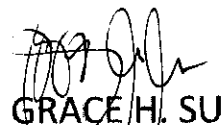


REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
WESTERN VISAYAS
PAROLA, ILOILO CITY

DETAILED ENGINEERING DESIGN PLANS
CONSTRUCTION OF FRUITS AND VEGETABLES
PROCESSING FACILITY

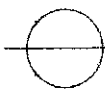
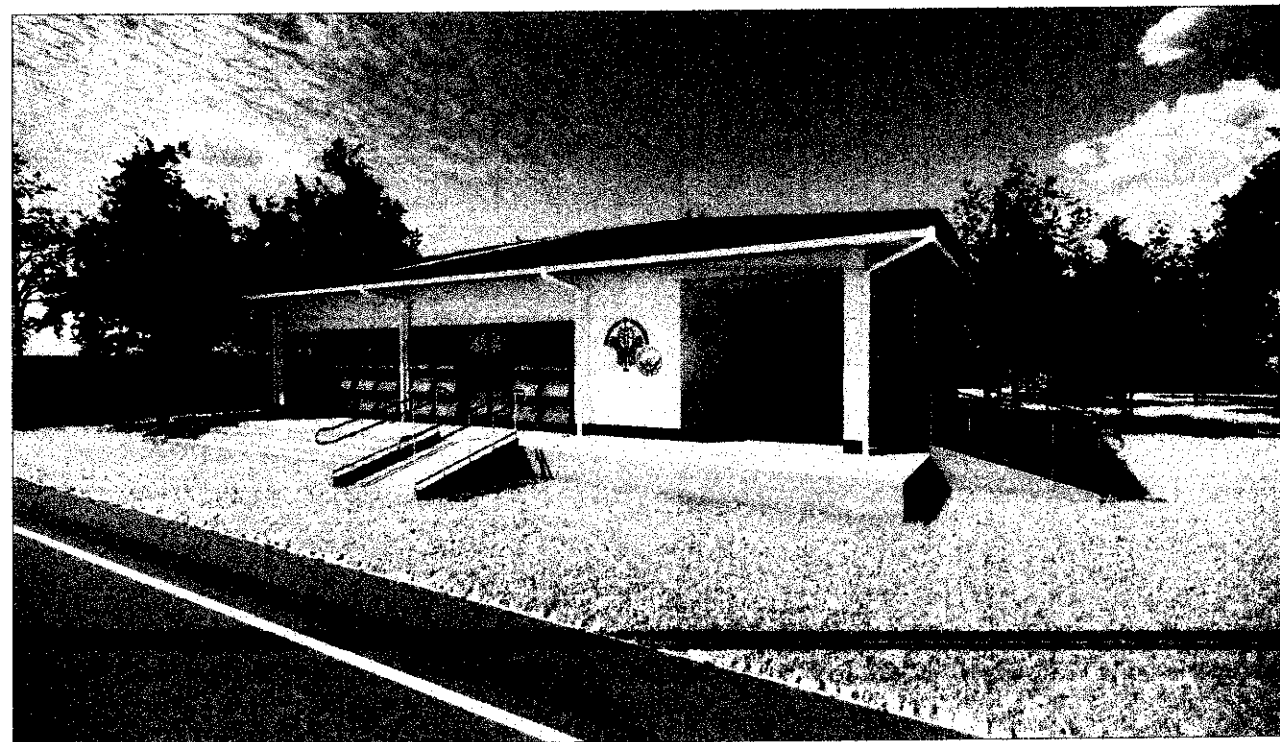
BRGY. NALOOK, KALIBO, AKLAN
(HVCDP 2023)


FRANCIS AMBO L. RAGA-AS, CE,MP
Technical Staff (CE NO. 0181539)


YVONNE GRACE H. SUR, ABE
Engineer III (ABE NO. 0005970)
Head, Engineering Plans, Designs, and
Specifications Section


MOISES D. MANA-AY, ABE, MEE
Engineer IV (ABE NO. 0006077)
OIC- Division Chief, RAED


DOMINADOR A. MARQUEZ
OIC- RTD for Operations and Extension



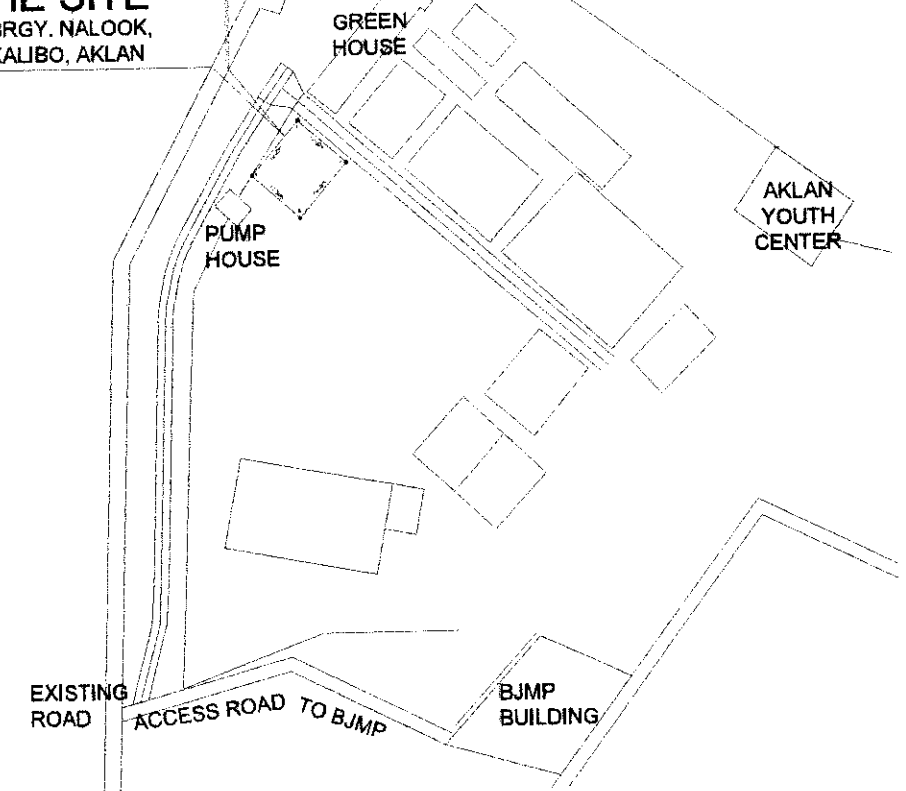
PERSPECTIVE
SCALE: NTS

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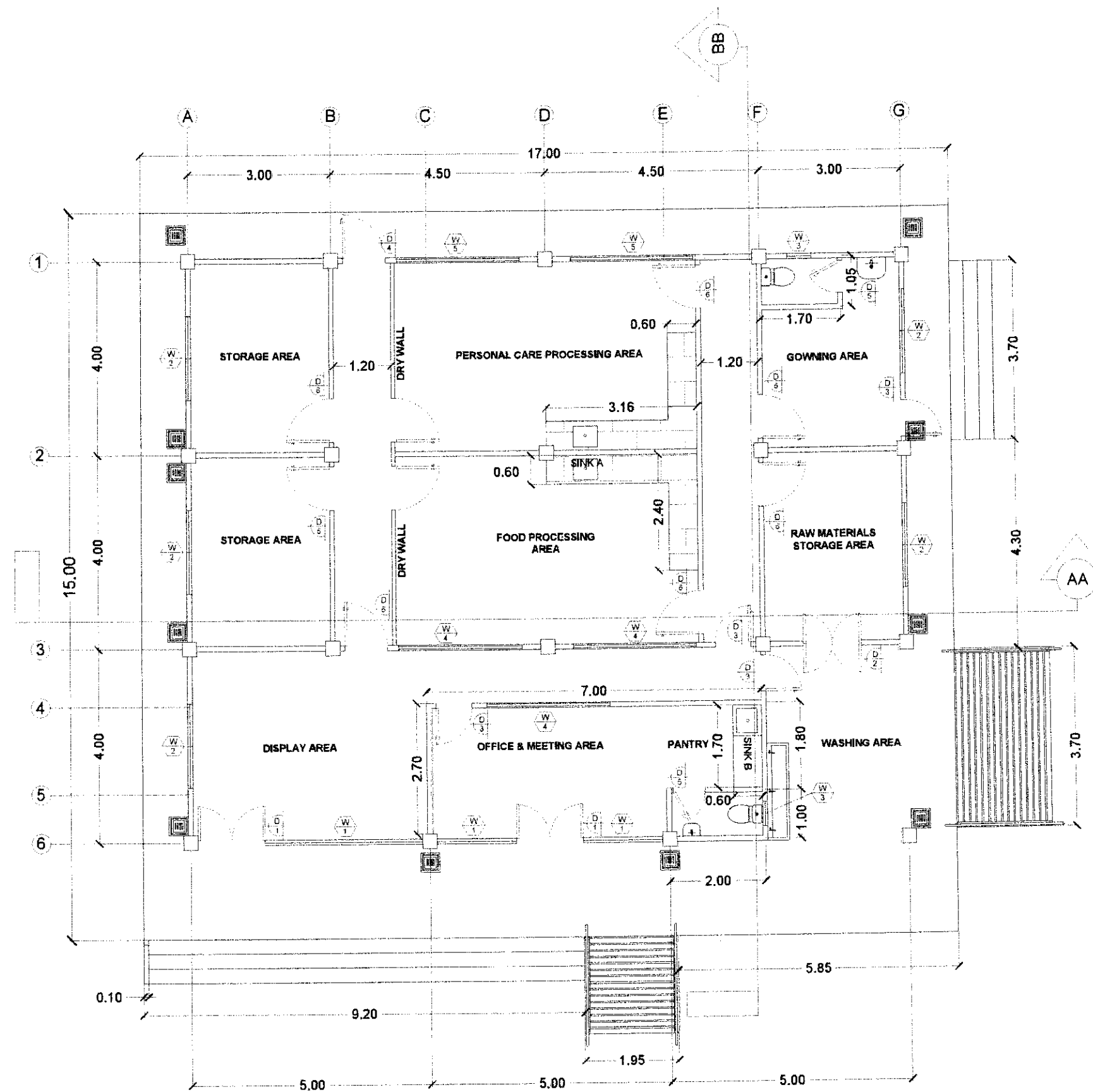
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PROJECT SIGNBOARD AND MARKER	17/17

Item No.	Scope of Works	Qty	Unit
I. OTHER GENERAL REQUIREMENTS			
1.0	TEMPORARY FACILITY	1.00	lot
B.5	PROJECT SIGNBOARD, COA BILLBOARD and DA- WESTERN VISAYAS LOGO	1.00	lot
B.7(2)	OCCUPATIONAL SAFETY AND HEALTH	1.00	lot
B.9	MOBILIZATION/DEMOBILIZATION	1.00	lot
B.3	PERMITS AND LICENSES	1.00	lot
II. SITE WORKS			
800	SITE CLEARING and GRUBBING	303.69	sq.m.
III. EARTHWORKS			
803a	STRUCTURE EXCAVATION	51.10	cu.m.
804	STRUCTURAL BACKFILL AND EMBANKMENT	119.06	cu.m.
IV. PLAIN AND REINFORCED CONCRETE WORKS			
900(1)a	STRUCTURAL CONCRETE (Footings)	12.02	cu.m.
900(1)b	STRUCTURAL CONCRETE (Columns)	8.30	cu.m.
900(1)c	STRUCTURAL CONCRETE (Beams)	23.01	cu.m.
900(1)d	CONCRETE WORKS (Slab on Grade, Lavatory-Class "B" Stairs and Ramp)	29.12	cu.m.
900(1)e	LEVELLING COURSE	28.60	cu.m.
902(1)a	REINFORCING STEEL BAR (DEFORMED)	5266.00	kg
903(2)a	FORMS AND SCAFFOLDING (FALSE WORK)	339.66	sq.m.
V. MASONRY WORKS			
1027(1)	CEMENT PLASTER FINISH	610.29	sq.m.
1046(2)	CHB (Including Reinforcing Steel)	289.76	sq.m.
VI. FABRICATED MATERIALS			
1008(1)	WINDOWS	1.00	lot
1010	DOOR	1.00	lot
VII. PAINTING WORKS			
1032(1)a	PAINTINGS (Concrete structures including Polyurethane floor finish)	601.87	sq.m.
1032(1)b	PAINTINGS (Steel)	271.30	sq.m.
VIII. ROOF AND ROOF FRAMING WORKS			
1003(1)a1	CEILING WORKS	246.30	sq.m.
1047	Structural Steel (Roof framing and Hand Rails)	251.54	sq.m.
1014(1)b1	Pre-Painted Metal Sheets, longspan and other banded Accessories	251.54	sq.m.
IX. ELECTRICAL WORKS			
1100	ELECTRICAL	1.00	lot
X. PLUMBING/ SANITARY WORKS			
1002	PLUMBING	1.00	lot
XI. SEPTIC TANK			
1001(11)	SEPTIC TANK (CHB WITH REINFORCING BARS)	1.00	lot
1018	TILE WORKS	1.00	lot
XII. CARPENTRY WORKS			
1003(2)a1	CARPENTRY AND JOINERY WORKS	42.66	sq.m.
1035	NON-STRUCTURAL METAL FRAMING	119.90	m

