



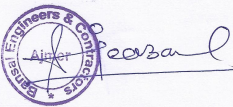
U/S Inlet	D/S Inlet	U/S Ground Level (m)	D/S Ground Level (m)	Length (m)	Diameter (mm)	Slope (1 in ...)	Cumulative Flow (lps)	U/S Invert Level (m)	D/S Invert Level (m)	Full Capacity (lps)	Velocity (m/s)	q/Q (%)	d/D (%)	U/S Depth (m)	D/S Depth (m)	Average Depth (m)
I-01	I-02	98.12	98.4	34	150	800	0.29	97.47	97.428	7.00	0.28	14.2	25.2	0.65	0.97	0.81
I-02	I-03	98.4	98.561	26	150	800	0.48	97.428	97.395	7.00	0.28	14.6	25.5	0.97	1.17	1.07
I-03	I-04	98.561	98.724	26.3	150	800	0.68	97.395	97.362	7.00	0.3	17.5	28	1.17	1.36	1.26
I-04	I-05	98.724	98.887	26.3	150	800	0.88	97.362	97.329	7.00	0.31	20.5	30.4	1.36	1.56	1.46
I-05	I-06	98.887	99.046	25.6	150	800	1.07	97.329	97.297	7.00	0.32	23.1	32.3	1.56	1.75	1.65
I-06	I-07	99.046	99.207	26	150	800	1.26	97.297	97.265	7.00	0.33	26	34.3	1.75	1.94	1.85
I-07	I-08	99.207	99.371	26.5	150	800	1.46	97.265	97.232	7.00	0.34	29.1	36.5	1.94	2.14	2.04
I-08	I-09	99.371	99.53	25.8	150	800	1.65	97.232	97.199	7.00	0.35	31.6	38.1	2.14	2.33	2.24
I-09	I-10	99.53	99.69	25.8	150	800	1.84	97.199	97.167	7.00	0.36	34.3	39.9	2.33	2.52	2.43
I-10	I-11	99.69	98.942	24.9	150	800	2.03	97.167	97.136	7.00	0.36	37	41.6	2.52	1.81	2.16
I-11	I-12	98.942	98.268	22.4	150	800	2.2	97.136	97.108	7.00	0.37	38.7	42.6	1.81	1.16	1.48
I-12	I-21	98.268	97.7	18.9	150	327	2.34	97.108	97.05	10.96	0.52	25.4	33.9	1.16	0.65	0.91
I-13	I-14	96.96	97.051	28.2	150	800	0.21	96.31	96.275	7.00	0.26	11.3	22.4	0.65	0.78	0.71
I-14	I-15	97.051	97.145	29.3	150	800	0.43	96.275	96.238	7.00	0.28	14.8	25.7	0.78	0.91	0.84
I-15	I-16	97.145	97.237	28.4	150	800	0.64	96.238	96.203	7.00	0.3	17.7	28.1	0.91	1.03	0.97
I-16	I-17	97.237	97.329	28.9	150	800	0.86	96.203	96.167	7.00	0.31	20.9	30.7	1.03	1.16	1.10
I-17	I-18	97.329	97.42	28.2	150	800	1.07	96.167	96.131	7.00	0.32	23.8	32.8	1.16	1.29	1.23
I-18	I-19	97.42	97.516	29.8	150	800	1.29	96.131	96.094	7.00	0.34	27.5	35.4	1.29	1.42	1.36
I-19	I-20	97.516	97.609	28.9	150	800	1.51	96.094	96.058	7.00	0.35	30.4	37.4	1.42	1.55	1.49
I-20	I-21	97.609	97.7	28.2	150	800	1.72	96.058	96.023	7.00	0.35	33.3	39.2	1.55	1.68	1.61
I-21	I-22	97.7	97.25	21.4	150	800	4.22	96.023	95.996	7.00	0.42	68	59.6	1.68	1.25	1.47
I-22	I-26	97.25	96.8	21.4	150	800	4.38	95.996	95.969	7.00	0.43	70.3	60.9	1.25	0.83	1.04
I-23	I-24	96	96.251	27.1	150	800	0.2	95.35	95.316	7.00	0.26	10.8	22	0.65	0.94	0.79
I-24	I-25	96.251	96.53	30.2	150	800	0.43	95.316	95.278	7.00	0.28	15.1	25.9	0.94	1.25	1.09
I-25	I-26	96.53	96.8	29.2	150	800	0.65	95.278	95.242	7.00	0.3	18	28.4	1.25	1.56	1.40
I-26	I-27	96.8	96.013	28.5	150	326	5.24	95.242	95.155	10.96	0.63	54.2	51.8	1.56	0.86	1.21
I-27	I-28	96.013	95.258	27.3	150	50	5.44	95.155	94.608	28.00	1.26	21.9	31.4	0.86	0.65	0.75
I-28	I-32	95.258	94.7	20.2	150	50	5.59	94.608	94.405	28.00	1.26	21.9	31.5	0.86	0.65	0.73
I-29	I-30	94.7	94.732	25.6	150	800	0.19	94.1	94.068	7.00	0.25	10.2	21.4	0.65	0.66	0.66
I-30	I-31	94.732	94.716	24.2	150	800	0.37	94.068	94.038	7.00	0.27	12.4	23.6	0.66	0.68	0.67
I-31	I-32	94.716	94.7	23.2	150	272	0.54	94.038	93.952	12.01	0.41	8.5	19.5	0.68	0.75	0.71
I-32	I-33	94.7	94.17	21.6	150	50	6.29	93.952	93.52	28.00	1.3	24.6	33.3	0.75	0.65	0.70
I-33	I-34	94.17	93.644	21.4	150	50	6.45	93.423	92.994	28.00	1.31	25.1	33.7	0.75	0.65	0.70
I-34	I-37	93.644	93.13	21	150	50	6.61	92.899	92.48	28.00	1.32	25.7	34.1	0.75	0.65	0.70
I-35	I-36	93.22	93.175	29.5	150	651	0.22	92.57	92.525	7.76	0.28	10.7	21.8	0.65	0.65	0.65
I-36	I-37	93.175	93.13	29.1	150	584	0.44	92.525	92.475	8.20	0.32	12.7	23.8	0.65	0.66	0.65
I-37	I-38	93.13	92.712	20.6	150	50	7.2	92.475	92.062	28.00	1.35	27.8	35.7	0.66	0.65	0.65
I-38	I-39	92.712	92.269	21.9	150	50	7.36	92.057	91.619	28.00	1.36	28.5	36	0.66	0.65	0.65
I-39	I-42	92.269	91.83	21.7	150	50	7.52	91.614	91.18	28.00	1.37	29	36.4	0.66	0.65	0.65
I-40	I-41	91.9	91.864	23.8	150	670	0.18	91.25	91.214	7.65	0.26	8.7	19.7	0.65	0.65	0.65
I-41	I-42	91.864	91.83	23.1	150	670	0.35	91.214	91.18	7.65	0.28	10.8	22	0.65	0.65	0.65
I-42	I-43	91.83	91.538	30.1	150	138	8.33	90.888	90.67	16.88	0.97	54.1	51.7	0.65	0.65	0.65
I-43	I-44	91.538	91.32	30.1	150	138	8.56	90.67	90.4	18.62	1.06	50.4	49.5	0.65	0.65	0.65
I-44	I-45	91.32	91.05	30.5	150	113	8.56	90.4	90.35	14.37	0.85	62.8	56.6	0.65	0.65	0.65
I-45	OUTLET	91.05	91	9.5	150	190	8.63	90.4	90.35	14.37	0.85	62.8	56.6	0.65	0.65	0.65



