



Republic of the Philippines
Department of Agriculture
BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING
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PROPOSED COLD STORAGE EXPANSION PROJECT

COLD STORAGE DESIGN NOTES

- THE MAXIMUM DESIGN CAPACITY OF CHILLER ROOM IS 15 TONS WITH A PRODUCT ENTERING TEMPERATURE OF 28°C AND STORAGE TEMPERATURE OF +1°C TO +10°C. HOWEVER, THE CAPACITY MAYBE REDUCED DEPENDING ON THE BULK DENSITY OF THE COMMODITY STORED.
- THE INSULATION TYPE USED IN THE DESIGN IS POLYURETHANE WITH A THICKNESS OF 100MM.
- THE ROOM SHALL HAVE PVC PLASTIC CURTAIN ATTACHED ON THE DOORS TO PREVENT EXCESSIVE LOSS OF COLD AIR INSIDE THE ROOM.
- THE ROOM HAS DEDICATED REFRIGERATION SYSTEM WHICH COMPOSED OF COMPRESSOR (CAPACITY: 3.0KW), CONDENSING UNIT (CAPACITY: 5.54KW), EVAPORATING UNIT (CAPACITY: 3KW), TEMPERATURE CONTROL AND MONITORING SYSTEMS, AS WELL AS THE DUCTING NETWORKS.
- THESE ASSUMPTIONS SHALL BE USED BY THE ENGINEERS AS REFERENCE FOR THEIR DESIGN. ANY DEVIATION FROM THIS DESIGN SHALL BE RECOMPUTED ACCORDINGLY. MOREOVER, THE SPECIFIC COMMODITY/ES USED FOR THE DESIGN SHALL BE SPECIFIED TO PROPERLY DESIGN THE REQUIRED REFRIGERATION LOAD CAPACITY.

SOLAR POWER DESIGN NOTES

- THE FACTOR USED TO DESIGN THE SOLAR POWER OF THE MODULAR COLD STORAGE FACILITY IS 1.65 OF THE TOTAL REQUIRED POWER OF THE FACILITY.
- THE FACTOR USED TO DESIGN THE SOLAR INVERTER FOR THE FACILITY IS 1.25 OF THE TOTAL REQUIRED POWER OF THE FACILITY.
- THE ANGLE OF INCLINATION FOR THE SOLAR MOUNTING STRUCTURE IS RECOMMENDED TO BE BETWEEN 10° TO 15° FACING SOUTH DIRECTION.
- THESE ASSUMPTIONS SHALL BE USED BY THE ENGINEERS AS REFERENCE FOR THEIR DESIGN. ANY DEVIATION FROM THIS DESIGN SHALL BE RECOMPUTED ACCORDINGLY.

WIND POWER DESIGN NOTES

- A 5kW WIND POWER OUTPUT CAPACITY IS USED IN THE FACILITY TO PROVIDE ADDITIONAL POWER TO THE FACILITY. MOREOVER, THE MINIMUM HEIGHT OF THE MOUNTING POST FOR THE WIND TURBINE IS 6 METERS FROM THE GROUND. ALSO, THE MINIMUM START-UP WIND SPEED OF THE WIND TURBINE IS AT LEAST 2M/S. FURTHERMORE, THE ASSUMED CONTINUOUS OPERATION OF THE TURBINE IS 8 HOURS.
- THESE ASSUMPTIONS SHALL BE USED BY THE ENGINEERS AS REFERENCE FOR THEIR DESIGN. ANY DEVIATION FROM THIS DESIGN SHALL BE RECOMPUTED ACCORDINGLY.

ELECTRICAL DESIGN NOTES

- THE DESIGN TOTAL POWER REQUIREMENT FOR THE CHILLER ROOM IS 10.5 kVA. IN REFERENCE TO THIS, THE CAPACITY OF STANDBY DIESEL GENERATOR TO BE USED IS 15kVA. MOREOVER, THE GENERATOR IS USED AS REDUNDANCY BACK-UP POWER IN CASE OF ELECTRICAL POWER INTERRUPTION FROM THE POWER SUPPLY.
- THESE ASSUMPTIONS SHALL BE USED BY THE ENGINEERS AS REFERENCE FOR THEIR DESIGN. ANY DEVIATION FROM THIS DESIGN SHALL BE RECOMPUTED ACCORDINGLY.

STRUCTURAL AND CONSTRUCTIONS NOTES

- IN THE INTERPRETATION OF THE DRAWING, INDICATED DIMENSIONS SHALL GOVERN WHEREIN THE MEASUREMENTS ARE IN MILLIMETERS (MM) UNLESS SPECIFIED DIMENSIONAL UNIT IS SHOWN IN THE PLAN. MOREOVER, THE IDENTIFICATION OF ACTUAL DISTANCES AND SIZES IN THE PLAN THROUGH SCALED MEASUREMENT IS NOT APPLICABLE.
- IN REFERENCE TO OTHER DRAWINGS, SEE ARCHITECTURAL DRAWINGS FOR DEPRESSIONS IN FLOOR SLABS, OPENINGS IN THE WALLS AND SLABS, INTERIOR PARTITIONS, LOCATION OF DRAINS ETC.
- IN CASE OF DISCREPANCIES AS TO THE LAYOUT, DIMENSIONS, AND ELEVATIONS BETWEEN THE STRUCTURAL PLANS, AND ARCHITECTURAL DRAWINGS, THE CONTRACTOR SHALL NOTIFY BOTH THE DESIGN ENGINEER AND THE PROJECT ENGINEER OF THE DA REGIONAL IMPLEMENTING OFFICE.
- ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH THE ACI 318-95 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AND ALL STRUCTURAL STEEL WORK ACCORDING WITH AISC SPECIFICATION (9th EDITION) IN SO FAR AS THEY DO NOT CONFLICT WITH THE LOCAL BUILDING CODE REQUIREMENT.
- ACI REFERS TO AMERICAN CONCRETE INSTITUTE, AISC TO AMERICAN INSTITUTE OF STEEL CONSTRUCTION AND ASTM TO AMERICAN SOCIETY FOR TESTING MATERIALS.
- CONSTRUCTION NOTES AND TYPICAL DETAILS APPLY TO ALL DRAWINGS UNLESS OTHERWISE SHOWN OR NOTED. MODIFY TYPICAL DETAILS AS DIRECTED TO MEET SPECIAL CONDITIONS.
- SHOP DRAWINGS WITH ERECTION AND PLACING DIAGRAMS OF ALL STRUCTURAL STEELS, MISCELLANEOUS IRON, PRE-CAST CONCRETE, ETC. SHALL BE SUBMITTED FOR ENGINEERS APPROVAL BEFORE FABRICATION.
- CONTRACTOR SHALL NOTE AND PROVIDE ALL MISCELLANEOUS CURBS, SILLS, STOOLS, EQUIPMENT'S AND MECHANICAL BASES THAT ARE REQUIRED BY THE ARCHITECTURAL, ELECTRICAL, AND MECHANICAL DRAWINGS.
- ALL RESULTS OF MATERIAL TESTING FOR CONCRETE, REINFORCING BARS, & STRUCTURAL STEEL MUST BE NOTED & APPROVED BY DESIGN ENGINEER, PROJECT ENGINEER, AND THE HEAD OF DA REGIONAL IMPLEMENTING OFFICE.

NOTES ON CONCRETE MIXES & PLACING

- ALL CONCRETE SHALL DEVELOP A MIN. COMPRESSIVE STRENGTH AT THE END OF TWENTY EIGHT (28) DAYS W/ CORRESPONDING MAXIMUM SIZE AGGREGATE & SLUMPS AS FOLLOWS:

LOCATION	28 DAYS STRENGTH	MAX. SIZE OF MAX. SLUMP AGGREGATE
ALL OTHERS, INCLUDING SUSPENDED SLABS,	4000 PSI (27.6 MPa)	20mm 100mm
COLUMNS	4000 PSI (27.6 MPa)	20mm 100mm
BEAMS, SLABS	4000 PSI (27.6 MPa)	20mm 100mm
SLAB ON FILL	4000 PSI (27.6 MPa)	20mm 100mm

- MAINTAIN MINIMUM CONCRETE COVER FOR REINFORCING STEEL AS FOLLOWS:
 SUSPENDED SLABS ----- 20mm
 SLAB ON GRADE ----- 40mm
 WALLS ABOVE GRADE ----- 25mm
 BEAM STIRRUPS AND COLUMN TIES ----- 40mm
 WHERE CONCRETE IS EXPOSED TO EARTH BUT POURED AGAINST FORMS ----- 50mm
 WHERE CONCRETE IS DEPOSITED DIRECTLY AGAINST EARTH ----- 75mm
- CONCRETE SHALL BE DEPOSITED IN ITS FINAL POSITION WITHOUT SEGREGATION. RE-HANDLING OR PLACING SHALL BE DONE PREFERABLY WITH BUCKETS, BUCKETS OR WHEELBARROWS. NO CHUTES WILL BE ALLOWED EXCEPT TO TRANSFER CONCRETE FROM HOPPERS TO BUCKETS, WHEELBARROWS OR BUCKETS IN WHICH CASE THEY SHALL NOT EXCEED SIX (6) METERS IN AGGREGATE LENGTH.
- NO DEPOSITING OF CONCRETE SHALL BE ALLOWED WITHOUT THE USE OF VIBRATORS UNLESS AUTHORIZED IN WRITING BY THE DESIGNERS AND ONLY FOR UNUSUAL CONDITIONS WHERE VIBRATIONS ARE EXTREMELY DIFFICULT TO ACCOMPLISH.
- ALL ANCHOR BOLTS, DONELS, AND OTHER INSERTS, SHALL BE PROPERLY POSITIONED & SECURED IN PLACE PRIOR TO PLACING OF CONCRETE.
- ALL CONCRETE SHALL BE KEPT MOIST FOR A MINIMUM OF SEVEN CONSECUTIVE DAYS IMMEDIATELY AFTER POURING BY THE USE OF WET BURLAP, FOG SPRAYING, CURING COMPOUNDS OR OTHER APPROVED METHODS.

- STRIPPING OF FORMS AND SHORES:
 FOUNDATION ----- 24 HRS.
 SUSPENDED SLAB EXCEPT WHEN ADDITIONAL LOADS ARE IMPOSED ----- 8 DAYS
 WALLS ----- 21 DAYS
 BEAMS ----- 14 DAYS
 COLUMNS ----- 21 DAYS

- THE CONTRACTOR SHALL SUBMIT THE SCHEDULE OF POURING AND THE LOCATION OF THE CONSTRUCTION JOINTS TO THE STRUCTURAL ENGINEER AT LEAST (4) DAYS PRIOR TO THE POURING FOR APPROVAL.
- THE CONTRACTOR SHALL FURNISH AND MAINTAIN ADEQUATE FORMS AND SHORINGS UNTIL THE CONCRETE MEMBERS HAVE ATTAINED THEIR WORKING CONDITION AND STRENGTH.

NOTES ON FOOTINGS

- FOOTINGS ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 90 kPa (1870 psf). HOWEVER, THE DESIGN ENGINEER SHALL VERIFY THE ACTUAL SOIL CONDITION OF THE SITE AND CONFIRM ACTUAL BEARING CAPACITY OF SOIL TO PROPERLY ADJUST THE DEPTH AND DIMENSIONS OF FOOTINGS.
- FOOTING SHALL REST AT LEAST 600mm BELOW NATURAL GRADE LINE UNLESS OTHERWISE INDICATED IN PLANS. NO FOOTING SHALL REST ON FILL.
- MINIMUM CONCRETE PROTECTION FOR REINFORCEMENTS SHALL BE 75 mm CLEAR FOR CONCRETE DEPOSITED THE GROUND AND 50mm FOR CONCRETE DEPOSITED AGAINST A FORMWORK.

DESIGN LOADS

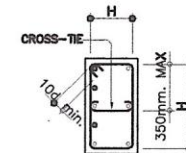
- WIND
 a. WIND SPEED: 280KM/HR
 b. OCCUPANCY CATEGORY: STANDARD OCCUPANCY
 c. EXPOSURE CATEGORY: EXPOSURE B
 d. TYPE OF BUILDING: OPEN BUILDING
- SEISMIC
 a. DISTANCE TO ACTIVE FAULT: <10KM
 b. SEISMIC ZONE: ZONE 4
 c. SOIL TYPE: STIFF SOIL PROFILE (SD)

NOTES ON REINFORCEMENT

- UNLESS OTHERWISE NOTED IN PLANS, THE YIELD STRENGTH OF REINFORCING BARS SHALL BE:
 A. FOOTINGS, FOOTING BEAMS, GIRDERS ----- $f_y = 275 \text{ MPa}$ (40,000 psi)
 B. COLUMNS AND SHEAR WALLS ----- $f_y = 275 \text{ MPa}$ (40,000 psi)
 C. BEAMS AND GIRDER ----- $f_y = 275 \text{ MPa}$ (40,000 psi)
 D. NON-LOAD BEARING WALL PARTITIONS, BEDDED SLABS, FLOOR & ROOF SLABS, PARAPETS, CATCH BASIN, SIDE WALK ----- $f_y = 227.5 \text{ MPa}$ (33,000 psi)
- ALL REINFORCING BARS SIZE 10mm OR LARGER SHALL BE DEFORMED IN ACCORDANCE WITH ASTM A 706.
- SPICES SHALL BE SECURELY WIRED TOGETHER & SHALL LAP OR EXTEND IN ACCORDANCE W/ TABLE A & TABLE B (TABLE OF LAP SPICE & ANCHORAGE LENGTH) UNLESS OTHERWISE SHOWN ON DRAWINGS. SPICES SHALL BE STAGGERED WHENEVER POSSIBLE.

NOTES ON COLUMNS

- PROVIDE EXTRA SETS OF TIES AT 100mm OC, FOR TIED COLUMN REINFORCEMENT ABOVE AND BELOW BEAM-COLUMN CONNECTIONS FOR A DISTANCE FROM FACE OF CONNECTION EQUAL TO THE GREATER OF THE OVERALL THICKNESS OF COLUMN, 1/8 THE CLEAR HEIGHT OF COLUMN OR 450mm.
- COLUMN TIES SHALL BE PROTECTED EVERYWHERE BY A COVERING OF CONCRETE CAST MONOLITHICALLY WITH THE CORE WITH THE MINIMUM THICKNESS OF 40mm AND NOT LESS THAN 40 TIMES THE MAXIMUM SIZE OF COARSE AGGREGATE IN MILLIMETERS.
- WHERE COLUMNS CHANGE IN SIZE, VERTICAL REINFORCEMENTS SHALL BE OFFSET AT A SLOPE OF NOT MORE THAN 1 IN 6 AND EXTRA 10mm TIES AT 100mm SHALL BE PROVIDED THRU OUT THE OFFSET REGION.
- UNLESS OTHERWISE INDICATED IN THE PLANS, LAP SPICES FOR VERTICAL COLUMN REINFORCEMENT SHALL BE MADE WITHIN THE CENTER HALF OF COLUMN HEIGHT, AND THE SPICE LENGTH SHALL NOT BE LESS THAN 40 BAR DIAMETERS. WELDING OR APPROVED MECHANICAL DEVICES MAY BE USED PROVIDED THAT NOT MORE THAN ALTERNATE BARS ARE WELDED OR MECHANICALLY SPICED AT ANY LEVEL AND THE VERTICAL DISTANCES BETWEEN THESE WELDS OR SPICES OF ADJACENT BARS IS NOT LESS THAN 600mm.

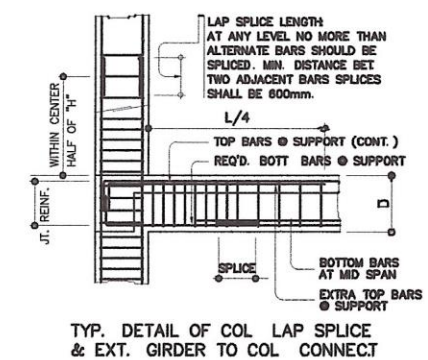


JOINT HOOP SPACE @ "2s" WHEN THERE ARE BEAMS HAVING WIDTH OF AT LEAST ONE-HALF THE COLUMN WIDTH & DEPTHS NOT LESS THAN THREE QUARTERS OF THE DEEPEST BEAM THAT FRAME INTO FOUR SIDES OF THE COLUMN. ALL OTHER CONDITIONS USE HOOPS @ "s" CENTERS.

FOR COL. BAR SPICES SEE TABLE OF MIN. LAP SPICE LENGTH OF COLUMN REINFORCEMENT (SPACING OF TIES ALONG THIS REGION SHALL NOT BE LESS THAN 100mm)

NOTE: ALL CONCRETE REINF. DETAIL SHOULD BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF ACI DETAILING MANUAL.

TYPICAL COLUMN ELEV. SHOWING DOWELS AND TIES SPACING



TYP. DETAIL OF COL LAP SPICE & EXT. GIRDER TO COL CONNECT

NOTES ON BEAMS AND GIRDERS

- UNLESS OTHERWISE NOTED IN PLANS, CAMBER ALL BEAMS AND GIRDER AT LEAST 6mmφ FOR EVERY 4.5 OM OF SPAN, EXCEPT CANTILEVERS FOR WHICH THE CAMBER SHALL BE AS NOTED IN PLANS OR AS ORDERED BY THE ENGINEER BUT IN NO CASE LESS THAN 20mm FOR EVERY 30M OF FREE SPAN.
- TYPICAL BARS BENDING AND CUTTING DETAILS FOR BEAMS SHALL BE AS SHOWN IN FIG. B-1.

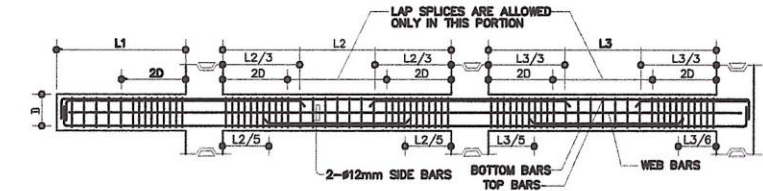
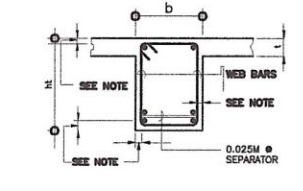


FIG. B-1

TABLE 'A' TENSION BARS EMBEDMENT LENGTHS AND LAPPED SPICED IN MILLIMETERS				TABLE 'B' COMPRESSION BARS EMBEDMENT LENGTHS AND LAPPED SPICED IN MILLIMETERS			
BAR SIZE (DEFORMED)	$f'_c = 20.7 \text{ MPa}$ (3000psi)	$f'_c = 27.6 \text{ MPa}$ (4000psi)	$f'_c = 27.6 \text{ MPa}$ (4000psi)	BAR SIZE (DEFORMED)	$f'_c = 20.7 \text{ MPa}$ (3000psi)	$f'_c = 27.6 \text{ MPa}$ (4000psi)	$f'_c = 27.6 \text{ MPa}$ (4000psi)
	EMBEDMENT	LAPPED	EMBEDMENT		EMBEDMENT	LAPPED	EMBEDMENT
10mm φ	300	300	300	10mm φ	225	300	200
12mm φ	300	300	300	12mm φ	275	300	250
16mm φ	300	400	300	16mm φ	350	400	325
20mm φ	400	550	350	20mm φ	450	500	475
25mm φ	600	800	550	25mm φ	550	625	575
28mm φ	750	1000	650	28mm φ	625	675	625
32mm φ	950	1300	850	32mm φ	700	775	700

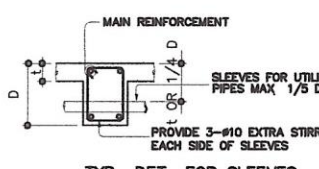
NOTE: TOP PLAN BARS, MULTIPLY VALUE BY 2
 NOTE: TOP PLAN BARS, MULTIPLY VALUE BY 2
 VALUES GIVEN ABOVE CAN ALSO BE USED FOR COLUMNS.

- IF THE BEAM REINFORCING BARS END IN A WALL THE CLEAR DISTANCE FROM THE BAR TO THE FARTHER FACE OF THE WALL NOT BE LESS THAN 25 mm. EMBEDMENT LENGTH SHALL BE AS SHOWN IN A TABLE 'A' FOR TENSION BARS AND TABLE 'B' FOR COMPRESSION BARS UNLESS SPECIFIED IN PLAN. TOP BAR SHALL NOT BE SPICED WITHIN THE COLUMN OR WITHIN A DISTANCE TWICE THE MEMBER DEPTH FROM THE FACE OF THE COLUMN, AT LEAST TWO STIRRUPS SHALL BE PROVIDED AT ALL SPICES.
- IF THERE ARE TWO OR MORE LAYERS OF REINFORCING BARS, USE 25 mmφ BAR SEPARATORS SPACED AT 1.0M ON CENTER. IN NO CASE SHALL THERE BE LESS THAN TWO (2) SEPARATORS BETWEEN TWO LAYERS OF BARS.
- MINIMUM CONCRETE PROTECTION FOR REINFORCING BARS OR STEEL SHAPES SHALL BE AS SHOWN IN FIG. B-2 UNLESS SPECIFIED ELSEWHERE.