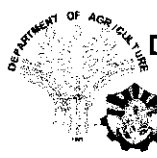

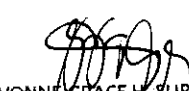


THE SITE
BRGY. NALOOK,
KALIBO, AKLAN

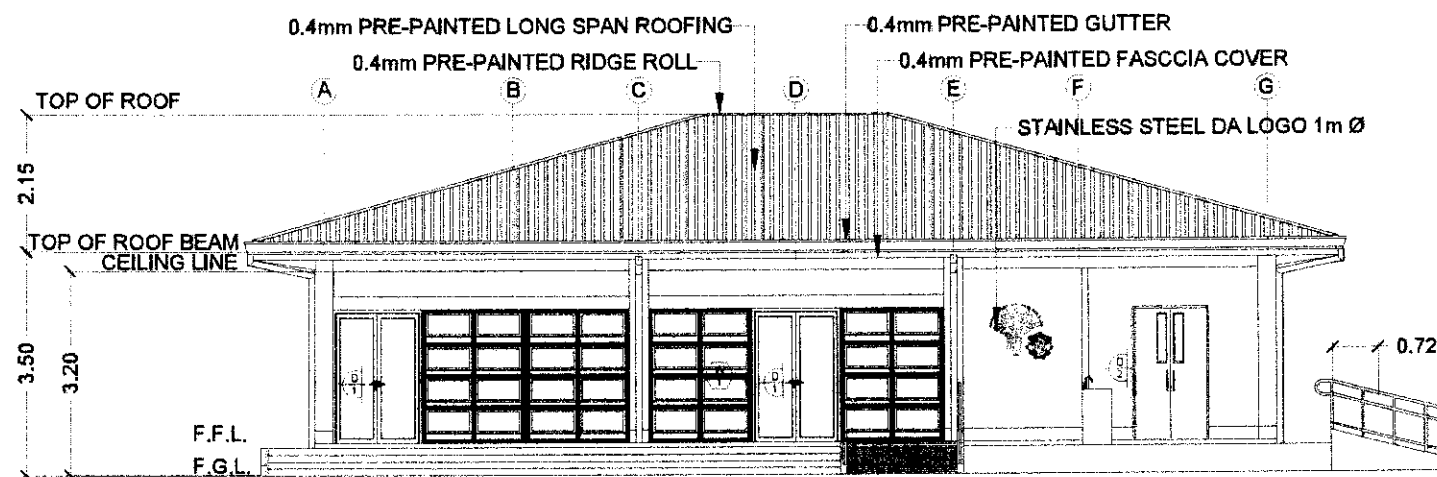


SITE DEVELOPMENT PLAN
SCALE: NTS

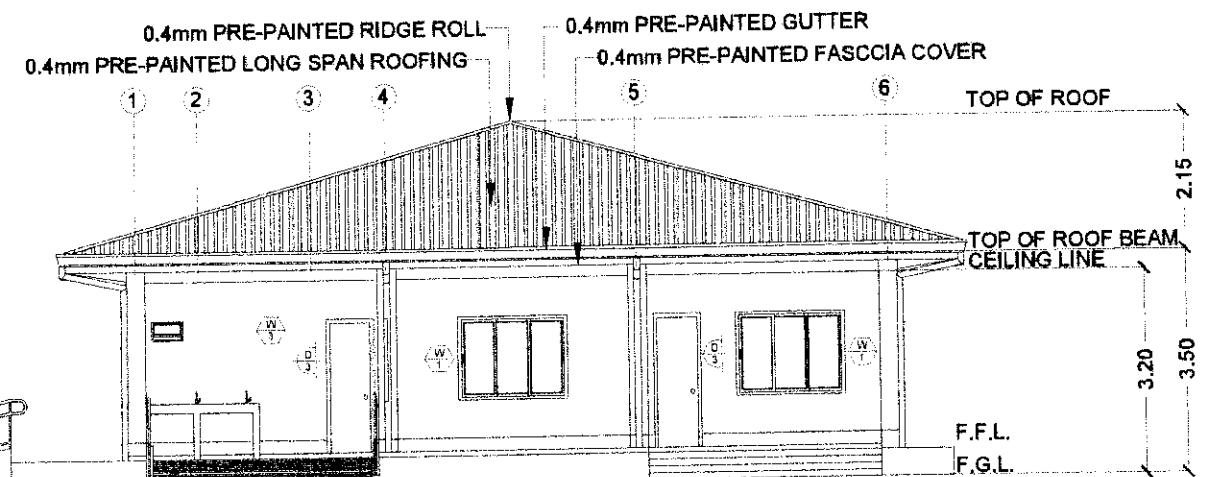


1
A-2 FLOOR PLAN
SCALE: 1:100 M.

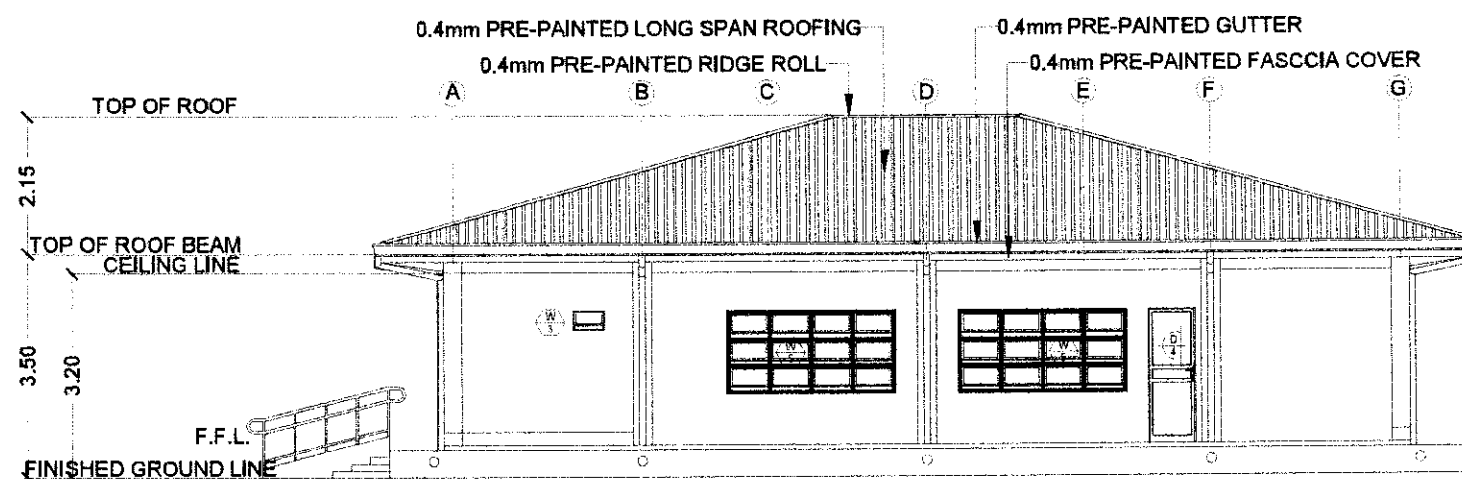
IMPLEMENTING AGENCY:  REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE WESTERN VISAYAS PAROLA, ILOILO CITY	PROJECT NAME & LOCATION: FRUITS AND VEGETABLES PROCESSING FACILITY BRGY. NALOOK, KALIBO, Aklan	SHEET CONTENTS: FLOOR PLAN	PREPARED:  FRANCIS AMRO L. RAGA-AS, CE, MP Technical Staff (CE NO. 0181539)	REVIEWED/SUBMITTED:  YVONNE GRACE H. SUR, ABE Engineer III (ABE NO. 0005970) Head, Engineering Plans, Designs, and Specifications Section	RECOMMENDED:  MOISES D. MANA-AY, ABE, MEE Engineer IV (ABE NO. 0004072) OIC- Division Chief, RAES	APPROVED BY:  DOMINADOR A. MARQUEZ OIC- RTD for Operations and Extension	SHEET NO. A 2 PAGE NO.: 2 17
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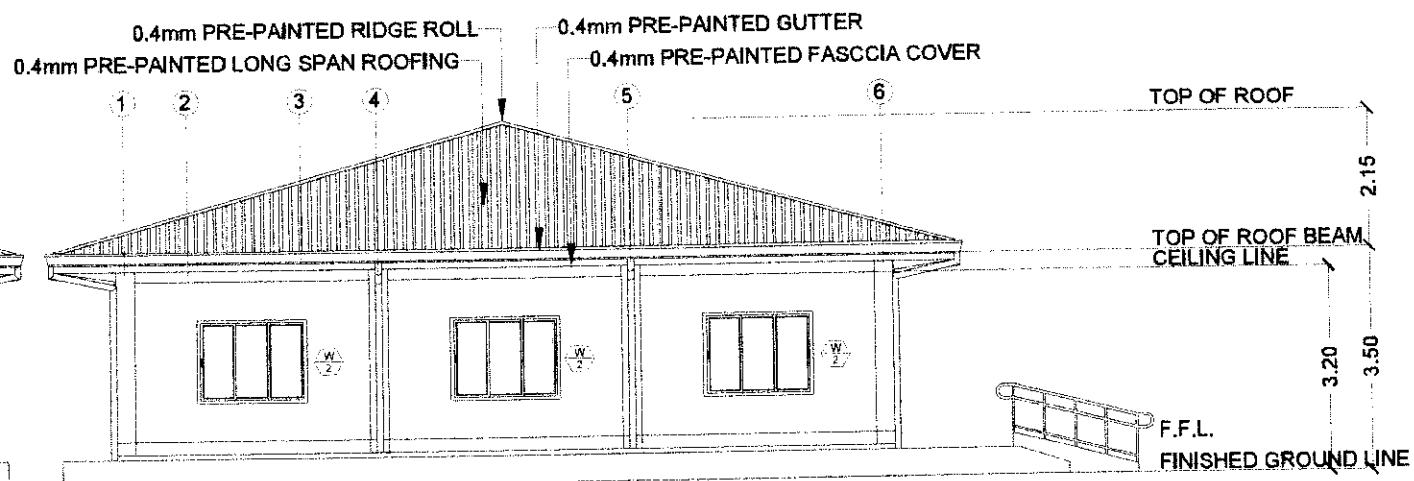
1 FRONT ELEVATION
A-3 SCALE: 1:120 M.



2 RIGHT ELEVATION
A-3 SCALE: 1:120 M.

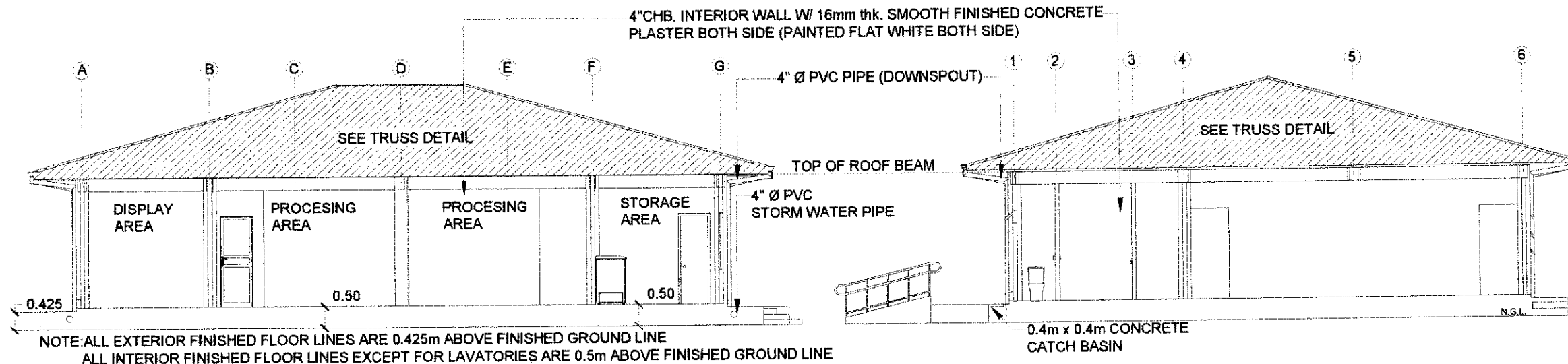


3 REAR ELEVATION
A-3 SCALE: 1:120 M.



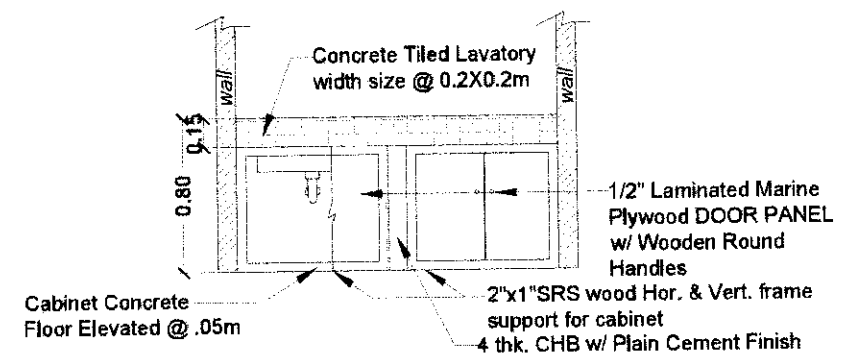
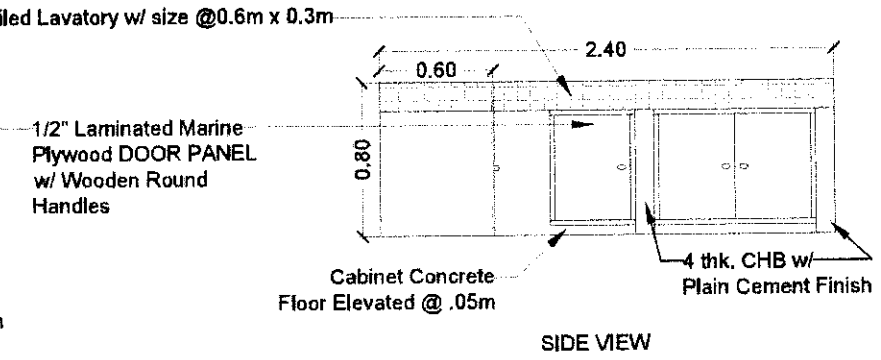
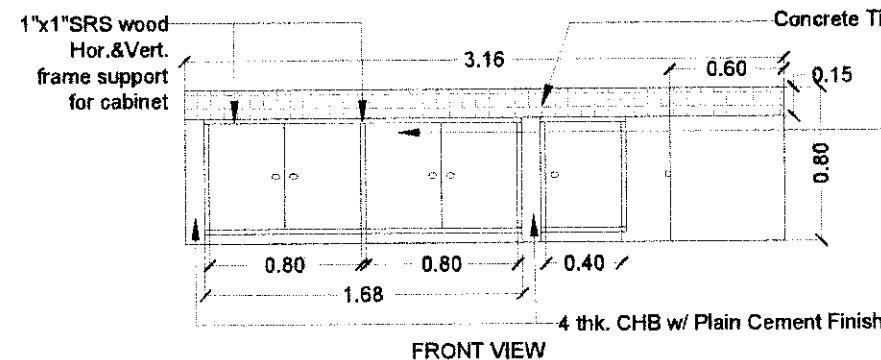
4 LEFT ELEVATION
A-3 SCALE: 1:120 M.

IMPLEMENTING AGENCY: DEPARTMENT OF AGRICULTURE REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE WESTERN VISAYAS PAROLA, ILOILO CITY	PROJECT NAME & LOCATION: FRUITS AND VEGETABLES PROCESSING FACILITY BRGY. NALOOK KALIBO, AKLAN	SHEET CONTENTS: ELEVATIONS	PREPARED: FRANCIS AMRO L. RAGA-AS, CE, MP Technical Staff (CE NO. 0181539)	REVIEWED/SUBMITTED: YVONNE GRACE H. SUR, ABE Engineer III (ABE NO. 00059761) Head, Engineering Plans, Designs, and Specifications Section	RECOMMENDED: MOISES D. MANA-AY, ABE, MEE Engineer IV (ABE NO. 0003077) OIC - Division Chief, RAES	APPROVED BY: DOMINADO A. MARQUEZ OIC - RTD for Operations and Extension	SHEET NO.: A 3 PAGE NO.: 3 17
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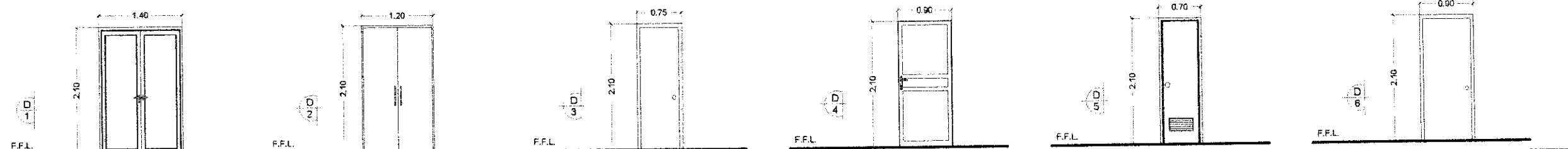
1 LONGITUDINAL SECTION THRU "AA"
A-4 SCALE: 1:120 M.

2 LONGITUDINAL SECTION THRU "BB"
A-4 SCALE: 1:120 M.

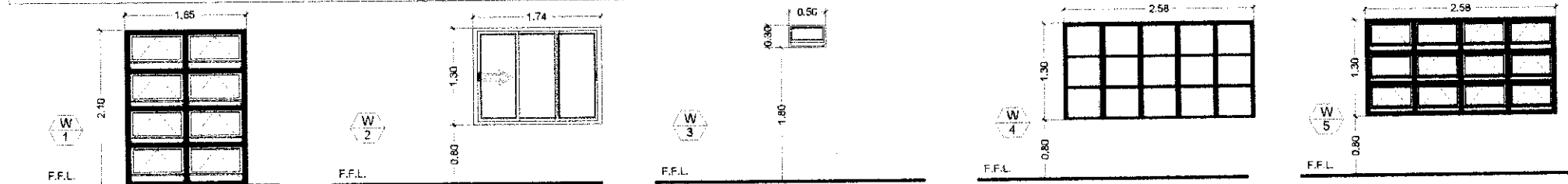


3 SINK "A" AND CABINET DETAIL
A-4 SCALE: 1:40 M.

4 SINK "B" AND CABINET DETAIL
A-4 SCALE: 1:40 M.

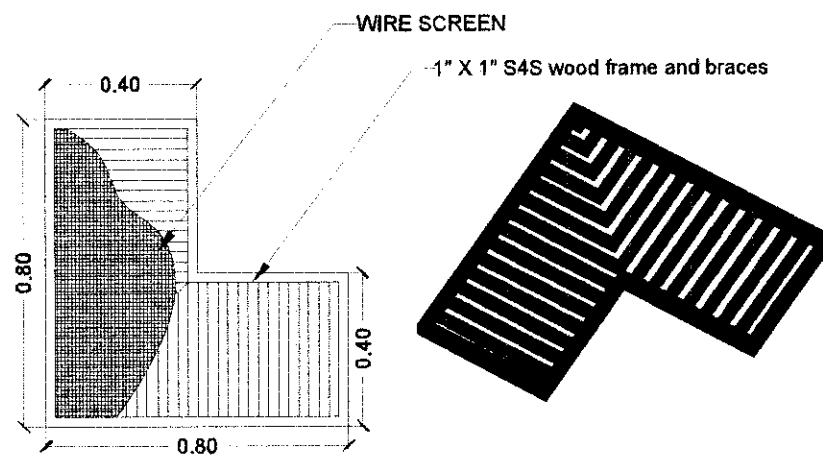


FF1					FF1					FF1					FF1					FF1									
NO.	QUANTITY	DESCRIPTION	SIZE	MATERIALS	NO.	QUANTITY	DESCRIPTION	SIZE	MATERIALS	NO.	QUANTITY	DESCRIPTION	SIZE	MATERIALS	NO.	QUANTITY	DESCRIPTION	SIZE	MATERIALS	NO.	QUANTITY	DESCRIPTION	SIZE	MATERIALS					
D1	2	DOUBLE SWING DOOR	1.4m x 2.1m	ALUMINUM FRAME GLASS DOOR	D2	1	DOUBLE SWING DOOR	1.2m x 2.1m	WOOD PANEL FLUSH DOOR	D3	4	SWING DOOR	0.75m x 2.1m	WOOD PANEL FLUSH DOOR	D4	1	SWING DOOR	0.9m x 2.1m	ALUMINUM PANEL DOOR	D5	2	SWING DOOR	0.70m x 2.1m	UPVC DOOR AND JAMB	D6	9	SWING DOOR	0.9m x 2.1m	WOOD PANEL FLUSH DOOR
LOCATION: OFFICE AND DISPLAY AREA					LOCATION: RAW MATERIALS STORAGE AREA					LOCATION: OFFICE, GOWNING AND PROCESSING AREA					LOCATION: PROCESSING AREA					LOCATION: TOILET AND LOCKER ROOM					LOCATION: PROCESSING, STORAGE AND GOWNING AREA				

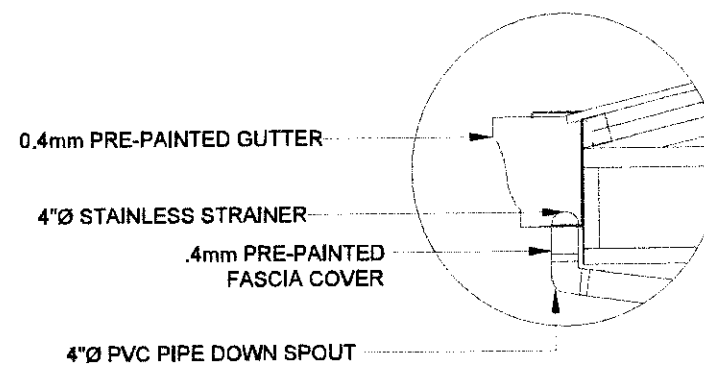


NO.	QUANTITY	DESCRIPTION	SIZE	MATERIALS	NO.	QUANTITY	DESCRIPTION	SIZE	MATERIALS	NO.	QUANTITY	DESCRIPTION	SIZE	MATERIALS	NO.	QUANTITY	DESCRIPTION	SIZE	MATERIALS	NO.	QUANTITY	DESCRIPTION	SIZE	MATERIALS
W1	4	AWNING WINDOW (OPENED)	1.65m x 2.1m	8mm thk. CLEAR GLASS W/ ALUMINUM FRAME	W2	5	SLIDING WINDOW	1.74m x 1.3m	8mm thk. CLEAR GLASS W/ ALUMINUM FRAME	W3	2	AWNING WINDOW	0.5X0.3	8mm thk. CLEAR GLASS W/ ALUMINUM FRAME	W4	3	FIXED WINDOW	2.58m x 1.3m	8mm thk. GLASS W/ ALUMINUM FRAME	W5	2	AWNING WINDOW (OPENED)	2.58m x 1.3m	8mm thk. GLASS W/ ALUMINUM FRAME
LOCATION: OFFICE AND DISPLAY AREA					LOCATION: STORAGE, GOWNING AND DISPLAY AREA					LOCATION: STORAGE, GOWNING AND DISPLAY AREA					LOCATION: PROCESSING AREA, OFFICE					LOCATION: PROCESSING AREA				

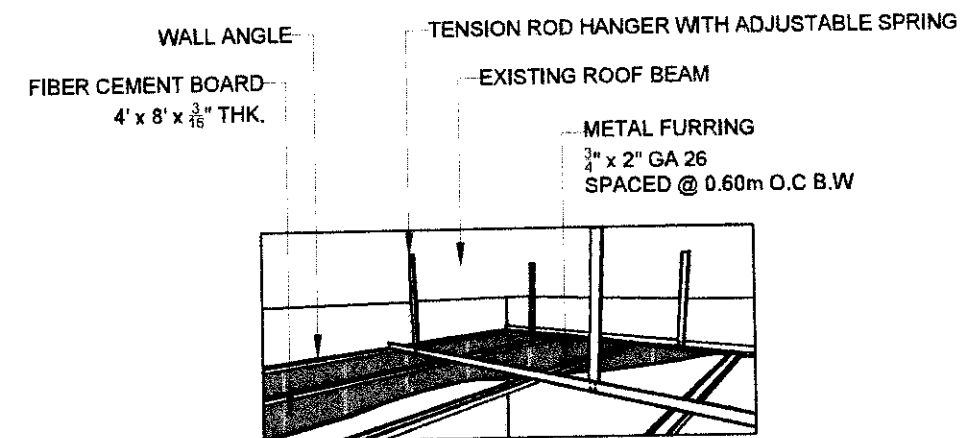
5 SCHEDULE OF DOORS AND WINDOWS
A-4 SCALE: 1:80 M.



