

Client: INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

Project: PROPOSED REFURBISHMENT OF BORDER POST AND CONSTRUCTION
OF WASH FACILITY

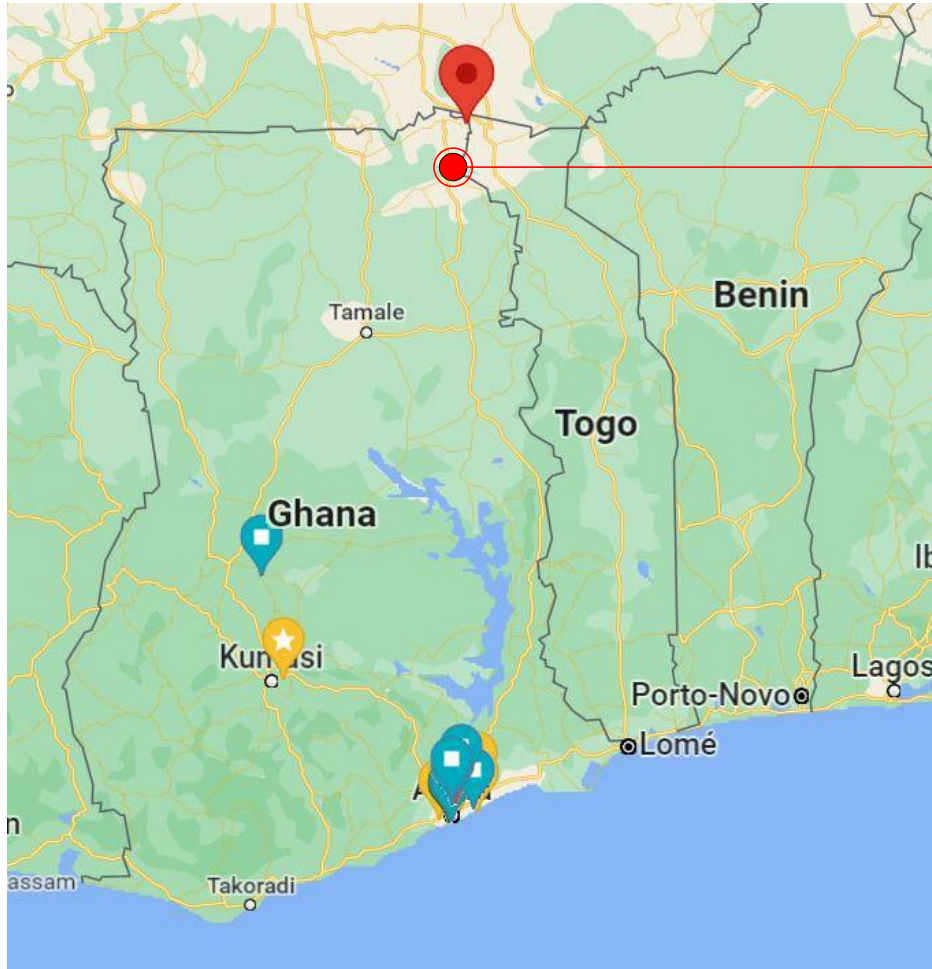
Location: BUNKPURUGU, NORTH EAST REGION, GHANA

Beneficiary: GHANA IMMIGRATION SERVICE

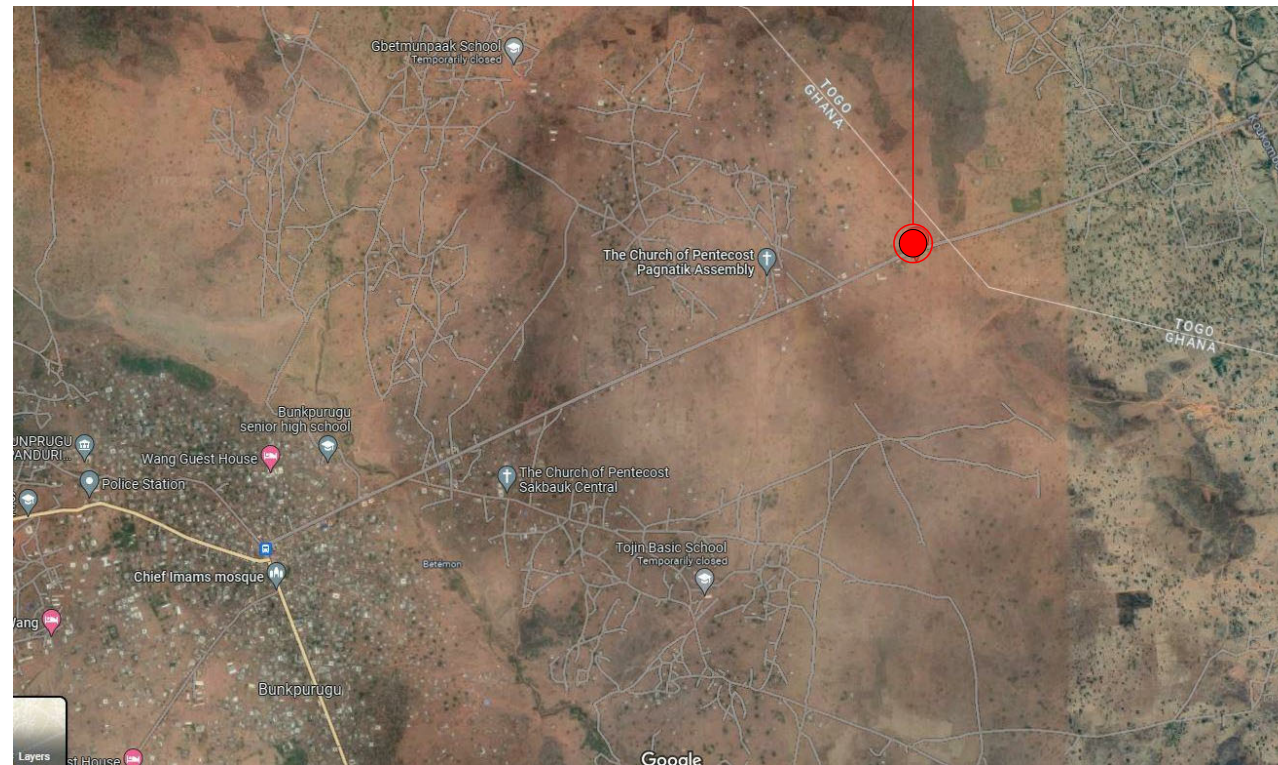
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STRUCTURAL DRAWINGS			
BORDER POST			
CONSTRUCTION NOTES AND SPECIFICATIONS	S/000		
FOUNDATION LAYOUT	S/001		

ARCHITECTURAL DRAWINGS



Bunkpurugu, North East Region of Ghana



Existing border post coordinates: 10°31'51.1"N
0°07'28.1"E

NOTES

DO NOT MEASURE DIRECTLY FROM DRAWINGS.
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REVISIONS

DATE	DESCRIPTION

PROJECT:
PROPOSED WATER, SANITATION AND HYGEINE (WASH) FACILITY AND RENOVATION OF EXISTING BORDER POST
LOCATION: BUNKPURUGU, NORTH EAST REGION

CLIENT:
INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:
SITE LOCATION

DESIGNED BY:
Elvis Asiedu

SCALE:
1 : 200

DRAWN BY:
George Hughes

JOB NO.:
TR/2023/18

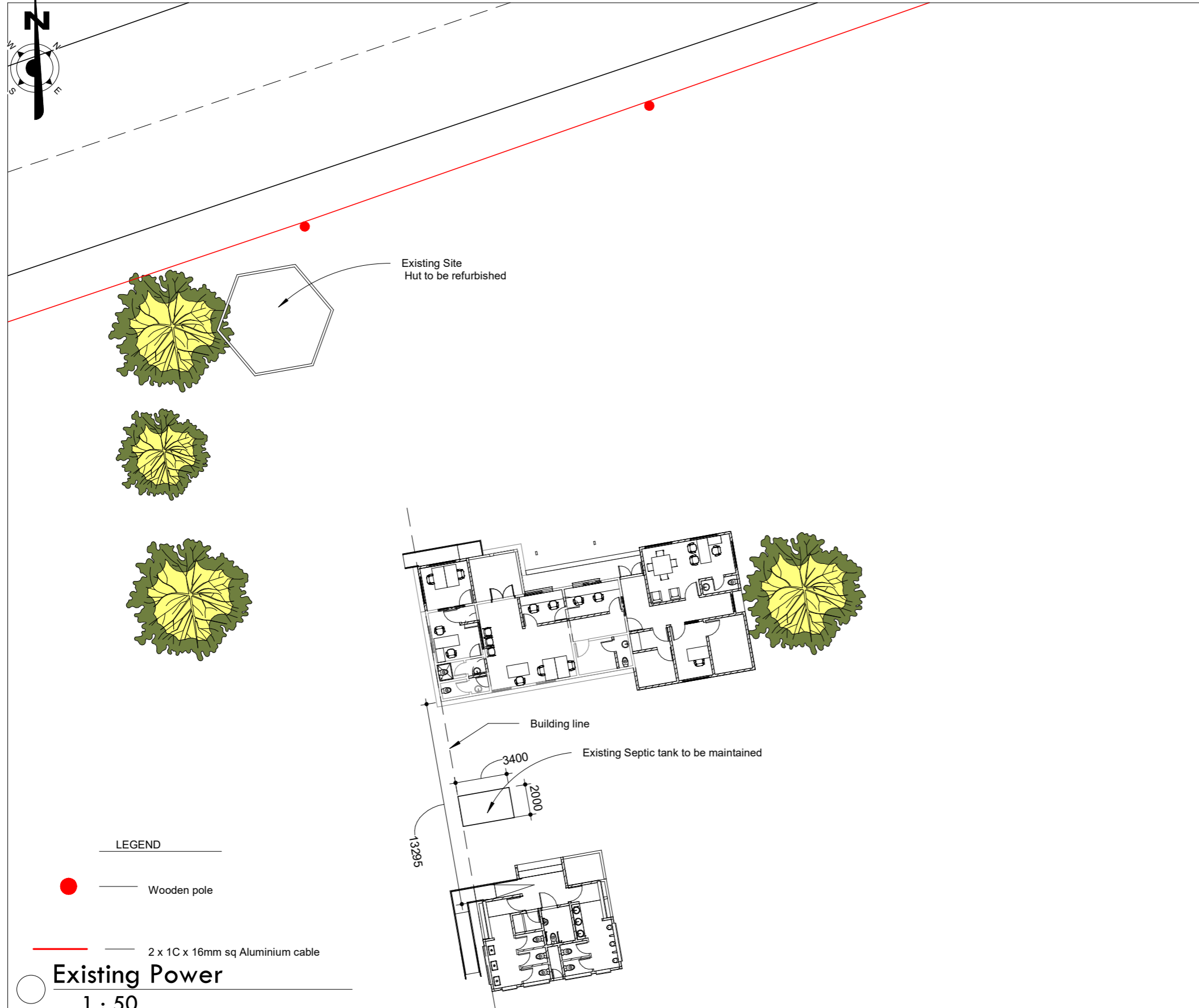
CHECKED BY:
Elvis Asiedu

SHEET NO.:

DATE: 5/11/2023 10:58:21 AM

A100a

1 Site Location
1 : 200



LEGEND

● Wooden pole

— 2 x 1C x 16mm sq Aluminium cable

○ Existing Power
1 : 50

NOTES

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1. No Existing Municipal Gas supply lines on site or 50 meters radius of border post
2. No data or telephone lines exist on site or 50 meters radius of border post
3. No existing Municipal water lines on site or 100m radius of border post.
4. No existing surface/storm drain around border post
5. The minimum distance from a pretreatment system (e.g. septic tank, aerobic unit, etc.) shall not be less than 15m

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PROPOSED WATER, SANITATION AND HYGEINE (WASH) FACILITY AND RENOVATION OF EXISTING BORDER POST
LOCATION: BUNKPURUGU, NORTH EAST REGION

CLIENT:
INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:
BLOCK PLAN

DESIGNED BY:
Elvis Asiedu

SCALE:
As indicated

DRAWN BY:
George Hughes

JOB NO.:
TR/2023/18

CHECKED BY:
Elvis Asiedu

SHEET NO:
A101

DATE: 8/16/2023 6:58:27 AM

NOTES

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LOCATION: NORTH EAST REGION

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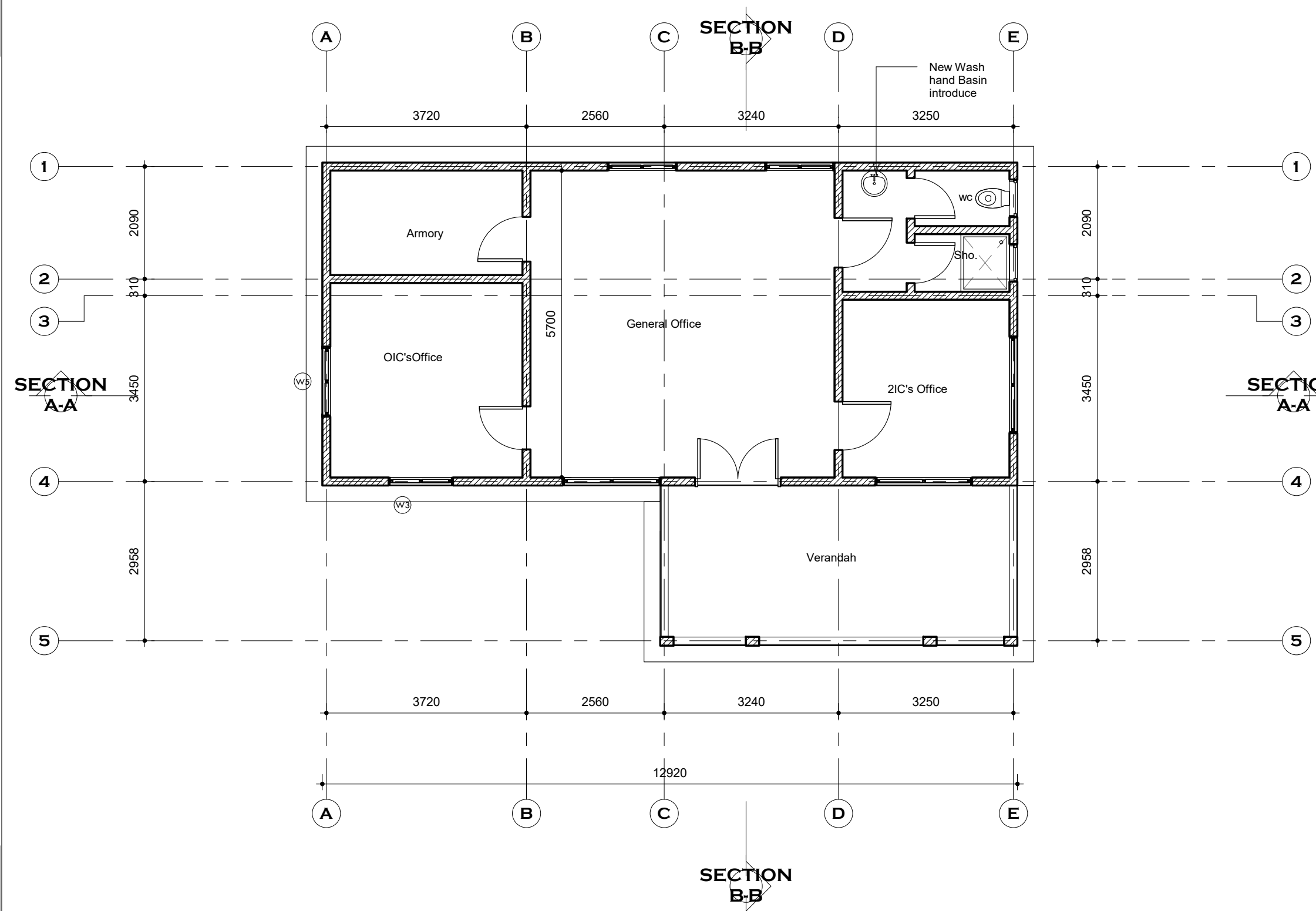
SHEET TITLE:
GROUND FLOOR PLAN

DESIGNED BY:
Elvis Asiedu SCALE:
1 : 75

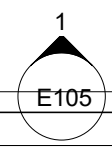
DRAWN BY:
George Hughes JOB NO.:
 TR/2021/18

CHECKED BY:
Elvis Asiedu **SHEET NO:**
E102

DATE: 5/11/2023 12:16:03 AM



Ground floor
 1 : 75



NOTES

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LOCATION: NORTH EAST REGION

CLIENT:
INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:
ROOF PLAN

DESIGNED BY:
Elvis Asiedu

SCALE:
1 : 100

DRAWN BY:
George Hughes

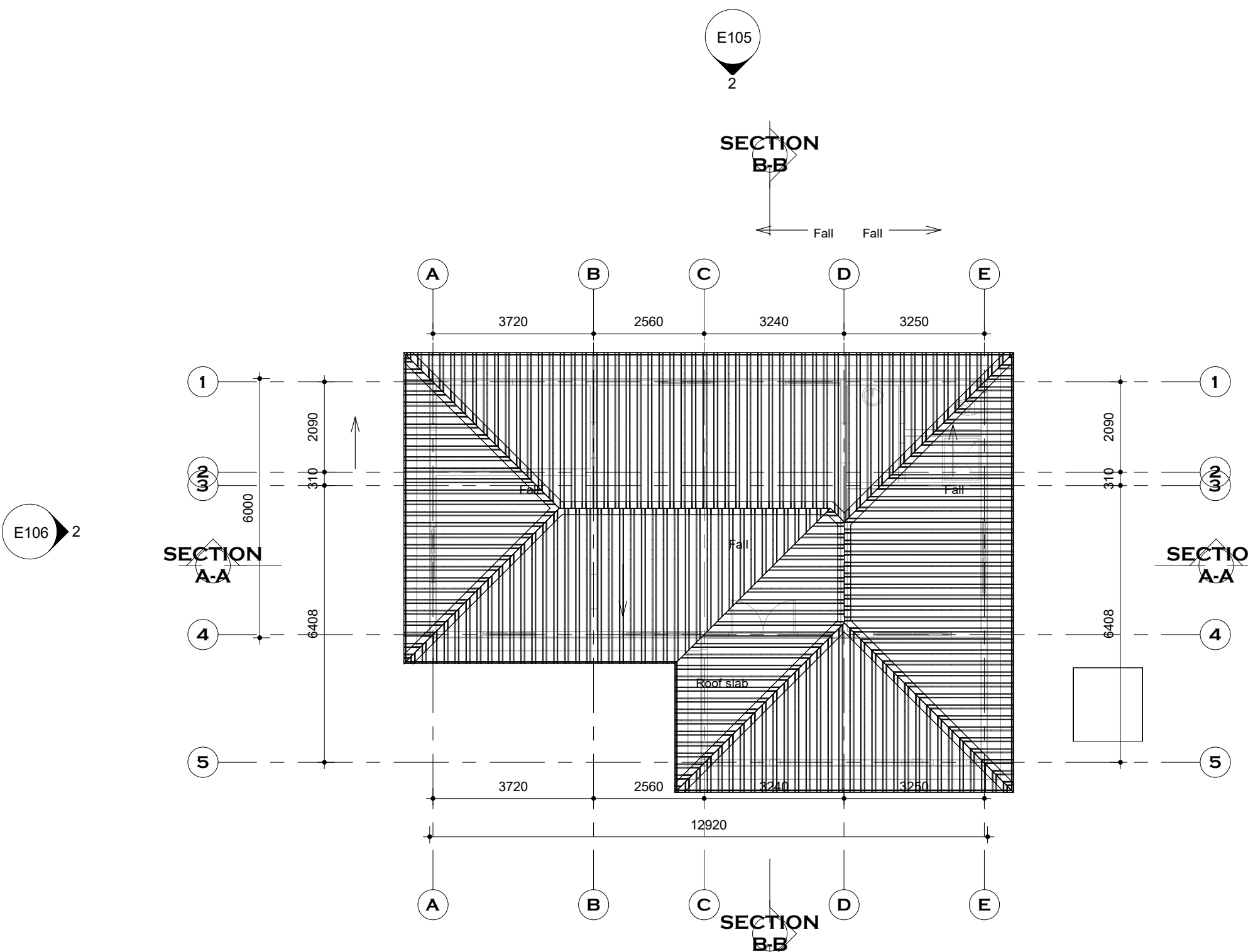
JOB NO.:
TR/2021/18

CHECKED BY:
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SHEET NO:

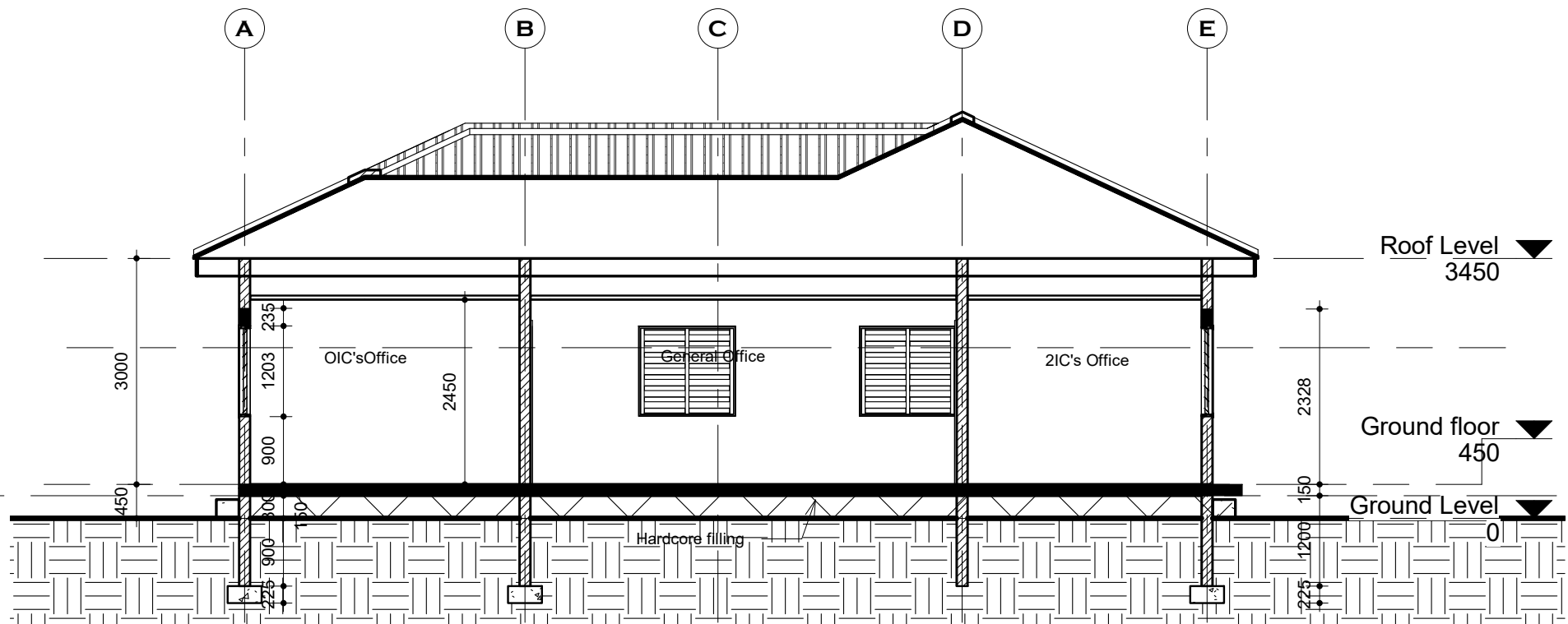
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E103

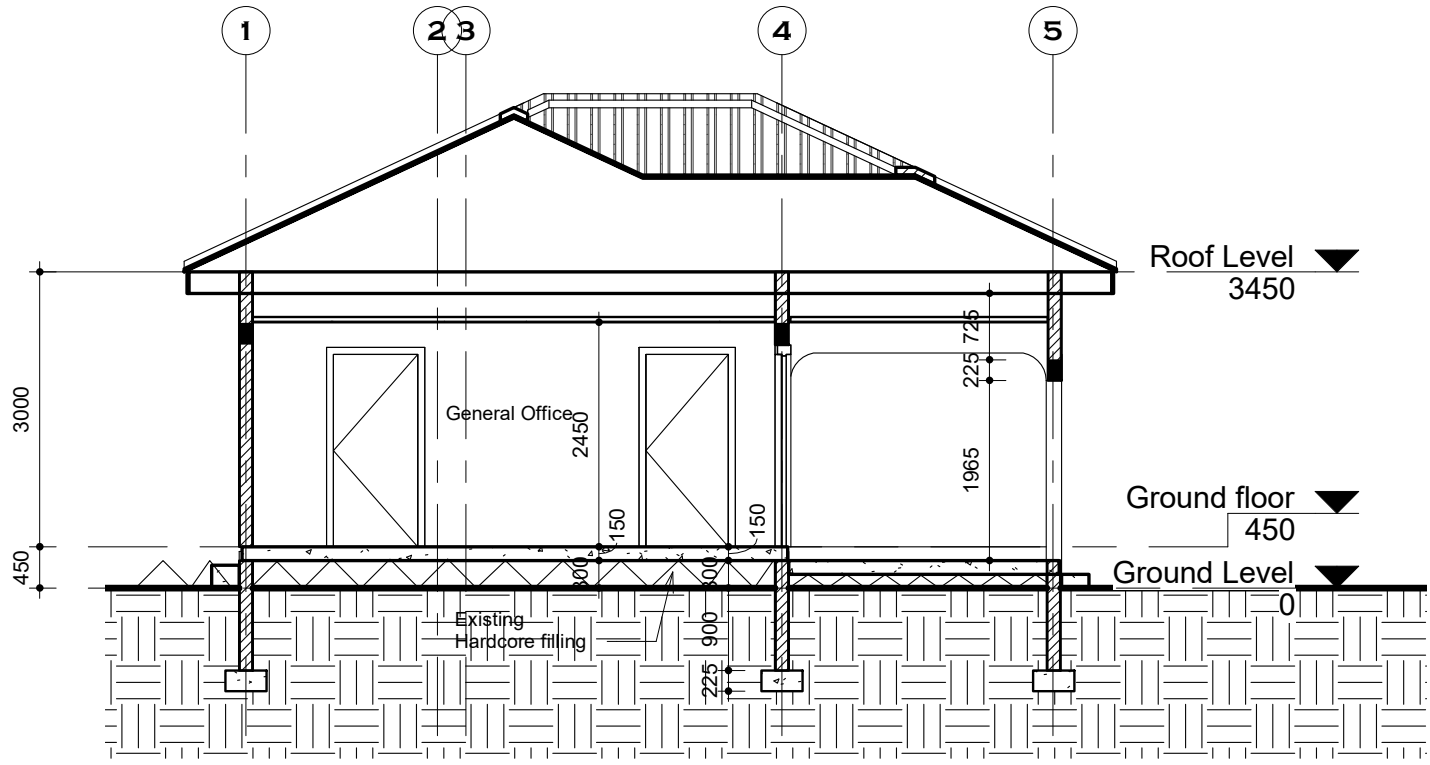


1 Roof Level
1 : 100

1
E105



2 SECTION A-A
1 : 75



1 SECTION B-B
1 : 75

NOTES

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REVISIONS

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PROJECT:
PROPOSED WATER, SANITATION AND HYGEINE (WASH) FACILITY AND RENOVATION OF EXISTING BORDER POST
LOCATION: NORTH EAST REGION

CLIENT:
INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE: SECTIONS

DESIGNED BY:
Elvis Asiedu

SCALE:
1 : 75

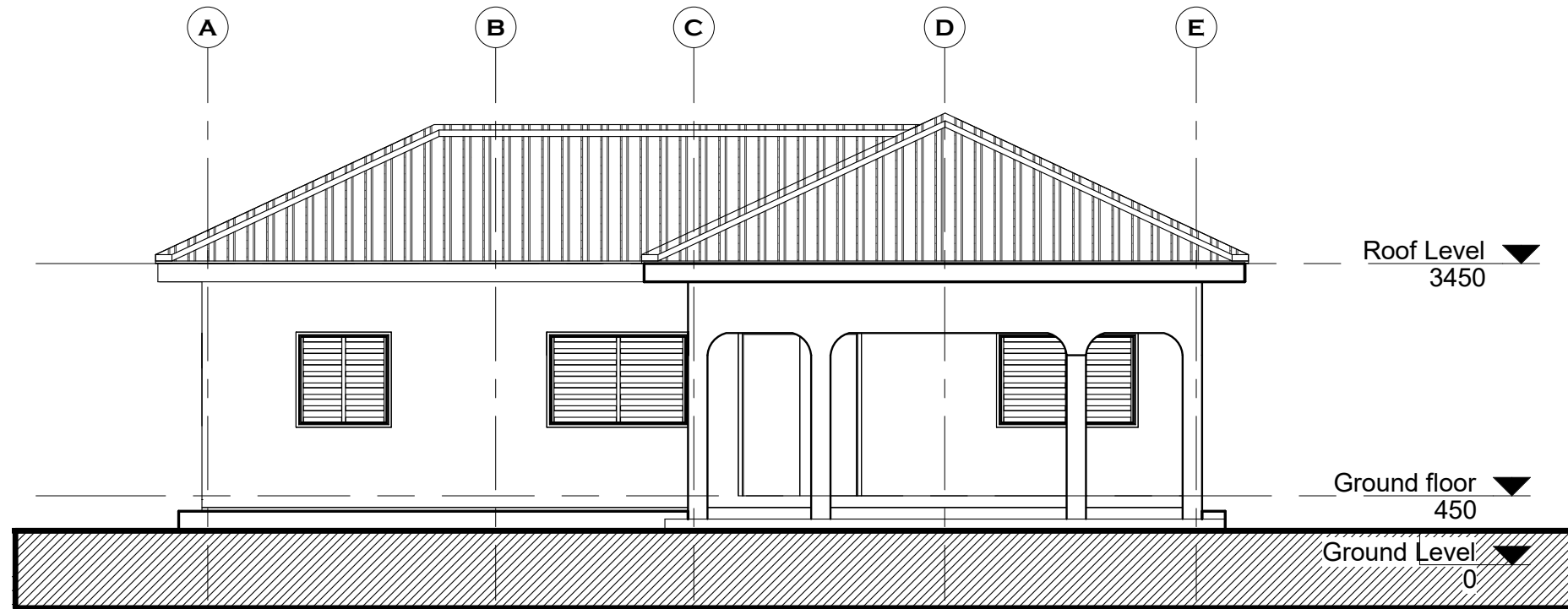
DRAWN BY:
George Hughes

JOB NO.:
TR/2021/18

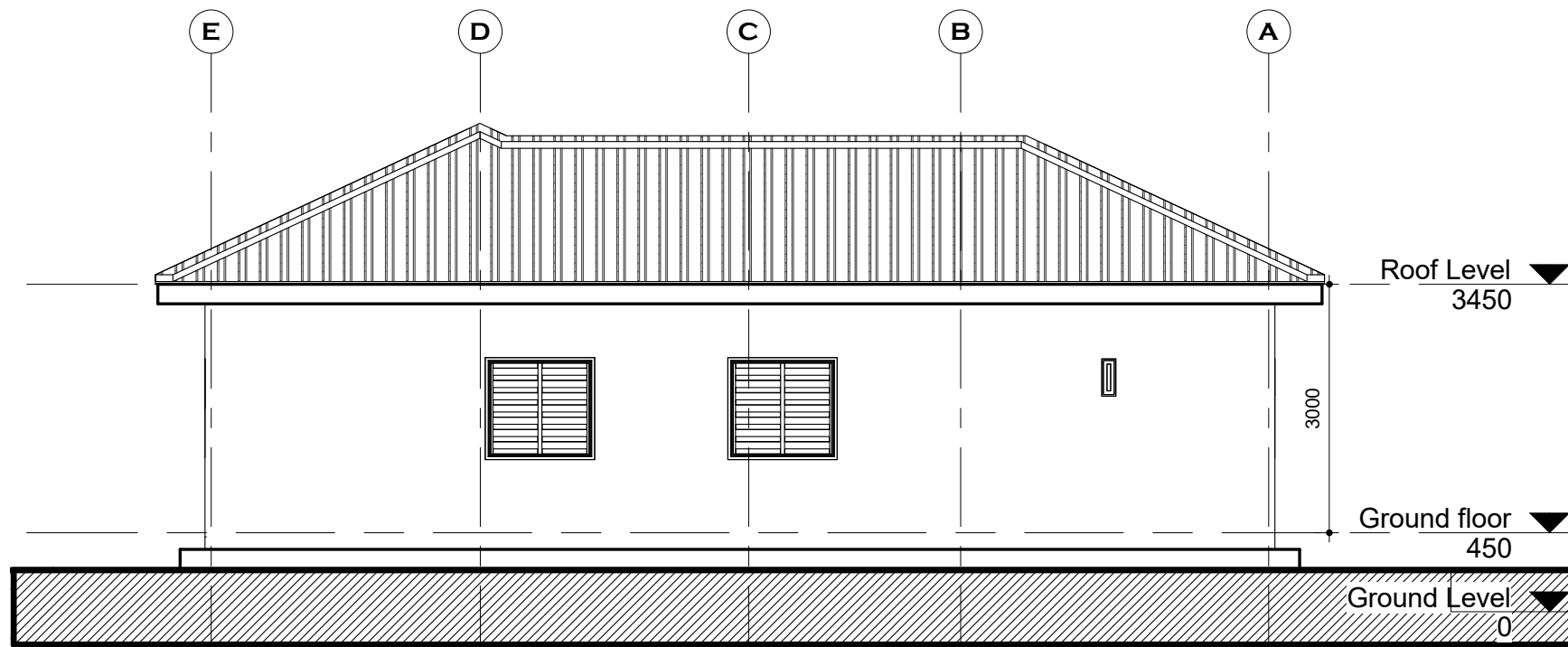
CHECKED BY:
Elvis Asiedu

SHEET NO:
E104

DATE: 5/11/2023 12:16:05 AM



① South elevation
1 : 75



② North elevation
1 : 75

NOTES

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REVISIONS

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PROPOSED WATER, SANITATION AND HYGEINE (WASH) FACILITY AND RENOVATION OF EXISTING BORDER POST
LOCATION: NORTH EAST REGION

CLIENT:
INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET
TITLE:
ELEVATIONS

DESIGNED BY:
Elvis Asiedu

SCALE:
1 : 75

DRAWN BY:
George Hughes

JOB NO.:
TR/2021/18

CHECKED BY:
Elvis Asiedu

SHEET
NO:
E105

DATE: 5/11/2023 12:16:06 AM

NOTES

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CLIENT:
 INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:
ELEVATIONS

DESIGNED BY:
Elvis Asiedu

SCALE:
1 : 75

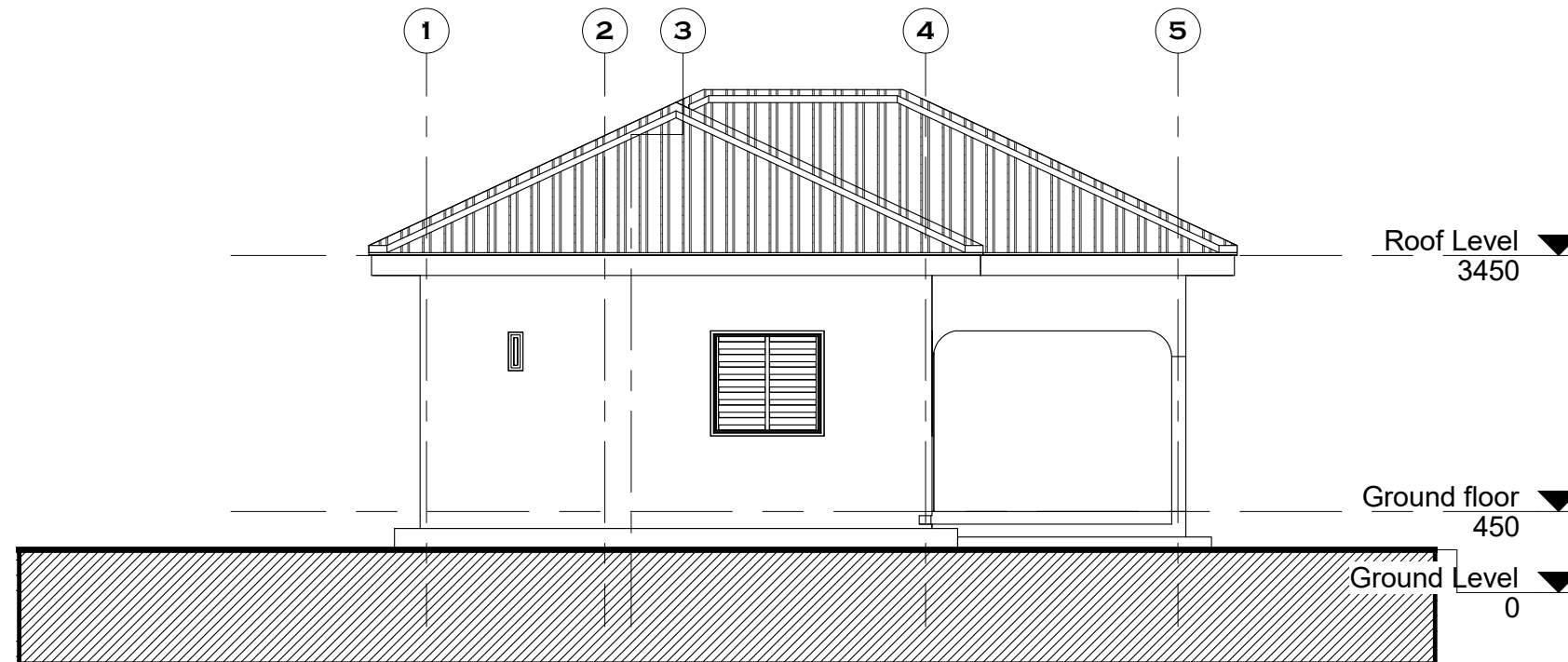
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George Hughes

JOB NO.:
 TR/2021/18

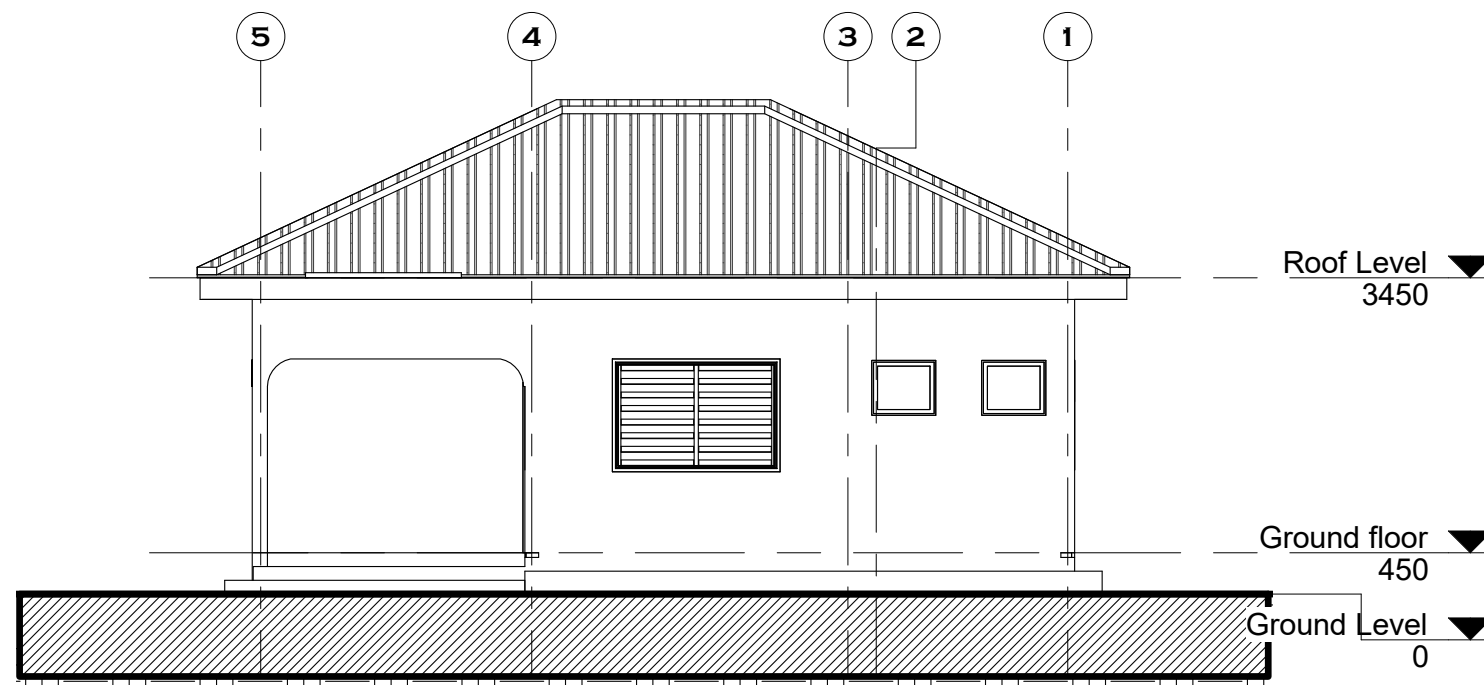
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Elvis Asiedu

SHEET NO:
E106

DATE: 5/11/2023 12:16:06 AM



② West elevation
 1 : 75



① East elevation
 1 : 75

NOTES

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 LOCATION: NORTH EAST REGION

CLIENT:
 INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:
DOOR SCHEDULES

DESIGNED BY:
Elvis Asiedu

SCALE:
1 : 30

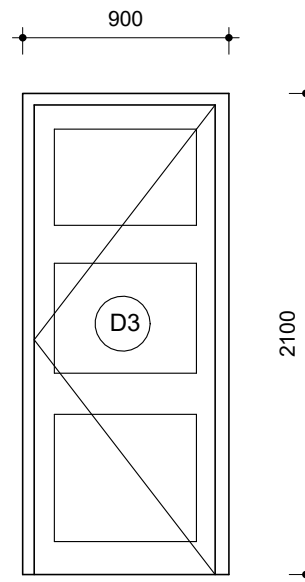
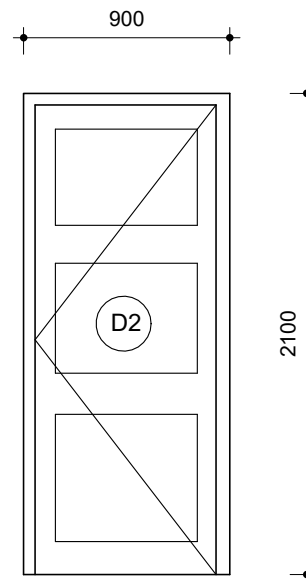
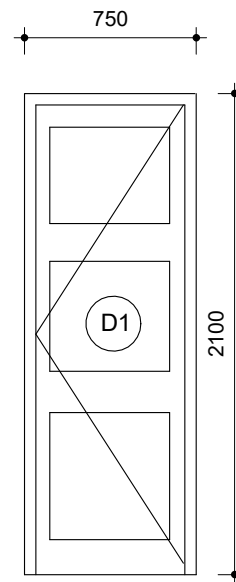
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George Hughes

