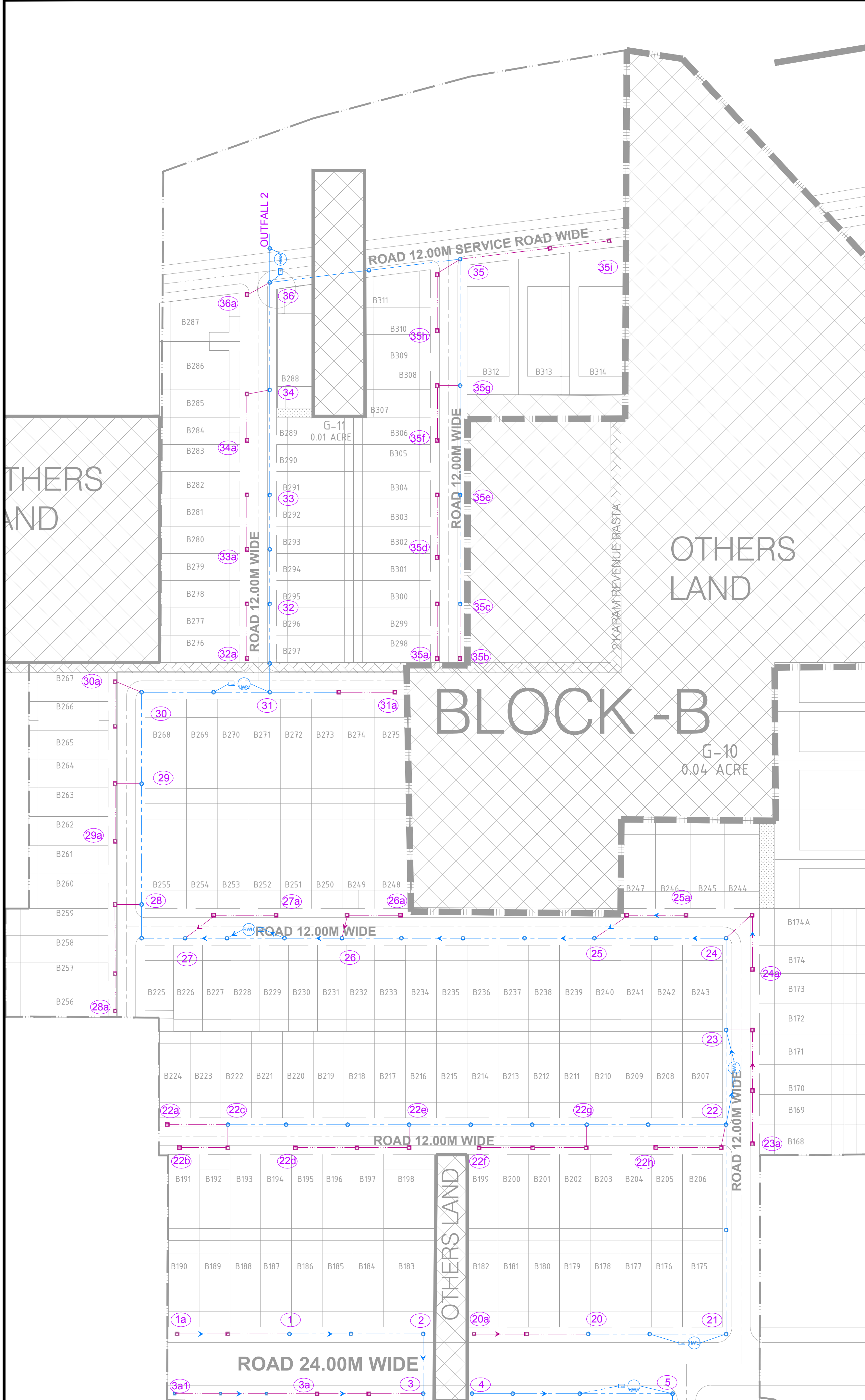
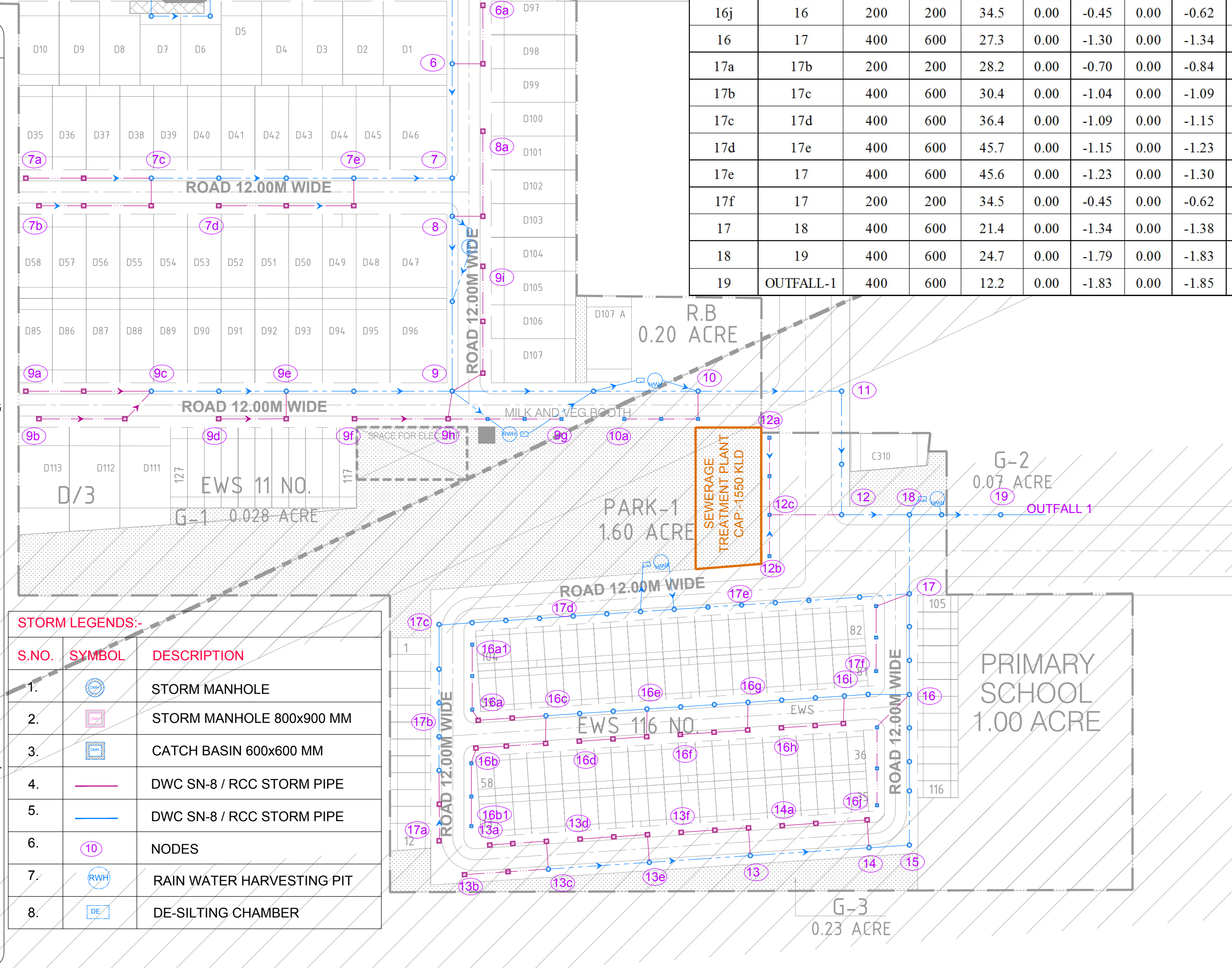




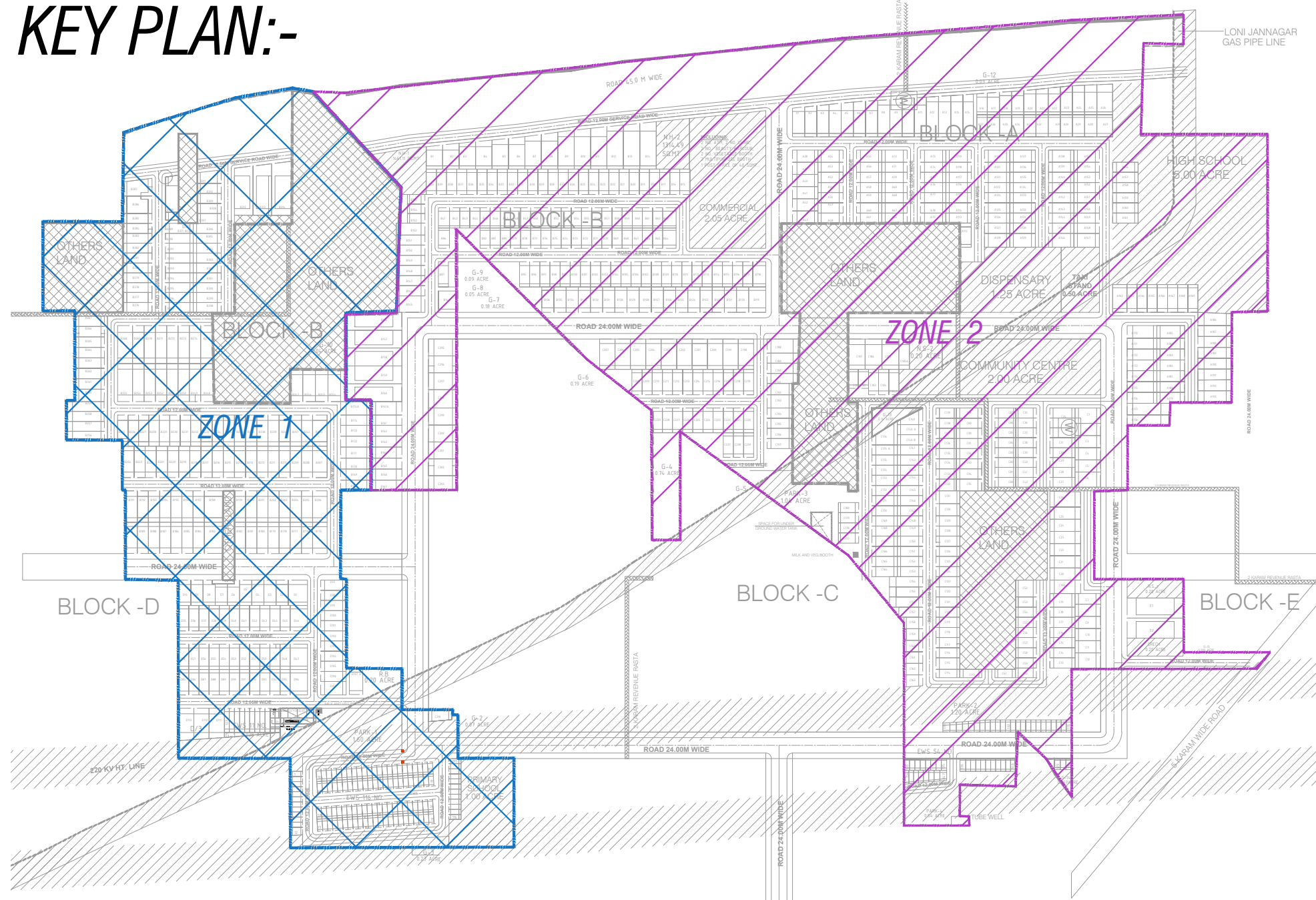
- NOTES :**
- THE SIZE OF MANHOLE SHALL BE AS UNDER (INNER SIZES)
a) UP TO 750 M.M. DEPTH 800x900 M.M. REC. MANHOLE.
b) 900 TO 1650 M.M. DEPTH 900 M.M. DIA.
c) 1650 TO 2300 M.M. DEPTH 1200 M.M. DIA.
d) ABOVE 2300 M.M. DEPTH 1500 M.M. DIA.
 - RUNGS SHALL BE PROVIDED IN EACH MANHOLE WHICH IS DEEPER THAN 800 M.M.
 - THE LEVELS OF SEWER / STORM LINES HAS BEEN WORKED OUT ON THE BASIS OF CERTAIN ROAD LEVEL AND FOR CERTAIN PIPE LENGTHS BETWEEN TWO MANHOLES. THE INVERT LEVELS HAS TO BE STRICTLY FOLLOWED. HOWEVER, THE SLOPE OF LINE MAY BE SLIGHTLY CHANGED.
 - FOR ANY DISCREPANCY / COMMISSION THE MATTER SHOULD REFER TO THE CONSULTANTS BEFORE EXECUTION.
