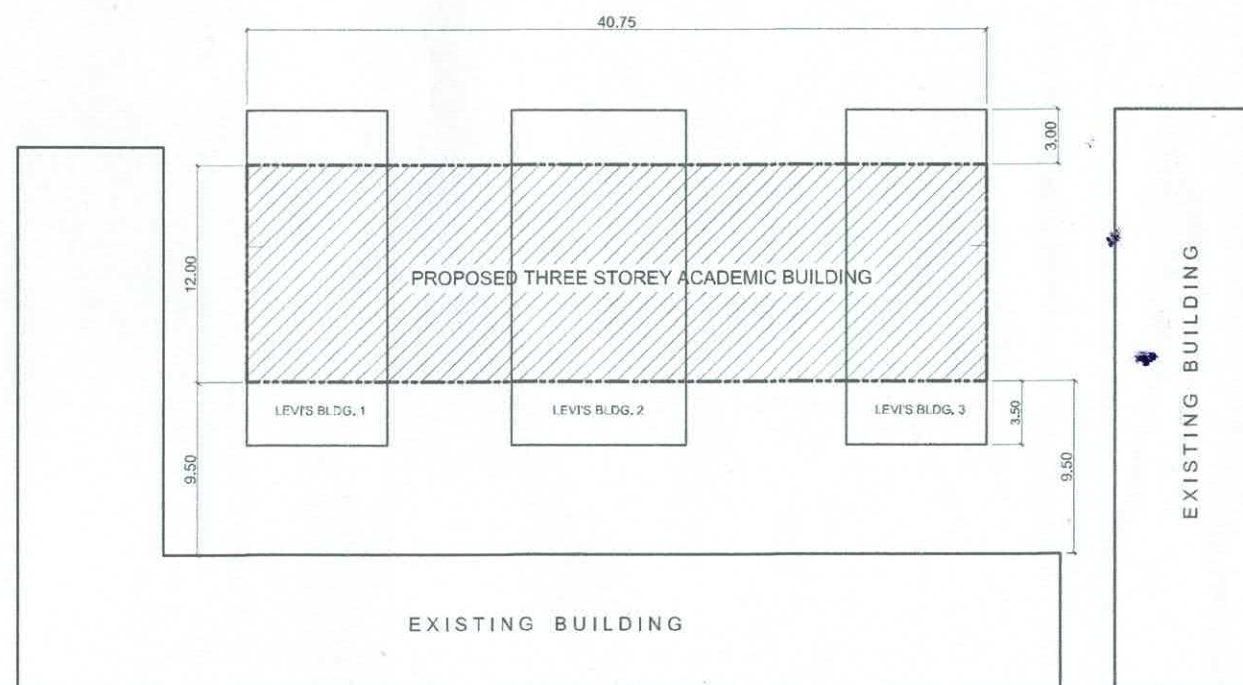




PERSPECTIVE



PERSPECTIVE

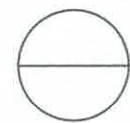
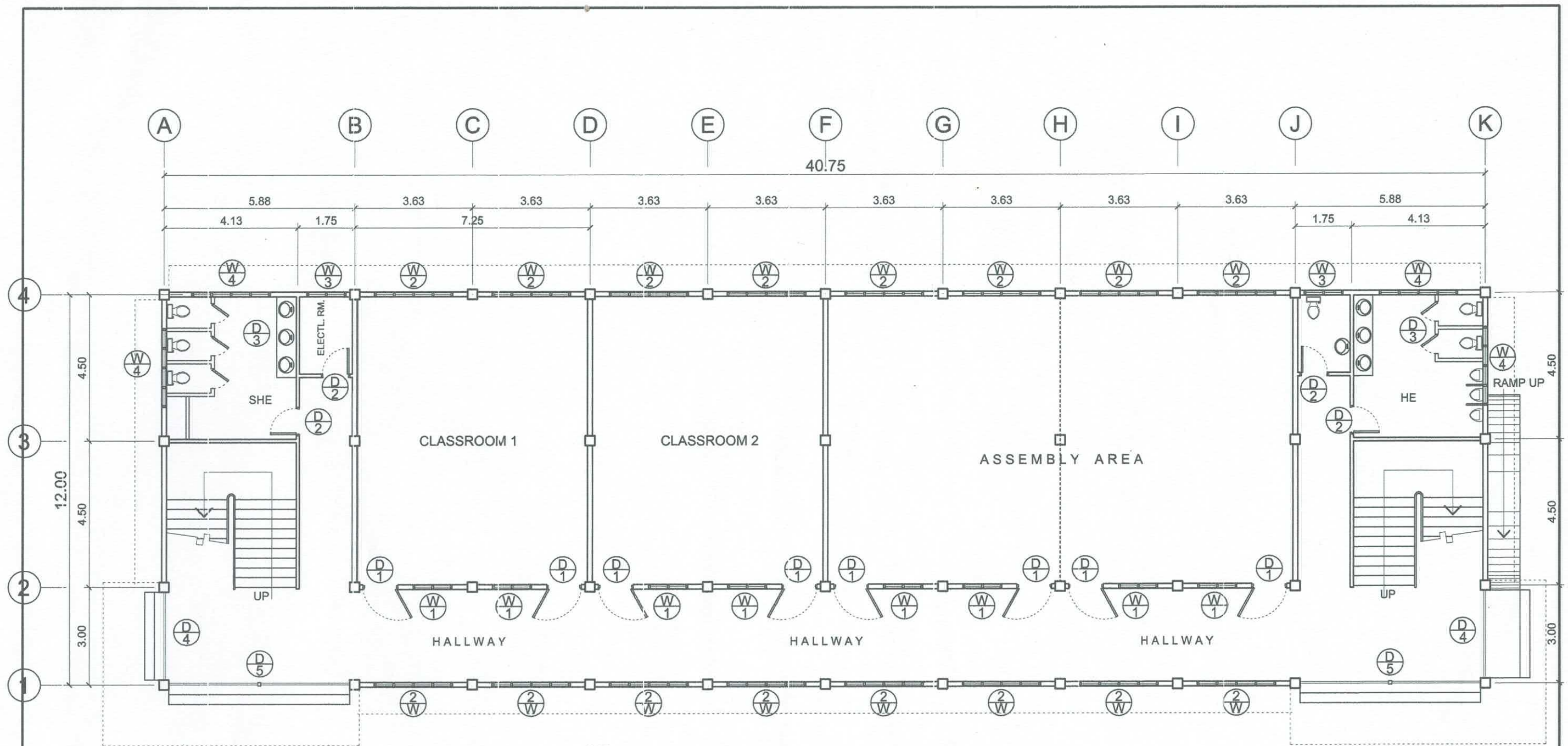


SITE DEVELOPMENT PLAN
SCALE 1 : 400 MTS.



LOCATION MAP

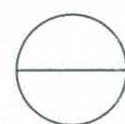
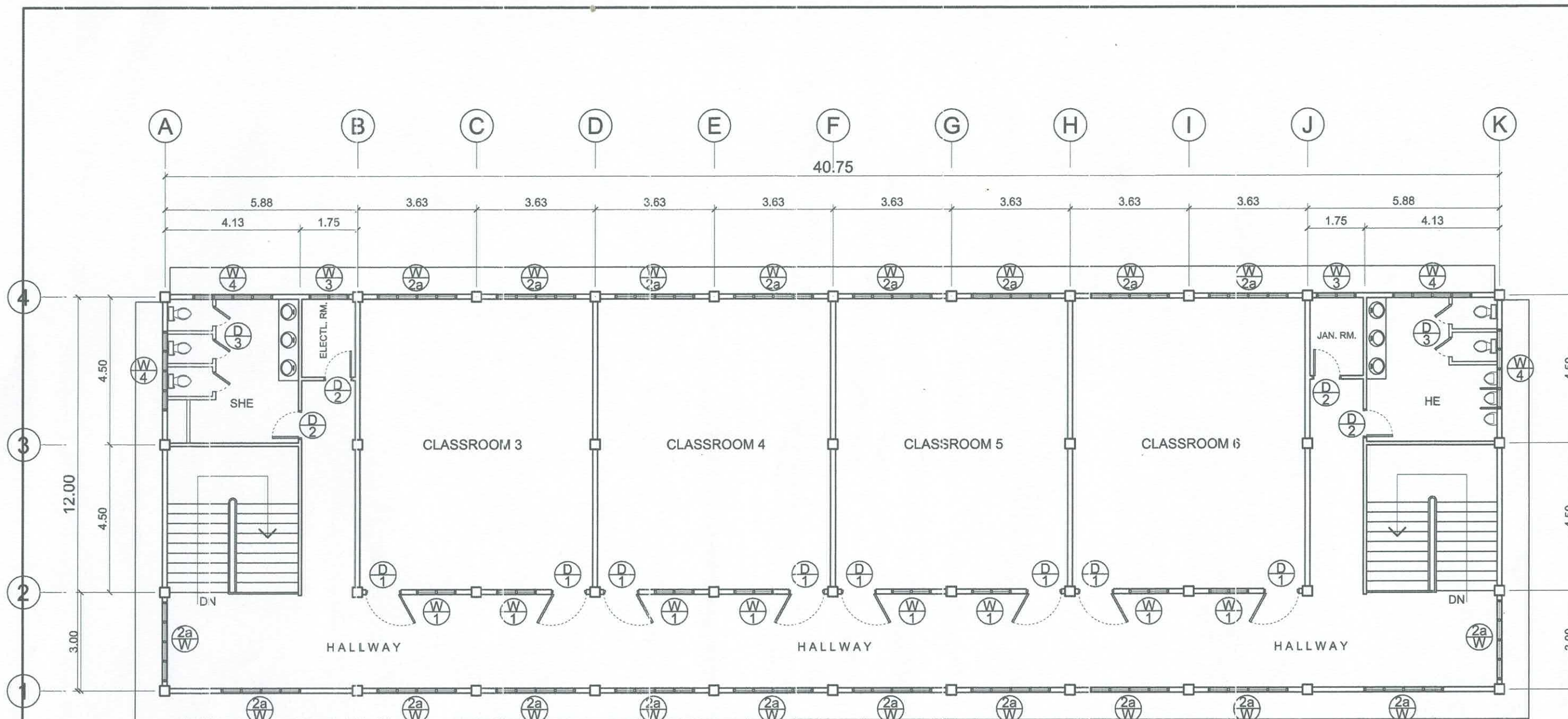
	PREPARED BY: E. N. RODEROS JR. PDU	END USER: A. B. PUGAY DEAN NAIC CAMPUS	REVIEWED BY: E. N. RODEROS JR. ARCHITECT	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	ENDORSED BY: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL: A. G. MAGCAWAS VPPD CVSU	REC. APPROVAL: J. X. B. ROMUCENO VPASS CVSU	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: A - 1
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GROUND FLOOR PLAN

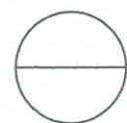
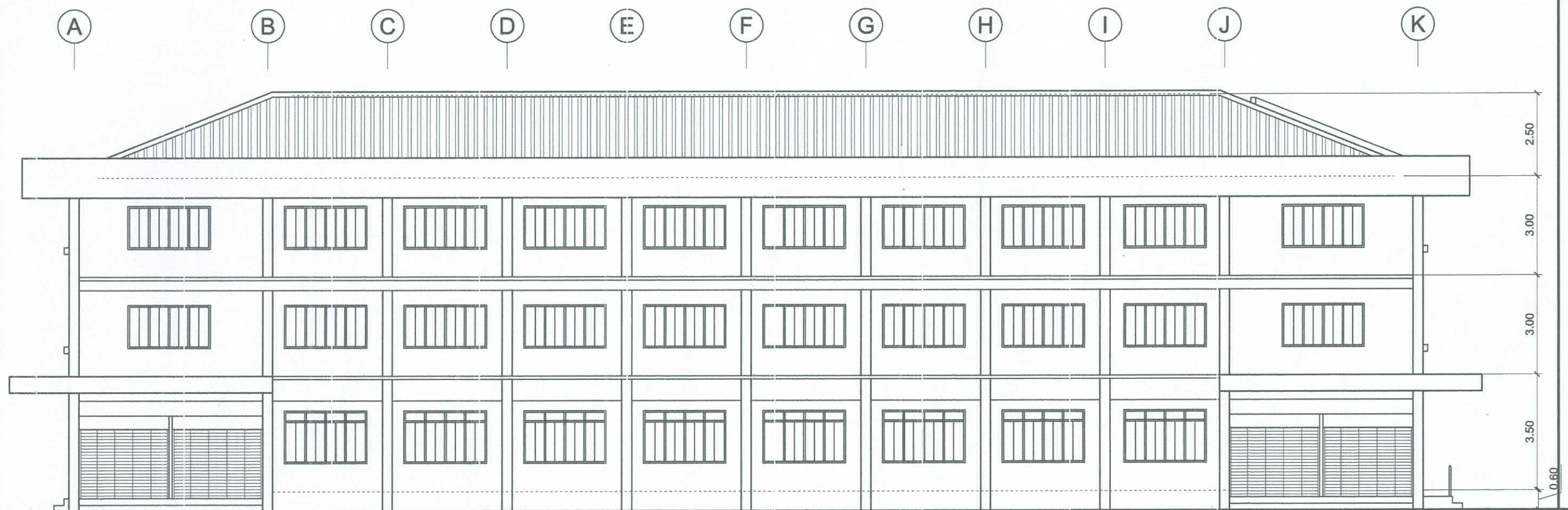
SCALE 1 : 125 MTS.

	PREPARED BY: E. N. RODEROS JR. PDU	END USER: A. B. PUGAY DEAN NAIC CAMPUS	REVIEWED BY: E. N. RODEROS JR. ARCHITECT	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	ENDORSED BY: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL: A. G. MAGCAYAS VPPD CVSU	REC. APPROVAL: L. X. B. NEPOMUCENO VPASS CVSU	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO.: A - 2
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THIRD FLOOR PLAN
SCALE 1 : 125 MTS.

	PREPARED BY: E. N. RODEROS JR. PDU	END USER: A. B. FUGAY DEAN NAIC CAMPUS	REVIEWED BY: E. N. RODEROS JR. ARCHITECT	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	REC. APPROVAL: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	APPROVED BY: A. G. MAGCAYAS VPPD	APPROVED BY: J. X. B. REPOMUCENO VPASS	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: A - 4
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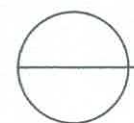


FRONT ELEVATION

SCALE

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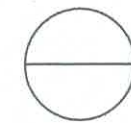
	PREPARED BY: E. N. RODEROS JR. PDU	END USER: A. B. PUGA DEAN NAIC CAMPUS	REVIEWED BY: E. N. RODEROS JR. ARCHITECT	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	ENDORSED BY: G. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL: A. G. MAGCAWAS VPPD CVSU	REC. APPROVAL: J. X. B. MUCENO VPAS CVSU	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: A - 5
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RIGHT SIDE ELEVATION

SCALE

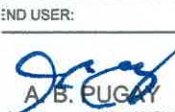
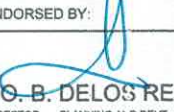
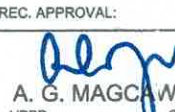
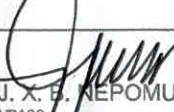
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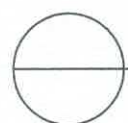


LEFT SIDE ELEVATION

SCALE

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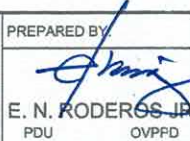
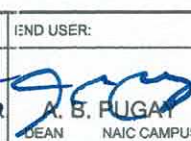
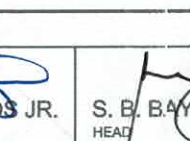
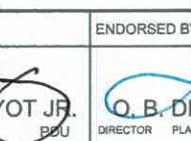
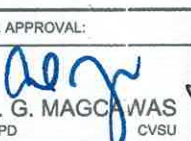
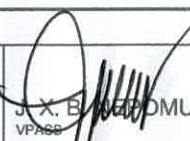
	PREPARED BY:  E. N. RODEROS JR. PDU	END USER:  A. B. PUGA DEAN NAIC CAMPUS	REVIEWED BY:  E. N. RODEROS JR. ARCHITECT	ENDORSED BY:  S. B. BAYOT JR. HEAD PDU	ENDORSED BY:  G. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL:  A. G. MAGCAWAS VPPD CVSU	APPROVED BY:  J. X. B. NEPOMUCENO VPASS CVSU	APPROVED BY:  M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: A - 6
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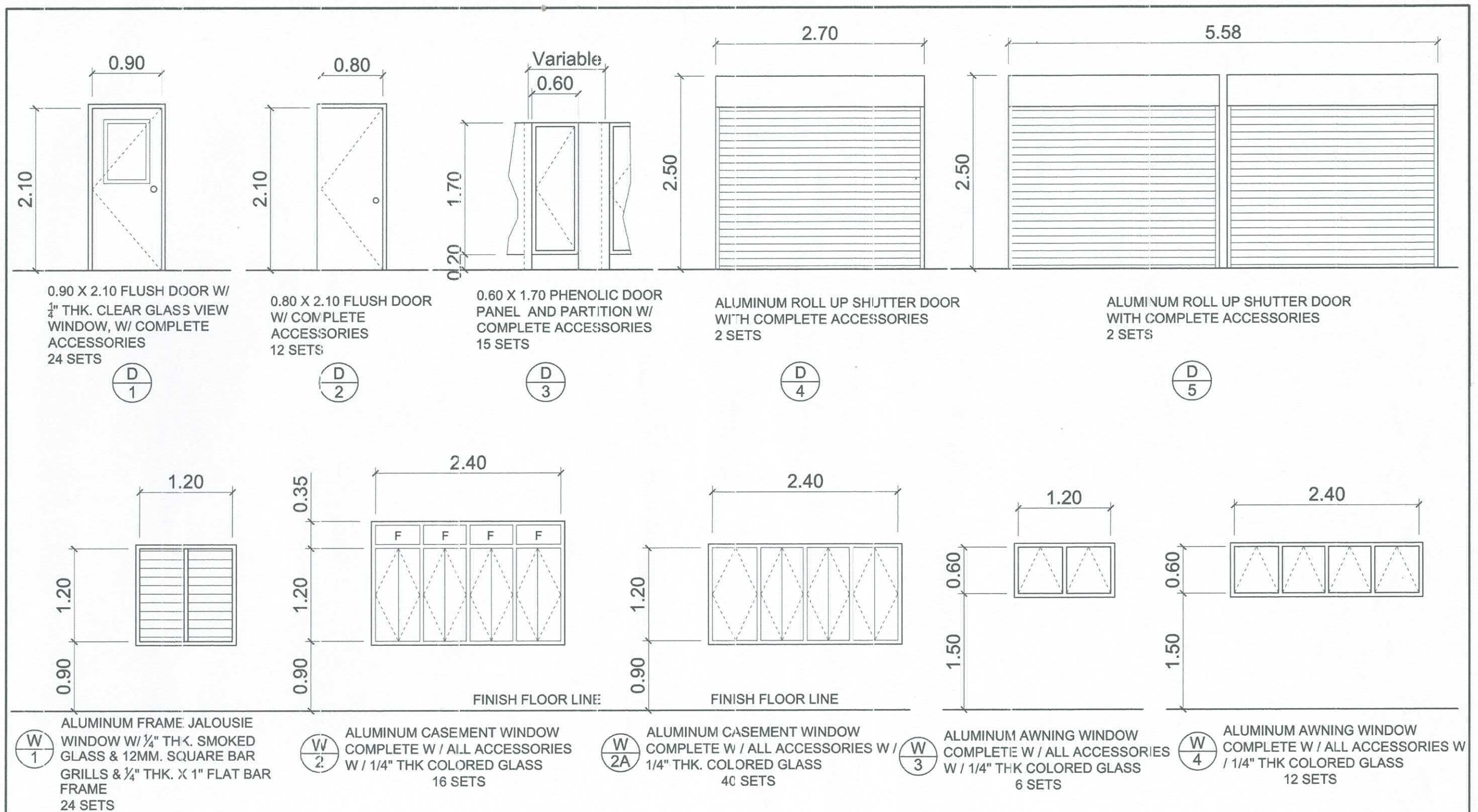


REAR ELEVATION

SCALE

1 : 125 MTS.

	PREPARED BY:  E. N. RODEROS JR. PDU	END USER:  A. B. PUGA DEAN NAIC CAMPUS	REVIEWED BY:  E. N. RODEROS JR. ARCHITECT	ENDORSED BY:  S. B. BAYOT JR. HEAD PDU	ENDORSED BY:  O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL:  A. G. MAGCAWAS VPPD	REC. APPROVAL:  J. X. B. DOMUCENO VPAS	APPROVED BY:  M. A. P. NUESTRO PRESIDENT	APPROVED BY:  M. A. P. NUESTRO PRESIDENT	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: A - 7
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SCHEDULE OF DOORS & WINDOWS

SCALE 1 : 50 MTS.

	PREPARED BY: E. N. RODEROS JR. PDU	END USER: A. B. PUGAY DEAN NAIC CAMPUS	REVIEWED BY: E. N. RODEROS JR. ARCHITECT	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL: A. G. MAGAWAS VPPD	J. X. B. DELOS MUCENO VPASS	APPROVED BY: M. A. P. NUESTRO PRESIDENT	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: A - 8
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GENERAL:

A. MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE FOLLOWING BUILDING CODE.

1. ACI 318-19
2. AISC-2017
3. NSCP-2015

B. ALL DRAWINGS SHALL NOT BE SCALED FOR CONSTRUCTION PURPOSES UNLESS OTHERWISE INDICATED.

C. FOR ALL OTHER REQUIREMENTS, REFER TO ARCHITECTURAL, SANITARY, ELECTRICAL AND MECHANICAL WORKING DRAWINGS.

FOOTINGS:

1. FOOTINGS ARE DESIGNED ON NATURAL GRADE LINE WITH A MIN. BEARING CAPACITY OF 200kPa AT A DEPTH OF 2.00M BELOW THE NATURAL GRADE LINE.
2. NO FOOTING SHALL REST ON FILL.
3. MINIMUM CONCRETE PROTECTION FOR REBARS SHALL BE 0.075m. CLEAR FOR CONCRETE DEPOSITED AGAINST THE GROUND AND 0.05m. CLEAR FOR CONCRETE DEPOSITED AGAINST THE FORM WORK.

CONCRETE MIXES & PLACINGS:

1. UNLESS OTHERWISE SPECIFIED, THE MINIMUM 28 DAYS CYLINDER COMPRESSIVE STRENGTH ARE AS FOLLOWS.

FOOTINGS & BEAMS ON GRADE	24.0 MPa
COLUMNS	24.0 MPa
SLAB, BEAMS & GIRDERS	24.0 MPa
PARTITIONS, PARAPET & SHEAR WALL	24.0 MPa
BEDDED SLABS, CATCH BASINS & SIDE WALK	21.0 MPa

2. ALL CONCRETE MUST BE DEPOSITED, VIBRATED AND CURED IN ACCORDANCE WITH ACT STANDARD 318-89.

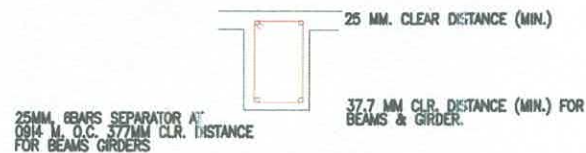
3. STRIPPING FORMS AND SHORES SHALL BE AS FOLLOWS

FOUNDATIONS	1 DAY
COLUMNS & WALLS	3 DAYS
BEAMS & GIRDER	21 DAYS
SLABS	17 DAYS

4. CONCRETE SHALL BE DEPOSITED IN ITS FINAL POSITION WITHOUT SEGREGATION RE-HANDLING OR FLOWING. PLACING SHALL BE DONE PREFERABLY WITH BUCKETS OR WHEEL BARROWS. NO CHUTES WILL BE ALLOWED EXCEPT TO TRANSFER CONCRETE FROM HOPPERS TO BUCKETS, WHEELBARROWS, OR BUCKETS IN WHICH CASE THEY SHALL NOT EXCEED 600m IN AGGREGATE LENGTH. NO DEPOSITING OF CONCRETE SHALL BE ALLOWED WITHOUT THE USE OF VIBRATOR - UNLESS AUTHORIZED IN WRITING BY THE DESIGNERS AND ONLY FOR USUAL CONDITIONS WHERE VIBRATOR IS EXTREMELY DIFFICULT TO ACCOMPLISH.

BEAMS & GIRDERS:

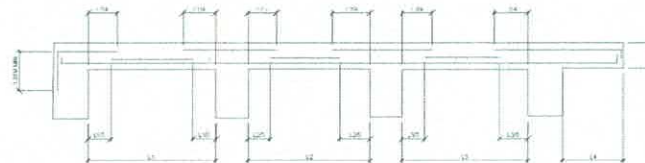
1. CAMBERS ALL BEAMS AND GIRDERS AT LEAST 62mm. FOR EVERY 3.00 m. OF SPAN.
2. FOR TWO OR MORE LAYERS OF REINFORCING BARS, USED SEPARATOR SPACED AT 0.914 M. O.C. AND IN NO CASE SHALL BE LESS THAN TWO (2) SEPARATORS.
3. NO SPLICE SHALL BE PERMITTED ON BEAMS AND GIRDERS WHERE CRITICAL BENDING STRESSES OCCUR. TENSION SPLICE SUPERMITTED SHALL BE 48 DIAMETER FOR PLAIN BARS AND 24 DIAMETER FOR DEFORMED BARS. COMPRESSION SPLICE SHALL BE 40 DIA. FOR PLAIN BARS FOR PLAIN BARS AND 20 DIA. FOR DEFORMED BARS. LAP SPLICES SHALL BE WIRED TOGETHER. SPLICE TOP BARS AT MID SPAN BOTTOM BARS AT SUPPORT BENT BARS AT BEND POINTS IN SUPERSTRUCTURE. WELDED SPLICES SHALL BE DEVELOPED INTENSION AT LEAST 125% OF THE SPECIFIED YIELD STRENGTH OF THE BAR NOT MORE THAN 50% OF THE BARS AT ANY ONE SECTION SHALL BE PERMITTED TO BE SPLICED.
4. IF BEAM REINFORCING BARS END IN A WALL THE CLEAR DISTANCE FROM THE BAR TO THE FURTHER FACE OF THE WALL SHALL NOT BE LESS THAN 0.051m. EMBEDMENT LENGTH SHALL BE 40. DIA. FOR TENSION AND 20 DIA. COMPRESSION BARS.
5. MINIMUM CONCRETE PROTECTION REINFORCING BARS OR SHAPE SHALL BE AS SHOWN



6. UNLESS OTHERWISE NOTED IN PLANS OR SPECIFICATIONS, CAMBER ALL BEAMS AND GIRDERS AT LEAST 62 mm FOR EVERY 3.00m OF SPAN EXCEPT CANTILEVERS FOR WHICH THE CAMBERS SHALL BE AS NOTED IN THE PLANS OR ORDERED THE DESIGNER, BUT IN NO CASE LESS THAN 6.7mm. FOR EVERY 3.00M OF FREE SPAN.

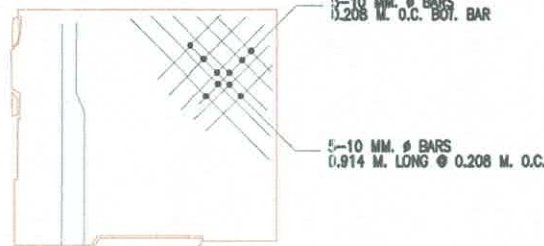
CONCRETE SLABS:

1. ALL REINFORCEMENT SHALL BE 0.019m CLEAR MINIMUM FROM TOP AND BOTTOM OF SLAB.
2. FOR TWO-WAY SLAB BARS ALONG SHORTER SPAN SHALL BE PLACED BELOW THOSE ALONG THE LONGER SPAN AT CENTER AND OVER THE LONGER SPAN BARS NEAR THE SUPPORT UNLESS OTHERWISE INDICATED OR SHOWN IN DETAILS THE SPACING OF THE BARS AT THE COLUMN STRIPS CAN BE APPROXIMATELY 1-1/3 OF THE MIDDLE STRIPS BUT IN NO CASE GREATER THAN 2-1/3 TIMES THE SLAB THICK.
3. UNLESS OTHERWISE SHOWN IN DETAIL FOR ONE WAY SLAB, REINFORCING BARS SHALL BE BEND, EXTENDED OR CUT AS FOLLOWS. NO CASE LESS THAN 6.7mm. FOR EVERY 3.00M. OF FREE SPAN.



EXTERIOR SPAN INTERIOR SPAN INTERIOR SPAN CANTILEVER

4. TEMPERATURE BARS FOR SLAB SHALL BE GENERALLY PLACED NEAR THE TENSION FACE AND SHALL NOT BE LESS THAN 25mm. BOTTOM.
5. UNLESS OTHERWISE NOTED, ALL BEDDED SLAB SHALL BE REINFORCED WITH Ø10 BAR AT 0.25M.O.C.E.W. AT CENTER OF SLAB. CONSTRUCTION JOINTS FOR SLAB SHALL NOT BE MORE THAN 3.00M APART.
6. PROVIDE EXTRA REINFORCEMENT AT CORNER SLAB (TWO ADJACENT DISCONTINUOUS EDGE) AS SHOWN BELOW.



7. PROVIDE SUPPLEMENTARY REINFORCEMENT AS SMALL UNFRAMED OPENING IN FLOOR SLAB AS SHOWN BELOW

CONCRETE HOLLOW BLOCKS:

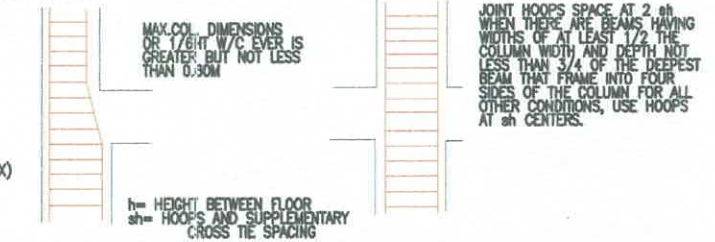
REINFORCEMENT AS TABULATED BELOW SHALL BE PROVIDED UNLESS OTHERWISE SPECIFIED IN THE PLAN

BLOCK THK.	REINFORCEMENT		NOTES
	HORIZONTAL	VERTICAL	
0.76 M	Ø 10 AT 3.60 M	Ø 10 AT 0.60 M	A. MIN SPLICE AT LAP-0.25M B. PROVIDE RIGHT ANGLE REINFORCEMENT AT CORNER 0.194M LONG C. WHERE CHS WALLS ADJOINING CHS. REBARS WILL CORRELS W/ SAME SIZE AS VERT. OR HOR. REINF. SHALL BE PROVIDED
0.100 M	Ø 10 AT 3.60 M	Ø 10 AT 0.60 M	
0.150 M	Ø 10 AT 3.60 M	Ø 10 AT 0.60 M	
0.200 M	Ø 12 AT 3.60 M	Ø 10 AT 0.60 M	

CONCRETE COLUMN:

Ø12 TIES AT 0.0760.C.

Ø12 TIES AT 0.01020.C. (MAX)



COLUMN TIES SHALL BE PROTECTED EVERY WHERE BY A COVERING OF CONCRETE CAST MONOLITHIC ALLY WITH THE CORE OF MAXIMUM THICKNESS OF 0.0127m. AND NOT LESS THAN 1/2 TIMES MAXIMUM SIZE OF COARSE AGGREGATE. WHERE COLUMNS CHANGE IN SIZE, VERTICAL REINFORCEMENT SHALL BE OFF-SET AT A SLOPE OF NOT MORE THAN 25mm. AND EXTRA 12mm Ø AT 76mm. O.C. SHALL BE PROVIDED THROUGHOUT THE OFF-SET REGION.

MILD STEEL REINFORCEMENT:

1. ALL MILD STEEL REINFORCEMENT SHALL CONFORM TO ASTM A-15-62-21 AND DEFORMATIONS TO A 305- 56T OR LATEST REVISIONS.
2. DEVELOPMENT LENGTH FOR ALL BARS SHALL BE A MINIMUM OF 40 BARS DIA. UNLESS OTHERWISE SPECIFIED.

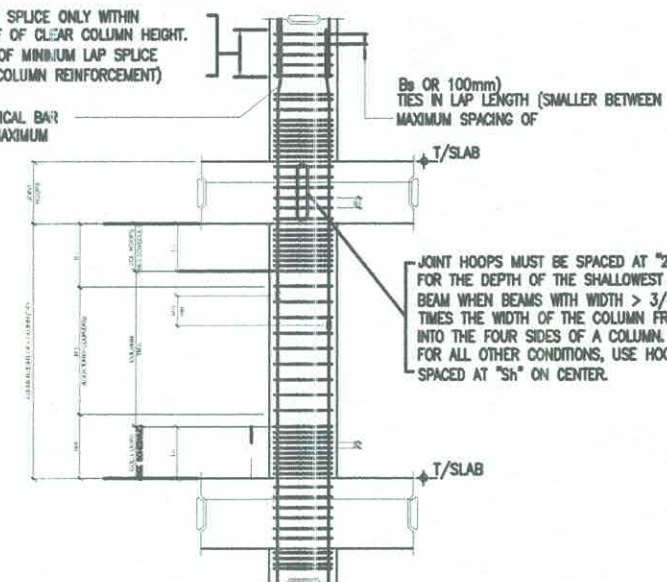
BAR Ø12 : Fy= 225 MPa
BAR Ø16 : Fy= 275 MPa

STRUCTURAL STEEL:

1. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36 Fy= 36,000 PSI
2. WELDING SHALL CONFORM TO AWS STANDARDS.
3. FABRICATOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL BY THE ENGINEER AND THE OWNER PRIOR TO FABRICATION.

