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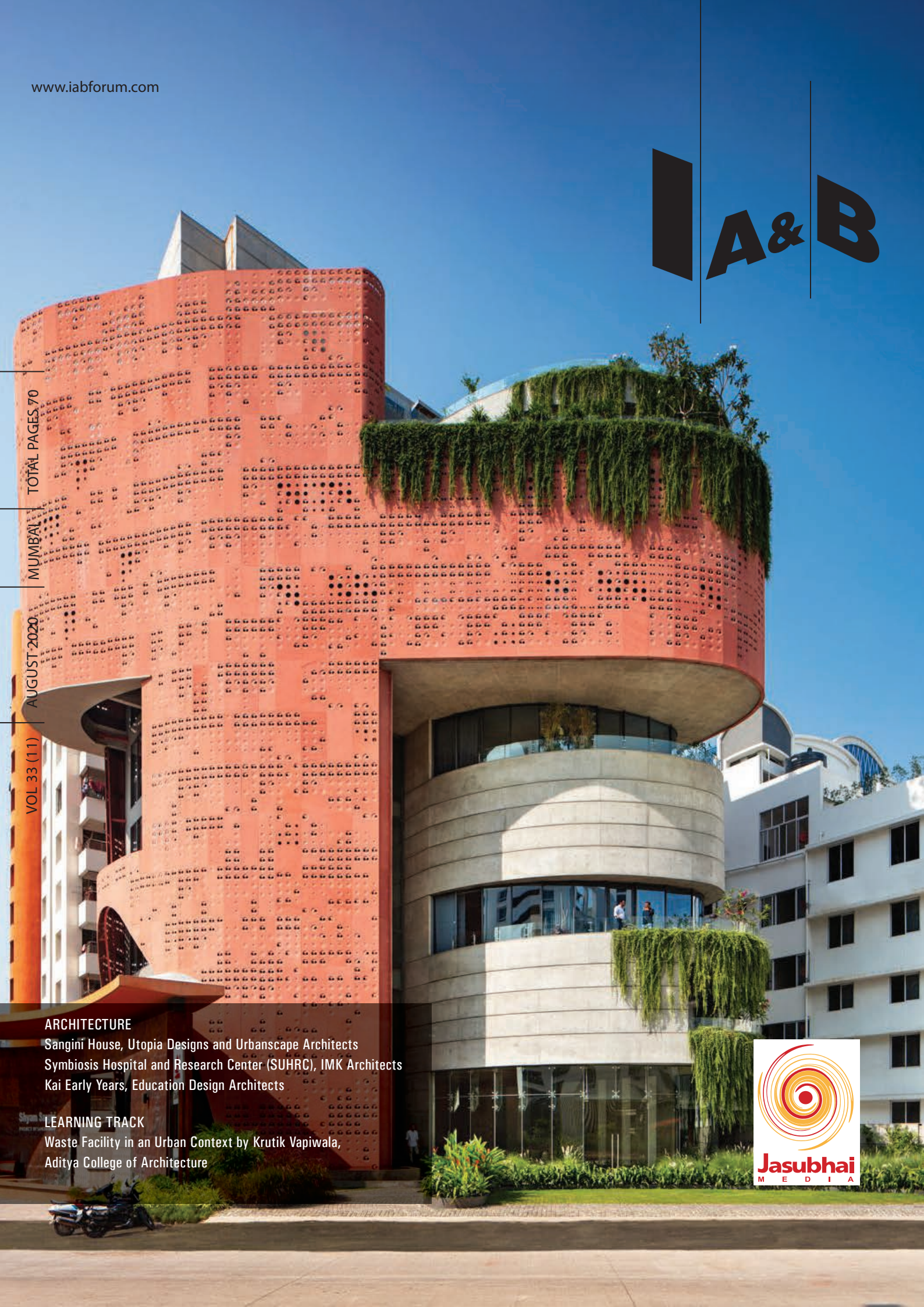

ARCHITECTURE

Sangini House, Utopia Designs and Urbanscape Architects

Symbiosis Hospital and Research Center (SUHRC), IMK Architects

Kai Early Years, Education Design Architects

LEARNING TRACK

Waste Facility in an Urban Context by Krutik Vapiwala, Aditya College of Architecture

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Cinema at Home Made Easy

Epson-Home-Cinema-1060-Sports

You may not be able to go to the cinemas for a while, but big-screen cinema can certainly come home to you. This means no crowds, no bad seats, no waiting - and most importantly - watch a great show or movie the way it was always meant to be seen: larger than life and with the controls in your hand. That's what an Epson Home Theatre Projector is about - the perfect way for the family to gather together and share in a spectacular experience every time. Stream a favourite show, binge watch, catch the latest blockbuster, watch a great classic on the big screen, play mind-blowing games, watch that exciting live match or music concert on the biggest screen there is, all from the safety and comfort of your home.

Big Screen, Bigger Entertainment

There couldn't have been a more opportune moment to pick up a projector for home, given the amount of time everyone is spending indoor these days. With a screen that goes up to 762 cm* (300 inch), where every tiny image seems to pop right off, it adds that next level wow factor to your regular home entertainment.

The scale an Epson Home Theatre projector offers goes way beyond any television screen, with multiple options for cinematic image control, rich images, easy plug and play setup and inputs from several devices. And it does not cost much!

HC_6040UB_LIFESTYLE

Three Times Brighter Colours

Treating your friends to a live match on a massive screen, or gaming your way into the next level, even in brightly lit rooms is possible with Epson's 3LCD projectors. With 3 X Brighter Colours that have an equally high White and Colour Light Output, Epson Home Theatre Projectors deliver spectacularly life-like images where every detail comes alive.

The Most Immersive Viewing Experience

Talking about a flawlessly immersive and larger-than-life viewing experience, Epson's 4K PRO-UHD resolution enhancement technology infuses rich details in every image, no matter how little, thereby rendering immaculate content that's sharp, stunning and also easy on the eyes.

Quick Connectivity

Be it Wi-Fi, USB, DisplayPort, or HDMI, Epson Home Theatre Projectors come with a suite of connectivity features so no matter which smart device you use, or not use, streaming your favourite shows will always be quick and easy.

Easy to Setup

Contrary to what some may think, installing a projector takes very little effort, and it works

Living_Cut

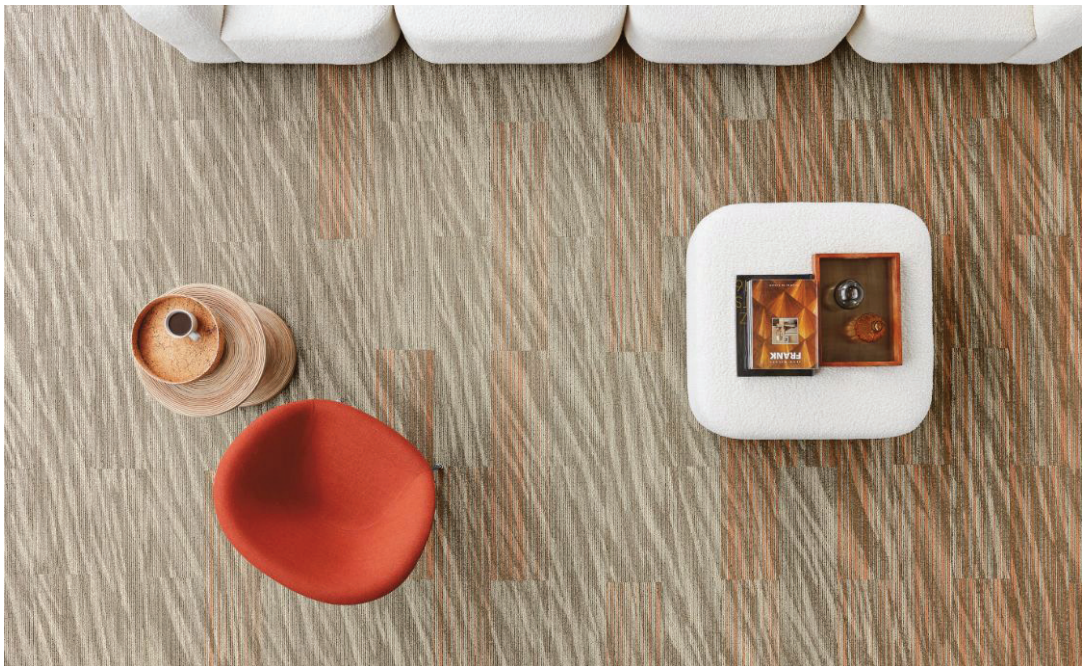
Outdoor

for homes and rooms of any size. Epson's Home Theatre Projectors are sleek, compact, light-weight, easy to install, and can be quickly set up anywhere in a room. You can have a permanent setup by mounting it to the ceiling, or put it on a shelf, or just bring it out and place it on the coffee table. Some models are easily portable, so you can enjoy a show even on the terrace or garden. To make your viewing experience even smoother, you can also seamlessly connect to your smart devices. And if the built-in speakers aren't enough for you, you can plug into your own sound system.

An Offer You Cannot Refuse

If you thought owning a projector at home will cost you the earth then it's time to think again. Epson has come up with a Cinema @ Home Offer package which lets you have an Epson EH-TW650 Home Theatre Projector along with a Yamaha YAS-209 Soundbar with a Subwoofer, and also a Milan 254 cm (100 inch) screen, all for Rs. 89,999/- So make staying at home extra special by never having to miss out on the big screen experience ever again! ■

Shaw Contract Launches the Journey Carpet Tile Collection to Deliver an Impactful Experience Through Space and Time.



Just as any travel journey is more than pure physical movement, the JOURNEY collection of carpet tiles from Shaw Contract suggest the migrating sense of place and time of an ever-evolving planet. The Journey collection contemplates our past, our present, and our potential future; that calls to mind the smallness of our world and of the tangible connections that unite us. The fluid transition between patterns and colours suggest the longing of the human mind for peace and the joy of nature's endlessness.

Journey is designed with circularity in mind: a rigorous framework for environmental and social responsibility to positively impact people and our planet. For instance, from the arid Sahara Desert, a remarkable journey takes place that brings sand clouds across the Atlantic Ccean before they come to rest in the Amazon Basin. Here, the nutrient-rich grains of sand from one of the driest places on earth become the fertilizer for one of the world's most precious ecological resources.
A perfectly circular journey!

Made with EcoWorx® backing, the Journey collection has superior durability, style and recyclability. Backed by the Shaw Contract lifetime commercial limited warranty against staining, wear and backing integrity, the loop construction gives added strength to endure higher traffic areas.

More information on the collection is here: https://www.shawcontract.com/en-in/collection/details/jy. ■

For more information, please contact:
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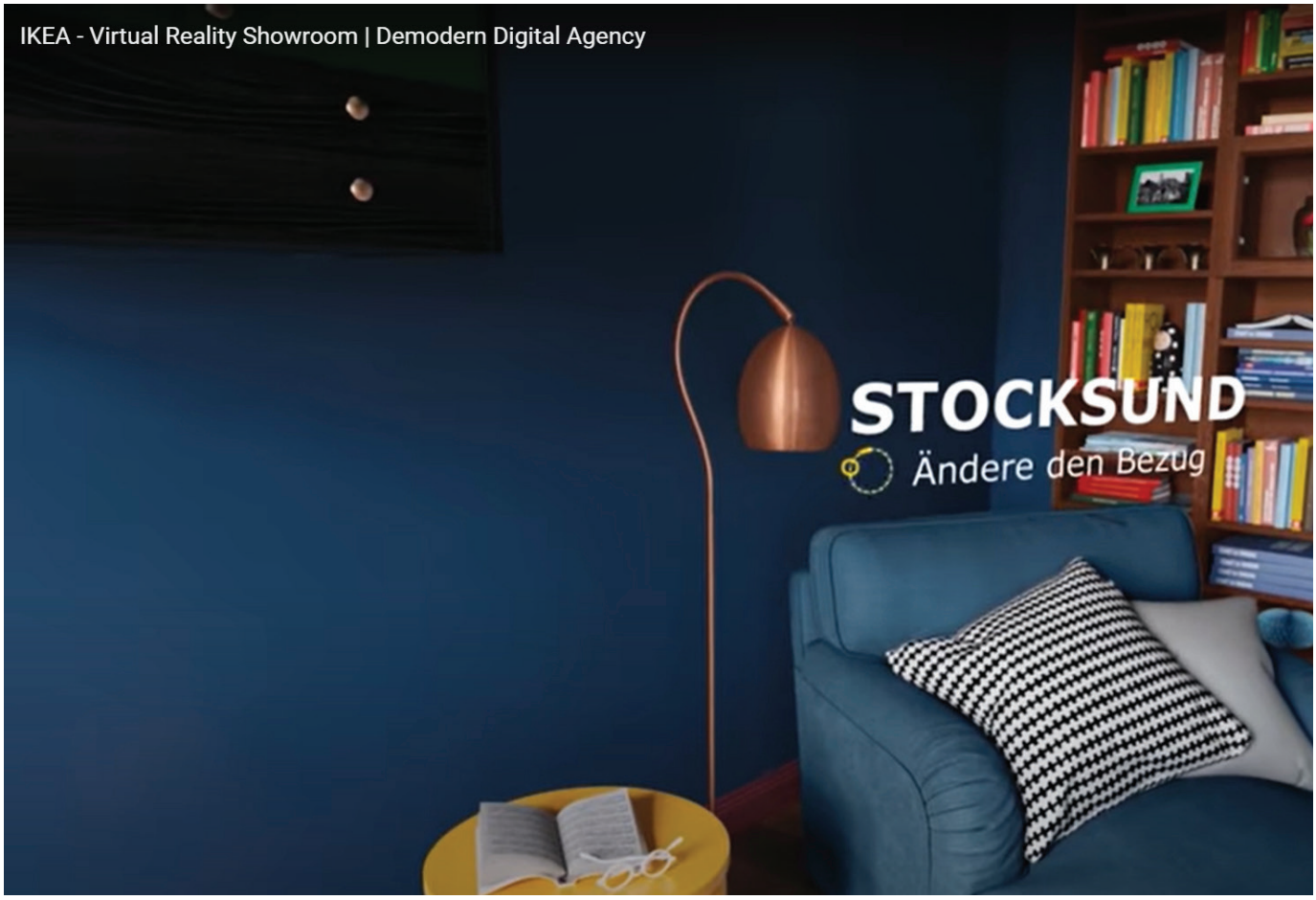
India, Bangalore - 560001
+91 80677 30202
Email: asia.marketing@shawcontract.com
Web: https://www.shawcontract.com/en-in

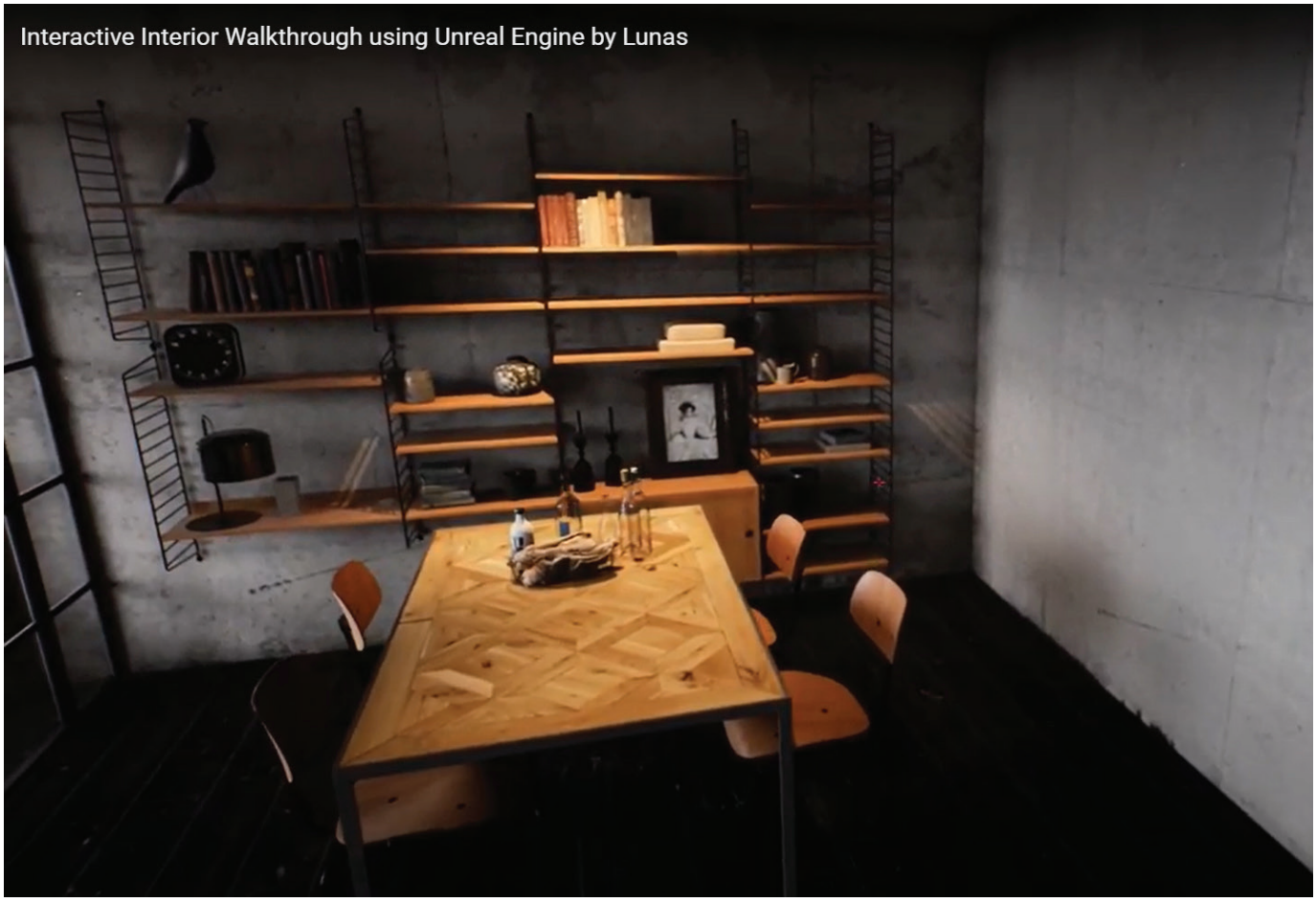
Visit the IKEA Showroom at the comfort of home



Video Link: https://www.youtube.com/watch?v=Zd7ZWgVqslo

IKEA is revolutionising and recreating the user experience of designing homes and spaces through its Virtual Reality Showroom. IKEA's Virtual Reality Showroom brings to life an interactive digital realm that allows its users to explore products through a virtual interface. From choosing products to experimenting with decor and aesthetics, the virtual showroom enables an immersive experience of interaction and configuring furniture. The 360 degree experience allows them to combine fabrics, wall colour and even the time of the day. With an array of possibilities with colour, textures and finishes; IKEA redefines the art and flourish of decorating homes.

