

MANGLA DAM RAISING PROJECT DEVELOPMENT OF NEW MIRPUR CITY PLANNING REPORT

1- GENERAL

A new City is being developed to resettle the affectees of Mangla Dam Raising project. The site for the New City, spread over 1446 acres of land is located south of Mirpur City along Jari Kas road. A road leading from Mirpur to Tarappa Village marks the eastern boundary of the area. The western boundary of New Mirpur City is located about 1.3 Km east of Mian Muhammad road. The southern boundary lies about 700 to 800 meters North-East of the Pothi village.

Access to the New City is being provided from three locations including two entrances from Jari Kas road forming southern periphery of Mirpur City and one from Mian Muhammad road located on its west.

2- MASTER PLANNING

The planning of the New City is characterized by a central community area (City Centre) surrounded by six residential sectors. In addition, a city park in the form of a buffer zone and having public amenities and recreational facilities is proposed between the New City and Mirpur. Master Plan of New Mirpur City due to its nearness, the residents of Mirpur will also benefit from the recreational, commercial and other facilities provided in the New City.

3- CITY CENTRE

The proposed City Centre will be spread over an area of 154 acres. The public amenities provided in the central area will include central mosque, secondary schools and degree colleges for boys and girls, hospital, post office, telephone exchange, banking and commercial institutions, fire station, police station, gymnasium, play ground, bus/wagon/ truck stands, cinema and commercial complex. Easy access to these centrally located community facilities is provided through a network of roads which are surrounding the central area and at the same time are linking the residential sectors.

4- CITY PARK

The City Park forming buffer zone between New City and Mirpur will cover a land area of 155 acres over a band of varying width ranging between 400 ft and 1000 ft running almost parallel to Jari Kas Road. The city park is planned to be developed with a semi-formal landscaping to provide a recreation and relaxing atmosphere while maintaining semi-forest character. This buffer zone will also have a community centre, library, nursery and a jalsagah (Public meeting place).

Water treatment works and a graveyard is also located in the western part of the City park. A 100 feet wide road running along the northern boundary of the New City will provide multiple accesses to the City Park.

5- SECTORAL PLANNING

i- Sector A

Sector A is located in the north-east part of the New City and covers an area of 175 acres. Six nullahs originating from the north pass through Sector A and converge into three nullahs on the southern boundary of this sector. The land in the southern half of this sector is less undulating and most of the area has been utilized in development of residential plots. Whereas the land in northern half is composed of steeper slopes resulting in partial utilization of the area for residential development.

The development plan of sector A and inventory of plots developed in this sector is given below.

Plot Size	No.
1-Kanal	122
15-Marla	40
12-Marla	56
10-Marla	128
7-Marla	48
5-Marla	496
Total	892

About 50 % of the total area of this sector has been utilized for residential plots including inner roads.

In addition to the neighborhood amenities a Boys Secondary School and Vocational Training Institute are located in Sector A. Plots have been earmarked for shops, private clinics, educational institutions and cottage industry.

ii- Sector B

Sector B is located in the south of sector A along Tarappa Road. It covers an area of 171 acres. Seven nullahs of varying sizes enter in to sector B from northern and eastern direction and join together before leaving this sector at its southern end. The steep nature of the ground particularly in the central part of this sector has restricted the residential developments to selected stretches of the land. At some locations the meandering of the nullahs has been straightened to avoid bends in the access roads, sewer lines and other utilities.

The development plan of sector B and inventory of plots developed in this sector is given below.

Plot Size	No.
1-Kanal	178
15-Marla	43
12-Marla	38
10-Marla	50
7-Marla	28
5-Marla	407
Total	644

About 41 % of the total area of this sector has been utilized for residential plots including inner roads.

In addition to the sectoral level amenities, some of the central amenities are located in this sector, which include, a Girls Secondary School, electric grid station, automobile workshops/spare part shops, petrol/ gas station and shops.

iii- Sector C

Sector C is located on west of sector A. This sector is spread over an area of 145 acres. Six nullahs originating from the southern pass through this sector. Topography of the area is generally steep sloping. Development of the residential plots is therefore scattered.

The development plan of sector C and inventory of plots developed in this sector is given below.

Plot Size	No.
1-Kanal	197
15-Marla	56
12-Marla	57
10-Marla	95
7-Marla	33
5-Marla	0
Total	438

Because of bad topography, only 38 % of the total area of this sector has been utilized for development of residential plots including inner roads.

In addition to the sectoral amenities, plots are provided in this sector for private educational institutions, cottage industry and shops.

iv- Sector D

Sector D is located in the north-west of the New City and covers an area of 153 acres. The topography of the New City site becomes more difficult while moving from east west. Accordingly, Sector D has very steeply sloping ground. At places, the gradient is up to 100 % or even more. The developable land of this sector has been utilized for residential plots.

The development plan of sector D and inventory of plots developed in this sector is given below.

Plot Size	No.
1-Kanal	49
15-Marla	35
12-Marla	43
10-Marla	97
7-Marla	55
5-Marla	0
Total	279

Because of very bad topography, only 32 % of the total area of sector D is used for residential plots including inner roads.

