

MAMMINASA BYPASS

1. GENERAL

DRAWINGS INDEX-2

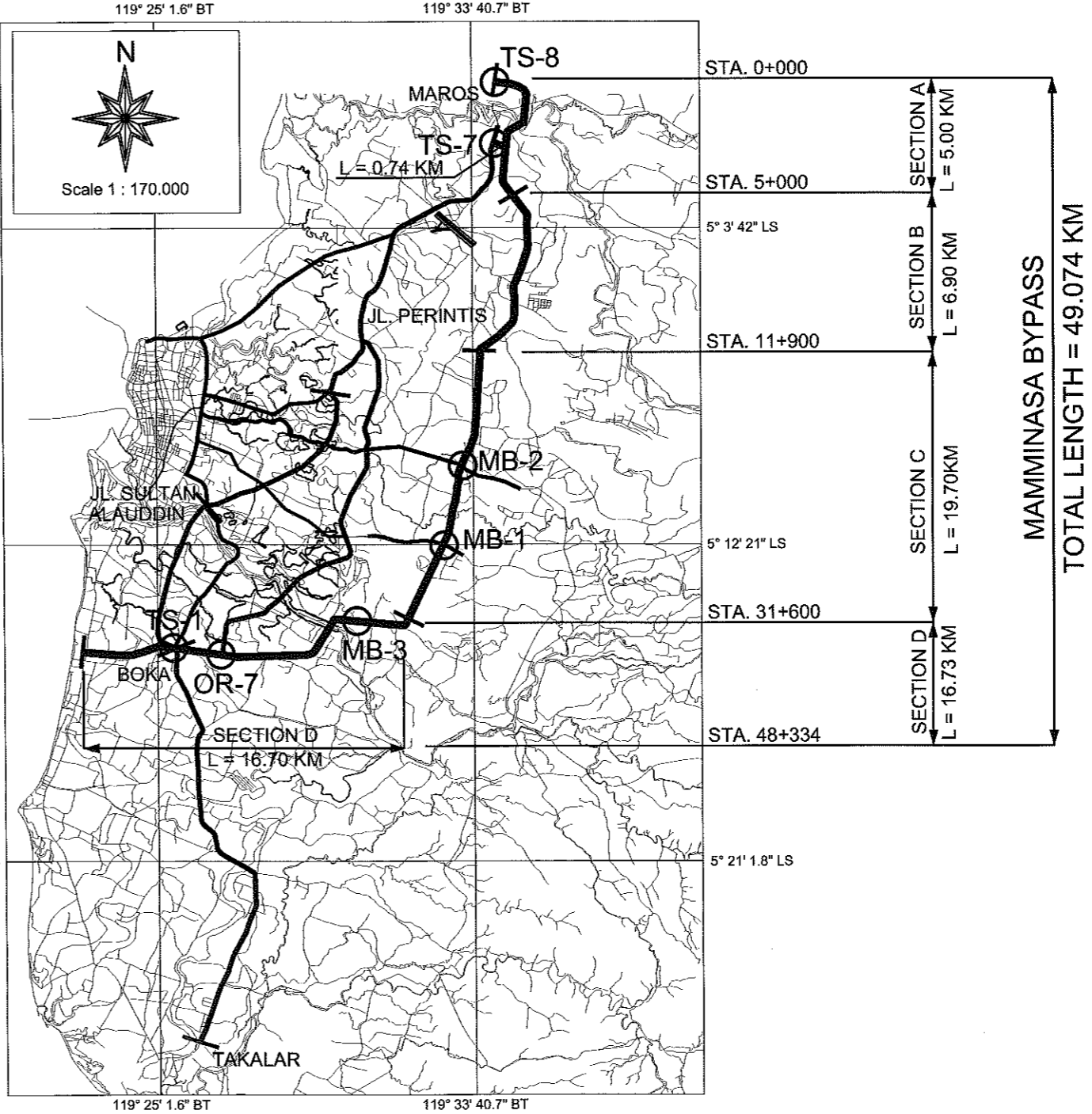
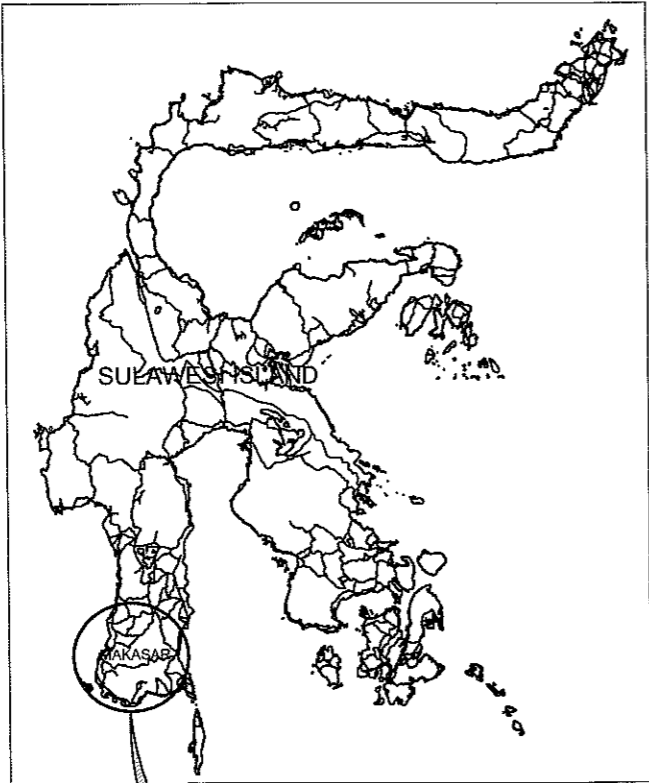
(MAMMINASA BYPASS)

NO	DRAWING TITLE	DRAWING NO	REMARKS
1	GENERAL		
1.1	DRAWING INDEX	GE - 01	
1.2	LOCATION MAP	GE - 02	
2	TYPICAL CROSS SECTIONS		
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3	ROADWAY - PLAN AND PROFILE		
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3.2	PLAN AND PROFILE (2/30)	PP - 02	
3.3	PLAN AND PROFILE (3/30)	PP - 03	
3.4	PLAN AND PROFILE (4/30)	PP - 04	
3.5	PLAN AND PROFILE (5/30)	PP - 05	
3.6	PLAN AND PROFILE (6/30)	PP - 06	
3.7	PLAN AND PROFILE (7/30)	PP - 07	
3.8	PLAN AND PROFILE (8/30)	PP - 08	
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3.11	PLAN AND PROFILE (11/30)	PP - 11	
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3.13	PLAN AND PROFILE (13/30)	PP - 13	
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3.19	PLAN AND PROFILE (19/30)	PP - 19	
3.20	PLAN AND PROFILE (20/30)	PP - 20	
3.21	PLAN AND PROFILE (21/30)	PP - 21	
3.22	PLAN AND PROFILE (22/30)	PP - 22	
3.23	PLAN AND PROFILE (23/30)	PP - 23	
3.24	PLAN AND PROFILE (24/30)	PP - 24	
3.25	PLAN AND PROFILE (25/30)	PP - 25	
3.26	PLAN AND PROFILE (26/30)	PP - 26	
3.27	PLAN AND PROFILE (27/30)	PP - 27	
3.28	PLAN AND PROFILE (28/30)	PP - 28	
3.29	PLAN AND PROFILE (29/30)	PP - 29	
3.30	PLAN AND PROFILE (30/30)	PP - 30	

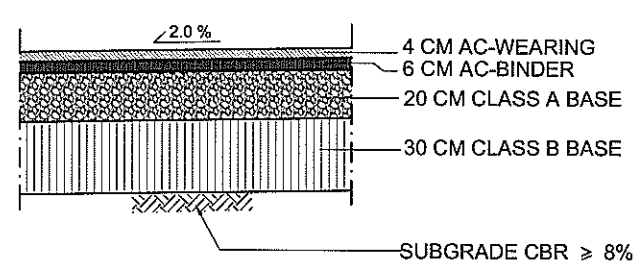
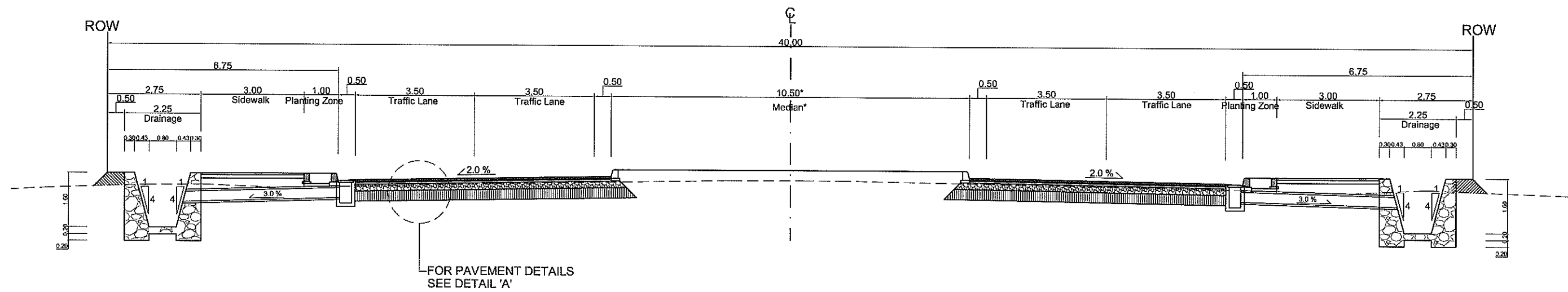
NO	DRAWING TITLE	DRAWING NO	REMARKS
4	ROADWAY - INTERSECTIONS		
4.1	TS - 7 MAMMINASA BYPASS (SOUTH) / TRANS-SULAWESI	IN - 01	
4.2	TS - 8 MAMMINASA BYPASS (NORTH) / TRANS-SULAWESI	IN - 02	
4.3	MB - 2 MAMMINASA BYPASS / ABDULLAH DAENG SIRUA ROAD	IN - 03	
4.4	MB - 1 MAMMINASA BYPASS / HERTASNING ROAD	IN - 04	
4.5	MB - 3 MAMMINASA BYPASS / NATIONAL ROAD	IN - 05	
4.6	OR - 7 MAMMINASA BYPASS / OUTER RING ROAD	IN - 06	
4.7	TS - 1 MAMMINASA BYPASS / SECTION C TRANS-SULAWESI	IN - 07	
5	BRIDGE		
5.1	MAROS BRIDGE	BR - 01	
5.2	MAROS BRIDGE (ALTERNATIVE)	BR - 01 A	
5.3	JENEBERANG NO. 1 BRIDGE	BR - 02	
6	DRAINAGE AND STRUCTURES		
6.1	DETAILS OF DRAINAGE	DR - 01	
6.2	DETAILS OF CATCH PIT	DR - 02	
6.3	GENERAL LAYOUT OF SINGLE PIPE CULVERT	DR - 03	
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7	MISCELLANEOUS		
7.1	TRAFFIC SIGNS	MS - 01	
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7.6	STANDARD OF ELECTRICAL POLE	MS - 06	
7.7	DETAIL FOUNDATION FOR ELECTRICAL POLE	MS - 07	
7.8	TRAFFIC SIGNAL (1/2)	MS - 08	
7.9	TRAFFIC SIGNAL (2/2)	MS - 09	

LOCATION MAP

KEY MAP



2. TYPICAL CROSS SECTIONS

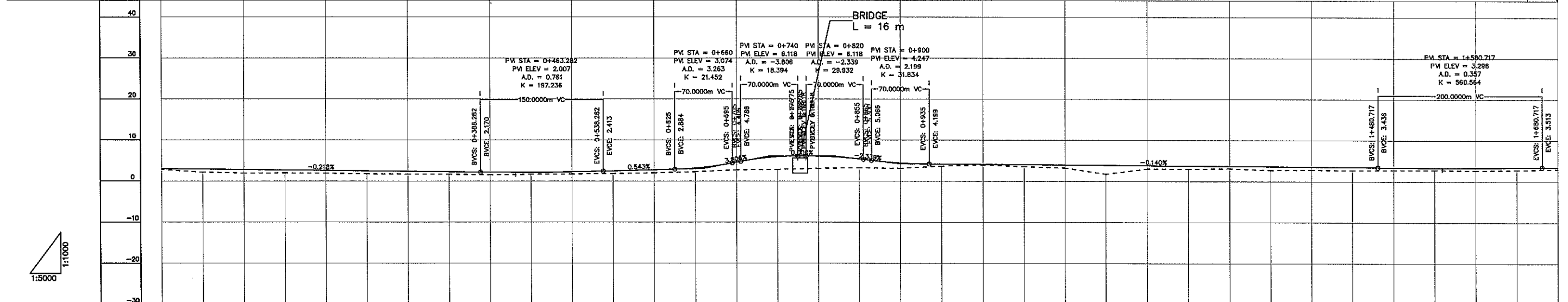
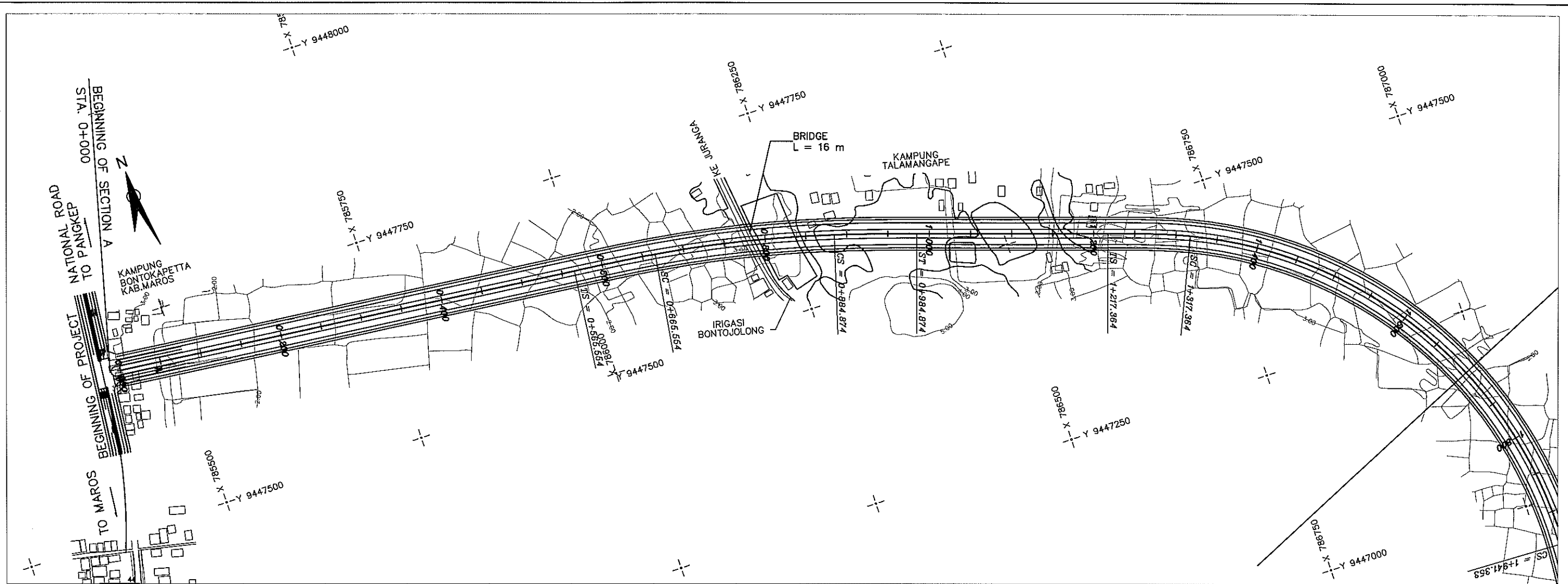


DETAIL A

Note : * Reservation for future widening

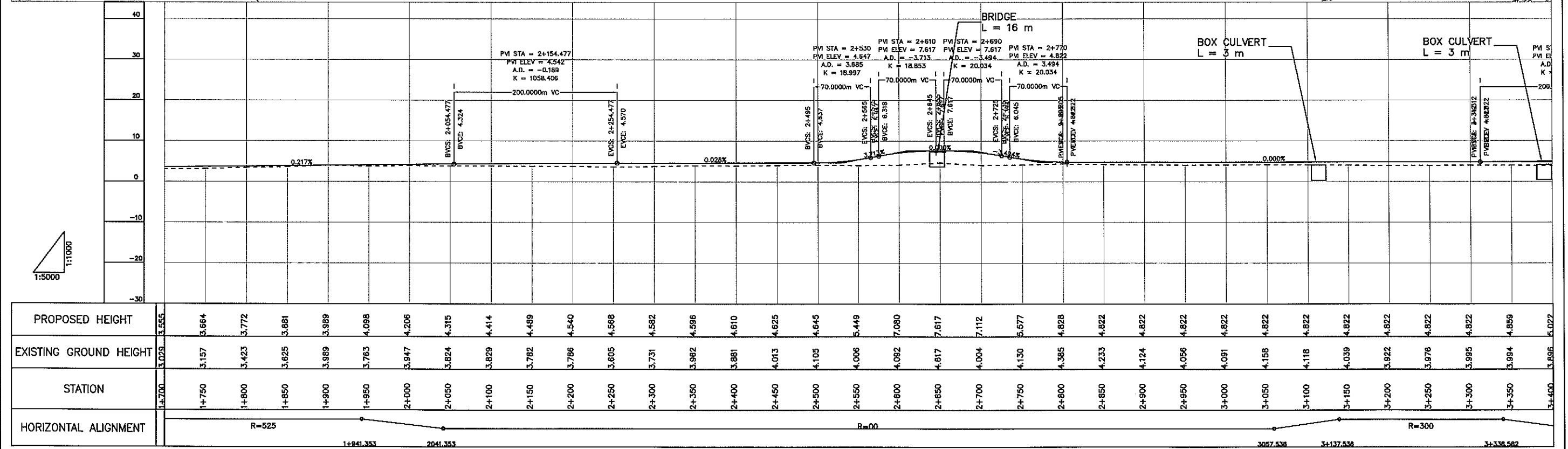
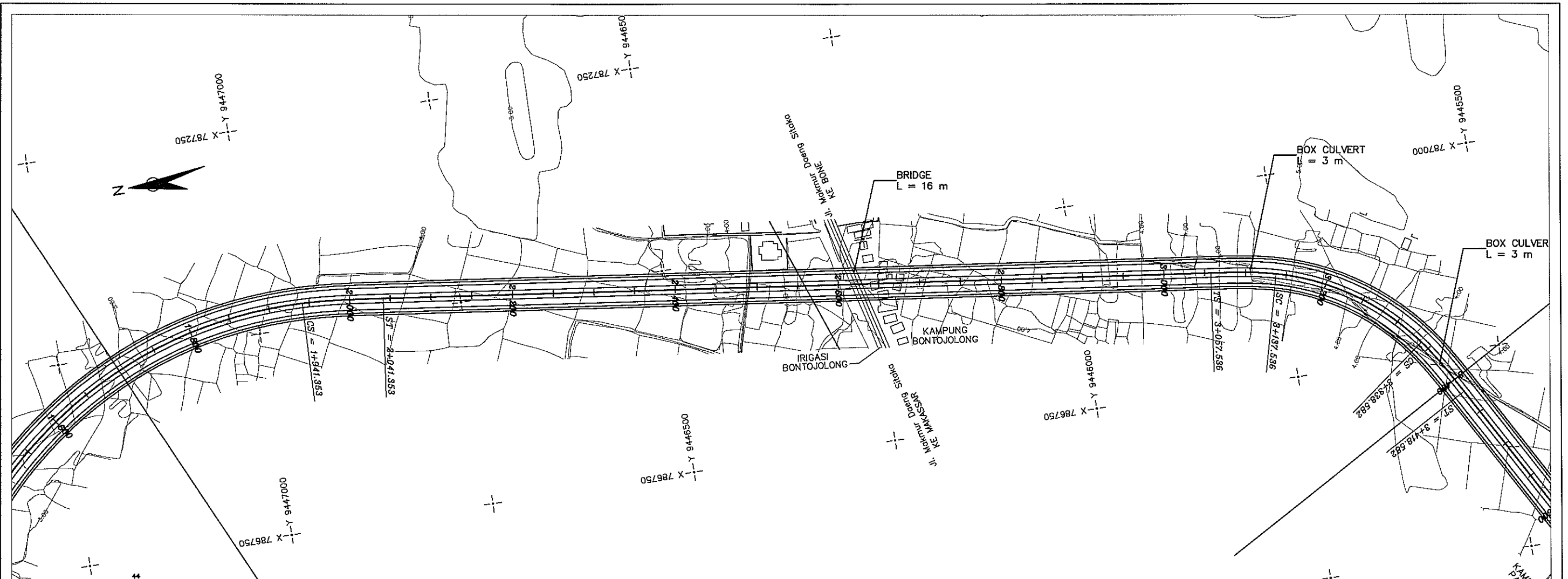
	PROJECT TITLE: THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	ROAD NAME TITLE : MAMMINASA BYPASS	DRAWING NO. TC-01
		DRAWING TITLE : TYPICAL CROSS SECTIONS	
		SCALE = 1 / 125	DATE: MARCH 2008

3. ROADWAY - PLAN AND PROFILE

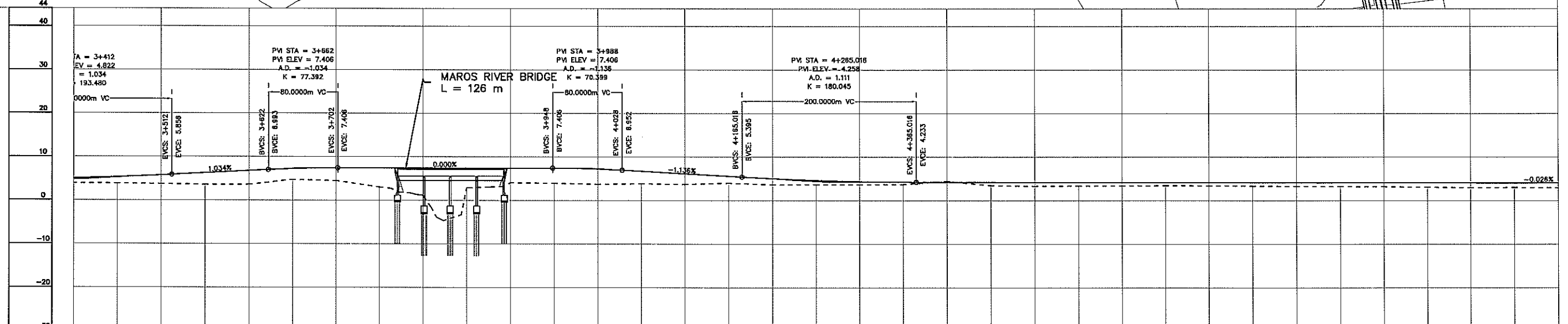
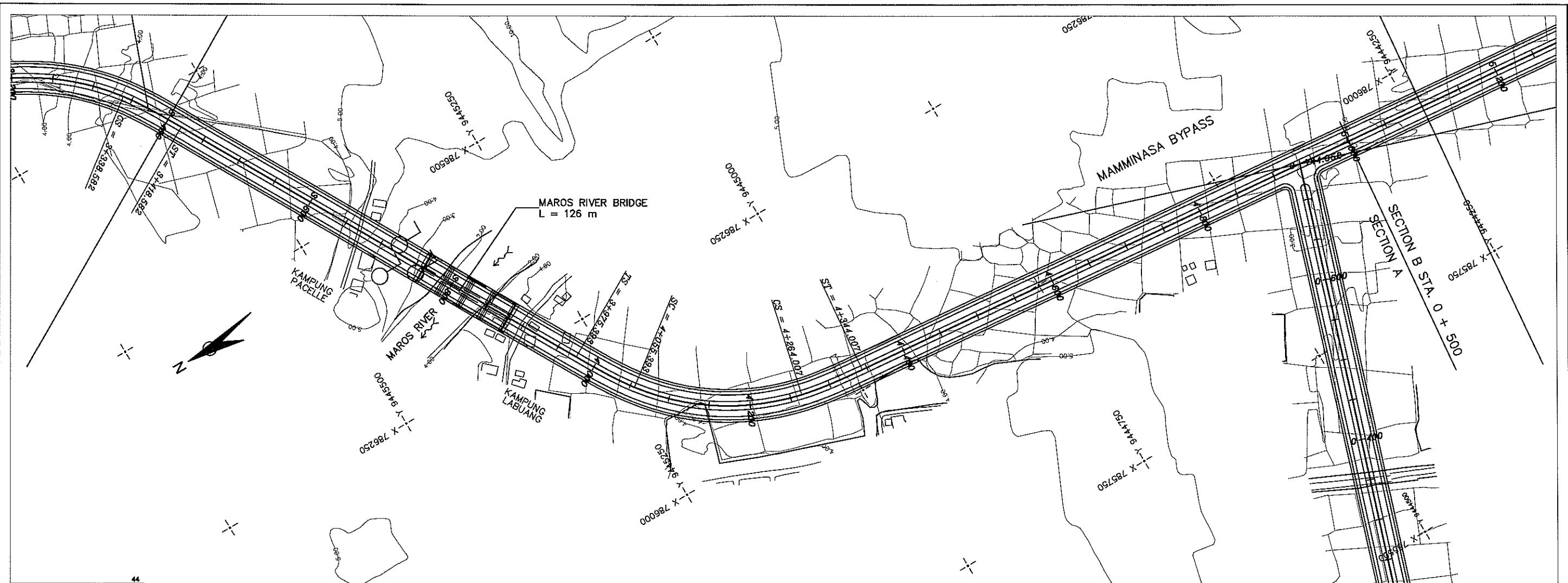


PROPOSED HEIGHT	3.016	2.907	2.788	2.689	2.580	2.471	2.362	2.253	2.148	2.132	2.243	2.477	2.748	3.165	4.596	5.948	6.081	5.413	4.440	4.178	4.108	4.038	3.968	3.898	3.828	3.758	3.688	3.619	3.549	3.479	3.412	3.382	3.386	3.455	3.555
EXISTING GROUND HEIGHT	2.816	2.161	1.937	1.955	1.884	1.751	1.689	1.639	1.506	1.635	1.704	1.817	1.981	2.258	2.713	2.832	3.118	3.238	3.140	3.709	3.965	3.556	3.241	1.551	3.017	3.001	3.112	2.745	2.820	2.717	2.808	2.836	2.649	2.828	3.028
STATION	0+000	0+050	0+100	0+150	0+200	0+250	0+300	0+350	0+400	0+450	0+500	0+550	0+600	0+650	0+700	0+750	0+800	0+850	0+900	0+950	1+000	1+050	1+100	1+150	1+200	1+250	1+300	1+350	1+400	1+450	1+500	1+550	1+600	1+650	1+700
HORIZONTAL ALIGNMENT	R=500										R=1500										R=525														

	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	PP-01
		PLAN AND PROFILE	DATE: MARCH 2008
	SCALE =	1 / 5,000 H, 1/1,000 V	

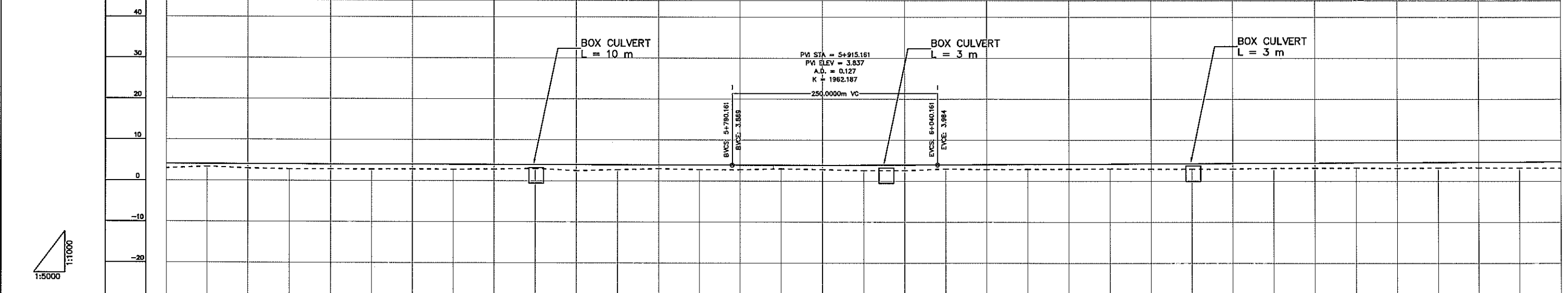
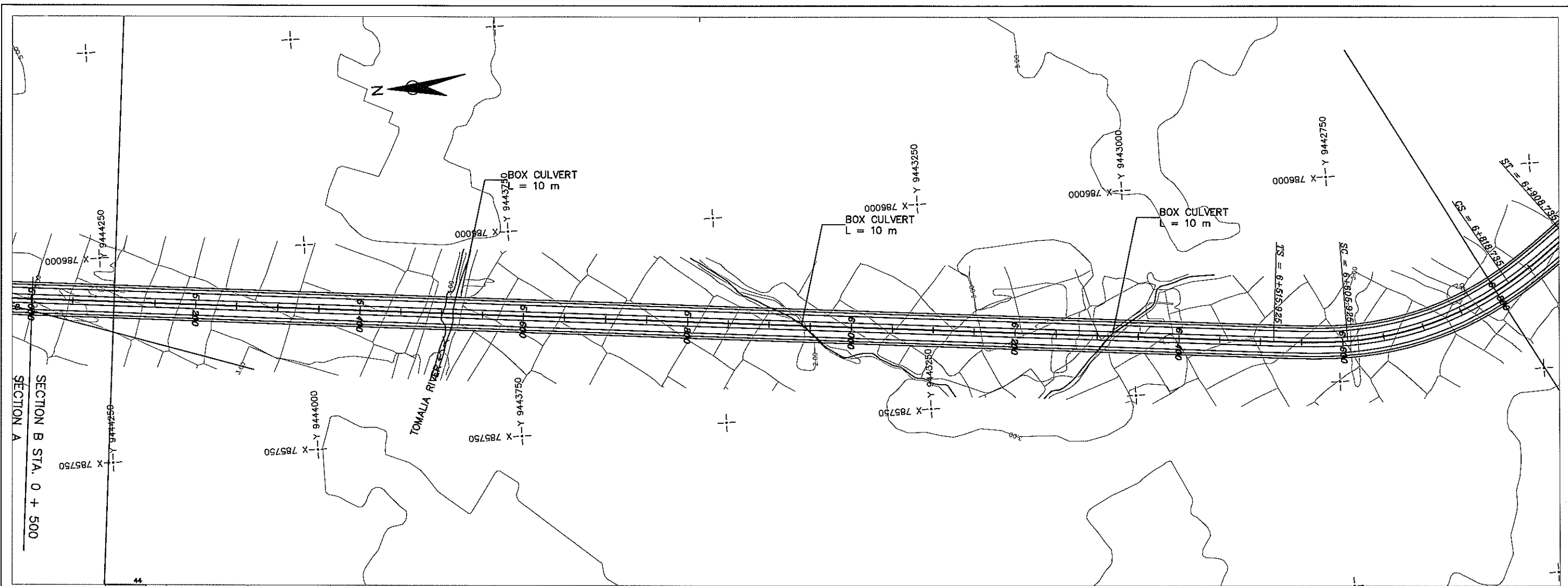


	JICA JAPAN INTERNATIONAL COOPERATION AGENCY PROJECT TITLE: THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	ROAD NAME TITLE : MAMMINASA BYPASS	DRAWING NO. PP-02
	DRAWING TITLE : PLAN AND PROFILE	SCALE = 1 / 5,000 H, 1/1,000 V	DATE: MARCH 2008
	PROJECT TITLE: THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA		



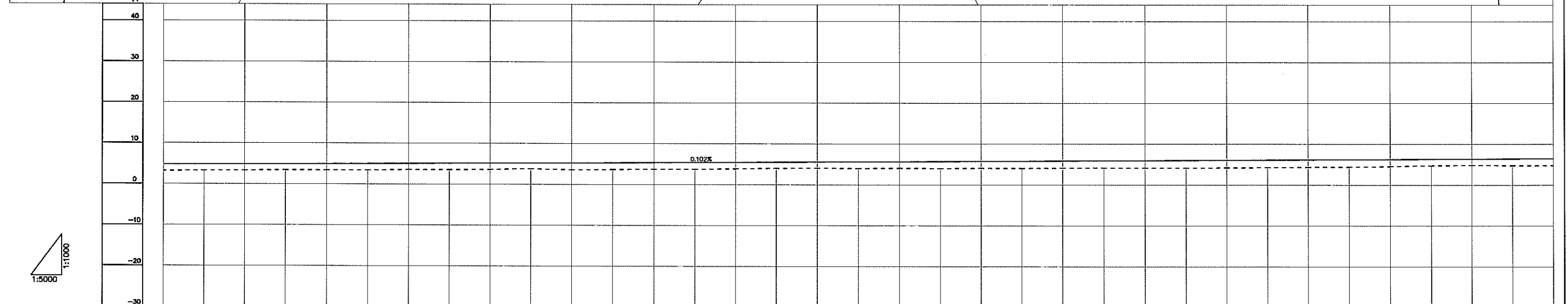
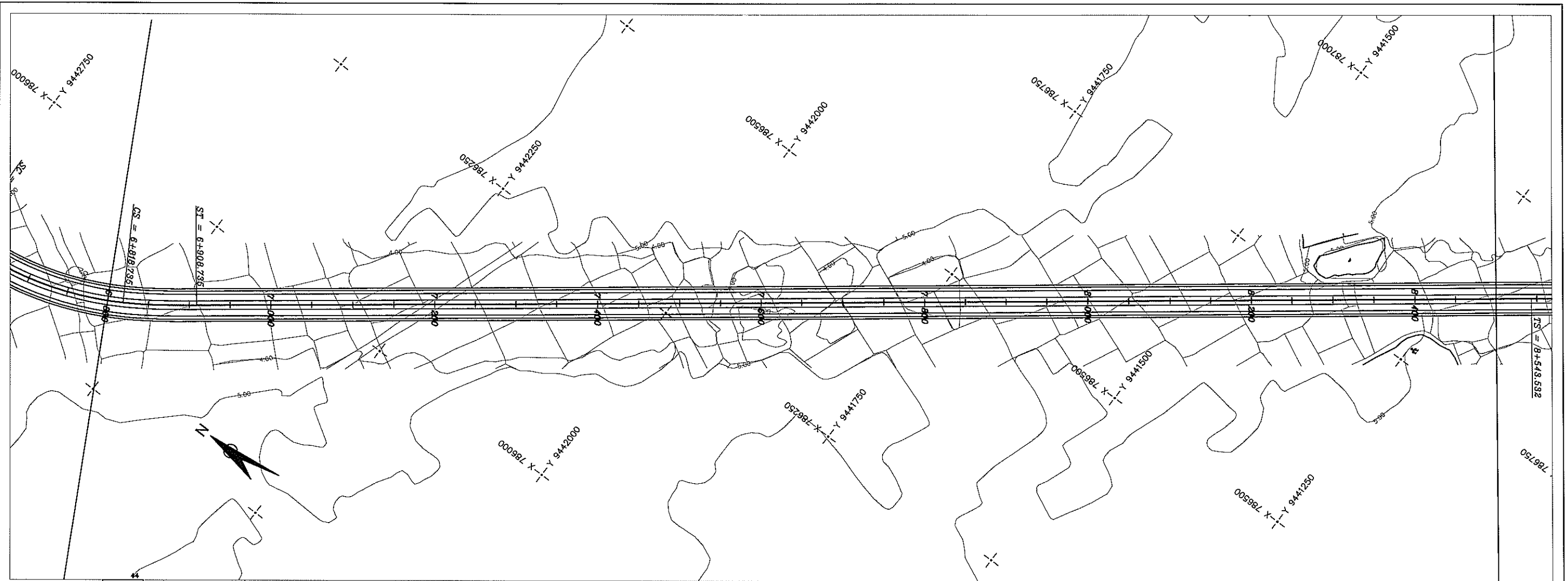
PROPOSED HEIGHT	3+450	3+500	3+550	3+600	3+650	3+700	3+750	3+800	3+850	3+900	3+950	4+000	4+050	4+100	4+150	4+200	4+250	4+300	4+350	4+400	4+450	4+500	4+550	4+600	4+650	4+700	4+750	4+800	4+850	4+900	4+950	5+000	5+050	5+100	
PROPOSED HEIGHT	5.072	5.314	5.736	6.249	6.766	7.232	7.406	7.406	7.406	7.406	7.406	7.214	6.702	6.134	5.565	5.031	4.630	4.367	4.243	4.224	4.211	4.198	4.186	4.173	4.160	4.147	4.135	4.122	4.109	4.096	4.084	4.071	4.058	4.045	
EXISTING GROUND HEIGHT	3.836	3.841	3.739	3.590	3.601	4.000	4.494	4.178	1.163	-2.008	4.041	3.938	3.727	3.835	3.716	3.997	3.624	3.687	3.649	3.086	3.666	3.587	3.453	3.356	3.394	3.490	3.351	3.344	3.278	3.240	3.180	3.078	2.987	3.018	2.960
STATION	3+450	3+500	3+550	3+600	3+650	3+700	3+750	3+800	3+850	3+900	3+950	4+000	4+050	4+100	4+150	4+200	4+250	4+300	4+350	4+400	4+450	4+500	4+550	4+600	4+650	4+700	4+750	4+800	4+850	4+900	4+950	5+000	5+050	5+100	
HORIZONTAL ALIGNMENT																																			

	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	PP-03
		PLAN AND PROFILE	MARCH 2008
		SCALE =	DATE:
		1 / 5,000 H, 1/1,000 V	MARCH 2008

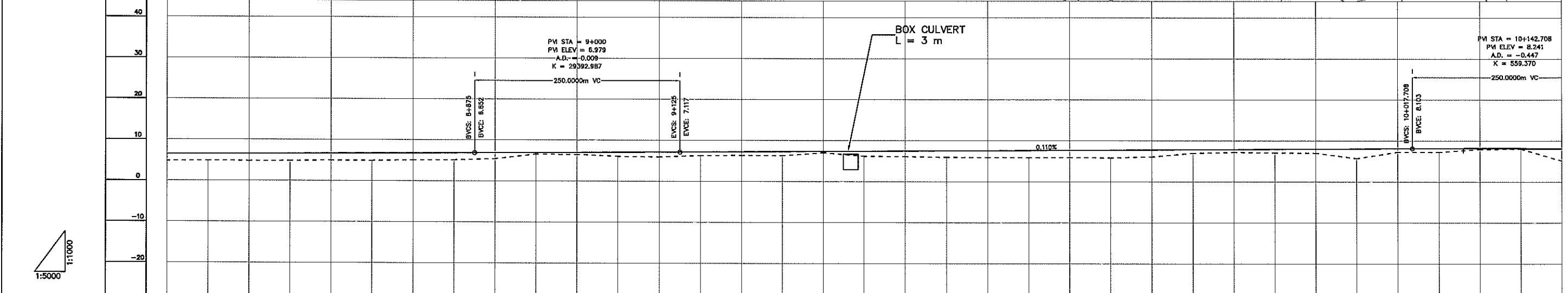
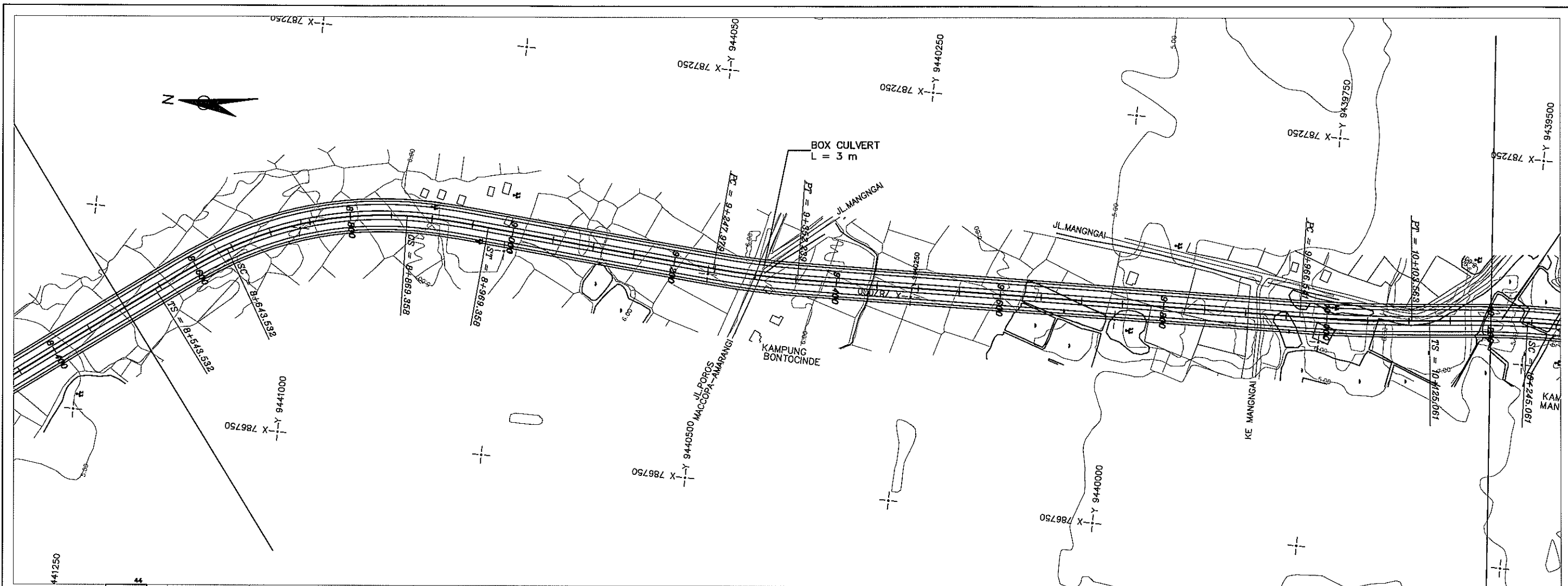


PROPOSED HEIGHT	4.045	4.032	4.020	4.007	3.994	3.981	3.969	3.956	3.943	3.930	3.918	3.905	3.892	3.879	3.867	3.853	3.872	3.893	3.928	3.974	4.025	4.076	4.127	4.178	4.229	4.280	4.331	4.382	4.433	4.484	4.535	4.586	4.637	4.687	4.738
EXISTING GROUND HEIGHT	2.980	2.902	2.866	2.788	2.807	2.787	2.821	2.827	2.819	1.654	2.484	2.717	2.736	3.004	2.741	2.781	2.704	2.689	2.559	2.728	2.830	2.885	2.938	2.921	3.058	2.937	3.122	3.136	3.457	3.165	3.130	3.050	3.268	3.323	3.275
STATION	5+100	5+150	5+200	5+250	5+300	5+350	5+400	5+450	5+500	5+550	5+600	5+650	5+700	5+750	5+800	5+850	5+900	5+950	6+000	6+050	6+100	6+150	6+200	6+250	6+300	6+350	6+400	6+450	6+500	6+550	6+600	6+650	6+700	6+750	6+800
HORIZONTAL ALIGNMENT	R=00																	R=400																	

	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	PP-04
		DRAWING TITLE : PLAN AND PROFILE	DATE: MARCH 2008
		SCALE = 1 / 5,000 H, 1/1,000 V	

