



Streets 4 People

CHALLENGE

WORKSHOP 7

Kochi : Pilot design & implementation - W7

Presentation

KOCHI STREETS FOR PEOPLE INTERVENTIONS IN VASCO SQUARE & CALVATHY CANAL AREAS

COCHIN SMART MISSION LIMITED

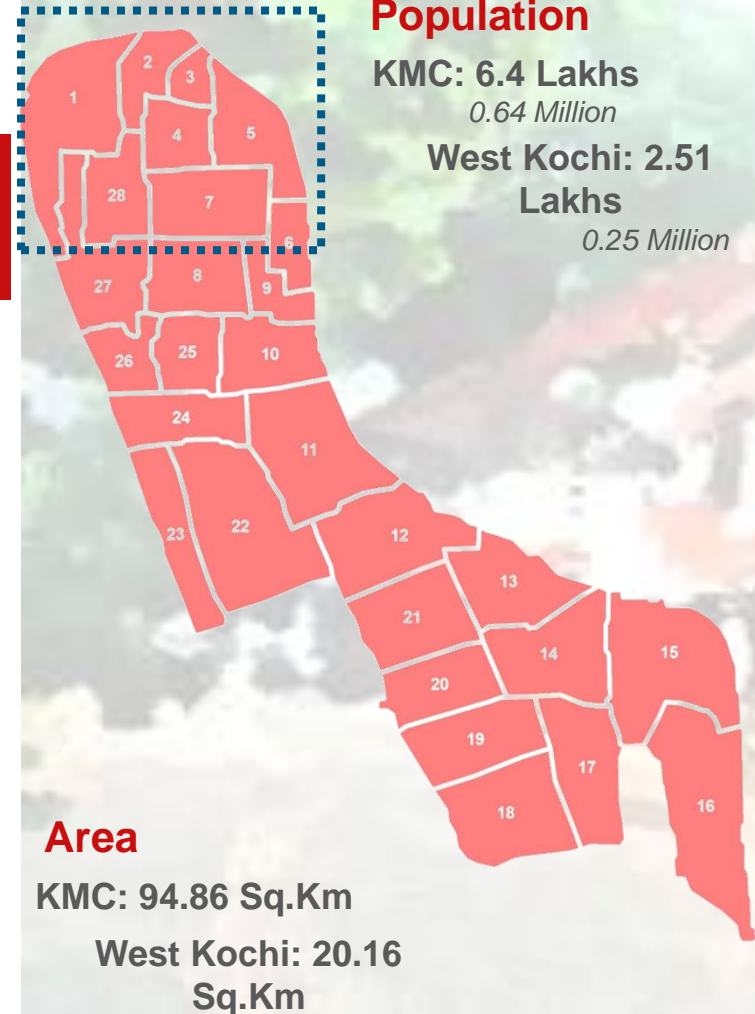


Transport Strategy for West Kochi Island

Kochi is one of the selected pilot cities of SMART-SUT project and Kochi Municipal Corporation (KMC) is the partner to implement the same

Purpose of Document

- **Guide** KMC in the development of urban transport initiatives under its legal jurisdiction
- **Identify** focus areas of transport which provide clarity for city development plans and budgeting
- **Integrate** various urban transport initiatives currently planned for the region
- **Suggest** an urban transport vision and key strategies for achieving the same



