Appendix 4.3.1 (1) 0.D. Table of Inter-zonal Passenger Traffic (1984)

	Total		,			-															28,016.8
persons	19																				_131
1,000 p	18																			953.1	953.1
Unit:	17																		512.8	206.6	719.4
	16									,				-							
	15							****										1.9	0.1	0.1	2.1
	14															0.3		0.1			0.4
	13														0.3	1.0		0.7	. :	0.1	2.1
	1.2													890.2	0.5	0.1		2.5	0.2	0.2	893.7
	11.												1.3	0.4	147.4	0.2		253.2	53.0	.43.7	499.2
	- 01											0.1	1.3	208.9		0.8		0.4	0.2		211.7
	Ġ			:							1,696.2	0.2	146.4	247.5	0.1	0.3		1.2	0.2	0.4	2,092.5
	Ф											,									
-	7									473.6	27.3		54.3	72.9				0.2	0.1	0.2	633.6
	9			-				0.2		0.2	2.4	4.4	323.6	114.8	7.0	0.8		0.4	0.2	0.1	447.5
	Ŋ	-					730.8	4.0		2.5	1.9	0.2	486.2	49.7		0.2		6.0	0.1	-	1,272.9
	√1					101.2	963.5	0.3		0.5	1.5	0.2	61.1	25.0		0.4		0.2	0.2	0.1	322.3 1,154.2 1,272.9
	m				195.3	14.6	97.5	0.1		7.0	0.4	0.1	12.7	0.7		0.1				0.1	322.3
	C1			83.1	160.8	29.7	189.5	0.1		2.3	4.0	0.2	28.3	12.7		5.0		0.1	0.1	0.4	508.1
	p=1		416.0	116.5	546.2	564.7	1,650.7	930.7		644.7	2,497.0	265.0	661.1	2,983.2	1,325.2	2,543.6		544.1	1,319.2	1,296.1	Total 18,304.0
	a/ò	,-,	7	3	77	ıΛ	9	7	00	o,	or.	11	12	13	14	1.5	16	17	18	19	Total

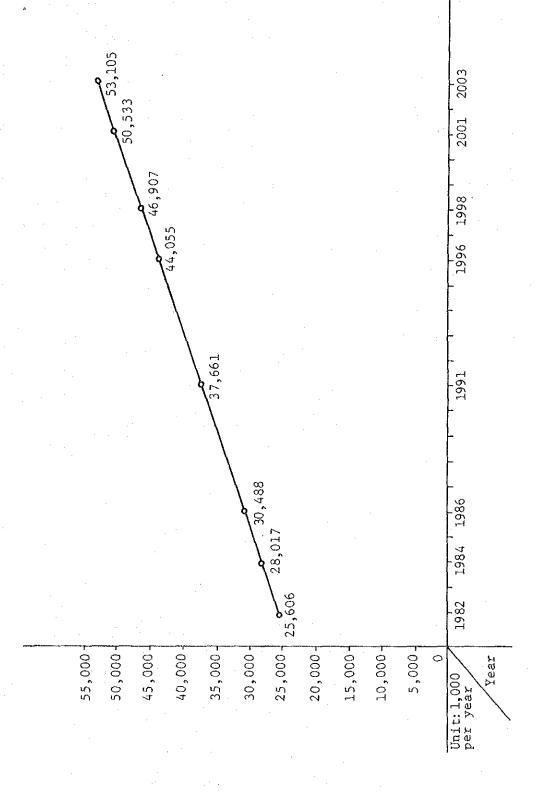
Appendix 4.3.1 (2) 0.D. Table of Inter-zonal Passenger Traffic (1991)

.*	Total																				37,660.8
suosia	25.4																				
I,000 persons	18															_,			/	277.77.80.8	966.81,280.8
Unit:	17.	. ,			   				_,		- 3		 	-	:				689.1	277.71	966.8
	16					   															
	15																	2.5	0.1	0.1	2.7
	14				,	,										0.4		0.1			0.5
	13	.							 						9.0	1.3		6.0		0.1	2.7
	12													7-9611	0.7	0.1		3.4	0.3	0.3	670.9 1,201.2
	11							٠					1.8	9.0	198.1	0.3		340.2	71.2	58.7	670.9
	10					i i			<b>-</b>	-		0.1	1.8	280.8		1.0		9.0	0.3		284.6
	6										2,279.4	0.3	196.8	332.5	0.1	7.0		1.6	0.3	9.0	2,812.0
!	8				·																
1	7								Y	636.4	36.6		73.0	104.7				0.3	0.1	0.3	851.4
i	9	r 	<del>-</del> -					0.3		2.9	3.2	5.9	434.9	154.3	9.0	1.0		9.0	0.3	0.1	604.1
; ; . i	5			     		7	982.1	9.0		3.4	2.5	6.0	653.3	8.99		0.3		1.2	0.1		,710.6
	7					136.0	294.7	7.0		0.7	2.1	0.3	82.1	33.5		9.0		0.3	0,3	0.1	1,551.11,710.6
1	3				262.4	19.6	131.0 1294.7	0.1		6.0	0.6	T 0	17.1	8.8		0.1				0.1	1 . 1
	5			111.6	216.1	39.9	254.6	0.1		3.1	9.0	0.3	38.1	17.1		0.6		0.1	0.1	9.0	682.9 440.8
	1		537.2	150.5	704.5	767.6	2,131.8	1,224.3		847.9	3285.2	326.8	894.7	4,036.8	1,792.9	3,742.3		715.6	1,735.0	1,704.6	1,597.7
	a/ o		2	3	7	10	6	7	60	,0,	10	1,1	12	13	177	15 3	16	17	18.	19 1	Total 24,597.7
																					_

Appendix 4.3.1 (3) 0.D. Table of Inter-zonal Passenger Traffic (2003)

	Total													,							53,105.1
srsons	61								1.	:											
1,000 persons	80									:										391.61,806.0	1,806:0
: זושה	17																		971.6	391.6	1,363.2 1,806.0
٠.	16																				
	15		i .															3.5	0.2	0.2	3.9
	14									7						9:0		0.2			0.8
	13									:					9.0	1.9		1.2		0.2	3.9
	77													0.81,686.9	1.0	0.2		8.4	7.0	7.0	945.9 1,693.7
	11												2.5		279.4	0.4		479:7	100.4	82.7	1 1
	10											0.2	2.5	395.9		1.5		0.8	0.4		401.3
	σ,				· -						3214.2	0.4	277.5	468.9	0.2	9.0		2.3	7.0	0.8	3,965.3
	80																				
	7									897.4	51.6		102.9	147.7				7.0	0.2	7 0	.011200.6
	9							7.0		4.1	4.6	8.3	613.3	217.6	0.8	1,5		0.8	4.0	0.2	852.0
	'n	-				/	1,384.8	0.8		4	3.5	7 0	921.2	94.2		7.0		1.7	0.2		2,412.0
	<b>4</b> 7					191.8	1,825.7 1,384.	9.0		1.4	2.9	7.0	115.7	47.3	:	0.8		0.4	7.0	0.2	621.7 2,187.6 2,412.0
	. ო				370.0	27.6	134.8	0.2		1.2	0.8	0.2	24.1	12.4		0.2			:	0.2	l I
	2			157.4	304.7	56.2	359.0	0.2		7, 7	0.8	4.0	53.7	24.1		0.8		0.2	0.2	8.0	962.9
	7		724.4	202.9	950.2	1,034.8	2,875.1	1,654.2	7	1,145.7	4,438.4	427.2	1215.2	5,484.3	2,436.6	6,469,9		968.5	2,349.3	2,307.6	Total 34,684.3
	n/ 	7	2	6	-7	'n	°,		တ	0	2	17	12	13	7,1	15	16	1.7	18	1.9	Total

Appendix 4.3.1 (4) Inter-zonal Passenger Traffic Volume (Figure)



Appendix 4.3.2 (1) 0.D. Table of Urban Passenger Traffic (1984)

Str	23	6007			4												`									7,583.6
1,000 persons	22	4008																							29.7	29.7
	21	4008																	,					9.6	21.4	31.0
Unit:	20	4007																					0.0	0.7	0.2	6.0
	-61	4005																				0.4	1.0	7.3	10.7	19.4
	εο :	4004																			1.4	0.0	5.1	21.7	10.4	38.6
	1.7	4003																		25.8	57.8	0.0	106.4	332.4	354.5	876.9
	91	4552																	0.1	0.1	0.1	0.0	0.1	0.1		0.5
	15	3017		<b> -</b>				 				~						78.0	0.1	0.1	0.1	0.1	0.1	0.1		38.6
	14	3015															10.2	5.0	0-1	0.1	0.1	0.1	0.1	0.5		16.2
	13	3014														2.0	17.2	1.1	0 3	0.3	0.3	0.2	0.3	0.3		22.0
	12	3012													8.6	3.8	40.8	2.8	0.3	0.3	0.3	0.2	0.3	0.3		57.7
	1.1	3010					:							31.4	24.3	63.5	259.5	23.3	0.1	0.0	0.1	0.1	0.1	0.2		402.8
	10	3001											20.2	74.5	30.5	149.8	420.4	33.3	0.1	0.1	0.1	0.0	0.1	0.1		729.2
	o,	1022										4.4	1.1	2.1	1.5	0.6	0.6	0.3	1.2	1.3	1.1	0.8	1.0	1.0		17.0
	8	1020								/	222.0	0.0	0.0	2.0	1 4	9.0	9.0	0.2	1.0	1.1	0.9	0.7	0.9	6.0		232.3
	7.	1017	·							118.6	120.4	112.6	3.1	9.0	0.2	0.7	263.2	8.0	4.0	7.0	0.3	0.2	0.3	0.3	<del> </del>	622.1
	9	1015						/	18,5	17.6	10.6	7.7	1.7	5.0	0.3	1.0	6.3	0.0	0.1	0.2	0.1	0.1	0.1	2.0		64.9
	5	1013						0.7	5.7	1.9	1.7	2.1	0.6	0.3	0.3	0.2	0.6	0.0	0.1	0.1	0.1	0.1	0.1	0.1		14.7
	4	1011					1.6	14.3	41.0	28.4	51.3	16.3	3.5	0.7	0.2	1.6	24.3	0.1	4.0	9.0	0.0	0.2	0.3	0.4		185.0
	3	1001			/	205.9	5.5	157.4	133.5	39.2	57.4	88.5	8.0	1.5	0.5	3.8	26.4	0.1	0.0	7.0	2.7	9.0	0.1	1.1	2.4	735.0
	2	1007	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	/	6.69	54.1	30.1	11.6	84.7	38.2	24.45	2.0	2.0	0.8	7.0	4.1	15.7	0.3	0.5	0.6	0.5	0.1	0.0	2.0	1.7	392.0
	1	1001		152.8	810.4	376.2	7 89	235.2	428.0	62.0	63.9	58.5	99.2	90.2	12.5	83.9	441.3	20.7	0.0	4.4	2.7	0.1	7.0	1.3	5.0	3017.1
	o Z	Code	1001	1004	1007	101	1013	1015	1017	1020	1022	3001	3009	3010	3012	3014	3015	3017	4002	4003	4004	4005	4007	4008	6007	
		No.	1	7	m	-7	S.	9	~	နာ	6	1.0	13	12	13	14	15	1.6	1.7	18	19	20	21	22	23	Total

Appendix 4.3.2 (2) 0.D. Table of Urban Passenger Traffic for Case I (1991)

1										r					·											
Su	23	4009																								9,070.3
1,000 persons	22	8007																	i						34.0	34.0
- 1	21	4007		. '								i												11.6	24.5	36.1
unit:	20	4005						:														$\overline{A}$	0.0	0.8	0.2	1.0
	16	7007											-									5.0	1.3	8.8	12.3	22.9
	18	4003				-							,		;		-				1.7	0.0	6.2	26.2	11.9	0.94
	17	4002																	$\overline{/}$	31.2	69.8	0.0	128.4	401.1	405.1	1,035.6
	16	3017.																$\overline{/}$	0.1	0.1	0.1	0.0	0.1	0.1		0.5
į	1.5	301.5																94.1	0.2	0.2	0.1	0:1	0.1	0.1		6.76
	14	3014															12.3	6.1	0.2	0.2	0.1	1.0	0.1	9.0	-	19.7
	[]	3012				L										2.4	20.8 1	1.3	0.3	0.4	0.3	0.2	0.3	0.3		26.3
	12	3010													10.4	4.5	49.2	3.4	7.0	4,0	7.0	0.2	0.3	7.0		9.69
	יו	3009												37.9	29.3	76.7	313.1	28.2	0.2	0.2	0.2	0.1	0.2	0.2	_	486.3
	0.	3001 3	7										24.4	89.9	36.8	180.7	507.4 3	40.2	0.1	0.1	0.1	0.1	0.1	0.1		880.0 4
	6	1022 3										5.0	1.2	2.4	1.7	0.7	0.7 \$	0.3	1.3	1,5	1.3	6.0	1.2	1,1		19.3
	eo	1020									246.7	0.0	0.0	2.4	1.6	9.0	0.7	0.3	1.1	1.3	1.1	0.8	1.0	1.0		258.6
		17			-				7	137.3	7 6	135.9	3.8	0.7	0.2	6.0	17.6	6.0	0.4	0.5	0.4	0.3	4.0	4.0		0.6
	9	15 10						1	22.4	20.4 1.	12.3 13	9.8	2.1	0.7	0.3	1.2	7.6 31	0.1	0.2	0.2	0.2	0.1	0.2	0.2		77.5 73
Ì		1013 1015						8.0	6.8	2.2 2	2.0	2.6	0.7	0.4	6.0	0.2	0.7	0.0	0.2	0.2	0.2	0.1	0.1	0.2		17.7
							7 6.1	17.2	4.	ون	59.4	9.	4.2		0.2	1.9	.3	0.1	0.4	0.5	0.0	.3	4	5.0		0
	7	1101   70				248.5	1 9.9	-0	1.1 49.	45.4 32	66.5 59	6.8 19	9.7 4	1.9 0.	0.6	7 9.7	1.8 29.	0.1 0	0.0	0 7.0	3.3 0	0.7 0.	0.1 0.	1.3 0	2.8	882.1 219
	£	1007			27.78	m	3	74.3 189.	2.2 161	44.2 4	28.2 6	2.4 106.	2.4	6.0	0.5	6.4	18.9 31	0.2	9.0	0.7	9.0	0.1	0.0	1.5	1.9	469.5 88
	2	1 1004	/	/ 7:		9 0	.6 36	283.8 74	5 102	71.8	74.0 28	70.6		0)			9,	25.0	0.0	4	3.2	0.1	0.5	1.5	.7	ı
	. vo./	e 1001		781 7	7 978.0	1 454.0	3 82.		7 516		ļ		119.7	0 108	2 15	4 101.3	5 532			3 . 5					5.	3,634.7
		Code	1001	1007	1007	1011	1013	1015	101.7	1020	1022	3001	3009	2 3010	3 3012	4 3014	5 3015	6 3017	7 4002	8 4003	7007 6	0   4005	1 4007	2 4008	3 4009	al
	/	No.	7	٠,	۳	7	5	٥		ω.	σ,	10	ij	77	13	14	1.5	16	17	18	19	20	21	22	. 23	Total

0.D. Table of Urban Passenger Traffic for Case II (1991) Appendix 4.3.2 (3)

sti	23	6007			,																		i			17,329.4
1,000 persons	22	4008																							34.0	34.0 1
	21	4007														:								33.2	24.5	57.7
Units	50	4005															-						0.0	1.7	0.2	1.9
•	1.9	4004			-								<del>-</del>						<b></b>			1.4	3.8	23.4	12.3	40.9
•	18	4003								-				<del>-</del> -							5.3	0.0	17.7	62.3	11.9	97.2
	17	4002																		88.9	175.4	9.6	305.7	942.2	405.1	926.7
	91	3017																	0.1	0.1	0.1	0.1	0.1	0.1		0.6 1,926.7
	1.5	3015			   		<u> </u>											251.9	0.2	0.3	0.2	0.2	0.2	0.2		253.2
	14	3014															35.2	14.4	0.2	0.2	0.2	0.1	0.2	1.1		51.6
<b>,</b>	13	3012														6.7	52.1	2.8	0.5	0.5	0.5	.0.3	0.5	0.5		64.4
	12	3010													29.1	10.6	107.1	6.3	0.5	9.0	0.5	0.4	0.5	9.0		156.2
	11	3005											7	0.601	73.5	167.0	610.9 10	51.1	0.3	0.3	0.3	0.2	6.0	0.3		
	10	3001 3						-				7	75.1	226.0 1	83.6	366.2	935.8 6	8.69	0.2	0.2	0.1	0.1	0.2	0.2		1,757.5 1,013.2
	6	1022						, <u>-</u> .				7.2	1.7	3.3 2	2.3	0.9 3	6.9	4.0	1.8	2:0	1.7	1.2	1.6	1.5		26.5 1.
	8	1020								7	485.7	0.0	0.0	3.4	2.3	6.0	6.0	7.0	1.5	1.8	1.5	1.1	1.5	1.4		502.4
	-									334.1	267.1 48	8.1	5.9	1.1	0.3	1.2	2.3	1.2	9.0	0.7	9.0	0.4	9.0	9.0		- 1
	7	/ioi   si							50.5	43.2 33	21.9 26	16.0 21	3,3	1.0	5.0	1.7	10.4 42	0.1	0.2	0.3	0.2	0.1	0.2	0.2		149.7 1,254.8
	φ.	3 1015						2.0	14.1 50	4.3 4.	3.4 2	4.6	1.1	9.0	0.5	0.3	0.9	0.1	0.2	0.3	0.2	0.2	0.2	0.2		33.2 14
	1/1	1 1013				7	4.5	38.9 2	71 z <sup>:</sup> 66	7	99.2		7.0	1.3	0.3	2.7	0.3	0.2	0.6	)   2.0	0.0	0.4	9.6	0.7		394.6 3
	4	1011				8				.9 63.		.0	10	3.1	1.0 0	6.7		0-1	0.0	0.6	5.2 0	1.1 0	0.1 0	1.9	2.8	
-	ε.	1007			6	1 514.8	7 13.0	.9 363.9	6 273.6	9 77.9	3 103.5	5.2 209.0	71 9.7	1.6 3.	0.8	7.3 6.	.3 45.0	<u></u>	0.9	1.1	1.0 5	0.1	0.0	0.7	1.9	866.61.640.8
	2	1004		_	6 205.3	6 125.1	7 65.7	131	0 170.6	.2 72.9	5 42.3		·		.2 0.	.5 7.	2 27.3	.6			.		0.8	5	5:7 1	
		1001		382.1	2,083.6	765.6	139.7	655.2	955.0	111.	107.5	162.0	326.6	235.4	26	167	826.2	37	0.0	8.4	5.7	0.2		2.		7,005.7
	ġ/	Code	1001	7001	1007	1013	1013	1015	101	1020	1022	3001	3009	3010	3012	3014	3015	3017	4002	4003	7007	4005	1007	4008	6007	11
		, 02.	1	Ċ1	6	4	'n	Ø	7	S.	ο.	2	Ξ;	ద	133	1.4	15	3E	1.7	8	. 19	. 20	21	22	23	Total

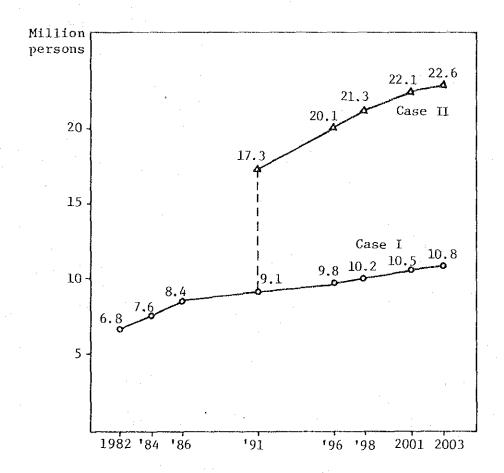
Appendix 4.3.2 (4) 0.0. Table of Urban Passenger Traffic for Case I (2003)

90	23	4009																				į			$\bigwedge$	10,793.4
1,000 persons	22	4008																	7/				•		38.4	38.4
- 1	21	.4007																						14.0	27.7	41.7
Gašt:	20	4005											-						   			$\overline{/}$	0.0	1.0	0.2	1.2
	19	4004		:					-	 						i						0.6	1.5	10.6	13.9	26.6
	18	4003														l					7 7 7	0.0	7.5	31.6	13.5	54.7
	17	7005					<b></b>					!					-		$\overline{}$	37.7	84.3	0.0	155.0	7.585	458.2	1,219.6
	16	3017 4					-	٠								<u></u>			0.1	0.1	0.1 8	0.1	0.1 15	0.1 48	45	0.6 1,2
	1.5	3015 3												    				113.7	0.2	0.2	0.2	0.1	0.2	0.2		114.8
	14	3014 3						-									14.8	7.3	0.2	0.2	0.2	0.1	0.2	0.7		23,7 11
		3012 30								·	<u> </u>				_/	2.9	25.1 14	1.6	0.4	0.5	2.4	0.3	0.4	0.4 0		32.0 23
	13									· 			,		12.6	5.5	59.4 2	4.1	0.5	0.5	4.0	0.3	0.4	0.5		84.2 3
	12	9 3010												45.8	35.4 12	97.6		34.0	0.2	0.2	0.2	0.1	0.5	0.2		
		3009				) 						/	7.			.3	.7 378.2	ν.	0.1	0.1	0.1	0.1	0.1	0.1		.5 587.1
	10	3001											4 29.4	7 108.6	0 44.4	8 218	612	3 48	.5 0							0 1,062.5
	6	1022							-	- /	/2	0 5.1	0 1.4	7 2.	9 2.0	7 0.	8 0 8	3 0.3	3 1	5. 1.7	2 1 4	0.1 6	2 1.4	2 1.3		0 22.0
	10	1020									262.2	0.0	0.0	.2	٦,	0.7	0.8	0		1.5	1.2	0.9	1.2	1.2		276.0
	7	101,7								155.6	158.0	164.1	9.4	0.9	0.3	1.0	383.5	1.1	0.5	0.6	0.5	0.3	0.5	0.5		872.0
	v	1015							27.0	23.1	14.0	11.1	2.5	0.8	7.0	1.5	9.5	0.1	0.3	0.2	0.2	0.1	0.2	0.2		90.8
	5	1013						1.0	8.2	2.5	2.3	3.1	0.8	0.4	0.4	0.2	0.8	0.1	0.2	0.2	0.2	0.1	0.2	1.2		20.9
	7	1011					2.3	20.8	59.7	37.3	67.3	23.7	5.1	1.0	0.3	2.3	35.4	0.2	0.5	0.6	0.0	0.3	0.5	0.6		257.9
	3	1001				300.0	7.9	229.3	194.6	51.4	75.4	128.9	11.7	2.2	0.8	5.6	38:4	0.1	0.0	5.0	4.0	0.8	0.1	1.5	3.2	4.950,
	2	1004			6.101	78.9	43.8	8.63	123.4	50.1	32.0	2.9	2.9	1.1	9.0	5.9	22.8	0.3	0.7	0.8	0.7	0.1	0.0	0.6	2.2	561.5 1,056.4
	1	1001		221.2	1,173.2	544.6	99.1	340.4	617.6	80.9	83.3	84.7	143.5	130.6	18.1	121.5	638.9	30.0	0.0	6.4	3.8	0.2	0.5	1.8	6.5	4,348.8
	ož/	Code	1001	1004	1007	1011	1013	1015	1017	1020	1022	3001	6008	3010	3012	3014	3015	3017	4002	4003	4004	4005	7007	4008	4006	4
		%.	1 1	5	m .	4	2	49	2	ω ω	5	02	11	12.	2	1.4	15	16	17 4	13 2	19 4	20 6	21 7	22   4	23 4	Total
	<u>/_</u> .	- ž			L	i	i	L		L	Ĺ		<u> </u>	i	l		L!	L	L				L	l	l	

Appendix 4.3.2 (5) 0.D. Table of Urban Passenger Traffic for Case II (2003)

		6			4	Γ	Γ						T		Ī					,						6.2
Sons	23	6007		<u> </u>					ļ				ļ	ļ <u>.</u>			'5	<del></del>	)						<u>/_</u>	22,636.2
1,000 persons	22	4008																		,					38.4	38.4
	21	4007																						6.67	27 7	77.6
Unit:	20	4005																					0.0	2.3	0.2	2.5
_	1.9	7007																				2.2	6.1	34.3	13.9	5.95
(5002)	18	4003			-									} 							8 1	0.0	26.3	89.5	13.5	137.4
<b>-</b> 1 4	1.7	4002			-		-		-			-							7	24.3	255.1	0.0	435.8	1,166.1	458.2	2,339.5 1
orban rassenger irainic tor case	91	3017 4																	0.1	0.2	0.1 2	0.1	0.1 4	0.1 1,1	77	0.7 2,3
L 0 L	15	3015 30					_				<u> </u>							371.9	0.3	0.3	0.3	0.2	0.3	0.3		373.6
<u>ာ</u>			_			-			-					-		/	52.9	20.6 37	0.3	0.3	0.3	0.2	0.3	1.4		m
<u>g</u>	14	3014				_									_	/. .s:		4.0 20	0.6 0		0.6	0.4.0				2 76.
٦ <u>٦</u>	1.3	3012					_								/	8 10.5	8 75.2	9 4		8 0.7			7 0.6	9.0 4		93.2
ה ה ה	12	3010											ļ.,	$\angle$	45.8	15.8	149.8	80	0.7	0.8	0.7	0.5	0.7	0.7		224.4
ั เ	11	3009	:											163.9	106.0	233.4	838.5	68.7	0.3	0.4	5.0	0.2	0.3	<b>7</b> 0		1,412.5
	10	3001											113.8	328.7	118.0	504.1	1.0 1,269.1	93.1	0.2	0.2	0.2	0.1	0.2	0.2		2,427.9 1,412.5
วี บ	6	1022										8.7	2.1	3.9	2.2	1.0	1.0	0.4	2.1	2.4	2.0	1.5	1.9.	1.7		31.4
ם מי	80	1020									569,4	0.0	0.0	4.1	2.7	1.0	1.0	0.4	1.8	2.1	1.8	1.3	1.8	1.7		589.1
	7	1017						<u>L</u> .		432.5	332.2	284.9	7.7	7.7	7.0	1.5	533.8	1.5	0.7	0.8	0.7	0.5	0.7	0.7		1,600.0
, ,	vo	1015							68.7	54.6	26.9	21.1	4.4	1.3	9.0	2.1	13.2	0.1	0.3	5.0	0.3	0.2	0.3	0.3		194.8 1,
7 1.0	5	1013 1			 			2.7	19.0	5.4	4.1	6.0	1.5	0.7	9.0	7.0	1.2	0.1	0.3	0.3	0.3	0.2	0.3	0.3		43.4
· r	7	1011				/	6.2	53.0	132.5	78.5	9.0	46.5	9.2	1.7	7.0	3.4	51.3	0.2	0.8	6.0	0.0	9.0	0.8	6.0		507.7
V1 5115ddv					7	691.0	17.2	482.2 5	355.8 13	3	.7 120.		23.3	4.1	1.3	8.6	57.5	0.2	0.0	0.8	6.8	1.5	0.2	2.5	3.2	
7	٤.	4 1007		-7	0.		n			.2 95	.7 124.7	7.1 283.5	6.3	2.2	1.0 1	3 7.6		7.0	1.1	1.4	1.3 6	0.2	0.0	6.0	2.2	9,115.1 1,134.5 2,159.7
	2	1004		/5	3 281.0	3 165.8	98	1 172.7	1 221.3	4 88.2	9 50.7						4 35.0			41.1						.1 1,13
	. <b>-</b> 1	1001		509.5	2,698.3	989.3	179.6	816.1	1,184.1	132.4	126.9	223.6	422.6	305.4	34.4	217.6	1,065.4	48.0	0.0	10.8	7.4	11.2	1.0	125.0	6.5	9,115
	ક્ર <i>/</i>	Code	1001	1004	1007	101	1013	1015	1017	1020	1022	3001	3009	3010	3012	3014	3015	3017	4002	4003	4004	4005	4007	4008	4009	
		No.	,,	C4	m	4	'n	9	۲.	တ	6	2	ធ	12	13	14	15	97	17	18	19	30	21	22	23	Total

