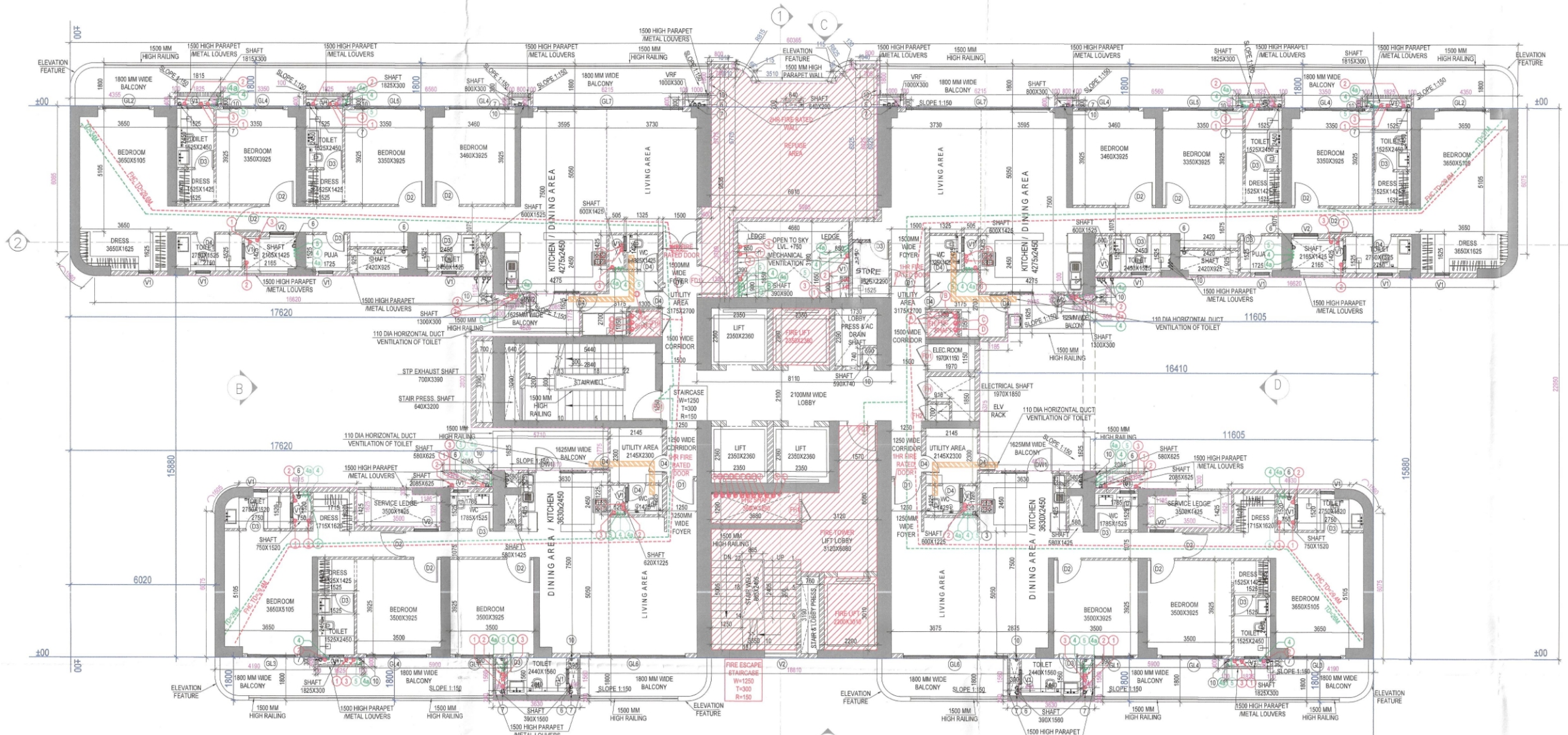
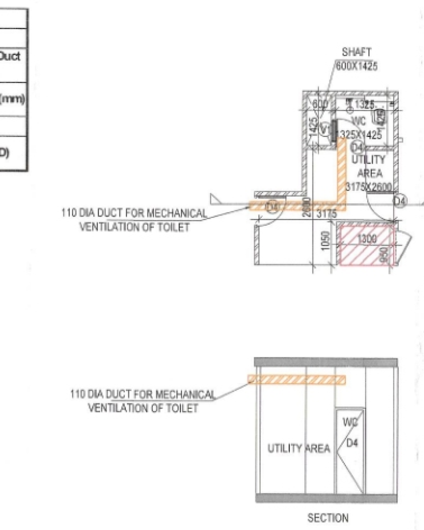


