


REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
WESTERN VISAYAS
PAROLA, ILOILO CITY

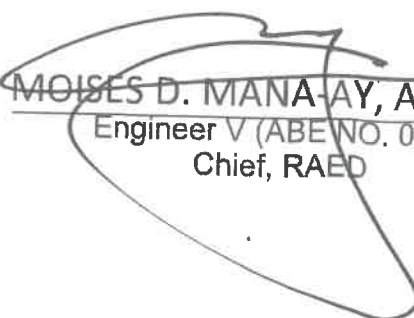
DETAILED ENGINEERING DESIGN PLANS

**CONSTRUCTION OF NATIVE CHICKEN MULTIPLIER FARM
(Breeder House)**
(LEED PROGRAM 2024)

CAPSU-BRGY. CODINGLE, DUMARAO, CAPIZ

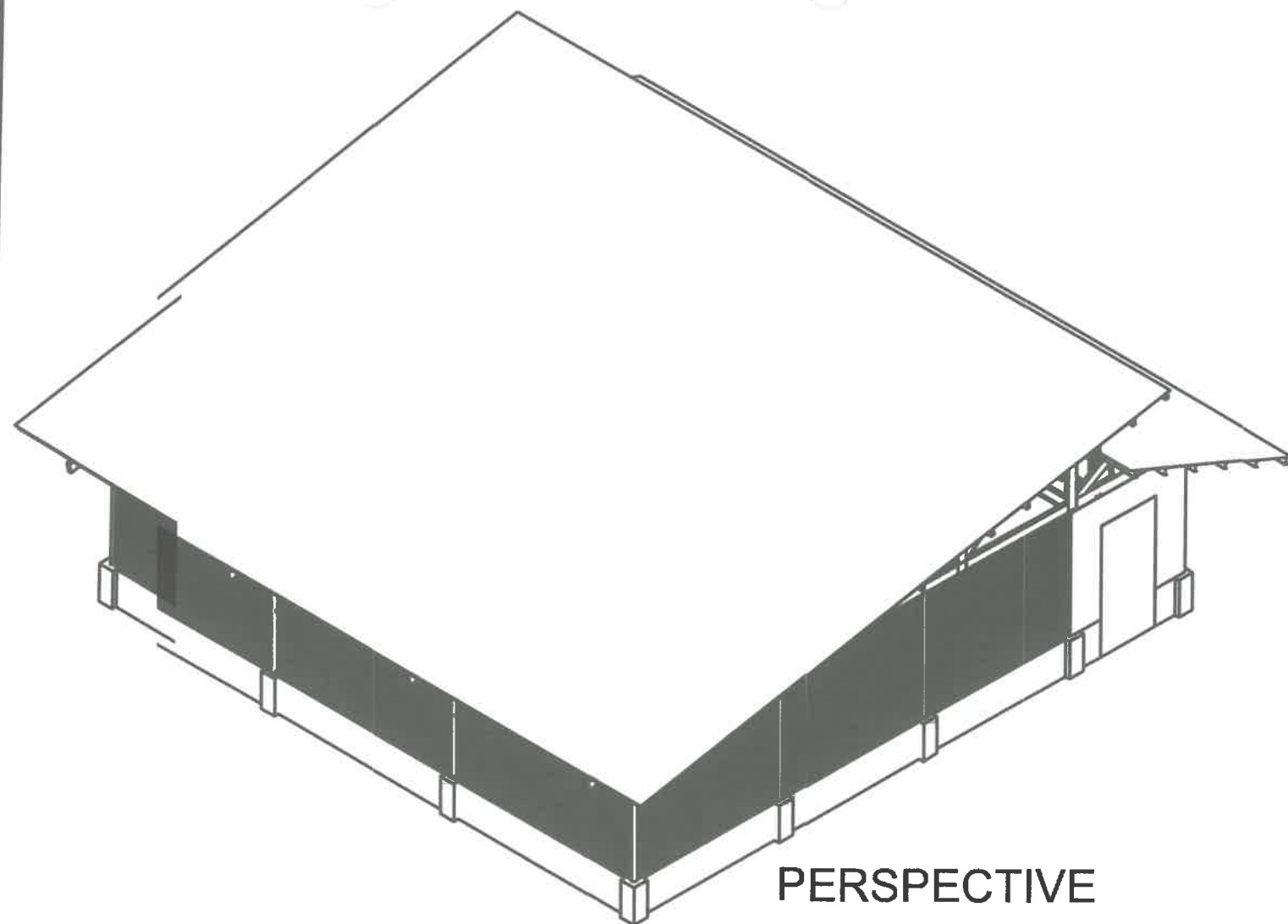

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PERSPECTIVE



VICINITY MAP

NTS

BILL OF QUANTITIES

Item No.	Scope of Work	Quantity	Unit
OTHER GENERAL REQUIREMENT			
B.1	Preparation of Bill of Materials and Project Manual	1.00	1a
B.5	Occupational Safety and Health	1.00	1a
B.7	Temporary Working Personnel	1.00	1a
B.9	Mobilization and Demobilization	1.00	1a
BREEDER HOUSE			
SITE WORKS			
000	Site Clearing and Grubbing	500.00	sq.m
EARTHWORKS			
003 (1) a	Structural Excavation	17.04	cu.m
004 (1) a	Backfill and Embankment	11.73	cu.m
STRUCTURAL CONCRETE			
009	Concrete Column Pedestal Wall footing	7.71	cu.m
002 (1) a	Reinforcing Steel Work (Deformed)	702.80	kg
003 (1)	Forms and Falseworks	1.00	1a
MASONRY WORKS			
100 (1) 1	100 mm Thick CMU Non-load Bearing Wall including Reinforcing Steel Bar, Class "B" Mortar	50.00	sq.m
FABRICATED MATERIALS			
1005	Welded Wire Mesh Wall and other Accessories	78.96	sq.m
FINISHING WORKS			
1027	Interior Plaster Finish	40.40	sq.m
1043 (2) a	Carpentry and Joinery Works	20.00	sq.m
PAINTING WORKS			
1032 (1) a	Painting Work (Steel)	157.76	kg
ROOF AND ROOF FRAMING WORKS			
1014 (1) 1	Pre-painted Metal Sheet Long Span and Other Bended Accessories	151.50	1m
1047 (1) a	Structural Steel (Steel Post Trusses, Rafters, Purlins and other Supports)	157.76	sq.m
ELECTRICAL WORKS			
1100	Electrical Works	1.00	1a
BREEDER HOUSE			
EARTHWORKS			
003 (1) a	Structural Excavation	10.98	cu.m
004 (1) a	Backfill and Embankment	6.00	cu.m
STRUCTURAL CONCRETE			
009	Concrete Column Pedestal Wall footing and slab on grade	4.01	cu.m
002 (1) a	Reinforcing Steel Work (Deformed)	156.00	kg
003 (1)	Forms and Falseworks	1.00	1a
MASONRY WORKS			
100 (1) 1	100 mm Thick CMU Non-load Bearing Wall including Reinforcing Steel Bar, Class "B" Mortar	30.00	sq.m
FABRICATED MATERIALS			
1005	Welded Wire Mesh Wall and other Accessories	1.00	sq.m
1006 (2)	Steel Floor and Frame	1.00	1a
PAINTING WORKS			
1032 (1) a	Painting Work (Steel)	1.00	1a
ROOF AND ROOF FRAMING WORKS			
1014 (1) 1	Pre-painted Metal Sheet Long Span and Other Bended Accessories	131.80	sq.m
1047 (1) a	Structural Steel (Steel Post, Trusses, Rafters, Purlins and other Supports)	100.00	sq.m
ELECTRICAL WORKS			
1100	Electrical Works	1.00	1a

