

302 70301

APPENDIX 5 - 4 (2) ORIGIN - DESTINATION TABLE 2000 CAR

[illegible]

APPENDIX 5-4(3)

AP - 5-12

APPENDIX 5-5 (1) DIFFERENCES OF TIME DISTANCE

1985	1990	WITHOUT OUTER RING ROAD, MINUTES (ANOTHER BRIDGE - RAMA VI BRIDGE)
10	15	
15	20	
20	25	
25	30	
30	35	
35	40	
40	45	
45	50	
50	55	
55	60	
60	65	
65	70	
70	75	
75	80	
80	85	
85	90	
90	95	
95	100	
100	105	
105	110	
110	115	
115	120	
120	125	
125	130	
130	135	
135	140	
140	145	
145	150	
150	155	
155	160	
160	165	
165	170	
170	175	
175	180	
180	185	
185	190	
190	195	
195	200	
200	205	
205	210	
210	215	
215	220	
220	225	
225	230	
230	235	
235	240	
240	245	
245	250	
250	255	
255	260	
260	265	
265	270	
270	275	
275	280	
280	285	
285	290	
290	295	
295	300	
300	305	
305	310	
310	315	
315	320	
320	325	
325	330	
330	335	
335	340	
340	345	
345	350	
350	355	
355	360	
360	365	
365	370	
370	375	
375	380	
380	385	
385	390	
390	395	
395	400	
400	405	
405	410	
410	415	
415	420	
420	425	
425	430	
430	435	
435	440	
440	445	
445	450	
450	455	
455	460	
460	465	
465	470	
470	475	
475	480	
480	485	
485	490	
490	495	
495	500	
500	505	
505	510	
510	515	
515	520	
520	525	
525	530	
530	535	
535	540	
540	545	
545	550	
550	555	
555	560	
560	565	
565	570	
570	575	
575	580	
580	585	
585	590	
590	595	
595	600	
600	605	
605	610	
610	615	
615	620	
620	625	
625	630	
630	635	
635	640	
640	645	
645	650	
650	655	
655	660	
660	665	
665	670	
670	675	
675	680	
680	685	
685		

WITH NEW RAMA VI BRIDGE PROJECT

[illegible]

WITHOUT NEW RAMA VI BRIDGE PROJECT

[illegible]

1990 2000 WITH OUTER RING ROAD,
MINUTES (ANOTHER BRIDGE-
RAMA VI BRIDGE)

WITH NEW RAMA VI BRIDGE PROJECT

[illegible]

WITHOUT NEW RAMA VI BRIDGE PROJECT

[illegible]

APPENDIX 5-6 (1) RATE OF ASSIGNMENT FOR RAMA VI BRIDGE

1985 1990 2000 MOTORCYCLE

WITH RAMA VI BRIDGE PROJECT

[illegible]

1985, 1990 WITHOUT OUTER RING ROAD

[illegible][illegible]

WITH NEW RAMA VI BRIDGE PROJECT

WITHOUT NEW RAMA VI BRIDGE PROJECT

AP - 5-17

RATE OF INDUCED TRAFFIC

CAR

[illegible]

TRUCK

[illegible]

APPENDIX 5-8 TRAFFIC FORECAST ON RAMA VI BRIDGE

MOTORCYCLE

1985

[illegible]

1930

[illegible]

2000

		BANGKOK SIDE																															
		1	2	3	9	10	11	12	13	14	15	16	17	18	19	20	30	31	32	33	34	35	36	37	38	Total							
THONKUBI SIDE	4																																
	5	75			55	76	30	132		128	117	155	119					18	43	12						545							
	6	107			15	111	247	187	25	318	167	224	151	154			234	28	52	19						2643							
	7				63	385	847	649	82	203	328	466						52	129	33						3251							
	8				75	115	245	186	23	52	163	217							43	129	37					1267							
	21																																
	22				63	154	334	221	29	65	208	275							59	133	67					1613							
	23				16	24	59	49	2	13		15								95	26					324							
	24	123			36	58	66				32	154	193	200												866							
	25																																
	26				1	3	5																				2						
	27																																
28																																	
29																																	
39																																	
40																																	
41																																	
Total		309			395	874	1651	1424	166	767	1832	1454	454	354			234	193	610	194						18,924							

APPENDIX 5-9(1) TRAFFIC FORECAST ON RAMA VI BRIDGE
Traffic Proper to RAMA VI Bridge 1985

CAR

		BANGKOK SIDE																																
		1	2	3	9	10	11	12	13	14	15	16	17	18	19	20	20	31	32	33	34	35	36	37	38	Total								
THONRUKI SIDE	4				295	314	673	406	43	143	139	271				20		35	29	23			9	31	55	2532								
	5	179	326	153	15	184	178	137	7	294	47	77	326	94	142	162	214	12	16	13	16	13			5	22	2473							
	6	332			56	428	254	383	35	852	150	138	230	174	250	292	347	22	32	23	31	23			7	36	4114							
	7				138	541	830	956	122	967	430	273	293	222	451	455	866	21	105	74		43	5	27	124	7045								
	8				242	210	254	243	36	92	152	210	79	59			134	14	24	15		8	2	6	28	1830								
	21																																	
	22				158	143	243	209	31	75	135	120	105	79			114	15	26	21		7	3	21	287	1032								
	23				44	41	54	59	9	21	14	2	21	51	298	54	83	2	12	7							715							
	24	38	143	69	41	125	54	18	4	6	18	4	59	36	63	106	71	4	6	4	15	17	6	9	31	973								
	25																43										43							
	26				2	5																					7							
	27																																	
	28																																	
29																																		
33																																		
42			7	16	16	354	156	15	36	82	79	63	50			29	2	18	7		3		15	10	854									
41																																		
Total		542	459	229	1037	2913	7150	2513	326	2431	1367	9184	991	765	1156	1073	1596	177	268	387	62	127	29	148	645	22,653								

