

REPUBLIC OF THE PHILIPPINES
JOHN HAY MANAGEMENT CORPORATION
CAMP JOHN HAY, BAGUIO CITY

CY 2026 PROJECT
DETAILED ARCHITECTURAL AND ENGINEERING PLAN FOR
**CONSTRUCTION OF REST STOPS/WAITING SHEDS
IN THE JHSEZ**

LOCATION : CAMP JOHN HAY, BAGUIO CITY, PHILIPPINES

PREPARED BY:

AR. LEONARDO JR. B. BIASURA

ARCHITECT II
DATE:

CHECKED BY:

ENGR. ADRIYEL A. UDA

SENIOR QUANTITY SURVEYOR
DATE:

REVIEWED AND SUBMITTED BY:

ARCH. LUZVIMINDA M. NIGOS-PANGANIBAN

PROJECT MANAGER
DATE:

APPROVED BY:

ENGR. BOBBY V. AKIA

ENVIRONMENT & ASSET MANAGEMENT MANAGER
DATE:



1 VICINITY MAP AT GATE 2
SCALE: NTS



2 VICINITY MAP AT KABADJO
SCALE: NTS

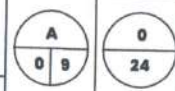
ITEM NO.	DESCRIPTION	QUANTITY	UNIT	REMARKS
B3	PERMITS AND CLEARANCES	1	Lumpsum	
B.5	PROJECT BILLBOARD/ SIGNBOARDS	4	Each	
B.7(1)	OCCUPATIONAL SAFETY AND HEALTH SIGNAGES (Directional, Informative, Labels, Map, Wallpapers, etc)	2	Months	
B8		1	Lumpsum	
B.9	MOBILIZATION/ DEMOBILIZATION	1	Lumpsum	
201 (1)	AGGREGATE BASE COURSE	32	Cubic Meter	
311	PORTLAND CEMENT CONCRETE PAVEMENT, 280 mm Thick	156	Square Meter	
600	CURB AND GUTTER, CAST IN PLACE	60	Meter	
601	CONCRETE SIDEWALK, 100mm Thick	90	Square Meter	
803(1)a	STRUCTURE EXCAVATION (Common Soil)	20	Cubic Meter	
804(1)	EMBANKMENT (From Structure Excation)	26	Cubic Meter	
807(2)	LANDSCAPING (Soft Scape incl. plant box)	1	Lumpsum	
807(9)	PAVER BLOCKS (4"x8"x2.36") - Pathways, Walkways, and Other Related Works	120	Square Meter	
900(1)a1	STRUCTURAL CONCRETE (Type A, 7 Days)	28	Cubic Meter	
902(1)a	REINFORCING STEEL (Deformed, Grade 40)	1690	Kilograms	
903(2)	FORMWORKS AND FALSEWORKS (For one-story building)	1	Lumpsum	
1001(8)	SEWER LINE WORKS	1	Lumpsum	
1001(11)	SEPTIC VAULT/ TANK (Concrete/ CHB)	2	Set	
1002(4)	PLUMBING FIXTURES	1	Lumpsum	
1002(24)	COLD WATERLINES	1	Lumpsum	
1003(1)	CARPENTRY AND JOINERY WORKS (Ceiling Wood Panels, Metal Frames, Wall Cladding, and etc)	350	Square Meter	
1003(1a)	CARPENTRY AND JOINERY WORKS (Half Log Siding Exterior Finish)	1	Lumpsum	
1003(2)	DRYWALL PARTITION	36	Square Meter	
1008(1)c	ALUMINUM GLASS WINDOW (Awning Type)	4	Square Meter	
1010 (4)	WOODEN DOORS (Complete, with Frame and Accessories)	1	Lumpsum	
1016	WATERPROOFING (Cement Base, Whole Structure)	665	Square Meter	
1018 (1)	GLAZED TILES AND TRIMS	142	Square Meter	
1018 (2)	UNGLAZED TILES AND TRIMS	32	Square Meter	
1032(1)a	PAINTING WORKS	1746	Square Meter	
1046	MASONRY WORKS (Rough plastered, 2 sides)	122	Square Meter	
1047(2)a	STRUCTURAL STEEL (Trusses)	976	Kilograms	
1051(6)	STAINLESS STEEL HANDRAIL (For PWD)	46	Meter	
1056	ASPHALT ROOFING SINGLES	114	Square Meter	
1100	CONDUITS, BOXES, AND FITTINGS	1	Lumpsum	
1101	WIRES, CABLES AND WIRING DEVICES	1	Lumpsum	
1102	POWER LOAD CENTER, SWITCHGEAR AND PANELBOARDS, AND OTHER OVERCURRENT PROTECTION DEVICES	1	Lumpsum	
1103	LIGHTING FIXTURES	1	Lumpsum	
1109	GROUNDING SYSTEM	1	Lumpsum	
1200(5)a	EXHAUST FAN	1	Lumpsum	
1200(14)	MISCELLANEOUS ELECTRICAL/ CIVIL WORKS (Electrical Post)	1	Lumpsum	

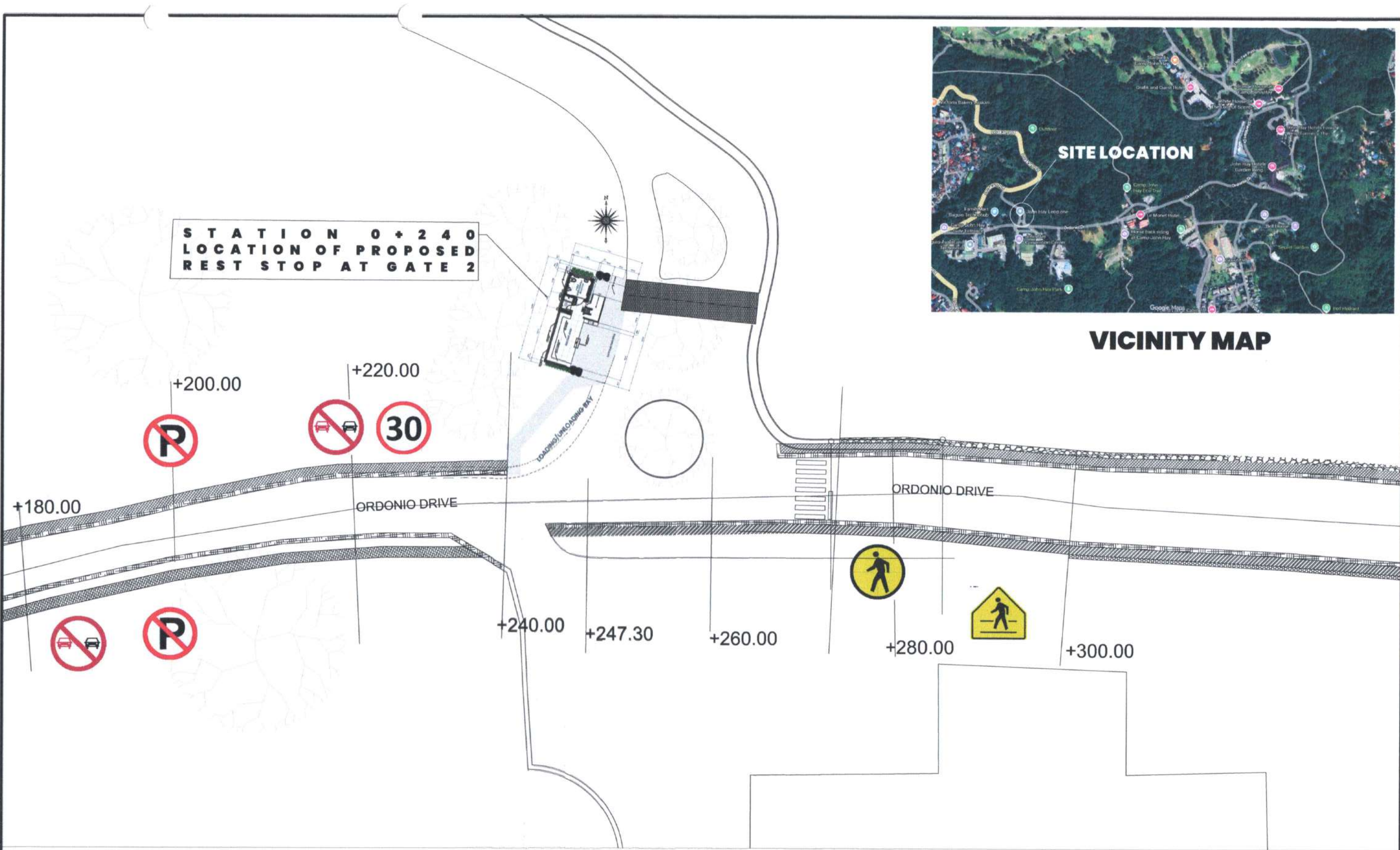
3 SUMMARY OF QUANTITIES
SCALE: NTS

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PROJECT NAME AND LOCATION: CONSTRUCTION OF REST STOPS/WAITING SHEDS IN THE JHSEZ LOCATION: CAMP JOHN HAY, BAGUIO CITY, PHILIPPINES	SHEET CONTENTS: TABLE OF CONTENTS VICINITY MAP SUMMARY OF QUANTITIES	PREPARED BY: AR. LEONARDO JR. B. BIASURA ARCHITECT II DATE:	CHECKED BY: ENGR. ADRIEL A. UDA SENIOR QUANTITY SURVEYOR DATE:	REVIEWED AND SUBMITTED BY: AR. LUZVIMINDA N. PANGANIBAN PMD MANAGER DATE:	APPROVED BY: ENGR. BOBBY V. AKIA PMD MANAGER DATE:	SET NO: A	SHEET NO: 0
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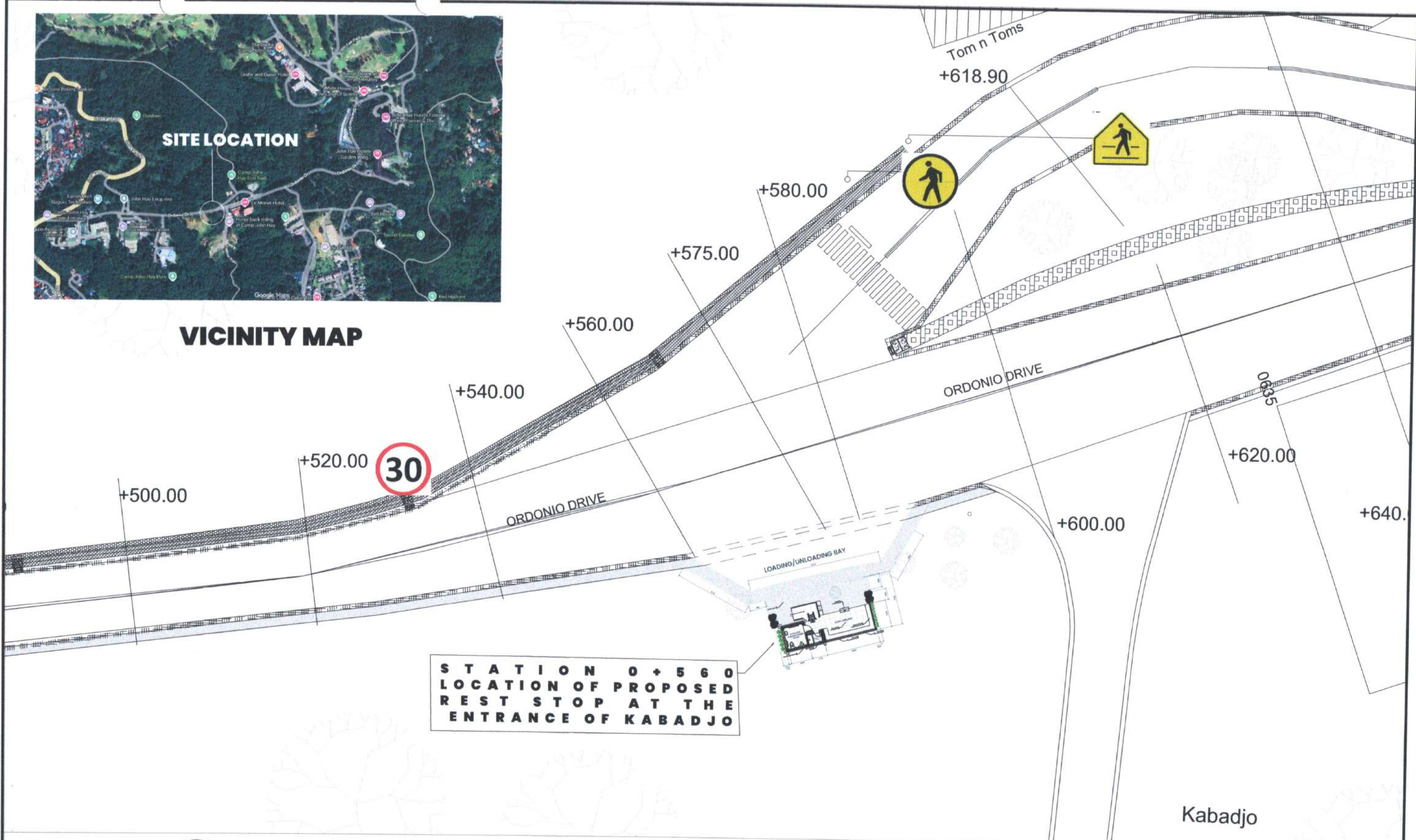
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A 1 **PROPOSED REST STOP/WAITING SHED AT GATE 2**
SCALE: 1:400 MTRS.

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	CONSTRUCTION OF REST STOPS/WAITING SHEDS IN THE JHSEZ LOCATION: CAMP JOHN HAY, BAGUIO CITY, PHILIPPINES	VICINITY MAP PROPOSED REST STOP/WAITING SHED AT GATE 2	AR. LEONARDO JR. B. BIASURA ARCHITECT II DATE:	ENGR. ADRIYEL A. UDA SENIOR QUANTITY SURVEYOR DATE:	AR. LUZVIMINDA N. PANGANIBAN PMO MANAGER DATE:	ENGR. BOBBY V. AKIA EXAM. MANAGER DATE:	A 1 9	1 24

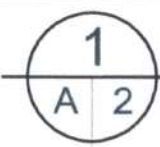


SITE LOCATION

VICINITY MAP



**STATION 0 + 5 6 0
LOCATION OF PROPOSED
REST STOP AT THE
ENTRANCE OF KABADJO**



PROPOSED REST STOP/WAITING SHED AT ORDONIO DRIVE-KABADJO JUNCTION

SCALE:

1:400 MTRS.

	PROJECT NAME AND LOCATION: CONSTRUCTION OF REST STOPS/WAITING SHEDS IN THE JHSEZ LOCATION: CAMP JOHN HAY, BAGUIO CITY, PHILIPPINES	SHEET CONTENTS: VICINITY MAP PROPOSED REST STOP/WAITING SHED AT ORDONIO DRIVE-KABADJO JUNCTION	PREPARED BY: AR. LEONARDO JR. B. BIASURA <small>ARCHITECT II</small>	CHECKED BY: ENGR. ADRIELA UDA <small>SENIOR QUANTITY SURVEYOR</small>	REVIEWED AND SUBMITTED BY: AR. LUZVIMINDA M. PANGANIBAN <small>PROJECT MANAGER</small>	APPROVED BY: ENGR. BOBBY V. AKIA <small>EMO MANAGER</small>	SET NO: 	SHEET NO:
			<small>DATE:</small>	<small>DATE:</small>	<small>DATE:</small>	<small>DATE:</small>		

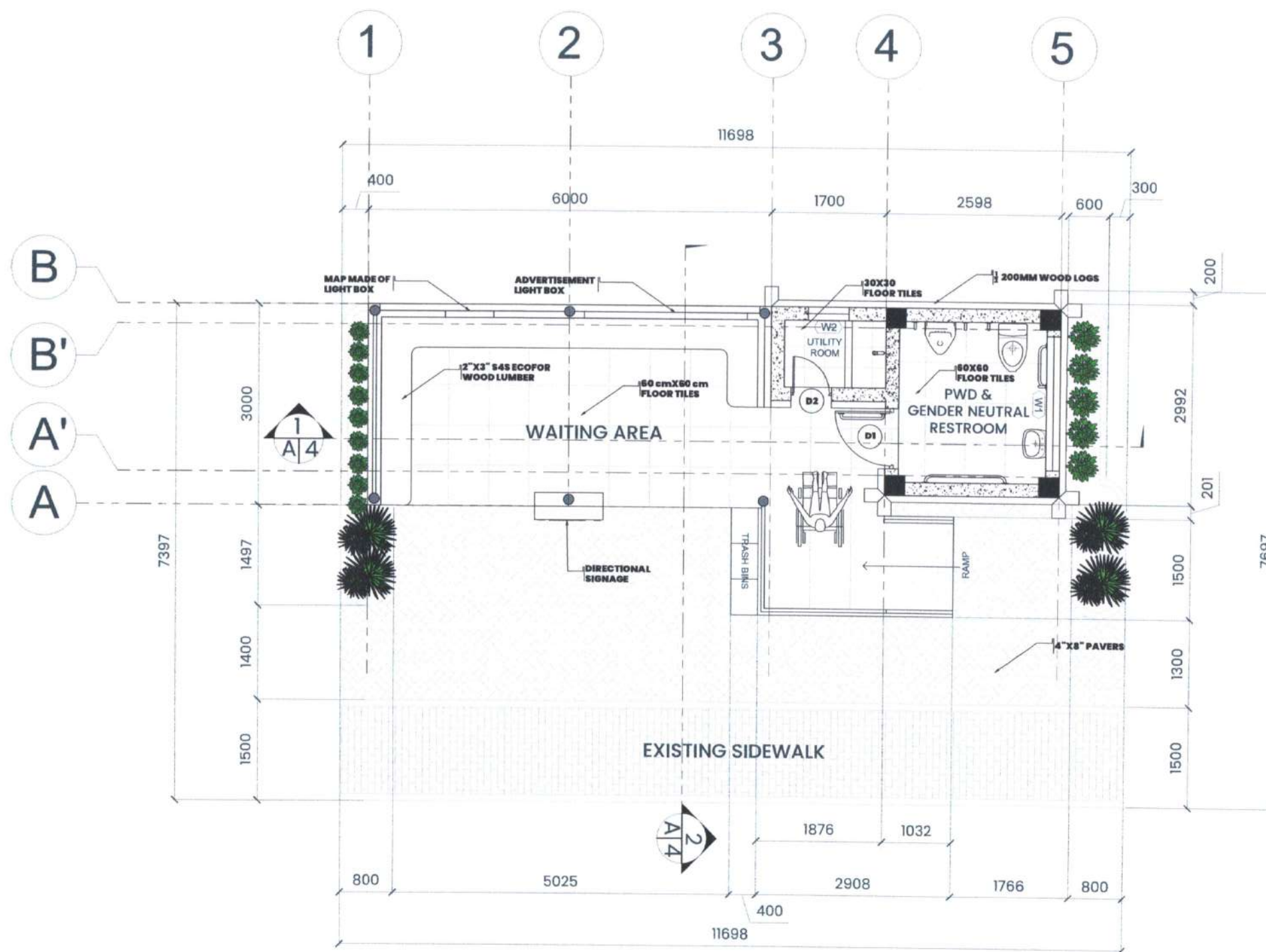


ORDONIO DRIVE - GATE 2

ORDONIO DRIVE - KABADJO

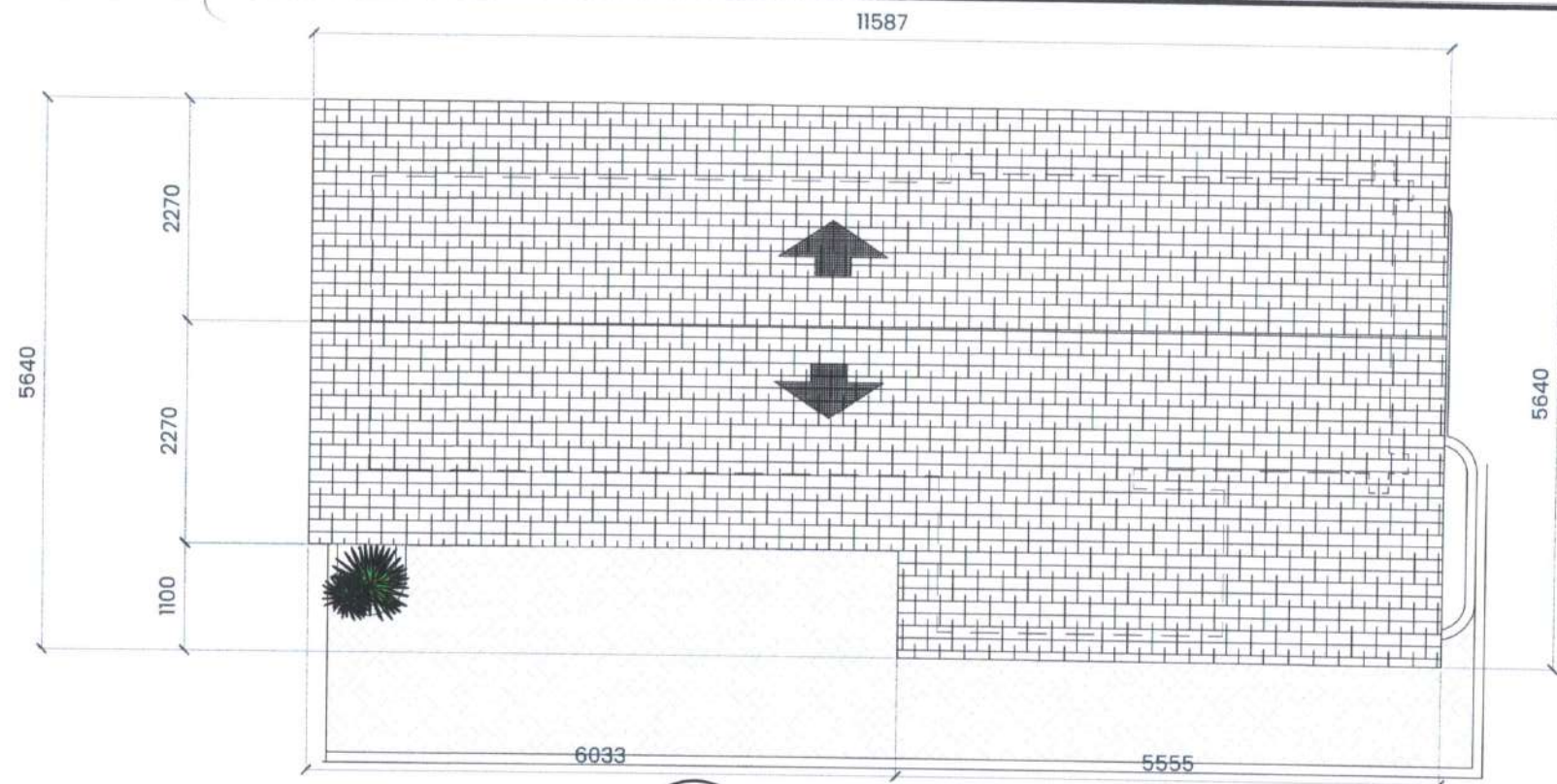
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A 3
EXTERIOR PERSPECTIVES
 SCALE: NTS