THE SITE

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REPUBLIC OF THE PHILIPPINES
OFFICE OF THE BUILDING
OFFICIAL

DISTRICT/ CITY/ MUNICIPALITY

LAND USE & ZONING

LINE & GRADE

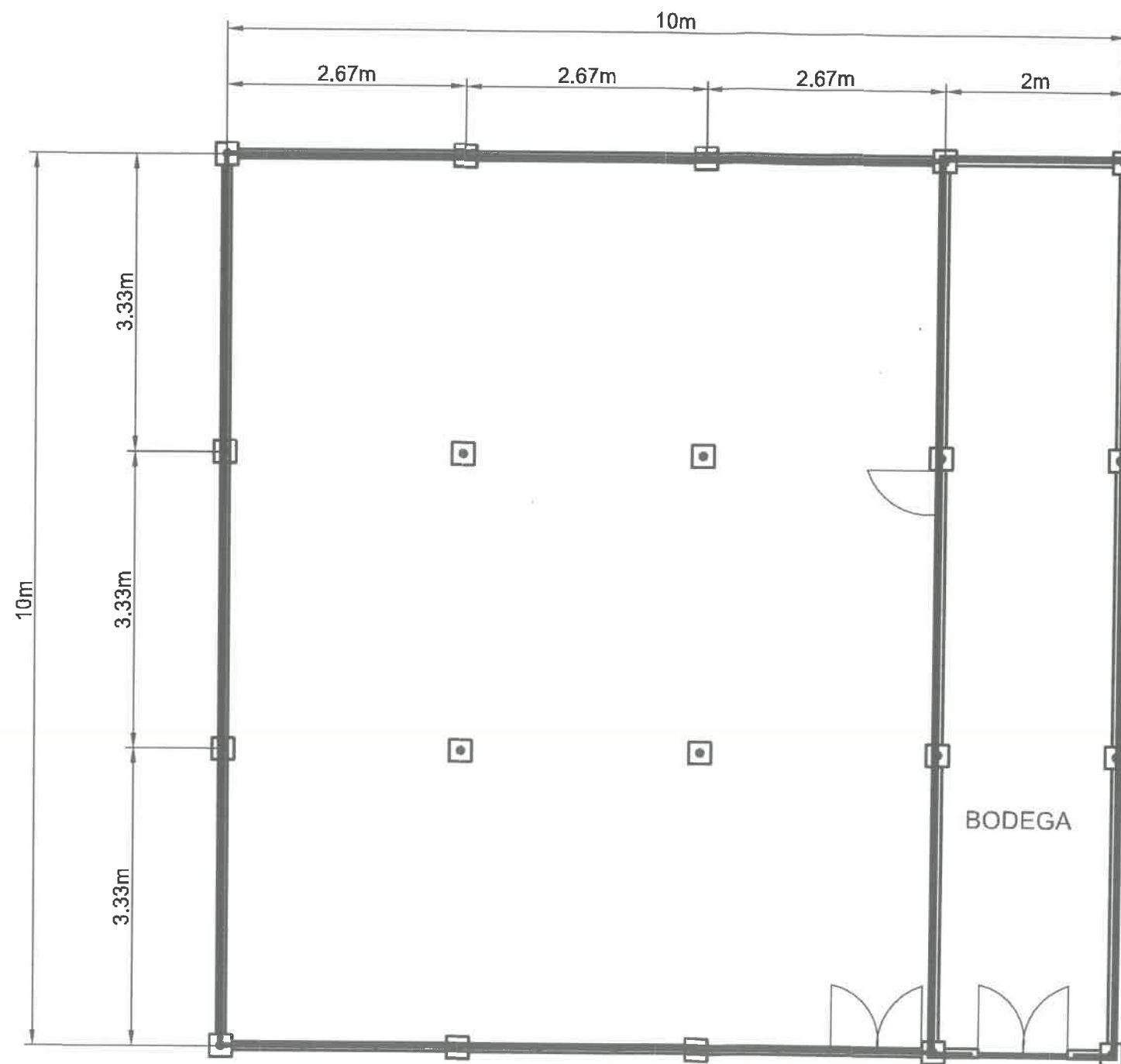
ARCHITECTURAL

STRUCTURAL

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