TOWER-02
17TH, 27TH & 36TH
REFUGE FLOOR PLAN

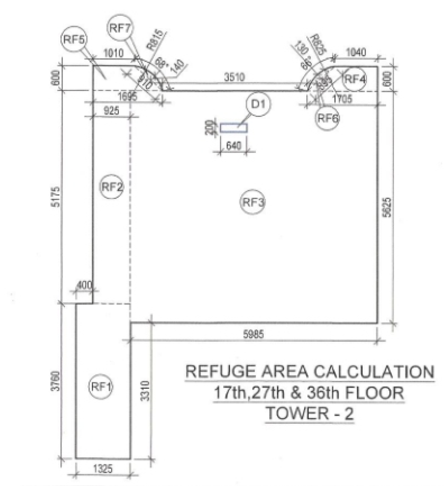
FLOOR	FLOOR LEVEL	UNITS
17th FLOOR	LVL+60.150	4
27th FLOOR	LVL+93.150	4
36th FLOOR	LVL+122.850	4
	TOTAL UNITS = 12	

Mechanical Ventilation Calculation for WC												
Tower-2-Toilet Exhaust sheet												
S.No.	LOCATIONS	Toilet Dimension in (mtr)		Toilet Area	Toilet Area	Toilet Height		Toilet Volume	Toilet Design	Selected Exhaust Fan	Fan Size	Exhaust Duct Size
		Length	Width	in (Sq.Mtr)	in (Sq.Ft)	in (mtr)	in (ft)	in (Cu.ft)	in (CFM)		LxBxH (mm)	Diameter (mm)
1	Typical Mechanical Ventilation Calculation for WC											
1.1	TOILET	1.375	1.425	1.96	21.12	2.70	8.86	187	37	1#100 CFM, Inline Fan	300x250x180	110 (OD)



