

APPENDIX C INFRASTRUCTURE BACK-UP DATA

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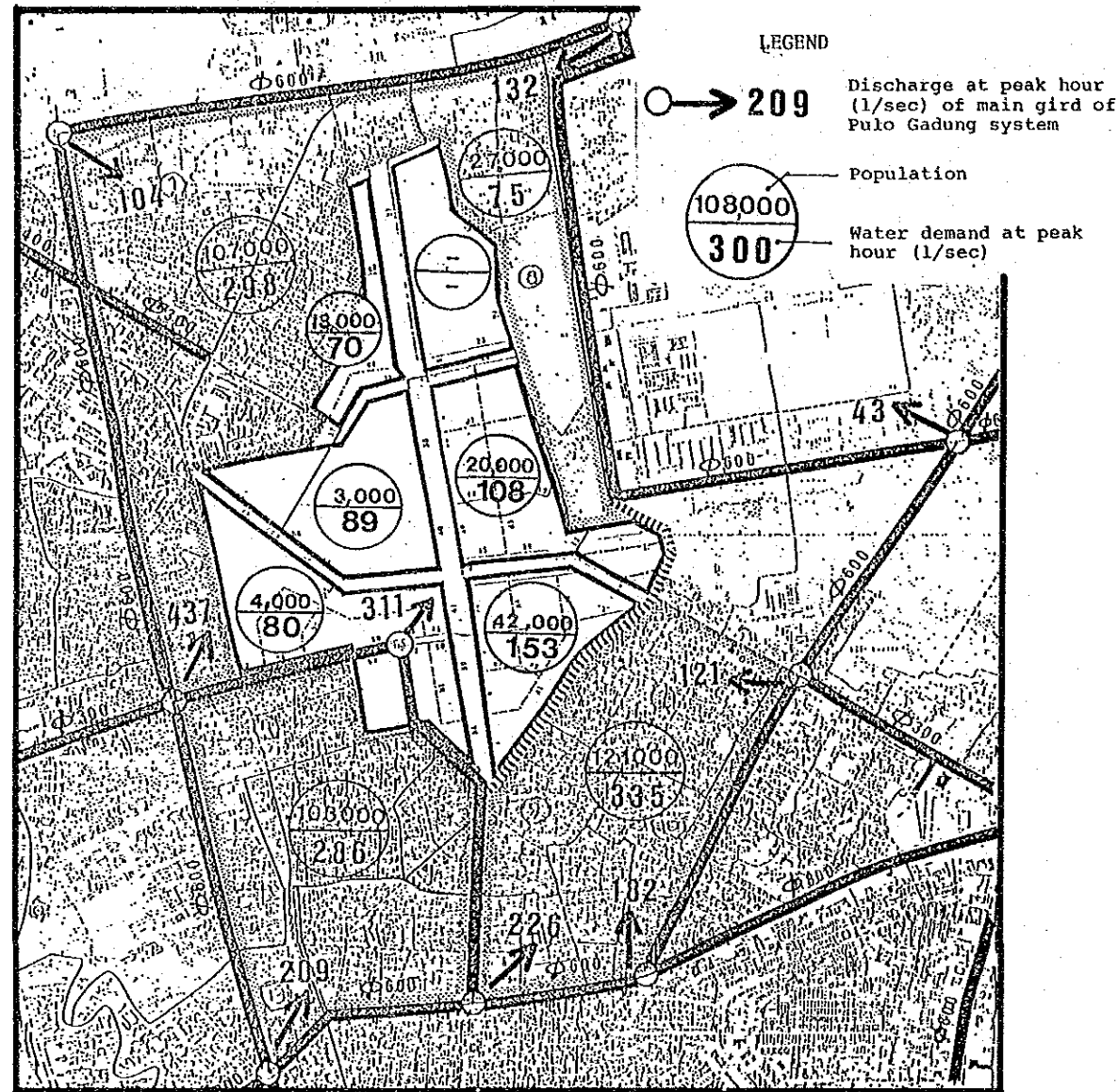
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UTILITY DEMAND ESTIMATION



- Water Supply Capacity by PAM : 1,765 lit/sec at peak hour

- Estimated Water Demand in 1998 after completion of Kemayoran Complex Development

* Zone 1 (ex-airport area) 82,000 prs : 500 lit/sec

* Zone 5 (vicinity area) 358,000 prs : 994 lit/sec

Total 440,000 prs : 1,494 lit/sec at peak hour

Fig. C-1 Water Demand of Study Area

Table C-1 Water Demand of Kemayoran Complex by phase

Phase	Year	Water Demand		
		Daily (m3/day)	In average (lit/sec)	at peak hour (lit/sec)
Existing & phase I	Until 1992	9,736	113	226
Phase II	Until 1995	18,589	215	430
Phase III	Until 1998	21,593	250	500

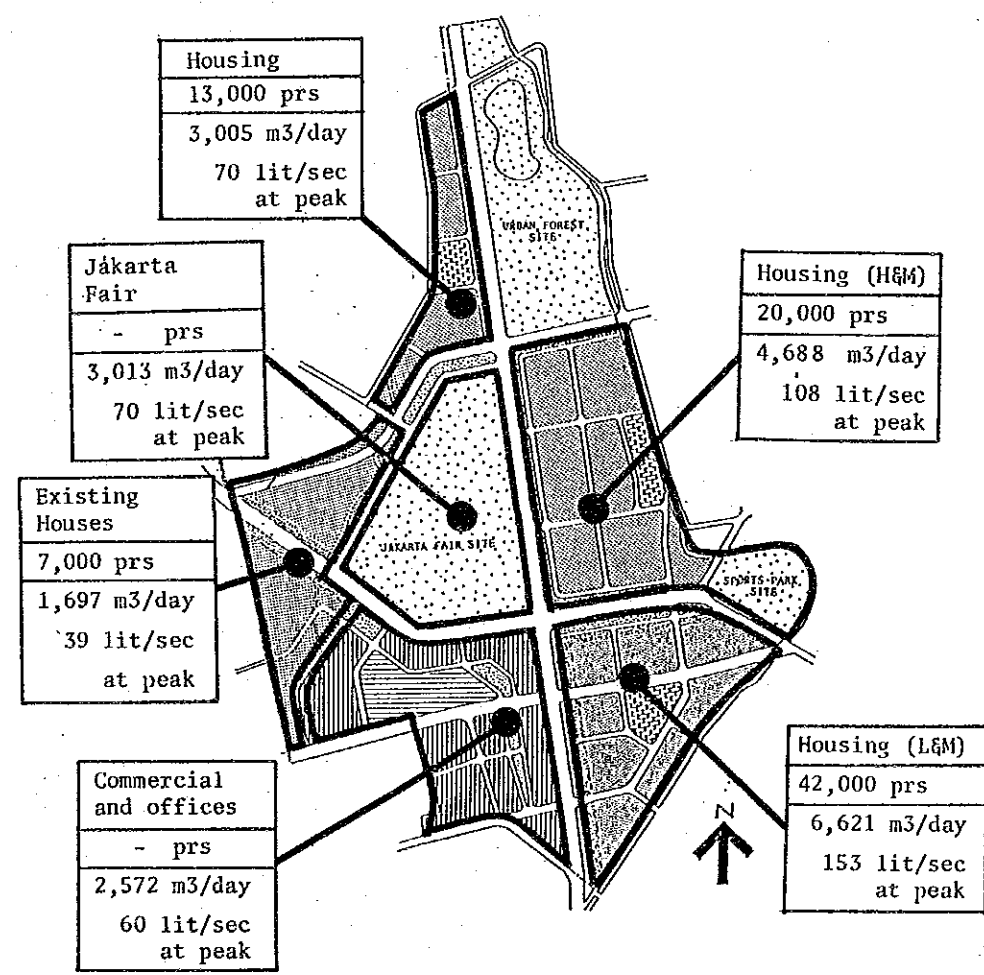
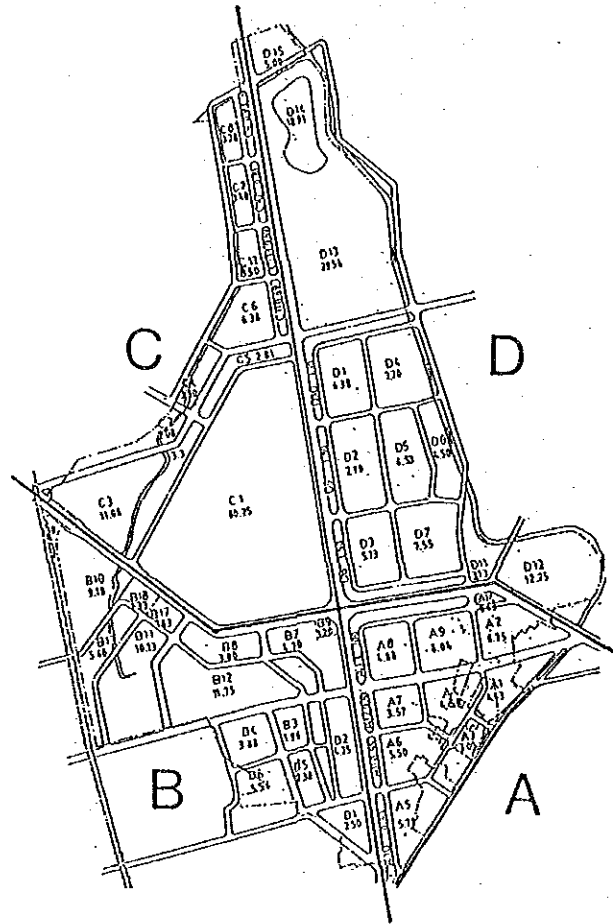
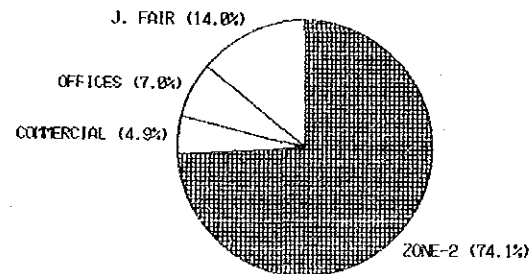


Fig. C-2 Water Demand of Kemayoran Complex

Table C-2 KTA-53/JICA DEMAND ESTIMATION OF WATER SUPPLY



WATER DEMAND BY LANDUSE
21,593 M3/DAY

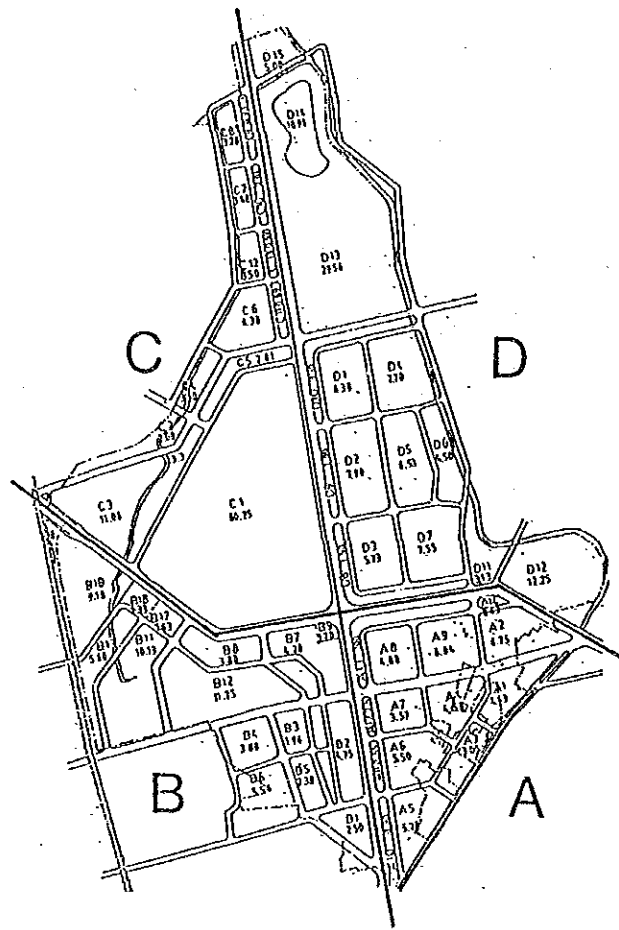


ZONE	BLOCK	LANDUSE	AREA (HA)	UNIT DEMAND (M3/HA/D)	STAGE	EXISTING (M3/DAY)	STAGE I (1990-1992) (M3/DAY)	STAGE II (1993-1995) (M3/DAY)	STAGE III (1996-1998) (M3/DAY)	TOTAL (M3/DAY)
ZONE-2	A1	HOUSING/LOW & MID INCOME	4.43	160	2			709		709
	A2	HOUSING/LOW & MID INCOME	6.75	160	2			1,080		1,080
	A3	HOUSING/LOW & MID INCOME	3.00	160	2			480		480
	A4	PUBLIC FACILITIES	4.58	50	1		229			229
	A5	HOUSING/LOW & MID INCOME	5.78	160	2			925		925
	A6	HOUSING/LOW & MID INCOME	5.50	160	1		880			880
	A7	HOUSING/LOW & MID INCOME	3.57	160	1		571			571
	A8	HOUSING/LOW & MID INCOME	4.88	160	1		781			781
	A9	HOUSING/LOW & MID INCOME	6.04	160	1		966			966
	D1	HOUSING/HIGH INCOME	6.38	80	2			510		510
	D2	HOUSING/HIGH INCOME	7.90	80	2			632		632
	D3	HOUSING/HIGH INCOME	5.73	80	2			458		458
	D4	HOUSING/MIDDLE INCOME	7.70	110	2			847		847
	D5	HOUSING/MIDDLE INCOME	6.53	110	2			718		718
	D6	PUBLIC FACILITIES	4.50	50	2			225		225
	D7	HOUSING/MIDDLE INCOME	7.55	110	2			831		831
	D11	HOUSING/MIDDLE INCOME	3.13	110	2			344		344
	D12	SPORTS FIELD	12.25	10	1		123			123
	C4	HOUSING/MIDDLE INCOME	3.50	170	3				595	595
	C6	HOUSING/MIDDLE INCOME	6.38	170	3				1,085	1,085
	C7	HOUSING/MIDDLE INCOME	3.48	170	3				592	592
	C8	HOUSING/MIDDLE INCOME	3.28	170	3				558	558
	C12	PUBLIC FACILITIES	3.50	50	3				175	175
	C2, C3	EXISTING HOUSES	16.44	50	0	822				822
	B10	EXISTING HOUSES	10.56	50	0	528				528
	B13	EXISTING HOUSES	5.60	50	0	280				280
	B18	EXISTING HOUSES	1.33	50	0	67				67
	DEMAND OF ZONE-2			160.27 (HA)		1,697	3,550	7,760	3,004	16,010
ZONE-1 EXCEPT ZONE-2	B1	SHOPING CENTER	2.50	50	1		125			125
	B2	SHOPING CENTER	4.75	50	1		238			238
	B3	SHOPING CENTER	1.96	50	1		98			98
	B4	SHOPING CENTER	3.88	50	1		194			194
	B5	SHOPING CENTER	2.38	50	2			119		119
	B6	SHOPING CENTER	5.56	50	2			278		278
	B7	OFFICES	4.70	50	1		235			235
	B8	OFFICES	3.80	50	2			190		190
	B11	OFFICES	10.13	50	2			507		507
	B12	EXISTING OFFICES	11.75	50	0	588				588
	C1	JAKARTA FAIR	60.25	50	1		3,013			3,013
	DEMAND OF ZONE-1 EXCEPT ZONE-2			111.66 (HA)		588	3,902	1,094	0	5,583
TOTAL DEMAND OF ZONE-1			271.93 (HA)			2,284	7,452	8,853	3,004	21,593

	POPULATION DENSITY (PERSON/HA)	UNIT CONSUMPTION (L/PERSON)	DOMESTIC DEMAND (M3/HA/DAY)	NON-DOMESTIC DEMAND (30%)	UNIT DEMAND (M3/HA/DAY)
- HOUSING/LOW INCOME	1,050	120	126	38	160
- HOUSING/MID INCOME (D)	550	160	88	26	110
- HOUSING/MID INCOME (C)	800	160	128	38	170
- HOUSING/HIGH INCOME	320	200	64	19	80
- EXISTING HOUSING	200	200	40	12	50

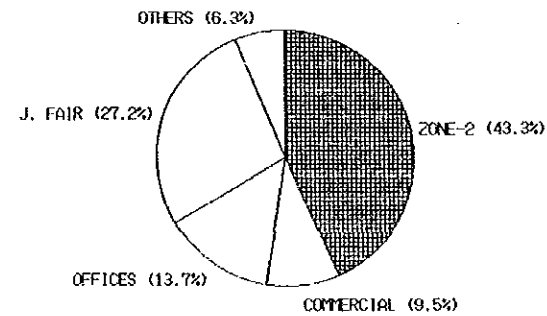
Note: The above unit demand of water supply are based on the design criteria for Category 3 of Directorate of Water Supply of Cipta Karya.

Table C-3 KTA-53/JICA ESTIMATION OF SOLID WASTE GENERATION



ZONE	BLOCK	LANDUSE	AREA (HA)	UNIT DEMAND (KG/HA/D)	STAGE	EXISTING (M3/DAY)	STAGE I (1990-1992) (KG/DAY)	STAGE II (1993-1995) (KG/DAY)	STAGE III (1996-1998) (KG/DAY)	TOTAL (KG/DAY)	
ZONE-2	A1	HOUSING/LOW & MID INCOME	4.43	315	2			1,395		1,395	
	A2	HOUSING/LOW & MID INCOME	6.75	315	2			2,126		2,126	
	A3	HOUSING/LOW & MID INCOME	3.00	315	2			945		945	
	A4	PUBLIC FACILITIES	4.58	400	1		1,832			1,832	
	A5	HOUSING/LOW & MID INCOME	5.78	315	2			1,821		1,821	
	A6	HOUSING/LOW & MID INCOME	5.50	315	1		1,733			1,733	
	A7	HOUSING/LOW & MID INCOME	3.57	315	1		1,125			1,125	
	A8	HOUSING/LOW & MID INCOME	4.88	315	1		1,537			1,537	
	A9	HOUSING/LOW & MID INCOME	6.04	315	1		1,903			1,903	
	D1	HOUSING/HIGH INCOME	6.38	218	2				1,391		1,391
	D2	HOUSING/HIGH INCOME	7.90	218	2				1,722		1,722
	D3	HOUSING/HIGH INCOME	5.73	218	2				1,249		1,249
	D4	HOUSING/MIDDLE INCOME	7.70	215	2				1,656		1,656
	D5	HOUSING/MIDDLE INCOME	6.53	215	2				1,404		1,404
	D6	PUBLIC FACILITIES	4.50	400	2				1,800		1,800
	D7	HOUSING/MIDDLE INCOME	7.55	215	2				1,623		1,623
	D11	HOUSING/MIDDLE INCOME	3.13	215	2				673		673
	D12	SPORTS FIELD	12.25	100	1		1,225				1,225
	C4	HOUSING/MIDDLE INCOME	3.50	312	3					1,092	1,092
	C6	HOUSING/MIDDLE INCOME	6.38	312	3					1,991	1,991
C7	HOUSING/MIDDLE INCOME	3.48	312	3					1,086	1,086	
C8	HOUSING/MIDDLE INCOME	3.28	312	3					1,023	1,023	
C12	PUBLIC FACILITIES	3.50	400	3					1,400	1,400	
C2, C3	EXISTING HOUSES	16.44	136	0	2,236					2,236	
B10	EXISTING HOUSES	10.56	136	0	1,436					1,436	
B13	EXISTING HOUSES	5.60	136	0	762					762	
B18	EXISTING HOUSES	1.33	136	0	181					181	
DEMAND OF ZONE-2			160.27			4,614	9,354	17,805	6,592	38,365	
ZONE-1 EXCEPT ZONE-2	B1	SHOPING CENTER	2.50	400	1		1,000			1,000	
	B2	SHOPING CENTER	4.75	400	1		1,900			1,900	
	B3	SHOPING CENTER	1.96	400	1		784			784	
	B4	SHOPING CENTER	3.88	400	1		1,552			1,552	
	B5	SHOPING CENTER	2.38	400	2			952		952	
	B6	SHOPING CENTER	5.56	400	2			2,224		2,224	
	B7	OFFICES	4.70	400	1		1,880			1,880	
	B8	OFFICES	3.80	400	2			1,520		1,520	
	B11	OFFICES	10.13	400	2			4,052		4,052	
	B12	EXISTING OFFICES	11.75	400	0	4,700					4,700
C1	JAKARTA FAIR	60.25	400	1		24,100				24,100	
DEMAND OF ZONE-1 EXCEPT ZONE-2			111.66 (HA)			4,700	31,216	8,748	0	44,664	
URBAN FOREST			29.56	100	2			2,956		2,956	
ALL ROADS AND STREET	(TOTAL LENGTH IN KM)		34.7	75			998	683	923	2,603	
TOTAL DEMAND OF ZONE-1			271.93 (HA)			9,314	40,570	26,553	6,592	88,588	

SOLID WASTE GENERATION BY LANDUSE
88.6 TON/DAY

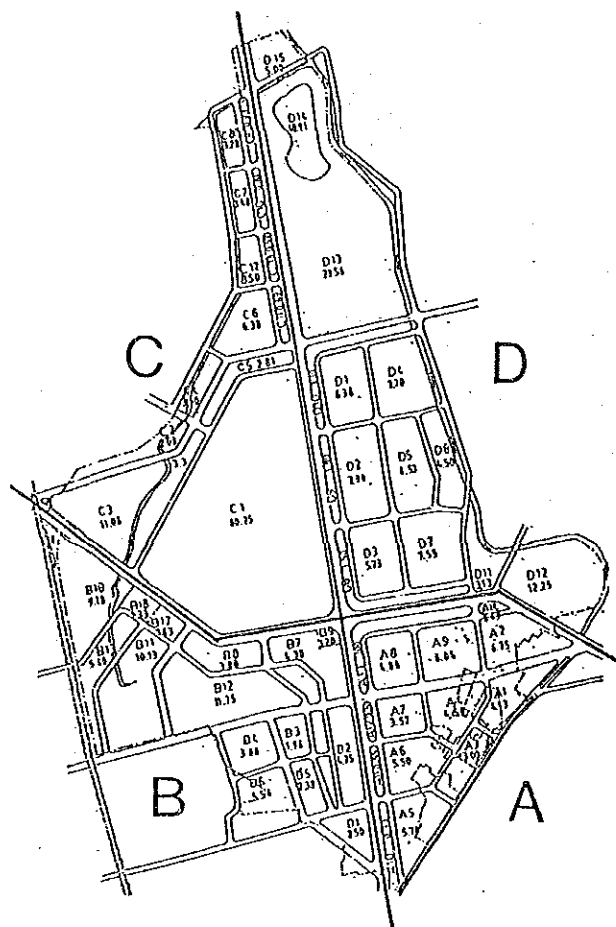


UNIT GENERATION OF SOLID WASTE IN HOUSING

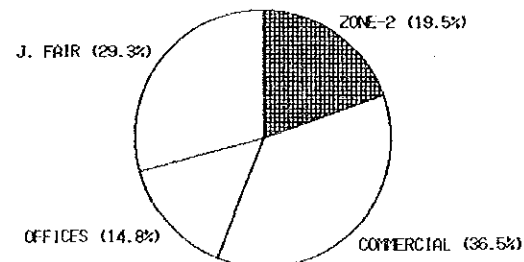
	POPULATION DENSITY (PERSON/HA)	UNIT CONSUMPTION (KG/CAPITA)	TOTAL DEMAND (KG/HA/DAY)
- HOUSING/LOW-MID INCOME	1,050	0.30	315
- HOUSING/MID INCOME (D)	550	0.39	215
- HOUSING/MID INCOME (C)	800	0.39	312
- HOUSING/HIGH INCOME	320	0.68	218
- EXISTING HOUSING	200	0.68	136

Note: The above unit generation rates of solid waste are based on "the Study on Solid Waste Management System Improvement Project" by JICA in 1987.

Table C-4 KTA-53/JICA DEMAND ESTIMATION OF ELECTRICITY



ELECTRICITY DEMAND BY LANDUSE
72,050 KVA

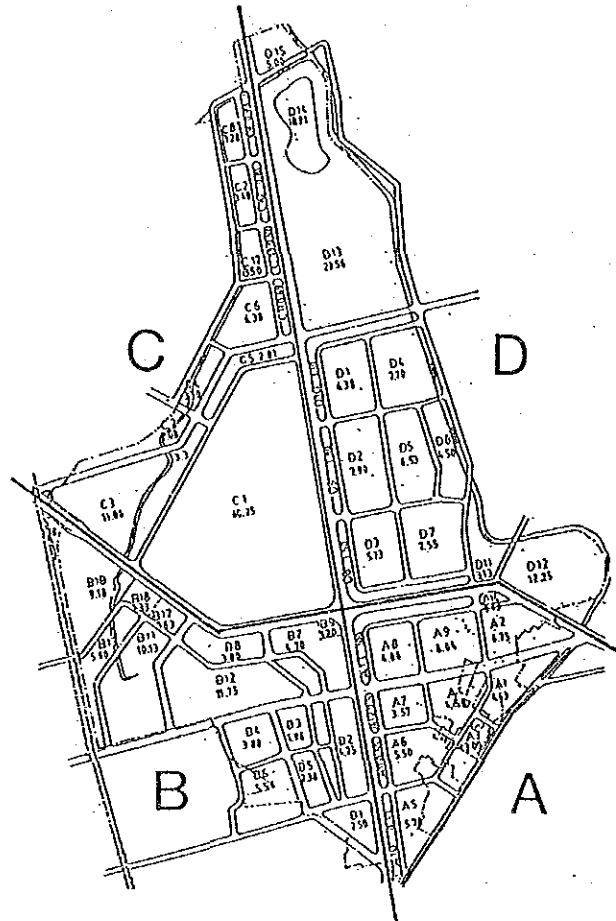


ZONE	BLOCK	LANDUSE	AREA (HA)	UNIT DEMAND (KVA/HA)	STAGE	EXISTING (KVA)	STAGE I (1990-1992) (KVA)	STAGE II (1993-1995) (KVA)	STAGE III (1996-1998) (KVA)	TOTAL (KVA)	
ZONE-2	A1	HOUSING/LOW & MID INCOME	4.43	120	2			532		532	
	A2	HOUSING/LOW & MID INCOME	6.75	120	2			810		810	
	A3	HOUSING/LOW & MID INCOME	3.00	120	2			360		360	
	A4	PUBLIC FACILITIES	4.58	100	1		458			458	
	A5	HOUSING/LOW & MID INCOME	5.78	120	2			694		694	
	A6	HOUSING/LOW & MID INCOME	5.50	120	1		660			660	
	A7	HOUSING/LOW & MID INCOME	3.57	120	1		428			428	
	A8	HOUSING/LOW & MID INCOME	4.88	120	1		586			586	
	A9	HOUSING/LOW & MID INCOME	6.04	120	1		725			725	
	D1	HOUSING/HIGH INCOME	6.38	80	2				510		510
	D2	HOUSING/HIGH INCOME	7.90	80	2				632		632
	D3	HOUSING/HIGH INCOME	5.73	80	2				458		458
	D4	HOUSING/MIDDLE INCOME	7.70	110	2				847		847
	D5	HOUSING/MIDDLE INCOME	6.53	110	2				718		718
	D6	PUBLIC FACILITIES	4.50	100	2				450		450
	D7	HOUSING/MIDDLE INCOME	7.55	110	2				831		831
	D11	HOUSING/MIDDLE INCOME	3.13	110	2				344		344
	D12	SPORTS FIELD	12.25	10	1			123			123
	C4	HOUSING/MIDDLE INCOME	3.50	110	3					385	385
	C6	HOUSING/MIDDLE INCOME	6.38	110	3					702	702
C7	HOUSING/MIDDLE INCOME	3.48	110	3					383	383	
C8	HOUSING/MIDDLE INCOME	3.28	110	3					361	361	
C12	PUBLIC FACILITIES	3.50	100	3					350	350	
C2, C3	EXISTING HOUSES	16.44	50	0		822				822	
B10	EXISTING HOUSES	10.56	50	0		528				528	
B13	EXISTING HOUSES	5.60	50	0		280				280	
B18	EXISTING HOUSES	1.33	50	0		67				67	
DEMAND OF ZONE-2			160.27 (HA)			1,697	2,979	7,186	2,180	14,042	
ZONE-1	B1	SHOPING CENTER	2.50	1,250	1		3,125			3,125	
EXCEPT	B2	SHOPING CENTER	4.75	1,250	1		5,938			5,938	
ZONE-2	B3	SHOPING CENTER	1.96	1,250	1		2,450			2,450	
	B4	SHOPING CENTER	3.88	1,250	1		4,850			4,850	
	B5	SHOPING CENTER	2.38	1,250	2			2,975		2,975	
	B6	SHOPING CENTER	5.56	1,250	2			6,950		6,950	
	B7	OFFICES	4.70	350	1		1,645			1,645	
	B8	OFFICES	3.80	350	2			1,330		1,330	
	B11	OFFICES	10.13	350	2			3,546		3,546	
	B12	EXISTING OFFICE	11.75	350	0	4,113				4,113	
	C1	JAKARTA FAIR	60.25	350	1			21,088		21,088	
DEMAND OF ZONE-1 EXCEPT ZONE-2			111.66 (HA)			4,113	39,095	14,801	0	58,009	
TOTAL DEMAND OF ZONE-1			271.93			5,809	42,074	21,987	2,180	72,050	

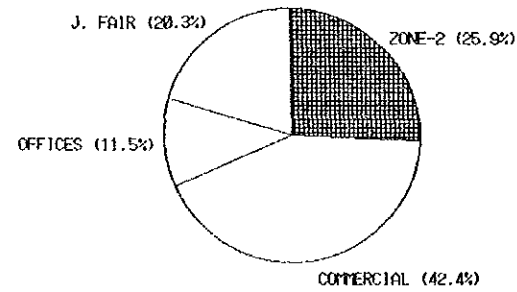
Note: The above unit demands are based on Kemayoran Complex Master Plan.