TENSION LAP SPLICE ONLY WITHIN CENTER HALF OF CLEAR COLUMN HEIGHT. (SEE TABLE OF MINIMUM LAP SPLICE LENGTH OF COLUMN REINFORCEMENT)

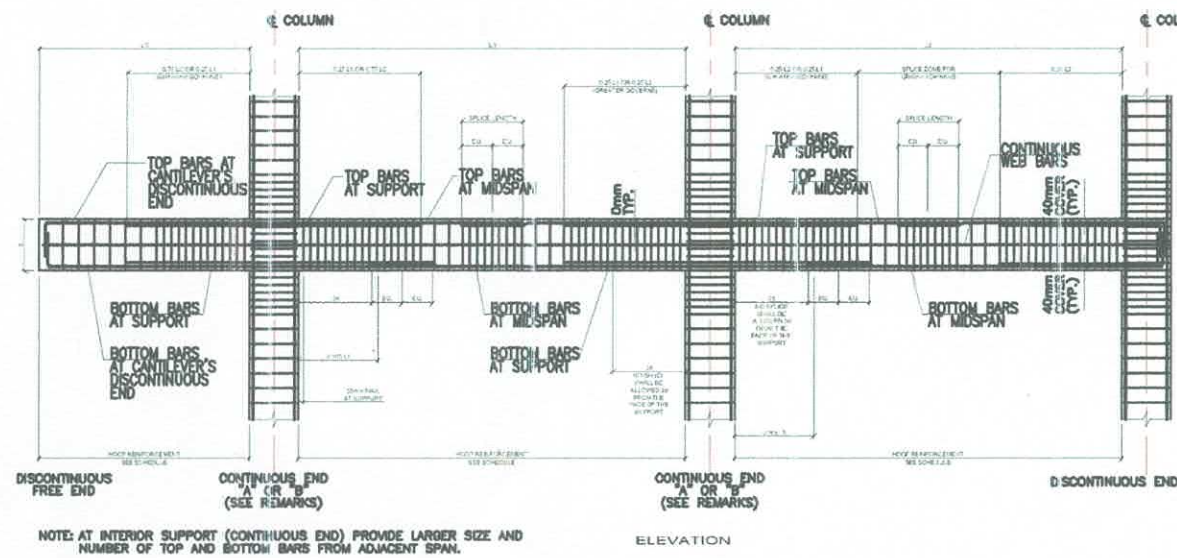
OFFSET VERTICAL BAR 1:6 SLOPE MAXIMUM



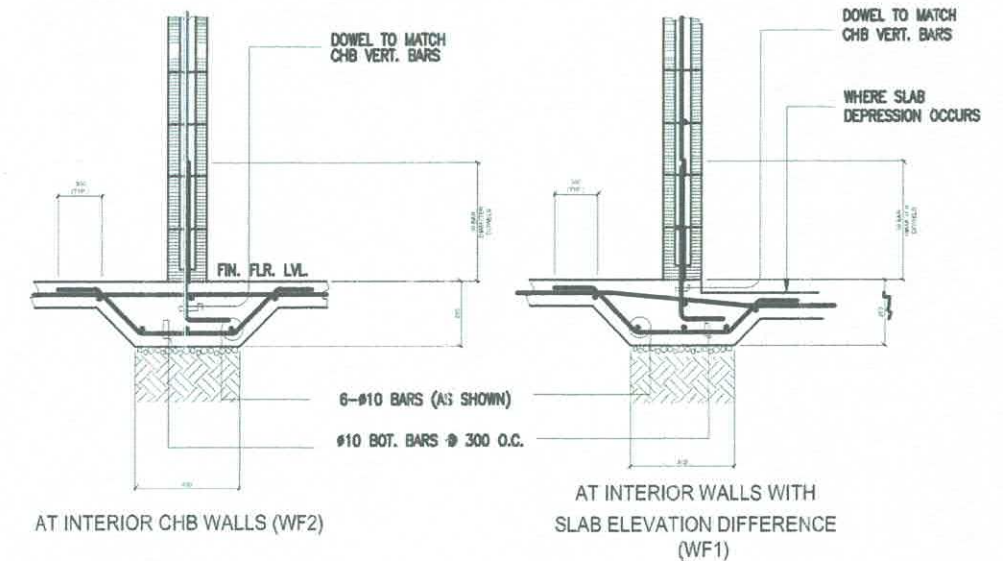
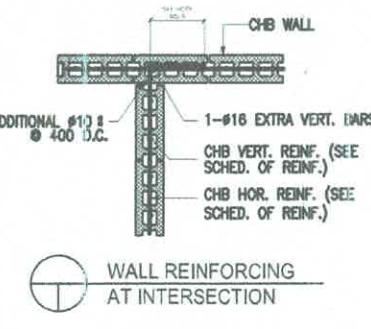
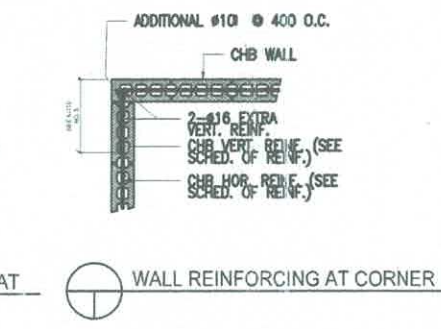
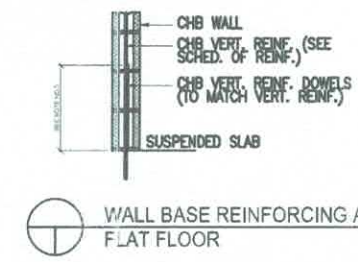
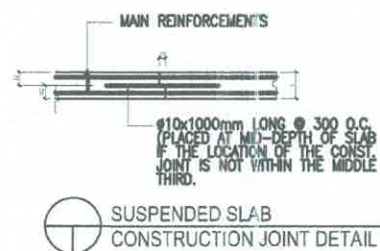
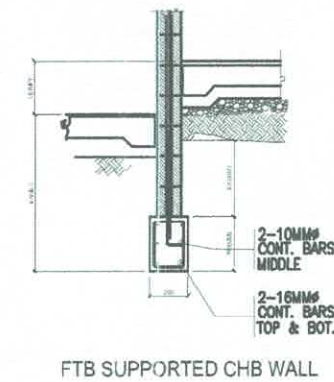
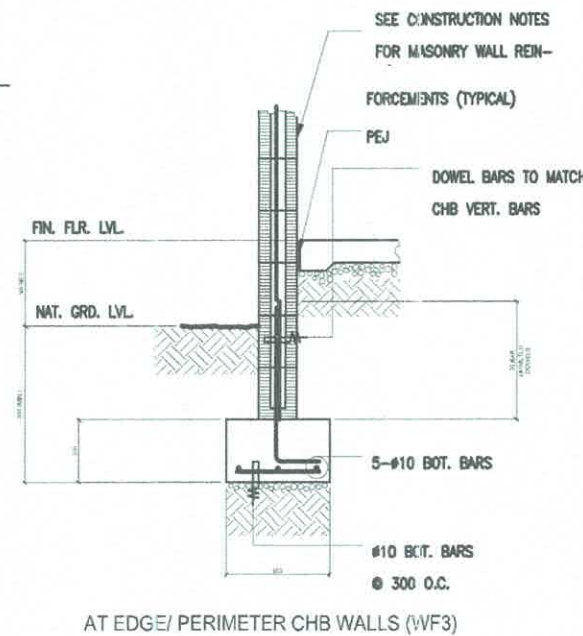
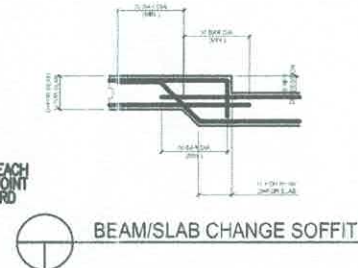
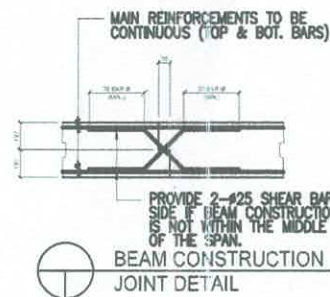
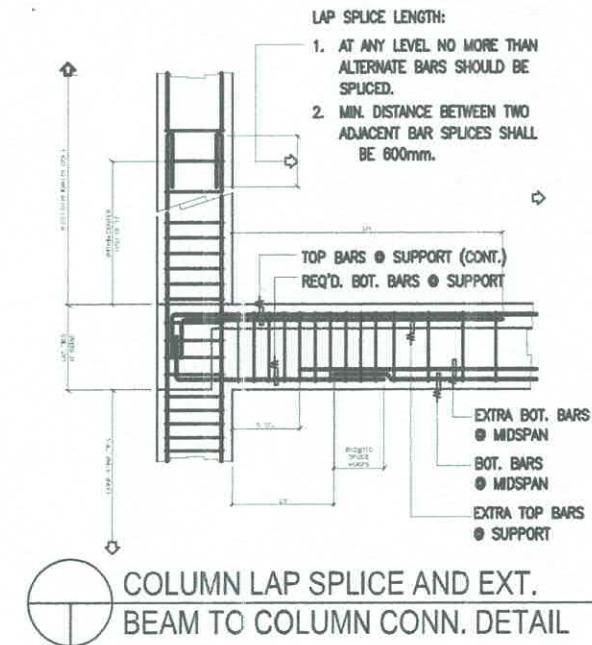
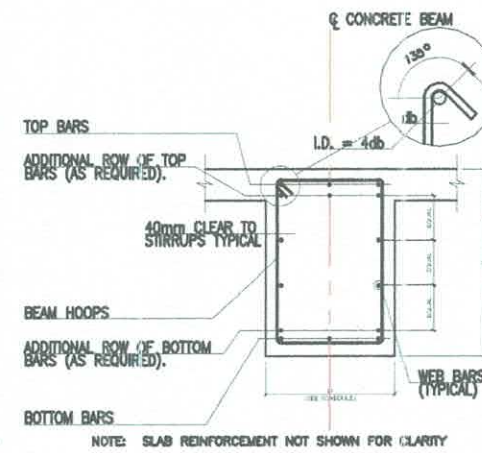
NOTES:

Sh = HOOP AND SUPPLEMENTARY CROSSTIE SPACING NOT TO EXCEED Bb/4 OR 100m.
St = COLUMN TIE SPACING, NOT TO EXCEED 16db OF VERTICALS, 48db OF TIES, Bb OR 150mm, WHICHEVER IS LESSER.
Bb = SMALLER DIMENSION OF COLUMN CROSS SECTION.
Lo = LARGEST COLUMN DIMENSION, 1/2 OF CLEAR HEIGHT OR 450mm, WHICHEVER IS GREATER.
H = CLEAR HEIGHT OF COLUMN.

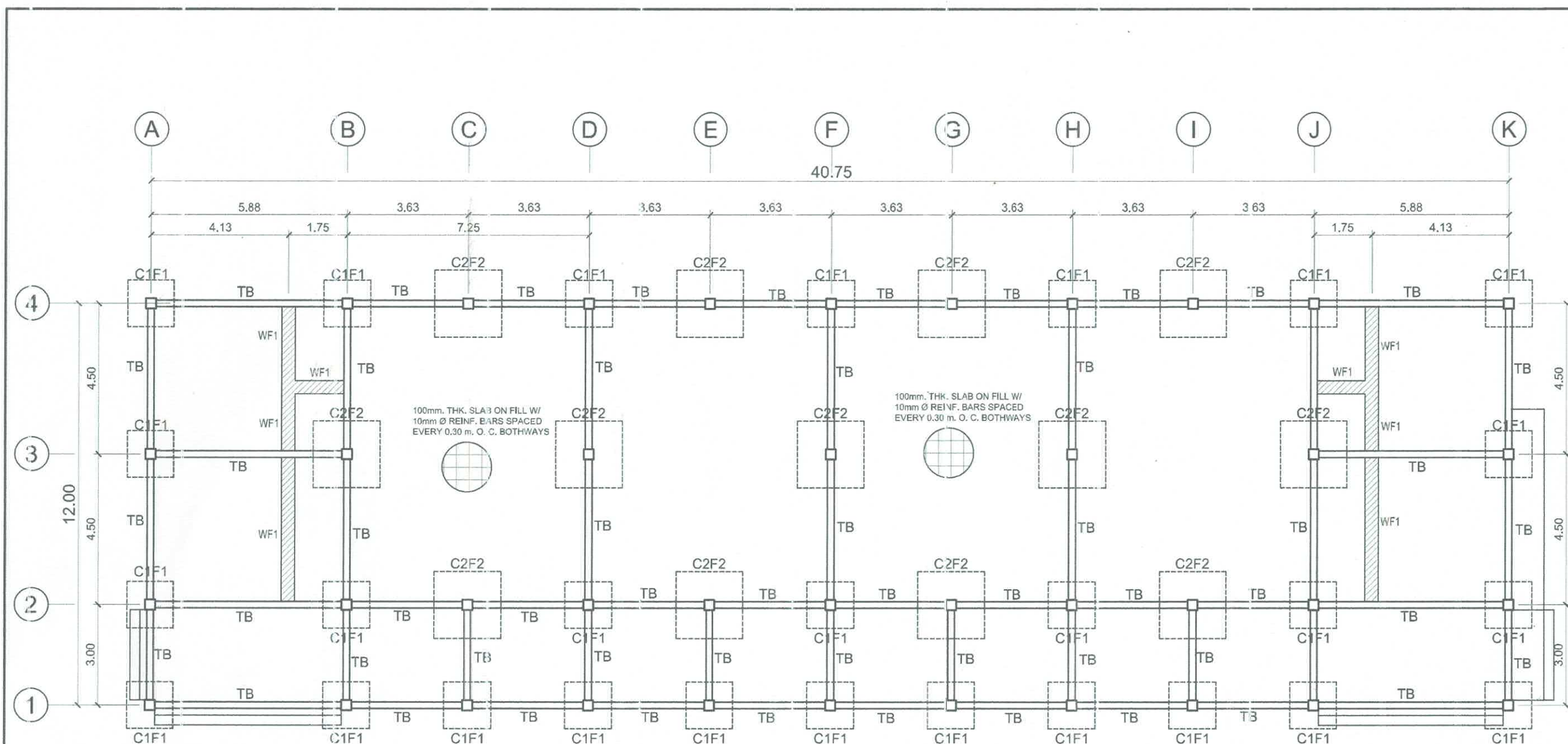
PREPARED BY:	END USER:	REVIEWED BY:	ENDORSED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE/ LOCATION:	IMPLEMENTING AGENCY:	SHT NO:
E. N. RODEROS JR. POU	A. B. LUGAO DEAN NAIC CAMPUS	JOSEPH M. MUSEP STRUCTURAL ENGINEER	S. B. BAYOT JR. HEAD	O. B. DELOS REYES PLANNING AND DEVT. OFFICE	A. C. MAGAWAS VPPD	REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	CAVITE STATE UNIVERSITY	S-1



TYPICAL REINFORCED CONCRETE BEAM DETAIL



	PREPARED BY: E. N. ROLERO JR. PDU	END USER: A. B. PLUGA DEAN NAIC CAMPUS	REVIEWED BY: M. A. P. NUESTRO STRUCTURAL ENGINEER	ENDORSED BY: S. B. BAYOT JR. PDU	REC. APPROVAL: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	APPROVED BY: A. G. MAGCAVAS VPPD	APPROVED BY: J. X. B. MUCENO VPPAS	APPROVED BY: M. A. P. NUESTRO PRESIDENT	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: S - 2
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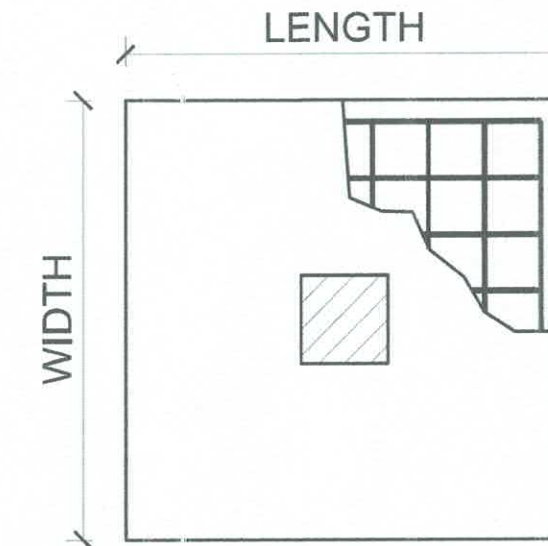


FOUNDATION PLAN
 SCALE 1 : 125 MTS.

	PREPARED BY:  E. N. RODRIGOS OVPD	END USER:  A. G. PLUSAY DEAN NAIC CAMPUS	REVIEWED BY:  M. B. BAYOT JR. INSTRUCTOR / STRUCTURAL ENGINEER	ENDORSED BY:  O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL:  A. G. MAGCAYAS VPPD	 J. X. B. MUCENO VPSS	APPROVED BY:  M. A. P. NUESTRO PRESIDENT	PROJECT TITLE / LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: S - 3
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SCHEDULE OF FOOTING

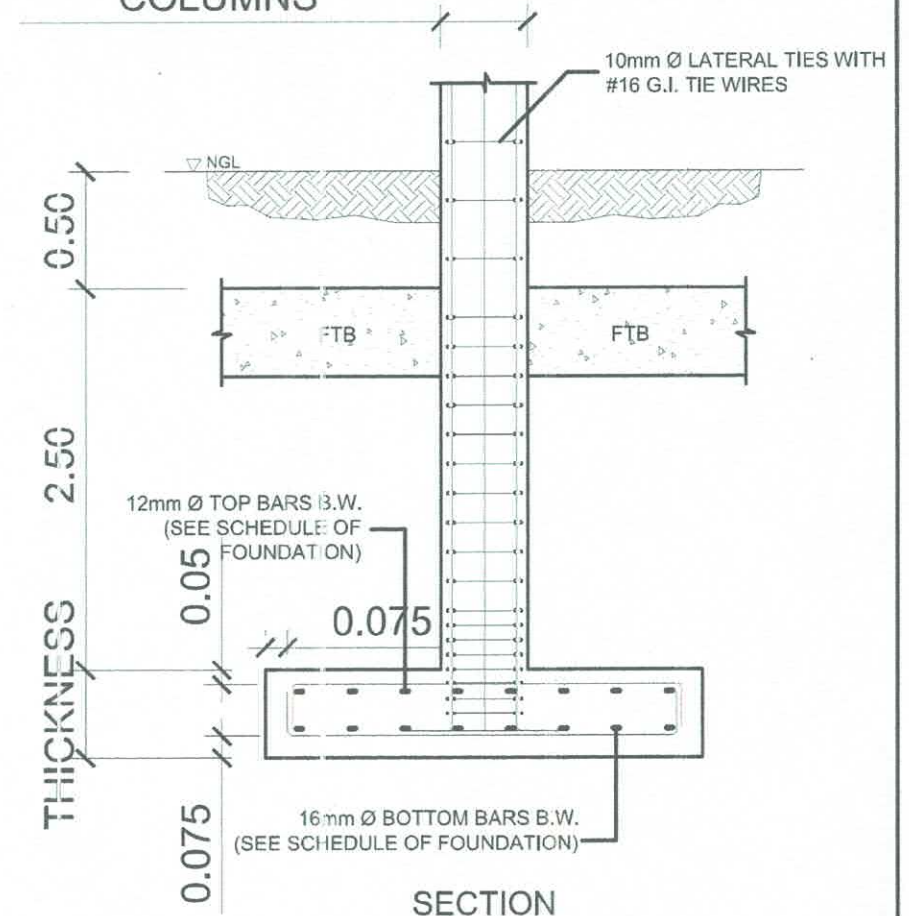
FOUNDATION DESIGNATION	DIMENSIONS			TOP BARS		BOTTOM BARS		REMARKS
	LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)	SHORT DIR.	LONG DIR.	SHORT DIR.	LONG DIR.	
F1	1400	1400	300	-	-	10 - 16mm Ø	10 - 16mm Ø	USE GRADE 40 BARS
F2	2000	2000	400	-	-	16 - 16mm Ø	16 - 16mm Ø	USE GRADE 40 BARS



SCHEDULE OF COLUMNS

LEVEL	C1	C2	LATERAL TIES
FOOTING TO SECOND FLOOR LEVEL			10mm Ø TIES @ 4 - 50mm, 4 - 75mm, 4 - 100mm, REST @ 150mm
UPPER SECOND FLOOR LEVEL TO ROOF BEAM			10mm Ø TIES @ 4 - 50mm, 4 - 75mm, 4 - 100mm, REST @ 150mm

SEE SCHEDULE OF PLAN
COLUMNS

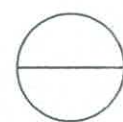
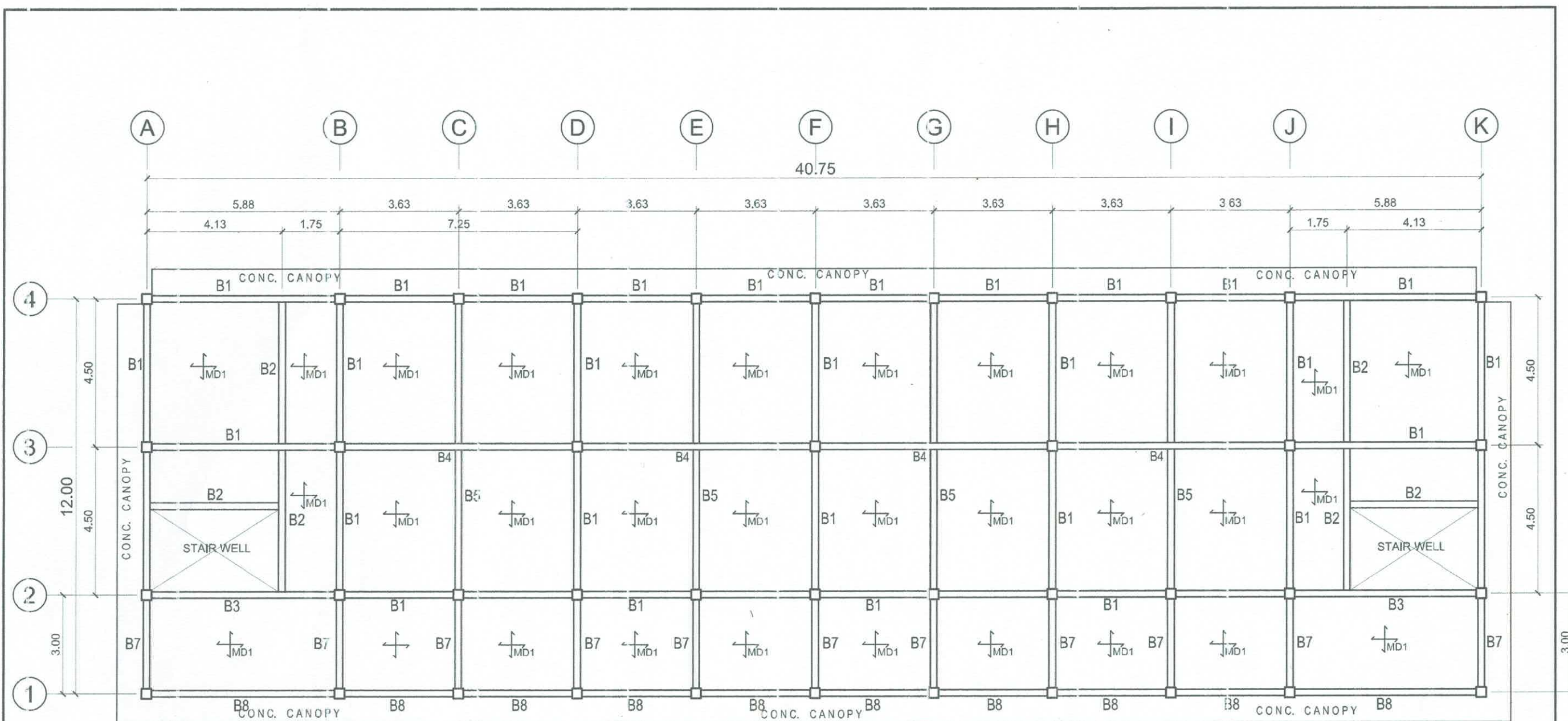


DETAILS OF COLUMN AND COLUMN FOOTING

SCALE

N. T. S.

	PREPARED BY: E. N. RODRIGOS JR. PDU	END USER: A. G. PLIGAY DEAN NAIC CAMPUS	REVIEWED BY: M. A. P. NUESTRO ISABELA OFFICE, MASTER PLANNING STRUCTURAL ENGINEER	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	REC. APPROVAL: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	APPROVED BY: A. G. MAGCAYANAS VPPD	APPROVED BY: J. X. P. DE LA CRUZ PRESIDENT	APPROVED BY: M. A. P. NUESTRO PRESIDENT	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO.: S - 4
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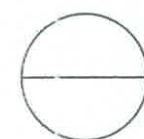
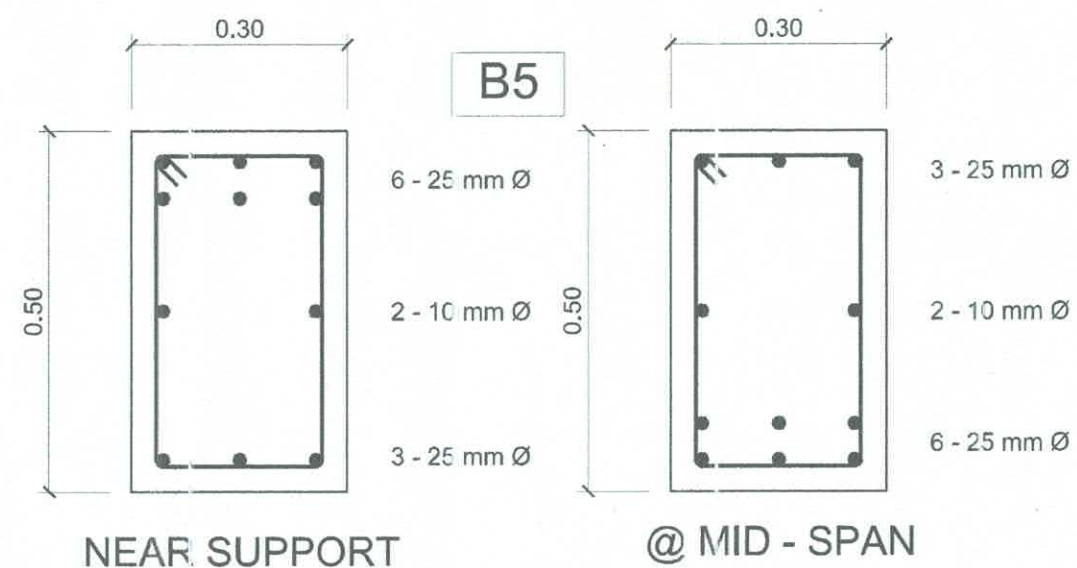
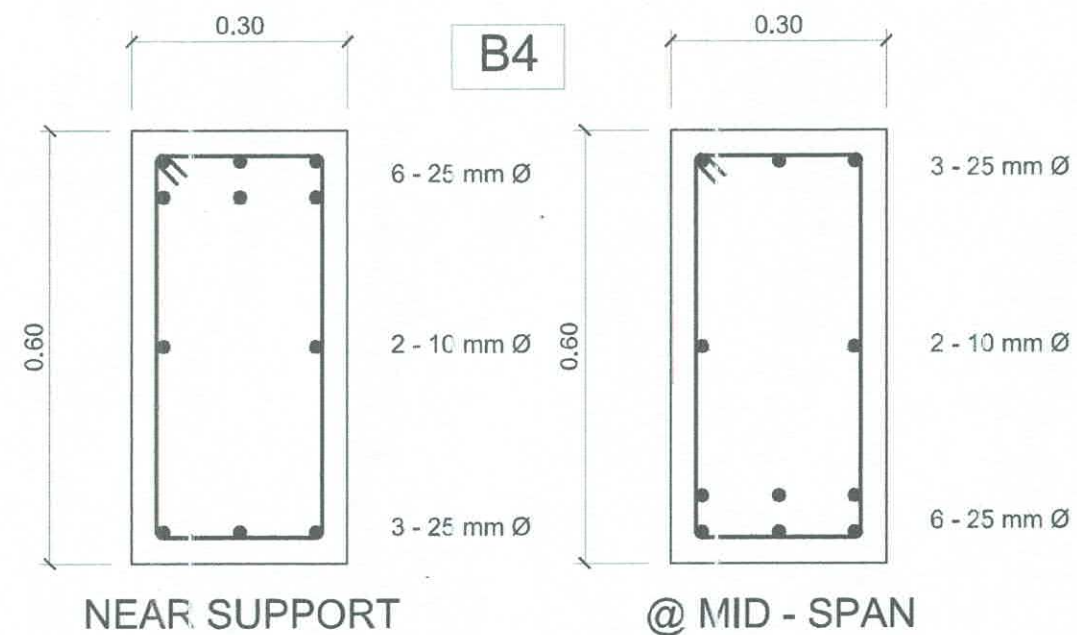
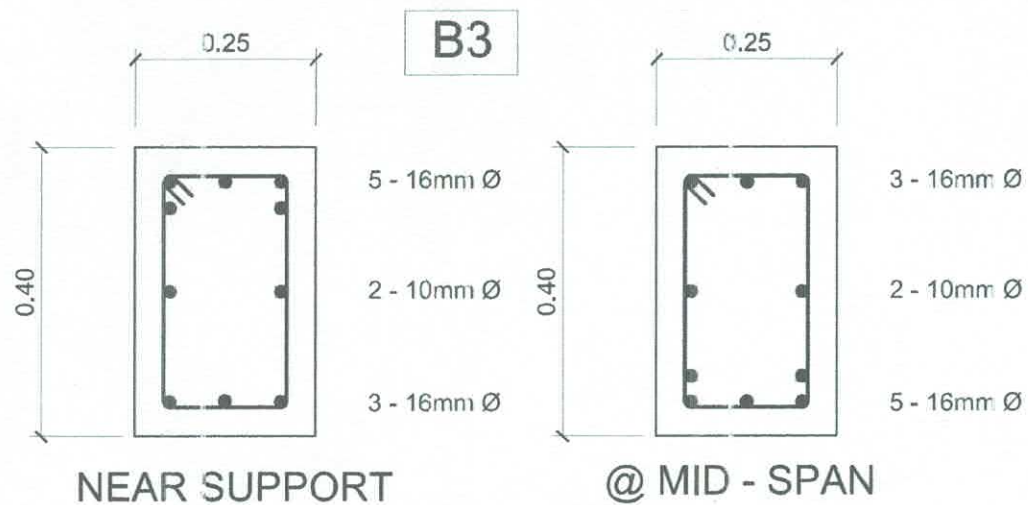
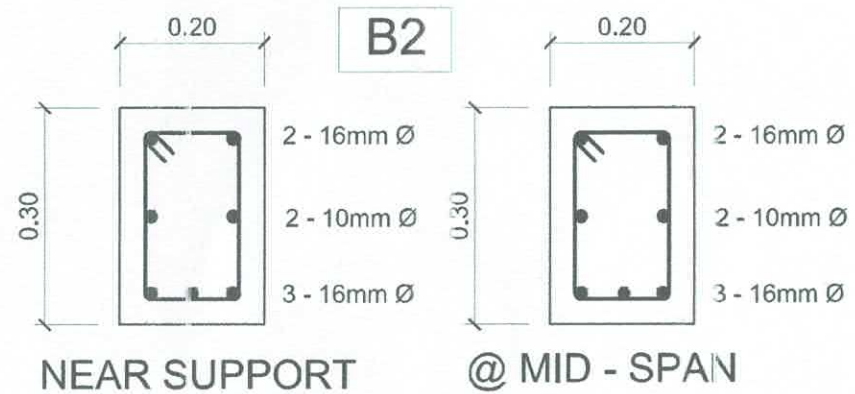
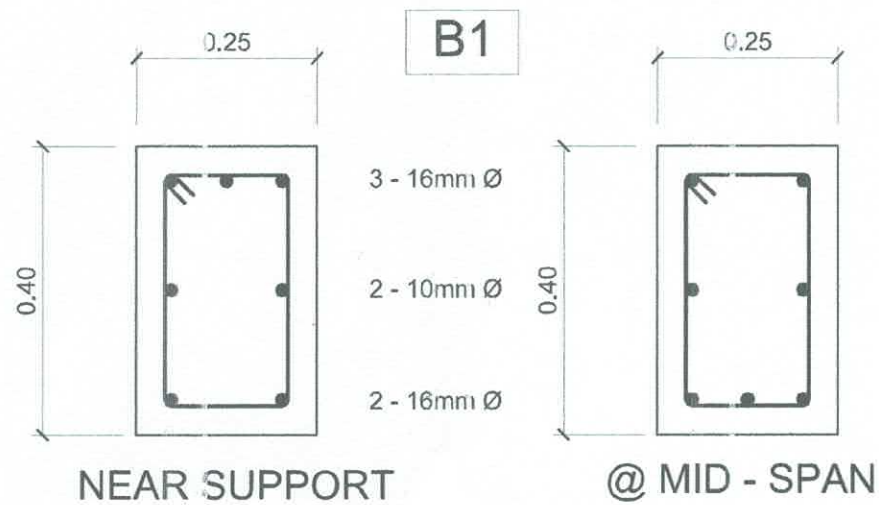


THIRD FLOOR BEAM PLAN

SCALE

1 : 125 MTS.

