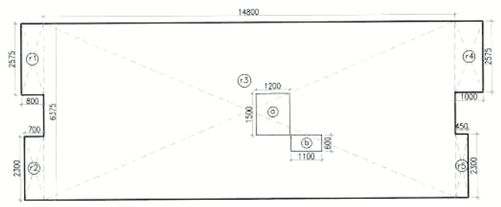
17TH & 24TH,28TH REFUGE FLOOR AREA CALCULATION									
GROSS – A									
r1	=	1	X	0.800	X	2.575	=	2.060	SQM
r2	=	1	X	0.700	X	2.300	=	1.610	SQM
r3	=	1	X	14.800	X	6.375	=	94.350	SQM
r4	=	1	X	1.000	X	2.575	=	2.575	SQM
r5	=	1	X	0.450	X	2.300	=	1.035	SQM
					TOTAL		=	101.630	SQM
GROSS – B									
s	=	1	X	1.200	X	1.500	=	1.800	SQM
s	=	1	X	1.100	X	0.800	=	0.880	SQM
					TOTAL		=	2.680	SQM
TOTAL AREA CALCULATION 17TH & 24TH,28TH REFUGE FLOOR	=	GROSS – A		-	GROSS – B				
	=	101.630			2.680				
	=	99.170	SQM						
GROSS AREA OF 17TH & 24TH, 28TH REFUGE FLOOR	=	1990.341	SQM						
GROSS AREA OF 16TH,18TH TO 20TH & 26TH TO 27TH & 30TH REFUGE FLOOR	=	1990.341	SQM						
TOTAL	=	3980.682	SQM						
REFUGE AREA REQUIRED	=	3980.682X0.3/12.5	=	ADDITIONAL SPACE TO ACCOMMODATE ONE WHEEL CHAIR SPACE					
		95.536		0.9					
	=	96.436	SQM						
REFUGE AREA PROVIDED	=	101.630	SQM						



SCHEDULE OF JOINERY					
ITEM NO	TAG	DETAILS	SIZE WIDTH	SIZE HEIGHT	LOCATION
1	D	150 MIN FIRE RATED HDF HARDWOOD DOOR	1100	2400	REFUGE ENTRY DOOR
2	D1	90 MIN FIRE RATED HDF HARDWOOD DOOR	1200	2400	ALL MAIN ENTRY DOOR (REFUGE FLOOR)
3	D2	90 MIN FIRE RATED HDF HARDWOOD DOOR	1000	2400	ENTRY DOOR
4	D3	ALUMINIUM GLAZED DOOR	1200	2400	SERVICE LIFT LOBBY DOOR, PERFORATED DOOR
5	D4	ALUMINIUM GLAZED DOOR	1000	2400	BALCONY DOOR
6	D5	HDF HARDWOOD DOOR	1200	2400	BALCONY DOOR
7	D6	HDF HARDWOOD DOOR	1200	2400	ENTRY DOOR
8	D7	HDF HARDWOOD DOOR	1000	2400	BEDROOM DOORS
9	D8	HDF HARDWOOD DOOR	850	2400	KITCHEN DOORS/TOILET DOOR
10	D9	HDF HARDWOOD DOOR	750	2400	UTILITY/BALCONY/TOILET DOORS
11	D10	SLIDING HDF HARDWOOD DOOR	950	2400	CARETAKER ROOM TOILET
12	D11	MS GLASS DOOR	1000	2400	ENTRY
13	D12	HDF HARDWOOD DOOR	900	2100	MACHINE ROOM TERRACE
14	D13	HDF HARDWOOD DOOR	750	2100	PLUMBING SHAFT
15	D14	HDF HARDWOOD DOOR	1000	2400	HANDICAP TOILET (STILT)
16	D15	ALUMINIUM DOOR	1000	2400	KITCHEN DOOR (OPENING IN BALCONY)
17	D16	HDF HARDWOOD DOOR	900	2100	SHAFT DOOR
18	D17	90 MIN FIRE RATED HDF HARDWOOD DOOR	1000	2400	PRIVATE LIFT LOBBY