Appendix 4.3.2 (6) Urban Passenger Traffic Volume (Figure)



Appendix 4.3.3 (1) 0.D. Table of Inter-zonal Freight Traffic (1984)

	F-1	6	. ⊢	4	9		<u></u>	9		Ω.	2	0	7.7	6	ret	4.3		r-i	.7	7	
	Total	2,021.0	119.1	29.4	210.6	149.7	450.0	98.6		52.5	107.2	138.0	7.	1,911.9	34.1	4,		154.	511.7	88.2	b,088.1
persons	19	336.6	5.6	2.7	62.1	30.8	48.3	13.4	,	28.5	41.0	45.5	1.2	17.7	18.5	1.6		64.2	230.3		87876
1,000 p	18	216.3	4.1	6.1	18.2	1.4	17.2	11.5		1.1	7.6	17.4	0.1	5.0	14.6	0.3		22.2		11.8	337.9
Unit:	17	21.2	0.5	9.0	2.0	1.8	33.9	1.9		6.9	10.2	0.3	0.2	9.0	0.2	0.0			80.9	1.0	162.2
	16					,															
•	15	4.6	0.0	0.0	6.5	0.2	0.0	1.2		0.0	0.3	0.2	2.3	7.0	0.0			0.1	0.2	0.2	15.0
	14	0.5	0.1	0.1	1.9	4.0	7.6	15.0		2.2	11.0	0.1	0.0	17.1		0.0		11.1	16.8	1.4.	87.4
<b>,</b>	13	250.1	32.2	10.0	44.1	0.1	204.4	10.8		1.2	6.4	5.7	0.5		0.3	0.0		2.0	10.2	0.3	578.3
	12	1.2	8.0	0.3	4.0	0.1	7.0	7.0		7.0	0.2	0.0		0.5	0.0	8.0		1.5	8.0	0.2	8.0
	11	69.3	0.5	1.2	2.2	0.0	7.8	5.2		2.6	6.7		0.1	0.5	0.2	0.1		4.3	23.6	1.2	125.5
	10	223.9	0.0	0.5	0.4	0.3	0.0	0.2		1.8		7.0	0.1	42.6	0.1	0.0		2.7	1.4	8.2	282.6
٠	6	8.97	0.0	0.2	0.2	0.0	0.0	0.2			3,3	0.7	9.0	0.2	0.0	0.9		6.7	7.2	1.2	68.2
	ω.				<del></del>																
	7	202.8	0.1	0.2	0.1	0.2	0.1		/	0.7	0.1	0.0	5.0	18.2	0.0	0.0		2.2	0.9	1.5	227.5
	ō	166.8	0.0	2.0	1.4	5.9		0.0		0.2	0.1	7.0	0.5	5.8	0.0	0.0	-	6.7	0.4	0.3	190.5
	īΩ	92.1	0.1	0.2	0.1		5.4	0.0		0.1	0.1	1.7	0.5	1.9	0.0	0.0	*	2.6	1.6	0.7	106.8
	7	95.5	0.4	2.2		5.1	0.8	0.2		0.1	0.0	0.0	0.1	.3	0.0	0.1		2.2	0.9	0.2	110.1
	· n	108.5	0.1		8.0	7.0	1.3	0.2		0.1	0.1	0.1	0.0	11.7	0.0	0.0		1.3	0.4	0.1	125,1
		180.0	./	9.0	2.7	23.9	4.2	1.2		0.3	0.4	2.0	0.1	5.0	0.1	0.0		6.2	6.2	1.2	232.8
	<sub>F</sub> -1		73.8	2.5	73.5	1.62	116.5	37.2		3.3	19.7	64.8	1.3	1,782.4	0.1	0.5		18.1	129.9	58.7	,461.4
	a/ 0	<i>-</i> 1	61	m	4	īΩ	6 1	7	8	σ'n	10	11	12	13	14	15	16	17	18 1	19	Total 2,461.4

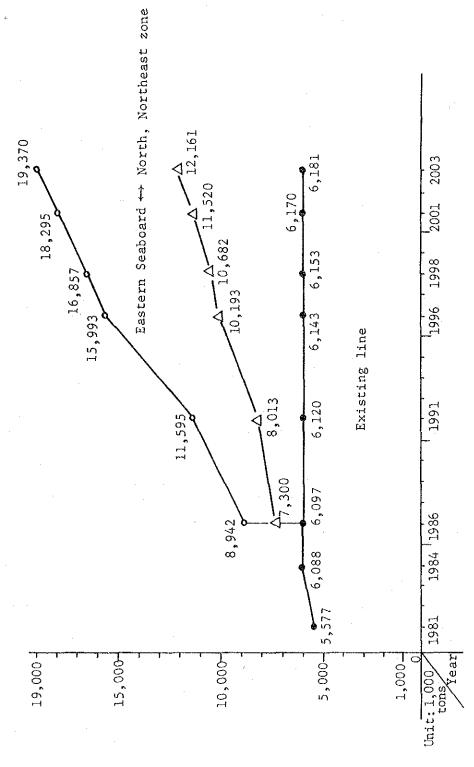
0.D. Table of Inter-zonal Freight Traffic (1991) Appendix 4.3.3 (2)

	Total	3,344.0	369.3	227.1	374.8	427.2	725.7	451.8		351.5	7.897	139.1	186.4	2,286.0	34.2	4.4	1,448.0	154.8	514.5	88.2	11,595.4
persons	19	338.3	6.5	2.8	62.4	30.9	48.6	13.5		28.6	41.2	45.9	1.1	17.8	18.7	1.7	0.0	64.5	231.5		954.0
1,000 p	7.8	217.5	4-1	6.1	18.3	1.4	17.3	11.6		4.2	7.6	17.6	0.1	5.0	14.8	0.3	0.0	22.4		11.8	360.1
Unit:	17	21.4	9.0	0.6	2.0	1.8	34.1	1.9		7.0	10.2	0.3	0.1	9.0	0.1	0.0	0.0		81.3	1.0	163.0
	91	1,312:0	249.8	198.2	162.9	276.9	271.5	353.0	<del></del>	298.6	361.1	0.0	179.2	363.8	0.0	0.0		0.0	0.0	0.0	4,027.0
	15.	9.5	0.0	0.0	0.5	0.1	0.0	1,1		0.0	0.3	0.1	2.3	5.0	0.0		0.0	0.1	0.1	0.2	14.7
	14	0.5	0.0	0.1	1.9	7.0	9.8	15.1		2.3	11.1	0.0	0.0	17.2	/	0.0	0.0	11.1	16.9	1.4	87.8
	13	251.5	32.3	10.0	44.3	0.1	207.0	10.9	<del></del>	1.1	6.5	5.6	0.5		0.3	0.0	119.2	2.0	10.3	0.3	701.9
	12	1.1	6.0	0.3	7.0	0.1	4.0	9.0		0.3	0.1	0.0		0.5	0.0	6.0	58.7	1.5	6.0	0.1	9.99
	ij	9.69	0.5	1.1	2.3	0.0	7.9	5.2		2.7	9.9		0.0	0.5	0.1	0.0	0.0	4.3	23.8	1.1	125.7
	10	225.1	0.0	0.5	0.5	0.3	0.1	0.1		6,1		0.5	0.0	42.7	0.1	0.0	118.4	2.7	1.4	8.3	402.6
	б	47.1	0.0.	0.1	0.1	0.0	0 0	0.1		7	3.4	0.8	9.0	0.1	0.0	0.9	97.9	6.7	7.3	1.1	166.2
	ω																				
	7	203.9	0.0	0.1	0.1	0.1	0.0		/   	8.0	0.0	0	4.0	18.3	0.0	0.0	115.7	2.2	0.9	1.5	344.0
	9	167.8	0.0	2.0	1.5	6.0		0.0		0.1	0.1	0.5	9.0	5.9	0.0	0.0	89.0	6.7	0.5	0.3	281.0
	5	92.6	0.0	0.1	0.1		5.5	0.0		0.1	0.0	8	0.1	1.9	0.0	0.0	90.8	2.7	1.6	0.8	198.1
	77	0.96	7.0	2.0		5.2	0.8	0.1		0.0	0.0	0.0	0.1	2.4	0.0	0.1	53.4	2.2	0.9	0.1	163.7
	3	109.1	0.0		0.8	4.0	1.3	0.3		0:1	0.0	0.1	0.0	11.8	0.0	0.0	65.0	1.3	0.4	0.1	190.7
	2	181.0		9:0	2.8	24.0	4.3	1.1		0.3	7.0	8.0	0.0	5.1	0.0	0.0	81.9	6.2	6.2	1.1	315.8
			74.2	2.5	73.9	79.5	117.1	37.4	ļ	3.4	19.8	65.1	1.3	1,792.0	0.1	0.5	558.0	18.2	130,5	29.0	032.5
	0	7	2	m	4	10	9	7	èο	o	97	11	12	13 1,	14	วีนี เ	16	17	18	19	Total 3032

Appendix 4.3.3 (3) 0.D. Table of Inter-zonal Freight Traffic (2003)

	Total	4,685.0	509.3	337.8	6.997	582.5	878.8	648.7		517.7	670.0	140.3	286.4	2,507.0	34.5	4.4	6,335.0	156.5	519.7	89.5	19,370.0
S		1 1	ر.	2.7	<u> </u>			9		2/	9	<u>رب</u>	2		8	9.	0.0	2	60	· /	1
persons	19	341.7	9	ļ <u>.</u>	63.0	31.2	0.64	13.		28.	41.	46.		18.0	18.			65.	233.	/_	963.1
7,000	3.8	219.6	4.1	6.2	18.4	1.4	17.4	11.7		4.2	7-7	17.6	0.1	5.0	14.7	7 0	0.0	22.6		12.0	363.1
Unit:	17	21.6	9.0	0.6	2.0	1.8	34.4	1.9		7.1	10.3	0.3	0.2	0.7	0.2	0.0	0.0		82.2	1.1	165.0
	16	2,633.0	388.3	308.1	253.3	430.6	422.1	548.7		464.3	561.4	0.0	278.6	565.6	0.0	0.0		0.0	0.0	0.0	5,854.0
į	1.5	9.6	0.0	0-0	0.5	0.2	0.0	1.1		0.0	0.3	0.2	2.3	7.0	0.0	7	0.0	0.1	0.2	0.2	15.1 5,
	14	0.5	0.1	0.1	1.9	5:0	9.8	15.3		2.3	11.1	0.1	0.0	17.4		0.0	0.0	11.3	17.0	1.4	88.7
	13	253.9	32.7	10.2	44.7	0.1	207.4	11.0		1.2	6.5	5.7	0.5		0.3	0.0	396.6	2.0	10.4	0.3	983.5
	1.2	1.2 2	0.8	0.3	4.0	0.1	0.4 2	7.0	<u> </u>	0.3	0.2	0.0		0.5	0.0	0.8	95.4	1.6	0.8	0.5	203.4 9
	11	70.3	0.5	1.2	2.3	0.0	7.9	5.3		2.7	6.7		0.1	9.0	0.2	0.1	0.0	4.3	24.0	1.2	127.4 2
	10	227.4	0.0	0.5	0.5	0.3	0.1	0.2		1.9		0.5	0.1	43.2	0.1	0.0	393.7	2.7	1.4	8.3	680.9
	6	47.5 2.	0.0	0.2	0.2	0.0	0.0	0.2			3.4	8 0	7 0	0.2	0.0	6 0	5.6	6.8	7 3	1.2	395.0 68
		4								/		;			<del></del>		32				39
	8						· 														
	7	205.9	0 1	0.1	0.1	0 2	0.0			0.7	0.1	0.0	0.3	18.5	0.0	0.0	384.8	2.2	6.0	1.5	615.4
	9	169.3	0.0	2.1	1.5	0.9		0.0		0.1	0.1	0.5	0.6	5.9	0.0	0.0	296.0	6.8	0.5	0.3	489.7
	5	93.5	0.1	0.2	0.1		5.5	0.0		0.1	0.1	1.7	0.2	1.9	0.0	0.0	301.9	2.7	1.7	0.7	410.4
	7	97.0	7.0	2.1	7	5.2	0.8	0.1		0.1	0.0	0.0	0.1	2.4	0.0	0.1	177.6	2.2	0.9	0.2	289.2
	9	110.2	0.1		0.7	0.4	1.3	0.2		0.1	0.1	0.1	0.0	11.9	0.0	0.0	216.1	1.3	0.4	0.1	343.0
	2	132.8		9.0	2.7	24.3	4.3	1.2		0.3	5.0	0.8	0.1	5.1	0.1	0.0	272.3	6.3	6.3	1.2	508.8
			75.0	2.6	9.47	80.3	118.4	37.8		3,4	20.0	65.7	1.3	1,809.7	0.1	0.5	3375.0	18.4	131.9.	59.6	,874.3
į	G/		2	m	41	2	9	7	ďΩ	σı	10	11	12	13 1,	14	15	16 3	17	18	19	Total 5,874.

Appendix 4.3.3 (4) Inter-zonal Freight Traffic Volume



Appendix 5.1.1 Present Conditions of Intermediate-distance Commuter Train

(1) At present, operating conditions of commuter train arriving at Bangkok station during peak time zone (7:00 to 8:00) are as presented in the table below (surveyed October 7, 1983).

	Train No.	Arrival time at Bangkok	Number of cars per train consist (cars)	Number of alighting passengers (persons)	Loading factor (%)	Remarks
	222	7:15	8	908	149	(Ban Phachi)
line	168	7:25	6	730	160	(Don Muang)
rthern	166	7:45	6	862	189	(Ayutthaya)
1 0 1	224	8:00	6	625	1.37	(Lop Buri)
z	Subtotal		26	3,125	158	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
Ė	202	7:30	8	549	90	(Chachoeng Sao)
Eastern line	182	7:55	4	602	198	(Prachin Buri)
Ea	Subtotal		12	1,151	126	
	Total		* 38	4,276	148	* Average 6.2 cars per train

(2) Rate of concentration in the morning rush hour  $(\tilde{7}:00 \text{ to } 8:00)$  ..... 28%

Total number of passengers alighting at Bangkok is 23,971 persons per day, with ridership on express and rapid trains to be 8,580 persons per day.

Thus, the number of passengers on ordinary and commuter trains are 15,391 persons per day, and rate of concentration in peak time (7:00 to 8:00) is

$$\frac{4,276}{15,391} = 0.28.$$

# Appendix 5.3.1 Formula to Calculate Track Capacity of Double-track Section

Track capacity with mixed operation of different kinds of trains could be calculated by the following formula.

$$N = \frac{1,440 \times f}{h V' + (r + u + 1) V}$$
 (per day)

Whereas

N: Track capacity in each direction

h: Headway between high-speed trains operated in succession

r: Minimum headway required between early arriving low-speed train and later arriving high-speed train (3 - 4 min. as standard)

u: Minimum headway required between early departing highspeed train and later departing low-speed train (2.5 min. in general)

V: Ratio of high-speed trains

the number of high-speed trains (established)
the number of trains in each direction (established)

V': Ratio of low-speed trains

the number of low-speed trains (established)
the number of trains in each direction (established)

f: Track utilization ratio to be determined in accordance with nature of each line section (0.6 in general)

[Example of calculation]

between Chit-La-DA and Bang Sue (2003 year Case I)

$$V' = \frac{45}{153} = 0.294$$
  $V = \frac{108}{158} = 0.706$ 

$$N = \frac{1,440 \times 0.6}{5 \times 0.294 + (4 + 2.5 + 1) \times 0.706}$$
$$= \frac{864}{6.765} = 128 \text{ (per day)}$$

#### Appendix 5.3.2 Track Capacity of Freight Line

Track capacity of exclusive freight line in the section between Chit-La-Da and Bang Sue, when newly provided, is as follows:

- (1) Facility condition is as follows:
  - Stations with a passing facility (for train meeting) will be provided at the following location.

Eastern Line New St. (Rama VI Rd.) .... (Station spacing of approximately 3 km)

Northern Line Bang Sue yard 

New St. (Rama VI Rd.) .... (Station spacing of approximately 3 km)

(Station spacing of approximately 3 km)

 Average operating time of freight trains between above stations is estimated to be about 6 minutes.

Speed limit at turnout : 30 km/hAverage deceleration : 0.5 km/h/sMaximum speed of freight train: 50 km/h

- · Route control of trains will be done by CTC.
- (2) Thus, track capacity (N) of freight line could be calculated by the following formula:

$$N = \frac{1,440 \times f}{t + c} \text{ (per day)}$$

Whereas,

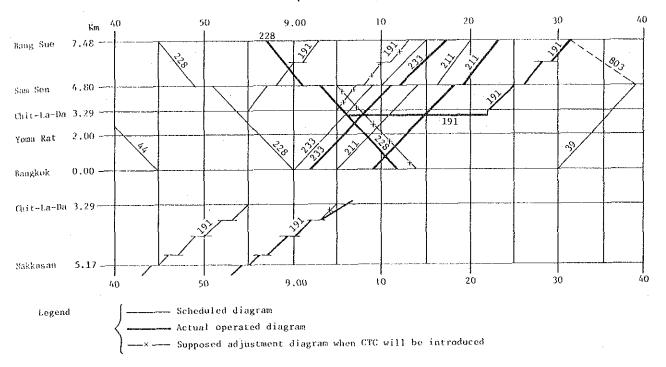
t: Average operating time between stations (6 min.)

c: Time required for block handling (automatic block system 1.5 min.)

f: Track utilization ratio (0.6)

$$N = \frac{1,440 \times 0.6}{6+1.5} = \frac{864}{7.5} \approx 115$$
 (per day)

Appendix 5.3.3 Example of Obstruction by Rail-rail Grade-crossing at Chit-La-Da (October 5, 1983)



Explanation (Concerning commuter train No. 191)

- (1) Primary cause is 10 minute delay of Train No. 191 due to speed restrict and awaiting for meeting train No. 203 in the Eastern line.
- (2) Arrived at Chit-La-Da passing track 11 minute late due to 12 minute delay of train No. 228
- (3) Waiting for passing of long distance train No. 233 and No. 211 (waiting for track clearance)
- (4) After waiting for train No. 211 enters into home signal at Bang Sue, departing from Chit-La-Da 27 minute late (16 minute additional delay)
- (5) When CTC is introduced and relative location of trains can be identified in a dispatching room, operation adjustment wll be done as indicated by the diagram lines: --x-x-.

  Thus train No. 191 is expected to operate with 10 minute delay instead of train No. 228 is 2 minute additional delay.

Appendix 7.1.1 Evaluation of Locomotive Hauling Capacity on Gradient

	Туре	ALSTHOM	GE	KRUPP
Service weight (kg)		82,500	75,000	55,000
Maximum tractive effo wheel rim kg (@ ad weight)		24,800 (@ 30%)	22,500 (@ 30%)	18,150 (@ 33%)
Minimum continuous tr effort kg (@ km		20,600 (@ 21 km/h)	17,963 (@ 13 km/h)	15,250 (@ 14.5 km/h)
Maximum output (HP) & (@ RPM)		2,400 HP (a) 1,500 rpm	2×660 HP (a) 2,000 rpm	1,500 HP (a) 1,400 rpm
Present hauling capacity	10°/。	1,280 tons	1,200 tons	1,200 tons
(1) Capability of sta on gradient (with hauling capacity)				
Table of Rolling Stock Features	10°/00	0	0	0
(SRT) (µ=0.30-0.33)	12°/00	0	0	×
JNR calculation	10°/°°	0	0	×
method (μ=0.285)	12°/00	0	Δ	×
(2) Acceleration perf when starting on gradient (Compare	upward	.15 km/h/s)		
Table of Rolling	10°/°°	0	0	×
(SRT)(µ=0.30~0.33)	12°/00	Δ	×	×
JNR calculation	10°/00	0	Δ	×
method (μ=0.285)	12°/00	Δ	×	×
(3) Deceleration perf When using brakes				
on downward	10°/00	0	0	0
gradient (Compared with 0.3 km/h/s)	12°/ <sub>°°</sub>	Δ	Δ	Δ

 $\bigcirc$ : Fully capable  $\triangle$ : Slightly difficult imes: Incapable

Appendix 9.1.1 Land Use Compostion

 $(Unit: 10^4 m^2)$ 

	ī	Left-Hand Sid	Side of Railway	from Bangkok		#	Right-Hand Side of Railway from Bangkok	e of Railway	from Bangkok	
	Residential Commercial Area	Commercial Area	Industrial Area	Infrastruc- tural Area	Other	Residentíal Arca	Commercial Area	Industrial Area	Industrial Infrastruc- Area tural Area	Other Area
i. Northern Line							4			
Rama I - Phetburi	6.21(13.5)	6.21(13.5) 22.81(49.6)	0.92 (0.0)	5.52(12.0)	10.54(22.9)	29.96(65.2)	7.28(15.8)	(0.0)00.0	3.28 (7.1)	5.48(11.9)
Phecburi - Sriayuchaya	7.21(20.3)	7.21(20.3) 0.00 (0.0)	(0.0) 00.0	4.27(12.1)	23.97(67.6)	8.16(23.0)	5.81(16.4)	0.00(0.0)	9.19(25.9)	12.28(34.7)
Sriayuthaya - Ratvithi	38.24(86.1)	0.00 (0.0)	(0.0) 00.0	5.07(11.4)	1.09 (2.5)	0.00 (0.0)	0.00 (0.0)	0.00(0.0)	5.87(13.4)	38.53(87.6)
Ratvithi - Nakornchaisri	22.80(65.9)	0.84 (2,4)	0.00 (0.0)	5.28(15.3)	5.66(16.4)	6.27(18.1)	2.26 (6.5)	0.00(0.0)	5.99(17.3)	20.08(58.1)
Nakornchaisri - Sersíri	19.97(61.3)	0.73 (2.2)	0.67 (2.1)	2.97 (9.1)	8.24(25.3)	21.24(65.2)	1.12 (3.4)	(0.0)00.0	10.05(30.9)	0.17 (0.5)
Setsiri - Ranong	9.17(27.1)	0.00 (0.0)	0.00 (0.0)	1.73 (5.1)	22.90(68.2)	15.92(47.1)	0.96 (2.8)	0.00(0.0)	4.47(13.2)	12,45(36.9)
Ranong - Pradiper	2.75 (8.6)	(0.0) 00.0	0.00 (0.0)	2.94 (9.2)	26.31(82.2)	22.95(71.7)	1.31 (4.1)	0.00(0.0)	2.91 (9.1)	4.83(15.1)
Pradipat - Bang Sue st.	7.57(16.4)	7.57(16.4) 2.72 (5.9)	1.76 (3.8)	4.29 (9.3)	29.86(64.6)	26.57(57.5)	2.83 (6.1)	0.00(0.0)	14.91(32.3)	1.89 (4.1)
2. Western Line										
Rama VI - Physchai	8.12(15.7)	8.12(15.7) 0.40 (0.8)	0.00 00.0	9.92(19.2)	33.17(64.3)	33.51(64.9)	10.21(19.8)	0.00(0.0)	7.20(14.0)	0.67 (1.3)
Phyathai - Rajaprarop	17.43(37.1)	17.43(37.1)   14.51(31.0)	0.16 (0.3)	8.71(18.5)	6.17(13.1)	22.45(47.7)	16.07(34.2)	0.00(0.0)	2.78 (5.9)	5.72(12.2)
Rajaprarop - Makkasan st.	21.06(69.3) 0.41 (1.3)	0.41 (1.3)	(0.0) 00.0	2.00 (6.6)	6.92(22.8)	8.40(27.6)	19.03(62.6) 0.00(0.0)	0.00(0.0)	1.69 (5.6)	1.28 (4.2)
3. Mae Nam Line Makkasan st - Sukhumvit	20.48(51.2)	20.48(51.2) 10.21(25.5) 0.00 (0.0)	0.00 (0.0)	2.55 (6.4)	6.75(16.9)	15.52(38.8)	4.93(12.3)	1.11 (2.8)	5.83(14.6)	12.61(31.5)
Sukhumvic - Rama IV	33.54(29.5)	33.54(29.5) 10.25 (9.0) 55.21(48.6)	55.21(48.6)	7.19 (6.3)	7.41 (6.6)	55.46(48.7)	(6.5) (9.9)	0.65 (0.6)	9.97 (8.8)	40.87(36.0)
Rama IV - Mae Nam st.	40.32(78.1)	40.32(78.1) 5.00 (9.7) 2.52 (4.9)	2.52 (4.9)	3.12 (6.1)	0.64 (1.2)	10.47(20.3)	8.62(16.7)	1.53 (3.0)	22.16(42.9)	8.82(17.1)

