Devika Kumar Lekha
Landscape & Urban Design
2022 - 2024

PORT FO LIO

About.

Work Experience.

AtkinsRealis (Bengaluru,India)
Assistant Landscape Architect — Mar 2024 - Dec 2024
Graduate Architect — Jul 2022 - Mar 2024
Architect Trainee — Feb 2022 - Jul 2022

pragma. (Dubai , United Arab Emirates)
Architect Intern — Aug 2020-Dec 2020

Education.

Cochin University of Science and Technology, India
Bachelor of Architecture — 2016-2021

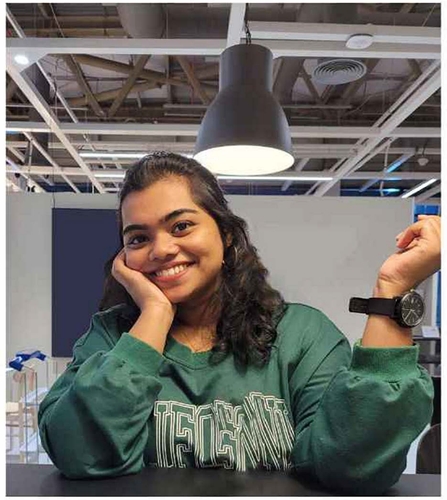
GEMS Our Own English High School , United Arab Emirates
High School — 2009-2016

Software Skills.

AutoCAD
Sketchup
Lumion
Enscape
Illustrator
InDesign
Photoshop
MS Office

Contact.

Email Id : devikakumar0698@gmail.com
LinkedIn Id : www.linkedin.com/in/devikakumarlekha
Phone No. : +1(647)519-8525



Devika Kumar

I am Devika Kumar, a dedicated architect with over 3 years of professional experience in landscape and urban design. I have developed a robust expertise in crafting vibrant public spaces. My tenure at AtkinsRealis has provided me with a comprehensive understanding of the nuances involved in designing urban environments that are both functional and aesthetically pleasing. I am passionate about creating spaces that promote social interaction, environmental sustainability, and aesthetic harmony. I am eager to bring my experience and enthusiasm to a dynamic team where I can contribute to impactful projects and continue to grow as an architect.

Contents.

01 Royal Diriyah Equestrian & Polo Club — Page No. 04 to 11
02 Diriyah Gate Phase 3 — Page No. 12 to 21
03 Saadiyat Cultural District — Page No. 22 to 27
04 Roundabout Design — Page No. 28 to 29
05 Architecture Concept Visuals — Page No. 30 to 33

ROYAL DIRIYAH EQUESTRIAN & POLO CLUB

The Royal Diriyah Equestrian and Polo Club is located to the west of Riyadh, within Wadi Safar. Wadi Safar is a geographic area and wadi system located to the west of Riyadh and Wadi Hanifah, and adjacent to the UNESCO World Heritage-listed At-Turaif district within the Kingdom of Saudi Arabia. Wadi Safar is being developed by the Diriyah Gate Development Authority (DGDA) to expand upon and support the Diriyah Gate development, immediately east of Wadi Safar and encompassing At-Turaif.

Access from Riyadh's center to the Royal Diriyah Equestrian and Polo Club is through the Northern Branch Ring Road and through Diriyah Gate Development. The Royal Diriyah Equestrian and Polo Club sits within the heart of Wadi Safar and will be an icon and a feature of the region.

Location : Saudi Arabia

Masterplan Vision

The Royal Diriyah Equestrian and Polo Club will create a world class equestrian facility. The striking Najdi architecture will provide a vernacular focus to the estate set within a symbolic desert landscape. The strong form of the escarpment provides a dramatic backdrop to the setting of the equestrian and polo club. The traditional architectural form of the stables reflect the traditional street character and provide a setting of calm and quiet. Wadi trails and tracks will bind the site and provide the opportunity to explore the wider landscape.

The ambitions of the landscape masterplan are to provide a world class equestrian and polo facility;

1. Reflect and celebrate traditional Saudi Arabian heritage and culture.

2. Integrate with and enhance the desert and escarpment landscape.

3.Create a legible and accessible site.

4.Provide a welcoming environment for people and horses.

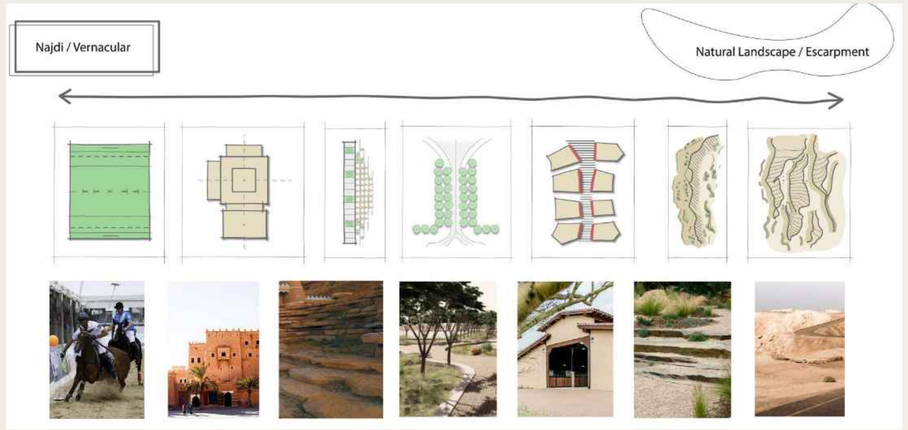
5.Optimise the local micro climate conditions.

6. Effectively utilise and manage the use of irrigation.

Efficient landscape design is critical to the success of the equestrian and polo club and is the central consideration running through the development of all areas of the site. The design should reflect and celebrate Saudi Arabian culture whilst integrating with both the desert and escarpment landscape features. Availability of water and operation and maintenance of landscape areas will also inform the landscape character and design.

The management of the irrigation through optimising the microclimate, availability of soil moisture and planting strategies using native and indigenous species will ensure a varied and striking landscape can still be achieved. Both the planting and materials will be selected to reflect and celebrate local Arabian culture and heritage.

