

ARCHITECTURE • INTERIOR DESIGN • LANDSCAPING • M.E.P. SYSTEMS

January / February 2022

SEAB

SOUTHEAST ASIA BUILDING

THE GREEN ISSUE

Sustainability in Landscape Architecture

ON THE COVER: The Metro Forest / Bangkok, Thailand



ISSN 2345-7066



NEWS

- 6 Asia Pacific & Middle East
- 12 World

PROJECTS

- 14 Children's Surgical Hospital – Mapei
- 16 Lingbao Children's Center
- 20 The Metro-Forest Project
- 24 Bendigo Botanic Garden
- 28 Malabar Hill Forest Trail
- 34 Kingfisher Wetlands
- 38 Titan Integrity Campus

PLAYGROUNDS

- 42 The Circular Playground
- 43 Climbing Park of Luofu Mountain
- 44 The Rubbertree
- 45 Twisted Bamboo Towers

INTERVIEW

- 46 Interview with Dr. Srilalitha Gopalakrishnan, President, Singapore Institute of Landscape Architects (SILA)

MECHANICAL, ELECTRICAL & PLUMBING SYSTEMS

- 52 Interview with Jürgen Böhrer, APAC CEO of TK Elevator
- 54 Managing the Lifespan of a Mechanical Lock System – dormakaba
- 55 Industry News

PRODUCT SHOWCASE

- 59 Products that are new or currently in the market

SHOW REVIEW

- 62 Architecture & Building Services (ABS) 2021

EVENTS

- 71 Guide to tradeshow, conferences and other events relevant to the building and construction industry



On the Cover: The Metro-Forest in Bangkok, Thailand. Photographer: Rungkit Charoenwat

Cover design by Fawzeeah Yamin

ASSOCIATE PUBLISHER

Eric Ooi (eric.ooi@tradelinkmedia.com.sg)

EDITOR

Amita Natverlal (seab@tradelinkmedia.com.sg)

MARKETING MANAGER

Felix Ooi (felix.ooi@tradelinkmedia.com.sg)

HEAD OF GRAPHIC DEPT/ADVERTISEMENT CO-ORDINATOR

Fawzeeah Yamin (fawzeeah@tradelinkmedia.com.sg)

CIRCULATION

Yvonne Ooi (yvonne.ooi@tradelinkmedia.com.sg)

Disclaimer

All advertisers and contributors must ensure all promotional material and editorial information submitted for all our publications, must be free from any infringement on patent rights and copyrights laws in every jurisdiction. Failure of which, they must be fully liable and accountable for all legal consequences (if any) that may arise.

The Editor reserves the right to omit, amend or alter any press release submitted for publication. The publisher and the editor are unable to accept any liability for errors or omissions that may occur, although every effort has been taken to ensure that all information is correct at the time of going to press. No portion of this publication may be reproduced in whole or part without the written permission of the publisher.

The editorial contents contributed by consultant editor, editor, interviewee and other contributors for this publication, do not, in any way, represent the views of or endorsed by the Publisher or the Management of Trade Link Media Pte Ltd. Thus, the Publisher or Management of Trade Link Media will not be accountable for any legal implications to any party or organisation.

Southeast Asia Building is available free-of-charge to applicants in the building industry who meet the publication's terms of control. For applicants who do not qualify for free subscription, copies will be made available, subject to acceptance by the publisher, for a subscription fee, which varies according to the country of residence in the following manner:

Annual Subscription

Airmail: America/Europe – S\$185, Japan, Australia, New Zealand – S\$185, Middle East – S\$185, Asia – S\$155, Malaysia / Brunei – S\$105
Surface mail: Singapore – S\$60
(Incl 7% GST Reg No: M2-0108708-2)

Printed in Singapore by Fuisland Offset Printing (S) Pte Ltd
MCI (P) 069/08/2021 KDN No: 1560 (1270) – (6)
ISSN 2345-7066 (Print) and ISSN 2345-7074 (E-periodical)

Trade Link Media Pte Ltd also publishes:

- Bathroom + Kitchen Today
- Lighting Today
- Security Solutions Today
- Southeast Asia Construction

SOUTHEAST ASIA BUILDING is published bi-monthly by:

Trade Link Media Pte Ltd, 101 Lorong 23, Geylang,
#06-04, Prosper House, Singapore 388399
Tel: +65 6842-2580 Fax: +65 6842 2581
Editorial e-mail: seab@tradelinkmedia.com.sg
Website: www.tradelinkmedia.com.sg

Cs. Reg. no: 199204277K

Scan QR Code



or visit our website
<http://seab.tradelinkmedia.biz>

Connect with us on social media!



www.facebook.com/southeastasiabuilding



www.twitter.com/SEA_Building



www.instagram.com/southeastasiabuilding

Malabar Hill Forest Trail

THE MALABAR HILL FOREST TRAIL, DESIGNED BY **IMK ARCHITECTS**, CREATES AN ELEVATED, WINDING, WOODEN WALKWAY FOR PEOPLE TO EXPERIENCE THE 12-ACRE MALABAR HILL FOREST, ONE OF THE LAST REMAINING NATURAL ECOSYSTEMS IN MUMBAI, INDIA.

The Malabar Hill Forest Trail project presents a novel way to catalyze the preservation and restoration of often neglected and degrading urban forests that are increasingly prone to the effects of unchecked development.

The walk will take visitors on an immersive natural journey, providing a place of recreation and experiencing nature, exploring the potential of eco-tourism in the middle of one of the world's densest cities. The project is a collective initiative of the Malabar Hill Citizens' Forum, the Nepeansea Road Citizens' Forum (NRCF), and IMK Architects, and is supported by the JSW Foundation. It will be funded by the Brihanmumbai Municipal Corporation (BMC), and is slated for completion by the end of 2021.





Malabar Hill Forest Trail offers remarkable views of the Arabian Sea as well as Mumbai's skyline.



Malabar Hill Forest Trail – Location in Mumbai.



Malabar Hill Forest Trail – Site access.



Malabar Hill Forest Trail – Seating and information panels are planned along the walk for visitors.



Malabar Hill Forest Trail – The elevated walkway will be constructed without damaging a single tree.

The Malabar Hill Forest is a roughly 12-acre green pocket of land in the midst of the densely populated urban landscape of Mumbai. It houses a diverse mix of flora and fauna: including trees like gulmohar, copperpod, mango, coconut, rain tree, jamun, and jackfruit, and a dozen rare birds including the rose-ringed parakeet, hornbill, coppersmith barbet, magpie-robin, golden oriole, and peafowl.

A historically popular venue for joggers, athletes, nature lovers, and leisure seekers from the Malabar Hill neighbourhood, the forest today seems to be falling into a state of disrepair and neglect. Temporary and permanent structures spread through the forest, including a stairwell, a greenhouse, as well as older access steps, trails, fences and guardrails are worn down or broken; garbage and construction waste are routinely dumped along the trails, which are also often used as latrines by passersby; and the forest is coming under increasing threat of encroachment by slums along its eastern edge. The hillock's subsoil has started to give away to