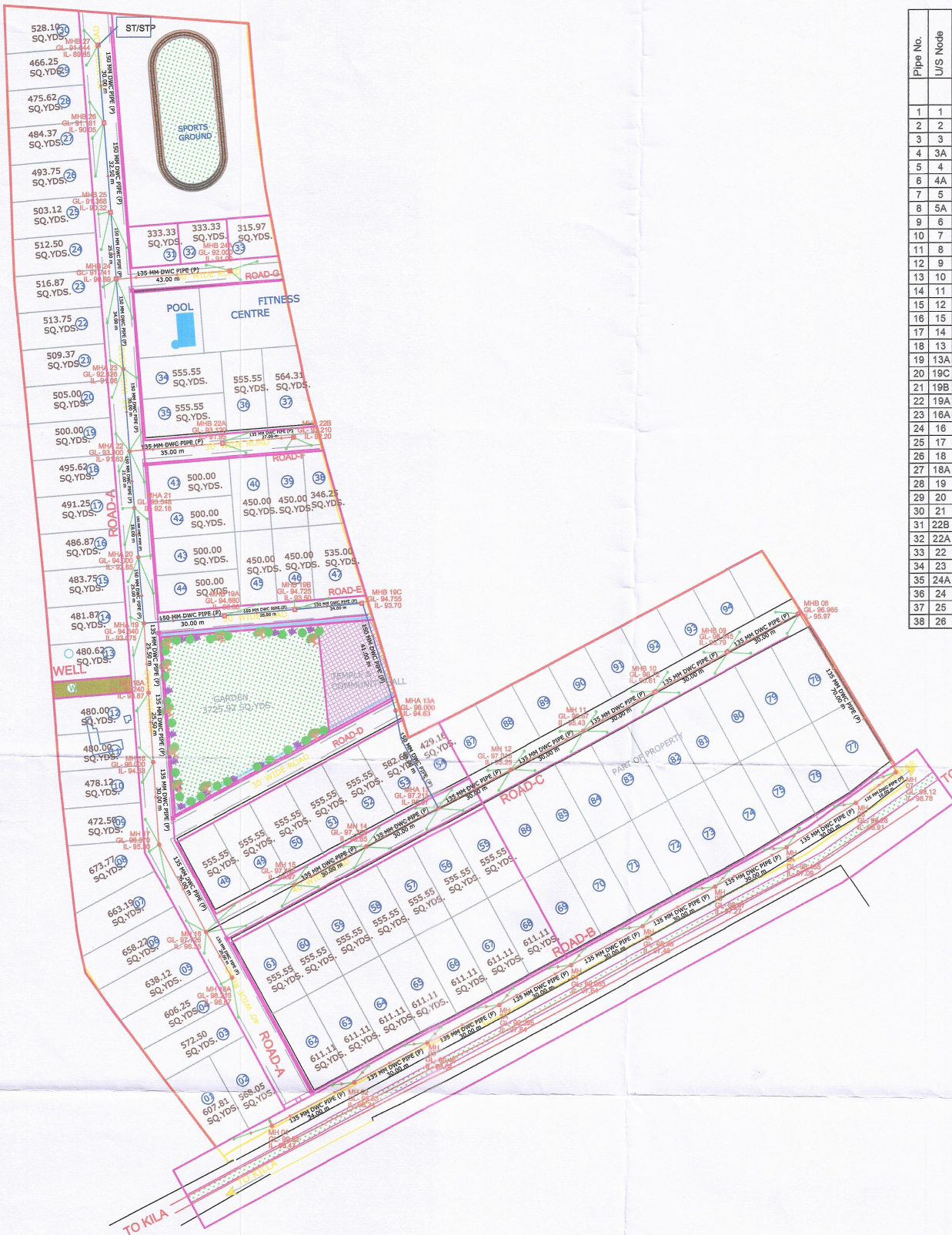
- NOTES:
- HDPE DWC SN8, Confirming to IS 16098:2013 Part 2 or latest shall be used.
 - Gravity Pipe line shall be tested as per standard procedure laid in IS Code.
 - Bedding shall be done with Cement Concrete M10 or well compacted GSB, having min. thickness 100/150mm & upto 1/4 of OD of pipe as in drawing.
 - Filling in trench shall be done in layers not exceeding 20cm, well Compacted to achieve min. density 1.75 kg/cum.
 - All dimensions are in mm, diameter in mm & slope in 1:S, unless Otherwise specified.
 - water tank of suitable capacity shall be constructed to store rain water. and may be used in horticulture and gardening.
 - GL shown in drawing is proposed Road level, Hence depth may vary as per actual ground level.

