

10.2.1.6 Sanitation Improvement Proposal

Sanitation improvement proposals will include:

- (i) production and supply of components of single and twin pit latrines, and
- (ii) construction of public toilets with the increased number of users in the public places like, markets, commercial areas, bus stations, and bus-truck terminals to give wider sanitation coverage to the growing needs of floating people in urban areas. The following guidelines should be followed for sanitation improvement programme.
 - a) Provide poor families with pit latrines for overall improvement of the environment. Construction and installation of proper number of pit latrines will provide more public sanitation facilities
 - b) Upgrading of unsanitary latrines or conversion of kutcha latrine to a sanitary latrine to be made as a regular programme in order to reduce open defecation around the town. Bucket latrines or practice of collection of night soil, if any, to be eliminated in order to reduce surface and groundwater pollution. All the families including children to be encouraged to use the latrine properly.
 - c) Hygiene education programmes for the residents and school children from primary level to be introduced to maximize the benefit of low-cost sanitation. Efforts through NGOs may be made to motivate people for this purpose.
 - d) Public latrines with biogas plant may be planned to distribute the gas to the local area only in small scale for cooking and heating purpose.
 - e) Open excreta disposal system to be controlled in areas like river/khal banks, poor residents in the fringe and slum areas inhabited by poor and migrated people in unplanned way and unauthorizedly in the city area.
 - f) Making provision of public toilets at and around public places such as Bazars, shopping areas, transport terminals, stadiums, etc. Provision of separate toilets for handicapped people to be made in the proposed public toilets.
 - g) To ensure effective cleaning, operation and maintenance, the public toilets may be leased out to the private parties/NGOs on contract basis. Annual maintenance cost may be funded from the contract fees received from the lessee who will collect the money through a nominal user - charge.
 - h) A proposal for Sanitary Sewerage Network has been proposed in the Master Plan Area. The existing system comprises sanitary pit latrine, septic tank in Paurashava area, pipe sewerage system can be developed but due to flat topography, saturated ground, scattered growth centres and non-affordability of the residents to bear the cost of development of system, inability of Paurashava to handle this large volume works and maintenance of the system are the major drawback for Narail Paurashava.

A Waste water treatment plant at Baukhali in ward no. 05 (Mouza: Baukhali JI No. 068(02)) has been proposed. The proposed area for the treatment plant is 6.765 acre, which can be fixed after feasibility analysis.

10.2.1.7. Electricity supply Proposal/ Renewable Energy Centre

The greatest problem of power supply in the entire country remains to be handicapped by the shortage of supply due to low production. To support the existing facility the Consultants proposed the following measures:

- a. Renewable energy source can be an alternative electricity source. Narail Paurashava has the potentiality to use renewable energy such as bio-gas plant, solar panel, etc. So the Consultants have been proposed nine location of the Paurashava for the production of renewable energy centre.
- b. In the initial stage the electricity of this centre can be used in the neighborhood centre complex.
- c. After production of the electricity in desirable level the electricity can be supplied in the household level in the corresponding Ward.