JOB NO.:
 TR/2021/18

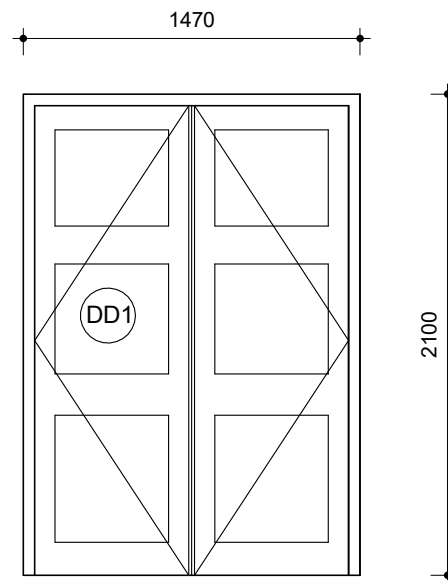
CHECKED BY:
Elvis Asiedu

SHEET NO:
E107

DATE: 5/11/2023 12:16:06 AM



1 Hour Fire Rated Security Door
 QTY.3



1 Hour Fire Rated Security Door

Door Schedule				
Type Mark	Count	Height	Width	Description
D1	2	2100		
DD2	2	2100	750	
DD3	1	2100	825	
DD4	1	2100	925	
DD5	1	2100	1500	

○ door schedule
 1 : 30

NOTES

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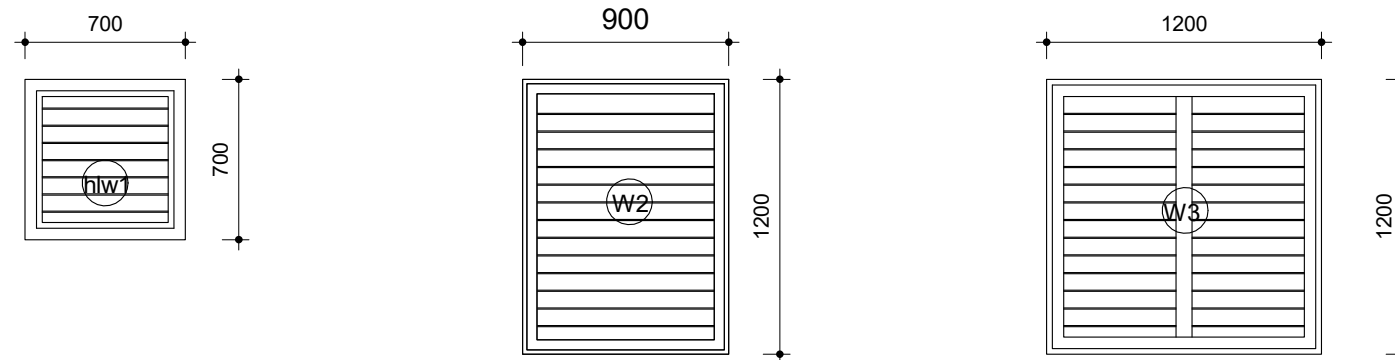
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REVISIONS

DATE	DESCRIPTION



Window Schedule				
Type Mark	Count	Height	Width	Description
W3	1	1200	1200	
W5	1	1200	1300	
W6	2	450	175	
W7	2	1200	1300	
W8	2	1200	1800	
W9	1	1200	1825	
W10	2	600	700	

PROJECT:
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 LOCATION: NORTH EAST REGION

CLIENT:
 INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:
WINDOW SCHEDULES

DESIGNED BY:
Elvis Asiedu

SCALE:
1 : 30

DRAWN BY:
George Hughes

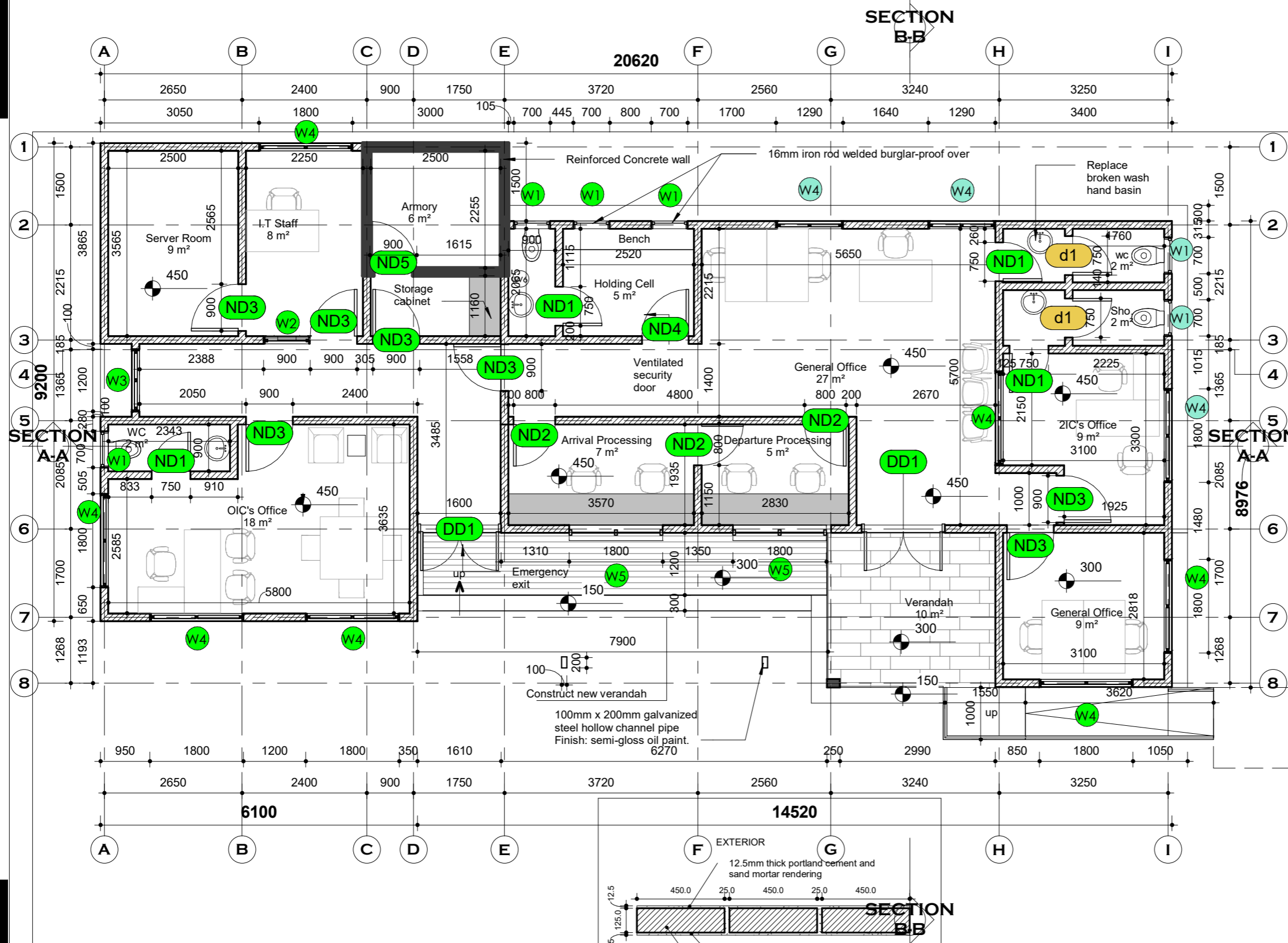
JOB NO.:
 TR/2021/18

CHECKED BY:
Elvis Asiedu

SHEET NO:
E108

DATE: 5/11/2023 12:16:06 AM

○ window schedule
 1 : 30



NOTES

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 LOCATION: BUNKPURUGU, NORTH EAST REGION

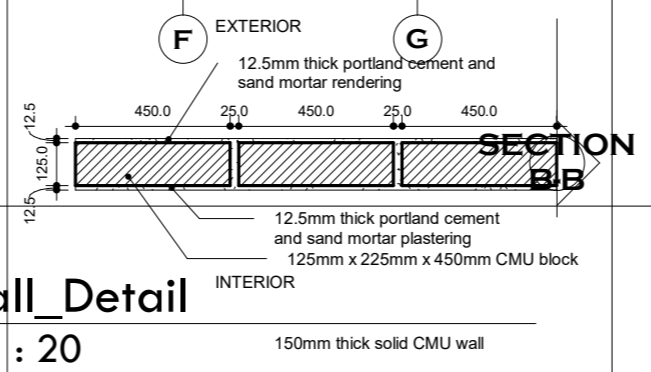
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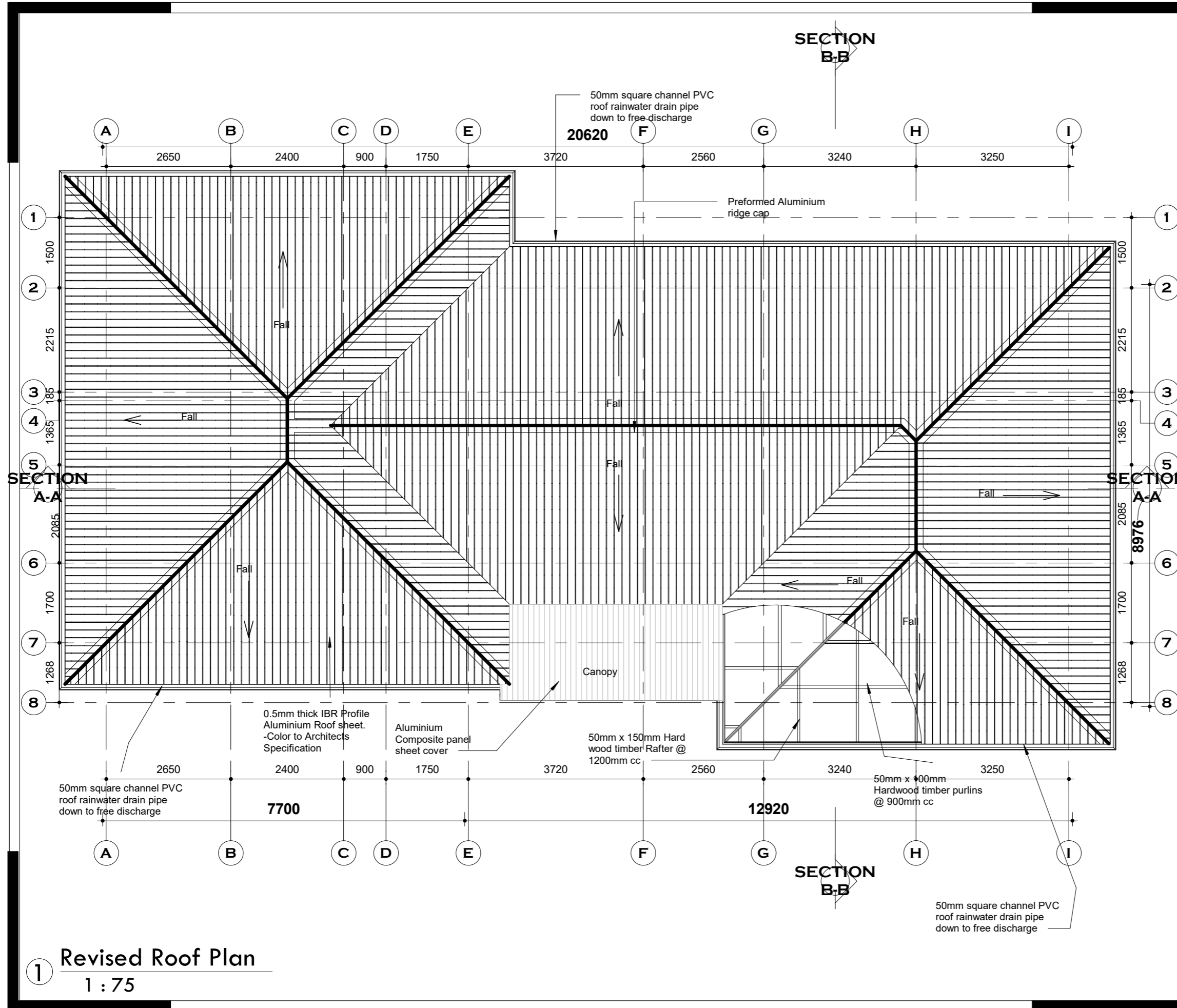
SHEET TITLE:
REVISED GROUND FLOOR PLAN

DESIGNED BY: Elvis Asiedu	SCALE: As indicated
DRAWN BY: George Hughes	JOB NO.: TR/2023/18
CHECKED BY: Elvis Asiedu	SHEET NO: A102
DATE: 8/16/2023 6:58:30 AM	

1 Revised Ground floor plan
 1 : 75

Wall_Detail
 1 : 20





NOTES

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REVISIONS

DATE	DESCRIPTION

PROJECT:

PROPOSED WATER, SANITATION AND HYGEINE (WASH) FACILITY AND RENOVATION OF EXISTING BORDER POST

LOCATION: BUNKPURUGU, NORTH EAST REGION

CLIENT:

INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:

REVISED ROOF PLAN

DESIGNED BY: Elvis Asiedu	SCALE: 1 : 75
DRAWN BY: George Hughes	JOB NO.: TR/2023/18
CHECKED BY: Elvis Asiedu	SHEET NO: A103
DATE: 8/16/2023 6:58:32 AM	

1 Revised Roof Plan
1 : 75

- TAG LEGEND**
- — New block work, Door or Window to be Installed
 - — Existing block work, Door or Window to be removed
 - — Existing Block work, Door or Window to be maintained

Tag Legend

1 : 50

NOTES

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**Carefully remove demolished works, clear and dispose debris off-site and make good of all defects. all materials for re-use shall be protected and remain the property of the client.*

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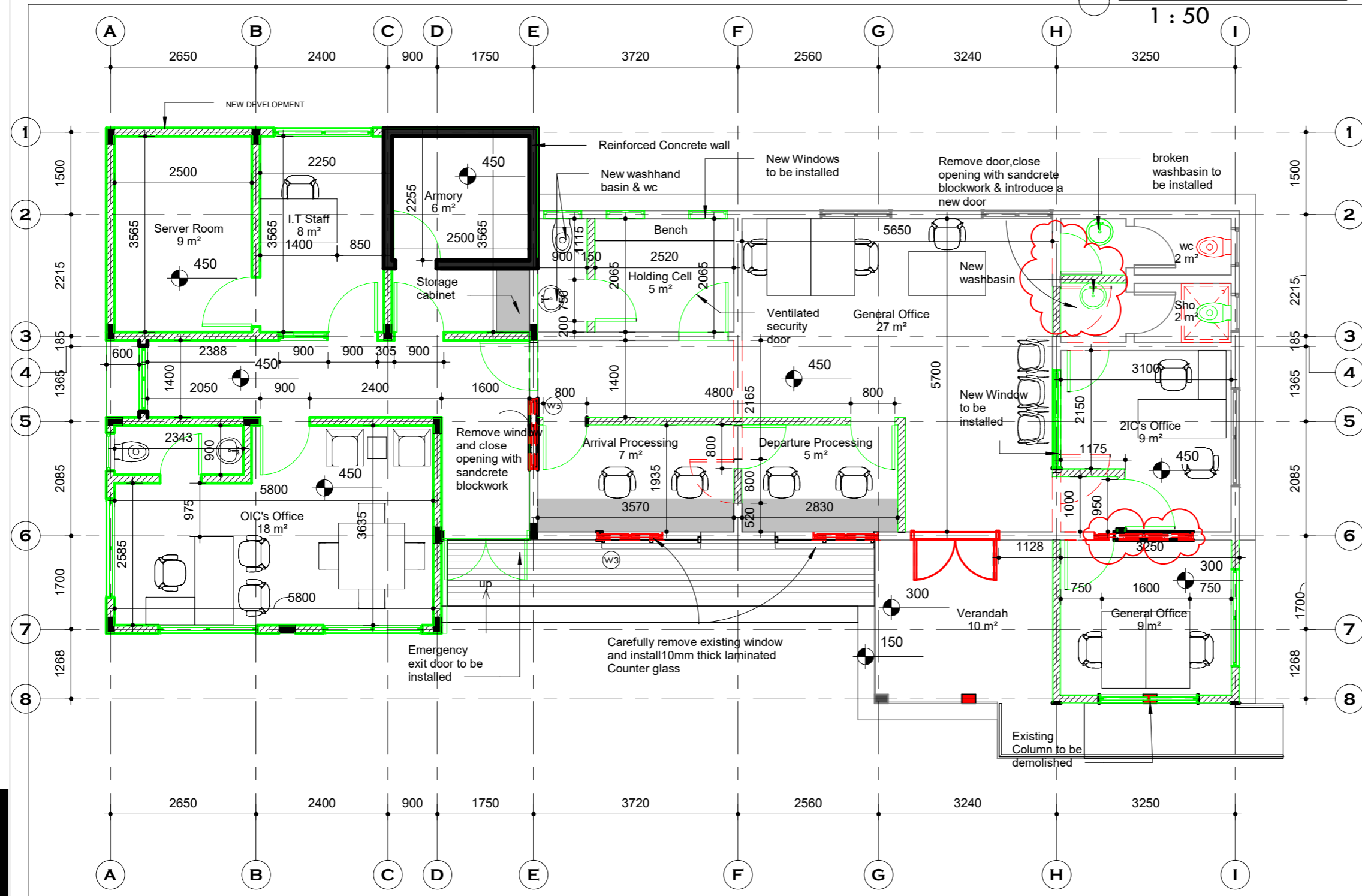
SHEET TITLE:
DEMOLITION SCHEDULE

DESIGNED BY: **Elvis Asiedu** SCALE: **As indicated**

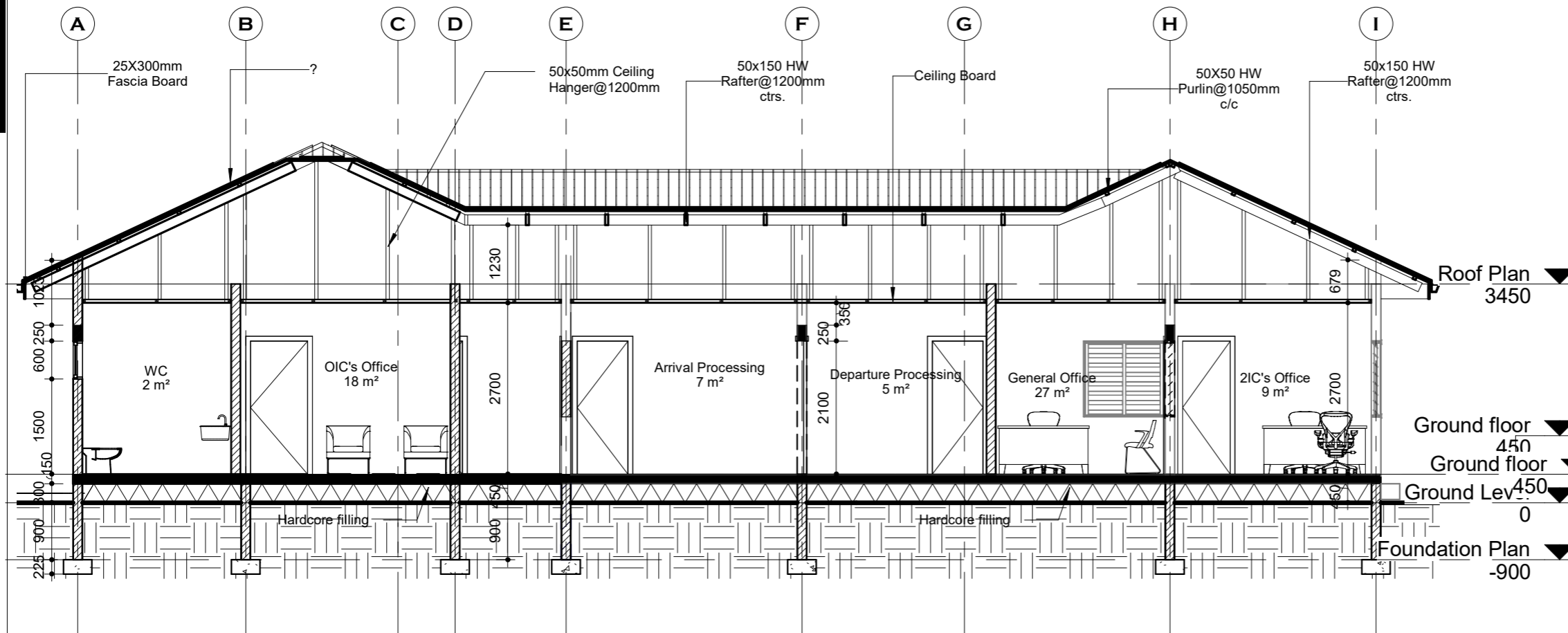
DRAWN BY: **George Hughes** JOB NO.: TR/2023/18

CHECKED BY: **Elvis Asiedu** SHEET NO: **A104**

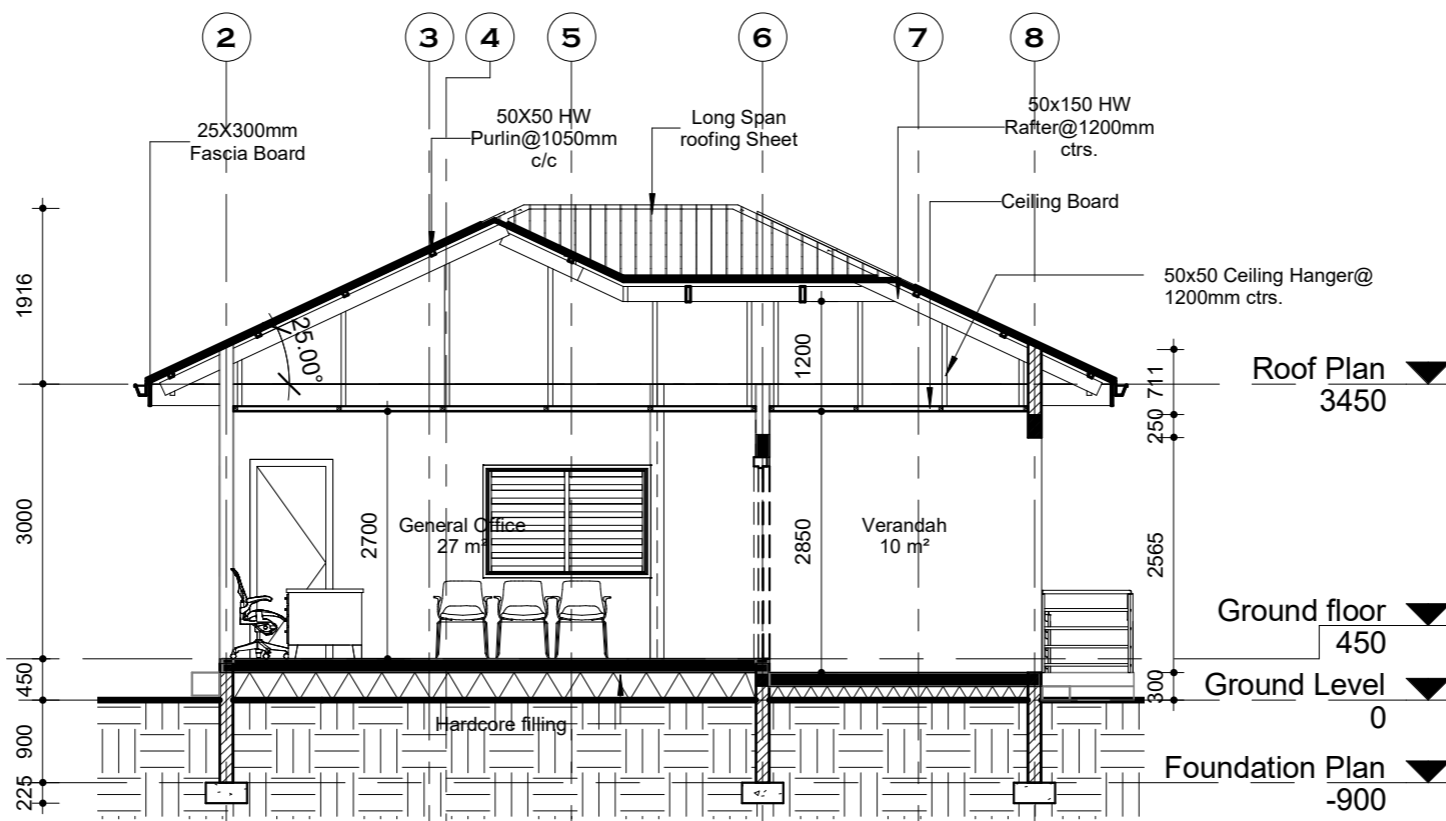
DATE: 8/16/2023 6:58:34 AM



1 Revised Ground floor plan
 1 : 75



1 SECTION A-A
1 : 75



2 SECTION B-B
1 : 75

NOTES

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REVISIONS

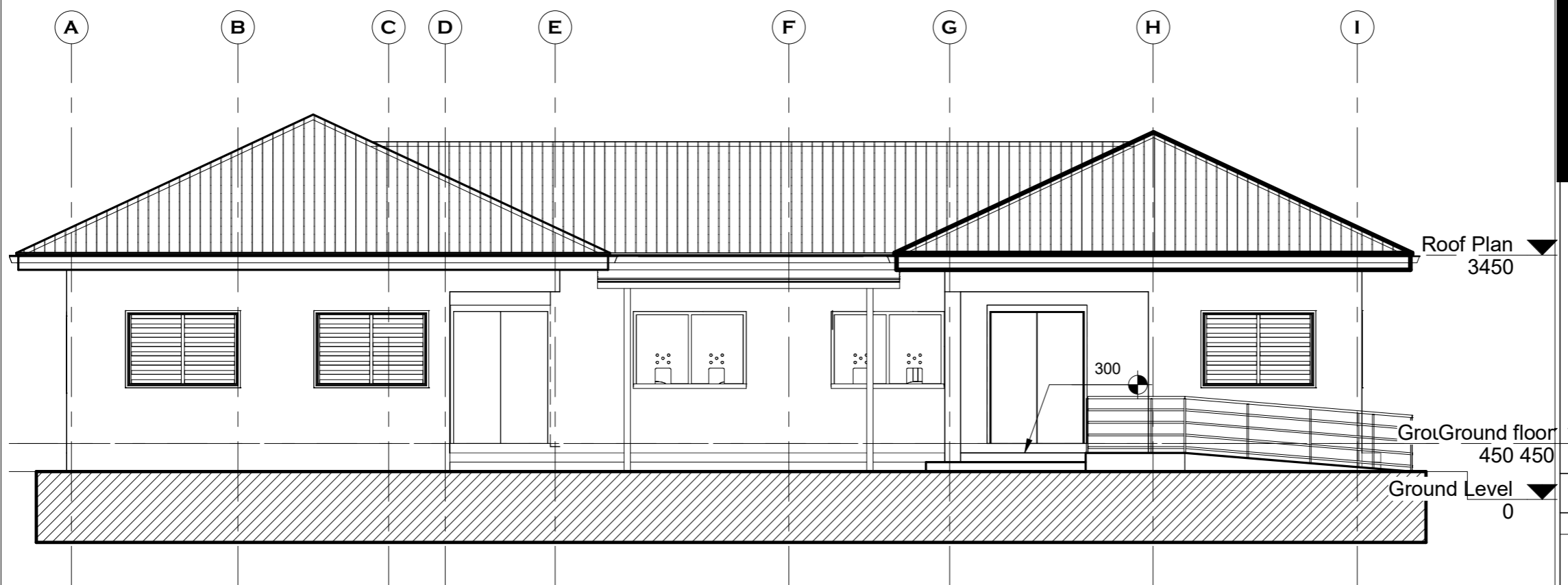
DATE	DESCRIPTION

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PROPOSED WATER, SANITATION AND HYGEINE (WASH) FACILITY AND RENOVATION OF EXISTING BORDER POST
LOCATION: BUNKPURUGU, NORTH EAST REGION

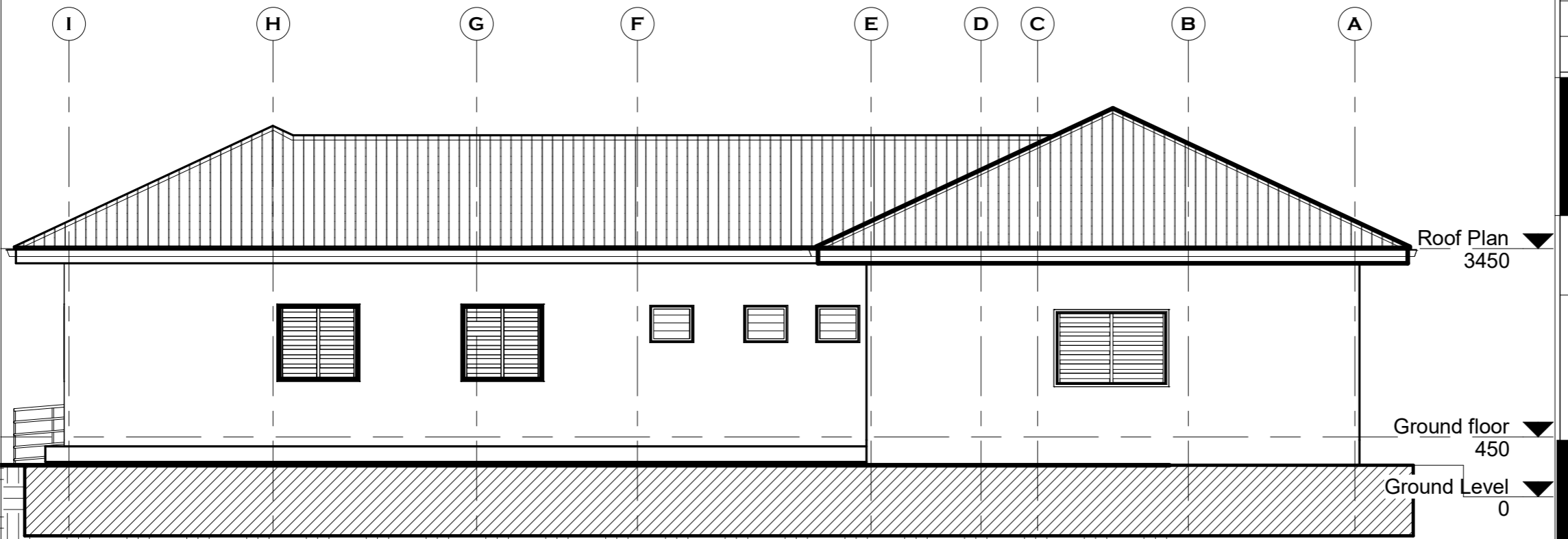
CLIENT:
INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:
SECTIONS

DESIGNED BY: Elvis Asiedu	SCALE: 1 : 75
DRAWN BY: George Hughes	JOB NO.: TR/2023/18
CHECKED BY: Elvis Asiedu	SHEET NO: A105
DATE: 8/16/2023 6:58:40 AM	



1 South elevation
1 : 75



2 North elevation
1 : 75

NOTES

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CLIENT:
INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:
ELEVATIONS

DESIGNED BY:
Elvis Asiedu

SCALE:
1 : 75

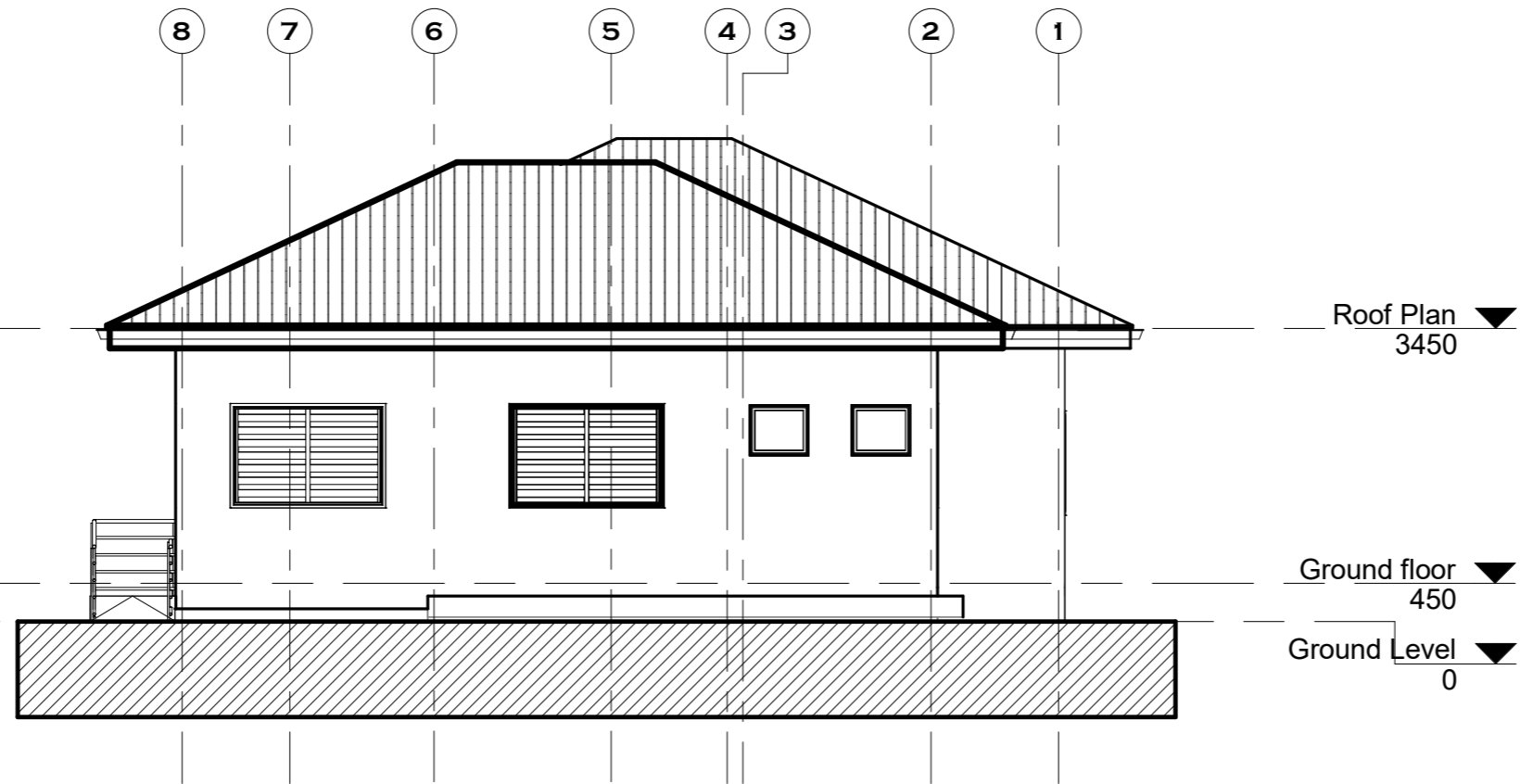
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George Hughes

JOB NO.:
TR/2023/18

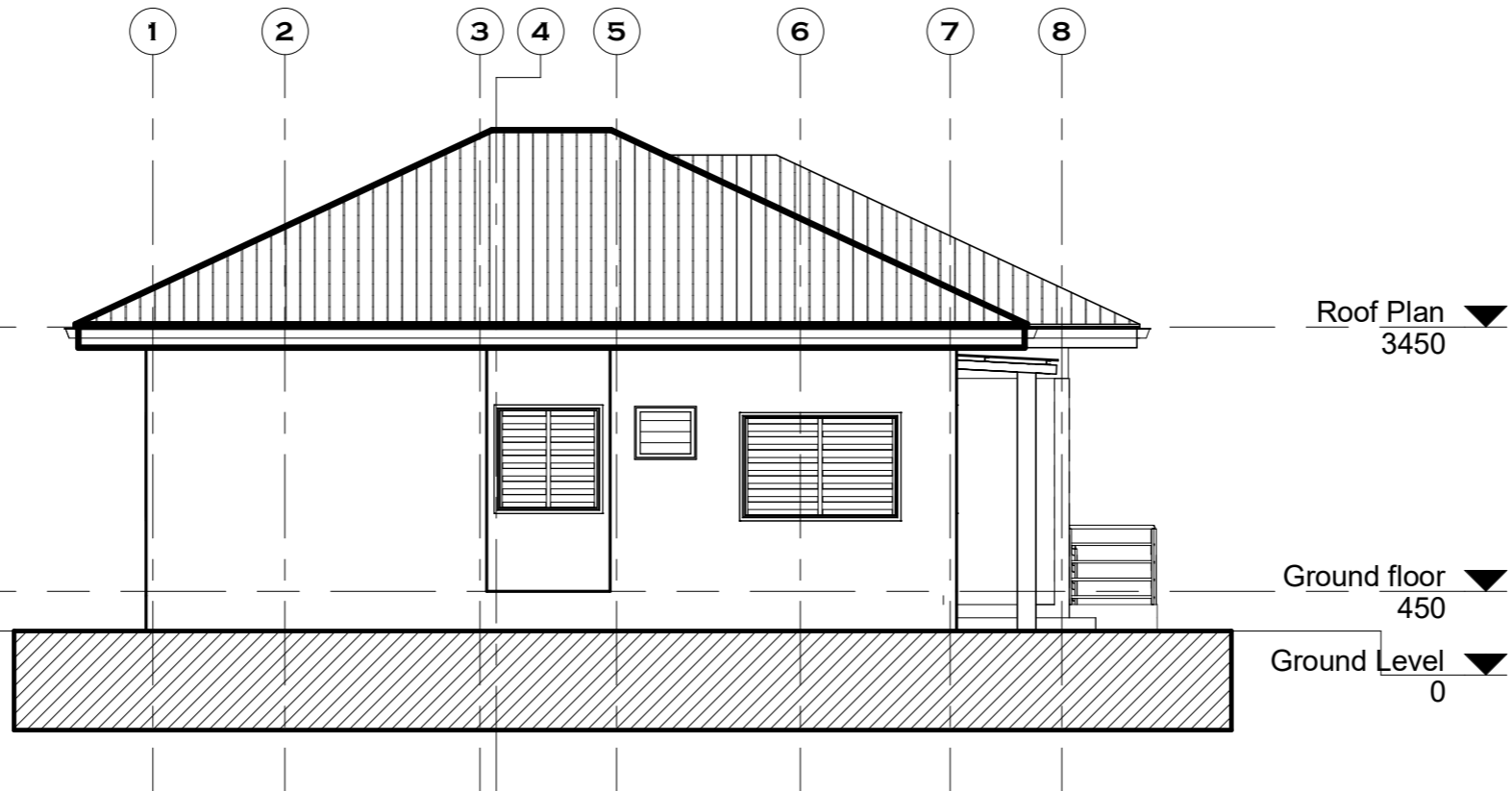
CHECKED BY:
Elvis Asiedu

SHEET NO:
A106

DATE: 8/16/2023 6:58:42 AM



① East elevation
1 : 75



② West elevation
1 : 75

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SHEET TITLE:
ELEVATIONS

DESIGNED BY:
Elvis Asiedu

SCALE:
1 : 75

DRAWN BY:
George Hughes

JOB NO.:
TR/2023/18

CHECKED BY:
Elvis Asiedu

SHEET NO.:
A107

DATE: 8/16/2023 6:58:44 AM

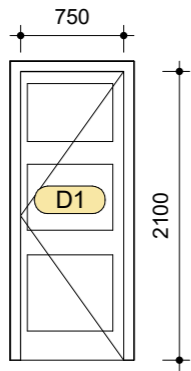
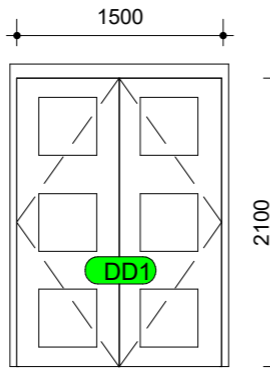
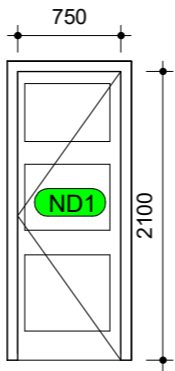
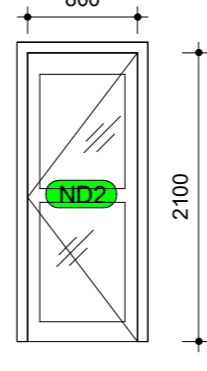
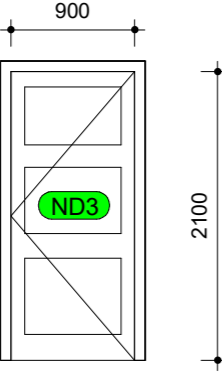
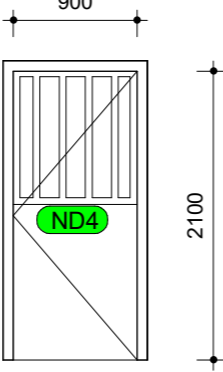
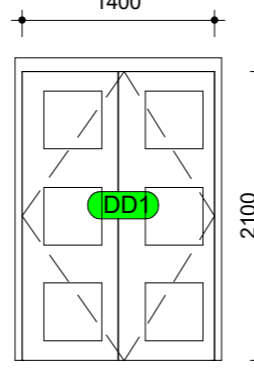
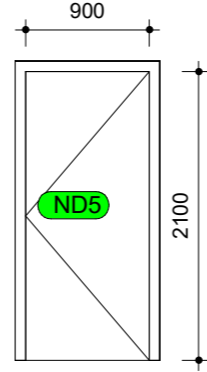
NOTES

DO NOT MEASURE DIRECTLY FROM DRAWINGS.

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ALL DIMENSIONS ARE IN MILLIMETERS.

DO NOT DUPLICATE THE DRAWINGS WITHOUT THE CONSENT OF THE ARCHITECT

			
Existing door to be maintained	New door to be installed	New door to be installed	New door to be installed
Notes: Install new locks, hinges and spray paint with semi-gloss oil paint to approved color.	Proprietary installation	Install new locks, hinges and spray paint with semi-gloss oil paint to approved color.	Install new locks, hinges and spray paint with semi-gloss oil paint to approved color.
Quantity: 2	2	5	3
Specification: Hardwood solid-core panel hinged single door	Metal Security door with 1.5hr Fire-proof rating.	Hardwood solid-core panel hinged single door	Aluminium frame hinged single Door with glass infill
			
New door to be installed	New door to be installed	New door to be installed	
Notes: Install new locks, hinges and spray paint with semi-gloss oil paint to approved color.	Install new locks, hinges and spray paint with semi-gloss oil paint to approved color.	Install new locks, hinges and spray paint with semi-gloss oil paint to approved color.	Proprietary installation
Quantity: 6	1	1	1
Specification: Hardwood solid-core panel hinged single door	Single leaf Ventilated metal security door with 1.5 hr Fire-proof rating	Double leaf security door with 1.5 hr Fire-proof rating	Single leaf fortified metal door with 1.5 hr Fire-proof rating

REVISIONS

DATE	DESCRIPTION

PROJECT:

PROPOSED WATER, SANITATION AND HYGEINE (WASH) FACILITY AND RENOVATION OF EXISTING BORDER POST

LOCATION: BUNKPURUGU, NORTH EAST REGION

CLIENT:

INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET

TITLE:

DOOR SCHEDULES

DESIGNED BY:

Elvis Asiedu

SCALE:

1 : 50

DRAWN BY:

George Hughes

JOB NO.:

TR/2023/18

CHECKED BY:

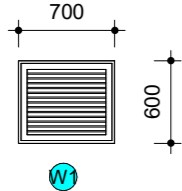
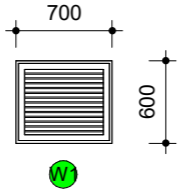
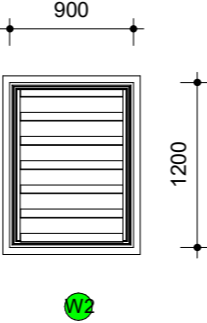
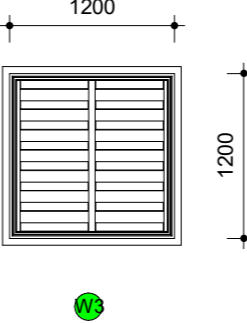
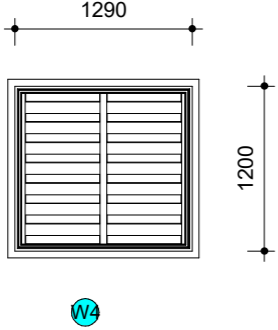
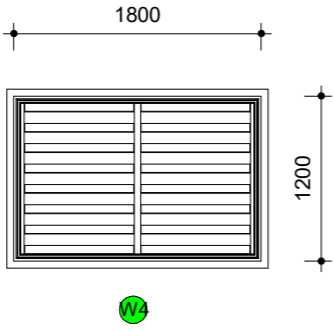
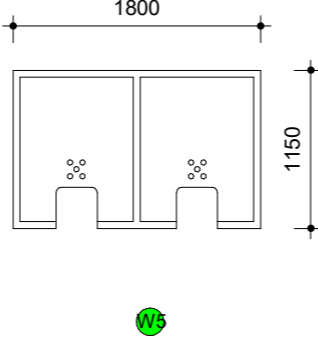
Elvis Asiedu

SHEET NO:

A108

DATE: 8/16/2023 6:58:44 AM

door schedule
1 : 50

 <p>Existing Window to be maintained</p>	 <p>New Window to be installed</p>	 <p>New Window to be installed</p>	 <p>New Window to be installed</p>	
Notes:				
Quantity:	2	4	1	1
Specification:	Aluminum frame window fitted with Nacco Louvre system, complete with window stoppers, Mosquitoe- proof and checkered galvanized mesh	Aluminum frame window fitted with Nacco Louvre system, complete with window stoppers, Mosquitoe- proof and checkered galvanized mesh	Aluminum frame window fitted with Nacco Louvre system, complete with window stoppers, Mosquitoe- proof and checkered galvanized mesh	Aluminum frame window fitted with Nacco Louvre system, complete with window stoppers, Mosquitoe- proof and checkered galvanized mesh
 <p>Existing Window to be maintained</p>	 <p>New Window to be installed</p>	 <p>New Fixed window to be installed</p>		
Notes:			Contractor to submit shop drawings for approval.	
Quantity:	3	7	2	
Specification:	Aluminum frame window fitted with Nacco Louvre system, complete with window stoppers, Mosquitoe- proof and checkered galvanized mesh	Aluminum frame window fitted with Nacco Louvre system, complete with window stoppers, Mosquitoe- proof and checkered galvanized mesh	Aluminum frame window with 10mm laminated glass infill.	