Landscape Hierarchy



Masterplan Precedents



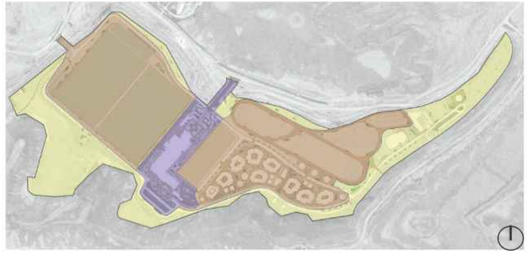
Masterplan



LEGEND

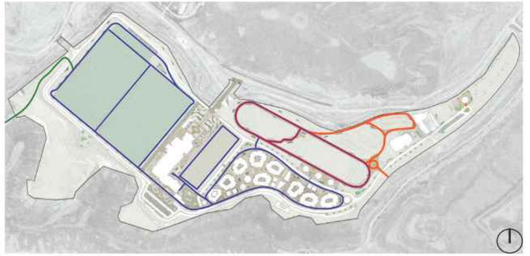
1. Club House
2. Main Entrance
3. Equestrian fields
4. Polo fields
5. Stick and ball field
6. Riding school
7. Stables
8. Equestrian paths
9. Veterinarian clinic
10. Staff accommodation
11. Horse trailers & utility vehicle parking
12. Manure storage
13. Service entrance
14. Event entrance
15. Stepped parking
16. Arena drop off
17. Indoor arena
18. Isolation stables

Strategy Diagrams



Site wide Character Area

- Arrival,Indoor arena, Club house and stepped parking
- Events,visitors,fields and stables
- Southern escarpments and mostly undisturbed site areas



Equestrian Trails

- Northern or Wadi trail
- Stable & Polo field or Arriyadh trail
- Connection to regional network
- Endurance track



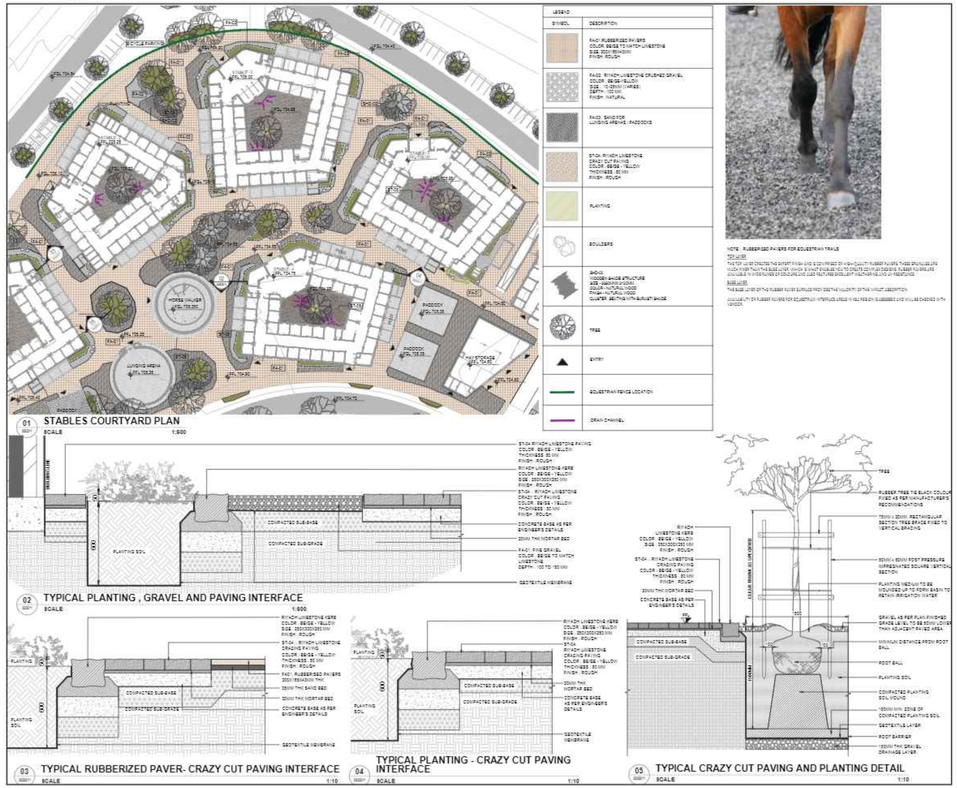
Vehicular Circulation

- Access road
- Main arrival boulevard
- FOH vehicular circulation
- BOH vehicular circulation
- Buggy / utility road
- Pedestrian circulation
- Secondary entry
- Primary entry

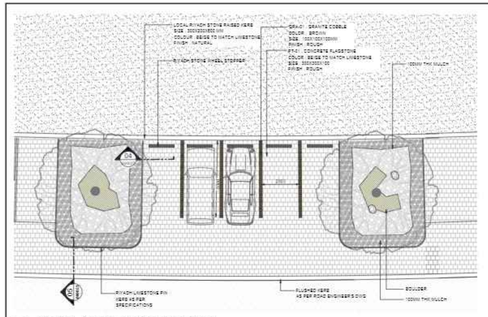


Soft Circulation - Equestrian & Pedestrian

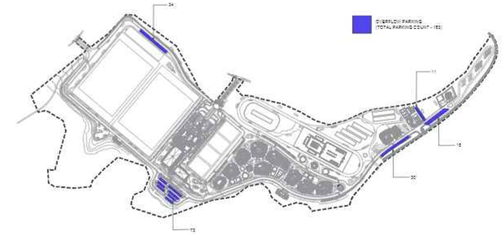
- Endurance equestrian trail
- Equestrian trail along stables
- Equestrian path along polo fields
- North equestrian trail
- Connection to regional trail network
- Pedestrian Circulation


LEGEND
SYMBOL
DESCRIPTION
PAVED RUBBERISED PAVERS
COLOR: BEIGE TO MATCH LIMESTONE
SIZE: 2000 (BREADTH) THK
PAVED RYHOLITE LIME STONE CRUSHED GRAVEL
COLOR: BEIGE-YELLOW
SIZE: 10-20MM (VARIES)
DEPTH: 100 MM
FINISH: NATURAL
STAIRS RYHOLITE LIMESTONE CRAZY CUT PAVING
COLOR: BEIGE - YELLOW
THICKNESS: 100 MM
FINISH: ROUGH
STAIRS RYHOLITE LIMESTONE CRAZY CUT PAVING
COLOR: BEIGE - YELLOW
THICKNESS: 100 MM
FINISH: ROUGH
PLANTING
BOULDERS
SHADE
10000MM SHADE STRUCTURE
COLOR: BEIGE
FINISH: NATURAL/WOOD
QUARTER MEETING WITH NATURAL SHADE
TREE
ENTRY
EQUESTRIAN FENCE LOCATION
DRAIN CHANNEL
HORSE WALKER
LUNGING ARENA
PADDOCK
PADDOCK
PADDOCK
HAY STORAGE
PADDOCK
01 STABLES COURTYARD PLAN
SCALE 1:600
STAIRS RYHOLITE LIMESTONE PAVING
COLOR: BEIGE - YELLOW
THICKNESS: 20 MM
FINISH: ROUGH
RYHOLITE LIMESTONE KERB
COLOR: BEIGE - YELLOW
SIZE: 250X1000X300 MM
FINISH: ROUGH
STAIRS RYHOLITE LIMESTONE CRAZY CUT PAVING
COLOR: BEIGE - YELLOW
THICKNESS: 20 MM
FINISH: ROUGH
CONCRETE BASE AS PER ENGINEER'S DETAILS
PLANTING SOIL
COMPACTED SUB-GRADE
COMPACTED SUB-GRADE
PAVED RIVE GRAVEL
COLOR: BEIGE TO MATCH LIMESTONE
DEPTH: 100 TO 150 MM
GEOTEXTILE MEMBRANE
02 TYPICAL PLANTING , GRAVEL AND PAVING INTERFACE
SCALE 1:600
RYHOLITE LIMESTONE KERB
COLOR: BEIGE - YELLOW
SIZE: 250X1000X300 MM
FINISH: ROUGH
STAIRS RYHOLITE LIMESTONE CRAZY CUT PAVING
COLOR: BEIGE - YELLOW
THICKNESS: 20 MM
FINISH: ROUGH
PAVED RUBBERISED PAVERS
2000 (BREADTH) THK
20MM THK MORTAR BED
CONCRETE BASE AS PER ENGINEER'S DETAILS
GEOTEXTILE MEMBRANE
PLANTING SOIL
COMPACTED SUB-GRADE
03 TYPICAL RUBBERIZED PAVER- CRAZY CUT PAVING INTERFACE
SCALE 1:10
RYHOLITE LIMESTONE KERB
COLOR: BEIGE - YELLOW
SIZE: 250X1000X300 MM
FINISH: ROUGH
STAIRS RYHOLITE LIMESTONE CRAZY CUT PAVING
COLOR: BEIGE - YELLOW
THICKNESS: 20 MM
FINISH: ROUGH
20MM THK MORTAR BED
CONCRETE BASE AS PER ENGINEER'S DETAILS
GEOTEXTILE MEMBRANE
PLANTING SOIL
COMPACTED SUB-GRADE
COMPACTED SUB-GRADE
04 TYPICAL PLANTING - CRAZY CUT PAVING INTERFACE
SCALE 1:10
TREE
RUBBER TREE TIE BLACK COLOR FIXED AS PER MANUFACTURER'S RECOMMENDATIONS
75MM x 25MM RECTANGULAR SECTION TREE BRACE FIXED TO VERTICAL BRACING
50MM x 50MM POST PRESSURE IMPREGNATED SQUARE VERTICAL SECTION
PLANTING MEDIUM TO BE MOUNDED UP TO KERB BASIN TO RETAIN IRRIGATION WATER
GRAVEL AS PER PLAN FINISHED SPACE LEVEL TO BE 50MM LOWER THAN ADJACENT PAVED AREA
MINIMUM DISTANCE FROM ROOT BALL
ROOT BALL
PLANTING SOIL
COMPACTED PLANTING SOIL MIXTURE
100MM MIN. EDGE OF COMPACTED PLANTING SOIL
GEOTEXTILE LAYER
ROOT BARRIER
150MM THK GRAVEL DRAINAGE LAYER
COMPACTED SUB-GRADE
COMPACTED SUB-GRADE
05 TYPICAL CRAZY CUT PAVING AND PLANTING DETAIL
SCALE 1:10

