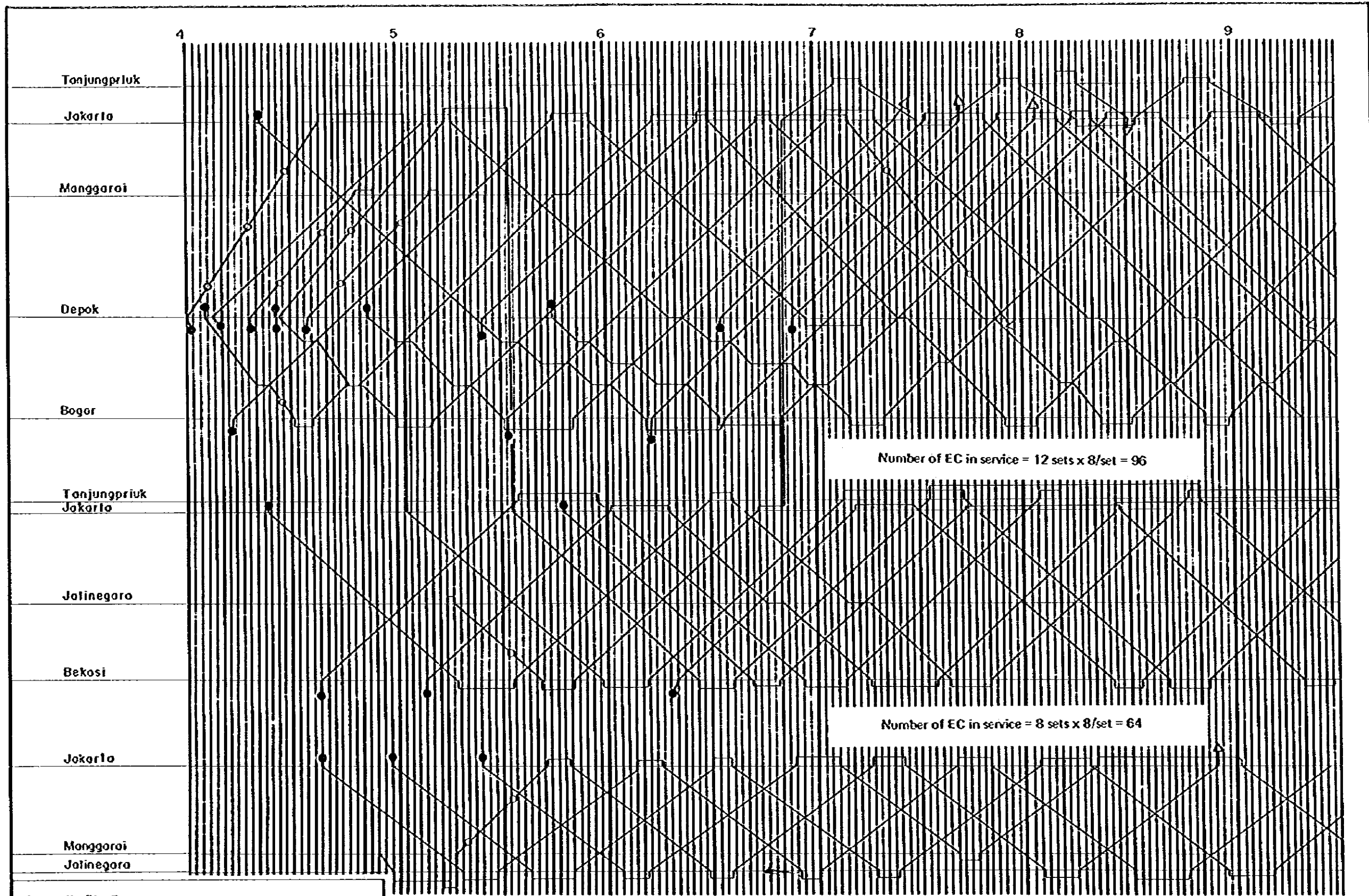


Appendix Fig. 6
 Train Diagram of Rush Hours in Year 1968
 JABOTABEK Area Railway Transportation Study

Legend

- Electric railway line
- Diesel railway line
- Passenger train
- Freight train
- Empty train
- Station
- △ Station

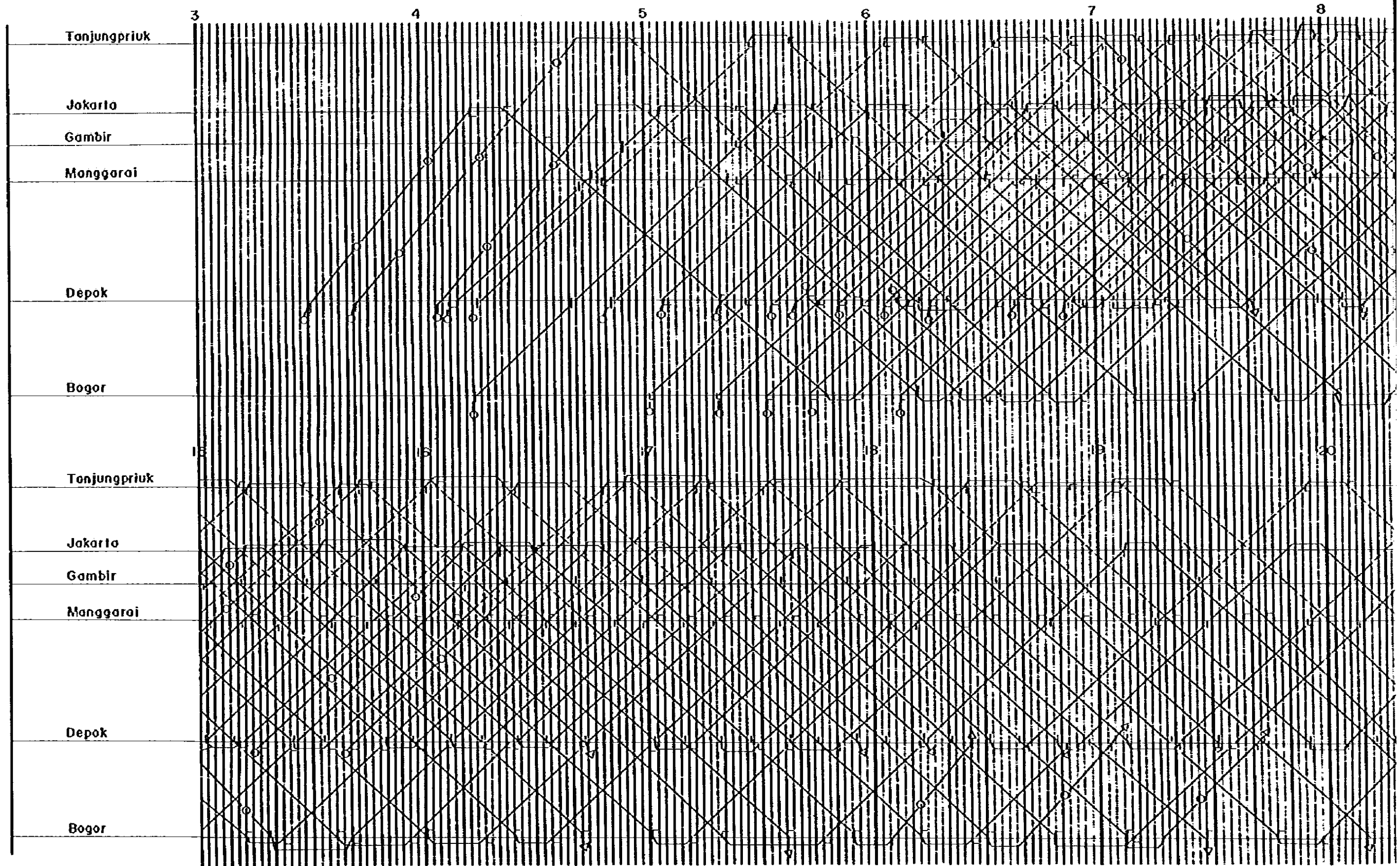


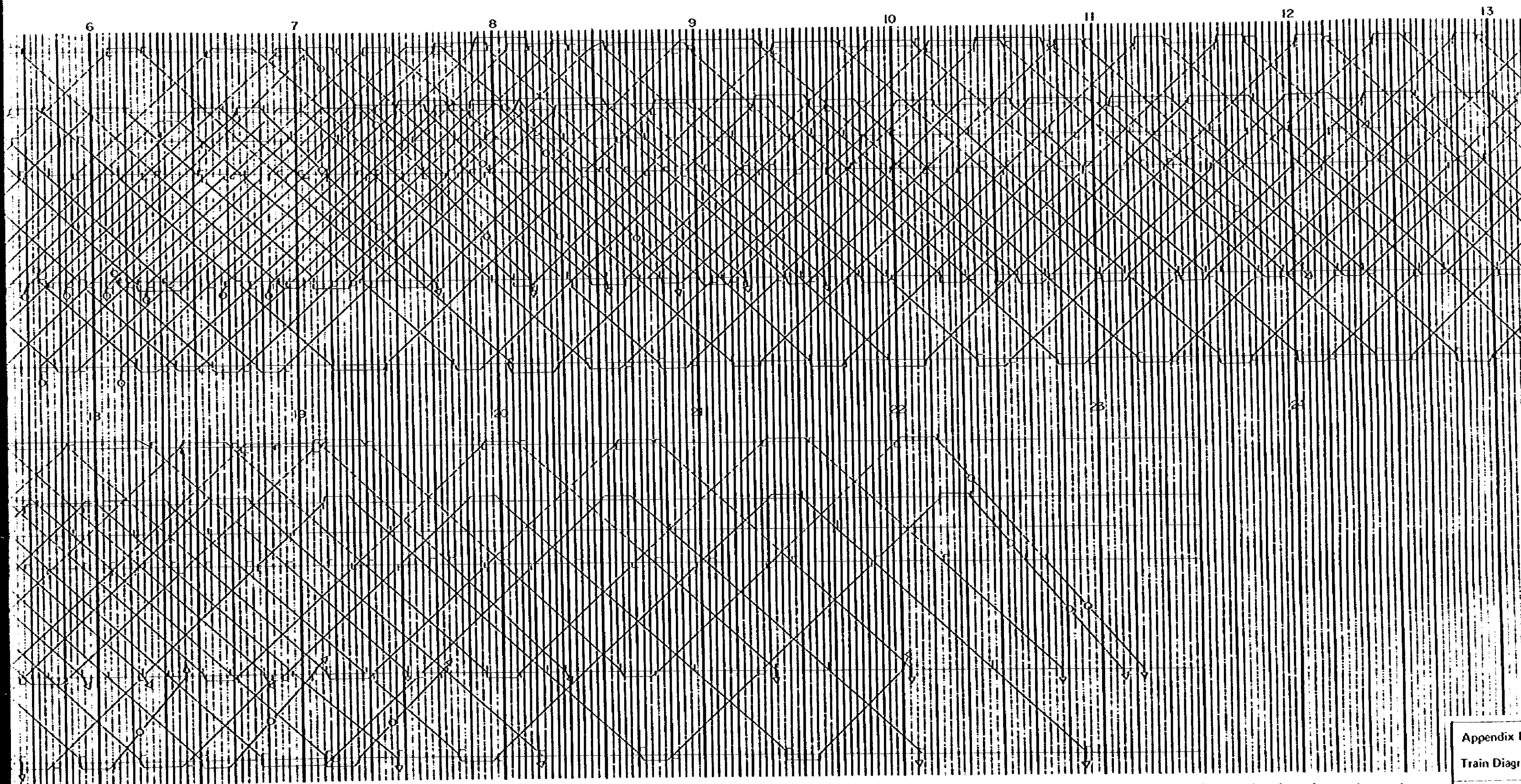
Appendix Fig. 7
Electric Railcar Rostering Schedule (in Year 1988)

JABOTABEK Area Railway Transportation Study

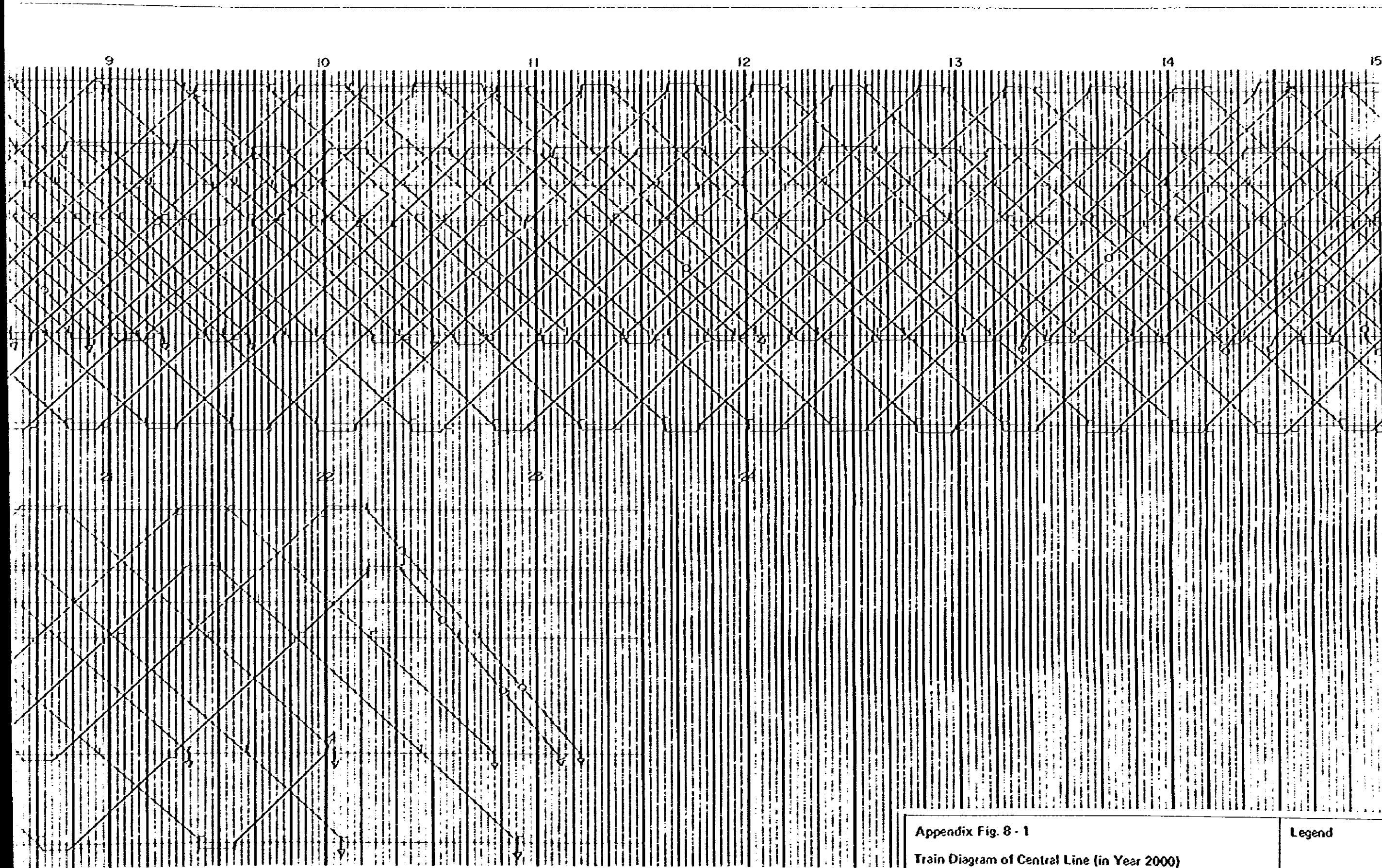
Legend

- starting train from depot
- ▽ arriving train into depot



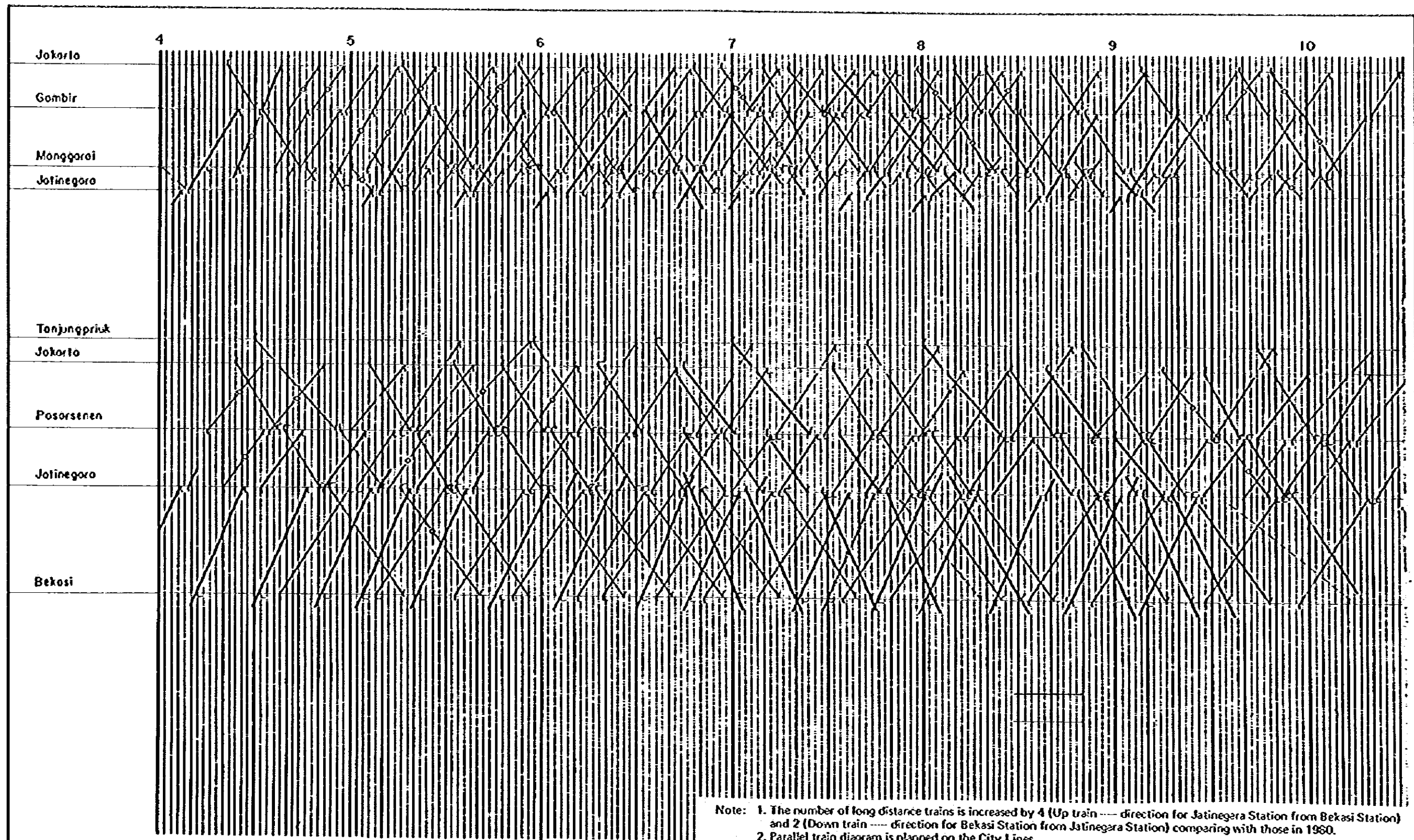


Note: 1. Excluded out-of-service train on other sections.
 2. ---- shows trains operated via Western Line.



