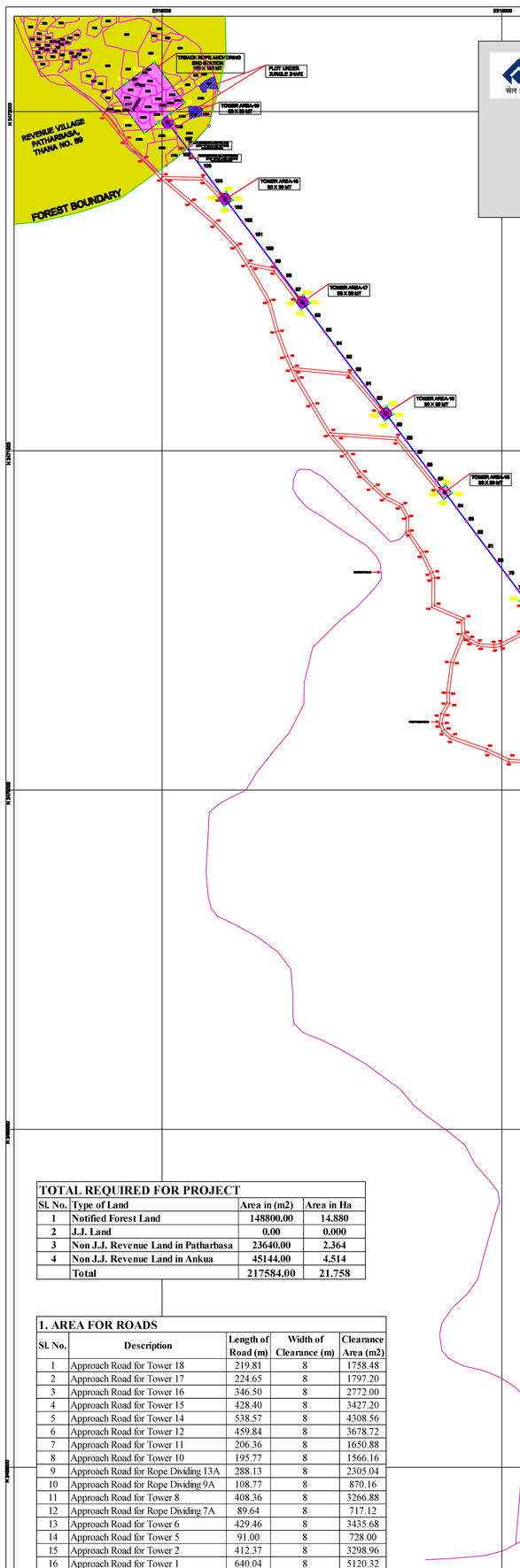
STEEL AUTHORITY OF INDIA LIMITED
(A GOVT OF INDIA ENTERPRISE)
RAW MATERIALS DIVISION
MANOHARPUR ORE MINES, CHIRIA
DGPS PLAN SHOWING THE PROPOSED CLOSED CONVEYOR SYSTEM FOR EVACUATION OF IRON ORES FROM MANOHARPUR ORE MINES TO PROPOSED PROCESSING PLANT AT PATHARBASA