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	CONSTRUCTION OF REST STOPS/WAITING SHEDS IN THE JHSEZ <small>LOCATION: CAMP JOHN HAY, BAGUIO CITY, PHILIPPINES</small>	PERSPECTIVES	 <small>AR. LEONARDO JR. B. BIASURA</small>	 <small>ENGR. ADRIYEL A. UDA</small> <small>SENIOR QUANTITY SURVEYOR</small> <small>DATE:</small>	 <small>AR. LUZVIMINDA N. HANDBANIBAN</small> <small>PMD MANAGER</small> <small>DATE:</small>	 <small>ENGR. BOBBY V. AKIA</small> <small>EA/D MANAGER</small> <small>DATE:</small>	A 3 9	3 24

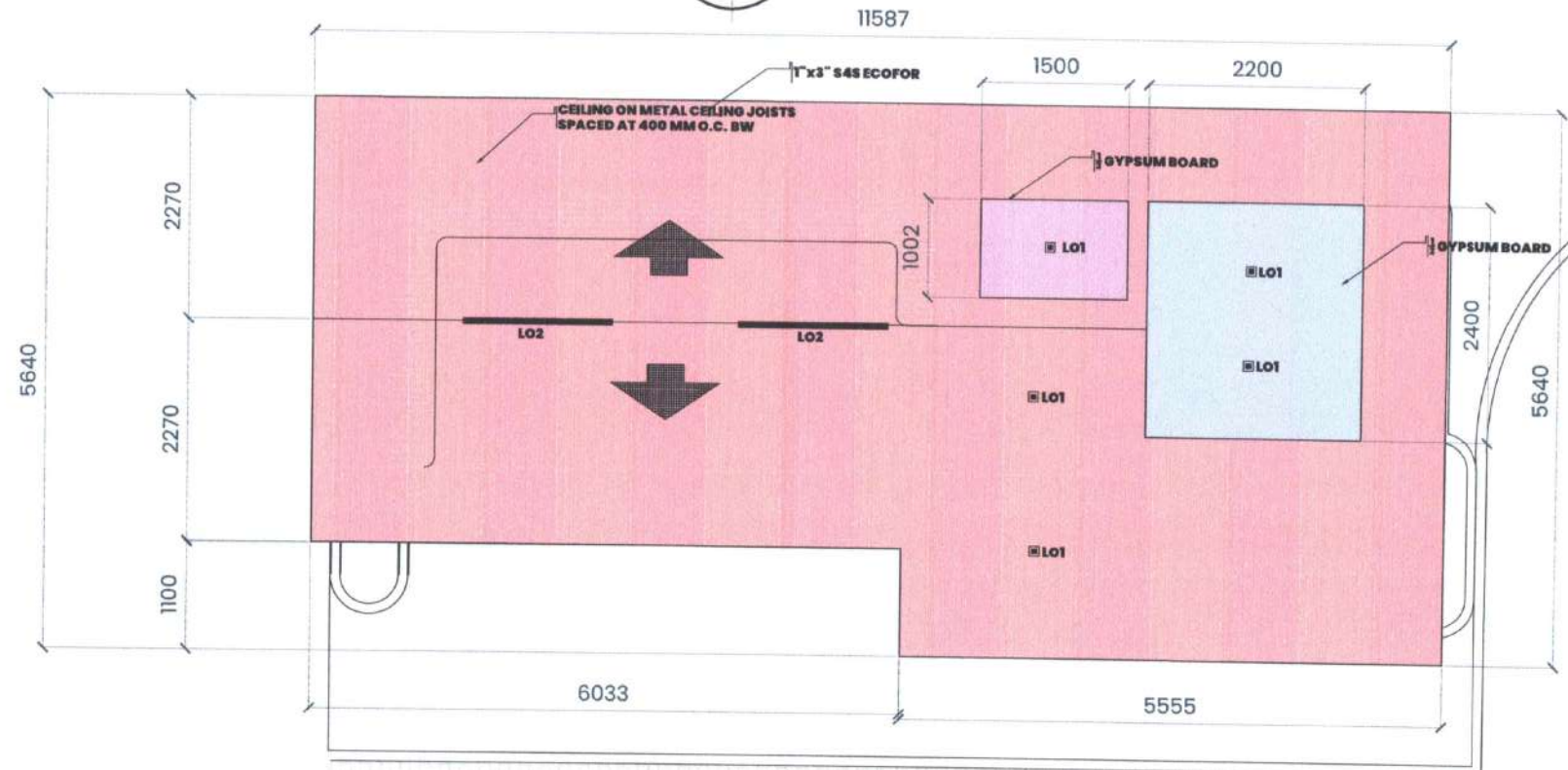


1
A 4
FLOOR PLAN
 SCALE: 1:75M

	PROJECT NAME AND LOCATION:	SHEET CONTENTS:	PREPARED BY:	CHECKED BY:	REVIEWED AND SUBMITTED BY:	APPROVED BY:	SET NO.:	SHEET NO.:
	CONSTRUCTION OF REST STOPS/WAITING SHEDS IN THE JHSEZ <small>LOCATION: CAMP JOHN HAY, BAGUIO CITY, PHILIPPINES</small>	FLOOR PLAN	 AR. LEONARDO JR. B. BIASURA <small>SENIOR QUANTITY SURVEYOR</small>	 ENGR. ADRIEL V. UDA <small>DATE:</small>	 AR. LUZVIMINDA N. PANGANIBAN <small>DATE:</small>	 ENGR. BOBBY V. AKIA <small>DATE: E.A.M. MANAGER</small>	A 4 9	4 24



1
A 5 **ROOF PLAN**
SCALE: 1:75 MTRS.



EXISTING SIDEWALK

2
A 5 **REFLECTED CEILING PLAN**
SCALE: 1:75 MTRS.



PROJECT NAME AND LOCATION:
CONSTRUCTION OF REST STOPS/WAITING SHEDS IN THE JHSEZ
LOCATION: CAMP JOHN HAY, BAGUIO CITY, PHILIPPINES

SHEET CONTENTS:
**ROOF PLAN
REFLECTED CEILING PLAN**

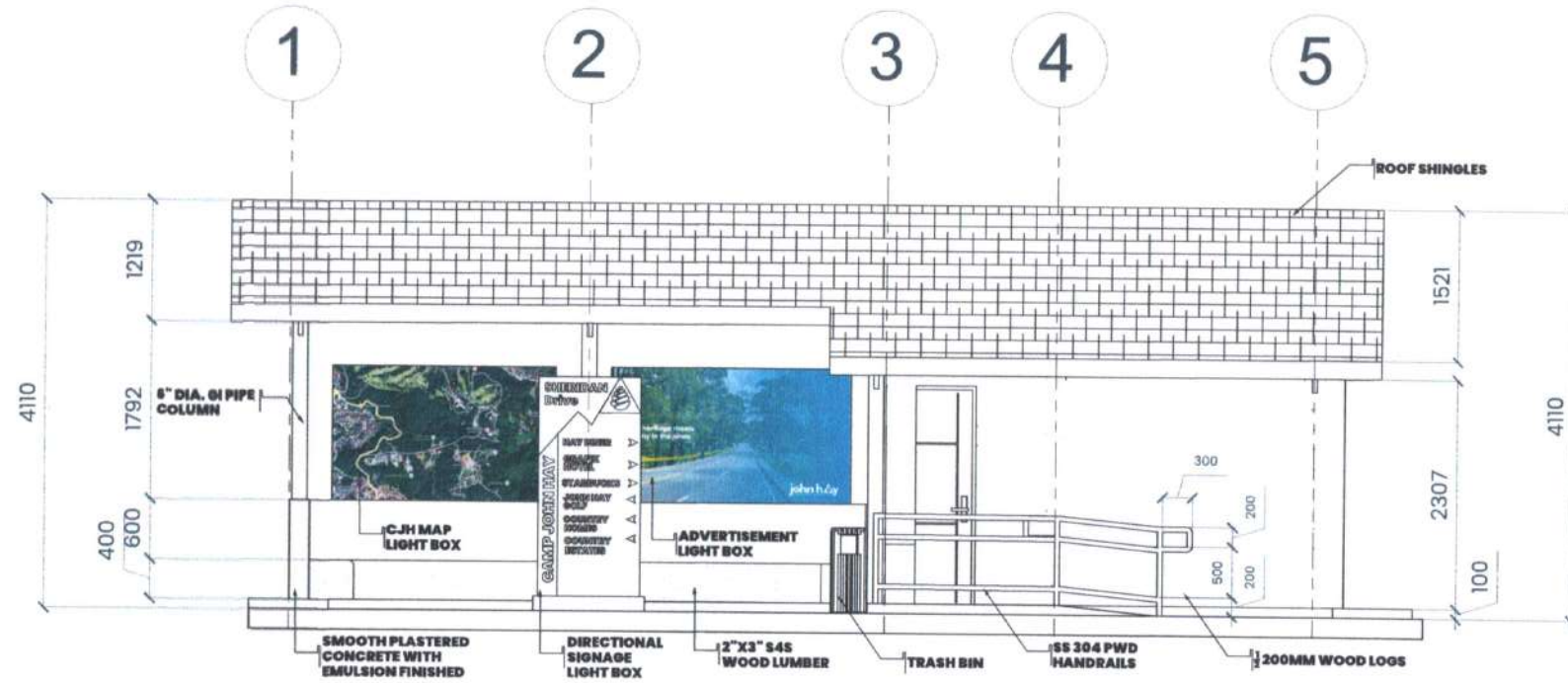
PREPARED BY:
AR. LEONARDO JR. B. BIASURA
ARCHITECT

CHECKED BY:
ENGR. ADRIVEL A. UDA
SENIOR QUANTITY SURVEYOR
DATE:

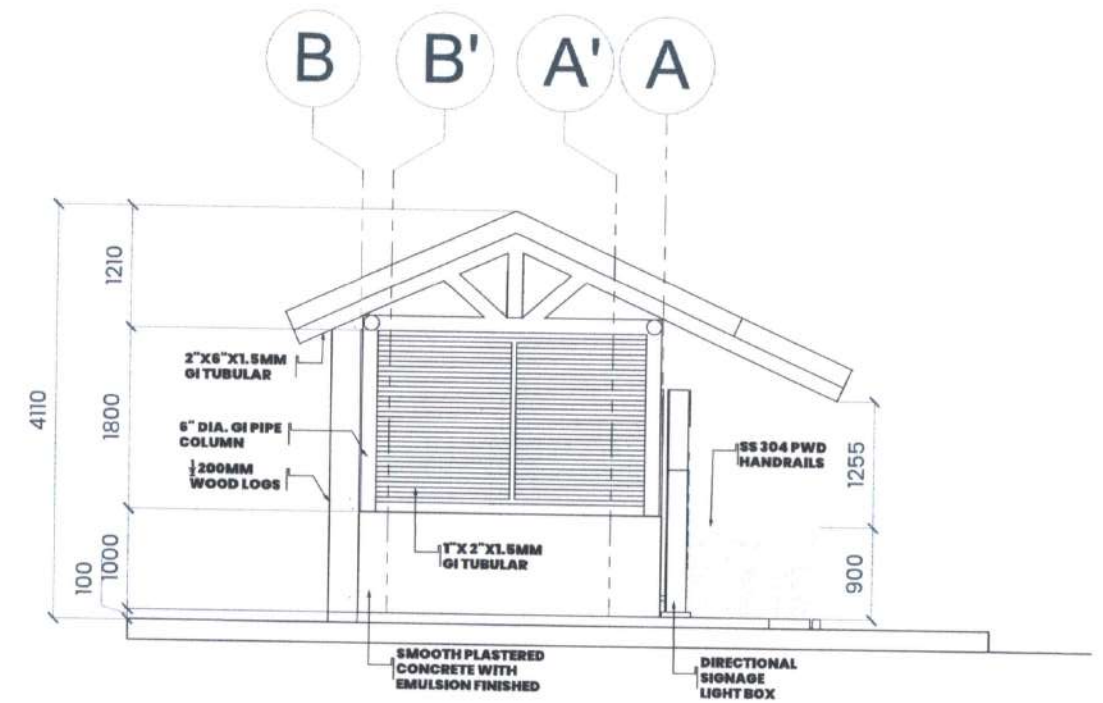
REVIEWED AND SUBMITTED BY:
AR. LUZVIMINDA N. BANGANIBAN
DATE:

APPROVED BY:
ENGR. BOBBY V. AKIA
EAMD MANAGER
DATE:

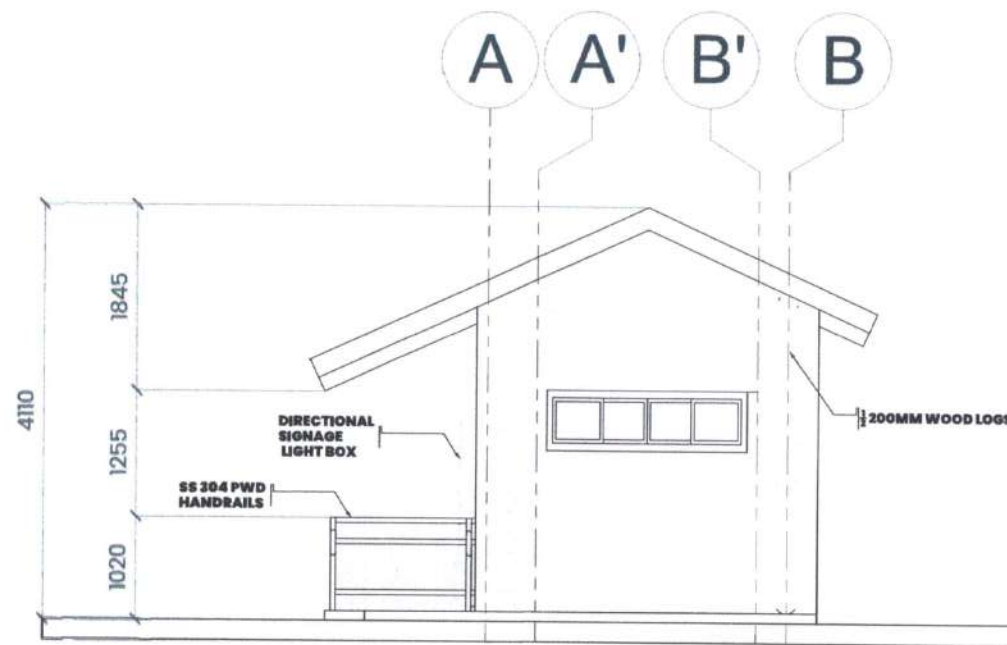
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SHEET NO: 8 24



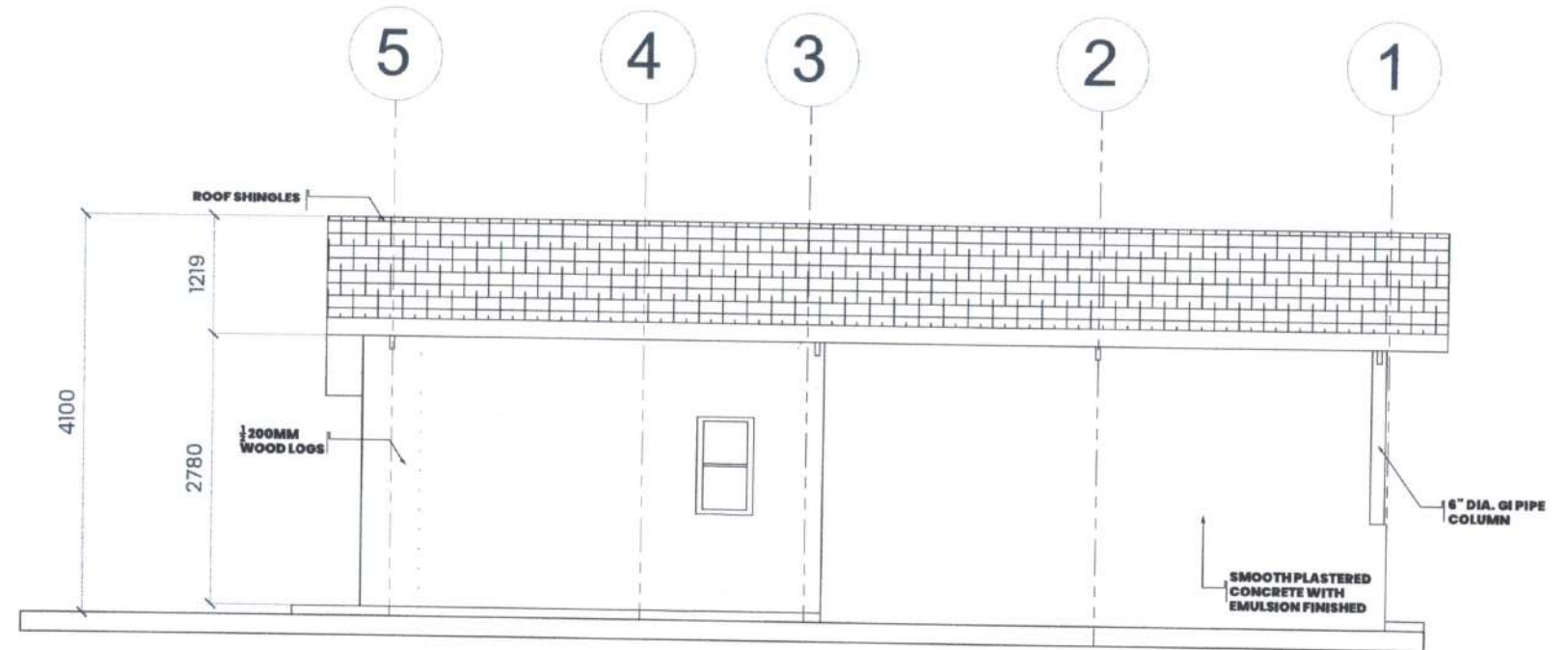
1 FRONT ELEVATION
 SCALE: 1:75 MTRS.



2 LEFT SIDE ELEVATION
 SCALE: 1:75 MTRS.



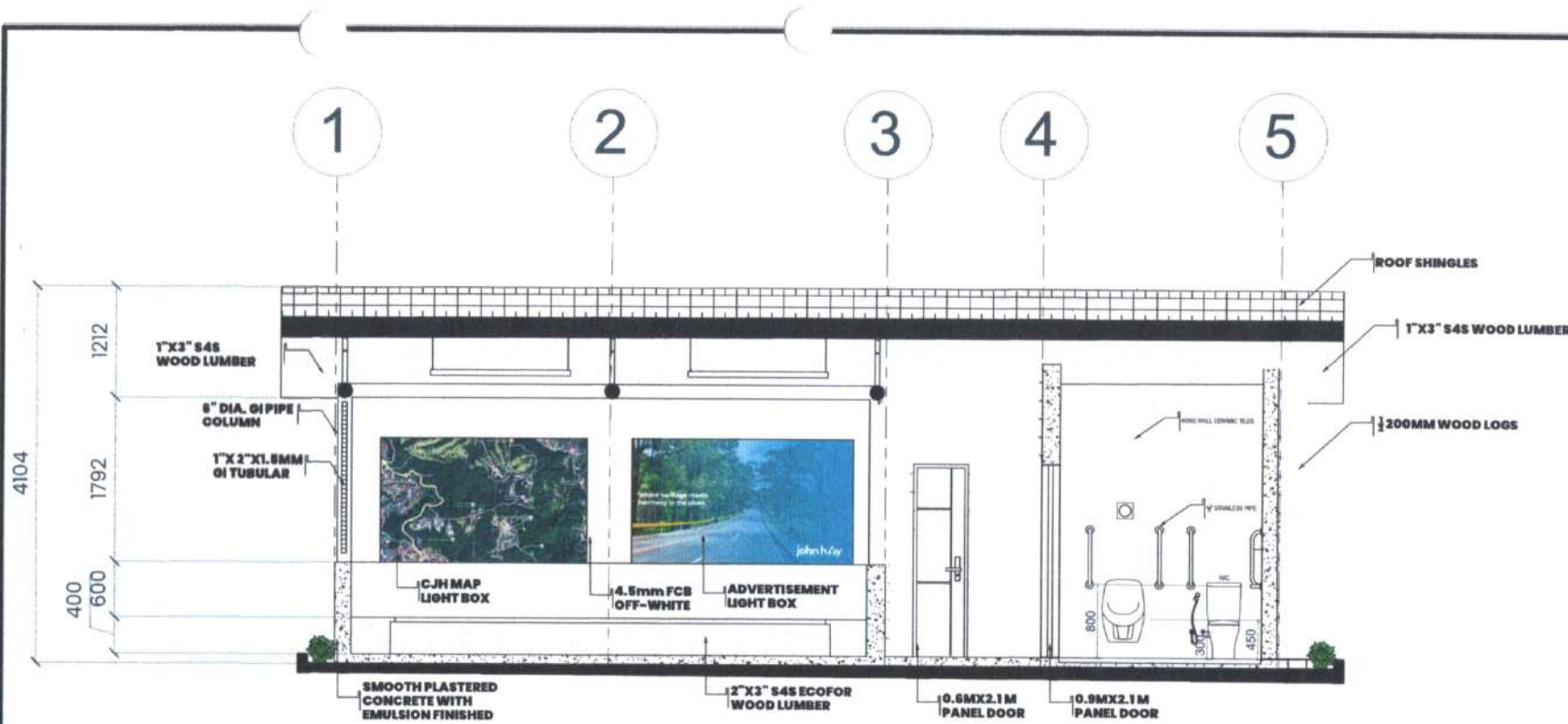
3 RIGHT SIDE ELEVATION
 SCALE: 1:75 MTRS.



