

Directorate General CRPF
Block No. 1 CGO Complex, New Delhi-110003
(Govt. of India/Ministry of Home Affairs)
(Phone / Fax- 011-24360155)
(E-Mail- digprov@crpf.gov.in)

No.T.III-8/2023-DA-1 (Tent)

Dated, the

5th Sep' 2024

To,

The DsG: AR, BSF, CISF, ITBP, NSG, SSB and BPR&D

Subject: QRs/Specification of "Temporary Accommodation Options".

It is to convey that the following 6 Nos. QRs/Specifications in respect of "Temporary Accommodation Options" have been approved by the competent authority:-

- i) Multi Storey Modern Portable Temporary Accommodation
Size 40x20x 19 in feet (G+1)
- ii) Multi Storey Modern Portable Temporary Accommodation
Size 36x18x19 in feet (G+1)
- iii) Multi Storey Modern Portable Temporary Accommodation
Size 40x40x 19 in feet (G+1)
- iv) Multi Storey Modern Portable Temporary Accommodation
Size 72x18x19 in feet (G+1)
- v) Collapsible Container Accommodation (Size 20x10x9) in feet
- vi) Collapsible Rapid Deployable Shelter (5.80x2.50x2.60M)

2. This has the approval of DG, CRPF on 03/09/2024 (empowered vide MHA letter F. No. 11012/02/2009-Fin-I-17 dated 02/01/2018).

Encl: Scanned Copy of above QRs/Spec.


DIG (Prov) Dte, CRPF

No.T.III-8/2023-DA-1 (Tent)

Dated, the

5th Sep' 2024

Copy forwarded to:-

1. SO (IT), North Block-with request to upload the approved QRs/Specification of "Temporary Accommodation Options" on MHA Website (e-mail ID : soit@nic.in).
2. Sh. Paritosh Singhal, ACEO(GeM), and Sh. Abhishek Kakkar, Director - Category Management, Government of India, Ministry of Commerce & Industry, Government e-Marketplace, Jeevan Tara Building, 5-Parliament Street, New Delhi-110001 with request to upload the approved QRs/Specifications of "Temporary Accommodation Options" on GeM Portal.
3. DIG (IT), Dte Genl., CRPF-with request to upload this approved QRs/Specification of "Temporary Accommodation Options" on CRPF Portal and Selo Module.


DIG (Prov) Dte, CRPF

TECHNICAL SPECIFICATIONS LIVING ACCOMMODATION G+1:
10.98 M (36 feet) X 5.486M (18 feet) X 5.79M (19 feet).

1. DESCRIPTION OF WORK

Construction of Prefabricated shelter using PUF Panels, Steel Structure, false ceiling, door & aluminum windows at various locations in all respects as per the concept drawings attached including design, supply, installation, and electrical wiring works, as per the general specifications as detailed below. The entire structure should be fully transportable in knocked down form. At the time of shifting, the vendor shall invariably supply all the consumables such as- hardware, flashing and other necessary items for reinstallation of hut.

2. DESIGN PARAMETER

The prefabricated structures shall be designed for a minimum life span of 20 years with 1:4 slope covering wind velocity of up to 50m/s, Seismic Zone V, and ambient temperature ranging from -10 to 55 degrees 'C'. The manufacturer/supplier shall get the structural drawing/layout vetted by IIT/NIT/GEC at their own cost before the supply.

3. DIMENSIONS

All the dimensions as indicated in the drawings.

G+1 Barrack 10.98 M (36 feet) X 5.486M (18 feet) X 5.79M (19 feet)

Prefabricated shelter clear height below false ceiling shall be 2.85m for ground floor and 2.67m for the first floor. The shelter center ridge height shall be 5.79 Mtr.

4. WALL PANELS (Make – JSW/TATA BHUSHAN)

4.1 The Wall Panel Shall be made up of 0.5mm thick(TMT) PPGL ribbed sheet on both side with a layer of rigid CFC free polyurethane foam of density 40 Kg \pm 2Kg/cum as insulation in between. The Polyurethane foam shall be of latest IS. The thickness of PU foam layer shall be 49mm for having 50mm thick PUF panel. Outside colour of wall panel may be Olive Green/Off White or as per buyer requirement. The panels will be provided with tongue and groove joint and will be interlocked using cam lock systems. Gable ends will also be covered with same panels as in the main walls.

4.2 The wall panels exposed edges at bottom & top side shall be covered using bottom & top U track of size 53mm X 35mm X 0.5mm made out of PPGL Sheet & shall be secured to the wall panels using pop rivets. The U track at bottom shall be fixed onto the concrete plinth using anchor fasteners of 8mm diameter & 80mm in length provided at a spacing of 450mm c/c.


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4.3 The PUF Panels shall be vertically joined together by tongue & groove arrangement all along the length. The wall panels shall be fixed to the steel frame structure on top & bottom using Nuts/Bolts/Screw tightened through the steel frame cleats for wall strength & sturdiness. Wall Panels at Gable ends will also be covered.

4.4 The joints all around the wall panels shall be joined & covered by means of PPGL flashing of size 50 x 50 x 0.50mm fixed using pop rivets at a minimum distance of 200mm on all exposed faces. All the wall joints shall be sealed with transparent/white color silicon sealant.

4.5 The PPGL Sheets shall be of minimum 350MPA Steel Grade & Shall have Aluminum and Zinc coating of minimum 150 GSM as per IS 277/1992. The PPGL Sheets/ PUF Panels shall have a protective guard film of minimum 25 microns to avoid scratches to finished panel during transportation.

5. FALSE CEILING (Make – JSW/TATA BHUSHAN)

5.1 False ceiling shall be provided in the living area only (Excluding Verandah) using 40mm thick PUF panels made up of 0.5mm thick PPGL sheet with guard film having ribbing pattern for aesthetic appearance on both sides with a uniform layer of 39 mm thick rigid CFC free PUF .

