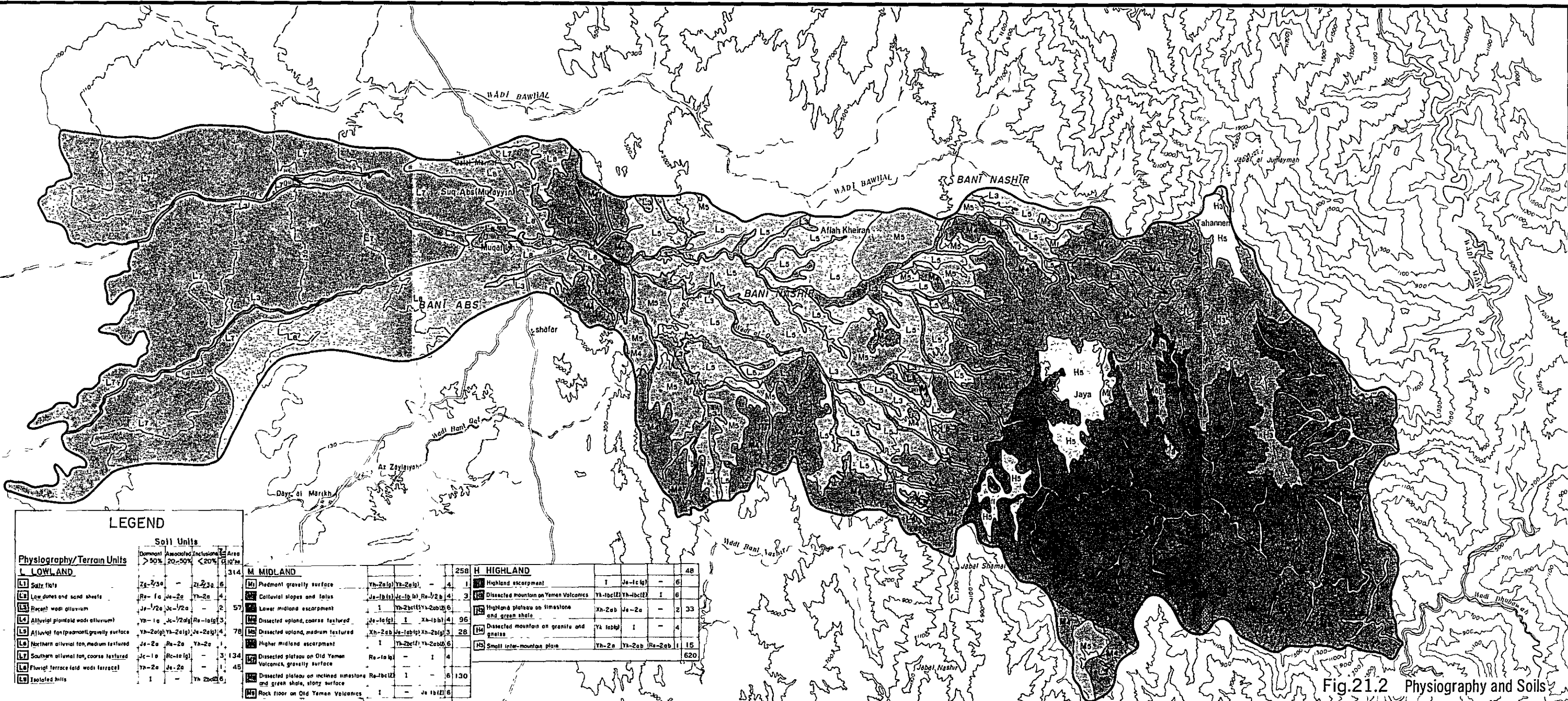


Fig.21.1 Location Map

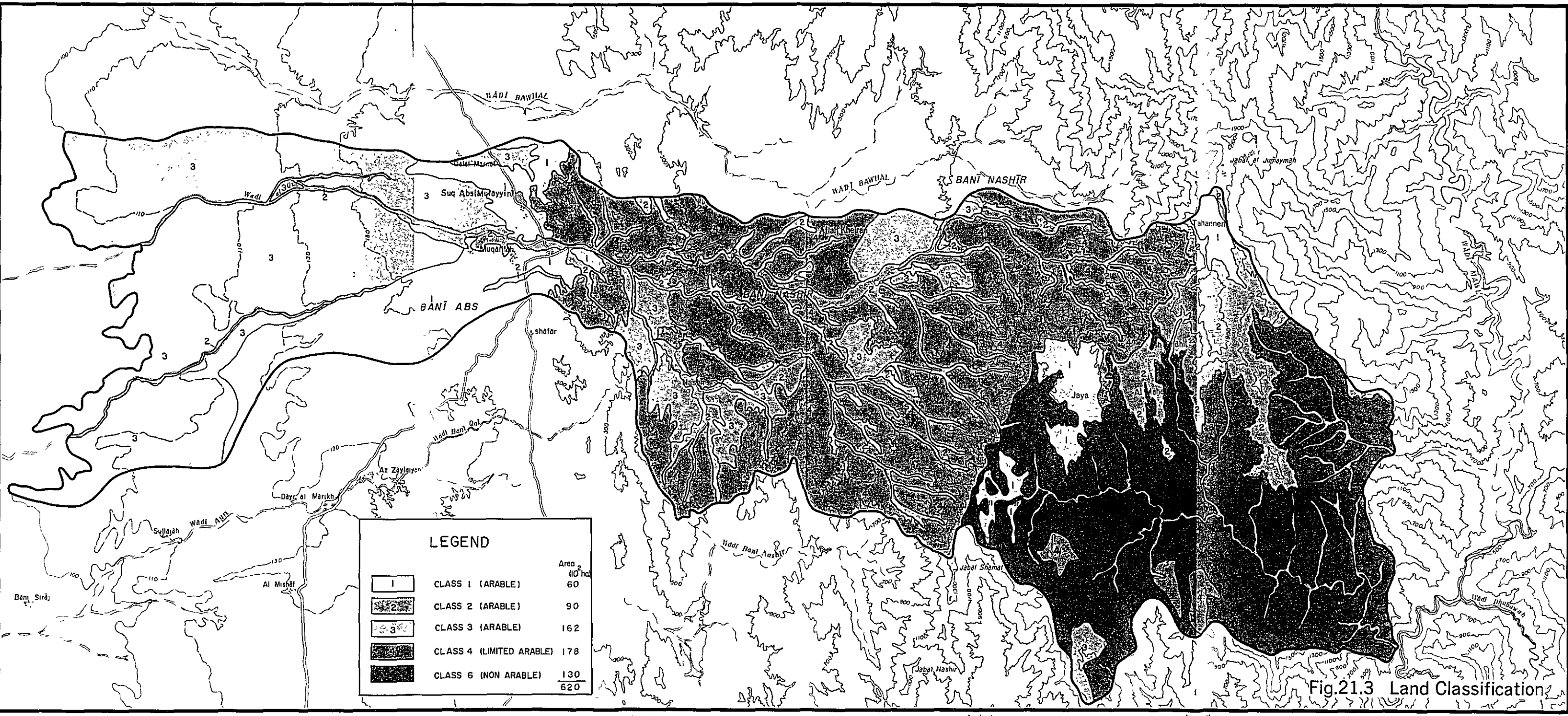


**LEGEND**

Physiography/Terrain Units	Soil Units			Area
	Dominant >50%	Associated 20-50%	Inclusions <20%	
<b>L LOWLAND</b>				314
L1 Salt flats	Zg-2/3a	-	Zl-2/3a	6
L2 Low dunes and sand sheets	Re-1a	Je-2a	Yh-2a	4
L3 Recent wadi alluvium	Je-1/2a	Je-1/2a	-	57
L4 Alluvial plain (old wadi alluvium)	Yh-1a	Je-1/2a	Re-1a/g	3
L5 Alluvial fan (pediment/gravelly surface)	Yh-2a/g	Yh-2a/g	Je-2a/g	4
L6 Northern alluvial fan, medium textured	Je-1a	Re-2a	Yh-2a	1
L7 Southern alluvial fan, coarse textured	Je-1a	Re-1a/g	-	3
L8 Fluvial terrace (old wadi terrace)	Yh-2a	Je-2a	-	45
L9 Isolated hills	1	-	Yh-2a/g	6
<b>M MIDLAND</b>				258
M1 Piedmont gravelly surface	Yh-2a/g	Yh-2a/g	-	4
