



RAPID CONSTRUCTION · EXCEEDING EXPECTATIONS

PREFAB K-HOUSE



GLOBAL LEADER

Pre Engineered Buildings
www.epack.in



COMPANY PROFILE



EPACK PREFAB is one of the leading turnkey solution providers for innovative and energy-efficient buildings. The principal activity of the organization comprises:

- Pre Engineered and Prefabricated Buildings
- Insulated Sandwich Panel Manufacturing &
- Light Gauge Steel Framing.

Since the inception of EPACK PREFAB in 1999 at a prime location in Greater Noida, EPACK PREFAB has been the leading manufacturer of Prefabricated structures in India Producing more than 187,000 MT per annum and has covered millions of sq. ft area worldwide.

OUR INFRASTRUCTURE

We owe our success to our strong infrastructural base. All manufacturing activities are carried under one roof from manufacturing to actual shipment . Our work force consist of numerous skilled engineers, technicians, who give us an edge over others. In addition our steel structure & fabrication division is well equipped with all ultramodern plant and machineries to carry out the most complex job efficiently and effectively .

- Continuous H Beam Welding Machine.
- CNC Plasma Cutting Machine .
- Continuous Sandwich Panel Machine
- Shearing Machine.
- C/Z Purlin Machine.
- CNC Punching Machine .
- LGSF Machine .
- Roof Profile Machine .
- Shot Blasting and Painting Facility



CONTINUOUS SANDWICH PANEL MACHINE



LGSF MACHINE



CANON FOAMING MACHINE



CNC PUNCHING MACHINE



CNC PLASMA CUTTING MACHINE



ROOF PROFILE MACHINE

CERTIFICATIONS



EPACK PREFAB K-HOUSE



EPACK PREFAB K-House is built on efficiently designed structures as per IS code, surrounded by protective dry walls (sandwich panels) which can be simply assembled in modules, with the components bolted together, and can be quickly assembled and dismantled. A great feature of this building is it comes in DIY (Do It Yourself) and can be assembled easily and it can be relocated with ease.

Benefits of EPACK PREFAB K-House

Comparing to traditional Building system EPACK PREFAB K-House has lots of benefits in every aspect like:

- **Recycle use:** All components are standard and fabricated in factory, which makes it suitable in recycle use for many times.
- **Quick Installation:** It is quick and easy to erect being made from light-weight materials, and can easily with minimal technical knowhow.
- **Stable Structure:** EPACK PREFAB K-House has a flexible construction system, which is safe, reliable and can meet the standard of construction design.
- **Disassembled easily:** The K-House can be disassembled multiple times and reused. It just need simple tools to assemble and disassemble.
- **Flexible Layout:** Doors and windows can be placed anywhere, with partitions set in any horizontal axis and with stairs outdoor.
- **Waterproof structure:** The K-House adopts waterproof design. So it does not need any separate waterproof treatment.
- **Environmental and Economic:** EPACK PREFAB K-House can be used repeatedly and is low on energy consumption which does not affect the environment. The average annual cost is much lower than other similar materials building houses.



APPLICATIONS



EPACK PREFAB K-House is widely used as temporary constructing house of field work like road, railway and construction site or municipal and commercial and other temporary housing like :

- Site office / Camp office
- Engineer Accommodation
- Labour Accommodation
- Family Accommodation
- Time Office / QC Office
- Canteen / Site kitchen
- School & Training centers
- Health Centers/ Anganwadis
- Ablution / Toilet block
- Disaster relief camps / Refugee camps
- Temporary hospitals
- Exhibition hall



