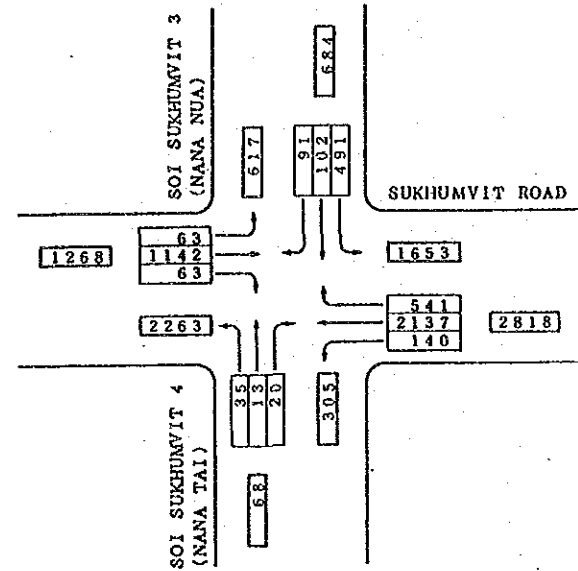
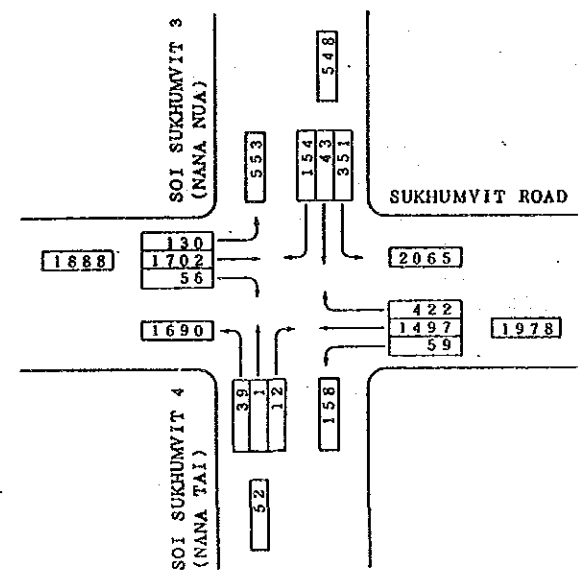


**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

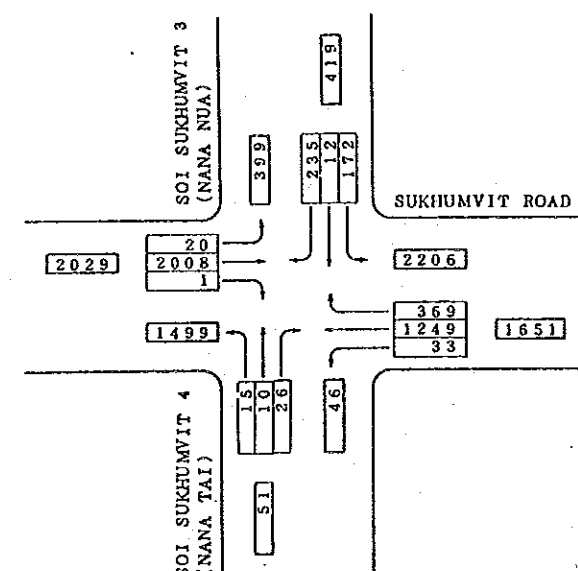
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

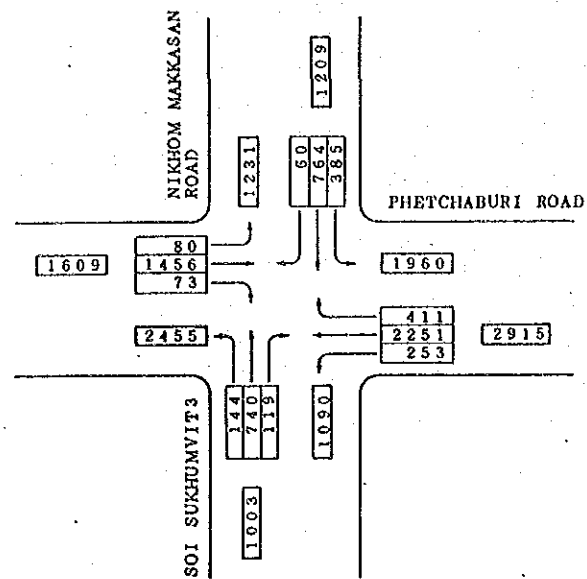
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

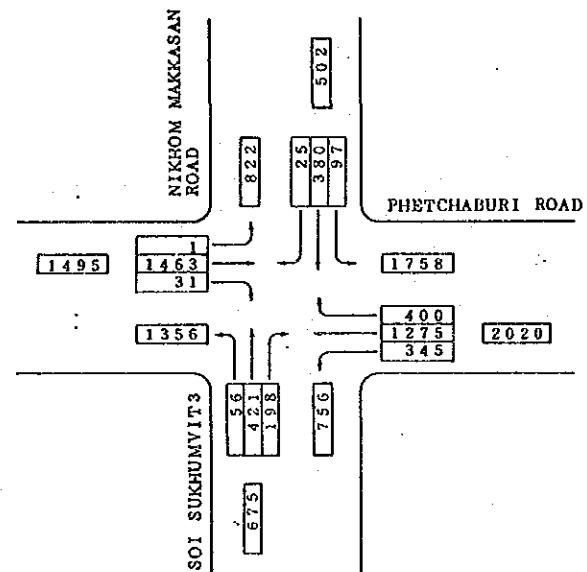
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT: STAGE I			
DESIGN VOLUME AND PHASE PLAN SUKHUMVIT-SOI SUKHUMVIT 4 (NANA TAI)		Submitted By : Jiro Kodera JICA Study Team Leader	Approved By : Boonwatt Tiplua BMA Study Team Leader
Intersection No. 105		Designed By : Yasu Nobushima JICA Study Member	Designed By : TAD, BMA
Code	Revision	Date	Initial
Associated Plan No. 1			
JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale	Drawing No. 3105
		Date SEPTEMBER '90	Total 78 / 139

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

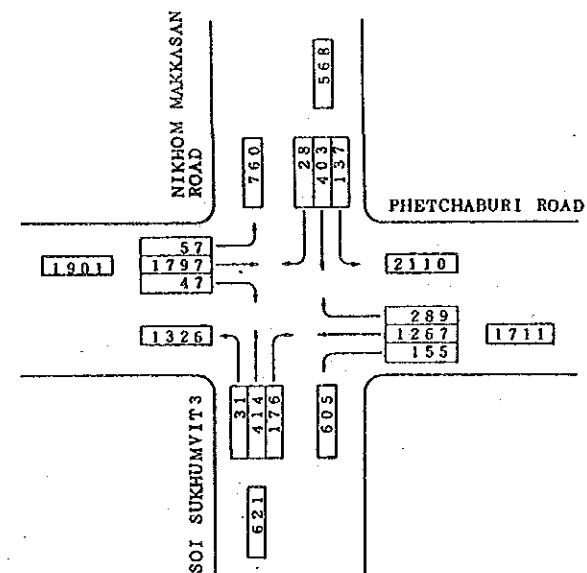
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	→ ←	↘ ↙	↕ ↕ ↕	↘ ↙				
II								
III								
PRE EMPTION								

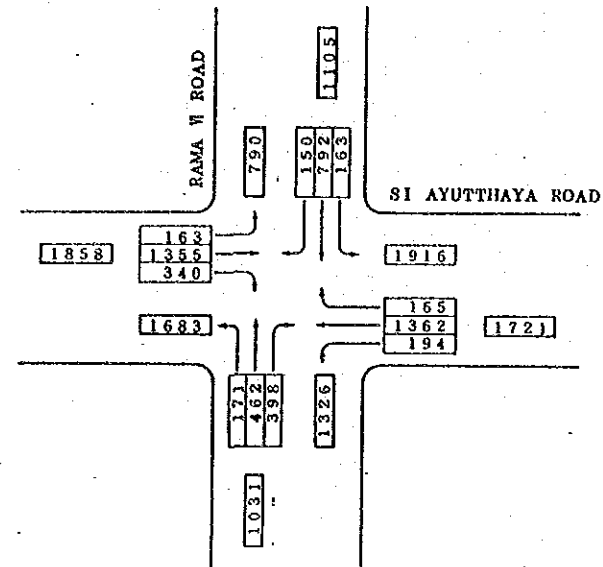
MANUAL PHASE

↘ ↙	→ ←	↕ ↕ ↕			
↕ ↕ ↕	↘ ↙	↕ ↕ ↕			

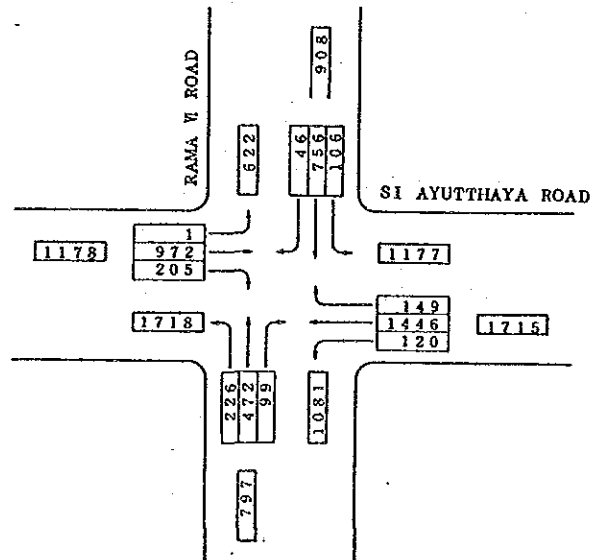
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT: STAGE I			
DESIGN VOLUME AND PHASE PLAN		Submitted By :	Approved By :
NIKHOM MAKKASAN		Jiro Kodera JICA Study Team Leader	Boonwut Tigloo BMA Study Team Leader
-PHETCHABURI		Designed By :	Designed By :
-SOI SUKHUMVIT 3 (NANA NUA)		Yasuo Hoshino JICA Study Member	TED. BMA
Intersection No. 106		Scale	Drawing NR 3108
Code	Revision	Date	Initial
Associated Plan No. 1	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Date SEPTEMBER '90 Total 77 / 139

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

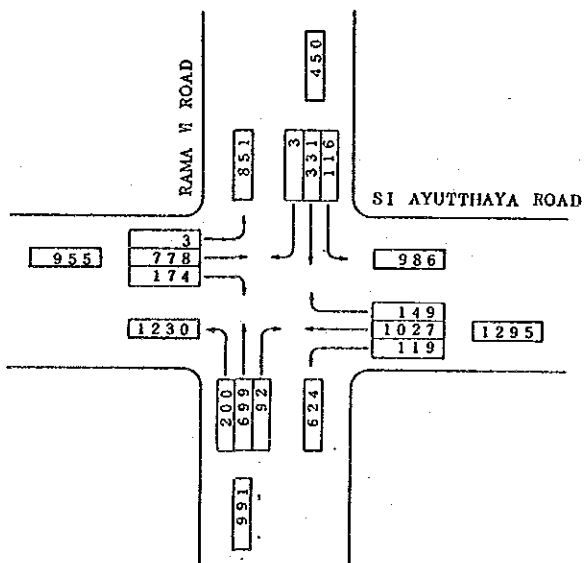
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	[Diagram]	[Diagram]	[Diagram]	[Diagram]				
II								
III								
PRE EMPTION								

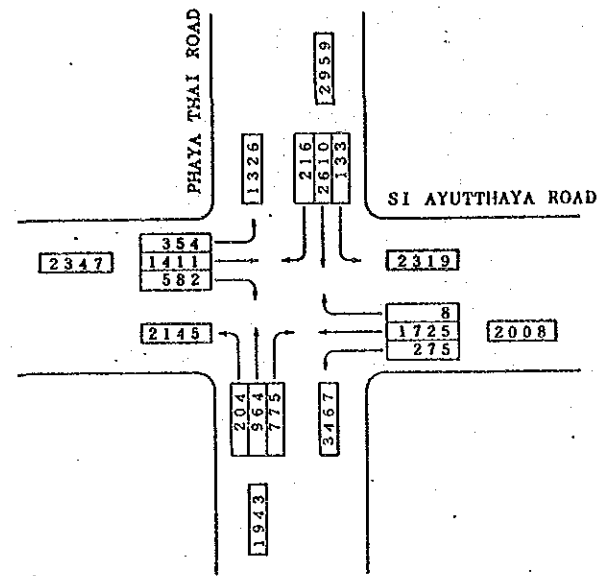
MANUAL PHASE

[Diagram]	[Diagram]	[Diagram]	[Diagram]		
[Diagram]	[Diagram]	[Diagram]	[Diagram]		

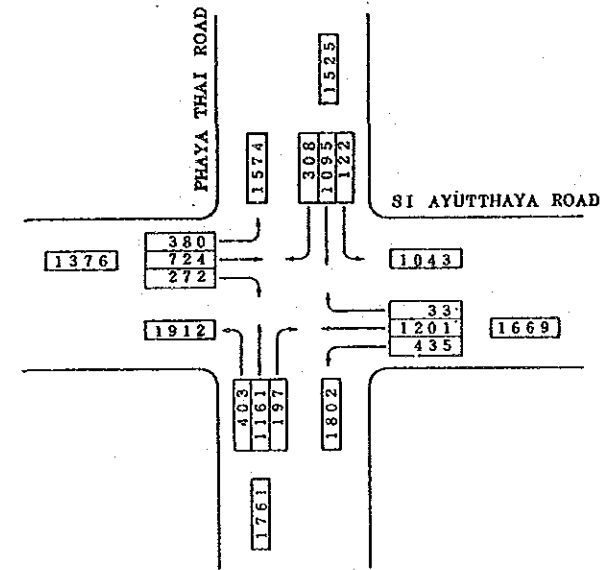
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT: STAGE I			
DESIGN VOLUME AND PHASE PLAN RAMA VI-SI AYUTTHAYA		Submitted By : Juro Kadara JICA Study Team Leader	Approved By : Boonyawat Tiptua SMA Study Team Leader
Intersection No. 109		Designed By : Yawa Nabeshima JICA Study Member	Designed By : TED, SMA
Code	Revision	Date	Initial
Associated Plan No. :	JICA Japan International Cooperation Agency	SMA Bangkok Metropolitan Administration	Scale Date SEPTEMBER '90
		Drawing No. 3109 Total 78 / 139	

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

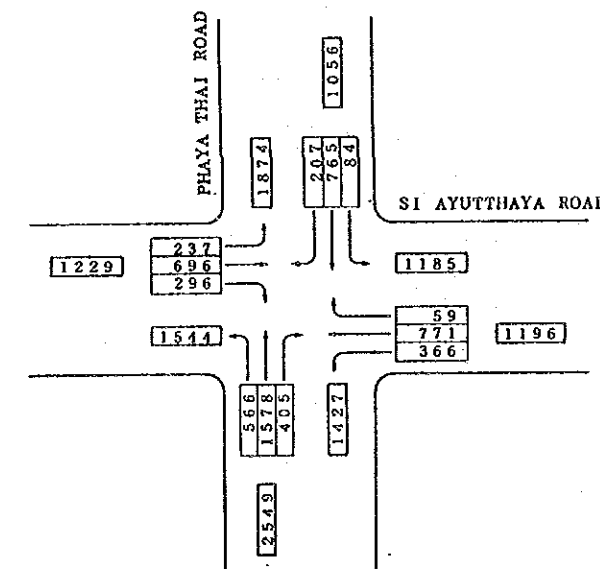
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

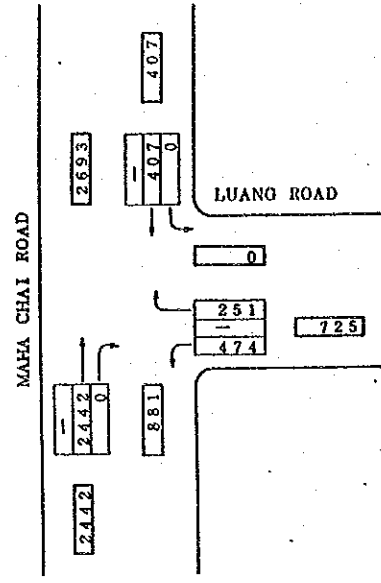
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

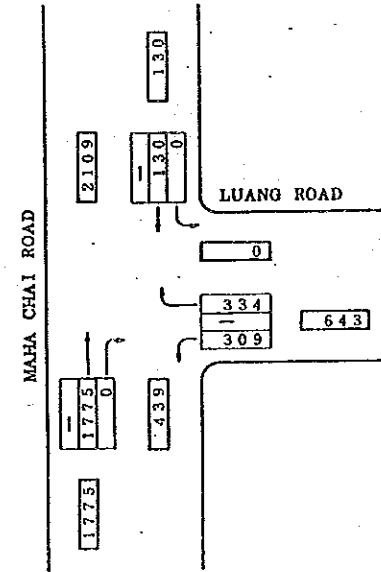
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN PHAYA THAI-SI AYUTTHAYA		Submitted By : Jum Kodera JICA Study Team Leader	Approved By : Boonayawal Thais BMA Study Team Leader
Intersection No. 110		Designed By : Yasuo Nabeshima JICA Study Member	Designed By : TGD, BMA
Associated Plan No. 1	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Drawing No. 3110
		Date SEPTEMBER '90	Total 79 / 139

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

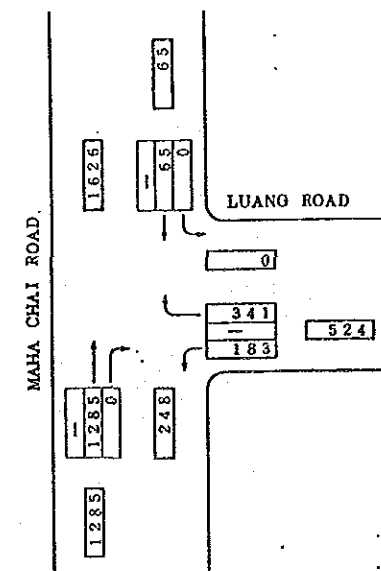
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	↑ ↓	↘						
II								
III								
PRE EMPTION								

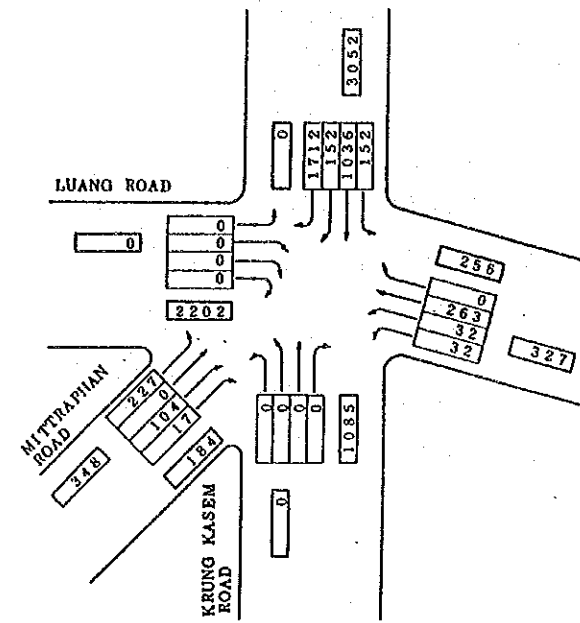
MANUAL PHASE

↓	↑ ↓				
↑	↘				

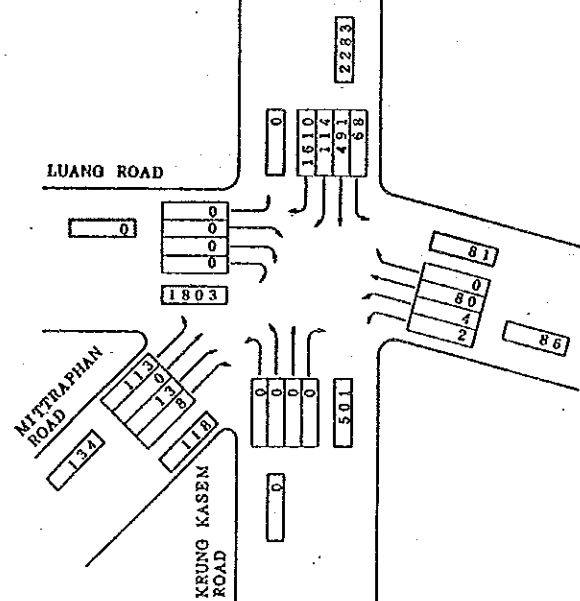
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
				DESIGN VOLUME AND PHASE PLAN		Submitted By : Jiro Kodera JICA Study Team Leader	
				MAHA CHAI-LUANG		Approved By : Boonyawat Tiplan BMA Study Team Leader	
				Intersection No. 112		Designed By : Yuwa Nishizima JICA Study Member	
						Designed By : TEO, BMA	
Associated Plan No. :				JICA Japan International Cooperation Agency		BMA Bangkok Metropolitan Administration	
Code				Scale		Drawing No. 3112	
Revision				Date		Date SEPTEMBER '90	
Initial						Total 80 / 139	

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

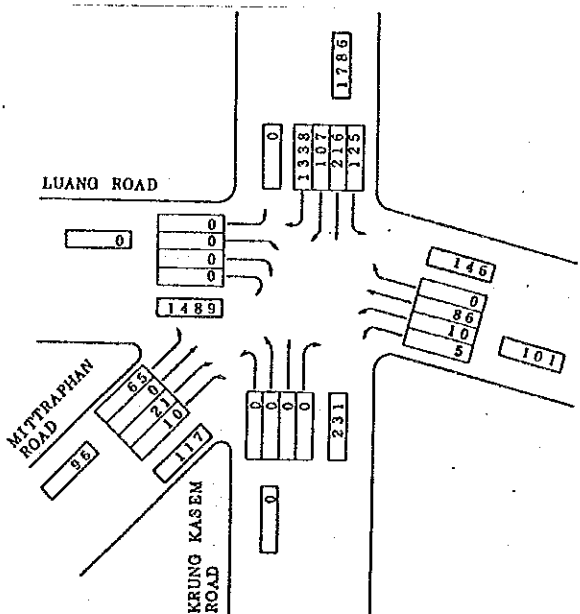
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

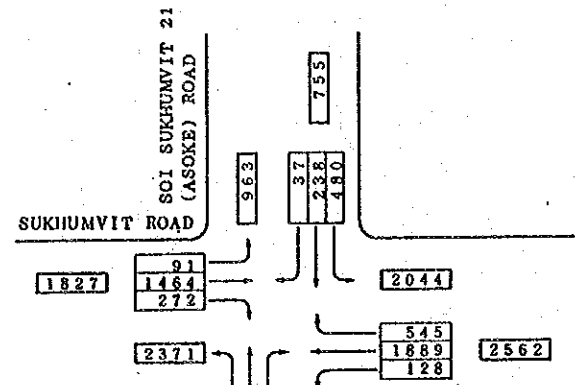
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

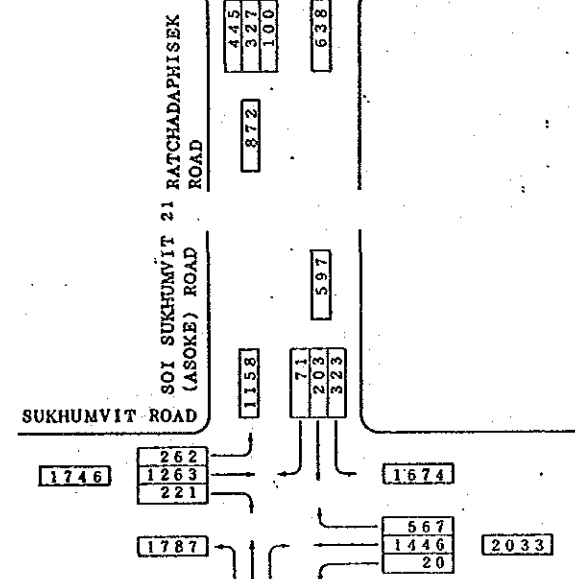
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN		Submitted By :	Approved By :
KRUNG KASEM-MITTRAPHAN		Jiro Kudera JICA Study Team Leader	Boonwatt Titavee BMA Study Team Leader
-LUANG		Designed By :	Designed By :
Intersection No. 114		Yasuo Nakashima JICA Study Member	TED,BMA
Code	Revision	Date	Initial
Associated Plan No. 1	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Drawing No. 3114
		Date SEPTEMBER '90	Total 81 / 139

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

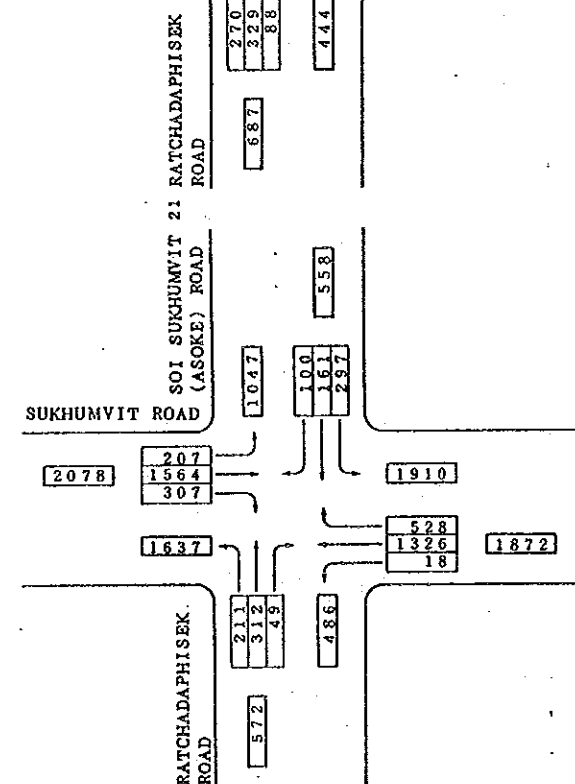
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	→ ←	↘ ↙	↗ ↘ ↙ ↖	↘ ↙				
II								
III								
PRE EMPTION								

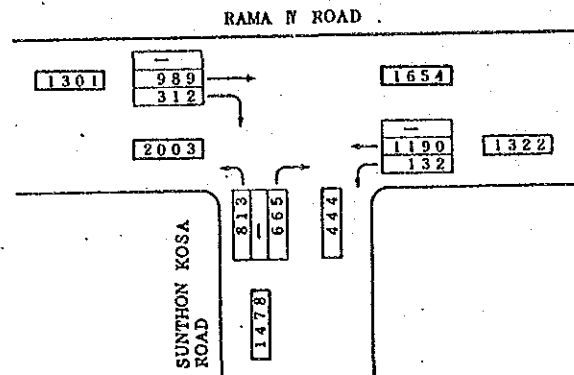
MANUAL PHASE

↘ ↙	→ ←	↗ ↘ ↙ ↖	↘ ↙ ↖ ↗		
↖ ↗	↘ ↙	↗ ↘	↘ ↙		

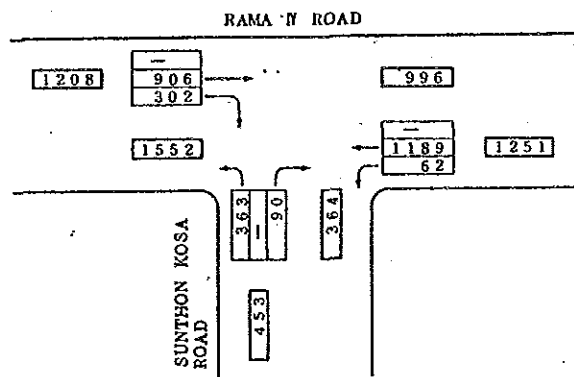
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN		Submitted By :	Approved By :
SUKHUMVIT		Jaru Kudara JICA Study Team Leader	Boonwatt Titipus BMA Study Team Leader
-SOI SUKHUMVIT 21 (ASOK)		Designed By :	Designed By :
-RATCHADAPHISEK		Yasu Nakashima JICA Study Member	TED, BMA
Intersection No. 115		Scale	Drawing No. 3115
Code	Revision	Date	Initial
Associated Plan No. 1	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Date SEPTEMBER '90
		Total	82 / 139

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

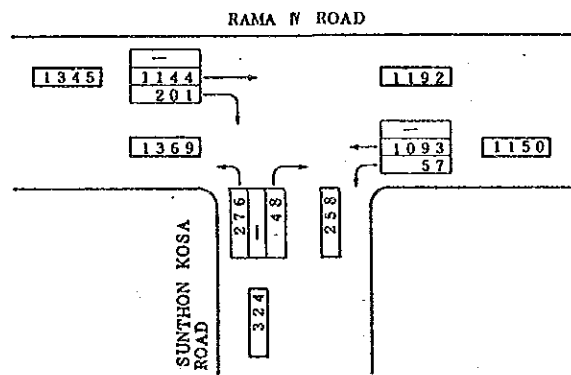
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	→ ↙	↘ ↙	↘					
II								
III								
PRE EMPTION								