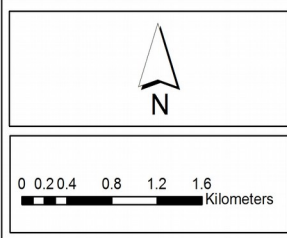
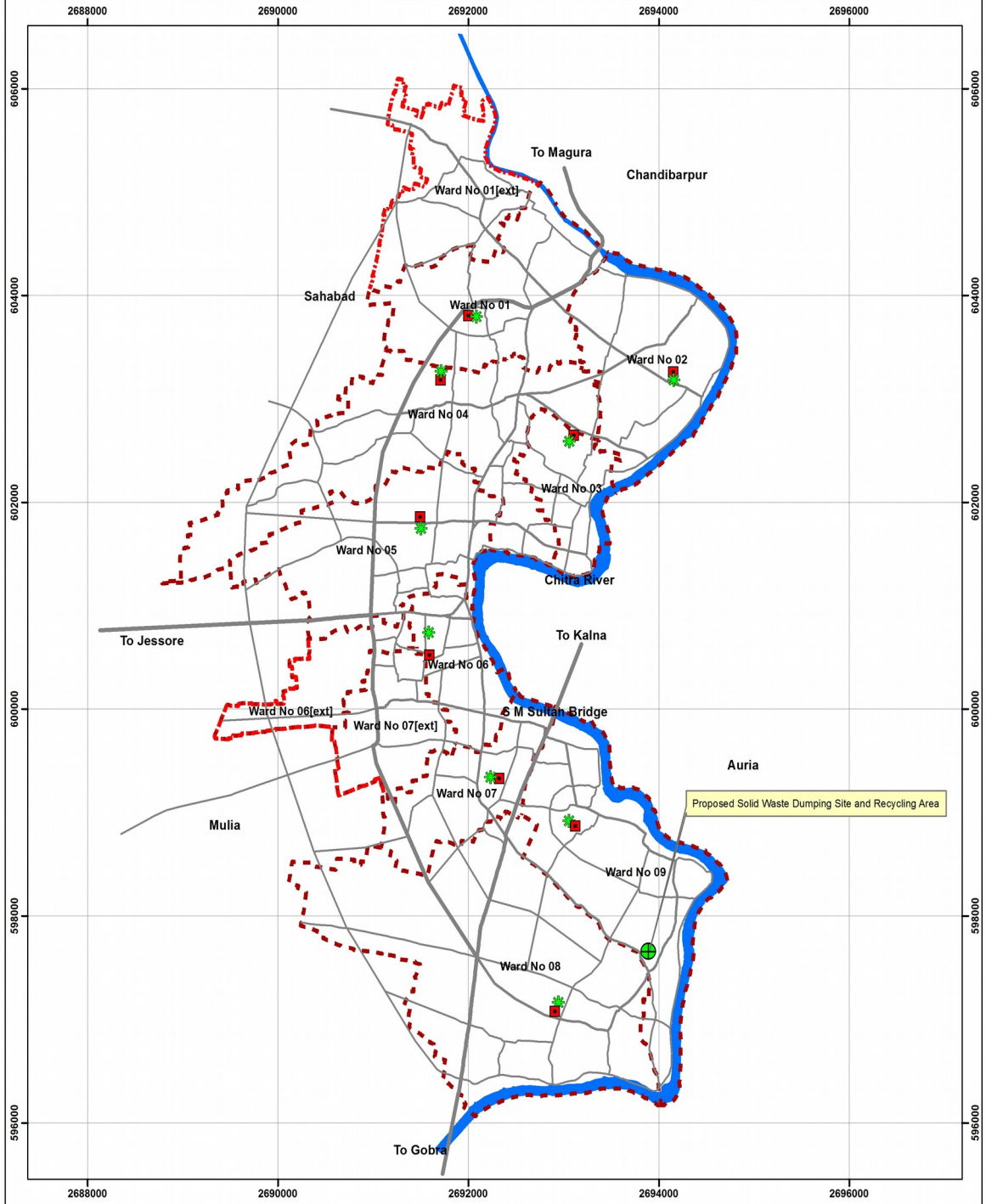
Following is the proposed Renewable Energy Centre of the Paurashava.

Table-10.22: Location of proposed Renewable Energy Centre of Narail Paurashava

Sl. No.	Area (Acre)	Ward No.	Mouza	JI No. (Sheet No.)	Plot Id.
01.	2.318	Ward 01	Durgapur Dumur Tala	75(03)	112-116, 1400, 1401, 1419
02.	1.983	Ward 02	Borasula	49(00)	350, 351, 355, 380, 381
03	2.969	Ward 03	Moheskholra	74(00)	16, 17, 13, 22, 23, 166

