



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

DETAILED ENGINEERING DESIGN PLANS

**ESTABLISHMENT OF VICTORIAS ORGANIC DEMO FARM
SOLAR- POWERED IRRIGATION SYSTEM (SPIS)**

ORGANIC AGRICULTURE PROGRAM (2023)

Hda. Marilou, Brgy. XIV, Victorias City, Negros Occidental

Prepared by:

MELVIN D. HAGONOB, ABE
Engineer III (License No. 0008100)

Reviewed by:

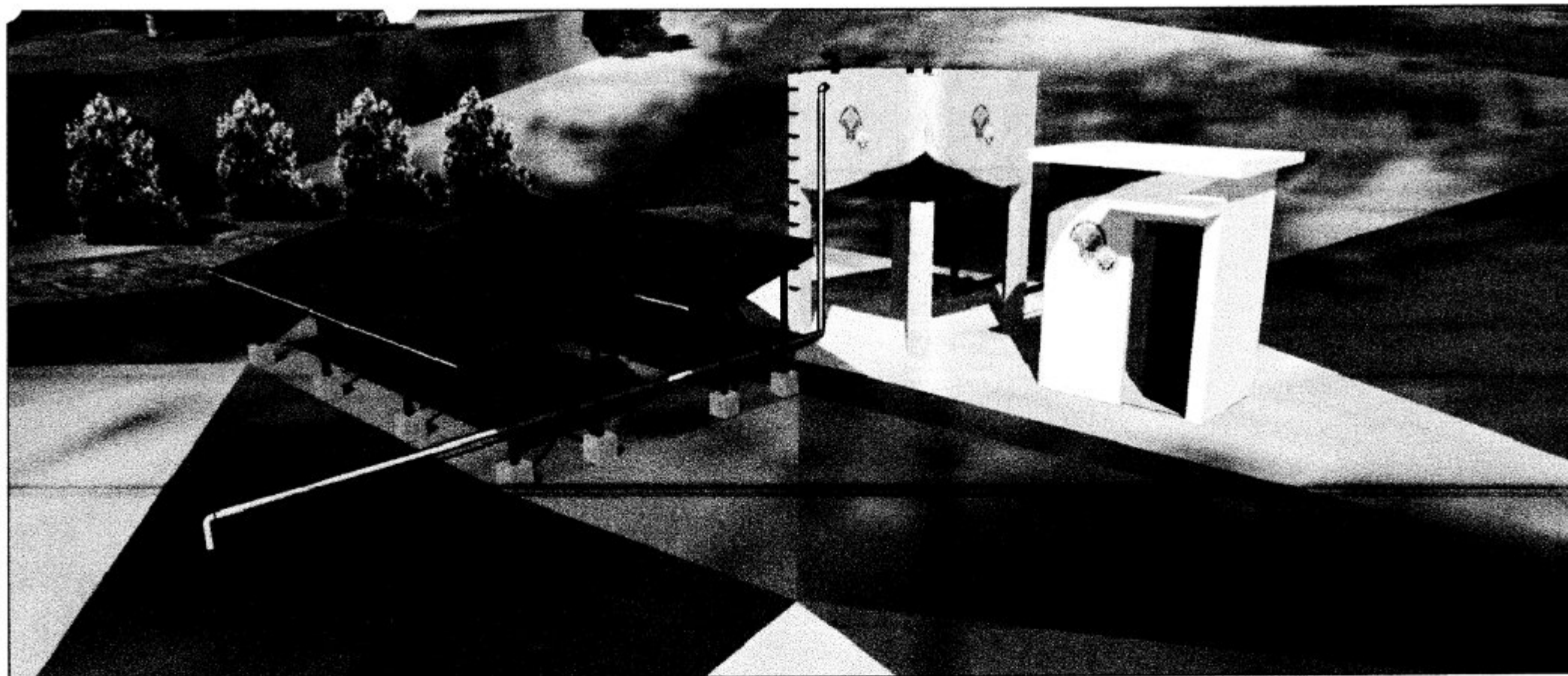
YVONNE GRACE H. SUR, ABE
Engineer III (License No. 0005970)
Head, EPDSS

Recommending Approval:

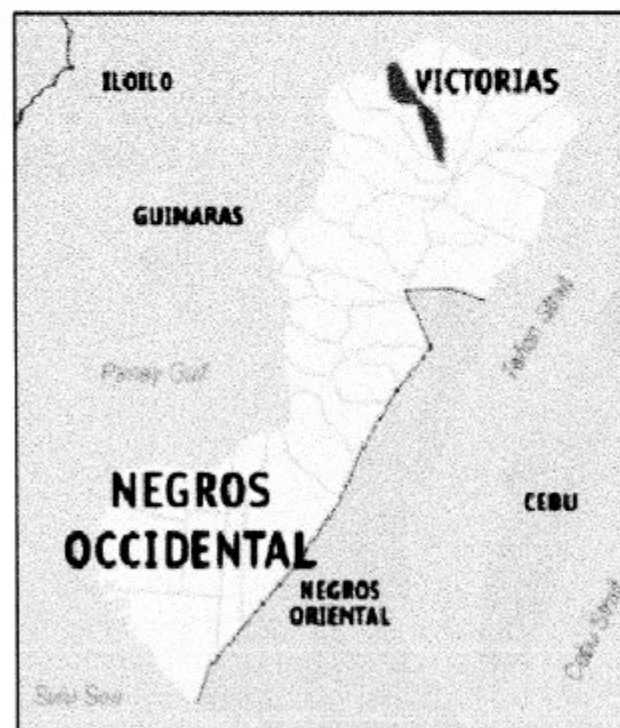
MOISES D. MANA-AY, MEE, ABE
Engineer IV (License No. 0006077)
OIC- Chief, RAED

Approved by:

JOSE ALBERT A. BARROGO, ABE
OIC-RTD for Operations & Extension



PERSPECTIVE
SCALE: NTS



LOCATION MAP
SCALE: NTS

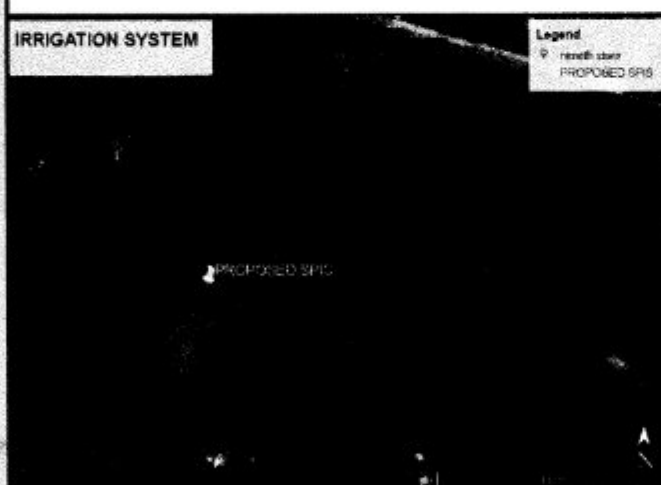


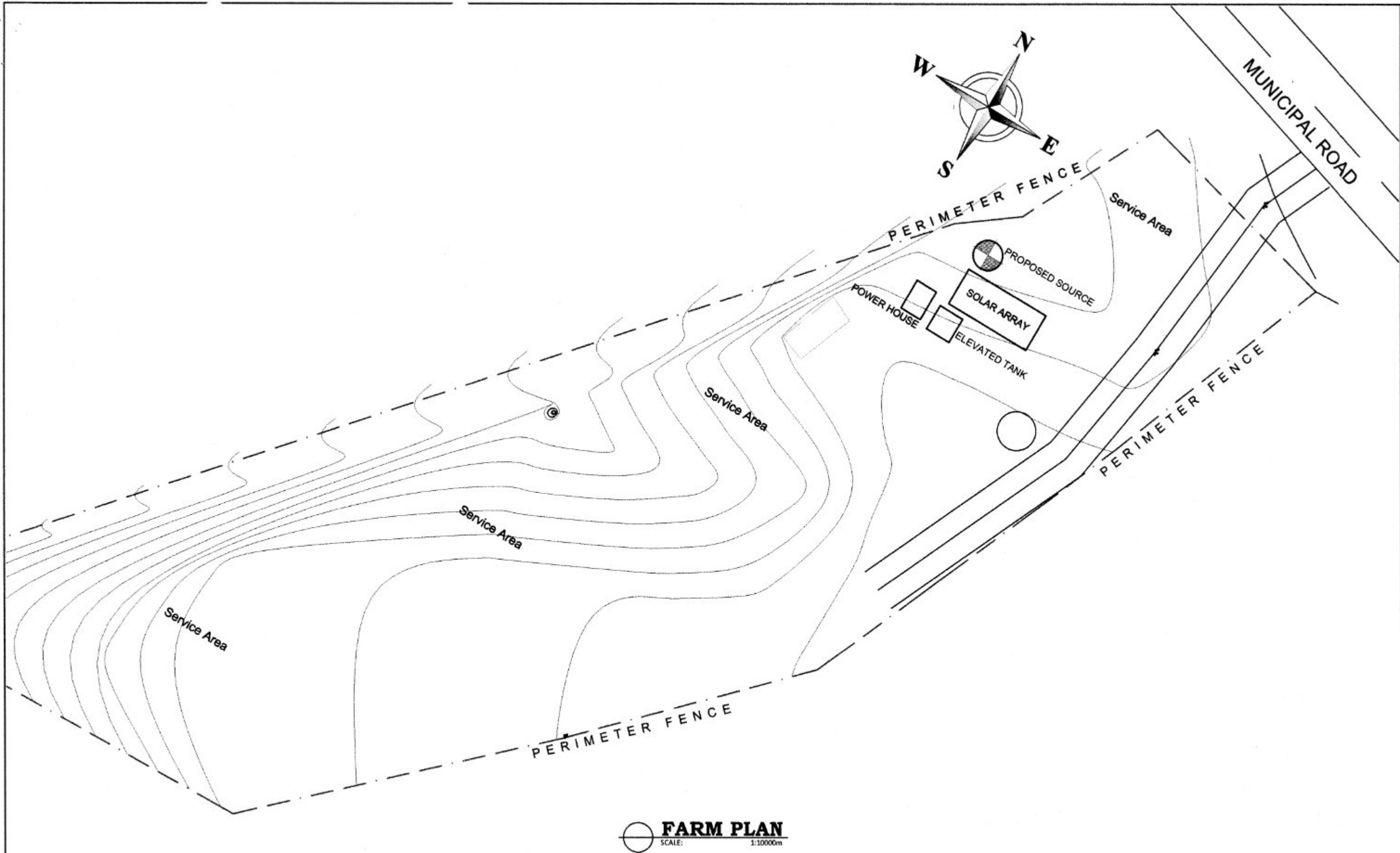
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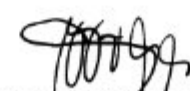


