

APPENDIX C

AGRICULTURAL PRODUCE, COST, AND

TOTAL INCOME OF SELECTED FARMERS

C.001 In the Phase I Study, a field survey on agricultural yield and cost particularly focussing on farmers' income was conducted from July 17 to August 10, 1978. The results are shown on Table C.1.

C.002 The problem which we face in deciding the shadow wage rate is how we estimate the value of marginal products of labor. Although these data on Table C.1. are not considered sufficient, it can be estimated that marginal products per worker is approximately JD 4 to 5 per day, on the basis of the figures of farmers' net income including the wage of seasonal labor, which is almost equal to the wage of unskilled worker in factories in Jordan.

Table C.1 Agricultural Products, Cost, and Total Income
of Selected Farmers in the Study Area, 1978

(Unit: JD)

Farmer HH No.	Crops	Hectare	Gross Income from Crops	Cost	Animal Heads Farming	Net Income from Animal Farming	Total Net Agricultural Income	Net Non-Agri. Income/Month	
1.	Olive	1.9	1,000	207	-	-	793	70	
2.	Olive	10.0	1,500	502	Cow 4	200	1,915	55	
	Wheat	4.0	1,073	356	Chicken 20	-			
	Vetch	1.5							
	Lentil	2.5							
3.	-	-	-	-	Broiler 1,500	1,080 Net	1,080	70	
4.	Olive	12.7	1,718	893	Horse 1	-	1,410	200	
	Almond	1.3	260		Cow 2	100			
	Grape	3.6	225		Mule 2	-			
5.	Olive	5.0	844	366	Chicken 6	-	1,659	100	
	Pomegranate	0.8	400	-					
	Wheat	15.0	1,000	219					
6.	Pomegranate	0.3	100	15	Chicken 20	-	1,270	120	
	Olive	2.5	1,562	477	Turkey 5	-			
					Cow 1	100			
7.	Pomegranate	0.8	140	-	Sheep 145	1,000	2,323	220	
	Olive (new)	1.4	1,281	108	Goat 1	10			
8.	Olive (new)	10	766	573	Broiler 45,000	2,550	2,743	-	
9.	Olive	4	625	281	Cow 1	100	4465	-	
	Wheat	15	272	1,315	Chicken 10	-			

(to continue)

Farmer HH No.	Crops	Hectare	Gross Income from Crops	Cost	Animal Heads Farming	Net Income from Animal Farming	Total Net Agricultural Income	Net Non-Agri. Income/Month
	Lentil	2	260	138	Pigeon 15	-	-	-
	Barley	0.2	23	11				
10.	Olive (new)	1.2	75	58	Sheep 8	50	257	100
	Pomegranate	0.4	190	-	Chicken 10 Turkey 3 Pigeon 16 pairs Donkey 2			
11.	Olive	5	813	387			1,779	
	Pomegranate	0.3	150	-				
	Wheat	5.5	1,020	181				
	Barley	0.8	201	42				
	Vetch	0.8	115	52				
	Lentil	2	287	145				
12.	Olive	6.5	859	404			5,417	255
	Wheat	3.5	1,000	357				
	Lentil	1.0	290	136				
	Vetch	0.7	201	61				
	Watermelon	5.5	6,500	2,475				
13.	Olive	2	625	249	Horse 1		796	112
	Plum tree	300	200	-	Cow 2	1		
	Wheat	1.2	260	118	Pigeon 2			
	Lentil	1.4	152	115	Chicken 20			
	Vetch	0.3	60	20				
14.	Olive (new)	1.5	-	90			Δ110	240
	Grape	5	-	20				

(to continue)

Farmer HH No.	Crops	Hectare	Gross Income from Crops	Cost	Animal Heads Farming	Net Income from Animal Farming	Total Net Agricultural Income	Net Non-Agri. Income/Month
15.	Olive (new) Apple Grape	2 0.5 0.4	180 120 75	155 20 10	-	-	190	-
16.	Olive (new) Wheat Lentil	3.5 10 8	94 640 710	185 320 485	Sheep Goat	150 30	634	720
17.	Olive Wheat Lentil Watermelon	10 11 10 7	1,000 1,280 960 100	300 313 730 224	-	-	1,773	55
18.	Olive (new) Wheat Lentil Vetch	1.5 7 2 1	- 112 - -	15 158 15 11	Sheep Chicken	1,000	913	-
19.	Olive Grape Fig Almond Wheat Lentil Watermelon	5 300 100 100 3.5 20.5 0.6	375 - - 240 4 30	322	-	-	219	-
20.	Wheat Lentil Vetch	14 12 13	800 - -	1,150 215 140	Sheep Goat Cow Pigeon Chicken	1,000 100 3 14 pairs 10	405	-

(to continue)

Farmer HH No.	Crops	Hectare	Gross Income from Crops	Cost	Animal Heads Farming	Net Income from Animal Farming	Total Net Agricultural Income	Net Non-Agri. Income/Month
21.	Olive Wheat	3.5 7.5	748 2,160	288 175	-	-	2,445	
22.	Lemon (new) Banana	5 0.3	800	1,141	-	-	Δ341	
23.	Olive (new) Wheat	2.5 1	118 320	158 72	-	-	208	
24.	Wheat Lentil	6 1.2	240 172	222 110	-	-	80	100
25.	Olive (new) Wheat Lentil	0.4 2.5 1	- 40 56	16 93 81	-	-	Δ94	600
26.	Olive Wheat Lentil	0.8 30.5 10.5	313 980 1,800	141 946 969	-	-	1,037	-
27.	Wheat	10	705	300	Cow 3	100	505	100
28.	Olive (new)	25	-	146	Donkey 2	-	Δ146	38
29.	Olive (new) Grape (new tree) Wheat Vetch Sweet Cucumber	0.7 300 0.5 0.5 0.3	- 100 38 88 3	93	Donkey 2	-	56	60

(to continue)

Farmer HH No.	Crops	Hectare	Gross Income from Crops	Cost	Animal Heads Farming	Net Income from Animal Farming	Total Net Agricultural Income	Net Non-Agri. Income/Month
30.	Olive	1	125	42	-	-	521	50
	Tomato	0.8	500	229				
	Cucumber	0.2	150					
	Wheat	1.6	61	44				
31.	Olive (new)	0.2	125	43	Goat	400	991	65
	Wheat	5.4	184	175	Cow	500		
					Chicken	-		
					Donkey	-		
32.	Olive	7.9	600		Horse	-	943	-
	Apple (tree)	200	150	454				
	Plum (tree)	400	250					
	Grape (tree)	1,500	400					
	Wheat	0.8	35	38				
33.	Olive (new)	0.2	-	10	Chicken	-	1	
	Wheat	0.1	16	5				
34.	Olive	2.8					70	120
	Grape (tree)	1,000	240	170				
	Apple (tree)	350	(new)					
	Orange (tree)	74						
35.	Olive	0.7	700	248			556	169
	Grape	1.4	300	196				

(to continue)

Farmer HH No.	Crops	Hectare	Gross Income from Crops	Cost	Animal Heads Farming	Net Income from Animal Farming	Total Net Agricultural Income	Net Non-Agri. Income/Month
36.	Olive Grape (tree)	4.1 1,400	330 750	480	-	-	600	65
37.					Cow 35,653 (Holistine) Milk	1,400 <u>12,000</u> 13,400	13,400	14,090
38.	Olive (tree) Grape (tree) Fig (tree)	0.3 33 15	New - -	15 - -	Egg Hen	23,760	23,745	150
39.	Tomato Cabbage Egg Plant Green-bean		7,000		Chicken 15		9,425	-
40.	Olive Olive (new) Cucumber Lettuce Pepper Tomato	3 2 8	500 - 8,000	120 80 4,250	Horse 1 Chicken 25	-	4,050	-
41.	Olive Apple Grape	4 1.5 0.5	500 100 50	340	Goat 20 Chicken 15	100 -	410	67
42.	Olive Tomato Wheat	4 2 12	4,000 1,000 300	613 90 400	Cow	-	4,197	-

(to continue)

Farmer HH No.	Crops	Hectare	Gross Income from Crops	Cost	Animal Heads Farming	Net Income from Animal Farming	Total Net Agricultural Income	Net Non-Agri. Income/Month
43.	Wheat	0.8	140	40	Sheep 10 Cow 4 Chicken 10	60 200 -	360	-
44.	Grape (new) Wheat	1 6	- 180	24 182	Goat 6 Donkey 1 Cow 2 Chicken 2	60 - 200 -	234	
45.	Olive (new) Wheat	0.3 0.6	- 50	25 265	Cow 2 Chicken 10	200	440	1,000
46.	Olive (new)	0.2	100	32	-	-	68	100
47.	Olive (new) Grape Wheat Barley Vetch	1.2 1.0 5 2 8	- 450 120 40 16	75 65 175 73 44	Sheep 6 Cow 2 Chicken 10	60 200	454	-
48.	Apple Olive Grape	0.7 1.8 1.9	500 400 100	240	-	-	760	50
49.	Olive (tree) Grape Apple tree Wheat Vetch Barley Lentil	120 18 10 0.6 0.4 0.7 0.2	130 10 40 20 17 8	220 40 32 35 18	Goat 8 Cow 1 Chicken 12 Donkey 3	80 100	60	576