	PREPARED BY: E. N. RODEROS JR. PDU	END USER: A. E. RUGAY DEAN NAIC CAMPUS	REVIEWED BY: M. C. PASOAS STRUCTURAL ENGINEER	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	ENDORSED BY: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL: A. G. MAGCAYAS VPPD	REC. APPROVAL: J. A. B. NUCENO VPASS	APPROVED BY: M. A. P. NUESTRO PRESIDENT	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: S - 6
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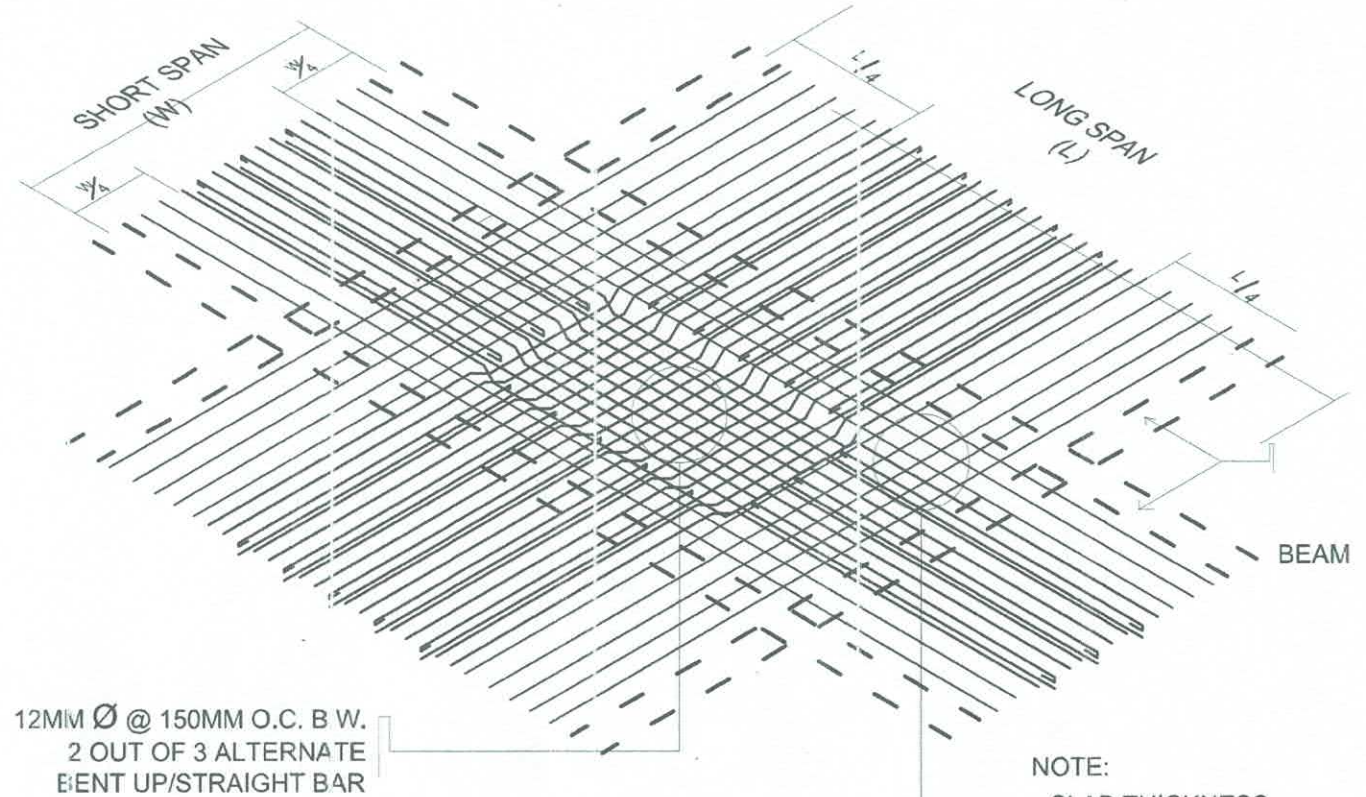
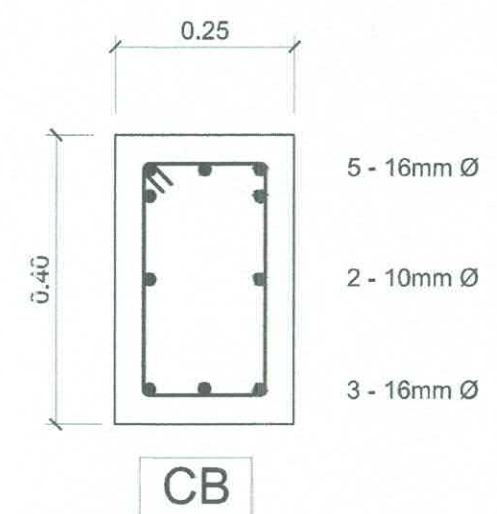
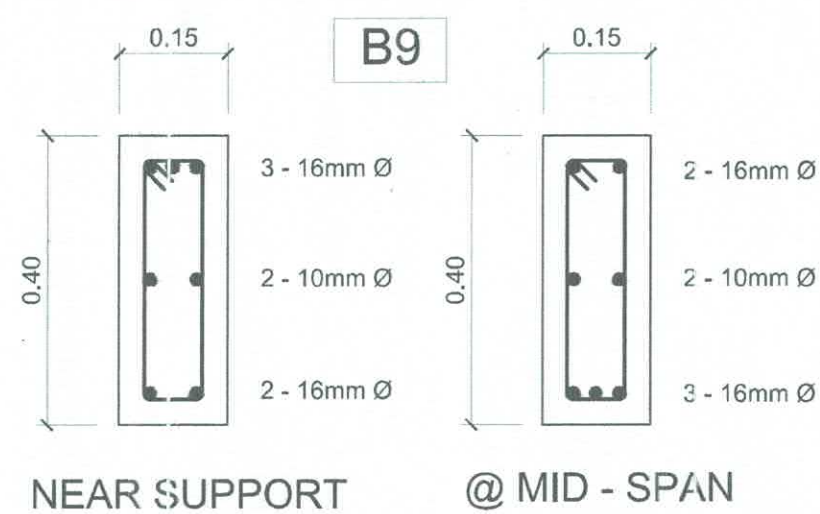
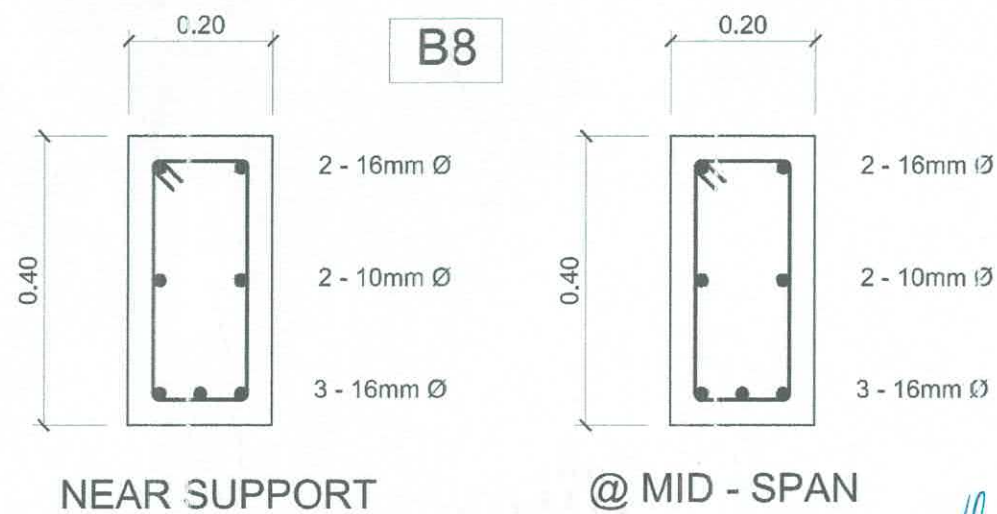
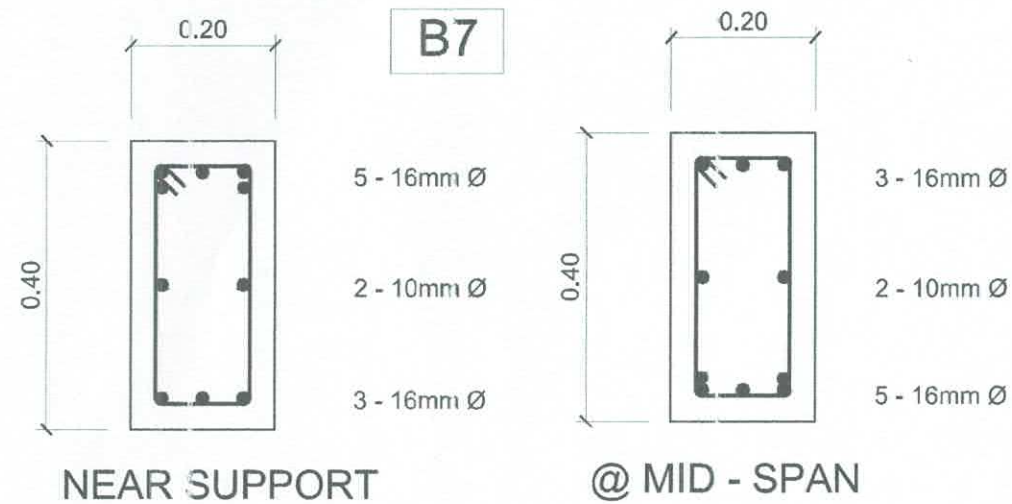
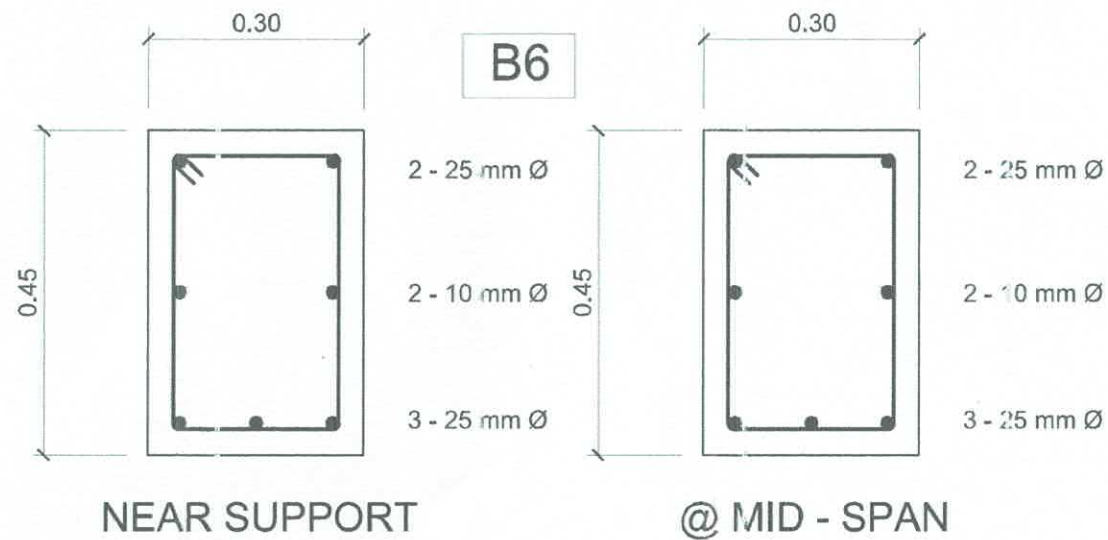


SCHEDULE OF BEAMS

SCALE

1 : 10 M

	PREPARED BY: E. N. RODEROS JR. PDU	END USER: A. B. PUGA DEAN NAIC CAMPUS	REVIEWED BY: M. C. LASDA STRUCTURAL ENGINEER	ENDORSED BY: S. B. BAYOT JR. PDU	REC. APPROVAL: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	APPROVED BY: A. G. MAGCAYAS VPPD	APPROVED BY: J. X. B. MUCENO CVSU	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: S - 7
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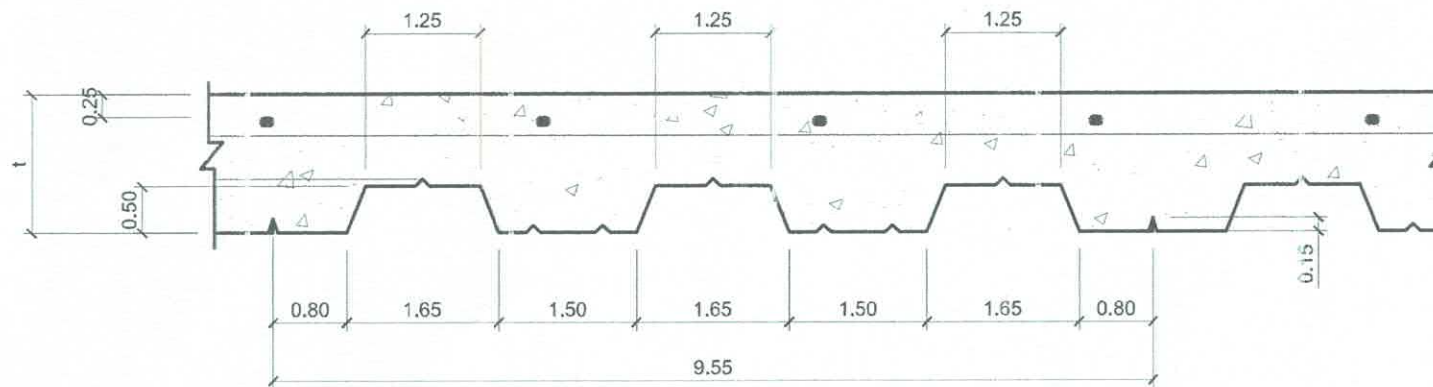


10MM Ø TEMPERATURE BARS @ 250MM O.C. B.W.
THROUGHOUT THE COLUMN STRIP

NOTE:
SLAB THICKNESS:
S1 = 100MM

TWO - WAY SLAB DETAIL OF SLAB REINFORCEMENT

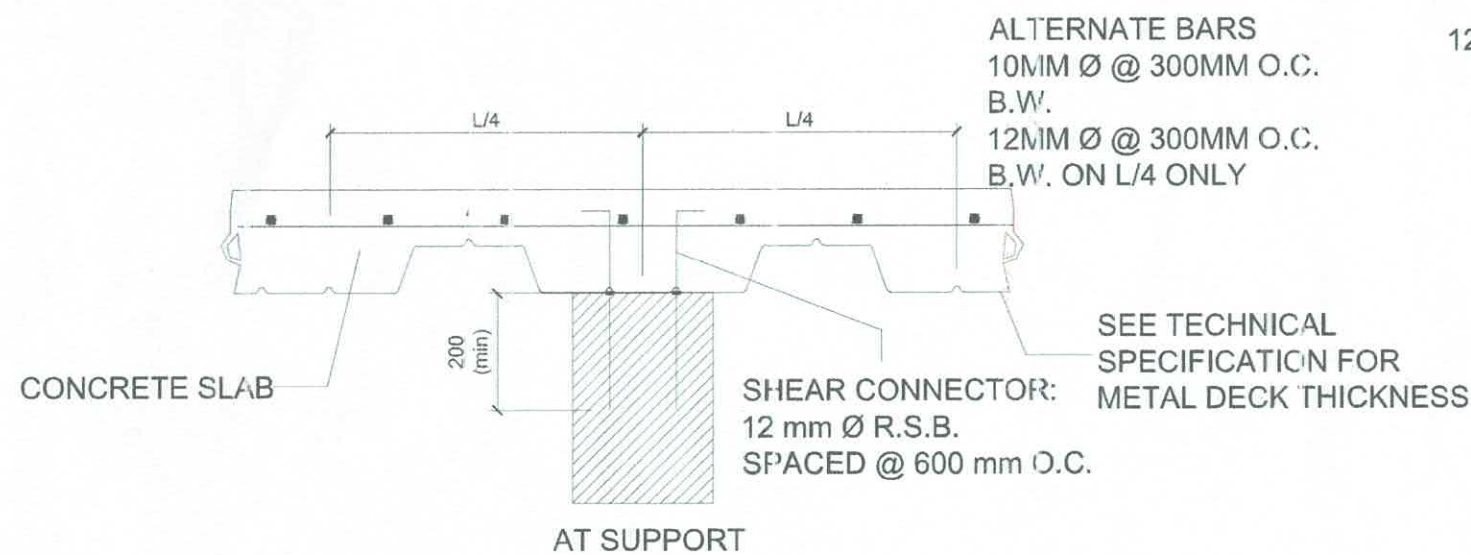
	PREPARED BY: E. N. RODEROS JR. PDU	END USER: A. B. LUGA DEAN NAIC CAMPUS	REVIEWED BY: M. A. PASIL STRUCTURAL ENGINEER	ENDORSED BY: S. B. BAYOT JR. PDU	REC. APPROVAL: O. B. DELOS REYES DIRECTOR PLANNING AND DEV. OFFICE	APPROVED BY: A. G. MAGAWAS VP	APPROVED BY: M. X. B. POMUCENO VP	APPROVED BY: M. A. P. NUESTRO PRESIDENT	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: S - 8
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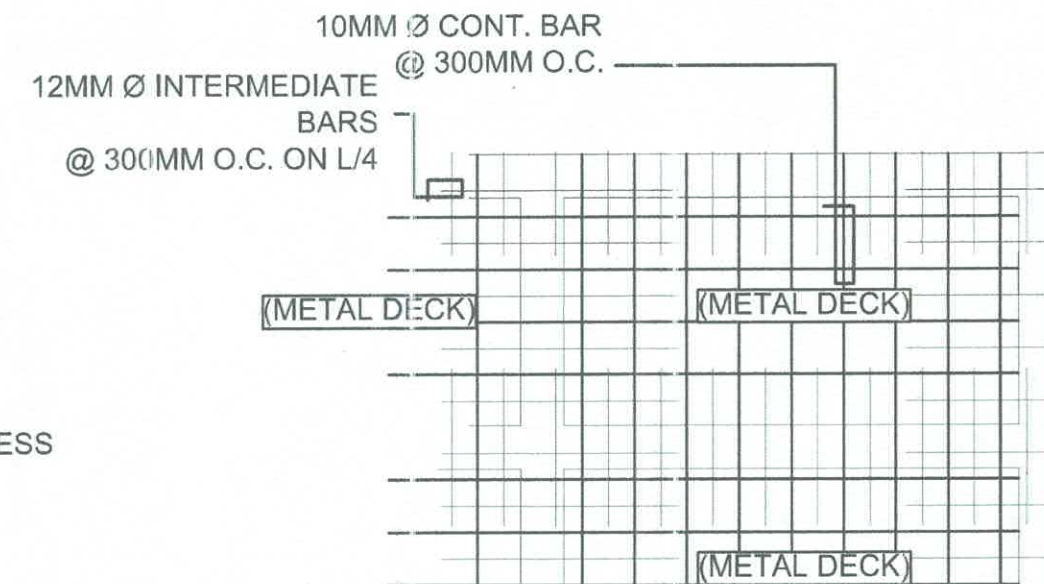
RIBDECK DETAIL

TECHNICAL SPECIFICATION FOR METAL DECK

SLAB LABEL	SLAB THICKNESS	METAL DECK THICKNESS	SUPERIMPOSED LIVE LOAD	REMARKS	AREA
MD1	100 mm	0.80 mm Fy = 80,000psi	2.40 kPa	SEE MANUFACTURER'S TECHNICAL SPECIFICATIONS	FOR OFFICES/ CLASSROOMS



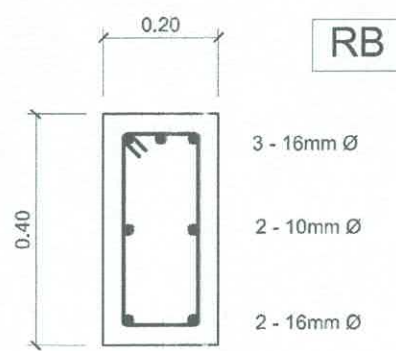
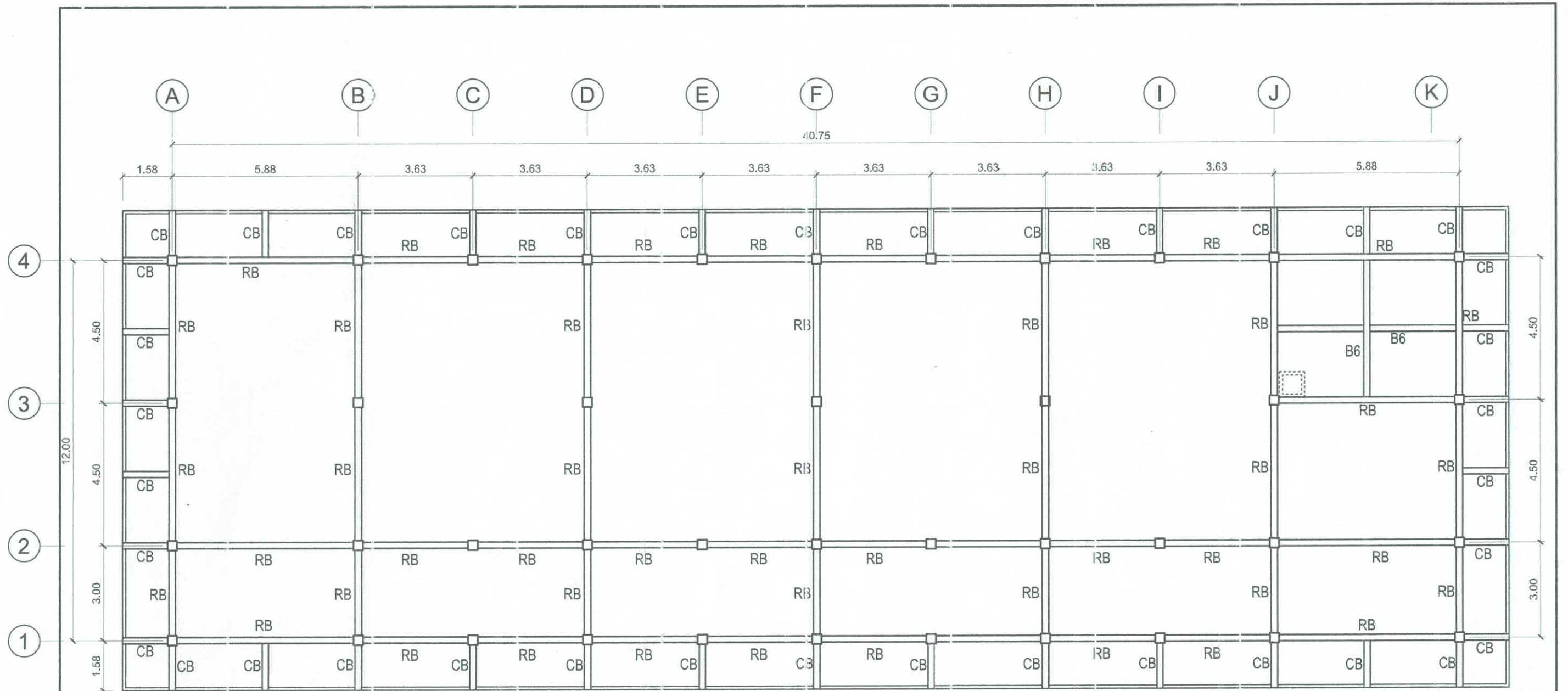
SLAB DETAILS



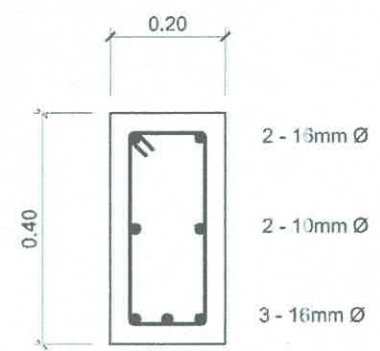
RIBDECK REINFORCEMENTS

DETAILS OF METAL DECKING

	PREPARED BY:	END USER:	REVIEWED BY:	ENDORSED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE/ LOCATION:	IMPLEMENTING AGENCY:	SHT NO:	
	 E.N. RODRIGOS JR. PDU OVPPD	 A. G. MAGCOWAS DEAN NAIC CAMPUS	 M. A. P. NUESTRO STRUCTURAL ENGINEER	 S. B. BAYOT JR. PDU	 O. B. DELOS REYES DIRECTOR PLANNING AND DEV. OFFICE	 A. G. MAGCOWAS VPPD	 J. X. B. ... CVSU	 M. A. P. NUESTRO PRESIDENT CVSU	REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	CAVITE STATE UNIVERSITY



NEAR SUPPORT



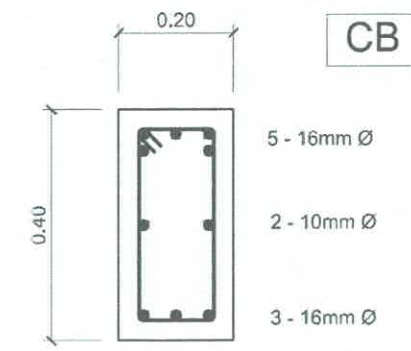
@ MID - SPAN



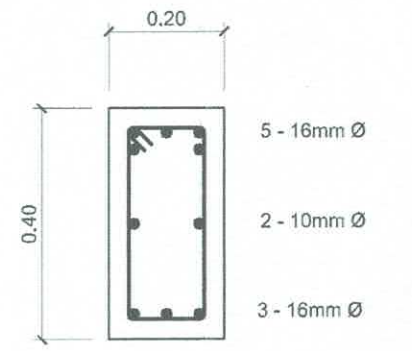
ROOF BEAM PLAN

SCALE

1 : 125 MTS.

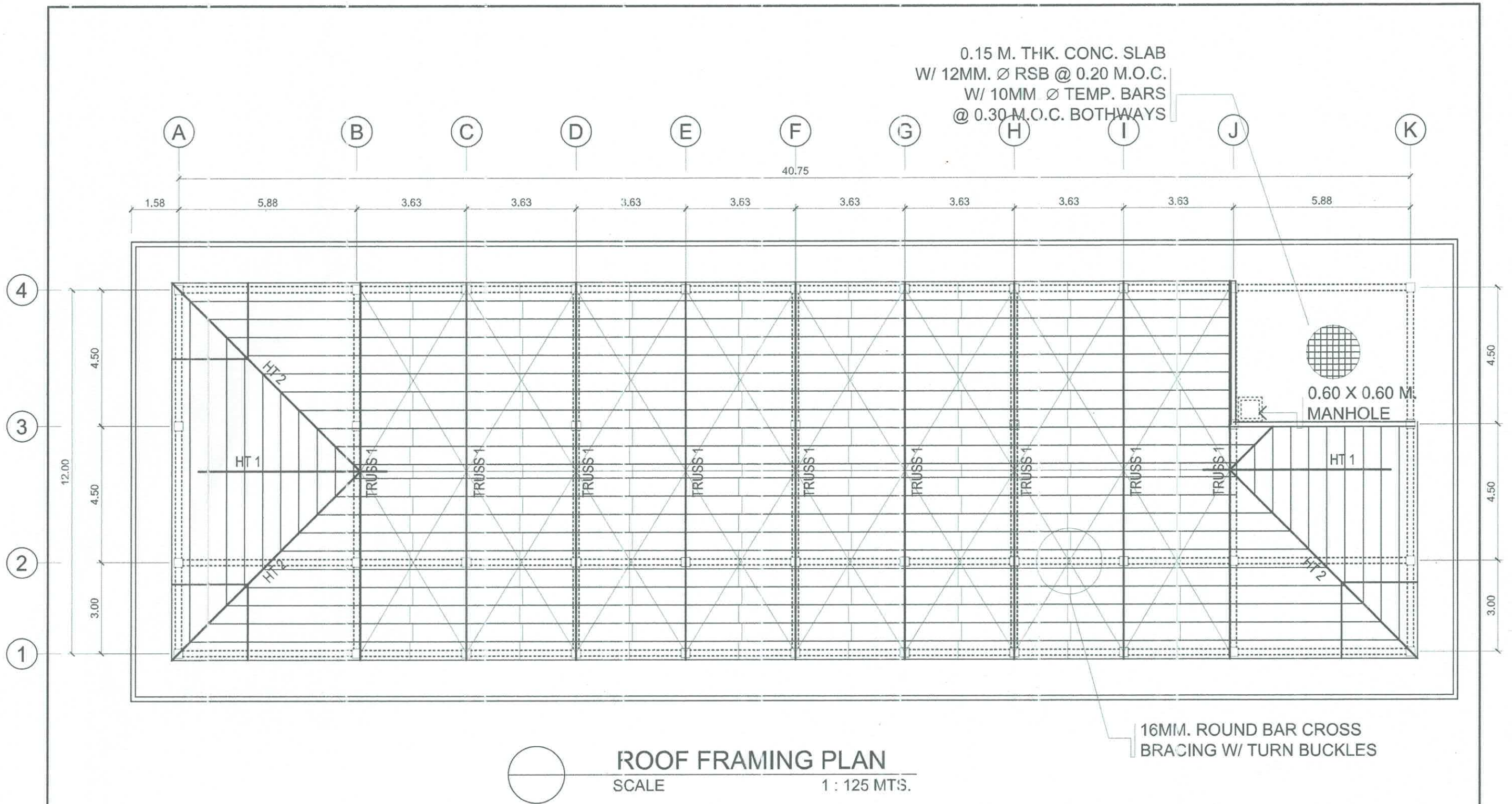


NEAR SUPPORT



END

	PREPARED BY: E. N. RODRIGOS JR. PDU	END USER: A. B. PUGAY DEAN NAIC CAMPUS	REVIEWED BY: M. A. P. NUESTRO STRUCTURAL ENGINEER	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	REC. APPROVAL: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL: A. G. MAGCAYAS VPPD	REC. APPROVAL: J. X. B. MUCENO VPPAS	APPROVED BY: M. A. P. NUESTRO PRESIDENT	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY SHT NO: S - 10
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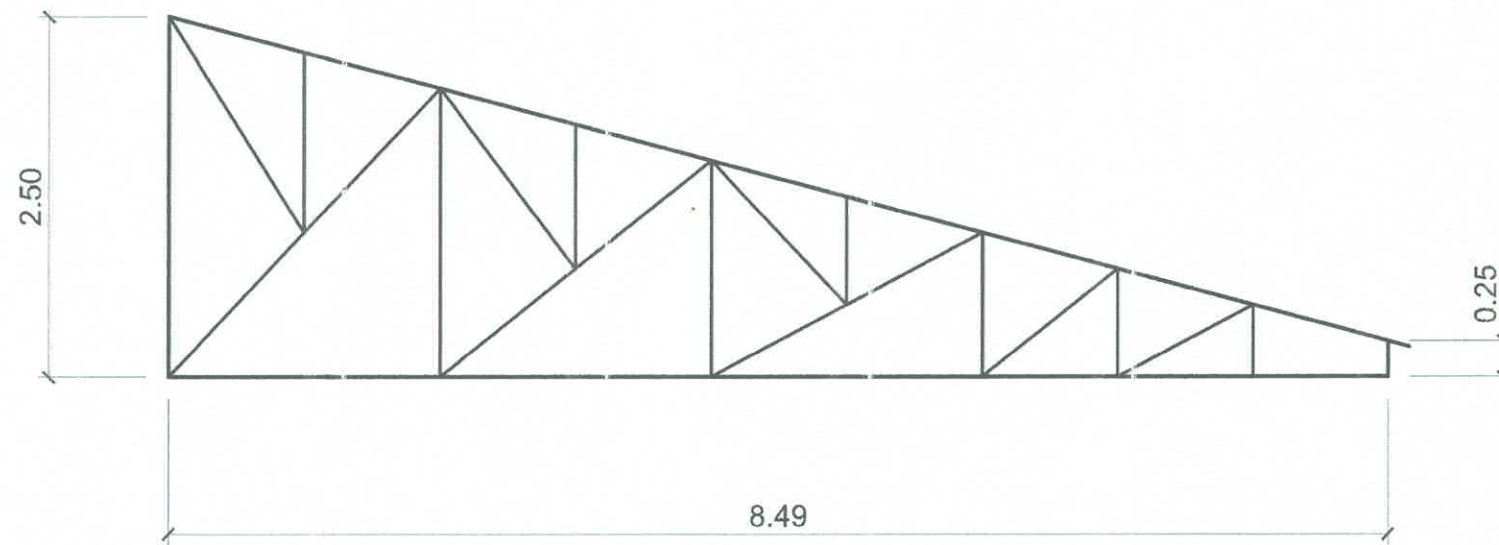


	PREPARED BY: E. N. RODEROS JR. PDU	END USER: S. B. PUGAY DEAN NAIC CAMPUS	REVIEWED BY: M. A. MAGCAYAS STRUCTURAL ENGINEER	ENDORSED BY: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL: A. G. MAGCAYAS VPPD	APPROVED BY: J. X. D. M. DOMUCENO CVSU	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: S - 11
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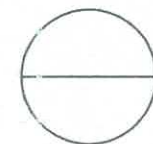
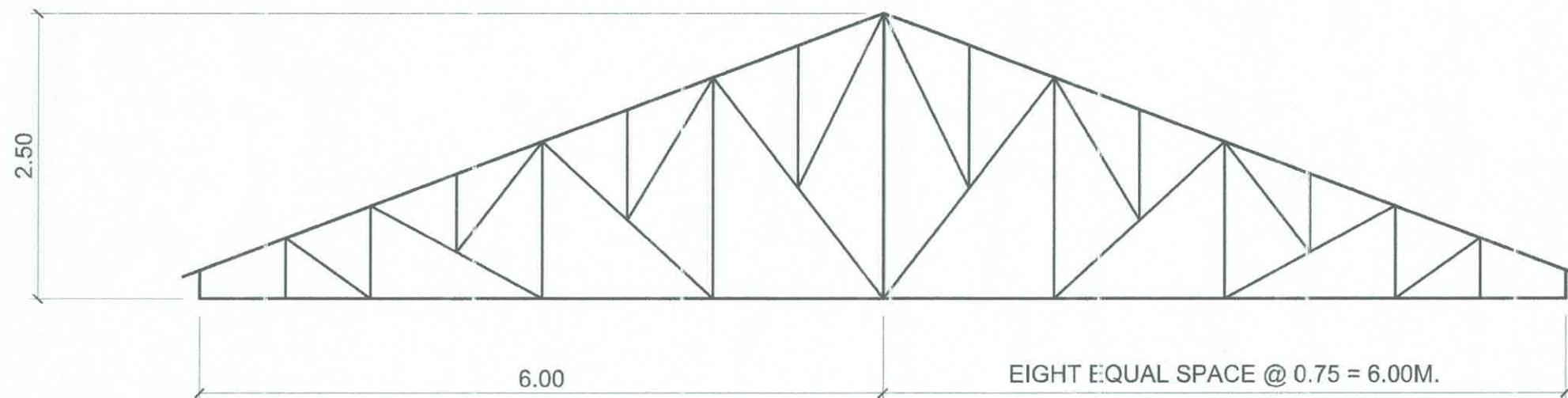
NOTE:

USE THE FOLLOWING:

- 2 - 2½" X 2½" X ¼" THK. ANGULAR BAR FOR TOP CHORDS, BOTTOM CHORDS, & KING POSTS
- 2 - 2" X 2" X ¼" THK. ANGULAR BAR FOR WEB MEMBERS
- 6mm THICK GUSSET PLATES ON ALL JOINTS
- 16mm Ø ROUND BAR CROSS BRACING W/ TURN BUCKLES
- 12mm Ø ROUND BAR SAG ROD AT MIDDLE THIRD
- 50mm x 125mm x 1.5mm CEE PURLINS SPACED @ 0.60m O.C.
- 12mm THICK BASE PLATES
- 16mm Ø ANCHOR BOLTS