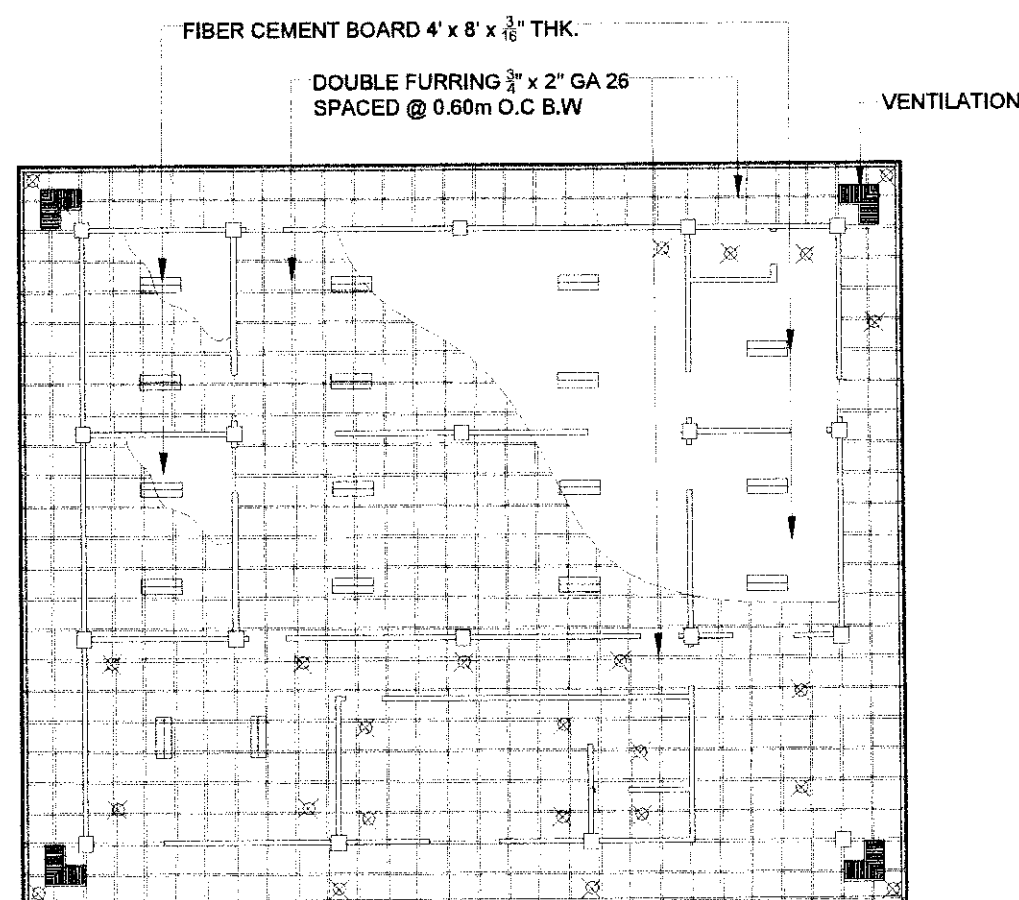
1
A-5
AIR VENTILATION
SCALE: 1:20



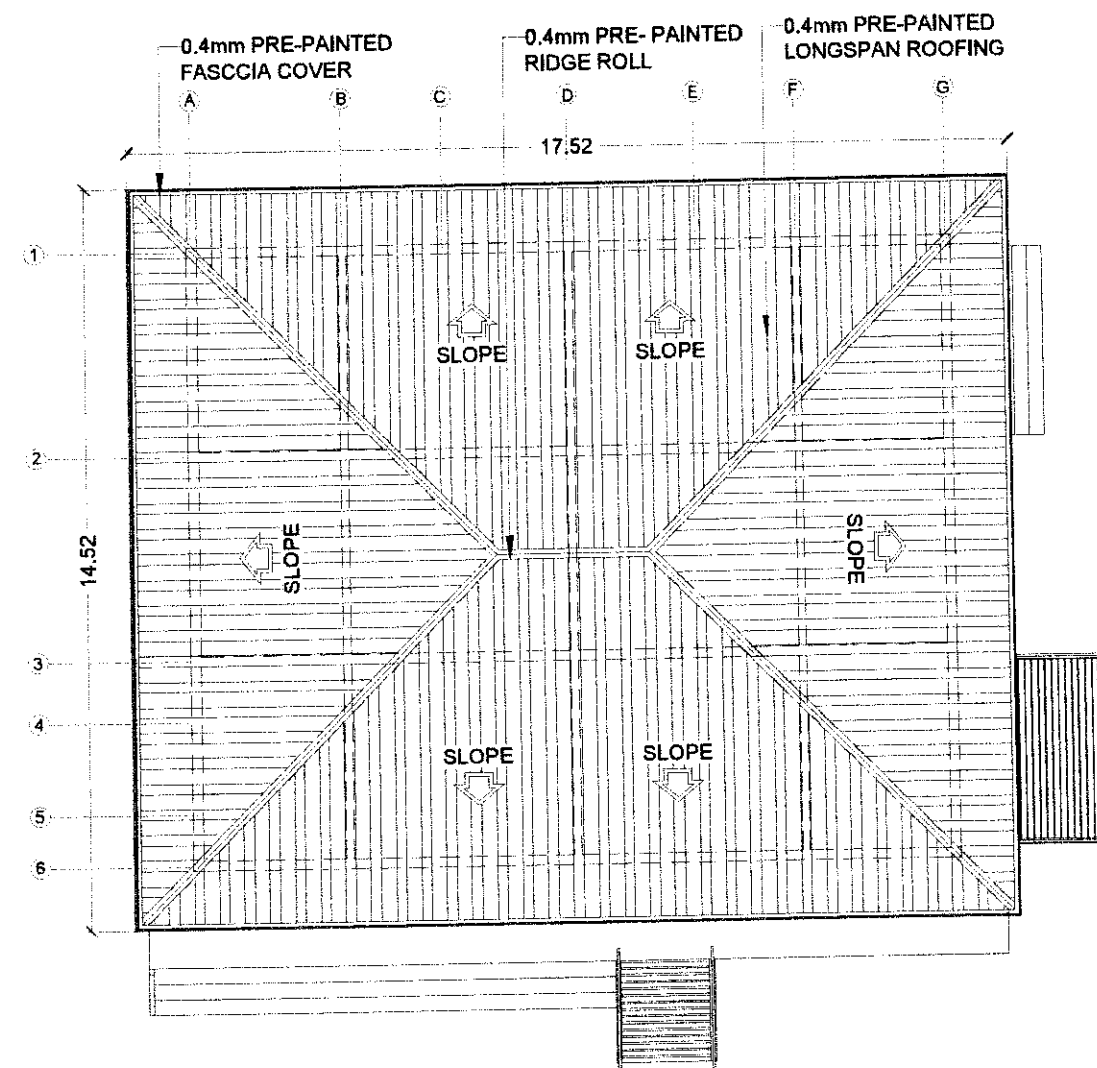
2
A-5
GUTTER DETAIL
SCALE: 1:20



3
A-5
TYPICAL CEILING DETAIL
SCALE: NTS



4
A-5
REFLECTED CEILING PLAN
SCALE: 1:150

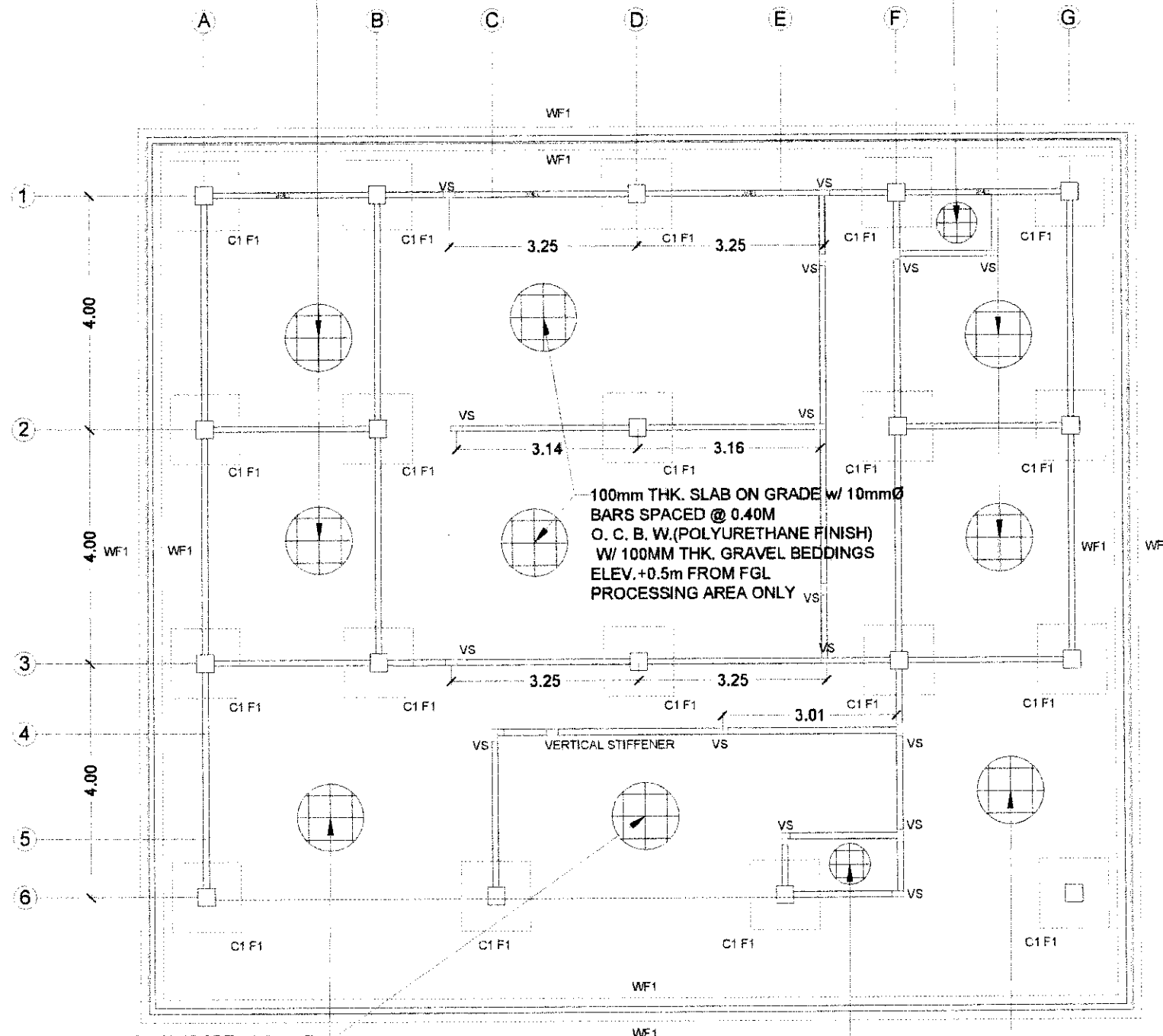


5
A-5
ROOF PLAN
SCALE: 1:150

100mm THK. SLAB ON GRADE w/ 10mmØ BARS SPACED @ 0.40M O. C. B. W. W/ 100MM THK. GRAVEL BEDDINGS ELEV.+0.5m FROM FGL

100mm THK. SLAB ON GRADE w/ 10mmØ BARS SPACED @ 0.40M O. C. B. W.(0.6x0.6m TILE FINISH) W/ 100MM THK. GRAVEL BEDDINGS ELEV.+0.45m FROM FGL

100mm THK. SLAB ON GRADE w/ 10mmØ BARS SPACED @ 0.40M O. C. B. W. W/ 100MM THK. GRAVEL BEDDINGS ELEV.+0.5m FROM FGL



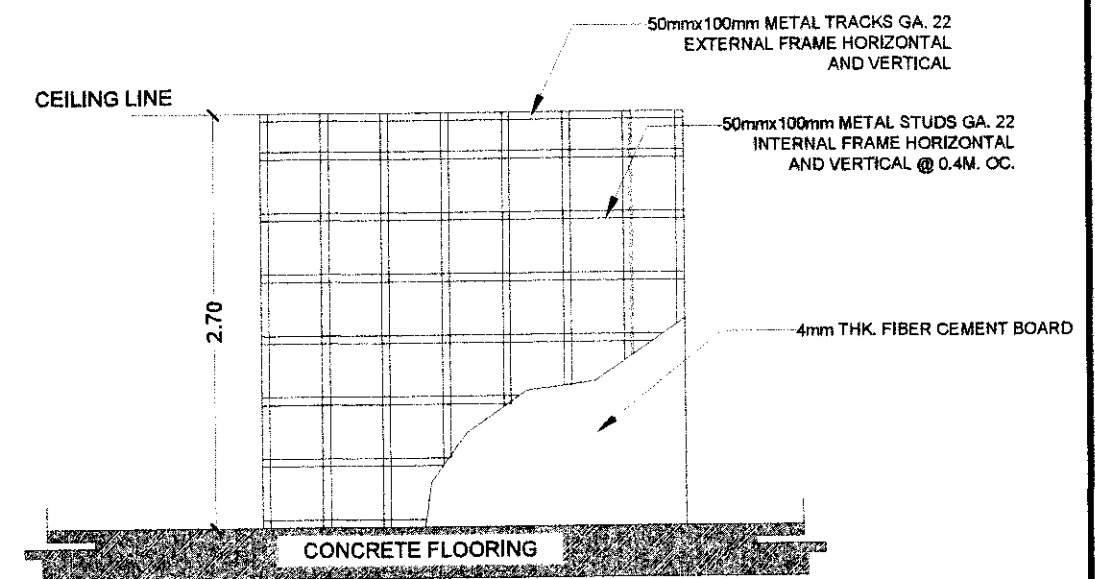
100mm THK. SLAB ON GRADE w/10mmØ BARS SPACED @ 0.40M O. C. B. W. (0.6x0.6m TILE FINISH) W/ 100MM THK. GRAVEL BEDDINGS ELEV. +0.5m FROM FGL

100mm THK. SLAB ON GRADE w/ 10mmØ BARS SPACED @ 0.40M O. C. B. W.(0.6x0.6m TILE FINISH) W/ 100MM THK. GRAVEL BEDDINGS ELEV.+0.45m FROM FGL

100mm THK. SLAB ON GRADE (OUTSIDE) w/ 10mmØ BARS SPACED @ 0.40M O. C. B. W. W/ 100MM THK. GRAVEL BEDDINGS ELEV.+0.425m FROM FGL

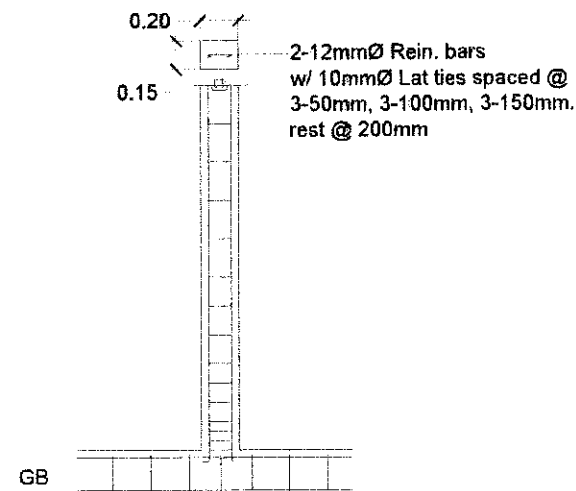
NOTE: ALL EXTERIOR FINISHED FLOOR LINES ARE 0.425m ABOVE FINISHED GROUND LINE
ALL INTERIOR FINISHED FLOOR LINES EXCEPT FOR LAVATORIES ARE 0.5m ABOVE FINISHED GROUND LINE