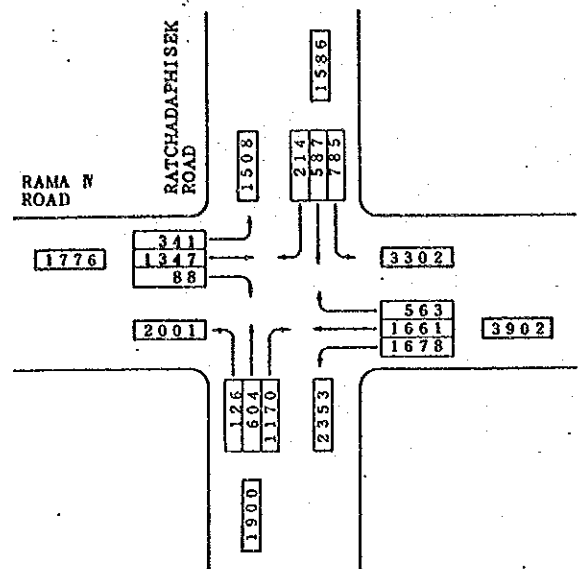
MANUAL PHASE

↘ ↙	→ ↙				
←	↘ ↙				

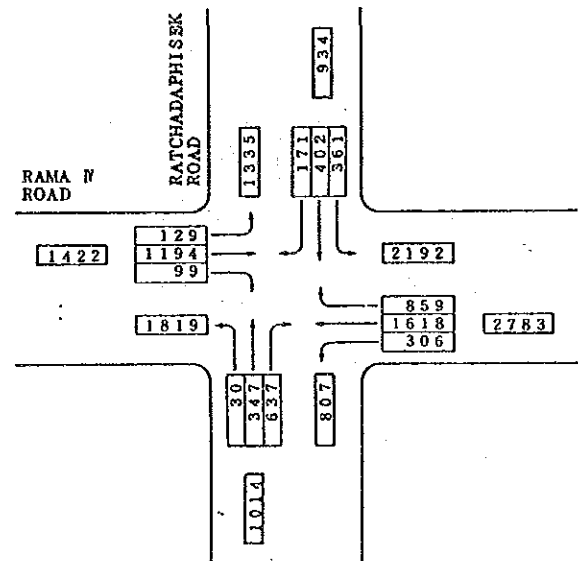
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT: STAGE I			
				DESIGN VOLUME AND PHASE PLAN SUNTHON KOSA-RAMA IV		Submitted By : Jiro Kodera JICA Study Team Leader	Approved By : Boonwatt Tiptua BMA Study Team Leader
				Intersection No. 118		Designed By : Yasuo Hasehama JICA Study Member	Designed By : TEC, BMA
Code	Revision	Date	Sheet	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale	Drawing No. 3118
Associated Plan No. 1						Date SEPTEMBER '00	Total 83 / 139

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

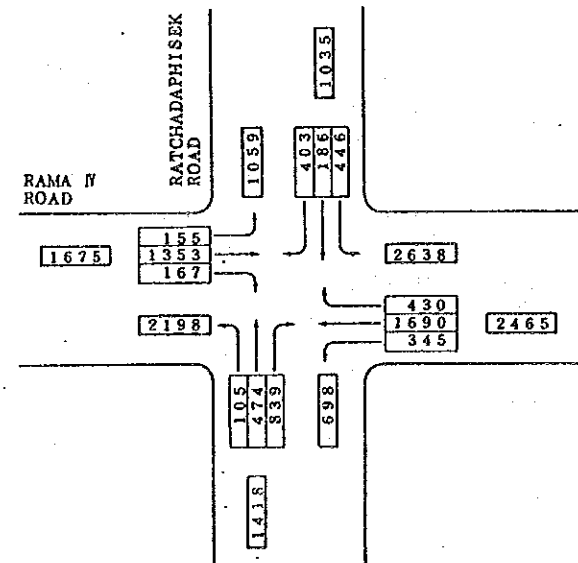
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	→ ←	↘ ↙	↑ ↓	↗ ↖				
II								
III								
PRE EMPTION								

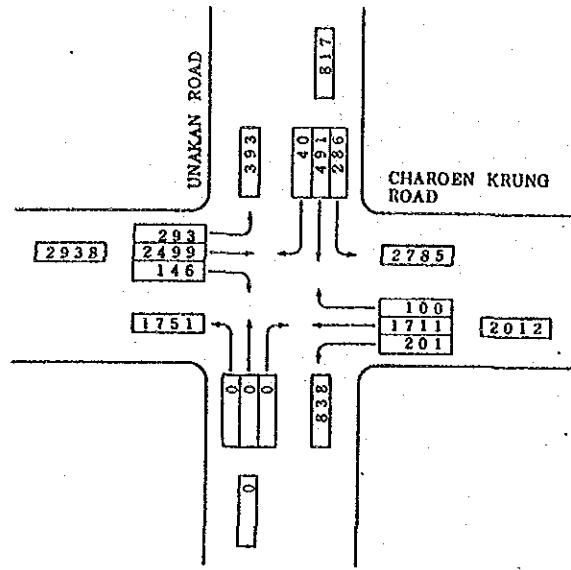
MANUAL PHASE

↘ ↙	→ ←	↗ ↖	↑ ↓		
↙ ↘	↗ ↖	↘ ↙	↗ ↖		

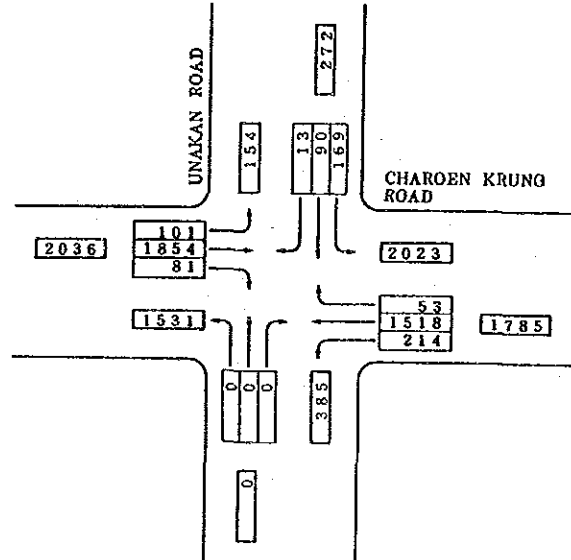
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
				DESIGN VOLUME AND PHASE PLAN RATCHADAPHISEK-RAMA IV		Submitted By : Jiro Kodera JICA Study Team Leader	
				Intersection No. 123		Approved By : Wanayut Tiptan BMA Study Team Leader	
						Designed By : Yasuo Hasekawa JICA Study Member	
				JICA Japan International Cooperation Agency		BMA Bangkok Metropolitan Administration	
Associated Plan No. 1				Scale		Drawing No 3123	
				Date		Total 84 / 139	
				SEPTEMBER '00			

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

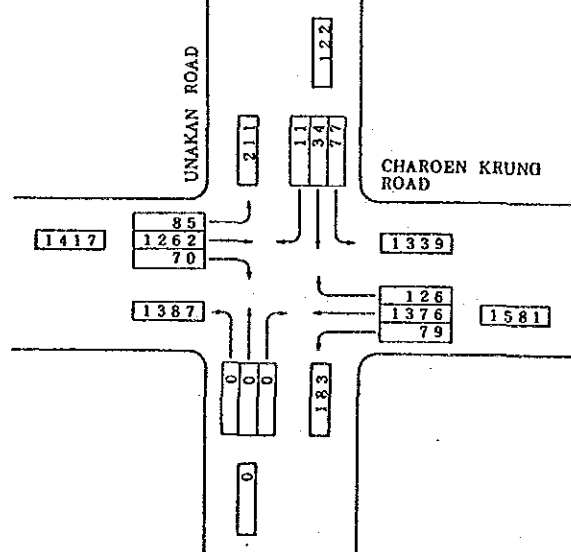
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

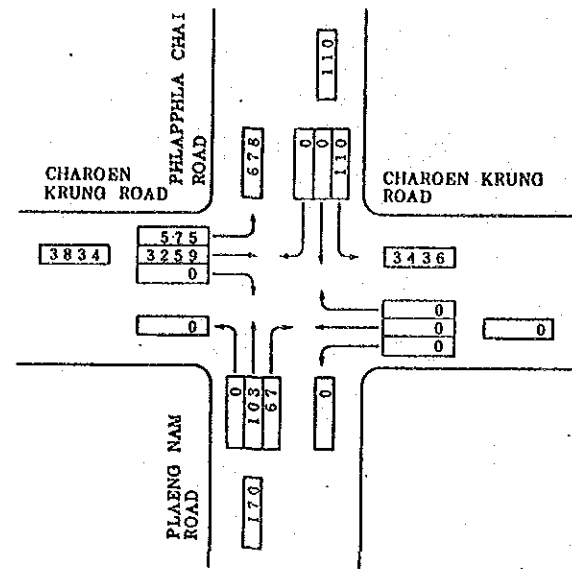
PHASE / PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

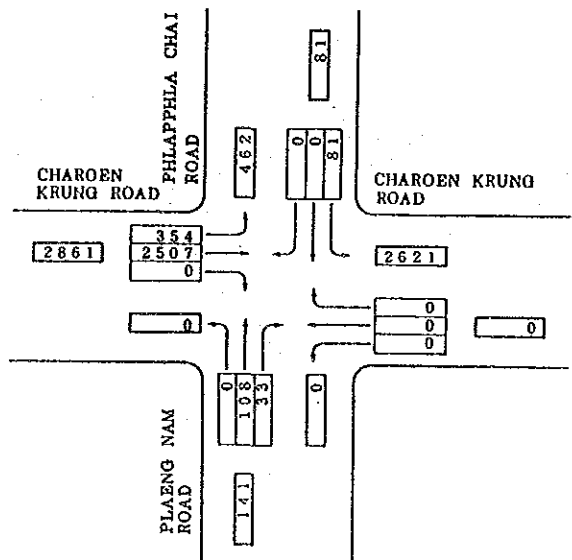
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT: STAGE I			
				DESIGN VOLUME AND PHASE PLAN UNAKAN-CHAROEN KRUNG		Submitted By : Jiro Kodera JICA Study Team Leader	Approved By : Suanawat Tiplua BMA Study Team Leader
				Intersection No. 130		Designed By : Yasu Nobushima JICA Study Member	Designed By : TED, BMA
Code	Revision	Date	Initial	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale	Drawing NR 3130
Associated Plan No. :						Date: SEPTEMBER '00	Total 85 / 139

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

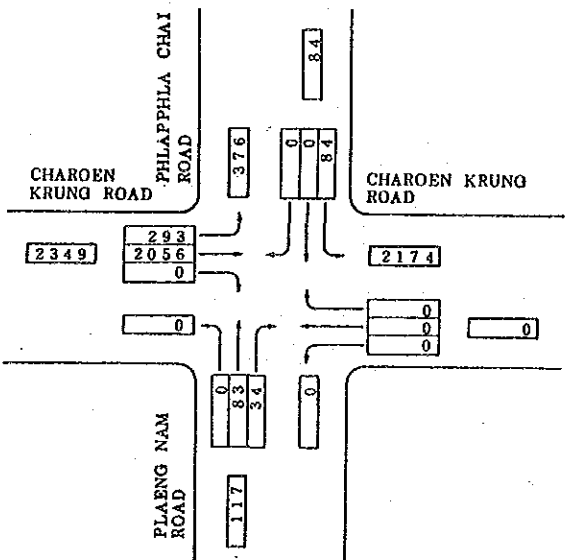
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE	10	20	30	40	50	60	70	80
I	↗	↖ ↘						
II								
III								
PRE EMPTION								

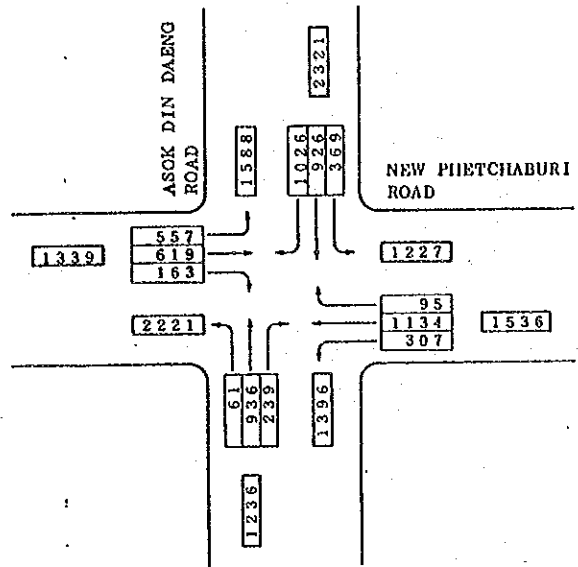
MANUAL PHASE

↗							
↖ ↘							

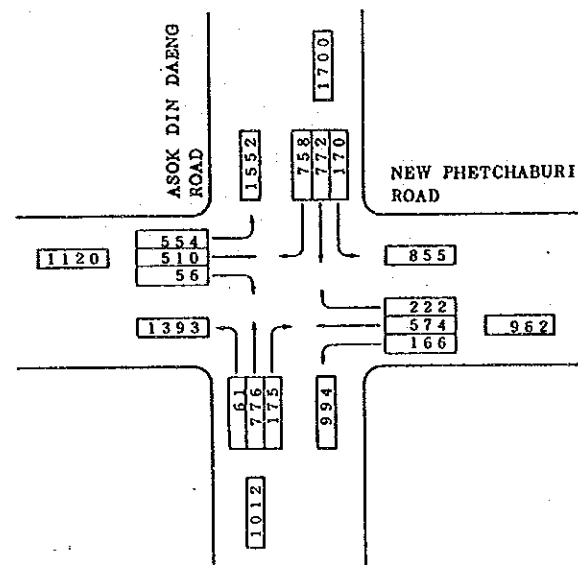
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN PLAENG NAM-CHAROEN KRUNG		Submitted By : Jiro Kodera JICA Study Team Leader	Approved By : Keenawat Tiptak BMA Study Team Leader
Interaction No. 131		Designed By : Yasu Hashizume JICA Study Member	Designed By : TEO, BMA
Code	Revision	Date	Initial
Associated Plan No. :	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Drawing No. 3131
		Date	SEPTEMBER '90
		Total	86 / 139

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

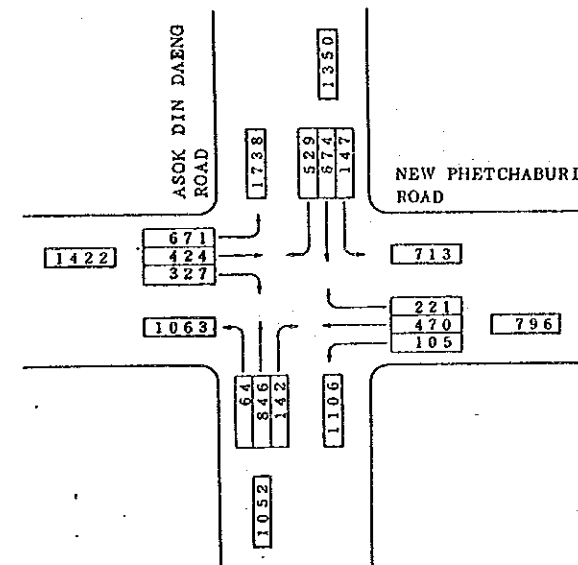
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

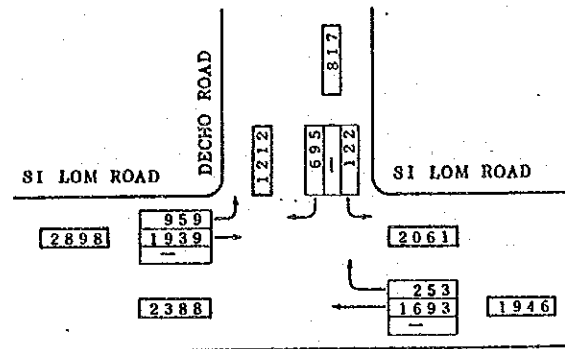
PHASE	10	20	30	40	50	60	70	80
PATTERN								
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

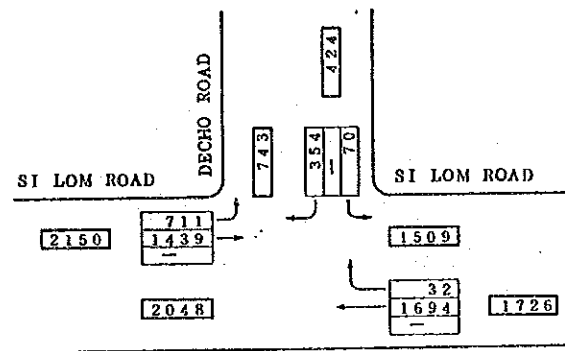
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
				DESIGN VOLUME AND PHASE PLAN NEW PHETCHABURI -ASOK DIN DAENG		Submitted By : Jun Kudara JICA Study Team Leader	Approved By : Boonyawit Tiplao EMA Study Team Leader
				Intersection No. 134		Designed By : Yasu Nakashima JICA Study Member	Designed By : TOD, BMA
Code	Revision	Date	Initial	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale	Drawing No. 3134
Associated Plan No. 1						Date	SEPTEMBER '90 Total 87 / 139

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

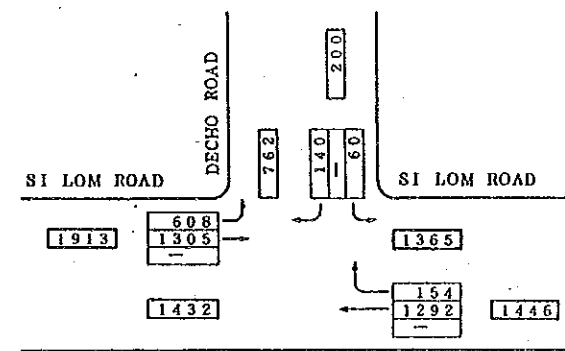
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

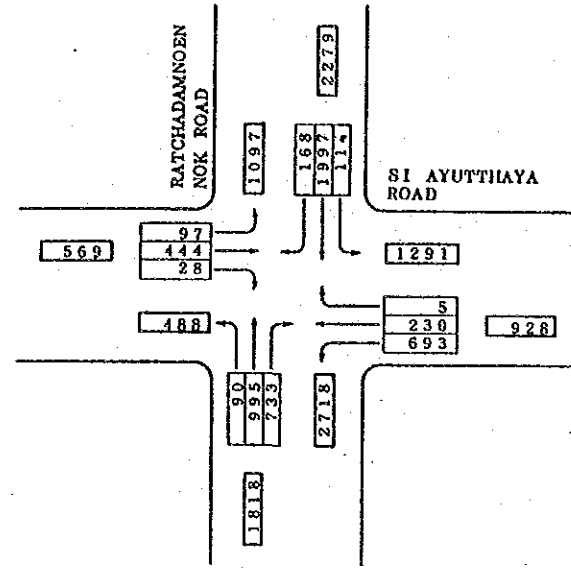
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I (MORNING PEAK HOUR, EVENING PEAK HOUR)								
II (DAYTIME)								
III								
PRE EMPTION								

MANUAL PHASE

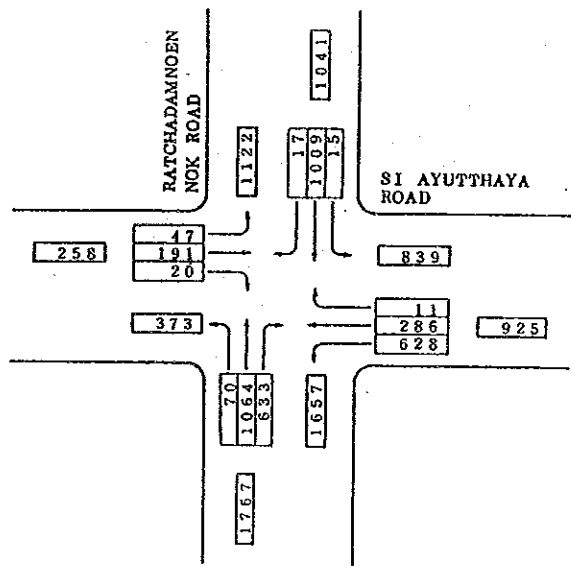
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT: STAGE I			
				DESIGN VOLUME AND PHASE PLAN DECHO-SI LOM		Submitted By : Jiro Kadota JICA Study Team Leader	Approved By : Manoporn Tiptra BMA Study Team Leader
				Intersection No. 137		Designed By : Yasuo Nishikawa JICA Study Member	Designed By : TEO, BMA
Associated Plan No. 1				JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale	Drawing No. 3137
						Date SEPTEMBER '90	Total 88 / 130

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

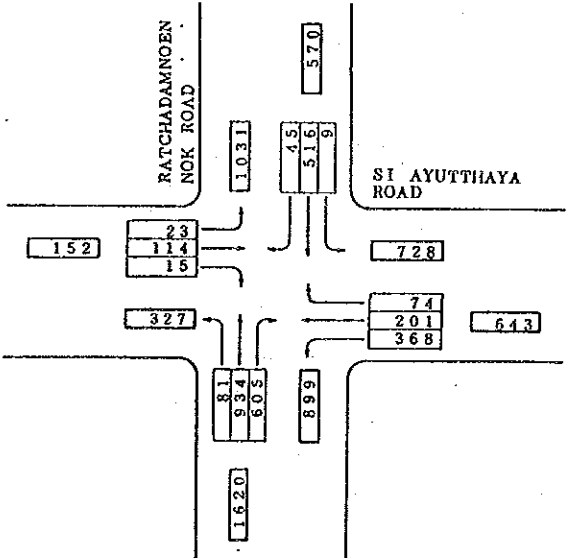
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

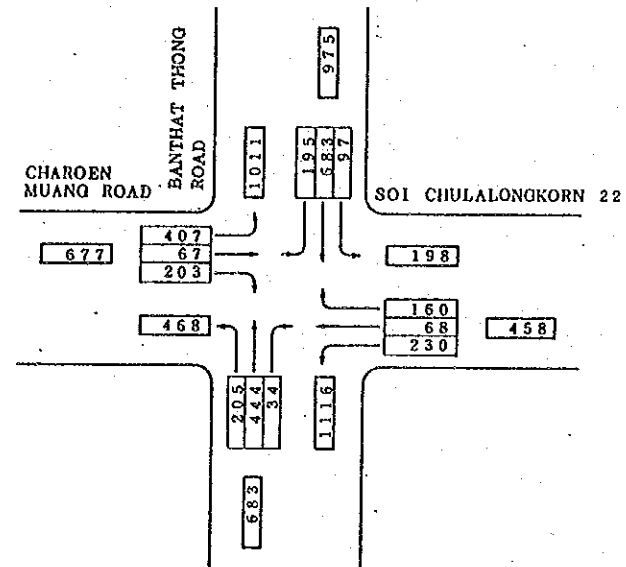
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

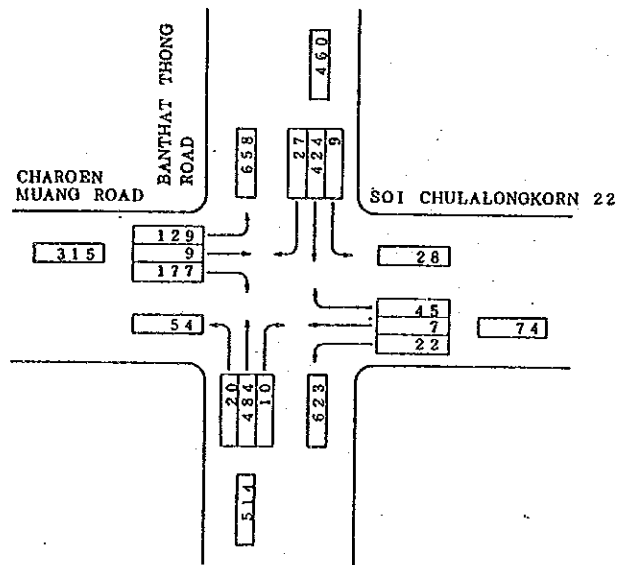
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN		Submitted By : Jiro Kodera JICA Study Team Leader	Approved By : Boonwatt Thiras BMA Study Team Leader
RATCHADAMNOEN NOK -SI AYUTTHAYA		Designed By : Yasuo Matsushima JICA Study Member	Designed By : TDB, BMA
Intersection No. 139			
Code	Revision	Date	Initial
Associated Plan No. 1			
JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale	Drawing NR 3139
		Date SEPTEMBER '90	Total 88 / 139

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

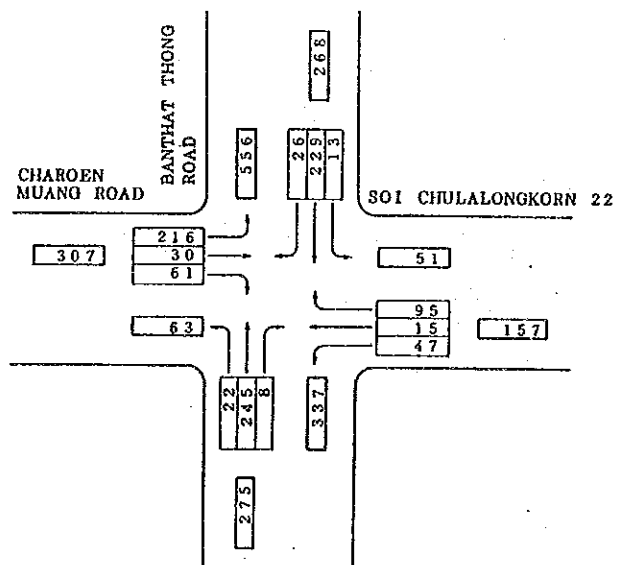
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

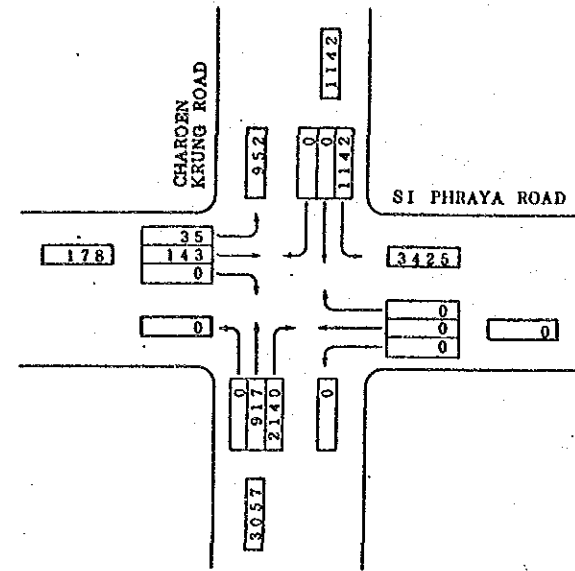
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

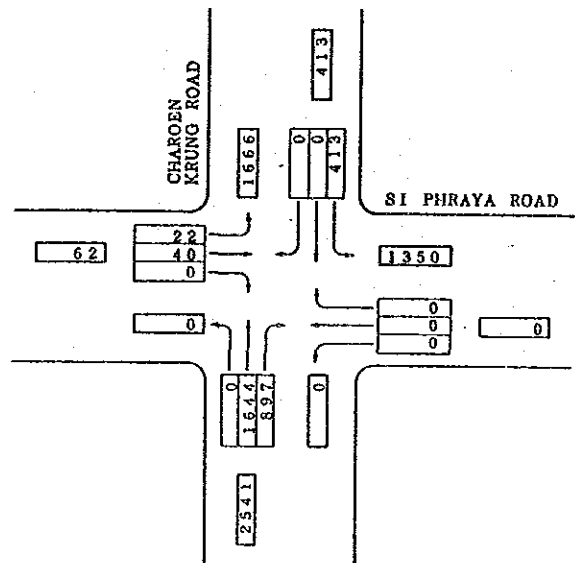
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT: STAGE I			
				DESIGN VOLUME AND PHASE PLAN		Submitted By :	
				BANTHAT THONG		Jiro Kodera	
				-CHAROEN MUANG		JICA Study Team Leader	
				Intersection No. 140		Designed By :	
						Yasuo Kobayashi	
						JICA Study Member	
						Approved By :	
						Bangwanat Tiplan	
						SMA Study Team Leader	
						Designed By :	
						TED, BMA	
Code				Revision		Date	
Associated Plan No. :				JICA		BMA	
				Japan International		Bangkok Metropolitan	
				Cooperation Agency		Administration	
				Scale		Drawing No. 3140	
				Date		SEPTEMBER '90	
						Total 90 / 139	