TRUCK

		BANGKOK SIDE																																					
		1	2	3	9	10	11	12	13	14	15	16	17	18	19	20	30	31	32	33	34	35	36	37	38	Total													
THONBUKI SIDE	4				43	54	115	43	7	11	43	13						9	14	10			2	45	20	457													
	5	18	67	30	10	37	26	43	2	41	15	19	16	14	23	21	34	4	7	4	5	2		7	3	643													
	6	36			26	54	43	44	7	51	34	13	77	26	35	38	59	7	39	8	9	2	2	9	7	631													
	7				14	84	140	138	12	121	64	63	158	31	55	62	124	23	41	24				31	21	1172													
	8				42	34	34	26	2	9	34	13	12	9			24	5	9	5		17		7	4	273													
	21																					12	8	101	113	245													
	22				23	21	26	64	4	45	27	14	17	12			45	7	12	7			9	25	110	456													
	23				13	7	8	25	1	14	15	12	5	12	7	12	23	4	7	5		3	4		3	117													
	24	7	28	13	19	12	7	1	2	1	8	6	17	9	11	29	21	3	4	3	25		2	43		271													
	25																11									11													
	26				1	2																				3													
	27																																						
	28																																						
	29																																						
	39																																						
	40				31	29	118	255	38	93	54	112	43	35			26	2	35	24		5	2	51	1	1622													
61				2																						2													
Total		61	95	43	230	338	576	655	75	392	297	263	300	168	135	162	377	64	167	91	34	41	31	324	259	5,193													

APPENDIX 5-9(2) TRAFFIC FORECAST ON RAMA VI BRIDGE
Traffic Proper to RAMA VI Bridge 1990 without ORR

CAR

		BANGKOK SIDE																																					
		1	2	3	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	Total				
THONBURI SIDE	4				215	206	611	368	55	94	225	237						30	32	18			8	31	47	2217													
	5	136	237	631	21	136	183	839	7	212	93	96	107	88	819	283	274	12	21	13	16	13		3	22	2262													
	6	267			47	392	267	391	35	616	161	171	193	163	211	330	491	21	43	22	29	21		7	35	3,826													
	7				117	428	877	1501	124	214	538	566	291	214	345	536	1135	79	133	71		47	5	26	121	7318													
	8				186	151	245	238	34	63	151	158	62	53			161	13	28	13		7	2	5	24	1554													
	21																																						
	22				143	117	276	236	35	69	153	164	97	82			239	16	36	21		7	4	21	252	2,012													
	23				47	41	13	79	13	21	20	4	24	42	32	79	141	3	15	8																			
	24	39	133	74	64	119	13	24	42	6	25	7	64	44	71	152	115	5	9	4	17	19	7	13	38	1833													
	25																66																						
	26				2	4																																	
	27																																						
28																																							
29																																							
30																																							
40				15	42	306	106	15	26	86	97	56	47			25	2	22	7		5		15	19	652														
41				5																																			
Total	402	370	297	562	1516	2912	2582	332	1511	1458	1560	854	733	778	1253	2654	172	337	177	61	123	31	145	664	22,457														

TRUCK

		BANGKOK SIDE																																					
		1	2	3	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Total														
THONBURI SIDE	4				28	33	197	41	7	14	57	14					8	47	8			2	42	18	413														
	5	16	32	27	15	27	27	47	4	36	13	9	15	14	18	22	42	5	10	4	5			4	3	415													
	6	30			22	39	50	42	6	48	42	10	64	24	30	37	74	6	42	7	9	2	2	8	2	539													
	7				12	65	153	24	12	159	65	55	55	33	50	63	167	27	54	21		2	2	30	21	1812													
	8				33	27	34		4	4	41	11	10	9			28	5	12	4		1	1	6	4	254													
	21							83																															
	22				23	19	33	30	5	47	40	15	15	25			64	8	18	7		13	15	27	123	515													
	23				8	7	12	1	2	16	24	13	6	16	9	16	35	5	12	6					4	197													
	24	8	25	13	9	10	10		2	2	13	4	17	10	15	30	28	3	5	2	21	3	1	43		265													
	25																13																						
	26				1	2																																	
	27						139																																
	28																																						
29																																							
30																																							
40				25	21	175	131	34	74	64	87	39	32			31	2	41	21		7	2	44	2	934														
41				2																																			
Total	54	77	43	118	254	740	439	74	348	379	229	264	150	125	168	479	65	216	80	35	44	33	256	300	5,130														

CAR

TRUCK

AP - 5-22

Traffic Proper to RAMA VI Bridge 2000

CAR

		BANGKOK SIDE																																					
		1	2	3	9	19	11	12	13	14	15	16	17	18	19	29	30	31	32	33	34	35	36	37	38	Total													
THONBURI SIDE	4				141	109	492	372	49	106	343	497															2953												
	5	194	133	106	13	73	192	144	7	241	393	134	95	95	192	189	415	11	31	7	12						2754												
	6	159			31	141	241	454	31	710	179	241	173	176	181	342	927	26	54	29	29	26			7	36	4224												
	7				43	231	938	1552	113	836	699	878	229	234	301	564	1229	88	222	45								7718											
	8				117	74	244	174	16	51	110	145	52	53				9	35	7								3111											
	21																																						
	22				119	78	445	94		27	88	115	158	119															854										
	23				47	33	415	123	5		24	4	32	74	42		114	1	13	3									634										
	24	90	259	184	129	191	231	76	30	35			76	77	98	255	369	11	32	6	4	28	6	16	59				2265										
	25																																						
	26					2	2																																
	27																																						
	28																																						
29																																							
39																																							
43				5	4	347							27	25																									
41				2	3																								452										
Total	353	412	290	454	963	3127	2443	250	2965	1358	1855	292	652	734	1350	3654	145	427	67	43	61	12	43	212	21527														