Appendix 10.3.1 Construction Cost of Each Flyover (1)

Northern Line

(Unit: million Baht)

717	Item	Ec	onomic Cos	st	Tax	
Flyover	rcem	F/C	D/C	Total	lax	Total
	Construction	38.85	43,94	82.79	10,26	93.05
	Land Acquisition		17.00	17.00	·	17.00
	Compensation	· -	25.50	25.50	, <del></del>	25.50
H	Sub-Total	38.85	86.44	125.29	10.26	135.55
No.	Contingencies	6.57	13.71	20.28	1.72	22.00
	Engineering	4.97	4.97	9.94	1.23	11.17
	TOTAL	50.39	105.12	155.51	13.21	168.72
	Construction	58.18	64.72	122.90	15.22	138.12
	Land Acquisition	_	30.00	30.00	<b></b>	30.00
	Compensation	-	2.77	2.77		2.77
2	Sub-Total	58.18	97.49	155.67	15.22	170.89
No	Contingencies	9,83	15.73	25.56	2.56	28.12
	Engineering	7.38	7.38	14.76	1.82	16.58
	TOTAL	75.39	120.60	195.99	19.60	215.59
	Construction	42.08	47.15	89.23	11.04	100.27
	Land Acquisition	_	34.50	34.50	aa	34.50
	Compensation		9.90	9.90		9.90
n	Sub-Total	42.08	91.55	133.63	11.04	144.67
No.	Contingencies	7.11	14.54	21.65	1.85	23.50
	Engineering	5.35	5.35	10.70	1.32	12.02
,	TOTAL	54.54	111.44	165.98	14.21	180.19
		<u> </u>		<u> </u>	<u></u>	

#### Construction Cost of Each Flyover (2)

#### Northern Line

(Unit: million Baht)

711		Ec	onomic Co:	st	m	
Flyover	Item	F/C	D/C	Total	Tax	Total
	Construction	10.97	12.39	23.36	2.90	26.26
	Land Acquisition	-				<b>L</b> ,
	Compensation	-	<b>-</b> 5-9-			
No. 4	Sub-Total	10.97	12.39	23.36	2.90	26.26
	Contingencies	1.86	2.07	3.93	0.49	4.42
·	Engineering	1.40	1.40	2.80	0.35	3.15
·	TOTAL	14.23	15.86	30.09	3.74	33.83
	Construction	30.94	35.33	66.27	8.21	74.48
	Land Acquisition	<u>-</u> · .		- -	-	
	Compensation	_	-		-	
5/6	Sub-Total	30.94	35.33	66.27	8.21	74.48
No.	Contingencies	5.28	5.90	11.14	1.37	12.51
	Engineering	3.98	3.98	7.96	0.98	8.94
	TOTAL	40.16	45.21	85.37	10.56	95.93
	Construction	22.78	25.76	48.54	6.02	54.56
	Land Acquisition	-	6.00	6.00	-	6.00
	Compensation		15.00	15.00	_	15.00
7. 7	Sub-Total	22.78	46.76	69,54	6.02	75.56
No	Contingencies	. 3.85	7.45	11.30	1.01	12.31
	Engineering	2.91	2.91	5,82	0.72	6.54
	TOTAL	29.54	57.12	86.66	7.75	94.41
	GRAND TOTAL OF NORTHERN LINE	264.25	455.35	719,60	69.07	788.67

# Construction Cost of Each Flyover (3)

Eas	stern Line			(Uni	t: milli	on Baht)
77	r	Ec	onomic Co	st	Tax	Pro
Flyover	Item	F/C	D/C	Total	lax	Total
	Construction	36.93	40.09	77.02	9.70	86.72
	Land Acquisition				~	_
	Compensation	_	<b></b>	_		
No. 8	Sub-Total	36.93	40.09	77.02	9.70	86.72
Z	Contingencies	6.23	6.71	12.94	1.63	14.57
	Engineering	4.63	4.63	9.26	1.14	10.40
	TOTAL	47.79	51.43	99.22	12.47	111.69
	Construction	52.62	58.77	111.39	13.80	125.19
	Land Acquisition		8.12	8.12	<b>~</b> · ·	8.12
	Compensation		6.79	6.79	-	6.79
o.	Sub-Total	52.62	73.68	126.30	13,80	140.10
No.	Contingencies	8.90	12.05	20.95	2,32	23.27
	Engineering	6.68	6.68	13.36	1.65	15.01
	TOTAL	68.20	92.41	160.61	17.77	178.38
	Construction	43.82	49.12	92.94	11.51	104.45
	Land Acquisition		8.12	8.12	-	8.12
	Compensation		6.79	6.79	_	6.79
10	Sub-Total	43.82	64.03	107.85	11.51	119.36
No.	Contingencies	7.41	10.44	17.85	1.93	19.78
	Engineering	5.58	5.58	11.16	1.38	12.54
·	TOTAL	56.81	80.05	136.86	14.82	151.68
:	GRAND TOTAL OF NORTHERN LINE	172.80	223.89	396.69	45.06	441.75

#### Construction Cost of Each Flyover (4)

Mae Nam Line

(Unit: million Baht)

Pl	T. C. C.	Ec	onomic Cos	st	Tox	m 1
Flyover	Item	F/C	D/C	Total	Tax	Total
	Construction	8.22	9.41	17.63	2.19	19.82
	Land Acquisition	_				
	Compensation		· <del></del>	-	, t ,	***
. 11	Sub-Total	8.22	9.41	17.63	2.19	19.82
No	Contingencies	1.39	1.57	2.96	0.37	3.33
	Engineering	1.06	1.06	2.12	0.26	2.38
	TOTAL	10.67	12.04	22.71	2.82	25.53
	Construction	98.03	110.06	208.09	25.97	234.06
m	Land Acquisition	-	45.19	45.19	•	45.19
or 13	Compensation	_	31.63	31.63		31.63
12 (	Sub-Total	98.03	186.88	284.91	25.97	310.88
No.	Contingencies	16.59	29.92	46.51	4.36	50.87
	Engineering	12.59	12.59	25.18	3.11	28.29
	TOTAL	217.21	229.39	356.60	33.44	390.04
	Construction	96.72	108.45	205.17	25.61	230.78
	Land Acquisition	•	0.56	0.56	_	0.56
<b>.</b> +	Compensation		0.39	0.39	-	0.39
No. 14	Sub-Total	96.72	109.40	206.12	25.61	231.73
й	Contingencies	16.37	18.27	34.64	4.30	38.94
	Engineering	12.42	12.42	24.84	3.07	27.91
	TOTAL	125.51	140.09	265.60	32,98	298.58
	GRAND TOTAL OF MAE NAM LINE	390.60	610.91	1,001.51	102,68	1,104.19

Appendix 11.4.1 Economic Analysis for Track Elevation Project,
State Railway of Thailand (Caşe-I-3)

					٠.				( HI	L. BAHT	) P	6E 1 /	ART 1		
·	1984	1985	1986	- 1987	1988	1989	1990	1991	1992	1993	, 1994	1995	1996	1997	1998
INVESTMENT DIFF	18.4	49,7	164.7	137.4	43.8 ======		3.0Z- =======	5.0	-0.1	-0.2	-0.7	110.6	111.3	-10.4	0.4 =======
нти	33.6	129.2	370.0	496.4	547.2	519.7	512,6	649.9	75.0	24.0	28.3	376.8	127.5	23.4	0.4
CIVIL BORK	25.0	100.1	306.5	460.8	458.4	402.7	192.9	67.7	71.7	20.7	10.6	118.9	121.1	12.7	
STATION FACILITY SIGNALS & TELECON LAND ACQ & COMP	8.7	29,1	37.5 26.1	9.6	1.2 87.6	4.1 112.8	94.7 225.0	1.1 5.1 576.1	3.3	3.3	1.1 16.6	14.0 35.2 208.7	6.5	10.7	0.4
ROLLING STOCKS -SALVAGE VALUE					•			210.1			4,5				
MITHOUT	15.2	79.6	205.4	359.0	503.4	345.4	543.1	644.9	75.1	24.2	54.0	266.2	16.3	33.8	
RAILWAY CIVIL MORK	15.2 6.6	55.6 26.7	67.9 5.3	51.8 16.6	125.5 37.0	2.60.1 92.2	424.1 136.5	644.9 67.7	75.1 71.8	24.2 20.9	29.0 10.8	266.2 7.4	9.2	33.8 20.3	
STATION FACILITY SIGNALS & TELECOM	8.6	28.9	36.5	9.1	0.6 87.9	4.I 109.8	551.0 66.6	1.1	3.3	3.3	1.1	14.0 36.1	7.0	13.6	
LAND ACQ & COMP ROLLING STOCKS			26.1	26.1				576-1				208.7			
-SALVÄGE VALUE ROAD FLYOVER		23.9	137.4	307.2	377.9	139.3	119.1								
MAINT/OPE COST DIFF	<b>222</b> 222		#24222	5=2 <b>2=</b> ==	1.0	2.6	5. <i>4</i>	5.0	5.0	5.0	5.0	5.0	5.0	. 5.0	5.5
FACILITY HAINT COST DIFF							٠, .	5.7	5.7	5.7	5.7	5.7	5.7	5.7	6.2
CIVIL WORK	~ <del></del>							7.8	7.8 12.6	7.8	7.8	7.8	7.8	7.6 12.8	8.3 19.3
NITH NITHOUT								5.0	5.0 0.2	5.0	5.0	5.0	5.0	5.0 Q.2	11.0
STATION FACILITY RITH								0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8 0.6
KITHOUT SIGNALS & TELECOM								0.6 13.4	0.6 13.4	0.6 13.4	0.6 13.4	0.6 13.4	0.6 13.4	0.6	0.6 15.1
MITH MITHOUT ROLLING STOCKS								12.7	12.7	12.7	12.7	12,7	12.7	12.7	14.5
HITH HITHOUT								9.6	9.6 9.6	9.6 9.6	9.6 9.6	12.9	12.9	12.9	12.9
ROAO FLYOVER WITH : WITHOUT								-3.0 3.0	-3.0 3.0	~3.0 3.0	-3.0 3.0	~3.0 3.0	-3.0 3.0	-3.0 3.0	~3.0 3.0
OPERATING COST DIFF					1.0	2.6	4.2	-0.6	-0.6	-0.6	~0.6	-0.6	-0.6	-0.6	-0.6
PSRL COST DIFF					0.3	0.7	1,1	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
WITHOUT	1.8 1.8	1.8 1.8	1.8	1.8 1.8	1.8	1.8	1.8	0.5	0.5 -0.1	0.5 -0.1	0.5 -0.1	0.5 -0.1	.0.5 -0.1	0.5 ~0.1	0.5 -0.1
FUEL COST DIFF	5.5 5.5	5.5 5.5	5.5 5.5	5.S 5.5	0.8 5.5 4.7	2.0 5.5 3.5	3.1 5.5 2.3	-0.1 1.5 1.6	1.5	1.6	1.6	1.7	1.8	1.8	1.9
TOTAL BENEFIT DIFF				12.7	-48.5	-115.7	-150.0	219.7	216.2	217.7	219.2			224.4	235.6
	******	======================================	223=222	F61222		255222	*	401.8	413.2	425.4	438.2	451.7	466.1	481.3	506.8
KIM			~~									:			
TIME SAVING BENEFIT BENE OF RAILWAY PSMGR								200.1	211.3	223.1	235.5	248.8	262.8	277.6	293.3
BENE OF ROAD VEHICLE NOTORCYCLE	÷							200.1 18.0	211.3 19.0	223.1	235.5 21.1	248.8	262.0	277.6 24.9	293.3
SAMLOR SEOÁN								10.2 111.4	10.5	11.4 124.2	131.2	12.7	13.4 146.3 9.7	14.2 154.6 10.2	15.0 163.4 10.8
LIGHT BUS BUS								7.4 28.3	29.9	8.2 31.6	33.3	9.2 35.2	37.2	39.3 34.4	41.5 36.3
TRUCK								24.8	26.2 11.8	12.2	. 29.2	30.8	32.6	13.6	14.0
FUEL SAVING BEHEFIT VEHICLE AT CROSSING VEHICLE AT FLYOVER								11.5 11.5		12.2			13.2	13.6	14.0
ACCIDENT AVOIDANCE BENE								2.1	. 2.1	2.1	2.1	2.1	2,1	2.1	2.1
LAND USE BEREFIT USAGE OF SPACE								188.0 188.0		188.0 183.0	188.0 168.0		160.0 108.0	188.0	197.4 197.4
FOR COMMERCIAL USE FOR OTHER USE								178.3 9.8		178.3 9.8	178.3 9.8		176.3 9.6	178.3 9.6	186.8 10.7
MITROUT				-12.7	48.5	115.7	150.0	187.1		207.7	219.0	230.9	243.5	257.0	271.2
TIME SAVING BENEFIT BENE OF ROAD VEHICLE					51.7 51.7	109.1 109.1	140.6 140.6	174.8 174.8		195.5 195.5	206.7 206.7	218.6	231.3 231.3	244.7 244.7	258.9 258.9
FUEL SAVING BENEFIT VENYOLE AT CROSSING VENIOLE AT FLYOVER				-12.7 -12.7	-8.7 -6.6 -2.1	-3.6 1.2 -4.8	-1.6 4.4 -5.9	0.4 7.5 -7.1	7.7	0.5 7.9 -7.5	0.5 8.1 -7.7	0.5 8.4 -7.9	0.5 8.6 -8.1	0.5 8.8 -8.3	0.5 9.1 -8.6
ACCIDENT AVOIDANCE BENE	•				0.3	0.8	1.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
LAND USE BENEFIT					5.2	9.5	9.7	10.3 10.3		16.3 10.3	10.3 10.3	10.3	10.3 10.3	10.3 10.3	10.3 10.3
USAGE OF SPACE FOR COMMERCIAL USE FOR OTHER USE					5.2 4.0 1.2	9.5 6.5 5.8	9.7 6.5 3.2	6.5 3.8	6.5 3.8	6.5 3.8	6.5 3.8	6.5 3.6	6.5 3.6	6.5 3.0	3.0
NET FLOW EIRR	-18.4 16.249	-49.7 16.247	~164.7 16.249	-124.7 16.249	-93.3 16.269	<i>-292.6</i> 16.249	-123.6 16.249	204,7 16.249	211.2 16.249	212.8 16.249	214.9 16.249	105.2 16.249	106.2 16.247	229.8 16.249	229.6 16.249

									-						
									( h)	L. BAHT	) PÅ	GE 1 /F	PART 2		
	1999	2000	2001	2002	2003	2004	2005	9006	2007	2008	2009	2010	5011	2012	
INVESTMENT DIFF			****		322222	*=****		****	0220225		******	222222		========	: =
истн	252.7				647.1		÷		80.5	561.2			177.4		-
CIVIL NORK STATION FACILITY			•									-0.4			-
SIGNALS & TELECON LAND ACQ & COMP HOLLING STOCKS -SALVAGE VALUE	252.7				647.1				80.5	561.2			177.4		
HITHOUT	252.7				647.1				80.5	561.2			177.4		~
RATLINAY	252.7			~	647.1		***		80.5	561.2			177.4	******	-
STATION FACILITY SIGNALS & TELECOM															
LAND ACG & COMP ROLLING STOCKS -SALVAGE VALUE	252.7				647.1				80.5	561.2			177.4		;
ROAD FLYOVER				1,					÷						
HAINT/OPE COST DIFF	5.5		5.5	5.5 =======	5.5 =====	5.5	5.5 225225	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
FACILITY MAINT COST DIFF	6.2	6.2	6.2	6.2	. 6.2	6.2	8.8	6.8	6.2	6.2	6.2	6.2	6.2	6.2	
CIVIL WORK	8.3	8.3	8.3 19.3	6.3 19.3	8.3	8.3 19.3	6.3 19.3	8.3 19.3	8.3 19.3	8.3 19.3	8.3 19.3	8.3 19.3	8.3 19.3	8.3 19.3	
HITHOUT STATION FACILITY	11.0	11.0.	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	1
HTH HUOHTHA	0.6	0.8	0.6	0.6 0.6	0.6	0.6	0.8 0.6	0.8	0.8 0.6	0.8 0.6	0.8	0.8	0.8	8.0 0.6	
SIGNALS & TELECON	0.6 15.1	0.6 15.1	0.6 15.1	0.6 15.1	0.6 15.1	0.6 15.1	0.6 15.1	0.6 15.1	0.6 15.1	0.6 15.1	0.6 15.1	0.6 15.1	0.6 15.1	0.6 15.1	
HITHOUT FOLLING STOCKS	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	
HTIH TUOITY	17.1 17.1	17.1	17.1 17.1	17.1 17.1	21.3 21.3	21.3 21.3	21.3	21.3 21.3	21.3	30.8 30.8	30.8 30.8	30.8 30.8	30.8 30.8	30.8 30.8	
ROAO FLYOVER HITH	~3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	
HITHOUT	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0 -0.7	3.0 -0.7	3.0 -0.7	3.0 -0.7	
OPERATING COST BIFF	-0.6	-0.6 -0.5	-0.6 -0.5	-0.7 	-0.7 	-0.7 -0.5	-0.7 	-0.7 	-0.7 	-0.5	-0.5	-0.5	-0.7	-0.7	
PSHL COST DIFF WITH WITHOUT	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
FUEL COST DIFF	2.0	-0.1 2.0	-0.1 2.1	1.0- 2.2	-0.1	~0.1 2.3	-0.1 2.4	-0.1 2.5	-0.1 2.6	-0.1 2.7	-0.1 2.8	-0.1 2.9	-0.1 3.0	-0.1 3.1	L
нтност	2.1	2.1	2.2	2.3	2.4	2.5	2.6	2.6	2.7	2.8	2.9	3.0	3.1	3.3	
TOTAL BENEFIT DIFF	237.6	239.6	241.8 =======	244.0	246.4	248.5	250.7	253.0	255.4	258.0	260.7	263.5 ======	266.5 ******	269.7	
HIM	523.8	541.9		581.3	602.7	618.1	634.1		668.5	686.9		726.3	747.4	769.5	
TIME SAVING BEHEFIT BENE OF RAILMAY PSNGR	310.0	327.6	346.4	366.2	387.2	402.4	418.2	434.8	452.1	470.3	489.3	509.3	530.1	552.0	ŕ
BENE OF ROAD VEHICLE HOTORCYCLE	310.0 27.8	327.6 29.4	346.4 31.0	366.2 32.8	387.2 34.7	402.4 36.0	418.2 37.4	434.8 38.9	452.1 40.5	470.3 42.1	489.3 43.8	509.3 45.6	530.1 47.4	552.0 49.4	
SAILOR SEDAN	15.9 172.7	16.8 182.5	17.7 193.0	. 18.8 204.1	19.9 215.8	20.6 224.4	21.4	22.3 242.8	23 1 252 6	24.1 262.9	25.0 273.7	26.0 285.1	27.1 296.9	28.2	
LIGHT BUS BUS	11.4 43.8	12.1 46.3	12.7 49.0	13.5 51.8	14.2 54.7	14.8 56.8	15.4 58.9	16.0 61.1	16.6 63.4	17.3 65.9	18.0 68.4	18.7 71.0	19.4 73.8	20.2 76.7	
TRUCK	38.4	40.6	42.9	45.3	47.9	49.7	51.7	53.7	55.9	58.1	60.5	62.9	65.5	68.2	
FUEL SAVING BENEFIT VEHICLE AT CROSSING VEHICLE AT FLYOVER	14.3 14.3	14.7 14.7	15.2 15.2	15.6 15.6	16.0 16.0	16.2 16.2	16.4 16.4	16.7 16.7	16.9 16.9	17.1 17.1	17.3 17.3	17.6 17.6	17.8 17.8	18.0 18.0	
ACCIDENT AVOIDANCE BENE	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	,2.1	2.1	2,1	L
LAND USE BEHEFYT USAGE OF SPACE FOR COMMERCIAL USE	197.4 197.4 185.8	197,4 197,4 186,8	197.4 197.4 186.8	197.4 197.4 186.8		197.4 197.4 186.8	197.4 197.4 186.8	186.8	197.4 197.4 186.8	197.4 186.8	197.4 197.4 186.8	197.4 197.4 186.8	197.4 197.4 186.8	197.4 197.4 186.8	8
FOR OTHER USE	10.7 286.3	10.7	10.7 319.2	10.7 337.2	10.7 356.3	10.7	10,7 383.5	10.7 398.0	10.7 413.1	10.7 •9 429.0	10.7	10.7	10.7	10.7 499.8	
TIKE SAVING BENEFIT	273.9			324,9	343.9	357.2	371.1	385.6	400.7			450.4	468.5	487.4	
SENE OF ROAD VEHICLE	273.9	289.9 289.9	306.9	324.9	343.9	357.2	371.1	365.6	400.7	416.5	433.1	450.4	468.5	487.4	
FUEL SAVING BENEFIT VEHICLE AT CROSSING VEHICLE AT FLYOVER	0.5 9.3 -8.8	0.5 9.6 -9.0	0.6 9.9 -9.3	0.6 10.1 -9.5	0.6 10.4 -9.8	0.6 10.6 -9.9	0.6 10.7 -10.1	0.6 10.8 -10.2	0.6 11.0 -10.3	0.6 11.1 -10.5	0.6 11.3 -10.6	0.7 11.4 -10.8	0.7 11.6 -10.9	0.7 11.7 -11.0	•
ACCIDENT AVOIDANCE BENE	1.5	1.5	1.5	1.5	1.5	1,5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	,
LAND USE BENEFIT USAGE OF SPACE	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3 10.3	10.3 10.3	10.3 10.3	10.3 10.3	10.3	
FOR CORNERCIAL USE FOR CORNER USE	10.3 6.5 3.8	10.3 6.5 3.0	10.3 6.5 3.6	10.3 6.5 3.8	10.3 6.5 3.8	10.3 6.5 3.6	10.3 6.5 3.8	6.5 3.8	10.3 6.5 3.8	6.5	6.5	6.5 3.8	6.5 3.8	6.5	•

Appendix 11.4.2 Economic Analysis for Track Elevation Project,

State Railway of Thailand (Case-I-2)

						•			( HI	L. BAHY	) PA	GE 1 /F	ART 1	*	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	199\$	1994	1995	1996	1997	1998
INVESTHENT DIFF	15.0	35.8	94.6	36.8	-46.8 ======	101.5	-52.1 ======	0.1	0.1	-0.1	-0.2	110.8		-10.2	
итн	30.2	115.3	299.9	395.8	456.7	446.9	491.0	645.0	75.2	24.1	28.8	377.0	126.5	23.6	
CIVIL NORK	21.3	85.6	237.1	361.2	367.5	332.7	175.1	67.8	71.9	8.05	10.6	118.6	120.8	12.7	
STATION FACILITY SIGNALS & TELECOM LAND ACQ & CORP ROLLING STOCKS	8.9	29.7	35.8 26.1	8.6 26.1	1.3 87.9	4.1 110.0	221.3	1.1 576.1	3.3	3.3	17.1	35.7	5.6	10,9	
-SALVAGE VALUE	15.2	79.6	205.4	359.0	503.4	345.4	543.1	644.9	75.1	24.2	29.0	266.2	16.3	33.6	
RAILWAY CIVIL WORK	15.2	55.6 26.7	67.9 5.3	51.8 16.6	125.5 37.0	205.1	424.1	644.9 67.7	75.1 71.8	24.2 20.9	29.0 10.8	266.2 7.4	16.3 9.2	33.8 20.3	
STATION FACILITY SIGNALS & TELECON LAND ACQ & COMP	8.6	28.9	36.5 26.1	9.1 26.1	0.6 87.9	4.1	66.6 221.0	1.1	3.3	3.3	1.1 17.1	14.0 36.1	7.0	13.6	
ROLLING STOCKS -SALVAGE VALUE ROAD FLYDVER		23.9	137.4	307.2	377.9	139.3	119.1	576.1				208.7			
HAINT/OPE COST DIFF					1.0	2.6	4.2	4.6	4.6	4.7	4.8	4.8	4.9		5.4
	223325	5= <b>6576</b>		3252 <b>22</b>			******				3.1	3.1	3.1		
FACILITY MAINT COST DIFF								3.1 5.6	3.1 5.6	3.1 5.6	5.6	5.6	5.6	5.6	3.6 6.2
CIVIL WORK								10.6 5.0	10.6 5.0	10.6	10.6	10.5	10.6 5.0	10.6 5.0	17.1
KITHOUT STATION FACILITY								0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
MITEOUT								0.5	0.5 0.3	0.5	0.5	0.5	0.5	0.5	0.6 2.0
SIGNALS & TELECON HITH WITHOUT ROLLING STOCKS								13.0 12.7	14.7 14.5						
HITH HITHOUT ROAD FLYOVER		•					•	9.6 9.6 -3.0	9.6 9.6 -3.0	9.6 9.6 -3.0	9.6 9.6 -3.0	12.9 12.9 -3.0	12.9 12.9 -3.0	12.9 -3.0	12.9 12.9 -3.0
HITH HITHOUT								3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
OPERATING COST DIFF	JJJ##				1.0	2.6	4.2	1.5	1.5	1.6	1.6	1.7	1.8	1.8	1.9
PSHL COST DIFF	1.3	1.3	1.3	1.3	0.3 1.3	0.7 1.3	1.1								
MITHOUT	1.3	1.3	1.3	1.3	1.1	0.7 2.0	0.3 3.1	1.5	1.5	1.6	1.6	1.7	1.8	1.8	1.9
FUEL COST DIFF WITHOUT	3.9 3.9	3.9 3.9	3.9 3.9	3.9 3.9	3.9 3.1	3.9	3.9 0.8	1.5	1.5	1.6	1.6	1.7	1.8	1.8	1.9
TOTAL BENEFIT DIFF		993E3EE	5555EB	12.7	-48.5	-115.7	-150.0	171.9	172.1	172.3	172.5	172.7	172.9	173.1	182.7
нтім								358.9	369.1	380.0	391.4	403.6	416.4	430.1	.453.9
TIME SAVING DENEFIT SENE OF RAILWAY FSHOR								174.8	164.9	195.5	206.7	218.6	231.3	244.7	258.9
BEHE OF ROAD VEHICLE								174.8 14.8	164.9 15.7	195.5 16.6	206.7 17.5	218.6 18.5	231.3 19.6	244.7 20.8	258.9
SAMLOR SEDAN							:	9.3 97.5	9.8 103.1	10.4 109.0	11.0 115.3	11.7 122.0	12.3 129.1	13.0 136.6	13.8 144.5
LIGHT BUS								6.7 25.2	7.1 26.7	7.5 28.2	7.9 29.8	8.3 31.5	33.3	. 9.3 35.3	9.9 37.3
TRUCK								21.3	22.5	23.8	25.1	26.6	28.1	29.7	31.4 9.1
FUEL SAVING BENEFIT VEHICLE AT CROSSING VEHICLE AT FLYOVER								7.5 7.5	7.7 7.7	7.9	8.1 8.1	8.4 8.4	8.6	8.8	9.1
ACCIDENT AVOIDANCE BENE								1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5 184.5
LAND USE BENEFIT USAGE OF SPACE FOR CONTERCTAL USE						•		175.1 175.1 170.8	175.1 175.1 170.8		175.1 175.1 170.8	175.1 175.1 170.8	175.1 175.1 170.8	175.1 175.1 170.6	184.5 177.3 5.2
FOR OTHER USE				-12.7	48.5	115.7	150.0	4.3 187.1	4.3	207.7	219.0	4.3 230.9	4.3 243.5	257.0	271.2
AZIIIOOT							:						431.7	244.7	258.9
TIME SAVING BENEFIT BENE OF ROAD VEHICLE			3		51.7 51.7	109.1	140.6 140.6	174.8 174.8	184.9 184.7	195.5 195.5	206.7	218.6	231.3	244.7	258.9
FUEL SAVING BEHEFIT VEHICLE AT CROSSINS VEHICLE AT FLYOVER				~12.7 -12.7	-8.7 -6.6 -2.1	-3.6 1.2 -4.8	-1.6 4.4 -5.9	0.4 7.5 -7.1	0.4 7.7 -7.3	0.5 7.9 ~7.5	0.5 5.1 -7.7	0.5 8.4 -7.9	0.5 8.6 -8.1	8.8 -8.3	9.1 -8.6
ACCIDENT AVOIDANCE BENE					0.3	0.0	1.2	1.5	1.5	1.5	. 1.5	1.5	1.5	1.5	1.5
LAND USE BENEFIT USAGE OF SPACE FOR COMMERCIAL USE FOR OTHER USE					5.2 5.2 4.0 1.2	9.5 9.5 6.5 3.0	9,7 9.7 6.5 3.2	10.3 10.3 6.5 3.8	10.3 10.3 6.5 3.6	10.3 10.3 6.5 3.8	10.3 10.3 6.5 3.8	10.3 10.3 6.5 3.8	10.3 10.3 6.5 3.8	10.3 10.3 6.5 3.0	10.3 10.3 6.5 3.6
HET FLOU EIRR	-15.0 20.417	-35.8 20.417	-94.6 20.417	-24.1 20.417	-2.8 20.417	-219.6 20.417	-102.0 20.417	167.2 20.417	167.3 20.417	167.7 20.417	167.9 20.417	57.1 20.417	57.8 20.417	178.4 20.417	177.3 20.617