Item No.	Scope of Work	Quantity	Unit
I. GENERAL ITEM			
SPL1	TEMPORARY FACILITY	1.00	lot
SPL2	PROJECT SIGNBOARD (1-4'x8'), COA BILLBOARD (1-8'x8'), AND PROJECT MARKER	1.00	lot
SPL3	MOBILIZATION/DEMOLITION	1.00	lot
II. SOLAR PUMP ARRAY MOUNTING STRUCTURE			
803	STRUCTURE EXCAVATION (FOR FOUNDATION/PEDESTAL)	1.68	cu m
404	REINFORCING STEEL BARS	53.48	kg
414	FORMWORKS	6.72	sq m
405	CONCRETE WORKS (2400 psi)	0.43	cu m
1705	STRUCTURE BACKFILL	0.14	cu m
SPL4	SOLAR POWER MODULE MOUNTING STRUCTURE	1.00	lot
SPL5	SOLAR POWER MODULES (3,000 WP)	12.00	unit
SPL6	INVERTER & CONTROLLER, 4.0 HP	1.00	unit
SPL7	SOLAR PUMP (SUBMERSIBLE), 2.0 HP	1.00	unit
III. POWER HOUSE			
803	STRUCTURE EXCAVATION	0.30	cu m
414	FORMWORKS	97.13	sq m
405	CONCRETE WORKS (2400 psi)	2.01	cu m
404	REINFORCING STEEL BARS	300.97	kg
704.3	MASONRY	18.45	sq m
1027	PLASTERING	32.90	sq m
1706	LEVELING COURSE	0.30	cu m
403	PREFABRICATED DOOR	1.00	lot
1705	STRUCTURAL BACKFILL	0.25	cu m
1032	PAINTING WORKS	32.90	sq m
IV. ELEVATED TANK			
803	STRUCTURE EXCAVATION	12.86	cu m
1705	STRUCTURE BACKFILL	13.51	cu m
414	FORMWORKS AND SCAFFOLDINGS	41.53	sq m
405	CONCRETE WORKS (3000 psi)	8.80	cu m
404	REINFORCING STEEL BARS	1527.94	kg
1032	PAINTING WORKS	25.25	sq m
SPL7	DA - WESTERN VISAYAS LOGO	1.00	lot
V. PIPES, FITTINGS, AND OTHER ACCESSORIES			
SPL8	PIPE CASING (6" G.I. PIPE, SCH. 40), DELIVERY PIPE (4" G.I. PIPE, SCH. 40), DISTRIBUTION PIPE (2" HDPE PIPE, SDR 11 & 1" HDPE PIPE, SDR 11), FITTINGS, AND OTHER ACCESSORIES	1.00	lot

SCOPE OF WORK
SCALE: NTS

IMPLEMENTING AGENCY: REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE WESTERN VISAYAS PAROLA, ILOILO CITY	PROJECT NAME & LOCATION: ESTABLISHMENT OF VICTORIAS ORGANIC DEMO FARM SOLAR-POWERED IRRIGATION SYSTEM (SPIS) HDA. MARILOU, BRGY. XIV, VICTORIAS CITY, NEGROS OCCIDENTAL	SHEET CONTENTS: AS SHOWN	PREPARED BY: MELVIN D. HAGONOB, ABE Engineer III (License No. 008300)	REVIEWED BY: YVONNE GRACE H. SUR, ABE Engineer III (License No. 0005970) Head, Engineering Plans, Designs, and Specifications Section	RECOMMENDING APPROVAL: MOISES D. MANA-AY, ABE, MEE Engineer IV (License No. 0006077) OIC, Chief, RAED	APPROVED BY: JOSE ALBERT A. BARROSO, ABE Engineer V (License No. 0003768) OIC, Rtd. for Operations & Extension	SHEET NO.: A PAGE NO.: 1 12
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FARM PLAN
SCALE: 1:10000m

IMPLEMENTING AGENCY: REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE WESTERN VISAYAS PAROLA, ILOILO CITY	PROJECT NAME & LOCATION: ESTABLISHMENT OF VICTORIAS ORGANIC DEMO FARM SOLAR- POWERED IRRIGATION SYSTEM (SPIS) HDA. MARILOU, BRGY. XIV, VICTORIAS CITY, NEGROS OCCIDENTAL	SHEET CONTENTS: AS SHOWN CAD BY: RV LASTIERRE	PREPARED BY:  MELVIN D. HAGONOB, ABE Engineer III (License No. 008100)	REVIEWED BY:  YVONNE GRACE H. SUR, ABE Engineer I (License No. 0005970) Head, Engineering Plans, Designs, and Specifications Section	RECOMMENDING APPROVAL:  MOISES D. MANA-AY, ABE, MEE Engineer IV (License No. 0006077) Chief, R&ED	APPROVED BY:  JOSE ALBERT A. BARROGO, ABE Engineer V (License No. 0003768) OIC-RTD for Operations & Extension	SHEET NO.: A 2 PAGE NO.: 2 12
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BM - POINT	AZIMUTH	DISTANCE
BM - PT 1 SOLAR ARRAY	N 35° 57' 43" E	14.60m
BM - PT 2 SOLAR ARRAY	N 49° 17' 37" E	11.31m
BM - PT 1 POWER HOUSE	N 28° 28' 31" E	8.833m
BM - PT 2 POWER HOUSE	N 45° 5' 52" E	5.95m
BM - PT 1 ELEVATED TANK	N 56° 17' 41" E	9.48m
BM - PT 2 ELEVATED TANK	N 73° 58' 58" E	8.19m
BM - PROP. SOURCE	N 34° 1' 23" E	17.32m