NOTE 1
 20 mm CLEAR FOR JOIST
 40 mm CLEAR FOR BEAMS
 AND GIRDERS

FIG. B-2



TYP. DET FOR SLEEVES THRU CONCRETE BEAM

FIG. B-3

- WHEN A BEAM CROSSES A GIRDER, REST BEAM ON TOP OF GIRDER BARS. BEAM REINFORCING BAR SHALL BE SYMMETRICAL ABOUT CENTER LINE WHENEVER POSSIBLE.
- GENERALLY NO SPICES SHALL BE PERMITTED AT POINTS WHERE CRITICAL BENDING STRESSES OCCUR. SPICES WHERE SO PERMITTED SHALL BE INDICATED IN THE TABLE 'A' AND 'B' WELDED SPICES SHALL DEVELOP IN TENSION AT LEAST 125 % OF THE SPECIFIED YIELD STRENGTH OF THE BAR. NOT MORE THAN 50% OF THE BARS AT ANY ONE SECTION IS ALLOWED TO BE SPICED THEREIN.

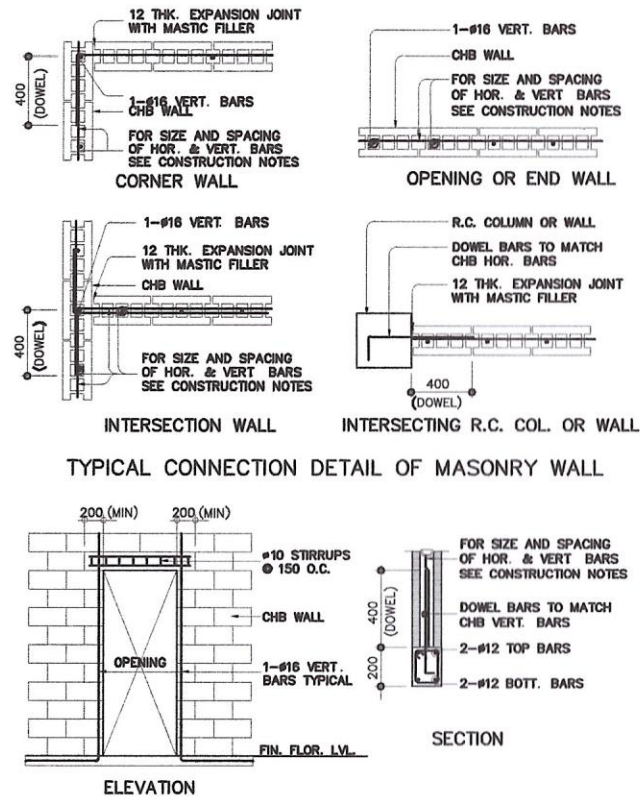
NOTES ON CONCRETE HOLLOW BLOCK WALLS

- UNLESS OTHERWISE SHOWN IN PLANS ALL CONCRETE HOLLOW BLOCKS AND CERAMIC BLOCKS SHALL BE REINFORCED AS SHOWN IN THE SCHEDULE OF CONCRETE HOLLOW BLOCKS AND CERAMIC BLOCK REINFORCEMENT.
- PROVIDE 150mm x 300mm STIFFENER COLUMN REINFORCED WITH 4-12mm WITH 6mm TIES AT 150mm ON CENTER WHERE CONCRETE HOLLOW BLOCK TERMINATES AND AT EVERY 3.0M LENGTH OF CONCRETE HOLLOW BLOCK WALLS UNLESS NOTED IN STRUCTURAL PLANS.

BLOCK THICKNESS	REINFORCEMENT		NOTES
	HORIZONTAL	VERTICAL	
75 mm	10mm# @ 600mm o.c.	10mm# @ 600mm o.c.	A. MINIMUM LAPS AT SPICE = 0.25 M B. PROVIDE RIGHT ANGLED REINFORCEMENT AT CORNERS 90° LAPS C. WHERE CHB OR CER. BLK WALL DOWELS JOIN COL. RC. BEAMS AND WALL DOWELS WITH THE SAME SIZE AS VERT. OR HOR REINFORCEMENTS SHALL BE PROVIDED
125 mm	10mm# @ 600mm o.c.	10mm# @ 600mm o.c.	
150 mm	10mm# @ 600mm o.c.	10mm# @ 600mm o.c.	
200 mm	12mm# @ 600mm o.c.	12mm# @ 600mm o.c.	

REINFORCING CONCRETE LINTEL BEAM IN CONCRETE BLOCK WALLS

CLEAR SPAN LENGTH (L)	TOTAL LENGTH (L+0.40M)	MIN. Ht (MPa)	HEIGHT OF LINTEL (MM)	REINFORCEMENT		
				BOTTOM	TOP	STIRRUPS
1.20M	1.60M	14.0	200	1-#10	1-#10	#6mm @ 200mm
1.50M	1.90M	200	200	1-#10	1-#10	#6mm @ 200mm
1.80M	2.20M	200	200	1-#12	1-#10	#6mm @ 200mm
2.10M	2.50M	250	250	1-#12	1-#10	#6mm @ 200mm
2.40M	2.90M	17.0	250	1-#12	1-#10	#6mm @ 200mm
2.70M	3.10M	250	250	1-#18	1-#12	#10mm @ 200mm
3.00M	3.40M	300	300	1-#18	1-#12	#10mm @ 200mm
3.30M	3.70M	20.0	300	1-#18	1-#12	#10mm @ 200mm
3.60M	4.00M	300	300	1-#20	1-#12	#10mm @ 200mm



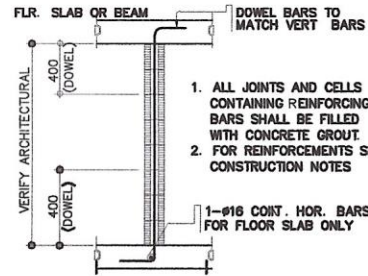
TYP. DET OF LINTEL BEAM AT CHB WALL OPENING

NOTES ON STRUCTURAL STEEL

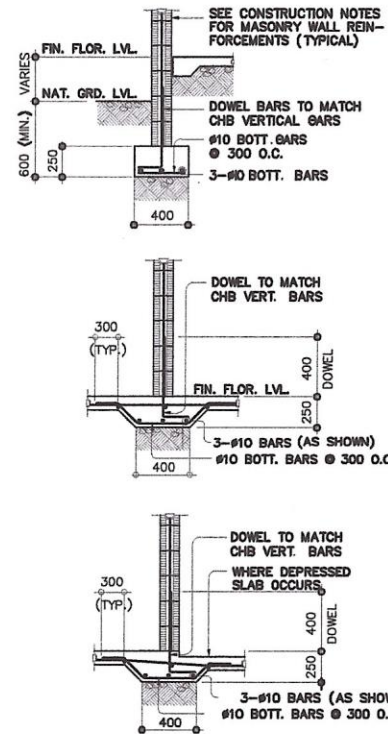
- STRUCTURAL STEEL TO BE USED FOR FABRICATION AND ERECTION OF THIS STRUCTURE SHALL COMPLY WITH ALL THE PERTINENT PROVISION OF AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDING LATEST EDITION.
- ALL STRUCTURAL STEEL SHAPES SHALL CONFORM TO ASTM A36 STRUCTURAL STEEL UNLESS OTHERWISE INDICATED.
- ALL WELDED CONNECTIONS SHALL DEVELOP THE FULL STRENGTH OF THE MEMBERS CONNECTED.
- UNLESS OTHERWISE SPECIFIED ALL WELDING RODS SHALL CONFORM AWS E60 ELECTRODES
- ALL BOLTS USED UNLESS OTHERWISE SPECIFIED SHALL BE ASTM A 307 BOLTS.

NOTES ON WELDS

- USE E60_{XX} ELECTRODES FOR ALL MEMBERS WELDED.
- WELDS SHALL DEVELOP THE FULL STRENGTH OF MEMBERS JOINED UNLESS OTHERWISE SHOWN OR DETAILED IN THE DRAWINGS



TYP. SECTION OF MASONRY PARTITION REINFORCEMENTS



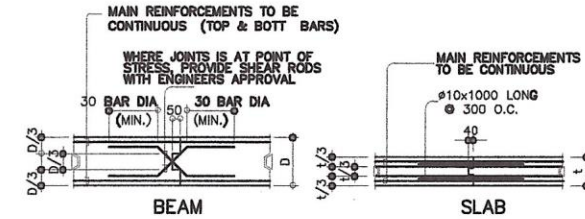
TYPICAL CHB FOOTING DETAILS (WHERE APPLICABLE)

NOTES ON EMBEDDED PIPES

- ALL EMBEDDED PIPES FOR UTILITIES, ETC THAT PASS THRU BEAMS SHALL NOT EXCEED 100mm IN DIAMETER OR 1/3 BEAM DEPTH WHICHEVER IS LESS, UNLESS OTHERWISE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER
- NO PIPES SHALL BE ALLOWED TO PASS THRU BEAMS VERTICALLY
- NO PIPES SHALL BE EMBEDDED IN COLUMNS.

NOTES ON CONSTRUCTION JOINTS IN CONCRETE

- WHERE A CONSTRUCTION JOINT IS TO BE MADE, THE SURFACE OF CONCRETE SHALL BE CLEANED AND ALL LAITANCE AND STANDING WATER REMOVED SHEAR KEY SHALL BE PROVIDED AT THE JOINT



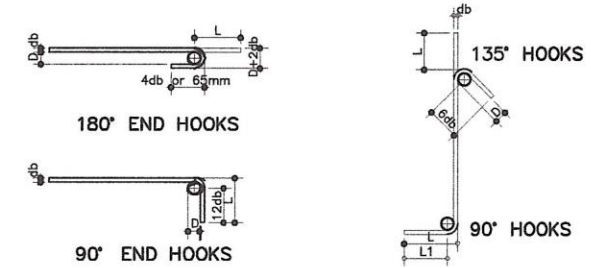
TYPICAL SLAB & BEAM CONSTRUCTION JOINT DET.



TYP. EXTERIOR WINDOW & DOOR OPENING

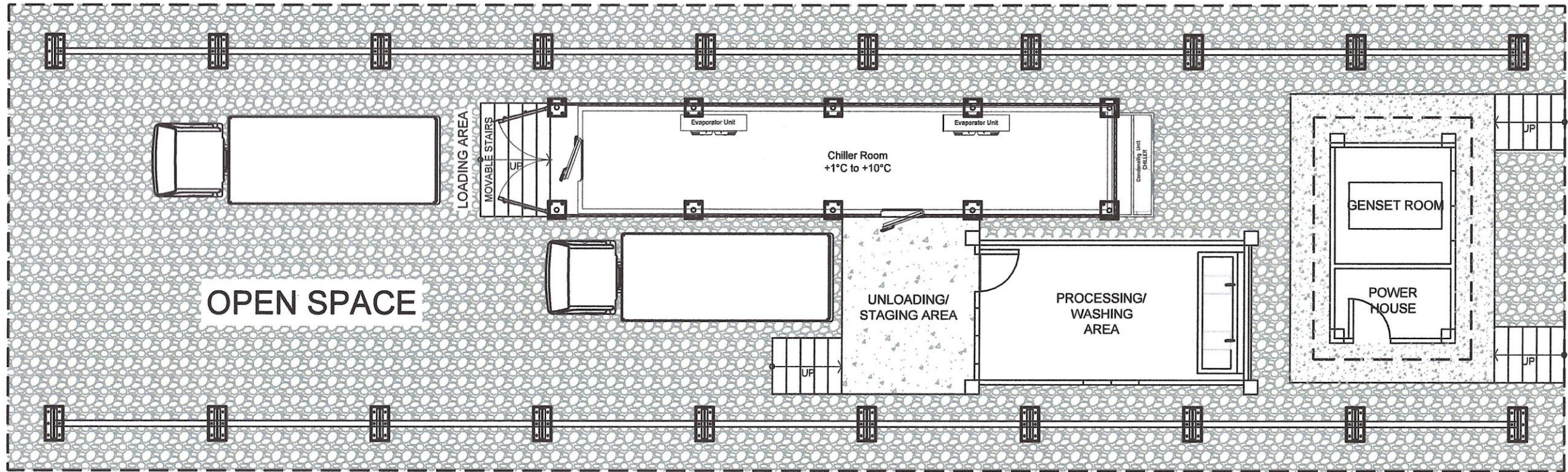
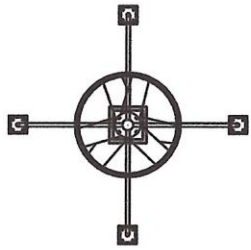
NOTES OF STIRRUPS

- ALL REINFORCEMENT SHALL BE BENT COLD UNLESS OTHERWISE PERMITTED BY THE STRUCTURAL ENGINEER.
- REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FILLED BENT, EXCEPT AS SHOWN IN THE DESIGN DRAWINGS OR PERMITTED BY THE STRUCTURAL ENGINEER.
- TIES & CLOSE STIRRUPS MUST BE BENT AT 135°



BAR SIZE (DEFORMED)	DIAMETER (mm)	180° HOOK		90° HOOK
		D+2db	L	L
10mm #	60	75	125	150
12mm #	75	100	150	200
16mm #	95	125	175	250
20mm #	115	150	200	300
25mm #	150	200	230	450
28mm #	240	300	350	550
32mm #	300	335	450	600

BAR SIZE (DEFORMED)	DIAMETER (mm)	180° HOOK		90° HOOK
		D+2db	L	L
10mm #	40	125	85	100
12mm #	50	165	115	115
16mm #	65	200	140	150
20mm #	115	250	165	300
25mm #	150	365	230	405



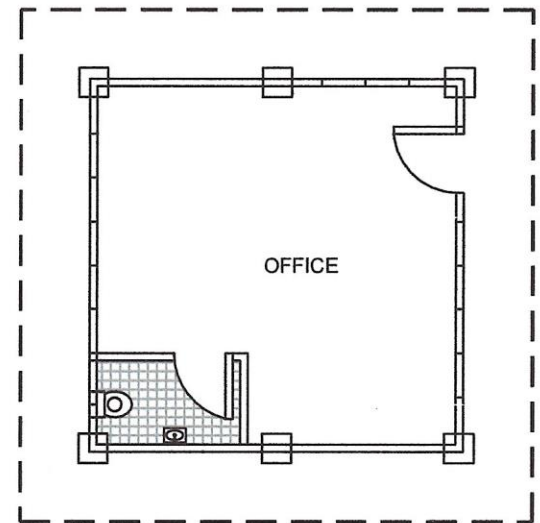
LEGENDS

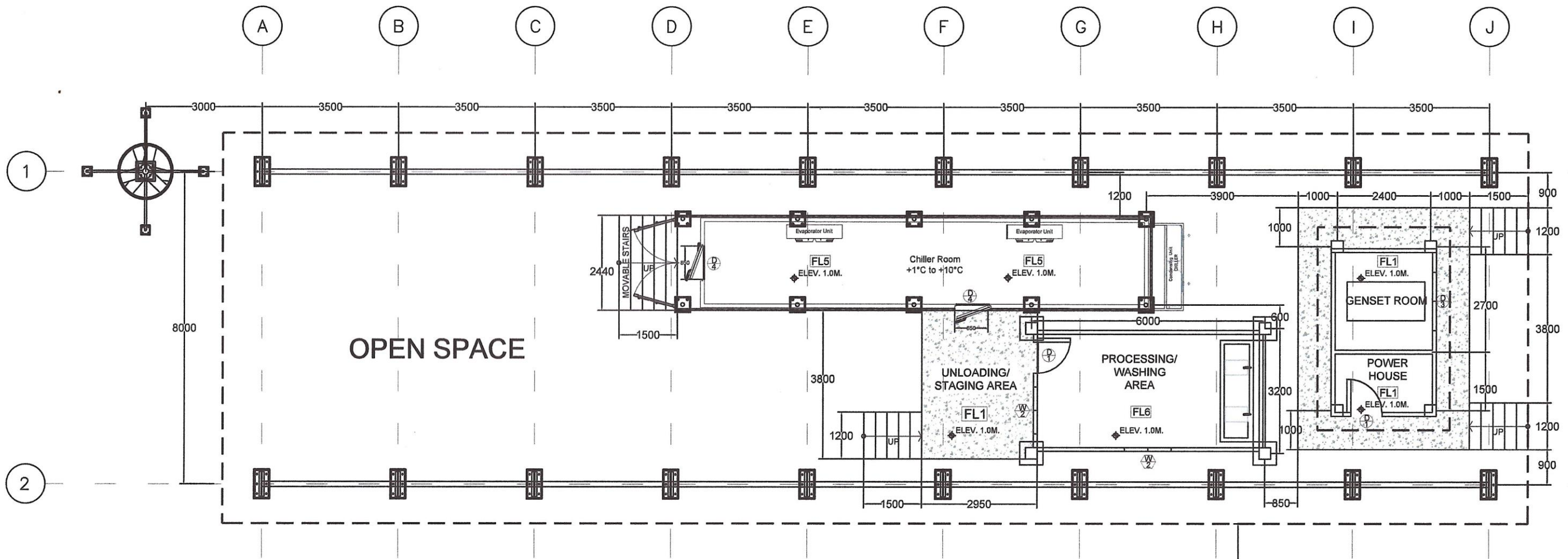
REPRESENTATION	DESCRIPTION
	NORTH
	5kW VERTICAL AXIS WIND TURBINE
	100mm PCCP
	50mm GRAVEL BEDDING
	ROOF LINE

GENERAL NOTES

- 1.) THE ELEVATION OF THE PROPOSED SITE SHALL BE SIMILAR TO THE ELEVATION OF EXISTING ROAD TO PROVIDE APPROPRIATE DRAINAGE SYSTEM FOR THE STORMWATER AND SEWAGE SYSTEM OF THE FACILITY. IN AN INSTANCE WHEREIN THE SITE IS BELOW THE ELEVATION OF EXISTING ROAD, THE BENEFICIARY SHALL SHOULDER THE EARTH WORKS SUCH AS EMBANKMENT/BACKFILL, EXCAVATION, AND COMPACTION. MOREOVER, THE ESTABLISHMENT OF OFFICE AND PROCESSING/WASHING AREA SHALL BE COUNTERPART OF THE IDENTIFIED BENEFICIARY.
- 2.) THE MODULAR COLD STORAGE FACILITY IS DESIGNED WHEREIN THE MAIN POWER SUPPLY USED IS SOLAR AND WIND ENERGY. IN ADDITION, A STANDBY DIESEL GENERATOR IS ADDED IN THE DESIGN AS BACK-UP POWER IN CASES WHERE THERE IS A FAILURE ON THE MAIN POWER SUPPLY OF THE SAID FACILITY. THE GENERATOR IS DEDICATED ONLY TO RUN THE REFRIGERATION SYSTEM OF THE CHILLER ROOM.
- 3.) THE PREPARED MODULAR DESIGN OF COLD STORAGE FACILITY SHALL BE USED BY DA REGIONAL IMPLEMENTING OFFICES (IOs) AS REFERENCE IN THE DESIGN OF THE AFOREMENTIONED FACILITY. THE DA REGIONAL IOs HAS THE RIGHT TO DEVIATE FROM THE SHOWN DESIGN BASED ON THE PECULIARITY/UNIQUENESS OF THE IDENTIFIED SITES IN THEIR RESPECTIVE REGIONS.