Interactive Interior Walk through



Video Link: https://www.youtube.com/watch?v=d9_2dgP6WZI

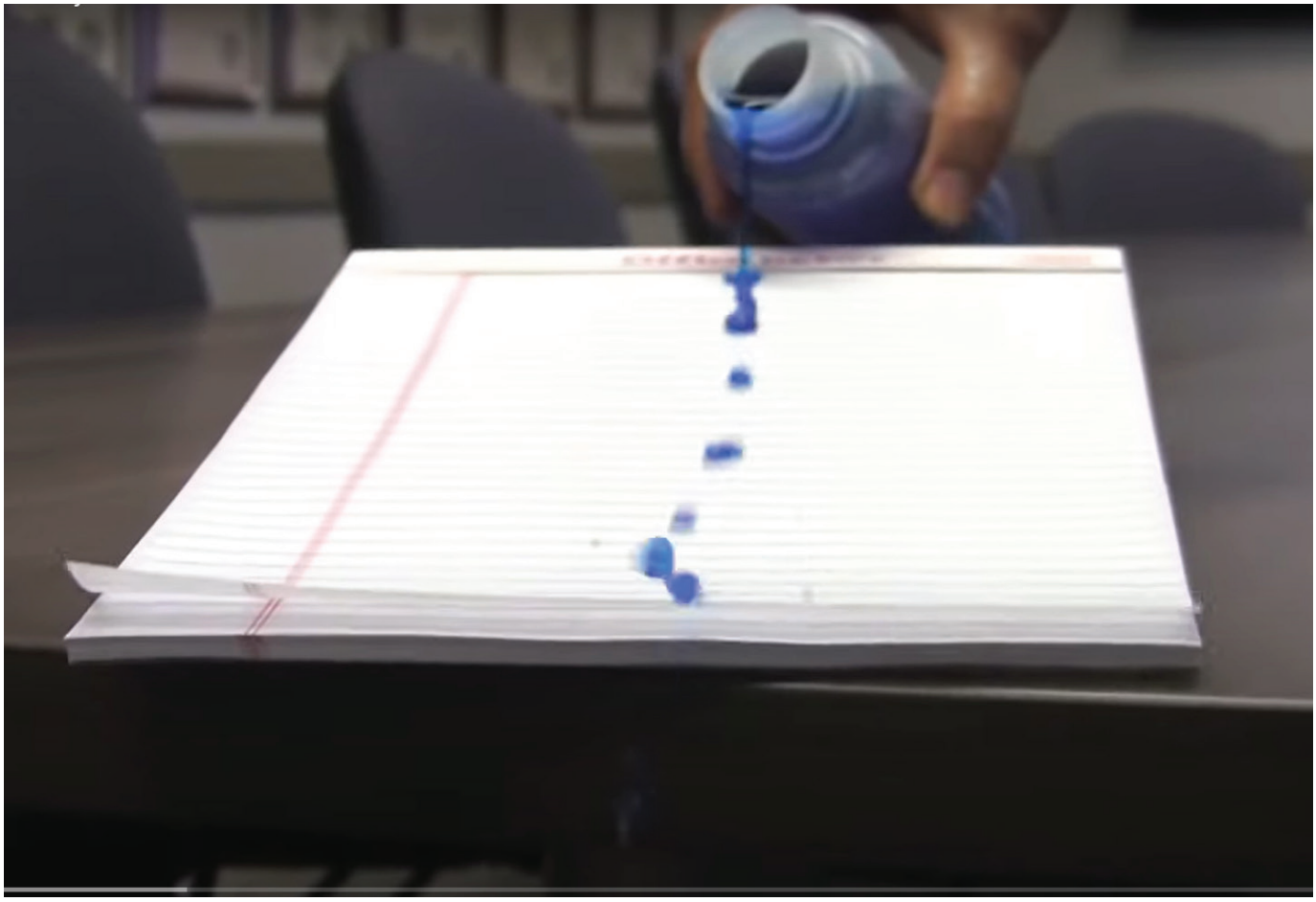
Blurring boundaries between reality and virtual realms; Lunas 3D Visualization Studio recreates spaces with high attention to detail and an intricately crafted expertise on screens. The virtual tour resplendent with realistic finishes allows the user to visually experiences tactility, textures, spatial qualities and more. The video-walkthrough allows for immersive qualities which gets as close to reality as the lived experience of navigating a finished space. Lunas 3D Visualization Studio offers virtual rendering with such finesse and perfection to redefine space design and experience.

Tata Steel: Leadership on sustainable futures

Video Link: https://www.youtube.com/watch?v=DUTFfkAGcDs

Sustainability must be at the heart of all design for a holistic future of the planet. Being a 100 year old company, Tata Steel recognised the need for sustainable solutions ahead of its peers and contemporaries. The practice inculcates sustainability from the grassroots to its office culture to its product and service offerings and future innovations like renewable energy, short distance mobility and the role of technology to enable circular economy. The next seeding project is steel recycling to utilise natural resources responsibly, paving way for a sustainable and self-sufficient future. Tata Steel believes that sustainability is no longer a choice but a crucial undertaking for the survival of humanity.

Ultra-Ever Dry – Liquid Repellent Material Innovation



Video Link: https://www.youtube.com/watch?v=UHcSGSI4WXU

The superhydrophobic (water) and oleophobic (hydrocarbon) coating, Ultra-Ever Dry coats objects to repel wet concrete, water, some oils and liquids. It primarily works to keep off most water-based and some oil-based liquids. Its proprietary omniphobic technology coats objects and creates a surface chemistry and geometric textures with peaks that repel the aforementioned liquids. It finds use in applications that mandate high durability. With improved adhesion and abrasion, Ultra-Ever Dry is optimal in areas and situations for improved strength and liquid résistance.

Light and shadow intermingle in an International Preschool

Kai Early Years, Bengaluru

Kai Early Years in Bengaluru exemplifies a free-flowing environment for young minds to undertake a lifelong journey of creative and holistic growth. Designed by Education Design Architects (EDA), the school has an organic demeanour that is humanised with FunderMax 0922 range of wood-coloured HPL panels. It imbibes equal parts play and poise to allow the child's creativity to meander and grow yet imparts subtle sense of order and discipline.

Text & Images:
Education Design Architects

Kai Early Years, Bengaluru by Education Design Architects (EDA).▶

Freedom of thought, movement and ideas

The brief from the school's promoters to Education Design Architects (EDA), the renowned design firm that specializes in education facility design was to enable organic learning with an emphasis to channel curiosity into productive outlets.

Built environment in urban areas has much to do with a child's early years. Compulsions of urban space planning should not restrict a young learner's view of the world. In short, a school should ideally trigger the child's curiosity and facilitate organic learning in an unhindered manner. Kai Early Years is a new age early learning center that knows both the objectives can be achieved if a suitable environment is consciously created.

FunderMax panels for the natural wood look

The design team's design plan envisioned building a fluid, curvilinear shaped structure. It is accentuated with curved window trims, entry canopies, shading devices and skylights. The intent was to initiate free flowing thought and movement, and set the child's mind free.

While the curvilinear structure is accomplished with plaster & masonry, it needed to be humanized with a sustainable element to endow a warm and inviting feel to the building. The upper part

The upper part of the building is enveloped with a façade comprising exterior grade FunderMax 0922 range of wood-coloured HPL panels.

of the building is enveloped with a façade comprising exterior grade FunderMax 0922 range of wood-coloured HPL panels. The seamless and smooth façade faithfully replicated the curved cement structure.

The team narrowed down on FunderMax panels for the all-weather ruggedness, low maintenance, longevity and the insulation it provided. The sustainability thought extended into many other aspects of the building like rainwater harvesting, low flow plumbing and high performance glass to minimize heat gain.

Result: A free-flowing environment that inspires organic learning

It is a sight to behold watching young children play, enjoy and learn at Kai Early Years, amidst natural air and light. The relentless curiosity and uninhibited movement that the new building allows, in a completely un-intrusive way is a professional high point and fulfils the honest objective of the project.

"We believe every individual deserves an environment that supports active & organic learning. That continues to be our mission and we are committed in our approach to create such environments that inspire learners across geographies"

Education Design Architects (EDA) envisioned a fluid and curvilinear structure. It is accentuated with curved window trims, entry canopies, shading devices and skylights.

About the firm

Education Design Architects (EDA) is an award winning research backed organization focusing exclusively on planning & design of innovative learning environments with the primary goal of improving learning experience.

EDA's practice & consultancy has reached 52 countries across 6 continents transforming educational outcomes from early years to tertiary education. Their vision and approach is to improve learning outcomes by creating environments supported by sustainable and high performance design.

EDA's principals have authored best-selling books, including the landmark publication, The Language of School Design now in its 3rd edition & most recently Learning by Design: Live | Play | Engage | Create. By staying current with the research as well as national and international social, economic and cultural trends, EDA is able to bring best practice thinking from many disciplines and fields to bear on education-related problems and projects. This approach has helped education clients save significant amounts of money while still achieving or exceeding their schedule and quality expectations.

EDA's team include leading international educators and technologists as well as planners and architects. Their collaborative process builds bridges across diverse communities of stakeholders to create exemplary campus facilities that will stand the test of time. ■

FACT FILE

Project	:	Kai Early Years
Location	:	Bengaluru
Architect	:	Education Design Architects
Design Team	:	Mugdha Thakurdesai, Sagar Vijaynidhi, Abhishek Chopra, Shanti Jamoh
Website	:	www.educationdesign.in
Area	:	1400 Sq.mt. (Overall facade area: 5200 Sq.mt.)
Façade Material	:	FunderMax Max Exterior décor 0922
Application	:	Façade
Business Partner	:	Bangalore ProTech Controls

Crafting an identity

Sangini House, Surat, Gujarat

Created for a leading construction firm in Surat, Sangini House explores ways of responding to context and its heritage precinct. Designed by Delhi-based Urbanscape Architects, "The development is envisioned as an upcoming real-estate epicentre providing a revived infrastructure and a healthy lifestyle for its inhabitants."

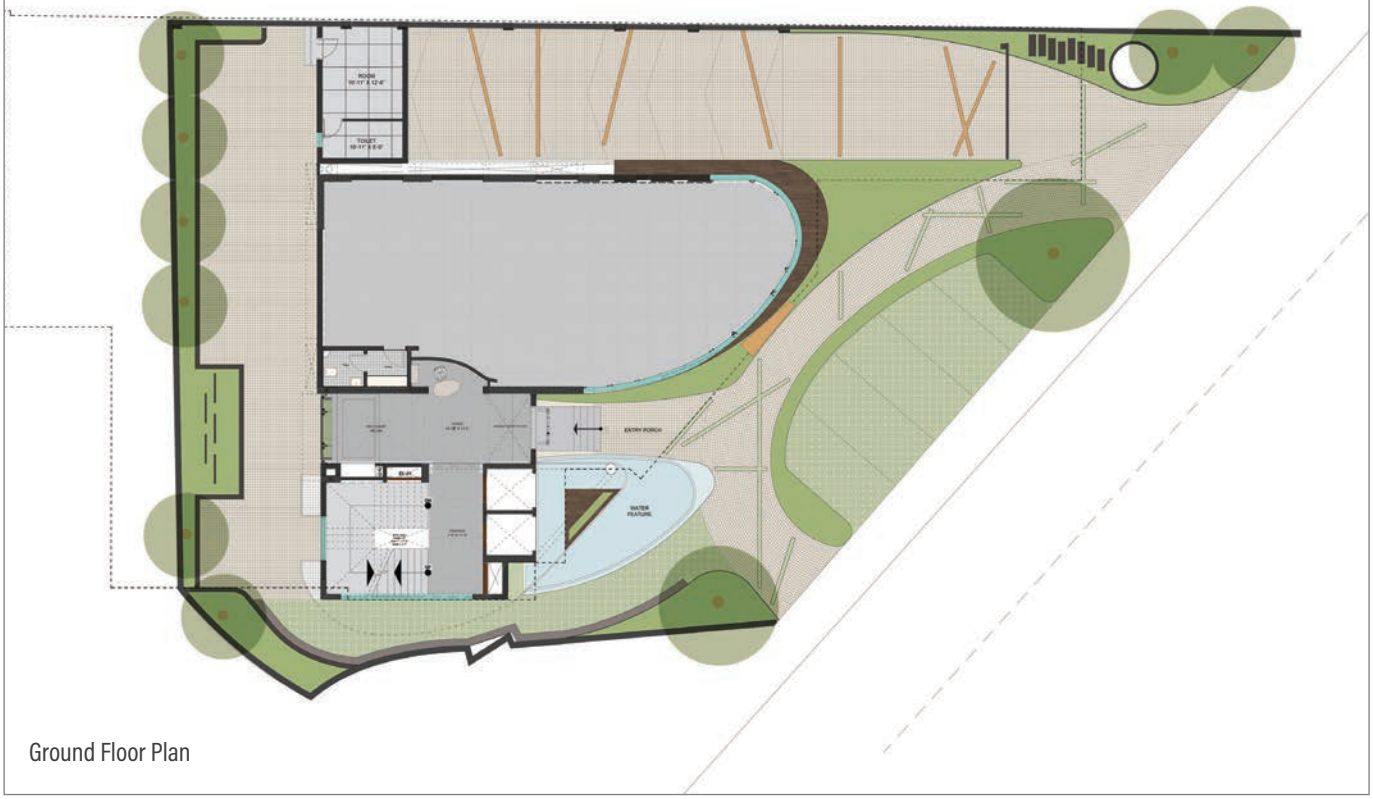
Text: Shriti Das
Images: André Fanthome
Drawings: Urbanscape Architects

Sangini House, Urbanscape Architects + Utopia Designs

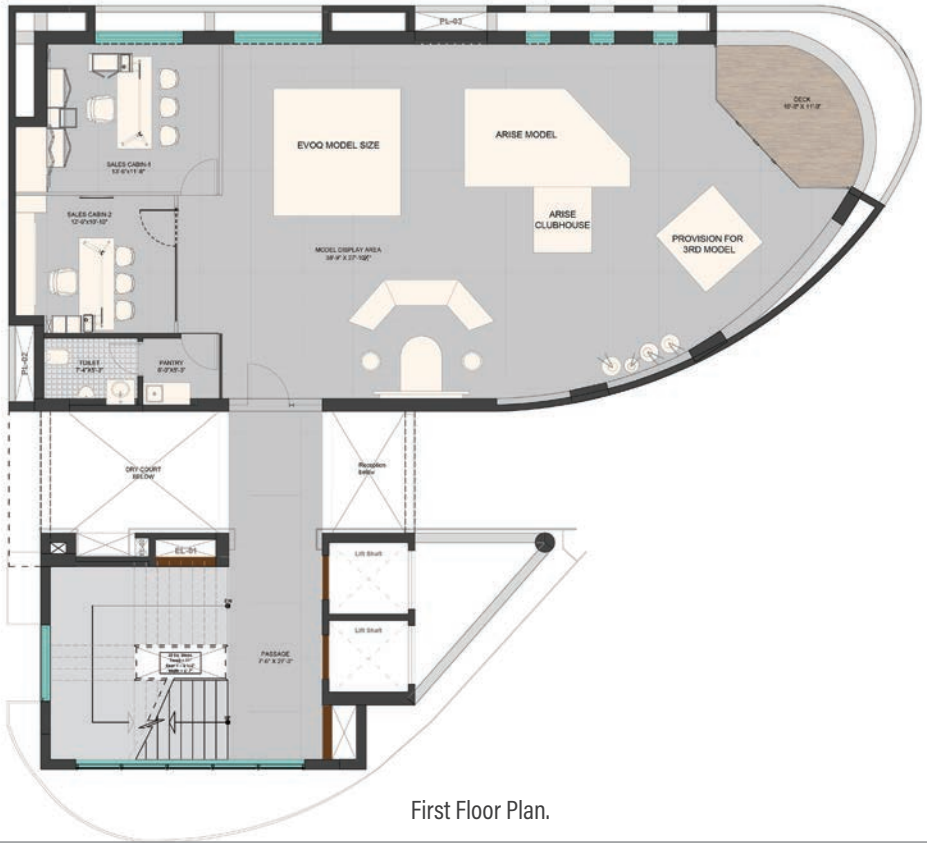
Exposed concrete imparts an industrial aesthetic into the interiors.

Sangini House is designed for the Sangini Group, a leading construction firm in Surat. Known for delivering technical excellence in building design, the office represents its ethos as a sculptural manifestation. The building also demonstrates a construction system that, "defy the conventional grid structure with post-tensioned sweeping floors have been cast along with exposed concrete walls. The voluptuous space of the eight stories structure transforms visibly into a five-storied structure; a warm and composed space that is more homely and less corporate."

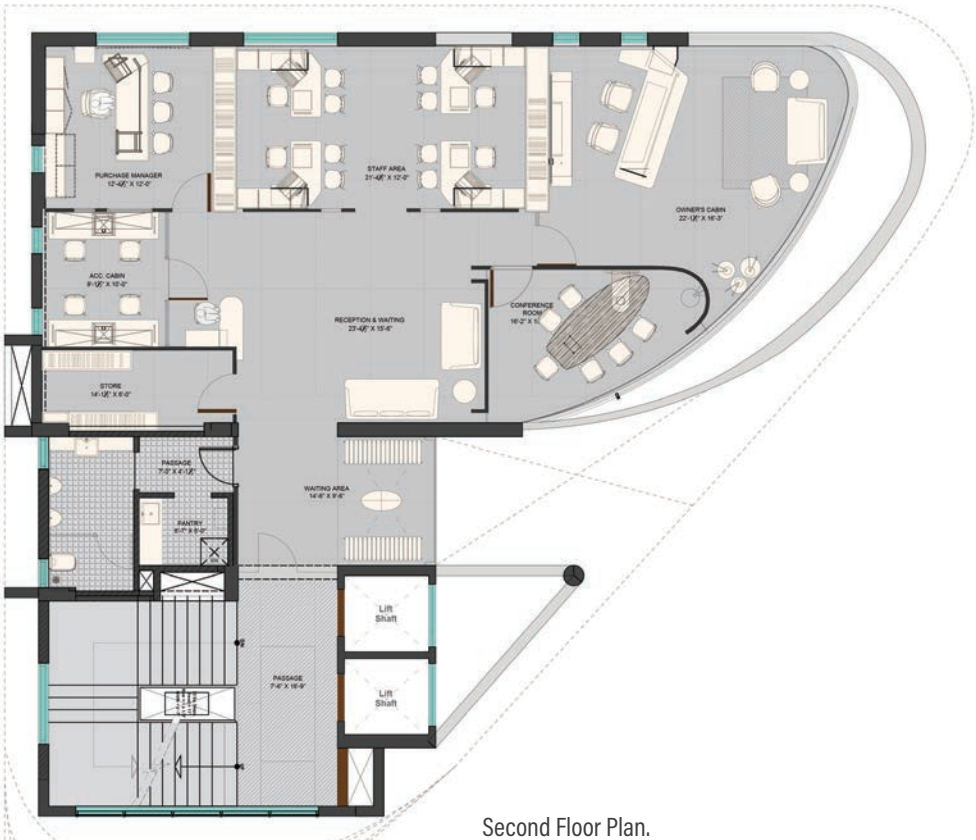
The building is designed as a work of art with a dynamic volume. Its textured stone facade with three-dimensional perforations that wraps the fifth and sixth floor, endows it a distinct visual identity. It creates a high entrance which imbibes stature; however, the earthy stone texture tempers the lofty mass with its grounding demeanour. The stone-skin is devised to not only impart aesthetic but it also shades the building from harsh sun-light. The building is, in fact, designed according to the sun-path and environmental factors. The building has ventilation systems for cooling with radiant floors and aims to achieve the green platinum rating. "Other means of energy systems in the building include the rainwater harvesting and drip irrigation systems used for minimal water usage. The facade design and highly efficient services equipment and systems in the building are integral to the energy strategy of the building."