Table C-5 KTA-53/JICA DEMAND ESTIMATION OF TELEPHONE SERVICES

ZONE	BLOCK	LANDUSE	AREA (HA)	UNIT DEMAND (SS/HA)	STAGE	EXISTING (SS)	STAGE I (1990-1992) (SS)	STAGE II (1993-1995) (SS)	STAGE III (1996-1998) (SS)	TOTAL (SS)
ZONE-2	A1	HOUSING/LOW & MID INCOME	4.43	12	2			53		53
	A2	HOUSING/LOW & MID INCOME	6.75	12	2			81		81
	A3	HOUSING/LOW & MID INCOME	3.00	12	2			36		36
	A4	PUBLIC FACILITIES	4.58	30	1		137			137
	A5	HOUSING/LOW & MID INCOME	5.78	12	2			69		69
	A6	HOUSING/LOW & MID INCOME	5.50	12	1		66			66
	A7	HOUSING/LOW & MID INCOME	3.57	12	1		43			43
	A8	HOUSING/LOW & MID INCOME	4.88	12	1		59			59
	A9	HOUSING/LOW & MID INCOME	6.04	12	1		72			72
	D1	HOUSING/HIGH INCOME	6.38	44	2			281		281
	D2	HOUSING/HIGH INCOME	7.90	44	2			348		348
	D3	HOUSING/HIGH INCOME	5.73	44	2			252		252
	D4	HOUSING/MIDDLE INCOME	7.70	30	2			231		231
	D5	HOUSING/MIDDLE INCOME	6.53	30	2			196		196
	D6	PUBLIC FACILITIES	4.50	30	2			135		135
	D7	HOUSING/MIDDLE INCOME	7.55	30	2			227		227
	D11	HOUSING/MIDDLE INCOME	3.13	30	2			94		94
	D12	SPORTS FIELD	12.25	1	1		12			12
	C4	HOUSING/MIDDLE INCOME	3.50	30	3				105	105
	C6	HOUSING/MIDDLE INCOME	6.38	30	3				191	191
	C7	HOUSING/MIDDLE INCOME	3.48	30	3				104	104
	C8	HOUSING/MIDDLE INCOME	3.28	30	3				98	98
	C12	PUBLIC FACILITIES	3.50	30	3				105	105
	C2, C3	EXISTING HOUSES	16.44	25	0	411				411
	B10	EXISTING HOUSES	10.56	25	0	264				264
	B13	EXISTING HOUSES	5.60	25	0	140				140
	B18	EXISTING HOUSES	1.33	25	0	33				33
DEMAND OF ZONE-2			160.27 (HA)			848	390	2,002	604	3,844
ZONE-1 EXCEPT ZONE-2	B1	SHOPING CENTER	2.50	300	1		750			750
	B2	SHOPING CENTER	4.75	300	1		1,425			1,425
	B3	SHOPING CENTER	1.96	300	1		588			588
	B4	SHOPING CENTER	3.88	300	1		1,164			1,164
	B5	SHOPING CENTER	2.38	300	2			714		714
	B6	SHOPING CENTER	5.56	300	2			1,668		1,668
	B7	OFFICES	4.70	60	1		282			282
	B8	OFFICES	3.80	60	2			228		228
	B11	OFFICES	10.13	60	2			608		608
	B12	EXISTING OFFICE	11.75	50	0	588				588
	C1	JAKARTA FAIR	60.25	50	1		3,013			3,013
DEMAND OF ZONE-1 EXCEPT ZONE-2			111.66 (HA)			588	7,222	3,218	0	11,027
TOTAL DEMAND OF ZONE-1			271.93			1,436	7,611	5,220	604	14,871



TELEPHONE DEMAND BY LANDUSE
14,871 LINES



Note: The above unit demands are based on Kemayoran Complex Master Plan.

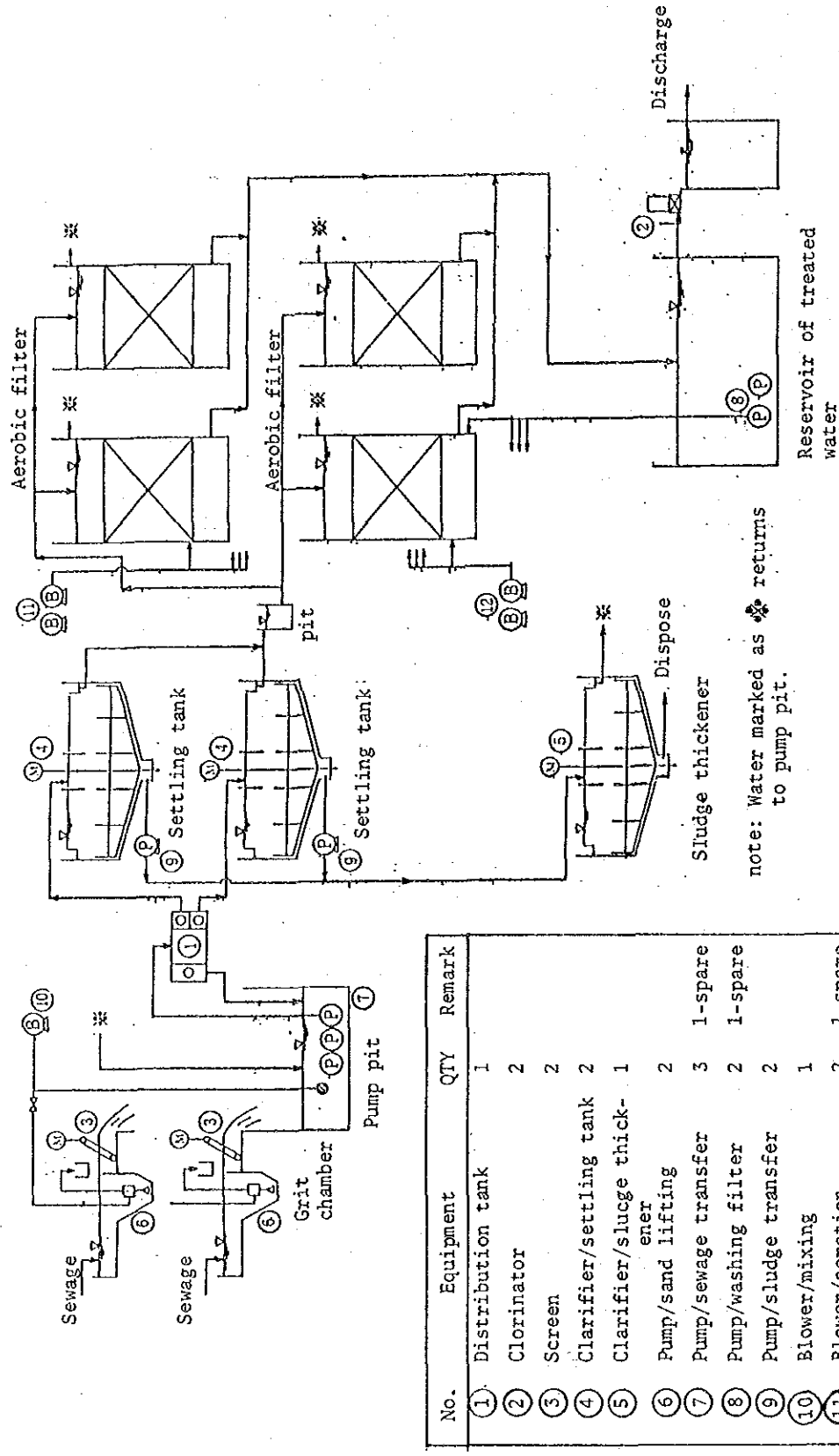
AEROBIC FILTER SYSTEM

Table C-6 Design Criteria of Aerobic Filter System

Grit chamber	* Water surface	1,800 m ³ /m ² .day (hourly max.)
	* Velocity	less than 0.3 m/sec (hourly max.)
Pump pit	* Effective volume	More than a volume enable to store water washing one aerobic filter tank
Settling tank	* Water surface	less than 30 m ³ /m ² .day (daily max.)
	* Retention time	more than 1.5 hours (daily max.)
Aerobic filter tank	* filtering velocity	less than 25 m/day (daily max.)
	* thickness of filter	2 m
	* Required air volume	30 m ³ /kg x an eliminated BOD
Reservoir of treated water	* Effective volume	More than a volume enable to store water washing one aerobic filter tank
Sludge thickener	* Sludge volume	1.0 kg/kg x an eliminated BOD (daily max.) 1.2 kg/kg x an eliminated BOD (daily ave.)
	* Required surface	less than 60 kg/m ² .day to solid sludge

Table C-7 Equipment List of Aerobic Filter System

Equipment	Case 1 300 m ³ /day	Case 2 2,000 m ³ /day	Case 3 6,000 m ³ /day
Grit chamber	W:0.5m x L:0.8m x H:1.0m x 1 set	W:1.0m x L:2.0m x H:1.0m x 1 set	W:1.5m x L:3.5m x H:1.0m x 2 sets
Pump pit	W:4.1m x L:2.0m x H:7.5m x 1 set (Eff. Vol. 28.7 m ³)	W:11.9m x L:4.0m x H:7.5m x 1 set (Eff. Vol. 305 m ³)	W:14.5m x L:6.0m x H:7.5m x 1 set (Eff. Vol. 167 m ³)
Settling tank	W:2.55m x L:2.55m x H:3.0m x 2 sets	W:5.8m x L:5.8m x H:3.0m x 2 sets	W:10m x L:10m x H:3.0m x 2 sets
Aerobic filter tank	W:1.6m x L:2.5m x H:5.5m x 3 sets	W:4.2m x L:4.8m x H:5.5m x 4 sets	W:6.5m x L:6.5m x H:5.5m x 6 sets
Reservoir of treated water	W:3.1m x L:3.1m x H:5.5m x 1 set (Eff. Vol. 24 m ³)	W:5.5m x L:9.5m x H:5.5m x 1 set (Eff. Vol. 131 m ³)	W:6.5m x L:16m x H:5.5m x 1 set (Eff. Vol. 260 m ³)
Disinfection tank	W:0.8m x L:2.0m x H:5.5m x 1 set (Eff. Vol. 4 m ³)	W:2.1m x L:5.5m x H:5.5m x 1 set (Eff. Vol. 29 m ³)	W:2.1m x L:12m x H:5.5m x 1 set (Eff. Vol. 63 m ³)
Sludge thickener	Dia:2.0m x H:4.0m x 1 set (Eff. Vol. 9.4 m ³)	Dia:3.0m x H:4.5m x 1 set (Eff. Vol. 28 m ³)	Dia:5.0m x H:4.5m x 1 set (Eff. Vol. 78.5 m ³)
Pump/sewage transfer	0.25m ³ /min x H:8m x 1.5kw x 3 sets (incl. 1 spare)	1.7m ³ /min x H:10m x 5.5kw x 3 sets (incl. 1 spare)	5.0m ³ /min x H:10m x 18.5kw x 3 sets (incl. 1 spare)
Pump/washing filter	4.0m ³ /min x H:7m x 11kw x 2 sets (incl. 1 spare)	20m ³ /min x H:7m x 37kw x 2 sets (incl. 1 spare)	20m ³ /min x H:7m x 37kw x 3 sets (incl. 1 spare)
Blower/mixing	0.24m ³ /minx0.45kg/cm ² x1.5kw x 1 set	1.7m ³ /minx0.45kg/cm ² x3.7kw x 1 set	2.6m ³ /minx0.45kg/cm ² x5.5kw x 1 set
Blower/aeration	0.8m ³ /minx0.4kg/cm ² x2.2kw x 2 sets (incl. 1 spare)	5.2m ³ /minx0.4kg/cm ² x7.5kw x 2 sets (incl. 1 spare)	7.5m ³ /minx0.4kg/cm ² x11kw x 3 sets (incl. 1 spare)
Blower/washing filter	4.0m ³ /minx0.45kg/cm ² x5.5kw x 2 sets (incl. 1 spare)	20m ³ /minx0.45kg/cm ² x30kw x 2 sets (incl. 1 spare)	40m ³ /minx0.45kg/cm ² x55kw x 2 sets (incl. 1 spare)



No.	Equipment	QTY	Remark
1	Distribution tank	1	
2	Chlorinator	2	
3	Screen	2	
4	Clarifier/settling tank	2	
5	Clarifier/sludge thickener	1	
6	Pump/sand lifting	2	
7	Pump/sewage transfer	3	1-spare
8	Pump/washing filter	2	1-spare
9	Pump/sludge transfer	2	
10	Blower/mixing	1	
11	Blower/aeration	2	1-spare
12	Blower/washing filter	2	1-spare

Fig. C-3
FLOW DIAGRAM OF AEROBIC FILTER SYSTEM

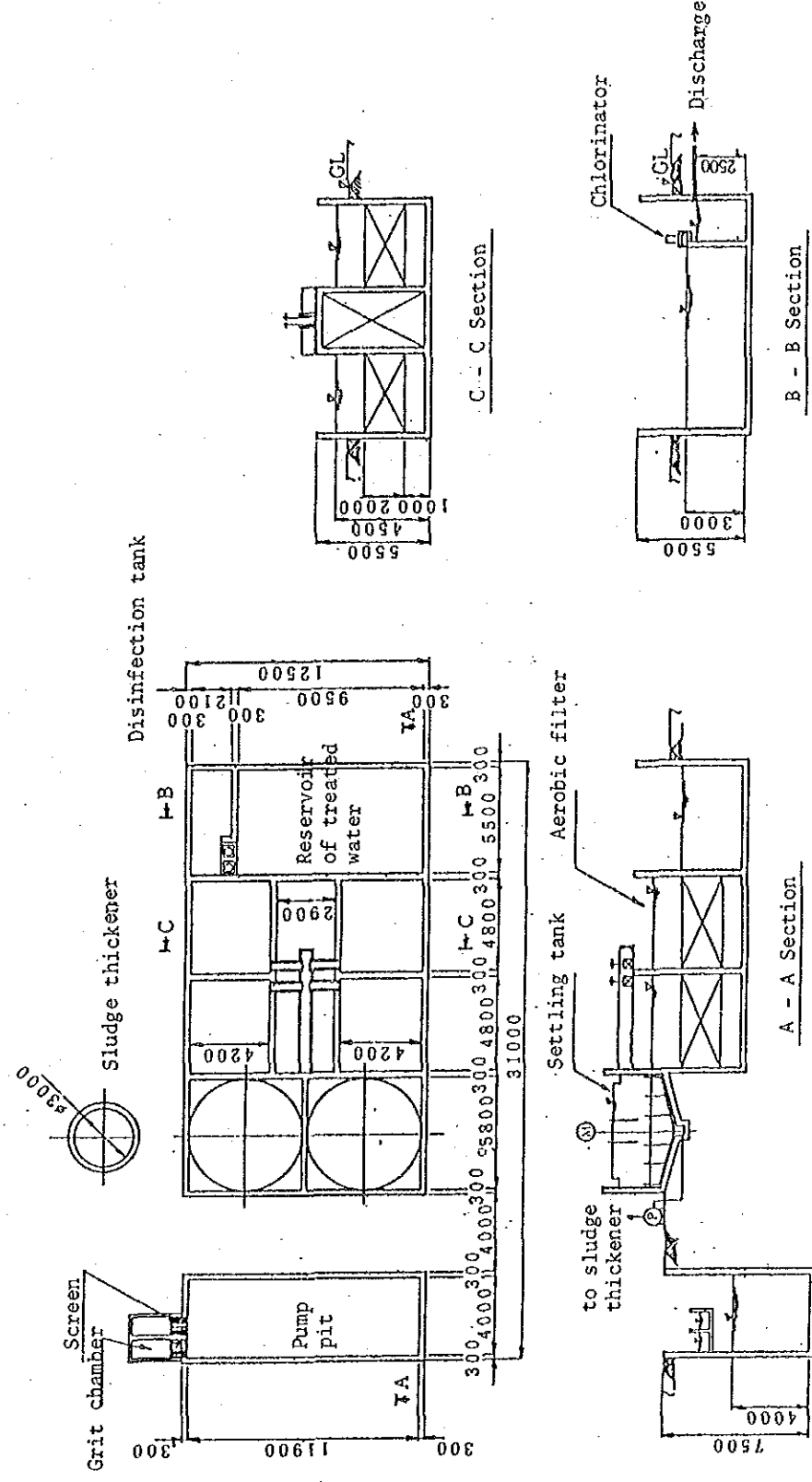


Fig. C-4 GENERAL LAYOUT OF AEROBIC FILTER SYSTEM (2,000 m³/day)

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Table D-1 Neighbourhood Facility Standard for Flat Type
Housing Estate by Perumahan, Cipta Karya

EDUCATION					
NO.	Kind of Facilities	Max. Population	Area (m ²)	Max. Distance (m)	Location
1	Kindergarten (minimum, 2 classes @ 35-40 pupils)	1,000	800	500	at the neighbourhood group + park
2	Primary School (minimum, 6 classes @ 40 pupils)	1,600	2,400	1,000	ditto
3	Junior High School (minimum, 6 classes @ 40 pupils, morning & evening)	6,000	2,700	1,000	clustered with park + sports court
4	Senior High School (minimum, 6 classes @ 40 pupils, morning & evening)	12,000	2,700		ditto

HEALTH					
NO.	Kind of Facilities	Max. Population	Area (m ²)	Max. Distance (m)	Location
1	Doctor Practice	5,000	150	1,500	at community centre, clustered with other social services
2	Ext. Public Health centre	6,000	500	1,000	ditto
3	Maternity House	10,000	1,600	2,000	ditto
4	Pharmacy	-	350	1,500	ditto
5	Public Health Centre (Supervice 5 ext. PHC)	30,000	650	3,000	ditto

GOVERNMENT & PUBLIC SERVICES				
NO.	Kind of Facilities	Max. Population	Area (m ²)	Location
1	Civilian Devence post Meeting Hall, Post Box.	2,500	300	at each community centre
	Public Parking & Public Bath, WC & Wash		100	
2	Kelurahan Office	30,000	500	ditto
	Police Post		100	
	Extension Post Office		100	
	Fire Station		200	
	Public Parking & Public Bath, WC & Wash		1,000	
3	Kecamatan Office	120,000	1,000	ditto
	Police Office		300	
	Branch Post Office		500	
	Branch telephone office		300	
	Fire Station		300	
	Public Parking & Public Bath		4,000	
	Youth Club		3,000	
	Electric Power Station			

RELIGIOUS					
NO.	Kind of Facilities	Max. Population	Area (m ²)	Max. Distance (m)	Location
1	Musholla	2,500	300	-	at each community centre
2	Mosque (lingkungan)	30,000	1,800	-	
3	Mosque (kecamatan)	120,000	3,600		
	Church	120,000	1,000		
4	other religious place (temple and other) according to local condition				

RECREATION & CULTURE				
NO.	Kind of Facilities	Max. Population	Area (m ²)	Location
1	Play Ground	250	250	at the centre of housing group
2	Park & Play Ground	2,500	1,250	at community centre
3	Sport Facility & Open Court Multipurpose Building	30,000	9,000	clustered with school
			1,000	
4	Green belt	-	-	Spread
5	Public graveyard will be arrange by local government within scale of the city			

COMMERCIAL & SHOPPING					
NO.	Kind of Facilities	Max. Population	Area (m ²)	Max. Distance (m)	Location
1	Warung	250	100	300	at the middle of neighbour hood group, can be clustered with kindergarten
2	Shops	2,500	1,200	500	at RW centre
3	Neighbourhood Shopping Centre (shops & market)	30,000	13,500	3,000	at community centre

Table D-2 Planning Standard for the Neighbourhood Facility by Cipta Karya

Kind of Public Facility	Area/Unit (M2)	Area Requested per person	NUMBER OF FACILITY FOR EACH STAGE OF PLANNING AREA							
			Number of Facility and Requested area according to Stage of Planning Area							
			Cluster Unit up to 6.000 people		Neighbourhood up to 60.000 people		Sub District 480.000 people		District 1.500.000 people	
			Nos of Facility (R)	Area (M2)	Nos of Facility (Kelurahan)	Area (M2)	Nos of Facility (Kecamatan)	Area (M2)	Nos of Facility (Wali Kota)	Area (M2)
I. EDUCATION										
1. Kindergarten	500	0.6700	8	4000	80	40000	640	320000	2000	1000000
2. Primary School	3000	2.0000	4	12000	40	120000	320	960000	1000	3000000
3. Junior High School	4500	0.3200	0	0	5	22500	39	175500	120	540000
4. Library	500	0.0170	0	0	2	1000	16	8000	50	25000
5. Senior High School	4500	0.1400	0	0	2	9000	17	76500	54	243000
6. Library	500	0.0170	0	0	2	1000	16	9000	50	25000
7. Academy	6000	0.0125	0	0	0	0	1	6000	3	18000
8. University	22000	0.0147	0	0	0	0	0	0	1	22000
II. HEALTH										
1. Medical	200	0.067	2	400	20	4000	160	32000	500	100000
2. Kelurahan level public Health Centre	500	0.017	0	0	2	1000	16	8000	50	25000
3. Delivery Hospital	3000	0.100	0	0	2	6000	16	48000	50	150000
4. Pharmacy	400	0.014	0	0	2	800	16	6400	50	20000
5. Laboratories	350	0.012	0	0	2	700	16	5600	50	17500
6. Kecamatan level Public/Health Centre	2400	0.012	0	0	0	0	3	7200	8	19200
7. Extension Hospital (type C)	10000	0.020	0	0	0	0	1	10000	3	30000
8. Wilayah Hospital (type B)	45000	0.027	0	0	0	0	0	0	1	45000
9. Emergency Hospital	30000	0.018	0	0	0	0	0	0	1	30000
III. RELIGIOUS										
1. Small Mosque	300	0.100	2	600	20	6000	160	48000	500	150000
2. Kelurahan Mosque	1000	0.067	0	0	4	4000	32	32000	100	100000
3. Other Religious Place	2000	0.067	0	0	2	4000	16	32000	50	100000
4. Kecamatan Mosque	5000	0.025	0	0	0	0	3	15000	8	40000
5. Other	1400	0.007	0	0	0	0	3	4200	8	11200
6. Mosque	12000	0.024	0	0	0	0	1	12000	2	24000
7. Wilayah Mosque	20000	0.012	0	0	0	0	0	0	1	20000
8. Other	5000	0.003	0	0	0	0	0	0	1	5000
IV. SOCIAL FUND										
1. Multi purpose Hall	400	0.1340	2	800	20	8000	160	64000	500	200000
2. Youth Club	500	0.0170	0	0	2	1000	16	8000	50	25000
3. Social Hall	500	0.0080	0	0	1	500	8	4000	25	12500
4. Peoples Hall	2000	0.0167	0	0	0	0	4	8000	13	26000
5. Work Training Hall	1000	0.0050	0	0	0	0	3	3000	8	8000
6. Meeting Hall	10000	0.0200	0	0	0	0	1	10000	3	30000
7. Public Meeting Hall	5000	0.0030	0	0	0	0	0	0	1	5000
V. SPORT/RECREATION										
1. Play Ground	250	1.0000	24	6000	240	60000	1920	480000	6000	1500000
2. Sport Court/ Park	1500	0.5000	2	3000	20	30000	160	24000	500	750000
3. Sport Court	8400	0.2800	2	16800	2	16800	16	134400	50	420000
4. Sport Hall	1000	0.0340	0	0	2	2000	16	16000	50	50000
5. Swimming Pool	4000	0.1340	0	0	2	8000	16	64000	50	200000
6. Cinema	2000	0.0670	0	0	2	4000	16	32000	50	100000
7. Park	1500	0.0500	0	0	2	3000	16	24000	50	75000
8. Multi Purpose Court	10000	0.0830	0	0	0	0	4	40000	13	130000
9. Park	10000	0.0830	0	0	0	0	4	40000	13	130000
10. Sport Hall	10000	0.0830	0	0	0	0	4	40000	13	130000
11. Small Stadium	50000	0.1000	0	0	0	0	1	50000	3	150000
12. Park	30000	0.0600	0	0	0	0	1	30000	3	90000
13. Museum	3000	0.0600	0	0	0	0	1	3000	3	9000
14. Cultural Hall	3000	0.0600	0	0	0	0	1	3000	3	9000
15. Cinema/Teatre	3000	0.0070	0	0	0	0	1	3000	3	9000
VI. GOVERNMENT OFFICES										
1. Security Post/Electric Post Station/Telp Booth/Post Box/Gerbage Box	400	0.1340	2	800	20	8000	160	64000	500	200000
2. Kurah Office	1000	0.0340	0	0	2	2000	16	16000	50	50000
3. Public Facility	750	0.0250	0	0	2	1500	16	12000	50	37500
4. Security Post	300	0.0100	0	0	2	600	16	4800	50	15000
5. Fire Station	500	0.0100	0	0	2	600	16	4800	50	15000
6. Extension Post Office	300	0.0100	0	0	2	600	16	4800	50	15000
7. Kecamatan Office	3750	0.0188	0	0	0	0	3	11250	8	30000
8. Public Service Office	4200	0.0210	0	0	0	0	3	12600	8	33600
9. Police/Army	2000	0.0100	0	0	0	0	3	6000	8	16000
10. Religious Affair Office										
11. Fire Station	1250	0.0063	0	0	0	0	3	3750	8	16000
12. Post/Telecommunication Office	2500	0.0125	0	0	0	0	3	7500	8	20000
13. Cleaning Department	200	0.0010	0	0	0	0	3	600	8	1600
14. Electric Power Station	500	0.0025	0	0	0	0	3	1500	8	4000
15. Government Office	25000	0.0150	0	0	0	0	0	0	1	75000
16. Post Office Wilayah Level	5000	0.0030	0	0	0	0	0	0	1	5000
17. Police Office	4000	0.0024	0	0	0	0	0	0	1	4000
18. Army Office	3500	0.0021	0	0	0	0	0	0	1	3500
19. Telecommunication Office	7500	0.0045	0	0	0	0	0	0	1	7500
20. PLN Office Wilayah Level	5000	0.0030	0	0	0	0	0	0	1	5000
21. Water Supply Office	5000	0.0030	0	0	0	0	0	0	1	5000
22. Religious Court	3000	0.0018	0	0	0	0	0	0	1	3000
23. Wilayah Fire Station HQ	3000	0.0018	0	0	0	0	0	0	1	3000
VII. COMMERCIAL										
1. Small Shop	100	0.4000	24	2400	240	24000	1920	192000	6000	600000
2. Small Shopping Area	3600	0.6000	1	3600	10	35000	80	280000	250	900000
3. Market	10000	0.3400	0	0	2	29000	16	160000	50	500000
4. Market/ Shopping Area	10000	0.1670	0	0	1	10000	8	80000	25	250000
5. Shopping Centre/ Market	36000	0.0720	0	0	0	0	1	36000	3	108000
6. Shopping Centre/ Market Dept Store/ Bank/ Offices Other Services	66000	0.0516	0	0	0	0	0	0	1	66000
VIII. TRANSPORTATION										
1. Terminal/ Public Parking	400	0.1340	2	800	20	8000	160	64000	500	200000
2. Terminal/ Public Parking	2000	0.3400	0	0	1	2000	8	16000	25	50000
3. Terminal/ Transit	8000	0.0160	0	0	0	0	1	8000	3	24000
4. Public Parking	13500	0.0270	0	0	0	0	1	13500	3	40500
5. Terminal	50000	0.0300	0	0	0	0	0	0	1	50000
6. Public Parking	40000	0.0240	0	0	0	0	0	0	1	40000
TOTAL										
75 : 51200 : 782 : 358600 : 6520 : 3934910 : 19756 : 13375960										
AREA PER HOUSE HOLD/ CLUSTER UNIT 30.0950 Rounded 31										
AREA PER HOUSE HOLD/ NEIGHBOUR HOOD 38.6500 Rounded 39										
AREA PER HOUSE HOLD/ SUB DISTRICT 42.4535 Rounded 43										
AREA PER HOUSE HOLD/ DISTRICT 43.8380 Rounded 44										