1
S-1 FOUNDATION PLAN
SCALE: 1:100 M.

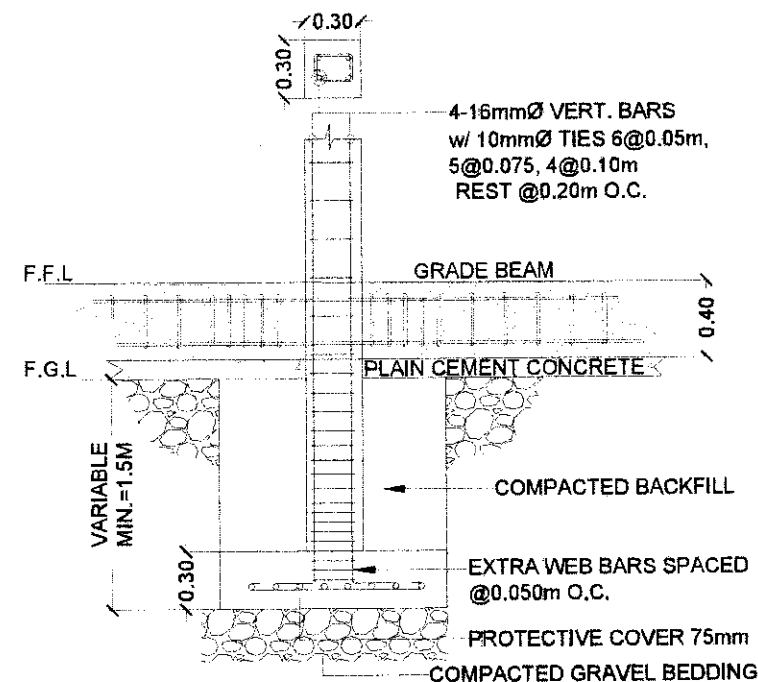


2
S-1 TYPICAL DRY WALL DETAIL
SCALE: 1:50 M.

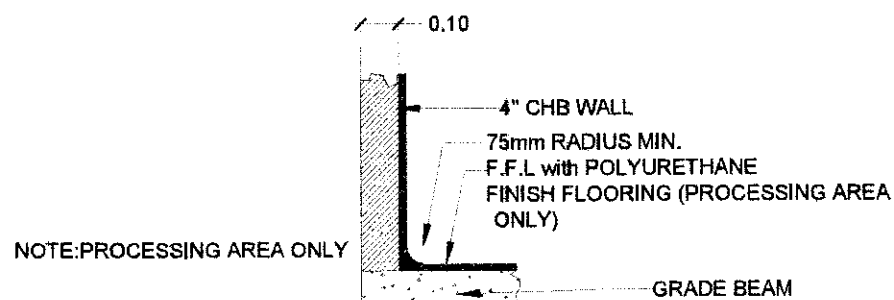
IMPLEMENTING AGENCY: REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE WESTERN VISAYAS PAROLA, ILOILO CITY	PROJECT NAME & LOCATION: FRUITS AND VEGETABLES PROCESSING FACILITY BRGY. NALDOK, KALIBO, Aklan	SHEET CONTENTS: FOUNDATION PLAN TYPICAL DRY WALL DETAIL	PREPARED: FRANCIS AMRO L. RAGA-AS, CE, MP <small>Technical Staff (CE NO. 0181539)</small>	REVIEWED/SUBMITTED: YVONNE GRACE H. SUR, ABE <small>Engineer III (ABE NO. 0005970) Head, Engineering Plans, Designs, and Specifications Section</small>	RECOMMENDED: MOISES D. MANA-AY, ABE, MEE <small>Engineer IV (ABE NO. 0006077) OIC - Division Chief, R&ED</small>	APPROVED BY: DOMINADOR A. MARQUEZ <small>OIC - RTD for Operation and Extension</small>	SHEET NO.: S 1 PAGE NO.: 6 17
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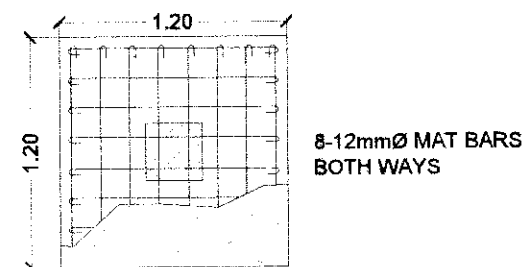
1 VERTICAL STIFFENER
S-2 SCALE: 1:40



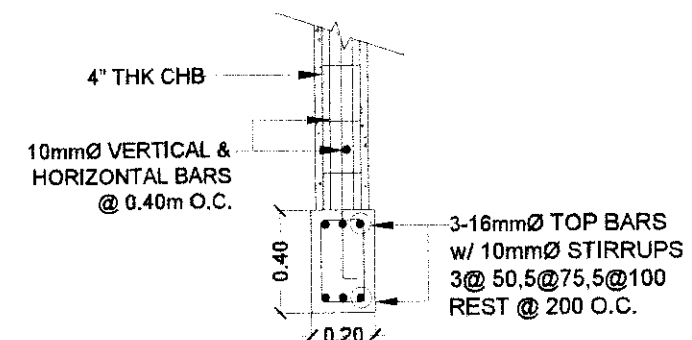
3 C1/F1 SECTION
S-2 SCALE: 1:40



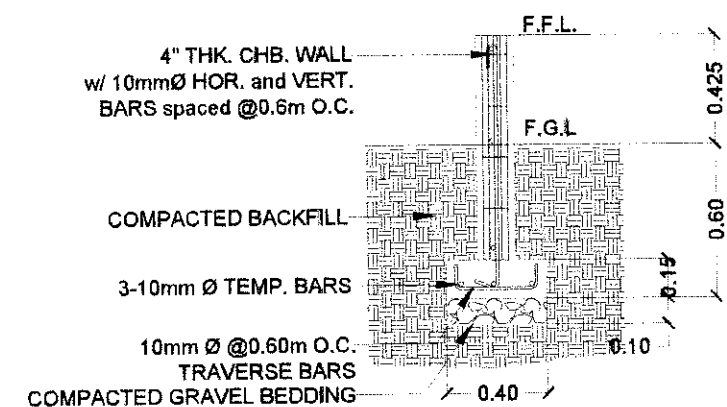
2 WALL TO FLR. CONNECTION
S-2 SCALE: 1:20



4 C1/F1 PLAN
S-2 SCALE: 1:40



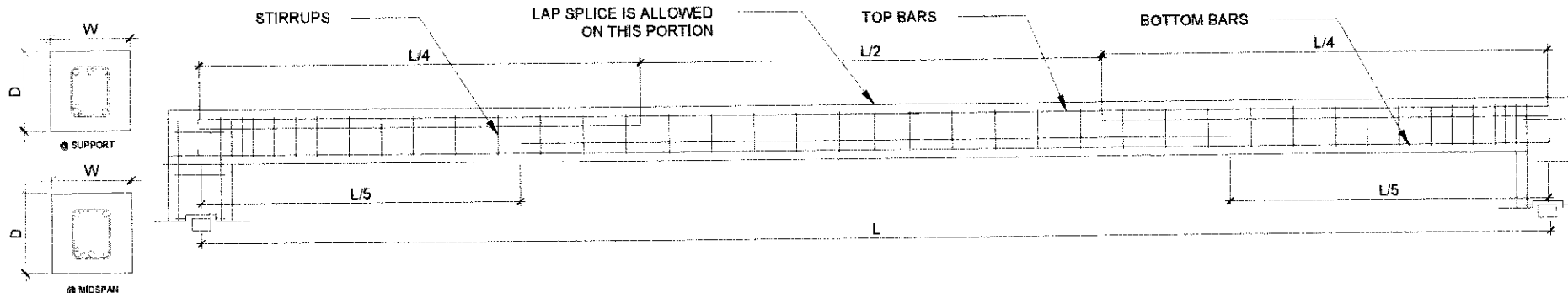
5 WALL ON GRADE BEAM DETAIL
S-2 SCALE: 1:30



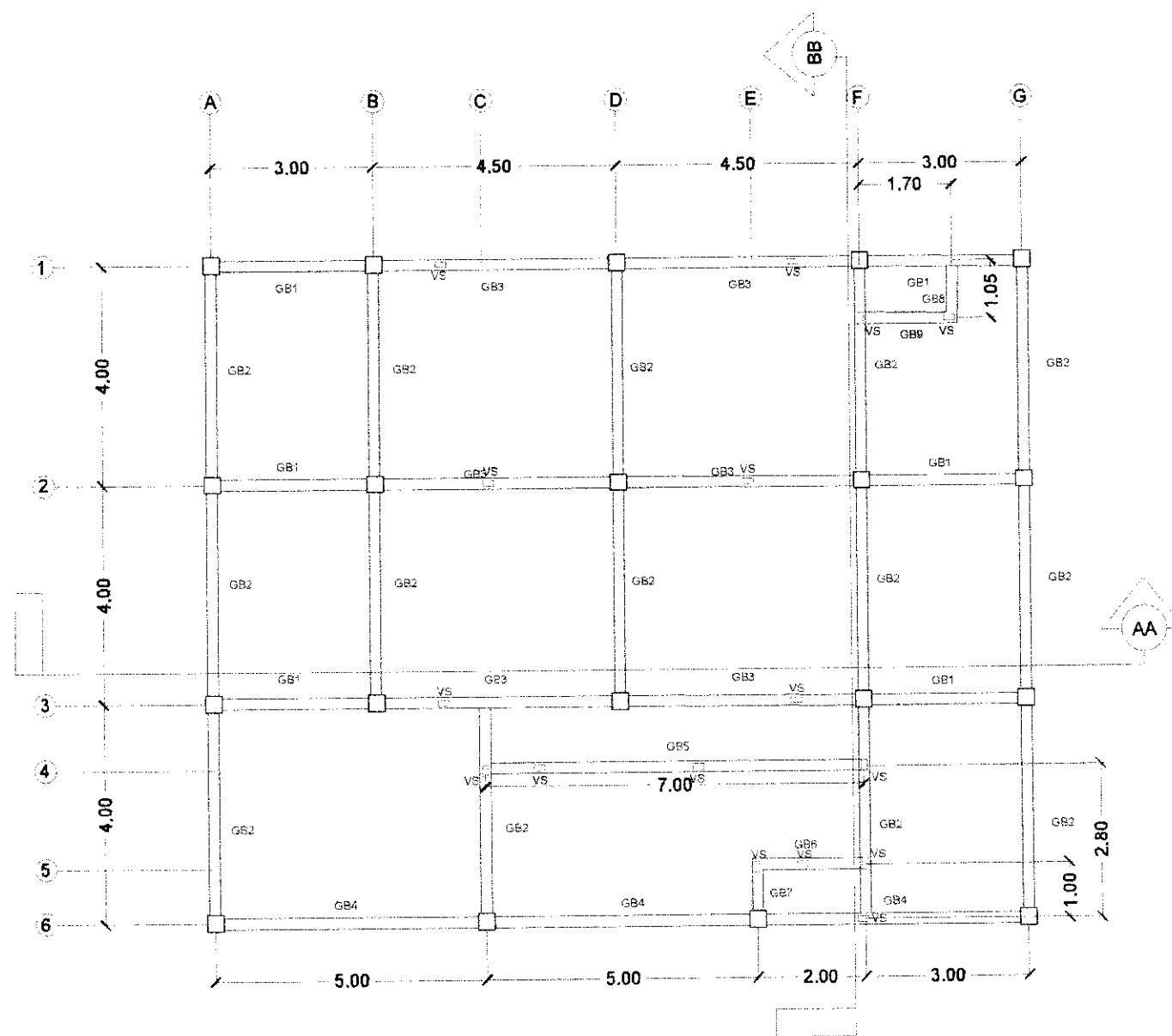
6 WALL FOOTING SECTION
S-2 SCALE: 1:30

NOTE: DEPTH OF FOOTING IS SUBJECT FOR CHANGE DEPENDING ON ACTUAL SITE CONDITIONS

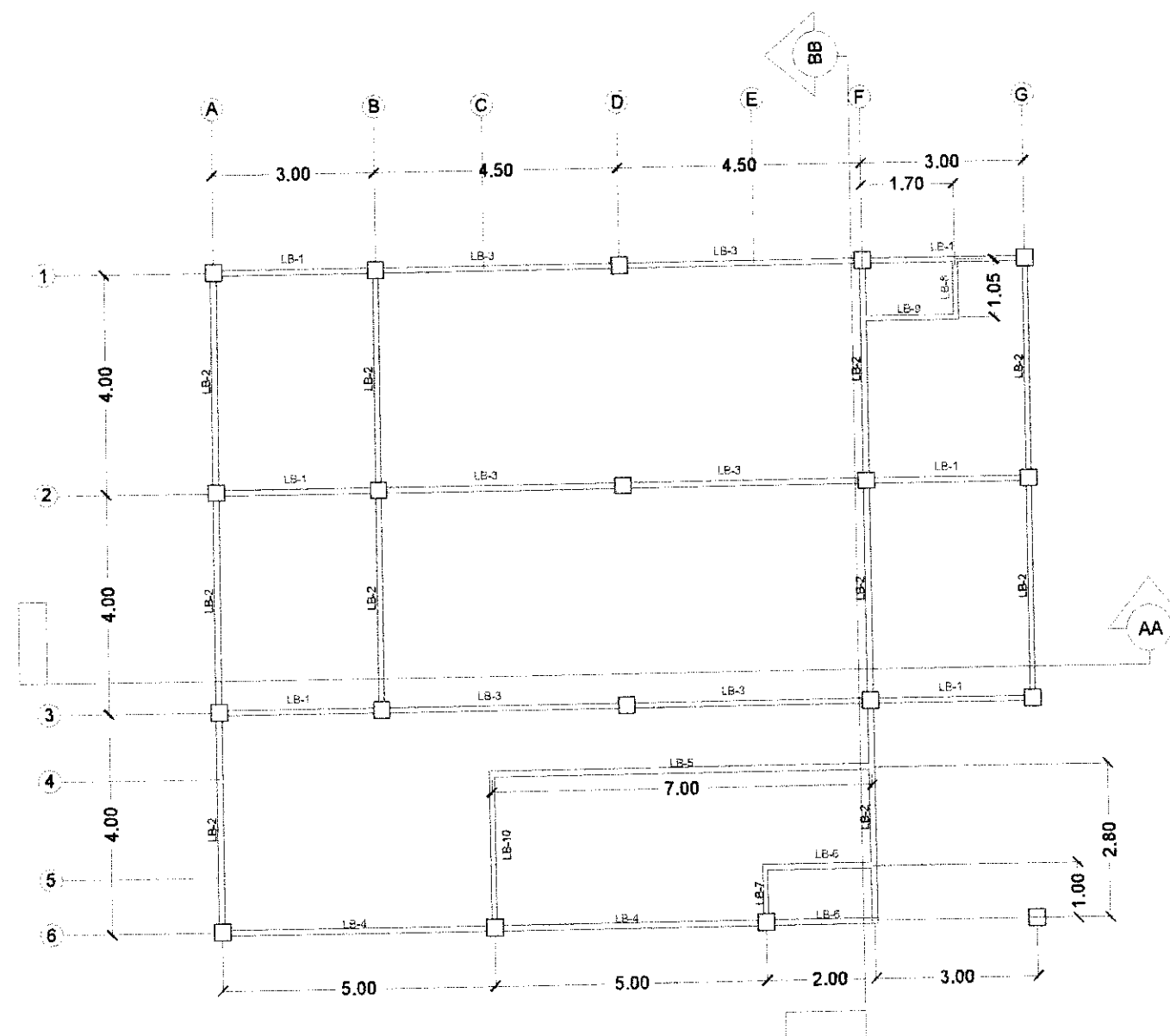
SCHEDULE OF BEAMS									
BEAM MARK	BEAM DIMENSION		STEEL REINFORCEMENTS						STIRRUPS (10mm Ø) (UNLESS NOTED OTHERWISE)
	WIDTH (mm)	DEPTH (mm)	REBAR (mm Ø)	@SUPPORTS TOP	@SUPPORTS BOTTOM	@ MID-SPAN TOP	@ MID-SPAN BOTTOM	12 mmØ WEB BAR	
R B 1	200	300	16 mm Ø	3	2	2	3		4 @ 50, 4 @ 100, 4 @ 150, REST @ 200 O.C
R B 2	150	300	12 mm Ø	3	2	2	3		6 @ 50, 4 @ 75, 4 @ 100, REST @ 150 O.C
LB	100	200	10 mm Ø	1	1				4 @ 50, 3 @ 150, REST @ 200 O.C
GB	200	400	16 mm Ø	3	3	3	3	2	5 @ 50, 4 @ 100, 4 @ 150, REST @ 300 O.C