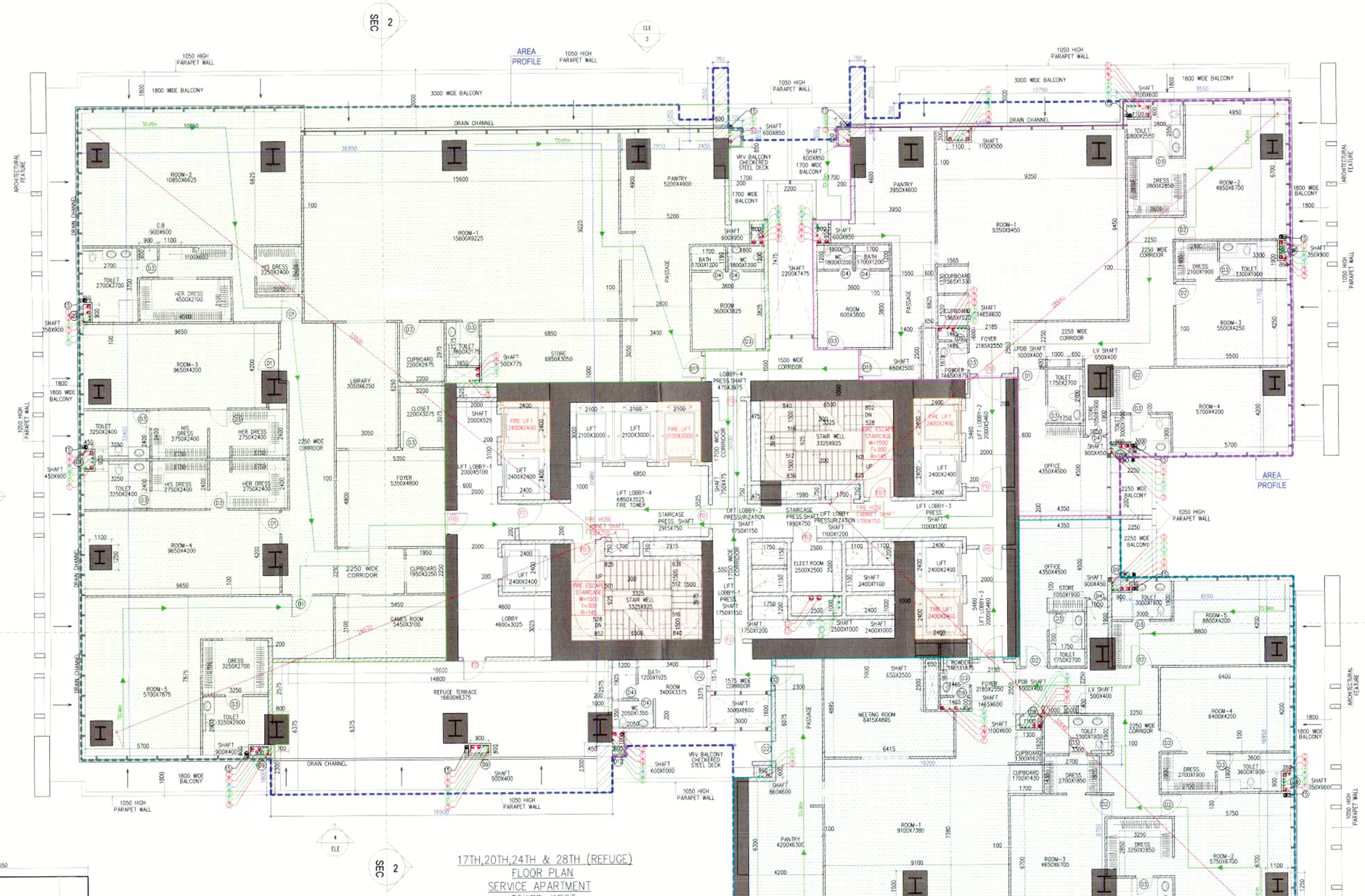
FLOOR	LVL	NO. STEPS	TOTAL NO. STEPS
17TH FLOOR	+72950	501-528	28
20TH FLOOR	+85100	585-612	28
24TH FLOOR	+100258	713-740	28
28TH FLOOR	+116458	825-852	28