TRUCK

		BANGKOK SIDE																												
		1	2	3	9	10	11	12	13	14	15	16	17	18	19	20	30	31	32	33	34	35	36	37	38	Total				
THONBURI SIDE	4				35	28	159	44	6	12	70															295				
	5	12	35	22	13	19	23	42	2	29	14	11	13	14	15	22	54	4	19	2	4				3	2	566			
	6	11			18	27	43	37	5	34	47	13	51	56	17	50	116	7	75	6	9	2	2	8	7	613				
	7				19	45	131	124	9	83	95	71	87	33	43	66	154	24	61	11		1	2	29	16	1094				
	8				26	17	27	15	1	4	29	9	1	9				3	13	2					3	2	165			
	21																													
	22				25	17	14	26			14	23	10	29	20												171			
	23				13	5	11	30				20	2	6	13	8		167	1	4	1			3		1	292			
	24	17	65	31	21	19	23	3	4	5			11	17	22	47	173	5	11	2		3	1	65			533			
	25																													
	26					1																					1			
	27																													
	28																													
	29																													
	39																													
43				10	8	159						19	19													215				
41				36	43																					99				
Total		47	81	53	207	249	531	333	27	182	299	121	229	153	125	173	630	41	171	25	13	6	8	99	25	3,541				

APPENDIX 5-10(1) TRAFFIC FORECAST ON RAMA VI BRIDGE **Diverted Traffic 1985**

CAR

		BANGKOK SIDE																																					
		1	2	3	9	10	11	12	13	14	15	16	17	18	19	20	30	31	32	33	34	35	36	37	38	Total													
THONBURI SIDE	4				61	65	479	229	35	81	260	295					535	34	32	26			11	41	61	2249													
	5	81	356	110	5	38	37	28	5	848	44	39	65	43	68	78	109	6	9	8	8	8		3	11	1312													
	6	69	553	151	12	44	53	29	7	877	31	29	43	36	124	147	89	5	7	5	16	5		2	8	1730													
	7				70	450	455	456	58	454	276	629	330	242	433	507	617	42	59	42	36	36	2	10	70	5641													
	8				122	156	143	120	18	43	65		87	66			147	11	17	12		9	1	4	20	1361													
	21				69																					69													
	22				79	103	424	100	15	36	76	68	115	66			192	11	19	15		5	2	11	161	1728													
	23				23	30	31	21	5	89	8	3	24	24		59	61	1	6	4						315													
	24	18	156	43	31	64	27	20	5	7	9	2	31	18	32	51	50	3	7	4	7	18	7	9	35	660													
	25																25									25													
	26																																						
	27																																						
	28																																						
	29																																						
	33																																						
	42				9	12	170	50	7	18	45	45	24	55			23	2	13	5		4		11	8	552													
	43				14	16			3	7																42													
Total	168	1065	310	635	958	1541	1119	158	992	835	888	764	575	664	141	1927	167	169	111	87	85	23	95	374	14,273														

TRUCK

		BANGKOK SIDE																																					Total		
		1	2	3	9	12	11	12	13	14	15	16	17	18	19	20	30	31	32	33	34	35	36	37	38																
THONBURI SIDE	4				11	11	82	29	5	19	56	26					136	11	17	11				3	56	22											431				
	5	9	73	21	4	8	5	19	3	22	4	6	19	8	14	11	18	3	5	3	3				3	2											245				
	6	8	116	30	6	11	10	9	8	11	7	3	16	5	19	20	13	1	8	2	5	1	1	2	2											357					
	7				8	63	81	67	6	60	38	37	121	35	63	69	97	10	24	14	16		2	2	18	13											844				
	8				22	28	19	12	2	4	19	8	14	11			27	4	8	4				1	4	4											151				
	21				12																						29	7	76	87											292
	22				13	17	16	35	3	23	15	8	19	15			50	6	8	5			18	5	14	64											376				
	23				7	5	5	12	1	7	8	6	6	7	9	14	17	3	4	3				2		2											118				
	24	5	32	19	5	6	5	1	1	2	6	2	10	5	9	12	15	2	4	3	18	3	1	53												260					
	25																5																				5				
	26				1	3	1					1	1							1																	8				
	27																																								
	28																																								
	29																																								
	33																																								
	42				17	21	192	125	19	47	35	65	54	41			31	2	26	20			3	2	38	1											651				
	43				6	7			1	4																											16				
Total		22	223	61	110	189	326	300	42	192	189	156	250	127	159	128	411	42	135	65	34	41	23	264	197											3,594					