SCALE - 1:8000



DESCRIPTION OF REVENUE AREA

REVENUE AREA=60X752.40

SL.NO	PILLAR NO	PILLAR TO PILLAR	PILLAR TO PILLAR DISTANCE IN MTR.	FORE BEARING	BACK BEARING	ELEVATION	EASTING	NORTHING	LONGITUDE	LATITUDE
1	R1	R1-R2	60	232° 32' 28.4"	52° 32' 28.4"	343.943	321273.589	2467895.823	85° 15' 53.3"	22° 18' 19.9"
2	R2	R2-R2A	60	232° 32' 18.1"	142° 32' 18.1"	337.775	321225.525	2467829.881	85° 15' 52.1"	22° 18' 18.0"
3	R2A	R2A-R2B	60	232° 32' 18.3"	142° 32' 18.3"	342.410	321195.588	2467899.899	85° 15' 51.1"	22° 18' 19.8"
4	R2B	R2B-R2C	50	232° 32' 18.8"	142° 32' 18.8"	340.978	321165.581	2467710.003	85° 15' 49.9"	22° 18' 13.1"
5	R2C	R2C-R2D	50	232° 32' 18.9"	142° 32' 18.9"	341.526	321135.676	2467749.973	85° 15' 49.0"	22° 18' 22.4"
6	R2D	R2D-R2E	50	232° 32' 19.1"	142° 32' 19.1"	347.915	321105.716	2467790.019	85° 15' 47.9"	22° 18' 23.7"
7	R2E	R2E-R2F	50	232° 32' 19.4"	142° 32' 19.4"	346.712	321075.775	2467830.039	85° 15' 46.9"	22° 18' 24.9"
8	R2F	R2F-R2G	50	232° 32' 19.6"	142° 32' 19.6"	348.224	321045.815	2467870.085	85° 15' 45.8"	22° 18' 26.2"
9	R2G	R2G-R2H	50	232° 32' 19.9"	142° 32' 19.9"	347.524	321015.781	2467910.239	85° 15' 44.7"	22° 18' 27.5"
10	R2H	R2H-R2I	50	232° 32' 20.1"	142° 32' 20.1"	347.667	320985.855	2467950.231	85° 15' 43.6"	22° 18' 28.8"
11	R2I	R2I-R2J	50	232° 32' 20.4"	142° 32' 20.4"	349.683	320955.889	2467990.312	85° 15' 42.6"	22° 18' 30.1"
12	R2J	R2J-R2K	50	232° 32' 20.7"	142° 32' 20.7"	348.963	320925.992	2468030.247	85° 15' 41.5"	22° 18' 31.4"
13	R2K	R2K-R2L	50	232° 32' 20.9"	142° 32' 20.9"	351.449	320895.995	2468070.343	85° 15' 40.5"	22° 18' 32.7"
14	R2L	R2L-R2M	50	232° 32' 21.2"	142° 32' 21.2"	350.196	320866.130	2468110.278	85° 15' 39.4"	22° 18' 34.0"
15	R2M	R2M-R2N	50	232° 32' 21.4"	142° 32' 21.4"	351.818	320836.184	2468150.284	85° 15' 38.4"	22° 18' 35.3"
16	R2N	R2N-R3	52	232° 32' 21.7"	142° 32' 21.7"	352.776	320806.149	2468190.442	85° 15' 37.3"	22° 18' 36.6"
17	R3	R3-R4	60	52° 32' 18.2"	232° 32' 18.2"	355.485	320774.804	2468232.342	85° 15' 36.1"	22° 18' 37.9"
18	R4	R4-R1N	52	143° 32' 21.9"	322° 32' 21.9"	357.345	320822.847	2468288.284	85° 15' 37.9"	22° 18' 39.0"
19	R1N	R1N-R1M	50	142° 32' 21.6"	322° 32' 21.6"	354.753	320854.237	2468228.325	85° 15' 39.0"	22° 18' 37.7"
20	R1M	R1M-R1L	50	142° 32' 21.4"	322° 32' 21.4"	351.968	320884.123	2468186.375	85° 15' 40.0"	22° 18' 36.5"
21	R1L	R1L-R1K	50	142° 32' 21.1"	322° 32' 21.1"	351.602	320914.109	2468146.284	85° 15' 41.1"	22° 18' 35.2"
22	R1K	R1K-R1J	50	142° 32' 20.9"	322° 32' 20.9"	350.637	320944.154	2468108.132	85° 15' 42.1"	22° 18' 33.9"
23	R1J	R1J-R1I	50	142° 32' 20.6"	322° 32' 20.6"	349.719	320974.031	2468068.197	85° 15' 43.2"	22° 18' 32.6"
24	R1I	R1I-R1H	50	142° 32' 20.3"	322° 32' 20.3"	350.397	321004.017	2468028.115	85° 15' 44.2"	22° 18' 31.3"
25	R1H	R1H-R1G	50	142° 32' 20.1"	322° 32' 20.1"	347.887	321033.953	2467986.100	85° 15' 45.3"	22° 18' 30.0"
26	R1G	R1G-R1F	50	142° 32' 19.8"	322° 32' 19.8"	346.857	321063.950	2467946.004	85° 15' 46.4"	22° 18' 28.7"
27	R1F	R1F-R1E	50	142° 32' 19.6"	322° 32' 19.6"	345.696	321093.945	2467905.911	85° 15' 47.5"	22° 18' 27.4"
28	R1E	R1E-R1D	50	142° 32' 19.3"	322° 32' 19.3"	345.409	321123.746	2467866.078	85° 15' 48.5"	22° 18' 26.1"
29	R1D	R1D-R1C	50	142° 32' 19.0"	322° 32' 19.0"	348.456	321153.799	2467825.908	85° 15' 49.6"	22° 18' 24.8"
30	R1C	R1C-R1B	50	142° 32' 18.8"	322° 32' 18.8"	353.994	321183.704	2467785.928	85° 15' 50.6"	22° 18' 23.6"
31	R1B	R1B-R1A	50	142° 32' 18.5"	322° 32' 18.5"	351.856	321213.608	2467745.987	85° 15' 51.7"	22° 18' 22.3"
32	R1A	R1A-R1	50	142° 32' 18.3"	322° 32' 18.3"	347.742	321243.672	2467705.784	85° 15' 52.8"	22° 18' 21.0"