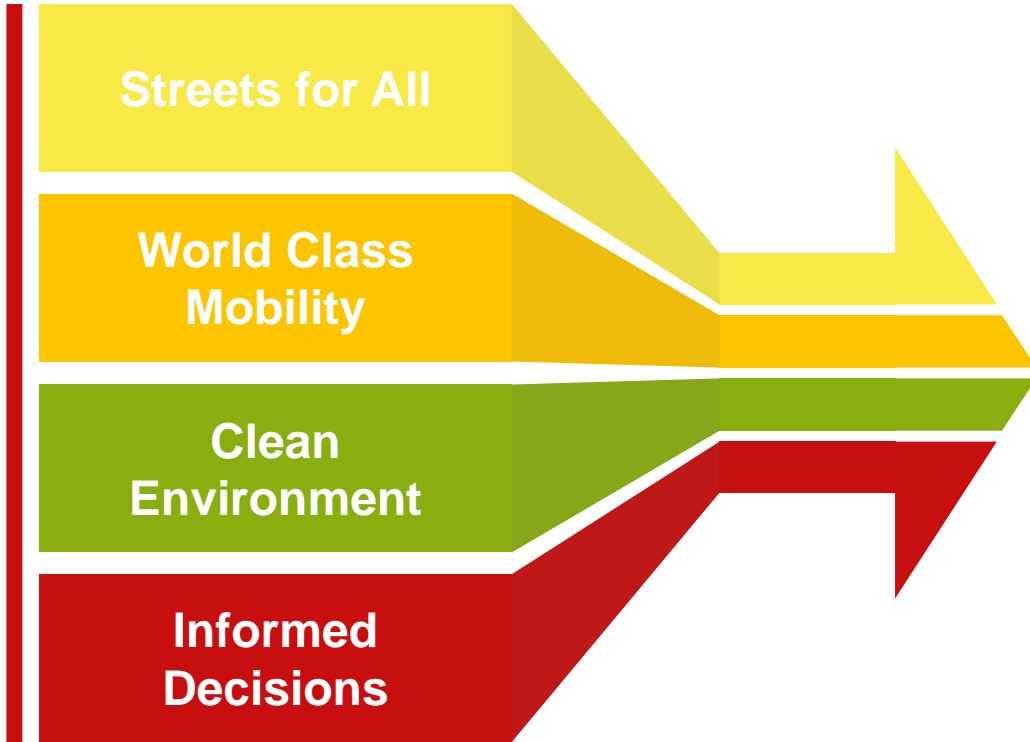


Vision

A 'world-class' transport system for the Fort Kochi Island and its residents

Comprehensive Mobility Plan for Greater Kochi Region envisions, "to provide 'world-class' mobility experience to citizens of Kochi by establishing planned urban transport system that is safe, reliable, universal, accessible and sustainable"

Key Principles



Cycling and walking



Complete Streets



Shared e-autos



Parking management



- Signages:**
1. Integrated Transit map for GCDA area
 2. Local connectivity map for Fort Kochi Mattancherry Area

Streets for People
CHALLENGE

TU to demonstrate measures

Need to create convenient, comfortable and safe travel options for pedestrians and cyclists: Wider roads

Total road length

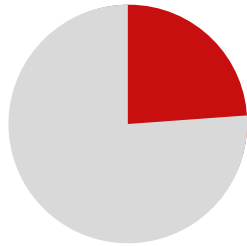
15.2 Kms

62.5 Kms

Excluding local streets



Arterial road length:
6.7 Kms



24%

Of the roads have footpath



Sub-arterial road length:
17 kms

0%

Of the roads have dedicated cycle tracks

Use of carriageway by vulnerable modes



Lack of convenient footpaths/cycle tracks for majority of roads

Source: CMP, 2015

Need to ensure safe crossings and properly designed intersections



Mix of traffic along narrow roads

Encroachment of footpaths by private vehicles



Intersections: Unmonitored and not signalized

Major Junctions

11 Nos

0

2

Signalized Intersections

Intersections with surveillance

Need to consider parking as a demand management tool

Parking

Major On-Street
Parking Spots

12 Nos



1

*Paid on-street
parking*



4

*Unauthorized
parking spots*



38

*Auto parking
stands*



6

*Goods vehicle
parking stands*



*Illegal parking along road
shoulders forcing
pedestrians to walk along
carriage way*



