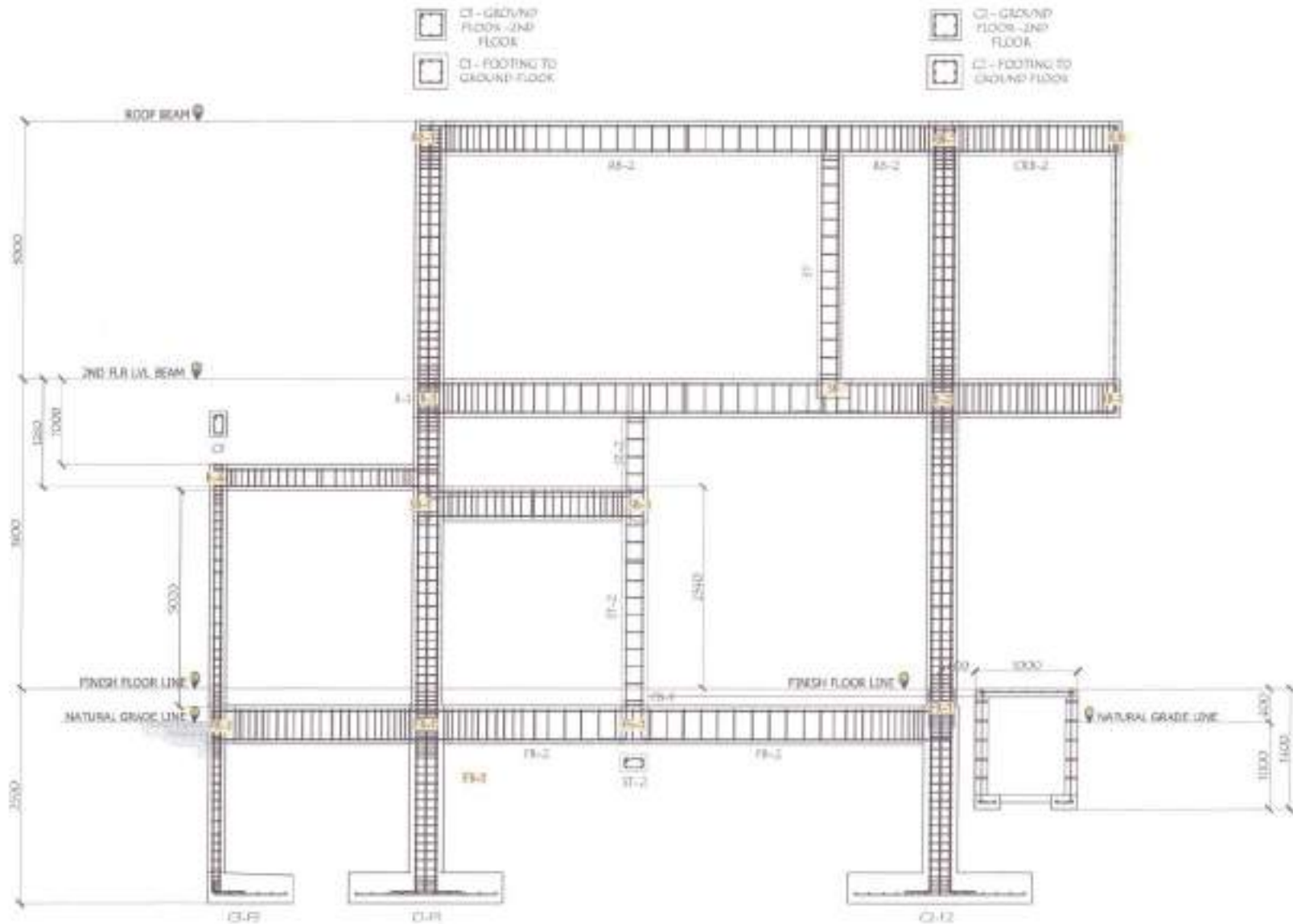


D SECTION THRU ST-2
SCALE: 1/12

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	 COMPLETION OF BUSINESS STALLS & CLASSROOMS KwaZulu-Natal State University, Durban Campus	RAMEL MADON C. GUMOKAR ENGINEER (Signature)	OFELIA S. NEMBO CIVIL ENGINEER (Signature)	EDWIN S. SHALLI CIVIL ENGINEER (Signature)	BERTRAND L. PEREIRA CIVIL ENGINEER (Signature)	CARLO F. VALE CIVIL ENGINEER (Signature)	WILFRED A. DUMBLE, JR. CIVIL ENGINEER (Signature)
REG. NO. _____ EXP. DATE _____ PLACE OF ISSUE _____ DATE ISSUED _____							S-12 36

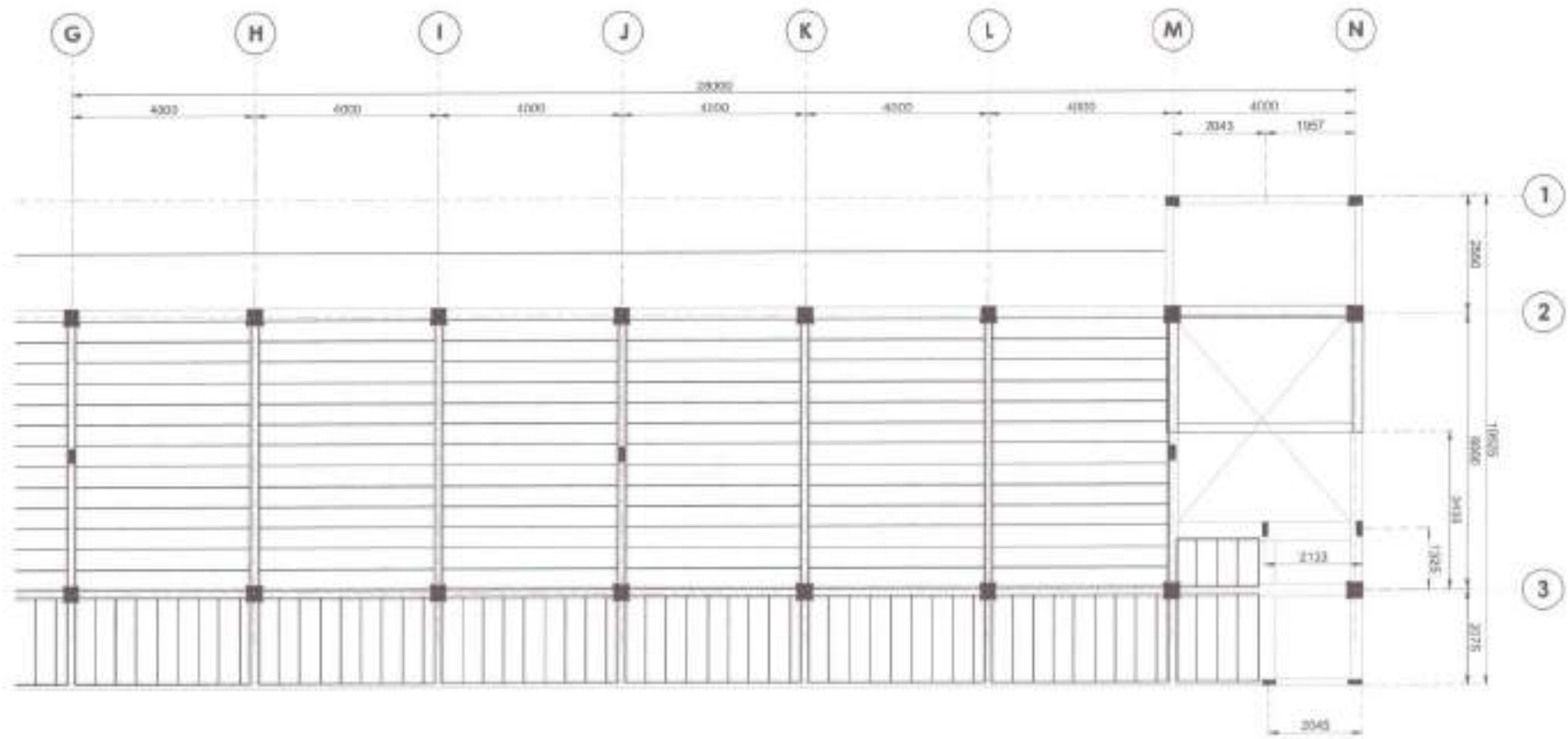


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PREPARED BY: <u> </u> PLOT NO: <u> </u> PLACE OF USE: <u> </u> DATE: <u> </u>	 COMPLETION OF BUSINESS STALLS & CLASSROOMS KNUST VICTORIA ST/20 UNIVERSITY, SHIMMOP CAMPUS	 RANJAN PANDIT ARCHITECT	 OJALA & RUIBO ARCHITECTS	 EDWARD SAKU ARCHITECT	 GERALD L. PINKET ARCHITECT	 CAROL WOOD ARCHITECT	 WILLIAM A. DUMALE ARCHITECT	S-13 37



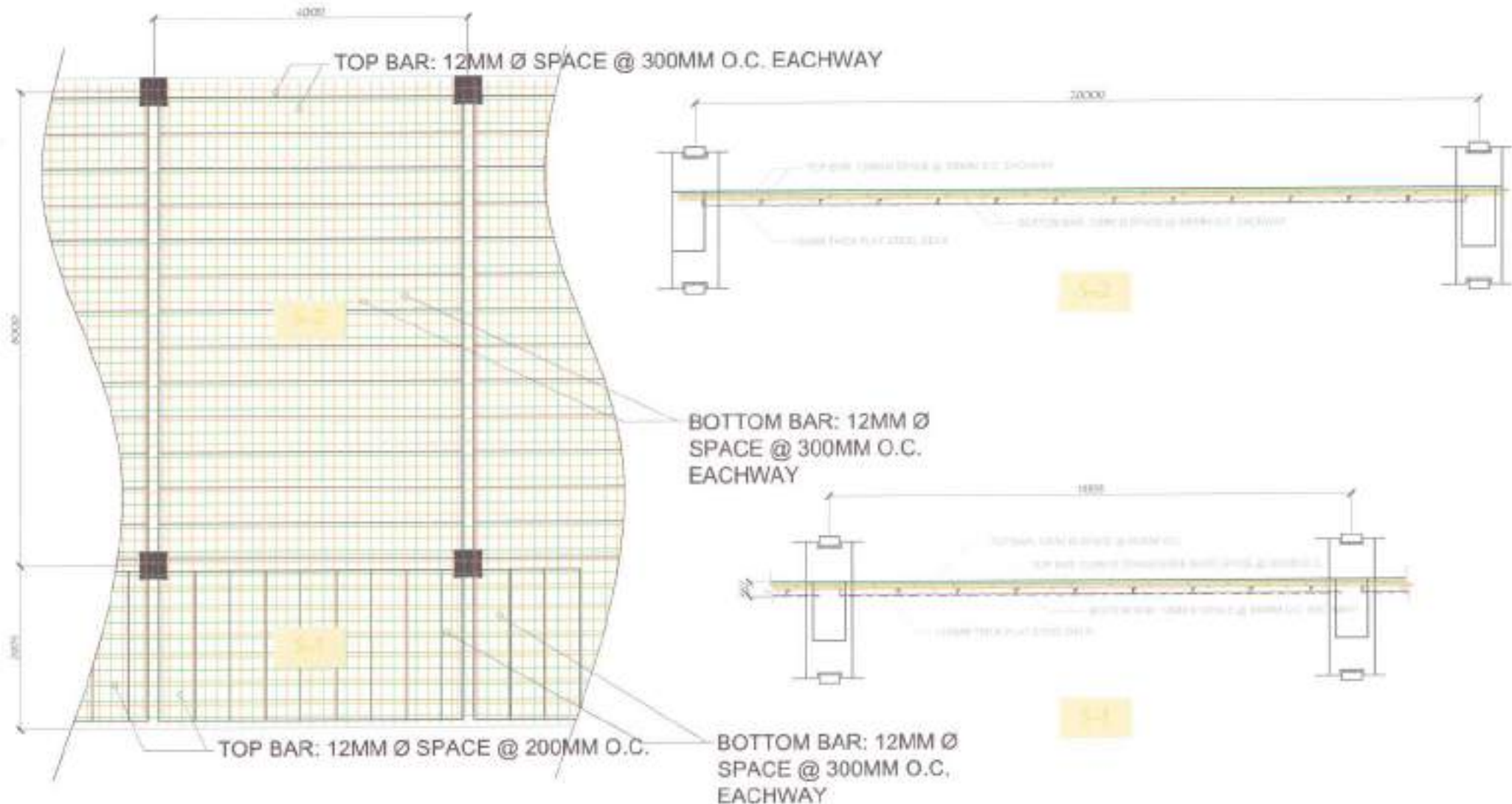
SECTION @ GRID "N"
 2/4 SCALE 1/8" = 1'-0"

SIGNED AND SEALED BY:	PROJECT AND LOCATION	PREPARED BY:	SUBMITTED BY:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO.:	
PREP. NO. / DATE SEAL NO. / DATE PLACE OF SEAL / DATE	 COMPLETION OF BUSINESS STALLS & CLASSROOMS <small>WILSON E. DUMALE, JR. UNIVERSITY, BARANGAY CANTON</small>	RAHEL PAULINE S. NUMORAN <small>DESIGNER & DRAWER</small>	 EDNA S. RUBIO <small>Chief Architect</small>	 EDWARD S. SIMAL <small>DRUG. ARCHT.</small>	 BENITO L. PERERA <small>College Architect</small>	 CARLO P. MARES <small>UP for Planning, Environment and Structures Dept.</small>	 WILFREDO A. DUMALE, JR. <small>Division Engineer</small>	5-14 38



STEEL DECK LAYOUT
 SCALE: 1:1000

SIGNED AND SEALED BY:	PROJECT AND LOCATION:	PREPARED BY:	SUBMITTED BY:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO.:
_____ <small>PROJ. ENG. NO. _____ CIVIL L.A.S. _____ CIVIL L.A.S. _____ PLACE OF BIRTH _____ DATE ISSUED _____ CITY ST. _____</small>	COMPLETION OF BUSINESS STALLS & CLASSROOMS <small>MAHARAJA KRISHNA CHAVLA LAKSHMI COLLEGE OF ENGINEERING & TECHNOLOGY, BANGALORE CAMPUS</small>	 RAMEH PARTHIV C. GUNDHAN <small>DESIGNED BY</small>	 DHEJA S. RAMESH <small>DATE: 10/05/2024</small>	 GEORGE S. FEROS <small>DATE: 10/05/2024</small>	 CARLYT WADE <small>DATE: 10/05/2024</small>	 R. ARAVIND <small>DATE: 10/05/2024</small>	<div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> S-15 39 </div>