M2 Colluvial slopes and talus	Je-1b/g	Je-1b/g	Re-1/2b	4
M3 Lower midland escarpment	1	Yh-2b/g	Yh-2b/g	6
M4 Dissected upland, coarse textured	Je-1a/g	1	Xh-1b/g	4
M5 Dissected upland, medium textured	Xh-2ab	Je-1a/g	Xh-2a/g	3
M6 Higher midland escarpment	1	Yh-2b/g	Yh-2b/g	6
M7 Dissected plateau on Old Yemen Volcanics, gravelly surface	Re-1a/g	-	1	4
M8 Dissected plateau on inclined limestone and green shale, stony surface	Re-1b/c/g	1	-	6
M9 Rock floor on Old Yemen Volcanics	1	-	Je-1b/g	6
<b>H HIGHLAND</b>				48
H1 Highland escarpment	1	Je-1c/g	-	6
H2 Dissected mountain on Yemen Volcanics	Yh-1b/c/g	Yh-1b/c/g	1	6
H3 Highland plateau on limestone and green shale	Xh-2ab	Je-2a	-	2
H4 Dissected mountain on granite and gneiss	Yh-1a/g	1	-	4
H5 Small inter-mountain plain	Yh-2a	Yh-2ab	Re-2ab	1
				15
				620