*Public spaces being
converted and used as two
wheeler parking*

Need to develop multi-modal travel choices for users



Fort Kochi
Bus Terminus



Catered by KSRTC
Buses and Private
Operators



109

Distinct Bus Routes



2

Bus Terminals



30

Bus stops

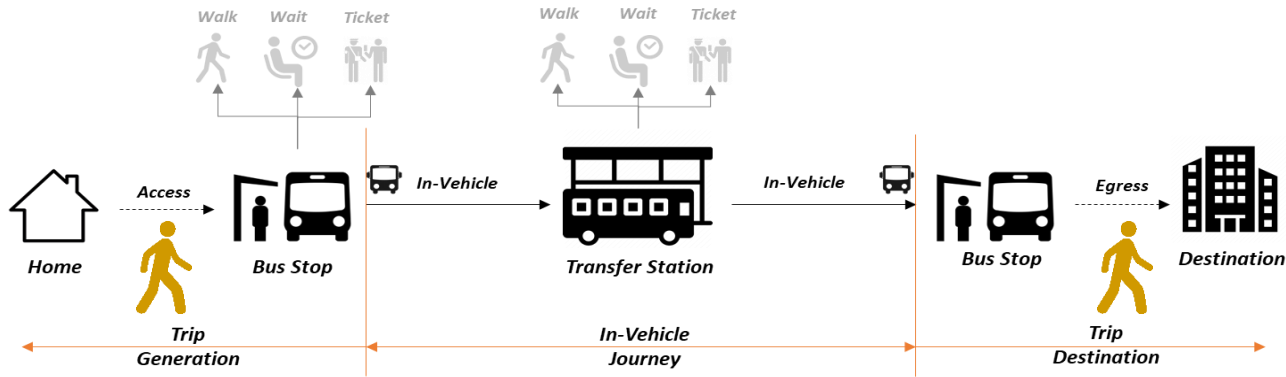
People queuing at Customs
Ferry Jetty



3

Ferry Terminals

Streets for All: Pedestrian Infrastructure



Walk is part of all sustainable mode trip.

1

2

3

4

- **58%** access/egress to ferry services by walk
- **20%** household survey respondents use Non-motorized transport
- Only **24%** roads within FKI has supporting pedestrian infrastructure

S4P Challenge Competition

Kochi Street for People Challenge

The Streets for People Challenge is an initiative of the Smart Cities Mission, Ministry of Housing and Urban Affairs (MoHUA), Government of India.

The challenge aims to create

- flagship **walking initiatives** in cities
- focus on **placemaking and liveability.**
- reimagining **streets as public spaces** through the lens of **economic regeneration, safety and child-friendly** interventions, in order to ensure a green recovery from COVID-19.

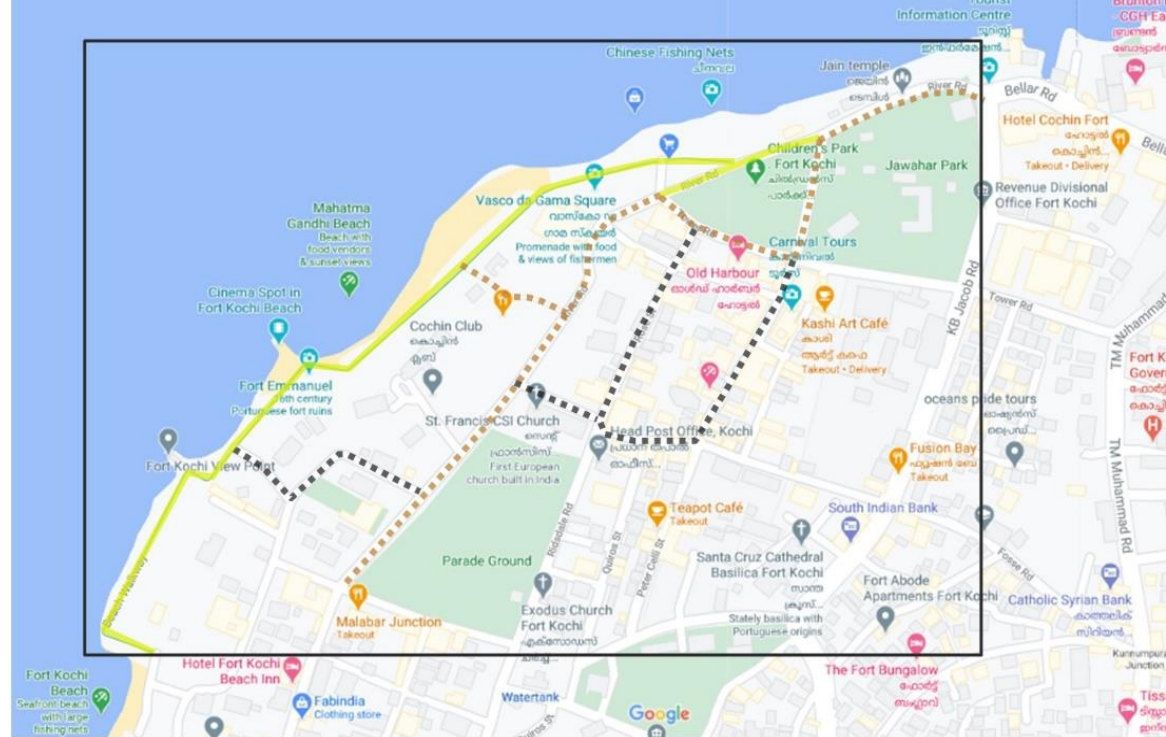
The city-led design competition was conducted.



