

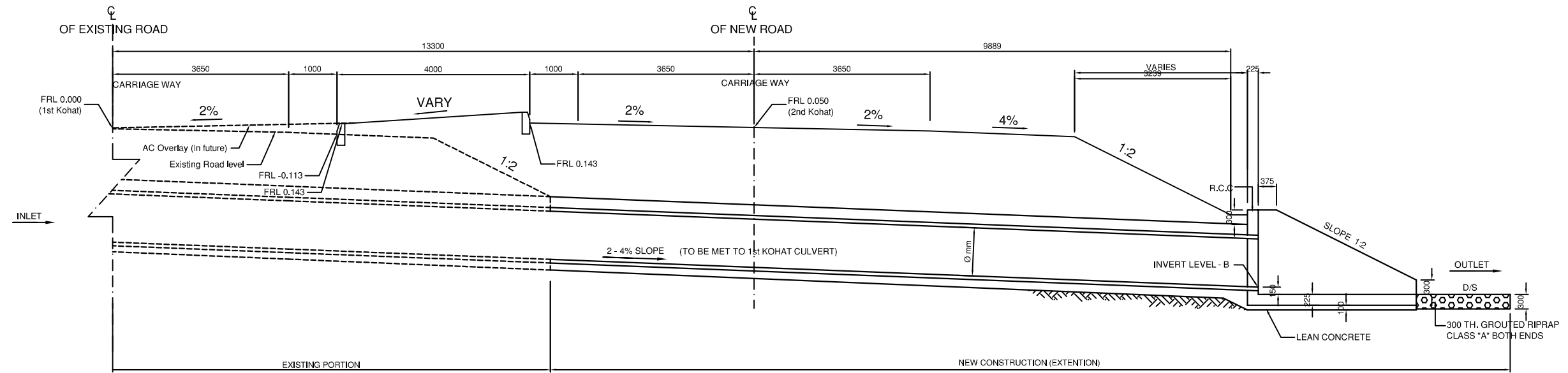


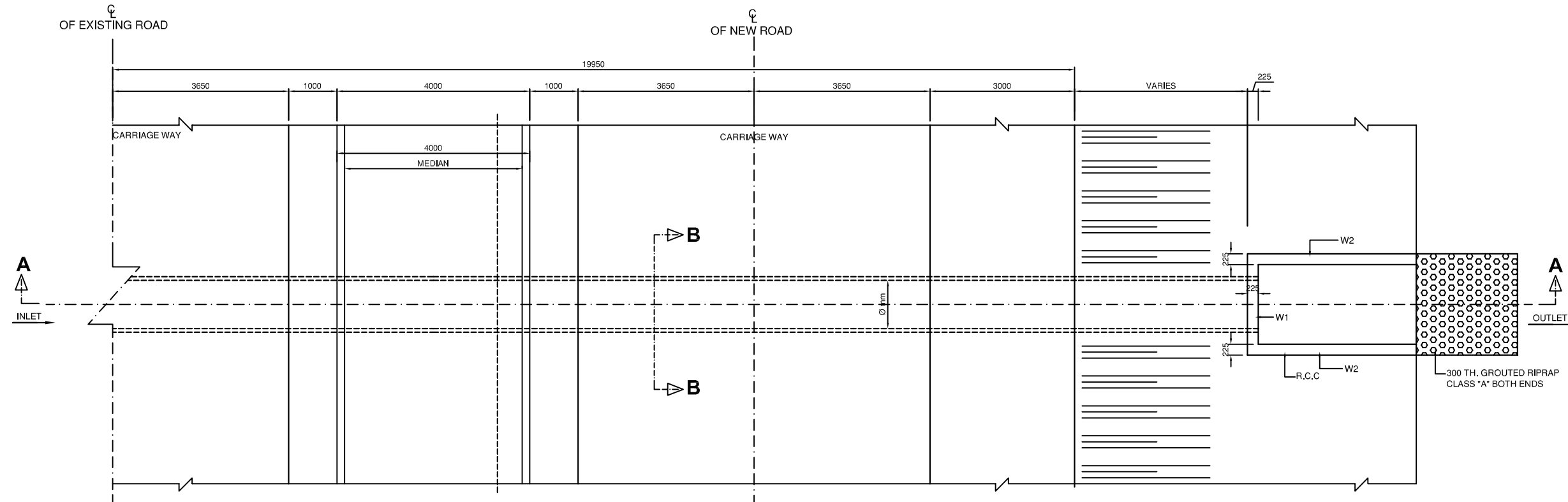
No	Culvert No	Location (Sta.)	Size	Length (m)
1	1 L	0+423.65	ø 0.91m	44.3
2	2 L	0+532.74	1-1.0x1.0	24.6
3	3 L	0+662.20	ø 0.91m	48.0
4	4 L	0+819.44	1-1.0x1.0	18.7
5	5 L	1+270.22	ø 0.91m	16.5
6	7A L	1+430.33	ø 0.91m	17.1
7	8 L	1+428.79	ø 1.07m	17.8
8	9 L	1+445.19	1-1.0x1.0	19.4
9	9A L	1+450.73	ø 0.91m	18.0
10	9B L	1+512.86	ø 0.91m	17.6
11	10 L	1+575.29	ø 0.91m	17.0
12	11 L	1+578.68	ø 0.91m	15.6
13	12 L	1+606.50	ø 0.91m	16.1
14	13 L	1+819.97	2-1.5x1.5	17.2
15	13A L	1+827.02	ø 0.91m	17.0
16	13B L	1+856.00	ø 0.91m	21.2
17	14 L	2+039.89	1-1.0x1.0	21.4
18	15 L	2+129.58	1-1.0x1.0	20.0
19	16 L	2+218.25	ø 0.91m	18.0
20	17 L	2+284.16	ø 0.91m	16.3
21	18 L	2+302.79	ø 0.91m	16.5
22	20 L	2+940.89	ø 1.07m	17.3
23	21 L	3+033.00	ø 1.07m	17.0
24	21A L	3+035.50	ø 0.91m	17.2
25	22 L	3+120.26	ø 1.07m	18.4
26	23 L	3+170.00	ø 0.91m	18.8
27	24 L	3+238.30	ø 1.07m	18.9
28	26 L	3+390.31	ø 1.07m	19.1
29	27 L	3+627.00	1-2.0x1.5	16.2
30	28 L	3+635.00	ø 0.91m	18.3
31	29 L	3+895.15	1-1.0x1.0	17.5
32	29B L	4+034.48	ø 0.91m	25.3
33	30 L	4+046.45	ø 0.91m	24.7
34	30A L	4+178.95	ø 0.91m	40.4
35	31 L	4+207.85	1-1.0x1.0	18.5
36	32 L	4+360.93	ø 0.91m	25.4
37	33 L	4+450.00	1-1.0x1.0	31.0
38	34 L	4+511.00	1-4.5x4.8	21.9
39	35 L	4+523.08	2-2.5x2.5	42.3
40	36 L	5+041.25	1-1.0x1.0	17.1
41	37A L	5+295.00	1-1.0x1.0	28.8
42	37B L	7+832.00	ø 0.91m	17.1
43	38 L	8+286.00	1-2.0x2.0	16.1
44	39 L	8+615.00	1-1.0x1.0	21.0