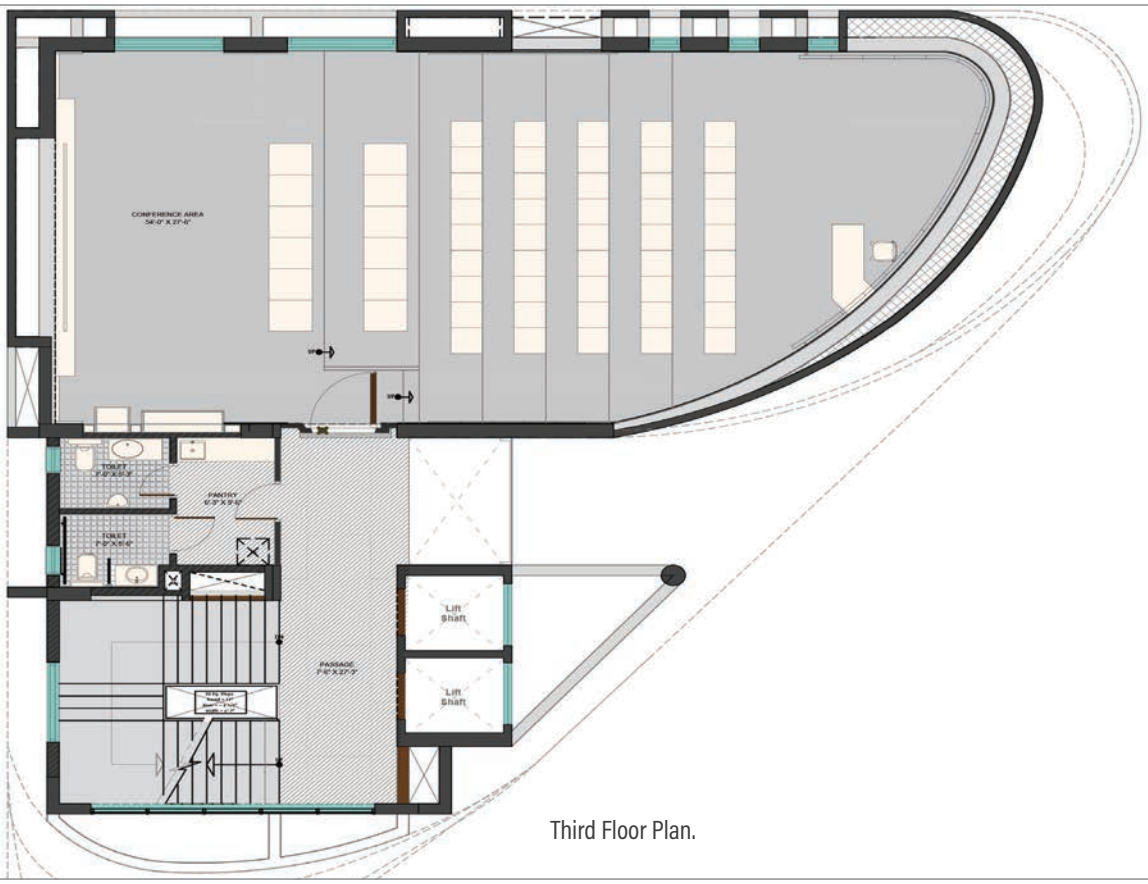
Ground Floor Plan



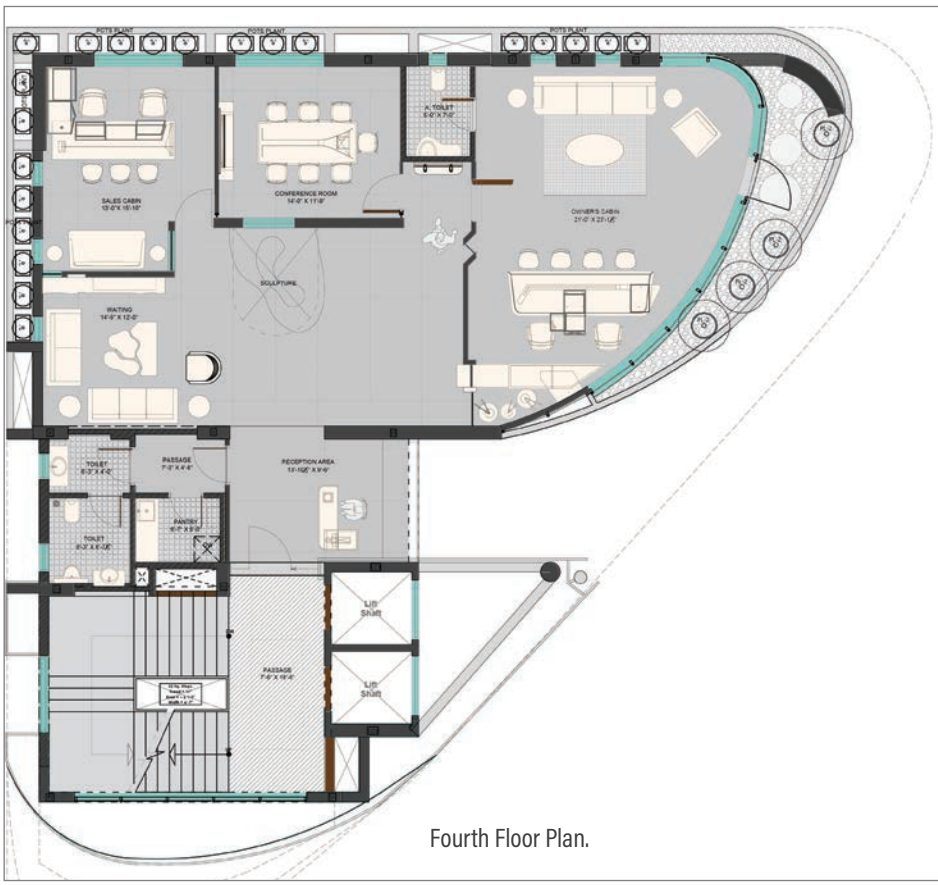
First Floor Plan.



Second Floor Plan.



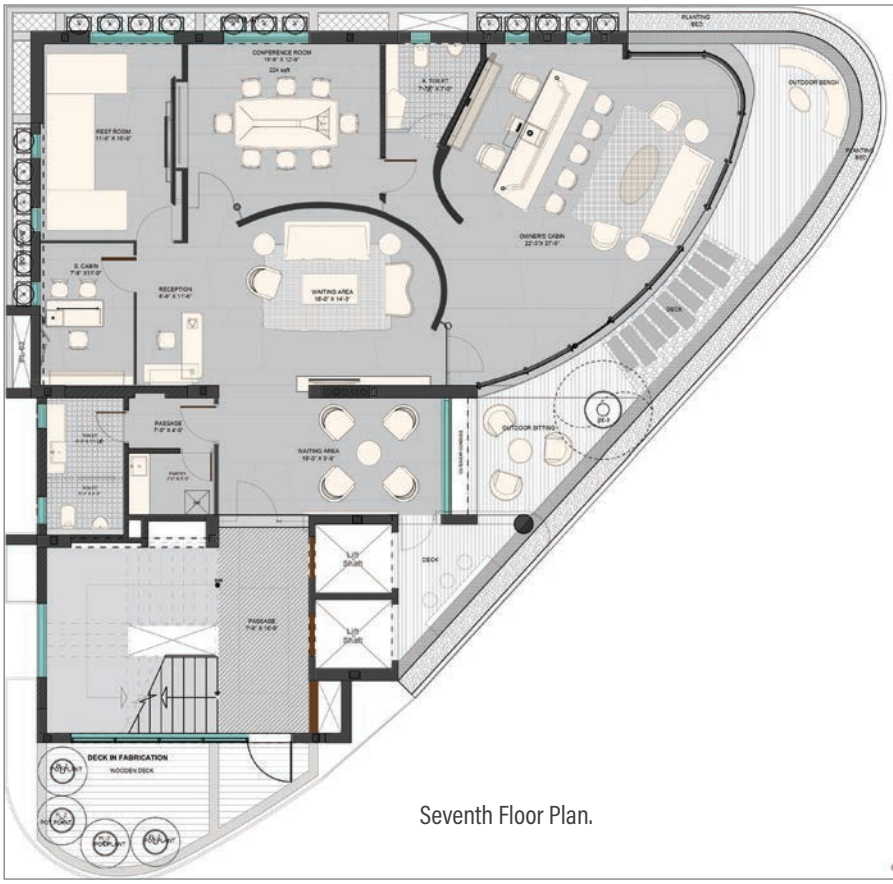
Third Floor Plan.



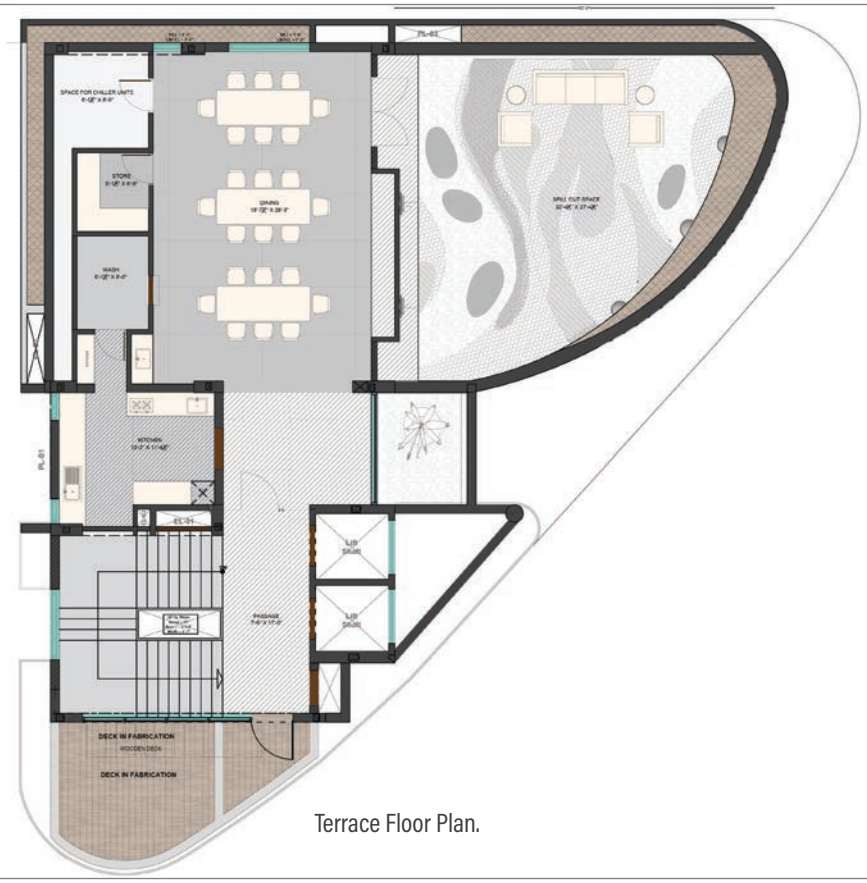
Fourth Floor Plan.

Fifth Floor Plan.

Sixth Floor Plan.

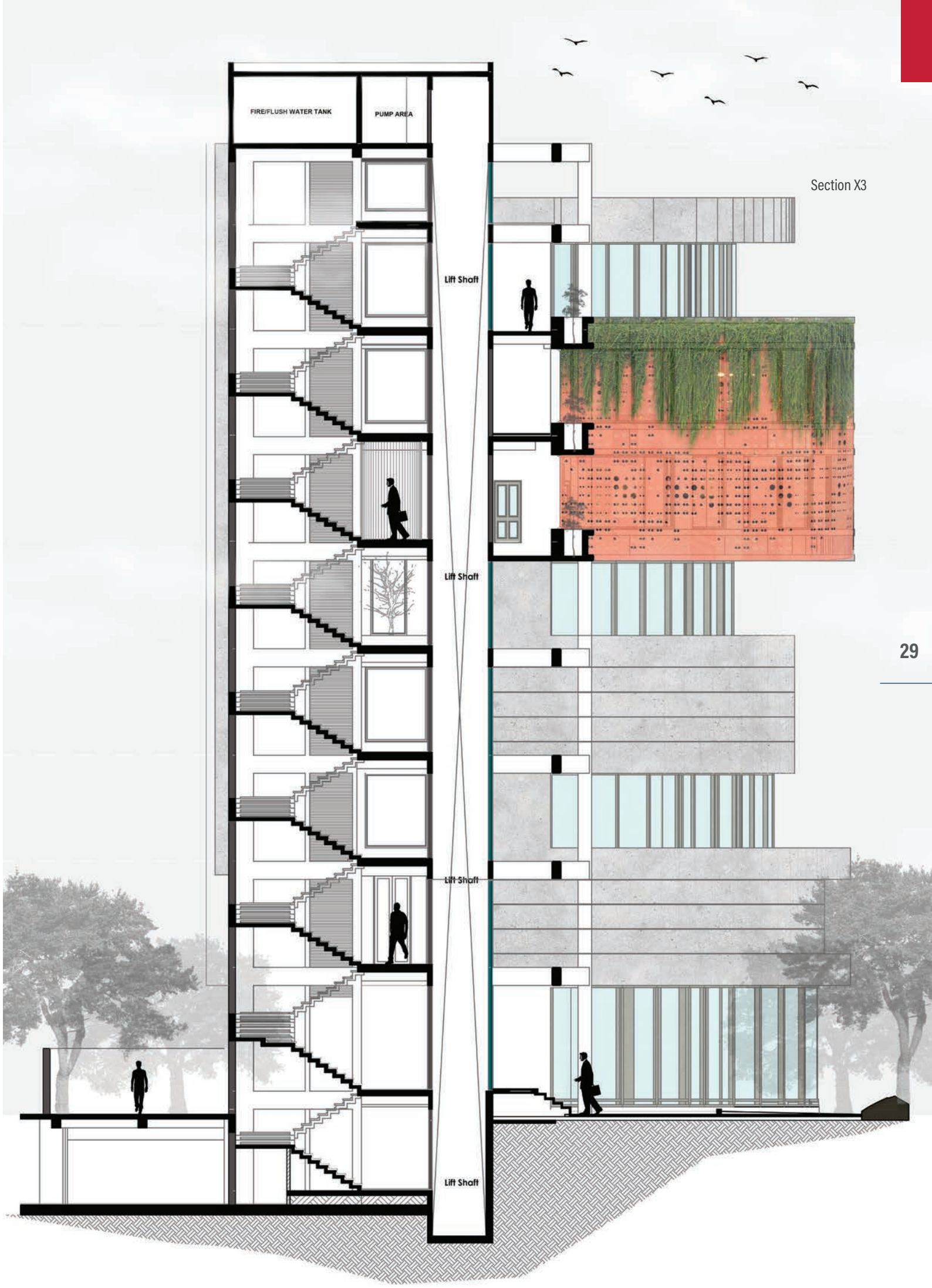


Seventh Floor Plan.

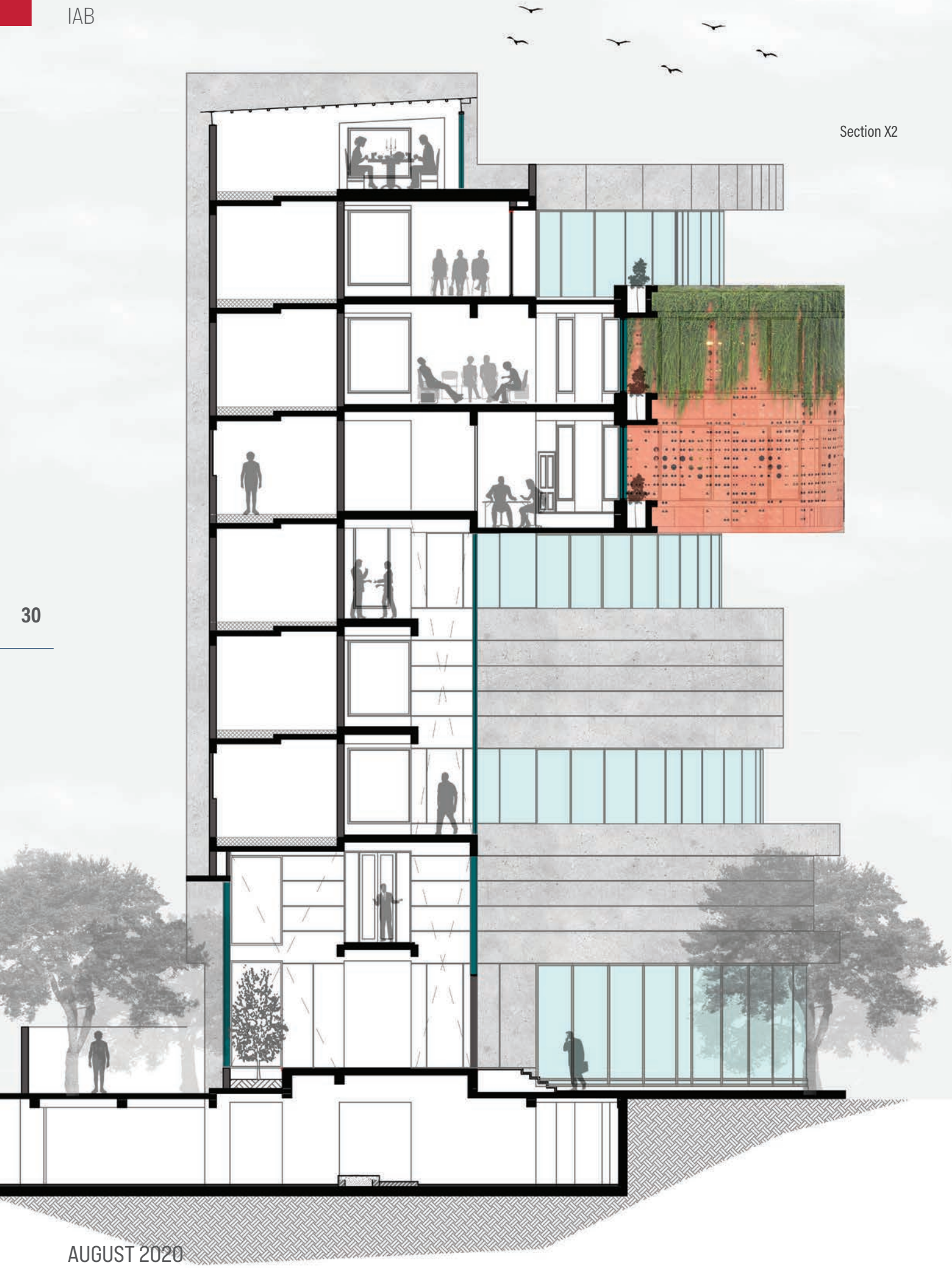


Terrace Floor Plan.

The entrance.


FIRE/FLUSH WATER TANK
PUMP AREA
Lift Shaft
Lift Shaft
Lift Shaft
Lift Shaft

Section X3


Section X2

The play of volumes and the intermingling of concrete and stone generate a built-form of amicable disposition.

The stone-skin humanises the building while the concrete imparts order and an industrial ambience.

Abundant light make way into the interiors keeping the spaces illuminated and cheery. It epitomises a new-age work culture that is unafraid to experiment and break norms.

For its architecture, Urbanscape collaborated with Utopia Designs who also conceptualized and designed its interiors. The structure attempts to challenge the notion of a 'building.' Commercial buildings are often lofty and monumental and as is the structure designed for Sangini. But the play of volumes and the intermingling of concrete and stone generate a built-form of amicable disposition. The stone-skin humanises the building while the concrete imparts order and an industrial ambience. Abundant light make way into the interiors keeping the spaces illuminated and cheery. It epitomises a new-age work culture that is unafraid to experiment and break norms. While the architecture tears away from norms, the spaces are oddly comforting. It could be the familiarity of the materials, the humanising scale or simply the greens that swathe the building rendering it a paradigm in its league. ■

FACT FILE

Architects	: Urbanscape Architects, Utopia Designs
Area	: 2486 sq. Mt.
Year	: 2019
Photography	: André Fanthome
Lead Architect	: Dinesh Panwar, Apurva Desai
Architecture Design Team	: Vipul Nakrani, Urvakhsh Chichgar, Bhavin Swami, Dishant Patel, Suryaveer Patnaik, Mihir
Lead Interior Designer	: Urvakhsh Chichgar, Vipul Nakrani
Interior Design Team	: Apurva Desai, Bhavin Swami, Dinesh Panwar, Unnati Patel, Riddhi
Structural Consultant	: Hiren G Desai, Sai Consultants, Surat
Electrical Consultant	: Abtech Electricals
Landscape Design	: Chintan and Ashwani Kansara
Façade Stone	: Odyssey stone
Lighting Consultant	: Mandala consultants
Facade Lighting	: Lumenatix
Lobby Sculpture	: Vibhor Sogani
HVAC	: DBHMS, JAY AIR, Mitsubishi Electric
Plumbing	: DBHMS

Manufacturers: AkzoNobel, Mitsubishi Electric, AIS, Aludecor, Asian Paints, Atul Mahajan, Cera-duravit, Ghanshyam Rathode, Gujarat Sidhee Cement Ltd, ICA Italia, Kolher, Leena Pingale, Naishadh Jani, Rahul Popaniya, Saint-Gobain, Utopia Designs

Holistic healing spaces

Symbiosis Hospital and Research Center (SUHRC), Lavale, Pune

Established on the lower slopes of a hill, amidst the sprawling 40 acres land of Pune's renowned educational institute Symbiosis, SUHRC has been envisaged as a Multi-Specialty Hospital to provide excellent health care facilities and a State of the art Centre that would enhance Skill development. Conceptualized to cater to the needs of all the stakeholders, the hospital caters to the nearby population of Pune and its neighbouring areas, while providing Tele-Medicine services to ensure outreach services to peripheral, far-flung and access-compromised settlements.

