



CITY LEVEL PROJECTS

DESIGN CONSIDERATIONS

for

Neighbourhood Open Spaces, Shanti Niketan





सत्यमेव जयते

Delhi Urban Art Commission

The Delhi Urban Art Commission was set up by an Act of Parliament in 1973 to "advise the Government of India in the matter of preserving, developing and maintaining the aesthetic quality of urban and environmental design within Delhi and to provide advice and guidance to any local body in respect of any project of building operations or engineering operations or any development proposal which affects or is likely to affect the skyline or the aesthetic quality of the surroundings or any public amenity provided therein".



सत्यमेव जयते

Delhi Urban Art Commission

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Organisations

Ministry of Urban Development

Delhi Development Authority

Government of National Capital Territory of Delhi

New Delhi Municipal Council

North Delhi Municipal Corporation

East Delhi Municipal Corporation

South Delhi Municipal Corporation



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Preface



The city of Delhi, capital of this vast land of diversities, is a city laden with layers of history, a place where civilizations have lived, prospered and perished over centuries. The modern city today, built over and around a rich tapestry of heritage, presents an opportunity at every turn, to allow for co-existence of the past, present and the future. In order to understand this multidimensional urban spectrum and attempt to plan the future, various city level studies have been initiated by the DUAC. I hope that these studies will help the planners of modern day Delhi to carefully articulate urban space, structure, form and environment and sensitively address future requirements.

I convey my thanks to all the Consultants and Members of the Commission who have tirelessly worked on this research project to bring out this document. I also take this opportunity to place on record my sincere appreciation of the efforts of Secretary and other staff of DUAC for providing the necessary administrative support to make this happen.

I fondly hope that the authorities of the local, state and national government take these studies seriously and implement, in right earnest, the suggestions given herein.

Sd/-

Prof. Dr. P.S.N.Rao
Chairman, DUAC

December, 2020

Foreword



Neighborhood Parks and open spaces infuse life into the monotony of built urban form. These were planned over five decades ago to ensure physical and mental well-being of residents. Today, the existing greens can also be overlaid with strategies for community spaces, effective circulation patterns, and efficient utilization of unused areas to impart an image and identity to these spaces, and give a sense of ownership and joy to the residents.

Shanti Niketan is a low density neighborhood, which was originally part of the Delhi ridge zone. There are many typologies of open spaces that currently exist, ranging from fragmented native forests, small planted dense forest, open parks, derelict spaces and service roads. Most of these are used in isolation and not as a network of sustainable green spaces.

On the request of the Residents Welfare Association, DUAC studied the neighborhood and has concluded various strategies and best practices that would serve as a reference tool to guide design, construction and maintenance professionals and field staff. This document addresses different attributes of sustainable design principles and defines the layout and characteristics of green spaces to make them safe, inclusive for social activities and recreation.

Sd/-
Prof. Samir Mathur
Member, DUAC

December, 2020

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Chapter 01

INTRODUCTION

1.0 Project Initiation

DUAC, being a visionary institution, holds a very strong belief that the Delhi city, as a whole, will be green and healthy once its neighbourhoods are green and healthy, implying that the sustainable neighbourhoods are the building blocks of a sustainable city.

And, when in the year 2019, the Resident Welfare Association of Shanti Niketan Society, with a vision of transforming their neighbourhood into a socially, environmentally and economically healthier one, approached the Commission of DUAC to seek for their guidance, DUAC considered it as an opportunity to showcase a vision for a sustainable neighbourhood.

In order to frame a holistic vision, active participation of RWA and its community was considered as a major tool, to help provide ideas, tools and technical capacity that neighbourhoods need to restore their vitality and move towards a better future.

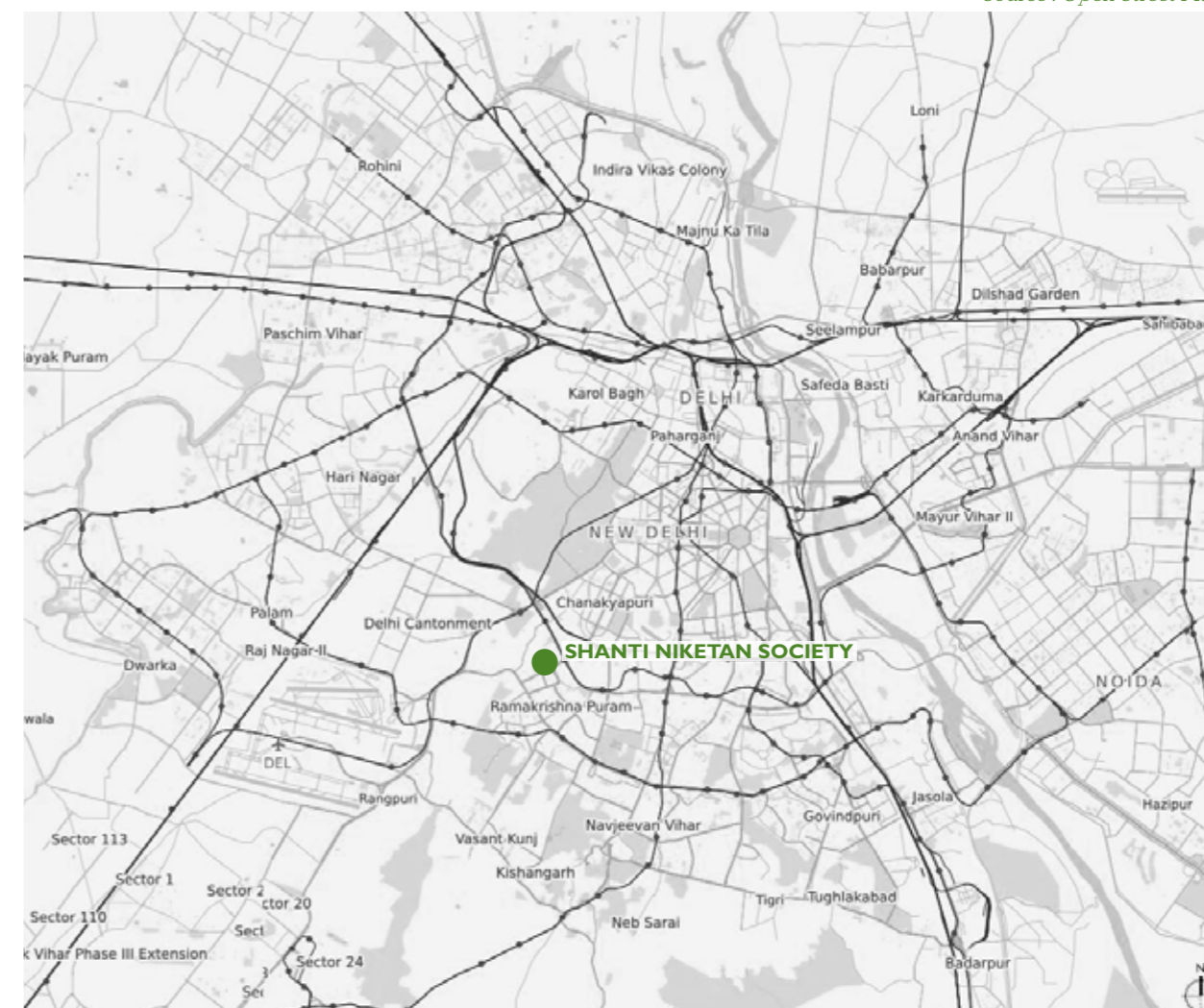
1.2 Introduction to Shanti Niketan Society

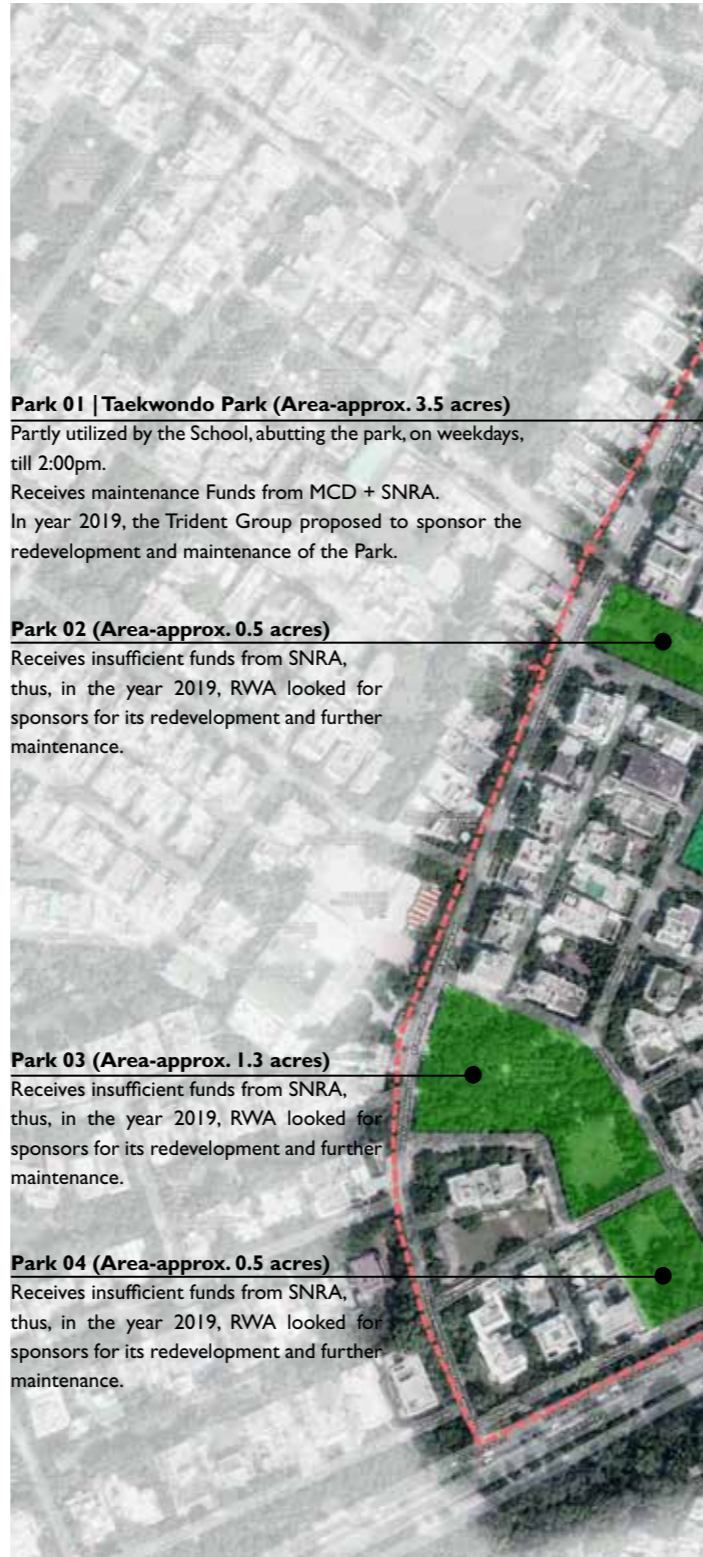
Shanti Niketan is an exclusive housing colony in the very heart of New Delhi. It is close to the West End Colony, Chanakyapuri and Vasant Vihar, and was developed by the Government of India in the 1960s as a housing colony for government officials. The colony houses very high profile executives and industrialists. Over time the area, the society has evolved as the most highly prized real estate in the capital.