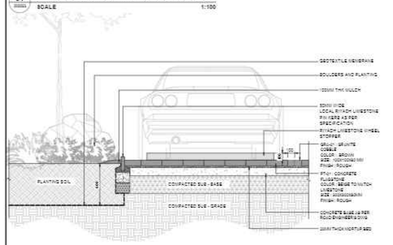

LEGEND
SYMBOL
DESCRIPTION
PAVED RUBBERISED PAVERS
COLOR: BEIGE TO MATCH LIMESTONE
SIZE: 2000 (BREADTH) THK
PAVED RYHOLITE LIME STONE CRUSHED GRAVEL
COLOR: BEIGE-YELLOW
SIZE: 10-20MM (VARIES)
DEPTH: 100 MM
FINISH: NATURAL
STAIRS RYHOLITE LIMESTONE CRAZY CUT PAVING
COLOR: BEIGE - YELLOW
THICKNESS: 100 MM
FINISH: ROUGH
STAIRS RYHOLITE LIMESTONE CRAZY CUT PAVING
COLOR: BEIGE - YELLOW
THICKNESS: 100 MM
FINISH: ROUGH
POLO FIELD LAWN
PAVED SEATING BENCH
COLOR: YELLOW
DEPTH: 100-150 MM
FINISH: ROUGH
SHADE
SHADE STRUCTURE
TREE
SHRUB
GROUNDCOVER
BOULDERS
BENCHES
POLO FIELD
PADDOCK
PADDOCK
PADDOCK
HORSE WALKER
LUNGING ARENA
HAY STORAGE
PADDOCK
DATE PALM ALIGNMENT
SHADE STRUCTURE
SHADED SEATING BENCHES
RETRACTABLE BOLLARDS
INDOOR AREA
FFL 709.150
FFL 710.40
FFL 710.55
FFL 710.50
FFL 710.50
01 ARENA PLAZA PLAN
SCALE 1:200
PLANTING & BOULDERS
STAIRS - RYHOLITE LIMESTONE CRAZY CUT PAVING
COLOR: BEIGE - YELLOW
THICKNESS: 100 MM
FINISH: ROUGH
CONCRETE BASE AS PER ROAD ENGINEER'S DWG
GRANULAR SUB-BASE AS PER ROAD ENGINEER'S DWG
20MM THK MORTAR BED
GEOTEXTILE MEMBRANE
PLANTING SOIL
COMPACTED SUB-GRADE
03 PLANTING AND PAVING INTERFACE
SCALE 1:20
PLAZA AND EQUESTRIAN TRAIL
STAIRS RYHOLITE LIMESTONE CRAZY CUT PAVING
COLOR: BEIGE - YELLOW
THICKNESS: 100 MM
FINISH: ROUGH
PLANTING
PAVED RUBBERISED PAVERS
COLOR: BEIGE TO MATCH LIMESTONE
SIZE: 2000 (BREADTH) THK
FINISH: ROUGH
RYHOLITE LIMESTONE KERB
COLOR: BEIGE-YELLOW
SIZE: 250X1000X300 MM
FINISH: ROUGH
EQUESTRIAN FENCING - FOR DETAILS REFER DWG NO#/SK-EN-0000-RYHOLITE/LA-800-0000000
PAVED RYHOLITE LIME STONE CRUSHED GRAVEL
COLOR: BEIGE-YELLOW
SIZE: 10-20MM (VARIES)
DEPTH: 100 MM
FINISH: NATURAL
STAIRS RYHOLITE LIMESTONE CRAZY PAVING
COLOR: BEIGE-YELLOW
THICKNESS: 100 MM
FINISH: ROUGH
CONCRETE BASE TO ENGINEER'S DETAILS & SPECIFICATIONS
COMPACTED SUB-GRADE
COMPACTED SUB-GRADE
02 EQUESTRIAN TRAIL & PLAZA INTERFACE
SCALE 1:20
METAL EDGING
PLANTING AND BOULDERS
PAVED RYHOLITE LIMESTONE CRUSHED GRAVEL
SIZE: 10-20 MM (VARIES)
DEPTH: 100MM
FINISH: NATURAL
STAIRS RYHOLITE LIMESTONE CRAZY CUT PAVING
COLOR: BEIGE - YELLOW
THICKNESS: 100 MM
FINISH: ROUGH
20MM THK MORTAR BED
CONCRETE BASE PER ROAD ENGINEER'S DETAIL
GRANULAR SUB-BASE AS PER ROAD ENGINEER'S DWG
GRASS AS SPECIFIED ON SOFTSCAPE PLANS AND SCHEDULE
MIN 200 MM PLANTING SOIL
GEOTEXTILE MEMBRANE
1.4MM THK AS PER SPECIFICATION
RYHOLITE LIMESTONE KERB - REFER DETAILS
COLOR: BEIGE-YELLOW
FINISH: ROUGH
COMPACTED SUB-GRADE
GRAVEL BASE ALONG BUGGY ROAD VARIES FROM 150 MM TO 200 MM
04 BUGGY PATH & POLO FIELD INTERFACE
SCALE 1:20