TECHNICAL SPECIFICATIONS

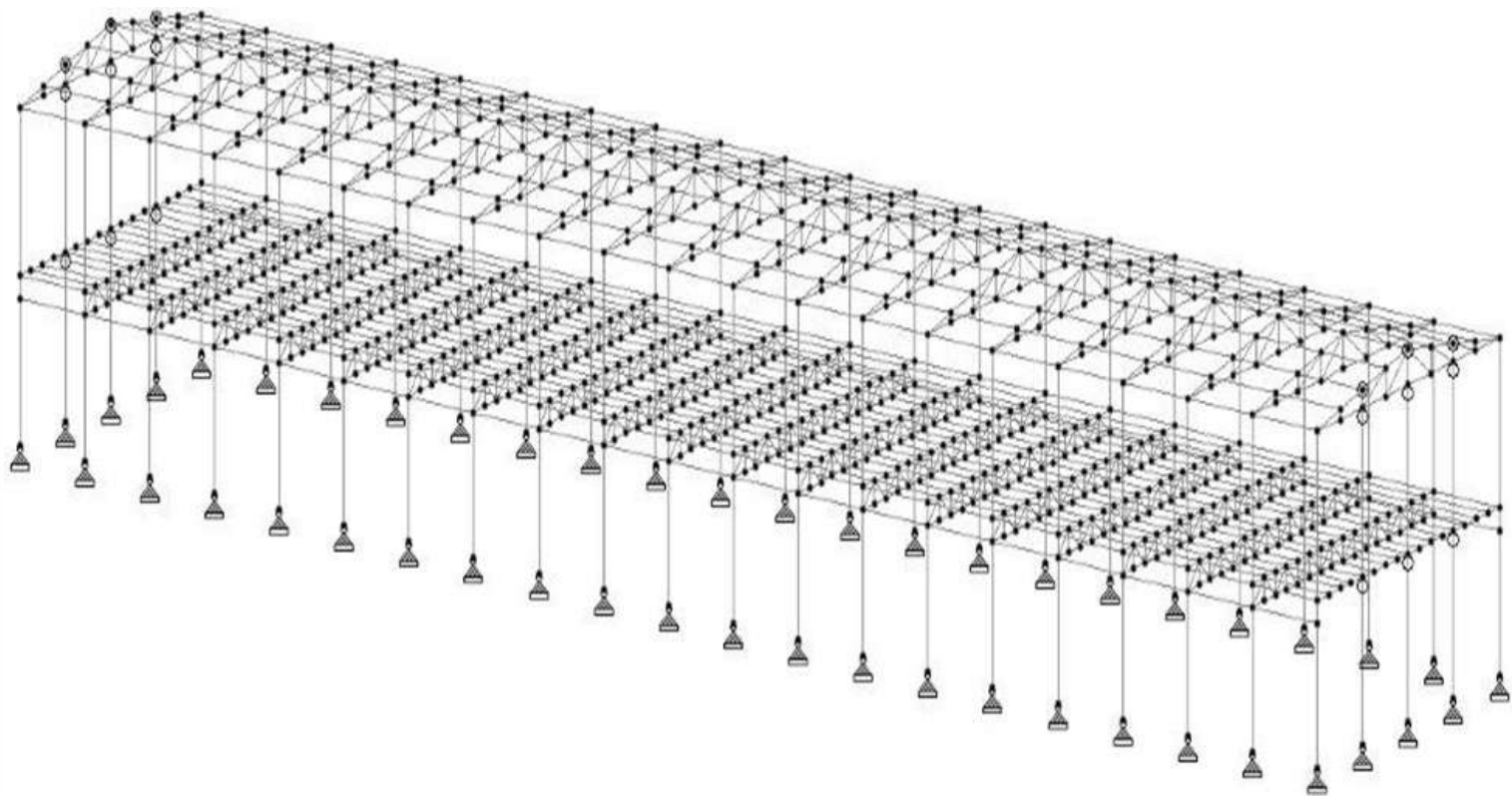
S.No	Item	Detail Specification
1	Columns, Trusses, Joist Beam, Purlins, etc.	All the structural steel material are cold formed as per IS : 811 / RHS sections as per IS:4923 duly painted with one coat primer & one coat paint (25 dft each coat, preferably blue color).
2	Walk way & Staircase	The walkway & staircase treads shall be 2.40mm thick MS checkered plates duly painted with one coat primer & one coat black paint. The design is as per EPACK PREFAB standards.
3	Railings	The railings shall be fabricated out MS angle of 40x40x3mm and duly painted with one coat primer & one coat paint (Preferably Blue).
4	Hardware	All the structural steel fixing hardware shall be non galvanized. We use high tensile (8.8 grade) for primary members and 4.60 grade for secondary members of EPACK PREFAB approved make.
5	Wall Panels / Partition panels	The wall panels shall be 50mm thick sandwich panels with 0.30mm Pre painted Galvanized iron sheet on either side and expanded polystyrene core in between. The panels shall be of RAL-9002 Off white / appliance white color. No silicon sealant is used / required to be filled in between our sandwich panels.
6	Floor Board	In case of G+1 / G+2 building the floor board supplied by us will be 18mm cement fiber board of EPACK approved make. The same be fixed to the floor beam with M5x30mm SD screw. (If required the gap in between the floor board to be filled by the customer. We suggest the use of PVC mat for a leak proof / dust proof atmosphere on the ground floor).
7	Floor Mat / Tiling (Optional)	We can provide 1.50mm PVC floor mat or tiling on the floor as per the requirement of the customer at extra cost.
8	False Ceiling	We can provide PVC laminated grid ceiling as per the requirement of the customer at extra cost.
9	Doors (2100 x 900 mm)	The doors shall be made out of sandwich panels and shall be of same color as walls. The doors will have accessories like stainless steel hinges, D handle (2 no's), Al drop 8" on outside and Tower bolt 6" on inside of Jolly / Plaza make. (Motrise lock, door closer & door stopper can be supplied at extra cost as per customer's requirement)
10	Windows (1740 x 970 mm)	The windows shall be made out of aluminum extruded section and shall be powder coated (white color). The glass shall be 4mm non toughened. (Aluminum Grill can be provided at an extra cost as per customer's requirement) .
11	Roofing	The roof shall be pre painted galvanized trapezoidal metal sheet of 0.40 mm thickness (preferably blue color). The same shall be fixed to the purlins with STSD screw of EPACK PREFAB approved make.
12	Insulated Roofing / ceiling	We can supply 50mm EPS sandwich roof panels or 50mm EPS sandwich ceiling panels at an extra cost as per the requirement of the customer.
13	Electrical fittings	EPACK PREFAB can undertake to supply & install the electrical fittings like lights, fans, sockets, AC's, etc at an extra cost as per customer's requirement.
14	Toilets / Kitchen	In case the customer wants a toilet / kitchen on the 1st floor than we suggest the use of APP membrane which can be provided at an extra cost.