The society is well-equipped with the required infrastructure and resources, but are not put to their efficient use, in the current scenario. Thus, the neighborhood is in need of comprehensive strategies that promote efficient use of resources, encourage energy efficiency, prioritize walking and cycling, help in preservation of natural and cultural heritage and connect the open spaces.

Map 1.1 | Key Map

Source : Open Street Map





Park 01 | Taekwondo Park (Area-approx. 3.5 acres)
Partly utilized by the School, abutting the park, on weekdays, till 2:00pm.
Receives maintenance Funds from MCD + SNRA.
In year 2019, the Trident Group proposed to sponsor the redevelopment and maintenance of the Park.

Park 02 (Area-approx. 0.5 acres)
Receives insufficient funds from SNRA, thus, in the year 2019, RWA looked for sponsors for its redevelopment and further maintenance.

Park 03 (Area-approx. 1.3 acres)
Receives insufficient funds from SNRA, thus, in the year 2019, RWA looked for sponsors for its redevelopment and further maintenance.

Park 04 (Area-approx. 0.5 acres)
Receives insufficient funds from SNRA, thus, in the year 2019, RWA looked for sponsors for its redevelopment and further maintenance.



Map 1.2 | Aerial View of Shanti Niketan Society



Sadhu Vaswani International School
Green Pockets (Area-approx. 0.1 acre)
Not maintained well, thus utilized as dump yards.

Park 08 (Area-approx. 0.5 acres)
Receives maintenance funds from SNRA.

Park 07 (Area-approx. 0.6 acre)
Receives maintenance funds from SNRA.

Park 06 (Area-approx. 0.4 acre)
Well maintained by the Apollo Group, installed with play equipments for toddlers.

Park 05 (Area-approx. 2.6 acres)
Receives insufficient funds from MCD, thus, in the year 2019, RWA looked for sponsors for its redevelopment and further maintenance.

Kalyan Kendra Office
Shanti Niketan Residents Association

Green Space | forest land-DDA
(Area-approx. 0.7 acres)

DDA Shopping Complex



1.3 Existing Evaluation

The layout of the society was studied and evaluated with the help of aerial map, field observations and interaction with the residents and security guards.

1 TAEKWONDO PARK

- A number of bushfire cases in the past have been faced, so a major chunk of trees and bushes were cut, in order to prevent fire in future.
- A portion of this park is mainly utilized by the school abutting the park property till 2:00pm, and afterwards its open for the society. Another portion is majorly utilized for physical activity/ sports classes for kids.
- This park gives an opportunity to develop the park with activities majorly for kids, so that the school can also be a part sponsor for same.

2 GREEN POCKETS

- Green Pockets not well maintained
- High fence/ boundary wall restricts the visual openness.
- These pockets have good potential of having chit-chat corners or toddler's play area.



Map 1.3 | Aerial View of Shanti Niketan Society.
Source : Google Earth

3 TRANSFORMERS

Transformer yard is not screened and placed abutting the park along the road.

4 DDA SHOPPING COMPLEX

Surface parking is haphazard.
Landscape furniture and Lighting – not adequately placed and utilized.
Hawkers occupy the street.
Shops frontage is blocked for many.
Has the opportunity to provide more open frontage to the DDA shopping complex by utilizing an extent of the opposite park, and develop it as a plaza.

5 DDA FOREST LAND

It is not maintained, though human accessibility is restricted in this patch,, it has great potential to contribute towards the biodiversity and can add value.

6 DHALAOS

Existing dhalaos need to be reviewed, whether to be relocated or just screened/ treated.

MASTER PLAN

- A green corridor/ walkway connecting all the public open spaces is to be developed, to encourage the society people to walk.
- Each street needs to be analyzed to check their feasibility to be a part of connected green walkway without hindering the individual houses access/ circulation.
- Cars are parked in haphazard manner along the streets. A organized/ dedicated space to be carved out for each street for a regulated on-street parking.
- Access points of all the individual parks need to be reviewed for better functioning and circulation as few access points are closed and few are inappropriate.
- All individual parks have overlapping activities, so there is gap of a broad range of activities, in spite of having a good area of open public spaces.
- A comprehensive activity program needs to be developed for the overall society (for different age-groups) and as per their feasibility and relationship, activities should be located.

1.4 Resident Welfare Association Meeting 01| Project Initiation

The agenda of this meeting was to know the vision of the residents for their own neighborhood, to understand their concerns and issues.

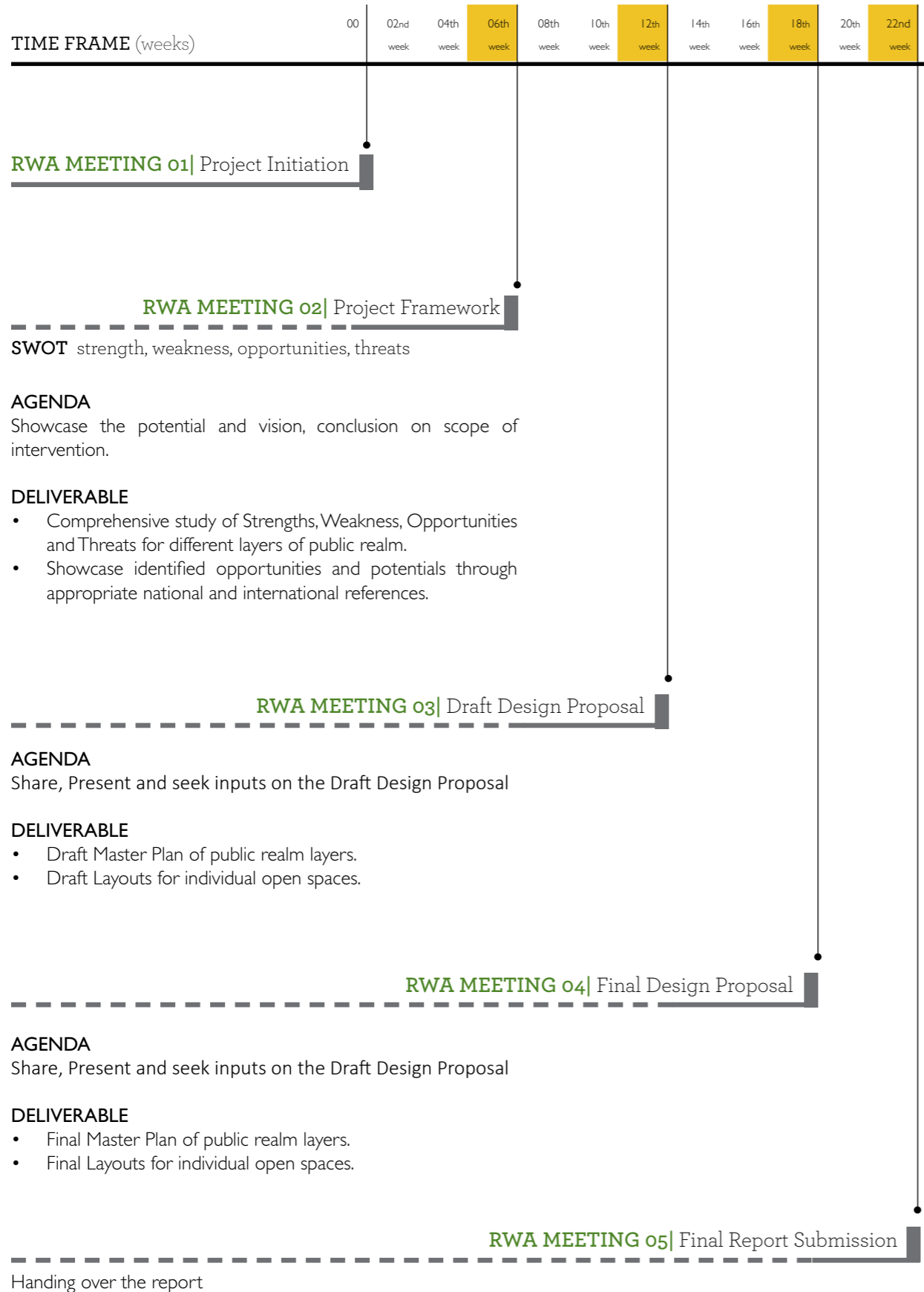
Dated : 02nd April, 2019.		
Venue : Kalyan Kendra Office, Shanti Niketan, Delhi		
Attendees		
01	Mr. Rikhy Jagdeep	President, RWA, Shanti Niketan
02	Ms.Sujata	Member, RWA, Shanti Niketan
03	Mr. Saket	Trident Group Representative
04	Ar. Nikita Paliwal	Landscape Architect, Consultant, DUAC
Points Discussed/ Suggested		Action by DUAC
CONCERNS OF RWA		
1	Proper circulation and utilization of the open space in front of the DDA Shopping Complex.	Noted
2	Treatment of the Urban Utility structures present along the streets.	
3	Horticulture Maintenance – in specific to Pruning, as there are existing trees which are dead and needs pruning as they can be dangerous, but they do not the required equipment and approval from the concerned authority.	
4	Currently, they buy water for irrigation from the municipality , at a price of 10k every month (but they could not tell what amount of water they receive for 10k), and according to them, that amount of water is not sufficient.	
5	They receive an amount of Rs. 64,320 quarterly, from SDMC, for the maintenance of all the parks within the society, which is not adequate. SNRA is looking for sponsors for the re-development and maintenance.	