In addition to the sectoral public amenities, plots have been provided for private educational institutions, cottage industry and shops.

A girls Secondary school is proposed in the northern part of Sector D.

iv- Sector E

Sector E is located in the south-west part of the New City. It covers an area of 146 acres. Except for the small stretch of land in the southern part, this sector also possesses difficult topography. Residential plots have been planned with due regard to the topographic constraints.

The development plan of sector E and inventory of plots developed in this sector is given below.

Plot Size	No.
1-Kanal	35
15-Marla	73
12-Marla	38
10-Marla	135
7-Marla	118
5-Marla	0
Total	397

The area covered under residential plots including inner roads is about 39 % of the total area of Sector E.

In addition to public amenities, plots have been provided for private educational institutions, cottage industry, private clinics and shops.

Boys Secondary school and sewage treatment and disposal works are also provided in this Sector.

v- Sector F

Sector F is located east of Tarappa Road and covers an area of 216 acres. The site topography is very difficult except few patches of land that are located closer to Tarappa Village and at present are partly bring cultivated.

About ten small and big nullahs pass through this sector which are flowing in the southern direction. The bigger nullahs are running in deep and narrow valleys forming steep slopes.

Although area- wise this sector is the largest of six residential sectors but because of extremely undulating topography, a large part of this sector is undevelopable for residential purpose. The development plan of sector F and majority of the plots in this sector will be 5 Marla size. Inventory of plots developed in this sector is given below.

Plot Size	No.
1-Kanal	0
15-Marla	0
12-Marla	0
10-Marla	0
7-Marla	0
5-Marla	1723
Total	1723

Note:- Original Sector-F 1100 Nos. and extended area sector-F=623

The area covered under residential plots including inner roads is 34 % of the total area of Sector F.

In addition to sectoral public amenities, plots are provided for private educational institutions, cottage industry, private clinics and local shopping. Sewage treatment and disposal works are provided in the south eastern side of the sector. A grave yard is provided on the northern side of the sector along Tarrappa road.

DEVELOPMENT OF NEW CITY
SECTOR-WISE INVENTORY OF LAND UTILIZATION

Plot Size	Area (Acres)	Land Utilization in Residential Plots and Inner Roads	
		Acres	Percent
Sector A	175	86	50 %
Sector B	171	70	41 %
Sector C	145	55	38 %
Sector D	153	49	32 %
Sector E	146	58	39 %
Sector F	216	73	34 %
Sub-total of Residential Sectors	1006	391	39 %
City Centre	154	-	-
City Park	155	-	-
Total	1315	-	-

6- HIERARCHY OF ROADS

- i- Primary Roads:
The primary roads with formation of 100 ft.
- ii- Secondary Roads:
The Secondary roads with formation of 60 ft.
- iii- Inner Roads:
The Inner roads with formation of 40 ft.

The length of inner roads provided in the various sectors is listed below.

Sectors	Area
Sector A	8.1 Km
Sector B	6.6 Km
Sector C	4.9 Km
Sector D	4.6 Km
Sector E	4.9 Km
Sector F	8.7 Km
Total	37.8 Km

7- WATER SUPPLY SCHEME

The water supply scheme of New City comprises withdrawal of water from Jari outlet tunnel through a new connection. From there, Water will be pumped and transmitted through a 9 Km long pipeline to the treatment plant located in the north-west of New City. The treated water will be pumped to storage tank from where it will be supplied to the consumers under gravity through a distribution network of pipelines.

8- THE PLANNING CONCEPT

An underground water borne Sewerage system is planned for the New City. Rolling topography of the area makes collection of Sewage a complex task. Moreover drainage of New City is split into more than one exit points in the south meaning thereby what whole of the sewage of New City cannot be collected at one point.

The sewage will be collected from houses and transported under gravity to three locations through conventional sewage system. At collection points it will be treated and disposed off by land application in the nearby nullahs.

9- TREATMENT AND DISPOSAL

Sewage will be collected at three locations and treated in oxidation ponds, which provide natural process for stabilization with no mechanical / electrical works involved. BOD removal efficiency is expected to be 80 % to 90 %. The effluent will be disposed off in the nullahs through land application.

Community septic tanks will be provided for a small number of houses which cannot be connected to the treatment work because of topographic constraints. The septic tanks will be constructed in reinforced cement concrete with 36 hours retention time. Expected BOD removal efficiency of septic tank is 75 %. The effluent will be disposed off by land application in nullahs near the septic tanks.

10- PUBLIC AMENITIES AND BUILDINGS

Public amenities and buildings provided in New City are of two levels i.e. central level and sectoral 9 (neighbourhood) level. The central level public amenities/buildings are provided in City Centre, City Park and other appropriate location in the residential sectors. Sectoral level public buildings are provided in all the six residential sectors. A list of 79 central and sectoral level amenities and buildings provided in New City.