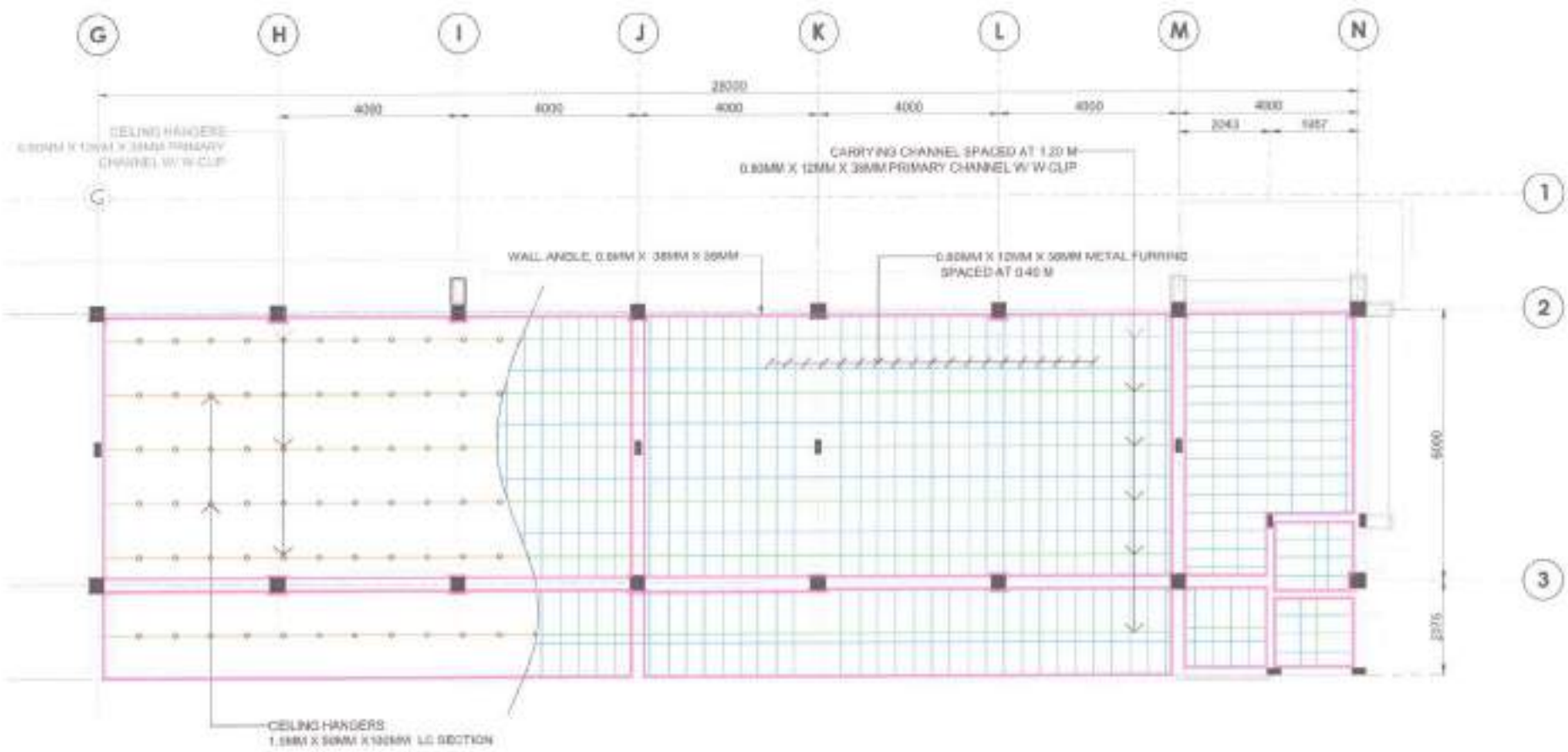


— TOP BAR
 — BOTTOM BAR

A
 SECOND FLOOR
 SLAB DETAIL
 SCALE: 1/20

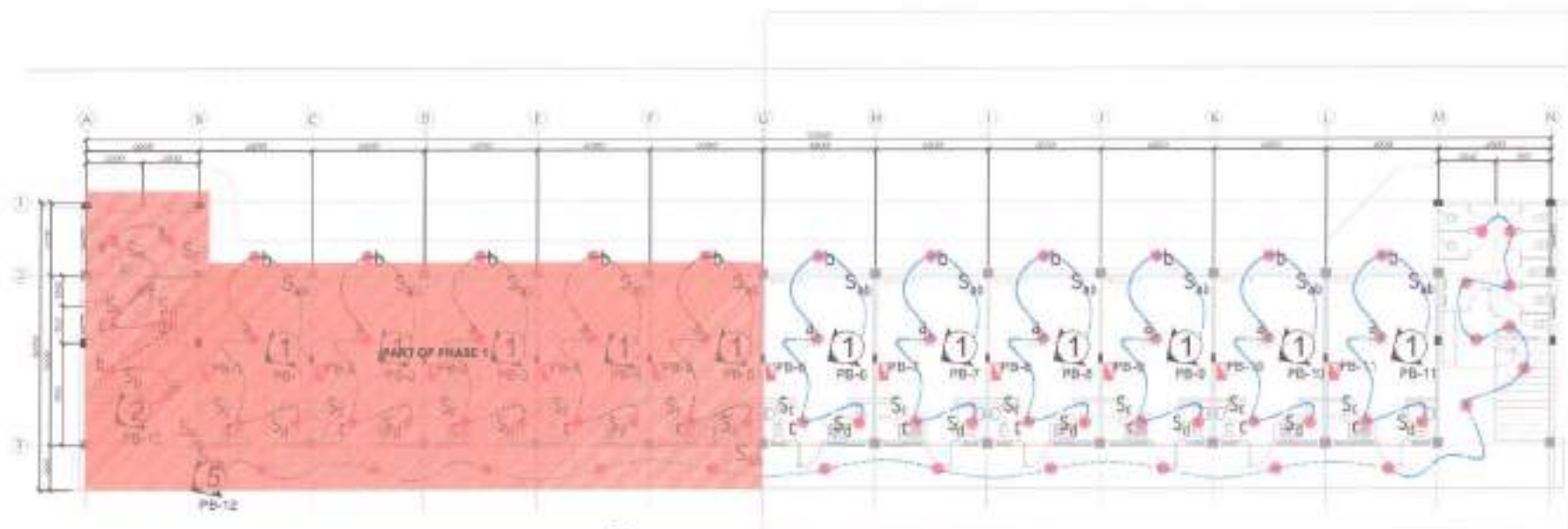
B
 SECTION VIEW OF REINFORCED
 CONCRETE SLAB
 SCALE: 1/20

SIGNED AND SEALED BY:	PROJECT AND LOCATION:	PREPARED BY:	SUBMITTED BY:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO.:
PRC NO: _____ PTE NO: _____ PLACE OF ISSUE: _____ DATE: _____	 COMPLETION OF BUSINESS STALLS & CLASSROOMS NJALA STATE UNIVERSITY, BANANGA (SAPU)	RAREL D. G. GONDRA ENGINEER & ARCHITECT	 OTHELLO N. KUMBO ARCHITECT	 GERALD C. PENDO ARCHITECT	 HAROLD F. VANI ARCHITECT	 WAFREDA A. DURBALE JR. UNIVERSITY PROFESSOR	S-16 40

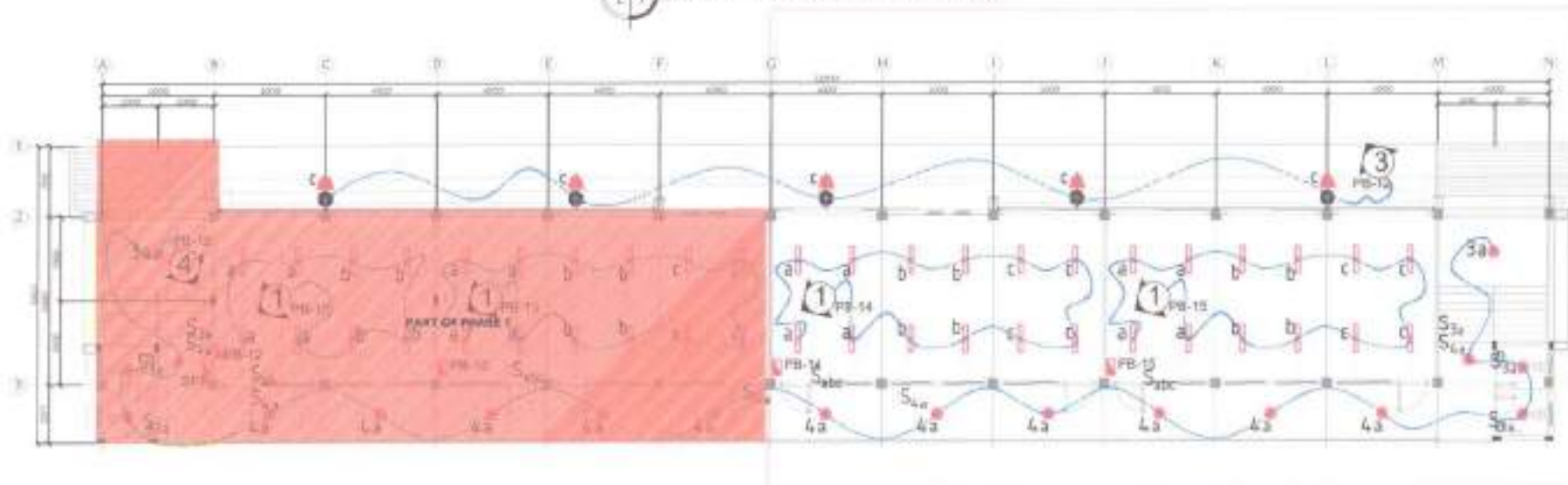



CEILING FRAMING LAYOUT
 SCALE 1:17

SIGNED AND SEALED BY:	PROJECT AND LOCATION:	PREPARED BY:	SUBMITTED BY:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO.:
PRC REG NO: _____ PYS NO: _____ PLANS OF ISSUE: _____ DATE: _____ TPA NO: _____	 COMPLETION OF BUSINESS STALLS & CLASSROOMS <small>MARKET BODIES OFFICE, LINDSAY STREET, BAKERSBURG</small>	 RAWLINDINE GORDON <small>ENGINEER & VALUER</small>	 SHEILA E. RUSSO <small>Architect</small>	 GERALD L. PEMO <small>Structural Engineer</small>	 CARLO J. VAN DER MERWE <small>Structural Engineer</small>	 WILFREDO A. DUMALE, JR. <small>Quantity Surveyor</small>	

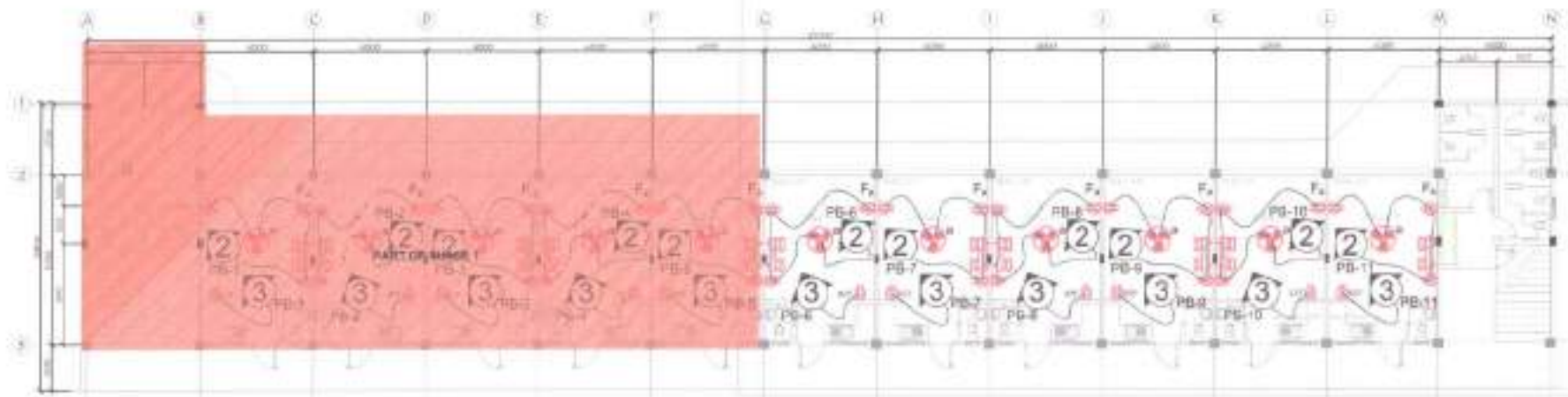


A GROUND FLOOR LIGHTING LAYOUT
 E 1 SCALE 1/8" = 1'-0"

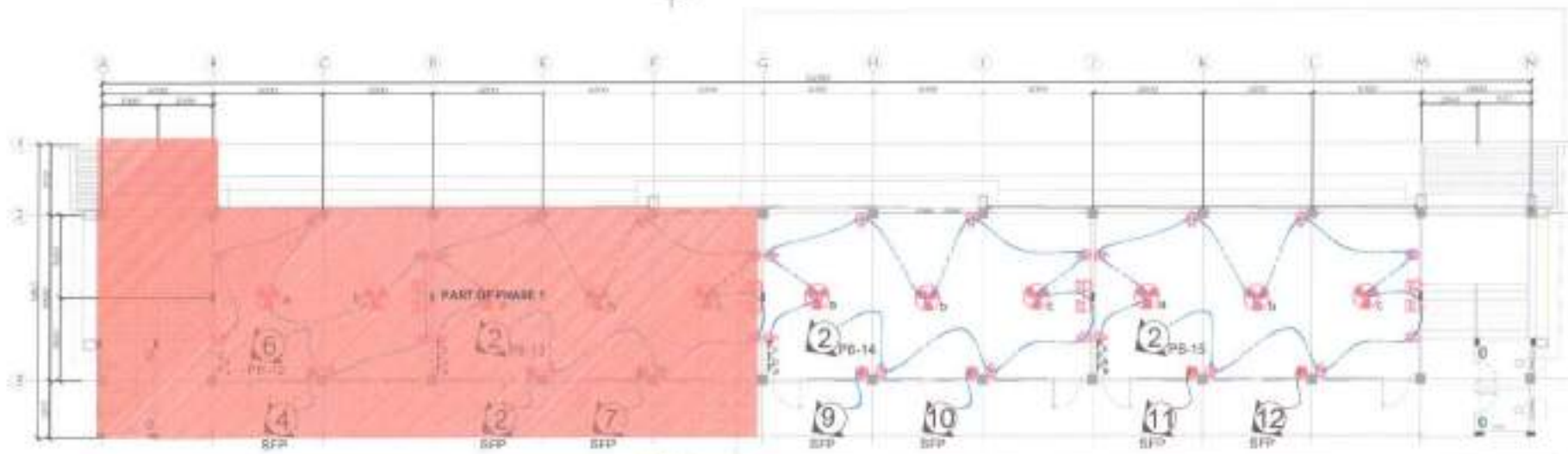


B SECOND FLOOR LIGHTING LAYOUT
 E 1 SCALE 1/8" = 1'-0"

SIGNED AND SEALED BY:	PROJECT AND LOCATION:	PREPARED BY:	CONCURRED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO.:	
REG. NO. 101-101-101 P.E. NO. 101-101-101 PLACE OFFICE DATE 10/10/2024 101-101-101	 COMPLETION OF BUSINESS STALLS & CLASSROOMS NORTH AVENUE STATE UNIVERSITY, MARIKINA CITY	 KYLE RENZO Y. GALAPON Electrical Engineer	 GERALD L. PEREZ Electrical Engineer	 OPHELIA S. BURGOS Civil Engineer	 ROMEL B. SAMAL Electrical Engineer	 DANILO P. YANO Electrical Engineer	 WILFREDO A. SUMAL Electrical Engineer	E-01 42



A
GROUND FLOOR POWER LAYOUT
SCALE: 1/8"=1'-0"



B
SECOND FLOOR POWER LAYOUT
SCALE: 1/8"=1'-0"

SIGNED AND SEALED BY:	PROJECT AND LOCATION:	PREPARED BY:	CONCURRED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO.:
PROJECT NO.: _____ DATE: _____ DRAWING NO.: _____ SHEET NO.: _____	 COMPLETION OF BUSINESS STALLS & CLASSROOMS NEW PALTZ STATE UNIVERSITY, SARASOTA, FLORIDA	 RENEO V. GALAPON ELECTRICAL ENGINEER	 GINILO L. PEMES ELECTRICAL ENGINEER	 ONELIA S. SUREDA ELECTRICAL ENGINEER	 CARLO P. RAMOS PROJECT MANAGER AND ELECTRICAL ENGINEER	 REMEDIOS A. DURALE, JR. ELECTRICAL ENGINEER	E-02 43