110 DIA DUCT FOR MECHANICAL VENTILATION OF TOILET

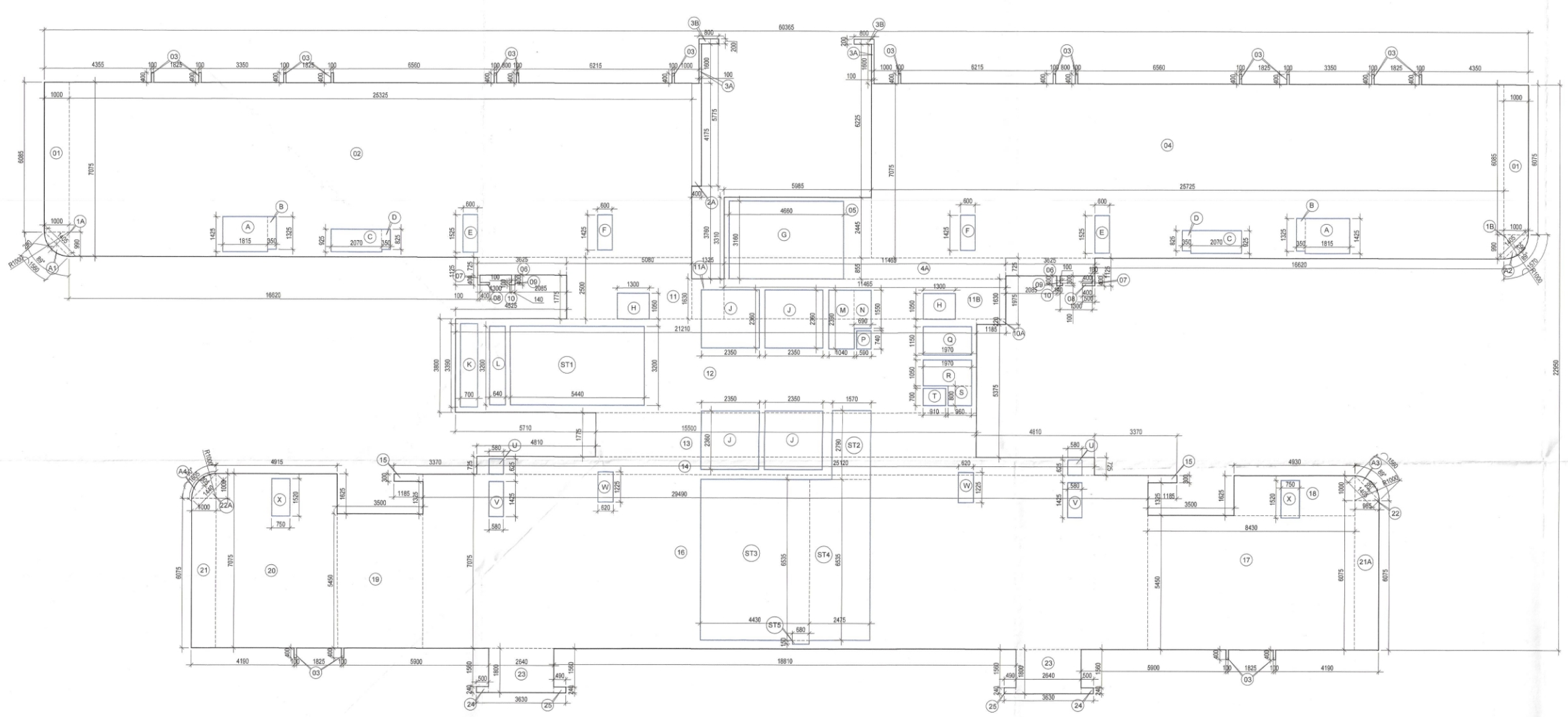
SECTION



REFUGE AREA CALCULATION
17th,27th & 36th FLOOR
TOWER - 2

17TH , 27TH & 36TH FLOOR REFUGE AREA TOWER-2									
GROSS – A									
RF1	=	1	X	1.325	X	3.760	=	4.982	SQM
RF2	=	1	X	0.925	X	5.175	=	4.787	SQM
RF3	=	1	X	5.985	X	5.625	=	33.666	SQM
RF4	=	0.5	X	1.705+1.040	X	0.600	=	0.824	SQM
RF5	=	0.5	X	1.695+1.010	X	0.600	=	0.812	SQM
					TOTAL		=	45.070	SQM
GROSS –C									
D1	=	1	X	0.640	X	0.200	=	0.128	SQM
					TOTAL		=	0.128	SQM
TOTAL REFUGE AREA GROSS-1		=	GROSS – A	+	GROSS-B	-	GROSS-C		
			45.070	+	0.168	-	0.128		
				=	45.109			SQM	
GROSS AREA OF TYPICAL FLOOR			=	871.299	SQM				
GROSS AREA OF TYPICAL FLOOR			=	871.299					
			=	1742.598	SQM				
REFUGE AREA REQUIRED		=	(1742.598X0.3)/12.5	+	ADDITIONAL SPACE TO ACCOMMODATE WHEEL CHAIR SPACE @0.9 SQM PER 200 POPULATION				
		=	41.822	+	0.9				
		=	42.722	SQM					
REFUGE AREA PROVIDED		=	GROSS – A						
		=	42.722	SQM					
REFUGE AREA COUNTED IN FAR		=	45.109	-	42.722				
		=	2.387	SQM					

17TH , 27TH & 36TH FLOOR REFUGE AREA TOWER-2																			
GROSS – B																			
RF6	3.14	X	0.825	X	0.825	X	66	/	360	-	0.5	X	0.825	-	0.130	X	0.895	= 0.081	SQM
RF7	3.14	X	0.815	X	0.815	X	68	/	360	-	0.5	X	0.815	-	0.140	X	0.910	= 0.087	SQM
																	TOTAL	= 0.168	SQM