SITE DEVELOPMENT PLAN
NOT TO SCALE

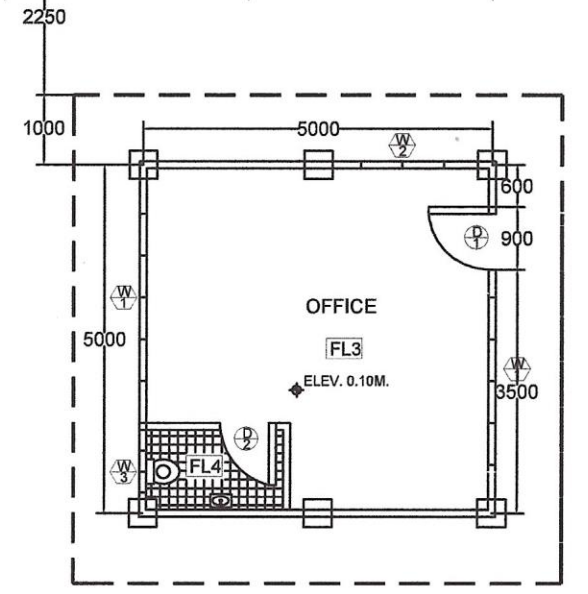




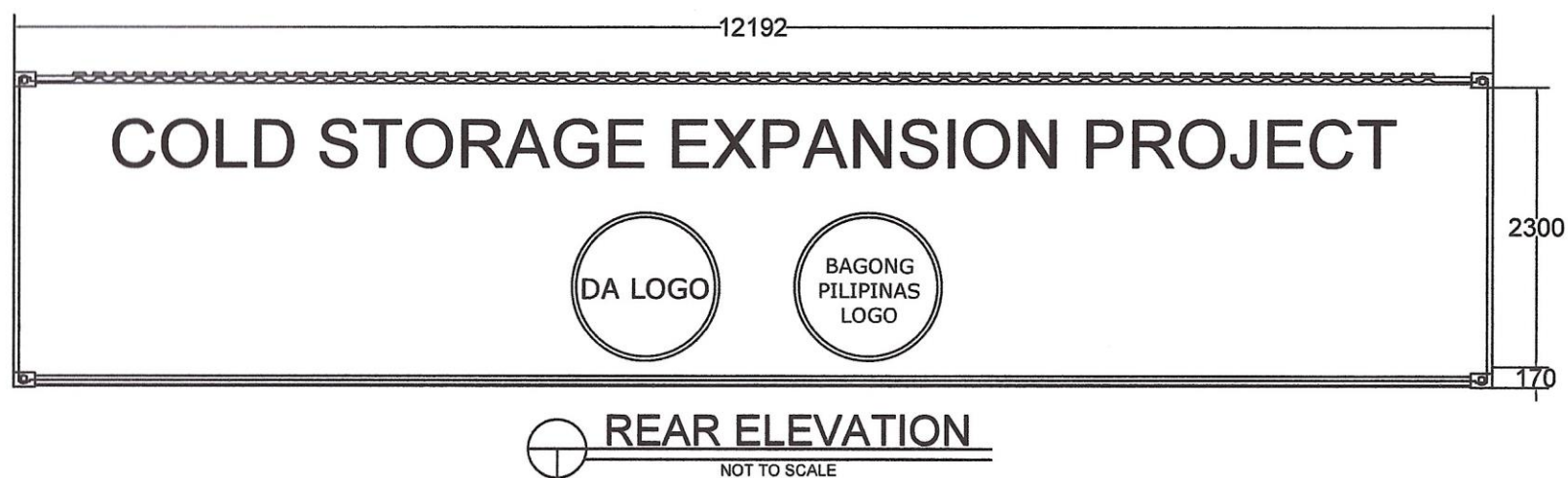
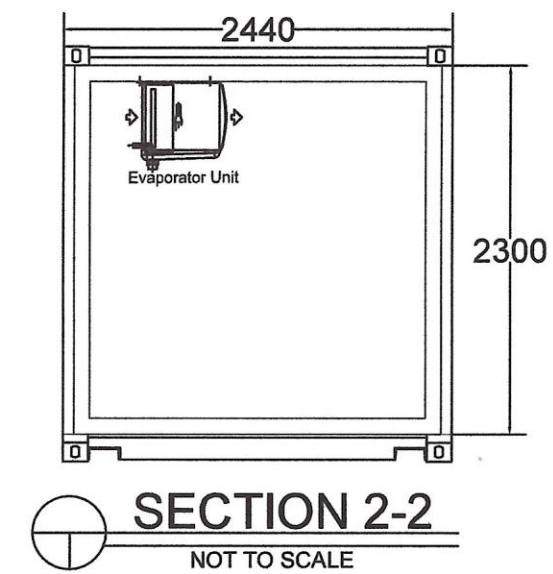
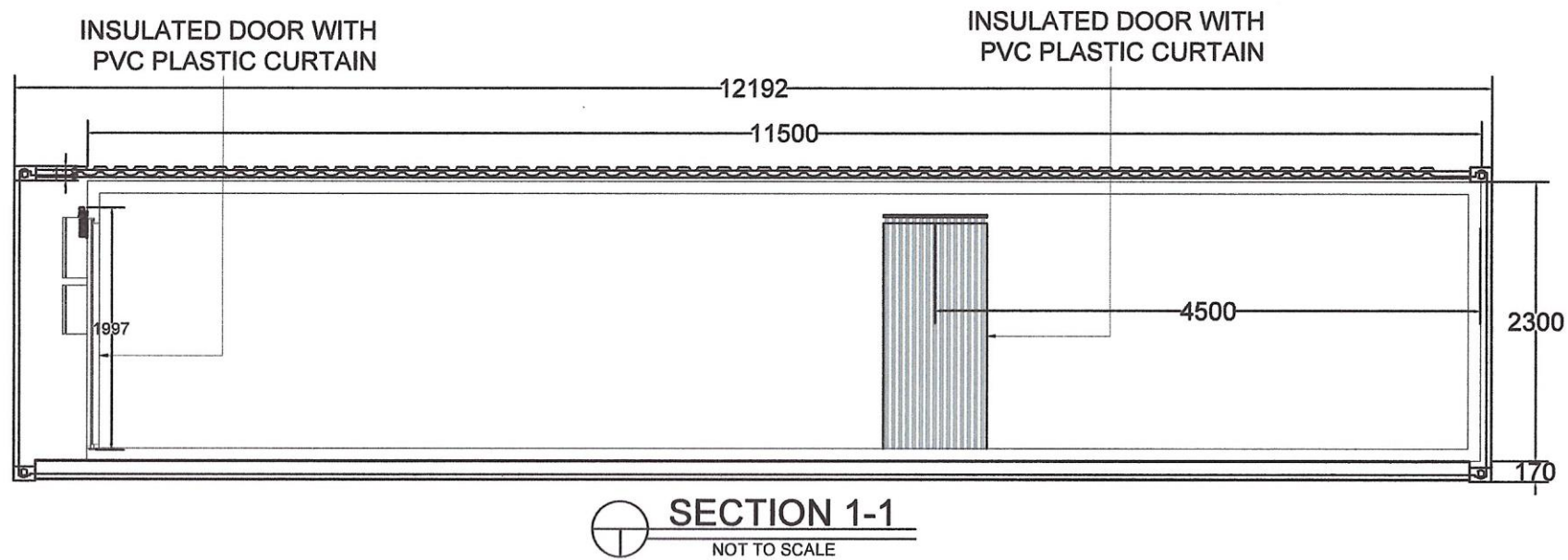
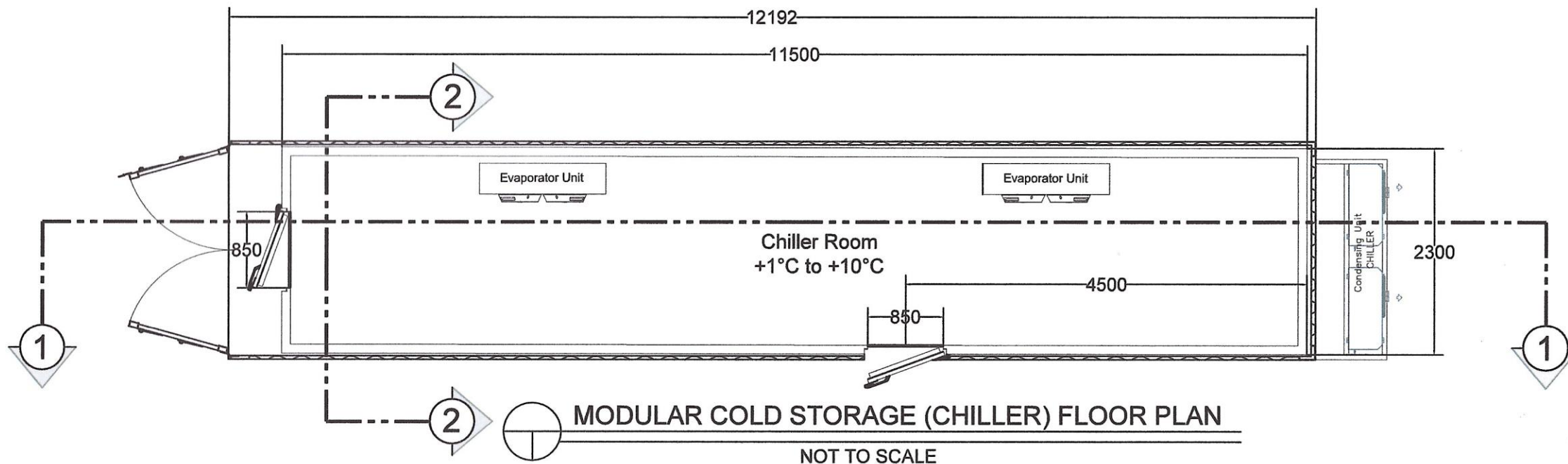
SCHEDULE OF FINISHES :


- FL1 NON SKID PLAIN CEMENT FLOOR FINISH
 - FL2 NON SKID PLAIN CEMENT FLOOR ROUGH FINISH W/ GROOVES
 - FL3 0.40m X 0.40m CERAMIC FLOOR TILES
 - FL4 0.40m X 0.40m NON-SLIP CERAMIC FLOOR TILES
 - FL5 100mm THK. POLYURETHANE FLOORING
 - FL6 100mm THK. RUBBERIZED PAINT CEMENT FLOOR FINISH
- 100mm THK. POLYURETHANE WALLING

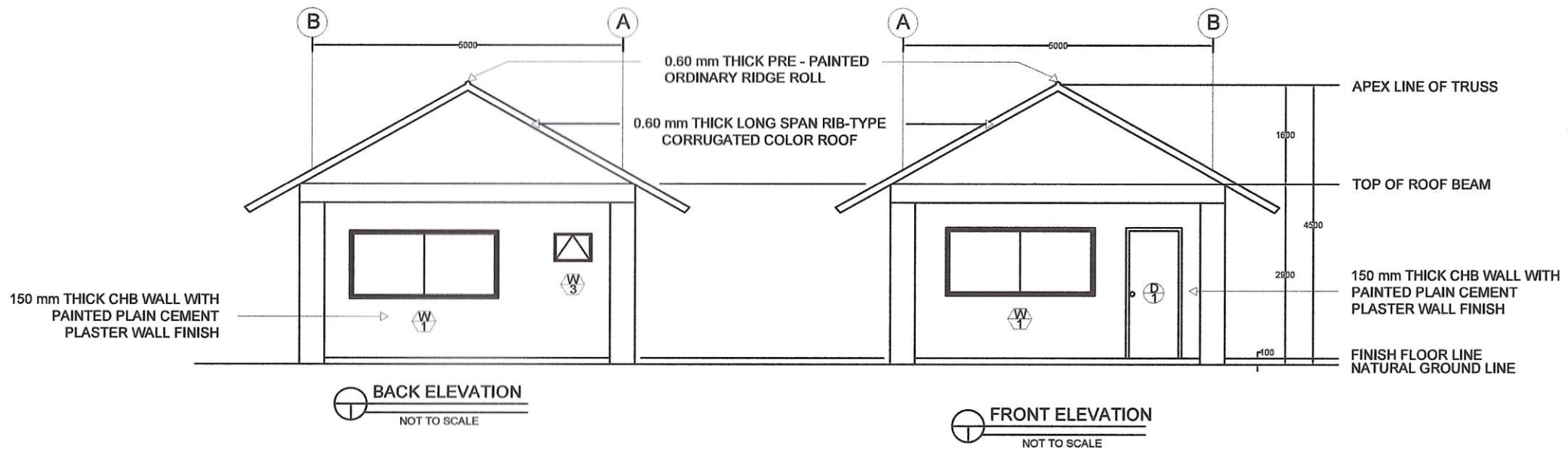
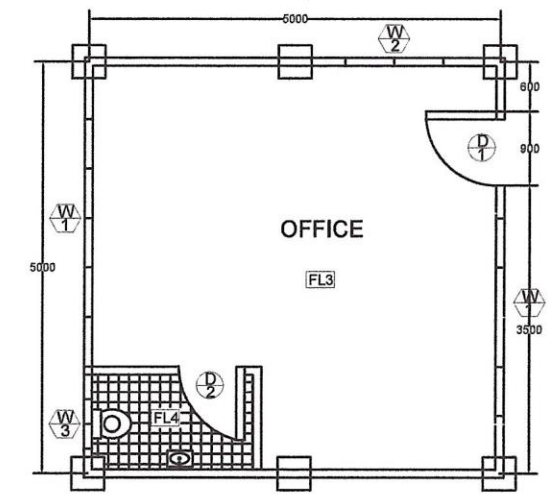
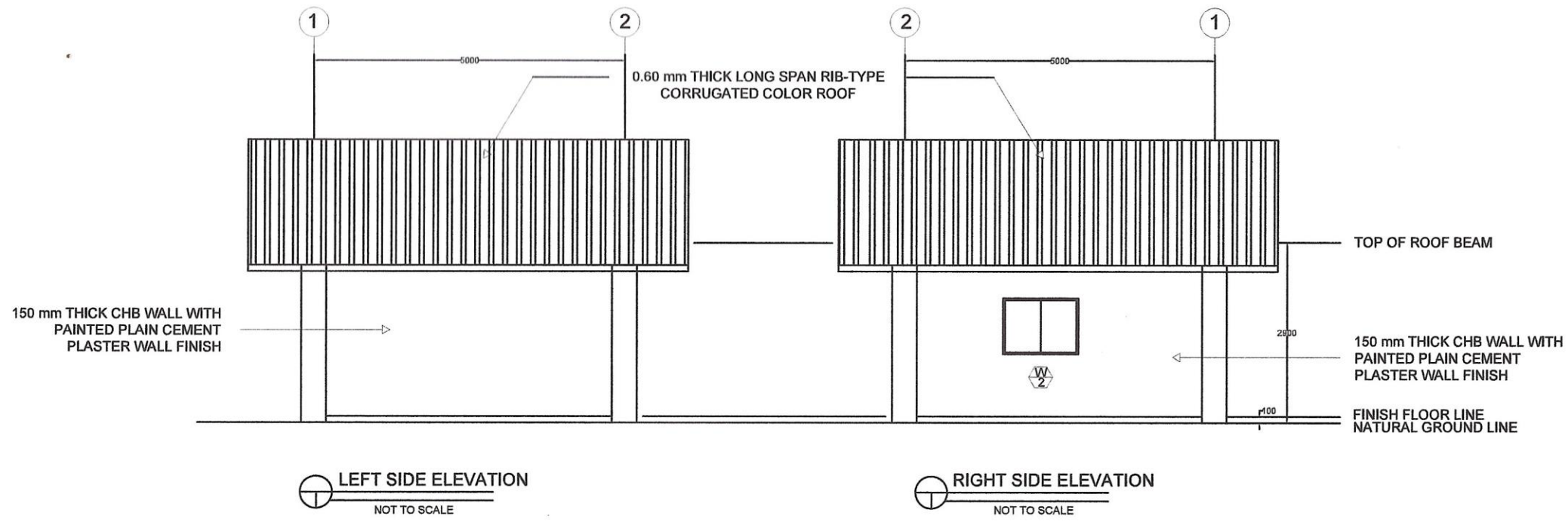
FLOOR PLAN
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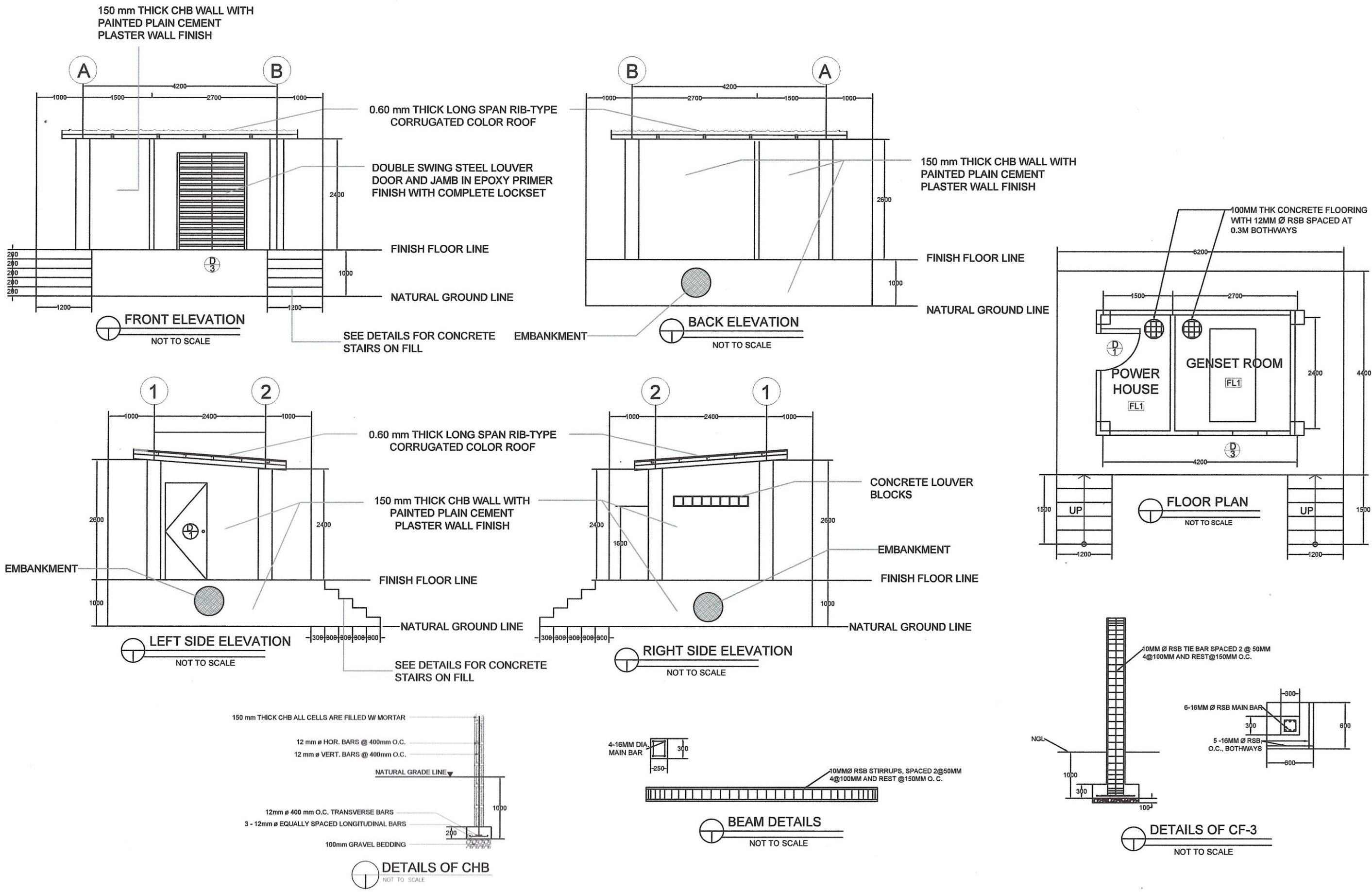
<p>REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING</p>	PROJECT TITLE	PREPARED BY	REVIEWED BY:	APPROVED BY:	SHEET CONTENT	SHEET NO.
	<p>PROPOSED COLD STORAGE EXPANSION PROJECT</p>	<p>ENGR. PHILIP FRANCIS C. JAGUNAP ENGINEER I INFRASTRUCTURE PLANS AND DESIGNS SECTION</p> <p>ENGR. MARK LESTER L. NATIVIDAD ENGINEER II INFRASTRUCTURE PLANS AND DESIGNS SECTION</p>	<p>ENGR. ALLAN C. GOLENG ENGINEER IV, SECTION CHIEF INFRASTRUCTURE PLANS AND DESIGNS SECTION</p>	<p>ENGR. ARIODEAR C. RICO DIRECTOR IV BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING</p>	<p>DANIEL ALFONSO N. ATAYDE ASSISTANT SECRETARY OFFICE OF THE ASSISTANT SECRETARY FOR LOGISTICS</p>	<p>MODULAR COLD STORAGE FACILITY: FLOOR PLAN</p>



 <p>REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING</p>	PROJECT TITLE	PREPARED BY	REVIEWED BY:	APPROVED BY:	SHEET CONTENT	SHEET NO.
	<p>PROPOSED COLD STORAGE EXPANSION PROJECT</p>	<p>ENGR. PHILIP FRANCIS C. JAGUNAP ENGINEER I INFRASTRUCTURE PLANS AND DESIGNS SECTION</p> <p>ENGR. MARK LESTER L. NATIVIDAD ENGINEER II INFRASTRUCTURE PLANS AND DESIGNS SECTION</p>	<p>ENGR. ALLAN C. COLONG ENGINEER IV, SECTION CHIEF INFRASTRUCTURE PLANS AND DESIGNS SECTION</p>	<p>ENGR. ARIODEAR C. RICO DIRECTOR IV BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING</p>	<p>DANIEL ALONSO N. ATAYDE ASSISTANT SECRETARY OFFICE OF THE ASSISTANT SECRETARY FOR LOGISTICS</p>	<p>MODULAR COLD STORAGE CHILLER ROOM: FLOOR PLAN & ELEVATIONS</p>