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

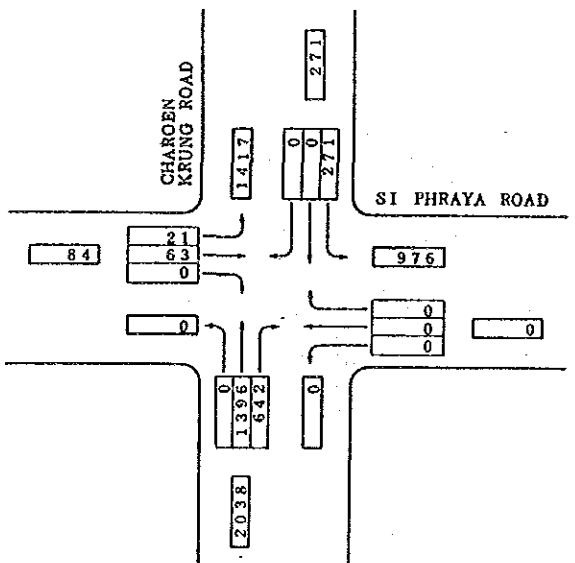
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	↗ ↘	↖ ↙						
II								
III								
PRE EMPTION								

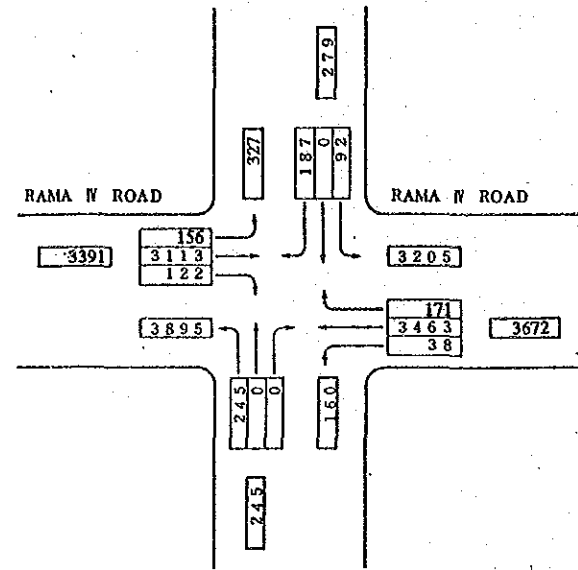
MANUAL PHASE

↗ ↘					
↖ ↙					

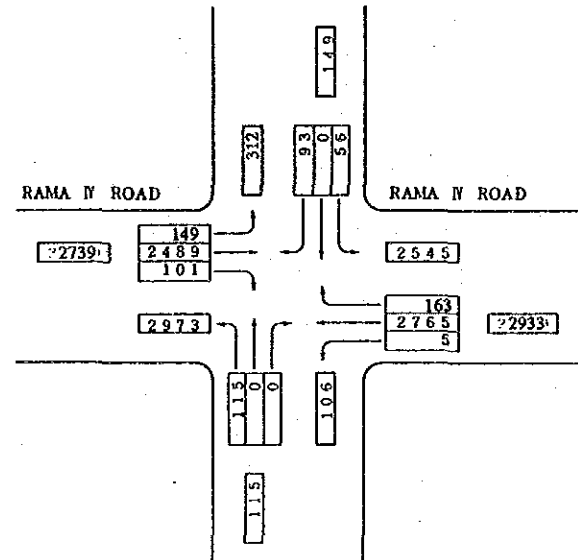
Code	Revision	Date	Initial	BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
Associated Plan No. :				DESIGN VOLUME AND PHASE PLAN SI PHRAYA-CHAROEN KRUNG		Submitted By :	Approved By :
				Intersection No. 141		Jun Kudara JICA Study Team Leader	Boonyarat Tiptua BMA Study Team Leader
JICA Japan International Cooperation Agency		BMA Bangkok Metropolitan Administration				Designed By :	Designed By :
				Yasu Mahachina JICA Study Member	TEB,BMA		
Scale				Drawing NR 3141		Total 91 / 139	
Date				SEPTEMBER '90			

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

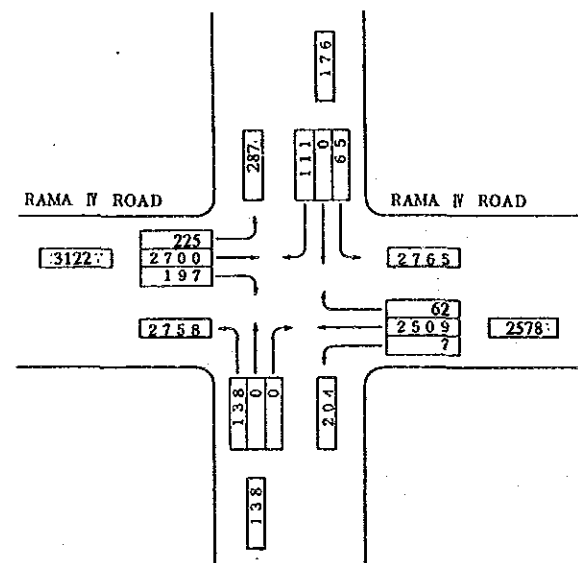
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	→ ←	↶ ↷	↘ ↙					
II								
III								
PRE EMPTION	↶ ↷	↘ ↙						

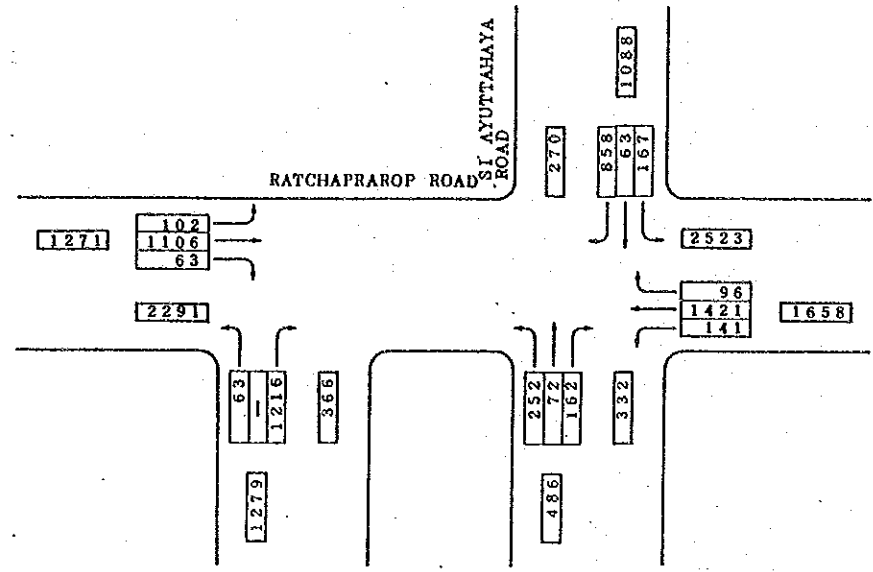
MANUAL PHASE

↶ ↷	→ ←	↘ ↙	↶ ↷		
↘ ↙	↶ ↷		↶ ↷		

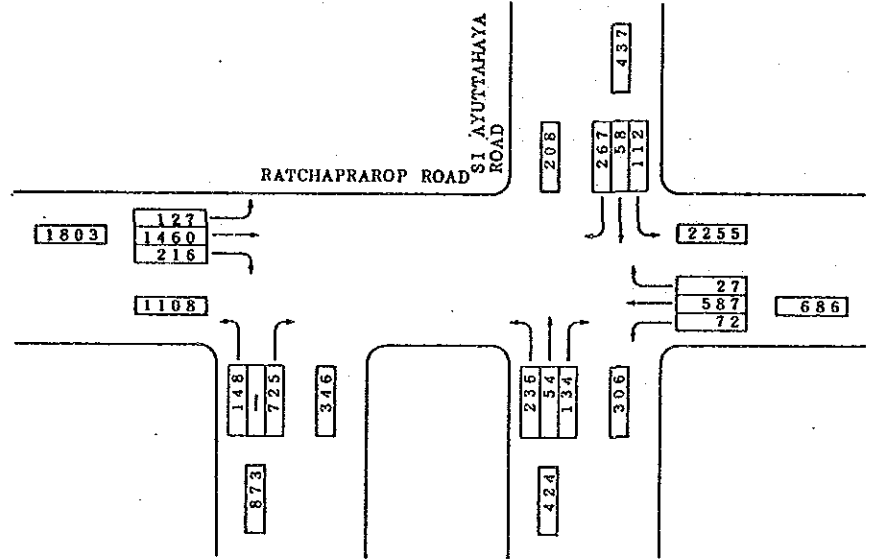
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN CHUA PHLOENG-RAMA IV -DIN DAENG PORT EXPRESSWAY		Submitted By : Jiro Madara JICA Study Team Leader	Approved By : Bangkok Titima BMA Study Team Leader
Intersection No. 142		Designed By : Yasuo Masashima JICA Study Member	Designed By : TEB,BMA
Code	Revision	Date	Initial
Associated Plan No. :	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Drawing NR 3142
		Date SEPTEMBER '90	Total 02 / 139

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

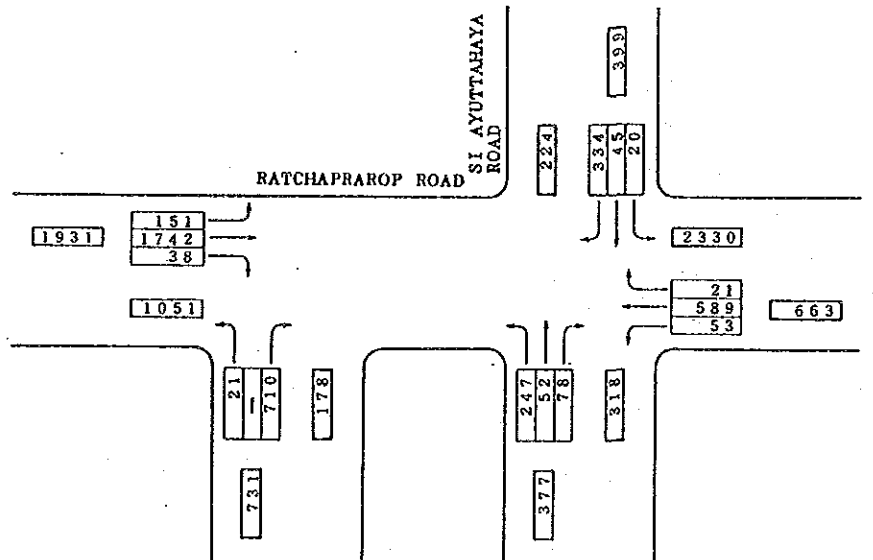
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

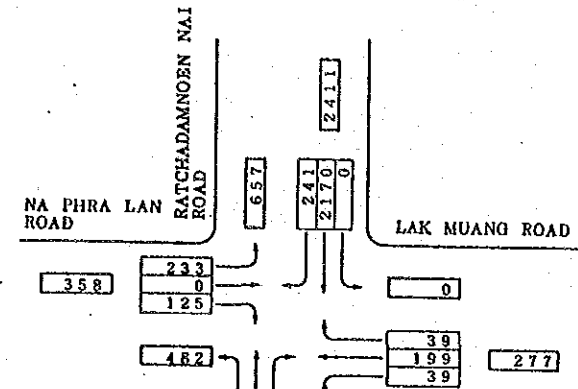
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

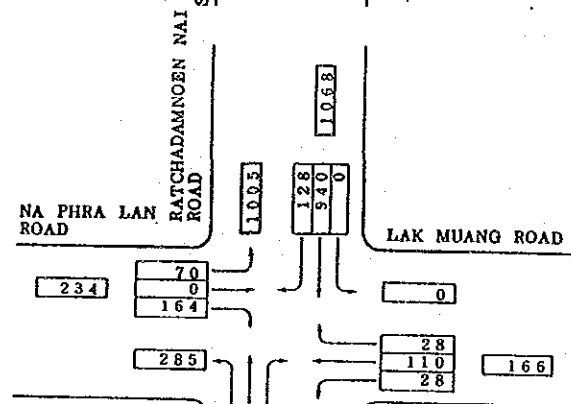
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT: STAGE I			
				DESIGN VOLUME AND PHASE PLAN RATCHAPRAROP-SI AYUTTHAYA		Submitted By : Jaru Kadeera JICA Study Team Leader	
				Intersection No. 143		Approved By : Sangwan Tipsoo BMA Study Team Leader	
						Designed By : Yana Mahachina JICA Study Member	
						Designed By : TED, BMA	
Code				JICA		Scale	
Revision				Japan International		Drawing NR 3143	
Date				Cooperation Agency		Date SEPTEMBER '90	
INITIAL				BMA		Total 93 / 139	
				Bangkok Metropolitan Administration			

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

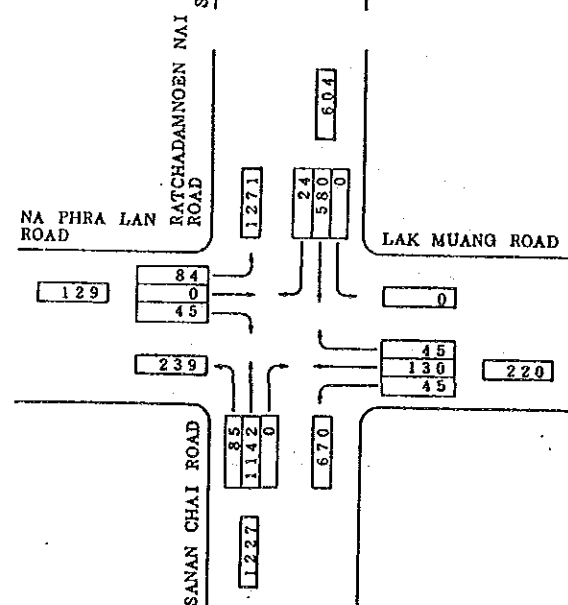
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

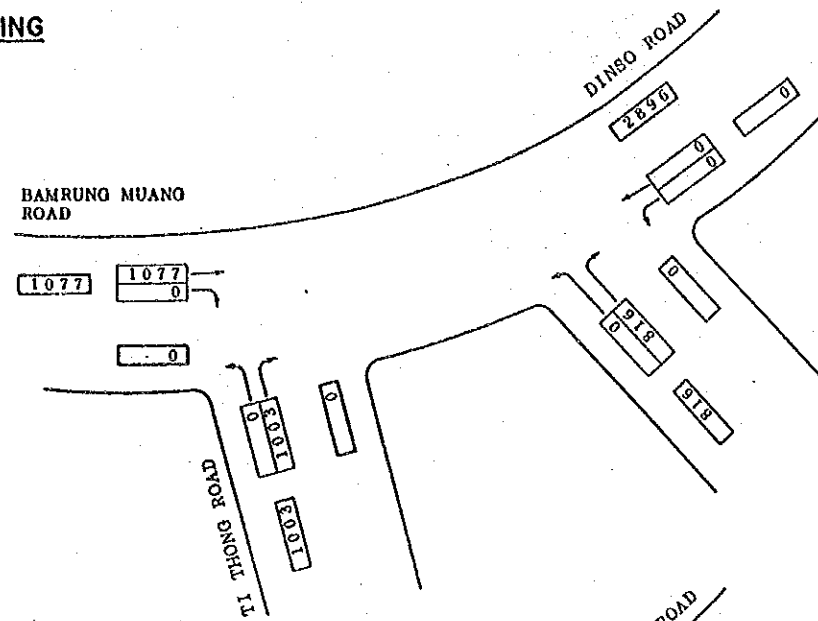
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

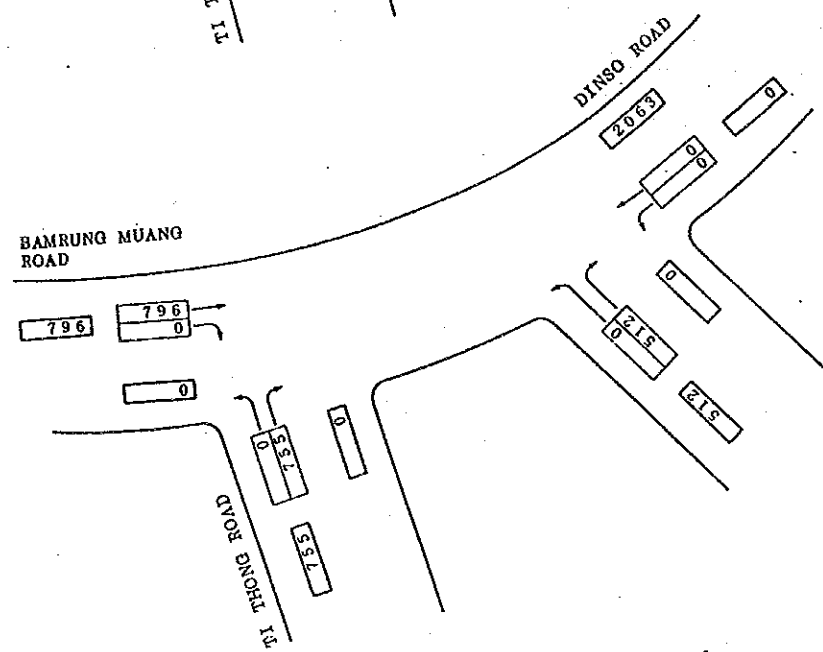
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I									
DESIGN VOLUME AND PHASE PLAN					Submitted By :		Approved By :		
NA PHRA LAN-LAK MUANG					Jure Kedara		Boonawat Tithas		
-SANAM CHAI					JICA Study Team Leader		BMA Study Team Leader		
Intersection No. 144					Designed By :		Designed By :		
					Yasuo Nishikawa		TED, BMA		
					JICA		BMA		
Associated Plan No. :					Japan International Cooperation Agency		Bangkok Metropolitan Administration		
					Scale		Drawing NR 3144		
					Date		SEPTMBER '90		
							Total 94 / 139		

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

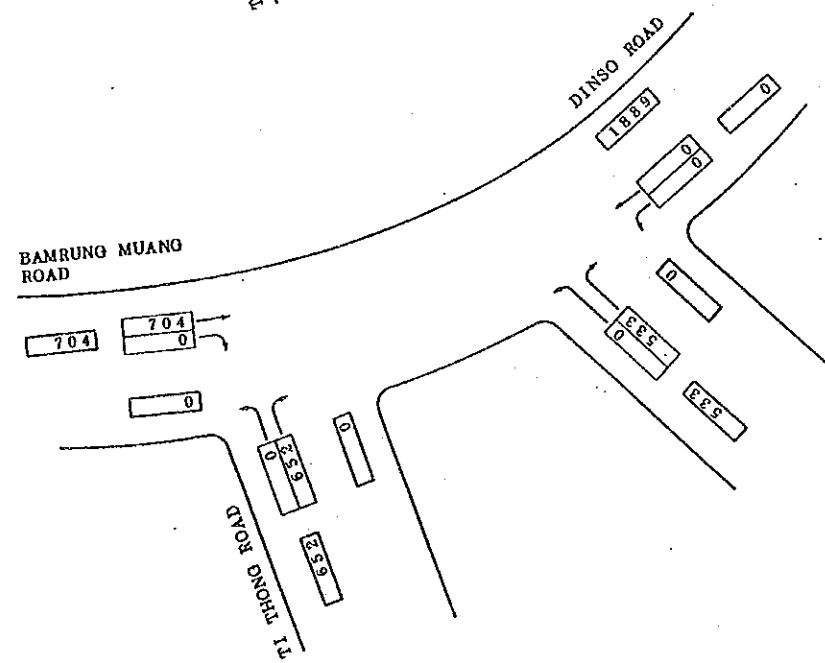
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	→	↶	↷					
II								
III								
PRE EMPTION								

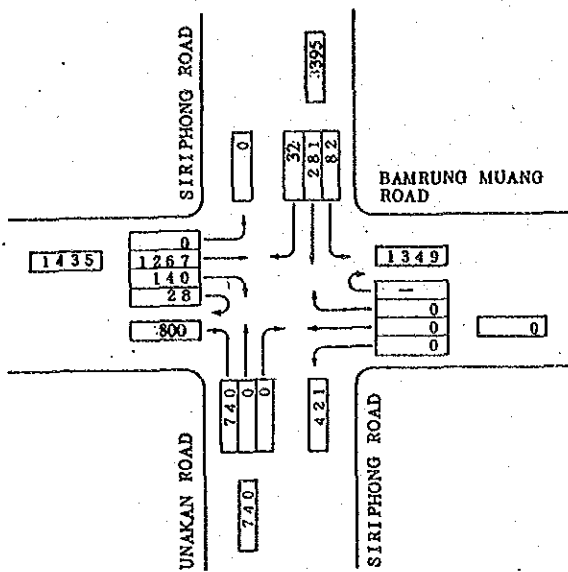
MANUAL PHASE

→	↶				
↷					

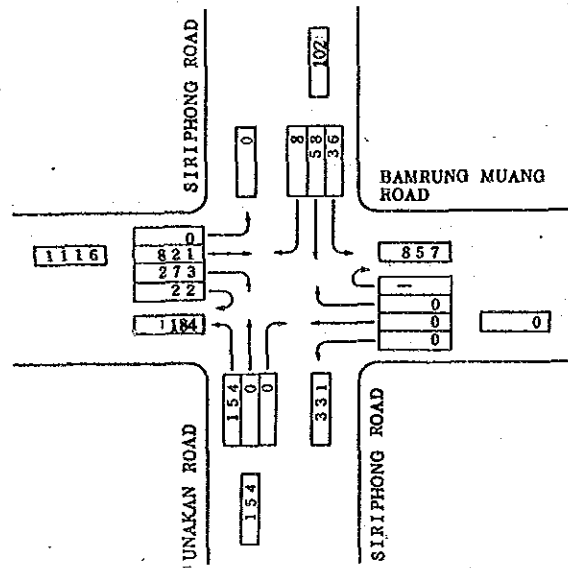
Code	Revision	Date	Initial	BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
Associated Plan No. 1				DESIGN VOLUME AND PHASE PLAN BAMRUNG MUANG-TI THONG		Submitted By : Jum Kadoro JICA Study Team Leader	Approved By : Waseawat Tiptao BMA Study Team Leader
				Intersection No. 147		Designed By : Yasu Nakashima JICA Study Member	Designed By : TEQ,BMA
				JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale	Drawing NR 3147
				Date	SEPTEMBER '90	Total	95 / 139

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

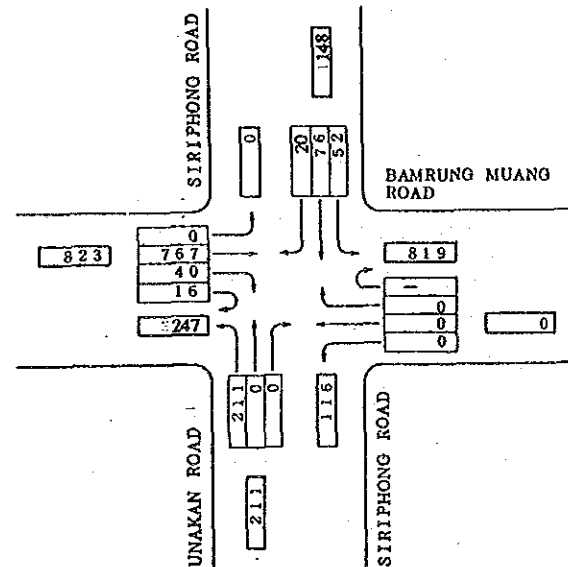
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	↙ ↘	↙ ↘	↕					
II								
III								
PRE EMPTION								

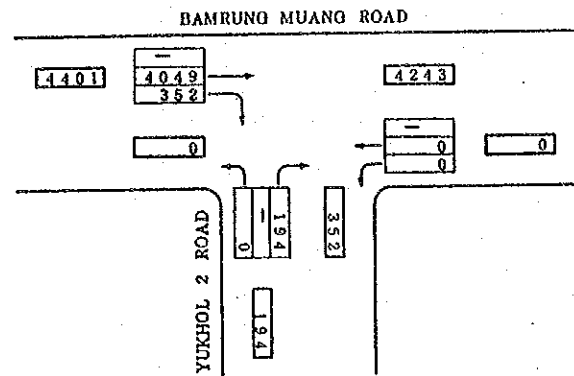
MANUAL PHASE

↙ ↘	↕				
↙ ↘					

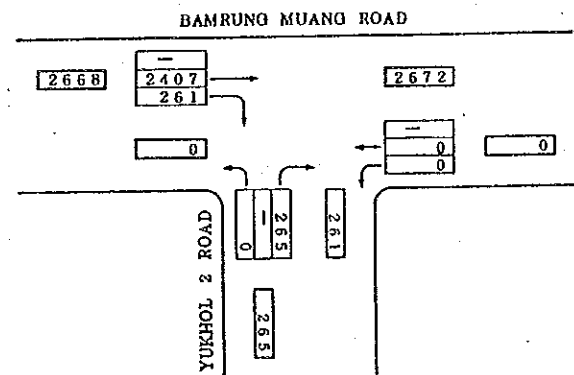
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN BAMRUNG MUANG-UNAKAN		Submitted By : Jiro Kodera JICA Study Team Leader	Approved By : Sangswal Tiptua BMA Study Team Leader
Intersection No. 148		Designed By : Yasu Nakashima JICA Study Member	Designed By : TED_BMA
Code	Revision	Date	Initial
Associated Plan No. 1	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Drawing No. 3148
		Date SEPTEMBER '00	Total 96 / 139

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

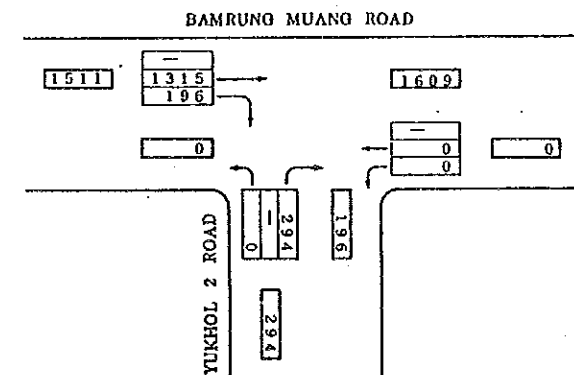
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	→	↶						
II								
III								
PRE EMPTION								

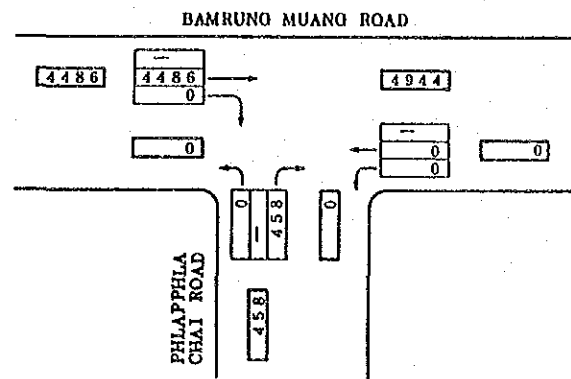
MANUAL PHASE

→					
↶					

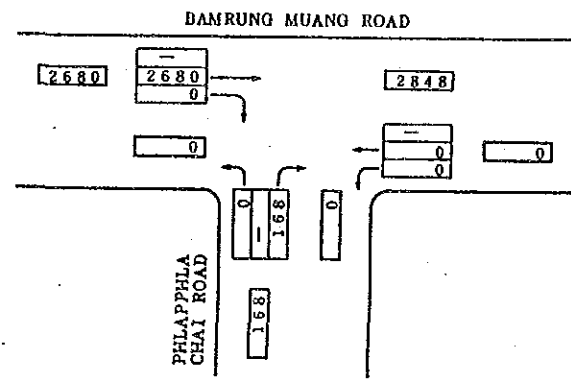
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN YUKHOL 2-BAMRUNG MUANG		Submitted By : Jiro Kodera JICA Study Team Leader	Approved By : Boonyawat Tiptua BMA Study Team Leader
Intersection No. 160		Designed By : Yasuo Nakashima JICA Study Member	Designed By : TEC, BMA
Code	Revision	Date	Initial
Associated Plan No. :	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Date SEPTEMBER '90
		Drawing NR 3160	Total 97 / 130

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

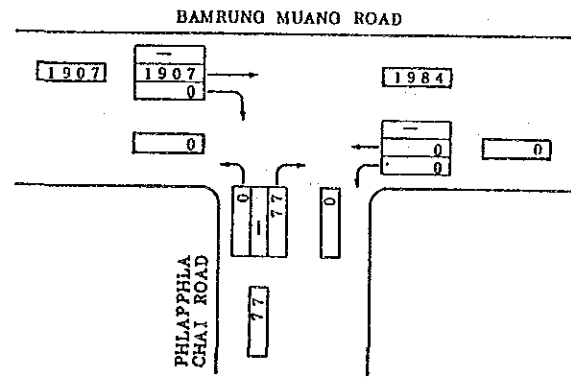
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	→	↻						
II								
III								
PRE EMPTION								