* K house is a standard product of EPACK PREFAB and no changes in the design is possible under any circumstances.

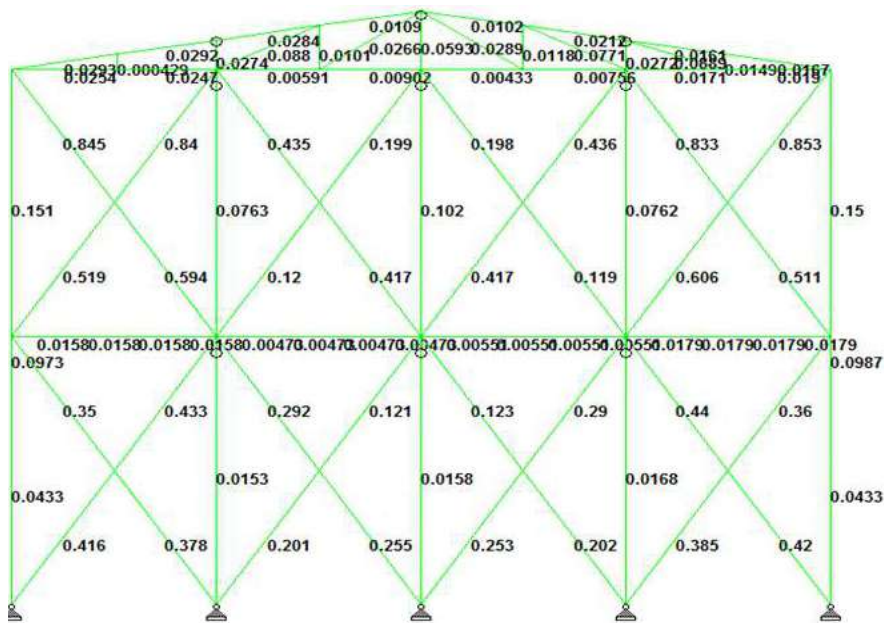
STRUCTURAL DESIGN ANALYSIS

At EPACK PREFAB we have always placed a heavy emphasis to design. We have In-house design and R&D department with well qualified and experienced structural designers who can do :

- Complete Research and Analysis.
- Modifications to an Existing Plan.
- Designing a whole New Building.



K-House Structure



Frame Analysis Ratio

Design Parameters

i)	Design occupancy loading of 2 KN/m2 (200 kg/m2)
ii)	Design loading on balcony (walkway) of 2.5 KN/m2 (250 kg/m2)
iii)	Design wind speed of 47m/s
iv)	Design service life of 5 years
v)	Seismic Zone IV