(to continue)

Farmer HN No.	Crops	Hectare	Gross Income from Crops	Cost	Animal Heads Farming	Net Income from Animal Farming	Total Net Agricultural Income	Net Non-Agri. Income/Month
50.	Olive Almond tree	6 50	500 -	289 -	Donkey 1 Horse 1 Cow 1 Chicken 15	- 100 -	311	240/year
51.	Olive (new) Wheat Barley	0.7 2.5 1.7	50 260 82	76 90 37	Horse 1 Chicken 10	-	189	1,000/year
52.	Olive (new) Wheat Vetch Barley Broad bean	2.8 2 0.4 0.11 64	- 24 - - -	75 130 13 11 13	Chicken 10	-	Δ218	2,000/year
53.	Olive G.ape Wheat Lentil Vetch Chickbean	3 50 0.5 0.2 1.0 0.2	400 50 72 9 73 36	266 - 45 17 69 16	Donkey 2 Horse 1 Cow 1 Chicken 1	- - 100 -	327	38
54.	Olive Wheat Lentil Vetch	0.5 2.5 0.5 1.5	- 40 - 17	25 88 13 49	Goat 6 Donkey 1 Chicken 2	30 - -	Δ88	55
55.	Olive Wheat Barley (bad year)	0.5 7.5 6.0	90 54 70	30 210 166	Sheep 20 Donkey 2 Chicken 20	100	Δ92	55

(to continue)

Farmer HH No.	Crops	Hectare	Gross Income from Crops	Cost	Animal Heads Farming	Net Income from Animal Farming	Total Net Agricultural Income	Net Non-Agri. Income/Month
56.	Olive (new)	0.2	-	4	Sheep 16	80	Δ17	850/year
	Wheat	3	32	43	Goat 10	50		
	Barley	5	31	163	Donkey 1 Chicken 3	-		
57.	Wheat	100	790	161			209	65
	Lentil	13	345	180				
	Vetch	1	90	675				
58.	Olive	1.8	50	49	Sheep 5	30	515	-
	Grape (tree)	400	100		Donkey 2	-		
	Wheat	6	470	199	Cow 3	100		
	Lentil	0.5	8	25	Chicken 20	-		
	Vetch	2	86	90				
	Barley	1	75	41				
59.	Olive	2	new planted	40	Sheep 14	100	264	100
	Grape (tree)	500	200	-	Goat 4	20		
	Wheat	1.5	16	32	Donkey 1			
60.	Olive	8			Donkey 1	-	2,004	1,500/year
	Grape	200	2,600	411	Chicken 15			
	Fig	10						
	Almond							
61.	Wheat	14	42	277				
	Olive	2	100	43	Sheep 11	80	412	100
	Grape (tree)	300	50	-	Donkey 2	-		
	Wheat	10	208	190	Cow 4	200		
	Vetch	1	44	37	Chicken 15			

(to continue)

Farmer HH No.	Crops	Hectare	Gross Income from Crops	Cost	Animal Heads Farming	Net Income from Animal Farming	Total Net Agricultural Income	Net Non-Agri. Income/Month
62.	Olive	1.5	500	57	Goat	20	1,317	600/year
	Wheat	2.5	560	68	Cow	100		
	Lentil	2.5	220	158	Pigeon	~		
	Tobacco	2.5	200	by Jordan Tobacco Company				
63.	Wheat	1.5	320	111			389	560/year
	Lentil	1.5	160	120				
	Tobacco	2	140	by Joradn Tobacco Company				
64.	Olive	0.2	300	37			684	500
	Wheat	1.5	160	32				
	Lentil	1	130	67				
	Watermelon	2.5	300	70				
65.	Olive	0.2	150	12	Cow	100	868	-
	Wheat	2.5	400	65				
	Lentil	2.5	300	120				
	Watermelon	2.8	150	35				
66.	Olive	15	3,400	1,150			3,715	800/year
	Wheat	3.3	650	120				
	Lentil	3.3	320	225				
	Watermelon	3.3	1,000	160				
67.	Olive	1.6	150	128	Horse	1	371	40
	Grape tree	30	-	-				
	Wheat	1.2	221	96				

(to continue)

Farmer HH. No.	Crops	Hectare	Gross Income from Crops	Cost	Animal Heads Farming	Net Income from Animal Farming	Total Net Agricultural Income	Net Non-Agri. Income/Month
	Barley	1.2	122	81				
	Bean	1	175	54				
	Watermelon Cucumber	1	170	108				
68.	Olive	1.5	100	124	Sheep 10	50	853	120
	Grape (trees)	40	45	-	Horse 1	-		
	Almond (tree)	40	480	115	Chicken 15			
	Wheat	1.5	400	105				
	Watermelon	1.4	150	28				
	Cucumber							
69.	Olive	1.5	300	953	Donkey 1	-	Δ8	230
	Grape (tree)	1,000	600		Horse 1	-		
	Wheat	0.4	68	23	Chicken 15	-		
70.	Olive	1.2	325	169	Donkey 1	-	850	1,120/year
	Lentil	1	172	92	Chicken 20			
	Vetch	4	860	246				
	Watermelon	2	100	100				
71.	Olive	0.3	150	29	Donkey 1	-	187	14
	Wheat	1.7	120	55	Horse 1	-		
	Barley	0.8	56	55	Chicken 7			
72.	Olive	4	new planted	175	Chicken 55	-	Δ48	64
	Wheat	0.8	190	53				
	Watermelon	1	150	160				

(to continue)

Farmer HH No.	Crops	Hectare	Gross Income from Crops	Cost	Animal Heads Farming	Net Income from Animal Farming	Total Net Agricultural Income	Net Non-Agri. Income/Month
73.	Olive	0.4	new planted	65	Cow 3	300	835	2,500/year
	Wheat	2.3	330	127	Chicken 20			
	Lentil	2.3	370	183				
	Watermelon	1	300	90				
74.	Olive	23	new planted	83	Chicken 6	-	321	200
	Watermelon	1.8	420	24				
	S. Melon	0.2	40	16				
75.	Wheat	1	120	33	Cow 34	8,100	28,837	2,000/year
					Chicken 56 (Broiler)	20,650		
76.	Olive	0.3	300	65	Goat 2	20	413	192/year
	Watermelon	1.7	200	42	Donkey 1	-		
77.	Olive	0.7	360	100	Cow 2	200	970	800/year
	Wheat	1	160	90	Pigeon 30 pairs	-		
	Watermelon	2	500	60				
78.	Olive	4	800	170	Goat 1	10	1,035	500/year
	Wheat	4	280	136	Cow 1	100		
	Barley	2	70	49	Chicken 20	-		
	Vetch	3	25	25				
	Watermelon	2	300	145				
79.	Olive	2	500	230	Goat 2	10	335	36
	Grape (tree)	30	30		Chicken 2	-		
	Almond (tree)	30	30					
	Barley	0.6	20	25				

(to continue)

Farmer HH No.	Crops	Hectare	Gross Income from Crops	Cost	Animal Heads Farming	Net Income from Animal Farming	Total Net Agricultural Income	Net Non-Agri. Income/Month
80.	Wheat Barley Vetch Cucumber	0.8 0.5 0.5 0.6	105 20 33 30	44 19 26 17	Donkey Cow Chicken	- 200	282	1,320/year
81.	Olive	2.5	new planted	146	Donkey	-	Δ146	456/year
82.	Tomato Cabbage Cucumber	3 0.5 0.5	1,500 300 600	475 82 82	Cow	100	1,861	-
83.	Wheat Barley	20 20	- -	200 175	Sheep Goat Chicken	100 50 -	Δ225	-
84.	Olive (new)	7	250	35	Cow Broiler	100 3,000	1,815	1,140/year
85.	Olive (new) Wheat	2 5	- -	20 25	-	-	Δ45	1,000/year
86.	Olive Wheat Barley	1 4 1	100 120 41	35 17 12	Goat Broiler	100 600	897	-
87.	Olive (new) Wheat Barley Tomato Cucumber	10 35 35 58 2	- - - 8,000 2,000	1,400 375 155 2,320 580	Sheep	3,000 20,000	25,170	-

(to continue)

Farmer HH No.	Crops	Hectare	Gross Income from Crops	Cost	Animal Heads Farming	Net Income from Animal Farming	Total Net Agricultural Income	Net Non-Agri. Income/Month
88.	Olive Wheat Barley	5 7 2	new planted no production	100 77 20	Sheep 12 Goat 8 Donkey 2 Chicken 10	60 40 - -	Δ97	55
89.	Wheat Barley	1.5 3.5	no production	19 21	-	-	Δ40	80
90.	Wheat	15	120	240	-	-	Δ120	30
91.	Wheat Cucumber Tomato Pepper	150 7 42 1	no production 1,400 8,400 2,000	1,725 5,407 2,824 622	Sheep 40 Goat 165 Camel 5 Chicken 30	300 1,200 - -	2,722	-
92.	Olive Wheat Barley Tomato Cucumber Wheat	10 20 20 10 5 110	1,700 1,600 no production 2,000 5,000 no production	200 280 160 6,850 2,425 990	-	-	Δ605	60
93.	Olive Wheat Barley	1 4 1	no production 80 no production	37 80 21	Sheep 6 Goat 4 Chicken 20	60 40 -	42	-
94.	Wheat Barley	4 2	no production	37 16	Sheep 30 Goat 8 Chicken 15	200 80	227	1,600
95.	Tomato Cucumber	2.5 0.5	2,375 475	916 183	Chicken 8	-	1,751	-