Chapter 02

FRAMEWORK

2.1 Project Framework

A Project Framework, illustrated below, was prepared after the first meeting with RWA, to streamline the project workflow and its deliverable. The same was circulated among the residents to encourage their participation and engagement in all the forthcoming RWA meetings, which would help us to meet the needs of those who will use the spaces, and in turn, will provide the residents a sense of pride and ownership of the open spaces. This approach will further help to keep the open spaces alive for many years.



2.2 Potential Scope

The existing layout of the society, as studied and analyzed in the first chapter, offered a potential scope to transform the society into a more livable and sustainable neighborhood. To plan a comprehensive transformation, the identified issues in respect to public realm spaces, were addressed by formulating 5 strategies i.e. Revitalization Plan for Community Open Spaces, Green Infrastructure Strategies, Programming of Community Activities, Walkability & Circulation and Enhancement Plan for Community icons. Each strategy is further expanded into specific projects, which collectively contributes to the development of the neighborhood.

1

REVITALIZATION PLAN FOR COMMUNITY OPEN SPACES

- Vision for Taekwondo park
- Vision for DDA Shopping Complex (open spaces)
- Landscape vision for Kala Kendra (RWA) office.
- Green open space network including transformation of back alleys.

2

GREEN INFRASTRUCTURE STRATEGIES

- Storm water Management strategies through Green Infrastructure (bio-retention planters, swales, retention/detention ponds).
- Waste Management strategies (vermicomposting etc.)
- Renewable Energy initiative strategies (solar lights, solar panels)

3

PROGRAMMING OF COMMUNITY ACTIVITIES

- A broad range of activities which will attract people of all age group residents. For example – Urban Farming, Vermicomposting, Organic waste conversion, education through environmental activities, creative play areas, active lawn games, quiet rest areas, chit-chat corners, community gathering spaces.

4

WALKABILITY & CIRCULATION

- Pedestrian Network and routes
- Vehicular Circulation
- On-street parking strategy and guidelines.

5

ENHANCEMENT PLAN FOR COMMUNITY ICONS

- Main roundabouts.
- Heritage trees identification/ marking importance.
- Inclusion of Public art
- Community to contribute in the identification of additional community icons.

2.3.1 Revitalization Plan for Community Open Spaces

DESIRED POSITIVE OUTCOME

Revival of community open spaces will change the outlook of the community and will make open spaces utilized in a more effective manner.



Image 2.1 | Reference Image
Public Park, South End Historic District, San Francisco, United States



Image 2.2 | Reference Image
Public Park, South End Historic District, San Francisco, USA



Image 2.3 | Reference Image
Sandgrund Park, Karlstad, Sweden

1.4.2 Green Infrastructure Strategies

DESIRED POSITIVE OUTCOME

Functional Green Infrastructure initiatives, are required to create a sense of place, provide environmental protection for the community and enhance the quality of life.



Image 2.4 | Reference Image
NE Siskiyou Green Street, Portland, Oregon.



Image 2.5 | Reference Image
Bioswale in Bushwick, New York City



Image 2.6 | Reference Image
Walkway Solar Lighting in Cape Canaveral, Florida, USA

1.4.3 Programming of Community Activities

DESIRED POSITIVE OUTCOME

Public open spaces being socially inclusive and accommodating a variety of uses, makes all individuals comfortable in utilizing spaces.



Image 2.7 | Reference Image
Giant chess board, Domino Park in Hialeah, Florida, United States



Image 2.8 | Reference Image
White House Kitchen Garden, Washington, USA



Image 2.9 | Reference Image
Senior Cubans gather at Domino Park on Calle Ocho, Eighth Street, Havana, Florida, USA

1.4.4 Walkability and Circulation

DESIRED POSITIVE OUTCOME

Integrated, safe and attractive routes linked with the network of green spaces encourage people to travel on foot.



Image 2.10 | Reference Image
Walkable Neighborhood, New Jersey, USA



Image 2.11 | Reference Image
Gateways designed using striping or signage that communicates the entrance into a slow zone, New York



Image 2.12 | Reference Image
Neighborhood Congregational Church, Parking Lot, California, USA

1.4.5 Enhancement Plan for Community Icons

DESIRED POSITIVE OUTCOME

Spaces which allow people to remember, experience, make things, lose things, can inculcate a feeling of belonging amongst residents



Image 2.13 | Reference Image
The “Dear Houston” poet-trees project, by artist Nicola Parente, located on the Buffalo Bayou Trails, Eleanor Tinsley Park near Allen Parkway, Texas, USA



Image 2.14 | Reference Image
Oakland Museum of California, USA



Image 2.15 | Reference Image
Pair of 2M. Eye balls, inflatable eyeballs, Seoul, South Korea

2.3 Resident Welfare Association Meeting 02 | Project Framework

The agenda of this meeting was to present the Project Framework and to showcase the neighborhood's potential scope and vision.



Image 2.16 | RWA Meeting 02 | Photograph | Attendees of the meeting

Dated : 17th May, 2019.		
Venue : Kalyan Kendra Office, Shanti Niketan, Delhi		
Attendees		
01	Mr. Rikhy Jagdeep	President, RWA, Shanti Niketan
02	Mr. Arun Chopra	Hon. Secretary, RWA, Shanti Niketan
03	Mr. Manmohan Kapur	Vice President, RWA, Shanti Niketan
04	Ms. Sujata	Member, RWA, Shanti Niketan
05	Mr. Saket	Trident Group Representative
06	Ar. Sameer Chadha	Urban Designer, Senior Consultant, DUAC.
07	Ar. Nikita Paliwal	Landscape Architect, Consultant, DUAC
08	Ar. Vaibhav	Urban Planner, Consultant, DUAC
Points Discussed/ Suggested		Action by DUAC
A	CONCERNS OF RWA	
A.1	Currently Back alleys (service roads) are used as dumping yards. Transformation of back alleys with inclusion of activities such as badminton court, walking trail, inclusion of public art . Example of West end Society, Delhi was mentioned by RWA.	Added in the scope of work
A.2	Retain Shanti Niketan as a peaceful and quiet society, and does not attract more traffic. Don't want the neighborhood parks to turn into Lodhi Garden, or the DDA market to become a Khan Market.	Aspect to be considered.

A.3	Dust blown because of the mud playgrounds. Explore mitigations.	Noted
A.4	Currently composting pits are tucked away and not appealing. Explore them as a design and education component.	
A.5	Each park should be identified by their names, and they should be based upon the flower/tree names.	
A.6	Explore strategies for collection of dry leaves/ litter along internal streets and disposal and compaction of same.	
A.7	There is traffic congestion along the peripheral roads of the society, which is also the approach road for many residences. This is partly caused by the single gate entry system. Explore efficient and pedestrian friendly vehicular circulation pattern keeping in mind the concern of thoroughfares, parking encroachment and traffic congestion.	
A.8	Explore strategies for collection of storm water along all the public open spaces within the neighborhood for usage.	Noted
A.9	Explore renewable energy sources such as solar power.	
B ACTIVITIES WISHLIST OF RWA		
B.1	A small park/ or a designated space within a park to be designed as a Dog Park.	Noted
B.2	A designated cycle track along internal streets.	
B.3	A jogging track across parks with EPDM flooring, as currently, residents go to Nehru Park for a morning walk.	
B.4	Space for a weekend market (only for society's residents) to organize stalls of organic vegetables or food products, plants. Or a flea market.	
B.5	Play equipment for children within the parks to be preferably made out of natural wood or engineered wood.	
B.6	Shaded areas for sitting with Pergolas/ Tensile fabric.	
C INFORMATION SHARED BY RWA		
C.1	Peripheral roads of the neighbourhood are managed by PWD, and inner roads are managed by SDMC.	Noted
C.2	Internal street along the Hare Krishna Jogging park, gets flooded and clogged during rains.	

The meeting was successful in delivering the The future vision showcased was appreciated by the RWA members, The projected vision proved to be successful in instilling enthusiasm among all the RWA members, and was further discussed upon, for the residents' concerns and requirements.

As in the year 2019, RWA had managed to get the sponsor only for Taekwondo Park, it was decided, that DUAC will first work on the Project : 'Conceptual Landscape Design of Taekwondo Park', thus. only this project has been covered in the report. Other mentioned projects will be considered for future studies.

Chapter 03

TAEKWONDO PARK | Design

3.1 Introduction to Taekwondo Park

The park with an area of 3.5 acres, is named as Taekwondo Park by the residents of the society, as Taekwondo martial art classes are conducted for the children of society, every week at the south-end playground. The other relatively bigger playground at the north end, is utilized by the school abutted to the east side of the park during the first half of the day, and thus, maintenance of this playground is taken care by the school. These two playgrounds, located at extreme ends, are the only active and well-maintained spaces in the entire park, leaving rest of the park vulnerable to mischievous activities by the outsiders. And, as in 2019, RWA had found a sponsor i.e. the Trident Group, the association looked forward to a redeveloped park with a broad range of activities for all age groups.



Plan 3.1 | Key Plan of Taekwondo Park



Plan 3.2 | Existing Layout of Taekwondo Park



3.1.1 Existing Analysis

The park is analyzed for its existing elements under different heads, in order to evaluate the strength, weakness and opportunities, the park offers.

01 - SPATIAL ORGANIZATION

Strength - Centrally located, surrounded by apartments with direct sight lines into the park.

Weakness - Fringes of the park are not effectively utilized because of lack of access.

Opportunities - Existing landform is advantageous for activities and good views.

02 - INTERNAL & EXTERNAL LINKAGES

Strength - The park is surrounded by other green pockets i.e Central Park and park (earlier maintained by Nirula). PArk is a part of potential network of parks.

Weakness - Spaces within the park are not well-linked and accessible.

Opportunities - The abutting parks can be linked with this park, thus providing a more continuous and longer green trail.