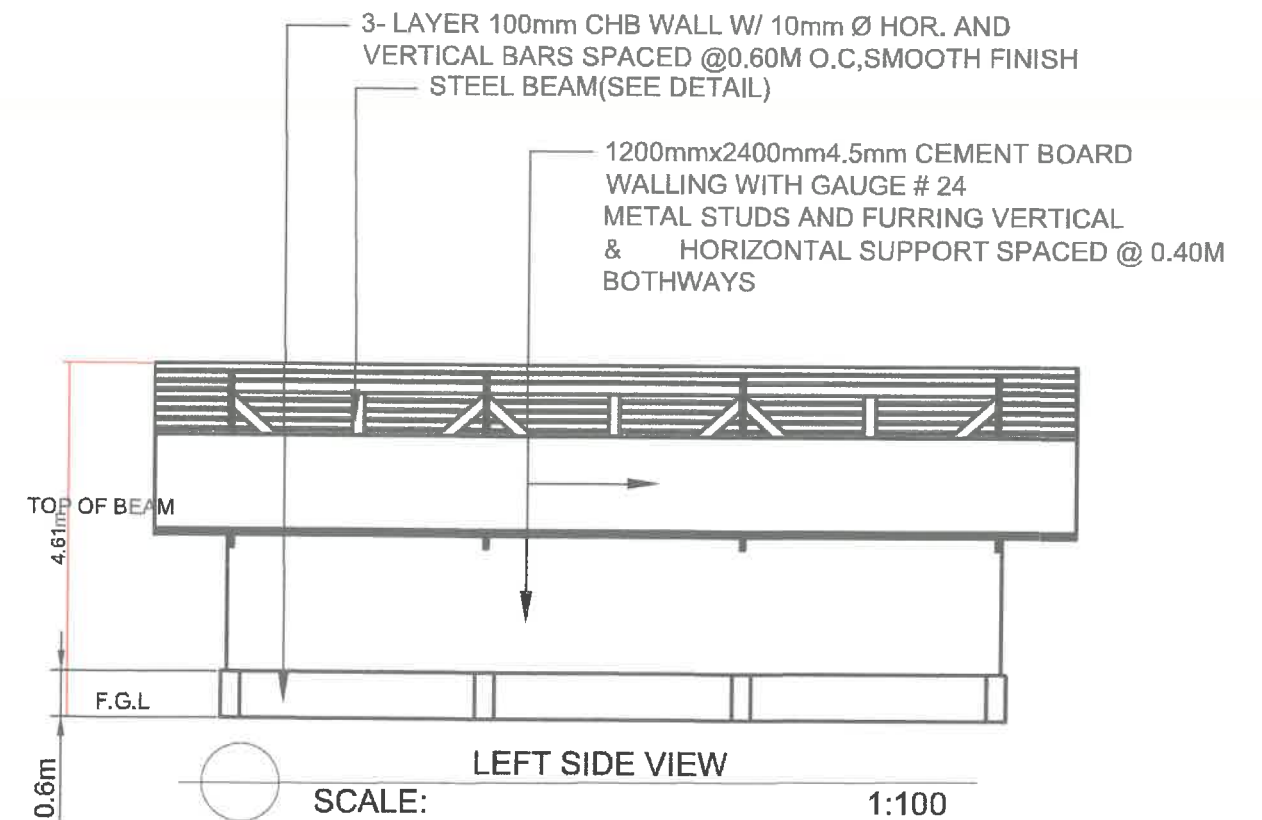
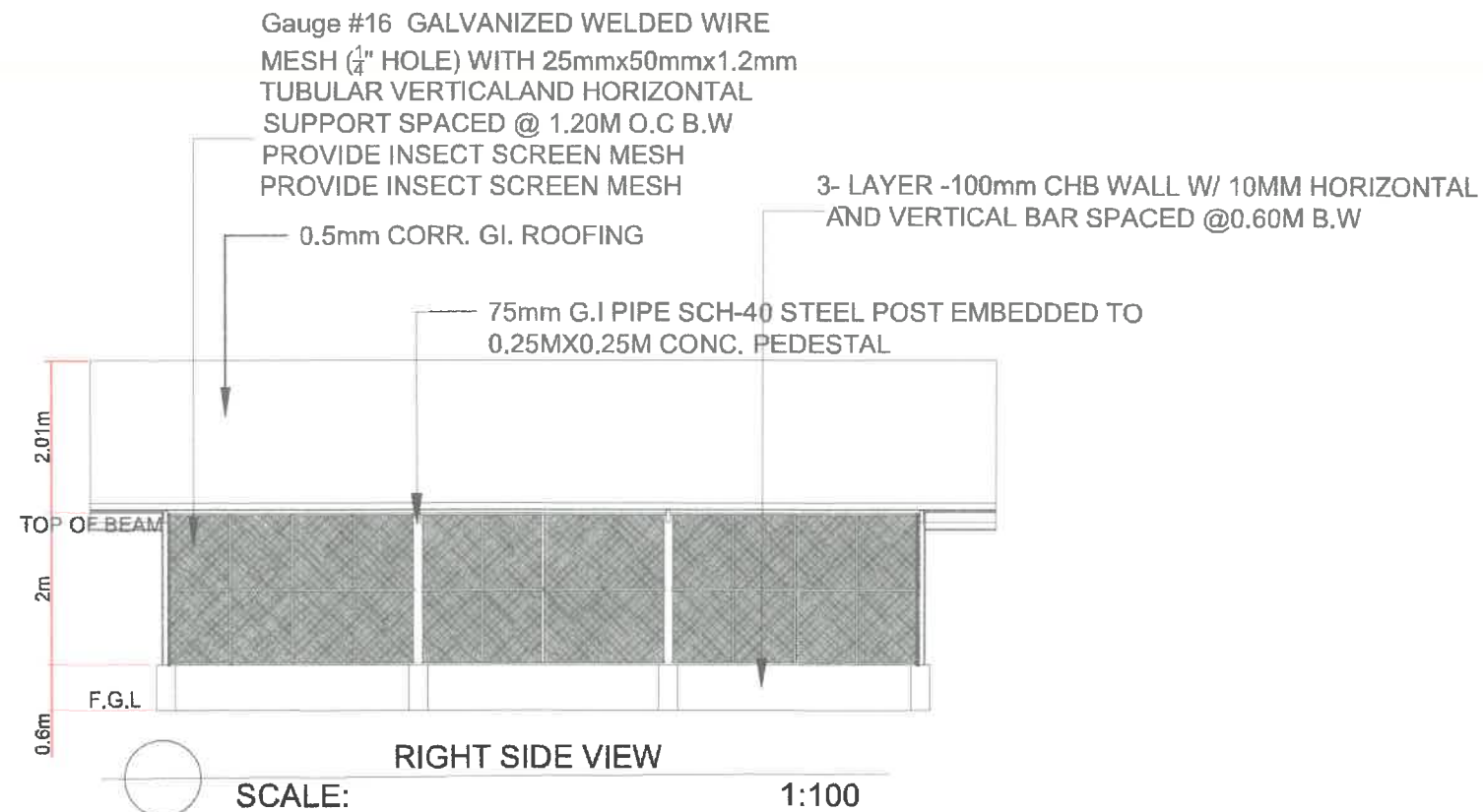
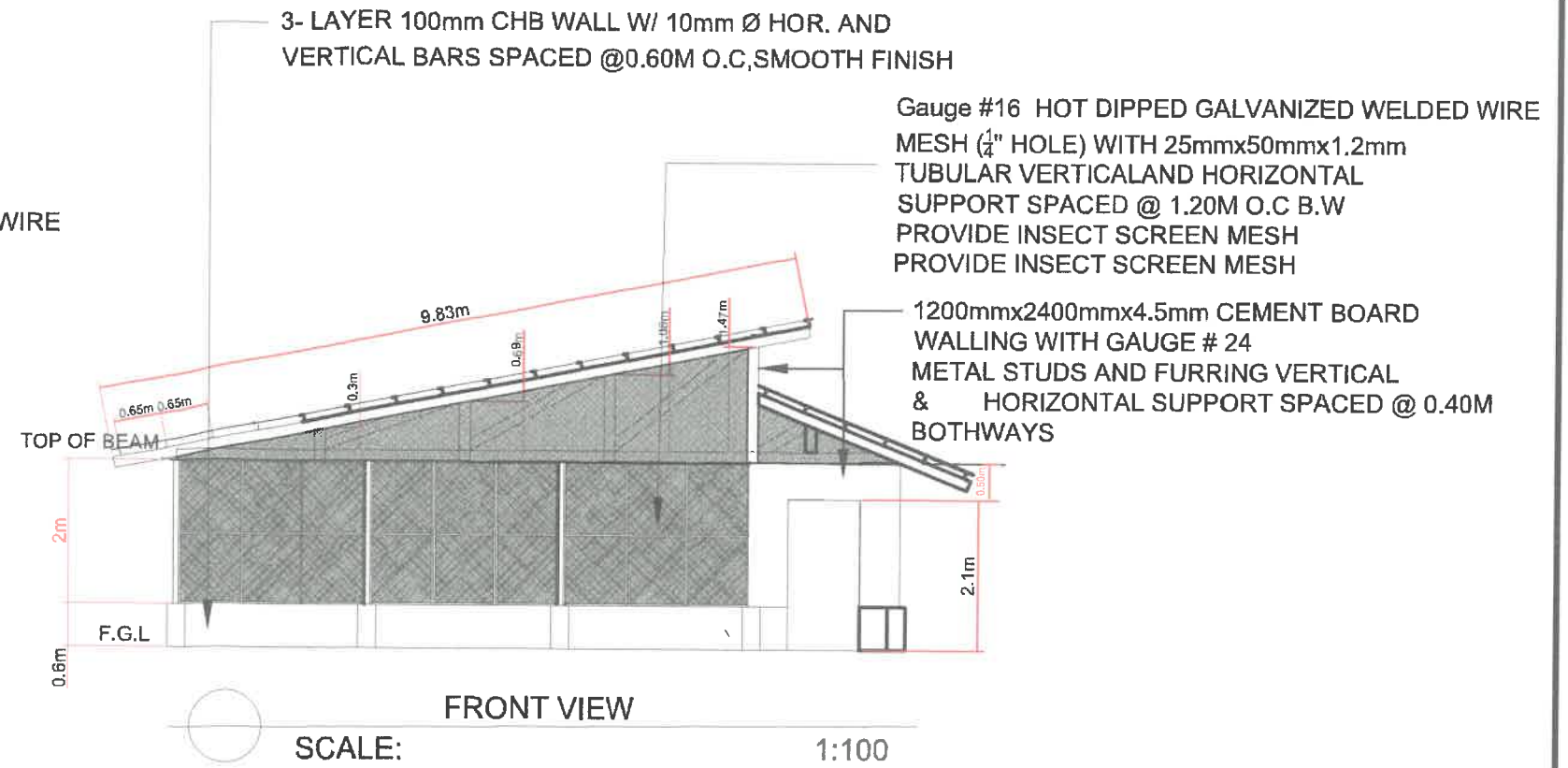
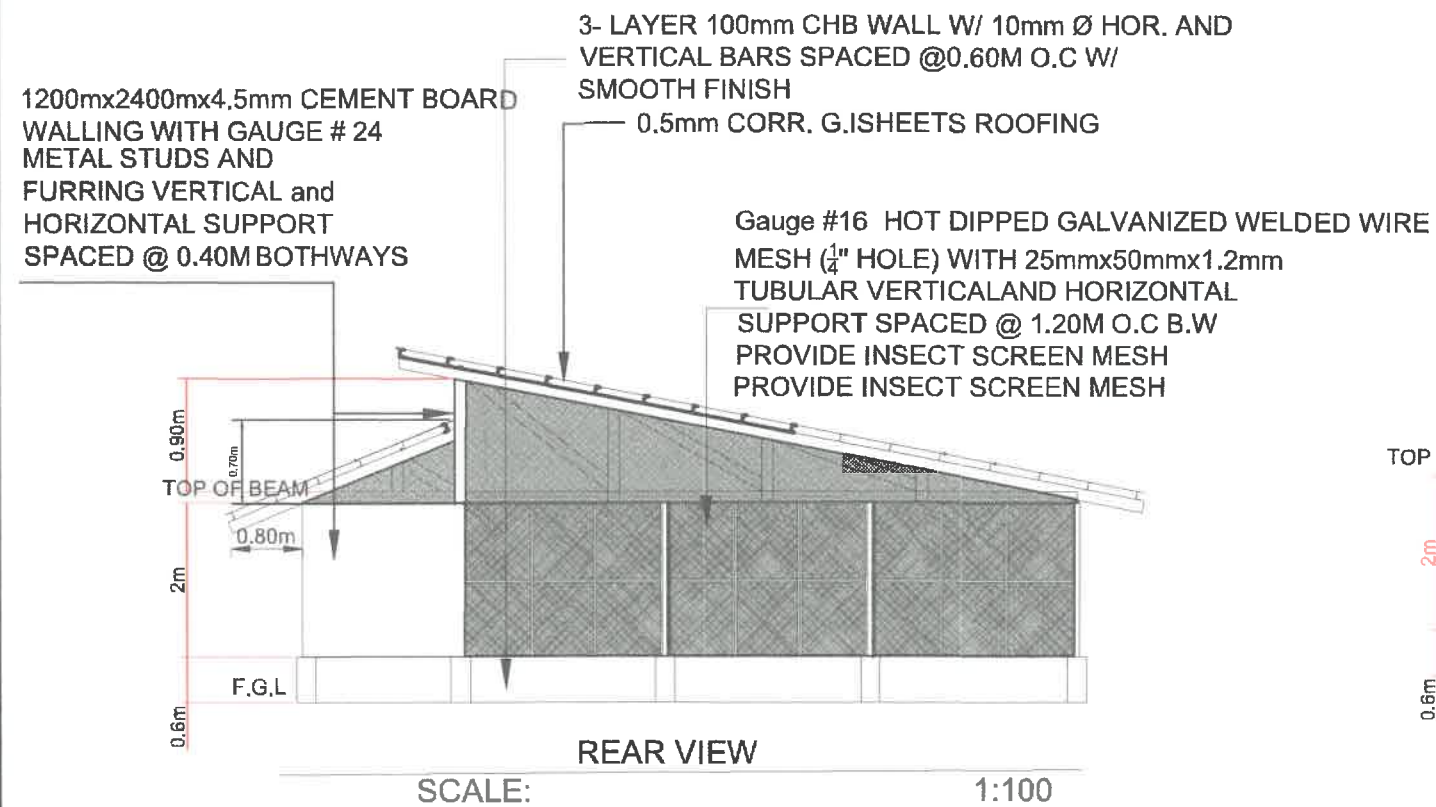
PLUMBING