				٠									•		
			٠.												
		:							( HI	L. BART	) PA	GE 1 /P	S TRA		
	1999	2000	2001	2002	\$003	2004	2005	2006	2007	2008	2009	5010	2011	2012	2013
								14							-171.1
in the second second second second	252.7		*#######		647,1		=48=643			561.2		=======	177.4	2223222	-1980.2
CIAIT MOSK															
STATION FACILITY SIGNALS A TELECON LAND ACG & COMP		*													
ROLLING STOCKS -SALVAGE VALUE	252.7	•			647.1				80.5	561.2			177.4		576.4 2556.5
итноот	252.7				647.1				80.5	561.2			177.4	2	-1809.1
RAILKAY CIVIL WORK	252.7	:			647.1				80.5	561.2			177.4		-1809.1
STATION FACILITY SIGNALS & TELECOM	-										-				
LAND ACG & COMP ROLLING STOCKS -SALVAGE VALUE	252.7				647.1		:		80.5	561.2		•	177.4		576.4 2385.4
ROAD FLYOVER															
HATHT/OPE COST DIFF	5.5	5.6	5.7	5.7		5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8
FACILITY HAINT COST DIFF	3.6	3.6		3.6		3.6	3.6	3.6	3.6		3.6	3.6	3.6	3.6	3.6
CIVIL WORK	6.2	6.2 17.1	6.2	6.2	6.2	6.2	6.2 17.1	6.2	6.2 17.1	6.2 17.1	6.2 17.1	6.2 17.1	6.2	6.2 17.1	6.2 17.1
SIATION FACILITY	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
HTIN HIJOHT	0. <i>6</i>	0.6	0.8 0.6	8.0 6.0	0.8 0.6	0.6	0.8 0.6	0.8 0.6	0.8 0.6	0.6	0.8	0.8 0.6	0.8 0.6	0.6	0.8 0.6
SIGNALS & TELECON WITH WITHOUT	0.2 14.7 14.5	0.2 14.7 14.5	0.2 14.7 14.5	0.2 14.7 14.5	0.2 14.7 14.5	0.2 14.7 14.5	0.2 14.7 14.5	0.2 14.7 14.5	0.2 14.7 14.5	0.2 14.7 14.5	0.2 14.7 14.5	0.2 14.7 14.5	0.2 14.7 14.5	0.2 14.7 14.5	0.2 14.7 14.5
ROLLING STOCKS	17.1	17.1	17.1	17.1	21.3	21.3	21.3	21.3	21.3	30.8	30.8	30.8	30.8	30.8	40.4
HITHOUT ROAD FLYOVER	17.1 ~3.0	17.1 -3.0	17.1 -3.0		21.3	21.3 -3.0	21.3 -3.0	21.3 -3.0	21.3 -3.0	30.8 -3.0	30.8 -3.0	30.8 -3.0	30.8 -3.0	30.8 -3.0	40.4 -3.0
ИГТН ИТТНООТ	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.6
_OPERATING COST DIFF	2.0	2.0	5.1	3.2	2.3	2.3	2.4	2.5	9.5	2.7	2.8	2.9	3.0	5.1	3.2
PSNL COST DIFF			10 m												
HITHOUT FUEL COST DIFF NITH	2.0 2.0	2.0 2.0	2.1	2.2 2.2	2.3	2.3 2.3	2.4	2.5 2.5	2.6	2.7 2.7	2.8	2.9 2.9	3.0 3.0	3.1 3.1	3.2 3.2
VJORTIN					:				304.5		101.0			10- 0	
TOTAL BENEFIT DIFF	183.0	183.2	183.5	183.7	184.0	164.1	169.3	184.4	255555	184.7	184.8		185.1		
HITH	469.2		502.7	521.0	540.3	553.7		592.4		613.6				685.0	705.0
TIME SAVING BENEFIT BENE OF RAILWAY PONCE	273.9	289.9	306.9	324.9	343.9	357.2	371.1	385.6	400.7	416.5	433.1	450.4	468.5	487.4	507.1
BEHE OF ROAD VEHICLE HOTORCYCLE	273.9 23.2	269.9 24.6	26.1	324.9 27.6	343.9 29.2	357.2	371.1 31.5	385.6 32.7	400.7 33.9	416.5 35.2	433.1 36.6	450.4 36.0	468.5 39.5	487.4 41.1	507.1 42.6
SANLOR SEDAN LIGHT BUS	14.6 152.9 10.4	15.5 161.9 11.0	16.4 171.4 11.7	17.3 181.4 12.3	19.4 192.1 13.1	19.1 199.7 13.6	19.8 207.6 14.1	20.5 215.9 14.6	21.3 224.5 15.2	22.2 233.6 15.8	23.0 243.0 16.4	23.9 252.9 17.1	24.9 263.3 17.7	25.9 274.1 18.5	26.9 285.4 19.2
ENGY BOS	39.5 33.3	41.7 35.2	44.2 37.3	46.7 39.4	49.5 41.7	51.3 43.3	53.2 45.0	55.1 46.7	57.2 48.5	59.3 50.4	61.6 52.4	63.9 54.5	66.3 56.7	68.9 58.9	71.5 61.3
FUEL SAVING BENEFIT VEHICLE AT CROSSING VEHICLE AT FLYOVER	9.3 9.3	9.6 9.6	9.9 9.9	10.1 10.1	10.4 10.4	3.01 3.01	10.7 10.7	10.8 10.8	11.0 11.0	11.1 11.1	11.3	11.4 11.4	11.6 11.6	11.7 11.7	11.9 11.9
ACCIDENT AVOIDANCE BENE	1.5	1,5	. 1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
CARD USE BENEFIX USAGE OF SPACE	184.5 184.5	164.5 184.5		184.5 184.5	184.5 184.5	164.5 164.5 179.3	184.5 164.5	184.5 184.5	184,5	164.5 184.5 179.3	164.5 164.5 179.3	184.5 184.5 179.3	184.5 184.5 179.3	184.5 184.5 179.3	184.5 184.5 179.3
FOR CONHERCIAL USE FOR OTHER USE	179.3 5.2	179.3 5.2	179.3	1.0	5.2	5.2	179,3	179.3	179.3	5.2	5.2	5.2	5.2	5.2 499.8	5.2
	286.3		319.2		356.3	369.6		393.0		4.		8.534	480.9		
CENE OF BOAD VEHICLE	273.9 273.9	269.9	306.9 306.9	324.9 324.9	343.9	357.2 357.2	371.1 371.1	385.6 385.6	400.7 400.7	416.5 416.5	433.1 433.1	450.4 450.4	468.5 468.5	487.4 487.4	507.1 507.1
FUEL SAVING BENEFIT VEHICLE AT CROSSING VEHICLE AT FLYOVER	0.5 9.3 -8.8	0.5 9.6 9.0	0.6 9.9 -9.3	0.6 10.1 -9.5	0.6 10.4 -9.8	0.6 10.6 -9.9	0.6 10.7 -10.1	0.6 10.8 -10.2	0.6 11.0 -10.3	0.6 11.1 -10.5	0.6 11.3 ~10.6	0.7 11.4 -10.8	0.7 11.6 -10.9	0.7 11.7 -11.0	0.7 11.9 -11.2
ACCIDENT AVOIDANCE BENE	1.5	1.5	1.5	1.5	1.5	1.5	1,5	1.5	1.5	1.5	1.5	1,5	1.5	1.5	1.5
LAND USE BEHEFIT USAGE OF SPACE	10.3 10.3		10.3		10.3	10.3		10.3	10.3 10.3	10.3	10.3	10.3 10.3 6.5	10.3 10.3 6.5	10.3 10.3 6.5	10.3 10.3 6.5
- FOR COMERCIAL USE FOR OTHER USE	6.5 3.8	6.5 3.8	6.5 3.8	6.5 3.6	6.5 3.0	6.5 3.8	6.5 3.8	6.5 3.8	6.5 3.8	6.5 3.8	6.5 3.8	3.8	3.8	3.8	3.8
				<u>.</u>											
HET FLOW EIRR	177.5 20.417	177.6 20.417	177.8 20.417		178.2 20.417	178.2 20.417	178.3 20.417	178.3 20.417	178.4 20.417	178.4 20.417	178.4 20.417	178.5 20.417	178.5 20.417	178.5 20.417	349.7 20.417

Appendix 11.4.3 Economic Analysis for Track Elevation Project,

State Railway of Thailand (Case-II-3)

(NIL. BAHT) PAGE 1 / PART 1

	-								( 111	L. BAHY	) PA	GE 1 /F	ART 1		
·	1984	1985	1986	1987	1988	1989	1990	1991	1972	1993	1994	1995	1996	1997	1998
INVESTMENT DIFF	19.6	45.6	164.9	137.0	44.1	155.5	30.2	110.9	107.6	-1.4 ======	17.5	-9.2	-8.3	10.5	222222
WITH	36.6	132.7	436.6	573.2	652.9	556.5	502.6	907.5	120.2	28.0	31.3	251.0	20.1	24.3	
CIAIF MOSK	27.9	102.6	358.8	584.1	529.5	426.4	141.8	136.3	120.2	24.6	23.3	10.1	14.4	13.4	~
STATION FACILITY					28.7	11.6	113.3	15.4		3.3	1.5	16.1			
SIGNALS & TELECON LAND ACQ & COMP	6.7	29.9	39.9	9.1 39.9	94.7	118.5	247.4	34.9		3.3	8.0		5.6	10.9	
ROLLING STOCKS -SALVAGE VALUE								721.0				224.8		,	
KITHOUT	16.9	67.1	271.7	436.2	608.9	401.0	532.8	796.6	12.6	29.3	13.8	260.2	28.4	13.8	
RATENAY	16.9	5.88	134.3	129.0	231.0	261.7	413.7	796.6	12.6	29.3	13.8	2.035	28.4	13.8	
CIVIL WORK STATION FACILITY	8.3	33.4	57.7	79.9	108.5 28.7	122.9	94.1 75.3	21.4 15.4	12.6	0.65	5.7	16.7	21.2		
SIGNALS & TELECON	8.6	29.7	36.7	9.1	93.8	115.9	244.3	39.0		3.3	8.0	18.7	7.2	15.8	
LAND ACQ & COMP ROLLING STOCKS			39.9	39.9			•	721.0				224.8			
-SALVAGE VALUE ROAD FLYOVER		23.9	137.4	307.2	377.9	139.3	119.1			. :					
•															
MAINT/OPE COST DIFF		=====	=222222	=======	1.1	2.8	4.5	4.2	4.2	4.2		4.2	4.2	5.0	5.0
FACILITY HAINT COST DIFF								4.6	4.8	4.8	4.8	1.6	4.8	5.7	5.7
CIVIL KORK							•	7.0 16.6	7.0 16.6	7.0 16.6	7.0 16.6	7.0 16.6	7.0 16.6	8.0 20.7	5.0 20.7
HITH KITHOUT						•		9.5	9.5	9.5	9.5	9.5	9.5	12.8	12.8
STATION FACILITY WITH								0.2 1.0	0.2 1.0	1.0	1.0	1.0	1.0	1.1	1.1
MITHOUT. SIGNALS & TELECOH								0.9 0.6	0.9	0.9 0.6	0.6	0.9	0.9 0.6	1.0 0.5	1.0 0.5
HITH HITHOUT								14.1 13.5	14.1 13.5	14.1 13.5	14.1 13.5	14.1	14.1 13.5	15.8 15.3	15.8 15.3
ROLLING STOCKS								12.1	12.1	12.1	12.1	15.7	15.7	15.7	15.7
HITHOUT								12.1	12.1	12.1	12.1 -3.0	15.7 -3.0	15.7 -3.0	15.7 -3.0	15.7 -3.0
ROAD FLYOVER RITH		-						3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
WITHOUT							4 +		-0.6	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7
_OPERATING COST DIFF					1.1	2.8	4.5	-0.6					-0.7		
PSHL COST DIFF HITH	1.8	1.8	1.8	1.8	0.3 1.8	. 0,7 1,8	1.1	-0.5	-0.5	-0.5	-0.5	-0.5	-4.5	-0.5	-0.5
HITHOUT FUEL COST DIFF	1.8	1.8	1.8	1.8	1.6	1,2 2,1	0.8 3.4	0.5 -0.1							
HITH HITHOUT	6.0 6.0	6.0 6.0	6.0 6.0	6.0 6.0	6.0 5.1	6.0	6.0 2.6	1.6	1 6 1 8	1.7 1.6	1.8 1.9	1.8	1.9	2.0	2.0 2.2
TOTAL BENEFIT DIFF				12.7		-126.6		227.8	229.7	232.0	234.0	236.2	236.5	250.3	251.6
torne benefit off	=======	******	2==2000	E25000	222222		======	======	******	******	=582552	**=:==	C==3=2=	222222	******
нтія								438.0	451.3	465.6	480.3	496.0	512.6	539.5	556.9
TIME SAVING BENEFIT								236.4	249.3	263.3	277.6	293.0	309.2	326.4	393.4 16.0
BENE OF RAILWAY PSHGR BENE OF ROAD VEHICLE								13.0 223.3	13.5 235.8	14.3 249.0	14.7 262.9	277.7	15.9 293.3	309.9	327.4
HOTORCYCLE SANLOR								20.0 11.4	21.1 12.1	22.3 12.8	23.5 13.5	24.8	26.2 15.1	27.7 15.9	29.3 16.8
SEDAN LIGHT BUS								124.2 8.2	131.2	138.5 9.2	146.3 9.7	154.5 10.2	163.2 10.8	172.4 11.4	162.2 12.1
SUS TRUCK								31.8 27.7	33.5 29.2	35.4 30.8	37.4 32.5	39.5	41.7 36.3	44.1 38.3	46.6
FUEL SAVING DENEFIT								11.5	11.8	12.2	12.5	12.8	13,2	13.6	14.0
VEHICLE AT CROSSING VEHICLE AT FLYOVER						-		11.5	11.8		12.5		13.2	13.6	14.0
ACCIDENT AVOIDANCE BENE		·				•		2.1	2.1	•	2.1	2.1	2.1	2.1	2.1
LAND USE BENEFIT USAGE OF SPACE								188.0 188.0	188.0 188.0	188.0 188.0	188.0 188.0	168.0 168.0	165.0 183.0	197.4	197.4 197.4
FOR CONSERCIAL USE FOR OTHER USE								178.3	178.3 9.8	178.3 9.8	178.3 9.8	178.3 9.8	178.3 9.8	186.8 10.7	185.8 10.7
NITHOUT				-12.7	53.1	. 126.6	166.2		221.6		246.3	259.8	274.1	289.2	305.3
* * * *															
TIME SAVING BENEFIT BENE OF ROAD VEHICLE					56.4 56.4	119.9 119.9	156.9 156.9	198.0 198.0		221.4 221.4		247.5 247.5	261.8 261.8	276.9 276.9	293.0 293.0
FUEL SAVING BENEFIT		•		-12.7	-8.7	-3.6	-1.6 4.4	0.4	0.4	0.5	0.5 8.1	0.5 8.4	0.5	0.5 8.8	0.5 9.1
VEHICLE AT CROSSING VEHICLE AT FLYOVER				-12.7	-6.6 -2.1	1.2 -4.8	-5.9	7.5 -7.1	-7.3	-7.5	-7.7	-7.9	-6,1	-8.3	-3.6
ACCIDENT AVOIDANCE BENE					0.3	0.8	1.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
LAND USE BEHEFIT USAGE OF SPACE					5.2 5.2	9.5	9.7	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
FOR COPRIERCIAL USE					4.0 1.2	6.5 3.0	6.5 3.2	6.5 3.8	6.5 3.8	6.5 3.8	6.5 3.6	6.5 3.6	6.5 3.8	6.5 3.8	6.5 3.8
corner with						,									
			•										. •		
NET FLOW EIRR	-19.6 16.334	-45.6 16.334	-164.9 16.334	-124.3 16.334	-98.3 16.334	-284.8 16.334	-140.5 16.334	112.7 16.334	117.9 16.334	229.1 16.334	212.3 16.334	241.2 16.334	242.6 16.334	234.8 16.334	246.6 16.334

	1999	2000	2001	Soos	2003	2004	2005	2006	2007	8008	2009	2010	2011	sors	5012
INVESTMENT DIFF															-318.0
нтн	268.8	******	******	205555	808.1	222232		-	96.6	561.8	252252	2052422	193.5		-2235.0
CTYLL WORK STATION FACILITY SIGNALS & TELECON LAND ACO A' COMP ROLLING STOCKS -SALVAGE VALUE	268.8				808.1				96.6	561.2			193.5	-4	576.4 2811.4
птисот	268.8	:			808.1				96.6	561.2			193.5		-1917.0
RAILWAY CIVIL WORK STAYION FACILITY SIGNALS & TELECON LAND ACQ & COMP ROLLING STOCKS -SALVAGE VALUE	268.8				808.1			:	96.6	561.2			193.5		576.4 2493.4
ROAD FLYOVER															
MAINT/OPE COST DIFF	5.0 ======	5.0 ******	5.0 ======	5.0 ******	5.0 ======	5.0 	5.0	5.0	5.0	5.0	5.0 ******	5.0	5.0 *******	5.0	5.0 ******
FACILITY HAINT COST DIFF		5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
CIVIL WORK  WITH  NITHOUT  STATION FACILITY  HITH  NITHOUT  SIGNALS & TELECOM  HITH  HITHOUT	8.0 20.7 12.8 0.2 1.1 1.0 0.5 15.8	8.0 20.7 12.8 0.2 1.1 1.0 0.5 15.8	8.0 20.7 12.8 0.2 1.1 1.0 0.5 15.8	8.0 20.7 12.8 0.2 1.1 1.0 0.5 15.8	8.0 20.7 12.6 0.2 1.1 1.0 0.5 15.8	8.0 20.7 12.8 0.2 1.1 1.0 0.5 15.8	8.0 20.7 12.8 0.2 1.1 1.0 0.5 15.8	8.0 20.7 12.8 0.2 1.1 1.0 0.5 15.8	8.0 20.7 12.8 0.2 1.1 1.0 0.5 15.8	8.0 20.7 12.8 0.2 1.1 1.0 0.5 15.8 15.3	8.0 20.7 12.8 0.2 1.1 1.0 0.5 15.8	8.0 20.7 12.8 0.2 1.1 1.0 0.5 15.8 15.3	8.0 20.7 12.8 0.2 1.1 1.0 0.5 15.8	8.0 20.7 12.8 0.2 1.1 1.0 0.5 15.6	8.0 20.7 12.8 0.2 1.1 1.0 0.5 15.8
ROLLING STOCKS HITH HITHOUT ROAD FLYOVER	20.2 20.2 -3.0	20.2 20.2 -3.0	20.2	20.2 20.2 -3.0	24.6 24.6 -3.0	24.6 24.6 -3.0	24.6 24.6 -3.0	24.6 24.6 -3.0	24.6 24.6 -3.0	34.1 34.1 -3.0	34.1 34.1 -3.0	34.1 34.1 -3.0	34.1 34.1 -3.0	34.1 34.1 -3.0	43.8 43.8 -3.0
HITH HITHOUT	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
_OPERATING COST DIFF	-0.7	-0.7	~0.7	~0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	~0.7	-0.7
PSHL COST DIFF	-0.5	-0.5	-0.5	-0.5	~0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
HITHOUT FUEL COST DIFF HITH HITHOUT	2.0 1.5 2.1 2.5	0.5 -0.1 2.2 2.3	0.5 -0.1 2.3 2.4	0.5 -0.1 2.3 2.5	0.5 -0.1 2.4 2.6	0.5 -0.2 2.5 2.7	0.5 -0.2 2.6 -2.8	0.5 -0.2 2.7 2.8	0.5 0.2 2.8 2.9	0.5 -0.2 2.9 3.0	0.5 -0.2 3.0 3.1	0.5 -0.2 3.1 3.2	0.5 -0.2 3.2 3.4	0.5 -0.2 3.3 3.5	0.5 -0.2 3.4 3.6
TOTAL BENEFIT DIFF	254.8	256.9	259.1	261.4		267.1	269.8		275.3	278.3	281.6	284.8	288.3 =======	292.0 ======	295.8
HITH	577.1	597.2	618.5	641.0	665.8	682.2	699.4	717.2	735.8	755.3	775.7	796.6	818.9	642.0	866.0
THE SAVING BENEFIT BEHE OF RAILWAY PSNOR BENE OF ROAD VEHICLE HOTORCYCLE SAHLOR SEDAN LIGHT BUS BUS TRUCK	363.2 17.3 346.9 17.8 192.6 12.8 49.2 42.8	382.9 17.3 365.7 32.7 19.8 203.5 13.5 52.0 45.2	403.8 17.3 385.5 34.5 19.9 215.1 14.3 54.9	425.9 17.3 408.6 36.5 21.1 227.5 15.1 56.1 50.5	450.3 18.3 432.0 38.6 22.3 240.5 15.9 61.4 53.3	466.5 18.6 647.8 40.0 23.1 249.5 16.5 63.5 55.3	483.5 19.2 484.3 41.4 23.9 258.9 17.1 65.7 57.3	501.1 19.5 481.5 43.0 24.8 268.6 17.7 68.0 59.4	519.4 19.9 499.5 44.5 25.7 278.9 18.4 70.4 61.6	538.7 20.3 518.3 46.2 26.6 289.5 19.1 72.9 63.9	558.8 20.9 537.9 47.9 27.6 300.7 19.8 75.5 66.4	579.7 21.3 558.4 49.8 28.7 312.3 20.5 78.3 68.9	601.6 21.7 579.8 51.7 29.7 324.5 21.3 61.1 71.5	624.5 22.3 602.2 53.7 30.9 337.2 22.1 84.1 74.3	648.3 22.7 625.6 55.7 32.0 350.5 23.0 87.2 77.2
FUEL SAVING BENEFIT VERICLE AT CROSSING VEHICLE AT FLYOVER	14.3 14.3	14.7 14.7	15.2 15.2	15.6 15.6	16.0 16.0	16.2 16.2	16.4 16.4	16.7 16.7	16.9 16.9	17.1 17.1	17.3 17.3	17.6 17.6	17.8 17.8	18.0 18.0	18.3 18.3
ACCIDENT AVOIDANCE BEHE	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
LAMO USE BENEFIT USAGE OF SPACE FOR COMMERCIAL USE FOR OTHER USE	197.4 197.4 186.8 10.7	197.4 197.4 186.8 10.7	197.4 197.4 186.8 10.7	197.4 197.4 166.8 10.7	197.4 197.4 186.8 10.7	197.4 197.4 186.8 10.7	197.4 197.4 186.8 10.7	197.4 197.4 186.8 10.7	197.4 197.4 166.8 10.7	197.4 197.4 186.8 10.7	197.4 197.4 186.8 10.7	197.4 197.4 186.8 10.7	197.4 197.4 186.8 10.7	197.4 197.4 166.8 10.7	197.4 197.4 186.8 10.7
итност	322.3	340.3	359.4	379.7	401.1	415.1	429.6	444.7	460.5	477.0	494.1	512.0	530.6	550.0	570.3
TIHE SAVING BENEFIT BENE OF ROAD VEHICLE	309.9 309.9	328.0 328.0	347.0 347.0	367.3 367.3	388.7 388.7	402.7 402.7	417.2 417.2	432.3 432.3	448.1 448.1	464.5 464.5	481.7 481.7	499.5 499.5	518.1 518.1	537.6 537.6	557.8 557.8
FUEL SAVING BENEFIT VEHICLE AT CROSSING VEHICLE AT FLYOVER	0.5 9,3 -8,8	0.5 9.6 -9.0	0.6 9.9 -9.3	0.6 10.1 -9.5	0.6 10.4 -9.8	0.6 10.6 -9.9	0.6 10.7 -10.1	0.6 10.8 -10.2	0.6 11.0 -10.3	0.6 11.1 -10.5	0.6 11.3 -10.6	0.7 11.4 -10.8	0.7 11.6 -10.9	0.7 11.7 11.0	0.7 11.9 11.2
ACCIDENT AVOIDANCE BENE	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.9	1.5	1.5
LAND USE BENEFIT  USAGE OF SPACE  FOR CONMERCIAL USE FOR OTHER USE	10.3 10.3 6.5 3.8	10.3 10.3 6.5 3.8	10.3 10.3 6.5 3.8	10.3 10.3 6.5 3.6	10.3 10.3 6.5 3.8	10.3 10.5 6.5 3.8									
HET FLOSE EIRR	249.8 16.334	251.9 16.334	254.1 16.334	256.4 16.334	259.7 16.334	262.1 16.334	264.8 16.334	267.5 16.334	270.3 16.334	273.3 16.334	276.6 16.334	279.8 16.334	283.3 16.334	287.0 16.334	608.8 16.334