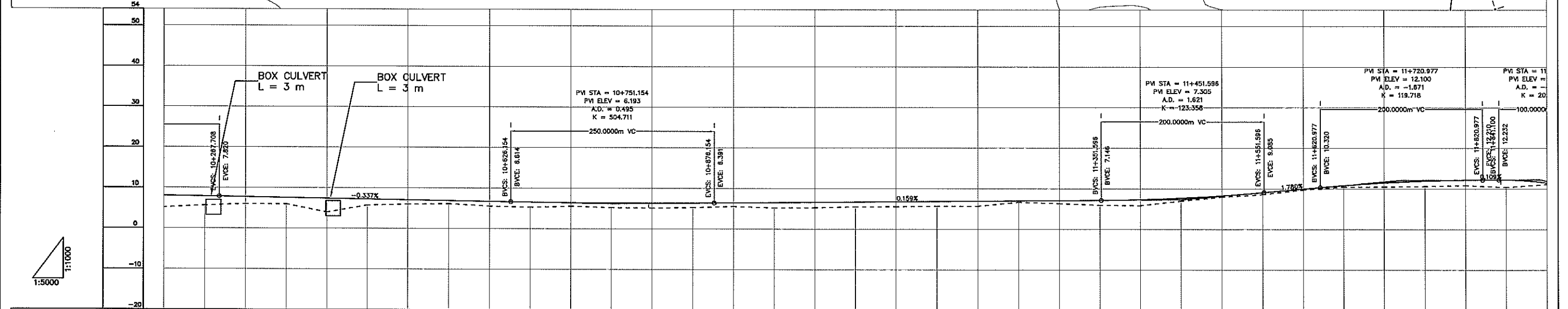
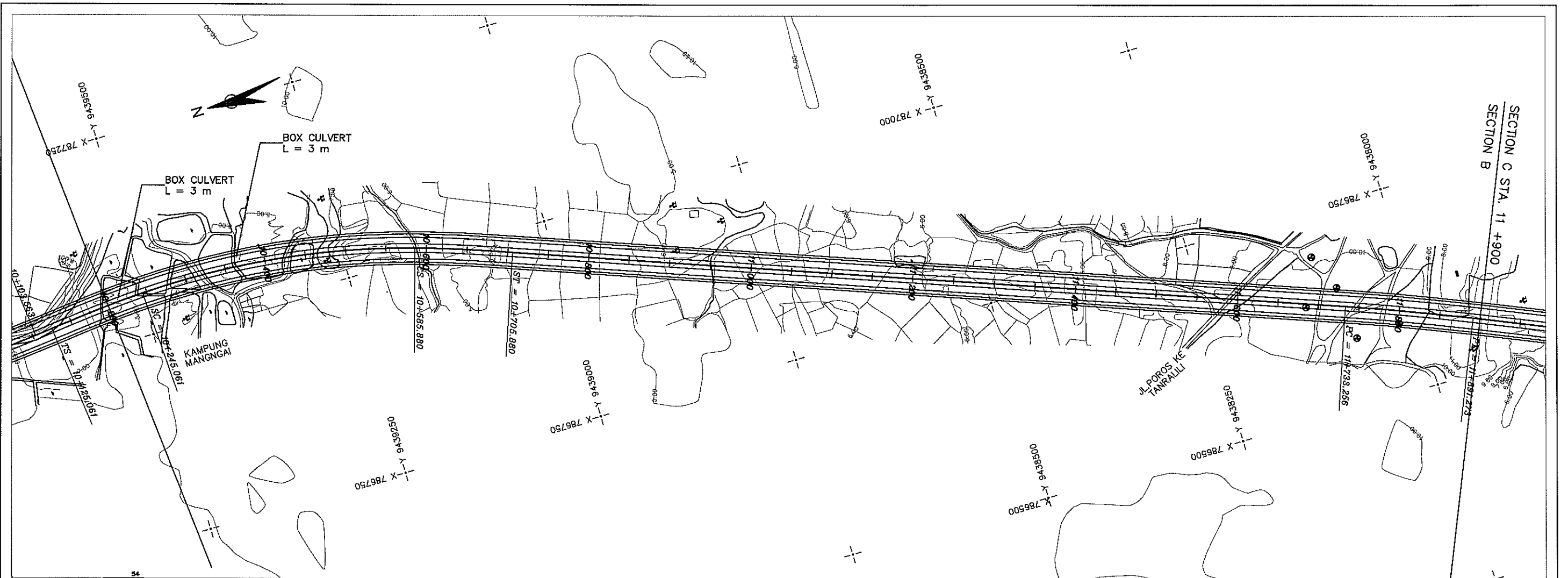


PROPOSED HEIGHT	4.738	4.789	4.840	4.891	4.942	4.993	5.044	5.095	5.146	5.197	5.248	5.299	5.350	5.401	5.451	5.502	5.553	5.604	5.655	5.706	5.757	5.808	5.859	5.910	5.961	6.012	6.063	6.114	6.165	6.215	6.266	6.317	6.368	6.419	6.470
EXISTING GROUND HEIGHT	3.275	3.283	3.320	3.412	3.423	3.423	3.529	3.525	3.599	3.584	3.559	3.652	3.740	3.761	3.739	3.917	4.045	4.000	4.082	4.035	4.071	4.052	4.118	4.182	4.153	4.153	4.204	4.253	4.357	4.398	4.519	4.742	4.817	4.763	4.777
STATION	6+800	6+850	6+900	6+950	7+000	7+050	7+100	7+150	7+200	7+250	7+300	7+350	7+400	7+450	7+500	7+550	7+600	7+650	7+700	7+750	7+800	7+850	7+900	7+950	8+000	8+050	8+100	8+150	8+200	8+250	8+300	8+350	8+400	8+450	8+500
HORIZONTAL ALIGNMENT	R=400																		R=600																

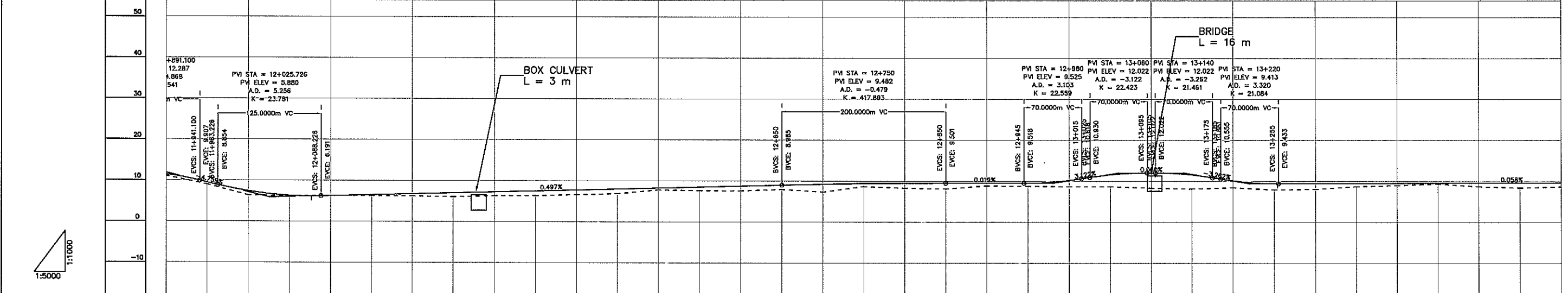
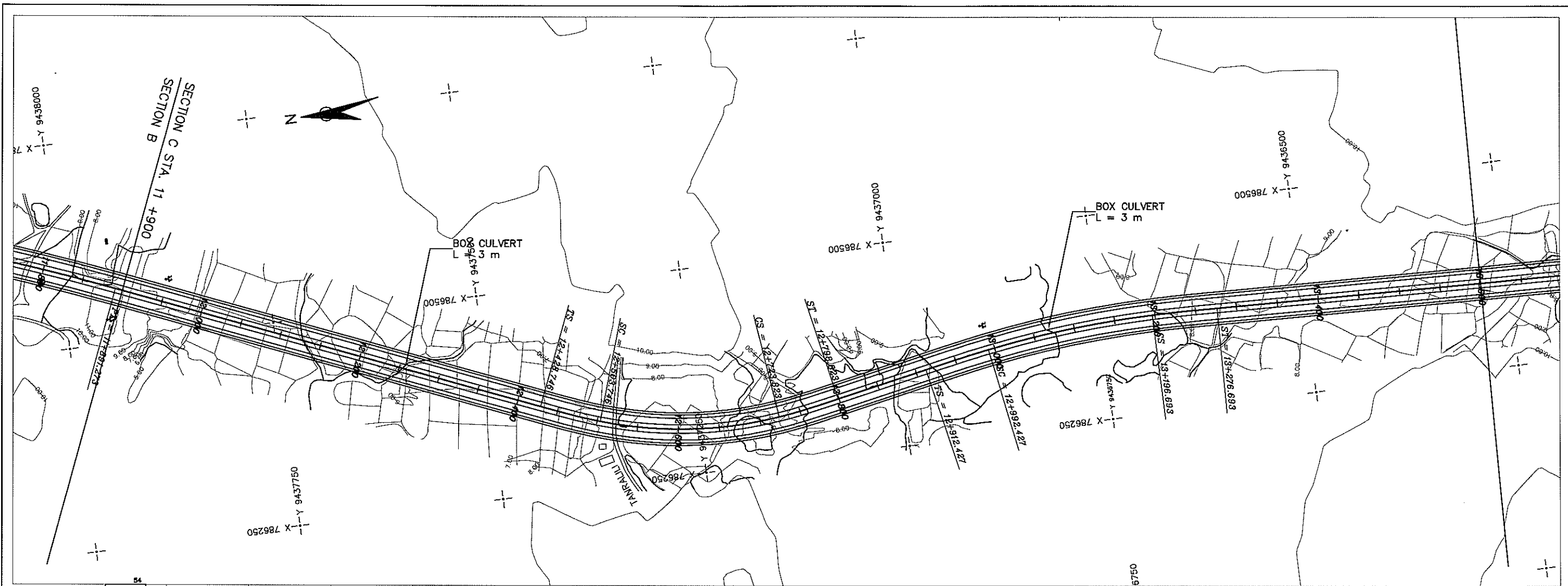


PROPOSED HEIGHT	8.470	8.521	8.572	8.623	8.674	8.725	8.776	8.827	8.878	8.929	8.982	7.036	7.090	7.145	7.200	7.255	7.311	7.366	7.421	7.476	7.531	7.587	7.642	7.697	7.752	7.807	7.862	7.918	7.973	8.028	8.083	8.129	8.133	8.092	8.007	
EXISTING GROUND HEIGHT	4.777	4.863	4.812	4.833	4.942	4.907	5.060	5.121	5.099	6.181	6.579	6.138	5.908	6.171	6.319	6.282	6.375	6.487	6.084	6.115	5.905	5.667	5.896	6.448	5.913	6.380	7.049	7.056	7.004	5.987	6.009	7.228	6.211	7.661	6.616	
STATION	8+500	8+550	8+600	8+650	8+700	8+750	8+800	8+850	8+900	8+950	9+000	9+050	9+100	9+150	9+200	9+250	9+300	9+350	9+400	9+450	9+500	9+550	9+600	9+650	9+700	9+750	9+800	9+850	9+900	9+950	10+000	10+050	10+100	10+150	10+200	
HORIZONTAL ALIGNMENT	R=00		R=450				R=00				R=1000				R=00				R=1800				R=00													
	8+543.532	8+843.532	8+869.358	8+869.358	9+247.878	9+352.239	9+247.878	9+352.239	9+247.878	9+352.239	9+247.878	9+352.239	9+247.878	9+352.239	9+247.878	9+352.239	9+247.878	9+352.239	9+247.878	9+352.239	9+247.878	9+352.239	9+247.878	9+352.239	9+247.878	9+352.239	9+247.878	9+352.239	9+247.878	9+352.239	9+247.878	9+352.239	9+247.878	9+352.239	9+247.878	9+352.239

	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	PP-06
		DRAWING TITLE :	DATE:
		PLAN AND PROFILE	MARCH 2008
		SCALE = 1 / 5,000 H, 1/1,000 V	



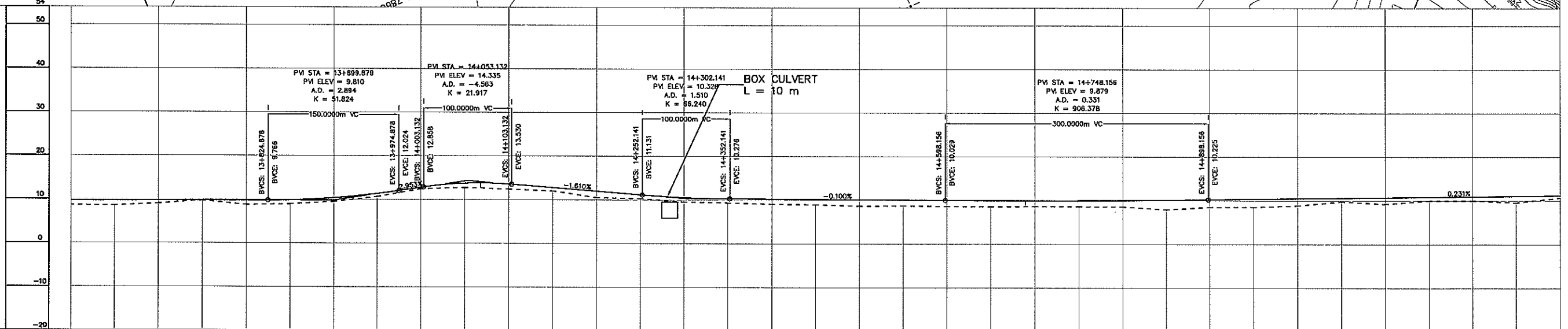
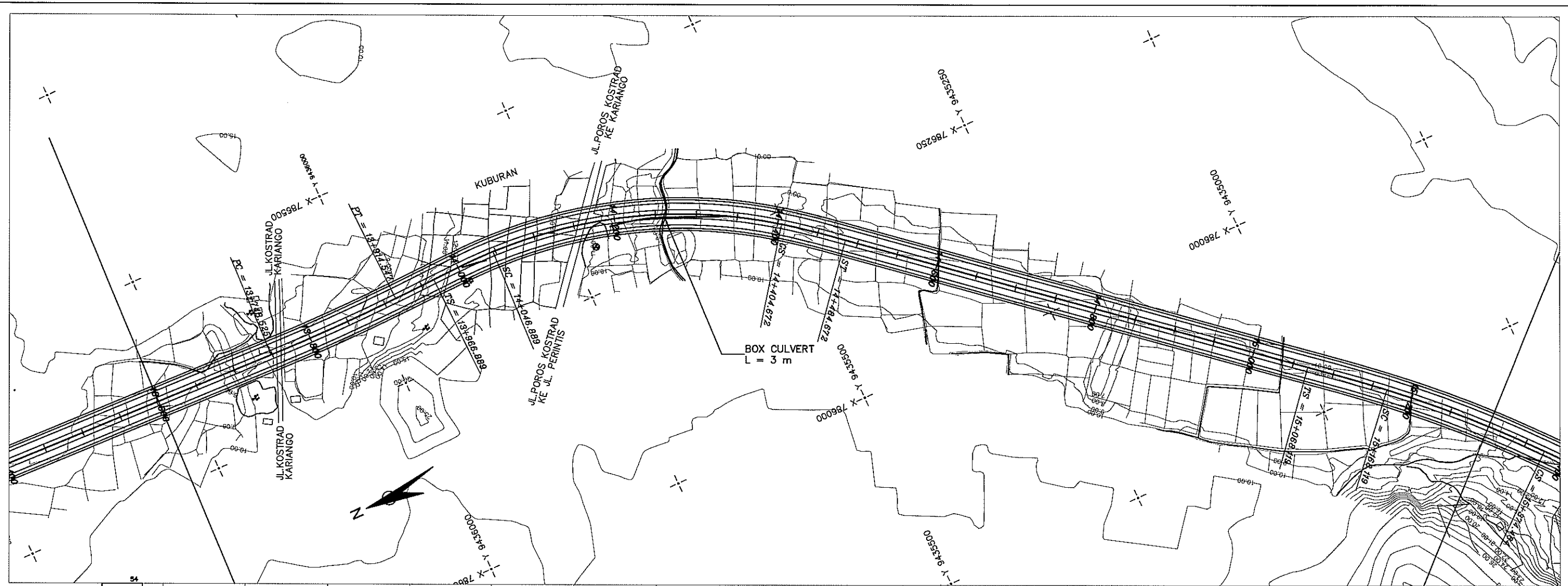
PROPOSED HEIGHT	EXISTING GROUND HEIGHT	STATION	HORIZONTAL ALIGNMENT
8.007	6.616	10+200	R=1000
7.877	4.966	10+250	
7.711	5.774	10+300	R=1000
7.543	6.685	10+350	
7.375	5.000	10+400	R=1000
7.206	6.676	10+450	
7.038	7.038	10+500	R=1000
6.870	5.833	10+550	
6.702	5.732	10+600	R=1000
6.539	5.580	10+650	
6.419	5.166	10+700	R=1000
6.349	5.389	10+750	
6.328	5.213	10+800	R=1000
6.357	5.091	10+850	
6.429	5.293	10+900	R=1000
6.509	5.198	10+950	
6.588	5.177	11+000	R=1000
6.687	5.378	11+050	
6.747	5.535	11+100	R=1000
6.826	5.686	11+150	
6.906	5.675	11+200	R=1000
6.985	5.253	11+250	
7.064	6.846	11+300	R=1000
7.144	5.941	11+350	
7.318	6.000	11+400	R=1000
7.695	6.438	11+450	
8.275	7.462	11+500	R=1000
9.057	8.274	11+550	
9.947	8.975	11+600	R=1000
10.837	10.047	11+650	
11.638	10.445	11+700	R=1000
12.070	10.571	11+750	
12.114	10.597	11+800	R=1000
11.770	10.818	11+850	
11.036	10.657	11+900	R=3000



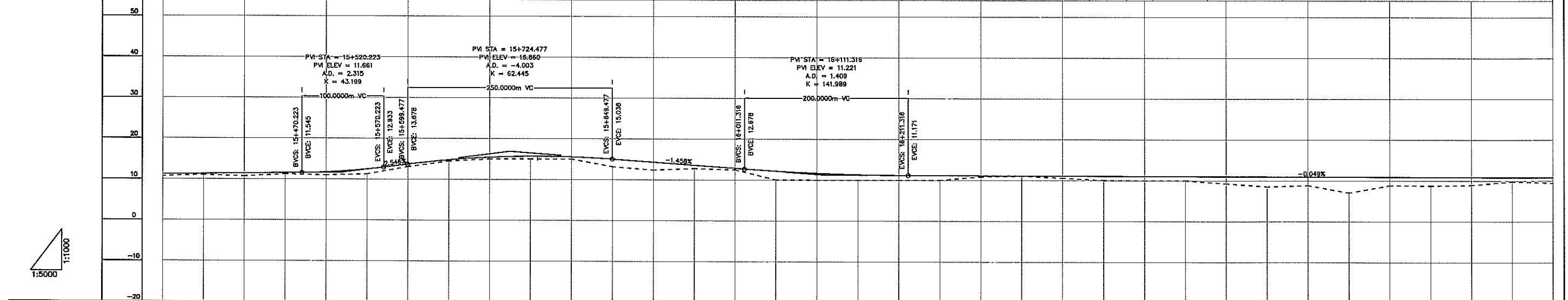
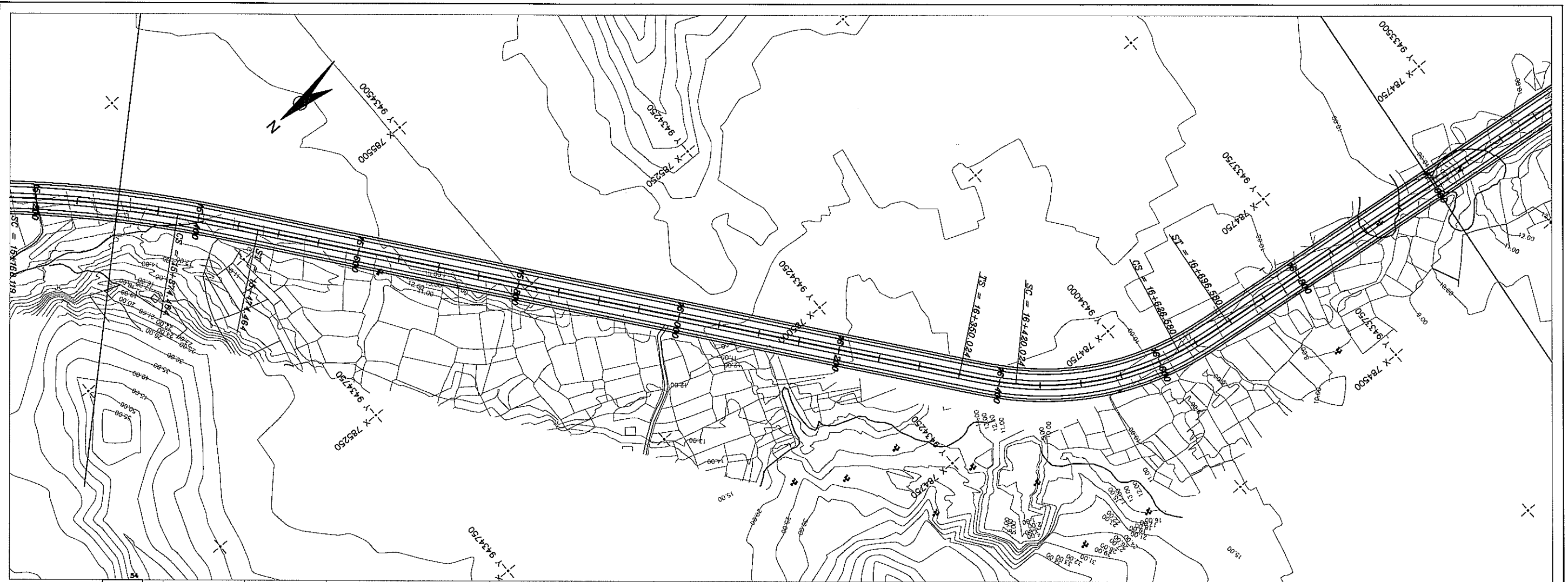
PROPOSED HEIGHT	11.036	9.914	8.493	7.288	6.804	6.502	6.747	6.995	7.244	7.493	7.741	7.990	8.239	8.487	8.736	8.985	9.203	9.362	9.461	9.501	9.510	9.525	10.199	11.571	12.022	11.551	10.119	9.436	8.460	9.489	9.518	9.547	9.576	9.606	9.635
EXISTING GROUND HEIGHT	10.867	9.122	8.516	8.226	8.249	8.257	8.198	8.176	8.018	8.331	8.450	8.618	8.933	8.011	8.573	8.621	8.133	8.682	8.577	8.687	8.618	8.828	8.662	8.660	8.595	8.125	8.111	8.441	7.860	8.218	8.794	9.154	9.195	9.315	9.630
STATION	11+900	11+950	12+000	12+050	12+100	12+150	12+200	12+250	12+300	12+350	12+400	12+450	12+500	12+550	12+600	12+650	12+700	12+750	12+800	12+850	12+900	12+950	13+000	13+050	13+100	13+150	13+200	13+250	13+300	13+350	13+400	13+450	13+500	13+550	13+600
HORIZONTAL ALIGNMENT	R=∞		R=500										R=∞		R=1250		R=∞																		

	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	PP-08
		PLAN AND PROFILE	DATE: MARCH 2008

SCALE = 1 / 5,000 H, 1/1,000 V

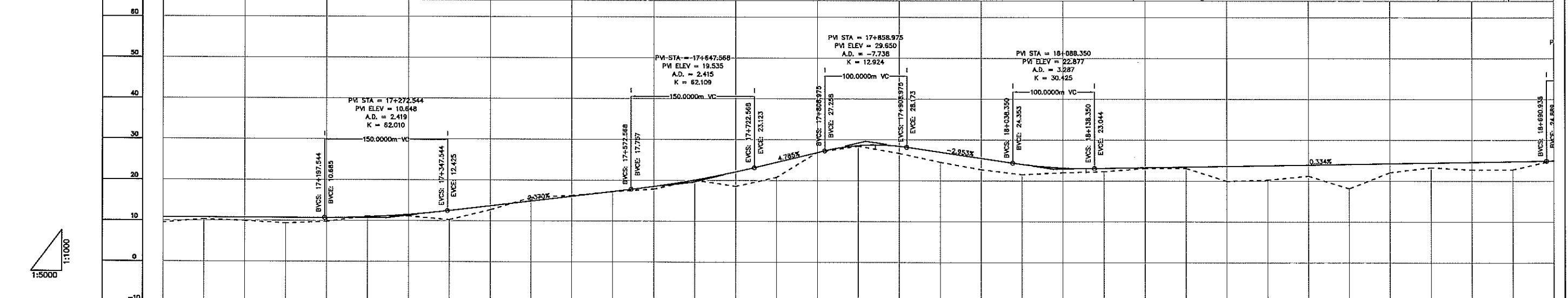
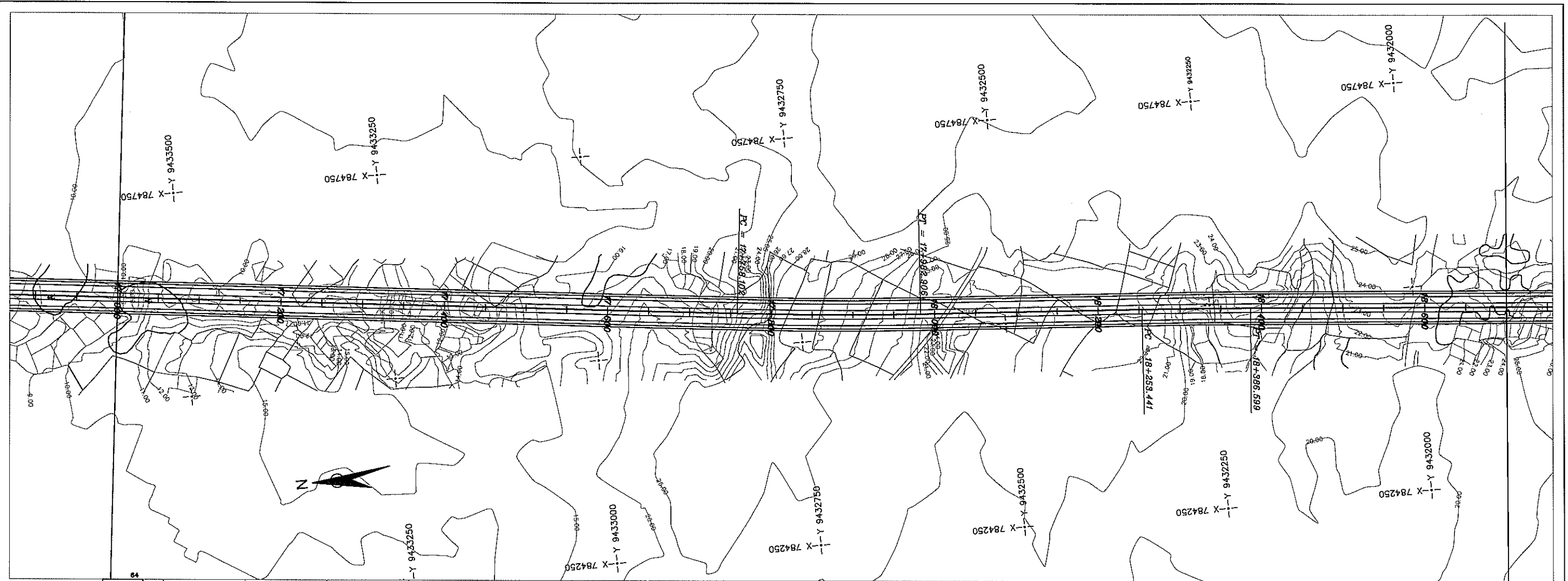


PROPOSED HEIGHT	9.635	9.664	9.693	9.722	9.753	9.958	10.448	11.220	12.102	12.859	13.083	12.745	11.970	11.165	10.533	10.278	10.228	10.178	10.128	10.078	10.027	9.992	9.984	10.004	10.052	10.127	10.229	10.345	10.480	10.576	10.691	10.808	10.922	11.037	11.152	
EXISTING GROUND HEIGHT	8.630	8.543	8.457	8.722	8.882	8.811	9.084	9.521	11.627	12.822	12.859	12.000	10.984	10.000	9.808	9.482	9.057	8.989	8.003	8.735	8.619	8.562	8.618	8.613	8.335	7.656	8.514	8.683	8.596	8.967	9.480	9.270	10.000	10.922	11.037	11.152
STATION	13+600	13+650	13+700	13+750	13+800	13+850	13+900	13+950	14+000	14+050	14+100	14+150	14+200	14+250	14+300	14+350	14+400	14+450	14+500	14+550	14+600	14+650	14+700	14+750	14+800	14+850	14+900	14+950	15+000	15+050	15+100	15+150	15+200	15+250	15+300	
HORIZONTAL ALIGNMENT	R=00		R=2500					R=00		R=600					R=00										R=1500											



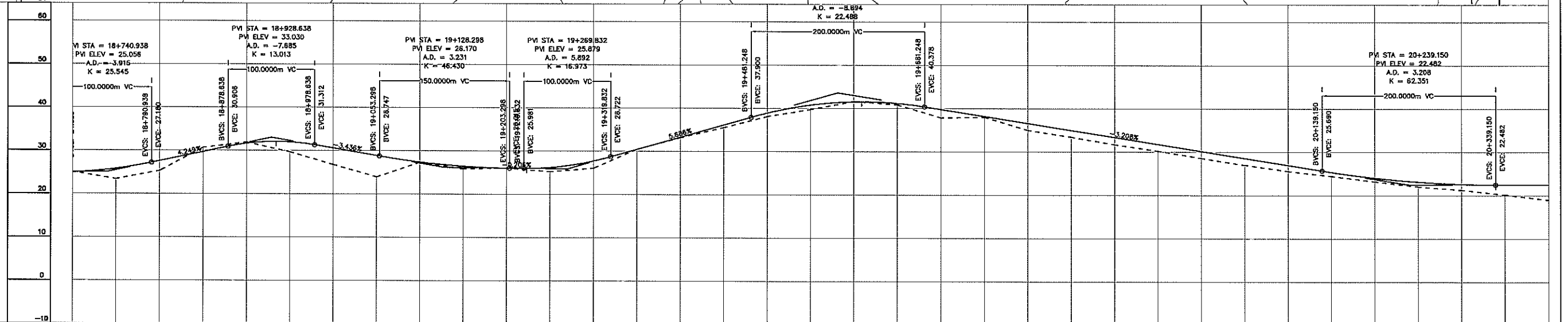
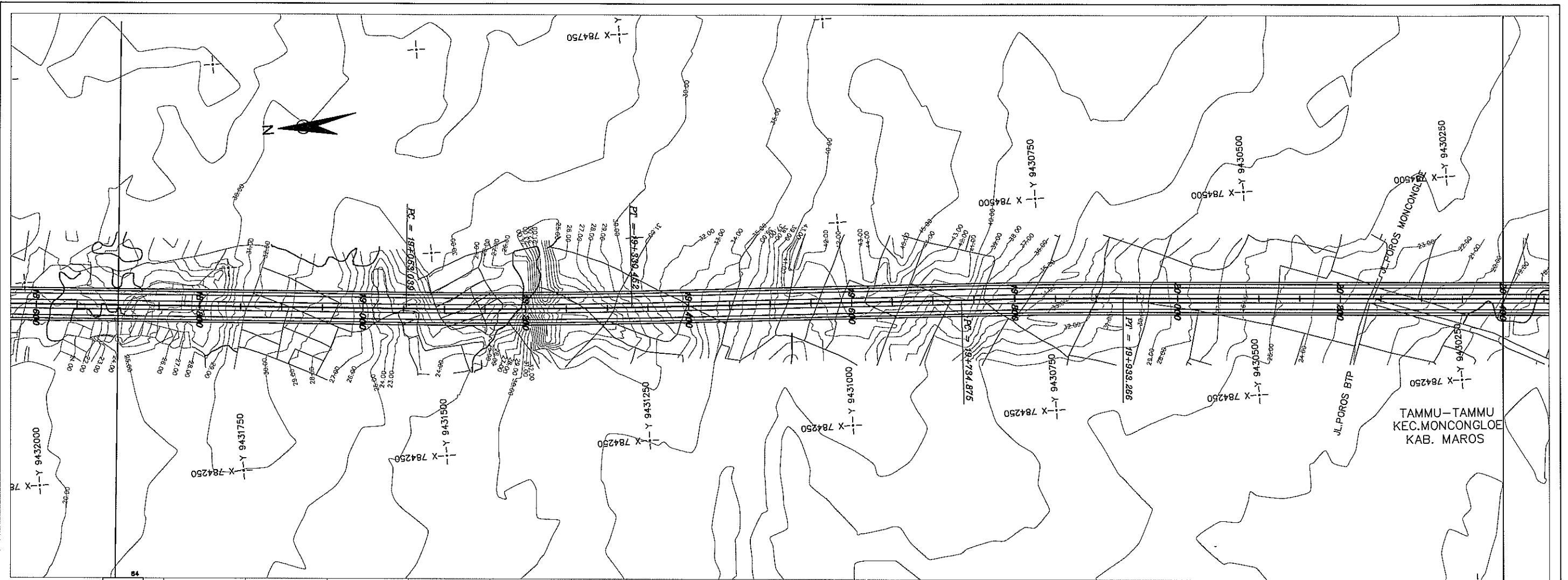
PROPOSED HEIGHT	11.152	11.288	11.383	11.499	11.614	12.010	12.985	14.258	15.386	15.887	15.720	15.030	14.301	13.572	12.843	12.167	11.682	11.334	11.181	11.152	11.103	11.078	11.054	11.029	11.004	10.980	10.955	10.930	10.906	10.881	10.856	10.832	10.807	10.782	
EXISTING GROUND HEIGHT	10.297	11.000	10.819	10.587	10.973	10.937	11.889	13.557	15.000	15.000	15.000	14.407	12.371	12.783	12.843	11.345	10.000	10.000	10.000	10.000	10.484	10.666	11.078	10.017	10.000	10.000	9.654	8.900	8.474	8.521	6.244	6.747	6.659	9.080	8.343
STATION	15+300	15+350	15+400	15+450	15+500	15+550	15+600	15+650	15+700	15+750	15+800	15+850	15+900	15+950	16+000	16+050	16+100	16+150	16+200	16+250	16+300	16+350	16+400	16+450	16+500	16+550	16+600	16+650	16+700	16+750	16+800	16+850	16+900	16+950	17+000
HORIZONTAL ALIGNMENT	R=1500		R=00										R=350		R=00																				

	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	PP-10
		PLAN AND PROFILE	DATE: MARCH 2008
		SCALE =	
		1 / 5,000 H, 1/1,000 V	



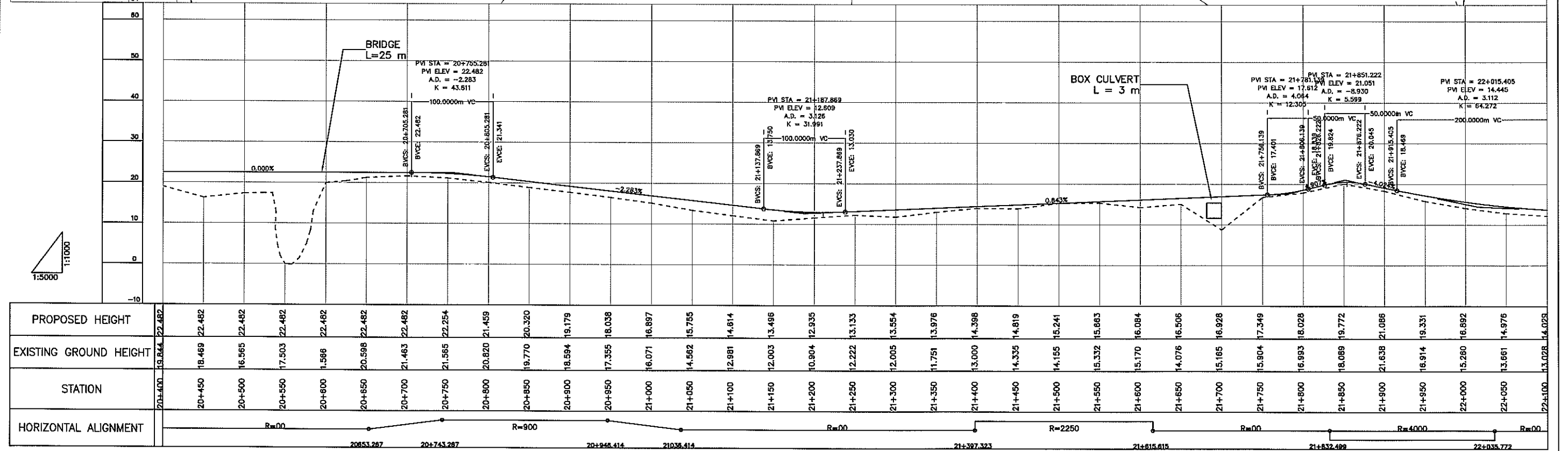
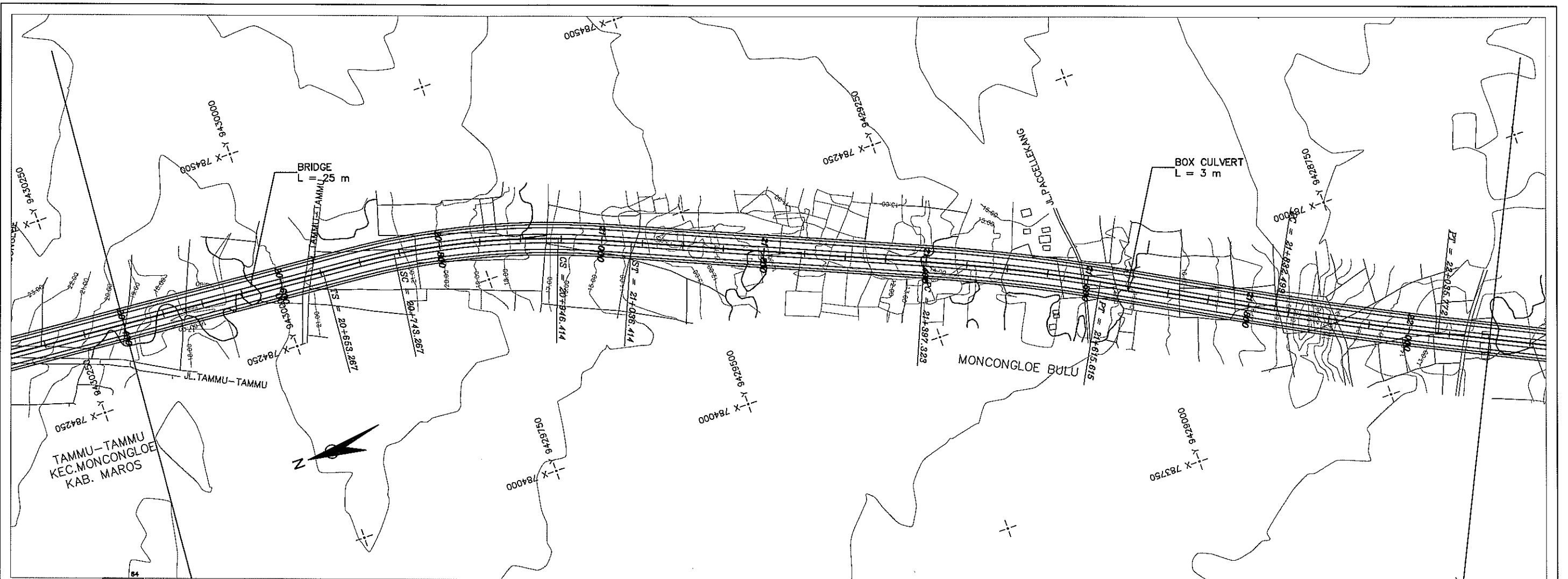
PROPOSED HEIGHT	10.782	10.758	10.733	10.708	10.684	10.661	11.481	12.483	13.688	14.853	16.038	17.223	18.488	20.075	22.084	24.436	26.828	28.589	28.407	26.982	25.486	24.032	23.157	23.083	23.250	23.417	23.584	23.750	23.917	24.084	24.251	24.418	24.585	24.752	24.935															
EXISTING GROUND HEIGHT	9.343	8.506	9.425	9.965	9.754	10.157	10.756	11.487	12.483	13.587	16.038	17.163	18.976	20.336	19.579	18.114	22.650	28.417	27.958	26.134	24.074	22.442	21.684	21.537	22.777	23.091	22.868	19.248	21.628	21.188	19.192	23.000	23.985	23.165	23.958															
STATION	17+000	17+050	17+100	17+150	17+200	17+250	17+300	17+350	17+400	17+450	17+500	17+550	17+600	17+650	17+700	17+750	17+800	17+850	17+900	17+950	18+000	18+050	18+100	18+150	18+200	18+250	18+300	18+350	18+400	18+450	18+500	18+550	18+600	18+650	18+700															
HORIZONTAL ALIGNMENT	R=00										R=5000										R=00										R=8000										R=00									

	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	PP-11
		DRAWING TITLE : PLAN AND PROFILE	DATE: MARCH 2008
		SCALE =	1 / 5,000 H, 1/1,000 V

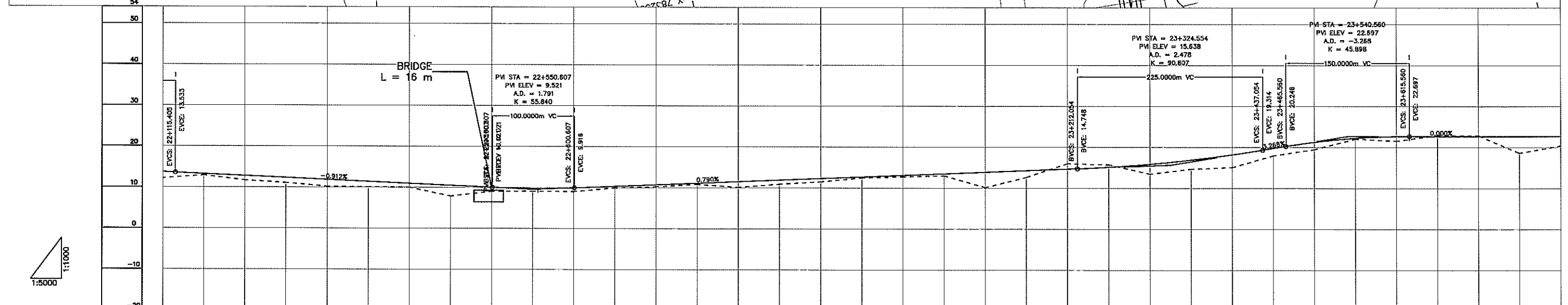
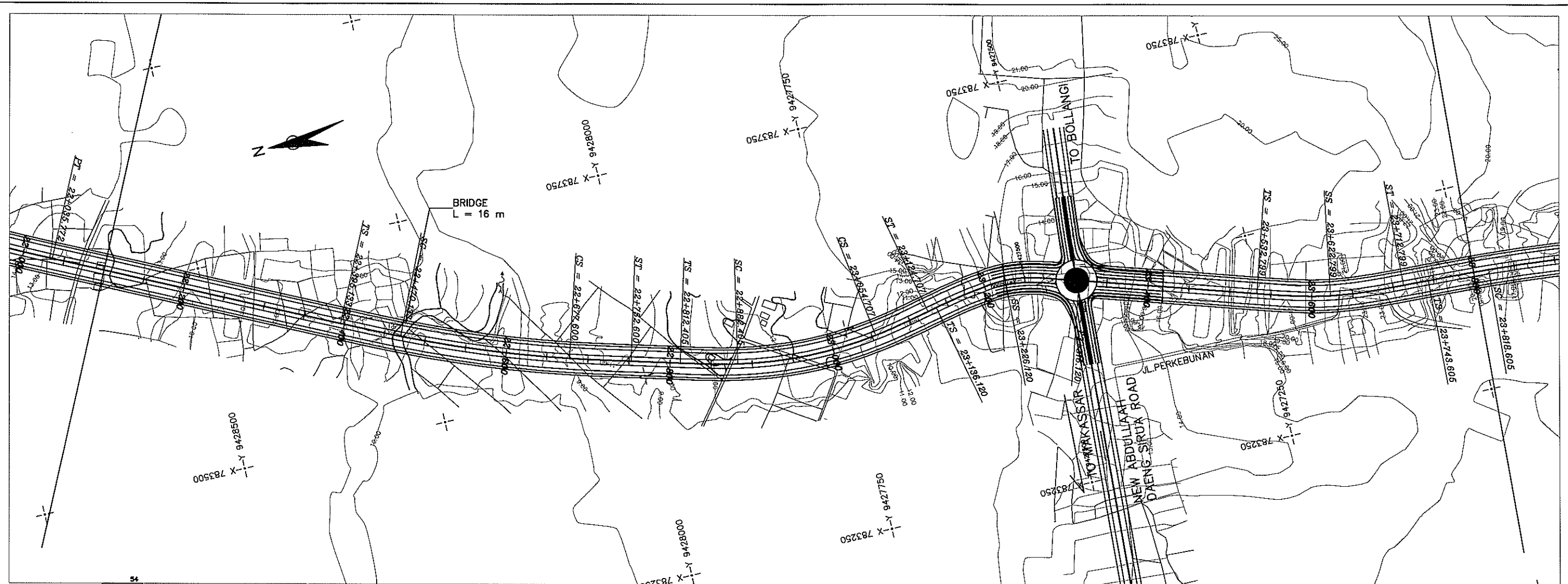