Fig.21.2 Physiography and Soils





**LEGEND**

Class	Description	Area (10 <sup>3</sup> ha)
1	CLASS 1 (ARABLE)	60
2	CLASS 2 (ARABLE)	90
3	CLASS 3 (ARABLE)	162
4	CLASS 4 (LIMITED ARABLE)	178
6	CLASS 6 (NON ARABLE)	130
		<b>620</b>

Fig.21.3 Land Classification

0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000  
 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20  
 Statute Miles      Kilometres

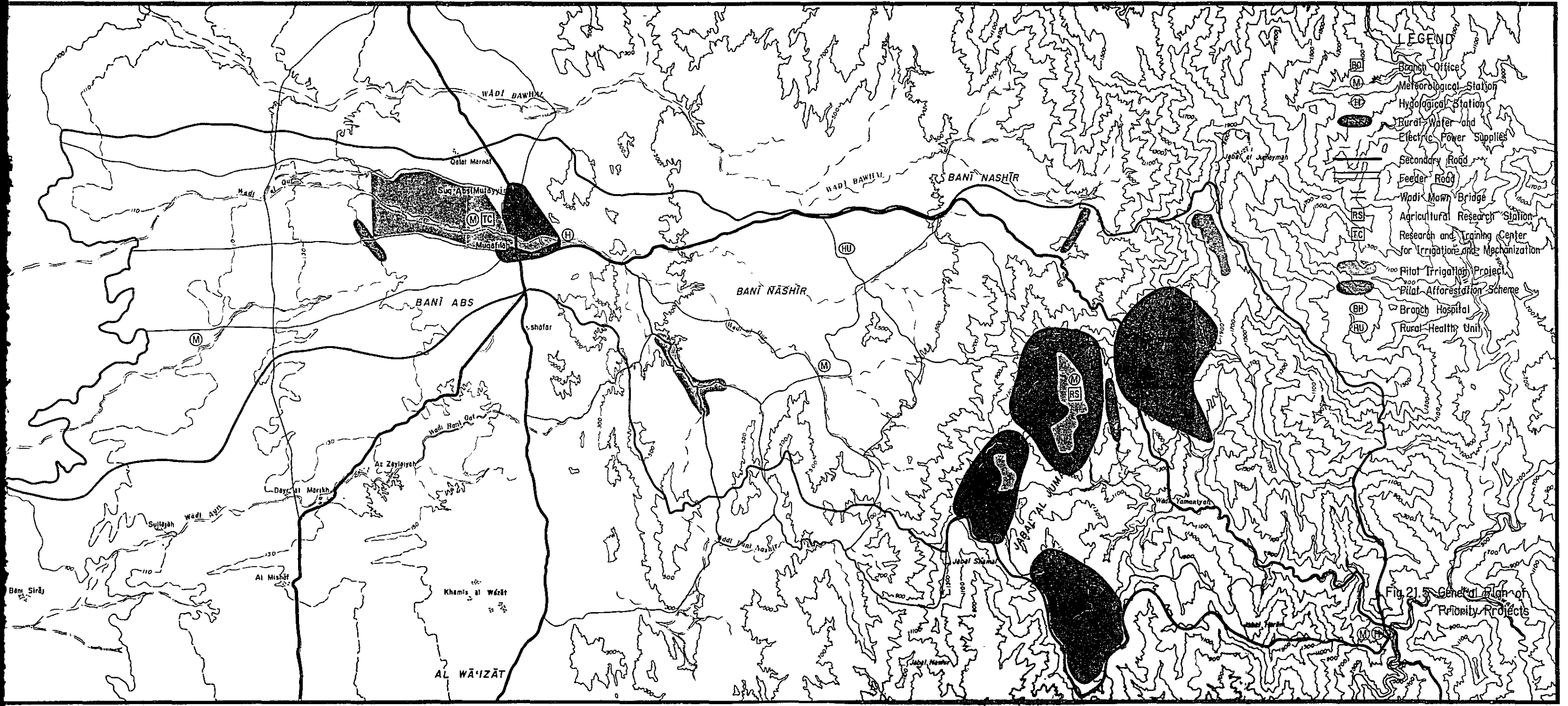
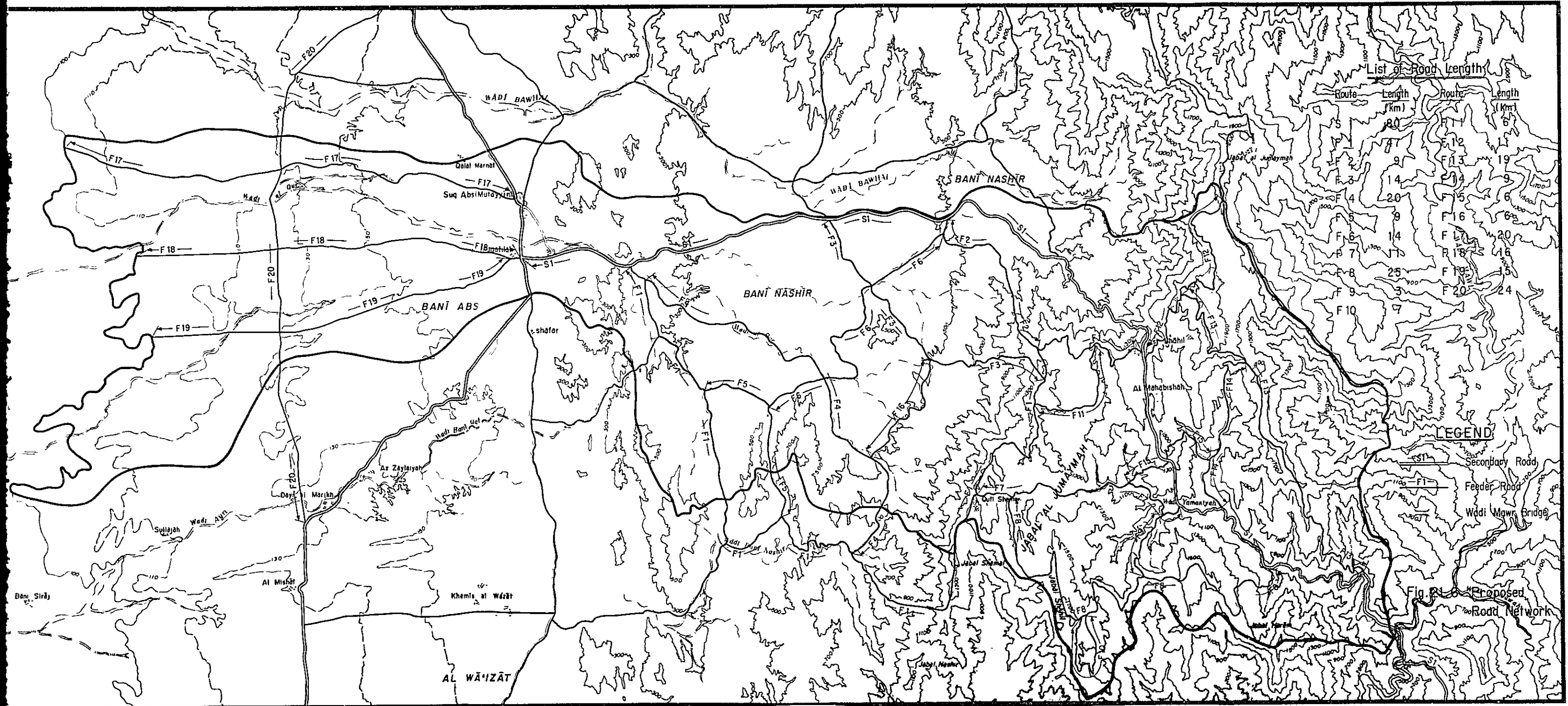