<p>REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING</p>	<p>PROJECT TITLE</p> <p>PROPOSED COLD STORAGE EXPANSION PROJECT</p>	<p>PREPARED BY</p> <p>ENGR. PHILIP FRANCIS C. JAGUNAP ENGR. MARK LESTER L. NATIVIDAD</p>	<p>REVIEWED BY:</p> <p>ENGR. ALLAN C. GO ENGR. ENGR. ARIODEAR C. RICO</p>	<p>APPROVED BY:</p> <p>DANIEL ALFONSO N. ATAYDE</p>	<p>SHEET CONTENT</p> <p>OFFICE DETAILS (BENEFICIARY COUNTERPART)</p>	<p>SHEET NO.</p> <p>6/21</p>
		<p>ENGINEER I INFRASTRUCTURE PLANS AND DESIGNS SECTION</p>	<p>ENGINEER II INFRASTRUCTURE PLANS AND DESIGNS SECTION</p>	<p>ENGINEER IV, SECTION CHIEF INFRASTRUCTURE PLANS AND DESIGNS SECTION</p>		



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
 BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING

PROJECT TITLE
**PROPOSED COLD STORAGE
 EXPANSION PROJECT**

PREPARED BY
 ENGR. PHILIP FRANCIS C. JAGUNAP
 ENGR. MARK LESTER L. NATIVIDAD

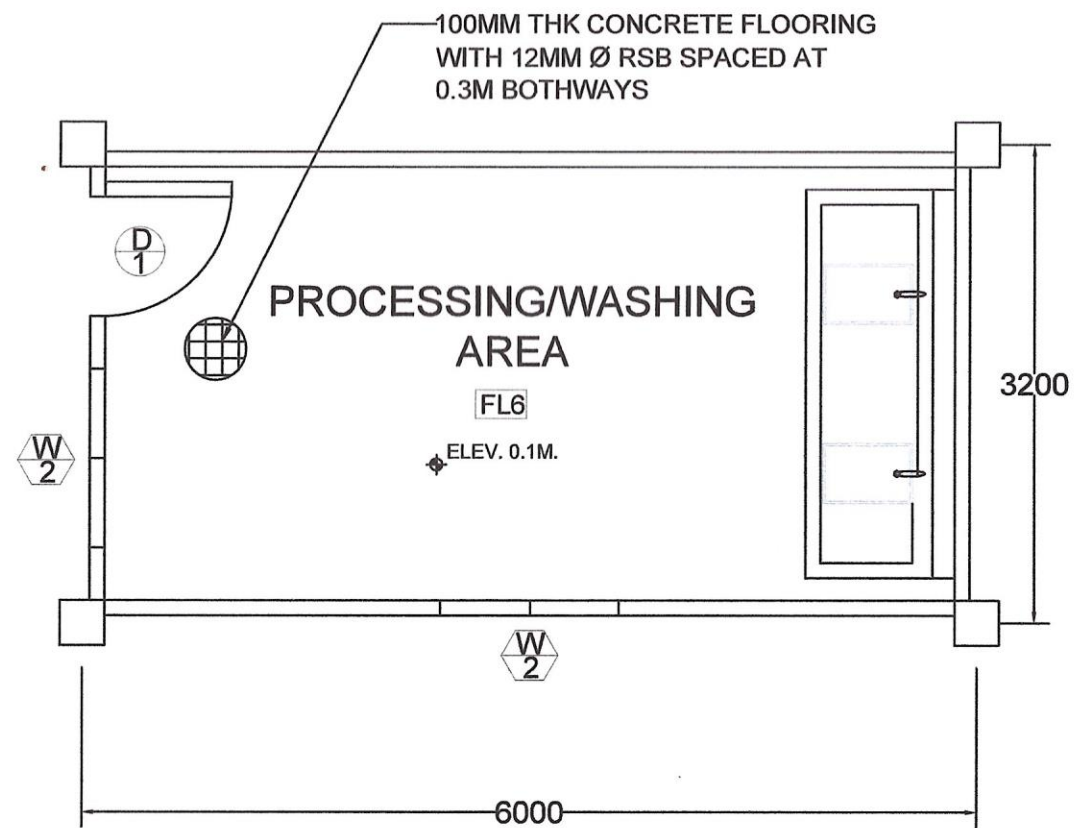
REVIEWED BY
 ENGR. ALLAN C. SOLENG

APPROVED BY
 ENGR. ARIODEAR C. RICO
 DIRECTOR IV

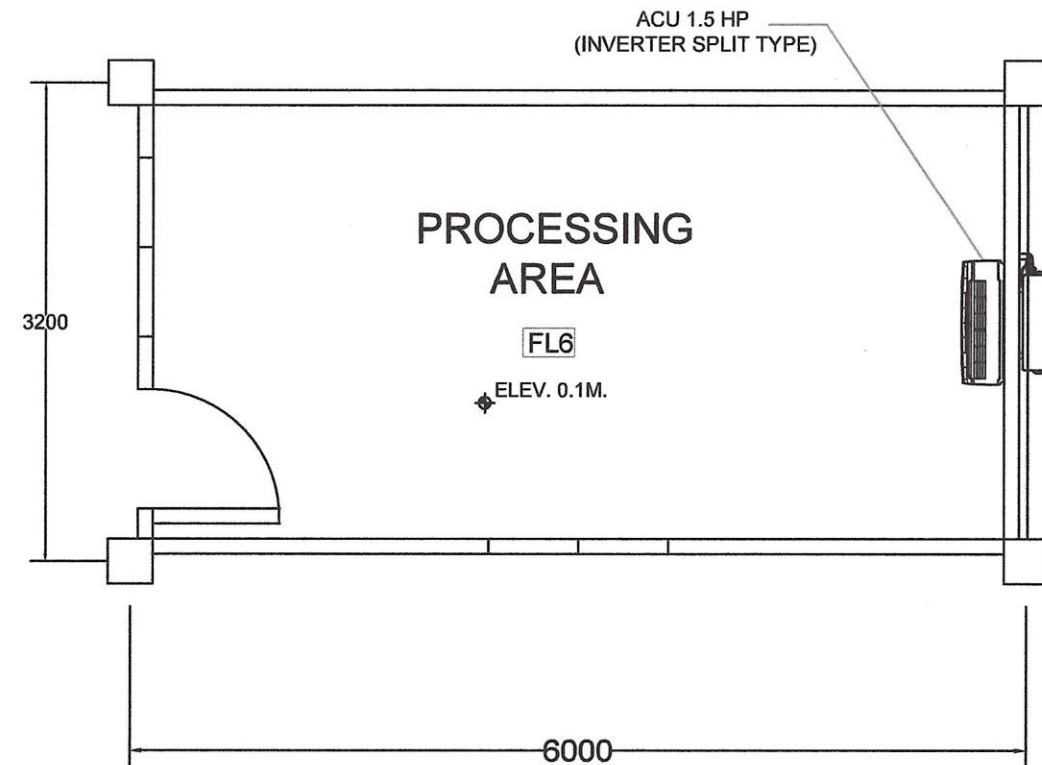
DANIEL ALFONSO N. ATAYDE
 ASSISTANT SECRETARY
 OFFICE OF THE ASSISTANT SECRETARY FOR LOGISTICS

SHEET CONTENT
**POWER HOUSE & GENSET
 ROOM DETAILS**

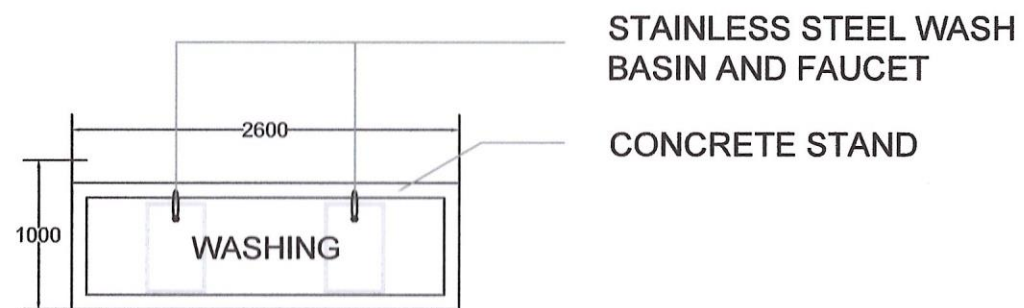
SHEET NO.
7/21



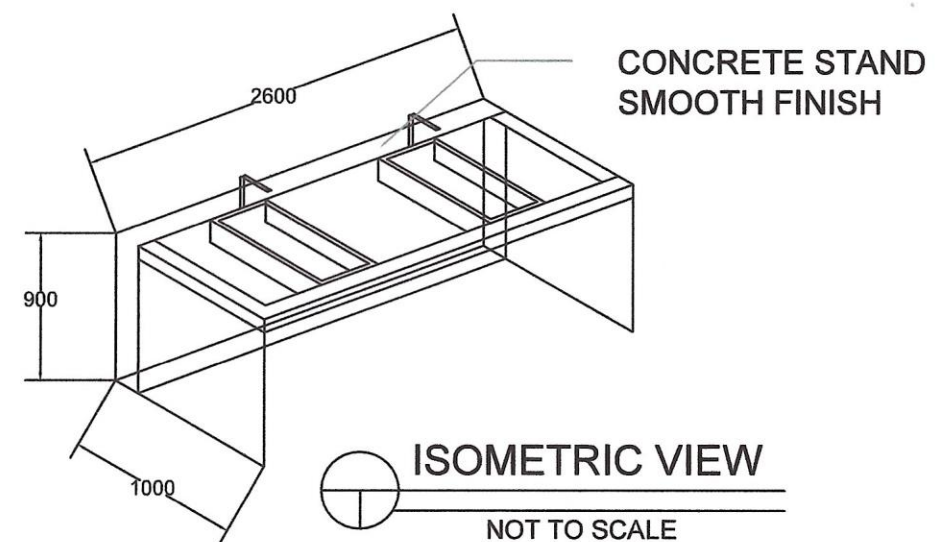
FLOOR PLAN
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EQUIPMENT LAYOUT PLAN
NOT TO SCALE

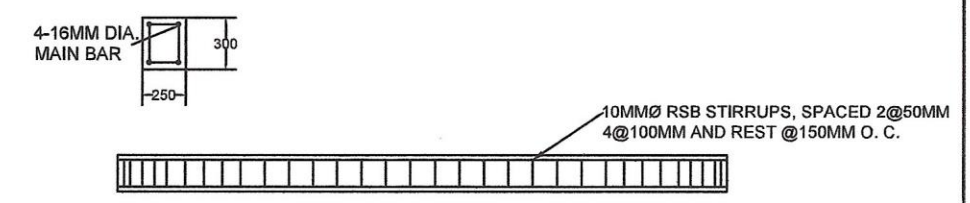


STAINLESS STEEL WASH
BASIN AND FAUCET
CONCRETE STAND

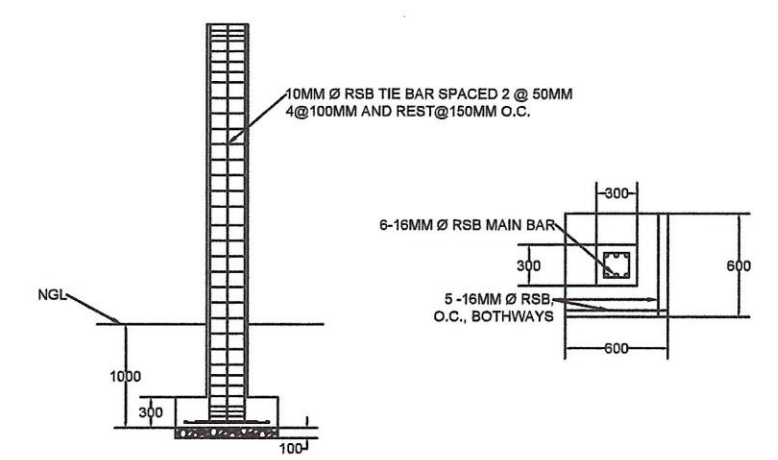


ISOMETRIC VIEW
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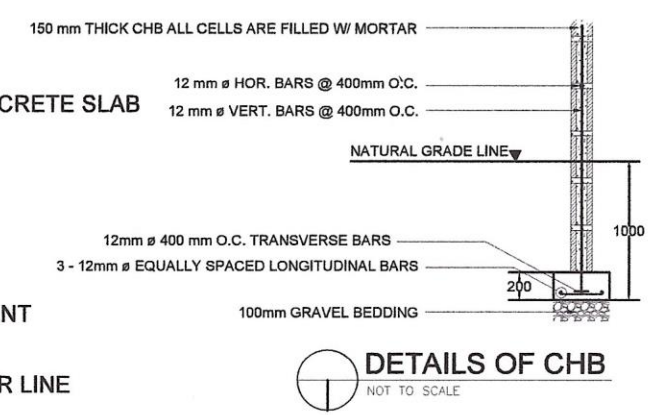
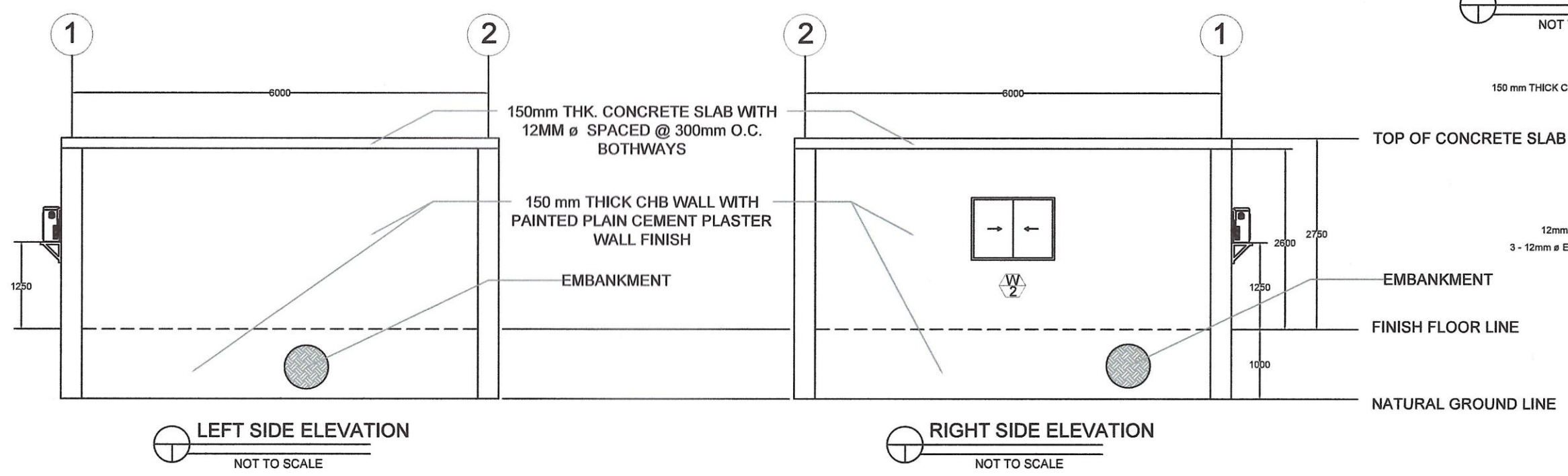
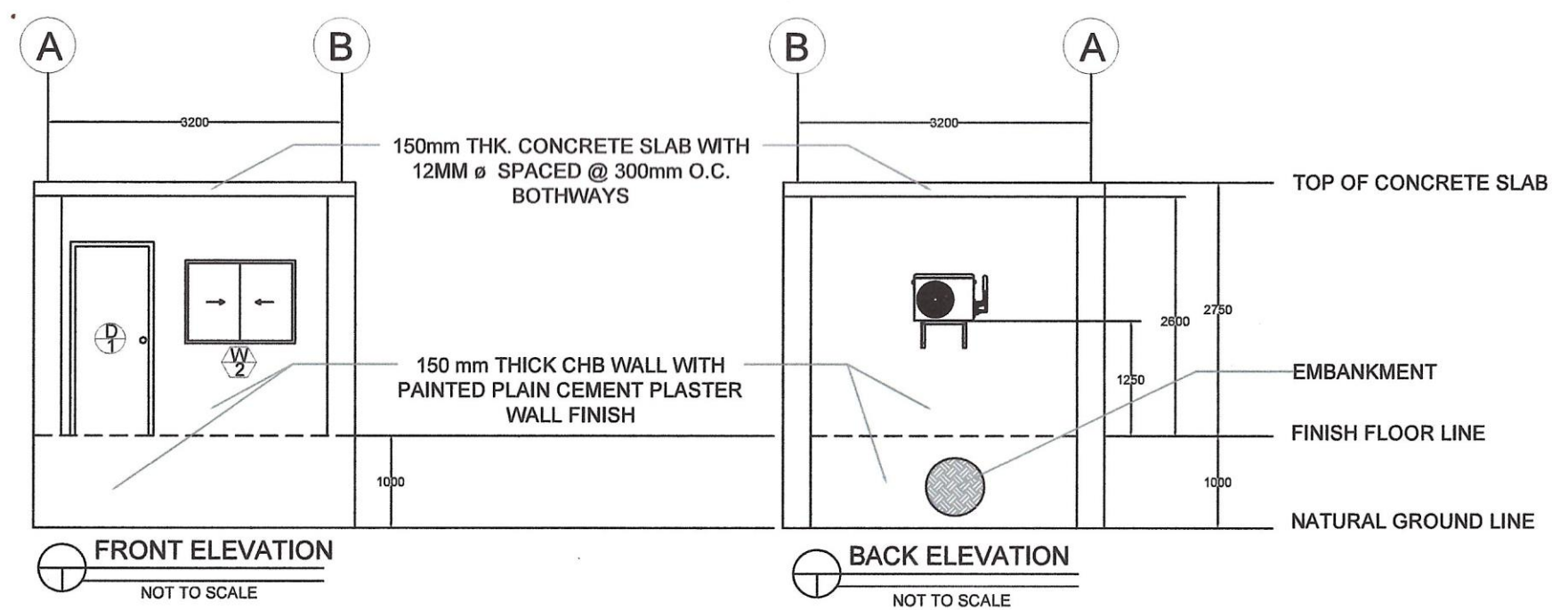
	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING	PROJECT TITLE	PREPARED BY	REVIEWED BY:	APPROVED BY:	SHEET CONTENT	SHEET NO.
		PROPOSED COLD STORAGE EXPANSION PROJECT	ENGR. PHILIP FRANCIS C. JAGUNAP <small>ENGINEER I INFRASTRUCTURE PLANS AND DESIGNS SECTION</small>	ENGR. MARK LESTER L. NATIVIDAD <small>ENGINEER II INFRASTRUCTURE PLANS AND DESIGNS SECTION</small>	ENGR. ALLAN C. GOLENG <small>ENGINEER IV, SECTION CHIEF INFRASTRUCTURE PLANS AND DESIGNS SECTION</small>	ENGR. ARIODEAR C. RICO <small>DIRECTOR IV BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING</small>	DANIEL ALFONSO N. ATAYDE <small>ASSISTANT SECRETARY OFFICE OF THE ASSISTANT SECRETARY FOR LOGISTICS</small>