Tower 3 To A Core: Calculation of Refuge area
Gross Floor Area of Refuge & Floor Above Refuge = 4000 Sqm.
As per NBC Part 4 Clause 4.3, per person floor 12.5sqm per person is considered.
Gross Occupant Load = 320 Pax. (Calculated as 4000/12.5 sqm)
As per NBC Clause E-4(d), per person refuge area needs to be calculated based on 0.3 sqm. per person.
Refuge Area Required at 5th Floor=320 x 0.3 Sqm/Person =0.9 Sqm (0.9 Sqm/300 occupants for wheelchair space)
Refuge Area Required = 96.436sqm.
Refuge Area Provided= 101.630 sqm.

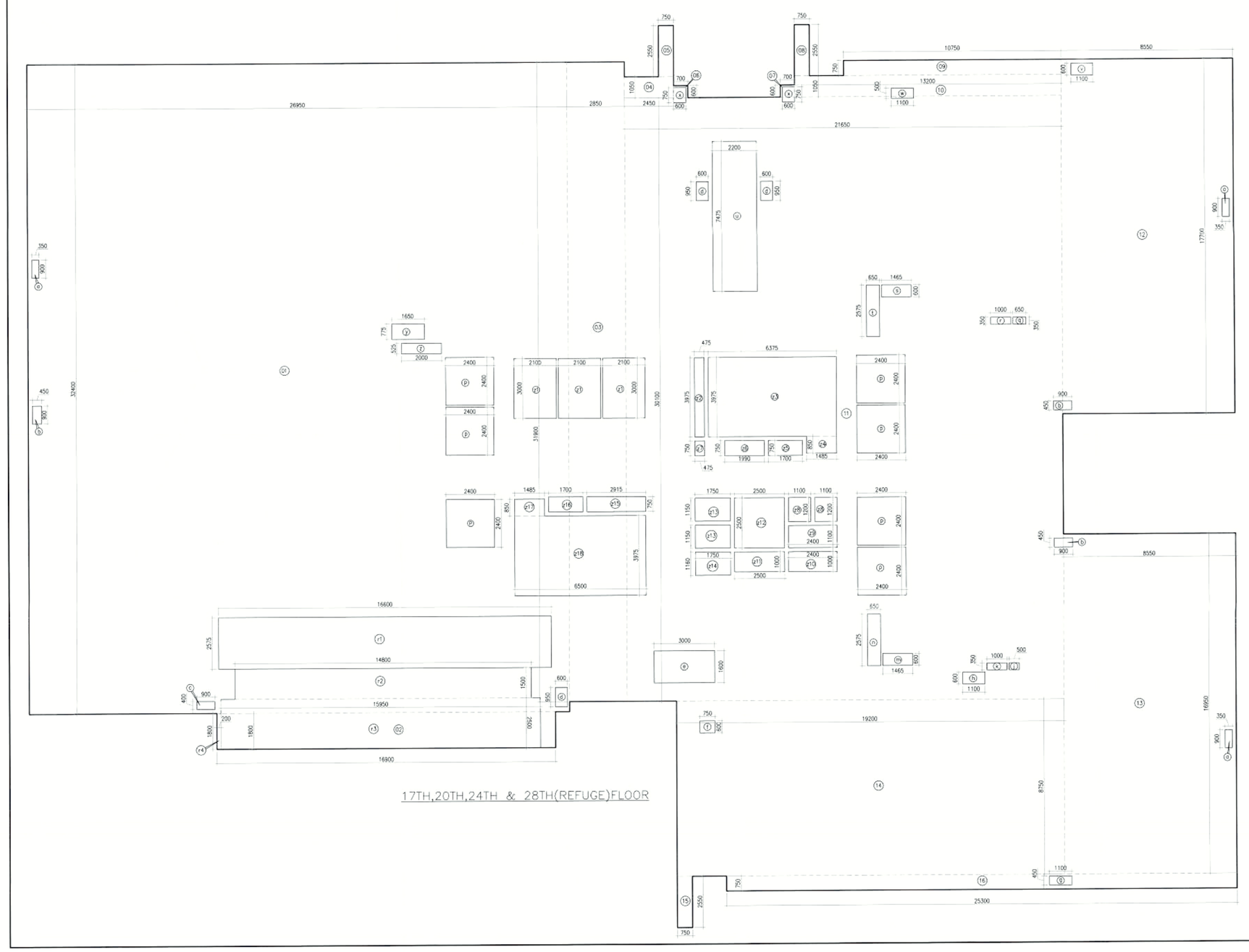
01.	1	150# SOIL PIPE
02.	2	150# WASTE PIPE
03.	3	75# VENT PIPE
04.	4	# TWO PIPE ON TAKE
05.	5	# ONE PIPE ON TAKE
06.	6	# TWO PIPE ON TAKE FROM 4TH
07.	7	# TWO PIPE RISER TO SHT FROM BASEMENT PLANT ROOM
08.	8	# TWO PIPE RISER TO SHT FROM SERVICE FLOOR PLANT ROOM
09.	9	# TWO PIPE RISER TO SHT FROM BASEMENT PLANT ROOM
10.	10	# TWO PIPE RISER TO SHT FROM SERVICE FLOOR PLANT ROOM
11.	11	# TWO PIPE ON TAKE FROM SERVICE FLOOR TO CLUB AREA
12.	12	200# SOIL PIPE
13.	13	200# WASTE PIPE
14.	14	# ONE PIPE ON TAKE FROM SERVICE FLOOR TO BASEMENT TO
15.	15	150# RAIN WATER PIPE
16.	16	200# RAIN WATER PIPE