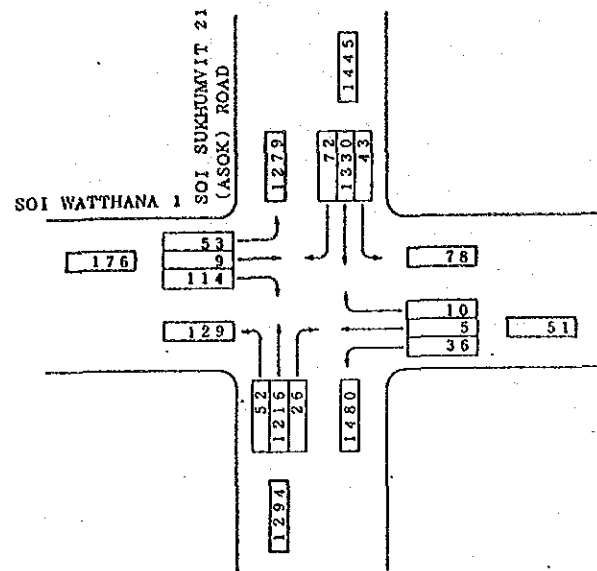
MANUAL PHASE

→							
↻							

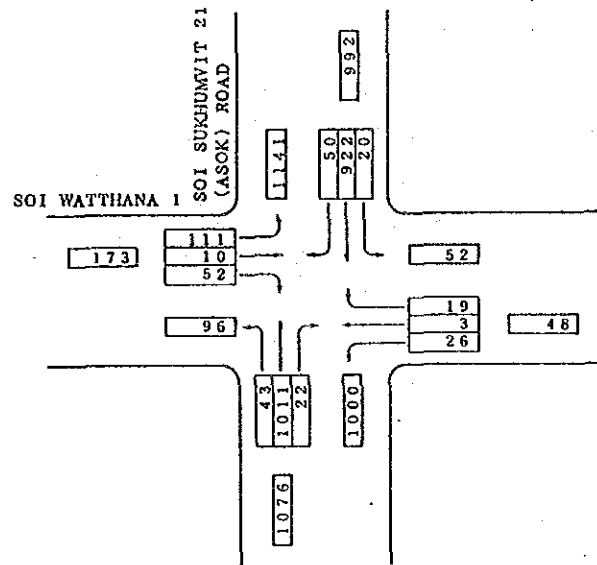
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT: STAGE I			
				DESIGN VOLUME AND PHASE PLAN			
				PHLAPPHLA CHAI-BAMRUNG MUANG			
				Intersection No. 161			
Code		Revision		Date		Writer	
Associated Plan No. 1				JICA Japan International Cooperation Agency		BMA Bangkok Metropolitan Administration	
				Submitted By : Juro Kadosa JICA Study Team Leader		Approved By : Boonswat Tipton BMA Study Team Leader	
				Designed By : Yasu Nobushige JICA Study Member		Designed By : YEO, RMA	
				Scale		Drawing No. 3161	
				Date SEPTEMBER '00		Total 98 / 139	

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

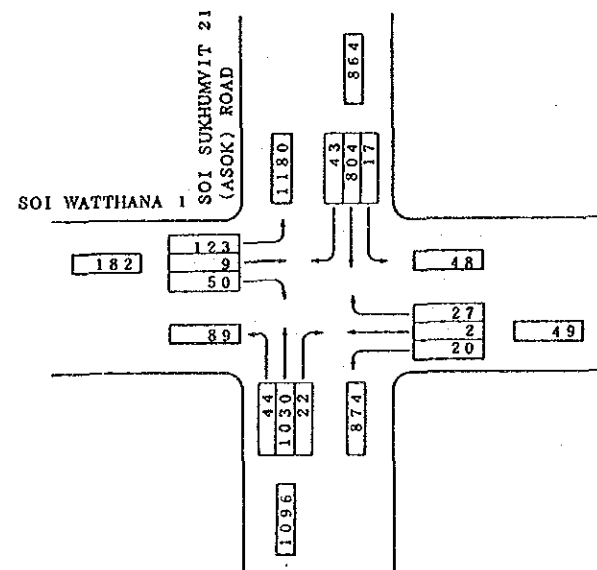
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

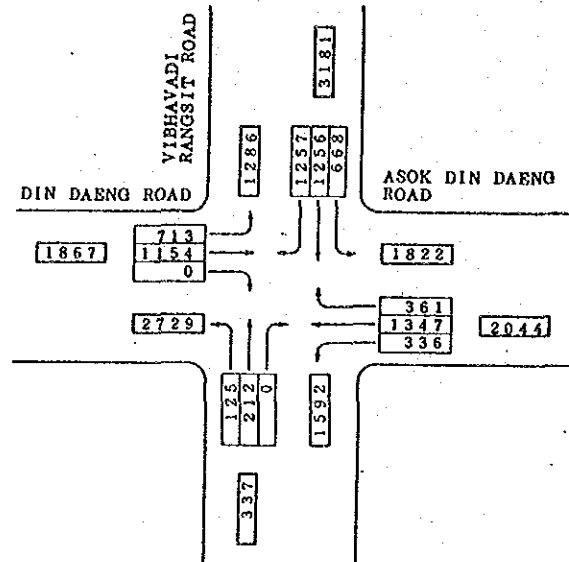
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

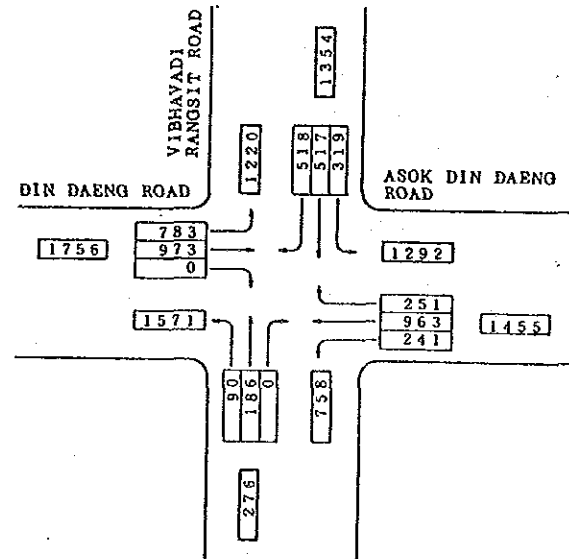
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I					
DESIGN VOLUME AND PHASE PLAN SOI SUKHUMVIT 21 (ASOK) -SOI WATTHANA 1			Submitted By : Jura Kadera JICA Study Team Leader	Approved By : Boonwatt Tiptas BMA Study Team Leader	
Intersection No. 162			Designed By : Yasuo Nakatsing JICA Study Member	Designed By : TEO, BMA	
Code	Revision	Date	Initial	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration
Associated Plan No. 1				Scale	Drawing NR 3162
				Date	SEPTEMBER '90
				Total	99 / 139

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

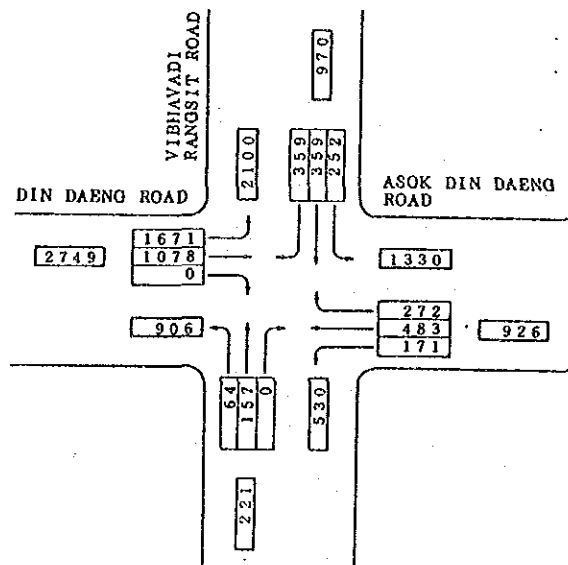
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	←	↙ ↘	↗ ↖					
II								
III								
PRE EMPTION								

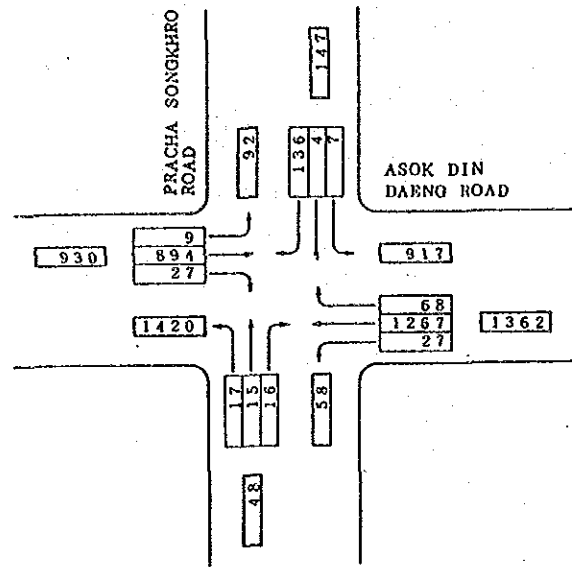
MANUAL PHASE

←	↗ ↖				
↙ ↘					

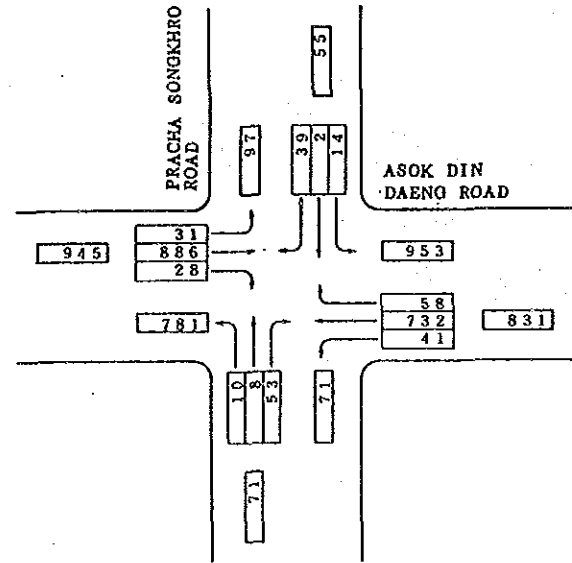
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN VIBHAVADI RANGSIT -DIN DAENO		Submitted By : Jure Kodera JICA Study Team Leader	Approved By : Boonswat Tiptua BMA Study Team Leader
Intersection No. 163		Designed By : Yong Neechana JICA Study Member	Designed By : TED.BMA
Code	Revision	Date	Initial
Associated Plan No. 1	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Drawing No. 3183
		Date SEPTEMBER '60	Total 100 / 139

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL.)

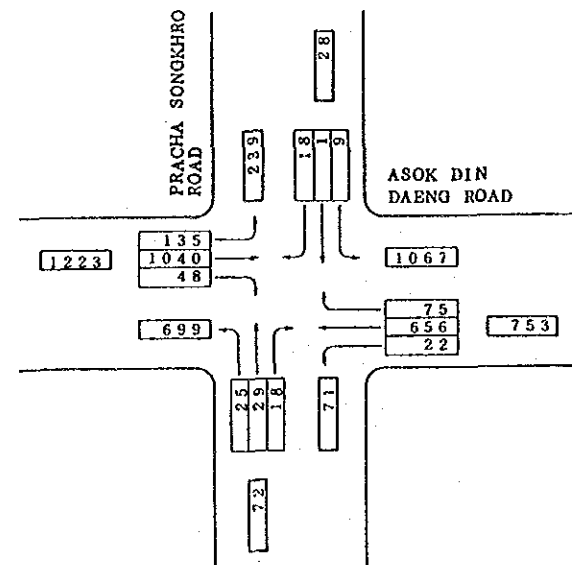
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

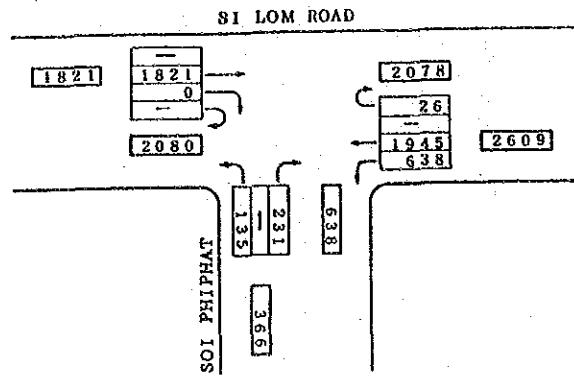
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

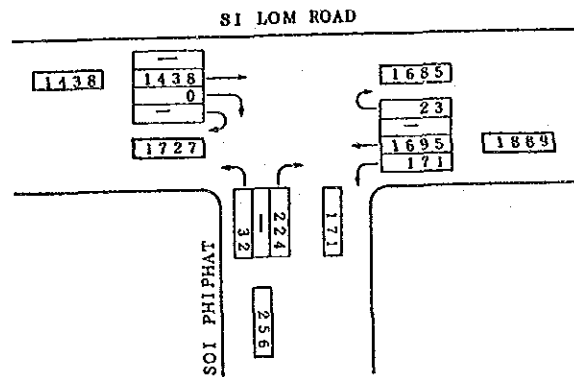
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN PRACHA SONGKHRO -ASOK DIN DAENG		Submitted By : Jun Kodera JICA Study Team Leader	Approved By : Sangsevat Thipao BMA Study Team Leader
Intersection No. 164		Designed By : Yasuo Kobayashi JICA Study Member	Designed By : YED,BMA
Code	Revision	Date	Initial
Associated Plan No. 1	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Date SEPTEMBER '90
		Drawing NR 3164	Total 101 / 139

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

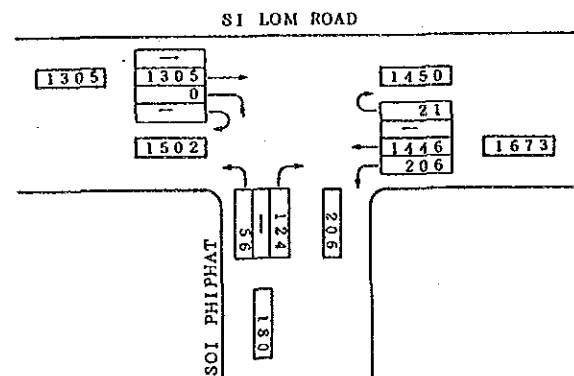
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	→	↕	↕	↕				
II								
III								
PRE EMPTION								

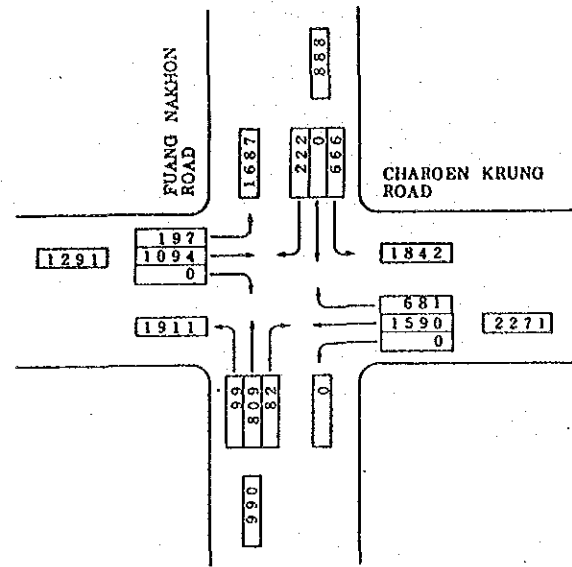
MANUAL PHASE

→	↕				
↙	↕				

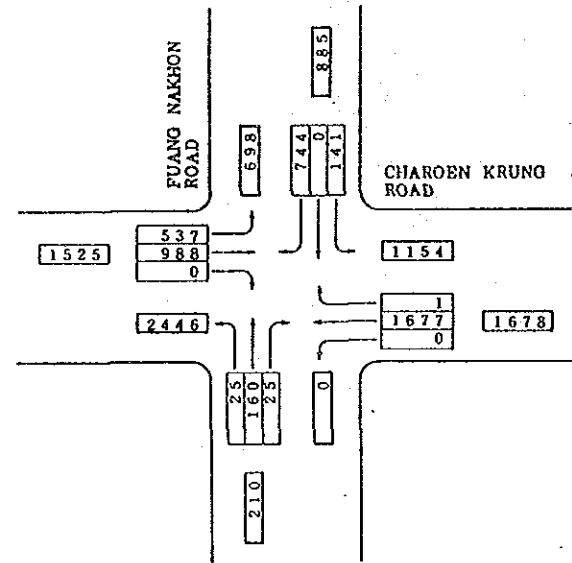
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
				DESIGN VOLUME AND PHASE PLAN SI LOM-SOI PHIPHAT (BANGKOK BANK)		Submitted By : Jiro Kodera JICA Study Team Leader	Approved By : Boonawat Tiptoo BMA Study Team Leader
				Intersection No. 175		Designed By : Yasuo Hasegawa JICA Study Member	Designed By : TED, BMA
Code	Revision	Date	Initial	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale	Drawing NR 3175
Associated Plan No. 1						Date SEPTEMBER '90	Total 102 / 138

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

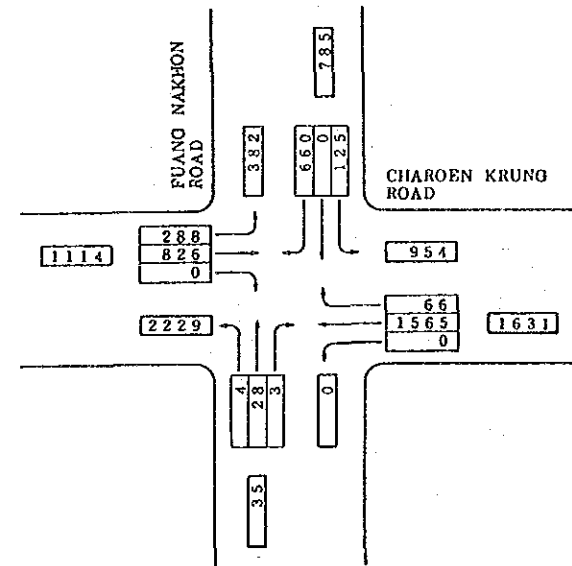
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

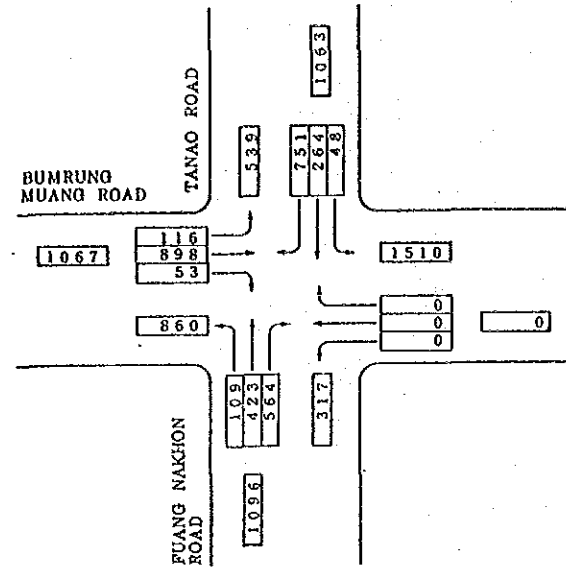
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

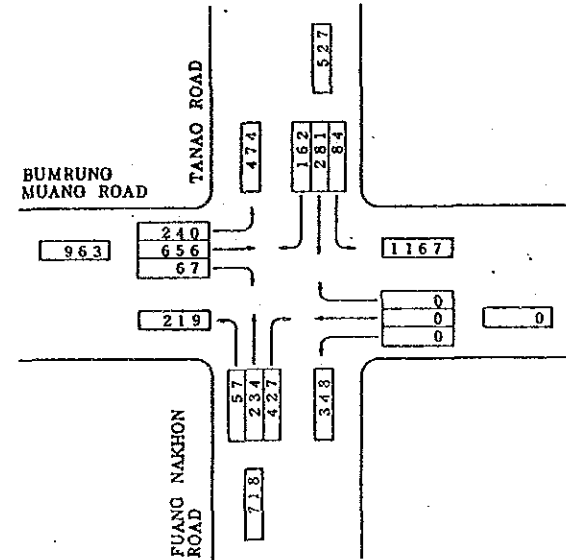
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT: STAGE I			
DESIGN VOLUME AND PHASE PLAN FUANG NAKHON -CHAROEN KRUNG		Submitted By : Jun Kudara JICA Study Team Leader	Approved By : Boonsorn Tiptan BMA Study Team Leader
Intersection No. 176		Designed By : Yasu Kobayashi JICA Study Member	Designed By : YAS_BMA
Code	Revision	Date	Initial
Associated Plan No. 1	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Date SEPTEMBER '90
		Drawing No 3178	Total 103 / 139

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

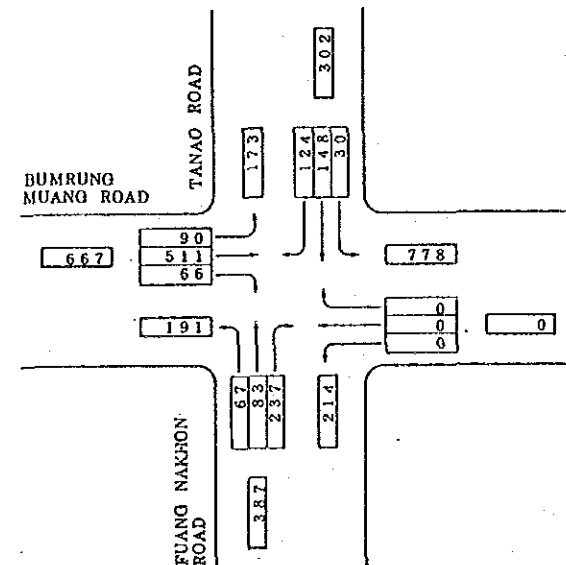
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

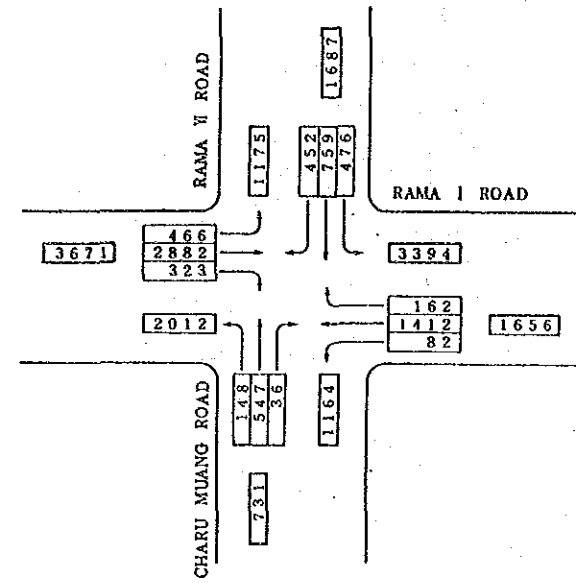
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

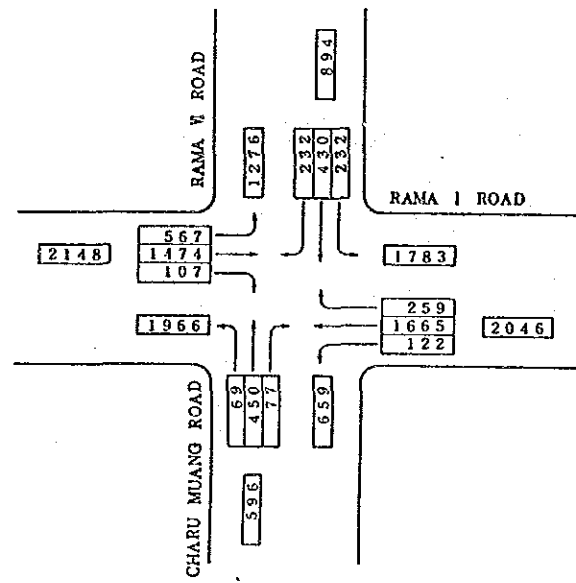
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN TANAO-BAMRUNG MUANG -FUANG NAKHON		Submitted By : Jiro Kafara JICA Study Team Leader	Approved By : Boonyawat Tiptoo BMA Study Team Leader
Intersection No. 177		Designed By : Yasuo Hasegawa JICA Study Member	Designed By : TED.BMA
Code	Revision	Date	Initial
Associated Plan No. :		JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration
		Scale	Drawing No. 3177
		Date SEPTEMBER '90	Total 104 / 130

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

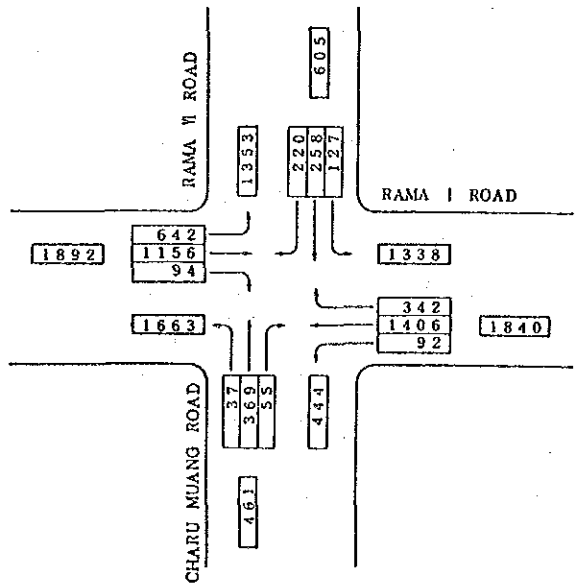
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

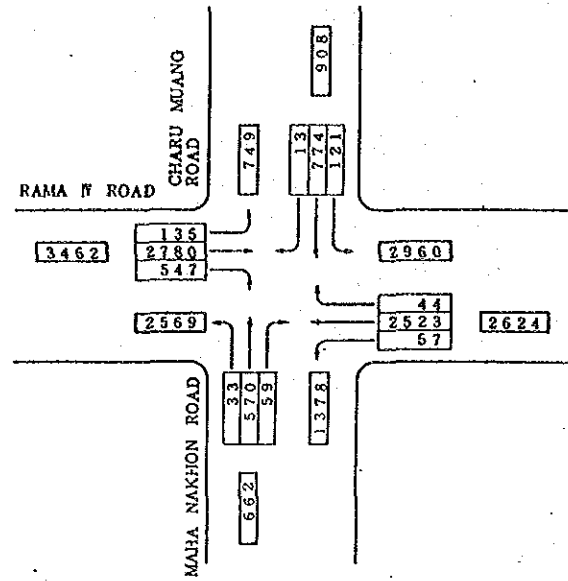
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

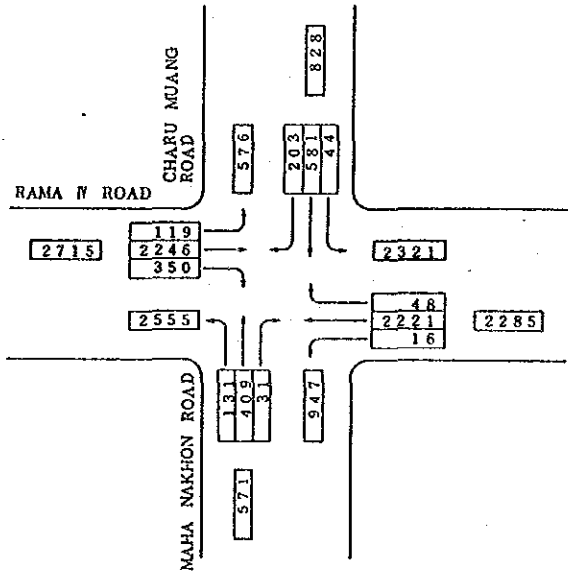
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN RAMA I-RAMA VI-CHARU MUANG		Submitted By : Jiro Kadera JICA Study Team Leader	Approved By : Boonyawat Tiplua BMA Study Team Leader
Intersection No. 184		Designed By : Yasuo Hasegawa JICA Study Member	Designed By : TEQ.BMA
Code	Revision	Date	Initial
Associated Plan No. 1			
JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale	Drawing No. 3184
		Date SEPTEMBER '00	Total 105 / 139