Fig. 21-5 General Plan of Priority Projects



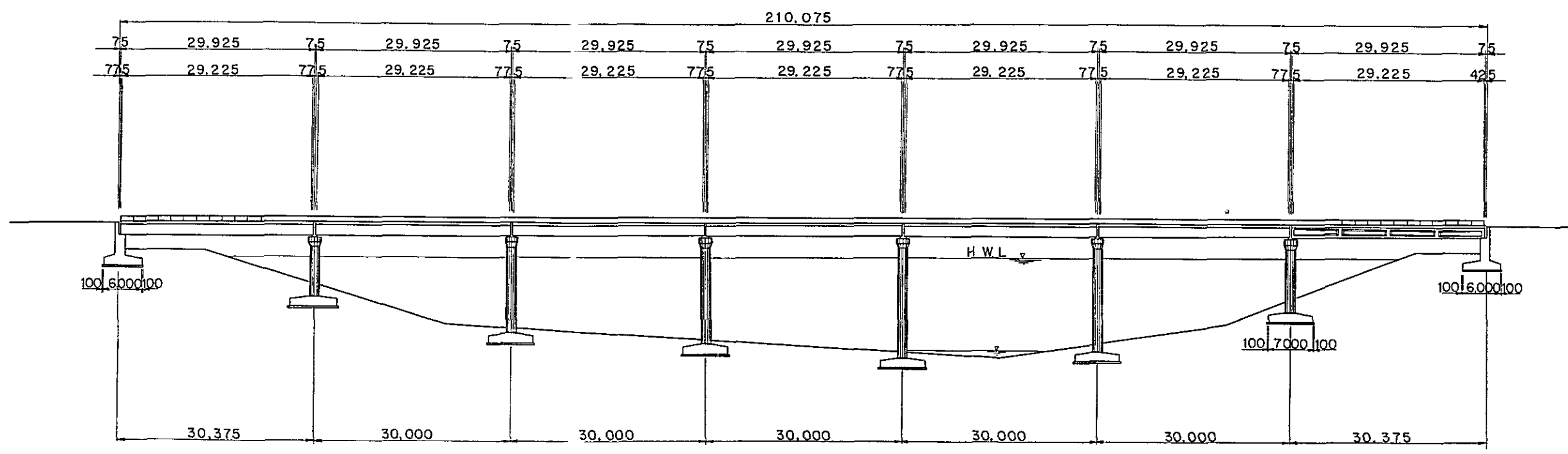


List of Road Lengths

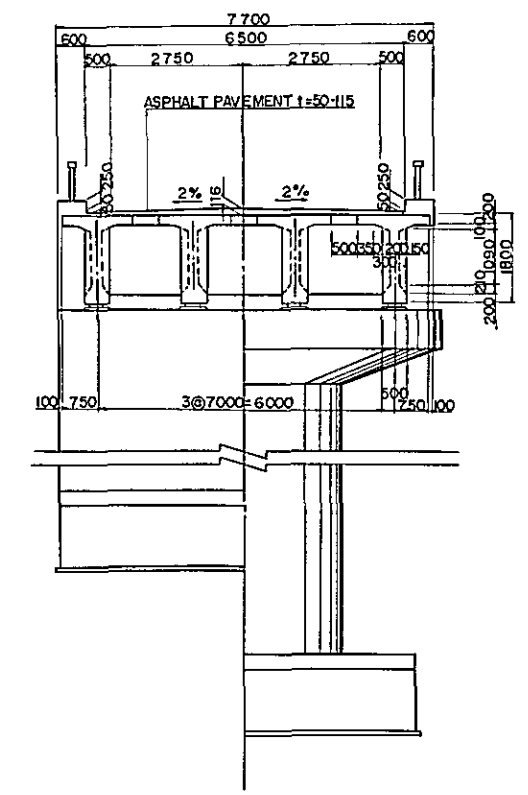
Route	Length (km)	Route	Length (km)
F1	80	F11	6
F2	9	F12	19
F3	14	F13	9
F4	20	F14	6
F5	9	F15	6
F6	14	F16	20
F7	17	F17	16
F8	25	F18	15
F9	5	F19	24
F10	7	F20	24