DESCRIPTION OF LAYDOWN AREA

LAY DOWN STATION=100X100

PILLAR NO	PILLAR TO PILLAR	PILLAR TO PILLAR DISTANCE IN MTR.	FORE BEARING	BACK BEARING	ELEVATION	EASTING	NORTHING	LONGITUDE	LATITUDE
	L1-L1A	50	232° 32' 16.7"	52° 32' 16.7"	367.431	320616.883	2468488.497	85° 18' 30.0"	22° 18' 46.1"
	L1A-L2	50	232° 32' 16.2"	52° 32' 16.2"	363.897	320576.816	2468548.546	85° 18' 28.2"	22° 18' 48.2"
	L2-L2B	50	232° 32' 15.6"	142° 32' 15.6"	360.222	320536.780	2468428.594	85° 18' 27.7"	22° 18' 44.2"
	L2B-L3	50	232° 32' 15.2"	142° 32' 15.2"	364.520	320506.835	2468488.630	85° 18' 26.7"	22° 18' 46.0"
	L3-L3C	50	52° 32' 14.7"	232° 32' 14.7"	363.435	320476.877	2468508.666	85° 18' 25.6"	22° 18' 46.8"
	L3C-L4	50	52° 32' 15.2"	232° 32' 15.2"	367.371	320446.918	2468538.618	85° 18' 27.8"	22° 18' 47.8"
	L4-L4D	50	142° 32' 15.8"	322° 32' 15.8"	371.544	320566.949	2468598.570	85° 18' 28.4"	22° 18' 48.7"
	L4D-L1	50	142° 32' 16.2"	322° 32' 16.2"	373.555	320586.931	2468528.534	85° 18' 29.5"	22° 18' 47.5"

19 TOWERS PILLAR COORDINATES OF CONVEYOR ROUTE

SL.NO	STATION NAME	PILLAR NO	ELEVATION	EASTING	NORTHING	LONGITUDE	LATITUDE
1	TOWER NO-1	CP1	528.248	321715.483	2467034.973	85° 19' 8.5"	22° 17' 59.0"
2	TOWER NO-2	CP2	374.663	321499.831	2467313.234	85° 18' 1.9"	22° 18' 8.3"
3	TOWER NO-3	CP3	343.830	321155.367	2467773.600	85° 16' 49.8"	22° 18' 23.1"
4	TOWER NO-4	CP4	350.679	320893.622	2468133.978	85° 16' 40.1"	22° 18' 34.7"
5	TOWER NO-5	CP5	360.330	320573.189	2468418.201	85° 16' 32.0"	22° 18' 43.9"
6	TOWER NO-6	CP6	459.084	320331.844	2468874.475	85° 16' 20.4"	22° 19' 58.6"
7	TOWER NO-7A	CP7	518.056	320384.769	2469937.296	85° 16' 18.7"	22° 19' 0.7"
8	TOWER NO-8	CP8	484.430	320154.998	2469110.878	85° 16' 14.1"	22° 19' 5.2"
9	TOWER NO-9A	CP9	515.087	319946.538	2469389.511	85° 16' 6.9"	22° 19' 15.3"
10	TOWER NO-10	CP10	481.848	319697.323	2469406.297	85° 15' 5.0"	22° 19' 17.2"
11	TOWER NO-11	CP11	368.112	319708.627	2469707.525	85° 14' 58.3"	22° 19' 25.4"
12	TOWER NO-12	CP12	322.092	319367.299	2470163.775	85° 14' 46.2"	22° 19' 40.1"
13	TOWER NO-13A	CP13	373.653	319228.301	2470353.583	85° 14' 41.1"	22° 19' 46.2"
14	TOWER NO-14	CP14	308.898	319076.704	2470552.213	85° 14' 35.9"	22° 19' 52.6"
15	TOWER NO-15	CP15	303.341	318834.133	2470876.466	85° 14' 27.3"	22° 20' 3.1"
16	TOWER NO-16	CP16	298.992	318660.379	2471108.711	85° 14' 21.1"	22° 20' 10.8"
17	TOWER NO-17	CP17	273.330	318414.789	2471436.990	85° 14' 12.4"	22° 20' 21.1"
18	TOWER NO-18	CP18	288.487	318187.177	2471741.238	85° 14' 4.3"	22° 20' 30.9"
19	TOWER NO-19	CP19	207.088	318017.091	2471968.844	85° 13' 58.2"	22° 20' 38.3"