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Appendix 11.4.4 Economic Analysis for Track Elevation Project,

State Railway of Thailand (Case-II-2)

(NEL BANT) PAGE 1 / PART

		٤,	ace	Ναιιν	vay c	/1 10	allar	iu (c		1 1 2 , L. DAHT		SE 1 /P	ART 1		
	1984	1985	1986	1987	1986	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
INVESTMENT DIFF	16.0	32.3	94.3		-48.4	79.7	-56.1	114.8	115.7	7.6	-0.5	-3.6	-1.4	-2.7	
HETH	32.9	119.4	366.0	472.9	560.4	480.8	476.7	911.5	128.3	37.0	13.8	256.6	27.0	11.1	
CIVIL WORK STATION FACILITY	24.1	88.9	289.3	4.454	438.6 26.7	356.5 11.6	123.3 113.3	136.1 15.4	128.3	33.6	5.7	16.7	21.3		
SIGNALS & TELECOH LAND ACQ & COMP	8.9	30.5	36.8 39.9	39.9	93.1	112.7	240.2	39.1		3.3	7.5	15.1	5.7	11.1	
ROLLING STOCKS -SALVAGE VALUE			1 - 1					721.0	** .			8.455			
HITHOUT	16.9	87.1	271.7	436.2	6.809	401.0	532.8	796.6	18.6	29.3	13.6	260.2	28.4	13.8	
RAILWAY CIVIL WORK	16.9	63.2 33.4	134.3 57.7	129.0	231.0 108.5	261.7	413.7 94.1	796.6 21.4	12.6 12.6	29.3	13.8 5.7	260.2 16.7	28.4	13.8	
STÁTION FACILITY SIGNALS A TELECOM	8.6	29.7	36.7	9.1	28.7 93.8	22.9 115.9	75.3 244.3	15.4 39.0		3.3	8.0	18.7	7.2	13.8	
LAND ACQ & COMP ROLLING STOCKS -SALVAGE VALUE			39.9	39.9				721.0			*	224.8			
ROAD FLYOVER		23.9	137.4	307.2	377.9	139.3	119.1		:		:				
HAINT/OPE COST DIFF	=======		=======			2.5	4.5		3.8		3.9	4.0	4.0	5.5	5.6
FACILITY HAIRT COST DIFF							:	2.1	2.1	2.1	2.1	2.1	2.1	3.5	3.5
CIVIL WORK						;		4.8 14.4	4.8 14.4	4.6 14.4	14.4	4.8 14.4	4.8 14.4	6.4 19.2	6.4 19.2
HITHOUT STATION FACILITY				•			•	9.5 0.2	9.5	9.5 0.2	9.5 0.2	9.5 0.2	9.5	12.8	12.8 0.2
HITH HITHOUT SIGNALS & TELECON								1.0 0.9 0.1	1.0 0.9 0.1	1.0 0.9 0.1	1.0 0.9	1.0 0.9 0.1	1.0 0.9 0.1	1.1	1.1
NITH HITHOUT								13.6 13.5	13.6 13.5	13.6 13.5	13.6 13.5	13.6 13.5	13.6	15.2 15.3	15.2 15.3
ROLLING STOCKS								12.1	12.1		12-1	15.7	15.7	15.7	15.7
HITHOUT ROAD FLYOVER								12.1 -3.0	12.1 -3.0	12.1 -3.0	12.1 -3.0	15.7 -3.0	15.7 -3.0	15.7 -3.0	15.7 -3.0
HILHOOL HILH			. *					3.0	3.0	3.0	3.0	3.0	3.0	.3.0	3.0
OPERATING COST DIFF					1.1	8.8	4.5	1.6	1.6	1.7	1.8	1-8	1.9	2.0	2.0
PSUL COST DIFF	1.3	1.3	1.3	1.3	0.3 1.3	0.7	1.1	:			A				-
WITHOUT FUEL COST DIFF	1.3	1.3	1.3	1.3	1.1	0.7 2.1	0.3 3.4	1.6	1.6	1.7		1.8	1.9	2.0	2.0
HITH HITHOUT	4.3 4.3	4.3	4.3 4.3	4.3	4.3 3.4	2.1	4.3 0.9	1.6	1.6	1.7	1.6	1.8	1.9	2.0	2.0
TOTAL BENEFIT DIFF		======		12.7	-53.1	-126.6 =======	-166.2	184.9	185.6	186.6	187.2	186.0	188.8	199.1	198.7
нттн								395.2	407.2	420.2	433.5	447.8	462.9	488.3	504.0
TIME SAVING BENEFIT BENE OF RAILWAY FSNGR								211.1 13.0	222.9	235.7	248.6	262.8. 15.3	277.7 15.9	293.5 16.6	309.0 16.0
BENE OF ROAD VEHICLE								198.0 16.8	269.4 17.8	221.4 18.8	234.1 19.9	247.5 21.0	8.165 22.3	276.9 23.5	293.0 24.9
SAHLOR SEDAN								10.6	11.2	11.8	12.5	13.2	14.0 145.9 10.0	14.8 154.4 10.5	15.7 163.3 11.1
EIGHT BUS BUS								7.6 28.7 24.1	30.3 25.5	8.4 32.1 26.9	8.9 33.9 20.5	9.4 35.8 39.1	37.9 31.8	40.I 33.7	42.4 35.6
TRUCK FUEL SAVING BENEFIT							•	7.5	7.7	7.9	8.1	8.4	8.6	. 8.8	9.1
VEHICLE AT CROSSING VEHICLE AT FLYOVER								7.5	7.7	7.9	6.1	8.4	0.6	8.8	9,1
ACCIDENT AVOIDANCE BENE					. 11			1.5	1.5	1.5	1.5	1-5	1.5	1.5	1.5
LAND USE BENEFIT USAGE OF SPACE FOR COMMERCIAL USE								175.1 175.1 170.8	175.1 175.1 170.8	175.1 175.1 170.8		175.1 175.1 170.8	175.1 175.1 170.8	184.5 184.5 179.3	164.5 179.3
FOR OTHER USE								4.3	4.3	4.3	4.3	4.3	4.3	5.2	5.2 305.3
RITHOUT	:			-12.7	53,1	126.6	166.2	210.3	221.6	233.6	246.3	259.8	274-1	289.2	293.0
TIME SAVING BEHEFIT BENE OF ROAD VEHICLE					56.4 56.4	119.9 119.9	156.9 156.9	198.0 198.0	209.4 209.4	221.4	234.1 234.1	247.5 247.5	261.8	276.9 276.9	293.0
FUEL SAVING BEHEFIT VEHICLE AT CROSSING VEHICLE AT FLYGVER			•	-12.7 -12.7	-8.7 -6.6 -2.1	-3.6 1.2 -4.8	-1.6 4,4 -5.9	0.4 7.5 ~7.1	0.4 7.7 -7.3	0.5 7.9 -7.5	0.5 8.1 -7.7	0.5 a.4 -7.9	0.5 8.6 -8.1	0.5 8.8 -8.3	9.1
ACCIDENT AVOIDANCE BENE					0.3	0.8	1.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
LAND USE DEHEFIT					5.2 5.2	9.5	9.7 9.7	10.3 10.3	10.3 10.3	10.3	10.3 10.3	10.3 10.3	10.3	10.3 10.3	10.3
USAGE OF SPACE FOR COMMERCIAL USE FOR OTHER USE					4.0 1.2	6.5 3.0	6.5 3.2	6.5 3.6	6.5 3.8	6.5 3.8	6.5 3.6	6.5 3.0	6.5 3.8	6.5 3.8	6.5 3.8
					:			i.,			1				
HET FLOW EIRR	-16.0 20.092	-32.3 20.092	-94,3 20.092	-24.0 20.092	-5.8 20.092	-207.1 20.092	-114.6 20.092	66.4 20.092	66.1 20.092	175.1 20.092	183.9 20.092	187.6 20.092	186.2 20.092	196.3 20.092	193,1 20.092

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									V	٠.					
			•		•		÷	**	· CM	IL. BAHT	) PA	1GE 1 /	PART 2	-	
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
THATSTHENT DIELE	======	*****	222222	******	*****	###====	2422024	35548 <sup>3</sup> 35	EZ####	******	<b>6225</b> 722	5222555	*****	*****	-161.3
gITH	268.8				1.803				96.6	561.2			193.5		-2078.4
CIVIL WORK STATION FACILITY													*	:	
SIGNALS & TELECON LAND ACG & COMP ROLLING STOCKS	268.8				808.1				96.6	561.2			193.5		576.4
SVLAVE AVINE	268.8				808.1				96.6	561.2			193.5		-1917.0
RAYLKAY CIVIL WORK	268.8				1.803		••••		95.6	261.5			193.5	***************************************	-1917.0
STATION FACILITY SIGNALS & TELECON LAND ACR & COMP			-		: : •	•									
ROLLING STOCKS -SALVAGE VALUE ROAD FLYOVER	266.8			* .	808.1				96.6	561.2			193.5	4	576.4 2493.4
MAINT/OPE COST DIFF	5.7	5.7	5.8	5.9	6.0	6.1	6.2	6.2	.6.3	6.4	6.5	6.6	6.7	6.9	7.0
FACILITY HAINT COST DIFF	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
CIVIL WORK	6.4 19.2	4.6 19.2	6.4 19.2	6.4 19.2	6.4 19.2	19.2	6.4	6.4 19.2	6-4 19,2	6.4 19.2	6.4 19.2	6.4 19.2	6.4 19.2	6.4 19.2	6.4 19.2
HITHOUT STATION FACILITY RITH	12.8 0.2 1.1	12,8 0,2 1,1	12.8 0.2 1.1	12.6 0.2 1.1	3.2 3.2 1.1	12.8 0.2 1.1	12.8 0.2 1.1								
HITHOUT SIGNALS & YELECOM HITH	1.0 15.2	1.0	1.0	1.0 15.2	1.0	1.0 15.2	1.0	1.0 15.2	1.0 15.2	1.0 15.2	1.0	1.0	1.0	1.0	1.0 15.2
RITHOUT ROLLING STOCKS.	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
HITH: RITHOUT ROAD FLYOVER	20.2 20.2 -3.0	20.2 20.2 -3.0	20.2 20.2 -3.0	20.2	24.6 -24.6 -3.0	24.6 24.6 -3.0	24.6 24.6 -3.0	24.6 24.6 -3.0	24.6 24.6 -3.0	34.1 34.1 -3.0	34.1 34.1 -3.0	34.1 34.1 -3.0	34.1 34.1 -3.0	34.1 34.1 -3.0	43.8 43.8 -3.0
MITH HITHOUT	3.0	3.0	3.0	3,8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
_OPERATING COST DIFF	2.1	2.2	2.3	2.3	2.4	2.5	2,-6	2.7	2.8	2.9	3.0	3.1	3.2	3,3	3,4
PSEL COST DIFF HITH HITHOUT FUEL COST DIFF HITH	2.1 2.1	2.2 2.2	2.3 2.3	2.3 2.3	2.4 2.4	2.5 2.5	2.6 2.6	2.7 2.7	2.8 2.8	2.9 2.9	3.0 3.0	3.1 3.1	3.2 3.2	3.3 3.3	3.4 3.4
HITHOUT TOTAL BENEFIT DIFF	200.2		200.8		202.3	202.8	203.4	203.9	204.4	205.0	205.7		206.8	207.5	208.1
нтн	522.5	540.8	560.2	580.7	4.603	617.8	633.0	648.7	664.9	682.9	699.8	718.2	737.4	757.5	778.3
TIME SAVING BENEFIT	327.2	345.2	369.4	364.6	407.0	421.3	436.4	451.9	468.0	484.9	502.6	520.8	539.9	559.9	580.5
SENE OF RAILHAY PSNGR SCHE OF ROAD VEHICLE HOTORCYCLE	17.3	17.3 328.0 27.9	17.3 347.0 29.5	17.3 367.3 31.3	18.3	18.6 402.7 34.3	19.2 417.2 35.5	19.5 432.3 36.7	19.9 448.1 38.0	20.3 454.5 39.4	20.9 481.7 40.8	21.3 499.5 42.3	21.7 518.1 43.8	22.3 537.6 45.4	22.7 557.8 47.1
54HLOR SEDAH	16.6 172.8	17.5 192.9	, 18.5 193.5	19.6 204.8	20.8 216.8	21.5 224.8	22.3 233.1	23.1 241.7	23.9 250.7	24.8 260.2	25.7 270.0	26.6 280.2	27.6 270.8	28.6 302.0	. 29.6 313.6
ABRICK   Sept.   Sept.	11.8 44.8 37.6	12.5 47.4 39.8	13.2 50.1 42.1	13.9 53.0° 44.6	14.7 56.1 47.2	15.3 58.0 48.9	15.8 60.0 50.6	16.4 62.0 52.4	17.0 64.2 54.3	17.6 66.4 56.3	18.2 68.7 58.3	18.9 71.1 60.5	19.6 73.6 62.7	20.4 76.2 65.0	21.1 78.9 67.5
	9.3 9.3	9.6 9.6	9,9 9.9	10.1 10.1	10.4 10.4	10.6 10.6	10.7	10.8 10.8	11.0 11.0	11.1	11.3 11.3	11.4 11.4	11.6 11.6	11.7 11.7	11.9
ACCIDENT AVOIDANCE BENE	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	5,000	1.5	1.5
LAMO USE BENEFIT USAGE OF SPACE FOR COMMERCIAL USE FOR OTHER USE	164.5 184.5 179.3 5.2	184.5 184.5 179.3 5.2	164.5 184.5 179.3 5.2	184.5 164.5 179.3 5,2	184.5 184.5 179.3 5.2	184.5 184.5 179.3 5.2	184.5 184.5 179.3 5.2	184.5 184.5 179.3 5.2							
ятнои	322.3	340.3		379.7			429.6	444.7	460.5	477.0		512.0	530.6		570.3
TIME SAVING BENEFIT BENE OF ROAD VEHICLE	309.9 309.9	328.0 328.0	347.0 347.0	367.3 367.3	388.7 388.7	402.7 402.7	417.2 417.2	432.3 432.3	448.1 448.1	464.5 464.5	481.7 481.7	499.5 499.5	518.1 518.1	537.6 537.6	557.8 557.8
FUEL SAVING BENEFIT VEHICLE AT CROSSING VEHICLE AT FLYGVER	0.5 9.3 -8.8	0.5 9.6 -9.0	0.6 9.9 -9.3	0.6 10.1 -9.5	0.6 10.4 -9.8	0.6 10.6 -9.9	0.6 10.7 -10.1	0.6 10.8 -10.2	0.5 11.0 -10.3	0.6 11.1 -10.5	0.6 11.3 -10.6	0.7 11.4 -10.8	0.7 11.6 -10.9	0.7 11.7 -11.0	
ACCIDENT AVOIDANCE BENE	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
LAND USE BENEFIT  USAGE OF SPACE  FOR CONNERCIAL USE FOR OTHER USE	10.3 10.3 6.5 3.8	10.3 10.3 6.5 3.8	10.3 10.3 6.5 3.8	10,3 10.3 6.5 3.8	10.3 10.3 6.5 3.6	10.3 10.3 6.5 3.8	10.3 10.3 6.5 3.8	10.3 10.3 6.5 3.8	10.3 10.3 6.5 3.8	10.3 10.3 6.5 3.8	10.3 10.3 6.5 3.0	10.3 10.3 6.5 3.6	10.3 10.3 6.5 3.8	10.3 10.3 6.5 3.8	10.3 10.3 6.5 3.8
HET FLOW EIRR	194.6 20.092	194.7 20.092	195.0 20.092	195.2 20.092	196.3 20.092	196.7 20.092	197.3 20.092	197.7 20.092	198.1 20.092	198.6 20.092	199.2	199.6 20.092	200.1 20.092	200.7 20.092	362.4 20.092
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Appendix 11.4.5 Economic Analysis for Track Elevation Project,

State Railway of Thailand (Case-I-3)

( HIL. BARY )

PAGE 1 /PART 1

1987 1988 1989 1991 1985 1986 1984 1996 1997 73.6 INVESTHENT DIFF 18.4 302.1 404.6 421.7 313.6 88.5 5.0 -0.1 -0.2 -0.7 110.6 ·10.4 0.4 512.6 24.0 28.3 376.8 HITH 33.6 129.2 370.0 496.4 519.7 127.5 23.4 CIVIL NORK
STATION FACILITY
SIGNALS & TELECON
LAND ACQ & COMP
ROLLING STOCKS
-SALVAGE VALUE 71.7 458.4 402.7 192.0 67.7 20.7 10.6 118,9 25.0 100.1 306.5 460.8 121,1 12.7 1.2 9.6 28.1 35.2 37.5 26.1 112.8 225.0 3.3 3.3 8.7 6.5 10.7 0.4 208.7 576.1 15.2 HITHOUT 55.6 67.9 51.8 125.5 206.1 424.1 644.9 75.1 24.2 29.0 266.2 16.3 33.6 RAILMAY
CIVIL NORK
STATION FACILITY
SIGNALS & TELECON
LAND ACQ & COMP
ROLLING STOCKS
-SALVAGE VALUE
ROLL EN COMP 424.1 136.5 66.6 29.0 10.8 206.1 644.9 75.1 71.8 24.2 29.9 67.9 5.3 51.8 16.6 125.5 37.0 15.2 55.6 26.7 26.3 33.8 6.6 0.6 87.9 4.1 1.1 1.1 17.1 14.0 36.1 36.5 26.1 8.6 28.9 109.8 221.0 3.3 3.3 7. D 23.6 26.1 576.1 208.7 ROAD FLYCVER 2.5 2.4 MAINT/OPE COST DIFF 2.2 8.7 FACILITY HAINT COST DIFF 8.7 8.7 8.7 8.7 8.7 7.8 12.8 5.0 0.2 0.7 7.8 12.8 5.0 0.2 0.7 7.8 12.8 5.0 0.2 0.7 7.8 12.8 5.0 0.2 0.7 7.8 8,3 19,3 11.0 CIVIL NORK 7.8 7.8 12.8 5.0 0.2 0.7 7.8 12.8 5.0 0.2 0.7 0.5 NITH TUONTIN 5.0 0.2 0.7 0.5 NITHOUT STATION FACILITY HITH HITHOUT SIGNALS & TELECON HITH HITHOUT ROLLING STOCKS HITM 0.2 0.5 0.5 0.6 13.4 12.7 0.6 0.6 15.1 14.5 0.5 0.6 0.6 0.6 13.4 13.4 9.6 9.6 12.9 12.9 12.9 12.9 12.9 utm 9.6 12.9 12.9 HITHOUT ROAD FLYOVER HITH HITHOUT -6.3 -6.5 COPERATING COST DIFF -5.9 -6.0 6.1 -6.6 -6.8 -7.6 PSHL COST DIFF -1.8 -1.8 -1.8 -1.8 -1.8 -1.8 -1.8 -1.8 PSHE COST DIFF
HITH
HITHOUT
FUSE COST DIFF
HITH
HITHOUT 1.8 1.8 1.8 1.8 1.8 1.8 -4.0 1.5 5.5 1.8 -4.2 1.5 5.7 1.8 -4.3 1.6 5.9 1.8 -4.6 1.7 6.3 1.6 -5.1 1.9 7.0 1.8 1.8 1.6 1.6 1.8 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 TOTAL BENEFIT DIFF 401.8 413.2 425.4 438.2 451.7 466.1 481.3 506.8 ----401.8 HYIM TIME SAVING BENEFIT

SENE OF RAILMAY PSHOR
BENE OF ROAD VEHICLE
HOTORCYCLE 277.6 293.3 200.1 211.3 223.1 235.5 248.8 262.8 262.8 23.6 13.4 146.3 9.7 277.6 24.9 19.2 154.6 10.2 39.3 34.4 200.1 211.3 223.1 235.5 248.8 293.3 20.0 11.4 124.2 22.3 12.7 138.5 21.1 12.0 18.0 19.0 10.8 HOTORCYCL SAMLOR SEDAN LIGHT BUS BUS TRUCK 163.4 10.8 41.5 111.4 117.6 7.8 131.2 7.4 28.3 24.6 8.2 31.6 27.7 29.9 26.2 37.2 32.6 35.2 36.3 14.0 14.0 13.6 13.6 FUEL SAVING BENEFIT VEHICLE AT CROSSING VEHICLE AT FLYOVER 11.5 11.8 12.2 12.5 12.5 12.8 12.8 13.2 13.2 2.1 2.1 2.1 2.1 2.1 2.1 2.1 ACCIDENT AVOIDANCE BENE 197.4 LAND USE BEREFIT USAGE OF SPACE FUR COMMERCIAL USE 168.0 188.0 188.0 188.0 188.0 168.0 197.4 186.8 10.7 188.0 178.3 188.0 178.3 188.0 178.3 9.8 188.0 188.0 168.0 FOR DIHER USE плонити TIME SAVING BEHEFIT BENE OF ROAD VEHICLE FUEL SAVING BENEFIT VEHICLE AT CROSSING VEHICLE AT FLYOVER ACCIDENT AVOIDANCE BENE LAND USE BEHEFIT USAGE OF SPACE FOR CONSERCIAL USE FOR OTHER USE -73.6 ~302.1 -444.6 ~421.7 ~313.6 ~88.5 394.0 410.7 423.0 436.5 338.9 352.8 489.9 524.1 17.671 17.671 17.671 17.671 17.671 17.671 17.671 17.671 17.671 17.671 17.671 17.671 17.671 17.671 17.671 17.671 HET FLOM EIRR