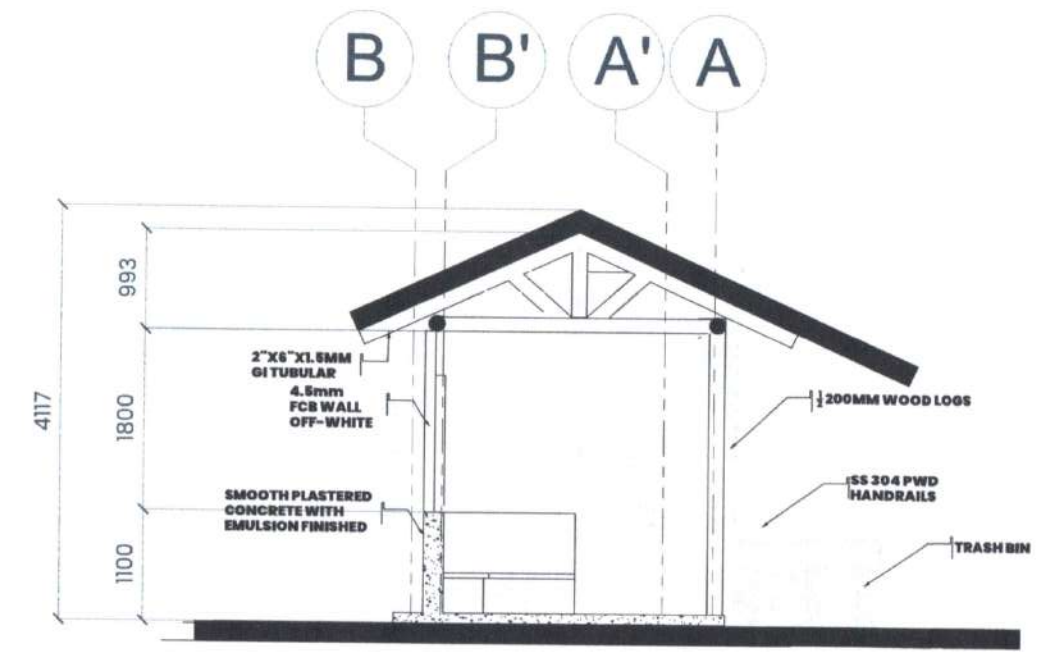
4 REAR ELEVATION
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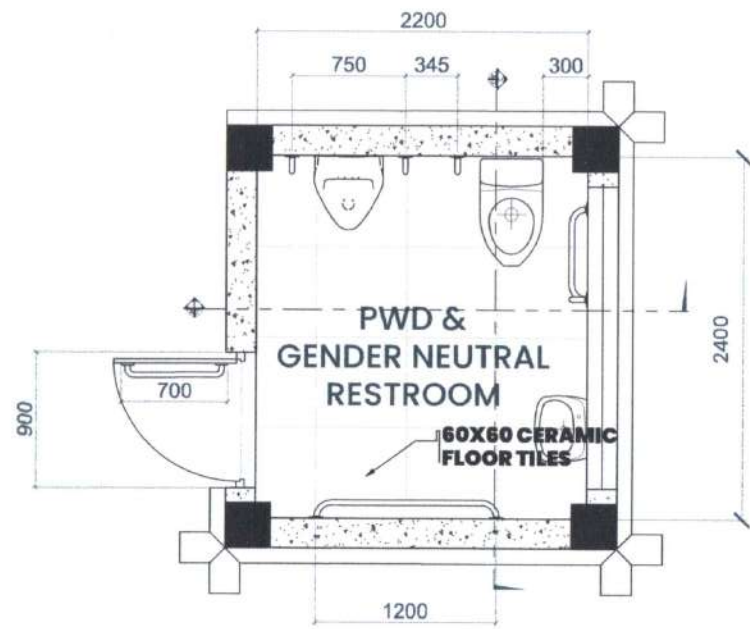
PROJECT NAME AND LOCATION: CONSTRUCTION OF REST STOPS/WAITING SHEDS IN THE JHSEZ LOCATION: CAMP JOHN HAY, BAGUO CITY, PHILIPPINES	SHEET CONTENTS: FRONT ELEVATION LEFT SIDE ELEVATION RIGHT SIDE ELEVATION REAR ELEVATION	PREPARED BY: AR. LEONARDO JR. B. BIASURA	CHECKED BY: ENGR. ADRIVEL A. UDA SENIOR QUANTITY SURVEYOR	REVIEWED AND SUBMITTED BY: AR. LUZVIMINDAN PANGANIBAN PMD	APPROVED BY: ENGR. BOBBY V. AKIA TEAM MANAGER	SET NO: A 6 8	SHEET NO: 8 24
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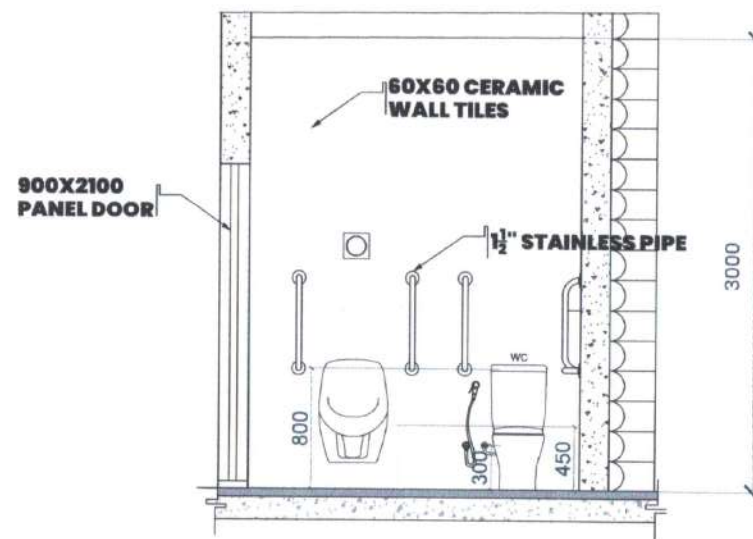
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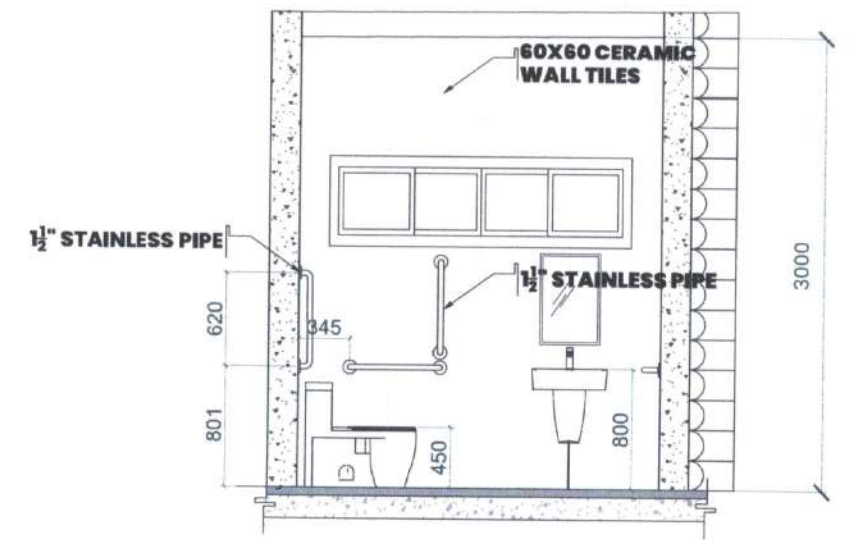
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3 RESTROOM FLOOR PLAN
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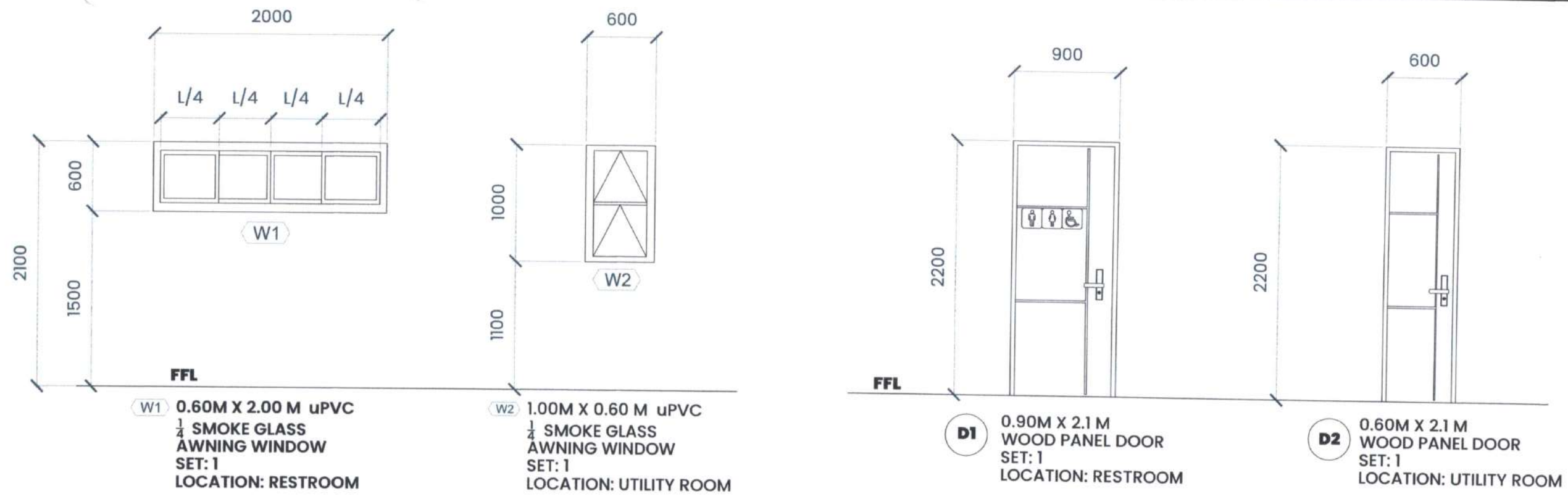
4 RESTROOM SECTION A1
 SCALE: 1:50MTRS.



5 RESTROOM SECTION A2
 SCALE: 1:50MTRS.



PROJECT NAME AND LOCATION: CONSTRUCTION OF REST STOPS/WAITING SHEDS IN THE JHSEZ LOCATION: CAMP JOHN HAY, BAGUIO CITY, PHILIPPINES	SHEET CONTENTS: LONGITUDINAL SECTION CROSS SECTION RESTROOM FLOOR PLAN SECTION A1 & A2	PREPARED BY: AR. LEONARDO JR. B. BIASURA	CHECKED BY: ENGR. ADRIYELA A. UDA SENIOR QUANTITY SURVEYOR	REVIEWED AND SUBMITTED BY: AR. LUZVIMINDA N. PANGANIBAN PMD	APPROVED BY: ENGR. BOBBY V. AKIA EAMD MANAGER	SET NO: A	SHEET NO: 7
						7	24



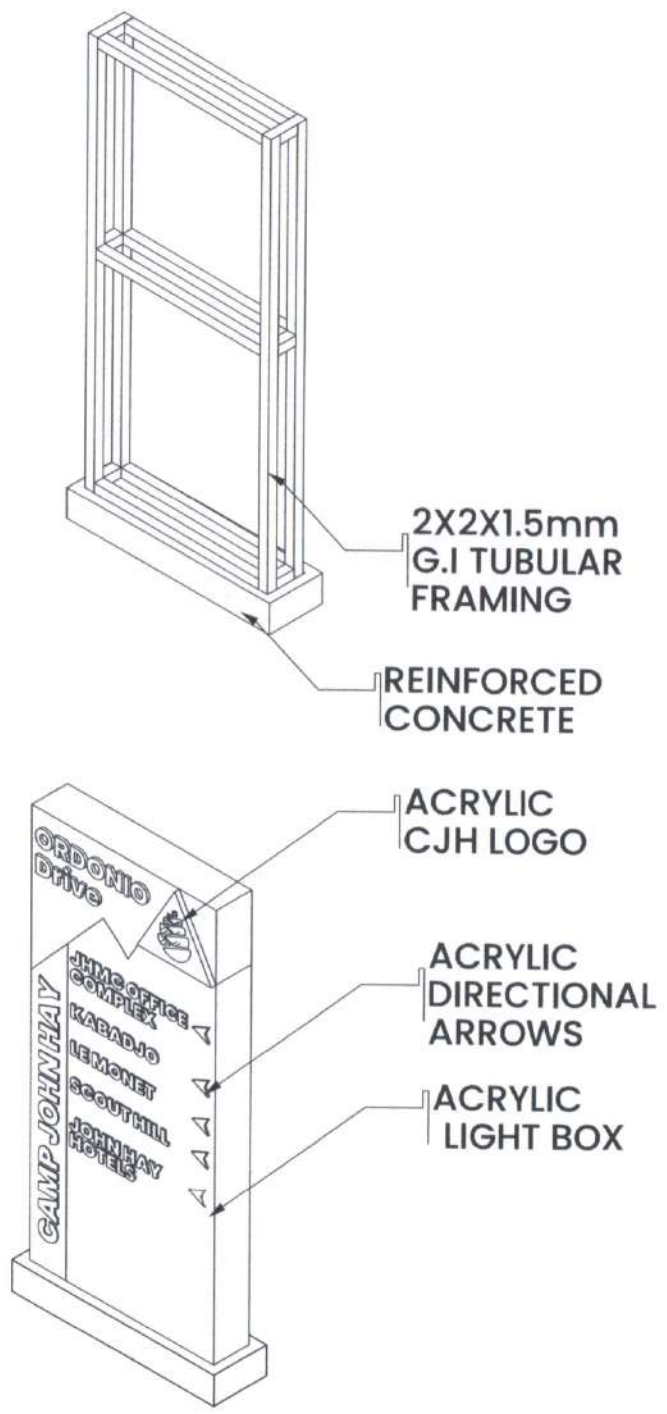
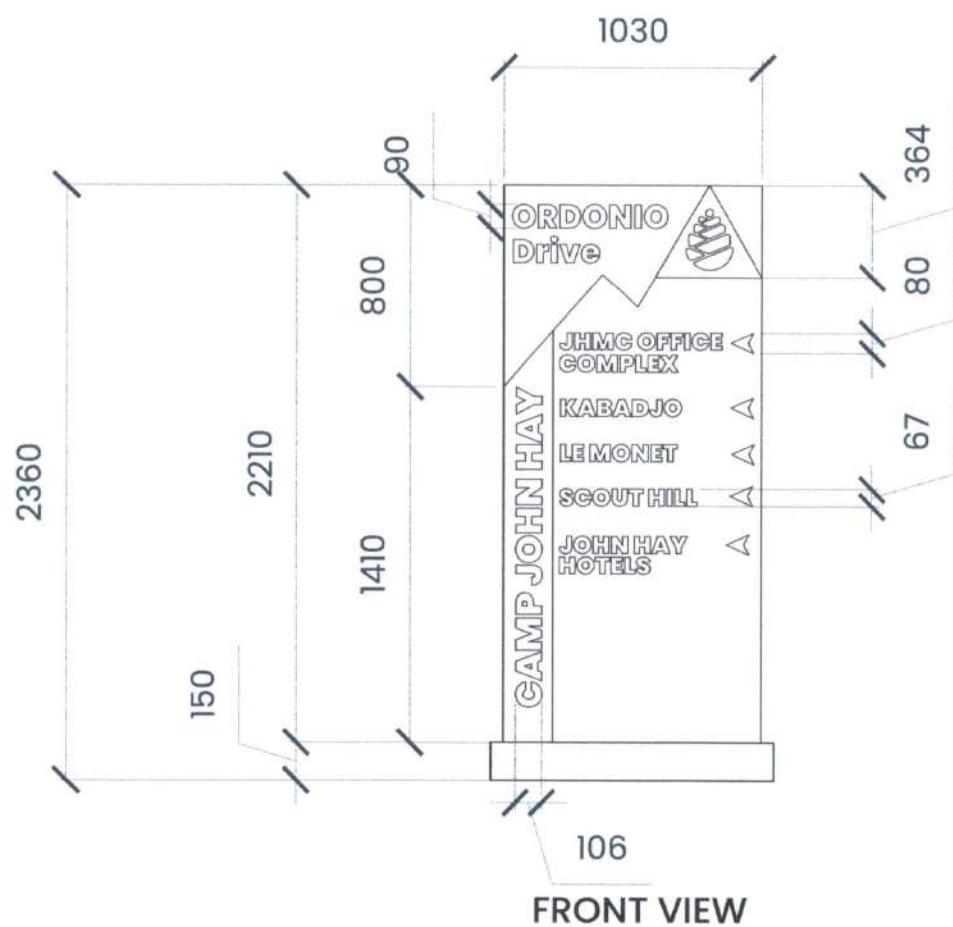
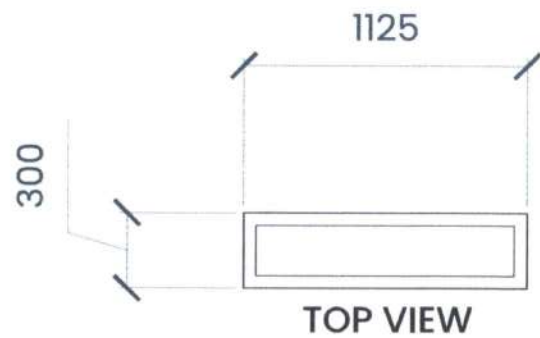
1 WINDOW & DOOR SCHEDULE
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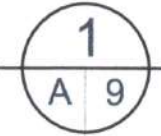
2 MAP & ADVERTISEMENT POSTING AREA
 SCALE: 1:30 MTRS.



PROJECT NAME AND LOCATION: CONSTRUCTION OF REST STOPS/WAITING SHEDS IN THE JHSEZ LOCATION: CAMP JOHN HAY, BAGUIO CITY, PHILIPPINES	SHEET CONTENTS: WINDOW SCHEDULE DOOR SCHEDULE CJH MAP AND ADVERTISEMENT POSTING AREA	PREPARED BY: AR. LEONARDO JR. B. BIASURA	CHECKED BY: ENGR. ADRIVEL A. UDA SENIOR QUANTITY SURVEYOR	REVIEWED AND SUBMITTED BY: AR. LUZVIMINDA N. BANSANIBAN PMD MANAGER	APPROVED BY: ENGR. BOBBY V. AKIA BOARD MANAGER	SET NO: A 8	SHEET NO: 8 24
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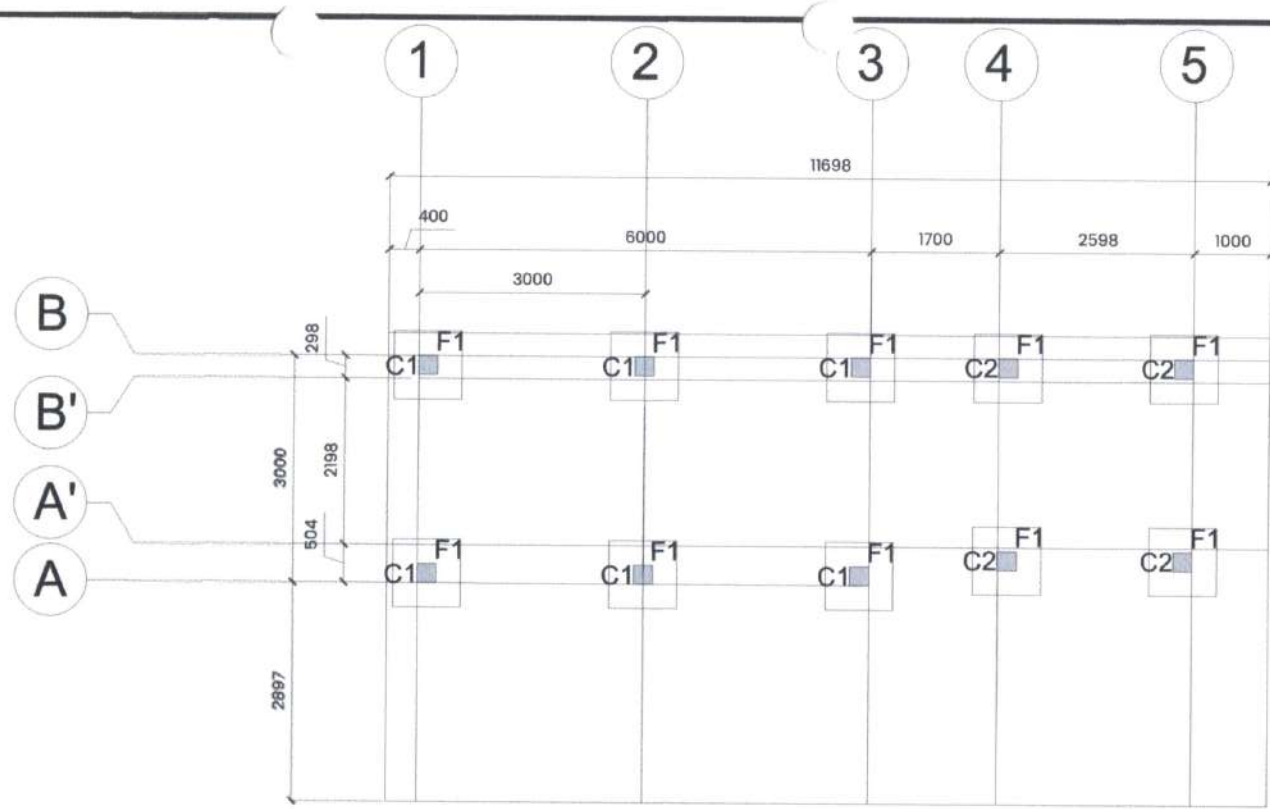
DIRECTIONAL SIGNAGE AT ORDONIO DRIVE



