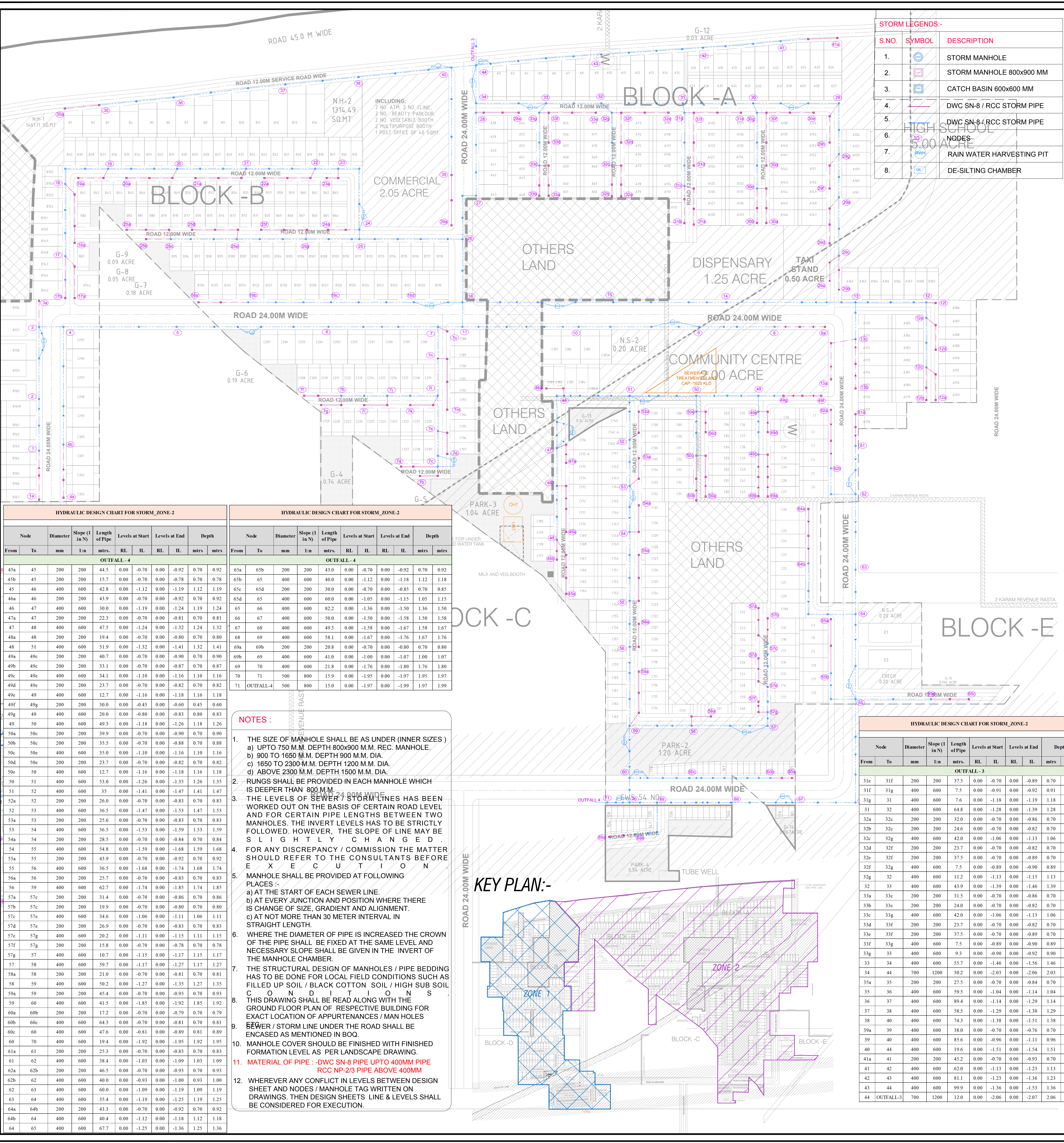




STORM LEGENDS:-		
S.NO.	SYMBOL	DESCRIPTION
1.		STORM MANHOLE
2.		STORM MANHOLE 800x900 MM
3.		CATCH BASIN 600x600 MM
4.		DWC SN-8 / RCC STORM PIPE
5.		DWC SN-8 / RCC STORM PIPE
6.		NODES
7.		RAIN WATER HARVESTING PIT
8.		DE-SILTING CHAMBER

HYDRAULIC DESIGN CHART FOR STORM_ZONE-2										
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	mtrs
OUTFALL-4										
45a	45	200	200	44.5	0.00	-0.70	0.00	-0.92	0.70	0.92
45b	45	200	200	15.7	0.00	-0.70	0.00	-0.78	0.70	0.78
45	46	400	600	42.8	0.00	-1.12	0.00	-1.19	1.12	1.19
46a	46	200	200	43.9	0.00	-0.70	0.00	-0.92	0.70	0.92
46	47	400	600	30.0	0.00	-1.19	0.00	-1.24	1.19	1.24
47a	47	200	200	22.3	0.00	-0.70	0.00	-0.81	0.70	0.81
47	48	400	600	47.5	0.00	-1.24	0.00	-1.32	1.24	1.32
48a	48	200	200	19.4	0.00	-0.70	0.00	-0.80	0.70	0.80
48	51	400	600	51.9	0.00	-1.32	0.00	-1.41	1.32	1.41
49a	49c	200	200	40.7	0.00	-0.70	0.00	-0.90	0.70	0.90
49b	49c	200	200	33.1	0.00	-0.70	0.00	-0.87	0.70	0.87
49c	49c	400	600	34.1	0.00	-1.10	0.00	-1.16	1.10	1.16
49d	49c	200	200	23.7	0.00	-0.70	0.00	-0.82	0.70	0.82
49e	49	400	600	12.7	0.00	-1.16	0.00	-1.18	1.16	1.18
49f	49g	200	200	30.0	0.00	-0.45	0.00	-0.60	0.45	0.60
49g	49	400	600	20.0	0.00	-0.80	0.00	-0.83	0.80	0.83
49	50	400	600	49.3	0.00	-1.18	0.00	-1.26	1.18	1.26
50a	50c	200	200	39.9	0.00	-0.70	0.00	-0.90	0.70	0.90
50b	50c	200	200	35.5	0.00	-0.70	0.00	-0.88	0.70	0.88
50c	50c	400	600	35.0	0.00	-1.10	0.00	-1.16	1.10	1.16
50d	50c	200	200	23.7	0.00	-0.70	0.00	-0.82	0.70	0.82