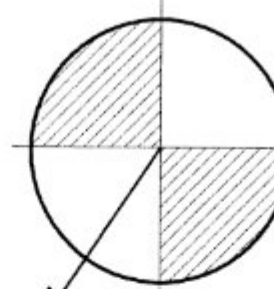
BM - CORNER POST

PERIMETER FENCE

POWER HOUSE

EXISTING STRUCTURE

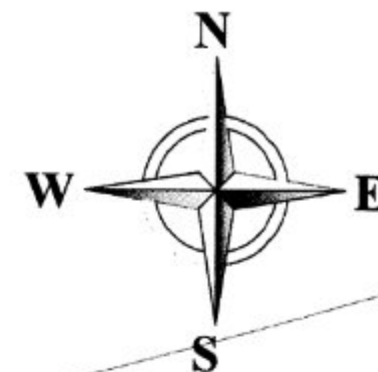
PROPOSED SOURCE








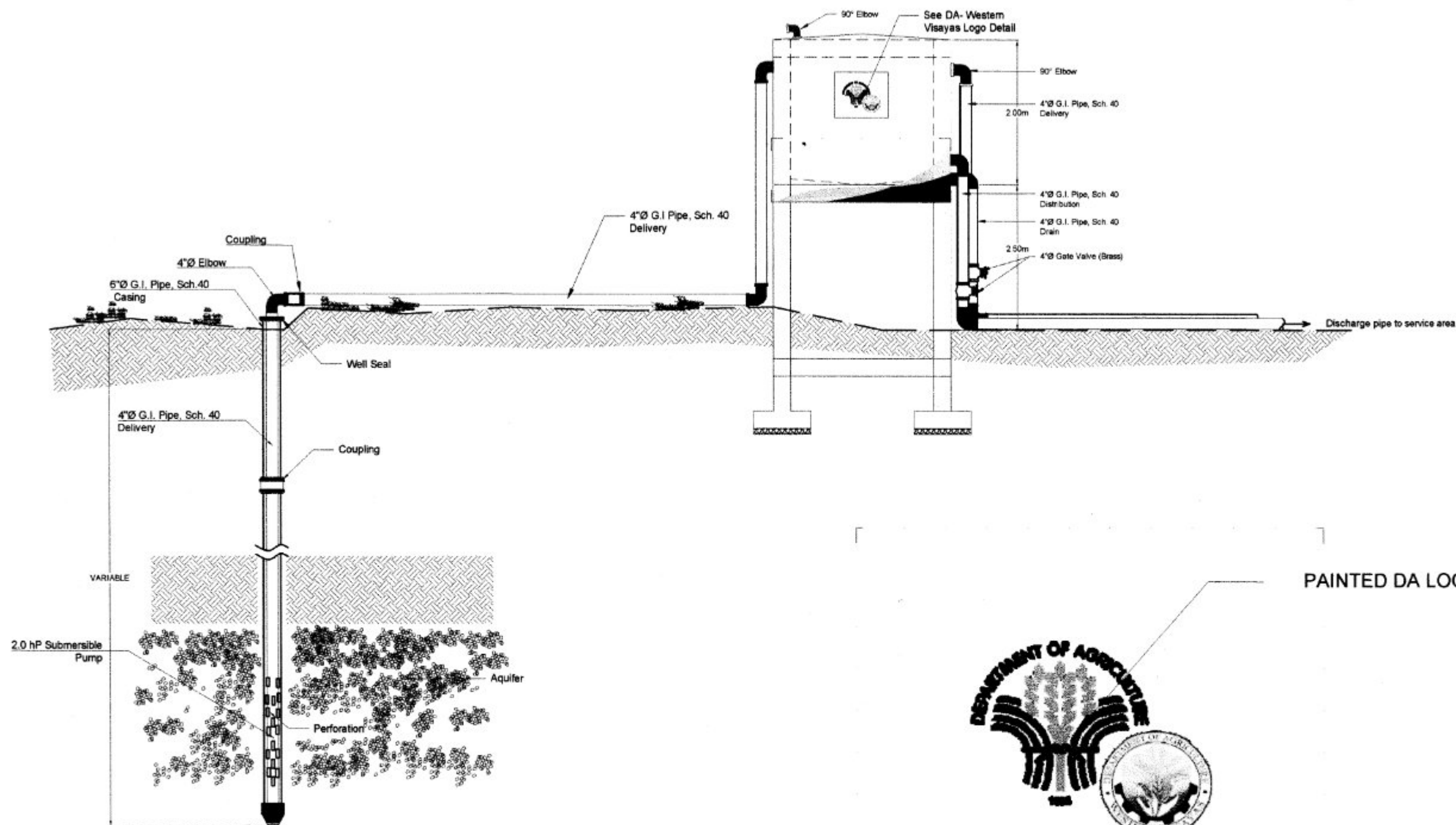
SOLAR ARRAY

ELEVATED TANK

REFERENCE POINT
SCALE: 1:2.5m



IMPLEMENTING AGENCY:  REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE WESTERN VISAYAS PAROLA, ILOILO CITY	PROJECT NAME & LOCATION: ESTABLISHMENT OF VICTORIAS ORGANIC DEMO FARM SOLAR-POWERED IRRIGATION SYSTEM (SPIS)	SHEET CONTENTS: AS SHOWN	PREPARED BY:  MELVIN D. HAGONOB, ABE Engineer (License No. 008100)	REVIEWED BY:  YVONNE GRACE, ABE, MEE Engineer III (License No. 0005970) Head, Engineering Plans, Designs, and Specifications Section	RECOMMENDING APPROVAL:  MOISES D. MANA-AT, ABE, MEE Engineer IV (License No. 0006077) OK-Chief, RAED	APPROVED BY:  JOSE ALBERT A. BARROGO, ABE Engineer V (License No. 0004768) OK-RTD for Operations & Extension	SHEET NO.: A 3 PAGE NO.: 3 12
	HDA, MARILOU, BRGY. XIV, VICTORIAS CITY, NEGROS OCCIDENTAL CAD BY: RV LASTIERRE						




TYPICAL PUMP SECTION DETAIL
SCALE: 1:2 M





*Note:

Drilling Works will be shouldered by the local government unit of Victorias City, Negros Occidental.



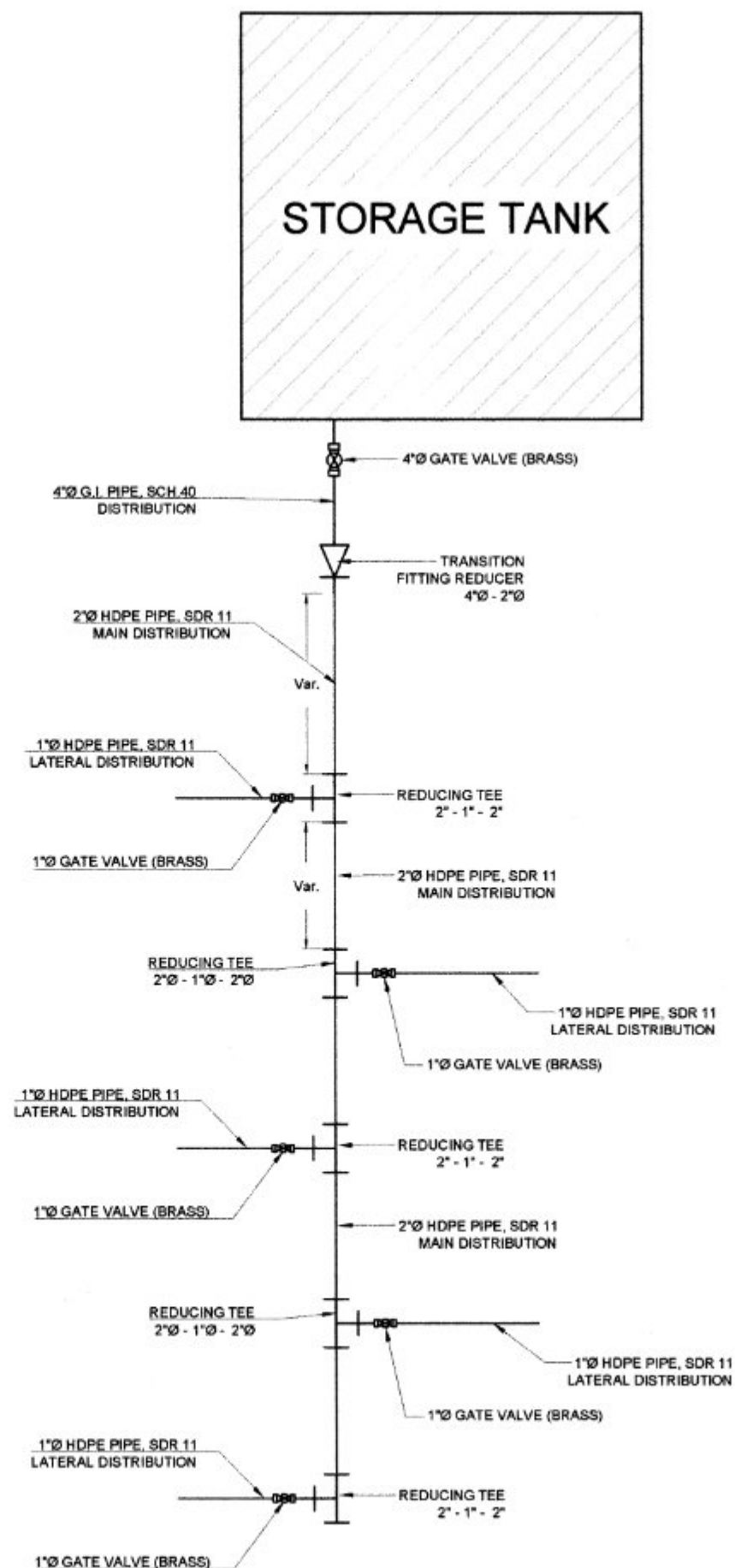
DA LOGO DETAIL
SCALE: 4:1 M






IMPLEMENTING AGENCY	PROJECT NAME & LOCATION	SHEET CONTENTS	PREPARED BY	REVIEWED BY	RECOMMENDING APPROVAL	APPROVED BY	SHEET NO.
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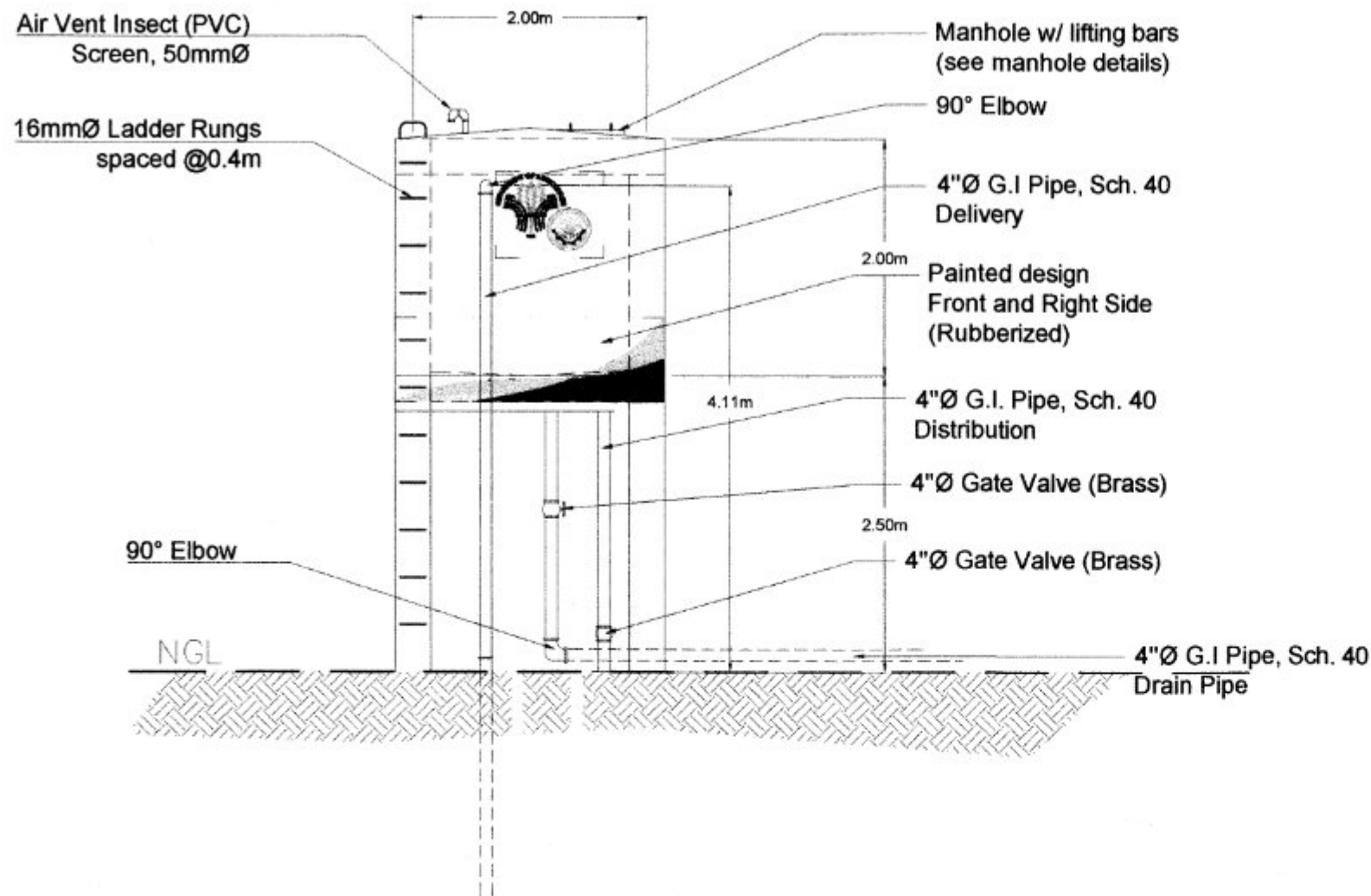
	—	GATE VALVE THREADED
	—	TRANSITION FITTING REDUCER
	—	REDUCING TEE
	—	HDPE PIPE