CONSTRUCTION OF TWO (2) STOREY BUSINESS STALLS & CLASSROOMS												
CIRCUIT NUMBER	DESCRIPTION	VOLTAGE RATING	QTY	APPROXIMATE RATING				VOLTAGE RATING	CIRCUIT BREAKER RATING (QST)	CONDUCTOR SIZE (mm ²)	CONDUIT SIZE (mm diameter)	REMARKS
				AB	BC	CA	NE					
1	LIGHTING OUTLET	230	4	400.00				400.00	15	2.00mm ² THHN Cu	20mm PVC	
2	COMMERCIAL OUTLET	230	4	120.00				120.00	20	2.5 3mm ² + 2.0mm ² THHN Cu	20mm PVC	
3	SMALL APPLIANCE OUTLET	230	1	1,000.00				1,000.00	25	2.5 3mm ² + 2.0mm ² THHN Cu	20mm PVC	
4	WAVE	230	5	900.00				900.00	20	2.5 3mm ² + 2.0mm ² THHN Cu	20mm PVC	
TOTAL				1,420.00	-	-	-	1,420.00				

NOTE FOR PANEL BOARD: PB-1, PB-4, PB-7 & PB-12

TOTAL PANEL LOAD	=	4,320.00 VA	PHASE	=	1 Ø (1-1)	MAIN SERVICE WIRE	=	2.5 3mm ² + 2.0mm ² THHN Cu
TOTAL DEMAND LOAD	=	2,816.00 VA	SYSTEM VOLTAGE	=	230 V	CONDUIT SIZE	=	20mm dia. PVC
TOTAL CURRENT	=	12.24 A	MAIN CB	=	30 AT			

DETAILS OF CONDUCTORS AMPACITY (PB-1, PB-4, PB-7 & PB-12)														
CIRCUIT NUMBER	CABLE	TYPE	CONDUCTOR	AREA	R _L	R _S	CONDUCTOR LOAD		SELECTED CONDUCTOR		NO. OF CIRC.	DIVERSITY FACTOR	MIN. AMP.	MIN. WIRE (mm diameter)
							PHASE	1.25% OVERLOAD	SIZE	AMP.				
1	PB	APW702	230	400.00	1.7911778	2.1751491	2.1751491	2.1751491	2.5 3mm ² THHN Cu	20	1	0.85	11.75	15
2	PB	APW702	230	120.00	1.1904516	1.4884371	1.4884371	1.4884371	2.5 3mm ² + 2.0mm ² THHN Cu	20	1	0.85	11.8	15
3	PB	APW702	230	1,000.00	4.5717842	4.5717842	4.5717842	4.5717842	2.5 3mm ² + 2.0mm ² THHN Cu	20	1	0.85	11.8	15
4	PB	APW702	230	900.00	3.9180420	3.9180420	3.9180420	3.9180420	2.5 3mm ² + 2.0mm ² THHN Cu	20	1	0.85	11.8	15
PB-1	W	W	230	1,800.00	11.2848240	11.2848240	11.2848240	11.2848240	2.5 3mm ² + 2.0mm ² THHN Cu	20	1	0.85	10.00	15
PB-4	W	W	230	1,800.00	11.2848240	11.2848240	11.2848240	11.2848240	2.5 3mm ² + 2.0mm ² THHN Cu	20	1	0.85	10.00	15
PB-7	W	W	230	1,800.00	11.2848240	11.2848240	11.2848240	11.2848240	2.5 3mm ² + 2.0mm ² THHN Cu	20	1	0.85	10.00	15
PB-12	W	W	230	1,800.00	11.2848240	11.2848240	11.2848240	11.2848240	2.5 3mm ² + 2.0mm ² THHN Cu	20	1	0.85	10.00	15

VOLTAGE DROP CALCULATION (PB-1, PB-4, PB-7 & PB-12)						
CIRCUIT NUMBER	CONDUCTOR LENGTH	WIRE RESISTANCE PER MM ² (Ω/MP)	AMPERE PER CABLE	VOLTAGE DROP	SIZE	REMARKS
1	11	0.0000000	1,791.178	0.0000000	0.0000000	CONDUCTOR IS PROTECTED BY CB
2	20	0.0000000	1,190.452	0.0000000	0.0000000	CONDUCTOR IS PROTECTED BY CB
3	2	0.0000000	4,571.784	0.0000000	0.0000000	CONDUCTOR IS PROTECTED BY CB
4	20	0.0000000	3,918.042	0.0000000	0.0000000	CONDUCTOR IS PROTECTED BY CB
PB-1	11	0.0000000	11,284.824	0.0000000	0.0000000	CONDUCTOR IS PROTECTED BY CB
PB-4	11	0.0000000	11,284.824	0.0000000	0.0000000	CONDUCTOR IS PROTECTED BY CB
PB-7	11	0.0000000	11,284.824	0.0000000	0.0000000	CONDUCTOR IS PROTECTED BY CB
PB-12	11	0.0000000	11,284.824	0.0000000	0.0000000	CONDUCTOR IS PROTECTED BY CB

CONSTRUCTION OF TWO (2) STOREY BUSINESS STALLS & CLASSROOMS												
CIRCUIT NUMBER	DESCRIPTION	VOLTAGE RATING	QTY	APPROXIMATE RATING				VOLTAGE RATING	CIRCUIT BREAKER RATING (QST)	CONDUCTOR SIZE (mm ²)	CONDUIT SIZE (mm diameter)	REMARKS
				AB	BC	CA	NE					
1	LIGHTING OUTLET	230	4	400.00				400.00	15	2.5 3mm ² THHN Cu	20mm PVC	
2	COMMERCIAL OUTLET	230	4	120.00				120.00	20	2.5 3mm ² + 2.0mm ² THHN Cu	20mm PVC	
3	SMALL APPLIANCE OUTLET	230	1	1,000.00				1,000.00	25	2.5 3mm ² + 2.0mm ² THHN Cu	20mm PVC	
4	WAVE	230	5	900.00				900.00	20	2.5 3mm ² + 2.0mm ² THHN Cu	20mm PVC	
TOTAL				1,420.00	-	-	-	1,420.00				

NOTE FOR PANEL BOARD: PB-1, PB-4, PB-7 & PB-12

TOTAL PANEL LOAD	=	4,320.00 VA	PHASE	=	1 Ø (1-1)	MAIN SERVICE WIRE	=	2.5 3mm ² + 2.0mm ² THHN Cu
TOTAL DEMAND LOAD	=	2,816.00 VA	SYSTEM VOLTAGE	=	230 V	CONDUIT SIZE	=	20mm dia. PVC
TOTAL CURRENT	=	12.24 A	MAIN CB	=	30 AT			

DETAILS OF CONDUCTORS AMPACITY (WAVE STALLS)														
CIRCUIT NUMBER	CABLE	TYPE	CONDUCTOR	AREA	R _L	R _S	CONDUCTOR LOAD		SELECTED CONDUCTOR		NO. OF CIRC.	DIVERSITY FACTOR	MIN. AMP.	MIN. WIRE (mm diameter)
							PHASE	1.25% OVERLOAD	SIZE	AMP.				
1	W	APW702	230	400.00	1.7911778	2.1751491	2.1751491	2.1751491	2.5 3mm ² THHN Cu	20	1	0.85	11.75	15
2	W	APW702	230	120.00	1.1904516	1.4884371	1.4884371	1.4884371	2.5 3mm ² + 2.0mm ² THHN Cu	20	1	0.85	11.8	15
3	W	APW702	230	1,000.00	4.5717842	4.5717842	4.5717842	4.5717842	2.5 3mm ² + 2.0mm ² THHN Cu	20	1	0.85	11.8	15
4	W	APW702	230	900.00	3.9180420	3.9180420	3.9180420	3.9180420	2.5 3mm ² + 2.0mm ² THHN Cu	20	1	0.85	11.8	15
WAVE	W	W	230	1,800.00	11.2848240	11.2848240	11.2848240	11.2848240	2.5 3mm ² + 2.0mm ² THHN Cu	20	1	0.85	10.00	15
PB-1	W	W	230	1,800.00	11.2848240	11.2848240	11.2848240	11.2848240	2.5 3mm ² + 2.0mm ² THHN Cu	20	1	0.85	10.00	15
PB-4	W	W	230	1,800.00	11.2848240	11.2848240	11.2848240	11.2848240	2.5 3mm ² + 2.0mm ² THHN Cu	20	1	0.85	10.00	15
PB-7	W	W	230	1,800.00	11.2848240	11.2848240	11.2848240	11.2848240	2.5 3mm ² + 2.0mm ² THHN Cu	20	1	0.85	10.00	15
PB-12	W	W	230	1,800.00	11.2848240	11.2848240	11.2848240	11.2848240	2.5 3mm ² + 2.0mm ² THHN Cu	20	1	0.85	10.00	15

VOLTAGE DROP CALCULATION (WAVE STALLS)						
CIRCUIT NUMBER	CONDUCTOR LENGTH	WIRE RESISTANCE PER MM ² (Ω/MP)	AMPERE PER CABLE	VOLTAGE DROP	SIZE	REMARKS
1	11	0.0000000	1,791.178	0.0000000	0.0000000	CONDUCTOR IS PROTECTED BY CB
2	20	0.0000000	1,190.452	0.0000000	0.0000000	CONDUCTOR IS PROTECTED BY CB
3	2	0.0000000	4,571.784	0.0000000	0.0000000	CONDUCTOR IS PROTECTED BY CB
4	20	0.0000000	3,918.042	0.0000000	0.0000000	CONDUCTOR IS PROTECTED BY CB
WAVE	11	0.0000000	11,284.824	0.0000000	0.0000000	CONDUCTOR IS PROTECTED BY CB
PB-1	11	0.0000000	11,284.824	0.0000000	0.0000000	CONDUCTOR IS PROTECTED BY CB
PB-4	11	0.0000000	11,284.824	0.0000000	0.0000000	CONDUCTOR IS PROTECTED BY CB
PB-7	11	0.0000000	11,284.824	0.0000000	0.0000000	CONDUCTOR IS PROTECTED BY CB
PB-12	11	0.0000000	11,284.824	0.0000000	0.0000000	CONDUCTOR IS PROTECTED BY CB

CONSTRUCTION OF TWO (2) STOREY BUSINESS STALLS & CLASSROOMS												
CIRCUIT NUMBER	DESCRIPTION	VOLTAGE (V/PHASE)	QTY	APPROXIMATE DISTANCE				WTLTA-SERVE (M)	CIRCUIT BREAKER RATING (Amps)	CONDUIT SIZE (mm ²)	CONDUIT SIZE (mm diameter)	REMARKS
				40	80	CA	80					
1	LIGHTING OUTLET	230	4				400.00	400.00	15	2.5.3mm ² THHN Cu	20mm PVC	
2	CONVENIENCE OUTLET	230	4				730.00	730.00	20	2.5.3mm ² + 2.5mm ² THHN Cu	20mm PVC	
3	SMALL APPLIANCE OUTLET	230	1				1300.00	1300.00	20	2.5.3mm ² + 2.5mm ² THHN Cu	20mm PVC	
4	DATA	230	1				400.00	400.00	20	2.5.3mm ² + 2.5mm ² THHN Cu	20mm PVC	
TOTAL							1520.00	1520.00				

NOTE: FOR PANEL BOARD PB-4, PB-6 & PB-8

TOTAL PANEL LOAD	=	1520.00 VA	PHASE	=	1 Ø (1-L)	MAIN SERVICE WIRE	=	2.5.3mm ² + 3.5mm ² THHN Cu
TOTAL DEMAND LOAD	=	1,258.80 VA	SYSTEM VOLTAGE	=	230 V	CONDUIT SIZE	=	20mm dia. PVC
TOTAL CURRENT	=	5.24 A	MAIN CB	=	30 AT			

WIRING CALCULATION INFORMATION & WIRE SIZES													
CIRCUIT NUMBER	CABLE	WTLTA	V _{LN}	V _{LL}	I _{LN}	I _{LL}	CIRCUIT LOAD		CIRCUIT CAPACITY		NO. OF WIRE	CONDUCTOR SIZE (mm ²)	CONDUIT SIZE (mm dia)
							WTLTA	WTLTA-CORR. FLD	AMP	AMP			
1	19	400.00	15	150.00	1.700(2.25)	1.700(2.25)	1.120(2.00)	1.120(2.00)	2.5.3mm ² THHN Cu	20	2	20	20
2	19	730.00	15	180.00	3.190(4.18)	3.190(4.18)	2.120(2.75)	2.120(2.75)	2.5.3mm ² + 2.5mm ² THHN Cu	20	2	20	20
3	19	1300.00	15	330.00	5.490(7.18)	5.490(7.18)	3.500(4.50)	3.500(4.50)	2.5.3mm ² + 2.5mm ² THHN Cu	20	2	20	20
4	19	400.00	15	100.00	1.100(1.43)	1.100(1.43)	0.750(1.00)	0.750(1.00)	2.5.3mm ² + 2.5mm ² THHN Cu	20	2	20	20
19.1	19	15	15	15	0.150(0.20)	0.150(0.20)	0.100(0.13)	0.100(0.13)	2.5.3mm ² + 2.5mm ² THHN Cu	20	2	20	20
19.2	19	15	15	15	0.150(0.20)	0.150(0.20)	0.100(0.13)	0.100(0.13)	2.5.3mm ² + 2.5mm ² THHN Cu	20	2	20	20
19.3	19	15	15	15	0.150(0.20)	0.150(0.20)	0.100(0.13)	0.100(0.13)	2.5.3mm ² + 2.5mm ² THHN Cu	20	2	20	20
19.4	19	15	15	15	0.150(0.20)	0.150(0.20)	0.100(0.13)	0.100(0.13)	2.5.3mm ² + 2.5mm ² THHN Cu	20	2	20	20
19.5	19	15	15	15	0.150(0.20)	0.150(0.20)	0.100(0.13)	0.100(0.13)	2.5.3mm ² + 2.5mm ² THHN Cu	20	2	20	20
19.6	19	15	15	15	0.150(0.20)	0.150(0.20)	0.100(0.13)	0.100(0.13)	2.5.3mm ² + 2.5mm ² THHN Cu	20	2	20	20

CIRCUIT NUMBER	CONDUCTOR SIZE	CABLE STRANDED WIRE SIZE (mm ²)	WTLTA FOR WIRE	WTLTA FOR WIRE	WIRE	REMARKS
1	15	0.000(0.00)	1.700(2.25)	1.700(2.25)	1.000(1.32)	CABLE IS PROPERLY SIZED
2	15	0.000(0.00)	3.190(4.18)	3.190(4.18)	2.000(2.64)	CABLE IS PROPERLY SIZED
3	15	0.000(0.00)	5.490(7.18)	5.490(7.18)	3.000(3.92)	CABLE IS PROPERLY SIZED
4	15	0.000(0.00)	1.100(1.43)	1.100(1.43)	0.750(1.00)	CABLE IS PROPERLY SIZED
19.1	15	0.000(0.00)	0.150(0.20)	0.150(0.20)	0.100(0.13)	CABLE IS PROPERLY SIZED
19.2	15	0.000(0.00)	0.150(0.20)	0.150(0.20)	0.100(0.13)	CABLE IS PROPERLY SIZED
19.3	15	0.000(0.00)	0.150(0.20)	0.150(0.20)	0.100(0.13)	CABLE IS PROPERLY SIZED
19.4	15	0.000(0.00)	0.150(0.20)	0.150(0.20)	0.100(0.13)	CABLE IS PROPERLY SIZED
19.5	15	0.000(0.00)	0.150(0.20)	0.150(0.20)	0.100(0.13)	CABLE IS PROPERLY SIZED
19.6	15	0.000(0.00)	0.150(0.20)	0.150(0.20)	0.100(0.13)	CABLE IS PROPERLY SIZED