LEGEND

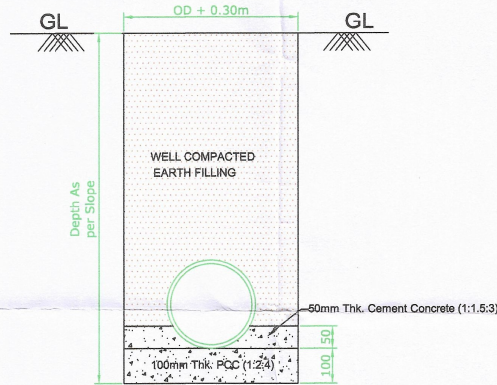
	150 MM DIA DRAINAGE PIPE (1150mm)
	DR-01
	150 / 34.0 / 783 DIA (MM) LENGTH (M) /SLOPE
	I-01
	GL: 98.120m
	IL:96.920m
	d:1.20m



PROJECT :	DEVELOPMENT OF FARM HOUSE PROJECT "ANUTHAM 94" AT KILA ROAD, BADI GHATI, PUSHKAR		
DEVELOPER :	KEWALRAMANI ESTATES PVT. LTD, AJMER, RAJASTHAN		
TITLE :	INTERNAL STORM WATER DRAINAGE NETWORK		
CONSULTANT :	BANSAL ENGINEERS & CONTRACTORS 7, ADARSH NAGAR, NASIRABAD ROAD, AJMER No. : 9828076534, (E-MAIL :- bansal323@gmail.com)		
JOB No.:	NAME	SIGN	DATE
DSGN			
DRWN			
CHKD			
DRAWING No.	STORM WATER DRAINAGE NETWORK OF ANUTHAM 94		
RELEASED FOR	☐ PRELIMINARY	☐ TENDER	☐ INFORMATION ☒ APPROVAL ☐ CONSTRUCTION
SCALE NOT TO SCALE			PROJECTION
SHEET NO. 1 OF 1			



