



CITY LEVEL PROJECTS

CHIRAG DELHI and its precincts

Site Specific Design Study

Part Wards Number 189 (Greater Kailash II)

and Ward Number 191 (Shahpur Jat)





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Acknowledgements

It is said that for an artist to join establishment is a kiss of death. I was fully aware of this aphorism when the Minister of Urban Development, Mr. Kamal Nath, asked me to be the Chairman of the Delhi Urban Art Commission. I had three conditions before accepting the assignment and one of these was that DUAC should be allowed to carry out site specific studies for improving slums and unauthorized colonies. Subsequently, the Minister along with the then Lieutenant Governor of Delhi, Mr. Tejendra Khanna, and Secretary, Ministry of Urban Development, Dr. Sudhir Krishna, approved the proposal to carry out three dimensional studies for improving slums and unauthorized colonies. I am grateful for their support.

I would like to thank other members of the Commission, Eric P.Mall, Satish Khanna, Sonali Bhagwati and D. Diptivilasa for helping to make success of problematic urban design exercises and charting new paths.

I take this opportunity to thank senior consultants, architects, urbanists and planners as well as younger colleagues who have been working full time. DUAC Secretary, Vinod Kumar, and other permanent staff have enthusiastically supported us and guided us through government procedures. Many thanks to all of them.

Raj Rewal

Chairman

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Preface

Half of Delhi lives in ramshackle slums and shabby unauthorized colonies. This state of affairs is a serious blot on the face of the city which has great historical monuments and aspires to be a world class city. The centre of New Delhi is lined with leafy trees and can boast of superb example of contemporary architecture but its growth under exploding population has disintegrated into shanty towns.

My first memory of Delhi is that of a child going in a tonga from the railway station to our government quarter in New Delhi around a square which became our home for several years. The squares were built near Birla temple and when my father was promoted in the government hierarchy, he was offered an independent house with a larger area but my mother refused to move as she had developed kinship with families around the square. This was my first lesson in neighbourhood "mohalla" as an urban phenomenon.

In fact the word 'urb' in Latin stands for neighbourhood space. It was a period when Connaught Place was the leisurely centre for social, shopping and cultural activities and the Old Delhi was lively and still gracious, dominated by Jama Masjid and Red Fort. Delhi's monuments like Humayun's Tomb, Qutab Minar and Lodhi Garden were favourite places for picnics.

Seventy years have passed since the tonga ride, Delhi has dramatically changed as the population of Delhi has exploded from under a million before partition in 1947 to about twenty million today.

As a Professor in the School of Planning and Architecture in Delhi, I had ample scope of studying typology of Indian cities which helped me to design Asian Games Village in my mid-career around 1980 as a series of clusters (mohalla neighbourhood) woven around pedestrian pathways, segregated from road networks. This was a low rise high density housing built within the framework of 150 FAR (FSI 1.5).

Delhi has changed even more drastically during the last thirty years since the Asian Games Village was built, but the idea of a city as a series of sympathetic, humane interconnected neighbourhood building blocks interspersed with social, cultural and educational facilities has remained embedded in my mind.

Delhi Urban Art Commission was established to preserve, develop and maintain the aesthetic quality of urban and environmental design within Delhi. During the last 40 years of its existence, DUAC has not received any three dimensional exercises which visualizes neighbourhoods, wards etc. The emphasis has often been only appraising individual

buildings and complexes submitted through local municipal agencies. After taking over the direction of DUAC in 2011, members of the Commission arranged meetings with wide spectrum of advisors and formulated principles on which a building can be automatically and speedily approved and decided to take over the job of visualization and three dimensional planning for various aspects of the site specific designs which need to be urgently developed if Delhi has to maintain standard as a world capital city.

A large part of Delhi lives in unauthorized colonies and slums and even the Master Plan of Delhi had suggested a detailed design proposal to augment the Master Plan based on ground realities.

In order to fulfil the requirements of neighbourhoods, wards, the DUAC has undertaken a few pilot projects which can be eventually developed in a manner that the local municipal agencies can implement them. In order to carry out these studies, DUAC developed in its own office a core group of architects and urban planners. This was done on the basis of DUAC mandate that "the Commission may suo motu promote and secure the development, re-development of which no proposals in that behalf have been received from any local body".

The studies involve the visual tools for ground studies combined with extra assistance of Google images. It is hoped that the proposals and their conclusions would be evolved to such an extent that a process can be worked out with the resident welfare associations to make meaningful designs for the neighbourhood upgradation for the different kind of wards.

The DUAC's site specific designs are the seeds which can grow and it is hoped that economic principles would be evolved to implement the meaningful neighbourhood upgradation for the different kind of slums and wards. India cannot remain shabby and ramshackle forever and solutions have to be found for shanty towns.



Raj Rewal
Chairman, DUAC

January 2014

Contents

1	Introduction	6
1.1	Chirag Delhi and its precincts are located in the south of Delhi	6
2	Development History	8
2.1	Chirag Delhi and its Environs	8
3	City Systems & Site Systems	9
3.1	Transport System	9
3.1.1	Roads	9
3.1.2	Metro	10
3.2	Ecological Systems	15
3.2.1	River and the Nullahs	15
3.2.2	Urban Morphology	21
3.2.3	Green Systems	24
3.3	Heritage	26
3.3.1	Heritage - ASI – Development Regulation Zone	27
3.3.2	Heritage – Chirag Delhi Village	28
4	Sub Precinct Study	31
4.1	Chirag Delhi	32
4.2	Panchsheel Enclave	37
4.3	Soami Nagar	40
4.4	Sheikh Sarai Phase I	42
4.5	Sheikh Sarai Phase II	44
5	Built Typology Analysis	46
6	Master Plan policy proposals for the Precinct	47
7	Proposals for Area Improvement	49
7.1	Proposals for the Nullah	49
8	Goals	51
9	Development Proposals	52
9.1	Policy Recommendations for Area Improvements	53
9.2	Proposed Master Plan	54
9.3	Improved Accessibility	66
9.4	Heritage Proposal	74
9.5	Water Management Strategy	75
10	Conclusions	78

Summary

The Chirag Delhi precinct located in the southern part of Delhi includes isolated segments of wards 189: Greater Kailash 2, and 191: Shahpur Jat. The area characterized by roadway saturation accommodates a new underground Metro line under construction and reconfigured surface allocation in the BRT arterial. Disrupted city-wide connections, scrubland, potential new development and an endangered ecological system that includes the Nullah and 'greens' provide challenges for change. Settlements in the precinct are deprived of amenities. Chirag Delhi – an urban village in the area with historic roots lacks basic services and faces the onslaught of fierce growth pressures. Planned colonies within the precinct have inadequate civic and social amenities. A lack in the definition of open space system has compromised the spatial character, disrupted usage conforming to precinct needs and induced greater pressure on the road networks.

Area improvement goals include improving connectivity by creating city-wide linkages. Providing a definition for the area with a new public face requires accommodation of infrastructure in an integrated manner. Sensitive additions to road segments and the policy to distribute new building potential across the area recognize decongestion objectives. Improving existing areas require the infusion of new socio-cultural amenities, upgradation of infrastructure and streetscape improvements.

Strategies to improve the area include opportunities to:

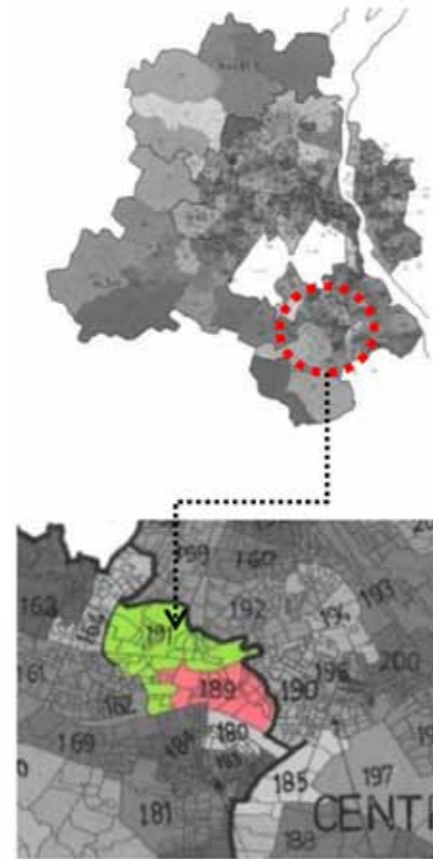
- Create city-wide linkages and introduce connectivity at the city scale through improvements in system continuities, addition of segments and improvements in: Nullahs, Greenways, Roadways
- Anchoring development parcels in the neighbourhood to support needs, efficiency in land utilization and spatial continuities.
- Providing a new face to the precinct by creating edge definition and linkages in the open space systems.
- Making provision for civic amenities within the precinct.
- Distributing Development Rights (FAR) beyond individual sites to the entire precinct.
- Increasing density & connectivity of road networks and providing for alternate movement links.
- Upgradation of infrastructure

1.1 Chirag Delhi and its precincts are located in the south of Delhi

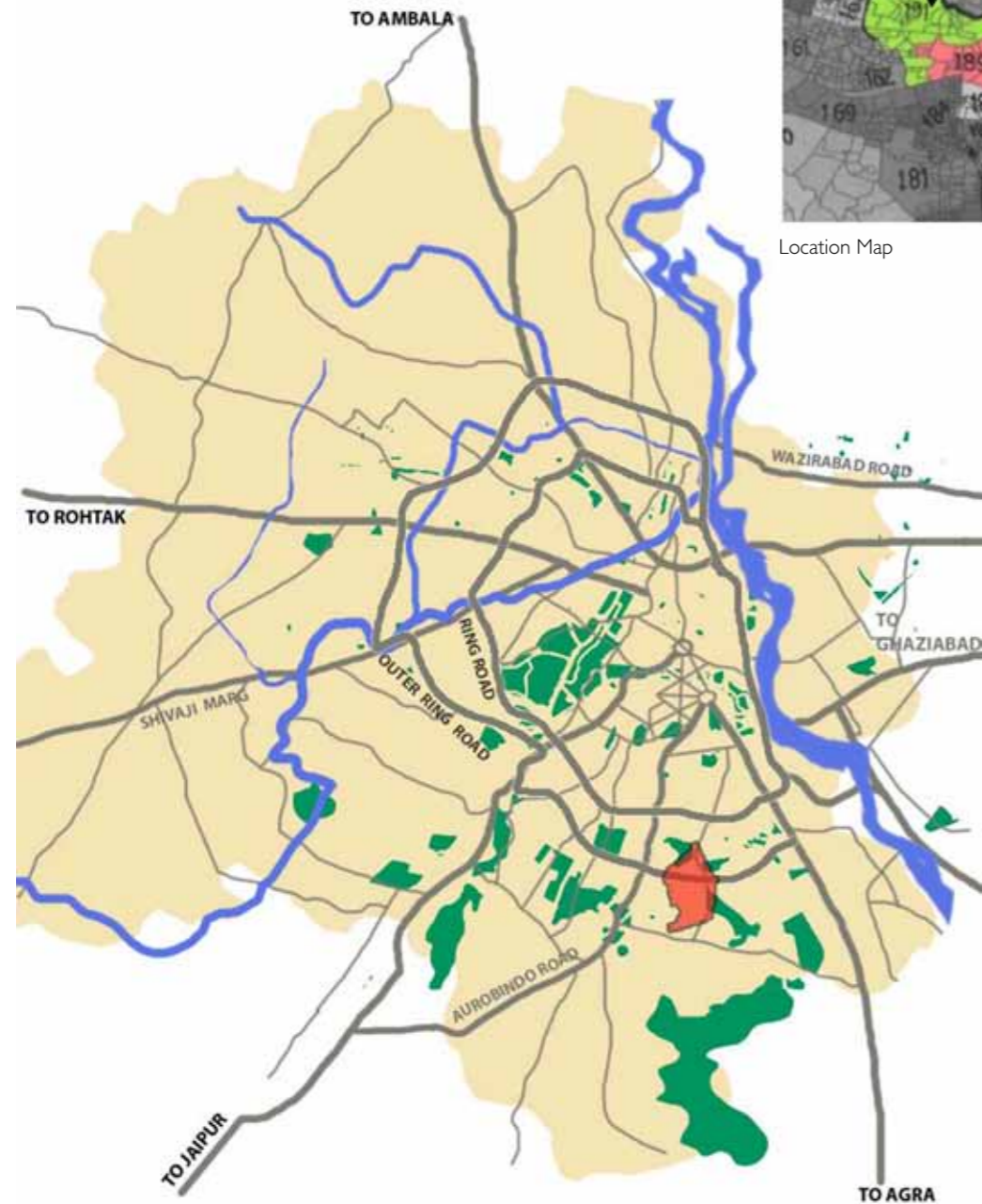
The precinct comprises :
 An urban Village – Chirag Delhi and planned developments Panchsheel Enclave, Soami Nagar, Sheikh Sarai and educational institutions.

The precinct is defined by overlays of Zone F in DDA's notified zonal development plan. The area constitutes a part of Greater Kailash II (189) and Shahpur Jat ward (191) of the MCD's city wards.

The precinct is characterized by major city arterials that include the BRT, an underground Metro line under construction and a segment of the Outer Ring Road that is often choked on account of a bottleneck further east.



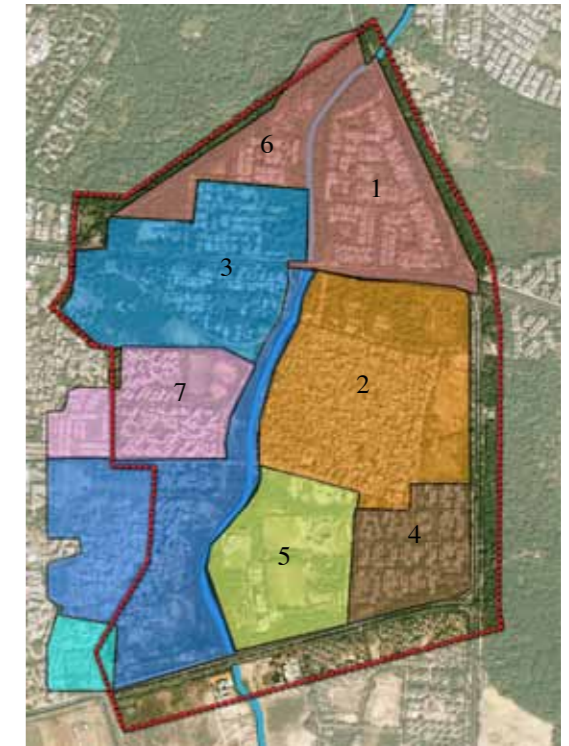
Location Map



Precinct Location w.r.t. Major City Road Network



Site Selection Criteria



The area is isolated from other parts of the city by green buffer. Almost half of the precinct, perimeter is bounded by the city's green network. The precinct includes city arterials:

- The Outer Ring Road, Chirag Delhi BRT corridor and the Press Enclave Marg,
- Chirag Delhi Nullah system,
- Greens / Open Systems,
- Metro network,
- An urban village, planned colonies and sporadic settlements in scrub land.

Precinct includes a diverse range of:

1. Panchsheel Enclave
2. Chirag Delhi
3. Soami Nagar
4. Sheikh Sarai Phase II
5. Sheikh Sarai Village
6. Panchsheel Vihar
7. Sheikh Sarai Phase I



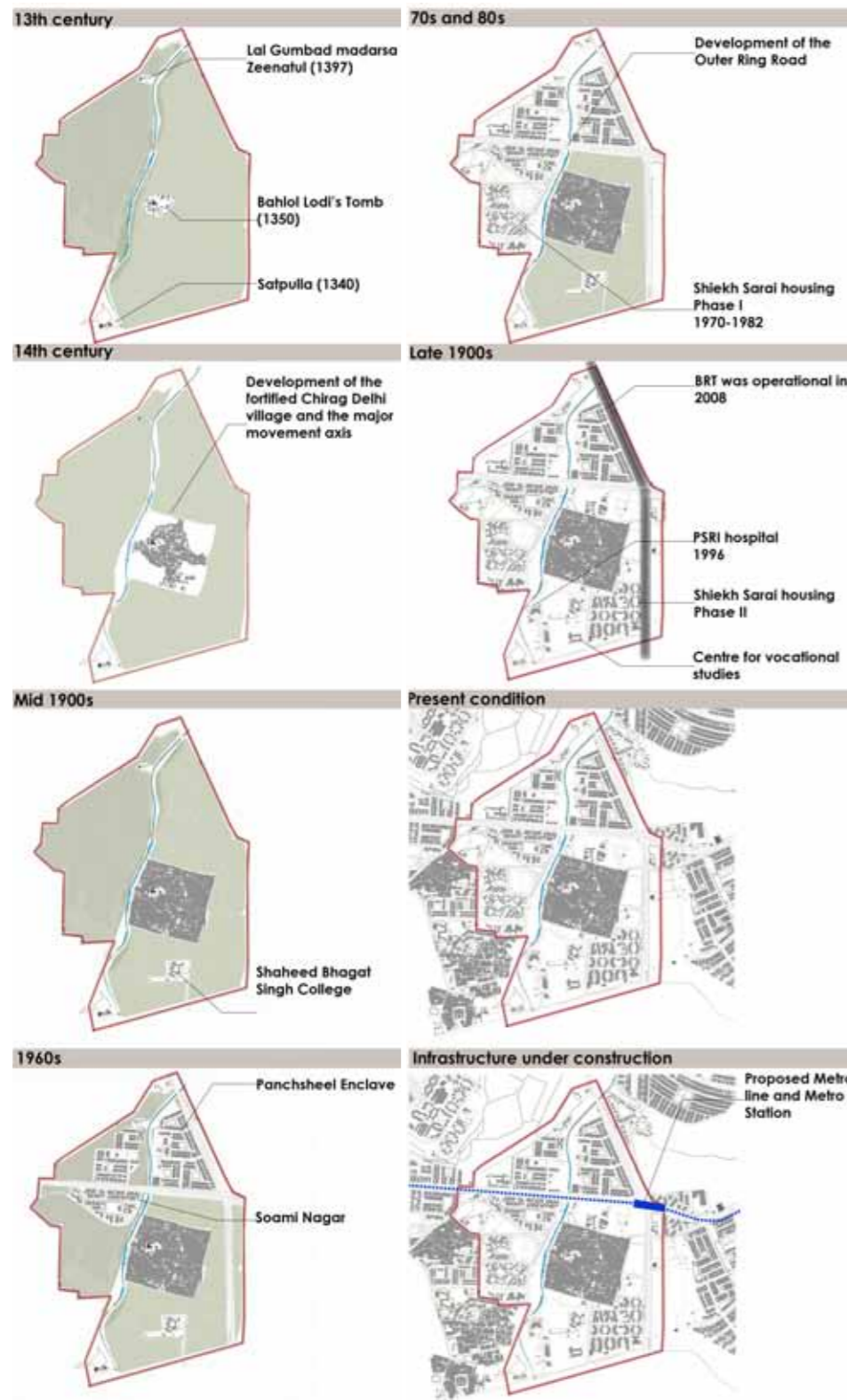
Location Map



2.1 Chirag Delhi and its Environs

The tomb of Nasir-ud-Din Mahmud is located in the Chirag Delhi dargah. Built in the early part of 14th century, this dargah provided a focus for the settlement to develop around. Post independence some agricultural lands in the area was replaced by institutions. In the 1960s, plotted developments promoted by independent societies sharing common interests created developments like Soami Nagar, Panchsheel Enclave etc. The development of Outer Ring Road and better connectivity to the city in the 70s and 80s provided support to development of low-rise group housing by DDA. Sheikh Sarai I and later Sheikh Sarai II were created to accommodate mass housing.

Further phases of the Delhi Metro expansion plan propose a major interchange station at Chirag Delhi. The introduction of BRT corridor and a new underground line under-construction with two stations at either end of Soami Nagar on the Outer Ring Road provide for redevelopment potential.



3.1 Transport System

3.1.1 Roads

The Chirag Delhi precinct is well connected with Delhi's road network. Located along the Outer Ring Road, it is bounded by the busy BRT corridor at Josip Broz Tito Marg. The Press Enclave Marg defines its southern edge.



National Highways and Ring Roads
Chirag Delhi precinct location w.r.t. city connectivity



Major Roads
Chirag Delhi precinct location w.r.t. important roads and BRT connectivity

3.1.2 Metro

At present the Chirag Delhi precinct is not directly connected to the Metro network. The Hauz Khas Metro station located to the west is in close proximity to Panchsheela Park, Sarvapriya Vihar and Laxman Public school. It is located on the Yellow line. Kailash Colony on the Violet line is the nearest station to the east.

Phase IV of the Metro development presently under construction provides for an underground line that connects Noida to the Airport and Janakpuri to the west. This line, within the precinct, passes under the Outer Ring Road.

Two proposed Metro stations will provide greater access and increase in values to property.