LEGEND

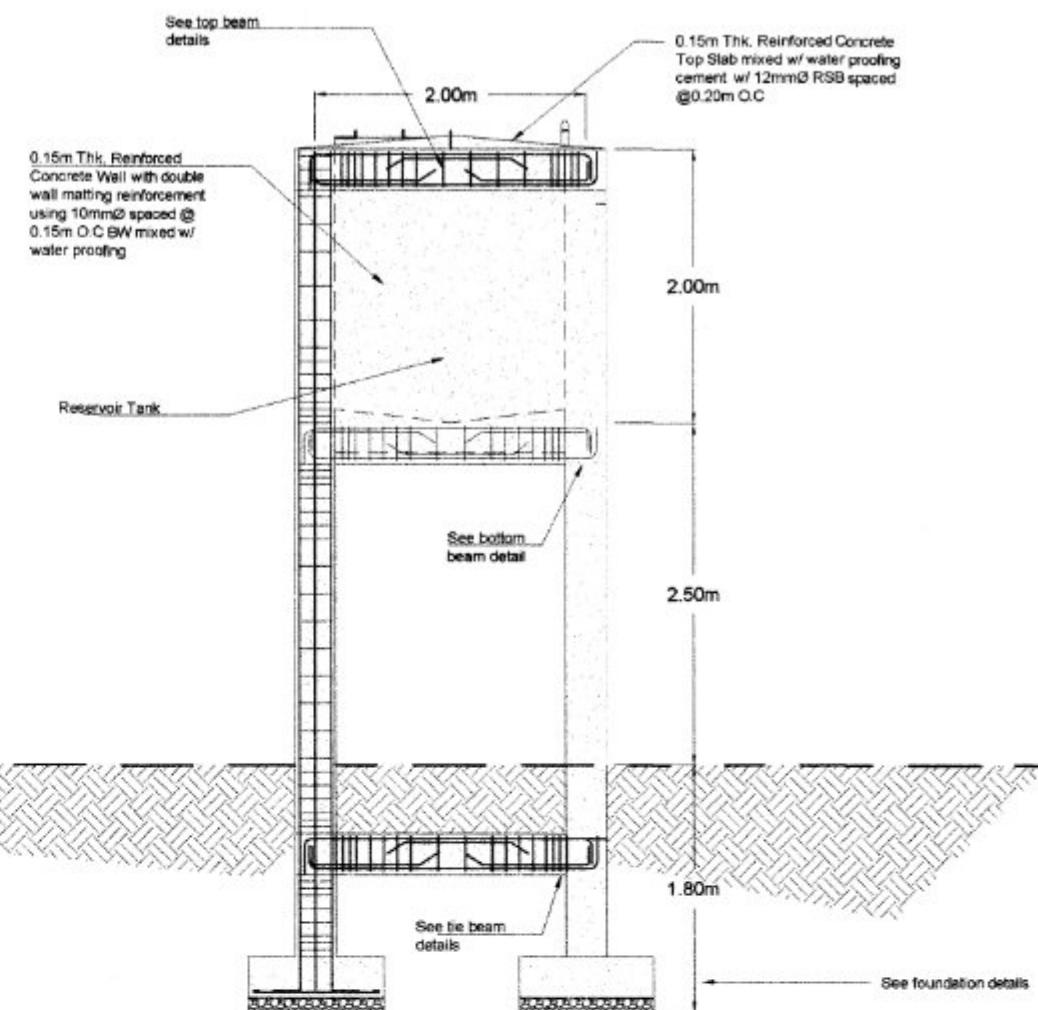
TYPICAL IRRIGATION SYSTEM LAY-OUT
SCALE: NTS



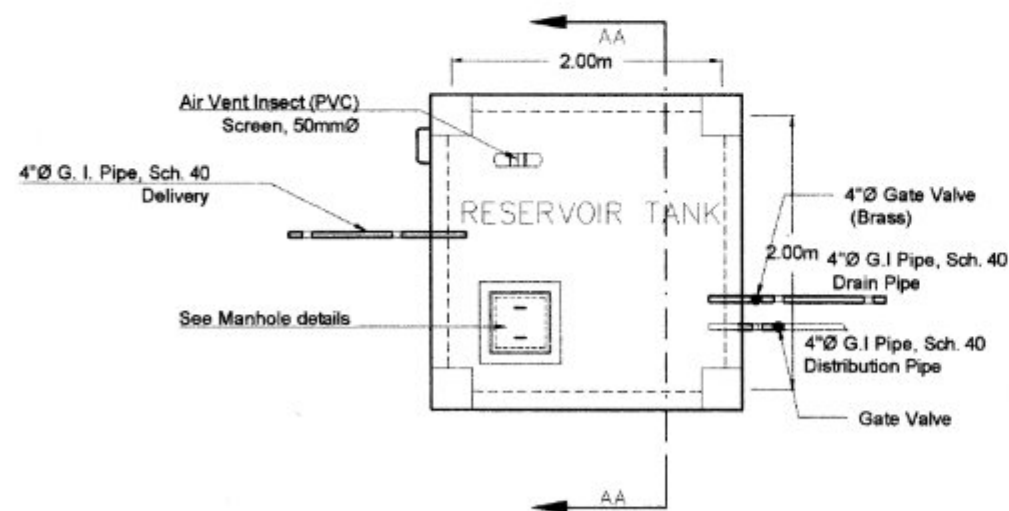
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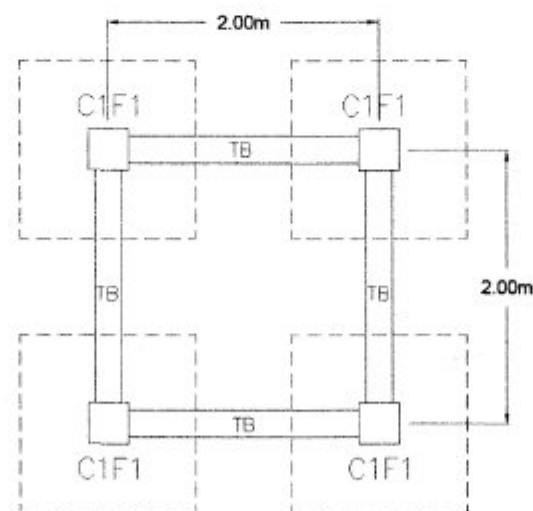
TANK ELEVATION
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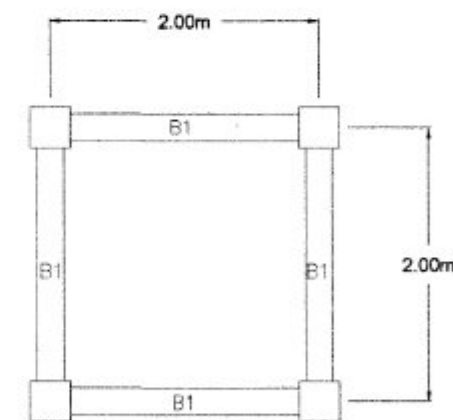
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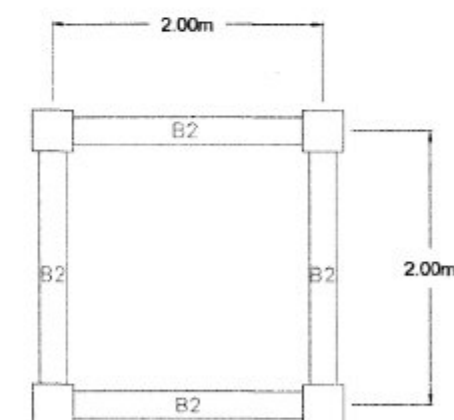
TANK PLAN
SCALE: 1:140M