NOTES

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REVISIONS

DATE	DESCRIPTION

PROJECT:
 PROPOSED WATER, SANITATION AND HYGEINE (WASH) FACILITY AND RENOVATION OF EXISTING BORDER POST
 LOCATION: BUNKPURUGU, NORTH EAST REGION

CLIENT:
 INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:
WINDOW SCHEDULES

DESIGNED BY:
Elvis Asiedu

SCALE:
1 : 50

DRAWN BY:
George Hughes

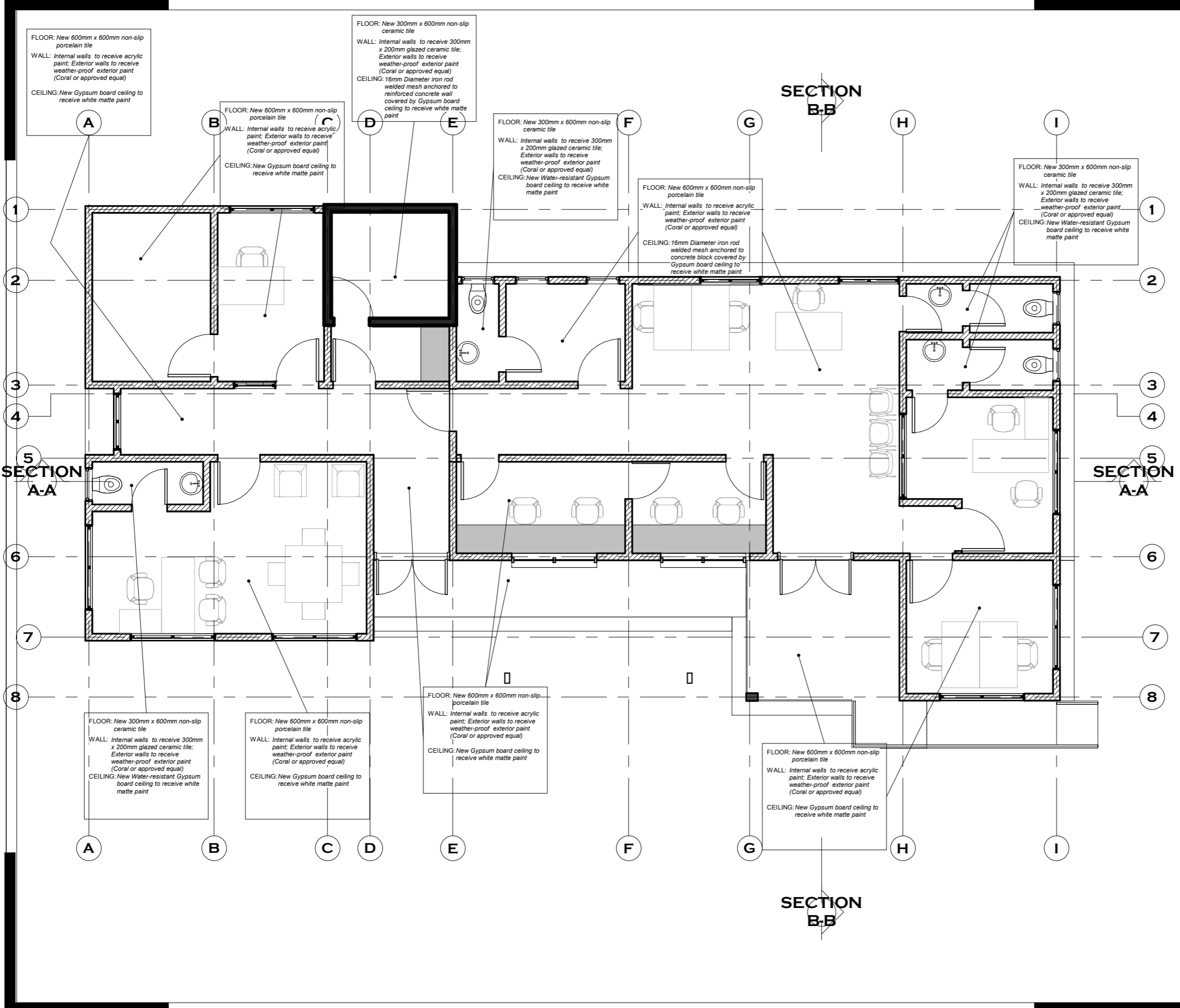
JOB NO.:
 TR/2023/18

CHECKED BY:
Elvis Asiedu

SHEET NO.:
A109

DATE: 8/16/2023 6:58:45 AM

○ window schedule
 1 : 50



NOTES

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REVISIONS

DATE	DESCRIPTION

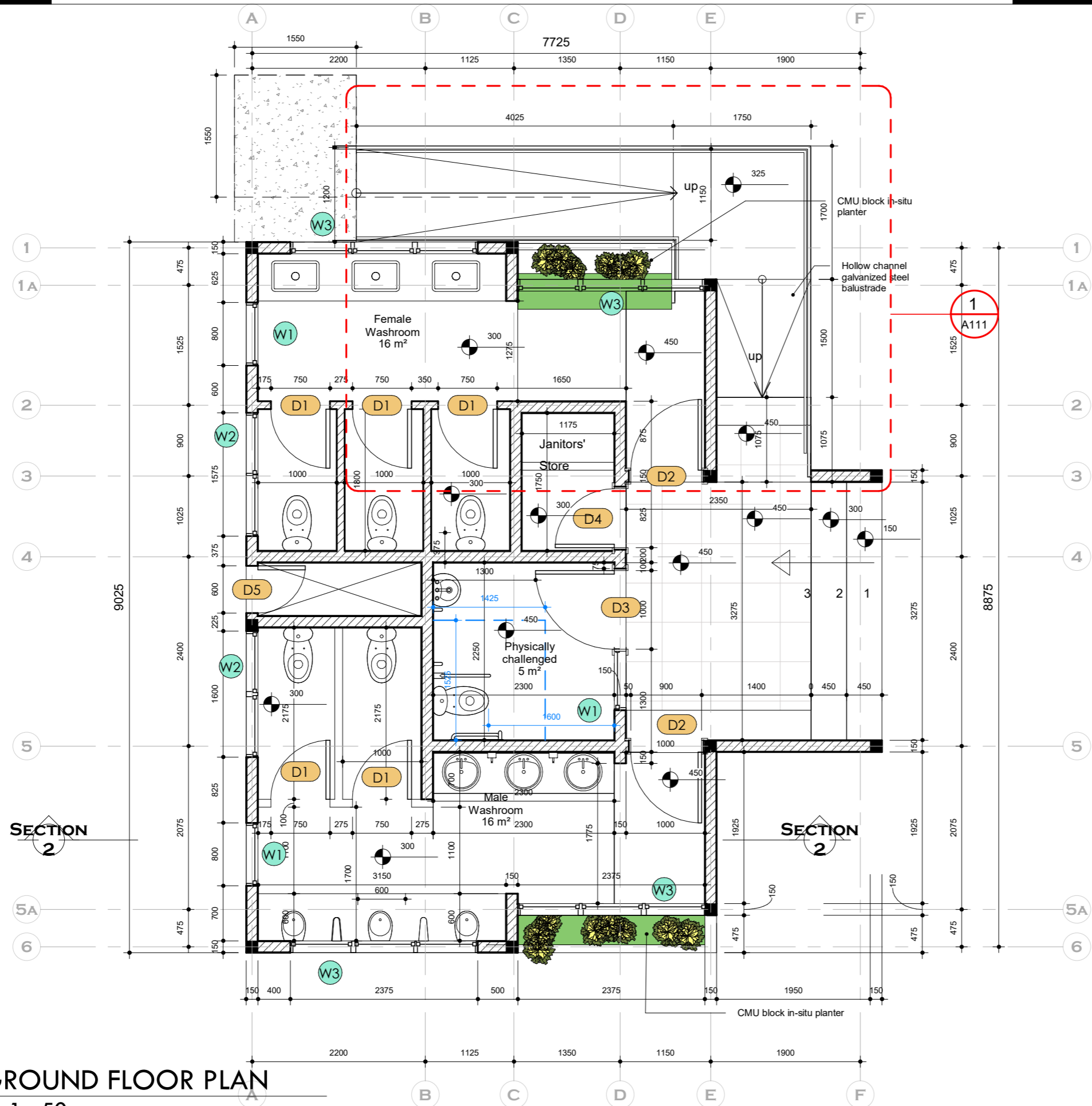
PROJECT:
 PROPOSED WATER, SANITATION AND HYGEINE (WASH) FACILITY AND RENOVATION OF EXISTING BORDER POST
 LOCATION: BUNKPURUGU, NORTH EAST REGION

CLIENT:
 INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:
FINISHES LAYOUT

DESIGNED BY: Elvis Asiedu	SCALE: 1 : 75
DRAWN BY: George Hughes	JOB NO.: TR/2023/18
CHECKED BY: Elvis Asiedu	SHEET NO: A110
DATE: 8/16/2023 6:58:46 AM	

WASH FACILITY



GROUND FLOOR PLAN

NOTES

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REVISIONS

DATE	DESCRIPTION

PROJECT: PROPOSED WATER, SANITATION AND RENOVATION OF EXISTING BORDER POST
LOCATION:

CLIENT: INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE: GROUND FLOOR PLAN

DESIGNED BY: Elvis Asiedu
SCALE: 1 : 50

DRAWN BY: George Hughes
JOB NO.: TR/2022/11

CHECKED BY: Elvis Asiedu
SHEET NO.: A102

DATE: 10/15/2023 11:01:44 PM

NOTES

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REVISIONS

DATE	DESCRIPTION

PROJECT:
 PROPOSED WATER, SANITATION AND RENOVATION OF EXISTING BORDER POST
LOCATION:

CLIENT:
 INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:
 ROOF PLAN

DESIGNED BY:
 Elvis Asiedu

SCALE:
 1 : 50

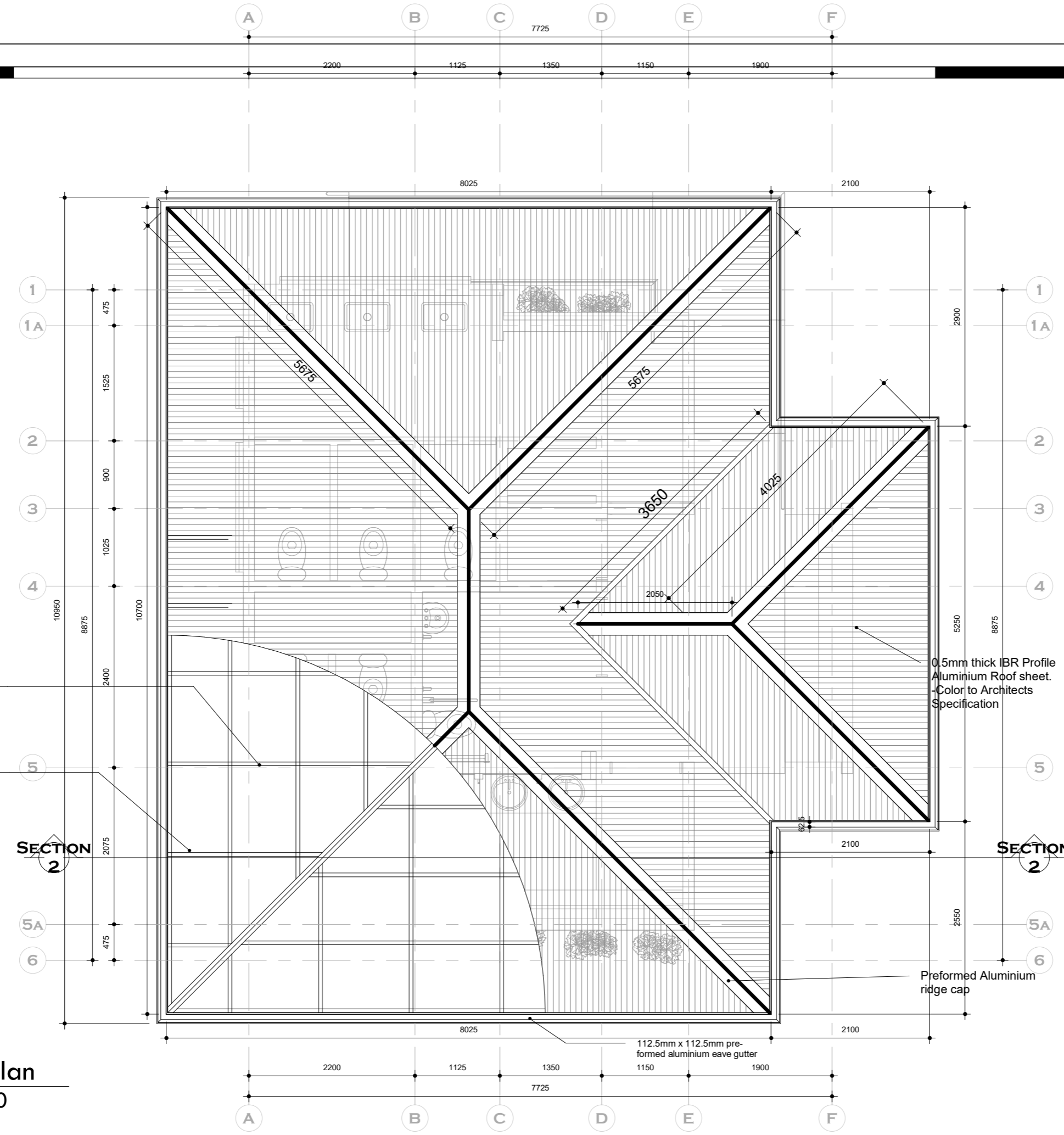
DRAWN BY:
 George Hughes

JOB NO.:
 TR/2022/11

CHECKED BY:
 Elvis Asiedu

SHEET NO.:
 A103

DATE: 10/15/2023 11:01:45 PM



1 Roof Plan
 1 : 50

NOTES

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REVISIONS

DATE	DESCRIPTION

PROJECT:
PROPOSED WATER, SANITATION AND RENOVATION OF EXISTING BORDER POST

LOCATION:

CLIENT:
INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:
SECTIONS

DESIGNED BY:
Elvis Asiedu

SCALE:
1 : 50

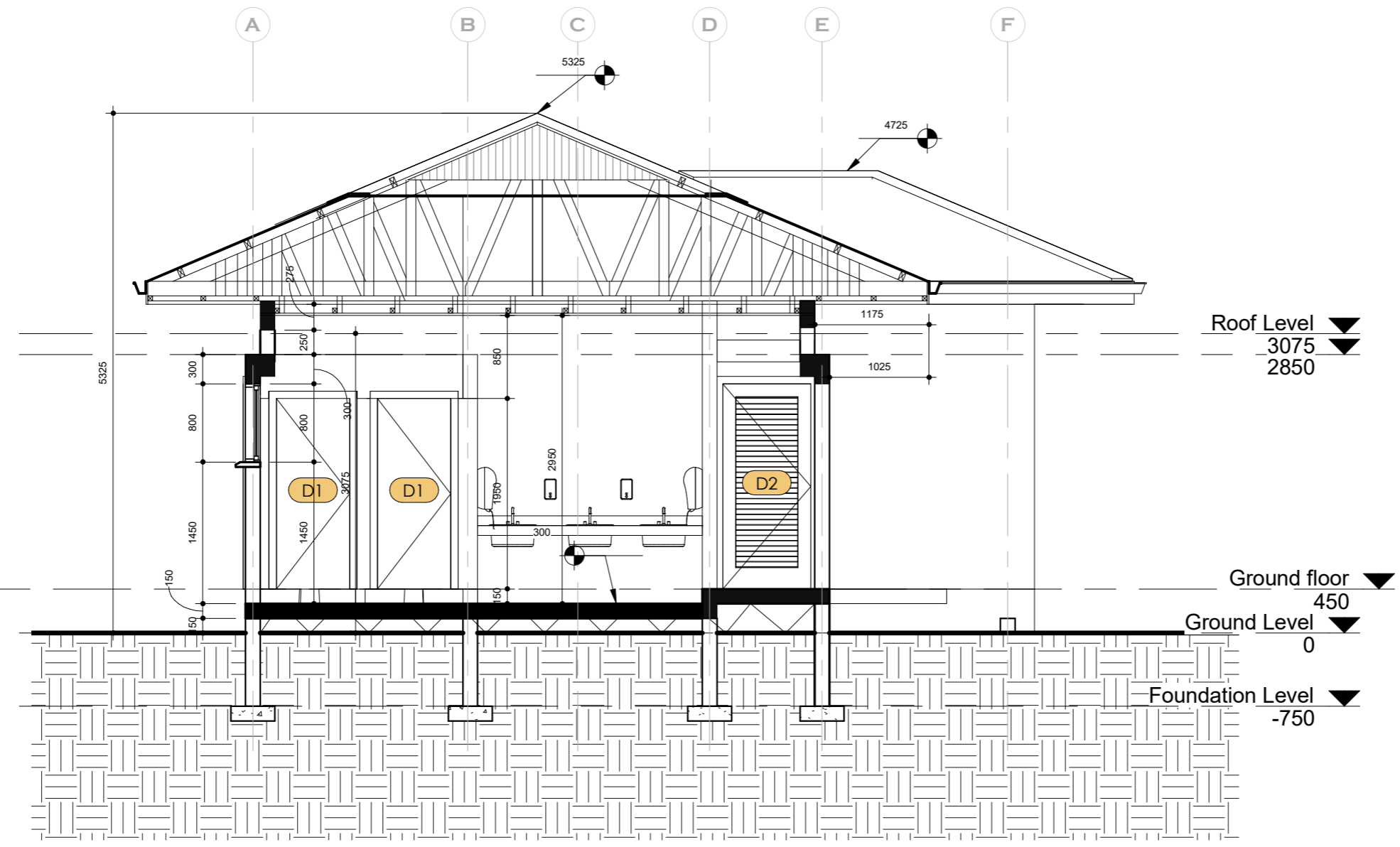
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George Hughes

JOB NO.:
TR/2022/11

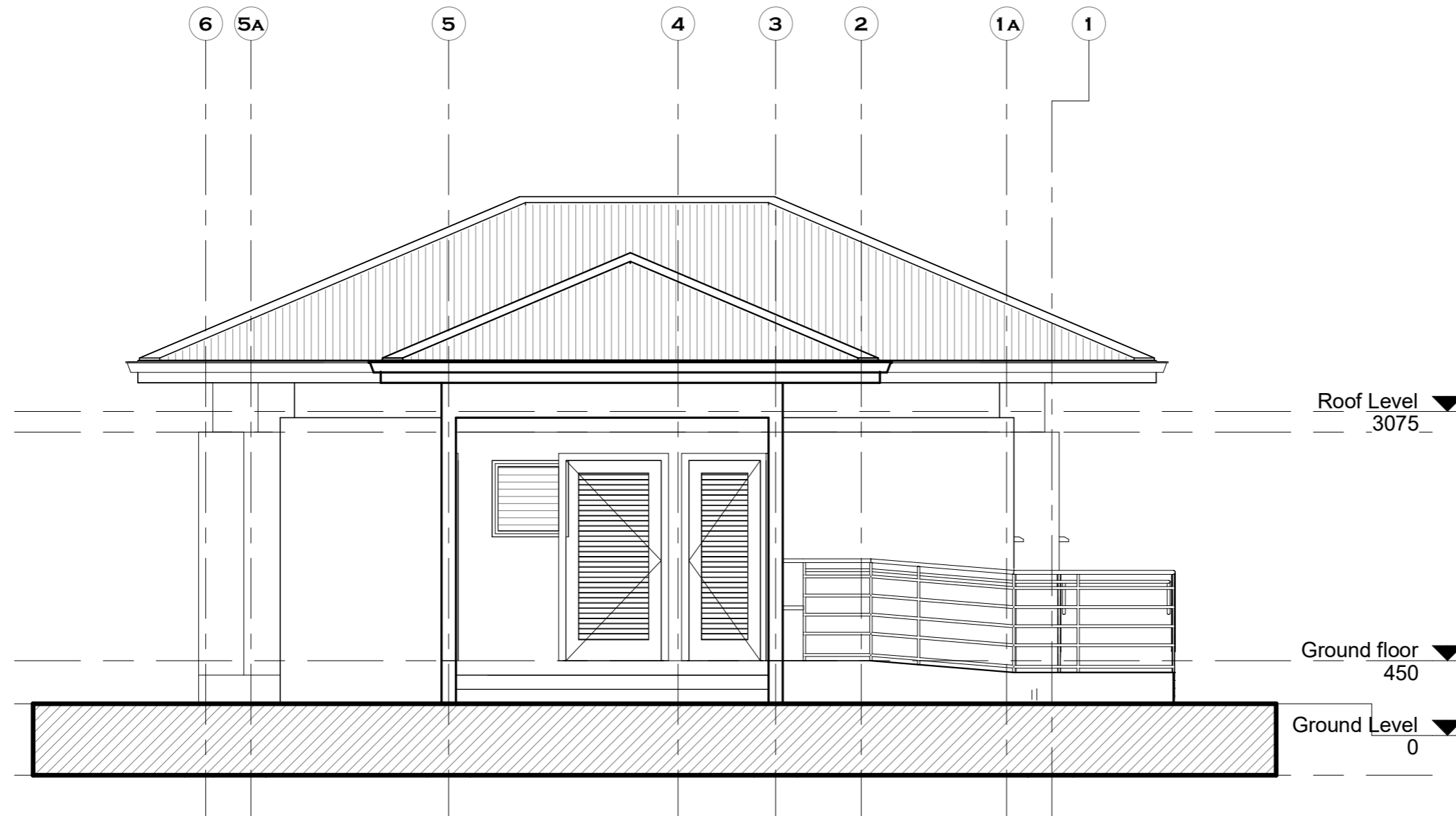
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Elvis Asiedu

SHEET NO.:
A104

DATE: 10/15/2023 11:01:45 PM



1 Section 2
1 : 50



① East elevation
1 : 50

NOTES

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REVISIONS

DATE	DESCRIPTION

PROJECT:
PROPOSED WATER, SANITATION
AND RENOVATION OF EXISTING
BORDER POST

LOCATION:

CLIENT:
INTERNATIONAL ORGANIZATION FOR
MIGRATION (IOM)

SHEET
TITLE:
ELEVATIONS

DESIGNED BY:
Elvis Asiedu

SCALE:
1 : 50

DRAWN BY:
George Hughes

JOB NO.:
TR/2022/11

CHECKED BY:
Elvis Asiedu

SHEET
NO:

DATE: 10/15/2023 11:01:46 PM

A105

NOTES

DO NOT MEASURE DIRECTLY FROM DRAWINGS.

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REVISIONS

DATE	DESCRIPTION

PROJECT:
PROPOSED WATER, SANITATION AND RENOVATION OF EXISTING BORDER POST

LOCATION:

CLIENT:
INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:
ELEVATIONS

DESIGNED BY:
Elvis Asiedu

SCALE:
1 : 50

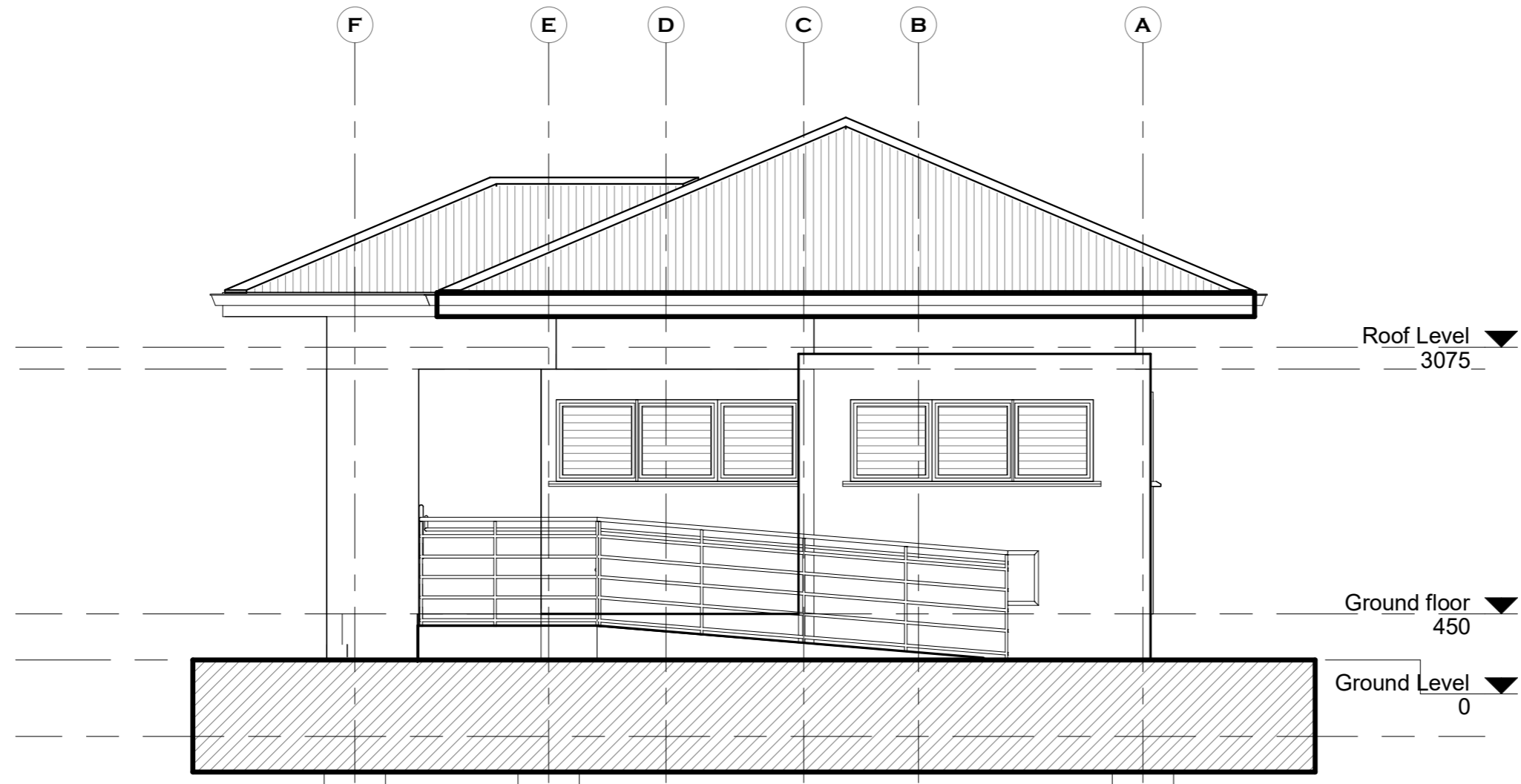
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George Hughes

JOB NO.:
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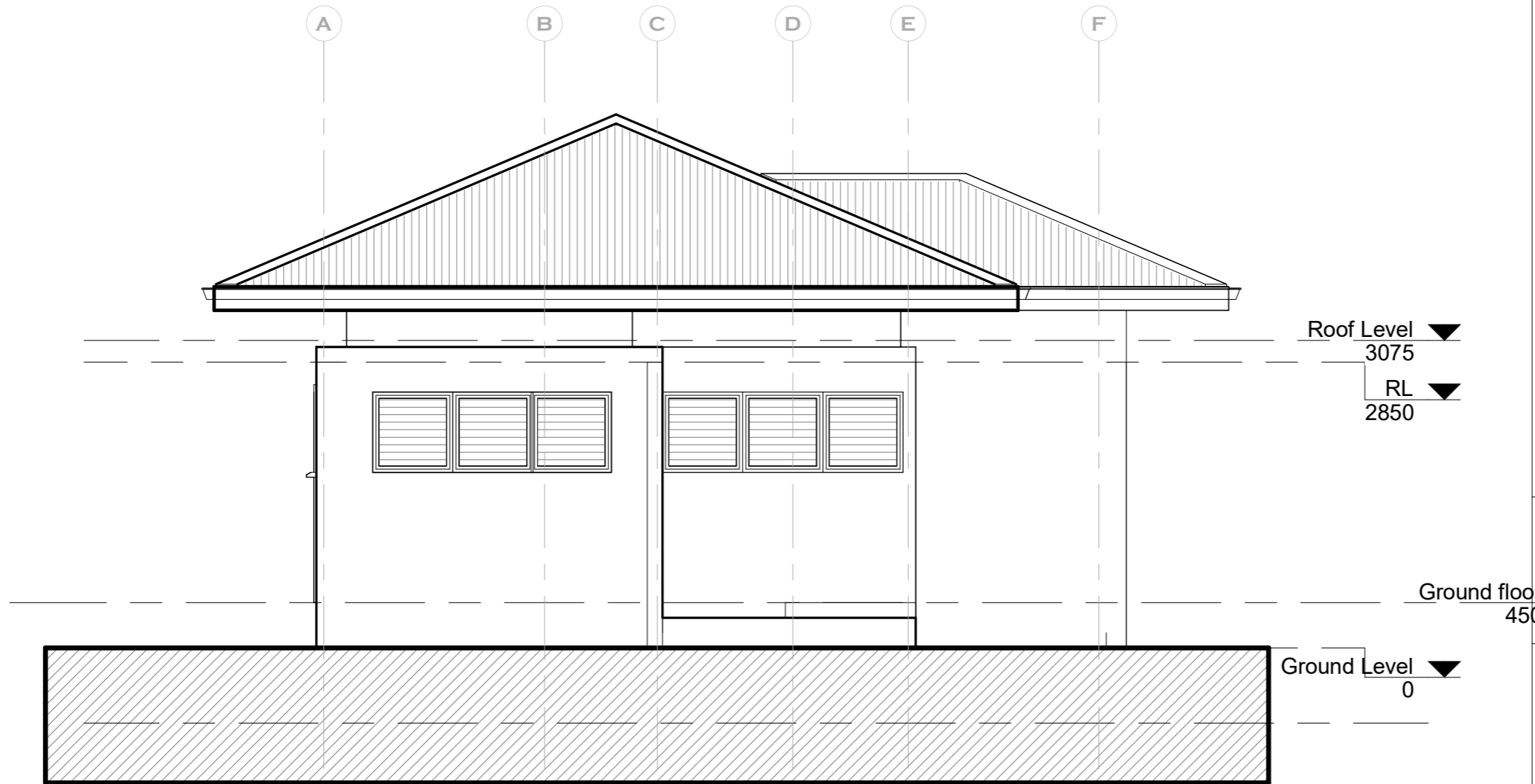
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Elvis Asiedu

SHEET NO:
A106

DATE: 10/15/2023 11:01:46 PM



① North elevation
1 : 50



① South elevation
1 : 50

NOTES

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REVISIONS

DATE	DESCRIPTION

PROJECT:
PROPOSED WATER, SANITATION
AND RENOVATION OF EXISTING
BORDER POST

LOCATION:

CLIENT:
INTERNATIONAL ORGANIZATION FOR
MIGRATION (IOM)

SHEET
TITLE:
ELEVATIONS

DESIGNED BY:
Elvis Asiedu

SCALE:
1 : 50

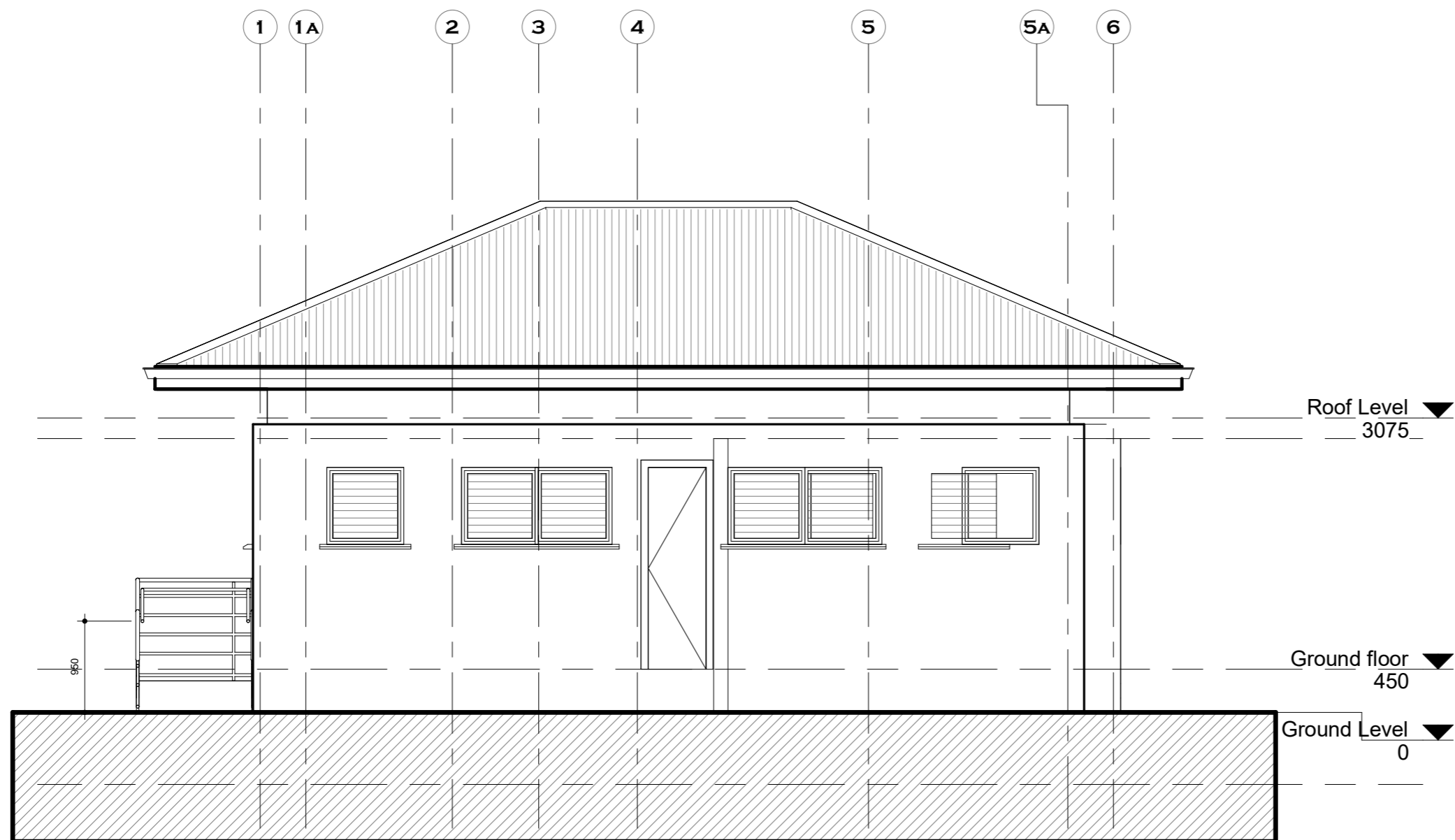
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George Hughes

JOB NO.:
TR/2022/11

CHECKED BY:
Elvis Asiedu

SHEET
NO:
A107

DATE: 10/15/2023 11:01:46 PM



① West elevation
1 : 50

NOTES

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REVISIONS

DATE	DESCRIPTION

PROJECT:
 PROPOSED WATER, SANITATION AND RENOVATION OF EXISTING BORDER POST
LOCATION:

CLIENT:
 INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:
 ELEVATIONS

DESIGNED BY:
 Elvis Asiedu

SCALE:
 1 : 50

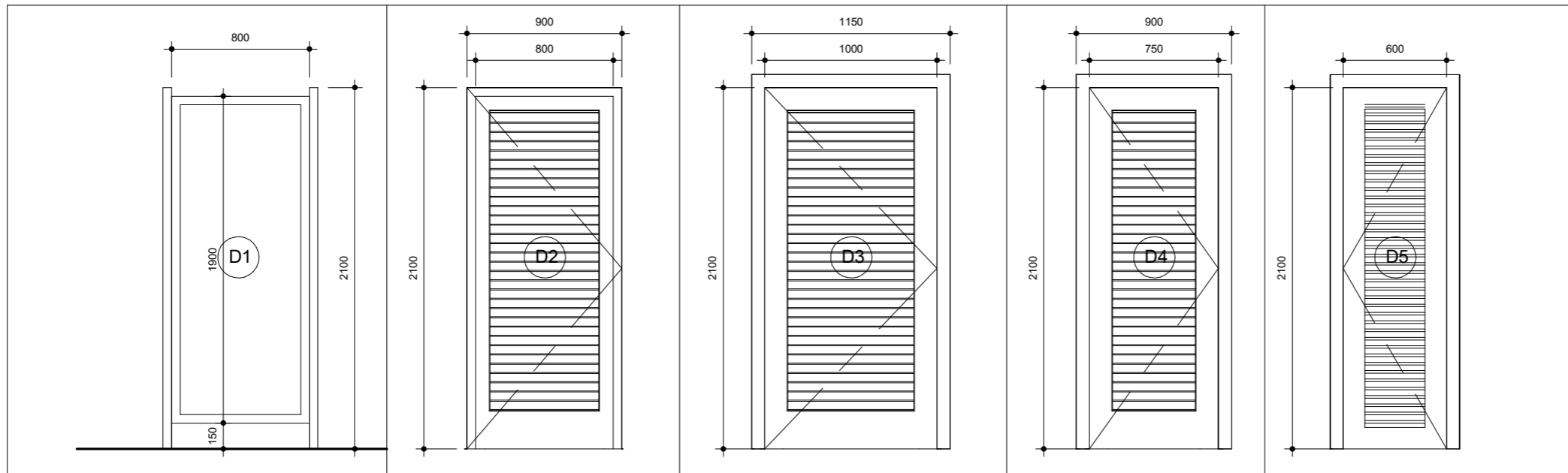
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 George Hughes

JOB NO.:
 TR/2022/11

CHECKED BY:
 Elvis Asiedu

SHEET NO:
A108

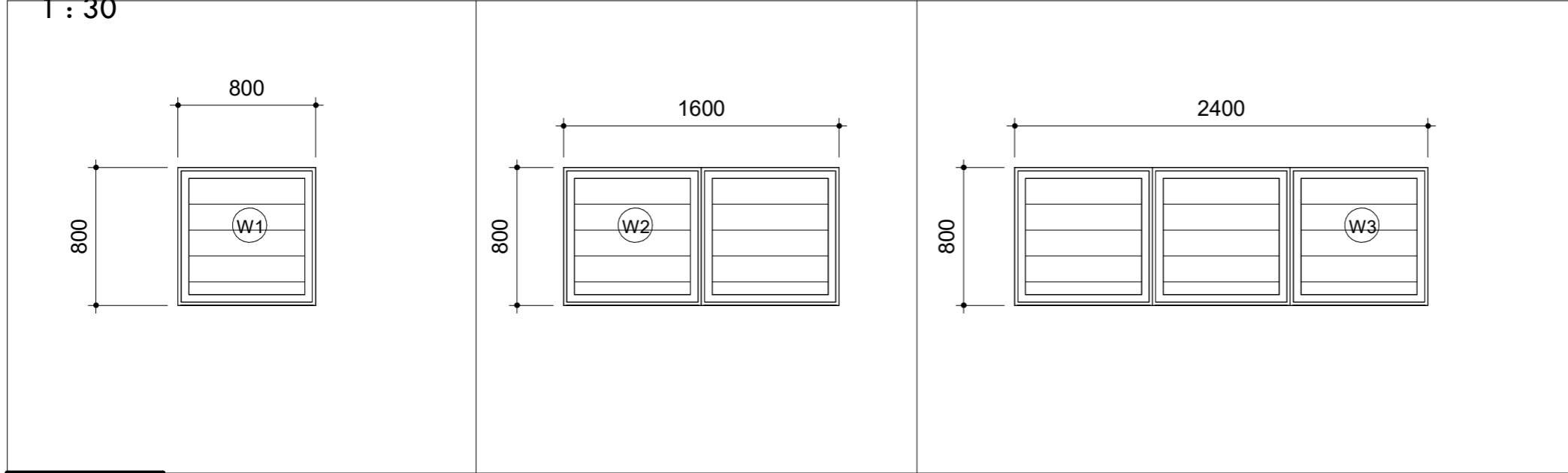
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Quantity	5	2	1	1	1
Material:	Aluminium jalousie door	Aluminium jalousie door	Aluminium jalousie door	Aluminium jalousie door	Galvanized steel jalousie door
Finish:	Sprayed Grey Semi-gloss oil paint	Sprayed Grey Semi-gloss oil paint	Sprayed Grey Semi-gloss oil paint	Sprayed Grey Semi-gloss oil paint	Sprayed Grey Semi-gloss oil paint
Locks:	indicator Locks	Stainless steel Mortise Lock to Architect's approval	Stainless steel Mortise Lock to Architect's approval	Stainless steel Mortise Lock to Architect's approval	Stainless steel Mortise Lock to Architect's approval

door schedule

1 : 30



Quantity	3	2	4
Material:	Aluminium frame window with opaque glass naco Louvre system	Aluminium frame window with opaque glass naco Louvre system	Aluminium frame window with opaque glass naco Louvre system
Finish:	Sprayed Grey Semi-gloss oil paint	Sprayed Grey Semi-gloss oil paint	Sprayed Grey Semi-gloss oil paint
Locks:	indicator Locks	Stainless steel Mortise Lock to Architect's approval	Stainless steel Mortise Lock to Architect's approval

window schedule

1 : 30

NOTES

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REVISIONS

DATE	DESCRIPTION

PROJECT:
PROPOSED WATER, SANITATION AND RENOVATION OF EXISTING BORDER POST
LOCATION:

CLIENT:
INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:
DOOR AND WINDOW SCHEDULE