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

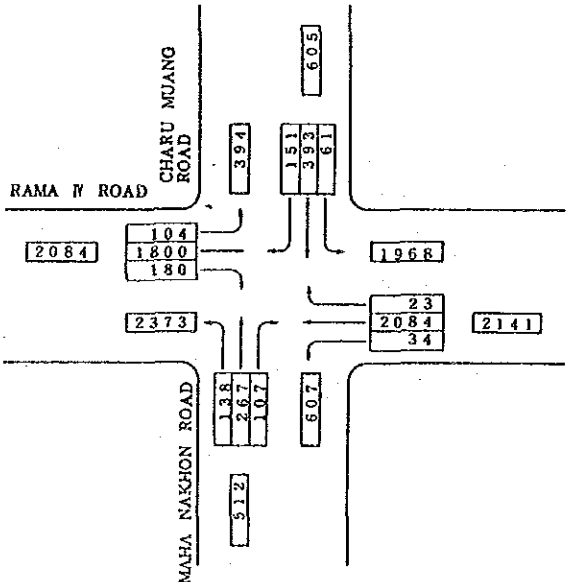
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

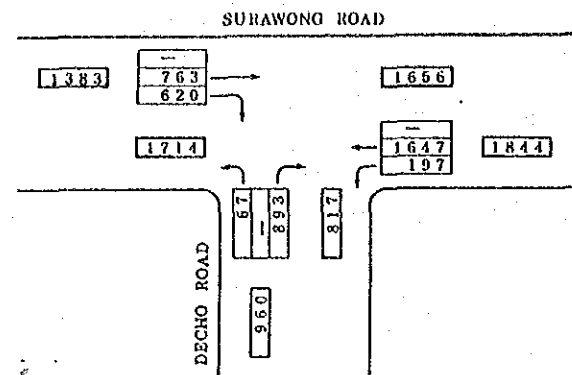
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

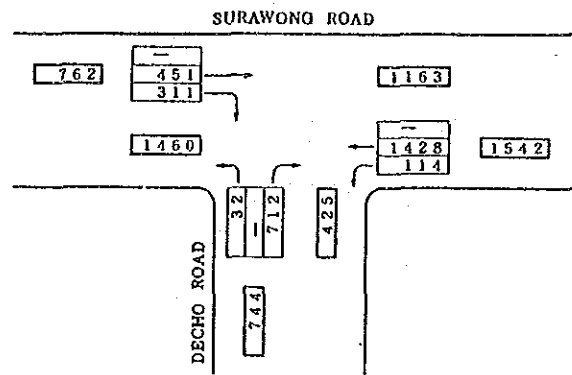
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN			
RAMA IV-CHARU MUANG			
-MAHA NAKHON			
Intersection No. 185			
Submitted By :	Jiro Kidera JICA Study Team Leader	Approved By :	Boonyawat Tiplao BMA Study Team Leader
Designed By :	Yasu Nakagawa JICA Study Member	Designed By :	TEO.SMA
Scale		Drawing No	3185
Date	SEPTEMBER '90	Total	108 / 139
Associated Plan No. 1	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

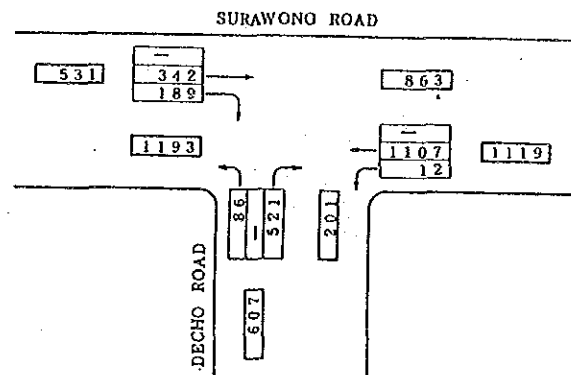
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

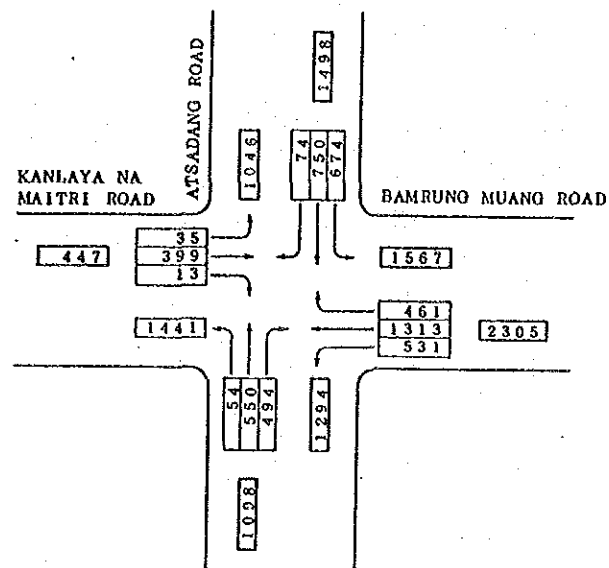
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

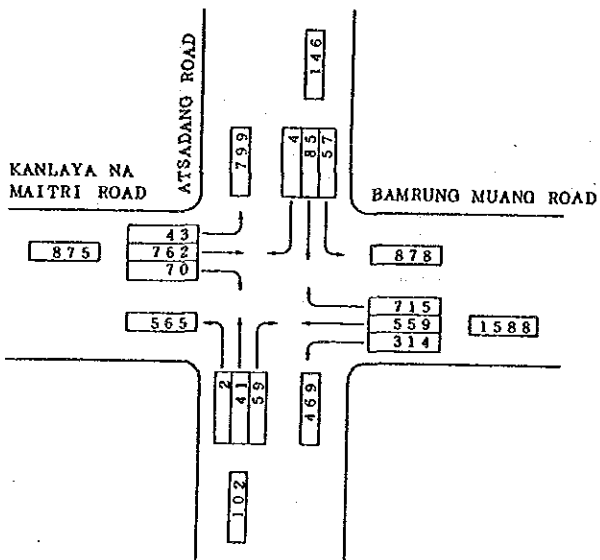
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT: STAGE I			
DESIGN VOLUME AND PHASE PLAN SURAWONG-DECHO		Submitted By : Juro Wadera JICA Study Team Leader	Approved By : Boonwong Tiptao BMA Study Team Leader
Intersection No. 188		Designed By : Yasuo Hasegawa JICA Study Member	Designed By : TED, BMA
Associated Plan No. :	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Date SEPTEMBER '90
		Drawing No. 3188	Total 107 / 139

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

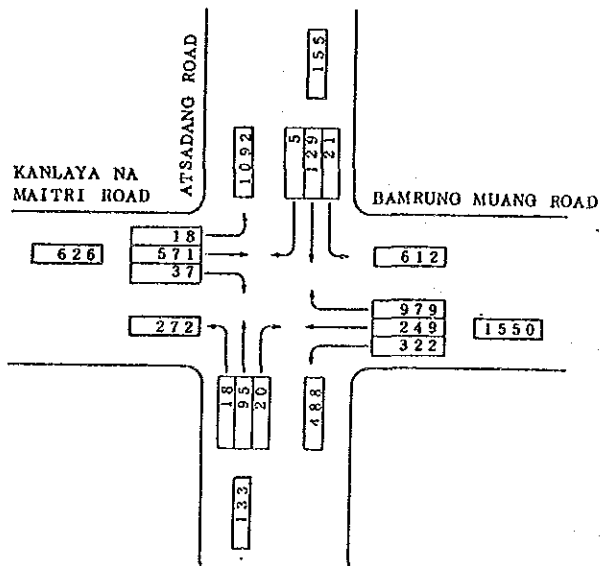
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

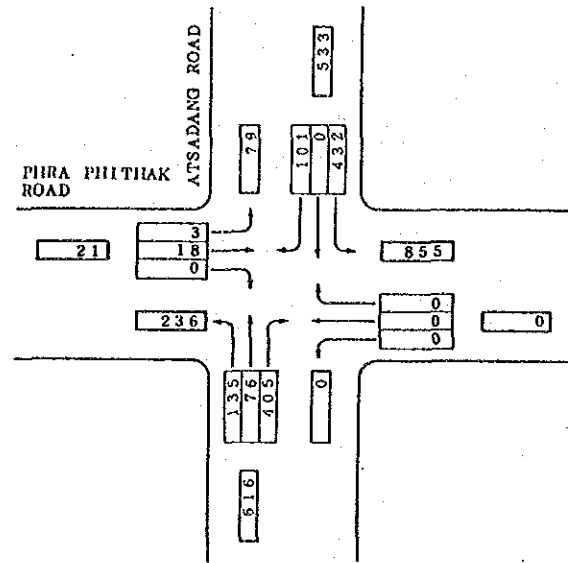
PHASE	10	20	30	40	50	60	70	80
I (MORNING PEAK HOUR)								
II (DAYTIME (EVENING PEAK HOUR))								
III								
PRE EMPTION								

MANUAL PHASE

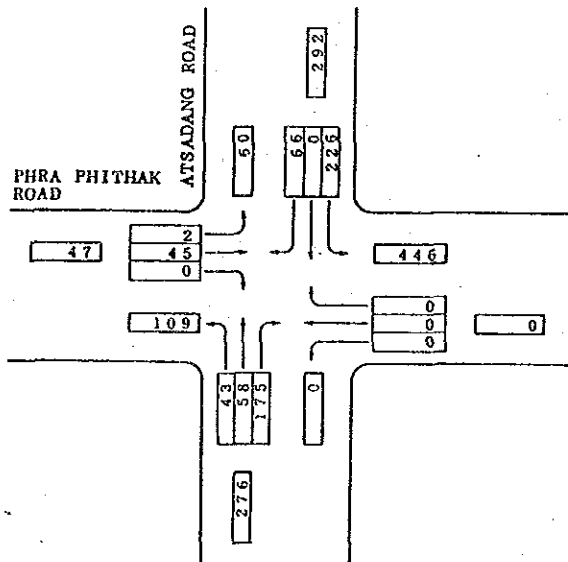
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT: STAGE I			
DESIGN VOLUME AND PHASE PLAN ATSADANG-BAMRUNG MUANG		Submitted By : Jorn Kodera JICA Study Team Leader	Approved By : Weerawat Tipton BMA Study Team Leader
Intersection No. 189		Designed By : Yasuo Mabechima JICA Study Member	Designed By : TCC_BMA
Code	Revision	Date	Initial
Associated Plan No. :	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Date SEPTEMBER '90
		Drawing No 3189	Total 108 / 138

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

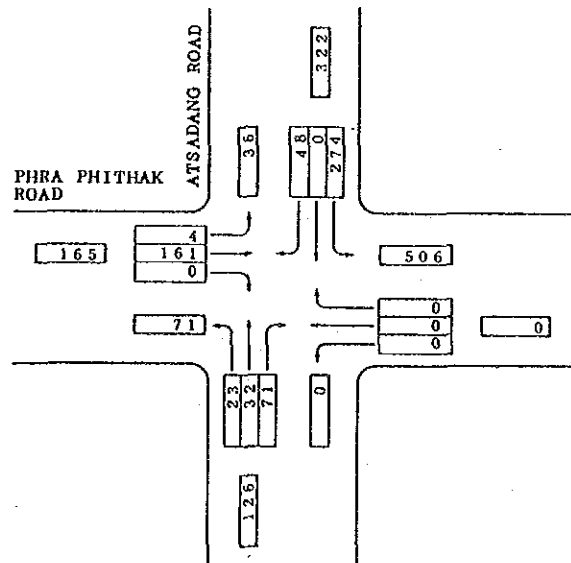
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

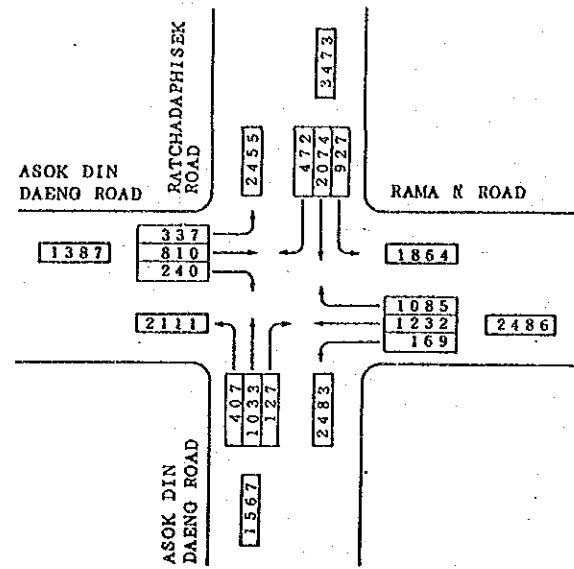
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

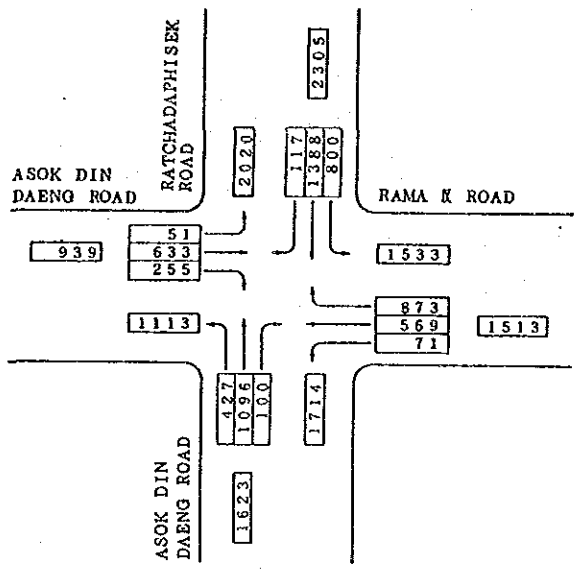
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT: STAGE I			
				DESIGN VOLUME AND PHASE PLAN ATSADANG-PHRA PHITHAK		Submitted By : Jiro Kodera JICA Study Team Leader	Approved By : Boonwatt Tiptua BMA Study Team Leader
				Intersection No. 191		Designed By : Yasuo Nishikawa JICA Study Member	Designed By : TEO, BMA
Code	Revision	Date	Initial	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale	Drawing No. 3191
Associated Plan No. 1						Date SEPTEMBER '90	Total 109 / 139

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

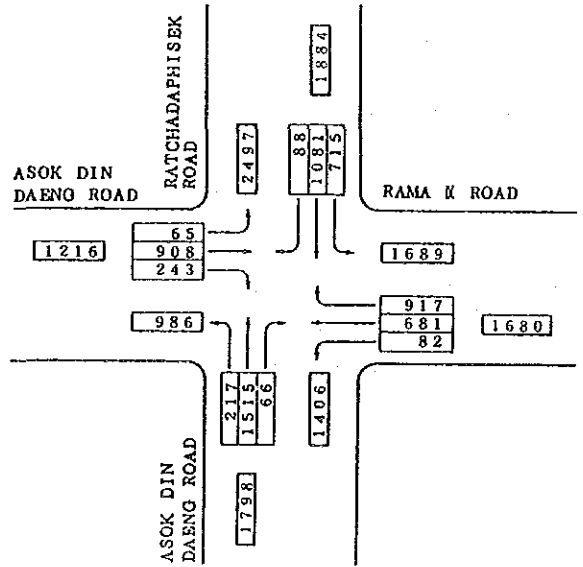
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	→ ←	↘ ↙	↑ ↓	↗ ↖				
II								
III								
PRE EMPTION								

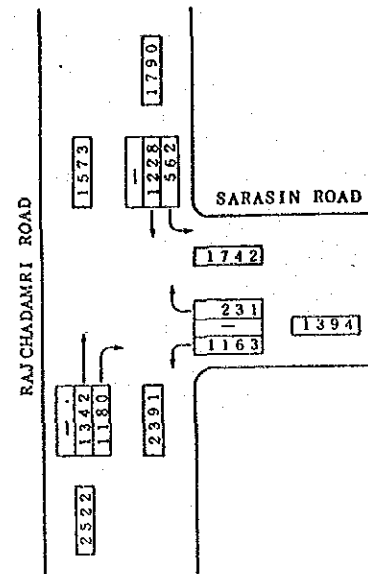
MANUAL PHASE

↗ ↖	→ ←	↘ ↙	↑ ↓		
↙ ↘	↗ ↖	↘ ↙	↗ ↖		

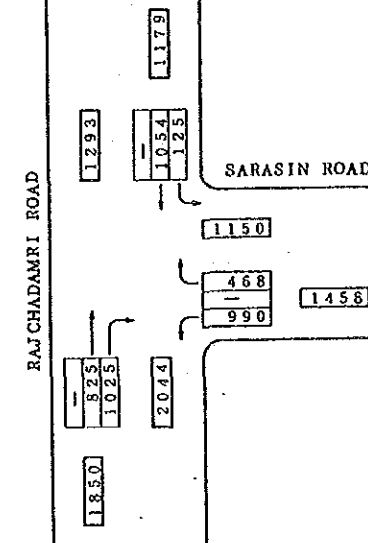
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
				DESIGN VOLUME AND PHASE PLAN			
				RATCHADAPHISEK			
				-ASOK DIN DAENG-RAMA IX			
				Intersection No. 194			
Code		Revision		Date		Initial	
Associated Plan No. 1				JICA Japan International Cooperation Agency		BMA Bangkok Metropolitan Administration	
				Submitted By : Jiro Kodera JICA Study Team Leader		Approved By : Boonyawat Tipius BMA Study Team Leader	
				Designed By : Yasuo Kobayashi JICA Study Member		Designed By : TEO, BMA	
				Scale		Drawing NR 3194	
				Date SEPTEMBER '90		Total 110 / 139	

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

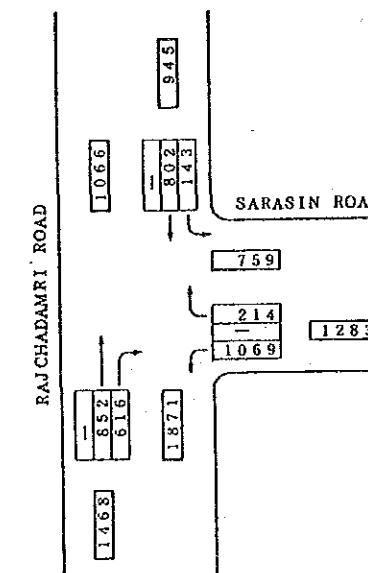
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

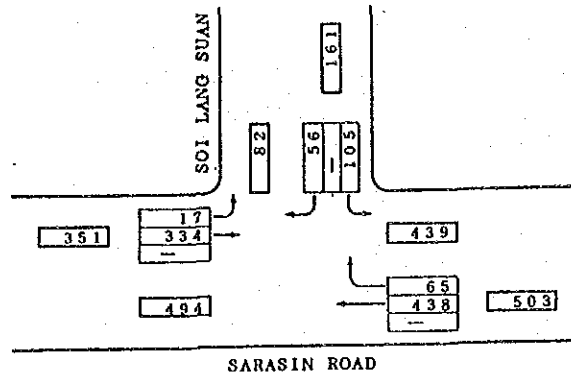
PHASE	10	20	30	40	50	60	70	80
PATTERN								
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

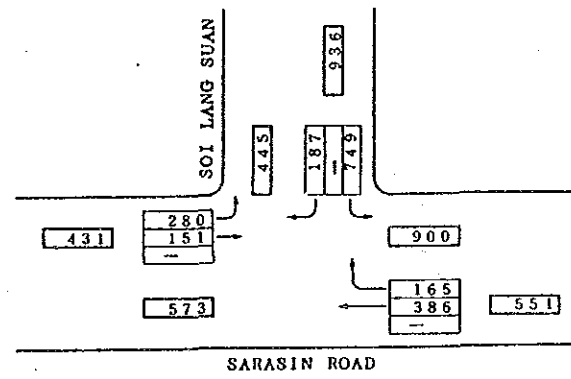
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
				DESIGN VOLUME AND PHASE PLAN			
				SARASIN-RATCHADAMRI			
				Submitted By : Jiro Kodera JICA Study Team Leader		Approved By : Keonjwal Thipha BMA Study Team Leader	
				Designed By : Tsune Hasebajon JICA Study Member		Designed By : TED_BMA	
				Intersection No. 196			
Code				JICA		BMA	
Associated Plan No. 1				Japan International Cooperation Agency		Bangkok Metropolitan Administration	
				Scale		Drawing No. 3106	
				Date SEPTEMBER '90		Total 111 / 139	

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

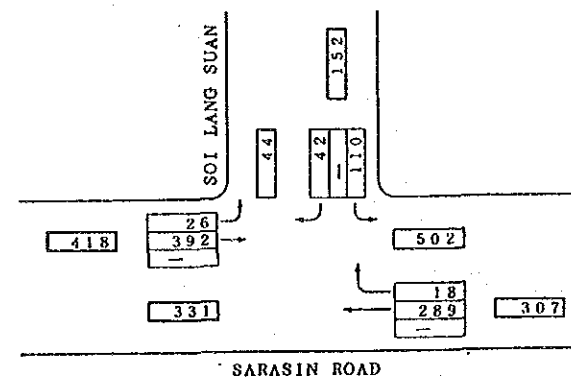
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

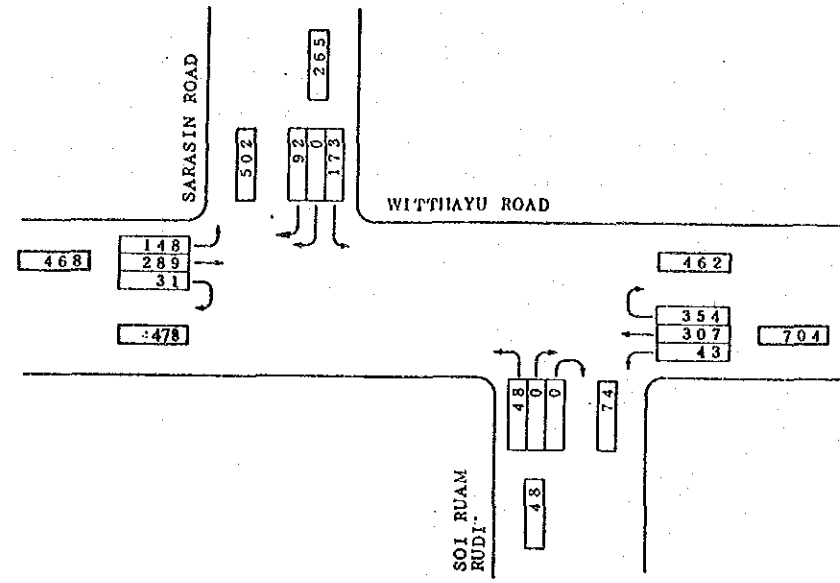
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

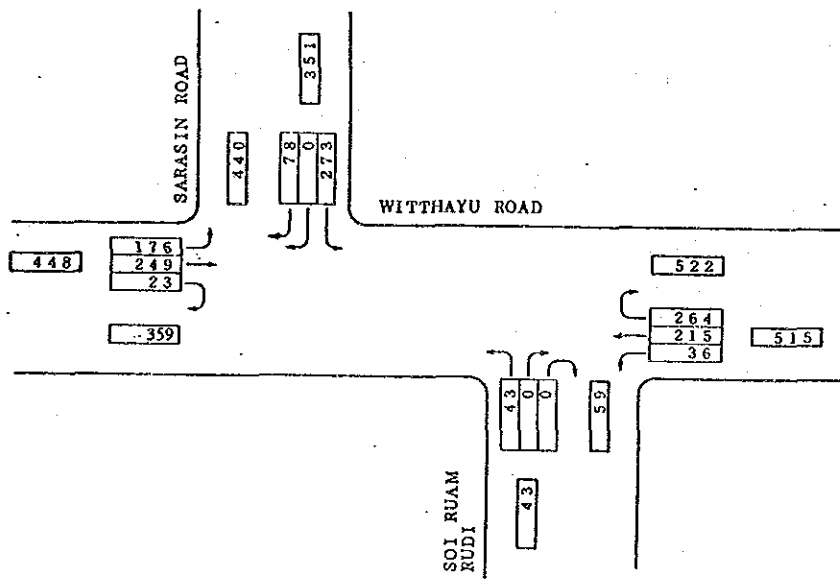
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
				DESIGN VOLUME AND PHASE PLAN SARASIN-SOI LANG SUAN		Submitted By : Jiro Kodate JICA Study Team Leader	Approved By : Boonswat Vichit BMA Study Team Leader
				Intersection No. 197		Designed By : Yasuo Nabeshima JICA Study Member	Designed By : TOD, BMA
Code	Revision	Date	Initial	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale	Drawing No. 3197
Associated Plan No. :						Date	SEPTEMBER '90
						Total 112 / 138	

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

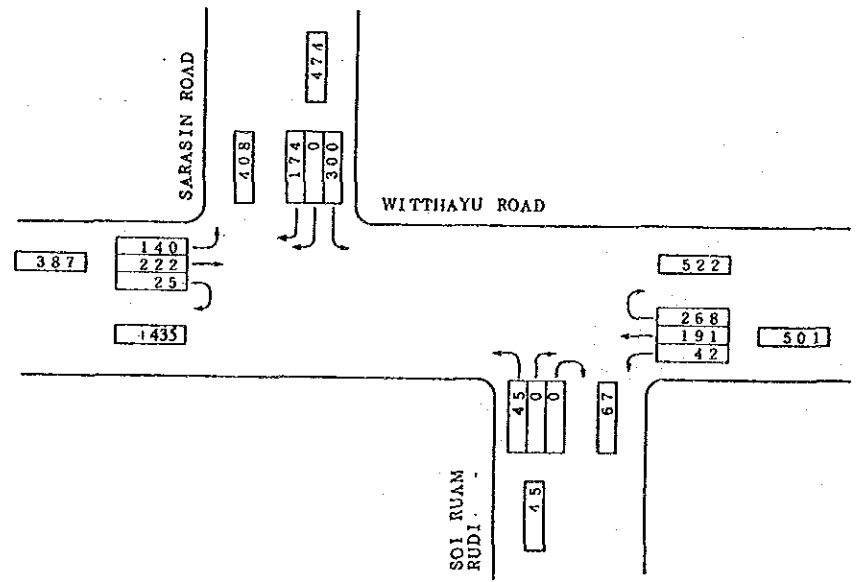
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	→ → ← ←	↶ ↷	↶ ↷					
II								
III								
PRE EMPTION								

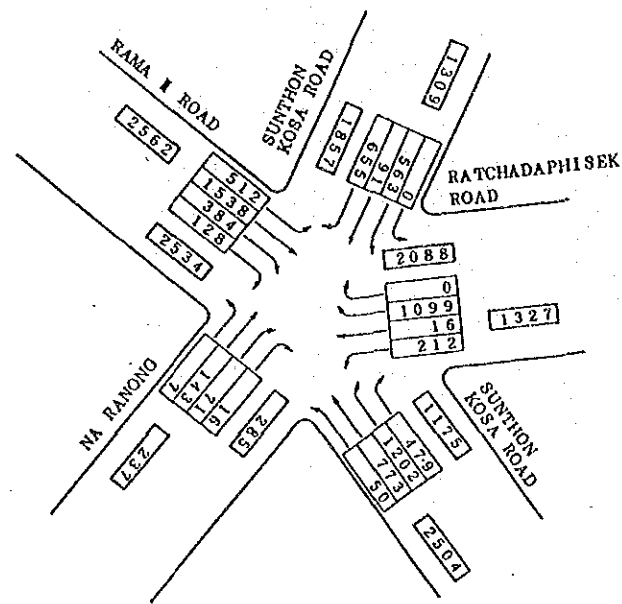
MANUAL PHASE

→	→	↶ ↷			
↶ ↷	↶ ↷				

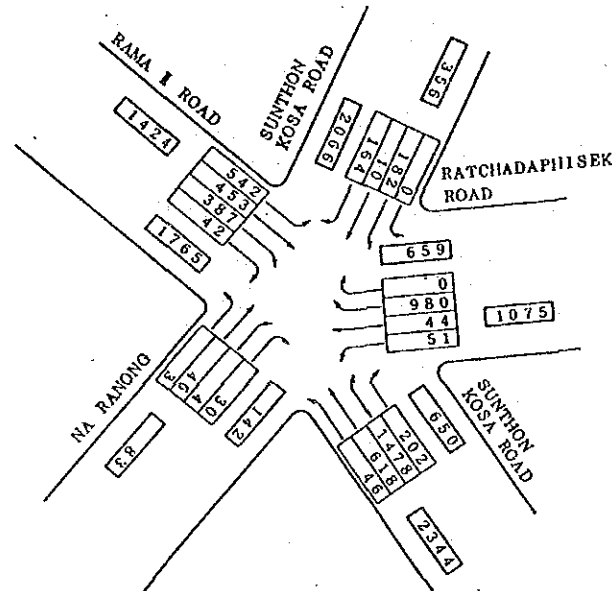
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT: STAGE I			
DESIGN VOLUME AND PHASE PLAN SARASIN-WITTHAYU -SOI RUAM RUDI		Submitted By : Jiro Kodera JICA Study Team Leader	Approved By : Boonswat Tiptua BMA Study Team Leader
Intersection No. 198		Designed By : Yasu Kobayashi JICA Study Manager	Designed By : TTO.BMA
Code	Revision	Date	Initial
Associated Plan No. 1	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Date SEPTEMBER '00
		Drawing NR 3108	Total 113 / 130

