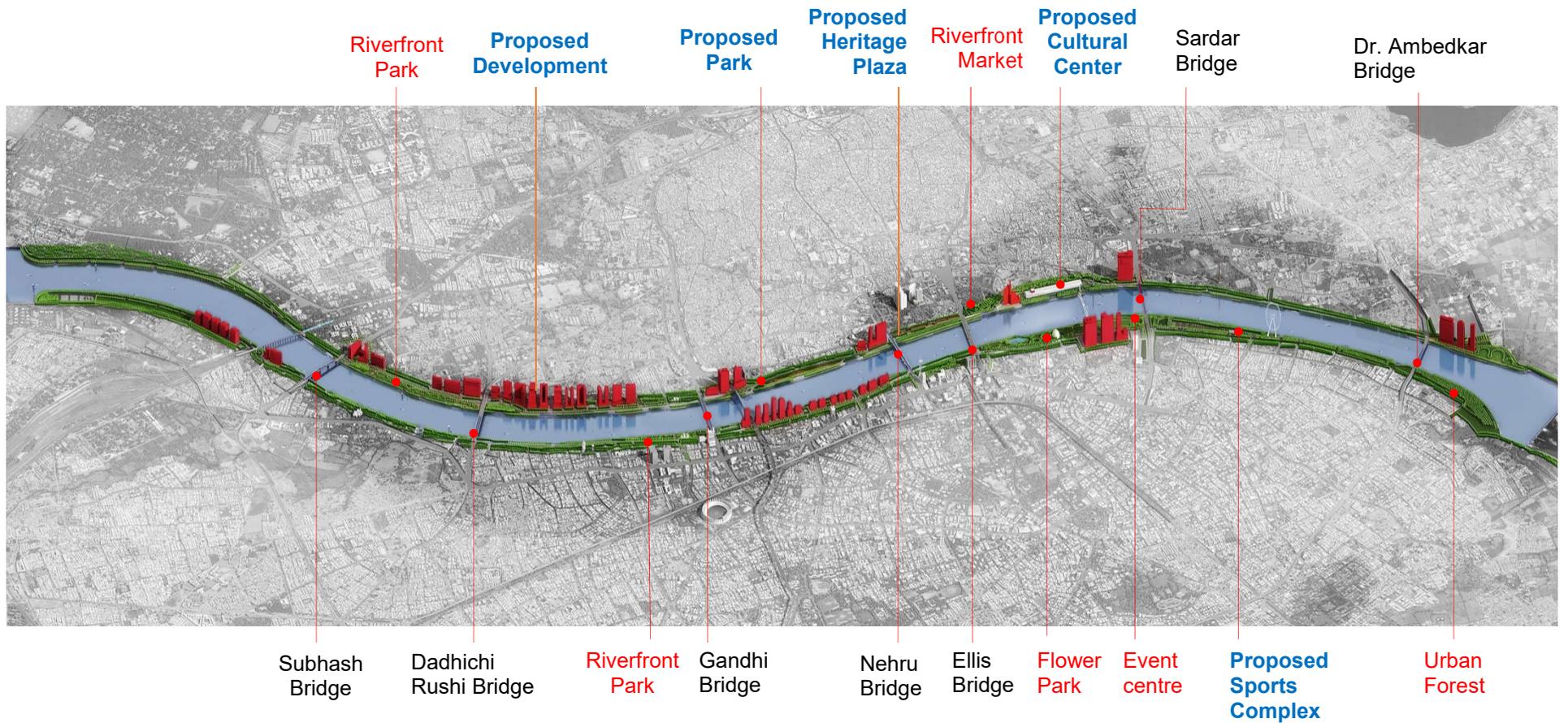


SABARMATI RIVER FRONT DEVELOPMENT PROJECT



KPMG (Klynveld Peat Marwick Goerdeler), one of world's top advisory firms has included Sabarmati Riverfront Development Project in '100 most Innovative Projects'



Q1. Brief description of the proposal (500 words)

Ahmedabad is located on the banks of Sabarmati River that serves as the city's lifeline. It is a major source of water from the city due to regular release of water from Narmada Canal upstream. The waters of the river were used for sacred and socio-religious activities since centuries, and its banks were used for activities such as informal markets, washing, and recreation activities.