50e	50	400	600	12.7	0.00	-1.16	0.00	-1.18	1.16	1.18
50	51	400	600	53.0	0.00	-1.26	0.00	-1.35	1.26	1.35
51	52	400	600	35	0.00	-1.41	0.00	-1.47	1.41	1.47
52a	52	200	200	26.0	0.00	-0.70	0.00	-0.83	0.70	0.83
52	53	400	600	36.5	0.00	-1.47	0.00	-1.53	1.47	1.53
53a	53	200	200	25.6	0.00	-0.70	0.00	-0.83	0.70	0.83
53	54	400	600	36.5	0.00	-1.53	0.00	-1.59	1.53	1.59
54a	54	200	200	28.5	0.00	-0.70	0.00	-0.84	0.70	0.84
54	55	400	600	54.8	0.00	-1.59	0.00	-1.68	1.59	1.68
55a	55	200	200	43.9	0.00	-0.70	0.00	-0.92	0.70	0.92
55	56	400	600	36.5	0.00	-1.68	0.00	-1.74	1.68	1.74
56a	56	200	200	25.7	0.00	-0.70	0.00	-0.83	0.70	0.83
56	59	400	600	62.7	0.00	-1.74	0.00	-1.85	1.74	1.85
57a	57c	200	200	31.4	0.00	-0.70	0.00	-0.86	0.70	0.86
57b	57c	200	200	19.9	0.00	-0.70	0.00	-0.80	0.70	0.80
57c	57c	400	600	34.6	0.00	-1.06	0.00	-1.11	1.06	1.11
57d	57c	200	200	26.9	0.00	-0.70	0.00	-0.83	0.70	0.83
57e	57g	400	600	20.2	0.00	-1.11	0.00	-1.15	1.11	1.15
57f	57g	200	200	15.8	0.00	-0.70	0.00	-0.78	0.70	0.78
57g	57	400	600	10.7	0.00	-1.15	0.00	-1.17	1.15	1.17
57	58	400	600	59.7	0.00	-1.17	0.00	-1.27	1.17	1.27
58a	58	200	200	21.0	0.00	-0.70	0.00	-0.81	0.70	0.81
58	59	400	600	50.2	0.00	-1.27	0.00	-1.35	1.27	1.35
59a	59	200	200	45.4	0.00	-0.70	0.00	-0.93	0.70	0.93
59	60	400	600	41.5	0.00	-1.85	0.00	-1.92	1.85	1.92
60a	60b	200	200	17.2	0.00	-0.70	0.00	-0.79	0.70	0.79
60b	60c	400	600	64.3	0.00	-0.70	0.00	-0.81	0.70	0.81
60c	60	400	600	47.6	0.00	-0.81	0.00	-0.89	0.81	0.89
60	70	400	600	19.4	0.00	-1.92	0.00	-1.95	1.92	1.95