Diverted Traffic 1990 without ORR

CAR

		BANGKOK SIDE																																					
		1	2	3	9	10	11	12	13	14	15	16	17	18	19	20	30	31	32	33	34	35	36	37	38	Total													
THANABURI SIDE	4				42	134	431	422	44	107	426	561					829	56	60	38				14	59	68	3,825												
	5	143	445	179	13	69	119	91	10	215	92	108	112	94	124	181	292	11	22	13	16	13		7	22	342													
	6	176	545	102	30	197	174	155	23	402	169	112	126	157	225	351	324	14	26	14	30	10		4	22	3476													
	7				125	591	1505	1035	128	338	616	650	473	453	654	1512	1543	81	152	82	13	64	5	32	139	9521													
	8				197	206	283	246	35	63	113	111	117	99			264	19	37	19		14	2	7	37	2933													
	21				156																	11	7	37	92	260													
	23				153	160	317	244	35	61	113	117	113	155			450	23	49	23		10	4	25	344	2614													
	25				50	54	83	41	12	21	33	6	45	65	61	102	191	4	21	11							877												
	24	42	257	43	65	126	75	46	11	11	26	8	49	66	73	156	156		17	8	17	37	12	19	71	4392													
	25				5	4	6				3	7					76		2	0	1						76												
26																										31													
27																																							
28																																							
29																																							
40				14	17	352	110	14	27	55	111	155	87			49	3	31	17		4		18	13	1743														
41				11	16			4	7																	34													
Total	354	1263	410	912	1581	3240	2535	336	1692	1752	1822	1231	1576	1137	1657	4214	213	419	225	136	174	44	206	825	27,706														

TRUCK

		BANGKOK SIDE																																						Total
		1	2	3	9	10	11	12	13	14	15	16	17	18	19	29	30	31	32	33	34	35	36	37	38															
THONRUKI SIDE	4				24	23	139	43	8	16	154	25					202	14	31	15			3	76	31	762														
	5	16	95	35	9	17	17	30	4	36	13	9	15	14	14	21	43	4	12	4	5			8	3	476														
	6	19	111	36	14	25	32	29	4	28	27	6	43	15	31	38	45	4	30	4	9	1	1	5	4	563														
	7				12	84	169	243	11	158	95	61	174	54	92	114	219	26	65	24	29	3	3	32	24	1636														
	8				34	35	38	46	3	62	46	12	18	16			50	4	15	6				8	4	351														
	21				14																	30	19	113	154	321														
	22				23	26	36	127	5	46	44	17	31	27			115	11	23	9		17	11	31	132	731														
	23				19	4	13	59	2	16	26	14	11	16	45	26	46	5	13	7			5		4	307														
	24	8	45	18	9	19	10	4	2	3	12	6	14	10	67	31	26	4	9	4	21	5	2	63		332														
	25																																							
	26				2	4	2				5	1								3	1					11														
	27																																							
	28																																							
	29																																							
	39																																							
	43				25	26	193	199	34	75	72	96	70	59			54	2	54	25		5	2	53	1	1653														
41				4	8			3	5																29															
Total	43	259	89	149	264	149	792	74	345	442	247	375	213	171	232	812	78	248	102	55	61	37	420	353	6,563															

APPENDIX 5-10 (3) TRAFFIC FORECAST ON RAMA VI BRIDGE
Diverted Traffic 1990 with ORR

CAR

		BANGKOK SIDE																																					
		1	2	3	9	10	11	12	13	14	15	16	17	18	19	20	30	31	32	33	34	35	36	37	38	Total													
THONBURI SIDE	4				163	205	1032	114	17		70							41	51	20			12	50	75	1866													
	5	127	555	215	6	43	57	44	12	151	66	68	75	43	112	171			3	2	3	2			1	4	1789												
	6	255	543	176	15	55	84	122	13	193	50	54	60	51	151	235	156	7	13	7	20	7			2	11	2323												
	7				83	427	435	684	84	437	426	443	380	322	524	811	954	54	92	59	71	41	3	18	85	6772													
	8				132	151	194	145	10	39	105	109	92	79			257	11	23	11		11			4	20	1433												
	21				102																							192											
	22				102	117	168	23		5	19	20	228	192														872											
	23				33	66	90	73	8		24	3	55	59	74		77	1	7	3								573											
	24	36	311	123	45	85	68	57	7	16			45	35	61	133	99	5	8	4		17	6	9	36	1212													
	25																																						
	26				4	8	5																					17											
	27	3																										3											
	28																																						
	29																																						
	39																																						
40				19	15	381							53	74													538												
41					2	15																					17												
Total	421	1454	514	655	1214	2787	1262	157	871	760	703	935	863	956	1350	1173	127	137	137	54	80	21	84	231	17,476														

TRUCK

		BANGKOK SIDE																																					
		1	2	3	9	10	11	12	13	14	15	16	17	18	19	20	30	31	32	33	34	35	36	37	38	Total													
THONBURI SIDE	4				12	38	185	14	2		15							13	27	13			2	68	28	420													
	5	11	81	25	5	9	9	15	3	27	10	7	11	10	12	15			1	1					1	1	257												
	6	19	121	36	7	13	16	14	2	14	14	3	21	8	23	28	23	2	15	2	7	1	1	3	2	335													
	7				9	67	124	97	9	76	70	45	143	47	77	97	149	19	43	15	22	2	2	22	15	1162													
	8				25	28	27	15	2	5	30	7	14	14			45	4	10	4				5	4	241													
	21				14																					14													
	22				17	20	21	7		4	4	2	7	23												125													
	23				10	7	10	21	1		17	8	9	10	13		19	2	5	2			1		1	136													
	24	6	39	13	7	8	7	1	2	3			8	6	3	17	25	3	5	1		3	1	45		256													
	25																																						
	26				1	3	1																				5												
27																																							
28																																							
29																																							
39																																							
40				11	18	144						49	41													263													
41				2	4																					6													
Total	36	241	77	129	215	544	155	21	129	563	72	270	153	120	157	261	43	117	34	29	6	7	147	51	3,210														