FOUNDATION PLAN
SCALE: 1:140M

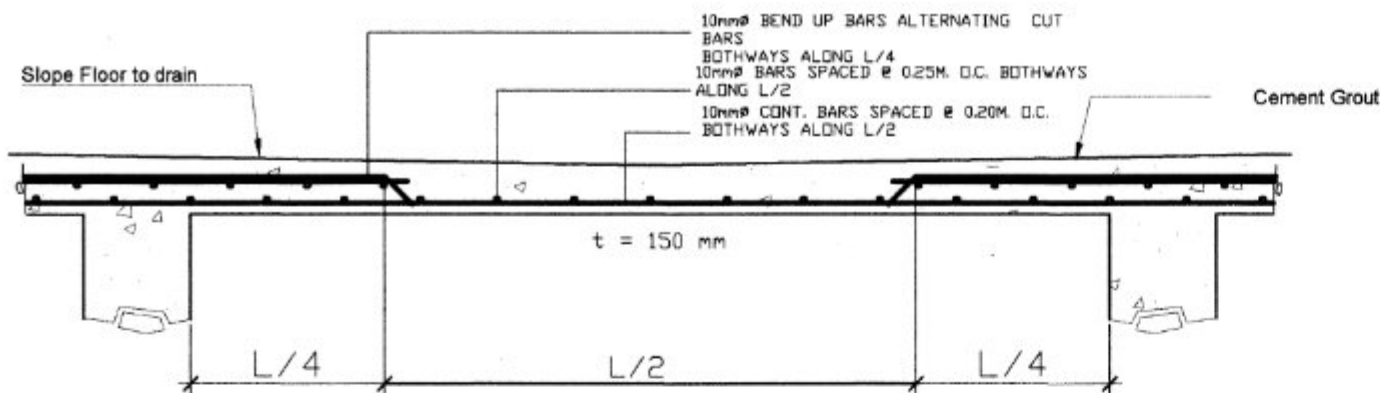


TANK FLOORING BEAM FRAME
SCALE: 1:140M

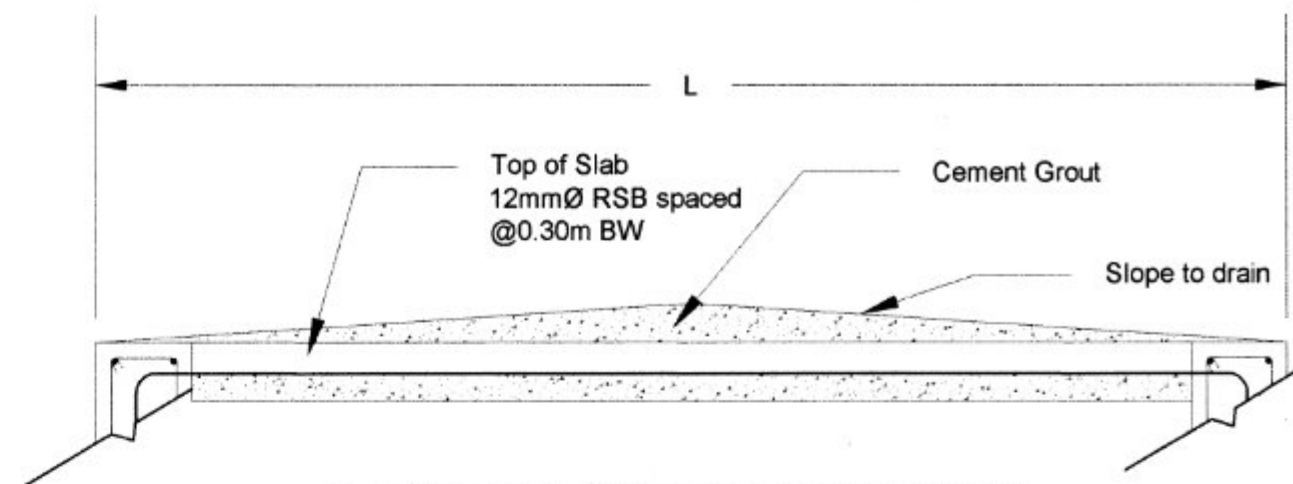


TANK COVER BEAM FRAME
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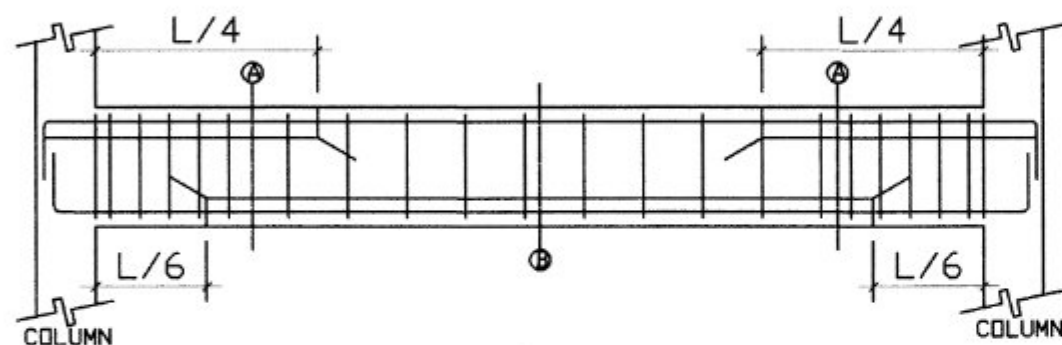
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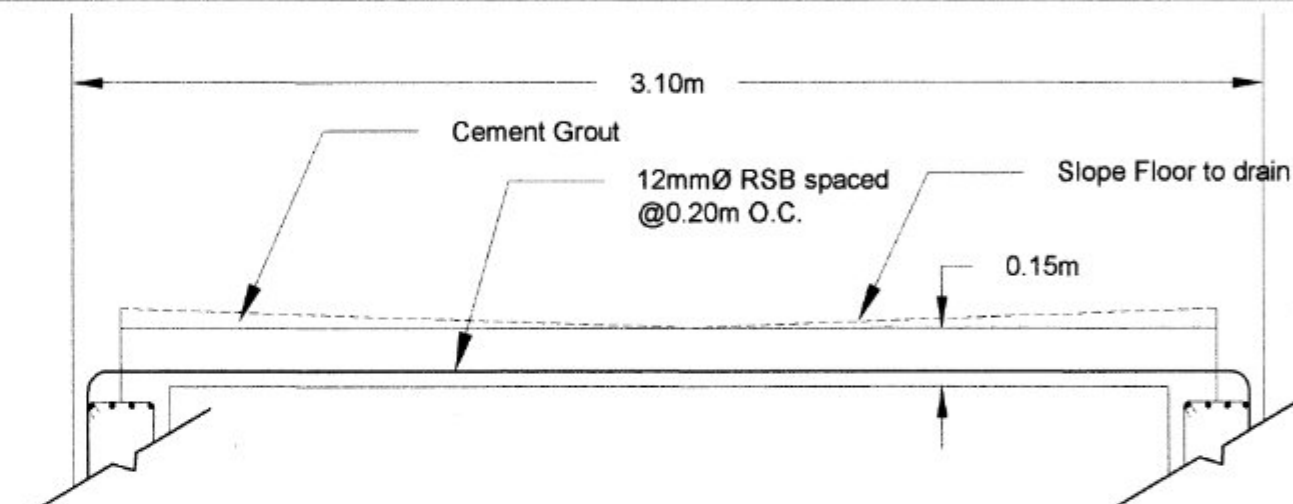
TWO-WAY SLAB DETAILS
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TYPICAL TOP SLAB DETAILS
SCALE: 1:500M



TYPICAL BEAM SECTION
SCALE: NTS

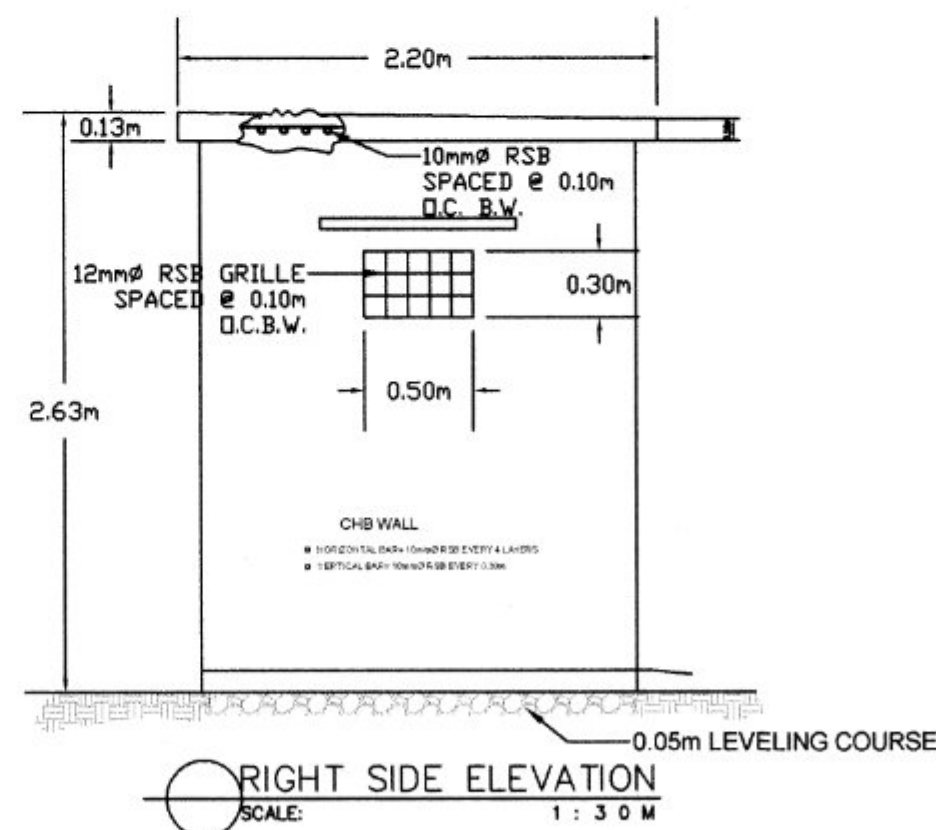
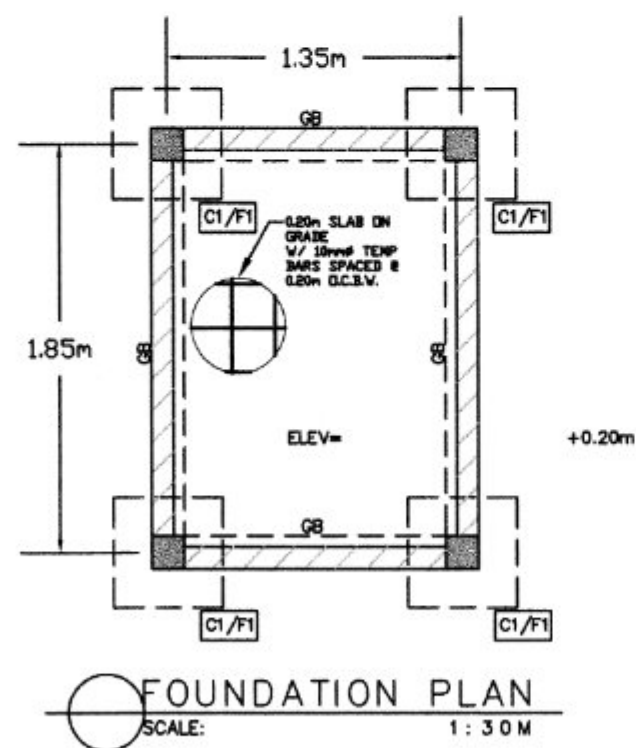
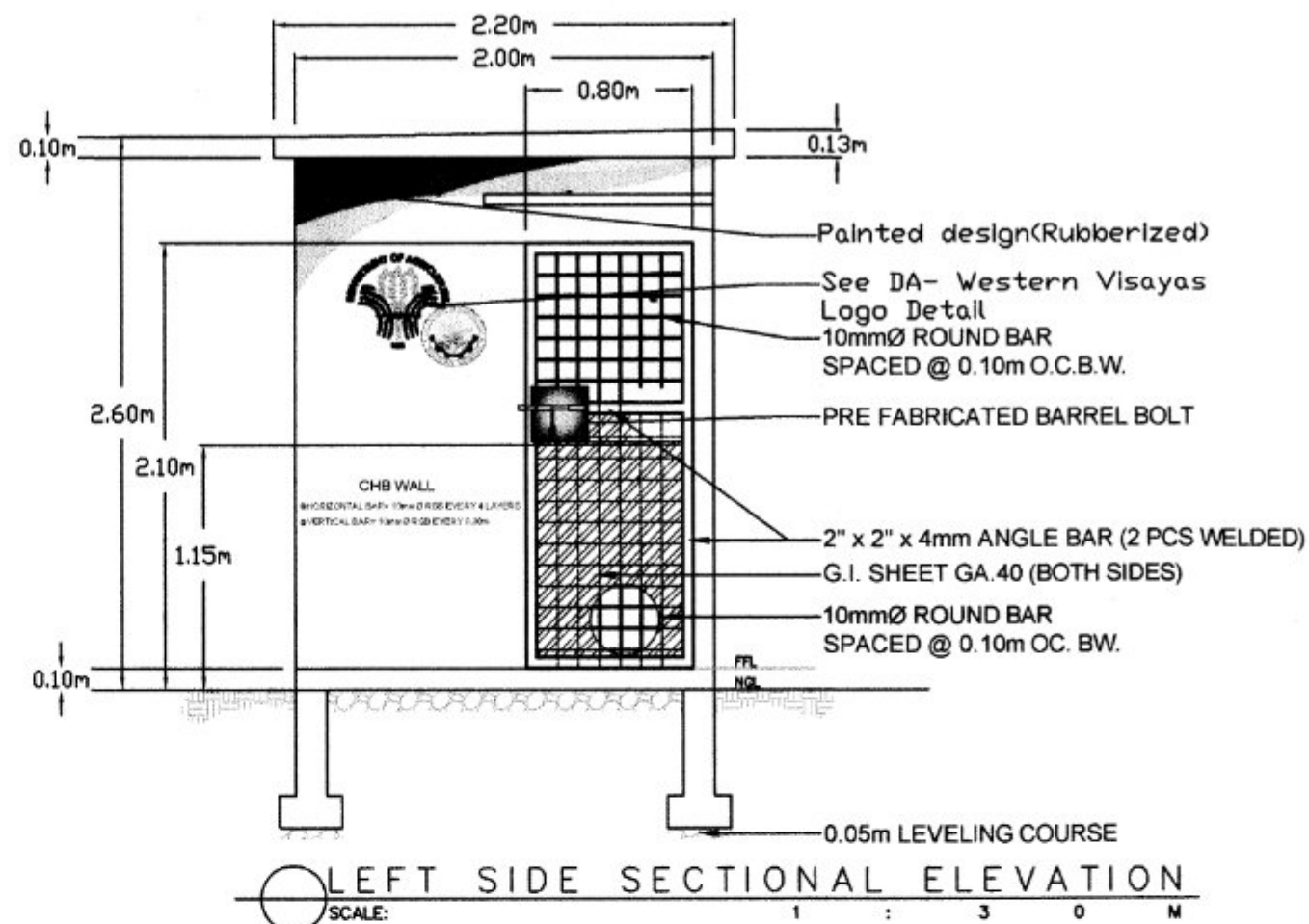