CONSTRUCTION OF TWO (2) STOREY BUSINESS STALLS & CLASSROOMS												
CIRCUIT NUMBER	DESCRIPTION	VOLTAGE (V/PHASE)	QTY	APPROXIMATE DISTANCE				WTLTA-SERVE (M)	CIRCUIT BREAKER RATING (Amps)	CONDUIT SIZE (mm ²)	CONDUIT SIZE (mm diameter)	REMARKS
				40	80	CA	80					
1	LIGHTING OUTLET	230	4				400.00	400.00	15	2.5.3mm ² THHN Cu	20mm PVC	
2	CONVENIENCE OUTLET	230	4				730.00	730.00	20	2.5.3mm ² THHN Cu	20mm PVC	
3	CONVENIENCE OUTLET	230	4				730.00	730.00	20	2.5.3mm ² THHN Cu	20mm PVC	
4	CONVENIENCE OUTLET	230	4				730.00	730.00	20	2.5.3mm ² + 2.5mm ² THHN Cu	20mm PVC	
5	CONVENIENCE OUTLET	230	4				730.00	730.00	20	2.5.3mm ² + 2.5mm ² THHN Cu	20mm PVC	
6	CONVENIENCE OUTLET	230	4				730.00	730.00	20	2.5.3mm ² + 2.5mm ² THHN Cu	20mm PVC	
TOTAL							2720.00	2720.00				

NOTE: FOR PANEL BOARD PB-2

TOTAL PANEL LOAD	=	2,720.00 VA	PHASE	=	1 Ø (1-L)	MAIN SERVICE WIRE	=	2.5.3mm ² + 3.5mm ² THHN Cu
TOTAL DEMAND LOAD	=	2,260.00 VA	SYSTEM VOLTAGE	=	230 V	CONDUIT SIZE	=	20mm dia. PVC
TOTAL CURRENT	=	9.84 A	MAIN CB	=	30 AT			

WIRING CALCULATION INFORMATION & WIRE SIZES													
CIRCUIT NUMBER	CABLE	WTLTA	V _{LN}	V _{LL}	I _{LN}	I _{LL}	CIRCUIT LOAD		CIRCUIT CAPACITY		NO. OF WIRE	CONDUCTOR SIZE (mm ²)	CONDUIT SIZE (mm dia)
							WTLTA	WTLTA-CORR. FLD	AMP	AMP			
1	19	400.00	15	150.00	1.700(2.25)	1.700(2.25)	1.120(2.00)	1.120(2.00)	2.5.3mm ² THHN Cu	20	2	20	20
2	19	730.00	15	180.00	3.190(4.18)	3.190(4.18)	2.120(2.75)	2.120(2.75)	2.5.3mm ² + 2.5mm ² THHN Cu	20	2	20	20
3	19	730.00	15	180.00	3.190(4.18)	3.190(4.18)	2.120(2.75)	2.120(2.75)	2.5.3mm ² + 2.5mm ² THHN Cu	20	2	20	20
4	19	730.00	15	180.00	3.190(4.18)	3.190(4.18)	2.120(2.75)	2.120(2.75)	2.5.3mm ² + 2.5mm ² THHN Cu	20	2	20	20
5	19	730.00	15	180.00	3.190(4.18)	3.190(4.18)	2.120(2.75)	2.120(2.75)	2.5.3mm ² + 2.5mm ² THHN Cu	20	2	20	20
6	19	730.00	15	180.00	3.190(4.18)	3.190(4.18)	2.120(2.75)	2.120(2.75)	2.5.3mm ² + 2.5mm ² THHN Cu	20	2	20	20
19	19	15	15	15	0.150(0.20)	0.150(0.20)	0.100(0.13)	0.100(0.13)	2.5.3mm ² + 2.5mm ² THHN Cu	20	2	20	20

CIRCUIT NUMBER	CONDUCTOR SIZE	CABLE STRANDED WIRE SIZE (mm ²)	WTLTA FOR WIRE	WTLTA FOR WIRE	WIRE	REMARKS
1	15	0.000(0.00)	1.700(2.25)	1.700(2.25)	1.000(1.32)	CABLE IS PROPERLY SIZED
2	15	0.000(0.00)	3.190(4.18)	3.190(4.18)	2.000(2.64)	CABLE IS PROPERLY SIZED
3	15	0.000(0.00)	3.190(4.18)	3.190(4.18)	2.000(2.64)	CABLE IS PROPERLY SIZED
4	15	0.000(0.00)	3.190(4.18)	3.190(4.18)	2.000(2.64)	CABLE IS PROPERLY SIZED
5	15	0.000(0.00)	3.190(4.18)	3.190(4.18)	2.000(2.64)	CABLE IS PROPERLY SIZED
6	15	0.000(0.00)	3.190(4.18)	3.190(4.18)	2.000(2.64)	CABLE IS PROPERLY SIZED
19	15	0.000(0.00)	0.150(0.20)	0.150(0.20)	0.100(0.13)	CABLE IS PROPERLY SIZED

SIGNED AND SEALED BY:	PROJECT AND LOCATION:	PREPARED BY:	CONCURRED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO.:	
	 COMPLETION OF BUSINESS STALLS & CLASSROOMS NEW YORK STATE UNIVERSITY SYSTEM CAMPUS	 KYLE RENZO V. GALAPON Civil Engineer	 GERALD L. PEREZ Master Electrician	 ORELIA E. RUSSO Civil Engineer	 EDWIN R. MANALA Director PECE	 CARLO P. VAYDA PECE	 WILFREDO A. SUMALA JR. Electrical Engineer	E-05 46

CONSTRUCTION OF TWO (2) STORY BUSINESS STALLS & CLASSROOMS												
CIRCUIT NUMBER	DESCRIPTION	VOLTAGE RATING	CIRCUIT	APPARENT LOADS				VOLT-AMPERE RATING	CIRCUIT BREAKER RATING (Amps)	CONDUCTOR SIZE (mm ²)	CONDUIT SIZE (mm diameter)	REMARKS
				AB	BC	CA	SB					
1	LIGHTING OUTLET	230	12				1,000.00	1,000.00	15	2.0mm ² THHN Cu	20mm PVC	
2	CONVENIENCE OUTLET	230	15				1,800.00	1,800.00	15	2.5mm ² + 2.5mm ² THHN Cu	20mm PVC	
3	SWMS	230	5				900.00	900.00	15	2.5mm ² + 2.5mm ² THHN Cu	20mm PVC	
4	SWMS	230	5				900.00	900.00	15	2.5mm ² + 2.5mm ² THHN Cu	20mm PVC	
TOTAL				4,500.00				4,500.00	30			

NOTE: FOR PANEL BOARD PB-27

TOTAL PANEL LOAD	=	4,500.00 VA	PHASE	=	1 Ø (3-Ø)	MAIN SERVICE WIRE	=	2.5mm ² + 2.5mm ² THHN Cu
TOTAL DEMAND LOAD	=	4,500.00 VA	SYSTEM VOLTAGE	=	230 V	CONDUIT SIZE	=	20mm dia. PVC
TOTAL CURRENT	=	17.32 A	MAIN CB	=	30 AT			

DISTRIBUTION OF CONDUCTOR'S CAPACITY															
CIRCUIT NUMBER	CIRCUIT		VOLTAGE	LOAD			FLA	SELECTED CONDUCTOR		RMP	NO. OF STRIPS	SERVING FACTOR	NEW AMP	TOTAL AMP	
	FROM	TO		VA	KA	MF		W/NO	1.75/TOTAL FLA						SIZE
1	76	76T1801	230	1,000.00			4,517.00 (100)	6.3217013	2.5mm ² THHN Cu	30	1	0.80	1	21.75	115
2	76	76T1802	230	1,800.00			6,689.00 (150)	9.6891962	2.5mm ² + 2.5mm ² THHN Cu	30	1	0.80	1	27.5	115
3	76	76T1803	230	900.00			3,150.00 (75)	4,334.3478	2.5mm ² + 2.5mm ² THHN Cu	30	1	0.80	1	27.5	115
4	76	76T1804	230	900.00			3,150.00 (75)	4,334.3478	2.5mm ² + 2.5mm ² THHN Cu	30	1	0.80	1	27.5	115
	76	76	230	4,500.00			17,111.00 (450)	23,685.67	2.5mm ² + 2.5mm ² THHN Cu	30	1	0.80	1	100.00	115

VOLTAGE DROP CALCULATION(S)						
CIRCUIT NUMBER	CONDUCTOR LENGTH	CABLE RESISTANCE PER 100m (Ω/100m)	AMPERE PER CUB	VOLTAGE DROP	%VD	REMARKS
1	26	0.02718046	5.2731134	1.40124433	0.64022%	CABLE IS PROPERLY SIZED
2	42	0.04441811	8.6891962	2.40124433	1.07508%	CABLE IS PROPERLY SIZED
3	20	0.02220905	4.3445981	1.20062217	0.53754%	CABLE IS PROPERLY SIZED
4	20	0.02220905	4.3445981	1.20062217	0.53754%	CABLE IS PROPERLY SIZED
	30	0.03331358	17.3217817	4.74491000	0.94005%	CABLE IS PROPERLY SIZED






CONSTRUCTION OF TWO (2) STORY BUSINESS STALLS & CLASSROOMS												
CIRCUIT NUMBER	DESCRIPTION	VOLTAGE RATING	CIRCUIT	APPARENT LOADS				VOLT-AMPERE RATING	CIRCUIT BREAKER RATING (Amps)	CONDUCTOR SIZE (mm ²)	CONDUIT SIZE (mm diameter)	REMARKS
				AB	BC	CA	SB					
1	LIGHTING OUTLET	230	12				1,000.00	1,000.00	15	2.0mm ² THHN Cu	20mm PVC	
2	CONVENIENCE OUTLET	230	15				1,800.00	1,800.00	15	2.5mm ² + 2.5mm ² THHN Cu	20mm PVC	
3	SWMS	230	5				900.00	900.00	15	2.5mm ² + 2.5mm ² THHN Cu	20mm PVC	
4	SWMS	230	5				900.00	900.00	15	2.5mm ² + 2.5mm ² THHN Cu	20mm PVC	
TOTAL				4,500.00				4,500.00	30			

NOTE: FOR PANEL BOARD PB-18

TOTAL PANEL LOAD	=	4,500.00 VA	PHASE	=	1 Ø (3-Ø)	MAIN SERVICE WIRE	=	2.5mm ² + 2.5mm ² THHN Cu
TOTAL DEMAND LOAD	=	4,500.00 VA	SYSTEM VOLTAGE	=	230 V	CONDUIT SIZE	=	20mm dia. PVC
TOTAL CURRENT	=	17.32 A	MAIN CB	=	30 AT			

DISTRIBUTION OF CONDUCTOR'S CAPACITY															
CIRCUIT NUMBER	CIRCUIT		VOLTAGE	LOAD			FLA	SELECTED CONDUCTOR		RMP	NO. OF STRIPS	SERVING FACTOR	NEW AMP	TOTAL AMP	
	FROM	TO		VA	KA	MF		W/NO	1.75/TOTAL FLA						SIZE
1	76	76T1801	230	1,000.00			4,517.00 (100)	6.3217013	2.5mm ² THHN Cu	30	1	0.80	1	21.75	115
2	76	76T1802	230	1,800.00			6,689.00 (150)	9.6891962	2.5mm ² + 2.5mm ² THHN Cu	30	1	0.80	1	27.5	115
3	76	76T1803	230	900.00			3,150.00 (75)	4,334.3478	2.5mm ² + 2.5mm ² THHN Cu	30	1	0.80	1	27.5	115
4	76	76T1804	230	900.00			3,150.00 (75)	4,334.3478	2.5mm ² + 2.5mm ² THHN Cu	30	1	0.80	1	27.5	115
	76	76	230	4,500.00			17,111.00 (450)	23,685.67	2.5mm ² + 2.5mm ² THHN Cu	30	1	0.80	1	100.00	115

VOLTAGE DROP CALCULATION(S)						
CIRCUIT NUMBER	CONDUCTOR LENGTH	CABLE RESISTANCE PER 100m (Ω/100m)	AMPERE PER CUB	VOLTAGE DROP	%VD	REMARKS
1	26	0.02718046	5.2731134	1.40124433	0.64022%	CABLE IS PROPERLY SIZED
2	42	0.04441811	8.6891962	2.40124433	1.07508%	CABLE IS PROPERLY SIZED
3	20	0.02220905	4.3445981	1.20062217	0.53754%	CABLE IS PROPERLY SIZED
4	20	0.02220905	4.3445981	1.20062217	0.53754%	CABLE IS PROPERLY SIZED
	30	0.03331358	17.3217817	4.74491000	0.94005%	CABLE IS PROPERLY SIZED

SIGNED AND SEALED BY:	PROJECT AND LOCATION:	PREPARED BY:	CONCURRED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO:
 PREPARED BY: KYSE RENZO Y. GALAPON PROJECT ENGINEER	COMPLETION OF BUSINESS STALLS & CLASSROOMS PROJECT LOCATION: [Address]	 KYSE RENZO Y. GALAPON PROJECT ENGINEER	 GERALD L. PEREZ PROJECT ENGINEER	 OPHELIA S. BURO PROJECT ENGINEER	 CARLO S. YABL PROJECT ENGINEER	 WILFREDO A. TUMALA, JR. PROJECT ENGINEER	E-06 47

CONSTRUCTION OF TWO (2) STOREY BUSINESS STALLS & CLASSROOMS												
CIRCUIT NUMBER	DESCRIPTION	VOLTAGE (V)	QTY	APPARENT POWER (VA)				VOLTA AMPERE (A)	CIRCUIT BREAKER (Amps)	CONDUCTOR SIZE (sqft)	COROSAT SIZE (mm diameter)	REMARKS
				AA	BC	CA	AB					
1	CONVENIENCE OUTLET	200	10	1,000.00				5.00	20	2.2 sqm ² 14AWG Cu	20mm ØVC	
2	CONVENIENCE OUTLET	200	11	1,100.00				5.50	20	2.2 sqm ² 14AWG Cu	20mm ØVC	
3	SWAY	200	5	500.00				2.50	20	2.2 sqm ² 14AWG Cu	20mm ØVC	
4	SWAY	200	5	500.00				2.50	20	2.2 sqm ² 14AWG Cu	20mm ØVC	
TOTAL				4,000.00				10.00				

NOTE: FOR PANEL BOARD: PB 12

TOTAL PANEL LOAD	=	4,000.00 VA	PHASE	=	1 Ø (1-1)	MAIN SERVICE WIRE	=	2.2 sqm ² x 1.5 sqm ² 14AWG Cu
TOTAL DEMAND LOAD	=	1,000.00 VA	SYSTEM VOLTAGE	=	200 V	CONDUIT SIZE	=	20mm Øvc. PVC
TOTAL CURRENT	=	17.32 A	NAMICK	=	30 AF			

CONSTRUCTION OF TWO (2) STOREY BUSINESS STALLS & CLASSROOMS												
CIRCUIT NUMBER	DESCRIPTION	VOLTAGE (V)	QTY	APPARENT POWER (VA)				VOLTA AMPERE (A)	CIRCUIT BREAKER (Amps)	CONDUCTOR SIZE (sqft)	COROSAT SIZE (mm diameter)	REMARKS
				AA	BC	CA	AB					
1	CONVENIENCE OUTLET	200	10	1,000.00				5.00	20	2.2 sqm ² 14AWG Cu	20mm ØVC	
2	CONVENIENCE OUTLET	200	11	1,100.00				5.50	20	2.2 sqm ² 14AWG Cu	20mm ØVC	
3	SWAY	200	5	500.00				2.50	20	2.2 sqm ² 14AWG Cu	20mm ØVC	
4	SWAY	200	5	500.00				2.50	20	2.2 sqm ² 14AWG Cu	20mm ØVC	
TOTAL				4,000.00				10.00				