5.2 The False Ceiling Panels shall be fixed & supported onto the steel framework consisting of MS Painted L / T Sections. The False Ceiling shall be fixed to the structural steel framework of shelters using cleats & Nuts/ Bolts. The size of L angle will be 40 x 40 x 5mm & the size of T will be 65 x 65 x 6mm. The Joints all around the wall panels & false ceiling shall be joined & covered by means of PPGL flashing of size 50 x 50 x 0.50mm fixed using pop rivets at a minimum distance of 200mm. All the false ceiling joints shall be sealed with transparent/white color silicon sealant. The false ceiling panels will have a tongue and groove arrangement.


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6. PUF SPECIFICATIONS

6.1 All material required for the manufacturer of shelter shall be new and shall comply with latest relevant Bureau of Indian Standard Specification.

- All panels should have tongue and groove profile on all joining edges.
- All panels will be manufactured in single batch as per approved panel layout drawings using the above materials.
- Original Purchase voucher and test certificate will be submitted and the purchase can carry out inspection of any one panel from the lot at manufacturer premises to ensure the chemical and physical properties.


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- The color inside and external wall panel will be as per buyer requirement of approved shade.

6.2 PUF panels shall be manufactured by Continuous/Discontinuous Line process using high-quality chemicals using blowing agents which have properties conforming to global & environmental guidelines, approved by UNDP

- a) ZERO Ozone Depleting Potential
- b) ZERO Global Warming Potential
- c) EXEMPT from Volatility Organic Compounds (VOC) Category
- d) Kyoto & Montreal Protocol Compliant

6.3 The material shall be fire-resistant and shall have excellent self-extinguishing characteristics.

6.4 Panels manufactured shall conform to latest IS Standards.

6.5 All panels should have tongue and groove profile on all joining edges with a projection of 10mm and 25mm wide for airtight sealing of the joints/ optional item - 5mm open-sealed EPDM (Ethylene Propylene Diene Monomer) tape shall be provided during the production process for enhancing air tightness.

7. ROOFING (Make – JSW/TATA BHUSHAN/AMNS)

The Roof shall be provided in a two way slope of 1:4 ratio with PPGL Trapezoidal color coated conforming IS-14246 Sheet of 0.5mm thick. The Roof shall have minimum projection of 300 mm from the eaves wall & will be flushed at Gable Wall. The Roof Sheets shall be fixed on to the structural steel framework using 5 x 95mm self-tapping self-drilling screws with suitable EPDM seal Fasteners with suitable washers complete up to the pitch of the Sheet. The Roof Sheeting Junction at center will be covered with 0.50 mm thick PPGL Ridge cover of Size 300 x 300 mm fixed over the Roof Sheeting & on the Structural Steel Frame Work using 95mm self-Tapping self-drilling Screws with suitable Rubber Fasteners. The roof will have a minimum projection of 300mm all around the Eaves & Gable Walls. The PPGL sheet shall be of minimum 350 MPA Steel grade & shall have Aluminum Zinc Coating of minimum 150 GSM as per IS 277/1992. The PPGL Sheets shall have a protective guard film of minimum 25 microns to avoid scratches to finished panel during transportation. Provision for outlets of Pipes of Bukhari, in wall area with suitable installation, in cold region as per requirement of the buyer.

8. FLASHING (Make – JSW/TATA BHUSHAN/AMNS)

It will be the responsibility of the contractor to fix & cover all joints using proper & suitable size PPGL Flashing of 0.50mm Thickness. The PPGL Sheets shall be of minimum 350 Mpa Steel grade & shall have Aluminum and Zinc coating of minimum 150 GSM as per IS 277/1992. The PPGL Sheets / PUF Panels shall have a protective guard film of minimum 25 microns to avoid scratches to finished panel during transportation.


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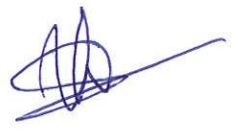

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9. DOORS (AS PER DRAWINGS) 4 nos

Door shutter shall be made from 50 MM PUF Insulated having 0.5mm PPGL sheet with 1.20 mm PCGI frame of size 2100 x 1000 mm outer dimension. The Door Frame will be made up of suitable designed pressed Steel Profile section in buyer approved Colour in 1.20 mm thickness GI. The door Shutter will be made up of Panel covered with Aluminum/PCGI Lipping all around. Each Door shall be provided with ISI marked Aluminum fitting such as 1 no. 300mm L drop Bolt, 2 Nos D Shaped Handles of 150mm, 1 Nos Tower Bolt of Size 200mm and 1 Nos Tower Bolt of Size 100mm. The Door shutter shall be fixed to the frame using 4 Nos MS BUTT Hinges (100 mm each)

10. WINDOWS & SUNSHADES (AS PER DRAWINGS) 8 nos

Aluminum 2-way sliding windows with fixed mesh from the outside & Aluminum Grills with all fittings shall be provided as per the drawings. The window frame of size 1000 x 1000 mm will be manufactured using suitable standard Aluminum hollow section/ profile. The window shall be provided with 3 mm thick clear Polycarbonate sheet fixed using EPDM rubber beading. The window shall also be provided with stainless steel mesh of 1.5 mm aperture & Aluminum grills fixed from outside of the window using suitable size Aluminum flats & rivets. 12 nos windows are to be provided as per drawing. (1.20 mm thick PCGI)

11. SUNSHADE

Suitable Sunshades made out of 0.50mm PPGL Sheets will be provided to all external Windows and doors. The Minimum projection for the sunshades will be 450 mm and 300 mm wider than the width of the opening. It should be suitably fastened with the main structure.

12. CURTAIN ROD ARRANGEMENT


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25 mm diameter SS 304/MS powder coated fancy type drapery rod with fixing arrangements will be provided for all openings (Door and Windows). The drapery rod should be minimum 450 mm longer than the width of the opening.