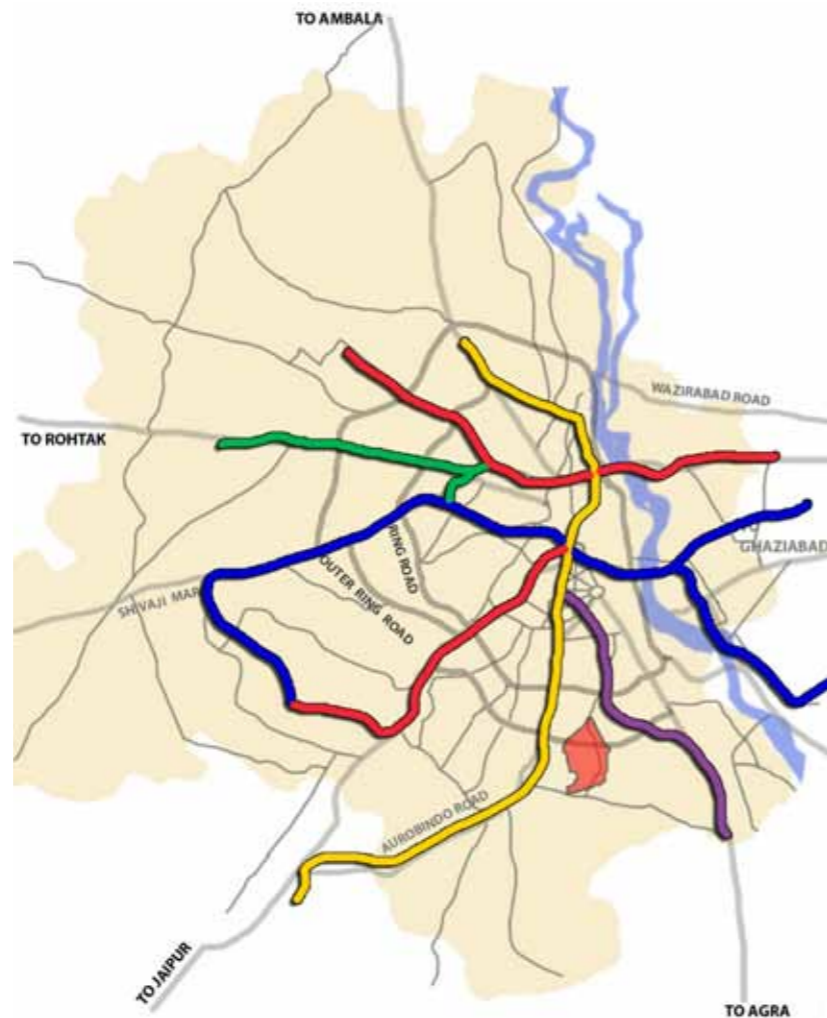
The stations are located near the petrol pumps to the west and the Chirag Delhi nursery in close proximity to edges of Soami Nagar.



Metro Map

Map showing the proposed phases

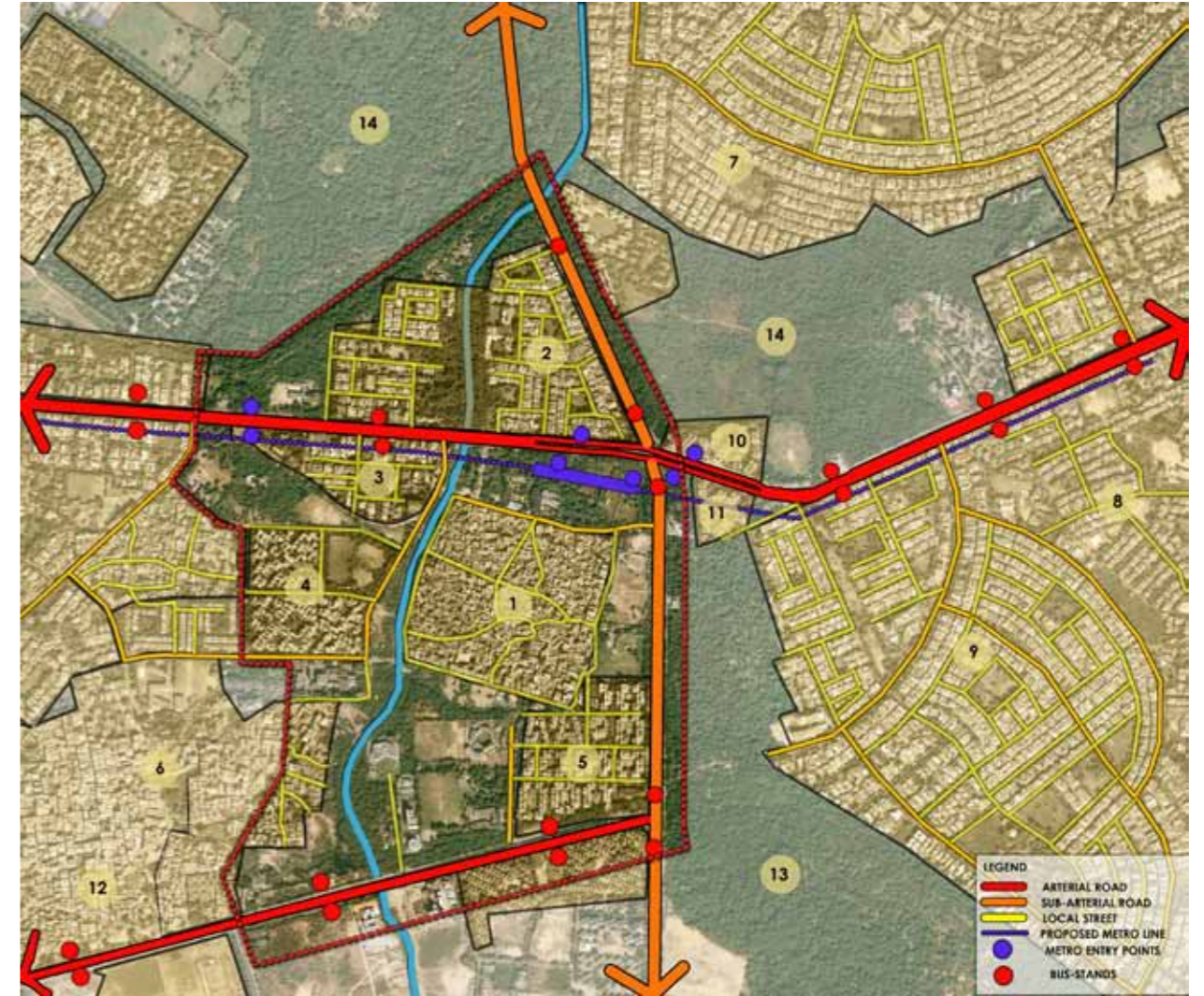
Image source: www.ncrhomes.in



Metro Connectivity

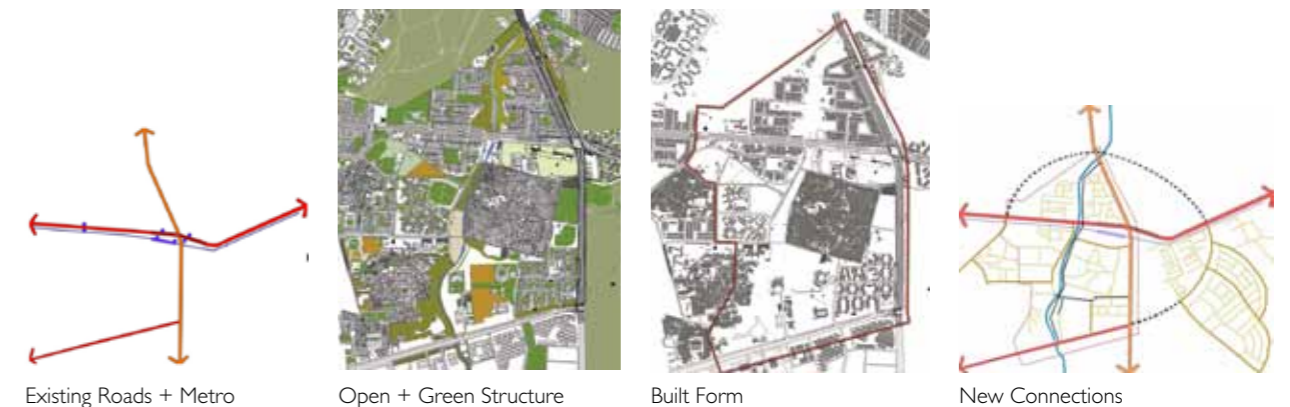
Chirag Delhi precinct location wrt. city level metro connectivity.

Chirag Delhi precinct is surrounded by the Outer Ring Road, BRT corridor and the Press Enclave Marg that serve as major city arterials. The addition of segment loops to the Press Enclave Marg and within the edges of the greens will reduce congestion and improve connectivity.



Existing systems

- | | | |
|--------------------------|----------------------------|--------------------------|
| 1. Chirag Delhi | 6. Sheikh Sarai Village | 11. Masjid Moth Phase II |
| 2. Panchsheel Enclave | 7. Greater Kailash Part I | 12. Khirki Village |
| 3. Soami Nagar | 8. C R Park | 13. Jahanpanah Forest |
| 4. Sheikh Sarai Phase I | 9. Greater Kailash Part II | 14. Panchsheel Forest |
| 5. Sheikh Sarai Phase II | 10. Masjid Moth Phase I | |



Deconstructing the important layers of the precinct

Road Sections: BRT

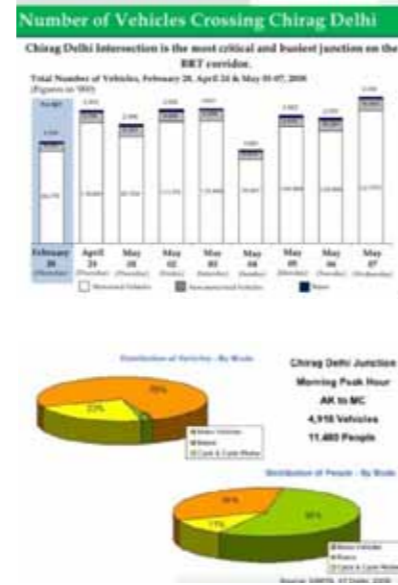
BRT Corridor at Josip Broz Tito Marg

Chirag Delhi BRT during the peak hours accommodates Delhi's high traffic volumes. The route connects Ambedkar Nagar to Moolchand. The corridor includes the Chirag Delhi intersection at the Outer Ring Road. Segregation of traffic has reduced collisions in this segment. However a compromised alignment, improper location for bus lanes and poor traffic management has created inefficiencies in BRT operations.

The pedestrian has also been inconvenienced and made unsafe. Improvements to the corridor besides readdressing these issues must also consider movement of public / heavy vehicles within the dedicated lanes.



Image source: www.dimts.com



Road Sections: Arterials and Neighbourhood Edges

The Outer Ring Road at Chirag Delhi is the most congested area within the precinct. It also accommodates the highest traffic volumes in the area. The corridor and neighbourhood edges have lately been further compromised by surface parking of taxis and buses. New vendors have also constrained traffic flows.

Bottlenecks have also been induced on account of traffic at intersections between city arterials and neighbourhood edge streets.



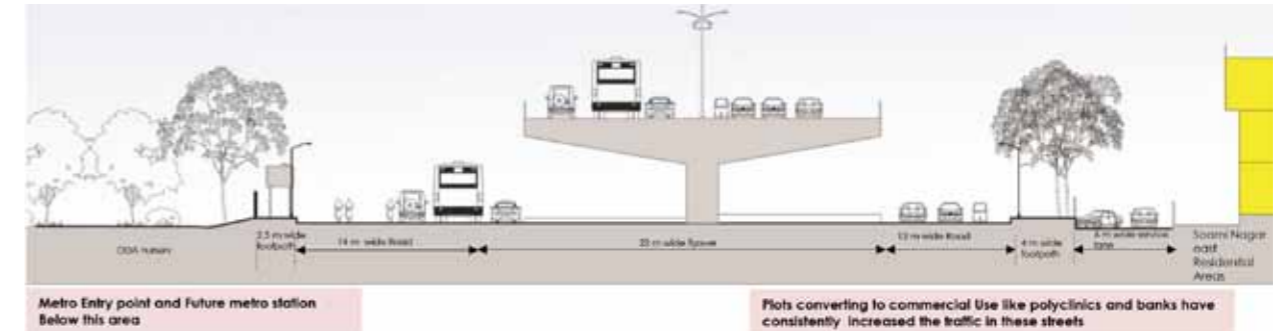
Key Plan



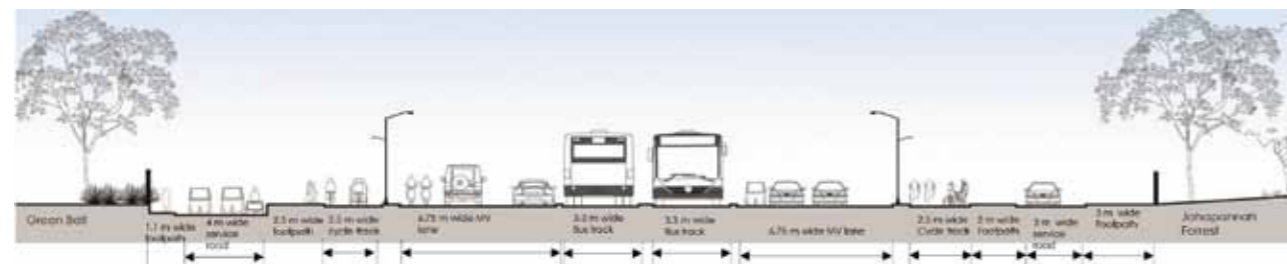
Key Plan



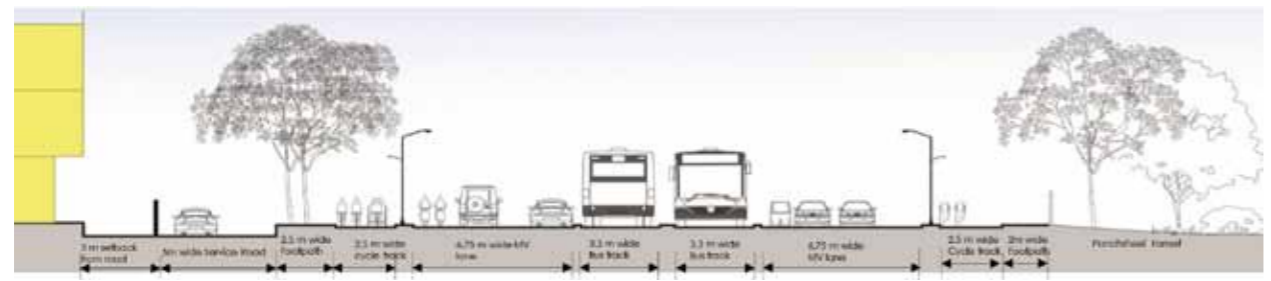
Image source: www.designpublic.in



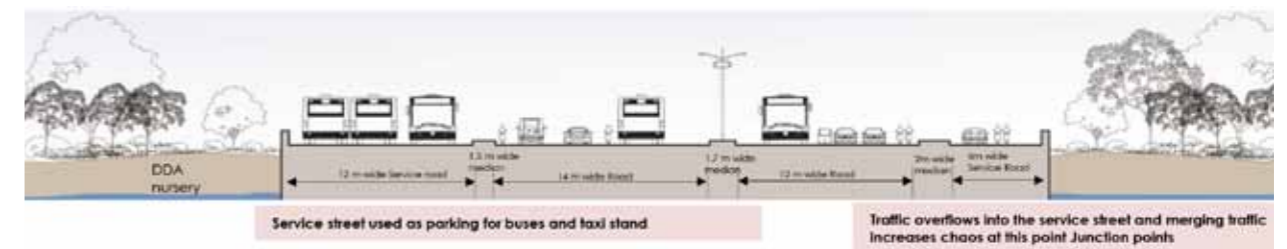
Section through Chirag Delhi Flyover (Outer Ring Road)



Section through Lal Bhadur Shastri Marg (BRT corridor)



Section Through Josip Broz Tito Marg (BRT corridor)



Section through Chirag Delhi Flyover (Outer Ring Road)

Road Sections

- Planned colony developments like Panchsheel Enclave and Soami Nagar accommodate street ROW between 6-10 m. These conform to the Master Plan notified ROW's.
- The urban village street widths range from 2.5 to 5 m wide. These have been encroached upon by commercial extensions at ground level and residential development at upper levels.
- The balconies and rooms at higher levels have been encroached upon to reduce the width and decrease the light conditions in the streets.
- The DDA housing of Sheikh Sarai has street widths ranging from 5 to 10 m. Building extensions and parking have encroached upon shared open spaces resulting in congested streets.



Section through Sheikh Sarai Phase I



Section through Sheikh Sarai Phase II

Inner street of Chirag Delhi



Section through planned residential areas like Soami Nagar and Panchsheel Enclave



Section through street between Bhagat Singh College and Sheikh Sarai DDA market

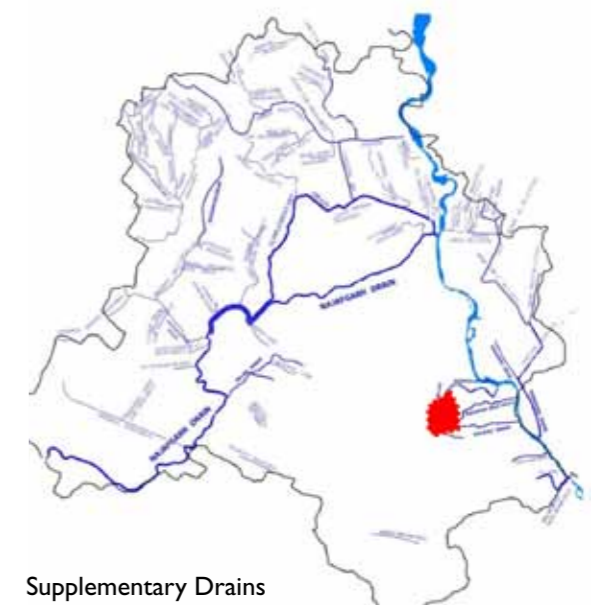
3.2 Ecological Systems

3.2.1 River and the Nullahs



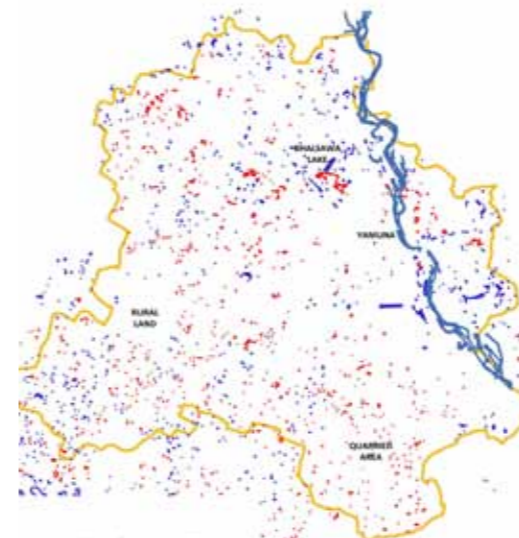
Major Drains

- Yamuna Extends Across 48 Km
- Delhi Is Just 0.43% Of Total Yamuna Basin Area
- 22 Drains Empty Into Yamuna

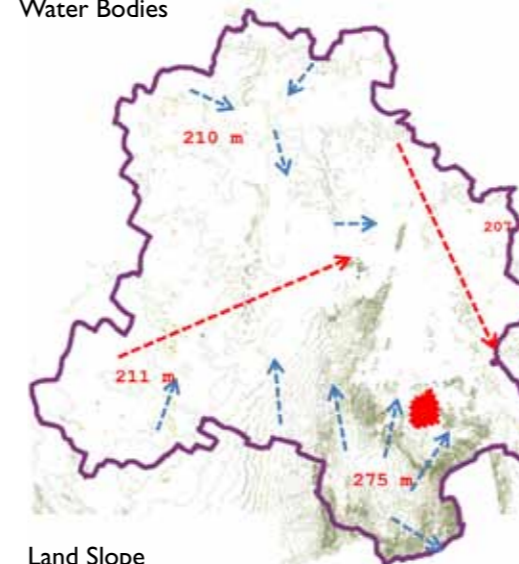


Supplementary Drains

- Located to the northeast and south of the city are the low Aravali hills. The river Yamuna is located to the east. The hills and the river define a central triangular plain that accommodates the city.
- Within the central plains of Delhi are 350 kilometres of natural stormwater drains called Nullahs. These flow through the central plains of the city draining into the Yamuna river.
- These water basins are fed by catchment areas of major Nullah systems.
- Chirag Delhi Nullah is a part of the Kushak Nullah Basin.
- Kushak Nullah is the second largest and oldest watershed in the city. Covering 359 sq.m in South Delhi, it accommodates a network of historic settlements. The basin has a combined length of 23 km. It includes areas in the central and southern Ridge.



Water Bodies



Land Slope



Drainage Basins

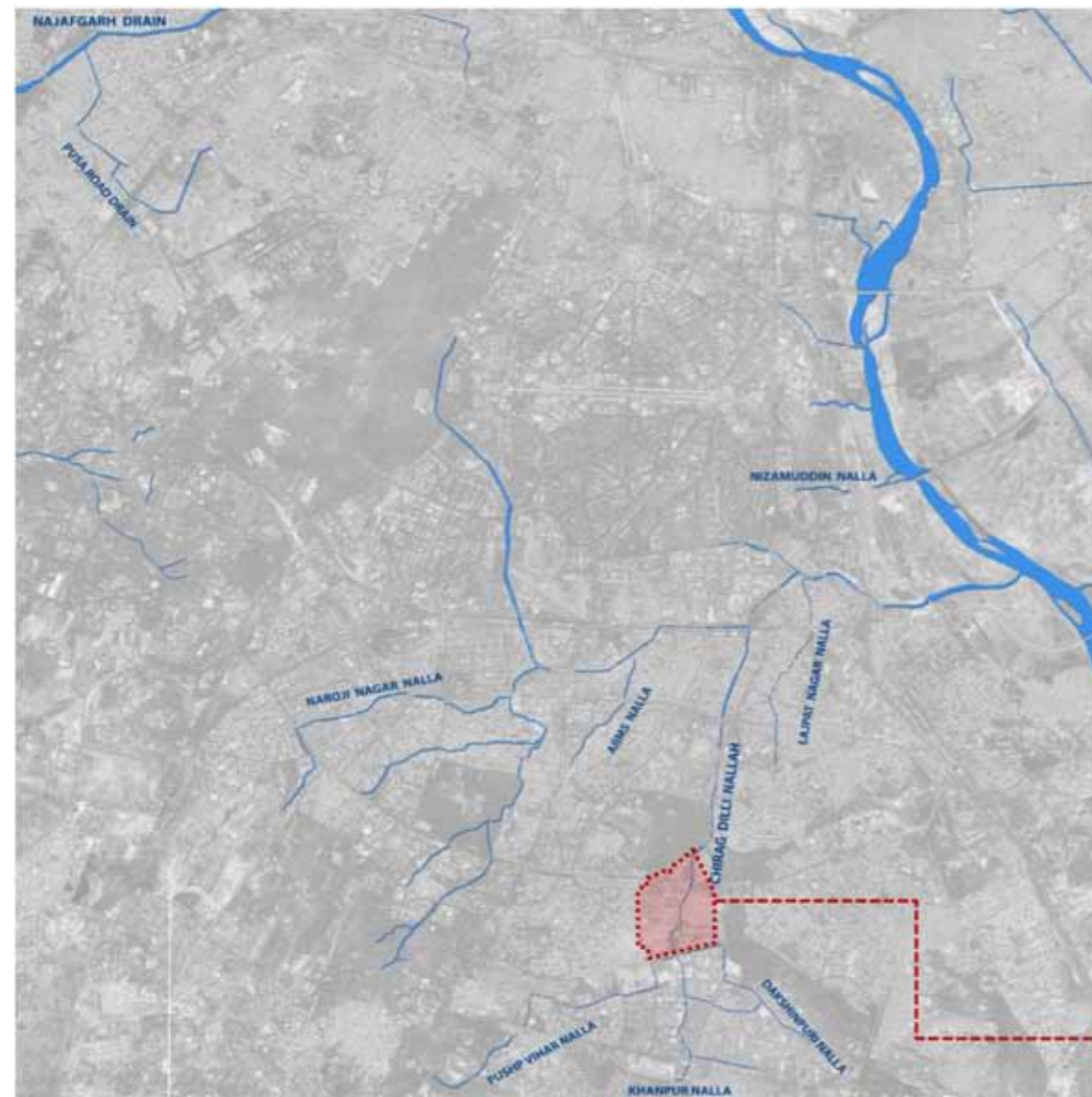
Image Source: Faculty and Students of SPA, Urban Design Semester 9, 2009

Nullahs – As an Urban System

- Delhi also comprises a network of natural water bodies in the form of lakes, ponds, johars.
- Ground water table in the area is maintained by water recharge systems.
- The network provides for water harvesting and maintains the microclimate.
- The water networks comprise man-made and natural water systems. Rain-fed and connecting to a reticulate network these discharge into the city's Nullahs. The Nullahs connect and flow into the river.
- The Nullah system forms the network of natural drainage within the city.