The Sabarmati Riverfront Development Project is being implemented in the city as an urban design, urban renewal, ecological and environmental improvement project. This project aims to transform Ahmadabad's historic but neglected river into a vibrant and vital focus for the city along with widely landscaped parks and gardens, clean ghats, serene environment, clean water, diversion of sewerage, and improved conditions for urban poor resident on the riverbed. The development project encompasses both banks of the Sabarmati for 11.5 kms stretch, creating approximately over 200 hectares of reclaimed land.

Several areas have particular focus in the project, namely (i) Cleaning of the river to improve the river ecology and greening of the environment (ii) Rehabilitation and resettlement of the Urban Poor on the Riverbank including sustaining and (iii) Revitalizing the traditional informal activities happening on the river bank (iv) Creation of the new area through best practices in urban design and urban renewal.

The traditional informal activities have been evident in the form of existence of Gujarati Bazaars or informal markets, elaborate Washermen Wharf (Dhobi Ghat), religious and recreation activities. In order to address the needs of the users and focus on the orderly and efficient transformation of these activities, the present initiatives focus on transformation of several key pockets of activities through the following projects:

1. Garden
2. Gujarati Bazar (Riverfront market),
3. Dhobi Ghat, (Washermen Wharf/Laundry Campus)
4. Event Ground and Exhibition Centre
5. Flower Park
6. Elaborate road network for access to the sites.
7. Creation of new areas with best practices in urban design.
8. Recreational Activities

These initiatives were sequenced in terms of (i) Proper design reflecting the need of users and retaining the heritage character of the activities (ii) Execution of design and (iii) systematic operation and management of these areas through user participation and contribution.

Gujari Bazar and Dhobi Ghat, Event Ground, Garden, Flower Park, Road network have already been executed in terms of the physical infrastructure. The urban design for the project includes many innovative features such as volumetric FSI.

These projects are unique in terms of addressing specific user needs through urban design, urban renewal and sustenance of key common property resources that benefit the especially the poor and revitalization of activities which had come under developmental pressure by assuring them infrastructure, access and formalization.

KPMG (Klynveld Peat Marwick Goerdeler), one of world's top advisory firms has included Sabarmati Riverfront Development Project in '100 most Innovative Projects' in the field of urban regeneration (2012) that make cities livable as well as sustainable.

Q2. Context of Implementation (500 words)

The Sabarmati River Front Development Corporation Ltd. (SRFDCL) is the Special Purpose Vehicle Company (SPV) wholly owned by Ahmedabad Municipal Corporation (AMC) created to implement the project. As part of the process for the Project the following steps were followed

Identification: As an important first step, activities such as heritage flea market based near the Ellis bridge, Washmen Wharf near Nehru Bridge, and events, exhibitions and informal activities were identified as key activity nodes. For instance, 1200 vendors and 162 washer men were identified as important stakeholders.

Planning: Surveys were conducted to gain information on the identified sites and activities in terms of number of users, size of business/purchase, physical layout of their activities, infrastructure requirements, practices and customary rights. Meetings were held with Merchant Associations that represented the stakeholders.

Design: Below mentioned designs have been executed by SRFDCL using the experienced contractors and are operational now.

Parks & Garden (Rs. 21 Crores)



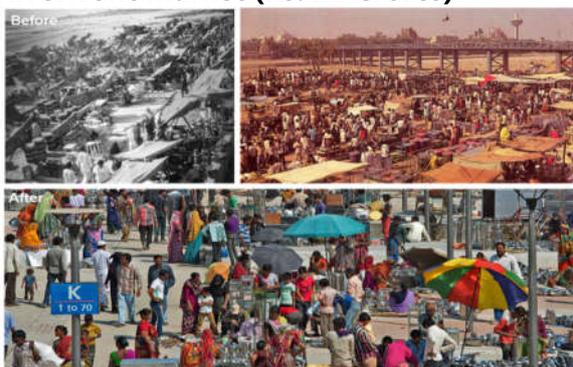
Riverfront Park at Subhash Bridge:

An Urban Park located on the opposite bank of the Sabarmati Ashram, and from Subhash Bridge to Rishi Dadhichi Bridge on East bank. The garden is exclusively developed with the many attractions like **Sun Dial (Surya Ghadi), Promenade/Walk area, Different shape mounds, Amphitheatre, Children play area, Step well, 19 Shopping Plaza, 7 Food court/Eateries.**

River Front Park at Usmanpura:

A neighbourhood park along the Usmanpura area on west bank. This includes upper promenade, Children play area along with the green cover with many flowery species.