(to continue)

Farmer HH No.	Crops	Hectare	Gross Income from Crops	Cost	Animal Heads Farming	Net Income from Animal Farming	Total Net Agricultural Income	Net Non-Agri. Income/Month
96.	Olive	1.3	400	220	Goat 3	30	1,278	-
	Lemon	0.5	no production	40	Cow 2	-		
	Lettuce		2,000	840				
	Cabbage Wheat	4	no production 80	132				
97.	Olive	5	200	60	Donkey 1	-	943	-
	Lemon	0.1	40	15	Cow 1	100		
	Cucumber	0.2	400	40	Chicken 15	-		
	Squash	0.2	200	40				
	Pepper	0.2	200	40				
	Wheat	1.2	8	20				
	Barley	1	30	20				
98.	Citrus Fruit	2.5	840	825	Frisian 4	450	3,233	3,180/year
	Olive	5	2,500	852	Cow			
	Cucumber	1.5	1,500	450				
	Wheat	1	120	40				
99.	Olive	9	1,000	641	Donkey 1	-	359	-
	Olive	1	500	170	Donkey 1	-		
100.	Wheat	2	120	56	Cow 1	100	2,144	-
	Tomato	1.5	1,500	450	Chicken 20	-		
	Cucumber	0.6	500	180				
	Squash	0.2	200	60				
	Pepper	0.2	200	60				
101.	Olive	5	new planted	150	Cow 1	100	815	-
	Lemon	0.7	new planted	61	Chicken 10	-		
	Tomato	1.2	1,000	462				
	Cucumber	1.5	1,000	612				

Note: Δ means minus.

APPENDIX D

UNIT COST FOR TOURISM PROJECTS

D.1 Unit Cost

D.001 Unit costs for tourism projects have been collected from relevant officials and the World Bank Report on Jerash Project, and all the costs are in 1979 prices. This means that the cost data from the World Bank Report were modified by deflators up to 1979. The results are shown below.

(1) Accommodation

High Class Hotel	JD 14,000/room	Source: <u>World Bank Report 1976</u> and by interview with the Department of Tourism and Hotel Owners.
Middle Class Hotel	JD 8,000/room	
Chalet	JD 10,000/unit	
Youth Hostel	JD 5,000/room	
Pension (re-decoration)	JD 900/room	

(2) Restaurant Including Parking Spaces

High Class	JD 2,000/seat	Source: <u>Jerash Development Plan</u> by Ministry of Tourism and Antiquities.
Standard Class	JD 1,500/seat	

(3) Parking

For Paving	JD 1.35/m ²	Source: Study Team.
For Curve Stone	JD 2.20/m	

(4) Garden/Park/ Afforestation

JD 10,000/ha	Source: <u>Part II of this report</u> by Study Team.
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(5) Road			
2 Lanes on Flat Land	JD 358,000/km	Source: Study Team.	
2 Lanes on Gentle Slope Land	JD 465,400/km		
2 Lanes on Hilly Land	JD 537,000/km		
(6) Shopping Center	JD 100/m ²	Source: Interview.	
(7) Ordinary Building	JD 70/m ²	Source: Interview.	
(8) Plaza	JD 20,000/ha	Source: Study Team.	
(9) Auto Camp	JD 13,500/ha	Source: Study Team.	
(10) City Park/Garden	JD 20,000/ha	Source: <u>Part II of this report</u> by Study Team.	
(11) Swimming Pool	JD 25,000/unit	Source: Study Team.	
(12) Arab Village			
Village House	JD 5,000/unit	Source: Study Team.	
Palace	JD 230/m ²		
Pedestrian & Carriageway	JD 12.5/m		
(13) Picnic Spot			
Parking/Toilets, etc.	JD 400/ha	Source: Study Team.	
(14) Utilities			
Telecommunication/ Water Supply/ Sewage/Solid Disposal	JD 4,200/bed	Source: <u>World Bank Report</u> 1976 and Study Team.	

APPENDIX E

PRELIMINARY RESULT OF NOVEMBER 1979 POPULATION CENSUS

E.001 After the end of the Team's main work in Jordan, the latest population Census was held on November 10, 1979 under a conduct of Department of Statistics. Its preliminary result was made available on January 10, 1980. Since it was not available for our use during our Study period, there are some discrepancies between our estimates of population and the preliminary result. Although it is out of our scope of work, the Team tried here to see the possible consequences of this preliminary result on our Study.

E.002 Tables E.1 to E.5 show the major part of the preliminary result of the Census. As seen on Tables most of the discrepancies between the preliminary result and those estimated by the Team in this Report are not significant, the preliminary result being around 5 percent lower than those estimated except one. Only in the case of the population of the Irbid Municipality, the gap between them are wide. If we adopt the preliminary result for our population projection of Irbid Municipality, it will reach 137,230 in 1985, and 152,366 in 2000, which are fairly low as compared with the projection in Chapter II of Part III. Thus, the final result of the Census will have a significant on Chapter II of Part III.

E.003 This is the very crude review of the preliminary result of the latest Census. Although we did not examine all the details and projections concerned, Tables E.1 to E.5 will serve as references for the purpose of elucidating the recent population trends and the differences between our estimates and the preliminary result.

Table E.1 Population by Governorate, East Bank,
November 1979

(Unit: Person)

Governorate	Population			Share (%)
	Male	Female	Total	
Amman	622,454	565,296	1,187,750	55.2
Irbid	315,100	296,558	611,658	28.4
Balqa	78,884	72,498	151,382	7.0
Karak	66,201	60,061	126,082	5.9
Ma'an	42,518	32,883	75,401	3.5
Total	1,124,977	1,027,296	2,152,273	100.0

Source: Department of Statistics, Preliminary Result of Population Census, 1979.

Table E.2 Population in the Study Area,
November 1979

(Unit: Person)

Area	Population	
	No.	Share (%)
Irbid Governorate	611,658	100.0
Outside of Study Area	58,411	9.5
a. Ghor	44,404	7.2
b. Eastern Part of Mafraq	14,007 (estimated)	2.3
Study Area	553,247	90.5

Source: Same as in Table E.1.

Table E.3 Population by Mutserfieh,
Irbid Governorate, 1979

(Unit: Person)

Area	Population	
	No.	Share (%)
Irbid Governorate	611,658	100.0
Irbid Mutserfieh	324,291	53.0
Ajlun Mutserfieh	54,907	9.0
Jerash Mutserfieh	66,835	10.9
Ramtha Mutserfieh	47,980	7.8
Mafraq Mutserfieh	73,241	12.0
Kura Mutserfieh	44,404	7.3

Source: Same as in Table E.1.

Table E.4 Population by Municipality,
Study Area, 1979

(Unit: Person)

Municipality	Population	
	No.	Share (%)
Irbid Governorate	611,658	100.0
Irbid Municipality	112,954	18.5
Ramtha Municipality	27,292	4.5
Mafraq Municipality	21,399	3.5
Jerash Municipality	10,105	1.7
Ajlun Municipality	4,551	0.7

Source: Same as in Table E.1.

Table E.5 Estimation of Population in Irbid Expanded, 1979

(Unit: Person)

Area	Population	
	No.	Share (%)
Irbid	112,954	84.6
Hawara	5,043	3.8
Aidun	4,697	3.5
Bishra	3,992	3.0
Beit Ras	4,630	3.5
Hakama	2,208	1.6
Total	133,524	100.0

Source: Same as in Table E.1.

APPENDIX F

STUDY ORGANIZATION

F.1 Contractual Matters

F.001 The technical services for the Regional Development Study of the Northern Jordan by the International Development Center of Japan (IDCJ) are being provided in accordance with the two contracts signed on June 12, 1978 and on July 19, 1979 by the Japan International Cooperation Agency (JICA) and the IDCJ.

F.002 The contract followed the request made by the Government of Jordan to the Japanese Government. The receiving agency in Jordan is the Irbid Urban Regional Planning Group of the Ministry of Municipal, Rural and Environmental Affairs.

F.2 Staff

F.003 IDCJ, commissioned by JICA, organized teams comprising government officials and consultants and send them to Jordan. IDCJ contracted to provide 70.8 man months in Jordan. The number of man months contributed by IDCJ and Japanese Government Officials are set out in Table F.1.