Vasco Square Area, Fort Kochi

Vasco da Gama Square in Fort Kochi, is near the sea shore and adorned with Chinese fishing nets.

- Site characterized by **street shopping** and **venues for cultural performances**.
- The area is a frequented by citizens and tourists alike.
- Major **tourist attractions, government offices, hotels, cafes** and **transit facilities** in surroundings.
- Influx of pedestrians, tourist buses, taxis, auto rickshaws and bicycles.
- Chaotic experience for visitors.
- Safety is also a concern with big tourist buses parking in front of Jawahar park.
- The streets proposed under the Challenge is about 650m and have a right of way ranging from 6m to 10 m



- Study area
- Existing **Pedestrian only** routes in the area which should be considered for proposals in relation to the parks, beach area vasco square etc
 - The primary roads selected for converting to **pedestrian priority** streets. Design should also include the space abutting the carriage way, especially along the River road
 - Other alternative roads that maybe considered in this location, as possible pedestrian **priority streets**

Winning proposal



Conserved Station Wall and paths cleared off encroachments

Light and sound show for the locals and the tourists

Historical Timeline of Kochi painted on the Paved path

Barrier free Access connecting to the Promenade

View of the Vasco Square

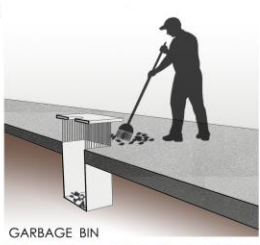


View of the Play-Eat Loop Junction

An urban farm is a space where smaller communities or group of buildings can grow vegetables on their own and buy from there. It will save time, reduce carbon footprint and will be much healthier as they will be organic.



HISTORIC LAMPS AND SIGNAGES



GARBAGE BIN



Interactive Play Space at Vasco Square

Eat zone with new and refurbished kiosks

Smaller interventions such as food kiosks, drinking water kiosks, public seating, lamp posts with signage boards and garbage bins have been included in the design scheme to improve light conditions, safety and health of the local as well as tourists. Use of material palette have been chosen in such a way that carbon footprint is reduced.



FOOD KIOSK



DRINKING WATER KIOSK



BENCH SEATING

KOC3358

15 July 2021

Implementation of measures developed under 'Streets for People Challenge'

Calvathy and Eruveli Canal area, Mattancherry

- Low rise, high density low income, residential area with lack of green open spaces.
- Absence of traffic calming measures.
- Children from this locality use identified streets in the evening to play.
- The canal edges, provide opportunity to be designed as an inclusive public place
- The concept of 'shared street' as also advocated by KMC and CSML, maybe further explored.