01 TYPICAL OVERFLOW PARKING PLAN
SCALE 1:100

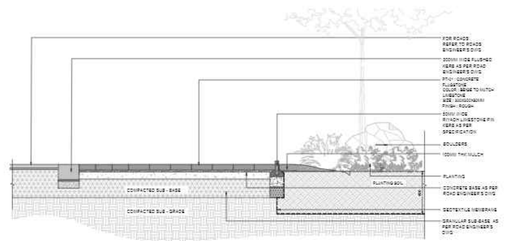


02 KEY PLAN - OVERFLOW PARKING
SCALE 1:6000

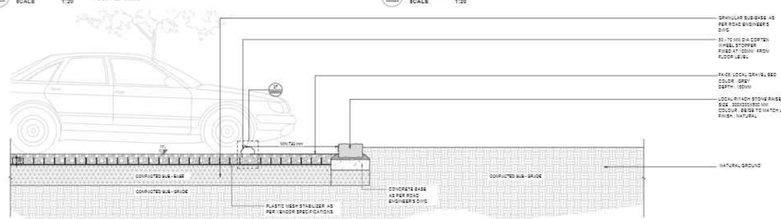


04 SECTION 04
SCALE 1:20

NOTE : PAVING /BLAND PLANTING HERES AND DETAILS REF. BED

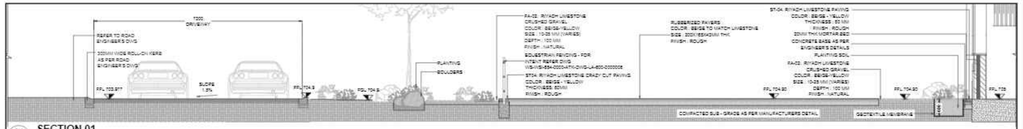


05 SECTION 05
SCALE 1:20

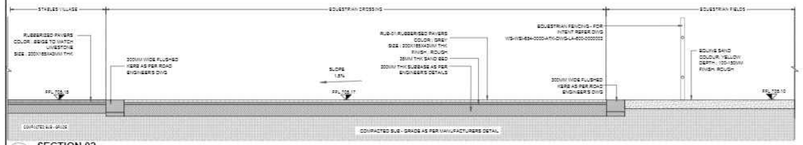


03 TYPICAL PARKING DETAIL FOR STEPPED PARKING AREA (GRAVEL)
SCALE 1:20

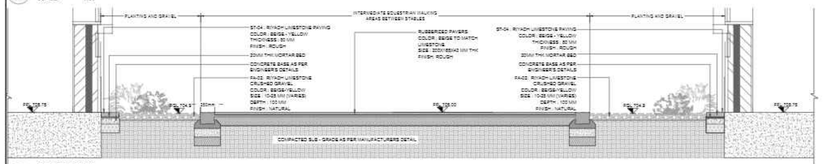
LEGEND	
SYMBOL	DESCRIPTION
	FA 02 : RIYADH LIMESTONE CRUSHED GRAVEL COLOR : BEIGE / YELLOW SIZE : 10-20 MM (VARIED) DEPTH : 100 MM FINISH : NATURAL
	FA 05 : LOCAL GRAVEL BED COLOR : GREY DEPTH : 150 MM FINISH : NATURAL
	ST01 : CONCRETE FLAGSTONE COLOR : BEIGE TO MATCH LIMESTONE SIZE : 600X600X50 FINISH : ROUGH
	PLANTING
	ST04 : RIYADH LIMESTONE CRAZY CUT PAVING COLOR : BEIGE / YELLOW THICKNESS : 50 MM FINISH : ROUGH
	ST 05 : RIYADH LIMESTONE CRAZY CUT PAVING COLOR : BEIGE / YELLOW THICKNESS : 100 MM FINISH : ROUGH
	100MM THK MULCH
	BOULDERS



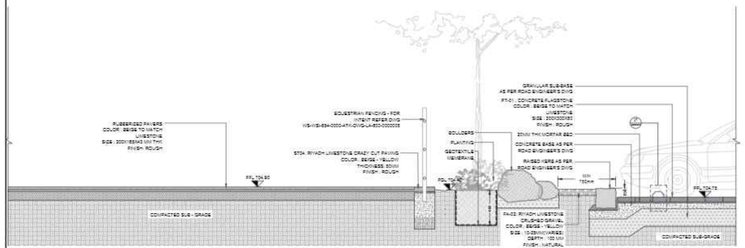
01 SECTION 01
SCALE 1:50



02 SECTION 02
SCALE 1:25



03 SECTION 03
SCALE 1:25



04 SECTION 04
SCALE 1:50



DIRIYAH GATE PHASE 3

The Diriyah Gate Phase 3 is envisaged to be a traditional residential focussed development which celebrates and integrates existing Heritage assets like Ghasibah, At-Tarfiyah and Historic Walls. A sustainable development which embraces natural elements like Wadi Hanifah, Existing Farms and Tributaries. The Land Use programme for Diriyah Gate 3 Community is largely comprised of residential uses accompanied by retail, commercial, and hospitality uses, as well as auxiliary community facilities. The distribution of land use is determined by the location of existing wadis, street networks, heritage assets, surrounding developments, essential development facilities, and emerging residential typologies. The Land Use programme for Diriyah Gate 3 Community is largely comprised of residential uses accompanied by retail, commercial, and hospitality uses, as well as auxiliary community facilities. The distribution of land use is determined by the location of existing wadis, street networks, heritage assets, surrounding developments, essential development facilities, and emerging residential typologies.

Location : Saudi Arabia

Public Realm Vision and Principles

Overarching Strategies

The Diriyah Gate 3 Masterplan aspires to develop a dynamic, community-driven, and sociable public realm that is in harmony with the Kingdom's 2030 Vision. It aims to elevate the overall quality of life for Saudi citizens by enhancing urban liveability, promoting healthy lifestyles, and building a more vibrant and inclusive society.

A key focus of the masterplan is to create a connected experience through a network of well-planned walking paths, cycle lanes, and transit points that seamlessly integrate the public spaces. This allows for an accessible environment where people can easily come together, fostering a sense of community and interaction.
Equally important is our commitment to site-sensitive design, where the unique cultural and environmental attributes of the area are thoughtfully integrated into the public realm. This ensures that the space is not just functional but also meaningful, resonating with both residents and visitors alike.
Furthermore, the development of a healthy neighbourhood is prioritized by incorporating elements that encourage physical activity, mental well-being, and social engagement. Features such as green spaces, exercise zones, and calming water elements are designed to support a balanced, healthy lifestyle for all.

By implementing these 4 pillars—community-focus initiatives, connected experiences, site-sensitive design, and a focus on a healthy neighbourhood—the Diriyah Gate 3 Masterplan aims to set a new standard in public realm design, aligned with the broader aspirations of the Kingdom's 2030 Vision.