F.3 Counterparts

F.004 At the beginning of the Study, the Government of Jordan nominated two professional counterparts. They are:

Dr. Sufyan A. Tell	Project Director for the Project, MMRA
Dr. Hisham D. Zagha	Economist, NPC

Later on, three full-time counterparts were nominated to assist the Team. They are:

Mr. Mohamed Zaghari	Urban Planner
Mr. Fayez S. Haddad	Water Resource
Mr. Tamim Musumal	Agricultural Statistician

Then, many in-office counterparts were nominated. Among them, the following officers were particularly helpful in the Phase II Study.

Mr. Ma'nma	Director of Industry, MIT
Mr. Wahbeh	Investment officer, Industrial Development Bank
Mr. Shuman	Tourism officer, Ministry of Tourism and Antiquity
Mr. Kakish	Highway officer, Ministry of Public Work

Table F.1 Staff Inputs in Jordan

Mission	Name	Responsibility	Man Months in Jordan
Overall Contact Mission	Jiro Kano	Project Manager	0.4
	Keigo Ohkatsu	JICA officer	0.4
	Eiji Nishita	Physical Planning	0.5
	Tsunenaki Yoshida	Water Resource	0.5
	Hiroshi Ueno	Economy, Administration	0.5
Phase I Main Mission	Jiro Kano	Project Manager	4.5
	Koichi Mera	Advisor, Regional Economy	1.0
	Kensuke Yusa	JICA officer	0.6
	Yoshiya Ikeda	JICA officer	0.6
	Shoji Kuramitsu	Agriculture	3.3
	Hideo Tomiyasu	City and Community Facilities	2.1
	Keizo Komori	Power and Telecommunication	1.0
	Eiji Nishita	Housing	1.6
	Tsunenobu Miki	Industry	2.6
	Toshisada Katsurada	Transportation	3.1
Takeshi Maeda	Tourism	2.1	

(to continue)

Mission	Name	Responsibility	Man Months in Jordan
	Takero Ogawa	Tourism	1.7
	Koichi Kaneko	Land Use	4.5
	Hiroko Sato	Population and Labor Force	4.5
	Tsuneaki Yoshida	Water Resource	4.2
	Hiroshi Ueno	Economy, Finance and Administration	4.7
	Phase I Sub Total		44.4
Phase II Contact Mission	Jiro Kano	Project Manager	0.9
	Yoshiro Ikehata	Min. of Foreign Affairs officer	0.9
	Tadayuki Kanazawa Tadayuki Kanazawa	Water Supply and Tourism	0.8
	Kenshiro Ori	Transportation	0.8
	Hiroshi Ueno	Industrial Estate	0.9
Phase II Main Mission	Jiro Kano	Project Manager	1.3
	Koichi Mera	Advisor, Regional Economy	0.5
	Eiji Nishita	Industrial Estate	0.9
	Masaru Kaneko	"	1.2
	Masamichi Nakamura	"	2.5
	Toshisada Katsurada	Highway Project Appraisal	2.5
	Haruo Sakashita	Urban Highway	1.6
	Kenichi Sekine	"	1.2
	Yoshitaka Akui	Tourism	1.4
	Akio Nakai	"	2.0
	Hirotsada Kamiya	"	2.0

(to continue)

Mission	Name	Responsibility	Man Months in Jordan
	Jinichiro Yabuta	Urbanization and Tourism	1.9
	Kenshiro Ori	Industrial Project Appraisal	2.5
	Hiroshi Ueno	Deputy, Project Appraisal	1.2
Final Mission	Jiro Kano	Project Manager	0.5
	Eiji Nishita	Industrial Estate	0.5
	Hirotsada Kamiya	Tourism	0.5
	Kenshiro Ori	Urban Highway	0.5
	Hiroshi Ueno	Deputy, Project Appraisal	0.5
	Phase II Sub Total		29.5
	Grand Total		73.9

APPENDIX G

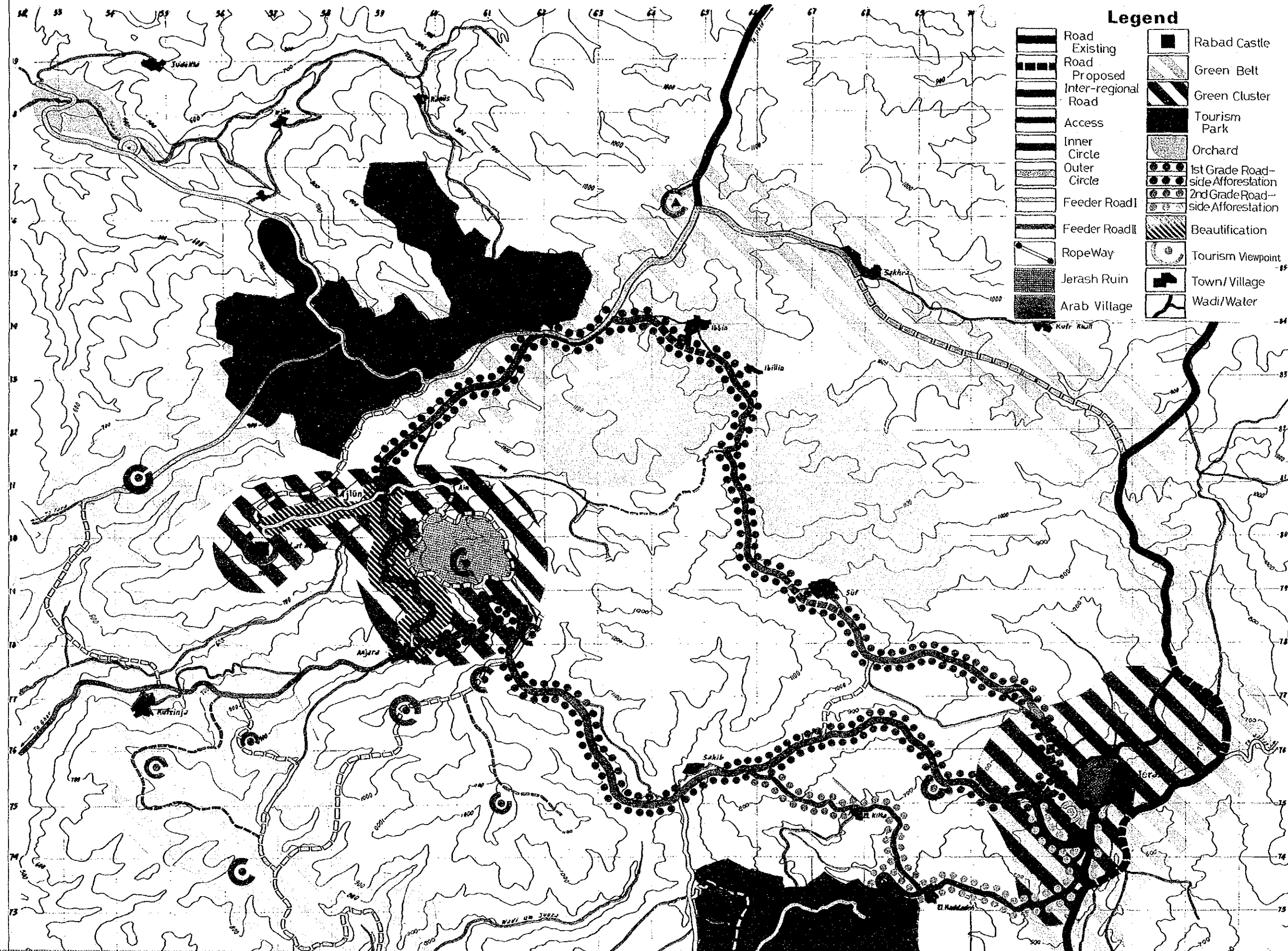
LIST OF REPORTS AND PAPERS

G.001 Major reports produced by the Team are as follows:

	Name	Language	Date
(1)	Contact Mission Report (White Report)	Japanese	March, 1978
(2)	Inception Report (Green Report)	English	July 15, 1978
(3)	Interim Report (Photocopy Report)	English	September 6, 1978
(4)	Phase I Draft Final Report (Brown Report)	English Japanese for Summary	October 28, 1978
(5)	Additions and Amendment to Phase I Draft Final Report (Zerex Report)	English	July 19, 1979
(6)	Phase II Inception Report (Ochre Report)	English	June 3, 1979
(7)	Phase II Interim Report	English	August 28, 1979
(8)	Tentative Draft Final Report	English	October 10, 1979
(9)	Phase II Draft Final Report	English	November 30, 1979
(10)	Final Report	English Japanese for Summary	March, 1980

