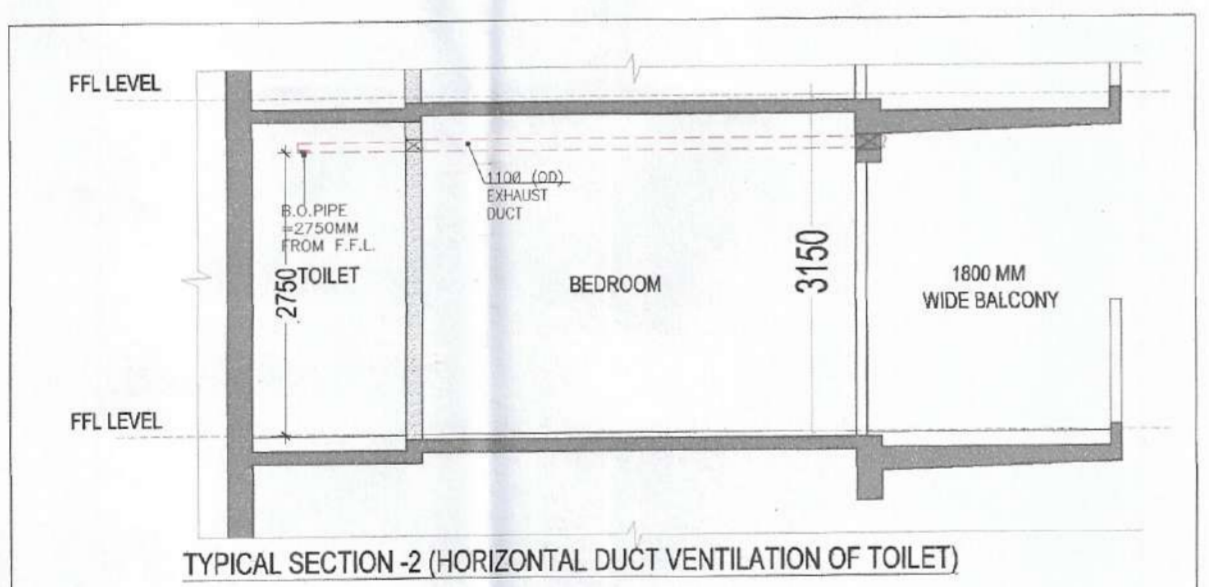


**TOWER - A1 & A2
REFUGE FLOOR PLAN
(18th, 28th & 37th FLOOR)**



LEGEND:-

SYR	TITLE	W	H	SILL	NOTES
301	SLIDING DOOR	3550	2500	± 00	
302	SLIDING DOOR	3540	2500	± 00	
303	SLIDING DOOR	3440	2500	± 00	
304	SLIDING DOOR	3410	2500	± 00	
305	SLIDING DOOR	3330	2500	± 00	
306	SLIDING DOOR	2990	2500	± 00	
307	SLIDING DOOR	2850	2500	± 00	
308	SLIDING DOOR	2700	2500	± 00	
309	SLIDING DOOR	2620	2500	± 00	
310	SLIDING DOOR	2440	2500	± 00	
311	SLIDING DOOR	1925	2500	± 00	
312	SLIDING DOOR	1475	2500	± 00	
313	SLIDING DOOR	1450	2500	± 00	
01	FLUSH DOOR	1200	2500	± 00	1 HR FIRE RATED
02	FLUSH DOOR	1000	2250	± 00	
03	FLUSH DOOR	1200	2250	± 00	
04	FLUSH DOOR	800	2250	± 00	
05	FIRE DOOR	1800	2250	± 00	2 HR FIRE RATED
06	FIRE DOOR	1500	2250	± 00	2 HR FIRE RATED
07	FIRE DOOR	1500	2250	+100	2 HR FIRE RATED
08	FIRE DOOR	1250	2250	± 00	2 HR FIRE RATED
09	FIRE DOOR	900	2150	+100	2 HR FIRE RATED
10	FIRE DOOR	700	2150	+100	2 HR FIRE RATED
11	FIRE DOOR	1000	2150	+100	2 HR FIRE RATED
01	DOOR WINDOW	800	2250	± 00	
02	GLASS DOOR	2000	2500	± 00	
03	WINDOW	1500	1350	+900	
04	WINDOW	1075	1350	+900	
05	VENTILATOR	600	1200	+1050	