LEGEND

- Secondary Road
- Feeder Road
- Wadi Gwān Bridge
- Proposed Road Network

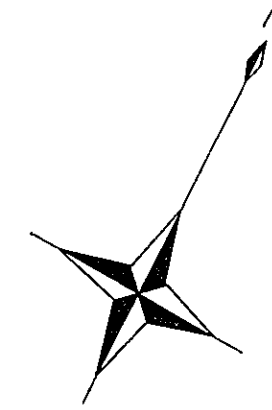
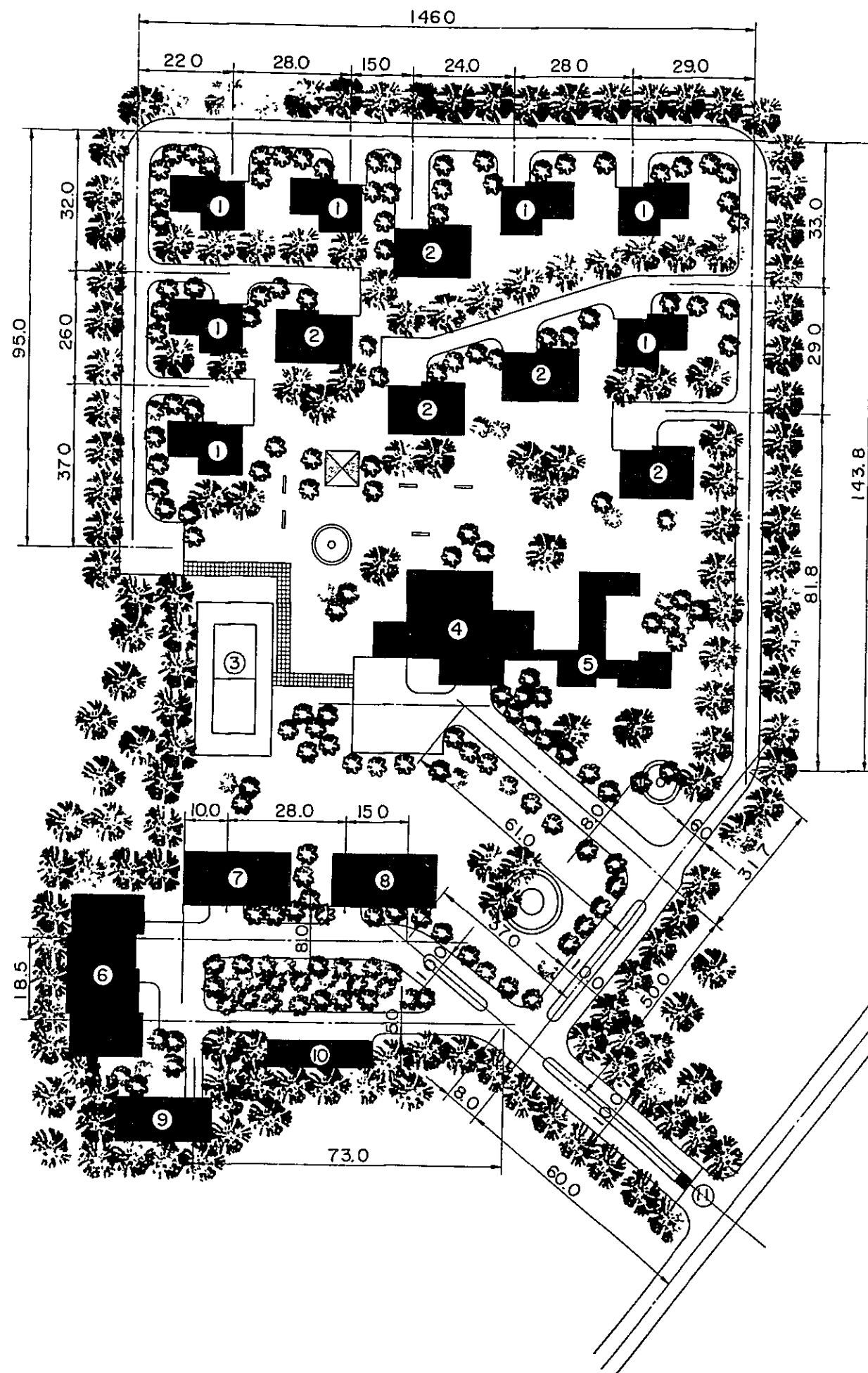