Text & Drawings: IMK Architects
Images: Mr. Rajesh Vora

Amidst today's context, currently, the hospital is being used for Government welfare as COVID 19 hospital. Sitting along a slope, the building is strategically positioned to minimize the cut-and-fill of the hill site. Planned as a robust curve along the contours of the land, it forms the façade of the project. Imbibing the client brief of 'grandeur' being a key element, two significant and symbolic entrances have been designed, distinct in approach to cater to the client brief of unique identities for the hospital and the academic block. While the entry to the hospital is welcoming, peaceful, it also provides a sense of grandeur along with a structure that expresses Solidarity, resonating care, and shelter for the patients in distress. A large open-to-sky courtyard separates the Centre from the hospital. The entrances for both these blocks lie on either side of the building, making them seem like two completely different entities, providing the students with different access as well as a space for them for relaxation and academic purposes.

The entrance for the Skill Centre draws inspiration from the stainless-steel surgical instruments used in hospitals. A mammoth silver steel bird, with wings wide open, welcomes the visitor into the building. Supported by steel pipes, a futuristic roof under the sun beaming brightly, is symbolic of a contemporary architectural response. A balance between light and shade has

Rahul Kadri (Partner & Principal Architect, IMK Architects) speaks about the Symbiosis Hospital and Research Center (SUHRC), Lavale, Pune.

Symbiosis Hospital and Research Center (SUHRC), Lavale, Pune by I M Kadri Architects

The entrance canopy.

been achieved with smaller skylights within the roof, and a larger opening towards the upward bending tip. The upper surface of this canopy was converted to a terrace garden, such that even the single bed patients would be treated to a biophilic space, which would promote healing. Two large courtyards in the building create buffer zones that help in healing patients, bring in ample light, and are overlooked by wardrooms and the Out-Patient Department. The OPD has no air-conditioning but allows for fresh, natural air while ensuring sufficient ventilation. All departments and spaces of the hospital are designed such to bring in daylight and natural ventilation. Even areas like OPD, waiting have courtyards on both sides and are naturally ventilated. Similarly, at all levels, there is a 3m

wide corridor that abuts the central courtyard, which lets in natural light and ventilation, thereby reducing the AC load and power consumption for these areas.

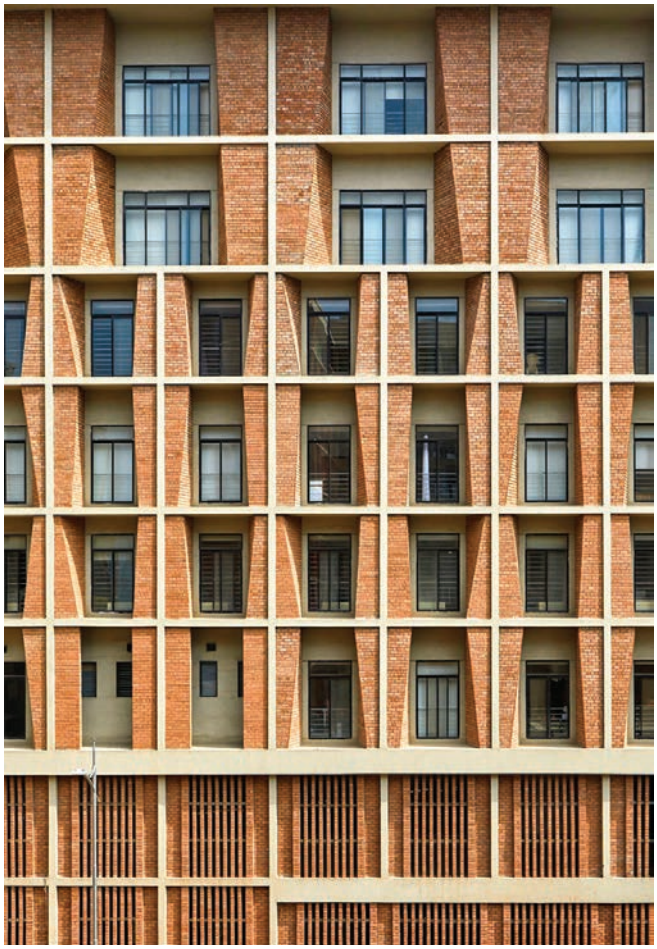
The courtyards act as spaces for healing, for congregation while reducing cross-infections. The terrace gardens are landscaped with flowering trees and plants to create a soothing effect for the patients as well as the accompanying caretakers. The main central courtyard transforms the space around it with an abundance of plants and small trees. It not only brings in daylight, but also makes the space aesthetically pleasing, soothing to the eye by creating a calm oasis. The hospital is unlike any regular hospitals, which are much mundane, completely air-conditioned spaces

Landscaped courtyard.

without any daylight & natural ventilation in significant areas.

Functionally, the building comprises of four sections; three of them belong to the hospital and the last one being the Skill Centre. Every section has been planned and conceptualized for its functionality- driven design and a distinct formal response as a result. The three blocks of the hospital, namely, the general hospital block, the procedure block, and the multi-specialty block, all have been planned with keeping in mind the ease of functionality and avoiding criss-cross movement.

Amongst the 900 beds in the general hospital block, 600 beds are for free patients and procedures, which are all taken care of and treated by the medical college students. This block has been connected to the procedure block, with services running along one side of the corridor. At the same time, the departments are situated on the other, allowing for ease of access without causing any disturbances. Further, the procedure block is well segregated from the ward block to ensure privacy to every patient, while being shared as a standard procedure block by paid and free patients alike. This block is



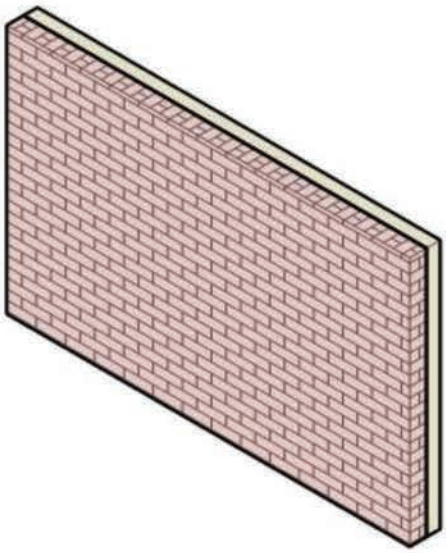
Faceted brick box facade.

Brick Skin.

equipped with the latest medical technology being robotic Operation Theatres and surgical operations.

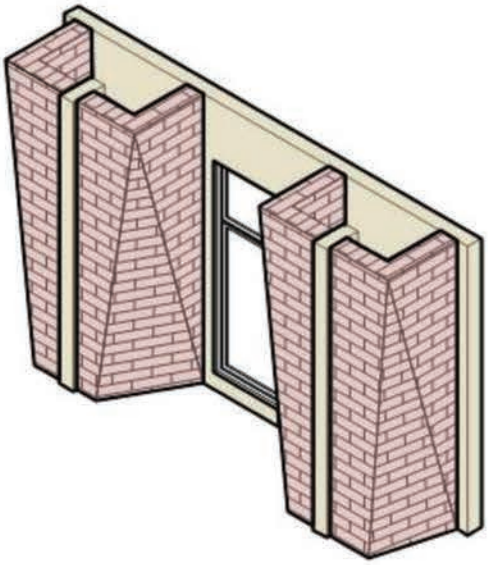
The hospital is planned across five levels; departments such as the OPD, casualty, radiology, MHC, etc. which require easy ground access and are frequented by more patients every day have been planned at the ground level. The first-floor compromises of General, Twin, and Single bed wards, most of which overlook the garden space. The critical areas such as OT's, Pre-Op and Post Op, ICU's Cath, etc. are planned on the 2nd floor, making it the sterile zone and thus are also segregated from other areas of the hospital.

Attention has been paid to construction details, where post-tensioned slabs are used to achieve flexibility, minimum beams, and larger spans that facilitate different size room arrangements and to allow for easy routing of ducts. Naturally compressed, sundried earthen bricks produced on-site, have been used for façade and masonry work. Smaller details have also been considered to ensure a calm and serene atmosphere that promotes healing while encouraging research and creating spaces that are easy to use and maintenance-free. Colour coding



CEB wall parallel to AAC wall

Working as a double skin, and softening the otherwise exposed bare AAC facade



Twisted CEB Boxing

CEB boxing places as inverted pyramid. Three different inclination were chosen and randomly used for all the facades

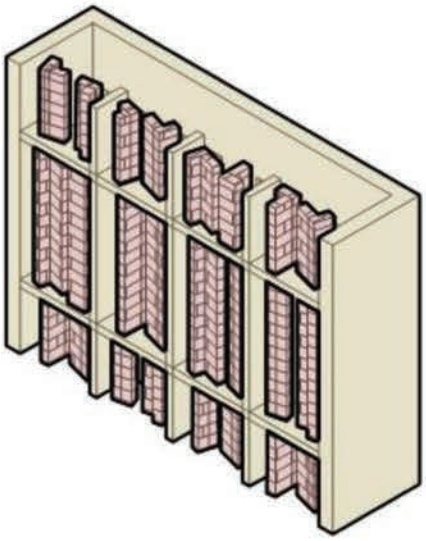
1 Wall Cladding

Used for Walls without windows / openings

2 Building Boxing

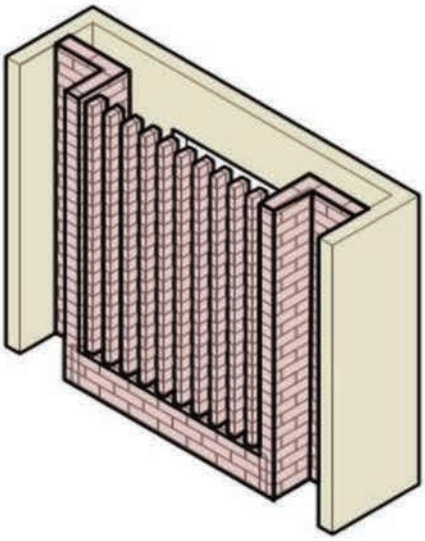
Usied as double skin besides windows of all Habitable spaces.

Materiality- CEB



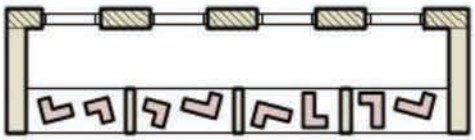
CEB Jali placed in crates

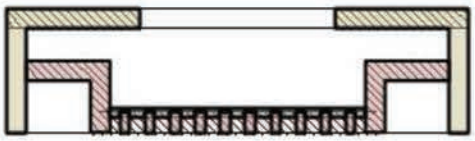
Self supporting CEB mass following random plancements were used in sets of two in each crate



CEB Jali parallel to AAC wall

CEB Jali with greater openings used for Basement and Lower ground floor



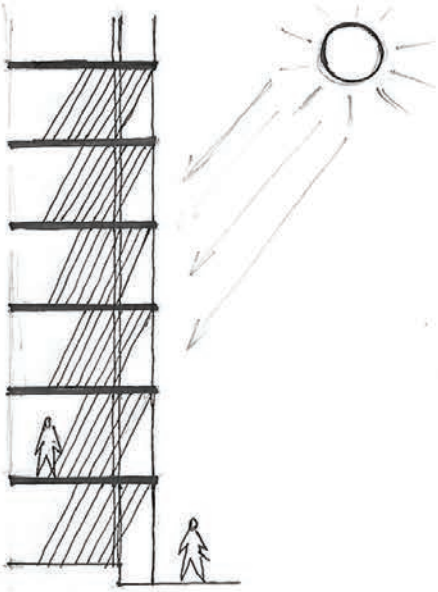


3 Crate Jali

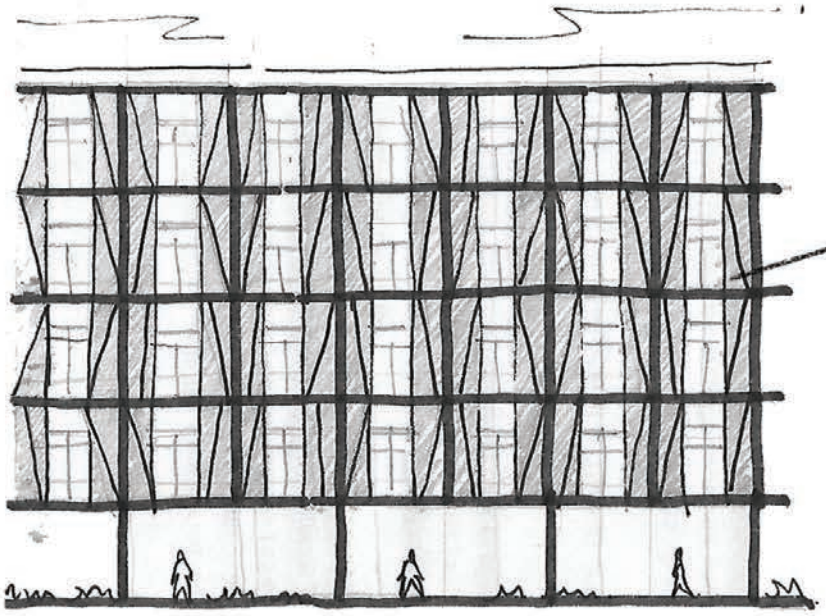
Used as double skin infront of Toilet ventilators and staircases.

4 Screen Wall

Used as screen for spaces with only openings in parking and service spaces.

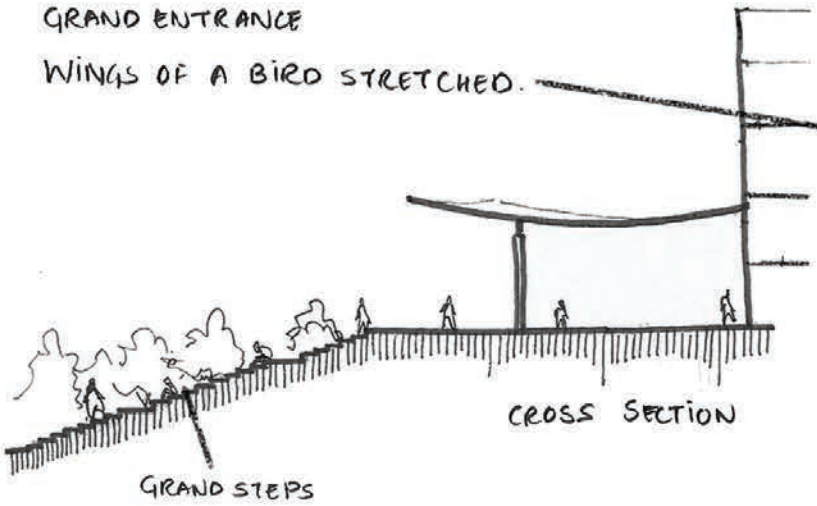


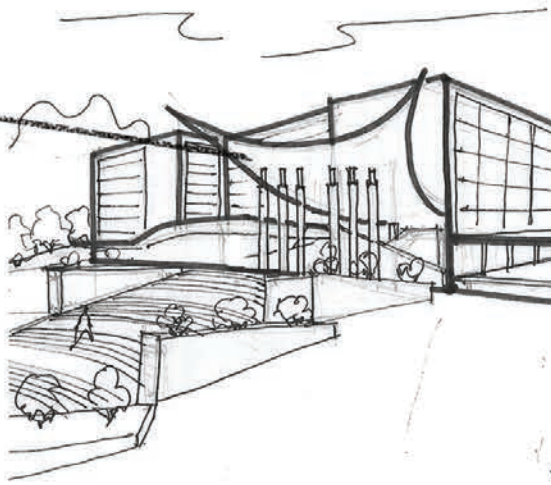
WAYS OF SUN PROTECTION.
USE OF CHAJJAS



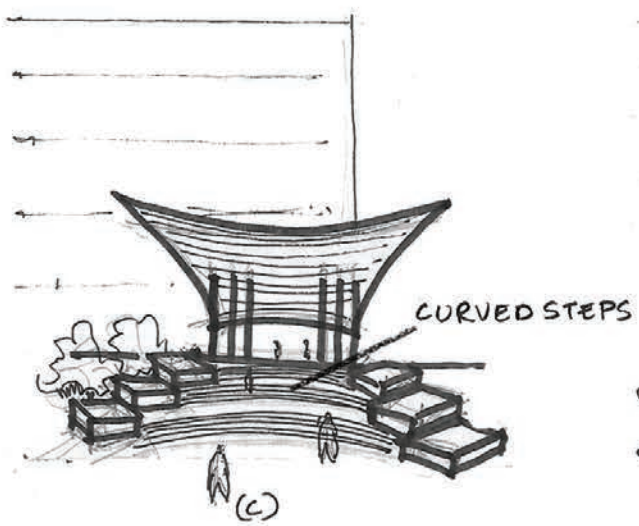
HORIZONTALITY IS BROKEN BY SERIES OF BRICK BOXING AT EACH LEVEL.

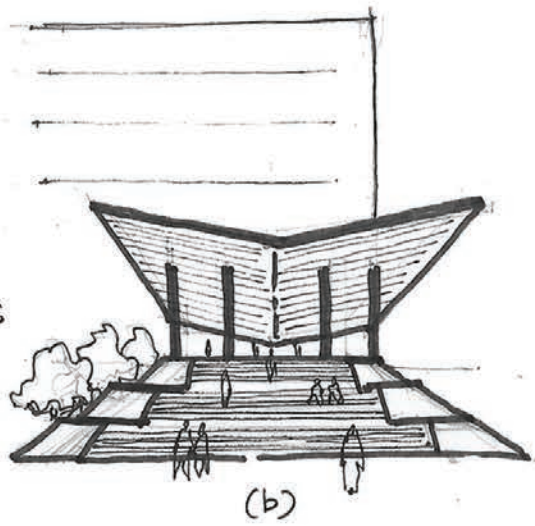
CONCEPT IDEAS:
GRAND ENTRANCE
WINGS OF A BIRD STRETCHED.