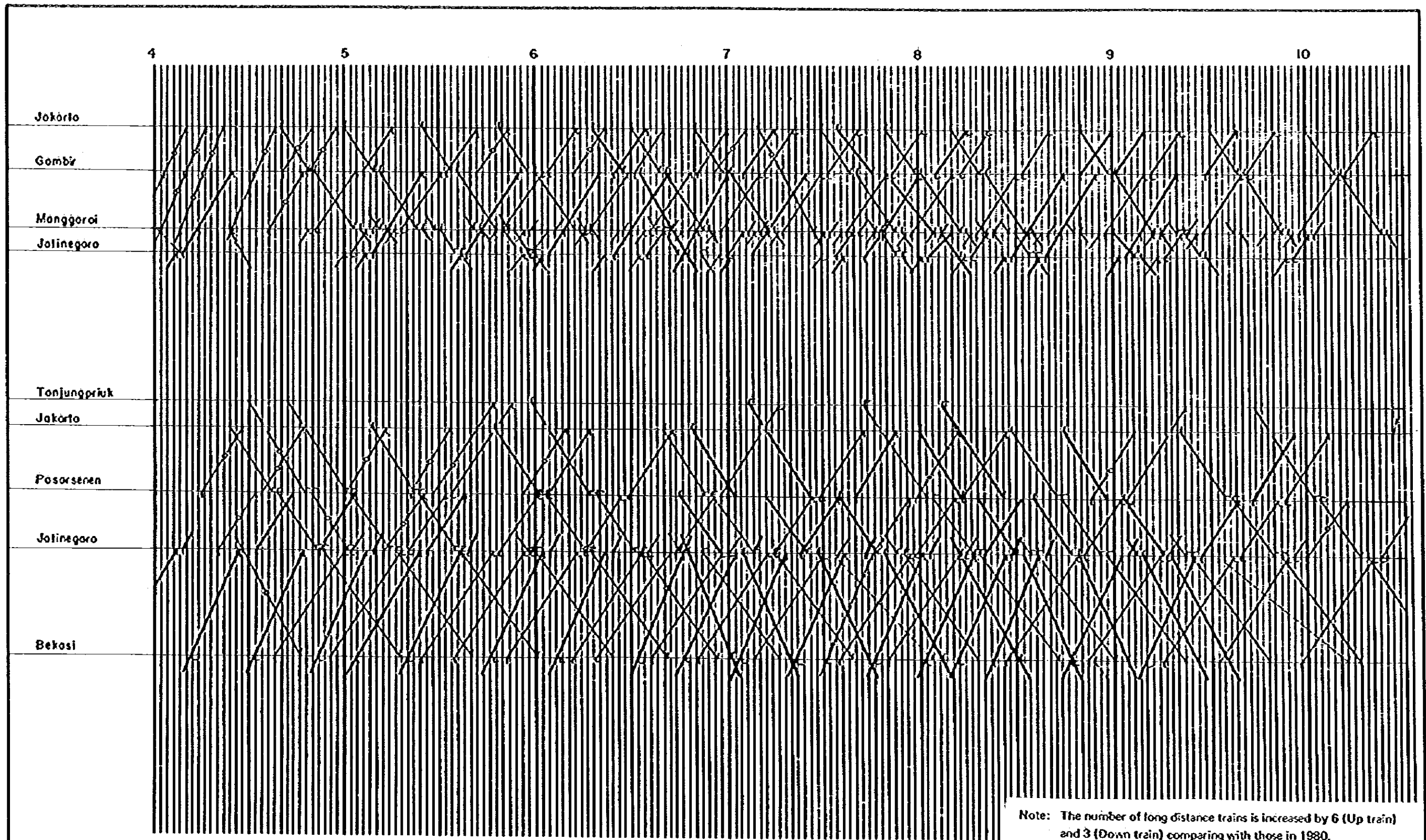
Note: 1. Excluded out-of-service train on other sections.
 2. ---- shows trains operated via Western Line.

<p>Appendix Fig. 8 - 1 Train Diagram of Central Line (in Year 2000)</p>	<p>Legend</p>
<p>JABOTABEK Area Railway Transportation Study</p>	



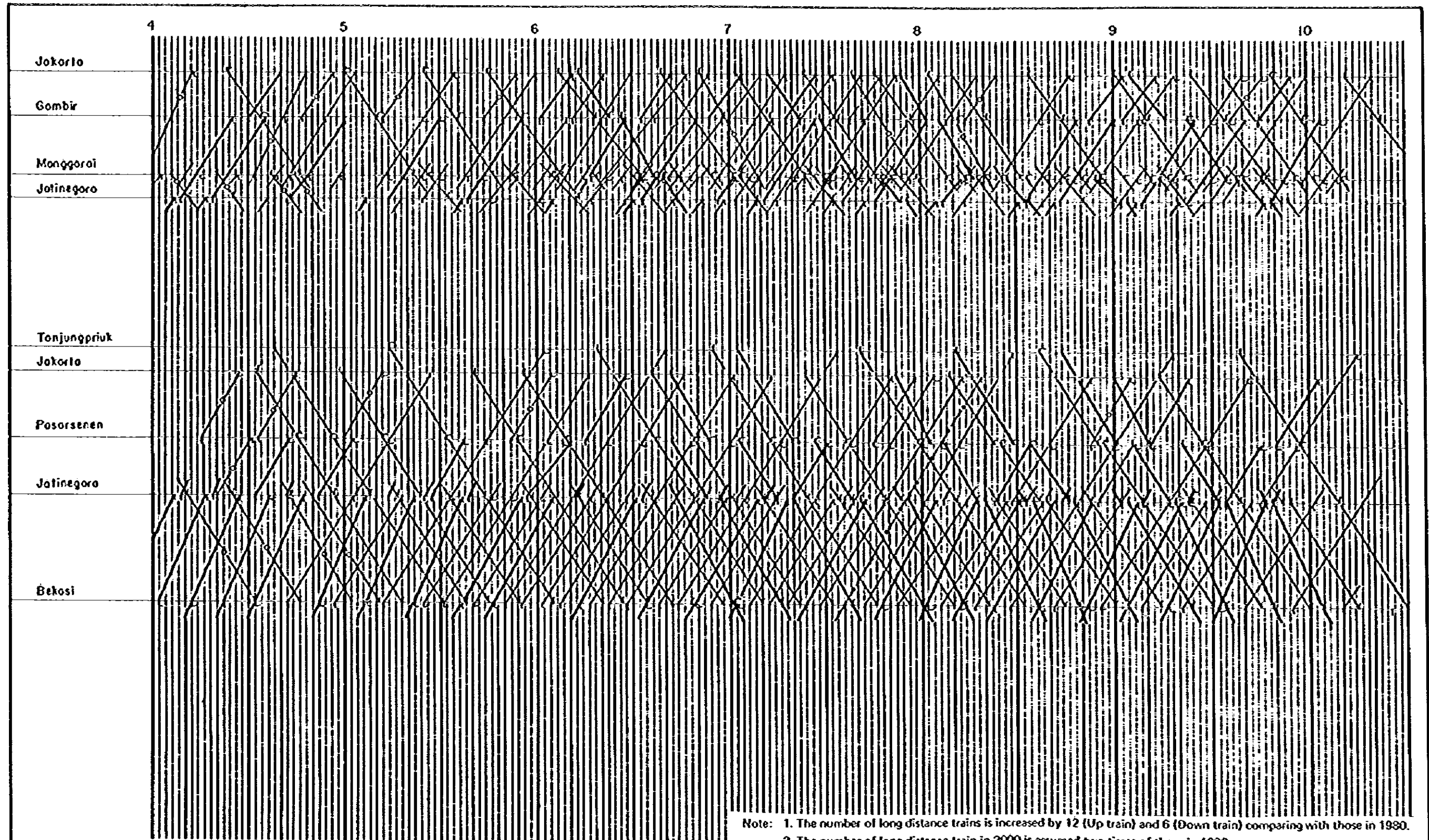
Note: 1. The number of long distance trains is increased by 4 (Up train — direction for Jatinegara Station from Bekasi Station) and 2 (Down train — direction for Bekasi Station from Jatinegara Station) comparing with those in 1980.
 2. Parallel train diagram is planned on the City Lines.

Appendix Fig. 8-2 Train Diagram of the Central, Eastern and Bekasi Lines (1988)	Legend
JABOTABEK Area Railway Transportation Study	<ul style="list-style-type: none"> —— Long distance train —— Electric railcar train



Note: The number of long distance trains is increased by 6 (Up train) and 3 (Down train) comparing with those in 1980.

<p>Appendix Fig. 8-3 Train Diagram of the Central, Eastern and Bekasi Lines (1991)</p>	<p>Legend</p> <p>—— Long distance train</p>
<p>JABOTABEK Area Railway Transportation Study</p> <p>—— Electric railcar train</p>	

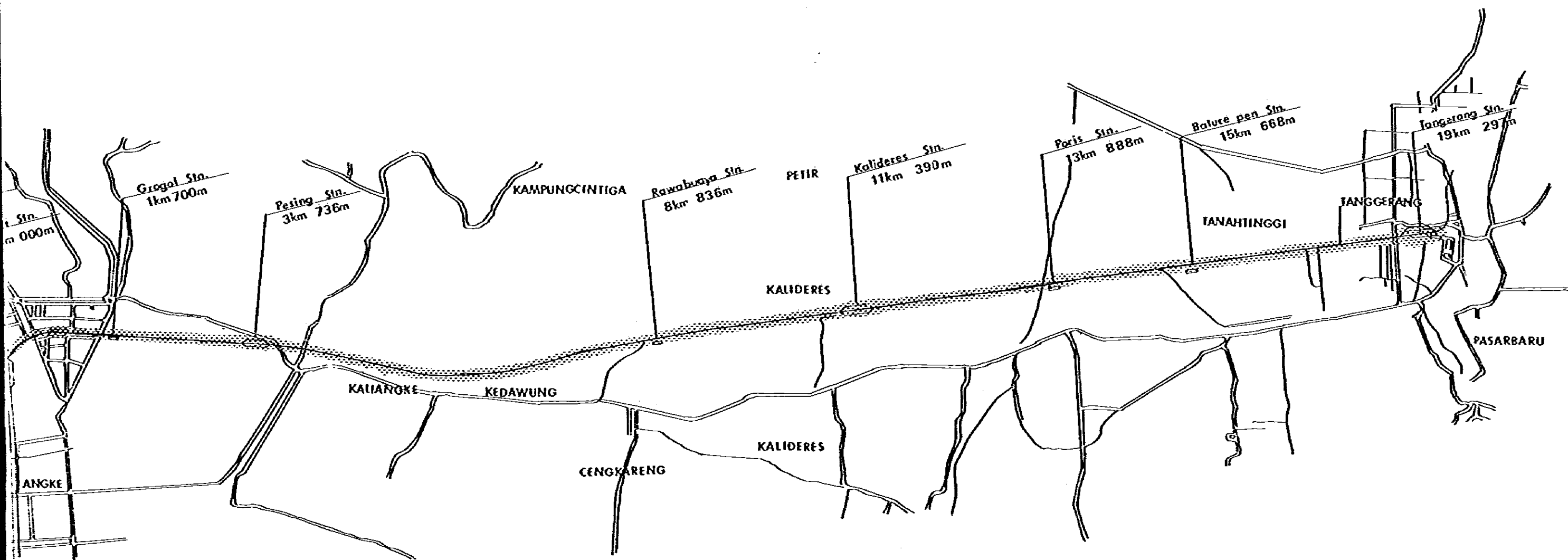


Note: 1. The number of long distance trains is increased by 12 (Up train) and 6 (Down train) comparing with those in 1980.
 2. The number of long distance train in 2000 is assumed two times of those in 1980.

<p>Appendix Fig. 8 - 4 Train Diagram of the Central, Eastern and Bekasi Lines (2000)</p>	<p>Legend</p> <p>———— Long distance train</p> <p>———— Electric railcar train</p>
<p>JABOTABEK Area Railway Transportation Study</p>	



Appendix Fig. 9
 Layout of Track Renewal in
 JABOTABEK Area Transport



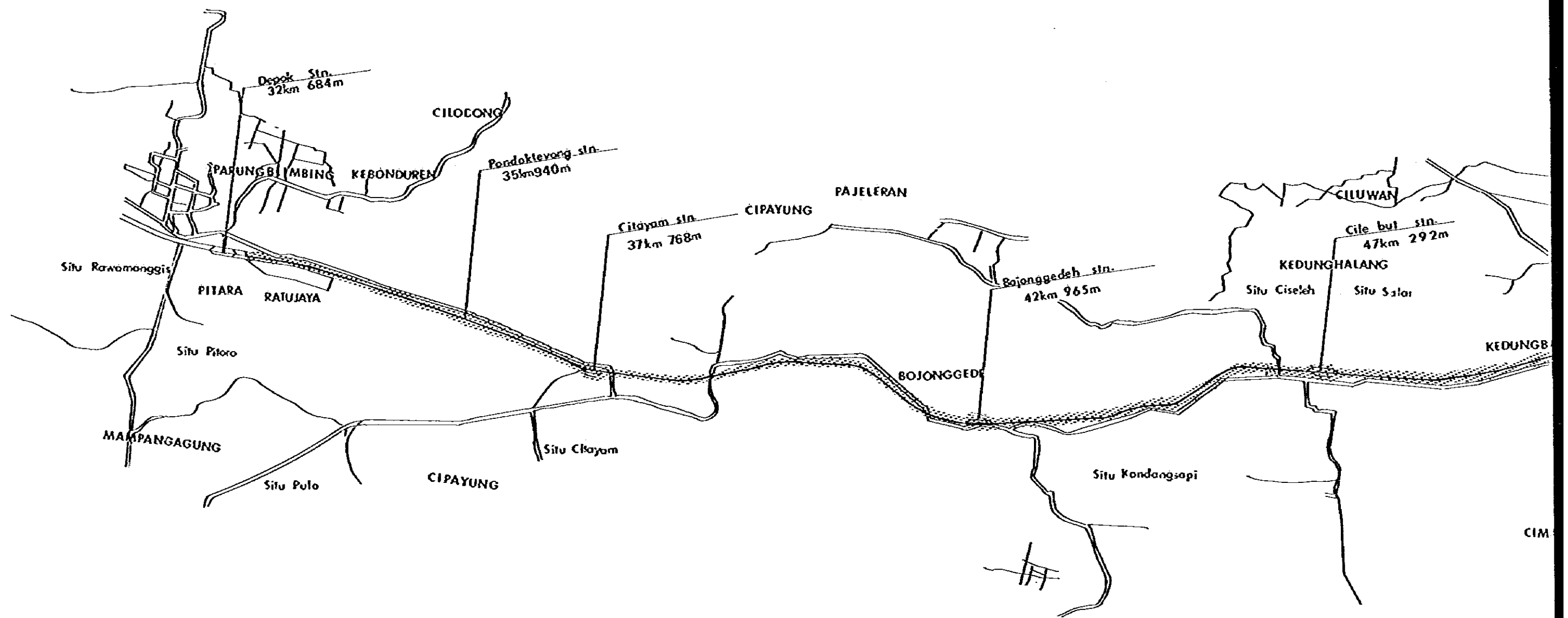
Appendix Fig. 9

Layout of Track Renewal in Tangerang Line

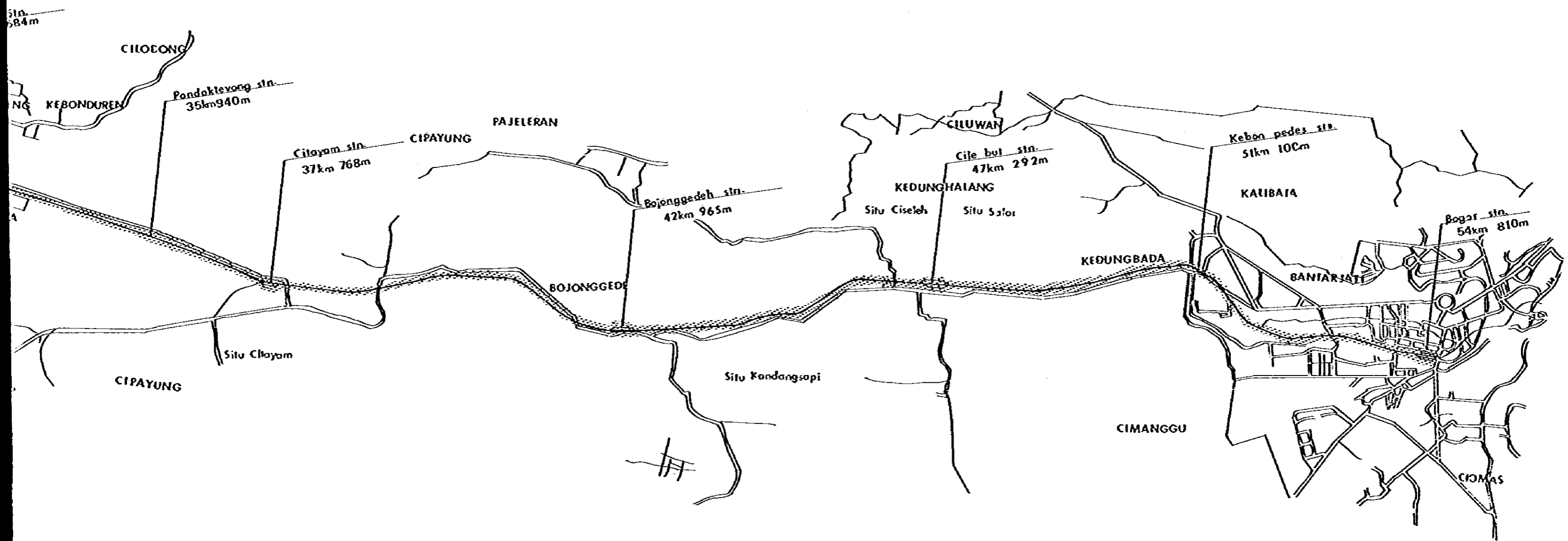
JABOTABEK Area Transportation Study

Legend

- Existing Rail
- Renewal of Rail
- Ballast

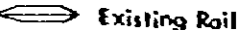




Appendix Fig. 10
 Layout of Track
 JABOTABEK Area

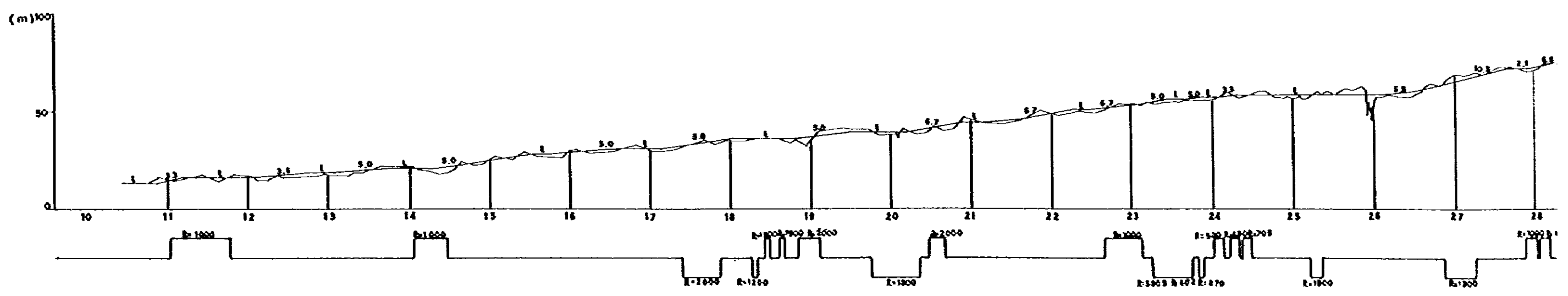


Appendix Fig. 10
 Layout of Track Renewal in Central Line
 JABOTABEK Area Railway Transportation Study