HT 2

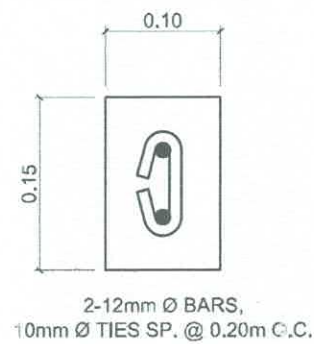


ROOF FRAMING PLAN

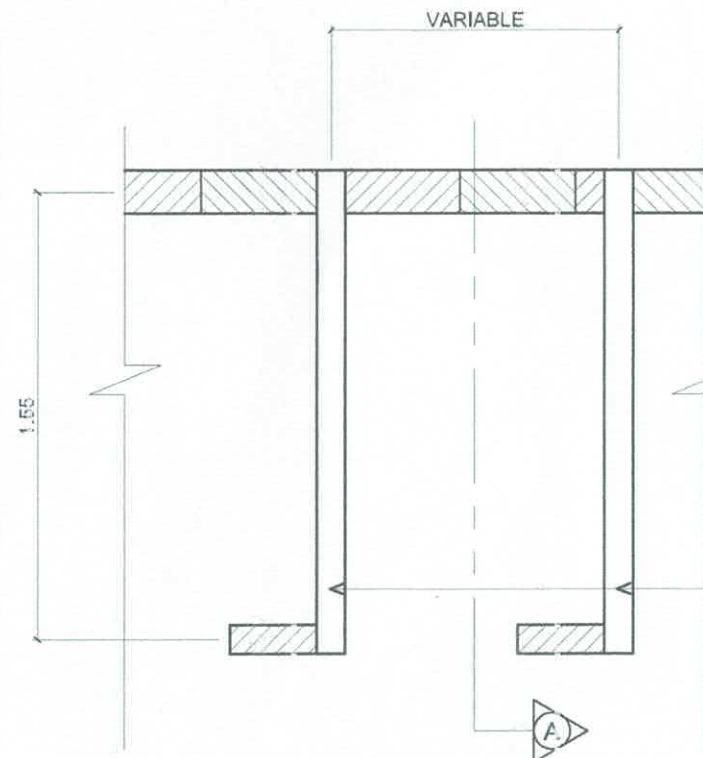
SCALE

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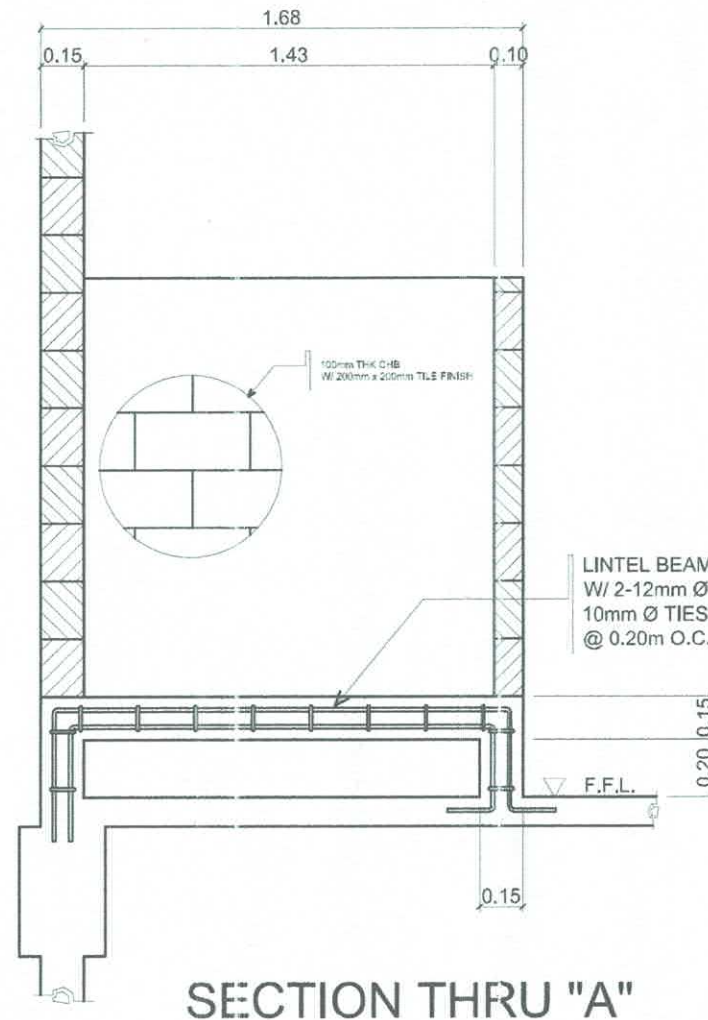
	PREPARED BY: E. N. RODEROS JR. PDU	END USER: A. B. OLIGAN DEAN NAIC CAMPUS	REVIEWED BY: M. A. P. NUESTRO STRUCTURAL ENGINEER	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	ENDORSED BY: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL: A. G. MAGDAWAS VPPD CVSU	REC. APPROVAL: J. X. B. DOMUCENO VPASS CVSU	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: S - 12
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LINTEL BEAM



PLAN



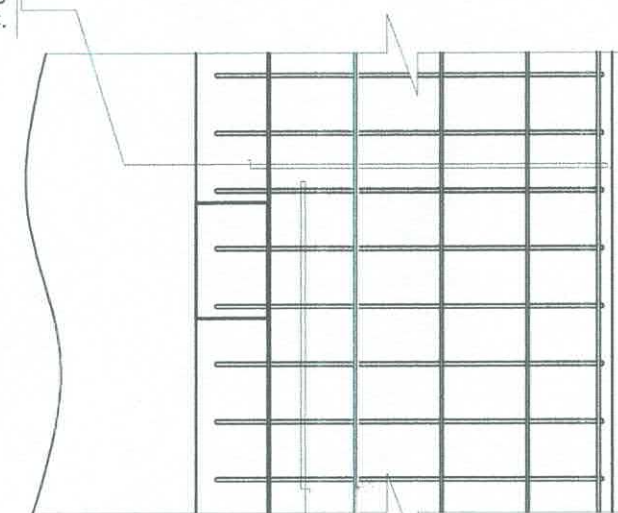
LINTEL BEAM
W/ 2-12mm Ø BARS,
10mm Ø TIES SP.
@ 0.20m O.C.

DETAIL OF TOILET CUBICLE

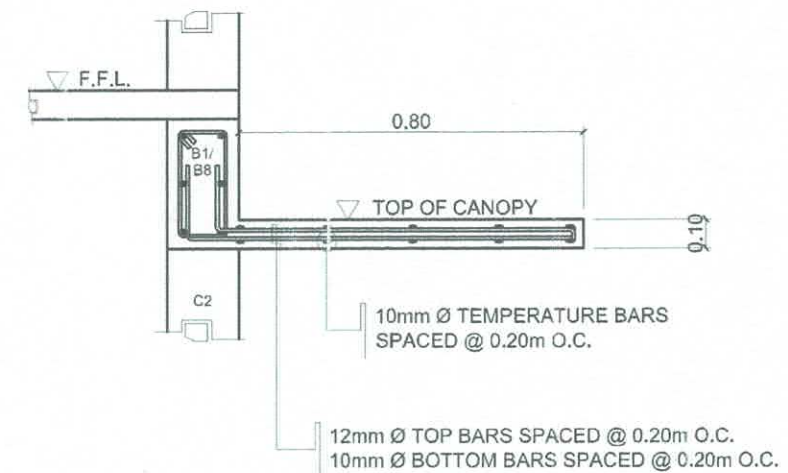
SCALE

1: 25 M.

10mm Ø TEMPERATURE BARS
SPACED @ 0.30m O.C.



PLAN

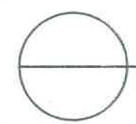
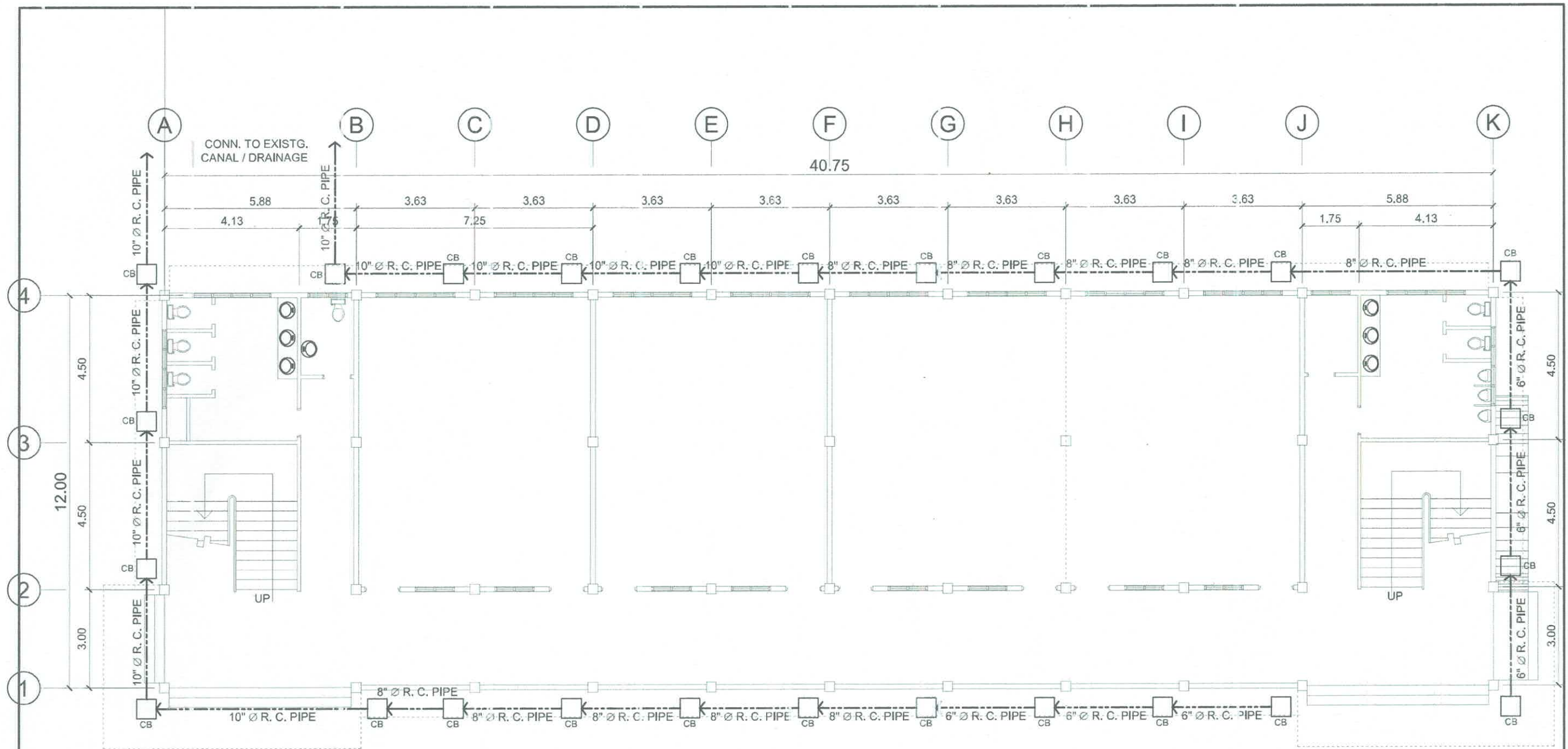


SECTION

STRUCTURAL DETAIL OF CANOPY

SCALE

	PREPARED BY: E. N. RODRIGOS JR. PDU	END USER: A. B. PUGA DEAN NAIC CAMPUS	REVIEWED BY: M. A. P. NUESTRO STRUCTURAL ENGINEER	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	ENDORSED BY: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL: A. G. MAGCAYAS VPPD	REC. APPROVAL: J. K. B. VILLAMUCENO VPAS	APPROVED BY: M. A. P. NUESTRO PRESIDENT	PROJECT TITLE/LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHEET NO.: S - 13
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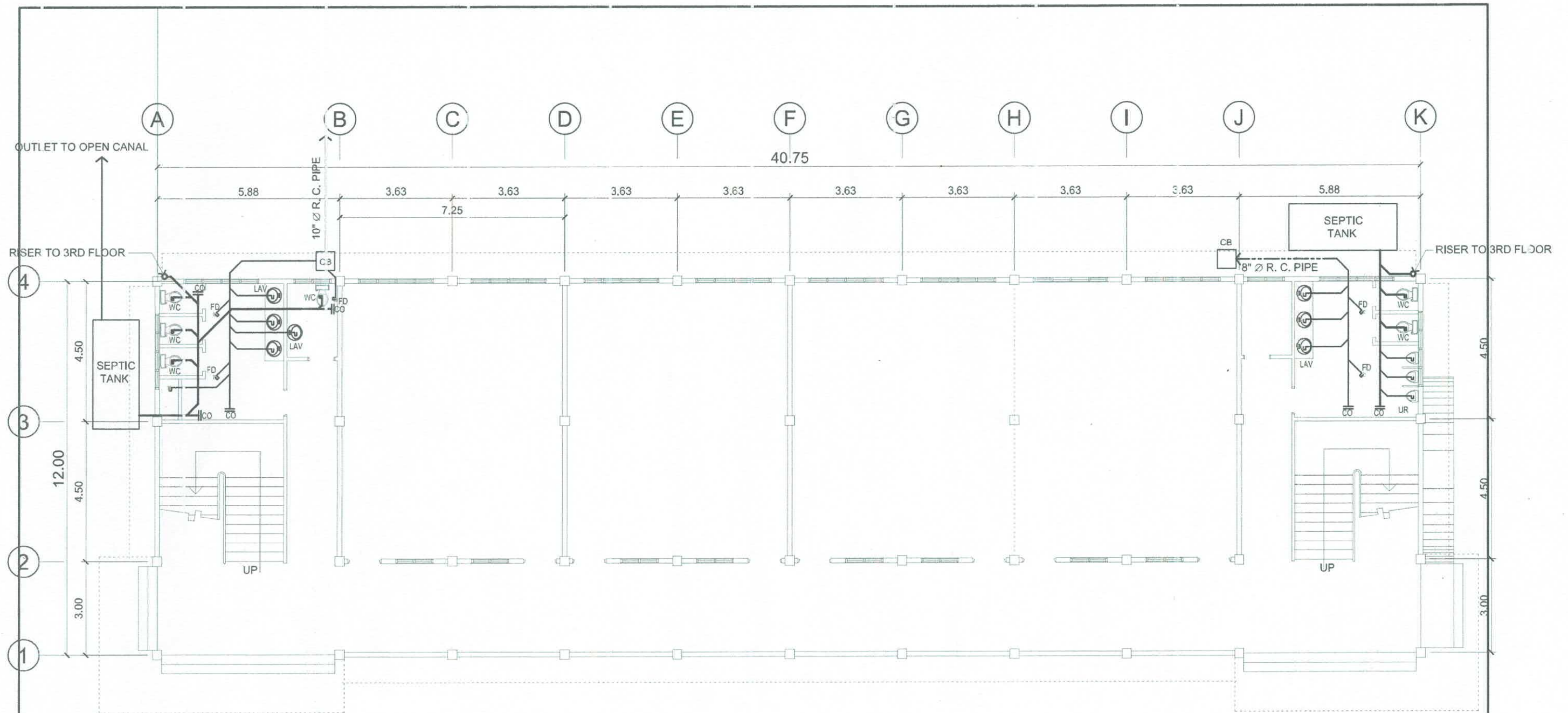


STORM DRAINAGE LAYOUT

SCALE

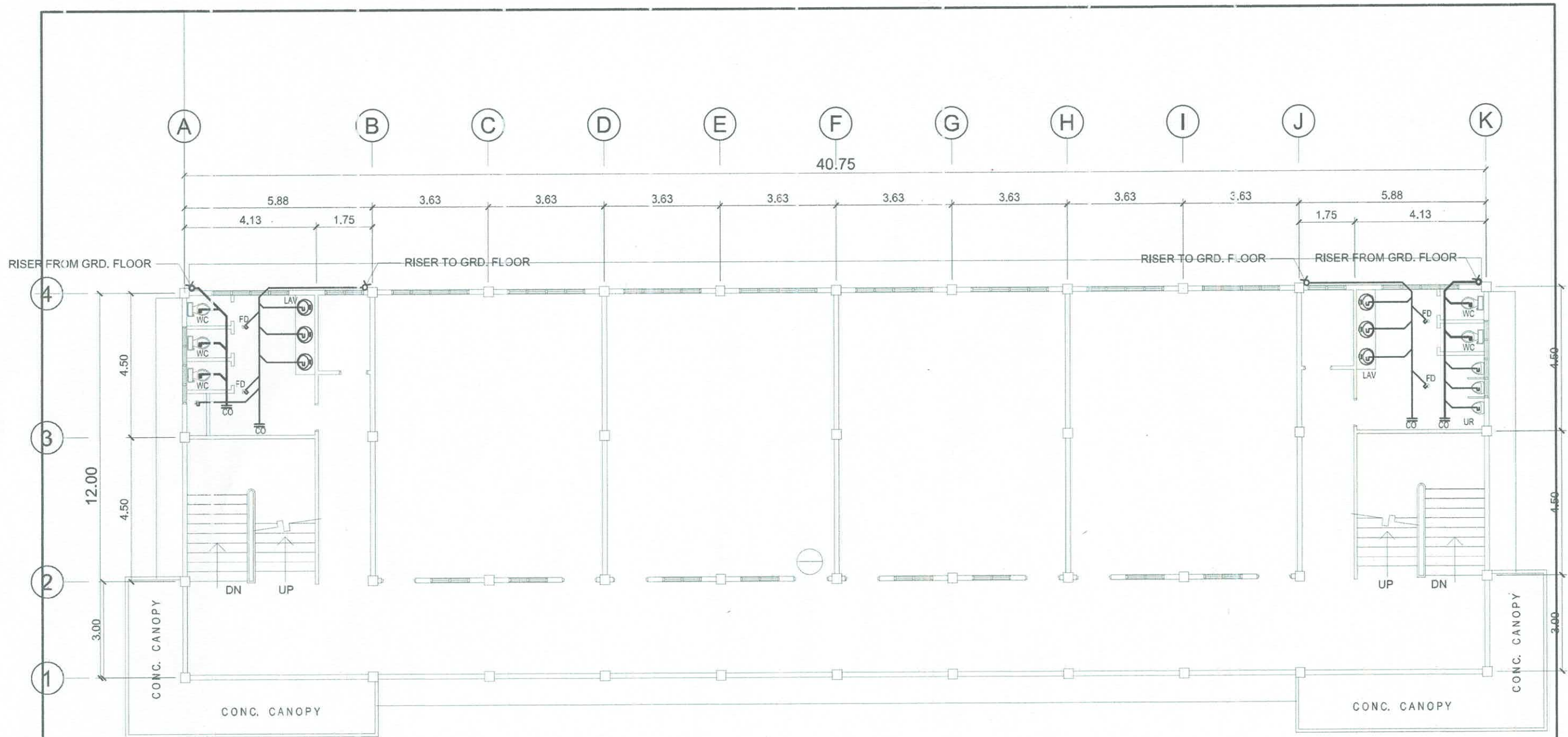
1 : 125 MTS.

	PREPARED BY: E. N. RODEROS JR. PDU	END USER: J. C. LUGA DEAN NAIC CAMPUS	REVIEWED BY: S. B. BAYOT JR. HEAD PDU	ENDORSED BY: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL: A. G. MAGCAYAS VPPD	APPROVED BY: J. X. B. ROMUCENO CVSU VP/AS M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: P - 1
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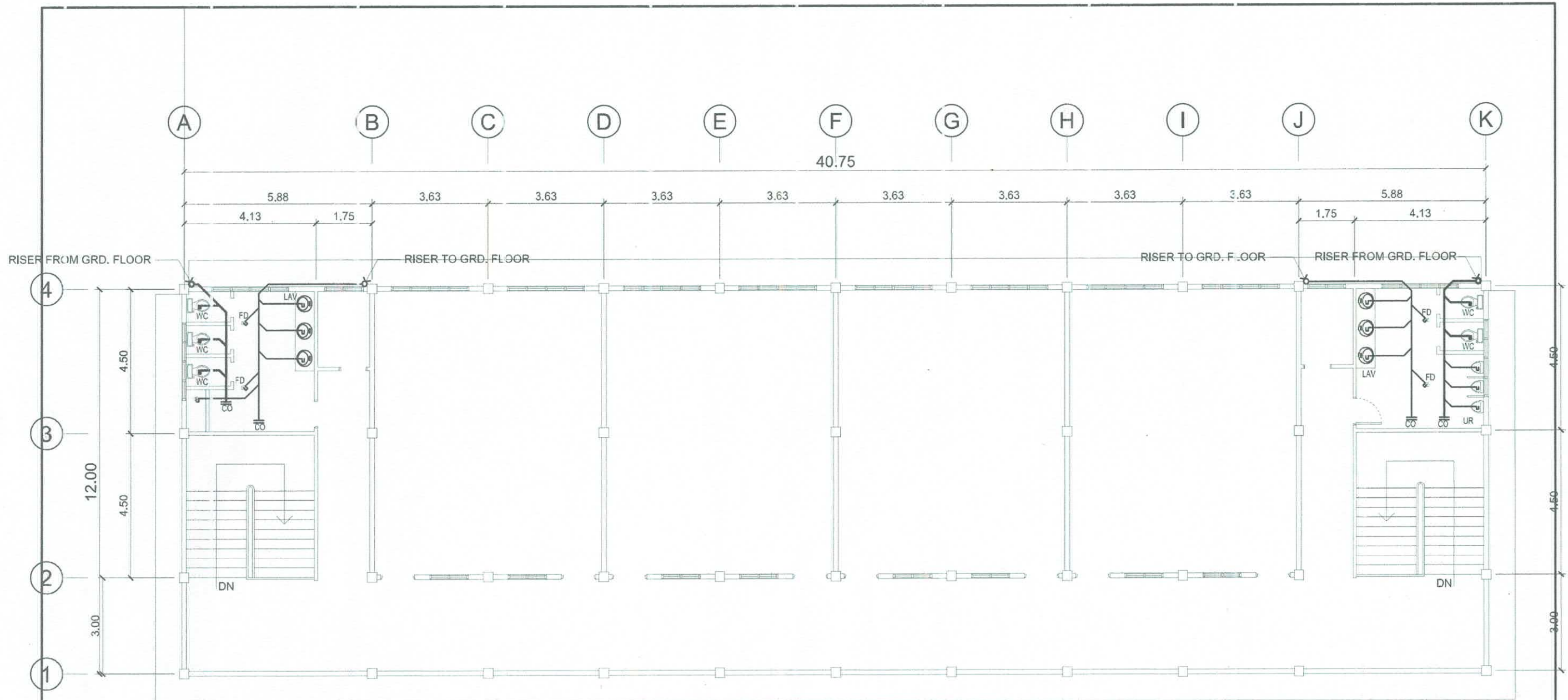
GROUND FLOOR SAN. SEWER LAYOUT
SCALE 1 : 125 MTS.

	PREPARED BY: E. N. RODRIGOS JR. PDU	END USER: A. B. PUGA DEAN NAIC CAMPUS	REVIEWED BY:	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	REC. APPROVAL: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	APPROVED BY: A. G. MAGCAYAS VPPD	APPROVED BY: J. X. B. MUCENO VPASS	APPROVED BY: M. A. P. NUESTRO PRESIDENT	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: P - 2
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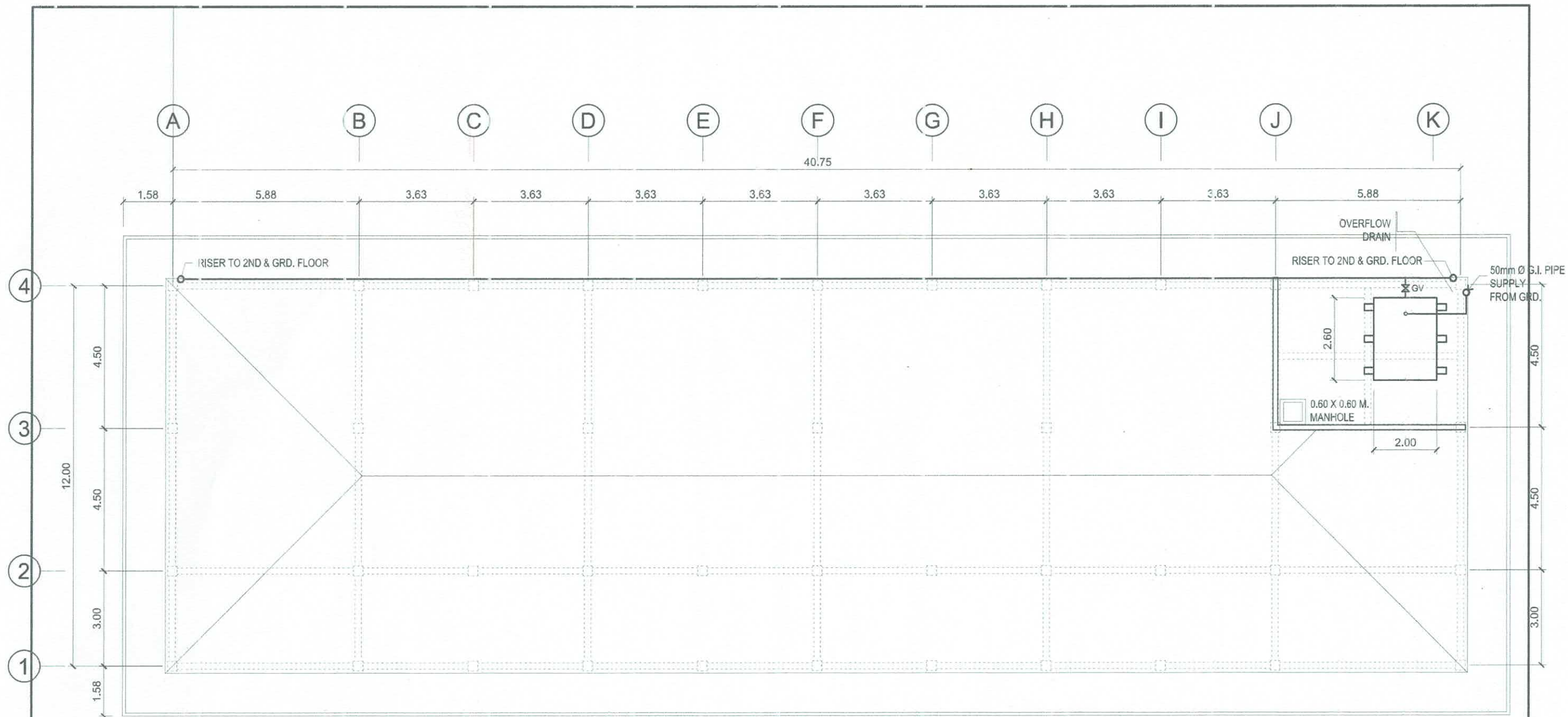
SECOND FLOOR SAN. SEWER LINE LAYOUT
SCALE 1 : 125 MTS.

	PREPARED BY: E. N. ROBEROS JR. PDU	END USER: A. G. PUGAY DEAN NAIC CAMPUS	REVIEWED BY:	ENDORSED BY: S. B. DAYOT JR. HEAD PDU	REC. APPROVAL: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	APPROVED BY: A. G. MAGCAYAS VPPD	APPROVED BY: J. X. ROMUCENO CVSU VPAS	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: P - 3
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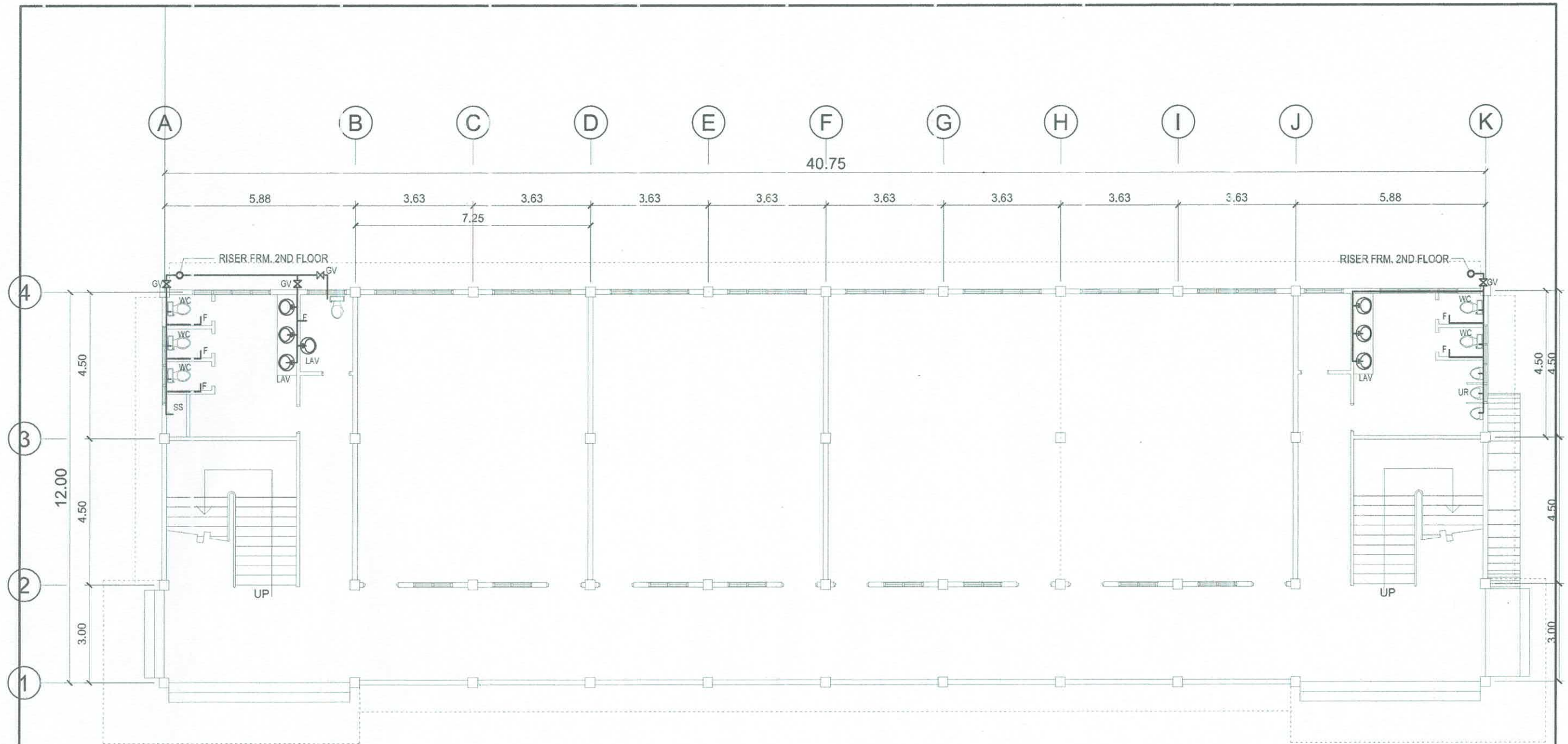


THIRD FLOOR SAN. SEWER LINE LAYOUT
SCALE 1 : 125 MTS.