K-HOUSE AREA CALCULATION CHART

EPACK PREFAB K-House Building Area Calculation Table

1K = 1.82m 1P = 0.97m

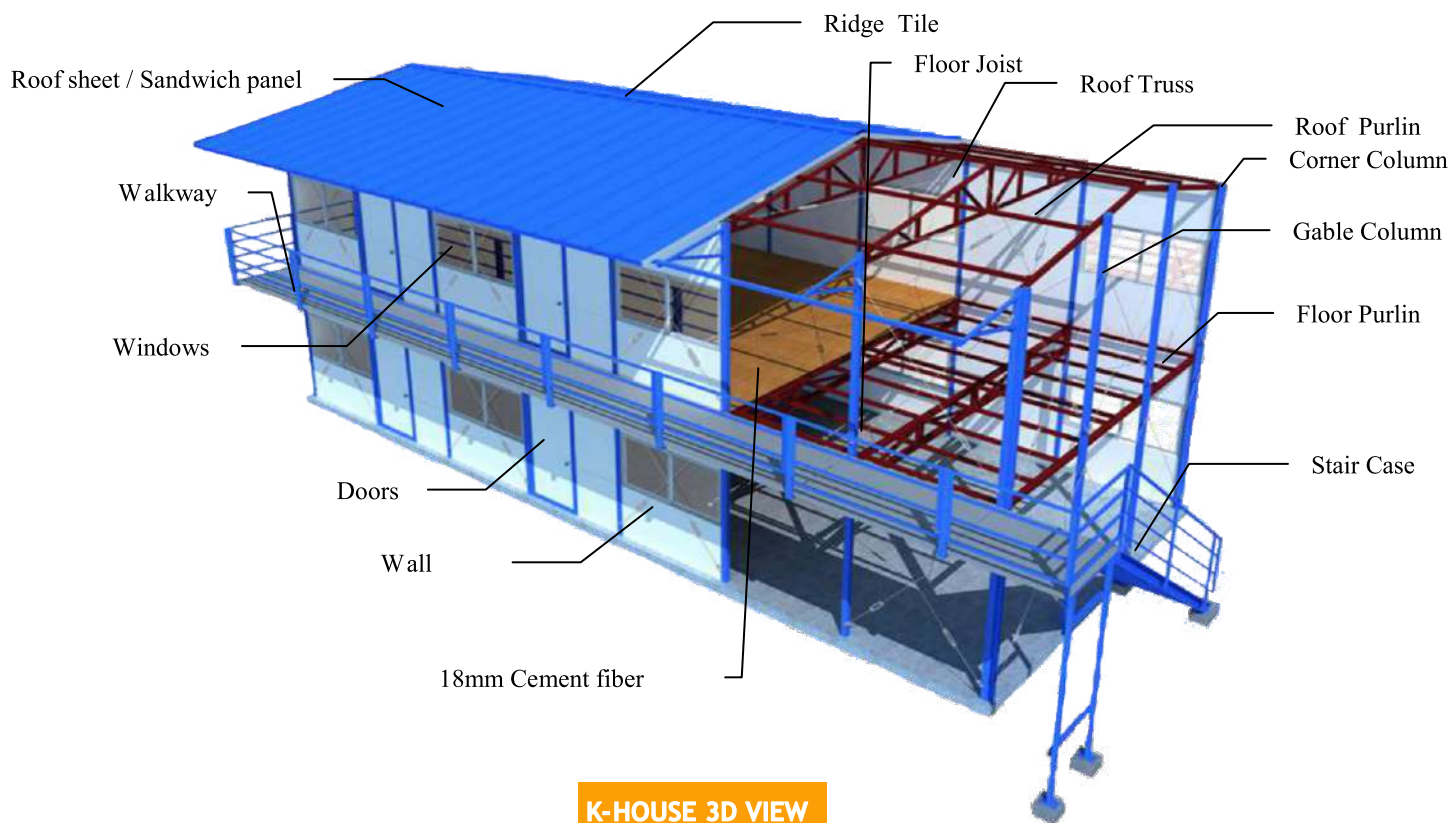
Length		Length (in Mtrs)	Ground Storied (3P)			G+1 Storied (6P)			G+2 Storied (9P)		
			Width			Width			Width		
			3K	4K	5K	3K	4K	5K	3K	4K	5K
			6.82	8.64	10.46	6.98	8.80	10.62	6.98	8.80	10.62
4	K	7.44	50.74	64.28	77.82	103.79	130.87	157.95	155.68	196.30	236.93
5	K	9.26	63.15	80.01	96.86	129.18	162.88	196.59	193.77	244.33	294.88
6	K	11.08	75.57	95.73	115.90	154.57	194.90	235.23	231.85	292.35	352.84
7	K	12.90	87.98	111.46	134.93	179.96	226.91	273.87	269.93	340.37	410.80
8	K	14.72	100.39	127.18	153.97	205.34	258.92	312.51	308.02	388.39	468.76
9	K	16.54	112.80	142.91	173.01	230.73	290.94	351.14	346.10	436.41	526.72
10	K	18.36	125.22	158.63	192.05	256.12	322.95	389.78	384.18	484.43	584.67
11	K	20.18	137.63	174.36	211.08	281.51	354.97	428.42	422.27	532.45	642.63
12	K	22.00	150.04	190.08	230.12	306.90	386.98	467.06	460.35	580.47	700.59
13	K	23.82	162.45	205.80	249.16	332.29	418.99	505.70	498.43	628.49	758.55
14	K	25.64	174.86	221.53	268.19	357.68	451.01	544.34	536.52	676.51	816.51
15	K	27.46	187.28	237.25	287.23	383.07	483.02	582.98	574.60	724.53	874.46
16	K	29.28	199.69	252.98	306.27	408.46	515.04	621.61	612.68	772.55	932.42
17	K	31.10	212.10	268.70	325.31	433.85	547.05	660.25	650.77	820.57	990.38
18	K	32.92	224.51	284.43	344.34	459.23	579.06	698.89	688.85	868.59	1,048.34
19	K	34.74	236.93	300.15	363.38	484.62	611.08	737.53	726.93	916.61	1,106.30
20	K	36.56	249.34	315.88	382.42	510.01	643.09	776.17	765.02	964.64	1,164.25
21	K	38.38	261.75	331.60	401.45	535.40	675.10	814.81	803.10	1,012.66	1,222.21
22	K	40.20	274.16	347.33	420.49	560.79	707.12	853.45	841.19	1,060.68	1,280.17
23	K	42.02	286.58	363.05	439.53	586.18	739.13	892.08	879.27	1,108.70	1,338.13
24	K	43.84	298.99	378.78	458.57	611.57	771.15	930.72	917.35	1,156.72	1,396.08
25	K	45.66	311.40	394.50	477.60	636.96	803.16	969.36	955.44	1,204.74	1,454.04
26	K	47.48	323.81	410.23	496.64	662.35	835.17	1,008.00	993.52	1,252.76	1,512.00
27	K	49.30	336.23	425.95	515.68	687.74	867.19	1,046.64	1,031.60	1,300.78	1,569.96
28	K	51.12	348.64	441.68	534.72	713.12	899.20	1,085.28	1,069.69	1,348.80	1,627.92