DESIGNED BY:
Elvis Asiedu

SCALE:
1 : 30

DRAWN BY:
George Hughes

JOB NO.:
TR/2022/11

CHECKED BY:
Elvis Asiedu

SHEET NO:
A109

DATE:10/15/2023 11:01:47 PM

NOTES

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REVISIONS

DATE	DESCRIPTION

PROJECT:
PROPOSED WATER, SANITATION AND RENOVATION OF EXISTING BORDER POST

LOCATION:

CLIENT:
INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:
INTERIOR ELEVATIONS

DESIGNED BY:
Elvis Asiedu

SCALE:
1 : 50

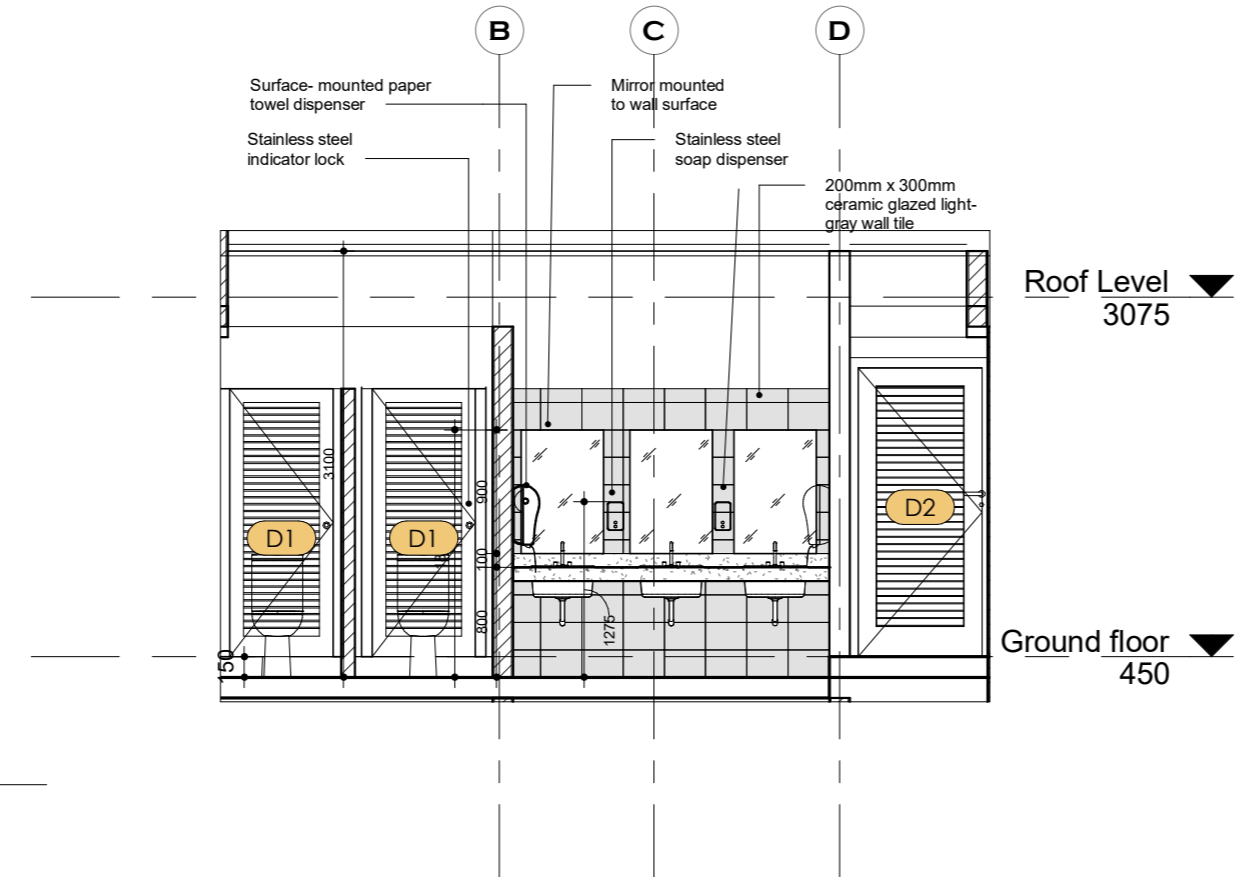
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George Hughes

JOB NO.:
TR/2022/11

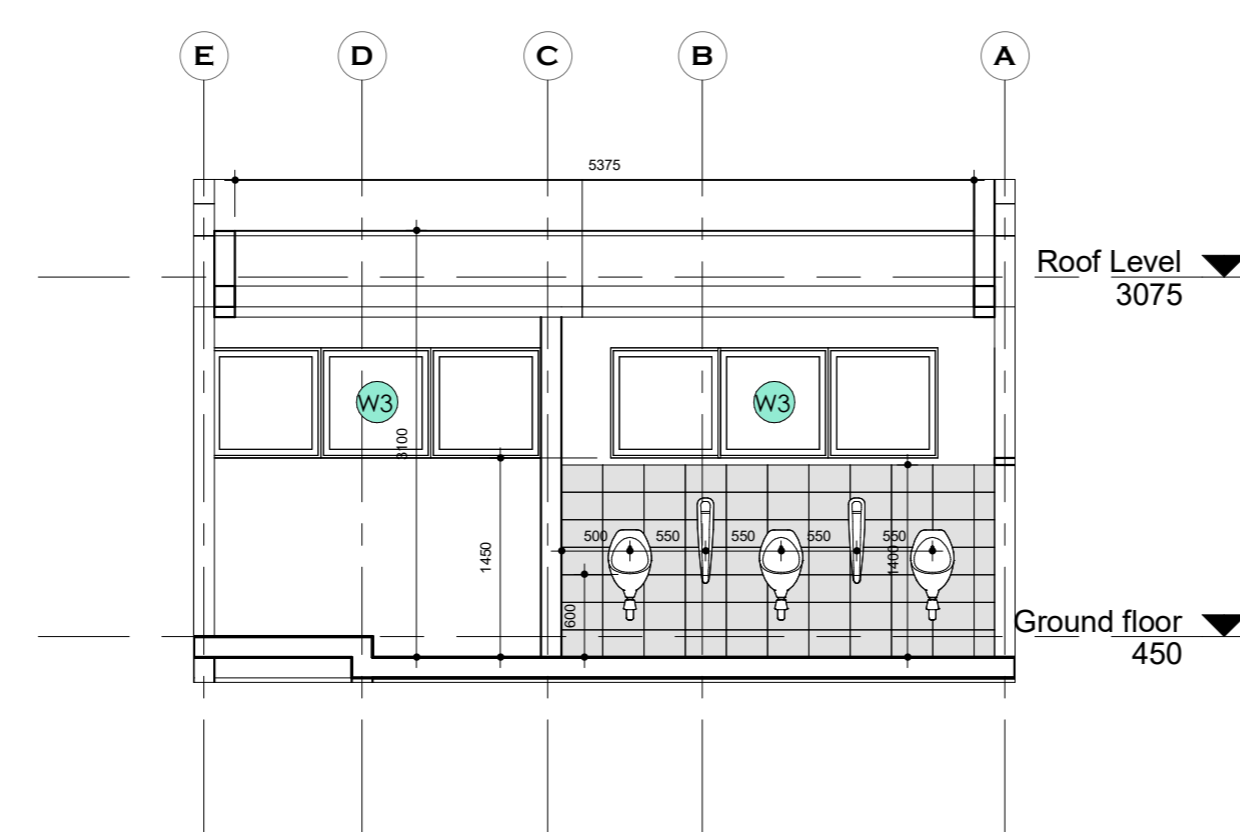
CHECKED BY:
Elvis Asiedu

SHEET NO.:
A110

DATE: 10/15/2023 11:01:48 PM



① **ELEVATION XX**
1 : 50



② **ELEVATION YY**
1 : 50

NOTES

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REVISIONS

DATE	DESCRIPTION

PROJECT:
PROPOSED WATER, SANITATION AND RENOVATION OF EXISTING BORDER POST

LOCATION:

CLIENT:
INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:
BLAUSTRADE DETAILS

DESIGNED BY:
Elvis Asiedu

SCALE:
1 : 25

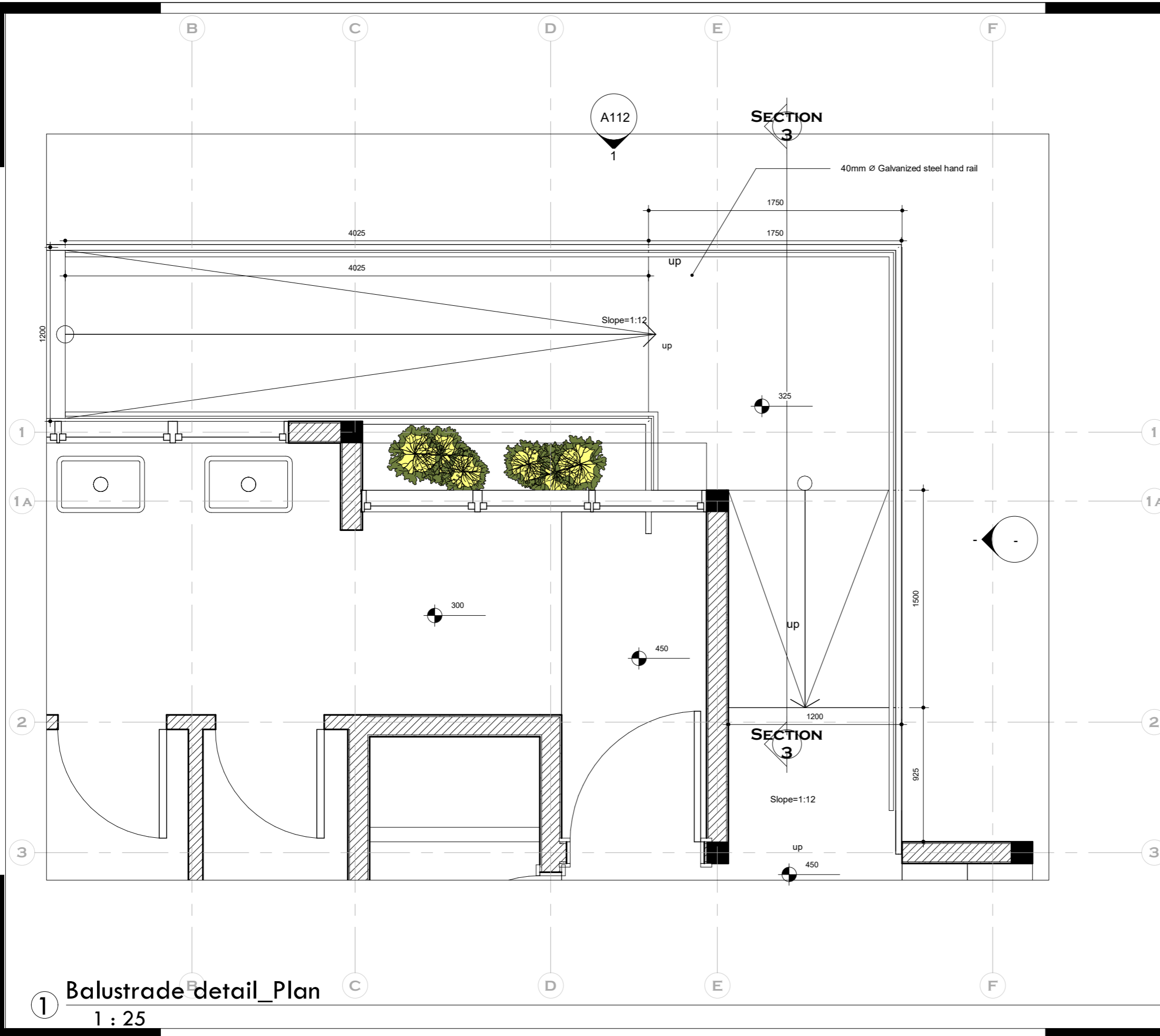
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George Hughes

JOB NO.:
TR/2022/11

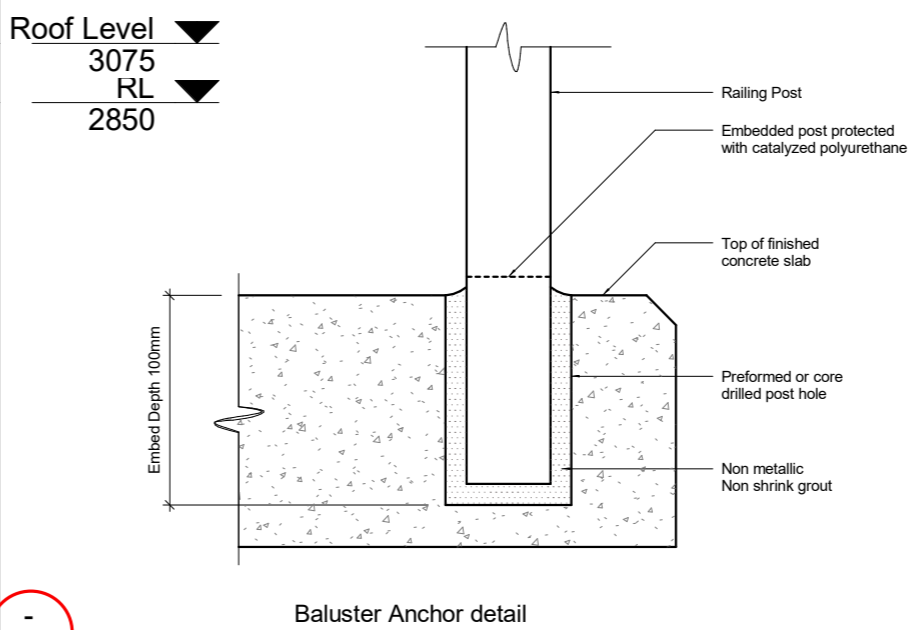
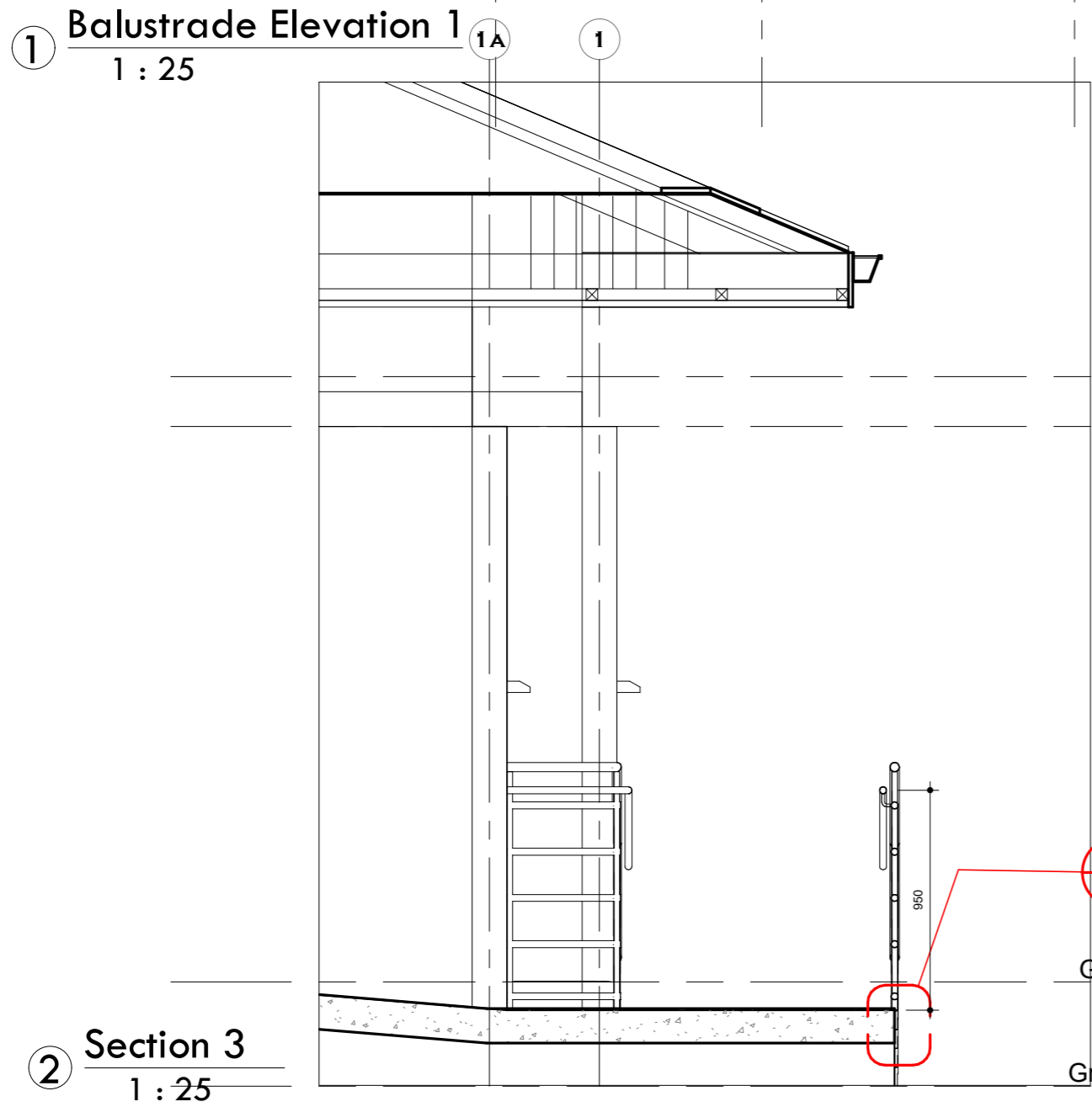
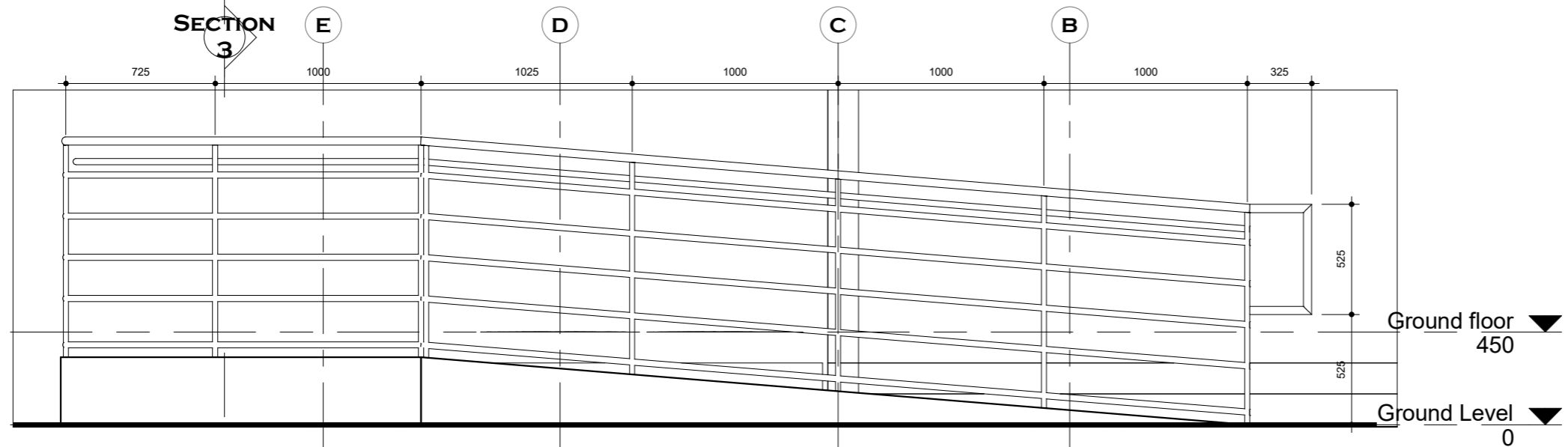
CHECKED BY:
Elvis Asiedu

SHEET NO:
A111

DATE: 10/15/2023 11:01:48 PM



1 Balustrade detail_Plan
1 : 25



2 Section 3
1 : 25

NOTES

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REVISIONS

DATE	DESCRIPTION

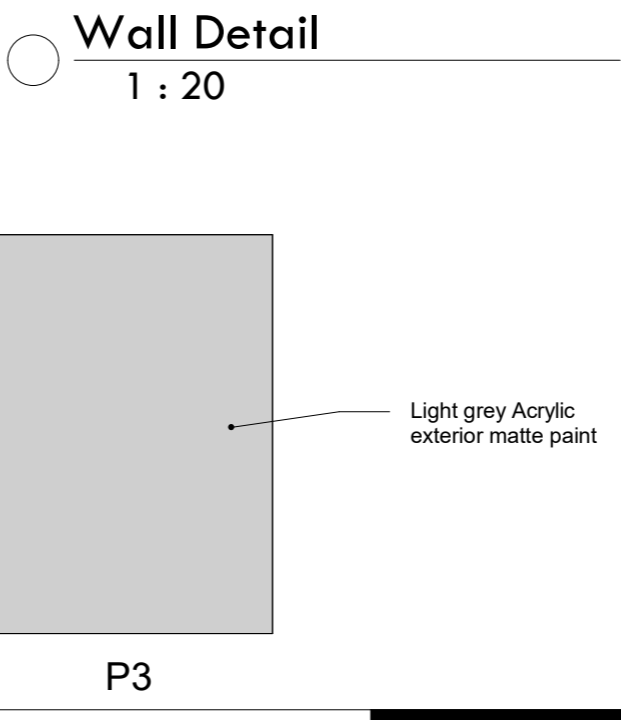
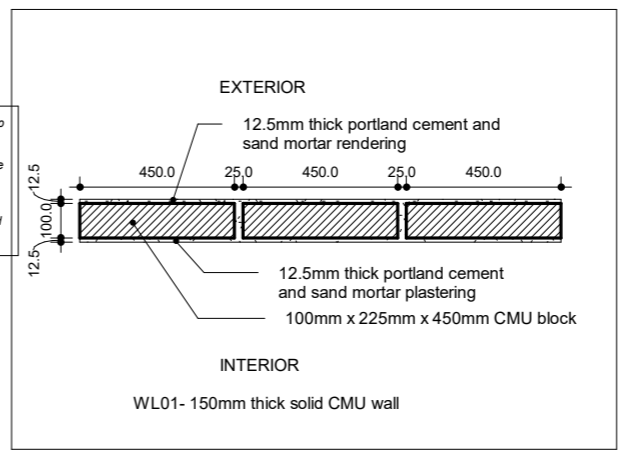
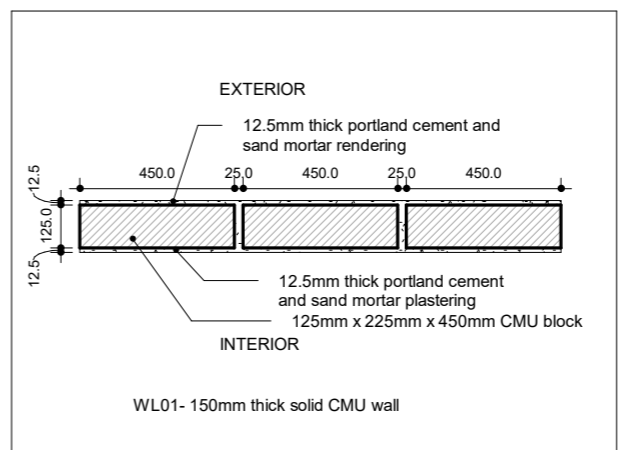
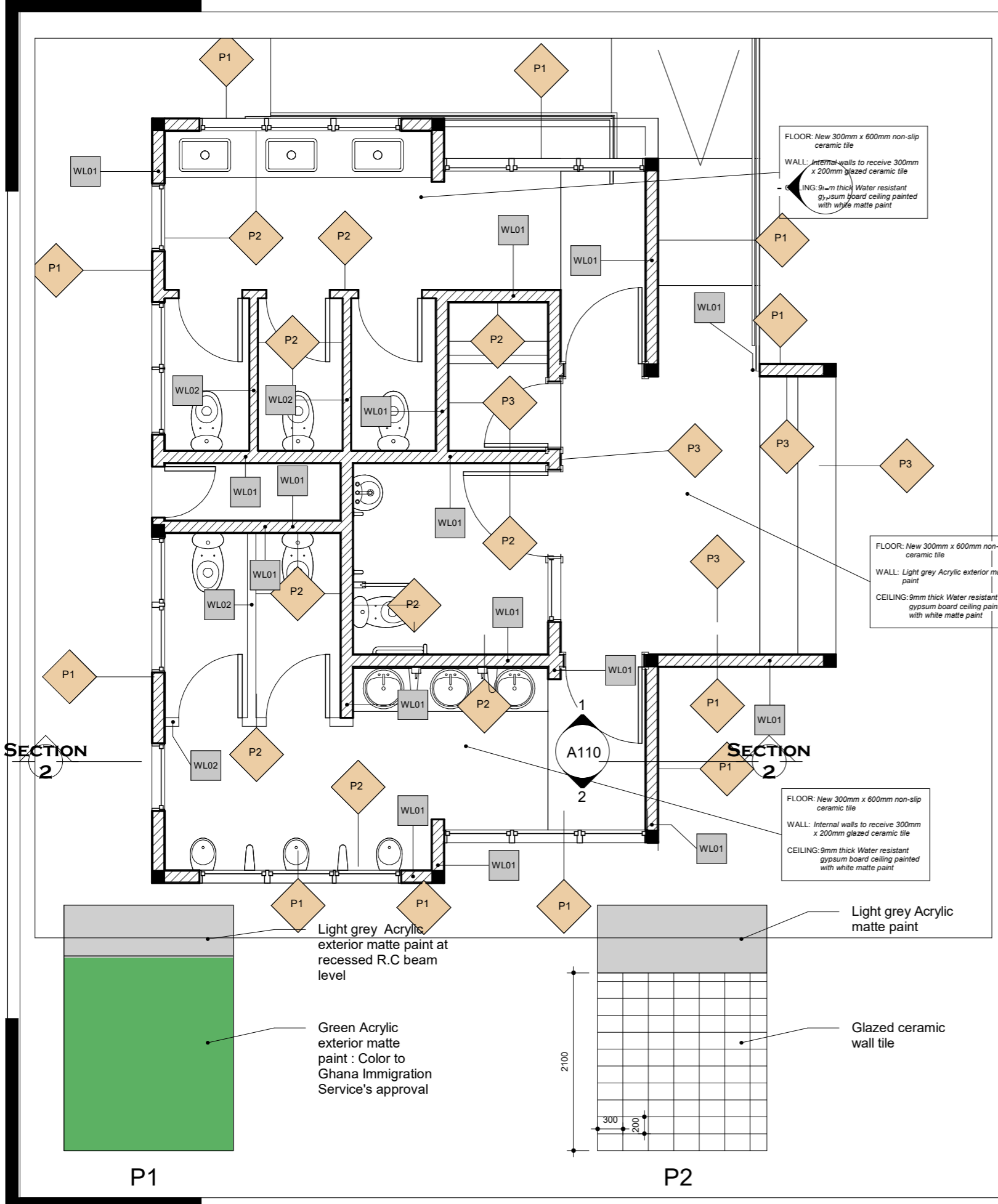
PROJECT:
PROPOSED WATER, SANITATION AND RENOVATION OF EXISTING BORDER POST

LOCATION:

CLIENT:
INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:
BLAUSTRADE DETAILS

DESIGNED BY: Elvis Asiedu	SCALE: As indicated
DRAWN BY: George Hughes	JOB NO.: TR/2022/11
CHECKED BY: Elvis Asiedu	SHEET NO.: A112
DATE: 10/15/2023 11:01:49 PM	



NOTES

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REVISIONS

DATE	DESCRIPTION

PROJECT: PROPOSED WATER, SANITATION AND RENOVATION OF EXISTING BORDER POST
LOCATION:

CLIENT: INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE: FINISHES LAYOUT

DESIGNED BY: Elvis Asiedu

SCALE: As indicated

DRAWN BY: George Hughes

JOB NO.: TR/2022/11

CHECKED BY: Elvis Asiedu

SHEET NO: P 101

DATE: 10/15/2023 11:01:49 PM

STRUCTURAL DRAWINGS

- These drawings must be completed with MEP and Architectural Drawings/ Design.

- All drawings shall be read in conjunction with all relevant architectural, and all other disciplines (drawings and Specifications).

- Contractor must coordinate and implement the construction details in conjunction with Architectural, Plumbing, Electrical and Mechanical drawings. Any identified discrepancy must be communicated before execution to the Architects and Engineers.

- All the levels and distances must be checked on site by the Contractor.

- For the definition of the finishes, Architectural Drawings must be consulted.

- The contractor shall comply with the specifications of Eurocode, BS and the relevant Ghanaian regulations.

- Unless otherwise stated, all dimensions are in millimeters.

- All materials and finishes shall be consistent throughout the project unless approved otherwise.

- All MEP ducts and concrete embedded elements must be done as first fixes before casting of concrete. All the locations and dimensions are to be checked by the Contractor prior to casting the concrete. Architects and Engineers must be informed of any discrepancies observed.

- No ducts or openings are allowed in beams or in columns, except if indicated very clearly on the structural drawings.

- For elements with concrete final finish, formwork must be prepared in accordance with provisions of section 5 (Falsework & Formwork) of EN 13670:2009 (E): Execution of Concrete Works.

- Blinding concrete (minimum 50mm layer) must be provided in contact with soil on the bottom surface of foundations and foundation beams.

- Any specified product other than that recommended by the Structural Engineer should be accompanied by its Technical Literature for Structural Engineer's review and advice

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- A camber of L/300 shall be applied at the mid span of the slab, for slabs with a span (L) greater than 6100mm, and L/150 for cantilever slabs with span (L) greater than 1500mm.

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- All existing levels shall be confirmed on site prior to start of construction.

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- If the foundation depth is higher by 600mm than the estimated one, the Contractor must immediately alert the Engineers.

- The Contractor shall record the depth of every foundations as constructed on a suitable plan, and submit to the engineer when all the foundation work is done.

- Foundations can be cast at different levels if it is determined that the distance between the foundations ensures that the angle between levels is less than 30°.

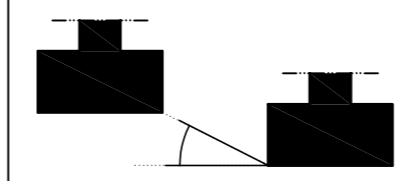
- If a strip foundation must have different levels, the transition between levels cannot be bigger than 1500mm, unless detailed on the drawings. If that is not possible, the Contractor must inform the Engineer immediately.

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- When the excavation reaches the foundation level, and with the approval of the checker, a layer of blinding concrete, of 50mm minimum thickness must be immediately placed.

- The slabs cast on ground will be cast above a polyethylene membrane

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- Foundation block wall thickness shall be:
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- CONCRETE
 C12/15 Blinding concrete
 C25/30 Concrete in slabs and beams
 C25/30 Concrete elsewhere

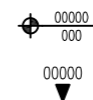
- REINFORCEMENT STEEL
 High yield reinforcement (Ductility B) with minimum characteristic strength of 460 N/mm² - S500 (EN1992-1-1)

- NOMINAL COVER TO ALL STEEL
 50mm Footings
 50mm Walls in contact with soil or water
 25mm Walls not in contact with soil or water
 25mm Columns
 25mm Beams
 25mm Slabs and Stairs
 25mm Slab on grade and stairs on grade

□ Vertical element (reinforced concrete) which ends at the represented plan

□ Vertical element (reinforced concrete) which starts or proceeds to the upper plan

- Structural levels generally refer to top of concrete or top of steelwork and are shown as next:



NOTE:
 All columns, beams (steel or concrete) and pad footings are centred on grid lines unless dimensioned otherwise.

FOR PERMIT

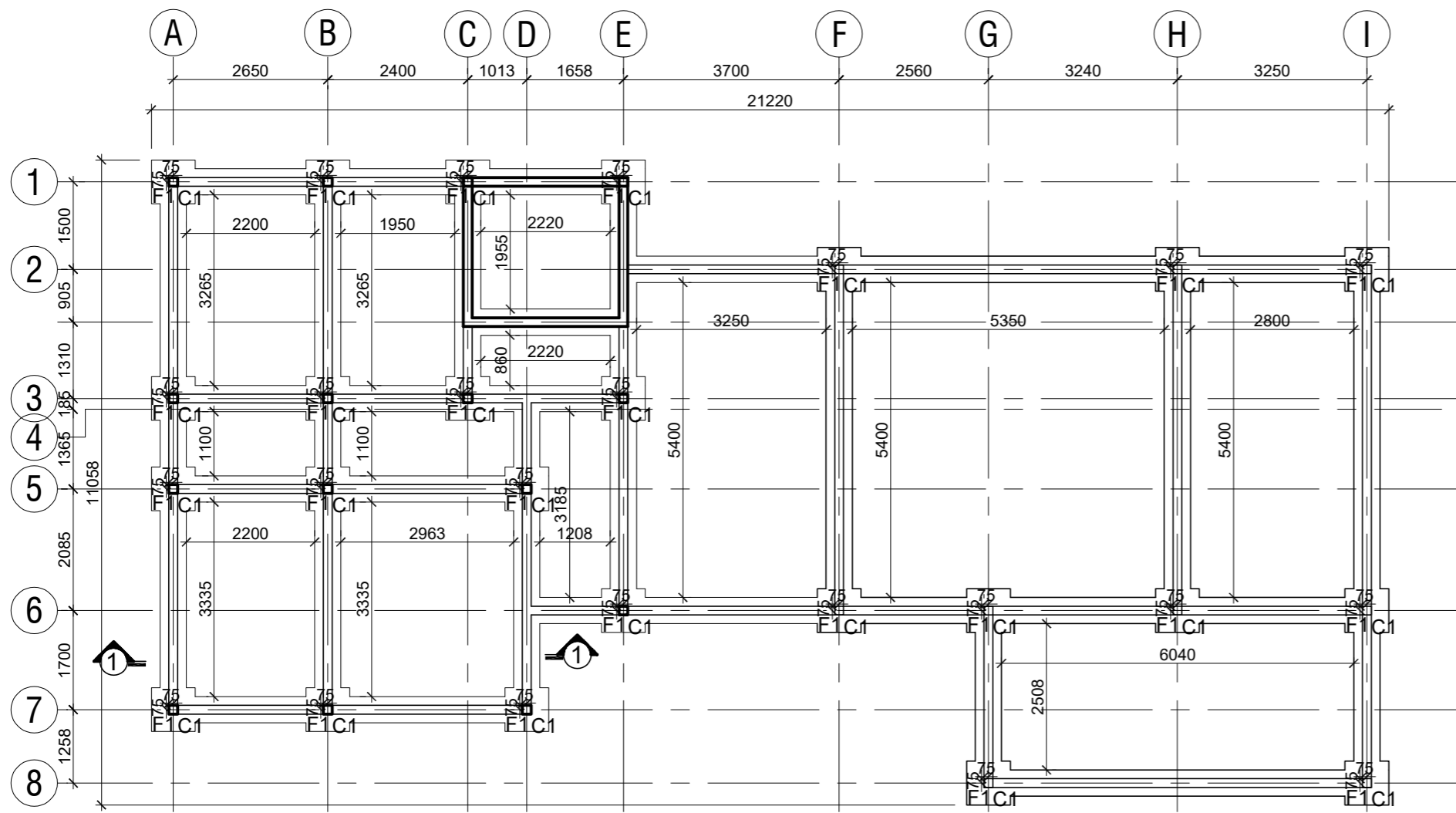
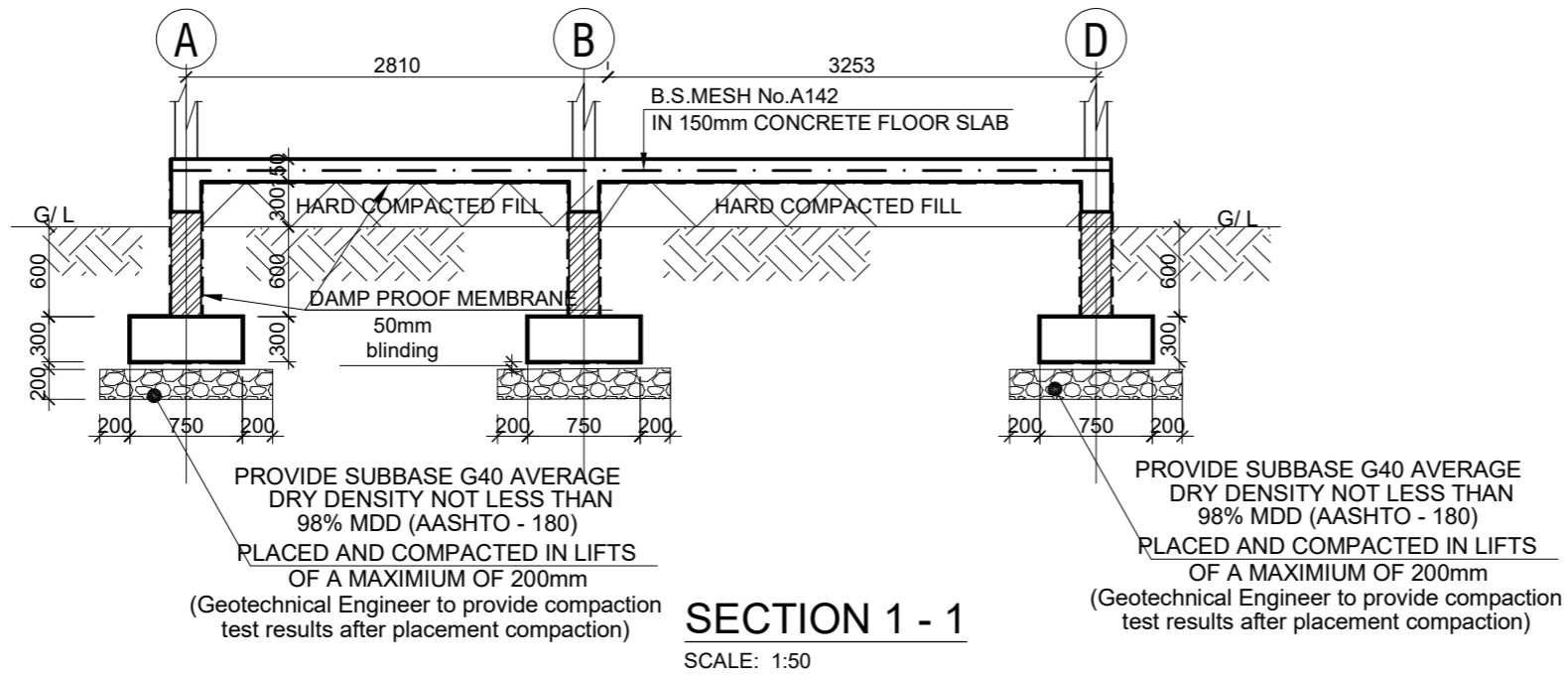
REV. NO.	REVISION	BY:ENGR/TECH	DATE

PROJECT TITLE
PROPOSED WATER, SANITATION AND HYGIENE (WASH) FACILITY AND RENOVATION OF EXISTING BORDER POST

CLIENT : INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE : CONSTRUCTION GENERAL NOTES AND SPECIFICATIONS

Scale:	AS SHOWN	Date:	APRIL 2023
Designed:	K.K	Drawing:	K.K
		Checked:	K.N.K
Job No.	Designed:	S/000	
REVISION No.			