Images along the Nullah at Chirag Delhi site



Area under study- Chirag Delhi and its precincts

Localized Network of Nullahs – Chirag Delhi and surrounds

Image Source: Drawn over a google earth satellite image with reference information from Delhi Jal Board and Morphogenesis

Nullah – Site Condition

- An onslaught of unplanned urbanization has caused parts of the Nullahs to be reduced to garbage dumps.
- At present most of the water channels within the central triangular basin function as wastewater drains. Many of them are covered and built over. From 'Nahr' they have been transformed to Nullahs.



1. Panchsheel Enclave overbridge along the Lal Gumbad monument



2. Along Chirag Delhi at the Outer Ring Road



3. Along Chirag Delhi southern end with barren land along Sheikh Sarai Phase I housing



4. Press Enclave Marg section where Satpula monuments adjoins the Nullah



Key Plan

Conditions along the Chirag Delhi Nullah

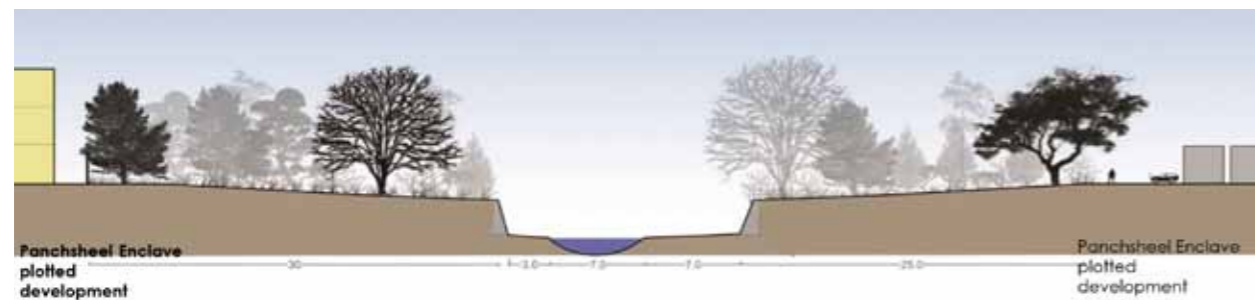
Physical Features and Attributes

Nullah Condition – Site Sections

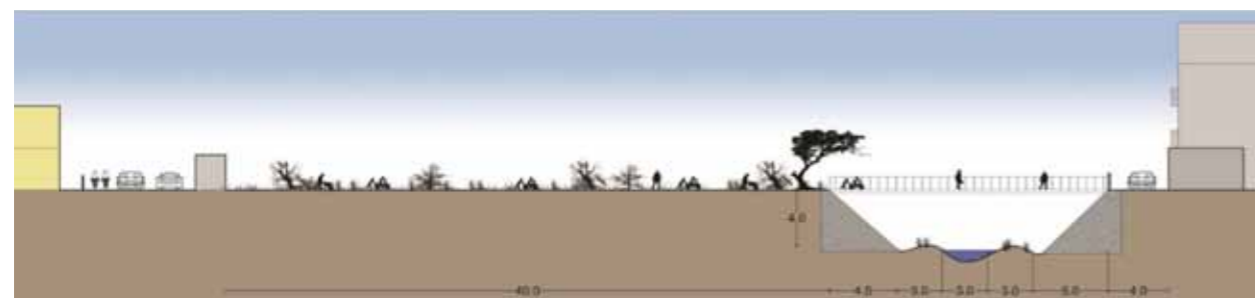
- The Nullah along the edge of Panchsheel Enclave is characterized by large tracts of land defined by plantation and scrub area.
- The Nullah is utilized for waste disposal.
- Delhi Jal Board water supply pipeline runs right below the bridge near the Panchsheel Enclave area along the BRT corridor.



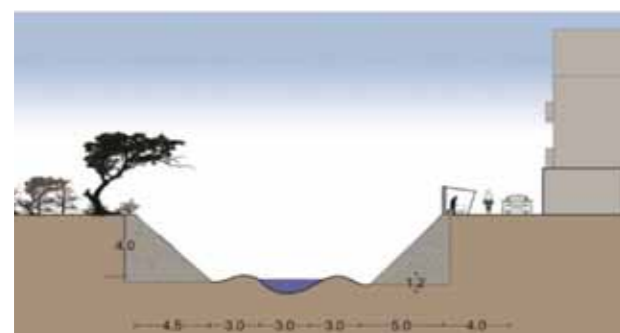
Present scenario along the Nullah



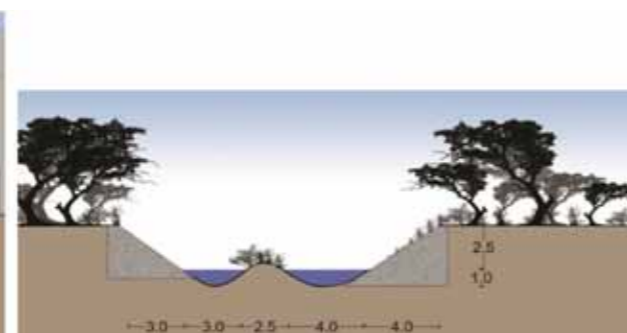
1. Section through Nullah (Outer Ring Road)



2. Section B-B' (Peripheral Road)



3. Section AA' (Peripheral road of Chirag Delhi)

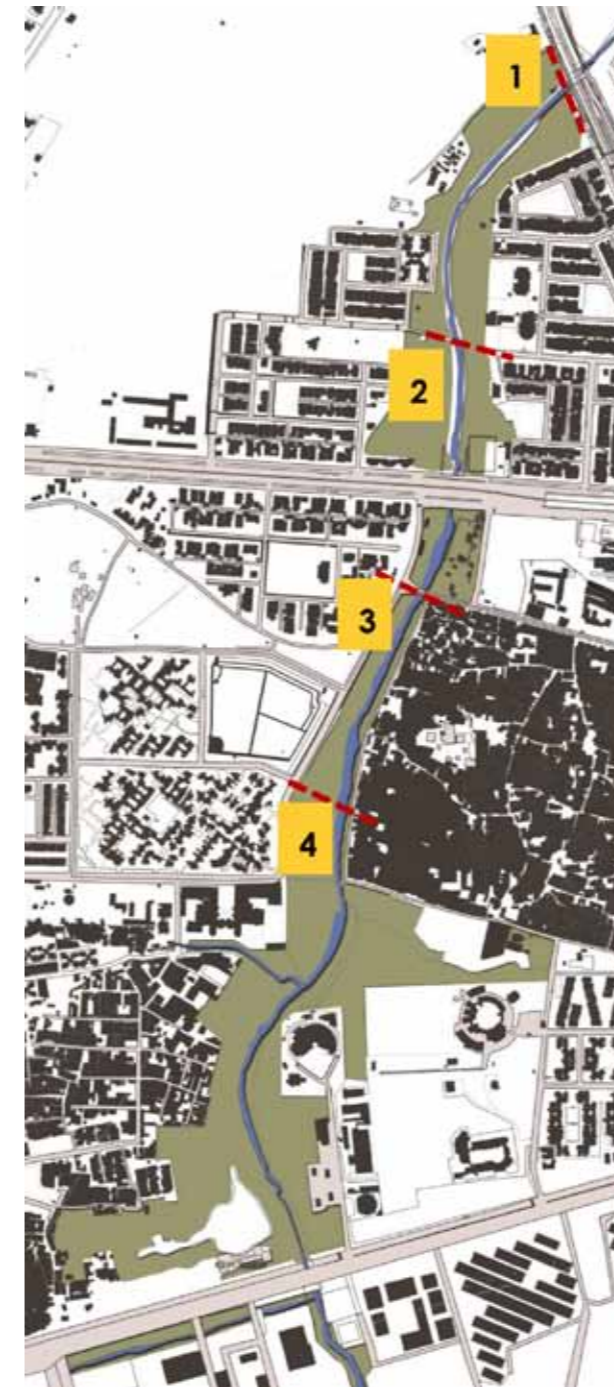


4. Section CC' (Along Panchsheel)

Physical Features and Attributes

Nullah – Connections

- The Nullah within the precinct runs in the south-north direction. Connections across the east-west direction are of pedestrian nature, at the northern part across the Outer Ring Road. These connect the two parts of Panchsheel Enclave.
- Another pedestrian bridge connects Chirag Delhi with Sheikh Sarai. Two-wheel vehicles often ply over the bridge. At grade vehicular crossing exists along the BRT arterial to the north and the Outer Ring Road.
- A road located at the northwestern edge of Chirag Delhi dips from the Soami Nagar-Sheikh Sarai connector road to the urban village.



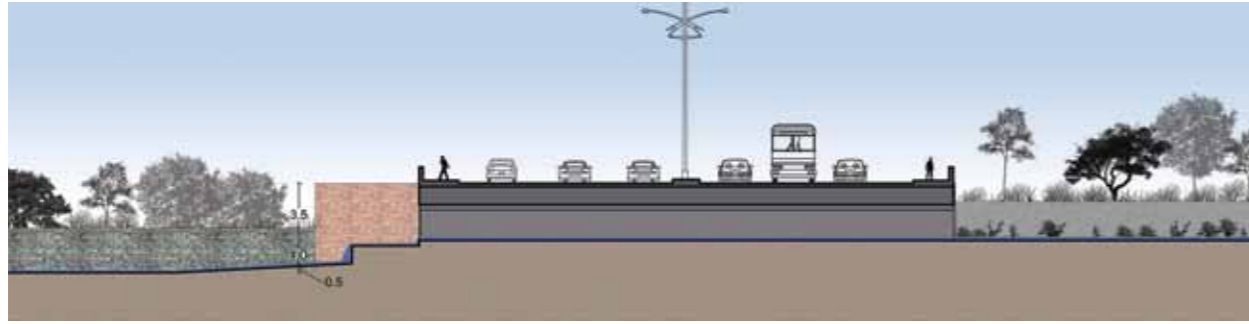
key plan



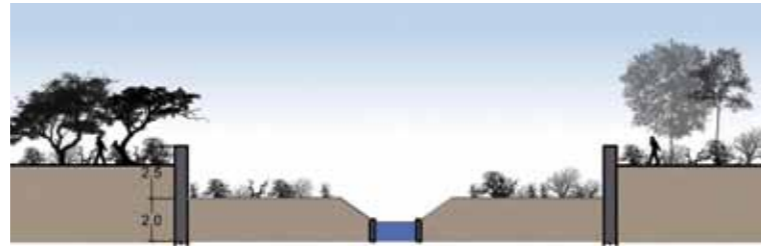
Images along the Nullah

Physical Features and Attributes

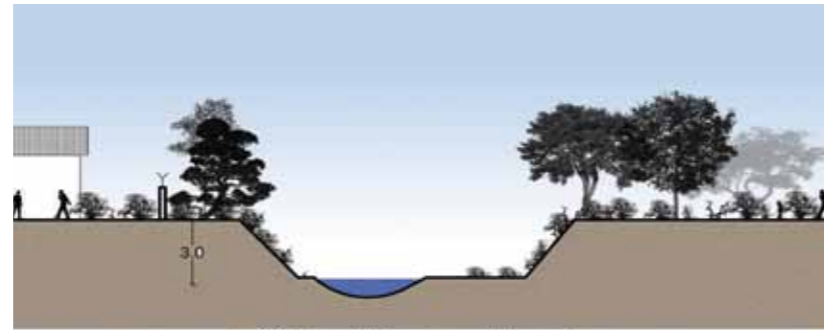
Nullah Condition- Sections



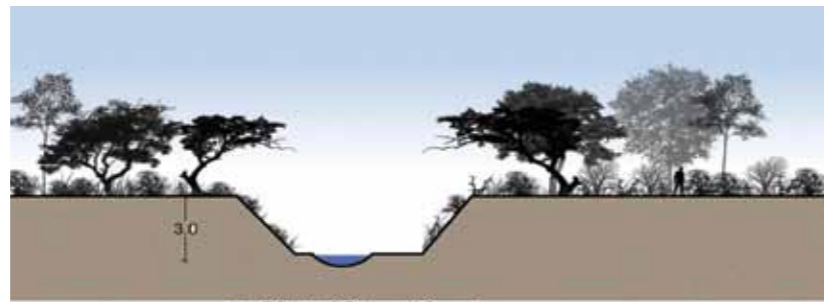
Section AA'



Section BB'



Section CC'



Section DD'



key plan



Varying sections along the Nullah



3.2.2 Urban Morphology



Urban Morphology of Delhi

In 2001 about 702 sq km of area in the city was estimated to have been built up. This area accommodated about 138 lakh people. The Chirag Delhi precinct covered about 1.84 sq.km accommodating about 45,027 people. The built-up area within the precinct includes :

- Planned Areas
- Unplanned Areas
- Slum and JJ Clusters, Resettlement Colonies and Unauthorized Colonies
- Urban Villages



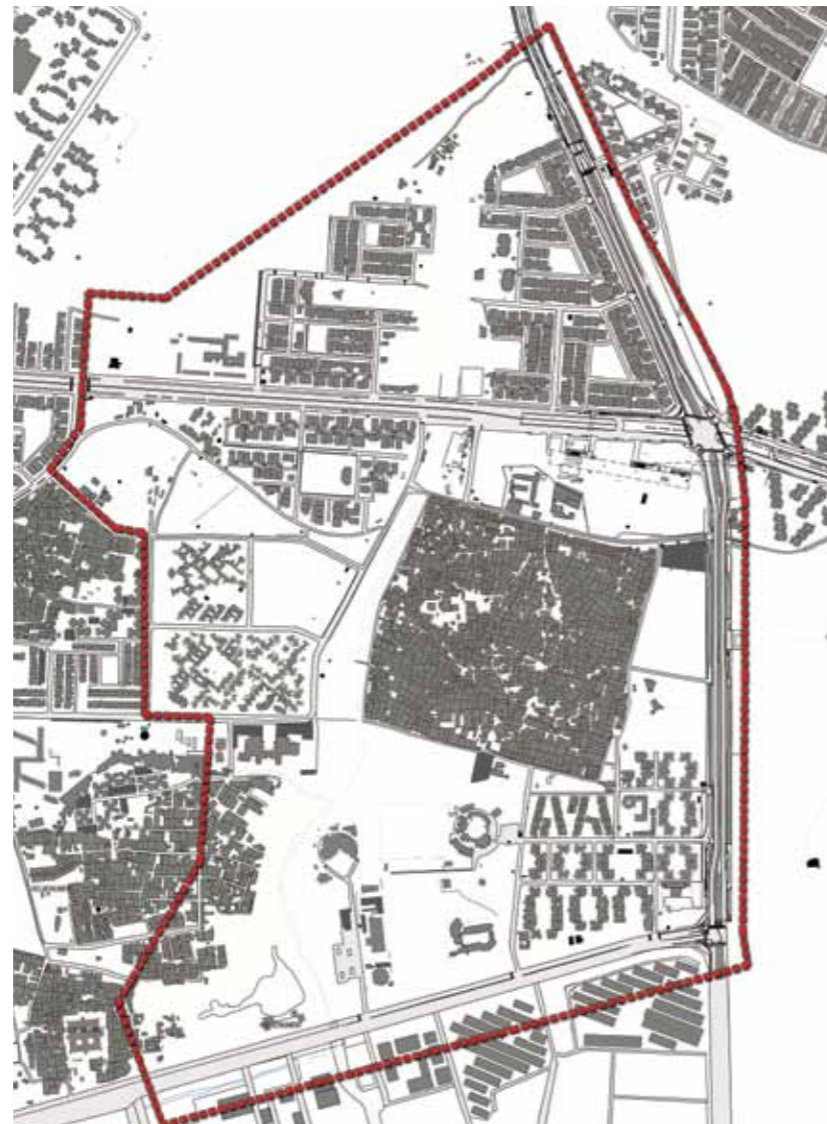
Urban Morphology of the Precinct

Area of Study - Approx 1.84 Sq.km ~ 184 ha

POPULATION STATISTICS		
S.No		Population
1	Panchsheel Colony	1119
2	Panchsheel Enclave	3312
3	Soami Nagar	1544
4	Shiekh Sarai Phase -I	4824
5	Shiekh Sarai Phase -II	6733
6	Chirag Delhi	23269
Total Population		45027

S.No		Population Density
1	Panchsheel Colony	188 pph
2	Panchsheel Enclave	50 pph
3	Soami Nagar	206 pph
4	Shiekh Sarai Phase -I	209 pph
5	Shiekh Sarai Phase -II	1062 pph
6	Chirag Delhi	

Population as per Census 2011
 189 – Greater Kailash 2 34,169
 191- Shahpurjat 61,669



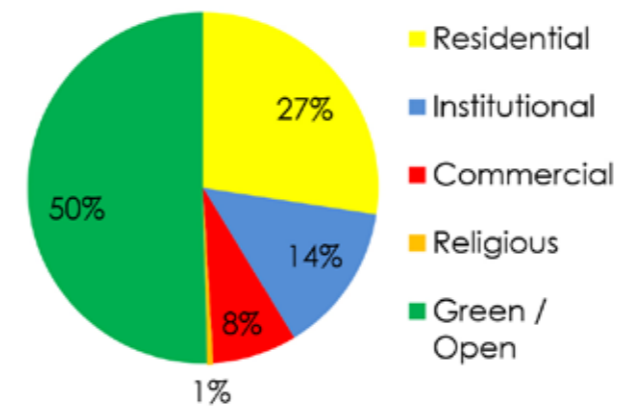
Built / Open Diagram

Land Use Plan



Land Use Plan

- The green and open space area within the precinct is about the same as the total built-up area.
- Green buffer spaces around the urban village, the scrub areas, Nullahs and neighbourhood parks contribute to the open areas within the precinct.
- Mixed land-use development within the Chirag Delhi village accommodates commercial development around its fringes and the main internal streets of the village.
- The Zonal Plan allows for mixed use streets on the north periphery of the village linking the Nullah to the BRT arterial. The eastern face also accommodates commercial development.
- Panchsheel Enclave, Soami Nagar and the DDA flats are largely residential developments maintained and developed by distinct entities. They include a small commercial fragment.



Land Use Distribution Diagram

3.2.3 Green Systems

- Delhi accommodates a large number of green areas and parks. These include the Lodhi gardens (100acre), Nehru Park (85 acres) etc.
- The Ridge located on the north, central and south parts of the city defined the original expanse of the city. Large forests which connect to the greens within the precinct form a part of this Ridge.
- The greens encompass a multitude of earlier settlements and monuments.
- The first settlements were located in proximity to water sources. City growth supported by technological advances allowed the city to ignore traditional sources of water. Expansion into the greens resulted in isolated green patches.



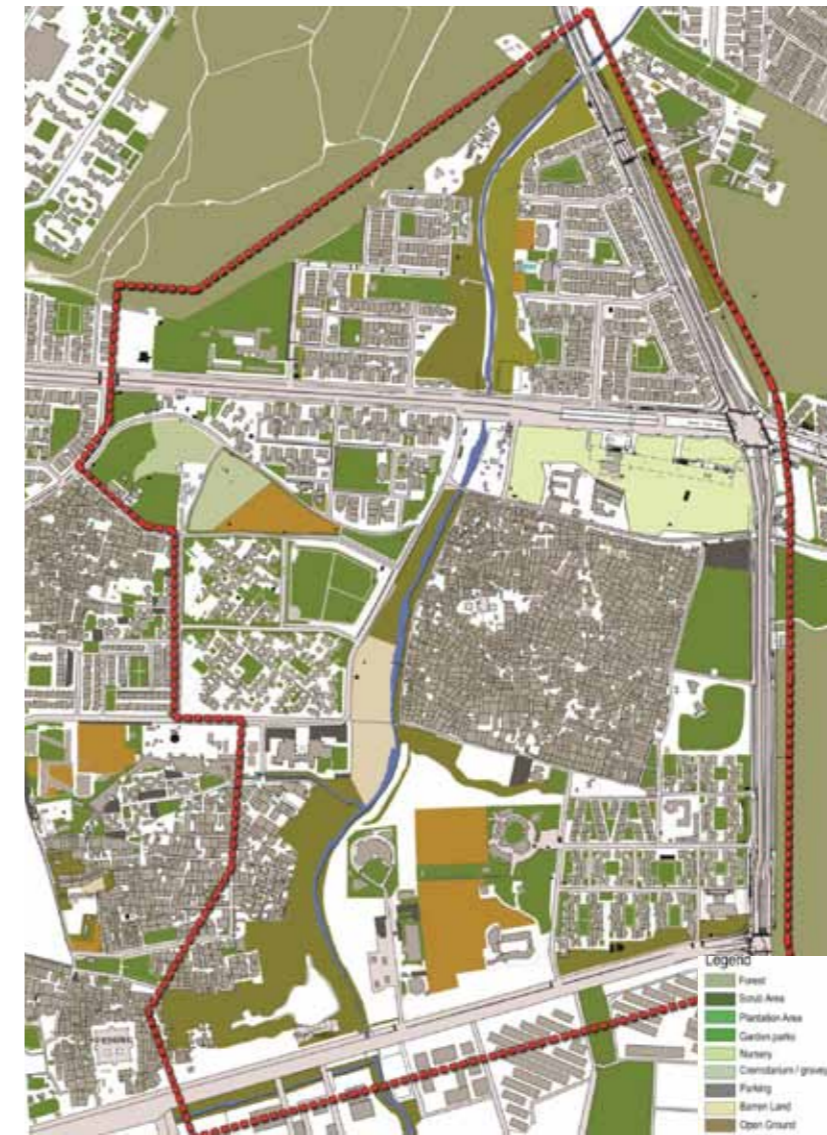
The pattern of green structure

Image Source: Faculty and Students of SPA, Urban Design Semester 9, 2009



Distribution of greens in Delhi

Green / Open Space



Green / Open Space Structure



- Large parts of the precinct's green area are vacant and unused.
- The large green areas are isolated and not utilized to their potential.