TOURISM DEVELOPMENT PLAN OF TARGET AREA, 2000

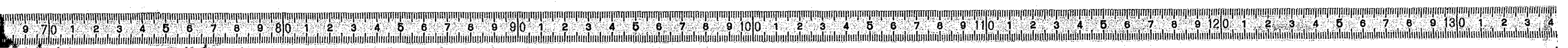
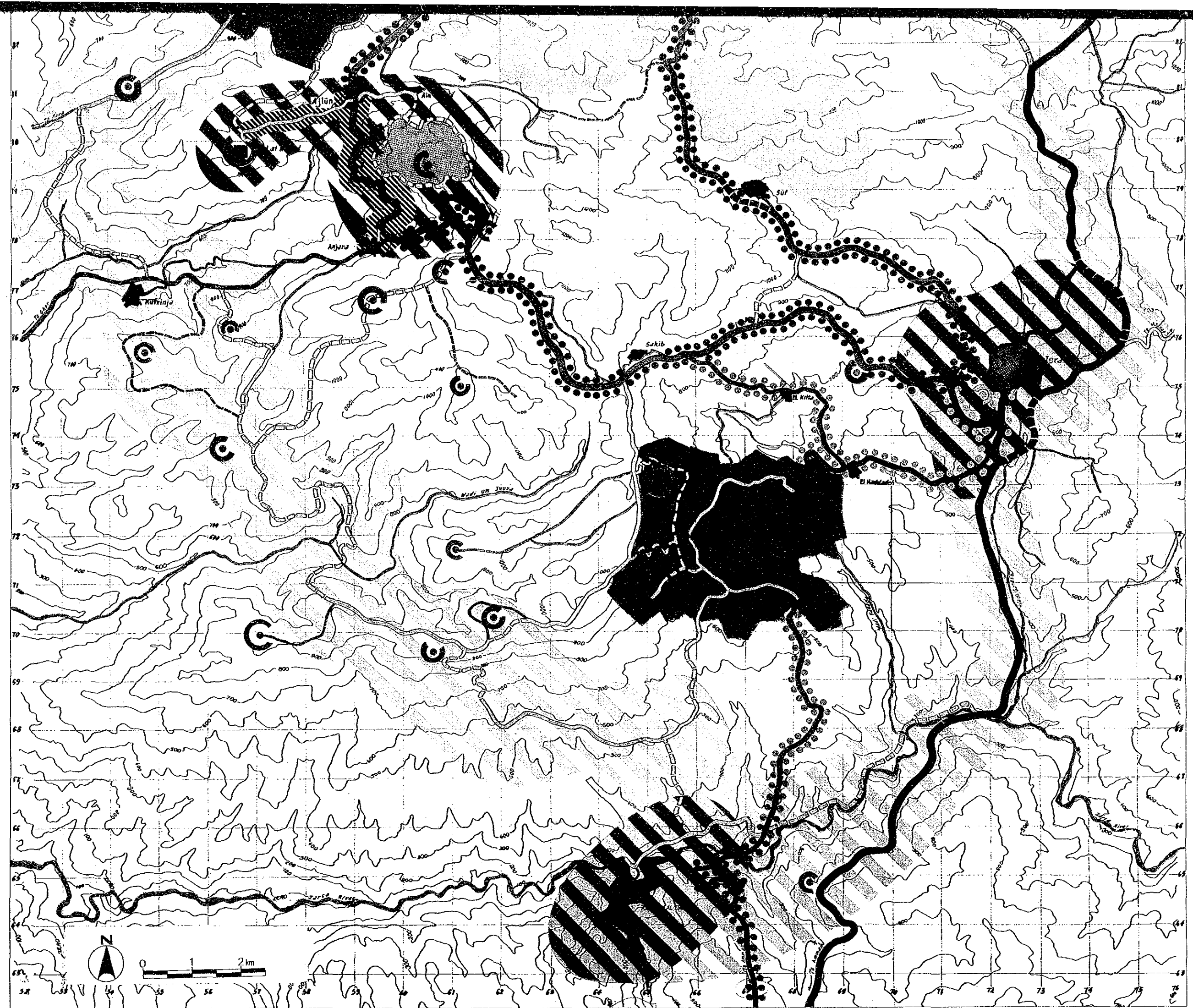
OCTOBER 1979
 PREPARED BY:
 JAPAN INTERNATIONAL COOPERATION AGENCY



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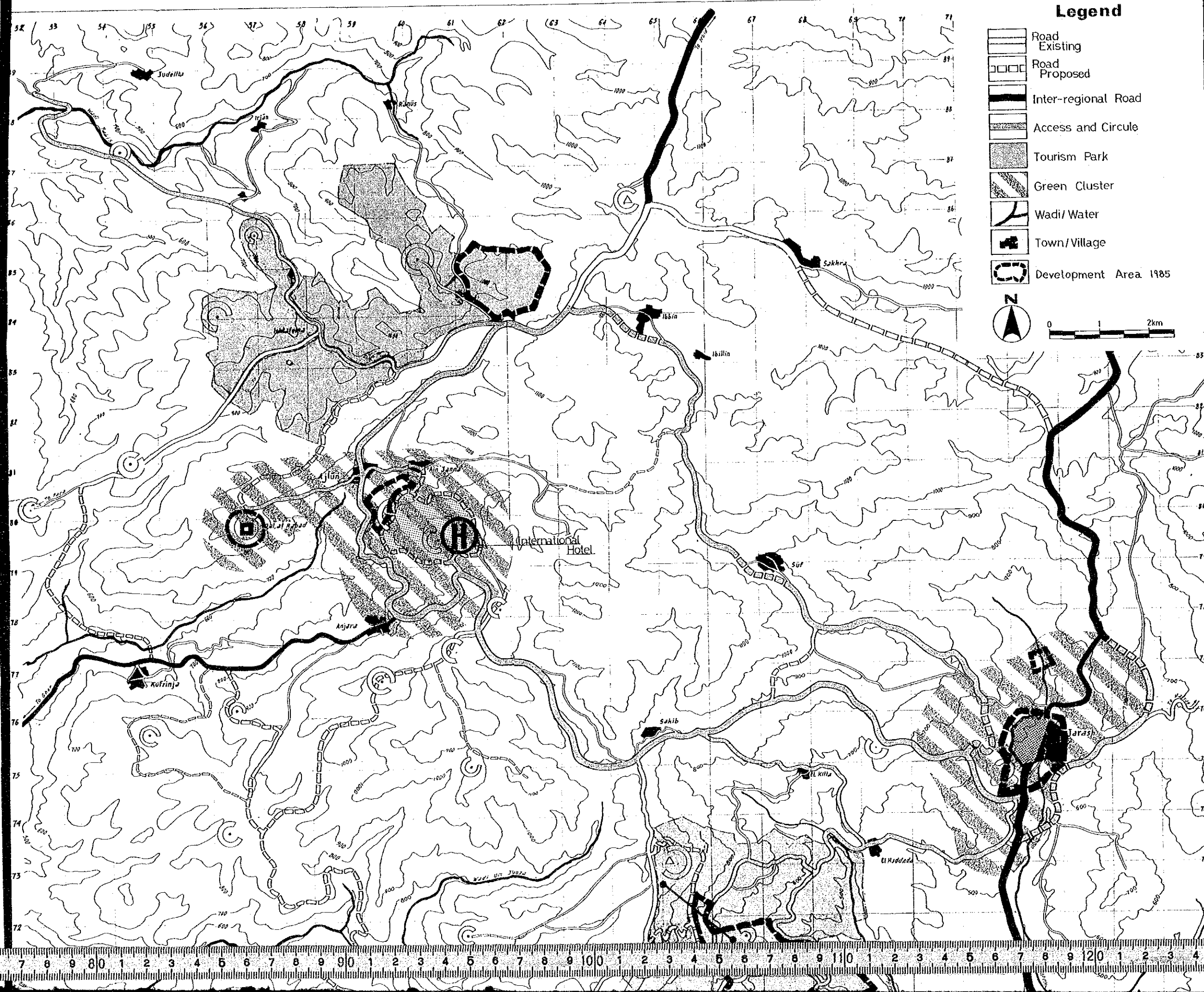
- | | | | |
|--|---------------------|--|-----------------------------------|
| | Road Existing | | Rabad Castle |
| | Road Proposed | | Green Belt |
| | Inter-regional Road | | Green Cluster |
| | Access | | Tourism Park |
| | Inner Circle | | Orchard |
| | Outer Circle | | 1st Grade Road-side Afforestation |
| | Feeder Road I | | 2nd Grade Road-side Afforestation |
| | Feeder Road II | | Beautification |
| | RopeWay | | Tourism Viewpoint |
| | Jerash Ruin | | Town/Village |
| | Arab Village | | Wadi/Water |