45	40 L	8+866.00	1-1.0x1.0	24.2
46	41 L	9+052.00	1-1.0x1.0	31.5
47	41A L	9+825.00	1-1.0x1.0	52.3
48	41B L	10+017.50	1-1.0x1.0	47.5
49	41A1 L	0+299.90 (Ramp-B)	1-1.0x1.0	21.3
50	41B1 L	0+265.80 (Ramp-A)	1-1.0x1.0	26.9
51	41B2 L	0+428.50 (Ramp-B)	1-1.0x1.0	24.0
52	Syphon	0+042.00 (Ramp-A)	1-1.0x1.0	28.0
53	42 L	10+258.00	1-1.5x1.5	43.3
54	43 L	10+262.70	1-4.5x4.8	32.4
55	44 L	10+269.00	1-1.5x1.5	61.3
56	45 L	10+946.50	ø 0.91m	68.9
57	47 L	10+954.15	1-1.5x1.5	63.7
58	48 L	10+962.30	1-4.5x4.8	26.6
59	50 L	11+021.00	1-2.5x2.5	28.9
60	50A L	11+038.00	ø 0.91m	38.2
61	51 L	11+109.00	1-1.0x1.0	39.8
62	52 L	11+269.00	1-4.5x4.8	15.4
63	Syphon	11+276.00	1-1.5x1.5	47.7
64	53 L	11+312.45	2-1.5x1.5	69.6
65	53A L	11+338.00	1-1.0x1.0	67.4
66	54 L	11+674.00	2-1.5x1.5	19.5
67	55 L	12+040.00	1-1.0x1.0	18.8
68	56 L	12+171.00	1-1.5x1.5	22.2
69	57 L	12+340.00	1-1.0x1.0	21.4
70	58 L	13+368.40	1-1.0x1.0	19.5
71	59 L	13+375.50	ø 1.07m	35.5
72	60 L	13+672.00	1-2.0x2.0	15.5
73	61 L	14+361.00	1-2.0x2.0	26.0
74	62 L	14+734.00	1-2.0x2.0	35.1
75	63 L	14+909.00	1-1.0x1.0	38.5
76	64 L	15+050.00	1-1.0x1.0	27.3
77	65 L	15+244.00	1-2.0x2.0	19.8
78	66 L	15+498.00	2-3.0x3.0	60.1
79	66A L	15+789.00	1-1.5x1.5	56.8
80	66B L	15+875.00	1-5.0x5.0	17.5
81	67 L	16+562.50	1-2.0x2.0	115.7
82	68 L	18+640.60	1-2.0x2.0	133.1
83	69 L	19+642.00	1-2.0x2.0	53.1
84	69A L	19+834.00	1-2.0x2.0	19.0
85	69B L	19+975.00	3-2.5x2.5	71.8
86	72 L	20+002.46	1-4.0x4.0	18.1
Total Length for South:				2,636.1
Total No.:				86