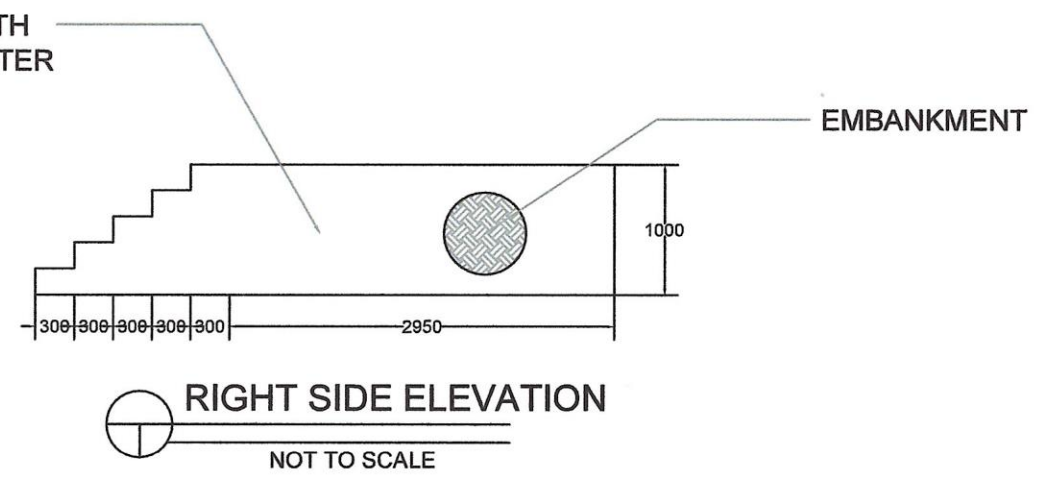
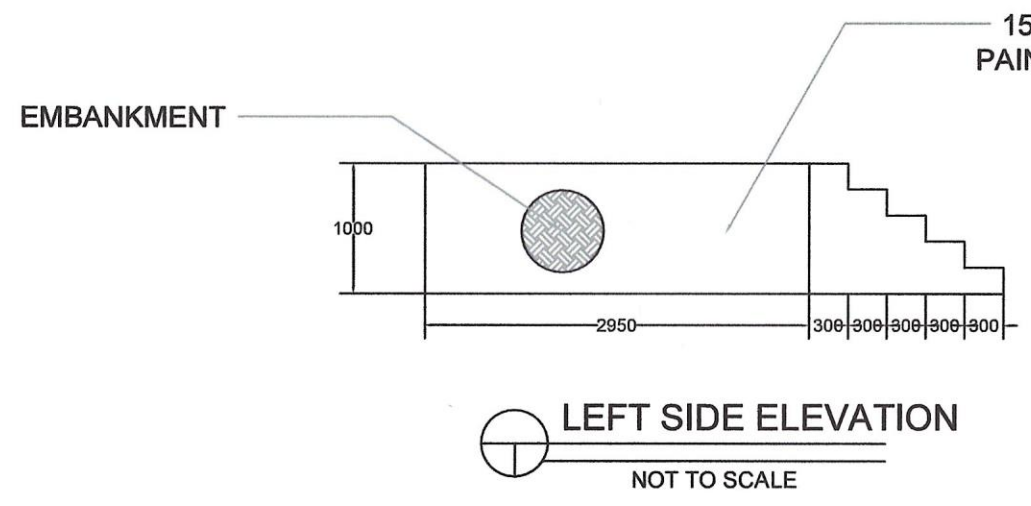
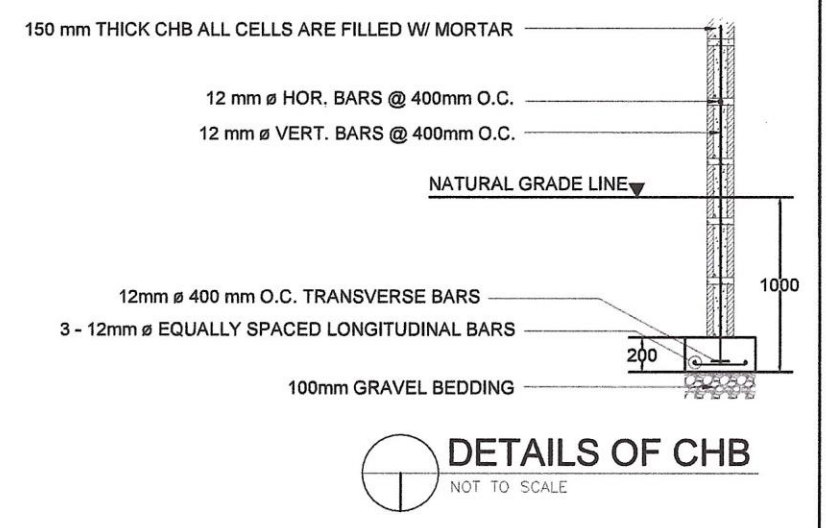
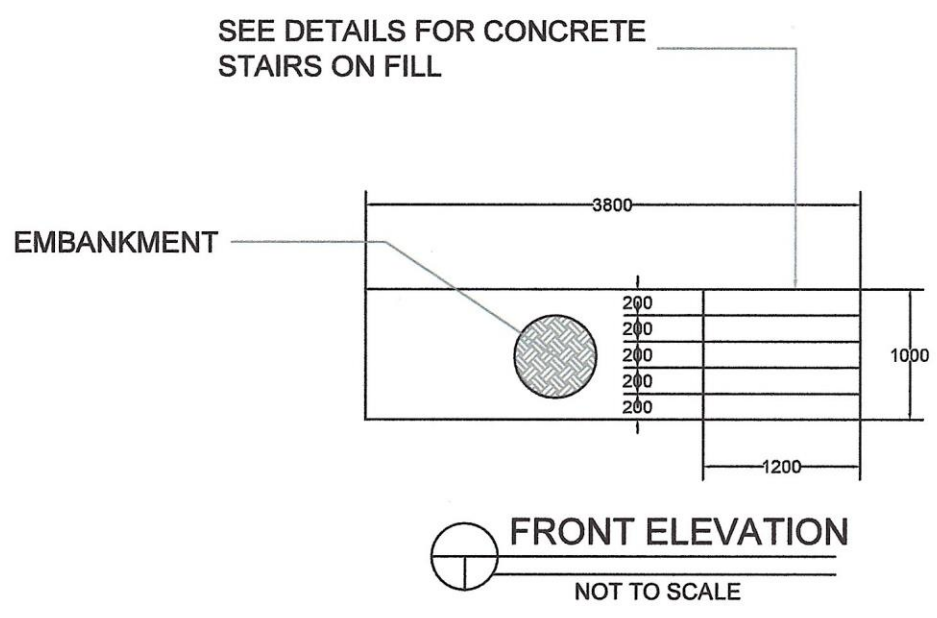
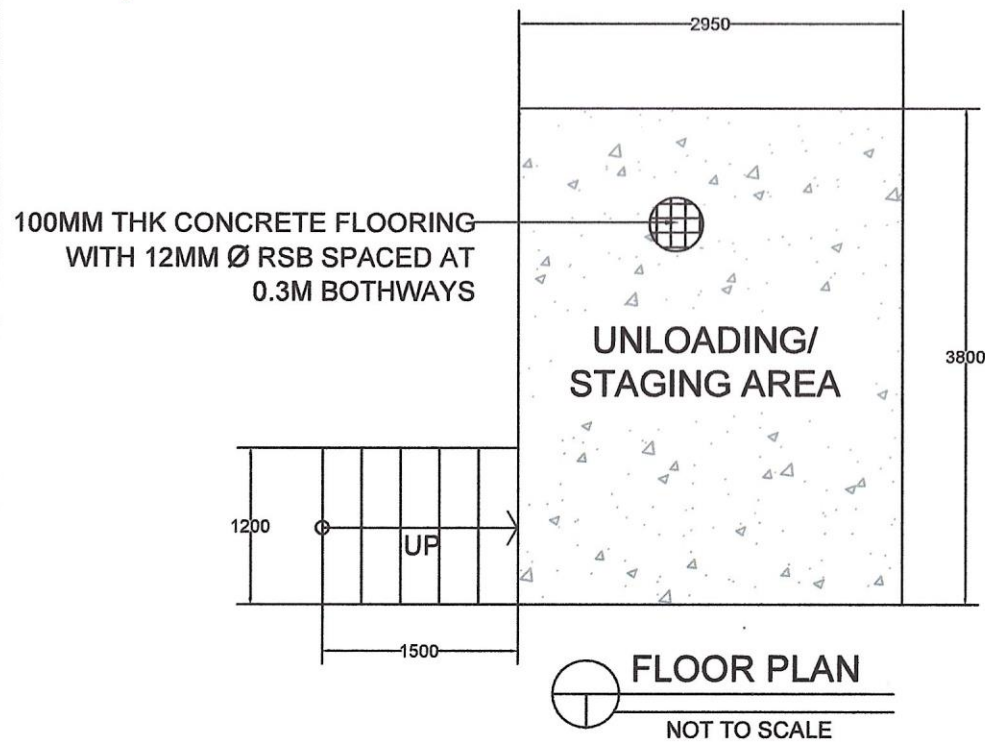
BEAM DETAILS
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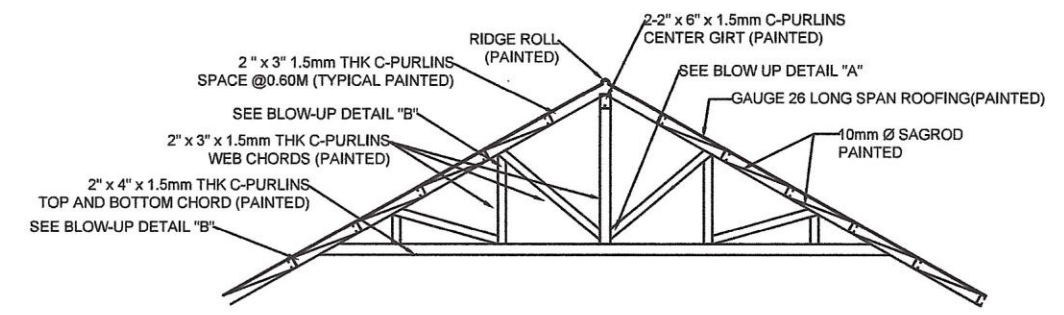
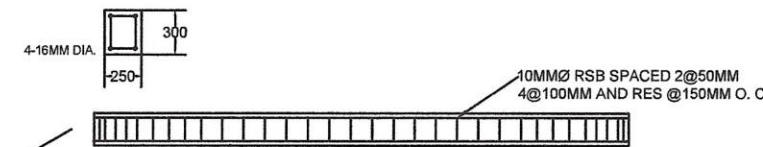
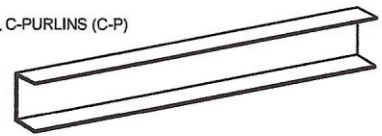
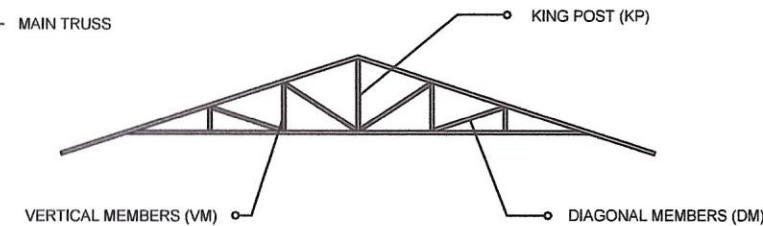
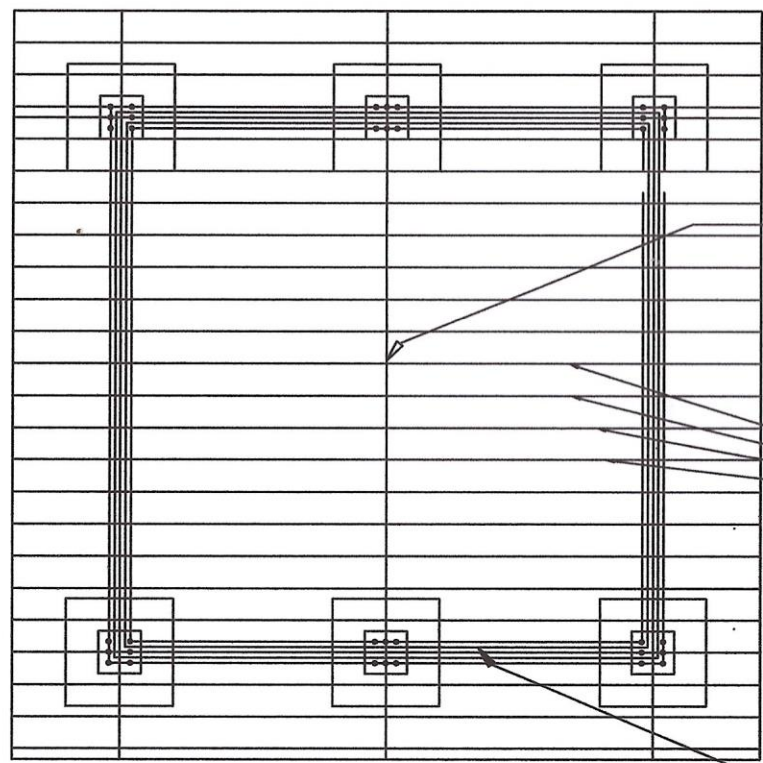
DETAILS OF CF-4
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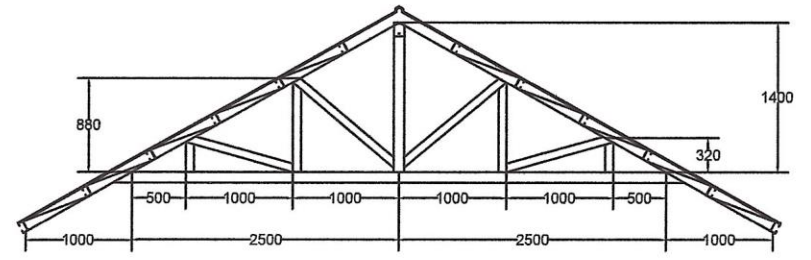
<p>REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING</p>	PROJECT TITLE	PREPARED BY	REVIEWED BY:	APPROVED BY:	SHEET CONTENT	SHEET NO.
	<p>PROPOSED COLD STORAGE EXPANSION PROJECT</p>	<p>ENGR. PHILIP FRANCIS C. JAGUNAP ENGINEER I INFRASTRUCTURE PLANS AND DESIGNS SECTION</p> <p>ENGR. MARK LESTER L. NATIVIDAD ENGINEER II INFRASTRUCTURE PLANS AND DESIGNS SECTION</p>	<p>ENGR. ALLAN C. SOLENG ENGINEER IV, SECTION CHIEF INFRASTRUCTURE PLANS AND DESIGNS SECTION</p>	<p>ENGR. ARIODEAR C. RICO DIRECTOR IV BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING</p>	<p>DANIEL ALFONSO N. ATAYDE ASSISTANT SECRETARY OFFICE OF THE ASSISTANT SECRETARY FOR LOGISTICS</p>	<p>PROCESSING AREA: ELEVATIONS; COLUMN, BEAM, AND FOUNDATION DETAILS (BENEFICIARY COUNTERPART)</p>



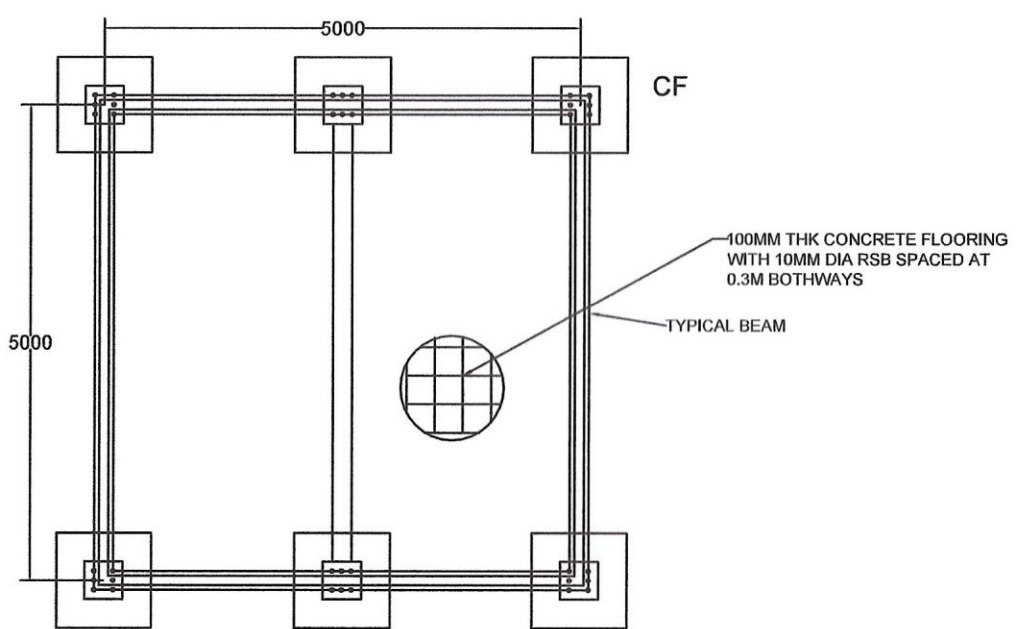
	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING	PROJECT TITLE	PREPARED BY	REVIEWED BY:	APPROVED BY:	SHEET CONTENT	SHEET NO.
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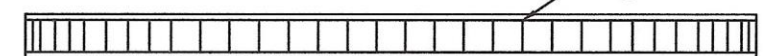
OFFICE TRUSS DETAILS
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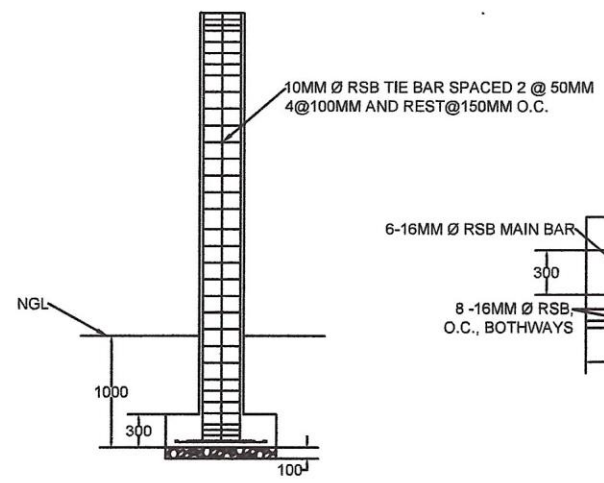
OFFICE ROOFING SYSTEM
NOT TO SCALE



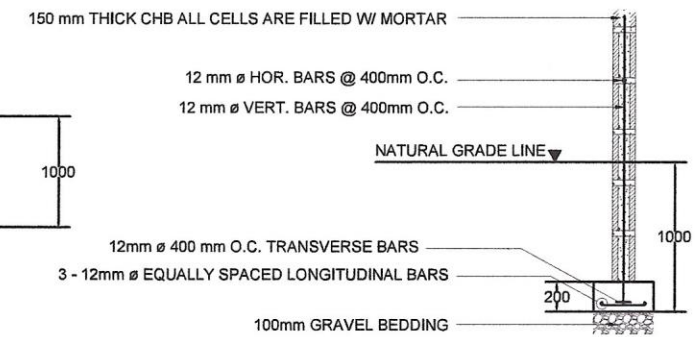
OFFICE FOUNDATION PLAN
NOT TO SCALE



BEAM DETAILS
NOT TO SCALE



COLUMN AND FOOTING DETAILS
NOT TO SCALE



DETAILS OF CHB
NOT TO SCALE

	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING	PROJECT TITLE	PREPARED BY	REVIEWED BY:	APPROVED BY:	SHEET CONTENT	SHEET NO.
		PROPOSED COLD STORAGE EXPANSION PROJECT	ENGR. PHILIP FRANCIS C. JAGUNAP ENGINEER I INFRASTRUCTURE PLANS AND DESIGNS SECTION	ENGR. MARK LESTER L. NATIVIDAD ENGINEER II INFRASTRUCTURE PLANS AND DESIGNS SECTION	ENGR. ALLAN C. SOLENG ENGINEER IV, SECTION CHIEF INFRASTRUCTURE PLANS AND DESIGNS SECTION	ENGR. ARIODEAR C. RICO DIRECTOR IV BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING	DANIEL ALONSO N. ATAYDE ASSISTANT SECRETARY OFFICE OF THE ASSISTANT SECRETARY FOR LOGISTICS