Source : Planning Standard, REK (*) 2005
 (*) : Section Plan of City district

Table D-3 Allocation of Existing Neighbourhood Facility

KELURAHAN (15) RV (113)

KEL. 1. SUNTER AGUNG (4) RV. 01, RV. 06, RV. 09, RV. 13

KEL. 2. SUNTER JAYA (1) RV. 02

KEL. 3. PADEHANGAN TIHUR (10) RV. 01, RV. 02, RV. 03, RV. 04, RV. 05, RV. 06, RV. 07, RV. 08, RV. 09, RV. 10

KEL. 4. PADEHANGAN BARAT (15) RV. 01, RV. 02, RV. 03, RV. 04, RV. 05, RV. 06, RV. 07, RV. 08, RV. 09, RV. 10, RV. 11, RV. 12, RV. 13, RV. 14, RV. 15

KEL. 5. GN. SAHARI UTARA (8) RV. 01, RV. 02, RV. 03, RV. 04, RV. 05, RV. 06, RV. 07, RV. 08

KEL. 6. BURGUR (10) RV. 01, RV. 02, RV. 03, RV. 04, RV. 05, RV. 06, RV. 07, RV. 08, RV. 09, RV. 10

KEL. 7. SEREN (2) RV. 03, RV. 04

AREA (P/SQKH)	NUMBER OF POPULATION (P)	POPULATION DENSITY (P/SQKH)	NUMBER OF HOUSE HOLD	GOVERNMENT OFFICE			EDUCATIONAL					RELIGIOUS			HEALTH			SOCIAL/SPORTS/CULTURE			COMMERCIAL/OTHERS			REMARKS														
				KECAMATAN OFFICE	KELURAHAN OFFICE	POST OFFICE	TELEPHONE OFFICE	RELIGIOUS AFFAIR OFFICE	POLICE STATION	FIRE DEPARTMENT	KINDERGARTEN	PRIMARY SCHOOL	JUNIOR HIGH SCHOOL	SENIOR HIGH SCHOOL	ACADEMY	UNIVERSITY	SCHOOL FOR II-C CHILDREN	SCHOOL (UNKNOWN)	MOSQUE	CHURCH	VIHARA/TEMPLE	HOSPITAL	CLINIC		CLINIC FOR O & G	PUBLIC HEALTH CTR	DRUG STORE	SPORT COURT	SWIMMING POOL	FOOTBALL FIELD	CINEHA	CULTURAL HALL	YOUTH CLUB	BANK	MARKET	DEPT STORE	HOTEL	RAILWAY STATION
4.25	35,729	8,407	8,610							(10)	(13)	(3)	(3)																									4 in 16 RV
NA	NA	NA	NA							NA	NA	NA	NA		NA										NA	NA											0 in 11 RV	
4.43	37,369	14,317	7,325			(2)				(1)	(8)	(11)	(5)	(5)																								
3.53	53,143	23,411	9,659	(1)	(1)							(1)	(1)									(1)																
1.98	24,450	12,348	5,985																																			
0.64	29,844	46,639	6,028																																			
0.81	10,309	12,727	2,988	(1)	(1)																																	2 in 5 RV

Table D-4
Allocation of Existing Neighbourhood Facility-2

KELURAHAN (15)	RV (113)
KEL. 8. GN. SAHARI SELATAN (10)	RV. 01
	RV. 02
	RV. 03
	RV. 04
	RV. 05
	RV. 06
	RV. 07
	RV. 08
	RV. 09
	RV. 10
KEL. 9. KEMAYORAN (10)	RV. 01
	RV. 02
	RV. 03
	RV. 04
	RV. 05
	RV. 06
	RV. 07
	RV. 08
	RV. 09
	RV. 10
KEL. 10. KEBON KOSONG (9)	RV. 01
	RV. 02
	RV. 03
	RV. 04
	RV. 05
	RV. 06
	RV. 07
	RV. 08
	RV. 09
KEL. 11. SERDANG (7)	RV. 01
	RV. 02
	RV. 03
	RV. 04
	RV. 05
	RV. 06
	RV. 07
KEL. 12. UTAN PANJANG (10)	RV. 01
	RV. 02
	RV. 03
	RV. 04
	RV. 05
	RV. 06
	RV. 07
	RV. 08
	RV. 09
	RV. 10
KEL. 13. HARAPAN MULIA (9)	RV. 01
	RV. 02
	RV. 03
	RV. 04
	RV. 05
	RV. 06
	RV. 07
	RV. 08
	RV. 09
KEL. 14. CEMPAKA BARU (7)	RV. 01
	RV. 02
	RV. 06
	RV. 07
	RV. 08
	RV. 09
	RV. 10
KEL. 15. SUMUR BARU (1)	RV. 01

AREA (SQKM)	NUMBER OF POPULATION (P)	POPULATION DENSITY (P/SQKM)	NUMBER OF HOUSE HOLD	GOVERNMENT OFFICE				EDUCATIONAL						RELIGIOUS			HEALTH				SOCIAL/SPORTS/CULTURE				COMMERCIAL			OTHERS	REMARKS					
				KECAMATAN OFFICE	KELURAHAN OFFICE	POST OFFICE	TELEPHONE OFFICE	RELIGIOUS AFFAIR OFFICE	POLICE STATION	FIRE DEPARTMENT	KINDERGARTEN	PRIMARY SCHOOL	JUNIOR HIGH SCHOOL	SENIOR HIGH SCHOOL	ACADEMY	UNIVERSITY	SCHOOL FOR U.C. CHILDREN	SCHOOL (UNKNOWN)	MOSQUE	CHURCH	VIHARA/TEMPLE	HOSPITAL	CLINIC	CLINIC FOR O & G	PUBLIC HEALTH CTR	DRUG STORE	SPORT COURT			SWIMMING POOL	FOOTBALL FIELD	CINEMA	CULTURAL HALL	YOUTH CLUB
1.56	27,497	17,615	5,294	1	1	1	5	10	7	7	1	1	1	1	1	1	3	1	1	1	1	1	1	23	1	1	2	2	1	2	3	1		
0.55	24,302	44,185	6,115	1	1	1	2	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	-	1	1	1	1	1	1	1	1		
1.33	27,344	24,198	5,852	1	1	1	6	18	2	2	1	1	1	1	1	1	1	1	1	1	1	1	12	-	1	1	1	1	1	1	1	1		
1.05	29,775	28,357	6,947	1	1	1	8	12	4	4	1	1	1	1	1	1	1	1	1	1	1	1	8	1	1	1	1	1	1	1	1	1		
1.05	30,447	28,977	5,195	1	1	1	7	10	-	-	1	1	1	1	1	1	1	1	1	1	1	1	20	-	1	1	1	1	1	1	1	1		
0.91	25,090	27,571	5,182	1	1	1	3	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9	-	1	1	1	1	1	1	1	1		
0.92	37,096	40,322	5,020	1	1	1	(7)	(7)	(3)	(3)	1	1	1	1	1	1	1	1	1	1	1	1	(12)								1	in 10 RV		
(1.03)	(19,512)	(18,943)	(4,074)	2	8	5	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	in 7 RV
23.84	411,907	17,278	84,274	2	8	5	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	

Average 4.89 p/family
* Number with O mark is base on the map survey (scale 1 : 5,000)
* Other numbers is statistic data issued by "Kantor Statistik - Jakarta Pusat", issued on 1987

Table D-5 Related Agency and/or Execution-Operation Body for the Neighbourhood Facility

	FACILITY (CODE OF FACILITY)	RELATED GOVERNMENT AGENCY	EXECUTION/OPERATION B O D Y
Education	E 1 Kindergarten	- Education & Teaching Office-DKI - City Planning Office-DKI	Education & Teaching Office-DKI Dinas Pendidikan & Pengajaran - DKI
	E 2 Primary School	ditto	ditto
	E 3 Junior High School	- Regional Office of Dept. Education & Culture-DKI - City Planning Office-DKI	Regional Office of Dept. of Education & Culture (Kanwil P & K)
	E 4 Senior High School	ditto	ditto
	E 5 Library	- Education & Teaching Office-DKI - City Planning Office-DKI	Education & Teaching Office-DKI (Dinas Pendidikan & Pengajaran - DKI)
	E 6 Academy	- Regional Office of Dept. of Education & Culture-DKI - City Planning Office-DKI	Regional Office of Dept. of Education & Culture (Kanwil P&K)
	E 7 University	ditto	ditto
Medical & Health	MH1 Medical Hall	- Health Office-DKI - City Planning Office-DKI	Health Office - DKI Dinas Kesehatan - DKI
	MH2 Kelurahan Level Public Health Centre	ditto	ditto
	MH3 Kecamatan Level Public Health Centre	ditto	ditto
	MH4 Extension Hospital (Type C)	ditto	ditto
	MH5 Wilayah Level Hospital (Type B)	ditto	ditto
	MH6 Emergency Hospital	ditto	ditto
	MH7 General Hospital	- Regional Office of Dept. of Health-DKI - City Planning Office-DKI	Regional Office of Dept. of Health (Kanwil DEPKES)
	MH8 Maternity House	- Health Office-DKI - City Planning Office-DKI	Health Office-DKI Dinas Kesehatan - DKI
	MH9 Pharmacy	ditto	Health Office - DKI (Dinas Kesehatan-DKI) Private owner
	MH10 Laboratorium	ditto	ditto
Religious	R 1 Small Mosque	- Local Inhabitant Mental & Spiritual Development Bureau-DKI - City Planning Office-DKI	R W/Local Inhabitant
	R 2 Kelurahan Level Mosque	ditto	Local Inhabitant
	R 3 Kecamatan Level Mosque	ditto	ditto
	R 4 Wilayah Mosque	ditto	Wali Kota
	R 5 Grand Mosque	- Regional Office of Dept. Religious - City Planning Office-DKI	Regional Office of Dept. Of Religious (Kanwil DEPAG)

	FACILITY (CODE OF FACILITY)	R E L A T E D GOVERNMENT AGENCY	EXECUTION/OPERATION B O D Y
Social	R 6 Other Religious Place	- Local Inhabitant - Mental & Spiritual Dev. Bureau - DKI	Local Inhabitant
	S 1 Multi purpose Hall	- Local Inhabitant - Social Office-DKI - City Planning Office-DKI	Local Inhabitant
	S 2 Youth Club	- Kelurahan - Social office-DKI - City Planning office-DKI	Kelurahan
	S 3 Social Hall	ditto	ditto
	S 4 Peoples Hall	- Kecamatan - Social office-DKI - City Planning office-DKI	Kecamatan
	S 5 Work Training Hall	- Kelurahan/Kecamatan - City Planning office-DKI - Kecamatan	Kelurahan/ Kecamatan
	S 6 Meeting Hall	- Social Office DKI - City Planning Office-DKI	Kecamatan
	S 7 Public Meeting Hall	ditto	ditto
	S 8 Metropolitan Hall	ditto	Self Management
	RS1 Play Ground	- Parks Office-DKI - City Planning Office-DKI	Parks Office-DKI (Dinas Pertamanan-DKI)
	RS2 Sport Park/ Court	- Sport Office-DKI - Parks Office-DKI - City Planning office-DKI	Sport Office-DKI (Dinas Olah Raga DKI) Parks Office-DKI (Dinas Pertamanan-DKI)
	RS3 Sport Hall	- Sport Office-DKI - City Planning office-DKI	Sport Office-DKI (Dinas Olah Raga-DKI)
	RS4 Small Stadium	ditto	ditto
RS5 Swimming Pool	ditto	ditto	
RS6 Multi Purpose Court	- Sport Office-DKI - Parks Office-DKI - City Planning Office-DKI	Sport Office-DKI (Dinas Olah Raga-DKI) Parks Office-DKI Kecamatan	
RS7 *Sport Complex	- Sport Office-DKI - KONI-DKI - City Planning Office-DKI	Sports Office-DKI Wali Kota	
RS8 Cinema/Theatre	- Private Owner - City Planning Office-DKI	Private Owner	
RS9 Park	- Parks Office-DKI - City Planning Office-DKI	Parks Office-DKI (Dinas Pertamanan-DKI)	
RS10 City Park	ditto	ditto	
RS11 Metropolitan Park	ditto	ditto	
RS12 Museum	- Museum & History Office-DKI - City Planning-DKI	Museum & History Office-DKI (Dinas Museum & Sejarah DKI)	
RS13 Cultural Hall	- Cultural Office-DKI - City Planning Office-DKI	Cultural Office-DKI (Dinas Kebudayaan-DKI) Wali Kota	

	FACILITY (CODE OF FACILITY)	R E L A T E D GOVERNMENT AGENCY	EXECUTION/OPERATION B O D Y
Government office	RS14 Traditional Cultural Hall	ditto	Cultural office-DKI (Dinas Kebudayaan-DKI) Tourism office-DKI
	RS15 Amusement & Recreation	- Tourism Office-DKI - City Planning Off - DKI	Tourism Office-DKI Private Company
	RS16 Metropolitan Park	- Parks Office-DKI - City Planning Of - DKI	Parks Office-DKI
	RA17 Zoological	- City Planning Off - DKI	Self management coordination with veterinary service office - DKI
	RS18 Botanical Garden	- Forest office-DKI - City Planning Off - DKI	Self Management
	RS19 Metropolitan Museum	- Directorate of Museum, Dept. Of Education & Culture - City Planning-DKI	Dir. of Museum Dept. of Education & Culture
	RS20 Orchestra Hall	- Cultural Office-DKI - City Planning-DKI	Cultural Office-DKI
	G 1 Security Post	- RW ; - RT - City Planning Off - DKI	R W R T
	G 2 Telephone Box	- Regional Office of Dept. of Tourism, Post&Telecommunication-DKI - Perumtel-Witel IV - City Planning Off - DKI	Perumtel - Witel IV
	G 3 Elec. Power Sta.	- National Electric Power Company - City Planning Office-DKI	National Electric Power Company (PLN)
	G 4 Post Box	- Reg.Off.of Dept.of Tourism, Pos&Telecommunication-DKI - City Planning Office-DKI	Regional Office of Dept. of Tourism Post & Telecommuni - tion - DKI
	G 5 Garbage Box	- Cleaning Office-DKI - City Planning Office-DKI	Cleaning Office-DKI
G 6 Kelurahan Office	- Government Development Bureau-DKI - Wali Kota + Kecamatan - City Planning Office-DKI	Kelurahan	
G 7 Fire Station	- Fire Office-DKI - City Planning Office-DKI	Fire Office-DKI	
G 8 Local Post Off.	- Reg.Off.of Dept.of Tourism Post & Telecommunication - City Planning Office-DKI	Reg.Off.of Dept.of Tourism, Post&Telecommunication - DKI	
G 9 Kecamatan Office	- Government Dev.Bureau-DKI - City Planning Office-DKI	Kecamatan	
G10 Public Service Office	- Government Dev.Bureau-DKI - City Planning Office-DKI	Kecamatan	
G11 Polic Office (Kosekta-Kowilko)	- Wali Kota - Reg.Policy of Metro Jaya - Kecamatan - City Planning Office-DKI	Reg. Police of Metro Jaya	

Table D-6 Related Agency and/or Execution-Operation Body for the Neighbourhood Facility

	FACILITY	R E L A T E D	EXECUTION/OPERATION
	(CODE OF FACILITY)	GOVERNMENT AGENCY	B O D Y
(Continued)	G12 Army Office (Koramil-Kodim)	- Wali Kota - Reg. Military Commando of Jakarta Raya - Kecamatan - City Planning Office-DKI	Reg. Military Commando of Jakarta Raya
	G13 Post & Tel.Off.	- Regional Off. of Dept. of Tourism, Post & Telecommunication-DKI - City Planning Off - DKI	Reg. Off. of Dept. of Tourism & Post Telecommunication-DKI
	G14 Religious Affair Off. & Marriage Hall/BP4	- Regional Office of Dept. of Religious-DKI - Mental & Spiritual Dev. - Kecamatan - City Planning Office-DKI	Reg. Off. of Dept. of Religious-DKI
	G15 Cleaning Dept.	- Cleaning Office-DKI - City Planning Office-DKI	Cleaning Office-DKI (Dinas Kebersihan-DKI)
	G16 Government Off.	- Government Development Bureau-DKI - City Planning Office-DKI	Offices Concern Wali Kota
	G17 PLN Office	- National Elec. Power. Comp. - City Planning Office-DKI	National Elec. Power Company (PLN)
	G18 Water Supply Office	- Water Supply Company-DKI - City Planning Office-DKI	Water Supply Company - DKI (PDAM)
	G19 Religious Court	- Regional Off. of Dept. of Law - DKI - City Planning Off - DKI	Regional Off. of Dept. of Law - DKI (Kanwil Dep. Kehakiman) Regional off of Dept of Religious-DKI (Kanwil Dep. Agama)
	Commercial	C 1 Small Shop Area	- Private Owner - City Planning Office
C 2 Market/Shopping Area		- PD Pasar Jaya/Private Owner/Company/Group	PD Pasar Jaya/Private Owner
		- Development of Regional Economy Facility Bureau - DKI - Public order Bureau-DKI - City Planning Office-DKI	
C 3 Shopping Centre/Market	- Development of Regional Economy Facility Bureau - DKI - Private Owner/Group/Comp - Public Order Bureau-DKI - City Planning office-DKI	Private Owner/Group Compay PD. Pasar Jaya	

	FACILITY	R E L A T E D	EXECUTION/OPERATION
	(CODE OF FACILITY)	GOVERNMENT AGENCY	B O D Y
(Continued)	C 4 Dept. Store	- City Planning Office-DKI	Private Owner/Company
	C 5 Bank	- Bank Indonesia	Government Bank
		- City Planning Office-DKI	Private Company/Group
	C 6 Office/Other Services	- Private Company/Private Owner	Private Company/ Private Owner
		- Public order Bureau-DKI - City Planning-DKI	
	C 7 Trade Centre	- DKI, Chmaber of Commerce	DKI, Chamber of Commerce/Private Comp.
		- Regional Office of Dept. of Trade - DKI	Regional Off of Dept of Trade - DKI (Kanwil Departemen Perdagangan)
		- City Planning office-DKI	
	C 8 International Class Hotel	- Dept. of Tourism, Post & Telecommunication	Private Company/Group
		- Public order Bureau-DKI - City Planning Office-DKI	
	T 1 Terminal/Public Parking	- Traffic & Road Transportation Office-DKI	Traffic & Road Transportation Off. - DKI (DLAJR - Dinas Lalu Lintas & Angkutan Jalan Raya) PD Parkir Jaya
		- PD Parkir Jaya	PD Parkir Jaya
		- Public order Bureau-DKI - City Planning Office-DKI	
	T 2 Terminal/Transit	ditto	Traffic & Road Transportation Office-DKI (DLAJR - Dinas Lalu Lintas & Angkutan Jalan Raya)
T 3 Terminal/Station	ditto	ditto	
T 4 Public Parking	- Parkir Jaya - Public order Bureau-DKI - City Planning Office-DKI	PD Parkir Jaya	

Table D-7 Number of Neighbourhood Facility and Area in Zone 3 by year (Sub Area: H1-1)

Sub Area : H1 - 1 (1993/94)					
	I t e m	No. of Unit	Sqm/ Facility	Total Area (m2)	Number of Employee (Person)
RM Level	1. Kinder garten	8	300	2,400	@ 5 x 8 = 40
	2. Primary School	4	1,800	7,200	@ 15 x 4 = 60
	3. Play ground	6	150	900	-
	4. Musholla, Church, Temple	2	180	360	-
	5. Pharmacy, Shops	-	240	-	-
	6. Security Post, Public Tel. Elec. Sub st'n, Letter Box, Garbage Box	2	180	360	-
	T o t a l			11,220	
Kelurahan Level	1. Junior High School	1	2,400	2,400	@ 20 x 1 = 20
	2. Senior High School	1	2,400	2,400	@ 25 x 1 = 25
	3. Clinic/Public Health Centre	1	300	300	@ 4 x 1 = 4
	4. Maternity Hospital	1	1,800	1,800	@ 20 x 1 = 20
	5. Hospital (Type C)/Laboratorium	-	210	-	@ 6 x - = -
	6. Kelurahan & Lurah Office	1	600	600	@ 10 x 1 = 10
	7. Police Post	1	180	180	@ 2 x 1 = 2
	8. Sub Post Office	1	180	180	@ 3 x 1 = 3
	9. Fire Brigade Post	1	180	180	@ 5 x 1 = 5
	10. Shopping Centre (Pasar)	-	12,000	-	-
	11. Commercial (Small shops)	1	2,100	2,100	-
	12. Cinema	-	1,200	-	-
	13. Cultural Hall (w/ Library, Art Hall etc)	-	300	-	@ 3 x - = -
	14. Multi Purpose Hall / Youth Club	-	300	-	@ 5 x - = -
	15. Sports Field	-	2,040	-	-
	16. Kelurahan Mosque	1	600	600	-
	T o t a l			10,740	

Note : Projected Population : 7.670 p (1,530 House Hold)
 Average Facility Area : R.W. Level 1.46 sqm/person, 7.31 sqm/H.H
 Kelurahan Level 1.40 sqm/person, 7.00 sqm/H.H
 Whole Level 7.86 sqm/person, 14.32 sqm/H.H

Table D-8 Number of Neighbourhood Facility and Area in Zone 3 by year (Sub Area: H1-2)

Sub Area : H1 - 2 (1994/95)					
	I t e m	No. of Unit	Sqm/ Facility	Total Area (m2)	Number of Employee (Person)
RM Level	1. Kinder garten	7	300	2,100	@ 5 x 7 = 35
	2. Primary School	3	1,800	5,400	@ 15 x 3 = 45
	3. Play ground	5	150	750	-
	4. Musholla, Church, Temple	2	180	360	-
	5. Pharmacy, Shops	1	240	240	-
	6. Security Post, Public Tel. Elec. Sub st'n, Letter Box, Garbage Box	2	180	360	-
	T o t a l			9,210	
Kelurahan Level	1. Junior High School	-	2,400	-	@ 20 x - = -
	2. Senior High School	-	2,400	-	@ 25 x - = -
	3. Clinic Public Health Centre	-	300	-	@ 4 x - = -
	4. Maternity Hospital	-	1,800	-	@ 20 x - = -
	5. Hospital (Type C)/Laboratorium	1	210	210	@ 6 x 1 = 6
	6. Kelurahan & Lurah Office	-	600	-	@ 10 x - = -
	7. Police Post	-	180	-	@ 2 x - = -
	8. Sub Post Office	-	180	-	@ 3 x - = -
	9. Fire Brigade Post	-	180	-	@ 5 x - = -
	10. Shopping Centre (Pasar)	-	12,000	-	-
	11. Commercial (Small shops)	1	2,100	2,100	-
	12. Cinema	-	1,200	-	-
	13. Cultural Hall (w/ Library, Art Hall etc)	-	300	-	@ 3 x 1 = 3
	14. Multi Purpose Hall / Youth Club	1	300	300	@ 5 x - = -
	15. Sports Field	-	2,040	-	-
	16. Kelurahan Mosque	-	600	-	-
	T o t a l			2,610	

Note : Projected Population : 6.750 p (1,350 House Hold)
 Average Facility Area : R.W. Level 1.37 sqm/person, 6.83 sqm/H.H
 Kelurahan Level 0.98 sqm/person, 6.98 sqm/H.H
 Whole Level 1.76 sqm/person, 8.98 sqm/H.H

Table D-9 Number of Neighbourhood Facility and Area in Zone 3 by year (Sub Area: H1-3)