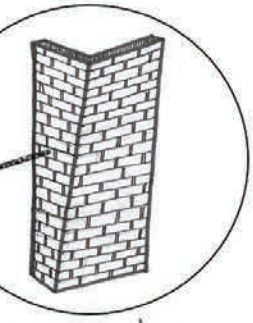


VIEW OF THE HOSPITAL

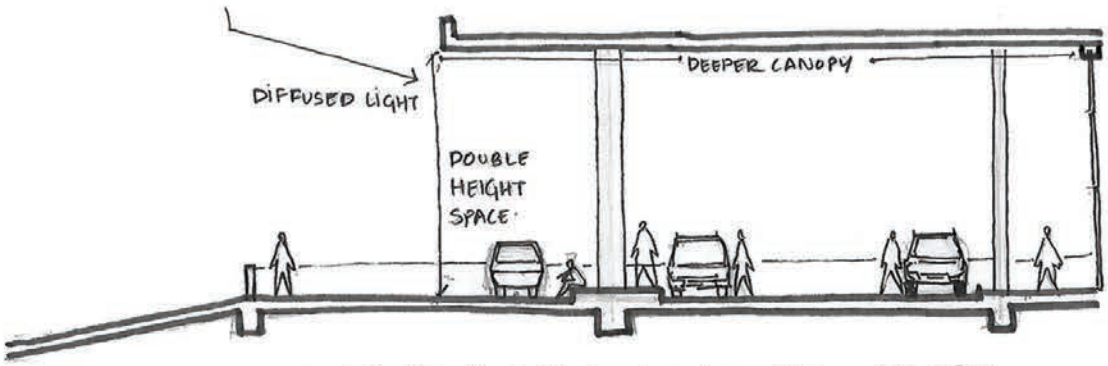




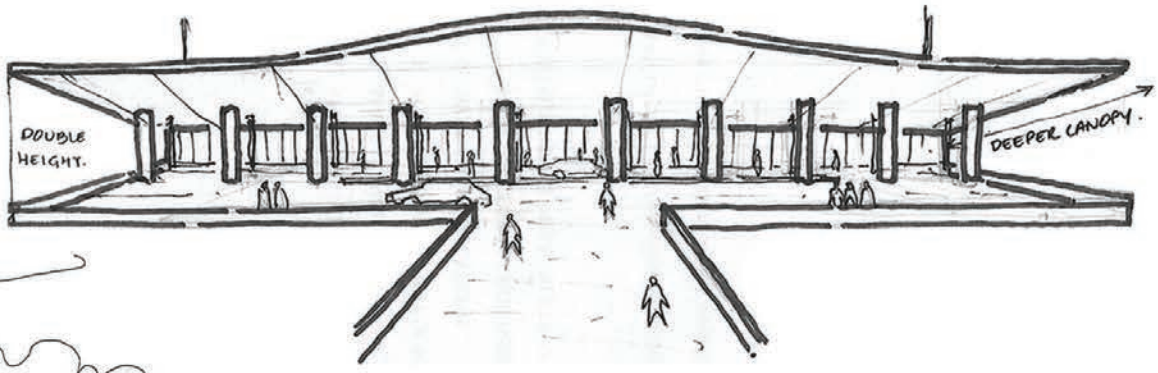
SKILL CENTRE CANOPY DESIGN DEVELOPMENT.



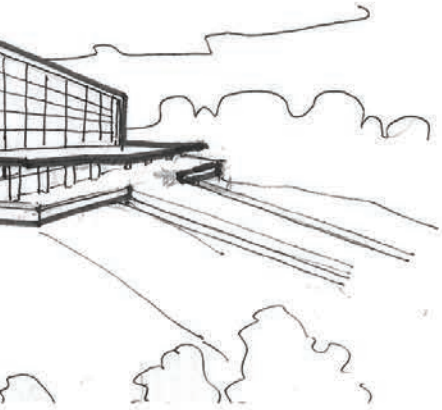
RICK BOXING
OODULE TYPE



CROSS SECTION THROUGH HOSPITAL CANOPY

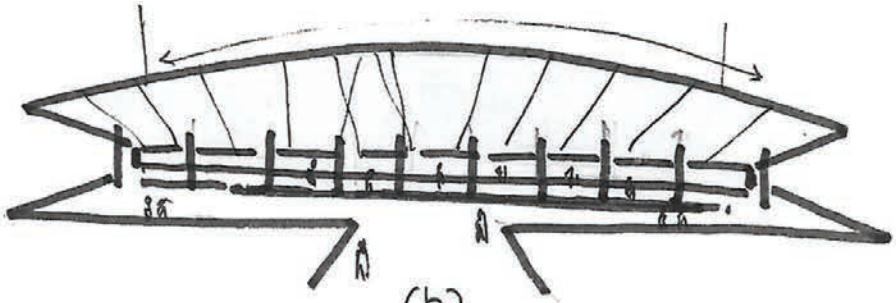


CONCEPTUAL VIEW OF THE HOSPITAL CANOPY.

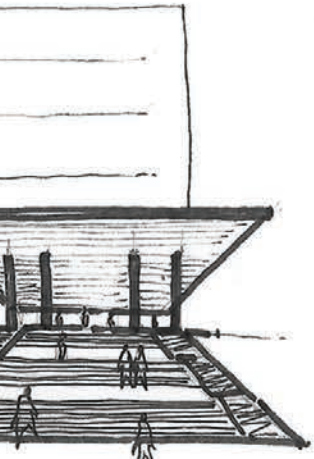


BUILDING.

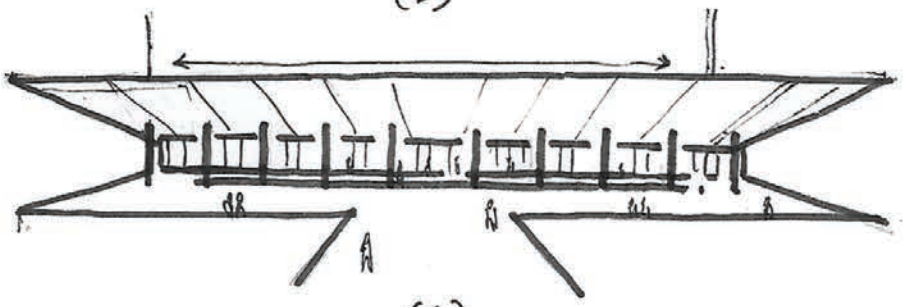
(c)



(b)

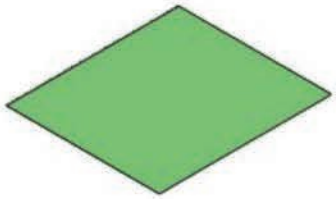


(a)

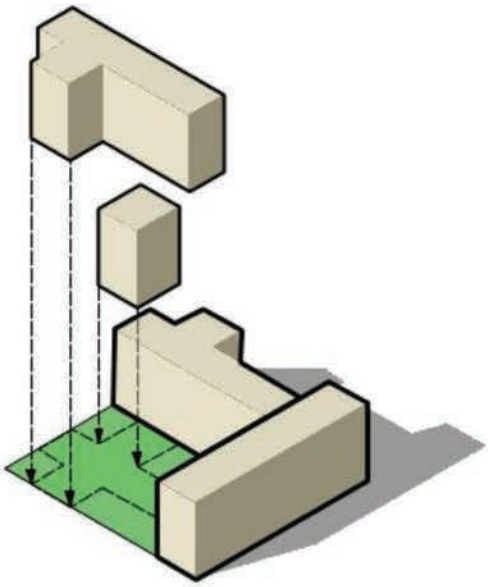


(a)

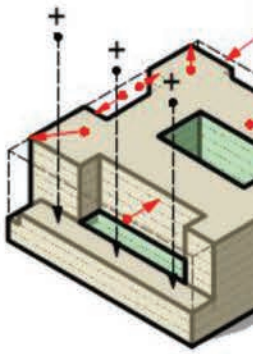
HOSPITAL CANOPY DESIGN DEVELOPMENT.



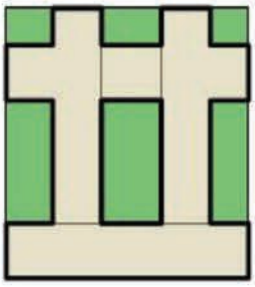
Courtyard

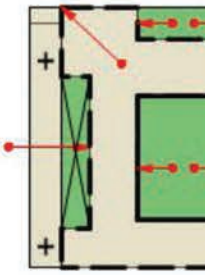


Adding Narrow builtmass around courtyard



Shaping blo based on Hos Grid





1 Courtyard

Start with a central Garden, or a courtyard which built mass will envelope

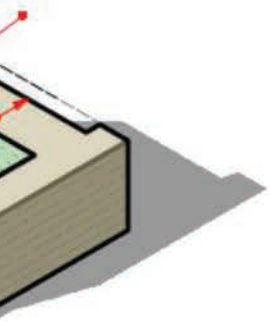
2 Building Blocks

Adding Narrow Building blocks along the courtyard. Narrow blocks help increase Natural light penetratrion

3 Hospi Grid

Reorganis based on which is sp different f hospital

Development Diagram



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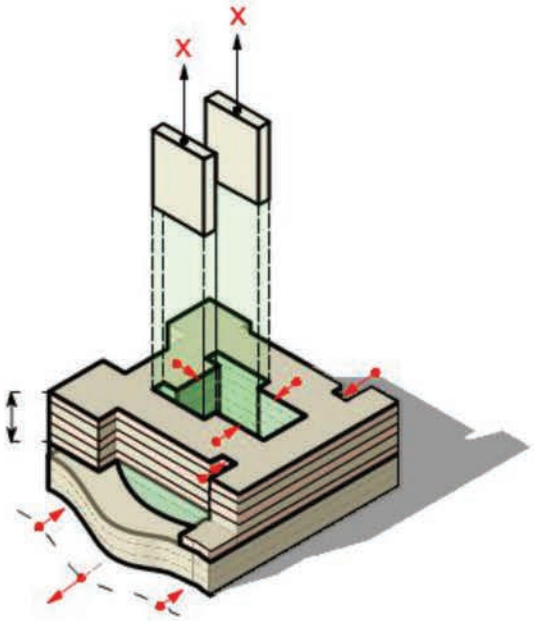
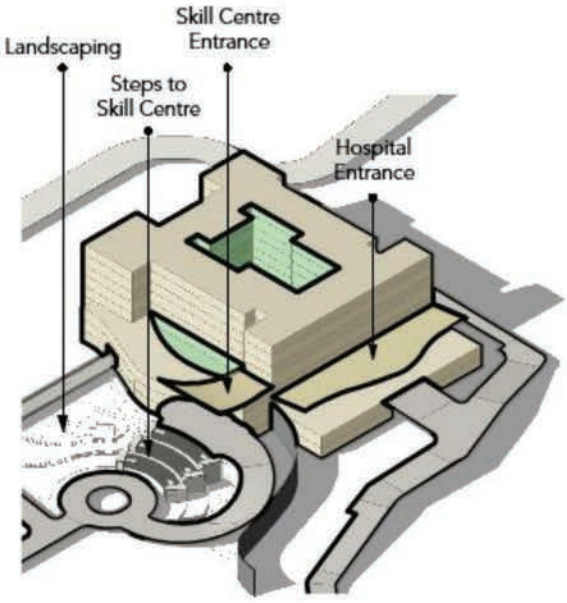
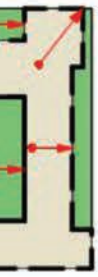
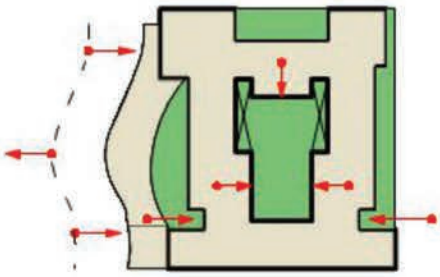
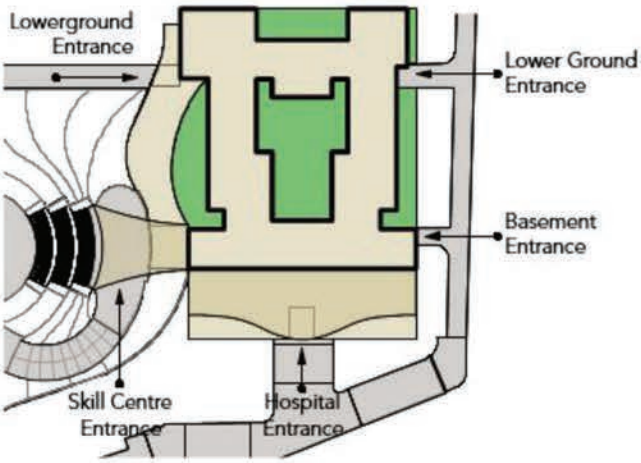


Horizontal &
Vertical expansion
Refined floor heights considering service and functional requirements









tal

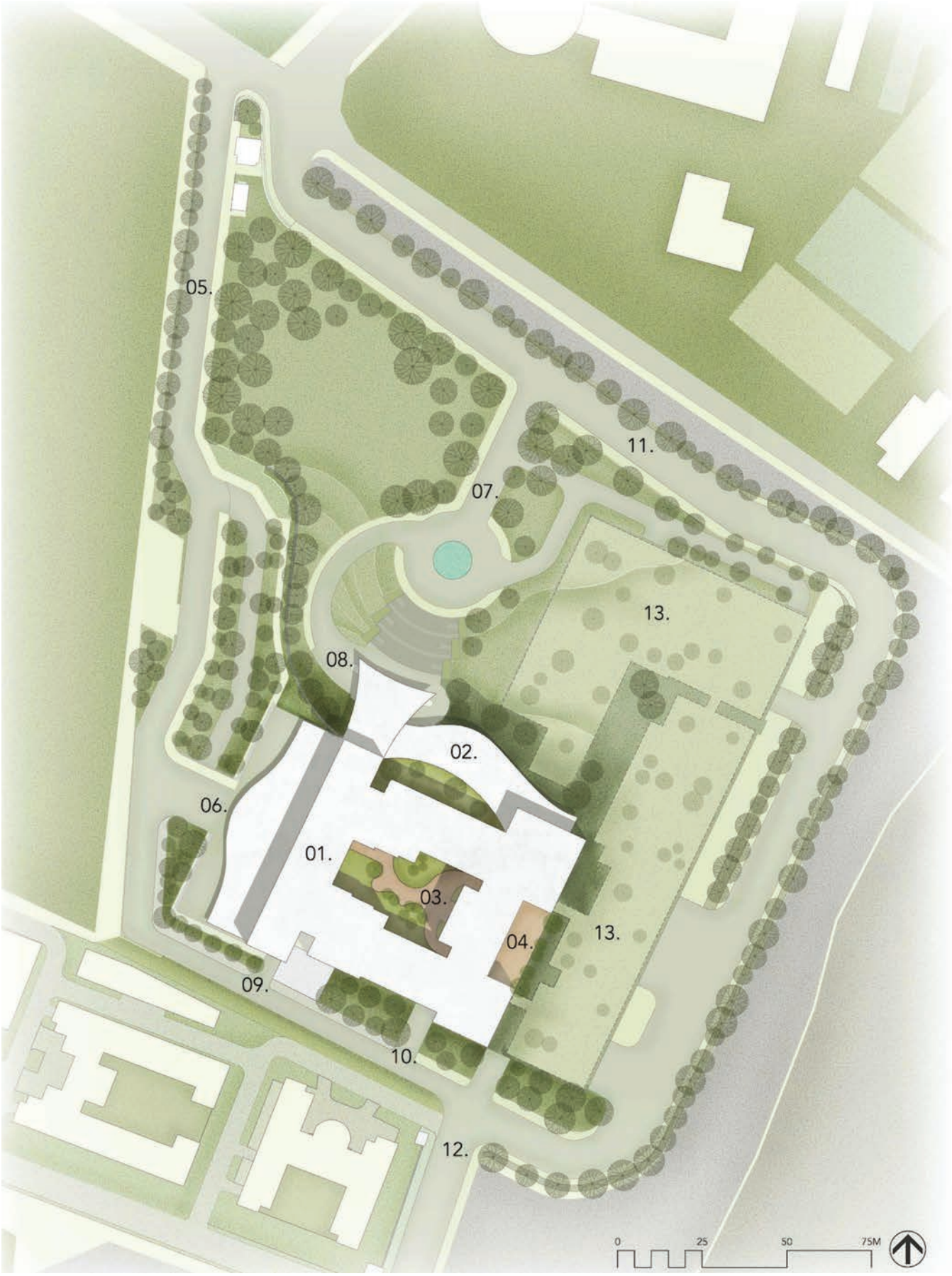
e spaces
a grid. Grid
pecific to
uncions of

4 Building Offsets

Shift, add, and subtract.; vetically and horizontally areas based on requirements.

5 Transitional Spaces

Add Transitional spaces, which connect the site to the builtmass



01. Syn
02. Skil
03. Inte
04. Op
05. 12M
06. Hos
07. 12M
08. Skil
09. Ser
10. Ser
11. 18M
12. Tov
13. Pha

has been enabled for easy identification of the assortment of spaces and critical areas such as ICU's are endowed with light colours of soothing shades to reduce anxiety. Carefully and strategically planned, the building attempts to make gestures that are grand, yet local and responsive with attention to details such as the brick-art and the exposed concrete. Sitting comfortably on the fringe of the hill, the inner courtyards seem like a continuation of the hill, where the built form amalgamates with the site. From brick-art details to exposed concrete the hospital creates a homely space for the patients. Allowing nature to be a part of the hospital and integrating it as a comforting element for the patients, the hospital creates a space for recovery and rejuvenation.

Energy

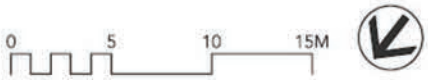
To ensure efficiencies in terms of cost, time, and impact, all details such as glass façade, percentage of glass vs. brick (not more than 30% glass on the entire façade), shading factor, temperature, and humidity requirement, etc. were finalized at early design stages. This ensured energy efficiency as per functionality and not based on other projects or standard values.