REFUGE FLOOR AREA CALCULATION
17TH,27TH&36TH
TOWER -02

TOWER-2 (17TH,27TH&36TH REFUGE FLOOR AREA)						
(ALL Distances are in meter & area in Sqm.)						
ADDITIONS (A)						
ITEM	NO.S	WIDTH		LENGTH		AREA (SQ.MT.)
1	2	1.000	X	6.085	=	12.170
1A	0.5	1.000	X	0.990	=	0.495
1B	0.5	1.000	X	0.990	=	0.495
2	1	25.325	X	7.075	=	179.174
2A	1	0.400	X	4.175	=	1.670
3	18	0.100	X	0.400	=	0.720
3A	2	0.100	X	1.600	=	0.320
3B	2	0.800	X	0.200	=	0.320
4	1	25.725	X	7.075	=	182.004
4A	1	11.465	X	0.855	=	9.803
5	1	5.985	X	2.445	=	14.633
6	2	3.625	X	0.725	=	5.256
7	1	0.100	X	0.400	=	0.040
8	2	0.400	X	0.100	=	0.080
9	2	0.140	X	0.400	=	0.112
10	2	0.100	X	0.100	=	0.020
10A	1	0.220	X	1.185	=	0.261
11	1	5.080	X	2.500	=	12.700
11A	1	1.325	X	1.630	=	2.160
11B	1	11.465	X	1.630	=	18.688
12	1	21.210	X	3.800	=	80.598
13	1	15.500	X	1.775	=	27.513
14	2	25.120	X	0.725	=	18.212
15	2	1.185	X	0.300	=	0.711
16	1	29.490	X	7.075	=	208.642
17	1	8.430	X	5.450	=	45.944
18	1	4.930	X	1.625	=	8.011
19	1	3.500	X	5.450	=	19.075
20	1	4.915	X	7.075	=	34.774
21	1	1.000	X	6.075	=	6.075
21A	1	0.985	X	6.075	=	5.984
22	0.5	0.985	X	1.000	=	0.493
22A	0.5	1.000	X	1.000	=	0.500
23	2	2.640	X	1.800	=	9.504
24	2	0.500	X	0.240	=	0.240
25	2	0.490	X	0.240	=	0.235
TOTAL (A)						907.631
DEDUCTION (C)						
ITEM	NO.S	WIDTH		LENGTH		AREA (SQ.MT.)
A	2	1.815	X	1.425	=	5.173
B	2	0.350	X	1.325	=	0.928
C	2	2.070	X	0.925	=	3.830
D	2	0.350	X	0.825	=	0.578
E	2	0.600	X	1.525	=	1.830
F	2	0.600	X	1.425	=	1.710
G	1	4.660	X	3.160	=	14.726
H	2	1.300	X	1.050	=	2.730
J	4	2.350	X	2.360	=	22.184
K	1	0.700	X	3.390	=	2.373
L	1	0.640	X	3.200	=	2.048
M	1	1.040	X	2.390	=	2.486
N	1	0.690	X	1.550	=	1.070
P	1	0.590	X	0.740	=	0.437
Q	1	1.970	X	1.150	=	2.266
R	1	1.970	X	1.050	=	2.069
S	1	0.960	X	0.800	=	0.768
T	1	0.910	X	0.700	=	0.637
U	2	0.580	X	0.625	=	0.725
V	2	0.580	X	1.425	=	1.653
W	2	0.620	X	1.225	=	1.519
X	2	0.750	X	1.520	=	2.280
TOTAL (B) =						74.016
NON FAR AREA (STAIRCASE)(D)						
ITEM	NO.S	WIDTH		LENGTH		AREA (SQ.MT.)
ST1	1	5.440	X	3.200	=	17.408
ST2	1	1.570	X	2.790	=	4.380
ST3	1	4.430	X	6.535	=	28.950
ST4	1	2.475	X	6.535	=	16.174
ST5	1	0.150	X	0.680	=	0.102
TOTAL (C) =						67.014