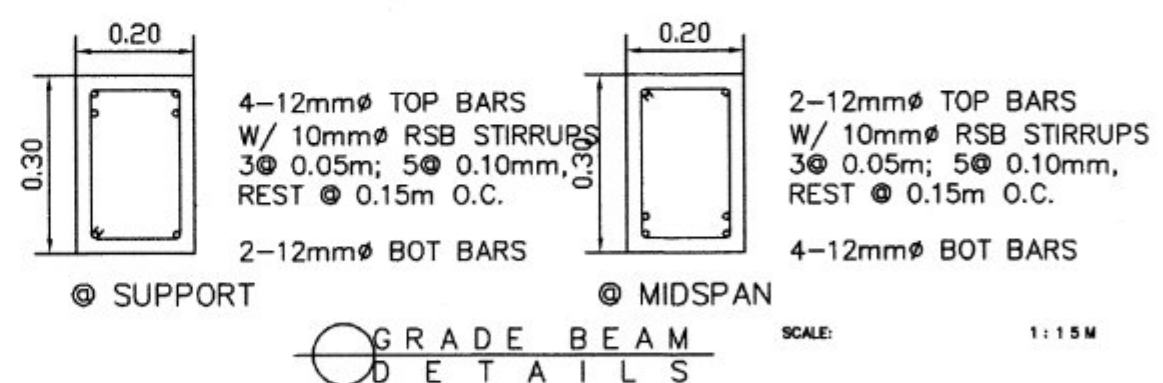
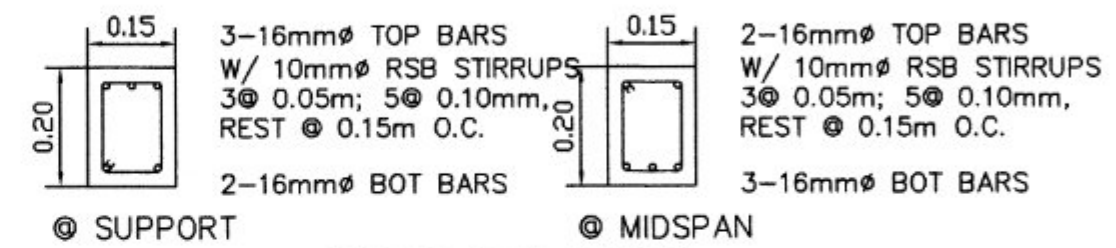
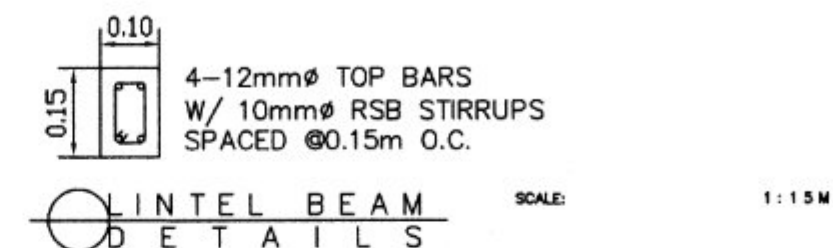
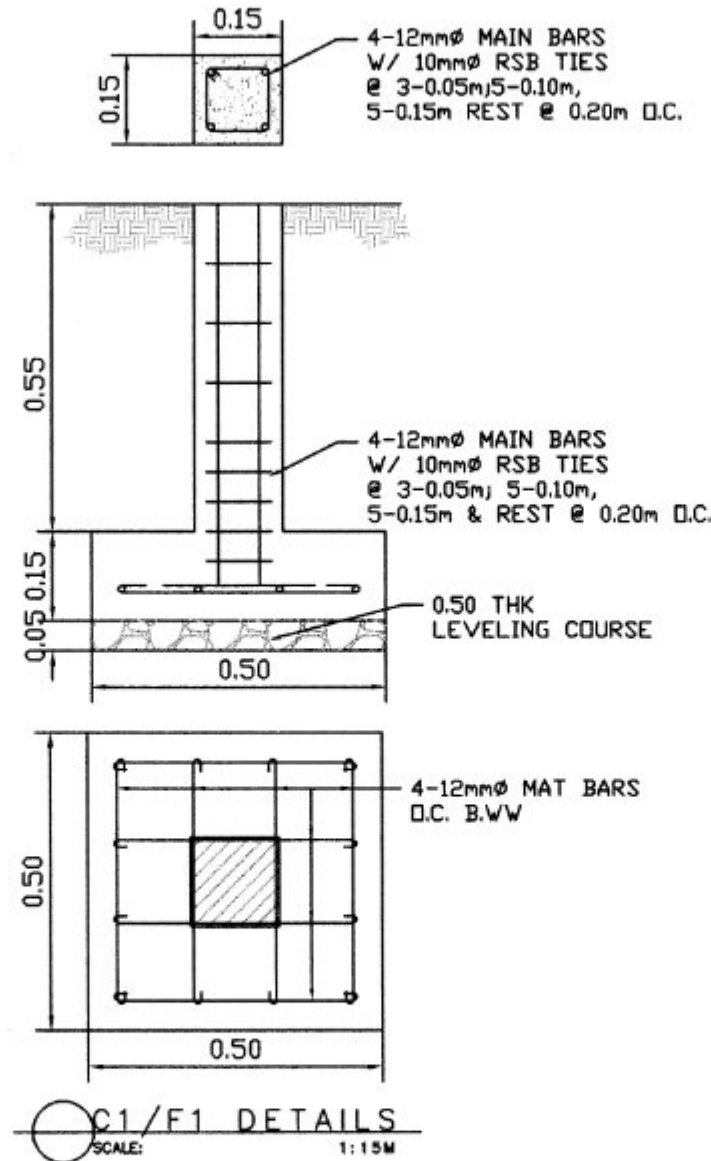
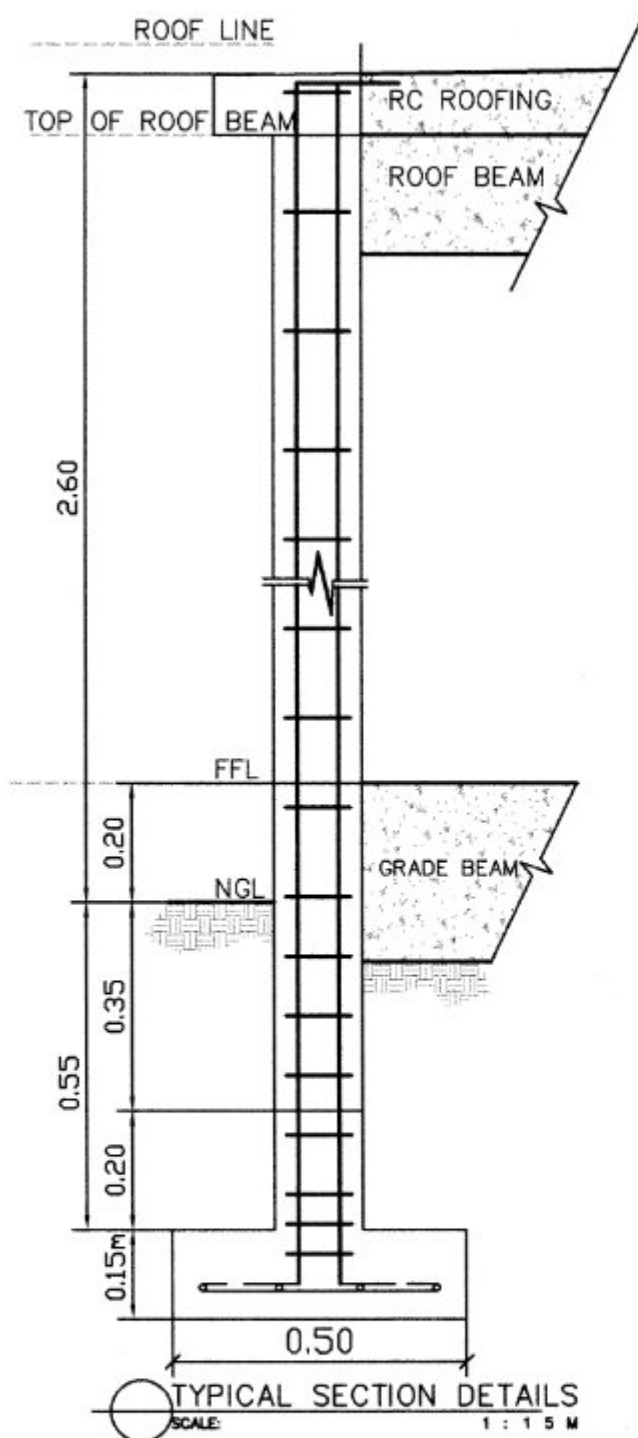
TYPICAL SLAB BEAM SECTION DETAILS