Sub Area : H1 - 3 (1995/96)					
	I t e m	No. of Unit	Sqm/ Facility	Total Area (m2)	Number of Employee (Person)
RM Level	1. Kinder garten	7	300	2,100	@ 5 x 7 = 35
	2. Primary School	3	1,800	5,400	@ 15 x 3 = 45
	3. Play ground	5	150	750	-
	4. Musholla, Church, Temple	2	180	360	-
	5. Pharmacy, Shops	-	240	-	-
	6. Security Post, Public Tel. Elec. Sub st'n, Letter Box, Garbage Box	2	180	360	-
	T o t a l			8,970	
Kelurahan Level	1. Junior High School	-	2,400	-	@ 20 x - = -
	2. Senior High School	-	2,400	-	@ 25 x - = -
	3. Clinic/Public Health Centre	-	300	-	@ 4 x - = -
	4. Maternity Hospital	-	1,800	-	@ 20 x - = -
	5. Hospital (Type C)/Laboratorium	-	210	-	@ 6 x - = -
	6. Kelurahan & Lurah Office	-	600	-	@ 10 x - = -
	7. Police Post	-	180	-	@ 2 x - = -
	8. Sub Post Office	-	180	-	@ 3 x - = -
	9. Fire Brigade Post	-	180	-	@ 5 x - = -
	10. Shopping Centre (Pasar)	-	12,000	-	-
	11. Commercial (Small shops)	1	2,100	2,100	-
	12. Cinema	1	1,200	1,200	-
	13. Cultural Hall (w/ Library, Art Hall etc)	1	300	300	@ 3 x 1 = 3
	14. Multi Purpose Hall / Youth Club	-	300	-	@ 5 x - = -
	15. Sports Field	1	2,040	2,040	-
	16. Kelurahan Mosque	-	600	-	-
	T o t a l			5,640	

Note : Projected Population : 6.600 p (1,320 House Hold)
 Average Facility Area : R.W. Level 1.36 sqm/person, 6.80 sqm/H.H
 Kelurahan Level 0.85 sqm/person, 4.27 sqm/H.H
 Whole Level 2.21 sqm/person, 10.07 sqm/H.H

Table D-10 Number of Neighbourhood Facility and Area in Zone 3 by year (Sub Area: H3-1, 2)

Sub Area : H3 - 1,2 ()					
	I t e m	No. of Unit	Sqm/ Facility	Total Area (m2)	Number of Employee (Person)
RM Level	1. Kinder garten	10	300	3,000	@ 5 x 10 = 50
	2. Primary School	5	1,800	9,000	@ 15 x 5 = 75
	3. Play ground	7	150	1,050	-
	4. Musholla, Church, Temple	2	180	360	-
	5. Pharmacy, Shops	-	240	-	-
	6. Security Post, Public Tel. Elec. Sub st'n, Letter Box, Garbage Box	2	180	360	-
	T o t a l			13,770	
Kelurahan Level	1. Junior High School	1	2,400	2,400	@ 20 x 1 = 20
	2. Senior High School	-	2,400	-	@ 25 x - = -
	3. Clinic/Public Health Centre	-	300	-	@ 4 x - = -
	4. Maternity Hospital	-	1,800	-	@ 20 x - = -
	5. Hospital (Type C)/Laboratorium	-	210	-	@ 6 x - = -
	6. Kelurahan & Lurah Office	-	600	-	@ 10 x - = -
	7. Police Post	-	180	-	@ 2 x - = -
	8. Sub Post Office	-	180	-	@ 3 x 1 = 3
	9. Fire Brigade Post	-	180	-	@ 5 x 1 = 5
	10. Shopping Centre (Pasar)	-	12,000	-	-
	11. Commercial (Small shops)	1	2,100	2,100	-
	12. Cinema	-	1,200	-	-
	13. Cultural Hall (w/ Library, Art Hall etc)	-	300	-	@ 3 x - = -
	14. Multi Purpose Hall / Youth Club	-	300	-	@ 5 x - = -
	15. Sports Field	-	2,040	-	-
	16. Kelurahan Mosque	1	600	600	-
	T o t a l			5,100	

Note : Projected Population : 9,000 p (1,800 House Hold)
 Average Facility Area : R.W. Level 1.53 sqm/person, 7.65 sqm/H.H
 Kelurahan Level 0.57 sqm/person, 2.83 sqm/H.H
 Whole Level 2.10 sqm/person, 10.48 sqm/H.H

Table D-11 Number of Neighbourhood Facility and Area in Zone 3 by year (Sub Area: H2-1)

Sub Area : H2 - 1 (1996/97)				
Item	No. of Unit	Sqm/ Facility	Total Area (m2)	Number of Employee (Person)
RW Level				
1. Kinder garten	7	300	2,100	@ 5 x 7 = 35
2. Primary School	3	1,800	5,400	@ 15 x 3 = 45
3. Play ground	5	150	750	-
4. Musholla, Church, Temple	1	180	180	-
5. Pharmacy, Shops	1	240	240	-
6. Security Post, Public Tel. Elec. Sub stn, Letter Box, Garbage Box	1	180	180	-
T o t a l			8,850	
Kelurahan Level				
1. Junior High School	1	2,400	2,400	@ 20 x 1 = 20
2. Senior High School	1	2,400	2,400	@ 25 x 1 = 25
3. Clinic/Public Health Centre	1	300	300	@ 4 x 1 = 4
4. Maternity Hospital	-	1,800	-	@ 20 x - = -
5. Hospital (Type C)/Laboratorium	-	210	-	@ 6 x - = -
6. Kelurahan & Lurah Office	1	600	600	@ 10 x 1 = 10
7. Police Post	1	180	180	@ 2 x 1 = 2
8. Sub Post Office	1	180	180	@ 3 x 1 = 3
9. Fire Brigade Post	1	180	180	@ 5 x 1 = 5
10. Shopping Centre (Pasar)	-	12,000	-	-
11. Commercial (Small shops)	1	2,100	2,100	-
12. Cinema	-	1,200	-	-
13. Cultural Hall (w/ Library, Art Hall etc)	-	300	-	@ 3 x - = -
14. Multi Purpose Hall / Youth Club	1	300	300	@ 5 x 1 = 5
15. Sports Field	-	2,040	-	-
16. Kelurahan Mosque	-	600	-	-
T o t a l			8,640	

Note : Projected Population : 6.920 p (1,380 House Hold)
 Average Facility Area : R.W. Level 1.28 sqm/person, 6.40 sqm/H.H
 Kelurahan Level 1.25 sqm/person, 6.24 sqm/H.H
 Whole Level 2.53 sqm/person, 12.64 sqm/H.H

Table D-12 Number of Neighbourhood Facility and Area in Zone 3 by year (Sub Area: H2-2)

Sub Area : H2 - 2 (1997/98)				
Item	No. of Unit	Sqm/ Facility	Total Area (m2)	Number of Employee (Person)
RW Level				
1. Kinder garten	5	300	1,500	@ 5 x 5 = 25
2. Primary School	2	1,800	3,600	@ 15 x 2 = 30
3. Play ground	3	150	450	-
4. Musholla, Church, Temple	1	180	180	-
5. Pharmacy, Shops	-	240	-	-
6. Security Post, Public Tel. Elec. Sub stn, Letter Box, Garbage Box	1	180	180	-
T o t a l			5,910	
Kelurahan Level				
1. Junior High School	-	2,400	-	@ 20 x - = -
2. Senior High School	-	2,400	-	@ 25 x - = -
3. Clinic/Public Health Centre	-	300	-	@ 4 x - = -
4. Maternity Hospital	1	1,800	1,800	@ 20 x 1 = 20
5. Hospital (Type C)/Laboratorium	1	210	210	@ 6 x 1 = 6
6. Kelurahan & Lurah Office	-	600	-	@ 10 x - = -
7. Police Post	-	180	-	@ 2 x - = -
8. Sub Post Office	-	180	-	@ 3 x 1 = 3
9. Fire Brigade Post	-	180	-	@ 5 x 1 = 5
10. Shopping Centre (Pasar)	-	12,000	-	-
11. Commercial (Small shops)	-	2,100	-	-
12. Cinema	1	1,200	1	-
13. Cultural Hall (w/ Library, Art Hall etc)	1	300	1	@ 3 x 1 = 3
14. Multi Purpose Hall / Youth Club	-	300	-	@ 5 x - = -
15. Sports Field	1	2,040	1	-
16. Kelurahan Mosque	1	600	1	-
T o t a l			2,010	

Note : Projected Population : 4,730 p (950 House Hold)
 Average Facility Area : R.W. Level 1.25 sqm/person, 6.25 sqm/H.H
 Kelurahan Level 0.42 sqm/person, 2.12 sqm/H.H
 Whole Level 1.67 sqm/person, 8.37 sqm/H.H

Table D-13 Number of Neighbourhood Facility and Area in Zone 3 by year (Sub Area: H4-1)

Sub Area : H4 - 1 (1990)				
Item	No. of Unit	Sqm/ Facility	Total Area (m2)	Number of Employee (Person)
RW Level				
1. Kinder garten	5	300	1,500	@ 5 x 5 = 25
2. Primary School	2	1,800	3,600	@ 15 x 2 = 30
3. Play ground	3	150	450	-
4. Musholla, Church, Temple	1	180	180	-
5. Pharmacy, Shops	1	240	240	-
6. Security Post, Public Tel. Elec. Sub stn, Letter Box, Garbage Box	1	180	180	-
T o t a l			6,150	
Kelurahan Level				
1. Junior High School	1	2,400	2,400	@ 20 x 1 = 20
2. Senior High School	1	2,400	2,400	@ 25 x 1 = 25
3. Clinic Public Health Centre	1	300	300	@ 4 x 1 = 4
4. Maternity Hospital	-	1,800	-	@ 20 x - = -
5. Hospital (Type C)/Laboratorium	-	210	-	@ 6 x - = -
6. Kelurahan & Lurah Office	1	600	600	@ 10 x 1 = 10
7. Police Post	1	180	180	@ 2 x 1 = 2
8. Sub Post Office	1	180	180	@ 3 x 1 = 3
9. Fire Brigade Post	1	180	180	@ 5 x 1 = 5
10. Shopping Centre (Pasar)	-	12,000	-	-
11. Commercial (Small shops)	1	2,100	2,100	-
12. Cinema	-	1,200	-	-
13. Cultural Hall (w/ Library, Art Hall etc)	-	300	-	@ 3 x - = -
14. Multi Purpose Hall / Youth Club	-	300	-	@ 5 x - = -
15. Sports Field	-	2,040	-	-
16. Kelurahan Mosque	-	600	-	-
T o t a l			8,340	

Note : Projected Population : 5.000 p (1.000 House Hold)
 Average Facility Area : R.W. Level 1.23 sqm/person, 6.15 sqm/H.H
 Kelurahan Level 1.67 sqm/person, 8.35 sqm/H.H
 Whole Level 2.90 sqm/person, 14.49 sqm/H.H

Table D-14 Number of Neighbourhood Facility and Area in Zone 3 by year (Sub Area: H4-2)

Sub Area : H4 - 2 (1991)				
Item	No. of Unit	Sqm/ Facility	Total Area (m2)	Number of Employee (Person)
RW Level				
1. Kinder garten	8	300	2,400	@ 5 x 8 = 40
2. Primary School	4	1,800	7,200	@ 15 x 4 = 60
3. Play ground	6	150	900	-
4. Musholla, Church, Temple	2	180	360	-
5. Pharmacy, Shops	-	240	-	-
6. Security Post, Public Tel. Elec. Sub stn, Letter Box, Garbage Box	2	180	360	-
T o t a l			11,220	
Kelurahan Level				
1. Junior High School	-	2,400	-	@ 20 x 1 = 20
2. Senior High School	-	2,400	-	@ 25 x - = -
3. Clinic Public Health Centre	-	300	-	@ 4 x - = -
4. Maternity Hospital	-	1,800	-	@ 20 x - = -
5. Hospital (Type C)/Laboratorium	-	210	-	@ 6 x 1 = 6
6. Kelurahan & Lurah Office	-	600	-	@ 10 x - = -
7. Police Post	-	180	-	@ 2 x - = -
8. Sub Post Office	-	180	-	@ 3 x - = -
9. Fire Brigade Post	-	180	-	@ 5 x - = -
10. Shopping Centre (Pasar)	-	12,000	-	-
11. Commercial (Small shops)	1	2,100	2,100	-
12. Cinema	-	1,200	-	-
13. Cultural Hall (w/ Library, Art Hall etc)	-	300	-	@ 3 x - = -
14. Multi Purpose Hall / Youth Club	-	300	-	@ 5 x - = -
15. Sports Field	-	2,040	-	-
16. Kelurahan Mosque	1	600	600	-
T o t a l			2,700	

Note : Projected Population : 7.000 p (1.400 House Hold)
 Average Facility Area : R.W. Level 1.60 sqm/person, 8.00 sqm/H.H
 Kelurahan Level 0.39 sqm/person, 1.95 sqm/H.H
 Whole Level 1.99 sqm/person, 9.95 sqm/H.H

Table D-15 Number of Neighbourhood Facility and Area in Zone 3 by year (Sub Area: H4-3)

Sub Area : H4 - 3 (1992)					
	I t e m	No. of Unit	Sqm/ Facility	Total Area (m2)	Number of Employee (Person)
RM Level	1. Kinder garten	7	300	2,100	@ 5 x 7 = 35
	2. Primary School	3	1,800	5,400	@ 15 x 3 = 45
	3. Play ground	5	150	750	-
	4. Musholla, Church, Temple	1	180	180	-
	5. Pharmacy, Shops	-	240	-	-
	6. Security Post, Public Tel. Elec. Sub stn, Letter Box, Garbage Box	1	180	180	-
	T o t a l			8,610	
Kelurahan Level Medical Educa'tn Gov't Office Centre Youth	1. Junior High School	-	2,400	-	@ 20 x - = -
	2. Senior High School	-	2,400	-	@ 25 x - = -
	3. Clinic Public Health Centre	-	300	-	@ 4 x - = -
	4. Maternity Hospital	-	1,800	-	@ 20 x - = -
	5. Hospital (Type C)/ Laboratorium	1	210	210	@ 6 x 1 = 6
	6. Kelurahan & Lurah Office	-	600	-	@ 10 x - = -
	7. Police Post	-	180	-	@ 2 x - = -
	8. Sub Post Office	-	180	-	@ 3 x - = -
	9. Fire Brigade Post	-	180	-	@ 5 x - = -
	10. Shopping Centre (Pasar)	-	12,000	-	-
	11. Commercial (Small shops)	1	2,100	2,100	-
	12. Cinema	-	1,200	-	-
	13. Cultural Hall (w/ Library, Art Hall etc)	-	300	-	@ 3 x - = -
	14. Multi Purpose Hall / Youth Club	-	300	-	@ 5 x - = -
	15. Sports Field	-	2,040	-	-
	16. Kelurahan Mosque	-	600	-	-
	T o t a l			2,310	

Note : Projected Population : 7.000 p (1.400 House Hold)
 Average Facility Area : R.W. Level 1.23 sqm/person, 6.15 sqm/H.H
 Kelurahan Level 0.33 sqm/person, 1.65 sqm/H.H
 Whole Level 1.56 sqm/person, 7.80 sqm/H.H

Table D-16 Number of Neighbourhood Facility and Area in Zone 3 by year (Sub Area: H4-4)

Sub Area : H4 - 4 (1993)					
	I t e m	No. of Unit	Sqm/ Facility	Total Area (m2)	Number of Employee (Person)
RM Level	1. Kinder garten	12	300	3,600	@ 5 x 12 = 60
	2. Primary School	6	1,800	10,800	@ 15 x 6 = 90
	3. Play ground	9	150	1,350	-
	4. Musholla, Church, Temple	3	180	540	-
	5. Pharmacy, Shops	1	240	240	-
	6. Security Post, Public Tel. Elec. Sub stn, Letter Box, Garbage Box	3	180	540	-
	T o t a l			17,070	
Kelurahan Level Medical Educa'tn Gov't Office Centre Youth	1. Junior High School	1	2,400	2,400	@ 20 x 1 = 20
	2. Senior High School	-	2,400	-	@ 25 x - = -
	3. Clinic Public Health Centre	-	300	-	@ 4 x - = -
	4. Maternity Hospital	1	1,800	1,800	@ 20 x 1 = 20
	5. Hospital (Type C)/ Laboratorium	-	210	-	@ 6 x - = -
	6. Kelurahan & Lurah Office	-	600	-	@ 10 x - = -
	7. Police Post	-	180	-	@ 2 x - = -
	8. Sub Post Office	-	180	-	@ 3 x - = -
	9. Fire Brigade Post	-	180	-	@ 5 x - = -
	10. Shopping Centre (Pasar)	-	12,000	-	-
	11. Commercial (Small shops)	1	2,100	2,100	-
	12. Cinema	-	1,200	-	-
	13. Cultural Hall (w/ Library, Art Hall etc)	-	300	-	@ 3 x - = -
	14. Multi Purpose Hall / Youth Club	1	300	300	@ 5 x 1 = 5
	15. Sports Field	1	2,040	2,040	-
	16. Kelurahan Mosque	-	600	-	-
	T o t a l			8,340	

Note : Projected Population : 11.000 p (2.200 House Hold)
 Average Facility Area : R.W. Level 1.55 sqm/person, 7.76 sqm/H.H
 Kelurahan Level 0.76 sqm/person, 3.79 sqm/H.H
 Whole Level 2.31 sqm/person, 11.55 sqm/H.H

Table D-17 Number of Neighbourhood Facility and Area in Zone 3 by year (Sub Area: H4-5)

Sub Area : H4 - 5 (1994)					
	I t e m	No. of Unit	Sqm/ Facility	Total Area (m2)	Number of Employee (Person)
RM Level	1. Kinder garten	13	300	3,900	@ 5 x 13 = 65
	2. Primary School	6	1,800	10,800	@ 15 x 6 = 90
	3. Play ground	10	150	1,500	-
	4. Musholla, Church, Temple	3	180	5,400	-
	5. Pharmacy, Shops	-	240	-	-
	6. Security Post, Public Tel. Elec. Sub stn, Letter Box, Garbage Box	3	180	540	-
	T o t a l			27,000	
Kelurahan Level Medical Educa'tn Gov't Office Centre Youth	1. Junior High School	-	2,400	-	@ 20 x 1 = -
	2. Senior High School	-	2,400	-	@ 25 x - = -
	3. Clinic Public Health Centre	-	300	-	@ 4 x - = -
	4. Maternity Hospital	-	1,800	-	@ 20 x 1 = -
	5. Hospital (Type C)/ Laboratorium	-	210	-	@ 6 x - = -
	6. Kelurahan & Lurah Office	-	600	-	@ 10 x - = -
	7. Police Post	-	180	-	@ 2 x - = -
	8. Sub Post Office	-	180	-	@ 3 x - = -
	9. Fire Brigade Post	-	180	-	@ 5 x - = -
	10. Shopping Centre (Pasar)	1	12,000	12,000	-
	11. Commercial (Small shops)	1	2,100	2,100	-
	12. Cinema	1	1,200	1,200	-
	13. Cultural Hall (w/ Library, Art Hall etc)	1	300	300	@ 3 x 1 = 3
	14. Multi Purpose Hall / Youth Club	-	300	-	@ 5 x - = -
	15. Sports Field	-	2,040	-	-
	16. Kelurahan Mosque	-	600	-	-
	T o t a l			15,600	

Note : Projected Population : 12.440 p (2.488 House Hold)
 Average Facility Area : R.W. Level 2.17 sqm/person, 10.85 sqm/H.H
 Kelurahan Level 1.25 sqm/person, 6.27 sqm/H.H
 Whole Level 3.42 sqm/person, 17.12 sqm/H.H

Table D-18
Number of Neighbourhood Facility and Area by
Modified Standard in Zone 2 (Sub Area: H1)

Sub Area: H1 (6RW)				
ITEMS	NO. OF UNIT	SQM/FACILITY	TOTAL AREA (SQM)	REMARKS
RW LEVEL				
	29	300	8,700	
1. Kindergarten	14	1,800	25,200	Comineded in one space
2. Primary school	21	150	3,150	
3. Play ground	7	180	1,260	
4. Musholla, Church, Temple	1	240	240	
5. Pharmacy, Shops	7	180	1,260	
6. Security post, Public tel., Elec. sub st'n, Letter box, Garbage box			39,810	
TOTAL				
KELURAHAN LEVEL				
1. Junior high school	2	2,400	2,400	Education
2. senior high school	1	2,400	2,400	
3. Clinic, Public health centre	1	300	300	Medical centre
4. Maternity hospital	1	1,800	1,800	
5. Hospital	1	210	210	
6. Kelurahan office, Lurah office	1	600	600	Government quater
7. Plice post	1	180	180	
8. Sub post office	1	180	180	
9. Fire bregade post	1	180	180	
10. Shopping centre (Pasar)	1	12,000	12,000	Commercial centre
11. Commercial (Small shops)	4	2,100	8,400	
12. Cinema	1	1,200	1,200	Cultural, recreational Youth centre
13. Cultural hall (Library, Arts hall, etc)	1	300	300	
14. Multi purpose hall, Youth club	1	300	300	
15. Sports field	1	2,040	2,040	
16. Kelurahan mosque	1	600	600	
TOTAL			33,090	
NOTE: Projected Population: 26,600 P (5,320 House Hold)				
Average Facility Area: RW Level 1.50sqm/person, 7.51 sqm/H.H.				
Kelurahan Level 1.17sqm/person, 5.83 sqm/H.H.				
Whole Level 2.67sqm/person, 13.34sqm/H.H.				

Table D-19
Number of Neighbourhood Facility and Area by
Modified Standard in Zone 2 (Sub Area: H4)

Sub Area: H4 (8RW)				
ITEMS	NO. OF UNIT	SQM/FACILITY	TOTAL AREA (SQM)	REMARKS
RW LEVEL				
1. Kindergarten	50	300	15,000	Comineded in one space
2. Primary school	24	1,800	45,000	
3. Play ground	37	150	5,550	
4. Musholla, Church, Temple	12	180	2,160	
5. Pharmacy, Shops	1	240	240	
6. Security post, Public tel., Elec. sub st'n, Letter box, Garbage box	12	180	2,160	
TOTAL			70,110	
KELURAHAN LEVEL				
1. Junior high school	3	2,400	7,200	Education
2. senior high school	1	2,400	2,400	
3. Clinic, Public health centre	1	300	300	Medical centre
4. Maternity hospital	1	1,800	1,800	
5. Hospital	1	210	210	
6. Kelurahan office, Lurah office	1	600	600	Government quater
7. Plice post	1	180	180	
8. Sub post office	1	180	180	
9. Fire bregade post	1	180	180	
10. Shopping centre (Pasar)	1	12,000	12,000	Commercial centre
11. Commercial (Small shops)	6	2,100	2,100	
12. Cinema	1	1,200	1,200	Cultural, recreational Youth centre
13. Cultural hall (Library, Arts hall, etc)	1	300	300	
14. Multi purpose hall, Youth club	1	300	300	
15. Sports field	1	2,040	2,040	
16. Kelurahan mosque	1	600	600	
TOTAL			31,590	
NOTE: Projected Population: 45,560 P (9,112 House Hold)				
Average Facility Area: RW Level 1.51sqm/person, 7.54 sqm/H.H.				
Kelurahan Level 0.69sqm/person, 3.47 sqm/H.H.				
Whole Level 2.20sqm/person, 11.01sqm/H.H.				

Table D-20
Number of Neighbourhood Facility and Area by
Modified Standard in Zone 2 (Sub Area: H2)

Sub Area: H2 (4RW)				
ITEMS	NO. OF UNIT	SQM/FACILITY	TOTAL AREA (SQM)	REMARKS
RW LEVEL				
1. Kindergarten	12	300	3,600	Comineded in one space
2. Primary school	6	1,800	10,800	
3. Play ground	9	150	1,350	
4. Musholla, Church, Temple	3	180	720	
5. Pharmacy, Shops	1	240	240	
6. Security post, Public tel., Elec. sub st'n, Letter box, Garbage box	3	180	720	
TOTAL			17,430	
KELURAHAN LEVEL				
1. Junior high school	1	2,400	2,400	Education
2. senior high school	1	2,400	2,400	
3. Clinic, Public health centre	1	300	300	Medical centre
4. Maternity hospital	1	1,800	1,800	
5. Hospital	1	210	210	
6. Kelurahan office, Lurah office	1	600	600	Government quater
7. Plice post	1	180	180	
8. Sub post office	1	180	180	
9. Fire bregade post	1	180	180	
10. Shopping centre (Pasar)	1	12,000	12,000	Commercial centre
11. Commercial (Small shops)	1	2,100	2,100	
12. Cinema	1	1,200	1,200	Cultural, recreational Youth centre
13. Cultural hall (Library, Arts hall, etc)	1	300	300	
14. Multi purpose hall, Youth club	1	300	300	
15. Sports field	1	2,040	2,040	
16. Kelurahan mosque	1	600	600	
TOTAL			26,790	
NOTE: Projected Population: 10,900 P (2,180 House Hold)				
Average Facility Area: RW Level 1.59sqm/person, 7.95 sqm/H.H.				
Kelurahan Level 2.45sqm/person, 12.25sqm/H.H.				
Whole Level 3.04sqm/person, 10.20 sqm/H.H.				

Table D-21
Number of Neighbourhood Facility and Area by
Modified Standard in Zone 2 (Sub Area: H3/North)

Sub Area: H 3 (SRW) NORTH				
ITEMS	NO. OF UNIT	SQM/FACILITY	TOTAL AREA (SQM)	REMARKS
RW LEVEL				
1. Kindergarten	6	300	1,800	} Combined in one space
2. Primary school	3	1,800	5,400	
3. Play ground	4	150	600	
4. Musholla, Church, Temple	1	180	360	}
5. Pharmacy, Shops	1	240	240	
6. Security post, Public tel., Elec. sub st'n, Letter box, Garbage box	1	180	360	
TOTAL			8,760	
KELURAHAN LEVEL				
1. Junior high school	1	2,400	2,400	} Education
2. Senior high school	-	2,400	-	
3. Clinic, Public health centre	1	300	300	} Medical centre
4. Maternity hospital	-	1,800	-	
5. Hospital	1	210	210	
6. Kelurahan office, Lurah office	-	600	-	} Government quater
7. Police post	1	180	180	
8. Sub post office	1	180	180	
9. Fire bregade post	1	180	180	} Commercial centre
10. Shopping centre (Pasar)	1	12,000	12,000	
11. Commercial (Small shops)	1	2,100	2,100	
12. Cinema	-	1,200	-	} Cultural, recreational Youth centre
13. Cultural hall (Library, Arts hall, etc)	1	300	300	
14. Multi purpose hall, Youth club	-	300	-	
15. Sports field	1	2,040	2,040	
16. Kelurahan mosque	-	600	-	
TOTAL			19,890	
NOTE: Projected Population: 5,014 P (1,003 House Hold)				
Average Facility Area: RW Level 1.75 sqm/person, 8.74 sqm/H.H.				
Kelurahan Level 3.97sqm/person, 19.84sqm/H.H.				
Whole Level 5.72sqm/person, 27.58sqm/H.H.				