DESCRIPTION OF TRACK ROPE DIVIDING AREA

TOWER NO-7A=160X20

SL.NO	PILLAR NO	PILLAR TO PILLAR	PILLAR TO PILLAR DISTANCE IN MTR.	FORE BEARING	BACK BEARING	ELEVATION	EASTING	NORTHING	LONGITUDE	LATITUDE
1	7A	7A-7B	10	232° 32' 12.5"	52° 32' 12.5"	513.442	320294.759	2468692.284	85° 15' 19.1"	22° 19' 0.5"
2	7B	7B-7C	20	322° 32' 12.0"	142° 32' 12.0"	514.288	320256.752	2468628.294	85° 15' 18.8"	22° 19' 0.3"
3	7C	7C-7D	10	52° 32' 12.2"	232° 32' 12.2"	517.195	320274.771	2468642.308	85° 15' 18.4"	22° 19' 0.8"
4	7D	7D-7A	20	142° 32' 11.9"	322° 32' 11.9"	515.347	320252.778	2468648.298	85° 15' 18.6"	22° 19' 1.0"

TOWER NO-9A=160X20

SL.NO	PILLAR NO	PILLAR TO PILLAR	PILLAR TO PILLAR DISTANCE IN MTR.	FORE BEARING	BACK BEARING	ELEVATION	EASTING	NORTHING	LONGITUDE	LATITUDE
1	9A	9A-9B	10	232° 32' 7.5"	52° 32' 7.5"	514.689	319968.532	2469384.499	85° 18' 7.1"	22° 19' 15.0"
2	9B	9B-9C	20	322° 32' 7.0"	142° 32' 7.0"	515.721	319948.525	2469375.509	85° 18' 6.8"	22° 19' 14.8"
3	9C	9C-9D	10	52° 32' 7.2"	232° 32' 7.2"	513.671	319936.544	2469394.523	85° 18' 6.4"	22° 19' 15.3"
4	9D	9D-9A	20	142° 32' 7.0"	322° 32' 7.0"	514.814	319944.551	2469400.513	85° 18' 6.7"	22° 19' 15.5"

TOWER NO-13A=160X20

SL.NO	PILLAR NO	PILLAR TO PILLAR	PILLAR TO PILLAR DISTANCE IN MTR.	FORE BEARING	BACK BEARING	ELEVATION	EASTING	NORTHING	LONGITUDE	LATITUDE
1	13A	13A-13B	10	232° 31' 55.9"	52° 31' 55.9"	375.844	319235.295	2470348.571	85° 14' 41.5"	22° 19' 46.1"
2	13B	13B-13C	20	322° 31' 55.4"	142° 31' 55.4"	374.877	319227.288	2470342.581	85° 14' 41.2"	22° 19' 45.9"
3	13C	13C-13D	10	52° 31' 55.6"	232° 31' 55.6"	388.339	319215.307	2470358.595	85° 14' 40.8"	22° 19' 46.4"
4	13D	13D-13A	20	142° 31' 55.3"	322° 31' 55.3"	387.398	319223.314	2470364.585	85° 14' 41.1"	22° 19' 46.6"