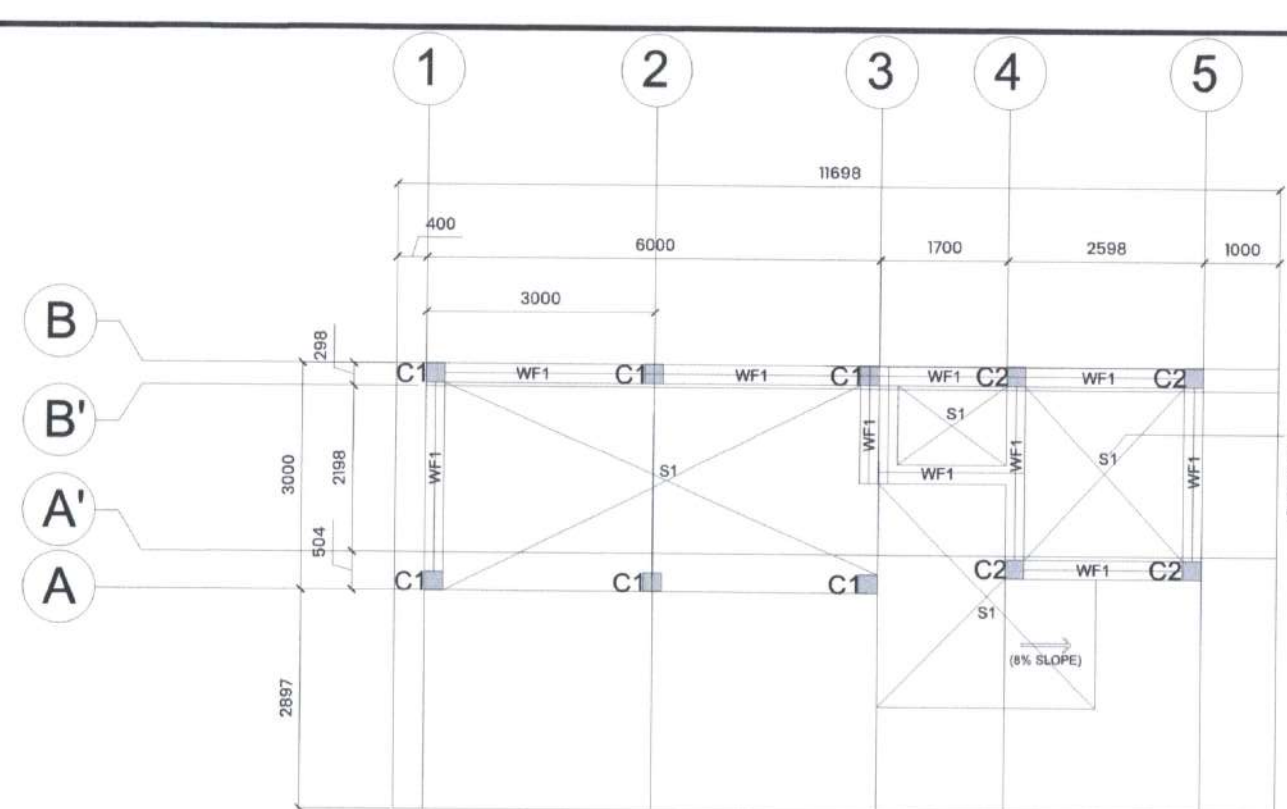
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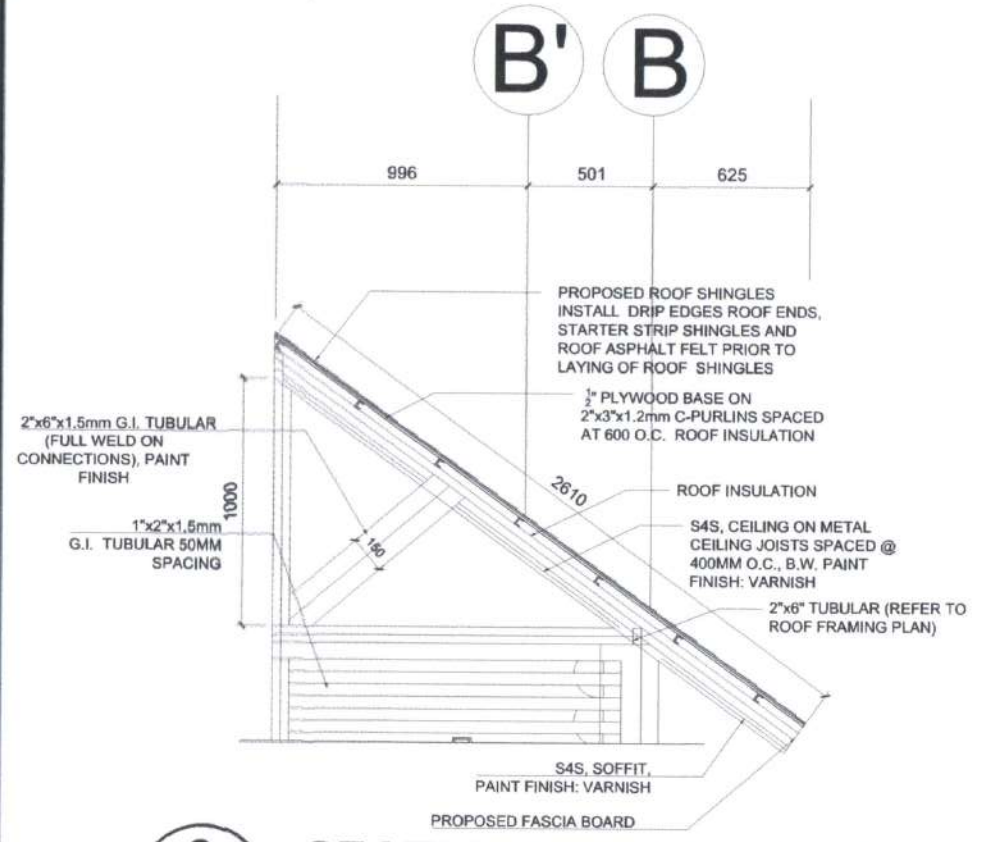
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	CONSTRUCTION OF REST STOPS/WAITING SHEDS IN THE JHSEZ LOCATION: CAMP JOHN HAY, BAGUIO CITY, PHILIPPINES	DIRECTIONAL SIGNAGE DETAILS	AR. LEONARDO JR. B. BIASURA ARCHITECT II DATE:	ENGR. ADRIYLA A. UDA SENIOR QUANTITY SURVEYOR DATE:	AR. LUZVIMINDA B. PANGANIBAN P.M.O. MANAGER DATE:	ENGR. ROBBY V. AKIA CLAUD MANAGER DATE:	A 9	9 24



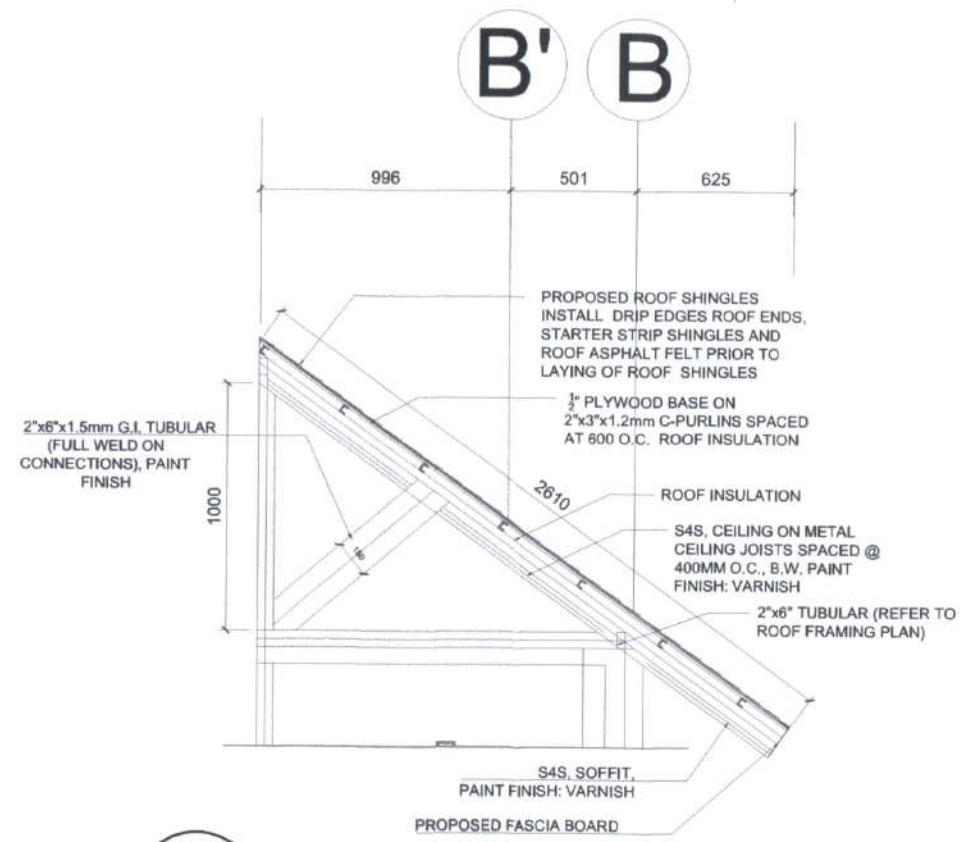
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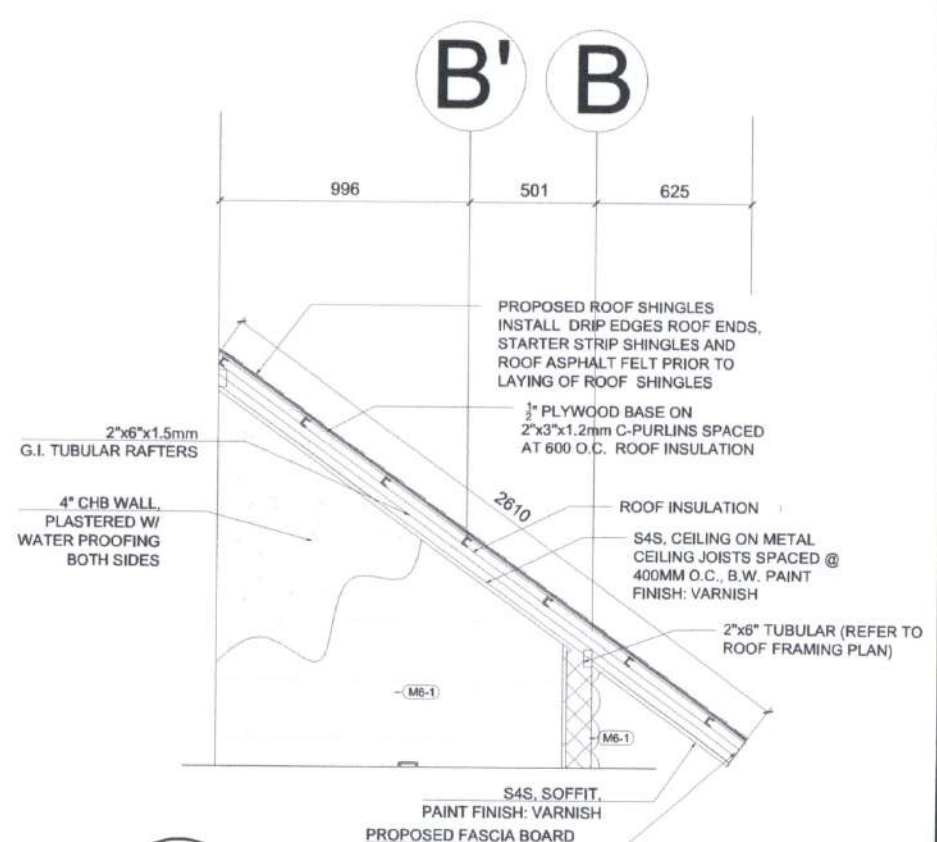
2 SLAB AND WALL FOOTING PLAN
 SCALE: 1:100 MTRS.



3 SECTION THRU GRID 1
 SCALE: 1:30 MTRS.



4 SECTION THRU GRID 2
 SCALE: 1:30 MTRS.



5 SECTION THRU GRID 3
 SCALE: 1:30 MTRS.



PROJECT NAME AND LOCATION:
CONSTRUCTION OF REST STOPS/ WAITING SHEDS IN THE JHSEZ
 LOCATION: CAMP JOHN HAY, BAGUO CITY, PHILIPPINES

SHEET CONTENTS:
**COLUMN & FOUNDATION PLAN
 SLAB AND WALL FOOTING PLAN
 SECTION THRU GRID 1,2,&3**

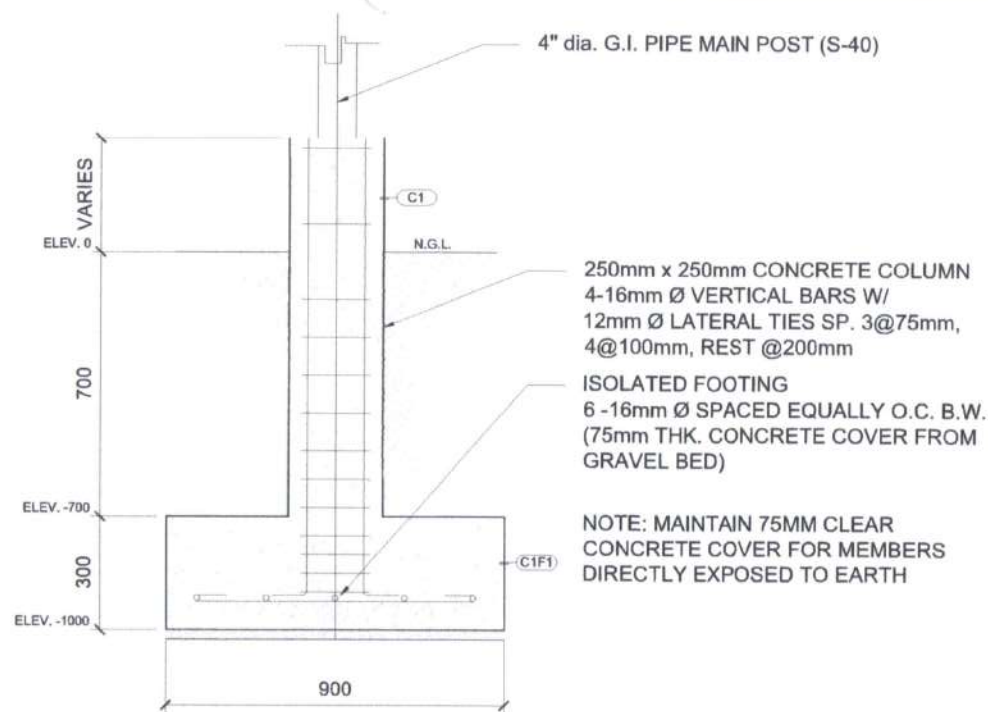
PREPARED BY:
ENGR. SYRICK GAVES B. BANAÑA
 ENGINEER I
 DATE:

CHECKED BY:
ENGR. LARRY MELISSA C. ANTONIO
 CIVIL STRUCTURAL ENGINEER
 DATE:

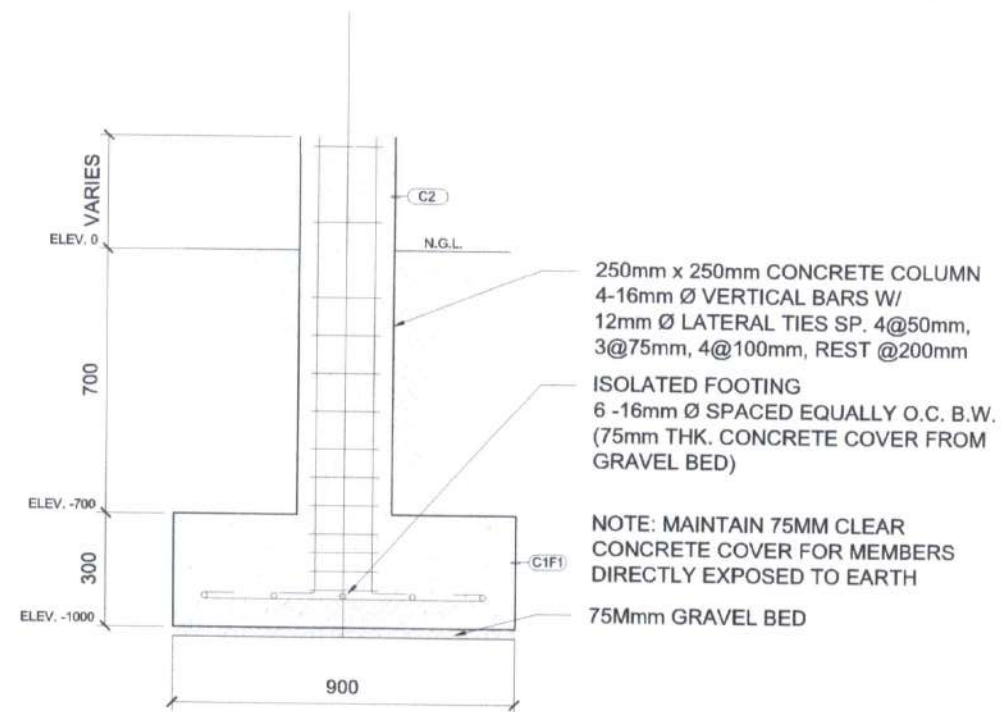
REVIEWED AND SUBMITTED BY:
AR. LUZVIMINGA T. PANGANIBAN
 P.M.D. MANAGER
 DATE:

APPROVED BY:
ENGR. BOBBY V. AKIA
 E.I.M.D. MANAGER
 DATE:

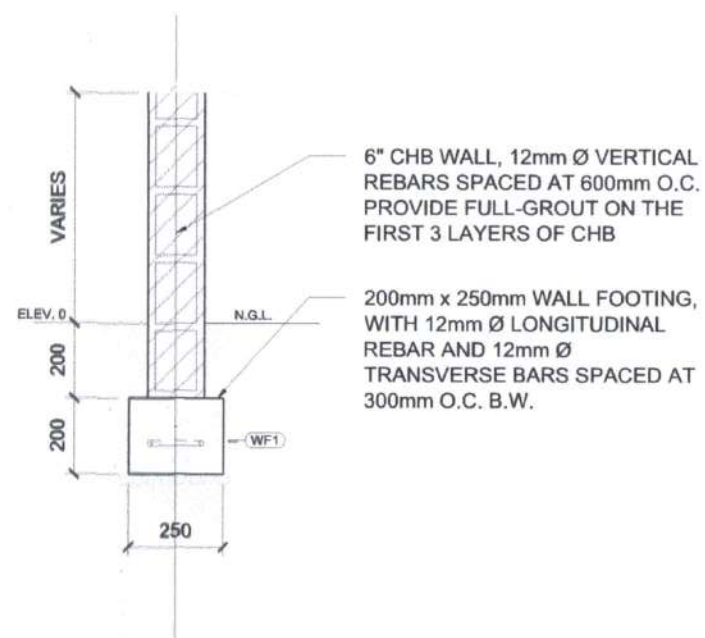
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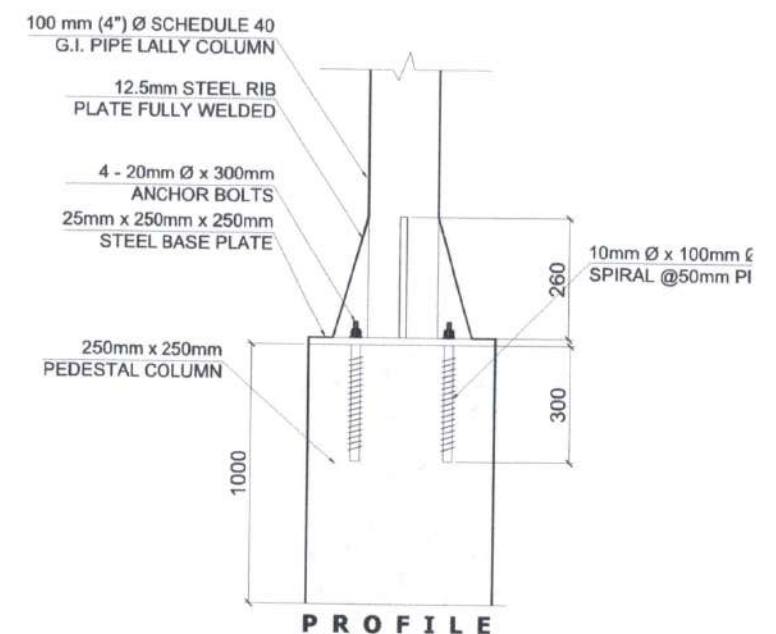
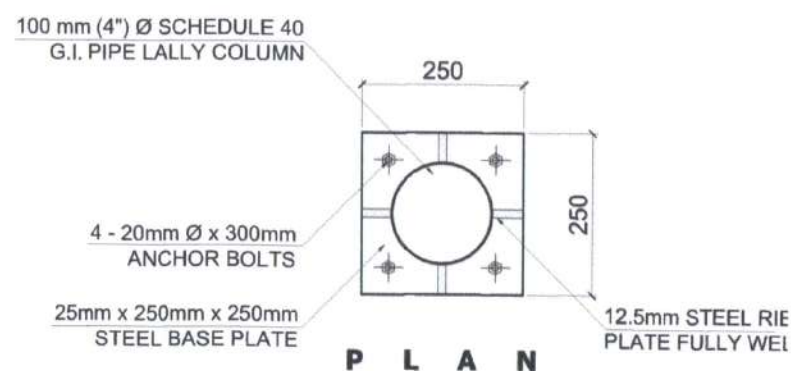
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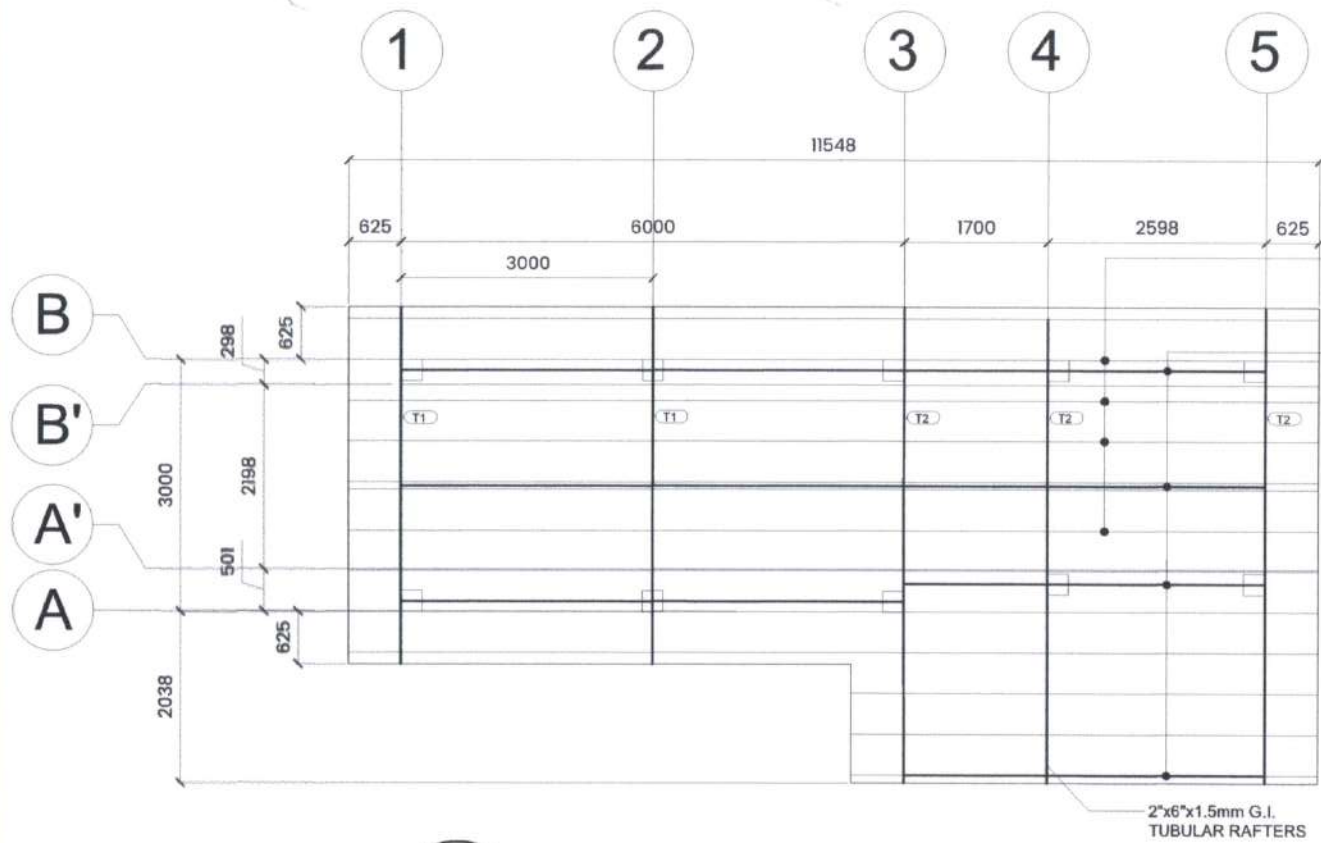
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S 2 **C2-F1 SECTION DETAIL**
SCALE: 1:20 MTRS.