03 - ACTIVITIES & AMENITIES

Strength - Taekwondo classes in the evening and play ground for school are the identity markers of this park, which needs to be retained.

Weakness - The park can be more equipped with amenities such as drinking water facility, Public toilets with access from inside the park. Does not provide a broad range of activities for all age groups, because of spatial organization and maintenance. Footfall for this park is quite less because of lack of activities.

Opportunities - The existing landform and the expanse with existing trees gives an opportunity to explore with different activities for each groups and make it more lively.

04 - SUSTAINABILITY

Strength - The existing landform is very advantageous for collecting the storm water run-off and harvest it.

Weakness - Rain falling on 3.8 acres of land and becomes the part of drain system. This runoff can be captured and stored for usage.

Opportunities - Integrated storm water management by integrating the catchment area of the abutting parks.

05 - PRESERVATION & AESTHETICS

Strength - There are quite a number of big trees which have a good aesthetic and ecological value. The rocky outcrops scattered in the park is a valuable element adding to the visual appeal of the park.

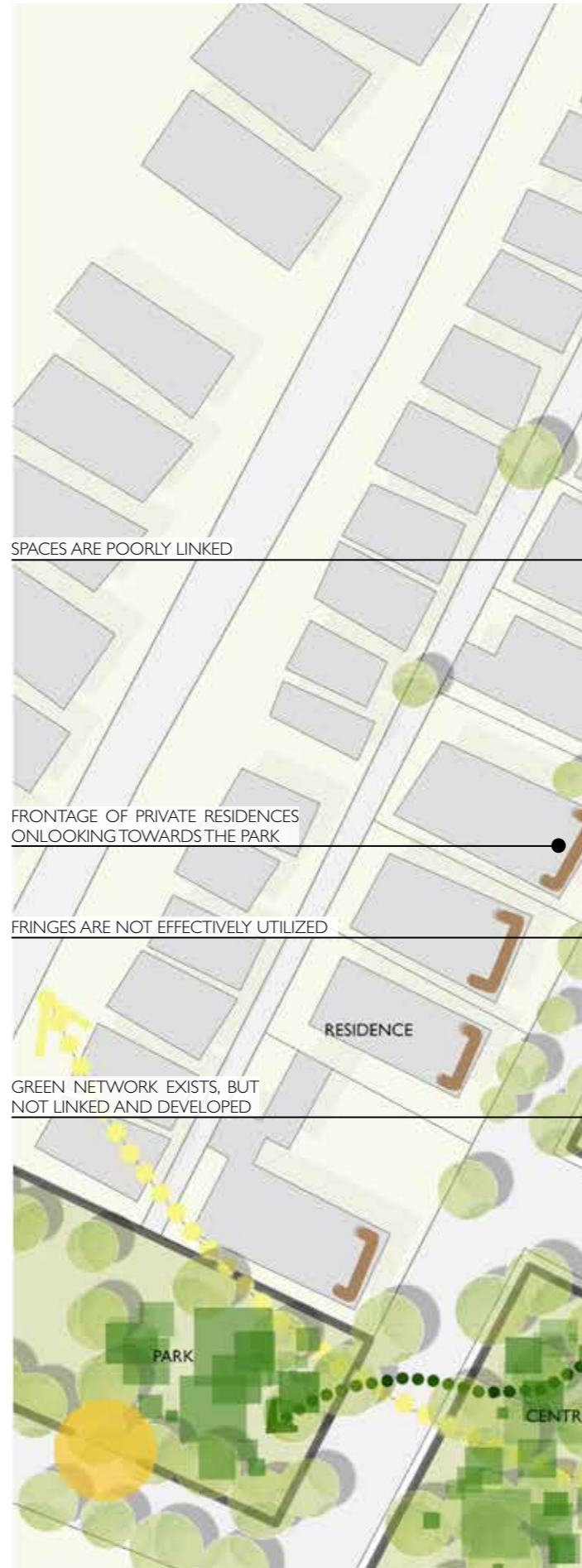
Opportunities - The existing big trees gives an opportunity to enhance them through art work and make people appreciate them.

06 - SAFETY AND SECURITY

Strength - The park access points are well located to have an administrative control.

Weakness - Improper lighting and visual blockage makes the park socially unsafe.

Opportunities - The landform of the site is very advantageous in developing a visual control.



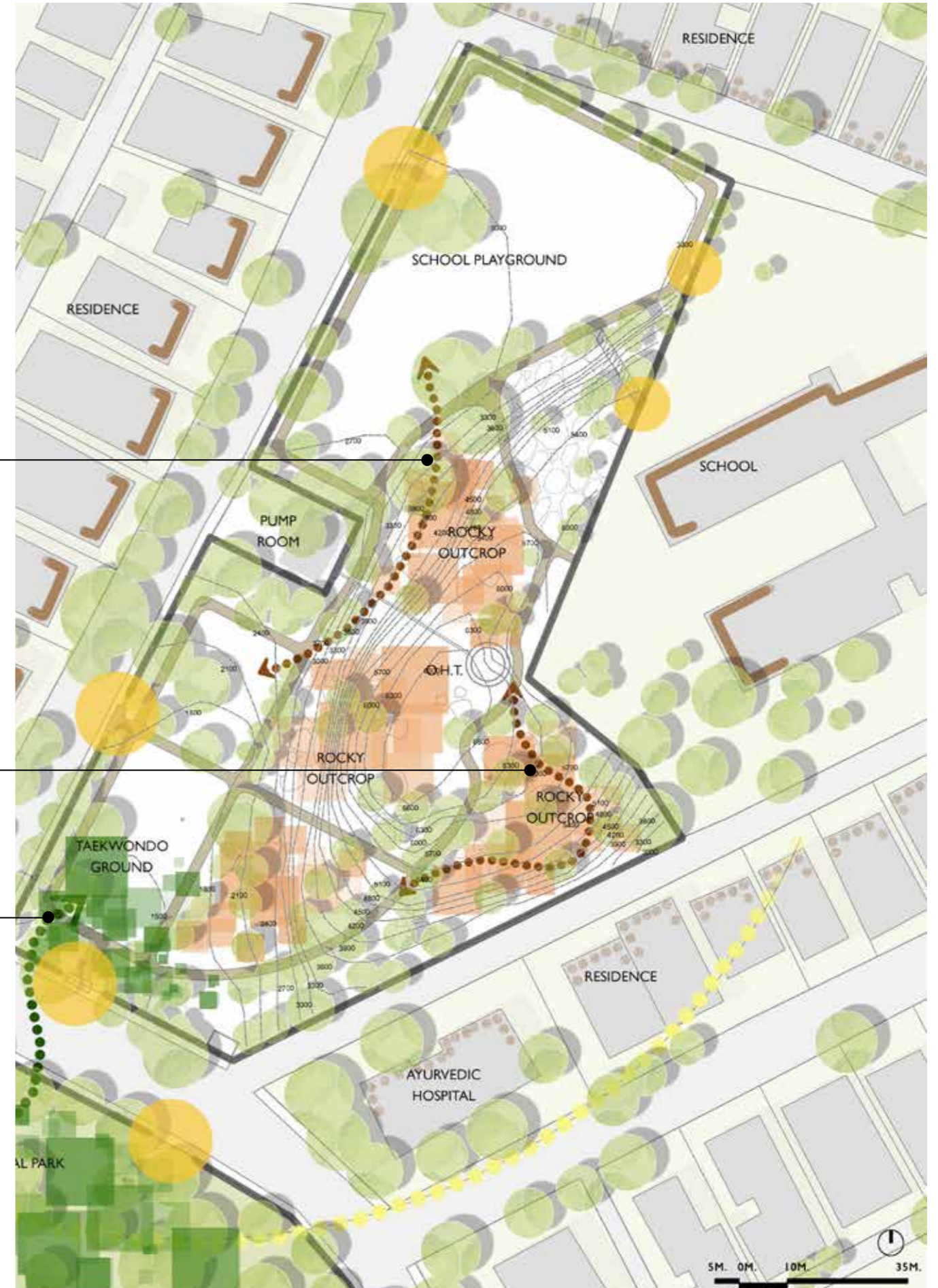
SPACES ARE POORLY LINKED

FRONTAGE OF PRIVATE RESIDENCES ONLOOKING TOWARDS THE PARK

FRINGES ARE NOT EFFECTIVELY UTILIZED

GREEN NETWORK EXISTS, BUT NOT LINKED AND DEVELOPED

Map 3.3 | Taekwondo Park Existing Mapping Analysis



3.1.2 Profile Sections

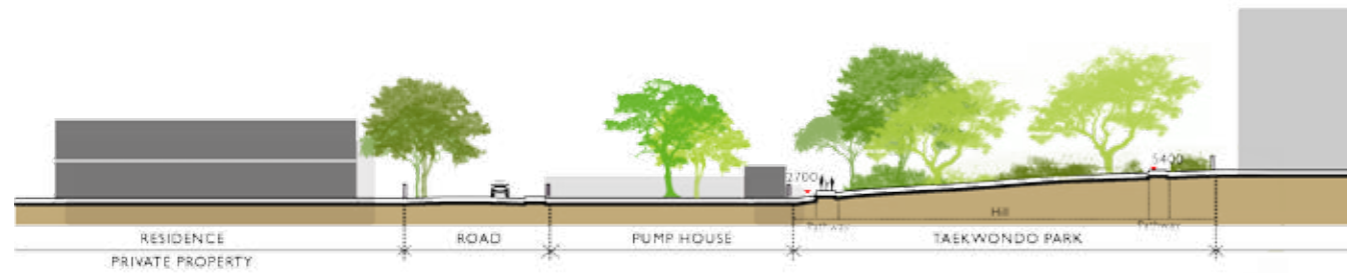
The existing built-elements, landform and natural features were studied through profile sections.