Malabar Hill Forest Trail – Site Plan



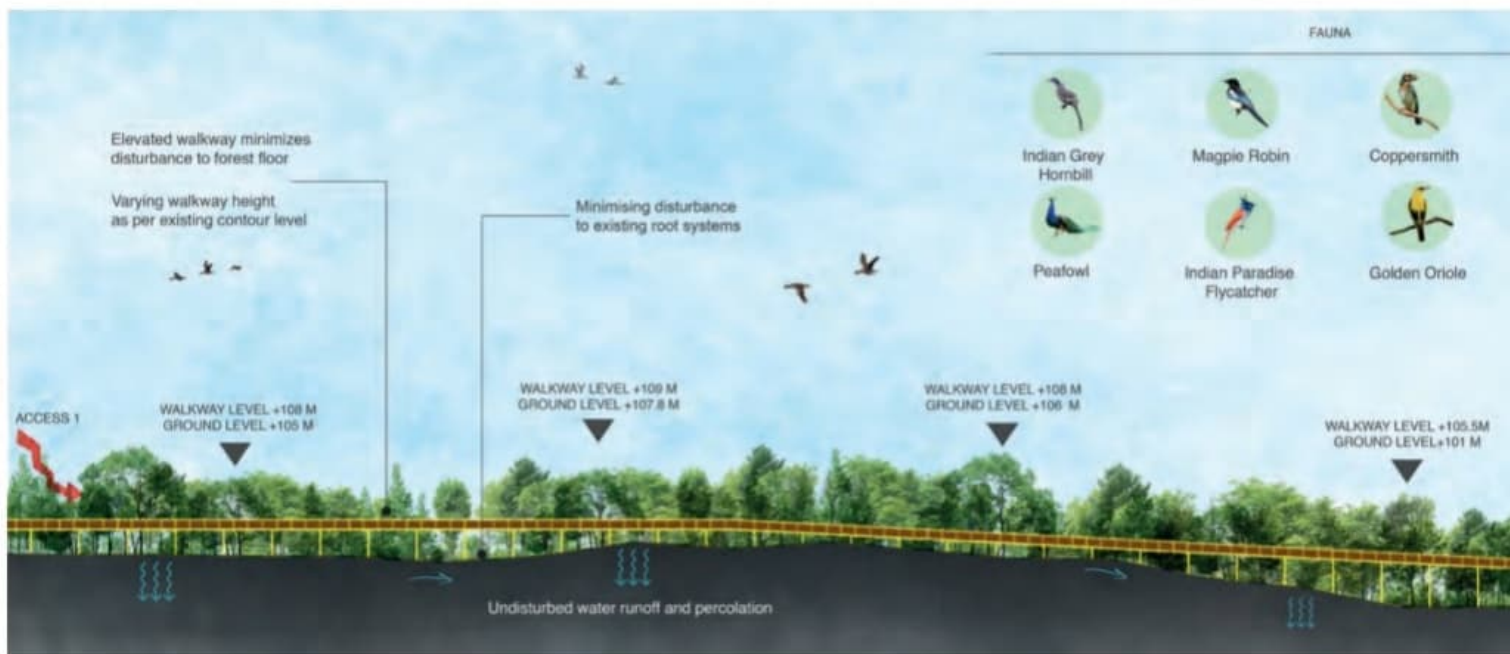
Malabar Hill Forest Trail opens up unexplored avenues for bird-watching and recreation in the middle of Mumbai.

due to constant soil erosion, which is exacerbated by vigorous stormwater run-off along the steep slopes. Furthermore, the area is increasingly becoming an avenue for antisocial activities such as illicit liquor brewing and consumption of drugs, leading to safety concerns. Evidently, the forest and the ecological systems it supports are under threat, and if kept unsupervised, might soon be encroached upon in entirety.

The Malabar Hill Forest Trail thus arises out of the urgent need to preserve and restore the forest's rich ecosystem, while creating a new, sustainable interface between nature

and the city.

Traversing roughly the same path as the two older trails on the ground level, the new, elevated walkway will run a total length of 705 metres, taking visitors through the entire length of the forest. The site will be fenced on the ground level and ingress/egress points will be provided at either end of the trail, connecting it to the two existing, prominent points of access for Malabar Hill: a 192-step stairway from the Babulnath temple in the south and a 100-step picturesque stairway carved into the hill from the Hughes Road bus stop



Malabar Hill Forest Trail – The elevated walkway minimises impact on the forest floor.



Rahul Kadri

“The project seeks to set a precedent for other green, tourist spots in the country by demonstrating how we can enjoy nature while causing minimum disturbance to the environment.”

Rahul Kadri, Partner & Principal Architect, IMK Architects

area in the south-west, both of which will be restored as part of the project. In addition, a utility block with toilets, ticketing booths, and other public amenities will come up at the start of the trail towards the west along the Siri Road.

The trail, set to be constructed without damaging a single tree in the forest, will stand on a series of cylindrical, epoxy-coated structural steel columns, which can be easily repaired or replaced. Its height will vary from a minimum of 2 metres over the ground to 10 metres in response to the terrain.