OCTOBER 1978
PREPARED BY:
JAPAN INTERNATIONAL COOPERATION AGENCY

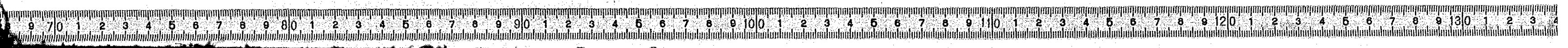
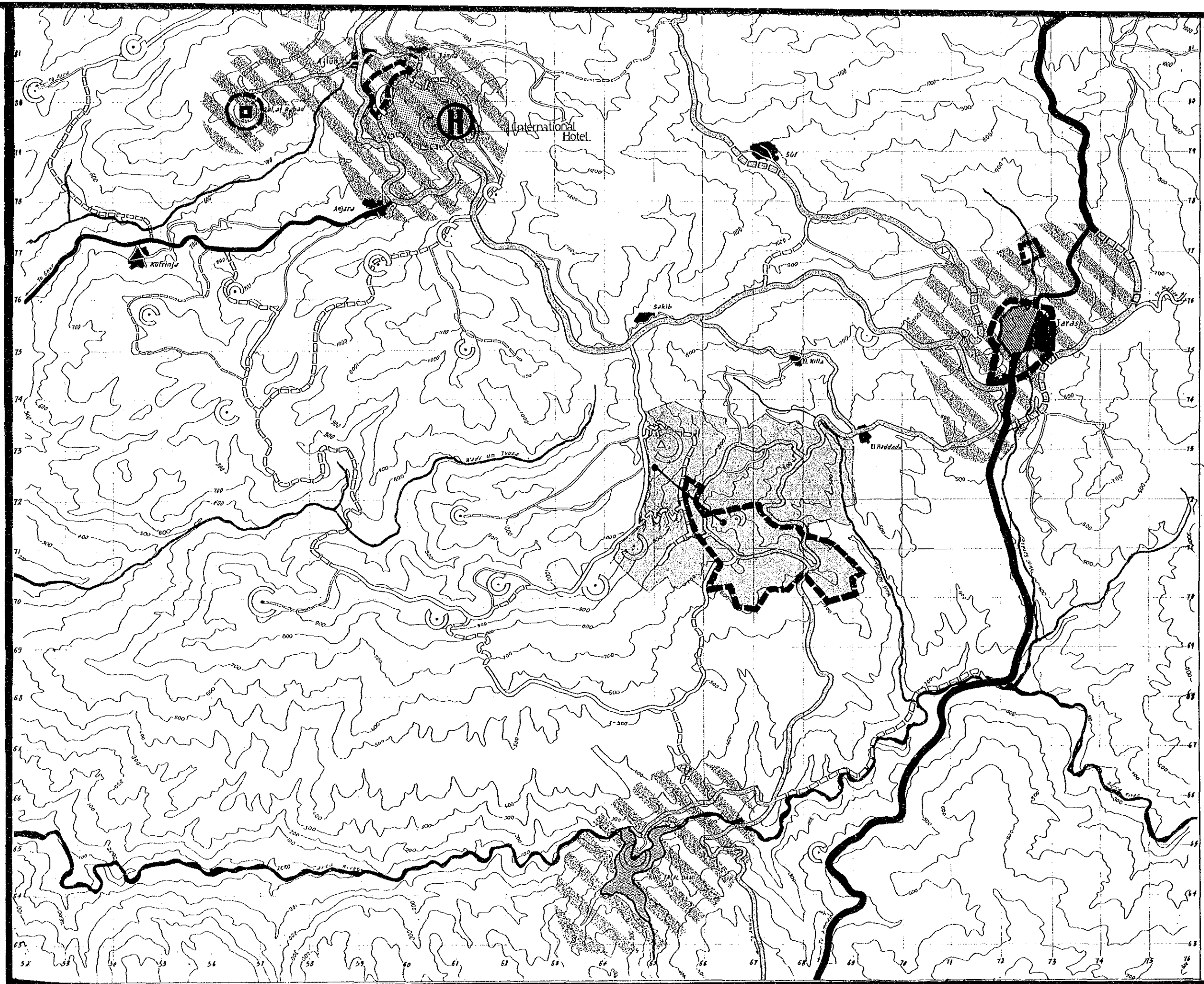
TOURISM DEVELOPMENT PLAN OF TARGET AREA, 1985



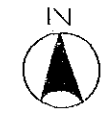
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-  Road Existing
-  Road Proposed
-  Inter-regional Road
-  Access and Circle
-  Tourism Park
-  Green Cluster
-  Wadi/ Water
-  Town/Village
-  Development Area 1985





PLAN OF DEVELOPMENT CORE: DIBBIN, 2000

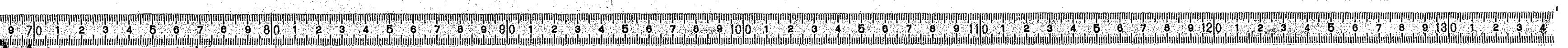
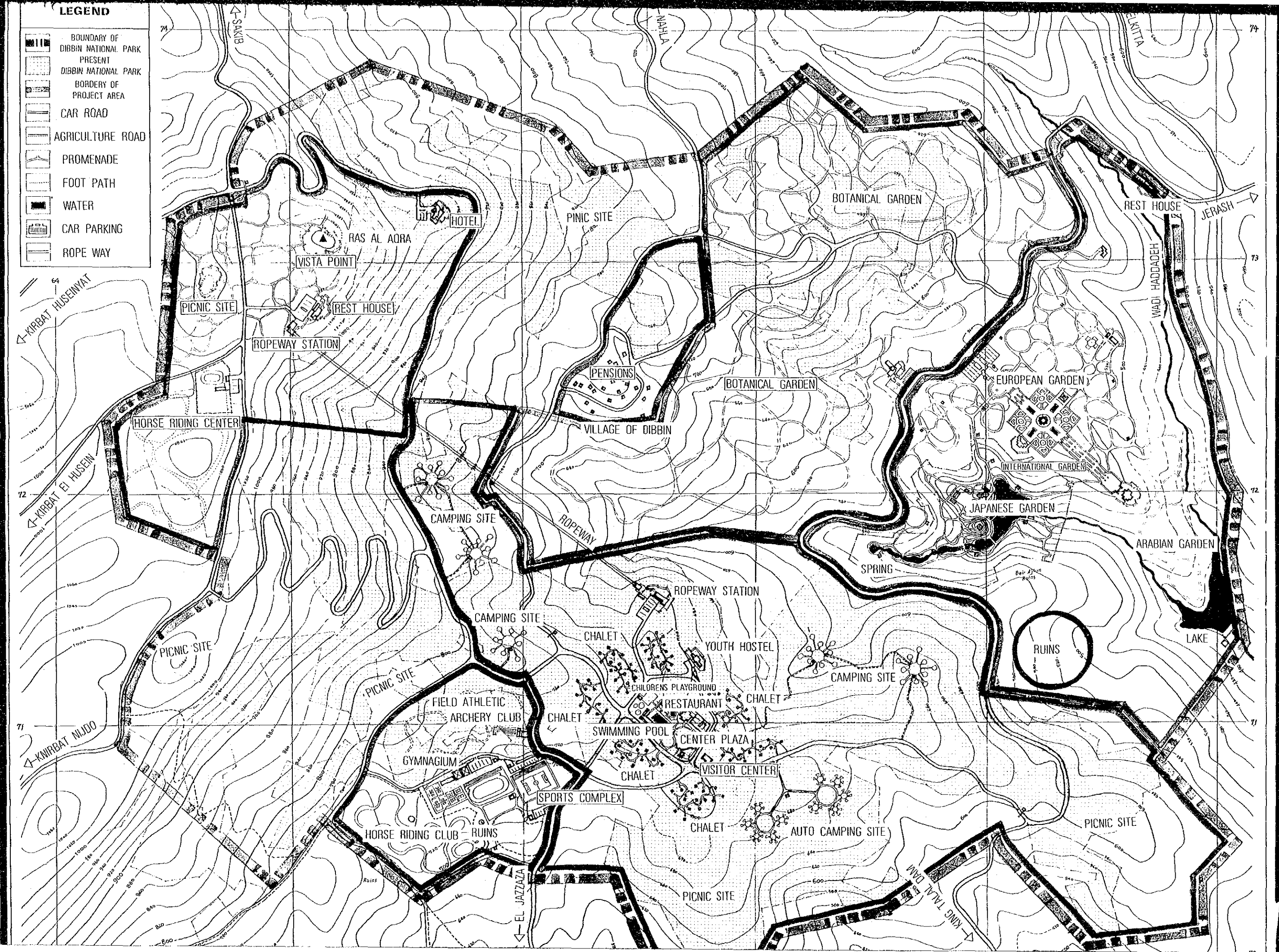


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	DIBBIN NATIONAL PARK
	BORDER OF PROJECT AREA
	CAR ROAD
	AGRICULTURE ROAD
	PROMENADE
	FOOT PATH
	WATER
	CAR PARKING
	ROPE WAY