- Verandha of 900mm & roof overhang of 300mm included in the width of the ground storied building.
- Walkway of 1055 mm & roof overhand of 300mm included in the width of the G+1 & G+2 building.
- One No's Staircase is provided upto 30mtr length building and Two No's staircase above 30mtr. length building.
- The area of the building is to be worked out on the basis of above table only. EPACK always quotes price on this basis only.

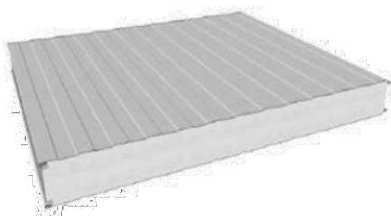
RECOMMENDED DIMENSIONS FOR LABOR HUTMENT

S.No	K-House Layouts	Total Area (square m)	No Of Workers
1	8K X 3K X 3P	100.39	35
2	12K X 3K X 3P	150.04	50
3	18K X 3K X 3P	224.51	80
4	18K X 4K X 3P	284.43	100
5	18K X 3K X 6P	459.23	160
6	18K X 4K X 6P	579.06	200

COMPONENTS



Wall Panel



- 50mm thick sandwich panels.
- Pre painted Galvanized iron sheets on either side.
- Expanded polystyrene core.
- RAL-9002 Off White/ Appliance White color.

Roof Sheet



- Pre painted galvanized trapezoidal metal sheet.
- 0.40 mm thickness (preferably Blue color).
- Easily Fixed with SD screw on Purlins.

Roof Panel



- 50mm EPS sandwich roof panels or 50mm EPS sandwich ceiling panels

Doors



- Made of sandwich panels
- Same color as walls.
- 2100 X 900mm in dimension

Windows



- Made of Powder coated (white color) Aluminum extruded section
- 4mm non toughened window glass.
- 1740 x 970 mm in dimension.

Floor Board



- 18mm Cement fiber board of EPACK approved make.
- Can be fixed on the floor beam with M5x30mm SD Screw.