 - MANHOLE SHALL BE PROVIDED AT FOLLOWING PLACES :-
a) AT THE START OF EACH SEWER LINE.
b) AT EVERY JUNCTION AND POSITION WHERE THERE IS CHANGE OF SIZE, GRADIENT AND ALIGNMENT.
c) AT NOT MORE THAN 30 METER INTERVAL IN STRAIGHT LENGTH.
 - WHERE THE DIAMETER OF PIPE IS INCREASED THE CROWN OF THE PIPE SHALL BE FIXED AT THE SAME LEVEL AND NECESSARY SLOPE SHALL BE GIVEN IN THE INVERT OF THE MANHOLE CHAMBER.
 - THE STRUCTURAL DESIGN OF MANHOLES / PIPE BEDDING HAS TO BE DONE FOR LOCAL FIELD CONDITIONS SUCH AS FILLED UP SOIL / BLACK COTTON SOIL / HIGH SUB SOIL.
 - THIS DRAWING SHALL BE READ ALONG WITH THE GROUND FLOOR PLAN OF RESPECTIVE BUILDING FOR EXACT LOCATION OF APPURTENANCES / MAN HOLES ETC.
 - SEWER / STORM LINE UNDER THE ROAD SHALL BE ENCASED AS MENTIONED IN BOQ.
 - MANHOLE COVER SHOULD BE FINISHED WITH FINISHED FORMATION LEVEL AS PER LANDSCAPE DRAWING.
 - MATERIAL OF PIPE :- DWG SN-8/ RCC PIPE UP TO 400MM PIPE RCC NP-2/3 PIPE ABOVE 400MM**
 - WHEREVER ANY CONFLICT IN LEVELS BETWEEN DESIGN SHEET AND NODES / MANHOLE TAG WRITTEN ON DRAWINGS, THEN DESIGN SHEETS LINE & LEVELS SHALL BE CONSIDERED FOR EXECUTION.



S.NO.	SYMBOL	DESCRIPTION
1.		STORM MANHOLE
2.		STORM MANHOLE 800x900 MM
3.		CATCH BASIN 600x600 MM
4.		DWG SN-8 / RCC STORM PIPE
5.		DWG SN-8 / RCC STORM PIPE
6.		NODES
7.		RAIN WATER HARVESTING PIT
8.		DE-SILTING CHAMBER

HYDRAULIC DESIGN CHART FOR STORM_ZONE-1									
Node		Diameter	Slope (1 in N)	Length of Pipe	Levels at Start		Levels at End		Depth
From	To	mm	1:n	mtrs.	RL	IL	RL	IL	mtrs
OUTFALL - 1									
1a	1	200	200	36.725	0.00	-0.70	0.00	-0.88	0.70
1	2	400	600	43.8	0.00	-1.08	0.00	-1.16	1.08
2	3	400	600	19.5	0.00	-1.16	0.00	-1.19	1.16
3a	3a	200	200	46.5	0.00	-0.45	0.00	-0.68	0.45
3a	3	200	200	34.7	0.00	-0.70	0.00	-0.87	0.70
3	4	400	600	28.7	0.00	-1.19	0.00	-1.24	1.19
4	5	400	600	65.6	0.00	-1.24	0.00	-1.35	1.24
5	6	400	600	19.2	0.00	-1.35	0.00	-1.38	1.35
6a	6	200	200	24.2	0.00	-0.70	0.00	-0.82	0.70
6	7	400	600	31.0	0.00	-1.38	0.00	-1.43	1.38
7a	7c	200	200	34.0	0.00	-0.70	0.00	-0.87	0.70
7b	7c	200	200	37.9	0.00	-0.70	0.00	-0.89	0.70
7c	7e	400	600	54.9	0.00	-1.09	0.00	-1.18	1.09
7d	7e	200	200	44.1	0.00	-0.70	0.00	-0.92	0.70
7e	7	400	600	26.6	0.00	-1.18	0.00	-1.23	1.18
7	8	400	600	10.4	0.00	-1.43	0.00	-1.45	1.43
8a	8	200	200	31.3	0.00	-0.70	0.00	-0.86	0.70
8	9	400	600	47.4	0.00	-1.45	0.00	-1.53	1.45
9a	9c	200	200	35.0	0.00	-0.70	0.00	-0.87	0.70