Culvert No	Pipe Culverts		Single Cell												Box Culverts					2 Cells				3 Cells			Others		Total for Section	
	ø 0.91m	ø 1.07m	1-1.0x1.0	1-1.5x1.0	1-1.5x1.5	1-1.5x2.0	1-2.0x1.5	1-2.0x2.0	1-2.0x2.5	1-2.5x2.5	1-2.75x2.75	1-3.0x3.0	1-3.5x3.5	1-3.5x4.0	1-4.0x4.0	1-4.5x4.8	1-5.0x5.0	2-1.5x1.5	2-2.5x2.5	2-3.0x3.0	3-2.5x2.5	3-3.0x3.0	3-3.5x3.5	4-3.0x3.0	2-6.15x5.5					
																										2 Cells	3 Cells	Others		
1 R	South Section																													
2 R																														
3 R	32.2																													
4 R	11.4																													
7 R	11.0																													
7A R	11.4																													
8 R	11.9																													
9 R	12.0																													
9B R	11.8																													
10 R	11.4																													
11 R	10.5																													
12 R	10.6																													
13 R	11.4																							10.5						
13A R	14.2																													
14 R	13.1																													
15 R	12.2																													
16 R	12.0																													
17 R	10.9																													
18 R	11.0																													
20 R	11.0																													
21 R	11.4																													
21A R	11.5																													
22 R	12.3																													
23 R	12.6																													
24 R	12.4																													
26 R	12.8																													
27 R	12.2																							9.9						
28 R	12.2																													
29 R	17.0																							10.7						
29B R	17.0																													
30 R	27.0																													
30A R	17.0																													
31 R	11.3																													
32 R	17.0																													
33 R	19.3																													
34 R	21.9																													
35 R	10.6																													
36 R	17.1																													
37A R	11.5																							17.6						
37B R	11.5																													
38 R	9.8																													
39 R	12.8																													
40 R	14.8																													
41 R	19.2																													
41A R	31.9																													
41B R	29.0																													
46 R	46.2																													
47 R	63.7																													
48 R	26.6																							38.9						
50 R	28.9																													
50A R	38.2																							17.6						
51 R	39.8																							24.3						
52 R	15.4																													
53 R	47.7																													
53A R	67.4																							41.1						
54 R	19.5																													
55 R	18.8																													
56 R	22.2																							13.5						
57 R	21.4																													
58 R	19.5																													
59 R	35.5																							23.8						
60 R	15.5																													
61 R	26.0																													
62 R	35.1																													
63 R	38.5																							23.5						
64 R	27.3																							16.7						
65 R	19.8																													
66 R	60.1																							12.1						
66A R	56.8																													
66B R	17.5																							11.9						
67 R	115.7																													
68 R	133.1																													
69 R	53.1																													
69A R	19.0																													
69B R	71.8																													
72 R	18.1																													
Total Length for South:			397.5	96.2	353.2	17.6	87.0	-	9.9	264.5	-	17.6	-	-	-	-	-	11.9	11.1	39.0	-	62.4	25.8	36.7	17.5	-	-	-	34.9	1,462.8
Total No.:			24	7	20	1	3	-	1	9	-	1	-	-	-	-	-	1	1	3	-	3	1	1	-	-	-	1	78	