The greens surrounding the Nallah

3.3 Heritage

1. Satpula - 1340

Satpula is located to the southern edges of the precinct along the Press Enclave Marg. Built by Mohammed Tughlaq (1321-1351 AD), it derives its name from 'seven bridges'. It served the irrigation and security needs of the area.



2. Tomb of Chirag Delhi (1351)– Bahlol Lodi's Tomb (1489)

The tomb of Nasiruddin Mahmud Chiragh-e-Delhi (ca 1274-1356) located in Chirag Delhi village is the tomb of a 14th century mystic-poet and Sufi saint of the Chishti order. He was a disciple of noted Sufi saint, Hazrat Nizamuddin Auliya, and later his successor. He was the last important Sufi of the Chishti order.



Tomb of Bahlol Lodi (died 1489), founder of the Lodi dynasty, is also located in the Chirag Delhi village.



The various heritage monuments in the precinct

3. Tomb of Sheikh Salahuddin (1340)

Located in the greens to south of Soami Nagar is the tomb of Sheikh Salahuddin. A saint of the Suhrawardia sect he was a contemporary of Nasiruddin Chirag Delhi.



Key Plan - Locating the heritage monuments

4. Khirki Mosque (1375)

Khirki Masjid, a mosque, was built by Khan-i-Jahan Maqbul Tilangani, the Prime Minister of Feroz Shah Tughlaq (1351–1388) of the Tughlaq Dynasty. The word 'Khirki' prefixed to masjid is an Urdu word that means 'window'. It is also called 'The Masjid of Windows'.

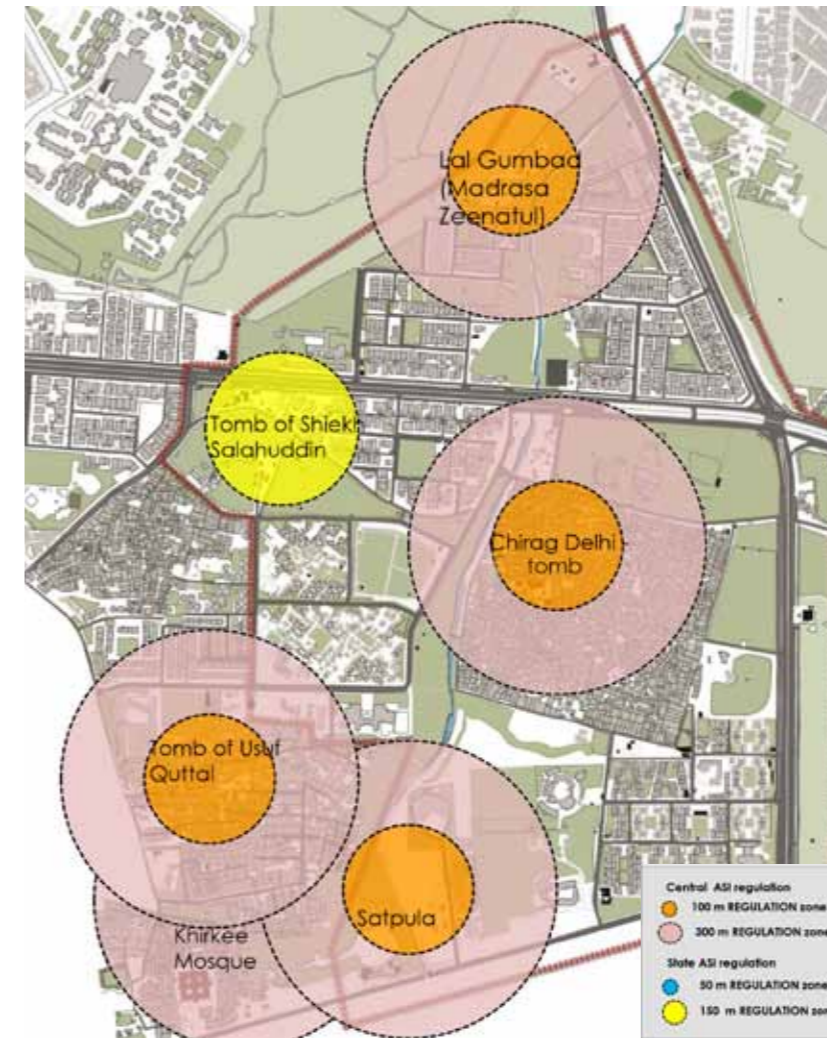
5. Lal Gumbad - Madarsa Zeenatul (1397)

The Madarsa is located to the north of Panchsheel Enclave A block.

6. Tomb of Usuf Qattal (1527)

Located in Khirki village is the tomb of Sheikh Yusuf Qattal. A Sufi saint and disciple of Qazi Jalaluddin of Lahore. The tomb is dated to 1527 AD.

3.3.1 Heritage - ASI – Development Regulation Zone



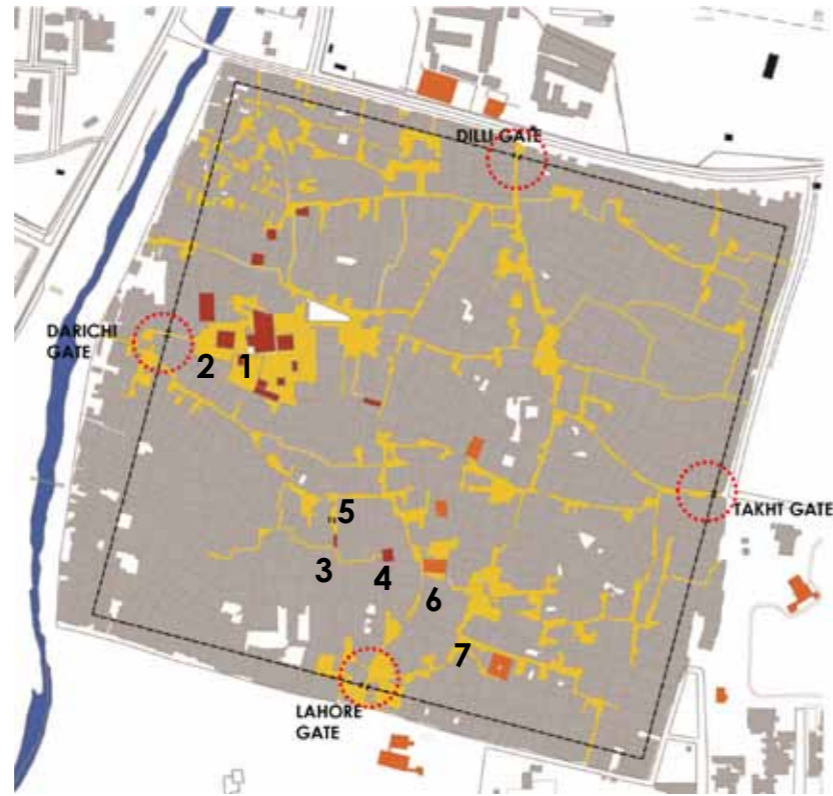
Regulation zone areas

Protected monuments and the regulation zones around it.



3.3.2 Heritage – Chirag Delhi Village

- The Chirag Delhi village is bounded by fragments of a boundary wall. Entrance gates located at the four cardinal directions mark original access to the settlement.
- The gates served ceremonial and defensive needs. Partially damaged, these urban markers are hidden by haphazard encroachments around it.



Key Plan - Chirag Delhi Village



Darichi Gate



Delhi Gate



Circular Bastion & Chattri



Takht Gate



Lahore Gate

Gateway structures to Chirag Delhi



3 Turret



4 Jain Temple



1 Tomb of Roshan Chirag Delhi and heritage buildings within the enclosure



5 Takath Darwaza



6 Tomb



6 Tomb of Haji Khanam

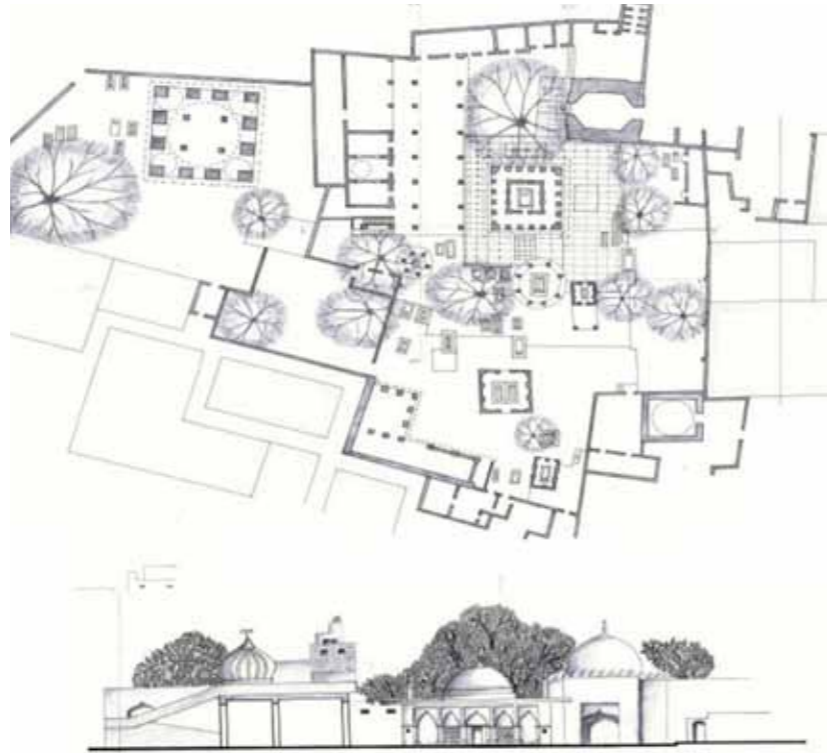


2 Bahlol Lodi's tomb and structures surrounding the tomb

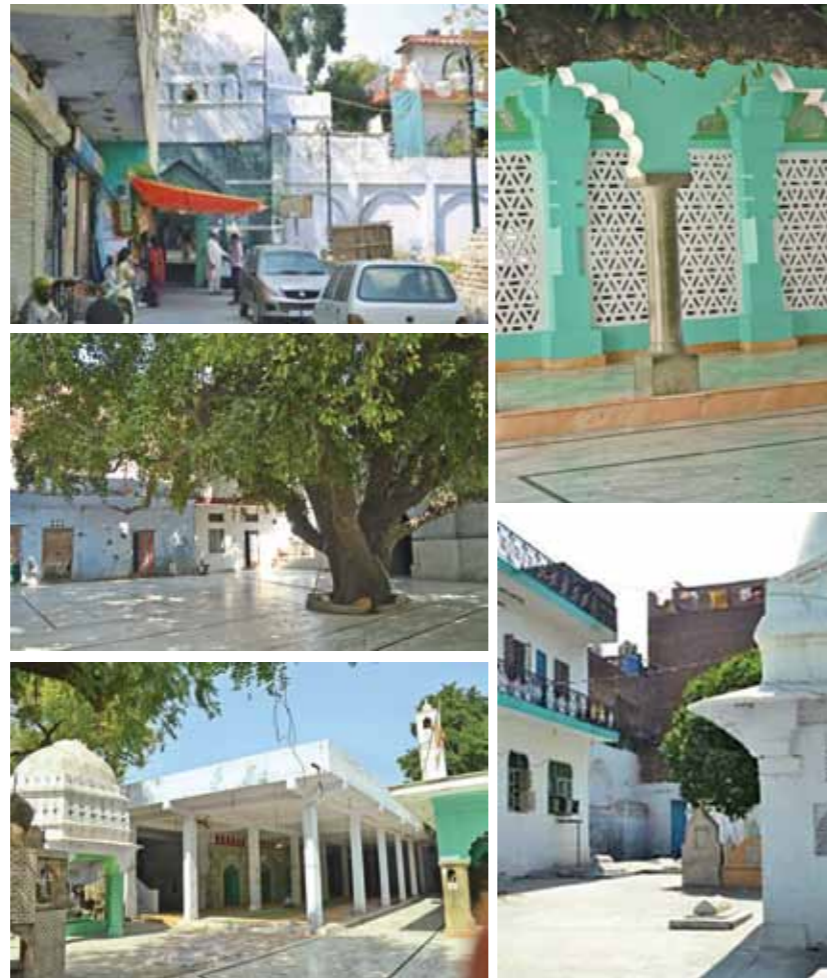
A scattered distribution of heritage structures exists within the Chirag Delhi settlement.

Chirag Delhi derives its name from the 14th century saint-king, Sheikh Naseeruddin Mahmud. He was regarded as the 'Lamp of Delhi' –'Roshan Chiragh-e-Delhi'.

The dargah complex encloses smaller tombs, a prayer hall and a masjid. The enclosure is marked by a gate.



Plan - Tomb of Roshan Chirag-e-Delhi
Drawing source: Student's thesis report



Views – Tomb of Roshan Chirag Delhi and surrounds

1. Chirag Delhi
2. Panchsheel Enclave
3. Soami Nagar
4. Sheikh Sarai Phase I
5. Sheikh Sarai Phase II



4.1 Chirag Delhi

History

The village derives its name from Nasiruddin Mahumud Roshan Chiragh Delhi, a Sufi saint who succeeded Nizamuddin Auliya as head of the Chisti sect in 1324.

During the period 1324-1356, Saint Nasiruddin as the head of the Chisti movement established an ensemble around his house. There were around 41 villages in the area.

During this period the wall around the settlement was built under the rule of the Mughal Emperor Mohammed Shah 'Rangeela' (1719- 48).

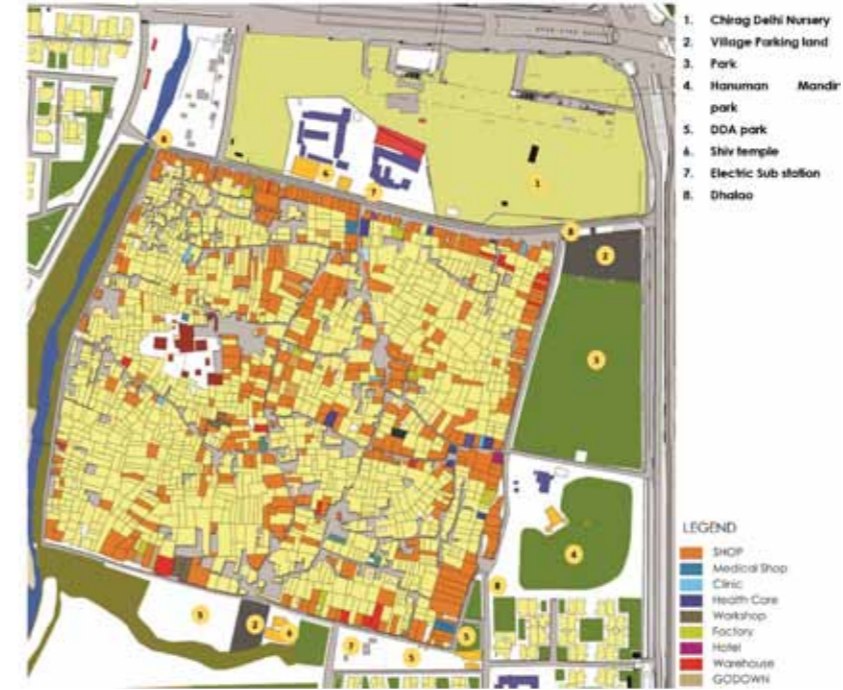
By the 1800s a settlement developed around the shrine.

After partition in 1947, village property belonged to the Khadims of the Dargah who migrated out and the area was taken over by the Jat community.

After partition the influx of refugees from Pakistan had added to the settlement's population. It was recorded at 13,000 persons (1991 census).

The settlement has recorded a further increase in density with the influx of migrants from eastern states. Recent residents from states like UP, Bihar, West Bengal, Bangladesh and Nepal seeking work and cheap accommodation have found a place in the village.

Small-scale industry including sewing-machinists, cutters contributing to its garment factory, traditional trades and crafts such as embroidery work, jewellery, weaving, carpentry, copper and brass, snacks and its packaging has been accommodated within the village.



Precinct map of Chirag Delhi village

Physical Attributes

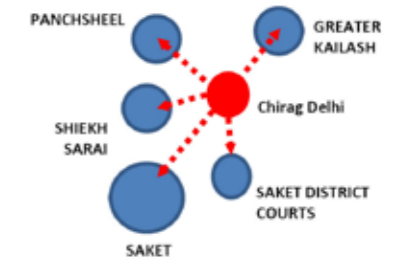
Most of the streets are characterized by mixed-use development.

Employment

Chirag Delhi due to its centric location, proximity to employment generators and availability of affordable rental accommodation serves as an employment centre.

Proximity to Saket Courts attracts a large number of advocates to find accommodation in the area.

A large number of migrants from northeastern states also reside in this area. Production and sale of Chinese food items is supported by a number of these residents.



Centric location of Chirag Delhi

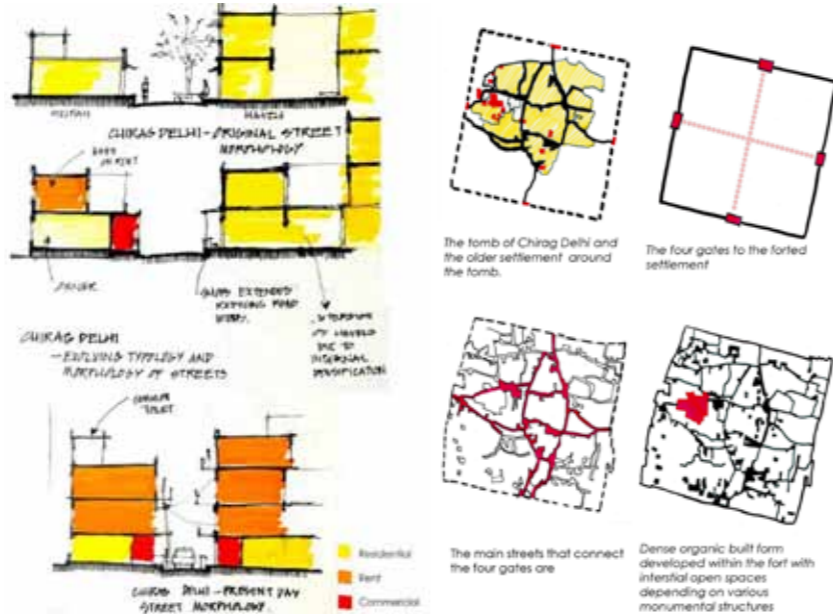
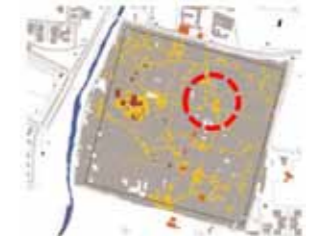


Image source: Student thesis



Built Form – Street Network



Bohran Chowk

Bohran Chowk is located along the line connecting the four gates of the fortified settlement of the village.

The name is derived from the mohalla that housed Bohran Muslims. The Chowk is characterized by a historical well.

The landmark Chowk is defined by a large tree and the chaupals around it.

Sweet shops and stores serving daily needs line the edge of the Chowk. Two-wheeler parking within has contributed to recent congestion.

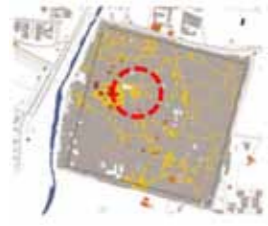


Section through Bohrhan Chowk



Built Form – Street Network

Bazaar Chowk



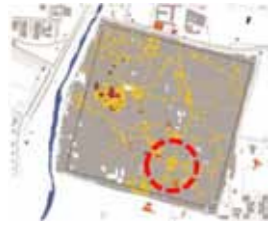
The largest of Chowks within the settlement is located outside the Chirag Delhi Dargah.

For safety reasons, the historical well located within has been recently covered.

On account of its proximity to the Dargah, the largest concentration of commercial activity within the settlement is around Bazaar Chowk. Daily need shops, vegetable market and eateries contribute to the area's character.