600 WATT-PEAK
MONO-CRYSTALLINE
SOLAR PANEL

A B C D E F G H I J

33500
ROOF LINE


1

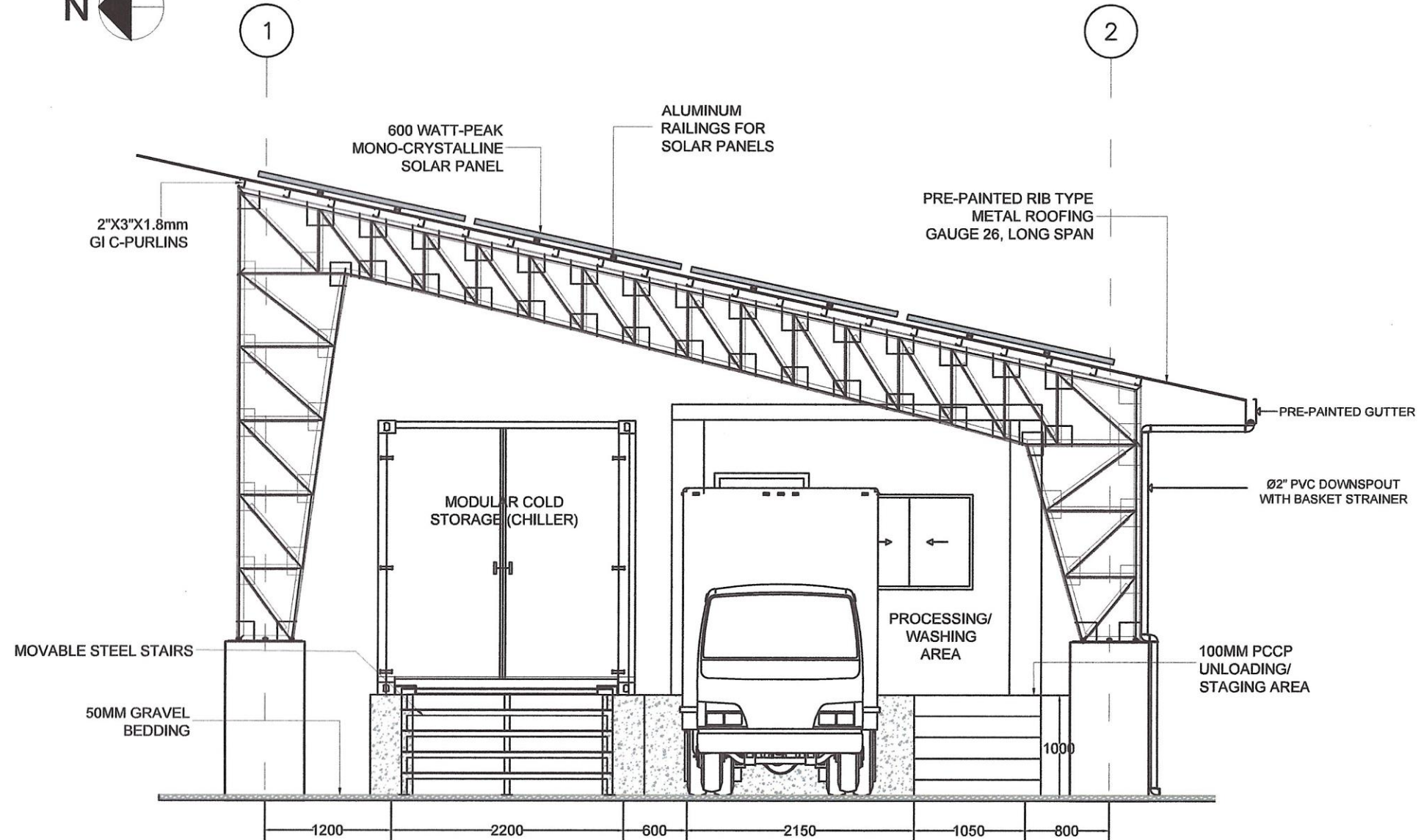
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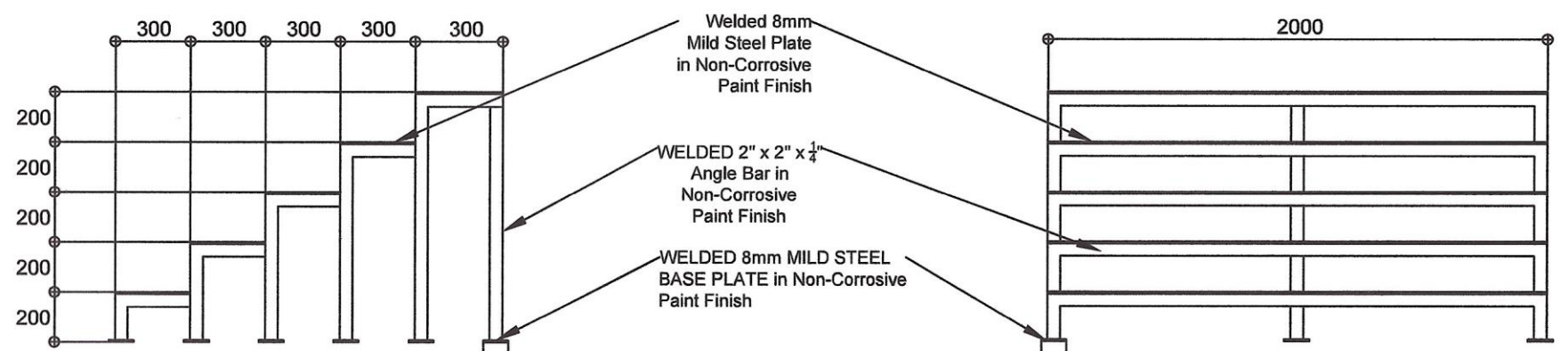
ROOF LINE

 **ROOF SHED PLAN**
NOT TO SCALE

 <p>REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING</p>	PROJECT TITLE	PREPARED BY	REVIEWED BY:	APPROVED BY:	SHEET CONTENT	SHEET NO.
	<p>PROPOSED COLD STORAGE EXPANSION PROJECT</p>	<p><i>PP</i> ENGR. PHILIP FRANCIS C. JAGUNAP ENGINEER I INFRASTRUCTURE PLANS AND DESIGNS SECTION</p> <p><i>Mark L</i> ENGR. MARK LESTER L. NATIVIDAD ENGINEER II INFRASTRUCTURE PLANS AND DESIGNS SECTION</p>	<p><i>AG</i> ENGR. ALLAN O. GOLENG ENGINEER IV, SECTION CHIEF INFRASTRUCTURE PLANS AND DESIGNS SECTION</p>	<p><i>AR</i> ENGR. ABIODEAR C. RICO DIRECTOR IV BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING</p>	<p><i>DA</i> DANIEL ABERNOS N. ATAYDE ASSISTANT SECRETARY OFFICE OF THE ASSISTANT SECRETARY FOR LOGISTICS</p>	<p>ROOF SHED PLAN</p>



ROOF SHED SIDE ELEVATION
NOT TO SCALE



MOVABLE STEEL STAIRS
NOT TO SCALE



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING

PROJECT TITLE
PROPOSED COLD STORAGE EXPANSION PROJECT

PREPARED BY
ENGR. PHILIP FRANCIS C. JAGUNAP
ENGR. MARK LESTER L. NATIVIDAD

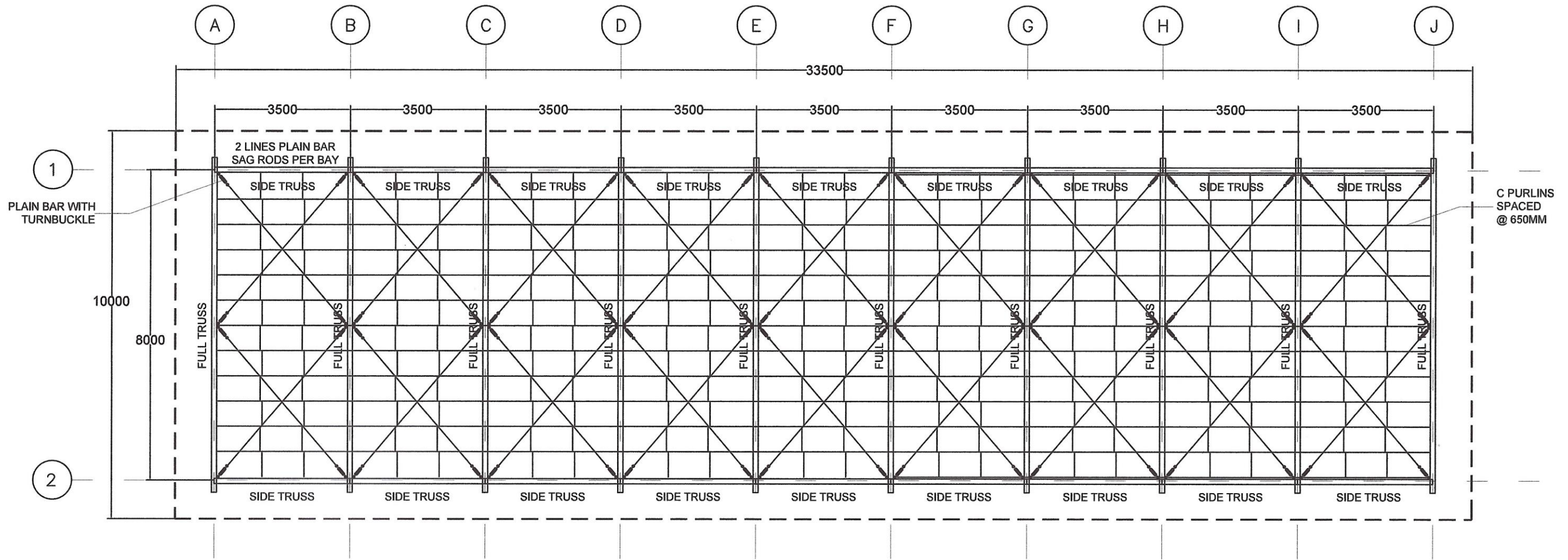
REVIEWED BY
ENGR. ALLAN C. GOLENG

APPROVED BY
ENGR. ARIODEAR C. RICO
DIRECTOR IV

DANIEL ALFONSO N. ATAYDE
ASSISTANT SECRETARY
OFFICE OF THE ASSISTANT SECRETARY FOR LOGISTICS

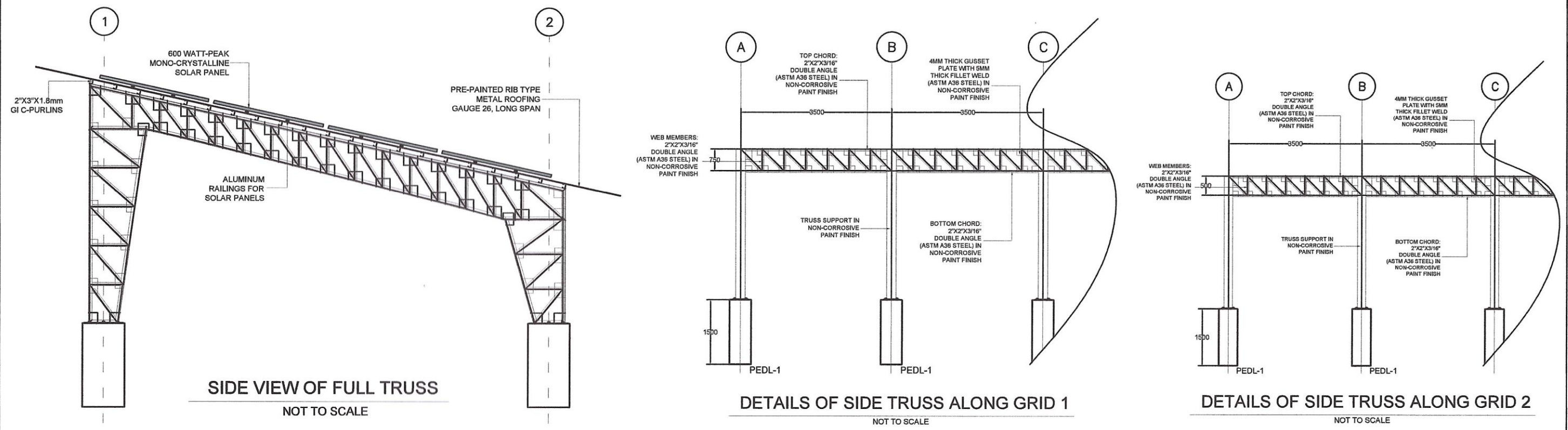
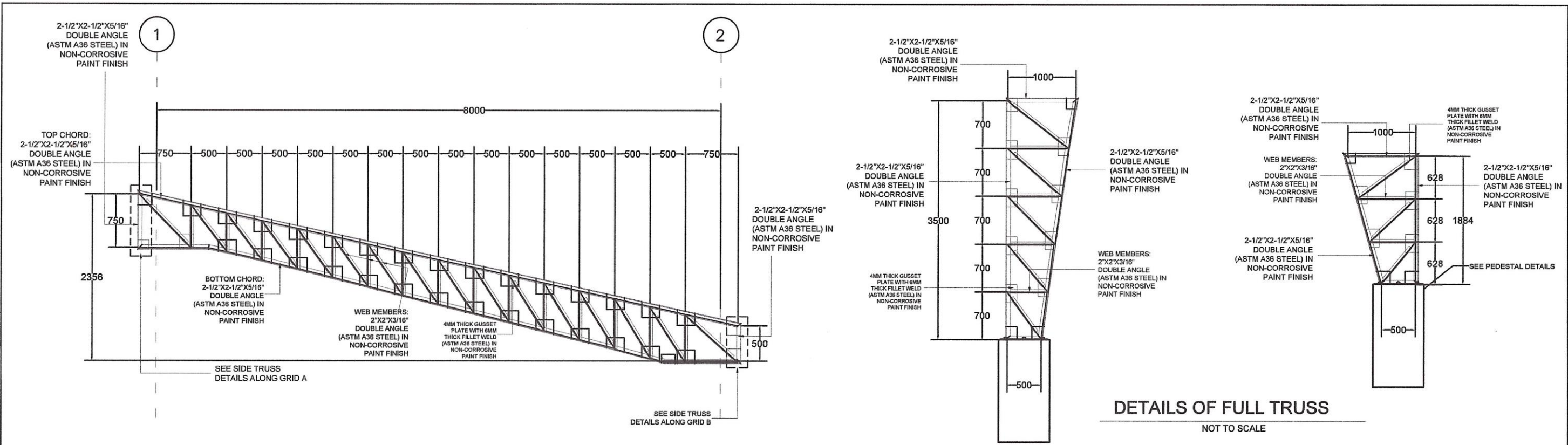
SHEET CONTENT
ROOF SHED SIDE ELEVATION
DETAILS OF MOVABLE STAIRS

SHEET NO.
13/21

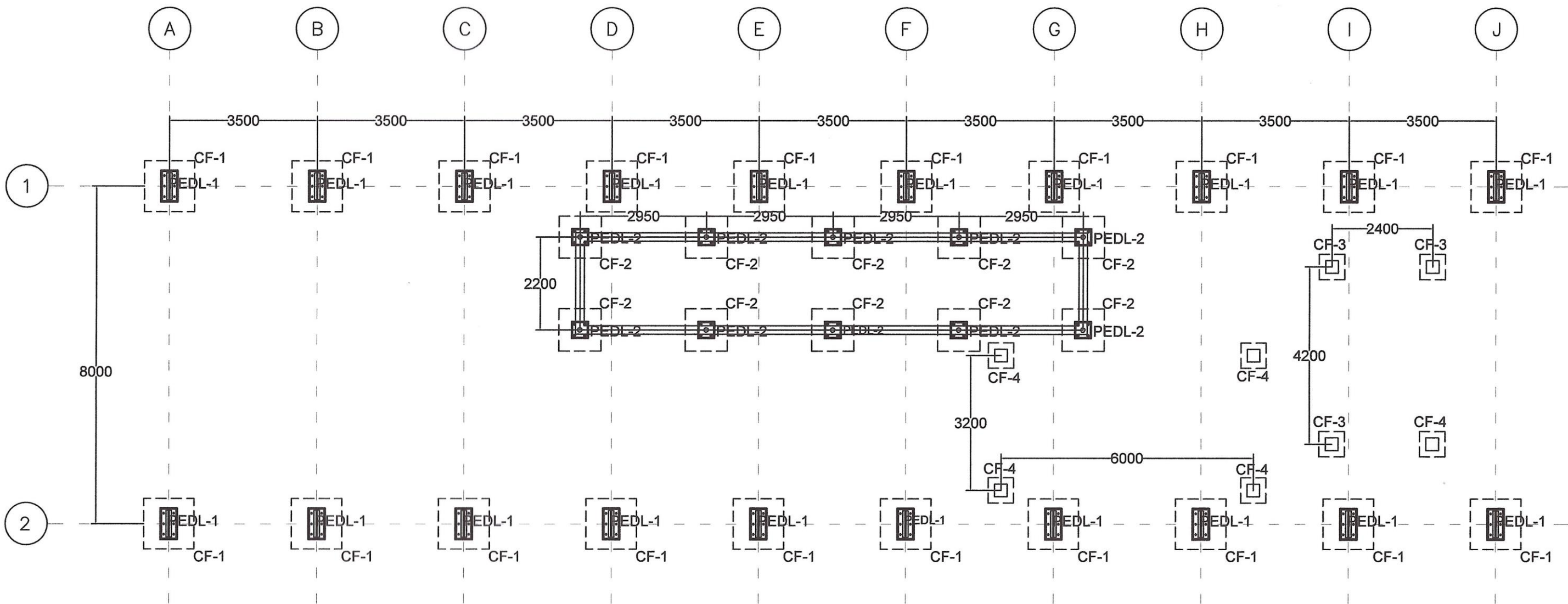


ROOF SHED FRAMING PLAN
 NOT TO SCALE


	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING	PROJECT TITLE PROPOSED COLD STORAGE EXPANSION PROJECT	PREPARED BY <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <small>ENGR. PHILIP FRANCIS C. JAGUNAP</small> <small>ENGINEER I</small> <small>INFRASTRUCTURE PLANS AND DESIGNS SECTION</small> </div> <div style="text-align: center;"> <small>ENGR. MARK LESTER L. NATIDAD</small> <small>ENGINEER II</small> <small>INFRASTRUCTURE PLANS AND DESIGNS SECTION</small> </div> </div>	REVIEWED BY: <div style="text-align: center;"> <small>ENGR. ALLAN C. BOLENG</small> <small>ENGINEER IV, SECTION CHIEF</small> <small>INFRASTRUCTURE PLANS AND DESIGNS SECTION</small> </div>	APPROVED BY: <div style="text-align: center;"> <small>ENGR. ARIODEAR C. RICO</small> <small>DIRECTOR IV</small> <small>BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING</small> </div>	SHEET CONTENT ROOF SHED FRAMING PLAN	SHEET NO. 14/21
						 <small>DANIEL ALFONSO N. ATAYDE</small> <small>ASSISTANT SECRETARY</small> <small>OFFICE OF THE ASSISTANT SECRETARY FOR LOGISTICS</small>	

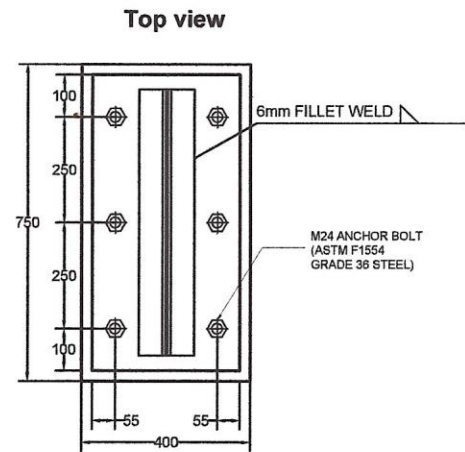


	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING	PROJECT TITLE	PREPARED BY	REVIEWED BY:	APPROVED BY:	SHEET CONTENT	SHEET NO.
		PROPOSED COLD STORAGE EXPANSION PROJECT	ENGR. PHILIP FRANCIS C. JAGUNAP ENGR. MARK LESTER L. NATIVIDAD ENGINEER I INFRASTRUCTURE PLANS AND DESIGNS SECTION	 ENGR. ALLAN C. GOLENG ENGINEER IV, SECTION CHIEF INFRASTRUCTURE PLANS AND DESIGNS SECTION	 ENGR. ARIODEAR C. RICO DIRECTOR IV BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING	 DANIEL ALFONSO N. ATAYDE ASSISTANT SECRETARY OFFICE OF THE ASSISTANT SECRETARY FOR LOGISTICS	ROOF SHED: TRUSS DETAILS

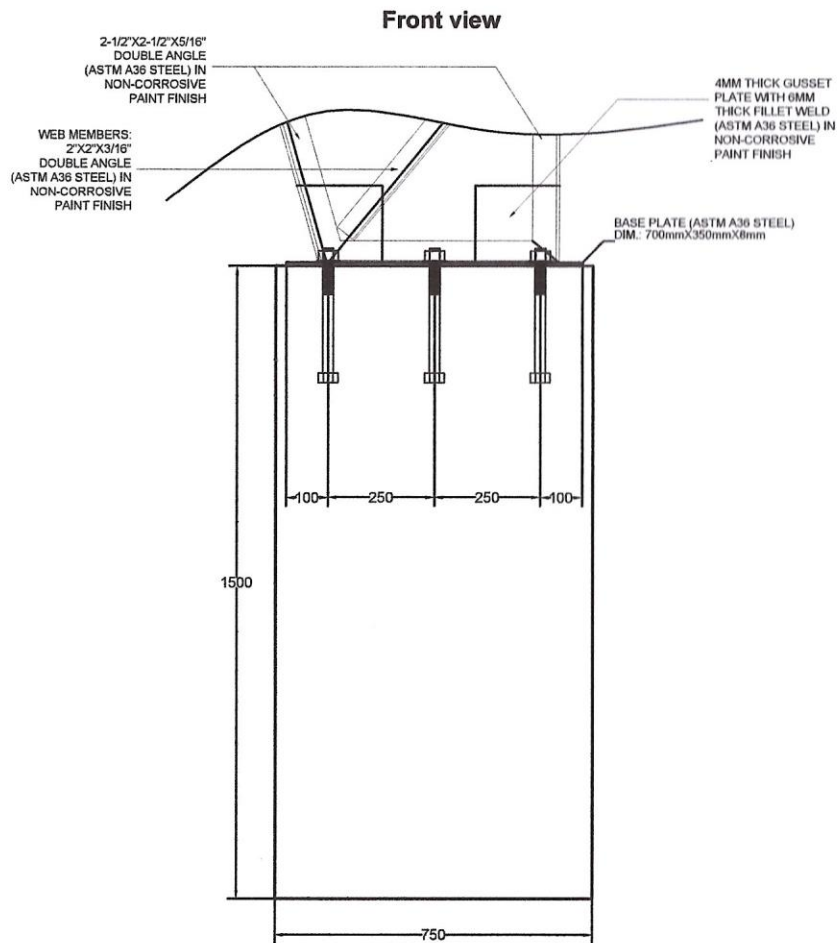
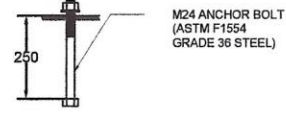