61a	61	200	200	25.3	0.00	-0.70	0.00	-0.83	0.70	0.83
61	62	400	600	38.4	0.00	-1.03	0.00	-1.09	1.03	1.09
62a	62b	200	200	46.5	0.00	-0.70	0.00	-0.93	0.70	0.93
62b	62	400	600	40.0	0.00	-0.93	0.00	-1.00	0.93	1.00
62	63	400	600	60.0	0.00	-1.09	0.00	-1.19	1.09	1.19
63	64	400	600	35.4	0.00	-1.19	0.00	-1.25	1.19	1.25
64a	64b	200	200	43.3	0.00	-0.70	0.00	-0.92	0.70	0.92
64b	64	400	600	40.4	0.00	-1.12	0.00	-1.18	1.12	1.18
64	65	400	600	67.7	0.00	-1.25	0.00	-1.36	1.25	1.36

HYDRAULIC DESIGN CHART FOR STORM_ZONE-2										
Node		Diameter	Slope (1 in N)	Length of Pipe	Levels at Start		Levels at End		Depth	
mm	To	mm	1:n	mtrs.	RL	IL	RL	IL	mtrs	mtrs
OUTFALL- 4										
5a	65b	200	200	43.0	0.00	-0.70	0.00	-0.92	0.70	0.92
5b	65	400	600	40.0	0.00	-1.12	0.00	-1.18	1.12	1.18
5d	65d	200	200	30.0	0.00	-0.70	0.00	-0.85	0.70	0.85
65	66	400	600	60.0	0.00	-1.05	0.00	-1.15	1.05	1.15
66	67	400	600	82.2	0.00	-1.36	0.00	-1.50	1.36	1.50
67	68	400	600	50.0	0.00	-1.50	0.00	-1.58	1.50	1.58
68	68	400	600	49.5	0.00	-1.58	0.00	-1.67	1.58	1.67
68	69	400	600	58.1	0.00	-1.67	0.00	-1.76	1.67	1.76
69a	69b	200	200	20.8	0.00	-0.70	0.00	-0.80	0.70	0.80
69b	69	400	600	41.0	0.00	-1.00	0.00	-1.07	1.00	1.07
69	70	400	600	21.8	0.00	-1.76	0.00	-1.80	1.76	1.80
70	71	500	800	15.9	0.00	-1.95	0.00	-1.97	1.95	1.97
71	OUTFALL-4	500	800	15.0	0.00	-1.97	0.00	-1.99	1.97	1.99

- NOTES :
- THE SIZE OF MANHOLE SHALL BE AS UNDER (INNER SIZES)
a) UPTO 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. 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 CONDITIONS.