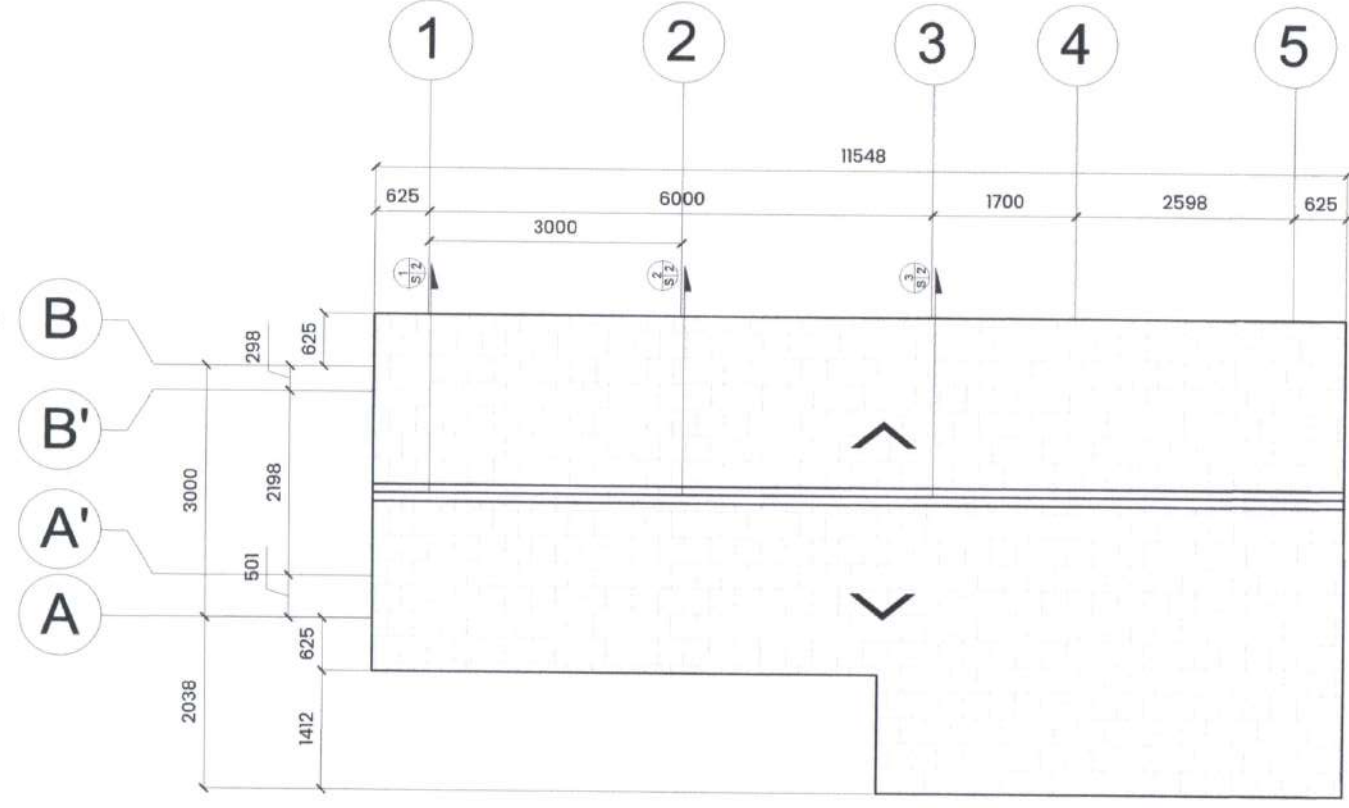
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S 2 **WF1 SECTION DETAIL**
SCALE: 1:20 MTRS.



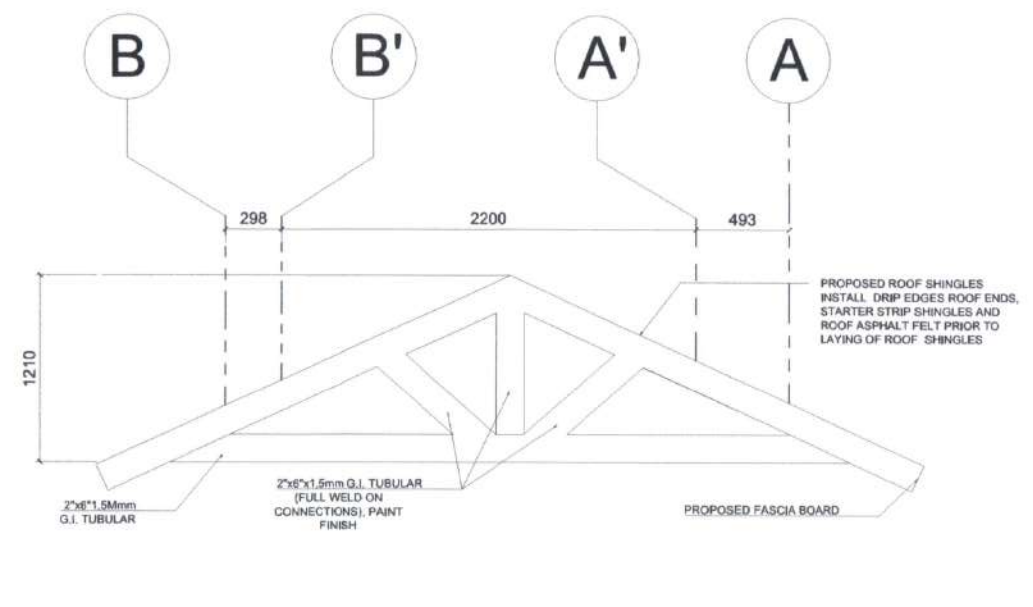
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S 2 **CONCRETE PEDESTAL TO LALLY COLUMN CONNECTION DETAIL**
SCALE: NTS



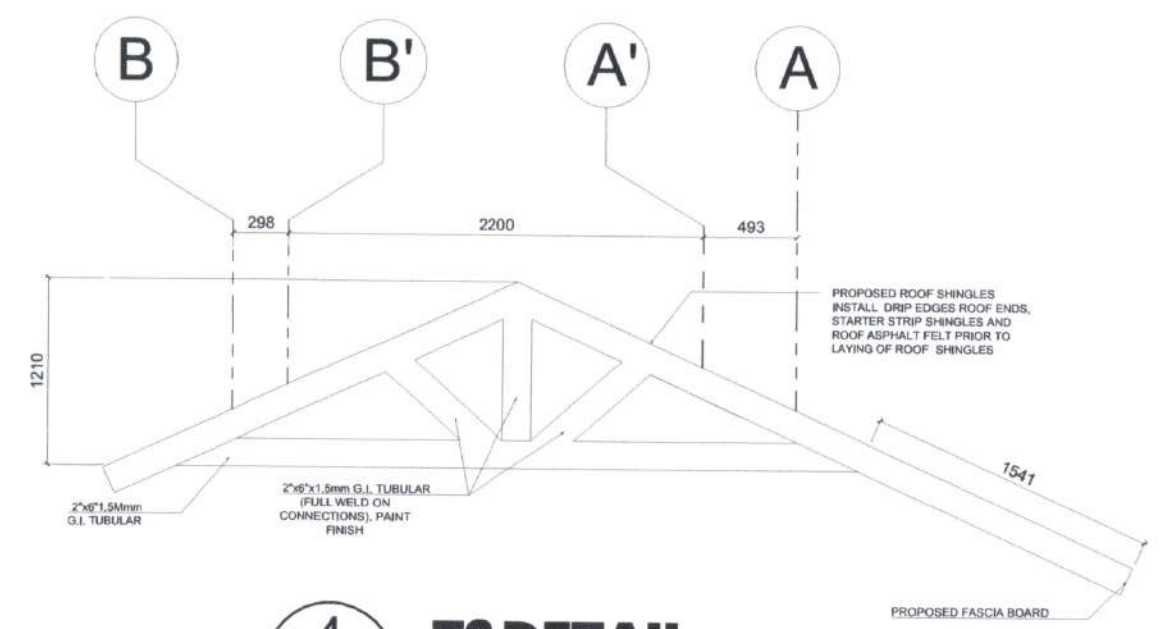
1 ROOFING FRAMING PLAN
 SCALE: 1:90 MTRS.



2 ROOF PLAN
 SCALE: 1:90 MTRS.



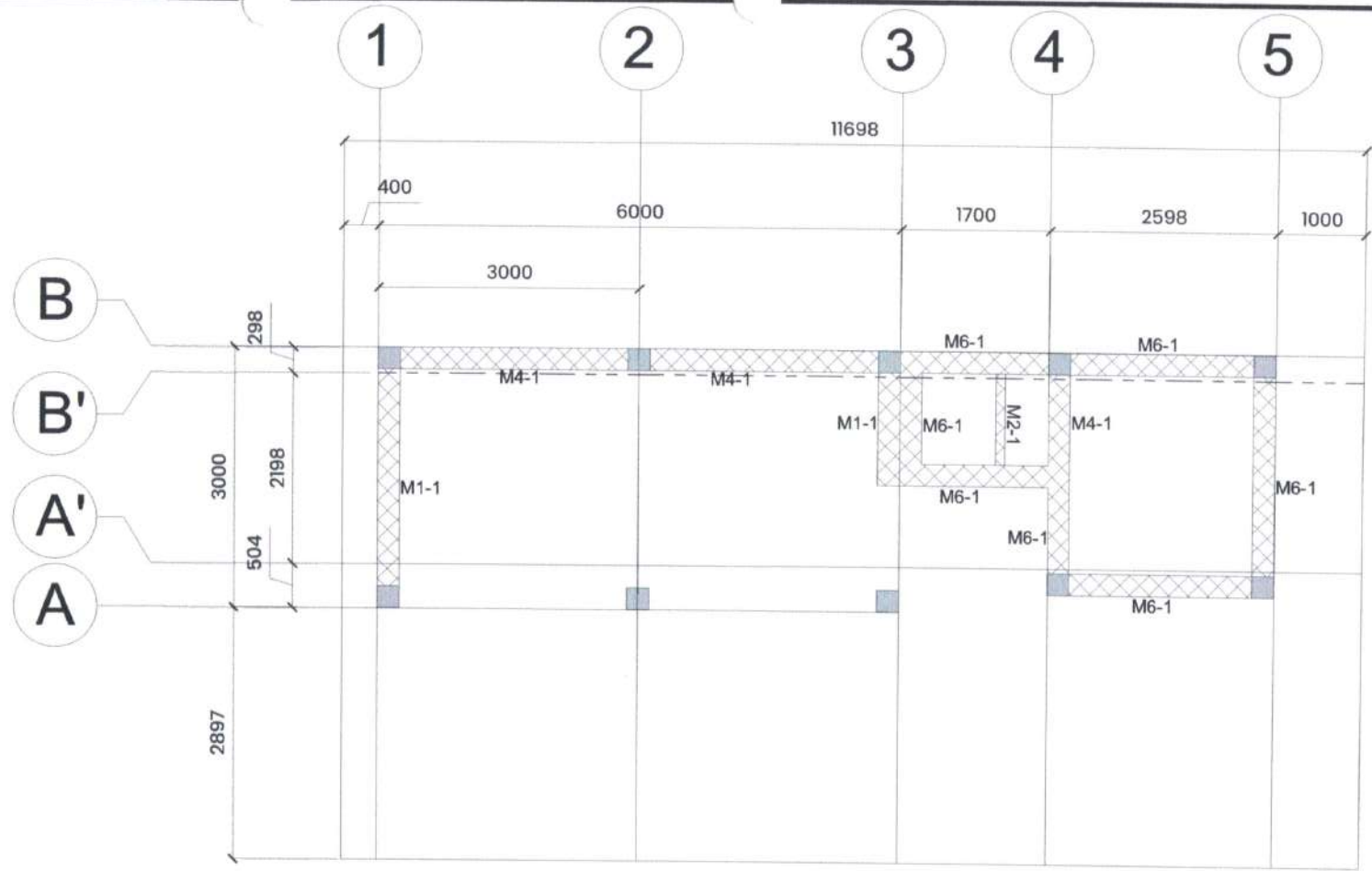
3 T1 DETAIL
 SCALE: 1:40 MTRS.



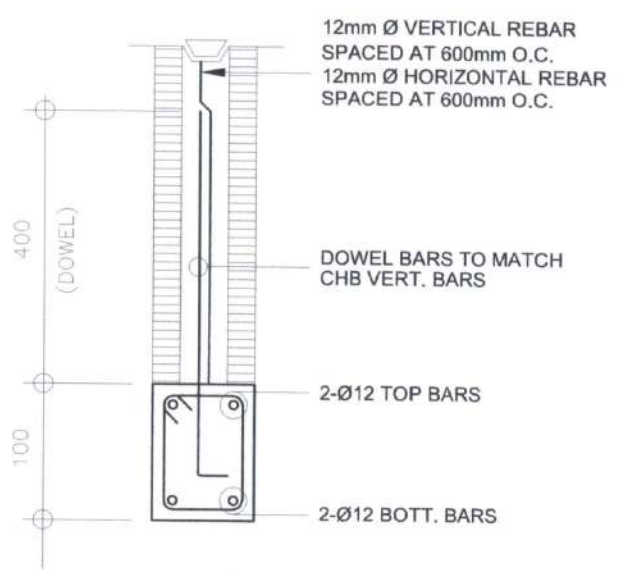
4 T2 DETAIL
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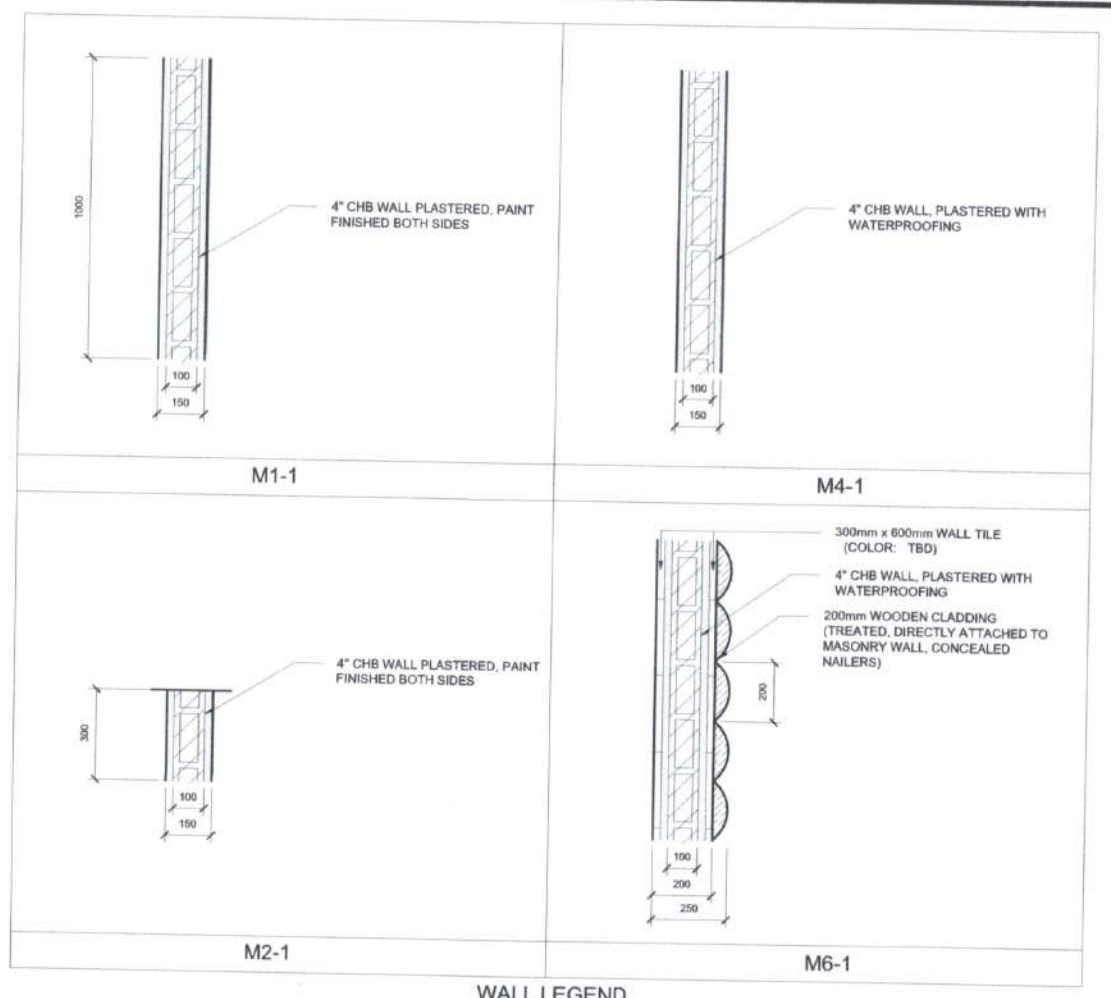
PROJECT NAME AND LOCATION: CONSTRUCTION OF REST STOPS/ WAITING SHEDS IN THE JHSEZ LOCATION: CAMP JOHN HAY, BAGUIO CITY, PHILIPPINES	SHEET CONTENTS: ROOF FRAMING AND PLAN T1 & T2 DETAIL	PREPARED BY: ENGR. SYRICK CAVES B. BANAÑA ENGINEER I DATE:	CHECKED BY: ENGR. LARA MELISSA C. ANTONIO CIVIL STRUCTURAL ENGINEER DATE:	REVIEWED AND SUBMITTED BY: AR. LUZVIMINDA V. PANGANIBAN PMD MANAGER DATE:	APPROVED BY: ENGR. BOBBY V. AKIA EAMD MANAGER DATE:	SET NO. S 3 4	SHEET NO. 12 24
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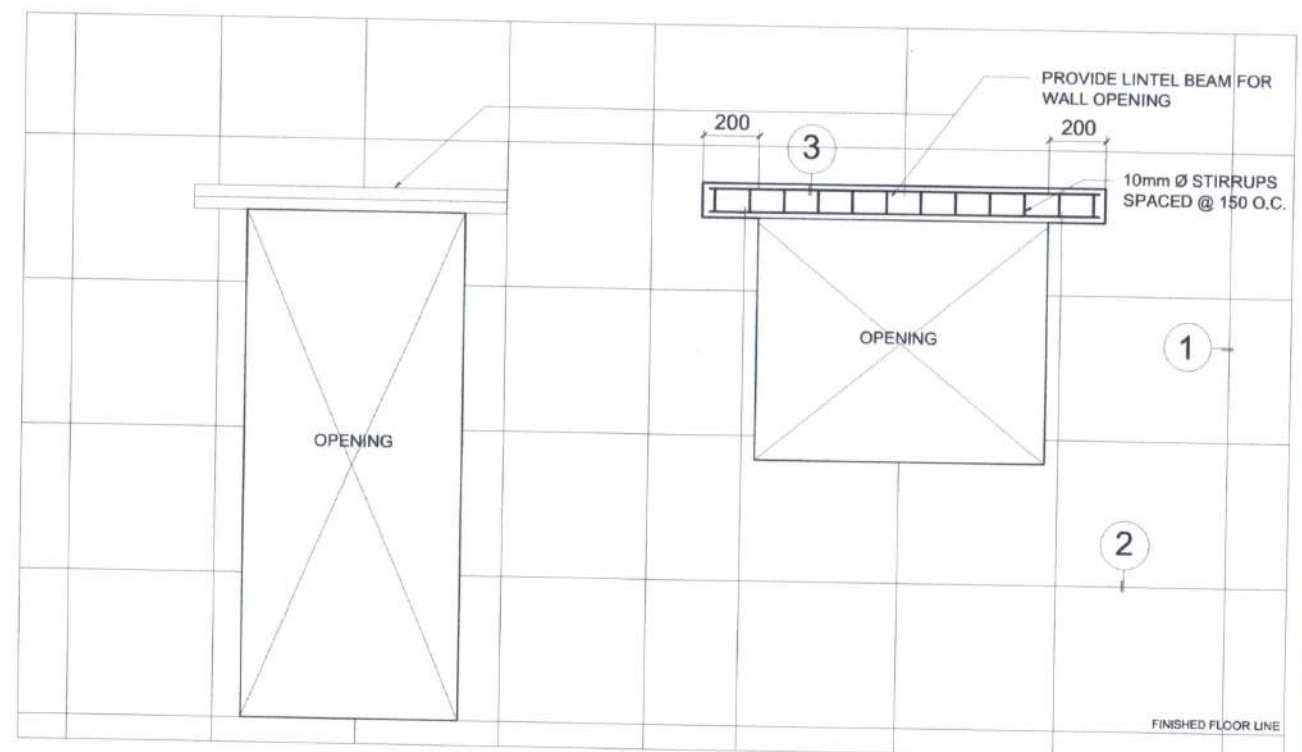
1 WALL DETAIL & DESIGNATION
 SCALE: 1:80 MTRS.