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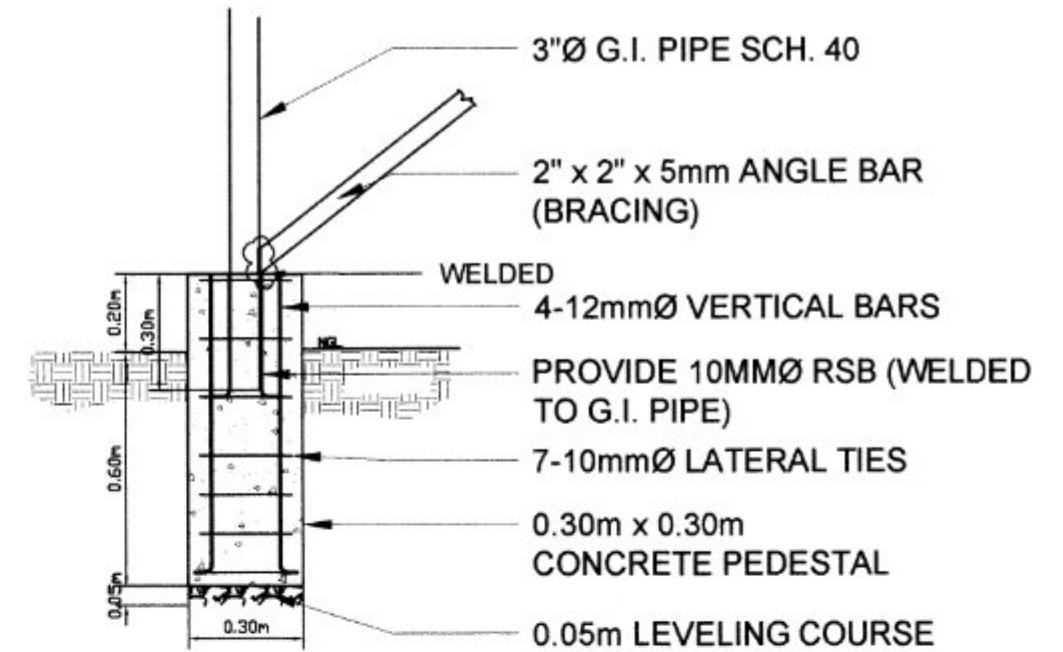
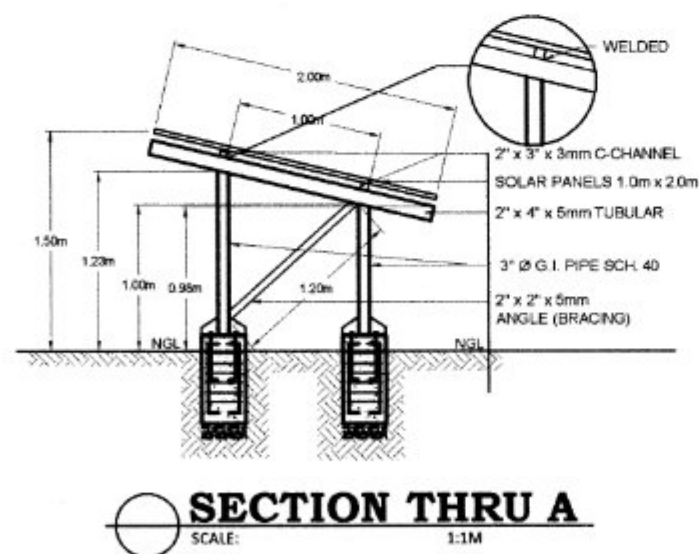
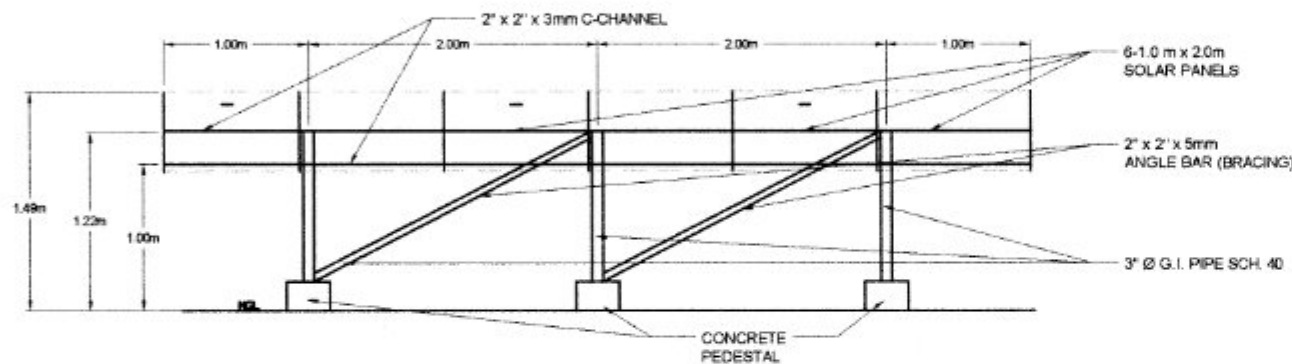
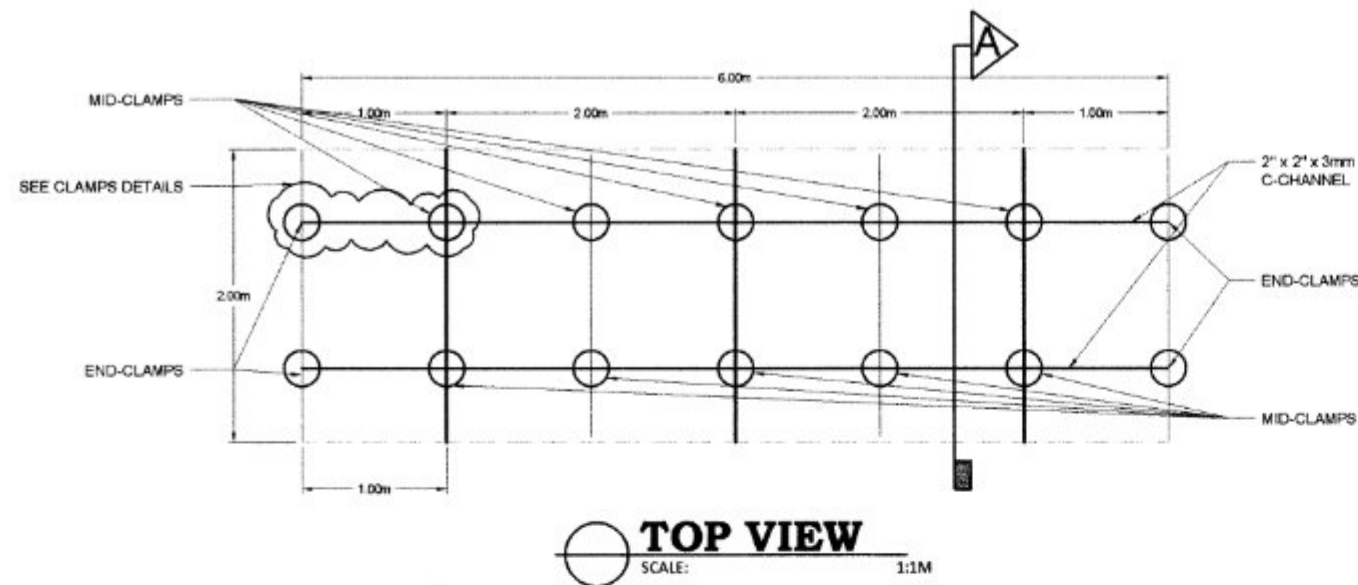
SCHEDULE OF BEAMS