PROPOSED HEIGHT	EXISTING GROUND HEIGHT	STATION	HORIZONTAL ALIGNMENT
24.935	23.958	18+700	R=00
25.769	24.854	18+750	
27.565	23.277	18+800	
29.689	26.623	18+850	
31.638	31.617	18+900	
31.981	31.111	18+950	
30.578	29.166	19+000	
28.860	25.055	19+050	
27.377	24.577	19+100	
28.431	27.391	19+150	
26.023	24.965	19+200	
25.938	25.217	19+250	
26.777	24.465	19+300	
29.018	28.482	19+350	
31.758	31.758	19+400	
34.497	33.812	19+450	
37.236	35.745	19+500	
39.973	39.120	19+550	
41.896	40.087	19+600	
42.356	41.908	19+650	
41.357	40.859	19+700	
39.709	38.482	19+750	
38.081	36.487	19+800	
36.414	34.676	19+850	
34.766	33.057	19+900	
33.118	31.144	19+950	
31.470	29.877	20+000	
29.822	28.096	20+050	
28.175	26.503	20+100	
26.527	25.259	20+150	
24.879	24.102	20+200	
23.531	22.936	20+250	
22.733	21.583	20+300	
22.482	21.008	20+350	
22.482	19.844	20+400	

	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	PP-12
		PLAN AND PROFILE	DATE: MARCH 2008
		SCALE =	1 / 5,000 H, 1/1,000 V

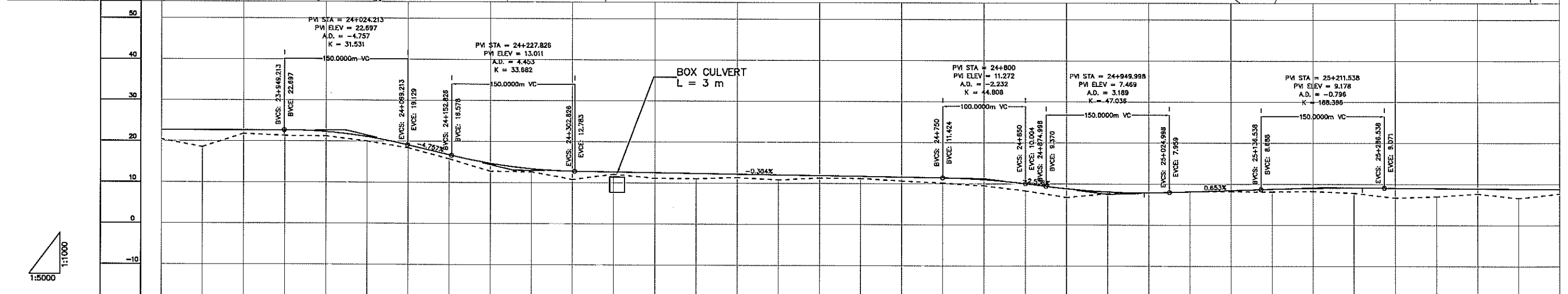
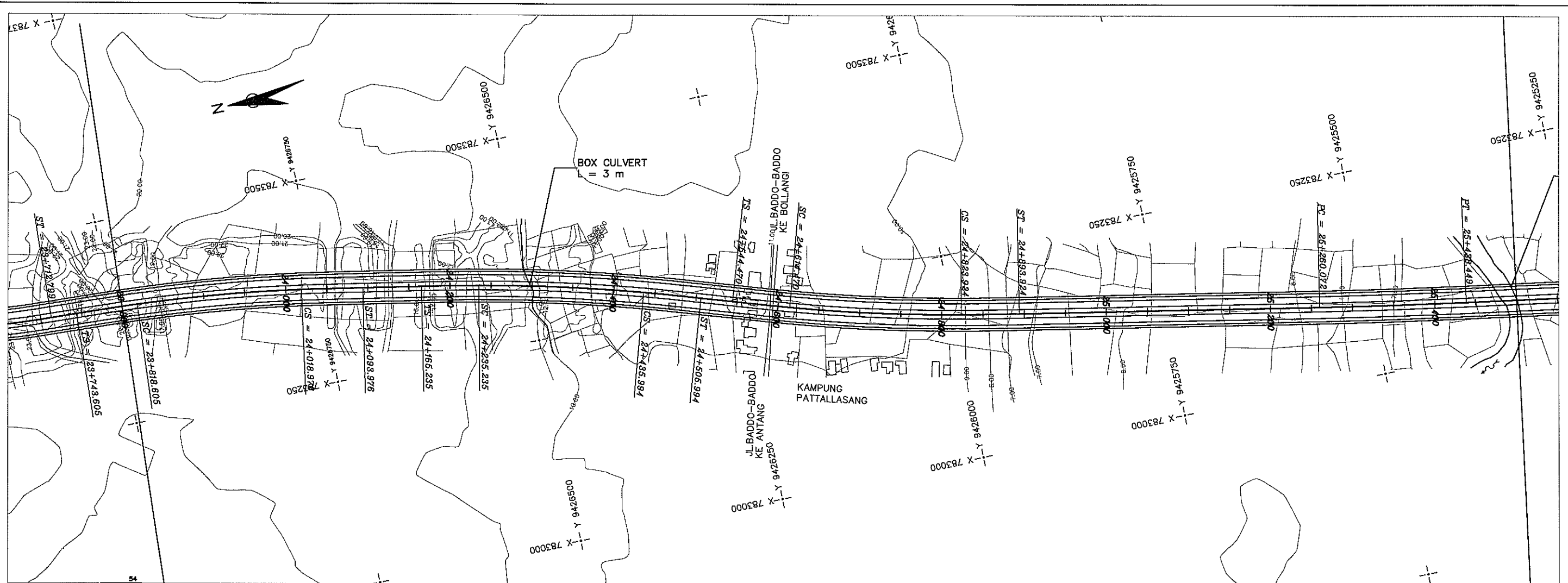


	PROJECT TITLE: THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	ROAD NAME TITLE : MAMMINASA BYPASS	DRAWING NO. PP-13
	SCALE = 1 / 5,000 H, 1/1,000 V	DRAWING TITLE : PLAN AND PROFILE	DATE: MARCH 2008
	PROJECT TITLE: THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA		



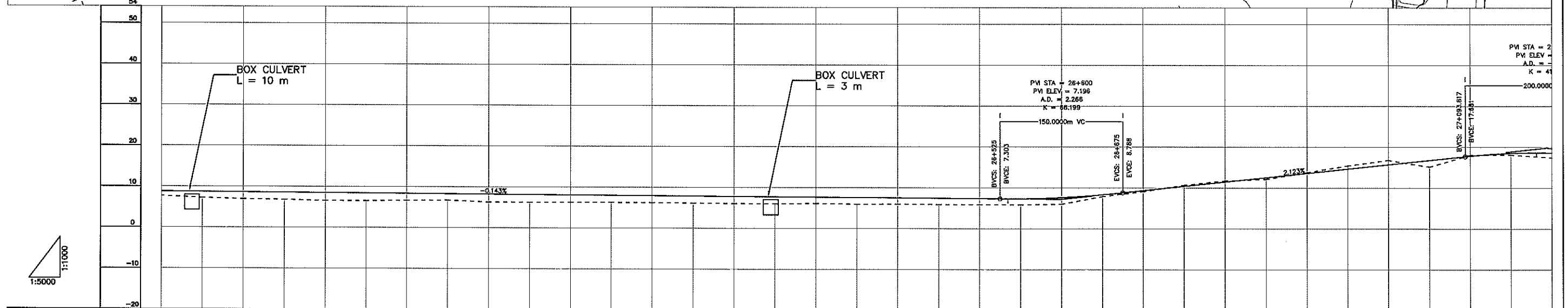
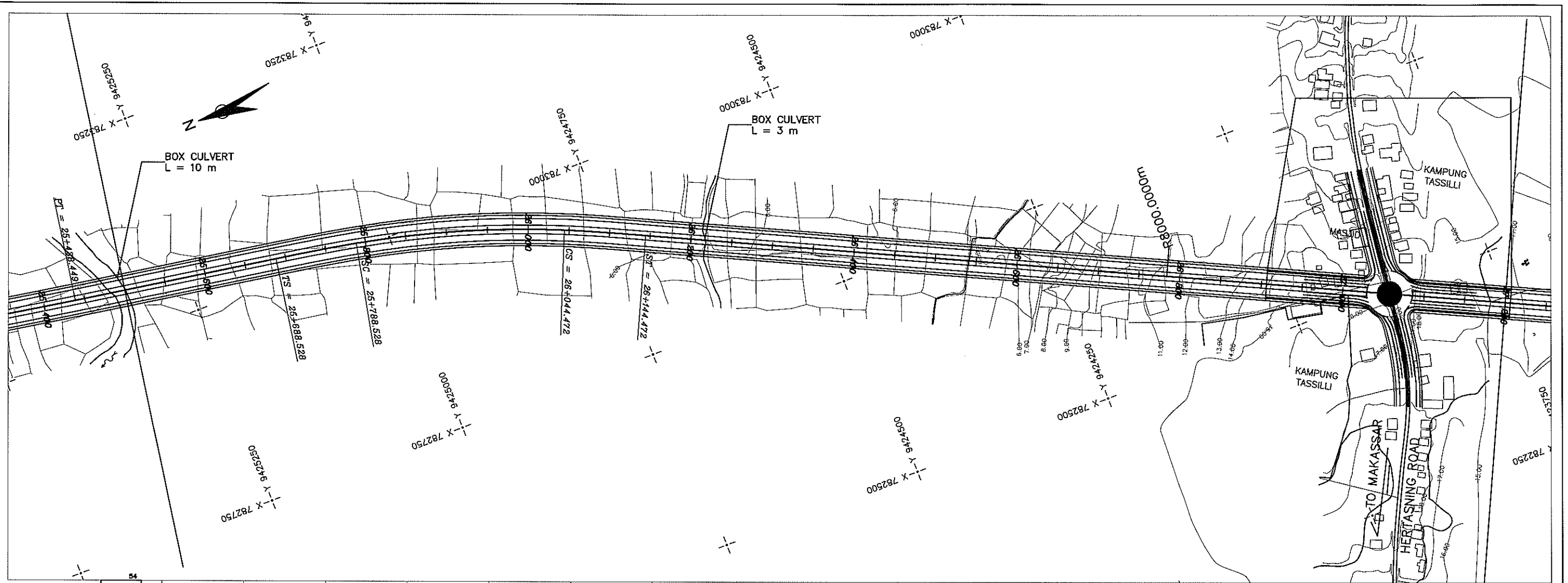
PROPOSED HEIGHT	EXISTING GROUND HEIGHT	STATION	HORIZONTAL ALIGNMENT
14.028	13.028	22+100	R=00
13.529	12.208	22+150	R=00
13.028	12.625	22+200	R=00
12.528	11.054	22+250	R=00
12.028	11.577	22+300	R=00
11.528	10.091	22+350	R=00
11.027	10.000	22+400	R=1550
10.527	8.931	22+450	R=1550
10.027	8.025	22+500	R=1550
9.745	8.732	22+550	R=1550
9.911	8.988	22+600	R=1550
10.306	9.561	22+650	R=1550
10.701	10.000	22+700	R=00
11.097	10.698	22+750	R=00
11.492	10.819	22+800	R=00
11.887	10.333	22+850	R=00
12.282	11.467	22+900	R=500
12.677	11.388	22+950	R=500
13.072	12.285	23+000	R=00
13.468	13.021	23+050	R=00
13.863	11.896	23+100	R=00
14.258	10.195	23+150	R=00
19.090	16.002	23+200	R=00
20.593	17.054	23+250	R=00
15.889	13.790	23+300	R=00
16.886	13.331	23+350	R=00
18.179	13.310	23+400	R=00
19.737	14.897	23+450	R=00
21.242	17.863	23+500	R=00
22.229	20.903	23+550	R=00
22.671	21.537	23+600	R=00
22.697	21.650	23+650	R=00
22.697	22.697	23+700	R=00
22.697	22.449	23+750	R=00
27.687	18.805	23+800	R=00

	PROJECT TITLE: THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	ROAD NAME TITLE : MAMMINASA BYPASS	DRAWING NO. PP-14 DATE: MARCH 2008
	DRAWING TITLE : PLAN AND PROFILE	SCALE = 1 / 5,000 H, 1/1,000 V	



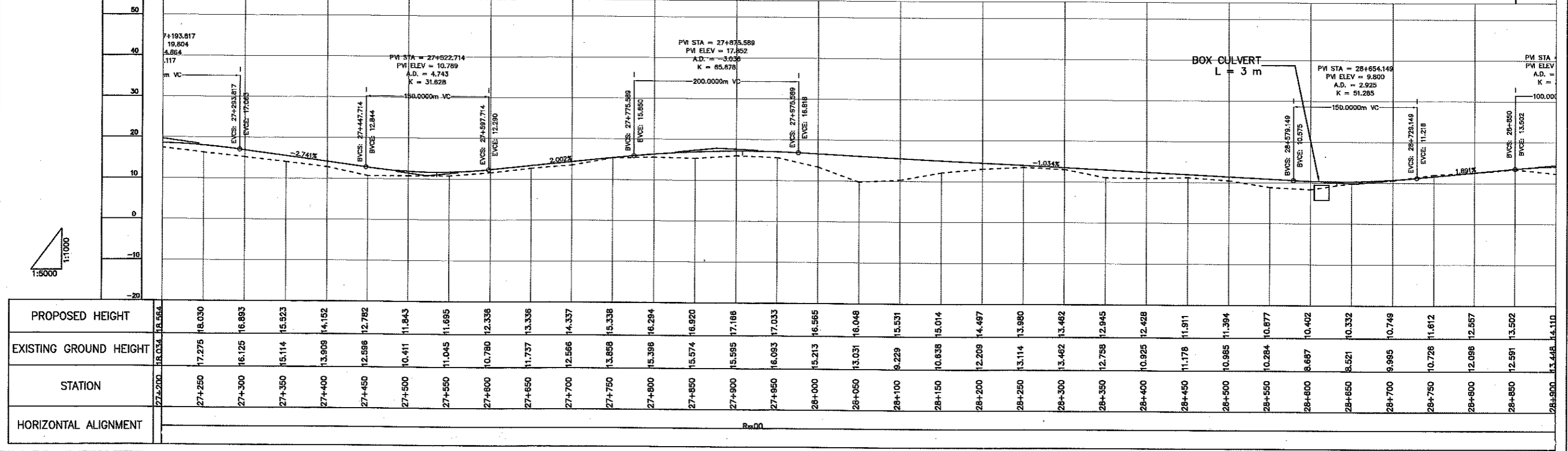
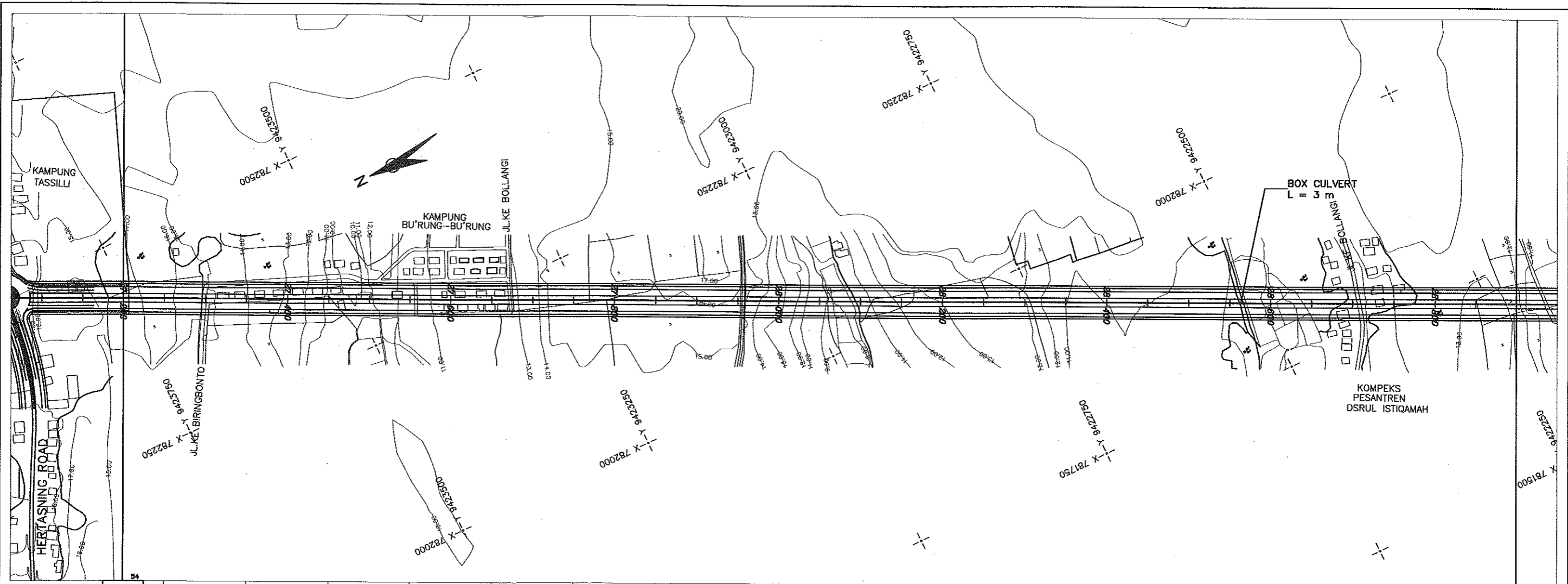
PROPOSED HEIGHT	EXISTING GROUND HEIGHT	STATION	HORIZONTAL ALIGNMENT
22.697	21.805	23+500	R=2000
22.697	21.047	23+850	
22.697	20.086	23+900	
22.697	21.911	23+950	
22.685	21.453	24+000	
22.151	21.204	24+050	
20.824	20.000	24+100	
18.717	18.717	24+150	
16.339	15.952	24+200	
14.384	12.995	24+250	
13.131	12.455	24+300	
12.639	10.943	24+350	
12.487	11.968	24+400	
12.335	11.322	24+450	
12.184	11.330	24+500	
12.032	11.565	24+550	
11.880	10.792	24+600	
11.728	11.214	24+650	
11.576	10.907	24+700	
11.424	10.564	24+750	
10.983	10.072	24+800	
10.004	9.368	24+850	
8.803	8.026	24+900	
8.067	6.771	24+950	
7.862	7.682	25+000	
8.122	7.961	25+050	
8.449	8.152	25+100	
8.771	8.130	25+150	
8.995	8.155	25+200	
9.087	8.229	25+250	
9.051	7.708	25+300	
8.980	8.578	25+350	
8.909	7.087	25+400	
8.637	7.607	25+450	
8.584	8.584	25+500	

JAPAN INTERNATIONAL COOPERATION AGENCY NIPPON KOEI CO., LTD. JOINT VENTURE WITH KRI INTERNATIONAL Corporation ALMEC ALMEC Corporation	PROJECT TITLE: THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	ROAD NAME TITLE : MAMMINASA BYPASS	DRAWING NO. PP-15 DATE: MARCH 2008
	DRAWING TITLE : PLAN AND PROFILE	SCALE = 1 / 5,000 H, 1/1,000 V	

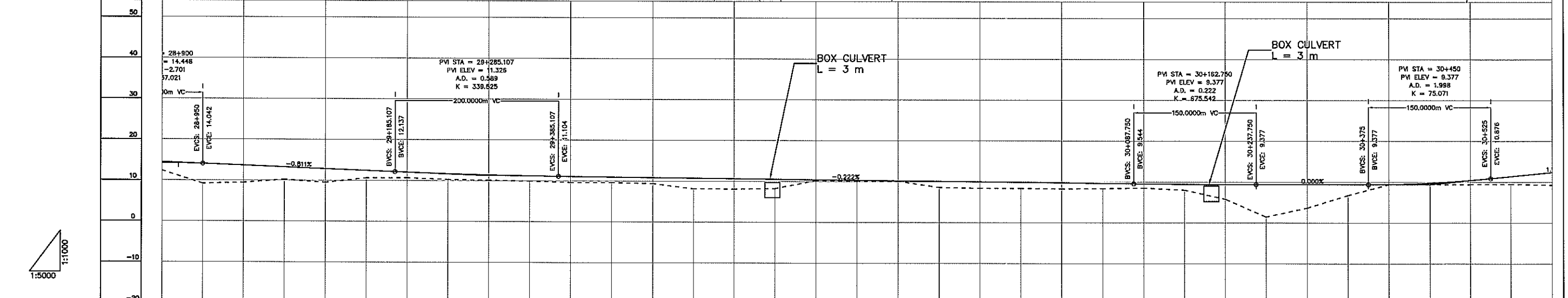
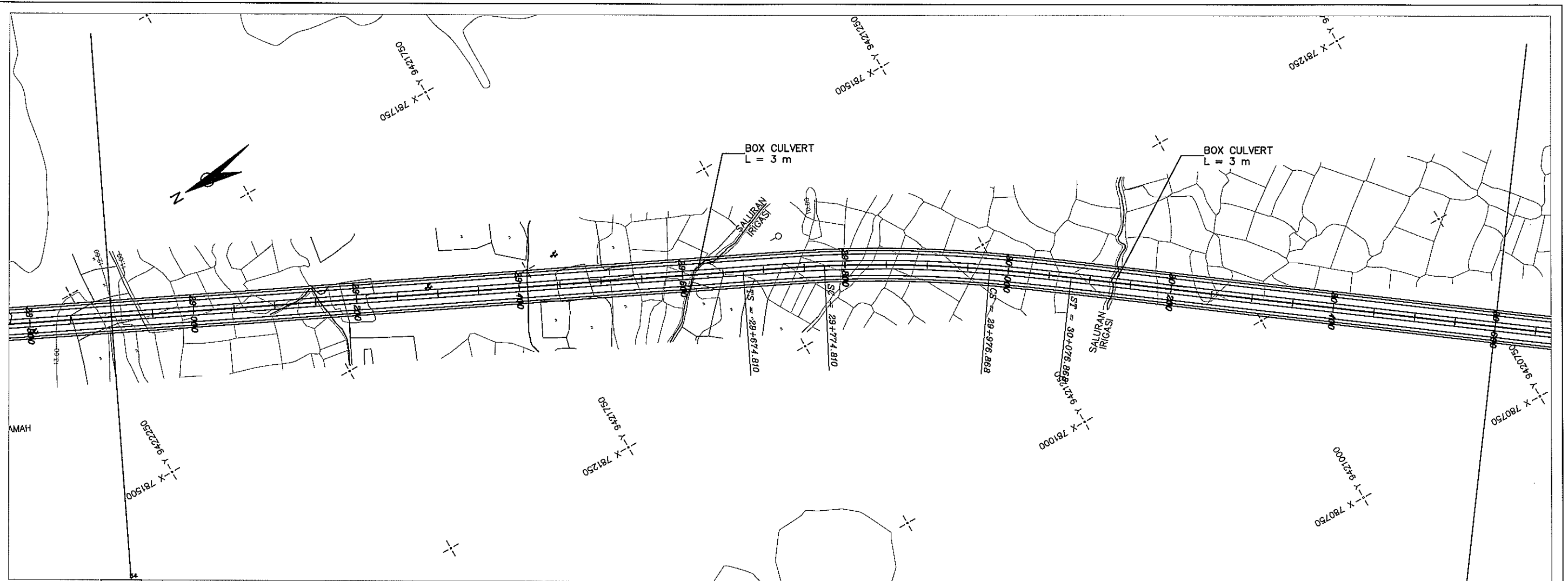


PROPOSED HEIGHT	EXISTING GROUND HEIGHT	STATION	HORIZONTAL ALIGNMENT
8.766	8.594	25+500	R=00
8.685	7.702	25+550	
8.623	7.196	25+600	R=1250
8.562	6.887	25+650	
8.481	6.770	25+700	R=00
8.409	6.527	25+750	
8.338	6.637	25+800	R=1250
8.266	6.712	25+850	
8.195	6.636	25+900	R=00
8.124	6.257	25+950	
8.052	6.277	26+000	R=1250
7.981	6.244	26+050	
7.910	6.206	26+100	R=00
7.838	6.127	26+150	
7.767	6.043	26+200	R=1250
7.696	5.988	26+250	
7.624	6.100	26+300	R=00
7.553	5.917	26+350	
7.481	5.980	26+400	R=1250
7.410	5.893	26+450	
7.339	5.877	26+500	R=00
7.315	5.846	26+550	
7.241	5.986	26+600	R=1250
7.168	6.319	26+650	
7.095	7.992	26+700	R=00
7.022	9.214	26+750	
6.949	10.766	26+800	R=1250
6.876	11.816	26+850	
6.803	12.334	26+900	R=00
6.730	13.956	26+950	
6.657	15.640	27+000	R=1250
6.584	16.750	27+050	
6.511	15.455	27+100	R=00
6.438	18.050	27+150	
6.365	18.034	27+200	

	PROJECT TITLE: THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	ROAD NAME TITLE : MAMMINASA BYPASS	DRAWING NO. PP-16 DATE: MARCH 2008
	DRAWING TITLE : PLAN AND PROFILE	SCALE = 1 / 5,000 H, 1/1,000 V	

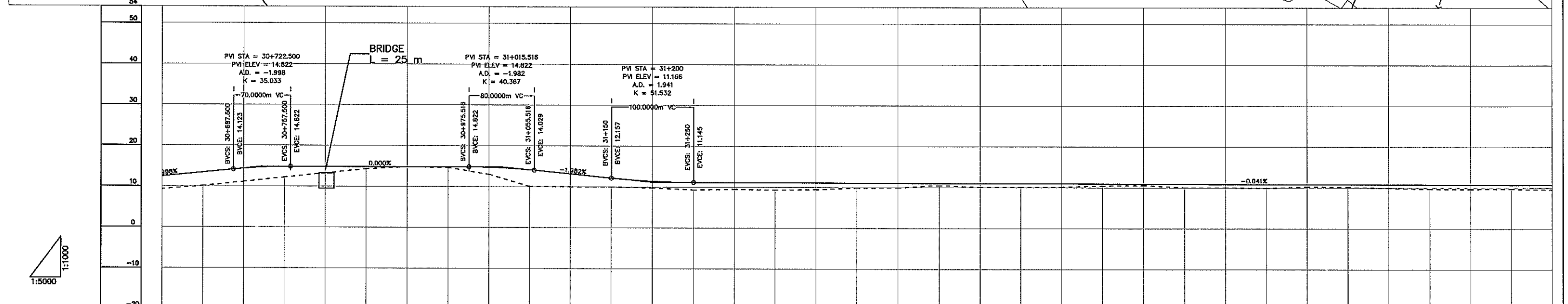
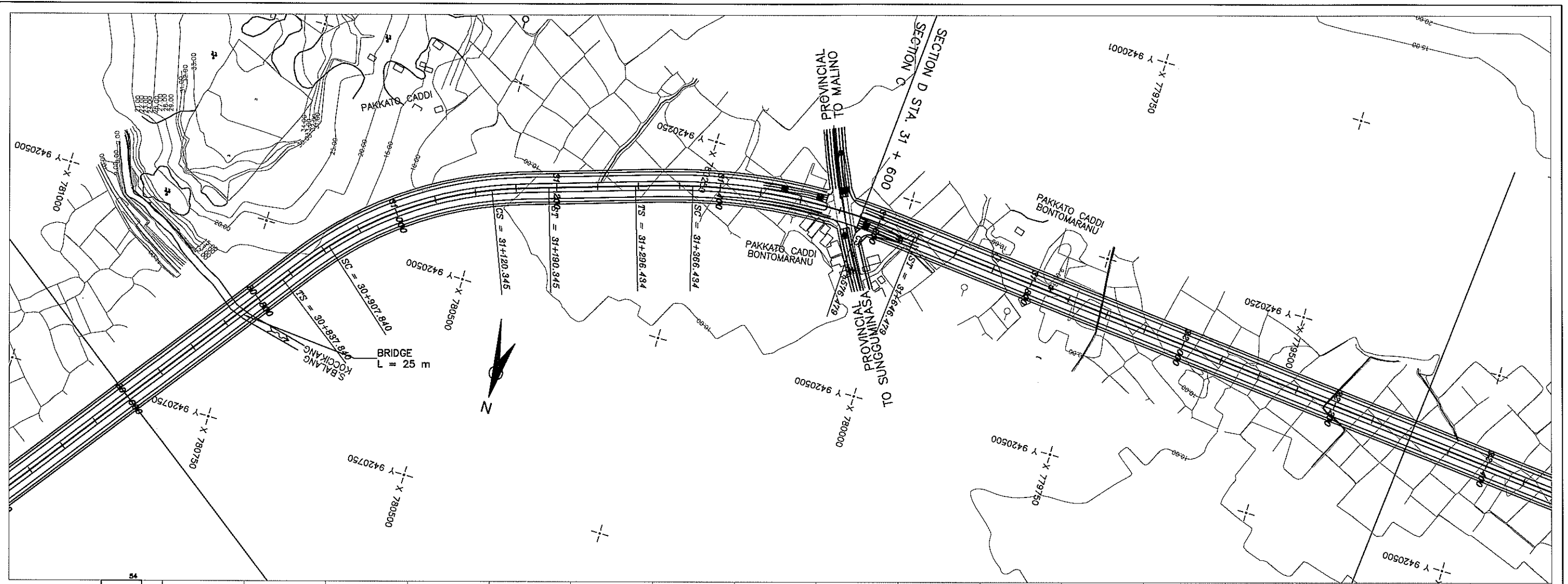


	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	PP-17
		PLAN AND PROFILE	DATE: MARCH 2008
		SCALE =	
		1 / 5,000 H, 1/1,000 V	



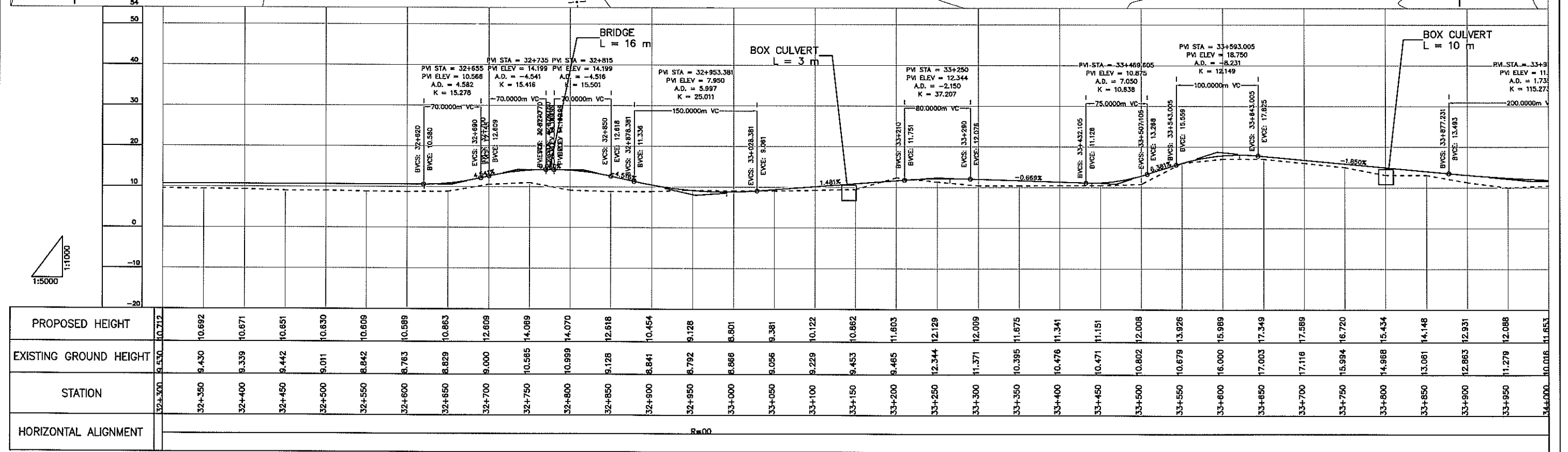
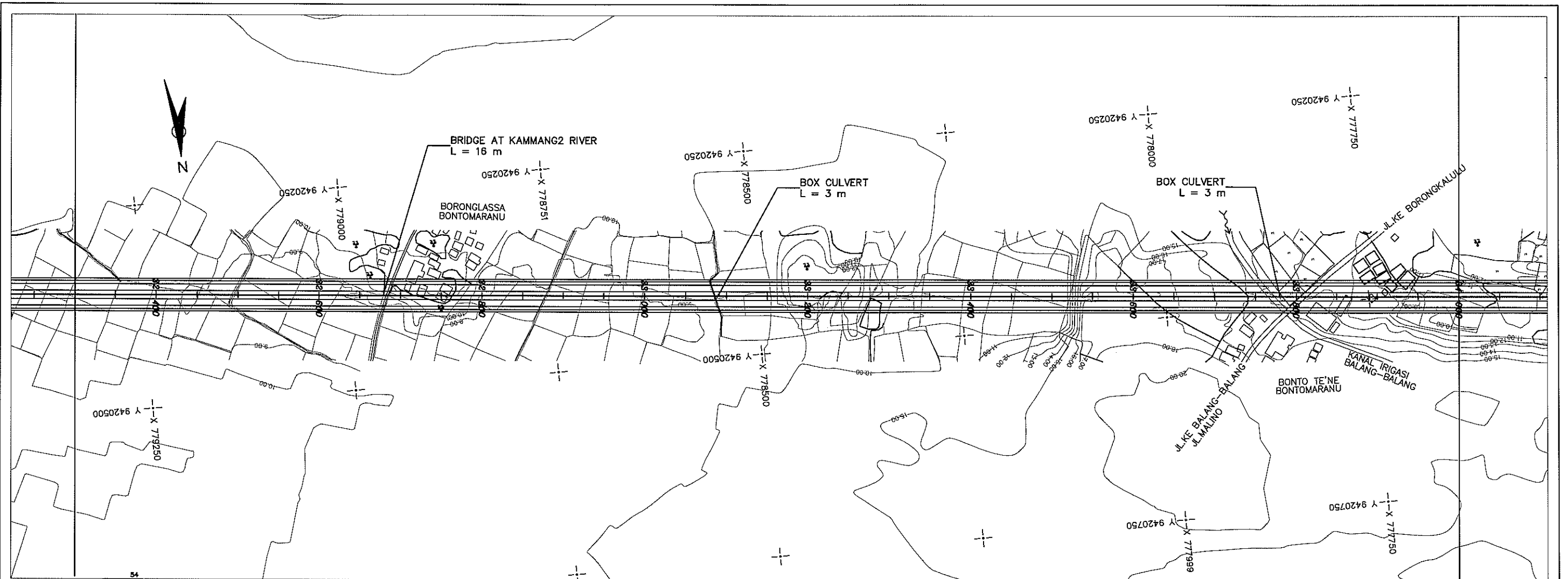
PROPOSED HEIGHT	14.110	14.042	13.637	13.232	12.826	12.421	12.019	11.673	11.400	11.200	11.071	10.960	10.849	10.738	10.627	10.516	10.405	10.294	10.183	10.072	9.961	9.850	9.739	9.628	9.518	9.434	9.368	9.377	9.377	9.377	9.418	9.752	10.418	11.375	12.374
EXISTING GROUND HEIGHT	13.448	11.738	9.155	9.517	9.950	9.506	10.648	10.625	10.247	10.050	9.877	9.620	9.615	9.179	8.091	8.055	8.314	10.294	10.146	9.964	8.634	8.374	8.288	8.322	8.424	8.414	7.753	5.531	0.000	3.988	7.092	9.377	9.409	9.463	8.268
STATION	28+000	28+950	29+000	29+050	29+100	29+150	29+200	29+250	29+300	29+350	29+400	29+450	29+500	29+550	29+600	29+650	29+700	29+750	29+800	29+850	29+900	29+950	30+000	30+050	30+100	30+150	30+200	30+250	30+300	30+350	30+400	30+450	30+500	30+550	30+600
HORIZONTAL ALIGNMENT	R=00																		R=1600										R=00						

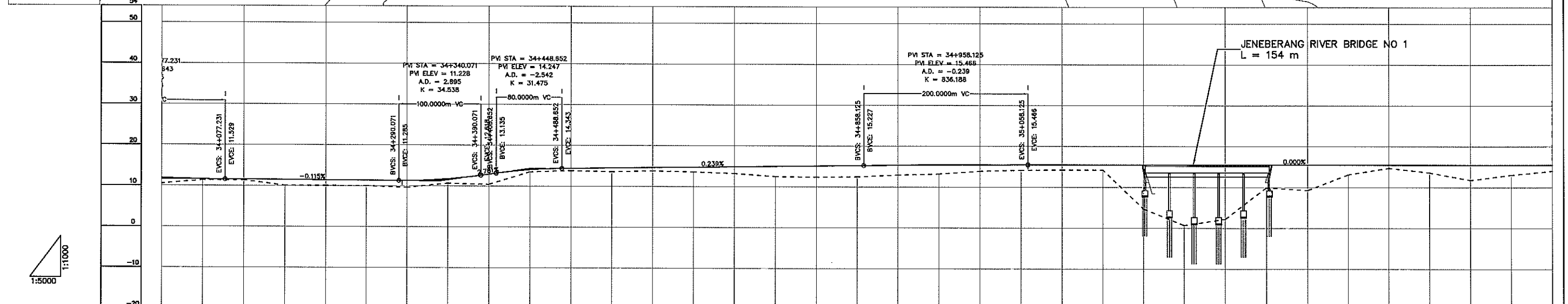
	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	PP-18
		PLAN AND PROFILE	DATE: MARCH 2008
		SCALE =	1 / 5,000 H, 1/1,000 V



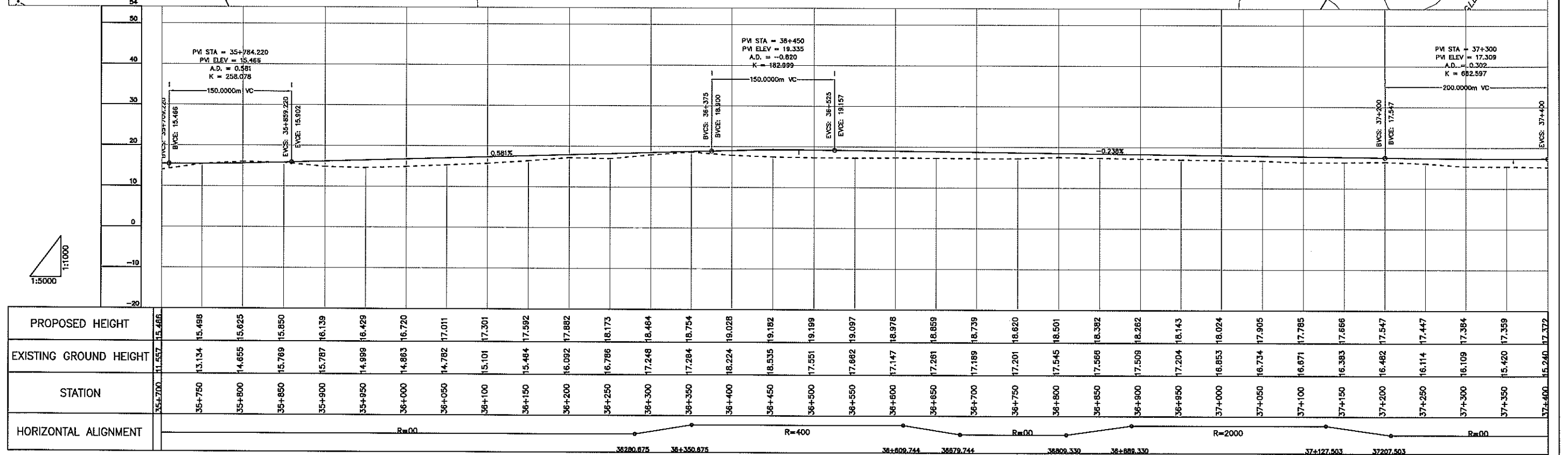
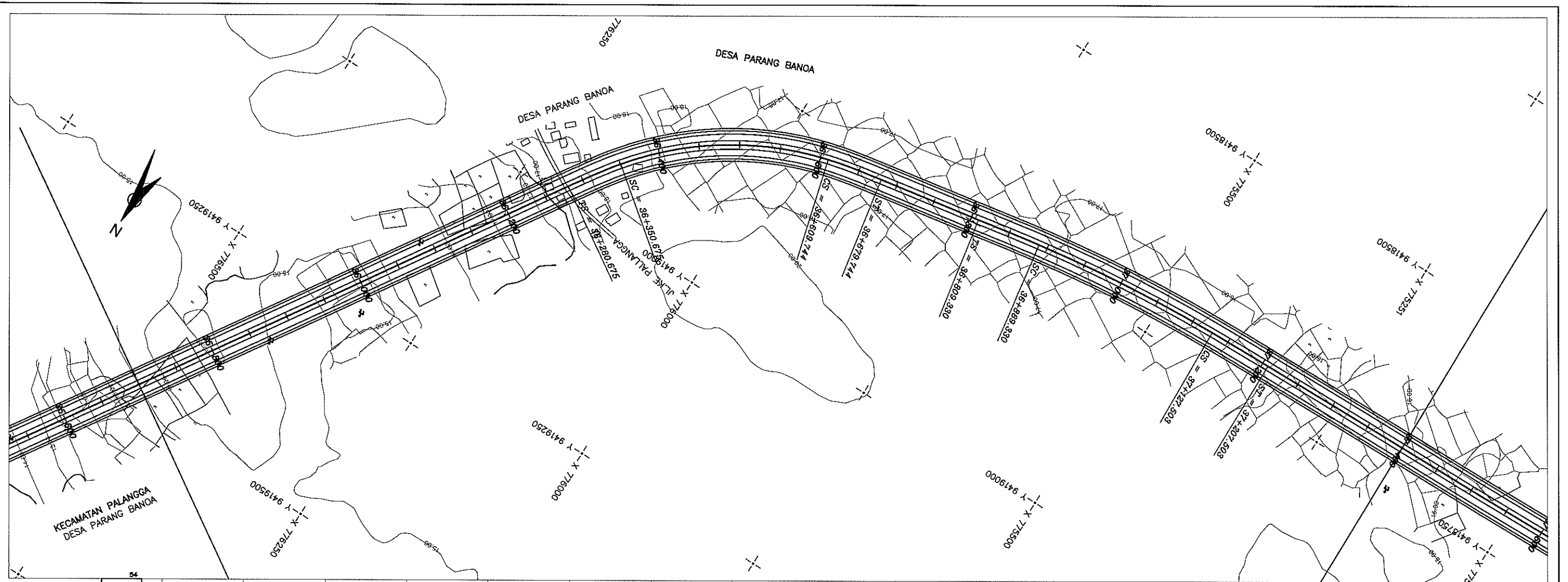
PROPOSED HEIGHT	12.374	13.373	14.350	14.814	14.822	14.822	14.822	14.822	14.748	14.135	13.148	12.157	11.145	11.125	11.104	11.084	11.083	11.042	11.022	11.001	10.980	10.960	10.939	10.919	10.898	10.877	10.857	10.836	10.816	10.795	10.774	10.754	10.733	10.712		
EXISTING GROUND HEIGHT	9.268	9.460	10.192	11.246	12.300	13.354	14.408	14.822	14.758	12.239	10.000	10.000	9.740	9.300	9.465	9.285	9.424	9.895	9.840	10.537	10.060	10.120	10.250	10.436	10.571	10.040	9.895	10.251	10.164	10.179	9.943	9.700	9.737	9.530		
STATION	30+600	30+650	30+700	30+750	30+800	30+850	30+900	30+950	31+000	31+050	31+100	31+150	31+200	31+250	31+300	31+350	31+400	31+450	31+500	31+550	31+600	31+650	31+700	31+750	31+800	31+850	31+900	31+950	32+000	32+050	32+100	32+150	32+200	32+250	32+300	
HORIZONTAL ALIGNMENT	R=00			R=00			R=450			R=00			R=00			R=700			R=00			R=00			R=00			R=00			R=00			R=00		