FOUNDATION PLAN: ROOF SHED AND MODULAR COLD STORAGE FACILITY
 NOT TO SCALE

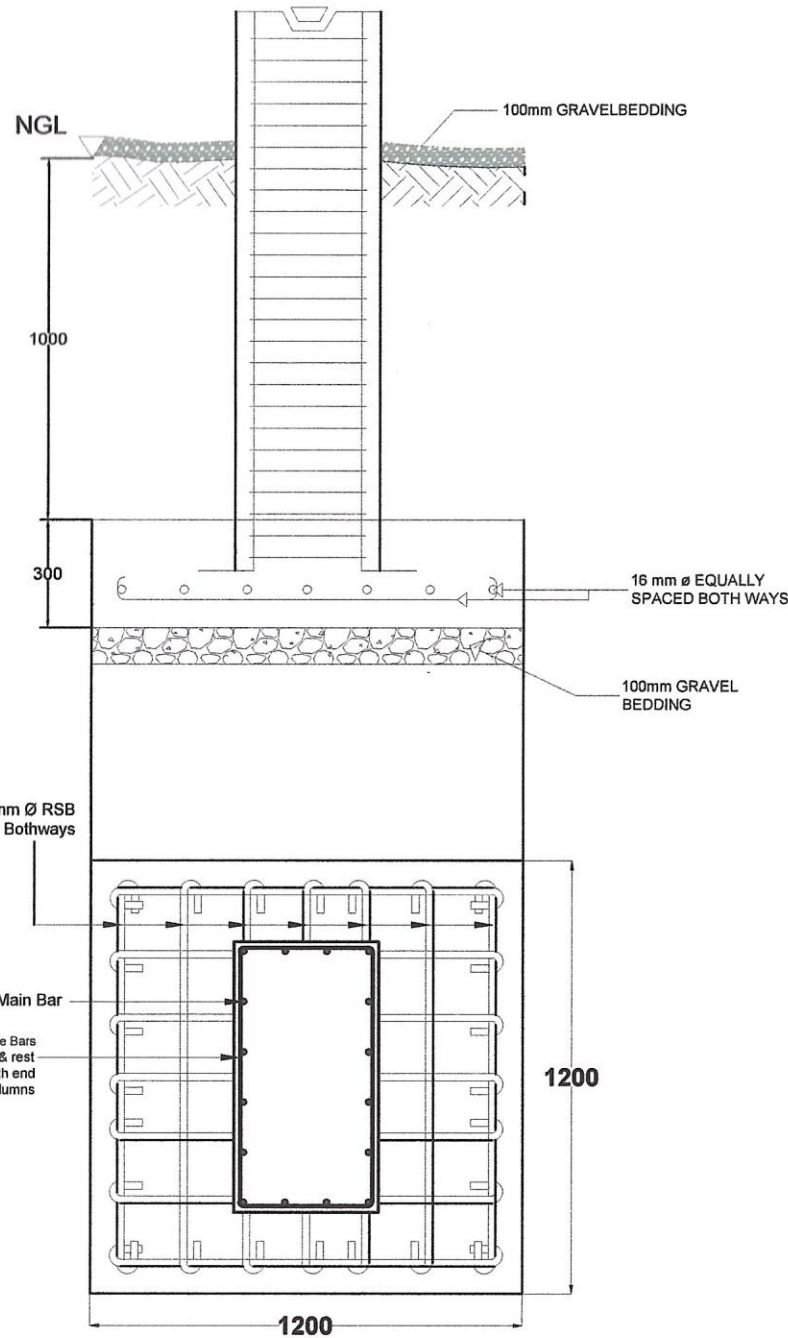
 DEPARTMENT OF AGRICULTURE BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING	PROJECT TITLE PROPOSED COLD STORAGE EXPANSION PROJECT	PREPARED BY ENGR. PHILIP FRANCIS C. JAGUNAP ENGR. MARK LESTER L. NATIVIDAD	REVIEWED BY: ENGR. ALLAN G. GOLENG	APPROVED BY: ENGR. ARIODEAR C. RICO DANIEL REFONSO N. ATAYDE	SHEET CONTENT FOUNDATION PLAN: ROOF SHED AND MODULAR COLD STORAGE FACILITY	SHEET NO. 16/21
	ENGINEER I INFRASTRUCTURE PLANS AND DESIGNS SECTION	ENGINEER II INFRASTRUCTURE PLANS AND DESIGNS SECTION	ENGINEER IV, SECTION CHIEF INFRASTRUCTURE PLANS AND DESIGNS SECTION	DIRECTOR IV BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING	ASSISTANT SECRETARY OFFICE OF THE ASSISTANT SECRETARY FOR LOGISTICS	



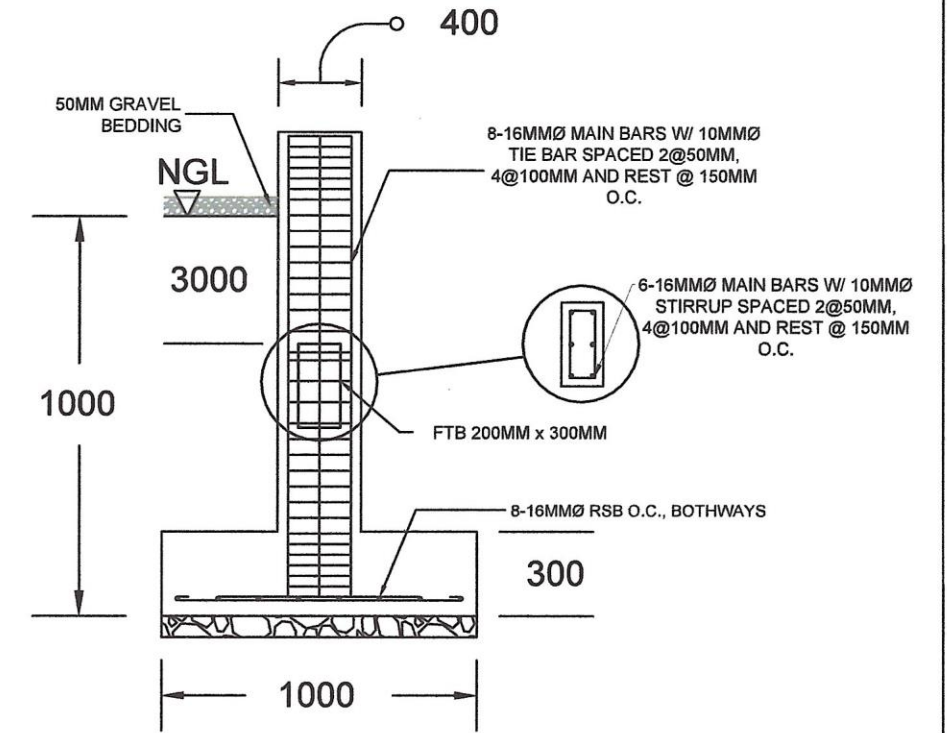
Anchor detailing



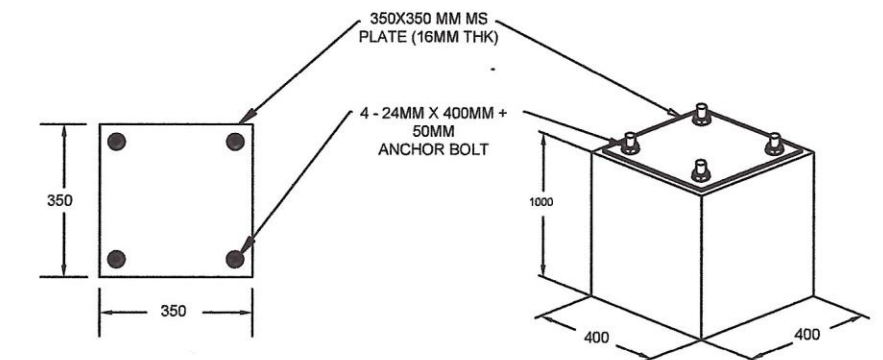
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NOT TO SCALE



DETAILS OF CF-1
NOT TO SCALE

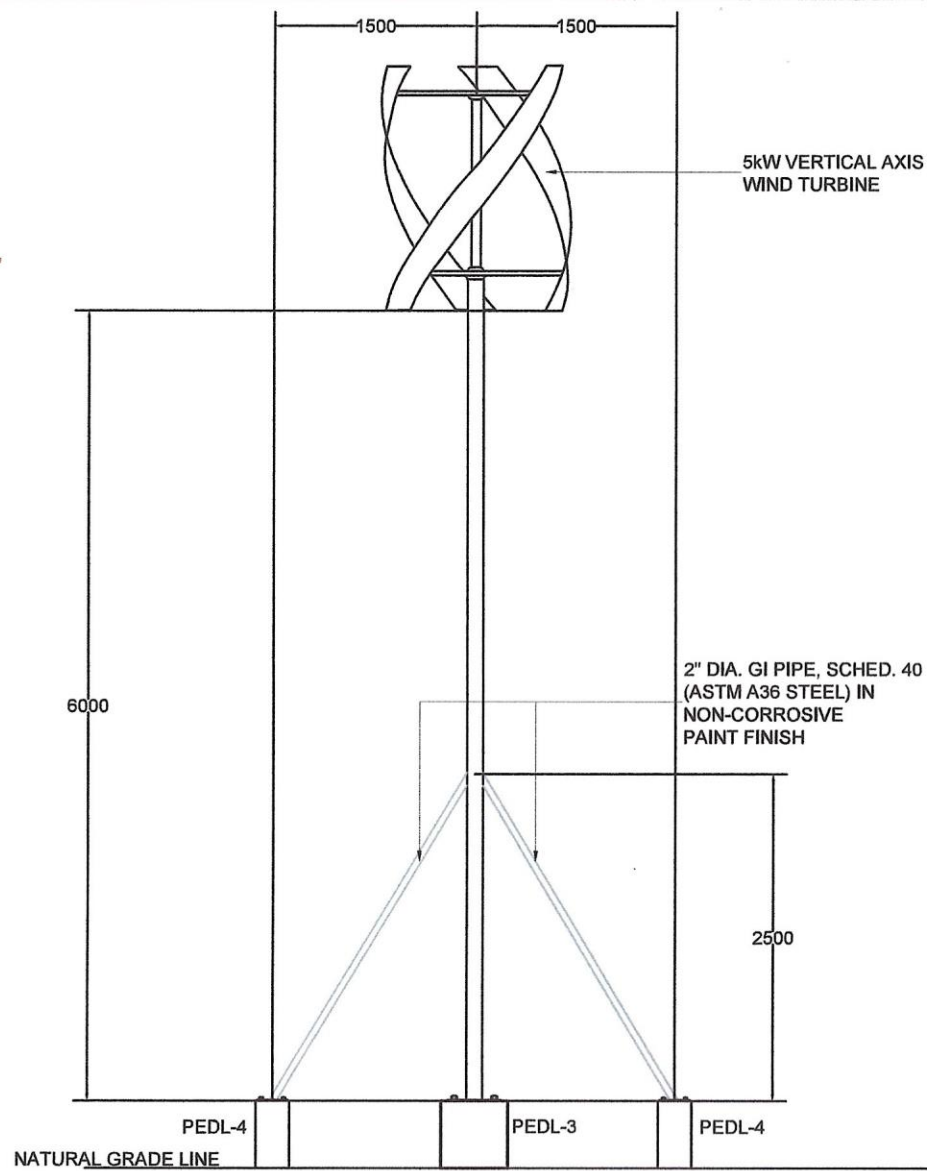


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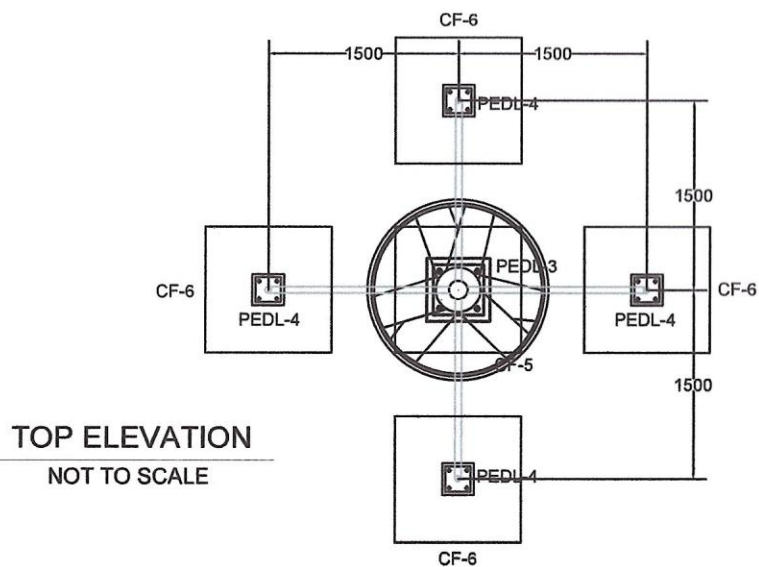


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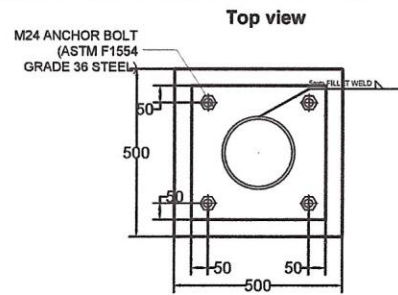
<p>REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING</p>	PROJECT TITLE	PREPARED BY	REVIEWED BY:	APPROVED BY:	SHEET CONTENT	SHEET NO.
	<p>PROPOSED COLD STORAGE EXPANSION PROJECT</p>	<p>ENGR. PHILIP FRANCIS C. JAGUNAP ENGINEER I INFRASTRUCTURE PLANS AND DESIGNS SECTION</p> <p>ENGR. MARK LESTER L. NATIVIDAD ENGINEER II INFRASTRUCTURE PLANS AND DESIGNS SECTION</p>	<p>ENGR. ALLAN C. SOLENG ENGINEER IV, SECTION CHIEF INFRASTRUCTURE PLANS AND DESIGNS SECTION</p>	<p>ENGR. ARIODEAR C. RICO DIRECTOR IV BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING</p>	<p>DANIEL ALFONSO N. ATAYDE ASSISTANT SECRETARY OFFICE OF THE ASSISTANT SECRETARY FOR LOGISTICS</p>	<p>PEDESTAL AND FOUNDATION DETAILS</p>



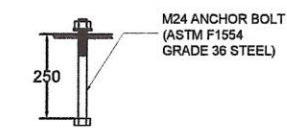
SIDE ELEVATION
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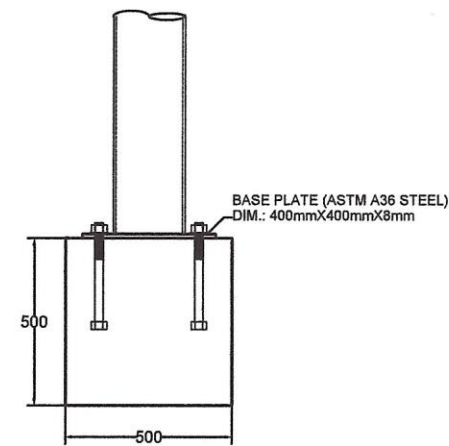
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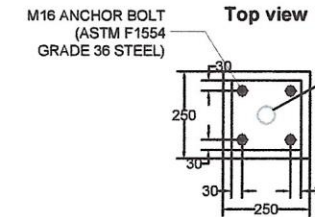
Anchor detailing



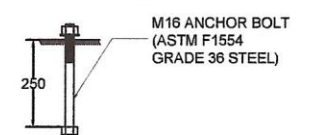
Front view



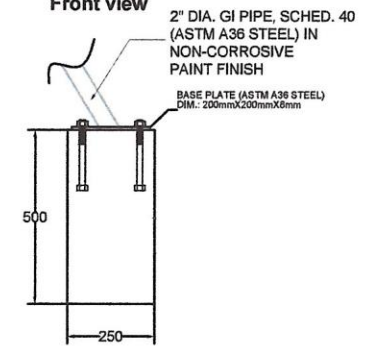
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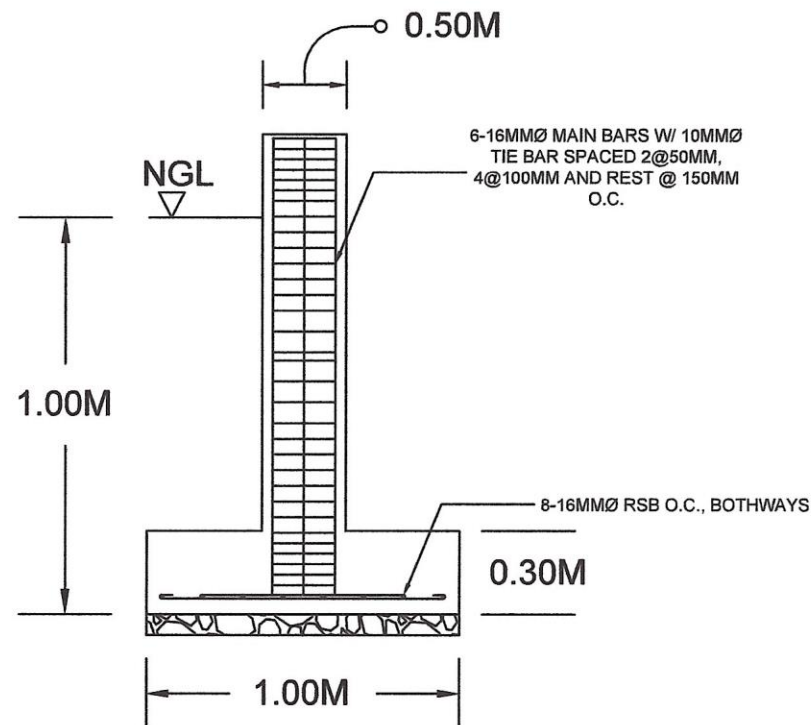
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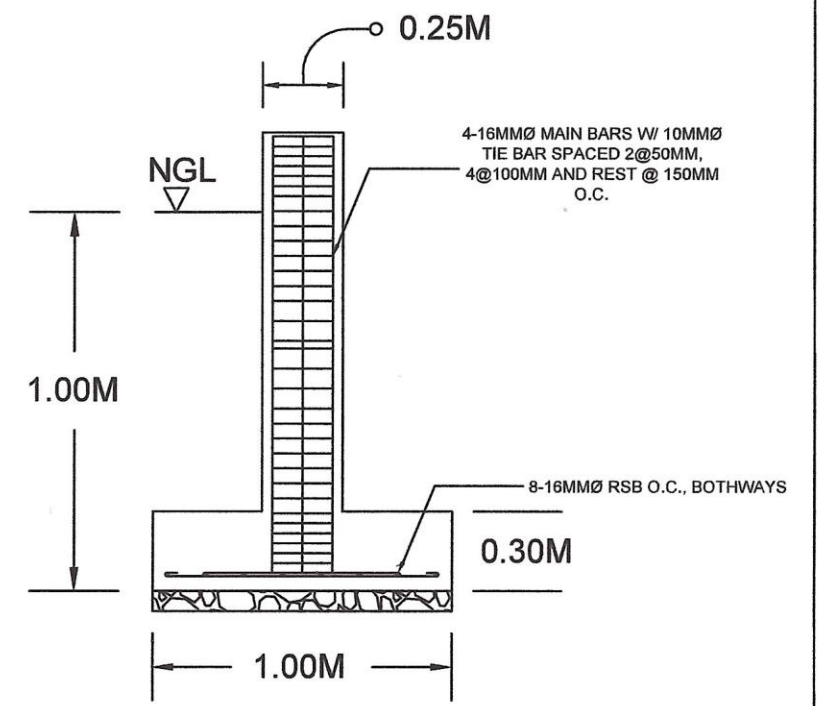
Front view