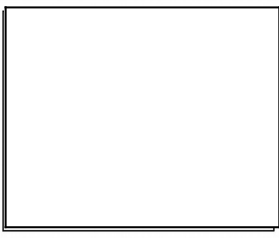
04.	2.695	Ward 04	Durgapur Dumur Tala	075(02)	2161-2163, 2169, 2214, 2215, 2216, 2212
05.	1.95	Ward 05	Vaukhali	68(02)	978, 1486
06.	2.927	Ward 06	Kurigram	069(00)	256, 257
07.	2.434	Ward 07	Machim Dia	058(00)	312, 422, 423
08.	3.177	Ward 08	Uzirpur	100(02)	2019-2026
09.	2.508	Ward 09	Bramman Danga	056(00)	166,164, 183, 198

Map 10.8: Location of Proposed Solid Waste Dumping Site, Community Bins and Renewable Energy Center in Narail Paurashava



Legend

Solid Waste Dumping Site & Recycling Area	Project Boundary
Renewable Energy Centre	Ward Boundary
Neighborhood Centre Complex	Proposed Road Type
Water bodies	Primary
	Secondary
	Tertiary



10.2.1.8 Social Services

The quality of life in any urban centre depends upon the availability of and accessibility to quality social infrastructure. Community Facilities, which are indicated in various lands, use zones. Together, these include social infrastructure facilities pertaining to health, education, sports facilities, socio-cultural activities, communications, security and safety, and other Community Facilities pertaining to Recreation, Religious Activities, Social Congregations and Community Events, Cremation/ Burial Grounds etc.

There exist significant numbers of religious facilities in the Urban Area Plan area. Social facilities like school, college, madrasa, hospital/clinic, community center, kitchen market, fire service station, post office, police station, power plant, and refueling station, park, playground, graveyard etc are also available, but it is inadequate for the planning area. The population of 2030 in Urban Area Plan area will be high and at the same time additional social facilities would be provided to develop in planned manner and thus the quality of life of the people would be increased greatly.

a. Education Facilities

The consultant has proposed 12 new primary school of 17.22 acre. Whereas 9 high school has been proposed of 17.48 acre. Five new colleges have been proposed to fulfill the future demand. Animal hospital and research centre has been proposed in ward 05 of 9.32 acre. A Medical college of 10 acre has been proposed.

Table-10.23: Proposed Land Allocation for Educational Facilities

Ward No.	Proposed Educational Facilities								Total Area in acre
	Primary School		High School		College		Others		
	Number	Area in acre	Number	Area in acre	Number	Area in acre	Number	Area in acre	
Ward 01	-	-	1	1.85	-	-	-	-	1.85
Ward 02	-	-	-	-	1	4.37	-	-	4.37
Ward 03	2	2.8	1	2.23	1	4.48	-	-	9.51
Ward 04			1	1.96	-	-	-	-	1.96
Ward 05	3	4.44	1	1.91			Veterinary Hospital & Research Centre	9.32	15.67
Ward 06	3	3.81	2	3.9			Medical College	10	17.71
Ward 07	3	4.51	2	4.04	1	5.63	-	-	14.18
Ward 08	-	-	-	-	1	4.13	-	-	4.13
Ward 09	1	1.66	1	1.97	1	4	-	-	7.63
Total	12	17.22	9	17.86	5	22.61	-	19.32	77.01

Table-10.24: Proposed educational facilities in Narail Paurashava

Educational Id	Proposed Educational Facility	Area in acre	Ward No.
Edu 01	Secondary School	1.85	Ward 01
Edu 02	College	4.37	Ward 02
Edu 03	Primary School	1.36	Ward 03
Edu 04	Primary School	1.44	Ward 04
Edu 05	Secondary School	2.23	Ward 05
Edu 06	College	4.48	Ward 06
Edu 07	Secondary School	1.96	Ward 04
Edu 08	Primary School	1.60	Ward 05
Edu 09	Primary School	1.05	Ward 05
Edu 10	Primary School	1.79	Ward 05
Edu 11	Secondary School	1.91	Ward 05
Edu 12	Primary School	1.40	Ward 06