NOTE: FOR CLASSROOMS: SP7

TOTAL PANEL LOAD	=	4,000.00 VA	PHASE	=	3 Ø	MAIN SERVICE WIRE	=	3.2 sqm ² x 3.2 sqm ² 14AWG Cu
TOTAL DEMAND LOAD	=	1,000.00 VA	SYSTEM VOLTAGE	=	200 V	CONDUIT SIZE	=	20mm Øvc. PVC
TOTAL CURRENT	=	17.32 A	NAMICK	=	30 AF			

CONSTRUCTION OF TWO (2) STOREY BUSINESS STALLS & CLASSROOMS												
CIRCUIT NUMBER	DESCRIPTION	VOLTAGE (V)	QTY	APPARENT POWER (VA)				VOLTA AMPERE (A)	CIRCUIT BREAKER (Amps)	CONDUCTOR SIZE (sqft)	COROSAT SIZE (mm diameter)	REMARKS
				AA	BC	CA	AB					
1	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
2	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
3	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
4	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
5	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
6	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
7	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
8	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
9	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
10	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
11	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
12	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
TOTAL				11,111.00				18.66				

NOTE: FOR CLASSROOMS: SP7

TOTAL PANEL LOAD	=	41,000.00 VA	PHASE	=	3 Ø	MAIN SERVICE WIRE	=	3.2 sqm ² x 3.2 sqm ² 14AWG Cu
TOTAL DEMAND LOAD	=	10,000.00 VA	SYSTEM VOLTAGE	=	200 V	CONDUIT SIZE	=	20mm Øvc. PVC
TOTAL CURRENT	=	10.12 A	NAMICK	=	30 AF			

CONSTRUCTION OF TWO (2) STOREY BUSINESS STALLS & CLASSROOMS												
CIRCUIT NUMBER	DESCRIPTION	VOLTAGE (V)	QTY	APPARENT POWER (VA)				VOLTA AMPERE (A)	CIRCUIT BREAKER (Amps)	CONDUCTOR SIZE (sqft)	COROSAT SIZE (mm diameter)	REMARKS
				AA	BC	CA	AB					
1	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
2	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
3	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
4	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
5	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
6	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
7	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
8	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
9	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
10	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
11	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
12	40' 12W	200	3	1,200.00				6.00	30	2.2 sqm ² x 2.2 sqm ² 14AWG Cu	20mm Øvc	
TOTAL				11,111.00				18.66				

NOTE: FOR CLASSROOMS: SP7

TOTAL PANEL LOAD	=	41,000.00 VA	PHASE	=	3 Ø	MAIN SERVICE WIRE	=	3.2 sqm ² x 3.2 sqm ² 14AWG Cu
TOTAL DEMAND LOAD	=	10,000.00 VA	SYSTEM VOLTAGE	=	200 V	CONDUIT SIZE	=	20mm Øvc. PVC
TOTAL CURRENT	=	10.12 A	NAMICK	=	30 AF			






SIGNED AND SEALED BY:	PROJECT AND LOCATION:	PREPARED BY:	CONCURRED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO:
	COMPLETION OF BUSINESS STALLS & CLASSROOMS	ENR RENZO V. GALAPON					E-07 46
PROJECT NO: 1940 LMP-1	DATE OF ISSUE: 14 FEB 2024	SCALE: 1:1	DATE OF ISSUE: 14 FEB 2024	SCALE: 1:1	DATE OF ISSUE: 14 FEB 2024	SCALE: 1:1	DATE OF ISSUE: 14 FEB 2024

CONSTRUCTION OF TWO (2) FIRST FLOOR STALLS & CLASSROOMS														
CIRCUIT NUMBER	DESCRIPTION	VOL. AMP	WATTAGE	LTS	APPROXIMATE WATTAGE				MULTIPLIER	CIRCUIT BREAKER	CONDUCTOR	CIRCUIT	REMARKS	
					PH	LA	SA	SE						
1	PH-1	100	1	1	100.00				1.00	30	2.0mm ² + 1.0mm ² THHN/Cu	1000-01		
2	PH-1	100	1	1	100.00				1.00	30	2.0mm ² + 1.0mm ² THHN/Cu	1000-02		
3	PH-1	100	1	1	100.00				1.00	30	2.0mm ² + 1.0mm ² THHN/Cu	1000-03		
4	PH-4	100	1	1	100.00				1.00	30	2.0mm ² + 1.0mm ² THHN/Cu	1000-04		
5	PH-5	100	1	1	100.00				1.00	30	2.0mm ² + 1.0mm ² THHN/Cu	1000-05		
6	PH-6	100	1	1	100.00				1.00	30	2.0mm ² + 1.0mm ² THHN/Cu	1000-06		
7	PH-7	100	1	1	100.00				1.00	30	2.0mm ² + 1.0mm ² THHN/Cu	1000-07		
8	PH-8	100	1	1	100.00				1.00	30	2.0mm ² + 1.0mm ² THHN/Cu	1000-08		
9	PH-9	100	1	1	100.00				1.00	30	2.0mm ² + 1.0mm ² THHN/Cu	1000-09		
10	PH-10	100	1	1	100.00				1.00	30	2.0mm ² + 1.0mm ² THHN/Cu	1000-10		
11	PH-11	100	1	1	100.00				1.00	30	2.0mm ² + 1.0mm ² THHN/Cu	1000-11		
12	SP	100	1	1	100.00				1.00	30	2.0mm ² + 1.0mm ² THHN/Cu	1000-12		
TOTAL					1,100.00	11,000.00	9,900.00	21,100.00	21,100.00					

WATT FOR CLASSROOMS (from Electrical & NEMA)												
TOTAL PANEL LOAD	=	61,368.00 VA	PHASE	=	3 P	MAIN BUS SIZE	=	2.0mm ² + 1.0mm ² THHN/Cu				
TOTAL DEMAND LOAD	=	46,926.00 VA	SYSTEM VOLTAGE	=	200 V	CIRCUIT SIZE	=	4mm ² 4W				
TOTAL CURRENT	=	244.88 A	MAIN CB	=	100 AT							

WIRE SCHEDULE FOR CONSTRUCTION												
CIRCUIT NUMBER	WIRE	SIZE	WATTAGE	PHASE	TYPE	CONDUCTOR LENGTH (M)	CONDUCTOR LENGTH (FT)	CONDUCTOR WEIGHT (KG)	CONDUCTOR WEIGHT (LB)	WIRE TYPE	WIRE SIZE	REMARKS
1	MAIN	PH-1	100	1	100.00	1.00	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-01
2	MAIN	PH-1	100	1	100.00	1.00	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-02
3	MAIN	PH-1	100	1	100.00	1.00	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-03
4	MAIN	PH-4	100	1	100.00	1.00	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-04
5	MAIN	PH-5	100	1	100.00	1.00	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-05
6	MAIN	PH-6	100	1	100.00	1.00	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-06
7	MAIN	PH-7	100	1	100.00	1.00	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-07
8	MAIN	PH-8	100	1	100.00	1.00	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-08
9	MAIN	PH-9	100	1	100.00	1.00	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-09
10	MAIN	PH-10	100	1	100.00	1.00	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-10
11	MAIN	PH-11	100	1	100.00	1.00	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-11
12	MAIN	SP	100	1	100.00	1.00	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-12
SP	MAIN	SP	100	1	100.00	1.00	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-12

WIRE SCHEDULE FOR CONSTRUCTION						
CIRCUIT NUMBER	CONDUCTOR LENGTH	CONDUCTOR WEIGHT (KG)	CONDUCTOR WEIGHT (LB)	WIRE TYPE	WIRE SIZE	REMARKS
1	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-01
2	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-02
3	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-03
4	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-04
5	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-05
6	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-06
7	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-07
8	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-08
9	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-09
10	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-10
11	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-11
12	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-12
SP	3.28	0.00	0.00	2.0mm ² + 1.0mm ² THHN/Cu	30	1000-12

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	COMPLETION OF BUSINESS STALLS & CLASSROOMS						
PROJ NO: 2442 LAF 1	DATE: 04/20/2024	SYRENZO V. GALAPON Professional Engineer	GERARDO FERRER Professional Engineer	OVELA S. RUBIO Professional Engineer	EDMARIE SUMAL Professional Engineer	CARLOS VASIL Professional Engineer	RALFO A. SUMALE JR. Professional Engineer

SHORT-CIRCUIT ANALYSIS

At, Transformer: At fault a;
Assuming connected to 3-25kVA Delta bank
with a 6.75% impedance
Note: 230V

Isc: 8,367.64 A

USE Disconnect of a minimum of 10kAIC, 230V

At fault b:

C: 981
L: 49.2
f: 3.16
M: 0.24
Isc: 2,011.34 A

USE Disconnect of a minimum of 10kAIC, 230V

At fault c:

C: 3806
L: 29.52
f: 1.27
M: 0.44
Isc: 9,574.87 A

USE Disconnect of a minimum of 10kAIC, 230V

At fault d:

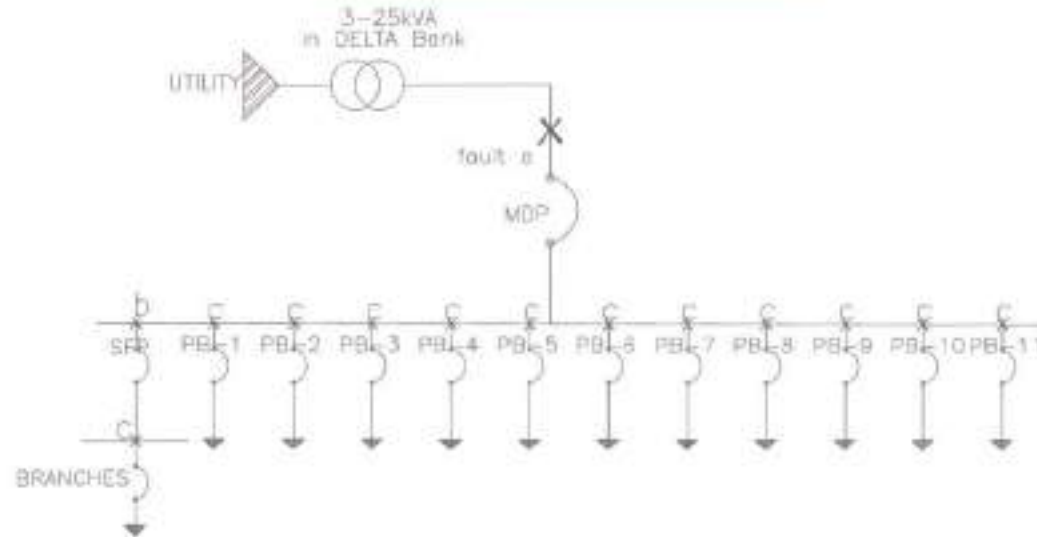
C: 617
L: 32.8
f: 0.94
M: 0.51
Isc: 4,923.29 A

USE Disconnect of a minimum of 6kAIC, 230V

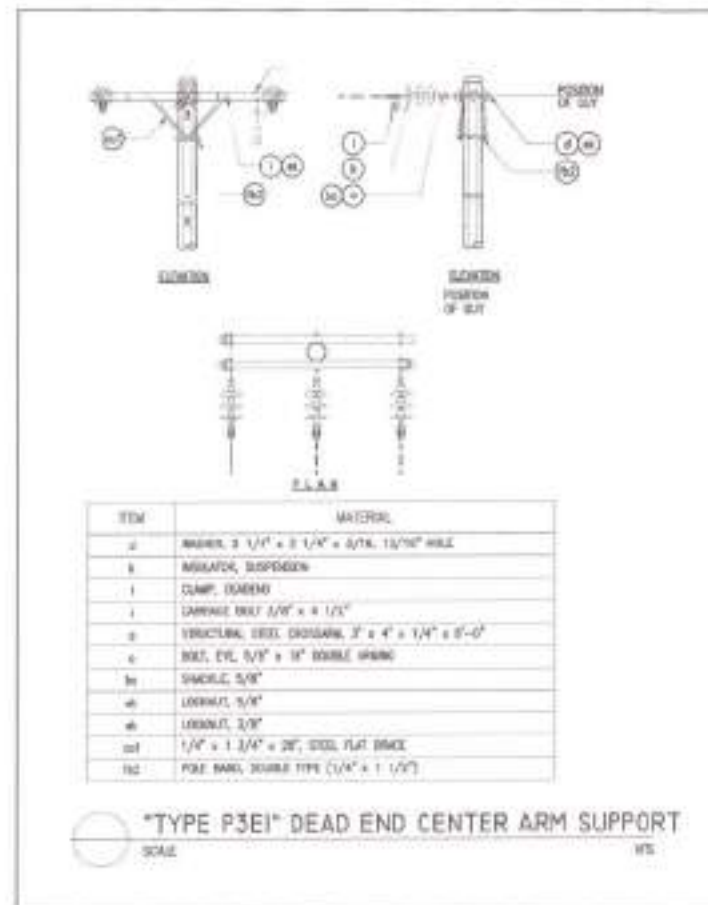
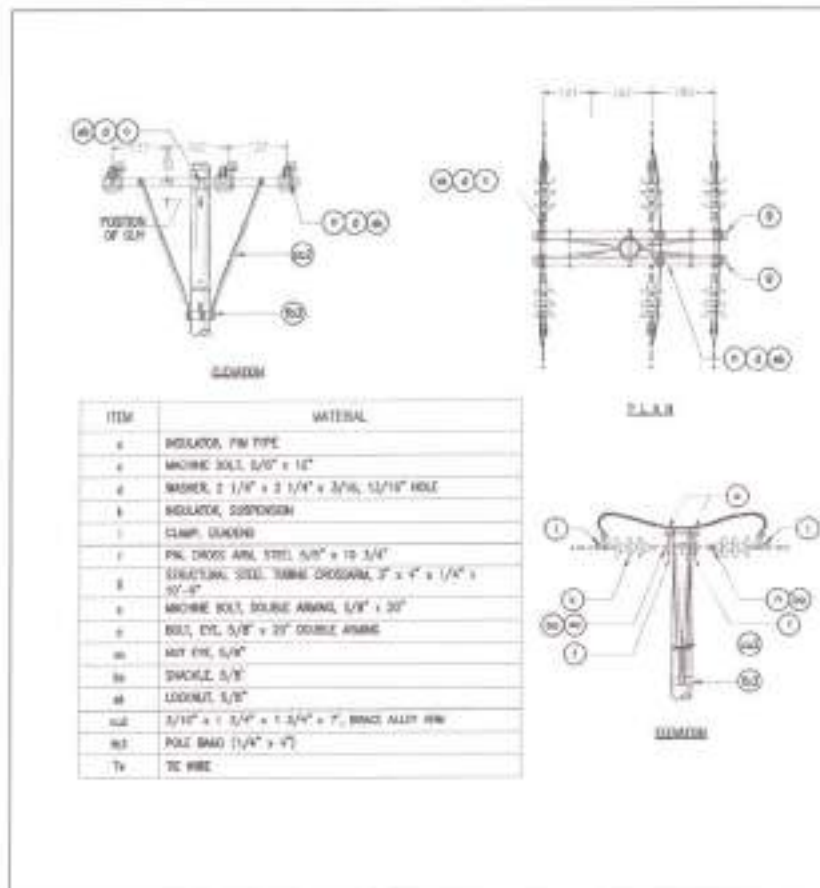
At fault at ACLI