DESCRIPTION OF TOWER AREA EXCEPT (7A,9A & 13A)

TOWER NO-1=60X30

SL.NO	PILLAR NO	PILLAR TO PILLAR	PILLAR TO PILLAR DISTANCE IN MTR.	FORE BEARING	BACK BEARING	ELEVATION	EASTING	NORTHING	LONGITUDE	LATITUDE
1	1A	1A-1B	30	232° 32' 33.4"	52° 32' 33.4"	534.124	321736.479	2467021.948	85° 18' 10.2"	22° 17' 58.8"
2	1B	1B-1C	30	222° 32' 32.9"	142° 32' 32.9"	537.801	321712.406	2467003.977	85° 18' 9.4"	22° 17' 58.3"
3	1C	1C-1D	30	52° 32' 32.8"	232° 32' 32.8"	533.243	321694.497	2467027.988	85° 18' 8.8"	22° 17' 59.1"
4	1D	1D-1A	30	142° 32' 33.0"	322° 32' 33.0"	521.405	321718.508	2467045.969	85° 18' 9.6"	22° 17' 58.7"

TOWER NO-2= 30X30

SL.NO	PILLAR NO	PILLAR TO PILLAR	PILLAR TO PILLAR DISTANCE IN MTR.	FORE BEARING	BACK BEARING	ELEVATION	EASTING	NORTHING	LONGITUDE	LATITUDE
1	2A	2A-2B	30	232° 32' 30.2"	52° 32' 30.2"	352.286	321520.827	2467310.209	85° 19' 2.6"	22° 18' 6.2"
2	2B	2B-2C	30	222° 32' 29.7"	142° 32' 29.7"	356.066	321496.808	2467292.239	85° 19' 1.8"	22° 18' 7.8"
3	2C	2C-2D	30	52° 32' 29.6"	232° 32' 29.6"	377.221	321478.835	2467316.259	85° 19' 1.1"	22° 18' 8.4"
4	2D	2D-2A	30	142° 32' 29.7"	322° 32' 29.7"	369.601	321502.856	2467334.230	85° 19' 2.0"	22° 18' 9.0"

TOWER NO-3= 30X30

SL.NO	PILLAR NO	PILLAR TO PILLAR	PILLAR TO PILLAR DISTANCE IN MTR.	FORE BEARING	BACK BEARING	ELEVATION	EASTING	NORTHING	LONGITUDE	LATITUDE
1	3A	3A-3B	30	232° 32' 26.1"	52° 32' 26.1"	349.912	321176.383	2467770.835	85° 19' 50.4"	22° 18' 23.0"
2	3B	3B-3C	30	222° 32' 24.6"	142° 32' 24.6"	342.070	321152.362	2467752.864	85° 19' 49.5"	22° 18' 22.4"
3	3C	3C-3D	30	52° 32' 24.6"	232° 32' 24.6"	341.305	321134.391	2467776.875	85° 19' 48.9"	22° 18' 23.2"
4	3D	3D-3A	30	142° 32' 24.7"	322° 32' 24.7"	346.851	321158.412	2467794.845	85° 19' 49.7"	22° 18' 23.8"

TOWER NO-4= 30X30

SL.NO	PILLAR NO	PILLAR TO PILLAR	PILLAR TO PILLAR DISTANCE IN MTR.	FORE BEARING	BACK BEARING	ELEVATION	EASTING	NORTHING	LONGITUDE	LATITUDE
1	4A	4A-4B	30	232° 32' 21.2"	52° 32' 21.2"	351.366	320906.818	2469130.951	85° 19' 40.8"	22° 18' 34.6"
2	4B	4B-4C	30	322° 32' 20.7"	142° 32' 20.7"	350.799	320882.797	2469112.980	85° 19' 39.9"	22° 18' 34.0"
3	4C	4C-4D	30	52° 32' 20.6"	232° 32' 20.6"	351.170	320864.828	2469137.001	85° 19' 39.3"	22° 18' 34.8"
4	4D	4D-4A	30	142° 32' 20.8"	322° 32' 20.8"	351.138	320888.847	2469154.972	85° 19' 40.2"	22° 18' 35.4"