PUBLIC AMENITIES AND BUILDINGS IN NEW CITY

Sr. No	Category of Amenity/ Building	Residential Sector						City Centre	City Park	Total
		A	B	C	D	E	F			
1	Shopping Centre	1	1	1	1	1	1	1		7
2	Basic Health Unit	1	1	1	1	1	1			6
3	Mosque	1	1	1	1	1	1	1		7
4	Residence for Imam	1	1	1	1	1	1	1		7
5	Residence for Muazzan	1	1	1	1	1	1	1		7
6	Residence for Khadim	1	1	1	1	1	1	1		7
7	Primary School	1	1	1	1	1	1			6
8	Secondary School (Boys)	1				1				2
9	Secondary School (Girls)		1		1					2
10	Degree College (Boys)							1		1
11	Degree College (Girls)							1		1
12	Vocational Training Institute	1								1
13	Hospital							1		1

14	Community Centre								1	1
15	Police Station							1		1
16	Fire Station							1		1
17	Post Office							1		1
18	Gymnasium							1		1
19	Play Ground							1		1
20	Jalsagah/ Eidgah								1	1
21	Bus/ Wagon Stand							1		1
22	Truck Stand							1		1
23	Grid Station		1							1
24	Water Treatment Works								1	1
25	Sewage Treatment and Disposal Works					1	1	1		3
26	Public Toilets	1	1	1	1	1	1	1	1	8
27	Graveyard						1		1	2
Total		10	10	8	9	10	10	17	5	79

PLOTS RESERVED FOR PUBLIC AMENITIES IN NEW CITY

Sr · No	Category of Amenity/ Building	Residential Sector						City Centre	City Park	Total
		A	B	C	D	E	F			
1	University							1		1
2	International Boarding School							1		1
3	Private Educational Institution	1	1	1	1	1	1			6
4	Library								1	1
5	Private Clinics	1				1	1			3
6	Working Woman Hostel							1		1
7	Day Care Centre							1		1
8	Marriage Hall							1		1
9	NGO							1		1
10	Cinema							1		1
11	Commercial & Banking Institutions							1		1
12	Shops	5	4	4	4	4	4			25

13	Hotel & Restaurant							1		1
14	Meat Market							1		1
15	Vegetable Market							1		1
16	Cottage Industry	1	1	1	1	1	1			6
17	Automobile Workshops		1		1					2
18	Petrol/ Gas Station		1			1			1	3
19	Telephone Exchange							1		1
20	Traffic Police							1		1
21	Nursery								1	1
Total		8	8	6	7	8	7	13	3	60

11- LANDSCAPING

The landscaping of the New City associated with the sectoral infrastructure development comprises the following major components:

- Landscaping of Public Utility Buildings
- Landscaping of Open Areas

1- Small Town in Islamgarh

The town has been developed over an area of 157 acres. Out of the 364 acres acquired for the town in Islamgarh, 207 acres presently remains unutilized. The total of 891 residential plots is provided in the master plan against 926 affected houses in this sector as estimated from the preliminary survey. This distribution of various sizes of plots is as follows.

Plot Size	No.
1-Kanal	294
15-Marla	207
12-Marla	165
10-Marla	383
7-Marla	226
5-Marla	152
Total	1427

The number of plots and also distribution of the sizes will be adjusted on availability of data from detailed assessment survey of the affected houses. In case of need, part of the unutilized area for further housing development.

2- Small Town in Chaksawari

A total of 380 acres of the land areas was acquired for development of small town in chaksawari. But 78 acres of this area is highly undulating and having steep slopes. It is therefore, not developable for housing purpose. The remaining 302 acres of the area and total of 1966 residential plots have been provided. The distribution of various sizes of the plots is as follows:

Plot Size	No.
1-Kanal	566
15-Marla	305
12-Marla	320
10-Marla	465
7-Marla	243
5-Marla	163
Total	2062

The 1966 residential plots planned to be developed in the town will form 69% of the affected houses in Chaksawari sector, assessed through the preliminary survey. The number of the affected houses is to be finalized through detailed assessment survey. To cater for any additional need of residential plots, suitable additional land will have to be acquired adjacent to the planned town areas.

1- Small Town in Dudial

The town has been developed over an area of 352 acres, out of which certain areas presently remain unutilized due to highly undulating and non- developable topography. The total of 1920 residential plots is provided in the master plan against 1968 affected houses in this sector as estimated from the preliminary survey. This distribution of various sizes of plots is as follows.

Plot Size	No.
1-Kanal	469
15-Marla	228
12-Marla	174
10-Marla	327
7-Marla	158
5-Marla	78
Total	1434

The number of plots and also distribution of the sizes will be adjusted on availability of data from detailed assessment survey of the affected houses. Access to the town is planned to be provided from Chaksawari-Dudial Roads with a formation width of 80 ft.

2- Small Town in Siakh

A total of 285 acres of the land areas was acquired for development of small town in chaksawari. But most of this area on the eastern and south western sides is highly undulating and having steep slopes. It is therefore, not developable for housing purpose. In Order to meet the current requirement of affected houses the town has been developed over an area of 75 acres leaving the remaining 183 acres unutilized.

The distribution of various sizes of the plots is as follows:

Plot Size	No.
1-Kanal	113
15-Marla	64
12-Marla	48
10-Marla	81
7-Marla	53
5-Marla	19
Total	378