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						٠			( HI	L. BAHT	) PÁ	GE 1 /P	ART 2		
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	\$010	2011	5015	2013
INVESTHENT DIFF															~797,9
	252.7				647.1					561.2			177.4		~2137.4
CIVIL WORK*	436.7				04111								117.4		-613114
STATION FACILITY SIGNALS & TELECOM LAND ACQ & COMP															
ROLLING STOCKS -SALVAGE VALUE	252.7	•			647.1		•		80.5	561.2			177.4		576.4 2713.6
HITHOUT	252.7			<b>~~~~</b> ~	647.1				80.5	561.2		~~~~~	177,4		-1339.5
RATUMAY CIVIL WORK	252.7		•		647.1				80.5	561.2			177.4		-1339.5
STATION FACILITY SIGNALS & TELECON LAND ACR & COMP															
ROLLING STOCKS -SALVAGE VALUE ROAD FLYOVER	252.7				647.1			٠	80.5	561.2		÷	177.4	: '	576.9 1915.9
MAINT/OPE COST DIFF	2.0	1.8	1.6	1,4	1.2	1.0	0.8	0.6	0.3	0.1	-0.2	-0.4	-0.7	-1.0	-1.3
		222222	222220	3722232	252552	*******	232225	*235248	222222	<b>22223</b>			======	======	
FACILITY MAINT COST DIFF	9.2 8.3	9.2	9.2	9.2 8.3	9.2	9.2	9.2	9.2	9.2	9.2	5.8	9.2	9.2 8.3	9.2	9.8
MITHOUT	19.3	19.3 11.0	19.3	19.3	19.3	19.3	19.3 11.0	19.3 11.0	19.3	19.3 11.0	19.3	19.3	19.3	19.3	19.3
STATION FACILITY	0.8	0.2	0.2	0.2	0.2	0.2	0.2	9.0	0.2	0.2 8.0	0.2	0.2	0.2	0.2	0.2
NITHOUT SIGNALS & TELECON	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6 0.6	0.6
WITH	15.1	15.1	15.1	15.1	15.1 14.5	15.1 14.5	15.1 16.5	15.1 14.5	15.1 14.5						
ROLLING STOCKS	14.5	14.5	14.5	14.5											
NITH NITHOUT ROAD FLYOVER NITH	17.1 17.1	17.1	17.1 17.1	17.1 17.1	21.3	21.3	21.3 21.3	21.3 21.3	21.3	30.8 30.8	30.8 30.8	30.8 30.8	30.8 30.8	30.8 30.8	40.4
итиност			٠												
LOPERATING COST DIFF	-7.1	-7.3	-7.5	-7.7	-7.9	-8.1	-8.4	-8.6	-8.8	-9.1	-9.3	-9.6	-9.9	-10.1	-10.4
PSHL COST BYFF MITH	8.1-	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.6	-1.6
NITHOUT FUEL COST DIFF HITH	1.8 -5.3 2.0	1.8 -5.5 2.0	1.8 -5.7 2.1	1.8 -5.9 2.2	1.8 -6.1 2.5	1.8 -6.3 2.3	1.8 -6.5 2.4	1.8 -6.7 2.5	1.8 -7.0 2.6	1.8 -7.2 2.7	1.8 -7.5 2.8	1.8 -7.7 2.9	1.8 -8.0 3.0	1.8 -8.3 3.1	1.6 -8.6 3.8
WITHOUT TOTAL BENEFIT DIFF	7.2 523.8	7.5 541.9	7.8 561.0	8.1 581.3	8.4	618.1	634.1	9.3	9.6 668.5	9.9 686.9	706.2	10.6 726.3	11.0 747.4	769.5	792.7
	======	======	======	======	Z=====			#2002#2	GPEFFER		=======================================	******	*******	2223225	=====
HTTH	523.8	541.9	561.0	501.3	602.7	618.1	634.1	650.9	668.5	686.9	706.2	726.3	747.4	769.5	792.7
TIME SAVING BENEFIT BENE OF RAILWAY PSNOR BENE OF ROAD VEHICLE	310.0 310.0	327.6 327.6	346.4 346.4	366.2 366.2	307.2 387.2	402.4	418.2 418.2	434.8 434.8	452.1 452.1	470.3 470.3	489.3 489.3	509.3 509.3	530.1 530.1	552.0 552.0	574.9 574.9
HOTORCYCLE SAHLOR	27.8	29.4	31.0 17.7	32.8 18.8	34.7 19.9	36.0	37.4 21.4	38.9	40.5 23.1	42.1 24.1	43.8 25.0	45.6 26.0	47.4 27.1	49.4	51.4 29.3
SEDAN LYGHY BUS	172.7	182.5	193.0 12.7	204.1	215.8	224.4 14.8	233.4 15.4	242.8 16.0	252.6 16.6	262.9 17.3	273.7 18.0	285.1 18.7		309.3	322.3
ETGUL DOS	11.4 43.8 38.4	12.1 46.3 40.6	49.0	51.8 45.3	54.7	56.8 49.7	58.9 51.7	61.1 53.7	63.4 55.9	65.9 58.1	68.4 60.5	71.0 62.9	73.8 65.5	76.7 68.2	79.6 71.0
FUEL SAVING BENEFIT VEHICLE AT CROSSING	14.3 14.3	14.7 14.7	15.2 15.2	15.6 15.6	16.0 16.0	16.2	16.4 16.4	16.7 16.7	16.9 16.9	17.1 17.1	17.3 17.3	17.6 17.6	17.8 17.8	18.0 18.0	18. 18.
VENICLE AT FLYOVER ACCIDENT AVOIDANCE BENE	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	ુ ટ.:
LAND USE BENEFIT		:197.4	197.4	197.4	197.4	197.4	197.4	197.4	197.4	197.4	197.4	197.4	197.4	197.4	197.4
USIGE OF SPACE FOR CONSIGNOUSE FOR OTHER USE	197.4 186.8	197.4 186.8 10.7		197.4 186.8 10.7	197.4 186.8 10.7	197.4 186.4 10.									
HITHOUT	•			p*								~~== ~~=			
TIME SAVING BENEFIT DENE OF ROAD VEHICLE															
FUEL SAVING BENEFIT VEHICLE AT CROSSING															
VEHICLE AT FLYOVER															
ACCIDENT AVOIDANCE DENE  LAND USE BENEFIT USAGE OF SPACE	•		. •												
FOR COMMERCIAL USE FOR OTHER USE								٠							
HET FLOSI	521.8	540.1		579.8	601.5	617.1	633.4	650.4	668.2	686.8	706.3	726 - 8	748.1	770.5	1591.6
EIRR	17.671	17.671	17.671	17.671	17.671	17.671	17.671	17.671	668.2 17.671	17.671	17.671	17.671	17.671	17.671	17.671

Appendix 11.4.6 Economic Analysis for Track Elevation Project,

State Railway of Thailand (Case-I-2)

							-								
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1963	1994	1995	1996	1997	1993
INVESTMENT DIFF	15.0	59.7	232.0	344.0	331.1	240.8	66.9	0.1	0.1	-0.1	S.0- 	110.8	110.2	-10.2 ======	=======
HTIU	30.2	115.3	299.9	395.8	456.7	446.9	491.0	645.0	75.2	24.1	28.8	377.0	126.5	23.6	
CIVIL NORK	21.3	85.6	237.1	361.2	367.5	332.7	175.1	67.8	71.9	8.03	10.6	118.6	120.8	12.7	
STATION FACILITY SIGNALS & TELECON LAND ACQ & COMP	8.9	29.7	36.8	8.6 26.1	1.3	4.1 110.0	94.7 221.3	1.1	3.3	3.3	1.1 17.1	14.0 35.7	5,6	10.9	
ROLLING STOCKS -SALVAGE VALUE								576.1				208.7			
PITHOUT	15.2	55.6	67.9	51.8	125.5	206.1	424.1	644.9	75.1	24.2	29.0	266.2	16.3	33.8	
RAILHAY	15.2	55.6	67.9	51.8	125.5 37.0	206.1 92.2	424.1 136.5	644.9 67.7	75.1 71.8	24.2 20.9	29.0 10.8	266.2 7.4	16.3	33.8	
CIVIL WORK STATION FACILITY	6.6	26.7	5.3	16.6	0.6	4.1	66.6	1.1			1.1	14.0 36.1		20.3	
SIGNALS & YELECOM LAKO ACQ & COMP	8.6	26.9	36.5 86.1	9.1 26.1	67.9	109.8	221.0		3.3	3.3	17.1		7.0	13.6	
ROLLING STOCKS -SALVAGE VALUE ROAD FLYOVER								576.1				208.7			
MAINT/OPE COST DIFF								2,3	2.3	2.2	2.1	2.0	1.9	1.8	2.1
FACILITY MAINT COST DIFF		******	2028222			======	222222	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.5
CIVIL HORK								5.6	5.6	5.6	5.6	5.6	5.6	5.6	6.2
HTTH TUOHT I				÷				10.6 5.0	10.6 5.0	10.6	10.6 5.0	10.6 5.0	10.6 5.0	10.6	17.1 11.0
STATION FACILITY								0.2	0.2	0.2	0.2 0.7	0.2	0.2	0.2	0.2
HTH HTHOUT			:					0.5	0.5	0.5	0.5	0.5	0.5	0.5 0.3	0.6
SIGNALS & TELECOM								13.0	13.0	13.0	13.6	13.0	13.0	13.0	14.7
NITHOUT ROLLING STOCKS								12.7	12.7	12.7	12.7	12.7	12.7	12.7	14.5
HTTHO TUOHTIH								9.6 9.6	9.6 9.6	9.6 9.6	9.6 9.6	12.9 12.9	12.9 12.9	12.9 12.9	12.9 12.9
ROAD FLYGYER WITH							-								
NETHOUT															
COPERATING COST DIFF								-3.8	-3.9	-3.9	-4.0	-4.1	-4.2	-4.3	-4.4
PSNL COST DIFF					1.7			-1.3	-1.3	-1.3	-1.3	~1.3	-1.3	-1.3	-1.3
NITH HITHOUT	1.3	1.3	1.3	1.3	1.3 1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
FUEL COST DIFF MITH	3.9	3.9	3.9	3.9	3.9	3.9	3.9	-2.4 1.5	-2.5 1.5	-2.6 1.6	1.6	~2.8 1.7	-2.9 1.8	-3.0 1.8	1.9
1008118	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	4.0	4.2	4.3	4.5	4.7	4.8	5.0
TOTAL BENEFIT DIFF	======	======	=======	=======	******	2753272	=4====	358.9	369.1	380.0	391.4	A			
иттн	<del></del>							358.9	369.1	380.0	391.4	403.6	416.4	430.1	453.9
TIME SAVING BENEFIT BENE OF RAILWAY PSHGR								174.8	184.9	195.5	206.7	9.615	231.3	244.7	258.9
DENE OF ROAD VEHICLE								174.6	184.9	195.5	206.7	218.6 18.5	231.3 19.6	244.7 26.8	258.9 22.0
HOTORCYCLE SAHLOR								14.8 9.3	15.7 9.8	16.6 10.4	17.5 11.0	11.7	12.3	13:0	13.6
SEDAR LIGHT BUS								97.5 6.7	103.1 7.1	109.0 7.5	115.3 7.9	122.0	129.1 8.8	136.6	144.5 9.9
BUS Truck								25.2	26.7 22.5	28.2 23.8	29.8 25.1	31.5 26.6	33.3 28.1	35.3 29.7	37.3 31.4
FUEL SAVING BEHEFIT								7.5	7.7	7.9	8.1	8.4	8.6	8.8	9.1
VEHICLE AT CROSSING VEHICLE AT FLYOVER								7.5	7.7	7.9	8.1	8.4	6.6	8.8	9.1
ACCIDENT AVOIDANCE BENE								1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
LAND USE BEHEFIT USAGE OF SPACE FOR COMMERCIAL USE								175.1 175.1 170.8	175.1 175.1 170.8	175.1 175.1 170.8	175.1 175.1 170.8	175.1 175.1 170.8	175.1 175.1 170.8		184.5 184.5 179.3
FOR OTHER USE								4.3	4.3	4.3	4.3	4.3		4.3	5.2
NITHOUT	~						~		<b></b>			<del>-</del>			
TIME SAVING BENEFIT BENE OF ROAD VEHICLE															
FUEL SAVING DENEFIT VEHICLE AT CROSSING VEHICLE AT FLYOVER															
ACCIDENT AVOIDANCE BEHE			•												
TLAND USE BENEFIT															
USAGE OF SPACE  FOR COMMERCIAL USE  FOR OTHER USE			4												
HET FLOH	-15.0	-59.7	-232.0	~344. <i>0</i> 19.338	-331.1	-240-8	-66.9	356.5	366.8	377.9	309.5	290.8	304.3	938-5 19.339	451.8 19.338
EIRR	14. 138	14.378	17.338	17.338	14.238	1.7.330	17.355	14.535	17-350	17.338	47.438	47.330	27.230		

	1999	2000	\$091	2002	2003	2004	2005	2006	2007	2006	2009	2010	2011	2012	2013
INVESTMENT DIFF					·.					**==*=					-640.7
geru	252.7				647.1				80.5	561.2		222442	177.4		-1960.2
CIVIL RORK STATION FACILITY SIGNALS & TELECOM LAND ACQ & COMP ROLLING STOCKS	252.7				647.1				80.5	561.2			177.4		576.4 2556.5
-SALVAGE VALUE	252.7				647.1				80.5	561.2			177.4		-1339.5
RATLWAY	252.7				647.1				80.5	561.2			177.4		-1339.5
CIVIL HORK STATION FACILITY SIGNALS & TELECOM LAND ACQ & COMP POLLING STORKS -SALVAGE VALUE ROAD FLYDYER	252.7			•	647.1				80.5	561.2			177.4		576.4 1915.9
RAINT/OPE COST OIFF	2.0	1.9	1.0	1.6	1.5	1.4	1.3	1.1	1.0	0.8	0.7	0.5	0.4	0.2	
SACILITY HAINT COST DIFF	6.5	6.5	6.5	.6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
CIVIL NORK	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2 17.1	6.2 17.1	6.2
HTTH TUOHTIN	17.1 11.0	17.1	17.1 11.0	11.0	11.0	17.1 11.0									
STATION FACILITY	0.2	0.2	0.2	0.2	0.2	0.2	0.2 0.8	0.2	0.2	0.2 0.8	0.2	0.2	0.2 0.8	0.2 0.8	0.2 0.8
HTTH	0.6	8.0 6.0	0.8	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
SIGNALS & TELECOH	. 0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	5.0	0.2	0.2	0.2	0.2	0.2	0.2
LITH	14.7 14.5	14.7	14.7 14.5												
ROLLING STOCKS	14.3	14.5	14.5	11.5		14.3	14.5	1113	11.3	11.3					
HITH HITHOUT ROAD FLYOVER HITH HITHOUT	17.1 17.1	17.1 17.1	17.1 17.1	17.1 17.1	21.3 21.3	21.3	21.3	21.3	21.3	30.8 30.8	30.8 30.8	30.8 30.8	30.8 30.8	30.8 30.8	40.4 40.4
TOPERATING COST DIFF	-4.5	-4.7	-4.8	-4.9	-5.0	-5.2	-5.3	-5.4	-5.6	-5.7	-5.9	-6.0	-6.2	-6.3	~6.5
PSHL COST DIFF	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3
HITHOUT	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
FUEL COST DIFF	-3.2	-3.3	-3.5 2.1	-3.6 2.2	-3.7 2.3	-3.8 2.3	-4.0 2.4	~4.1 2.5	-4.2 2.6	-4.4 2.7	-4.5 2.8	-4.7 2.9	-4.9 3.0	5.0 3.1	-5.2 3.2
HITH	2.0 5.2	2.0 5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.1	7.3	7.6	7.9	8.2	8.4
TOTAL BENEFIT DIFF	469.2	485.5	502.7	521.0	540.3	553.7	567.7	582.4	597.6	613.6	630.3	647.7	666.0	685.0	705.0
иттн	469.2	485.5	502.7	521.0	540.3	553.7	567.7	582.4	597.6	613.6	630.3	647.7	666.0	685.0	705.0
TIME SAVING BEHEFIT	273.9	269.9	306.9	324.9	343.9	357.2	371.1	385.6	490.7	416.5	433.1	450.4	468.5	487.4	507.1
GENE OF RAILWAY PSMGR		1.0													
BENE OF ROAD VEHICLE	273.9	289.9	306.9	324.9 27.6	343.9 29.2	357.2 30.3	371.1 31.5	365.6 32.7	406.7 33.9	416.5 35.2	433.1 35.6	450.4 38.0	468.5 39.5	487.4 41.1	507.I 42.8
MOTORCYCLE SMILDR	23.2 14.6	24.6 15.5	16.4	17.3	18.4	19.1	19.8	20.5	21.3	55.2	23.0	23.9	24.9	25.9	26.9
SEDAN	152.9	161.9	171.4	181.4	192.1	199.7	207.6	215.9	224.5	233.6	243.0	252.9	263.3	274.1	265.4
LIGHT BUS BUS	10.4 39.5	11.0 41.7	11.7 44.2	12.3 46.7	13.1 49.5	13.6 51.3	14.1 53.2	14.6 55.1	15.2 57.2	15.8 59.3	16.4 61.6	17.1 63.9	17.7 66.3	18.5 68.9	19.2 71.5
TRUCK	33.3	35.2	37.3	39.4	41.7	43.3	45.0	46.7	48.5	50.4	52.4	54.5	56.7	58.9	61.3
FULL SAVING BENEFIT VEHICLE AT CROSSING VEHICLE AT FLYOVER	9.3 9.3	9.6 9.6	9.9 9.9	10.1	10.4 10.4	10.6 10.6	10.7 10.7	10.8 10.8	11.0 11.0	11.1 11.1	11.3 11.3	11.4 11.4	11.6 11.6	11.7 11.7	11.9 11.9
ACCIDENT AVOIDANCE BENE	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
LAID USE BENEFIT USAGE OF SPACE FOR COMMERCIAL USE FOR OTHER USE	184.5 164.5 179.3 5.2	184.5 184.5 179.3 5.2	184.5 184.5 179.3 5.2	184.5 184.5 179.3 5.2	184.5 184.5 179.3 5.2	184.5 104.5 179.3 5.2	184.5 184.5 179.3 5.2	184.5 184.5 179.3 5.2	184.5 184.5 179.3 5.2	164.5 184.5 179.3 5.2	184.5 184.5 179.3 5.2	184.5 184.5 179.3 5.2	164.5 184.5 179.3 5.2	164.5 184.5 179.3 5.2	184.5 184.5 179.3 5.2
HITHOUT										~					
_TIME SAVING OCHEFIT GENE OF ROAD VEHICLE															
FUEL SAVING DENEFIT VEHICLE AT CHOSSING VEHICLE AT FLYOVER															
ACCIDENT AVOIDANCE BENE															
-LAND USE BENEFIT USAGE OF SPACE															
FOR COMMERCIAL USE FOR OTHER USE															
HET FLOH	467.2 19.330	403.6 19.330	500.9 19.330	519.3 19.338	538.8 19.338	552.3 19.338	566.5 19.330	581.2 19.338	596.7 19.338	612.8 19.338	629.6 19.338	647.2 19.338	665.6 19.330	684.8 19.338	1345.6 19.338

### Appendix 11.4.7 Economic Analysis for Track Elevation Project, State Railway of Thailand (Case-II-3)

							1		. <b></b>	HIL, BAHI	ו ו	PAGE 1 /	PART 1		
	1984	1985	1986	1967	1983	1989	1990	1661	1992	1993	1994	1995	1996	1997	1995
INVESTMENT DIFF	19.6	69.5	302.3		422.0		88.9	110.9	107.6	-1.4	17.5	-9.2 -9.2	7.6-	10.5	4822223
HITH	36.6	132.7	436.6	573.2	652.9	556.8	502.6	907.5	120.2	28.0	31.3	251.0	20.1	24.3	
CIVIL NORK	27.9	102.8	358.8	524.1	529.5	426.4	141.8	136.3	120.2	24.6	23.3	10.1	14.4	13.4	
STATION FACILITY SIGNALS & TELECON	8.7	29.9	38.0	٧,1	28.7 94.7	11.6	113.3	15.4 34.9		3.3	8.0	16.1	5.6	10.9	
LAND ACQ & COUP ROLLING STOCKS -SILVAGE VALUE			39.9	39.9				721.0			. A.	224.8	3.0	. 44.9	
MITHOUT	16.9	63.2	134.3	129.0	231.0	261.7	413.7	796.6	12.6	29.3	13.8	260.2	28.4	13.8	· .
RATINAY	16.9	63.2	134.3	129.0	231.0 108.5	261.7 122.9	413.7 94.1	795.6 21.4	12.6 12.6	29.3 26.0	13.8 5.7	260.2	26.4	13.8	
CIVIL NORK STATION FACILITY SIGNALS & TELECOM	8.3 8.6	33.4 29.7	57.7 36.7	79.9 9.1	28.7 93.6	22.9	75.3	15.4 39.0		3.3	6.0	18.7	21.2 7.2	13.8	
LAND ACR & COMP ROLLING STOCKS -SALVAGE VALUE ROAD FLYOVER			39.9	39,9				781.0				224.8	ŧ.	•	
NAINT/OPE COST DIFF							•	1.6	1.4	1.3	1.1	1.0	0.8	1,0	1.2
FACILITY HAINT COST DIFF	282222	*******	*****	******	******	E32222	#2227E3	7.8	7.8	7.8	7.8	7.8	7.8		5.6
								7.0		7.0		7.0			
CIVIL WORK WITH WITHOUT								16.6 9.5	7.0 16.6 9.5	16.6 9.5	7.0 16.6 9.5	16.6 9.5	7.0 16.6 9.5	8.0 20.7 12.8	8.0 20.7 12.3
STATION FACILITY								1.0	0.2	1.0	1.0	0.2 1.0	1.0	0.2	0.2 1.1
HITHOUT SIGNALS & TELECON								0.9	0.9	0.9	0.9	0.9	0.9 0.6	0.5	1.0
HITH HITHOUT ROLLING STOCKS		•				-		14.1 13.5	14.1 13.5	14.1 13.5	14.1 13.5	14.1 13.5	14.1 13.5	15.8 15.3	15.8 15.3
Hith		•						12.1	12.1	12.1	12.1	15.7	15.7	15.7	15.7
HITHOUT ROAD FLYOVER HITH WITHOUT								12.1	12.1	18.1	12.1	15.7	15.7	15.7	15,7
-OFERATING COST DIFF							· .	-6.2	-6.4	6.5	~6.7	-6.9	-7.0	-7.2	-7.4
PSNL COST DIFF								-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8
RITH RITH	1.8 1.8	1.8	1.3 1.6	1.8 1.8	1.8	1.8 1.8	1.8 1.8	1.8	1.8	1.5	1.8	1.8	1.8	1.8	1.8
FUEL COSY DIFF HITH HITHOUT	6.0	6.0 6.0	6.0	6.0 6.0	6.0 6.0	6.0 6.0	6.0 6.0	~4.4 1:6 6:0	1.6 6.2	-4.7 1.7 6.4	-4.9 1.8 6.6	-5.0 1.8 6.3	-5.2 1.9 7.1	~5.4 2.0 7.3	-5.6 2.9 7.6
TOTAL BENEFIT DIFF		25555	======	******	222222	=======================================		438.0 ======	451,3	465.6	489.3	496.0	512.6		556.9
ыхты		:	~~~~					438.0	451.3	465.6	460.3	496.0	512.6	537.5	556.9
TIME SAVING BEHEFIT								236.4	249.3	263.3	217.6	293.0	309.2	326.4	343.4
BEHE OF RATLMAY PSHGR		1.						13.0	13.5	14.3	14.7	15.3	15.9	16.6	16.9 327.4
BENE OF ROAD VEHICLE								223.3	235.8	249.0	23.5	277.7 24.8	26.2	27.7	29.3
SAHLOR SEOAN								11.4 124.2	12.1 131.2	12.6 138.5	13.5 146.3	14.3 154.5	15.1 163.2	15.9 172.4	16.8 182.2
LIGHT BUS					•			8.2 31.3	8.7 33.5	9.2 35.4	9.7 37.4	10.2	10.8 41.7	11.4 44.1	12.1 46.6
SUS TRUCK								27.7	27.2	30.8	32.5	34.4	36.3	.: 38.3	40.5
FUEL SAVING BENEFIT VEHICLE AT CROSSING VEHICLE AT FLYOVER								11.5 11.5	11.8 11.8	12.2	12.5 12.5	12.8	13.2	13.6 13.6	14.0 14.0
ACCIDENT AVOIDANCE BENE			ř					2.1	2.1	5.1	2.1	2.1	2.1	2.1	2.1
LAND USE SENEFIT								168.0	188.0	186.0	188.0	168.0	168.0	197.4	197.4
USIGE OF SPACE FOR COMMERCIAL USE FOR OTHER USE								188.0 178.3 9.8	183.0 178.3 9.8	128.0 178.3 9.8	183.0 178.3 9.8	188.0 178.3 9.0	188.0 178.3 9.8	197.9 186.8 10.7	197.4 136.8 10.7
нттногт									*****					***	
TIME SAVING BENEFIT  BENE OF ROAD VEHICLE		٠												٠	
FUEL SAVING BENEFIT VEHICLE AT CROSSING					-										
VEHICLE AT FLYOVER											٠			t t	-
ACCIDENT AVOIDANCE BENE									•						
LAND USE BENEFIT USAGE OF SPACE															
FOR COMMERCIAL USE FOR OTHER USE				. 1							. :				
NET FLON EIRR	-19.6 18.592	-69.5 16.592	-302.3 16.592	-444.2 18.592	-422,0 18,592	-294.8 18.592	-88.9 18.592	325.6 16.592	342.3 18.592	465.6 18.572	461.6 18.592	504.2 18.592	520.1 18,592	527.6 18.592	555.6 18.592
•							308	4							
				-		· .									