Traditional Approach

Creating spaces that serve the specific needs and aspirations of the local community. By offering amenities like communal gathering spots, play areas, and cultural features, the design aims to foster social interaction and a strong sense of local identity, making the public realm a vital part of community life.



The Wadi System

The Wadi will maintain a productive function, farms open to the public and farm - to - table concepts , In addition, Providing Vibrant area, hosting F&B, outdoor activities such as equestrians and sport parks.



Preservation of existing Assets

Carefully incorporating the area's unique characteristics, including existing trees, historical structures, farmland, and wadi landscapes. By preserving and integrating these elements, the design maintains local character and fosters a meaningful connection between the community and its natural and cultural heritage.



Quality Of Life

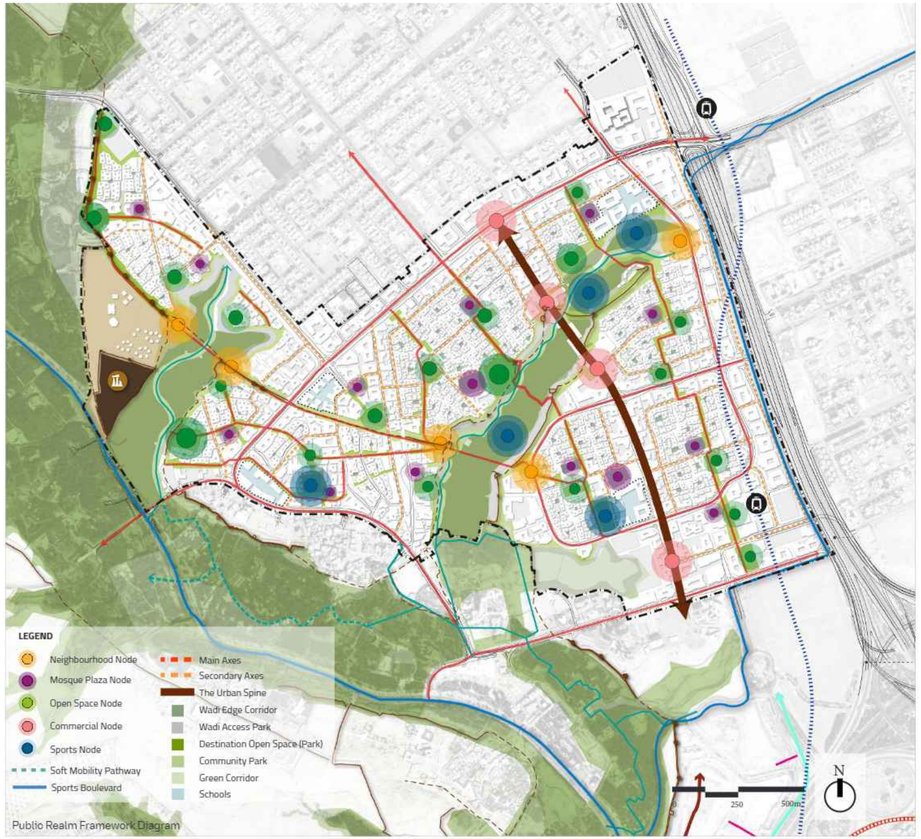
creating accessible, safe, and vibrant spaces that promote well-being for all residents. It incorporates elements like walkable streets, ample green spaces, and community gathering spots, all designed to encourage physical activity, social interaction, and a strong sense of community.



Public Realm Framework

The Diriyah Gate Phase 3 public realm serves as a pivotal component in the overarching master plan, aimed at fostering a community-centric, well-connected, and dynamic development. It prioritizes human-centric design and social engagement, offering a range of amenities for both residents and visitors. The framework for this public realm is guided by several key objectives:

- Pedestrian-Focused Design: The development aims for an active, safe, and healthy neighbourhood. It achieves this through shaded linkages, safe crossings and junctions, active storefronts, and welcoming streets and public open spaces.
- Connectivity to Wadi: The design ensures direct, convenient, and comfortable linkage between the neighbourhood and the adjacent wadi, integrating natural landscapes into daily life.
- Accessible Public Parks: Each neighbourhood will feature a public park within a 10-minute walking distance to encourage walkability and promote an active lifestyle among residents.
- Cultural Integration: The development celebrates the existing wadi cultural landscape by ensuring accessibility, integrating it with adjacent land uses, and creating activation programs to bring the community closer to its natural and cultural heritage.



Public Realm Framework Diagram

Design Principles

Diriyah Gate 3's public realm will be a distinctive landscape that celebrate the project' rich natural and cultural heritage. Beyond its unique aesthetic features, it's crucial to offer seamless connectivity and full accessibility in these open, public areas. To engage users, a variety of landscape elements and attractions are incorporated, all cohesively connected through an extensive network of pedestrian walkways and cycle routes.

The design principles outlined for Diriyah Gate 3 aim to cultivate a dynamic, health-conscious, and environmentally sustainable atmosphere that is finely attuned to Saudi Arabia's climate and natural landscape. By successfully implementing these principles, The aim is to establish a new quality benchmark for public spaces that will significantly contribute to Diriyah Gate 3's long-term success.

The principles outlined here serve as the foundational guidelines for the comprehensive public realm design strategy across the site;

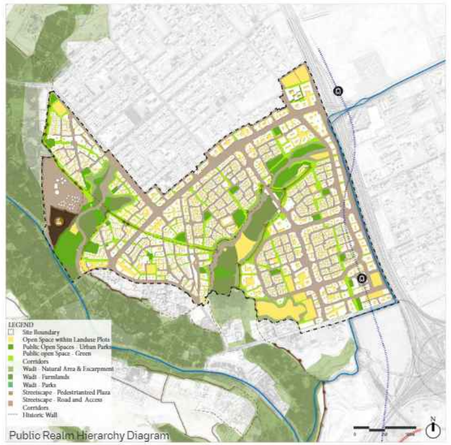
- Compact Urban Form
- Community Hubs
- Activity Center
- Connection
- Natural Enviroment