Legend

-  Existing Rail
-  Renewal of Rail
-  Ballast

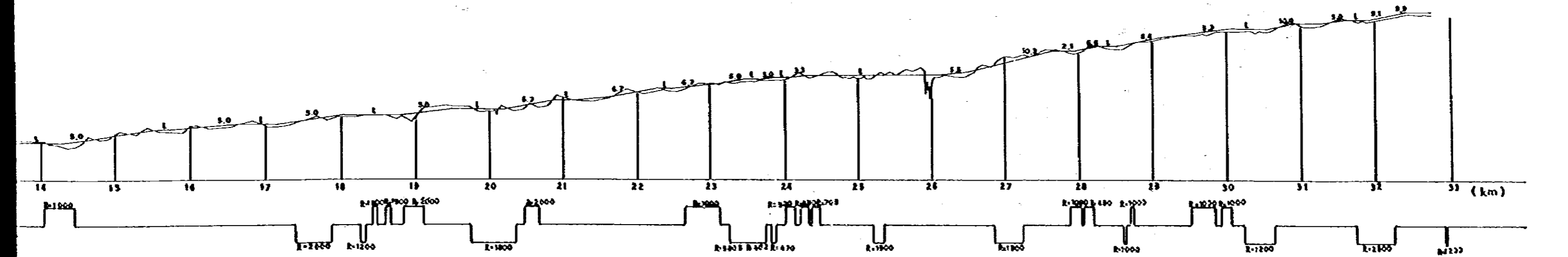
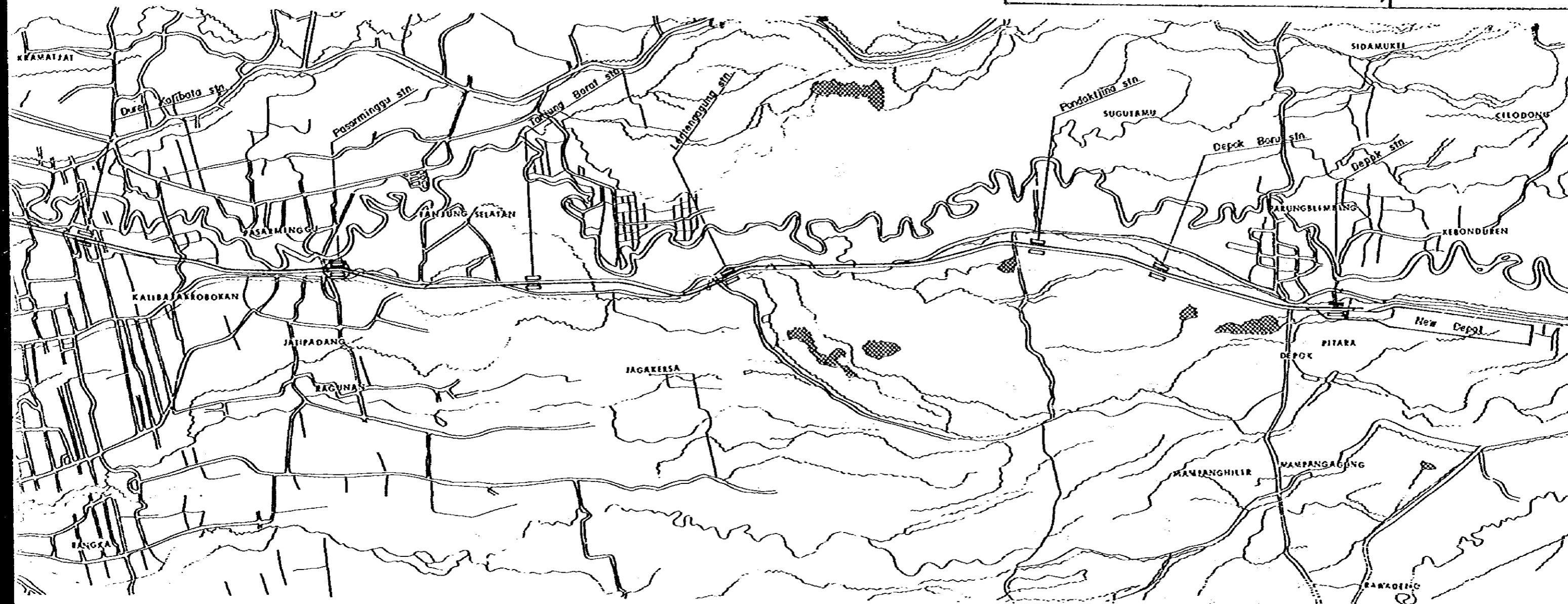
Scale 1: 50,000



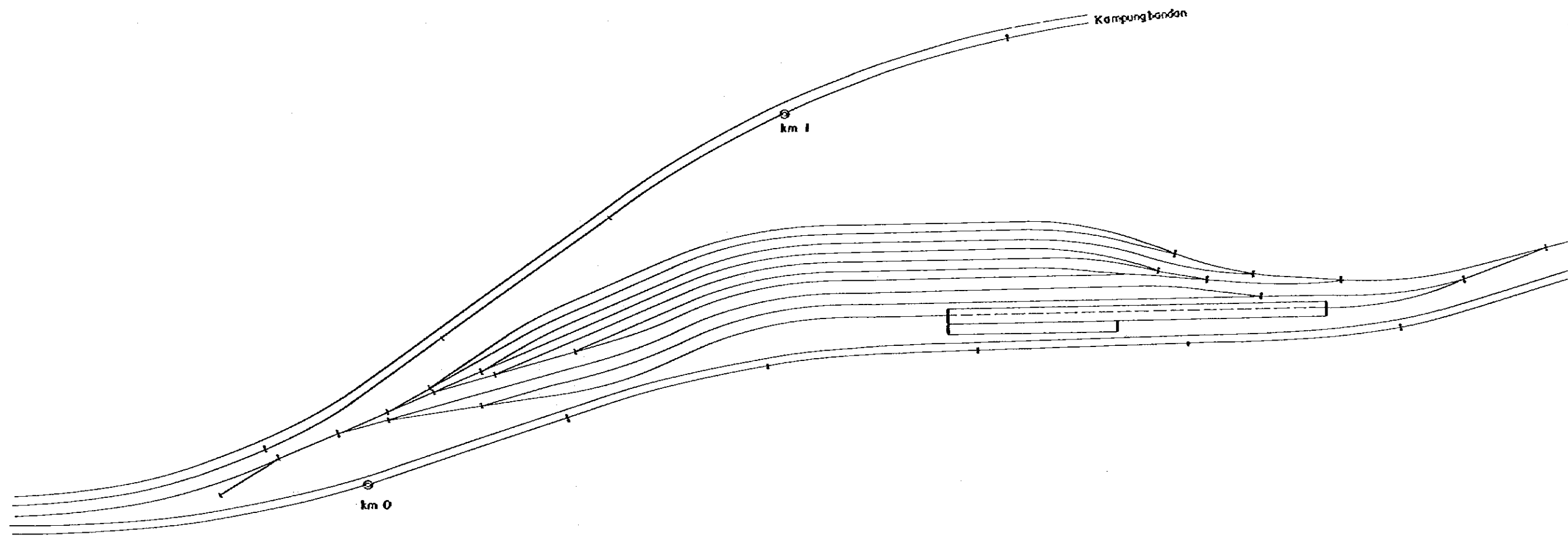
Layout of Track Renewal in Central Line

Scale 1 : 50,000

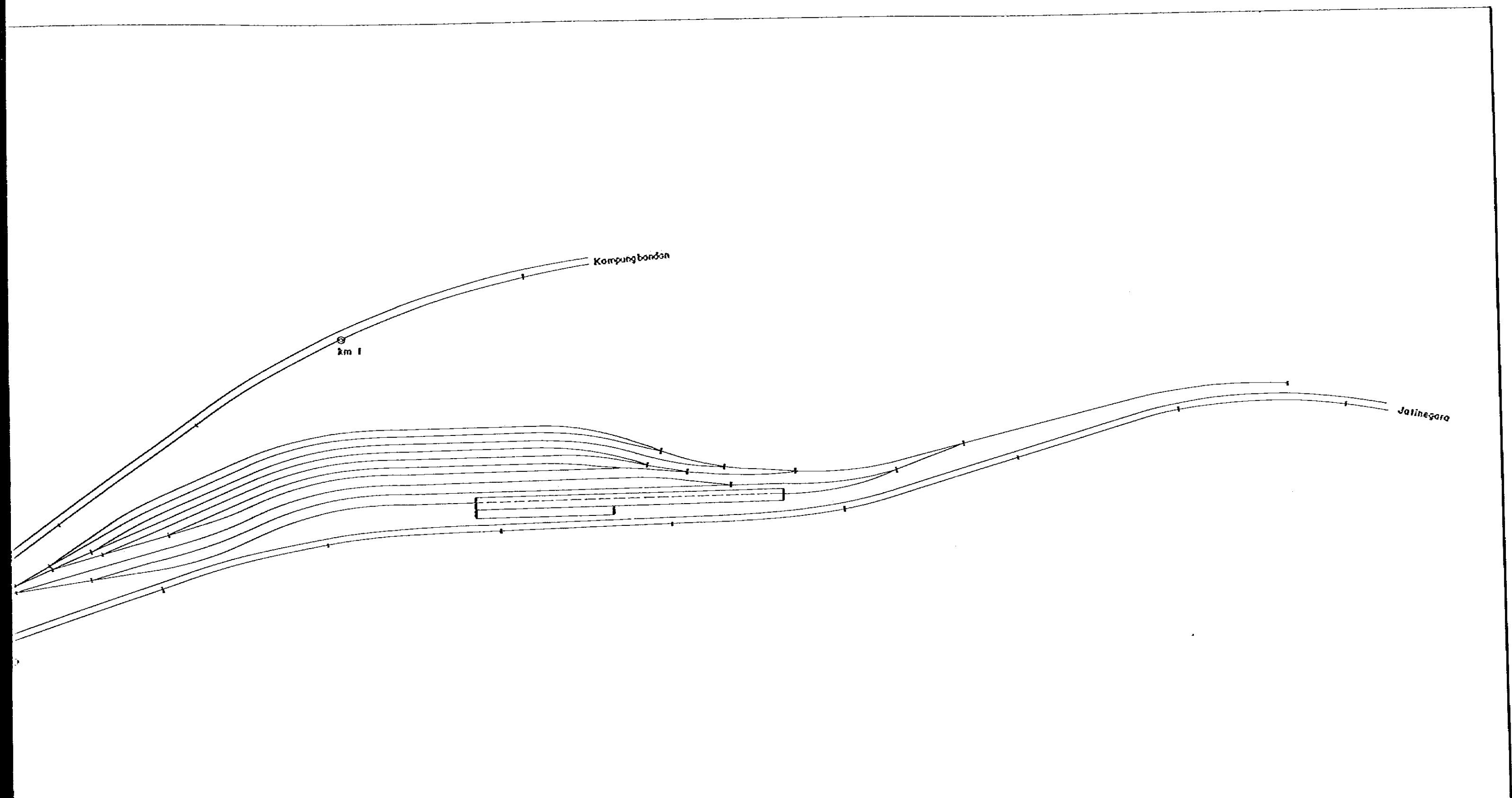
JABOTABEK Area Railway Transportation Study



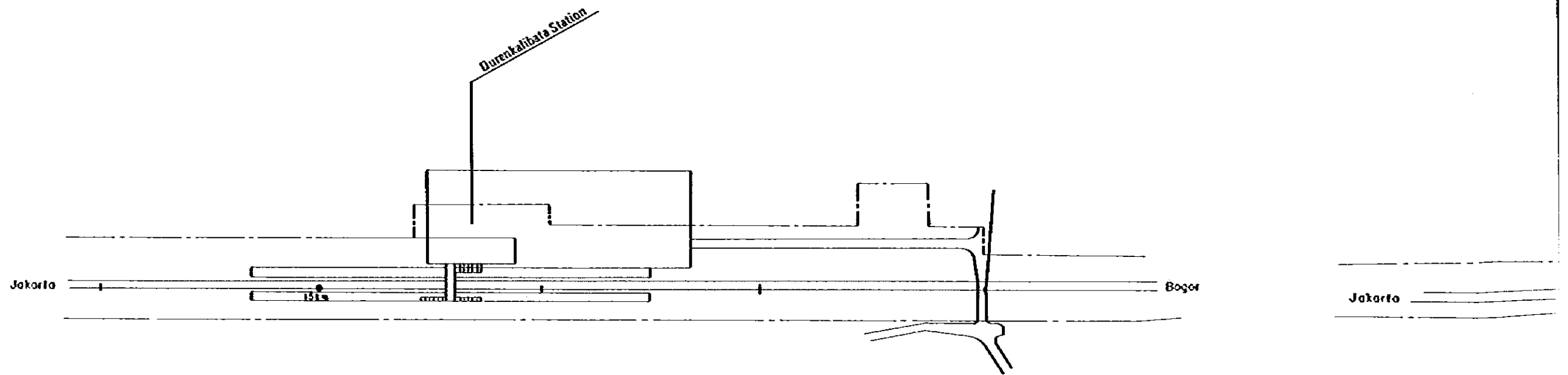
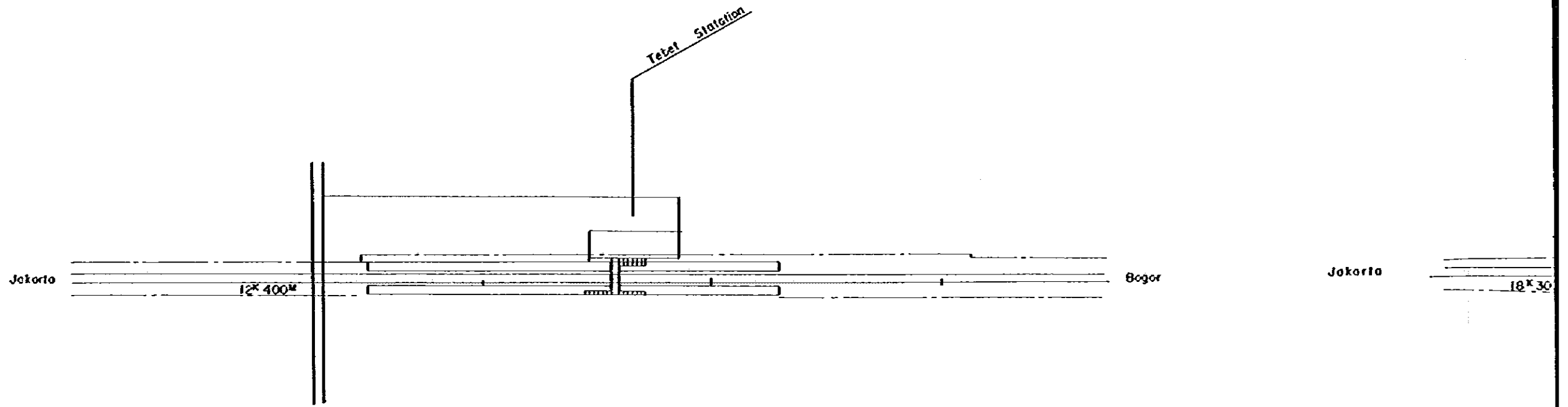
Jektorlo

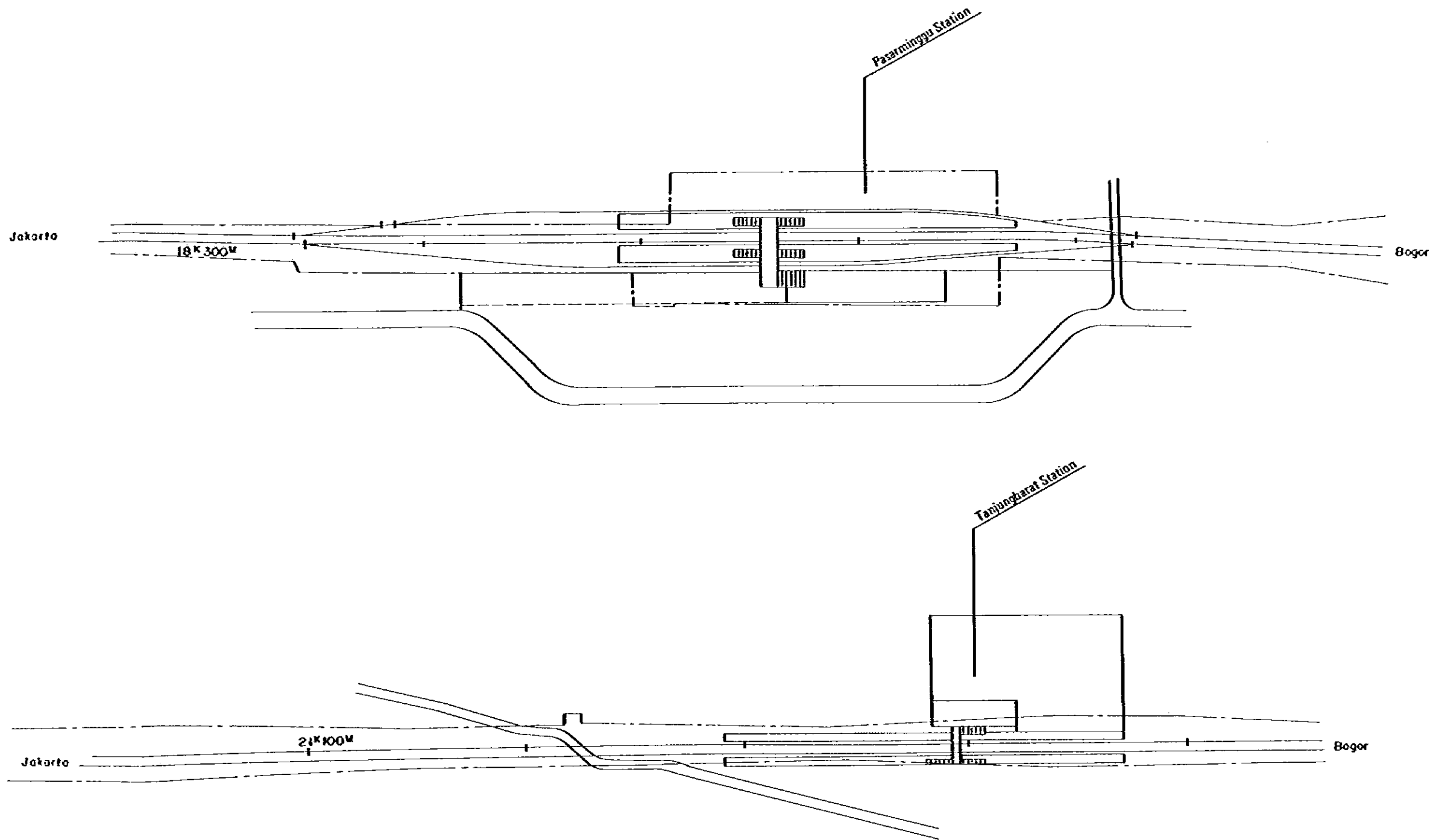


Append:
Improve
JAB

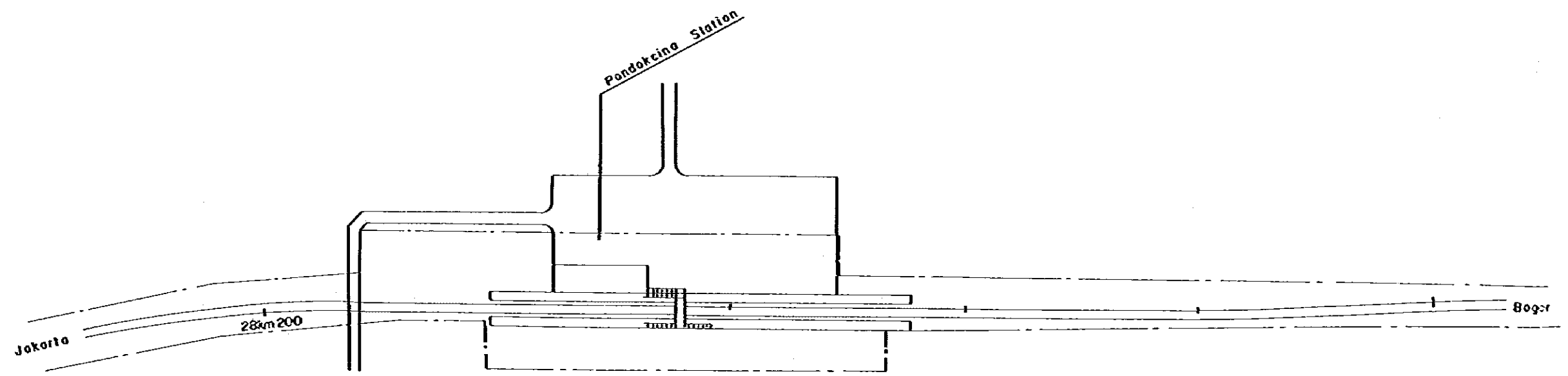
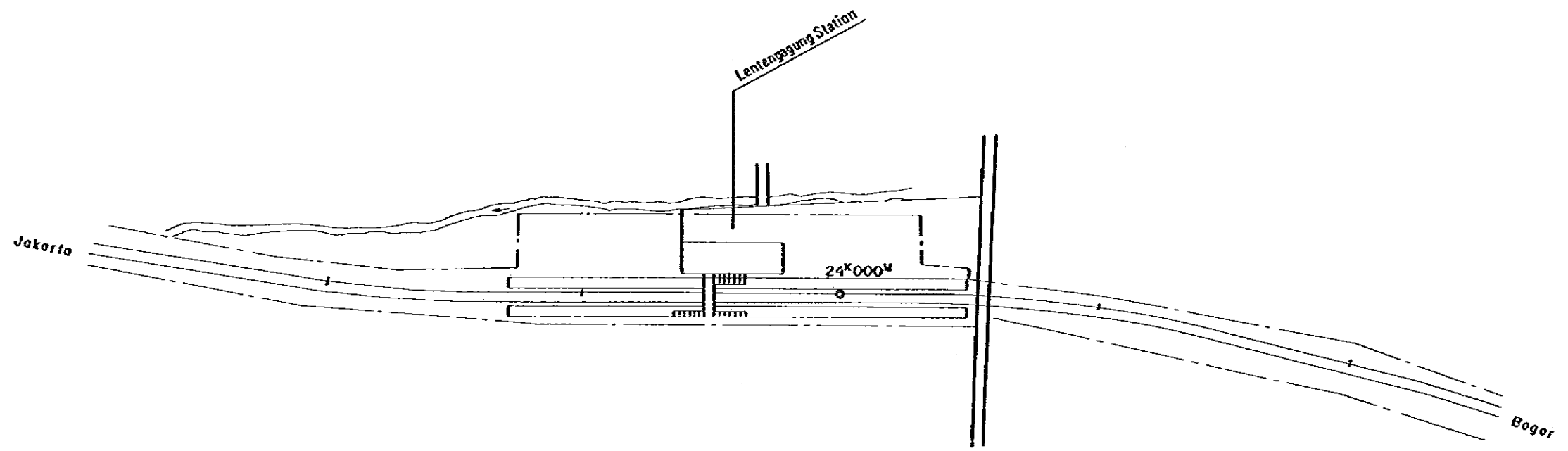