											•				
									( HIL.	BART 1	PAGE	1 /PART	2		
	1999	2000	2001	2002	2003	2004	2005	2006	2007	8008	2009	2010	2011	2012	2013
INVESTMENT DIFF									٠						-787.6
	-	******	********			======	======				* #462255 1				
CIVIL HORK	8.895	*******			808.1				96.6	561.2			193.5	******	-2235.0
STATION FACILITY SIGNALS & TELECON															
ROLLING STOCKS -SALVAGE VALUE	8.66	•			898.1				96.6	561.2			193.5	:	576.4 2811.4
WITROUT	268.8				308.1				96.6	561.2			193.5		-1447.5
RAILMAY CIVIL WORK	8.835				808.1				6.6	561.2			193.5		-1447.5
STATION FACILITY SIGNALS & TELECON LAND ACQ & COMP	. : -														
ROLLING STOCKS -SALVAGE VALUE ROAD FLYOVER	8.833				808.1				96.6	561.2			193.5		576.4 2023.8
HAINT/OPE COST DIFF	1.0	0.6	0.6	0.4	0.2		-0.2	-0.5	-0.7	-1.0	-1.2	-1.5	-1.7	-2.0	-2.3 ======
FACILITY HAINT COST DIFF	8.6	8.6	8.6	a.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
NITH NITH CIVIL HORK	8.0 20.7 12.8	8.0 20.7 12.8	8.0 20.7 12.8	8.0 20.7 12.8	8.0 20.7 12.3	8.0 20.7 12.8	8.0. 20.7 12.8	8.0 20.7 12.8	8-3 20-7 12-8						
STATION FACILITY	0.2	0.2	0.2 1.1	2.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2 1.1	0.2	2.0	1.1	0.2 1.1
HITHOUT SIGNALS & TELECON	0.5	1.0	1.0 0.5	1.0 0.5	0.5	0.5	1.0 0.5	1.0	0.5	1.0 0.5	1.0	1.0 0.5	0.5	1.0 0.5	1.0
WITH WITHOUT ROLLING STOCKS	15.8 15.3	15.8 15.3	15.8 15.3												
NITH WITHOUT ROAD FLYOVER WITH	20.2 20.2	20.2	20.2	20.2 20.2	24.6 24.6	24.6 24.6	24.6 24.6	24.6 24.6	24.6 24.6	34.1 34.1	34.1 34.1	34.1 34.1	34.1 34.1	34.1 34.1	43.8 43.8
NETHOUT OPERATING COST DIFF	-7.6	-7.8	-8.0	-8.2	-8.5	-8.7	-8.9	-9.1	-9,4	~9.6	-9.9	~10.1	-10.4	-10.7	-11.0
PSNL COST DIFF	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8
NITHOUT	1.8	1.8	1.8	1.6	1.8	1.8	1.8	1.8	1.8	1.8	1.5	1.8 -8.3	1.8 -8.5	1.8	1.8
FUEL COST DIFF HITH WITHOUT	-5.6 2.1 7.9	-6.0 2.2 8.1	-6.2 2.3 6.4	-6.4 2.3 8.7	-6.6 2.4 9.1	-6.8 2.5 9.3	-7.0 2.6 9.6	-7.3 2.7 10.0	-7.5 2.8 10.3	-7.5 2.9 10.6	-8.0 3.0 11.0	3.1 11.4	3.2 11.7	3.3 12.1	3.4 12.5
TOTAL BENEFIT DIFF	577.1	597.2	618.5	641.0	665.8	682.2	699.4	717.2	735.8		775.7	796.8	818.9	842.0	
NUTH	577.1	597.2				682.2	679.4		735.8	-	775.7	796.8		842.0	
TIME SAVING BEHEFIT	363.2	382.9	403.8	425.9	450.3	466.5	403.5	501.1	519.4	538.7 20.3	8.822	579.7 21.3	661.6	624.5	648.3 22.7
BENE OF RATIMAY PSHOR BENE OF ROAD VEHICLE HOTORCYCLE	17.3 346.0 30.9	17.3 365.7 32.7	17.3 386.5 34.5	17.3 408.6 36.5	18.3 432.0 38.6	18.6 447.8 40.0	19.2 464.3 41.4	19.5 481.5 43.0	19.9 499.5 44.5	518.3 45.2	537.9 47.9	558.4 49.8	579.8	602.2	
SAMLOR SEDAN	17.8 192.6	18.8	19.9 215.1	21.1 227.5	22.3 240.5	23.1 249.5	23.9 253.9	24.8 268.6	25.7 278.9	26.6 289.5	27.6 300.7	28.7 312.3	29.7 324.5	30.9 337.2	
EIGHT BUS TRUCK	12.8 49.2 42.8	13.5 52.0 45.2	14.3 54.9 47.7	15.1 58.1 50.5	15.9 61.4 53.3	16.5 63.5 55.3	17.1 65.7 57.3	17.7 68.0 59.4	18.4 70.4 61.6	19.1 72.9 63.9	19.8 75.5 66.4	20.5 78.3 68.9	21.3 81.1 71.5	22.1 84.1 74.3	87.2
FUEL SAVING BENEFIT VEHICLE AT CROSSING	14.3	14.7 14.7	15.2 15.2	15.6 15.6	16.0 16.0	16.2	16.4 16.4	16.7 16.7	16.9 16.9	17.1 17.1		17.6 17.6	17.8 17.6	18.0	
VEHICLE AT FLYOVER		÷						2.1		2.1	2.1	2.1	2.1	2.1	2.1
ACCIDENT AVOIDANCE BENE LAND USE BENEFIT	2.1 197.4	197.4		197.4	197.4	197.4	197.4	197.4	197.4						
USAGE OF SPACE FOR COMMERCIAL USE FOR OTHER USE	197.4 186.8 10.7	197.4 186.8 10.7	197.4 186.8 10.7	197.4 136.8 10.7	197.4 186.8 10.7	197.4 186.8 10.7	197.4 186.8 10.7	197.4 186.8 10.7	197.4 186.8 10.7	197.4 166.8 10.7	197.4 166.8 10.7	197.4 186.8 10.7	197.4 186.8 10.7		197.4 166.8 10.7
тионти															
TIME SAVING BENEFIT SENE OF ROAD VEHICLE											-			•	
FUEL SAVING BENEFIT VEHICLE AT CROSSING VEHICLE AT FLYOVER															
ACCIDENT AVOIDANCE BENE															
LAID USE BUNEFIT USAGE OF SPACE													•		
FOR COMMERCIAL USE FOR OTHER USE				-		. •									
HET FLOM	576.1 18.592	596.3 18.592	617.9 18.592	640.6 18.592	665.6 18.592	602.2 18.592	699.7 18.592	717.7 18.592	736.5 18.592	756.2 18.592	776.9 10.592	798.3 18.592	820.6 18.592	844.1 18.592	1655.9 18.592
						- 30	•	٠		-					

#### Appendix 11.4.8 Economic Analysis for Track Elevation Project, State Railway of Thailand (Case-II-2)

								7 Art	. BAHT I	PAGE	E I ZPAI	87 °L			
		•,							•						
	1984	1985	1986	1987	1998	1989	1990	1991	1992	1993	1594	1995	1996	1997	1996
INVESTMENT DIFF	16.0	56.3	231.7	343.9	329.5	219.1	63.0	114.6	115.7	7.6		<b>3.6</b>	-1.4	-2.7 ******	======
нтан	32.9	119.4	366.0	472.9	560.4	460.8	476.7	911.5	126.3	37.0	13.2	256.6	27.0	11,1	
CIVIL WORK STATION FACTLITY	24.1	89.9	289.3	484.4	438.6	356.5	123.3	136.1 15.4	123.3	33.6	5.7	16.7	21.3		
SIGNALS & TELECON LAND ACQ & COMP	8.9	30.5	36.8 39.9	8.6	93.1	112.7	240.2	39.1		3.3	7.5	15.1	5.7	11.1	
ROLLING STOCKS -SALVAGE VALUE			37.7					721.0				224.8			
NITHOUT	16.9	63.2	134-3	129.0	231.0	251.7	413.7	796.6	12.6	29.3	13.8	260.2	28.4	13.8	
RATEMAY CIVIL BORK	16.9 8.3	63.2 33.4	134.3 57.7	129.0	231.0 108.5	261.7 122.9	413.7 94.1	796.6 21.4	12.6 12.6	29.3 26.0	13.8 5.7	260.2 16.7	28.4 21.2	13.8	
STATION FACILITY SIGNALS & TELECOM	8.6	29.7	36.7	9.1	28.7	22.9 115.9	75.3 244.3	15.4 39.0	•	3.3	8.0	18.7	7.2	13.8	
LAND ACG & COMP ROLLING STOCKS -SALVAGE VALUE ROAD FLYOVER		,	39.9	39.9		:		721.0				224.8			
										•					
HAINT/OPE COST DIFF	======	=======	222222	======	*******	=======	******		1.0	0.9	8.0	0.7	0.6	1.9	1.8 ======
PACILITY HAINT COST DIFF				i				5.1	5.1	5.1	5.1	5.1	5.1	6.5	6.5
CIVIL NORK								4.8 14.4	4.8 14.4	4.8 14.4	4.8	4.8 14.4	4.8 14.4	6.4 19.2	6.4 19.2
NITHOUT STATION FACILITY								9.5 0.2	9.5 0.2	7.5 0.2	9.5	9.5 0.2	9.5	3.0	12,8
HITH								1.0 0.9	1.0	0.9	1.0	1.0	1.0	1.1 1.0	1.1
SIGNALS & TELECON			•					.0.1 13.6	0.1 15.6	0.1 13.6	0.1 13.6	0.1 13.6	0,1 13.6	15.2	15.2
WITHOUT ROLLING STOCKS								13.5 12.1	13.5	13.5	13.5 12.1	15.7	13.5	15.3	15.3
HITH HITHOUT							•	12.1	12.1	12.1	12.1	15.7	15.7	15.7	15.7 15.7
ROAD FLYOVER HITH HITHOUT						-									
-OPERATING COST DIFF								-4.0	4.1	-4.2	-4.3	-4.4	-4.5	-4.6	-4.7
PSNL COST DIFF							1.3	~1.3	-1.3	-1.3	-1.3	-1.3	~1.3	-1.3	-1.3
HITH HITHOUT	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3 ~2.9	1.3 -3.0	1.3 -3.1	1.3	1.3 -3.3	1.3
FUEL COST DIFF WITH WITHOUT	4.3	4.3	4.3	4.3 4.3	4.3 4.3	4.3 4.3	4.3	1.6	1.6	1.7	1.8	1.8	1.7	5.3	2.0
TOTAL BENEFIT DIFF		•						395.2	407.2	420.2	433.5	447.8	462.9	488.3	504.0
	Z20252	<b>+</b> 2222=+	REBREE :		224522	T==8888	4420222					1.77		* 20. 3	
нтн			<b></b>					395.2	407.2	420.2	433.5	447.8	462.9	488.3	504.0
TIME SAVING BENEFIT BEHE OF RATIMAY PSNSR	•						• .	211.1 13.0	222.9	235.7 14.3	248.8 14.7	262.8	277.7 15.9	293.5 16.6	309.0 16.0
BENE OF ROAD VENICLE HOTORCYCLE								198.0 16.8	209.4 17.8	221.4 18.8	234.1 19.9	247.5 21.0	261.8 22.3	276.9	293.0 24.9
SAHLOR SEDAN					•			10.6 110.3	11.2	11.8 123.3	12.5 130.4	13.2	14.0 145.9	14.8 154.4	15.7 163.3
LIGHT BUS								7.6 28.7	8.0 30.3	8.4 32.1	8.9 33.9	9.4 35.8	10.0 37.9	10.5 40.1	11.1 42.4
TRUCK								24.1	25.5	26.9	28.5	30.1	31.8	33.7	35.5
FUEL SAVING BENEFIT VEHICLE AT CROSSING VEHICLE AT FLYOVER	٠							7.5 7.5	7.7	7.9 7.9	8.1 8.1	8.4 8.4	8.6	8.8	9.1 9.1
ACCIDENT AVOIDANCE BENE			-					1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
LAND USE BEHEFIT USAGE OF SPACE								175.1 175.1	175.1 175.1	175.1 175.1	175.1 175.1	175.1 175.1	175.1 175.1	184.5 184.5	184.5 184.5
FOR OTHER USE								170.8 4.3	170.8 4.3	170.8 4.3	170.8	176.8 4.3	170.8 4.3	1/9.3 5.2	179.3 5.2
NITHOUT	~				****										

TIME SAVING BENEFIT BENE OF ROAD VEHICLE

FUEL SAVING BENEFIT VEHICLE AT CROSSING VEHICLE AT FLYOVER

ACCIDENT AVOIDANCE BEHE

LIAM USE BENEFIT USAGE OF SPACE

FOR COMMERCIAL USE FOR OTHER USE

NET FLOH EIRR -16.0 -56.3 -231.7 -343.9 -329.5 -219.1 -63.0 279.2 290.5 411.6 433.3 450.7 463.7 469.1 502.2 20.377 20.377 20.377 20.377 20.377 20.377 20.377 20.377 20.377 20.377 20.377 20.377

PAGE 1 /PART 2 ( HIL. BAHT )

				,					( HIL.	BAHT )	PAGE	1 /PART	2		
•	1999	2000	2001	2002	2003	2004	2005	2006	2007	8003	2009	2010	2011	2012	2013
INVESTMENT DIFF		>======	222222		**====	Dieleir			ni izunt		577 <b>-78</b> 8				-630.9
หราน	268.8				1.909				\$6.6	561.2			193.5		-2078.4
CIVIL WORK * STATION FACILITY				~~*					**						
SIGNALS & TELECOM LAND ACQ & COMP ROLLING STOCKS	268.0				808,1				96.6	561.2			193.5		576.4
-SALVAGE VALUE	268.8				808.1				96.6	561.2			193.5		2654.7 -1447.5
RATLNAÝ	268.6				608.1	******			96.6	561.2			193.5		-1447.5
CIVIL WORK STATION FACILITY SIGNALS & TELECOM	٠.		.* .										٠.		
LAND ACQ & COMP ROLLING STOCKS -SALVAGE VALUE	3.835		:		1.606			•	90.6	561.2			193.5		576.4 2023.8
ROAD FLYOVER														4.	
NAINT/OPE COST DIFF	1.7	1.6	1.5	1.3	1.2	1.1	0.9 ======	0.8	4.0 ≈=====	0.5	0.3	0.2		-0.1	-0.3
FACILITY MAINT COST DIFF	6.5	6.5	<i>&gt;</i> 6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
CIVIL WORK HITH HITHOUT	6.4 19.2 12.0	6.4 19.2 12.5	6.4 19.2 12.8	6.4 19.2 12.8	6.4 19.2 12.8	6.4 19.2 12.8	6.4 19.2 12.8	6.4 19.2 12.8	6.4 19.2 12.8	6.4 19.2 12.8	6-4 19.2 12.8	6.4 17.2 12.6	6.4 19.2 12.8	6.4 19.2 12.8	6.4 19.2 12.8
STATION FACILITY	0.2	0.2 1.1	1.1	0.2 1.1	0.2	0.2	0.2 1.1	0.2	0.2	0.2 1.1	0.2	1.1	0.2	0.2 1.1	0.2 1.1
MITHOUT SIGNALS & TELECON WITH	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0 15.2	1.0	1.0	1.0 15.2
ROLLING STOCKS	15.3	15.3 20.2	15.3 20.2	20.2	15.3 24.6	15.3 24.6	15.3	15.5	15.3 24.6	15.3 34.1	15.3 34.1	15.3 31.1	15.3 34.1	15.3 34.1	15.3 43.8
HITH RITHOUT ROAD FLYOVER HITH	20.2 20.2	20.2	20.2	20.2	24.6	24.6	24.6	24.6	24.6	31.1	34.1	34.1	34.1	34.1	43.8
TOPERATING COST DIFF	-4.6	-5.0	-5.1	-5.2	-5.3	÷5.5	~5.6	~5.7	-5.9	-6.6	-6.2	~6.3	-6.5	-6.7	-6.9
PSNL COST DIFF	-1.3	-1.3	-1.3	-1.3	-1.3	~1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3
NITH RITHOUT FUEL COST DIFF	1.3 -3.5	1.3	1.3 -3.8	1.3 -3.9	1.3 -4.0 2.4	1.3 -4.2 2.5	1.3 -4.3 2.6	1.3 -4.4 2.7	1.3 -4.6 2.8	1.3 -4.7 2.9	1.3 -4.9 3.0	1.3 ~5.0 3.1	1.3 -5.2 3.2	1.3 -5.4 3.3	1.3 -5.5 3.4
KLIHOOL KLIM	2.1 5.6	2.2 5.8	2.3 6.0	2.3 6.2	6.5	6.7	6.9	7.1	7.4	7.6	7.8	8.1	8.4	8.7	9.0
TOTAL BENEFIT DIFF	522.5		560.2	580.7	603.4 *******	617.8	633.0	648.7	664.9 ======	682.0	699.8	713.2		757.5	
RITII	522.5	540.8	560.2	580.7	603.4	617.8	633.0	5:8.7 	664.9	682.0	699.8	718.2	737.4	757.5	778.3
TIME SAVING BENEFIT BENE OF RAILWAY PSNGR	327.2 17.3	345.2 17.3	364.4 17.5	384.5 17.3	407.0 18.3	421.3 18.6 402.7	435.4 19.2 417.2	451.9 19.5 432.3	468.0 19.5 448.1	464.9 23.3 464.5	502.6 20.9 481.7	520.8 21.3 499.5	539.9 21.7 518.1	559.9 22.3 537.6	580.5 22.7 557.8
SENE OF ROAD VEHICLE HOTORCYCLE SAMLOR	399.9 26.4 16.6	326.0 27.9 17.5	347.0 29.5 18.5	367.3 31.3 15.6	388.7 33.1 20.6	34.3	35.5	36.7 23.1	35.0 23.9	39.4 24.8	40.8 25.7	42.3	43.8 27.6	45.4 28.6	47.1 29.6
SABLIR SEGAN LIGHT BUS	172.0	132.9	193.5 13.2 50.1	204.8 13.9 53.0	216.8 14.7 55.1	224.8 15.3 50.0	233.1 15.8 60.0	241.7 16.4 62.0	250.7 17.0 64.2	260.2 17.5 56.4	270.0 18.2 68.7	280.2 18.9 71.1	290.8 19.6 73.6	302.0 20.4 76.2	313.6 21.1 78.9
FUCK BUS	44.8 37.6	47.4 39.8	42.1	44.6	47.2	48.9	50.6	52.4	54.3	56.3	58.3	60.5	62.7	65.0	67.5
FUEL SAVING BEHEFIT VEHICLE AT CROSSING VEHICLE AT FLYOVER	9.3	9.6 9.6	9.9	10.1 10.1	19.4 10.4	10.6	10.7 30.7	10.8	11.0 11.0	11.1	11.3	11.4	11.6	11.7	
ACCIDENT AVOIDANCE BENE	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
LAND USE BENEFIT USASE OF SPACE FOR CONSTERCIAL USE FOR OTHER USE	184.5	184.5 184.5 179.3 5.2		184.5 184.5 179.3 5.2	184.5 184.5 179.3 5.2	184.5 104.5 179.3 5.2	164.5 164.5 179.3 5.2	164.5 164.5 179.3 5.2	184.5 184.5 179.3 5.2	164.5 164.5 179.3 5.2	184.5 184.5 179.3 5.2	184.5 184.5 179.3 5.2	184.5 184.5 179.3 5.2	184.5 134.5 179.3 5.2	184.5 184.5 179.3 5.2
HITHOUT															
TIME SAVING BENEFIT EENE OF ROAD VEHICLE			7												
FUEL SAVING BENEFIT VEHICLE AT CROSSING VEHICLE AT FLYOVER						-									
ACCIDENT AVOIDANCE BENE															
LAND USE BENEFIT USASE OF SPACE					٠				٠						
FOR COMMERCIAL USE FOR OTHER USE			. :											-	
BEY FLOW EIRR	520.8 20.377	539,2 20.377	F58.7 20.377	579.4 20.377	602.2 20.377	616.8 20.377	632.1 20.377	647.9 20.377	664.3 20.377	681.5 20.377	650.5 20.377	718.0 29.377	737.4 20.377	757.7 20.377	1409.5 20.377
															•
						- 31	1-,								

# Appendix 12.5.1 Financial Analysis for Track Elevation Project, State Railway of Thailand (Case-I-2) (HIL. BART) PAGE 1/PART 1

	1984	1485	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
PROFIT & LOSS STATEMENT	~			٠				`							
REVENUE								143.6	151.6	160.2	169.6	179.8	190.9	203.0	218.6
OPERATING INCOME PASSENGER								115.1	123.0 88.1	131.7	141.0	151.2	162.4	174.5	187.7
FREIGHT RENT INCOME			-					84.0 31.0 28.6	34.9	92.4 39.2 28.6	96.9 44.1 28.6	101.7 49.6 28.6	106.6 55.7 28.6	111.6 62.7 28.6	117.3 70.4 31.1
OPERATING EXPENSE								518,9	526.3	517.3	509.8	534.6	511.3	487.8	479.3
WORKING COST			~~~~					63.9	85.9	87.9	98.4	113.6	102.4	105.1	117.2
PERSONNEL COST								41.9 4.9	41.9 4.9	41.9	50.1 4.9	60.1 7.8	46.4 7.8	46.4 7.8	55.7 7.8
ENERGY COST INTEREST PAYMENT								37.1 336.5	39.1 341.9	41.1 330.8	43.3 312.9	45.7 308.8	48.2 296.7	50.9 270.6	53.7 239.6
DEPRECIATION OPERATING PROFIT								98.5 -375.3	98.5 -374.7	98.5 -357.1	98.5	112.2 -354.8	-320.3	-284.8	122.4
NET INCOME BEFORE TAX INCOME TAX PAYABLE			223343	*******					-374.7				~320.3		
NET INCOME AFTER YAX						*******		-375.3					-380.3	-284.8	-260.5
INVESTMENT PLANNING	1211141				*******				3324244					255555	702443E
======================================															
CIVIL NORK	25.2	101.3	276.4	420.8	427.8	383.0	195.2	76.1	79.7	23.3	11.9	138.2	140.7	14.1	
FOREIGH CURRENCY LOCAL CURRENCY	11.3 14.0	45.1 56.1	71.9 204.5	110.1 310.7	113.2 314.5	124.4 256.6	99.4 95.8	35.6 40.5	45.2 34.4	9.9 13.4	5.3 6.6	36.7 101.5	38.1 102.6	8.0 6.1	
STATION FACILITY					1.4	4.8	109.1	1.3			1.3	16.2		<b>4</b>	
- FOREIGN CURRENCY		•			0.4 1.0	1.4 3.4	32.1 77.0	0.4 0.9			0.4	4.8 11.4			
STENALS & TELECON	10.3	34.4	43.7	9.6	106.4	133.3	269.3		3.8	3.8	20.3	42.0	6.7	12.7	
FOREIGN CURRENCY LOCAL CURRENCY	4.5 5.8	15.1 19.3	23.4 20.3	4.4 5.2	63.1 43.3	79.5 53.8	159.2 109.1		1.7 2.1	1.7	12.2 8.1	25.4 16.6	4.0 2.7	7.9 4.8	
LAND ACQ & COMP	•		26.1	26.1											
LOCAL CURRENCY			26.1	26.1				<del></del>							
ROLLING STOCK								702.8				254.6		•	
FOREIGH CURRENCY LOCAL CURRENCY								576.1 126.7				208.7 45.9			
TOTAL INVESTMENT	35.5	135.7	346.2	456.5	535.6	521.1	572.6	780.2	83.5	27.1	33.5	451.0	147.4	26.8	
FOREIGH TOTAL LOCAL TOTAL	15.8	60.2 75.4	95.3 250.8	114.5 342.0	176.7 358.8	205.3 315.7	290.8	612.0 168.1	46.9 36.5	11.6	17.9 15.6	275.5 175.5	42.1 105.3	15.9 10.9	
-SALVAGE VALUE				•				-;							
INT DURING CONST.	2.2	11.4	40.7	88.0	146.8	210.2	278.4								
FINANCE TOTAL									*						
BORROWING	37.7	147.1	386.9	544.5	682.4	731.3 2.2	851.0 10.7	780.2 39.4	83.5 81.6	27.1 130.8	33.5 182.3	451.0 238.6	147.4 260.4	26.8 270.2	281.2
REPAYMENT DALAICE INTEREST	37.7	184.8	571.7	1116.2	1798.7		3366.1	4108.9 336.5	4110.8 341.9	4007.1 330.8	3858.2 312.9	4070.6 308.8	3957.6 296.7	3714.3 270.6	3433.0 239.6
FINANCE IN FOREIGN CCY															
BCRROWTHG	16.1	68.1	99.8	122.4	189.8	224.8	319.0	612.0	46.9	11.6	17.9 0.8	275.5 3.9	42.1 8.9	15.9 15.0	24.5
REPAYMENT BALANCE INTEREST	16.1	78.2	178.0	300.5	490.3	715.1	1034.1	1646.1 44.8	1693.1 50.4	1704.6 51.1	1721.7 51.5		2026.5 60.5	2027.4 60.8	
FINANCE IN LOCAL CCY 1															
BORROWING REPAYMENT BALANCE															
THTEREST									-						
LINVICE IN FOCYF CCA 5	21.6	85.0	287-1	422.1	492.6	506.4	532.1	168.1	36.5	15.5	15.6	175.5	105.3	10.9	
Borrowing Repayment Balance	21.6	106.6	393.7			2.2 1812.7	10.7	39.4 2462.8	81.6 2417.8	130.8 2302.4	181.5 2136.5		251.5 1931.1	1686.9	256.7 1430.2 179.3
INTEREST								291.7	291.5	279.8	261.4	251.1	236.1	209.8	177.5
CASHFLON STATEMENT									) A C **	A4		. 666 /	-60.8	-145.8	-138.0
CASH IN	37.7	147.1	386.9	544.5	682.4		851.0		-192.7		~	208.4	~	-284.8	
HET INCOME AFTER TAX DEPRECIATION BORROWING	37.7	147.1	386.9	549.5	682.4	731.3	851.0	-375.3 98.5 780.2	98.5 83.5	98.5 27.1	98.5 33.5	112.2 451.0	112.2 147.4	112.2 26.8	122-4
CASH OUT	37.7	147.1	386.9	544.5	662.4	733.4	861.7	819.5	165.1	157.9	215.8	689.6	407.8	297.0	281.2
INVESTMENT	35.5	135.7	346.2	456.5	535.6	521.1	572.6	780.2	83.5	27.1	33.5	451.0	147.4	26.8	-
INT DURING CONST. REPAYMENT	2.2	11.4	40.7	88.0	146.8	210.2 2.2	278.4 10.7	39.4	81.6	130.8	18273	238.6	260.4	270.2	281.2
HET CASHFLON	<b>F</b> #2225	# E E # 2 2 2 2	1215122	E2=== <b>2</b> E	E:::::::	5.5-							-468.6 ====== -2449.8		
CUM HEY CASHFLOW						-2.2	~12.8	- 528.9	- 086 . 7	~1076.1	-1900.0	-1701.2	-6-9-17-0	207, 70	