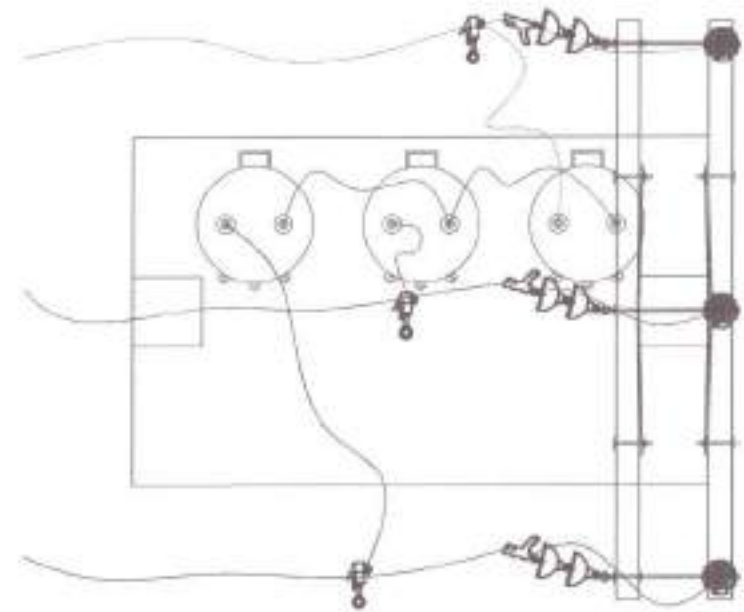
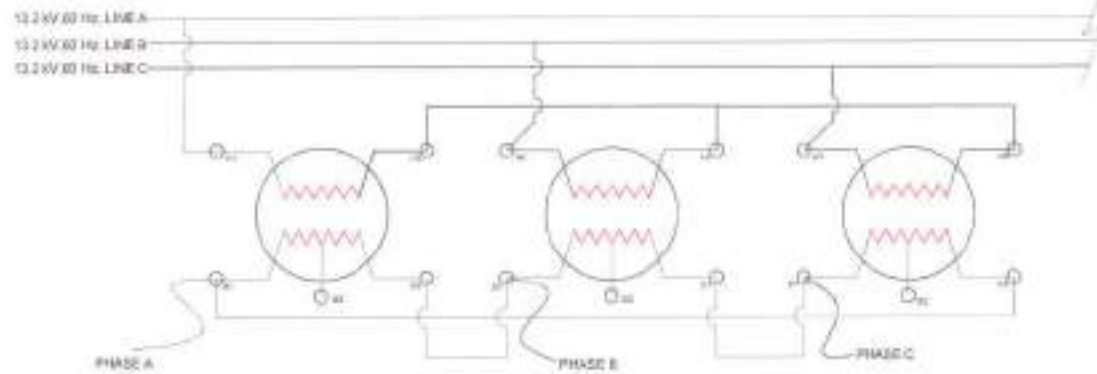
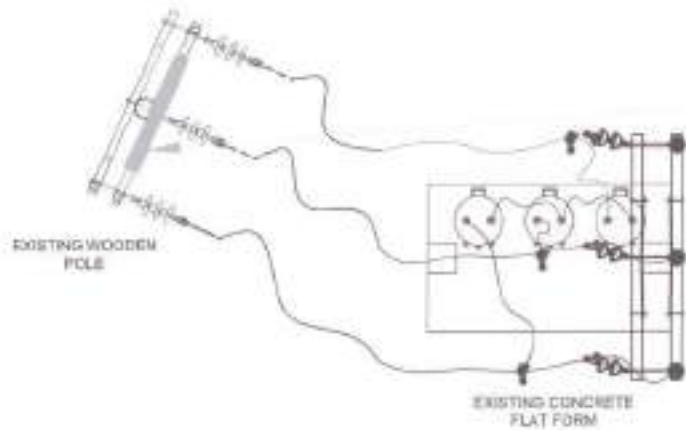
C: 981
L: 22.96
f: 0.97
M: 0.51
Isc: 4,897.67 A

USE Disconnect of a minimum of 6kAIC, 230V

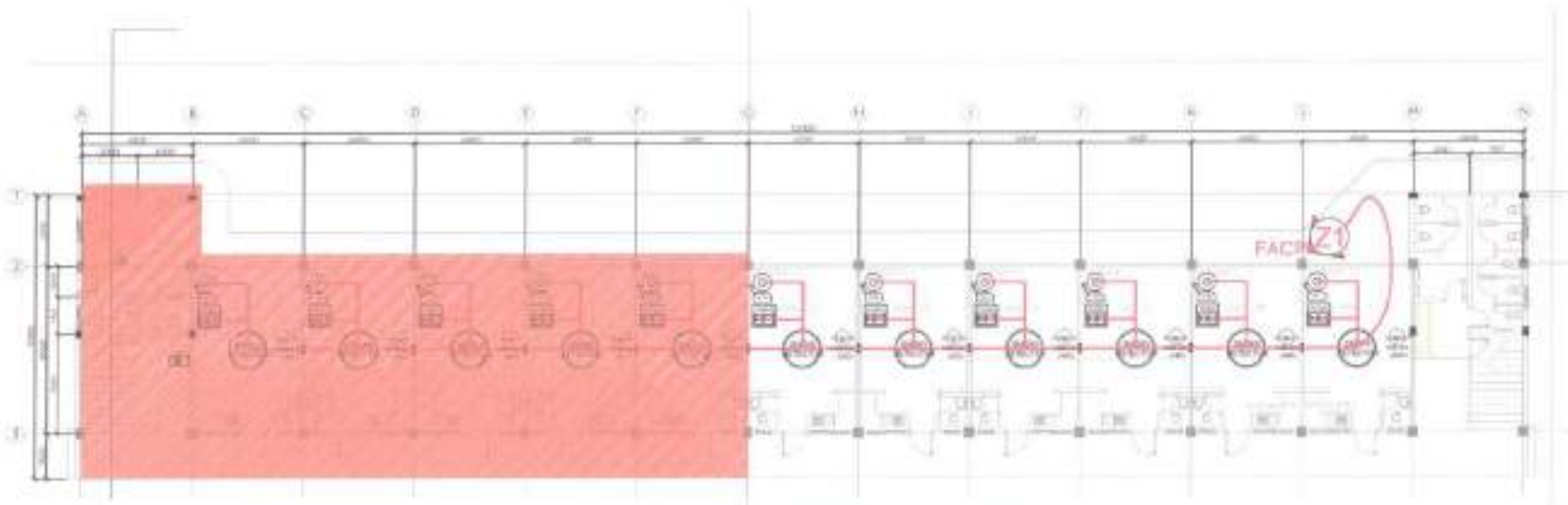


<p>SIGNED AND SEALED BY:</p> <p>PROJ. MGR. _____ PROJ. ENGR. _____ DATE OF ISSUE _____ DATE ISSUED _____</p>	<p>PROJECT AND LOCATION:</p> <p> COMPLETION OF BUSINESS STALLS & CLASSROOMS</p>	<p>PREPARED BY:</p> <p> KYLE RENZO Y. GALAPON</p>	<p>CONCLUDED BY:</p> <p> GERALD L. PEREZ</p>	<p>SUBMITTED BY:</p> <p> ORENDO S. RUBIO  EDWIN E. RAMOS</p>	<p>RECOMMENDING APPROVAL:</p> <p> CARLO F. YADEL VP of Planning Developmental Services System</p>	<p>APPROVED BY:</p> <p> WILFREDO A. DUMALE JR. University President</p>	<p>SHEET NO:</p> <p></p>
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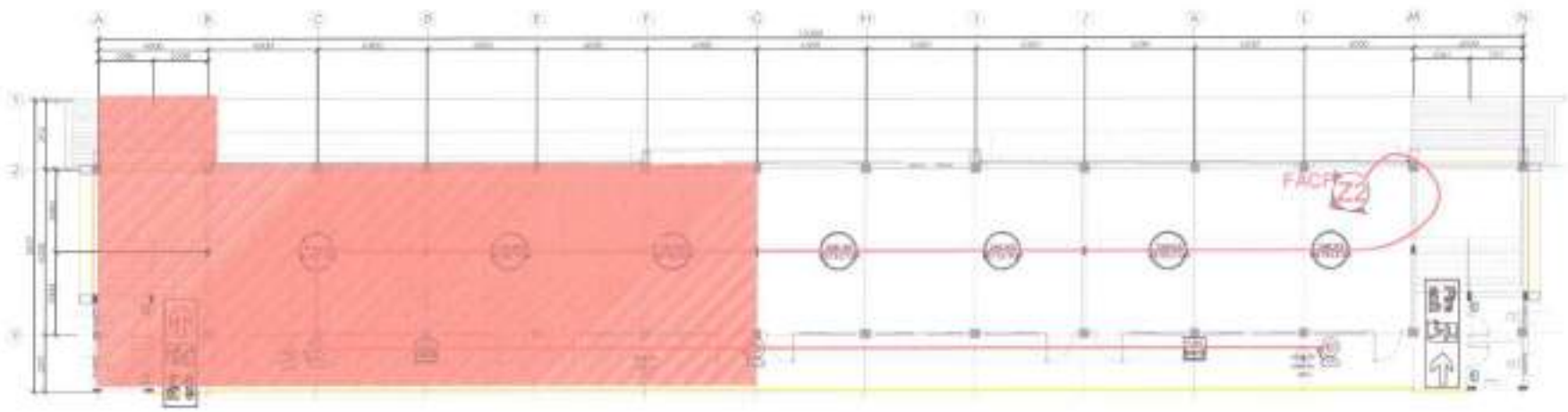




SIGNED AND SEALED BY:	PROJECT AND LOCATION:	PREPARED BY:	CONCURRED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO:
 KYTE BENZO Y. GALAPON Electrical Engineer	COMPLETION OF BUSINESS STALLS & CLASSROOMS SUBSIDIARY OF THE UNIVERSITY OF THE PHILIPPINES - DAVAO	 GENARO L. PAEZ Civil Engineer	 EDNA S. TUBIC Electrical Engineer	 EDWIN S. DURAL Electrical Engineer	 CAMILO V. VICO Electrical Engineering Department and Instruction System	 WILFREDO A. DUMALE JR. University President	E-11 52

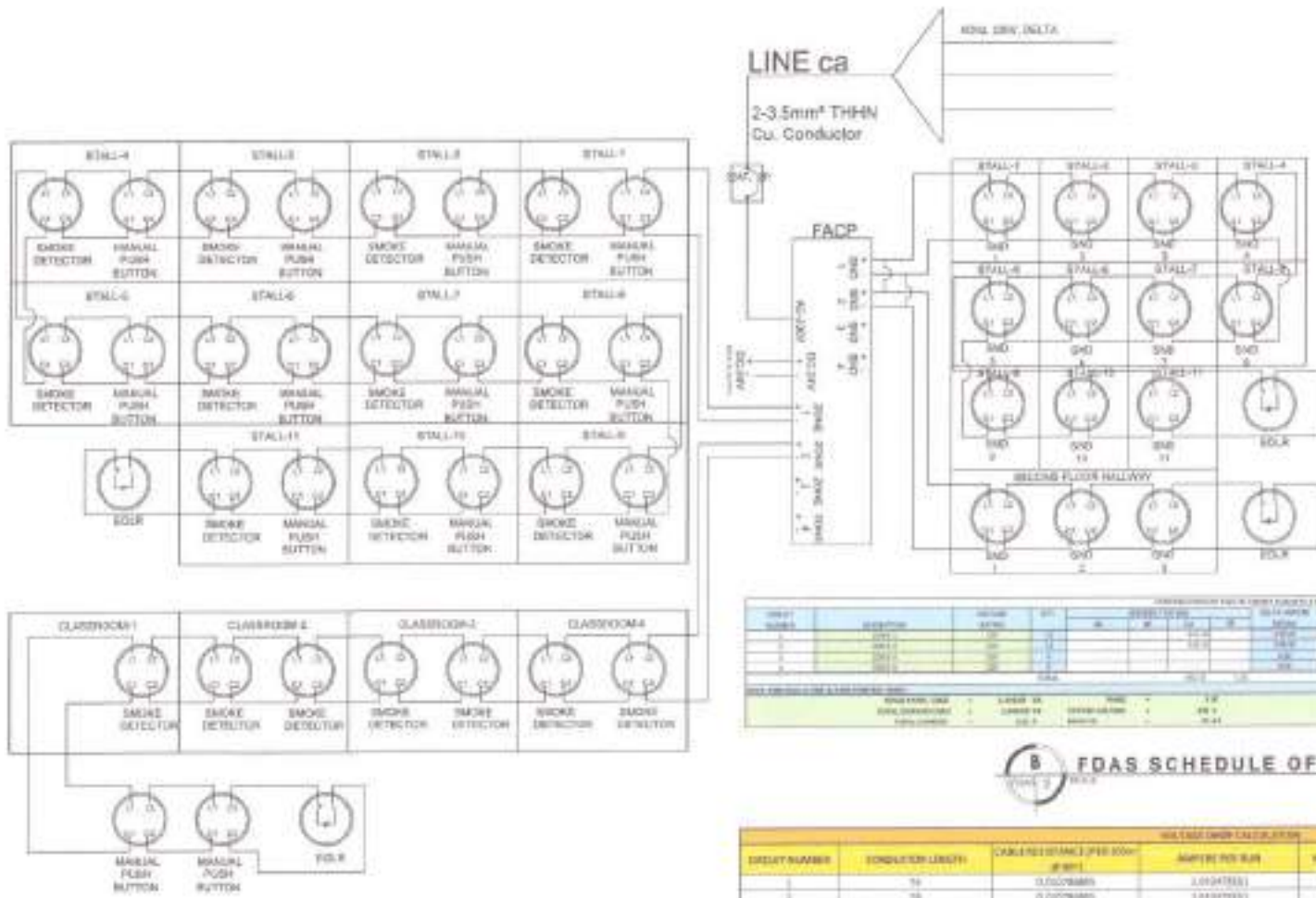


A FDAS GROUND FLOOR PLAN



B FDAS SECOND FLOOR PLAN

SIGNED AND SEALED BY:	PROJECT AND LOCATION:	PREPARED BY:	CONCLUDED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO.	
ARCHITECT: _____ CIVIL ENGINEER: _____ ELECTRICAL ENGINEER: _____ MECHANICAL ENGINEER: _____ PLUMBING ENGINEER: _____ STRUCTURAL ENGINEER: _____	 <p>COMPLETION OF BUSINESS STALLS & CLASSROOMS</p> <p>REGIONAL OFFICE OF THE DEPARTMENT OF EDUCATION - MARIKINA CITY</p>	 KYLE BENZO V. GALAPON Civil Engineer	 GERALD C. PINEDA Civil Engineer	 OTILIA'S EURO Architect	 EDWIN BERNAL Architect	 CARLO A. VILLAR UP to Planning, Development and Information Systems	 WILFREDO A. SUMALE JR. City Engineer	



LEGEND:

	SMOKE DETECTOR
	MANUAL PUSH BUTTON
	FIRE EXIT SIGN
	FIRE ALARM BELL



A FDAS LINE DIAGRAM
PAGE 2

FDAS SCHEDULE OF LOADS

LINE NO.	DESCRIPTION	WIRE SIZE	TYPE	NO. OF CIRCUITS	NO. OF LOADS	LOAD TYPE	LOAD VALUE	LOAD TYPE	LOAD VALUE	LOAD TYPE	LOAD VALUE
1	SMOKE DETECTOR	14 AWG	2	15	15	RESISTIVE	100 VA	SMOKE DETECTOR	100 VA	SMOKE DETECTOR	100 VA
2	MANUAL PUSH BUTTON	14 AWG	2	15	15	RESISTIVE	100 VA	MANUAL PUSH BUTTON	100 VA	MANUAL PUSH BUTTON	100 VA
3	FIRE EXIT SIGN	14 AWG	2	15	15	RESISTIVE	100 VA	FIRE EXIT SIGN	100 VA	FIRE EXIT SIGN	100 VA
4	FIRE ALARM BELL	14 AWG	2	15	15	RESISTIVE	100 VA	FIRE ALARM BELL	100 VA	FIRE ALARM BELL	100 VA