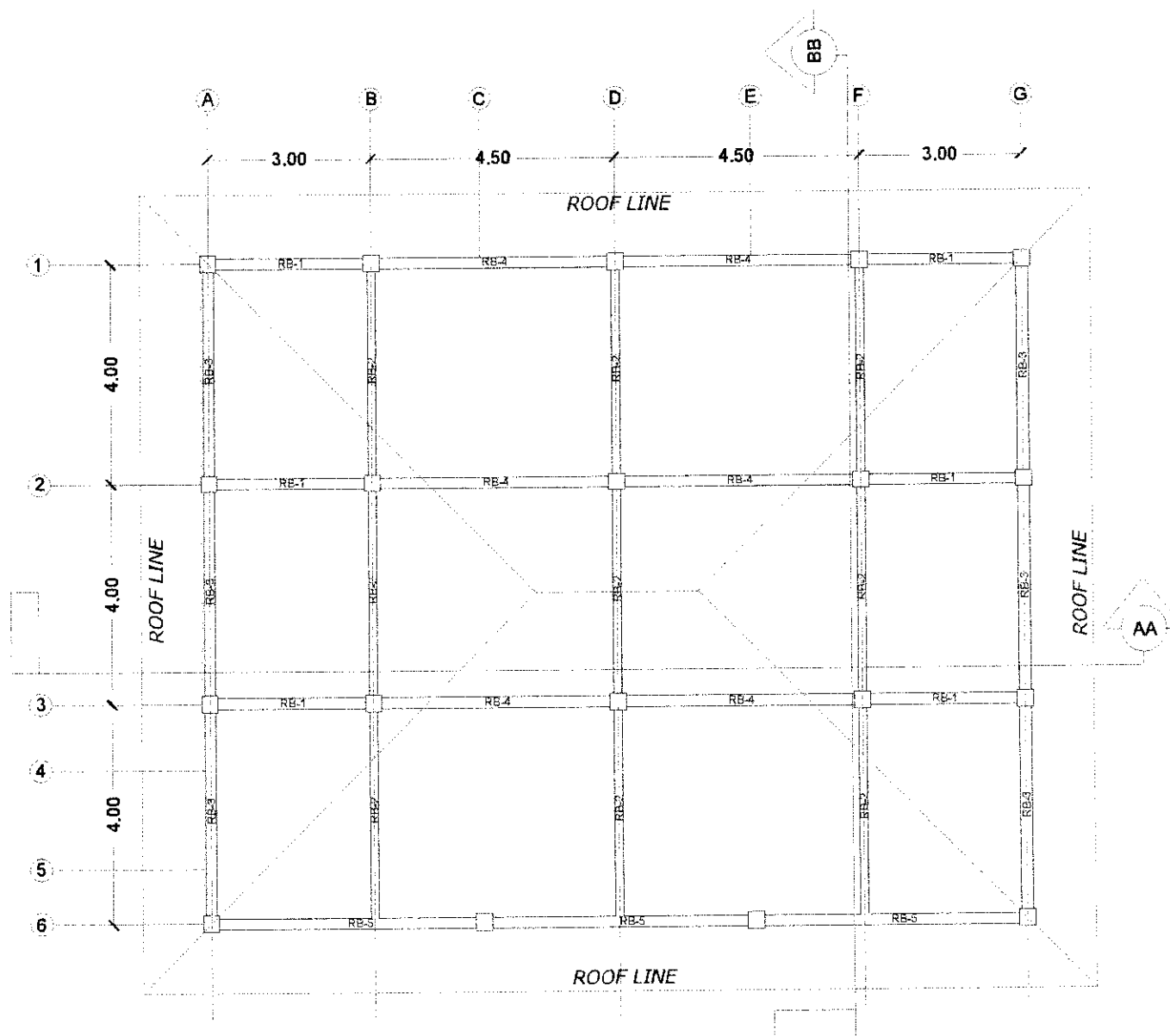
7 TYPICAL BEAM DETAIL
S-2 SCALE: NTS



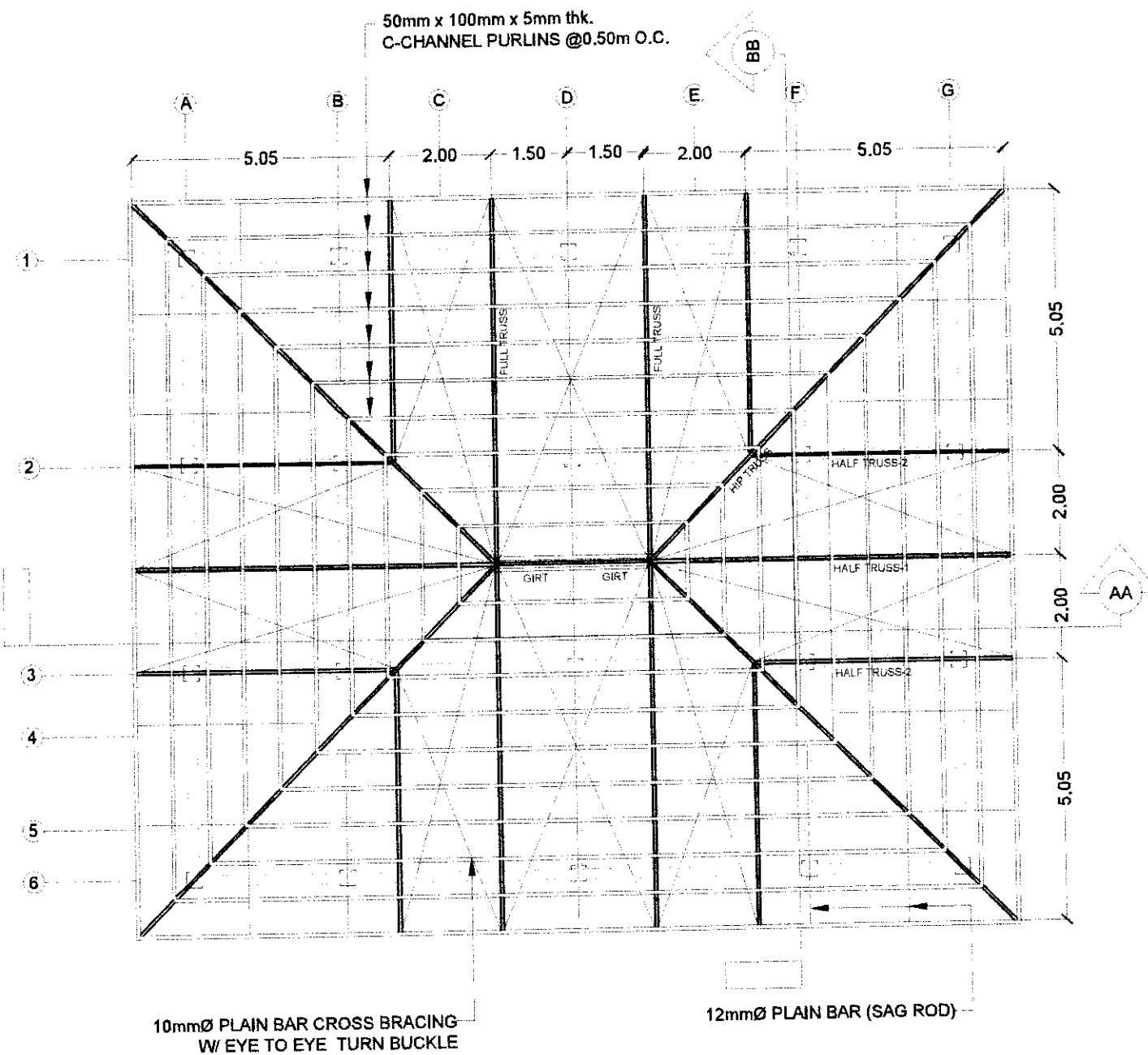
1
S-3 GRADE BEAM PLAN
SCALE: 1:120



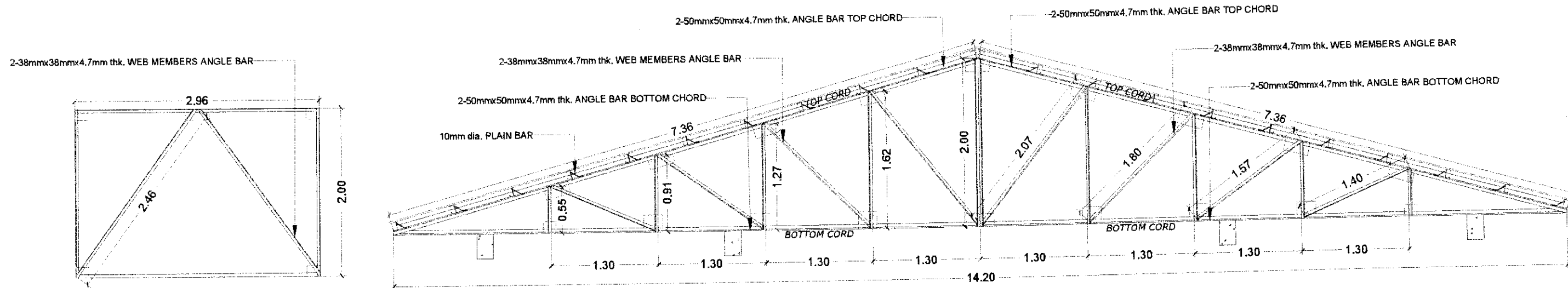
2
S-3 LINTEL BEAM PLAN
SCALE: 1:120



1
S-4
ROOF BEAM PLAN
SCALE: 1:120

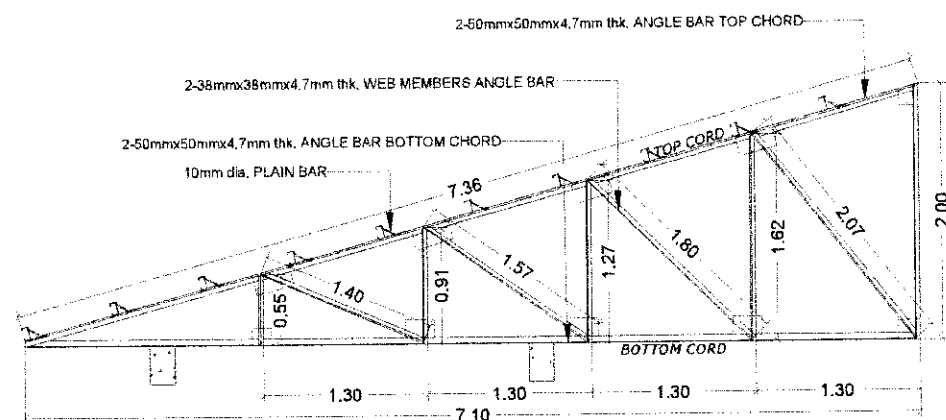


2
S-4
ROOF FRAMING PLAN
SCALE: 1:120

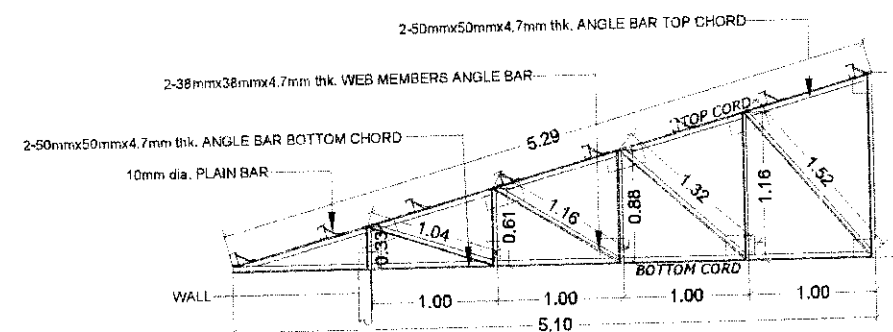


1
S-5 GIRT DETAIL
SCALE: 1:50

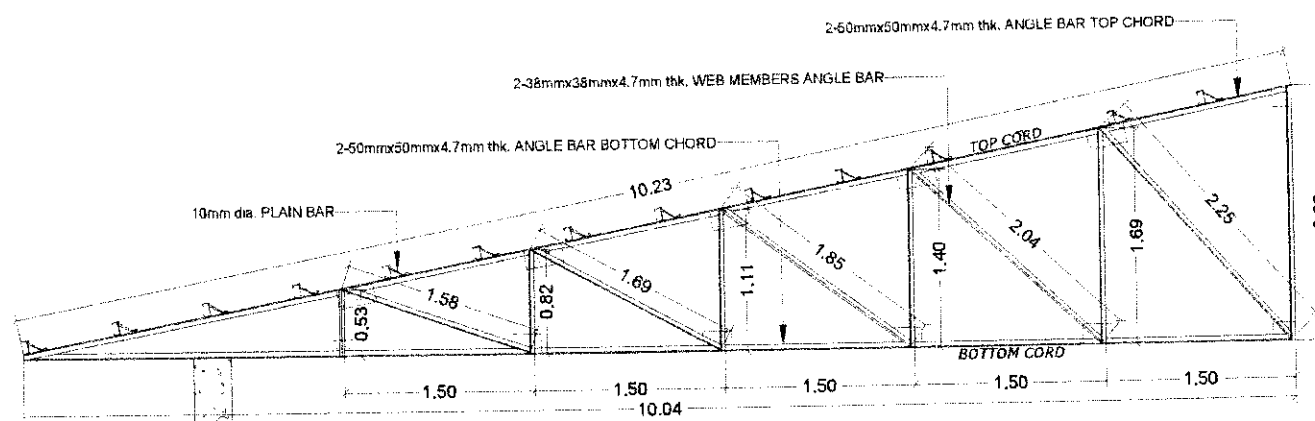
2
S-5 FULL TRUSS DETAIL
SCALE: 1:50



3
S-5 HALF TRUSS-1 DETAIL
SCALE: 1:60








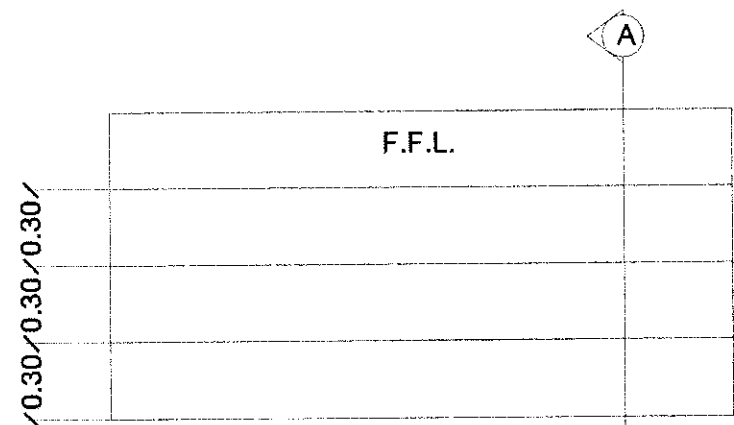
4
S-5 HALF TRUSS-2 DETAIL
SCALE: 1:60



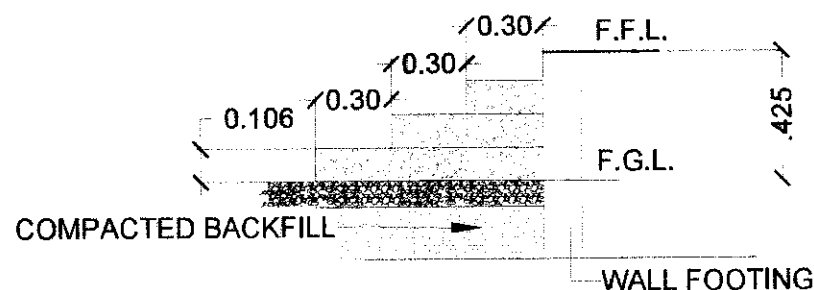
5
S-5 HIP TRUSS DETAIL
SCALE: 1:60

NOTE: ALL GUSSET PLATES ON TOP SIDE MUST HAVE A DIMENSION OF 0.15mX0.3mX8mm Thickness
ALL GUSSET PLATES ON BOT. SIDE MUST HAVE A DIMENSION OF 0.15mX0.2mX8mm Thickness

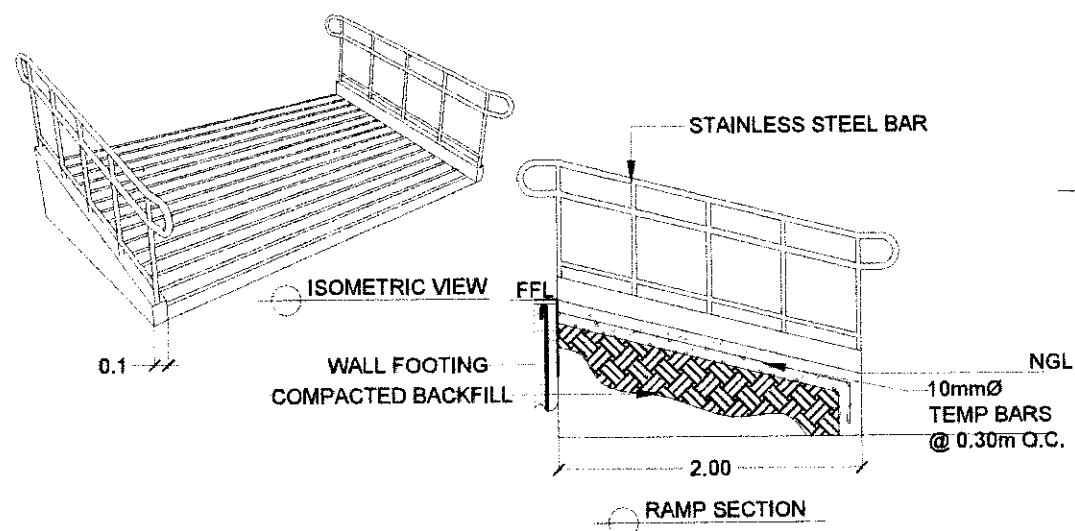
IMPLEMENTING AGENCY:  REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE WESTERN VISAYAS PAROLA, ILOILO CITY	PROJECT NAME & LOCATION: FRUITS AND VEGETABLES PROCESSING FACILITY BRGY. HAPAHAN, MALAY, Aklan	SHEET CONTENTS: HALF TRUSS-1 DETAIL HALF TRUSS-2 DETAIL FULL TRUSS DETAIL HIP TRUSS DETAIL GIRT DETAIL	PREPARED:  FRANCIS AMRO L. RAGA-AS, CE, MP Technical Staff (CF NO. 0381539)	REVIEWED/SUBMITTED:  YVONNE GRACE M. SUR, ABE Engineer III (ABE NO. 0009970) Head, Engineering Plans, Designs, and Specifications Section	RECOMMENDED:  MOISES D. MANAY, ABE, MEE Engineer IV (ABE NO. 0006077) OIC, Division Chief, RAED	APPROVED BY:  DOMINADOR A. MARQUEZ OIC, RTD for Operations and Extension	SHEET NO. S 5 PAGE NO. 10 17
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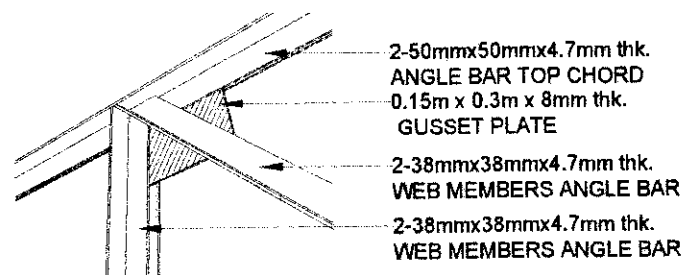
STAIRS AND PAVEMENT PLAN



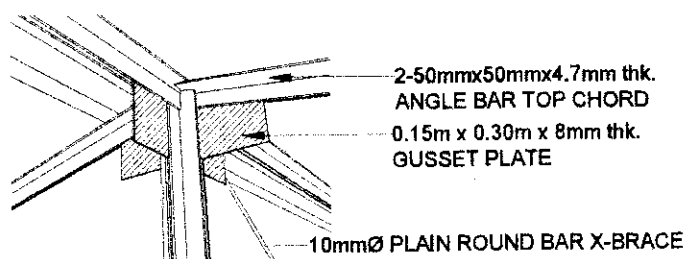
1 STAIRS DETAILS THRU SECTION "A"
S-6 SCALE: NTS