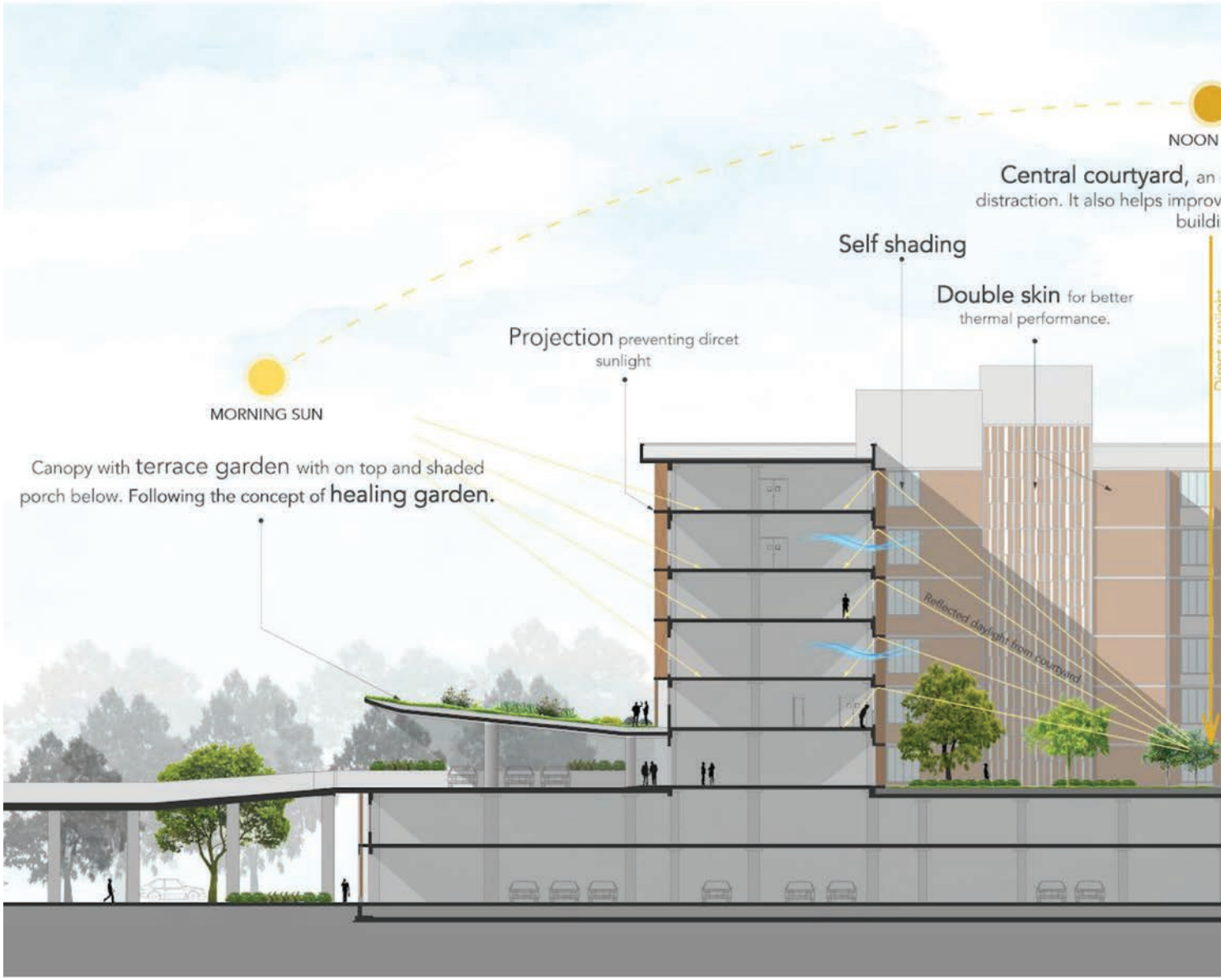
To create an energy efficient model that minimizes power consumption, various systems have been put in place. Water Cooled Chillers with Variable Speed Drive, premium efficiency pumps, and cooling towers with CTI certification for assured thermal performance make the chilled water flow requirement 17% lesser as compared to regular conventional systems. Transformers are selected to meet

nbiosis Univeristy Hospital and Research Centre
ll Centre Cafeteria
ernal Courtyard
en to sky Cafeteria
M Wide Hospital Approach Road
spital Dropoff Area
M Wide Skill Centre Approach Road
ll Centre Dropoff Area
vice Entry To Basement Floor
vice Entry To Lowerground Floor
M Wide Road for Future Buildings/Residential Block
vards Residential Block
ase 02 Buildings

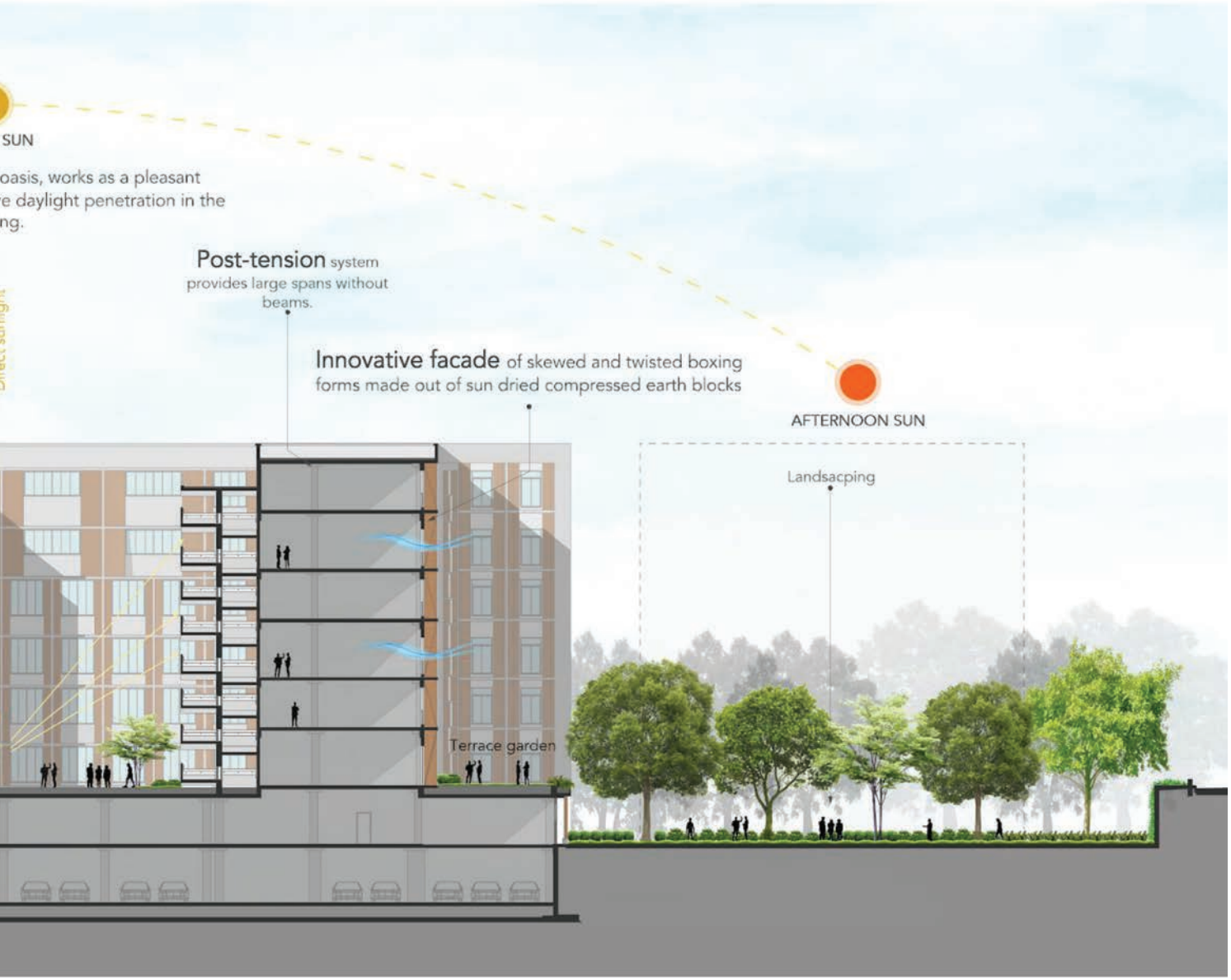

08.
10.
09.
14.
11.
04.
12.
06.
01.
03a.
03.
07.
01a.
13.

01. Hospital Entrance Lobby & Reception
01a. Hospital Drop-off
02. Emergency Dept.
02a. Energency Drop-off
03. Skill Centre Entrance Lobby
03a. Skill Centre Drop-off
04. Skill Centre Cafeteria
05. Radiology Dept.
06. Out Patient Dept.
07. Pharmacy & Stores
08. Kitchen & Stores
09. Hospital Cafeteria
10. Hospital Outdoor Cafeteria
11. Internal Landscape Courtyard 01
12. Landscape Courtyard 02
13. Towards Hospital Drop off- Bridge Connection
14. Service Entry towards Lower Ground Floor
15. Service Entry towards Basement Floor




NOON
Central courtyard, an
distraction. It also helps improv
buildi
Self shading
Double skin for better
thermal performance.
Projection preventing dircet
sunlight
MORNING SUN
Canopy with terrace garden with on top and shaded
porch below. Following the concept of healing garden.
Reflected daylight from courtyard

Section A


SUN
oasis, works as a pleasant
e daylight penetration in the
ng.
Post-tension system
provides large spans without
beams.
Innovative facade of skewed and twisted boxing
forms made out of sun dried compressed earth blocks
AFTERNOON SUN
Landsacping
Terrace garden

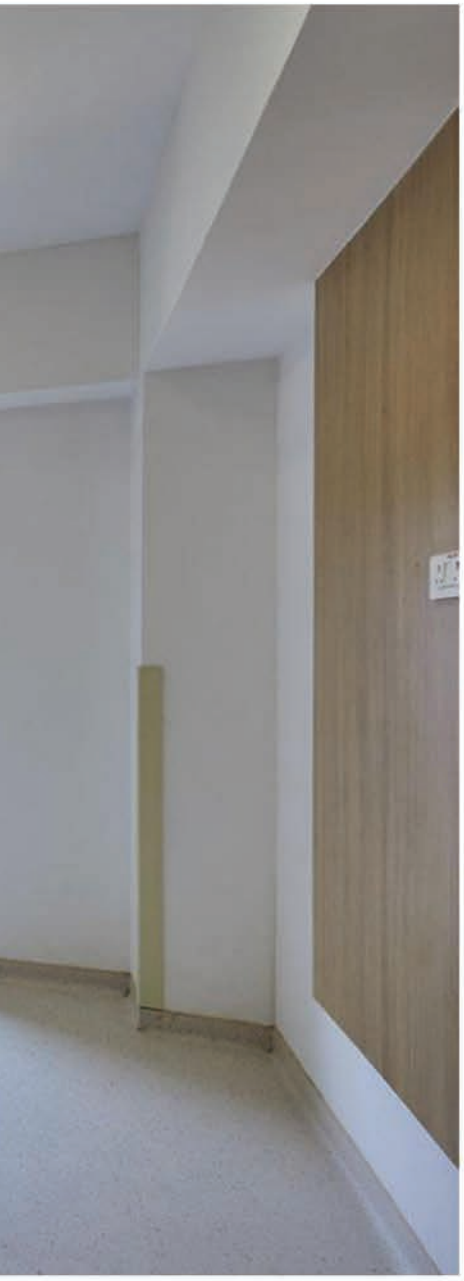

Central courtya
distraction. It
penetr
Innovative facade of skewed and twisted boxing forms made out of sun dried compressed earth blocks
Central courtyard

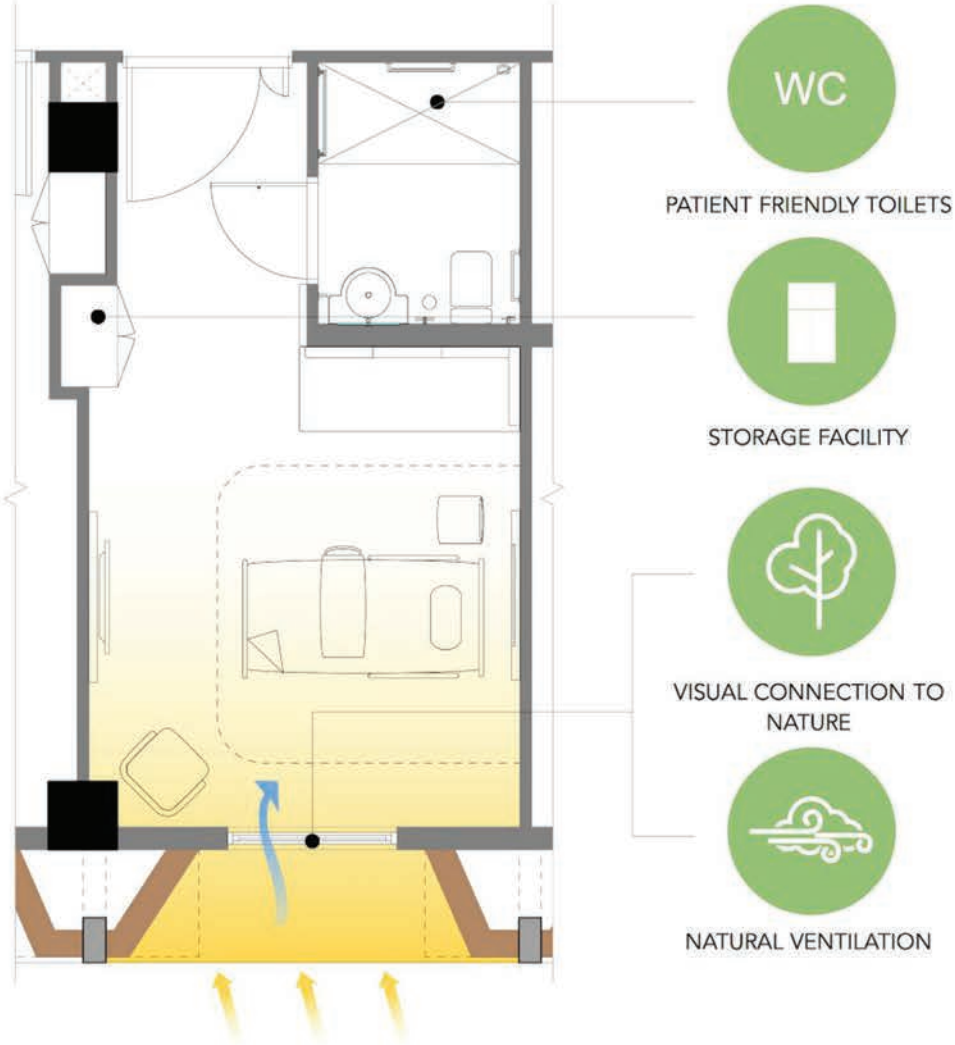
Section B


rd, an oasis, works as a pleasant
also helps improve daylight
ration in the building.
Post-tension system
provides large spans
without beams.

Single Patient Room Image

Single Patient Room- Detail



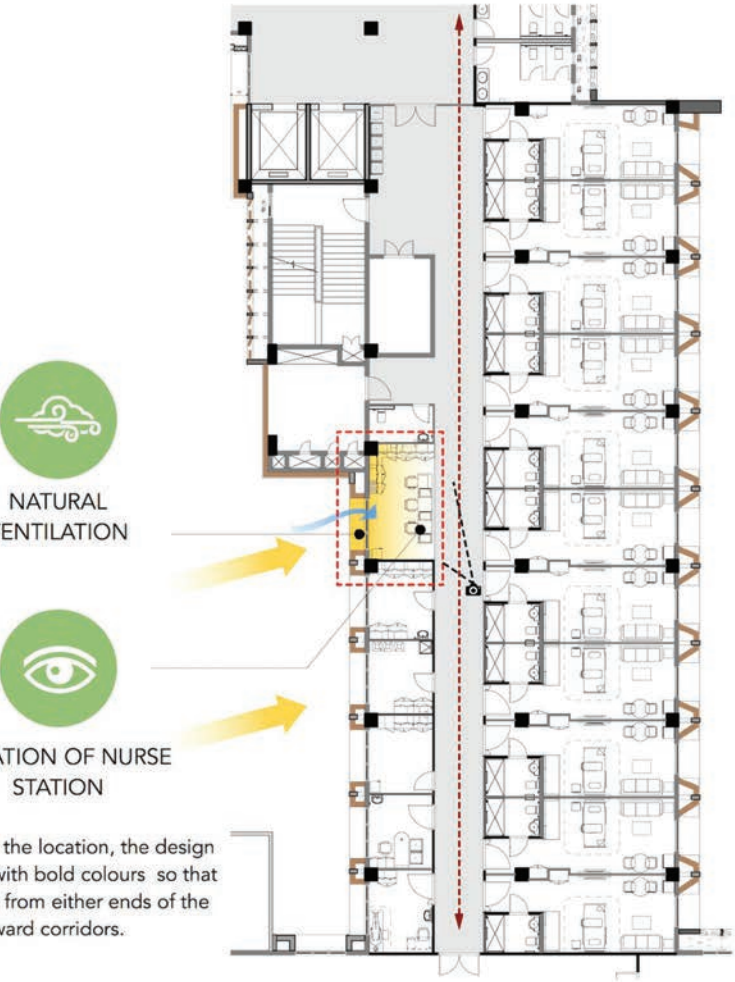


Single Patient Room Plan

Nurse Station Image

the loss values permitted by the Energy Conservation Building Code published by the Bureau of Energy Efficiency of India. Light fixtures with LED bulbs conserve elcetricity, and the domestic water is wholly recycled, treated, and used for secondary applications such as Air Conditioning, gardening, etc. – all resulting in zero liquid discharge from the building. Water Cooled Heat Pumps integrated with the air conditioning chillers are used for hot water production, thereby consuming only 35% of the energy as compared to conventional electric heaters. Additionally, the by-product of chilled water produced is taken back into the chilled water system to reduce the load on the chillers. A thorough mode

Nurse Station- Detail



Single Patient Ward Plan showing the Nurse Station

of System Testing, Adjusting and Balancing was enabled to ensure that the design intent is achieved in the actual functioning of the project by a third-party testing and commissioning agency. ■

FACT FILE

Typology	: Healthcare
Project	: Symbiosis University Hospital and Research Centre
Client	: Symbiosis Society
Principal Architect	: Mr. Rahul Kadri (IMK Architects)
Design Team	: Mr. Nithin Hosabettu, Mr. Sahil Bipin Deshpande, Mr. Viraj Naralkar, Mr. Aakash Shrivastav
Site Area	: 96100.00 Sq.Mtrs.
Built Up Area- Phase 01	: 4,59,074 sq.ft.
Photographer	: Mr. Rajesh Vora
Structural Consultant (Phase I)	: The Axis Structural Consultants, Pune
Structural Consultant (Phase II)	: JW Consultants LLP, Pune Str Audit Mechanical & Electrica Consultant I: Radiant Consulting Engineers, Navi Mumbai
Civil Consultants	: The Axis Structural Consultants, Pune
HVAC & Plumbing	: Radiant Consulting Engineers, Navi Mumbai
PMC	: Symbiosis Society (In house Team of Engineers)
Engineering	: The Axis Structural Consultants, Pune & IMK Architects & Radiant
Lighting	: Wipro Lights & Legero Lights; Supplied by: Karen Engineering Project Pvt.Ltdd.
ACP	: Skill Centre Canopy: Alstone
Glass	: Saint Gobain- KK Engineering
Concrete	: Nyati Engineers & Consultants Pvt. Ltd.
Sanitary ware/Fittings	: Parryware & Cera; CP Fittings: Hindware
Furnishing	: Shandar Interior Private Limited
Air Conditioning	: Weathercool Sales Pvt.Ltd
BMS	: Honeywell Building Solutions
Paint External	: Heritage Smooth Stone Finish and Dulux; Internal: Dulux Plastic Emulsion
Art/Artifacts	: Symbiosis Society & IMK Architects
Elevator	: Thyssenkrupp Elevator Structural, Mechanical, Electrical, Plumbing, Facade, Engineering Contractor: Nyati Engineers & Consultants Pvt Ltd.
Landscape Contractor	: Symbiosis Society
HVAC contracting	: Weathercool

Waste Facility in an Urban Context

Dissertation by Krutik Vapiwala, Aditya College of Architecture

This dissertation aims to target the benefits of positioning waste-treatment plants within urban environments. As designers, we can innovate these facilities and introduce them within communities. Such projects will expose the masses to new tools in the realm of technological and social correlations.

The idea is to engage with project stakeholders and point out key social concerns. Such treatment plants can lead to new opportunities or help avoid problems that may occur due to lack of awareness and sensitivity. Through the design, the idea is to address social and environmental dimensions, furthering them with technological solutions and innovative design. The design also aims to enhance and merge efficient waste-processing technologies with landscape design, recreation, and leisure. Certain infrastructures with public spaces and aspects of waste treatment projects have much potential in correlating infrastructure with public spaces.

Prevalent waste practices:

Existing waste management facilities: Waste segregation facility in Malad West, Mumbai

- Less than perfect working conditions.
- Run down structure.
- No storage areas.
- Not optimum usage of space.
- Not giving back to the community/ neighborhood.

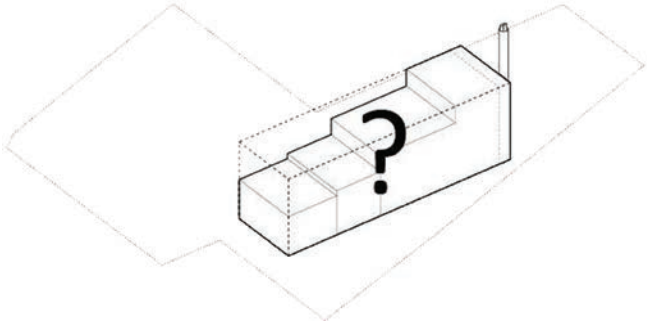
Ideal waste management facilities: Seattle public utilities South Transfer station

- Good working conditions.
- Well-designed with functional spaces.
- Abundant green spaces.
- Organizes awareness programs & school trips.
- Gives back harvested rain water to the city.