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

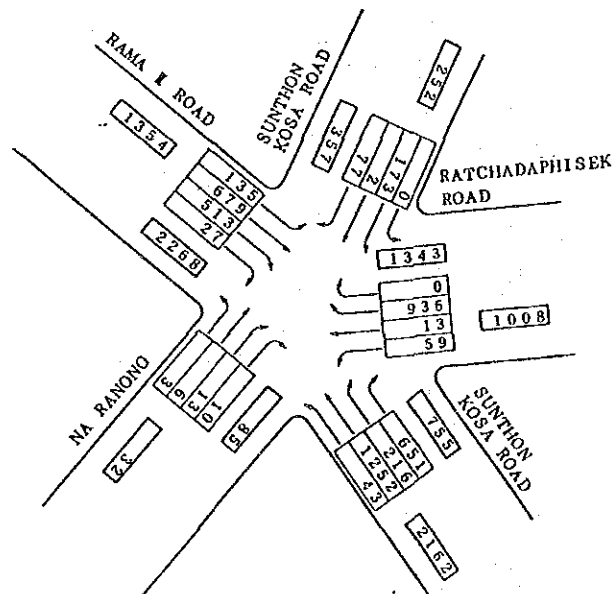
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

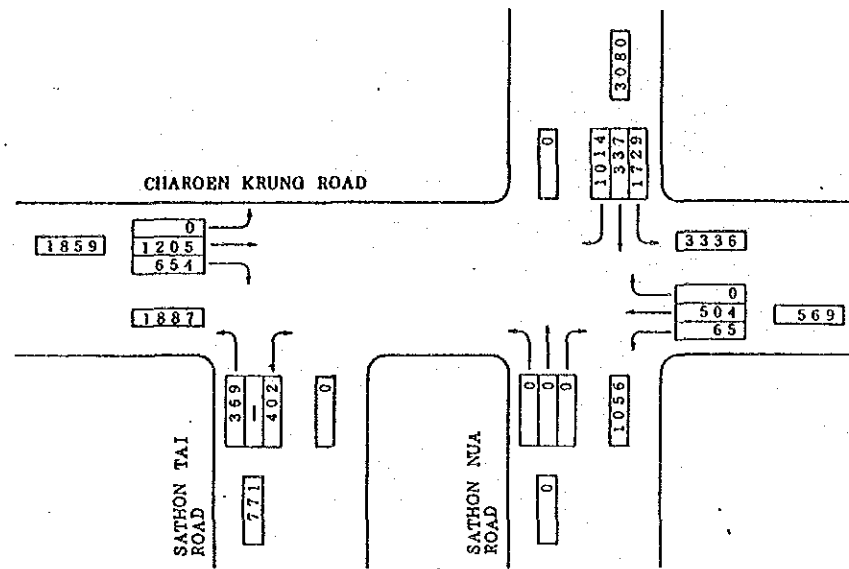
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

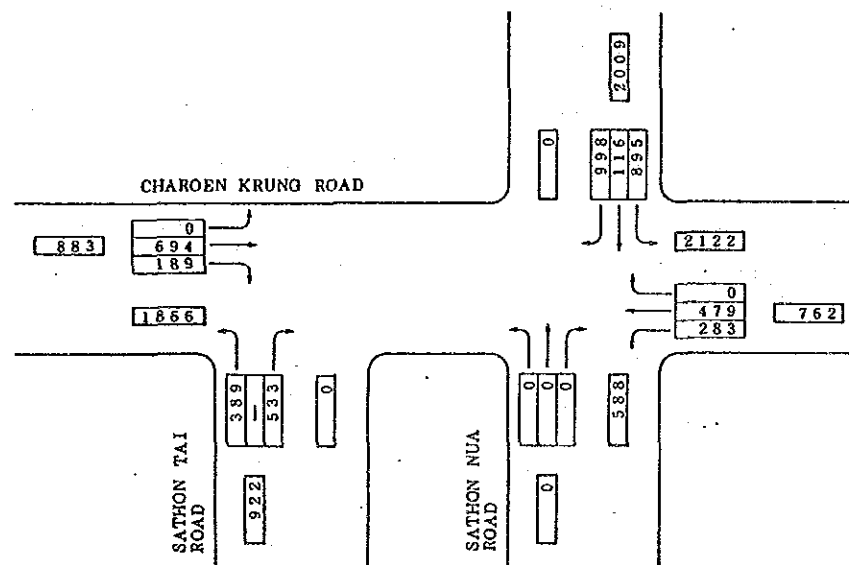
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN RATCHADAPHISEK -SUNTHON KOSA-RAMA III -NA RANONG		Submitted By : Jara Kadara JICA Study Team Leader	Approved By : Wanyasut Tiptua BMA Study Team Leader
Intersection No. 199		Designed By : Yasuo Hasegawa JICA Study Member	Designed By : TEO,BMA
Associated Plan No. 1	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Drawing No. 3109
		Date SEPTEMBER '90	Total 114 / 139

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

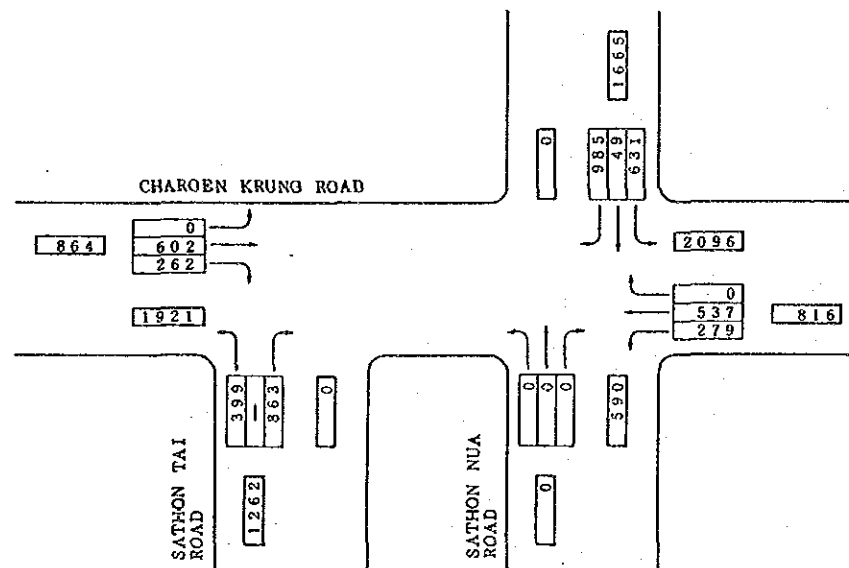
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

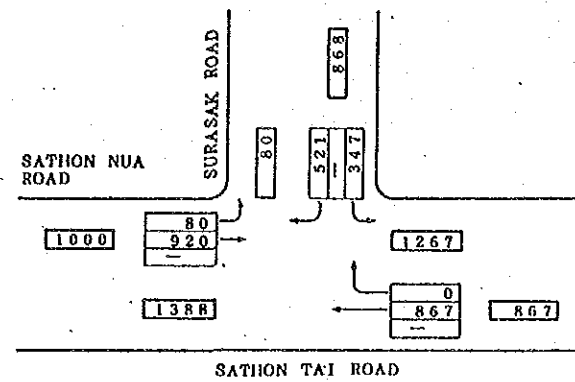
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

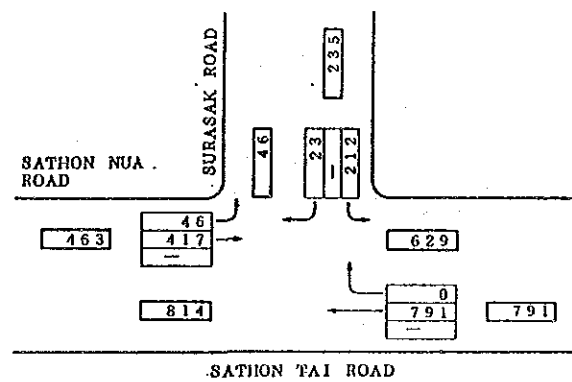
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN		Submitted By : Jiro Kodera JICA Study Team Leader	Approved By : Sangswat Tipton BMA Study Team Leader
SATHON-CHAROEN KRUNG		Designed By : Yasuo Nakashima JICA Study Member	Designed By : YEO_BMA
Intersection No. 214			
Code	Revision	Date	Initial
Associated Plan No. 1	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Drawing NR 3214
		Date SEPTEMBER '90	Total 115 / 139

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

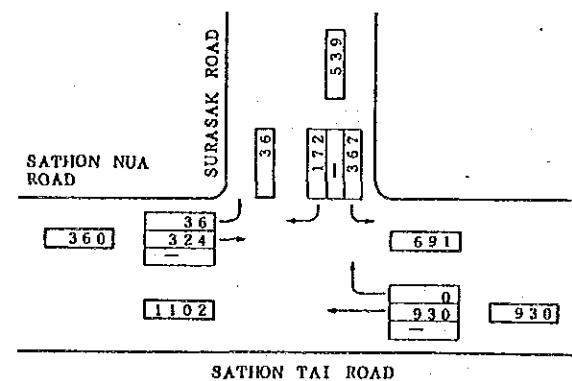
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	→ ←	↘ ↙						
II								
III								
PRE EMPTION								

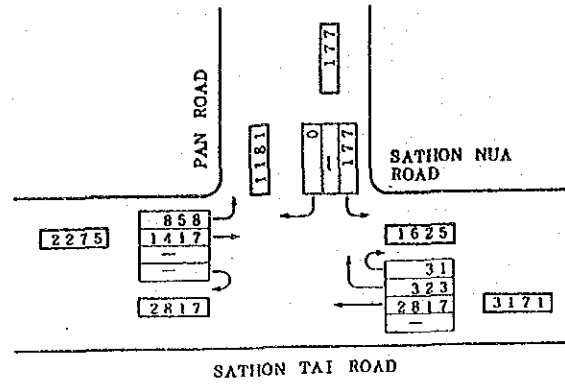
MANUAL PHASE

→	→ ←				
←	↘ ↙				

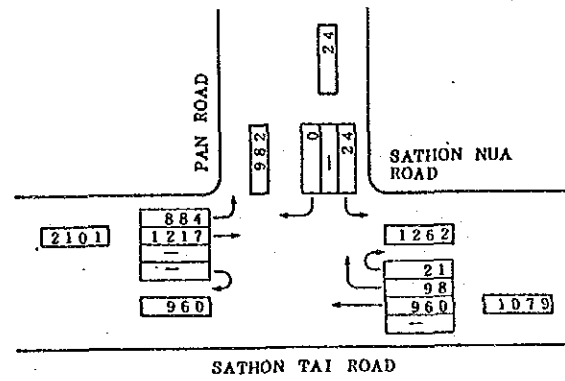
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
				DESIGN VOLUME AND PHASE PLAN SATHON NUA-SURASAK		Submitted By : Jira Kodera JICA Study Team Leader	Approved By : Wanwanol Thitoo BMA Study Team Leader
				Intersection No. 215		Designed By : Yessie Natsaphan JICA Study Member	Designed By : Tib_BMA
Code	Revision	Date	Initial	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale	Drawing NR 3215
Associated Plan No. 1						Date SEPTEMBER '00	Total 118 / 130

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

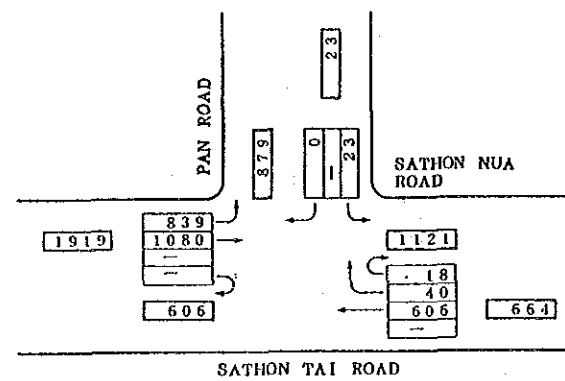
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	→	↻						
II								
III								
PRE EMPTION								

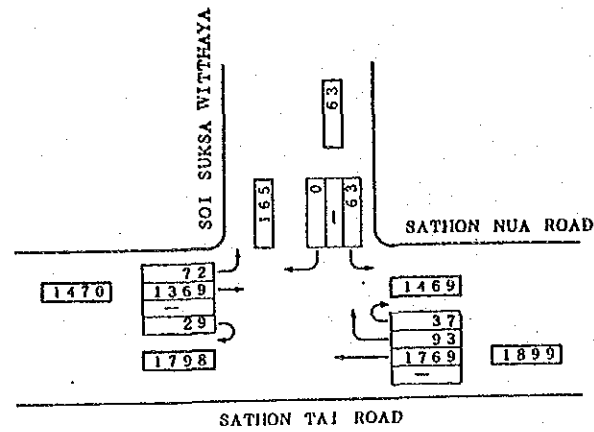
MANUAL PHASE

→							
↻							

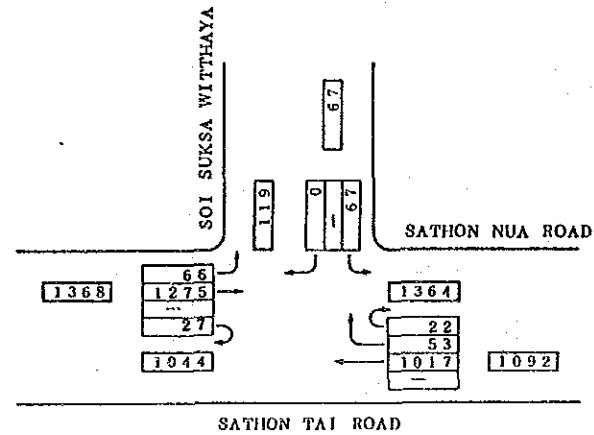
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN SATHON NUA-PAN		Submitted By : Jiro Kodate JICA Study Team Leader	Approved By : Wanayarat Tiptoo SMA Study Team Leader
Intersection No. 217		Designed By : Yasuo Hasegawa JICA Study Member	Designed By : YEO, SMA
Associated Plan No. 1	JICA Japan International Cooperation Agency	SMA Bangkok Metropolitan Administration	Scale Date SEPTEMBER '00 Drawing NR 3217 Total 117 / 139

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

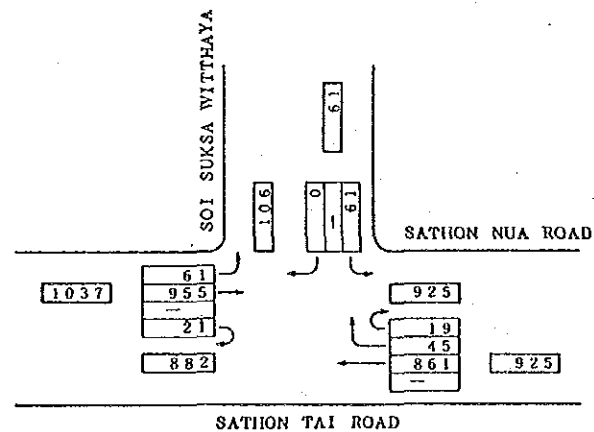
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	↗ ←	↘ ↖						
II								
III								
PRE EMPTION								

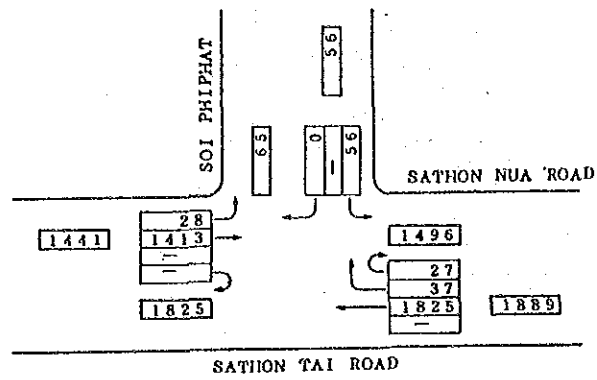
MANUAL PHASE

↗	↘ ←				
←	↖ ↗				

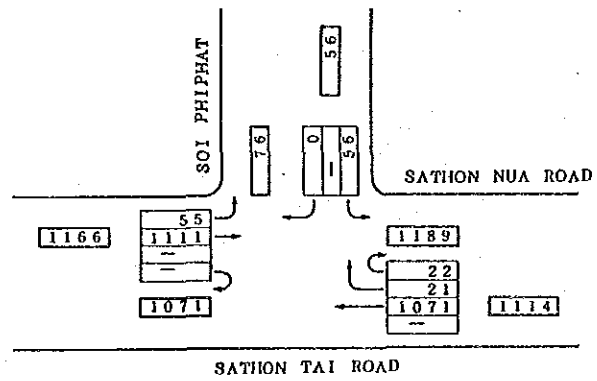
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN SATHON-SOI SUKSA WITTHAYA (BANG RAK HOSPITAL)			
Submitted By : Jiro Kodera JICA Study Team Leader		Approved By : Beejanant Tiptua BMA Study Team Leader	
Designed By : Yoshio Nakayama JICA Study Member		Designed By : TID.BKA	
Intersection No. 219			
Code	Revision	Date	Initial
Associated Plan No. 1			
JICA Japan International Cooperation Agency		BMA Bangkok Metropolitan Administration	
Scale		Drawing NR 3219	
Date SEPTEMBER '90		Total 118 / 139	

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

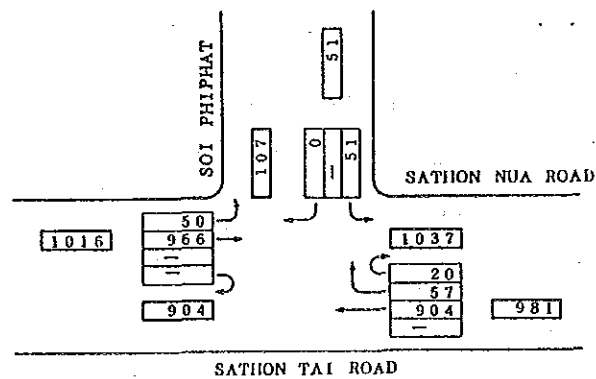
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	↗	↖ ↘ ↙						
II								
III								
PRE EMPTION								

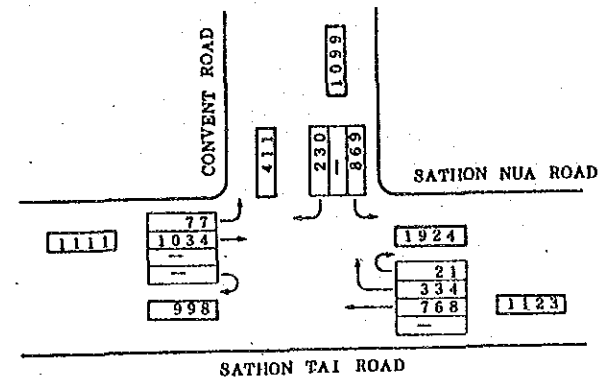
MANUAL PHASE

↗							
↖ ↘ ↙							

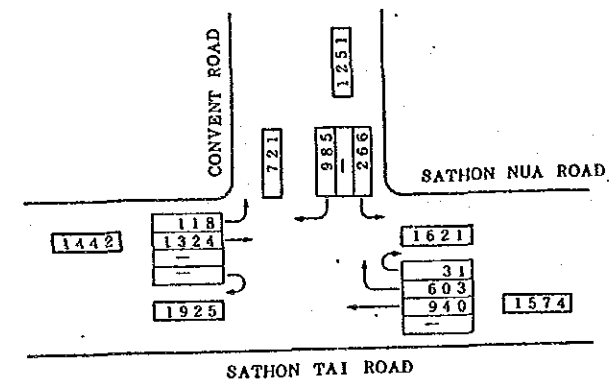
Code	Revision	Date	Initial	BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT: STAGE I			
				DESIGN VOLUME AND PHASE PLAN			
				SATHON NUA-PHIPHAT			
				Submitted By : Jorn Kudara JICA Study Team Leader		Approved By : Wassawat Tipton BMA Study Team Leader	
				Designed By : Yoson Nuchasing JICA Study Member		Designed By : TEO, BMA	
				Intersection No. 221			
Associated Plan No. 1				JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale	Drawing No. 3221
				Date SEPTEMBER '90		Total 119 / 139	

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

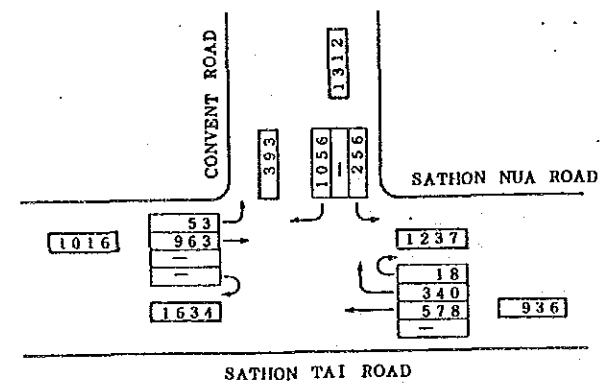
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	→ ←	↻	↻					
II								
III								
PRE EMPTION								

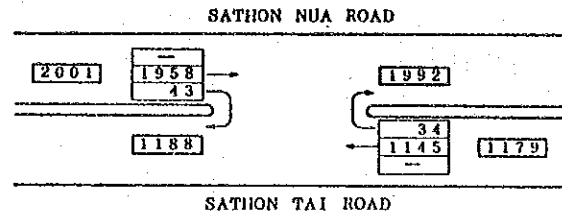
MANUAL PHASE

→	→	↻			
←	↻				

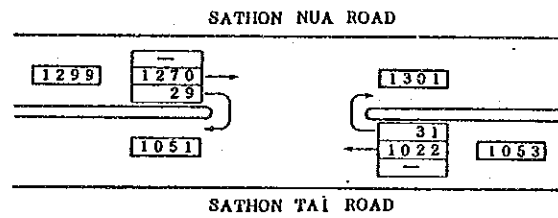
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT: STAGE I			
				DESIGN VOLUME AND PHASE PLAN SATHON NUA-CONVENT		Submitted By : Jiro Kodera JICA Study Team Leader	
				Intersection No. 222		Approved By : Boonwut Titipo BMA Study Team Leader	
						Designed By : Yasuo Kobayashi JICA Study Member	
						Designed By : TED_BMA	
Code	Revision	Date	Initial	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale	Drawing No. 3222
Associated Plan No. 1						Date	SEPTEMBER '90 Total 120 / 130

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

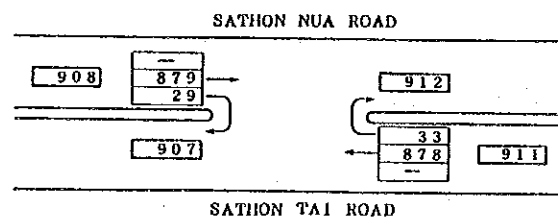
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	→	↻						
II								
III								
PRE EMPTION								

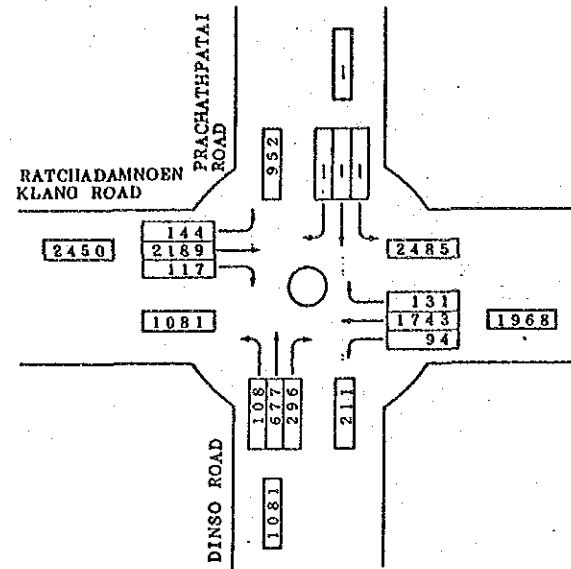
MANUAL PHASE

→	→				
←	↻				

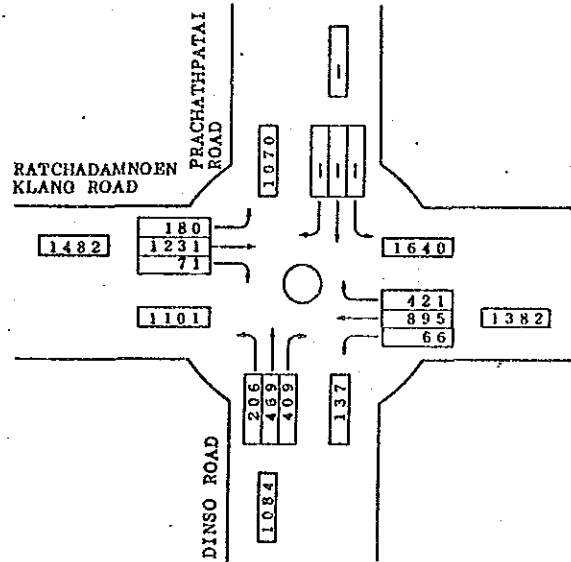
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN SATHON (U-TURN NEAR) (NEAR SOI ATTHAKAN PRASIT)		Submitted By : Jiro Koforo JICA Study Team Leader	Approved By : Ussayakul Thiloo BMA Study Team Leader
Intersection No. 224		Designed By : Yasuo Kobayashi JICA Study Member	Designed By : TOD, BMA
Code	Revision	Date	INITIAL
Associated Plan No. 1	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Date SEPTEMBER '90
		Drawing No. 3224	Total 121 / 139

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

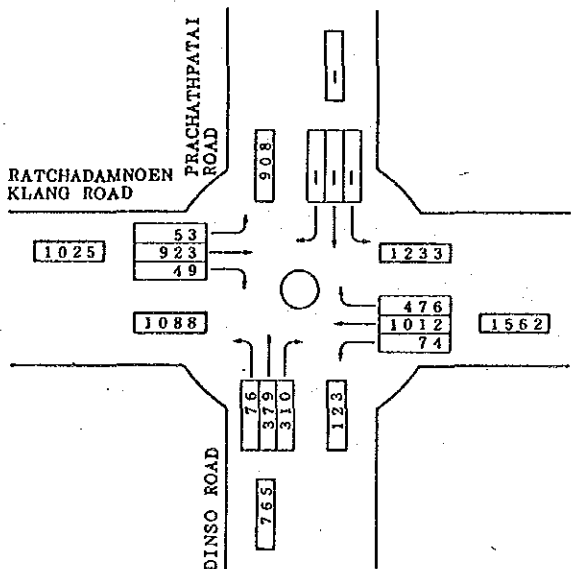
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE	10	20	30	40	50	60	70	80
PATTERN		NOTE						
I								
II								
III								
PRE EMPTION								

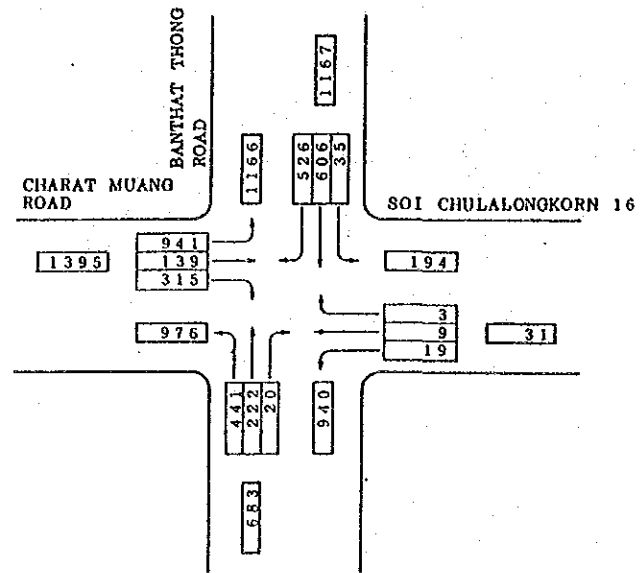
NOTE : PEDESTRIAN CROSSING SIGNAL BY DEMAND

