

TOWER B3 B4 B5 & B6 REFUGE FLOOR PLAN
18TH, 27TH & 36TH FLOOR

TOWER B3 B4 B5 & B6 REFUGE FLOOR PLAN AREA DIAGRAM
18TH, 27TH & 36TH FLOOR

FAR AREA OF TOWER TYPE - 1 AT REFUGE (18TH, 27TH & 36TH) FLOOR LEVEL				
TAG	LENGTH (L) in Mts	WIDTH (W) in Mts	NO.S (N)	AREA (L x W x N)
A	37.240	27.93	1	1040.113
TOTAL (A)				1040.113

DEDUCTIONS				
TAG	LENGTH (L) in Mts	WIDTH (W) in Mts	NO.S (N)	AREA (L x W x N)
1	5.640	5.260	2	59.333
2	3.515	0.140	2	0.984
3	1.825	4.180	2	15.257
4	1.750	1.190	2	4.165
4A	0.750	0.140	2	0.210
5	5.640	2.690	2	30.343
6	0.750	2.450	2	3.675
7	10.900	3.655	1	39.840
8	3.815	2.690	2	20.525
9	0.750	2.450	2	3.675
10	0.750	0.140	2	0.210
11	1.750	1.130	2	3.955
12	1.825	0.140	2	0.511
13	3.815	5.275	2	40.248
14	4.260	0.140	2	1.193
15	6.790	4.675	1	31.743
16	2.640	0.140	2	0.739
17	3.650	0.140	1	0.511
18	3.730	3.015	1	11.246
19	6.725	3.655	1	24.580
20	13.660	4.650	1	63.519
21	2.380	0.140	2	0.666
22	7.380	0.140	2	2.066
23	6.790	2.465	1	16.737
24	2.975	2.210	1	6.575
R1	1.250	0.085	1	0.106
R2	1.600	2.770	1	4.432
R3	0.090	0.835	1	0.075
R4	3.815	1.250	1	4.769
R5	3.650	3.290	1	12.009
R6	3.815	2.210	1	8.431
TOTAL (D)				412.328

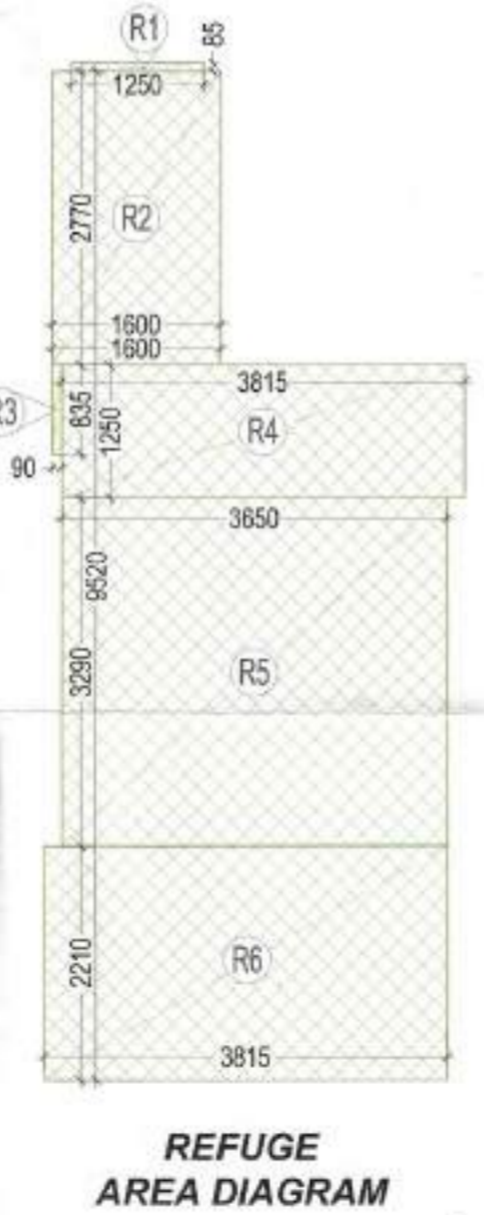
LIFT & SERVICES SHAFTS				
TAG	LENGTH (L) in Mts	WIDTH (W) in Mts	NO.S (N)	AREA (L x W x N)
S1	2.300	2.615	3	18.044
S2	1.560	1.450	1	2.262
S3	1.890	1.995	1	3.771
S4	0.895	0.080	1	0.072
S5	0.850	1.395	1	1.186
S6	0.650	1.395	1	0.907
S7	0.295	0.080	1	0.024
S8	1.740	0.500	1	0.870
S9	0.800	1.395	1	1.116
S10	0.740	0.500	1	0.370
S11	0.740	1.930	1	1.428
S12	1.650	0.490	4	3.234
S13	1.050	0.100	4	0.420
TOTAL (S)				33.702