Riverfront Market (Rs. 24 Crores)



'Gujari Bazaar', has been designed as an open air market with a functional arrangement of platforms and zones, where vendors can display and sell their goods. The market has been provided with seating areas for visitors, public washrooms, multi-functional plazas, vehicular access and parking facilities

Area: 63000 Sq. Mt.

Capacity : 1641 Vendors

Parking: Two Wheelers 1942, Car 428

Tree Plantation: 800 Nos.

Dhobi Ghat (Rs. 8 Crores)



A laundry campus has been created to provide state-of-the-art facilities for the washing community that traditionally used the river banks for laundering. The laundry campus is spread over approximately 9400 sq.mts area, has vehicular access, parking and lighting within the site. The seven blocks on the campus have been provided with wet areas on the ground level and terraces are equipped for drying clothes.

Area: 9380 Sq. Mt.

Capacity: 168 Dhobi at a Time

Toilet Block, Admin Office, Electric Sub Station

Road & Underpasses (Rs. 127 Crores)



East Bank:

- Four lane 8.90 km connecting river with East Ahmedabad through 12 approaches.
- The major connection with the road leading to the Airport avoiding traffic congestions.
- Connection with the fort wall city and biggest city bus terminus i.e. *Laldarwaja* etc.

West Bank:

- This is 7 km length parallel to Ashram road on West side through 9 approaches.
- This helps to manage traffic of West Ahmedabad and proposed CBD

Event Ground (Rs. 14 Crores)



The ground provides the infrastructural facilities for holding events along the river in an organized manner. It includes stage with back-stage facilities, VIP Lounge, designated parking, zones for event halls, lawn area and lighting provision.

- **Location:** Western Bank, Behind Tagor hall at up stream of Sardar bridge
- **Area:** 45,000Sqmt
- **Utilities:** Lawn Area, Stage, Conference hall, Area for erection of temporary structures etc.

Event Ground is very popular for marriages, musical nights, Government programs etc.

Flower Park (Rs. 18 Crores)



This has been envisioned as a permanent flower garden spread in Approx. 52000 Sq mt where more than 330 native and exotic flower species. Throughout the year, the garden serves as a city level unique park where visitors can enjoy beautiful flowers of both seasonal and non-seasonal varieties. It strengthens the green space network on the western part of the city.

Location: B/h. V.S. Hospital on West Bank

Area: 52,000 Sq. Mtr.

Length: 0.6 Kms

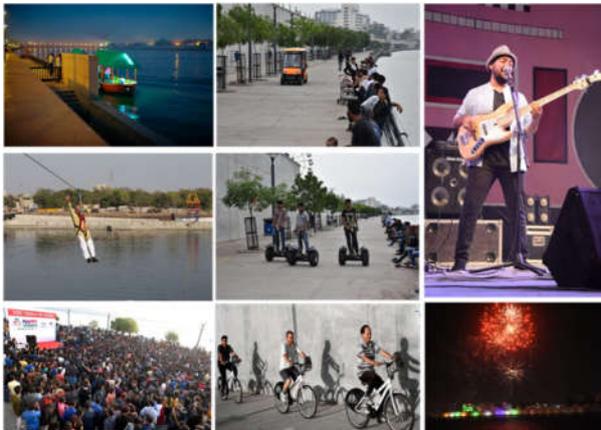
Real Time Traffic Advisory



City area being heavily crowded, the traffic from city area will naturally tend to divert towards riverfront / Ashram roads.

- At eye sight, driver can decide to take least traffic lane either from Riverfront Road or from Ashram Road.
- Part of the panel can also be used for Public Advisory and Messages.

Recreational Activities



Boating Facility:

- 1 At Vallabh Sadan
- 2 Usmanpura
- 3 River Front Park
- 4 Sardar Bridge

Golf Cart:

- 1 Nr. Gandhi Bridge
- 2 River Front Park

Zip Line:

- 1 Near Sardar Bridge, B/h. NID

Segway:

- 1 Nr. Gandhi Bridge
- 2 River Front Park

Cycling:

- 1 Sardar Bridge
- 2 Subhash Bridge
- 3 Gandhi Bridge

Urban Design

- The SRFDCL Board has taken up creation of world class amenities and precincts in the riverfront reclaimed area with the approval of the state Government
- About 14% of the Riverfront reclaimed land would be taken up for sale but the developers will have to follow specific Development Control Regulations (DCR) designed specially for Riverfront area. Concepts such as Volumetric FSI are being stipulated as part of this DCR. Buildings would have to follow shapes and volumes prescribed in basic form that will create a unique urban design in the area.
- A larger institutional area will be designed according to the best practices in urban design. Theater, Art & Culture Centre for instance is part of this institutional area.