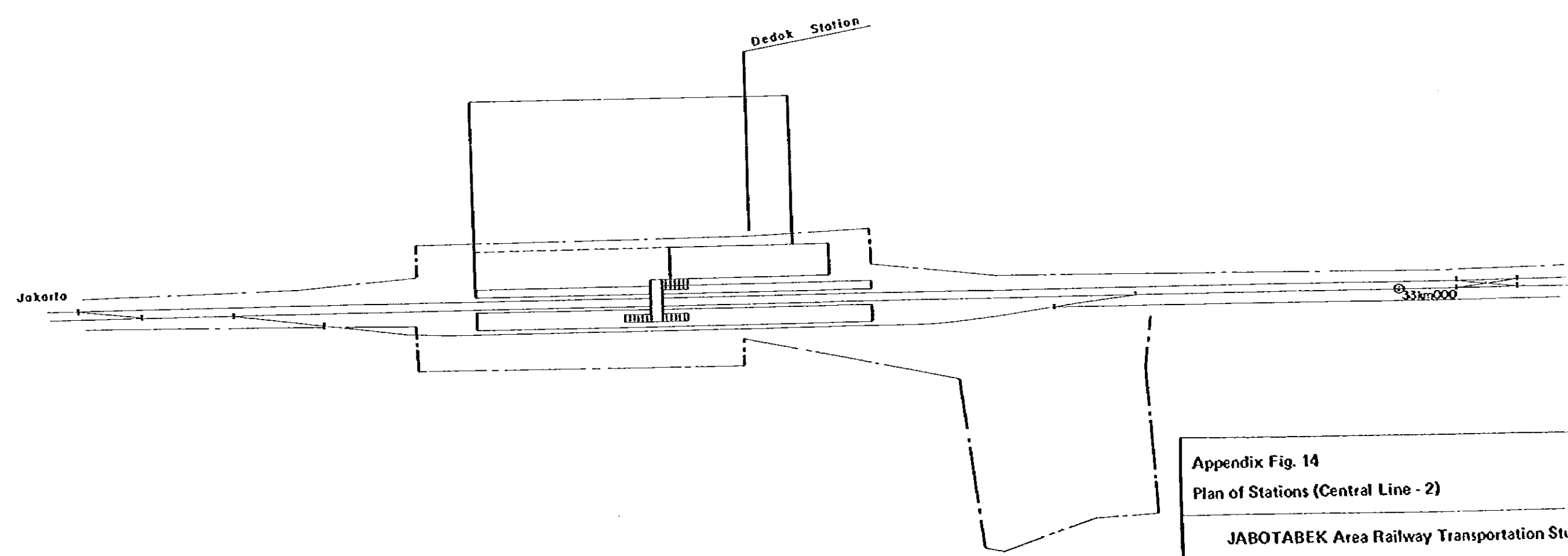
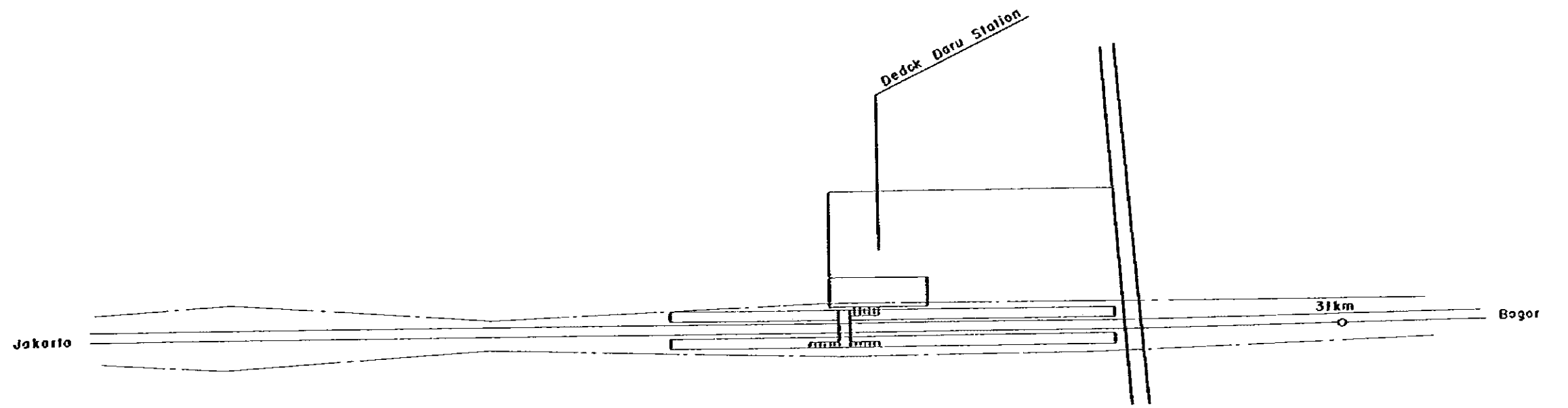
<p>Appendix Fig. 12 Improvement Planning of Jakarta Kota Depot</p>	<p>Legend</p>
<p>JABOTABEK Area Railway Transportation Study</p>	



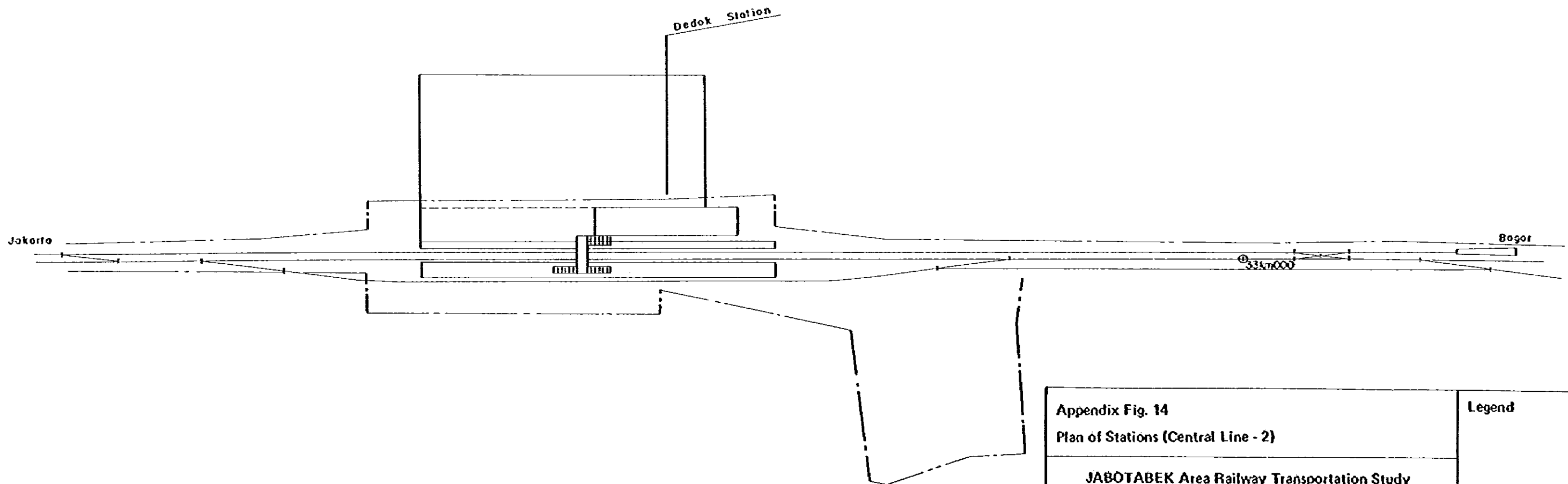
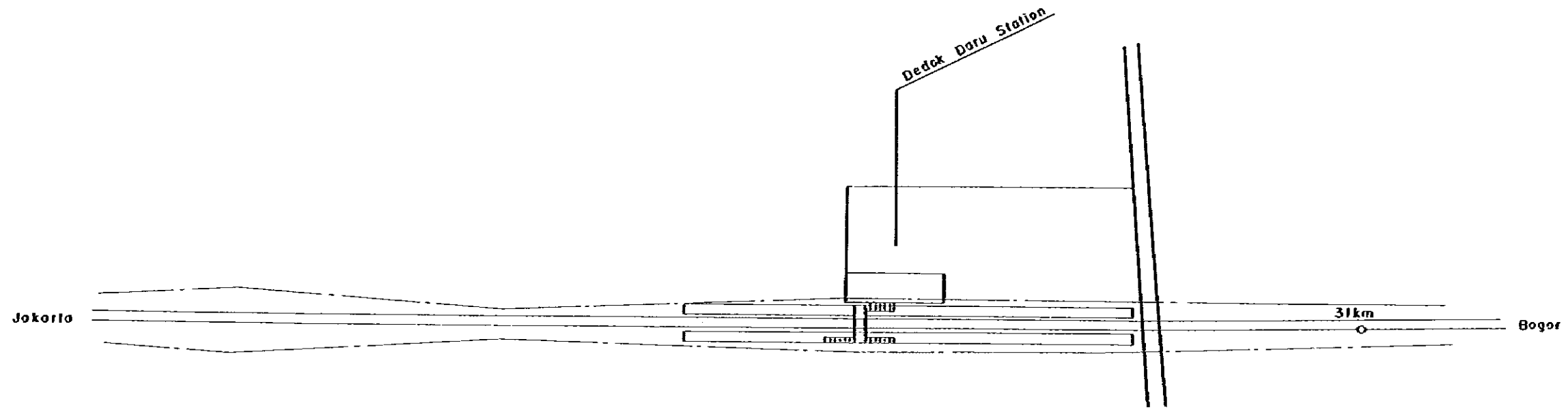


<p>Appendix Fig. 13 Plan of Stations (Central Line - 1)</p>	<p>Legend</p>
<p>JABOTABEK Area Railway Transportation Study</p>	





Appendix Fig. 14
 Plan of Stations (Central Line - 2)
 JABOTABEK Area Railway Transportation Stu



Appendix Fig. 14
Plan of Stations (Central Line - 2)

JABOTABEK Area Railway Transportation Study

Legend

Jakarta

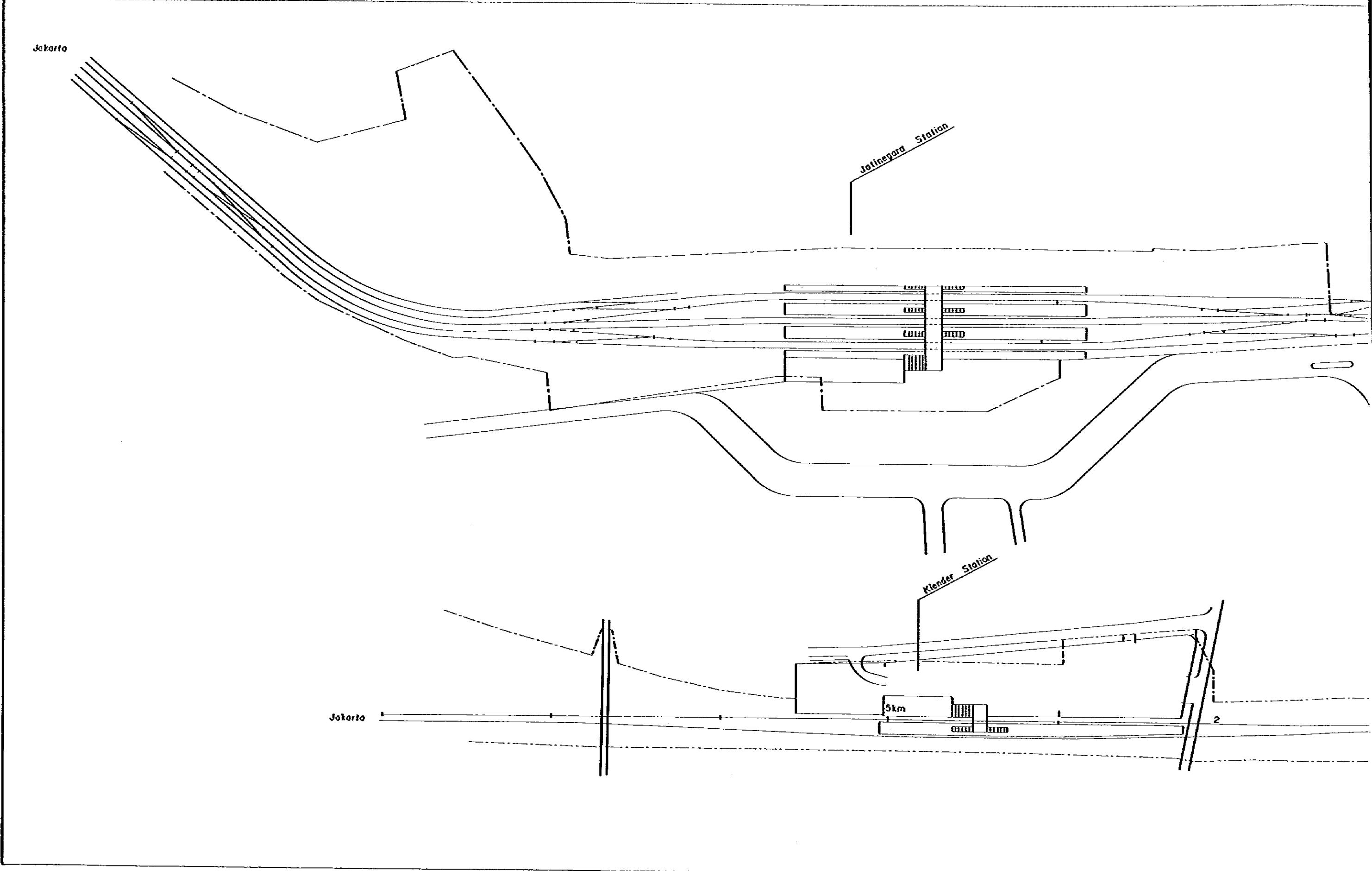
Jatinegara Station

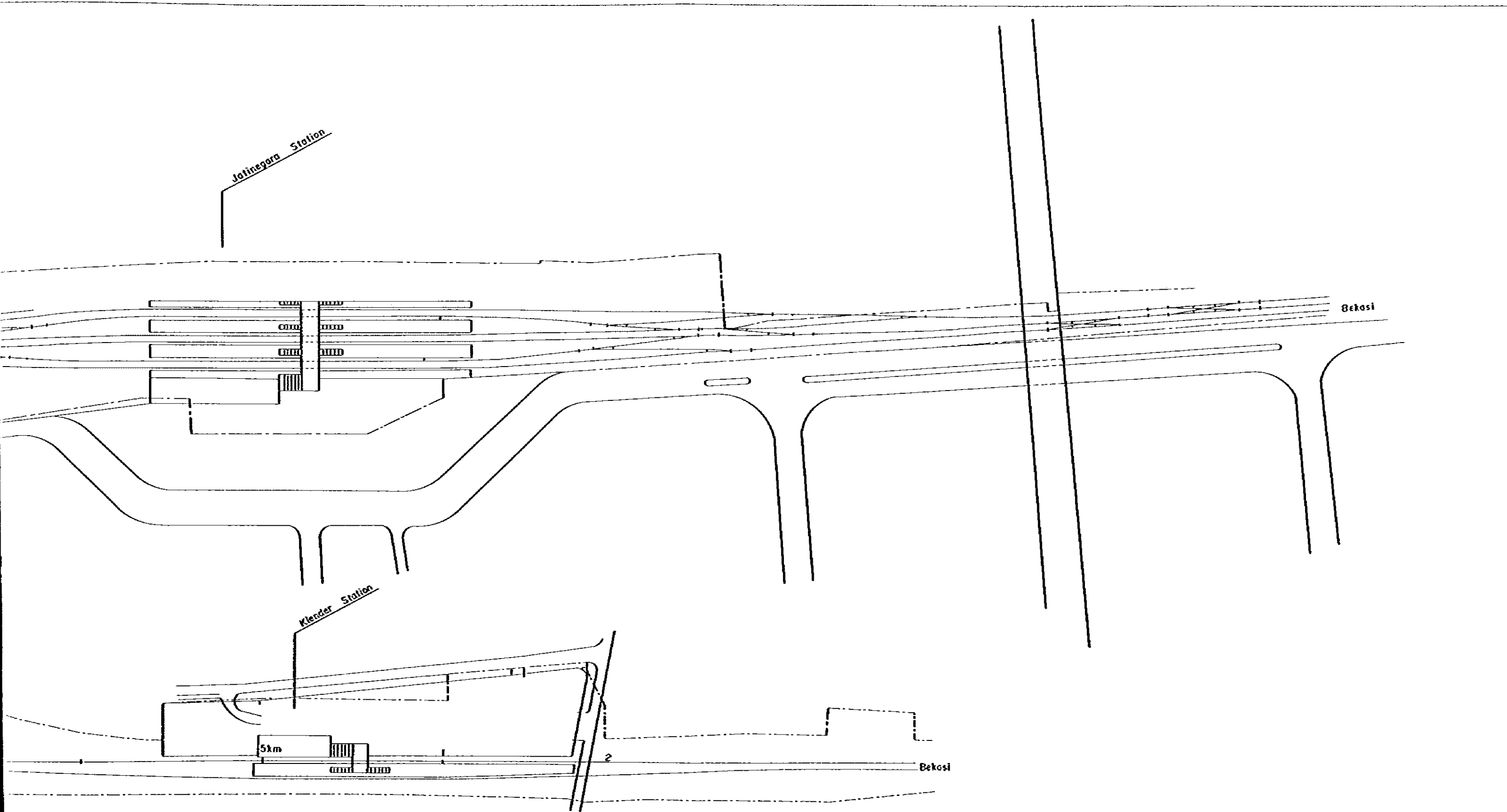
Klender Station

Jakarta

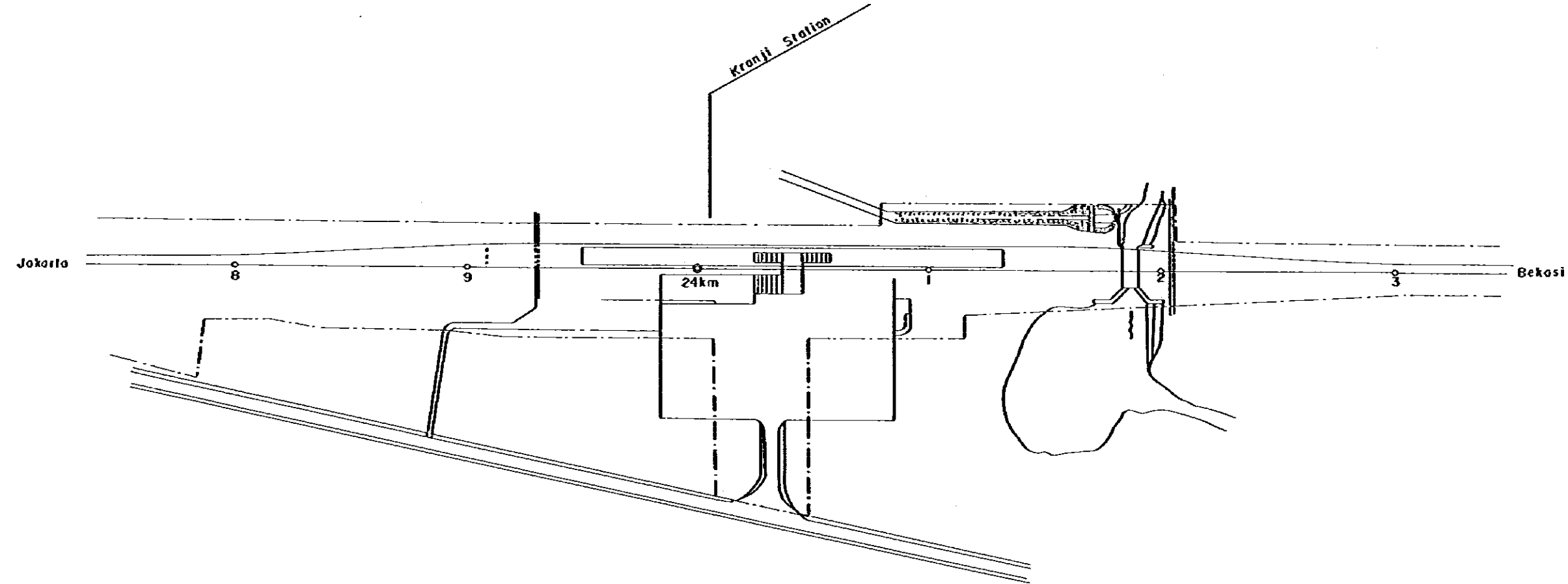
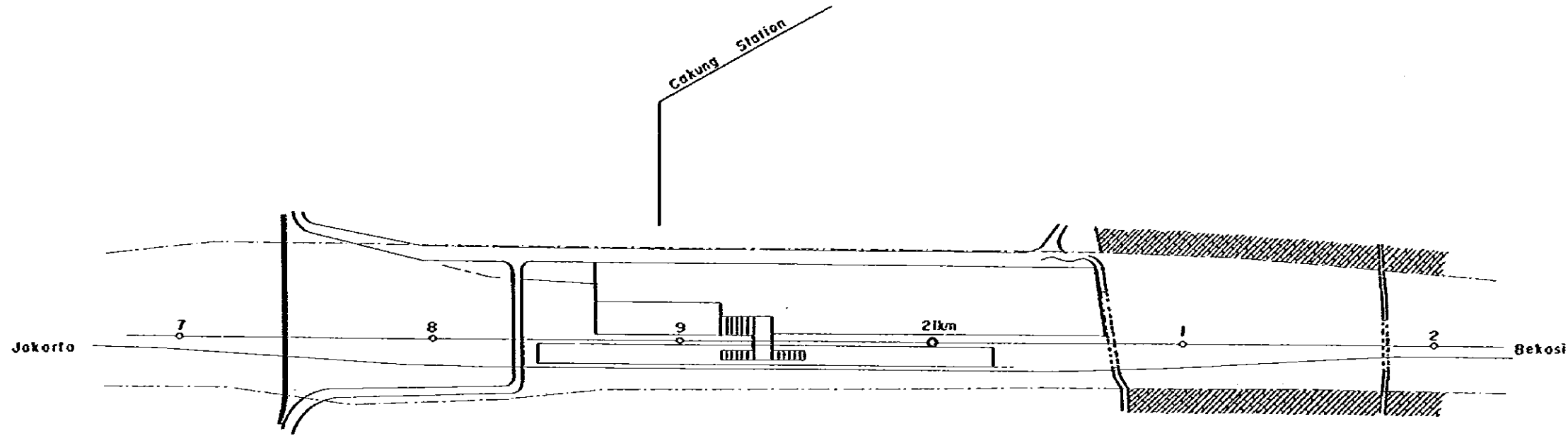
5km