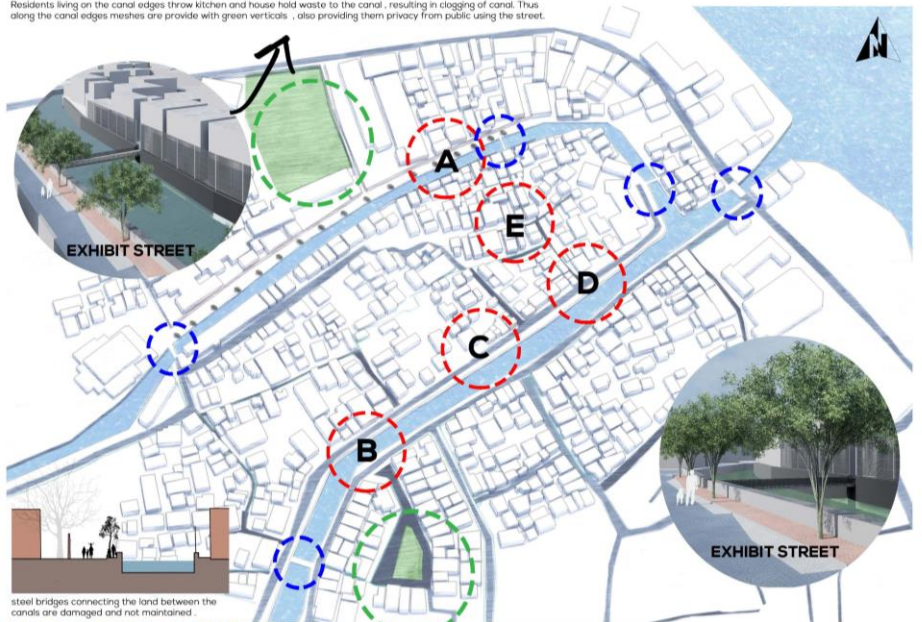
..... Potential streets abutting the canals in the study area, identified for designing as pedestrian priority during year round. Specific sections of the same roads maybe proposed as pedestrian only during special events.

Study area

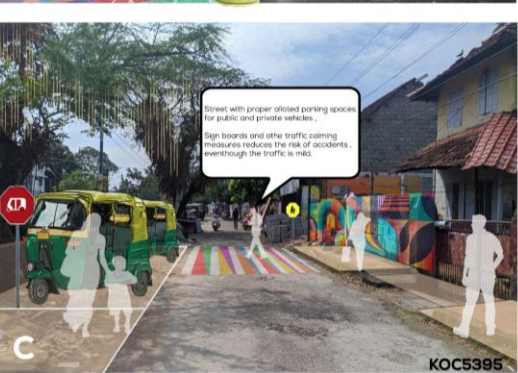
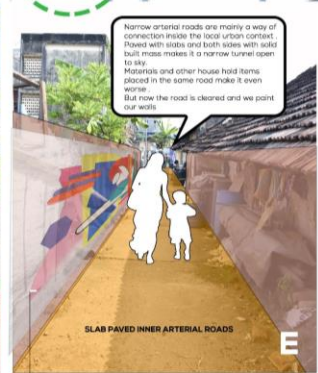


REVITALIZING THE STREETS ALONG THE ERUVELI AND CALVATHY CANALS.....

Residents living on the canal edges throw kitchen and house hold waste to the canal , resulting in clogging of canal. Thus along the canal edges meshes are provided with green verticals , also providing them privacy from public using the street.



steel bridges connecting the land between the canals are damaged and not maintained