	PREPARED BY: E. N. RODRIGUEZ JR. POU	END USER: A. B. PUGAY DEAN NAIC CAMPUS	REVIEWED BY:	ENDORSED BY: S. B. BAYOT JR. HEAD POU	O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL: A. G. MACCAWAS VPD CVSU	J. X. B. P. OMUCENO VPASS CVSU	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: P - 4
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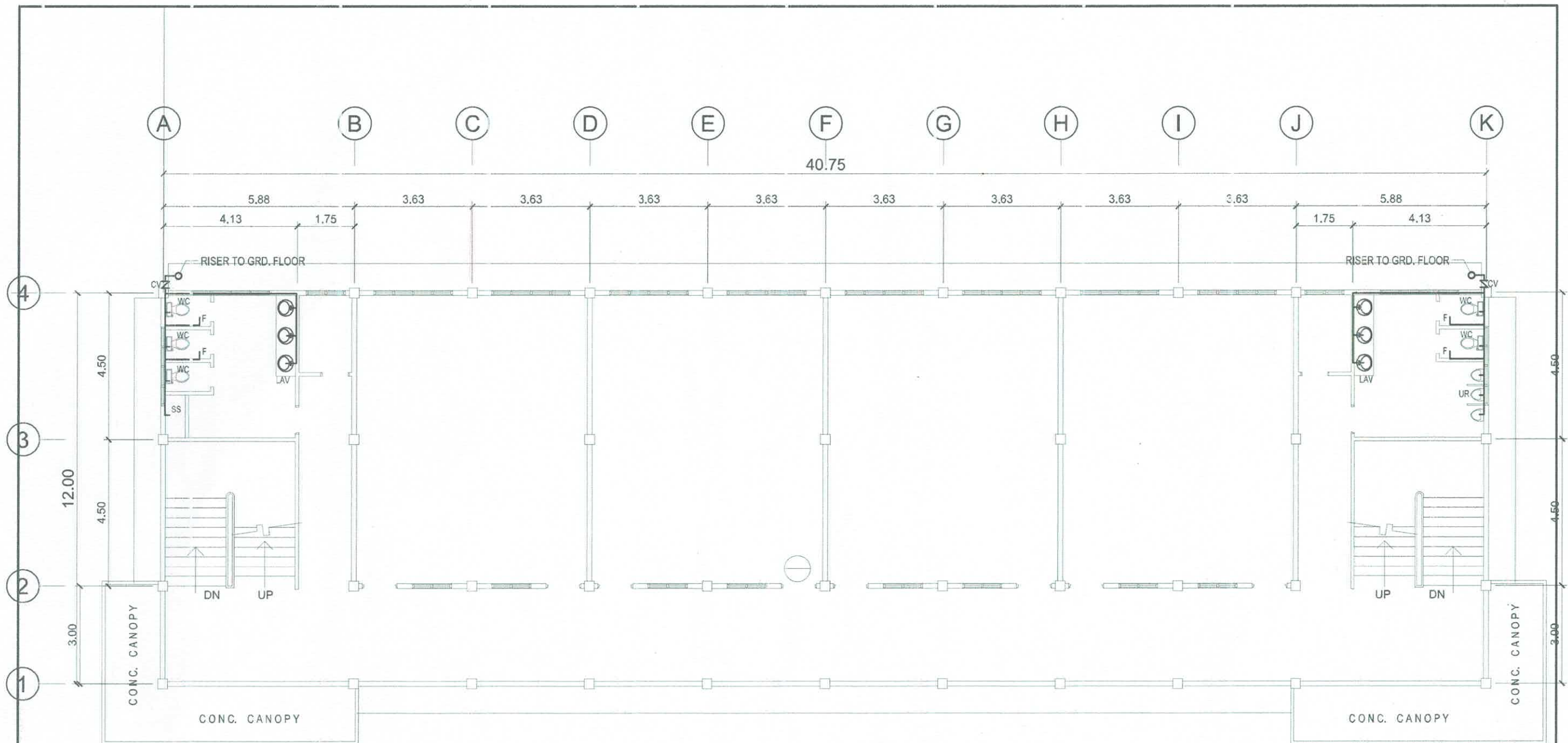


	PREPARED BY: E. N. RODRIGUEZ JR. PDU	END USER: A. S. PUGAY DEAN NAIC CAMPUS	REVIEWED BY: 	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	O. B. DELOS REYES DIRECTOR PLANNING & DEVT. OFFICE	REC. APPROVAL: A. G. MAGCAYAS VPPD	J. X. B. DOMUCENO VPASS	APPROVED BY: M. A. P. NUESTRO PRESIDENT	PROJECT TITLE/LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHIT NO: P - 5
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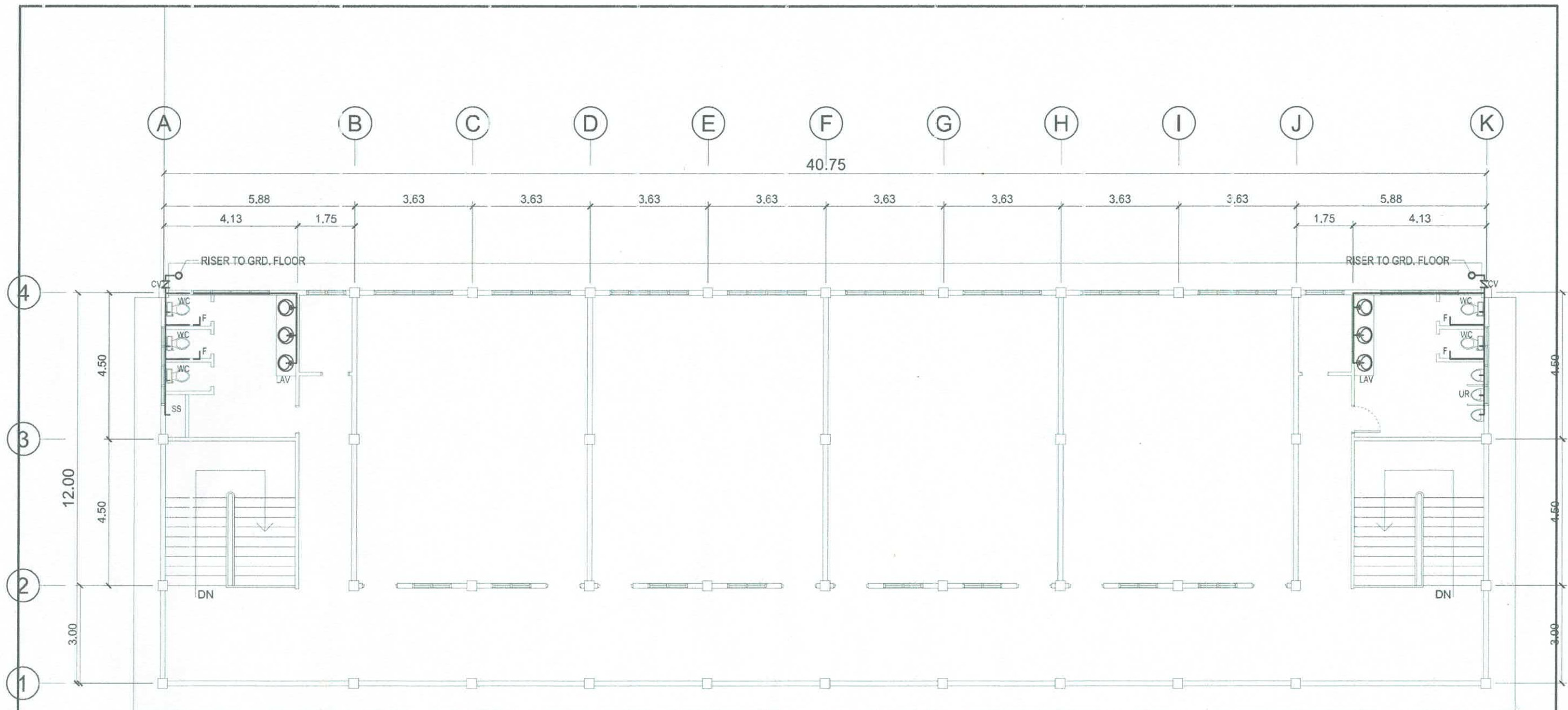
GROUND FLOOR WATER SUPPLY LAYOUT
SCALE 1 : 125 MTS.

	PREPARED BY: E. N. RODRIGOS JR. PDU	END USER: J. B. PUCOY DEAN NAIC CAMPUS	REVIEWED BY:	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL: A. G. MAGCAYAS VPPD	J. X. P. PROMUCENO VPASS	APPROVED BY: M. A. P. NUESTRO PRESIDENT	PROJECT TITLE/LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: P - 6
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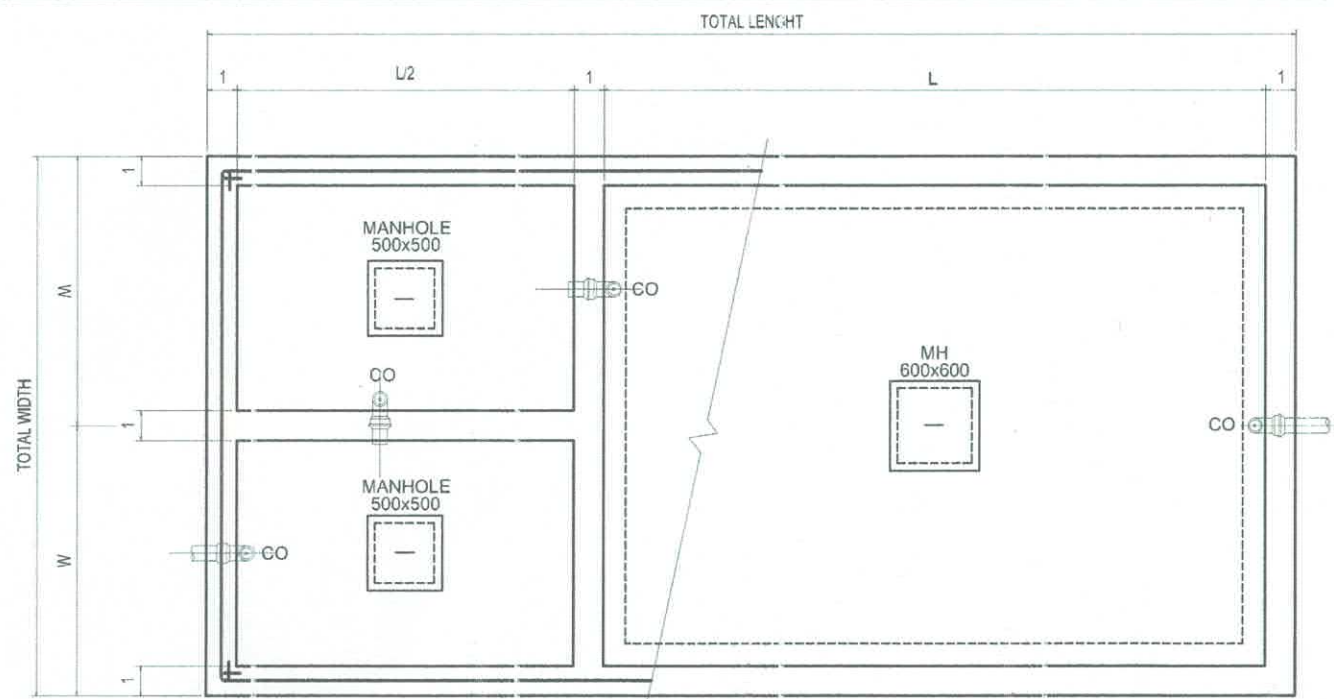
SECOND FLOOR WATER SUPPLY LAYOUT
SCALE 1 : 125 MTS.

	PREPARED BY: E. N. RODRIGOS JR. PDU	END USER: A. B. TUGAY DEAN NAIC CAMPUS	REVIEWED BY:	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL: A. G. MAGCOWAS VPPD	J. X. ROMMUCENO VPAS	APPROVED BY: M. A. P. NUESTRO PRESIDENT	PROJECT TITLE/LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: P-7
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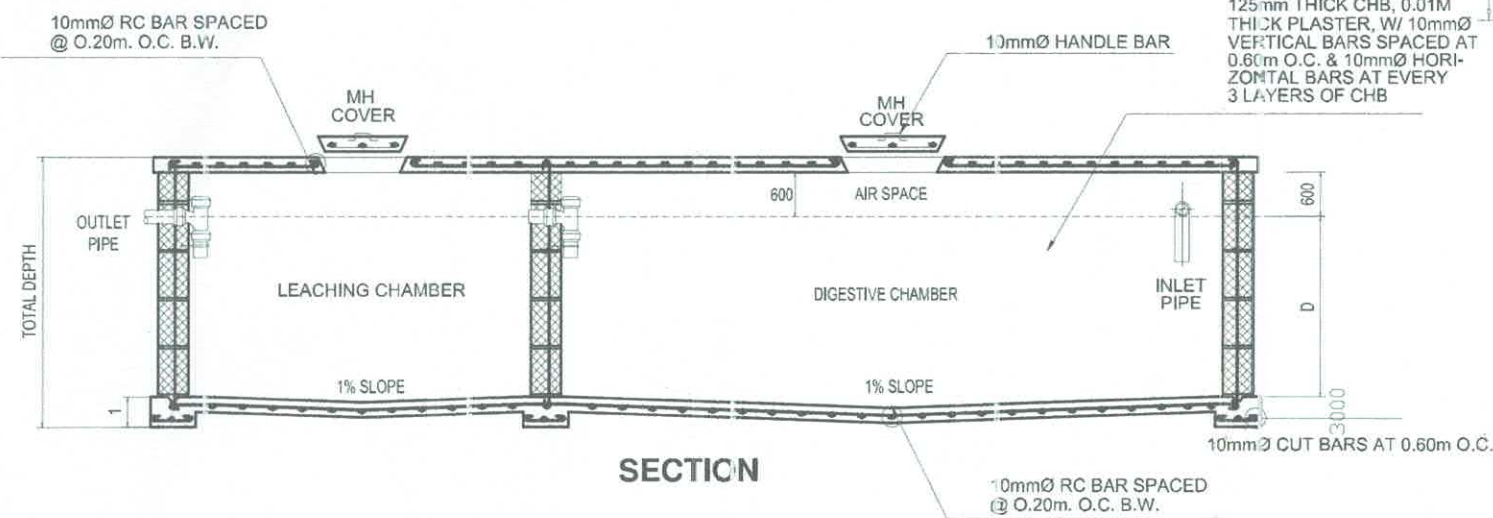


THIRD FLOOR SAN. WATER SUPPLY LAYOUT
SCALE 1 : 125 MTS.

	PREPARED BY: E. N. RODEROS JR. PDU	END USER: A. B. PLIGAS DEAN NAIC CAMPUS	REVIEWED BY:	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	REC. APPROVAL: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	APPROVED BY: A. G. MAGCAYAS VPPD	APPROVED BY: J. X. B. DE LA CRUZ PRESIDENT	APPROVED BY: M. A. P. NUESTRO PRESIDENT	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: P - 8
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PLAN



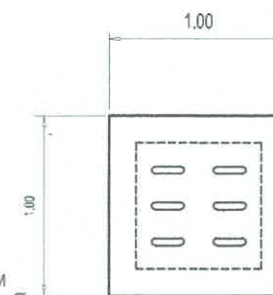
SECTION

SEPTIC TANK DIMENSION					
LENGTH (L)	L/2	TOTAL LENGTH	WIDTH (W)	TOTAL WIDTH	DEPTH (D)
4500	1500	6000	1000	2000	1800 MM

DETAIL OF SEPTIC TANK 1



CATCH BASIN/ JUNCTION BOX DETAIL



AREA DRAIN/ MANHOLE

	PREPARED BY:	END USER:	REVIEWED BY:	ENDORSED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE/ LOCATION:	IMPLEMENTING AGENCY:	SHT NO:
	E. N. RODRIGOS JR. PDU	A. B. BUGAY DEAN NAIC CAMPUS		S. B. BAYOT JR. HEAD PDU	O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	A. G. MAGCAYAS VPASS	REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	CAVITE STATE UNIVERSITY	P - 9

GENERAL NOTES AND SPECIFICATIONS:

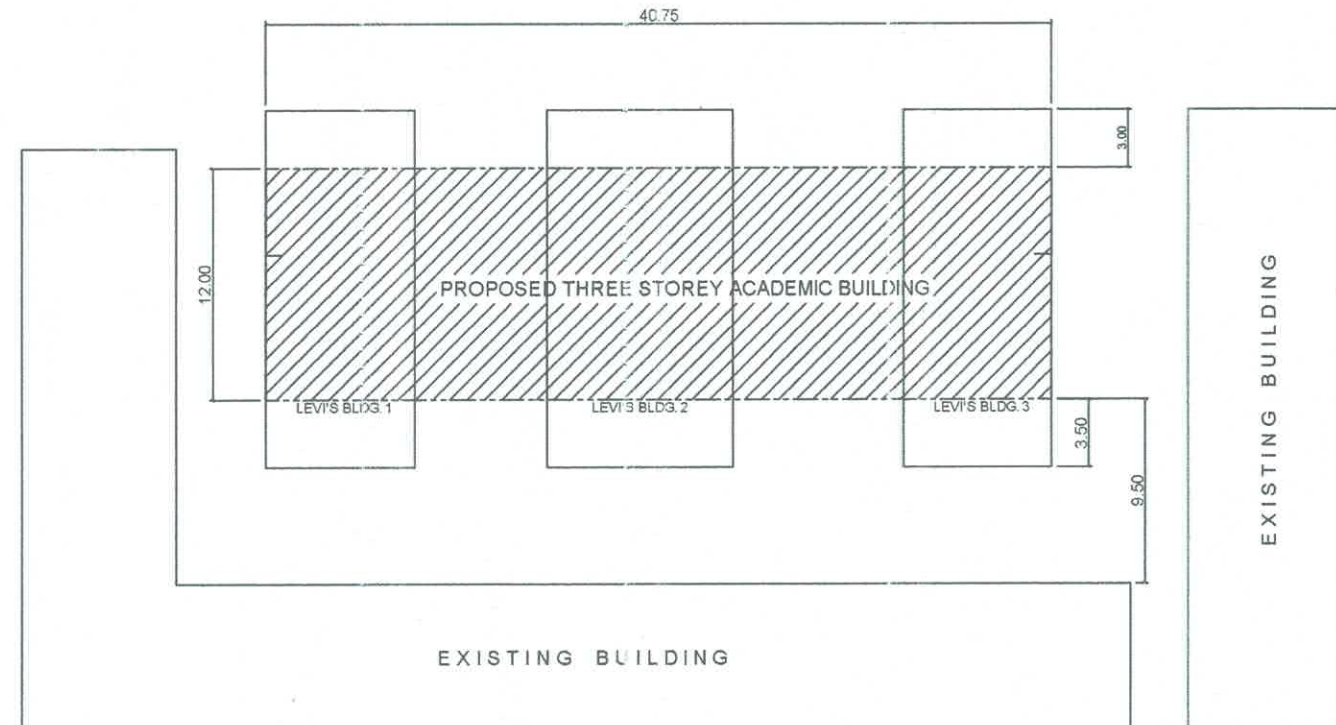
- ALL WORK HEREIN SHALL BE DONE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
- ELECTRICAL WORKS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE, MUNICIPAL/CITY LAWS AND ORDINANCES AND THE REGULATIONS OF THE LOCAL POWER AND TELEPHONE COMPANY.
- THE JOB SHALL BE EXECUTED IN THE MOST THOROUGH PROMPT AND WORKMANLIKE MANNER EMPLOYING STANDARD TOOLS, EQUIPMENT, METHODS AND GOOD ENGINEERING PRACTICE. THE JOB SHALL BE DONE IN ALL ASPECTS AS REQUIRED PER PLANS AND SPECIFICATIONS AND READY FOR OPERATION.
- THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO PERSENT A GENERAL LAYOUT AND BROAD OUTLINE/DESCRIPTION OF THE PROJECT, BUT DO NOT NECESSARILY INDICATE OR DESCRIBE ACTUAL LOCATIONS, LEVELS AND DISTANCES OF THE EQUIPMENT. THE CONTRACTOR IS HEREBY REQUIRED TO MAKE SUCH ADJUSTMENTS AT THE JOBSITE THAT ARE GOVERNED BY ACTUAL FIELD CONDITION.
- SERVICE VOLTAGE TO THE BUILDING FROM THE POWER SOURCE SHALL BE 230V.
- SERVICE ENTRANCE WIRING SHALL BE RIGID STEEL CONDUIT (RSC).
- FEEDER WIRING SHALL BE ELECTRICAL METALLIC TUBING (EMT).
- BRANCH CIRCUIT WIRING ELECTRICAL METALLIC TUBING (EMT).
- BRANCH CIRCUIT WIRING EMBEDDED IN CONCRETE SHALL BE IN PVC PIPE WITH ADEQUATE GROUND WIRE FOR EQUIPMENT GROUNDING.
- LIGHT SWITCHES SHALL BE 15A, 230VAC.
- ALL MATERIALS SHALL BE BRAND NEW AND OF APPROVED TYPE FOR LOCATION AND PURPOSE INTENDED.
- DEVICES, FIXTURES LOCATED OUTDOOR SHALL BE WEATHERPROOF TYPE.
- MOUNTING HEIGHTS ARE:

A. LIGHT SWITCHES	1.40M ABOVE FLOOR FINISH
B. CONVENIENCE OUTLETS	0.30M ABOVE FLOOR FINISH
C. COUNTER TOP C.O.	0.40M TO .50M ABOVE THE COUNTER
D. TELEPHONE OUTLETS	0.30M ABOVE FLOOR FINISH
E. PANEL BOARD	1.50M ABOVE FLOOR FINISH
F. EMERGENCY LIGHT	0.30M BELOW CEILING LINE
G. C.O. LOCATED AT PARKING AREAS	0.40M TO .50M ABOVE FLOOR FINISH
- ANY DISCREPANCY BETWEEN THE PLANS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION OR DECISION.
- THE ENTIRE WORK SHALL BE DONE UNDER THE DIRECT SUPERVISION OF DULY REGISTERED ELECTRICAL ENGINEER.
- REFER TO SHEETS E-2 TO E-16 FOR EXACT NUMBER AND LOCATION OF DEVICES/EQUIPMENT FOR ELECTRICAL SYSTEM. ANY CONFLICT ON QUANTITY AND/OR LAYOUT MUST BE VERIFIED AND CONFIRMED TO DESIGNER/CONSULTANT.
- REFER TO LOAD SCHEDULE FOR THE RATING OF INDIVIDUAL ENCL, ACB'S IN NEMA-3R.
- ALL ELECTRICAL CONDUITS AND TELEPHONE SERVICE ENTRANCE THAT INSTALLED BELOW THE GROUND SHALL BE IN CONCRETE ENCASEMENT.
- ANY DEVICES OR EQUIPMENT NOT REFLECTED OR SHOWN ON PLANS BUT REQUIRED TO COMPLETE THE SYSTEM MUST BE INCLUDED ON SCOPE OF WORK.
- REQUEST FOR TEMPORARY POWER INTERRUPTION SHOULD BE COORDINATED TO OWNER'S REPRESENTATIVE OR DESIGNER.
- THE SIZE OF GENERATOR IS 40% OF THE TOTAL VA LOAD. THIS IS INTENDED TO SUPPLY ELECTRIC POWER FOR LIGHTINGS AND OTHER IMPORTANT APPLIANCES DURING THE POWER INTERRUPTION OF MAIN POWER SOURCE.

LEGEND AND SYMBOLS :

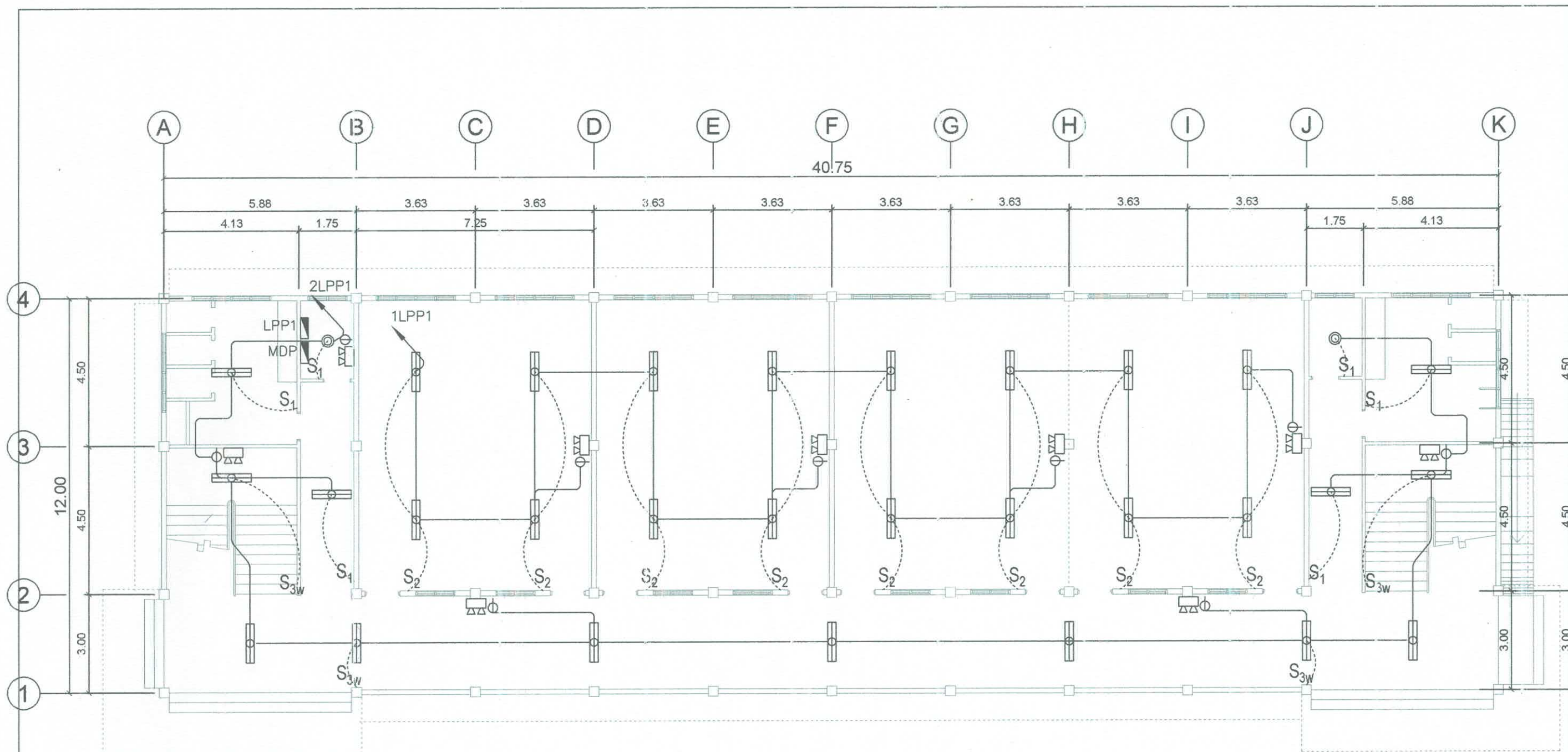
	LED BULB, SURFACE MOUNTED, ROUND 12W @ 8" DIAMETER CASING FIXTURE		CIRCUIT BREAKER WITH NEMA 3R METAL ENCLOSURE
	1-9W LED LIGHT TUBE WITH DIFFUSER 2 FT. LENGTH (FL)		ACU CONDENSER OUT DOOR UNIT WITH NEMA 3R CIRCUIT BREAKER
	2-9W LED LIGHT TUBE WITH DIFFUSER 2 FT. LENGTH (FL)		ACU WALL/FLOOR MOUNTED, SPLIT TYPE, INDOOR UNIT
	1-18W LED LIGHT TUBE WITH DIFFUSER 4 FT. LENGTH (FL)		2.0 mm² THHN
	2-18W LED LIGHT TUBE WITH DIFFUSER 4 FT. LENGTH (FL)		3.5 mm² THHN
	EMERGENCY LIGHT (EL)		CIRCUIT HOMERUN
	ONE GANG SWITCH		CIRCUIT NUMBER

	TWO GANG SWITCH		PANEL BOARD
	THREE GANG SWITCH		SERVICE ENTRANCE
	THREE WAY SWITCH		KILOWATT HOUR METER
	TWO GANG CONVENIENCE OUTLET		CONCRETE ENCASEMENT
	WEATHER-PROOF OUTLET		CABLE CHAMBER
	TWO GANG CONVENIENCE OUTLET (FLOOR MOUNTED)		DISTRIBUTION TRANSFORMER
	TWO GANG SPECIAL POWER OUTLET (FLOOR MOUNTED)		PRIMARY CONCRETE POLE
	THREE PIN ACU OUTLET		SERVICE ENTRANCE PEDESTAL WITH DISCONNECTING SWITCH
	ACU WINDOW TYPE		SECONDARY LINE



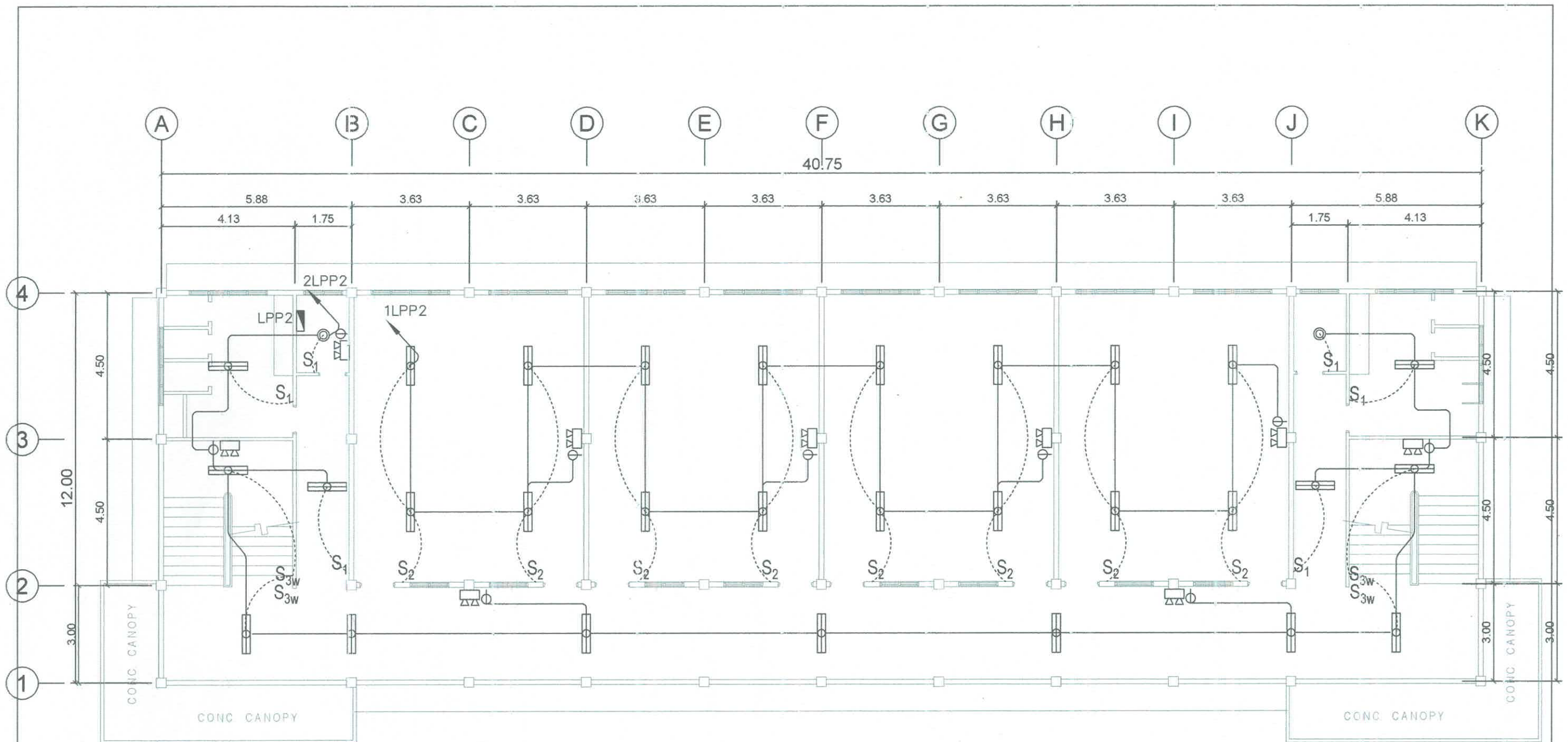
SITE DEVELOPMENT PLAN
SCALE 1:300 MTS.

	PREPARED BY: R. J. R. SANCHEZ PDI OFFICE	END USER: A. S. BUCAY DEAN NAIC CAMPUS	REVIEWED BY: RONALD R. PEÑA PROF. ELECT. ENGR.	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	REC. APPROVAL: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	APPROVED BY: A. G. MAGCAWAS VPPD CVSU	APPROVED BY: J. X. B. ROMUCENO VPPD CVSU	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: E - 1
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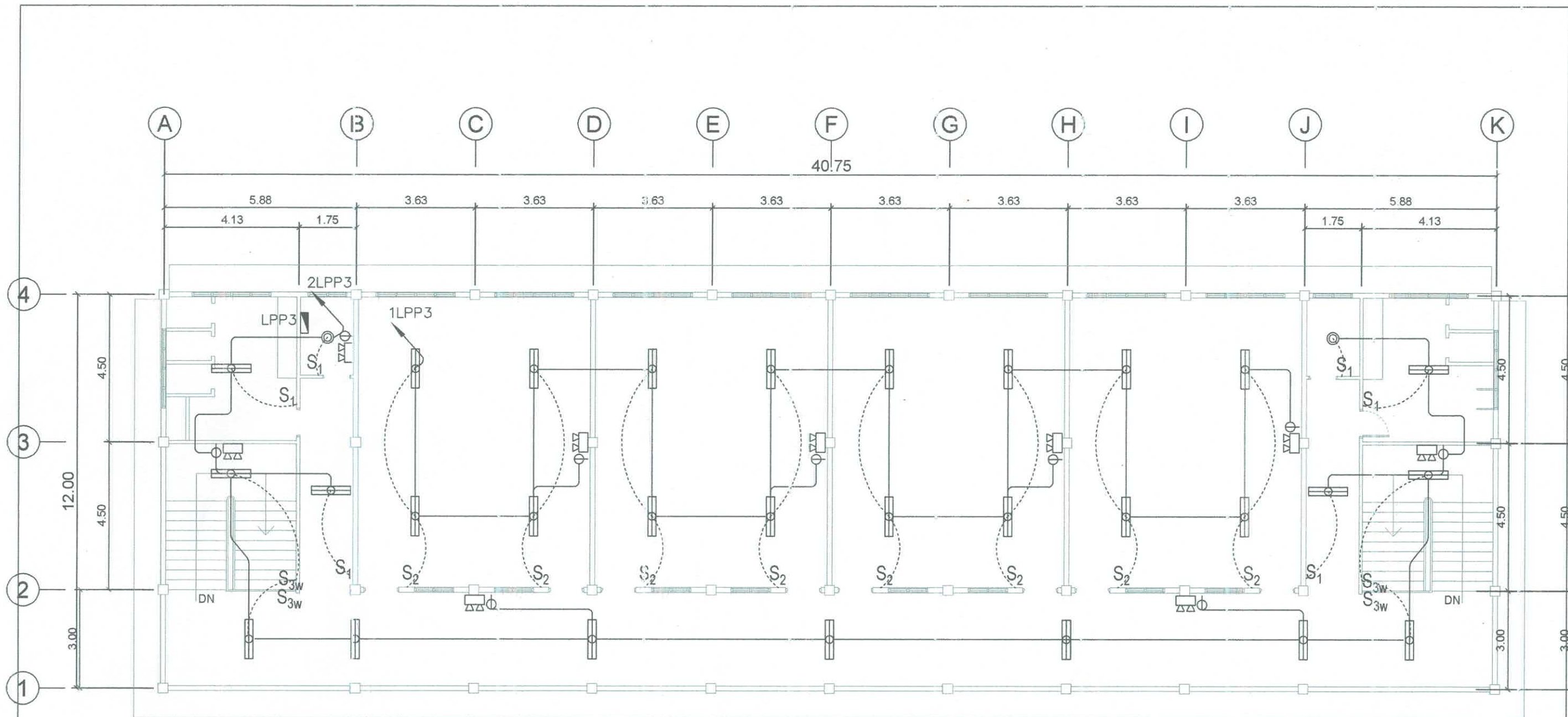
GROUND FLOOR LIGHTING LAYOUT
SCALE 1 : 125 MTS.