2

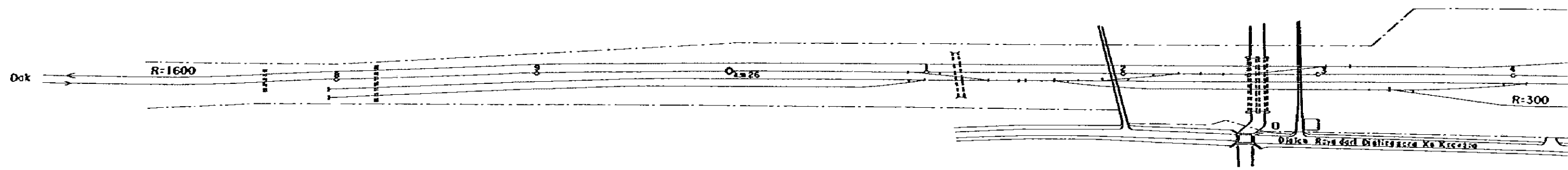


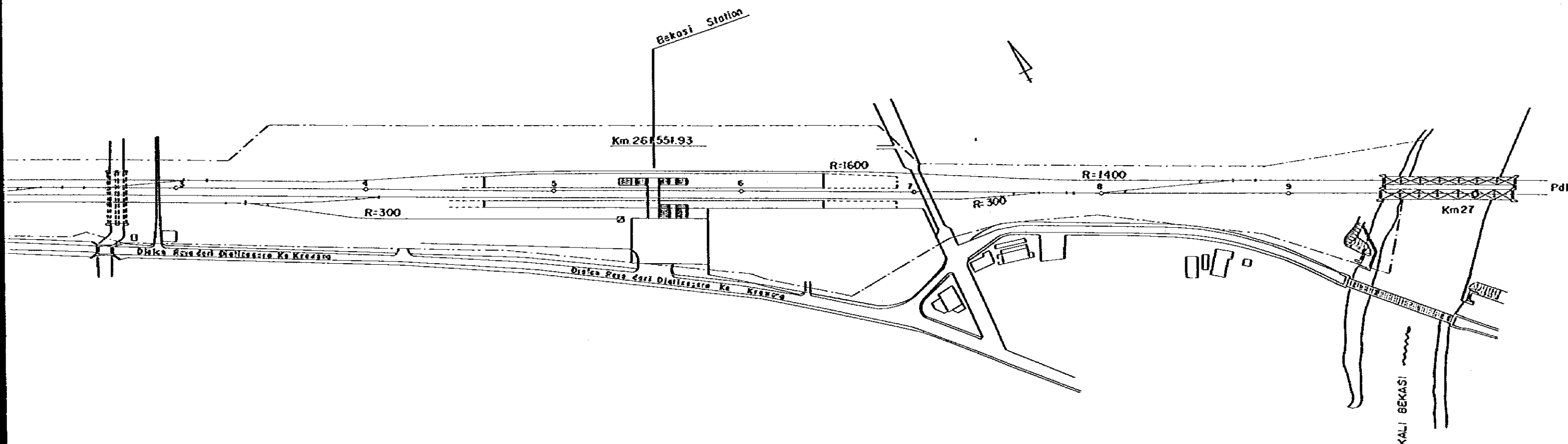


<p>Appendix Fig. 15 Plan of Stations (Bekasi Line - 1)</p>	<p>Legend</p>
<p>JABOTABEK Area Railway Transportation Study</p>	

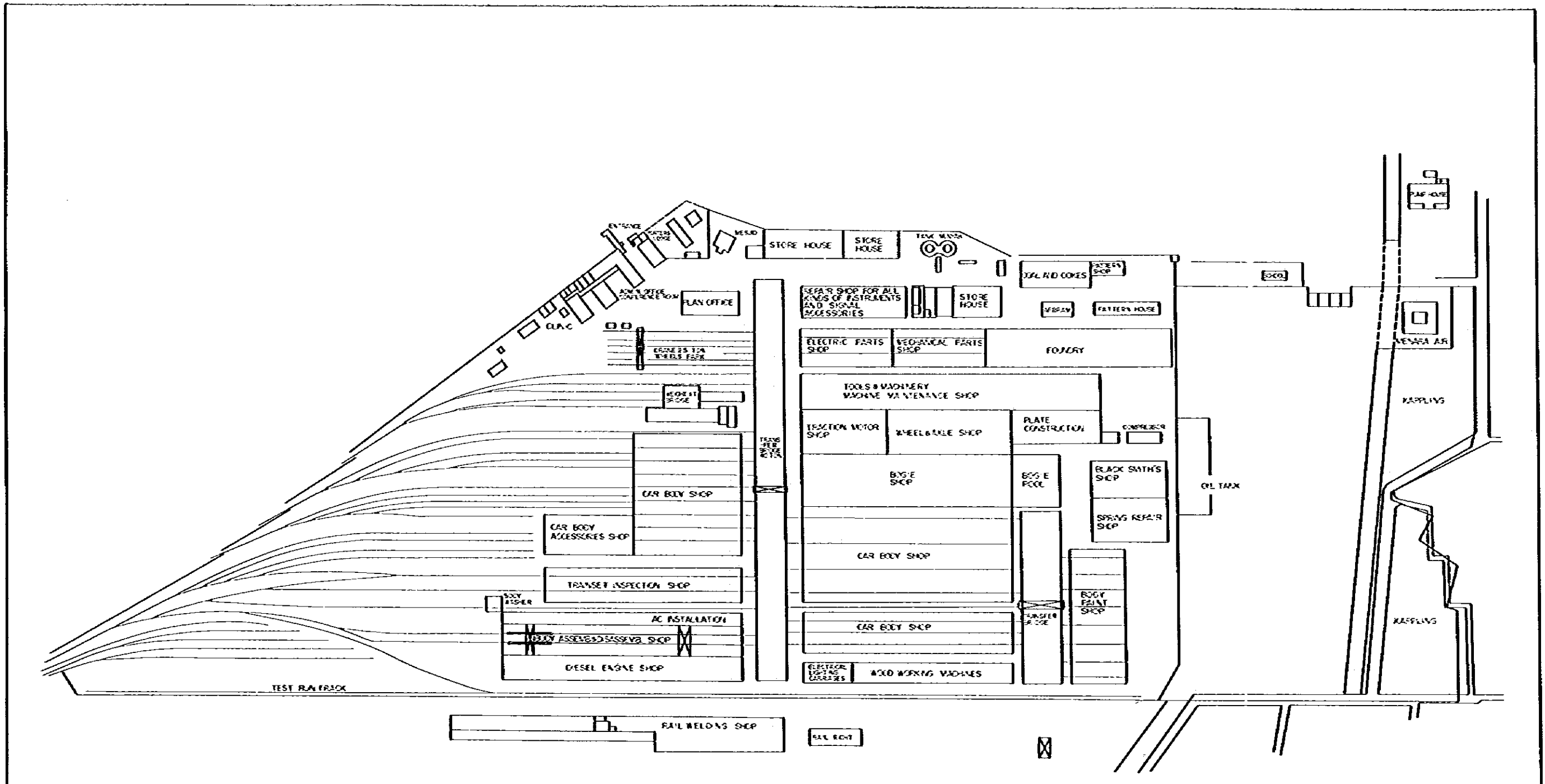


<p>Appendix Fig. 16 Plan of Stations (Bekasi Line - 2)</p>	<p>Legend</p>
<p>JABOTABEK Area Railway Transportation Study</p>	

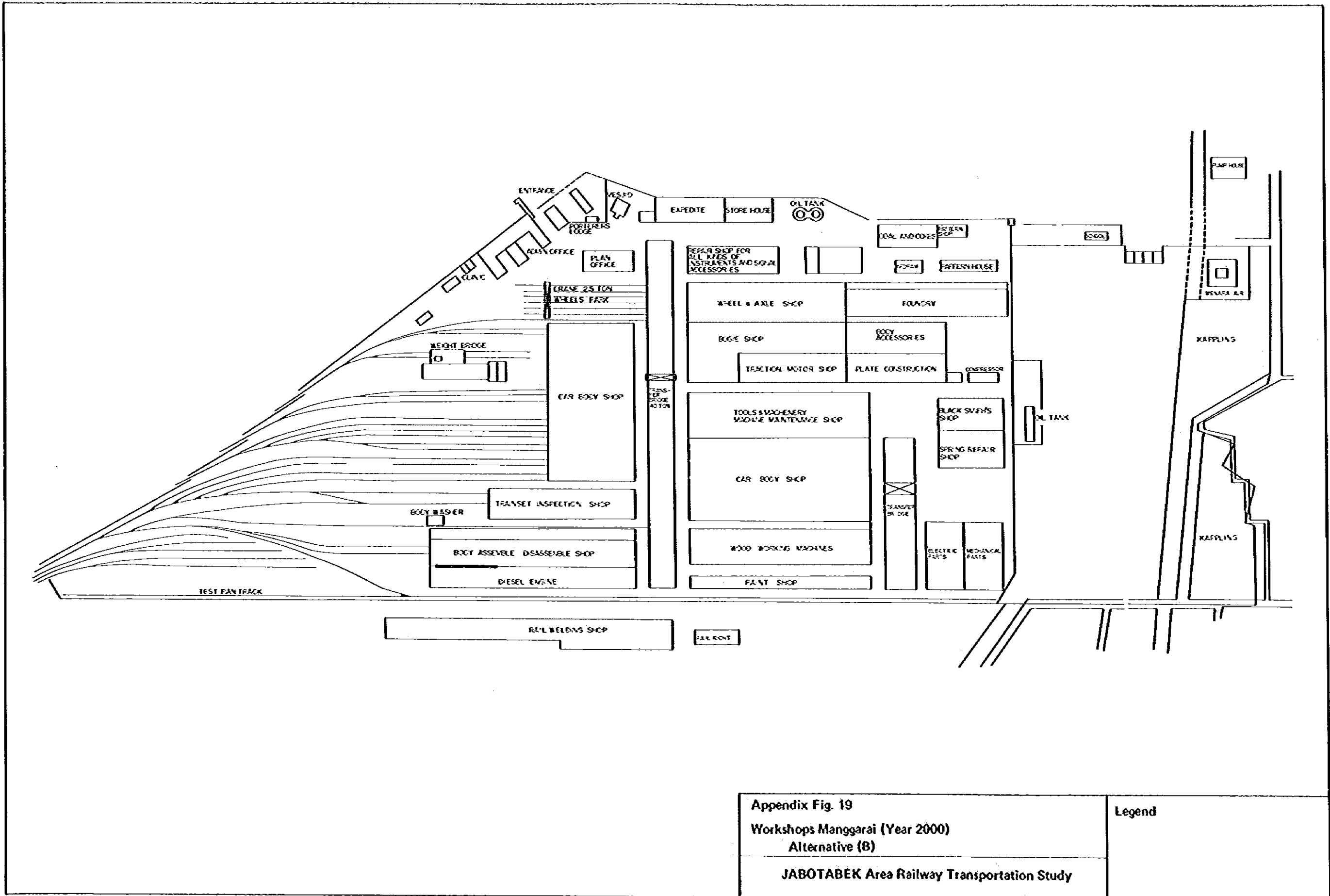




<p>Appendix Fig. 17 Plan of Stations (Bekasi Line - 3)</p>	<p>Legend</p>
<p>JABOTABEK Area Railway Transportation Study</p>	

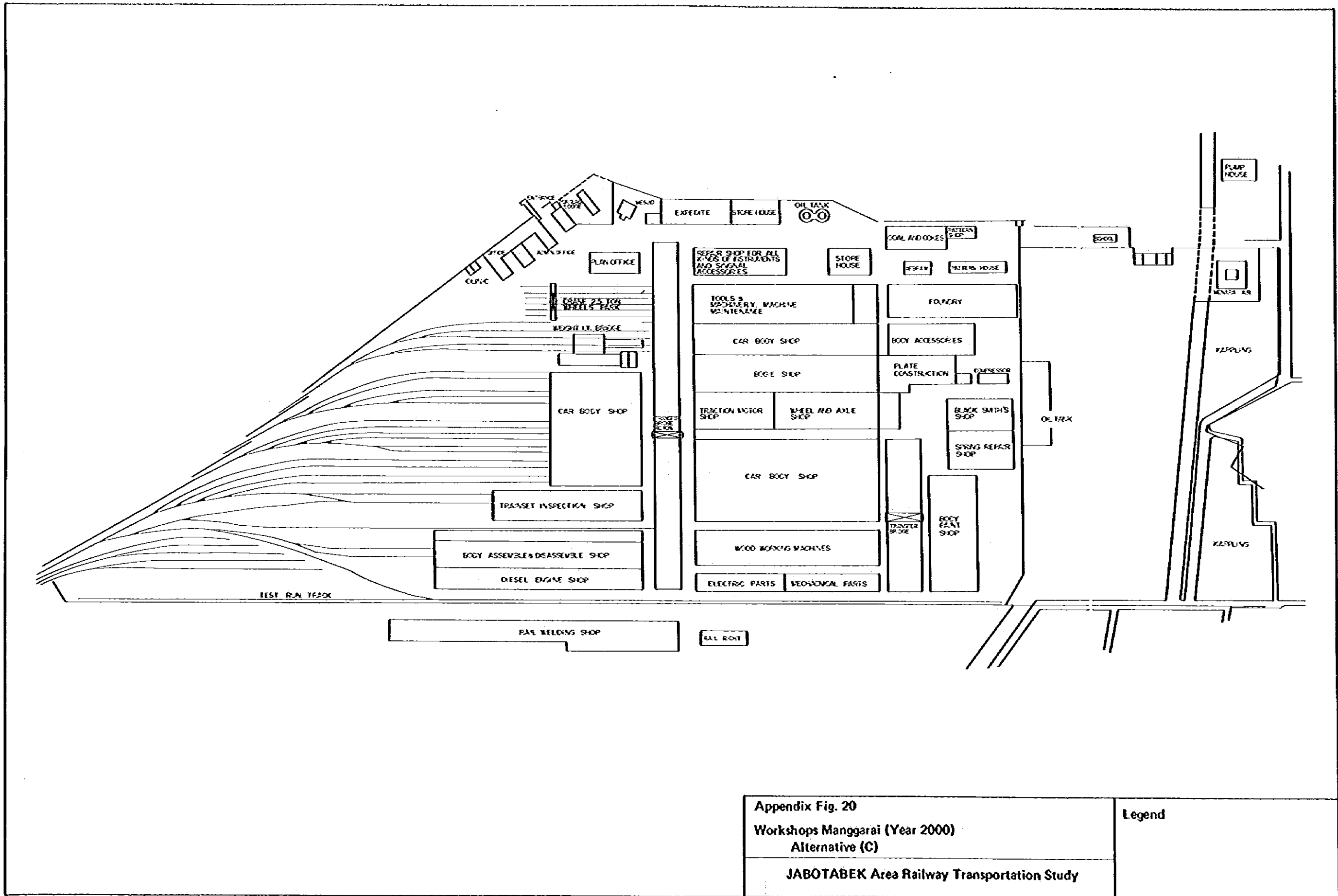


<p>Appendix Fig. 18 Workshops Manggarai (Year 2000) Alternative (A)</p>	<p>Legend</p>
<p>JABOTABEK Area Railway Transportation Study</p>	



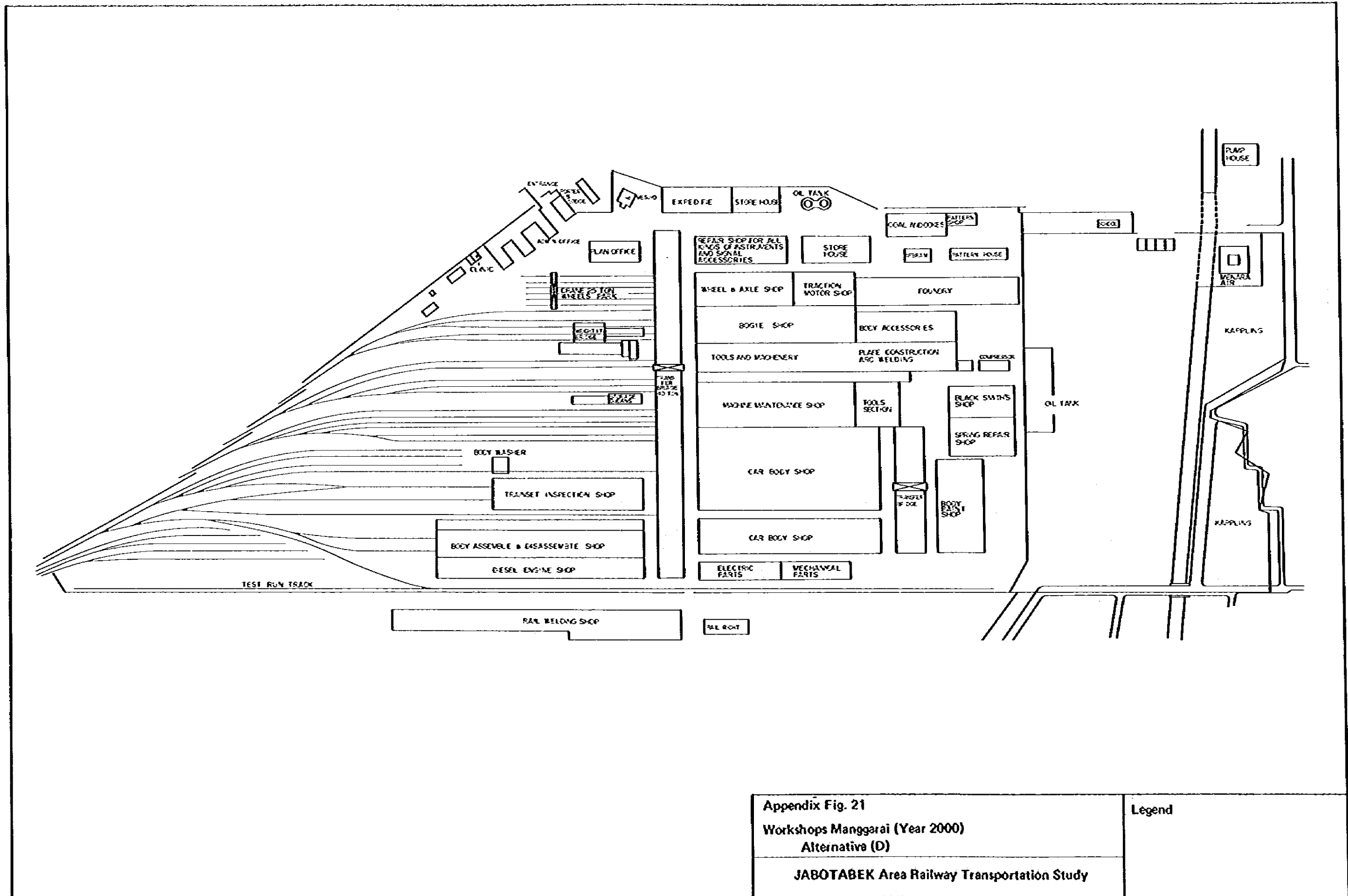
Appendix Fig. 19
 Workshops Manggarai (Year 2000)
 Alternative (B)
 JABOTABEK Area Railway Transportation Study