SECTION
2 TYP. DET. OF LINTEL BEAM
 SCALE: NTS



WALL LEGEND



- 12mm Ø VERTICAL REBAR SPACED AT 600mm O.C.
- 12mm Ø HORIZONTAL REBAR SPACED AT 600mm O.C.
- LINTEL BEAMS PROVIDED FOR EVERY OPENING ON THE PROPOSED MASONRY WALL TO SUPPORT ADDITIONAL LAYER OF CHB
- LAPPING SHOULD BE AT LEAST 200MM FOR 16mm Ø



PROJECT NAME AND LOCATION: CONSTRUCTION OF REST STOPS/ WAITING SHEDS IN THE JHSEZ LOCATION: CAMP JOHN HAY, BAGUIO CITY, PHILIPPINES	SHEET CONTENTS: WALL DETAIL & DESIGNATION TYPICAL DETAIL OF LINTEL BEAM	PREPARED BY: ENGR. SYRICK CAVES B. BANAÑA ENGINEER I	CHECKED BY: ENGR. LARA MELISSA C. ANTONIO CIVIL STRUCTURAL ENGINEER	REVIEWED AND SUBMITTED BY: AR. LUZVIMINDA N. PANGANIBAN PMD MANAGER	APPROVED BY: ENGR. BOBBY V. AKIA EAM MANAGER	SET NO: S 4 4	SHEET NO: 13 24
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GENERAL NOTES:

1. ALL ELECTRICAL WORKS AND INSTALLATIONS CONTAINED HEREIN SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST PHILIPPINE ELECTRICAL CODE, LOCAL RULES AND REGULATIONS, STANDARDS AND PRACTICES, AND THE REQUIREMENTS OF THE LOCAL POWER COMPANY.
2. THE ELECTRICAL CONTRACTOR SHALL ENGAGE EXPERIENCED AND SKILLED PERSONNEL IN IMPLEMENTING THE ELECTRICAL WORKS AND SHALL BE UNDER THE DIRECT SUPERVISION OF A DULY LICENSED REGISTERED ELECTRICAL ENGINEER.
3. THE ELECTRICAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE MATERIALS AND WORKMANSHIP TECHNICAL SPECIFICATIONS.

4. MATERIAL SPECIFICATIONS:

MATERIALS SHALL BE NEW AND CONFORM WITH THE LATEST PROVISIONS OF THE UNDERWRITER LABORATORIES, INC.

a. WIRES AND CABLES

ALL LOW VOLTAGE CABLES SHALL BE COPPER AND INSULATED WITH MOISTURE- AND HEAT-RESISTANT THERMOPLASTIC TYPE "THWN-2" WITH MAXIMUM 90°C MAXIMUM OPERATING TEMPERATURE AND UL 83 LISTED.

MINIMUM BRANCH CIRCUIT WIRING SHALL BE 3.5mm² THHN/THWN-2.

COLOR CODING SHALL APPLY AS FOLLOWS:

400V 3-PHASE 4-WIRE + 1GND	230V 1-PHASE 2-WIRE + 1GND
PHASE A-RED	PHASE-RED / BLACK
PHASE B-YELLOW	NEUTRAL-WHITE
PHASE C-BLUE	GROUND-GREEN
NEUTRAL-WHITE	
GROUND-GREEN	

REFER TO WIRING SCHEDULE FOR SIZES OF WIRE AND CABLES TO BE USED.

b. CONDUIT PIPES AND FITTINGS

RIGID STEEL CONDUIT (RSC) - PIPES AND FITTINGS SHALL BE UL 63 AND 514B LISTED, RESPECTIVELY. USE RSC TO ENCLOSE SERVICE ENTRANCE CONDUCTORS.

INTERMEDIATE METALLIC CONDUIT (IMC) - PIPES AND FITTINGS SHALL BE UL 1242 AND 514B LISTED, RESPECTIVELY. USE IMC TO ENCLOSE ALL ELECTRICAL WIRING RUN INSIDE CEILING VOIDS, WALLS, BELOW GRADE, AND EXPOSED RUNS.

POLYVINYL CHLORIDE CONDUITS CONDUIT (PVC) SCHEDULE 40 - PIPES AND FITTINGS SHALL BE PNS CERTIFIED. USE PVC TO ENCLOSE ALL ELECTRICAL WIRING RUN INSIDE UNDERGROUND DUCT BANKS.

LIQUIDTIGHT FLEXIBLE METALLIC CONDUITS (LFMC) - PIPES AND FITTINGS SHALL BE UL AND 1660 LISTED, RESPECTIVELY. USE LFMC TO ENCLOSE ALL ELECTRICAL WIRING CONNECTIONS TO MOTORS AND 600V DRY TYPE TRANSFORMERS.

FLEXIBLE METALLIC CONDUITS (FMC) - PIPES AND FITTINGS SHALL BE UL LISTED. USE FMC TO ENCLOSE ALL ELECTRICAL WIRING CONNECTIONS TO RECESSED LIGHT FIXTURES INSIDE CEILING VOIDS.

MINIMUM CONDUIT SIZE SHALL BE 20mm.

REFER TO WIRING SCHEDULE FOR TYPE AND SIZES OF CONDUITS TO BE USED.

c. ELECTRICAL BOXES

ELECTRICAL BOX - USE ZINC-CHROMATED HOT-ROLLED STEEL BODY WITH A MINIMUM THICKNESS OF 16 GAUGE.

WEATHERPROOF BOX - USE WP RATED BOX FOR ALL OUTDOOR INSTALLATIONS.

d. PROTECTIVE DEVICES

REFER TO ELECTRICAL DRAWINGS FOR THE TYPE AND RATING OF PROTECTIVE DEVICES USED.

MOLDED CASE CIRCUIT BREAKERS (MCCB) SHALL BE BOLT ON TYPE AND UL 489 LISTED

ALL MCCB'S AND ACB'S SHALL HAVE THE FOLLOWING ADJUSTABLE TRIP SETTINGS:

RATING	CONTINUOUS	LONG TIME	SHORT TIME	INSTANTANEOUS	GROUND FAULT
BELOW 100A	FIXED	-	-	FIXED	-
100A TO 250A	ADJUSTABLE	ADJUSTABLE	ADJUSTABLE	ADJUSTABLE	-

- e. MOTOR CIRCUITS AND CONTROLLERS
REFER TO ELECTRICAL DRAWINGS OR AS RECOMMENDED BY MOTOR EQUIPMENT MANUFACTURER FOR THE TYPE AND RATING OF MOTOR PROTECTIVE DEVICE AND MOTOR CONTROLLERS.

MOLDED CASE CIRCUIT BREAKERS (MCCB) SHALL BE BOLT ON TYPE

MOTOR CONTROLLERS SHALL BE RATED FOR IEC TYPE 2 COORDINATION

MOTOR DISCONNECT SHALL BE NON FUSIBLE TYPE.

- f. PANELBOARDS, SWITCHGEARS, AND MOTOR CONTROL CENTERS

ENCLOSURE - FABRICATED FROM HOT DIPPED GALVANIZED STEEL SHEETS AND METAL TREATED FOR PROTECTION FROM CORROSION.

FINISH - POWDER COATED. SUBMIT SAMPLE FINISH FOR APPROVAL.

BUSBAR - SILVER PLATED COPPER AND SIZED IN ACCORDANCE WITH ANSI STANDARD TEMPERATURE RISE CRITERIA OF 65°C OVER 40°C AMBIENT TEMPERATURE.

LABEL - PROVIDE EQUIPMENT LABEL, CIRCUIT DIRECTORY, AND ARC FLASH WARNING HAZARD IN ACCORDANCE WITH PEC 2017 APPENDIX G.

PROTECTION AND COORDINATION - COORDINATION STUDY SHALL BE PREPARED IDENTIFYING THE TRIP SETTINGS OF ALL PROTECTIVE DEVICES IN ORDER TO AVOID NUISANCE TRIPPING DURING OPERATION.

ARC FLASH LABELS - AN ARC FLASH STUDY SHALL BE PREPARED IDENTIFYING THE ARC FLASH CURRENT, INCIDENT ENERGY (CAL/CM²), AND HAZARD CLASSIFICATION WHICH SHALL THEN BE LABELLED AT EACH PANELBOARD.

- g. WIRING DEVICES

CONVENIENCE OUTLETS SHALL BE UL498 LISTED OR IEC 60884-1 AND RATED 15A 250V. GFCI OUTLETS SHALL BE UL943 LISTED AND RATED 20A 250V GROUNDING TYPE LIGHT SWITCHES SHALL BE RATED 15A 250V GROUNDING TYPE.

- h. MOUNTING HEIGHTS

LIGHT SWITCH	1400MM ABOVE FINISH FLOOR
CONVENIENCE OUTLET	300MM ABOVE FINISH FLOOR/300MM ABOVE COUNTER TOP
MOTOR DISCONNECT	1400MM ABOVE FINISH FLOOR OR AS EQUIPMENT MANUFACTURE'S RECOMMENDATION
SPECIAL PURPOSE OUTLET	AS RECOMMENDED BY EQUIPMENT MANUFACTURER
PANELBOARD	1800MM FROM TOP OF PANEL TO FINISH FLOOR

CIRCUIT HOMERUN NUMBERING CONVENTION:

XXXX - XX / X

CIRCUIT HOMERUN NUMBER

FLOOR (GF, 2F, ETC)

EQUIPMENT: M(MOTOR), AC(AIRCON), S(SOLAR), ELEV(ELEVATOR), E(EMERGENCY)

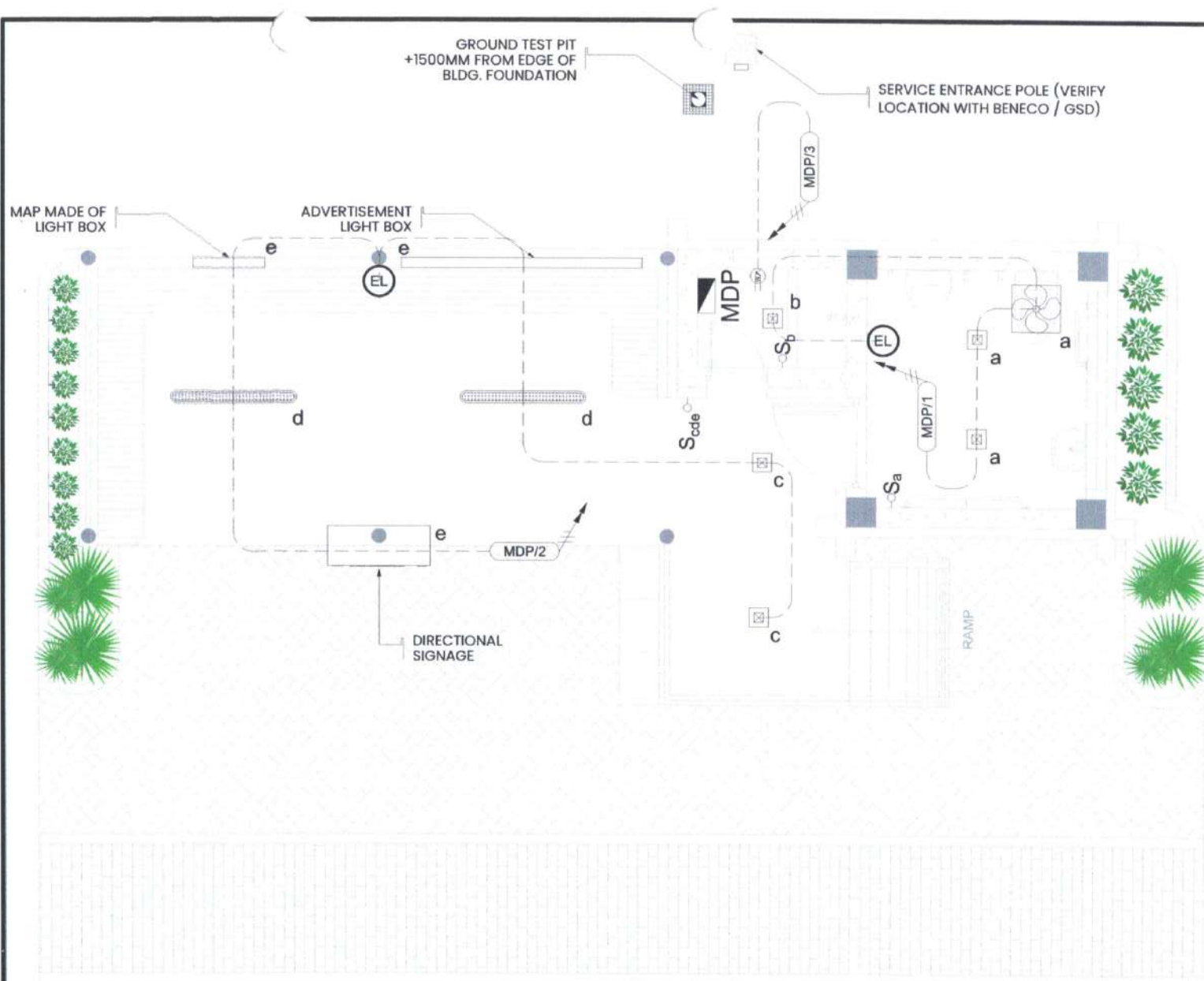
TYPE OF PANEL AS POWER(PP), LIGHTING(LP), DISTRIBUTION(DP) OR MAIN(MDP)

ABBREVIATION			
AF	AMPERE FRAME	RSC	RIGID STEEL CONDUIT
AT	AMPERE TRIP	GFCI	GROUND FAULT CIRCUIT INTERRUPTER
IMC	INTERMEDIATE METAL CONDUIT	ECB	ENCLOSED CIRCUIT BREAKER
LED	LIGHT EMITTING DIODE	S1	ONE-GANG SWITCH
LP	LIGHTING PANELBOARD	S2	TWO-GANG SWITCH
MCCB	MOLDED CASE CIRCUIT BREAKER	S3	THREE-GANG SWITCH
PVC	POLYVINYL CHLORIDE CONDUIT	S3W	THREE-WAY SWITCH

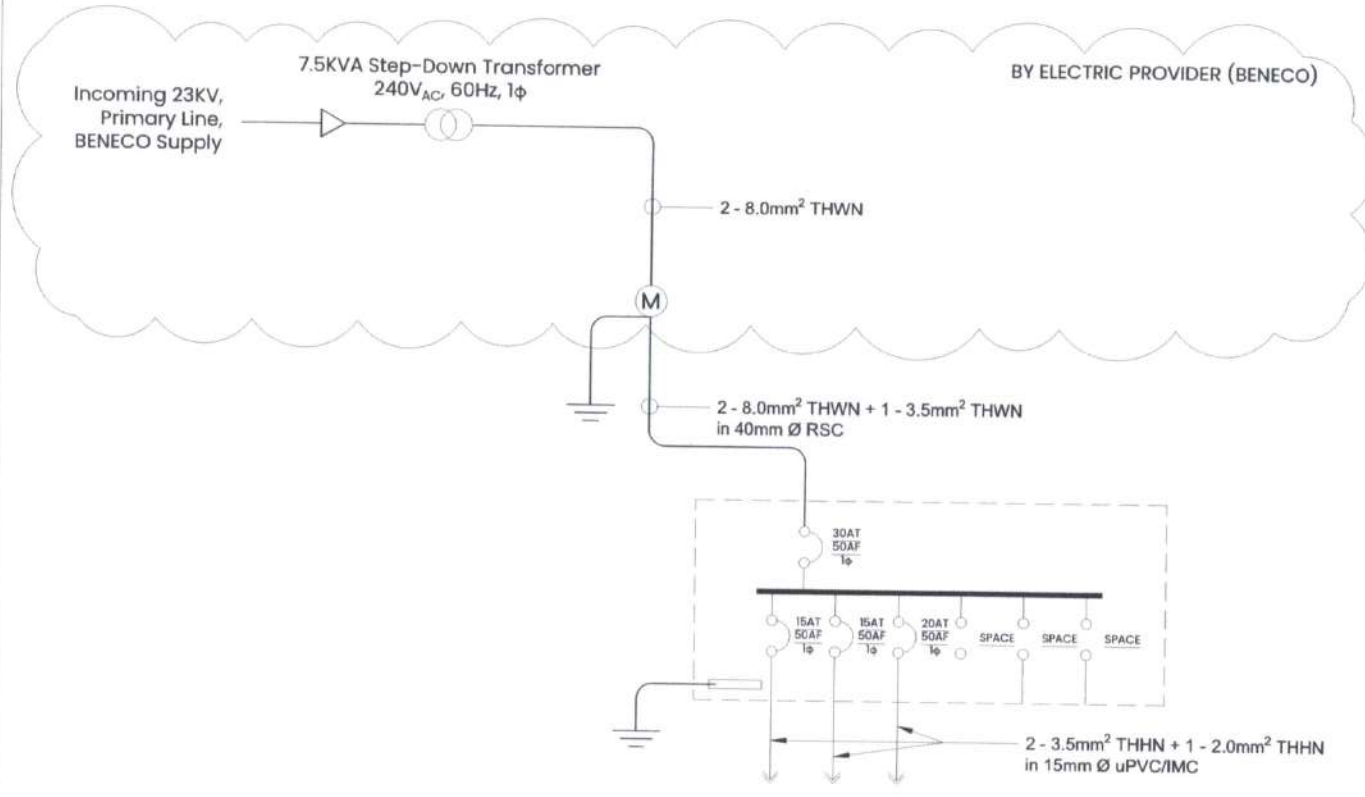
LEGEND:

	WEATHERPROOF BATTEN LIGHT (TB) WITH 2X18W LED TUBE 6000K - 6500K, IP65 MINIMUM, 230V _{AC}
	RECESSED SQUARE DOWNLIGHT, (3000K-3500K), 12W, 230V _{AC}
	DUPLEX WEATHER PROOF OUTLET W/ GROUNDING, IP66 MINIMUM, 20A, 230V _{AC}
	RECESSED MOUNTED PANEL BOARD, NEMA 3, IP55 MINIMUM
	LIGHTING SWITCH (250V, 16A RATED)
	CIRCUIT LINE
	CIRCUIT HOMERUN
	EXHAUST FAN (100W)
	EMERGENCY LIGHT W/ 3 HOURS BATTERY (4W, 5000K)





1
E 2
SCALE: 1:50
POWER AND LIGHTING LAYOUT



2
E 2
SCALE: NTS
SINGLE LINE DIAGRAM

PANEL	: MAIN DISTRIBUTION PANEL	TAG	: MDP	LOCATION	: UTILITY ROOM
FEEDER SIZE	: 2 - 8.0mm ² THWN, 1 - 3.5mm ² THWN in 32mm Ø RSC/IMC			ENCLOSURE	: NEMA 3
MAIN CIRCUIT BREAKER	: 60AT, 50AF, 1Ø, 230V, 10kAIC, MAIN CB- MCCB PLUG-IN TYPE			MOUNTING	: RECESSED MOUNTED WITH MULTI-TERMINAL GROUND BUS

CKT NO.	LOAD DESCRIPTION	VOLTS	VOLT AMPERE	AMPEREAGE 1Ø	NO. OF FIXTURES	SWITCHES				PROTECTION				WIRES		CONDUIT	
						S1	S2	S3	S3W	AT	AF	P	KAIC	SET	LINE		GROUND
1	LIGHTING OUTLET + 1 EF	230	425	1.85	4		2			15	50	1	10	1	2-3.5mm ² THHN - RED/BLACK	2.0mm ² THHN - GREEN	15mmØ uPVC/IMC
2	LIGHT BOXES (DIRECTIONAL SIGNAGE, ADVERTISEMENT, MAP)	230	1800	7.83	4			1		15	50	1	10	1	2-3.5mm ² THHN - RED/BLACK	2.0mm ² THHN - GREEN	15mmØ uPVC/IMC
3	W.P. CONVENIENCE OUTLET	230	180	0.78	1					20	50	1	10	1	2-3.5mm ² THHN - RED/BLACK	2.0mm ² THHN - GREEN	15mmØ uPVC/IMC
4	SPACE	230															
5	SPACE	230															
6	SPACE	230															
TOTAL			2405	10.46	9	2	0	1	0								

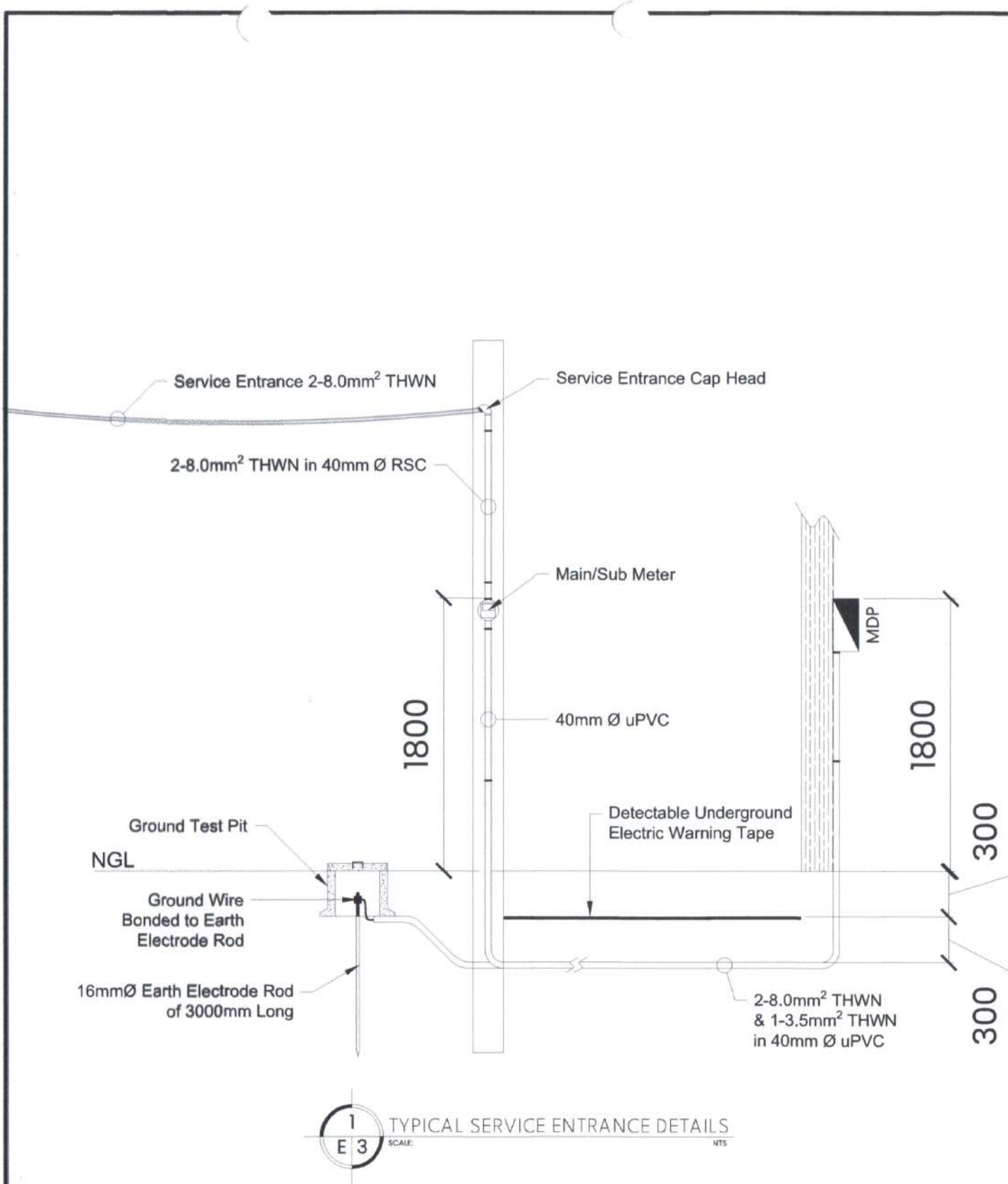
CALCULATION : FLA = IL × 80% D.F. = 8.368 AMPS
 USE : 30AT, 50AF, 1Ø, 230V, 10kAIC, MAIN CB- MCCB PLUG-IN TYPE

3
E 2
SCALE: NTS
LOAD SCHEDULE

Note: The contractor is also required to provide a service entrance line (2 - 8.0 mm² THWN + 1 - 3.5 mm² THWN) and Step-Down Transformer from the tapping point to each rest stop. Verify the site locations/tapping points with the General Services Division / BENEKO.