Sadela Kuan Chowk



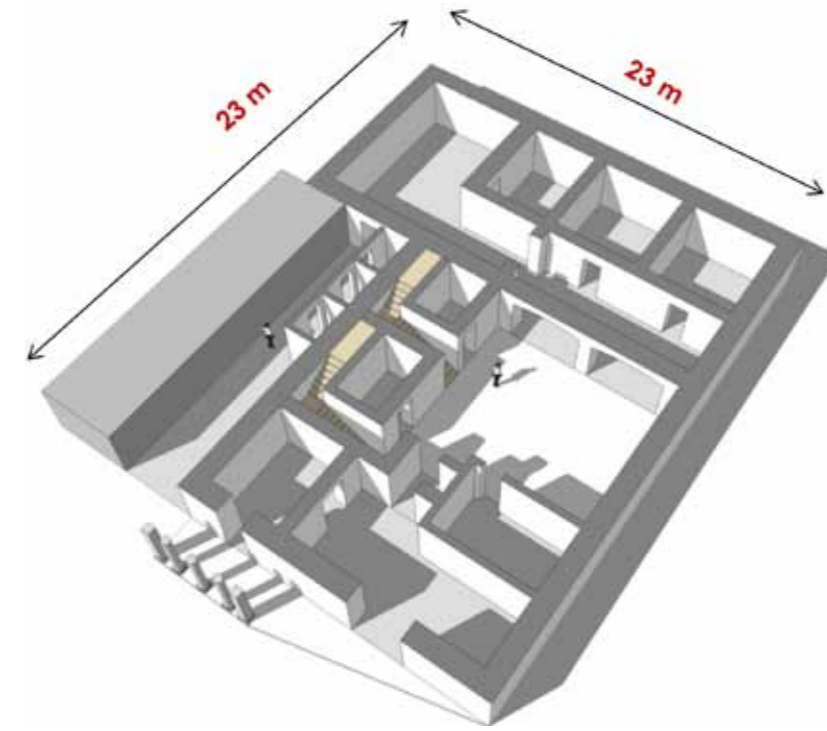
The Chowk derives its name from an ironic reference as the 'surela kuan' – a well that once contained sweet water. Local tales suggest a tunnel located below in the well connected the village to Tughlakabad fort.

The area is predominantly residential in nature. It is mainly inhabited by the Pandit community and marked by a few grocery stores.

The Chowk is presently used as a parking lot for cars and two-wheelers.



Built Form – House Typology



Traditional Typology of the House in Chirag Delhi

Typical building forms in Chirag Delhi conform to the courtyard typology. The house is divided into 3 distinct segregated zones for men, women and the animals. Almost all these houses traditionally accommodated an animal shed.

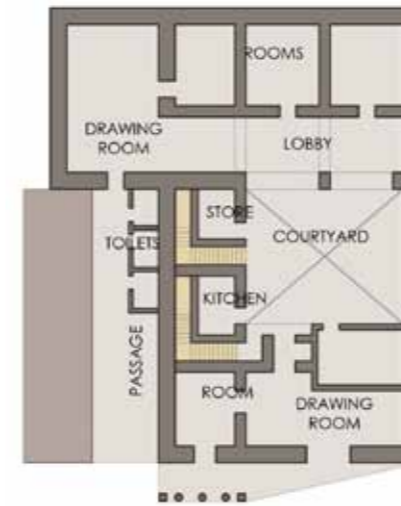
The courtyard forms a part of almost all the older buildings. Expansion to these buildings include addition of three floors.

The houses are arranged in a dense pack of linear plots. The narrow streets within the confinement of the settlement opened in courtyards, these were defined by windows above.

Lintel level large openings kept the traditional houses well ventilated.

Very few houses retain their original form. Commercial and real estate pressures have caused the typology to be sub-divided into smaller 2-bedroom units.

Connectivity to the city networks, affluent planned developments in adjacent neighbourhoods and close proximity to new commercial and institutional development (courts) have caused houses to be subjected to greater densities.



Ground Floor Plan



First Floor Plan

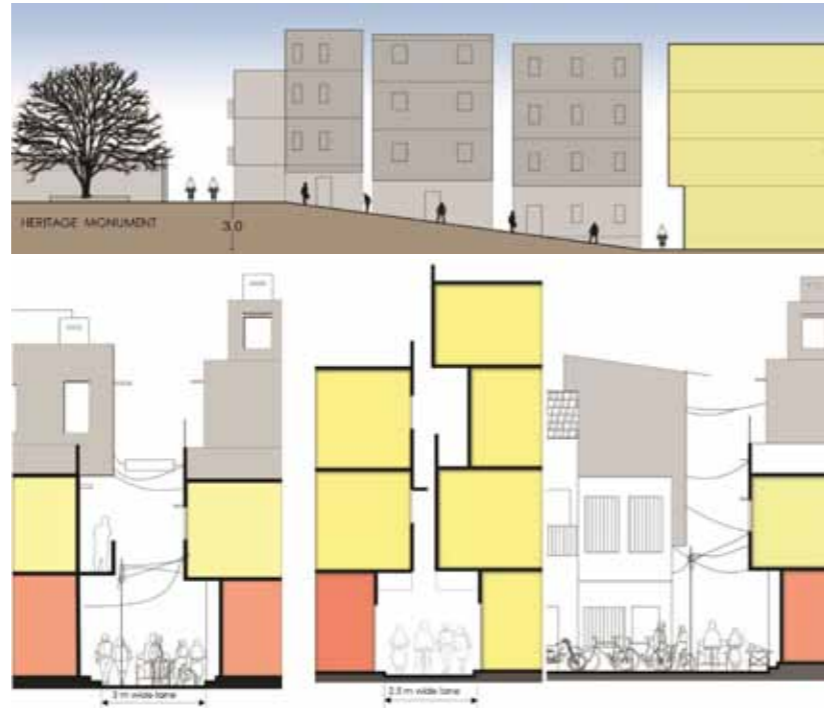


Built Form – Street Sections

Within Chirag Delhi village residential lanes have been encroached upon. Dwelling units across almost touch each other affecting light and ventilation conditions.

On account of Lal Dora norms the settlement appears free from the city's development controls.

An onslaught of development pressures in the absence of development controls have allowed addition of an incessant number of floors.



Various Sections within the Chirag Delhi village



The urban village of Chirag Delhi is surrounded by planned and unplanned areas. Natural features define its four sides.

To the west a Nullah skirts the village. The settlements on the western edge is defined by a 1.5 m tall boundary wall that is broken at places. The edge has over a period of time become a place where the solid-waste from the village gets accumulated. This has led to severe unhygienic conditions.

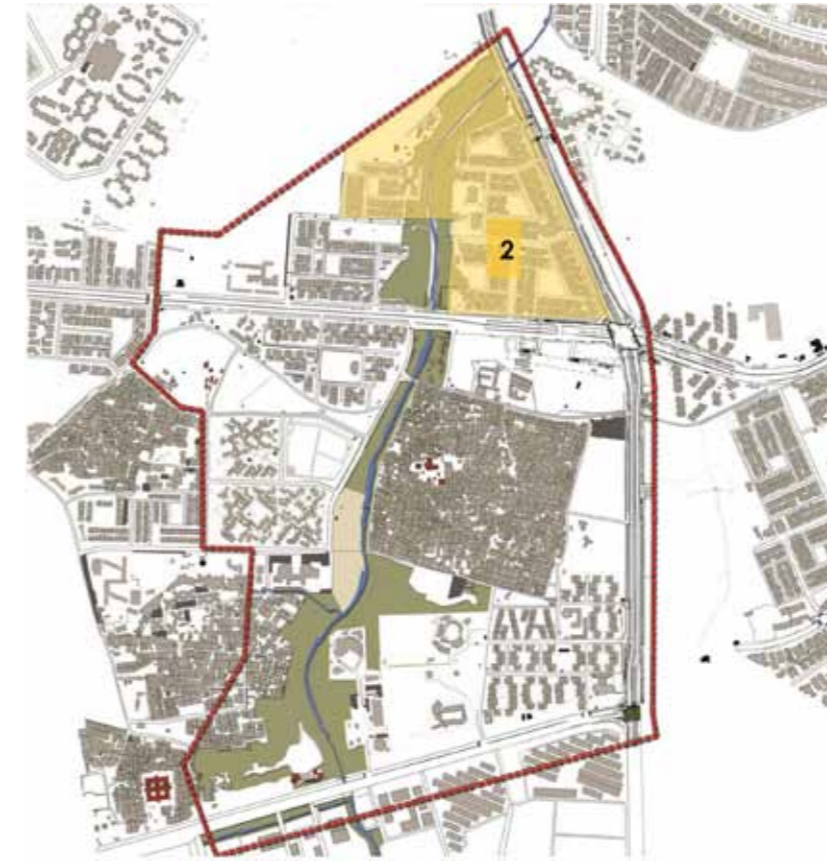
On the north a few illegal institutions and commercial developments initiated by village residents have cropped up. The new Metro development is proposed over the Chirag Delhi nursery.

The southern and eastern edges are bounded by DDA parks, smaller temple areas and dedicated village parking.

These parks separate the village from other planned developments like Sheikh Sarai on the south and the city level BRT corridor on the east.



4.2 Panchsheel Enclave



Panchsheel Enclave is a planned residential development with an average plot size of 170 -200 sq.m and a density of around 27 DU/ 100 sq.m.

This gated development is planned with neighbourhood parks. The Nullah within the precinct divides the planned neighbourhood.



Built-Form

Building heights range from 3-4 storeyed structures, primarily plotted residential accommodation.

Along the Outer Ring Road edge few of the houses accommodate commercial use in the form of banks and clinics.

Building Heights



Panchsheel Enclave plotted housing

SFS DDA Housing

Open Space Structure

A variety of green and other open spaces are located in Panchsheel Enclave residential area. They include neighbourhood parks, scrub area along the Nullah, open and green spaces around the monuments, school and club playgrounds.

Most of the scrub area around the colony is walled off. There is no visual and physical connection to the large natural resource abutting the neighbourhood.

Neighbourhood parks are well maintained by the respective block RWAs.



There are large tracts of green/open buffer spaces that have been provided between the Lal Gumbad monument and the residential colony.

The monument forms the backyard for the residential areas.

A number of monuments in the area lack recognition and lie in neglect.



Section AA along the Panchsheel Enclave edge and the Lal Gumbad monument



Section BB along the Panchsheel Enclave edge and the Nullah green

Civic Amenities

Key Map



Civic Amenities



Lal Gumbad



Govt. Higher Secondary School



Pinnacle School



Panchsheel Enclave Community Center

The planned neighbourhood areas accommodate local shopping complexes, private and municipal schools and monuments.

Connectivity to abutting green areas and open spaces is constrained.

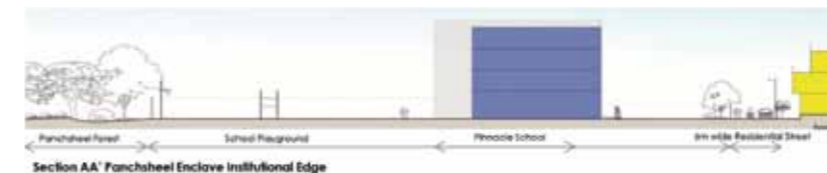
The area lacks proximity to large commercial areas and socio-cultural amenities.



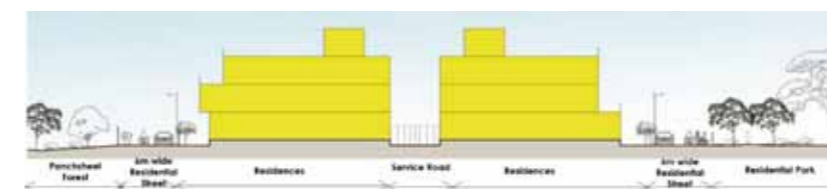
Location of solid-waste sites and DJB Booster pumps

The Panchsheel Forest edge is walled off from most parts of Panchsheel Enclave and Soami Nagar.

The forest edge on account of being cut off is used for dumping garbage and accommodating municipal/utility offices.



Section AA' Panchsheel Enclave Institutional Edge



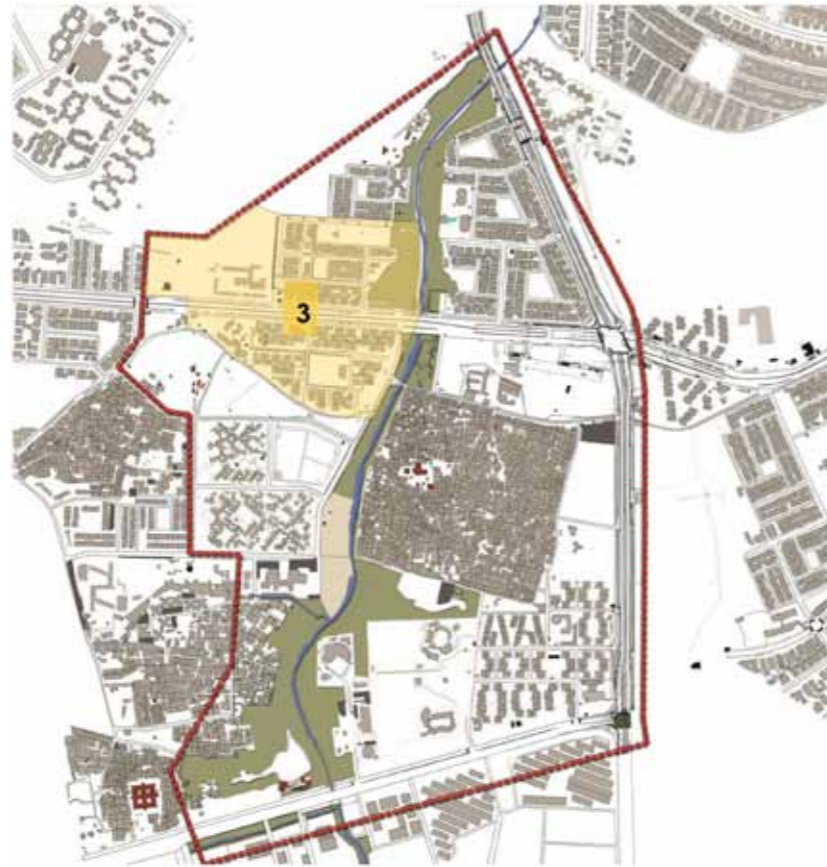
Panchsheel Enclave Plotted Housing

4.3 Soami Nagar

Soami Nagar is a planned residential colony divided along the two sides of the Outer Ring Road.

Largely built in the 60s and 70s it predominantly accommodated followers of the Radha Soami faith.

The average plot size is between 250-330 sq.m and has a dwelling density of 24 DU/100 sq.m. Most large plots are lined along the Outer Ring Road and the smaller ones are located in sections to the north or at the southern edge of the colony.



Built- Form

Soami Nagar is largely a planned development with 3-storey residential buildings. It also consists of MCD and society 4-storey walk-up apartments. A JJ colony is located close to the DJB water tank.

The area accommodates religious amenities. The commercial areas include office space located to the south.

Commercial space is located on the north side of the Outer Ring Road.



Building Heights

Soami Nagar JJ. Camp



Key Map



Open Structure Map



Section towards the Nullah



Land Use Map



Swami Nagar Model School



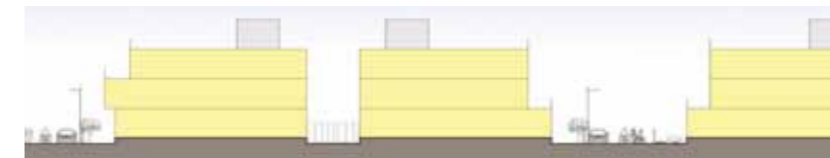
Office Building



Central Co-operative Stores



Satsang Hall



Cross Section through well maintained roads service roads in Soami Nagar

Open Space

The planned residential development includes small scale parks and large tracts of DDA land skirting its edge.

A community hall in the south side is used as a Satsang hall. It includes a large community ground.

The Nullah located in the western edge of the colony is disconnected physically and visually.

Civic Amenities

Religious needs are served by a Satsang hall. An office complex to the south and commercial amenities to the north do not cater to the neighbourhood needs. The colony accommodates a milk depot. Shopping needs are served by markets in close proximity.

The area is surrounded by open land on all four sides. Natural features like the open Nullah and large open spaces are located in the vicinity.

A 12-m-wide road skirts Soami Nagar on the south side of the colony. Traffic volumes are low.

The southeastern edge of the gated neighbourhood now accommodates street vendors, kiosks, garbage dumps and municipal stores/offices and parking spaces for taxis and buses.

These encroachments have caused congestion and compromised the residential character.

4.4 Shiekh Sarai Phase I

Sheikh Sarai I is a 550 unit self financing housing scheme developed by Delhi Development Authority (DDA).

Within the precinct four storey structures with small squares and streets are organized as clusters. Pedestrian and vehicular traffic is segregated.

Over a period of time, covered courtyards and building extensions appear as visual encroachments.



Increasing car parking on narrow streets around the park have compromised the pedestrian areas.



Building Heights

Key Map Open Space Structure



Section through internal streets of Sheikh Sarai Phase I



Open Space

Sheikh Sarai Phase I housing scheme was designed with ample amount of small and large-sized housing parks within it. An adjacent large neighbourhood green park is located in close proximity.

Open areas dedicated to pedestrian circulation have been encroached upon. These are used for parking.

The Nullah abutting the housing provides for large amounts of open space.

Civic Amenities

The Sheikh Sarai I area includes a community centre that accommodates neighbourhood shops. Offices are located above shopping areas.

Lack of maintenance has had a negative impact in the area's character.

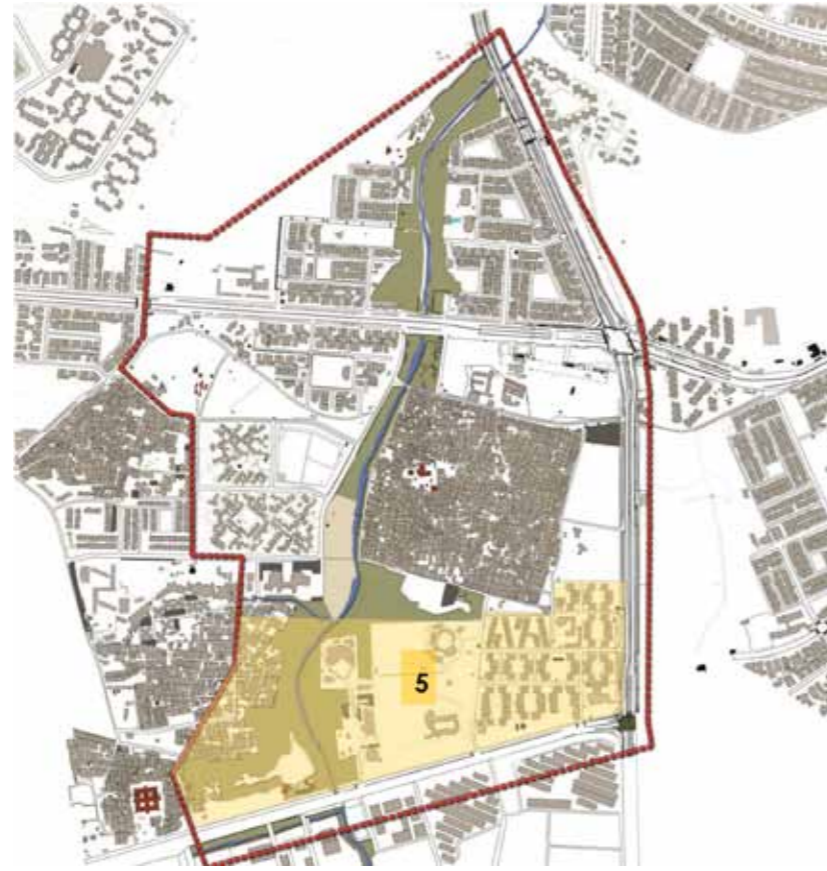
The area accommodates a number of primary and secondary schools. Traffic movement and congestion problems in the area remains unresolved. Parking encroached by commercial vehicles, taxis and buses have reduced parking for users and visitors.

4.5 Shiekh Sarai Phase II

Sheikh Sarai Phase II area includes housing, institutions and a commercial zone. The area includes colleges and speciality hospitals.

Housing within the area is organized as 4 floor high clusters.

The PSRI and Venu Eye Institute hospitals are located in distinct campuses. The campus accommodates 4-storey-high buildings.



Encroachments and modifications to housing clusters have resulted in density increase within the area.

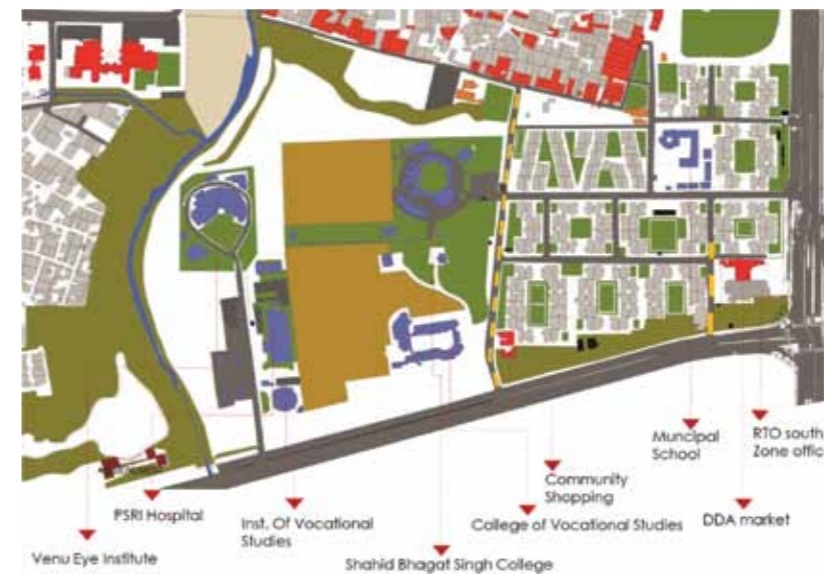


Building Heights

Open Space Structure



Section through Nullah at PSRI Institute



Land Use Plan



Shahid Bhagat Singh College

Community Shopping

DDA Market

Open Space

Colleges in the area have large green areas and open spaces. The college campus includes playgrounds, lawns and parking areas.

The Venu Eye and PSRI Institute are integrated with open green spaces around the buildings.

The Nullah that abuts institutional areas was in the past connected to Satpula Lake. The lake at present forms a part of the scrub area.

The Satpula monument and lake area define parameters for area redevelopment.

The buffer space between the Sheikh Sarai housing and the Press Enclave Marg forms a scrub area. This is underutilized.

Inner streets that abut a community centre have been commercialized. They accommodate commercial shops and offices.

Changes in land use have resulted in surface parking shortages and road congestion.

Civic Amenities

Sheikh Sarai Phase II housing scheme was planned with a variety of small and large-sized housing parks within it.

The housing area includes two DDA developed community centres. These service daily needs of the neighbourhood.