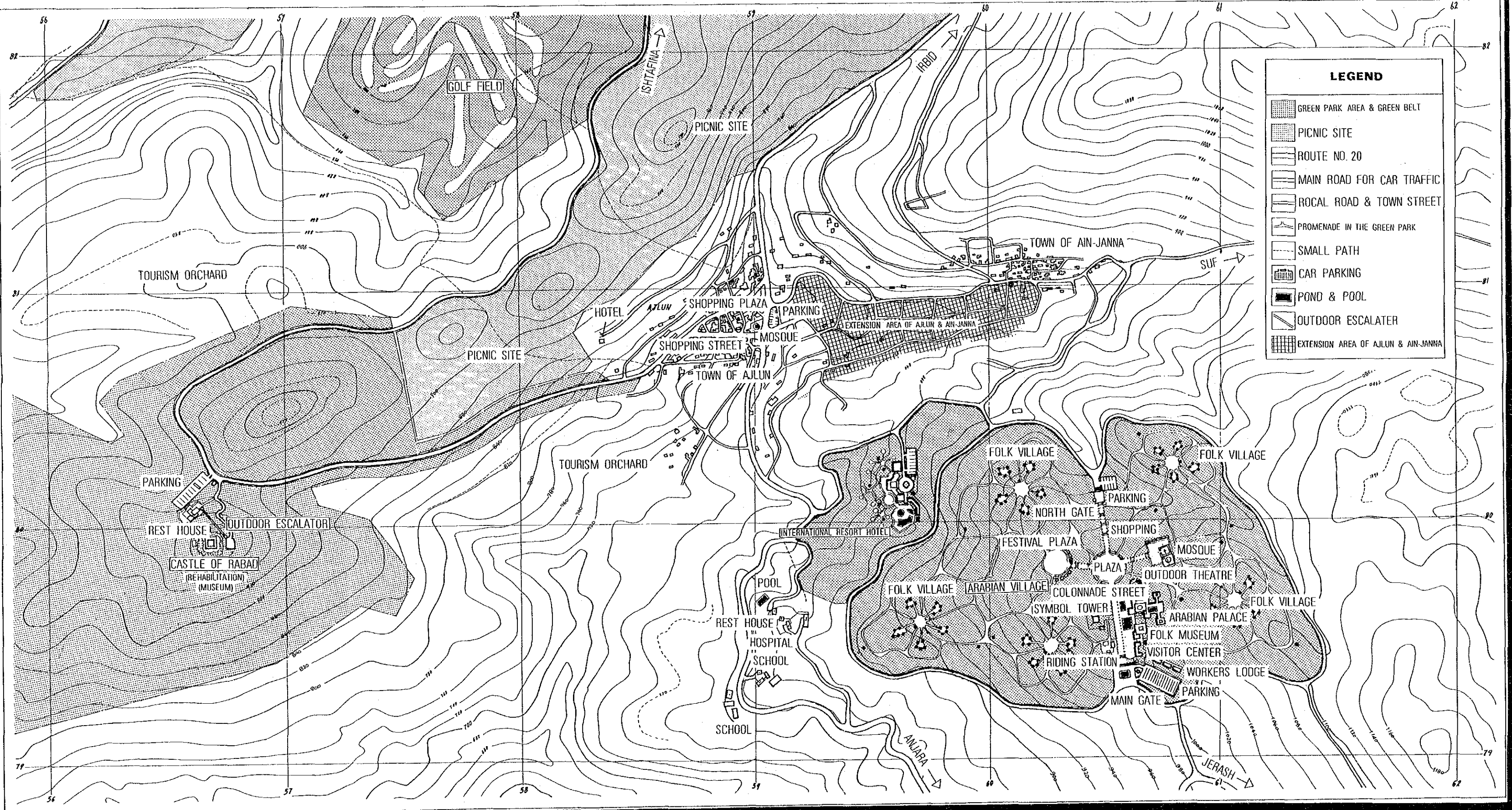


LEGEND

- BOUNDARY OF DIBBIN NATIONAL PARK PRESENT
- BOUNDARY OF DIBBIN NATIONAL PARK BORDERY OF PROJECT AREA
- CAR ROAD
- AGRICULTURE ROAD
- PROMENADE
- FOOT PATH
- WATER
- CAR PARKING
- ROPE WAY

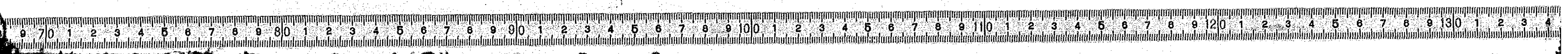


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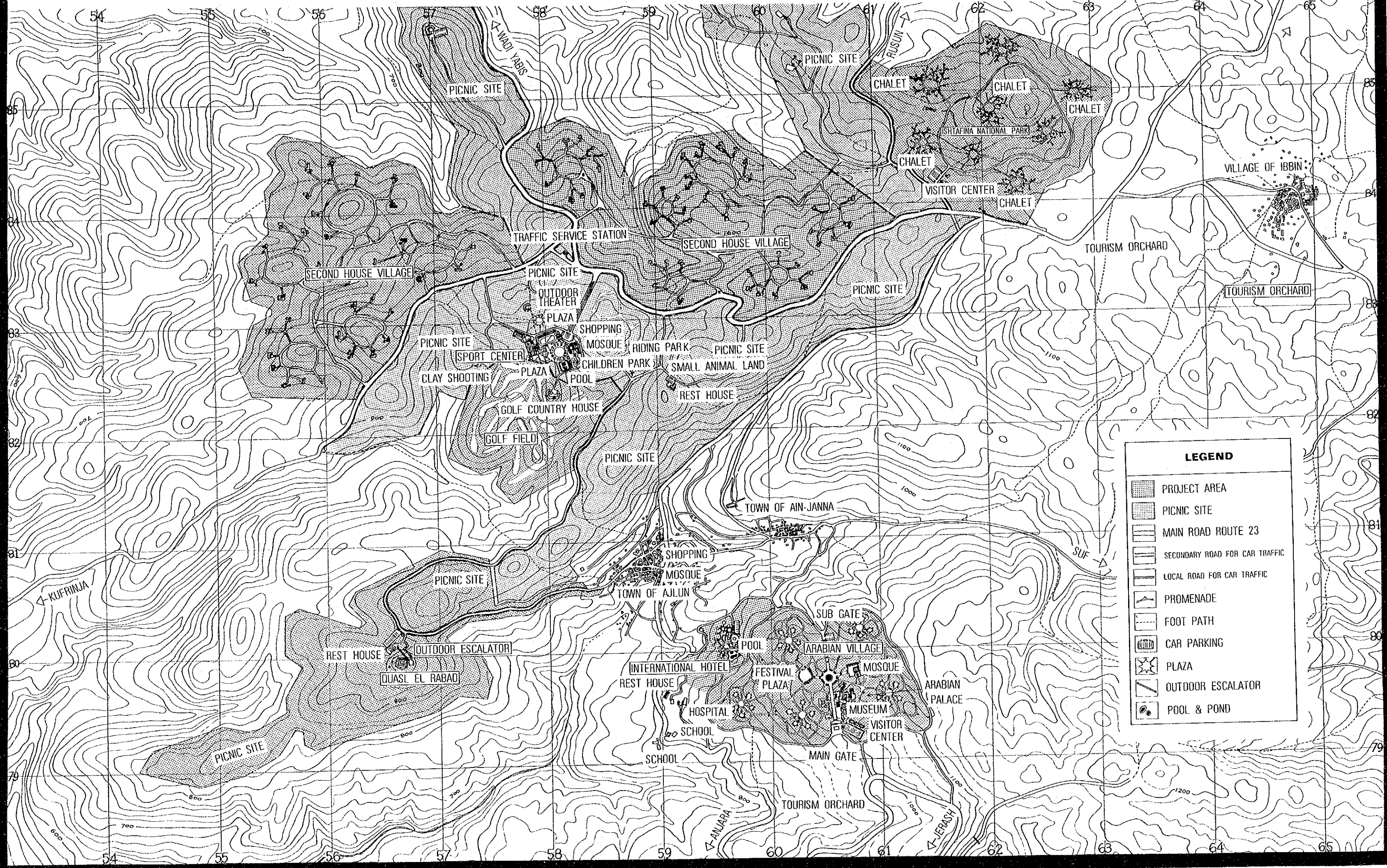
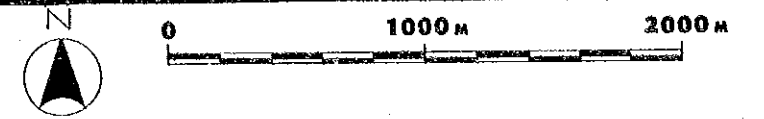


LEGEND

- GREEN PARK AREA & GREEN BELT
- PICNIC SITE
- ROUTE NO. 20
- MAIN ROAD FOR CAR TRAFFIC
- LOCAL ROAD & TOWN STREET
- PROMENADE IN THE GREEN PARK
- SMALL PATH
- CAR PARKING
- POND & POOL
- OUTDOOR ESCALATER
- EXTENSION AREA OF AJLUN & AIN-JANNA