Legend

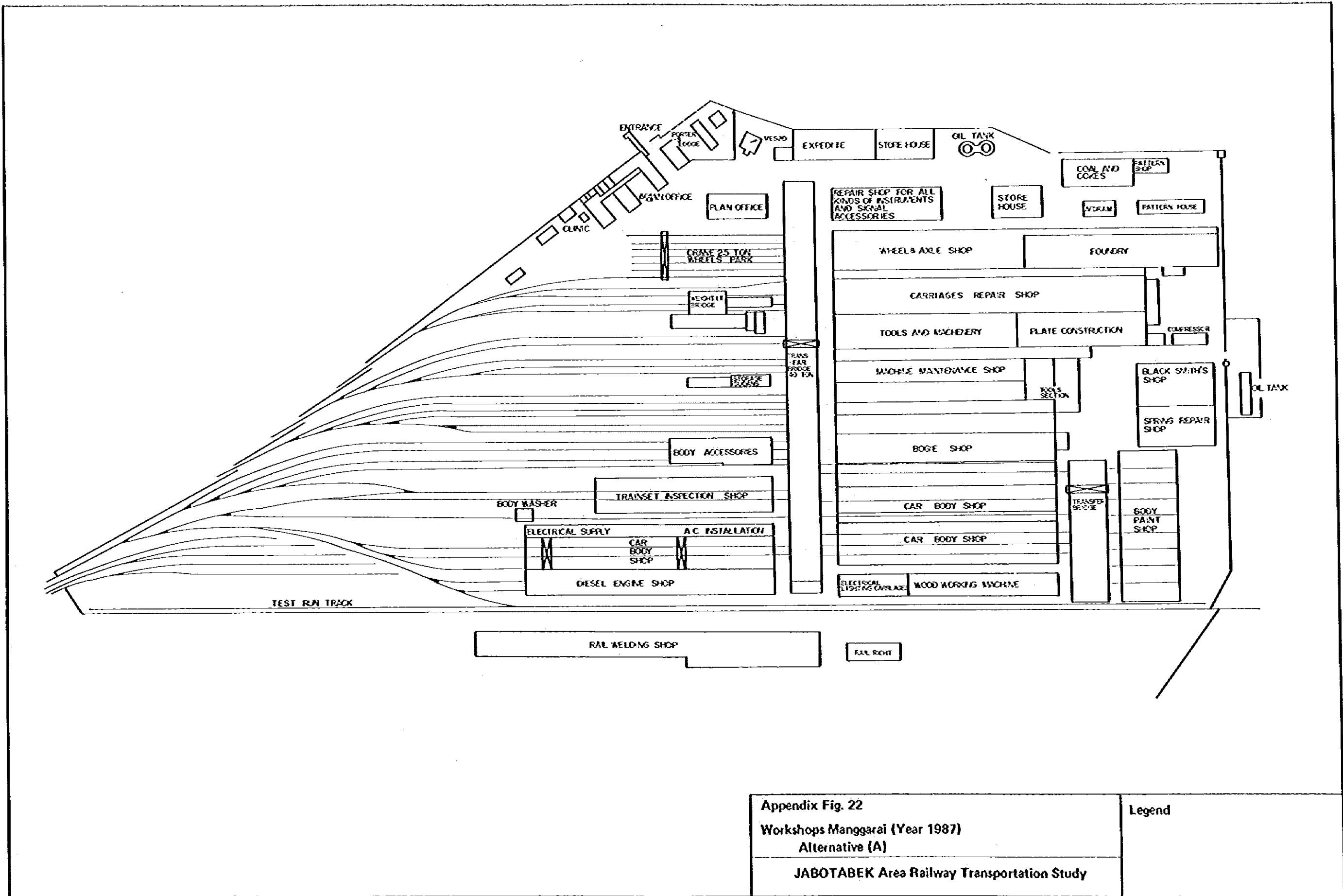


Appendix Fig. 20
 Workshops Manggarai (Year 2000)
 Alternative (C)
 JABOTABEK Area Railway Transportation Study

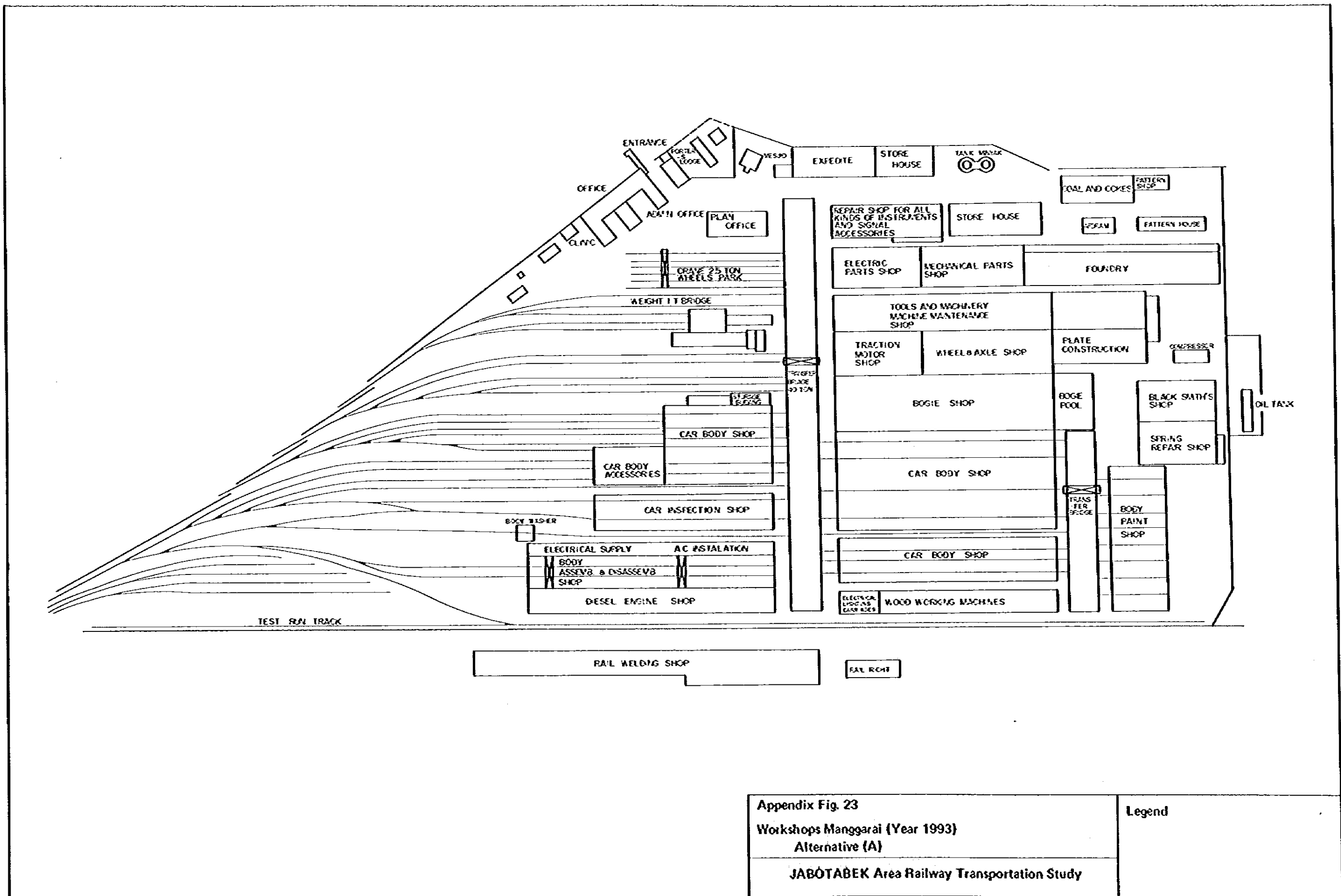
Legend



<p>Appendix Fig. 21 Workshops Manggarai (Year 2000) Alternative (D)</p>	<p>Legend</p>
<p>JABOTABEK Area Railway Transportation Study</p>	



<p>Appendix Fig. 22 Workshops Manggarai (Year 1987) Alternative (A)</p>	<p>Legend</p>
<p>JABOTABEK Area Railway Transportation Study</p>	

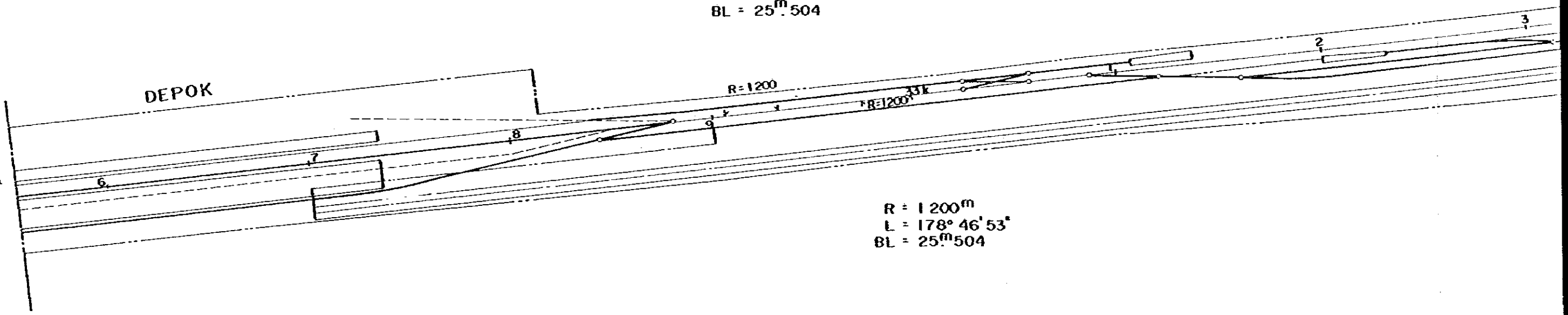


Appendix Fig. 23
 Workshops Manggarai (Year 1993)
 Alternative (A)
 JABÓTABEK Area Railway Transportation Study

Legend

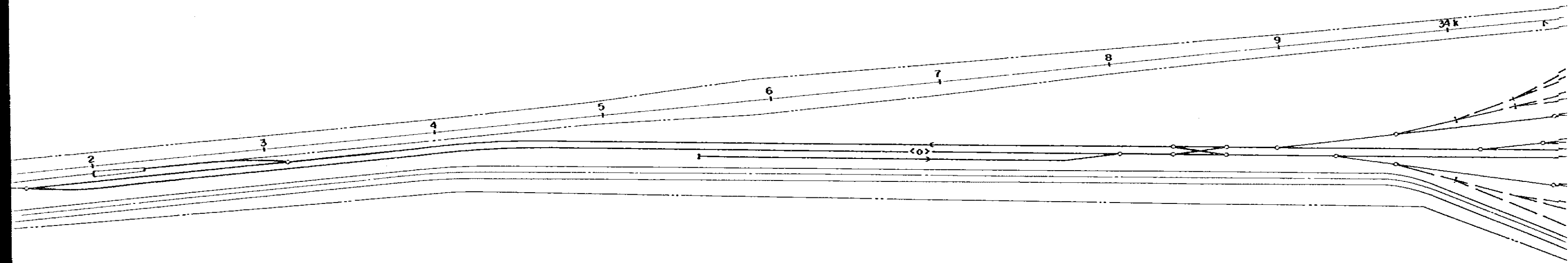
For JAKARTA
KOTA

DEPOK

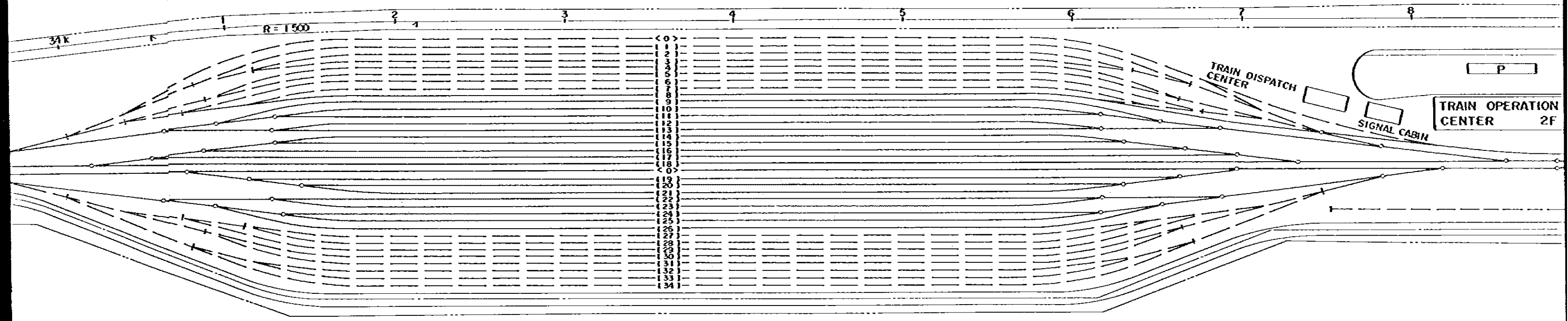


$R = 1200^m$
 $L = 178^\circ 46' 53''$
 $BL = 25^m.504$

$R = 1200^m$
 $L = 178^\circ 46' 53''$
 $BL = 25^m.504$

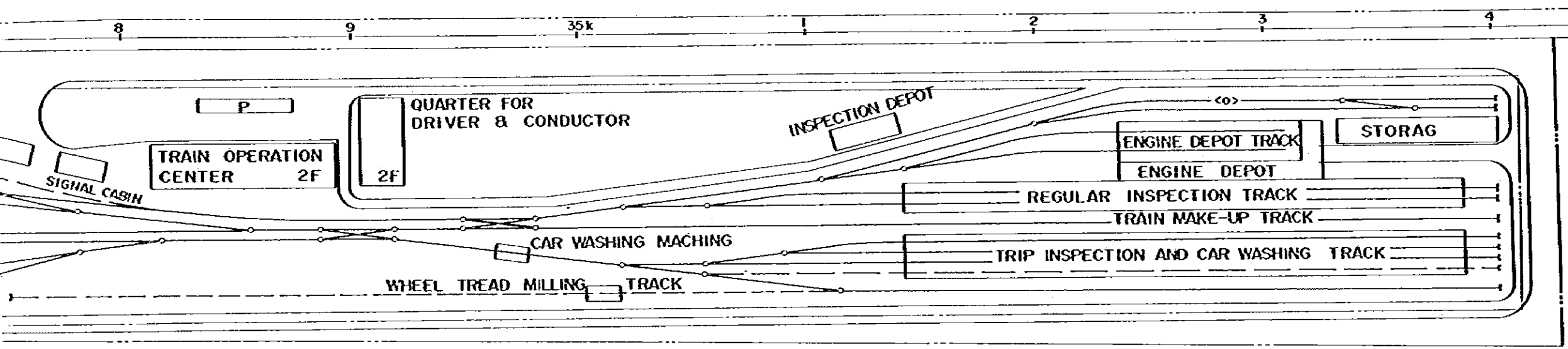


R = 1500^m
L = 174° 00
BL = 157^m 08



PLANNING OF NEW DEPOT

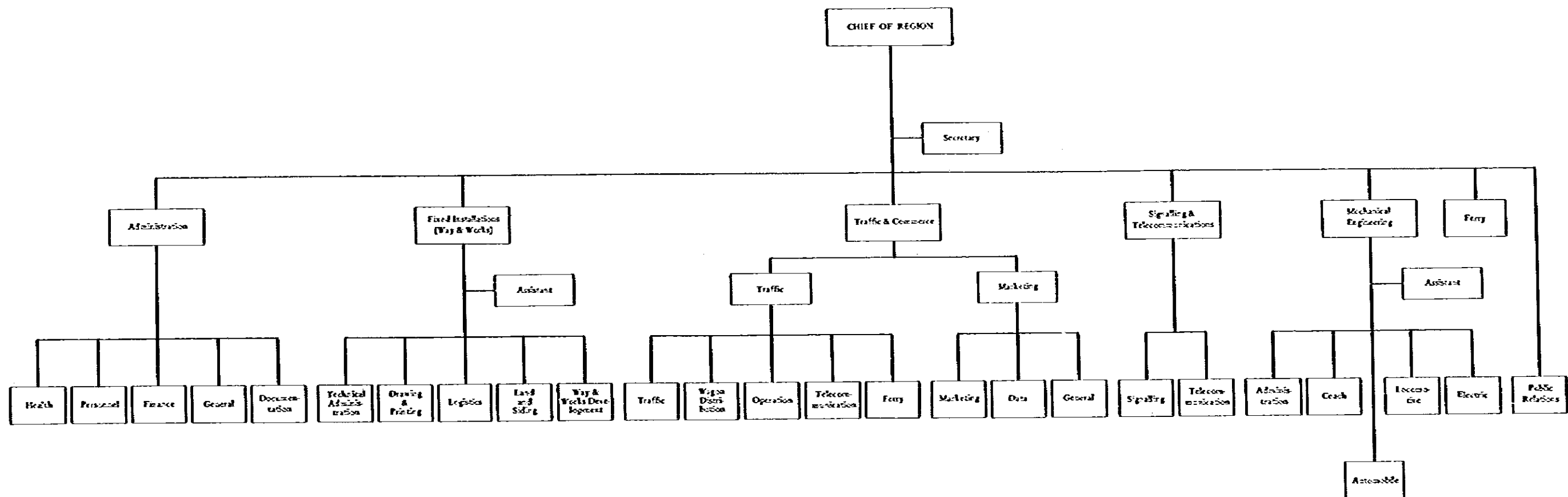
For BOGOR



Scale 1 : 2 000

Appendix Fig. 24
PLANNING OF NEW DEPOT AT DEPOK
JABOTABEK Area Railway Transportation Study

Legend	
———	PRESENT TRACK
———	NEW CONSTRUCTION
----	FUTURE EXTENSION



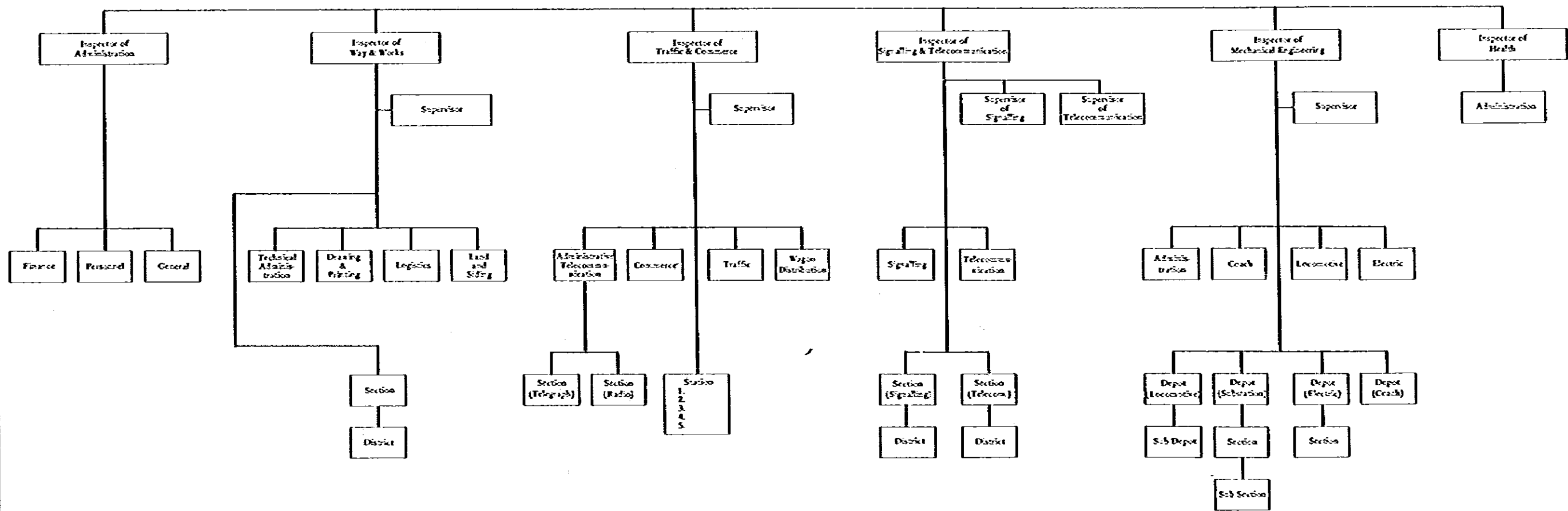
Note: The above Chart is drawn from the example of West Java Region.