Educational Id	Proposed Educational Facility	Area in acre	Ward No.
Edu 13	Secondary School	1.90	Ward 06
Edu 14	Primary School	0.73	Ward 06
Edu 15	Primary School	1.68	Ward 06
Edu 16	Secondary School	2.00	Ward 06
Edu 17	Primary School	1.45	Ward 07
Edu 18	Primary School	1.55	Ward 07
Edu 19	Primary School	1.51	Ward 07
Edu 20	Secondary School	2.21	Ward 07
Edu 21	Secondary School	1.83	Ward 07
Edu 22	College	5.63	Ward 07
Edu 23	College	4.13	Ward 08
Edu 24	Primary School	1.66	Ward 09
Edu 25	Secondary School	1.97	Ward 09
Edu 26	College	4.00	Ward 09
Edu 27	Medical College	10.00	Ward 06
Edu 28	Veterinary hospital and Research Centre	9.32	Ward 05
Total area in acre		77.01	

10.2.1.9 Open Space and recreational facilities

a. Park

Open space have been proposed in two categories- central park and community level park. A central Stadium and recreational zone for the town has been proposed at ward 05 in existing Birsersto Nur Mohammad Stadium. This will serve the entire planning area. The location has been made accessible through a number of roads of different hierarchies. Community parks and open space spatially water base recreation to expedite the traditional boat racing has been proposed in Narail Paurashava of 19.51 acres.

b. Play Field

The town already has few play fields apart from existing stadiums. The play fields are mostly in educational institutions. The Consultant suggests 8 additional play fields with a total area of 13.36 acres. The play fields have been distributed over the entire future town area to make them accessible to the people living at different parts of the city. Accessibility has been provided through new road facilities.

Table-10.25: Proposed Land Allocation for Recreational Facilities

Ward No.	Playground		Park/ open space		Total Area in Acre
	Number	Area in Acre	Type	Area in Acre	
Ward 01	1	1.45	-	-	1.45
Ward 02	1	1.60	Water base Park and boating place	10.77	12.37
Ward 03	1	2.40	-	-	2.40
Ward 04	1	2.00	-	-	2.00
Ward 05	-	-	Central Stadium & Recreational Area	18.075	18.075
Ward 06	1	1.10	-	-	1.10
Ward 07	1	1.35	-	-	1.35
Ward 08	1	1.88	-	-	1.88
Ward 09	1	1.58	Water base Park and boating place	8.74	10.32
Total	8	13.36		37.585	50.95

10.2.1.10 Place of worship

The consultant has proposed 8 new location of graveyard in Narail Paurashava. Proposed graveyard and eidgah of 41.67 and 4.82 acre of land has been proposed calculating the future demand of the project area.