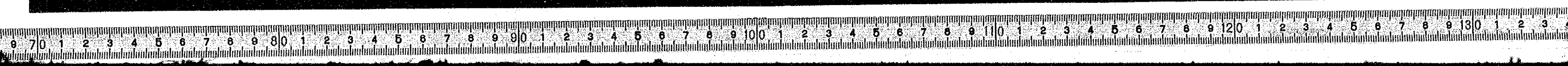


PLAN OF DEVELOPMENT CORE: ISHTAFINA, 2000

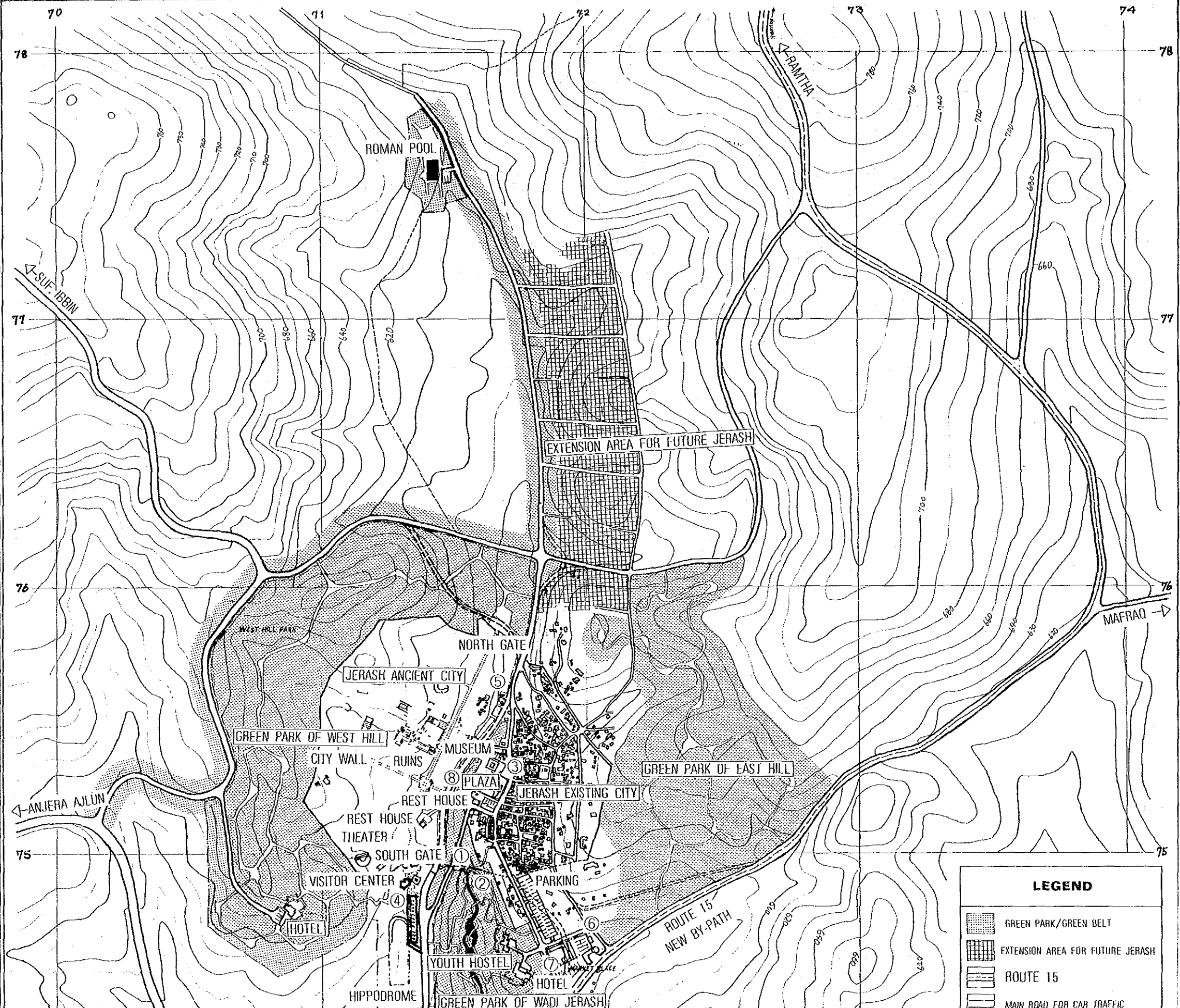


LEGEND

- PROJECT AREA
- PICNIC SITE
- MAIN ROAD ROUTE 23
- SECONDARY ROAD FOR CAR TRAFFIC
- LOCAL ROAD FOR CAR TRAFFIC
- PROMENADE
- FOOT PATH
- CAR PARKING
- PLAZA
- OUTDOOR ESCALATOR
- POOL & POND

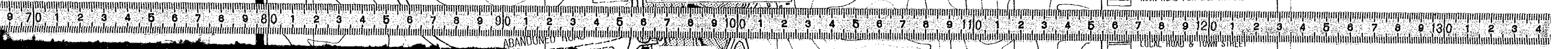


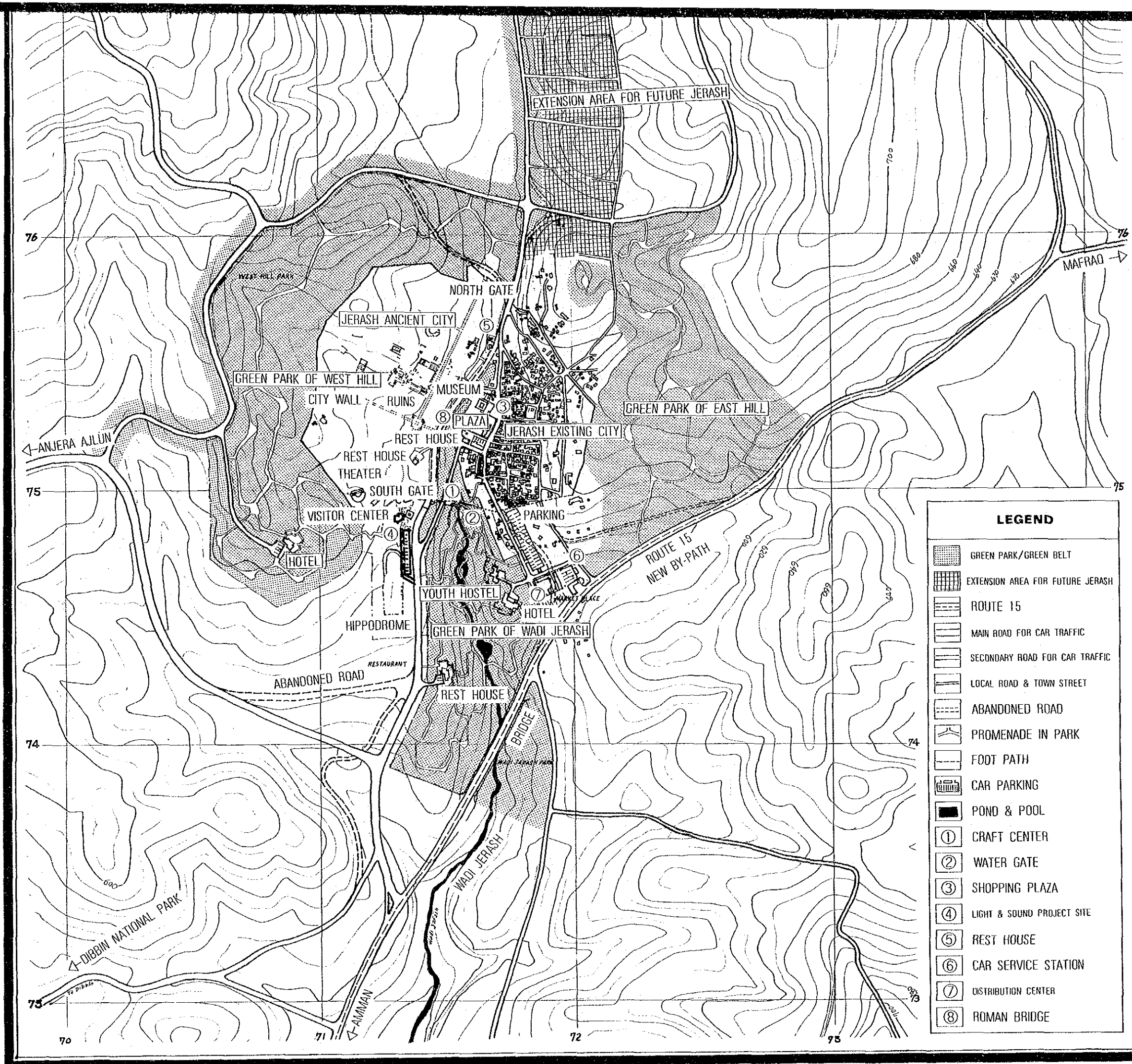
PLAN OF DEVELOPMENT CORE: JERASH, 2000



LEGEND

- GREEN PARK/GREEN BELT
- EXTENSION AREA FOR FUTURE JERASH
- ROUTE 15
- MAIN ROAD FOR CAR TRAFFIC
- LOCAL ROAD & TOWN STREET





LEGEND	
	GREEN PARK/GREEN BELT
	EXTENSION AREA FOR FUTURE JERASH
	ROUTE 15
	MAIN ROAD FOR CAR TRAFFIC
	SECONDARY ROAD FOR CAR TRAFFIC
	LOCAL ROAD & TOWN STREET
	ABANDONED ROAD
	PROMENADE IN PARK
	FOOT PATH
	CAR PARKING
	POND & POOL
	CRAFT CENTER
	WATER GATE
	SHOPPING PLAZA
	LIGHT & SOUND PROJECT SITE
	REST HOUSE
	CAR SERVICE STATION
	DISTRIBUTION CENTER
	ROMAN BRIDGE