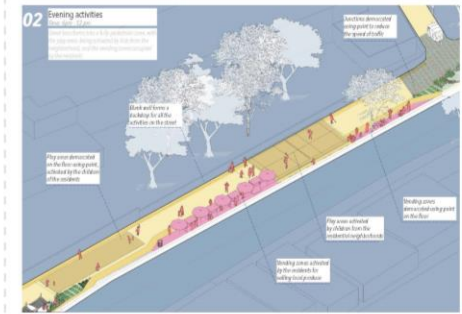
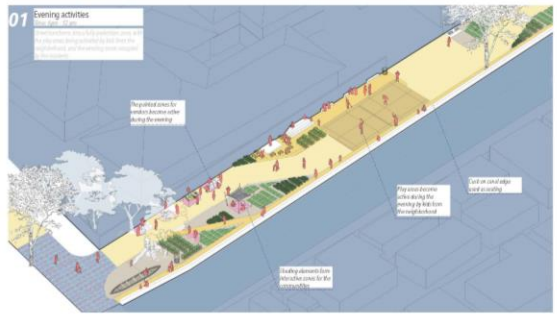
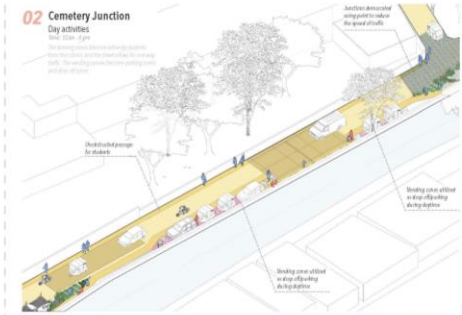
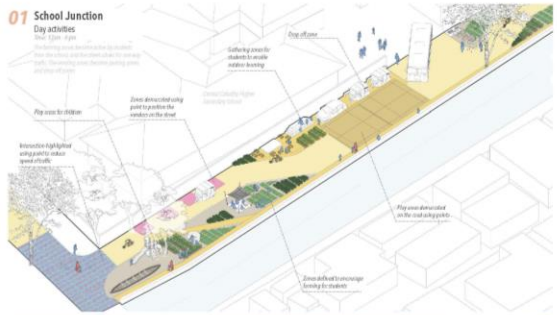
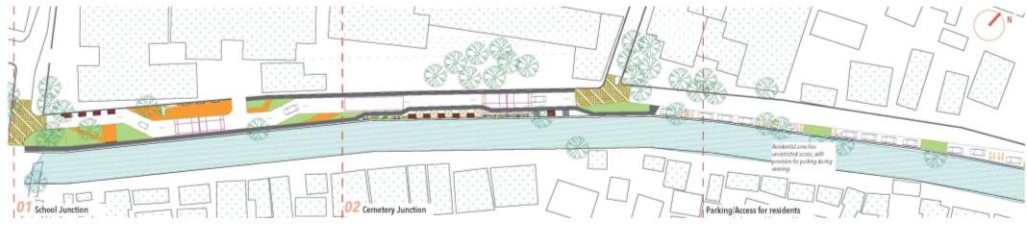


Winning proposals

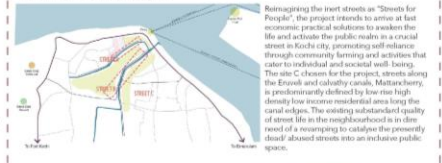
Street starts from a major node in the locality comprising of the school, community hall, anganwadi ends in a Cul de sac, graduating through a newly dead street. It is a vantage point towards the canal and the rear facade (also backyards) of households on the opposite edge. Through paved, the pedestrian pathways are discontinued. The active use prompted by the public institutions signifies the necessity for a well pedestrianized access. The street is characterized by a long dead wall that acts as a backdrop for the activities going in the street. Apart from peak school hours, the traffic is meagre in the street. Thus, the street is a potential multi-space.

Being the node comprising school, community hall etc, the proposed street is a pedestrian street with bicycle pathway shared with pedestrian pathways. The street shall also restrict vehicular access to one way during school hours and restrict vehicular entry post school hours to transform it into an activity centre. Being an adaptive street, the proposed street acts as a safe commutable street during school hours, while in the evening the street character transforms into an active neighbourhood area by reducing permeability of vehicles, providing flexible market spaces, street furniture enabling interactive spaces and play area for the residents. The lack of activities for the students is identified, thereby providing opportunity for group learning and sufficient play area for recreation. On understanding that majority of the population undertakes day jobs, the attempt is to provide inclusive recreational spaces in the evening hours. The streets are already safe for women and children. Beyond safety, the initiative is to bring people to the front yards and facilitate a platform to indulge in activities irrespective of gender or age.

STREETS FOR PEOPLE



A Glimpse of the Project



Reimagining the inert streets as "Streets for People", the project intends to arrive at least economic practical solutions to awaken the life and activate the public realm in a crucial street in Kochi city, promoting self-reliance through community farming and initiatives that cater to individual and societal well-being. The site chosen for the project, streets along the Ennak and Chulathy canals, Mattancherry, is predominantly defined by low rise high density low income residential areas along the canal edges. The existing substandard quality of street life in the neighbourhood is in dire need of a reworking to catalyze the generally shunned streets into an inclusive public space.