	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	PP-19
		PLAN AND PROFILE	MARCH 2008
		SCALE =	
		1 / 5,000 H, 1/1,000 V	

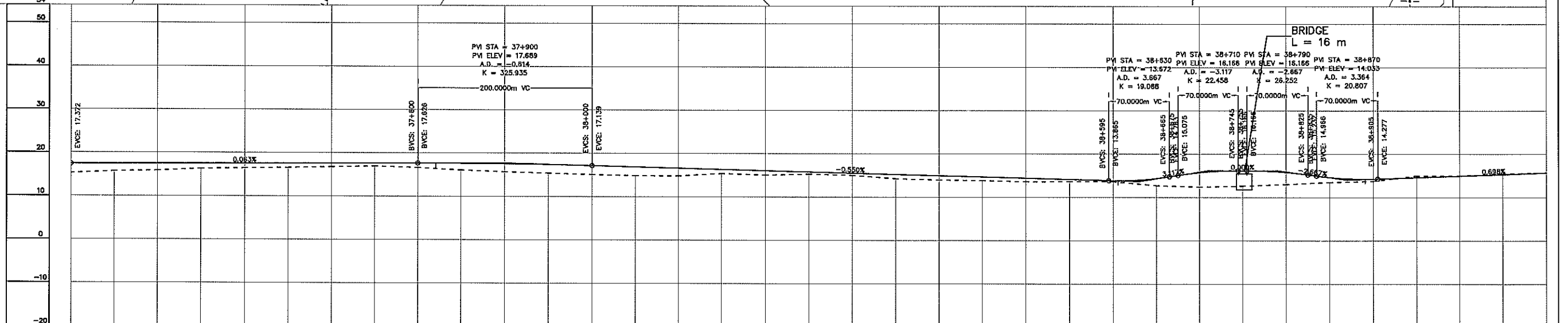
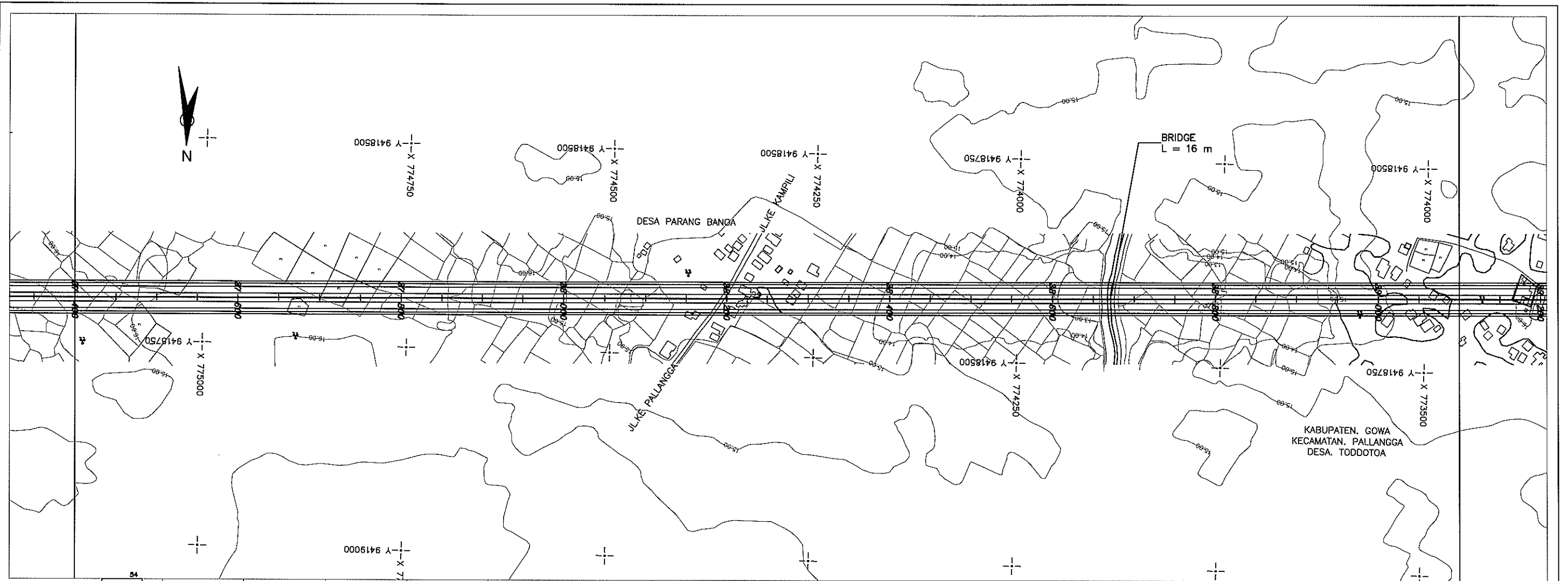




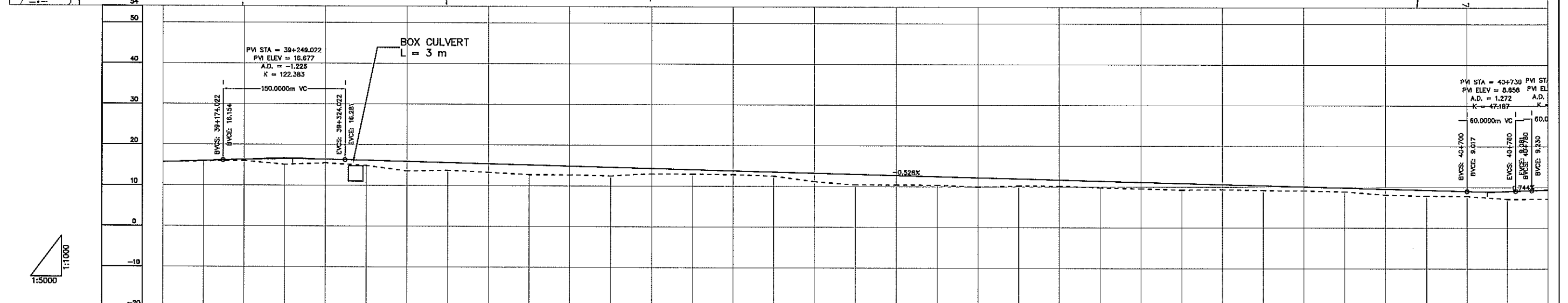
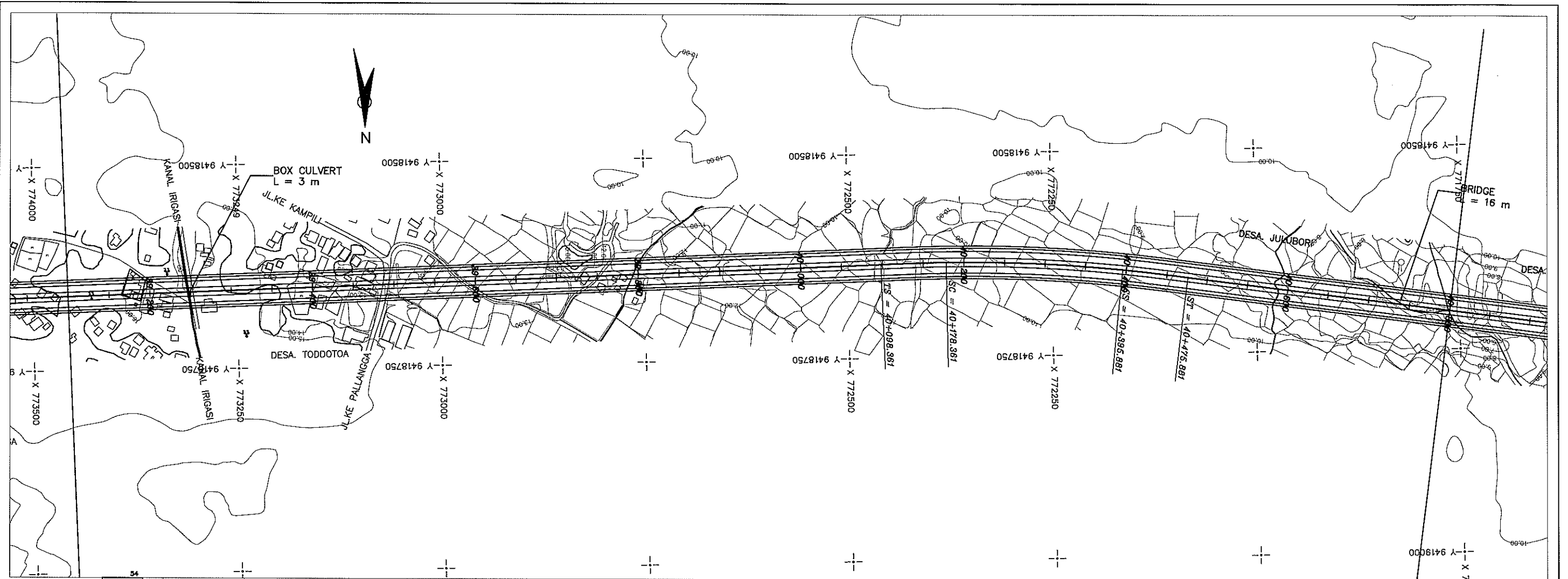
PROPOSED HEIGHT	EXISTING GROUND HEIGHT	STATION	HORIZONTAL ALIGNMENT
11.653	10.016	34+000	R=∞
11.560	10.460	34+050	R=∞
11.503	11.338	34+100	R=∞
11.445	11.445	34+150	R=∞
11.388	10.007	34+200	R=∞
11.331	9.986	34+250	R=∞
11.274	9.934	34+300	R=∞
11.216	9.575	34+350	R=∞
11.425	10.049	34+400	R=300
12.502	9.501	34+450	R=300
13.877	13.485	34+500	R=300
14.644	13.584	34+550	R=300
14.848	13.790	34+600	R=300
14.571	14.048	34+650	R=300
14.494	13.637	34+700	R=∞
14.417	13.492	34+750	R=∞
14.340	12.913	34+800	R=∞
14.282	12.460	34+850	R=∞
14.185	12.425	34+900	R=5000
14.108	12.524	34+950	R=5000
14.031	13.030	35+000	R=5000
13.976	13.247	35+050	R=5000
14.210	13.659	35+100	R=5000
14.713	14.221	35+150	R=5000
15.210	14.000	35+200	R=5000
15.455	5.652	35+250	R=∞
15.466	2.195	35+300	R=∞
15.466	1.070	35+350	R=∞
15.466	8.367	35+400	R=∞
15.466	8.053	35+450	R=∞
15.466	13.197	35+500	R=∞
15.466	14.256	35+550	R=∞
15.466	14.469	35+600	R=∞
15.466	13.027	35+650	R=∞
15.466	11.557	35+700	R=∞



	PROJECT TITLE: THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	ROAD NAME TITLE: MAMMINASA BYPASS	DRAWING NO.: PP-22
	DRAWING TITLE: PLAN AND PROFILE	SCALE = 1 / 5,000 H, 1/1,000 V	DATE: MARCH 2008
	DATE: MARCH 2008		

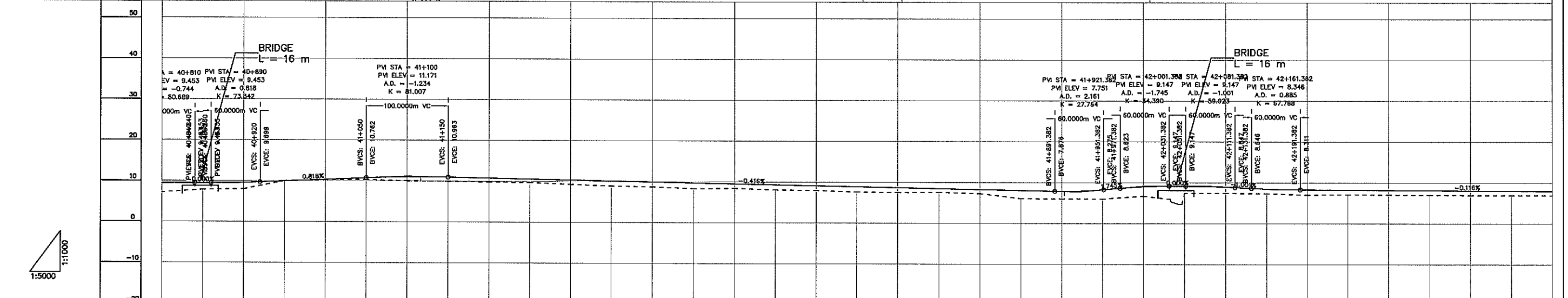
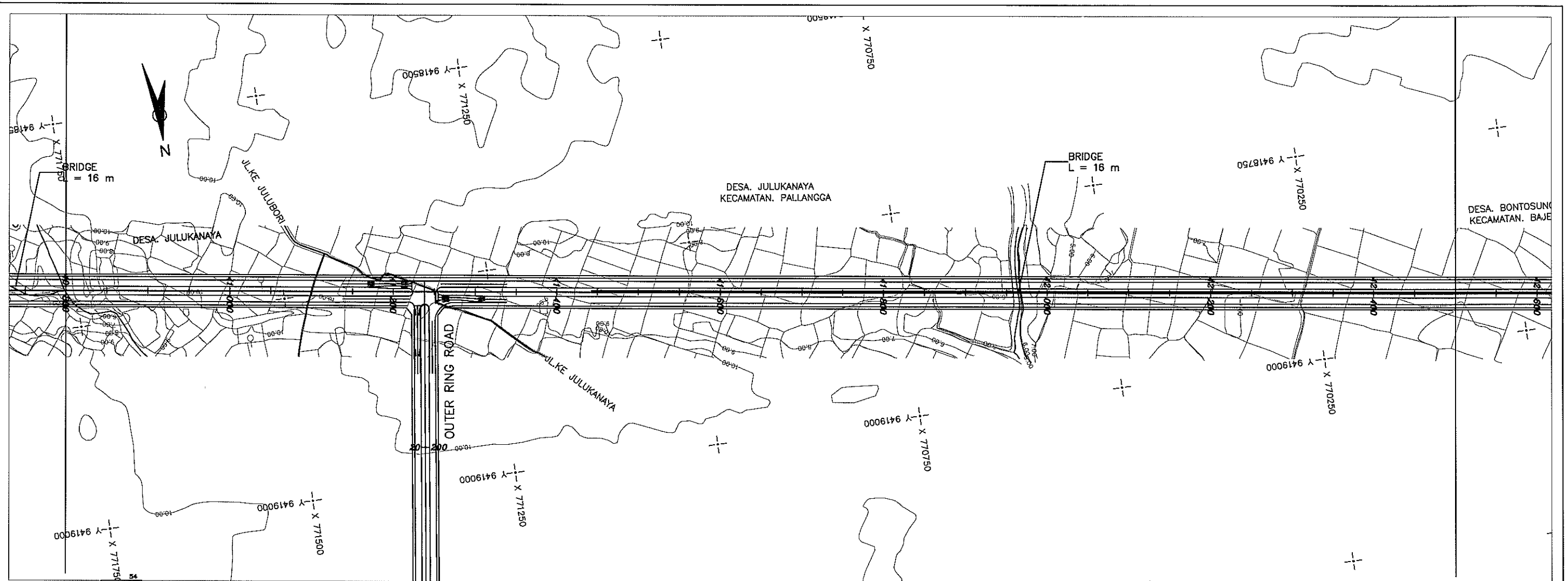


PROPOSED HEIGHT	EXISTING GROUND HEIGHT	STATION	HORIZONTAL ALIGNMENT
17.372	15.240	37+400	R=100
17.404	15.696	37+450	
17.435	15.847	37+500	
17.467	15.299	37+550	
17.499	16.230	37+600	
17.530	16.448	37+650	
17.562	16.467	37+700	
17.594	16.741	37+750	
17.626	16.880	37+800	
17.619	16.710	37+850	
17.535	16.489	37+900	
17.375	16.000	37+950	
17.139	15.372	38+000	
16.864	15.370	38+050	
16.588	14.791	38+100	
16.313	15.000	38+150	
16.038	14.743	38+200	
15.763	15.273	38+250	
15.488	15.288	38+300	
15.213	15.170	38+350	
14.938	14.276	38+400	
14.663	14.155	38+450	
14.387	13.943	38+500	
14.112	13.630	38+550	
13.844	13.602	38+600	
14.354	13.595	38+650	
15.715	12.778	38+700	
16.166	12.615	38+750	
15.780	12.522	38+800	
14.620	13.162	38+850	
14.246	13.288	38+900	
14.591	13.741	38+950	
15.288	13.747	39+000	
15.288	14.911	39+050	
15.637	15.088	39+100	



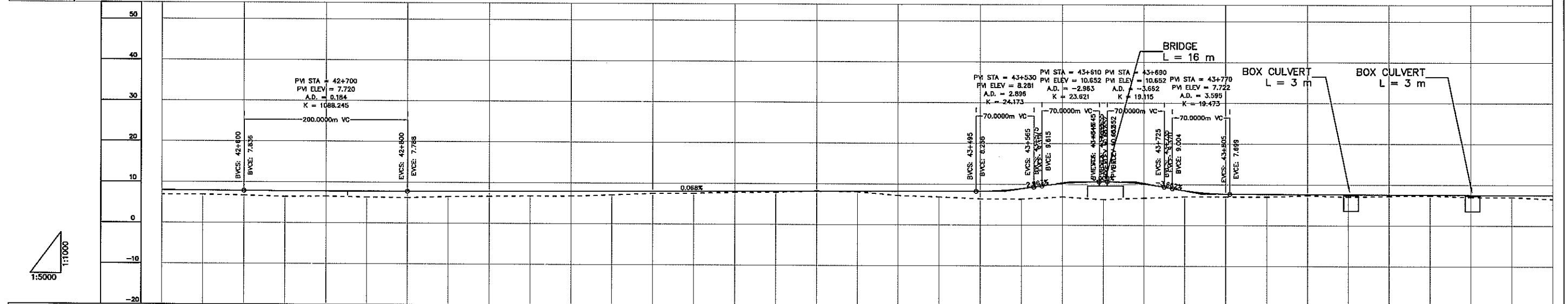
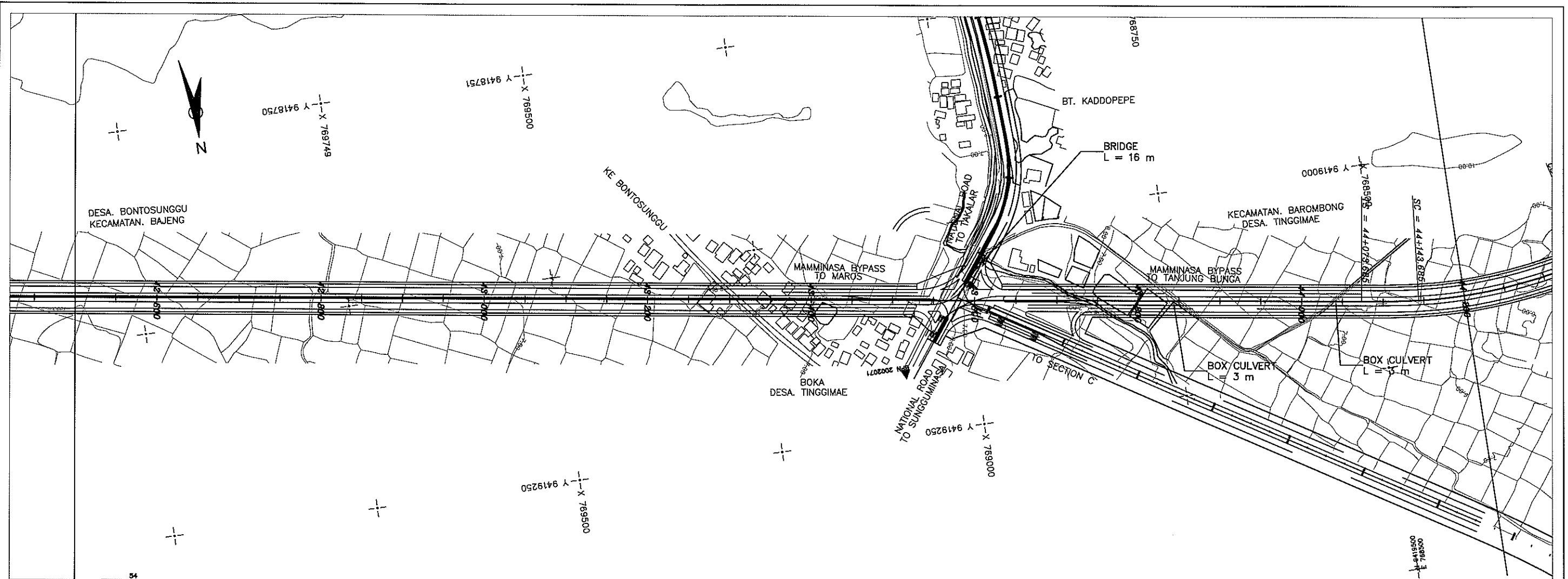
PROPOSED HEIGHT	15.088	15.637	15.986	16.307	16.448	16.384	16.144	15.880	15.616	15.352	15.088	14.824	14.560	14.296	14.032	13.768	13.504	13.240	12.976	12.712	12.448	12.184	11.920	11.656	11.392	11.128	10.865	10.601	10.337	10.073	9.809	9.545	9.281	9.017	8.753	8.489	8.225	7.961	7.697	7.433	7.169	6.905	6.641	6.377	6.113	5.849	5.585	5.321	5.057	4.793	4.529	4.265	4.001	3.737	3.473	3.209	2.945	2.681	2.417	2.153	1.889	1.625	1.361	1.097	0.833	0.569	0.305	0.041	-0.223	-0.489	-0.755	-1.021	-1.287	-1.553	-1.819	-2.085	-2.351	-2.617	-2.883	-3.149	-3.415	-3.681	-3.947	-4.213	-4.479	-4.745	-5.011	-5.277	-5.543	-5.809	-6.075	-6.341	-6.607	-6.873	-7.139	-7.405	-7.671	-7.937	-8.203	-8.469	-8.735	-9.001	-9.267	-9.533	-9.799	-10.065	-10.331	-10.597	-10.863	-11.129	-11.395	-11.661	-11.927	-12.193	-12.459	-12.725	-12.991	-13.257	-13.523	-13.789	-14.055	-14.321	-14.587	-14.853	-15.119	-15.385	-15.651	-15.917	-16.183	-16.449	-16.715	-16.981	-17.247	-17.513	-17.779	-18.045	-18.311	-18.577	-18.843	-19.109	-19.375	-19.641	-19.907	-20.173	-20.439	-20.705	-20.971	-21.237	-21.503	-21.769	-22.035	-22.301	-22.567	-22.833	-23.099	-23.365	-23.631	-23.897	-24.163	-24.429	-24.695	-24.961	-25.227	-25.493	-25.759	-26.025	-26.291	-26.557	-26.823	-27.089	-27.355	-27.621	-27.887	-28.153	-28.419	-28.685	-28.951	-29.217	-29.483	-29.749	-30.015	-30.281	-30.547	-30.813	-31.079	-31.345	-31.611	-31.877	-32.143	-32.409	-32.675	-32.941	-33.207	-33.473	-33.739	-34.005	-34.271	-34.537	-34.803	-35.069	-35.335	-35.601	-35.867	-36.133	-36.399	-36.665	-36.931	-37.197	-37.463	-37.729	-37.995	-38.261	-38.527	-38.793	-39.059	-39.325	-39.591	-39.857	-40.123	-40.389	-40.655	-40.921	-41.187	-41.453	-41.719	-41.985	-42.251	-42.517	-42.783	-43.049	-43.315	-43.581	-43.847	-44.113	-44.379	-44.645	-44.911	-45.177	-45.443	-45.709	-45.975	-46.241	-46.507	-46.773	-47.039	-47.305	-47.571	-47.837	-48.103	-48.369	-48.635	-48.901	-49.167	-49.433	-49.699	-49.965	-50.231	-50.497	-50.763	-51.029	-51.295	-51.561	-51.827	-52.093	-52.359	-52.625	-52.891	-53.157	-53.423	-53.689	-53.955	-54.221	-54.487	-54.753	-55.019	-55.285	-55.551	-55.817	-56.083	-56.349	-56.615	-56.881	-57.147	-57.413	-57.679	-57.945	-58.211	-58.477	-58.743	-59.009	-59.275	-59.541	-59.807	-60.073	-60.339	-60.605	-60.871	-61.137	-61.403	-61.669	-61.935	-62.201	-62.467	-62.733	-62.999	-63.265	-63.531	-63.797	-64.063	-64.329	-64.595	-64.861	-65.127	-65.393	-65.659	-65.925	-66.191	-66.457	-66.723	-66.989	-67.255	-67.521	-67.787	-68.053	-68.319	-68.585	-68.851	-69.117	-69.383	-69.649	-69.915	-70.181	-70.447	-70.713	-70.979	-71.245	-71.511	-71.777	-72.043	-72.309	-72.575	-72.841	-73.107	-73.373	-73.639	-73.905	-74.171	-74.437	-74.703	-74.969	-75.235	-75.501	-75.767	-76.033	-76.299	-76.565	-76.831	-77.097	-77.363	-77.629	-77.895	-78.161	-78.427	-78.693	-78.959	-79.225	-79.491	-79.757	-80.023	-80.289	-80.555	-80.821	-81.087	-81.353	-81.619	-81.885	-82.151	-82.417	-82.683	-82.949	-83.215	-83.481	-83.747	-84.013	-84.279	-84.545	-84.811	-85.077	-85.343	-85.609	-85.875	-86.141	-86.407	-86.673	-86.939	-87.205	-87.471	-87.737	-88.003	-88.269	-88.535	-88.801	-89.067	-89.333	-89.599	-89.865	-90.131	-90.397	-90.663	-90.929	-91.195	-91.461	-91.727	-91.993	-92.259	-92.525	-92.791	-93.057	-93.323	-93.589	-93.855	-94.121	-94.387	-94.653	-94.919	-95.185	-95.451	-95.717	-95.983	-96.249	-96.515	-96.781	-97.047	-97.313	-97.579	-97.845	-98.111	-98.377	-98.643	-98.909	-99.175	-99.441	-99.707	-99.973	-100.239	-100.505	-100.771	-101.037	-101.303	-101.569	-101.835	-102.101	-102.367	-102.633	-102.899	-103.165	-103.431	-103.697	-103.963	-104.229	-104.495	-104.761	-105.027	-105.293	-105.559	-105.825	-106.091	-106.357	-106.623	-106.889	-107.155	-107.421	-107.687	-107.953	-108.219	-108.485	-108.751	-109.017	-109.283	-109.549	-109.815	-110.081	-110.347	-110.613	-110.879	-111.145	-111.411	-111.677	-111.943	-112.209	-112.475	-112.741	-113.007	-113.273	-113.539	-113.805	-114.071	-114.337	-114.603	-114.869	-115.135	-115.401	-115.667	-115.933	-116.199	-116.465	-116.731	-116.997	-117.263	-117.529	-117.795	-118.061	-118.327	-118.593	-118.859	-119.125	-119.391	-119.657	-119.923	-120.189	-120.455	-120.721	-120.987	-121.253	-121.519	-121.785	-122.051	-122.317	-122.583	-122.849	-123.115	-123.381	-123.647	-123.913	-124.179	-124.445	-124.711	-124.977	-125.243	-125.509	-125.775	-126.041	-126.307	-126.573	-126.839	-127.105	-127.371	-127.637	-127.903	-128.169	-128.435	-128.701	-128.967	-129.233	-129.499	-129.765	-130.031	-130.297	-130.563	-130.829	-131.095	-131.361	-131.627	-131.893	-132.159	-132.425	-132.691	-132.957	-133.223	-133.489	-133.755	-134.021	-134.287	-134.553	-134.819	-135.085	-135.351	-135.617	-135.883	-136.149	-136.415	-136.681	-136.947	-137.213	-137.479	-137.745	-138.011	-138.277	-138.543	-138.809	-139.075	-139.341	-139.607	-139.873	-140.139	-140.405	-140.671	-140.937	-141.203	-141.469	-141.735	-142.001	-142.267	-142.533	-142.799	-143.065	-143.331	-143.597	-143.863	-144.129	-144.395	-144.661	-144.927	-145.193	-145.459	-145.725	-145.991	-146.257	-146.523	-146.789	-147.055	-147.321	-147.587	-147.853	-148.119	-148.385	-148.651	-148.917	-149.183	-149.449	-149.715	-149.981	-150.247	-150.513	-150.779	-151.045	-151.311	-151.577	-151.843	-152.109	-152.375	-152.641	-152.907	-153.173	-153.439	-153.705	-153.971	-154.237	-154.503	-154.769	-155.035	-155.301	-155.567	-155.833	-156.099	-156.365	-156.631	-156.897	-157.163	-157.429	-157.695	-157.961	-158.227	-158.493	-158.759	-159.025	-159.291	-159.557	-159.823	-160.089	-160.355	-160.621	-160.887	-161.153	-161.419	-161.685	-161.951	-162.217	-162.483	-162.749	-163.015	-163.281	-163.547	-163.813	-164.079	-164.345	-164.611	-164.877	-165.143	-165.409	-165.675	-165.941	-166.207	-166.473	-166.739	-167.005	-167.271	-167.537	-167.803	-168.069	-168.335	-168.601	-168.867	-169.133	-169.399	-169.665	-169.931	-170.197	-170.463	-170.729	-170.995	-171.261	-171.527	-171.793	-172.059	-172.325	-172.591	-172.857	-173.123	-173.389	-173.655	-173.921	-174.187	-174.453	-174.719	-174.985	-175.251	-175.517	-175.783	-176.049	-176.315	-176.581	-176.847	-177.113	-177.379	-177.645	-177.911	-178.177	-178.443	-178.709	-178.975	-179.241	-179.507	-179.773	-180.039	-180.305	-180.571	-180.837	-181.103	-181.369	-181.635	-181.901	-182.167	-182.433	-182.699	-182.965	-183.231	-183.497	-183.763	-184.029	-184.295	-184.561	-184.827	-185.093	-185.359	-185.625	-185.891	-186.157	-186.423	-186.689	-186.955	-187.221	-187.487	-187.753	-188.019	-188.285	-188.551	-188.817	-189.083	-189.349	-189.615	-189.881	-190.147	-190.413	-190.679	-190.945	-191.211	-191.477	-191.743	-192.009	-192.275	-192.541	-192.807	-193.073	-193.339	-193.605	-193.871	-194.137	-194.403	-194.669	-194.935	-195.201	-195.467	-195.733	-195.999	-196.265	-196.531	-196.797	-197.063	-197.329	-197.595	-197.861	-198.127	-198.393	-198.659	-198.925	-199.191	-199.457	-199.723	-200.000
EXISTING GROUND HEIGHT	15.088	15.531	15.691	16.020	15.815	15.724	15.263	14.414	13.746	13.886	12.941	12.651	12.643	12.691	12.615	12.885	12.606	12.034	10.908	10.380	10.349	10.183	9.915	10.246	10.161	9.720	9.313	9.400	9.223	9.316	9.041	8.474	8.030	7.808	7.144																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
STATION	39+100	39+150	39+200	39+250	39+300	39+350	39+400	39+450	39+500	39+550	39+600	39+650	39+700	39+750	39+800	39+850	39+900	39+950	40+000	40+050	40+100	40+150	40+200	40+250	40+300	40+350	40+400	40+450	40+500	40+550	40+600	40+650	40+700	40+750	40+800																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
HORIZONTAL ALIGNMENT	R=00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	PP-24
		PLAN AND PROFILE	DATE: MARCH 2008
	SCALE =	1 / 5,000 H, 1/1,000 V	



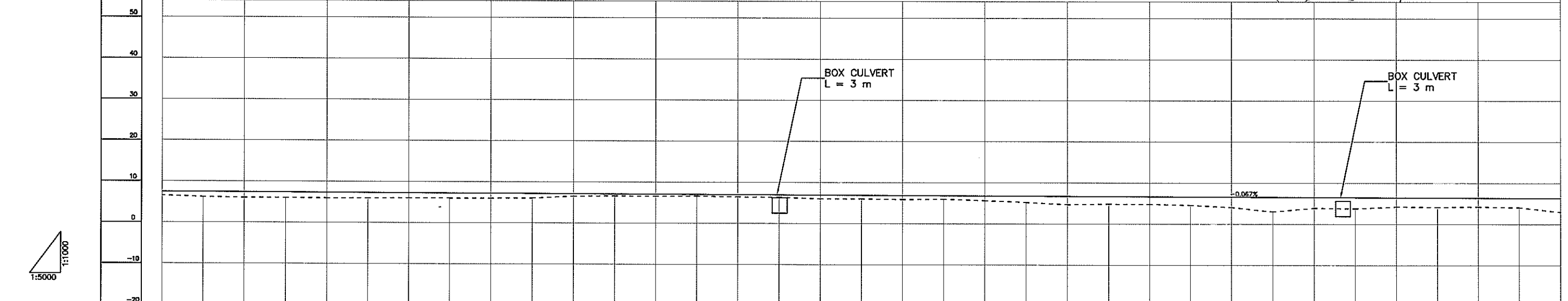
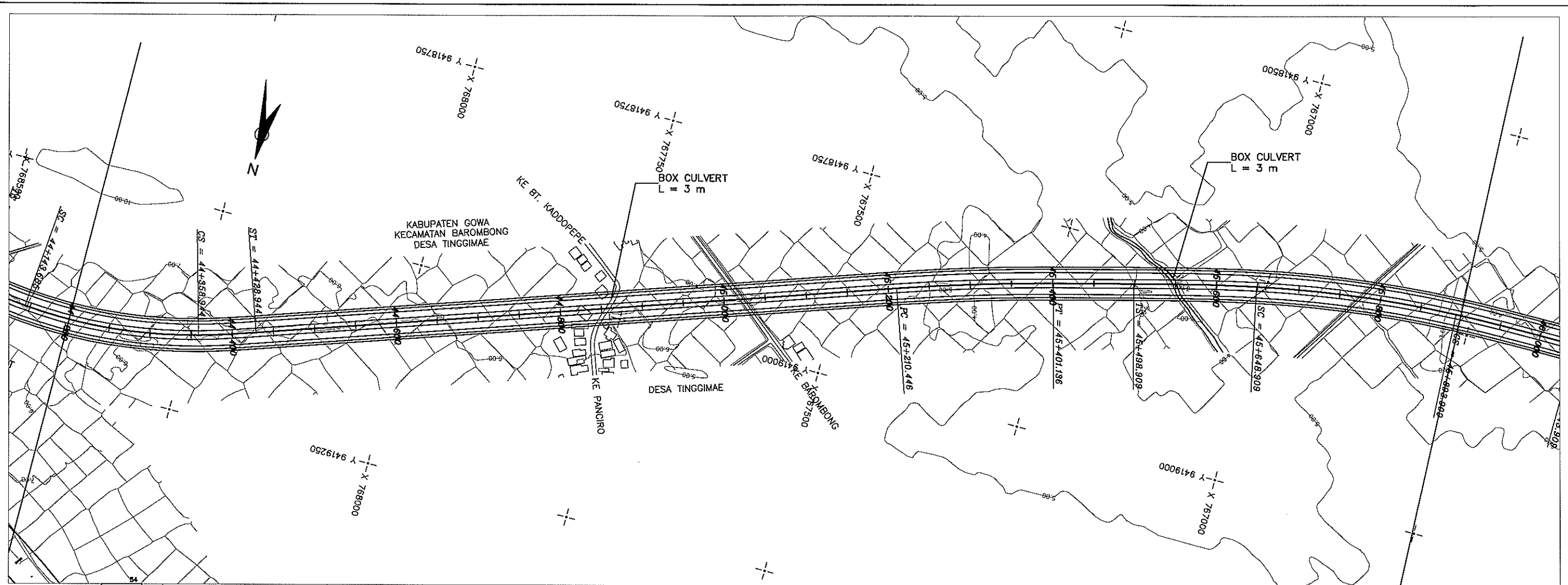
PROPOSED HEIGHT	EXISTING GROUND HEIGHT	STATION	HORIZONTAL ALIGNMENT
9.354	7.144	40+800	R=00
9.453	8.453	40+850	
9.562	7.987	40+900	
9.944	8.034	40+950	
10.353	9.144	41+000	
10.762	10.077	41+050	
11.017	10.371	41+100	
10.963	10.046	41+150	
10.755	10.310	41+200	
10.547	9.923	41+250	
10.338	9.682	41+300	
10.130	9.458	41+350	
9.922	9.142	41+400	
9.714	8.898	41+450	
9.506	8.417	41+500	
9.298	8.452	41+550	
9.089	8.191	41+600	
8.881	7.957	41+650	
8.673	7.825	41+700	
8.465	7.583	41+750	
8.257	7.443	41+800	
8.048	7.323	41+850	
7.854	7.030	41+900	
7.621	5.981	41+950	
7.404	8.024	42+000	
7.147	6.620	42+050	
6.950	7.188	42+100	
6.485	7.347	42+150	
6.301	7.347	42+200	
6.243	7.111	42+250	
6.185	7.052	42+300	
6.127	6.978	42+350	
6.069	6.952	42+400	
6.011	6.932	42+450	
7.952	6.913	42+500	

	PROJECT TITLE: THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	ROAD NAME TITLE : MAMMINASA BYPASS	DRAWING NO. PP-25
	DRAWING TITLE : PLAN AND PROFILE		DATE: MARCH 2008
	SCALE = 1 / 5,000 H, 1/1,000 V		



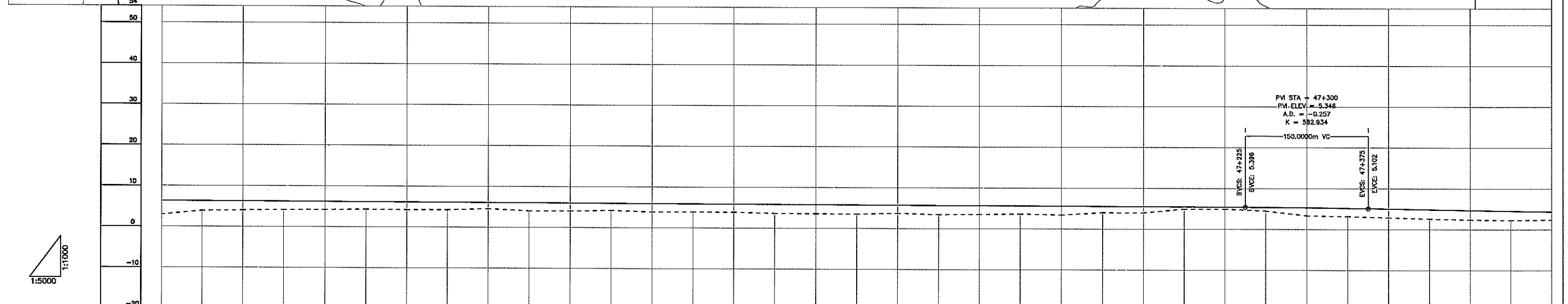
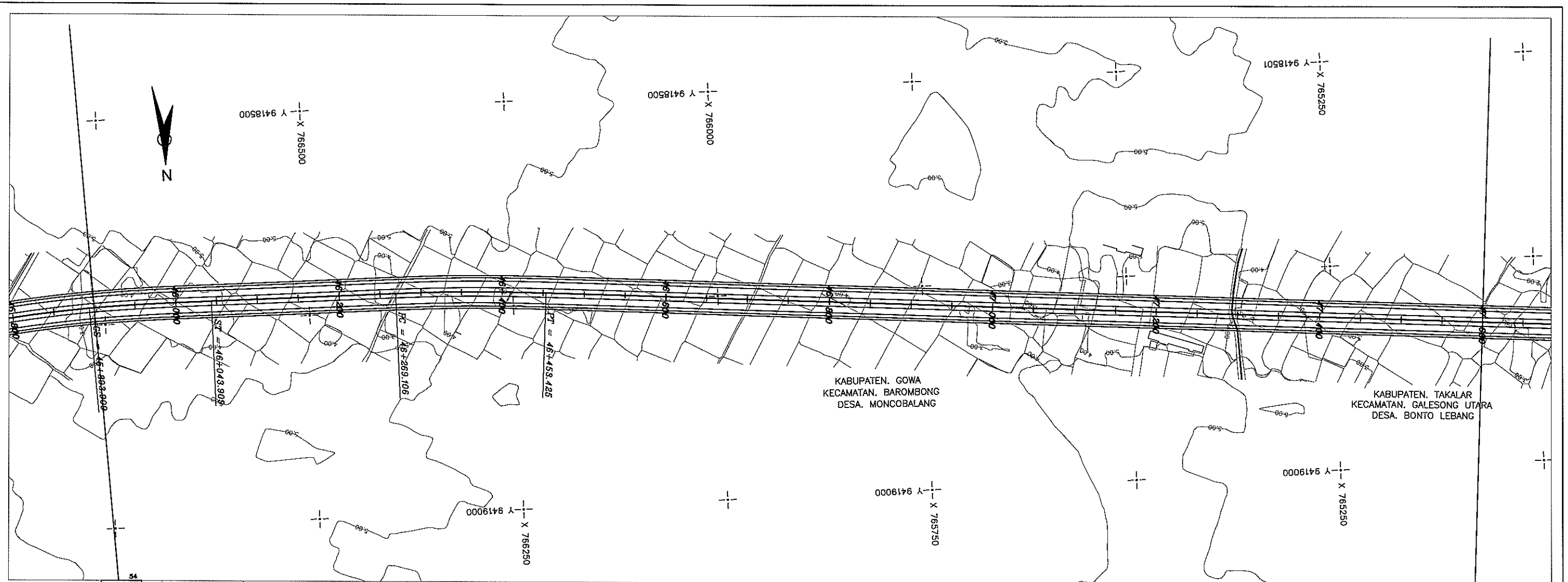
PROPOSED HEIGHT	EXISTING GROUND HEIGHT	STATION	HORIZONTAL ALIGNMENT
7.932	6.913	42+500	
7.884	6.914	42+550	
7.836	6.924	42+600	
7.790	6.842	42+650	
7.766	6.820	42+700	
7.765	6.825	42+750	
7.788	6.217	42+800	
7.822	6.151	42+850	
7.885	6.398	42+900	
7.889	6.571	42+950	
7.923	6.747	43+000	
7.957	6.787	43+050	
7.991	6.944	43+100	
8.024	7.347	43+150	
8.058	7.610	43+200	
8.092	7.641	43+250	
8.126	7.788	43+300	
8.180	8.180	43+350	
8.193	8.130	43+400	
8.227	7.836	43+450	
8.266	6.963	43+500	
8.920	6.806	43+550	
10.223	6.350	43+600	
10.652	7.452	43+650	
10.122	6.515	43+700	
8.512	6.274	43+750	
7.709	6.272	43+800	
7.888	7.000	43+850	
7.635	7.000	43+900	
7.801	7.000	43+950	
7.567	7.248	44+000	
7.534	7.310	44+050	
7.500	7.366	44+100	
7.466	7.015	44+150	
7.433	6.967	44+200	