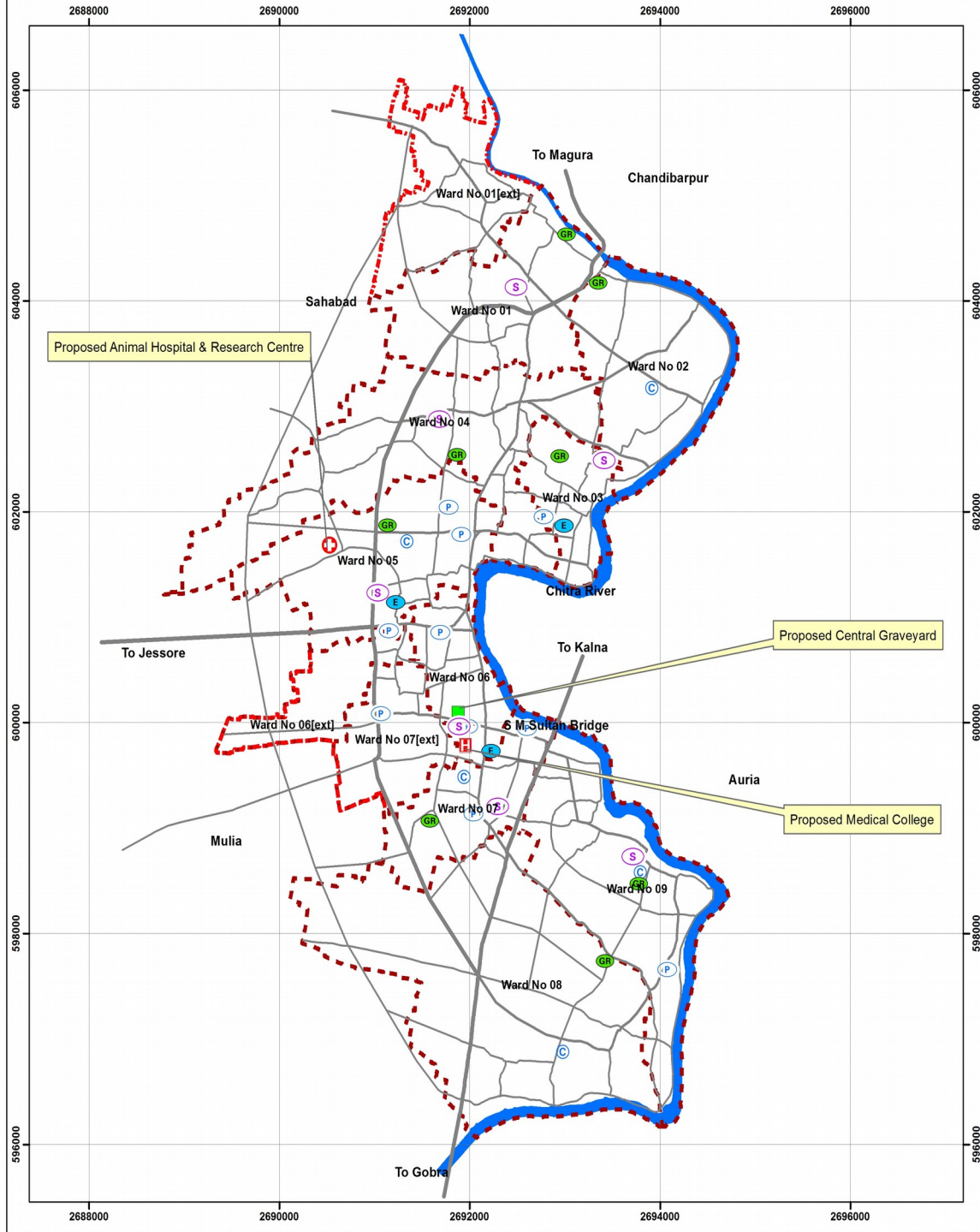
Table-10.26: Proposed land allocation of different religious facilities

Ward No.	Graveyard		Eidgah		Total Area in Acre
	Number	Area in acre	Number	Area in acre	
Ward 01	1	2.46	-	-	2.46
Ward 02	1	2.49	-	-	2.49
Ward 03	1	6.96	Central Eidgah	2.36	9.32
Ward 04	1	5.15	-	-	5.15
Ward 05	1	6.1	1	1.21	7.31
Ward 06	Central Graveyard	9.76	1	1.25	11.01
Ward 07	1	4	-	-	4
Ward 08	1	2.25	-	-	2.25
Ward 09	1	2.5	-	-	2.5
Total	9	41.67	3	4.82	46.49

10.2.1.11 Health

A Medical college and Health complex is being proposed in the Ward 06 on 10 acres of land.

Map 10.9: Location of Proposed Educational and Religious Facilities in Narail Paurashava



North arrow pointing up with 'N' below it.

Scale bar: 0 0.2 0.4 0.8 1.2 1.6 Kilometers

LEGEND

Proposed Animal Hospital & Research Centre	Project Boundary
Proposed Central Graveyard	Ward Boundary
Proposed College	Proposed Road Type
Proposed Eidgah	Primary
Proposed Graveyard	Secondary
Proposed Medical College	Tertiary
Proposed Primary School	Water bodies
Proposed Secondary School	

AQUA Consultant & Associates Ltd.
 In association with.....
 C&GIS
 Center for Environmental and Geographic Information Services

AQUA Consultant & Associates Ltd.
 AQUA Tower, 43, Mohakhali C/A
 Dhaka-1212, Bangladesh.
 www.aquacon.com.bd



Map 10.10: Location of Proposed Health and Recreational Facilities in Narail Paurashava