APPENDIX 5-10(4) TRAFFIC FORECAST ON RAMA VI BRIDGE Diverted Traffic 2000

CAR

		BANGKOK SIDE																																					
		1	2	3	9	10	11	12	13	14	15	16	17	18	19	20	30	31	32	33	34	35	36	37	38	Total													
THONBURI SIDE	4				180	242	2935	474	62		313							80	166	37				13	68	168	3780												
	5	188	454	237	17	93	246	185	14	450	190	248	175	175	183	345	314	8	40	8	16				4	18	3614												
	6	310	501	200	40	256	360	518	40	910	230	308	222	226	334	632	1189	33	121	25	53	26			9	45	6541												
	7				146	572	1140	1899	200	1526	1188	1524	692	656	897	1631	3683	172	500	192	154	78	6	43	201	17736													
	8				216	170	478	348	34	100	248	328	155	158			638	26	104	19		14	1	8	39	3086													
	21				834																						134												
	22				220	175	430	113		33	112	145	322	326													1583												
	23				87	72	225	220	15		52	81	56	152	124		402	4	45	8							1514												
	24	162	722	413	239	353	417	235	55	78			170	173	220	575	1120	32	114	20		90	28	55	209	5569													
	25																																						
26				5	6	6																				17													
27	4																									4													
28																																							
29																																							
30																																							
40				9	11	641						95	90													859													
41				6	9																					15													
Total	668	1731	859	1239	1553	4713	3392	423	3083	2333	2625	1917	1799	1755	3228	3326	355	1281	213	173	226	45	187	621	44,729														

TRUCK

		BANGKOK SIDE																																					
		1	2	3	9	10	11	12	13	14	15	16	17	18	19	20	30	31	32	33	34	35	36	37	38	Total													
THONBURI SIDE	4				45	63	322	55	7		89							21	67	16			3	150	45	834													
	5	22	155	59	16	24	30	54	6	53	27	21	25	27	27	43	43	2	13	2	5		6	4	2	597													
	6	36	113	42	23	35	55	43	6	40	65	17	74	33	56	72	120	8	97	7	16	2	2	10	9	965													
	7				19	191	257	225	47	155	188	139	253	93	129	195	471	43	138	26	31	4	3	45	35	2549													
	8				48	39	53	29	3	6	67	20	25	25			55	3	355	5			1	8	7	828													
	21				24																					24													
	22				47	34	43	134		18	29	12	60	53												483													
	23				24	11	22	55	2		45	21	17	29	24		595	5	13	4			5		3	551													
	24	31	133	79	39	35	41	9	9	13			41	37	51	156	516	19	39	8		11	4	231		1444													
	25																																						
	26				2	2	1																			5													
	27																																						
28																																							
29																																							
30																																							
40				21	25	312						65	66												491														
41																																							
Total	89	354	162	300	376	1135	629	50	291	526	230	547	375	297	416	1819	187	757	70	52	17	21	395	381	9,058														

APPENDIX 5-11 TRAFFIC FORECAST ON RAMA VI BRIDGE Induced Traffic 1985

CAR

		BANGKOK SIDE																																					
		1	2	3	9	10	11	12	13	14	15	16	17	18	19	20	30	31	32	33	34	35	36	37	38	Total													
THONGRU SIDE	4				18			32	5	12																								61					
	5	13			3	33	32	17		45	20	18	19	24	32	34	49	4	5	3	3	2			1	3							361						
	6	42			14	63	62	69	6	155	36	35	42	42	76	68	94	7	10	6	7	4			1	7							897						
	7				21		131	142	18	141	116	105							25	18	9			1	4	20							754						
	8				15		20	19	3	7	24	22																						113					
	21																																						
	22				12			16	2	6	11	9								2	2													60					
	23				3			4	1	2	1									1	1													15					
	24				9	19	8					3	1	5	4	10	14					1												78					
	25																																						
	26																																						
	27																																						
	28																																						
	29																																						
	39																																						
	42																																						
41																																							
Total	53			102	152	253	299	35	371	211	185	66	69	118	143	143	11	43	30	20	4	1	4	30									2,345						

TRUCK

		BANGKOK SIDE																																			Total	
		1	2	3	9	10	11	12	13	14	15	16	17	18	19	20	30	31	32	33	34	35	36	37	38													
THAILAND SIDE	4				6			8	1	3																									18			
	5	3			5	9	7	9		10	4	4	4	5	6	7	11	2	3	2	2				2	1									55			
	6	7			8	17	15	11	2	13	11	4	13	8	14	15	14	3	14	3	3	1	1	3	2									192				
	7				4		34	31	3	20	21	20								13	8	4		1	1	6								111				
	8				6		5	4	1	2	8	4																						30				
	21																																					
	22				4			15	1	7	4	2								2	1													31				
	23				2			4	4	2	2	2								1	1													15				
	24				3	3	2					2	2	3	3	4	2					3												32				
	25																																					
	26																																					
	27																																					
	28																																					
	29																																					
	39																																					
42																																						
41																																						
Total	12			35	29	63	77	9	65	52	34	24	16	24	29	29	5	33	15	12	1	2	13	9									585					

ON RAMA VI BRIDGE

(Vehicle/day)