	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	PP-26
		DRAWING TITLE :	MARCH 2008
		SCALE =	
		1 / 5,000 H, 1 / 1,000 V	

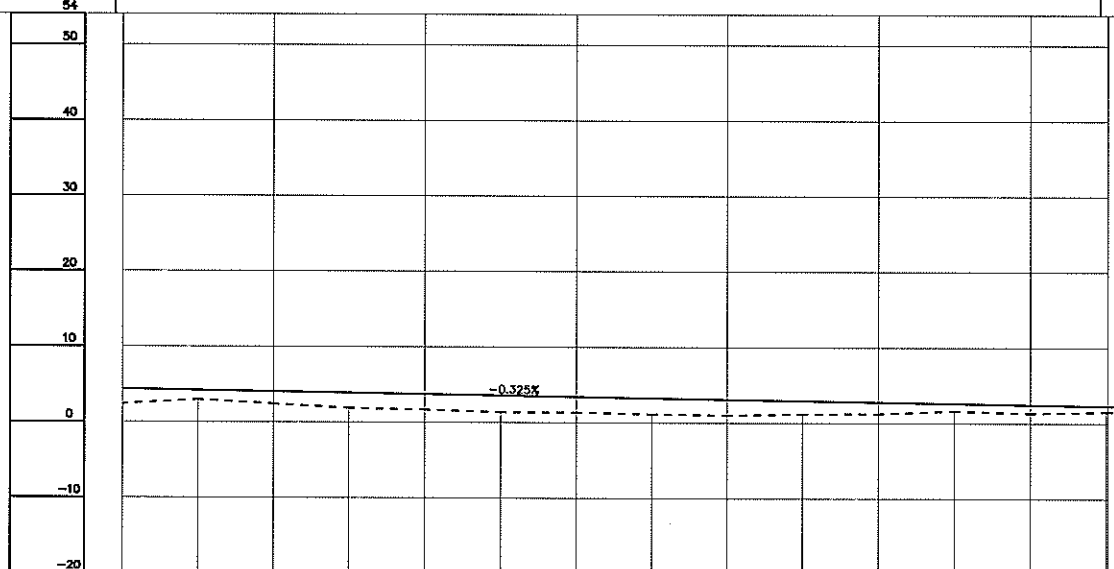
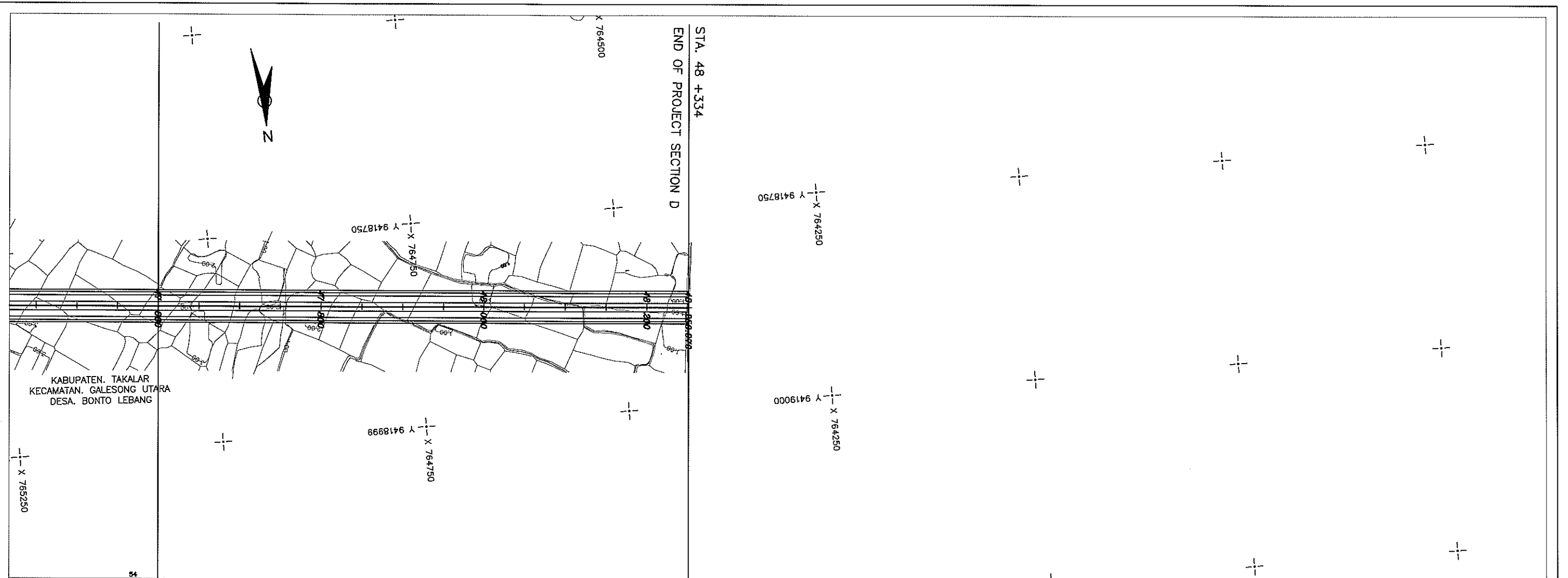


PROPOSED HEIGHT	7.433	7.399	7.365	7.332	7.298	7.265	7.231	7.197	7.164	7.130	7.096	7.063	7.029	6.995	6.962	6.928	6.894	6.861	6.827	6.793	6.760	6.726	6.692	6.659	6.625	6.591	6.558	6.524	6.490	6.457	6.423	6.389	6.356	6.322	6.288
EXISTING GROUND HEIGHT	6.967	6.666	6.406	6.000	5.938	5.944	6.023	5.981	6.184	6.010	5.973	6.086	6.537	6.624	6.572	6.008	6.442	6.008	6.088	5.971	5.852	5.774	5.594	5.001	4.048	4.988	4.612	4.562	3.893	3.076	3.744	4.127	4.239	4.543	4.253
STATION	44+200	44+250	44+300	44+350	44+400	44+450	44+500	44+550	44+600	44+650	44+700	44+750	44+800	44+850	44+900	44+950	45+000	45+050	45+100	45+150	45+200	45+250	45+300	45+350	45+400	45+450	45+500	45+550	45+600	45+650	45+700	45+750	45+800	45+850	45+900
HORIZONTAL ALIGNMENT	R=600		R=00										R=2500			R=00		R=1500																	

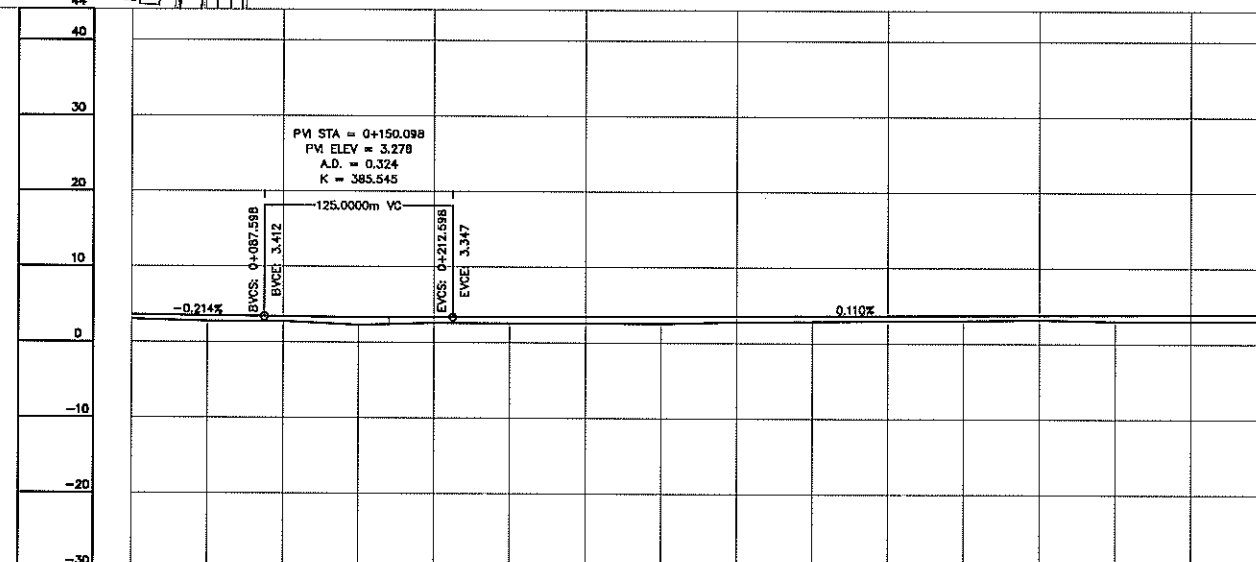
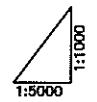
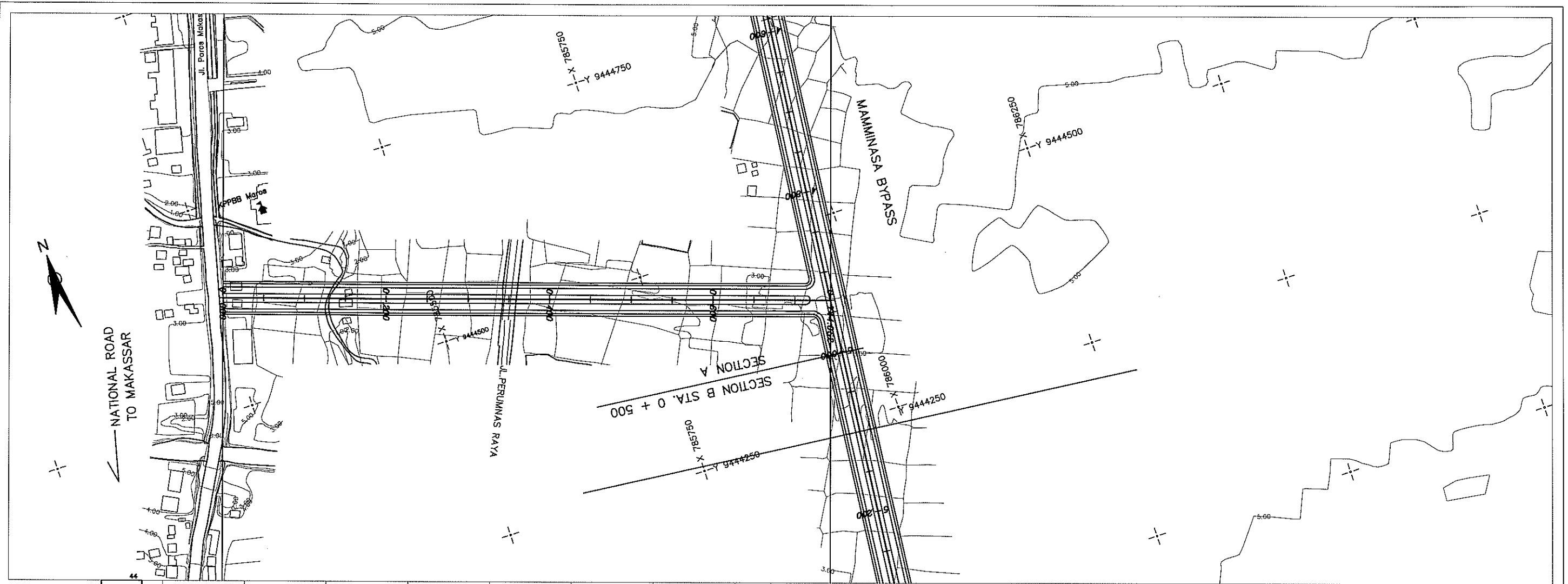
	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	PP-27
		DRAWING TITLE : PLAN AND PROFILE	DATE: MARCH 2008
	SCALE =	1 / 5,000 H, 1/1,000 V	



PROPOSED HEIGHT	5.288	6.285	6.221	6.187	6.154	6.120	6.086	6.053	6.019	5.985	5.952	5.918	5.884	5.851	5.817	5.783	5.750	5.716	5.682	5.649	5.615	5.581	5.548	5.514	5.481	5.447	5.413	5.374	5.298	5.178	5.021	4.859	4.697	4.534	4.372	
EXISTING GROUND HEIGHT	4.253	4.020	4.017	4.151	4.177	4.059	4.201	4.235	4.279	4.010	4.561	4.200	4.034	3.893	3.870	3.795	3.771	3.509	3.494	3.426	3.509	3.424	3.407	3.135	3.550	4.000	3.699	4.844	4.946	4.307	3.905	3.157	2.697	2.521	2.382	
STATION	45+000	45+950	46+000	46+050	46+100	46+150	46+200	46+250	46+300	46+350	46+400	46+450	46+500	46+550	46+600	46+650	46+700	46+750	46+800	46+850	46+900	46+950	47+000	47+050	47+100	47+150	47+200	47+250	47+300	47+350	47+400	47+450	47+500	47+550	47+600	
HORIZONTAL ALIGNMENT																																				



PROPOSED HEIGHT	47+800	47+850	47+900	47+950	48+000	48+050	48+100	48+150	48+200	48+250
EXISTING GROUND HEIGHT	2.392	2.285	2.418	2.323	1.338	1.775	1.399	1.279	1.180	1.224
STATION	47+800	47+850	47+900	47+950	48+000	48+050	48+100	48+150	48+200	48+250
HORIZONTAL ALIGNMENT	R=∞									



PROPOSED HEIGHT	3.600	3.493	3.398	3.329	3.335	3.388	3.443	3.498	3.553	3.608	3.663	3.718	3.773	3.828	3.883	3.931
EXISTING GROUND HEIGHT	3.000	2.720	2.737	2.278	2.543	2.519	2.567	2.522	2.785	2.877	2.971	3.045	3.144	2.987	3.044	3.105
STATION	0+000	0+050	0+100	0+150	0+200	0+250	0+300	0+350	0+400	0+450	0+500	0+550	0+600	0+650	0+700	0+744
HORIZONTAL ALIGNMENT	R=50															

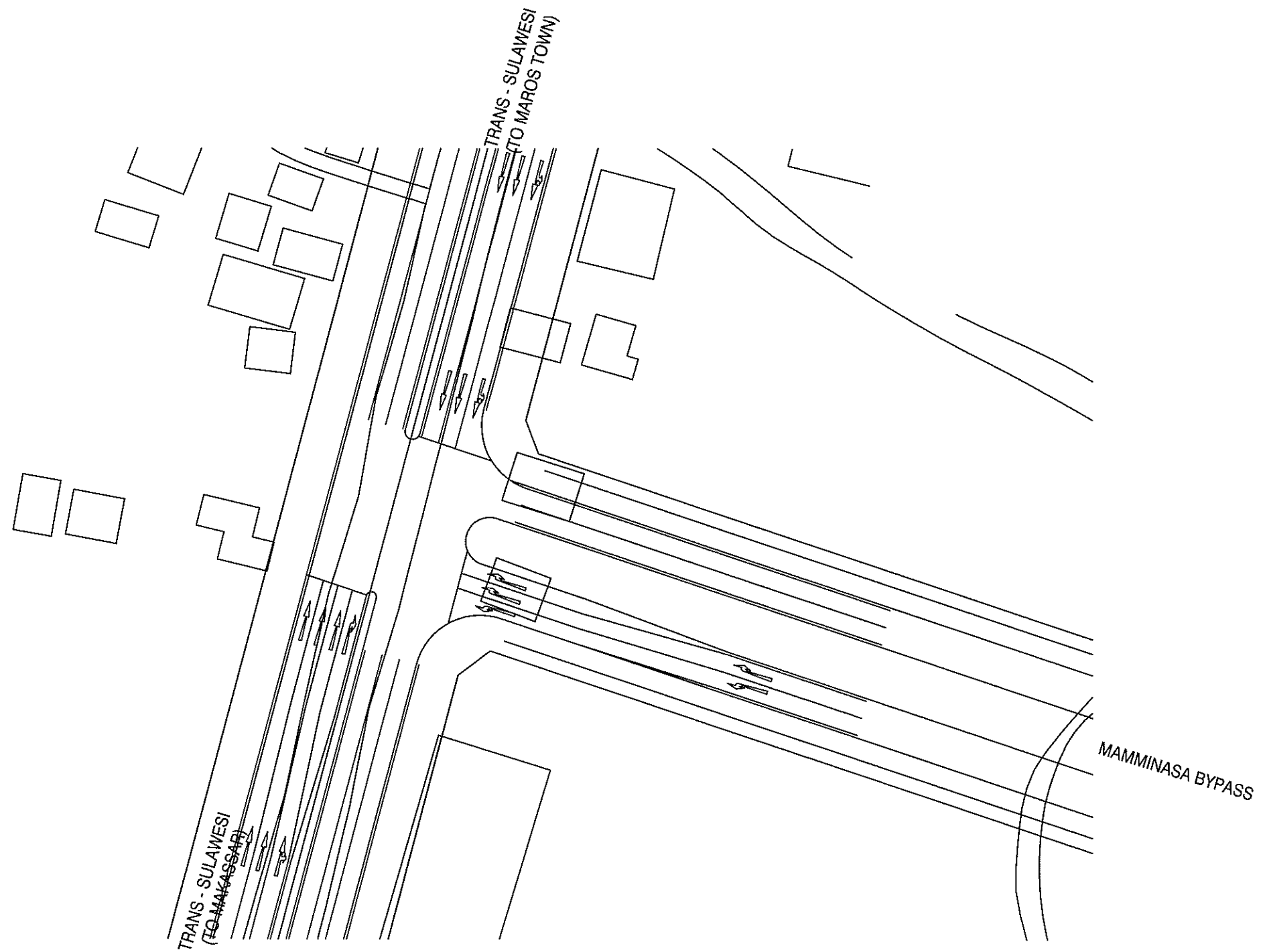
JAPAN INTERNATIONAL COOPERATION AGENCY
 NIPPON KOEI CO., LTD. JOINT VENTURE WITH
 KRI INTERNATIONAL Corporation
 ALMEC ALMEC Corporation

PROJECT TITLE:
 THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND
 FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA

ROAD NAME TITLE : MAMMINASA BYPASS
 DRAWING TITLE : PLAN AND PROFILE (30/30)
 SCALE = 1 / 5,000 H, 1/1,000 V

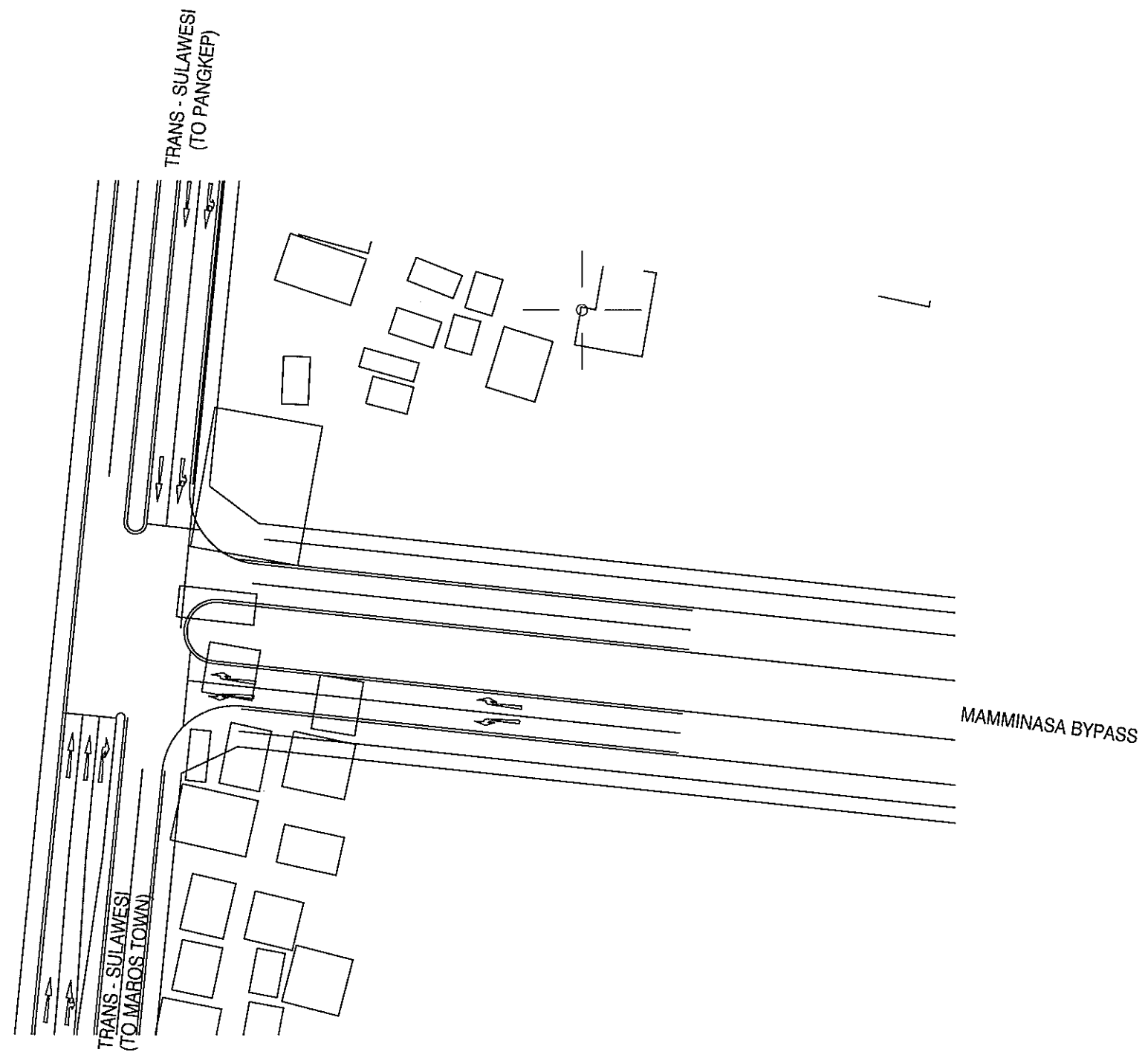
DRAWING NO. PP-30
 DATE: MARCH 2008

4. ROADWAY - INTERSECTIONS



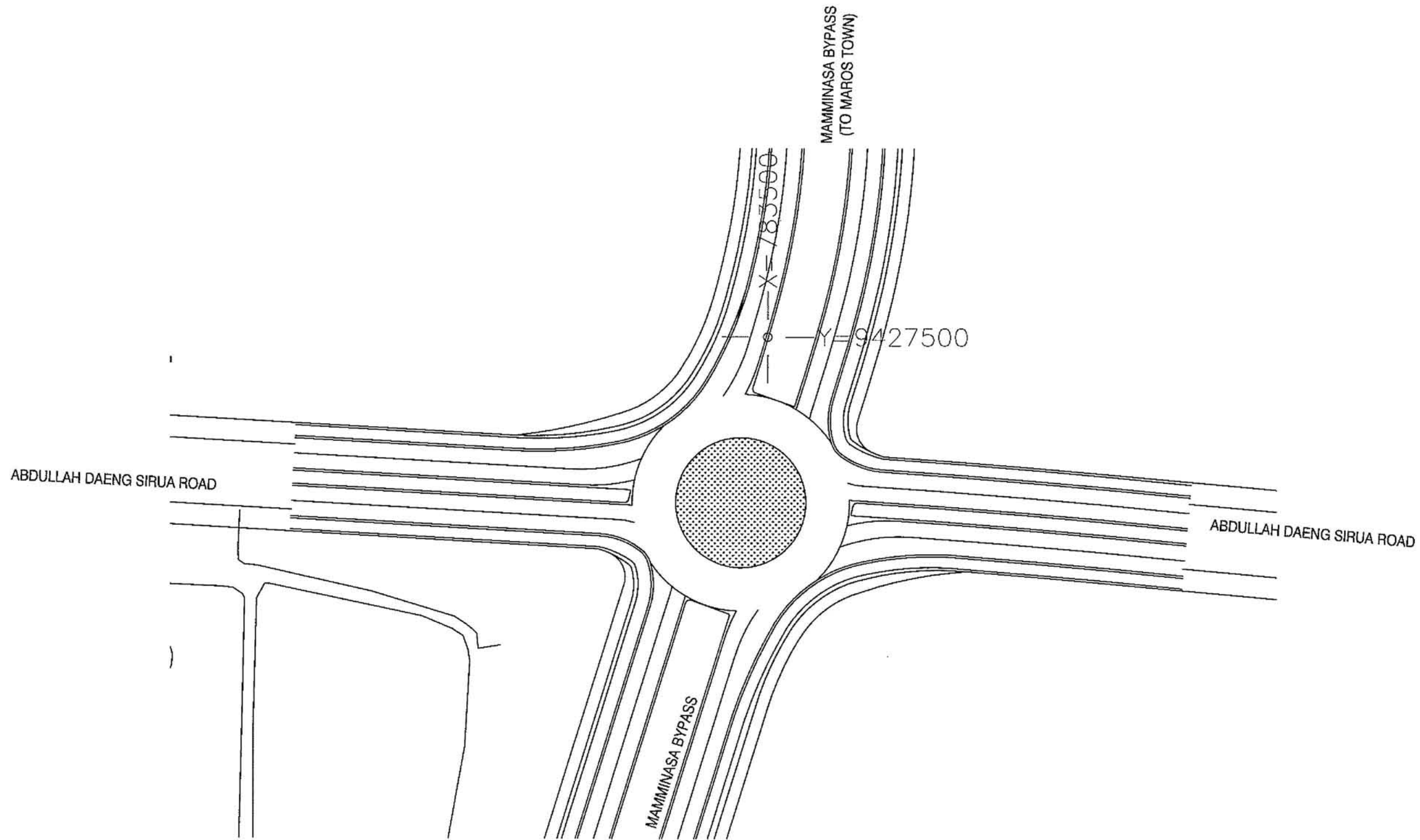
INTERSECTION TS - 7
MAMMINASA BYPASS (SOUTH)/ TRANS - SULAWESI

	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	IN-01
		DRAWING TITLE :	DATE:
		TS - 7 MAMMINASA BYPASS (SOUTH)/ TRANS - SULAWESI	MARCH 2008
		SCALE =	
		1 / 1000	



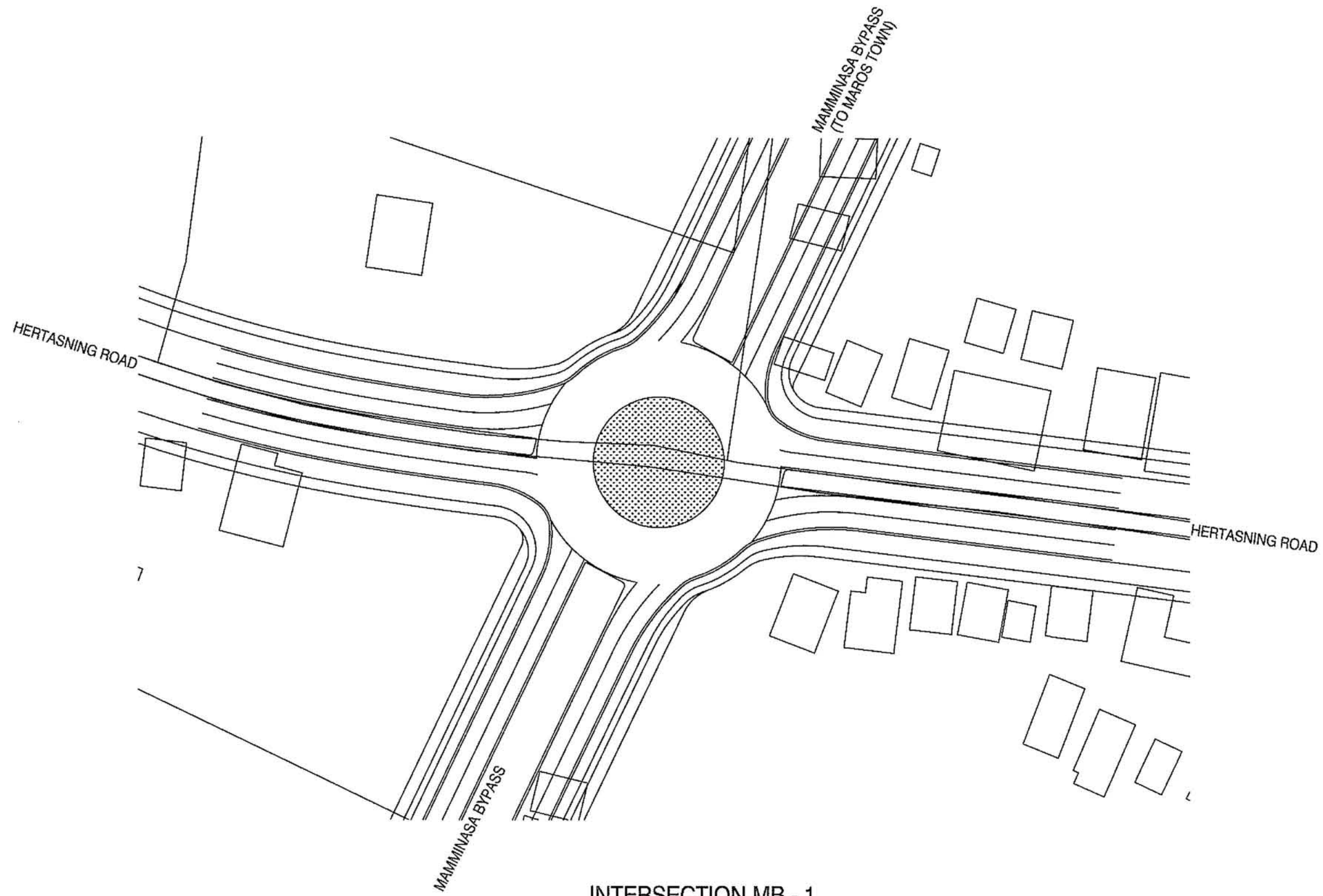
INTERSECTION TS - 8
MAMMINASA BYPASS (NORTH)/ TRANS - SULAWESI

	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	IN-02
		DRAWING TITLE : TS - 8 MAMMINASA BYPASS (NORTH)/ TRANS - SULAWESI	DATE: MARCH 2008
		SCALE =	1 / 1000


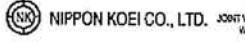




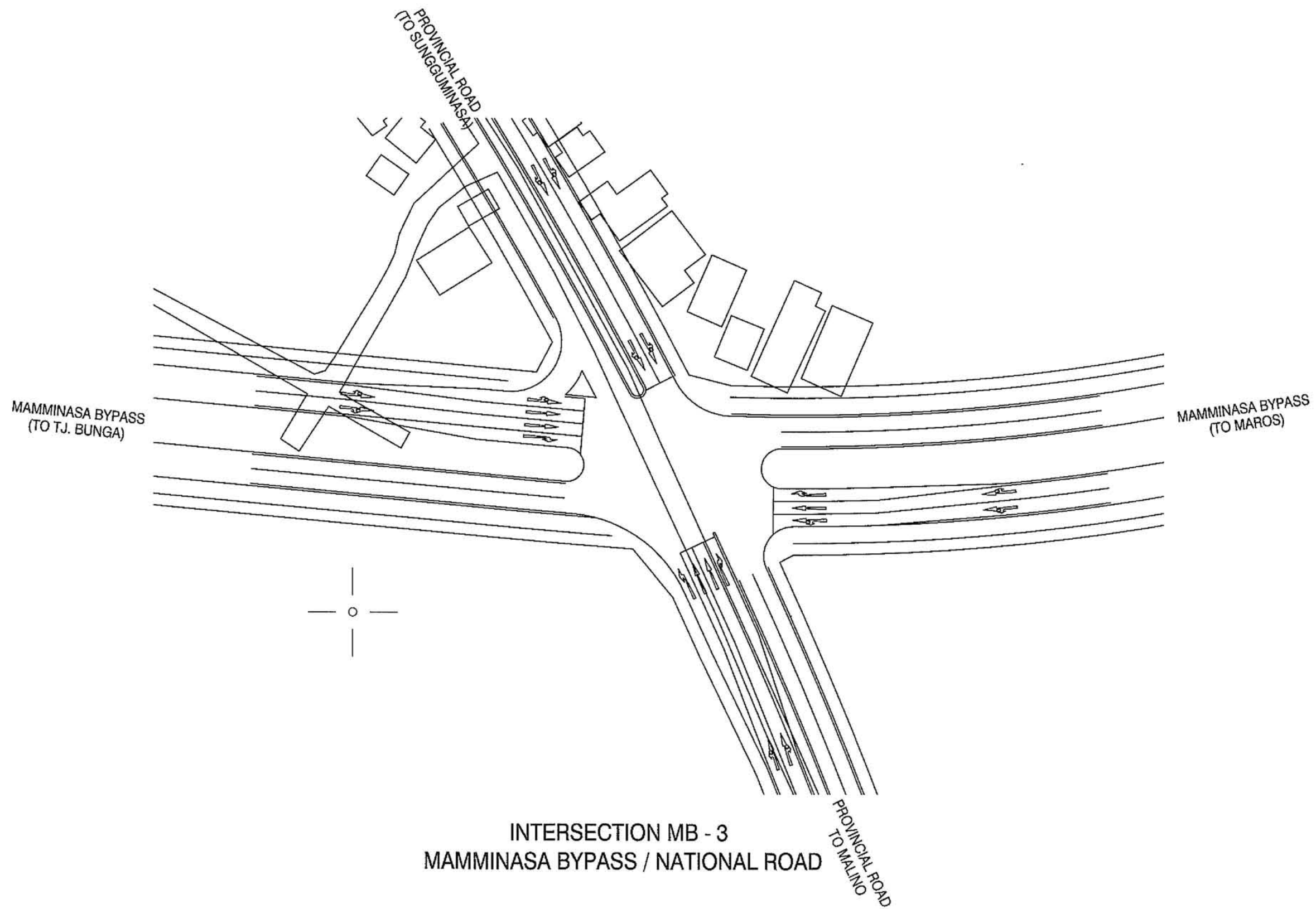
INTERSECTION MB - 2
MAMMINASA BYPASS / ABDULLAH DAENG SIRUA ROAD

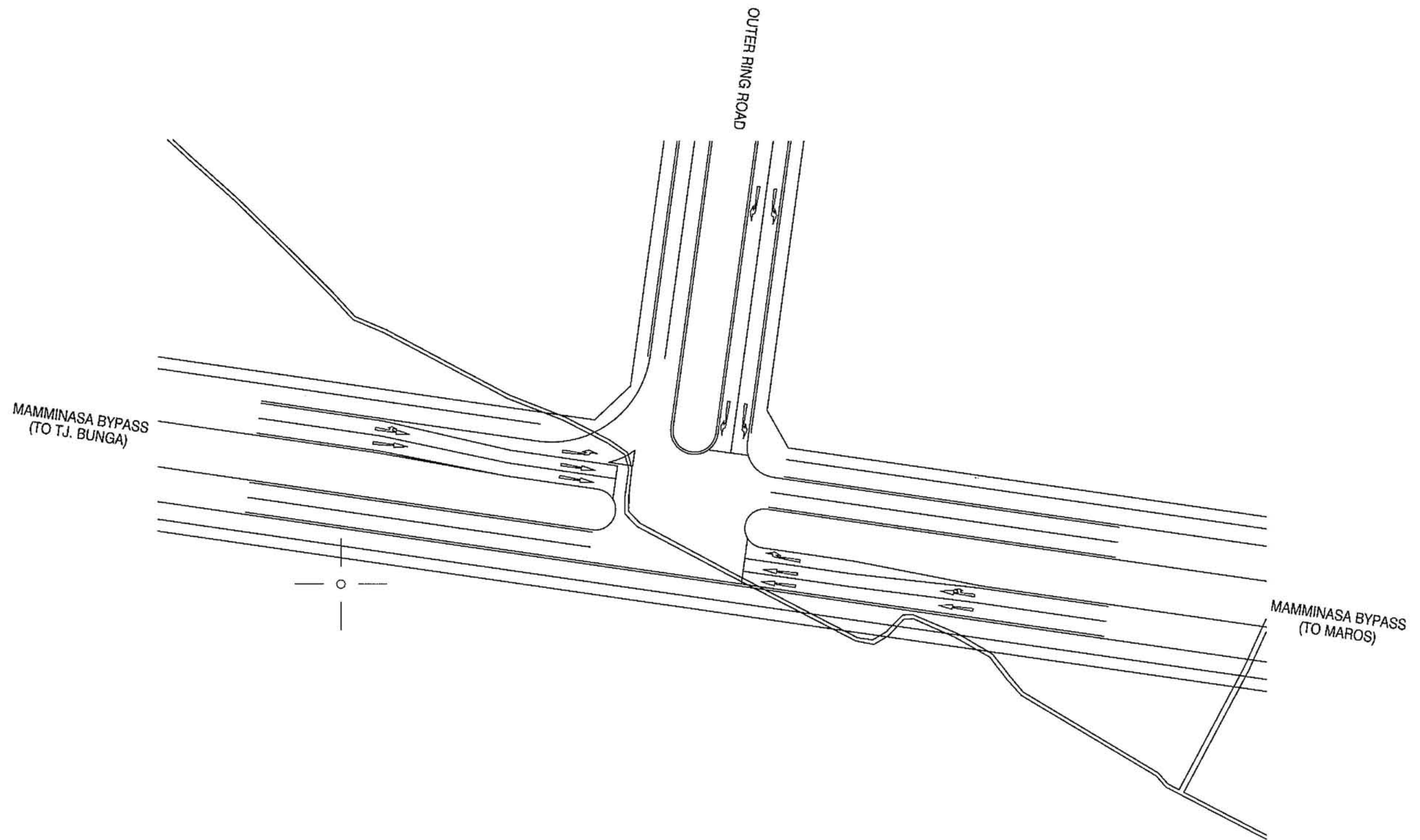
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	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	IN-03
		DRAWING TITLE : MB - 2 MAMMINASA BYPASS / ABDULLAH DAENG SIRUA ROAD	DATE: MARCH 2008
		SCALE = 1 / 1000	



INTERSECTION MB - 1
MAMMINASA BYPASS / HERTASNING ROAD

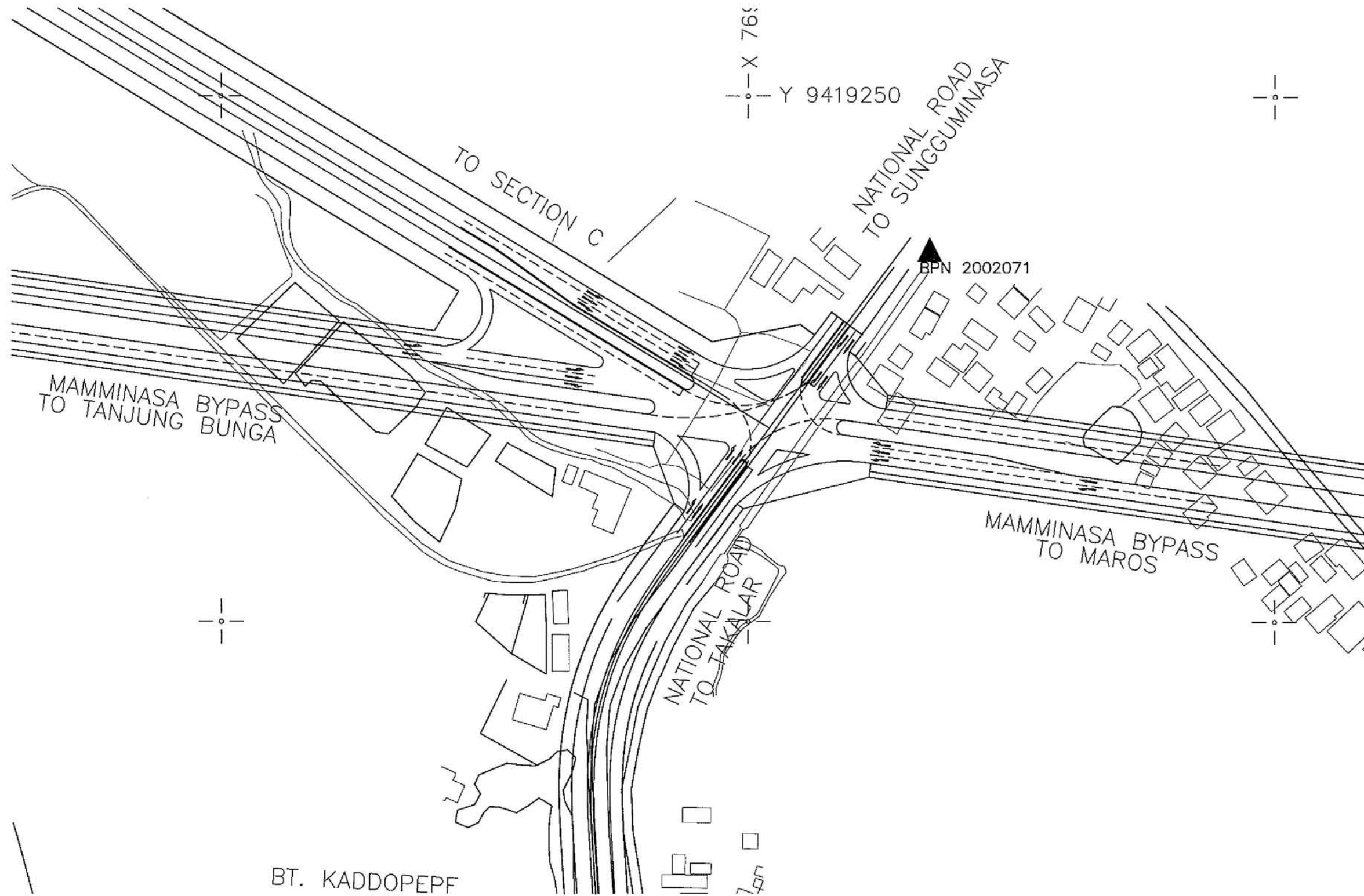
 JAPAN INTERNATIONAL COOPERATION AGENCY  NIPPON KOEI CO., LTD. <small>JOINT VENTURE WITH</small>  KRI INTERNATIONAL Corporation  ALMEC ALMEC Corporation	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	DRAWING TITLE :	IN-04
		SCALE =	DATE: MARCH 2008