FIRE STAIRCASE & NON FAR AREA				
TAG	LENGTH (L) in Mts	WIDTH (W) in Mts	NO.S (N)	AREA (L x W x N)
N1	0.900	1.175	1	1.058
N2	6.050	2.570	1	15.549
N3	3.250	6.440	1	20.930
N4	4.250	3.655	1	15.534
TOTAL (N)				53.070

FIRE STAIRCASE WELL				
TAG	LENGTH (L) in Mts	WIDTH (W) in Mts	NO.S (N)	AREA (L x W x N)
O1	0.750	1.500	1	1.125
O2	1.750	1.155	1	2.021
TOTAL (W)				3.146
TOTAL NON FAR AREA (NF) = (N - W) + (R)				79.745
TOTAL FAR AREA (F) = (A - D - S - N)				541.013
TOTAL COVERED AREA = (F + NF)				620.758

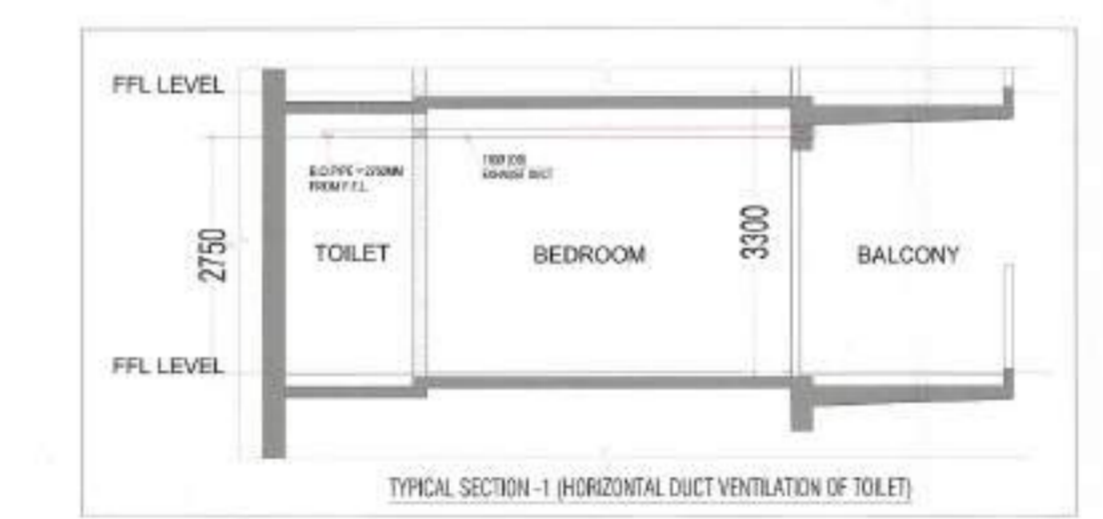
REFUGE AREA CALCULATION AT 18TH, 27TH & 36TH FLOOR				
TAG	LENGTH (L) in Mts	WIDTH (W) in Mts	NO.S (N)	AREA (L x W x N)
R1	1.250	0.085	1	0.106
R2	1.600	2.770	1	4.432
R3	0.090	0.835	1	0.075
R4	3.815	1.250	1	4.769
R5	3.650	3.290	1	12.009
R6	3.815	2.210	1	8.431
TOTAL (R)				29.822

GROSS AREA at 18th/27th/36th FLOOR (FAR + NON FAR) = 541.013 + 49.924
 GROSS AREA at 17th/26th/35th FLOOR (FAR + NON FAR) = 561.893 + 49.924
TOTAL GROSS AREA at 18th/27th/36th & 17th/26th/35th FLOOR (G) = 1202.753
 B = GROSS AREA (G) / 12.5 = 96.220
 C = B * 0.3 = 28.866
 ADDITIONAL SPACE REQUIRED TO ACCOMMODATE WHEEL CHAIR = 0.900
TOTAL REFUGE AREA REQUIRED = 29.766
TOTAL REFUGE AREA PROVIDED = (R) = 29.822