Q3. Details of solution (250 words)

Sabarmati Riverfront Development Project is executed by the Special Purpose Vehicle a Company established under the Companies Act 1956 namely Sabarmati Riverfront Development Corp. Ltd. SRFDCL is an organization in its very nature wholly owned by Ahmedabad Municipal Corporation. Ahmedabad Municipal Corporation has a financial stake in the company and has a participation in administration of the company.

SRFDCL was formed in 1997 and like any other company established under company's act 1956, SRFDCL has Board of Directors who administer the business of the company. All officers and executives working in the company have been deputed from Ahmedabad Municipal Corporation.

All the Board of Directors excluding Chairman are appointed by virtue of the post and subject to change. Board of Directors of SRFDCL is depicted in the table shown as under.

Sr. No	By virtue of the post	Designation In SRFDCL
1	Chairman – Nominated by State Govt.	Chairman / Chairperson
2	Municipal Commissioner	Managing Director
3	Deputy Commissioner	Executive Director
4	Deputy Commissioner	Director
5	Mayor	Director
6	Chairman-Standing Committee AMC	Director
7	Opposition Leader-AMC	Director
8	Collector - Ahmedabad	Director
9	Technical Expert	Director

Executive Director heads the executive body of the Company which is divided into following departments:

- i) **Technical** Department for Project construction and other technical / engineering issues,
- ii) **Admin and Finance** Department for Project related Finance and various day to day activities including administration, operations etc.,
- iii) **TDO** Department for land, land related issues, estate and general planning of the Project
- iv) **Garden** Department for maintenance of all gardens and tree plantation within the Project Area
- v) **Light** Department for providing lighting and maintenance thereof within the Project Area
- vi) **R & R** Department a wing for Resettlement & Rehabilitation of the of the slums settled in the riverbed

Q4. Scope of Implementation (250 words)

A. Environmental Improvement

- Interceptor sewer system ensuring clean water in the river
- Retention of water in the river almost for the whole year
- Having 12.5 million cubic meter storage of the water, recharge of ground water aquifers of the city.

B. Creating network of public open spaces

- Wide public promenades along the entire length of the river
- Variety of public gardens / urban forestry and parks including extension of existing parks, exhibition cum event area

C. Providing adequate public access to the river

- Development of one major north-south link on the eastern side and improvement in existing road networks on west bank.
- Development of various access roads to the riverfront to improve public access

D. Rehabilitation of the slums

10046 hutments on both banks occupied nearly 20% of the critical project area. A committee was formed under an ex-High Court Judge for finalization of beneficiaries. A Comprehensive Settlement was arrived at under the supervision of the Gujarat High Court. 10046 families have been allotted houses of 26.77 sq m carpet area, in the prime locations of city. The complex has a playing area for kids along with a recreation facility. To empower women, houses are allocated in the name of the woman member or under joint names.