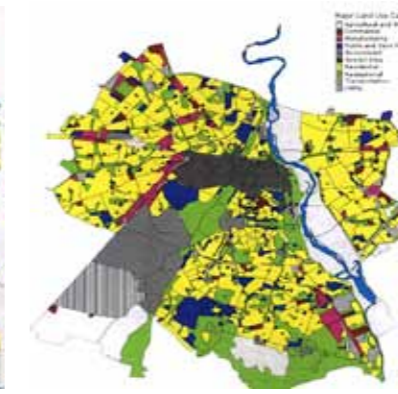
A secondary school is located within the neighbourhood.

Institutional areas in the precinct service city needs. The shared access with the neighbourhood results in traffic congestion.

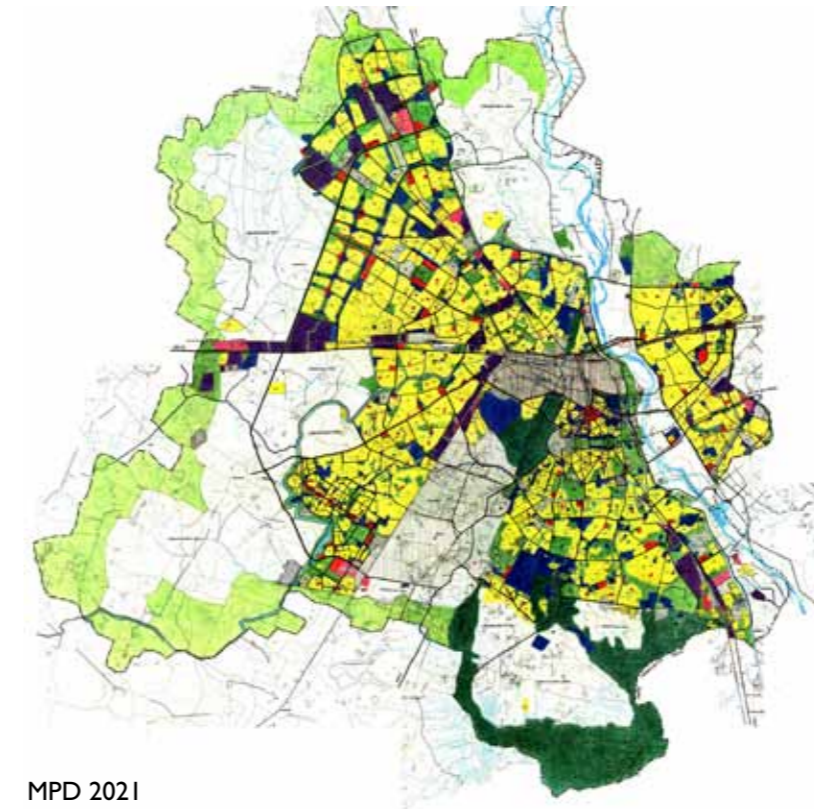
	CHIRAG DELHI	PANCHSHEEL ENCLAVE	SOAMI NAGAR	SHEIKH SARAI PHASE 1	SHEIKH SARAI PHASE 2
BUILT - OPEN					
STREET NETWORK					
Number of units per / 100sq.m	86 units	27 units	24 units	30 units	16 units
Average Plot Size	55 -110 sq.m	170 sq.m	250-330 sq.m	85-90 sq.m	170-185 sq.m
Land Value	28 L for 65 sq.m	3.6 Cr for 170 sq.m @ Rs 2,00,000/sq.m	7.25 Cr for 250 sq.m @ Rs 2,68,520/sq.m	2.9 Cr for 130 sq.m @ Rs 2,07,150/sq.m	2.6 cr for 170 sq.m @ 1,62,500/sq.m
Typology					



MPD 1962



MPD 2001



MPD 2021



Zonal Development Plan for Zone F

Environment – Water

- Existing drainage basins made self-sustainable. Integrating water-sewerage-drainage systems.
- Upgrading existing infrastructure involves promotion of water conservation through an integrated and a community driven model.
- Development of parks and green corridors along the Nullah to incorporate conservation of ground water and water bodies.
- Recharge the ground water, conservation of water bodies and rainwater harvesting is mandatory.

Transport – Metro

Influence Zone along MRTS and major transport corridor: Maximum up to 500 m wide belt on both sides of central line of the MRTS / Major Transport Corridor (to be identified in consultation with GNCTD).

Cycle Tracks

Segregated cycle tracks proposed on feeder roads connecting Metro stations restricted to where 'Park and Ride' facilities are available.

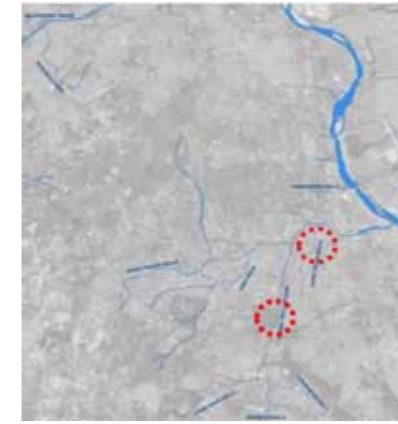
Conservation of Built Heritage

Specific heritage complex within Chirag Delhi are identified in the Master Plan of Delhi 2021 for which Special Development Plans are to be prepared.



Community Facilities for a population of a Neighbourhood of 10,000 persons							
		As per MPD 2021	Panchshee I Enclave	Soami Nagar	Sheikh Sarai Phase 1	Sheikh Sarai phase 2	Chirag Delhi
Milk Booth		-	1	1	1	1	-
Community hall	Community hall	1			-	-	1
	Club		1				
	Satsang Hall			1			
Religious Building		2	1		1	-	3
Housing Play area		1 Ha	-	-	--	-	-
Neighbour Hood Park		1 Ha	1.766 Ha	2.28 Ha	1.736 Ha	2.14 Ha	3.82 Ha
Anganwari		2	-	-	-	-	-
Dhalao		1	2	2	1	1	2
Under Ground Water Tank		1	1	1	1	1	-

7.1 Proposals for the Nullah



Key Plan showing the proposed site locations



The Barapulla drain as it looks now (above) and artist's impression of how it will look after the project gets implemented (Courtesy UTTIPEC)



PWD

- During the CWG, PWD had proposed to cover these Nullahs with concrete cover.
- Covering up the drain, has caused building up of methane and hydrogen sulphide gases under the covered drain.

UTTIPEC

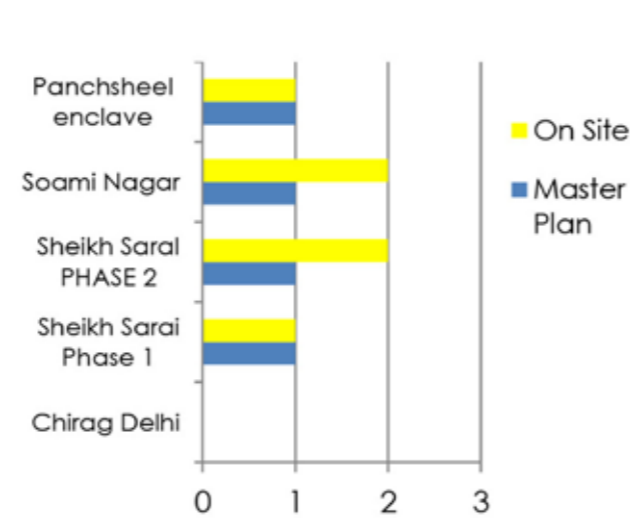
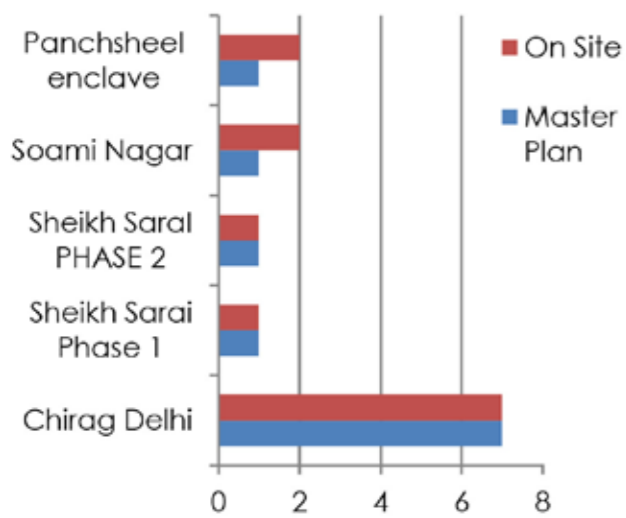
- UTTIPEC has proposed Delhi Nullah Greenway project. A detailed plan to clean the open stormwater drain and revitalize the land. The greenway project did not materialize.
- The Nullahs to be utilized to create non-vehicular accessibility to the city's heritage and mobility to workplaces.
- Aspects of eco-mobility, walk to work, bicycle on hire, park and ride were incorporated.
- The drain serves multiple functions such as walkways for increased mobility, a green channel and bio-remedial measures to keep it clean.

OASIS – Greenway Project

The Oasis Design group proposed a 30km-long safe, vehicular-free pedestrian and cycling trails system, along the 12.5 km stormwater drain flowing from Saket to Nizamuddin.

The proposal aimed at:

- Planning to promote walking, running and cycling along the Nullah. Included segregation from vehicular traffic.
- Proposed connectivity to public transport systems – all Metro stations and BRT.
- Included proposals to clean the dirty non-monsoon flow in the drain with a decentralized biological waste-water treatment.
- Proposed a comprehensive stormwater management plan and decentralized rainwater harvesting structures and infiltration topography solutions.



Educational Institutions

Shopping

Note: Chirag Delhi is largely mixed use hence has not been considered in the comparisons for commercial activity as it comes under mixed use category of residential development

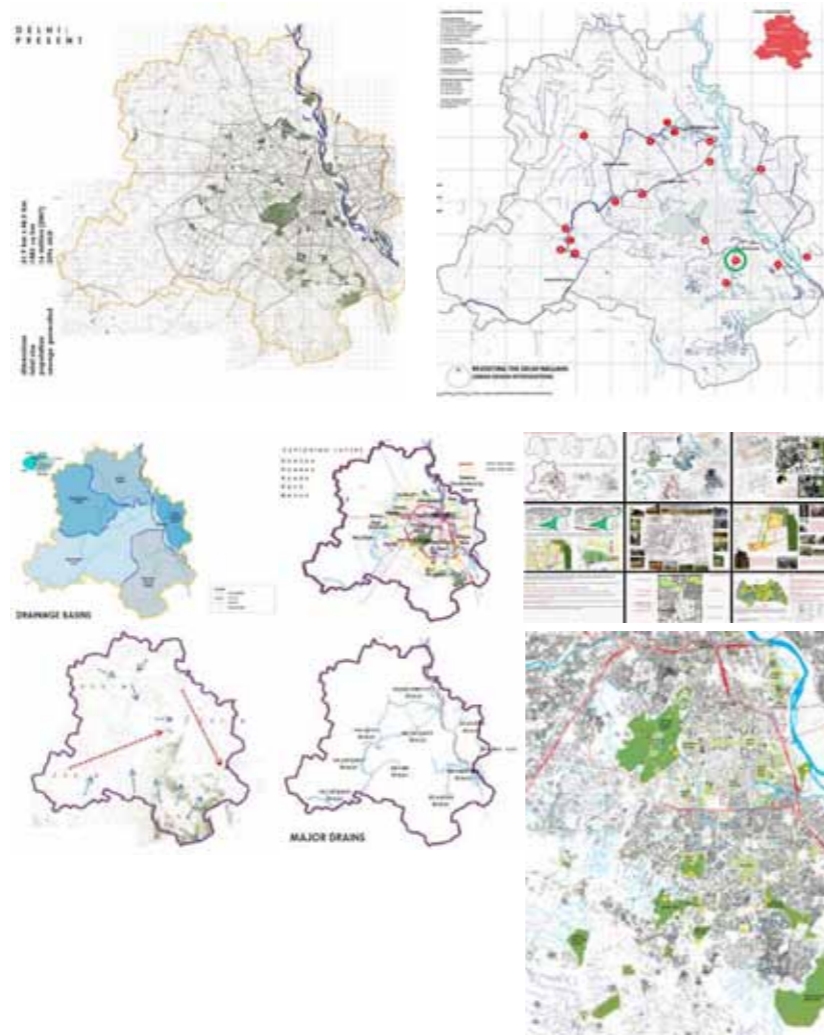
MCD

- The MCD, sponsored by the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), proposed parking-cum-road covering 5.6 km of the Nullah starting from Pushp Vihar passing through Sheikh Sarai, Chirag Delhi, Panchsheel Enclave, Greater Kailash-I and Andrews Ganj. The project cost is estimated at Rs 233 crore.



Academic Studies – Studio Project, School of Planning and Architecture, New Delhi

- Conducted a study focused on mapping the Yamuna basin and sources of the river. The study provided an understanding of the Nullahs that constitute various basins.
- The studio proposed intervention by uncovering the Nullah and reclaiming the land. It proposed cleaning up the Nullah for recreational purposes. The proposal included developing a programme for reclaiming grey water.
- The schemes provided for a green buffer along the Nullah serving as a recreational and cultural place. It connected to monuments within this network.



- Create city-wide linkages and introduce connectivity at the city scale through improvements in system continuities, addition of segments and improvements in: Nullahs, Greenways, Roadways
- Anchoring development parcels in neighbourhood to support needs, efficiency in land utilization and spatial continuities.
- Providing a new face to the precinct by creating edge definition and linkages in the open space systems.
- Making provision for civic amenities within the precinct.
- Distributing Development Rights (FAR) beyond individual sites to the entire precinct.
- Increasing density & connectivity of road networks and providing for alternate movement links.
- Upgradation of infrastructure



9.1 Policy Recommendations for Area Improvements

Our proposal for improvements in Chirag Delhi and its precincts include:

Nullahs & Open Space Structure

- The topography and water-bodies of Delhi have defined the city structure. Water collected in the city and its surrounding landscape was drained through a reticulate network into Nullahs that connected to the river. In addition depressions in land contributed to ponds and lakes. The ecosystem of the city requires restoration. Nullahs are to be left open and developed to accommodate water. The adjoining edges are to accommodate non-vehicular movement corridors and leisure activities.
- Open spaces: forests, gardens should be used as a part of a larger connected city network that facilitates an alternative movement corridor through the entire precinct/ neighbourhoods. The Nullah basins connected to this corridor provides for an opportunity to turn these underutilized areas into active use.

Transport and Mobility

- Improvements in transport and mobility, connectivity is provided to improve easy access within the precinct and other parts of the city. Additional segments proposed facilitate improved connectivity. New ring networks skirting around the major saturated nodes are proposed to improve access and reduce congestion.
- Twin parkway lanes accommodating flexible selective vehicular modes are provided on the eastern edge of the Nullah. A pedestrian / non- motorized vehicular track is provided for in the western edge. These interventions impose a new movement corridor providing avenues to reduce congestion and provide for safety improvements.

Built Environment

- The existing proposal transforms the existing built environment and provides a new face at its edge and improves legibility.
- New development sites include Metro plots as an opportunity to create centres of mixed-use development.
- Plots in the vicinity of the Metro station, owing to their proximity to transit facility provide for transition zones connecting the city-wide facility to neighbourhoods.
- The precinct vision includes walkable, better accessible and with improved connectivity new developments that provide a new face and augment amenities.

9.2 Proposed Master Plan

Strategies

Connectivity

- Creating city-wide linkages
- Improved connectivity at regional scale, includes augmentation and improvements along:
 - Nullahs
 - Greenways
 - Roads
- Anchoring development parcels in neighbourhoods
- Reinforcing connections - Connecting existing neighbourhood parcels through MV /NMV lanes

Creation of Public Realm

- An active greenway proposed along the Nullah, includes a continuous pedestrian link for the precinct
- Precinct edges & open spaces upgraded by creating a new face and a continuous realm
- Creating civic amenities along the edge of the precinct

Infrastructure

- Distributing the increased FAR beyond the site to the entire precinct
- Increasing density & connectivity of roads, reducing traffic volumes
- Internal upgradation of infrastructure
- Adding a new area segment at southern end of Chirag Delhi, creating a connector to Press Enclave Marg and ring connection with adjacent precincts.

Provision of Amenities

- Parking garage under Metro stations/ commercial bridges and park east of Chirag Delhi.
- Socio-cultural amenities along Nullah.
- Socio-cultural amenities within village squares.

Project 1

- Development of a continuous road along the Nullah connecting the entire precinct
- Developing an active greenway oriented towards the Nullah
- Water treatment/ STP's along the Nullah

Project 2

Metro development: Station I- Proposed commercial and social facilities for the village

Project 3

Metro development: Station II- Mixed-use multi-purpose social and cultural centre

Project 4

Proposed commercial development plots within a new mixed use precinct

Precinct Level Connectivity

Adding a new road segment at the southern end of Chirag Delhi, creating a connector to Press Enclave and ring connector with adjacent precincts.

Project 5

Proposed pavilions along the edge- commercial, social facilities

Project 6

Proposed commercial/ social amenities

Project 7

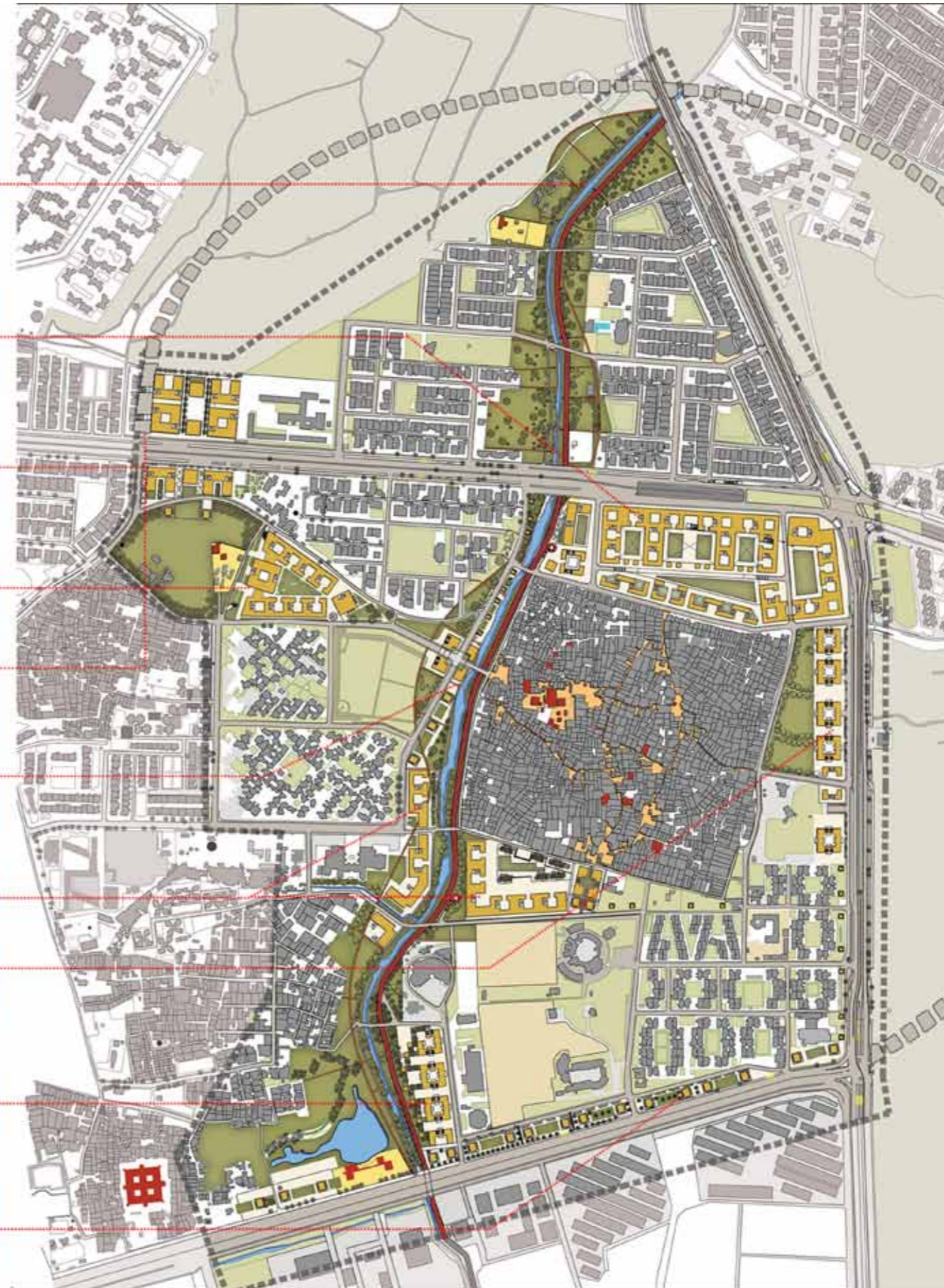
Proposed mixed-use development plot- commercial/ residential

Project 8

Proposed office complex and cultural centre

Project 9

Edge development: pavilions along the periphery- commercial, social facilities



Heritage

- A network trail is proposed that will link monuments in the precinct to other areas.

Improving Environmental Qualities of the Site

- Includes incorporating water-harvesting, recharging sub-soil water, providing STP's and natural water systems.

New Development

- A proposal of 4,31,122 sq.m of development area is proposed within the precinct.
- The new development is envisaged to cover the social - cultural amenities. It will provide a new face to the area.

Comparative area statement

	Existing	Proposed
Built-up area (sq m)	1315026	1746147.5
Ground Coverage	18%	22.7%
FAR	0.7	0.94
Road length (m)	-	2997.6 m
Pedestrian path way length (m)	-	3566 m

Project 1
A continuous cyclable and pedestrian green edge along the Nullah.