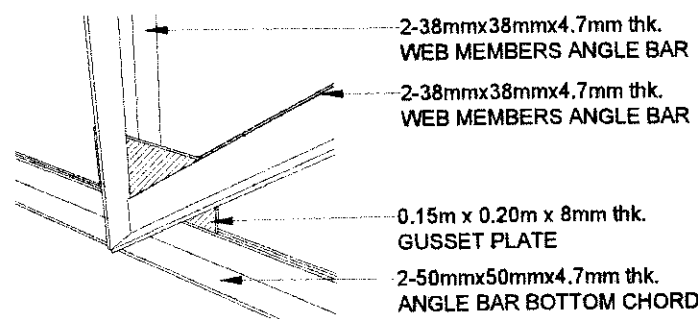
2 RAMP DETAILS
S-6 SCALE: NTS



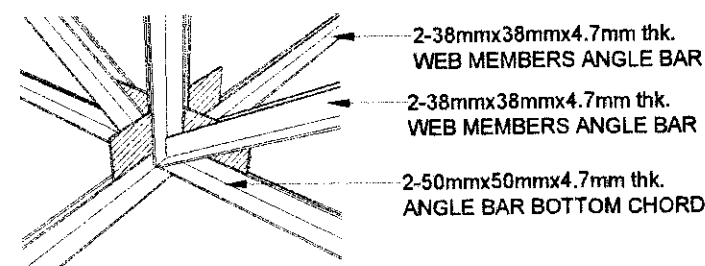
3 TOP CHORD CONNECTION DETAIL
S-6 SCALE: NTS



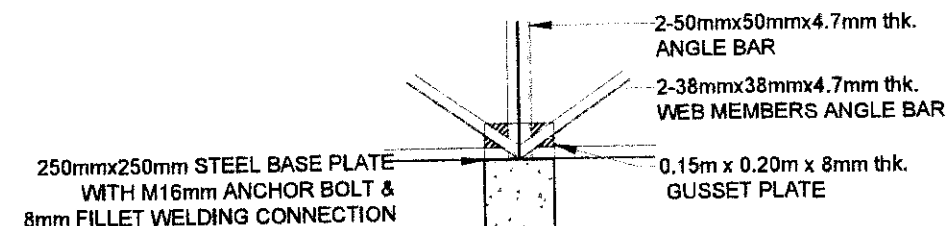
4 TOP CORD & CENTER GIRT CONNECTION DET.
S-6 SCALE: NTS



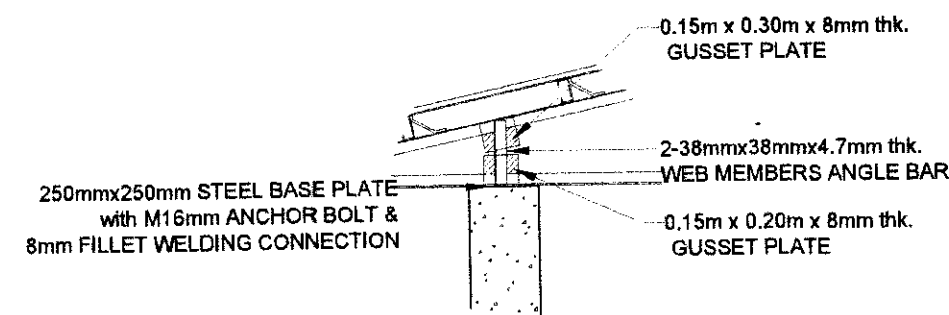
5 BOT. CHORD CONNECTION DETAIL
S-6 SCALE: NTS



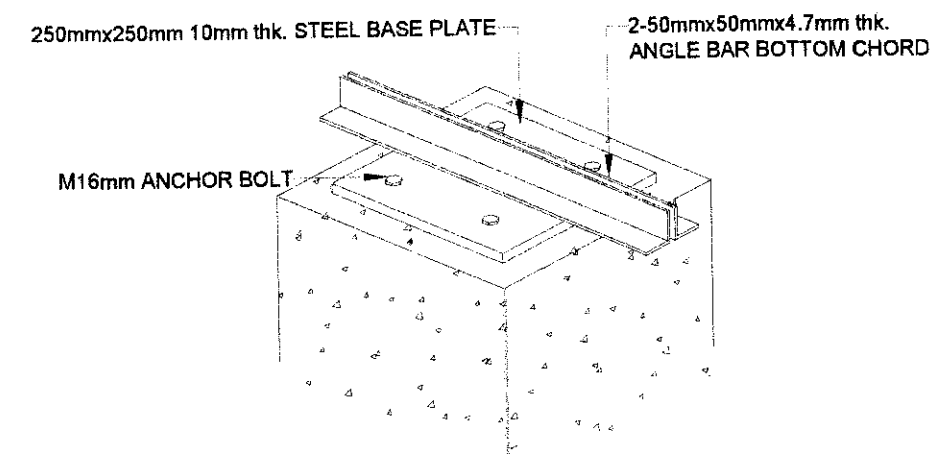
6 BOT. CORD & CENTER GIRT CONNECTION DET.
S-6 SCALE: NTS



7 TRUSS AND COLUMN CONNECTION-1
S-6 SCALE: NTS



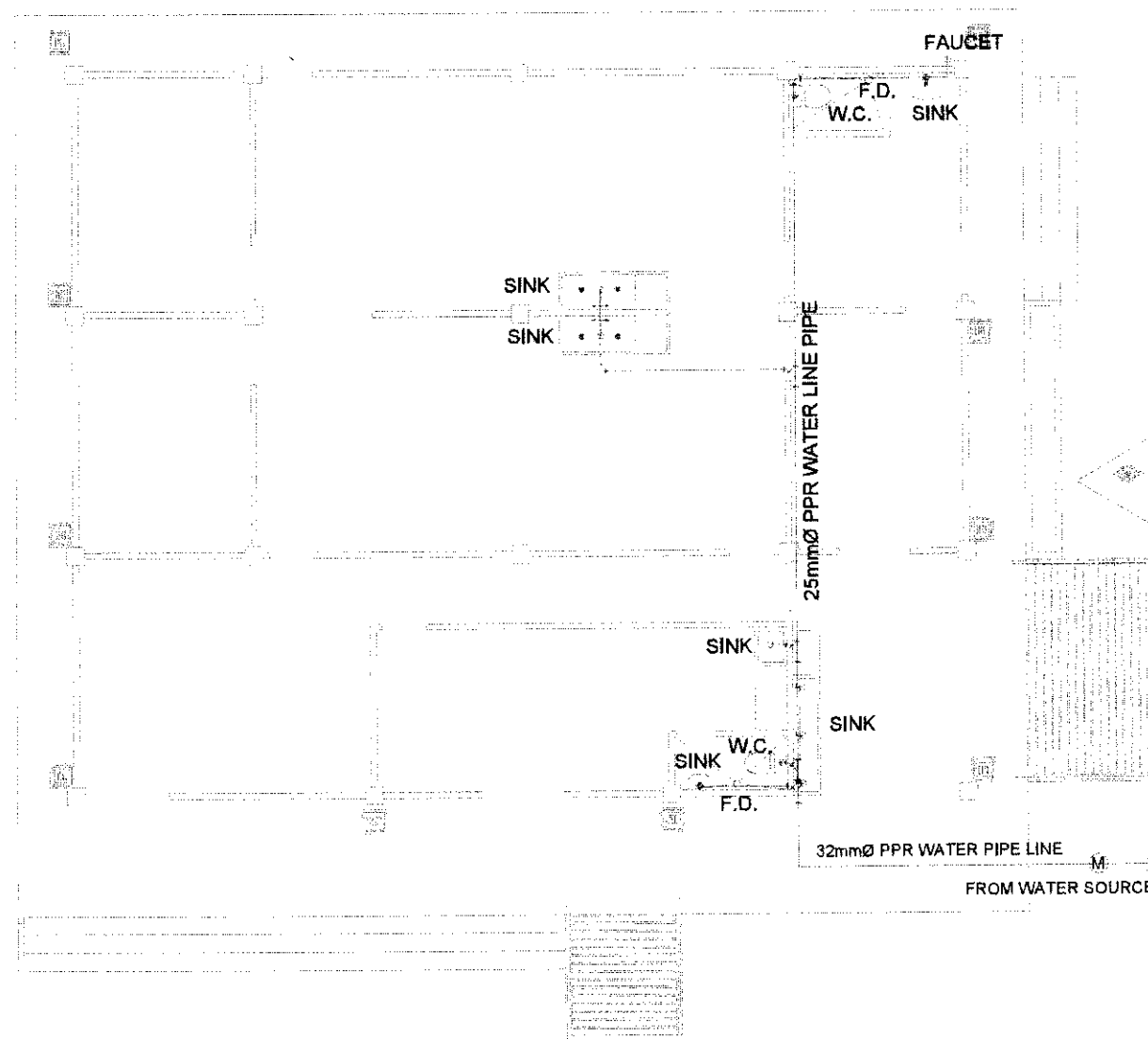
8 TRUSS AND COLUMN CONNECTION-2
S-6 SCALE: NTS



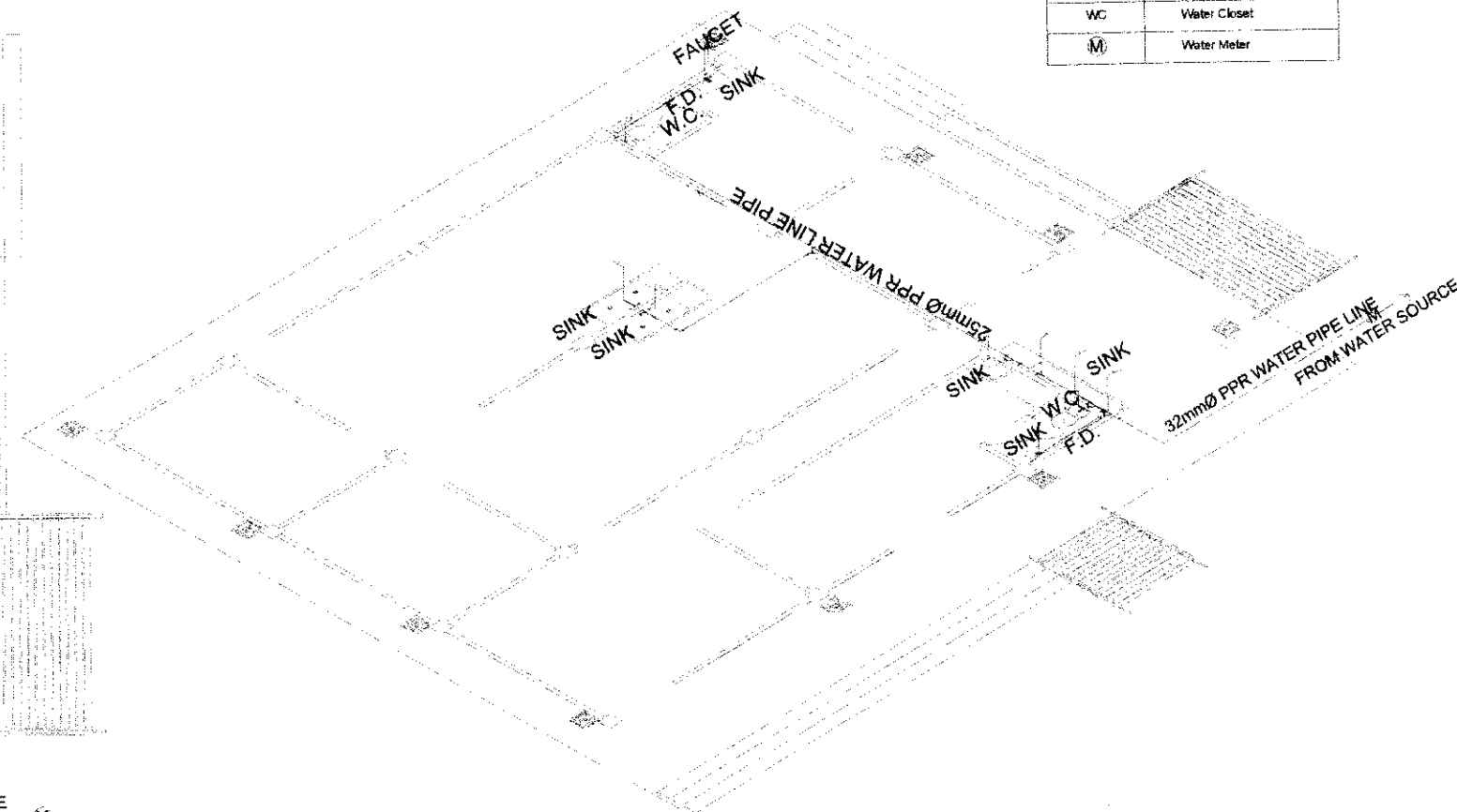
9 TRUSS AND COLUMN CONNECTION-3
S-6 SCALE: NTS

LEGEND & SYMBOLS

D.S.	Down Spout
CB	Catch Basin
T	Tee
W	Wye
E	Elbows
CO	Clean Out
OF	Over Flow
P-Trap	P-Trap
SOIL PIPE	SOIL PIPE
F.D.	Floor Drain
WC	Water Closet
M	Water Meter



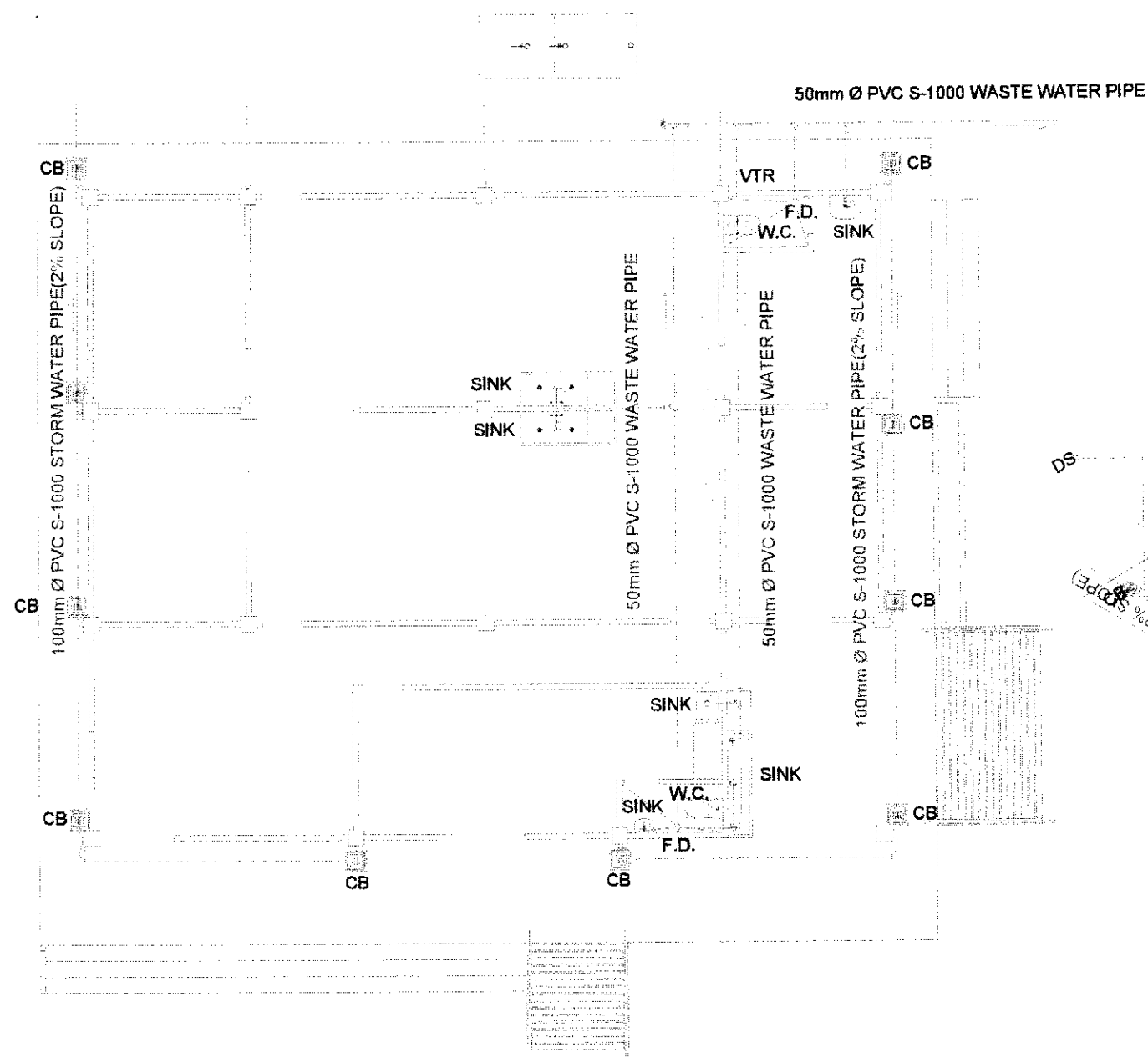
1 WATER DISTRIBUTION LAYOUT
P-1 SCALE: 1:120