	PREPARED BY: R. V. R. SANCHEZ PDU	END USER: A. B. FUGAY DEAN, NAIC CAMPUS	REVIEWED BY: ROMALDO P. PEÑA PRINC. ELECTR. ENGR.	ENDORSED BY: S. B. BAYOT JR. HEAD, PDU	ENDORSED BY: O. B. DELOS REYES DIRECTOR, PLANNING AND DEV. OFFICE	REC. APPROVAL: A. G. MAGCAYAS VPPD, CVSU	REC. APPROVAL: J. X. B. NEPOMUCENO VPASS, CVSU	APPROVED BY: M. A. P. NUESTRO PRESIDENT, CVSU	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO.: E - 2
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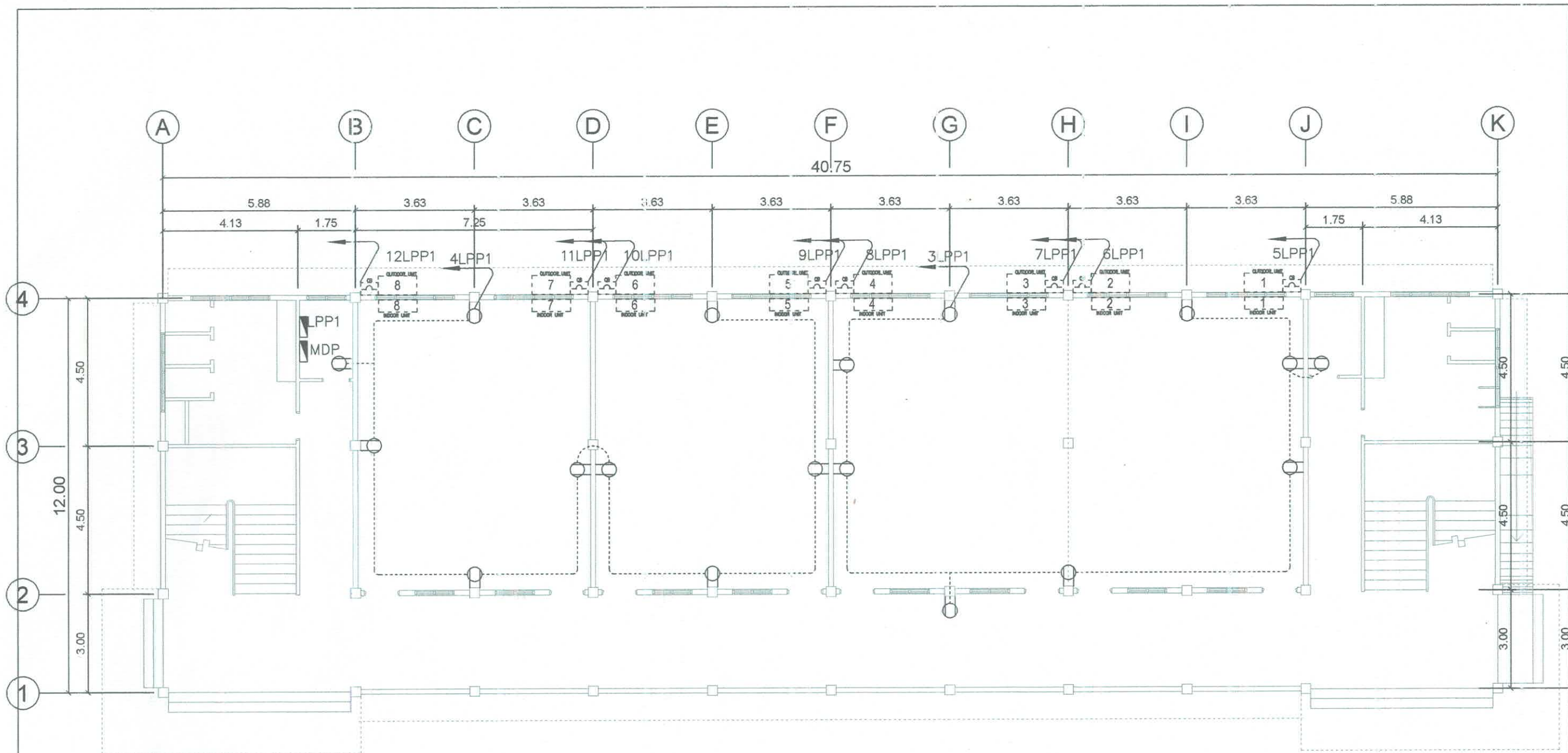
SECOND FLOOR LIGHTING LAYOUT
SCALE 1 : 125 MTS.

	PREPARED BY: R. R. SANCHEZ FOU	END USER: A. B. PUGA DEAN NAIC CAMPUS	REVIEWED BY: RONALD P. PEÑA PRINC. ELECTL. ENGR.	ENDORSED BY: S. B. BAYOT JR. HEAD FOU	ENDORSED BY: O. B. DELOS REYES DIRECTOR PLANNING AND DEV. OFFICE	REC. APPROVAL: A. G. MAGCAWAS VPPD CVSU	APPROVED BY: J. X. B. DELOS REYES PRESIDENT CVSU	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: E - 3
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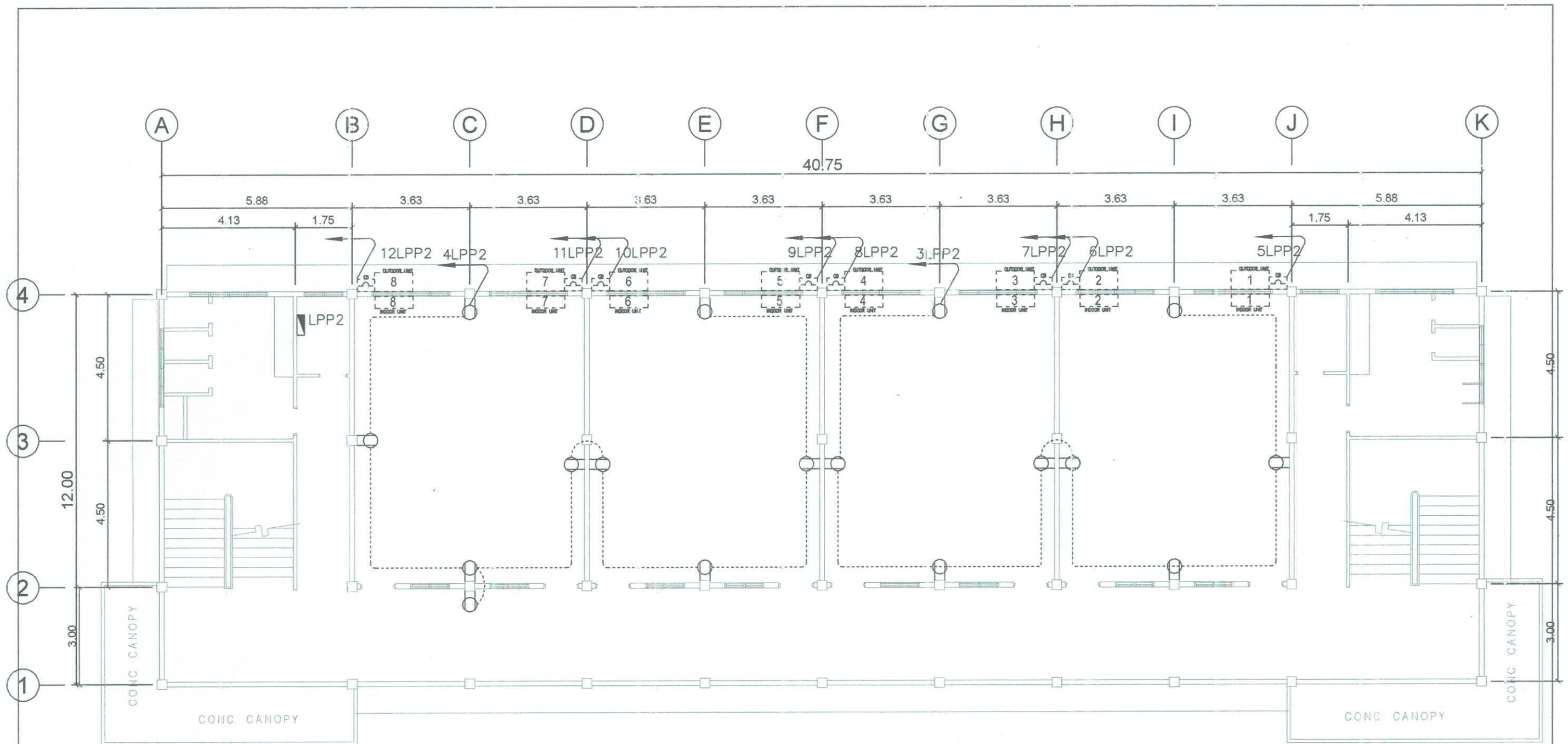
THIRD FLOOR LIGHTING LAYOUT
 SCALE 1 : 125 MTS.

	PREPARED BY: R.J.R. SANCHEZ PDD	END USER: A.B. PUGAY DEAN NAIC CAMPUS	REVIEWED BY: RONALDO P. PEÑA PR. OF. ELECTR. ENGR.	ENDORSED BY: S. B. BAYOT JR. HEAD PDD	ENDORSED BY: O. B. DELOS REYES DIRECTOR PLANNING & DEVT. OFFICE	REC. APPROVAL: A. G. MAGCAYAS VPPD CVSU	REC. APPROVAL: J. X. BAYOT MUCENO VPASS CVSU	APPROVED BY: M.A.P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: E - 4
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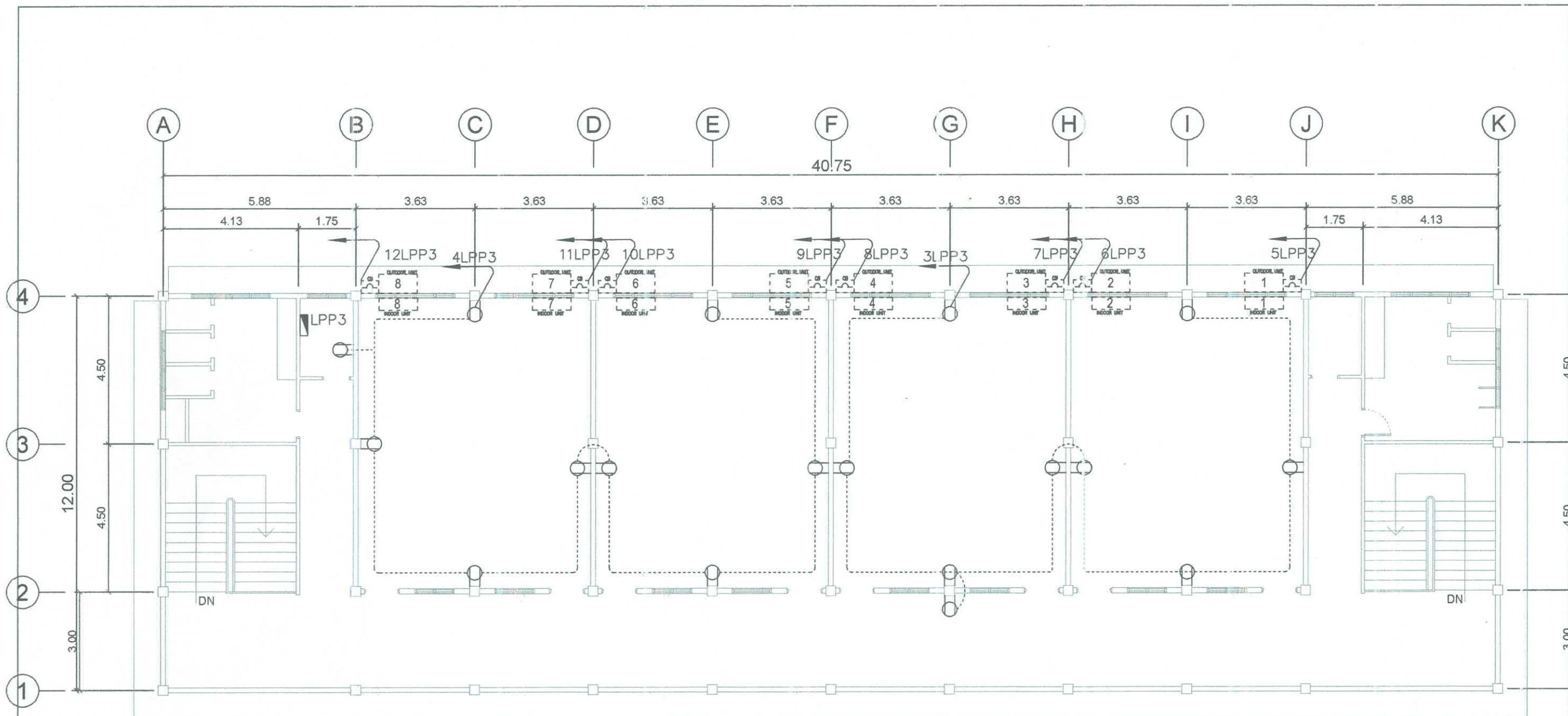
GROUND FLOOR POWER LAYOUT
SCALE 1 : 125 MTS.

	PREPARED BY: R. J. R. SANCHEZ PDU	END USER: B. PUGAY DEAN NAIC CAMPUS	REVIEWED BY: RONALDO P. PEÑA PR. OF. ELECT. ENGR.	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	ENDORSED BY: O. B. DELON REYES DIRECTOR PLANNING AND DEV. OFFICE	REC. APPROVAL: A. G. MAGCAYAS VPPD CVSU	REC. APPROVAL: S. X. B. POMUCENO VPASS CVSU	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: E - 5
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SECOND FLOOR POWER LAYOUT
SCALE 1 : 125 MTS.

	PREPARED BY: R. J. R. SANCHEZ EDU	END USER: A. B. PUGAY DEAN NAIC CAMPUS	REVIEWED BY: RONALD P. PEÑA PRINC. ELECTL. ENGR.	ENDORSED BY: S. B. BAYOT JR. HEAD EDU	ENDORSED BY: O. B. DELOS REYES DIRECTOR PLANNING AND DEV'T OFFICE	REC. APPROVAL: A. G. MAGCANA VPPD	APPROVED BY: J. X. B. DOMUCENO VPPD	APPROVED BY: M. A. P. NUESTRO PRESIDENT	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO.: E - 6
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THIRD FLOOR POWER LAYOUT
SCALE 1 : 125 MTS.

	PREPARED BY: R. J. R. SANCHEZ POU	END USER: A. B. PUGAY DEAN NAIC CAMPUS	REVIEWED BY: RONALDO PEÑA PRINC. ELECTR. ENGR.	ENDORSED BY: S. B. BAYOT JR. HEAD POU	ENDORSED BY: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL: A. G. MAGCAVAS VPPD CVSU	APPROVED BY: J. X. B. NERON VPASS CVSU	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: E - 7
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SCHEDULE OF LOADS AND COMPUTATIONS

PANEL : LPP3 (LIGHTING AND POWER PANEL 3)

CABLE: 3 - 38.0 SQMM THHN+ 1 - 14.0 SQMM THHN
CONDUIT: PVC, 40 MM DIA.

MAIN: 125 AT, 200 AF, 3P, 230V, MCCB
ENCLOSURE : NEMA 1
MOUNTING: SURFACE

PHASE: 3
VOLTS: 230

LOCATION: ELECTRICAL ROOM, THIRD FLOOR

CKT NO	CIRCUIT DESCRIPTION	NO OF OUTLET	LOAD IN RATING						CIRCUIT PROTECTION	Size of Conductor		Size Of Conduit In MM ø	Color Code
			WATTAGE	VOLTAGE	AMPERES				CIRCUIT BREAKER RATING	SQ. MM THHN	SQ. MM THHN(G)		
					3 ø	AB	CA	BC					
1	LIGHTING OUTLET	20	2000	230		8.70			15AT, 2P, 230V, MCCB	2 - 2.0		PVC, 20	1R,1B
2	LIGHTING OUTLET	20	2000	230		8.70			15AT, 2P, 230V, MCCB	2 - 2.0		PVC, 20	1R,1B
3	CONVENIENCE OUTLET	9	1580	230				8.61	20AT, 2P, 230V, MCCB	2 - 3.5 + G 2.0		PVC, 20	1Y,1R,G
4	CONVENIENCE OUTLET	9	1580	230				8.61	20AT, 2P, 230V, MCCB	2 - 3.5 + G 2.0		PVC, 20	1Y,1R,G
5	ACU POWER OUTLET	1	2300	230					30AT, 2P, 230V, MCCB	2 - 3.5 + G 3.5	12.00	PVC, 20	1B,1Y,G
6	ACU POWER OUTLET	1	2300	230					30AT, 2P, 230V, MCCB	2 - 3.5 + G 3.5	12.00	PVC, 20	1B,1Y,G
7	ACU POWER OUTLET	1	2300	230		12.00			30AT, 2P, 230V, MCCB	2 - 3.5 + G 3.5		PVC, 20	1R,1B,G
8	ACU POWER OUTLET	1	2300	230		12.00			30AT, 2P, 230V, MCCB	2 - 3.5 + G 3.5		PVC, 20	1R,1B,G
9	ACU POWER OUTLET	1	2300	230			12.00		30AT, 2P, 230V, MCCB	2 - 3.5 + G 3.5		PVC, 20	1Y,1R,G
10	ACU POWER OUTLET	1	2300	230				12.00	30AT, 2P, 230V, MCCB	2 - 3.5 + G 3.5		PVC, 20	1Y,1R,G
11	ACU POWER OUTLET	1	2300	230					30AT, 2P, 230V, MCCB	2 - 3.5 + G 3.5	12.00	PVC, 20	1B,1Y,G
12	ACU POWER OUTLET	1	2300	230					30AT, 2P, 230V, MCCB	2 - 3.5 + G 3.5	12.00	PVC, 20	1B,1Y,G
13	SPACE												
14	SPACE												
	TOTAL		26360	230	0	41	41	48	125 AT, 3P, 230V, MCCB	3 - 38.0 + G 14.0		PVC, 40	1R,1B,1Y,G

MAIN FEEDER and CURRENT PROTECTION COMPUTATION:

NOTE: $I_{PL} = \frac{[(48 \times 1.732)] + (125\% \times 41)}{1.732} \times DF = 98.14 \text{ Amperes}$
 $I_{CB} = \frac{[(48 \times 1.732)] + (250\% \times 41)}{1.732} \times DF = 113.14 \text{ Amperes}$

G - Means Ground Wire
1R- Color RED
1B- Color BLACK
1Y- Color YELLOW
1G- Color GREEN

use: 3 - 38.0 SQMM THHN+ 1 - 14.0 SQMM THHN IN 40 MM DIA. PVC
use: 125 AT, 200AF, 3P, 230V, MCCB

This Electrical Design is good only for the above connected loads.
Any additional electrical load connection in the future is not allowed,
Except redesign of electrical load system will be done.

PANEL : LPP2 (LIGHTING AND POWER PANEL 2)

CABLE: 3 - 38.0 SQMM THHN+ 1 - 14.0 SQMM THHN
CONDUIT: PVC, 40 MM DIA.

MAIN: 125 AT, 200 AF, 3P, 230V, MCCB
ENCLOSURE : NEMA 1
MOUNTING: SURFACE

PHASE: 3
VOLTS: 230

LOCATION: ELECTRICAL ROOM, SECOND FLOOR

CKT NO.	CIRCUIT DESCRIPTION	NO OF OUTLET	LOAD IN RATING						CIRCUIT PROTECTION	Size of Conductor		Size Of Conduit In MM ø	Color Code	
			WATTAGE	VOLTAGE	AMPERES					CIRCUIT BREAKER RATING	SQ. MM THIN			SQ. MM TH-IN(G)
					3 ø	AB	CA	BC						
1	LIGHTING OUTLET	20	2000	230		8.70				15AT, 2P, 230V, MCCB	2 - 2.0		PVC, 20	1R,1B
2	LIGHTING OUTLET	20	2000	230		8.70				15AT, 2P, 230V, MCCB	2 - 2.0		PVC, 20	1R,1B
3	CONVENIENCE OUTLET	9	1930	230				8.61		20AT, 2P, 230V, MCCB	2 - 3.5 + G 2.0		PVC, 20	1Y,1R,G
4	CONVENIENCE OUTLET	9	1930	230				8.61		20AT, 2P, 230V, MCCB	2 - 3.5 + G 2.0		PVC, 20	1Y,1R,G
5	ACU POWER OUTLET	1	2300	230					12.00	30AT, 2P, 230V, MCCB	2 - 3.5 + G 3.5		PVC, 20	1B,1Y,G
6	ACU POWER OUTLET	1	2300	230					12.00	30AT, 2P, 230V, MCCB	2 - 3.5 + G 3.5		PVC, 20	1B,1Y,G
7	ACU POWER OUTLET	1	2300	230		12.00				30AT, 2P, 230V, MCCB	2 - 3.5 + G 3.5		PVC, 20	1R,1B,G
8	ACU POWER OUTLET	1	2300	230		12.00				30AT, 2P, 230V, MCCB	2 - 3.5 + G 3.5		PVC, 20	1R,1B,G
9	ACU POWER OUTLET	1	2300	230				12.00		30AT, 2P, 230V, MCCB	2 - 3.5 + G 3.5		PVC, 20	1Y,1R,G
10	ACU POWER OUTLET	1	2300	230				12.00		30AT, 2P, 230V, MCCB	2 - 3.5 + G 3.5		PVC, 20	1Y,1R,G
11	ACU POWER OUTLET	1	2300	230					12.00	30AT, 2P, 230V, MCCB	2 - 3.5 + G 3.5		PVC, 20	1B,1Y,G
12	ACU POWER OUTLET	1	2300	230					12.00	30AT, 2P, 230V, MCCB	2 - 3.5 + G 3.5		PVC, 20	1B,1Y,G
13	SPACE													
14	SPACE													
	TOTAL		26360	230	0	41		41	48	125 AT, 3P, 230V, MCCB	3 - 38.0 + G 14.0		PVC, 40	1R,1B,1Y,G

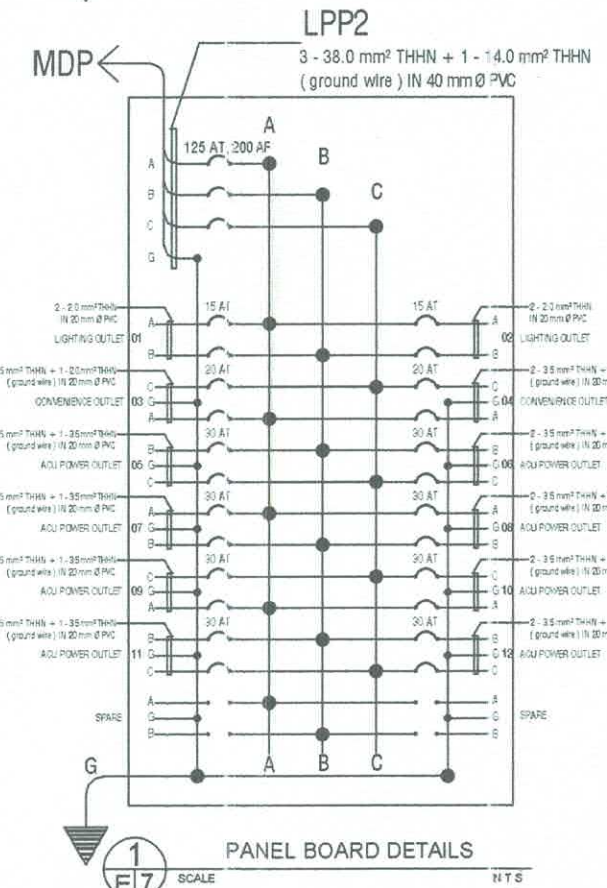
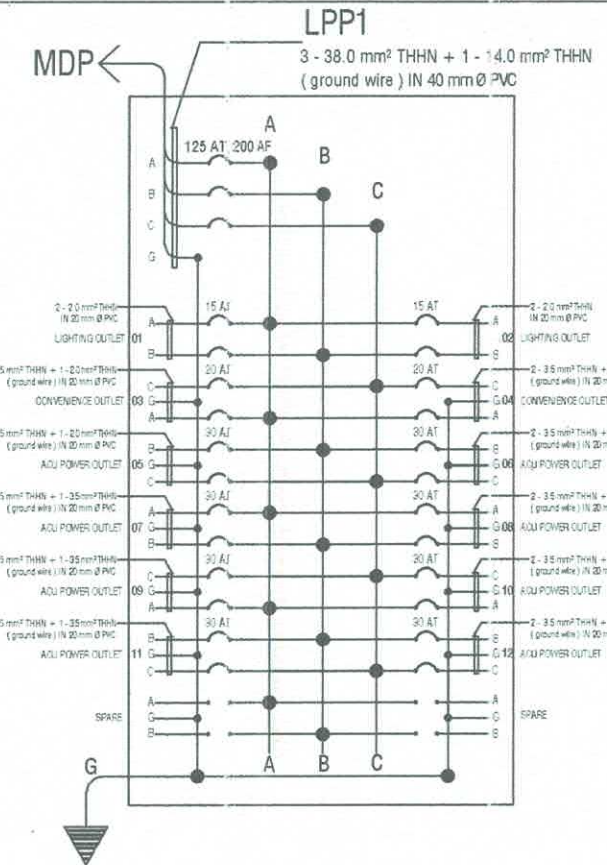
MAIN FEEDER and CURRENT PROTECTION COMPUTATION:

NOTE: $I_{PL} = \frac{[(48 \times 1.732)] + (125\% \times 41)}{1.732} \times DF = 98.14 \text{ Amperes}$
 $I_{CB} = \frac{[(48 \times 1.732)] + (250\% \times 41)}{1.732} \times DF = 113.14 \text{ Amperes}$

G - Means Ground Wire
1R- Color RED
1B- Color BLACK
1Y- Color YELLOW
1G- Color GREEN

use: 3 - 38.0 SQMM THHN+ 1 - 14.0 SQMM THHN IN 40 MM DIA. PVC
use: 125 AT, 200AF, 3P, 230V, MCCB

This Electrical Design is good only for the above connected loads.
Any additional electrical load connection in the future is not allowed,
Except redesign of electrical load system will be done.



	PREPARED BY:	END USER:	REVIEWED BY:		ENDORSED BY:		REC. APPROVAL:		APPROVED BY:	PROJECT TITLE/ LOCATION:	IMPLEMENTING AGENCY:	SHT NO.:
	 R. J. R. SANCHEZ PDU	 A. B. PUGA DEAN NAIC CAMPUS	 RONALD H. PEÑA ENGR. ELECTR. ENGR.	 S. B. BAYOT JR. HEAD PDU	 G. B. DELOS REYES DIRECTOR PLANNING AND DEV. OFFICE	 A. G. MAGCAWAS VPPD CVSU	 J. X. B. NERON MUCENO VPAS CVSU	 M. A. P. NUESTRO PRESIDENT CVSU	REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	CAVITE STATE UNIVERSITY	E - 7	

PANEL : LPP3 (LIGHTING AND POWER PANEL 3)			CABLE: 3 - 38.0 SQMM THHN+ 1 - 14.0 SQMM THHN						MAIN: 125 AT, 200 AF, 3P, 230V,MCCB					
			CONDUIT: PVC, 40 MM DIA.						ENCLOSURE : NEMA 1					
PHASE: 3									MOUNTING: SURFACE					
VOLTS: 230			LOCATION: ELECTRICAL ROOM, THIRD FLOOR											
CKT NO.	CIRCUIT DESCRIPTION	NO OF OUTLET	LOAD IN RATING				CIRCUIT PROTECTION		Size of Conductor		Size Of Conduit In MM ø	Color Code		
			WATTAGE	VOLTAGE	AMPERES		CIRCUIT BREAKER RATING	SQ. MM THHN	SQ. MM THHN(G)					
					3 ø	AB				CA	BC			
1	LIGHTING OUTLET	20	2000	230		8.70			15AT, 2P, 230V, MCCB	2 - 2.0		PVC, 20	1R,1B	
2	LIGHTING OUTLET	20	2000	230		8.70			15AT, 2P, 230V, MCCB	2 - 2.0		PVC, 20	1R,1B	
3	CONVENIENCE OUTLET	9	1980	230			8.61		20AT, 2P, 230V, MCCB	2 - 3.5	+ G 2.0	PVC, 20	1Y,1R,G	
4	CONVENIENCE OUTLET	9	1980	230			8.61		20AT, 2P, 230V, MCCB	2 - 3.5	+ G 2.0	PVC, 20	1Y,1R,G	
5	ACU POWER OUTLET	1	2300	230				12.00	30AT, 2P, 230V, MCCB	2 - 3.5	+ G 3.5	PVC, 20	1B,1Y,G	
6	ACU POWER OUTLET	1	2300	230				12.00	30AT, 2P, 230V, MCCB	2 - 3.5	+ G 3.5	PVC, 20	1B,1Y,G	
7	ACU POWER OUTLET	1	2300	230		12.00			30AT, 2P, 230V, MCCB	2 - 3.5	+ G 3.5	PVC, 20	1R,1B,G	
8	ACU POWER OUTLET	1	2300	230		12.00			30AT, 2P, 230V, MCCB	2 - 3.5	+ G 3.5	PVC, 20	1R,1B,G	
9	ACU POWER OUTLET	1	2300	230			12.00		30AT, 2P, 230V, MCCB	2 - 3.5	+ G 3.5	PVC, 20	1Y,1R,G	
10	ACU POWER OUTLET	1	2300	230			12.00		30AT, 2P, 230V, MCCB	2 - 3.5	+ G 3.5	PVC, 20	1Y,1R,G	
11	ACU POWER OUTLET	1	2300	230				12.00	30AT, 2P, 230V, MCCB	2 - 3.5	+ G 3.5	PVC, 20	1B,1Y,G	
12	ACU POWER OUTLET	1	2300	230				12.00	30AT, 2P, 230V, MCCB	2 - 3.5	+ G 3.5	PVC, 20	1B,1Y,G	
13	SPACE													
14	SPACE													
	TOTAL		26360	230	0	41	41	48	125 AT, 3P, 230V, MCCB	3 - 38.0	+ G 14.0	PVC, 40	1R,1B,1Y,G	

MAIN FEEDER and CURRENT PROTECTION COMPUTATION:

NOTE:

$I_{FL} =$

$[(48 \times 1.732)] + (125\% \times 12.00) \times DF =$

98.14

Amperes

$I_{CB} =$

$[(48 \times 1.732)] + (250\% \times 12.00) \times DF =$

113.14

Amperes

G - Means Ground Wire

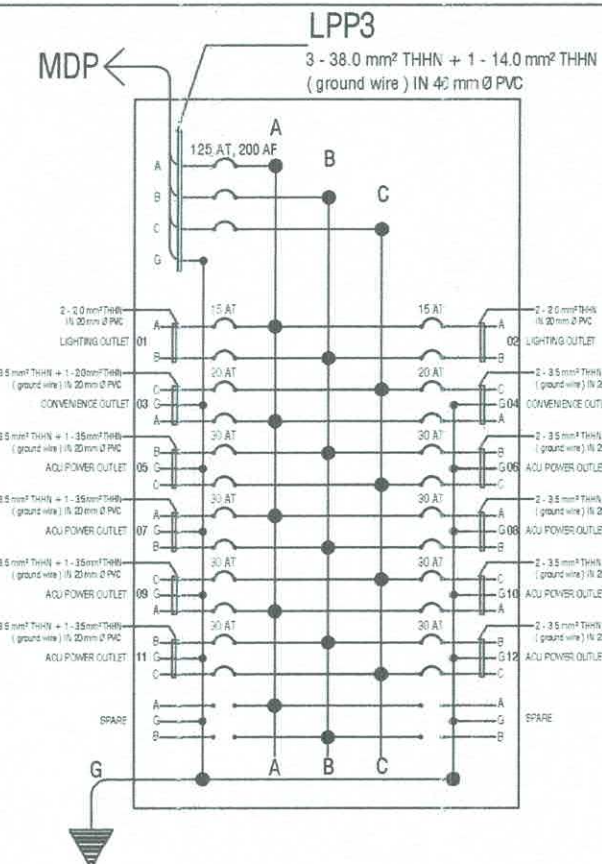
1R- Color RED

1B- Color BLACK

1Y- Color YELLOW

1G- Color GREEN

This Electrical Design is good only for the above connected loads.
Any additional electrical load connection in the future is not allowed,
Except redesign of electrical load system will be done.



PANEL : MDP (MAIN DISTRIBUTION PANEL)			CABLE: 3 - 175.0 SQMM THHN+ 1 - 80.0 SQMM THHN						MAIN: 300 AT, 400AF, 3P, 230V,MCCB					
PHASE: 3			CONDUIT: RSC, 1-90 MM DIA.						ENCLOSURE : NEMA 1					
VOLTS: 230			LOCATION: ELECTRICAL ROOM, GROUND FLOOR						MOUNTING: SURFACE					
CKT NO.	CIRCUIT DESCRIPTION	PANEL	LOAD IN RATING				CIRCUIT PROTECTION		Size of Conductor			Size Of Conduit In MM ø	Color Code	
			Volt- Amp	VOLT	AMPERES				CIRCUIT BREAKER RATING	SQ. MM THHN				
					3 ø	AB	CA	BC			SQ. MM THHN	SQ. MM THHN (G)		
1	LIGHTING AND POWER PANEL 1	LPP1	26360	230	0	41	41	48	125 AT, 3P, 230V, MCCB	3 - 38.0	+ G 14.0	PVC, 40	1R,1B,1Y,G	
2	LIGHTING AND POWER PANEL 2	LPP2	26360	230	0	41	41	48	125 AT, 3P, 230V, MCCB	3 - 38.0	+ G 14.0	PVC, 40	1R,1B,1Y,G	
3	LIGHTING AND POWER PANEL 3	LPP3	26360	230	0	41	41	48	125 AT, 3P, 230V, MCCB	3 - 38.0	+ G 14.0	PVC, 40	1R,1B,1Y,G	
4	ELEVATOR PANEL	ELP	7460	230	28				50 AT, 3P, 230V, MCCB	3 - 14.0	+ G 8.0	PVC, 25	1R,1B,1Y,G	
5	FIRE DETECTION ALARM SYSTEM	FDAS	500	230	0	2			15 AT, 2P, 230V, MCCB	2 - 2.0		PVC, 20	1R,1B	
6	WATER PUMP PANEL 3.0 HP	WPP	2300	230	0	17.00			40 AT, 2P, 230V, MCCB	2 - 8.0	+ G 5.5	PVC, 25	1R,1B,G	
7	BOOSTER PUMP PANEL 1.0 HP	BPP	2300	230	0		8.00		40 AT, 2P, 230V, MCCB	2 - 8.0	+ G 5.5	PVC, 25	1Y, 1R,G	
	SPACE													
	TOTAL		91640	230	28	143	132	144	300AT, 3P, 230V, MCCB	3 - 175.0	+ G 1-80.0	RSC, 1-90	1R,1B,1Y, G	

MAIN FEEDER and CURRENT PROTECTION COMPUTATION:

NOTE:

$I_{FL} = \frac{[(28) + (144 \times 1.732)] + (125\% \times 12.00)}{0.8} \times DF =$

238.93 Amperes

$I_{CB} = \frac{[(28) + (144 \times 1.732)] + (250\% \times 12.00)}{0.8} \times DF =$

255.93 Amperes

G - Means Ground Wire

1R- Color RED

1B- Color BLACK

1Y- Color YELLOW

1G- Color GREEN

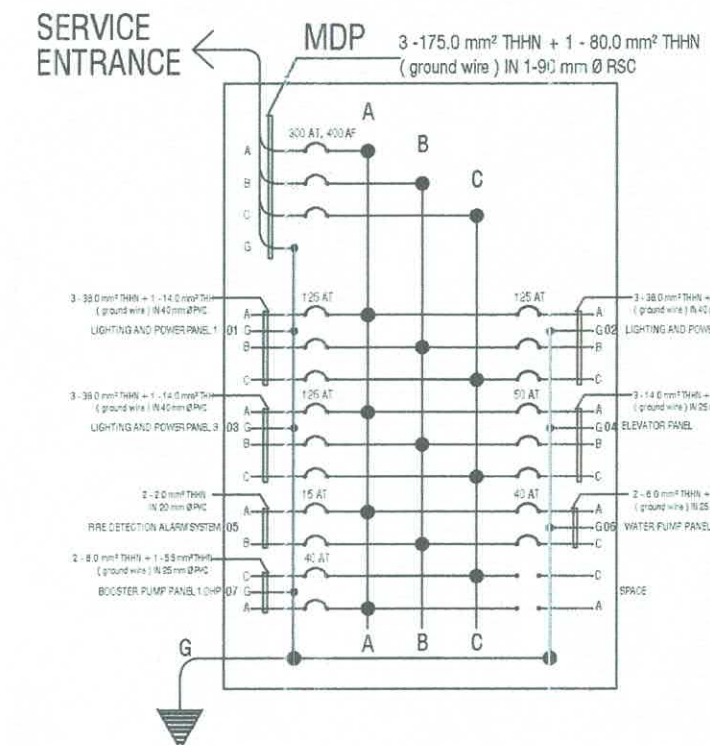
This Electrical Design is good only for the above connected loads.