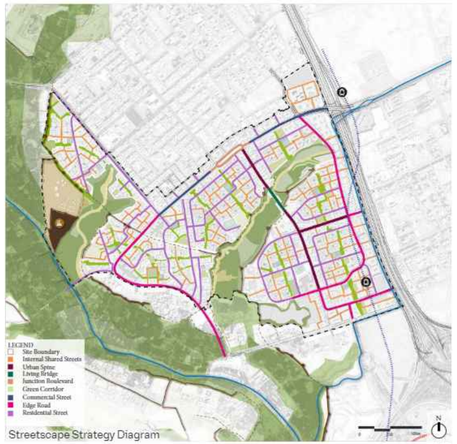
Open Space Typologies Diagram



Landscape Character Zone Diagram



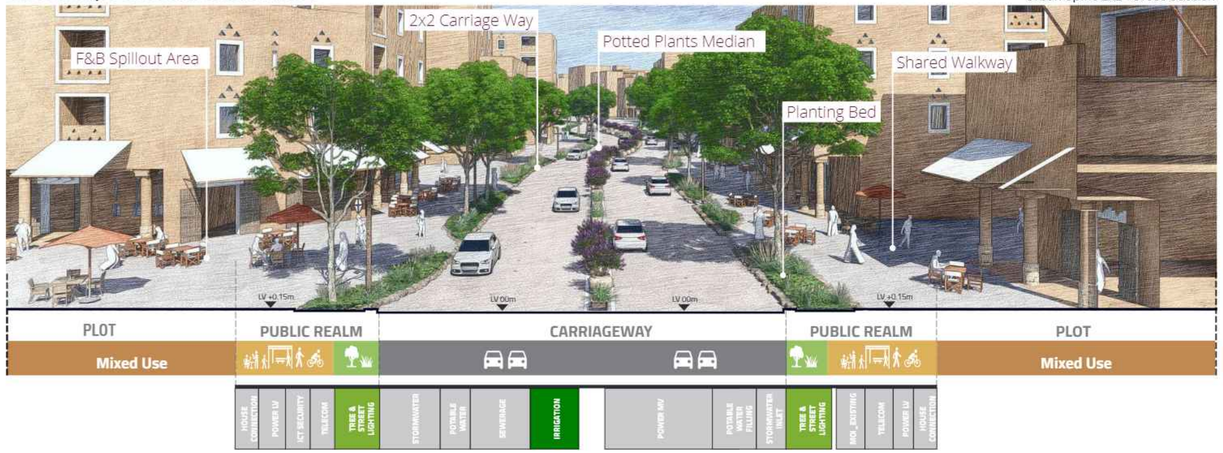
Public Realm Hierarchy Diagram



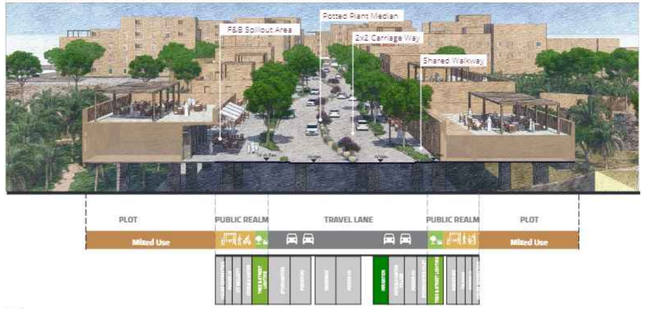
Streetscape Strategy Diagram

Streetscape Sections with Utilities

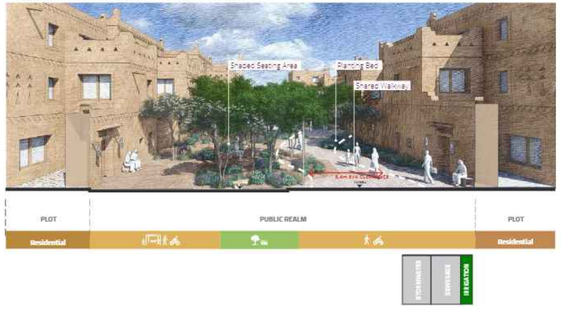
Urban Spine 2x2 - Cross Section



The Living Bridge (2x2 Road Arrangement) - Cross Section



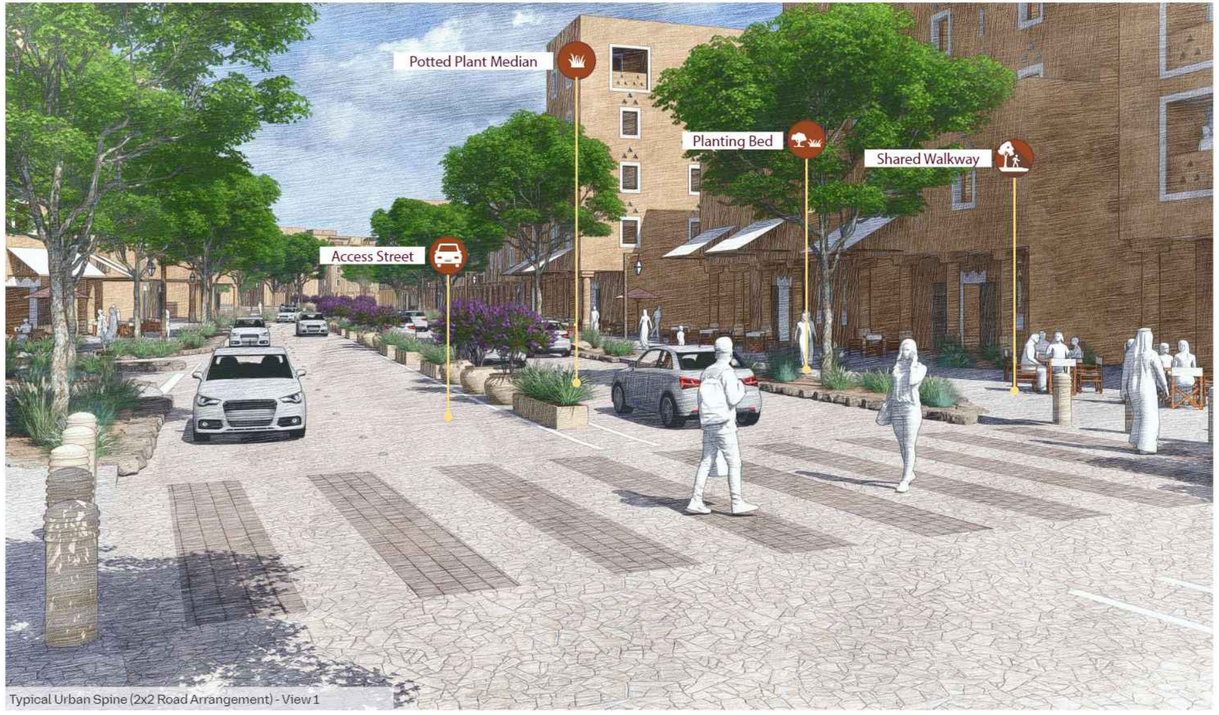
Typical Green Corridor - Cross Section



Streetscape and Public Realm Views



Streetscape Strategy Diagram



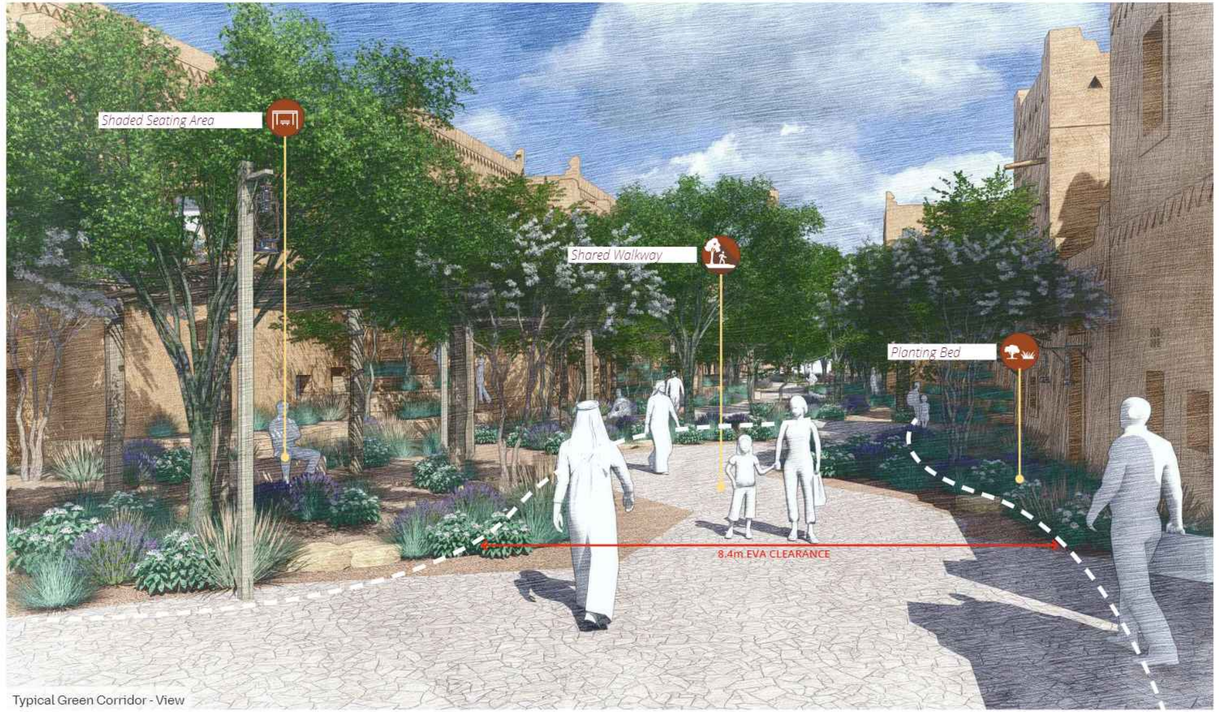
Typical Urban Spine (2x2 Road Arrangement) - View 1



Typical Urban Spine (2x2 Road Arrangement) - View 2



Junction Boulevard - View



Typical Green Corridor - View

SAADIYAT CULTURAL DISTRICT

Saadiyat Cultural District is set to become the heart of the cultural and social life of Abu Dhabi and beyond. A new destination for local and international visitors. A truly unique combination of pristine beach, world class landmarks and city center cultural institutions. A series of assets will be able to complete the existing condition while adding social, economical and ecological value and, finally, fully integrated with the surrounding. A community connected by a green network, that becomes the stage for multiple acitivies, identities and exhibitions. The perfect base for one of the future most creative communities in the world.

Location: Abu Dhabi , United Arab Emirates

Landscape Strategies

Create an improved 'sitewide street components'