TOTAL FAR AREA CALCULATION TOWER-2							
TOTAL FAR AREA	ADDITIONS (A)	+	ADDITIONS (B)	-	DEDUCTION (C)	-	DEDUCTION (D)
	907.631	+	1.117	-	74.016	-	67.014
GROSS=1	=	767.718	+	REFUGE AREA COUNTED IN FAR			
GROSS=1A	=	767.718	+	2.387	=	770.105	
TOTAL (REFUGE FLOOR) BUILTUP AREA = (TOTAL FAR AREA)+ (NON FAR AREA)	=	GROSS=1	+	DEDUCTION (D)	+	REFUGE AREA	
		770.105	+	67.014	+	42.722	
GROSS=2		879.841					
TOTAL (REFUGE FLOOR)NON - FAR AREA = (TOTAL BUILTUP AREA)- (FAR AREA)	=	GROSS=2	-	FAR AREA			
GROSS-2		879.841	-	770.105	=	109.736	SQMT.

17TH,27TH&36TH REFUGE FLOOR AREA CALCULATION OF TOWER-02																				
ADDITIONS (B)																				
A1	3.14	X	1.000	X	1.000	X	89	/	360	-	0.5	X	1.000	-	0.290	X	1.405	=	0.278	SQM
A2	3.14	X	1.000	X	1.000	X	89	/	360	-	0.5	X	1.000	-	0.290	X	1.405	=	0.278	SQM
A3	3.14	X	1.000	X	1.000	X	89	/	360	-	0.5	X	1.000	-	0.290	X	1.405	=	0.278	SQM
A4	3.14	X	1.000	X	1.000	X	90	/	360	-	0.5	X	1.000	-	0.305	X	1.440	=	0.285	SQM
																	TOTAL	=	1.117	SQM

DOOR WINDOW OPENING SCHEDULE						
S.No	ITEM	SIZE	C.LVL	L.LVL	LOCATION	REMARKS
01	D1	1150X2250	---	2250	ENTRANCE (1HR FIRE RATED	
02	D2	1050X2250	---	2250	ROOM	
03	D3	800X2250	---	2250	TOILET	
04	D4	750X2250	---	2250	TOILET	
05	DW	1500X2450	---	2450	LOBBY	
06	DW1	2100X2450	1050	2450	KITCHEN	
07	DW2	2060X2450	1050	2450	KITCHEN	
08	GL1	1600 X 2450	---	2450	BALCONY	
09	GL2	1930 X 2450	---	2450	BALCONY	
10	GL3	1990 X 2450		2450	BALCONY	
11	GL4	2500 X 2450	---	2450	BALCONY	
12	GL5	2700 X 2450	---	2450	BALCONY	
13	GL6	4360 X 2450	---	2450	BALCONY	
14	GL7	6015 X 2450	---	2450	BALCONY	
15	V1	600X1225	1225	2450	TOILET	
16	V2	1000X1225	1225	2450	VRF	
17	FH	900X2300	150	2450	FHC	
18	FH1	1000X2300	150	2450	FHC	
19	FH2	700X2300	150	2450	ELEC. RACK	
20	FD1	1250X2450	---	2450	STAIRCASE 2 HR FIRE RATING	
21	FD2	1000X2450	---	2450	2 HR FIRE RATING ELEC. ROOM	
22	FD3	1150X2450	---	2450	2 HR FIRE DOOR	