13. PEG SET


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20 Nos Aluminum twin peg Set / Coat Hook of 100 mm in size to be provided inside the shelter at a height of 1.8M fitted with Galvanized Screw.

14. STRUCTURAL STEEL FRAMEWORK (AS PER DRAWING)


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14.1 The structural steel framework shall consist of RHS sections conforming to IS 4923/1997. The framework shall consist of Trusses, Purlins, columns, etc. The steel frame should be shot blasted to SA 2.5 standard with 2 coats of Zinc chromate/zinc rich primer.


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The steelwork shall be painted with 2 coats of synthetic Enamel paint of approved shade (smoke grey) & make. The main shelter column of NPB 250 (30.11kg/m)/ IS 808 provided at a distance as per drawing. The column bottom end plate size (as per drawing) shall be fixed to the concrete floor using 6 nos foundation bolts of 24 mm Dia & 600 mm long with suitable washers & nuts & bolts. The column shall also have a top plate of size (as per drawing) for connection with the truss plate.

14.2 The Roof trusses shall be made up using RHS section of 96 x 48 x 4 mm at the top & bottom cord of the truss and minimum 48 x 48 x 2.9mm thick internal members. The trusses shall be fixed on to the columns with connection plates 12 mm thick & tightened with the help of nuts & bolts. Trusses are to be provided at a distance of 3000mm c/c and shall be supported on truss columns.

14.3 Purlins made up of RHS of size 96 X 48 X 4mm & shall be fixed between the trusses with suitable Cleats & Nuts & Bolts as per the drawing attached.

14.4 For Mezzanine Floor, Main beam NPB 250 (30.11kg/m)/IS 808 and Cold Formed Joist will be provided as mentioned in drawing.

14.5 The Steel Structure sections mentioned above are of minimum Sizes to be used & indicative. Higher section sizes & thickness can be adopted. The Shelters will be designed for the Design Parameters & Drawings as indicated in the Specifications mentioned above. (APL/JSPL/SURYA/TATA/AMNS/SAIL)

15. WORKMANSHIP

- (a) **Connection:** Nut-Bolt connection will be provided unless otherwise specified in the Drawings. The welded connections will be conformed to IS 806-1968.
- (b) **Fabrication:** The General Provisions in section 11 of IS 800 of 1984 will apply to all types of steel being used for fabrication.
- (c) **Various Fasteners and Fittings:** Fasteners and fittings of 8.8 Grade(HT) shall be supplied unless otherwise specified in and shall be fixed where required. Fastening means will be provided for the items to be fitted at the time of erection. The Fasteners supplied shall conform to the relevant latest BIS Specification.
- (d) **Finishes:** All Steel work will be shot blasted to SA 2.5 STD and given two coats of Zinc chromate/zinc rich Primer by the manufacturer in the factory. All the Steel items shall be painted using 2 coats of synthetic Enamel Paint of approved shade. All Paint Materials will be of Jenson & Nicholson/Berger/ Asian/JSW make, color -Smoke Grey or as per buyer. Over all DFT should be minimum 120 Micron


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16. CIVIL WORKS

Foundation, Flooring & finishing Works - to be provided by Indenter/ Consignee as per the drawings.

17. ELECTRICAL WIRING AND POINTS

17.1 The electrical wiring points shall be provided within the structure only. Provision for connecting to the main line shall be done by the client. All the wiring and fittings used shall conform to ISI Mark and shall be good brands (V Guard/ Havells/ Finolex/ Poly cab/or similar)

17.2 All wiring used shall be conforming to IS 694. All conduits shall be round PVC 25mm diameter medium grade conforming to IS 9537 Part 3. All sockets/switchboards shall be a modular design. MCB, Distribution boxes shall be ISI marked of reputed make. The earthing shall conform to IS 3043. 2 Lightning arresters per building shall be provided as per Standard Specification (Anchor/ Havells/ L&T/or similar)

- 1) Light Point Copper Wiring using 1.5 Sq. mm PVC insulated Cables over the surface using PVC 25 mm Diameter medium grade conduits with PVC Modular Design Switch Boxes, Modular Switches, Sockets, PVC lamp holders/Ceiling rose Etc. complete.
- 2) PowerPoint Copper Wiring using 4.0 Sq. mm PVC insulated Cables over the surface using PVC 25 mm diameter medium grade conduits with PVC Modular Design Switch Boxes, Modular Switches, Sockets, etc. complete.
- 3) Sub main wiring Three phase cable (4 core) 4mm sq wire (distance from main line to be confirmed)
- 4) Supply and fixing of approved make powder coated Steel Sheet Distribution Box including Bus Bar, Neutral Bar, and Earth Bar complete in all respects as per IS 13032. The DB shall also have required MCB and isolator of 151 Marked as per approved make.


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18. MEZZENINE FLOORING

The inside flooring shall be done using 18 mm Heavy duty cement fiber board over the bottom MS framework. And further 2mm Anti-static PVC vinyl sheet shall be provided over the cement board. Make- Everest/ Visaka/ Equivalent

The verandah flooring shall be of 3mm MS chequered sheet over the base framework.


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19. STAIRCASE WITH RAILING

For Staircase, Main beam ISMC 100 shall be used as per the drawing. The flooring shall be of 3mm MS chequered plated. The railing shall be made up of 38x38x2.6mm RHS pipe with paint and primer same as primary steel structure.

20. VERANDAH WITH RAILING

For verandah flooring, 3mm MS chequered plate will be used as per the drawing. The railing shall be made up of 38 x 38 x 2.6mm RHS pipe with paint and primer same as primary steel structure.