E. Gujari Bazaar

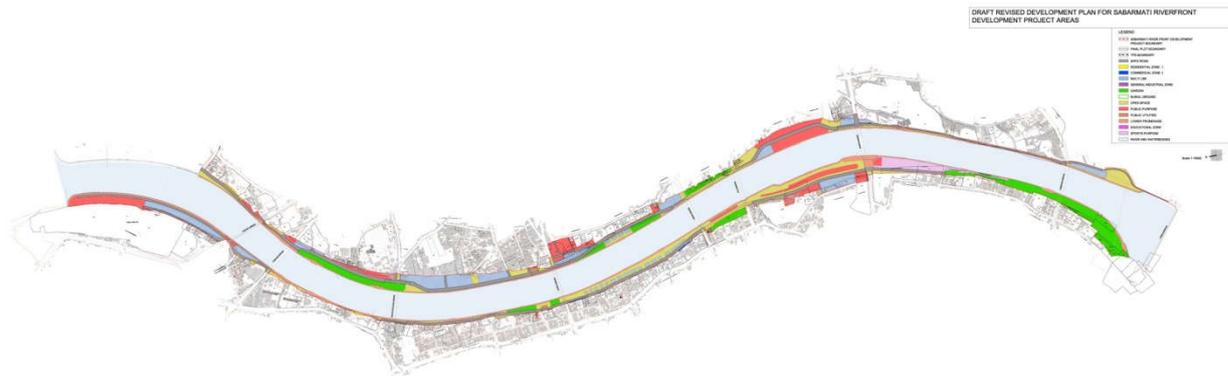
Gujari Bazaar is an age old Sunday Market. The bazaar provides livelihood for lower-income residents. Earlier, the Bazaar operated near the Ellis Bridge without any infrastructure and used to spill out on the adjoining roads. It was unhygienic and had the risk of flooding. Today it is the first well developed informal market in India. Now it's spread over 70,000 sq.mt on the river front and 1600 vendors can do their business on pucca platforms. Parking space is provided for 280 two wheelers, 425 four wheelers and 8 heavy vehicles. Lights, toilets, food-court, drinking water, and seating area have been provided. More than 800 trees have been planted

F. Dhobi (Washermen) Ghats

Similarly Washermen (Dhobis) are located into the Dhobi ghat, constructed on the eastern bank spread over approx. 9400 sq.mt area, which has RCC road, lighting and parking facility inside a compound wall. It has 7 blocks, each block with 24 units i.e. 168 units each with water supply (with water meter) and drainage system.

Q5. Innovative Characteristics of the Proposal (500 words)

The project has been developed with an estimated cost of Rs. 1,200 crore. In the master plan it was decided that 14% of the total reclaimed land would be developed commercially while the balance 86% would be available for public use such as parks, event centre, open spaces, etc. The land has been divided among 51 plots for SRFDCL to recover its expenditure through commercial development.



Sr	Proposed Land Uses	Area(Sq.m.)	Area (Ha.)	%
1	Roads	403562.36	40.36	19.69
2	Garden	274585.49	27.46	13.40
3	Open Space	376610.71	37.66	18.38
4	Public Purpose	281812.29	28.18	13.75
5	Lower Promenade	273892.72	27.39	13.37
6	Multi Use {For Sale}	297119.07	29.71	14.50
7	Sports Purpose	67380.52	6.74	3.29
8	Public Utilities	8360.37	0.84	0.41
9	Residential Zone-1 (Residual)	7988.55	0.80	0.39
10	Commercial Zone-1(Residual)	55937.53	5.59	2.73
11	General Industrial Zone (Residual)	916.14	0.09	0.04
12	Educational Zone (Residual)	822.32	0.08	0.04
13	Burial Ground (Residual)	108.44	0.01	0.01
	Total	2049096.51	204.91	100.00

The project aims to be self-financing – to achieve its goals without relying on any funding from the government. 50 plots earmarked of the reclaimed land will be sold for commercial development, to generate sufficient enough resources to pay for developing the riverfront and managing it.

Company has framed special kind of G.D.C.R and volumetric guide line for all the plots on which development will be carried out after following necessary course of action.

SRFDCL is first in India who has introduced very new concept of selling built-up area of the building.

In the development plan of SRFD project, there are different plots (foot print) of varying size. As far as size of the plots are concern they are different at different locations considering today's as well as future development of area surrounding them.

SALIENT FEATURES OF LAND FOR SALE (LFS)

- 10 Minutes travel time from Air Port.
- 30 minutes travel time from any corner of the city to LFS by Proposed MRT.
- Volumetric Regulations
- Flexible Development Possible without restriction of FSI
- LFS and CBD are side by side area on SRFD.
- LFS is Environment friendly commercial hub.

Q6. Results/ Impact of the proposal (250 words)

Creation of Permanent Infrastructure for 1200 vendors of the informal market, and 162 washer man of the Dhobi Ghat is complete. Almost 95% Road Network is complete. For instance, as a unique project, the first organized laundry campus is created in the country in the form of the Dhobi Ghat is now operational. All 162 Washermen who have been given permanent facilities well equipped individual units for washing clothes.