B FDAS SCHEDULE OF LOADS
PAGE 2

VD ANALYSIS

CIRCUIT NUMBER	CONDUCTOR LEAD	CABLE TO DISTANCE PER CONDUCTOR	MAXIMUM PER CABLE	VOLTAGE DROP	%	REMARKS
1	14	0.0076880	0.0047831	0.0029049	0.0014524	CABLE EXCEEDS 1.500
2	14	0.0076880	0.0047831	0.0029049	0.0014524	CABLE EXCEEDS 1.500
3	14	0.0076880	0.0047831	0.0029049	0.0014524	CABLE EXCEEDS 1.500
4	14	0.0076880	0.0047831	0.0029049	0.0014524	CABLE EXCEEDS 1.500

C VD ANALYSIS
PAGE 2

DERATING OF CABLE ANALYSIS

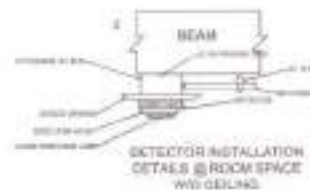
CONDUCTOR	TEMP	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE
14	100	THHN	THHN	THHN	THHN	THHN	THHN	THHN	THHN	THHN	THHN
14	100	THHN	THHN	THHN	THHN	THHN	THHN	THHN	THHN	THHN	THHN
14	100	THHN	THHN	THHN	THHN	THHN	THHN	THHN	THHN	THHN	THHN
14	100	THHN	THHN	THHN	THHN	THHN	THHN	THHN	THHN	THHN	THHN

D DERATING OF CABLE ANALYSIS
PAGE 2

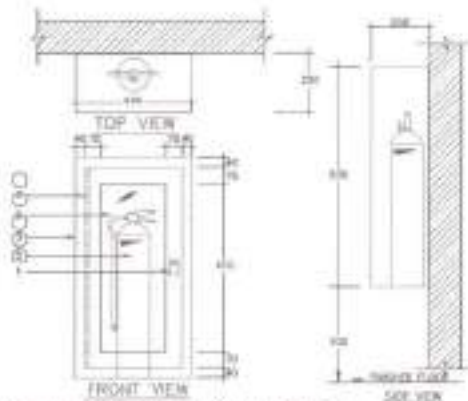
SIGNED AND SEALED BY:	PROJECT AND LOCATION: COMPLETION OF BUSINESS STALLS & CLASSROOMS	PREPARED BY: KYLE RENE V. GALAPON	CONCURRED BY: GERALD L. FERRE	SUBMITTED BY: EDWARD O. BARRA	RECOMMENDING APPROVAL: CARLO P. MADR	APPROVED BY: WENEDIO A. JUMALE, JR.	SHEET NO.: FDAS-2 55
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GENERAL NOTES AND SPECIFICATIONS

1. INSTALLATION OF TONS WILL BE IN ACCORDANCE WITH NFPA 70A TO 70-6 LOCAL AND THE CODE OF THE PHILIPPINES.
2. ALL WIRING SHALL BE IN ACCORDANCE WITH FDAS MANUFACTURER'S RECOMMENDATION TO PROPERLY CONDUCT THE CIRCUIT CORRECTLY.
 (MAY BE 1" WITH SIGNALING CIRCUIT AND 4" TO 1" WITH POWER AND LIGHT CIRCUIT)
3. SMOKE DETECTORS & HEAT DETECTORS ARE TO BE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND THE NFPA 70A AND MANUFACTURER'S LISTING.
 SMOKE DETECTOR 3.1 METERS (AREA COVERAGE 7.7 METER SPACED)
 HEAT DETECTOR 3.8 METERS (AREA COVERAGE 7.7 METER SPACED)
4. ALL SIGNAL DEVICES SHALL BE AT LEAST 200MM FROM THE MOUNTING SURFACE.
5. WIRING METHOD SHALL BE INDUSTRIAL METAL TUBING AND ELECTRICAL BOX AND GALVANIZED WIRE MOUNTING.
6. ALL WIRING SHALL BE IN ACCORDANCE WITH THE CODE OF THE PHILIPPINES FOR WHICH THEY ARE REFERRED.



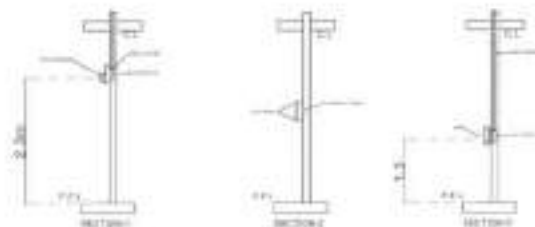
A FDAS GENERAL NOTES & SPECIFICATIONS



1. MOUNT TO 25MM CHANNEL BRACE, W/ROD LOCK, FINISHES DRAWING.
2. MOUNT TO 25MM CHANNEL BRACE, W/ROD LOCK, FINISHES DRAWING.
3. MOUNT TO 25MM CHANNEL BRACE, W/ROD LOCK, FINISHES DRAWING.
4. MOUNT TO 25MM CHANNEL BRACE, W/ROD LOCK, FINISHES DRAWING.
5. MOUNT TO 25MM CHANNEL BRACE, W/ROD LOCK, FINISHES DRAWING.
6. MOUNT TO 25MM CHANNEL BRACE, W/ROD LOCK, FINISHES DRAWING.

C EXTINGUISHER INSTALLATION DETAILS

B DETECTOR INSTALLATION DETAILS



FDAS DEVICE INSTALLATION DETAILS

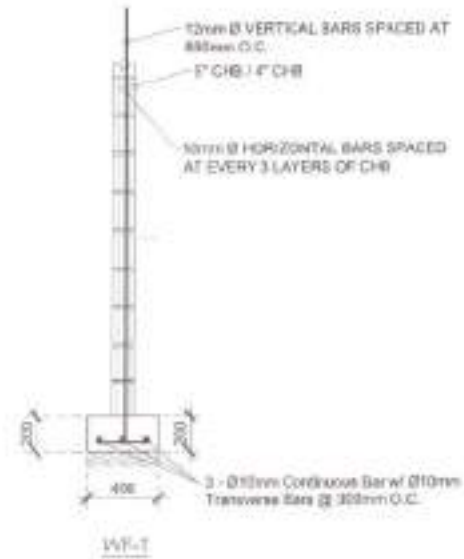
D ELEVATION INSTALLATION DETAILS

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DATE: _____ TIME: _____ PLACE OF SIGN: _____ (SIGNATURE)	 <p>COMPLETION OF BUSINESS STALLS & CLASSROOMS</p> <p>DE LA SALLE UNIVERSITY - BANGALIPAL CAMPUS</p>	 KYLERENZO V. GALAPON Project Engineer	 GERARDO L. PEREZ Chief Architect	 ORLAN S. RUBIO Project Architect	 CARLO I. WALLE Chief Architect	 WILFREDO A. DUMALE, JR. University President	

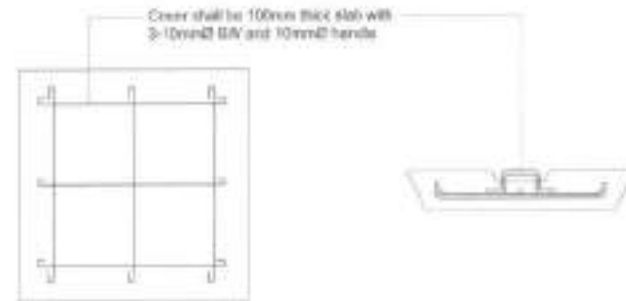
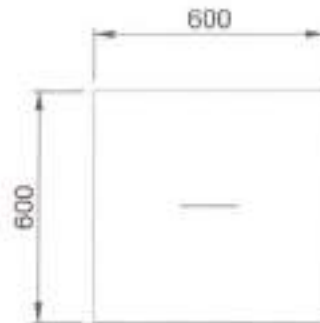
PLUMBING NOTES:

1. RUN ALL HORIZONTAL PIPINGS IN PERFECT ALIGNMENT AND AT A FORM GRADE NOT LESS THAN TWO PERCENT (2%).
2. ALL CHANGE IN DIRECTION SHALL BE MADE BY APPROPRIATE USE OF FORTY-FIVE DEGREES (45°) WYES, LONG SWEEP QUARTER BEND, SIXTY-EIGHT OR SIXTEENTH BEND. WHEN THE CHANGE OF FLOW IS FROM HORIZONTAL TO VERTICAL, A SINGLE 1/8 BEND COMBINATION MAYBE USED ON VERTICAL STACKS AND SHORT QUARTER BENDS MAYBE USED ON WASTE LINE. TEE AND CROSSES MAYBE USED IN BENT PIPES.
3. NO DOUBLE HUB OR TEE BRANCH SHALL BE USED ON HORIZONTAL SOIL AND WASTE LINES. THE DRILLINGS AND TAPPING OF HOUSE DRAIN, WASTE OR VENT PIPES AND USED OF SADDLE HUB AND BEND ARE PROHIBITED.
4. CLEAN-OUTS ARE REQUIRED UNDER THE FOLLOWING CONDITIONS:
 - a) EVERY CHANGE OF HORIZONTAL DIRECTION EXCEEDING TWENTY TWO AND ONE-HALF DEGREES (22 1/2°).
 - b) ONE AND ONE-HALF METERS (1.50m.) INSIDE THE PROPERTY LINES BEFORE THE BUILDING DRAINAGE CONNECTION.
 - c) EVERY FIFTEEN METERS (15.00m) IN HORIZONTAL RUN OF PIPES.
 - d) AT THE END OF ANY HORIZONTAL PIPE LINES.
5. THE DIGESTION CHAMBER OF SEPTIC TANK MUST BE PLASTERED.
6. NOT LESS THAN 0.30 METER OF AIR SPACE MUST BE LEFT BETWEEN THE TOP OF THE SEWAGE AND THE UNDER PART OF VAULT ROOF SLAB.
7. UNDERGROUND PIPES SHALL BE BURIED TO MINIMUM DEPTH OF 30cm BELOW THE TOP OF THE GROUND.
8. ALL PIPES PASSING THROUGH WALL, SLAB, BEAMS OR ANY PART OF THE BUILDING SHALL BE PROTECTED FROM BREAKAGE AND ALL CONNECTIONS SHALL NOT BE SUBJECTED TO UNLIE STRAIN AND STRESSES.
9. WATER LINES FOR FAUCETS, LAVATORIES AND SINKS SHALL BE 1/2" PPR PIPE CONNECTED TO 1"mmØ PPR PIPE MAIN WATER LINE.
10. SANITARY LINES SHALL BE 50mmØ uPVC SANITARY PIPE FOR URINAL AND 100mmØ uPVC SANITARY PIPE FOR WATER CLOSETS AND 75mmØ-100mmØ uPVC MAIN SANITARY LINES TO DIGESTION CHAMBER (STAGE 1) OF SEPTIC TANK.
12. SANITARY LINES FOR LAVATORIES, SINKS AND FLOOR DRAINS SHALL BE 50mmØ uPVC SANITARY PIPE WITH 75mmØ-100mmØ uPVC SANITARY PIPE MAIN TO SEPTIC TANK. PROVIDE P-TRAP ON ALL SINKS AND FLOOR DRAINS.
13. NO SEPTIC VAULT SHALL BE CONSTRUCTED UNDER THE BUILDING.
14. ALL PLUMBING WORKS SHALL BE DONE UNDER THE SUPERVISION OF A LICENSED MASTER PLUMBER.

LEGEND	
SYMBOL	DESCRIPTION
CO	CLEAN OUT
FCO	FLOOR CLEAN OUT
WC	WATER CLOSET
FD	FLOOR DRAIN
WT	WATER TANK
VTR	VENT THRU ROOF
LAV	LAVATORY
F	FAUCET
PT	PRESSURE TANK
DS	DOWNSPOUT
KS	KITCHEN SINK
	4" Ø uPVC PIPE
	3" Ø uPVC PIPE
	3" Ø uPVC PIPE
	2" Ø uPVC PIPE
	1" Ø PPR PIPE
	1/2" Ø PPR PIPE



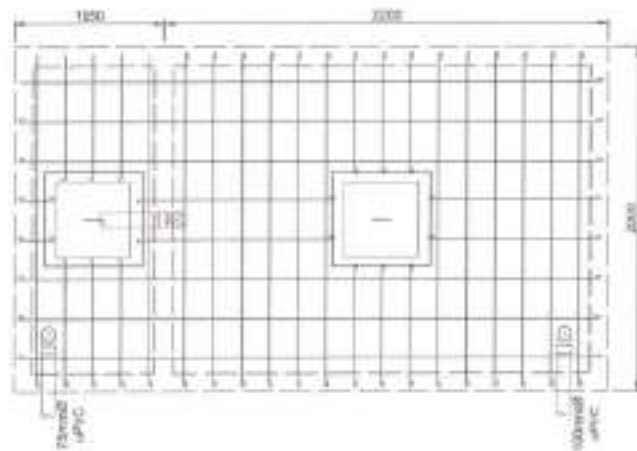
WALL FOOTING DETAIL
SCALE: 1:50



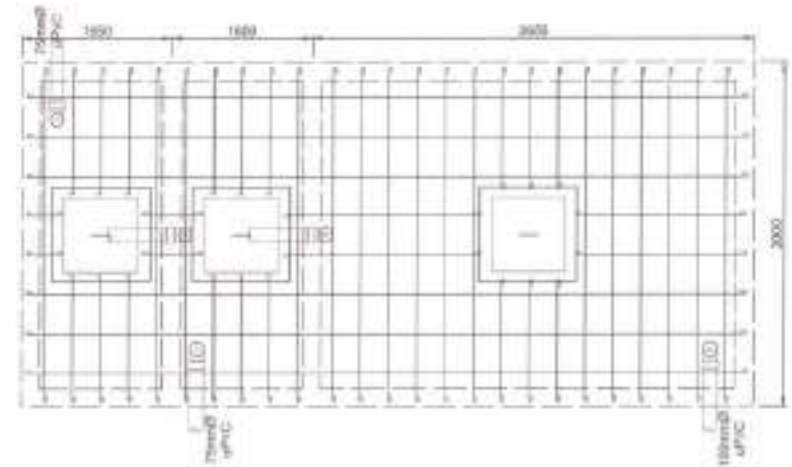
MANHOLE DETAIL
SCALE: 1:50

GENERAL NOTES
SCALE: 1:50

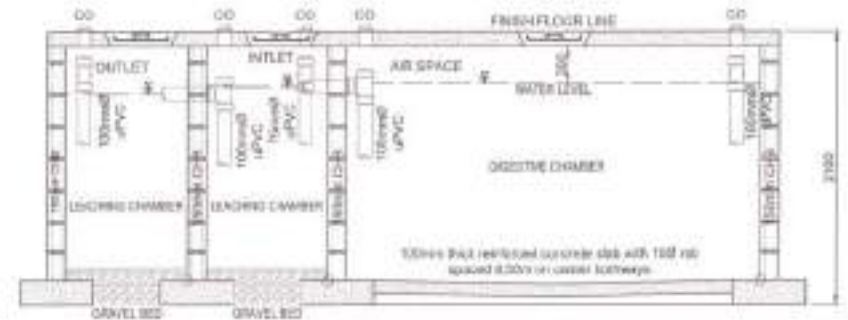
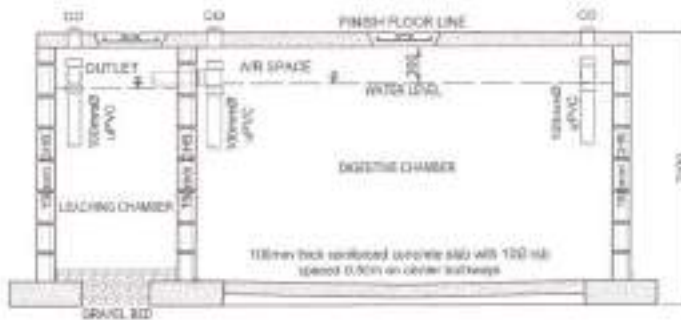
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 PRC REG. NO. _____ PIRING: _____ PLACE OF BIRTH: _____ (TITLE): _____	 COMPLETION OF BUSINESS STALLS & CLASSROOMS BUREAU OF TECHNICAL EDUCATION, MARICORINA CAMPUS	 MICHELLE A. CALME (TITLE): _____	 DRELLA S. RUBIO (TITLE): _____	 EDWARD V. MALA (TITLE): _____	 GERARDO L. PEREZ (TITLE): _____	 CARLO F. WOLF UP to Assistant Superintendent and Information System	 WYFREDO A. DURALE, JR. University President	 P-1 57