INTERSECTION OR - 7
MAMMINASA BYPASS / OUTER RING ROAD

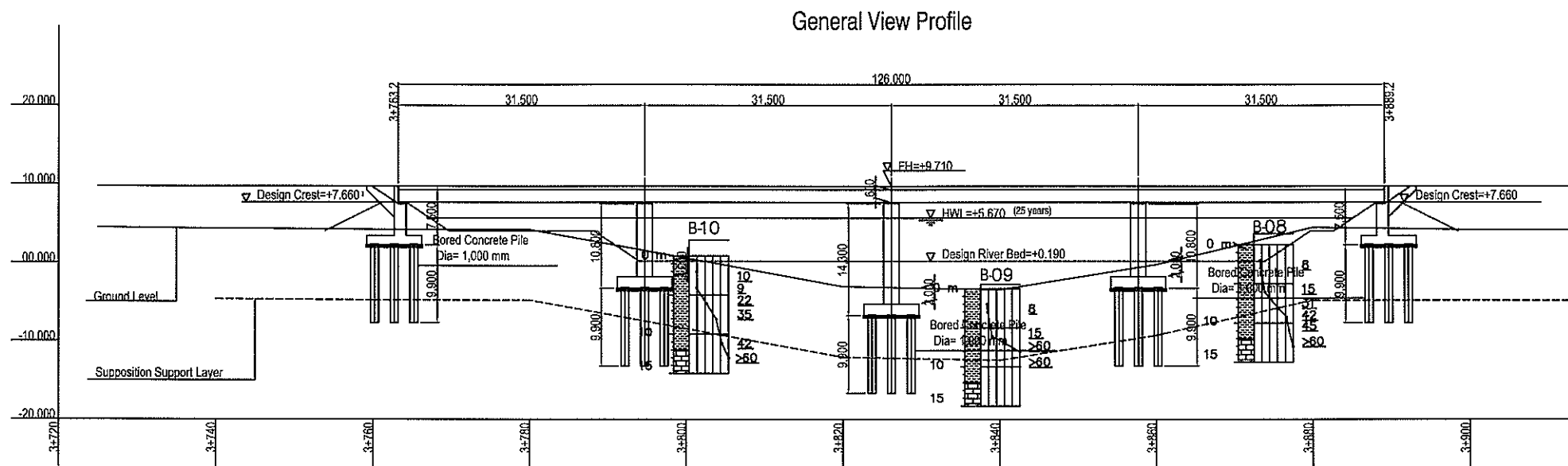
JAPAN INTERNATIONAL COOPERATION AGENCY NIPPON KOEI CO., LTD. <small>JOINT VENTURE WITH</small> KRI INTERNATIONAL Corporation ALMEC ALMEC Corporation	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	IN-06
		DRAWING TITLE : OR - 7 MAMMINASA BYPASS / OUTER RING ROAD	DATE: MARCH 2008
		SCALE = 1 / 1000	



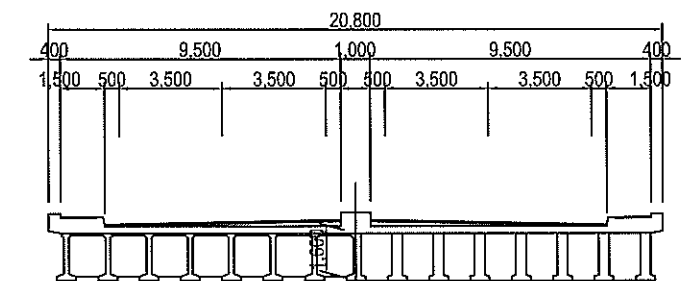
INTERSECTION TS - 1
MAMMINASA BYPASS / SECTION C - TRANS-SULAWESI

	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	IN-07
		DRAWING TITLE :	DATE:
		TS-1 MAMMINASA BYPASS / SECTION C TRANS-SULAWESI	MARCH 2008
		SCALE =	
		1 / 1000	

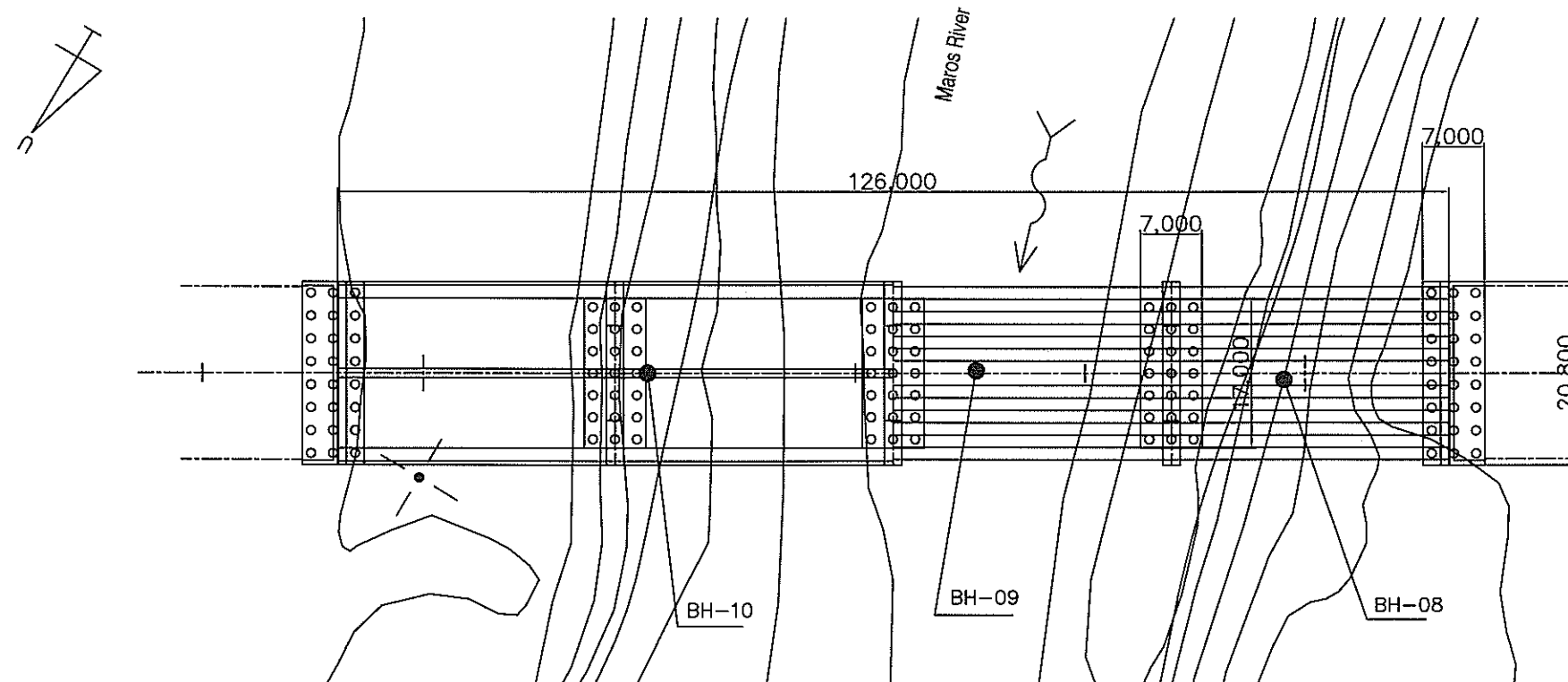
5. BRIDGE

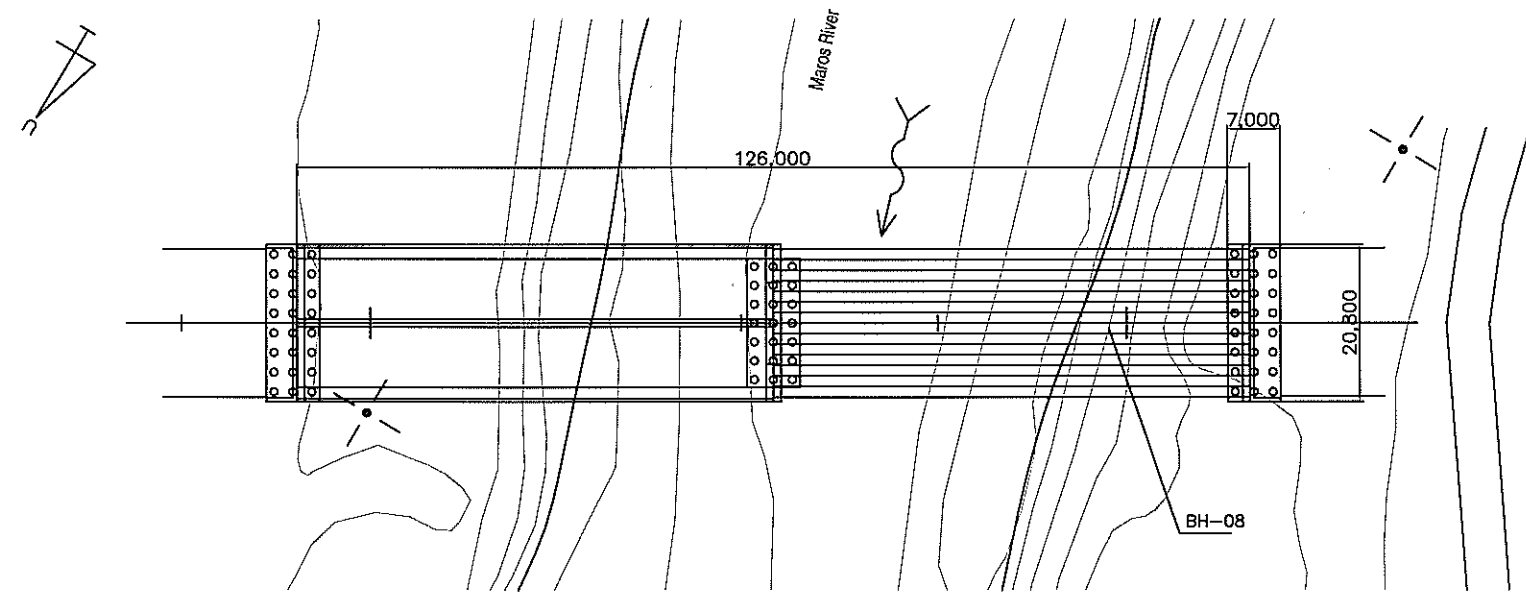
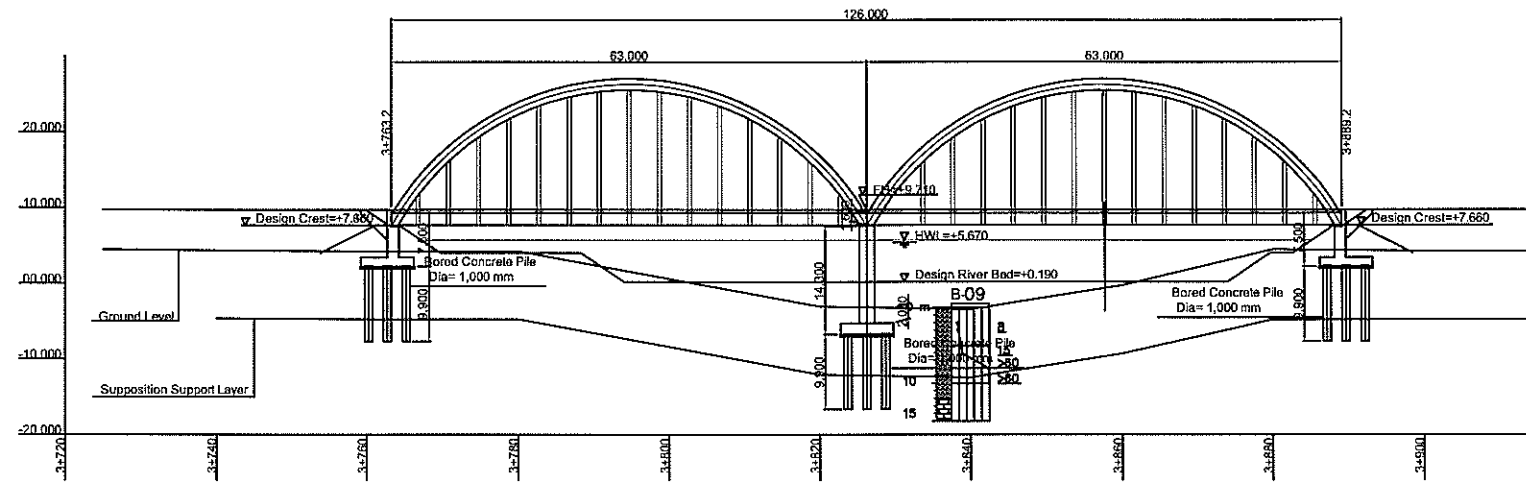


Standard Cross Section



General View Plan

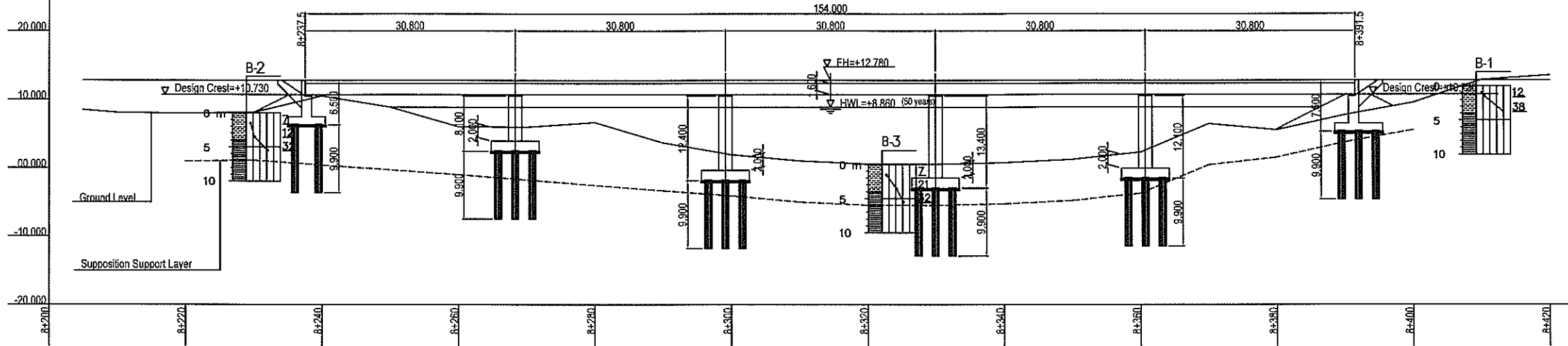




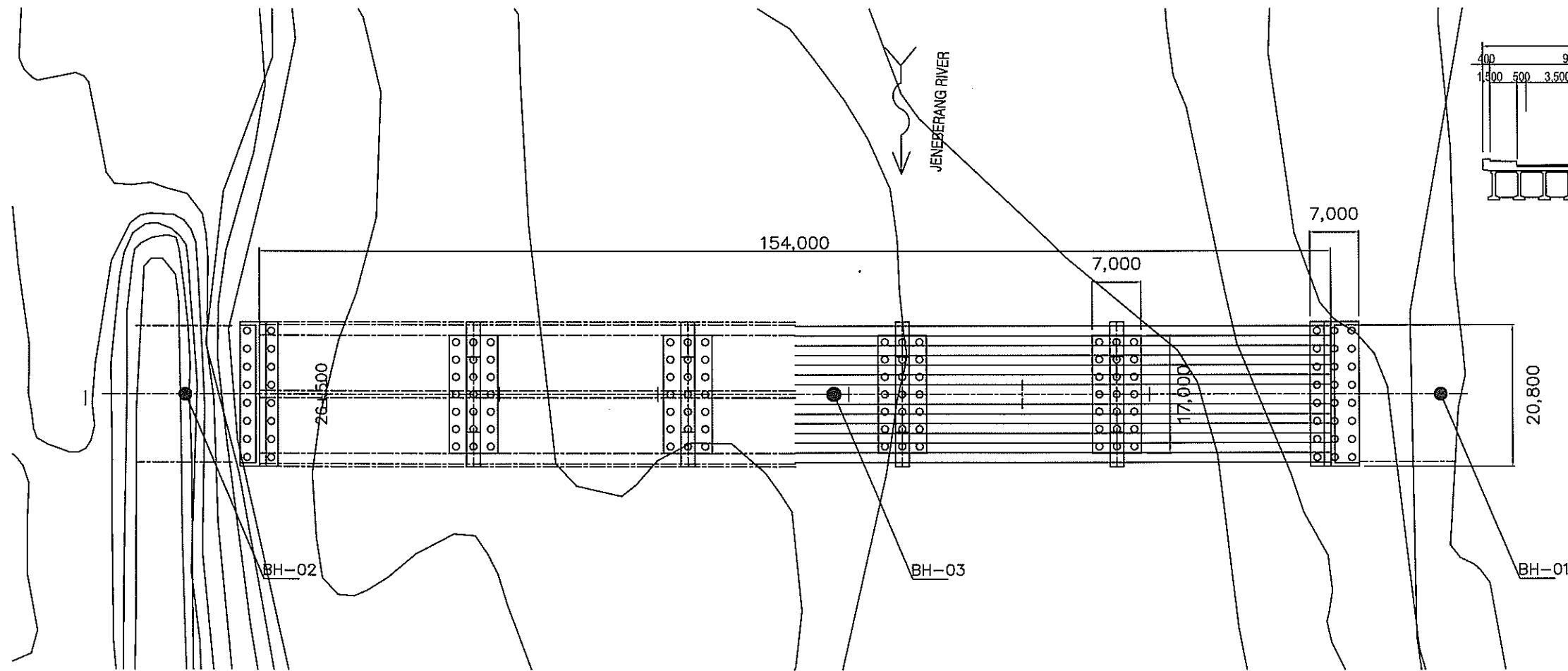
Note : RC Concrete Arch Bridge is shown as alternative of Bridge based on esthetic preference. However, Construction cost is approximately 200 % higher than PC-I Girder Bridge. If steel arch is used, its construction cost would be approximately 300% higher than PC-I Girder Bridge.

JAPAN INTERNATIONAL COOPERATION AGENCY NIPPON KOEI CO., LTD. IN JOINT VENTURE WITH KRI INTERNATIONAL Corporation ALMEC Corporation	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS GENERAL VIEW DRAWING - MAROS BRIDGE (ALTERNATIVE)	BR-01A
SCALE =		DATE:	MARCH 2008

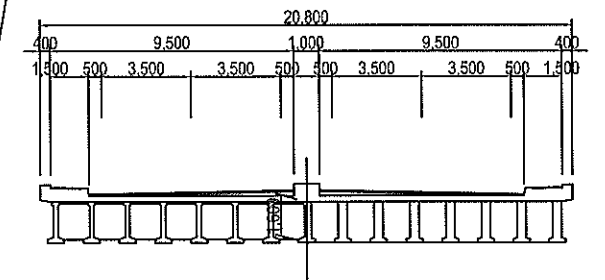
General View Profile



General View Plan



Standard Cross Section



JICA JAPAN INTERNATIONAL COOPERATION AGENCY

NIPON KOEI CO., LTD. JOINT VENTURE WITH **KRI** INTERNATIONAL Corporation **ALMEC** ALMEC Corporation

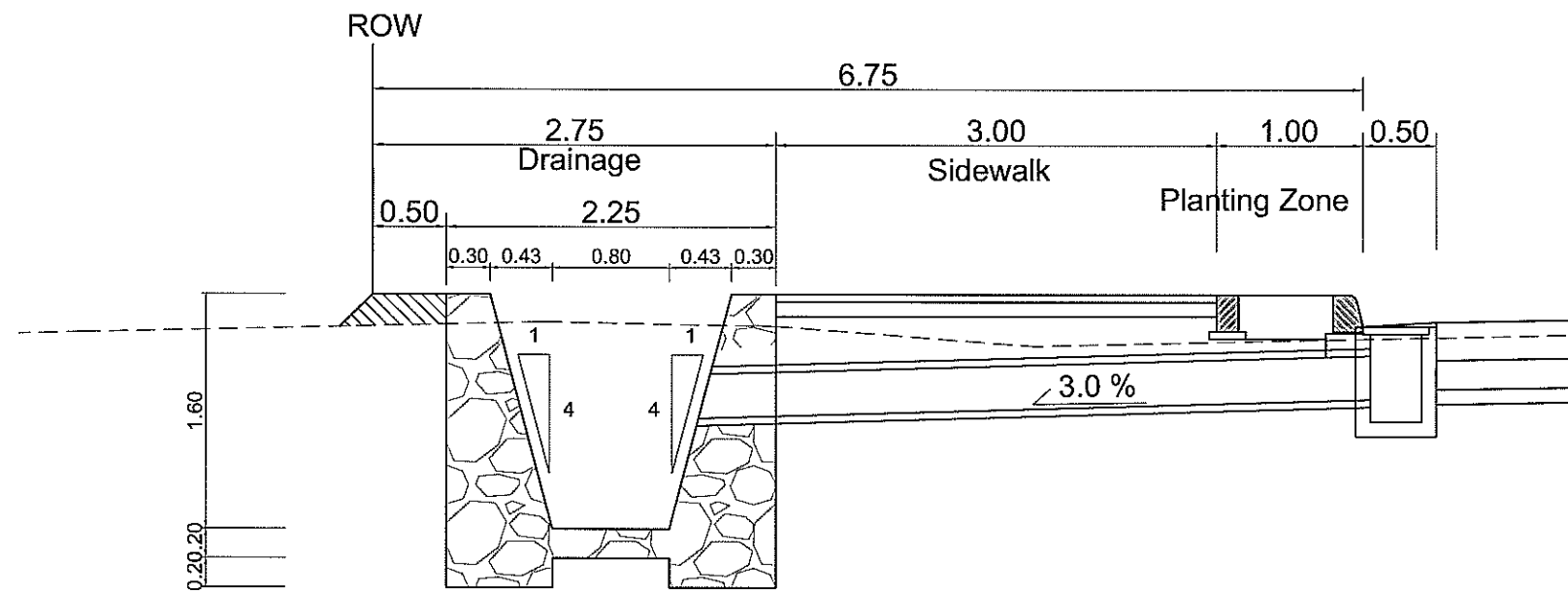
PROJECT TITLE:
THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND
FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA

ROAD NAME TITLE: **MAMMINASA BYPASS**
DRAWING TITLE: **GENERAL VIEW DRAWING : Jeneberang No 1 Bridge**

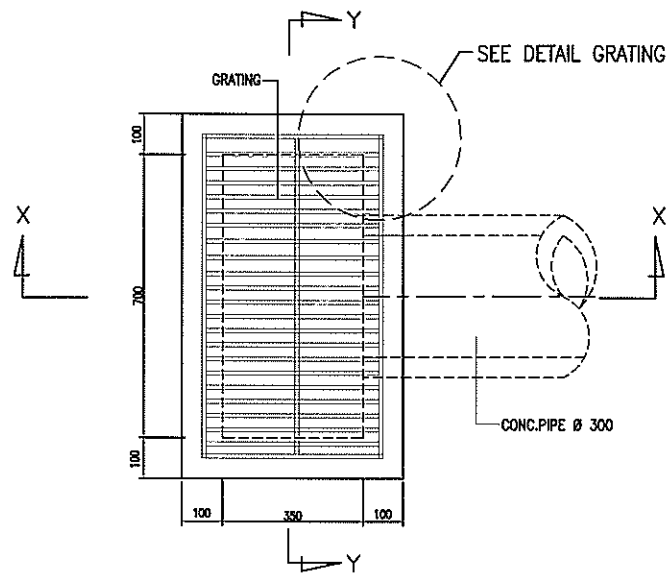
SCALE =

DRAWING NO. **BR-02**
DATE: **MARCH 2008**

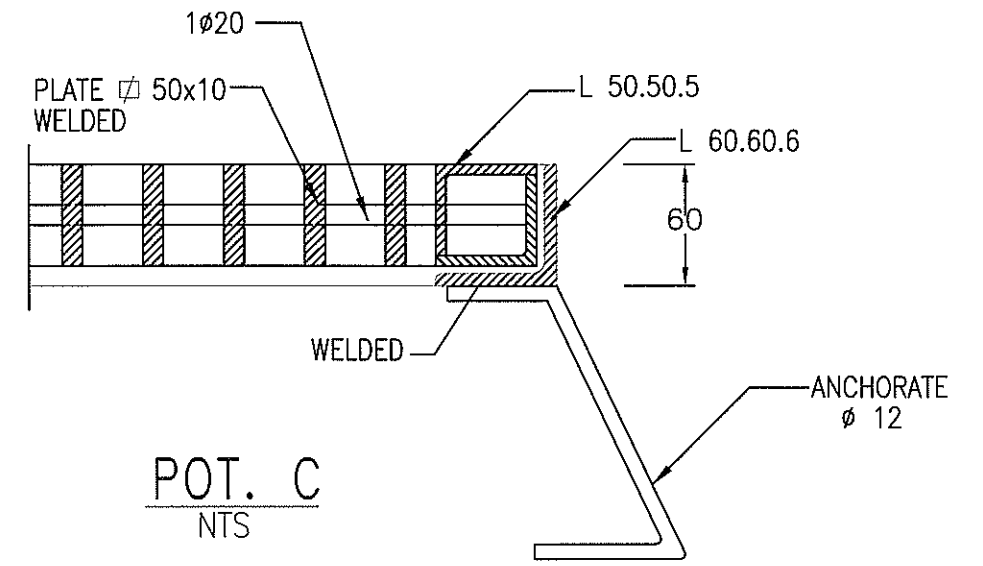
6. DRAINAGE AND STRUCTURES



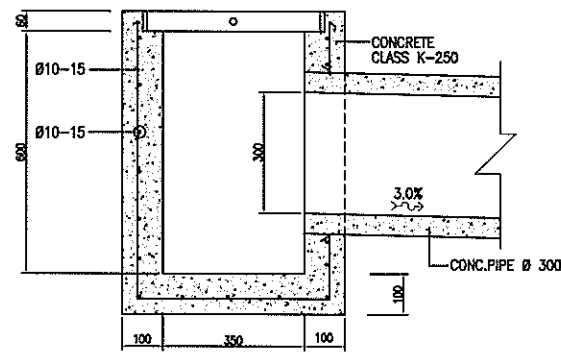
○ ——— **DETAIL DRAINAGE**
scale 1/50



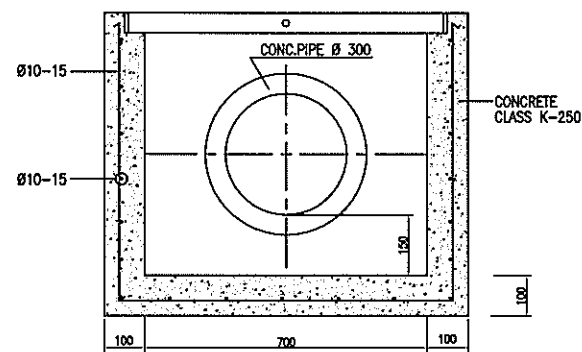
PLAN OF CATCH BASIN
SCALE : 1/20



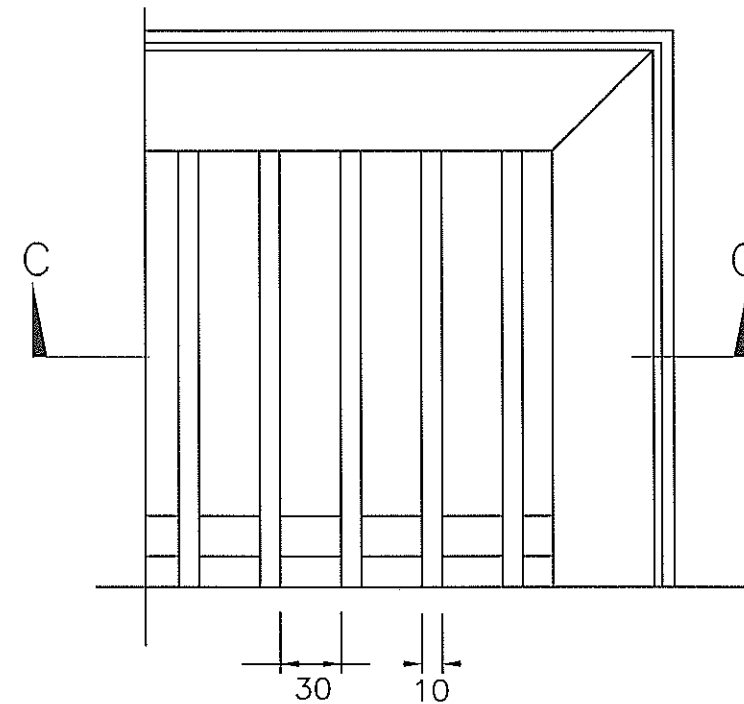
POT. C
NTS



SECTION X-X
SCALE : 1/20



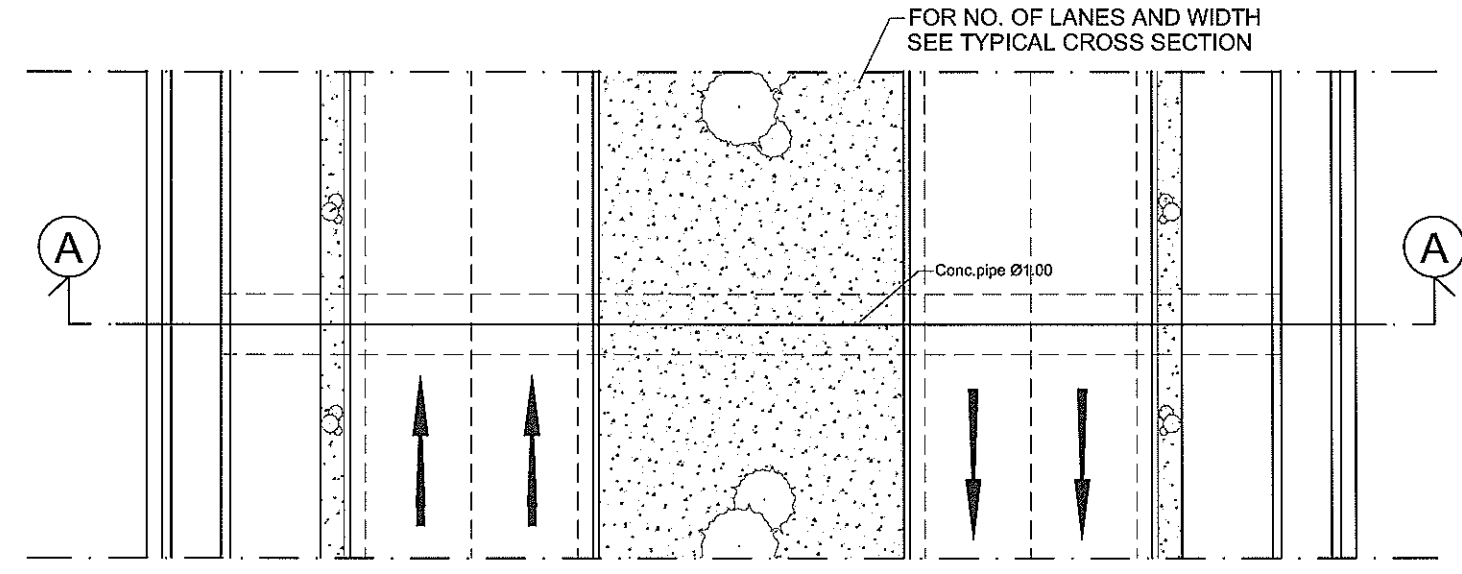
SECTION Y-Y
SCALE : 1/20



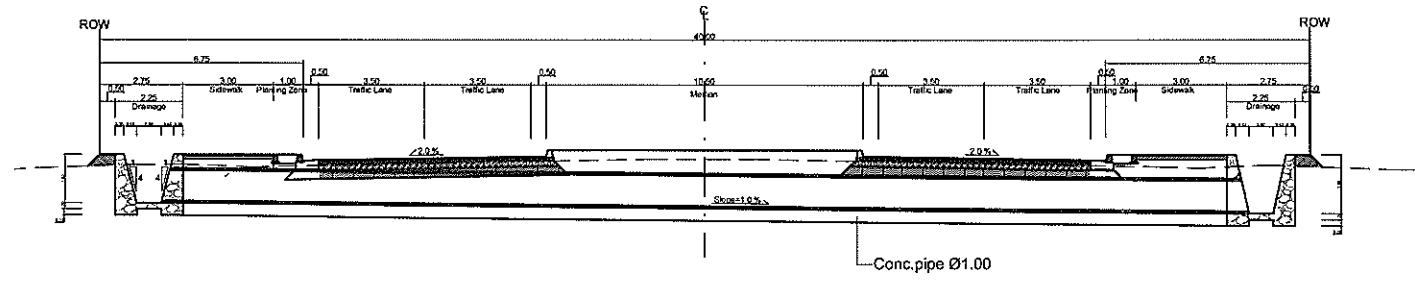
DETAIL OF GRATING
NTS

	PROJECT TITLE: THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	ROAD NAME TITLE : MAMMINASA BYPASS	DRAWING NO. DR-02
	DRAWING TITLE : DETAIL OF CATCH PIT	SCALE = 1 / 20	DATE: MARCH 2008

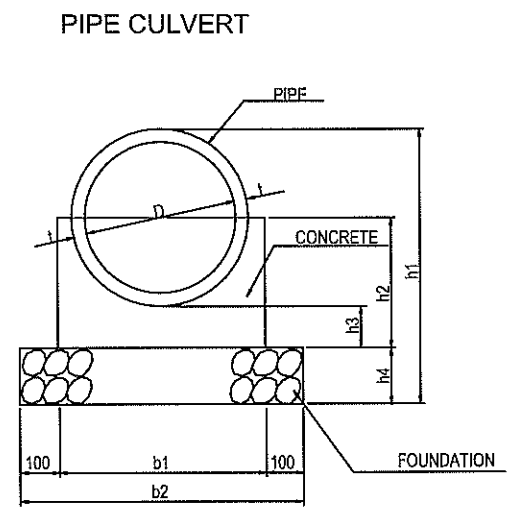
TYPE	DIMENSION (mm)								QUANTITY (per 10 m)			
	D	t	b1	b2	h1	h2	h3	h4	Concrete (m3)	Form (m2)	Foudation (m3)	Pipe (No.)
RC-D300	300	30	600	800	610	280	100	150	1.171	5.600	8.000	5.0
RC-D600	600	50	900	1100	1000	500	150	150	2.576	10.000	11.000	4.1
RC-D1000	1000	82	1450	1650	1564	790	200	200	6.041	15.800	16.500	4.1
RC-D1500	1500	112	2100	2300	2174	1120	250	200	11.710	22.400	23.000	4.2



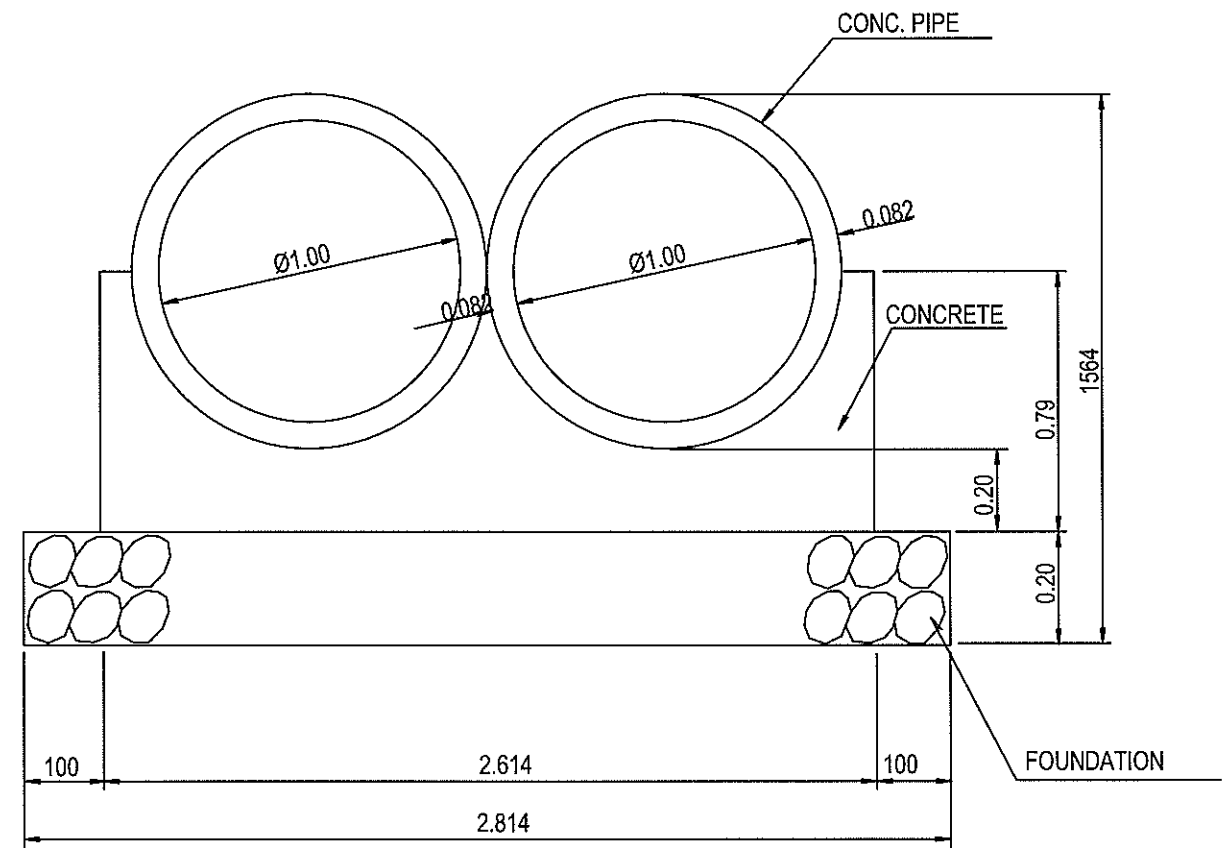
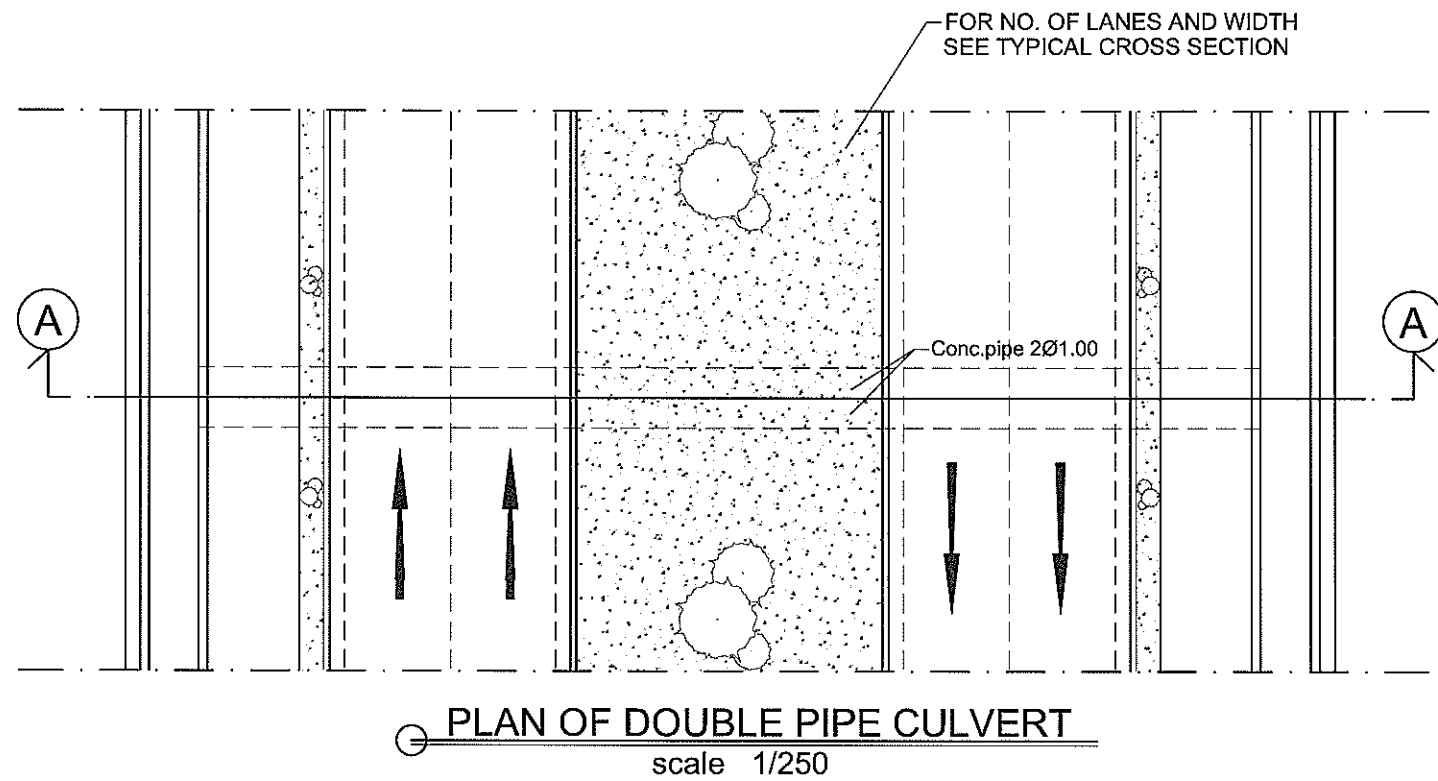
PLAN OF PIPE CULVERT
scale 1/250