IMPLEMENTING AGENCY: REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE WESTERN VISAYAS PAROLA, ILOILO CITY	PROJECT NAME & LOCATION: CONSTRUCTION OF NATIVE CHICKEN MULTIPLIER FARM (Breeder House) CAPSU - BRGY. CODINGLE, DUMARAO, CAPIZ PROJECT LOCATION	SHEET CONTENTS: AS SHOWN CAD BY: M.A. LOYOLA	PREPARED: JERRY B. GUANCO, ABE Engineer II (ABE NO. 0007285)	REVIEWED/SUBMITTED: YVONNE GRACE H. SUR, ABE Engineer III (ABE NO. 0005970) Head, ETDSS	CHECKED: MOISE D. MANA-AY, ABE, MEE Engineer V (ABE NO. 0005077) Chief, RAED	RECOMMENDED: ENGR. JOSE ALBERT A. BARROGO Regional Technical Director	APPROVED: DENNIS R. ARPIA Regional Executive Director	SHEET NO.: A 1 PAGE NO.: 1 8
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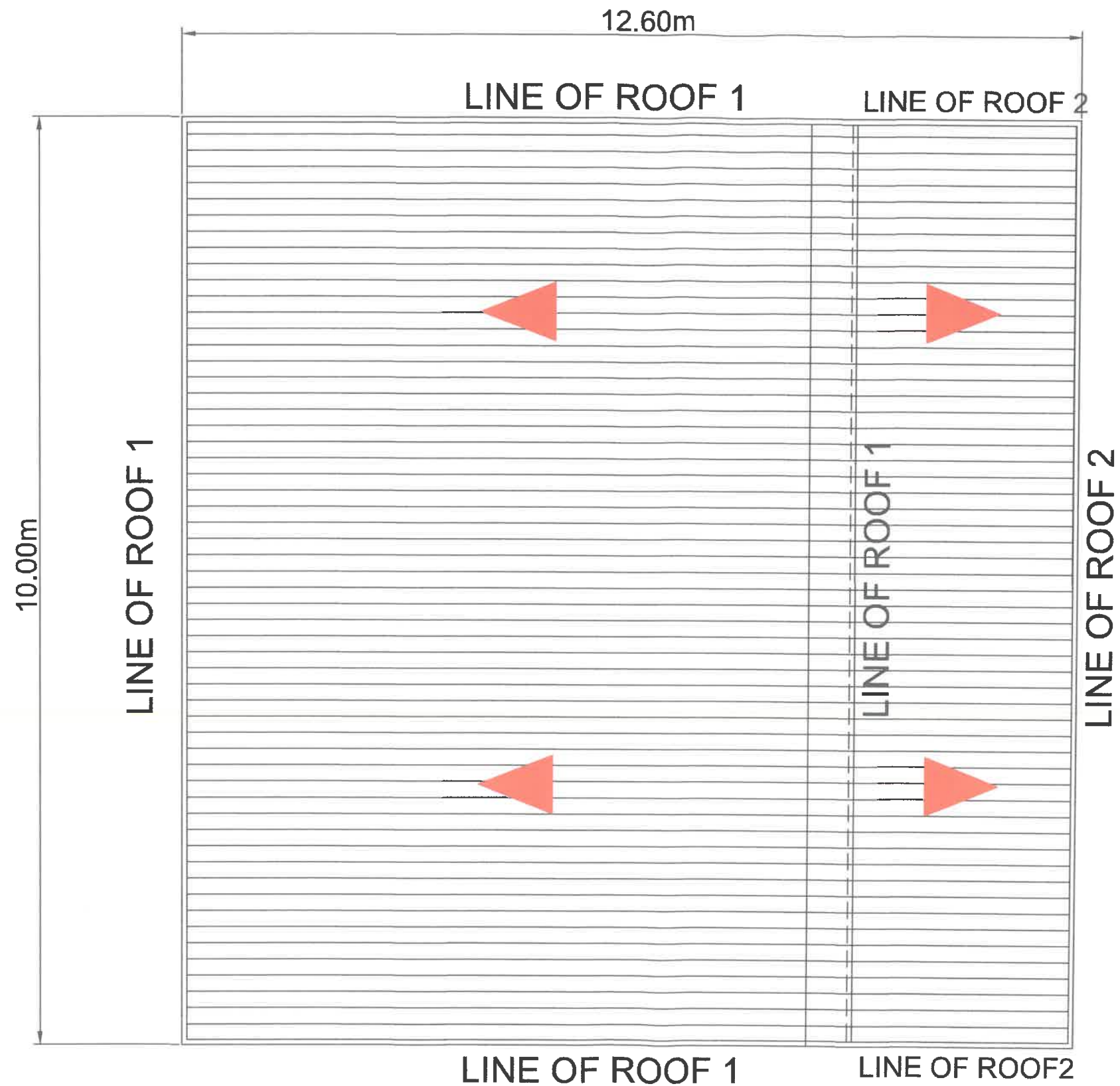