- PLUMBING LEGEND**
- S.NO. DESCRIPTION
 - 1 100Ø SOIL & VENT PIPE
 - 2 100Ø WASTE & VENT PIPE
 - 3 100Ø ANTISYPHONAGE PIPE
 - 4 110 OD RAIN WATER PIPE
 - 5 160 OD RAIN WATER PIPE
 - 6 DOMESTIC WATER SUPPLY DOWN TAKE FOR TOP FOUR FLOOR (35-32)
 - 7 DOMESTIC WATER SUPPLY DOWN TAKE FOR (31-17) FLOOR
 - 8 DOMESTIC WATER SUPPLY DOWN TAKE FOR (16-GRO.) FLOOR
 - 9 FLUSHING WATER SUPPLY DOWN TAKE FOR (35-24) 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

- LEGEND**
- FAR AREA
 - NON FAR AREA
 - SERVICE AREA
 - SHAFT AREA UNDER REDUCTION
 - FIRE TENDER PATH
 - TOWER LINE
- HORIZONTAL PIPE CONNECTIONS SHALL BE AS FOLLOWS.**
- FROM WASH BASIN TO FT 32Ø PIPE
 - FROM SINK TO FT 40Ø PIPE
 - FROM FD TO FT 50Ø PIPE
 - FROM FT TO VERTICAL STACK 100Ø PIPE
 - FROM WC TO VERTICAL STACK 100Ø PIPE

- PLUMBING LEGEND**
- (A) 150Ø FIRE PIPE LOWE ZONE BASEMENT TO 9th FLOOR
 - (B) 150Ø FIRE PIPE MIDDLE ZONE 10th to 23rd FLOOR
 - (C) 150Ø FIRE PIPE HIGH ZONE 24th TO TERRACE LVL.
 - (D) 150Ø SPRINKLER PIPE LOWE ZONE BASEMENT TO 9th FLOOR
 - (E) 150Ø SPRINKLER PIPE MIDDLE ZONE 10th to 23rd FLOOR
 - (F) 150Ø SPRINKLER PIPE HIGH ZONE 24th TO TERRACE LVL.
 - (G) 150Ø ALTERNATE SPRINKLER PIPE LOWE ZONE BASEMENT TO 9th FLOOR
 - (H) 150Ø ALTERNATE SPRINKLER PIPE MIDDLE ZONE 10th to 23rd FLOOR
 - (J) 150Ø ALTERNATE SPRINKLER PIPE HIGH ZONE 24th TO TERRACE LVL.
 - (K) 150Ø FIRE DOWN COMER PIPE
 - (L) 80Ø DRAIN PIPE