COMPONENTS



Un-painted Columns



Painted Columns



Un-painted floor Joist



Painted floor Joist



Staircase



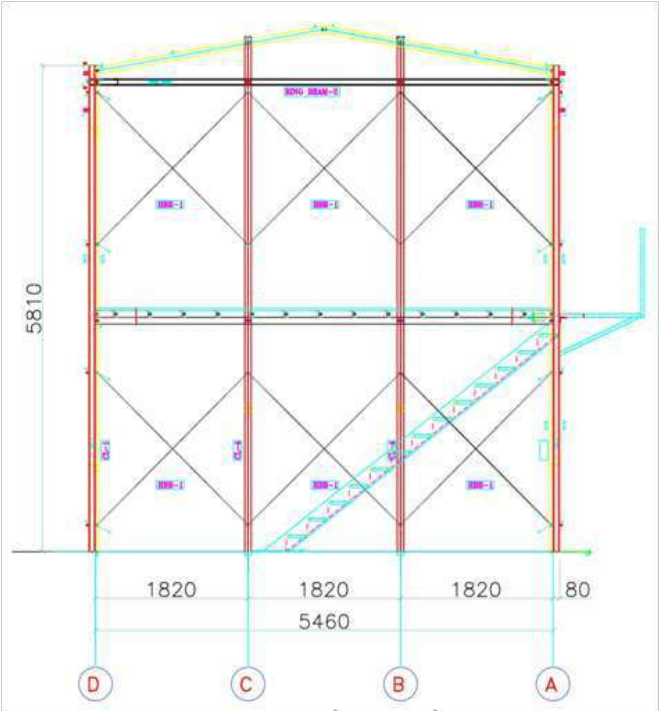
Railing



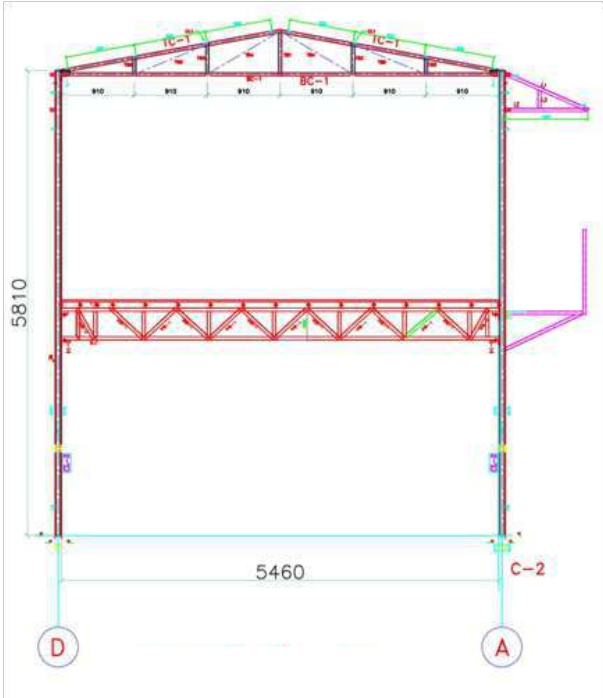
Floor Joist & Purlins