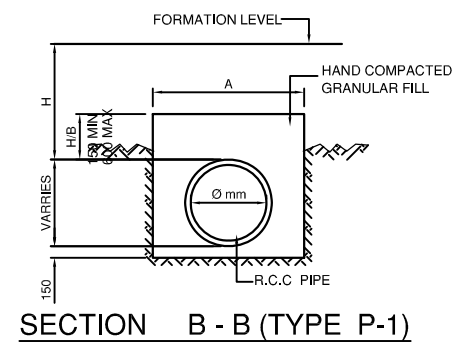
PROJECT NAME		CLIENTS		CONSULTANTS		DRAWING TITLE		SCALE	DWG NO
FEASIBILITY STUDY ON THE 2ND KOHAT TUNNEL AND ACCESS ROADS PROJECT		 GOVERNMENT OF PAKISTAN MINISTRY OF COMMUNICATIONS NATIONAL HIGHWAY AUTHORITY		 JAPAN INTERNATIONAL COOPERATION AGENCY		NIPPON KOEI CO., LTD AND ALMEC CORPORATION		NTS	CUL-1



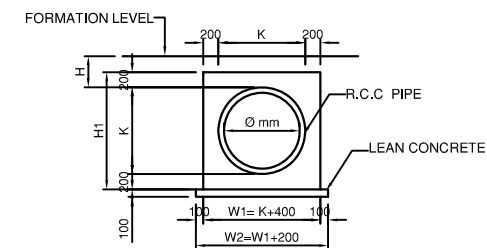
SECTION A - A



TYPICAL PLAN OF CULVERT



SECTION B - B (TYPE P-1)



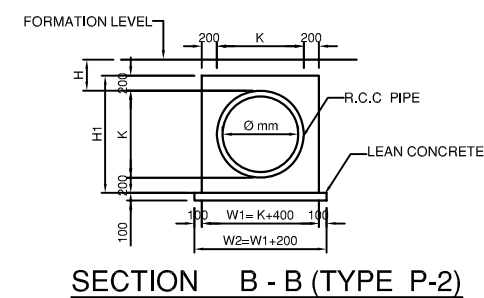
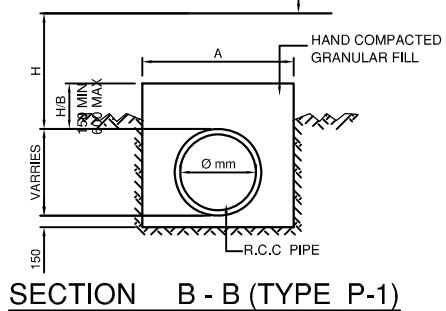
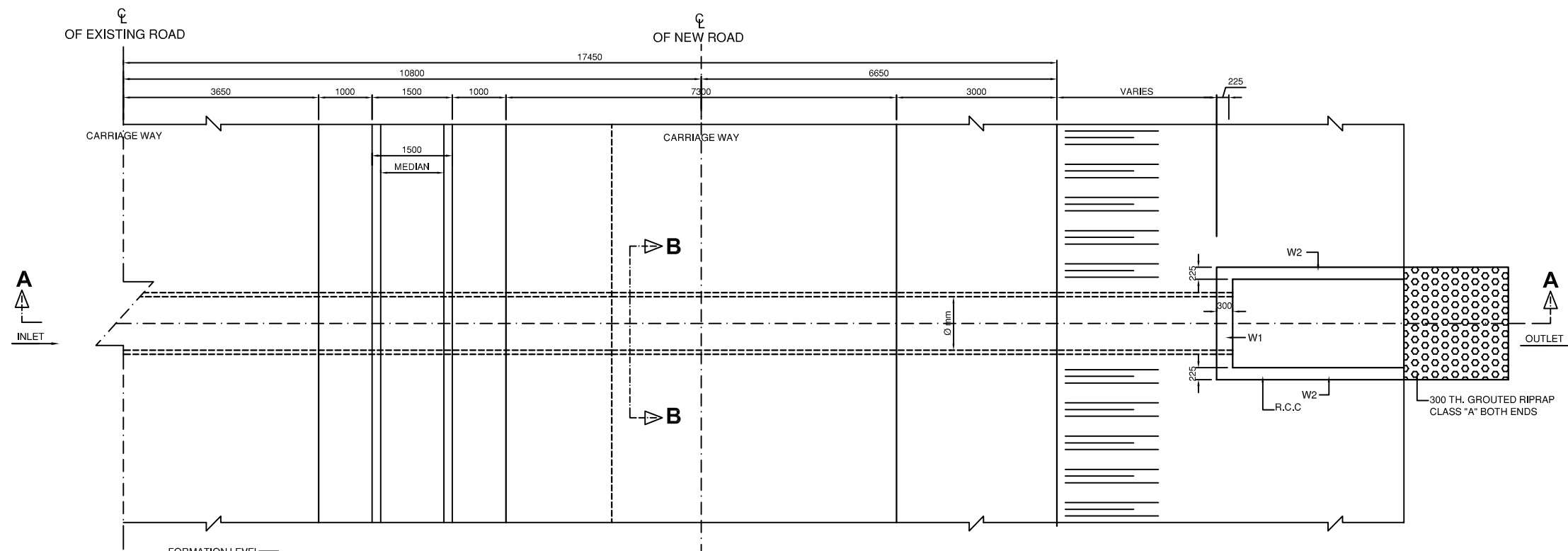
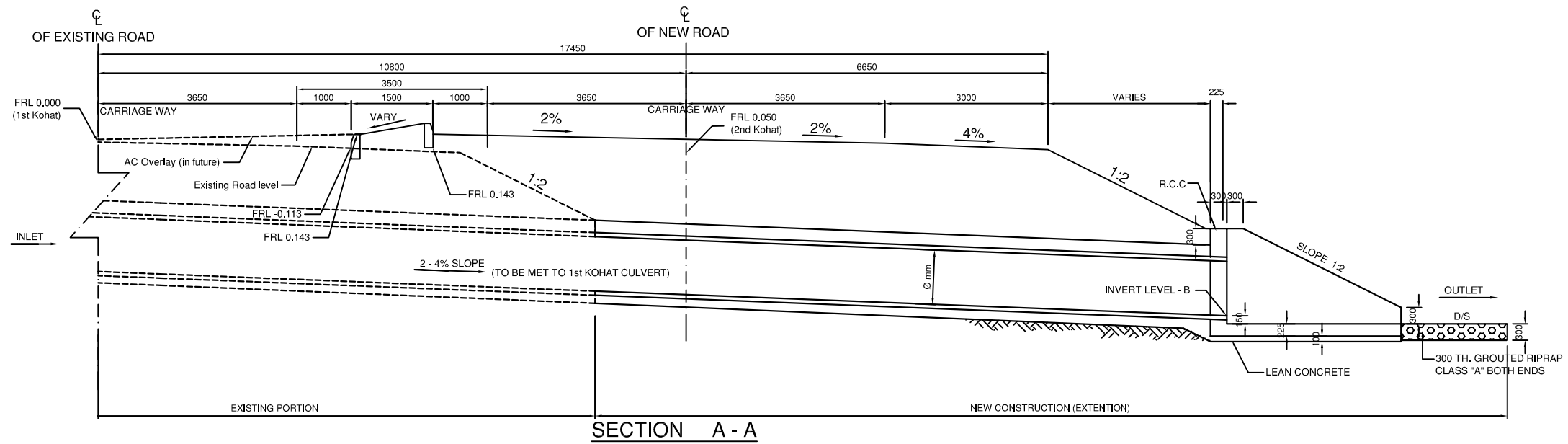
SECTION B - B (TYPE P-2)