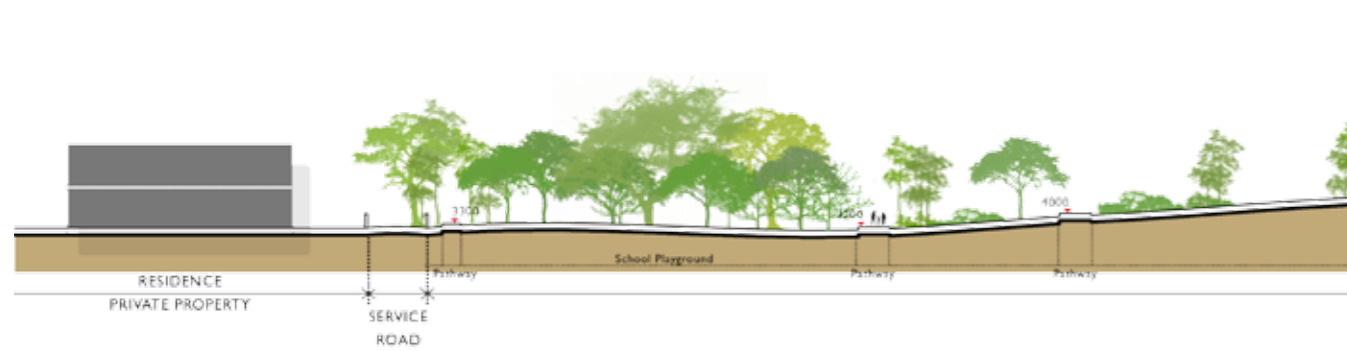
SECTION AA'



SECTION BB'



SECTION CC'



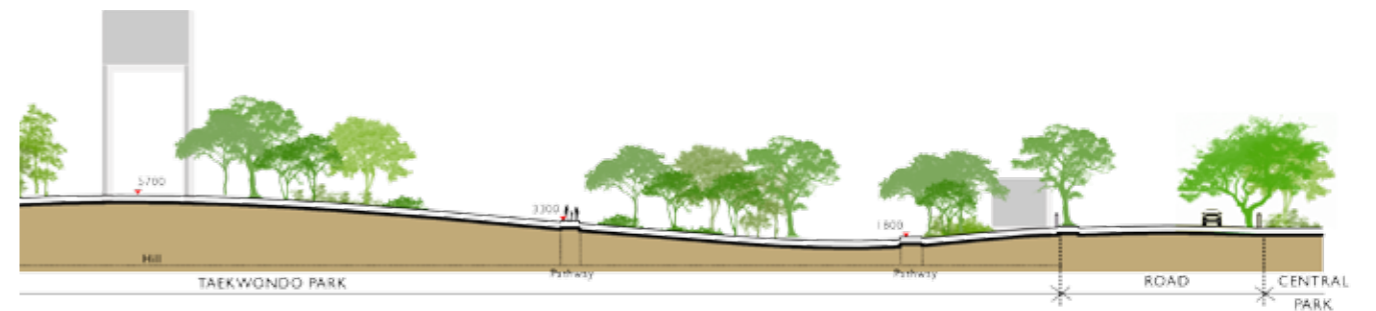
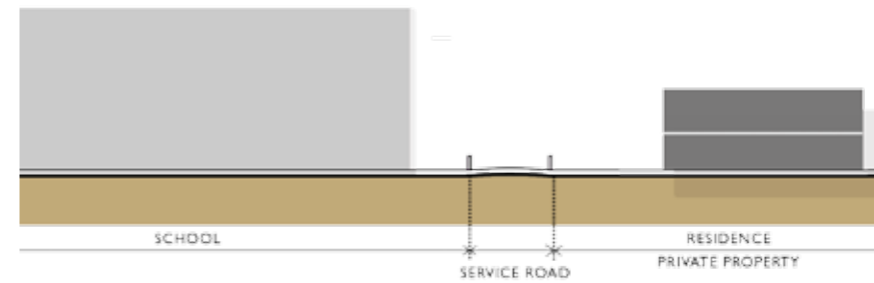
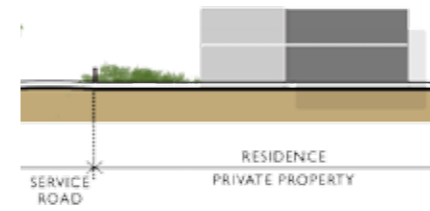
SECTION DD'



SECTION EE'



Map 3.4 | Key Map | Profile Sections



3.2 Principles of Design

01 ENGAGE COMMUNITY IN HEALTH AND SOCIAL ACTIVITIES



Image 3.1| Reference Image
David Ippolito, The Guitar Man's performance in the Central Park, New York, US



Image 3.2| Reference Image
The Yoga Trail, in the Central Park, New York, USA

Neighbourhood with full of vibrant activities, focusing on resident's mental and physical health, will bring life to the community.

02 REFLECT AND ENHANCE COMMUNITY IDENTITY & ICONS



Image 3.3| Reference Image
Culture-based initiatives to preserve the identity of old cities undergoing urban renewal, South Korea



Image 3.4| Reference Image
Tutubi Plaza, Russ Street, between Natoma and Minna in SOMA, San Francisco.

Enhancement of public spaces by inclusion of public art and other initiatives to enhance roundabouts, market places, can contribute to place identity and culture reflection.

03 ADOPT SUSTAINABILITY PRACTICES

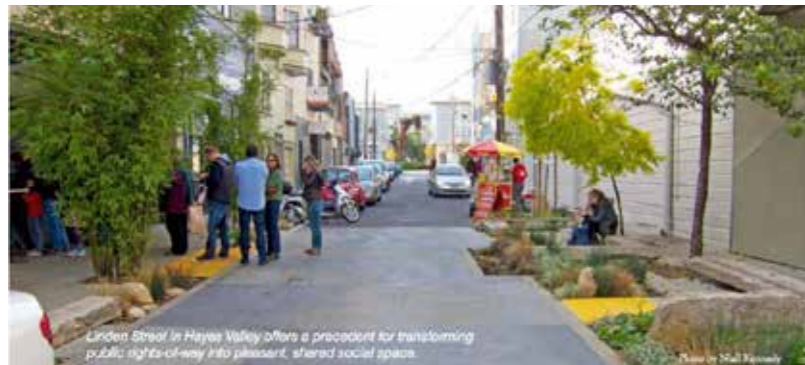


Image 3.5| Reference Image
Linden Alley, Hayes Valley neighborhood, San Francisco



Image 3.6 | Reference Image
White House Kitchen Garden, Washington, USA

All open spaces need to provide a range of environmental benefits such as effective storm water management, better microclimates, air filtration, shading & enhancing bio-diversity.

04 DESIGN FOR ALL AGE GROUPS



Image 3.7| Reference Image
Highland Park Playground, Seattle, Washington, USA



Image 3.8| Reference Image
Ballard Neighborhood Greenway, Seattle, Washington, USA

A series of spaces designed to look and feel different, allowing different interests groups of all ages to use them.

05 CREATE TO IMPROVE THE QUALITY OF OPEN SPACES IN PUBLIC REALM



Image 3.9| Reference Image
Street Art, Metaxourgeio neighborhood, Athens, Greece



Image 3.10| Reference Image
Utility Box Beautification Project, "Moose & Fly Fishing", Government Way & Harrison, Artist: Kenneth Jungjohann, Coeur d'Alene Arts Commission, Idaho, USA

Quality of open spaces can substantially be improved by small initiatives in under used open spaces and on public utilities.

06 EDUCATE COMMUNITY THROUGH ENVIRONMENTAL POLICIES IN PUBLIC REALM



Image 3.11| Reference Image
Community Gardening, City of Philadelphia, Pennsylvania, USA



Image 3.12| Reference Image
Children from Grangetown Nursery taking part in the litter pick, Grangetown Township, North Yorkshire, England

Education through demonstration of environmental policies in public realm is very beneficial.

3.3 Conceptual Landscape Design | Option 01

3.2.1 Design goal and strategies

01 - SPATIAL ORGANIZATION

Spaces/ functions planned in a way which facilitates flexibility of use, administrative visibility and control.
Spatially expand/open-up the main entrance, make it transparent to mark identity and connect to the outer pedestrian paths.
Open wall demarcations for access and sight lines.
Maximize fringes to achieve the effective utilization of all nook & corners of the park.

02 - INTERNAL & EXTERNAL LINKAGES

Create a longer walking trail by extending it to the periphery of the park property and make all fringes accessible with good sight lines.
Add strategic access points to activity zones.
Create pedestrian linkage between the surrounding parks.

03 - ACTIVITIES & AMENITIES

Signages for sustainability and education.
Art walk - art display at broken patches and on blank walls.
Activities for all age groups (play ground, area with play equipment, amphitheater, jogging track, shaded areas for social interaction, urban farming)

04 - SUSTAINABILITY

Renewable energy sources such as solar pole lights.
Storm water Collection through sunken lawns/ ponds within the park and link the integrated catchment areas.