TOWER NO-5= 30X30

SL.NO	PILLAR NO	PILLAR TO PILLAR	PILLAR TO PILLAR DISTANCE IN MTR.	FORE BEARING	BACK BEARING	ELEVATION	EASTING	NORTHING	LONGITUDE	LATITUDE
1	5A	5A-5B	30	232° 32' 18.1"	52° 32' 18.1"	359.090	320694.180	2468415.178	85° 19' 33.3"	22° 18' 43.8"
2	5B	5B-5C	30	322° 32' 17.6"	142° 32' 17.6"	359.015	320670.164	2468397.205	85° 19' 32.4"	22° 18' 43.2"
3	5C	5C-5D	30	52° 32' 17.4"	232° 32' 17.4"	360.724	320652.183	2468421.228	85° 19' 31.6"	22° 18' 43.9"
4	5D	5D-5A	30	142° 32' 17.6"	322° 32' 17.6"	361.187	320676.214	2468439.197	85° 19' 32.6"	22° 18' 44.6"

TOWER NO-6= 30X30

SL.NO	PILLAR NO	PILLAR TO PILLAR	PILLAR TO PILLAR DISTANCE IN MTR.	FORE BEARING	BACK BEARING	ELEVATION	EASTING	NORTHING	LONGITUDE	LATITUDE
1	6A	6A-6B	30	232° 32' 13.0"	52° 32' 13.0"	455.300	320332.840	2468871.450	85° 19' 21.1"	22° 18' 58.5"
2	6B	6B-6C	30	222° 32' 12.9"	142° 32' 12.9"	458.915	320328.819	2468853.479	85° 19' 20.9"	22° 18' 57.9"
3	6C	6C-6D	30	52° 32' 12.9"	232° 32' 12.9"	461.290	320310.848	2468877.500	85° 19' 19.7"	22° 18' 58.7"
4	6D	6D-6A	30	142° 32' 12.9"	322° 32' 12.9"	477.922	320334.869	2468895.471	85° 19' 20.6"	22° 18' 59.2"

TOWER NO-8= 30X30

SL.NO	PILLAR NO	PILLAR TO PILLAR	PILLAR TO PILLAR DISTANCE IN MTR.	FORE BEARING	BACK BEARING	ELEVATION	EASTING	NORTHING	LONGITUDE	LATITUDE
1	8A	8A-8B	30	232° 32' 9.5"	52° 32' 9.5"	490.710	320175.984	2469107.893	85° 19' 14.9"	22° 19' 6.1"
2	8B	8B-8C	30	222° 32' 8.7"	142° 32' 8.7"	493.789	320151.953	2469089.882	85° 19' 14.0"	22° 19' 5.6"
3	8C	8C-8D	30	52° 32' 8.9"	232° 32' 8.9"	494.361	320133.992	2469113.893	85° 19' 13.4"	22° 19' 6.3"
4	8D	8D-8A	30	142° 32' 10.1"	322° 32' 10.1"	487.650	320158.013	2469131.874	85° 19' 14.2"	22° 19' 6.9"

TOWER NO-10= 30X30

SL.NO	PILLAR NO	PILLAR TO PILLAR	PILLAR TO PILLAR DISTANCE IN MTR.	FORE BEARING	BACK BEARING	ELEVATION	EASTING	NORTHING	LONGITUDE	LATITUDE
1	10A	10A-10B	30	232° 32' 6.7"	52° 32' 6.7"	499.168	319918.319	2469402.272	85° 19' 5.8"	22° 19' 17.2"
2	10B	10B-10C	30	322° 32' 5.9"	142° 32' 5.9"	484.932	319894.298	2469434.301	85° 19' 4.9"	22° 19' 18.6"
3	10C	10C-10D	30	52° 32' 6.1"	232° 32' 6.1"	472.868	319876.327	2469453.322	85° 19' 4.3"	22° 19' 17.4"
4	10D	10D-10A	30	142° 32' 5.9"	322° 32' 5.9"	477.471	319900.346	2469476.293	85° 19' 5.1"	22° 19' 18.0"