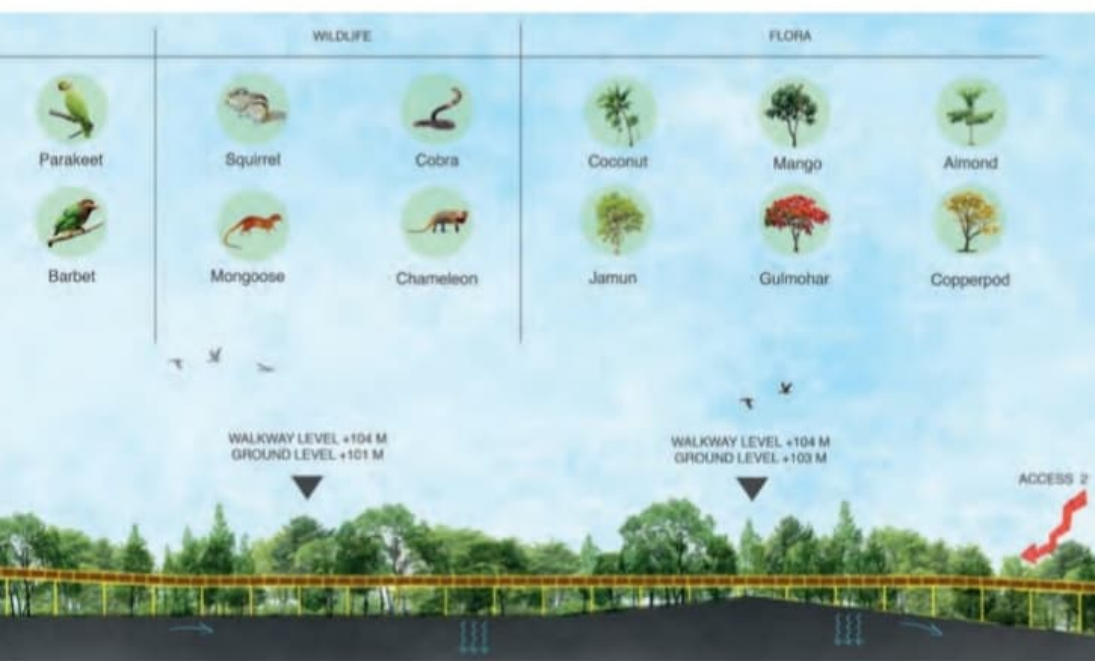
The seemingly simple intervention of elevating the trail will regulate visitor access to the forest on the ground level, as well as minimise the use of concrete on the forest floor. This will ensure that the natural flow of water along the hill slopes, as well as the movement of wildlife in the forest remains undisturbed. Additionally, the trail will stand on low-impact pile foundations to limit interference with existing root systems in the soil.

The walkway deck will be made of local, weathered Sal wood in an effort to seamlessly merge the trail with the forest. It will be supported by steel joists over structural steel

beams, which will themselves be supported by the columns. Averaging at 1.5 metres, the width of the deck will increase every 150 metres to accommodate amenities for visitors: from 1.5 metres to 3.6 metres to include seating zones, and to 5.4 metres to accommodate expansive viewing decks, one of which will feature a glass bottom.

The walkway will be illuminated by warm lighting fixtures placed within the Sal wood balustrade, a strategy centred on keeping light pollution spilling onto the forest floor to a minimum. Information panels and small kiosks along the walk will provide essential information to first-time or infrequent visitors. Garbage bins will be placed at regular intervals too to help curb instances of littering, while a network of CCTV cameras will ensure improved supervision of the precinct.

The Malabar Hill Forest Trail will thus offer an unparalleled and transcendent natural experience akin to walking in the woods in the heart of a bustling city like Mumbai – opening up unexplored avenues for bird-watching and recreation as well as facilitating remarkable views of the Arabian Sea and the city skyline.



PROJECT DETAILS

Project Name: Malabar Hill Forest Trail

Location: Mumbai, India

Client: Construction of elevated Nature's Trail (Tree walk) at Kamla Nehru park, Malabar hill under H. E department in D ward

Funded By: The Brihanmumbai Municipal Corporation (BMC)

Architect & Landscape Architect: IMK Architects

Design Team: Rahul Kadri, Harish Vyas, Bhumi Ganjawala, Heena Sheikh, Pramod Shelar

Size: 12 acres

Completion: End of 2021

Drawings & 3D Views: © IMK Architects