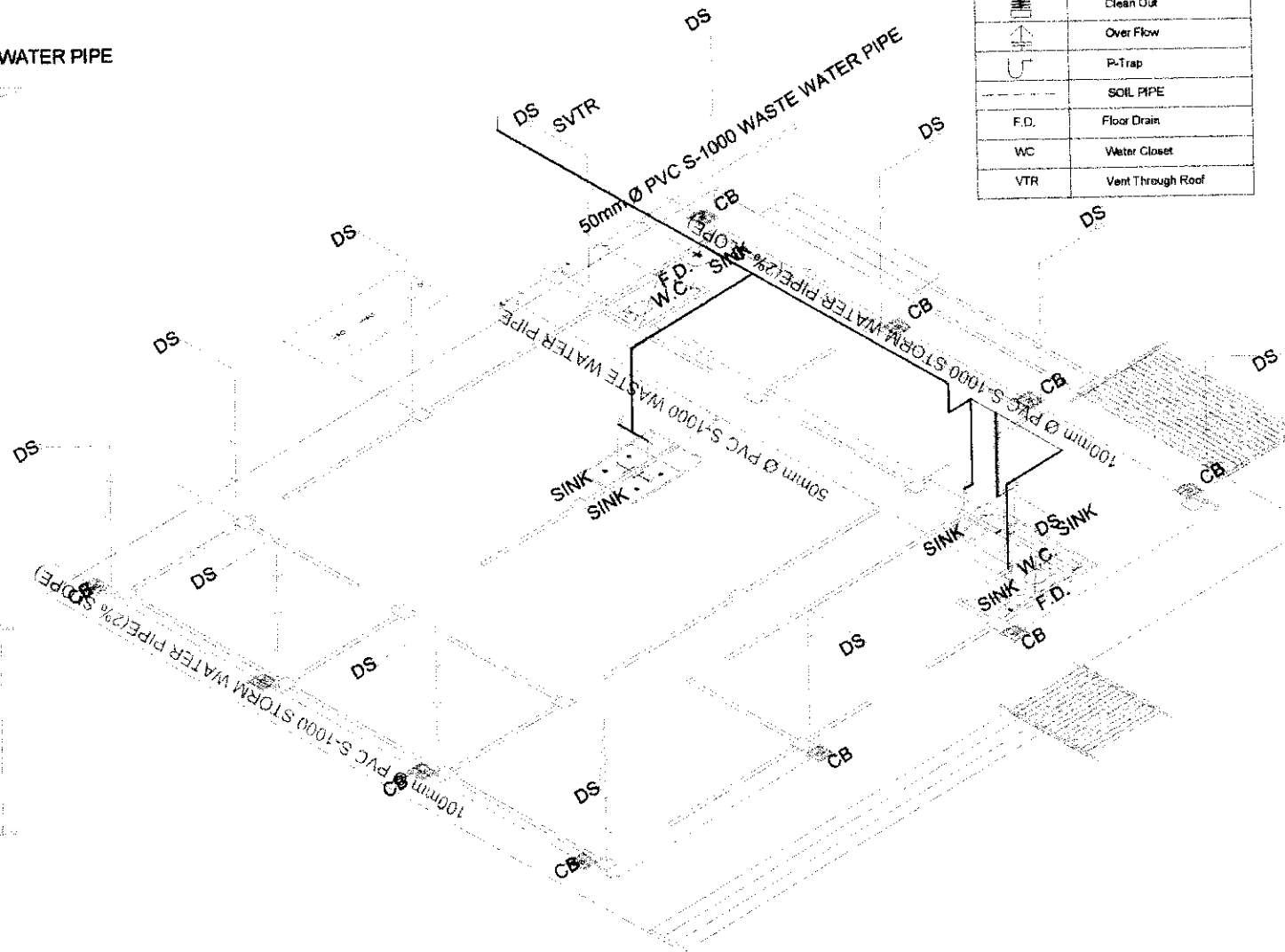
2 WATER DISTRIBUTION ISOMETRIC LAYOUT
P-1 SCALE: 1:120

LEGEND & SYMBOLS

DS	Down Spout
CB	Catch Basin
T	Tee
W	Wye
E	Elbows
CO	Clean Out
OF	Over Flow
PT	P-Trap
SP	SOIL PIPE
F.D.	Floor Drain
WC	Water Closet
VTR	Vent Through Roof

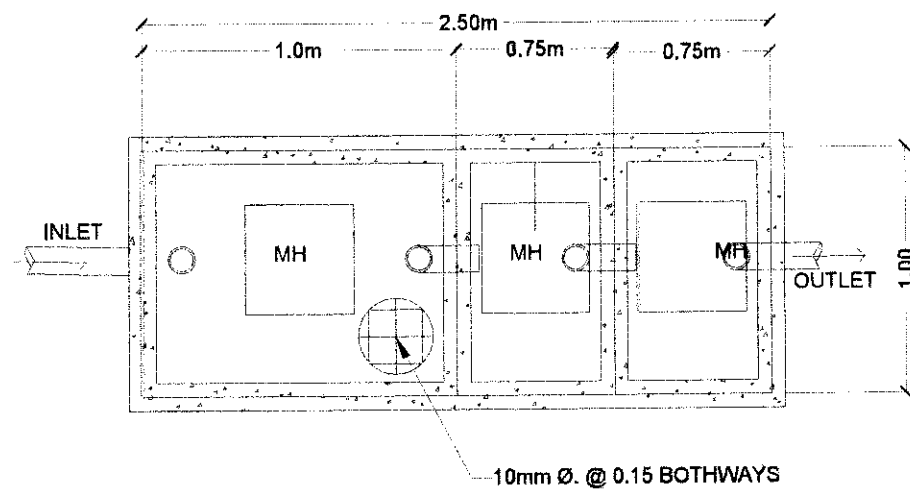


1
P-2 SANITARY LAYOUT
SCALE: 1:120 M.

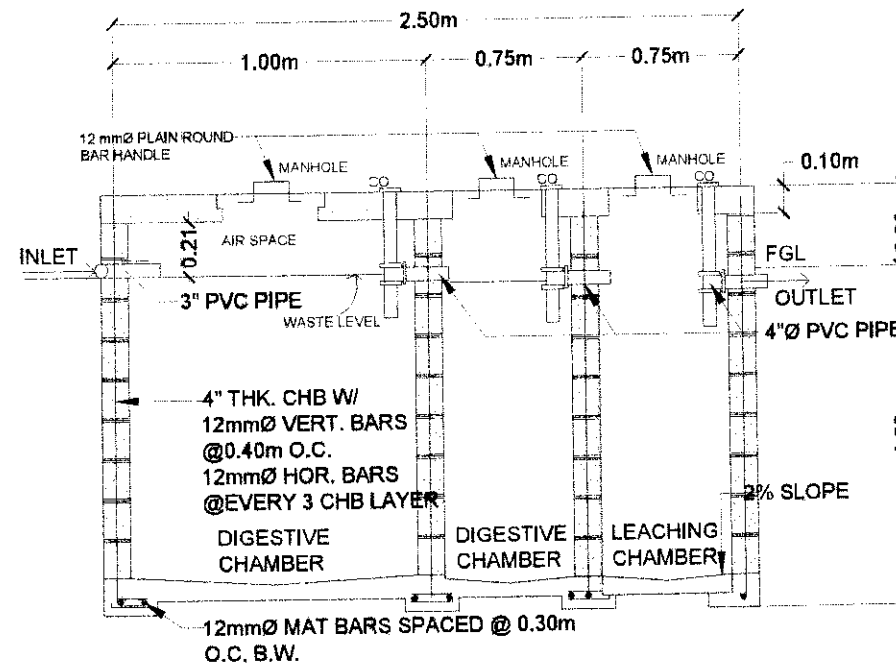


2
P-2 SANITARY ISOMETRIC LAYOUT
SCALE: 1:120 M.

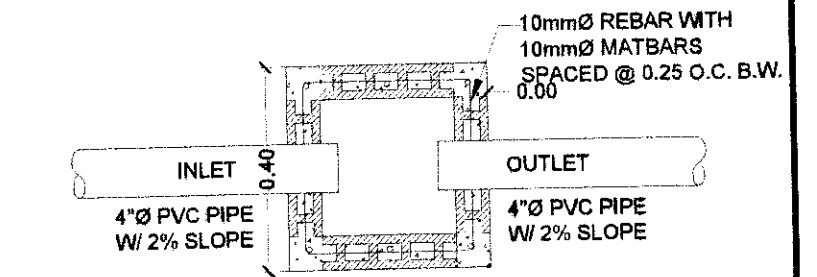
<p>IMPLEMENTING AGENCY:</p> <p>REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE</p> <p>WESTERN VISAYAS PAROLA, ILOILO CITY</p>	<p>PROJECT NAME & LOCATION:</p> <p>FRUITS AND VEGETABLES PROCESSING FACILITY</p> <p>BRGY. NALOOK, KALIBO, Aklan</p>	<p>SHEET CONTENTS:</p> <p>SANITARY LAYOUT SANITARY ISOMETRIC LAYOUT</p>	<p>PREPARED</p> <p>FRANCIS AMRO L. RAGA-AS, CE, MP Technical Staff (CE NO. 0181539)</p>	<p>REVIEWED/SUBMITTED</p> <p>YVONNE GRACIE H. SUR, ABE Engineer III (ABE NO. 0005970) Head, Engineering Plans, Designs, and Specifications Section</p>	<p>RECOMMENDED</p> <p>MOISES D. MANA-AY, ABE, MEE Engineer IV (ABE NO. 0006077) OIC- Division Chief, RAED</p>	<p>APPROVED BY:</p> <p>DOMINADOR A. MARQUEZ OIC- RTB for Operations and Extension</p>	<p>SHEET NO.:</p> <p>P 2</p> <p>PAGE NO.:</p> <p>13 17</p>
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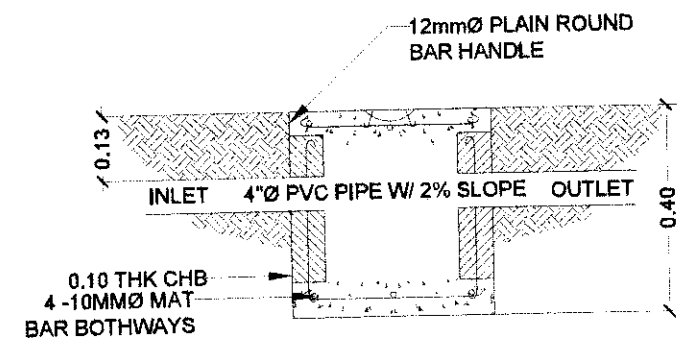
1 SEPTIC TANK PLAN
P-3 SCALE: NTS



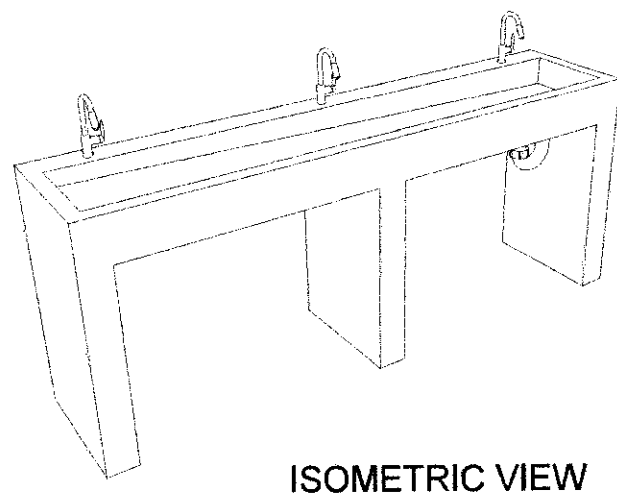
2 SEPTIC TANK SECTION
P-3 SCALE: NTS



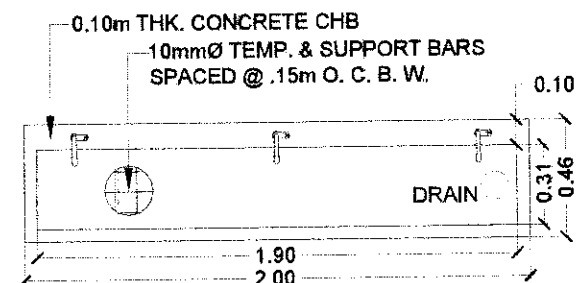
3 CATCH BASIN PLAN
P-3 SCALE: 1:15



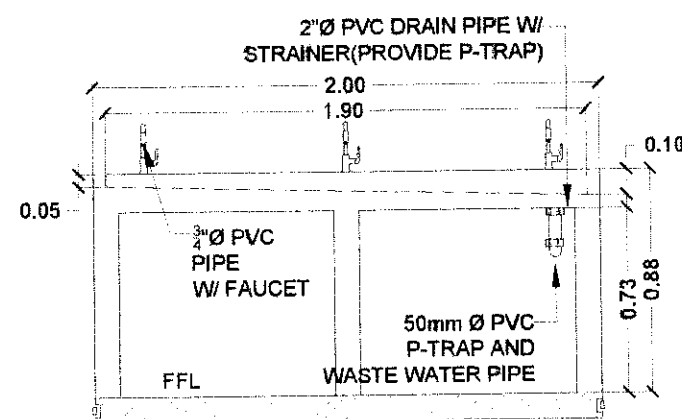
4 CATCH BASIN DETAIL
P-3 SCALE: 1:15



ISOMETRIC VIEW

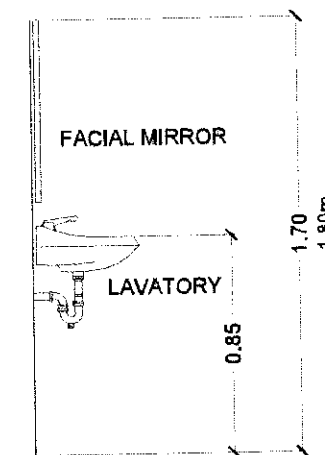
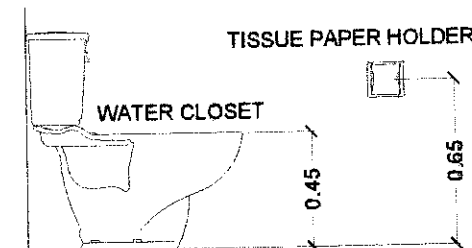


TOP VIEW



FRONT VIEW

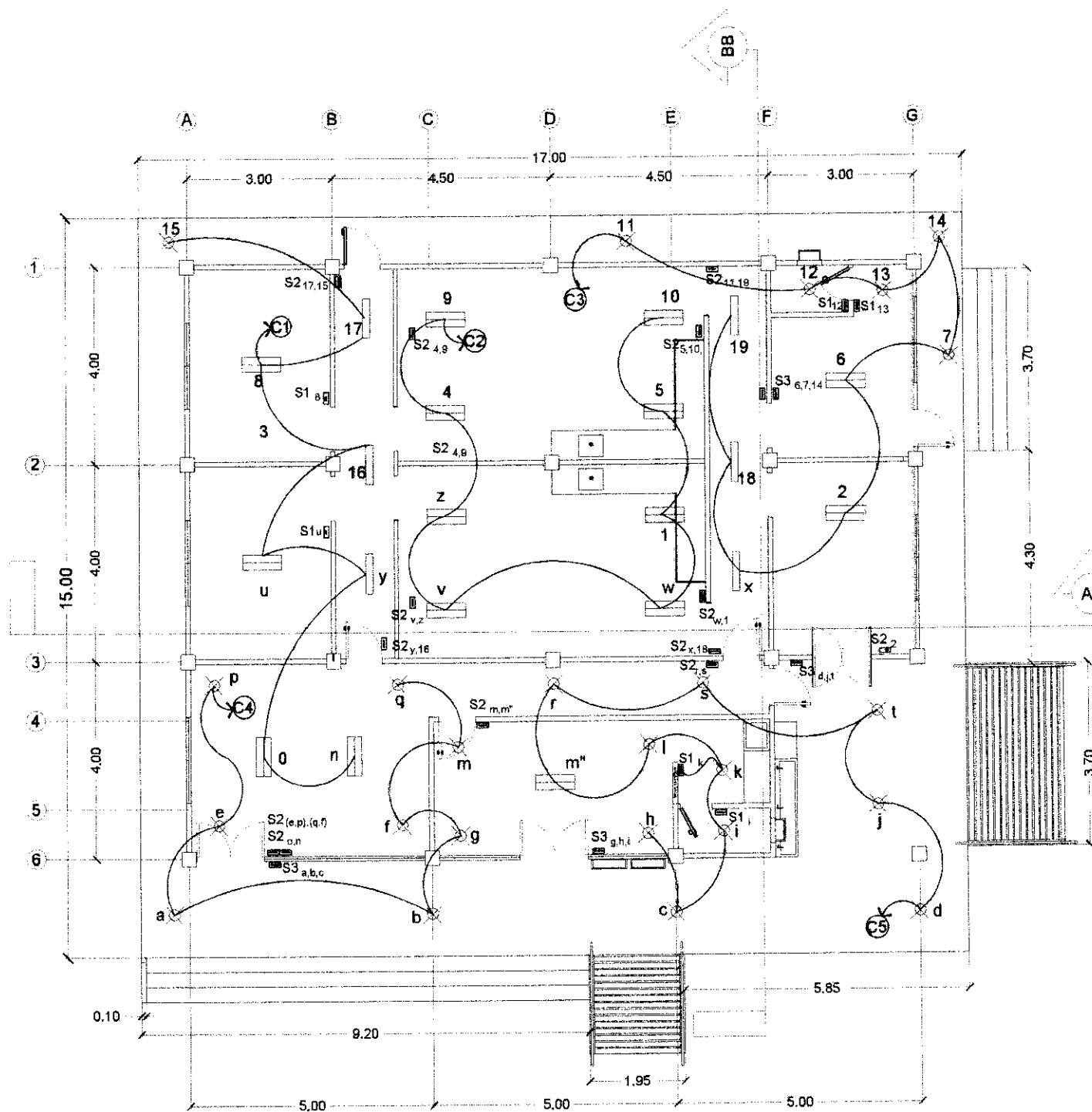
5 WASH BASIN DETAIL
P-3 SCALE: 1:30



6 MOUNTING HEIGHTS
P-3 SCALE: 1:30

SPECIFICATIONS:

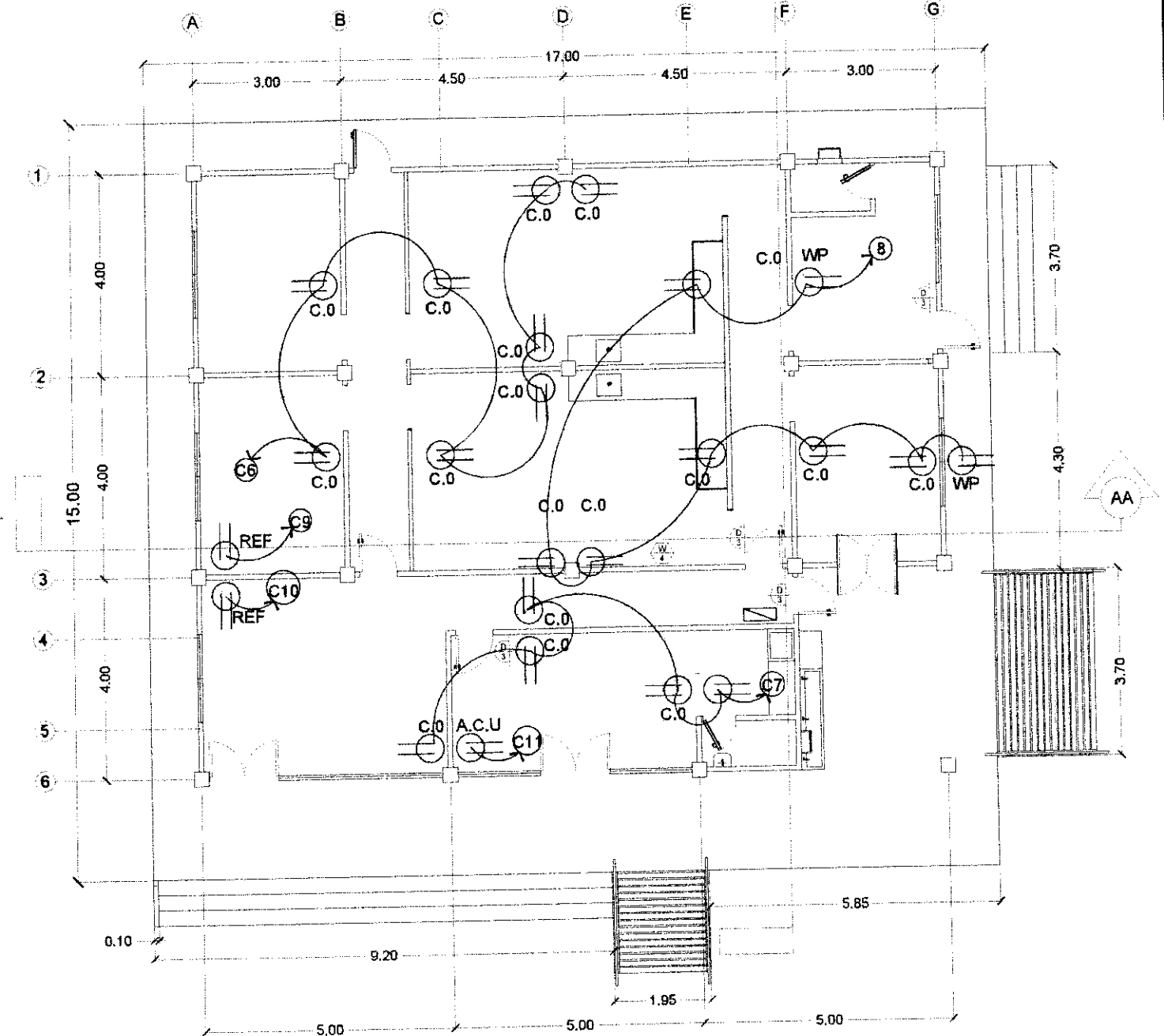
1. SANITARY AND WASTE PIPE LINE SHALL BE PVC AND JOINT TOGETHER WITH PVC SOLVENT CEMENT.
2. USE G.I. & UPVC PIPES AND FITTINGS FOR WATER SUPPLY LINES.
3. ALL SOIL PIPES SHALL HAVE A MINIMUM SLOPE OF 2%.
4. VERTICAL VENTS OR VENT THRU ROOF SHALL HAVE VERTICAL CLEARANCE OF 12".
5. ALL FIXTURE BRANCHES SHALL HAVE INDIVIDUAL SHUT-OFF VALVES.
6. ALL WORKS INSTALLATION SHALL BE DONE UNDER THE SUPERVISION OF A MASTER PLUMBER.
7. ALL PLUMBING WORKS INCLUDED HEREIN SHALL BE EXECUTED ACCORDING TO THE REQUIREMENTS OF THE PHILIPPINE PLUMBING CODE AND THE RULES AND REGULATIONS OF THE GOVERNMENT.
8. USE 600MMX600MM ANTI SLIP CERAMIC FLOOR TILES.



1 LIGHTING LAYOUT
E-1 SCALE: 1:120 M.

LEGEND:

- SWITCH LINE
- POWER LINE
- 2-20 WATT TROFFER TYPE FLF
- 12 WATT CFL W/ HOUSING & DIFFUSER
- 7 WATT CFL W/ HOUSING & DIFFUSER
- THREE SWITCH ON ONE SWITCH PLATE
- TWO SWITCH ON ONE SWITCH PLATE
- ONE SWITCH ON ONE SWITCH PLATE



2 CONVENIENCE OUTLET LAYOUT
E-1 SCALE: 1:120 M.

- GROUNDING WIRE
- SERVICE ENTRANCE
- KMH METER
- CIRCUIT BREAKER
- PANEL BOARD
- DUPLEX CONVENIENCE OUTLET
- APPLIANCE OUTLET

IMPLEMENTING AGENCY: DEPARTMENT OF AGRICULTURE WESTERN VISAYAS PAROLA, ILOILO CITY	PROJECT NAME & LOCATION: FRUITS AND VEGETABLES PROCESSING FACILITY BRGY. NALOOK, KALIBO, Aklan	SHEET CONTENTS: LIGHTING LAYOUT CONVENIENCE OUTLET LAYOUT	PREPARED: FRANCIS AMRO L. RAGA-AS, CE, MP Technical Staff (CE NO. 0181539)	REVIEWED/SUBMITTED: YVONNE GRACE H. SUR, ABE Engineer III (ABF NO. 0005970) Head, Engineering Plans, Designs, and Specifications Section	RECOMMENDED: MOISES D. MANA-AY, ABE, MEE Engineer IV (ABF NO. 0006077) OIC - Division Chief, RAED	APPROVED BY: DOMINADOR A. MARQUEZ OIC- RTD for Operations and Extension	SHEET NO.: E 1 PAGE NO.: 15 17

SCHEDULE OF LOADS

CKT NO.	LOAD DESCRIPTIONS	VA OUTLET	VA PER CIRCUIT	AMP LOAD PER CRT	SIZE OF BRKS			HOME RUN	
					AT	P	AF	WIRE	CONDUIT
PANEL "LP"									
1	11-20W TROFFER TYPE FLF	11-20W	238	1.03	15	2	50	2-3.5MM ²	ø20MMPVC CONDUIT
	1-18W CFL W/ HOUSING	1-18W		0.078		2	50	2-3.5MM ²	ø20MMPVC CONDUIT
2	16-20W TROFFER TYPE FLF	16-20W	320	1.39	15	2	50	2-3.5MM ²	ø20MMPVC CONDUIT
3	6-20W TROFFER TYPE FLF	6-20W	180	0.52	15	2	50	2-3.5MM ²	ø20MMPVC CONDUIT
	5-18W CFL W/ HOUSING	5-18W		0.39		2	50	2-3.5MM ²	ø20MMPVC CONDUIT
4	8-18W CFL W/ HOUSING	8-18W	144	0.63	15	2	50	2-3.5MM ²	ø20MMPVC CONDUIT
5	10-18W CFL W/ HOUSING	10-18W	180	0.91	15	2	50	2-3.5MM ²	ø20MMPVC CONDUIT
	TOTAL		1064	4.63	60	2	50	2-8.0MM ²	ø25MMPVC CONDUIT

SCHEDULE OF LOADS

CKT NO.	LOAD DESCRIPTIONS	VA OUTLET	VA PER CIRCUIT	AMP LOAD PER CRT	SIZE OF BRKS			HOME RUN	
					AT	P	AF	WIRE	CONDUIT
PANEL "C.O AND A.C.U"									
6	CONVENIENCE OUTLET	8-360W	2880	12.52	30	2	50	2-5.5MM ²	ø20MMPVC CONDUIT
7	CONVENIENCE OUTLET	5-360W	1800	7.83	30	2	50	2-5.5MM ²	ø20MMPVC CONDUIT
8	CONVENIENCE OUTLET	8-300W	2880	12.52	30	2	50	2-5.5MM ²	ø20MMPVC CONDUIT
9	REFRIGERATOR OUTLET	1-1500W	1500	6.52	30	2	50	2-5.5MM ²	ø20MMPVC CONDUIT
10	REFRIGERATOR OUTLET	1-1500W	1500	6.52	30	2	50	2-5.5MM ²	ø20MMPVC CONDUIT
11	AIR CONDITION OUTLET	1-1500W	1500	6.52	30	2	50	2-5.5MM ²	ø20MMPVC CONDUIT
	TOTAL		11900	51.74	70	2	100	2-30MM ²	ø40MMPVC CONDUIT

CIRCUIT 1

I = 1.03A

USE: 15AT/50AF, 2P, 240V CIRCUIT BREAKER
FEEDER SIZE: 3.5mm² THHN/THWN COPPER WIRE
CONDUIT SIZE: 20mm² UPVC PIPE

CIRCUIT 2

I = 320/230 = 1.39A

USE: 15AT/50AF, 2P, 240V CIRCUIT BREAKER
FEEDER SIZE: 3.5mm² THHN/THWN COPPER WIRE
CONDUIT SIZE: 20mm² UPVC PIPE

CIRCUIT 3

I = 180/230 = 0.91A

USE: 15AT/50AF, 2P, 240V CIRCUIT BREAKER
FEEDER SIZE: 3.5mm² THHN/THWN COPPER WIRE
CONDUIT SIZE: 20mm² UPVC PIPE

CIRCUIT 4

I = 144/230 = 0.91A

USE: 15AT/50AF, 2P, 240V CIRCUIT BREAKER
FEEDER SIZE: 3.5mm² THHN/THWN COPPER WIRE
CONDUIT SIZE: 20mm² UPVC PIPE

CIRCUIT 6

I = 2880/230 = 12.52 A

USE: 30AT/50AF, 2P, 240V CIRCUIT BREAKER
FEEDER SIZE: 5.5mm² THHN/THWN COPPER WIRE
CONDUIT SIZE: 20mm² UPVC PIPE

CIRCUIT 8

I = 2880/230 = 12.52 A

USE: 30AT/50AF, 2P, 240V CIRCUIT BREAKER
FEEDER SIZE: 5.5mm² THHN/THWN COPPER WIRE
CONDUIT SIZE: 20mm² UPVC PIPE

CIRCUIT 11

I = 1500/220 = 6.52 A

USE: 30AT/50AF, 2P, 240V CIRCUIT BREAKER
FEEDER SIZE: 5.5mm² THHN/THWN COPPER WIRE
CONDUIT SIZE: 20mm² UPVC PIPE

TOTAL CONNECTED LOAD

I_T = 11900/230 = 51.74 A

USE: 70AT/100AF, 2P, 240V CIRCUIT BREAKER
FEEDER SIZE: 30mm² THHN/THWN COPPER WIRE
CONDUIT SIZE: 40mm² UPVC PIPE

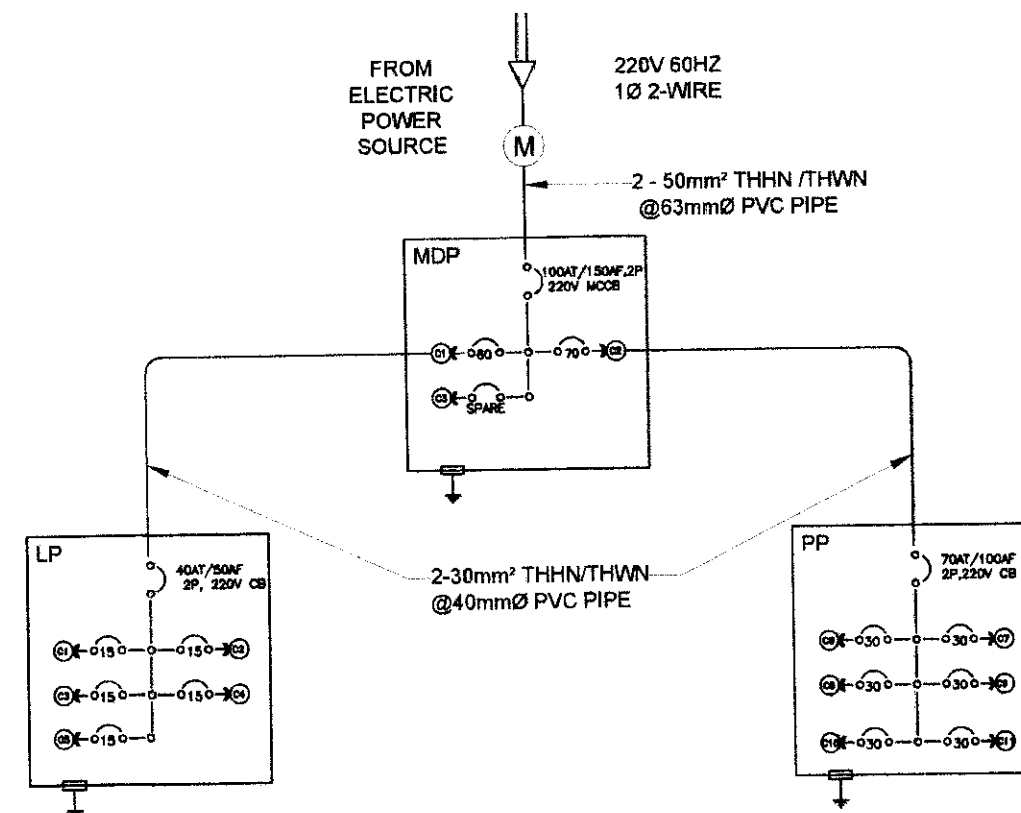
TOTAL CONNECTED LOAD

I_T = 1064/230 = 4.63 A

USE: 40AT/50AF, 2P, 240V CIRCUIT BREAKER
FEEDER SIZE: 8.0mm² THHN/THWN COPPER WIRE
CONDUIT SIZE: 25mm² UPVC PIPE

GENERAL NOTES:

- ALL ELECTRICAL WORKS TO COMPLY WITH THESE PLANS AND SPECIFICATIONS, THE APPLICABLE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE(PEC), THE RULES AND REGULATIONS OF THE LOCAL ENFORCING AUTHORITY AND THE REQUIREMENTS OF THE LOCAL POWER COMPANY. ALL ELECTRICAL WORKS SHALL BE UNDER THE IMMEDIATE SUPERVISION OF A DULY REGISTERED ELECTRICAL ENGINEER.
- THE ELECTRICAL SERVICE POWER IS 2-PHASE, 2-WIRE, 220V AC, 60Hz.
- WIRING METHOD SHALL BE AS FOLLOWS:
 - FEEDERS AND RISERS - RIGID METALLIC CONDUIT
 - LIGHTING, POWER RECEPTACLE - POLYVINYL CHLORIDE
- CONDUIT SCH.40
- BRANCH CKT & AUXILIARY
- ALL WIRES SHALL BE COPPER AND THERMOPLASTIC INSULATED TYPE "THW" UNLESS OTHERWISE INDICATED IN THE PLAN. THE MINIMUM SIZE OF WIRE FOR POWER AND LIGHTING CIRCUIT HOMERUN SHALL BE 3.5MM AND INSULATED FOR 600VOLTS. SMALLEST RACEWAY SHALL BE 15MM TRADE/NOMINAL SIZE.
- ALL OUTLET BOXES SHALL BE GALVANIZED GAUGE NO. 16 DEEP TYPE W/ FACTORY KNOCKOUTS.
- ALL MATERIALS TO BE USED SHALL BE BRAND NEW AND APPROVED TYPE FOR PARTICULAR LOCATION AND PURPOSE.
- GROUNDING SYSTEM SHALL BE PROVIDED TO ALL LIGHTING AND POWER CIRCUIT AS PER PHILIPPINE ELECTRICAL CODE REQUIREMENT.
- MOUNTING HEIGHT OF WIRING DEVICES SHALL BE AS FOLLOWS:
 - LIGHT SWITCH - 1.20M ABOVE FINISH FLOOR
 - CONVENIENCE OUTLET - 0.30M ABOVE FINISH FLOOR LINE
 - SAFETY SWITCH - 1.80M ABOVE FINISH FLOOR LINE



1 PANEL BOARD DIAGRAM
E-2 SCALE: NTS

IMPLEMENTING AGENCY:

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

PROJECT NAME & LOCATION:

FRUITS AND VEGETABLES
PROCESSING FACILITY
BROY, NALOOK, KALIBO, Aklan

SHEET CONTENTS:

SCHEDULE OF ELECTRICAL LOAD
GENERAL NOTES
PANEL BOARD DIAGRAM

PREPARED:

FRANCIS AMRO L. RAGA-AS, CE, MP
Technical Staff (CE NO. 0581539)

REVIEWED/SUBMITTED:

YVONNE GRACE M. SUR, ABE
Engineer III (ABE NO. 0005970)
Head, Engineering Plans, Designs, and Specifications Section

RECOMMENDED:

MOISES D. MANA-AY, ABE, MEE
Engineer IV (ABE NO. 0006077)
OIC- Division Chief, RAED

APPROVED BY:

DOMINADO A. MARQUEZ
OIC- RTD for Operations and Extension

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- THE BILLBOARD DESIGN LAYOUT AND DIMENSION SHALL BE ON A STANDARD BILLBOARD MEASURING 1200 mm x 2400 mm (4FT x 8FT.) USING 12 mm ($\frac{1}{2}$ INCH) THICK MARINE PLYWOOD OR TARPAULIN POSTED ON 5 mm ($\frac{3}{16}$ INCH) MARINE PLYWOOD.
- THE BILLBOARD SHALL BE INSTALLED IN FRONT OF THE PROJECT SITE.

TARPAULIN, WHITE, 8 FT x 8 FT
RESOLUTION: 70 DPI
FONT: HELVETICA
FONT SIZE: MAIN INFORMATION - 3"
SUB INFORMATION - 1"
FONT COLOR: BLACK



DOMINADORA. MARQUEZ
CIC- RTD FOR OPERATIONS AND EXTENSION