05 - PRESERVATION & AESTHETICS

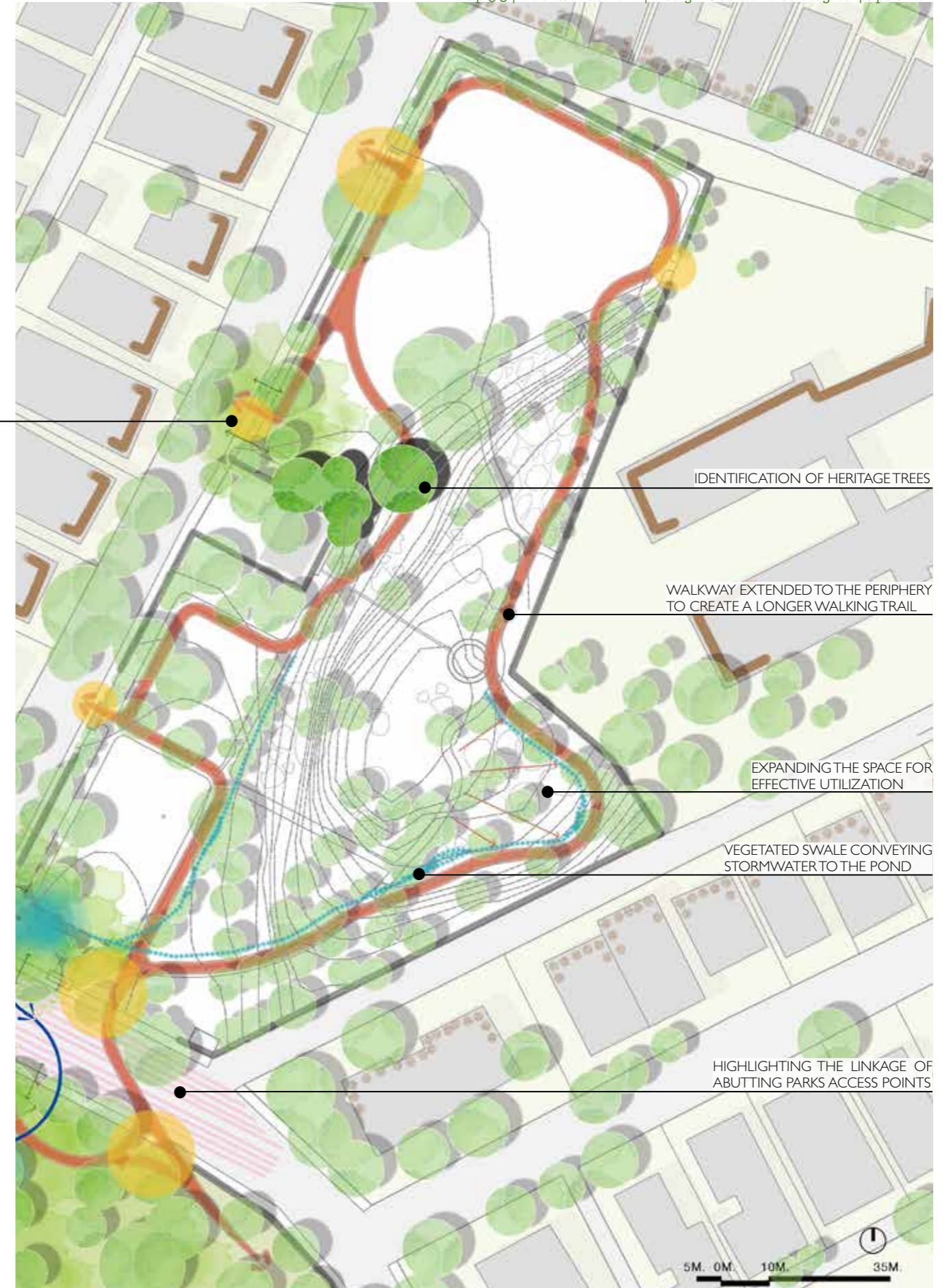
Preserve the existing landform and trees.
Preserve and enhance the existing rocky outcrops.
Identification of heritage trees, and enhance them for appreciation.

06 - SAFETY AND SECURITY

Adequate Lighting.
Visual and administrative Control from main access points.
Social safety design which includes lighting and visual and physical access for policing and other supervision by adults.



Map 3.5 | Taekwondo Park | Design Goals and Strategies | Option 01



STRATEGIC ACCESS POINT ADDED

IDENTIFICATION OF HERITAGE TREES

WALKWAY EXTENDED TO THE PERIPHERY TO CREATE A LONGER WALKING TRAIL

EXPANDING THE SPACE FOR EFFECTIVE UTILIZATION

VEGETATED SWALE CONVEYING STORMWATER TO THE POND

MAKE THE EDGES TRANSPARENT THROUGH FENCE

INTEGRATED STORMWATER MANAGEMENT SYSTEM

HIGHLIGHTING THE LINKAGE OF ABUTTING PARKS ACCESS POINTS

5M. 0M. 10M. 35M.

3.2.2 Zoning

ACTIVITIES FOR CHILDREN

01 CREATIVE PLAY AREA

small scaled play structures with climbing, swinging and balancing equipment of wood and other natural materials. Movable equipment such as tyres, wood logs, rope etc.

02 MULTI FUNCTIONAL GROUND

Mud play ground for school children in the morning time(weekdays) and for residents in the evening time for football, Taekwondo classes and other sports.

03 PAVED AREA SHADED WITH TREES with floor board games

Crafts and workshop area with movable tables and benches.

04 LAWN

Toddler's Play Lawn.

ACTIVITIES FOR ADULTS

02 MULTI FUNCTIONAL GROUND

Event Space for cultural activities and social gatherings.

Space for Weekend's Market for organic food products, plant material, handicrafts. Flea Market.

03 PAVED AREA SHADED WITH TREES

Seating space with movable tables and benches for watching kids.

04 LAWN

Yoga Lawn

Group Socialization

Seating for Watching kids.

05 QUIET AND REST AREAS

Shaded areas with benches for reading or for rest.

06 JOGGING TRACK

Long jogging track with EPDM flooring connected with abutting parks to form a continuous trail.

07 OBSERVATION OF AESTHETIC FEATURES/
GROUP SOCIALIZATION

Water tank treated as a canvas for public art creating it a focal point with clustered seating shaded with tensile canopy/ pergola at the highest elevation of the site observing the activities all around.

Clustered Seating in shade.

Linear Seating in shade for observation and appreciation.

AESTHETIC & FUNCTIONAL FEATURES

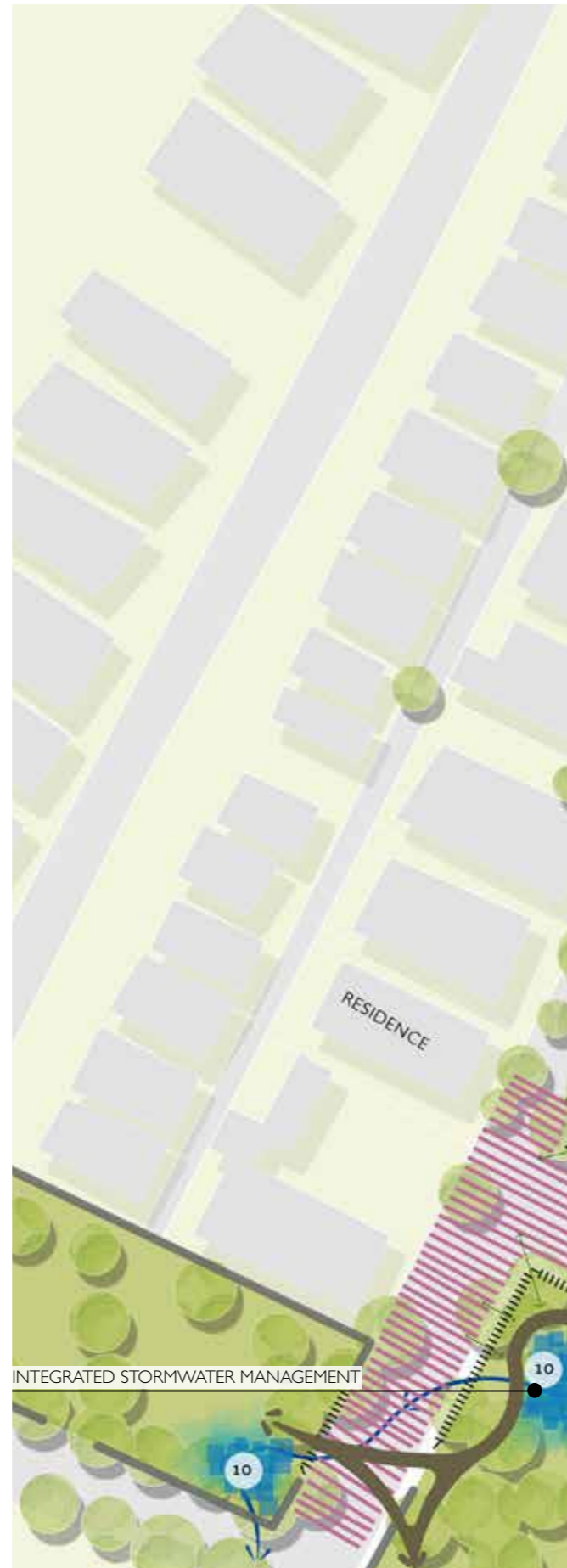
08 TERRACE GARDEN WITH SEATING

09 ENTRANCE PLAZA

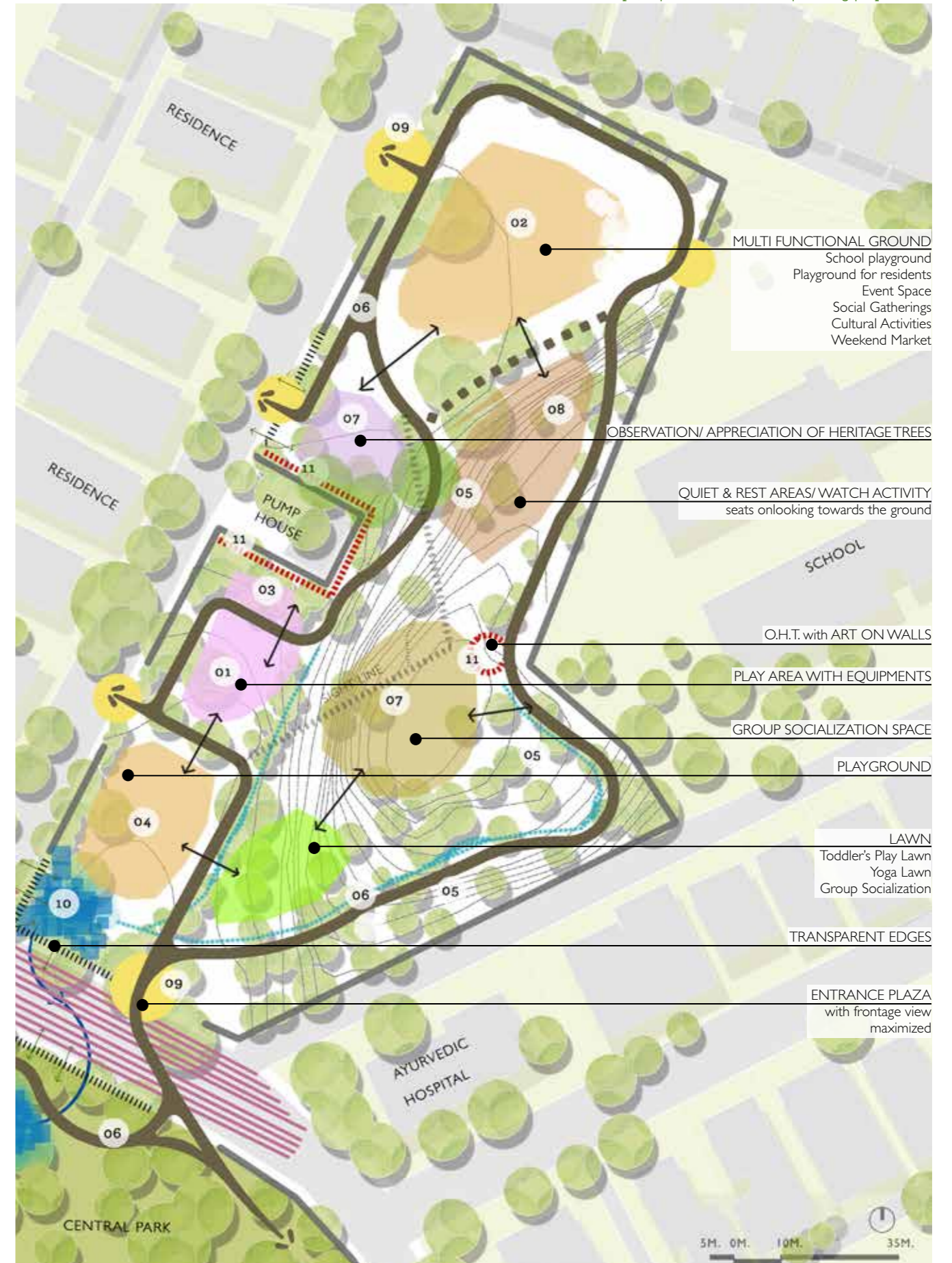
widened the entrance width to maximize the frontage view.