Pipe No.	U/S Node	D/S Node	U/S Ground Level (m)	D/S Ground Level (m)	Length (m)	Diameter (mm)	Slope (1 in ...)	Total Flow (lps)	U/S Invert Level (m)	D/S Invert Level (m)	Full Capacity (lps)	Q/Q Full	Velocity (m/s)	V Full	V Actual	d/D	U/S Depth (m)	D/S Depth (m)	Average Depth (m)
1	1	2	99.82	99.63	34	135	170	0.058	98.47	98.27	11.47	0.005	0.801	#N/A	#N/A	1.35	1.36	1.36	
2	2	3	99.63	99.46	30	135	175	0.117	98.24	98.07	11.3	0.01	0.789	0.292	0.09	1.39	1.39	1.39	
3	3	3A	99.46	99.3	30	135	175	0.175	98.04	97.87	11.3	0.015	0.789	0.292	0.09	1.42	1.425	1.42	
4	3A	4	99.3	99.09	30	135	175	0.233	97.84	97.67	11.3	0.021	0.789	0.292	0.09	1.455	1.415	1.44	
5	4	4A	99.09	98.88	30	135	200	0.292	97.64	97.49	10.57	0.028	0.738	0.296	0.1	1.445	1.39	1.42	
6	4A	5	98.88	98.67	30	135	190	0.35	97.46	97.3	10.85	0.032	0.758	0.327	0.114	1.42	1.37	1.4	
7	5	5A	98.67	98.47	30	135	200	0.408	97.27	97.12	10.57	0.039	0.738	0.319	0.114	1.4	1.345	1.37	
8	5A	6	98.47	98.26	30	135	200	0.467	97.09	96.94	10.57	0.044	0.738	0.342	0.128	1.375	1.32	1.35	
9	6	7	98.26	98.12	18	135	180	0.496	96.91	96.81	11.15	0.044	0.778	0.36	0.128	1.35	1.31	1.33	
10	7	8	98.12	98.97	70	135	90	0.525	96.78	96	15.76	0.033	1.101	0.475	0.114	1.34	0.965	1.16	
11	8	9	96.97	96.85	30	135	200	0.583	95.97	95.82	10.57	0.055	0.738	0.365	0.142	0.995	1.025	1.01	
12	9	10	96.85	96.72	30	135	200	0.7	95.79	95.64	10.57	0.066	0.738	0.388	0.156	1.055	1.08	1.07	
13	10	11	96.72	96.87	30	135	200	0.817	95.61	95.46	10.57	0.077	0.738	0.411	0.17	1.11	1.41	1.26	
14	11	12	96.87	97.02	30	135	200	0.933	95.43	95.28	10.57	0.088	0.738	0.435	0.2	1.44	1.735	1.59	
15	12	13	97.02	97.22	30	135	200	1.05	95.25	95.1	10.57	0.099	0.738	0.458	0.209	1.765	2.115	1.94	
16	13	14	97.22	97.36	30	135	175	0.117	95.87	95.7	11.3	0.01	0.789	0.292	0.09	1.345	1.655	1.5	
17	14	13	97.36	97.22	30	150	55	0.233	95.65	95.1	26.71	0.009	1.511	#N/A	#N/A	1.705	2.115	1.91	
18	13	13A	97.22	96	40	150	105	1.4	95.07	94.68	19.33	0.072	1.093	0.609	0.17	2.145	1.32	1.73	
19	13A	19C	96	94.76	41	150	50	1.458	94.83	93.75	28.01	0.052	1.584	0.783	0.142	1.37	1.005	1.19	
20	19C	19B	94.76	94.73	24	135	160	1.517	93.7	93.55	11.82	0.128	0.826	0.548	0.236	1.055	1.175	1.11	
21	19B	19A	94.73	94.68	26	150	175	1.575	93.5	93.35	14.97	0.105	0.847	0.537	0.218	1.225	1.33	1.28	
22	19A	19	94.68	94.64	30	150	170	1.604	93.3	93.13	15.19	0.106	0.859	0.545	0.218	1.38	1.515	1.45	
23	16A	16	98.22	97.73	20	150	45	0.058	96.87	96.4	29.52	0.002	1.67	#N/A	#N/A	1.345	1.325	1.33	
24	16	17	97.73	96.67	36	135	35	0.175	96.35	95.35	25.28	0.007	1.765	#N/A	#N/A	1.375	1.32	1.35	
25	17	18	96.67	96	30	135	50	0.263	95.3	94.88	21.15	0.012	1.477	0.546	0.09	1.37	1.32	1.35	
26	18	18A	96	95.24	25.5	150	35	0.321	94.63	93.92	33.48	0.01	1.894	#N/A	#N/A	1.37	1.32	1.35	
27	18A	19	95.24	94.64	25.5	150	35	0.35	93.87	93.13	33.48	0.01	1.894	0.701	0.09	1.37	1.515	1.44	
28	19	20	94.64	94	25	150	70	2.013	93.08	92.7	23.67	0.085	1.339	0.788	0.185	1.565	1.3	1.43	
29	20	21	94	93.55	18	150	45	2.1	92.65	92.23	29.52	0.071	1.67	0.93	0.17	1.35	1.318	1.33	
30	21	22	93.55	93	21	135	40	2.188	92.18	91.68	23.64	0.093	1.651	1.023	0.209	1.368	1.32	1.34	
31	22B	22A	93.21	93.12	27	150	135	0.088	92.2	92	17.05	0.005	0.964	#N/A	#N/A	1.01	1.12	1.07	
32	22A	22	93.12	93	35	150	130	0.146	91.95	91.68	17.37	0.008	0.983	#N/A	#N/A	1.17	1.32	1.25	
33	22	23	93	92.43	30	150	60	2.538	91.63	91.11	25.57	0.099	1.446	0.896	0.209	1.37	1.316	1.34	
34	23	24	92.43	91.74	34	150	105	2.625	91.06	90.74	19.33	0.136	1.093	0.742	0.245	1.366	1.001	1.16	
35	24A	24	92	91.74	43	150	165	0.088	91	90.74	15.42	0.008	0.872	#N/A	#N/A	1	1.001	1	
36	24	25	91.74	91.37	25	150	80	2.8	90.69	90.37	22.14	0.126	1.253	0.831	0.236	1.051	0.998	1.02	
37	25	26	91.37	91.18	32.5	150	150	2.888	90.32	90.1	16.17	0.179	0.915	0.674	0.281	1.048	1.081	1.06	
38	26	27	91.18	91.04	30	150	150	2.946	90.05	89.85	16.17	0.182	0.915	0.687	0.29	1.131	1.194	1.16	