TOWER NO-11= 30X30

SL.NO	PILLAR NO	PILLAR TO PILLAR	PILLAR TO PILLAR DISTANCE IN MTR.	FORE BEARING	BACK BEARING	ELEVATION	EASTING	NORTHING	LONGITUDE	LATITUDE
1	11A	11A-11B	30	232° 32' 3.9"	52° 32' 3.9"	368.867	319729.623	2469704.000	85° 14' 59.0"	22° 19' 25.3"
2	11B	11B-11C	30	322° 32' 3.4"	142° 32' 3.4"	377.220	319705.602	2469686.020	85° 14' 58.2"	22° 19' 24.7"
3	11C	11C-11D	30	52° 32' 3.3"	232° 32' 3.3"	374.678	319687.631	2469710.050	85° 14' 57.6"	22° 19' 25.5"
4	11D	11D-11A	30	142° 32' 3.2"	322° 32' 3.2"	356.475	319711.652	2469728.021	85° 14' 58.4"	22° 19' 26.1"

TOWER NO-12= 30X30

SL.NO	PILLAR NO	PILLAR TO PILLAR	PILLAR TO PILLAR DISTANCE IN MTR.	FORE BEARING	BACK BEARING	ELEVATION	EASTING	NORTHING	LONGITUDE	LATITUDE
1	12A	12A-12B	30	232° 31' 58.8"	52° 31' 58.8"	328.522	319388.295	2470160.700	85° 14' 48.9"	22° 19' 40.0"
2	12B	12B-12C	30	322° 31' 58.0"	142° 31' 58.0"	315.434	319364.274	2470143.779	85° 14' 48.1"	22° 19' 39.4"
3	12C	12C-12D	30	52° 31' 58.3"	232° 31' 58.3"	314.840	319346.303	2470168.800	85° 14' 46.4"	22° 19' 40.2"
4	12D	12D-12A	30	142° 31' 58.2"	322° 31' 58.2"	329.668	319370.324	2470184.771	85° 14' 48.3"	22° 19' 40.8"

TOWER NO-14= 30X30

SL.NO	PILLAR NO	PILLAR TO PILLAR	PILLAR TO PILLAR DISTANCE IN MTR.	FORE BEARING	BACK BEARING	ELEVATION	EASTING	NORTHING	LONGITUDE	LATITUDE