SCHEDULE OF BEAMS									
DESCRIPTION	BEAM DIMENSION		REINFORCEMENTS						REMARKS
	DEPTH (mm)	HEIGHT (mm)	REBAR (Ø mm)	@ SUPPORT		@ MIDSPAN		STIRRUPS	
				TOP	BOT.	TOP	BOT.		
TB	250	350	16	2	4	4	2	5 @ 0.05m, 4 @ 0.075m, 2 @0.10m REST @ 0.20m O.C.	FOOTING TIE BEAM
B-1	250	350	16	5	3	3	5	5 @ 0.05m, 4 @ 0.075m, 2 @0.10m REST @ 0.20m O.C.	TANK FLOOR BEAM
B-2	200	300	16	4	3	3	4	5 @ 0.05m, 4 @ 0.075m, 2 @0.10m REST @ 0.20m O.C.	TANK COVER BEAM

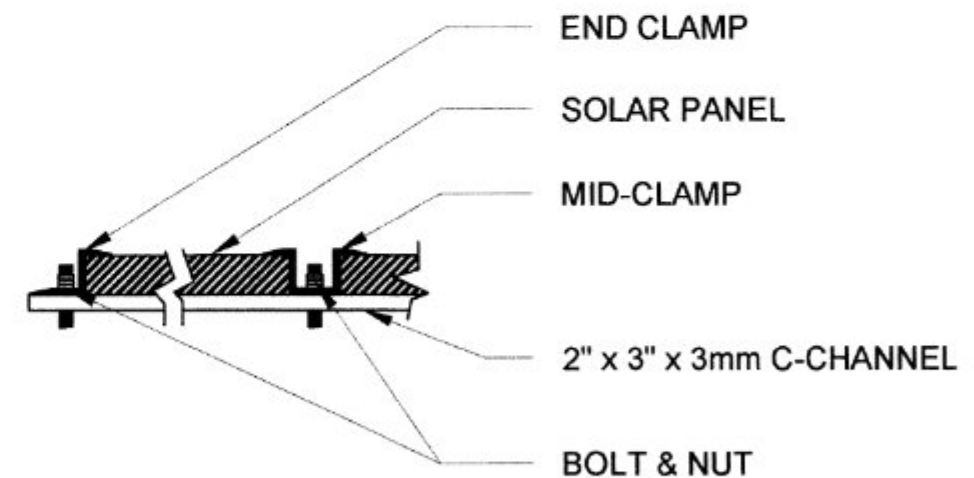
SCHEDULE OF BEAMS
SCALE: NTS







PEDESTAL DETAILS
SCALE: 2:1M



END CLAMPS DETAIL
SCALE: 4:1M



PROJECT: ESTABLISHMENT OF VICTORIAS ORGANIC DEMO FARM
SOLAR-POWERED IRRIGATION SYSTEM (SPIS)
LOCATION: HDA, MARILOU, BRGY. XIV, VICTORIAS, NEGROS OCCIDENTAL

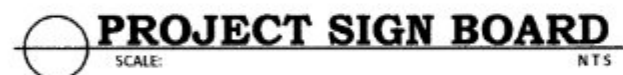
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DEVELOPMENT PARTNER/S:
CONTRACTOR SUPPLIER:
BRIEF DESCRIPTION OF PROJECT:

PROJECT DATE			PROJECT STATUS				REMARKS
DURATION	STARTED	TARGET DATE OF COMPLETION	PERCENTAGE OF COMPLETION	AS OF (DATE)	COST INCURRED TO DATE	DATE COMPLETED	

FOR PARTICULARS OR COMPLAINTS ABOUT THIS PROJECT, PLEASE CONTACT THE REGIONAL OFFICE OR CLUSTER WHICH HAS AUDIT JURISDICTION ON THIS PROJECT:

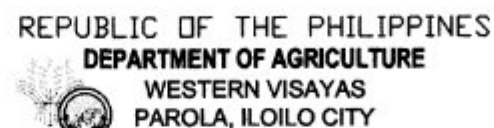
COAREGIONAL OFFICE NO./CLUSTER: _____
ADDRESS: _____
CONTACT NO.: _____ OR TEXT COACITIZEN'S DESK AT 0915-5391957

TARPAULIN, WHITE, 8 FT x 8 FT
RESOLUTION: 70 DPI
FONT: HELVETICA
FONT SIZE: MAIN INFORMATION - 3"
SUB INFORMATION - 1"
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ESTABLISHMENT OF SOLAR-POWERED IRRIGATION SYSTEM HDA, MARILOU, BRGY. XIV, VICTORIAS, NEGROS OCC.

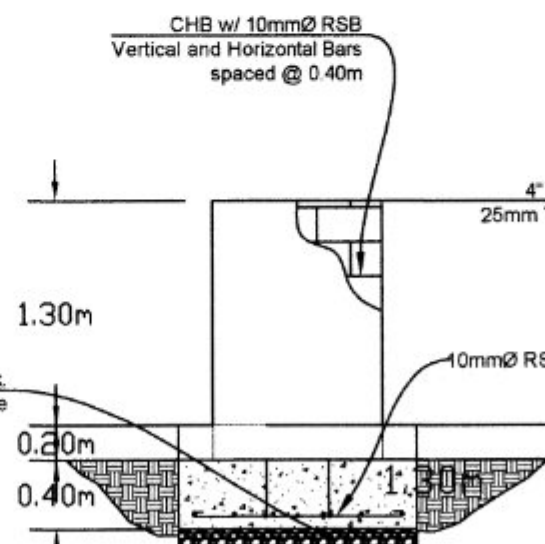
CONTRACTOR:
DATE STARTED:
CONTRACT COMPLETION DATE:
CONTRACT COST:
IMPLEMENTING OFFICE: DEPARTMENT OF AGRICULTURE- WESTERN VISAYAS
SOURCE OF FUND: DA- ORGANIC AGRICULTURE PROGRAM (2023)



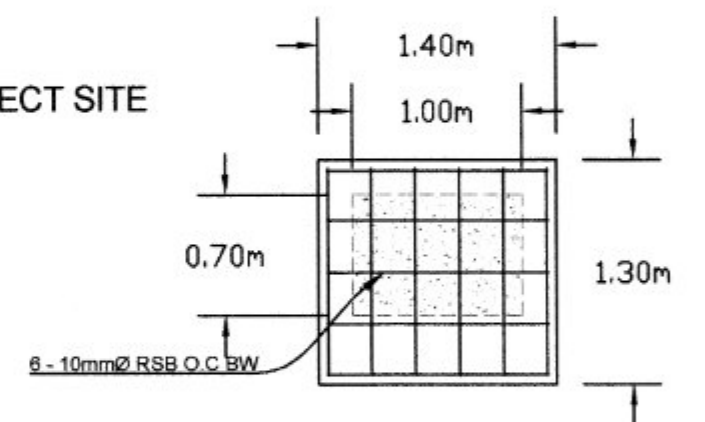
- THE BILLBOARD DESIGN LAYOUT AND DIMENSION SHALL BE ON A STANDARD BILLBOARD MEASURING 1200 mm x 2400 mm (4FT x 8FT.) USING 12 mm ($\frac{1}{2}$ INCH) THICK MARINE PLYWOOD OR TARPAULIN POSTED ON 5 mm ($\frac{3}{16}$ INCH) MARINE PLYWOOD.
- THE BILLBOARD SHALL BE INSTALLED IN FRONT OF THE PROJECT SITE



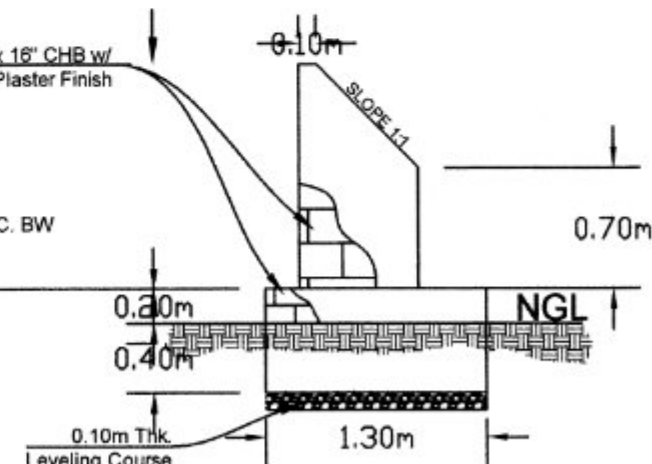
0.60M X 0.60M STAINLESS STEEL PLATE
W/ ENGRAVE LETTERING



FRONT ELEVATION



PLAN



SIDE ELEVATION

IMPLEMENTING AGENCY	PROJECT NAME & LOCATION	SHEET CONTENTS	PREPARED BY	REVIEWED BY	RECOMMENDING APPROVAL	APPROVED BY	SHEET NO.
REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE WESTERN VISAYAS PAROLA, ILOILO CITY	ESTABLISHMENT OF VICTORIAS ORGANIC DEMO FARM SOLAR-POWERED IRRIGATION SYSTEM (SPIS) HDA, MARILOU, BRGY. XIV, VICTORIAS CITY, NEGROS OCCIDENTAL	AS SHOWN CAD BY: RV LASTIERRE	MELVIN D. HAGONOB, ABE Engineer (License No. 008100)	YVONNE GRACE H. SUR, ABE Engineer (License No. 008590) Head, Engineering Plans, Designs, and Specifications Section	MOISES D. MANA-AY, ABE, MEE Engineer IV (License No. 0006077) OIC-Chief, IALD	JOSE ALBERT A. BARROGO, ABE Engineer V (License No. 0003758) OIC-RTD for Operations & Extension	SPL 1 PAGE NO. 12 12