9b	9c	200	200	33.9	0.00	-0.70	0.00	-0.87	0.70
9c	9e	400	600	36.6	0.00	-1.07	0.00	-1.14	1.07
9d	9e	200	200	25.8	0.00	-0.70	0.00	-0.83	0.70
9e	9	400	600	45.0	0.00	-1.14	0.00	-1.21	1.14
9f	9h	200	200	25.4	0.00	-0.70	0.00	-0.83	0.70
9g	9h	200	200	30.7	0.00	-0.45	0.00	-0.60	0.45
9h	9	200	200	7.2	0.00	-0.83	0.00	-0.86	0.83
9i	9	200	200	37.8	0.00	-0.70	0.00	-0.89	0.70
9	10	400	600	66.6	0.00	-1.53	0.00	-1.64	1.53
10a	10	200	200	27.4	0.00	-0.45	0.00	-0.59	0.45
10	11	400	600	38.86	0.00	-1.64	0.00	-1.70	1.64
11	12	400	600	33.5	0.00	-1.70	0.00	-1.76	1.70
12a	12c	200	200	20.9	0.00	-0.45	0.00	-0.55	0.45
12b	12c	200	200	11.2	0.00	-0.45	0.00	-0.51	0.45
12c	12	200	200	19.3	0.00	-0.55	0.00	-0.65	0.55
12	18	400	600	18.4	0.00	-1.76	0.00	-1.79	1.76
13a	13c	200	200	23.0	0.00	-0.70	0.00	-0.81	0.70
13b	13c	200	200	22.7	0.00	-0.70	0.00	-0.81	0.70
13c	13e	400	600	27.4	0.00	-1.01	0.00	-1.06	1.01
13d	13e	200	200	25.9	0.00	-0.70	0.00	-0.83	0.70
13e	13	400	600	27.4	0.00	-1.06	0.00	-1.11	1.06
13f	13	200	200	25.9	0.00	-0.70	0.00	-0.83	0.70
13	14	400	600	32.2	0.00	-1.11	0.00	-1.16	1.11
14a	14	200	200	31.6	0.00	-0.70	0.00	-0.86	0.70
14	15	400	600	11.0	0.00	-1.16	0.00	-1.18	1.16
15	16	400	600	10.8	0.00	-1.18	0.00	-1.20	1.18
16a	16a	200	200	20.5	0.00	-0.45	0.00	-0.55	0.45
16a	16c	200	200	18.4	0.00	-0.70	0.00	-0.79	0.70
16b	16b	200	200	21.0	0.00	-0.45	0.00	-0.56	0.45
16b	16c	200	200	26.4	0.00	-0.70	0.00	-0.83	0.70
16c	16e	400	600	27.4	0.00	-1.03	0.00	-1.08	1.03
16d	16e	200	200	25.8	0.00	-0.70	0.00	-0.83	0.70
16e	16g	400	600	27.4	0.00	-1.18	0.00	-1.22	1.18
16f	16g	200	200	25.8	0.00	-0.70	0.00	-0.83	0.70
16g	16i	400	600	26.1	0.00	-1.22	0.00	-1.27	1.22
16h	16i	200	200	24.3	0.00	-0.70	0.00	-0.82	0.70
16i	16	400	600	17.6	0.00	-1.27	0.00	-1.30	1.27
16j	16	200	200	34.5	0.00	-0.45	0.00	-0.62	0.45
16	17	400	600	27.3	0.00	-1.30	0.00	-1.34	1.30
17a	17b	200	200	28.2	0.00	-0.70	0.00	-0.84	0.70
17b	17c	400	600	30.4	0.00	-1.04	0.00	-1.09	1.04
17c	17d	400	600	36.4	0.00	-1.09	0.00	-1.15	1.09
17d	17e	400	600	45.7	0.00	-1.15	0.00	-1.23	1.15
17e	17	400	600	45.6	0.00	-1.23	0.00	-1.30	1.23
17f	17	200	200	34.5	0.00	-0.45	0.00	-0.62	0.45
17	18	400	600	21.4	0.00	-1.34	0.00	-1.38	1.34
18	19	400	600	24.7	0.00	-1.79	0.00	-1.83	1.79
19	OUTFALL-1	400	600	12.2	0.00	-1.83	0.00	-1.85	1.83

KEY PLAN:-



HYDRAULIC DESIGN CHART FOR STORM_ZONE-1									
Node		Diameter	Slope (1 in N)	Length of Pipe	Levels at Start		Levels at End		Depth