DETAIL OF PIPES CONNECTION :-

- FROM WC TO STACK(WH.....150# PIPE
- FROM FT TO STACK(ST.....100# PIPE
- FROM WB TO FT(FT.....50# PIPE
- FROM WC WASTE TO FT.....65# PIPE
- FROM SH TO FT.....75# PIPE
- FLOOR TRAP 100x100.....FT
- FLOOR DRAIN 100x75 / 100x65.....FD
- FLOOR CLEAN OUT 100x100..COP



17TH,20TH,24TH & 28TH (REFUGE) FLOOR PLAN SERVICE APARTMENT TOWER-WEST



17TH,20TH,24TH & 28TH(REFUGE)FLOOR

17TH,20TH,24TH & 28TH (REFUGE) FLOOR AREA CALCULATION									
GROSS – A									
1	=	1	X	28.950	X	32.480	=	873.180	SQM
2	=	1	X	16.900	X	1.800	=	30.420	SQM
3	=	1	X	2.800	X	31.900	=	89.313	SQM
4	=	1	X	2.450	X	1.050	=	2.573	SQM
5	=	1	X	2.450	X	2.550	=	6.248	SQM
6	=	1	X	0.750	X	2.600	=	1.950	SQM
7	=	1	X	0.750	X	2.600	=	0.450	SQM
8	=	1	X	0.750	X	2.550	=	1.913	SQM
9	=	1	X	10.750	X	0.750	=	8.063	SQM
10	=	1	X	14.200	X	0.750	=	10.650	SQM
11	=	1	X	21.850	X	30.700	=	671.095	SQM
12	=	1	X	17.100	X	17.100	=	292.320	SQM
13	=	1	X	4.300	X	16.800	=	144.503	SQM
14	=	1	X	19.200	X	8.750	=	168.000	SQM
15	=	1	X	0.750	X	2.550	=	1.913	SQM
16	=	1	X	25.300	X	0.750	=	18.975	SQM
					TOTAL		=	2180.485	SQM
DEDUCTION AREA									
GROSS – B									
a	=	1	X	0.350	X	0.950	=	0.945	SQM
b	=	1	X	0.450	X	0.950	=	1.215	SQM
c	=	1	X	0.900	X	0.450	=	0.405	SQM
d	=	3	X	0.800	X	0.950	=	1.710	SQM
e	=	1	X	3.550	X	1.800	=	4.800	SQM
f	=	1	X	0.750	X	0.800	=	0.600	SQM
g	=	1	X	1.100	X	0.400	=	0.440	SQM
h	=	1	X	0.550	X	1.400	=	0.770	SQM
i	=	1	X	0.550	X	0.350	=	0.193	SQM
k	=	1	X	1.000	X	0.350	=	0.350	SQM
m	=	1	X	1.465	X	0.600	=	0.879	SQM
n	=	1	X	3.650	X	2.575	=	9.399	SQM
o	=	1	X	2.200	X	0.950	=	2.090	SQM
p	=	1	X	0.800	X	0.350	=	0.280	SQM
q	=	1	X	1.000	X	0.350	=	0.350	SQM
s	=	1	X	1.465	X	0.600	=	0.879	SQM
t	=	1	X	3.650	X	2.575	=	9.399	SQM
u	=	1	X	2.200	X	0.950	=	2.090	SQM
w	=	1	X	1.100	X	0.600	=	0.660	SQM
x	=	1	X	1.100	X	0.900	=	0.990	SQM