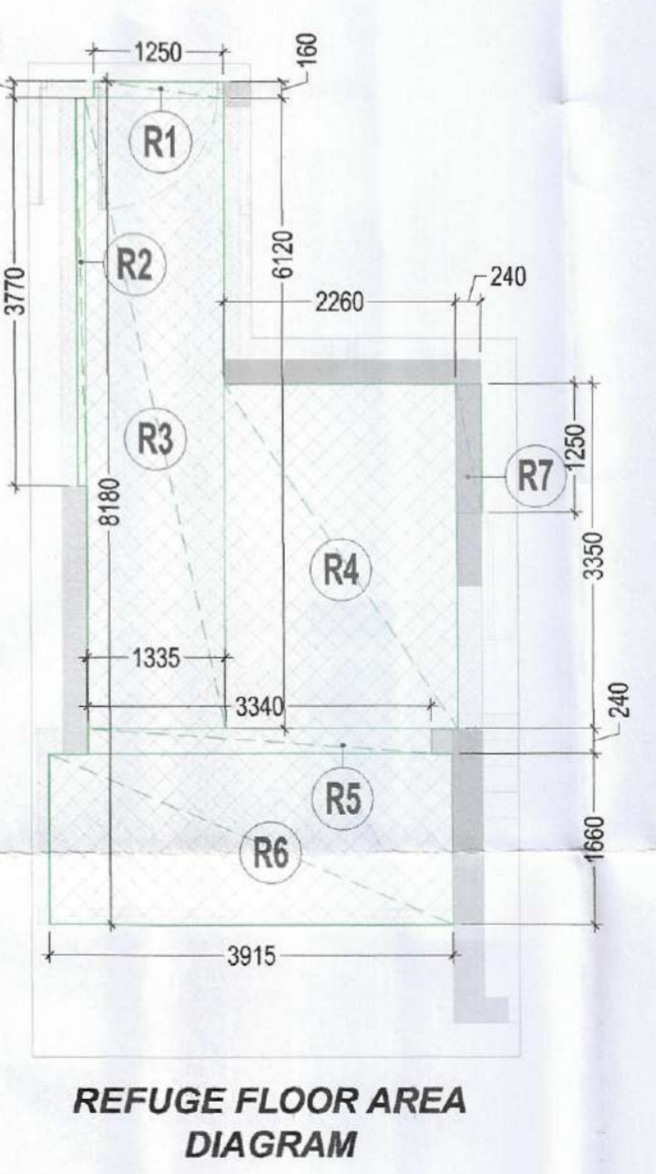
SUMMARY OF MECHANICAL VENTILATION

Floor	Area SFT	Volume CFT	Air Change Per Hour	Capacity CFM	Application	Type of Fan	Remarks				
1	General Ventilation (Toilet For Bedroom 3 - Typical)	42	9	378	10	93	100	Exhaust	1x100 CFM	Inline Fan	Normal Mode
2	Common Toilet For Bedroom 3 - Typical	45	9	405	10	93	100	Exhaust	1x100 CFM	Inline Fan	Normal Mode

REFUGE AREA CALCULATION AT 18TH, 27th & 36th FLOOR

TAG	LENGTH (L) in Mts	WIDTH (W) in Mts	N.O.S (N)	AREA (Sqm) (L x W x N)
R1	1.250	0.150	1	0.200
R2	0.090	3.770	1	0.339
R3	1.335	6.120	1	8.120
R4	2.250	3.350	1	7.571
R5	3.340	0.240	1	0.802
R6	3.920	1.660	1	6.507
R7	0.240	1.250	1	0.300
TOTAL (R)				23.889

GROSS AREA at 18th/27th/36th FLOOR 469.545
 GROSS AREA at 17th/26th/35th FLOOR 486.224
 TOTAL GROSS AREA at 18th/27th/36th & 17th/26th/35th FLOOR (G) 955.769
 B = GROSS AREA (G)/12.5 76.462
 C = B * 0.3 22.938
 ADDITIONAL SPACE REQUIRED TO 0.900
 TOTAL REFUGE AREA REQUIRED 23.838
 TOTAL REFUGE AREA PROVIDED = (RF1) 23.889



REFUGE FLOOR AREA DIAGRAM

FAR AREA OF TOWER TYPE AT REFUGE FLOOR LEVEL

TAG	LENGTH (L) in Mts	WIDTH (W) in Mts	N.O.S (N)	AREA (Sqm) (L x W x N)
A	32.140	24.740	1	795.144
TOTAL (A)				795.144

DEDUCTIONS

TAG	LENGTH (L) in Mts	WIDTH (W) in Mts	N.O.S (N)	AREA (Sqm) (L x W x N)
D1	14.080	4.025	1	56.672
D2	2.620	0.140	1	0.367
D3	7.260	0.140	1	1.016
D4	2.620	0.140	1	0.367
D5	4.155	0.140	2	1.163
D6	3.575	2.770	2	19.808
D7	1.450	0.140	2	0.406
D8	1.775	4.130	2	14.662
D9	2.055	1.600	2	6.576
D10	1.075	0.510	2	1.097
D11	1.315	1.800	1	2.367
D12	5.200	5.695	1	29.614
D13	3.250	3.655	1	11.879
D14	4.170	2.040	1	8.507
D15	0.570	1.800	2	2.052
D16	1.075	0.515	2	1.107
D17	1.475	0.140	2	0.413
D18	1.825	2.775	2	10.129
D19	4.130	0.140	2	1.156
D20	2.845	0.140	1	0.398
D20a	2.610	0.140	1	0.365
D21	3.340	0.140	1	0.468
D21a	2.800	1.660	1	4.640
D22	6.890	4.025	1	27.732
D22a	6.890	2.365	1	16.295
D23	3.850	1.415	1	5.448
D24	2.340	1.800	1	4.212
D25	4.170	7.735	1	32.255
R1	1.250	0.150	1	0.200
R2	0.090	3.770	1	0.339
R3	1.335	6.120	1	8.120
R4	2.250	3.350	1	7.571
R5	3.340	0.240	1	0.802
R6	3.920	1.660	1	6.507
R7	0.240	1.250	1	0.300
TOTAL (D)				205.347