Requirement of electrical fittings

Sl.No.	Description	Quantity
1	Fan Points With Hook & Fan Regulators with switch	10
2	Light Points With 1.5 Sq Mm Wire with switch	12
3	Power Points with 4.0 Sq Mm Wire with switch	4
4	5 Amp Socket with 3 point charging socket with switch	20
5	15 Amp Socket with switch	6
6	25 Mm PVC Round Conduits Complete with Bends	As per qty
7	32 Mm PVC Flat Conduits Complete with Cover	As per qty
8	1.5 Sq Mm Copper Wire, 90 Mtr Bundles In 3 Colors	As per qty
9	4.0 Sq Mm Copper Wire, 90 Mtr Bundles In 3 Colors	As per qty
10	Main Modular Board-4 Way	4
11	Main Modular Board-6 Way	2
12	Main Modular Board-8 Way	2
13	Single Pole MCB-16 Amp	6
14	Single Pole MCB-32 Amp	4
15	Single Pole + Neutral MCB-32 Amp	2
16	Three Pole + Neutral MCB-40 Amp	1
17	Suitable Size Distribution Box	2
18	Bulk LED Head lamp of 25W	06

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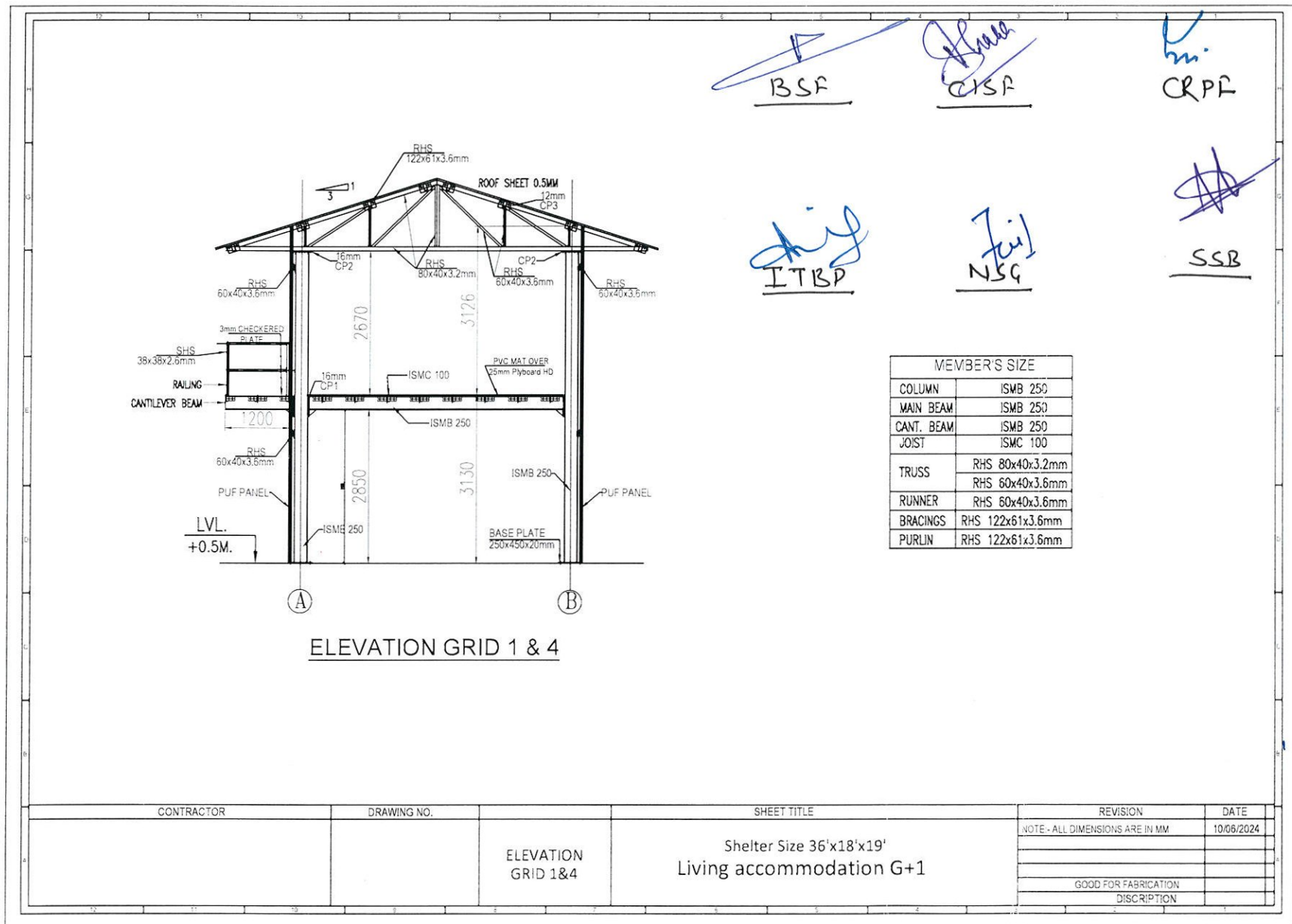
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Approved / Not Approved

Anish Dayal Singh, IPS
Director General, CRPF

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MEMBER'S SIZE	
COLUMN	ISMB 250
MAIN BEAM	ISMB 250
CANT. BEAM	ISMB 250
JOIST	ISMC 100
TRUSS	RHS 80x40x3.2mm
	RHS 60x40x3.6mm
RUNNER	RHS 60x40x3.6mm
BRACINGS	RHS 122x61x3.6mm
PURLIN	RHS 122x61x3.6mm

ELEVATION GRID 1 & 4

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subject to vetting
 as per para 2 of RF
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CONTRACTOR	DRAWING NO.	SHEET TITLE	REVISION	DATE
		ELEVATION GRID 1&4	NOTE:- ALL DIMENSIONS ARE IN MM	10/06/2024
		Shelter Size 36'x18'x19' Living accommodation G+1		
			GOOD FOR FABRICATION	
			DISCUSSION	