COVER SLAB DETAILS:
 100mm thick reinforced concrete slab with 12mm Ø
 Grid straight bottom bars spaced at 200mm OC with 10mm Ø Grid
 top bars @ 320mm

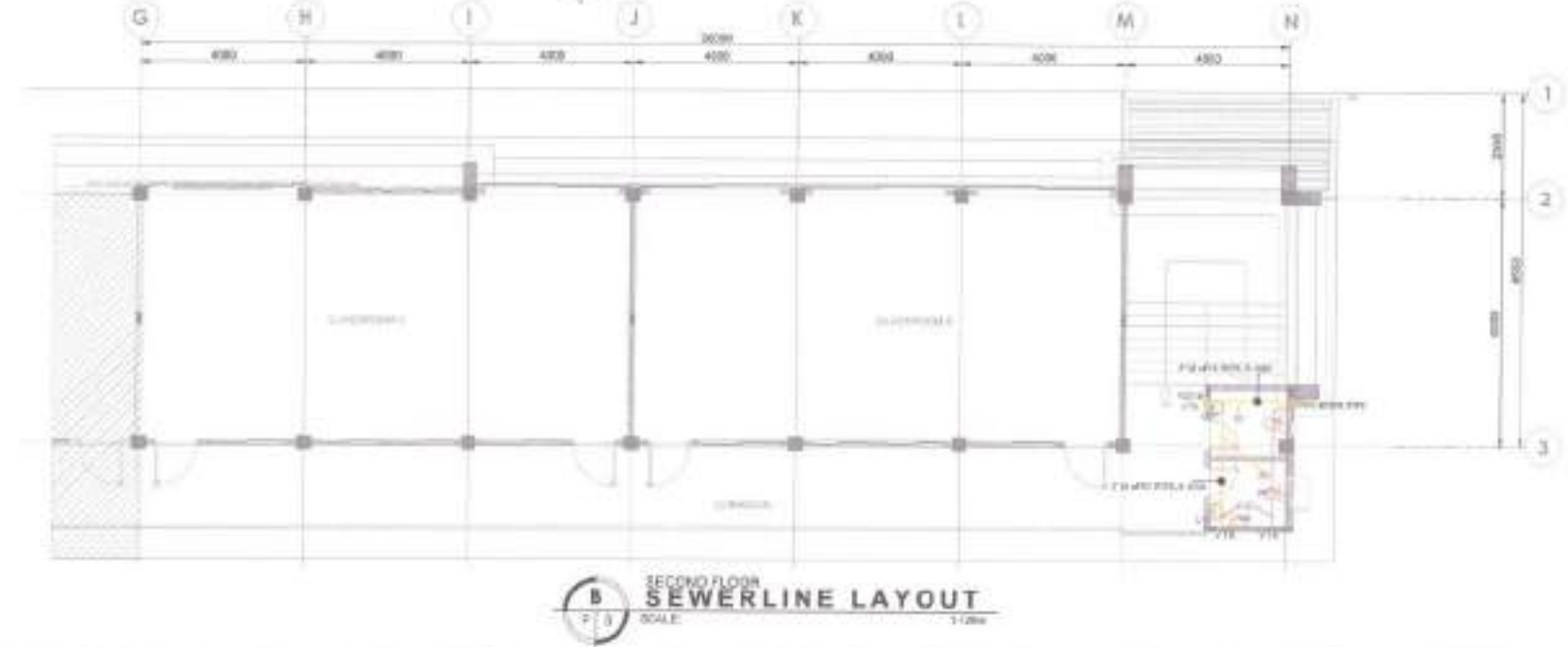
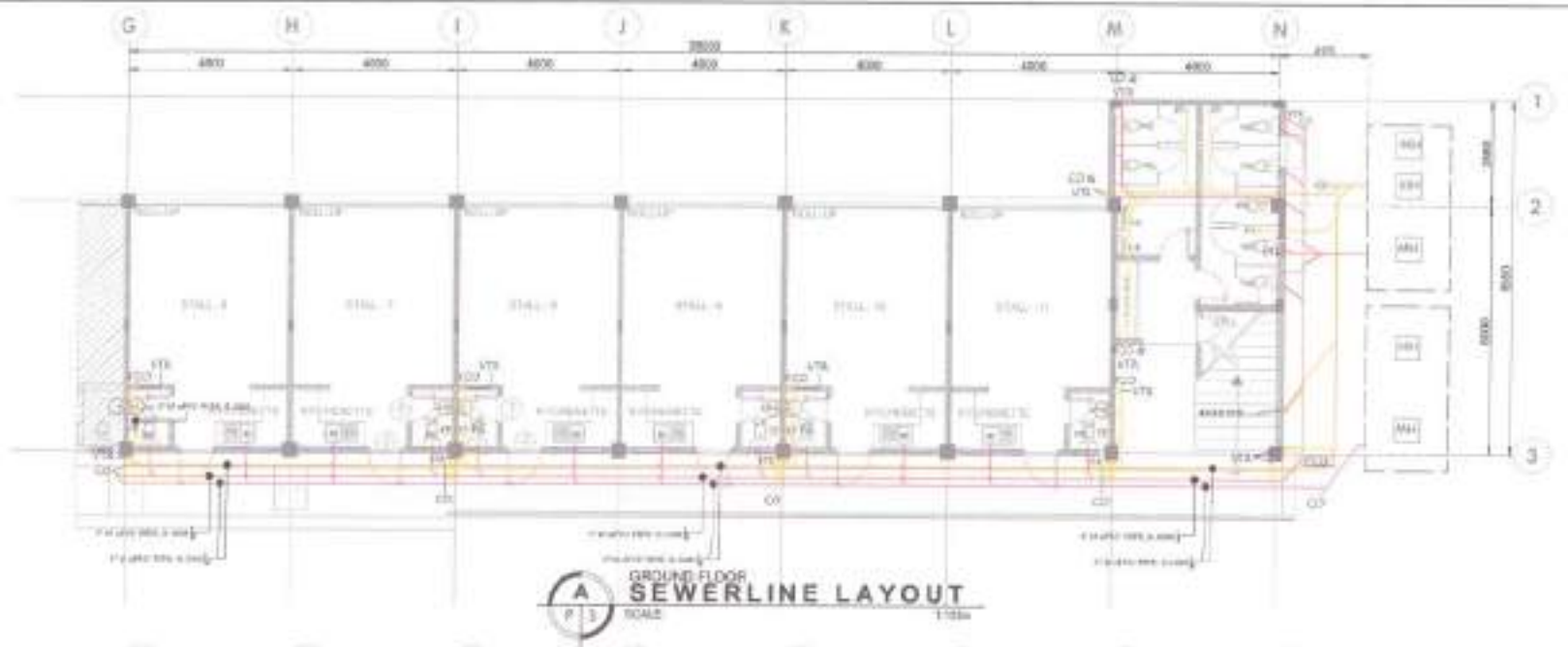


COVER SLAB DETAILS:
 100mm thick reinforced concrete slab with 12mm Ø
 Grid straight bottom bars spaced at 200mm OC with 10mm Ø Grid
 top bars @ 320mm

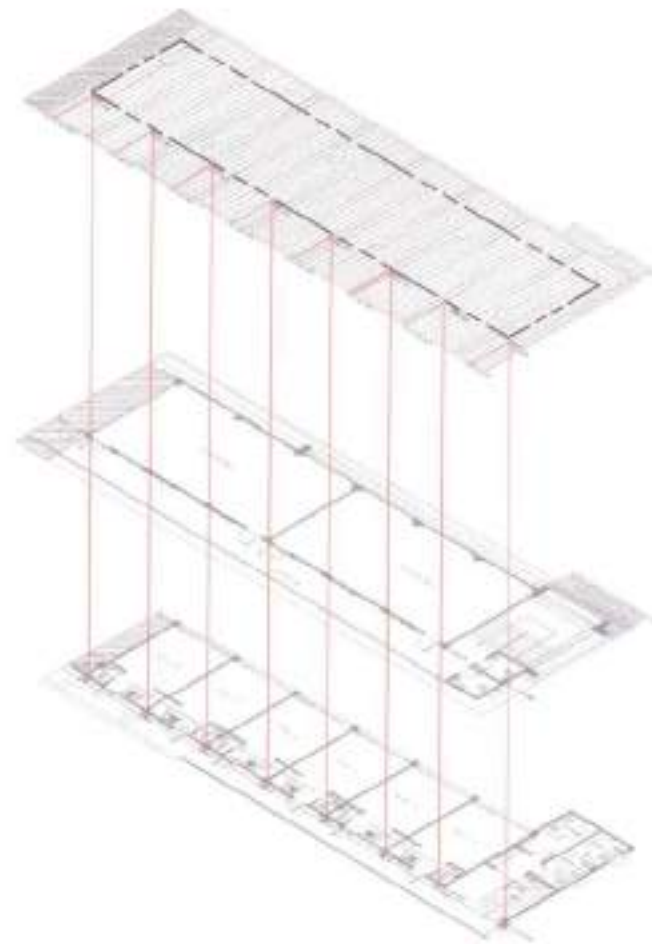
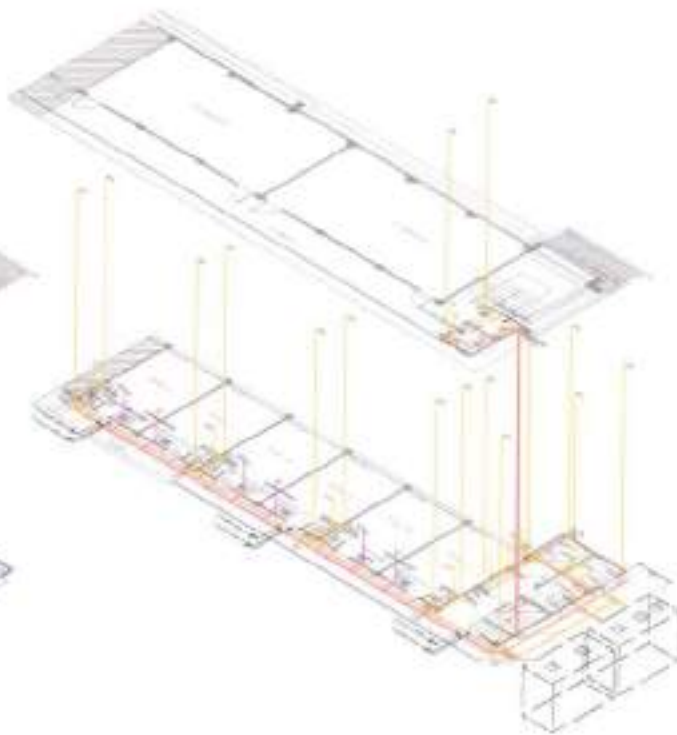
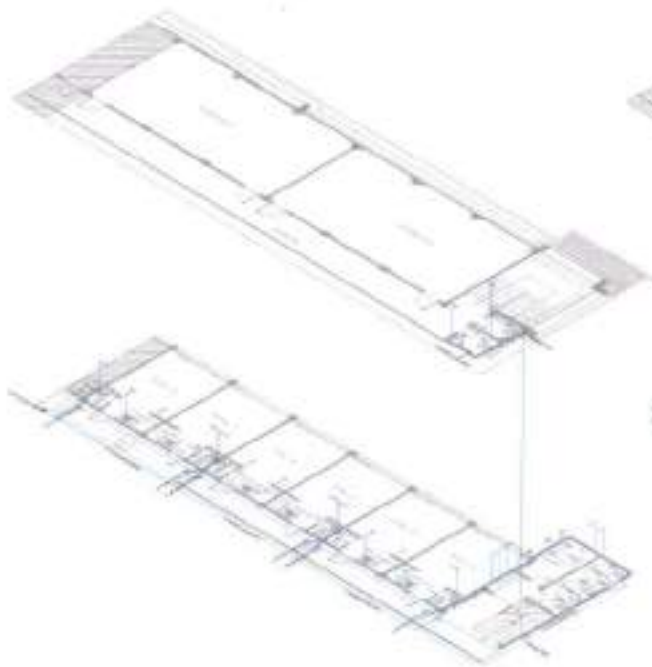


A SEPTIC TANK DETAIL
 SCALE: 1:50

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PREPARED BY: _____ CHECKED BY: _____ PROJECT: _____ PLACE OF ISSUE: _____ DATE: _____ DRAWN BY: _____	 <p>COMPLETION OF BUSINESS STALLS & CLASSROOMS <small>NEW VILLAGE STATE UNIVERSITY, MARION CAMPUS</small></p>	 ERNEST CALIS <small>REGISTERED ENGINEER</small>	 ORELIA E. RUSSO <small>REGISTERED ARCHITECT</small>	 EDWIN BARAL <small>REGISTERED ARCHITECT</small>	 BERNARD L. PERERA <small>Civil Engineer</small>	 CARLENE VAIS <small>REGISTERED ARCHITECT AND INTERIOR DESIGNER</small>	 BELARMINO A. SIMILES, JR. <small>REGISTERED ARCHITECT</small>	



SIGNED AND SEALED BY:	PROJECT AND LOCATION:	PREPARED BY:	SUBMITTED BY:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO.:
 CARLOS M. CALLE CIVIL ENGINEER REGISTERED PROFESSIONAL ENGINEER No. 12345	 COMPLETION OF BUSINESS STALLS & CLASSROOMS MARICORAN STATE UNIVERSITY - MARIKINA CAMPUS	 MARY JOY G. CALDE CIVIL ENGINEER	 OFELIA S. RUBIO CIVIL ENGINEER	 EOWYN S. MANAL CIVIL ENGINEER	 CECILIO L. PINEDA CIVIL ENGINEER	 CARLITO WASH CIVIL ENGINEER	 REDONDO A. GUMALE, JR. CIVIL ENGINEER
							P-3 50



A ISOMETRIC VIEW
WATERLINE LAYOUT
SCALE: 1/8"=1'-0"

B ISOMETRIC VIEW
SEWERLINE LAYOUT
SCALE: 1/8"=1'-0"

C ISOMETRIC VIEW
STORM DRAINAGE LAYOUT
SCALE: 1/8"=1'-0"

SIGNED AND SEALED BY:	PROJECT AND LOCATION:	PREPARED BY:	SUBMITTED BY:	CONCURRED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET NO.:	
 <small>PRO. DESIGN: WJD/WHY P.T.S. NO.: 0412/0415 PLACE OF ISSUE: DATE: 08/08/10</small>	 COMPLETION OF BUSINESS STALLS & CLASSROOMS <small>FLORIDA STATE UNIVERSITY - TAMPA CAMPUS</small>	 <small>NOTCH & CAUSE INC. - PROFESSIONAL ENGINEERS</small>	 <small>OSELLA & RUSSEL INC. - ARCHITECTS</small>	 <small>EDWIN B. GARZA DESIGN, P.E./C.E.</small>	 <small>OSWALD L. PEREZ INC. - ARCHITECTS</small>	 <small>CARLOS W. WINK INC. - ARCHITECTS, ENGINEERS AND INTERIORS SYSTEMS</small>	 <small>W. FRED A. DIMALA, JR. INC. - ARCHITECTS</small>	