SCHEDULE OF TYPE P-1

DIA OF PIPE Ø (m)	DIMENSION "A" (mm)
0.81	18300
1.07	2000

NOTE:- SUPER ELEVATION OF CARRIAGE WAY IS VARIABLE

PROJECT NAME	CLIENTS	CONSULTANTS	DRAWING TITLE	SCALE	DWG NO	
FEASIBILITY STUDY ON THE 2ND KOHAT TUNNEL AND ACCESS ROADS PROJECT	 GOVERNMENT OF PAKISTAN MINISTRY OF COMMUNICATIONS NATIONAL HIGHWAY AUTHORITY	 JAPAN INTERNATIONAL COOPERATION AGENCY	NIPPON KOEI CO., LTD AND ALMEC CORPORATION	DIMENSIONAL DETAILS OF PIPE CULVERT (SOUTH SECTION)	1:100	CUL-2



SCHEDULE OF TYPE P-1

DIA OF PIPE Ø (m)	DIMENSION "A" (mm)
0.81	18300
1.07	2000

NOTE:- SUPER ELEVATION OF CARRIAGE WAY IS VARIABLE

PROJECT NAME	CLIENTS	CONSULTANTS	DRAWING TITLE	SCALE	DWG NO
FEASIBILITY STUDY ON THE 2ND KOHAT TUNNEL AND ACCESS ROADS PROJECT	 GOVERNMENT OF PAKISTAN MINISTRY OF COMMUNICATIONS NATIONAL HIGHWAY AUTHORITY	 JAPAN INTERNATIONAL COOPERATION AGENCY	NIPPON KOEI CO., LTD AND ALMEC CORPORATION	DIMENSIONAL DETAILS OF PIPE CULVERT (NORTH SECTION)	1:100 CUL-3