Any additional electrical load connection in the future is not allowed,

Except redesign of electrical load system will be done.

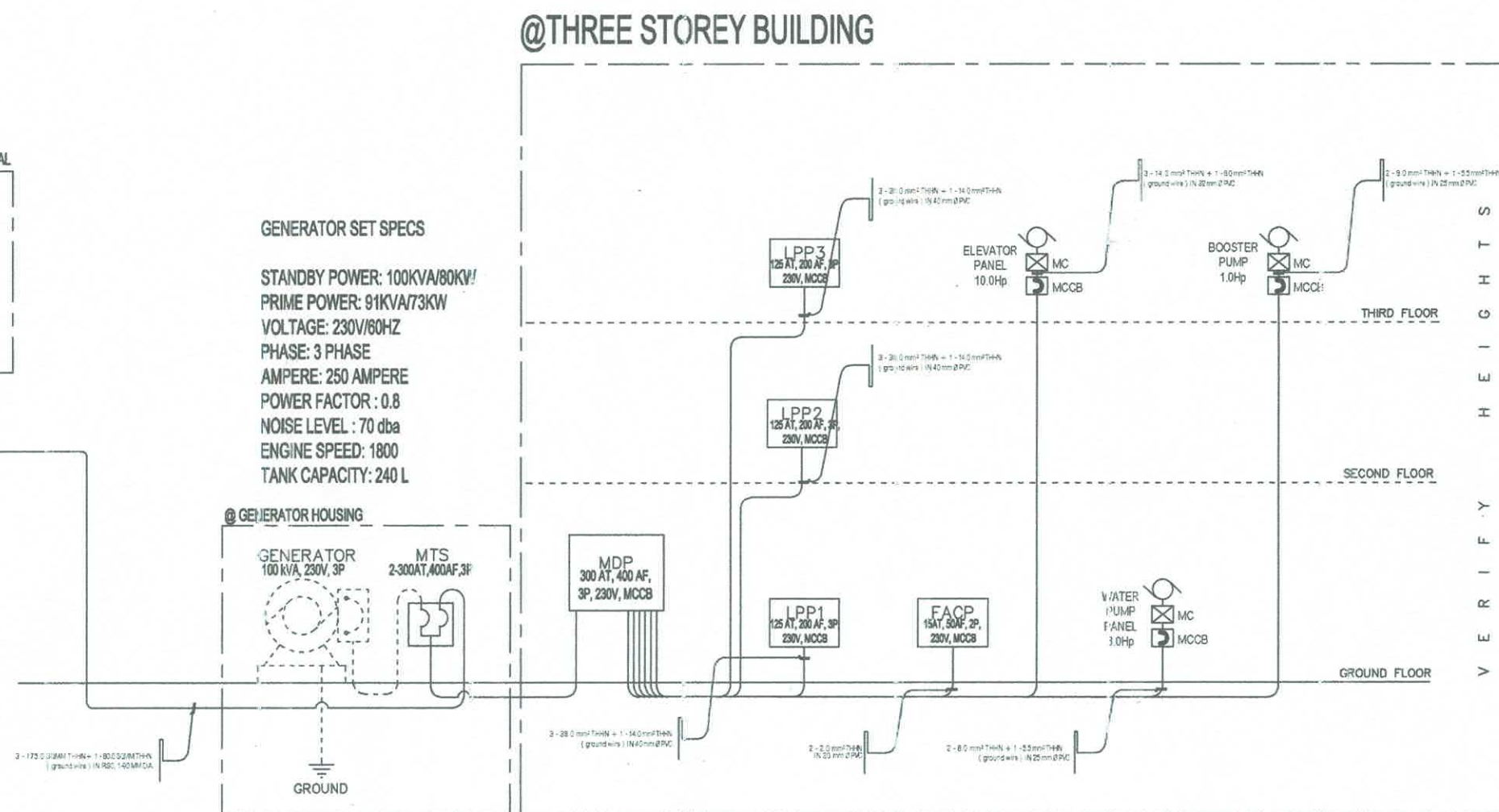
use: 3 -175.0 SQMM THHN+ 1-80.0 SQMM THHN IN 1 - 90 MM DIA. RSC

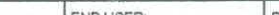
use: 300 AT, 400AF, 3P, 230V,MCCB



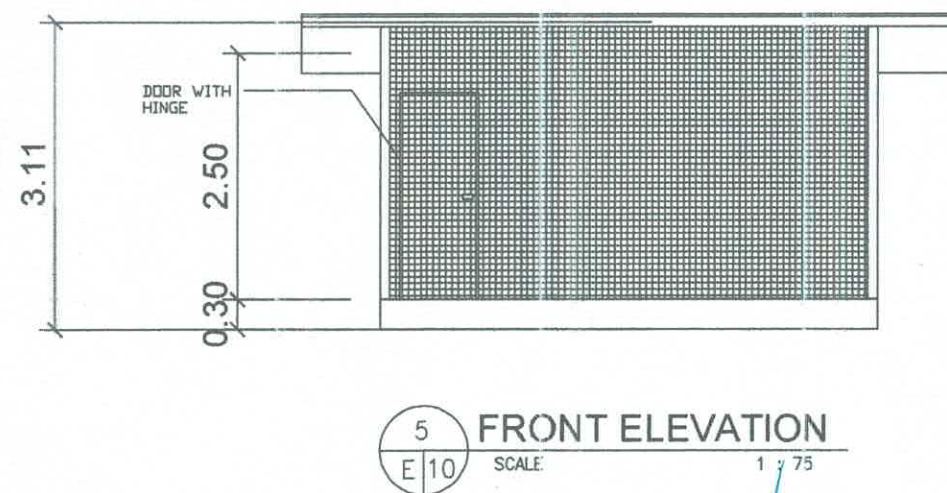
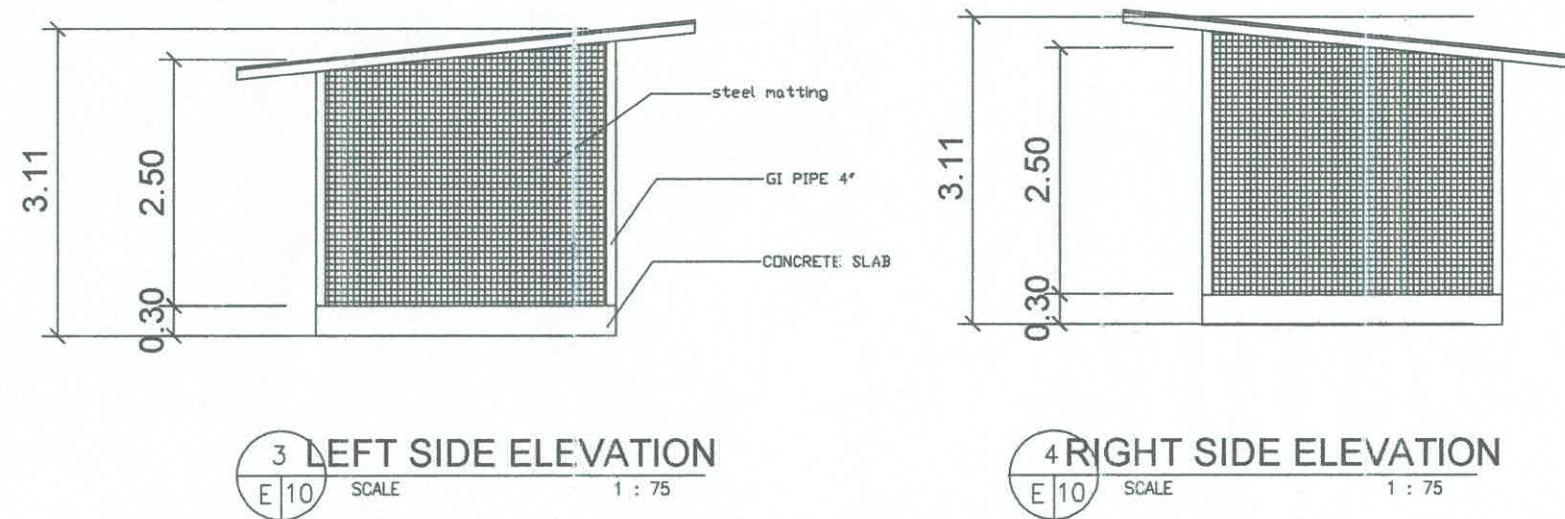
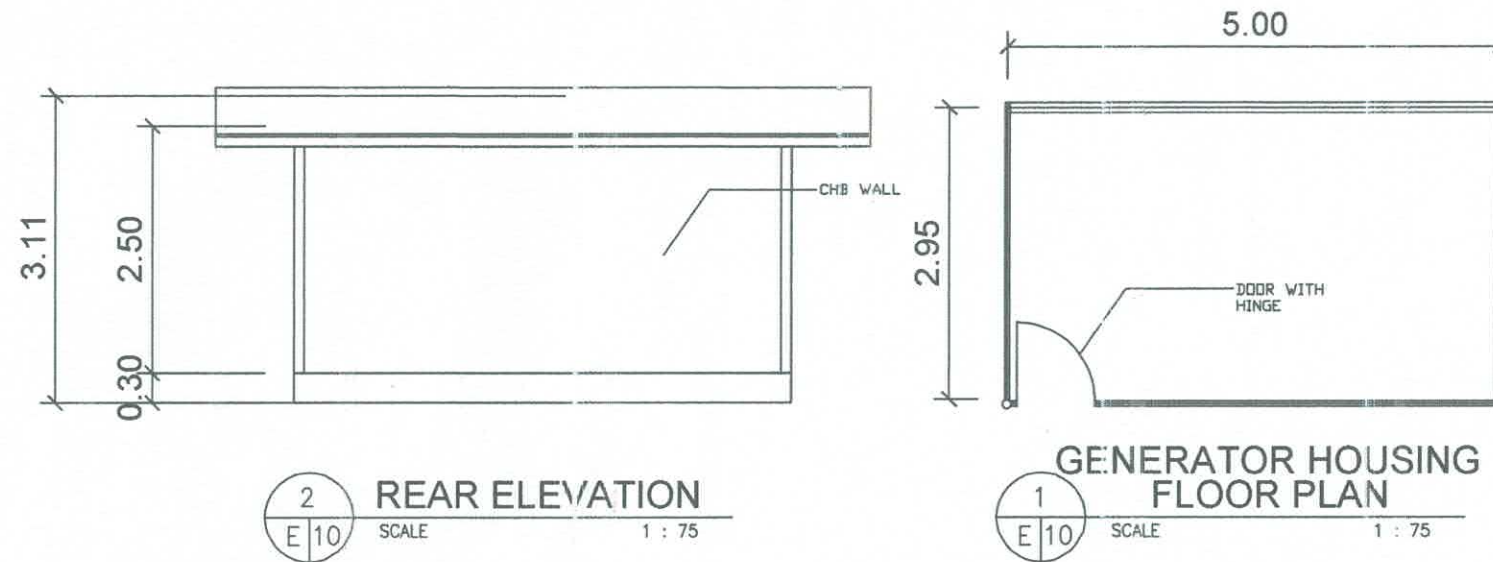
1 PANEL BOARD DETAILS
 E8 SCALE NTS

	PREPARED BY:	END USER:	REVIEWED BY:	ENDORSED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE/ LOCATION:	IMPLEMENTING AGENCY:	SHT NO:	
	R.J.R.SANCHEZ POJ OVPD	A. B. PUGA DEAN NAIC CAMPUS	RONALDO B. PENA PRINC. ELECTR. ENGR.	S. B. BAYOT JR. HEAD POJ	O. B. DELOS REYES DIRECTOR PLANNING AND DEV. OFFICE	A. G. MAGCAWAS VPPD CVSU	J. X. B. MENDOZA VPASS CVSU	M.A. F. NUESTRO PRESIDENT CVSU	REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	CAVITE STATE UNIVERSITY

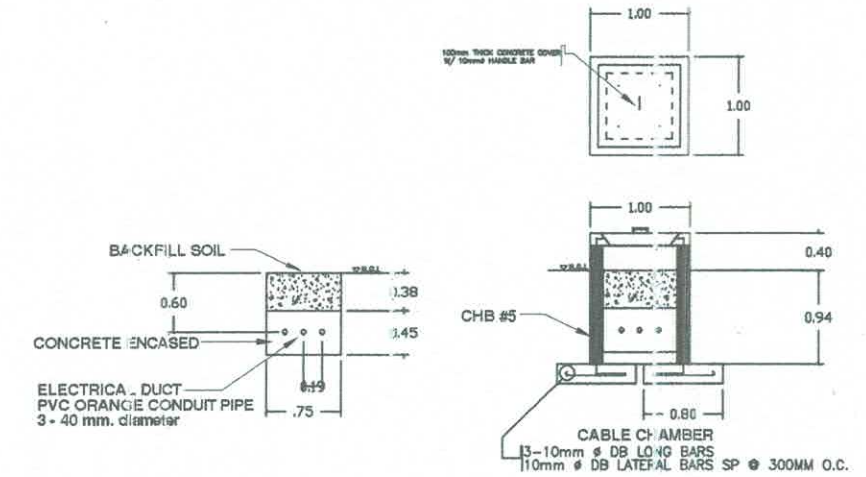


	PREPARED BY:	END USER:	REVIEWED BY:	ENDORSED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE/LOCATION:	IMPLEMENTING AGENCY:	SHT NO:
	 R. J. R. SANCHEZ PDU	 A. B. PUGA DEAN NAIC CAMPUS	 RONALD B. PEÑA PROF. ELECTR. ENGR.	 S. B. BAYOT JR. HEAD PDU	 O. B. DELOS REYES DIRECTOR PLANNING AND DEV. OFFICE	 A. G. MAGCA WAS VPPD CVSU	 J. X. BANEPOMUCENO VPASO CVSU	 M. A. P. NUESTRO PRESIDENT CVSU	REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE

GENERATOR SET HOUSING

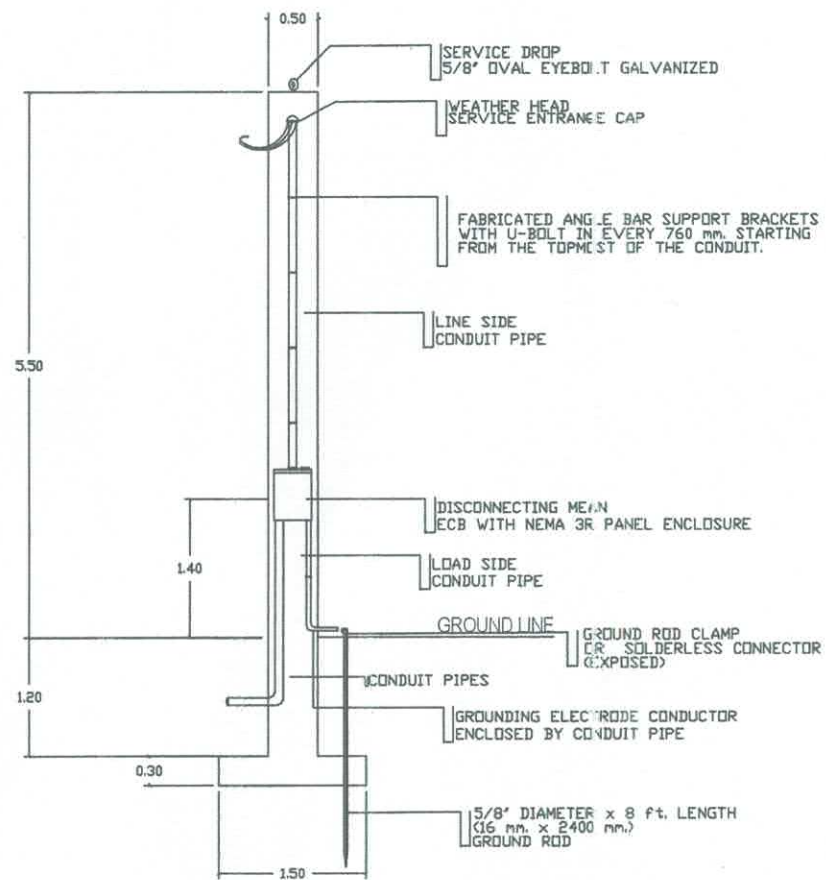


CONCRETE ENCASEMENT

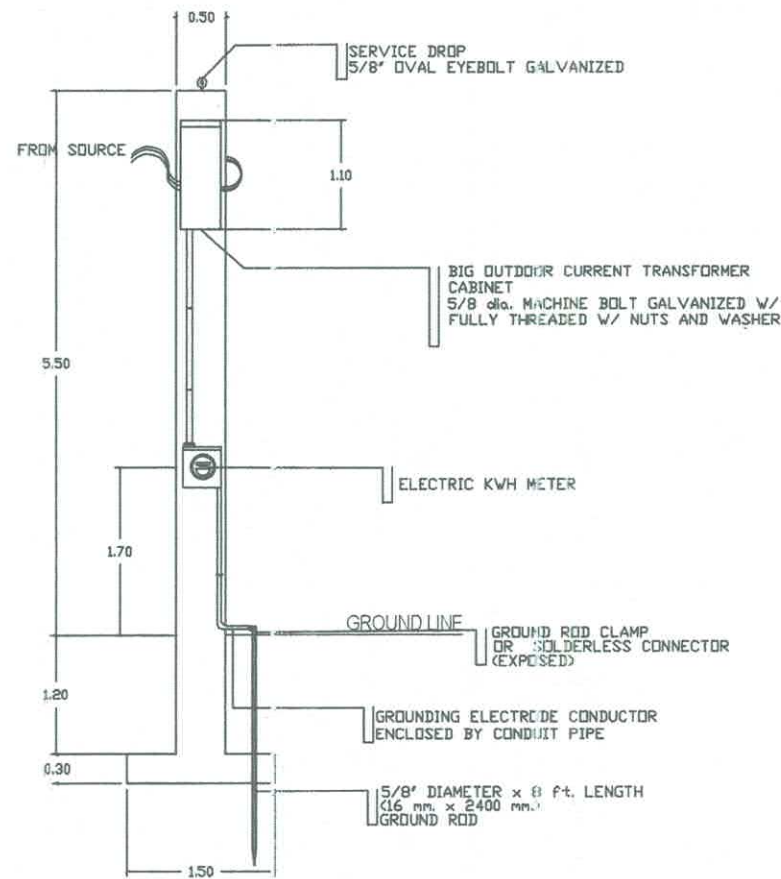


	PREPARED BY: R. J. R. SANCHEZ PDU	END USER: A. B. PUSAY DEAN NAIC CAMPUS	REVIEWED BY: RONALD P. PEÑA PR. JF. ELECT. ENGR.	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	O. B. DELOS REYES DIRECTOR PLANNING AND DEV. OFFICE	REC. APPROVAL: A. G. MAGCAWAS VPPD CVSU	J. X. B. M. POMUCENO VPASS CVSU	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: E - 10
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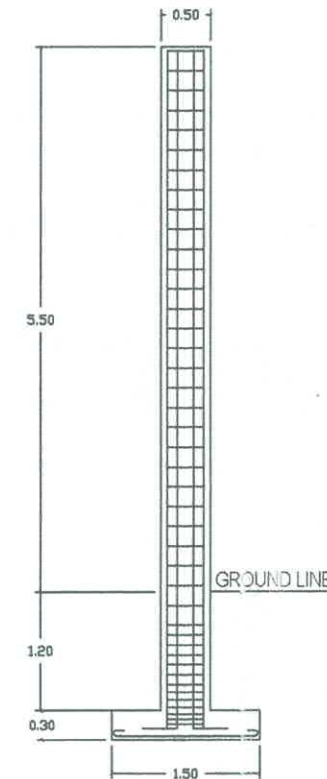
FRONT VIEW



REAR VIEW



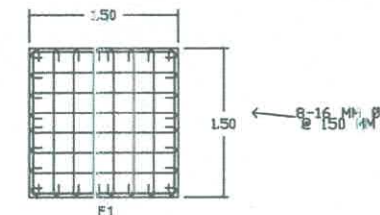
COLUMN DETAILS



SCHEDULE OF FOOTINGS

NAME	TYPE	THICKNESS	SIZE (LxW)	DEPTH	REINFORCEMENT	
F1	ISOLATED	300 MM	1500 x 1500 MM	1500 MM	BOTTOM	
					ALONG L	ALONG W
					8-16 MM Ø @ 150 MM	8-16 MM Ø @ 150 MM

COLUMN	DIMENSION	REINFORCEMENT	NO. OF TIES & SPACING
C1	500 MM X 500 MM	12 - 16mm Ø R.S.B.	3 SET OF 10mm Ø TIES @ 2-50mm, 4-75mm, 6-100mm, REST @ 200mm O.C.



SERVICE ENTRANCE CONCRETE PEDESTAL DETAILS

1
E-11

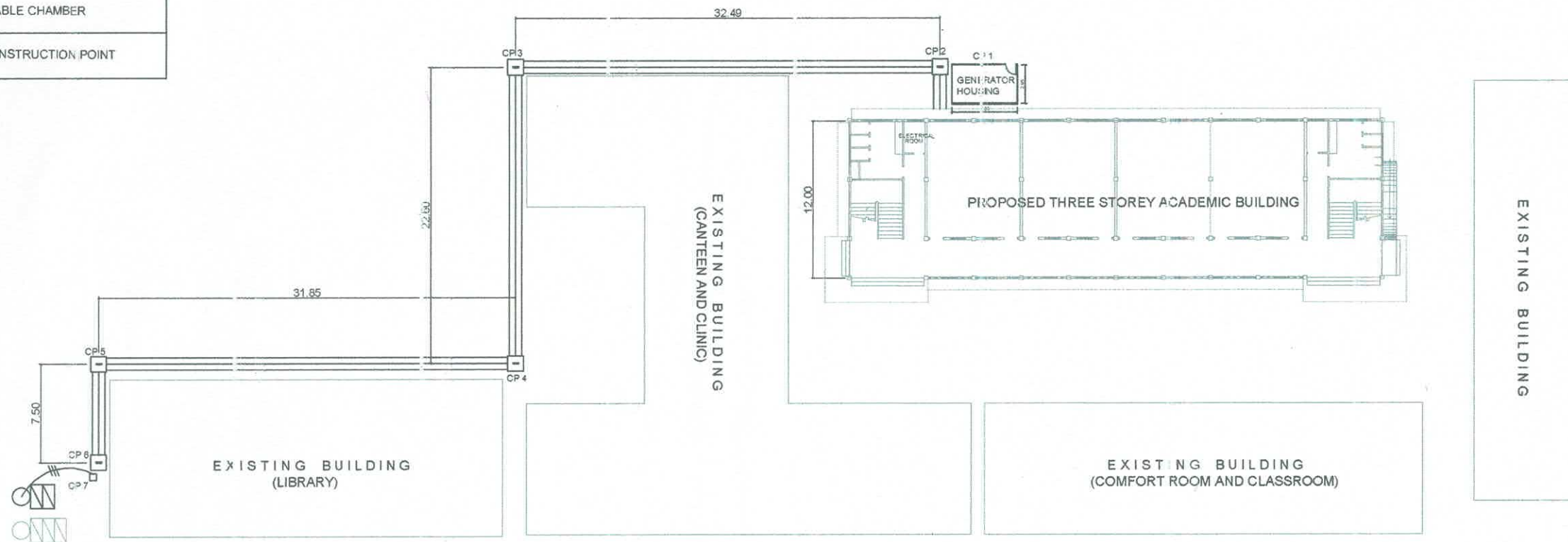
SCALE

1: 75 MTS.

	PREPARED BY:	END USER:	REVIEWED BY:	ENDORSED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE/ LOCATION:	IMPLEMENTING AGENCY:	SHT NO.
	R. J. R. SANCHEZ PPD	A. B. PUGAY DEAN NAIC CAMPUS	RONALDO P. PEÑA PRJ. ELECTR. ENGR.	S. B. BAYOT JR. HEAD PPD	O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	A. G. MAGCAWAS VPPD CVSU	J. X. B. NERAMUCENO VPASS CVSU	M. A. P. NUESTRO PRESIDENT CVSU	REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE

LEGEND AND SYMBOLS :

○	PRIMARY CONCRETE POLE
⊕	SECONDARY CONCRETE POLE
□	SERVICE ENTRANCE PEDESTAL WITH DISCONNECTING SWITCH
— —	LOAD SIDE SECONDARY WIRE 3 LINE WIRE + GROUND WIRE
— —	LOAD SIDE SECONDARY WIRE 2 LINE WIRE + GROUND WIRE
▢	PANEL BOARD
▢	DISTRIBUTION TRANSFORMER
≡	CONCRETE ENCASEMENT RACEWAY
■	CABLE CHAMBER
CP. 1	CONSTRUCTION POINT



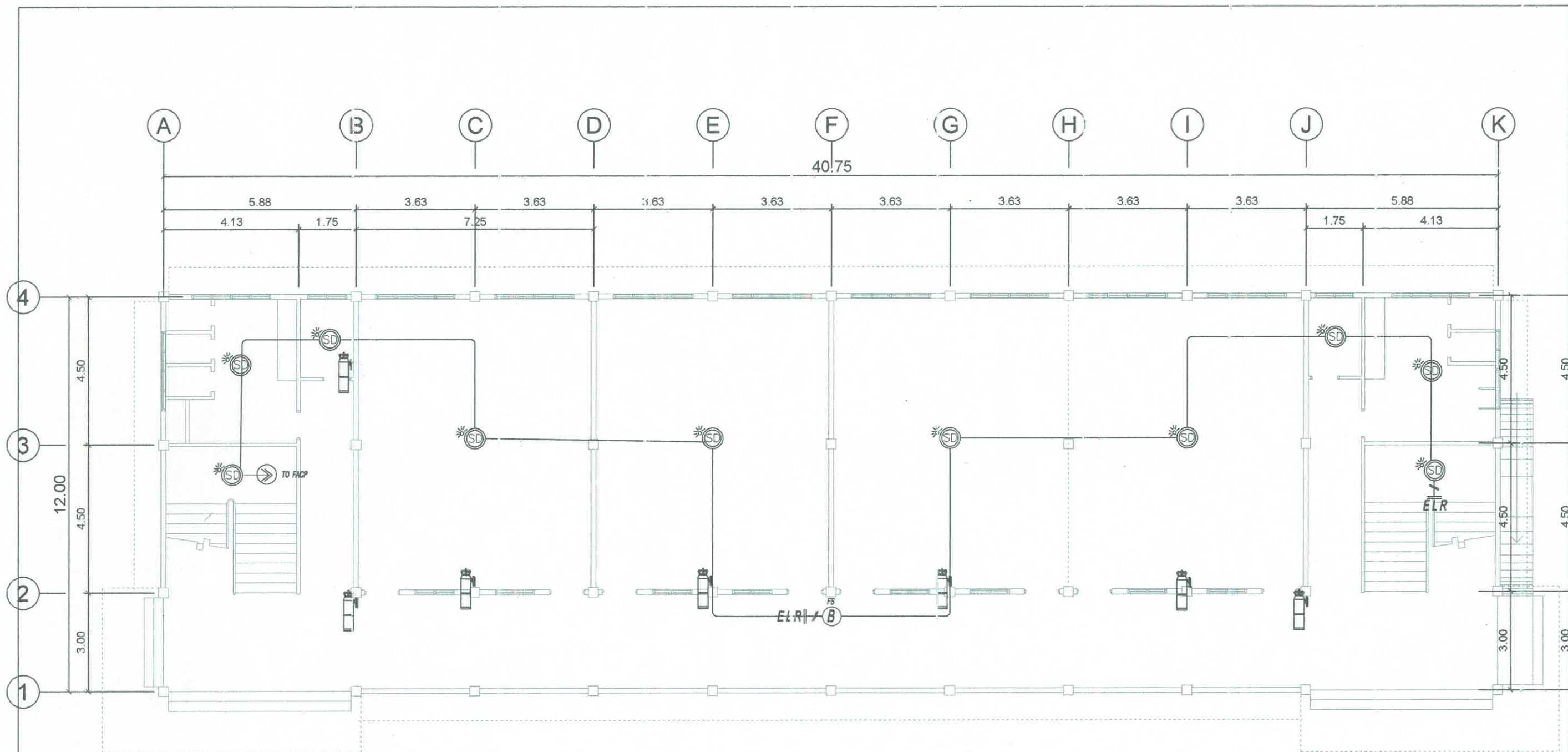
1
E12

FEEDER LINE LAYOUT

SCALE

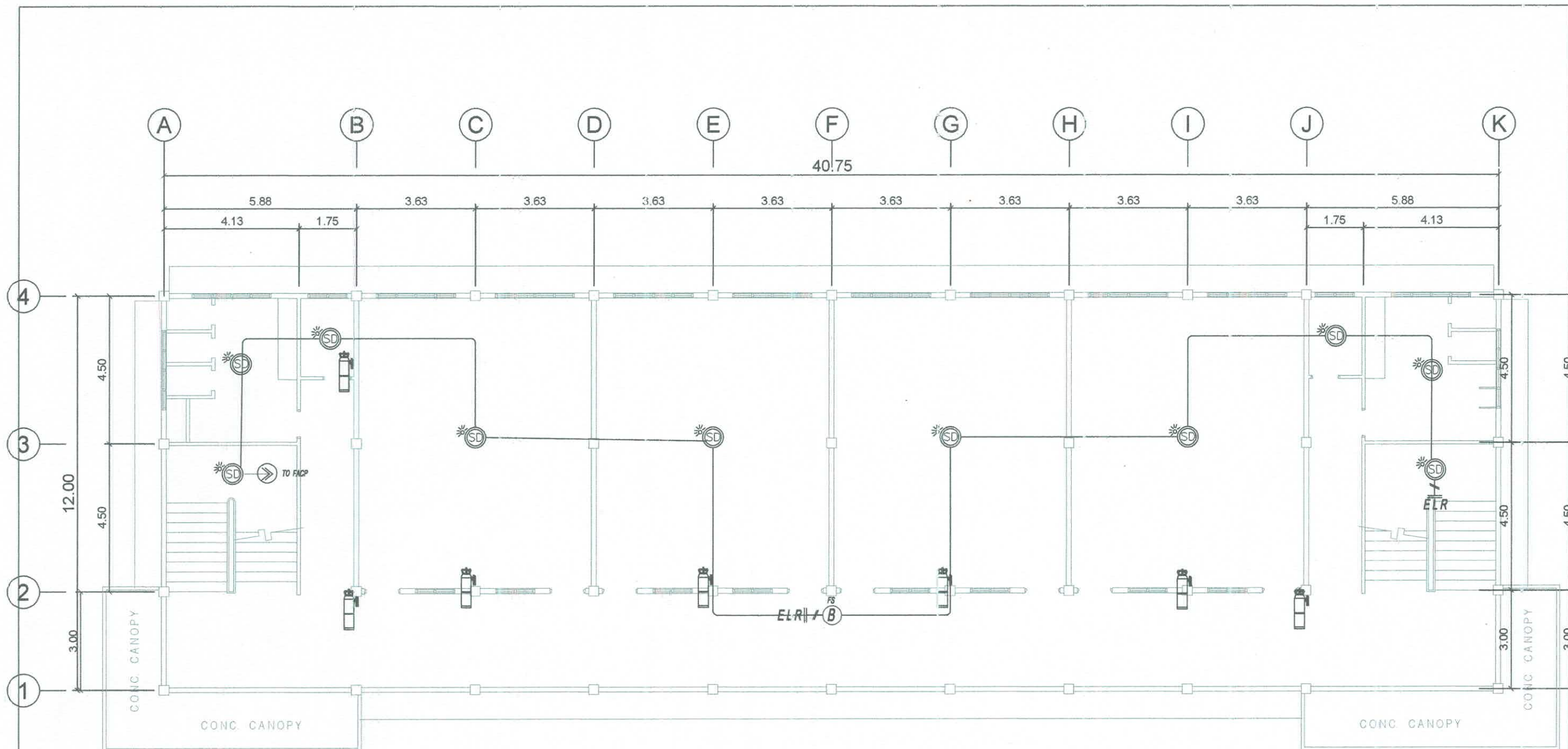
1:400 MTS.