Table D-22
Number of Neighbourhood Facility and Area by
Modified Standard in Zone 2 (Sub Area: H3/South)

Sub Area: H 3 (SRW) SOUTH				
ITEMS	NO. OF UNIT	SQM/FACILITY	TOTAL AREA (SQM)	REMARKS
RW LEVEL				
1. Kindergarten	6	300	1,800	} Combined in one space
2. Primary school	3	1,800	5,400	
3. Play ground	4	150	600	
4. Musholla, Church, Temple	2	180	360	}
5. Pharmacy, Shops	1	240	240	
6. Security post, Public tel., Elec. sub st'n, Letter box, Garbage box	2	180	360	
TOTAL			8,760	
KELURAHAN LEVEL				
1. Junior high school	1	2,400	2,400	} Education
2. Senior high school	1	2,400	2,400	
3. Clinic, Public health centre	1	300	300	} Medical centre
4. Maternity hospital	1	1,800	1,800	
5. Hospital	-	210	-	
6. Kelurahan office, Lurah office	1	600	600	} Government quater
7. Police post	1	180	180	
8. Sub post office	1	180	180	
9. Fire bregade post	1	180	180	} Commercial centre
10. Shopping centre (Pasar)	-	12,000	-	
11. Commercial (Small shops)	1	2,100	2,100	
12. Cinema	1	1,200	1,200	} Cultural, recreational Youth centre
13. Cultural hall (Library, Arts hall, etc)	-	300	-	
14. Multi purpose hall, Youth club	1	300	300	
15. Sports field	-	2,040	-	
16. Kelurahan mosque	1	600	600	
TOTAL			12,240	
NOTE: Projected Population: 5,336 P (1,067 House Hold)				
Average Facility Area: RW Level 1.64 sqm/person, 8.21 sqm/H.H.				
Kelurahan Level 2.29sqm/person, 11.47sqm/H.H.				
Whole Level 3.93sqm/person, 19.68sqm/H.H.				

Table D-23 Development Cost for Neighbourhood Facility (Sub Area: H4/1)

Sub Area: H4/1 (Year: 1990)		Building Development						External Area Development				Total (3)+(4)+(5)
No. of Facility	No. of Storey	Floor Area (1)	1st Floor (2)	Total Floor Area (1)+(2) (M2)	Unit Price (M2) (3)	Construct- tion Cost of (3) (4)	FFY (20% of (3)) (5)	Site area to be Developed (M2)	Unit Price (M2) (6)	Construct- tion Cost (7)		
Play Ground	3	-	-	-	-	-	-	300	15	13,500	-	13,500
Kindergarten	5	1	240	-	240	178	213,600	42,720	60	6,000	262,320	262,320
Primary School	3	2	700	500	1,200	224	806,400	161,280	1,100	20	66,000	1,033,680
Junior High School	1	2	1,000	700	1,700	224	380,800	76,160	1,400	20	28,000	484,960
Senior High School	1	2	1,000	900	1,900	224	425,600	85,120	1,400	20	28,000	538,720
Public Health Centre	1	2	100	100	200	224	44,800	8,960	200	20	4,000	57,760
Maternity Hospital	-	2	600	400	1,000	224	-	-	-	-	-	-
Hospital (Type C)	-	2	100	100	200	224	-	-	-	-	-	-
Kelurahan & Lurah Office	1	2	300	200	500	224	112,000	22,400	300	20	6,000	140,400
Police Post	1	1	100	-	100	178	17,800	3,560	80	15	1,200	22,560
Sub Post Office	1	1	100	-	100	178	17,800	3,560	80	15	1,200	22,560
Fire Brigade Post	1	1	100	-	100	178	17,800	3,560	80	15	1,200	22,560
Cultural Hall	-	2	150	100	250	250	-	-	-	-	-	-
Multipurpose Hall/Youth C	-	2	150	100	250	250	-	-	-	-	-	-
Kelurahan Mosque	-	1	150	-	150	178	-	-	-	-	-	-
Sports Fields	-	1	50	-	50	178	-	-	-	-	-	-
Total							2,036,600	407,320		155,100		2,599,020

Remarks : For the building cost data issued by Cipta Karya on 1987/88 is applied
(Tentang Pedoman Operasional Pelaksanaan DIP Pembangunan Bangunan Gedung Pemerintah dan Perumahan Dinas Tahun Anggaran 1987 - 1988).
F.F.Y. is Fixing, Furnishing and Yarns.

Table D-24 Development Cost for Neighbourhood Facility (Sub Area: H4/2)

Sub Area: H4/2 (Year: 1991)		Building Development						External Area Development				Total (3)+(4)+(5)
No. of Facility	No. of Storey	Floor Area (1)	1st Floor (2)	Total Floor Area (1)+(2) (M2)	Unit Price (M2) (3)	Construct- tion Cost of (3) (4)	FFY (20% of (3)) (5)	Site area to be Developed (M2)	Unit Price (M2) (6)	Construct- tion Cost (7)		
Play Ground	6	-	-	-	-	-	-	300	15	27,000	-	27,000
Kindergarten	8	1	240	-	240	178	341,760	68,352	60	20	9,600	419,712
Primary School	4	2	700	500	1,200	224	1,075,200	215,040	1,100	20	88,000	1,378,240
Junior High School	-	2	1,000	700	1,700	224	-	-	-	-	-	-
Senior High School	-	2	1,000	900	1,900	224	-	-	-	-	-	-
Public Health Centre	-	2	100	100	200	224	-	-	-	-	-	-
Maternity Hospital	-	2	600	400	1,000	224	-	-	-	-	-	-
Hospital (Type C)	-	2	100	100	200	224	-	-	-	-	-	-
Kelurahan & Lurah Office	-	2	300	200	500	224	-	-	-	-	-	-
Police Post	-	1	100	-	100	178	-	-	-	-	-	-
Sub Post Office	-	1	100	-	100	178	-	-	-	-	-	-
Fire Brigade Post	-	1	100	-	100	178	-	-	-	-	-	-
Cultural Hall	-	2	150	100	250	250	-	-	-	-	-	-
Multipurpose Hall/Youth C	-	2	150	100	250	250	-	-	-	-	-	-
Kelurahan Mosque	1	1	150	-	150	178	26,700	5,340	450	20	9,000	41,040
Sports Fields	-	1	50	-	50	178	-	-	-	-	-	-
Total							1,443,660	288,732		133,600		1,865,992

Remarks : For the building cost data issued by Cipta Karya on 1987/88 is applied
(Tentang Pedoman Operasional Pelaksanaan DIP Pembangunan Bangunan Gedung Pemerintah dan Perumahan Dinas Tahun Anggaran 1987 - 1988).
F.F.Y. is Fixing, Furnishing and Yarns.

Table D-25 Development Cost for Neighbourhood Facility (Sub Area: H4/3)

Sub Area: H4/3 (Year: 1992)		Building Development						External Area Development				Total (3)+(4)+(5)
No. of Facility	No. of Storey	Floor Area (1)	1st Floor (2)	Total Floor Area (1)+(2) (M2)	Unit Price (M2) (3)	Construct- tion Cost of (3) (4)	FFY (20% of (3)) (5)	Site area to be Developed (M2)	Unit Price (M2) (6)	Construct- tion Cost (7)		
Play Ground	5	-	-	-	-	-	-	300	15	22,500	-	22,500
Kindergarten	7	1	240	-	240	178	299,040	59,808	60	20	8,400	367,248
Primary School	3	2	700	500	1,200	224	806,400	161,280	1,100	20	66,000	1,033,680
Junior High School	-	2	1,000	700	1,700	224	-	-	-	-	-	-
Senior High School	-	2	1,000	900	1,900	224	-	-	-	-	-	-
Public Health Centre	-	2	100	100	200	224	-	-	-	-	-	-
Maternity Hospital	-	2	600	400	1,000	224	-	-	-	-	-	-
Hospital (Type C)	-	2	100	100	200	224	-	-	-	-	-	-
Kelurahan & Lurah Office	-	2	300	200	500	224	44,800	8,960	110	20	2,200	55,960
Police Post	-	1	100	-	100	178	-	-	-	-	-	-
Sub Post Office	-	1	100	-	100	178	-	-	-	-	-	-
Fire Brigade Post	-	1	100	-	100	178	-	-	-	-	-	-
Cultural Hall	-	2	150	100	250	250	-	-	-	-	-	-
Multipurpose Hall/Youth C	-	2	150	100	250	250	-	-	-	-	-	-
Kelurahan Mosque	-	1	150	-	150	178	-	-	-	-	-	-
Sports Fields	-	1	50	-	50	178	-	-	-	-	-	-
Total							1,150,240	230,048		99,100		1,479,388

Remarks : For the building cost data issued by Cipta Karya on 1987/88 is applied
(Tentang Pedoman Operasional Pelaksanaan DIP Pembangunan Bangunan Gedung Pemerintah dan Perumahan Dinas Tahun Anggaran 1987 - 1988).
F.F.Y. is Fixing, Furnishing and Yarns.

Table D-26 Development Cost for Neighbourhood Facility (Sub Area: H4/4)

Sub Area: H4/4		Building Development										External Area Development			Total
(Year: 1993)		(Unit: Rp x 1,000)													
Item	No. of Facility	No. of Storey	Floor Area (1)	G. Floor (2)	1st Floor (3)	Total Floor Area (1)+(2) (4)	Unit Price (Rp) (5)	Construction Cost (3)*(5) (6)	FFY (20%) of (3) (7)	Site area to be Developed (8)	Unit Price (Rp) (9)	Construction Cost (8)*(9) (10)	Total Construction Cost (6)+(10) (11)	FFY (20%) of (11) (12)	
															Total
Play Ground	9	-	-	-	-	-	-	-	-	300	15	4,500	40,500	-	
Kindergarten	12	1	240	-	240	1,200	178	512,640	102,528	60	20	14,400	629,568	-	
Primary School	6	2	700	500	1,200	224	1,612,800	322,560	1,100	20	132,000	2,067,360	-		
Junior High School	1	2	1,000	700	1,700	224	380,800	76,160	1,400	20	28,000	484,960	-		
Senior High School	-	2	1,000	900	1,900	224	-	-	-	-	-	-	-		
Public Health Centre	-	2	100	100	200	224	-	-	-	-	-	-	-		
Maternity Hospital	1	2	600	400	1,000	224	224,000	44,800	1,200	20	24,000	292,800	-		
Hospital (Type C)	1	2	100	100	200	224	-	-	-	-	-	-	-		
Kelurahan & Lurah Office	-	2	300	200	500	224	-	-	-	-	-	-	-		
Police Post	-	1	100	-	100	178	-	-	-	-	-	-	-		
Sub Post Office	-	1	100	-	100	178	-	-	-	-	-	-	-		
Fire Brigade Post	-	1	100	-	100	178	-	-	-	-	-	-	-		
Cultural Hall	-	2	150	100	250	250	-	-	-	-	-	-	-		
Multipurpose Hall/Youth C	1	2	150	100	250	250	62,500	12,500	150	20	3,000	78,000	-		
Kelurahan Mosque	-	1	150	-	150	178	-	-	-	-	-	-	-		
Sports Fields	1	1	50	-	50	178	8,900	1,780	1,990	15	29,850	40,530	-		
Total							2,801,640	560,328				271,750	3,633,718		

Remarks: For the building cost data issued by Cipta Karya on 1987/88 is applied
(Tentang Pedoman Operasional Pelaksanaan DIP Pembangunan Bangunan Gedung Pemerintah dan Perumahan Dinas Tahun Anggaran 1987 - 1988).
P.F.V. is Fixing, Furnishing and Yarns.

Table D-27 Development Cost for Neighbourhood Facility (Sub Area: H4/5)

Sub Area: H4/5		Building Development										External Area Development			Total
(Year: 1994)		(Unit: Rp x 1,000)													
Item	No. of Facility	No. of Storey	Floor Area (1)	G. Floor (2)	1st Floor (3)	Total Floor Area (1)+(2) (4)	Unit Price (Rp) (5)	Construction Cost (3)*(5) (6)	FFY (20%) of (3) (7)	Site area to be Developed (8)	Unit Price (Rp) (9)	Construction Cost (8)*(9) (10)	Total Construction Cost (6)+(10) (11)	FFY (20%) of (11) (12)	
															Total
Play Ground	10	-	-	-	-	-	-	-	-	300	15	4,500	45,000	-	
Kindergarten	13	1	240	-	240	1,107	178	555,360	111,072	60	20	15,600	682,032	-	
Primary School	6	2	700	500	1,200	224	1,612,800	322,560	1,100	20	132,000	2,067,360	-		
Junior High School	-	2	1,000	700	1,700	224	-	-	-	-	-	-	-		
Senior High School	-	2	1,000	900	1,900	224	-	-	-	-	-	-	-		
Public Health Centre	-	2	100	100	200	224	-	-	-	-	-	-	-		
Maternity Hospital	-	2	600	400	1,000	224	-	-	-	-	-	-	-		
Hospital (Type C)	-	2	100	100	200	224	-	-	-	-	-	-	-		
Kelurahan & Lurah Office	-	2	300	200	500	224	-	-	-	-	-	-	-		
Police Post	-	1	100	-	100	178	-	-	-	-	-	-	-		
Sub Post Office	-	1	100	-	100	178	-	-	-	-	-	-	-		
Fire Brigade Post	-	1	100	-	100	178	-	-	-	-	-	-	-		
Cultural Hall	1	2	150	100	250	250	62,500	12,500	150	20	3,000	78,000	-		
Multipurpose Hall/Youth C	-	2	150	100	250	250	-	-	-	-	-	-	-		
Kelurahan Mosque	-	1	150	-	150	178	-	-	-	-	-	-	-		
Sports Fields	-	1	50	-	50	178	-	-	-	-	-	-	-		
Total							2,230,660	446,132				195,600	2,872,392		

Remarks: For the building cost data issued by Cipta Karya on 1987/88 is applied
(Tentang Pedoman Operasional Pelaksanaan DIP Pembangunan Bangunan Gedung Pemerintah dan Perumahan Dinas Tahun Anggaran 1987 - 1988).
P.F.V. is Fixing, Furnishing and Yarns.

APPENDIX E EXAMPLES OF HOUSING DEVELOPMENT PROJECT

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SIMILAR PROJECT REVIEW

1. KEBON KACANG URBAN RENEWAL

1.1. BACKGROUND OF PROJECT

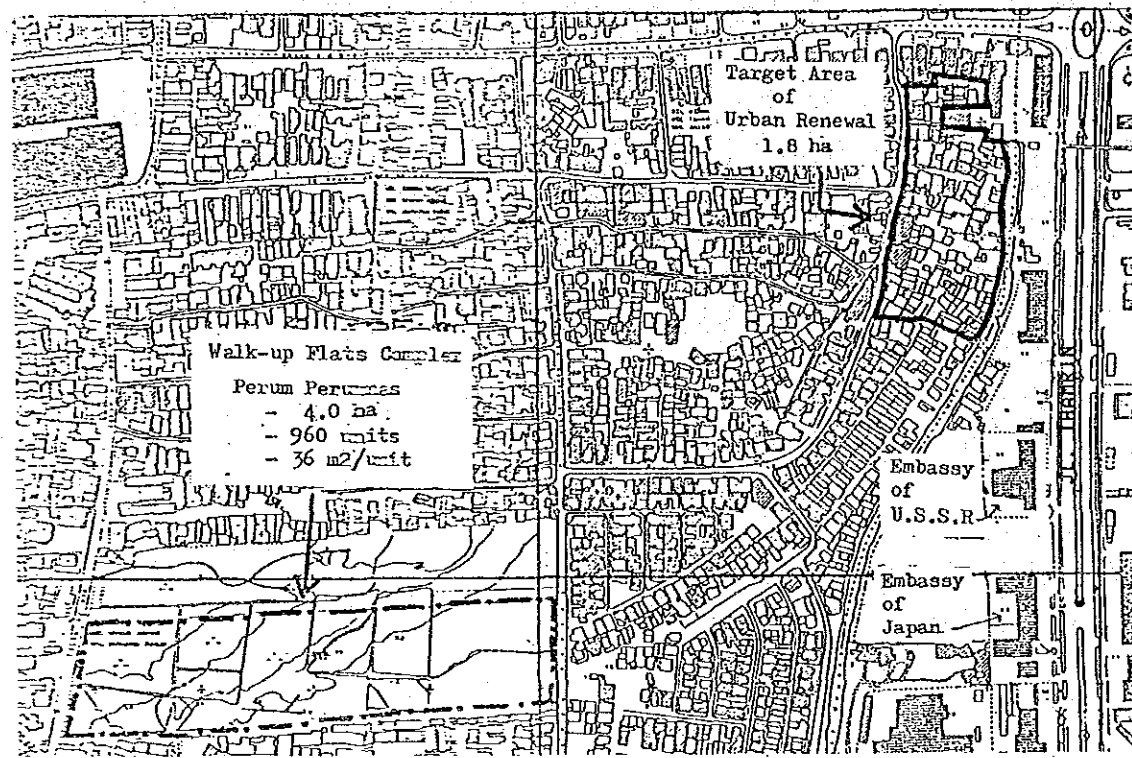


Fig. E-1 Location Map

Due to increasing migration from rural to urban area, urbanization has resulted in unbalanced population concentrations, which in turn induces illegal use of land for housing. Slum areas appear, depriving basic amenities necessary to lead an adequate life.

Aware of these problems, the government launched programs aimed to improve the urban housing system, such as KIP, to improve infrastructure and environment of existing kampungs-inferior pocket areas within the city.

Because the physical condition of several kampungs are of such characteristic that an improvement program would be inadequate to obtain desired results, the government formulated a comprehensive urban renewal program.

The Urban Renewal Program is aimed to provide the inhabitants of slum areas and kampung with a completely renewed and improved housing environment at their original place.

Kebon Kacang Urban Renewal is the first comprehensive urban renewal project in Indonesia, initiated by the Directorate General of Cipta Karya and executed by Perum Perumnas.

1.2. RENEWAL PLAN

1.2.1. Existing condition

Site location : Central Jakarta District, along Jl. M.H.Thamrin (Central Business Area)

Area : 18,208 m²

Number of habitants : 736 HH consisting of
- 357 land & house owners
- 30 house owners
- 77 monthly lessee
- 44 yearly lessee
- 228 free co-occupants

Occupation : 50% independent, small scale enterprise
: 25% labours (daily/weekly/non permanent)
15% private employees
5% government employees (incl. ABRI, retired)
5% others/

Existing houses : 36% permanent structure
 21% semi permanen
 50% moderate structure
 1% temporary structure

Average floor space : 20 m²
 Average nubmer of occupants : 6 persons

Existing Public
 Facilities : 2 mosque
 1 office
 2 restaurants
 3 small shops

1.2.2. Participation of inhabitants in Urban Renewal Plan

- 1) Inhabitants willing to resettle in the new dwellings at the original site : 162 HH, which have received temporary housing at the following :
 - 134 HH at Thamrin and Kebon Melati
 - 26 HH at Perumnas walk up flats
 - 2 HH at other places
- 2) Inhabitants who are resettled in other Perumnas site : 200 HH as follows :
 - 18 HH in Bekasi
 - 98 HH in Tangerang
 - 81 HH in Depok
 - 3 HH in Tanah Abang walk up flats
- 3) Inhabitants who have choosen to live elsewhere : 374 HH

1.2.3. Technical Data

Land Use Plan : Housing Area 54,9 %
 Public Facility 13,5 %
 Green Area 10,9 %
 Parking, pedestrian,
 open space 20,7 %

Number of units : 600 residential units consisting of :
 - F-21 368 units
 - F-42 160 units
 - F-51 72 units
 64 commercial units :
 - T-21 (Small space) 32 units
 - K-9 (Kiosk) 32 units

Number of blocks : 8 twin block flats (see fig. 1.2.2-A)
 Facilities provided :
 - Electricity 450 watt/unit (PLN)
 - Water supply with individual meter in each unit (PAM)
 - Gas line (PN Gas)
 - Kios and warung on each floor
 - 1 Septic Tank for each block (capacity 20,5 m³)
 - Mosque
 - Multipurpose hall 300 m² with space for kiosk
 - Parking area for 51 cars and 50 motorcycles
 - Public lighting
 - Power station (30m² by PLN)
 - Elementary school (provided by Pemda DKI Jakarta)
 - Garbage Disposal - 2 large types
 -10 small types
 - Footpath from conblock connecting each block

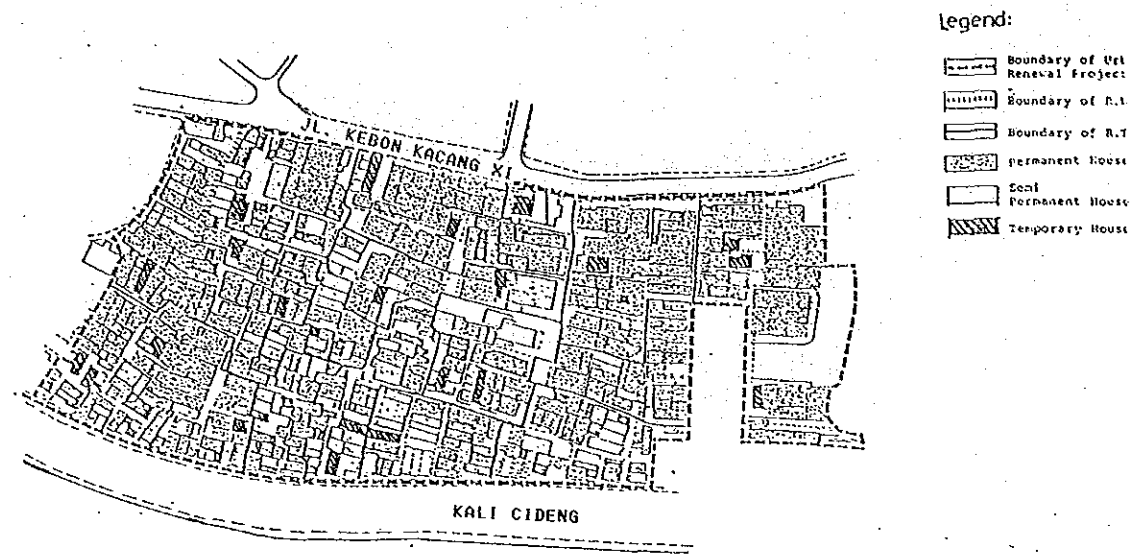


Fig. E-2 EXISTING CONDITION

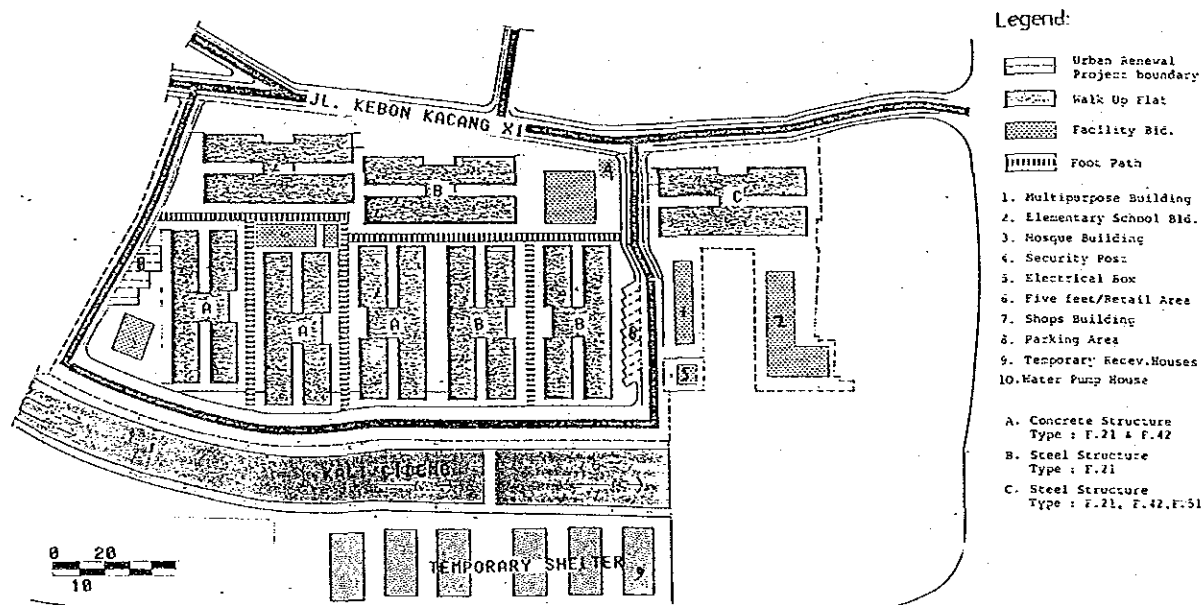


FIG. E-3 AFTER RENEWAL

1.3. INSTITUTIONAL ASPECTS

1.3.1. Decrees/Regulations Issued

There are 4 main decrees/regulations issued to support the Urban renewal Project :

- 1) Ministry of Public Works Decree No.69/JPTS/1981 on Establishment of Coordination Committee and technical team for Flats Development by Perum Perumnas (20 March 1981)
- 2) Board of Director Decree No. DIRUT/0861/KPTS/21/81 on establishment of Urban Renewal Project in DKI Jakarta-Kebon Kacang (16 September 1981)
- 3) Ministry of Public Works Instruction NO.01/IN/M/1982 on Urban Renewal in Kebon Kacang and Redevelopment of Ex Burned area in Palembang (5 January 1982)
- 4) Board of Directors Decree No.DIRUT/0200/KPTS/10/82 on Establishment of Urban Renewal Team in Perum Perumnas

The organization and work plan of this project is stipulated in Board of Director Decree No.DIRUT/0861/KPTS/21/81 (see fig.1.3.1.A)