DETAILS OF PEDL-4
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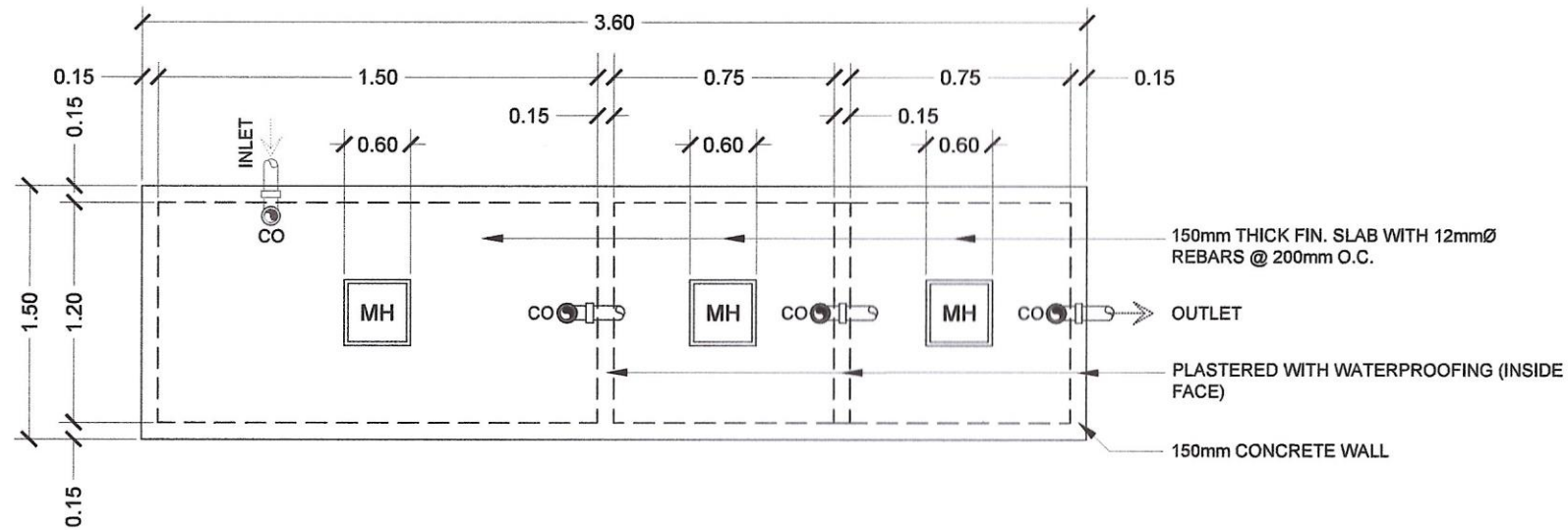


DETAILS OF CF-5
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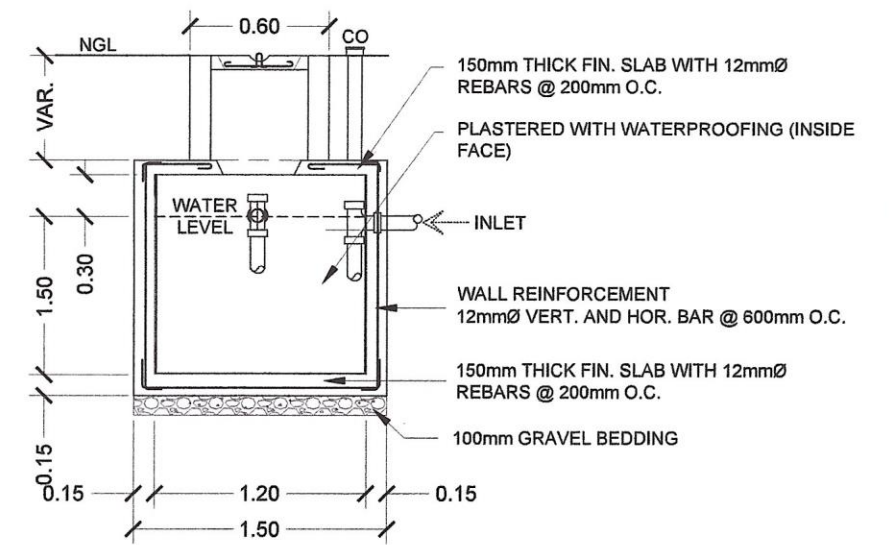


DETAILS OF CF-6
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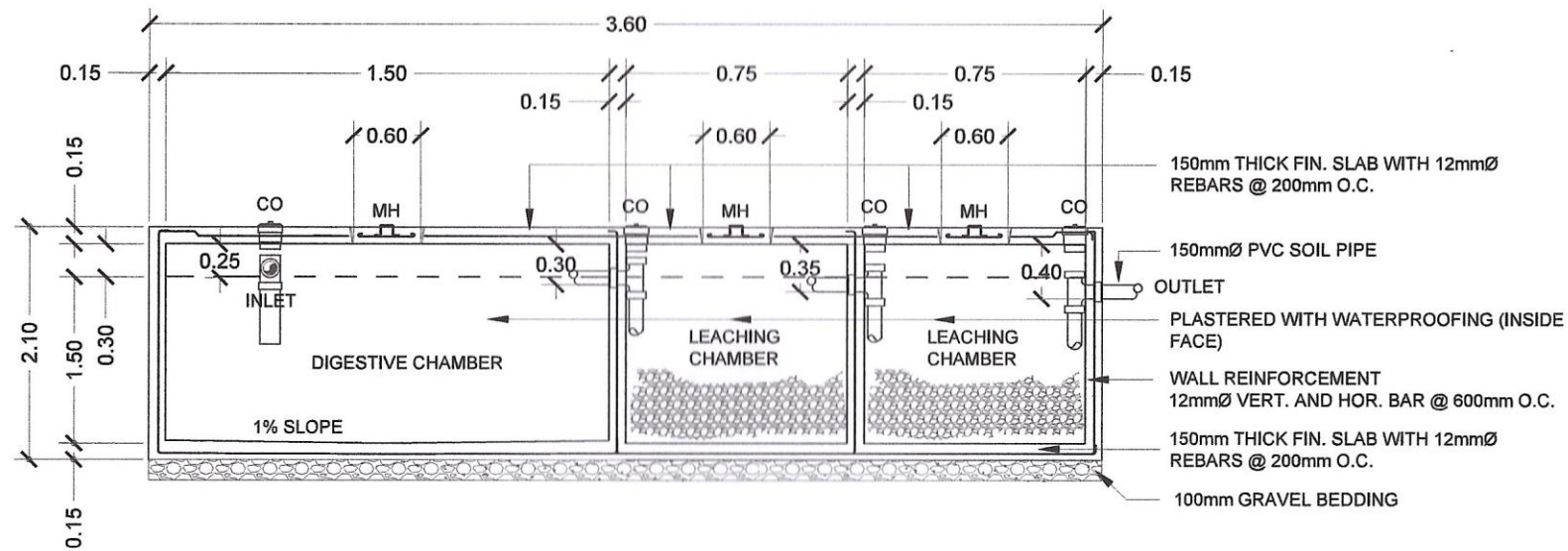
	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING	PROJECT TITLE	PREPARED BY	REVIEWED BY:	APPROVED BY:	SHEET CONTENT	SHEET NO.
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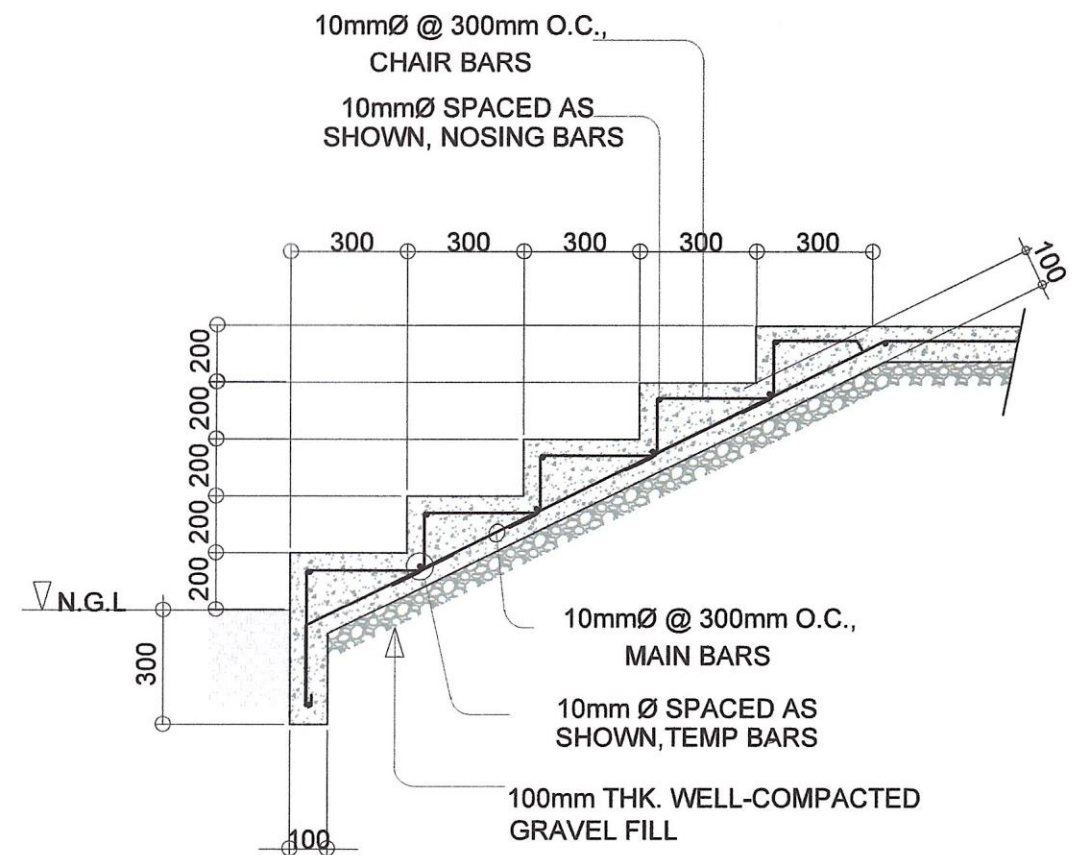
PLAN DETAIL OF SEPTIC VAULT
NOT TO SCALE



CROSS SECTION DETAIL
NOT TO SCALE

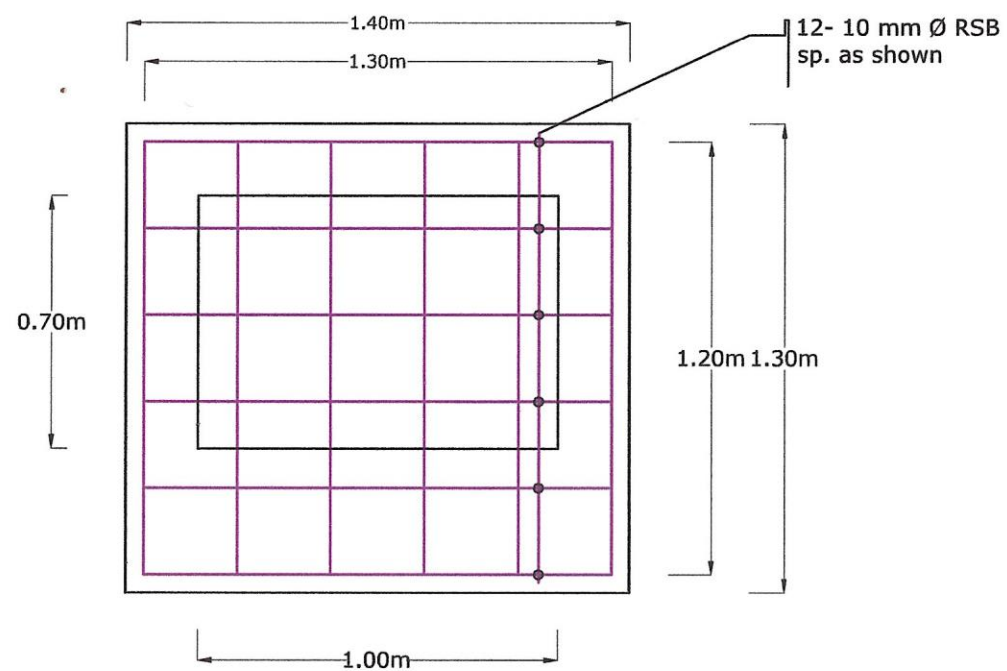


LONGITUDINAL SECTION DETAIL
NOT TO SCALE




CONCRETE STAIRS ON FILL DETAILS
NOT TO SCALE

	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING	PROJECT TITLE	PREPARED BY	REVIEWED BY:	APPROVED BY:	SHEET CONTENT	SHEET NO.
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Matting Plan

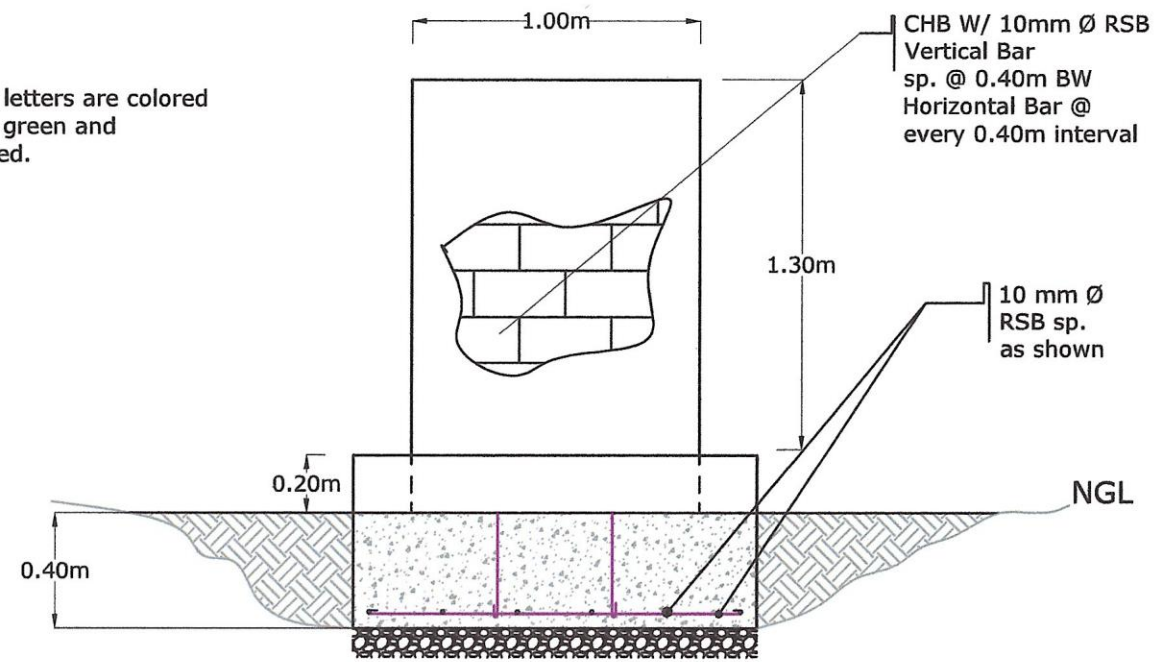

 REPUBLIC OF THE PHILIPPINES
 DEPARTMENT OF AGRICULTURE
 REGIONAL FIELD OFFICE (NO.)
 (ADDRESS)

PROJECT TITLE: _____
 PROJECT LOCATION: _____
 PROPONENT: _____
 SECTOR: RICE PROGRAM
 CY _____
 BRGY. CHAIRMAN / IA PRES. / FA Pres.

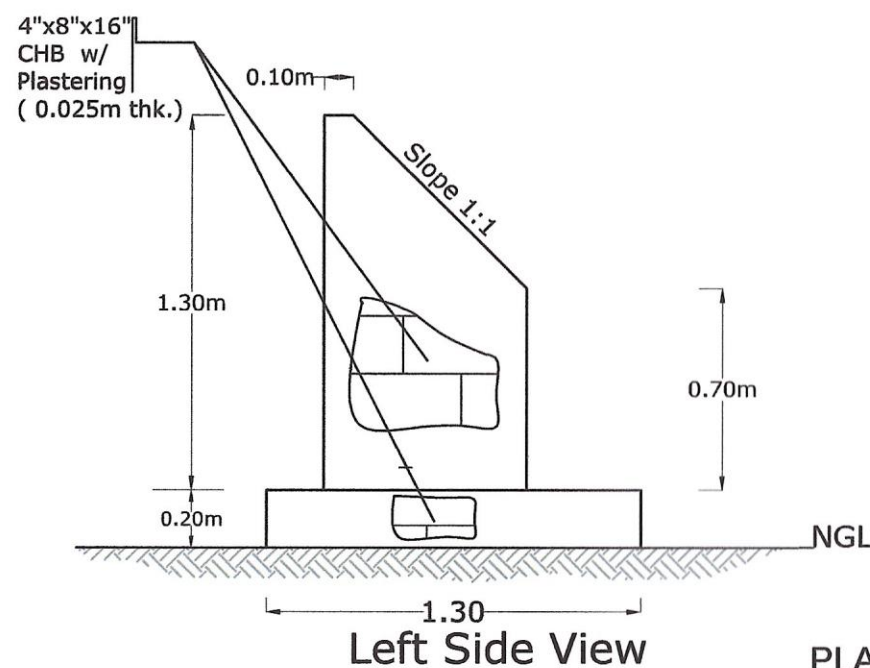
(NAME) Sec. FRANCISCO P. TIU LAUREL, JR.
 Regional Executive Director Secretary, Department of Agriculture

H.E. FERDINAND R. MARCOS, JR.
 President, Republic of the Philippines

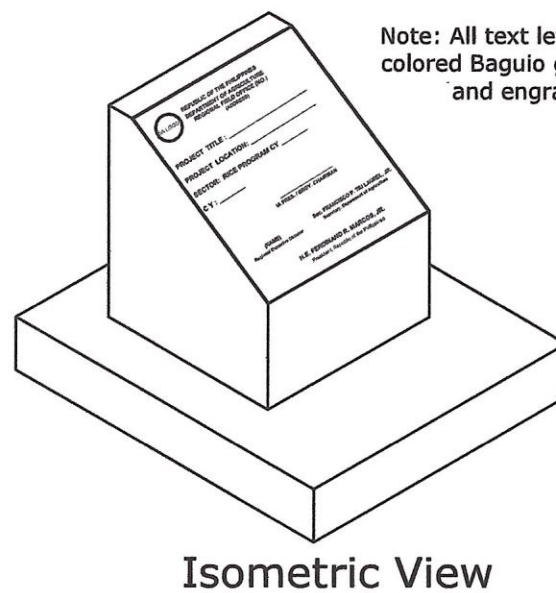
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FRONT SIDE VIEW W/ Footing Section

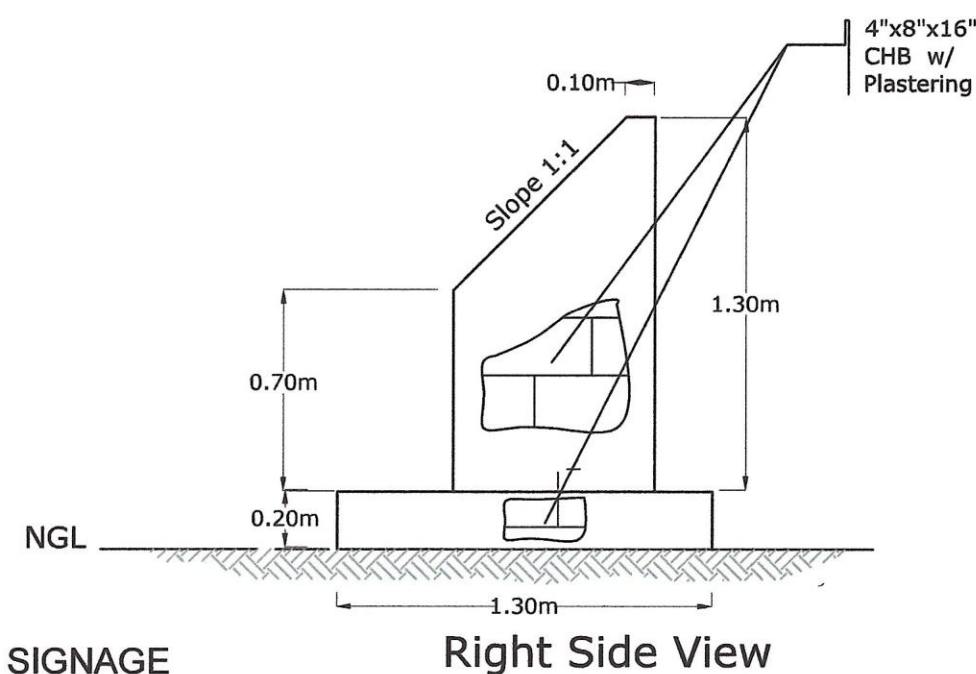


Left Side View



Isometric View


Note: All text letters are colored Baguio green and engraved.



Right Side View

PLAN AND ISOMETRIC VIEWS OF CONCRETE SIGNAGE

NOT TO SCALE

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