False Ceiling



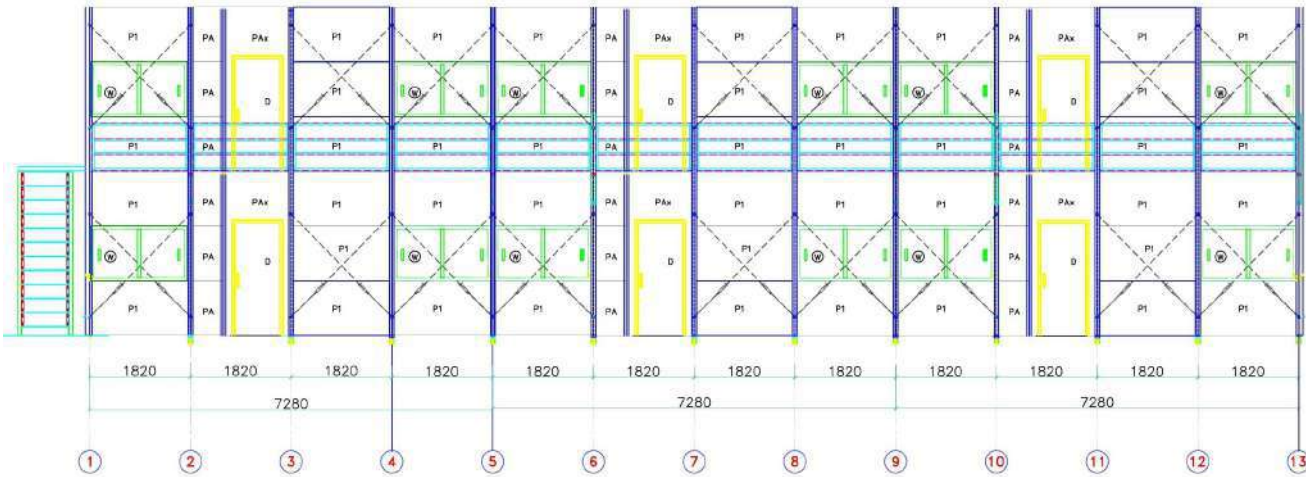
Gable End Frame



Mid Frame

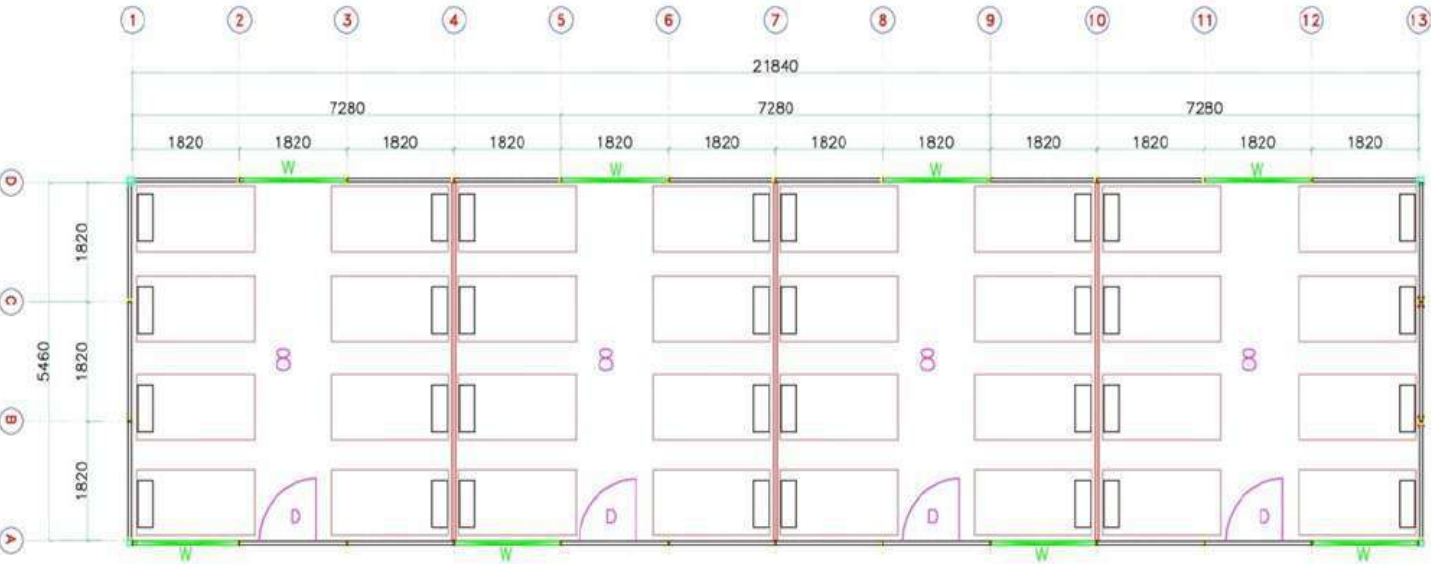


Floor Plan

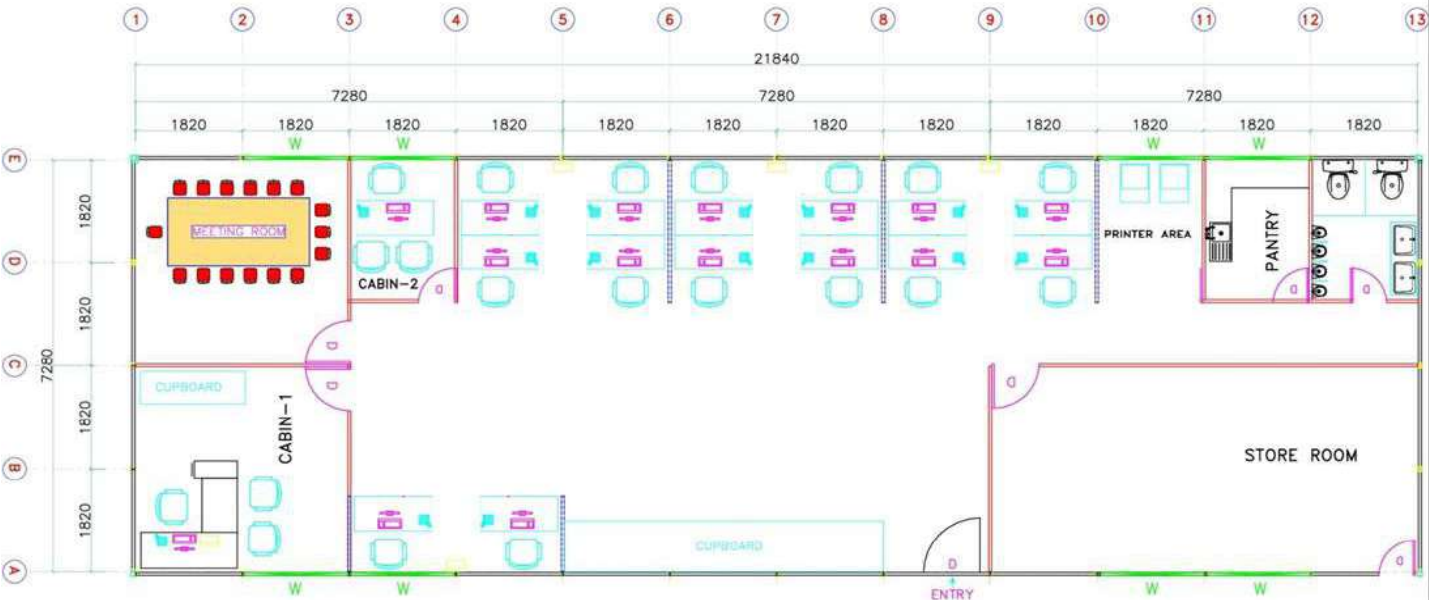


Front View

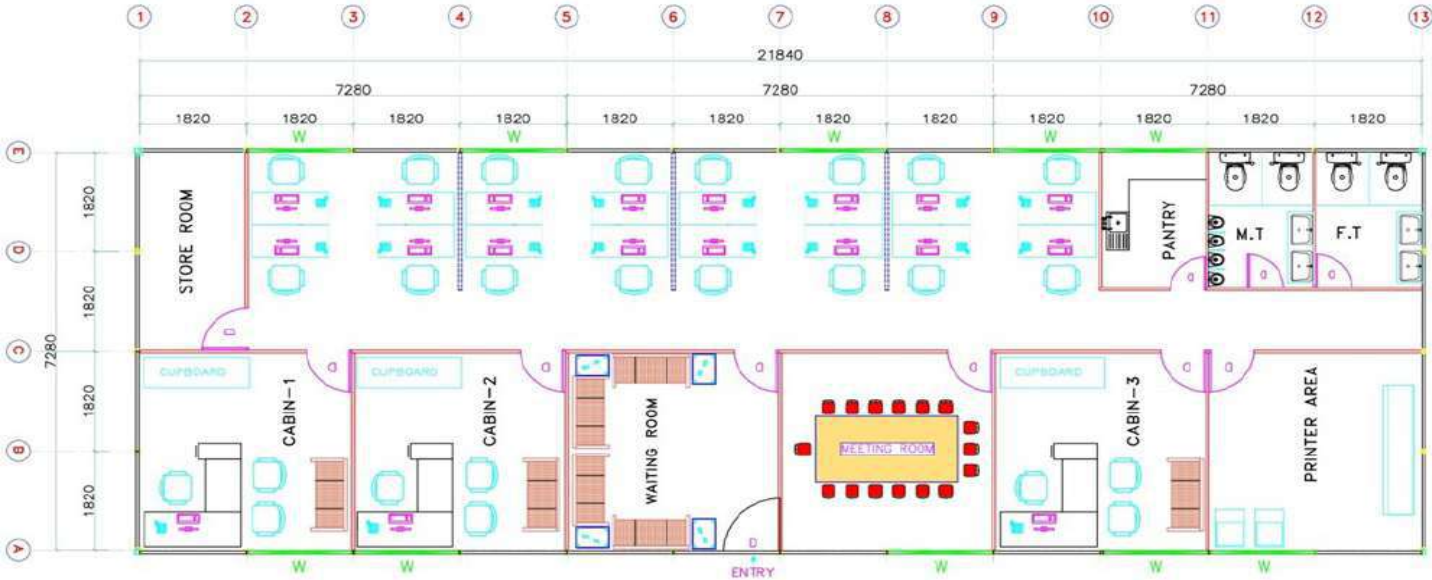
EPACK PREFAB RECOMMENDED LAYOUTS



K-HOUSE ENGINEERS ACCOMODATION (12K X 3K X 3P)



K-HOUSE SITE OFFICE (12K X 4K X 3P)



K-HOUSE TIME OFFICE (12K X 4K X 3P)

THINK PREFAB THINK EPACK



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