FOR PERMIT

REV. NO.	REVISION	BY:ENGR/TECH	DATE
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PROJECT TITLE
PROPOSED WATER, SANITATION AND HYGIENE (WASH) FACILITY AND RENOVATION OF EXISTING BORDER POST

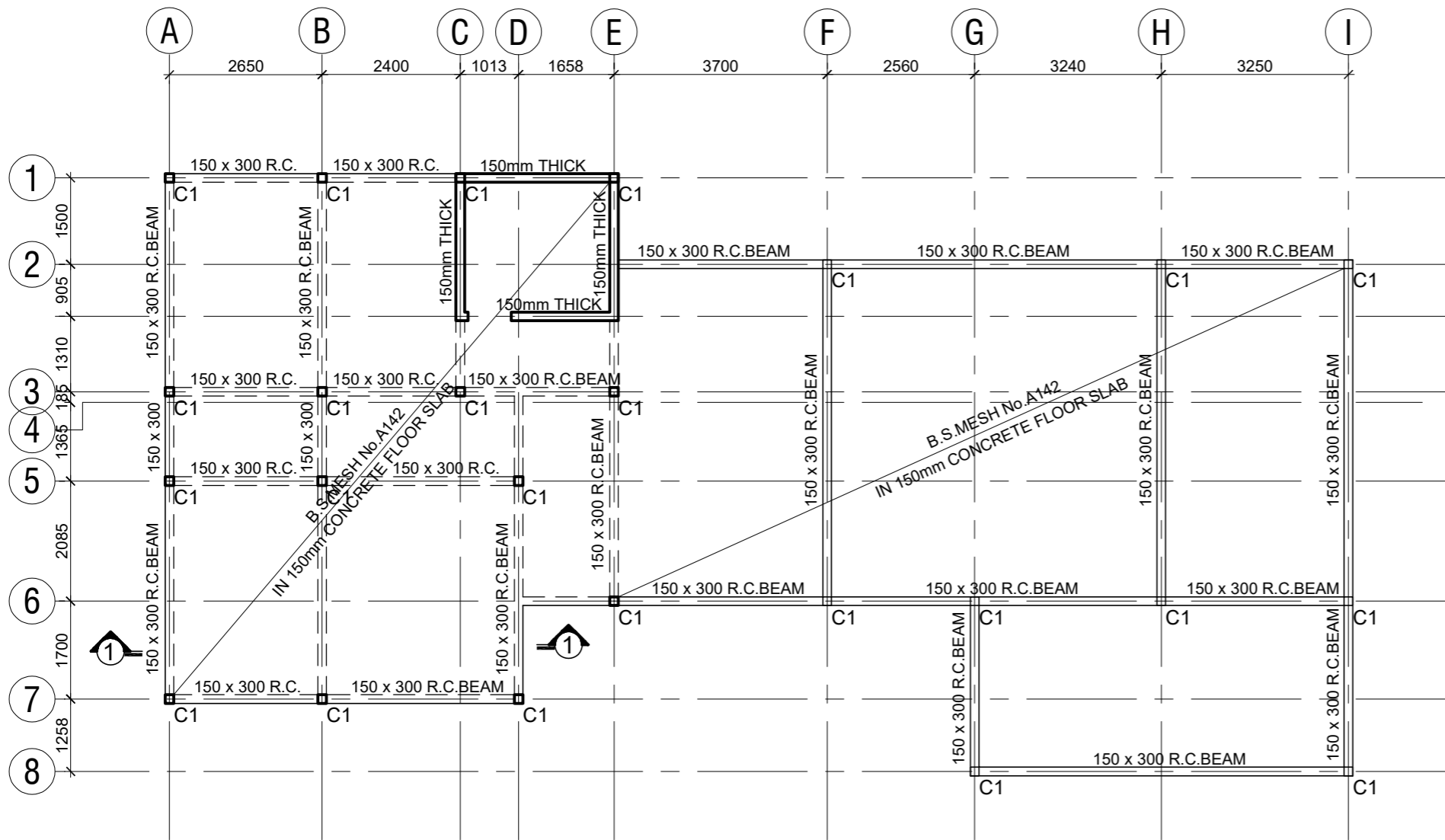
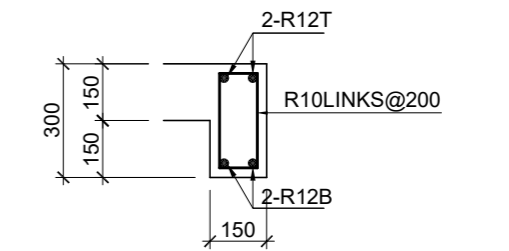
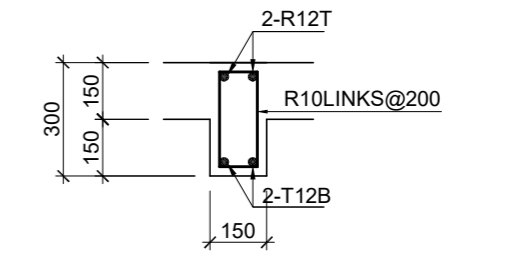
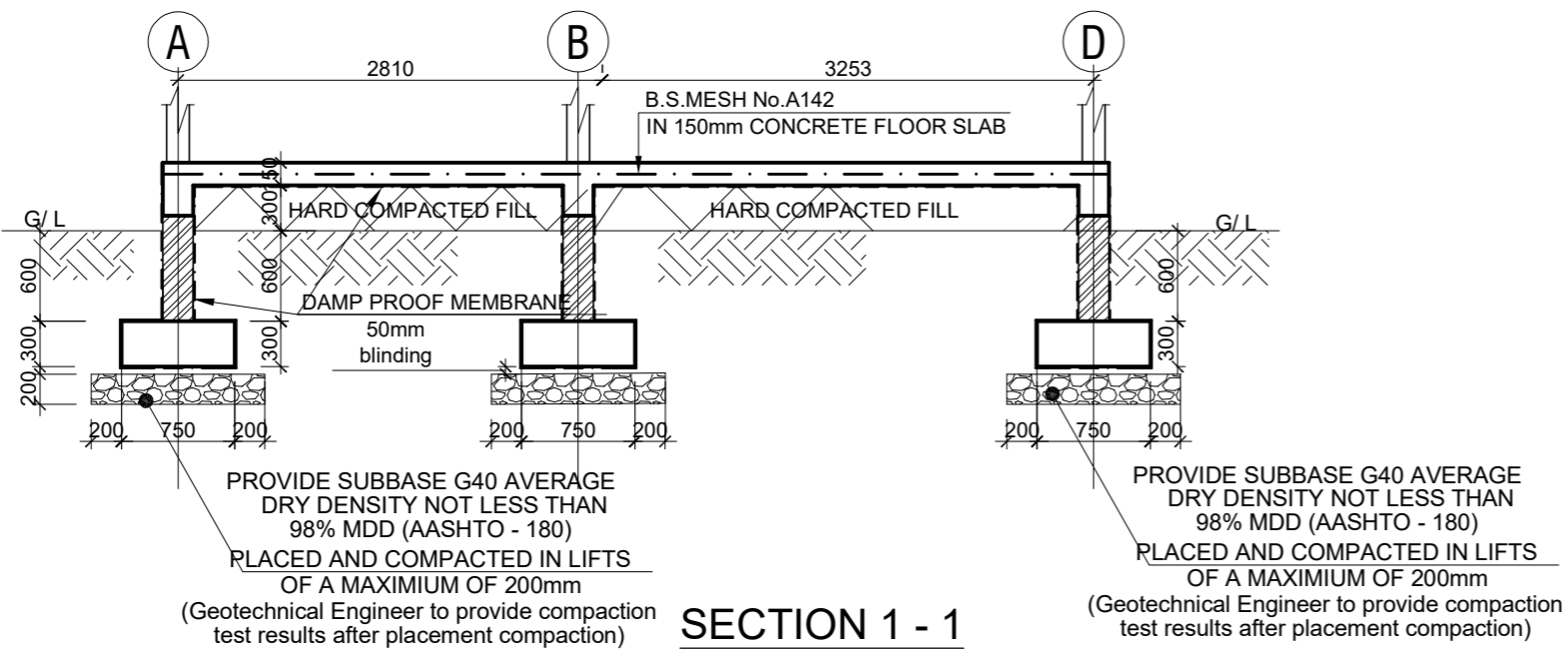
CLIENT : INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE : **FOUNDATION LAYOUT**

Scale: AS SHOWN Date: APRIL 2023
 Designed: K.K Drawing: K.K Checked: K.N.K

Job No. [] Designed: [] **S/001**

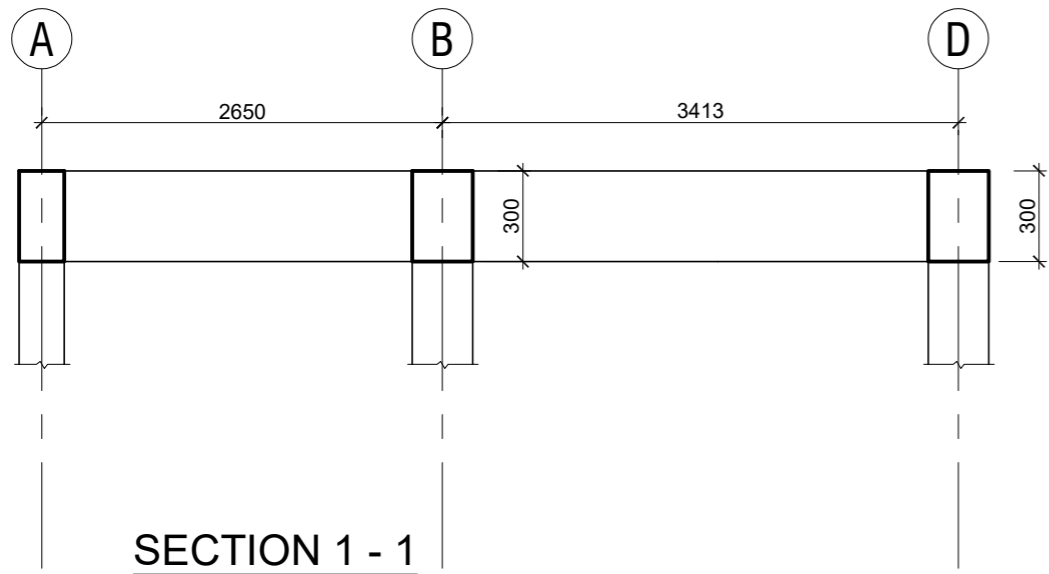
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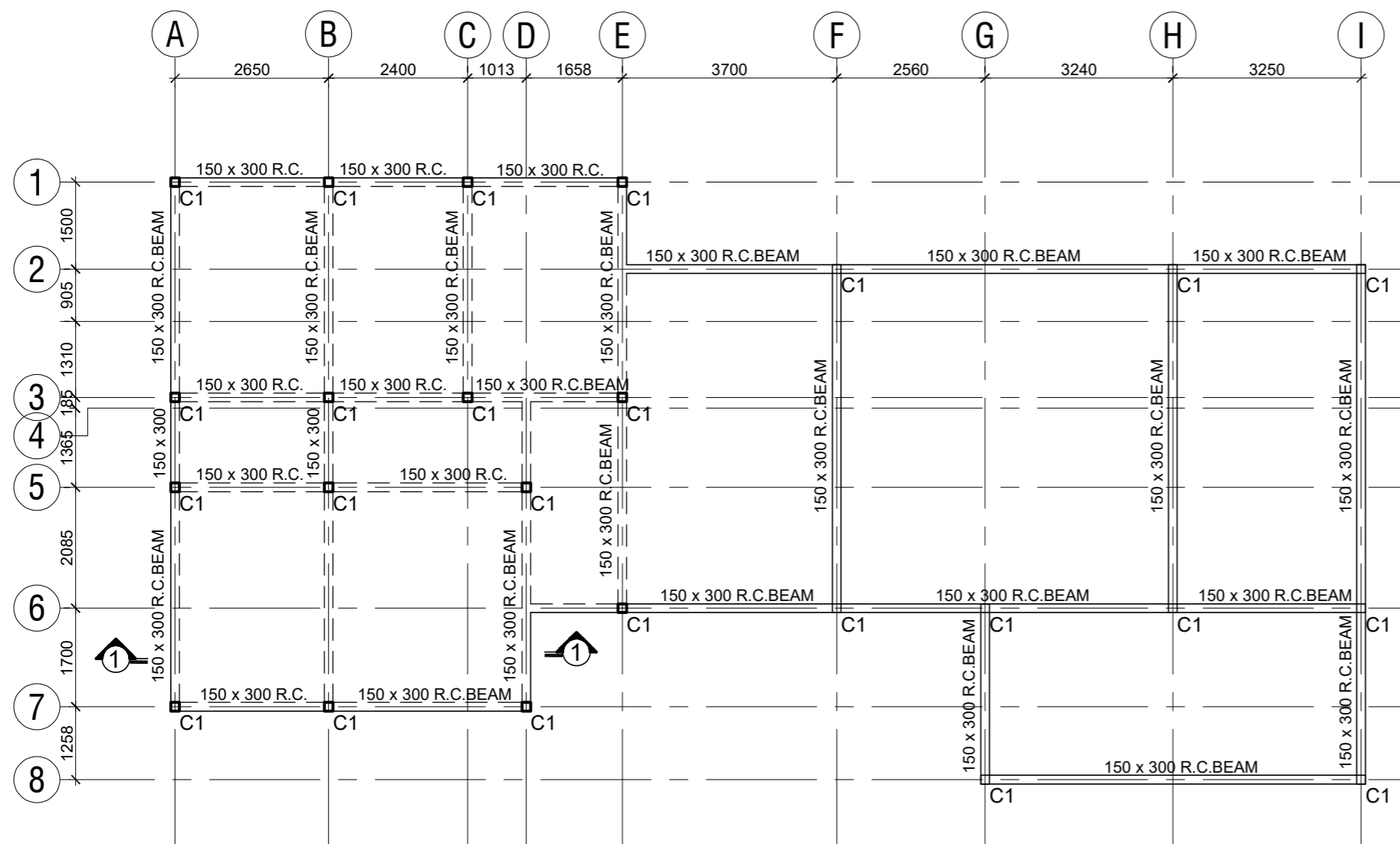
FOR PERMIT

REV. NO.	REVISION	BY:ENGR/TECH	DATE	
PROJECT TITLE				
CLIENT :	INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)			
SHEET TITLE :	G . A . GROUND FLOOR SLAB			
Scale:	AS SHOWN	Date:	APRIL 2023	
Designed:	K.K	Drawing:	K.K	Checked:
				K.N.K
Job No.	Designed:		S/002	

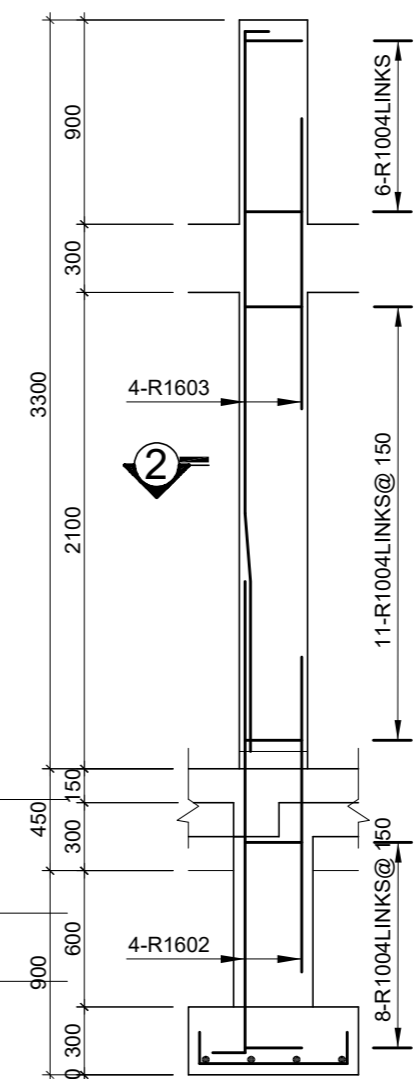
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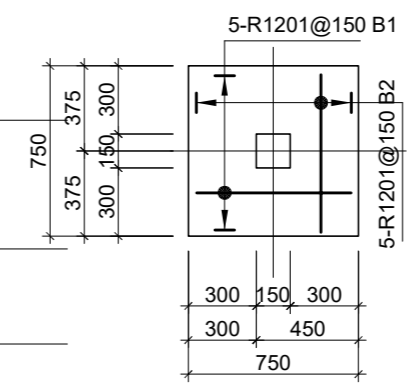
SECTION 1 - 1
SCALE: 1:50



ROOF BEAM
SCALE: 1:100

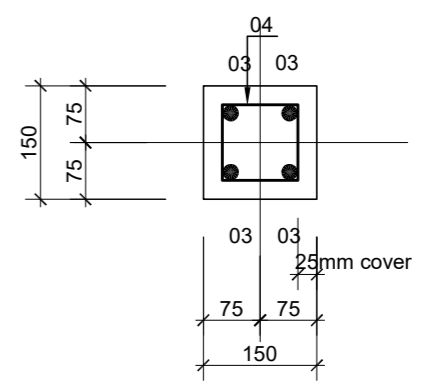


ELEVATION



COLUMN DETAILS
24 OFF. SCALE: 1:30

BENDING SCHEDULE					
COLUMN	BAR MARK	BAR SIZE	TOTAL	LENGTH	SHAPE
	01	R12	240	950	
	02	R16	104	2650	
	03	R16	104	4025	
04	R10	468	600		



SECTION 2 - 2
SCALE 1:10
FOR PERMIT

REV. NO.	REVISION	BY:ENGR/TECH	DATE



PROJECT TITLE
PROPOSED WATER, SANITATION AND HYGIENE (WASH) FACILITY AND RENOVATION OF EXISTING BORDER POST

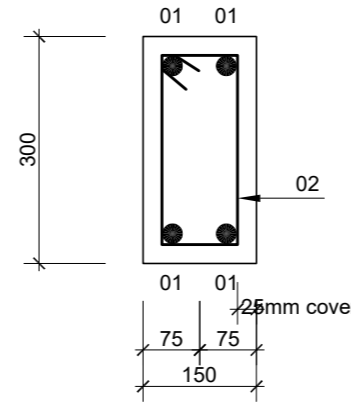
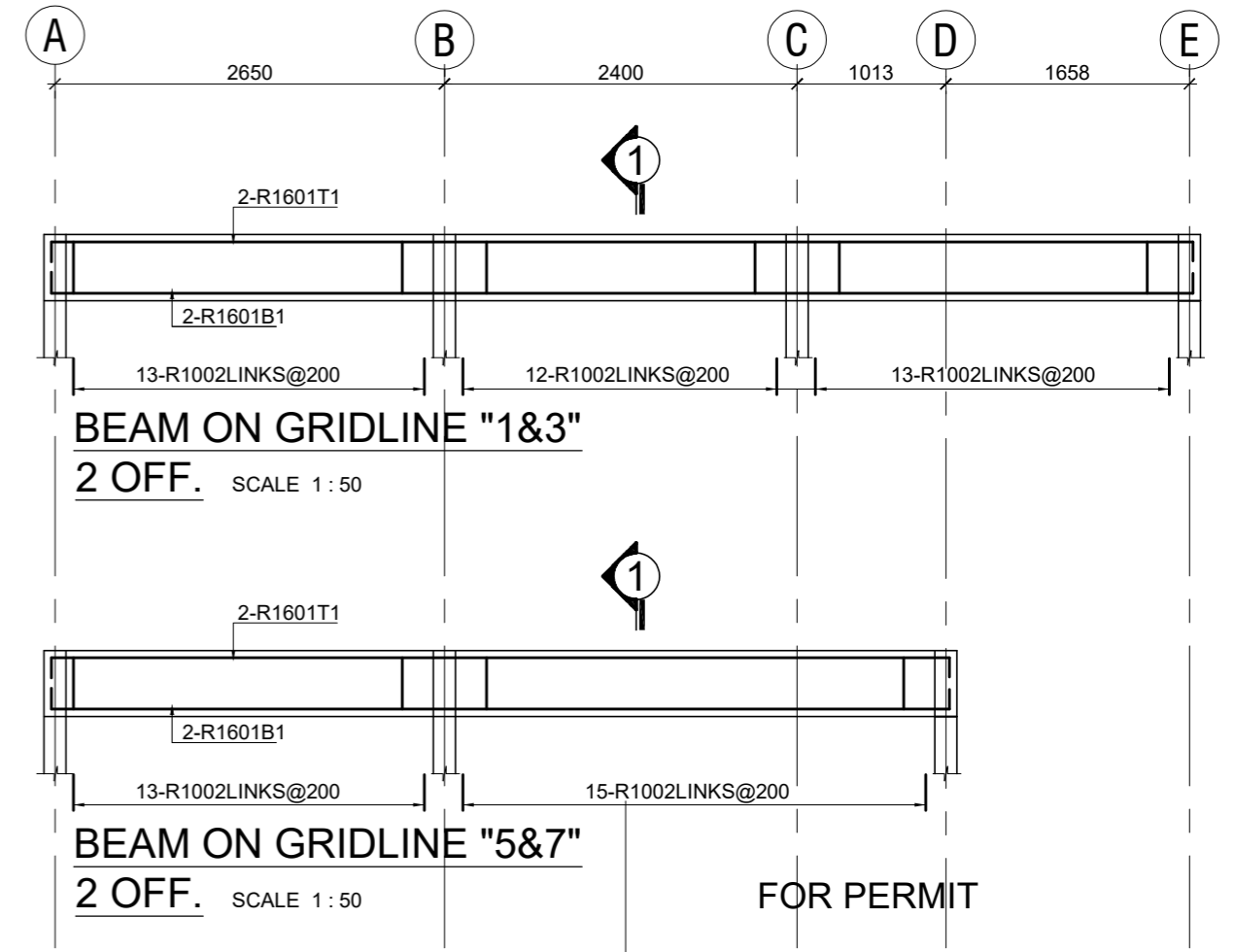
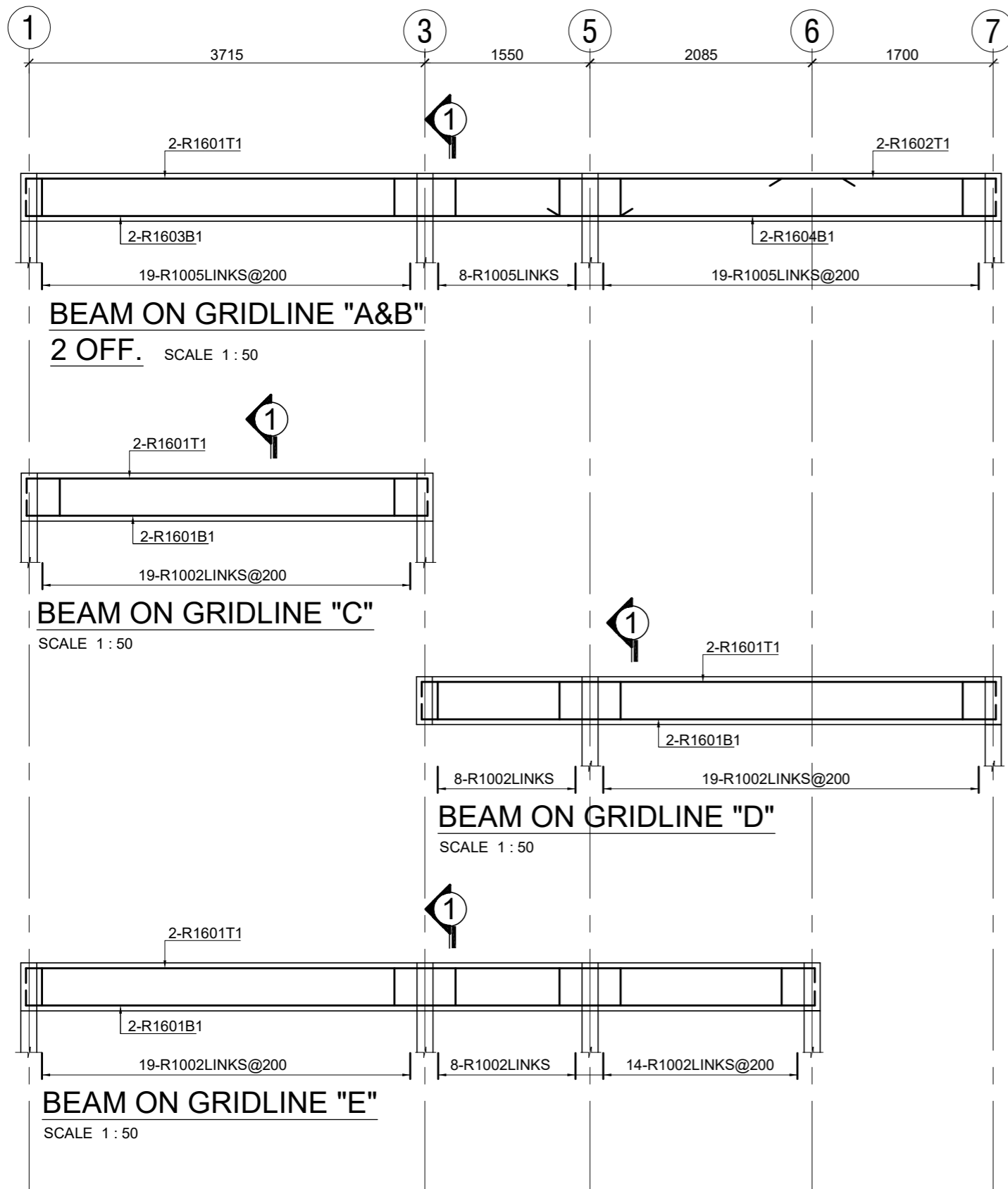
CLIENT : INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE : **G . A . ROOF BEAM & COLUMN DETAILS**

Scale: AS SHOWN Date: APRIL 2023
Designed: K.K Drawing: K.K Checked: K.N.K

Job No. [] Designed: S/003

REVISION No.



SECTION 1 - 1
SCALE 1 : 10

FOR PERMIT

REV. NO.	REVISION	BY:ENGR/TECH	DATE

PROJECT TITLE
PROPOSED WATER, SANITATION AND HYGIENE (WASH) FACILITY AND RENOVATION OF EXISTING BORDER POST AT BUNKPRUGU

CLIENT : INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)





SHEET TITLE : **R . C . ROOF BEAM DETAILS**
Sheet 1 of 2

Scale: AS SHOWN Date: APRIL 2023
Designed: K.K Drawing: K.K Checked: K.N.K



Job No. [] Designed: S/004

REVISION No.

BENDING SCHEDULE

BAR MARK	BAR SIZE	TOTAL	LENGTH	SHAPE	
BEAM ON GRIDLINE "1&3"	01	R16	8	8220	L 7820 200
	02	R10	76	900	(O . D) 100  250
BEAM ON GRIDLINE "5&7"	01	R16	8	6565	L 6165 200
	02	R10	56	900	(O . D) 100  400
BEAM ON GRIDLINE "A&B"	01	R16	8	7900	200 L 7700
	02	R16	8	2250	L 2050 200
	03	R16	8	5800	200 L 5600
	04	R16	8	4325	L 4125 200
	05	R10	92	900	(O . D) 100  250
BEAM ON GRIDLINE "C"	01	R16	4	4215	L 3815 200
	02	R10	19	900	(O . D) 100  250

BENDING SCHEDULE

BAR MARK	BAR SIZE	TOTAL	LENGTH	SHAPE	
BEAM ON GRIDLINE "D"	01	R16	4	6040	L 5440 200
	02	R10	27	900	(O . D) 100  250
BEAM ON GRIDLINE "E"	01	R16	4	7855	L 7455 200
	02	R10	41	900	(O . D) 100  400

FOR PERMIT

REV. NO.	REVISION	BY:ENGR/TECH	DATE

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PROJECT TITLE
PROPOSED WATER, SANITATION AND HYGIENE (WASH) FACILITY AND RENOVATION OF EXISTING BORDER POST AT BUNKPRUGU

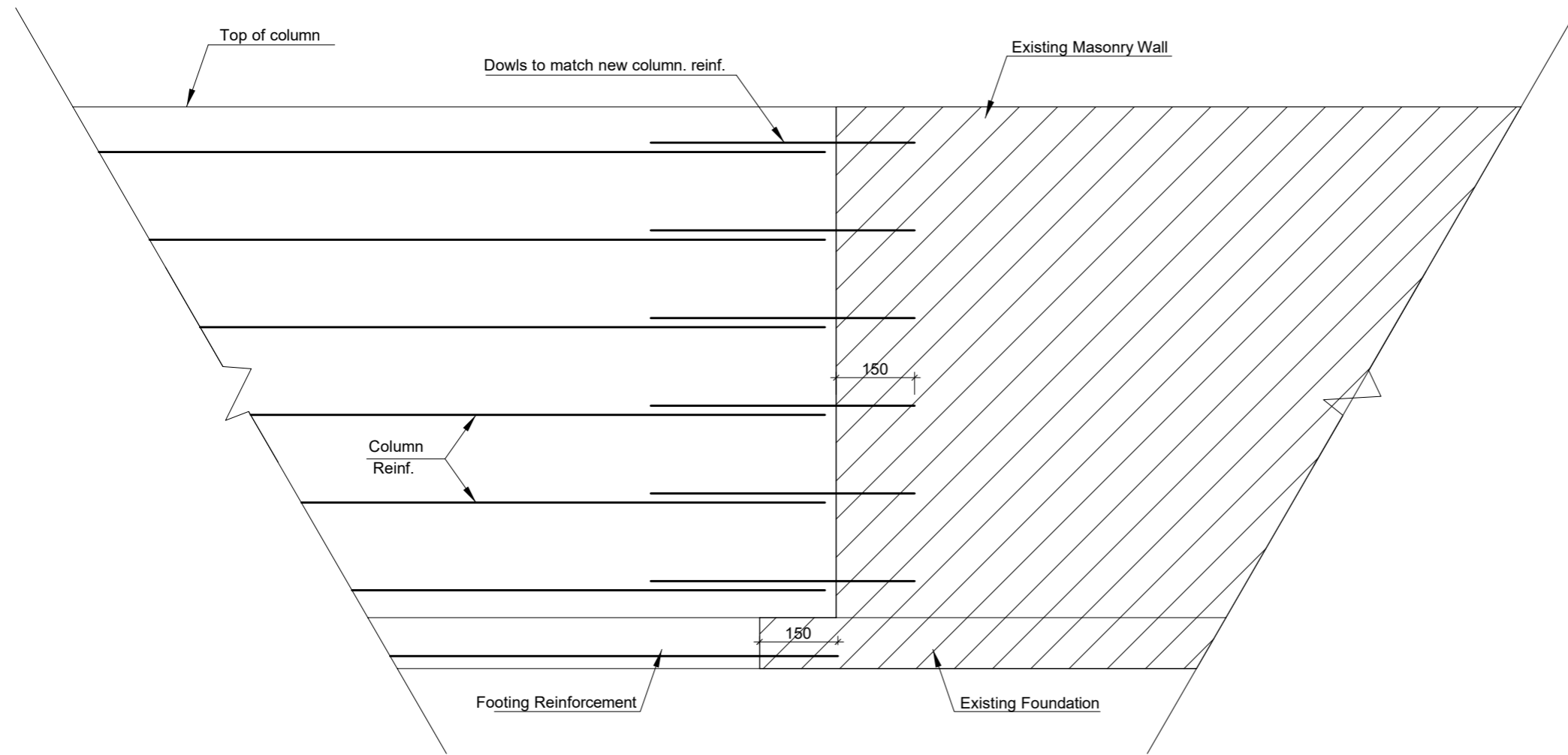
CLIENT : INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE : **R . C . ROOF BEAM DETAILS**
Sheet 2 of 2

Scale: AS SHOWN Date: APRIL 2023
Designed: K.K Drawing: K.K Checked: K.N.K

Job No. Designed: **S/005**

REVISION No.



ELEVATION

SCALE: 1 : 30

FOR PERMIT

REV. NO.	REVISION	BY:ENGR/TECH	DATE



PROJECT TITLE
**PROPOSED WASH FACILITY AND
 RENOVATION OF EXISTING
 BORDER POST**

CLIENT : INTERNATIONAL ORGANIZATION
 FOR MIGRATION (IOM)

SHEET TITLE : **TYPICAL DETAILS OF
 EXISTING COLUMN TO WALL**

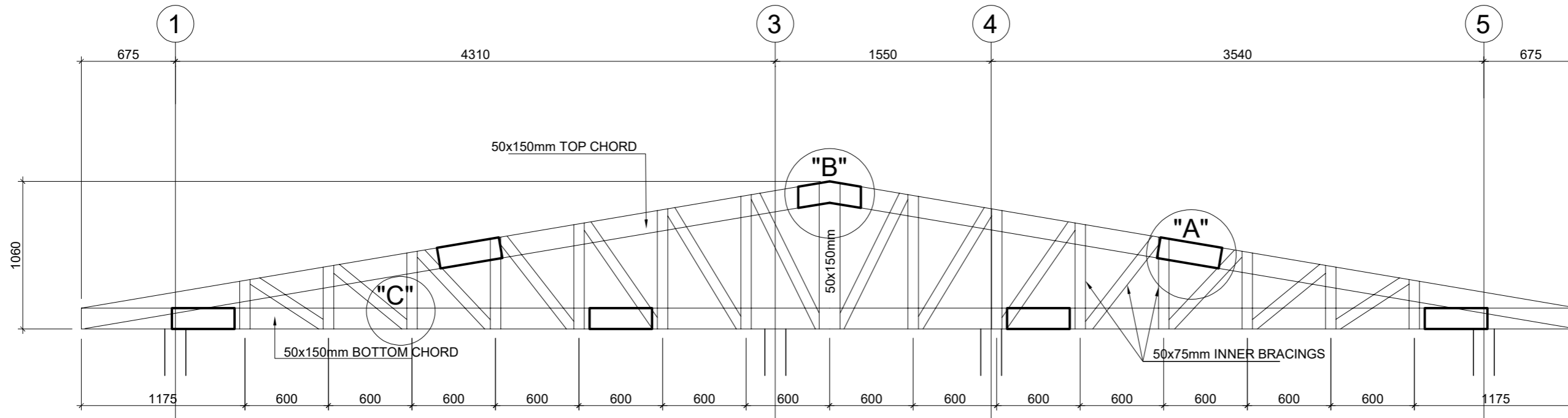
Scale: AS SHOWN Date: MAY 2022

Designed: K.K Drawing: K.K Checked: K.N.K

Job No. Designed: **D/001**

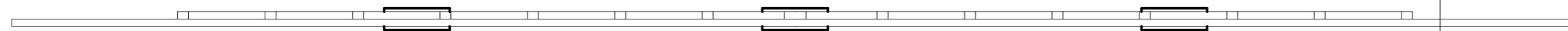
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REVISION No.



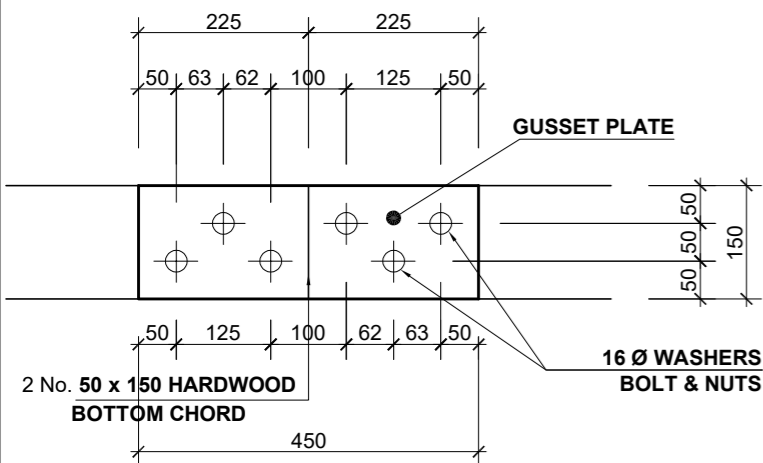
ELEVATION OF TRUSS

5 OFF. SCALE 1 : 30



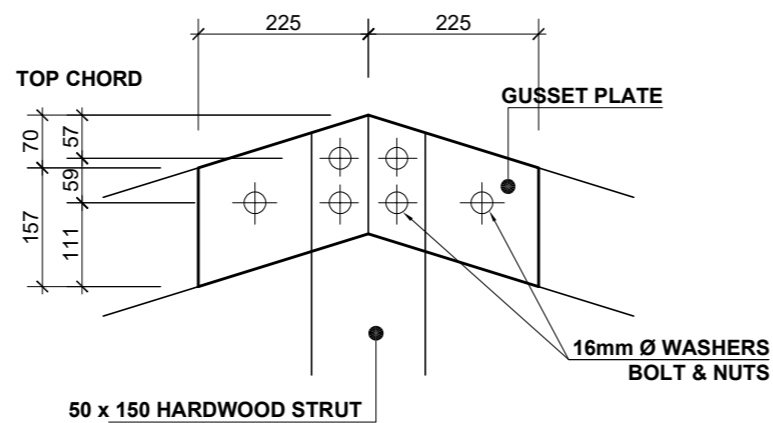
PLAN AT TOP

SCALE 1 : 30



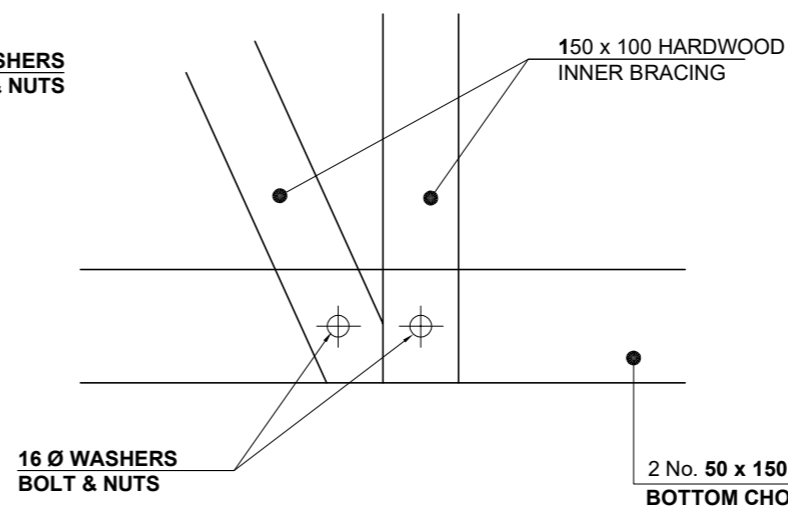
DETAILS AT "A"

(SCALE: 1 : 10)



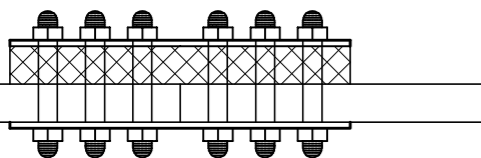
DETAILS AT "B"

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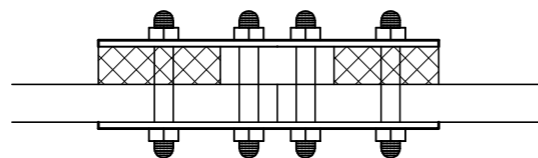
DETAILS AT "C"

(SCALE: 1 : 10)



PLAN AT "A"

(SCALE: 1 : 10)



PLAN AT "B"

(SCALE: 1 : 10)

FOR PERMIT

REV. NO.	REVISION	BY:ENGR/TECH	DATE

PROJECT TITLE
PROPOSED WATER, SANITATION AND HYGIENE (WASH) FACILITY AND RENOVATION OF EXISTING BORDER POST AT BUNKPRUGU

CLIENT : INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE : **TYPICAL DETAILS OF ROOF TRUSS**

Scale: AS SHOWN Date: APRIL 2023
 Designed: K.K Drawing: K.K Checked: K.N.K

Job No. [] Designed: S/006

REVISION No.									

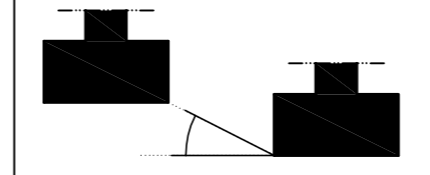
WASH FACILITY

- These drawings must be completed with MEP and Architectural Drawings/ Design.
- All drawings shall be read in conjunction with all relevant architectural, and all other disciplines (drawings and Specifications).
- Contractor must coordinate and implement the construction details in conjunction with Architectural, Plumbing, Electrical and Mechanical drawings. Any identified discrepancy must be communicated before execution to the Architects and Engineers.
- All the levels and distances must be checked on site by the Contractor.
- For the definition of the finishes, Architectural Drawings must be consulted.
- The contractor shall comply with the specifications of Eurocode, BS and the relevant Ghanaian regulations.
- Unless otherwise stated, all dimensions are in millimeters.
- All materials and finishes shall be consistent throughout the project unless approved otherwise.
- All MEP ducts and concrete embedded elements must be done as first fixes before casting of concrete. All the locations and dimensions are to be checked by the Contractor prior to casting the concrete. Architects and Engineers must be informed of any discrepancies observed.
- No ducts or openings are allowed in beams or in columns, except if indicated very clearly on the structural drawings.
- For elements with concrete final finish, formwork must be prepared in accordance with provisions of section 5 (Falsework & Formwork) of EN 13670:2009 (E): Execution of Concrete Works.
- Blinding concrete (minimum 50mm layer) must be provided in contact with soil on the bottom surface of foundations and foundation beams.
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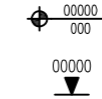
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 - High yield reinforcement (Ductility B) with minimum characteristic strength of 460 N/mm² - S500 (EN1992-1-1)
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 - 25mmWalls not in contact with soil or water
 - 25mmColumns
 - 25mmBeams
 - 25mmSlabs and Stairs
 - 25mmSlab on grade and stairs on grade

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FOR PERMIT

REV. NO.	REVISION	BY:ENGR/TECH	DATE

PROJECT TITLE
PROPOSED WASH FACILITY AND RENOVATION OF EXISTING BORDER POST

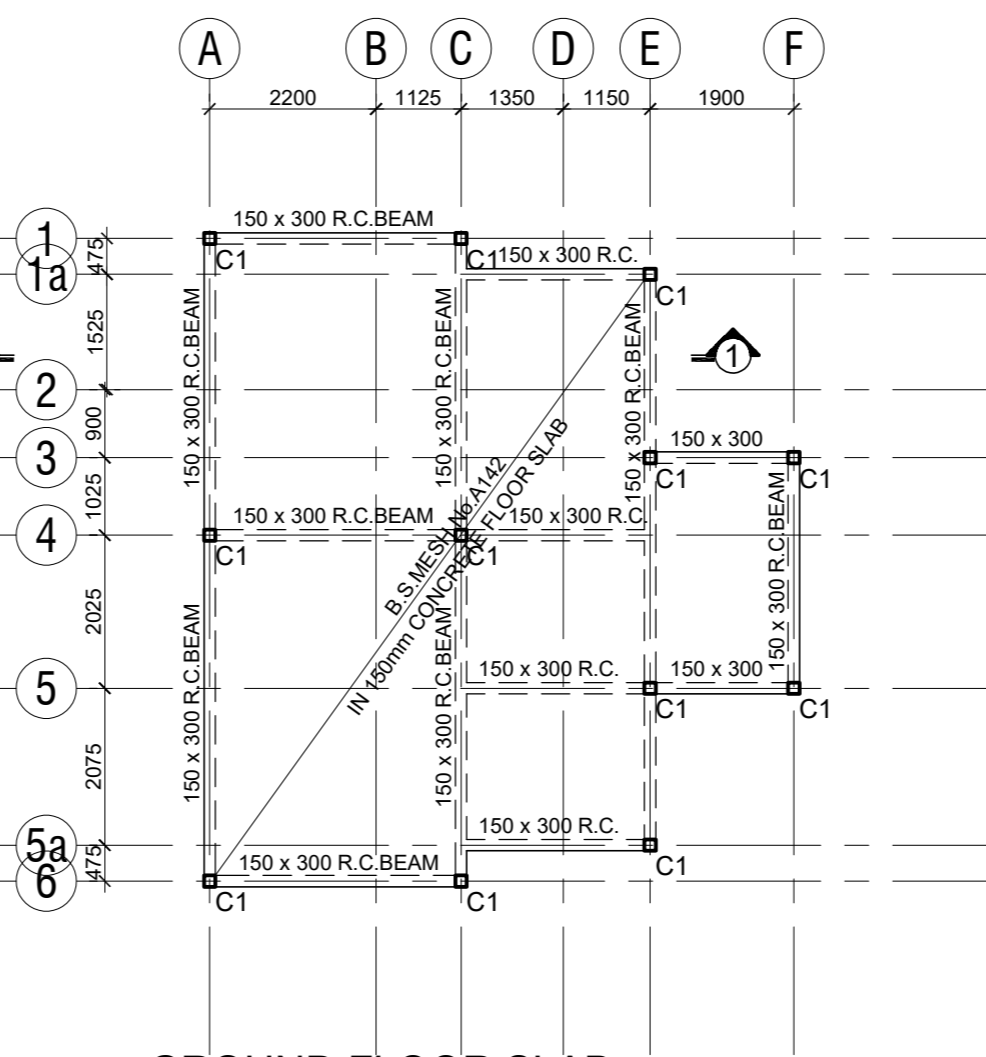
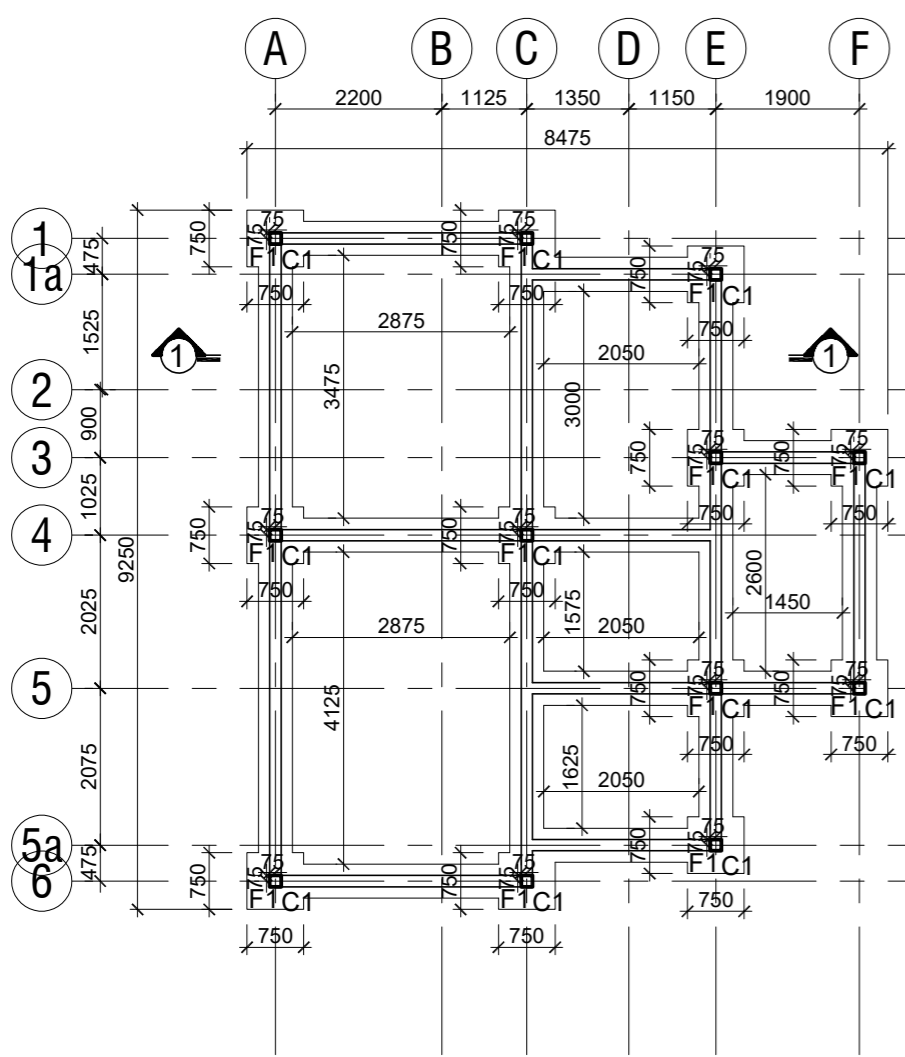
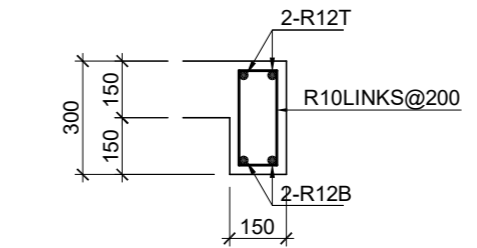
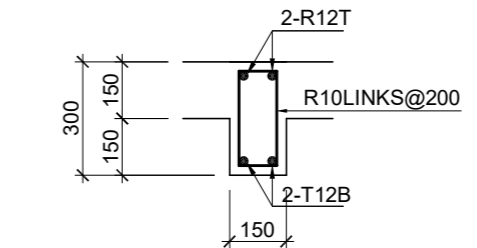
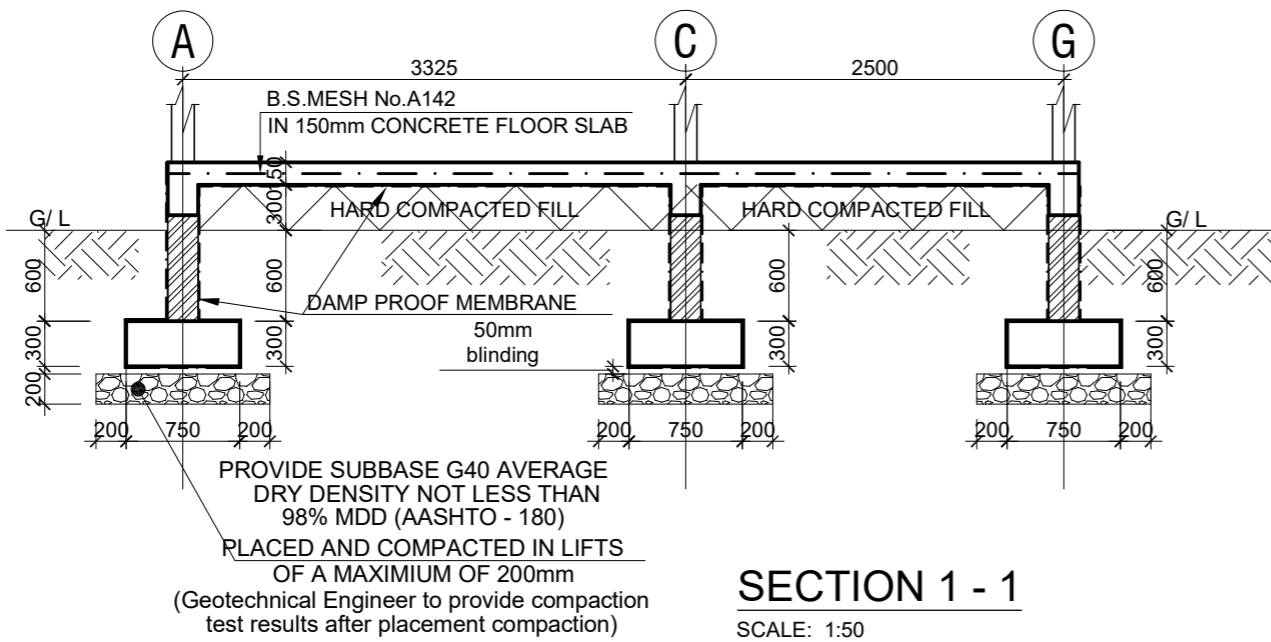
CLIENT : INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE : **CONSTRUCTION GENERAL NOTES AND SPECIFICATIONS**

Scale: AS SHOWN	Date: MAY 2023
Designed: K.K	Drawing: K.K
	Checked: K.N.K

Job No. Designed: **S/000**

REVISION No.