REFUGE AREA DIAGRAM

SUMMARY OF MECHANICAL VENTILATION											
S/N	Floor	Area SFT	Effective FT	Volume CFT	Air Change Per Hour	Calculated CFM	Installed CFM	Application	Max. of Fan & Capacity CFM	Type of Fan	Remark
1	General Ventilation										
1	Toilet For Bedroom 3 - Typical	52.54	9	473	10	79	100	Schauert	1x100 CFM	Inline Fan	Normal Mode
2	Common Toilet For Bedroom 1 - Typical	45.6	9	410	10	68	100	Schauert	1x100 CFM	Inline Fan	Normal Mode



S/N	TITLE	H	W	DL	REMARKS
001	SLIDING DOOR	3010	2500	± 00	
002	SLIDING DOOR	3540	2500	± 00	
003	SLIDING DOOR	3440	2500	± 00	
004	SLIDING DOOR	3410	2500	± 00	
005	SLIDING DOOR	3338	2500	± 00	
006	SLIDING DOOR	2990	2500	± 00	
007	SLIDING DOOR	2990	2500	± 00	
008	SLIDING DOOR	2700	2500	± 00	
009	SLIDING DOOR	2970	2500	± 00	
010	SLIDING DOOR	2440	2500	± 00	
011	SLIDING DOOR	1925	2500	± 00	
012	SLIDING DOOR	1475	2500	± 00	
013	SLIDING DOOR	1460	2500	± 00	
014	FLUSH DOOR	1300	2500	± 00	1 HR FIRE RATED
015	FLUSH DOOR	1000	2500	± 00	
016	FLUSH DOOR	800	2500	± 00	
017	FIRE DOOR	1900	2500	± 00	2 HR FIRE RATED
018	FIRE DOOR	1500	2500	± 00	2 HR FIRE RATED
019	FIRE DOOR	1500	2500	± 100	2 HR FIRE RATED
020	FIRE DOOR	1250	2500	± 00	2 HR FIRE RATED
021	FIRE DOOR	900	2500	± 100	2 HR FIRE RATED
022	FIRE DOOR	700	2500	± 100	2 HR FIRE RATED
023	DOOR WINDOW	1150x800	2500	± 00	
024	GLASS DOOR	2000	2500	± 00	
025	WINDOW	1500	1500	± 000	
026	WINDOW	1075	1500	± 000	
027	VENTILATOR	800	1000	± 1000	
028	VENTILATOR	450	1000	± 1000	

HORIZONTAL PIPE CONNECTIONS SHALL BE AS FOLLOWS:
 FROM WASH BASIN TO FT 320 PIPE
 FROM SINK TO FT 400 PIPE
 FROM FD TO FT 500 PIPE
 FROM FT TO VERTICAL STACK 1000 PIPE
 FROM WC TO VERTICAL STACK 1000 PIPE

S.NO.	DESCRIPTION
1	1000 SOIL & VENT PIPE
2	1000 WASTE & VENT PIPE
3	1000 ANTISYPHONAGE PIPE
4	110 OD RAIN WATER PIPE
5	160 OD RAIN WATER PIPE
6	DOMESTIC WATER SUPPLY DOWN TAKE FOR TOP FOUR FLOOR (36-33)
7	DOMESTIC WATER SUPPLY DOWN TAKE FOR (32-17) FLOOR
8	DOMESTIC WATER SUPPLY DOWN TAKE FOR (16-GRO.) FLOOR
9	FLUSHING WATER SUPPLY DOWN TAKE FOR (36-24) FLOOR
10	FLUSHING WATER SUPPLY DOWN TAKE FOR (23-12) FLOOR
11	FLUSHING WATER SUPPLY DOWN TAKE FOR (11-GROUND) FLOOR
12	DOMESTIC WATER RISER PIPE TO OHT
13	FLUSHING WATER RISER PIPE TO OHT