 - THIS DRAWING SHALL BE READ ALONG WITH THE GROUND FLOOR PLAN OF RESPECTIVE BUILDING FOR EXACT LOCATION OF APPURTENANCES / MAN HOLES.
 - 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 :- DWC SN-8 PIPE UPTO 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.

HYDRAULIC DESIGN CHART FOR STORM_ZONE-2										
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	mtrs
OUTFALL - 3										
31e	31f	200	200	37.5	0.00	-0.70	0.00	-0.89	0.70	0.89
31f	31g	400	600	7.5	0.00	-0.91	0.00	-0.92	0.91	0.92
31g	31	400	600	7.6	0.00	-1.18	0.00	-1.19	1.18	1.19
31	32	400	600	64.8	0.00	-1.28	0.00	-1.39	1.28	1.39
32a	32c	200	200	32.0	0.00	-0.70	0.00	-0.86	0.70	0.86
32b	32c	200	200	24.6	0.00	-0.70	0.00	-0.82	0.70	0.82
32c	32g	400	600	42.0	0.00	-1.06	0.00	-1.13	1.06	1.13
32d	32f	200	200	23.7	0.00	-0.70	0.00	-0.82	0.70	0.82
32e	32f	200	200	37.5	0.00	-0.70	0.00	-0.89	0.70	0.89
32f	32g	400	600	7.5	0.00	-0.89	0.00	-0.90	0.89	0.90
32g	32	400	600	11.2	0.00	-1.13	0.00	-1.15	1.13	1.15
32	33	400	600	43.9	0.00	-1.39	0.00	-1.46	1.39	1.46
33a	33c	200	200	31.5	0.00	-0.70	0.00	-0.86	0.70	0.86
33b	33c	200	200	24.0	0.00	-0.70	0.00	-0.82	0.70	0.82
33c	33g	400	600	42.0	0.00	-1.06	0.00	-1.13	1.06	1.13
33d	33f	200	200	23.7	0.00	-0.70	0.00	-0.82	0.70	0.82
33e	33f	200	200	37.5	0.00	-0.70	0.00	-0.89	0.70	0.89
33f	33g	400	600	7.5	0.00	-0.89	0.00	-0.90	0.89	0.90
33g	33	400	600	9.3	0.00	-0.90	0.00	-0.92	0.90	0.92
33	34	400	600	55.7	0.00	-1.46	0.00	-1.56	1.46	1.56
34	44	700	1200	30.2	0.00	-2.03	0.00	-2.06	2.03	2.06
35a	35	200	200	27.5	0.00	-0.70	0.00	-0.84	0.70	0.84
35	36	400	600	59.5	0.00	-1.04	0.00	-1.14	1.04	1.14
36	37	400	600	89.4	0.00	-1.14	0.00	-1.29	1.14	1.29
37	38	400	600	58.5	0.00	-1.29	0.00	-1.38	1.29	1.38
38	40	400	600	74.3	0.00	-1.38	0.00	-1.51	1.38	1.51
39a	39	400	600	38.0	0.00	-0.70	0.00	-0.76	0.70	0.76
39	40	400	600	85.6	0.00	-0.96	0.00	-1.11	0.96	1.11
40	44	400	600	19.6	0.00	-1.51	0.00	-1.54	1.51	1.54
41a	41	200	200	45.2	0.00	-0.70	0.00	-0.93	0.70	0.93
41	42	400	600	62.0	0.00	-1.13	0.00	-1.23	1.13	1.23
42	43	400	600	81.1	0.00	-1.23	0.00	-1.36	1.23	1.36
43	44	400	600	99.9	0.00	-1.36	0.00	-1.53	1.36	1.53
44	OUTFALL-3	700	1200	12.0	0.00	-2.06	0.00	-2.07	2.06	2.07