Develop each district character with a unique accent component

Provide shading components (trees, shelters, canopies) along the main paths and open spaces

Maximize the vegetation area, increasing permeability and softness



District Characters on Masterplan



Character District Views



Artisan District - View



Business District - View



City Centre District - View

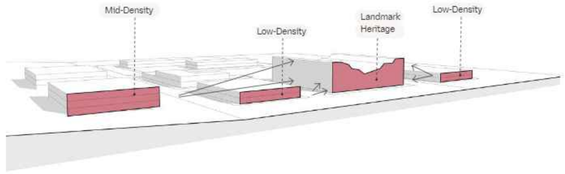
54m Roundabout Design

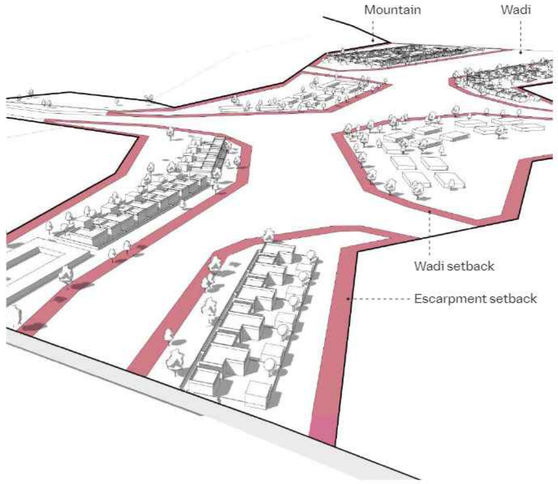




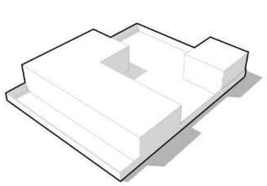
Architecture Concept Visuals

Sections , Diagrams

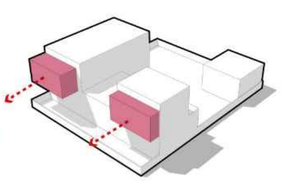




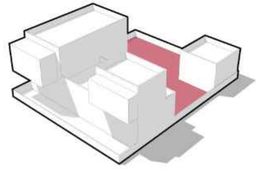
Form Progression



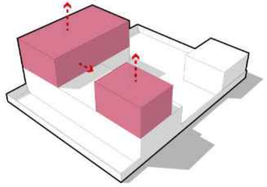
Simple Block Massing



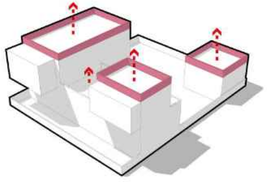
Facade Articulation



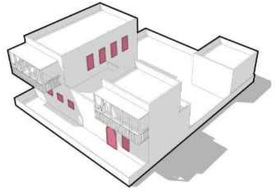
Courtyard Defined



Massing Articulation



Parapet Wall Extrusion



Access & Openings

Material Boards



AMENITY AREA R08 - INTERACTIVE WATER FEATURE



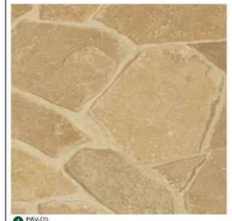
2 PAV-03
Material: Riyadh Limestone
Colour: Beige
Size: 200-400mm x 200-400mm x 30mm



3 COP-01
Material: Riyadh Limestone
Colour: Beige
Size: 250mm x 300mm x



4 WAL-02
Material: Riyadh Stone Cladding Tiles
Colour: Beige



1 PAV-05
Material: Riyadh Limestone - Flagstone Cut (Large)
Colour: Beige
Size: 400-600mm x 400-600mm x 30mm



5 TIM-01
Material: Composite Timber
Colour: Natural Faded



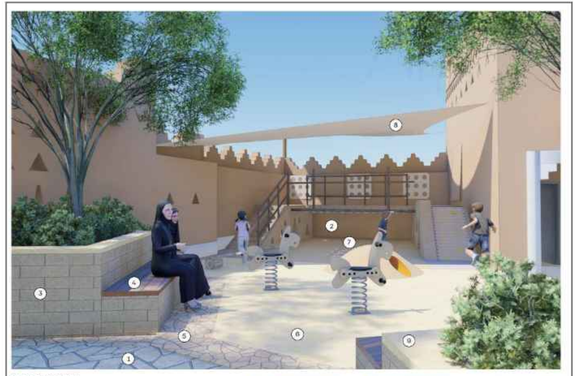
6 PAV-10
Material: Riyadh Limestone Slab
Colour: Beige