TYPICAL SECTION OF TRENCH FOR SEWER PIPE

- NOTES:
1. HDPE DWC, Confirming to IS 16098:2013 or latest shall be used.
 2. Gravity Pipe line shall be tested as per standard procedure laid in IS Code.
 3. Bedding shall be done with Cement Concrete M10 or well compacted GSB, having min. thickness 100/150mm & upto 1/4 of OD of pipe as in drawing.
 4. Filing in trench shall be done in layers not exceeding 20cm, well Compacted to achieve min. density 1.75 kg/cum.
 5. somewhere self cleansing velocity could not be achieved, hence pressure cleansing required once in 24 hours.
 6. Septic tank / prefab STP shall be used to treating.

LEGEND

DESCRIPTION	SYMBOL	QTY.
Prop. Land Boundary	---	
Sewer Main (150mm DWC)	---	377 Mtr.
Sewer Main (135mm DWC)	---	785 Mtr.
Sewer Laterals	---	917 Mtr.
Township Prop. Road	---	1275 Mtr.
Existing Road	---	
Plots	---	
Main Hole	---	
Inspection Chambers	---	
Drainage Line (150mm DWC)	---	1200 Mtr.
Unmetalled Road	---	
Ex. Boundary	---	



PROJECT :	DEVELOPMENT OF FARM HOUSE PROJECT "ANUTHAM 94" AT KILA ROAD, BADI GHATI, PUSHKAR				
DEVELOPER :	KEWALRAMANI ESTATES PVT. LTD, AJMER, RAJASTHAN				
TITLE :	INTERNAL SEWERAGE NETWORK				
CONSULTANT :	BANSAL ENGINEERS & CONTRACTORS 7, ADARSH NAGAR, NASIRABAD ROAD, AJMER Mo. : 9928076534, (E-MAIL : sbansal32@gmail.com)				
JOB No.:	NAME	SIGN	DATE	INTERNAL SEWERAGE NETWORK OF ANUTHAM 94	SCALE NOT TO SCALE PROJECTION SHEET NO. 1 OF 1
DSGN					
DRWN					
CHKD					
DRAWING No.					