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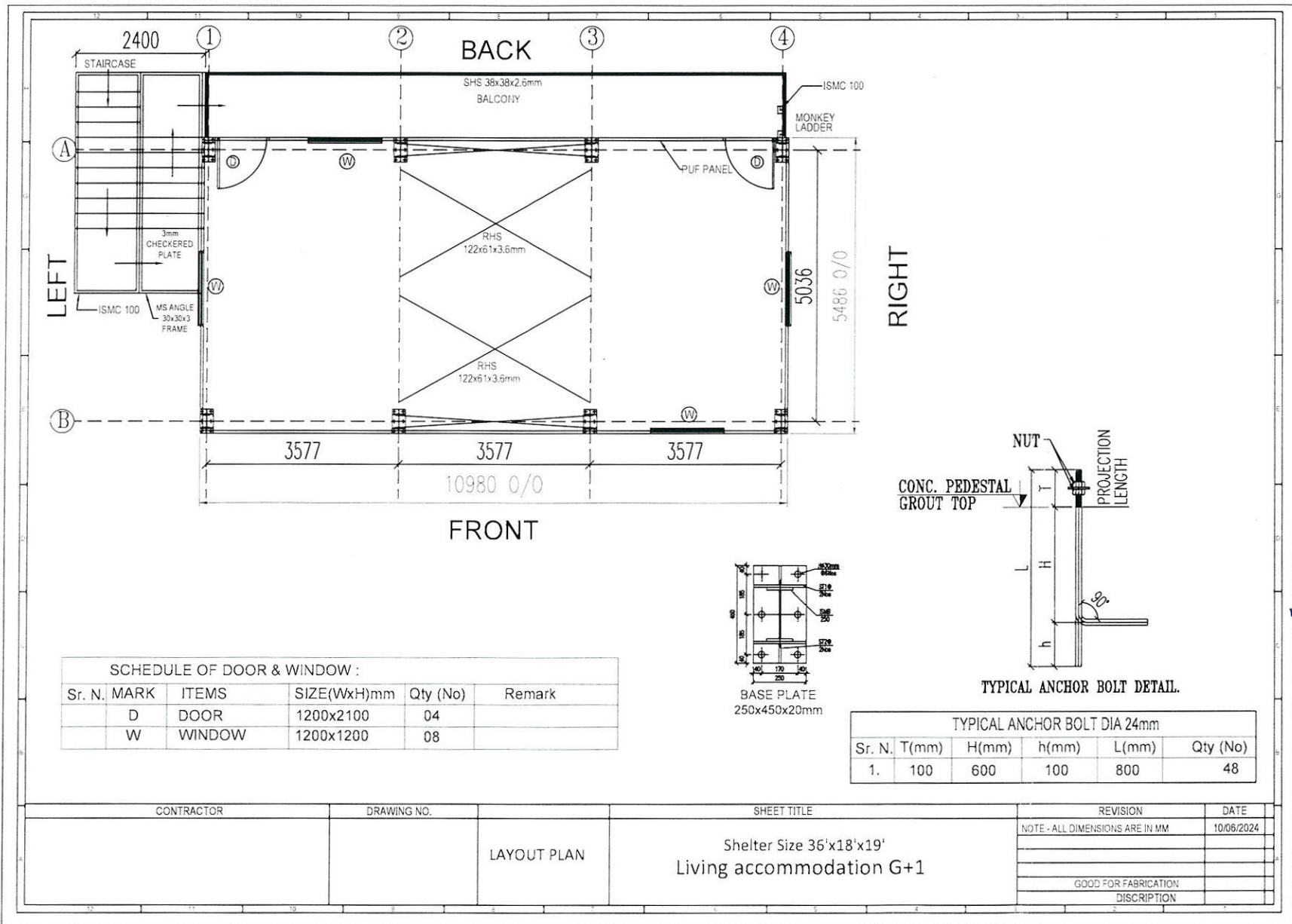
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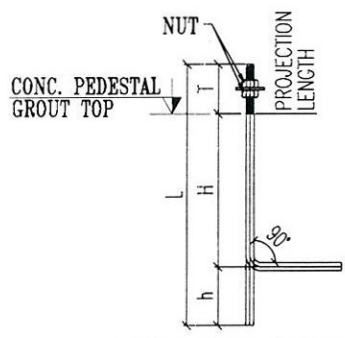
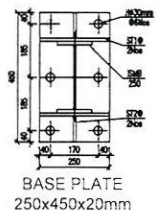
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SCHEDULE OF DOOR & WINDOW :

Sr. N.	MARK	ITEMS	SIZE(WxH)mm	Qty (No)	Remark
	D	DOOR	1200x2100	04	
	W	WINDOW	1200x1200	08	