- Now it is possible to retain surface water in the river all year around
- The ground strata are recharged with storage of 12.5 million cubic meter river water.
- More than 250 MLD sewage is diverted from the river and pollution is eliminated.
- The river is protected from the scour and stopped the erosion of the river banks with Diaphragm walls.
- 202 ha. land is available by retaining wall on both sides for further development for the city and flood protection.
- The embankments provided with wide walkways, green space with tree plantation and many other facilities.
- Rehabilitation of resettlement of 10046 slum dwellers in great pukka houses
- Traditional users of a river like washer men and unorganized vendors are now provided with organized facilities.
- Easy access to the river water through Ghats, Stairs/ Ramps.
- Access to sites will be easier with proper road network and parking
- Environmental Improvement
- Make the riverfront accessible to the public
- Stop the flow of sewage, keep the river clean and pollution-free
- Stitch together East and West Ahmedabad
- Create a memorable identity for Ahmedabad
- Recreational Activities

Overall, as a result of the above initiative, the activity nodes stand completely transformed, saving and strengthening the livelihoods to large number of poor people.

Q7. Scalability of the proposal (500 words)

Foot Over Bridge (Pedestrian Bridge)

The Foot Over Bridge is proposed between Ellis Bridge and Sardar Bridge on River Sabarmati at a tender amount of Rs. 74.29 Crores. The bridge joins the plaza between Flower Garden and Even Ground on West Bank and Theatre, Art & Culture Centre on East Bank. Due to the bridge the people of Ahmedabad enjoy River Sabarmati and Sabarmati River Front without traffic. The main features of the bridge are

Total length: 300 Meters, Middle Span: 100 Meters,
Width of Bridge: 10 to 14 meter at centre



The entry on the bridge can be done both from upper promenade and lower promenade. Iconic steel bridge having 2100 Metric Ton steel pipe structure and tensile fabric roof. RCC Flooring, Planter, Stainless Steel and Glass Railing. Kite type sculpture at both end. Plantation at the Centre of the Bridge. Dynamic and changeable color LED lights.

SRFDCL House

SRFDCL House is situated on the new Sabarmati River Front Development and occupies a prime river facing location near Nehru Bridge at the heart of the proposed Commercial and Cultural Central Business District of Ahmedabad. The energy efficient and environmental friendly building design combines with public gardens and plazas to create a vibrant, centrally located, river facing workspace environment with World class amenities.

Building Layouts – Typical Floor (ii, iii & iv)



Floor	Use	Built up Area	Carpet Area
1st Cellar	Parking	1897.34	-
2nd Cellar	Parking	1897.34	-
3rd Cellar	Parking	1897.34	-
G. Floor	Exhibition Hall	1476.00	
1st Floor	Commercial	1936.46	1564.14
2nd Floor	Commercial	1899.05	1563.45
3rd Floor	Commercial	1936.46	1479.96
4th Floor	Commercial	1827.41	1479.96
5th Floor	Commercial	1827.41	1498.39

Main Feature of the SRFDCL House:

- High Quality space design that induces creativity and productivity, designed by World Renowned architects.
- Outstanding River Views
- High Quality Construction and detailing
- Retail amenities such as café and food services within the building
- Secured and monitored 3 levels of underground parking with convenient access off the new river Front Road
- Prime location the heart of the commercial, cultural and social centre of the city.
- Excellent accessibility through public transport.

Chhath Ghat & Picnic Centre

Chhath Puja Ghat will be constructed below the Indira Bridge on East Bank at the cost of 13 crores in the historic Sabarmati River that passes through the city.



In view of the festival Chhath Puja of Shraddha Aastha, especially in Northern India, Gujarat Tourism Department has allocated Rs. 10 crores for the construction of Pooja Ghat. To reach the Ghat built on the eastern edge of the Indira Bridge on the Sabarmati

River, devotees will have to cross Riverfront Road. This will also create a special design approach for protection with diaphragm and retaining wall. Other facilities like drinking water, toilets, etc. will also be arranged.

Smart Road

The SRFD streets have been designed carefully and deliberately to serve as effective movement conduits for various users and to be an extension of the public realm.

The SRFD streets run parallel to the river on both banks and provide continuous access to the riverfront development. Access streets at key locations connect the SRFD streets to the rest of the city.

All SRFD streets have dedicated pedestrian paths with cycle tracks, parking bays, and 6 m/20ft wide carriageways. Access lanes on one or both sides of the streets provide entries to the existing development and when required, the proposed riverfront development. The infrastructure services run below the access lanes, and the storm water line runs below the central verge.