Project 2
Proposed Metro station mixed use development: socio- commercial uses, an introverted form, varying in form, larger development parcels towards ring road, reducing towards the urban village edge. No. of floors range - 8 - 6 - 4 - 2

Project 3
Metro development plot accommodates mixed-use multi-purpose social and cultural amenities. No. of floors- 5

Project 4
Commercial development plot, FAR - 2 accommodates underground parking facility to resolve the parking issues existing in the area. No. of floors- 5

Project 5
Proposed pavilion structures defining an edge, accommodate neighborhood commercial and social facilities. No. of floors- 2 and terraces

Project 6
Proposed commercial centre. No. of floors- 5

Project 7
Mixed use development is proposed along the edge to BRT, proposing commercial facilities on ground floor and residential facility on the higher floors. No. of floors- 5

Project 8
Proposed office and cultural centre No. of floors- 5

Project 9
Pavilions along the edge, accommodating commercial and social facilities





AFTER

- Metro Development – Multi purpose – Socio-Cultural Center**
- Commercial Development – Office complex**
- Commercial / Social Amenities**
- Social Amenities**
- Metro Commercial Social Amenities**
- Office Complex/ Cultural Center**
- Mixed Use Development – Commercial/Residential**



View 1 – Metro development plot and edge along park



View 4 – Mixed use edge development along eastern side of Chirag Delhi village



View 2- Proposed development creates an edge along the nullah



View 3 – Commercial development plot and creation of gate structures towards village

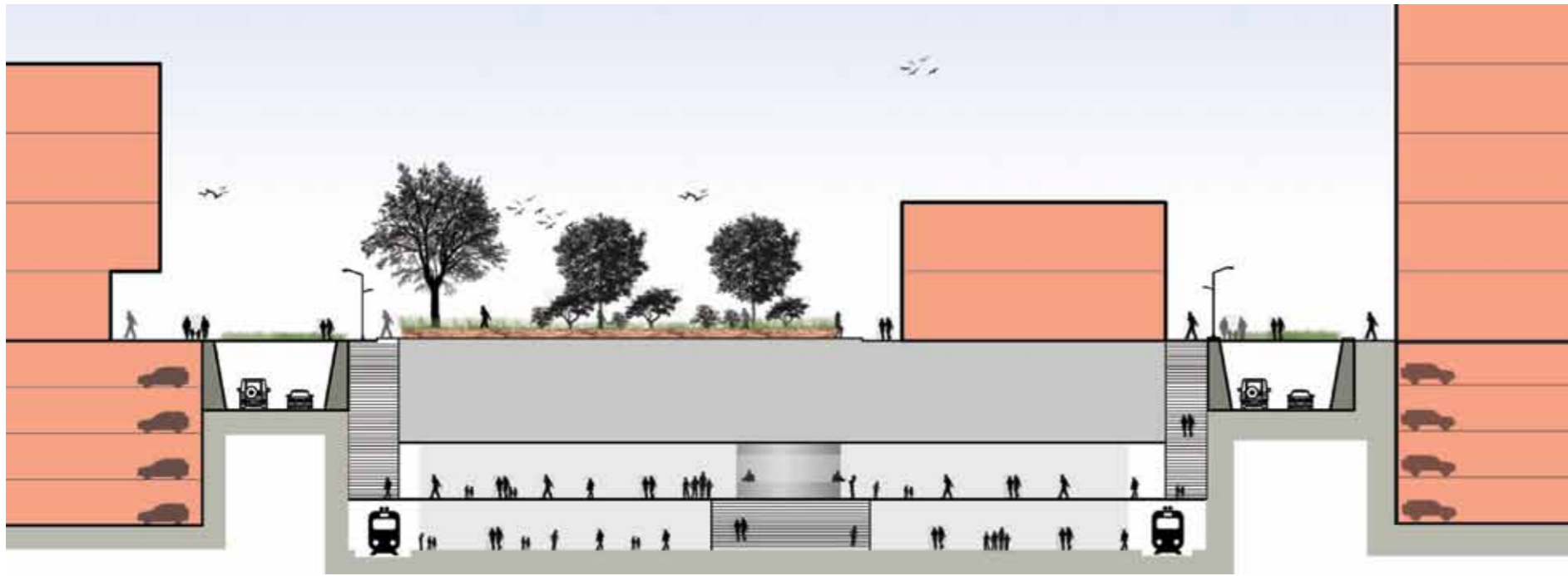


View 5 - Proposed section across the Nullah and node south of Soami Nagar

Site Sections



Sections AA'



Edge Detail 2 - Interstitial social spaces within the Metro plot



Edge Detail 1 - Interface between the village and the Metro Development - low-rise development to maintain scale of the village



Edge Detail 3 - Interface towards the Ring road - development on stilt - create flow of spaces



Site Sections



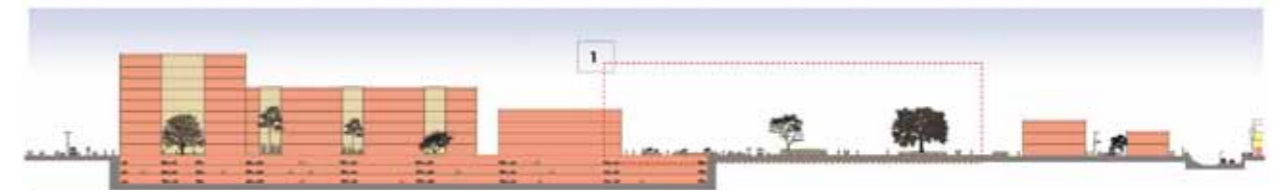
Sections BB'



Edge Detail 1



Edge Detail 2



Sections CC'



Edge Detail 1



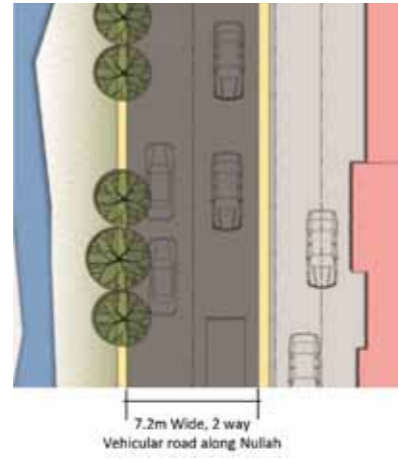
Edge Detail 2



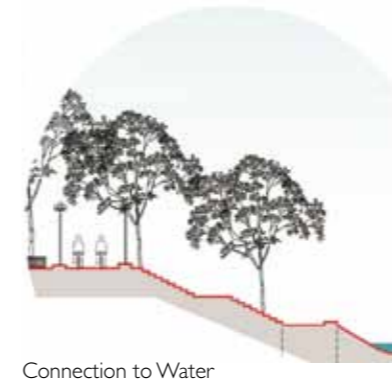
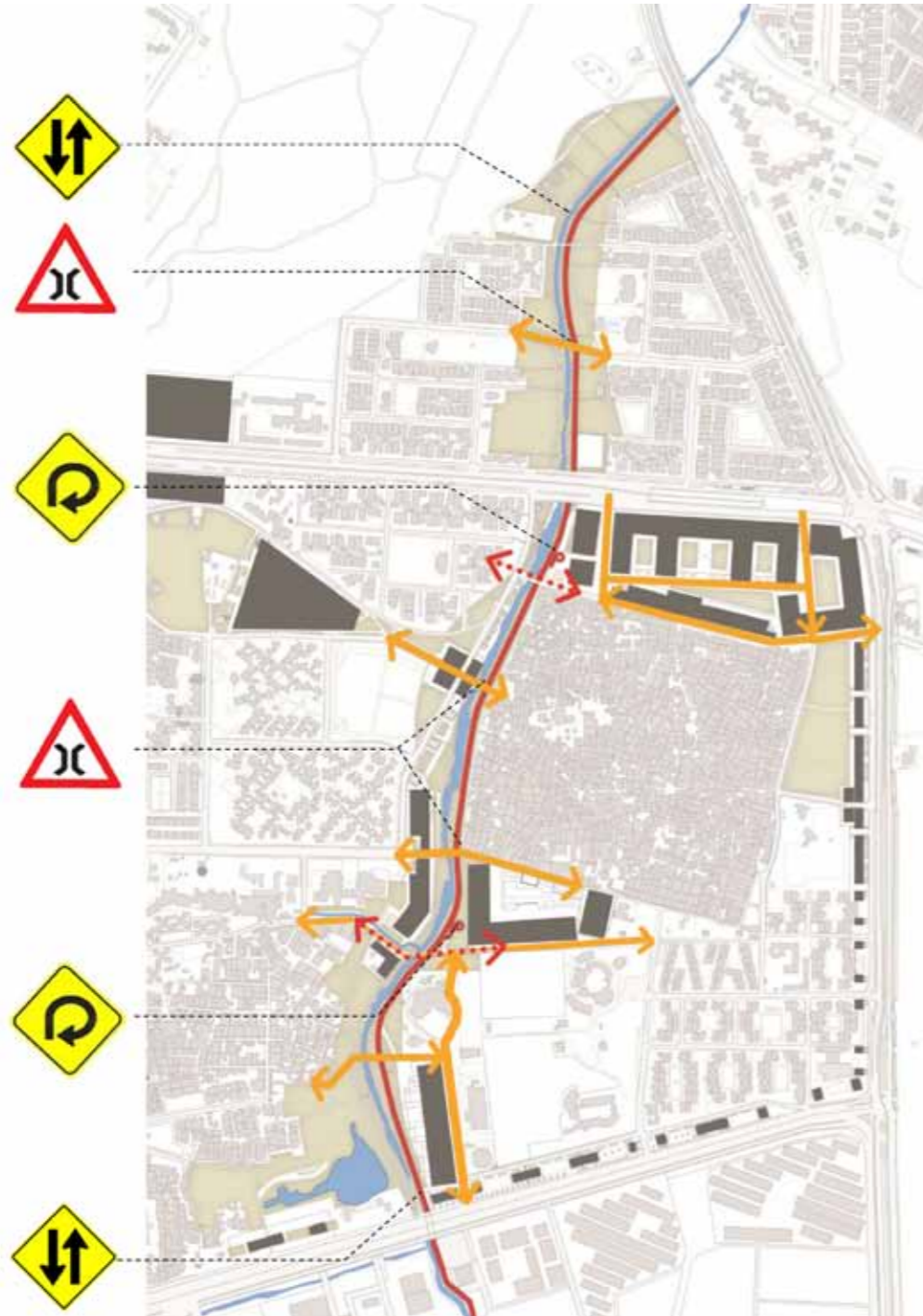
9.3 Improved Accessibility

Complete the missing linkages:

- Introduction of a road parallel to Nullah, integrating the neighbourhoods within the precinct.
- Introduction of new connecting roads across the Nullah, connecting the entire precinct.
- Relieving the existing traffic congestion at Chirag Delhi village, the Metro station development by creation of a loop road system.

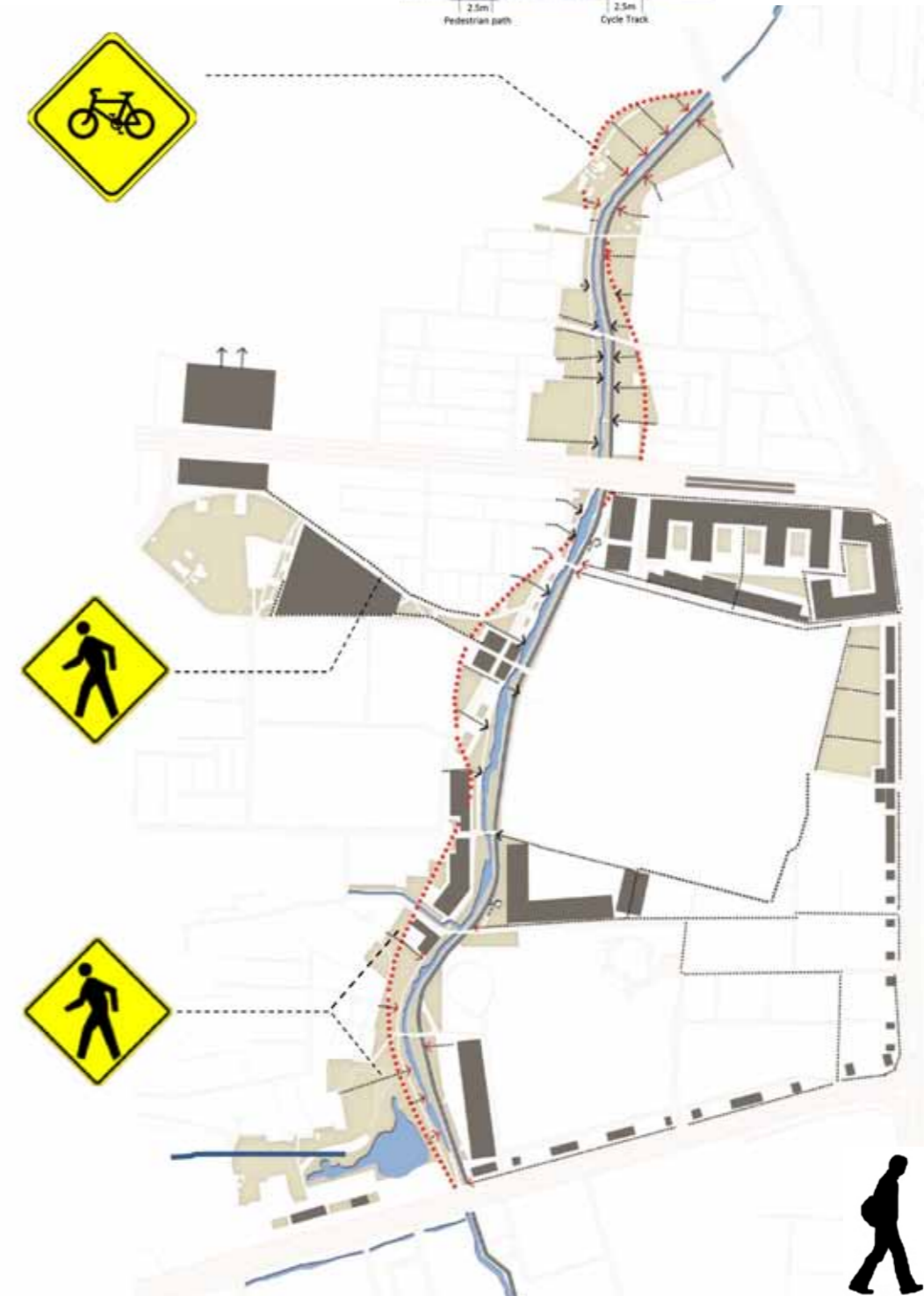


A road running parallel to the Nullah all along the precinct provides connectivity at a level below without interfering with the existing vehicular pattern.



Pedestrian connectivity within the precinct

- Improving connectivity at regional scale along Nullahs, parkways, roads, gardens and greens.
- Providing for cycle and pedestrian tracks along the entire precinct.



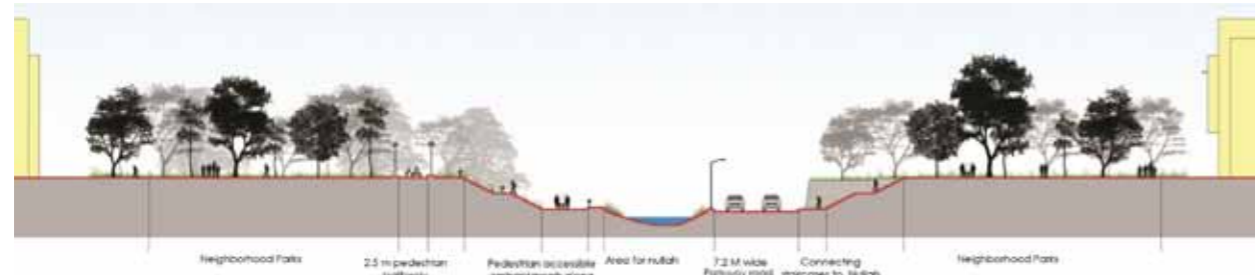
Non Motorized modes of transport, connecting the entire precinct



Reconfiguration of movement networks along the nullah in Panchsheel Enclave



Suggested plantations for water purification on the Nullah



Proposed section along Nullah – creating an active edge towards water



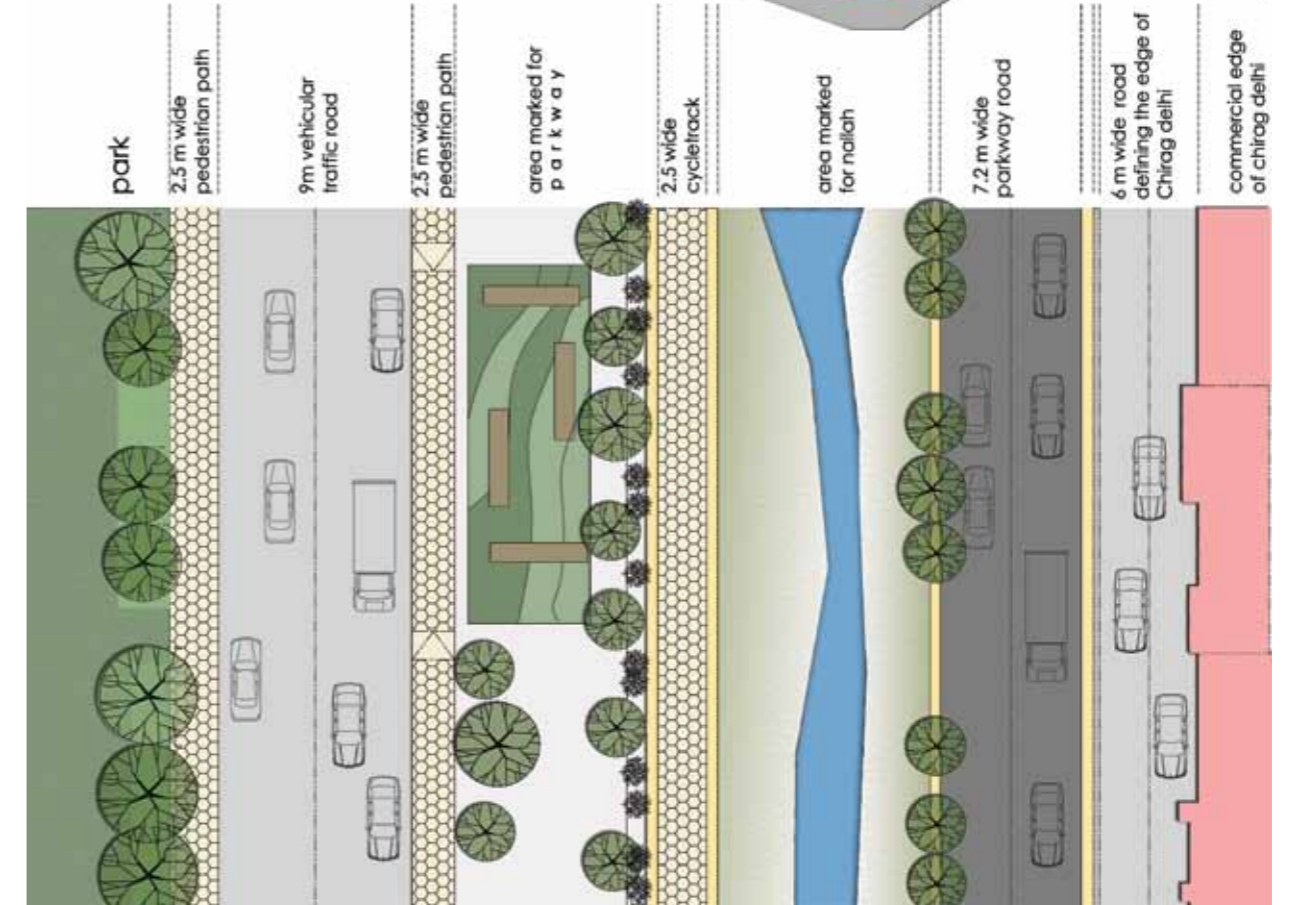
Proposed section showing edge between development and water

Reconfiguration of movement networks along the nullah



Existing Condition

Creating a public realm along the Nullah accommodating leisure uses and precinct connectors. The Nullah is to be restored as multipurpose resource from a garbage dumping ground.



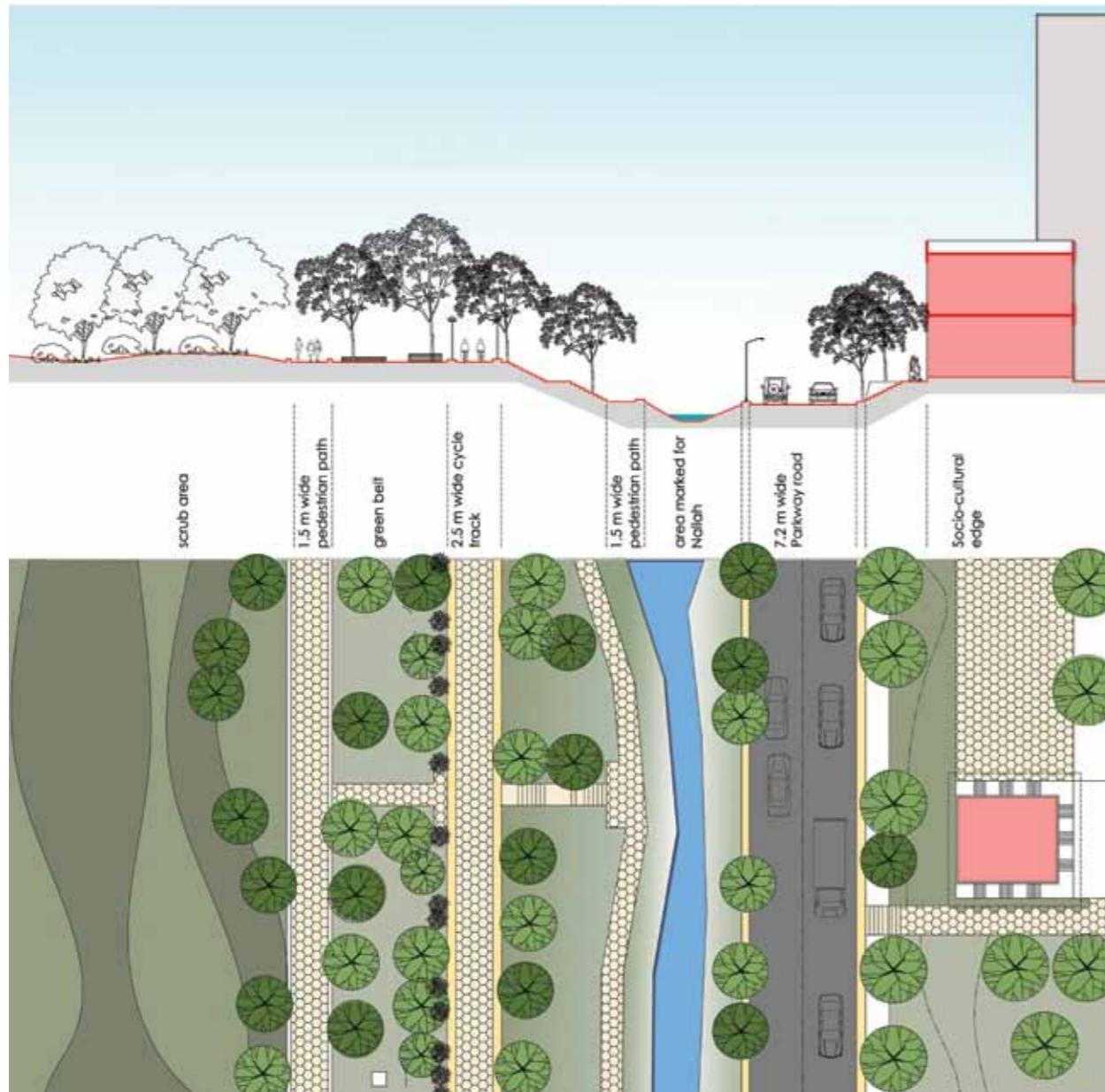
Section showing proposed edge – Chirag Delhi Village and Shiekh Sarai Phase I

Reconfiguration of movement networks along the nullah

The Nullah is made more accessible by lining socio-cultural places of interest along the entire waterscape and creating continuity by providing for pedestrian and cycle tracks.