Appendix Fig. 25

Organization Chart of Region

JABOTABEK Area Railway Transportation Study

Legend



Note: The above Chart is drawn from the example of Inspection 1.

Appendix Fig. 26

Organization Chart of Inspection

JABOTABEK Area Railway Transportation Study

Appendix Table - A Economic Analysis of JABOTABEK Railway Project - Mater Plan -

(Rp. million)

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	INTERNAL RATE OF RETURN	
Net Present Value	-7728	-18703	-3328	13757	-3655	-6355	4223	13466	7312	18602	23938	15133	11227	27633	18700	32802	19157	12745	-2102	-3437	-9118	23253	19.73%	
Yearly Cash Flow	19235	13358	25524	34393	27469	24713	42350	49321	33149	13850	23570	15133	11655	35772	19324	35134	35775	35017	14934	4322	22262	24785		
Yearly Investment	6944	1747	4323	15152	17725	12314	4323	4323	4323	4323	4323	4323	4323	4323	4323	4323	4323	4323	4323	4323	4323	4323		
Yearly Net Cash Flow	12291	11591	21201	19241	10744	12399	38027	45000	28826	9527	19247	10810	7332	31449	15001	30811	31452	30694	10611	0	17939	20462		
Yearly Net Present Value	26995	37351	28713	23643	31315	32774	38721	26995	25237					377	8339	4359	3672	16325	23275	17330	13759	26330	393	
Yearly Net Present Value	17457	24292	16032	4194	5852	6365	15542	16231	18338					1569	1531	1204	4219	3542	1176	554	492	354		
Yearly Net Present Value	4817	2520	2385	427	6134	7849	3574	7791	3300					573	6779	2529	2463	12115	19734	3324	1122	1146	549	
Yearly Net Present Value	3259	2655	9515	16111	13329	16111	9651											8397	11706	12183	24742			
Yearly Net Present Value	1311						737	737	636															
Yearly Net Present Value	2333	2759	3075	3547	3770	4057	4377	4679	5027	5393	5769	6155	6551	6957	7373	7799	8235	8681	9137	9603	10079	10565	11061	
Yearly Net Present Value	3270	3272	4031	4553	4867	5160	5614	6031	6412	6812	7232	7672	8132	8612	9112	9632	10172	10732	11312	11912	12532	13172		
Yearly Net Present Value	524	524	553	553	674	759	759	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788		
Yearly Net Present Value	5852	6221	6144	7331	8051	8752	9345	9945	10549	10549	10549	10549	10549	10549	10549	10549	10549	10549	10549	10549	10549	10549		
Yearly Net Present Value	1733	2715	2237	2679	2623	2739	3361	3282	3652	3652	3652	3652	3652	3652	3652	3652	3652	3652	3652	3652	3652	3652		
Yearly Net Present Value	3333	4567	5021	5624	5986	6310	6830	7370	8004	8704	9404	10104	10804	11504	12204	12904	13604	14304	15004	15704	16404	17104		
Yearly Net Present Value	4655	5159	5807	6369	6976	7222	7716	8269	8889	9589	10369	11229	12169	13189	14289	15469	16729	18069	19489	20989	22569	24229		
Yearly Net Present Value	1451	1823	2057	23225	24667	25335	28435	30346	33063	35747	38489	41293	44159	47089	50089	53159	56299	59509	62789	66129	69529	72989		
Yearly Net Present Value	5973	9574	10229	13519	10896	11640	12378	13133	13907	14707	15537	16397	17287	18197	19137	20107	21107	22137	23197	24287	25407	26557		
Yearly Net Present Value	7131	7225	8231	8335	8661	9259	9917	10647	11457	12347	13317	14367	15497	16707	17997	19367	20817	22347	23957	25647	27417	29267		
Yearly Net Present Value	441	544	695	617	672	747	799	831	850	858	858	858	858	858	858	858	858	858	858	858	858	858		
Yearly Net Present Value	1315	1491	1423	1408	1554	1643	1672	1721	1761	1761	1761	1761	1761	1761	1761	1761	1761	1761	1761	1761	1761	1761		
Yearly Net Present Value	13512	17337	18386	23444	21390	22552	26322	27952	32548	32548	32548	32548	32548	32548	32548	32548	32548	32548	32548	32548	32548	32548		
Yearly Net Present Value	3274	3369	3446	13508	10522	11163	11899	12442	12765	12765	12765	12765	12765	12765	12765	12765	12765	12765	12765	12765	12765	12765		

PERIOD	CASH FLOW	CUM FLOW	NET PV	CUM NET PV
1	26475.38	26475.38	26475.35	26475.35
2	-46075.68	-21600.30	-47231.93	-13423.55
3	-36319.41	-57919.71	-25519.06	-39343.21
4	-39557.24	-97476.94	-23298.62	-62641.83
5	-41332.57	-138809.51	-23372.03	-85972.83
6	-36763.03	-175572.54	-15214.29	-101187.12
7	-19016.59	-194589.14	-6596.49	-107783.61
8	232.49	-194356.65	55.95	-107551.66
9	32300.43	-162056.22	5741.32	-101810.34
10	33012.11	-129044.11	5132.13	-96678.21
11	49835.45	-89208.66	8535.31	-92142.90
12	85751.62	-43457.04	12319.54	-89723.36
13	65497.43	2040.39	6002.42	-83720.94
14	65737.35	16974.74	6031.28	-77689.66
15	86173.15	22652.89	7286.69	-70402.97
16	100733.19	32726.08	7149.34	-62753.63
17	134302.33	46156.41	6173.56	-55580.07
18	109958.29	57152.70	5476.27	-49103.80
19	116786.07	68838.77	4875.47	-43228.33
20	111289.86	80008.63	3834.48	-37993.85
21	107373.28	90741.91	3143.62	-33350.23
22	123729.59	103121.50	3342.33	-29307.90
23	111354.45	114256.95	2283.14	-25824.76
24	123558.57	126615.52	2221.99	-22802.77
25	115545.90	138170.42	1673.35	-20129.42
26	123440.95	150511.37	1321.28	-17708.14
27	93334.17	159845.54	956.47	-15551.67
28	46552.27	164500.81	733.18	-13718.49
29	91978.39	173699.20	657.05	-12261.44
30	77935.65	181494.85	4242.77	-8018.67

Appendix Table - B Economic Analysis of JABOTABEK Railway Project - Master Plan -

(Rp. million)

CASE 2	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
INVESTMENT DIFF	21366	-55933	-48741	-58373	-63018	-71520	-84175	-36217	-17839	-27762	-16767	-7987	-16056	-18548	-16932	-435	1569	9971	11235	12509	13812	13215	29672	6831	-2585	-7725	-5	
WITHOUT	50190	2730	2901	3123	3374	3675	4319	7337	9134	9593	12146	13556	15253	14227	22688	25500	26732	3391	11235	32509	10730	21554	25033	10173	13749	15548	11	
ROAD CONSTRUCTION COST	47677																											
REQUIRED BUS VEHICLES	1755	1900	2012	2159	2327	2522	2751	2839	2452	2133	2524	3533	10713	4329														
REQUIRED SEDAN VEHICLES	758	830	853	365	3351	1153	1269	1498	1772	1731	3552	4923	4546	2673	5157	6015	1263	1478	1712	1736	3552	4023	4546	2679	5157	6015	1263	
SALVAGE VALUE																												
WITH	28224	58664	51643	61496	72336	75253	58125	44155	26365	37351	28313	20643	31315	32774	38723	26305	25237											
CIVIL WORK	15562	28877	25486	28158	43612	44051	25549	17272	17487	24292	16638	4394	5082	6365	15542	16231	18338											
SIGNALS	865	3608	2367	2159	6359	5934	2959	754	881	668	425																	
ELECTRIFICATION	1523	12936	9820	6438	21935	29339	2785	2146	4937	2826	2185	427	6194	7849	9574	7731	4489											
ROLLING STOCK	8937	31936	12183	24742		4358	24914	21447	3269	9655	9655	16111	19329	16111														
MANGGARAI WORK SHOP	1277	1277	1187				1735	1735	1311																			
SALVAGE VALUE																												
NET COST DIFF	1576	2376	3453	4533	5522	5214	7591	9101	11657	13445	15444	17722	21109	21337	23306	25453	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000
WITHOUT	2332	4515	6553	8825	11933	13281	15573	17313	21629	23119	25673	28239	31096	32383	35684	35536	33739	33733	33733	33733	33733	33733	33733	33733	33733	33733	33733	33733
ROAD MAINTENANCE COST	326	326	326	326	326	326	326	326	326	326	326	326	326	326	355	355	355	477	477	477	477	477	477	477	477	477	477	477
BUS																												
MAINTENANCE COST	439	1673	2591	3313	4313	4991	5778	6443	7319	8073	8814	9542	10257	11355	12875	12626	13568	13688	13688	13688	13688	13688	13688	13688	13688	13688	13688	13688
PERSONNEL COST	166	342	526	719	922	1137	1364	1697	1895	2123	2486	2823	3133	3527	3733	4147	3782	3782	3782	3782	3782	3782	3782	3782	3782	3782	3782	3782
FUEL COST	438	898	1371	1809	2356	2871	3436	4021	4569	5223	5923	6592	7288	7662	8349	9030	9192	9192	9192	9192	9192	9192	9192	9192	9192	9192	9192	9192
SEDAN																												
MAINTENANCE COST	172	345	515	684	852	1018	1183	1347	1535	1731	1865	2128	2131	2369	2532	2701	2832	2832	2832	2832	2832	2832	2832	2832	2832	2832	2832	2832
FUEL COST	453	924	1414	1924	2454	2978	3586	4183	4833	5561	6259	6989	7751	8114	8263	9074	9738	9738	9738	9738	9738	9738	9738	9738	9738	9738	9738	9738
WITH	816	2133	3184	3392	5597	6387	8192	8731	8375	9574	10229	10519	10896	11648	12378	13133	14049	14049	14049	14049	14049	14049	14049	14049	14049	14049	14049	14049
MAINTENANCE COST	524	1745	2558	3222	4422	5567	6595	7559	7198	7724	8291	8395	8661	9250	9317	10580	11130	11130	11130	11130	11130	11130	11130	11130	11130	11130	11130	
PERSONNEL COST	9	43	137	139	321	385	405	432	451	548	695	617	672	747	730	831	958	958	958	958	958	958	958	958	958	958	958	958
ENERGY COST	213	351	488	571	764	936	1282	1249	1315	1491	1423	1493	1564	1643	1672	1721	1941	1961	1961	1961	1961	1961	1961	1961	1961	1961	1961	1961
TIME SAVING BENEFIT	236	588	1052	1646	2733	3776	5416	8112	10923	13172	15758	18759	22242	22342	25939	30005	22958	22958	22958	22958	22958	22958	22958	22958	22958	22958	22958	22958
BENEFIT FROM ELEVATION							7545	3169	3274	3380	3486	3592	3698	3804	3910	4016	4122	4228	4334	4440	4546	4652	4758	4864	4970	5076	5182	5288

Appendix Table - D (1) Financial Analysis of JABOTABEK Railway Project - Master Plan -

(Rp. million)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		
PROFIT	1975	3223	4708	6366	7221	8253	9425	11252	13699	15846	17823	20237	22923	26273	29123	32132	35222	38322	41422	44522	47622	50722	53822	56922	60022	63122	66222	69322	72422	75522	78622	
REVENUE	2353	5995	8858	11819	14763	17715	20668	23620	26573	29525	32476	35430	38383	41335	44287	47239	50191	53143	56095	59047	62000	64952	67904	70856	73808	76760	79712	82664	85616	88568	91520	
EXPENSE	978	2672	4150	5453	7542	9492	11243	13020	14822	16647	18494	20363	22253	24164	26096	28049	29922	31815	33728	35661	37614	39587	41580	43593	45626	47679	49752	51845	53958	56091	58254	
ST. COST	816	2085	3091	3870	5394	6821	7957	8653	8773	9674	10229	10510	10425	10046	9372	8415	7200	5867	4400	2800	1000	0	0	0	0	0	0	0	0	0	0	0
DEPRECIATION	534	1741	2558	3222	4422	5667	6595	7059	7198	7224	7201	6935	6551	6050	5427	4672	3800	2800	1600	200	0	0	0	0	0	0	0	0	0	0	0	0
MAINTENANCE	3	40	137	139	321	385	485	432	451	548	635	617	572	437	273	133	63	35	15	5	0	0	0	0	0	0	0	0	0	0	0	0
OPERATING COST	162	537	921	1574	2035	2641	3285	3798	3393	4203	4426	4582	5157	5413	5758	5959	6222	6322	6202	5822	5222	4522	3722	2922	2122	1322	522	0	0	0	0	
NET PROFIT	1133	633	865	465	-739	-1935	-2708	-2034	-348	615	2055	3991	5335	6415	7200	8567	9372	10167	10952	11727	12492	13247	13992	14727	15452	16177	16892	17597	18292	18977	19652	
TOTAL ASSETS	28062	86128	136773	186696	265994	335976	404445	471892	547348	621806	705293	797853	899411	1010006	1129656	1258401	1396301	1543401	1699701	1865301	2040301	2224901	2418701	2621901	2834701	3057101	3289101	3530701	3781901	4043701	4316101	
FIXED ASSETS	23224	57604	92843	131404	175135	214925	251775	285705	316735	344965	370495	393425	413755	431485	446715	459445	469675	477405	482735	485965	487195	486425	483755	479185	472715	464345	454075	441905	427935	412265	394895	
NET WORKING CAPITAL	15562	28277	25480	28158	43612	44951	25549	17272	17487	24202	16538	4194	5232	5365	15542	18232	18312															
WORKING CAPITAL	5957	10366	9312	10558	17072	17522	9843	6497	6735	10449	7351	1528	3416	2624	5915	6125	6597															
TELECOM	3635	18511	15574	17509	26529	26549	16013	19776	19752	13762	9277	2577	2466	4341	3628	10135	11531															
TELECOM	865	3698	2367	2153	6859	5934	2369	754	881	508	425			1859	2396	2136	1723															
WORKING CAPITAL	118	639	745	591	1111	1624	697	231	145	212	143			333	576	512	511															
TELECOM	747	2977	2213	1568	5739	4319	1469	523	733	457	276			1555	2339	1534	1514															
TELECOM	1523	12396	9829	6432	21335	20312	9788	2316	4317	2926	2185	427	6134	7440	1274	7711	1433															
WORKING CAPITAL	288	1761	3456	2526	2831	5531	3337	1443	713	365	377	271	746	1539	1778	2371	2014															
TELECOM	1236	11145	6366	3312	10133	15561	5749	1477	3334	1803	1257	156	5375	3259	7707	2422	2777															
TELECOM	8937	11396	12183	24742		4351	28334	21447	3263	3665	9565	15111	13329	16111	3661																	
WORKING CAPITAL	279	359	355	742		131	669	643	98	239	299	423	509	403	261																	
TELECOM	8727	11636	11828	24999		4227	28325	21904	3179	3375	9375	15628	14759	15723	3372																	
TELECOM	1277	1277	1157			1735	1735	1311																								
TELECOM	311	311	297			342	342	333																								
TELECOM	968	968	835			1392	1392	1372																								

Appendix Table - D (2) Financial Analysis of JABOTABEK Railway Project - Master Plan -

(Rp. million)

	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982		
FINANCE TOTAL																															
BORROWING	20224	50664	51693	51935	72337	75255	69125	44155	27355	32361	20312	20453	31315	32774	35721	25305	25237				373	633	430	3672	16325	23273	17316				
REPAYMENT																															
SALANCE	21221	65217	103503	151322	221752	252135	275221	277757	20457	374307	377737	512771	433262	422419	435228	434938	431966	411752	352510	358117	344609	327133	303957	277771	263343	251617	23352				
FINANCE IN FOREIGN CBY																															
BORROWING	21221	45235	30269	40382	51312	50327	52325	34331	19331	23454	23100	18361	26514	27704	23624	17662	16273				355	773	3295	2851	15332	22633	15315				
REPAYMENT																															
SALANCE	21221	66517	103385	150360	221750	252135	275221	277757	33452	374307	357025	335071	403802	422419	435228	434938	431966	411752	352670	358117	344609	327133	303107	277771	263343	251517	24352				
INTEREST	1277	3331	6233	3322	12135	15132	17337	21345	21271	22416	25250	23753	24533	25345	26114	26036	25913	24735	23435	22267	20676	19621	18238	16786	16333	15577					
FINANCE IN LOCAL CBY																															
BORROWING	6343	13428	14774	14516	21025	24810	25132	3157	2034	11307	6727	2282	4731	4930	8337	2243	6305				23	560	1155	578	335	2631	1732				
REPAYMENT																															
SALANCE																															
INTEREST																															
CASH FLOW																															
NET CASH FLOW	850	-171	-527	-1382	-2736	-4234	-5522	-6345	-7236	-7215	-8526	-9321	-9717	-10912	-11210	-13441	-13301	-1736	-2445	-2427	-2435	-2249	-2343	-2733	-2933	-3614	-5214				
CASH IN																															
OPERATING PROFIT	1175	3223	3708	6356	7271	8253	7525	11252	13030	15055	17123	21237	22429	24270	26123	28135	30322	31322	32322	33322	34322	35322	36322	37322	38322	39322	40322	41322	42322	43322	
DEPRECIATION	162	597	933	1574	2330	2541	3265	3732	3932	4233	4420	4572	5357	5413	5740	5903	6122	6122	6122	6122	6122	6122	6122	6122	6122	6122	6122	6122	6122	6122	
DEPRECIATION	2824	5866	5163	6145	7237	7523	6125	4355	2895	3731	2513	2343	31315	32774	38721	26305	25237														
CASH OUT																															
INVESTMENT	28224	50664	51693	61430	72337	75253	69125	44155	25302	29333	23455	31315	32774	38721	26305	25237					373	633	430	3672	16325	23273	17316				
REPAYMENT																															
INTEREST	1277	3331	6233	3322	12135	15132	17337	21345	21271	22416	25250	23753	24533	25345	26114	26036	25913	24735	23435	22267	20676	19621	18238	16786	16333	15577					

Appendix Table - E (2) Financial Analysis of JABOTABEK Railway Project - Master Plan -