TYPICAL ANCHOR BOLT DIA 24mm

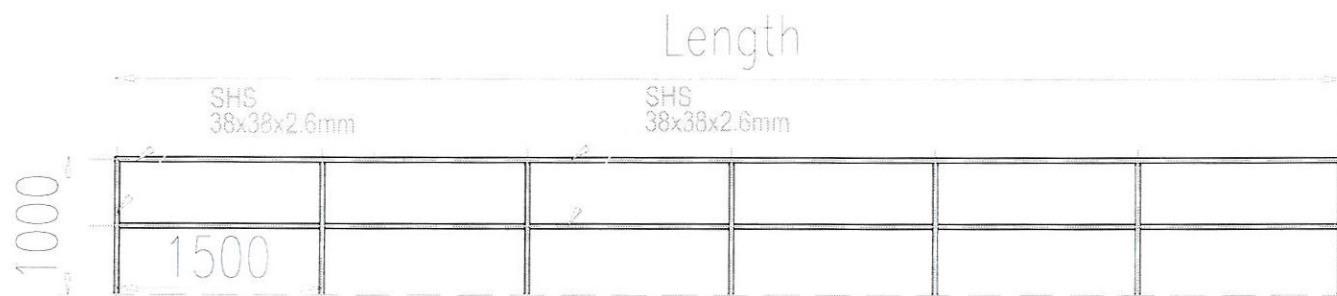
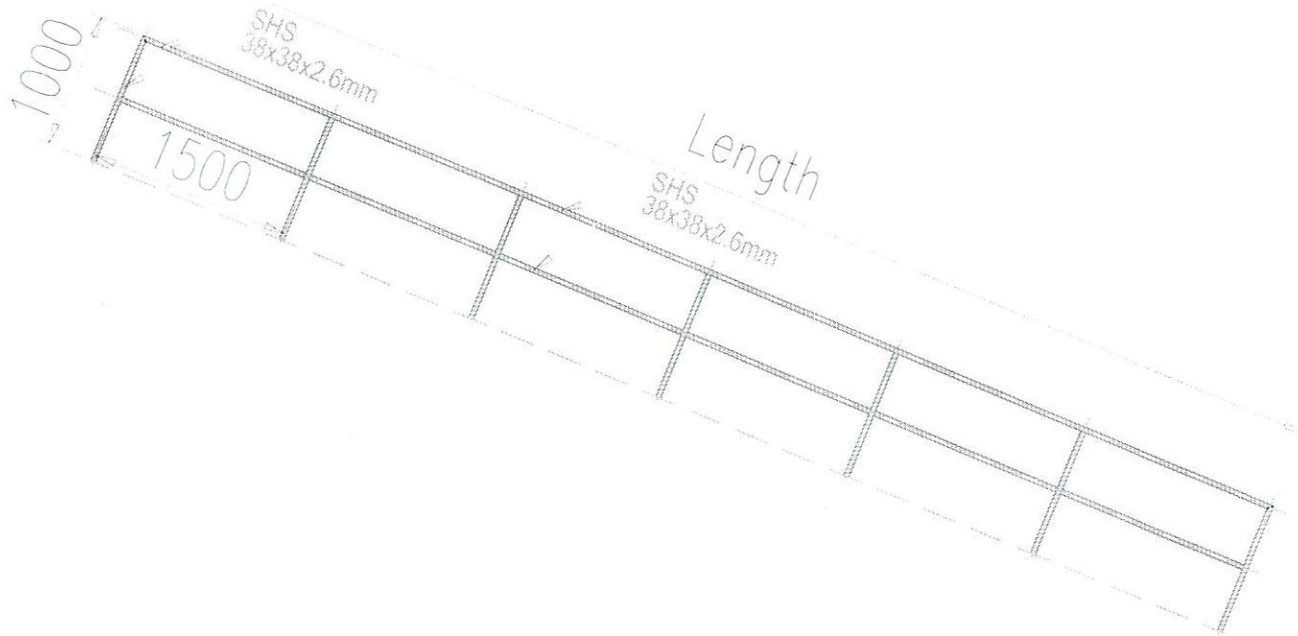
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1.	100	600	100	800	48

CONTRACTOR	DRAWING NO.	SHEET TITLE	REVISION	DATE
		LAYOUT PLAN	NOTE - ALL DIMENSIONS ARE IN MM	10/06/2024
		Shelter Size 35'x18'x19' Living accommodation G+1		
			GOOD FOR FABRICATION	
			DISCRPTION	

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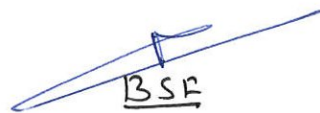
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Subject to vetting
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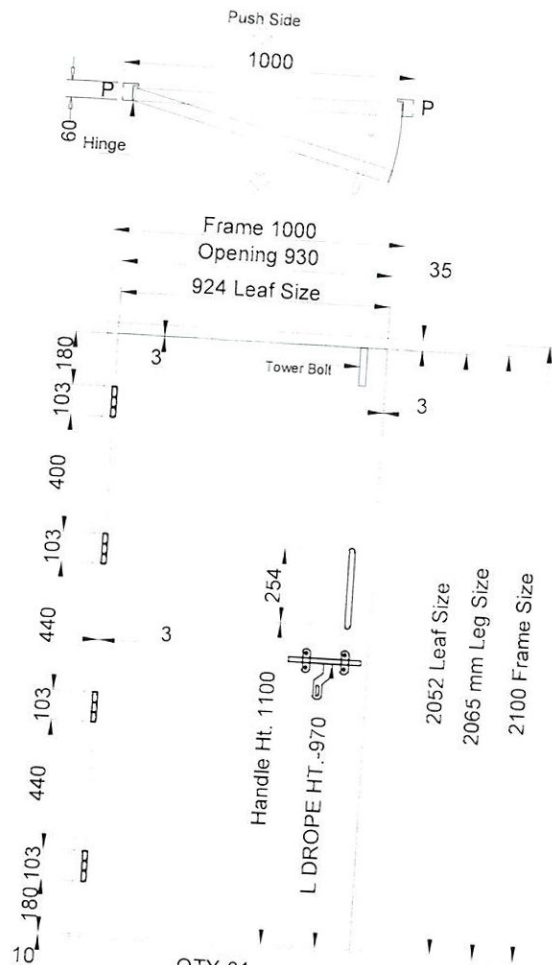

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SHELTER PUF DOOR

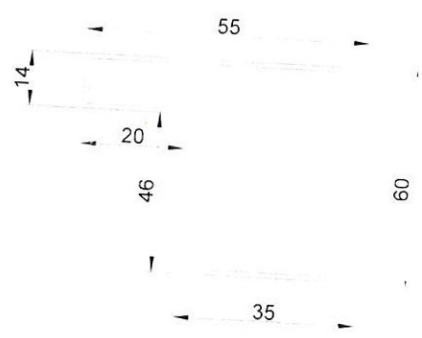
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in Para 2 of A.R.'
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60MM DOOR FRAME FOR PUF PANEL