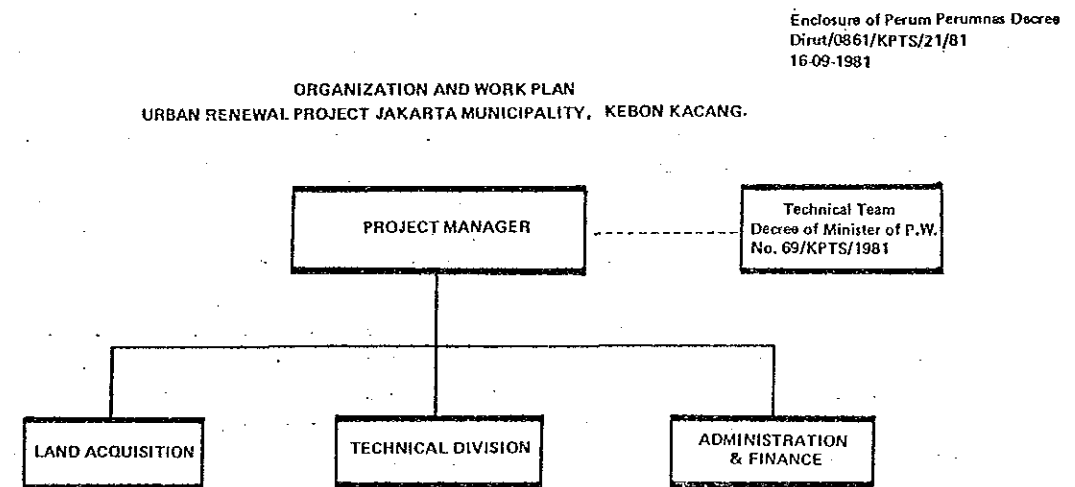


Fig. E-4 Organization Chart of Project

1.3.2. The General Procedure is shown in the following chart :

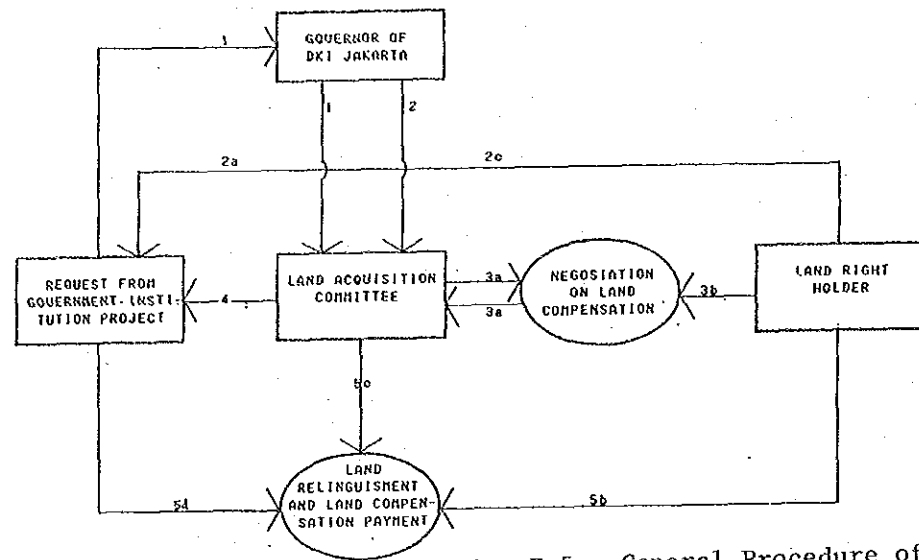
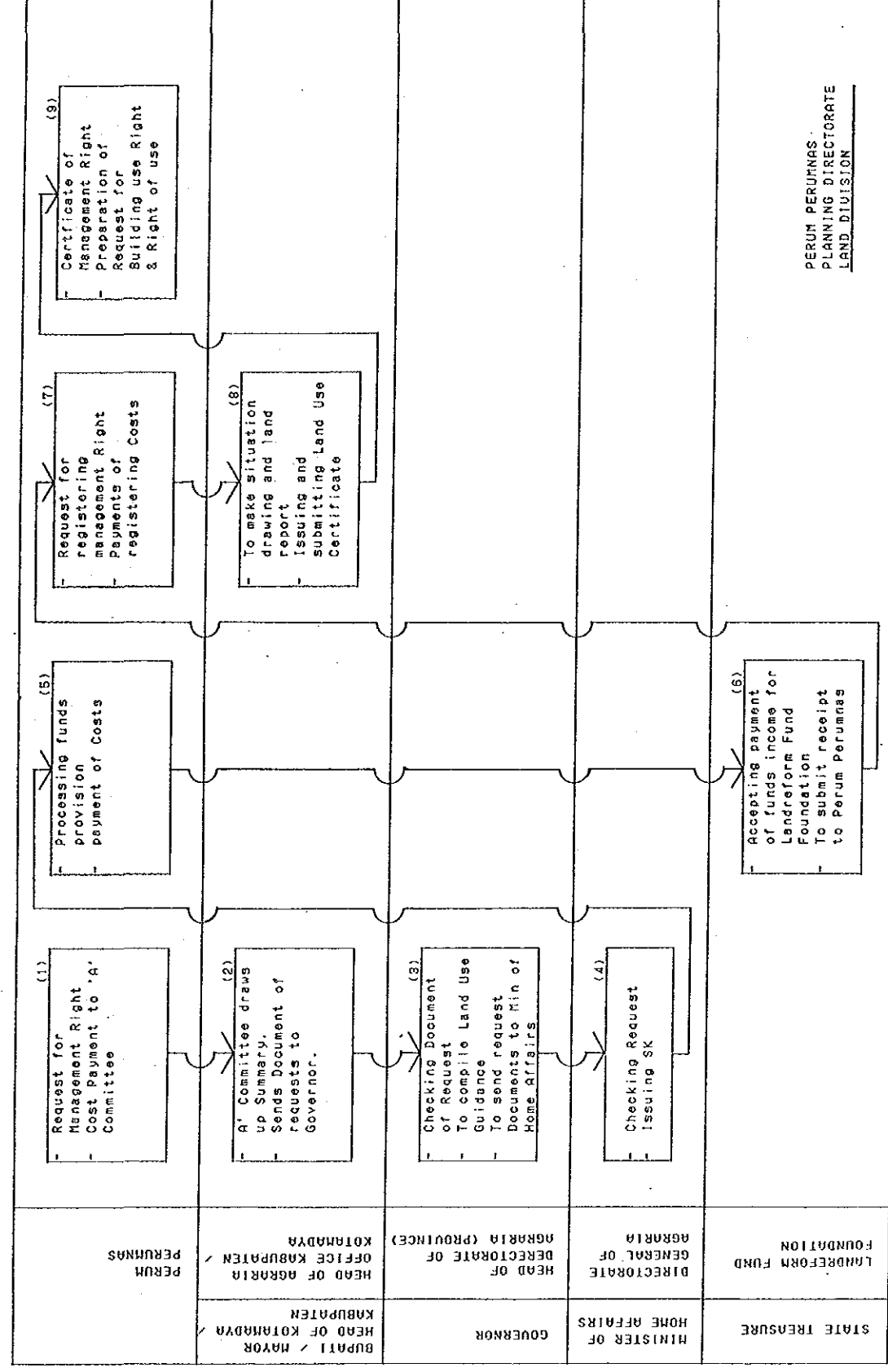
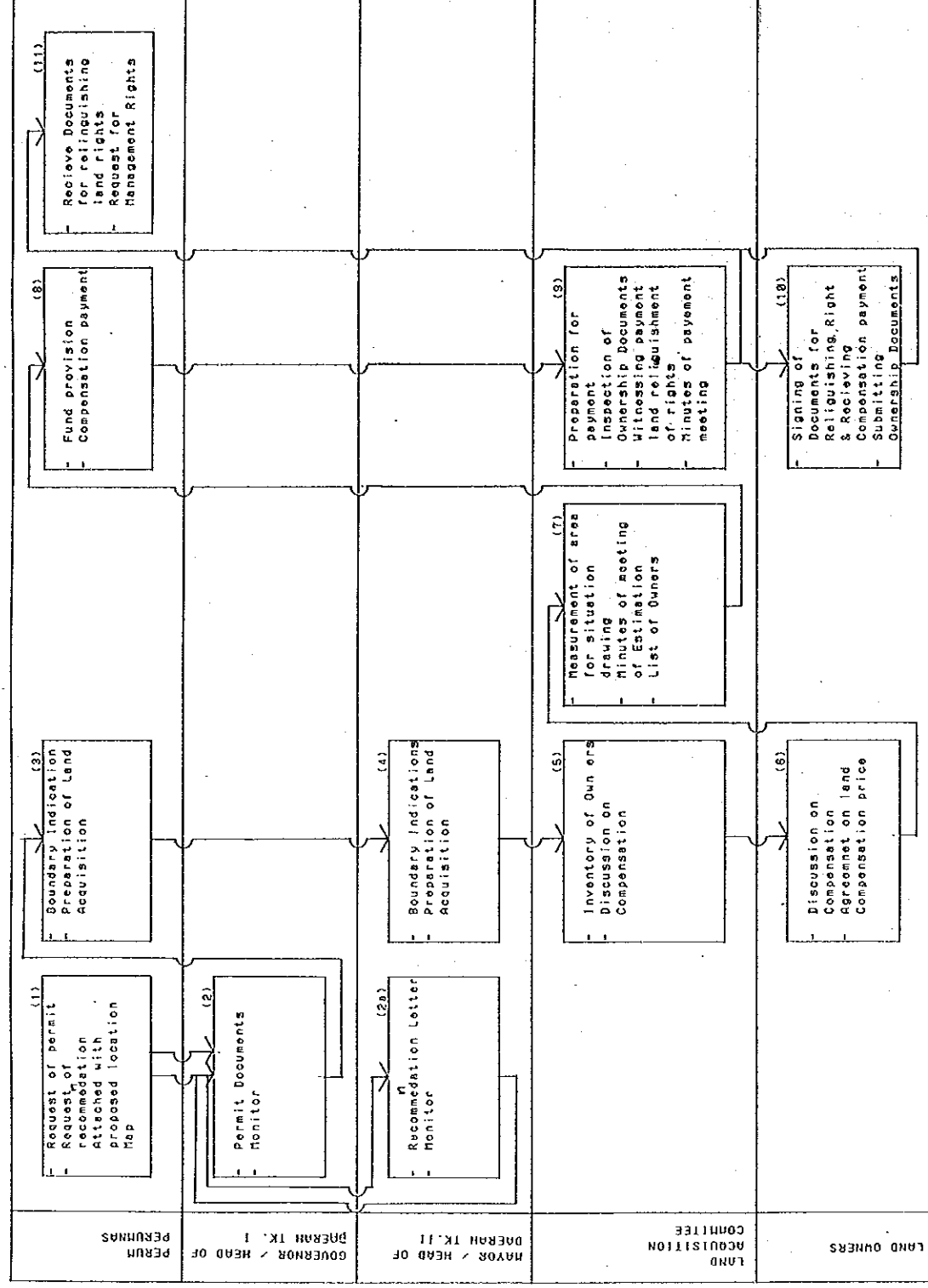


Fig. E-5 General Procedure of Project

Procedure :

- 1) Application letter for Land Acquisition permit from the Government (Involved in the project development) to the Governor
- 2) Decision of the Government on the land control, status and acquisition of area to be carried out by concerned government institutions
 - 2a Notify above-mentioned Governors' Decision to the Government concerned
 - 2b Notify above-mentioned Governors' Decision to the land acquisition committee (Pantry 9)
 - 2c Notify above-mentioned Governors' Decision to the land owner concerned
- (3) Discussion/Negotiation between land acquisition committee and land owner to determine land price
 - 3a Data/certificate for discussion to calculate land price
 - 3b Data/certificate for on evidence of land ownership rights
 - 3c Letter of agreement on the compensation rate based on the discussion

- 4 Information on the agreed compensation price to the Government/applicant concerned with following attachment :
 - Name list for compensation
 - Certificate
- 5a Payment of compensation directly to the land owner being undertaken by Government/Applicant by own cost, with name list for the compensation and certificate of housing land ownership.
- 5b Submission of evidence for land ownership from the land owner for compensation
- 5 Transaction, payment of compensation from applicant, based on the releasement of land ownership.
 - 5c Statement of Performance (Berita Acara pelaksanaan) on payment for compensation made by the committee. (After completion of payment for the above entioned compensation, the committee as a witness and both of applicant and land owner will sign it)



1.4. IMPLEMENTATION

The main activities implementation in this project can be seen in the fig. below.
 A slight delay in the land acquisition process occurred during negotiation of compensation.

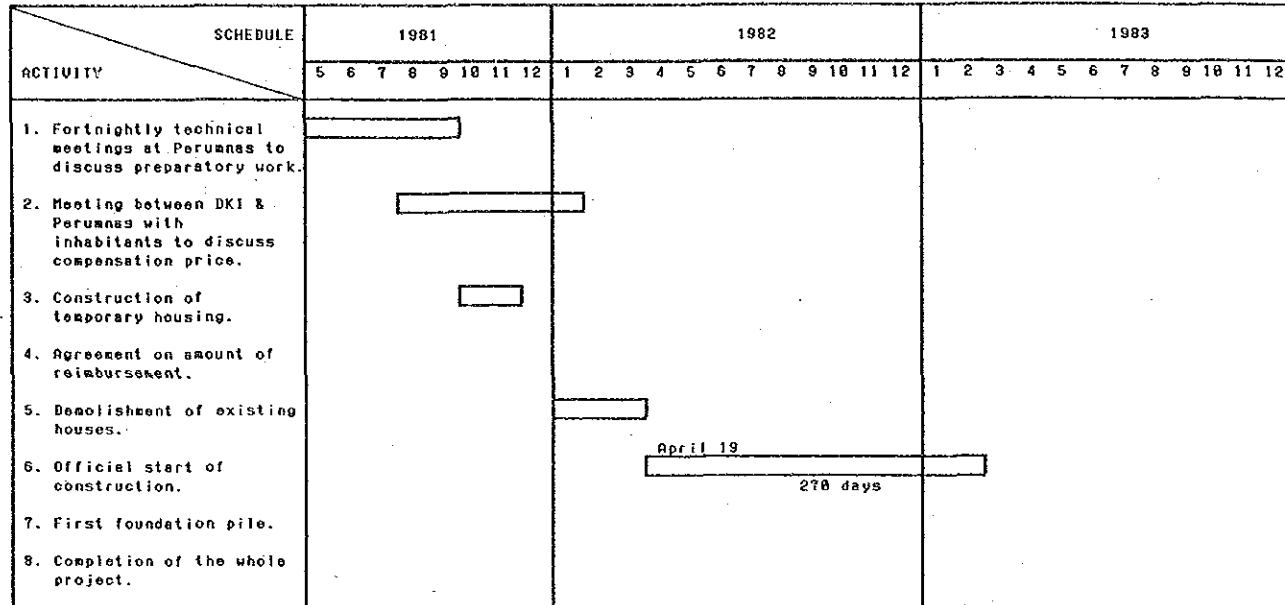


Fig. E-8 Implementation Schedule

1.5. FINANCE

The total cost for this project was Rp 4,317,658,349.92
 The large portions of this cost were mainly used for
 - Land acquisition Rp 1,490,096,173.82 (+ Rp 82,000/m²)
 - Construction Rp 1,926,332,909.-

Funds for land acquisition came from the Perum Perumnas budget.
 Funds for construction in the first year came from the Perum Perumnas and the World Bank.
 Later on the World Bank decided to withdraw from the project, because financing flats was not in accordance with their policy.

1.6. MANAGEMENT

Management of the flats in Kebon Kacang are still the responsibility of Perum Perumnas because expenses are higher than predicted, due to the low quality construction of building and installation systems that causes high maintenance costs, Perum Perumnas is still giving subsidy to the management unit.

The low quality construction and installations is very much criticized by the tenants.
 Better designs and construction with adequate facilities and affordable prices are expected in the future development

2. PENJARINGAN URBAN RENEWAL

2.1. BACKGROUND OF PROJECT

In June 1984, a fire occurred in Kampung Baru, Kelurahan Penjaringan, Kecamatan Penjaringan in Northern Jakarta. The burned area consisted of state land (tanah garapan), + 10,52 ha. About 11,293 people (2059 households) were left homeless. A total of 1725 housing units were burned down.

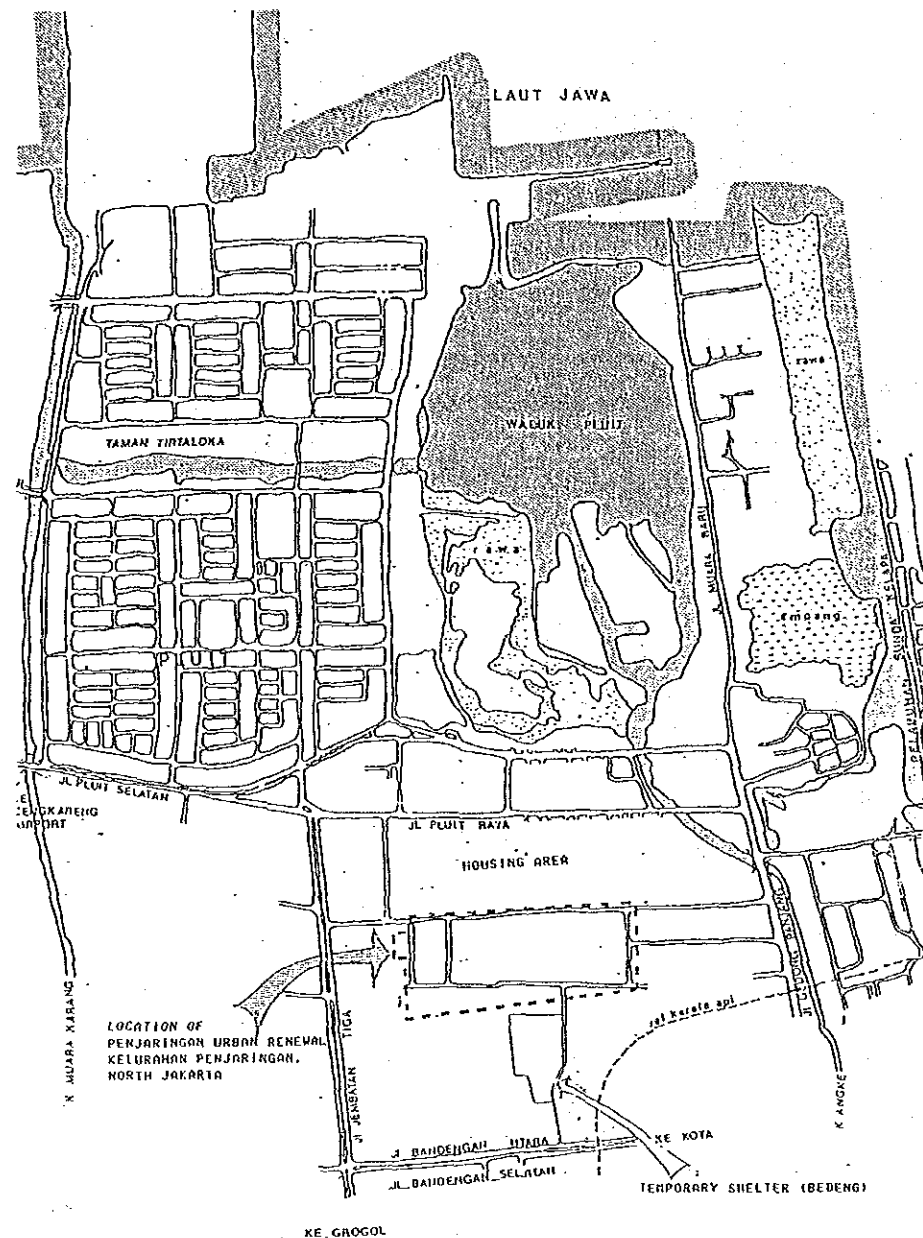


FIG. E-9
LOCATION OF PENJARINGAN URBAN RENEWAL

To avoid future squatter development, the government took actions to control the utilization and redevelopment of the area. The area was decided as a resettlement area for the people left homeless in the fire, and utilization and construction of area was prohibited before any plans were made by the government.

After discussions between the Governor of DKI Jakarta and Minister of Public Housing, the area was decided to be utilized for urban renewal (flats), with the land use as follows :

- 60% of area to be used for flats and public facilities
- 40% for tollroad, green belt and high voltage line

Institutions within the local Government received tasks to carry out this program (see Gov. of DKI Jakarta Decree No.609/1985)

Meanwhile, the Ministry of Public Housing acting as coordinator, proposed the area for the Pilot Project of Rental Housing Development in Jakarta to Bappenas, which later on instructed the Ministry of Public Works c/q Directorate General of Human Settlements to conduct the project.

2.2. RENEWAL PLAN

2.2.1. Existing Condition

Area burned down : 10,16 ha
 Families left homeless : 2059 HH
 Population : 11.293 people
 Number of houses burned : 1725 units
 Average house area : 15 m²/unit

Composition of income level :

Income (Rp)/month	%
40,000 - 50,000	43,7
60,000 - 99,000	31,1
100,000 - 149,000	14,1
150,000	11,1

Number of people with regular income : 741 people

Number of people with non fix income : 1069 people

2.2.2. Technical Data

1) Land Use Plan

- Housing : 4.24 ha (41.7 %)
 - Public facilities : 1.7 ha (16.7 %)
 - High tension line : 2.07 ha (20.4 %)
 - Toll road for Cengkareng-Tg. Priok : 2.15 ha (23.2 %)
 10.16 ha (100 %)

2) Development target

2400 rental units priority for ex-community of burned area and aimed for :

- a. Low income group, with no regular income and not included in Perum Perumnas program
- b. Middle income groups, with regular income or high mobility which do not need ownership housing yet.

3) Development Phase

Phase I : Constructed by P.T. PPL Pluit

- Area : 0.7 ha
- Units : 384 type 18
- 3 blocks of 4 storey housing

Phase II : Constructed by Ditjen Cipta Karya c/q Pilot Project for Rental Housing Development

Area : 1.6 ha

No. of Units : 318 units, consisting of :

- Type 18 shop : 16 units
- Type 18 : 140 units
- Type 36 : 146 units
- Type 54 : 16 units

Buildings/infrastructure constructed

- 2 blocks using conventional system
- 2 blocks using wika II system
- 1 management Office
- 1 multi purpose hall (295 m²)
- roads, drainage, parking area and green space

Phase III: 1300 units - 4 storey and 8 storey flats with ownership system, to be developed by Perum Perumnas and PD. Sarana Jaya (in the process Perum Perumnas withdrew from this project)

Phase I and Phase II have been completed in 1987

Facilities provided by other institutions :

1. PAM DKI Jaya : - 1 unit ground reservoir with underground water installation
 - 1 fire hydrant
2. PLN Jakarta : Electricity supply with outdoor installation and street lighting

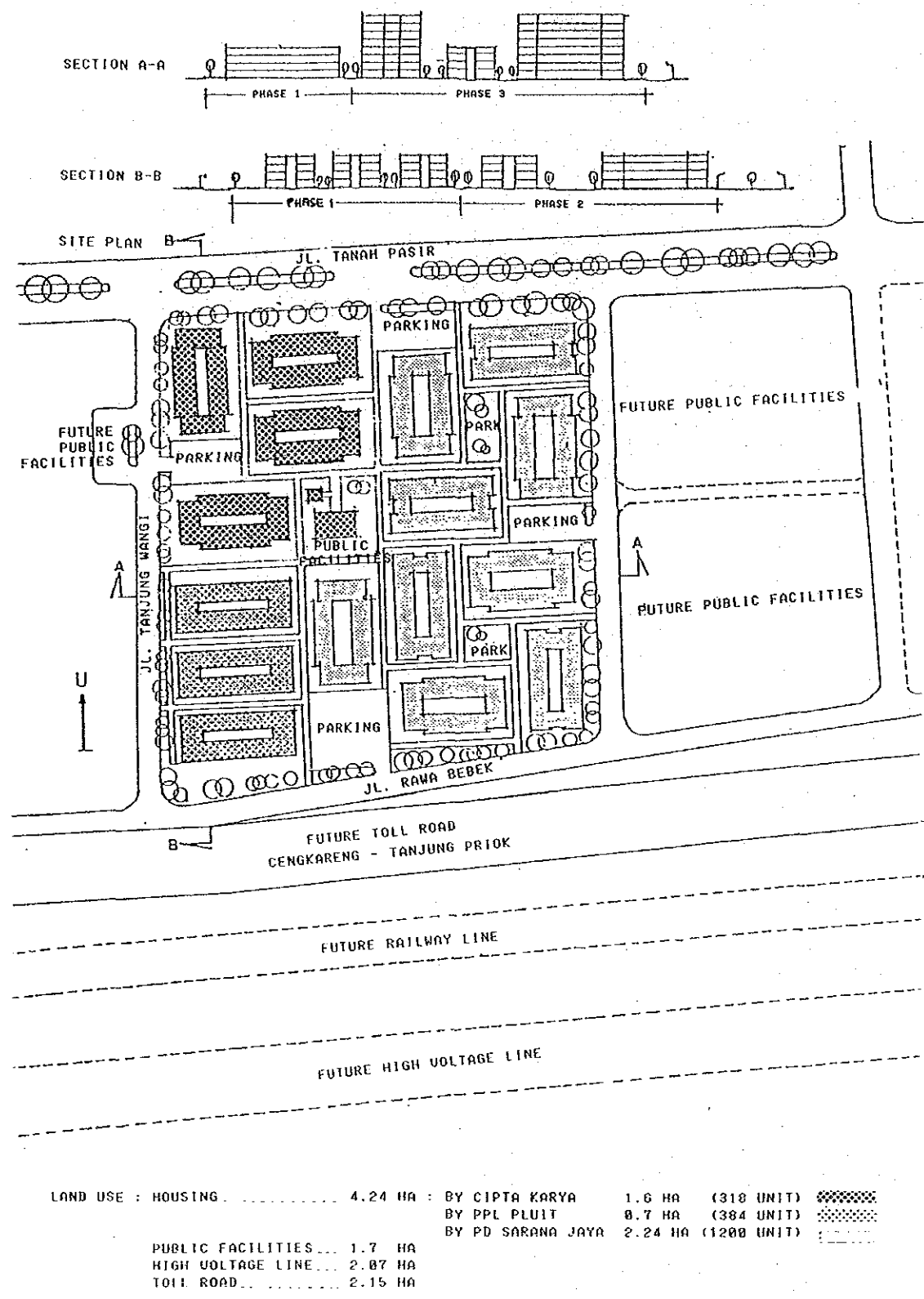


Fig. E-10 DEVELOPMENT PILOT PROJECT IN PENJARINGAN,

2.3. INSTITUTIONAL ASPECTS

2.3.1. Basic Organization

The basic relationship between agencies/government institutions involved within the Penjaringan Urban Renewal is divided into 2, the central government and the local government.

The central government side is coordinated by the Minister of Public Housing and implemented by the Directorate General of Human Settlement, Ministry of Public Works through the Rental Housing Pilot Project in Jakarta.

The local government side is coordinated by Biro Pembangunan Daerah, Implementation is conducted by :

- 1) Agencies within the Jakarta Municipality, such as Dinas Kebakaran, Dinas Khusus, Dinas Kebersihan
- 2) Regional government enterprises, such as PPL Pluit, PD Sarana Jaya, PD Air Minum
- 3) State enterprises such as PLN, PN. Gas

Each institution involved in housing development is in charge of its own land acquisition. Clarification on task of each agency/institution involved in Penjaringan Urban Renewal is described in the Fig.