PLUMBING LEGEND:	
1	110 OD uPVC soil Pipe IS:13592 type B
2	110 OD uPVC waste Pipe IS:13592 type B
2a	110 OD uPVC waste Pipe For Utility Balcony IS:13592 type B
3	110 OD uPVC ANTISYPHONAGE PIPE IS:13592 type A
4	DWS DN TAKE PIPE
4a	DWS FROM BOOSTER PUMP FOR TOP THREE FLOOR'S
5	FWS DN TAKE PIPE
6	110 OD uPVC TERRACE RAIN WATER PIPE IS:4985, 6 KG/CM2
7	110 OD uPVC BALCONY DRAINAGE PIPE IS:4985, 6 kg/cm2
8	DOMESTIC WATER SUPPLY RISER
9	FLUSHING WATER SUPPLY RISER
10	75Ø AC DRAIN PIPE
11	65Ø PNG PIPE
FT	FLOOR TRAP 110X110 WITH 125X125mm WITH GRATING
FD	FLOOR DRAIN 90X63 WITH 125X125mm WITH GRATING
MT	MULTI TRAP 90X63 WITH 125X125mm WITH GRATING
BD	BALCONY DRAIN 110X75mm WITH 125X125 MM GRATING
	STRIP SUNK BY 50MM
WB TO FT	40(OD) WASTE PIPE (IS:4985, 6 Kg/cm2)
SINK TO FT	50(OD) WASTE PIPE (IS:4985, 6 Kg/cm2)
URINAL TO UT	50(OD) SOIL PIPE (IS:4985, 6 Kg/cm2)
	600X600MM STORM WATER CHAMBER
	110 OD uPVC SOIL PIPE
	110 OD uPVC WASTE PIPE

S.T.P.(HQ) Joint Secretary B.P.A.C.
S.T.P.(G) Member B.P.A.C.
C.T.P.(HR) Chairman B.P.A.C.
DTP(HQ)
ATP(HQ)
JD.
P.A.
A.T.P
ADFO. (HQ) Member BPAC
DINESH KUMAR PA(HQ)
FSO. (HQ) Member BPAC

SANCTIONED
TO BE READ WITH THIS OFFICE
MEMO NO.:
DATED :

Note :-

ALL FLOOR MECHANICAL VENTILATED LIGHTED & 100% POWER BACKUP.
AIR CONDITIONING SYSTEM IS BEING PROVID DG POWER BACKUP IS BEING PROVIDED.
TOILET ARE MECHANICAL VENTILATED.
ALL LIFTS SHALL HAVE POWER BACK-UP.
ALL ELECTRICAL INSTALLATION SHELL BE AS PER PROVISION OF RELEVANT CODE.
FIRE/FIGHTING/SAFETY PROVISIONS WILL BE AS PER RELEVANT CODE PROVISIONS.
BASEMENT AREA SHELL HAVE MECHANICALLY VENTILATED AS PER RELEVANT CODE.
ALL TOILETS ARE VENTILATED AS PER HARYANA BUILDING CODE 2017.
BUILDINGS HAS AUTOMATIC SPRINKLER SYSTEM WHEREVER REQUIRED BY RELEVANT CODE.
BUILDING WILL BE DESIGNED(STRUCTURES)AS PER RELEVANT I.S.CODES FOR EARTHQUAKE RESISTANCE.
SOLAR PANELS OF REQUIRED CAPACITY SHELL BE PROVIDED AS PER HARE DA/ZONING NORMS.
ALL HANDICAP RAMPS WITH RAILING.
ALL FIRE FIGHTING INSTALLATIONS SHELL BE AS PER PROVISION OF RELEVANT CODE.
THE RAINWATER HARVESTING SYSTEM SHELL BE PROVIDED AS PER CENTRAL GROUND WATER AUTHORITY NORMS.

PROJECT:

Proposed Building Plans for Residential Colony under NILP Policy 2022, Licence No. 129 of 2025 Dated 23.07.2025 over an area measuring 11.35625 Acres in the Revenue Estate of Village Ullawas, Sector-60 & 63 A, Gurugram being Developed by Godrej Properties Ltd.

ASSOCIATE ARCHITECTS

Checked and found ok from Public Health (Internal) Service only subject to comments in forwarding letter No. .... Dt/........
Superintending Engineer (HQ) for Chief Engineer-I HSVP, Panchkula

OWNER'S SEAL & SIGNATURE

For Godrej Properties Ltd.
Authorised Signatory

ARCHITECT'S SEAL & SIGNATURE

MAY.-2026 | Scale : 1:100

Drawing Title:-
TOWER-02
REFUGE FLOOR PLAN & AREA CALCULATIONS

Drawing No:-
T2-03