MANUAL PHASE

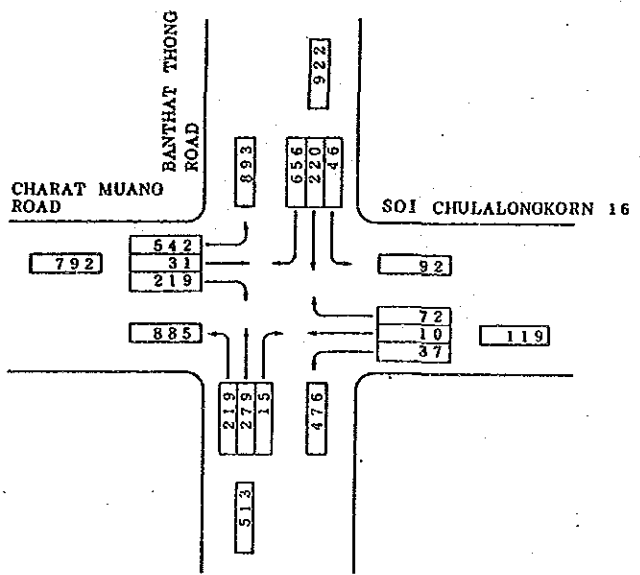
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I					
DESIGN VOLUME AND PHASE PLAN DEMOCRACY MONUMENT			Submitted By :	Approved By :	
			Jira Kudara JICA Study Team Leader	Boonsorn Tipton BMA Study Team Leader	
			Designed By :	Designed By :	
			Yasun Nakasima JICA Study Member	TBO_BMA	
Intersection No. 227, 228			Scale	Drawing NR 3228	
JICA Japan International Cooperation Agency			BMA Bangkok Metropolitan Administration	Date	SEPTEMBER '90
Associated Plan No. :			Total 122 / 139		

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

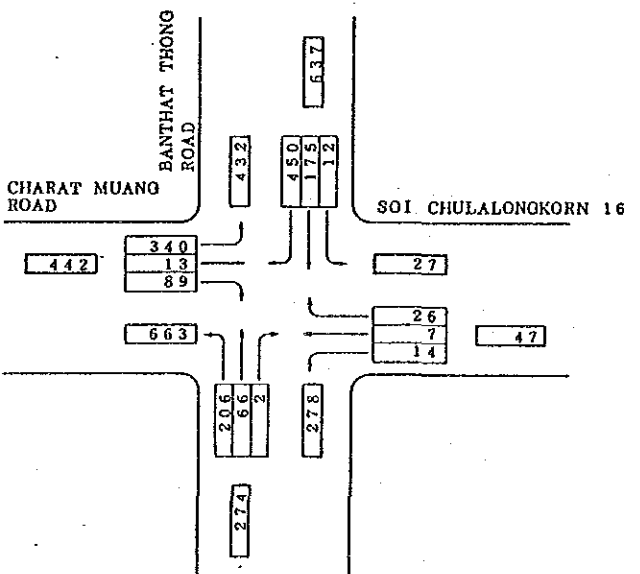
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

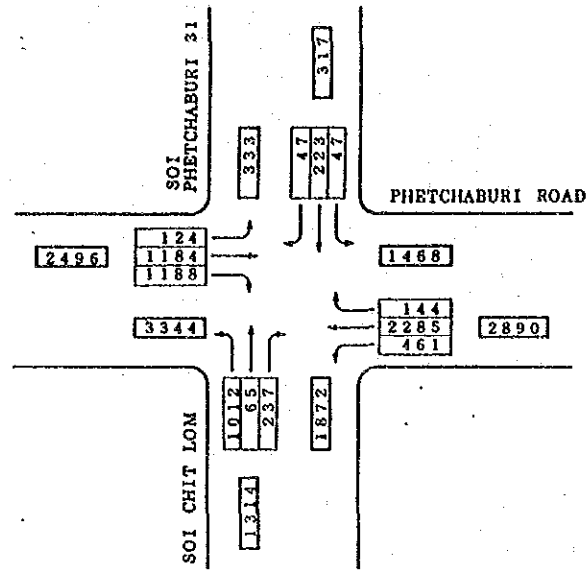
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

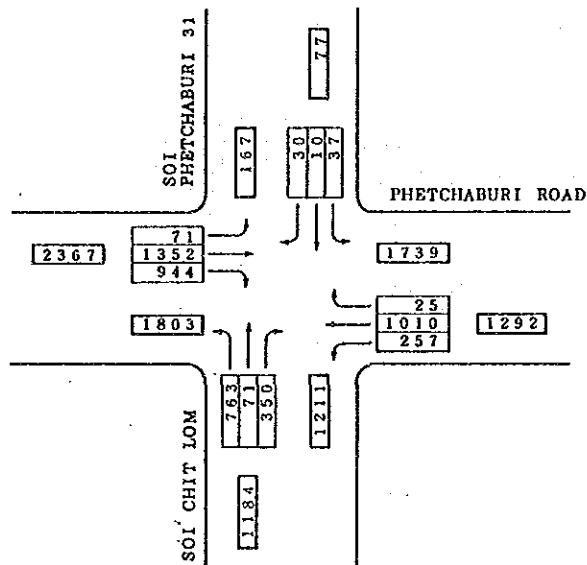
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
				DESIGN VOLUME AND PHASE PLAN			
				BANTHAT THONG			
				-SOI CHULALONGKORN 16			
				Intersection No. 232			
Code		Revision		Date		Initial	
Associated Plan No. 1		JICA Japan International Cooperation Agency		BMA Bangkok Metropolitan Administration		Submitted By : Jura Kadeo JICA Study Team Leader	
						Approved By : Keerajant Tiptus BMA Study Team Leader	
						Designed By : Yoon Hanahon JICA Study Member	
						Designed By : TEO, BMA	
						Scale Drawing No. 3232	
						Date SEPTEMBER '90 Total 123 / 139	

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

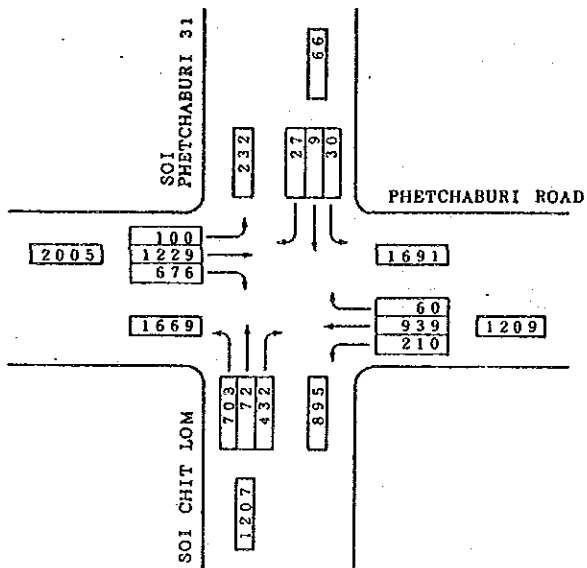
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

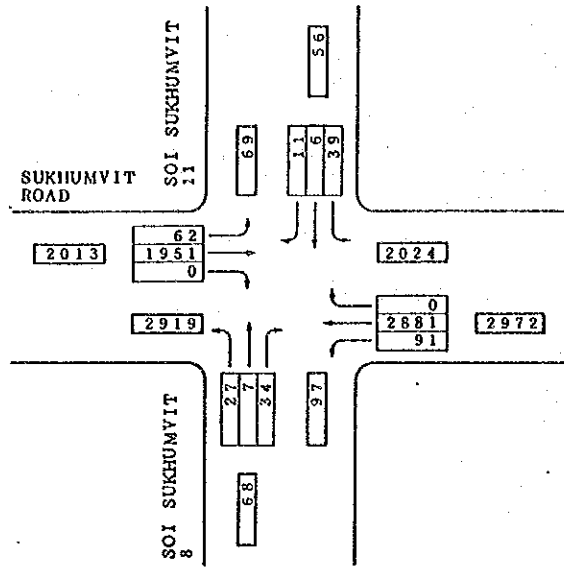
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

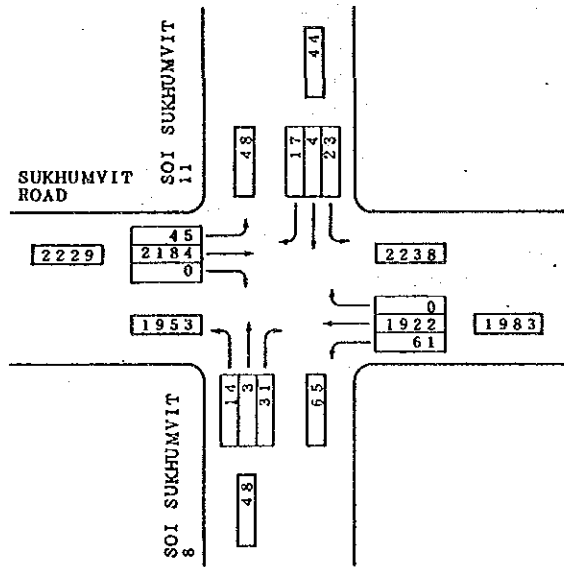
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN PHETCHABURI-SOI CHIT LOM		Submitted By : Jura Kodzo JICA Study Team Leader	Approved By : Boonwatt Tiptua BMA Study Team Leader
Intersection No. 236		Designed By : Yasu Nobuhisa JICA Study Member	Designed By : TED, BMA
Code	Revision	Date	Initial
Associated Plan No. 1	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Drawing NR 3238
		Date SEPTEMBER '80	Total 124 / 139

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

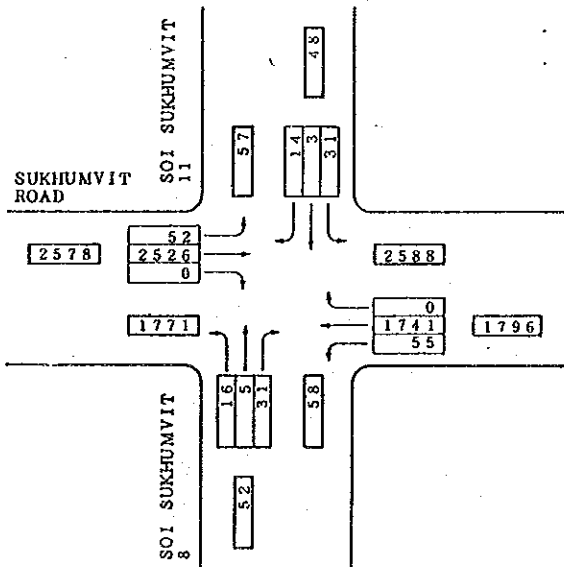
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

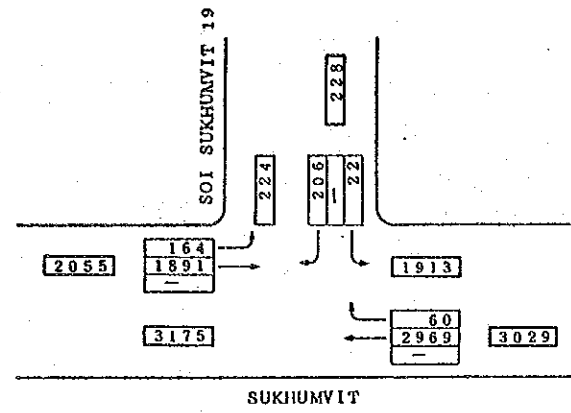
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

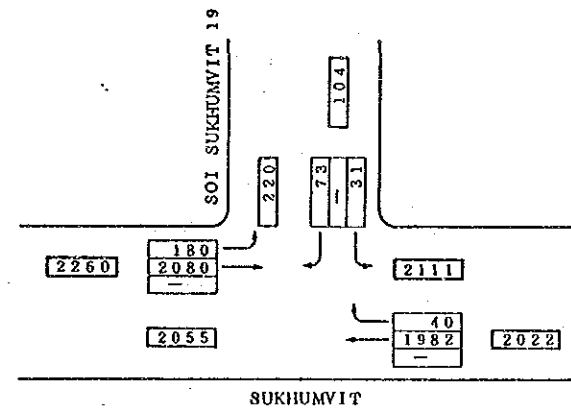
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN SUKHUMVIT-SOI SUKHUMVIT 11		Submitted By : Jiro Kodera JICA Study Team Leader	Approved By : Sreyaswat Tiptua BMA Study Team Leader
Intersection No. 237		Designed By : Yoono Khabhlang JICA Study Member	Designed By : TES,BMA
Code	Revision	Date	Initial
Associated Plan No. 1	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Date SEPTEMBER '90
		Drawing No. 3237	Total 126 / 139

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

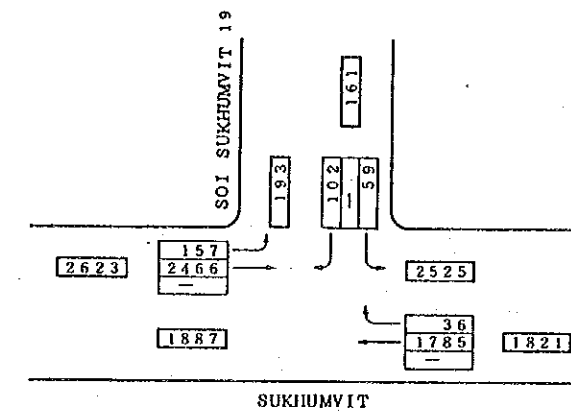
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	↗ ←	↖	↘					
II								
III								
PRE EMPTION								

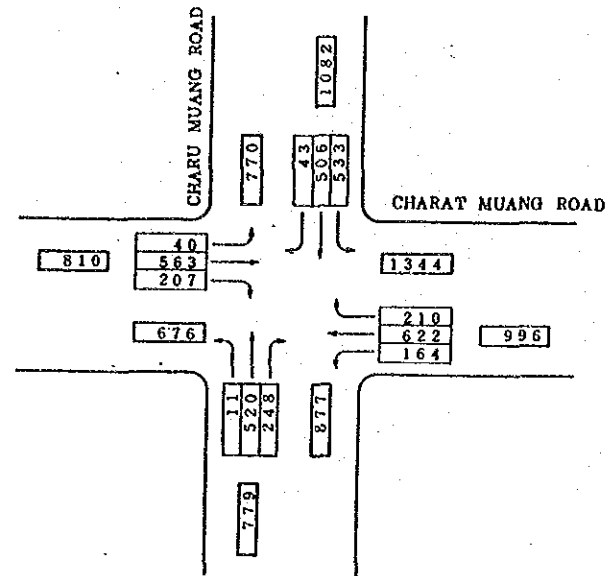
MANUAL PHASE

↗	↖ ←				
↘	↘				

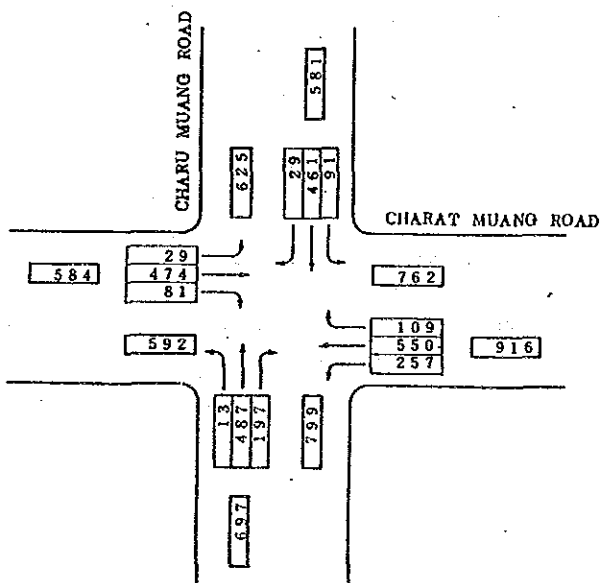
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT: STAGE I					
DESIGN VOLUME AND PHASE PLAN SUKHUMVIT-SOI SUKHUMVIT 19			Submitted By : Jiro Kodera JICA Study Team Leader	Approved By : Seongyeol Tiptoo BMA Study Team Leader	
Intersection No. 238			Designed By : Yasuo Nakashima JICA Study Member	Designed By : TED, BMA	
Code	Revision	Date	Initial	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration
Associated Plan No. 1			Scale	Drawing No. 3238	
			Date	SEPTEMBER '90	
			Total 126 / 139		

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

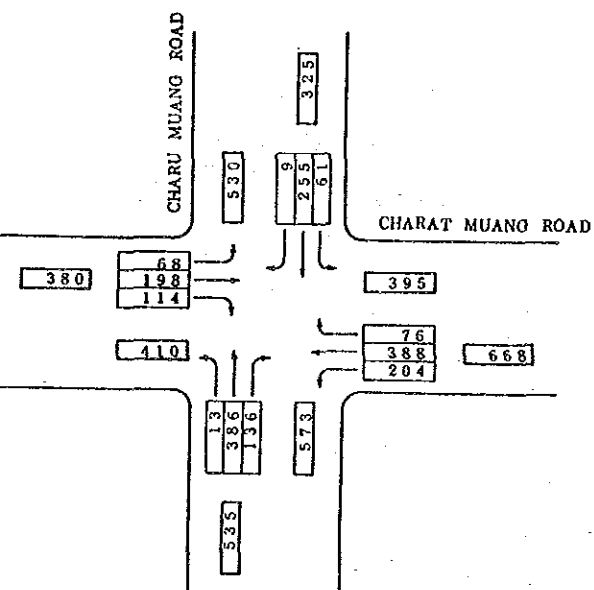
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

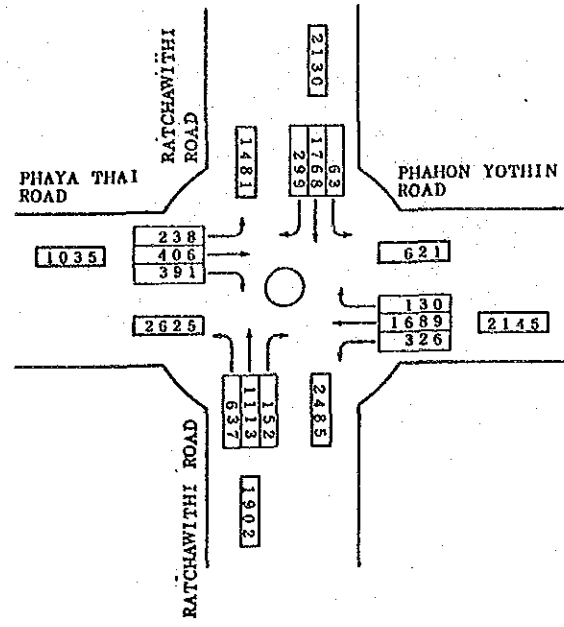
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

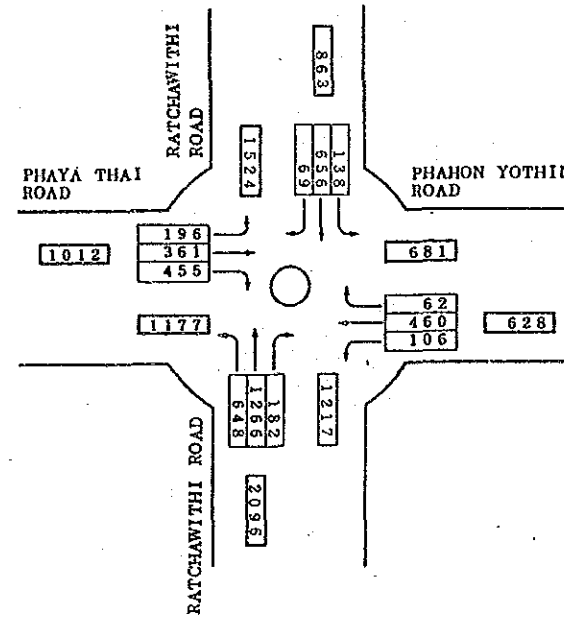
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN CHARU MUANG-CHARAT MUANG		Submitted By : Juro Kodate JICA Study Team Leader	Approved By : Sangsuat Tiptua BMA Study Team Leader
Intersection No. 245		Designed By : Yasuo Hasegawa JICA Study Member	Designed By : TED.BNA
Code	Revision	Date	INITIAL
Associated Plan No. :	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Date SEPTEMBER '90
		Drawing No. 3245 Total 127 / 139	

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

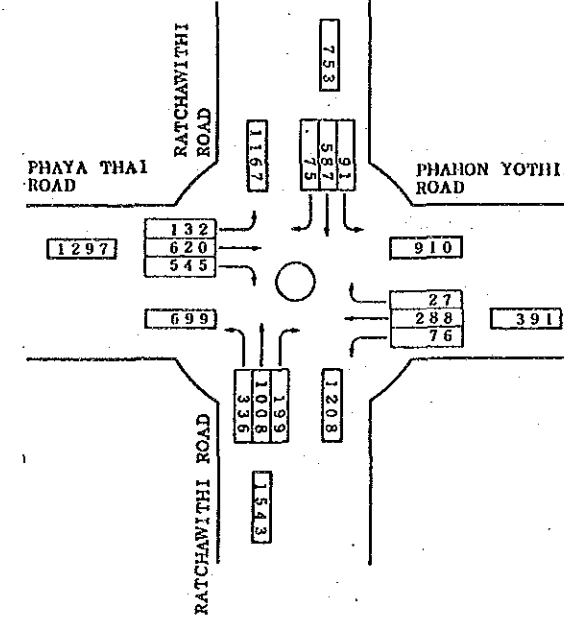
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

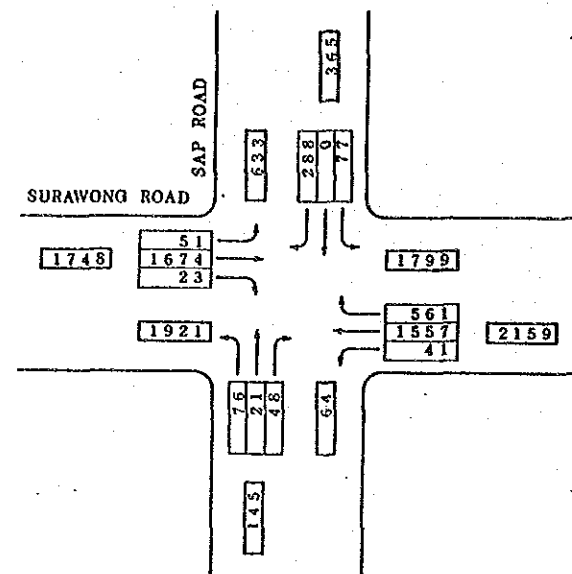
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

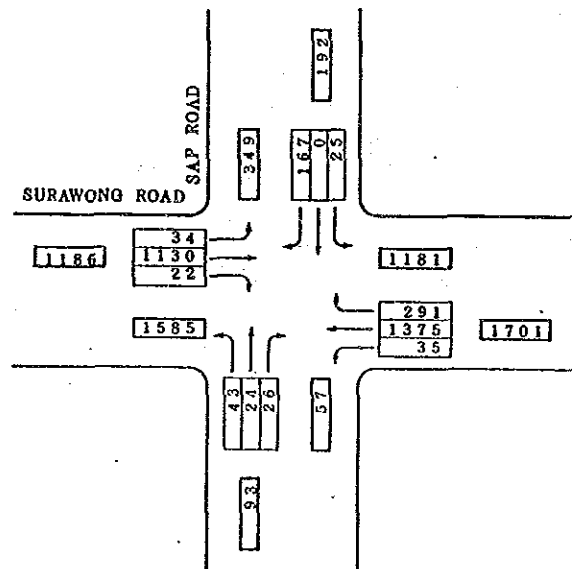
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT: STAGE I			
DESIGN VOLUME AND PHASE PLAN VICTORY MONUMENT		Submitted By : Jiro Kodera JICA Study Team Leader	Approved By : Roongwat Tiptua BMA Study Team Leader
Intersection No. 254,255,256,257		Designed By : Yasuo Hoshizima JICA Study Member	Designed By : TEO, BMA
Assoc. Plan No. 1	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Drawing No. 3255
		Date SEPTEMBER '90	Total 128 / 139

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

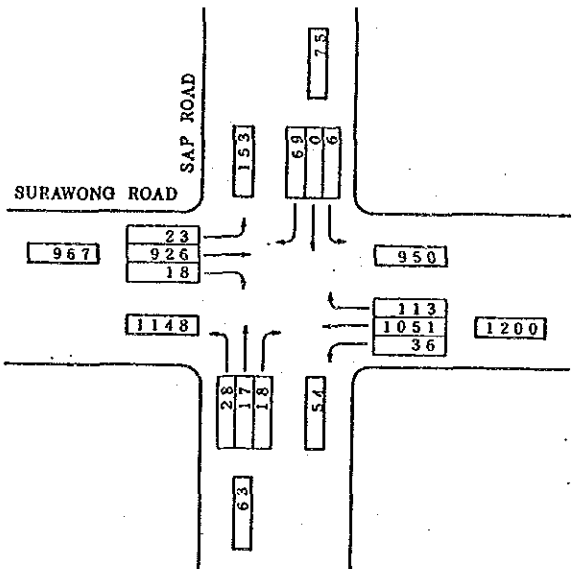
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

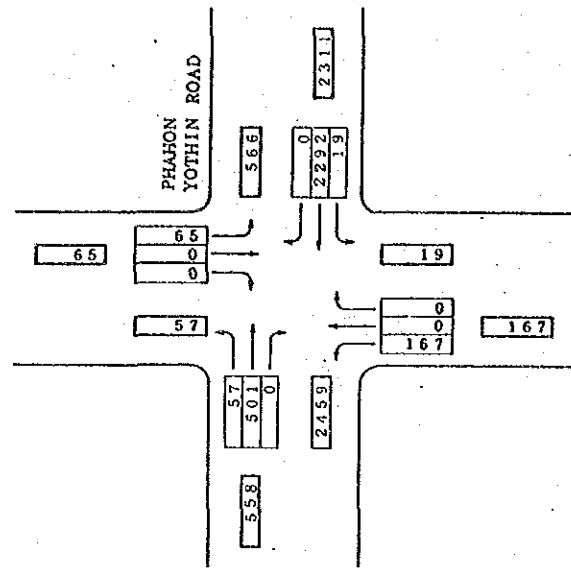
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

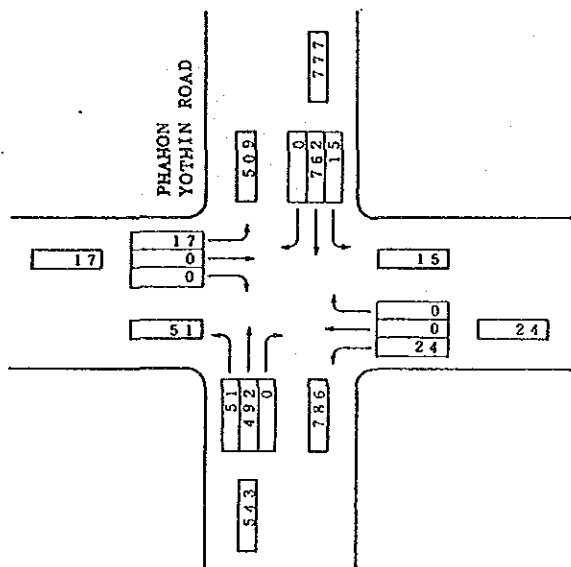
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN SURAWONG-SAP		Submitted By : Juro Kodera JICA Study Team Leader	Approved By : Manoosart Yotsoo BMA Study Team Leader
Intersection No. 266		Designed By : Yasu Hashimoto JICA Study Member	Designed By : TED, BMA
Code	Revision	Date	Initial
Associated Plan No. 1	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Date SEPTEMBER '90
		Drawing No. 3288	Total 120 / 139

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)

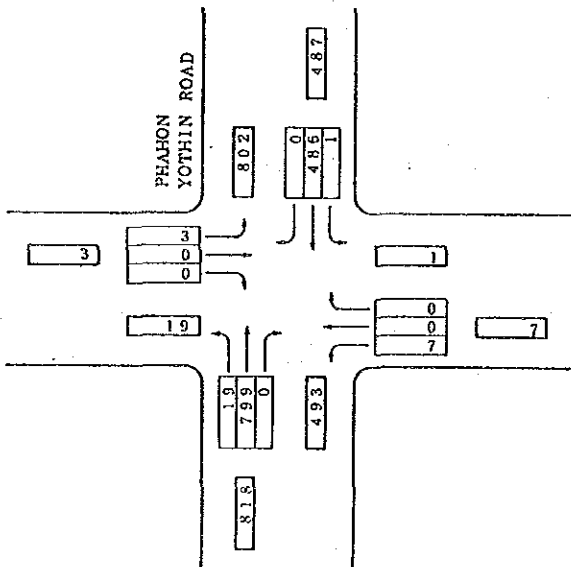
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	↙ ↘	↗ ↖						
II								
III								
PRE EMPTION								