FLOOR PLAN
 SCALE: 1:30

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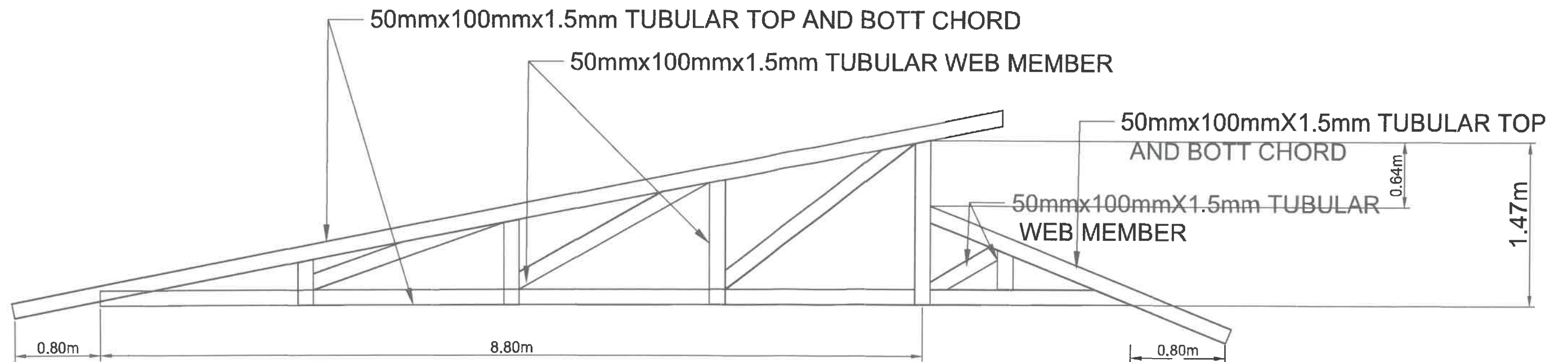
ROOF PLAN
SCALE: NTS