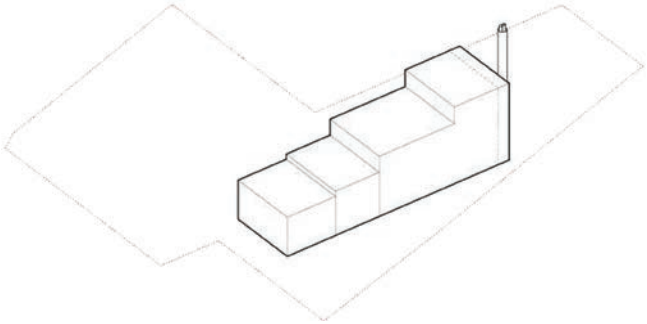
Waste segregation facility in Malad West, Mumbai.

Case Study: CopenHill – Waste to energy plant Seattle public utilities South Transfer station.

Case Study: CopenHill – Waste to energy plant

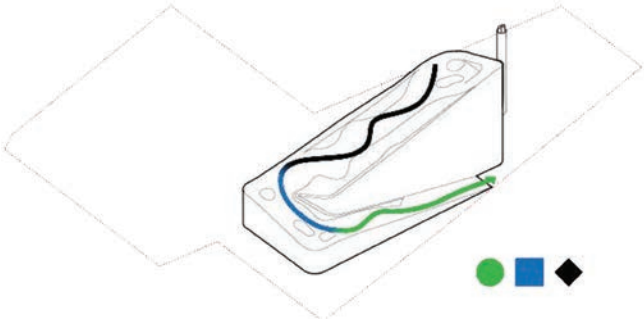


1. Fun factory
It is a new form of waste to energy plant that is economically, environmentally and socially profitable. Instead of considering the resource center as an infrastructure project, they designed a façade in relation to local context.

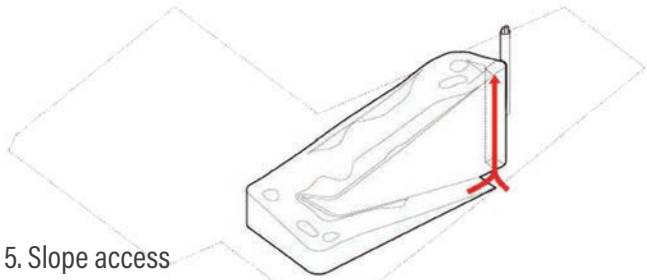


2. Program
The internal volumes of a new waste to energy plant have been determined by engineering and technical criteria. Due to the sheer size and requirements for precise positioning the primary structure of the building had to be integrated with the machinery.

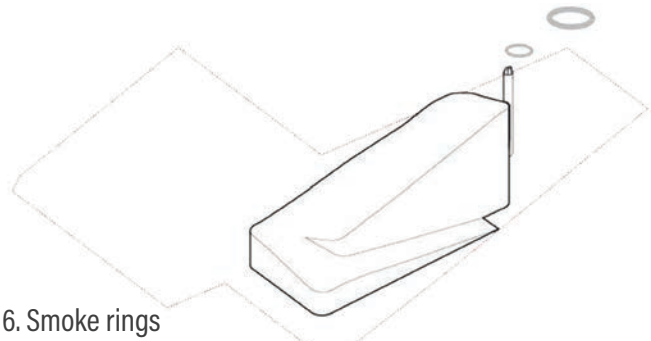
3. Façade
The building is gently wrapped with a continuous façade made out of stacked aluminum brick. The openings between the bricks are letting daylight into the halls and administration.



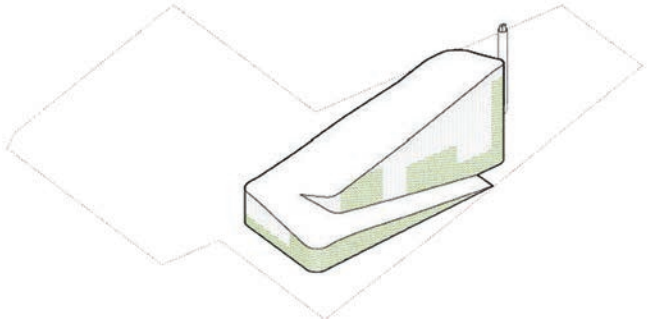
4.
Three pits The geometry of the roofscape supports three slopes of different gradients; from novices to professionals.



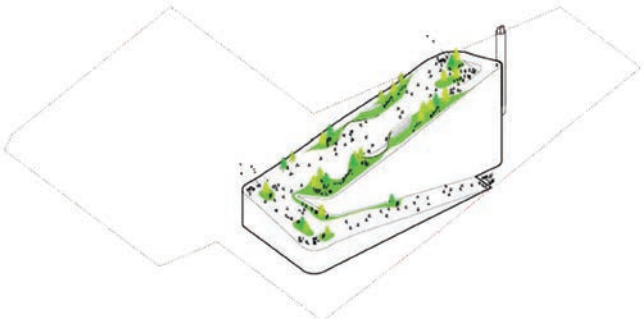
5. Slope access
Access to the ski paths is through an elevator adjacent to the smokestack. The elevator has a glass wall facing the interior of the plant, allowing recreational buffs and sightseers to have a glimpse into the internal workings of the plant.



6. Smoke rings
A simple modification to the smokestack which will allow it to puff smoke rings whenever one ton of fossil co2 is released, as a gentle reminder of the impact of consumption.



7. Green walls The bricks on the façade functions as planters, creating a green façade and turning the building into a Green Mountain.



8. Take a walk in the park The roof is not only going to function as a ski slope, but also as a real mountain with a green forests area, hike trail climbing walls etc.

Conclusion:

Gap in the prevalent waste system is lack of material recovery/ segregation facility to reduce the overall waste output of a particular ward/neighborhood in turn making it more self-sustainable.

Generally, waste facilities are secluded, so space is wasted and encroached.

These spaces, if properly designed can be made into public spaces while also being informative about waste and waste practices.

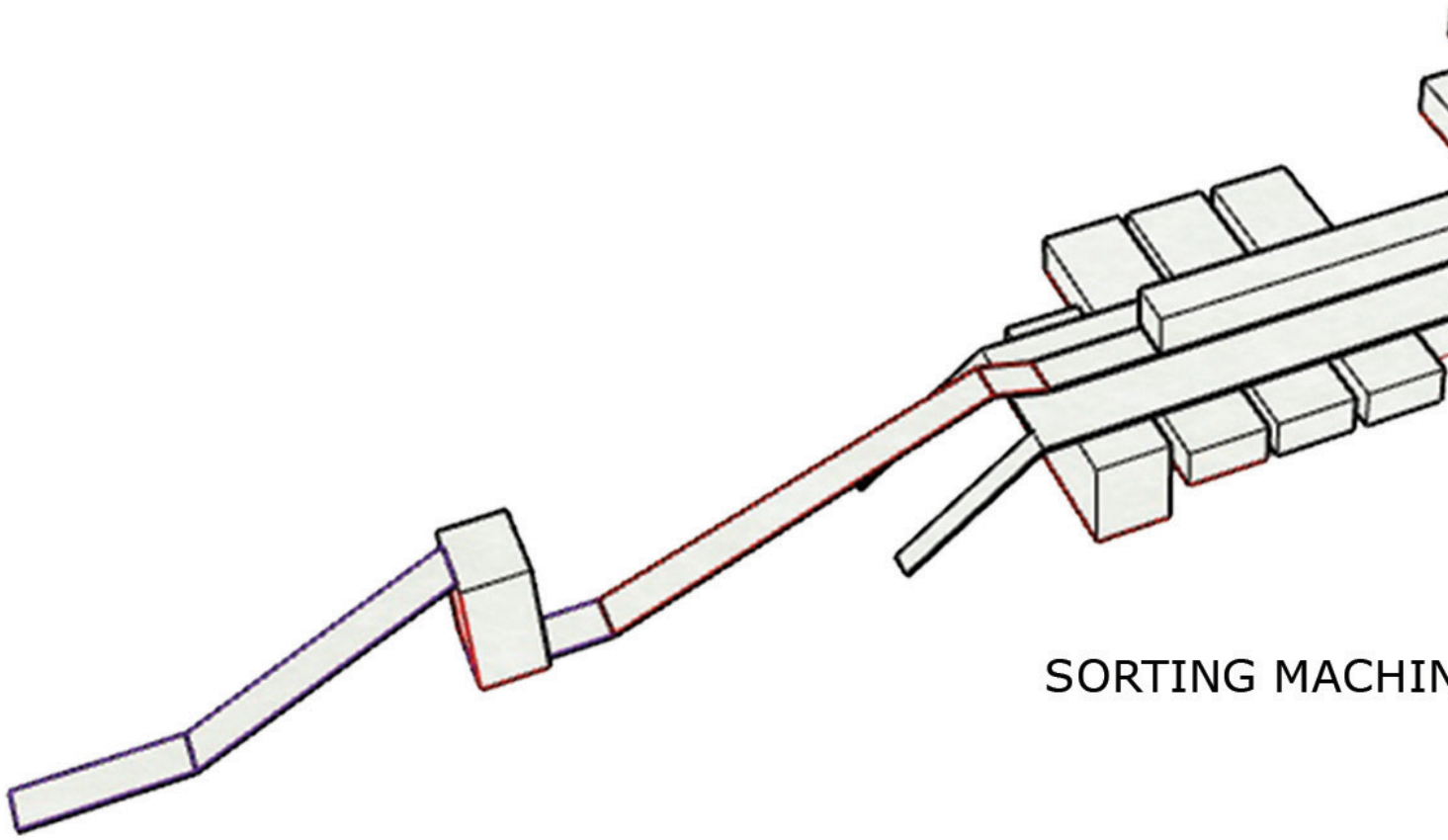
Waste management if done in a zone itself will lead to overall less waste output, in turn making the ward/neighborhood more sustainable.

Dealing with waste at a smaller scale is easier than dealing with city scale or bigger.

Form Development & Form Options:

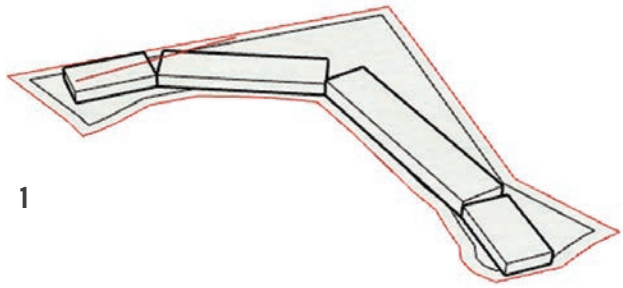
For designing a material recovery facility, it is of utmost importance to study the machine going to be used for the purpose.

The form development began with studying the machine and various parts of it, so it can be used as an advantage for a more compact and aesthetic design, that is inviting to the masses.



Placing blocks with respect to function of the Sorting Machine

Started to derive an interesting form whilst taking into consideration light and shadows, blocking the harsh light from south and southwest sides and providing openings in the north façade.



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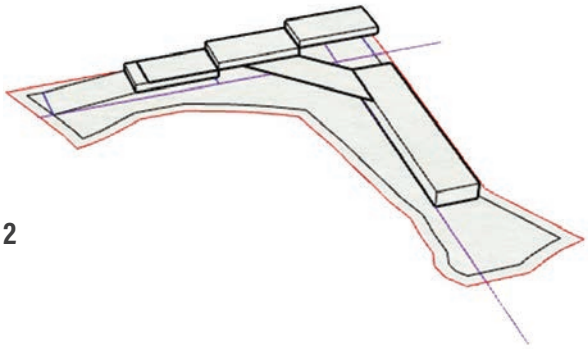

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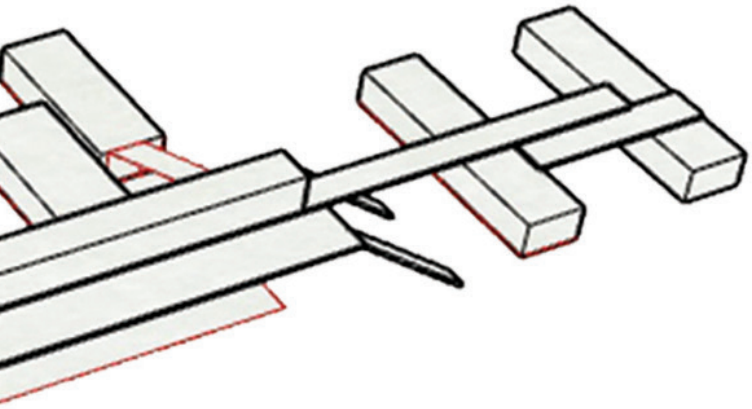

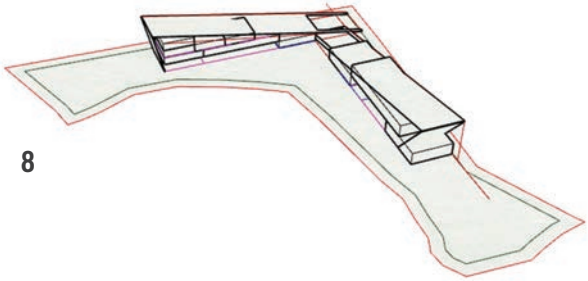

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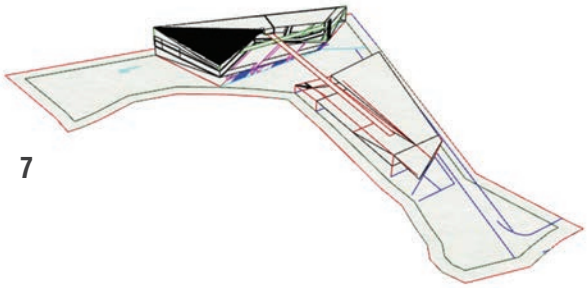
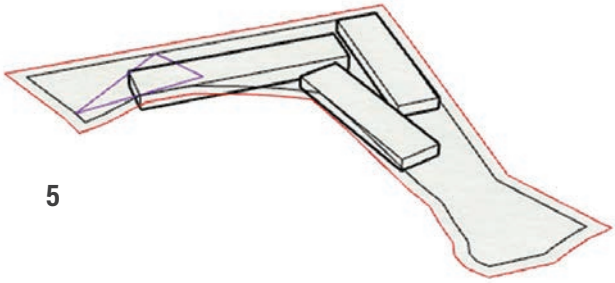


7

NE



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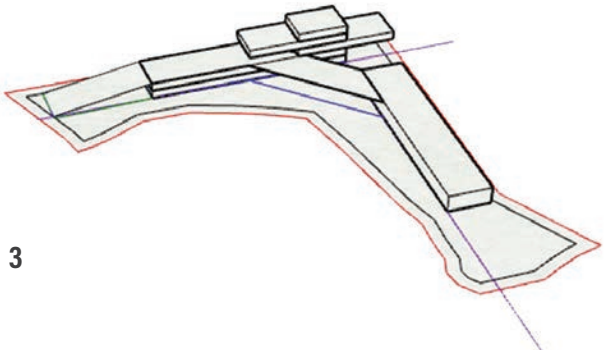

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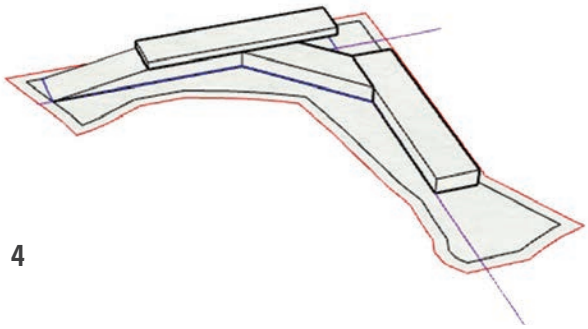

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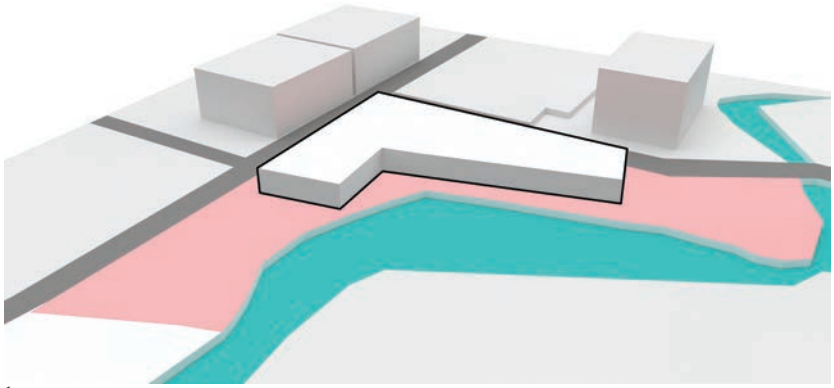
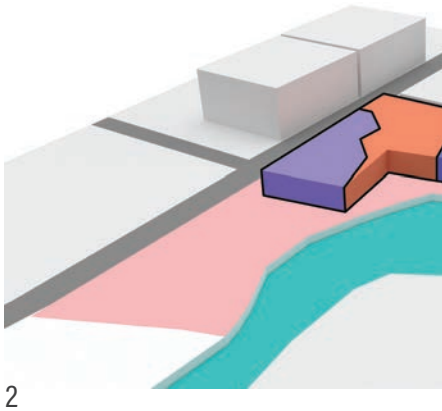
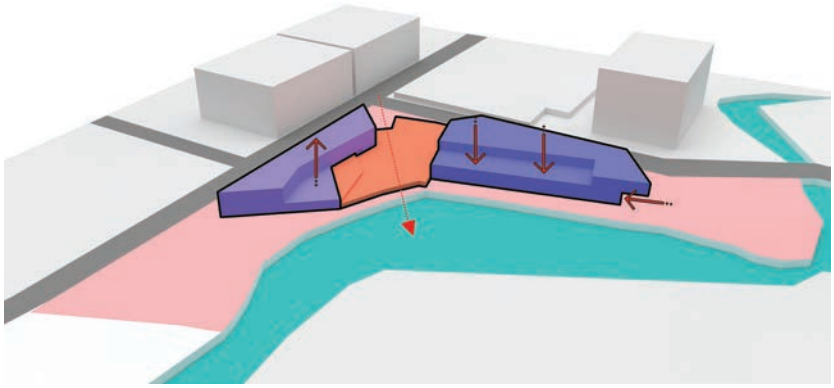


1
Extruding the block.



2
Dividing the block into waste facility, public spaces and plaza.



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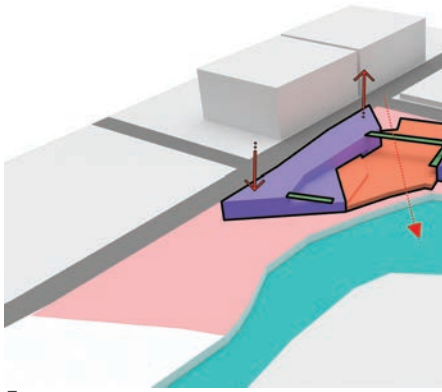
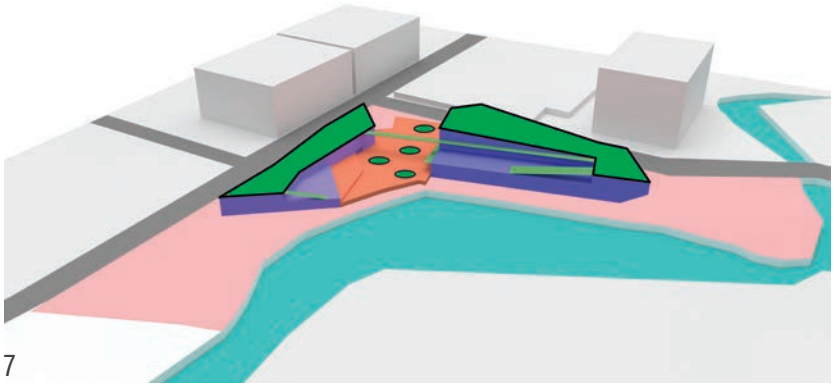
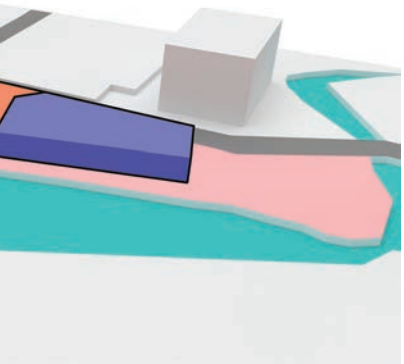
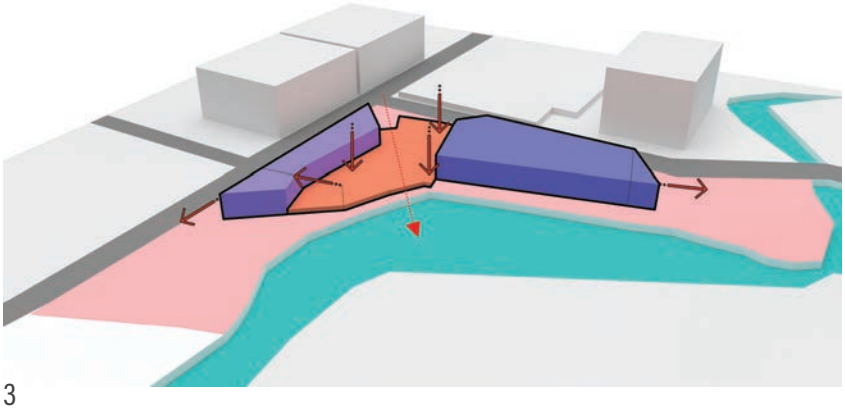


5
changing heights as per requirements of machines and functions & connecting via bridge.