y	=	1	X	0.800	X	3.750	=	3.000	SQM
z	=	1	X	1.850	X	0.775	=	1.719	SQM
z1	=	1	X	2.300	X	0.525	=	1.208	SQM
z1	=	3	X	2.100	X	3.000	=	18.900	SQM
z2	=	1	X	0.750	X	2.550	=	1.913	SQM
z3	=	1	X	6.375	X	3.875	=	24.703	SQM
z4	=	1	X	1.465	X	0.850	=	1.245	SQM
z5	=	1	X	1.700	X	0.750	=	1.275	SQM
z6	=	1	X	1.990	X	0.750	=	1.493	SQM
z7	=	1	X	1.100	X	1.200	=	1.320	SQM
z8	=	1	X	1.100	X	1.200	=	1.320	SQM
z9	=	2	X	2.400	X	1.100	=	2.640	SQM
z10	=	1	X	2.400	X	1.000	=	2.400	SQM
z11	=	1	X	2.500	X	1.200	=	2.500	SQM
z12	=	1	X	1.500	X	2.500	=	3.750	SQM
z13	=	2	X	1.750	X	1.150	=	4.025	SQM
z14	=	1	X	2.100	X	0.750	=	1.575	SQM
z15	=	1	X	2.910	X	0.750	=	2.183	SQM
z16	=	1	X	1.700	X	0.750	=	1.275	SQM
z17	=	1	X	1.465	X	0.850	=	1.245	SQM
z18	=	1	X	6.900	X	3.875	=	25.538	SQM
z1	=	1	X	14.850	X	1.500	=	22.275	SQM
z2	=	1	X	14.850	X	1.500	=	22.275	SQM
z3	=	1	X	13.950	X	2.900	=	39.675	SQM
z4	=	1	X	1.200	X	1.800	=	2.160	SQM
					TOTAL		=	296.850	SQM
TOTAL FAR OF 17TH,20TH,24TH & 28TH (REFUGE) FLOOR AREA CALCULATION				=	GROSS – A	-	GROSS – B		
				=	2180.485		296.850		
				=	1873.635				SQM
TOTAL BUILTUP AREA OF 17TH,20TH,24TH & 28TH (REFUGE) FLOOR AREA CALCULATION									
GROSS – C									
z3	=	1	X	6.375	X	3.875	=	24.703	SQM
z4	=	1	X	1.465	X	0.850	=	1.245	SQM
z12	=	1	X	2.500	X	2.500	=	6.250	SQM
z17	=	1	X	1.465	X	0.850	=	1.245	SQM
z18	=	1	X	6.900	X	3.875	=	25.538	SQM
z1	=	1	X	14.850	X	1.500	=	22.275	SQM
z2	=	1	X	14.850	X	1.500	=	22.275	SQM
z3	=	1	X	13.950	X	2.900	=	39.675	SQM
z4	=	1	X	1.200	X	1.800	=	2.160	SQM
					TOTAL		=	165.133	SQM
TOTAL BUILTUP AREA OF 17TH,20TH,24TH & 28TH (REFUGE) FLOOR AREA CALCULATION				=	FAR AREA		GROSS – C		
				=	1873.635		165.133		
				=	2038.768				SQM
NON FAR AREA OF 17TH,20TH,24TH & 28TH (REFUGE) FLOOR AREA CALCULATION				=	BUILTUP AREA		FAR AREA		
				=	2038.768		1873.635		
				=	165.133	SQM			