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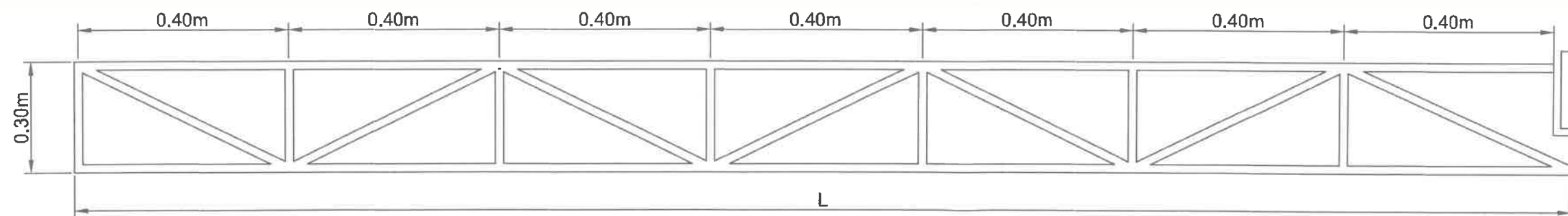


A= 20sq.m -100mm THICK
— SLAB ON GRADE
W/ 10mm Ø TEMP. BARS @
600mm BOTHWAYS
PROVIDE 75mm GRAVEL BEDDING











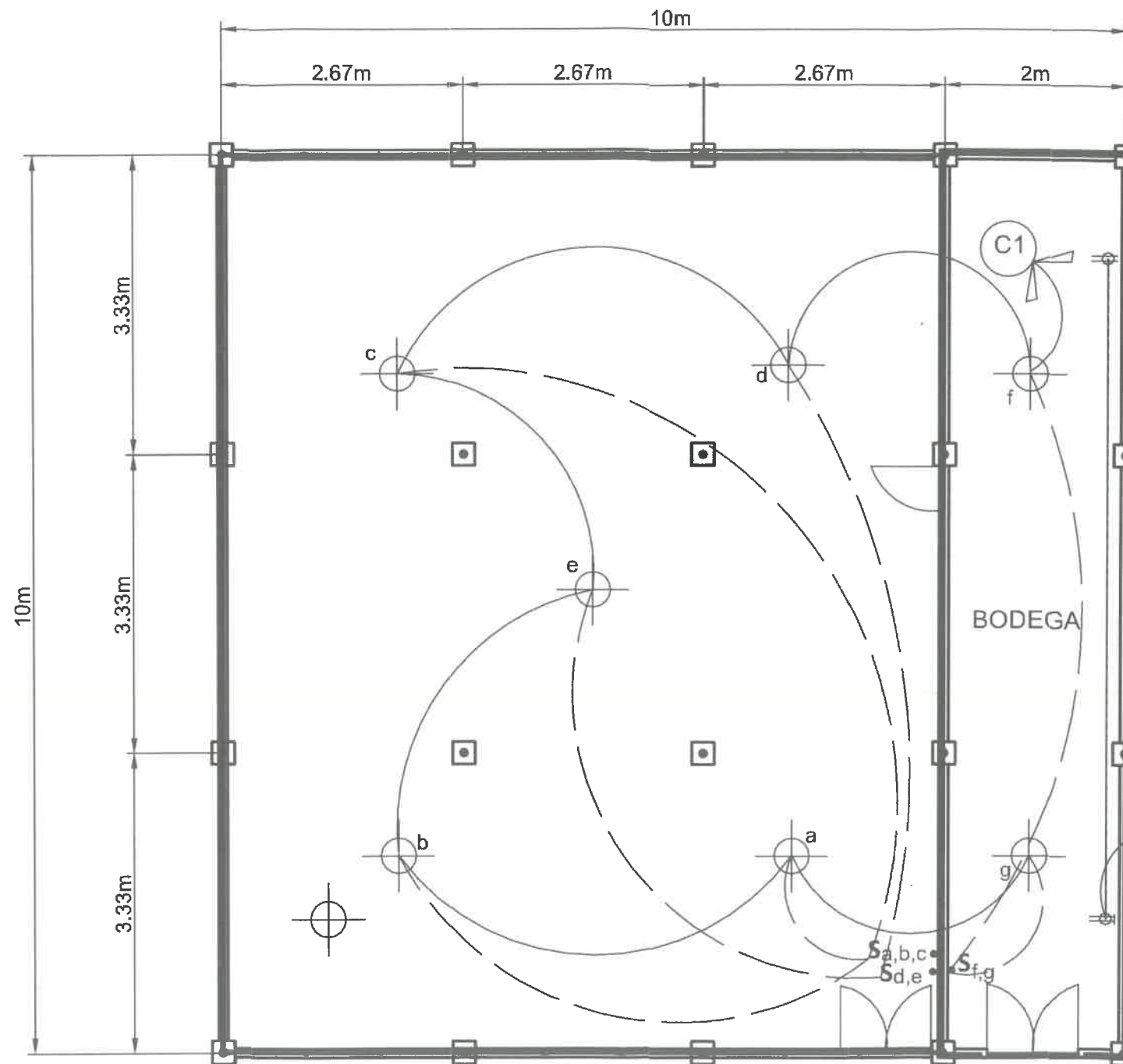
 **TRUSS-1**
SCALE



 **TYPICAL STEEL BEAM DETAIL**
SCALE NTS

NOTE: MATERIALS SPECIFICATIONS:
 TOP AND BOTTOM CHORD: 38.1mmx38.1mmX4.5mm Angle Bar
 WEB MEMBERS: 25mmx25mmx4.5mm Angle BAar