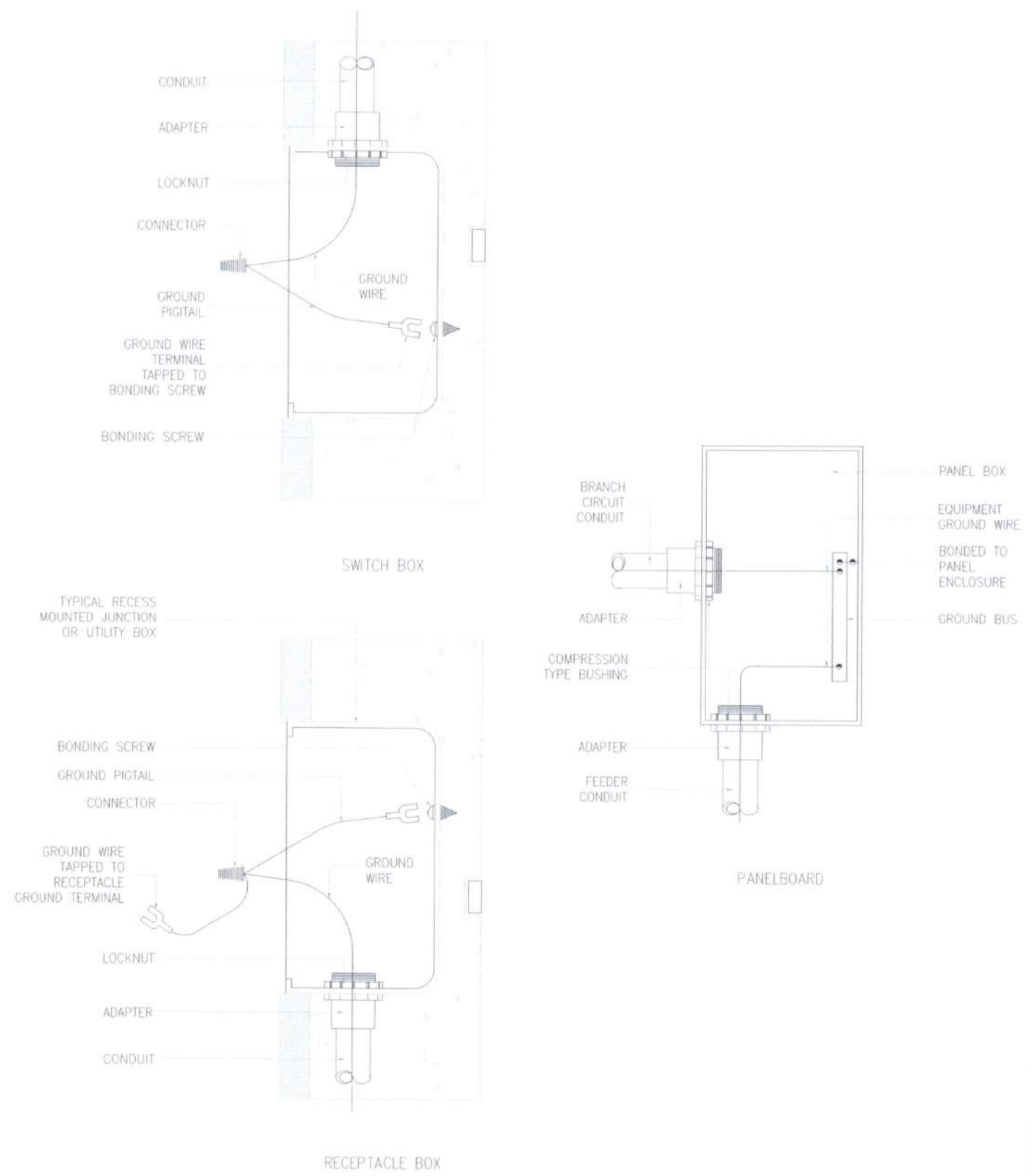


PROJECT NAME AND LOCATION: CONSTRUCTION OF REST STOPS/ WAITING SHEDS IN THE JHSEZ LOCATION: CAMP JOHN HAY, BAGUO CITY, PHILIPPINES	SHEET CONTENTS: POWER AND LIGHTING LAYOUT SINGLE LINE DIAGRAM LOAD SCHEDULE	PREPARED BY: ENGR. CHRISTOPHER JOHN I. MUNAR ELECTRICAL ENGINEER II DATE: _____	CHECKED BY: ENGR. ADRIVELA J. UDA SENIOR QUANTITY SURVEYOR DATE: _____	REVIEWED AND SUBMITTED BY: AR. LUZVIMINDA P. PANGANIBAN PMD MANAGER DATE: _____	APPROVED BY: ENGR. BOBBY V. AKIA EAMD MANAGER DATE: _____	SET NO: 2 3	SHEET NO: 15 24
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1
E 3
SCALE: NTS

TYPICAL SERVICE ENTRANCE DETAILS



2
E 3
SCALE: NTS

TYPICAL GROUNDING CONNECTION DETAILS

PLUMBING GENERAL NOTES

ALL PLUMBING WORKS INCLUDED HEREIN SHALL BE EXECUTED ACCORDING TO THE PROVISION OF THE NATIONAL PLUMBING CODE OF THE PHILIPPINES AND THE LOCAL RULES AND REGULATION

A. VERTICAL PIPING

1. PLASTIC PIPE - SHALL BE SUPPORTED AT EVERY - (1) METER INTERVAL

B. HORIZONTAL PIPING

1. PLASTIC PIPE - SHALL BE SUPPORTED BY STIFF METAL BACKING HANGERS IN ITS ENTIRE LENGTH FOR SMALL SIZE TUBING UP TO 38mm DIAMETER AND WITHOUT BACKINGS BUT WITH SPACED METAL HANGERS AT APPROVED FOR LARGER-SIZE TUBING.

C. PLUMBING FIXTURES

1. PLUMBING FIXTURE SHALL BE MANUFACTURED OF DENSE, DURABLE, NON-BORBENT MATERIALS AND HAVE SMOOTH, IMPERVIOUS SURFACES, FREE FROM UNNECESSARY CONCEALED FOULING SURFACES, EXCEPT AS PERMITTED ELSEWHERE IN THIS CODE, ALL FIXTURE SHALL CONFORM IN QUALITY AND NATIONAL RECOGNIZED APPLICABLE STANDARDS.

WATER SUPPLY

1. EACH PLUMBING FIXTURE SHALL BE APPROVED WITH AN ADEQUATE SUPPLY OF POTABLE RUNNING WATER, SO ARRANGED AS TO FLUSH AND KEEP SAME IN CLEAN AND HEALTHFUL CONDITIONS WITHOUT DANGER OF BACKFLOW OR CROSS-CONNECTION.

D. SEWERLINE

1. DRAINAGE PIPING SHALL BE PROVIDED WITH APPROVED INLET FITTINGS FOR FIXTURE CONNECTIONS, CORRECTLY LOCATED ACCORDING TO THE SIZE AND TYPE OF FIXTURE PROPOSED TO BE CONNECTED.
2. CHANGE IN DIRECTION OF DRAINAGE PIPING SHALL BE MADE BY THE APPROPRIATE USE OF APPROVED FITTINGS AND SHALL BE OF THE ANGLES PRESENTED BY 22 1/2 DEGREES OR 1/8 BEND, 45 DEGREES OR 1/8 BEND AND 60 DEGREES OR OTHER APPROVED FITTINGS.

E. VENT PIPES

1. EACH PLUMBING FIXTURE TRAP, EXCEPT AS OTHERWISE PROVIDED IN THIS CODE, SHALL BE PROTECTED AGAINST SIPHONAGE AND BACK-PRESSURE, AIR CIRCULATION SHALL BE ASSURED THROUGHOUT ALL PARTS OF THE EXCRETA DRAINAGE SYSTEM BY MEANS OF VENT PIPES.
2. ALL VENT PIPES SHALL EXTEND UNDIMINISHED IN SIZE ABOVE THE ROOF SHALL BE RECONNECTED WITH THE SOIL OR WASTE STACK VENT OF PROPER SIZE AT A POINT BELOW THE ROOF, THE VENT THROUGH THE ROOF (VSTR) SHALL INCREASE ONE (1) PIPE SIZE ABOVE.

F. HANGERS AND SUPPORT

1. PIPES SHALL BE SUPPORTED AT SUFFICIENTLY CLOSE INTERVALS TO KEEP THEM IN ALIGNMENT AND PREVENT SAGGING.

MATERIAL SPECIFICATIONS




COLD WATERLINE SHALL BE POLYPROPYLENE RANDOM CO-POLYMER TYPE 3

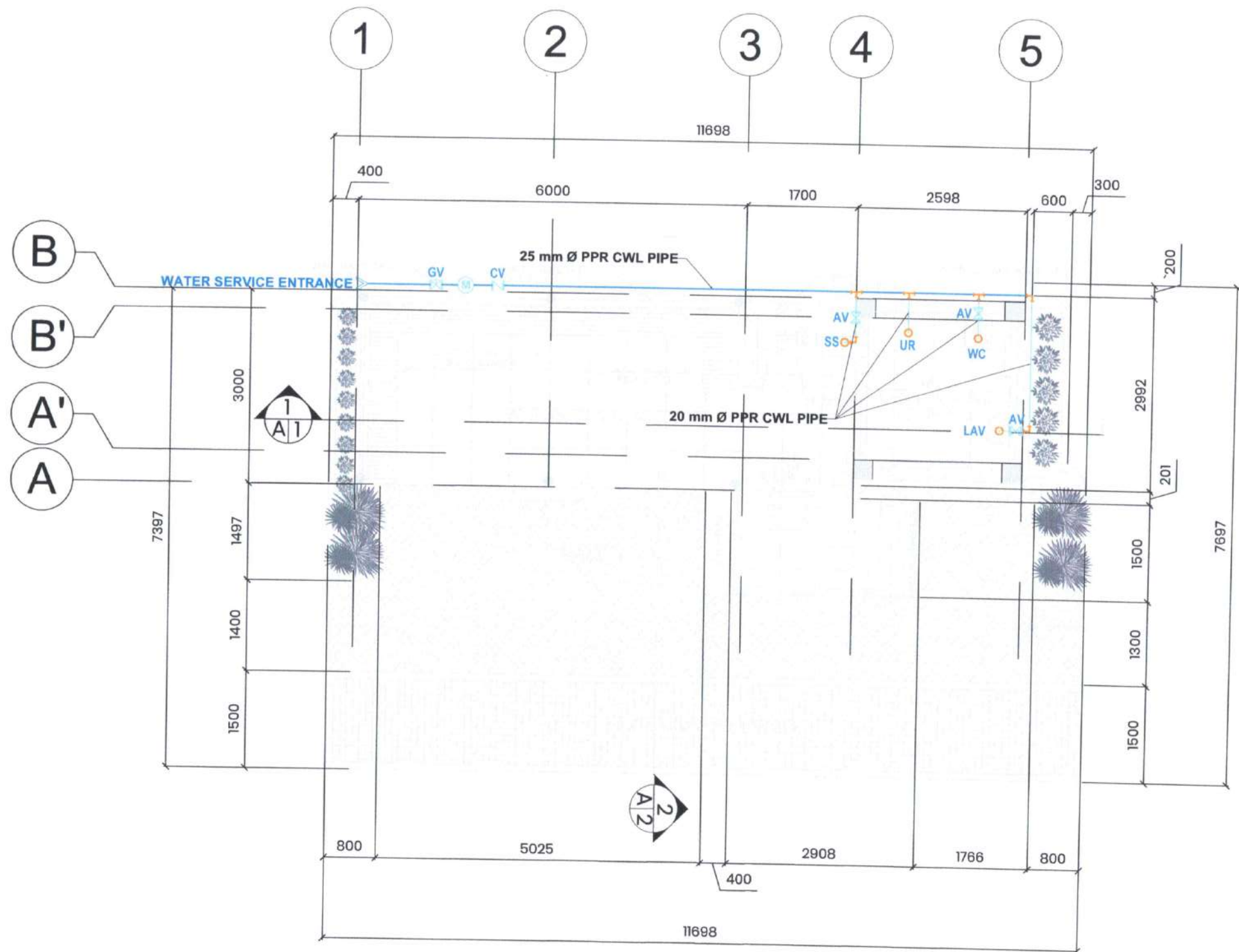
SEWERLINE/ VENT PIPES/ DOWNSPOUTS/ STORM DRAINAGE SHALL BE UNPLASTICIZED POLYVINYL CHLORIDE (UPVC SERIES)

SANITARY LAYOUT LEGENDS		WATER SUPPLY LAYOUT SYMBOLS	
	WYE		TEE
	SANITARY TEE		90 DEG ELBOW
	45 DEG ELBOW		45 DEG ELBOW
	90 DEG ELBOW		END CAP
	CLEANOUT PLUG		UNION
	STACK (PIPE UP)		WATER METER
	P - TRAP		GATE VALVE
	WC		CHECK VALVE
	LAV		ANGLE VALVE
	SS		WC
	FD		SS
	100 mm Ø uPVC WASTE PIPE		LAV
	75 mm Ø uPVC WASTE PIPE		FD
	50 mm Ø uPVC WASTE PIPE		WATER SERVICE ENTRANCE
	50 mm Ø uPVC VENT PIPE		25 mm Ø PPR CWL PIPE
	VSTR		20 mm Ø PPR CWL PIPE


GENERAL NOTES
 SCALE: _____ NTS


PLUMBING LEGEND
 SCALE: _____ NTS

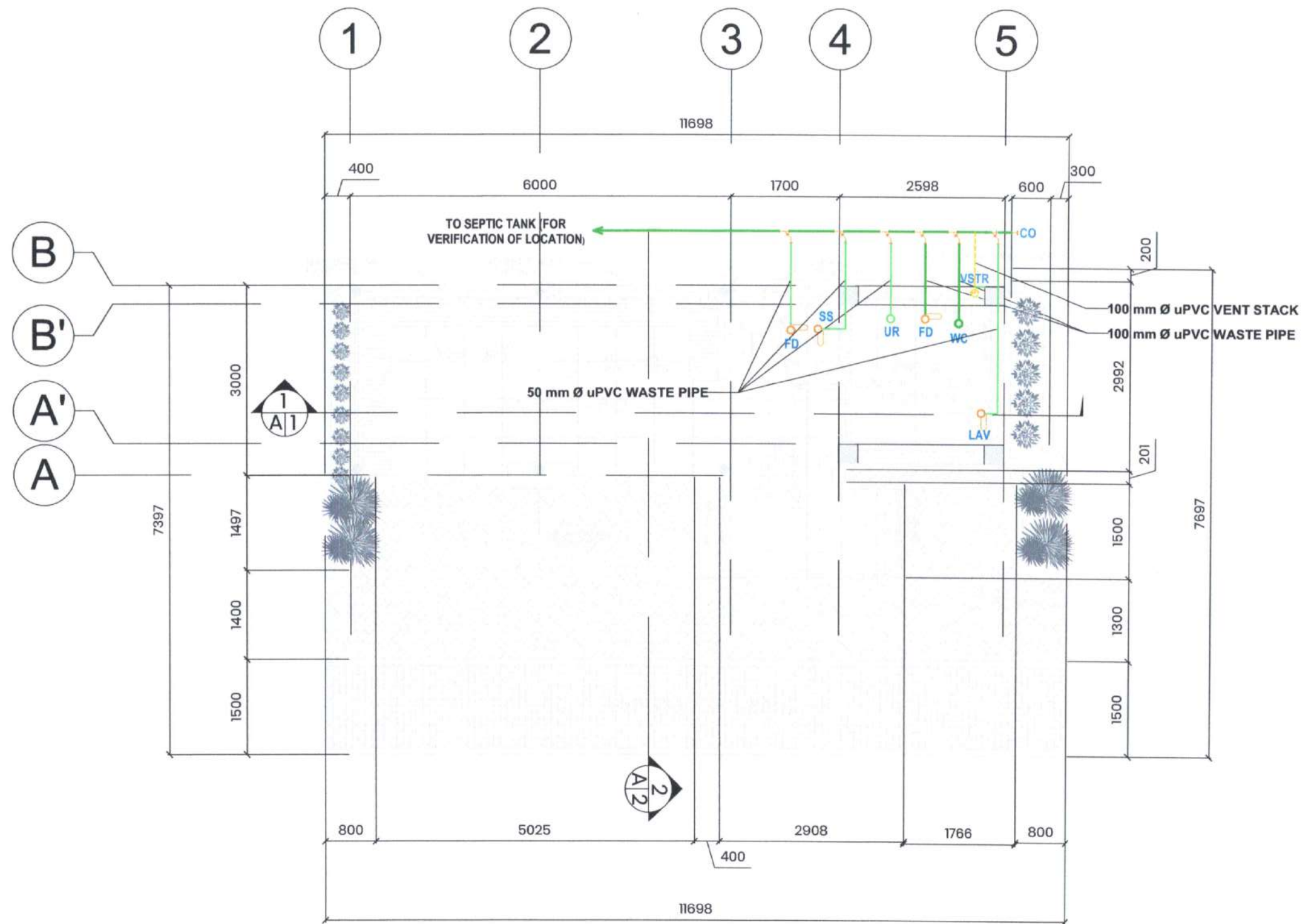
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	CONSTRUCTION OF REST STOPS/WAITING SHEDS IN THE JHSEZ <small>LOCATION: CAMP JOHN HAY, BAGUIO CITY, PHILIPPINES</small>	GENERAL PLUMBING NOTES AND LEGENDS	ENGR. RAMSIS R. P. BAYO <small>SANITARY ENGINEER</small>	ENGR. ADRIEN A. UDA <small>SENIOR QUANTITY SURVEYOR</small>	AR. LUZVIMINA N. FANANIDAN <small>PMD MANAGER</small>	ENGR. BOBBY V. AKIA <small>EAMD MANAGER</small>		