	PREPARED BY: R. J. R. SANCHEZ POU	END USER: A. B. PUCAY DEAN NAIC CAMPUS	REVIEWED BY: RONALD P. PEÑA PR. OF. ELECT. ENGR.	ENDORSED BY: S. E. BAYOT JR. HEAD POU	ENDORSED BY: O. B. DELOS REYES DIRECTOR PLANNING AND DEV. OFFICE	REC. APPROVAL: A. G. MAGCAYAS VPPD CVSU	APPROVED BY: J. X. B. NEROMUJENO VPASS CVSU	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO.: E - 12
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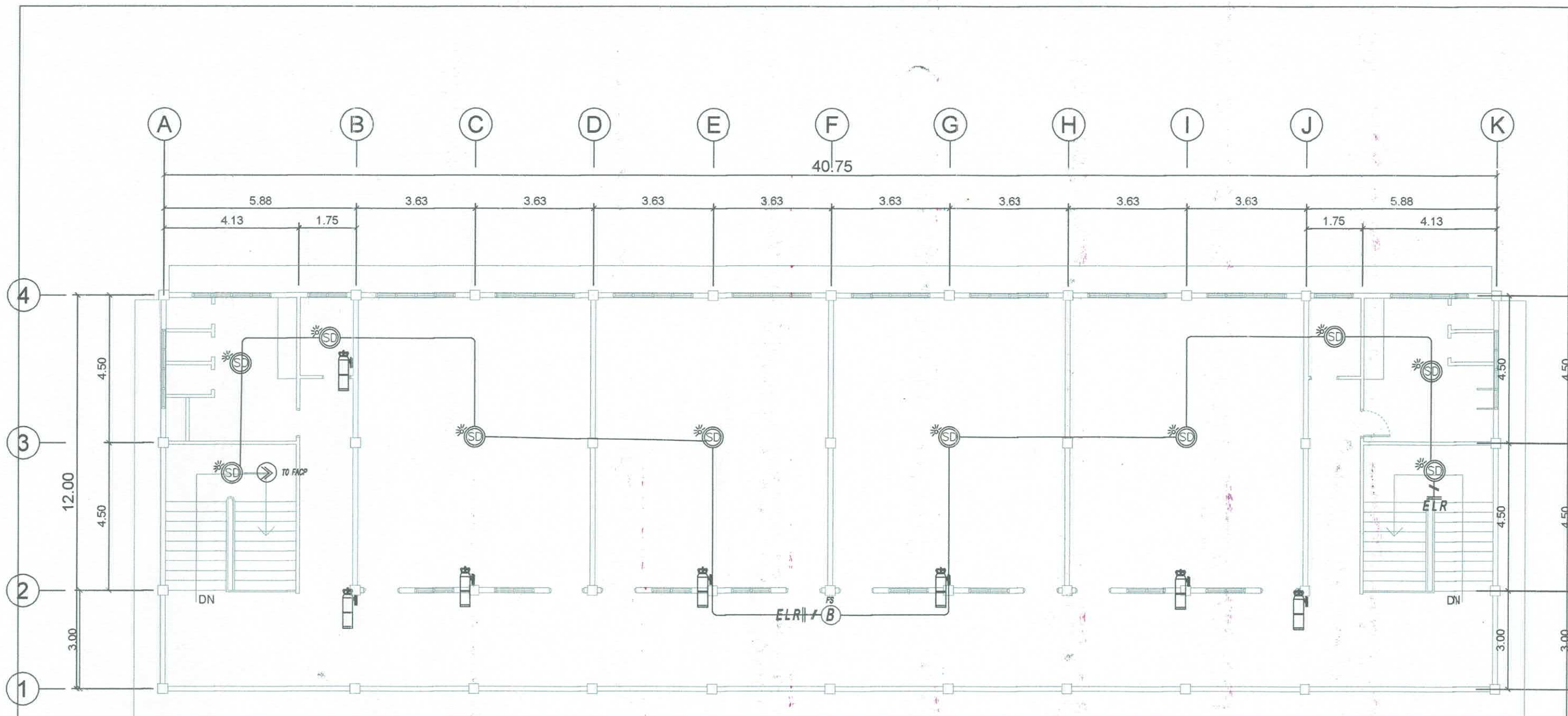
GROUND FLOOR
1 FIRE DETECTION ALARM SYSTEM
 EC 1 SCALE 1 : 125 MTS.

	PREPARED BY: R.J.R. SANON PDU	END USER: A.B. PUGAY DEAN NAIC CAMPUS	REVIEWED BY: RONALD P. PEÑA PROF. ELECTRICAL ENGR.	ENDORSED BY: S.B. BAYOT JR. HEAD PDU	ENDORSED BY: O.B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL: A.G. MAGDAWAS VPPD CVSU	REC. APPROVAL: J.X. B. NUESTRO VPASS CVSU	APPROVED BY: M.A.P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: EC - 1
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1
SECOND FLOOR
FIRE DETECTION ALARM SYSTEM
 EC 2 SCALE 1 : 125 MTS.

	PREPARED BY: R.J.R. SANCHEZ PDU	END USER: A. B. PUGAY DEAN NAIC CAMPUS	REVIEWED BY: RONALD P. PEÑA PROF. ELECTR. ENGR.	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	ENDORSED BY: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL: A. G. MAGCAYAS VPPD CVSU	REC. APPROVAL: L. X. B. NEPOMUCENO VPASS CVSU	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO. EC - 2
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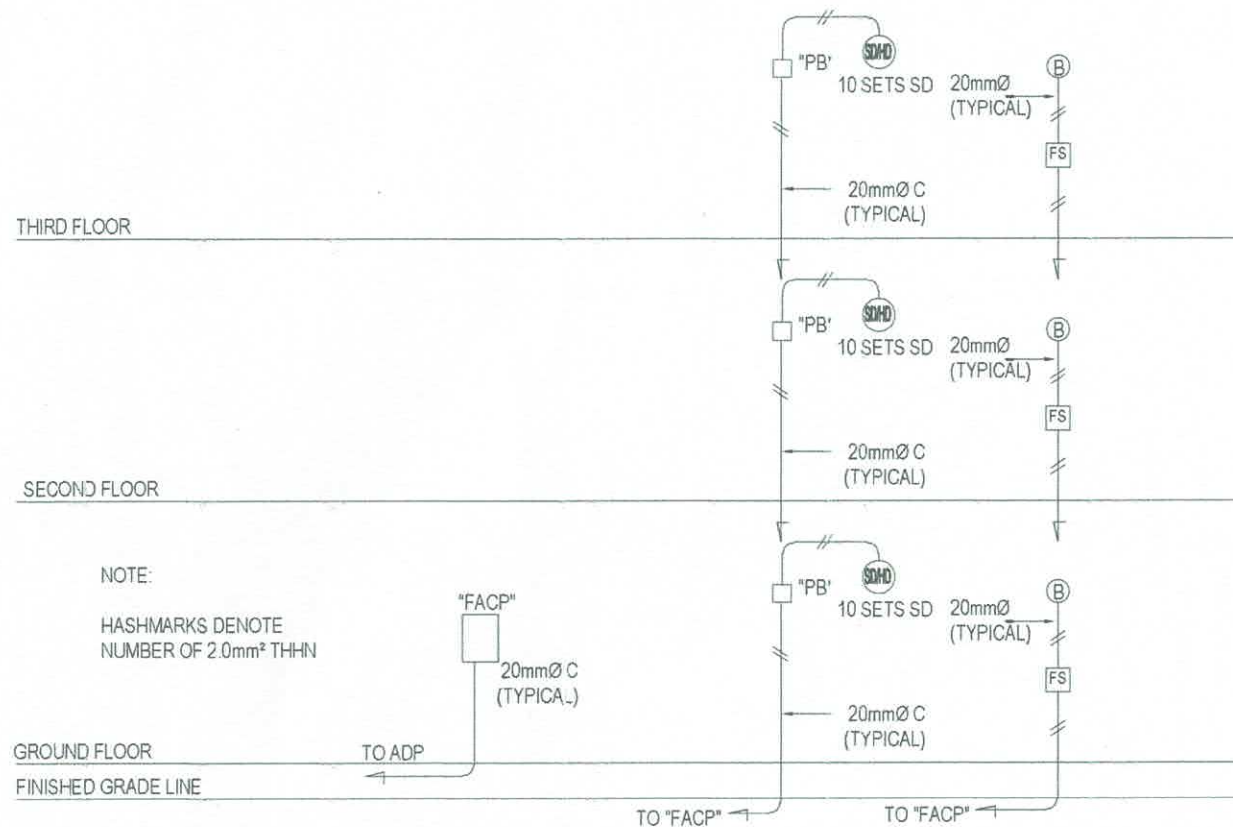
1
EC 3

THIRD FLOOR FIRE DETECTION ALARM SYSTEM

SCALE

1 : 125 MTS.

	PREPARED BY: R. J. R. SANCHEZ PDU	END USER: A. B. PUGAN DEAN NAIC CAMPUS	REVIEWED BY: RONALDO P. PEÑA PROF. ELECTRICAL ENGR.	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	ENDORSED BY: O. B. DELOS REYES DIRECTOR PLANNING AND DEV'T. OFFICE	REC. APPROVAL: A. G. MAGCAWAS VPPD CVSU	REC. APPROVAL: J. X. B. NEPOMUCENO VPASS CVSU	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO.: EC - 3
---	--	--	--	---	--	---	---	--	---	---	---------------------------



1
EC 4 SCALE NTS

RISER DIAGRAM (FDAS)

VERIFY HEIGHTS

GENERAL NOTES AND SPECIFICATIONS:

FIRE ALARM SYSTEM SHALL BE FULLY ADDRESSABLE TYPE WITH CLASS A WIRING FOR RISER.

THE COMPLETE FIRE ALARM SYSTEM SHALL BE FURNISHED/INSTALLED BY FIRE ALARM CONTRACTOR COMPLETE SYSTEM FOR OPERATION INCLUDING EQUIPMENT AND WIRINGS.

- a. SMOKE DETECTION/HEAT DETECTOR
- b. FIRE ALARM MANUAL STATION
- c. FIRE ALARM CONTROL PANEL (ADDRESSABLE TYPE)
- d. FIRE ALARM BELL

THE FIRE ALARM RISER DIAGRAM CAN BE MODIFY BY CONTRACTOR/SUPPLIER TO SUIT WITH THE SUPPLIED EQUIPMENT. ADDITIONAL SMOKE DETECTOR SHALL BE PROVIDED BY TENANT WHICH WILL INCLUDE WIRING AND CONDUIT FOR ADDITIONAL ADDRESSABLE CONTROL DEVICES IN THE FDAS CONTROL PANEL. FDAS SUPPLIER/CONTRACTOR SHALL BE PROPERLY COORDINATED IN ANY CHANGES IN THE SMOKE DETECTOR LAYOUT AS WELL AS WIRING CONNECTIONS.

WIRING SHALL BE UNSHIELDED 2.0mm² THHN FDAS CABLE IN 20mmØ PVC PIPE.

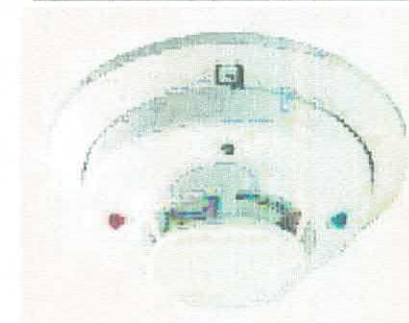


2
EC 4 SCALE NTS

FIRE ALARM MANUAL STATION (FS)

LEGEND AND SYMBOLS:

SYMBOL	DESCRIPTIONS
	SMOKE DETECTOR
	HEAT DETECTOR
	FIRE ALARM MANUAL STATION
	FIRE ALARM BELL OUTLET
	HOMERUN TO FACP
	END OF LINE RESISTOR - ELR
	FIRE ALARM CONTROL PANEL
	2-2.0 mm², THHN 20 mm Ø C.



3
EC 4 SCALE NTS

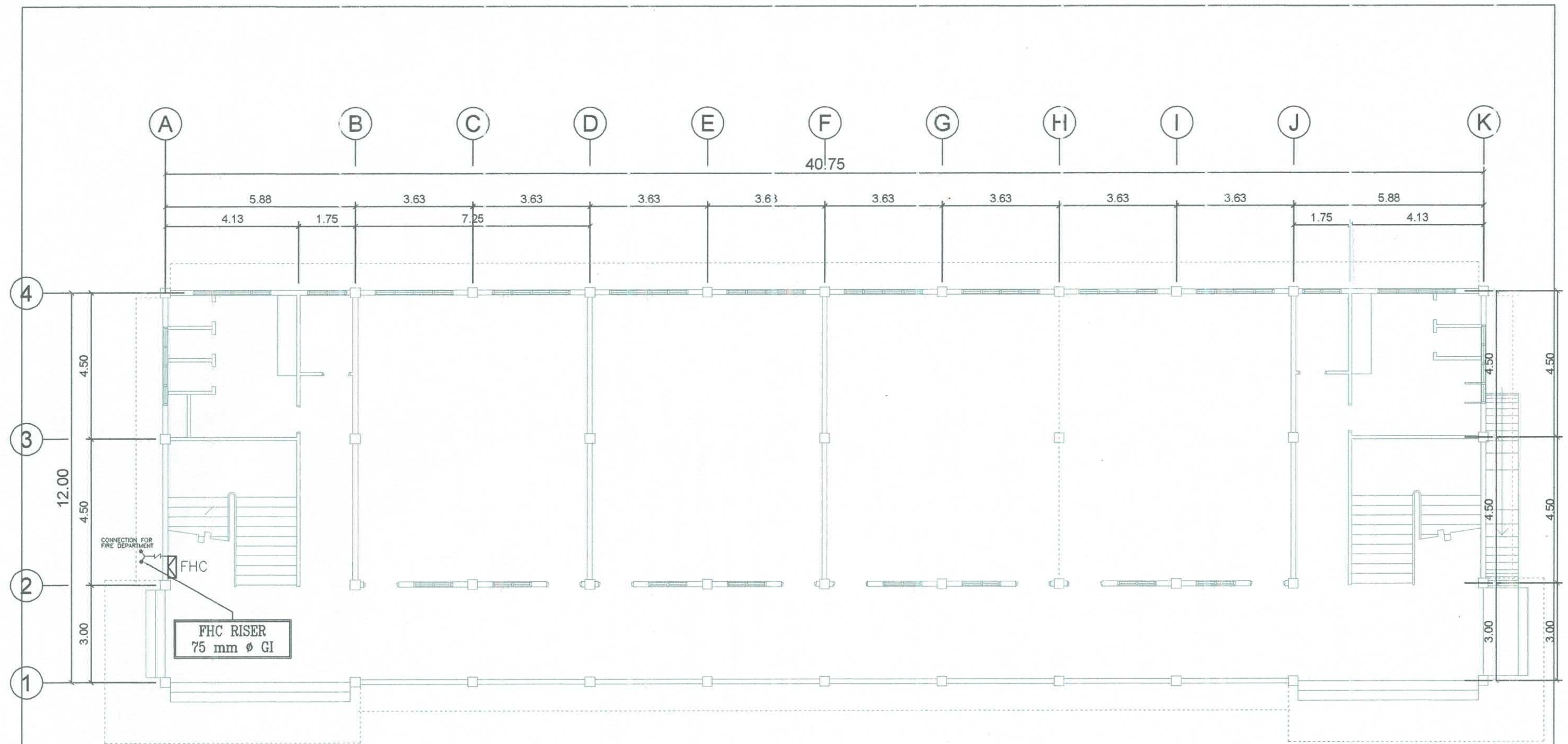
SMOKE DETECTOR



4
EC 4 SCALE NTS

FIRE ALARM BELL

	PREPARED BY: R. J. R. SANCHEZ POU	END USER: A. B. PUCY DEAN NAIC CAMPUS	REVIEWED BY: RONALD P. PEÑA PROF. ELECTL ENGR	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	ENDORSED BY: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL: A. G. MAGCOWAS VPPD	APPROVED BY: J. X. B. MOPOMUCENO VPASS	APPROVED BY: M. A. P. NUESTRO PRESIDENT	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: EC - 4
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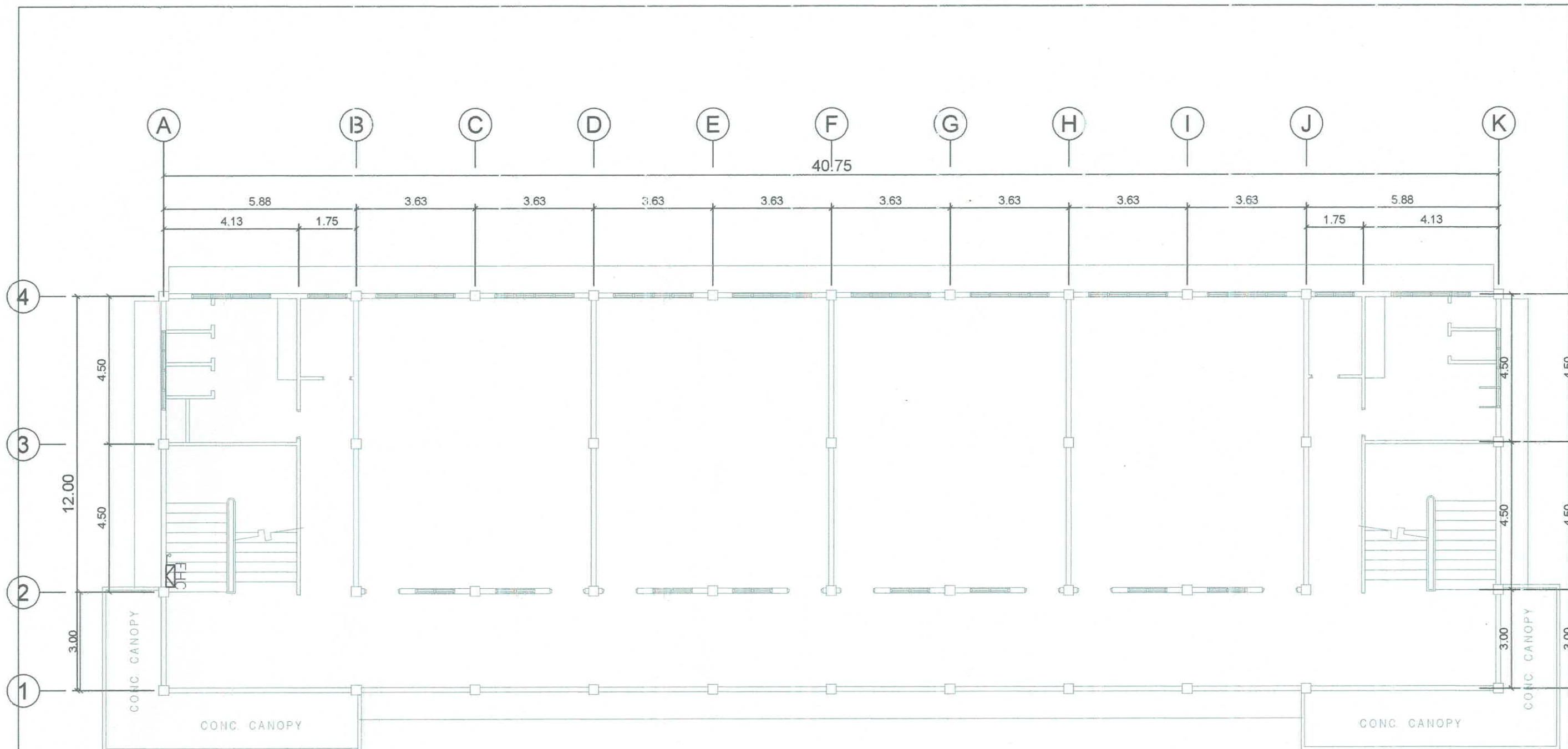
1
FP 1

GROUND FLOOR FIRE HOSE CABINET LAYOUT

SCALE

1 : 125 MTS.

	PREPARED BY: R.J.R. SANCHEZ PDI	END USER: A. E. PUGAY DEAN NAIC CAMPUS	REVIEWED BY: RICHARD P. PEÑA PROF. ELECTL. ENGR.	ENDORSED BY: S. B. BAYOT JR. HEAD	REC. APPROVAL: O. B. DEL OS REYES DIRECTOR PLANNING AND DEVT. OFFICE	APPROVED BY: A. G. MAGCAYAS VPPD	APPROVED BY: J. X. B. NEPOMUCENO CVSU	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLOT SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO: FP - 1
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1
FP 2

SECOND FLOOR
FIRE HOSE CABINET LAYOUT
 SCALE 1 : 125 MTS.

	PREPARED BY: R. J. R. SANCHEZ PDU	END USER: DEAN NAIC CAMPUS	REVIEWED BY: ROMAN PEÑA REUF. ELECTR. ENGR.	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	DIRECTOR PLANNING AND DEV. OFFICE	REC. APPROVAL: A. G. MAGCAYAS VPPD	J. X. B. MUCENO VPASS	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHEET NO: FP - 2
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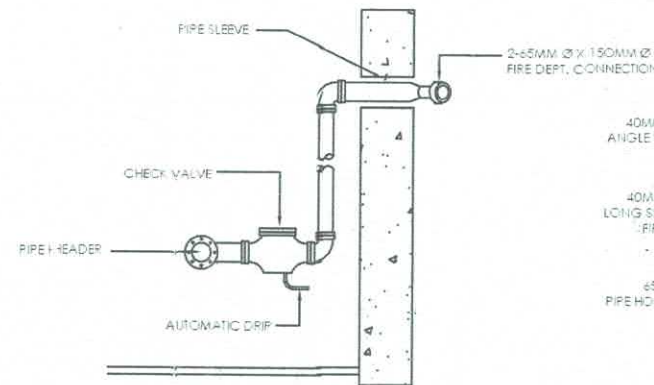
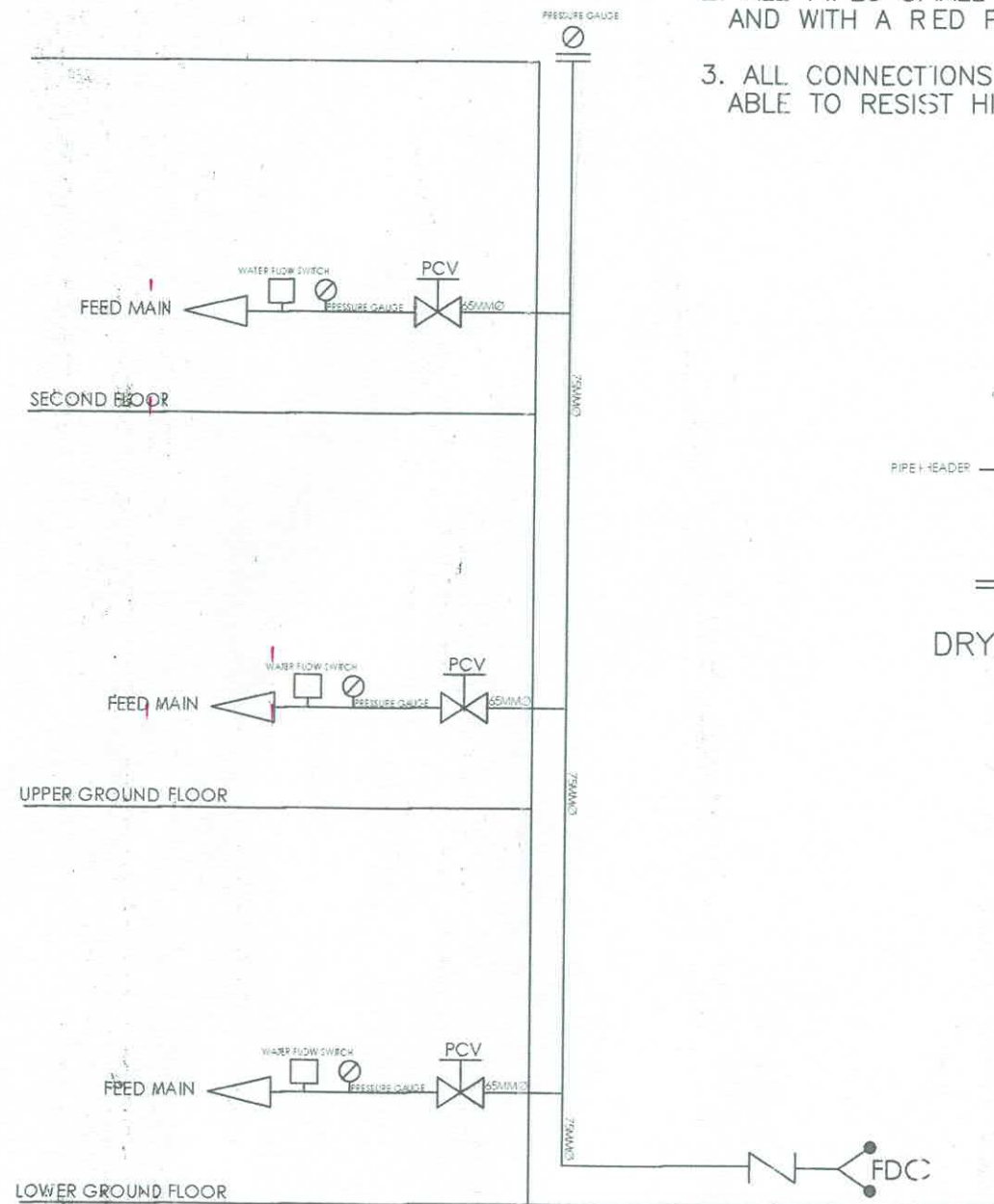


1
THIRD FLOOR
FIRE HOSE CABINET LAYOUT
 FP 3 SCALE 1 : 125 MTS.

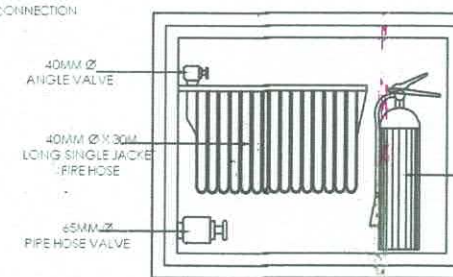
	PREPARED BY: R. J. R. SANCHEZ PDU	END USER: DEAN NAIC CAMPUS	REVIEWED BY: RONALDO P. PEÑA PRF. ELECTR. ENGR.	S. B. BAYOT JR. HEAD PDU	ENDORSED BY: O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	REC. APPROVAL: A. G. MAGCAYAS VPPD CVSU	J. X. B. NERDOMUCENO VP-SS CVSU	APPROVED BY: M. A. P. NUESTRO PRESIDENT CVSU	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO.: FP - 3
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NOTES :

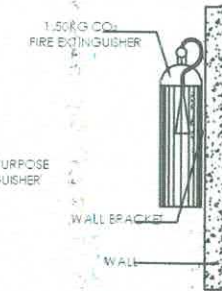
1. ALL PIPES HAVE A STRENGTH EQUIVALENT TO SCHEDULE 40.
2. ALL PIPES SHALL BE PAINTED WITH EPOXY PRIMER PAINT AND WITH A RED PAINT AS FINAL COATING.
3. ALL CONNECTIONS SHALL BE LEAK PROOF AND SHALL BE ABLE TO RESIST HIGH PRESSURE.
4. ANY DEVICES OR EQUIPMENT NOT REFLECTED OR SHOWN ON PLANS BUT REQUIRED TO COMPLETED THE SYSTEM MUST BE INCLUDED ON SCOPE OF WORK.
5. FIELD VERIFICATION SHALL BE DONE BY CONTRACTOR. ANY DISCREPANCIES OR CHANGES SHALL BE PROMPTLY NOTIFIED TO OWNER'S REPRESENTATIVE OR DESIGNER.



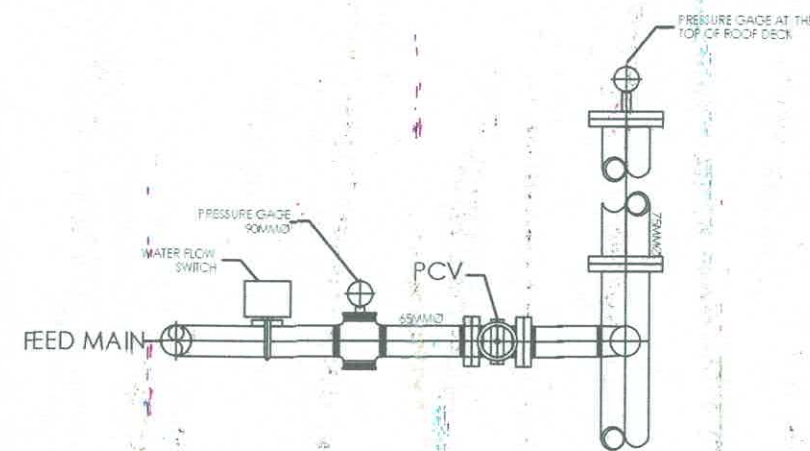
DRY STAND PIPE DETAIL



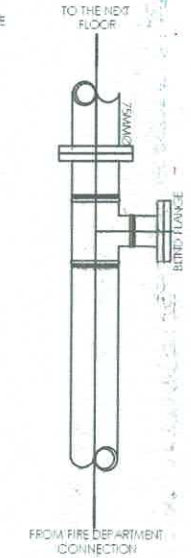
FIRE HOSE CABINET DETAIL



WALL MOUNTED FIRE EXTINGUISHER DETAILS



ELEVATION



VIEW AT RISER

1 RISER DIAGRAM OF FIRE PROTECTION SYSTEM
SCALE N T S

2 SUPERVISORY FLOOR CONTROL VALVE ASSEMBLY DETAILS
SCALE N T S

	PREPARED BY: R.J.R. SANCHEZ PDU	END USER: A. B. PUGAY DEAN NAIC CAMPUS	REVIEWED BY: RONALD P. PEÑA PROF. ELECTR. ENGR.	ENDORSED BY: S. B. BAYOT JR. HEAD PDU	ENDORSED BY: C. B. DELOS REYES DIRECTOR PLANNING AND DEV. OFFICE	REC. APPROVAL: A. G. MAGCOWAS VPP	APPROVED BY: J. X. B. POMUCENO VPASS	APPROVED BY: MA. P. NUESTRO PRESIDENT	PROJECT TITLE/ LOCATION: REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO.: FP - 4
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LEGEND AND SYMBOLS:

	GATE VALVE
	CHECK VALVE
	WATER FLOW SWITCH
	TEE CONNECTION
	ELBOW CONNECTION
	OS & Y GATE VALVE WITH MONITOR SWITCH
	END CAP
C.I.	CONCENTRIC INCREASER, OPTIONAL
ER	ECCENTRIC REDUCER, OPTIONAL
RN	RISER NIPPLE
BFV	BUTTERFLY VALVE, WAFER TYPE
GV	GATE VALVE, RISING STEM
GV	GATE VALVE, RISING STEM
WCV	WAFER TYPE CHECK VALVE
CV	SWING TYPE CHECK VALVE
SG	SIGHT GLASS

	PIPING SYSTEM
	PRESSURE RELIEF VALVE
	PENDENT/UPRIGHT SPRINKLER
	SIDE WALL SPRINKLER
	FIRE EXTINGUISHER
	SMOKE DETECTOR
	EAGLE HCFC 123 (dichlorotrifluoroethane) Ceiling Type Fire Extinguisher, Stored Pressure type
WFS	WATER FLOW SWITCH
PRV	PRESSURE REDUCING VALVE
FP	FIRE PUMP
JP	JOCKEY PUMP
FA	FIRE ALARM
B	BELL
PG	PRESSURE GAUGE
PCV	PRESSURE CONTROL VALVE W/ SUPERVISORY SWITCH
FDC	FIRE DEPARTMENT CONNECTION

GENERAL NOTES:

1. INSTALLATION OF FIRE SPRINKLER SYSTEM SHALL CONFORM TO NFPA-13 REQUIREMENTS.
2. COORDINATE WITH OTHER WORKS, INCLUDING THE PLUMBING PIPING AS NECESSARY TO INTERFACE COMPONENTS OF FIRE PROTECTION PIPING PROPERLY WITH OTHER WORKS
3. SPRINKLER SHALL BE SPACED NOT LESS THAN 6 FT (1.8 M) ON CENTERS.
4. PROVIDE 10 LBS HALOTRON PORTABLE FIRE EXTINGUISHERS TO ALL ELECTRICAL ROOM AND TO OTHER ROOM OF THE SAME USAGE.
5. ALL PIPES SHALL BE PROVIDED WITH THE PIPE SLEEVE THROUGH BEAMS, WALL, AND FLOORS.
6. PROVIDE AT LEAST ONE (1) HANGER BETWEEN EACH TWO (2) BRANCH LINES.
7. LATERAL AND LONGITUDINAL SWAY BRACES SPACED AT MAXIMUM OF 12.2 M AND 24 M ON CENTER RESPECTIVELY SHALL BE PROVIDED AT ALL PIPE LINES WITH DIAMETER OF 150 MM AND LARGER.
8. PROVIDE FLANGE CONNECTION AT MAXIMUM INTERVAL OF 12 METERS.
9. ALL PORTABLE FIRE EXTINGUISHERS INSIDE FIRE HOSE CABINET (FHC) SHALL BE CLASS "ABC" DRY CHEMICAL. UNLESS OTHERWISE SPECIFIED.
10. PROVIDE 50 LBS WHEELED TYPE HALOTRON PORTABLE FIRE EXTINGUISHER IN TRANSFORMER VAULTS.
11. WHERE SPRINKLER PASSES THROUGH SEISMIC SEPARATION ASSEMBLIES, FLEXIBLE SHALL BE PROVIDED.

12. PROVIDE AUXILIARY DRAIN FOR TRAPPED SECTION AS REQUIRED BY NFPA-13.
13. THE DISTANCE BETWEEN THE HANGER AND CENTER OF LINE OF AN UPRIGHT SPRINKLER HEAD SHALL NOT BE LESS THAN 76 MM.
14. PROVIDE NECESSARY EARTHQUAKE PROTECTION AS REQUIRED UNDER NFPA-13 AND APPLICABLE BUILDING CODE.
15. PIPING SHALL BE CONCEALED IN AREAS WITH DROP CEILINGS.
16. INSTALL IRON PIPE SLEEVES OF AMPLE DIAMETER AT ALL POINTS WHERE PIPES PENETRATE BEAMS, FLOOR OR WALLS. SIZE AND INSTALL SO THAT THE PIPES ARE NOT STRESSED.
17. SLEEVES SHALL BE INSTALLED PRIOR TO CONSTRUCTION OF WALLS OR POURING OF CONCRETE. INSTALL SLEEVES FLUSH WITH ALL SURFACES.
18. THE CONTRACTOR MUST SUBMIT SHOP DRAWING INDICATING ACTUAL DIMENSIONAL SIZES, OPERATING WEIGHTS, AND SUFFICIENT CLEARANCES TO FACILITATE NORMAL SERVICE AND MAINTENANCE, HOWEVER, SHOULD ACTUAL EQUIPMENT PHYSICALLY DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHOULD NOTIFY THE ARCHITECT IN WRITING.
19. ALL MECHANICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE RULES AND REGULATION OF THE LATEST EDITION OF THE PHILIPPINE MECHANICAL CODE.
20. ALL MECHANICAL WORKS SHALL BE DONE UNDER THE DIRECT AND IMMEDIATE SUPERVISOR OF A DULY LICENSED REGISTERED MECHANICAL ENGINEER.

	PREPARED BY:	END USER:	REVIEWED BY:	ENDORSED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE/ LOCATION:	IMPLEMENTING AGENCY:	S-IT NO:
	R. J. R. SANCHEZ FPU	A. G. LUGAN DEAN NAIC CAMPUS	RONALDO R. PEÑA PROF. ELECTR. ENGR.	S. B. BAYOT JR. HEAD FPU	O. B. DELOS REYES DIRECTOR PLANNING AND DEVT. OFFICE	A. G. MAGCAYAS VPPD CVSU	J. X. B. KEPOMUCENO VPASS CVSU	M. A. P. NUESTRO PRESIDENT CVSU	REHABILITATION OF FOUR ACADEMIC BUILDING AT NAIC CAMPUS CAVITE STATE UNIVERSITY NAIC CAMPUS MABOLO SITE