LIFT & SERVICES SHAFTS

TAG	LENGTH (L) in Mts	WIDTH (W) in Mts	N.O.S (N)	AREA (Sqm) (L x W x N)
S1	1.360	1.360	1	2.330
S2	2.300	2.500	3	17.250
S3	1.045	1.395	1	1.458
S4	0.850	0.500	1	0.430
S5	0.850	1.850	1	1.573
S6	1.000	1.395	1	1.395
S7	0.590	1.395	1	0.823
S8	1.890	0.500	1	0.945
S9	0.460	0.500	2	0.234
S10	1.065	0.400	2	0.850
S11	0.530	1.765	2	1.871
S12	0.670	0.240	2	0.322
S13	0.750	1.525	2	2.288
S14	0.460	0.335	2	0.308
S15	1.040	0.435	2	0.905
S16	1.880	1.630	1	3.064
S17	2.020	0.365	1	0.737
TOTAL (S)				37.605

FIRE STAIRCASE & NON FAR AREA

TAG	LENGTH (L) in Mts	WIDTH (W) in Mts	N.O.S (N)	AREA (Sqm) (L x W x N)
N1	4.250	3.655	1	15.534
N2	1.045	1.175	1	1.228
N3	4.550	2.570	1	11.694
N4	1.480	2.570	1	3.804
N5	3.250	6.440	1	20.930
TOTAL (N)				53.189

FIRE STAIRCASE WELL

TAG	LENGTH (L) in Mts	WIDTH (W) in Mts	N.O.S (N)	AREA (Sqm) (L x W x N)
W1	0.750	1.500	1	1.125
W2	1.360	1.360	1	2.021
TOTAL (W)				3.146

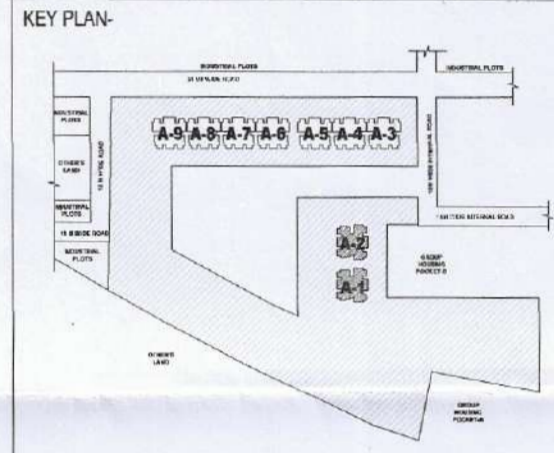
NON FAR AREA (NF) = (N + W) 56.042

TOTAL FAR AREA (F) = (A - D - S - N) 418.502

TOTAL COVERED AREA = (F + NF) 468.545

G.TOTAL NON FAR AREA (NF) = (N + W) + RF1 73.932

- NOTE-**
- BUILDING HAS AUTOMATIC SPRINKLER SYSTEM WHEREVER REQUIRED BY NBC.
 - BUILDING WILL BE DESIGNED (STRUCTURES) AS PER RELEVANT IS CODES FOR EARTH QUAKE RESISTANCE.
 - 100% POWER BACKUP/ MECHANICAL VENTILATED SHAFTS.
 - ALL RESIDENTIAL UNITS ENTRANCE DOOR - 1HR FIRE RATED.



PROJECT
 PROPOSED BUILDING PLAN FOR AFFORDABLE GROUP HOUSING-1 (POCKET-A) OVER AN AREA MEASURING 16.4378 ACRES, PART OF INDUSTRIAL PLOTTED COLONY OVER AN AREA MEASURING 139.7875 ACRES (LICENCE NO. 186 OF 2025 DATED 08.09.2025) IN THE REVENUE ESTATE OF VILAGE BASIARA AND JHIND SARAIASAD, IN SECTOR 09, M10 AND M11 GURUGRAM MANESAR URBAN COMPLEX.

OWNER
 MSM INDIA INFRASTRUCTURES PVT. LTD.

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OWNERS SEAL & SIGNATURE
 Checked and found ok for Public Health (Internal) Service only subject to comments in forwarding letter No. 3665/11, Dt. 21/11/25
 For MSM India Infrastructures Pvt. Ltd.
 (Authorized Signatory)

ARCHITECTS SEAL & SIGNATURE
 Supervising Engineer (HQ)
 for Chief Engineer, HSPV, Panchkula
 AMIT GUPTA
 20/04/2024 133147

DATE: SCALE: 1:100 DWG NO: FP-A1A2-RE-01
DWG TITLE: REFUGE FLOOR PLAN & AREA DIAGRAM (TOWER - A1 & A2)

Sanctioned
 NO. 46660
 DATE: 9/12/25

S.T.P. (HQ) S.T.P. (G) C.N.P. (HR)
 Member Secretary Member Chairman
 B.P.A.C. B.P.A.C. B.P.A.C.

DTP (HQ) ATP (HQ)

PA A.T.P.

DINESH KUMAR
 PA (HQ)