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	5010	2011	2012	2013	
PROFIT & LOSS STATEMENT														. :		
REVENUE	229.4	240.7	252.8	265.6	279.3	291.1	303.5	316.6	330.4	344.9	360.2	376.3	393.2	411.1	429.9	
OPERATING INCOME PASSENGER FREIGHT	190.3 122.0 76.4		221.7 132.0 89.7	234.5 137.2 97.3	248.2 142.7 105.5	260.0 147.7 112.3	272.5 152.8 119.6	285.6 158.1 127.4	299.3 163.6 135.7	313.8 169.3 144.5	329.1 175.2 153.9	395.2 181.3 163.9	362.2 187.6 174.6	380.0 194.1 185.9	398.9 200.8 193.0	
RENT INCOME	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31,1	31.1	31.1	31.1	31,1	31.1	
OPERATING EXPENSE	486.3	460.1	431.2	406.4	423.4	413.2	405.5	400.9	397.5	470.8	475.3	473.7	473.9	474.9	553.8	
MORKING COST MAINTENANCE COST	128.8 61.3			139.2	151.9	155.4 66.9	159.2 66.9	163.2	167.4	193.5 78.7	198.3 78.7	203.4 78.7	208.8 78.7	214.6 78.7	90.9	
PERSONNEL COST ENERGY COST	10.7 56.8	10.7 60.0		10.7 67.2	13.6 71.2	13.8 74.7	13.8 78.5	13.8 82.5	13.8 85.7	23.5 91.2 90.4	23.5 0.69 0.09	23.5 101.1 3.3	23.5	23.5 112.4 73.2	33.3 118.5	
INICREST PAYMENT DEPRECIATION	138.9	169.1	156.7 138.9	128.2 138.9	116.1 155.4	102.4 155.4	90.9 155.4	82.3 155.4	74.6 155.4	187.0	187.0	187.0	78.1 187.0	187.0	91.4 219.7	
OPERATING PROFIT	~256.9	-219.4	-178.4 =======	-140.8 ####################################	-144.1	-122.1	-101.9	-84.3 =======	-67.1 secores	-125.9 ####################################	-115. <u>1</u>	-97,4	-80.7 ======	-63.8 ======	-123.9	
NET INCOME BEFORE TAX INCOME TAX PAYABLE	-256.9	-219.4	-178.4	-140.8	-144.1	-122.1	-101.9	-84.3		-125.9	-115.1	-97.4	-80.7	-63.8	-123.9	
NET INCOME AFTER TAX			-178.4					-84.3		-125.9	-115.1 ======	-97.4	-80.7		-123.9	
INVESTMENT PLANNING																
CIAIF MONK																
FOREIGN CURRENCY																
STATION FACILITY FOREIGN CURRENCY	~				•											
LOCAL CURRENCY														-		
FOREIGN CURRENCY									<b></b>							
LOCAL CURRENCY																
LAND ACQ & COMP																
LOCAL CURRENCY									•							
ROLLING STOCK	308.2				789.5				98.Z	684.7			216.4		703.1	
FOREIGH CURRENCY LOCAL CURRENCY	252.7 55.6				647.1 142.4				80.5 17.7	561.2 123.5			177.4 39.0		576.4 126.8	
TOTAL INVESTMENT	308.2	*=====	2200228		789.5		*=====	×=====	98.2	684.7		•====	216.4		703.1	
FOREIGH TOTAL	252.7 55.6				697.1 142.4				80.5 17.7	561.2 123.5			177.4 39.0		576.4 126.8	
-SALVAGE VALUE .															3051.4	
THIT GURLING CONST.																
FINANCE PROGRAM										•						
FINANCE TOTAL																
ECRECATIVE	308.2				300.2					684.7					703.1	•
REPAYMENT BALANCE INTEREST	291.9 3449.4 218.5	316.8 3132.6 109.1		290.5 2512.8 128.2	241.8 2579.2 116.1	197.6 3.181.6 4.201	158.2 2223.4 90.9	143.5 2079.9 82.3	140.6 1939.2 74.6	144.6 2479.3 90.4	155.7 2323.5 90.0	138.2 2165.4 83.3	127.6 2057.7 78.1	126.6 1931.2 73.2	151.5 2482.8 91.4	
FINANCE IN FOREIGN CCY	210.9		250.7		110.1	102.4	,,,,,	00.3			70.0		70.1	, ,,,,,	71.4	
SORROWING	252.7		* .	,	252.7					561.2					576.4	
REPAYMENT BALANCE THIEREST	35.8 8.219.8 65.0	51.7 2168.1 65.4	82.3 82.85.a 63.2	84.7 2001.1 60.7	85.2 2168.5 63.8	86.1 2052.4 63.1	99.9 1982.5 69.2	102.0 1880.5 57.2	102.8 1777.7 54.1	102.8 2236.1 63.6	115.4 2120.7 64.5	115.4 2005.2 61.0	115.4 1889.8 57.6	115.4 1774.4 54.1	128.1 2222.6 63.3	
FINANCE IN LOCAL CCY 1																
BORROWING REPAYMENT BALANCE INTEREST																
FINANCE IN LOCAL CCY 2																
BORROWING REPAYHENT	55.6 256.1	265.1	247.0	205.9	55.6 156.6	111.5	58.3	41.5	37.8	123.5 41.8	40.3	22.7	12.2	11.1	126.8 23.5	
BALANCE INTEREST	3229.6 153.6		717.5 93.5	511.7 67.6	410.7 52.3	299.2 39.2	249.9	199.4 25.2	161.5 20.5	243.2 26.7	202.9 25.6	160.1 22.3	167.9 20.5	156.8	260.1 28.1	•
CASHFLON STATEMENT							٠									
CASH IN	190.3	-80.5	-39.5	-1.9	319.5	33.3	53.5	71.1	88.4	745.7	71.9	89.6	106.4	123.3	798.9	
NET INCOME AFTER TAX DEFRECTATION BORROWING	-256.9 138.9 308.2	-219.4 130.9	-178.4 138.7	-140.8 138.9	-144.1 155.4 308.2	-122.1 155.4	-101.9 155.4	-84.3 155.4	-67.1 155.4	-125.9 187.0 684.7	-115.1 187.0	-97.4 187.0	-00.7 167.0	-63.8 187.0	-123.9 219.7 703.1	
CASH OUT	600.1	316.8	329.3	290.5	1031.3	197.6	156.2	143.5	238.8	829.3	155.7	138.2	344.0	126.6	854.7	
INVESTMENT INCOUNTING CONST.	308.2				389.5				98.2	684.7			\$16.4		703.1	
REPAYMENT	291.9		329.3	290.5	241.8	197.6	158.2	143.5	140.6	144.6	155.7	139.2	127.6	126.6	151.5	
HEY CASHFLOW	******	******	+368.7 ********* -4487.7	******	*******	220222	222222	=======	-150.5	-83.6 ====================================	-83.8	272222	-237.7	-3.3	-55.7 ====== -4696 4	
CUM NET CASHFLON	-3/61.7	-411A'0	-990/./	7700.1	-2471.9	-2020.2	-3100.9		-3703.0	-900714		01,77.7	4431.4	0.70.7	3170.4	

## Appendix 12.5.2 Financial Analysis for Track Elevation Project, State Railway of Thailand (Case-II-3)

		0000			<i>J</i> • ·		, ,		t HI	L. BAHT	, PA	6E 1 /P	ART 1		
	1006	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
PROFIT & LOSS STATEMENT	1984	1903	1400	1101	1700	1.5.									
*****************					•			177.1	186.0	195.8	206.3	217.6	230.0	245.9	260.4
REVENUE								139.5	148.5	158.2	168.7	180.1	192.4	205.8	220.4
OPERATING INCOME PASSENGER FREIGHT RENT INCOME	·							108.4 31.0 37.6	113.6 34.9 37.6	119.0 39.2 37.6	124.6 49.1 37.6	130.5 49.6 37.6	136.7 55.7 37.6	143.1 62.7 40.1	149.9 70.4 40.1
OPERATING EXPENSE							•	689.4	692.1	\$.088	665.6	672,4	627.6	604.9	565.2
HORKING COST								116.7	105.9	108.2	119.2	134-1	123.8	133.5	136.5
MAINTENANCE COST PERSONNEL COST ENERGY COST INTEREST PAYMENT					:			66.5 5.9 44.3 446.7 126.1	53.5 5.9 46.4 460.1 126.1	5.9 48.7 445.9	62.2 5.9 51.1 420.3 126.1	71.4 9.0 53.7 397.1 141.3	58.4 9.0 56.4 362.4 141.3	65.1 9.0 59.3 321.0 150.5	65.1 9.0 62.4 278.2 150.5
DEPRECIATION  OPERATING PROFIT								-512.3	-506.0	-484.4	-459.3	~454.6	-397.6	359.0	-305.8
NET INCOME BEFORE TAX	282222		22.52.22	TEXTACT	200022		ac <b>ete</b>		.~506.0			-454.8			
INCOME TAX PAYABLE									-506.0	-A50 A	_450 l	-454.8	-397.6	-359.0	-306.A
HET INCOME AFTER TAX		======	########		2 <b>3</b> 22222	*******	-=====	-512.5	-540.0	******	2330000	*******	*******		*10=915
INVESTMENT PLANNING														-	
CIVIL NORK	33.0	121.6	416.7	609.5	614.7	490.6	158.4	158.1	141.1	28.5	24.0	12.2	16.8	13.4	
FOREIGN CURRENCY LOCAL CURRENCY	14.7 18.3	54.1 67.5	120.2 296.5	172.3 437.2	182.4 432.3	174.9 315.8	83.1 75.2	48.9 109.2	35.7 105.5	11.3 17.2	20.2 3.9	2.4 9.8	6.6 10.2	13:4	
STATION FACILITY					33.1	1314	130.5	17.7							
FOREIGH CURRENCY LOCAL CURRENCY					10.0	4.6 9.4	39.4 91.1	5.3 12.4							
SIGNALS & TELECOM	10.1	34.7	45.4	10.2	114.4	143,4	299.5	41.0		3.8	9.2	19.3	6.7	12.7	
FOREIGN CURRENCY	4.4	15.2	24.4	4.7	5,76	64.6	177.3	25.5		1.7			4.0	7.9	
FOCAL CIERRENCY	5.7	19.5	21.6	5.5	47.2	58.8	122.2	15.5		2.1	3.5	7.9	2.7	4.8	
LOCAL CURRENCY			39.9	39.9			111111			**		·	*~~		
COLAC CORRECTOR								879.6				274.3			
ROLLING STOCK								721.0				224.8			
FOREIGN CURRENCY LOCAL CURRENCY								158.6				49.5			
TOTAL INVESTMENT	43.1	156.3	502.0	659.6	762.2	647.4	588.3	1096.3	141.1	32.3	33.2	305.7	23.5	26.1	22222
FOREIGH TOTAL	19.1 24.0	69.3 87.0	144.6 357.4	177.0 492.6	8.502 6.502	263.5 363.9	299.8 283.6	890.7 295.7	35.7 105.5	13.0	25.9 7.4	238.6 67.1	10.6 12.9	21.3 4.8	
-SALVAGE VALUE									1						
INT DURING CONST.	2.6	13.4	54.2	121.1	203.7	286.3	356.6								
FINANCE PROGRAM														:	
FINANCE TOTAL					1		:								
ECRRONIES	45.7	169.6	556.2	780.8	966.0	933.7 2.6	955.0 12.4	1095.3 53.0	141 l 117.2		33.2 246.3	305.7 311.7	23.5 348.8	368.7	364.6
REPAYMENT BALANCE INTEREST	45.7	215.4	771.6	1552.4	2518.4	3449.5	4392.0	5435.4 446.7				5075.6	4771.3 362.4		
FINANCE IN FOREIGN CCY															
BORROWING	19.5	71.5	150.6	188.3	278.5	290.9	336.8	800.7	35.7	13.0	25.9		10.6		35.4
REPAYMENT BALANCE INTEREST	19.5	91.0	241.6	429.9	706.4	999.2	1336.0	2136.7 58.1				2444.3	12.1 2442.8 73.3	2421.3	2385.9
FINANCE IN LOCAL CCY 1															
EORROWTHG REPAYHELL													· · · .		
BALANCE INTEREST															
FINANCE IN LOCAL CCY 2				•					•					:	
BORRCHING	26.2	98.2	405.6	592.4	687.5	642.9	618,2						12.9 336.7		349.2
REPAYMENT BALANCE THTEREST	26.2	124.4	530.0	1122.5	1810.0	2.6 2450.2	12.4 3056.0	53.0 3298.7 338.6	112.2 3291.9 395.2	181.0 3130.2 380.5	245.3 2892.3 354.2	2652.3 325.5	2326.5	1781.3	1632.2
CASHFEDY STATEHENT															
CASIL IN	45.7	169,6	556.2	789.8	966.0		955.0	710.0	-238.6	-326.1	-300.1	-7.6	-232.8	-208.6	-154.3
HET THEORE AFTER TAX								-512.3	-506.0	-484.4	~459.3	-454.6 141.3	-397.6	-357.0	-304.8 150.5
DEPRECIATION EORRGHING	45.7	169.6	556.2	789.8	966.0	933.7		1096.3	4 1	- 32.3	33.2	305.7	23.5		
CASH, OUT	45.7	169.6	556.2	780.8	965.0	936.4		1149.3		213.3			372.3		364.6
INVESTMENT INT DURING CONST	43.1 2.6	156.3 13.4	502.0 54.2	659.6 121.1	762.2 203.7	647.4 206.3 2.6	568.3 366.6 12.4	1096.3 53.0	141.1 112.2		33.2 246.3	305.7 311.7	23.5	26-1 368.7	384.6
REPAYMENT								470.7	402.3	-620.3	: 670 A	-425 1	-605.0	-603.4	-538.9
COM HET CASHFLOW	*******	******	*******	#::110#Z	2022522	-2.6				-1485.9					

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•															
and the second							•				•				
									1 113	L, DANT	) 19	16£ 1 /F	ART 2		
Para dia sa	1999	5000	5001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	5015	2013
PROFIT & LOSS STATEMENT															
REVERUE	271.6	283.4	295.9	309.3	323.4	335.8	348.8	362.5	376.9	392.0	407.8	424.5	442.0	460.5	479.9
OPERATING INCOME	231.5	243.3	255.9	269.2	263.3	295.7	A.80E	322.4	336.8	351.9	367.8	364.4	402.0	420.4	439.8
PASSENGER FREIGHT RENT INCOME	155.1 76.4 40.1	160.5 02.8 40.1	166.1 89.7 40.1	171.9 97.3 40.1	177.9 105.5 40.1	183.4 112.3 40.1	189.1 119.6 40.1	195.0 127.4 .40.1	201.1 135.7 40.1	207.4 144.5 40.1	153.9	220.5 163.9	227.4 174.6 40.1	234,5 185,9 90,1	241.8 198.0 40.1
OPERATING EXPENSE	564.0	528.0	491.1	460.5	476.9	465.0	456.6	452.8	451.1	526.5	532.9	532.2	532.1	532.4	610.7
NORKING COST	149.0	152.4	156.2	160.1	173.6	177.2	181.0	185.0	189.3	215.5	220.3	225.5	231.0	8.885	265.0
HAINTENANCE COST PERSONNEL COST ENERGY COST	71.1 12.2 65.7	71.1 12.2 69.2	71.1 12.2 72.9	71.1 12.2 76.9	77.1 15.4 81.1	77.1 15.4 84.7	77.1 15.4 88.5	77.1 15.4 92.6	77.1 15.4 96.9	88.9 25.2 101.4	25.2 25.3 106.3	88.9 25.2 111.4	88.9 25.2 116.9	88.9 25.2 122.7	101.0 35.0 128.9
INTEREST PAYMENT DEPRECIATION	246.4 168.6	206.9	166.3 168.6	131.8	116.6	101.1 186.7	89.8 166.7	81.0 166.7	75.0 166.7	92.7 218.3	94.2 218.3	88.4 218.3	82.8 218.3	77.3	94.8 251.0
OPERATING PROFIT	-292.4	-244.6	-195.1	~151.3	-153.5	-129.2	-107.7	-90.3	-74.2	-134.6	-125.1		-90.1	-71,9	-130.9
HET INCOME BEFORE TAX			-195.1					-90.3			-125.1		-90.1		-130.9
INCOME TAX PAYABLE HET INCOME AFTER TAX	-202.6	-244.6	-195.1	-151.3	-153.5	-129.2	-107.7	-90.3	74.2	-134.6	-125.1	-107.7	-90.1	-71.9	-130.9
	0:200E							#######							
INVESTMENT PLANNING	31		:				٠								
CIVIL HORK															
FOREIGH CURRENCY															
STATION FACILITY										******		*****	~ <b></b>		
FOREIGH CURRENCY															
SIGNALS & TELECOM							<b></b>	<u>.</u>							
FOREIGH CURRENCY LOCAL CURRENCY		••													
LAND ACO & COMP															
LOCAL CURRENCY															
ROLLING STOCK	327.9				985.9				117.9	684.7			236.0		703.1
FOREIGH CURRENCY LOCAL CURRENCY	268.8 59.1		e.		808.1 177.8				96.6 21.3	561.2 123.5			193.5 42.6		578.4 126.8
TOTAL INVESTMENT	327.9				985.9				117.9	684.7			236.0		703.1
FOREIGH TOTAL	268.8 57.1		CIIARCE		898.1 177.8			********	96.6 21.3	561.2 123.5			193.5 42.6		576.4 126.8
-SALVAGE VALUE	•														3350.6
THE DURING CONST.															
FINANCE PROGRAM															
FINANCE TOTAL															
BORROWING REPAYMENT	327.9 397.2	411.0	411.7	354,3	327.9	229.1	179.2	150.1	139.6	684.7 143.6	156.3		148.3	140.3	703.1 179.1
BALANCE INTEREST	3948.7 246.4	3537.7 206.9	3126.0 166.3	2771.7 131.6	2813.4 116.6	2584.4 101.1	2405.2 88.6	2255.0 81.0	2115.4 75.0	2656.5 72.7	2500.2 94.2	2350.7 88.4	2202.4 82.6	2054.1 77.3	2583.2 94.8
FINANCE IN FOREIGN CCY										٠					
BORROHING REPAYMENT	268.8 59.0	66.8	106.8	108.6	268.8 109.3	110.6	122.5	123.0	123.0	561.2 123.0	136.5		136.5	136.5	576.4 149.9
DALANCE INTEREST	2604.7 76.5	2537.9 76.6	2431.0 73.7	2322.4 70.5		2371.3 72.0	2248.8 68.4	2125.8 64.7	8.2002 61.0	2441.0 69.9	2304.5 70.2	2168.1 66.1	2031.6 62.0	1695.2 57.9	2321.6 66.4
FINANCE IN LOCAL CCY 1															
BORROHING REPAYMENT															•
HALANCE INTEREST					٠.										
LIMANCE IN FOCAT CCA. S															
Borrowing Repayment	59.1 347.3	344.2	304.9	245.6	59.1 176.9	118.5	56.7	27.1	16.6	123.5 20.6	19.8	13.1	. 11.8 170.8	11.8 158.9	126.8 24.2 261.6
BALANCE INTEREST	1344.0 169.9	999.9 130.3	695.0 92.5	449.3 61.3	331.6 43.3	213.0 29.1	156.3 20.5	129.2	132.6 14.0	215.5 22.8	195.7 24.1	182.6 22.3	8.03	19.4	28.3
CASHFLOW STATEMENT	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1														
CASH IN	204.1	-76.0	-26.5	17.3	361.1	57.6	79.0	96.4	112.5	768.4	93.3	110.7	128.3	146.4	823.3
NET INCOME AFTER TAX DEPRECIATION	-292.4 168.6	244.6 168.6	-195.1 168.6	-151.3 168.6	186.7	-129.2 186.7	-107.7 186.7	-90.3 185.7	-74.2 186.7	-134.6 218.3		-107.7 218.3	-90.1 218.3	-71.9 218.3	-130.9 251.0 703.1
BORROWING	327.9 725.1	411.0	411.7	T ANS	327.9	229.1	179.2	150.1	257.5	684.7 828.2	156.3	149.6	354.3	148.3	877.2
CASH OUT INVESTMENT	327.9		414.7	339.3	985.9		4,3,6	2,50.1	117.9	684.7			236.0		703.1
THE DURING CONST.	397.2	411.0	411.7	354.3		229.1	179.2	150.1	139.6	143.6	156.3	149.6	148.3	148.3	174.1
_HET CASHFLOH	2224222	*******	CEFETTE	2252222	GILLER	222223	ポニッグラミモ	-53.7	E242523	1:2211	*=====	***=====	-256.0	-1.9	-53.9 ======
CON HET CYCHETON	-4959.0	-5446.0	-5884.2	-6221.1	-7132.0	-7393.5	-7403.7	-7457.4	-7602.4	-7662.2	-7725.2	-7764.1	-8020.1	-8022.0	-8075.9

Appendix 12.5.3 Net Cash Flow by Finance Plan (Case-I-2)

(Unit: Million Baht)

	ПоО	Subsidies to 50% of Domestic Currency Portion	50% of ty Portion	Вош	Subsidies to l	lies to 100% of Currency Portion	Subsidies to Fortion plus	100% of Do Subsidies	of Domestic Currency dies to Interest on ency Brrowing
Flow	(2) Subsidies	(1)-(2) Net Cash Flow	Accumulated Net Cash Flow	(3) Subsidies	(1)-(3) Net Cash Flow	Accumulated Net Cash Flow	(4) Subsid	(1)-(4) Net Cash Flow	Accumulated Net Cash Flow
-328.9	171.9	-157.0	-157.0	343.8	+14.9	+14.9	388.6	+59.7	+59.7
-357.8	186.6	-171.2	-328.3	373.1	+15.3	+30.2	423.5	+65.7	+125.4
-389.4	205.3	-184.1	-512.3	410.6	+21.2	+51.4	461.7	+72.3	+197.7
-423.9	221.4	-202.5	-714.8	442.8	+18.9	+70.3	494.3	+70.4	+268.2
-481.2	242.8	-238.4	-953.2	485.7	+4.5	+74.9	543.5	+62.3	+350.4
-468.6	243.8	-224.8	-1,178.0	487.6	+19.0	+93.9	548.2	+79.6	+410.0
-442.8	232.5	-210.3	-1,388.3	6.497	+22.1	+116.0	525.7	+82.9	+492.9
-419.3	218.0	-201.3	-1,589.6	436.1	+16.8	+132.8	496.3	+77.0	+570.0
-409.8	204.8	-205.0	-1,794.5	409.7	-0.1	+132.6	474.6	+64.8	+634.8
m	194.4	-202.9	-1,997.4	388.8	-8.5	+124.2	454.3	+57.0	+691.8
-368.7	170.2	-198.5	-2,195.5	340.4	-28.3	495.9	403.6	+34.9	+726.7
-292.4	136.7	-155.7	-2,351.6	273.4	-19.0	+76.9	334.1	+41.7	+768.4
-711.8	104.5	-607.3	-2,958.6	208.9	-502.9	-425.9	272.7	-439.1	+329.3
-164.3	75.4	-88.9	-3,047.8	150.7	-13.6	-439.5	213.9	9.67+	+378.9
-104.7	44.5	-60.2	-3,108.1	88.9	-15.8	-455.3	149.2	+44.5	+423.3
-72.4	33.3	-39.1	-3,147.2	66.7	15.7	-461.0	123.8	+51.4	+474.8
-150.5	29.2	-121.3	-3,268.5	58.4	-92.1	-553.1	112.5	-38.0	+436.8
-83.6	34.3	-49.3	-3,317.7	68.6	-15.0	-568.1	132.3	+48.7	+485.4
-83.8	32.9	-50.9	-3,368.6	65.8	-18.0	-586.1	130.3	+46.5	+531.9
9.87-	22.5	-26.1	-3,394.7	45.1	-3.5	-589.6	106.1	+57.5	+589.4
-237.7	16.4	-221.3	-3,616.0	32.8	-204.9	-794.6	90.3	-147.4	+442.0
-3.3	15.1	+11.8	-3,604.1	30.3	+27.0	-767.6	84.4	+81.1	+523.1
-	25.7	-30.0	-3,634.1	51.5	-4.2	-771.7	114.9	+59.2	+582.3
4.967.9	2,862.3		-3.634.1	7 707 7	•	1 177	1 0 1		000

Appendix 12.5.4 Net Cash Flow by Finance Plan (Case-II-3)

(Unit: Million Baht)

			Finance Plan	No. 1		Finance Plan	No. 2		Finance Plan	No. 3
Year	Basic Case	Dom	es to	50% of y Portion	Дош		100% of sy Portion	Subsidies to 1 Portion plus S Foreign	00% of Do Subsidies Currency	Domestic Currency is to Interest on by Borrowing
	Net Cash Flow (1)	(2) Subsidies	(1)-(2) Net Cash Flow	Accumulated	(3) Subsidies	(1)-(3) Acc Net Cash Flow Net	Accumulated Net Cash Flow	(4) Subsidies	(1)-(4) Net Cash Flow	Accumulated
1991	-454.4	228.4	-226.0	-226.0	456.7	+2.3	+2.3	514.8	+60.4	+60.4
92	-492.9	254.4	-238.5	-464.5	508.2	+15.3	+17.5	573.1	+80.2	+140.5
93	-539.3	280.7	-258.6	-723.1	561.4	+22.1	+39.7	679	+87.6	+228.1
46	-579.6	299.8	-279.8	-1,602.9	5.99.5	+19.9	+59.6	665.7	+86.1	+314.2
95	-625.1	316.3	-308.8	-1,311.8	632.5	+7.4	+67.0	704.1	+79.0	+393.2
96	-605.0	312.9	-292.1	-1,603.9	625.8	+20.8	+87.8	699.1	+94.1	+487.3
97	-603.4	297.7	-305.7	-1,909.6	595.4	-8.0	+79.8	668.2	+64.8	+552.1
86	6.538.9	277.8	-261.1	-2,170.8	555.5	+16.6	+96+	627.4	+88.5	+640.5
66	-521.0	258.6	-262.4	-2,433.2	517.2	ا. ه.	+92.6	593.7	+72.7	+713.2
2000	-487.0	237.3	-249.7	-2,682.9	474.5	-12.5	+80.1	551.1	+64.1	+777.3
01	-438.2	198.7	-239.5	-2,922.4	397.4	8-04-	+39.3	471.1	+32.9	+810.2
05	-336.9	153.4	-183.5	-3,105.9	306.9	-30.0	+9.3	377.4	+40.5	+850.7
. 03	-910.9	110.1	8.008-	-3,906.7	220.2	-690.7	-681.4	293.5	-617.4	+233.3
\$	-171.5	73.8	7.76-	-4,004.4	147.6	-23.9	-705.3	219.6	+48.1	+281.4
05	-100.2	38.6	-61.6	-4,066.0	77.2	-23.0	-728.3	145.6	+45.4	+326.7
96	-53.7	21.7	-32.0	-4,098.0	43.4	-10.3	-738.6	108.1	+54.4	+381.2
07	-144.9	15.3	-129.6	-4,227.6	30.6	-114.3	-852.9	91.6	-53.3	+327.9
8	8.651	21.6	+38.2	-4,265.8	43.3	-16.5	-869.4	113.3	+53.5	+381.3
60	-63.0	21.9	-41.1	-4,306.9	43.9	1.91-	-888.5	114.0	+51.0	+432.4
10	-38.9	17.7	-21.2	-4,328.1	35.4	-3.5	-892.0	101.5	+62.6	6.464+
11	-256.0	16.3	-239.7	-4,567.8	32.6	-223.4	-1,115.4	9.76	-161.4	+333.5
12	6.1.	15.6	+13.7	-4,554.0	31.3	+29.4	-1,086,0	89.1	+87.2	+420.8
13	-53.9	26,2	-27.7	-4,581.7	52.5	-1.4	-1,087.4	118.9	+65.0	+485.8
Total	-8,075.9	3,494.2		-4,581.7	6,988.5		-1,087.4	8,561.7		+485.8