(Rp. million)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
FINANCE TOTAL																												
BORROWING	28224	58664	51643	61496	72337	75253	68125	44155	26365	37361	28913	20643	31315	32774	38721	26995	25237				373	8333	4359	3672	15325	23273	17	
REPAYMENT											1054	3326	5169	7518	10388	12619	15256	17396	17352	19225	20234	21152	22483	23872	25353	26246	27	
BALANCE	21281	66517	193386	159366	201758	252195	395121	349112	359343	384498	493619	418654	449338	469364	489100	485152	486169	469163	451211	431385	412107	398727	379449	358441	348411	342737	331	
FINANCE IN FOREIGN CCY																												
BORROWING	21281	45236	36869	46920	51392	59437	52326	34391	18331	25454	29186	18351	26614	27784	23824	17662	16273				355	7773	3205	2864	15332	23533	15	
REPAYMENT											1054	3326	5169	7518	10388	12610	15256	17396	17952	19225	20234	21152	22483	23872	25353	26246	27	
BALANCE	21281	66517	193386	159366	201758	252195	395121	349112	359343	384498	493619	418654	449338	469364	489100	485152	486169	469163	451211	431385	412107	398727	379449	358441	348411	342737	331	
INTEREST	638	1996	3102	4511	6053	7566	9154	10203	10771	11535	12103	12560	13203	13811	14403	14555	14585	14075	13536	12967	12353	11962	11383	10753	10452	10284	3	
FINANCE IN LOCAL CCY																												
BORROWING	6943	13428	14774	14516	21085	24916	15189	9163	8034	11797	8727	2282	4701	4999	8897	9243	8365				23	555	1155	838	393	2633	1	
REPAYMENT																												
BALANCE																												
INTEREST																												
SURPLUS																												
NET CASH FLOW	1499	1824	2655	3423	3316	3328	3557	4757	6028	8316	9976	9034	9114	8360	7428	6943	6332	5963	4655	319	3546	3023	2277	1518	328	-337		
CASH IN	39361	62483	57409	69436	81766	86147	87835	59135	44564	57213	53161	45562	58801	62463	73530	61912	61381	36143	36143	35143	36522	44482	49593	33815	52468	59416	53	
OPERATING PROFIT	1975	3223	4753	6356	7271	8253	9425	11252	13699	15643	17823	23237	22429	24273	26123	28138	30222	33022	33022	33022	33728	30175	30252	33317	33604	33392	31	
DEPRECIATION	162	537	398	1574	2338	2641	3285	3738	3392	4293	4426	4582	5057	5413	5785	5169	6122	6122	6122	6122	6115	5368	5391	5827	5539	5162	1	
BORROWING	28224	58664	51643	61496	72337	75253	68125	44155	26365	37361	28913	20643	31315	32774	38721	26995	25237				373	8333	4369	3672	16325	23273	17	
CASH OUT	28863	60659	54745	66007	78449	82819	72278	54358	37735	48876	42085	35528	49687	54133	63212	54069	55078	31081	31428	32184	32975	41453	38226	38237	52151	59833	51	
INVESTMENT	28224	58664	51643	61496	72337	75253	68125	44155	26365	37361	28913	20643	31315	32774	38721	26995	25237				373	8333	4359	3672	15325	23273	17	
REPAYMENT											1054	3326	5169	7518	10388	12619	15256	17396	17352	19225	20234	21152	22483	23872	25353	26246	27	
INTEREST	638	1996	3102	4511	6053	7566	9154	10203	10771	11535	12103	12560	13203	13811	14403	14555	14585	14075	13536	12967	12353	11962	11383	10753	10452	10284	3	

Appendix Table - E (2) Financial Analysis of JABOTABEK Railway Project - Master Plan -

(Rp. million)

1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
28224	58664	51643	61496	72397	75253	68125	44155	26365	37361	28913	29643	31335	32774	33721	26935	25237				379	8339	4350	3672	15325	23273	17335	13753	26353	393
21281	66517	103386	150366	201758	252195	305121	349112	359343	334498	403619	418654	443335	480364	489103	355152	380169	459163	451211	433386	412197	390727	373443	358441	343419	332737	331132	317332	315583	253223
21281	45236	36869	46989	51392	59437	52326	34391	18331	25454	20186	18361	26614	27784	23824	17652	16273				355	7773	3205	2864	15332	21533	15335	13920	25551	736
21281	66517	103386	150366	201758	252195	305121	349112	359343	344498	403619	418654	440338	480364	489103	485152	486169	469163	451211	431386	412197	398727	373443	358441	348419	332737	331132	317332	315583	253223
638	1936	3132	4511	6053	7556	9154	10293	10771	11535	12203	12560	13203	13811	14403	14555	14585	14275	13536	12969	12353	11962	11383	10753	10452	10284	9334	9513	9457	2577
6943	13428	14774	14516	21005	24915	15189	9163	8034	11307	8727	2282	4701	4399	6897	9243	8165				23	555	1155	808	393	2630	1732	733	323	133
1493	1824	2665	3423	3316	3328	3557	4757	6428	8316	9076	9934	9114	8360	7418	6943	6302	5963	4655	339	3545	3423	2277	1518	328	-337	-451	-429	-384	377
30361	62483	57403	69435	81766	86147	81835	59115	44564	57213	51161	45562	58391	62453	73539	61912	61381	36143	36143	35144	35522	44482	40503	33815	52458	53416	53149	43902	52524	37347
1975	3223	4768	6356	7271	8253	9425	11252	13599	15648	17823	20237	22423	24273	26123	28138	30722	33022	33322	30322	30728	30175	30252	30317	30634	30312	31249	31443	31917	31833
162	537	998	1574	2338	2641	3285	3738	3993	4293	4426	4582	5057	5413	5785	5369	6122	6122	6122	6122	6115	5168	5391	5827	5539	5162	4333	4714	4526	4313
28224	58664	51643	61496	72397	75253	68125	44155	26955	37361	28913	29643	31315	32774	33721	26935	25237				379	8339	4350	3672	15325	23273	17335	13753	26353	393
28863	60659	54745	66007	78449	82819	72278	54358	37736	48296	42085	35528	43687	54133	63212	54963	55378	31081	31488	32184	32375	41453	38226	38237	52441	59893	54933	53332	62338	35549
28224	58664	51643	61496	72397	75253	68125	44155	26965	37361	28913	29643	31315	32774	33721	26935	25237				379	8339	4350	3672	15325	23273	17335	13753	26321	393
638	1936	3132	4511	6053	7566	9154	10293	10771	11535	12133	12560	13203	13811	14403	14555	14585	14075	13536	12969	12353	11962	11383	10753	10452	10284	9334	9513	9457	2577

Appendix Table - F (2) Financial Analysis of JABOTABEK Railway Project - Master Plan -

(Rp. million)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
FINANCE PROGRAM																												
FINANCE TOTAL																												
BORROWING	28224	58664	51643	61416	72397	75253	69125	44155	28965	37351	28913	23643	31315	32774	33721	26905	25237				379	8339	4350	3572	25325	23273	1733	
REPAYMENT			694	2937	3514	4966	7167	10512	14334	17154	23308	24066	26767	28238	23911	23935	23036	28548	28143	29257	29843	30144	33155	30739	39444	33026	2323	
BALANCE	28224	86888	137436	137295	266173	335455	337523	431065	443636	453844	472450	469026	473575	476951	487731	485601	481742	453104	424350	395993	355628	343823	318026	290339	275781	270928	25788	
FINANCE IN FOREIGN Ccy																												
BORROWING	21281	45236	38859	45987	51392	54437	52320	33931	18331	25454	20166	18351	26614	27744	29324	17662	16273				355	7773	3295	2854	15332	20633	1539	
REPAYMENT								1054	3326	5169	7518	13188	12619	15258	17105	17352	14225	20234	21152	22483	23172	25363	26246	27060	27060	27060	2736	
BALANCE	21281	66517	103366	150356	201758	252195	305321	333048	354653	374338	387696	395679	420882	422410	435278	434358	431986	411752	393907	368317	344599	327909	303367	273771	264043	261617	24935	
INTEREST	1277	5931	6733	3922	12195	15332	18397	23343	21279	22430	23256	23753	24593	25345	26114	26396	25919	24705	23436	22787	21576	19521	18238	16786	16083	15597	1493	
FINANCE IN LOCAL Ccy																												
BORROWING	6943	13428	14774	14516	23395	24816	15199	9163	8934	11927	8727	2282	4701	4990	4837	9243	8965				23	566	1155	838	393	2639	173	
REPAYMENT			694	2937	3514	4966	7167	10512	14334	17154	23308	24066	26767	28238	23911	23935	23036	28548	28143	29257	29843	30144	33155	30739	39444	33026	2323	
BALANCE	6943	23371	34453	46937	64429	84273	92402	92017	88383	84335	84845	65593	55642	52532	50663	49755	41442	33251	26976	21028	16614	14359	11128	8737	8411	733		
INTEREST	937	2753	4651	6336	9697	11377	12474	12422	12923	12702	11454	9275	8538	7511	7126	6834	5717	5535	4556	3642	2539	2279	1835	1522	1199	1135		
SUBSIDY																												
NET CASH FLOW																												
	-77	-2321	-5782	-3455	-14948	-20520	-25138	-28437	-30386	-31801	-32768	-32774	-32472	-31465	-30333	-27863	-25587	-22775	-20592	-18443	-17215	-15831	-14149	-12344	-11563	-10715	-916	
CASH IN																												
OPERATING PROFIT	1375	3223	4768	6366	7271	8253	9425	11252	13630	15643	17823	20237	22429	24270	26123	28138	30322	30322	30322	30322	30322	30322	30322	30322	30322	30322	30322	3124
DEPRECIATION	162	597	328	1574	2938	2641	3285	3738	3900	4203	4476	4682	5057	5411	5786	5969	6122	6122	6122	6122	6115	5968	5833	5277	5539	5162	490	
BORROWING	28224	58664	51643	61416	72397	75253	69125	44155	28965	37351	28913	23643	31315	32774	33721	26905	25237				379	8339	4350	3572	25325	23273	1733	
CASH OUT																												
INVESTMENT	28224	58664	51643	61416	72396	75253	69125	44155	28965	37351	28913	23643	31315	32774	33721	26905	25237				379	8339	4350	3572	25325	23273	1733	
REPAYMENT			694	2937	3514	4966	7167	10512	14334	17154	23308	24066	26767	28238	23911	23935	23036	28548	28143	29257	29843	30144	33155	30739	39444	33026	2323	
INTEREST	2214	6741	19554	15557	20502	26595	37751	32765	33232	34333	34710	33528	33191	32856	33232	32935	32636	30390	27492	25723	23515	21890	20138	18283	17262	16832	1506	

Appendix Table - F (2) Financial Analysis of JABOTABEK Railway Project - Master Plan -

(Rp. million)

1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
28224	58664	51643	61436	72397	75253	69125	44155	26965	37351	28913	20643	31315	32774	38721	26935	25237													
28224	86888	137836	137295	266178	335455	337523	431465	443636	458844	472453	469026	473575	476051	487731	485601	481742	458194	424350	395993	355628	343223	318926	290839	275781	273928	257839	244119	245571	223154
21281	45236	35869	46980	51392	57437	52920	34731	18331	25454	20146	18351	26614	27784	23624	17662	16273													
21281	66517	103386	150356	201758	252195	305121	337048	354653	374332	387608	395873	403882	422410	435228	434338	431386	411752	393597	368117	344509	327909	303367	279771	268043	261617	243352	236958	233558	216617
1277	3931	6223	3222	12135	15132	18397	23343	21279	22431	23256	23753	24593	25345	26114	26330	25919	24705	23436	22287	20676	19623	18238	16786	16083	15697	14937	14217	14392	12937
6943	13425	14774	14516	21005	24416	35139	9163	8934	11997	8727	2282	4701	4993	6897	9243	8965													
6943	23371	34453	46939	64429	84273	12492	12017	18383	28305	34845	33148	63593	55640	57502	51663	49756	41442	33751	26971	21028	16814	14759	11128	8737	8411	7337	7162	7292	6537
937	2752	4651	6336	9697	11371	12474	12422	12433	12932	13454	9375	8538	7511	7325	6831	6717	5575	4556	3442	2439	2273	1820	1572	1180	1135	1072	967	972	883
-77	-2921	-5182	-3455	-14943	-20510	-25138	-28417	-37386	-31801	-32768	-32774	-32472	-31465	-33333	-27863	-25549	-22715	-20592	-18443	-17215	-15891	-14349	-12944	-11563	-10715	-9161	-8579	-4050	-1956
30361	62483	57403	69436	81766	86147	80335	57115	34504	52213	51161	45562	58831	62453	73531	61322	61331	36143	36143	36143	36522	34482	40503	39815	52463	59416	53243	49902	62524	37747
1375	3223	4768	6356	7271	8253	9425	11252	13630	15644	17823	20237	22429	24270	26123	28134	30222	30222	30222	30222	30222	30222	30222	30222	30222	30222	30222	30222	30222	30222
162	597	338	1574	2038	2641	3285	3733	3393	4293	4426	4582	5357	5419	5786	5969	6122	6122	6122	6122	6115	5968	5831	5227	5539	5162	4933	4774	4326	4310
28224	58664	51643	61436	72397	75253	69125	44155	26965	37351	28913	20643	31315	32774	38721	26935	25237													
30438	65435	63131	78531	96713	105727	105973	87532	74650	59714	83329	78337	31273	93328	100363	84875	55379	58248	56835	54986	53737	60373	54652	52759	54331	70131	62429	56472	66584	38193
28224	58664	51643	61436	72397	75253	69125	44155	26965	37351	28913	20643	31315	32774	38721	26935	25237													
2214	6741	10854	15357	20502	26575	31721	32755	33232	34433	34710	33528	33191	32856	33232	32336	32630	30397	27992	25729	23515	21899	20131	18289	17262	16832	16759	15154	15274	13449

Appendix Table - G Economic Analysis of JABOTABEK Railway Project - Feasibility Study -

(Rp. million)

Year	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	
Net Present Value		740	5280	-1551	1058	-3387	2837	454	7328	8907	5519	5173	6791	4143	826	5173	6759	5212	-1571	-3383	-2443	-10057	5217
Internal Rate of Return																							23.95%
Cash Flow		5207	5280	6575	7307	8134	8344	6894	9772	10497	5513	6178	6799	4597	7468	9521	8492	6282	7232	5513	3741	5335	5217
Operating Costs		5143	5200	8623	5121	5735	4329	2203	2522	3671	1281	1734	2350	5221	7151	7528	1523	5121	5735	2753	5231	5231	7101
Capital Costs		1357	1355	1947	2186	2463	965	1513	2579	330	1357	1357	1357	1357	2100	2463	355	1613	2511	2571	330	1357	2355
Net Cash Flow		858	8127	6249	12081	5237	6440	1844	1531			550	6642	3442	1743					3311	11306	12183	23135
Net Present Value			1163	1340				1140	1140											331			-21189
Operating Costs			544	274										550	1736	781	593						
Capital Costs			5443	4835	12081	5237	6440	734	359						4335	2661	1134						
Net Cash Flow																				337	11335	12123	23135
Net Present Value																							

INTERNAL RATE OF RETURN 23.95%

CASHFLOW WITH INTEREST RATE 10%

PERIOD	CASHFLOW	CUM FLW	NET PV	CUM NET PV
1	26330.21	26330.21	25099.21	25099.21
2	-32752.94	-15422.73	-33152.29	-6167.67
3	-30778.04	-46200.77	-35592.78	-24673.32
4	-26553.28	-72754.05	-33334.96	-37008.28
5	13376.60	-59377.45	5917.69	-32091.76
6	16471.35	-42906.10	4519.63	-27472.13
7	21220.85	-21685.25	4614.37	-22857.76
8	25572.74	-497.51	4528.71	-18329.05
9	23158.20	2725.13	3027.93	-15301.12
10	33224.05	57475.18	3264.43	-12036.69
11	25110.53	82585.71	2353.81	-9682.88
12	31211.55	113797.26	1339.75	-8343.13
13	51235.52	165032.78	1129.56	-7213.57
14	55834.59	220867.37	1313.75	-5899.82
15	36259.56	257126.93	1039.84	-4859.98
16	45528.88	302655.81	1025.77	-3834.21
17	50346.81	353002.62	870.96	-2963.25
18	47653.16	399655.78	631.81	-2131.44
19	48217.33	447873.11	495.83	-1335.61
20	48839.21	498712.32	380.26	-555.35
21	46187.44	544899.76	285.51	-269.84
22	42865.70	587765.46	205.43	-74.41
23	48218.34	636983.80	179.24	104.83
24	48789.31	685773.11	149.84	254.67
25	48281.75	735054.86	107.92	362.59
26	40461.12	775516.00	70.13	432.72
27	38657.08	816173.08	51.95	484.67
28	35536.33	852709.41	35.92	520.59
29	25122.23	877831.64	20.35	540.94
30	238914.43	1116746.07	159.74	700.68

Appendix Table - H Economic Analysis of JABOTABEK Railway Project - Feasibility Study -

(Rp. million)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
1	-1227	2233	-5193	-1001	-1002	-3032	-3385	1326	1554	2178	2153	2178	1655	-3557	-272	1501	2123	-7153	-3817	-1079	-21141	3179	
2	2254	2133	2121	2153	2176	2295	3054	3173	3054	2128	2153	2178	2295	3054	3173	3054	2128	2153	2178	2295	3054	3173	
3	2254	2133	2121	2153	2176	2295	3054	3173	3054	2128	2153	2178	2295	3054	3173	3054	2128	2153	2178	2295	3054	3173	
4	4454		6127	6243	12381	5237	6440	1234	1500				550	6542	3442	1743			3311	11336	12183	23195	
5	4454		1149	1149				1149	1149					1736	711	699			314				
6	4454		544	274				704	359				550	4395	2561	1134			3337	11336	12183	23195	
7	2254	2252	2254	10570	11205	11251	12651	13375	14180	14100	14100	14100	14100	14100	14100	14100	14100	14100	14100	14100	14100	14100	14100
8	2253	13350	14183	15005	15835	16663	17494	18408	19324	19324	19324	19324	19324	19324	19324	19324	19324	19324	19324	19324	19324	19324	
9	325	326	326	326	326	326	326	326	326	326	326	326	326	326	326	326	326	326	326	326	326	326	
10	2014	7457	7919	8368	8817	9263	9708	10138	10647	10587	10587	10587	10587	10587	10587	10587	10587	10587	10587	10587	10587	10587	
11	1535	1537	1645	1740	1855	1963	2072	2172	2313	2313	2313	2313	2313	2313	2313	2313	2313	2313	2313	2313	2313	2313	
12	3764	4227	4230	4555	4837	5112	5388	5591	5393	5393	5393	5393	5393	5393	5393	5393	5393	5393	5393	5393	5393	5393	
13	3943	4118	4314	4433	4549	4795	4857	5023	5139	5139	5139	5139	5139	5139	5139	5139	5139	5139	5139	5139	5139	5139	
14	3932	3114	3207	3344	3433	3521	3643	3750	3851	3851	3851	3851	3851	3851	3851	3851	3851	3851	3851	3851	3851	3851	
15	254	335	323	343	368	401	419	440	454	464	464	464	464	464	464	464	464	464	464	464	464	464	
16	4132	4503	5023	5673	6133	6632	7252	7535	8139	8139	8139	8139	8139	8139	8139	8139	8139	8139	8139	8139	8139	8139	

INTERNAL RATE OF RETURN 14.60%

CASHFLOW WITH INTEREST RATE 14%

PERIOD	CASHFLOW	CUM. FLOW	NET PV	CUM. NET PV
1	25113.94	25113.94	25113.94	25113.94
2	-45547.21	-20433.27	-30720.43	-18016.43
3	-34537.42	-54970.69	-26306.32	-44322.75
4	-31657.47	-86628.16	-22395.75	-66718.50
5	7415.81	-79212.35	4335.38	-57383.12
6	8501.35	-70711.00	4247.94	-53135.18
7	11413.43	-59297.57	5229.29	-47905.89
8	14549.80	-44747.77	5816.95	-42088.94
9	19164.06	-25583.71	3501.40	-38587.54
10	15325.13	-10258.58	1545.71	-37041.83
11	8955.11	1797.53	2277.67	-34764.16
12	12105.43	2817.92	2655.67	-32508.49
13	7521.50	10339.43	1555.22	-28953.27
14	15917.93	25357.36	2635.13	-25318.14
15	16529.30	41886.66	4247.71	-21070.43
16	22245.71	64132.37	2354.47	-18715.96
17	23323.53	87455.90	2577.74	-16138.22
18	24512.07	111967.97	2312.21	-13326.01
19	24536.03	137504.00	2038.22	-10287.79
20	24563.64	162967.64	1822.98	-7064.81
21	24543.26	188310.90	1555.93	-3708.88
22	18717.83	207028.73	1059.97	-2648.91
23	22112.58	229141.31	1938.41	-710.50
24	23685.45	252826.76	1016.71	606.21
25	24512.97	277339.73	117.58	723.79
26	15227.11	292566.84	477.07	1200.86
27	12567.75	305134.59	357.78	1558.64
28	12436.47	317571.06	318.00	1876.64
29	2244.07	319815.13	18.58	1895.22
30	223433.21	639248.34	4331.79	2214.01

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