TRAFFIC		INDUCED TRAFFIC					
Heavy Truck	Total	Passenger Car	Light & Medium Truck	Heavy Truck	Total	Grand Total	Motor Cycle
—	—	2,300	450	150	2,900	34,960	2,300
900	17,900	2,300	450	150	2,900	52,800	2,500
1,060	21,180	2,300	450	150	2,900	56,080	2,700
1,220	24,460	2,300	450	150	2,900	59,360	2,900
1,380	27,740	2,300	450	150	2,900	62,640	3,100
1,540	31,020	2,300	450	150	2,900	65,920	3,300
800	20,700	2,300	450	150	2,900	55,600	3,500
950	24,010	2,300	450	150	2,900	58,910	3,690
1,100	27,320	2,300	450	150	2,900	62,220	3,880
1,250	30,630	2,300	450	150	2,900	65,530	4,070
1,400	33,940	2,300	450	150	2,900	68,840	4,260
1,550	37,250	2,300	450	150	2,900	72,150	4,450
1,700	40,560	2,300	450	150	2,900	75,460	4,640
1,850	43,870	2,300	450	150	2,900	78,770	4,830
2,000	47,180	2,300	450	150	2,900	82,080	5,020
2,150	50,490	2,300	450	150	2,900	85,390	5,210
2,300	53,800	2,300	450	150	2,900	88,700	5,400
2,450	57,110	2,300	450	150	2,900	92,010	5,590
2,600	60,420	2,300	450	150	2,900	95,320	5,780
2,640	61,100	2,300	450	150	2,900	96,000	5,970
2,640	61,100	2,300	450	150	2,900	96,000	6,160
2,640	61,100	2,300	450	150	2,900	96,000	6,350
2,640	61,100	2,300	450	150	2,900	96,000	6,540
2,640	61,100	2,300	450	150	2,900	96,000	6,730
2,640	61,100	2,300	450	150	2,900	96,000	6,920
2,640	61,100	2,300	450	150	2,900	96,000	7,110
2,640	61,100	2,300	450	150	2,900	96,000	7,300
2,640	61,100	2,300	450	150	2,900	96,000	7,490
2,640	61,100	2,300	450	150	2,900	96,000	7,680
2,640	61,100	2,300	450	150	2,900	96,000	7,870

APPENDIX 9-1 TRAFFIC VOLUME ON RAMA VI BRIDGE

		(Vehicle/day)															
Project Year	Calendar Year	PROPER TRAFFIC						DIVERTED TRAFFIC				INDUCED TRAFFIC					
		Passenger Car	Light & Medium Bus	Heavy Bus	Light & Medium Truck	Heavy Truck	Total	Passenger Car	Light & Medium Truck	Heavy Truck	Total	Passenger Car	Light & Medium Truck	Heavy Truck	Total	Grand Total	Motor Cycle
4	1984	22,820	880	3,080	3,920	1,300	32,000	—	—	—	—	2,300	450	150	2,900	34,900	2,300
5	1985	22,700	900	3,200	3,900	1,300	32,000	14,300	2,700	900	17,900	2,300	450	150	2,900	52,800	2,500
6	1986	22,580	920	3,320	3,880	1,300	32,000	16,980	3,140	1,060	21,180	2,300	450	150	2,900	56,080	2,700
7	1987	22,460	940	3,440	3,860	1,300	32,000	19,660	3,580	1,220	24,460	2,300	450	150	2,900	59,360	2,900
8	1988	22,340	960	3,560	3,840	1,300	32,000	22,340	4,020	1,380	27,740	2,300	450	150	2,900	62,640	3,100
9	1989	22,200	980	3,680	3,820	1,300	32,000	25,020	4,460	1,540	31,020	2,300	450	150	2,900	65,920	3,300
10	1990	22,900	1,000	3,800	3,200	1,100	32,000	17,500	2,400	800	20,700	2,300	450	150	2,900	55,600	3,500
11	1991	22,790	1,040	3,920	3,160	1,090	32,000	20,220	2,840	950	24,010	2,300	450	150	2,900	58,910	3,690
12	1992	22,680	1,080	4,040	3,120	1,080	32,000	22,940	3,280	1,100	27,320	2,300	450	150	2,900	62,220	3,880
13	1993	22,570	1,120	4,160	3,080	1,070	32,000	25,660	3,720	1,250	30,630	2,300	450	150	2,900	65,530	4,070
14	1994	22,460	1,160	4,280	3,040	1,060	32,000	28,380	4,160	1,400	33,940	2,300	450	150	2,900	68,840	4,260
15	1995	22,350	1,200	4,400	3,000	1,050	32,000	31,100	4,600	1,550	37,250	2,300	450	150	2,900	72,150	4,450
16	1996	22,240	1,240	4,520	3,060	1,040	32,000	33,820	5,040	1,700	40,560	2,300	450	150	2,900	75,460	4,640
17	1997	22,130	1,280	4,640	3,020	1,030	32,000	36,540	5,480	1,850	43,870	2,300	450	150	2,900	78,770	4,830
18	1998	22,020	1,320	4,760	2,980	1,020	32,000	39,260	5,920	2,000	47,180	2,300	450	150	2,900	82,080	5,020
19	1999	21,910	1,360	4,820	2,940	1,010	32,000	41,980	6,360	2,150	50,490	2,300	450	150	2,900	85,390	5,210
20	2000	21,800	1,400	5,000	2,800	1,000	32,000	44,700	6,800	2,300	53,800	2,300	450	150	2,900	88,700	5,400
21	2001	21,690	1,360	5,180	2,660	990	32,000	47,420	7,240	2,450	57,110	2,300	450	150	2,900	92,010	5,590
22	2002	21,580	1,320	5,360	2,520	980	32,000	50,140	7,680	2,600	60,420	2,300	450	150	2,900	95,320	5,780
23	2003	21,470	1,280	5,540	2,380	970	32,000	50,680	7,780	2,640	61,100	2,300	450	150	2,900	96,000	5,970
24	2004	21,470	1,280	5,540	2,380	970	32,000	50,680	7,780	2,640	61,100	2,300	450	150	2,900	96,000	6,160
25	2005	21,470	1,280	5,540	2,380	970	32,000	50,680	7,780	2,640	61,100	2,300	450	150	2,900	96,000	6,350
26	2006	21,470	1,280	5,540	2,380	970	32,000	50,680	7,780	2,640	61,100	2,300	450	150	2,900	96,000	6,540
27	2007	21,470	1,280	5,540	2,380	970	32,000	50,680	7,780	2,640	61,100	2,300	450	150	2,900	96,000	6,730
28	2008	21,470	1,280	5,540	2,380	970	32,000	50,680	7,780	2,640	61,100	2,300	450	150	2,900	96,000	6,920
29	2009	21,470	1,280	5,540	2,380	970	32,000	50,680	7,780	2,640	61,100	2,300	450	150	2,900	96,000	7,110
30	2010	21,470	1,280	5,540	2,380	970	32,000	50,680	7,780	2,640	61,100	2,300	450	150	2,900	96,000	7,300
31	2011	21,470	1,280	5,540	2,380	970	32,000	50,680	7,780	2,640	61,100	2,300	450	150	2,900	96,000	7,490
32	2012	21,470	1,280	5,540	2,380	970	32,000	50,680	7,780	2,640	61,100	2,300	450	150	2,900	96,000	7,680
33	2013	21,470	1,280	5,540	2,380	970	32,000	50,680	7,780	2,640	61,100	2,300	450	150	2,900	96,000	7,870