East River Drive

The eastern part of the city does not have a continuous artery such as Ashram Road on the west, which provides continuous north-south access. East River Drive addressed this need making it possible to travel uninterrupted from the airport, in the north, to Ambedkar Bridge.

The SRFD streets on the east banks have a 30m Row. All SRFD streets have dedicated pedestrian paths with cycle tracks, parking bays, and 6 m/20ft wide carriageways. Access lanes on one or both sides of the streets provide entries to the existing development and when required, the proposed riverfront development. The infrastructure services run below the access lanes, and the storm water line runs below the central verge.

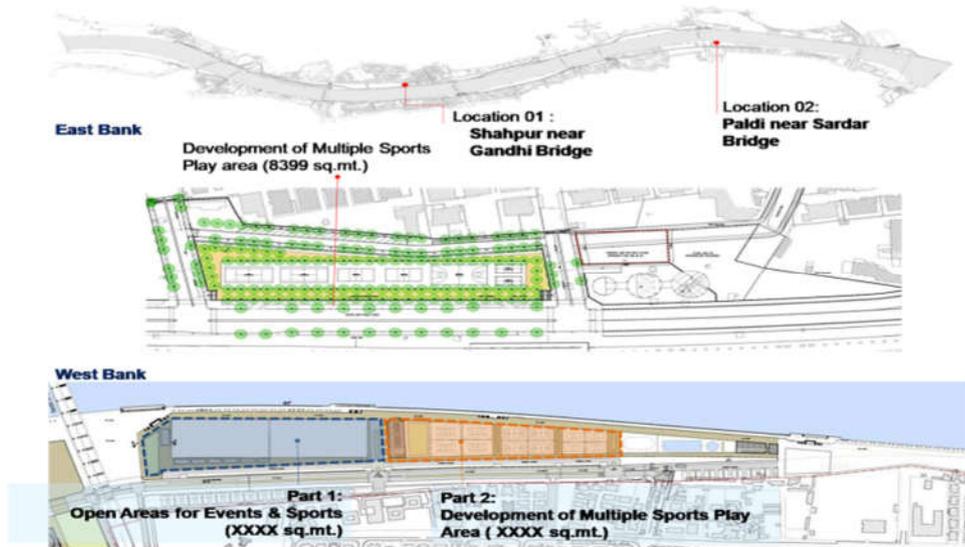
West River Drive

Along the western bank, Ashram Road forms a continuous north-south connection, and the SRFD streets weave in and out of the urban fabric creating connections where required. Ashram Road is undoubtedly the main vehicular artery in the western part of the city, and the SRFD streets provide alternative routes and strengthen the street network.

The SRFD streets on the west bank have a 25m RoW. All SRFD streets have dedicated pedestrian paths with cycle tracks, parking bays, and 6 m/20ft wide carriageways. Access lanes on one or both sides of the streets provide entries to the existing development and when required, the proposed riverfront development. The infrastructure services run below the access lanes, and the stormwater line runs below the central verge.

Sports Facilities

Amongst the many public spaces and facilities, the project also offers three significant sports facilities. These facilities have been proposed with reference to its location in the city and the surrounding context. These range from a neighborhood level facility at Shahpur to a city-level sports hub at Paldi and a cluster of grounds near Pirana for informal sporting activities.



Paldi Sports Complex

The proposed complex near Paldi aims to provide city-level sports facilities on the western bank.

Project Details

Status: Proposed

Area: 7.1 ha

Pirana Sports Ground

The proposed ground at Pirana aims to provide a multi-functional maidan on the eastern bank for informal sports and recreational uses.

Project Details

Status: Proposed

Area: 4.2 ha

Shahpur Sports Centre

The proposed centre at Shahpur will offer neighbourhood-level sports facilities on the eastern bank.

Project Details

Status: Proposed

Area: 2.3 ha

Theatre, Art & Culture Centre

Theatre, Art & Culture Centre Centre is a trade-fair facility proposed on the eastern bank of the river, between Ellis Bridge and Sardar Bridge.



It has been envisioned as a multifaceted convention venue with adaptable spaces that will be equipped with the latest technological equipment and state-of-the-art facilities. With its strategic location in the heart of the city, the centre shall address the requirements of the exhibitors and visitors alike.

Project Details

Status: Proposed under planning