FOR PERMIT

REV. NO.	REVISION	BY:ENGR/TECH	DATE

PROJECT TITLE
PROPOSED WASH FACILITY AND RENOVATION OF EXISTING BORDER POST

CLIENT : INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE : **FOUNDATION LAYOUT & G . A . GROUND FLOOR SLAB**

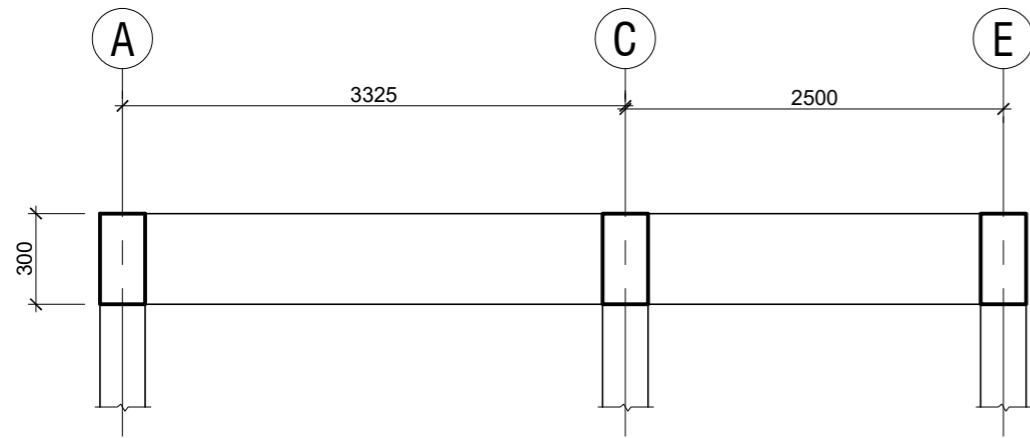
Scale: AS SHOWN Date: MAY 2023
Designed: K.K Drawing: K.K Checked: K.N.K

Job No. Designed: **S/001**

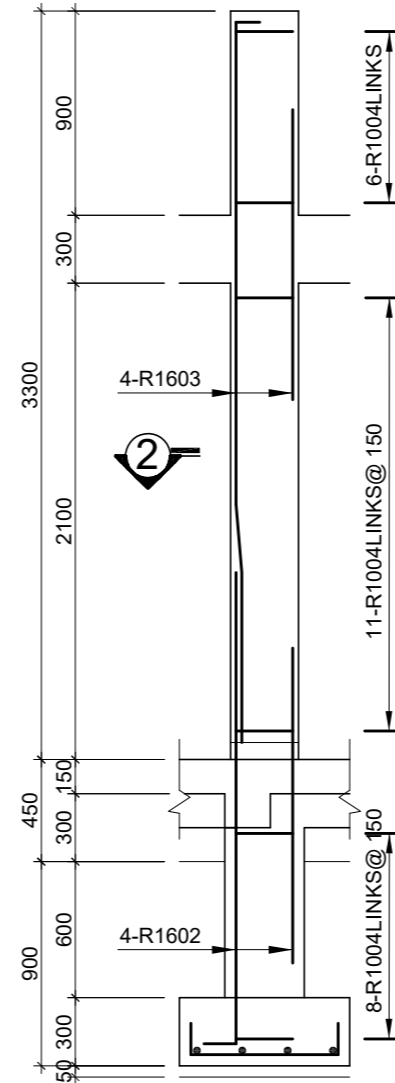
REVISION No.

BENDING SCHEDULE

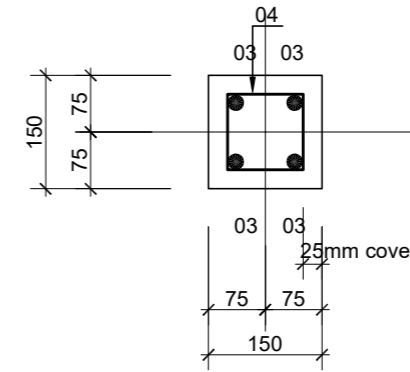
COLUMN	BAR MARK	BAR SIZE	TOTAL	LENGTH	SHAPE
	01	R12	120	950	
	02	R16	24	2650	
	03	R16	24	4025	
	04	R10	276	600	



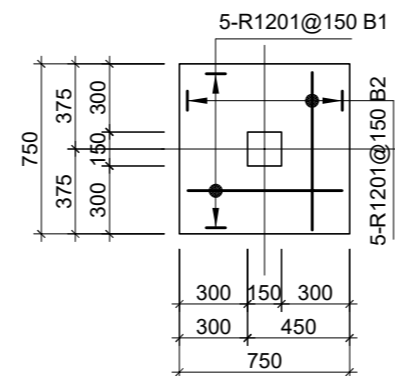
SECTION 1 - 1
SCALE: 1:50



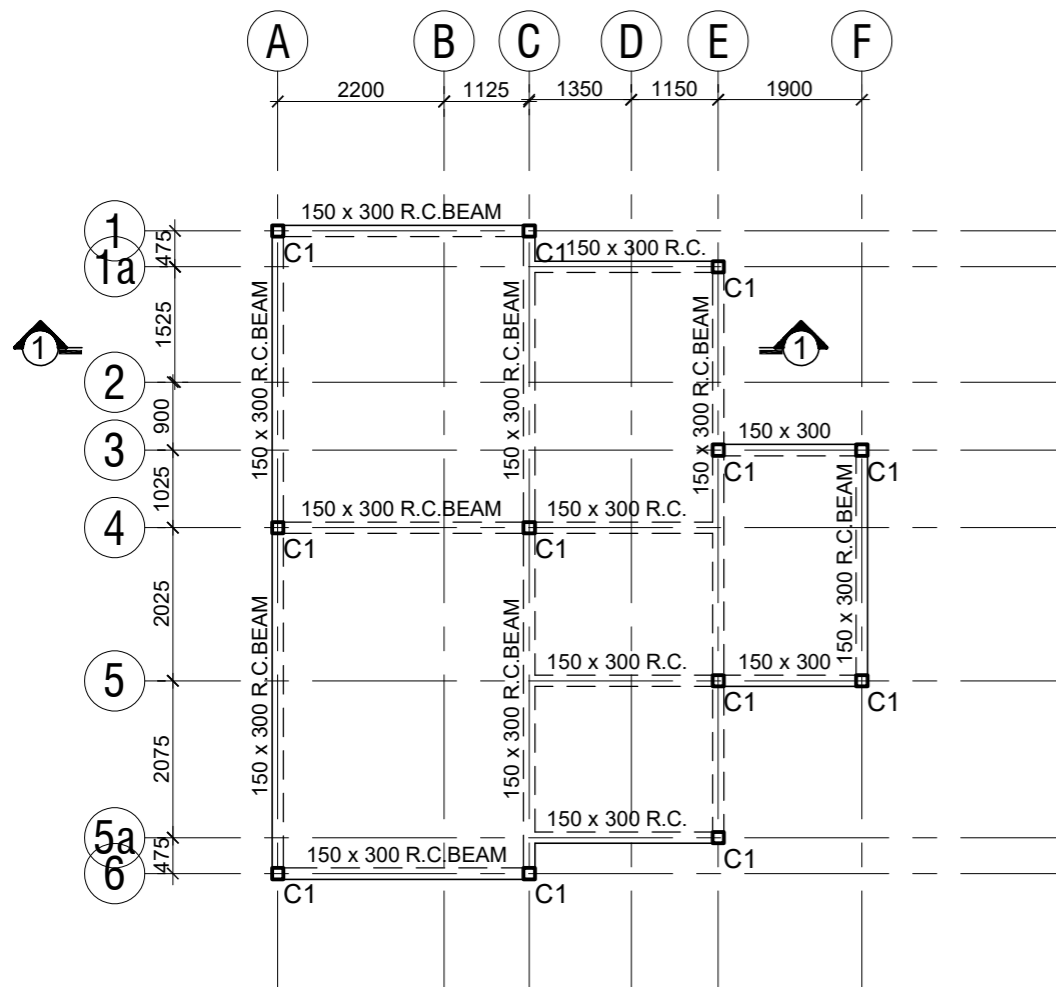
ELEVATION



SECTION 2 - 2
SCALE 1 : 10



COLUMN DETAILS
12 OFF. SCALE: 1 : 30



ROOF BEAM
SCALE: 1:100

FOR PERMIT

REV. NO.	REVISION	BY:ENGR/TECH	DATE
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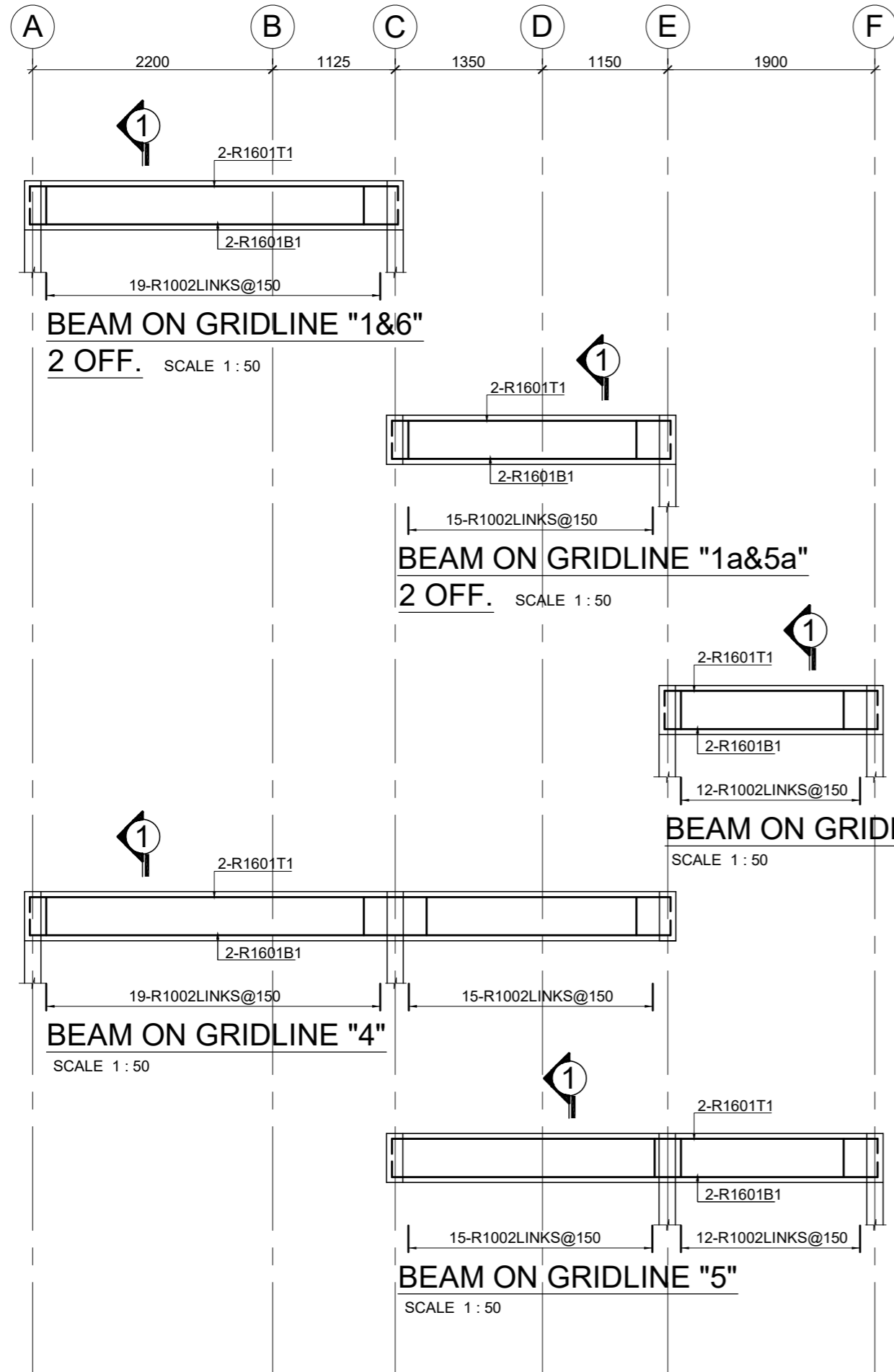
PROJECT TITLE
PROPOSED WASH FACILITY AND RENOVATION OF EXISTING BORDER POST

CLIENT : INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)
SHEET TITLE : **G . A . ROOF BEAM & R . C . COLUMN FOOTINGS DETAILS Sheet 1 of 1**

Scale: AS SHOWN Date: MAY 2023
Designed: K.K Drawing: K.K Checked: K.N.K

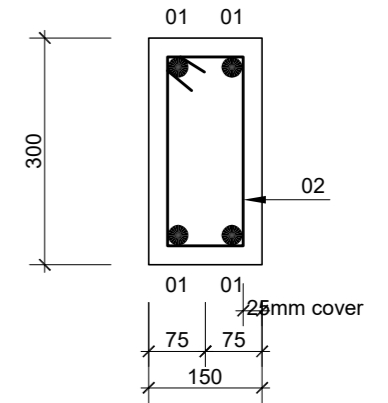
Job No. [] Designed: [] **S/002**

REVISION No.



BENDING SCHEDULE

BEAM ON GRIDLINE	BAR MARK	BAR SIZE	TOTAL	LENGTH	SHAPE
"1&6"	01	R16	8	3925	L 3325 J300
	02	R10	38	900	(O.D) 100 250
"1a&5a"	01	R16	8	3150	L 2550 J300
	02	R10	30	900	(O.D) 100 250
"3"	01	R16	4	2550	L 1950 J300
	02	R10	12	900	(O.D) 100 250
"4"	01	R16	8	6470	L 5870 J300
	02	R10	34	900	(O.D) 100 250
"5"	01	R16	4	5050	L 4450 J300
	02	R10	27	900	(O.D) 100 250



SECTION 1 - 1
SCALE 1 : 10

FOR PERMIT

REV. NO.	REVISION	BY:ENGR/TECH	DATE

PROJECT TITLE
PROPOSED WASH FACILITY AND RENOVATION OF EXISTING BORDER POST

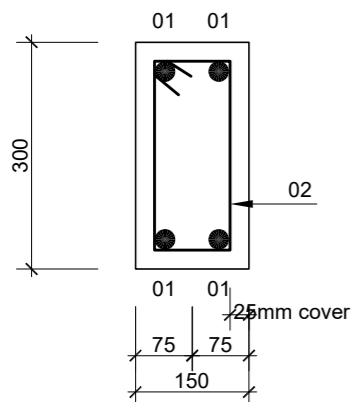
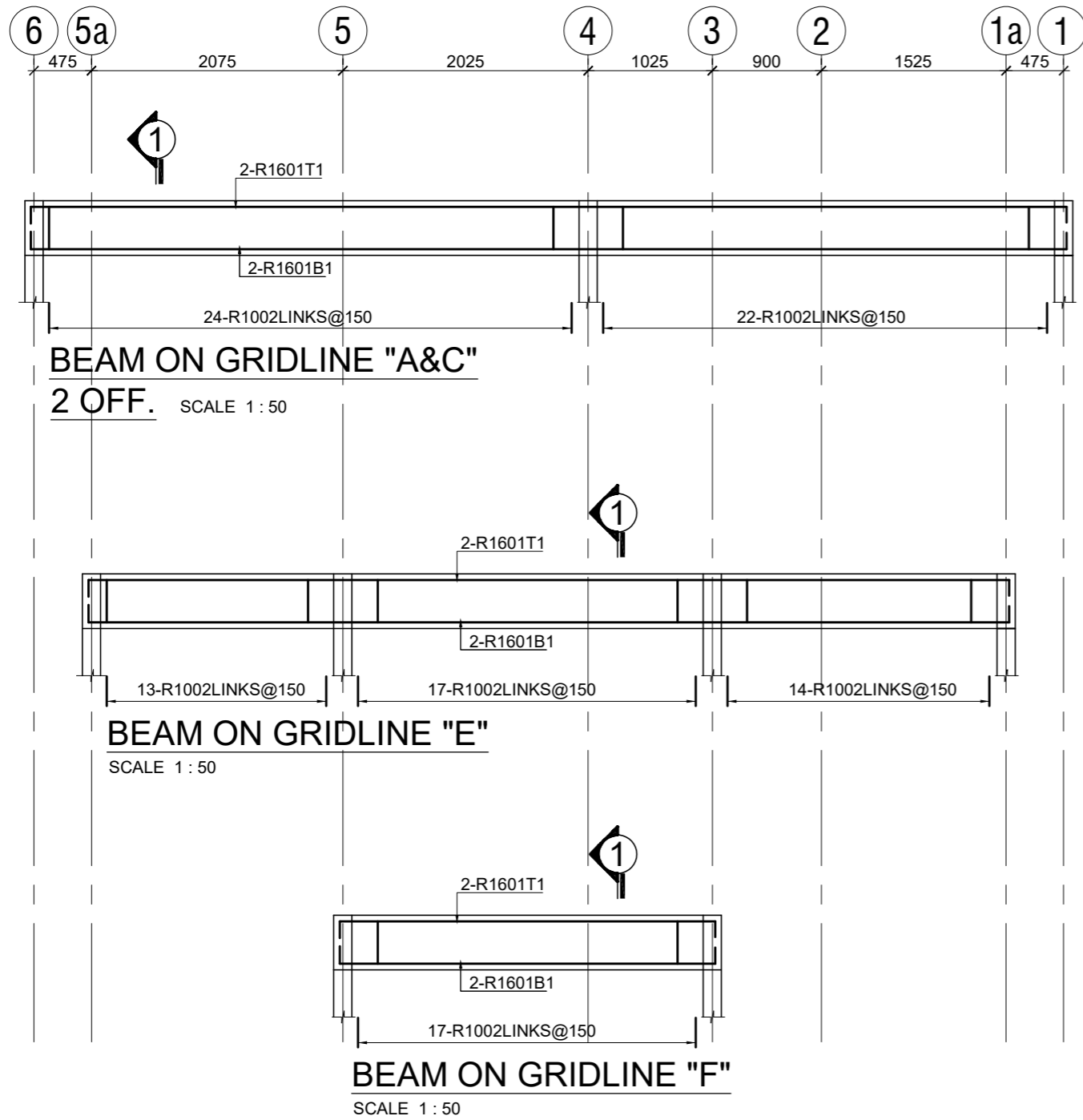
CLIENT : INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE : **R . C . ROOF BEAM DETAILS**
Sheet 1 of 2

Scale: AS SHOWN Date: MAY 202
Designed: K.K Drawing: K.K Checked: K.N.K

Job No. [] Designed: S/003

REVISION No.



BENDING SCHEDULE				
BAR MARK	BAR SIZE	TOTAL	LENGTH	SHAPE
BEAM ON GRIDLINE "A&C"				
01	R16	8	8950	8550 200
02	R10	92	900	(O . D) 100 250
BEAM ON GRIDLINE "E"				
01	R16	4	8000	7600 200
02	R10	44	900	(O . D) 100 250
BEAM ON GRIDLINE "F"				
01	R16	4	3500	3100 200
02	R10	17	900	(O . D) 100 250

FOR PERMIT

REV. NO.	REVISION	BY:ENGR/TECH	DATE

PROJECT TITLE
PROPOSED WASH FACILITY AND RENOVATION OF EXISTING BORDER POST

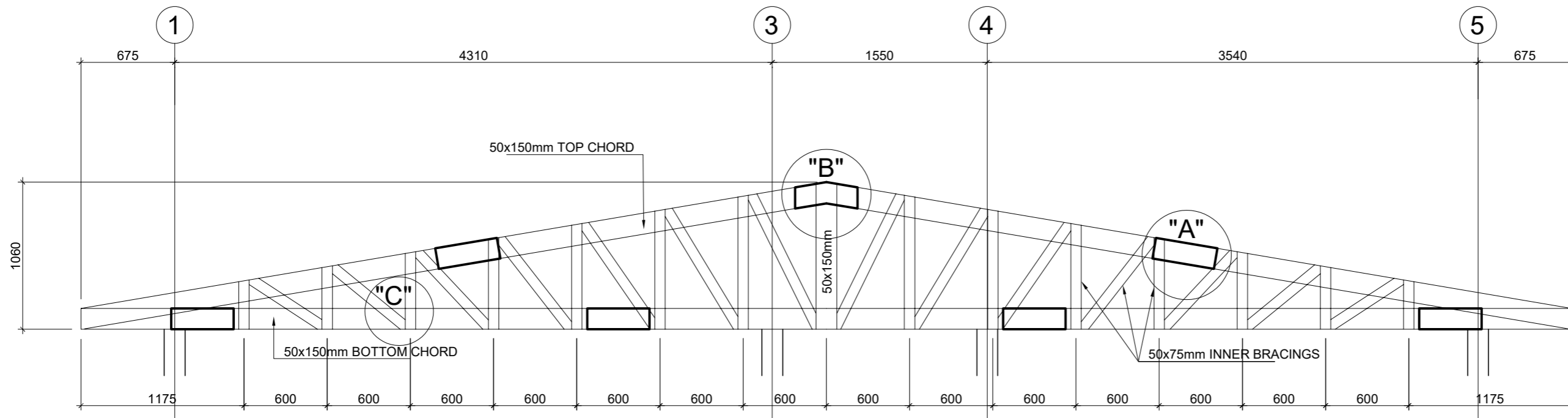
CLIENT : INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE : **R . C . ROOF BEAM DETAILS Sheet 2 of 2**

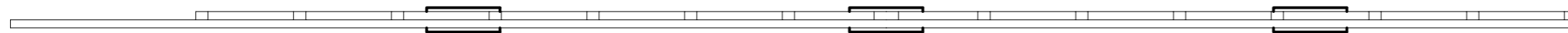
Scale: AS SHOWN Date: MAY 2022
Designed: K.K Drawing: K.K Checked: K.N.K

Job No. [] Designed: [] **S/004**

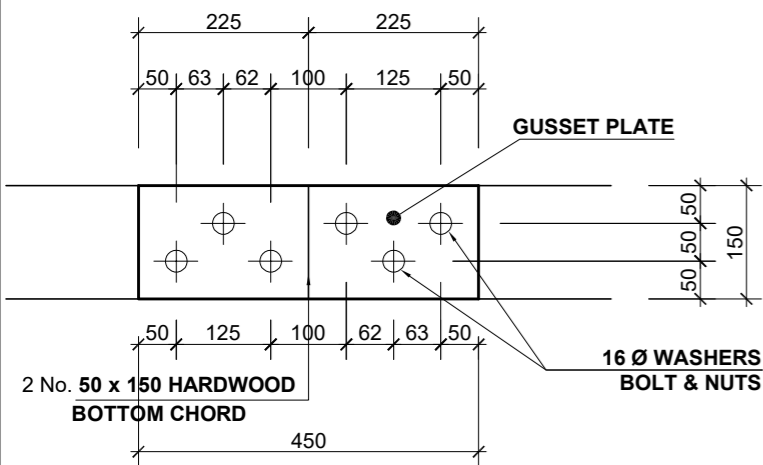
REVISION No. [] [] [] [] [] [] [] [] [] []



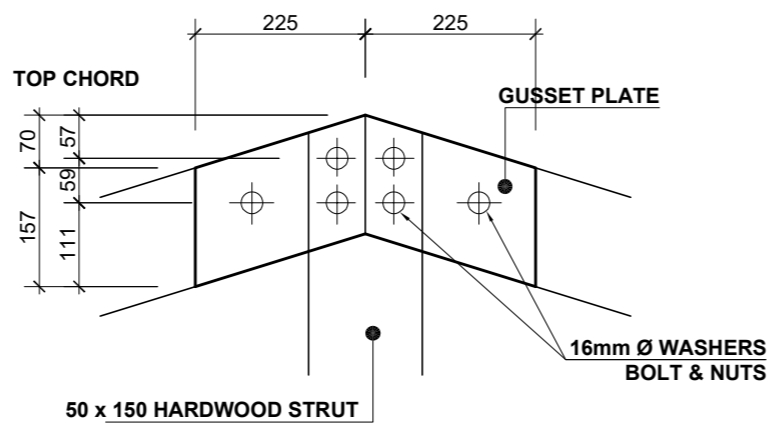
ELEVATION OF TRUSS
5 OFF. SCALE 1 : 30



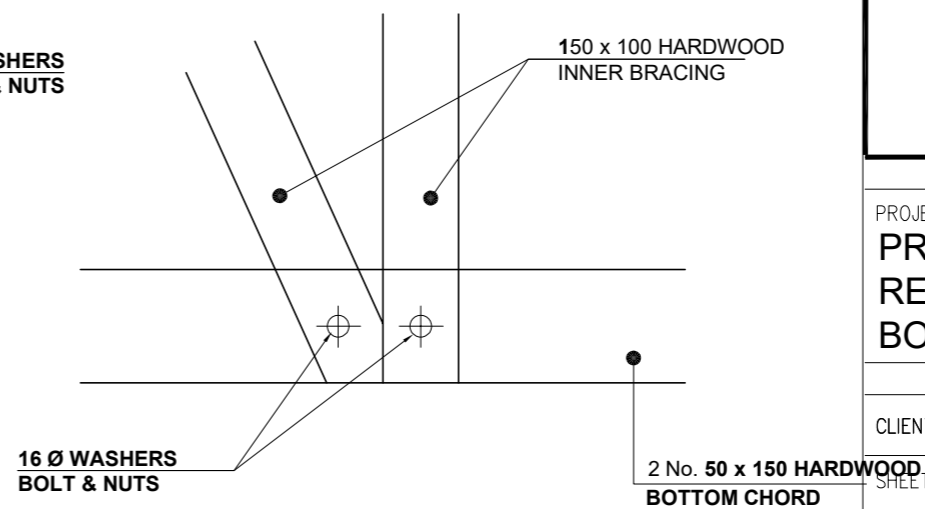
PLAN AT TOP
SCALE 1 : 30



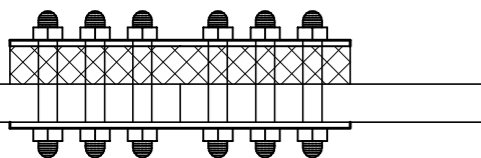
DETAILS AT "A"
(SCALE: 1 : 10)



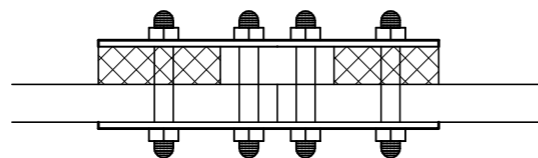
DETAILS AT "B"
(SCALE: 1 : 10)



DETAILS AT "C"
(SCALE: 1 : 10)



PLAN AT "A"
(SCALE: 1 : 10)



PLAN AT "B"
(SCALE: 1 : 10)

FOR PERMIT

REV. NO.	REVISION	BY:ENGR/TECH	DATE

PROJECT TITLE
**PROPOSED WASH FACILITY AND
RENOVATION OF EXISTING
BORDER POST**

CLIENT : INTERNATIONAL ORGANIZATION
FOR MIGRATION (IOM)

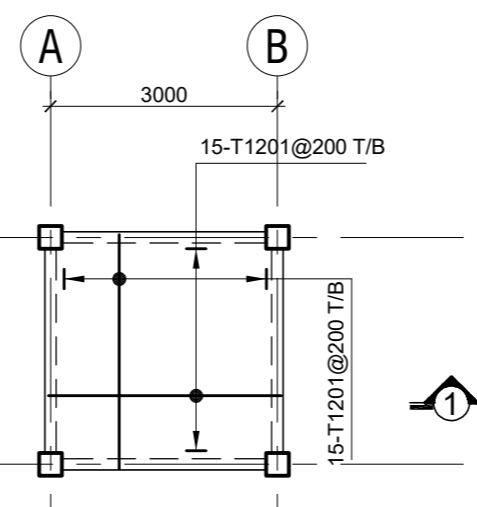
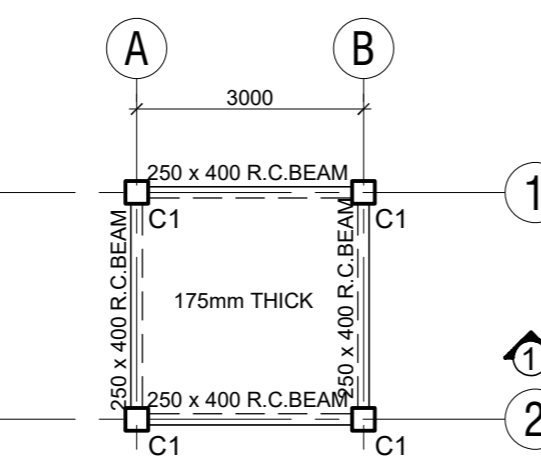
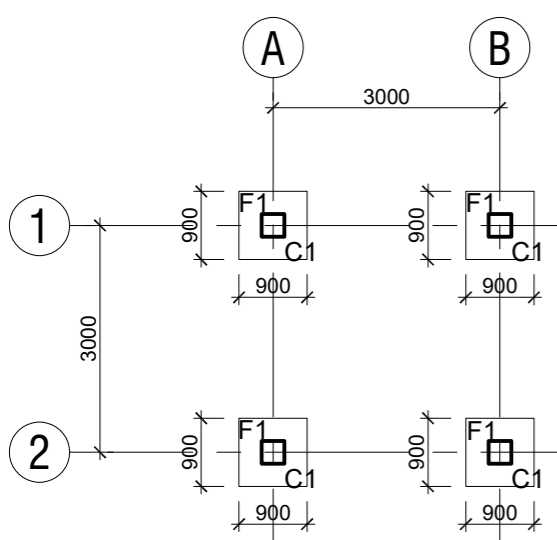
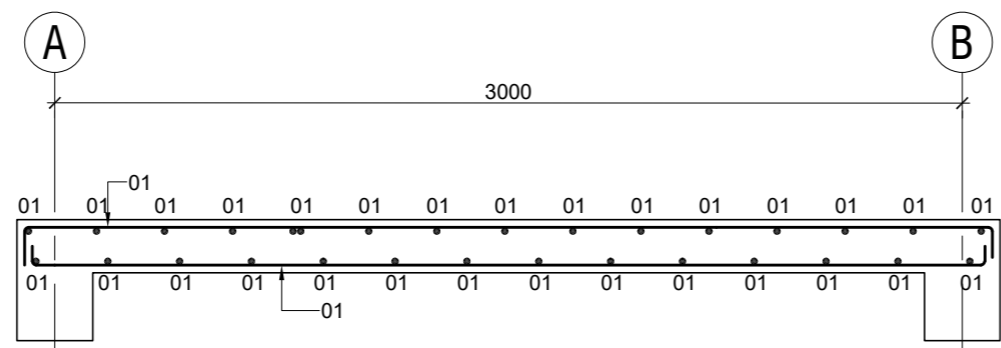
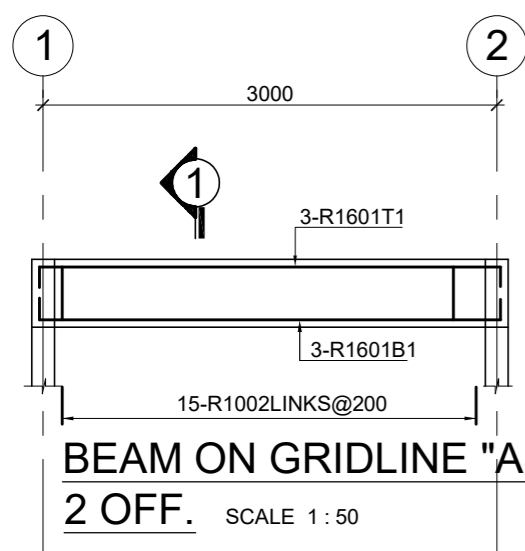
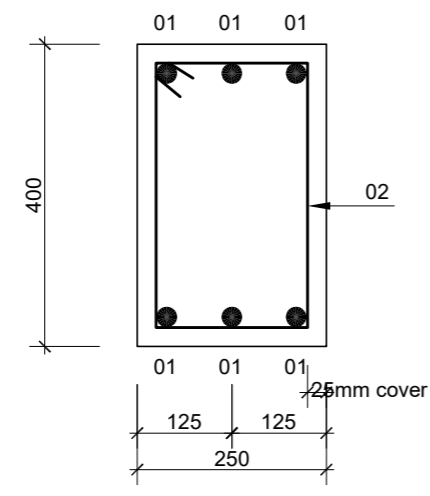
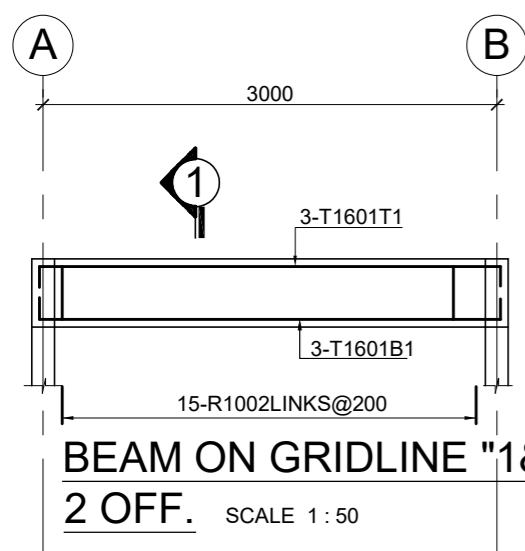
SHEET TITLE : **TYPICAL DETAILS OF ROOF
TRUSS**

Scale: AS SHOWN Date: MAY 2022

Designed: K.K Drawing: K.K Checked: K.N.K

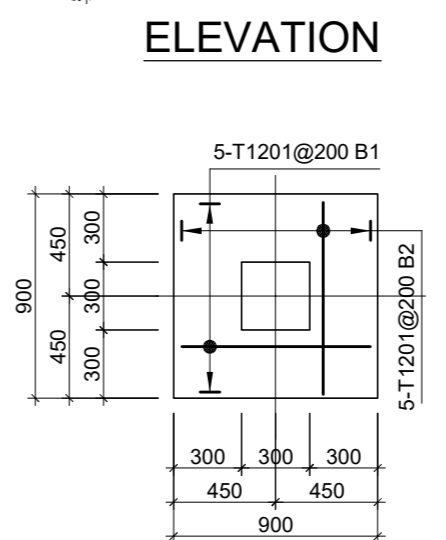
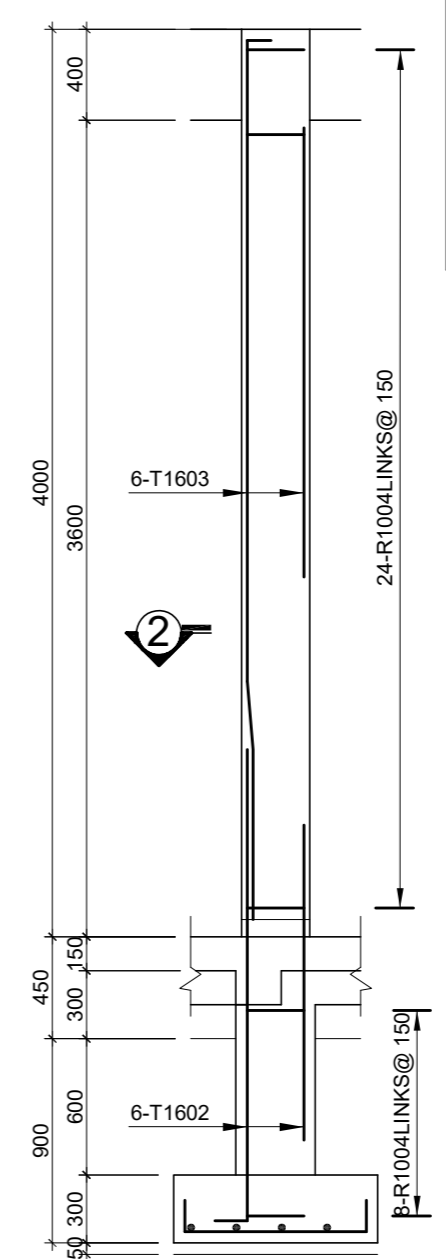
Job No. Designed: S/005

REVISION No.



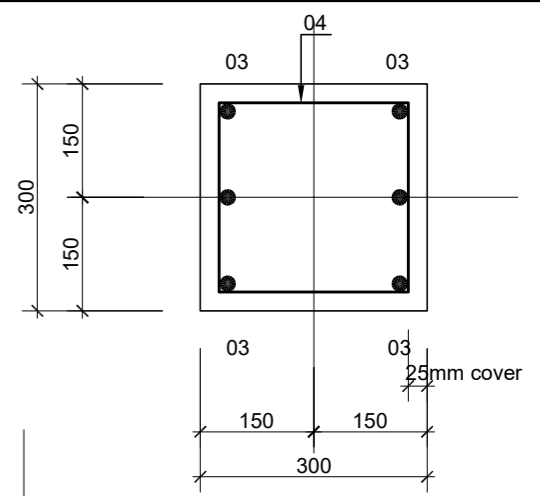
BENDING SCHEDULE

BAR MARK	BAR SIZE	TOTAL	LENGTH	SHAPE
BEAM ON GRIDLINE "1&2"				
01	R16	8	3700	
02	R10	30	1350	(O.D) 200
BEAM ON GRIDLINE "A&B"				
01	R16	8	3700	
02	R10	30	1350	(O.D) 200



BENDING SCHEDULE

BAR MARK	BAR SIZE	TOTAL	LENGTH	SHAPE
COLUMN				
01	T12	40	1150	
02	T16	24	2650	
03	T16	24	4025	
04	R10	128	1150	(O.D) 250

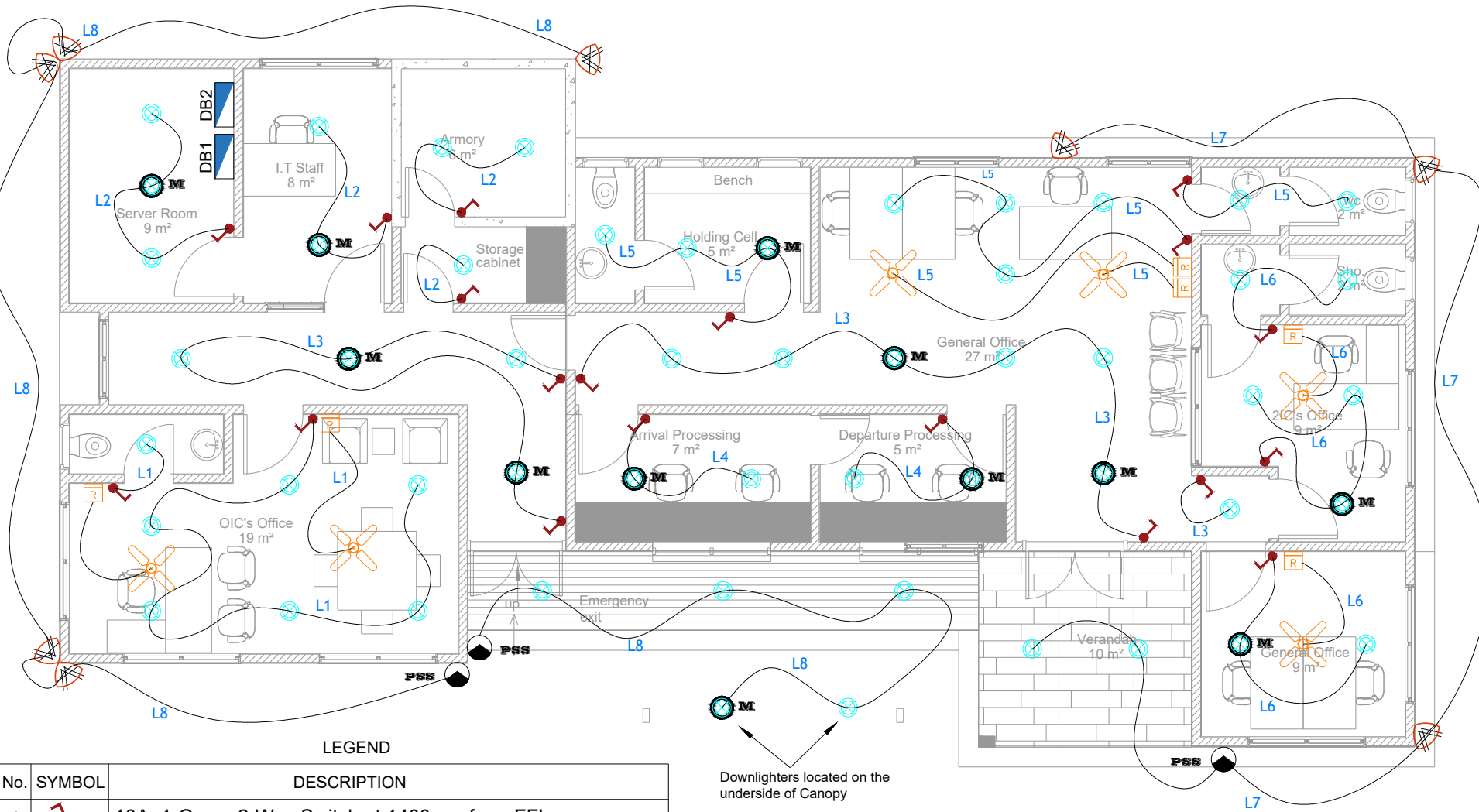


REV. NO.	REVISION	BY:ENGR/TECH	DATE

PROJECT TITLE
PROPOSED WASH FACILITY AND RENOVATION OF EXISTING BORDER POST

CLIENT :	INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)
SHEET TITLE :	FOUNDATION LAYOUT & G . A . GROUND FLOOR SLAB
Scale:	AS SHOWN
Date:	MAY 2023
Designed: K.K	Drawing: K.K
Checked: K.N.K	
Job No.	Designed: S/001
REVISION No.	