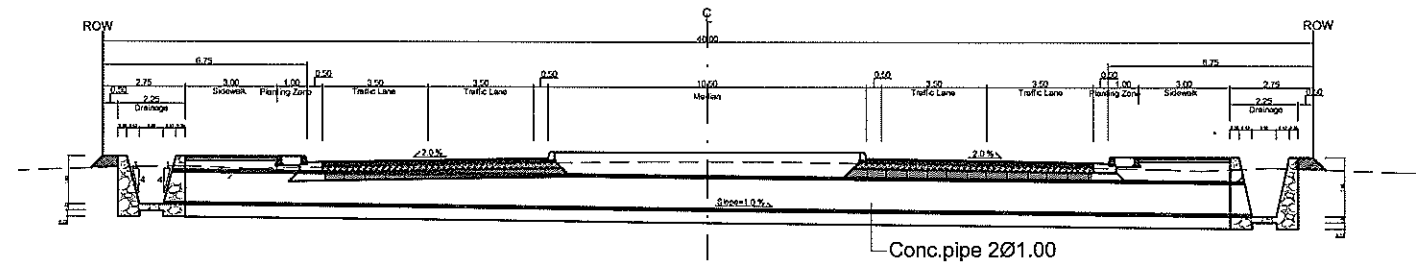
SECTION A-A
scale 1/250



PIPE CULVERT



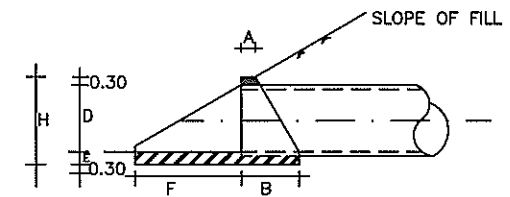
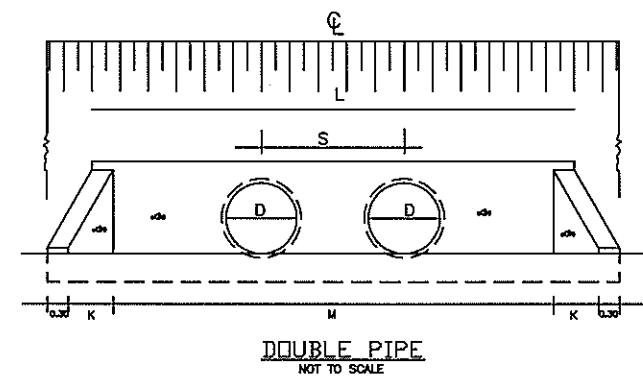
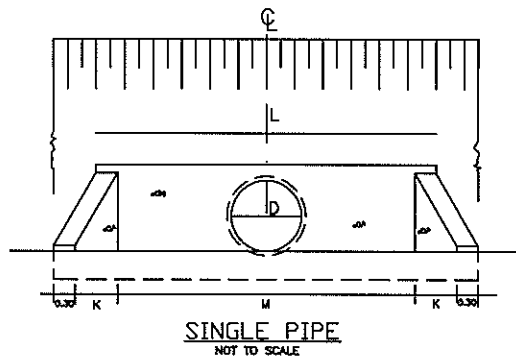
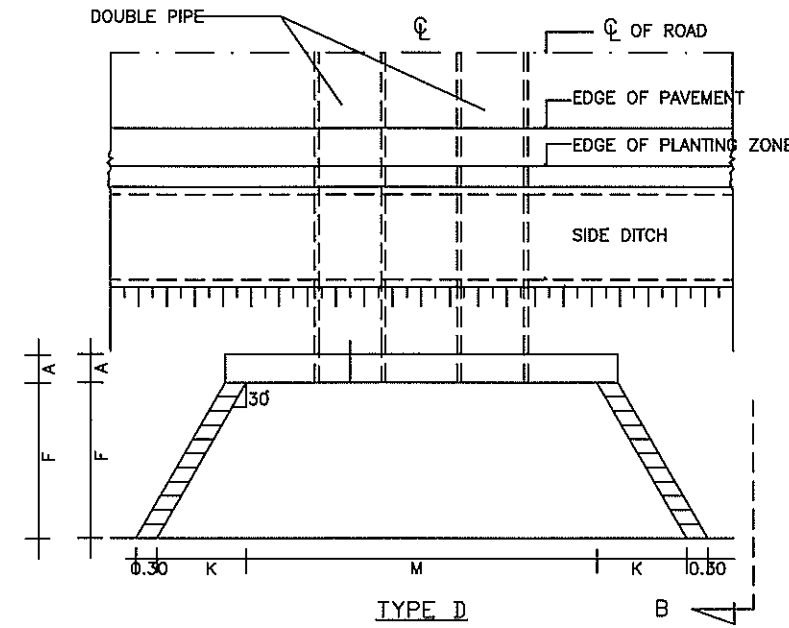
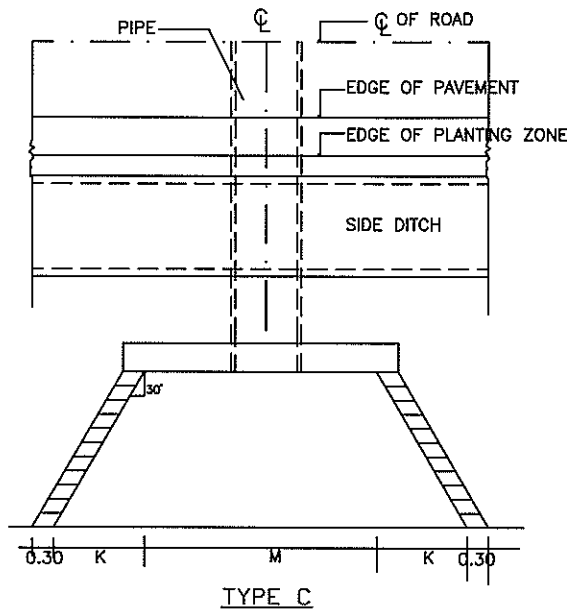
DETAIL OF DOUBLE PIPE CULVERT
scale NTS



SECTION A-A
scale 1/250

	PROJECT TITLE:	ROAD NAME TITLE :	DRAWING NO.
	THE STUDY ON ARTERIAL ROAD NETWORK DEVELOPMENT PLAN FOR SULAWESI ISLAND AND FEASIBILITY STUDY ON PRIORITY ARTERIAL ROAD IN SOUTH SULAWESI PROVINCE IN INDONESIA	MAMMINASA BYPASS	DR-04
		DRAWING TITLE : GENERAL LAYOUT OF DOUBLE PIPE CULVERT	DATE: MARCH 2008
		SCALE =	1 / 250

STANDARD INLET/OUTLET FOR PIPE CULVERTS



SINGLE PIPE

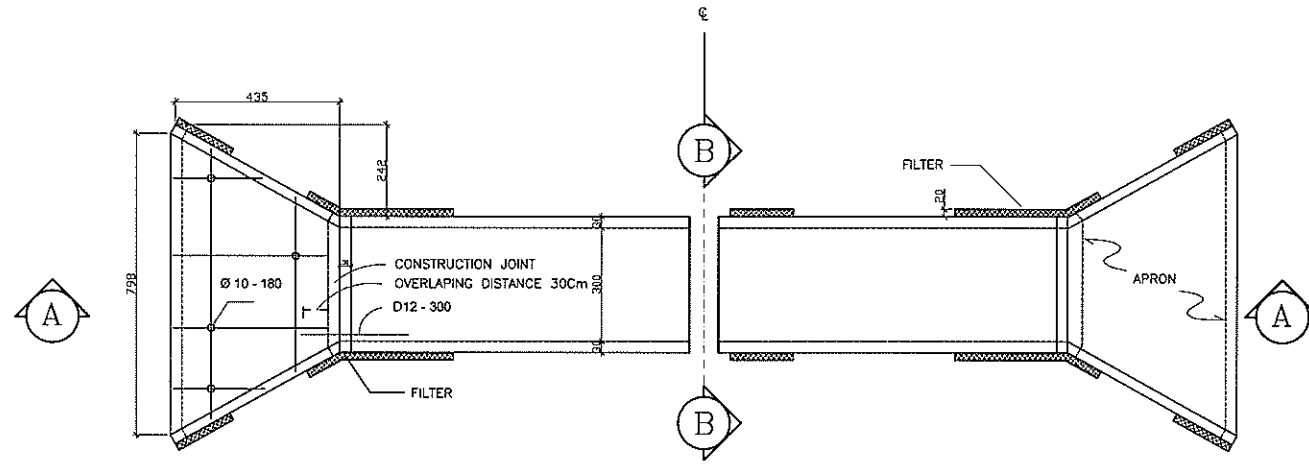
D I A	DIMENSION (m)																	
	A	B	E	F		G			H				K			L	M	T
				3/2	2/1	3/1	3/2	2/1	3/1	3/2	2/1	3/1	3/2	2/1	3/1			
0.40	0.23	0.41	0.20	0.43	0.60	1.15	0.29	0.30	0.38	0.99	1.00	1.08	0.25	0.35	0.66	2.30	1.70	0.050
0.50	0.26	0.46	0.25	0.53	0.80	1.45	0.35	0.40	0.46	1.10	1.15	1.23	0.31	0.46	0.84	2.80	2.20	0.055
0.60	0.30	0.53	0.25	0.63	1.00	1.75	0.42	0.50	0.59	1.17	1.25	1.34	0.36	0.58	1.01	3.30	2.70	0.065
0.70	0.33	0.58	0.25	0.83	1.25	2.13	0.55	0.63	0.72	1.30	1.38	1.47	0.47	0.73	1.23	3.90	3.30	0.070
0.80	0.35	0.62	0.25	1.00	1.50	2.50	0.67	0.75	0.84	1.42	1.50	1.59	0.58	0.87	1.45	4.50	3.90	0.075
0.90	0.38	0.67	0.25	1.15	1.70	2.80	0.77	0.85	0.94	1.52	1.50	1.69	0.67	0.96	1.62	4.90	4.50	0.080
1.00	0.42	0.74	0.30	1.30	1.90	3.10	0.87	0.95	1.04	1.67	1.75	1.84	0.75	1.10	1.80	5.40	4.80	0.085
1.20	0.50	0.86	0.30	1.64	2.40	3.90	1.10	1.20	1.30	1.90	2.00	2.10	0.95	1.40	2.30	6.60	5.00	0.100

DOUBLE PIPE

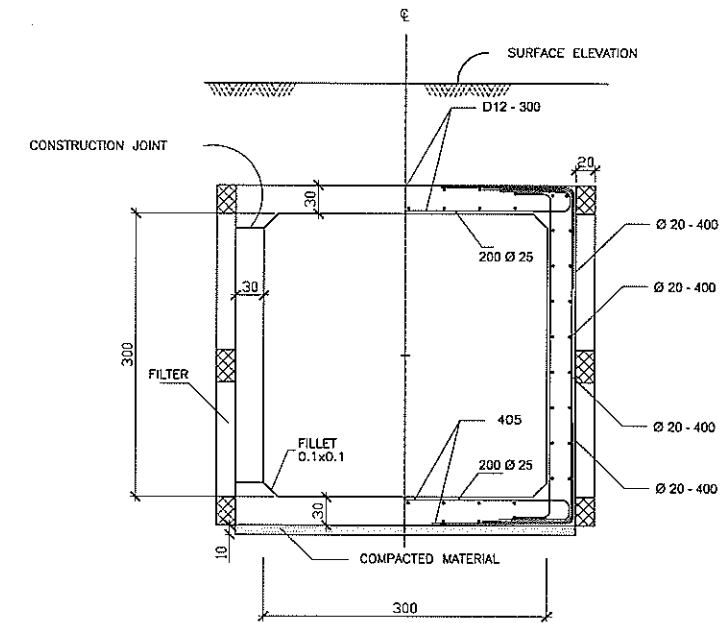
D I A	DIMENSION (m)																		
	A	B	E	F		G			H				K			L'	M	S	T
				3/2	2/1	3/1	3/2	2/1	3/1	3/2	2/1	3/1	3/2	2/1	3/1				
0.40	0.23	0.41	0.20	0.43	0.60	1.15	0.29	0.30	0.38	0.99	1.00	1.08	0.25	0.35	0.66	2.30	1.70	0.75	0.050
0.50	0.26	0.46	0.25	0.53	0.80	1.45	0.35	0.40	0.46	1.10	1.15	1.23	0.31	0.46	0.84	2.60	2.20	0.86	0.055
0.60	0.30	0.53	0.25	0.63	1.00	1.75	0.42	0.50	0.59	1.17	1.25	1.34	0.36	0.58	1.01	3.30	2.70	0.96	0.065
0.70	0.33	0.58	0.25	0.83	1.25	2.13	0.55	0.63	0.72	1.30	1.38	1.47	0.47	0.73	1.23	3.90	3.30	1.14	0.070
0.80	0.35	0.62	0.25	1.00	1.50	2.50	0.67	0.75	0.84	1.42	1.50	1.59	0.58	0.87	1.45	4.50	3.90	1.30	0.075
0.90	0.38	0.67	0.25	1.15	1.70	2.80	0.77	0.85	0.94	1.52	1.50	1.69	0.67	0.96	1.62	4.90	4.30	1.40	0.080
1.0	0.42	0.74	0.30	1.30	1.90	3.10	0.87	0.95	1.04	1.67	1.75	1.84	0.75	1.10	1.80	5.40	4.80	1.50	0.085
1.20	0.50	0.86	0.30	1.64	2.40	3.90	1.10	1.20	1.30	1.90	2.00	2.10	0.95	1.40	2.30	6.60	5.00	1.80	0.100

NOTES

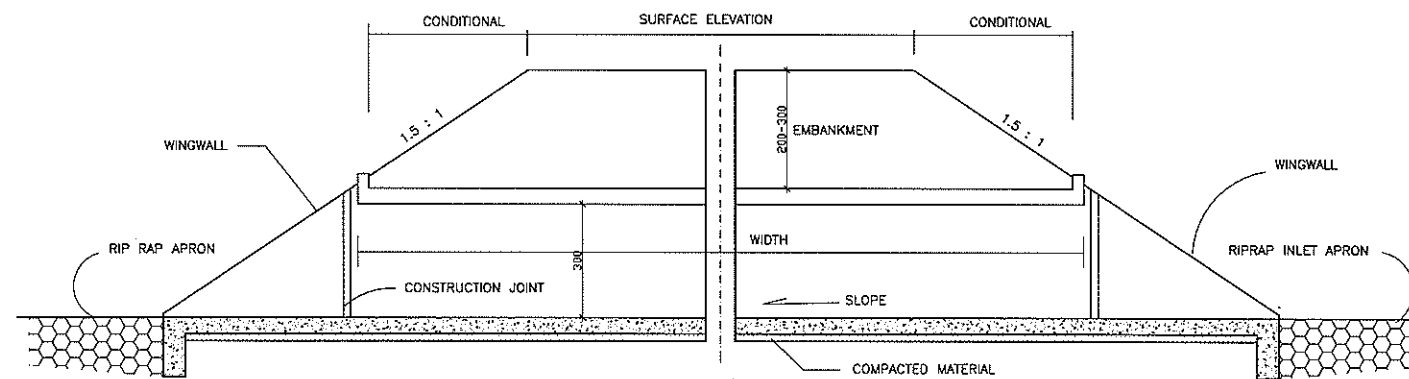
1. ALL DETAILS ON THIS SHEET NOT TO SCALE. ALL DIMENSIONS ARE GIVEN IN METERS
2. HEADWALLS SHALL BE CONSTRUCTED OF CLASS K-250 CONCRETE EXCEPT THAT THOSE HOUSING PIPES OF DIA AND LESS MAYBE CONSTRUCTED IN STONE MASONRY.



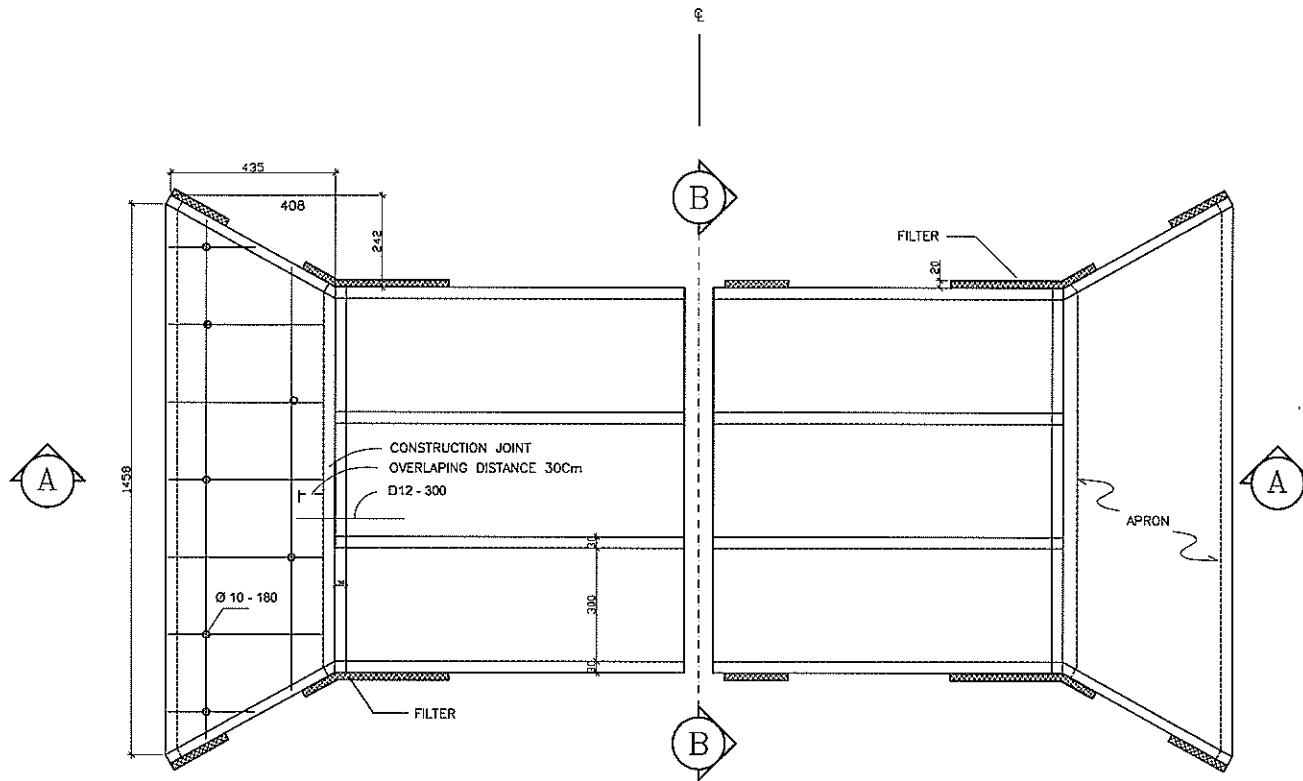
PLAN OF BOX CULVERT
SCALE 1 : 200



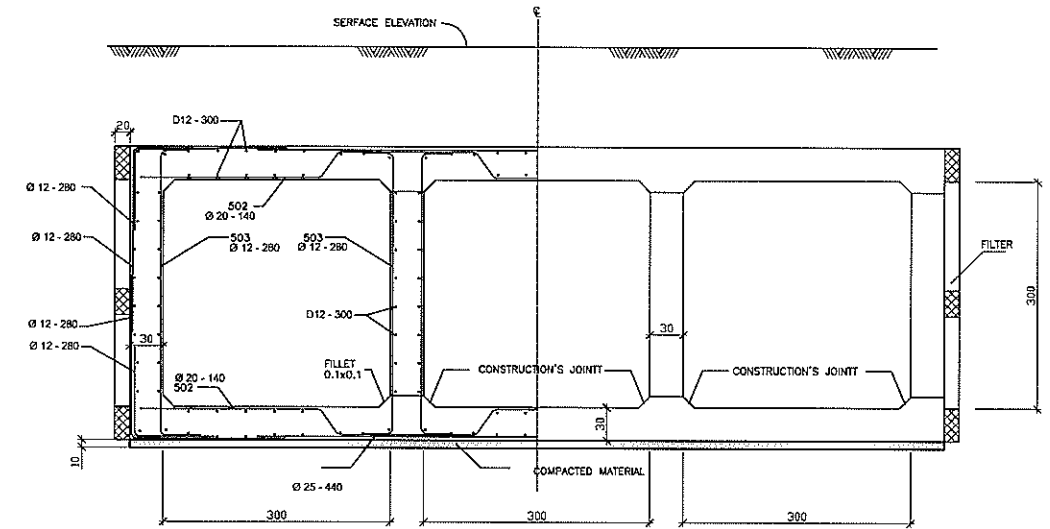
SECTION B-B
SCALE 1 : 80



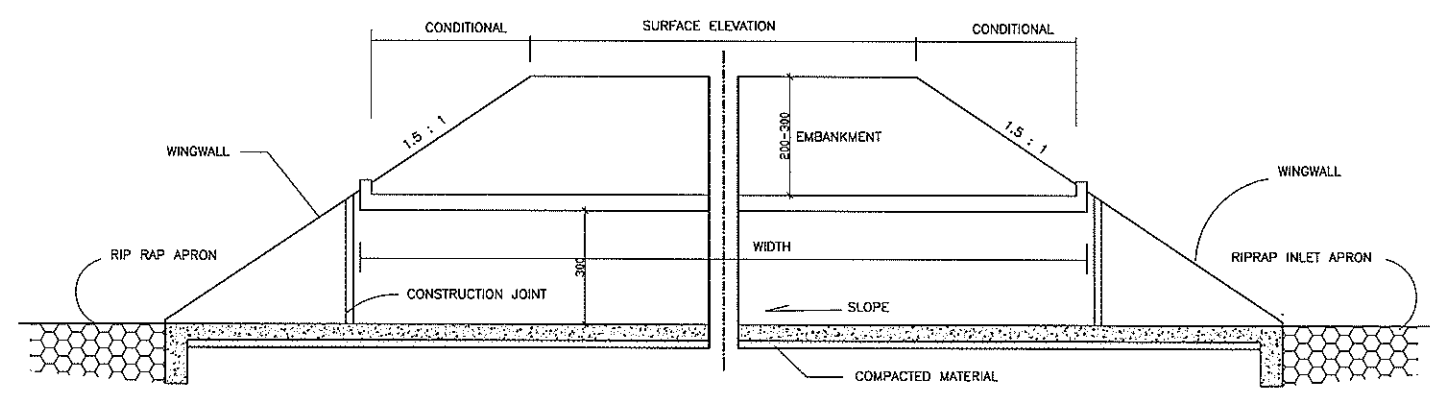
SECTION A-A
SCALE 1 : 200



PLAN OF BOX CULVERT
SCALE 1 : 200



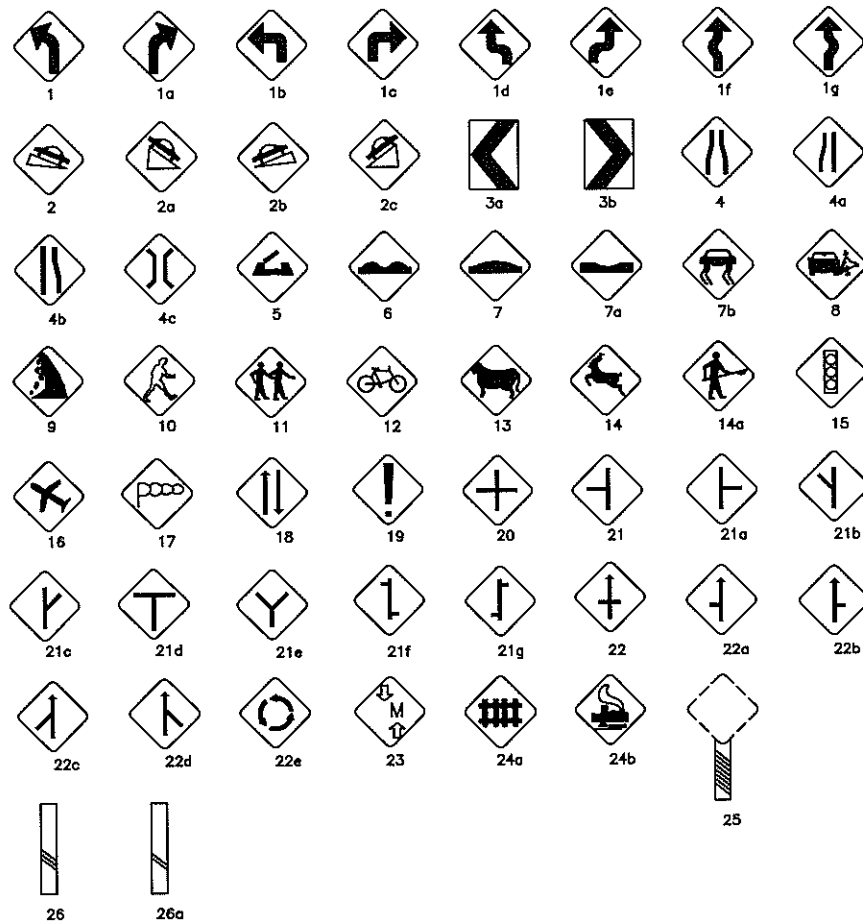
SECTION B-B
SCALE 1 : 80



SECTION A-A
SCALE 1 : 200

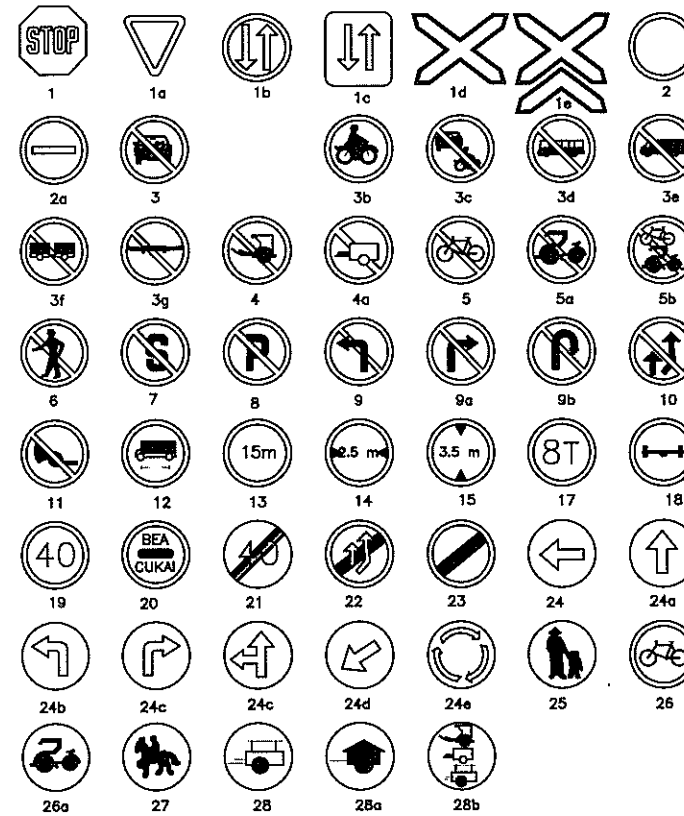
7. MISCELLANEOUS

WARNING SIGN (W)



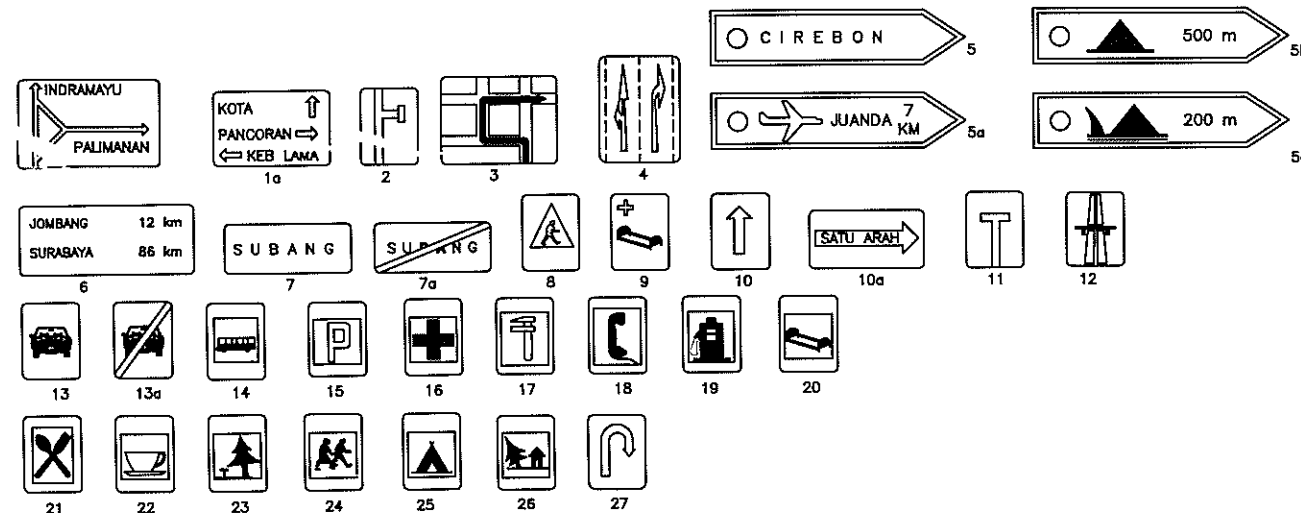
- 1 Left Bend
- 1a Right Bend
- 1b Left Turn
- 1c Right Turn
- 1d Double Bend
- 1e Double Bend
- 1f Many Bends
- 1g Many Bends
- 2 Descent
- 2a Steep Descent
- 2b Ascent
- 2c Steep Ascent
- 3a Left Turn Guidance
- 3b Right Turn Guidance
- 4 Narrower Carriageway
- 4a Left Narrower
- 4b Right Narrower
- 4c Bridge
- 5 Swing Bridge
- 6 Uneven Road
- 7 Uneven Road
- 7a Uneven Road
- 7b Slippery
- 8 Loose Gravel
- 9 Falling Rocks
- 10 Pedestrian Crossing
- 11 Children
- 12 Cyclists Crossing
- 13 Cattle Crossing
- 14 Animal Crossing
- 14a Road Works
- 15 Light Signals
- 16 Air Field
- 17 Cross Wind
- 18 Two - Way Traffic
- 19 Others Dangers
- 20 Intersection
- 21 Intersection
- 21a Intersection
- 21b Intersection
- 21c Intersection
- 21d Intersection
- 21e Intersection
- 21f Intersection
- 21g Intersection
- 22 Priority Intersection
- 22a Priority Intersection
- 22b Priority Intersection
- 22c Priority Intersection
- 22d Priority Intersection
- 22e Roundabout
- 23 Railway Level Crossing
- 24a Railway Crossing With Gate
- 24 Railway Crossing Without Gate
- 25 Additional Signs of Approach to Level-Crossing
- 26 Additional Signs of Approach to Level-Crossing
- 26a Additional Signs of Approach to Level-Crossing

REGULATION SIGN (R)

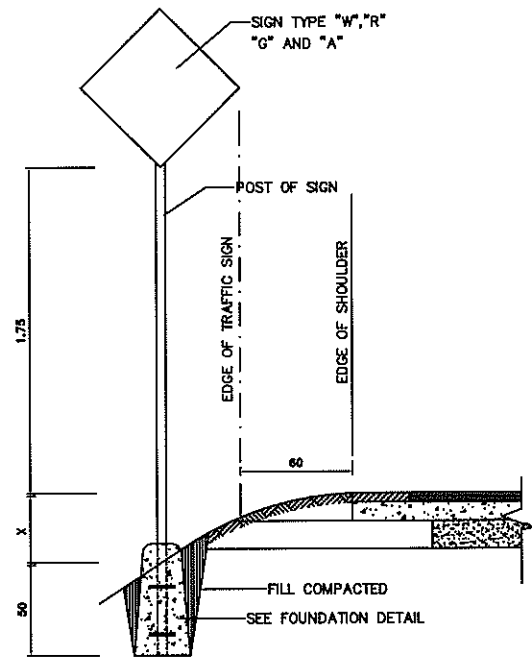


- 1 Stop
- 1a Give Way
- 1b Priority oncoming Traffic
- 1c Priority Over oncoming Traffic
- 1d Immediate Vicinity of Level Crossing
- 1e Immediate Vicinity of Level Crossing
- 2 Closed to All Vehicles in Both Direction
- 2a No Entry
- 3 No Entry Passenger Car
- 3b No Entry for Motor Cycle
- 3c No Entry for Vehicle and Motor Cycle
- 3d No Entry for Bus
- 3e No Entry Commercial Vehicles
- 3f No Entry for Trailers
- 3g No Entry for Articulated Vehicles
- 4 No Entry for Dokar
- 4a No Entry for Wagen
- 5 No Entry for Cycle
- 5a No Entry for Becak
- 5b No Entry for Becak and Cycle
- 6 No Entry For Pedestrian
- 7 Stopping Prohibited
- 8 Parking Prohibited
- 9 No Turn Left
- 9a No Turn Right
- 9b No U - Turn
- 10 No Overtaking
- 11 Prohibition of the Use Audible Warning Devices
- 12 No Entry for Vehicles or Combinations Vehicles ExceedingMetres in Length
- 13 Driving or Vehicles Less ThanMetres Apart Prohibited
- 14 No Entry for Vehicle Having an Overall With ExceedingMetres
- 15 No Entry for Vehicle Having an Overall Height ExceedingMetres
- 17 No Entry for Vehicles ExceedingThan Laden Weight
- 18 No Entry Vehicles Having A Weight Exceeding...Ton on one Axle
- 19 Speed Limit
- 20 Prohibition of Passing Without Stopping
- 21 End of Speed Limit
- 22 End Of No Overtaking
- 23 End Of Prohibition
- 24 Direction to be Followed
- 24a Direction to be Followed
- 24b Direction to be Followed
- 24c Direction to be Followed
- 24d Direction to be Followed
- 24e Direction to be Followed Around Roundabout
- 25 Compulsary Foot - Path
- 26 Compulsary Cycle
- 26a Compulsary Becak
- 27 Compulsary Horseback
- 28 Compulsary Dokar
- 28a Compulsary Wagen
- 28b Compulsary Wagen

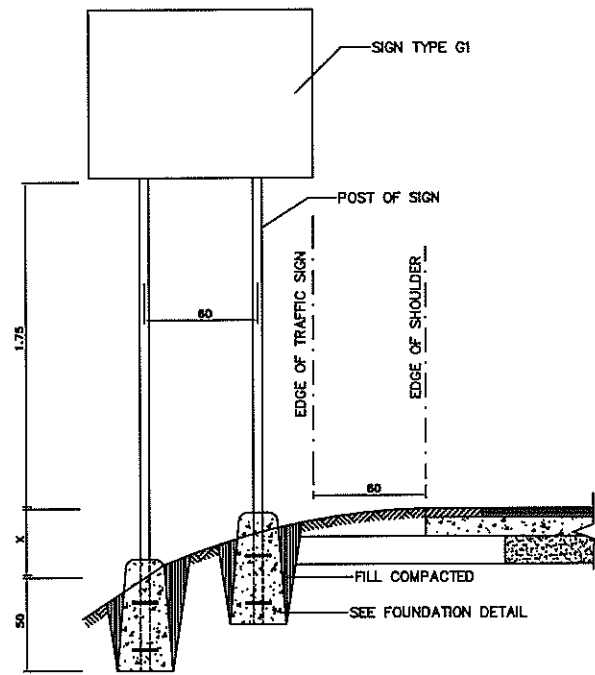
GUIDE SIGN (G)



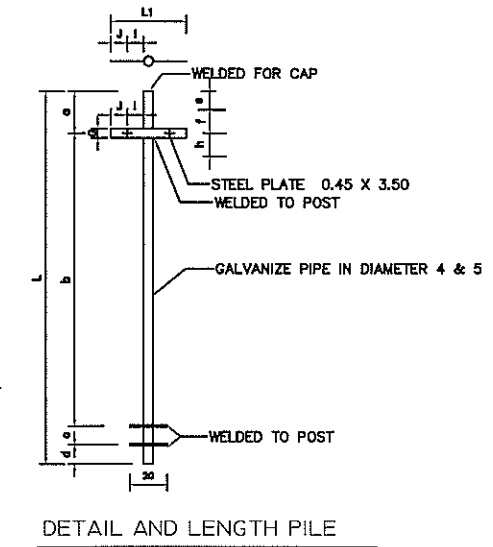
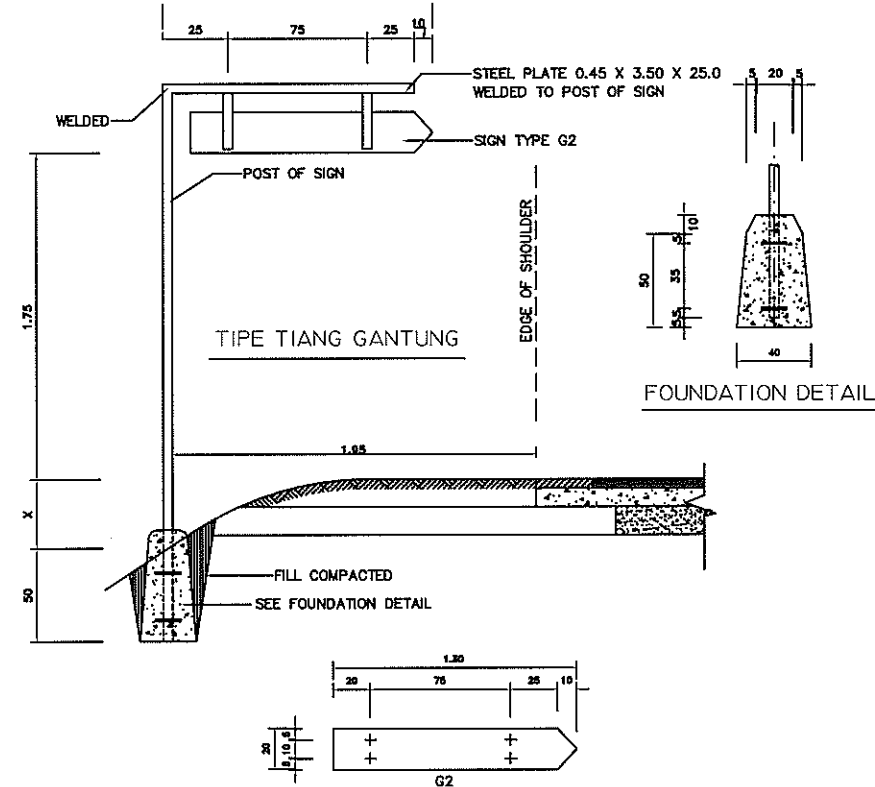
- 1 Example of Advances Direction Signs
- 1a Example of Advances Direction Signs
- 2 No Throught Road
- 3 Example of Advances Direction Signs for Route to be Followed
- 4 Example of Signs for Proselaction at Interaction on Roads With Several Lanes
- 5 Example of Signs for Direction Place
- 5a Example of Signs for Airfield Direction
- 5b Example of Signs for Camping Site
- 5c Example of Signs for Youth Hostel
- 6 Compfirmatory Sign
- 7 Place Identification Sign
- 7a End of Place Identification Sign
- 8 Pedestrian Crossing
- 9 Hospital Sign
- 10 One - Way Road
- 10a One - Way Road
- 11 No Throught Road
- 12 Entry To Tollroad
- 13 Road of Motor Vehicles
- 13a End of Road of Motor Vehicles
- 14 Bus Stop
- 15 Parking Area
- 16 First - Aid Station
- 17 Breakdown Service
- 18 Telephone
- 19 Fuel Station
- 20 Hotel or Motel
- 21 Restaurant
- 22 Cafeteria
- 23 Picnic Site
- 24 Starting - Point foe Walks
- 25 Camping Site
- 26 Youth Hotel
- 27 U - Turn



SINGLE PILE TYPE
SCALE 1: 20

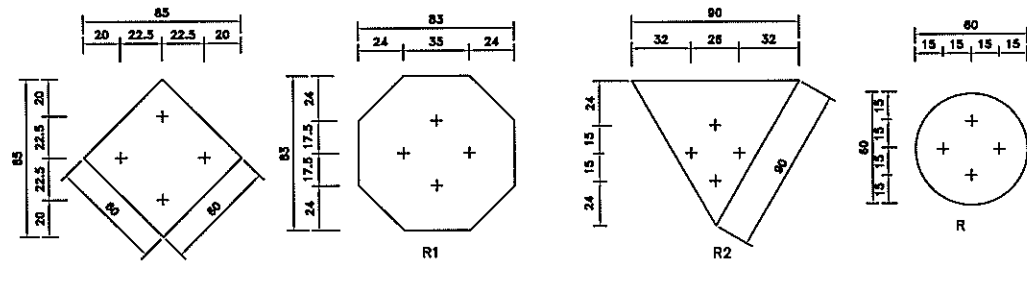


DOUBLE PILE TYPE
SCALE 1: 20

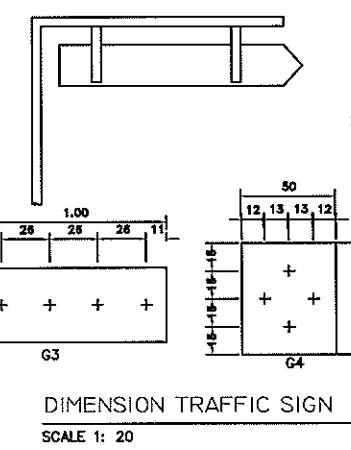


DETAIL AND LENGTH PILE

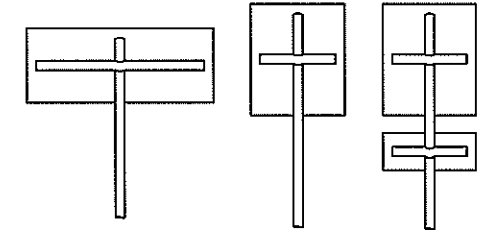
TYPICAL TRAFFIC SIGN
SCALE 1: 20



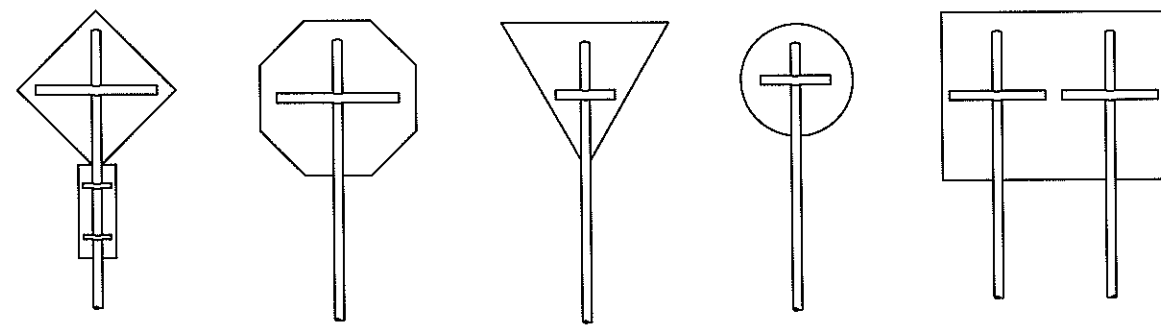
DIMENSION TRAFFIC SIGN
SCALE 1: 20



DIMENSION TRAFFIC SIGN
SCALE 1: 20



TYPICAL BACK VIEW
SCALE 1: 20



TYPICAL BACK VIEW
SCALE 1: 20

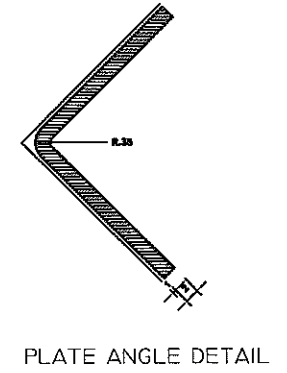
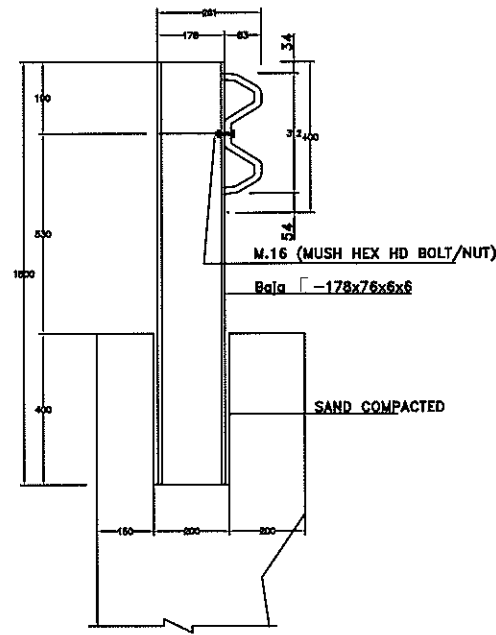


PLATE ANGLE DETAIL

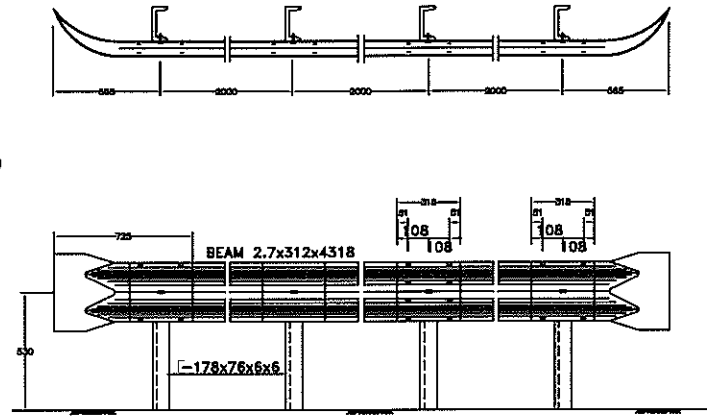
TYPE	◇	○	▽	○	□	□	□	□	□
	W	R1	R2	R3	G1	G2	G3	G5	A
a	37	37	34	25	40	-	15	25	HOOKED TO POST OF SIGN
b	223+ X	222+ X	209 + X	210 + X	222 + X1	-	200 + X	21- + X	
c	20	20	20	20	20	-	20	20	
d	20	20	20	20	20	-	20	20	
e	14.5	19.5	19	10	20	-	15	10	
f	22.5	17.5	15	15	20	-	-	15	
g	5	5	5	5	4	4	4	4	
h	22.5	175	15	15	20	-	-	15	
L	300 + X	299 + X	283 + X	275 + X	303 + X 305 + X1	250 + X 127	255 + X	275 + X	
i	22.5	17.5	13	15	20	-	13	13	
j	5	5	3	5	5	-	26	5	
L1	55	45	32	40	50	-	88	36	