Existing Condition



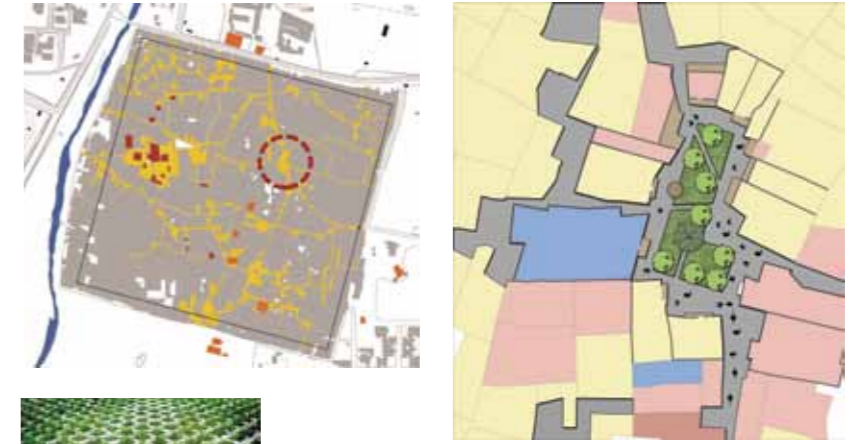
Section showing proposed edge

Revival of Chowks – Chirag Delhi

Bohran Chowk

A strategy for the upgradation of Chowks, includes rain and stormwater harvesting and introduction of recharge zones through the use of grass pavers. The proposal links this entire system to existing wells for water collection.

Other improvement strategies include provision of social and cultural amenities, creation of signage legibility and decongestion. Restoration of the surface includes moving parking to garages at the periphery and creation of green areas.



Recharge zones with grass paver blocks to increase percolation of water into the soil for water recharge and reuse of the wells



The Chowk is incorporated with green spaces to avoid incessant parking and revive social function within a neighbourhood



Introduction of stormwater drains with grate covers to collect rainwater and direct it towards the well

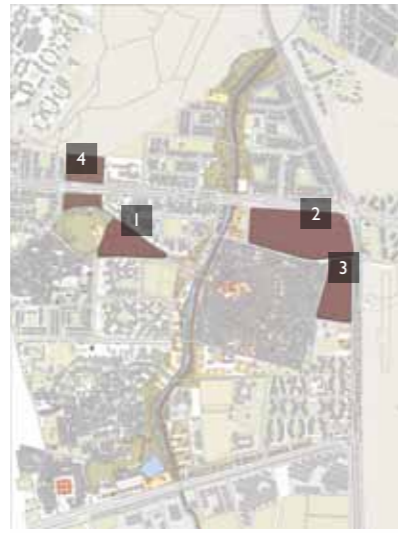
Parking

The urban village, proposed Metro development and BRT corridor envisage an increase in motorized vehicular traffic.

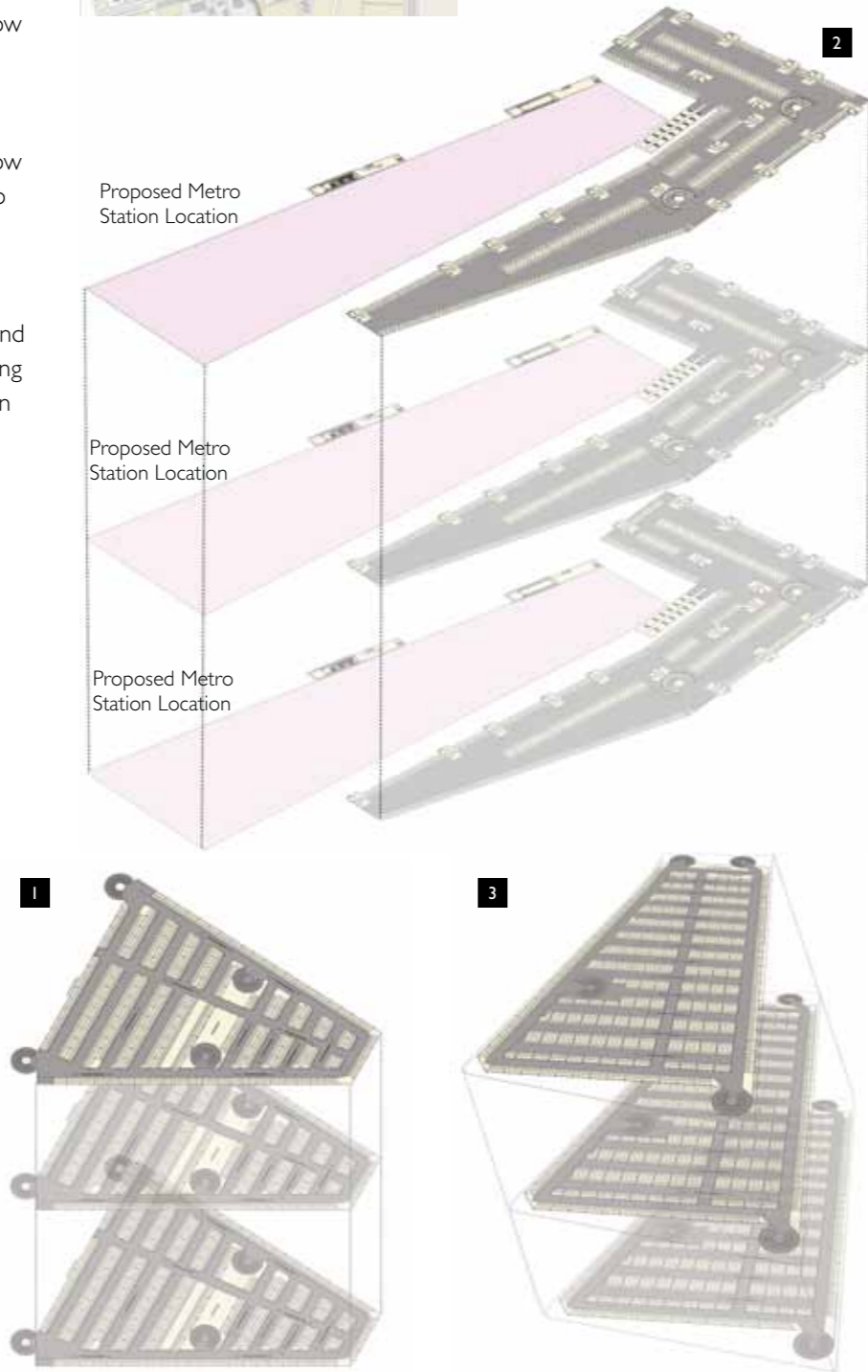
In the existing scenario incessant parking happens on the road and parking sites and overflows on to the streets leading to congestion and reducing the effective right of way (ROW).

The proposed parking areas include:

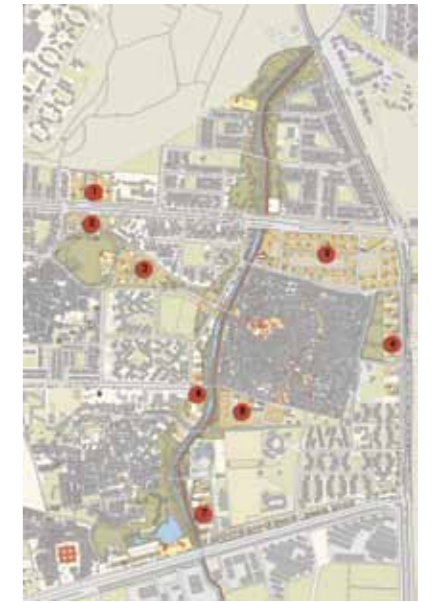
- 1 Provision for 1,830 cars – 3-floor parking structure below commercial /socio-cultural development sites
- 2 3-floor parking structure below proposed Chirag Delhi Metro commercial development
- 3 2,500 cars – 3 floor parking structure below green park and commercial development along the edge of BRT for the urban village
- 4 1,200 cars – 2 floor parking structure below proposed Panchsheel Enclave Metro commercial development



Proposed parking sites in the Precinct



Area Statement



Key Plan



9.4 Heritage Proposal



1. Lal Gumbad, Madarsa Zeenatul



2. Tomb of Chirag Delhi



3. Tomb of Shaikh Salahuddin



4. Satpula

The heritage proposal includes creating a route connecting various heritage sites along a continuous network.

The heritage route connects to public transport nodes. Metro and bus access points are within 500 m radius of developments and heritage structures.

- Legend
- Bus Stops
 - Metro Entry
 - Heritage Route
 - 500 m walking Distance

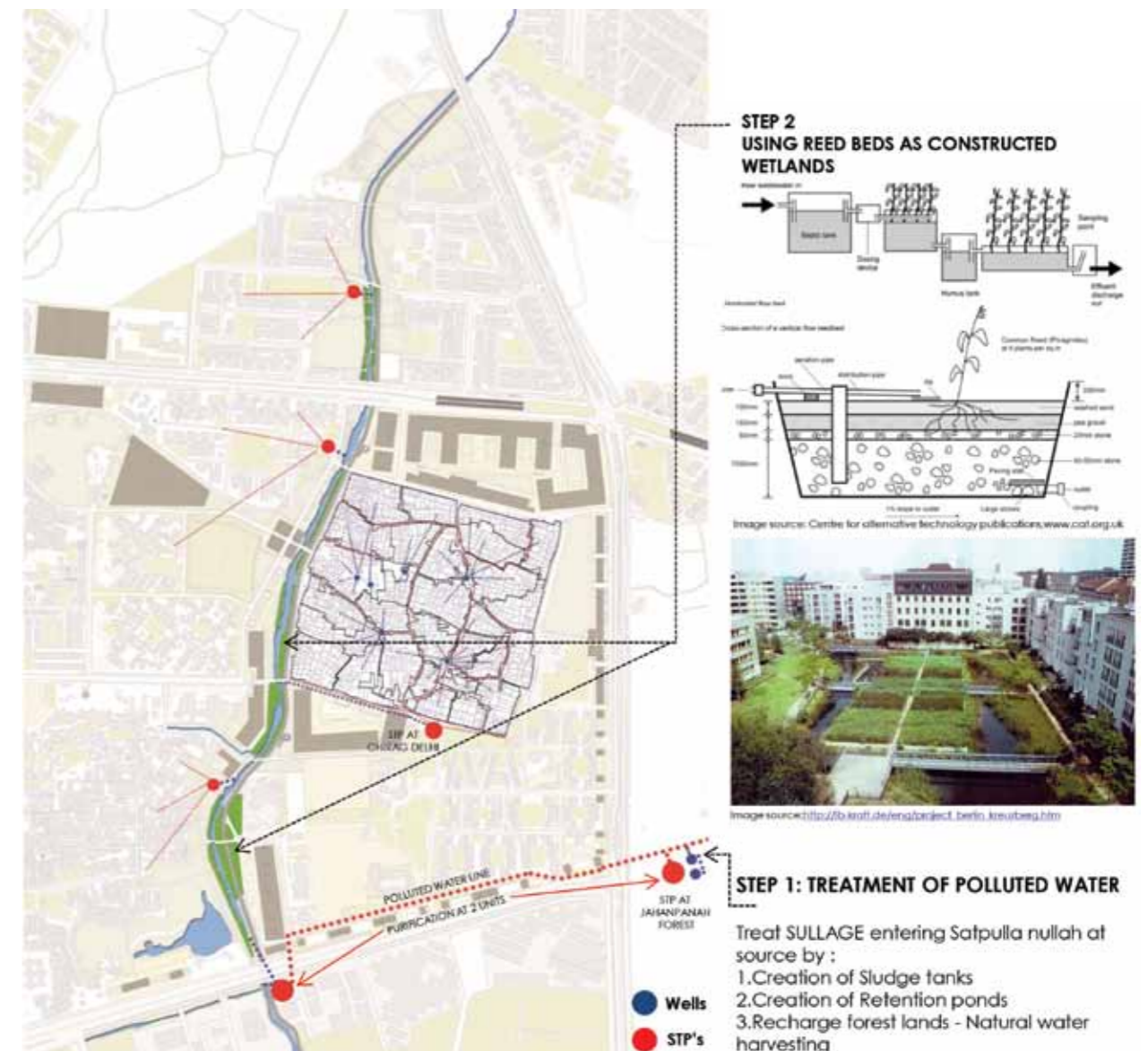


9.5 Water Management Strategy

The Water Management Strategy provides for cleaning up the Nullah. Renewing the Nullah to its natural state will enable leisure uses, trails, cycle and pedestrian networks to be accommodated.

- Cleaning up the Nullah includes:**
- Provisions for a decentralized STP's at pressure points
 - Creation of sludge tanks, retention ponds and allowing water harvesting through recharge of forest lands.

- Water treatment includes:**
- Using reed beds and constructed wetlands to treat sewage and providing for:
Root Zone treatment – The treatment requires planting 3-5 Phragmites plant saplings per square metre. At full growth, the plants 3-4 m tall with a density of 100-150 reeds per square metre will add to the green cover.



Rainwater harvesting and reticulate network recharging ground water is proposed to offset water demands in the area. The calculations for rain water harvesting for the urban village is calculated below:

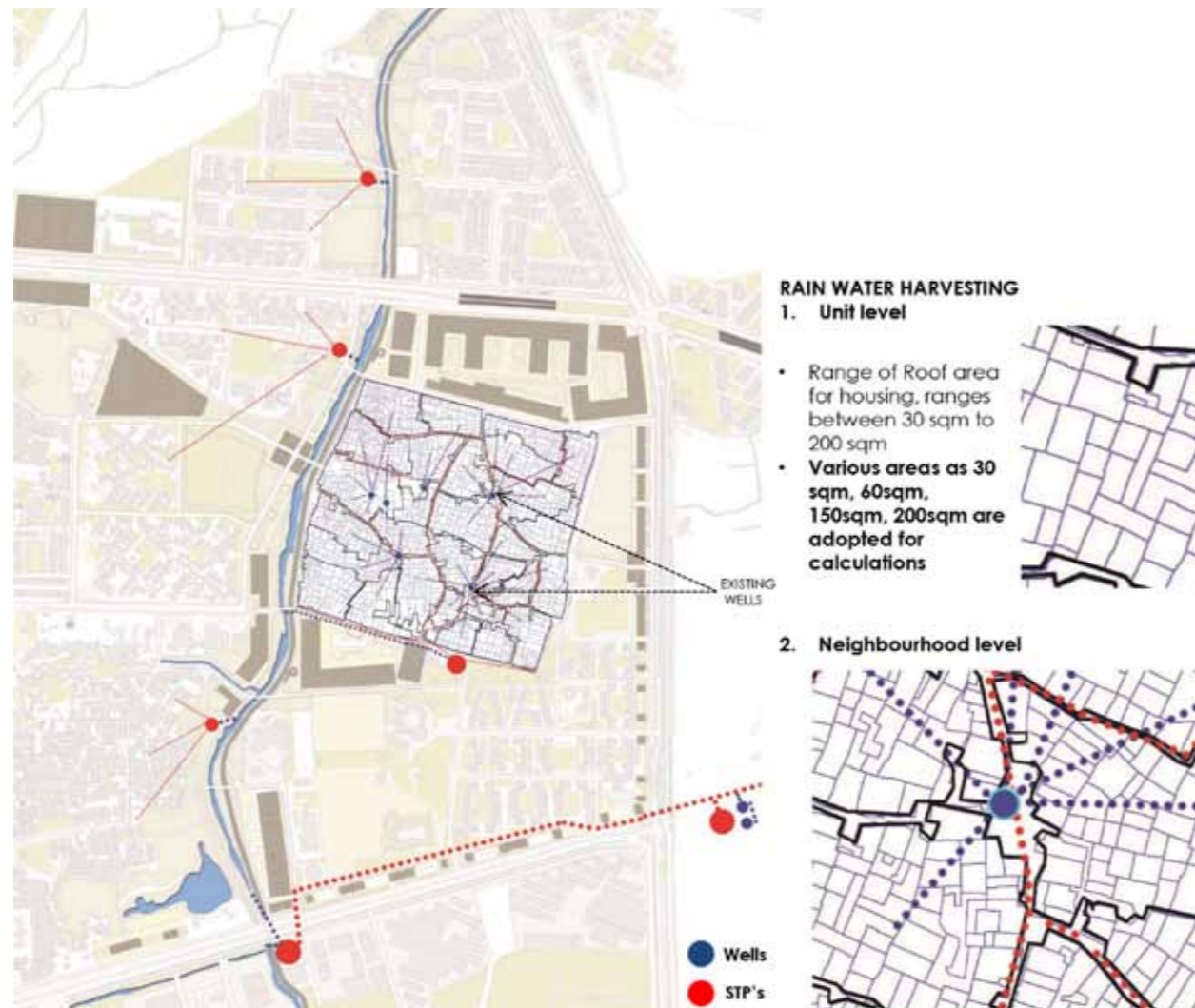
RWH potential for the Urban village

Potential = Rainfall x Coefficient x catchment area
 Coefficient = Cement roof(0.7);galvanized iron(0.8)
 Delhi's average rainfall = 712 mm

Water usage per day = 80 lpcd
 Average family size = 5
 Water consumption per family = 5 x 80lpcd = 400 litres
 Annual water demand per family(365 days) = 146000 litres

RAINWATER HARVESTING POTENTIAL	Average roof surface area(sq.m)			
	30	60	150	200
Catchment area /Roof area (sq.m)				
Rain water harvesting potential (litres) = Rainfall x Coefficient x catchment area	14952	29904	74760	99680

Water, i.e generated through the run-off is proposed to be connected to the existing wells in the Chirag Delhi village for storing water. This stored water is further treated and supplied to meet water demands.



Goals

Create city-wide linkages and introduce connectivity at the city scale through improvements in system continuities, addition of segments and improvements in Nullahs, Greenways, Roadways

Increasing density & connectivity of road networks and providing for alternate movement links.

Strategies



New regional connections

- Adding a new area segment at southern end of Chirag Delhi, creating a connector to Press Enclave Marg and ring connection with adjacent precincts.

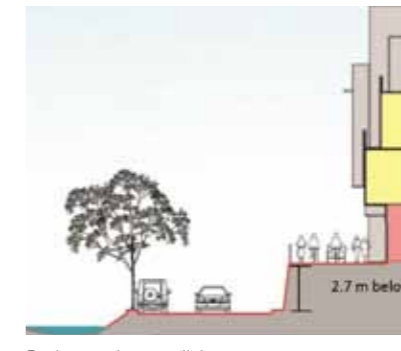
New precinct connections

Increasing density & connectivity of roads reducing traffic volumes



Reinforcing connections

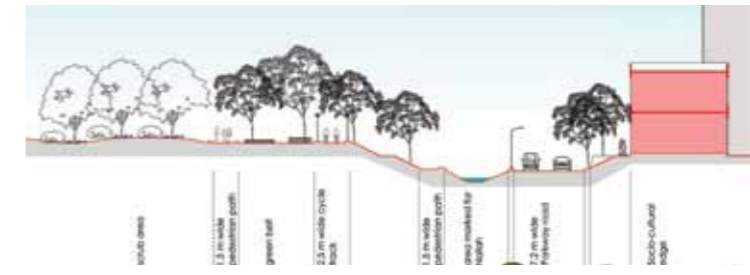
Connecting existing neighbourhood parcels through MV /NMV lanes



Parkway along nullah



Non-motorized modes of transport, connecting the entire precinct



Anchoring development parcels in neighbourhood to support needs, efficiency in land utilization and spatial continuities.

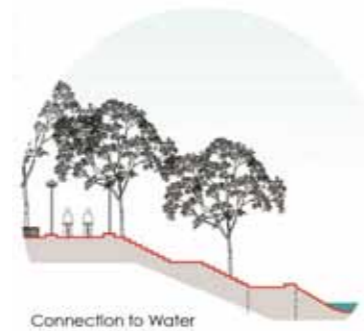
Providing a new face to the precinct by creating edge definition and linkages in the open space systems.

Making provision for civic amenities within the precinct.

Distributing Development Rights (FAR) beyond individual sites to the entire precinct.

Creation of public realm

- An active greenway proposed along the Nullah includes a continuous pedestrian link for the precinct
- Precinct edges & open spaces upgraded by creating a new face and a continuous realm
- Creating civic amenities along the edge of the precinct



Connection to Water



New Development

- A proposal of 4,31,122 sq.m of development area is proposed within the precinct.
- The new development is envisaged to cover the social-cultural amenities. It will provide a new face to the area.



Provision of Amenities

- Parking garage under Metro stations/ commercial bridges and park east of Chirag Delhi.
- Socio-cultural amenities along Nullah.
- Socio-cultural amenities within village squares.



Upgradation of infrastructure

Heritage

A network trail is proposed that will link monuments in the precinct to other areas.



Improving Environmental Qualities of the Site

Includes incorporating water-harvesting, recharging sub-soil water; providing STP's and natural water systems.