10 RAIN WATER HARVESTING POND

11 PUBLIC ART



Map 3.6 | Taekwondo Park | Zoning | Option 01



3.2.3 Conceptual Landscape Design | Option 01

- 01 ENTRANCE PLAZA (main entrance)
- 02 PUBLIC ART - paint on road surface
- 03 ABUTTING PARK ACCESS POINTS
- 04 FENCE
- 05 EXISTING PUBLIC TOILET
- 06 STEPPING STONES
- 07 RAIN WATER HARVESTING POND
- 08 PLAYGROUND
- 09 JOGGING TRACK (with EPDM flooring)
- 10 TODDLER'S LAWN/ YOGA LAWN
- 11 CHIT-CHAT CORNER
- 12 ENTRANCE (secondary)
- 13 CHILDREN -CREATIVE PLAY AREA (with equipments)
- 14 SEATER AROUND EXISTING TREE
- 15 TREE-COURT WITH FLOOR BOARD GAMES
- 16 PUBLIC ART ON WALL
- 17 SOCIAL GATHERING PLAZA/ PICNIC SPOT (with movable furniture)
- 18 BENCHES
- 19 CANOPY FOR SHADE
- 20 O.H.T.WITH PUBLIC ART (as a feature)
- 21 ROCK SEATER
- 22 ENTRANCE FROM SCHOOL
- 23 TERRACED SEATING
- 24 TERRACED FLOWER GARDEN
- 25 HERITAGE GARDEN
- 26 SCHOOL PLAYGROUND

Map 3.7 | Conceptual Landscape Design for Taekwondo Park | Option 01



3.2.4 Visualization | Reference Images

- 01 ENTRANCE PLAZA (main entrance)
- 02 PUBLIC ART - paint on road surface
- 04 FENCE
- 07 RAIN WATER HARVESTING POND
- 08 PLAYGROUND

Plan 3.8 | Blown-Up Plan | Landscape Design Option 01

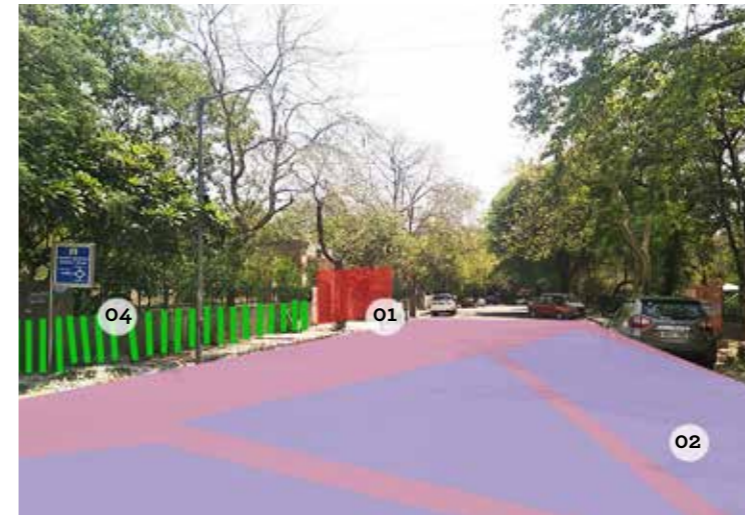
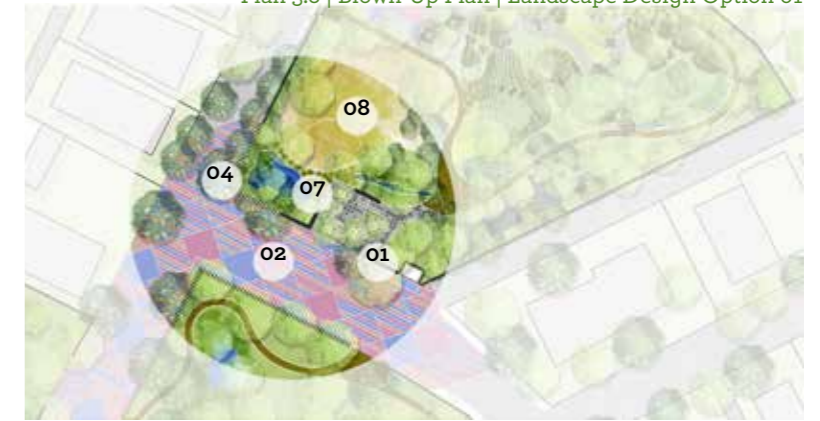


Image 3.13 | Site Image | Main Approach Road



Image 3.14 | Reference Image
Street Art at Pedestrian Crossing in Rennes, France.



Image 3.15 | Site Image | Rain Water Harvesting Pond



Image 3.16 | Site Image | Playground



Image 3.17 | Reference Image
Rain Water Harvest and Greywater Systems - Living Sol
Building and Design

- 13 CHILDREN -CREATIVE PLAY AREA (with equipment)
- 14 SEATER AROUND EXISTING TREE
- 15 TREE-COURT WITH FLOOR BOARD GAMES
- 16 PUBLIC ART ON WALL



Image 3.18| Site Image | Creative Play Area

Plan 3.9 | Blown-Up Plan | Landscape Design Option 01



Image 3.19| Reference Image
Pulse Park, Kildebjerg Ry, Denmark



Image 3.20| Reference Image
North Canyon Nature Play Area, Silver Falls State Park, Oregon



Image 3.21| Reference Image
Birds Nest Tower, Product of Playground Centre, Wanganui, New Zealand



Image 3.22| Reference Image
Street Scramble tournament, University street, East Union Street and Boylston Avenue, Seattle



Image 3.23| Reference Image
Giant chess board, Domino Park in Hialeah, Florida, United States



Image 3.24| Reference Image
Mural at Columbia Park by Art Professor Jacob Weigel, Turlock, California.



Image 3.25| Site Image | Seater around existing tree



Image 3.26| Reference Image

- 10 TODDLER'S LAWN/YOGA LAWN
- 11 CHIT-CHAT CORNER
- 17 SOCIAL GATHERING PLAZA/ PICNIC SPOT (with movable furniture)
- 19 CANOPY FOR SHADE
- 20 O.H.T.WITH PUBLIC ART (as a feature)
- 21 ROCK SEATER



Image 3.27| Site Image | Toddler's Lawn/ Yoga Lawn

Plan 3.10 | Blown-Up Plan | Landscape Design Option 01



Image 3.28| Site Image | Social Gathering Plaza



Image 3.29| Site Image | Yoga Lawn & Chit-Chat corner



Image 3.30| Reference Image
Land Art for Kids Workshop by Richard Shilling, at Lancaster University, Lancashire, England



Image 3.31| Reference Image
A Girl sitting on a rocky outcrop



Image 3.32| Reference Image
Tensile Fabric Shading, product of Q shading integrated shading solutions, St. Smouha, Alexandria, Egypt



Image 3.33| Reference Image
The Yoga Trail, in the Central Park, New York, USA



Image 3.34| Reference Image
Picnic Spot, Grand Park, Los Angeles, California



Image 3.35| Reference Image
Senior Cubans gather at Domino Park on Calle Ocho, Florida, USA

- 16 PUBLIC ART ON WALL
- 23 TERRACED SEATING
- 24 TERRACED FLOWER GARDEN
- 25 HERITAGE GARDEN



Image 3.36| Site Image | Terraced Seating

Map 3.11| Blown-Up Plan | Landscape Design
Option 01



Image 3.37| Site Image | Heritage Garden



Image 3.38| Reference Image
Knitted Trees (Yarn Bombing), Ohio, USA



Image 3.39| Reference Image
Slope of multicolored flowers and rocks, photo by Danita Delimont, Portland, Oregon, USA



Image 3.40| Reference Image
Barcelos River Park, Barcelos, Portugal, USA



Image 3.41| Reference Image
Oakland Museum of California, USA



Image 3.42| Reference Image
Oria's Castle, mnaarquitectos, Almanzora River Valley, Andalusia, Spain

3.4 Conceptual Landscape Design | Option 02

3.3.1 Zoning

ACTIVITIES FOR CHILDREN

01 CREATIVE PLAY AREA

small scaled play structures with climbing, swinging and balancing equipment of wood and other natural materials on sand. Movable equipment such as tyres, wood logs, rope etc.

02 ROCK CLIMBING WALL

03 PLAYGROUND

Mud play ground for residents for football, Taekwondo classes and other sports.

04 MULTI FUNCTIONAL GROUND

Mud play ground for school children in the morning time (weekdays) and for residents in the evening time for sports.

05 CRAFTS & WORKSHOP AREA

Permeable paving with loose furniture and a wall to display kid's art work and have outdoor workshops.