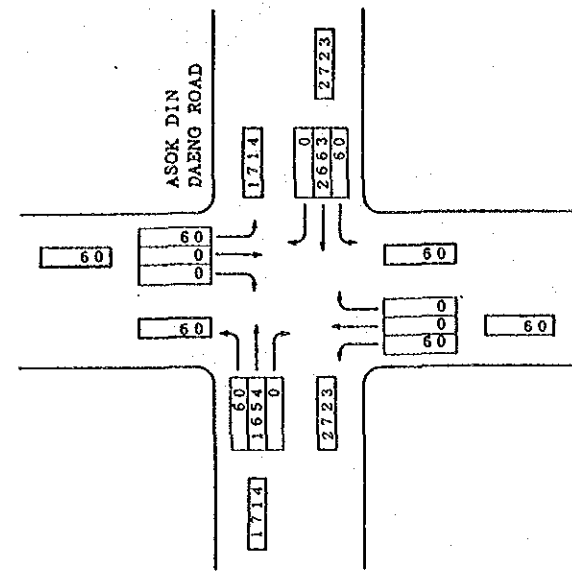
MANUAL PHASE

↓	↑ ↓				
↑	↗ ↖				

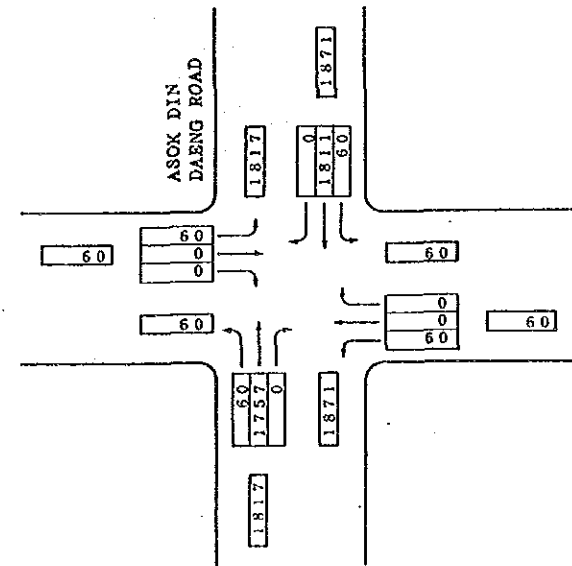
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
				DESIGN VOLUME AND PHASE PLAN HIGHWAY-PHAHON YOTHIN		Submitted By : Jiro Kodera JICA Study Team Leader	Approved By : Rungwut Titluw BMA Study Team Leader
				Intersection No. 706		Designed By : Yasuo Kobayashi JICA Study Member	Designed By : TED, BMA
Code	Revision	Date	Initial	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale	Drawing No. 3708
Associated Plan No. :						Date	SEPTEMBER '90
						Total	130 / 139

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

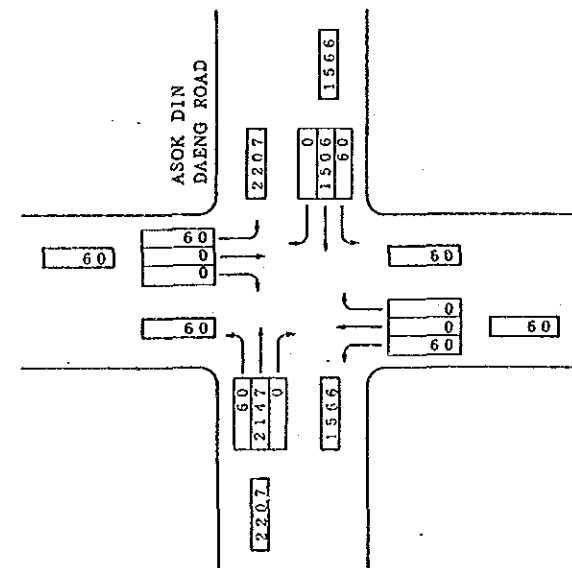
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	↑ ↓	↘ ↙						
II								
III								
PRE EMPTION								

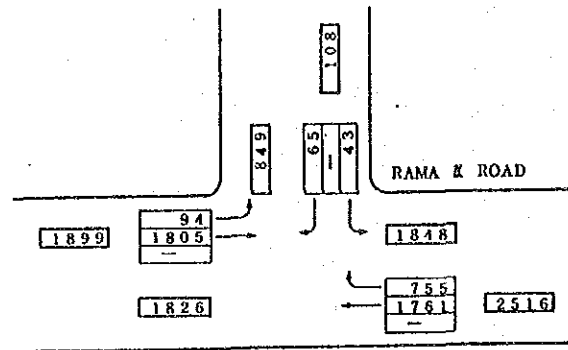
MANUAL PHASE

↓	↑ ↓				
↑	↘ ↙				

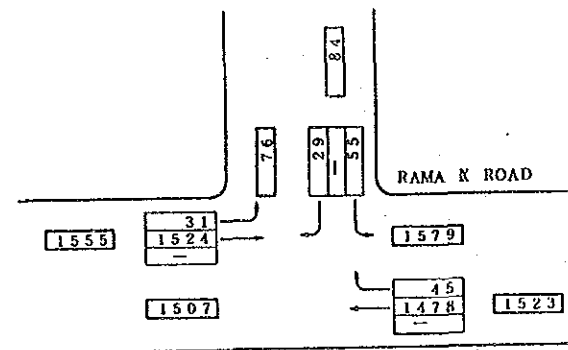
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN HIGHWAY-ASOK-DIN DAENO		Submitted By : Jara Kefera JICA Study Team Leader	Approved By : Boonawal Tipton BMA Study Team Leader
Intersection No. 707		Designed By : Yasuo Matsushima JICA Study Member	Designed By : TCC_BMA
Associated Plan No. :	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Date SEPTEMBER '90
		Drawing NR 3707 Total 131 / 139	

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

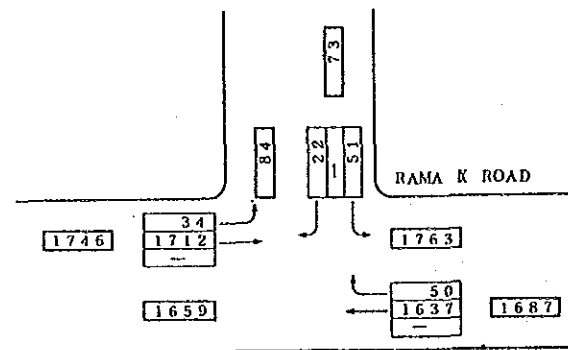
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	→ ←	↙ ↘	↘ ↙					
II								
III								
PRE EMPTION								

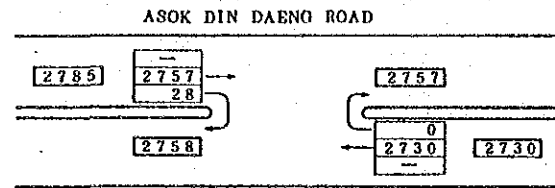
MANUAL PHASE

→	→ ←				
↙ ↘	↘ ↙				

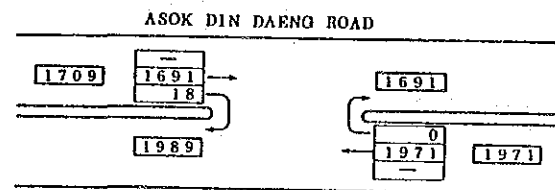
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
				DESIGN VOLUME AND PHASE PLAN HIGHWAY-RAMA IX		Submitted By : Jiro Kudara JICA Study Team Leader	Approved By : Boonyawat Tiptus BMA Study Team Leader
				Intersection No. 708		Designed By : Yasuo Nakashima JICA Study Member	Designed By : TED, BMA
Code	Revision	Date	Initial	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale	Drawing No. 3708
Associated Plan No. :						Date SEPTEMBER '90	Total 132 / 130

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

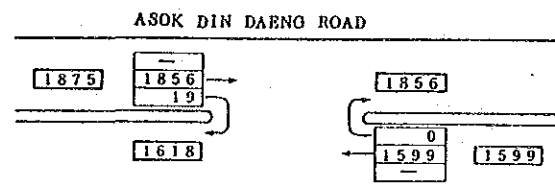
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	←	↪						
II								
III								
PRE EMPTION								

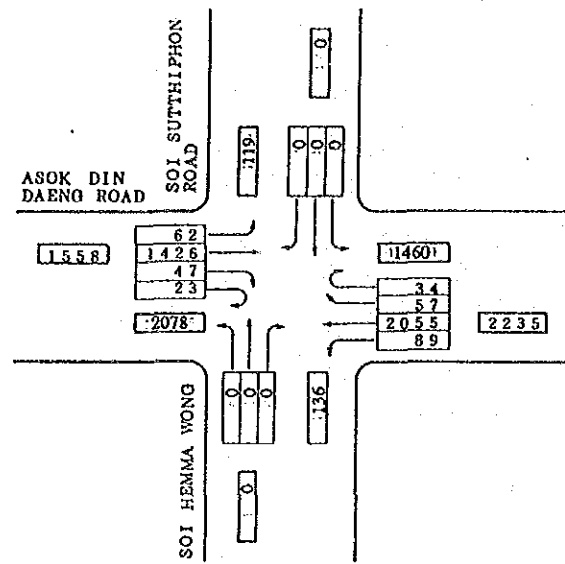
MANUAL PHASE

←					
↪					

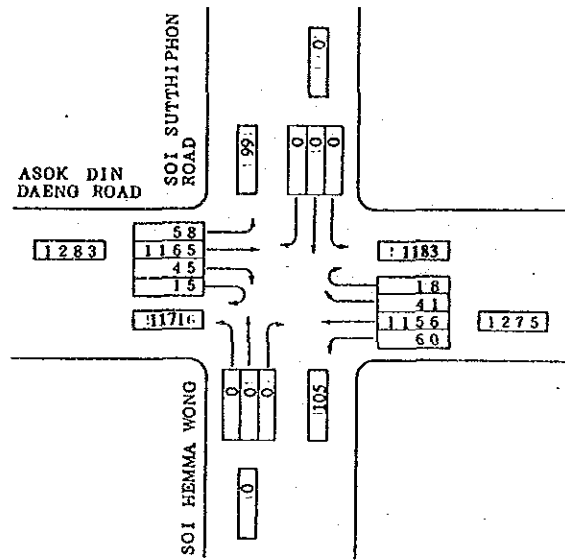
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN U-TURN AT ASOK DIN DAENG (WEST)		Submitted By : Jiro Kodera JICA Study Team Leader	Approved By : Kensyut Tipton BMA Study Team Leader
Intersection No. 801		Designed By : Yama Nobuhisa JICA Study Member	Designed By : YES, BMA
Code	Revision	Date	Initial
Associated Plan No. 1	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Drawing No. 3801
		Date SEPTEMBER '00	Total 133 / 139

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

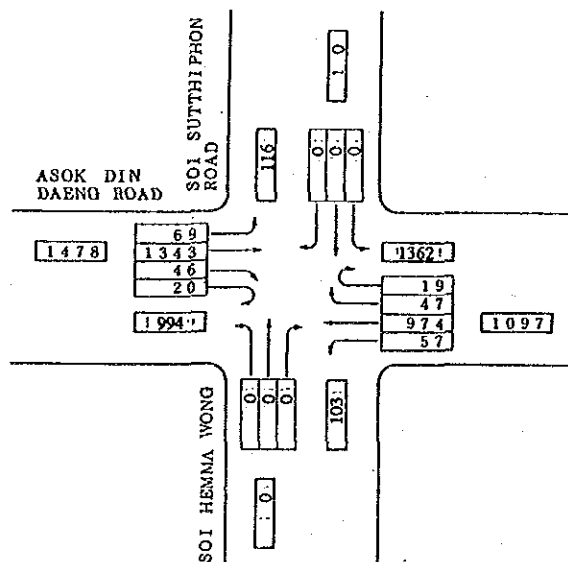
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

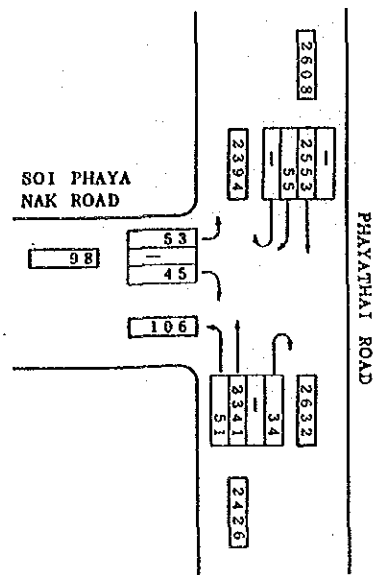
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

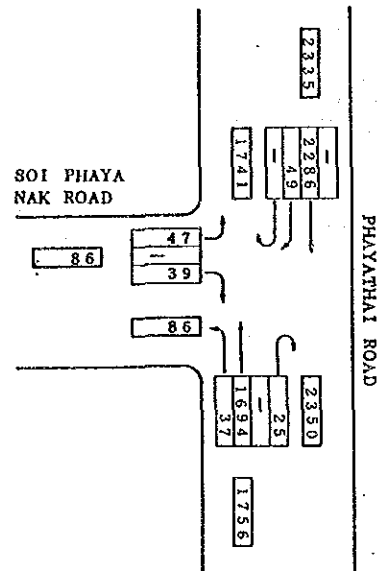
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
DESIGN VOLUME AND PHASE PLAN U-TURN AT ASOK DIN DAENG (EAST)		Submitted By : Jiro Kodera JICA Study Team Leader	Approved By : Natsuyoshi Tiptoo BMA Study Team Leader
Intersection No. 802		Designed By : Yasuo Kobayashi JICA Study Member	Designed By : YEA, BMA
Code	Revision	Date	Initial
Associated Plan No. 1	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale Drawing No 3802
		Date SEPTEMBER '90	Total 134 / 139

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

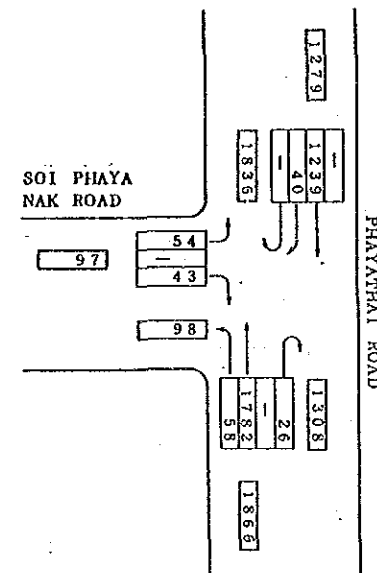
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I	↔	↻	↻					
II								
III								
PRE EMPTION								

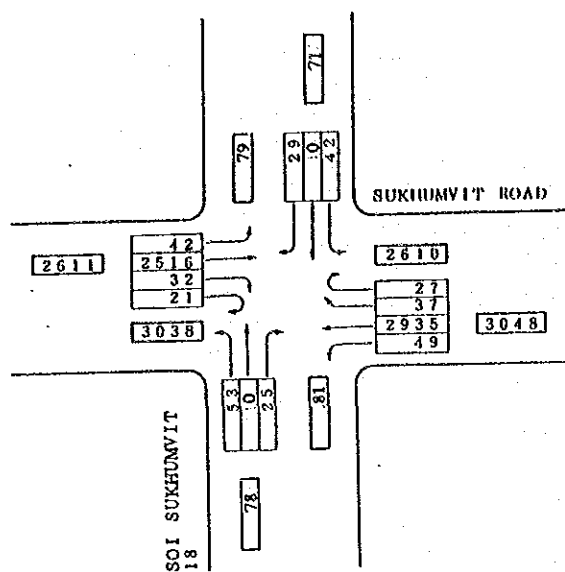
MANUAL PHASE

↔	↔	↻			
↔	↻				

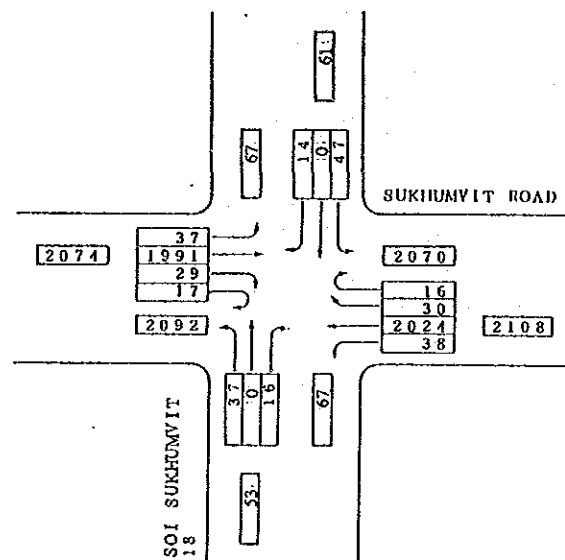
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
				DESIGN VOLUME AND PHASE PLAN		Submitted By :	
				U-TURN AT PHAYA THAI		Approved By :	
				(ASIA HOTEL)		Jiro Kodera JICA Study Team Leader	
				Intersection No. 803		Designed By :	
						Yasuo Kobayashi JICA Study Member	
						Yod.RMA	
				JICA		Scale	
				Japan International		Drawing No. 3803	
				Cooperation Agency		Date SEPTEMBER '90	
				RMA		Total 135 / 139	
				Bangkok Metropolitan			
				Administration			

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

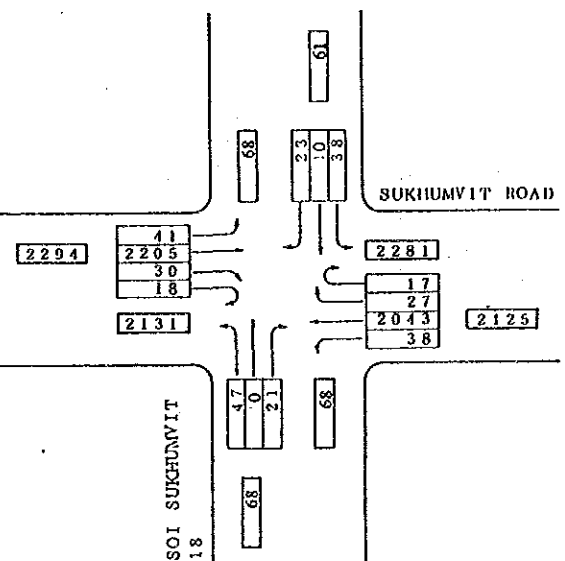
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

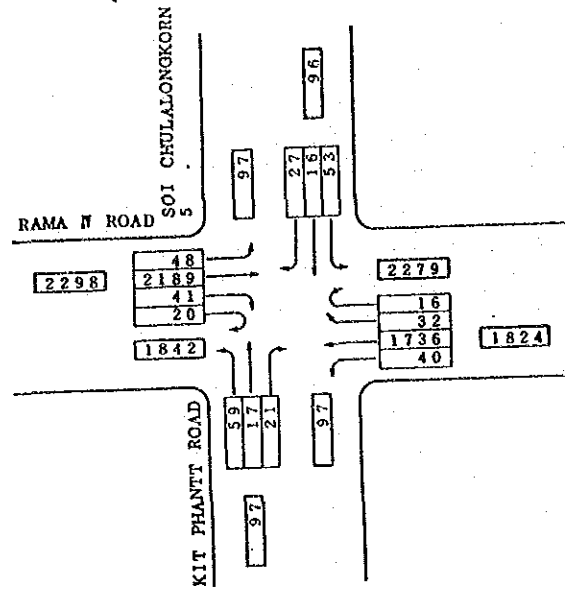
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

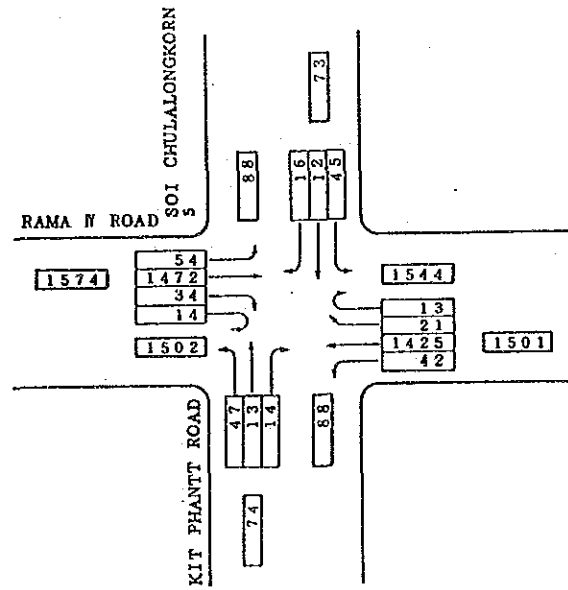
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
				DESIGN VOLUME AND PHASE PLAN U-TURN AT SUKHUMVIT (NEAR SOI SUKHUMVIT 18)		Submitted By : Jun Kodera JICA Study Team Leader	Approved By : Boonwut Tiptua BMA Study Team Leader
				Intersection No. 804		Designed By : Tosha Hasegawa JICA Study Member	Designed By : TEP.BMA
Code	Revision	Date	Initial	JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale	Drawing NR 3804
Associated Plan No. 1						Date - SEPTEMBER '00	Total 136 / 139

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

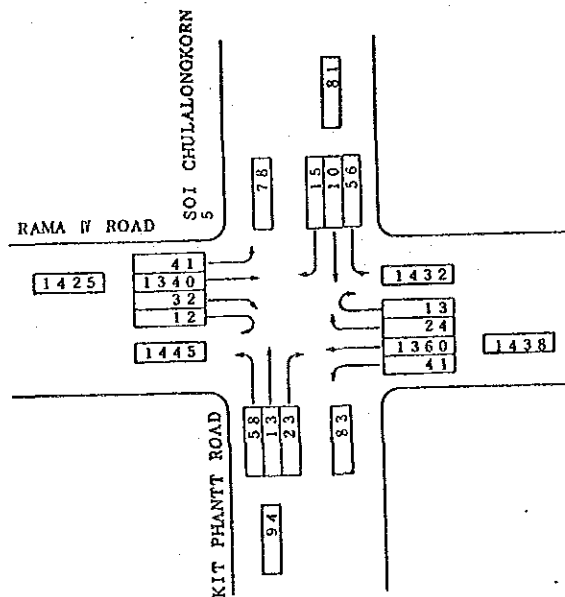
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

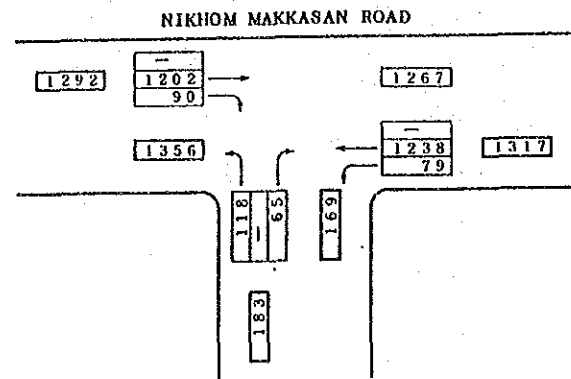
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

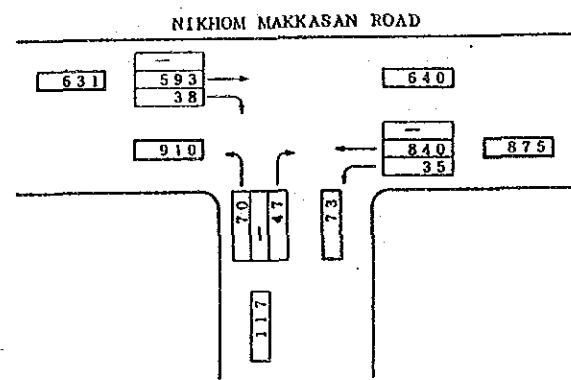
				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
				DESIGN VOLUME AND PHASE PLAN		Submitted By :	
				U-TURN AT RAMA IV		Approved By :	
				Intersection No. 805		Jira Kedara JICA Study Team Leader	
						Designed By :	
						Yasu Nishiyama JICA Study Member	
						TSD, BMA	
						Scale	
						Drawing No. 3805	
						Date SEPTEMBER '90	
						Total 137 / 139	
Code	Revision	Date	Initial	JICA		BMA	
Associated Plan No. :				Japan International Cooperation Agency		Bangkok Metropolitan Administration	

**DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL)**

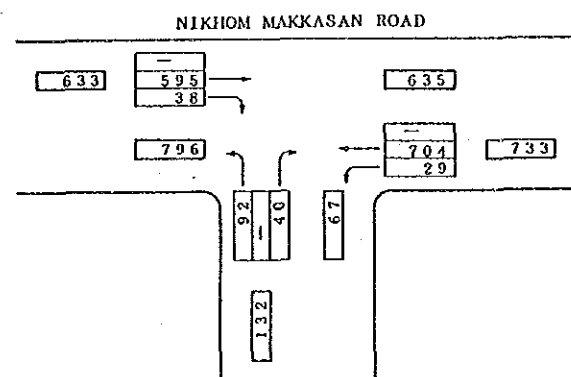
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

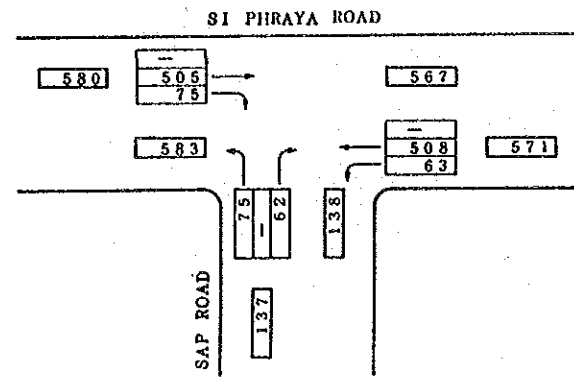
PHASE \ PATTERN	10	20	30	40	50	60	70	80
I (MORNING PEAK HOUR)								
II DAYTIME (EVENING PEAK HOUR)								
III								
PRE EMPTION								

MANUAL PHASE

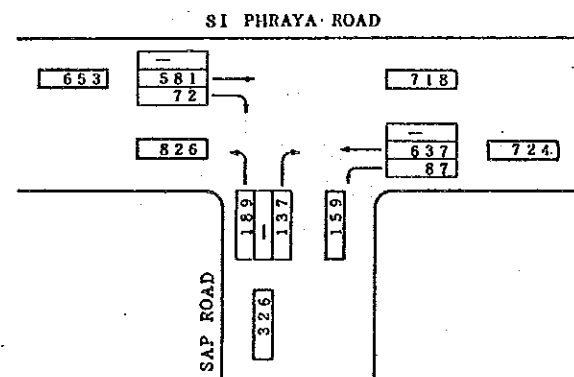
Code	Revision	Date	Initial	BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
				DESIGN VOLUME AND PHASE PLAN NIKHOM MAKKASAN -SOI PHETCHABURI 31		Submitted By : Jiro Kodera JICA Study Team Leader	Approved By : Boonyawat Tiptra BMA Study Team Leader
				Intersection No. 904		Designed By : Yasuo Hasegawa JICA Study Member	Designed By : TED.BMA
Associated Plan No. :				JICA Japan International Cooperation Agency	BMA Bangkok Metropolitan Administration	Scale	Drawing No. 3904
						Date SEPTEMBER '90	Total 138 / 139

DESIGN TRAFFIC VOLUME
(ESTIMATED BY SIMULATION MODEL.)

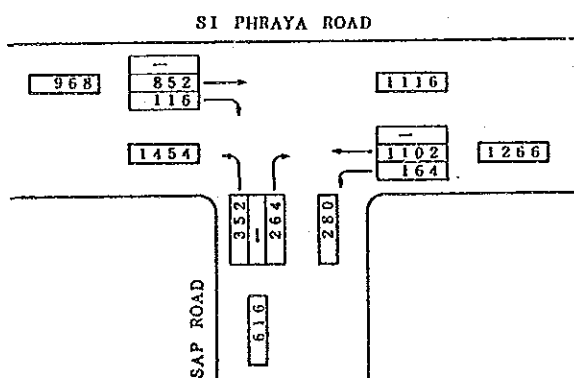
MORNING



NOON



EVENING



NORMAL PHASE SEQUENCE

PHASE \ PATTERN	10	20	30	40	50	60	70	80
I								
II								
III								
PRE EMPTION								

MANUAL PHASE

				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I			
				DESIGN VOLUME AND PHASE PLAN		Submitted By :	Approved By :
				SI PHRAYA-SAP		Jiro Kodera JICA Study Team Leader	Keangnam Tiptua BMA Study Team Leader
				Intersection No. 905		Designed By :	Designed By :
						Yasuo Hoshino JICA Study Member	TED_BMA
Code	Revision	Date	Initial	JICA	BMA	Scale	Drawing NR 3905
Associated Plan No. :				Japan International Cooperation Agency	Bangkok Metropolitan Administration	Date	Total 139 / 139
						SEPTEMBER '90	