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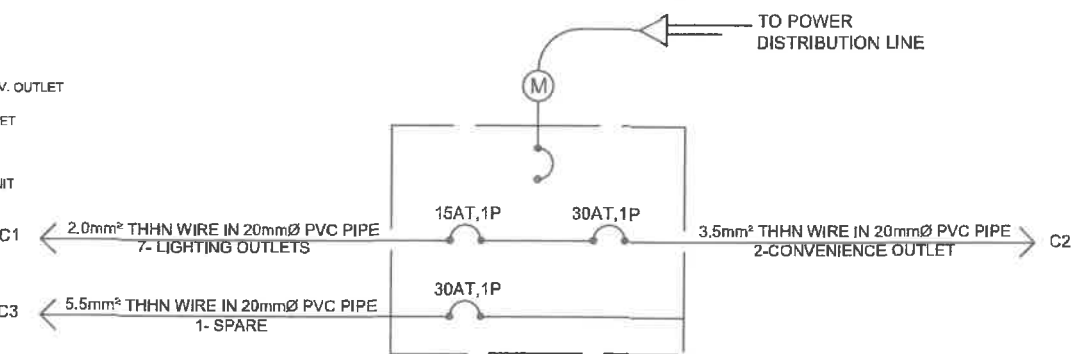


SCHEDULE OF LOADS FOR LPP

NO.	LOAD DESCRIPTION	VOLTAGE (V)	POWER (VA)	CURRENT (AMP)	CIRCUIT PROTECTION	SIZE OF WIRE AND CONDUIT
C1	7- LIGHTING OUTLETS	230	84	0.37	15AT, 1P	2.0mm ² THHN WIRE IN 20mmØ PVC PIPE
C2	2- CONVENIENCE OUTLETS	230	400	1.74	30AT, 1P	3.5mm ² THHN WIRE IN 20mmØ PVC PIPE
C3	SPARE	230	1500	6.52	30AT, 1P	5.5mm ² THHN WIRE IN 20mmØ PVC PIPE
TOTAL CONNECTED LOAD			4984	8.63	40AT, 1P	

LEGEND:

- CEILING LIGHT
- WALL LIGHT
- CONV. OUTLET
- WEATHER-PROOF CONV. OUTLET
- REFRIGERATOR OUTLET
- RANGE OUTLET
- AIR-CONDITIONING UNIT OUTLET
- PANEL BOARD
- LED STRIP LIGHT
- CIRCUIT HOMERUN
- SINGLE SWITCH
- TWO GANG SWITCH
- THREE GANG SWITCH
- THREE-WAY SWITCH
- GROUNDING



GROUNDING
SINGLE LINE DIAGRAM

DESIGN ANALYSIS

- CIRCUIT 1**
LOAD: 10-12W (MAX.)
 $I = 12W(7) / (230) = 0.37A$
USE: 15 AT, 1P, 240V CIRCUIT BREAKER
2.0mm² THHN COPPER WIRE
IN 20mmØ UPVC PIPE
- CIRCUIT 2**
LOAD: 2-200W (MAX.)
 $I = 200W(2) / (230) = 1.74A$
USE: 30 AT, 1P, 240V CIRCUIT BREAKER
3.5mm² THHN COPPER WIRE
IN 20mmØ UPVC PIPE
- CIRCUIT 3**
LOAD: 1-1500W (MAX.), SPARE
 $I = 1500W(1) / (230) = 6.52A$
30AT, 1P, 240V CIRCUIT BREAKER
5.5mm² THHN COPPER WIRE
IN 25mmØ UPVC PIPE
- TOTAL CONNECTED LOAD**
 $I/L = 4984/220 = 22.65A$
USE: 40AT/50AF, 2P, 240V CIRCUIT BREAKER
FEEDER SIZE: 8.0mm² THHN/THWN COPPER WIRE
CONDUIT SIZE: 25mmØ UPVC PIPE

SPECIFICATIONS:

- ALL ELECTRICAL WORKS HEREIN SHALL BE DONE IN ACCORDANCE WITH LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE (PEC) WITH THE RULES AND REGULATIONS OF THE NATIONAL BUILDING CODE AND LOCAL AUTHORITIES CONCERNED.
- THE TYPE OF ELECTRICAL INSTALLATION HEREIN SHALL BE SINGLE PHASE, 220V, 60Hz.
- SIZE OF SERVICE ENTRANCE CONDUCTORS FOR LPP SHALL BE _____ THW WIRE IN _____ RSC PIPE.
- SIZE OF MAIN SERVICE EQUIPMENT FOR LPP SHALL BE _____, 1P CIRCUIT BREAKER.
- WIRING INSTALLATION SHALL BE DONE IN PVC CONDUIT FOR LIGHTINGS AND SYSTEMS THAT ARE EMBEDDED IN CONCRETE WALLS.
- ALL ELECTRICAL WORKS HEREIN SHALL BE DONE BY LICENSED ELECTRICAL PRACTITIONER OR NON-LICENSED ELECTRICAL PRACTITIONER UNDER THE SUPERVISION OF A LICENSED ELECTRICAL PRACTITIONER.

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