From	To	mm	1:n	mtrs.	RL	IL	RL	IL	mtrs
OUTFALL - 2									
20a	20	200	200	37.3	0.00	-0.70	0.00	-0.89	0.70
20	21	400	600	45.0	0.00	-1.09	0.00	-1.16	1.09
21	22	400	600	68.5	0.00	-1.16	0.00	-1.28	1.16
22a	22c	200	200	19.8	0.00	-0.75	0.00	-0.85	0.75
22b	22c	200	200	23.3	0.00	-0.70	0.00	-0.82	0.70
22c	22e	400	600	59.3	0.00	-1.05	0.00	-1.15	1.05
22d	22e	200	200	44.6	0.00	-0.70	0.00	-0.92	0.70
22e	22g	400	600	58.0	0.00	-1.15	0.00	-1.24	1.15
22f	22g	200	200	42.5	0.00	-0.70	0.00	-0.91	0.70
22g	22	400	600	45.6	0.00	-1.24	0.00	-1.32	1.24
22h	22	200	200	29.1	0.00	-0.70	0.00	-0.85	0.70
22	23	400	600	31.0	0.00	-1.32	0.00	-1.37	1.32
23a	23	200	200	45.9	0.00	-0.70	0.00	-0.93	0.70
23	24	400	600	30.0	0.00	-1.37	0.00	-1.42	1.37
24a	24	200	200	29.1	0.00	-0.70	0.00	-0.85	0.70
24	25	400	600	43.1	0.00	-1.42	0.00	-1.49	1.42
25a	25	200	200	32.6	0.00	-0.70	0.00	-0.86	0.70
25	26	400	600	82.5	0.00	-1.49	0.00	-1.63	1.49
26a	26	200	200	25.1	0.00	-0.70	0.00	-0.83	0.70
26	27	400	600	51.3	0.00	-1.63	0.00	-1.72	1.63
27a	27	200	200	32.1	0.00	-0.70	0.00	-0.86	0.70
27	28	400	600	25.3	0.00	-1.72	0.00	-1.76	1.72
28a	28	200	200	43.5	0.00	-0.70	0.00	-0.92	0.70
28	29	400	600	39.5	0.00	-1.76	0.00	-1.82	1.76
29a	29	200	200	27.5	0.00	-0.70	0.00	-0.84	0.70
29	30	400	600	29.9	0.00	-1.82	0.00	-1.87	1.82
30a	30	200	200	24.0	0.00	-0.70	0.00	-0.82	0.70
30	31	400	600	41.9	0.00	-1.87	0.00	-1.94	1.87
31a	31	200	200	40.9	0.00	-0.70	0.00	-0.90	0.70
31	32	400	600	28.9	0.00	-1.94	0.00	-1.99	1.94
32a	32	200	200	25.3	0.00	-0.70	0.00	-0.83	0.70
32	33	400	600	35.7	0.00	-1.99	0.00	-2.05	1.99
33a	33	200	200	25.3	0.00	-0.70	0.00	-0.83	0.70
33	34	400	600	34.3	0.00	-2.05	0.00	-2.11	2.05
34a	34	200	200	22.7	0.00	-0.70	0.00	-0.81	0.70
34	36	400	600	35.2	0.00	-2.11	0.00	-2.17	2.11
35a	35c	200	200	25.3	0.00	-0.70	0.00	-0.83	0.70
35b	35c	200	200	17.9	0.00	-0.70	0.00	-0.79	0.70
35c	35e	400	600	35.7	0.00	-1.03	0.00	-1.09	1.03
35d	35e	200	200	25.9	0.00	-0.70	0.00	-0.84	0.70
35e	35g	400	600	35.7	0.00	-1.09	0.00	-1.15	1.09
35f	35g	200	200	25.4	0.00	-0.70	0.00	-0.83	0.70
35g	35	400	600	41.4	0.00	-1.15	0.00	-1.21	1.15
35h	35	200	200	27.1	0.00	-0.70	0.00	-0.84	0.70
35i	35	200	200	49.0	0.00	-0.70	0.00	-0.95	0.70
35	36	400	600	62.7	0.00	-1.21	0.00	-1.32	1.21
36a	36	200	200	8.3	0.00	-0.70	0.00	-0.74	0.70
36	OUTFALL-2	400	600	13.4	0.00	-2.17	0.00	-2.19	2.17

STAGE :	TENDER
DATE:	01.09.2021
REV.NO.	-