Door frame made of 1.2mm thk. GI Sheet & leaf of 40mm thickness made of 0.8mm thk. PPGI Sheet Infill - (PUF)

- SS 'D' Handle
- SS 304 Ball bearing hinges.
- Door Seal
- L DROP (kundi)
- Tower Bolt
- Color:- Ral-9002 off white

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QTY-01
SINGLE DOOR
(SIZE-1000X2100 MM)
RIGHT HAND

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CLIENT:

SITE:

Date - 09-07-2024

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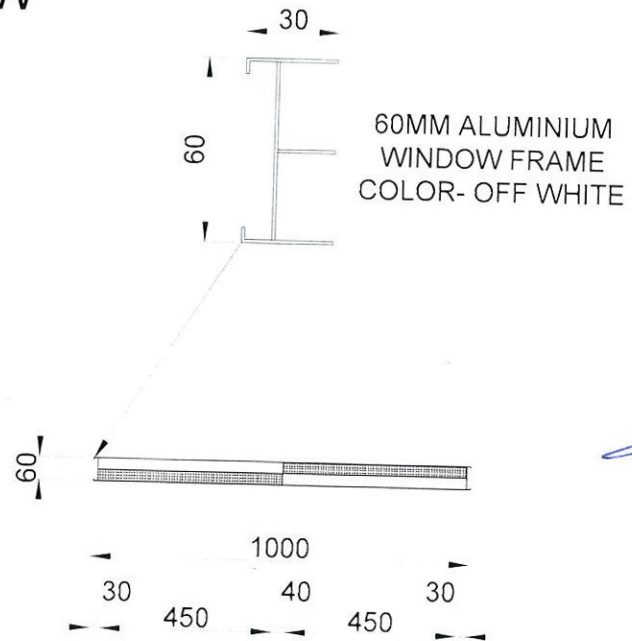
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Approved by:-

Rev No. :-
Rev Date :-
Dwg. No. :-
Job Order No. :-
Schedule No. :-
Eng No. :-

2 TRACK SLIDING WINDOW WITH MOSQUITO NET

-12-



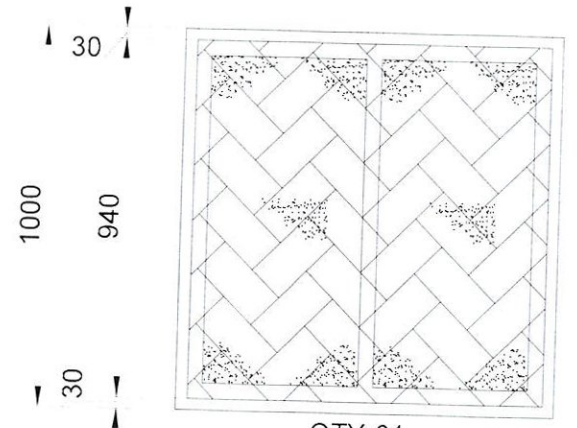
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QTY-01
2 TRACK ALUMINIUM SLIDING WINDOW WITH MOSQUITO NET (SIZE-1000X1000 MM)

CLIENT:

SITE:

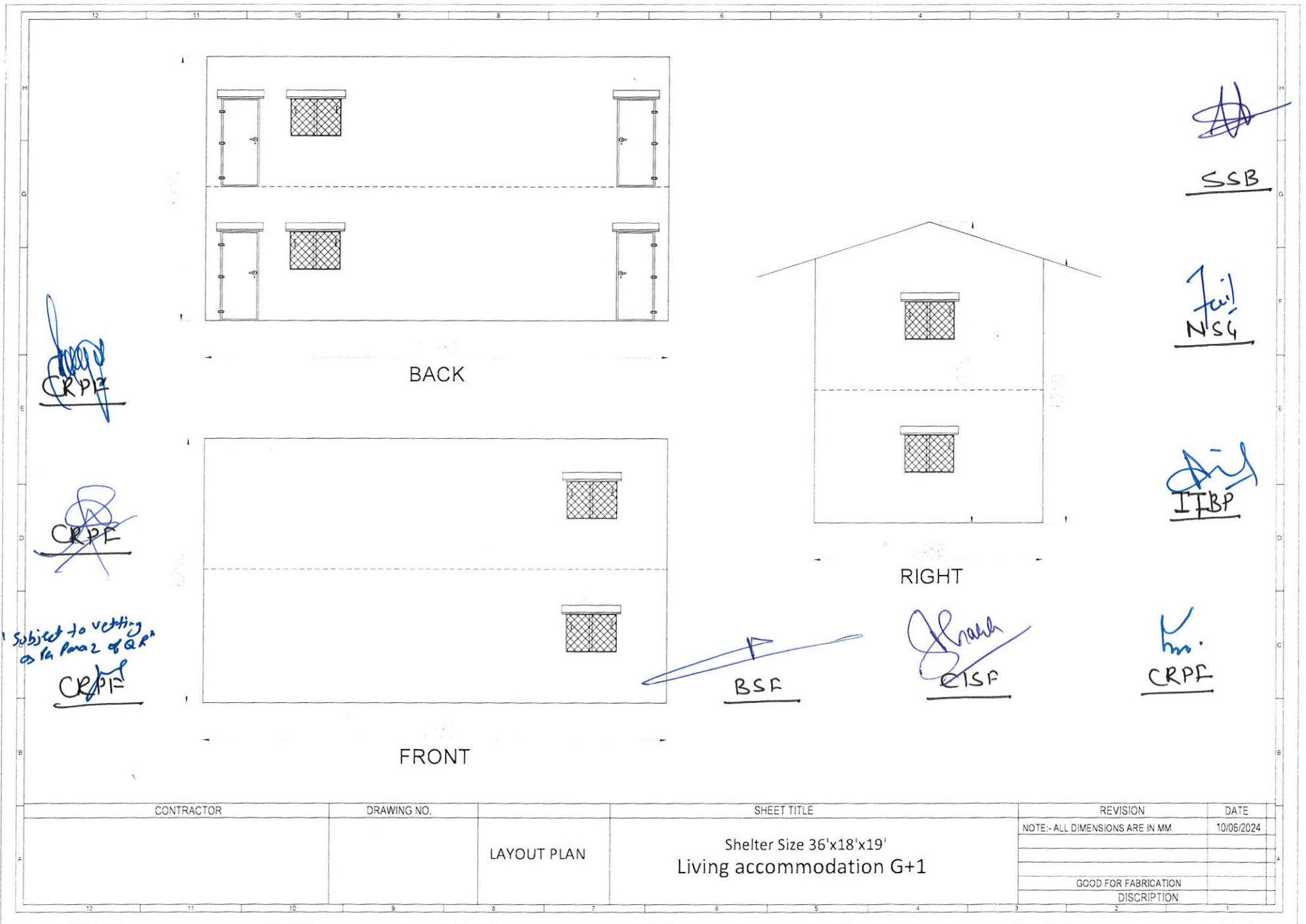
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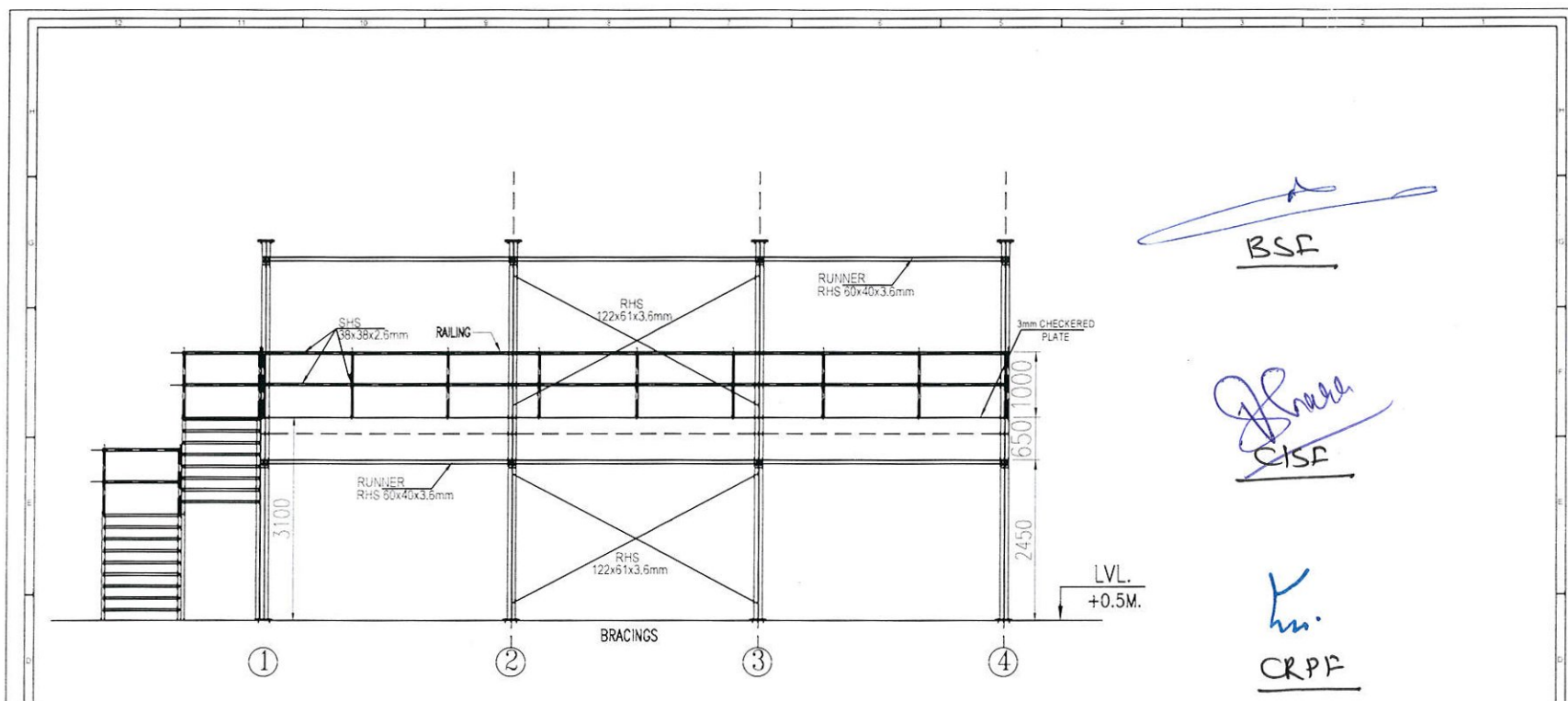
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Checked by :-
Approved by :-

Rev No. :-
Rev Date :-
Dwg. No. :-
Job Order No. :-
Schedule No. :-
Enq No. :-



CONTRACTOR	DRAWING NO.	LAYOUT PLAN	SHEET TITLE	REVISION	DATE
			Shelter Size 36'x18'x19' Living accommodation G+1	NOTE:- ALL DIMENSIONS ARE IN MM	10/06/2024
				GOOD FOR FABRICATION	
				DISCRIPTION	



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ELEVATION GRID A

CONTRACTOR	DRAWING NO.	SHEET TITLE	REVISION	DATE
		ELEVATION GRID A	NOTE - ALL DIMENSIONS ARE IN MM	10/06/2024
		Shelter Size 36'x18'x19' Living accommodation G+1		
			GOOD FOR FABRICATION	
			DISCRPTION	