BUILDING SERVICES DRAWINGS



LEGEND

No.	SYMBOL	DESCRIPTION
1		10A, 1-Gang, 2-Way Switch at 1400mm from FFL
2		10A, IP65 Photocell Switch at 3000mm from FFL
3		200mm ø, 20W, 5000K, 2000lm Surface Mounted Luminaire
4		200mm ø, 20W, 5000K, 2000lm, 1hr Rated, Surface Mounted Maintained LED Luminaire
5		75W Ceiling Fan
6		75W Ceiling Fan Regulator
7		150W, 5000K, 2500lm IP 68 LED Floodlight
8		16 Way, MCB SPN DB with 63A Incomer
9		4 Way, MCB TPN DB with 100A Incomer
10		1.5mm sq. Switch Wiring Cable

Downlighters located on the underside of Canopy

NOTES

To Be Read Together with Drawing No. E08,
(Electrical Distribution Boards Bunkprugu GIS)

notes

CLIENT : INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

LOCATION : GHANA

DRAWING NUMBER: E01

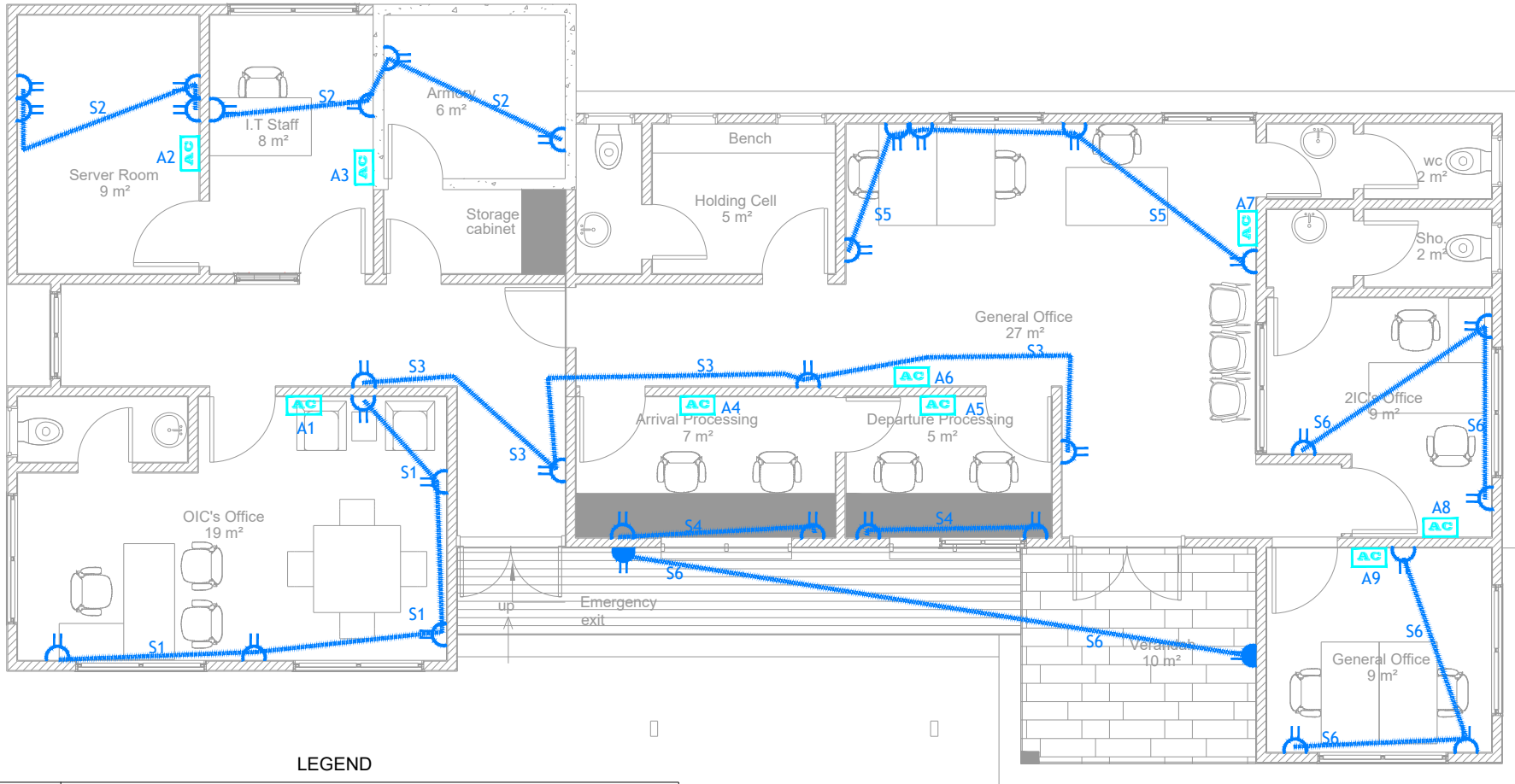
DRAWING TITLE: ELECTRICAL LIGHTING SWITCHING SCHEME GROUND FLOOR, BUNKPRUGU GIS POE

SCALE : NTS DRAWN BY: I.A.K FARHAT

CHECKED BY: O.ASEMBA DATE: APRIL, 2023

#	REV	DATE

14 ANKOBI STR, DANSOMAN
ihgar@gmail.com



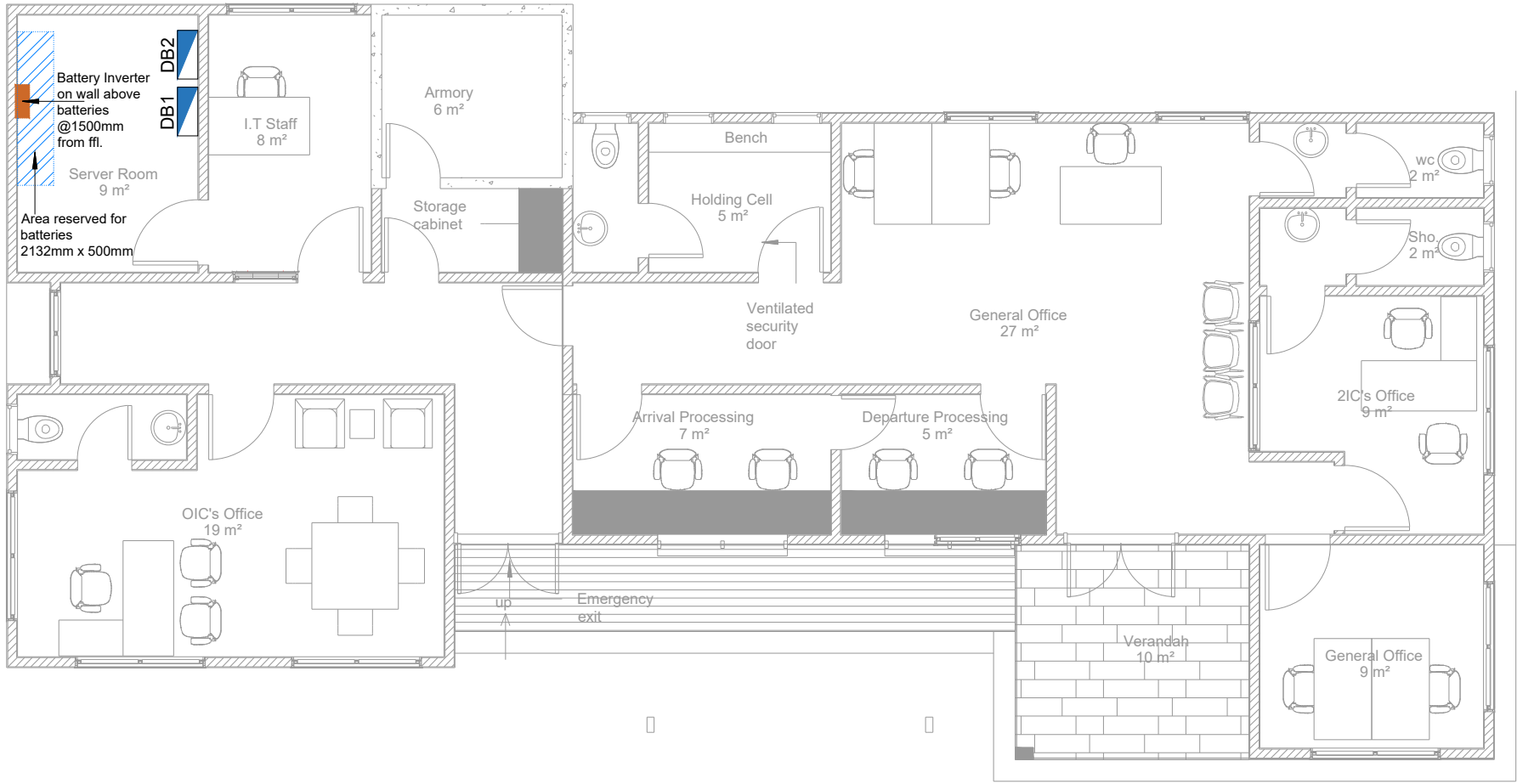
LEGEND

No.	SYMBOL	DESCRIPTION
1		13A 2-Gang Switched Socket Outlet at 450mm from FFL
2		IP 68 Weatherproof 13A 2-Gang Switched Socket Outlet with cover at 450mm from FFL
3		20A 1-Gang Double Pole Switch Marked Airconditioner at 1400mm from FFL
4		2.5mm sq. Cable Run P+N+E in PVC Conduits
5		16 Way, MCB SPN DB with 63A Incomer
6		4 Way, MCB TPN DB with 100A Incomer

NOTES

To Be Read Together with Drawing No. E08,
(Electrical Distribution Boards Bunkprugu GIS)

NOTES		
14 ANKOBI STR, DANSOMAN thgar@gmail.com		
#	REV	DATE
CLIENT : INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)		
LOCATION : GHANA		
DRAWING NUMBER: E02		
DRAWING TITLE: ELECTRICAL SMALL POWER LAYOUT GROUND FLOOR, BUNKPRUGU GIS POE		
SCALE : NTS DRAWN BY: I.A.K FARHAT		
CHECKED BY: O.ASEMPA DATE: APRIL, 2023		



Notes

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 thgar@gmail.com

#	REV	DATE

CLIENT INTERNATIONAL ORGANIZATION FOR
 MIGRATION (IOM)

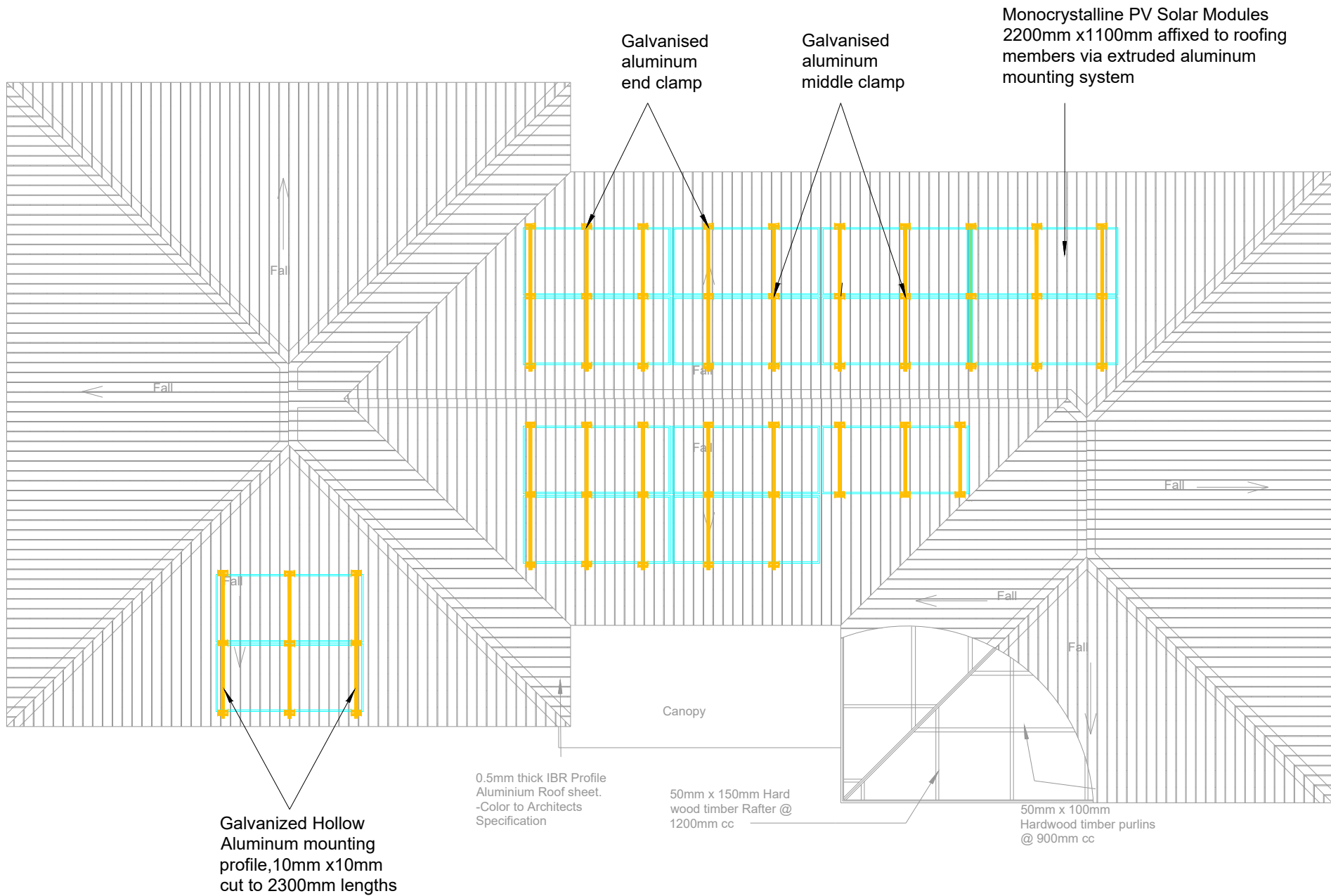
LOCATION: GHANA

DRAWING NUMBER: E03

DRAWING TITLE:
 BATTERY AND INVERTER
 LAYOUT GROUND FLOOR,
 BUNKPRUGU GIS POE

SCALE : NTS DRAWN BY: I.A.K FARHAT

CHECKED BY: O.ASEMPA DATE: APRIL, 2023



Notes

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ihgar@gmail.com

#	REV	DATE

CLIENT: INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

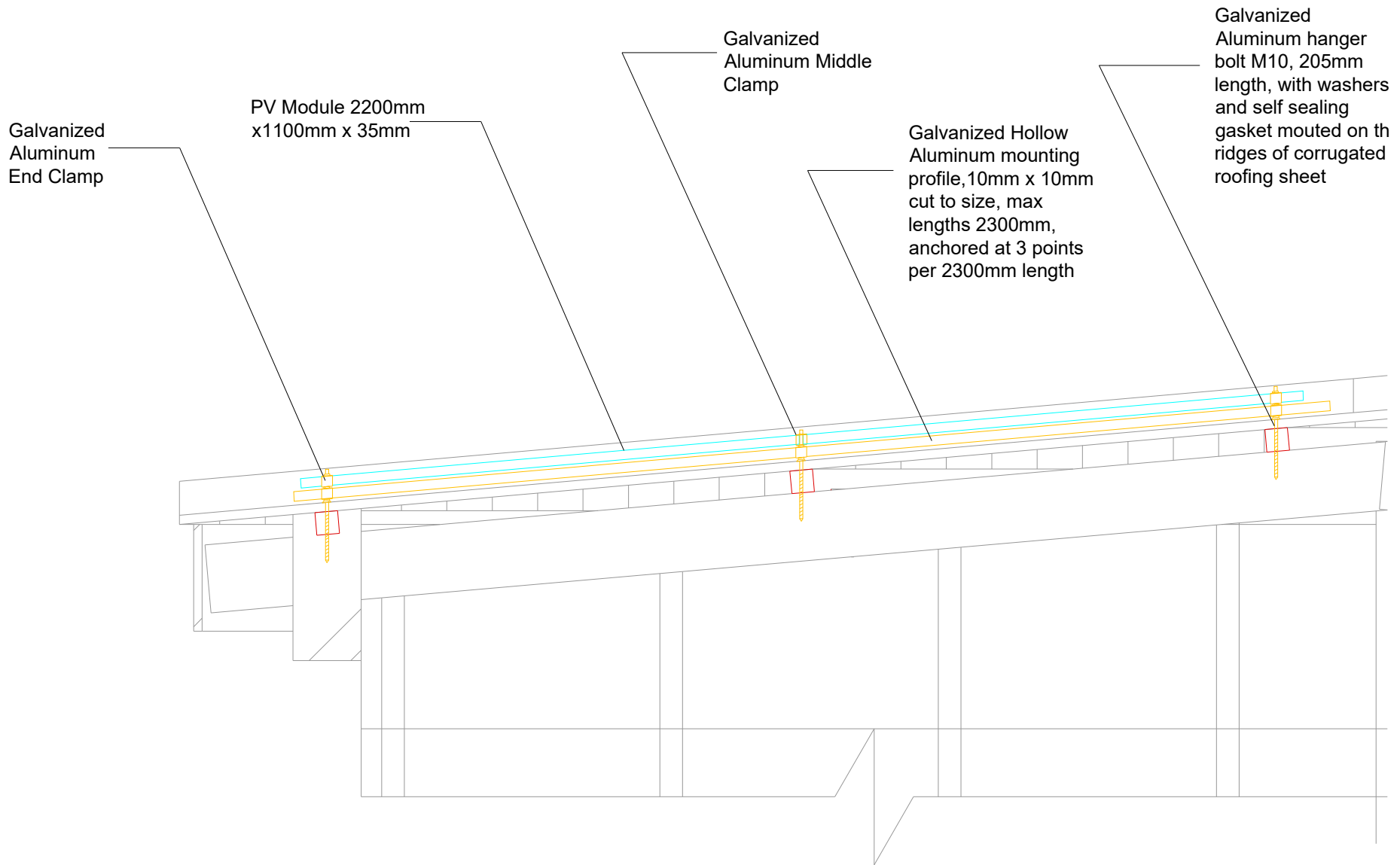
LOCATION: GHANA

DRAWING NUMBER: E04

DRAWING TITLE:
PV SOLAR PANEL LAYOUT,
ROOF, BUNKPRUGU GIS
POE

SCALE: NTS DRAWN BY: I.A.K FARHAT

CHECKED BY: O.ASEMPA DATE: APRIL, 2023



notes

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 thgar@gmail.com

#	REV	DATE

CLIENT INTERNATIONAL ORGANIZATION FOR
 MIGRATION (IOM)

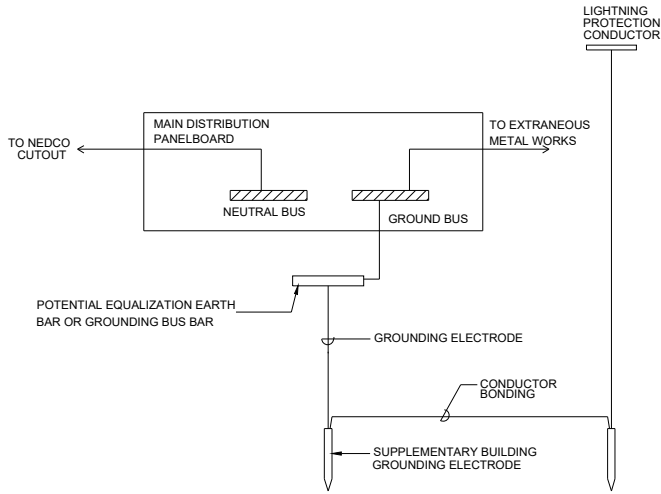
LOCATION: GHANA

DRAWING NUMBER: E05

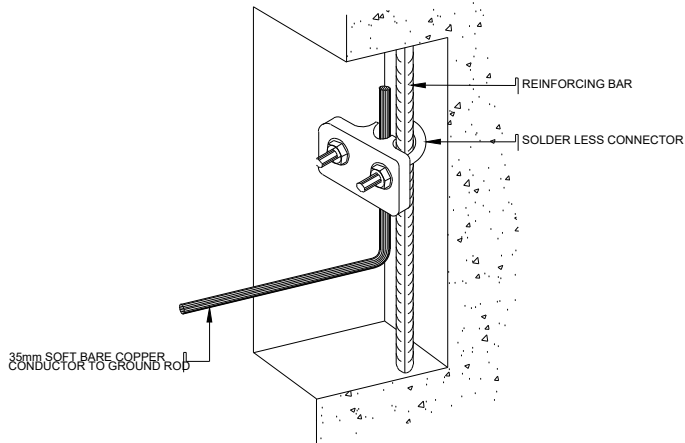
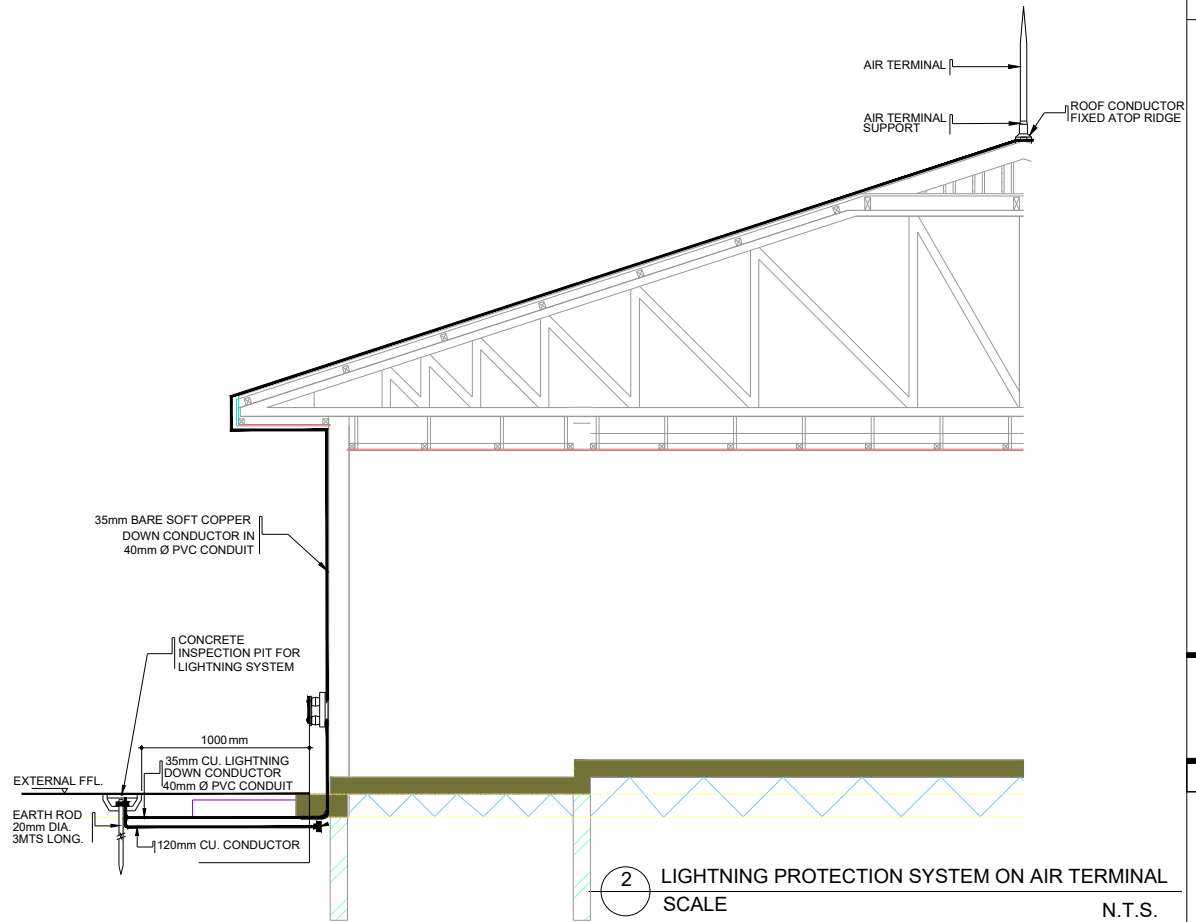
DRAWING TITLE:
 PV SOLAR PANEL
 MOUNTING DETAIL, ROOF,
 BUNKPRUGU GIS POE

SCALE : NTS DRAWN BY: I.A.K FARHAT

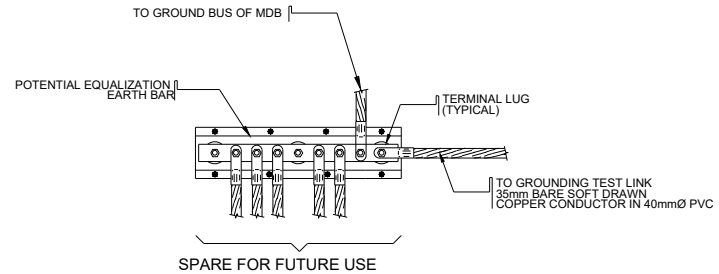
CHECKED BY: O.ASEMPA DATE: APRIL, 2023



1 GROUNDING SCHEMATIC DIAGRAM
SCALE N.T.S.



3 CONNECTION TO REINFORCEMENT DETAIL
SCALE N.T.S.



4 EQUIPOTENTIAL BUS BAR CONNECTION DETAIL
SCALE N.T.S.

Notes

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ihgar@gmail.com

#	REV	DATE

CLIENT INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

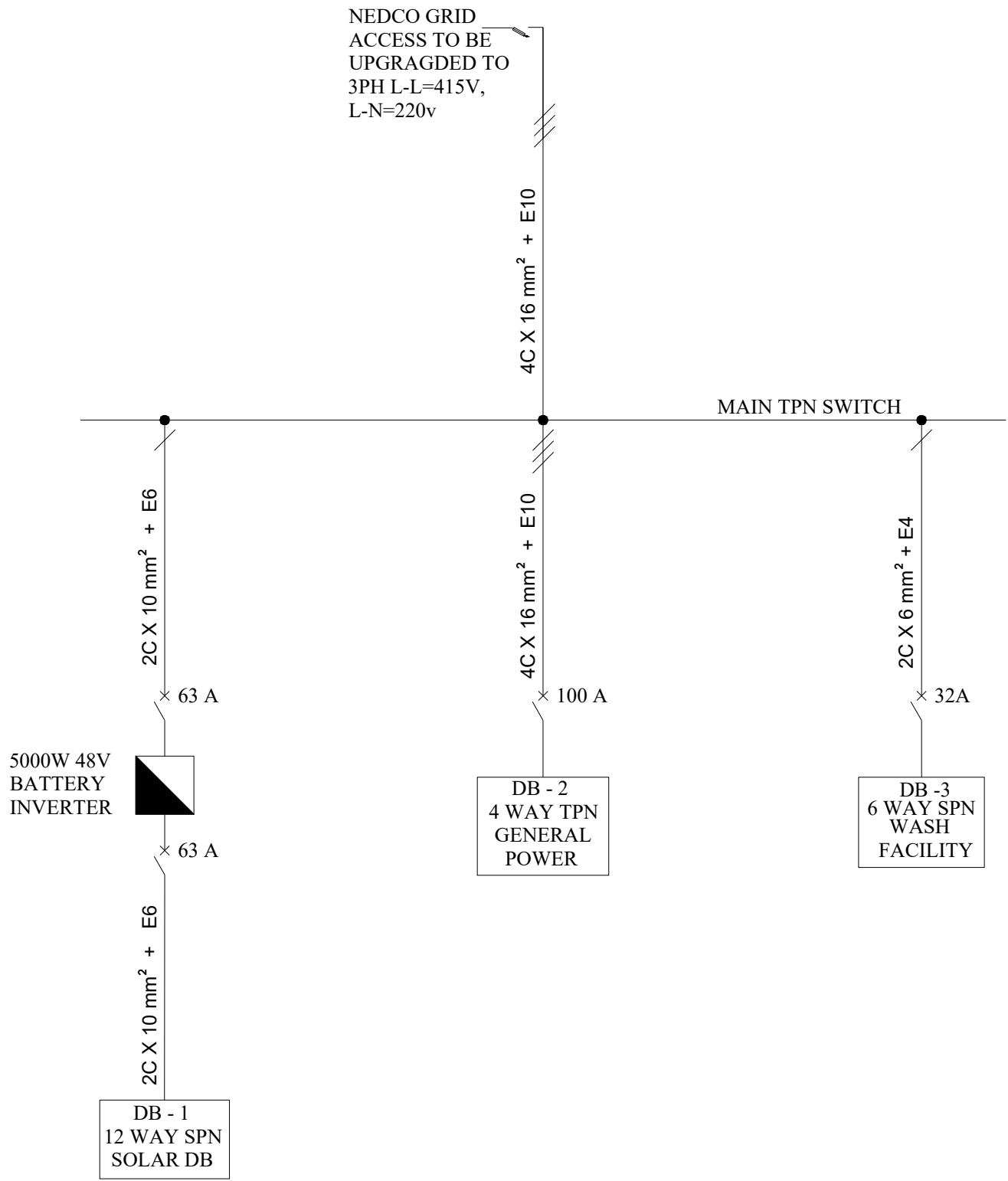
LOCATION: GHANA

DRAWING NUMBER: E06

DRAWING TITLE: ELECTRICAL GROUNDING & LIGHTNING PROTECTION BUNKPRUGU GIS POE

SCALE : NTS DRAWN BY: I.A.K FARHAT

CHECKED BY: O.ASEMPA DATE: APRIL, 2023



Notes

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#	REV	DATE

CLIENT: INTERNATIONAL ORGANIZATION FOR
MIGRATION (IOM)

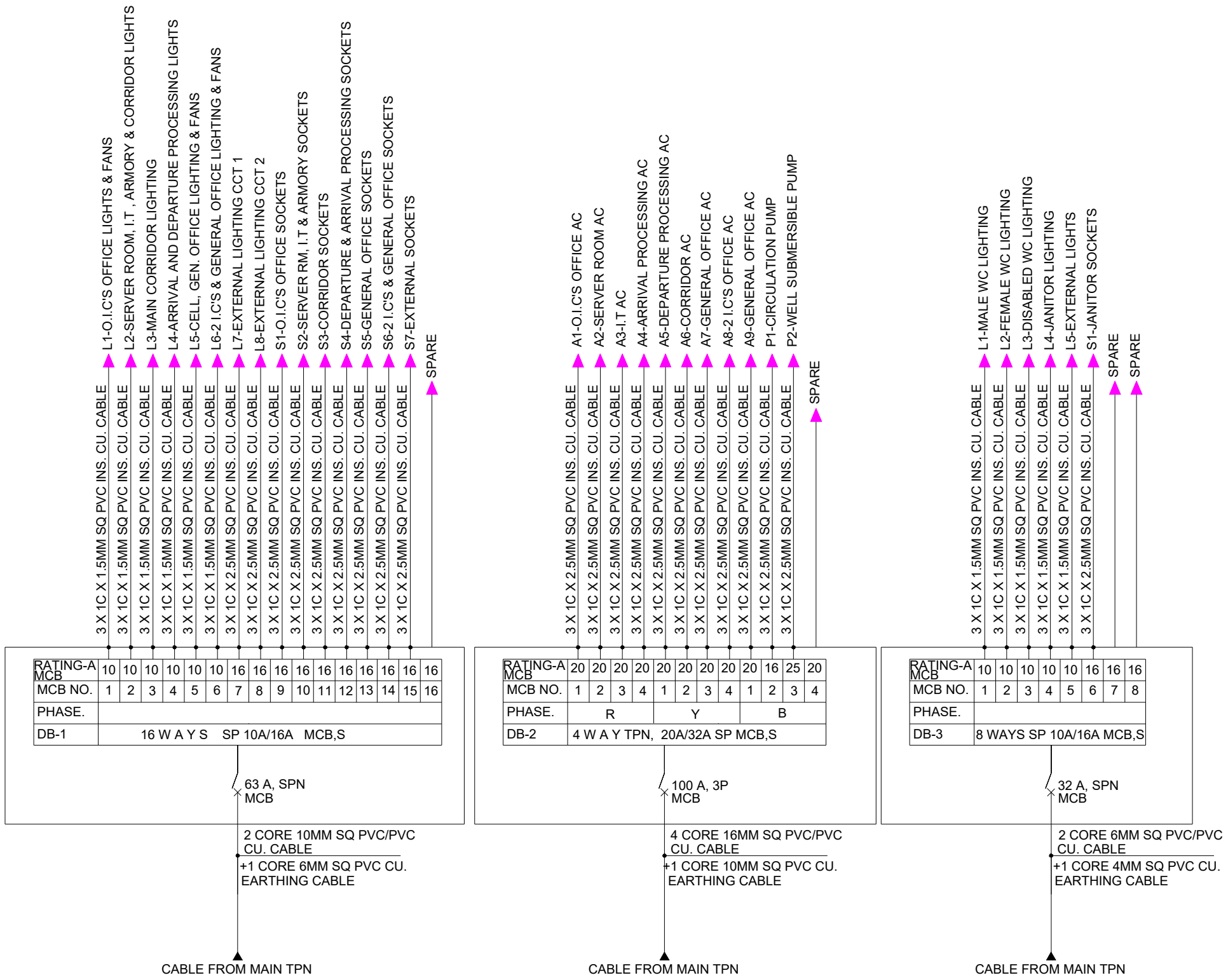
LOCATION: GHANA

DRAWING NUMBER: E07

DRAWING TITLE:
ELECTRICAL SINGLE LINE
DIAGRAM BUNKPRUGU GIS
POE

SCALE: NTS DRAWN BY: I.A.K FARHAT

CHECKED BY: O.ASEMPA DATE: APRIL, 2023



- 3 X 1C X 1.5MM SQ PVC INS. CU. CABLE → L1-O.I.C'S OFFICE LIGHTS & FANS
- 3 X 1C X 1.5MM SQ PVC INS. CU. CABLE → L2-SERVER ROOM, I.T , ARMORY & CORRIDOR LIGHTS
- 3 X 1C X 1.5MM SQ PVC INS. CU. CABLE → L3-MAIN CORRIDOR LIGHTING
- 3 X 1C X 1.5MM SQ PVC INS. CU. CABLE → L4-ARRIVAL AND DEPARTURE PROCESSING LIGHTS
- 3 X 1C X 1.5MM SQ PVC INS. CU. CABLE → L5-CELL, GEN. OFFICE LIGHTING & FANS
- 3 X 1C X 1.5MM SQ PVC INS. CU. CABLE → L6-2 I.C'S & GENERAL OFFICE LIGHTING & FANS
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → L7-EXTERNAL LIGHTING CCT 1
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → L8-EXTERNAL LIGHTING CCT 2
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → S1-O.I.C'S OFFICE SOCKETS
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → S2-SERVER RM, I.T & ARMORY SOCKETS
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → S3-CORRIDOR SOCKETS
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → S4-DEPARTURE & ARRIVAL PROCESSING SOCKETS
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → S5-GENERAL OFFICE SOCKETS
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → S6-2 I.C'S & GENERAL OFFICE SOCKETS
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → S7-EXTERNAL SOCKETS
- ↑ SPARE

- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → A1-O.I.C'S OFFICE AC
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → A2-SERVER ROOM AC
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → A3-I.T AC
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → A4-ARRIVAL PROCESSING AC
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → A5-DEPARTURE PROCESSING AC
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → A6-CORRIDOR AC
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → A7-GENERAL OFFICE AC
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → A8-2 I.C'S OFFICE AC
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → A9-GENERAL OFFICE AC
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → P1-CIRCULATION PUMP
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → P2-WELL SUBMERSIBLE PUMP
- ↑ SPARE

- 3 X 1C X 1.5MM SQ PVC INS. CU. CABLE → L1-MALE WC LIGHTING
- 3 X 1C X 1.5MM SQ PVC INS. CU. CABLE → L2-FEMALE WC LIGHTING
- 3 X 1C X 1.5MM SQ PVC INS. CU. CABLE → L3-DISABLED WC LIGHTING
- 3 X 1C X 1.5MM SQ PVC INS. CU. CABLE → L4-JANITOR LIGHTING
- 3 X 1C X 1.5MM SQ PVC INS. CU. CABLE → L5-EXTERNAL LIGHTS
- 3 X 1C X 2.5MM SQ PVC INS. CU. CABLE → S1-JANITOR SOCKETS
- ↑ SPARE
- ↑ SPARE

notes

14 ANKOBI STR, DANSOMAN
thgar@gmail.com

#	REV	DATE

CLIENT INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

LOCATION: GHANA

DRAWING NUMBER: E08

DRAWING TITLE: ELECTRICAL DISTRIBUTION BOARDS BUNKPRUGU GIS POE

SCALE : NTS **DRAWN BY:** I.A.K FARHAT

CHECKED BY: O.ASEMPA **DATE:** APRIL, 2023

LEGEND

SYMBOL	DESIGNATION
	SMOKE DETECTOR CABLING
	SMOKE DETECTOR
	FIRE ALARM BOX @1600 AFFL
	CARBON DIOXIDE FIRE EXTINGUISHER
	DRY POWDER FIRE EXTINGUISHER
	BREAK GLASS
	FIRE ALARM
ACL	ABOVE CEILING LEVEL

KREAT ENGINEERING SERVICES
 Building service Engineers & Project managers
 Mechanical, Electrical and Plumbing(MEP)
 Phone: +233 270 270 004
 Email: kreatengineering@gmail.com

REVISIONS

DATE	DESCRIPTION



Tel: +233 242 035 872
 e-mail: info@terraformstudio.net

PROJECT:
 PROPOSED WATER, SANITATION AND HYGEINE (WASH) FACILITY AND RENOVATION OF EXISTING BORDER POST
LOCATION: BUNKPRUGU

CLIENT: INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

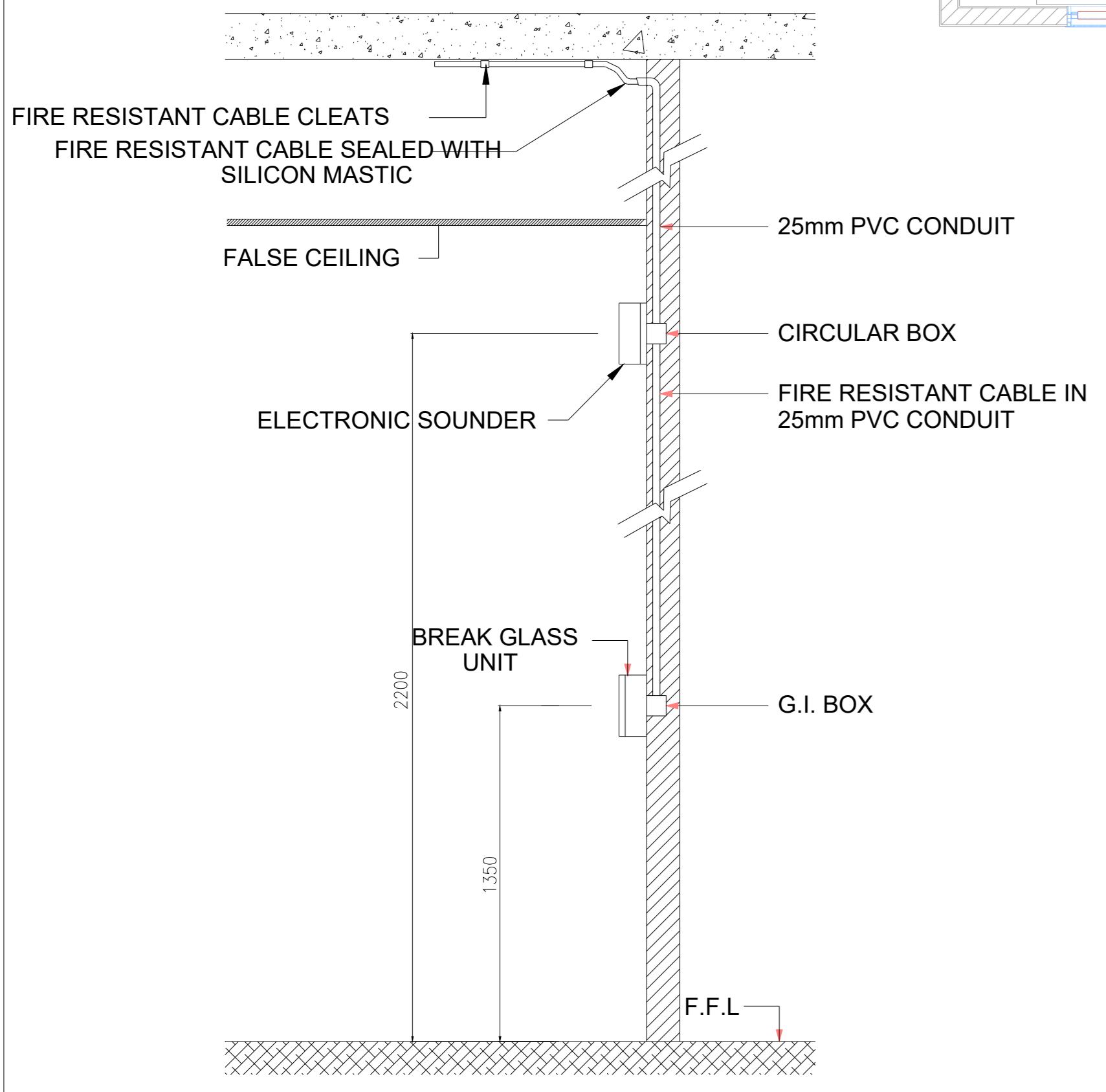
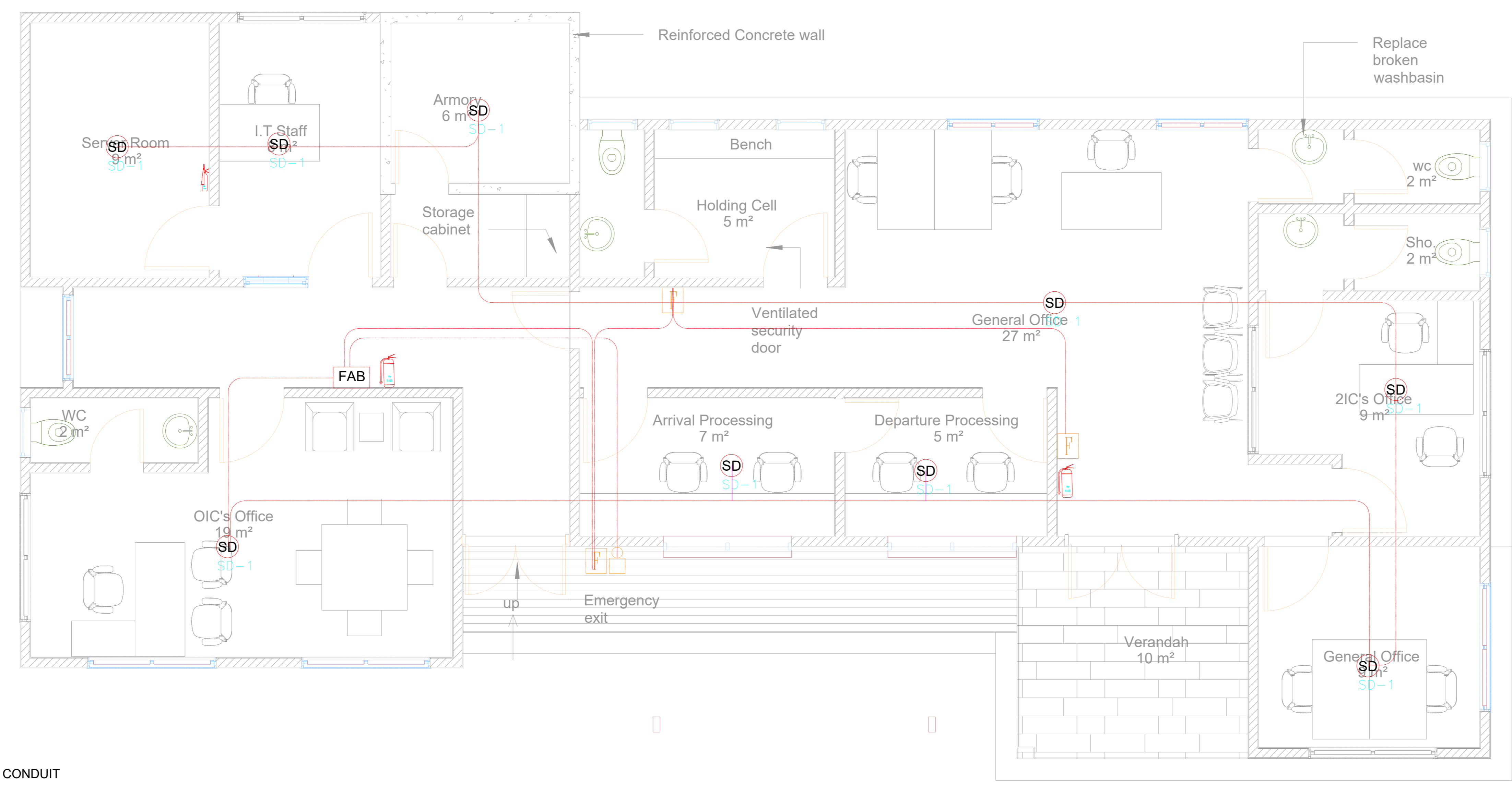
SHEET TITLE: GROUND FLOOR OFFICE FIRE SAFETY SYSTEM