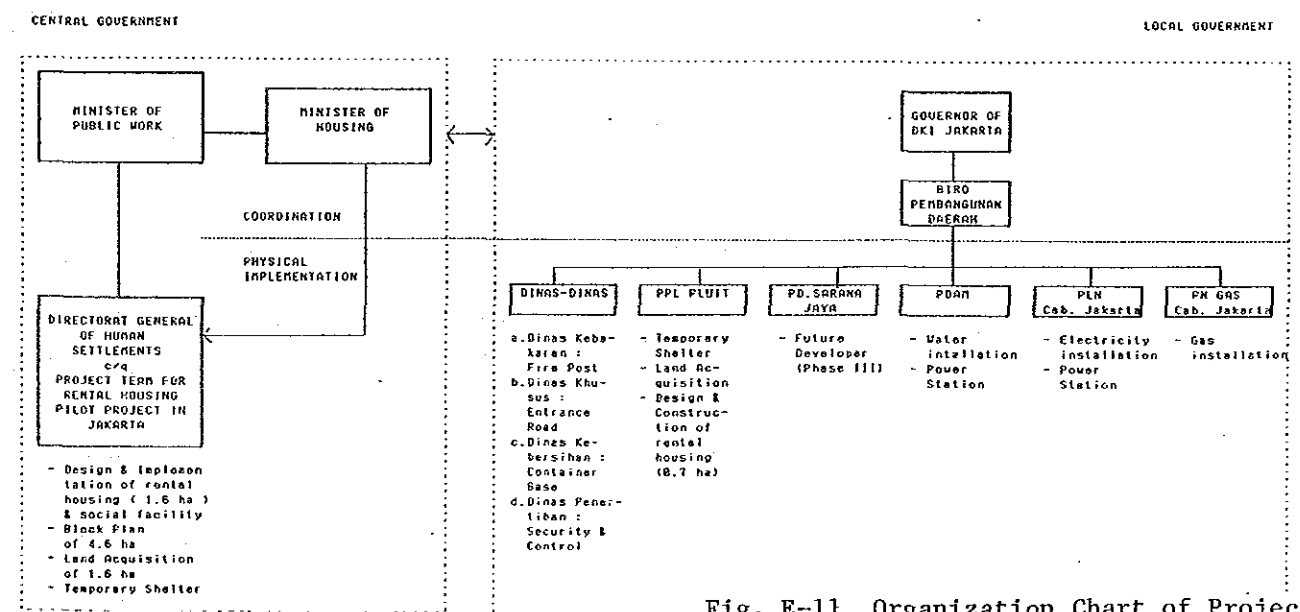


Fig. E-11 Organization Chart of Project

2.3.2. Land Acquisition

The land acquisition procedure in Penjaringan is based on Ministry of Home Affairs Regulation No.15/1975. Each government agency involved in the development is responsible for the land release.

For phase I and II, Cipta Karya and PPI Pluit were in charge of the housing development. The general procedure for land acquisition is as follows :

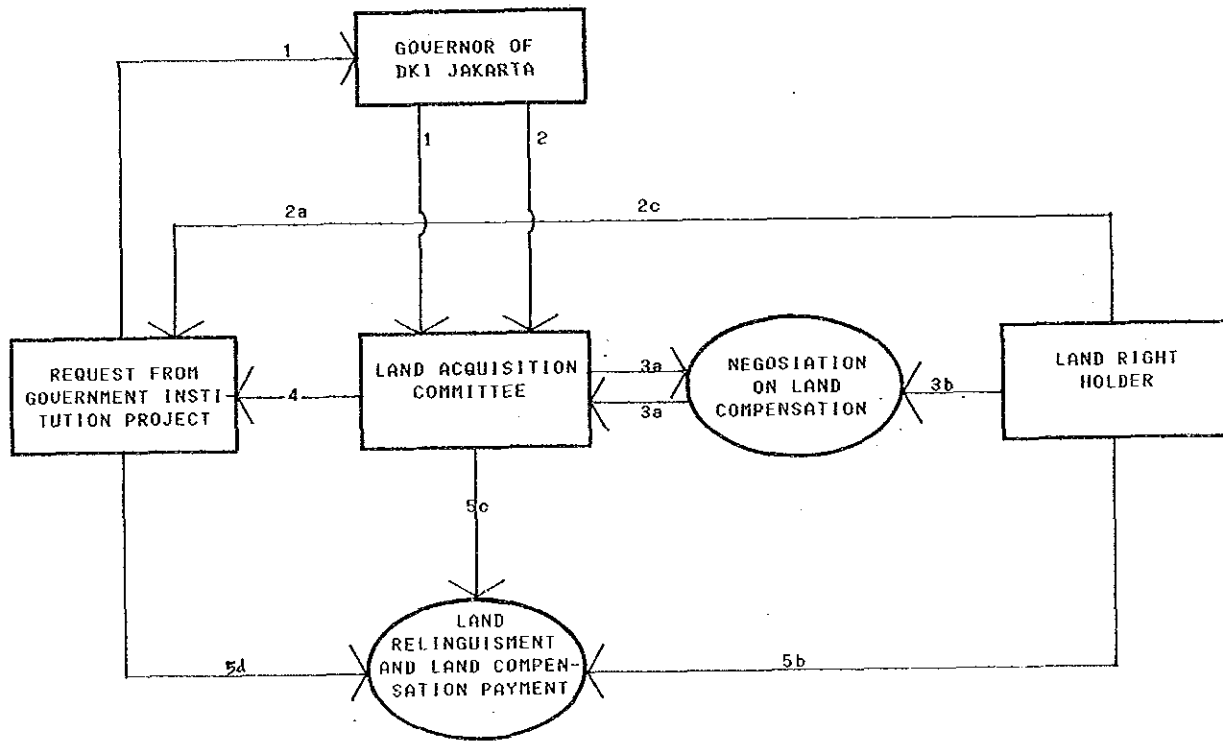


Fig. E-12 General Procedure of Land Acquisition

NO.	ACTIVITY	OFFICIAL INVOLVED	GOALS	PROCESS	FINAL RESULTS	NOTES
1	Area Measuring	1. Mayor 2. Agraria 3. Kamtib 4. Bag. Pembangunan 5. Public Relation 6. Camat. Lurah	1. Measurements 2. Area 3. Boundary 4. Number of RT/RW	- Report to Governor	1. Governor Decree on Area Control/ Authority. 2. Land controlled by Government. 3. Security of area and inhabitants.	Based on Min. of Home Affairs Decree No. 2/1985. : 1. Areas < 5 Ha can be freed by Project Manager (Without Committee 9). 2. Areas > 5 Ha must be freed through Committee 9.
2	Land and Building Inventory	1. Mayor 2. Agraria 3. Kamtib 4. Bag. Pembangunan 5. Public Relation 6. Camat. Lurah 7. Tata Kota	1. Accurate Data Gathering. 2. Land & Building Rights. 3. Population/Household	1. Mayor and Local Governor Aparatur Hold Meeting to compile status of Land Use. 2. Mayor proposes to Governor The Land Use Status.	- Governor Issues Decree for Land Use as proposed : Decree No. 689/1985. Housing, Public facility high tension line, toll road.	
3	Land Use Marketing	- Local Government and Central Institutions.	- Request from Government Institutions, private & public who will use the land.	- Proposal offer to Government Institutions Private Sectors, Real Estate to Build on That Area.	- Request from Government Institutions Private Sector, Real Estate for Using Land - Committee Formed.	
4	Committee 9	1. Mayor 2. Agraria 3. Bag. Pembangunan 4. Camat/Lurah 5. Investor/Proyek - Committee 9	- Automatically formed based on Min. of Home Affairs Decree. No. 15/1975.	-	-	
5	Land & Building Taxation	- Committee 9	1. Land price per m ² 2. Building price per m ²	- Proposal to Governor.	- Governor Decree on Land Price. No. 113/1986.	
6	Counseling	1. Mayor & Aparatur 2. Local Gov. RT, RW, Community 3. Project Aparatur 4. Kamtib 5. Tata Kota 6. Investor	- Explanation to Inhabitants about Development Plans.	1. Negotiation with Community Governments 2. Price Agreement	- Acceptance of Governments Decision.	
7	Land and Building Compensation	- Committee 9	- Submission of Land & Building Rights.	- Payment of Land Compensation ; Cash, Deposito.	- Areal Freeing.	
8	Administrative Settlements	- Committee 9	- SPH - Surat Pelepasan Hak Letter to Relinquish Rights. - Land Certificate.	- Signing of Documents.	- SPH Documents.	
9	Certificate	1. Mayor 2. Agraria	-	1. Request for Land Right Documents. 2. Administration Costs.	- Certificate.	

FIG. E-13 LAND ACQUISITION PROCEDURE FOR PENJARINGAN

Procedure of compensation payment can be described as follows :

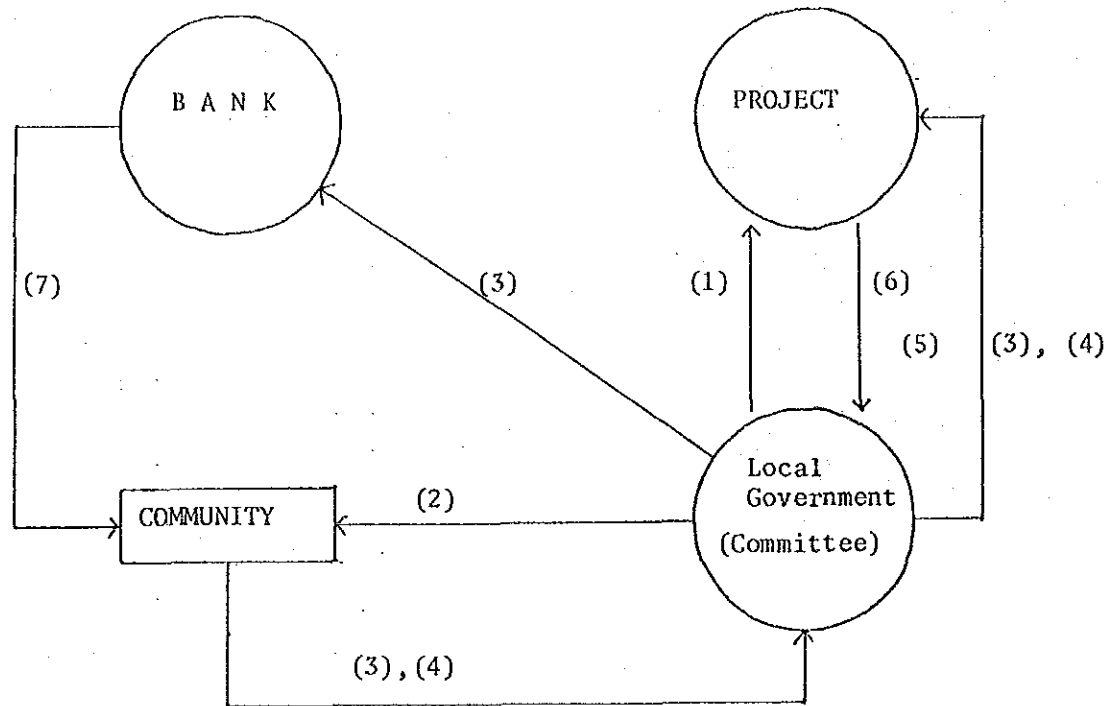


Fig. E-14 Procedure of Compensation Payment

1. Committee proposes plan for compensation and submits list of names of participants for compensation, that will be paid to Bank and project.
2. Committee assisted by project staff and Bank carries out payment of compensation to inhabitants (20% cash and 80% in the form of deposit).
3. The signed receipt (by inhabitants and Project Manager) is submitted to the committee. The genuine receipt is filed by the project and the other copy is filed by the Bank.
4. Letter of relinquished rights is submitted to the committee and later on forwarded to the project as evidence for relinquished right of land.

5. After payment of compensation is completed, the committee submits name list and amount of compensation signed by inhabitants, and legalized by the committee to project as evidence besides the receipt.
6. Project submits administration cost for execution of compensation to the committee.
7. The Bank distributes deposit books to inhabitants

Based on Governor of DKI decree No.113/1986, compensation payments are paid in 2 ways :

1. Though deposits according to Governor of DKI Decree No.833/1985 in which inhabitants may receive 20% of the compensation in cash.
2. Cash for inhabitants who do not wish to stay in Penjarangan flats.

2.4. FINANCE

Financing of this project is mainly from the local government budget and central government, depending on which institute is involved.

For the implementation of 4 blocks of flats & infrastructure including land acquisition by Ministry of Public Works the total budget was Rp 4,759,829,013.- starting from DIPP 1984/1985 until DIPP 1987/88.

consisting of :

- Project administration	Rp 151,491,836.-
- Land acquisition	Rp 952,863,317.-
- Construction/Physical Dev.	Rp 3,759,829,013.-
	Rp 4,759,829,013.-

2.5. MANAGEMENT

The management of the units were authorised to the local Government c/q PD. Sarana Jaya

The rental tarif was based upon :

- affordability
- relieve for inhabitants in temporary shelter
- government subsidy
- cross subsidy between housing types (T-18 subsidized by T-36 & T-54)
- Building deprisiation
- exlution of land price
- to meet management costs
- daily and monthly rental tarif

A socio-economic survey was done to determine rental tarif of T-18, this tarif also includes utility costs such as electricity water and gas, besides management cost.

Ex-inhabitants of burned area recei ed subsidy so the rental tarif was lower See

Occupancy rate in PPL Pluit flats are 100%.

In the Cipta Karya flats, occupancy rate in T18 is 100%, but in T36 and T54 occupancy rate is very low (below 20%).

According to the management unit, the low occupancy rate in T36 and T54 is due to the high rental price that is not affordable for the inhabitants, which are mainly from low income groups.

TYPE	RENTAL TARIF PER DAY (AVERAGE)		
	EX BEDENG OCCUPANTS Rp.	PUBLIC/ OUTSIDERS Rp.	
T18 PPL PLUIT	1,100	1,500	Subsidy is given to ex bedeng occupants. Tarif includes electricity, gas and water bills.
T18 CIPTA KARYA	1,500	2,500	
T36	2,500	4,000	
T54	5,000	6,000	
SHOP	3,000	3,000	

Table E-1 Rental Tarif

3.1 SENEN TRIANGLE URBAN RENEWAL

1) BACKGROUND OF THE PROJECT

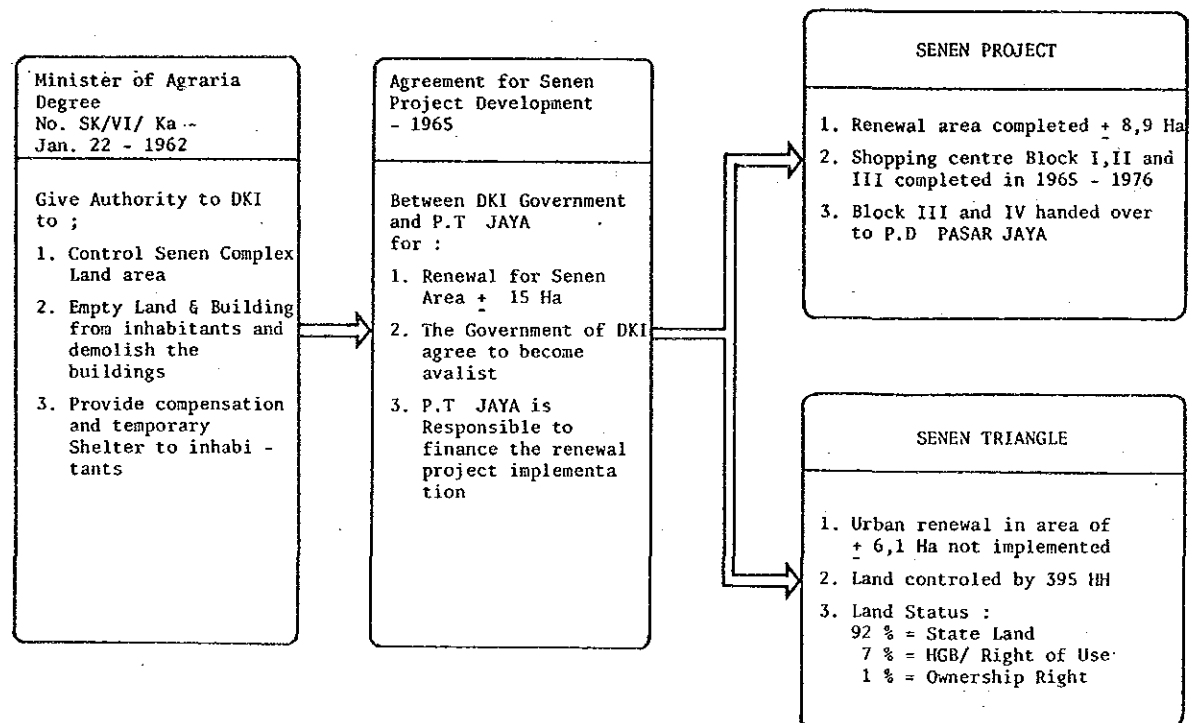
The Senen Market was renewed as Project Senen (+ 8.9 ha) in the early 70's. As it was decided in the Jakarta Master plan 2005, the Senen area will be developed into one of the 8 primary centres for trade and commerce in Jakarta.

The existing condition of Senen Triangle (+ 60.594 sqm) is far from expected - consisting of old buildings with in adequate environment conditions.

For this reason, the Senen Triangle should be renewed according to its function.

P.D. Pembangunan Sarana Jaya received authority to conduct this development.

BACK GROUND OF PROJECT



2) EXISTING CONDITION

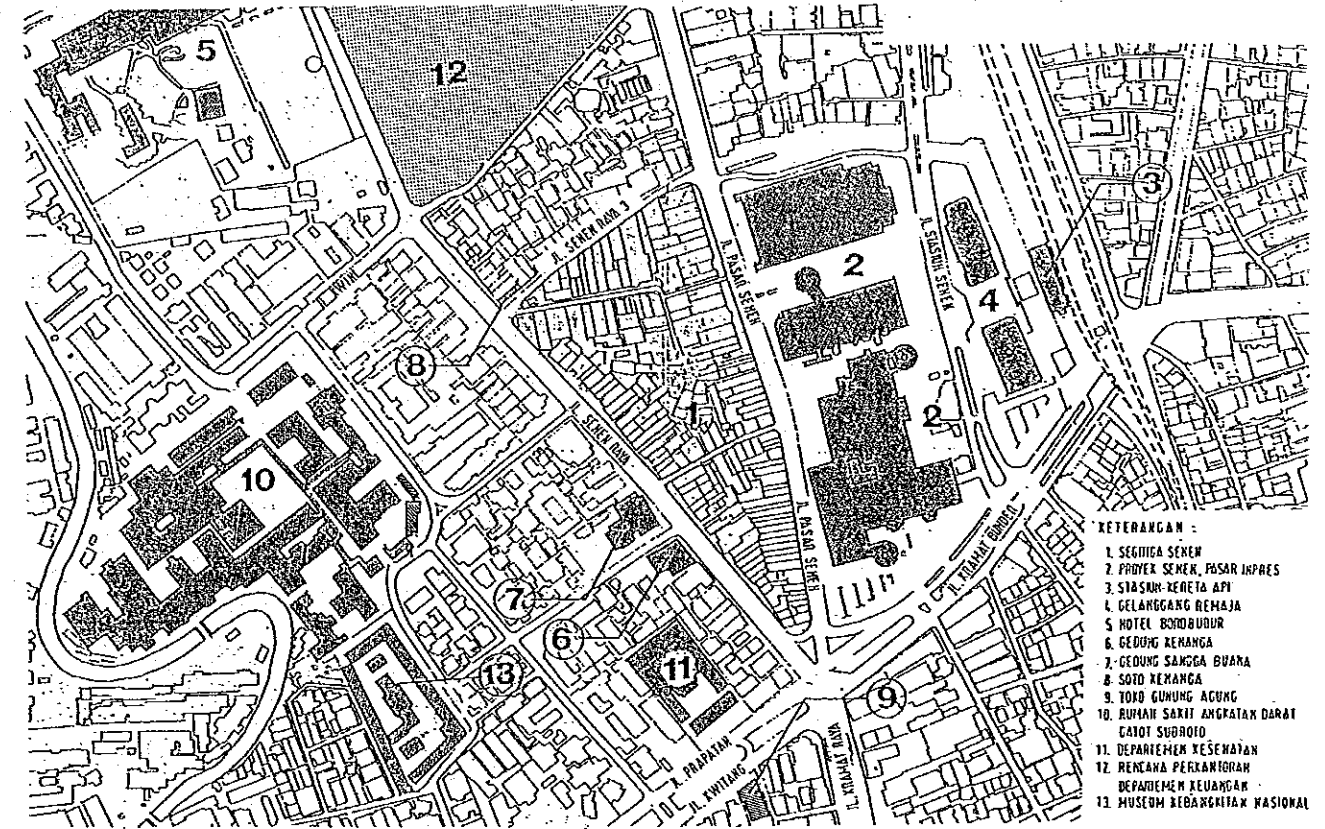


Fig. E-15 Location Map

Total Area	:	+ 60.594 sqm
Boundaries	:	Jalan Senen Raya III Jalan Pasar Senen Jalan Senen Raya
Population	:	+ 1669 p (+ 413 Households)
Existing Building function	:	
residents	:	42.61 %
bussiness	:	8.47 %
residents+bussiness	:	73.12 %

Inventory on land and building status and clarification of whom will receive compensation has already been made.

Most inhabitants are occupying state land (92%), 7% have building use right and 1% has ownership rights.

3) THE RENEWAL PLAN

(1) Land Use Plan

The Senen Triangle is ± 60.594 sqm. About 10.005 sqm will be used for road expansion of Jalan Pasar Senen.

The remaining land will be used for :

- Shop houses
 - Land Area : 23.194 sqm (45,7%)
 - Building : 51.411 sqm consisting of 155 units in 10 blocks (4 storey)

- Shopping Centre
 - Land Area : 16.638 sqm (32,9%)
 - Building : 43.549 sqm, consisting of 2 blocks provided with shops, department stores, restaurants and children recreation

- Middle Class Office Centre
 - Land Area : 5.834 sqm (11,6%)
 - Building : 18.234 sqm consisting of 4 & 8 storey building

- Hotel (3 star - business class)
 - Land Area : 4.923 sqm (9,8%)
 - Building : 19.500 sqm, consisting of 10 storey building with 280 rooms

Open space and parking area (1711 cars) are provided among the buildings and in basement (this level is not included in number of storeys mentioned above) space for the informal sector is also provided.

Clear and systematic building forms and space are important to support the various activities without disturbing each other. Consideration is given for clear land ownership boundaries to enhance the development and management of the complex.

Priority is given to pedestrian circulation. Eventhough cars can reach the top floor, pedestrians are free to move and enter the buildings safely from the ground floor.

Each corner and open space will have its own characteristics.

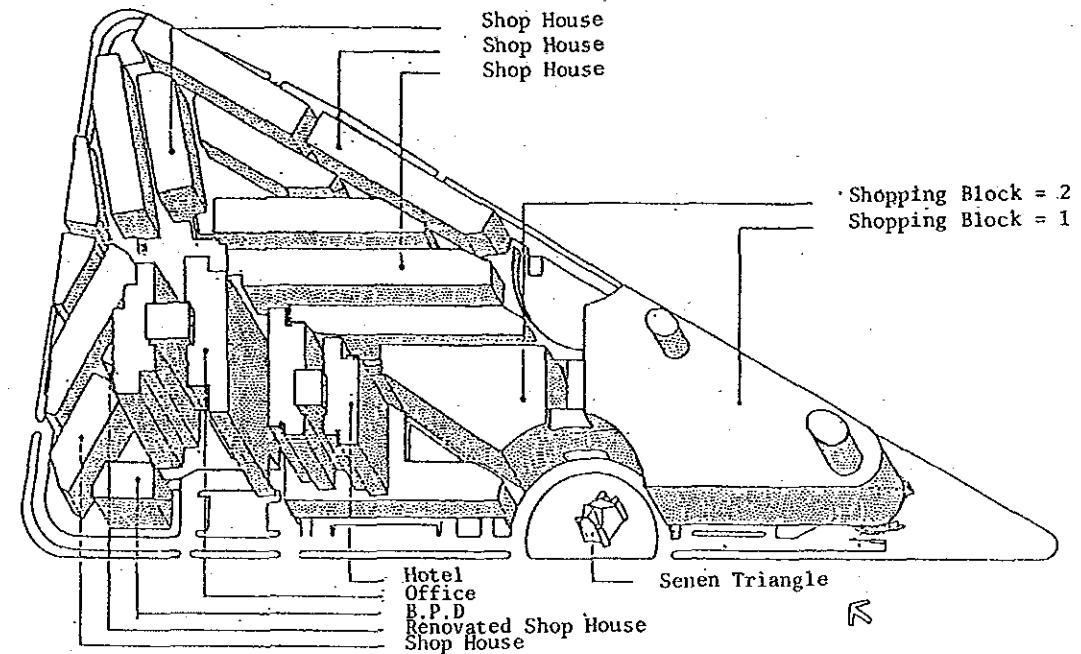


fig. E-16 Renewal Plan

(2) Implementation

a. development Schedule

NO.	ACTIVITIES	YEAR																		
		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997									
1.	TEMPORARY SHELTER/ HOUSING PROJECT	→																		
2.	LAND ACQUISITION	→																		
3.	DEVELOPMENT BY P.D. PEMBANGUNAN SARANA JAYA			→			⊕													
4.	SALES																			
5.	RENT																			
6.	RETURN OF INVESTMENT																			

NOTE : ⊕ OFFICIAL OPENING CEREMONY

Fig. E-17 Development Schedule

Preparations for the temporary housing project in Sunter have begun since early 1988. Negotiations for land acquisition have started in August 1988. The construction itself is scheduled to start in October 1989 and will end in January 1990.

b. Land Acquisition

Inventory on the inhabitants and land/building status has been completed. This is important to determine the classification for land compensation. The formal land price for compensation has already been decided. Although some inhabitants may think it too low compared with the market price. Negotiations with inhabitants are still being carried out.

Temporary shelter/housing is provided in 2 locations :

1. Sunter Agung Podomoro ± 104.060 sqm
This land was purchased by the DKI Government from P.T AGUNG PODOMORO.

Previous residents of Senen Triangle are to be of the Senen Triangle area. But as an alternative, they may buy the developed land lots (Kavling tanah matang) at 60% market price.

The location will be ready in February 1989.

2. Senen Triangle Area ± 10.000 sqm reserved land for future road expansion. Before road construction, this area may be used for temporary commerce activities until the shops are completed.

The schedule for land acquisition is as follows :

No.	Activity	Year	1988	1989	1990	1991	1992	1993	1994	1995	1996
1	Compensation Confirmation		→	11 August 1988							
2	Guidance for Inhabitants		→	(end of November 1988 - end of December 1988)							
3	Administrative Preparation Compensation payments		→	(Middle of November 1988 - end of November 1988)							
4	Compensation		→	(middle of December 1988 - middle of February 1989)							
5	Consignation		→	(middle of February 1989 - beginning March 1989)							
6	Demolition Implementation		→	(beginning April 1989 - end of May 1989)							

Fig. E-18 Land Acquisition Schedule

c. Institutional & Financial Aspects.

Based on the Governor of DKI Jakarta Decree no. 1171/1988 dated June 25, 1988, P.D. Pembangunan Sarana Jaya was appointed as manager and executing agency for the development of Senen Triangle Urban Renewal.

The Senen Triangle Unit was formed under the P.D. Pembangunan Sarana Jaya to carry out this task, working together with the local government.

Finance for land acquisition will be provided by the Ministry of Finance with very low interest rate.

A consortium of banks will finance the buildings managed by P.D. Pembangunan Sarana Jaya.

Investors and developers will finance the buildings developed by a third party. The total budget for this project is estimated Rp 120,000,000,000.-

Previous land rights will be compensated accordingly. P.D. Pembangunan Sarana Jaya obtained the management rights (hak pengelolaan). The developed land lots in Sunter will be sold with "hak guna bangunan".

The land titles in Senen Triangle are still being studied, but it is obvious that no ownership rights will be issued. Shop houses may be sold with "hak guna bangunan", if the hotel and office are handed over to a third party (developer/investor) if may be with "hak guna usaha" or "hak guna tanah". But it is still not decided yet.