APPENDIX 9-2 ANALYTICAL TABLE FOR I.R.R. (Sensitivity Test
of the higher Cost Case)

PRO- JECT YEAR	CALEN- DAR YEAR	THOUSAND BAHT, MID 1981 PRICE					
		COST			BENEFIT		
		REAL	DISCOUNTED BY 18%	DISCOUNTED BY 19%	REAL	DISCOUNTED BY 18%	DISCOUNTED BY 19%
1	1981	333220	333220	333220	0	0	0
2	1982	239110	202635	200932	0	0	0
3	1983	261120	187532	184393	0	0	0
4	1984	12220	7437	7251	151100	91964	89665
5	1985	12220	6302	6093	165200	85208	82380
6	1986	12220	5341	5120	177700	77674	74465
7	1987	12220	4526	4303	186300	69011	65604
8	1988	12220	3836	3616	197200	61906	58355
9	1989	12220	3250	3038	212000	56400	52718
10	1990	20720	4671	4329	183200	41303	38282
11	1991	12220	2334	2145	188700	36053	33136
12	1992	12220	1978	1803	202000	32707	29808
13	1993	12220	1676	1515	212300	29131	26326
14	1994	12220	1421	1273	223200	25955	23258
15	1995	12220	1204	1070	232200	22883	20333
16	1996	12220	1020	899	241600	20177	17778
17	1997	20720	1466	1281	251500	17800	15552
18	1998	12220	732	634	261800	15702	13604
19	1999	12220	621	533	272600	13856	11903
20	2000	12220	526	448	283900	12229	10417
21	2001	12220	446	376	295700	10794	9118
22	2002	12220	378	316	308100	9531	7983
23	2003	12220	320	266	321100	8418	6992
24	2004	20720	460	379	334700	7436	6124
25	2005	12220	230	187	349000	6571	5366
26	2006	12220	194	157	363900	5806	4702
27	2007	12220	165	132	379700	5134	4123
28	2008	12220	140	111	396000	4538	3613
29	2009	12220	118	93	413300	4013	3169
30	2010	12220	100	78	425300	3500	2740
31	2011	20720	144	112	450300	3140	2438
32	2012	12220	72	55	470200	2779	2139
33	2013	12220	61	46	491000	2459	1877
TOTAL		-155500*	-778*	-594*	8640800	784092	723977

Note : * Residual Cost

$$I.R.R. = 18\% + \frac{10,301}{10,301 + 41,649} \times (19-18) = 18.2\%$$

In this case, the cost is assumed to be higher than those in the most probable case by about 14%, mainly due to increase of the compensation cost.