X- VARIES ACCORDED TO CUT & FILL SLOPE
X1= (60 X S) + X

GUARDRAIL STANDARD TYPE A

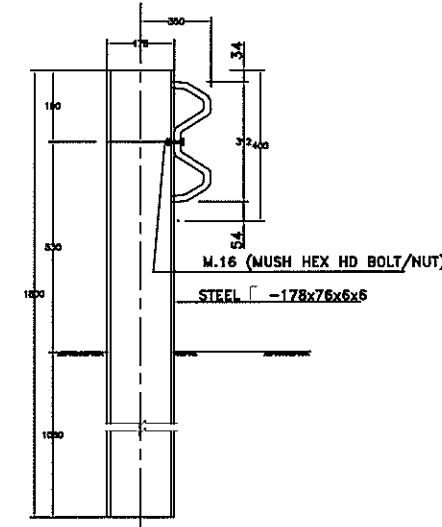


GUARDRAIL POST DETAIL
SCALE : 1:10

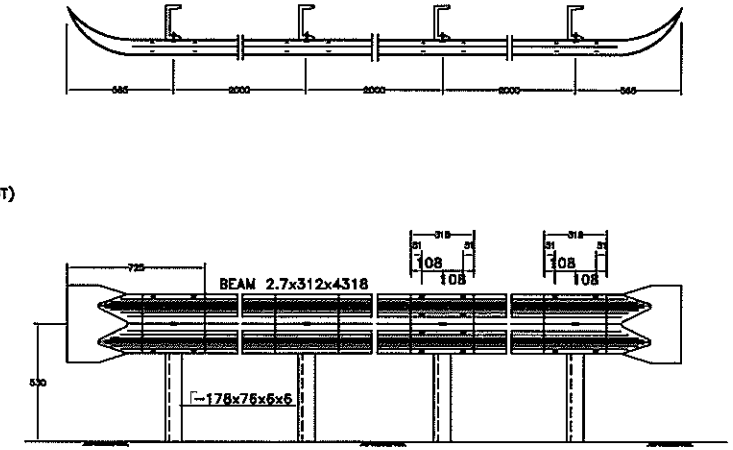


ELEV. AND PROFILE
SCALE : 1:20

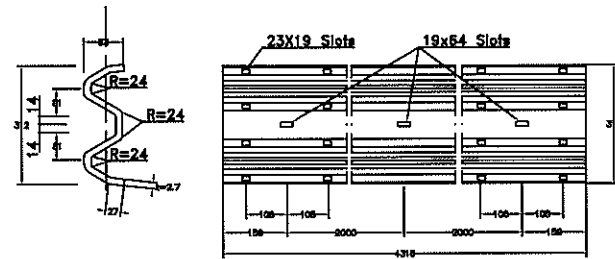
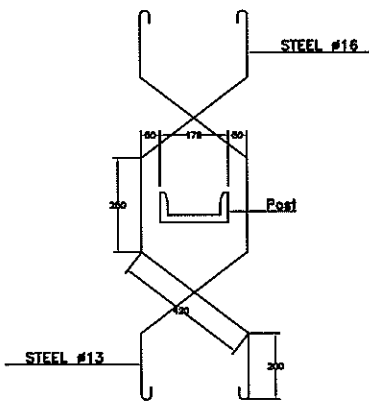
GUARDRAIL STANDARD TYPE B



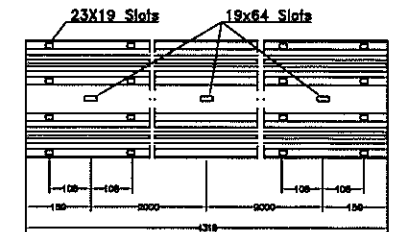
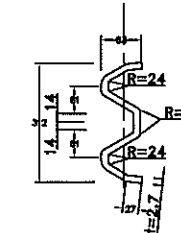
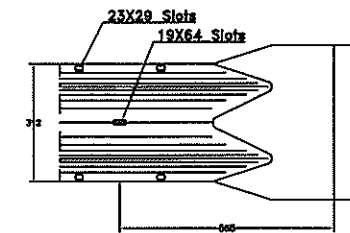
GUARDRAIL POST DETAIL
SCALE : 1:10



ELEV. AND PROFILE
SCALE : 1:20



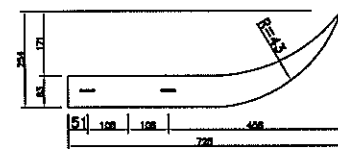
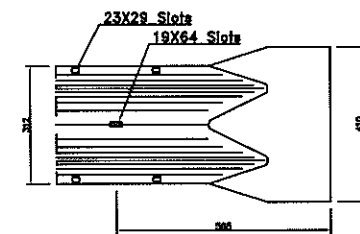
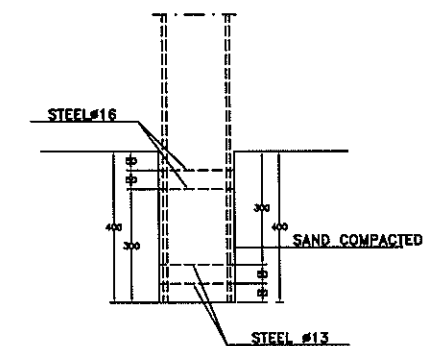
DETAIL BEAM
SCALE : 1:10



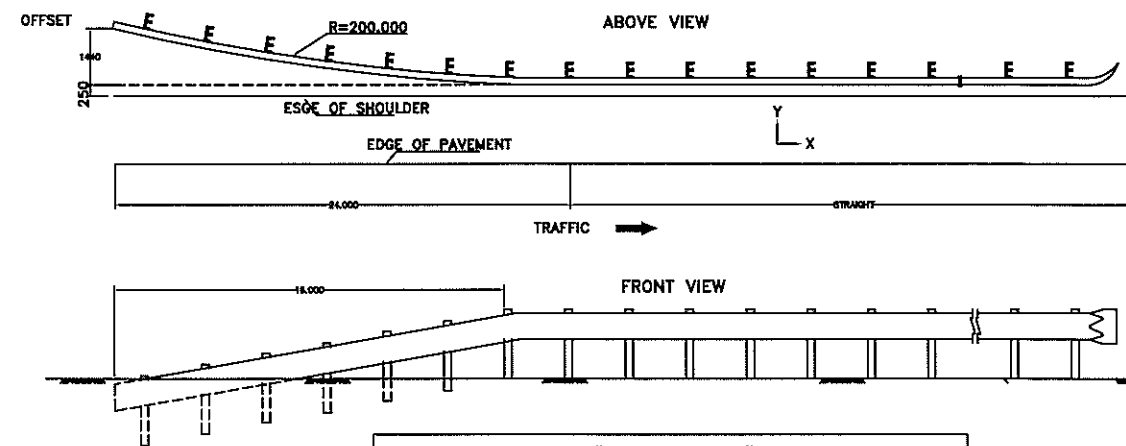
DETAIL BEAM
SKALA : 1:10



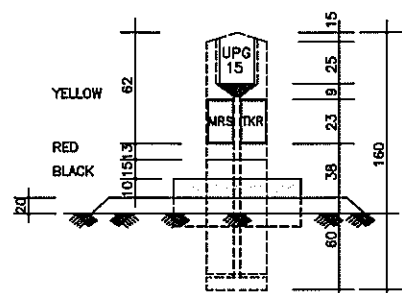
END BEAM DETAIL
SCALE : 1:10



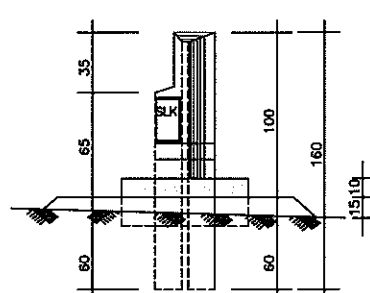
END BEAM DETAIL
SCALE : 1:10



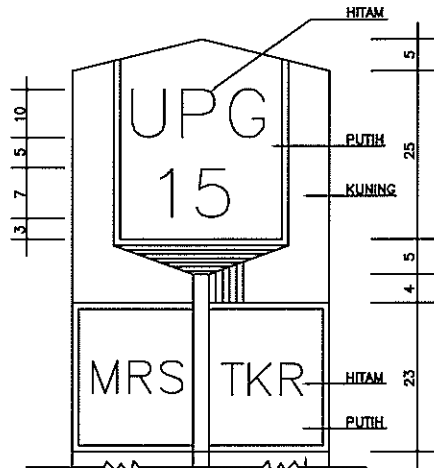
" OFFSET "						
X	4.000	8.000	12.000	16.000	20.000	24.000
Y	0.00	180	360	640	1.000	1.440



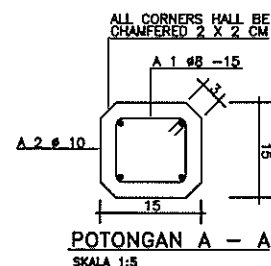
TAMPAK DEPAN



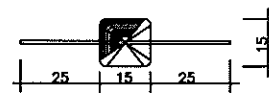
TAMPAK SAMPING



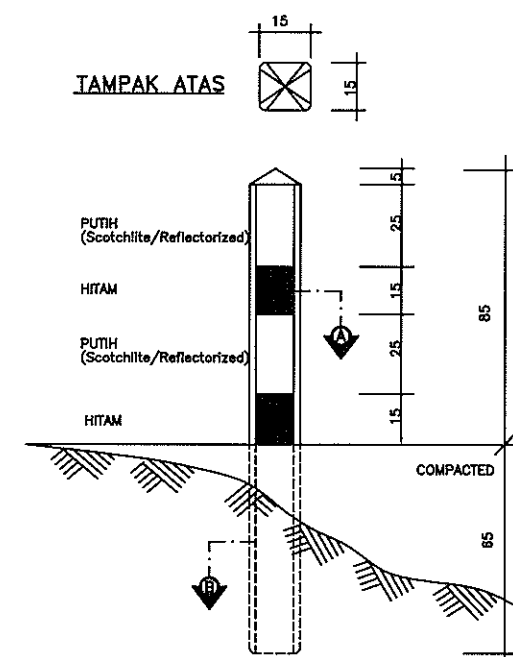
DETAIL 1
SCALE 1:5



POTONGAN A - A
SKALA 1:5



POTONGAN B - B
SKALA 1:5



TAMPAK ATAS

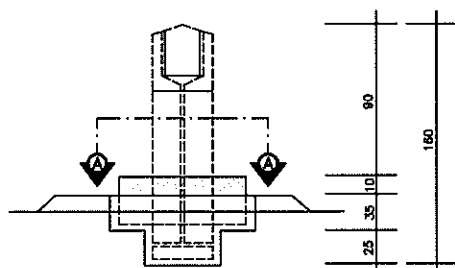
ELEVASI
SKALA 1:10



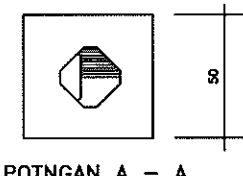
TAMPAK ATAS
SKALA 1:20



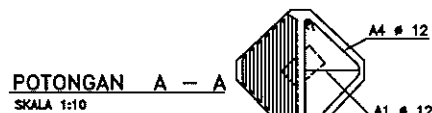
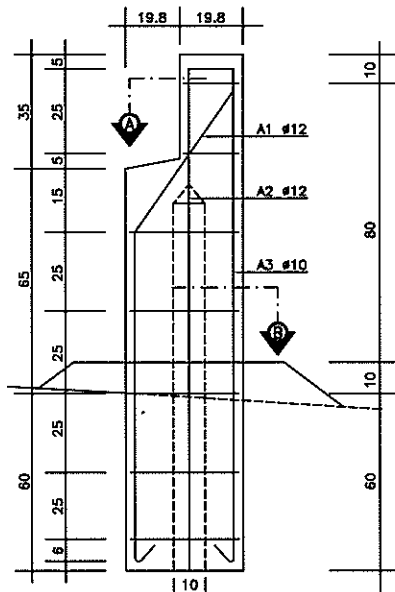
TAMPAK ATAS
SKALA 1:20



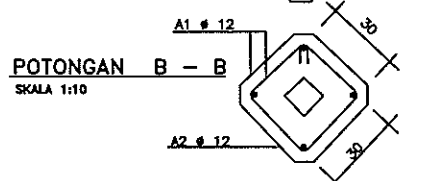
ELEVASI
SKALA 1:20



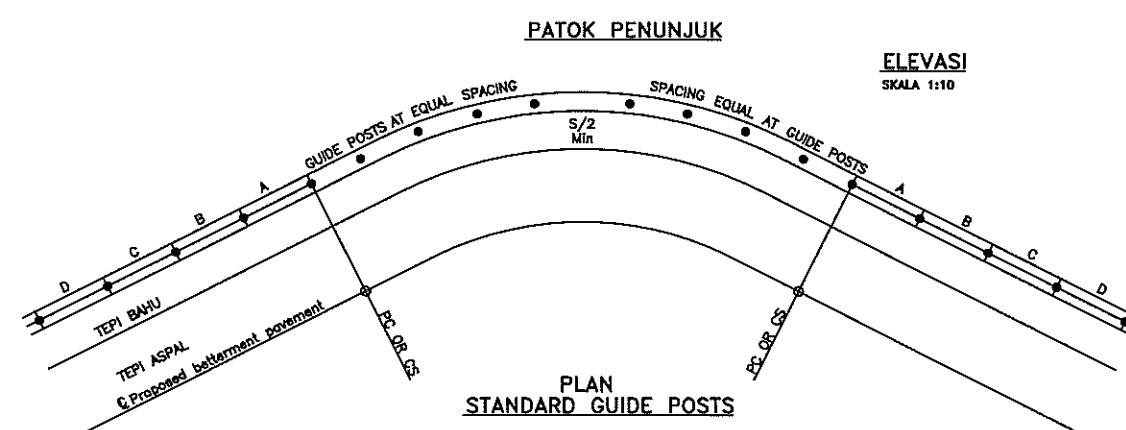
POTONGAN A - A
SKALA 1:20



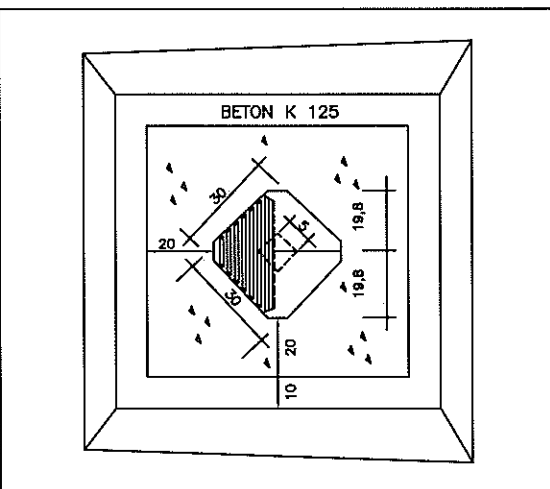
POTONGAN A - A
SKALA 1:10



POTONGAN B - B
SKALA 1:10



PLAN
STANDARD GUIDE POSTS



DENAH STANDAR PATOK KILOMETER
SKALA 1:10

PEMBESIAN PATOK KILOMETER

NO.	TYPE	DIMENSION				LENGTH (m)	QUANTITY (fa)	TOT LENGTH (kg/m)	UNIT WEIGHT (kg/m)	TOT WEIGHT (kg)	REMARKS
		a	b	c	d						
A1	4	12	152	57	106	3.38	1	3.38	0.848	2.866	1 a
A2	3	12	152	35	152	3.62	1	3.62	0.848	3.070	b
A3	2	10	25	25	25	1.25	5	6.15	0.617	3.794	2
A4	5	12	35	25	25	1.08	2	2.16	0.848	1.832	a
TOTAL										11.562	

PEMBESIAN PATOK PENUNJUK

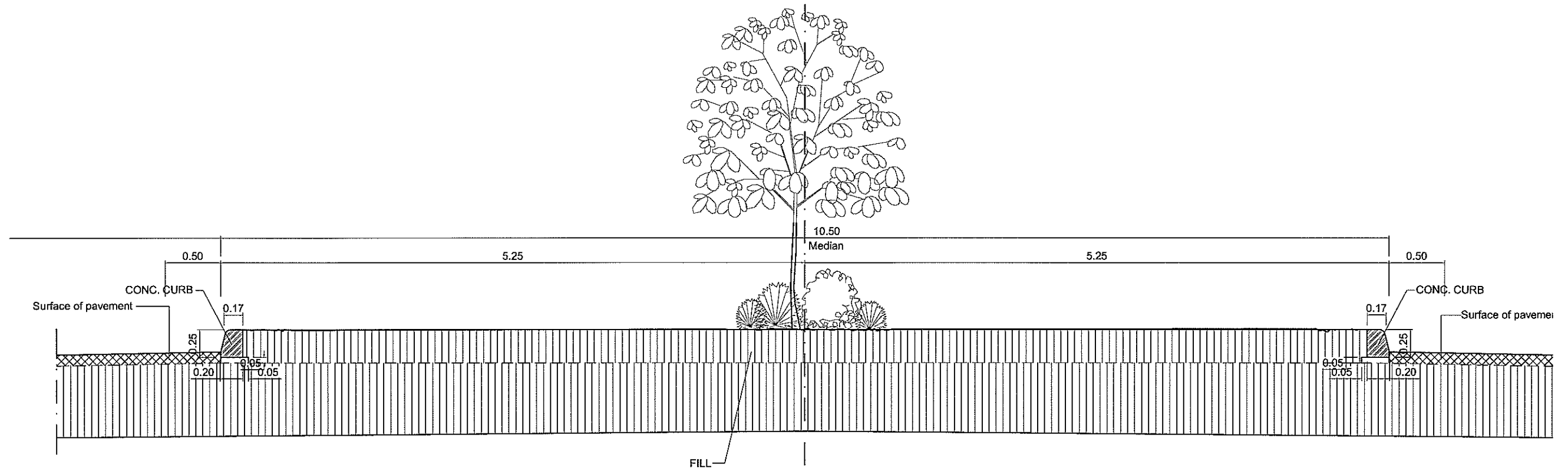
NO.	TYPE	DIMENSION				LENGTH (m)	QUANTITY (fa)	TOT LENGTH (kg/m)	UNIT WEIGHT (kg/m)	TOT WEIGHT (kg)	REMARKS
		a	b	c	d						
A1	2	8	12	12	12	0.71	8	5.68	0.395	2.243	a
A2	1	10	140			1.58	4	6.32	0.617	3.900	b
A3	6	12	60			0.60		0.60	0.848	0.509	5 b
TOTAL										6.652	

TABEL A
JARAK PATOK PENUNJUK

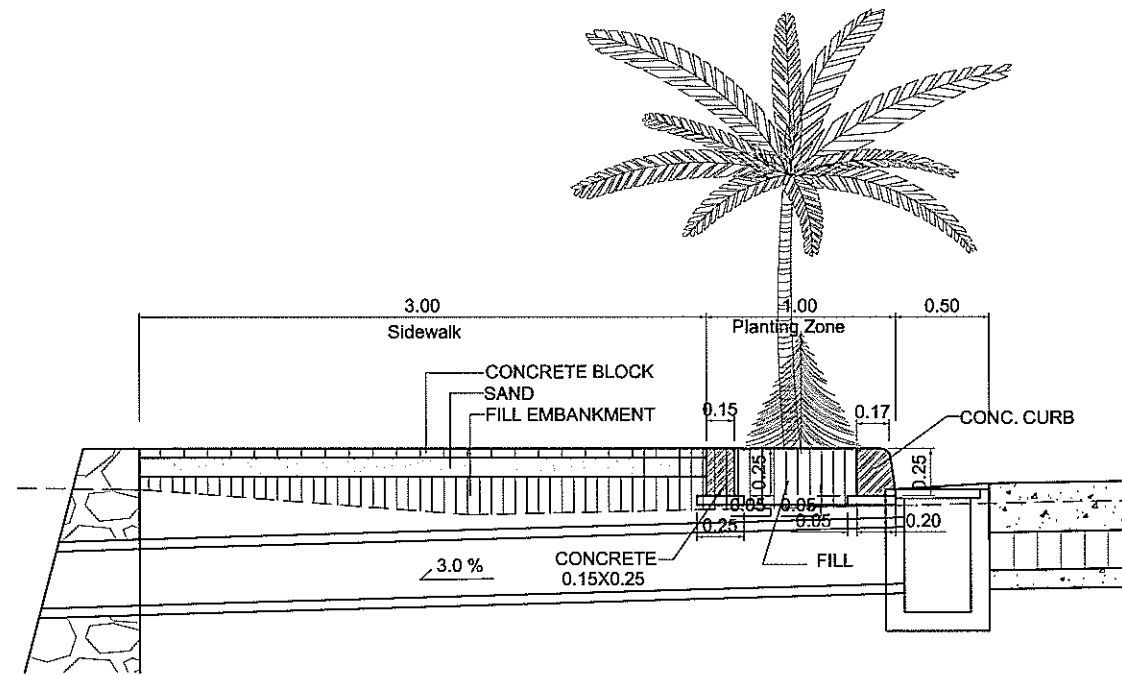
RADIUS-CURVE	JARAK-METER			
	S	A	B	C
180 - 200	15	20	25	30
100 - 180	14	20	25	10
120 - 150	13	15	20	25
90 - 120	12	15	20	25
60 - 90	10	15	20	20
30 - 60	8	10	20	20
30a - 30	6	10	15	15

CATATAN

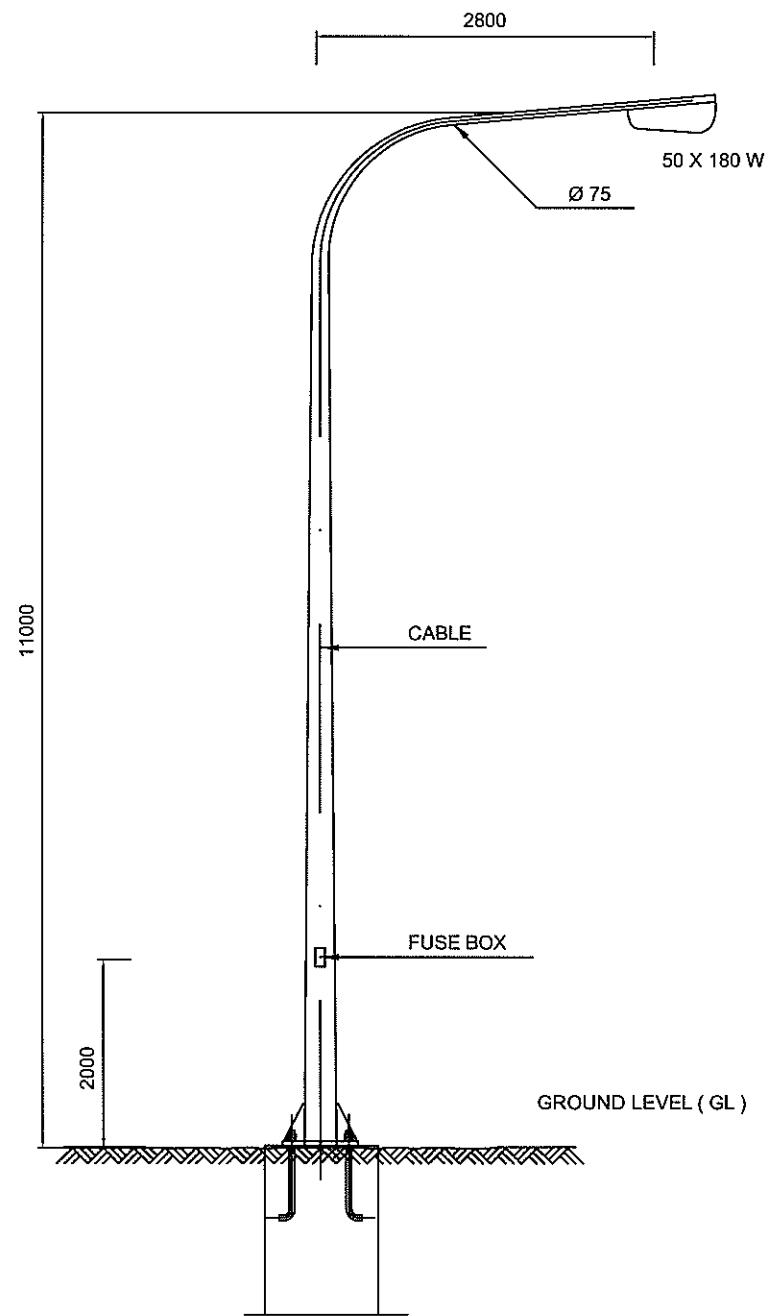
- JARAK PATOK PENUNJUK PATOK DITUNJUKAN PADA TABEL A
- LOKASI PATOK PENUNJUK DITUNJUKAN DIATAS



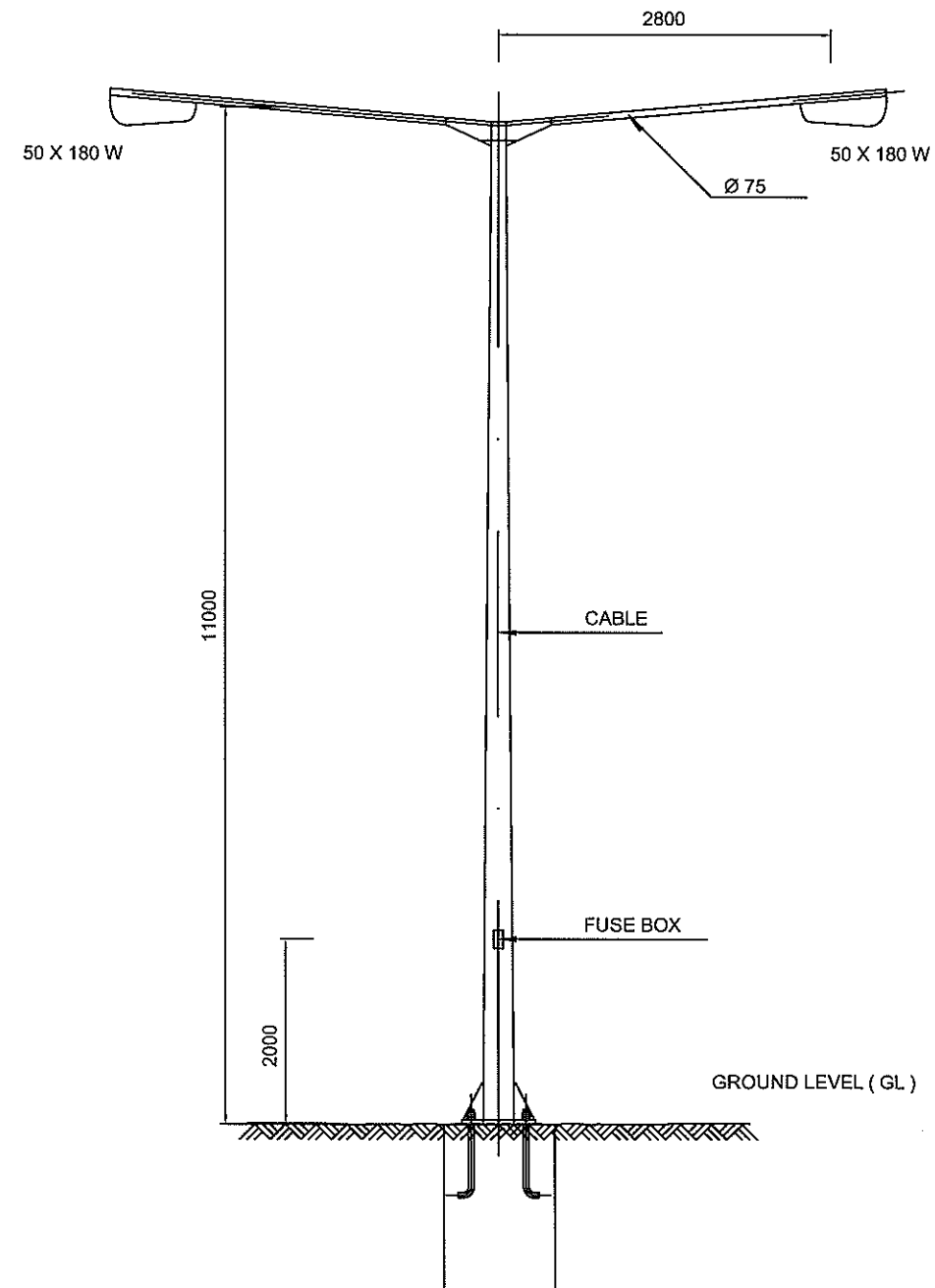
MEDIAN TYPE - 1
scale 1/40



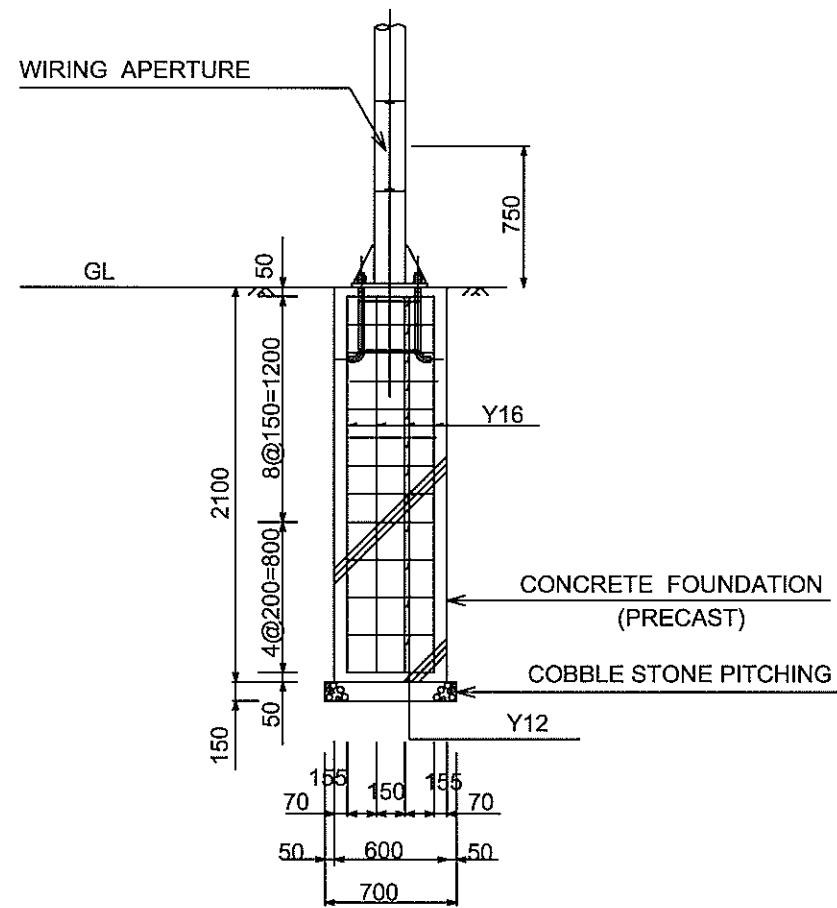
SIDE WALK AND PLANTING ZONE
scale 1/40



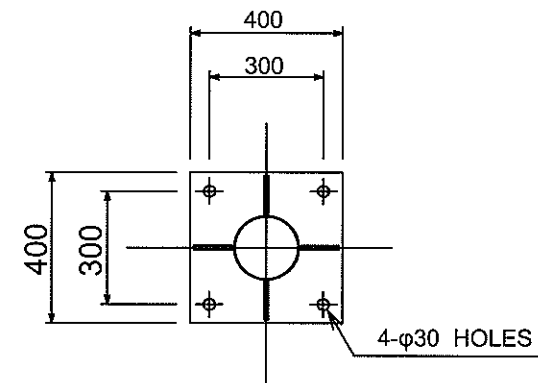
NOTE
 STREET LIGHTING TYPE -A (1) & (2)
 A(1) WITH FONDATION
 A(2) WITHOUT FOUNDATION



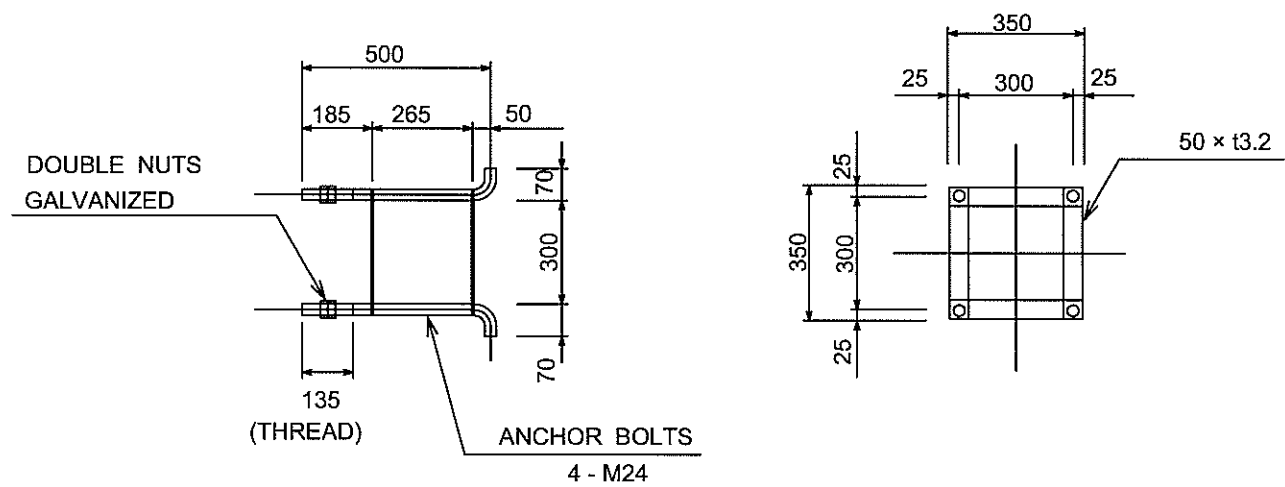
NOTE
 STREET LIGHTING TYPE -B (1) & (2)
 A(1) WITH FONDATION
 A(2) WITHOUT FOUNDATION



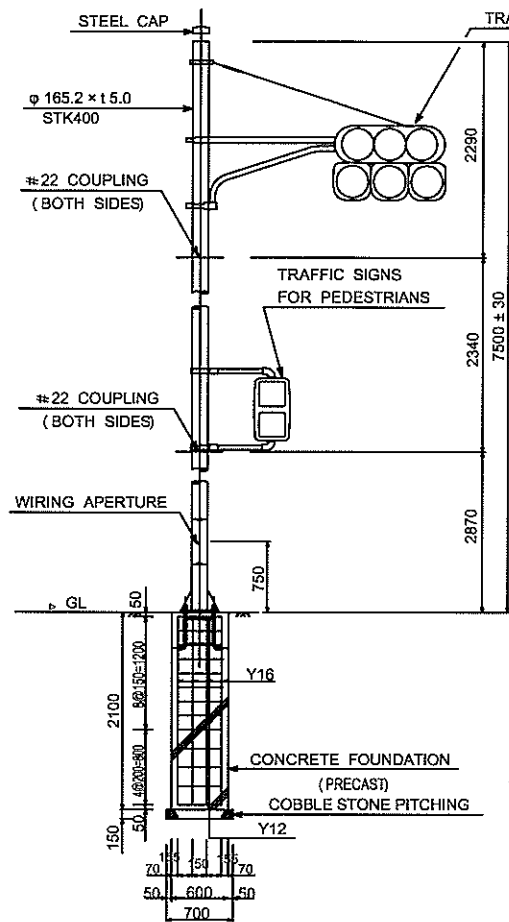
STANDALONE POLE
SCALE=1/80



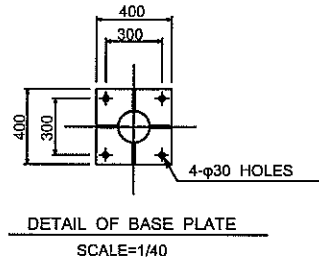
DETAIL OF BASE PLATE
SCALE=1/40



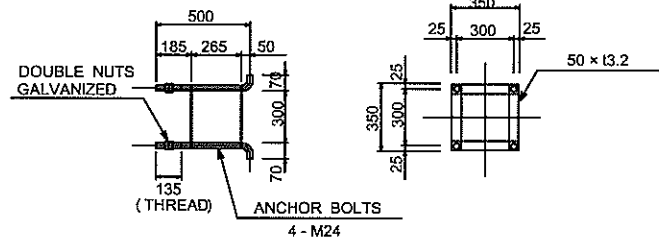
ANCHOR BOLTS FOR BASE PLATE
SCALE=1/40



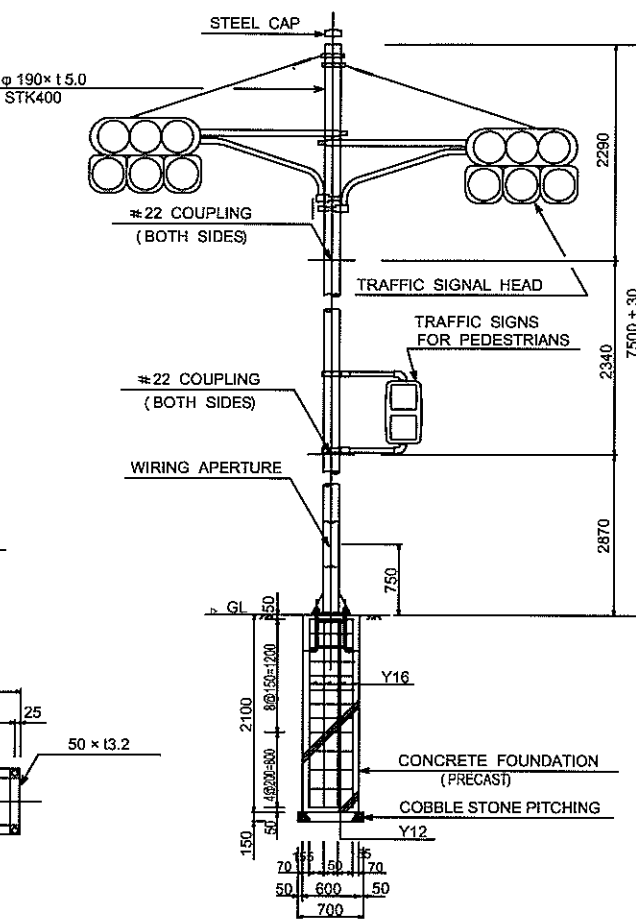
STANDALONE POLE
SCALE=1/80



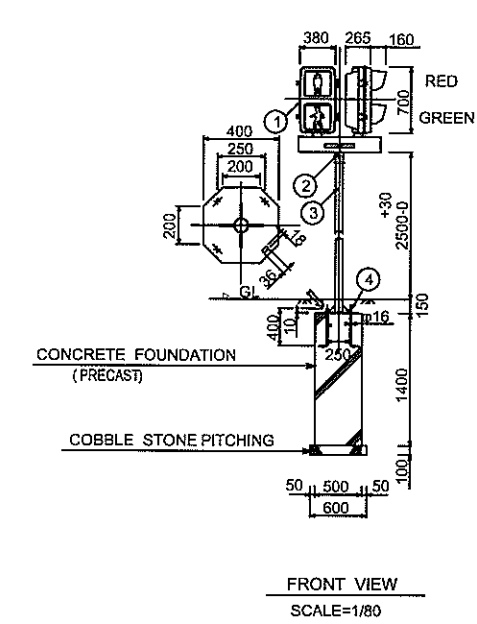
DETAIL OF BASE PLATE
SCALE=1/40



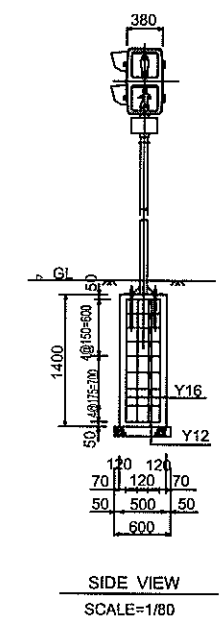
ANCHOR BOLTS FOR BASE PLATE
SCALE=1/40



STANDALONE POLE
SCALE=1/80



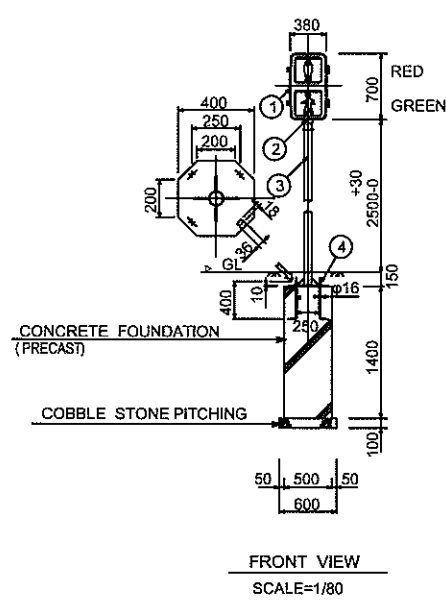
FRONT VIEW
SCALE=1/80



SIDE VIEW
SCALE=1/80

- NOTE 1: Colors of painting: Munsell 2.5pb7/2 for both outer and inner surfaces of Signal Lights.
- NOTE 2: The Standalone Pole is zinc-plated by hot dipping.

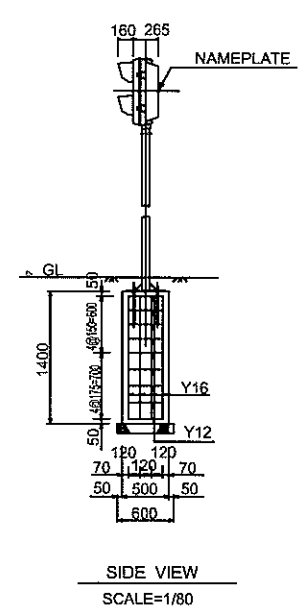
NO.	PART	MATERIAL	QTY	REMARKS
4	ANCHOR BOLTS	SS41	4	WITH SPRINGS
				FLAT WASHERS
				AND NUTS
3	STANDALONE POLE	STK41	1	φ76.3 T2.8
2	FLANGE	FC20	1	
1	LIGHTS		2 SET	



FRONT VIEW
SCALE=1/80

- NOTE 1: Colors of painting: Munsell 2.5pb7/2 for both outer and inner surfaces of Signal Lights.
- NOTE 2: The Standalone Pole is zinc-plated by hot dipping.

NO.	PART	MATERIAL	QTY	REMARKS
4	ANCHOR BOLTS	SS41	4	WITH SPRINGS
				FLAT WASHERS
				AND NUTS
3	STANDALONE POLE	STK41	1	φ76.3 T2.8
2	FLANGE	FC20	1	
1	LIGHTS		1 SET	



SIDE VIEW
SCALE=1/80

PEDESTAL SIGNAL, TWIN TYPE