S.NO.	DESCRIPTION
A	1500 FIRE PIPE LOWE ZONE BASEMENT TO 9th FLOOR
B	1500 FIRE PIPE MIDDLE ZONE 10th TO 23rd FLOOR
C	1500 FIRE PIPE HIGH ZONE 24th TO TERRACE LVL
D	1500 SPRINKLER PIPE LOWE ZONE BASEMENT TO 9th FLOOR
E	1500 SPRINKLER PIPE MIDDLE ZONE 10th TO 23rd FLOOR
F	1500 SPRINKLER PIPE HIGH ZONE 24th TO TERRACE LVL
G	1500 ALTERNATE SPRINKLER PIPE LOWE ZONE BASEMENT TO 9th FLOOR
H	1500 ALTERNATE SPRINKLER PIPE MIDDLE ZONE 10th TO 23rd FLOOR
J	1500 ALTERNATE SPRINKLER PIPE HIGH ZONE 24th TO TERRACE LVL
K	1500 FIRE DOWN COMER PIPE
L	800 DRAIN PIPE

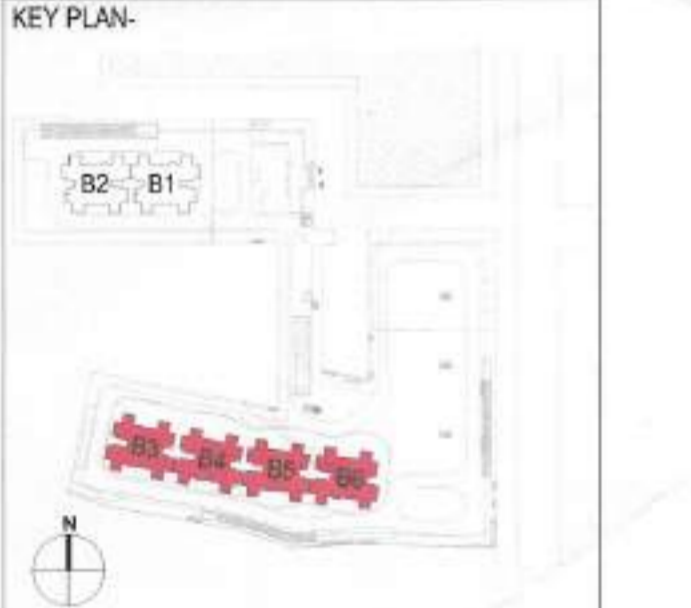
Approved by
 S.T.P. (H) S.T.P. (G) C.X.P. (H)
 Member Secretary Member Chairman
 B.P.A.C. B.P.A.C. B.P.A.C.

Checked and found ok for Public Health (Internal) Services only subject to comments in forwarding letter No. 371622 D. 26/11/25
 DINESH KUMAR PA(HQ)

Supervising Engineer (H)
 Chief Engineer-I
 HSPV, Panchajanya
 Member B.P.A.C.

SANCTIONED TO BE READ WITH THIS OFFICE MEMO NO.: 50032 DATED: 3/12/25

NOTE:
 1. BUILDING HAS AUTOMATIC SPRINKLER SYSTEM WHEREVER REQUIRED BY NBC.
 2. BUILDING WILL BE DESIGNED (STRUCTURES) AS PER RELEVANT IS CODES FOR EARTH QUAKE RESISTANCE.
 3. 100% POWER BACKUP MECHANICAL VENTILATED SHAFTS.



OWNER
 M3M INDIA INFRASTRUCTURES PVT. LTD.

PROJECT
 PROPOSED BUILDING PLAN OF GROUP HOUSING POCKET-B AREA MEASURING 9.1521 ACRES, PART OF INDUSTRIAL PLOTTED COLONY OVER AN AREA MEASURING 139.78075 ACRES (LICENSE NO. 186 OF 2025 DATED 08.09.2025) IN THE REVENUE ESTATE OF VILLAGE SAS HARIA AND JHUND SARAI ABAD, IN SECTOR M9, M10 AND M11 GURUGRAM MANESAR URBAN COMPLEX

ARCHITECTS
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OWNERS SEAL & SIGNATURE
 For M3M India Infrastructures Pvt. Ltd.
 [Signature]

ARCHITECTS SEAL & SIGNATURE
AMIT GUPTA
 Architect
 CA 1200/2024
 DATE: SCALE: DWG NO.:
 REFUGE FLOOR PLAN TOWER B3 B4 B5 B6 FP-B3B4B5B6-RE-01