Relationships between agencies involved in the Senen Triangle Urban Renewal can be seen in this diagram:

ACTIVITY	INSTITUTION	LOCAL GOVERNMENT OF DKI	EXECUTING BODY PD. PEMBANGUNAN SARANA JAYA	SEKEN TRIANGLE UNIT	FINANCE		THIRD - PARTY		CONTRACTOR	CONSULTANT	NOTES
					MINISTRY OF FINANCE	BANK CONSORTIUM	INVESTOR	DEVELOPER			
I	Signing of Loan	Approval	Debitur		Creditor						
II	Responsibility of Loan	Acknowledgment	Bearer of Responsibility		Legalization						
III	LAND ASPECTS • Land Acquisition • Law Enforcement • Consignation	Executor Executor	Finance Finance Executor	Treasurer Treasurer Treasurer							State Court
IV	DEVELOPMENT • Planning • Auction/ Tender • Development / Construction • Joint Venture	Approval/ Building permit Permit	Bearer of Responsibility Bearer of Responsibility Bearer of Responsibility Bearer of Responsibility	Executor Executor Executor Executor		Finance		Investment	Executor Executor	Planner/ Designer Planner Public Notary	
V	Developed Land Sales	Permit	Bearer of Responsibility			Finance Investment				PPAT	
VI	Marketing									Marketing	

Table E-2 Institutional Relation

4. URBAN LAND CONSOLIDATION (ULC) PILOT PROJECT IN BANDUNG

1) BACKGROUND OF STUDY

Nowadays, the land provision in Indonesia is carried out by land acquisition. The main problems of this method is the limited budget for land compensation and the high land price thus, it is difficult to reach an agreement between the land owners and the government. Besides that, it also consumes a lot of time for the procedure.

ULC research are based on those social and economic problems. The main objective is to find an applicable model for ULC on the basis of Indonesian situations and conditions.

The target of research are as follows : preparing law and regulations, preparing the executing institution and organization, finding standard operation procedures, methodology, criteria of site selection and feasibility study.

The tentative definition of ULC was formulated as follows :

"ULC is an integrated activity to rearrange areas from the irregular situations to regular situation and provide infrastructures and other facilities to achieve the optimum land use by the selfhelp of land owners"

The effect of the project was to increase land value in the project site.

This hypothetical model had been tested in a small pilot project in Bandung Municipality, Kiara Condong district, Babakan Surabaya Village, within an area of 7,7 ha.

2) EXISTING CONDITION

Location : Babakan Surabaya Village
 Kecamatan Kiara Condong, Bandung
 Area : 7,7 ha
 Previous land use : Padi field owned by 5 land owners
 Squatters about 8 households who pay
 IPEDA

The situation of the site was lack of infrastructure network and facilities with irregular parcels of land.

The physical boundary of the area is as follows :

East : river
 West : river
 North : Jl. Perumnas Antapani
 South : Kampung

Land value : Rp 17,500 - Rp 50,000/sqm

3) THE RENEWAL PLAN

(1) Land Use

The detail use after consolidation are as follows :

1)	Infrastructure, drainage and sewerage	14.385 sqm (18.7%)
2)	Land for public facilities	1.617 sqm (2.1%)
3)	Cost Equivalent land	4.704 sqm (6.1%)
4)	Redistributed land	56.302 sqm (73.1%)
		<u>77.008 sqm (100%)</u>

The land owners contributed + 26.9% of their land to be used for infrastructure, facilities and development cost.

After land consolidation, the land value increased up to Rp 50,000/sqm - Rp 75,000/sqm.

BEFORE CONSOLIDATION

Village : Babakan Surabaya.
 District : Kiaracondong.
 Municipality : Bandung.
 Province : West Java.

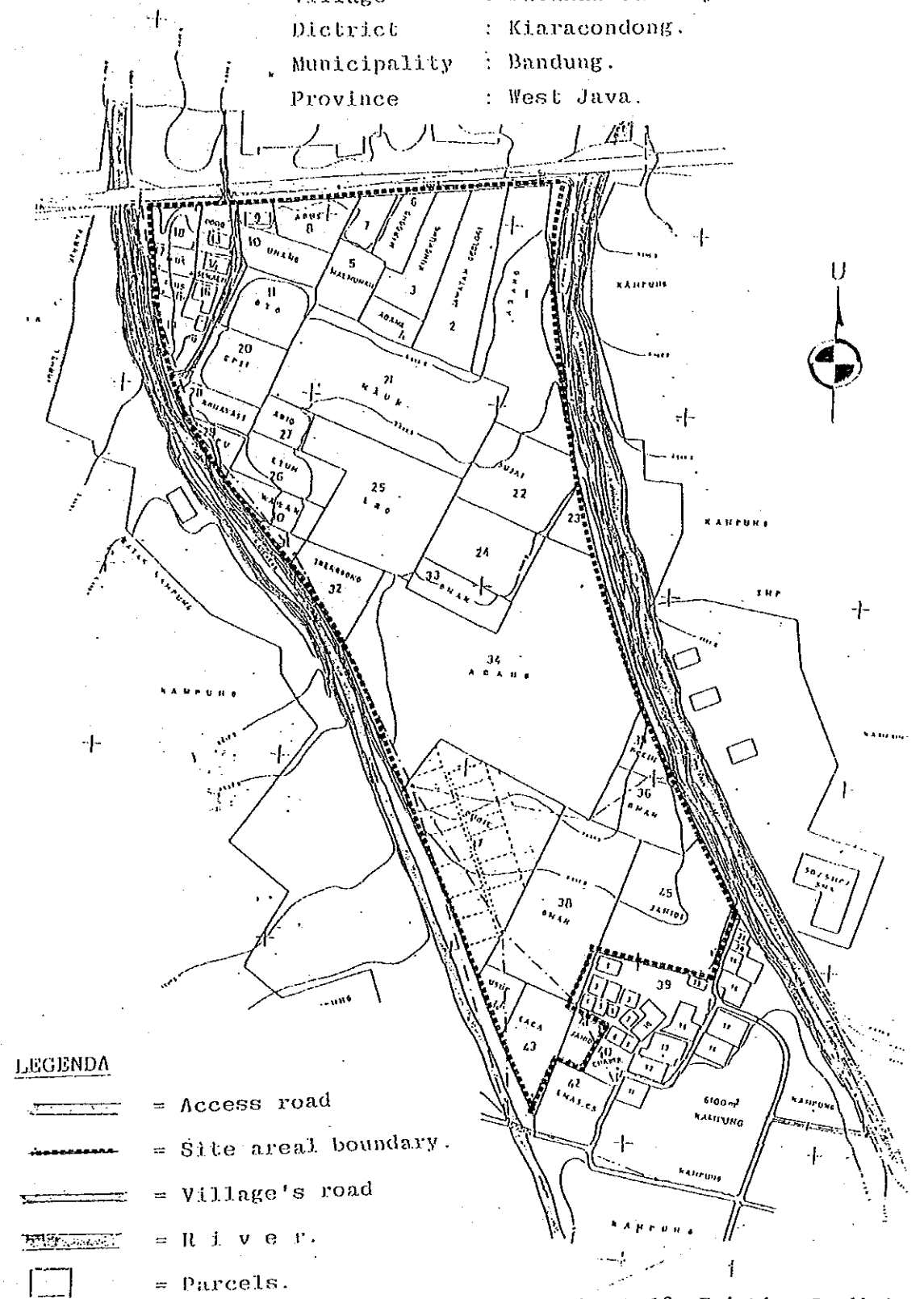


Fig. E-19 Existing Condition Map

4) Project Implementation and Finance

After negotiations with the land owners, the local government purchased "cost equivalent land" about 4704 sqm or Rp 150,000,000.- This amount was to be allocated for infrastructure development Rp 120,000,000.- and Rp 30,000,000 was allocated for compensation.

The illegal occupants of the area were to move out of the site. The registered residents whom have paid IPEDA regularly, will be given compensation of small land parcels (see fig. 5.3.1) The land owners will receive organized land parcels according to the amount of land they owned (minus the 26.9% contribution)

After the project completion, the land value increased. This was a benefit for the residents besides the government.

The "cost equivalent land" can be sold by the government at a higher price, and the amount can be allocated for other projects. The residents are provided with an adequate and organized environment. The land owners also received certificate of the parcels.

5) Institutional Aspects

The Centre for land Research and Development (under the Ministry of Home Affairs) since the fiscal year 1985/1986 cooperated with the local Government of Bandung Municipality with the division of task and responsibilities as follows :

1. Agraria Agency conduct the land administration
2. City Planning Agency conduct the site planning
3. The Regional Planning and Development Agency (BAPPEDA) conduct the coordination
4. The Public Works Agency conduct the design of roads, drainage and sewerage
5. The centre of land Research and Development conduct the research and guides the implementation

AFTER CONSOLIDATION

Village : Babakan Surabaya
 District : Kiaracandong.
 Municipality : Bandung
 Province : West Java

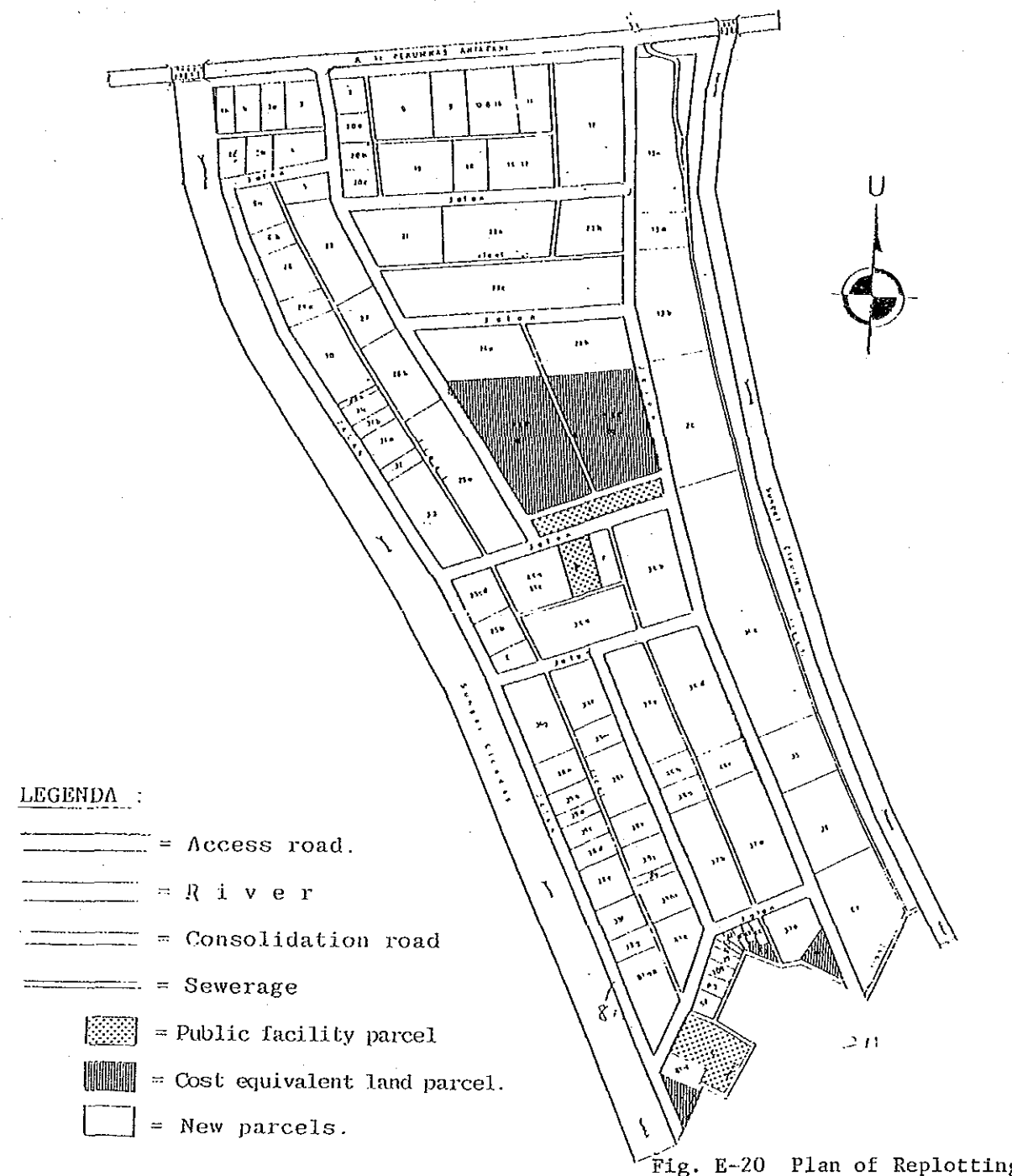


Fig. E-20 Plan of Replotting

5. DUPAK BANGUNSARI RENTAL HOUSING FLATS

1) BACKGROUND OF PROJECT

(1) As stated in the national policy of Repelita IV in the Sector on Housing and settlements :
 "There will be a pioneering effort to provide low income groups and young/skilled labourers which are beyond the reach of PERUMNAS with rental housing or other housing facilities as many as 25,000 units"

As a realization of this program, the government gave priority to sponsor rental housing projects in several of Indonesia's major cities, including Surabaya which received the rental housing pilot project for 50 units in the fiscal year 1988/89.

Through various considerations the local government of Surabaya proposed the area of Dupak Bangunsari.

Besides the inadequate environment and high density, this area was proposed because the inhabitants used a form of rental housing system. From the 49 families living in the area, 19 were house owners and the remaining 30 were tenants.

This situations would be an advantage to adopt the rental housing system, besides a chance to renew the area.

(2) Existing Condition

Site area : 1870 m2, consiting of low storey housing with inadequate environment
 Density : 1000 p/ha
 No.of households : 49 HH consisting of 19 house owners and 30 tenants
 Average house area per household : 15 - 20 sqm
 Facilities : Kiosk/warung
 Surrounding area : Low storey housing

2) THE RENEWAL PLAN

(1) Land Use

The site will consist of :

- 2 housing blocks with
 - 50 units, stairs, corridor 1551 sqm
 - musholla, kitchen 117 sqm
 - public bath 76 sqm
 - playing space in building 136 sqm
- 1 Multipurpose hall 136 sqm
- Kiosk & garage 48 sqm
- Parking area

The housing blocks are 3 storeys, but can be extended up till 4 storey by the tenant. An access road will be constructed.

Unit Type : F-18
 : F-21 (provided with bathroom and kitchen, for house owners, on ground floor)

Resettlement rate 100%

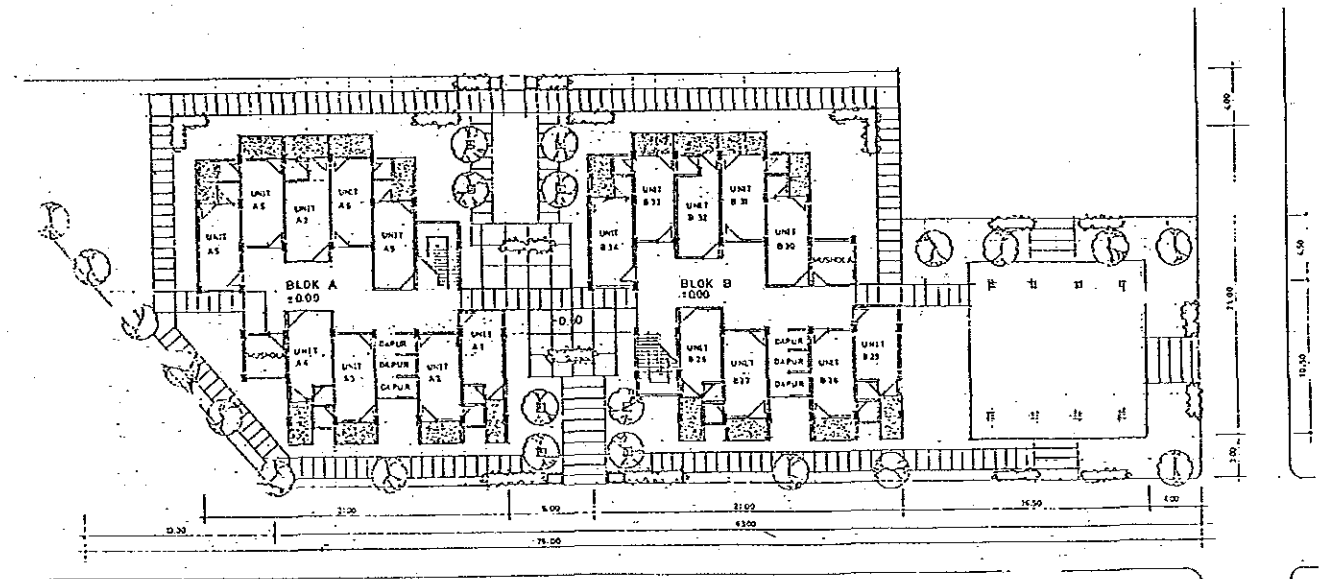


Fig. E-21 Layout Plan

U

(2) Land Acquisition

The land was provided by the local government, so there are no acquisition costs. Compensation was given in the form of temporary housing rent (+ 6 months, during demolition & construction period) in surrounding area.

(3) Development Plan

Informal meetings with the residents were held by ITS students, in accordance with their task to make an inventory of the land, building and inhabitants. Afterwards, a formal meeting was held by the Project team with the Lurah. Followed by negotiations for compensation. (about 4-5 times).

Physical planning & design was prepared by staff of ITS, headed by Prof. Johan Silas. The social condition of the residents was taken into deep consideration.

The demolition of existing buildings began in October 1988 and was followed by construction. The project will be ready by April 1989, and the previous residents will move in. For the time being no units will be sold. The government will use a 2 stage system in rent - receiving rent from the 19 house owners who will collect the rent from their tenants.

3) INSTITUTIONAL AND FINANCIAL ASPECTS

The executing body for this project is the Rental Housing Pilot Project of Jawa Timur (Proyek Perintisan Pembangunan Rumah Sewa Jatim) under the project P4R (Proyek Penyuluhan dan Perintisan Perbaikan Perumahan Rakyat), Ministry of Public Works.

This body has very close coordinations with the local Government and the ITS (Institut Teknologi 10 November - Surabaya) Planning and design was done by the ITS staff. As a result, this project could be implemented integratedly with the KIP.

Budget for this program was obtained from 2 sources :

- From the Central Government (through DIP, P4R) for design & Construction of the 50 units (58%) Rp 248.046.000,-
- From the Local Government (through APBD II KMS) - 42% for
 - Land compensation & demolition of buildings
 - Installations, Multipurpose Hall and Kiosk
 - Access Road
 Rp 176.972.000,-

Detail of this budget can be seen in Table 4.3.1

The official rent of this housing project is based on the local government's regulation, which is considered too low.

The rent is as follows :

- Rp 2,500.-/month 1 units
- Rp 5,000.-/month 2 - 5 units
- Rp 15,000.-/month 6 - 11 units

The owner must pay according to this regulation, but he may ask the tenants to pay a higher rent, according to market price (+ Rp 10,000 - Rp 15,000/month)

6. PERUMNAS SUKARAMAI MEDAN

1) BACKGROUND OF THE PROJECT.

The area for this project was an ex-fire area. After fire occure, government decided to implementate an urban renewal on this area in accordance to make better a environment.

The government assigned Perum Perumnas to conduct this project.

2) EXISTING CONDITION (BEFORE FIRE)

- Location : Kelurahan Sukaramai II, Kecamatan Medan Kota, Medan
- Site Area : Total 11.5 ha
- Population : - 724 House Holds (+ 3258 people)
- Previous land use : densely low storey housing area with inadequate environment
- Surrounding area : - Low storey housing, inadequate environment
- Multi storey shop-housing

3) THE RENEWAL PLAN

(1) Land Use

The total area of 11.5 ha will be developed in stages. First stage area is 3.4 ha, consist of :

- Parking area
- Plaza + telephone booth
- Playground
- Mosque
- Multipurpose hall
- 16 housing blocks (4 storey) :

+ 4 blocks of type F-21	: 208 units	: 4.368 m2
+ 7 blocks of type F-36	: 112 units	: 4.032 m2
+ 5 blocks of type F-54	: 80 units	: 4.320 m2
	<u>400 units</u>	<u>12.720 m2</u>

- Shop house (6763 m2 within 3.4 ha_ 2 storey, 40 units.

The shop houses will be prepared by private consultant, consisting of maximum 40 units of 2 storey shop houses.

- Resettlement rate : 20% of 400 units occupied by family lived here before
- Occupancy rate : 95% (381 units/400 units)

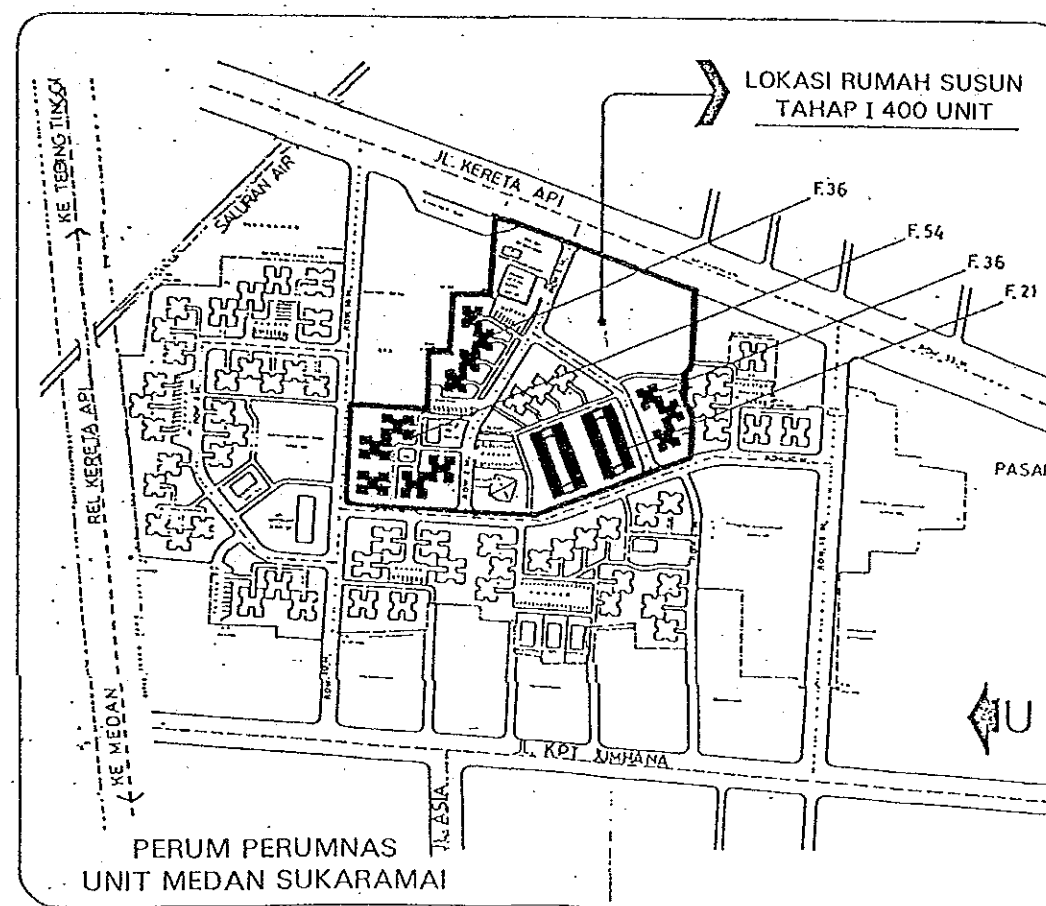


Fig. E-22 Layout Plan

(2) Land Acquisition

Land Acquisition cost is : Rp 530.375.177,91

Compensation cost :

- Rp 7.500/m2 (status of land is : state land with right of exploitation/use)
- Compensation cost for building :
 - + Permanent : Rp 51.600/m2
 - + Semi Permanent : Rp 30.000/m2
 - + Temporary : Rp 10.000/m2
- Compensation for demolition : Rp 250.000/house.

(3) Development Plan

- This area was an ex-fire area. After fire occurred, the local government formed committee A to acquire the land. Inventory of previous building, land and tenants was done. Formal meetings with residents were held by local government in accordance to explain their plan and negotiating for compensation.
- Central government, through Kanwil PU (Regional Office of Dept. of Public Works) coordinated concerned agencies and gave the certificate of land (Right of managing).
- Development Period :
 - * 1st stage construction started in 1985 with the area of 3.4 ha.
 - * Completion of the 1st stage was in 1987 including infrastructure & neighbourhood facility.
- During the construction, the inhabitants lived in the temporary housing built by local government.

- Difficulties occurred when Perumnas wanted to start the 2nd stage construction. Some of the previous inhabitants refused to move from their house after they repaired it, because they don't agree with compensation price. Local government are still negotiating with them, therefore the 2nd stage is not yet decided.

4) Institutional and Financial Aspects.

- Perum Perumnas is the executing body of this project. As the executing body, Perumnas prepared the physical planning design and construction as well as financing the project and site clearance. (There is no subsidy for the project).
- Project cost is Rp 3,289,123,277.98, 100% Perumnas fund consist of :
 - * Land acquisition cost;
 - * Compensation cost : Rp 7,500/m2
 - * Building construction cost : Rp 1,765,548,511.86
 - * Infrastructure cost : Rp 433,634,228.19
- Selling price (Table 6.4 ha) has been reduced about 10% from previous price as Perum could not sell the flats at the beginning selling price of a unit (- m2) :

I	Type F-21 :	- 4th floor	Rp 2,640,000.-
		- 3rd floor	Rp 2,950,000.-
		- 1st & 2nd floor	Rp 3,420,000.-
II	Type F-36 :	- 4th floor	Rp 4,952,000.-
		- 3rd floor	Rp 5,502,200.-
		- 1st & 2nd floor	Rp 6,371,000.-
III	Type F-54 :	- 4th floor	Rp 8,812,000.-
		- 3rd floor	Rp 9,852,000.-
		- 1st & 2nd floor	Rp 11,404,000.-

- Downpayment and Monthly installment can be seen on table
6.4.b - 6.4.c

			D P (Rp)	Install- ment	Time	Shortage of DP (Rp)
I	Type F-21, 4th	f1	264,000	20,000	10 months	64,000
	3rd	f1	295,000	22,500	10 months	70,000
	1st/2nd	f1	342,000	25,000	10 months	92,000
II	Type F-36, 4th	f1	752,000	46,900	10 months	283,000
	3rd	f1	1,002,200	50,250	10 months	499,700
	1st/2nd	f1	1,371,000	55,800	10 months	813,000
III	Type F-54, 4th	f1	1,882,000	92,350	18 months	219,700
	3rd	f1	2,652,900	95,900	18 months	925,800
	1st/2nd	f1	3,704,000	102,500	18 months	1,859,000

Monthly installment : (KPR-BTN 20 years)

I	Type F-21	4th floor	: Rp 22.000,-
		3rd floor	: Rp 24.340,-
		1st/2nd fl	: Rp 28.150,-
II	Type F-36	4th floor	: Rp 46.900,-
		3rd floor	: Rp 50.250,-
		1st/2nd fl	: Rp 55.800,-
III	Type F-54	4th floor	: Rp 92.350,-
		3rd floor	: Rp 95.900,-
		1st/2nd fl	: Rp 102.500,-