1
WATERLINE LAYOUT
 SCALE 1:75 MTRS

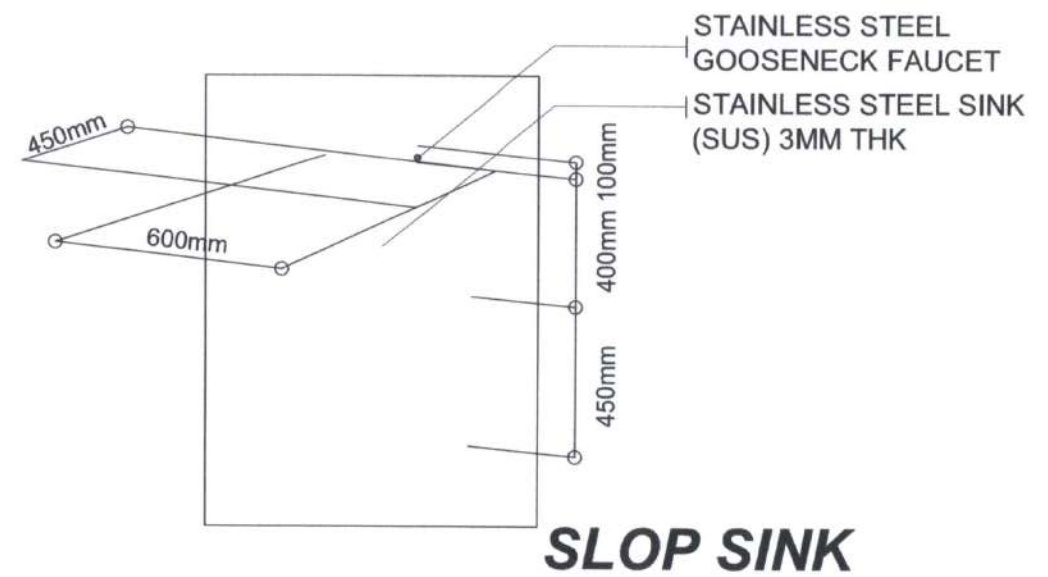
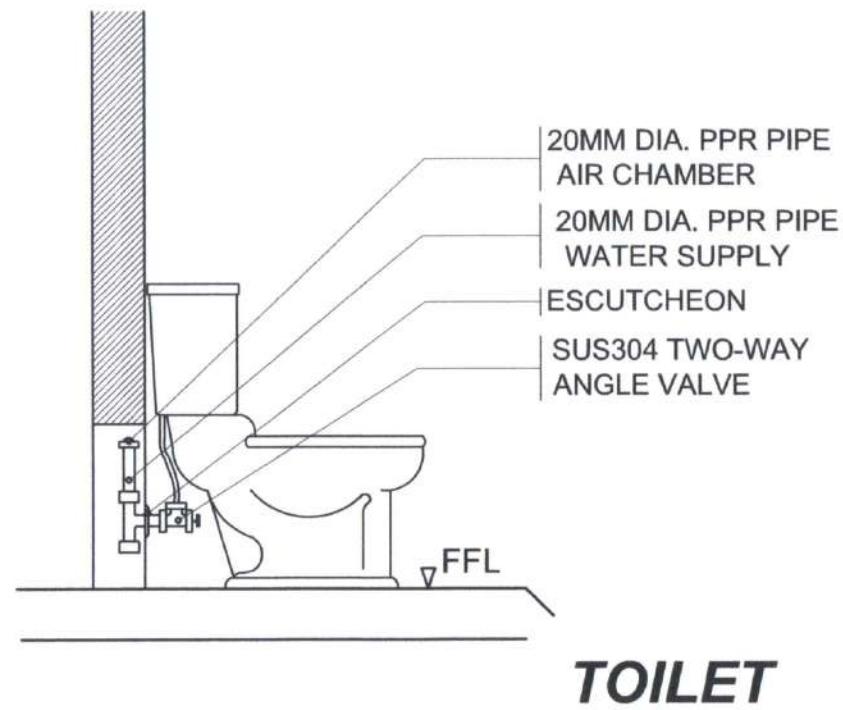
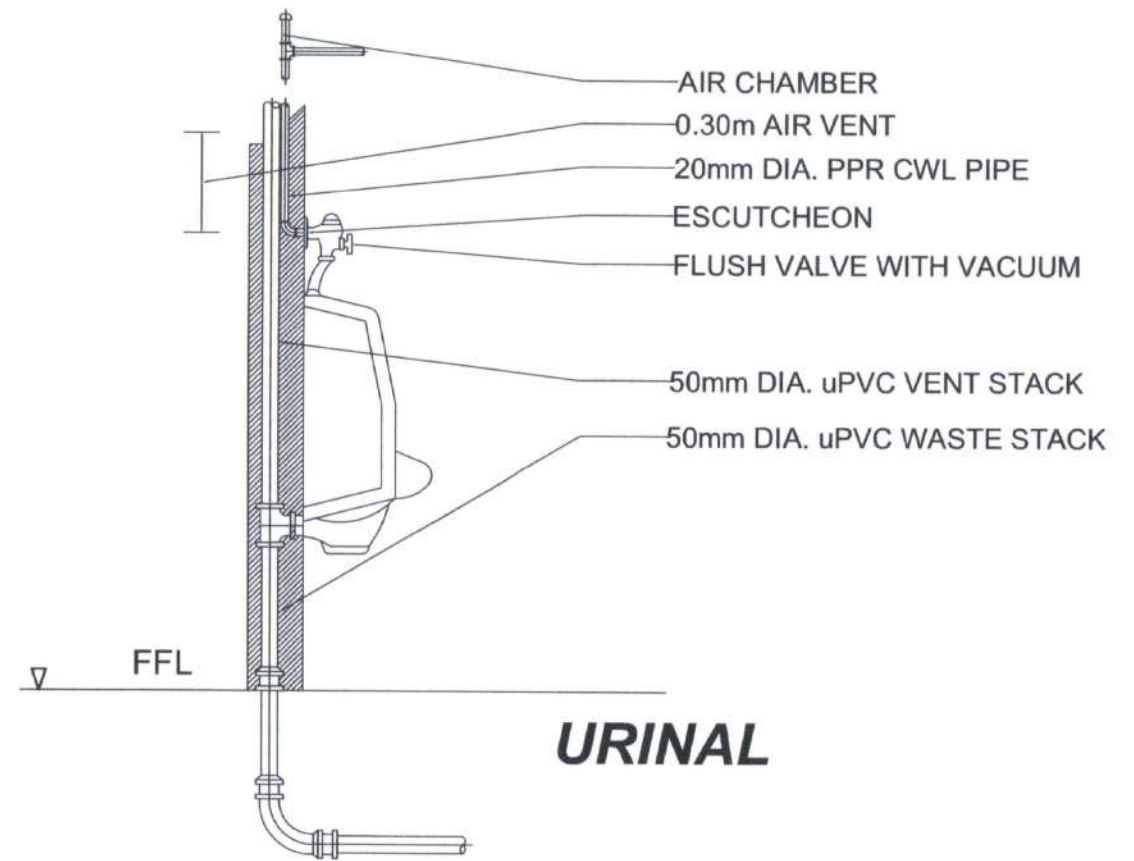
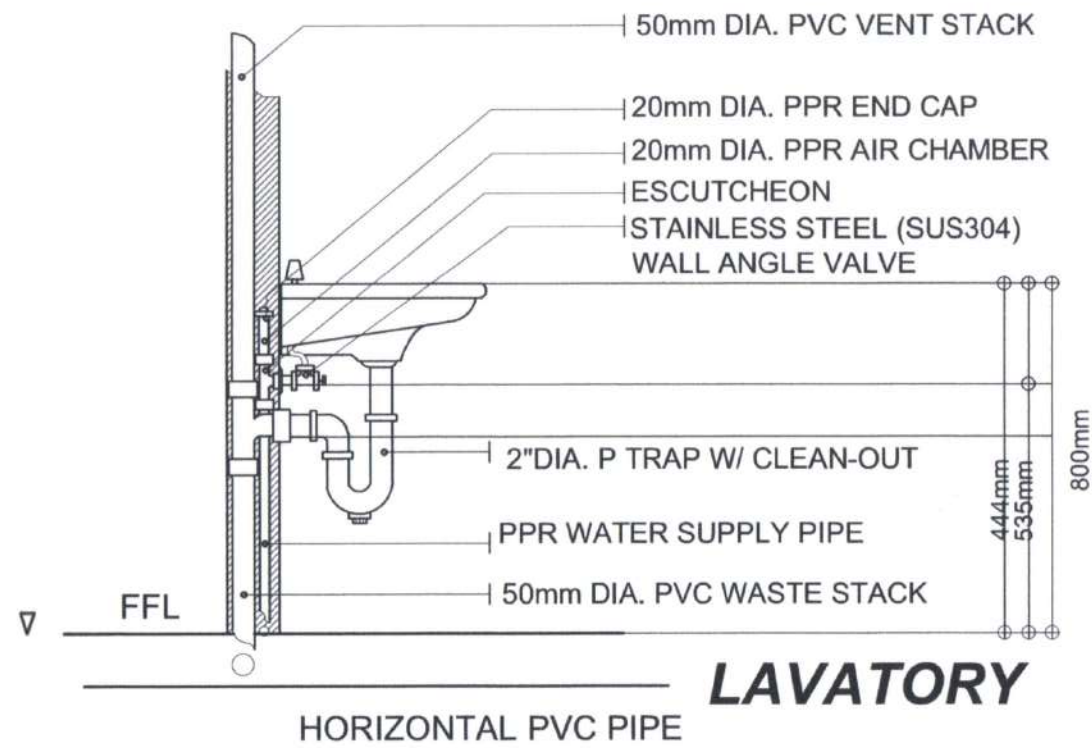


PROJECT NAME AND LOCATION: CONSTRUCTION OF REST STOPS/WAITING SHEDS IN THE JHSEZ <small>LOCATION: CAMP JOHN HAY, BAGUIO CITY, PHILIPPINES</small>	SHEET CONTENTS: WATERLINE LAYOUT PLAN	PREPARED BY: ENGR. RAMSIS RICO P. BAYO <small>SANITARY ENGINEER</small> DATE:	CHECKED BY: ENGR. ADRIYEL A. UDA <small>SENIOR QUANTITY SURVEYOR</small> DATE:	REVIEWED AND SUBMITTED BY: AR. LUZVIMINDA NIPANGANIBAN <small>PMD MANAGER</small> DATE:	APPROVED BY: ENGR. BOBBY V. AKIA <small>EA/D MANAGER</small> DATE:	SET NO. P 2 8	SHEET NO. 18 24
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1
3
SEWERLINE LAYOUT
 SCALE 1:75 MTRS

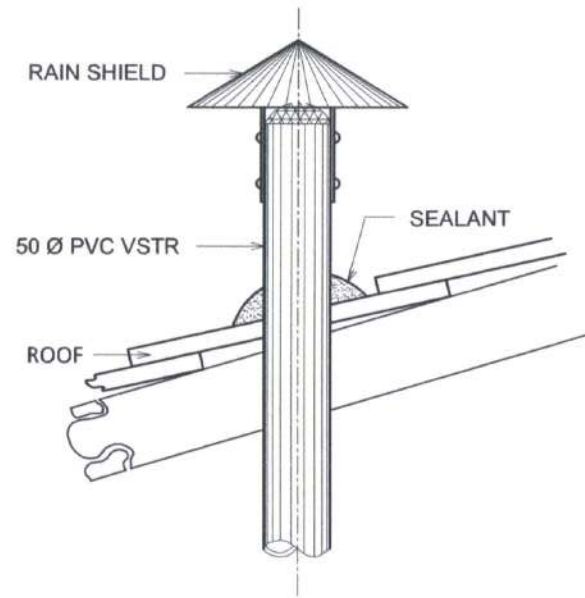
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	CONSTRUCTION OF REST STOPS/WAITING SHEDS IN THE JHSEZ <small>LOCATION: CAMP JOHN HAY, BAGUIO CITY, PHILIPPINES</small>	SEWERLINE LAYOUT PLAN					P 3 8	19 24



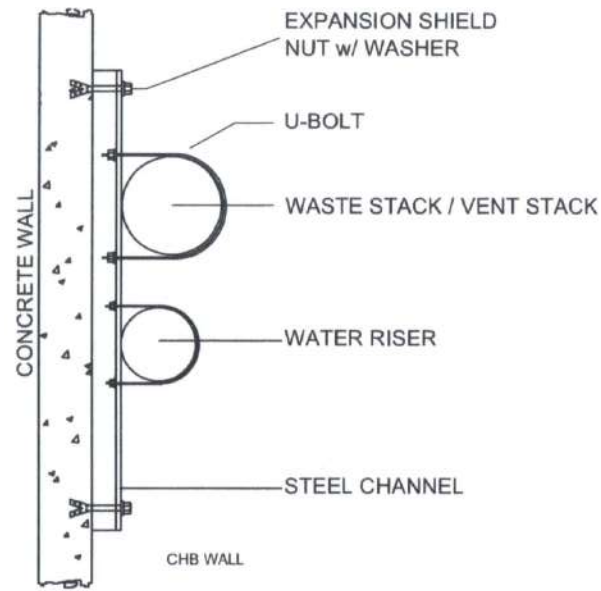
1
 P 4

TYPICAL FIXTURE DETAILS

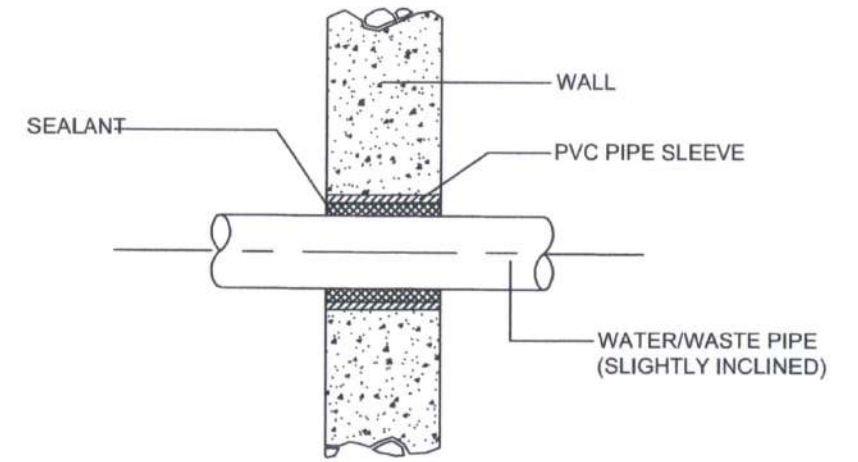
SCALE NTS



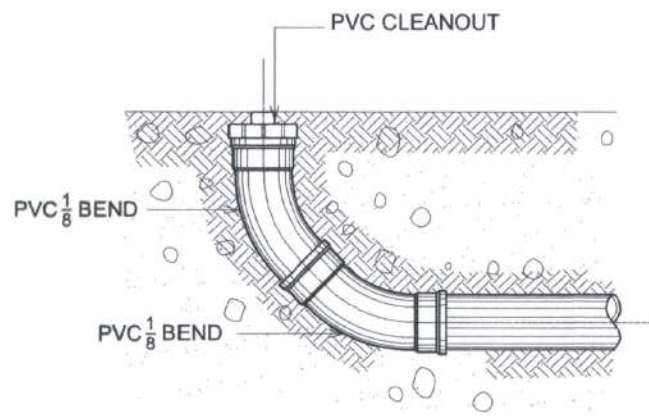
1
P 5 SCALE NTS
VENT STACK THRU ROOF



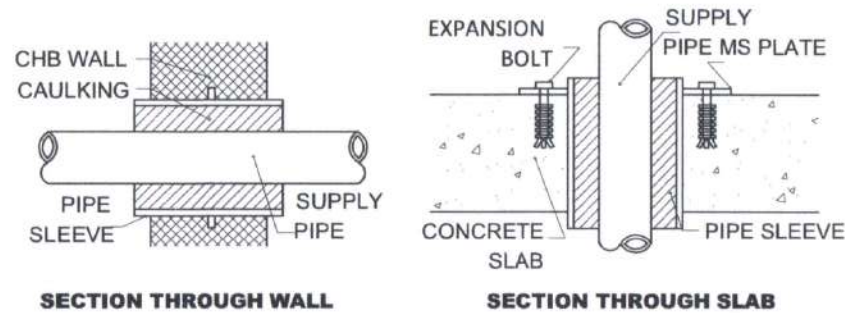
1
P 5 SCALE NTS
PIPE BRACKET ALONG WALLS



1
P 5 SCALE NTS
WASTE/WATER PIPE THRU WALL DETAIL



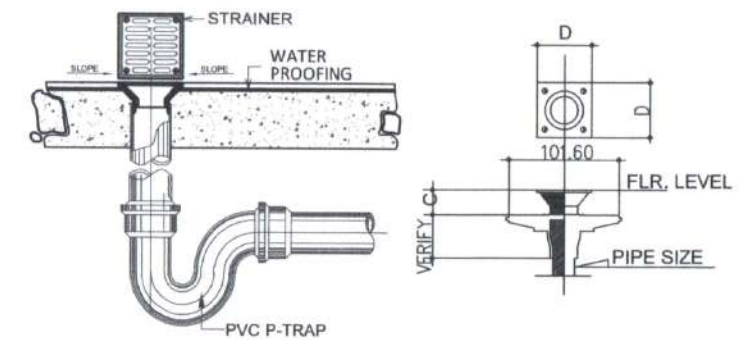
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P 5 SCALE NTS
GROUND CLEANOUT DETAILS



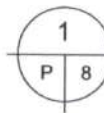
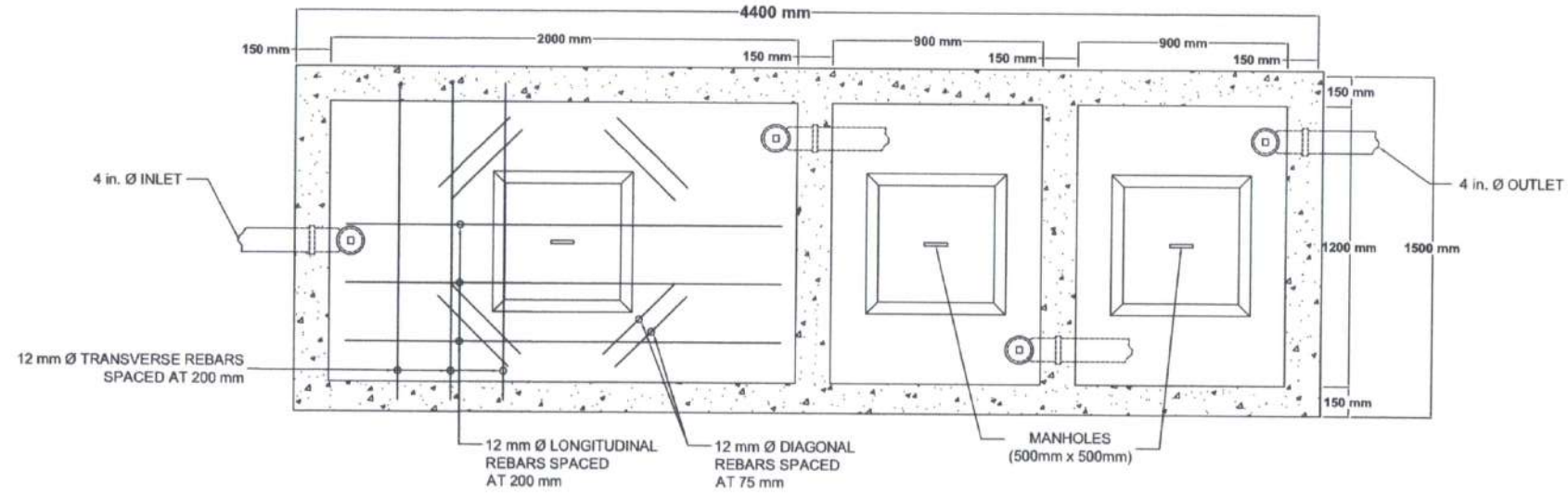
1
P 5 SCALE NTS
PIPE SLEEVE DETAIL

FLOOR DRAIN DETAIL;

PIPE SIZE	C	D
ø50mm	38.10mm	101.60mm
ø75mm	38.10mm	127.00mm
ø100mm	44mm	152.40mm
ø150mm	50.80mm	155.80mm



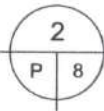
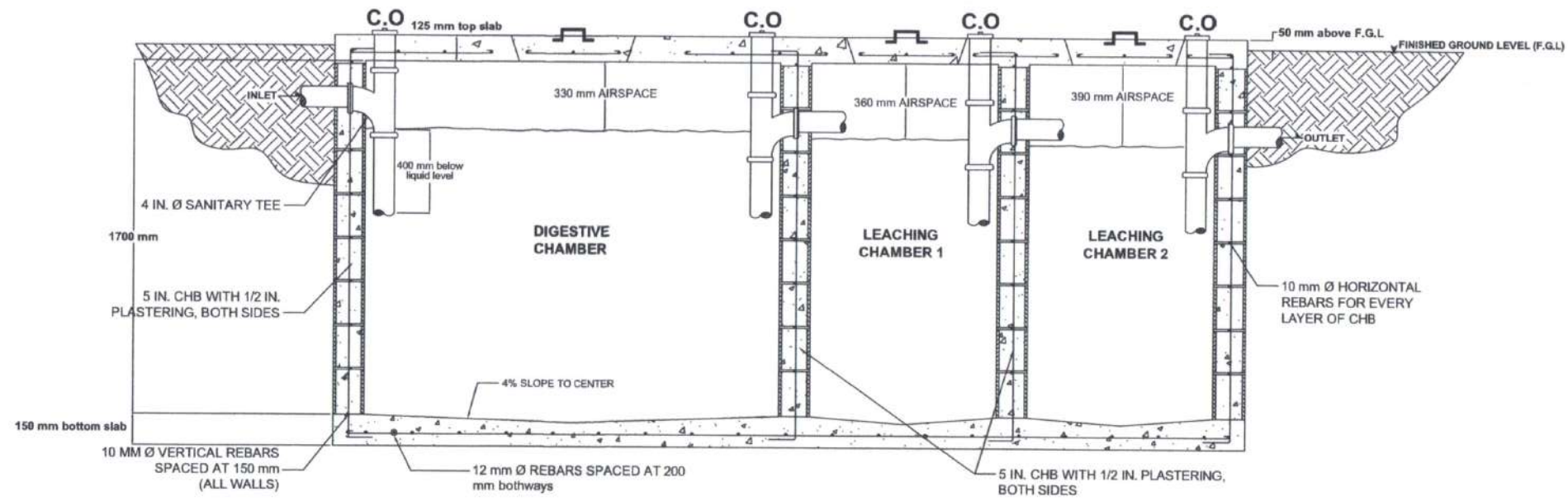
1
P 5 SCALE NTS
FLOOR DRAIN DETAILS



DETAILED PLAN OF SEPTIC TANK

SCALE

1:30



DETAILED SECTION OF SEPTIC TANK

SCALE

1:30



PROJECT NAME AND LOCATION:
CONSTRUCTION OF REST STOPS/WAITING SHEDS IN THE JHSEZ
 LOCATION: CAMP JOHN HAY, BAGUIO CITY, PHILIPPINES

SHEET CONTENTS:
 DETAILED PLAN OF SEPTIC TANK
 DETAILED SECTION OF SEPTIC TANK

PREPARED BY:
ENGR. RAMSIS RIZO P. BAYO
 SANITARY ENGINEER
 DATE:

CHECKED BY:
ENGR. ADRIEL A. UDA
 SENIOR QUANTITY SURVEYOR
 DATE:

REVIEWED AND SUBMITTED BY:
AR. LUZVIMINDA N. PANGANIBAN
 PMD MANAGER
 DATE:

APPROVED BY:
ENGR. BUDDY V. AKIA
 EAMM MANAGER
 DATE:

SET NO.	SHEET NO.
P 8 8	24 24