Note :-

1. BUILDING WILL BE DESIGNED (STRUCTURES) AS PER RELEVANT IS CODES FOR EARTH QUAKE RESISTANCE.

PROJECT

REVISED BUILDING PLANS OF COMMERCIAL COLONY(TOD) MEASURING 17.4875 ACRES (LICENCE NO. 240 OF 2007 DATED 25.10.2007) AND 6.99025 ACRES (LICENCE NO. 239 OF 2007 DATED 25.10.2007, LICENCE NO. 241 OF 2007 DATED 25.10.2007 & LICENCE NO. 199 OF 2008 DATED 8.12.2008) TOTALLING **24.47775 ACRES** IN SECTOR-62, GURUGRAM MANESAR URBAN COMPLEX BEING DEVELOPED BY PIONEER URBAN LAND & INFRASTRUCTURE LTD.

CLIENT

PIONEER URBAN LAND & INFRASTRUCTURE LTD.

Pioneer Urban
Ground Floor
Near GOLF Course Extension Road,
Sector-62,
Gurugram -122001 Haryana

DESIGN ARCHITECT

RSP

RSP Design consultants (India) Pvt. Ltd.
103, First Floor, Bestech Business Tower, Sector: 48, Sohna Road
Gurgaon, 122018, India TEL: 4706868 FAX: 4706818
HEAD OFFICE:NO.30, MUSEUM ROAD, BANGALORE-560 001
TEL: 25596868 FAX:25596818
EMAIL: rsp@rspindia.net ; www.rspindia.net

ASSOCIATE ARCHITECT

RSMS ARCHITECTS

RSMS ARCHITECTS PVT. LTD.
69,Nora Niwas Bhawani Kunj
(Behind D2), Vasant Kunj,
New Delhi-110070.
Tel.:011-26898616,26898617
www.rsms-arch.com

EE(HQ) ATP(HQ) PAC DIRECTOR (HQ)

SANCTIONED
TO BE READ WITH THIS OFFICE MEMORANDUM DATED:

Checked and found ok for Public Health Engineering Services only subject to compliance of Outstanding letter No. 25/HQ 22/7/24

Superintending Engineer (HQ)
Executive Engineer-I
Haryana, Panchkula

ARCHITECT'S SEAL & SIGNATURE

OWNER'S SEAL & SIGNATURE

JUNE.-2024 | Scale : 1:100

Drawing Title:-

17TH ,20TH,24TH & 28TH (REFUGE) FLOOR PLAN & AREA CALCULATION (TOWER WEST)

Drawing No:- WT-08

28/06/2024-3