7 PAV-07
Material: Riyadh Limestone Uniform Pentagonal Shape
Colour: Beige



8 RAL-01
Material: Steel post and Railing with Timber Finish Coating



KIDS PLAY AREA



2 WAL-01
Material: Spacial Paint - Mud Imitation
Colour: Beige



3 WAL-02
Material: Riyadh Stone Cladding Tiles
Colour: Beige



4 TIM-01
Material: Composite Timber
Colour: Natural Faded



1 PAV-05
Material: Riyadh Limestone - Flagstone Cut (Large)
Colour: Beige
Size: 400-600mm x 400-600mm x 30mm



5 PAV-03
Material: Riyadh Limestone
Colour: Beige
Size: 200-400mm x 200-400mm x 30mm



8 SHD-01/ 02/ 03
Material: PTFE Tensile Fabric
Colour: Beige



6 RUR-01/ RUR-02
Material: EPDM Wet Pour
Colour: Dark Beige and

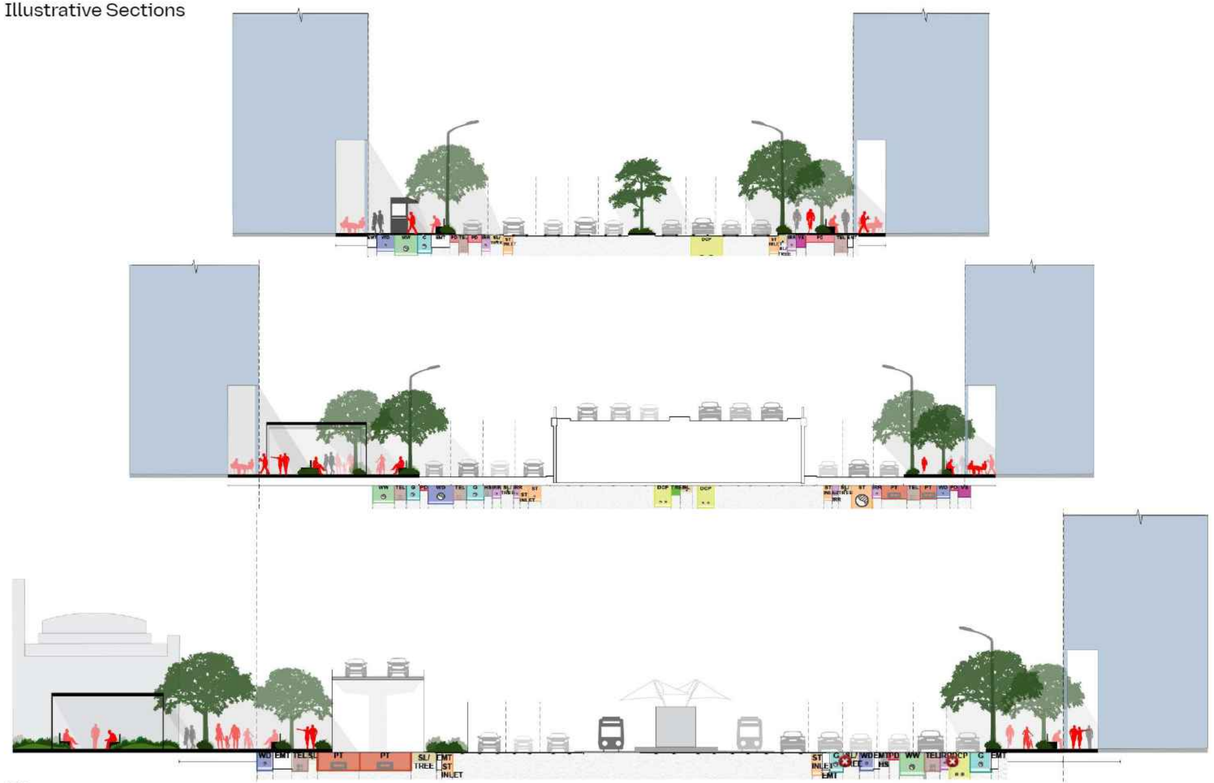


9 COP-01
Material: Riyadh Limestone
Colour: Beige

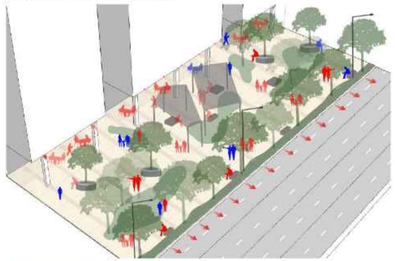


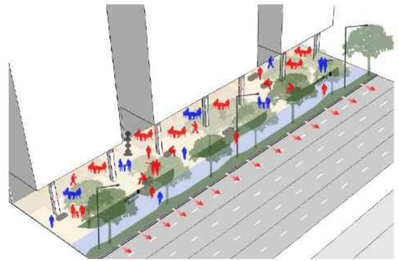
7 SND-01
Material: Play Sand
Colour: Beige
Size: N/A

Illustrative Sections

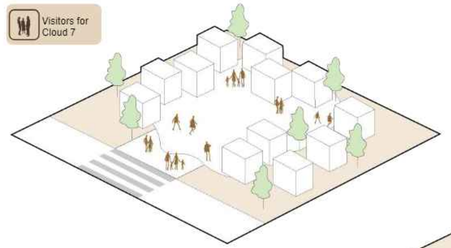


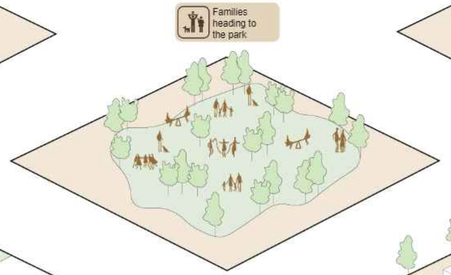
Typology Diagrams

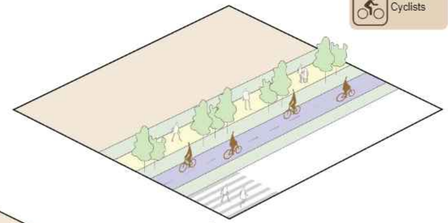


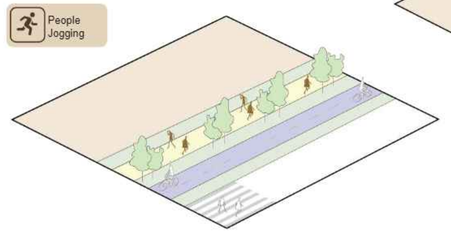


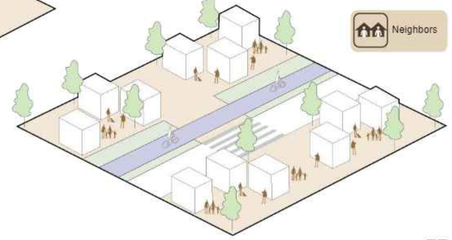












THANK YOU

Contact.

Email Id : devikakumar0698@gmail.com
LinkedIn Id: www.linkedin.com/in/devikakumarlekha
Phone No. : +1 (647)519-8525