PROFILE SCALE 1:500



CROSS SECTION  
SCALE 1:100

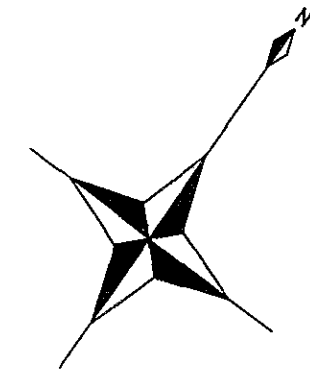
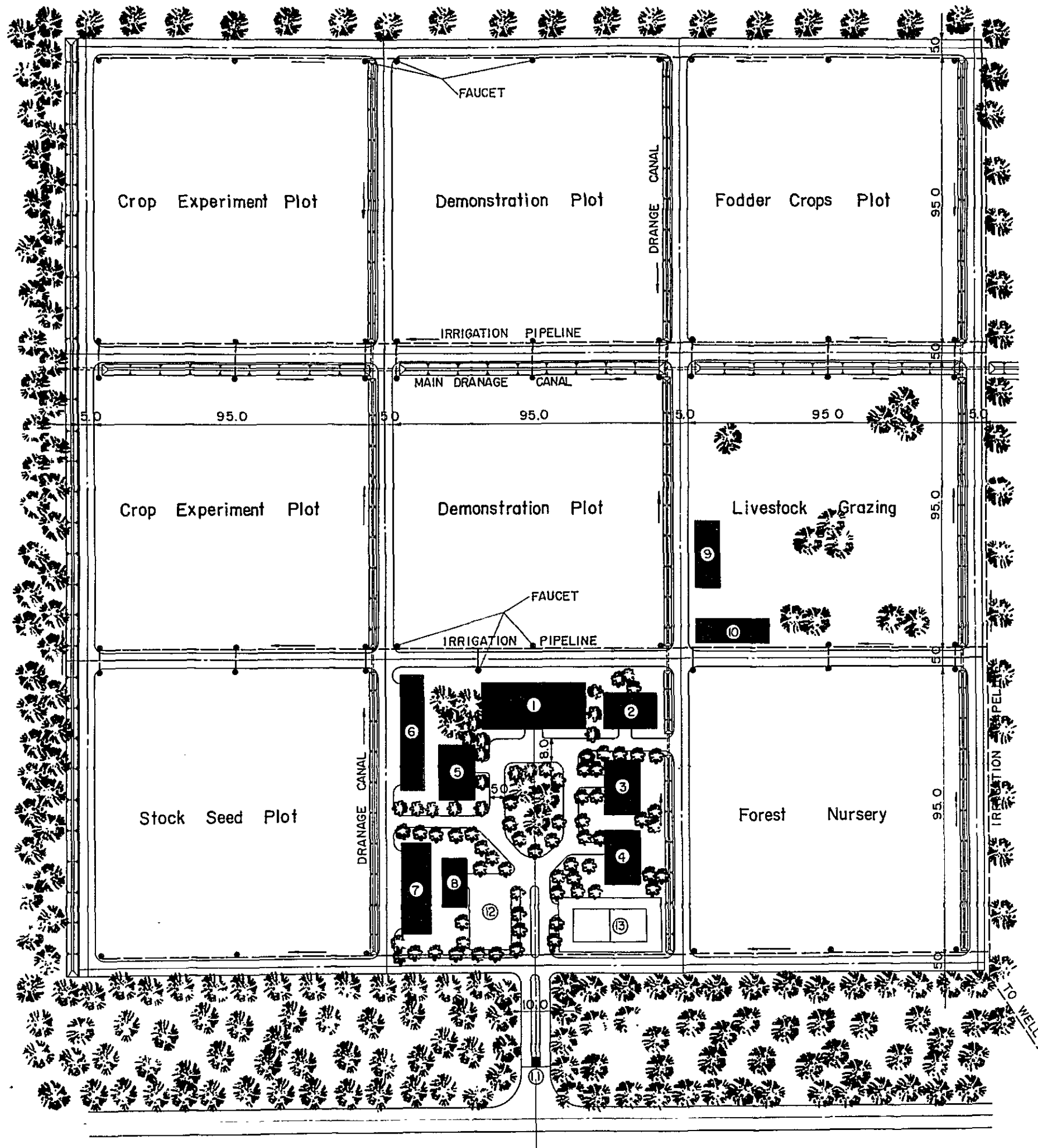
Fig. 21.7 Wadi Mawr Bridge



**LEGEND**

- 1 TWO BEDROOM RESIDENCE
- 2 THREE BEDROOM RESIDENCE
- 3 TENNIS COURT
- 4 CLUB
- 5 GUEST HOUSE
- 6 MAIN OFFICE
- 7 ROAD CONSTRUCTION DEPARTMENT
- 8 RURAL WATER SUPPLY DEPARTMENT
- 9 DRIVERS' DORMITORY
- 10 COVERED PARKING
- 11. MAIN GATE AND GUARD HOUSE