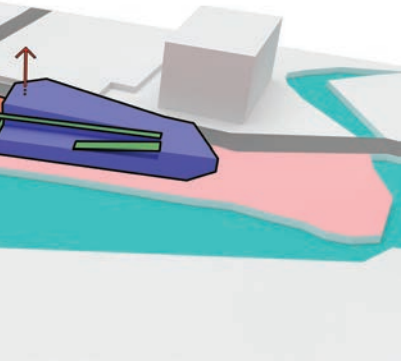


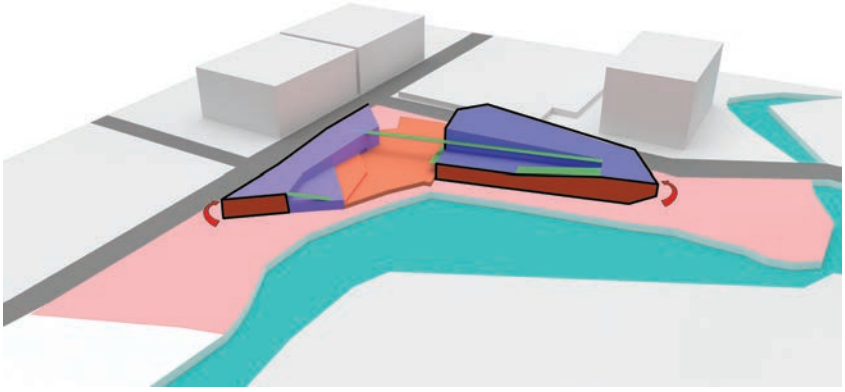
7
Using terraces as accessible open green roofs.



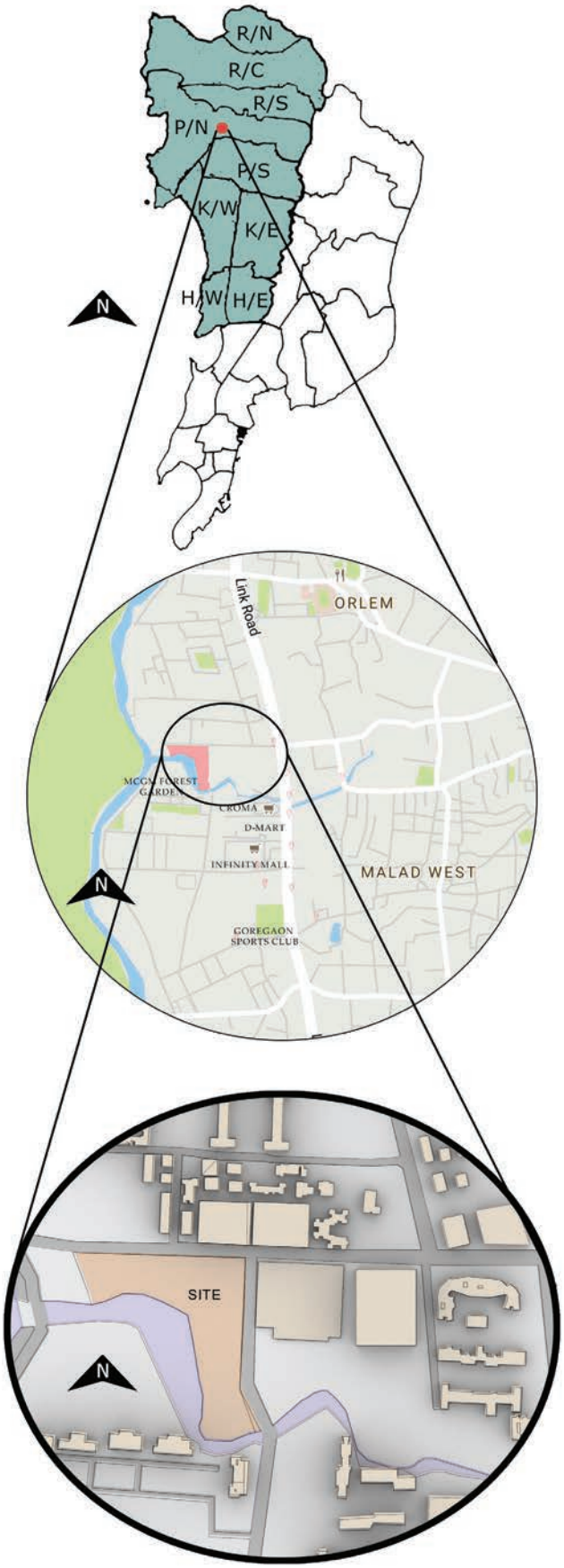


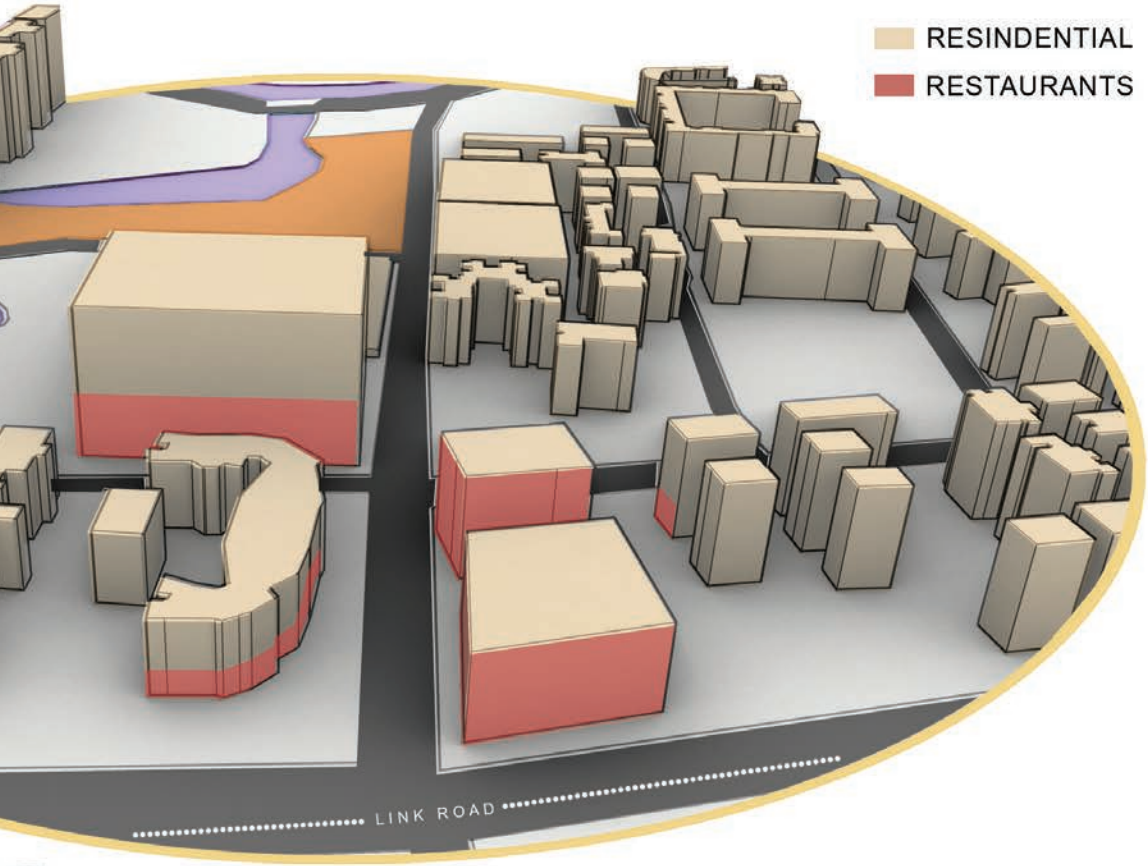
3
Shaping the blocks as per sun path and wind flow.

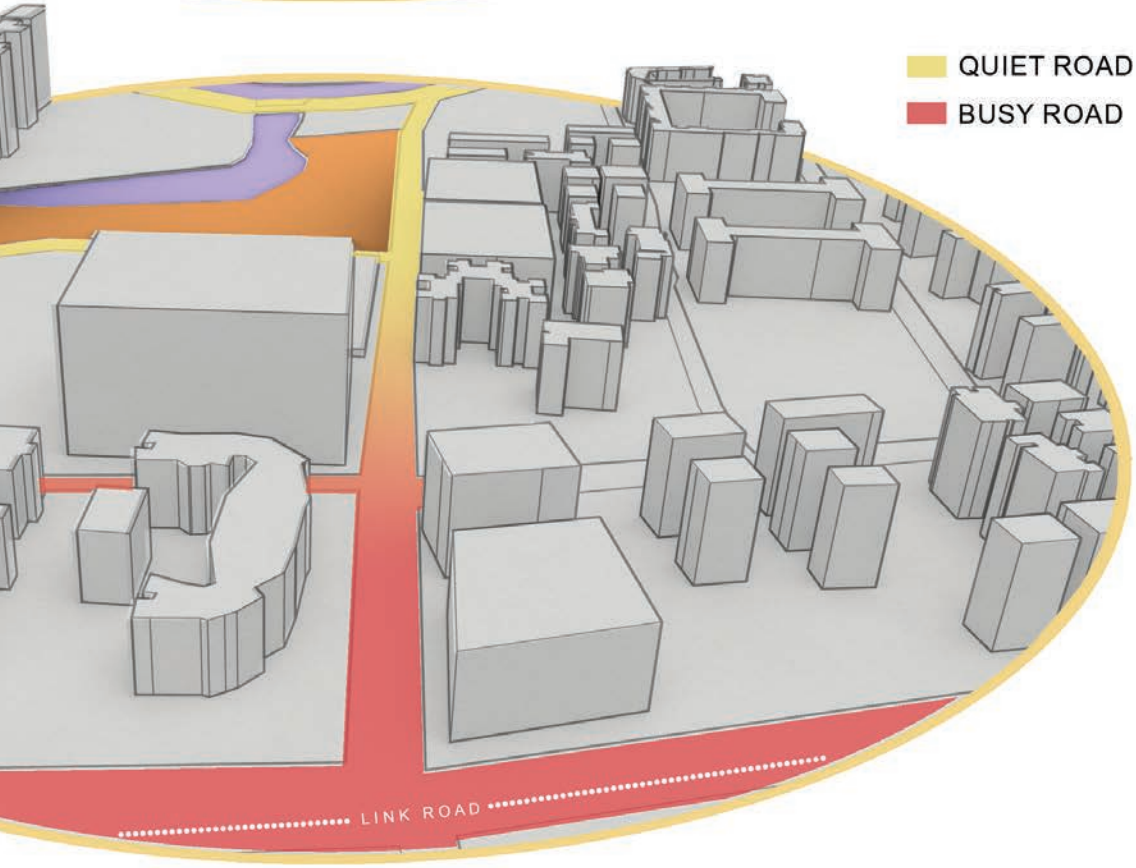


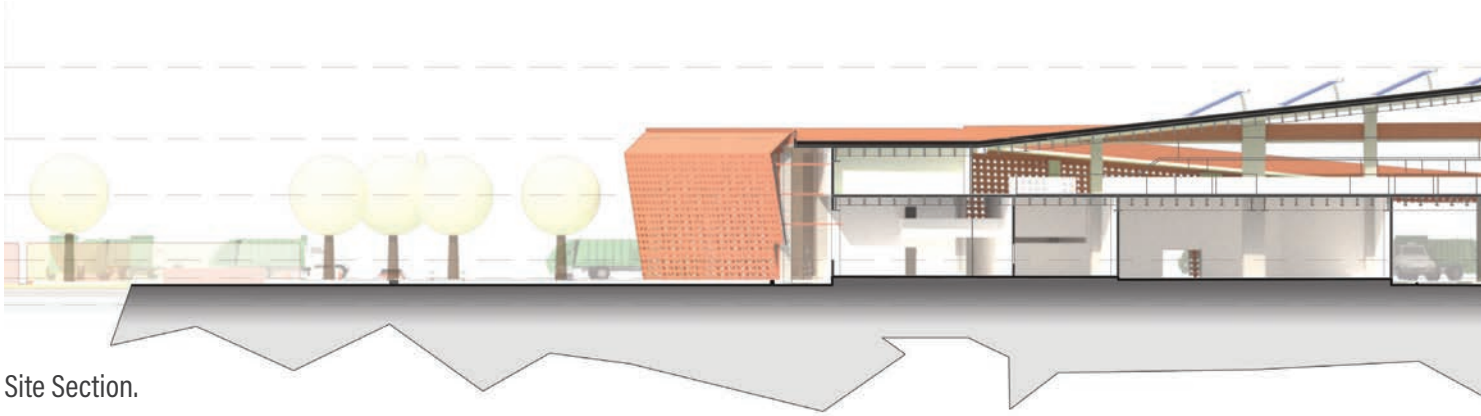


6
Wrapping the building in a steel jaali to let in light and wind.


R/N
R/C
R/S
P/N
P/S
K/W
K/E
H/W
H/E
N
Link Road
ORLEM
MCGM FOREST GARDEN
CROMA
D-MART
INFINITY MALL
MALAD WEST
GOREGAON SPORTS CLUB
SITE

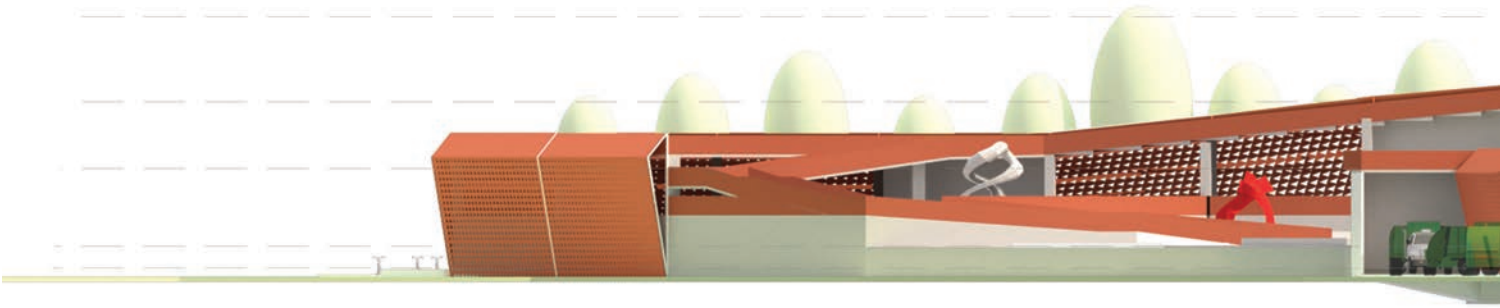

RESINDENTIAL
RESTAURANTS
LINK ROAD


QUIET ROAD
BUSY ROAD
LINK ROAD

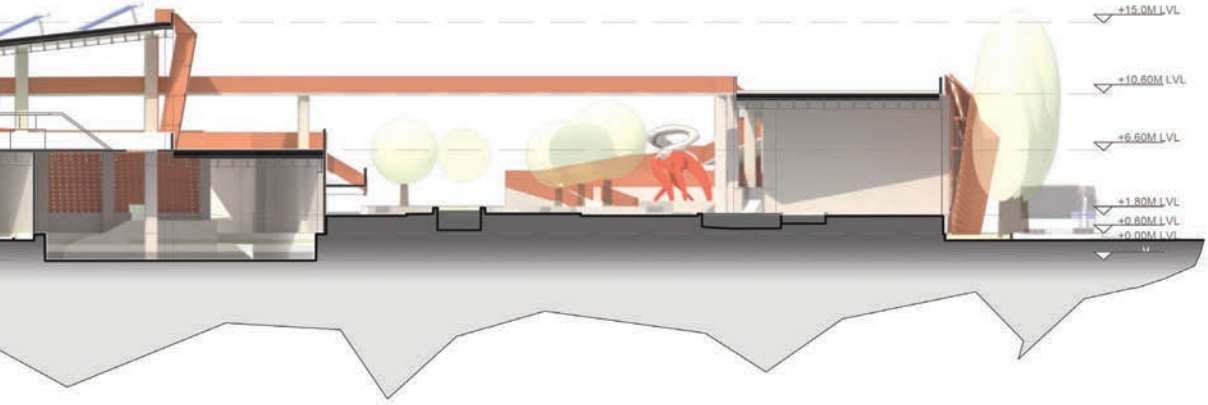


Site Section.

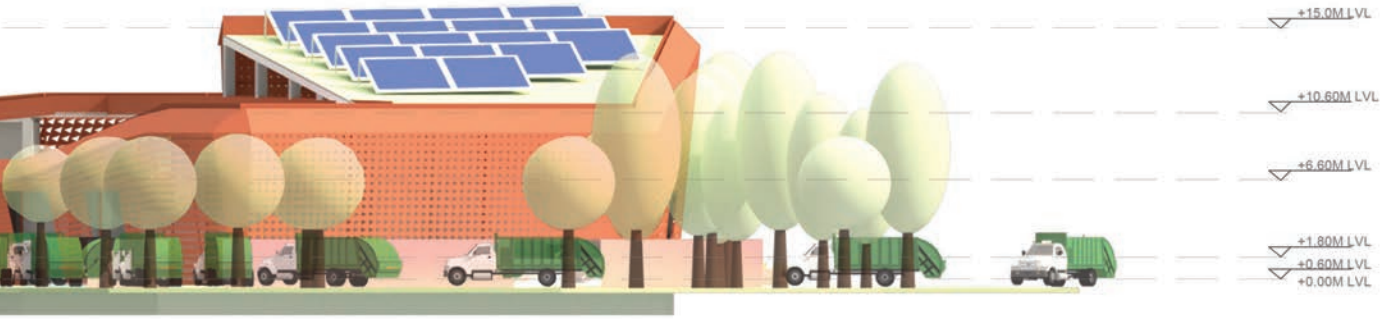
Site Plan.



Elevation.



Bird's-eye view.



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