DESIGNED BY: N. Kitcher
SCALE: 1 : 100

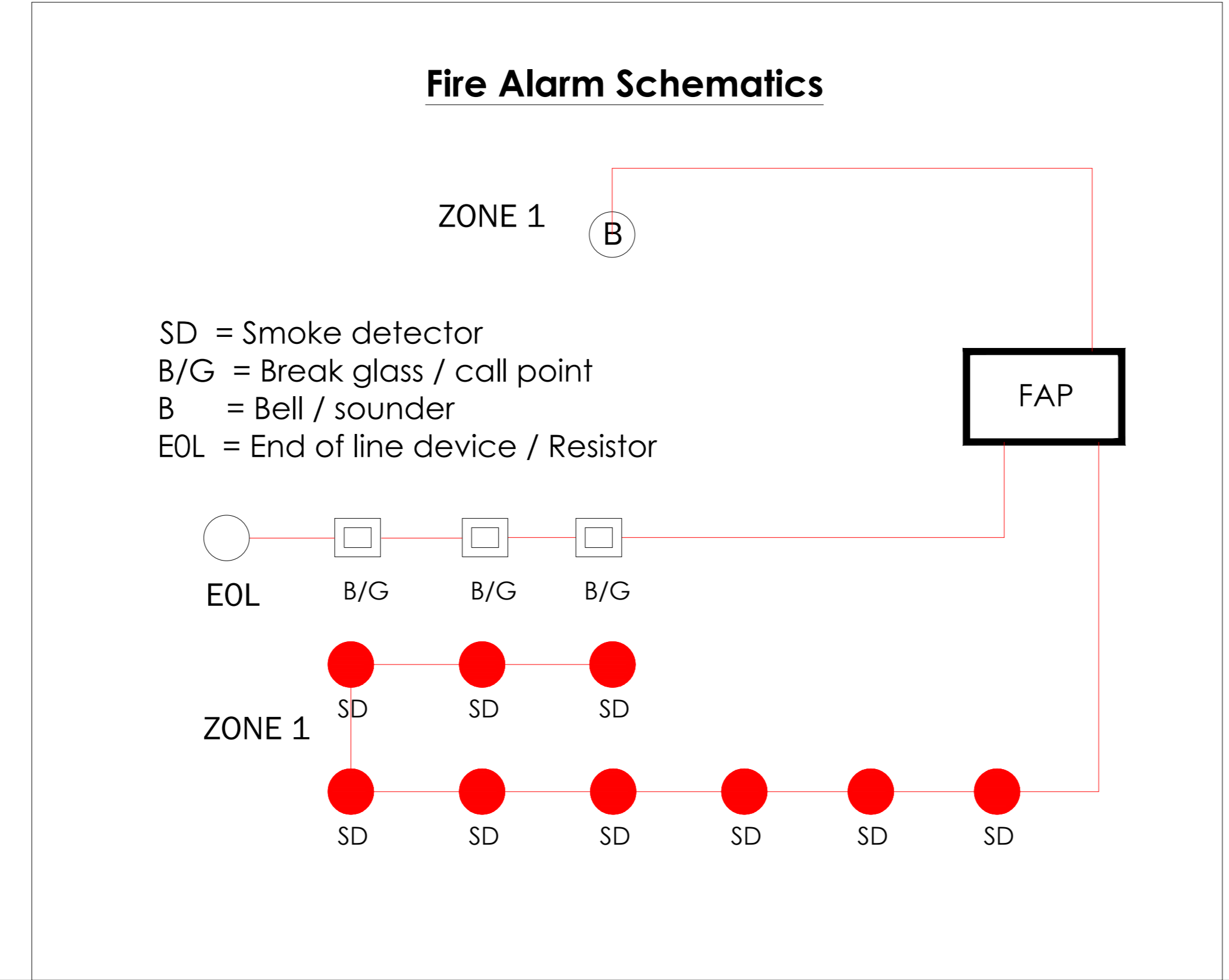
DRAWN BY: N. Kitcher
JOB NO.:

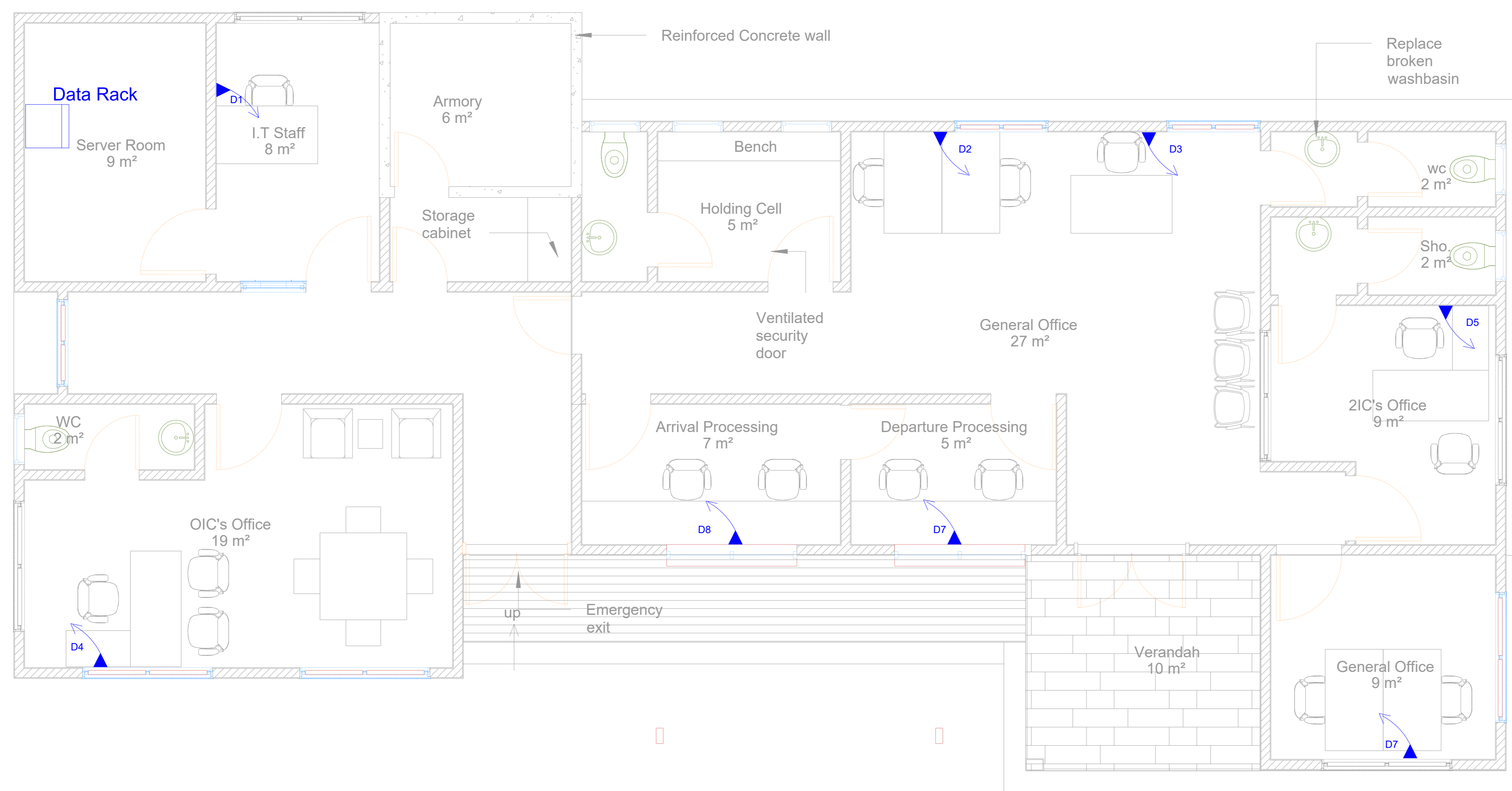
CHECKED BY: N. Kitcher
SHEET NO:

DATE: APRIL 2023
ES01



TYPICAL MOUNTING DETAIL OF SOUNDER AND BREAK GLASS NITS





LEGEND

SYMBOL	DESIGNATION
	DATA RACK
	DOUBLE DATA OUTLET

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REVISIONS

DATE	DESCRIPTION



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PROJECT:
 PROPOSED WATER, SANITATION AND HYGIENE (WASH) FACILITY AND RENOVATION OF EXISTING BORDER POST

LOCATION: BUNKPRUGU

CLIENT: INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE: GROUND FLOOR OFFICE DATA INSTALLATION

DESIGNED BY: N. Kitcher

SCALE:
1 : 100

DRAWN BY: N. Kitcher

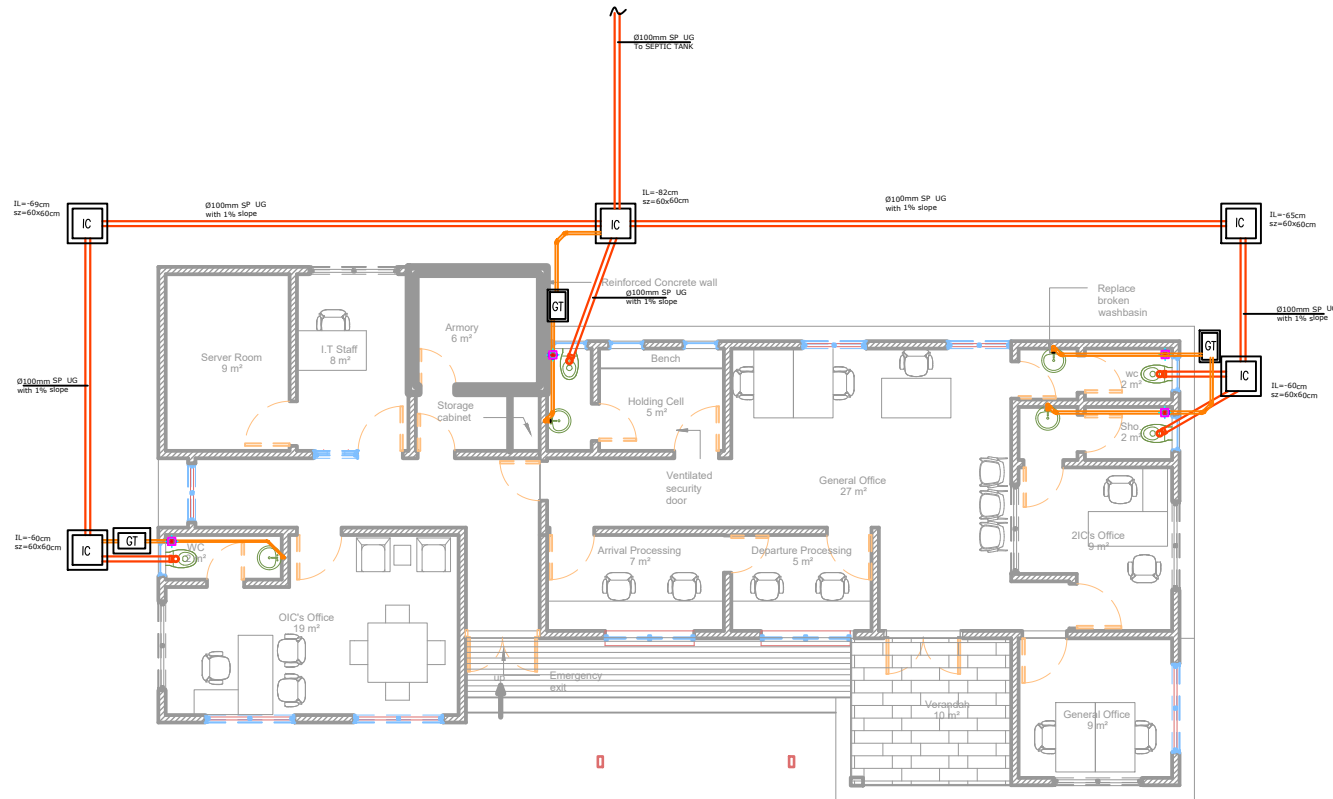
JOB NO.:

CHECKED BY: N. Kitcher

SHEET NO:

DATE: APRIL 2023

ES02



**GROUND FLOOR
PLUMBING SOIL AND WASTE DRAINAGE LAYOUT**

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REVISIONS

DATE	DESCRIPTION

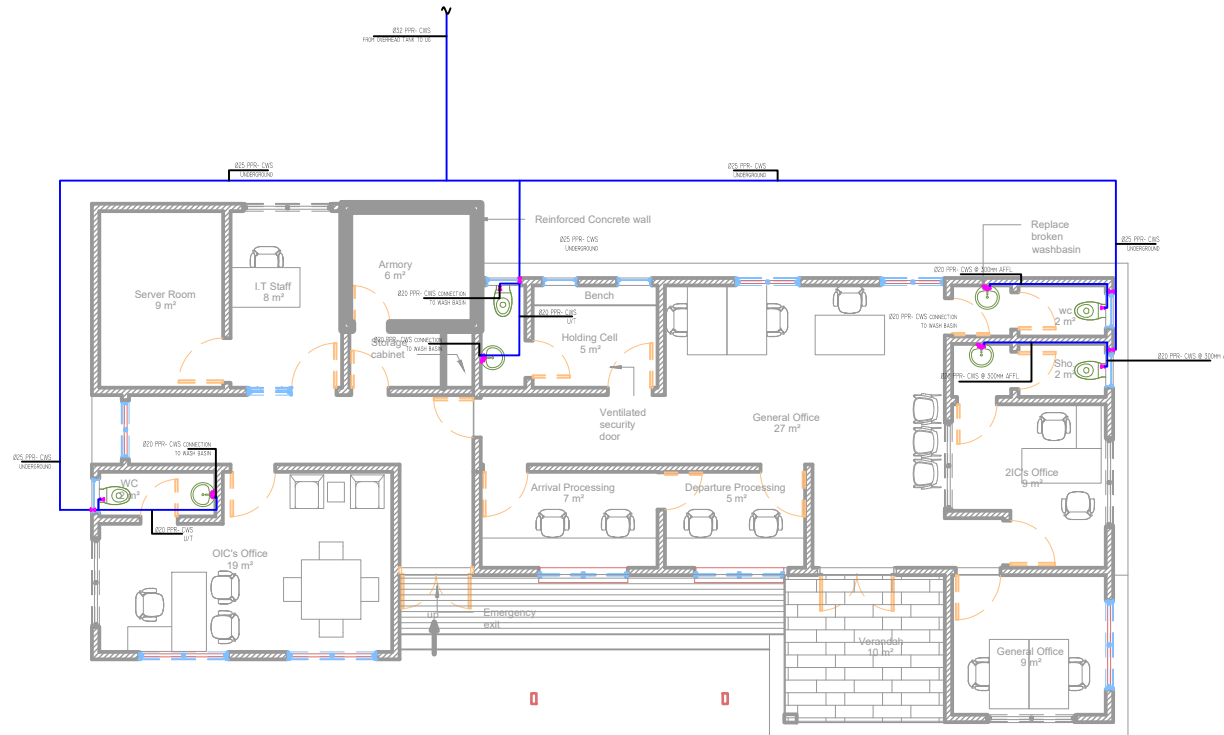

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PROJECT:
 PROPOSED WATER, SANITATION AND HYGIENE (WASH) FACILITY AND RENOVATION OF EXISTING BORDER POST
LOCATION: BUNKPRUGU

CLIENT: INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE:
 GROUND FLOOR SOIL AND WASTE DRAINAGE LAYOUT

DESIGNED BY: N. Kitcher	SCALE: 1 : 100
DRAWN BY:	JOB NO.: TR/2021/21
CHECKED BY: N. Kitcher	SHEET NO: M01
DATE: APRIL 2023	



**GROUND FLOOR
PLUMBING WATER DISTRIBUTION LAYOUT**

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REVISIONS	
DATE	DESCRIPTION


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PROJECT:
 PROPOSED WATER, SANITATION AND HYGIEN (WASH) FACILITY AND RENOVATION OF EXISTING BORDER POST
LOCATION: BUNKPRUGU

CLIENT: INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

SHEET TITLE: GROUND FLOOR WATER DISTRIBUTION LAYOUT

DESIGNED BY: N. Kitcher	SCALE: 1 : 100
DRAWN BY: FIKANDY	JOB NO.: TR/2021/21
CHECKED BY: NOAH	SHEET NO: M02
DATE: APRIL 2023	

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REVISIONS

DATE	DESCRIPTION

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PROJECT:
 PROPOSED WATER, SANITATION AND HYGIENE
 (WASH) FACILITY AND RENOVATION OF
 EXISTING BORDER POST
 LOCATION: BUNKPRUGU

CLIENT: INTERNATIONAL ORGANIZATION
 FOR MIGRATION (IOM)

SHEET
 TITLE:
 AIR CONDITION SYSTEM

DESIGNED BY:
 N. Kitcher

SCALE:
1 : 100

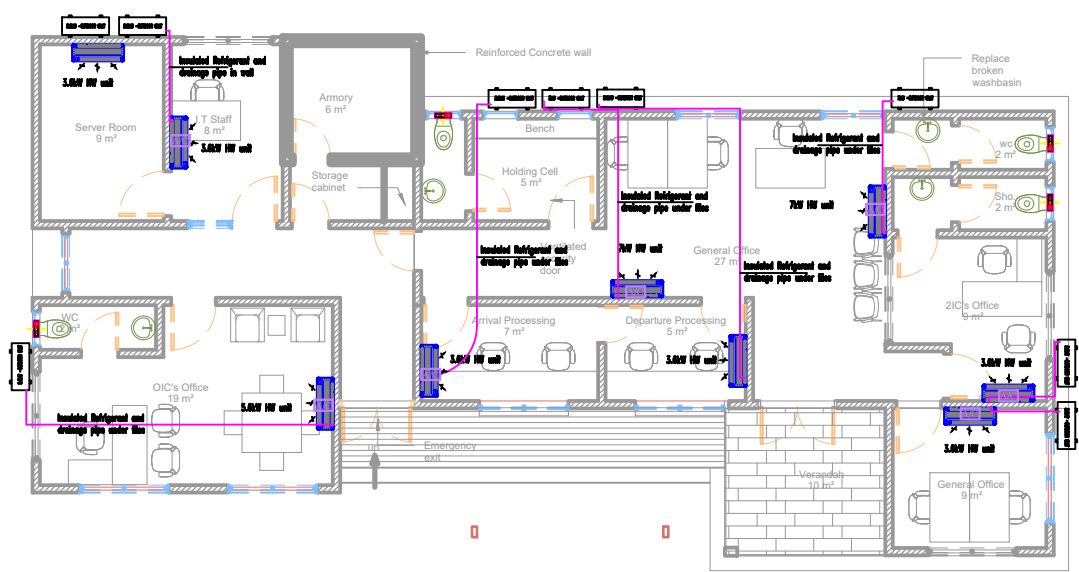
DRAWN BY: FIKANDY

JOB NO.:
 TR/2021/21

CHECKED BY: NOAH

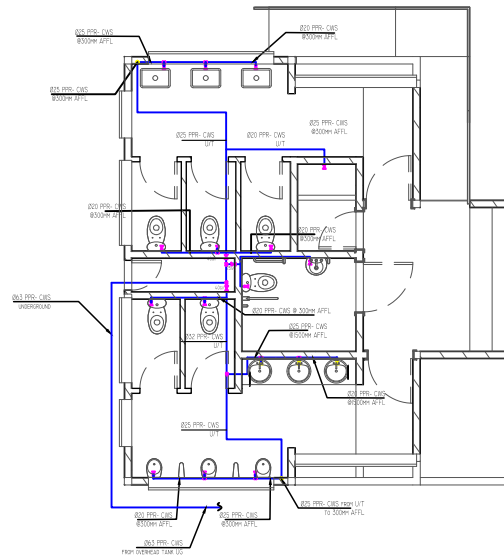
SHEET
 NO:
M03

DATE: APRIL 2023



SYMBOL	DESCRIPTION	CAPACITY	NET DIMENSION (WxHxD)	AIRFLOW m3/h	POWER INPUT WATTS
	WALL MOUNTED SPLIT UNIT	3,6KW	800x285x200	636	1000
	WALL MOUNTED SPLIT UNIT	5,6KW	885x298x229	906	1650
	WALL MOUNTED SPLIT UNIT	7KW	1194x343x262	1195	1950

**GROUND FLOOR
 AIR-CONDITIONING LAYOUT**



LEGEND

SYMBOL	DESIGNATION
	COLD WATER PIPE LINE
	VALVE
CWS	COLD WATER SUPPLY
IL	INVERT LEVEL
CL	FROM CEILING LEVEL
AFFL	ABOVE FINISH FLOOR LEVEL
	URINAL VALVE
	ANGLE VALVE
	STRAIGHT TEE

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PROJECT:
 CONSTRUCTION OF WASH FACILITY
 AND RENOVATION OF OFFICE
LOCATION: BUNKPRUGU

CLIENT:
 INTERNATIONAL ORGANIZATION FOR
 MIGRATION (IOM)

SHEET TITLE: WASH BUILDING WATER
 DISTRIBUTION LAYOUT

DESIGNED BY: NOAH

SCALE:
1 : 100

DRAWN BY: FIKANDY

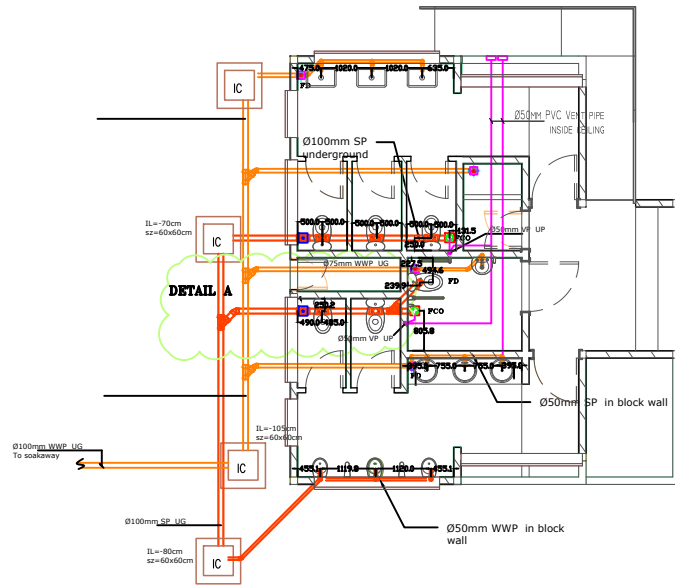
JOB NO.:

CHECKED BY: NOAH

SHEET NO:

DATE: APRIL 2023

MP-04



LEGEND

SYMBOL	DESIGNATION
	WASTE WATER PIPE
	VENT PIPE
	SOIL WASTE PIPE
UG	UNDER GROUND
S	SLOPE
VP	VENT PIPE
IC	INSPECTION CHAMBER
	FLOOR CLEAN OUT
FD	FLOOR DRAIN
WWP	WASTE WATER PIPE

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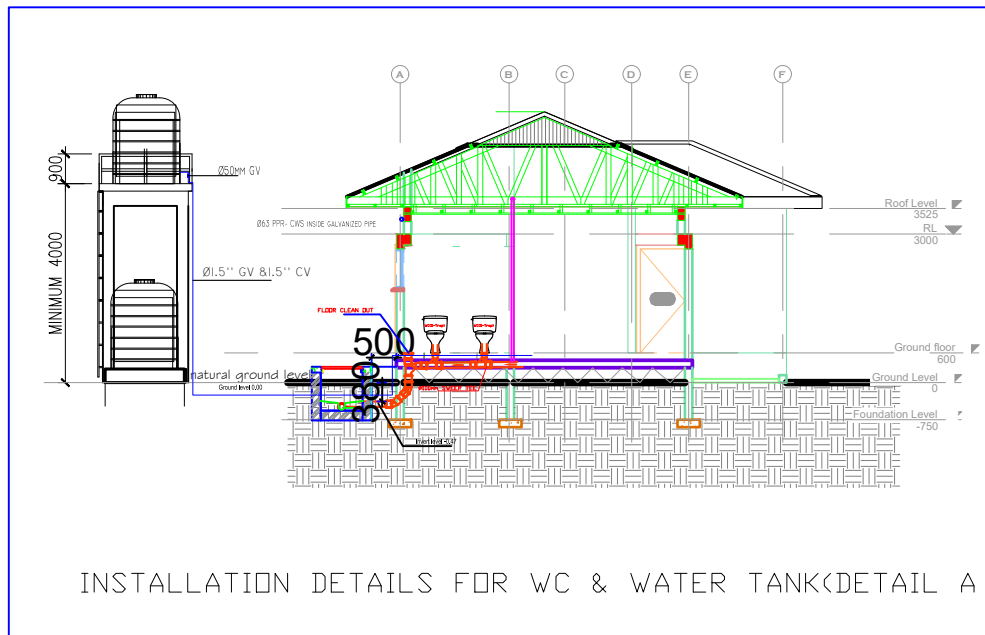
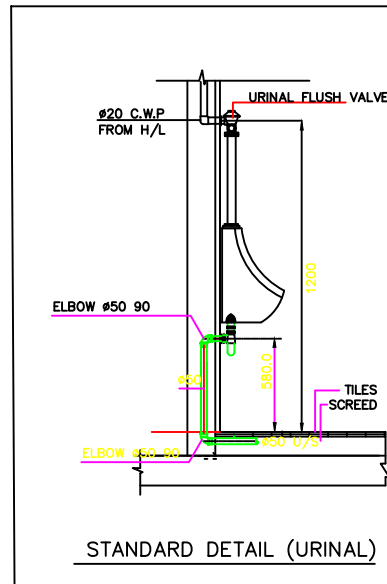
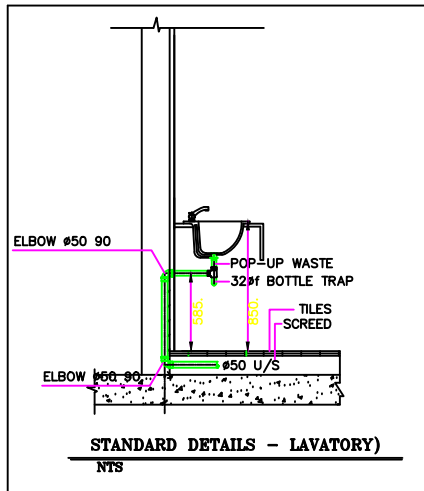
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PROJECT:
 CONSTRUCTION OF WASH FACILITY
 AND RENOVATION OF OFFICE
LOCATION: BUNKPRUGU

CLIENT:
 INTERNATIONAL ORGANIZATION FOR
 MIGRATION (IOM)

SHEET TITLE: WASH BUILDING WASTE DRAINAGE
 LAYOUT

DESIGNED BY: NOAH	SCALE: 1 : 100
DRAWN BY: FIKANDY	JOB NO.:
CHECKED BY: NOAH	SHEET NO: MP-05
DATE: APRIL 2023	



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PROJECT:
CONSTRUCTION OF WASH FACILITY
AND RENOVATION OF OFFICE

LOCATION: BUNKPRUGU

CLIENT:
INTERNATIONAL ORGANIZATION FOR
MIGRATION (IOM)

**SHEET
TITLE:** PLUMBING INSTALLATION DETAILS

DESIGNED BY: NOAH

SCALE:
1 : 100

DRAWN BY: FIKANDY

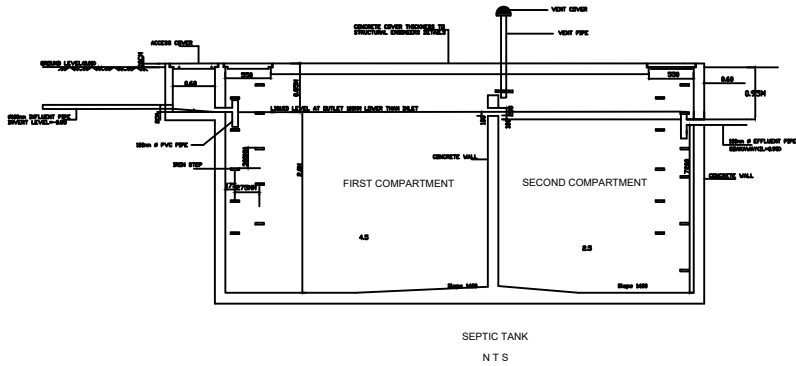
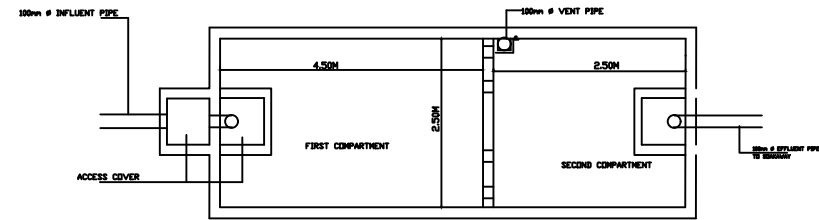
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CHECKED BY: NOAH

**SHEET
NO.:**

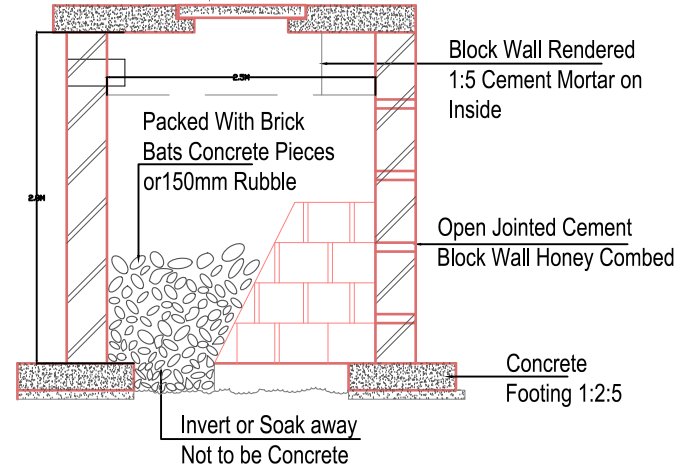
DATE: APRIL 2023

MP-06

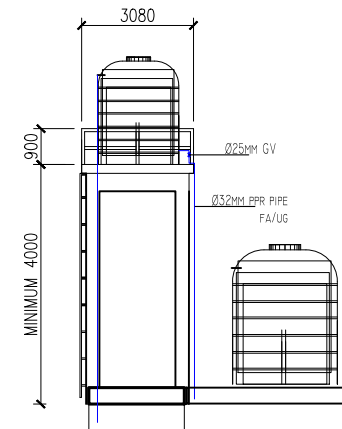
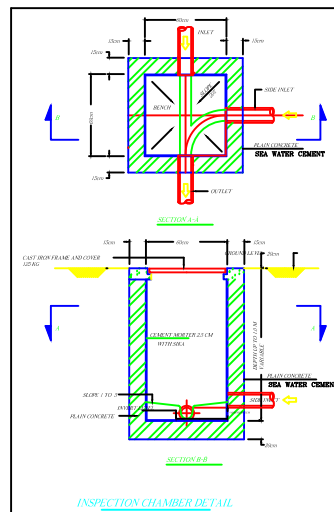
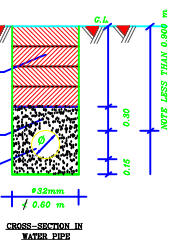
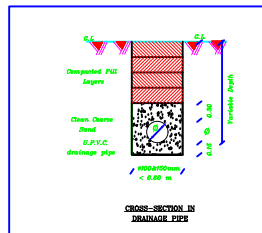


50mm Pre cast Concrete Access Cover

SOAKAWAY SIZE=3Mx3M



SOAKAWAY N.T.S.



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PROJECT:
 CONSTRUCTION OF WASH FACILITY
 AND RENOVATION OF OFFICE
 LOCATION: BUNKPRUGU

CLIENT:
 INTERNATIONAL ORGANIZATION FOR
 MIGRATION (IOM)

SHEET
 TITLE: PLUMBING INSTALLATION DETAILS

DESIGNED BY: NOAH	SCALE: 1 : 100
DRAWN BY: FIKANDY	JOB NO.:
CHECKED BY: NOAH	SHEET NO: MP-07
DATE: APRIL 2023	

LEGEND	
SYMBOL	DESIGNATION
	WASTE WATER PIPE
	VENT PIPE
	SOIL WASTE PIPE
UG	UNDER GROUND
VP	VENT PIPE
IC	INSPECTION CHAMBER
	FLOOR CLEAN OUT
WWP	WASTE WATER PIPE

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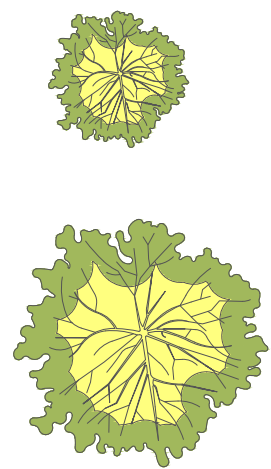
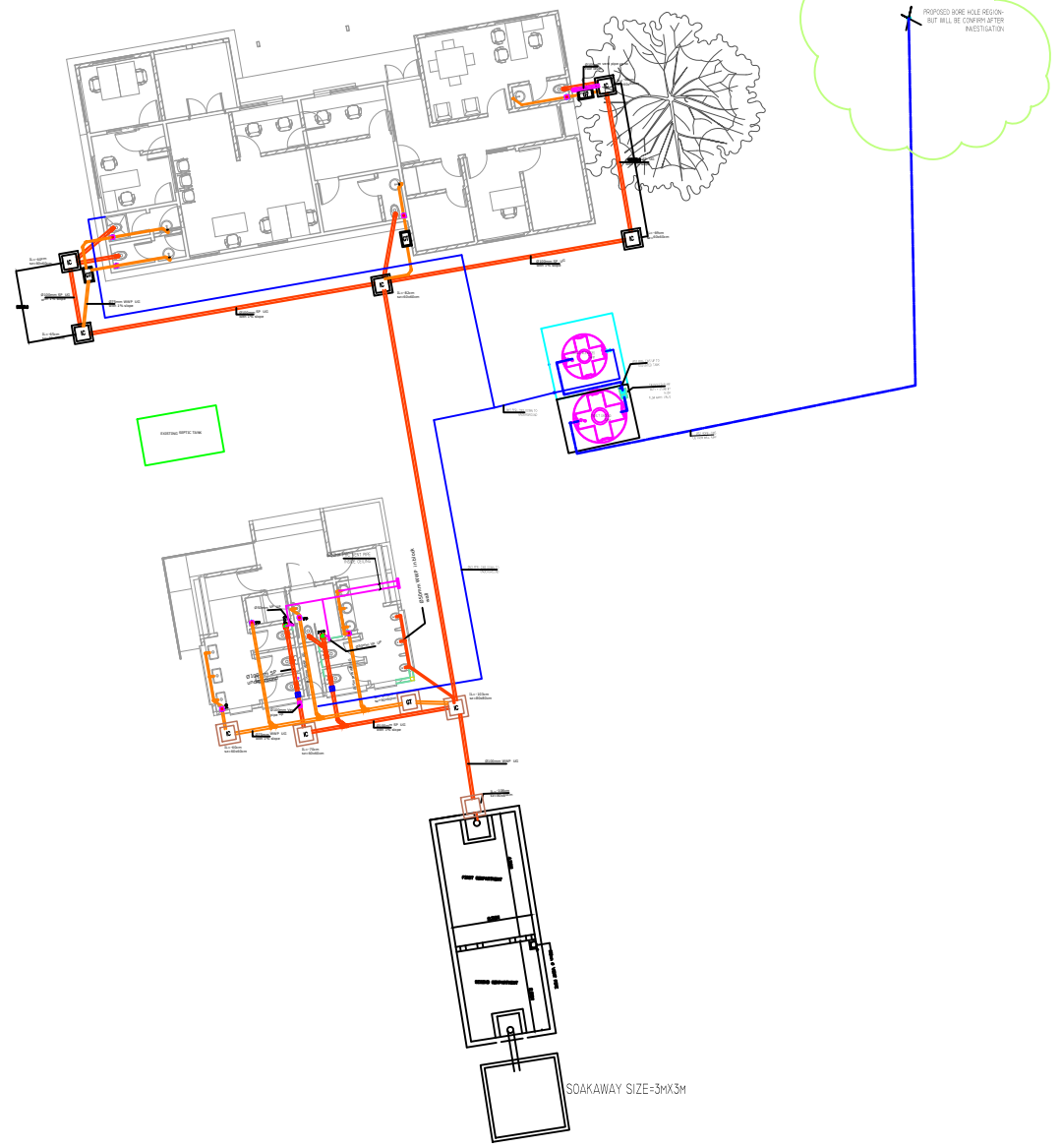


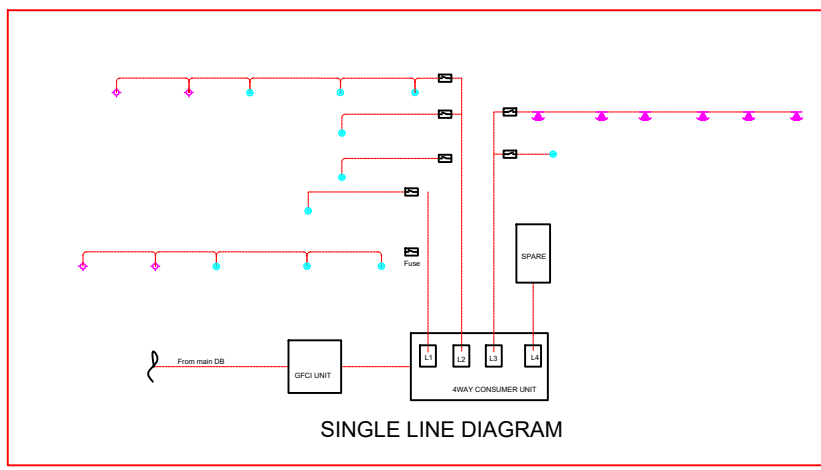
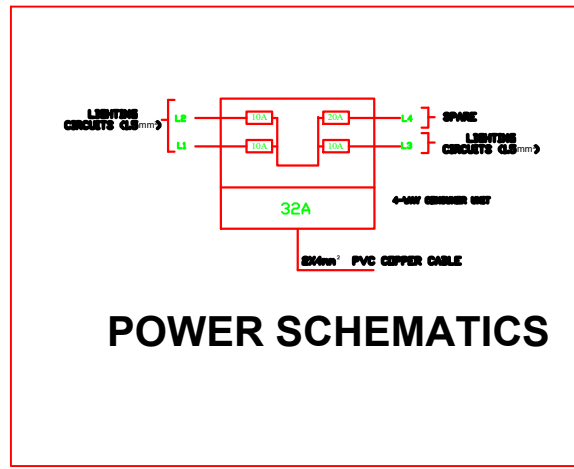
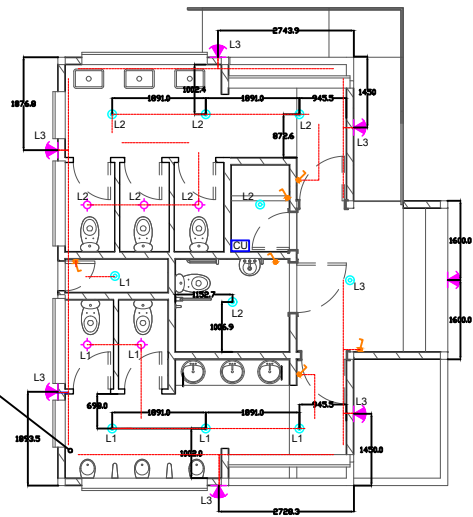
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PROJECT: CONSTRUCTION OF WASH FACILITY AND RENOVATION OF OFFICE	
LOCATION: BUNKPRUGU	
CLIENT: INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)	
SHEET TITLE: EXTERNAL PLUMBING LAYOUT	

DESIGNED BY: NOAH	SCALE: 1 : 100
DRAWN BY: FIKANDY	JOB NO.:
DATE: APRIL 2023	SHEET NO: MP-08





SYMBOL	DESCRIPTION
	18w Surface Mounted LED Down Lighter with acrylic diffuser
	12w Surface Mounted LED Down Lighter with acrylic diffuser
	26w, Wall Mounted LED External Light Fitting-Water proof IP67
	10A One Way One Gang Switch
	4WAY Consumer unit
	1.5mm2 x 2c electrical cable

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PROJECT:
 CONSTRUCTION OF WASH FACILITY
 AND RENOVATION OF OFFICE

LOCATION: BUNKPRUGU

CLIENT:
 INTERNATIONAL ORGANIZATION FOR
 MIGRATION (IOM)

SHEET
 TITLE:
 WASH BUILDING LIGHTING LAYOUT

DESIGNED BY: NOAH

SCALE:
1 : 100

DRAWN BY: FIKANDY

JOB NO.:

CHECKED BY: NOAH

SHEET
 NO:
 E-01

DATE: APRIL 2023