Fig. 21.8 Proposed Layout of Project Office

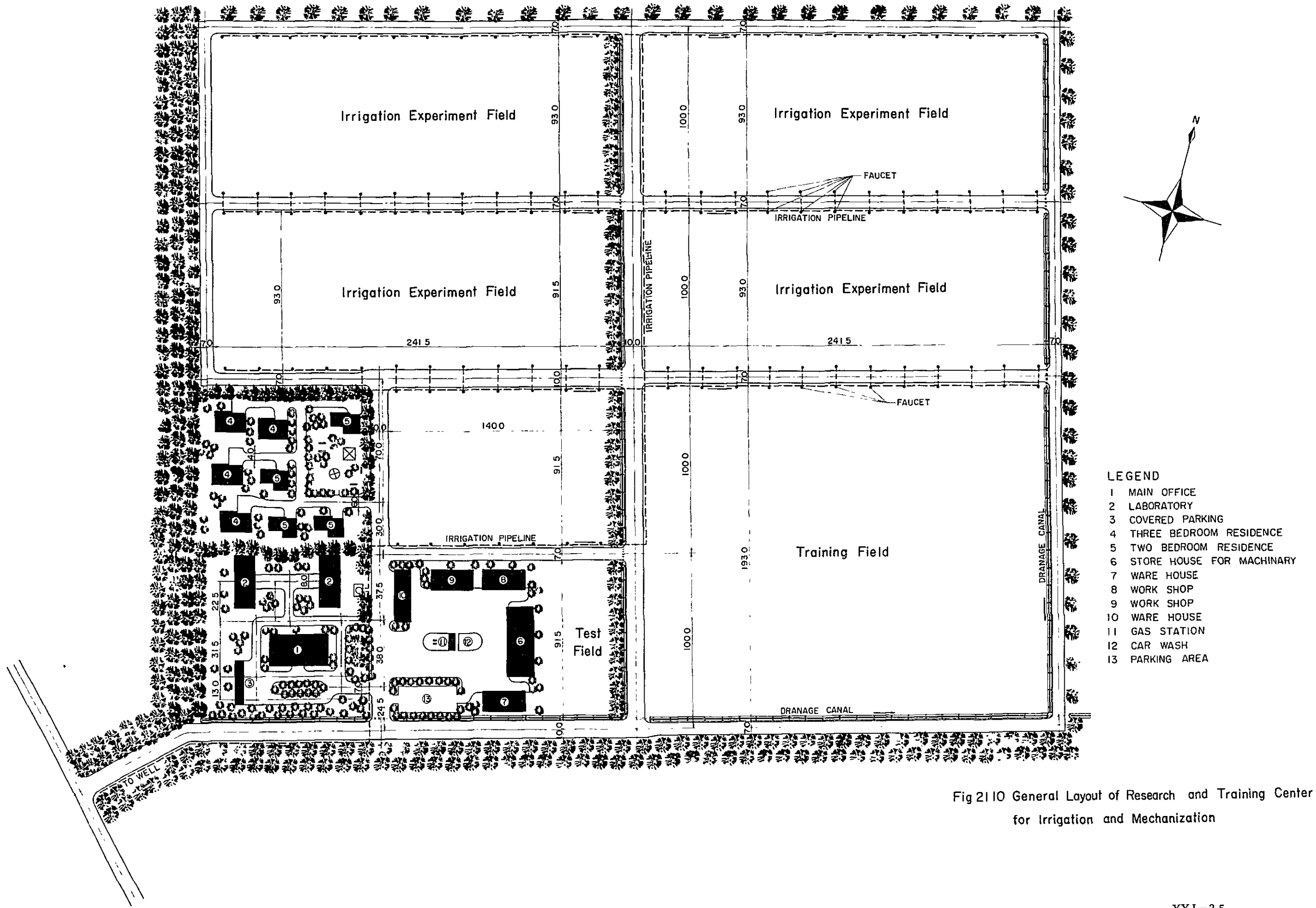


**LEGEND**

- 1 MAIN OFFICE
- 2 LIVESTOCK DEPARTMENT
- 3 AFFORESTATION DEPARTMENT
- 4 IRRIGATION DEPARTMENT
- 5 CROP RESEARCH DEPARTMENT
- 6 FARM TOOLS STORAGE
- 7 FERTILIZER STORAGE
- 8 WATCHMAN'S DORMITORY
- 9 FODDER STORAGE
- 10 STABLE
- 11 MAIN GATE AND GUARD HOUSE
- 12 PARKING AREA
- 13 TENNIS COURT

Fig.21.9 General Layout of Agricultural Research Station





- LEGEND**
- 1 MAIN OFFICE
  - 2 LABORATORY
  - 3 COVERED PARKING
  - 4 THREE BEDROOM RESIDENCE
  - 5 TWO BEDROOM RESIDENCE
  - 6 STORE HOUSE FOR MACHINERY
  - 7 WARE HOUSE
  - 8 WORK SHOP
  - 9 WORK SHOP
  - 10 WARE HOUSE
  - 11 GAS STATION
  - 12 CAR WASH
  - 13 PARKING AREA

Fig 2110 General Layout of Research and Training Center for Irrigation and Mechanization



Description	1	2	3	4	5	6	7	8	9	10	(Year in order)
(1) Project office	_____										
(2) Branch offices in Al Mahabisha and Abs		_____									
(3) Establishment of observation network		_____									
Meteorological stations (4)		_____									
Hydrological stations (2)		_____									
(4) Rural water supplies		_____									
Abs, Al Shaafeen		_____									
Sharhil, Qufi Shamal		_____									
(5) Rural road network		_____									
Secondary roads		_____									
Hajjah - Al Mahabisha (45 km)		_____									
Al Mahabisha - Abs (35 km)		_____									
Bridge on Wadi Mawr (200 m)		_____									
Feeder roads		_____									
Abs - Qufi - Al Mahabisha (47 km)		_____									
Qufi - Sharhil (25 km)		_____									
Other feeder roads (220 km)		_____									
(6) Agricultural research station (10 ha)		_____									
(7) Research and training center (20 ha)		_____									
for irrigation and mechanization		_____									
(8) Pilot irrigation projects		_____									
Wadi-delta plain -- Abs area (1,300 ha)		_____									
Swampy lands -- Jaya, Tahannen (500 ha)		_____									
and Sharhil area (200 ha)		_____									
Wadi lands		_____									
(9) Establishment of a forest nursery (1 ha)		_____									
(10) Pilot afforestation schemes (200 ha)		_____									
(11) Rural infrastructures		_____									
Health facilities		_____									
Electric power supply		_____									

Fig. 21.11 Preliminary Implementation Schedule for Priority Projects









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