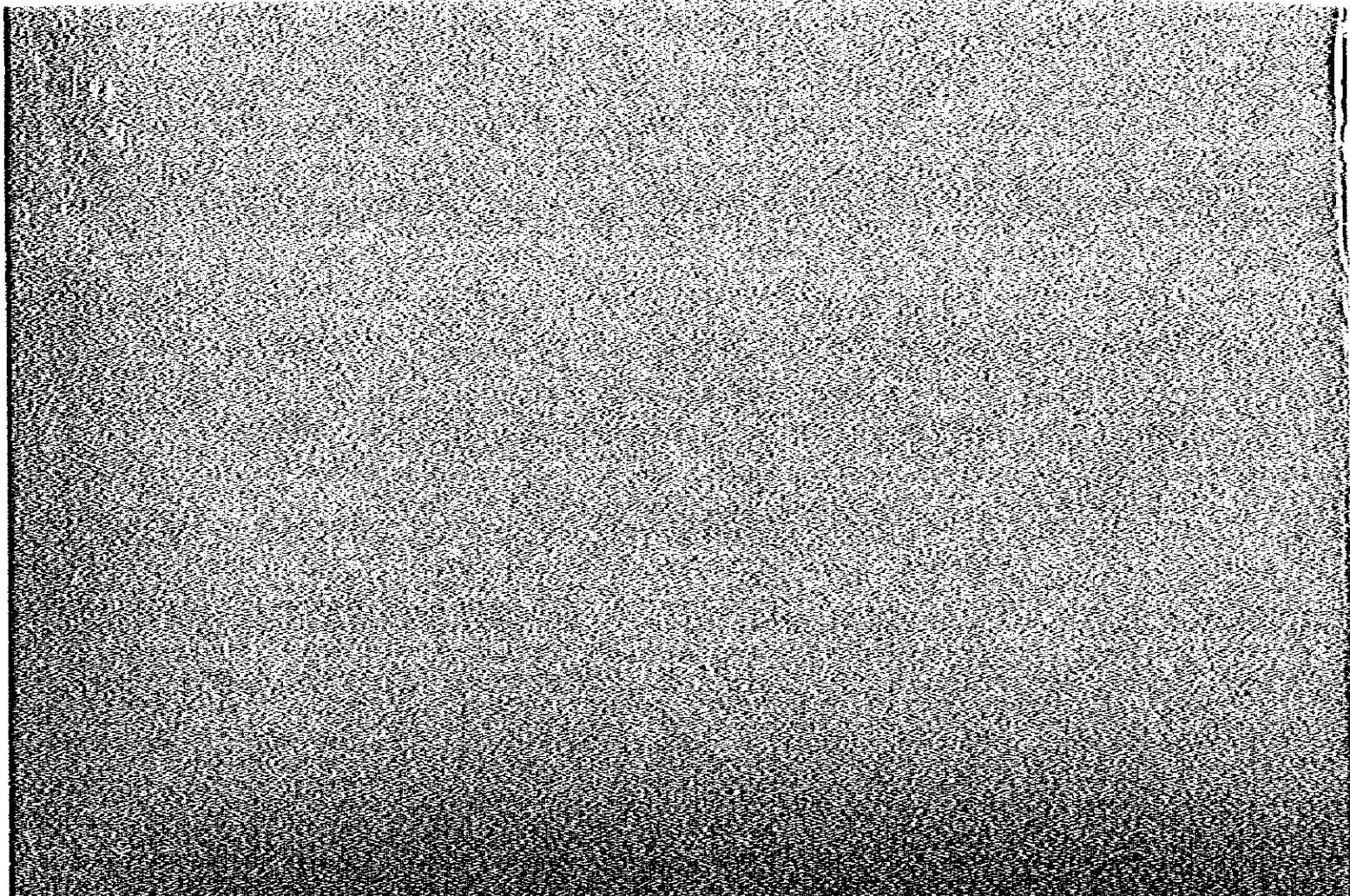
APPENDIX 9-3 ANALYTICAL TABLE FOR I.R.R. (Sensitivity Test of lower Benefit Case)

PRO- JECT YEAR	CALEN- DAR YEAR	THOUSAND BAHT, MID 1981 PRICE					
		COST			BENEFIT		
		REAL	DISCOUNTED BY 19%	DISCOUNTED BY 20%	REAL	DISCOUNTED BY 19%	DISCOUNTED BY 20%
1	1981	243320	243320	243320	0	0	0
2	1982	232340	195243	193616	0	0	0
3	1983	255120	180156	177166	0	0	0
4	1984	12220	7251	7071	151100	89665	87442
5	1985	12220	6093	5893	165200	82380	79668
6	1986	12220	5120	4910	157500	66000	63295
7	1987	12220	4303	4092	165000	58103	55258
8	1988	12220	3616	3410	172500	51045	48141
9	1989	12220	3038	2841	180000	44760	41862
10	1990	20720	4329	4015	170400	35607	33024
11	1991	12220	2145	1973	182300	32012	29442
12	1992	12220	1803	1644	194100	28642	26123
13	1993	12220	1515	1370	206000	25544	23104
14	1994	12220	1273	1142	217800	22695	20356
15	1995	12220	1070	951	229700	20114	17890
16	1996	12220	899	793	241600	17778	15681
17	1997	20720	1281	1120	253400	15669	13705
18	1998	12220	634	550	265300	13786	11957
19	1999	12220	533	458	277100	12100	10408
20	2000	12220	448	382	289000	10604	9045
21	2001	12220	376	318	300900	9278	7848
22	2002	12220	316	265	312700	8102	6797
23	2003	12220	266	221	324600	7068	5879
24	2004	20720	379	312	336400	6155	5077
25	2005	12220	187	153	348300	5355	4381
26	2006	12220	157	128	366900	4741	3846
27	2007	12220	132	106	385500	4186	3367
28	2008	12220	111	88	404000	3686	2940
29	2009	12220	93	74	422600	3240	2563
30	2010	12220	78	61	441200	2842	2230
31	2011	20720	112	87	459800	2489	1937
32	2012	12220	55	42	478300	2176	1679
33	2013	12220	46	35	496900	1900	1453
TOTAL		-140100*	-535*	-409*	8596100	687736	636412

Note: * Residual Cost.

$$\text{I.R.R.} = 19\% + \frac{21,877}{21,877 + 21,804} \times (20-19) = 19.5\%$$

In this case, the benefit is assumed to be lower than those in the most probable case by about 11% in 1986 for example, mainly due to the earlier construction of Outer Ring Road.



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