06 TERRACED SEATING

Seaters onlooking towards the multi-functional ground and watch activity.

07 LAWN

Toddler's Play Lawn

ACTIVITIES FOR ADULTS

04 MULTI FUNCTIONAL GROUND

Event Space for cultural activities and social gatherings.

Space for Weekend Market for organic food products, plant material, handicrafts. Flea Market.

07 LAWN| OBSERVATION OF AESTHETIC FEATURES

Yoga Lawn
Social Gatherings
Seating for Watching kids.
Picnic Lawn

Water tank treated as a canvas for public art creating it a focal point with lawn as a foreground for gatherings.

08 QUIET AND REST AREAS| GROUP SOCIALIZATION

semi-Shaded areas with benches for reading, rest and chit-chat.

09 JOGGING TRACK

Long jogging track with EPDM flooring connected with abutting parks to form a continuous trail.

11 URBAN FARMING

AESTHETIC & FUNCTIONAL FEATURES

12 ENTRANCE PLAZA

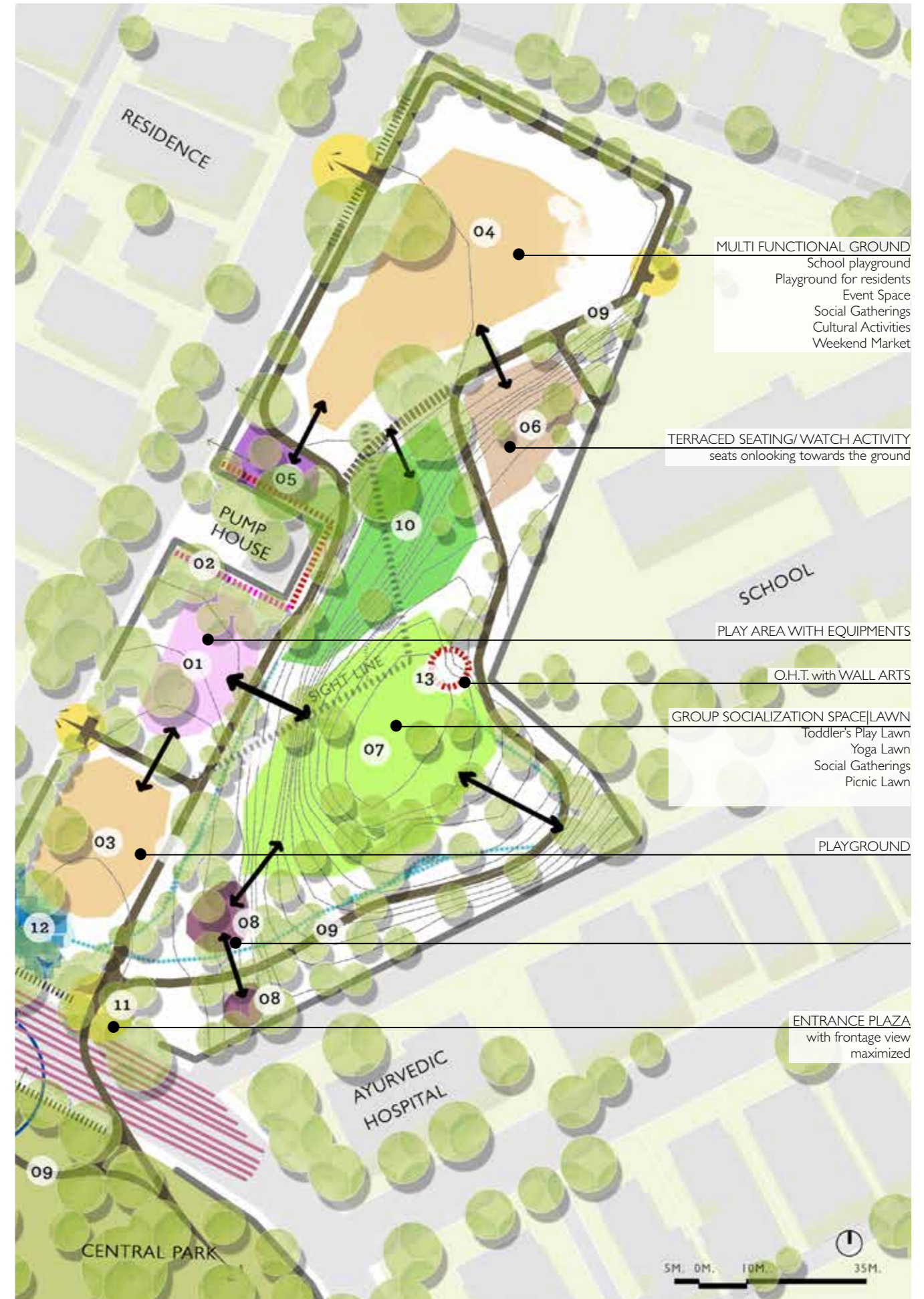
widened the entrance

13 RAIN WATER HARVESTING POND

14 PUBLIC ART



Map 3.12 | Taekwondo Park | Zoning | Option 02



3.3.2 Conceptual Landscape Design

- 01 ENTRANCE PLAZA (main entrance)
- 02 PUBLIC ART - paint on road surface
- 03 ABUTTING PARK ACCESS POINTS
- 04 FENCE
- 05 EXISTING PUBLIC TOILET
- 06 STEPPING STONES
- 07 RAIN WATER HARVESTING POND
- 08 PLAYGROUND
- 09 JOGGING TRACK (with EPDM flooring)
- 10 GROUP SOCIALIZATION COURT
(semi-shaded paved area with seating)
- 11 ENTRANCE (secondary)
- 12 CHILDREN -CREATIVE SAND PLAY AREA
(with equipment)
- 13 ROCK CLIMBING WALL
- 14 SOCIAL GATHERING LAWN
(picnic lawn, toddler's play lawn, yoga lawn)
- 15 PUBLIC ART ON WALL
- 16 URBAN FARMING AREA
- 17 TERRACED SEATING (activity watching)
- 18 ENTRANCE FROM SCHOOL
- 19 CRAFT & WORKSHOP AREA
- 20 SCHOOL PLAYGROUND
(event space, cultural activities, weekend market)

Map 3.13 | Conceptual Landscape Design for Taekwondo Park | Option 02



3.5 Analogy | Between Design options

3.4 Analogy



Map 3.14 | Conceptual Landscape Design | Option 01



Map 3.15 | Conceptual Landscape Design | Option 02

DESIGN IDEA

Option 01 is designed with manicured details in terms of grade and finishes, demanding adequate maintenance.
Option 02 suggests low development and maintenance cost, by minimum design intervention.

01

Main entrance is expanded to make it wide open and transparent through fencing and thus maximize the frontage view.
Main entrance is widened into a plaza once you enter the existing archway.

02

Play area with equipment is surfaced with EPDM flooring and clubbed with a small paved area with floor board games.
One single patch of play area with play equipment and surfaced with sand .

03

This space is developed into a plaza with a combination of hard and soft surfaces, shaded with fabric canopies along with fixed benches and free furniture.

This space is finished as an open lawn berming down the slope for general play or floor seating.

04

Seasonal Flower garden on the hill which gives aesthetic appeal.

Urban Farming area which has a functional as well as financial value, and being close to school, kids can also have a hand-on experience.

05

Terraced seating is sprawled between the flower garden.
Terraced seating is limited to a smaller area.

Chapter 04

WAY FORWARD

4.1 Resident Welfare Association Meeting 02|

Landscape Conceptual Plan for Taekwondo Park

The meeting was scheduled at the DUAC premises with the Resident Welfare Association, to present the two Conceptual Landscape Plan proposals for the Taekwondo Park, and to discuss the further course of action.

Dated : 17th June, 2019.		
Venue : DUAC, India Habitat Centre, Delhi.		
Attendees		
01	Mr. Rikhy Jagdeep	President, RWA, Shanti Niketan
02	Mr. Arun Chopra	Hon. Secretary, RWA, Shanti Niketan
03	Mr. Parveen Kumar	Trident Group Representative
04	Mr. Saket	Trident Group Representative
05	Mr. Kapil Vohra	Horticulturist, Independent Agency
06	Ms. Ruby Kaushal	Secretary, DUAC.
07	Mr. Rajeev Gaur	Assistant Secretary Technical, DUAC
08	Ar. Sameer Chadha	Urban Designer, Senior Consultant, DUAC.
09	Ar. Nikita Paliwal	Landscape Architect, Consultant, DUAC
Points Discussed/ Suggested		Action by DUAC
1	In-site (within the Shanti Niketan Society) transit strategies are to be worked out.	Added in the scope of work
2	Suggestion of having a separate composting pit for this individual park, was given by DUAC.	Noted
3	Suggestion of upgrading existing toilets abutting the park was given by RWA.	Noted
4	Suggestion of having a coffee kiosk/ Fresh Juice Kiosk in the Park, which operates for few fixed hours only for residents of the society, was given by RWA.	Noted, DUAC needs to check the feasibility for same.
5	Landscape Design Option 01 for Taekwondo Park was preferred and appreciated by RWA.	Noted
6	DUAC will work forward for the overall Environmental Design Master Plan in the near future. Community workshops for other aspects of master plan to be planned for community engagement.	Noted

The Conceptual Landscape Design | Option 01, for Taekwondo Park was preferred and appreciated by the Resident Welfare Association, and will be soon taken up for execution in partnership with the Trident Group.

4.2 Way Forward

The vision for Shanti Niketan Society, 'A Sustainable Neighbourhood', was realized as a positive outcome of a number of projects identified under 5 different attributes. i.e. Revitalization Plan for Community Open Spaces, Green Infrastructure Strategies, Programming of Community Activities, Walkability & Circulation and Enhancement Plan for Community Icons.

One of the project identified under the attribute 'Revitalization Plan for Community Open Spaces' is 'Conceptual Landscape Plan for Taekwondo Park', which is incorporated in the report. Other projects, identified under different attributes such as Development of Green Open Spaces network including transformation of back alleys, Formulation of On-Street Parking Strategies and many more (Listed in Chapter 02, Section 2.2), will be considered for future studies.

ANNEXURE

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