DESCRIPTION OF INTERMEDIATE PILLARS BETWEEN TOWERS

SL.NO	PILLAR NO	PILLAR TO PILLAR	DISTANCE IN MTR.	FORE BEARING	BACK BEARING	EASTING	NORTHING	LONGITUDE	LATITUDE	ELEVATION
1	1	1-2	100	232° 32' 31.3"	142° 32' 31.3"	321693.288	3468007.370	85° 19' 13.9"	22° 17' 55.3"	533.357
2	2	2-CP1	47	232° 32' 30.8"	142° 32' 30.8"	321743.888	3468067.345	85° 19' 16.0"	22° 17' 57.2"	533.357
3	CP1	CP1-3	53	232° 32' 30.8"	142° 32' 30.8"	321716.488	3467924.903	85° 19' 9.0"	22° 17' 52.0"	533.340
4	3	3-4	50	232° 32' 31.0"	142° 32' 31.0"	321693.793	3467857.415	85° 19' 6.4"	22° 17' 50.1"	534.139
5	4	4-5	50	232° 32' 31.2"	142° 32' 31.2"	321693.293	3467807.451	85° 19' 7.4"	22° 18' 1.7"	533.979
6	5	5-6	50	232° 32' 31.4"	142° 32' 31.4"	321693.693	3467757.487	85° 19' 8.3"	22° 18' 3.5"	534.204
7	6	6-7	50	232° 32' 31.6"	142° 32' 31.6"	321693.977	3467707.494	85° 19' 9.3"	22° 18' 5.3"	534.354
8	7	7-8	50	232° 32' 31.8"	142° 32' 31.8"	321693.993	3467657.490	85° 19' 10.2"	22° 18' 7.2"	534.419
9	8	8-CP2	57	232° 32' 32.1"	142° 32' 32.1"	321693.919	3467607.499	85° 19' 11.1"	22° 18' 9.0"	534.419
10	CP2	CP2-9	43	232° 32' 32.3"	142° 32' 32.3"	321693.551	3467513.324	85° 19' 1.9"	22° 18' 6.3"	534.883
11	9	9-10	50	232° 32' 33.1"	142° 32' 33.1"	321474.093	3467457.489	85° 18' 52.8"	22° 18' 5.4"	536.485
12	10	10-11	50	232° 32' 33.3"	142° 32' 33.3"	321444.118	3467407.708	85° 18' 51.8"	22° 18' 10.8"	539.541
13	11	11-12	50	232° 32' 33.5"	142° 32' 33.5"	321414.167	3467357.741	85° 18' 50.8"	22° 18' 11.8"	539.857
14	12	12-13	50	232° 32' 33.8"	142° 32' 33.8"	321384.216	3467407.777	85° 18' 51.7"	22° 18' 13.3"	539.357
15	13	13-14	50	232° 32' 33.4"	142° 32' 33.4"	321384.385	3467457.813	85° 18' 53.7"	22° 18' 14.8"	540.851
16	14	14-15	50	232° 32' 33.0"	142° 32' 33.0"	321383.312	3467547.865	85° 18' 56.8"	22° 18' 18.0"	544.047
17	15	15-16	55	232° 32' 32.7"	142° 32' 32.7"	321383.312	3467597.868	85° 18' 58.6"	22° 18' 17.1"	546.612
18	16	16-17	42	232° 32' 32.4"	142° 32' 32.4"	321383.499	3467637.868	85° 18' 57.3"	22° 18' 19.4"	547.859
19	17	17-18	50	232° 32' 32.2"	142° 32' 32.2"	321383.499	3467687.868	85° 18' 59.1"	22° 18' 19.7"	549.354
20	18	18-19	50	232° 32' 32.0"	142° 32' 32.0"	321384.255	3467707.884	85° 18' 61.0"	22° 18' 21.0"	548.374
21	19	19-CP3	32	232° 32' 31.9"	142° 32' 31.9"	321774.893	3467746.081	85° 18' 65.0"	22° 18' 22.0"	548.120
22	CP3	CP3-20	56	232° 32' 31.8"	142° 32' 31.8"	321815.397	3467773.890	85° 18' 66.0"	22° 18' 23.1"	548.880
23	20	20-21	50	232° 32' 32.0"	142° 32' 32.0"	321815.139	3467823.890	85° 18' 64.2"	22° 18' 24.8"	548.011
24	21	21-22	50	232° 32' 32.2"	142° 32' 32.2"	321815.699	3467873.889	85° 18' 62.3"	22° 18' 26.5"	548.104
25	22	22-23	50	232° 32' 32.4"	142° 32' 32.4"	321816.259	3467923.887	85° 18' 60.5"	22° 18' 28.2"	548.347
26	23	23-24	50	232° 32' 32.6"	142° 32' 32.6"	321816.819	3467973.886	85° 18' 58.6"	22° 18' 29.9"	548.692
27	24	24-25	50	232° 32' 32.8"	142° 32' 32.8"	321816.819	3468023.886	85° 18' 56.8"	22° 18' 31.6"	548.121
28	25	25-26	50	232° 32' 33.1"	142° 32' 33.1"	321816.819	3468073.886	85° 18' 55.0"	22° 18' 33.3"	548.651
29	26	26-27	50	232° 32' 33.3"	142° 32' 33.3"	321816.819	3468123.886	85° 18' 53.1"	22° 18' 35.0"	548.815
30	27	27-CP4	53	232° 32' 33.4"	142° 32' 33.4"	321816.819	3468173.886	85° 18' 51.3"	22° 18' 36.7"	549.010
31	CP4	CP4-28	55	232° 32' 33.4"	142° 32' 33.4"	321816.819	3468223.886	85° 18' 49.5"	22° 18' 38.4"	549.079
32	28	28-29	50	232° 32' 33.4"	142° 32' 33.4"	321816.819	3468273.886	85° 18' 47.6"	22° 18' 40.1"	549.451
33	29	29-30	50	232° 32' 33.4"	142° 32' 33.4"	321816.819	3468323.886	85° 18' 45.8"	22° 18' 41.8"	549.810
34	30	30-31	50	232° 32' 33.4"	142° 32' 33.4"	321816.819	3468373.886	85° 18' 44.0"	22° 18' 43.5"	550.171
35	31	31-32	50	232° 32' 33.4"	142° 32' 33.4"	321816.819	3468423.886	85° 18' 42.1"	22° 18' 45.2"	550.488