VISION

To cultivate a new relationship between the street and the residents creating a healthy self-reliant community using farming as a catalyst.

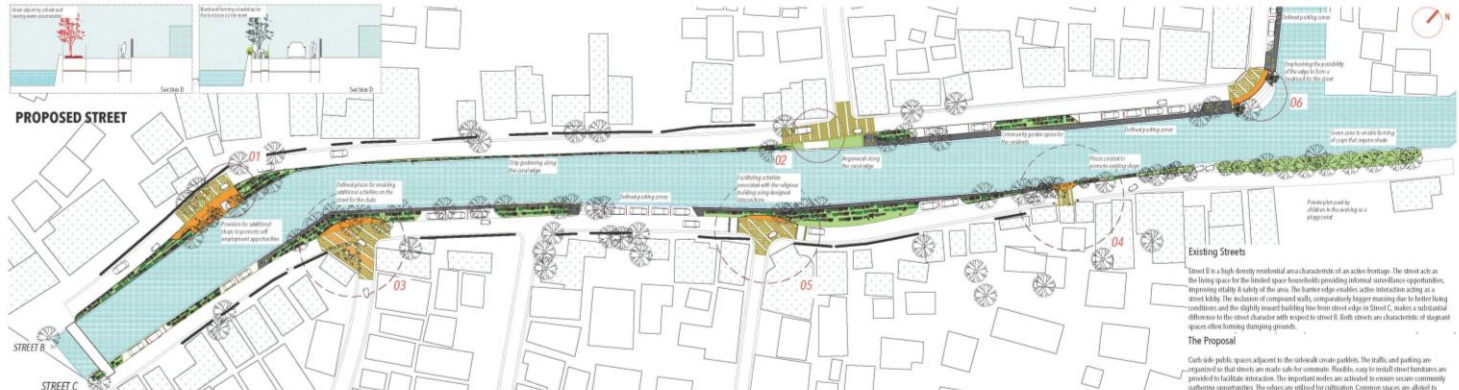
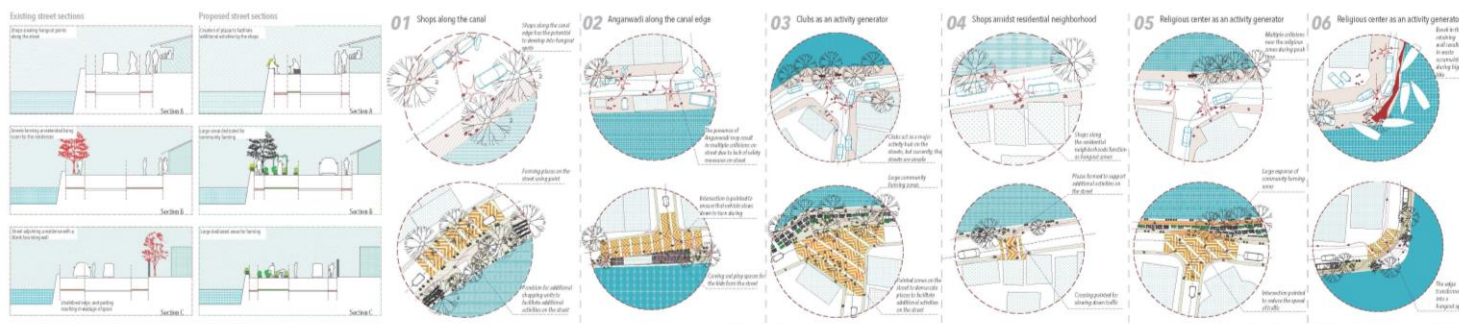


CROPPING PATTERN



The farming is introduced by means of mixed cropping and intercropping. In mixed cropping, two independent crops are mixed together and grown in an area, and in intercropping multiple cropping techniques where two or more crops are grown in proximity. Mixed cropping and intercropping are essentially two separate farming techniques with specific goals which are brought together here for better productivity.

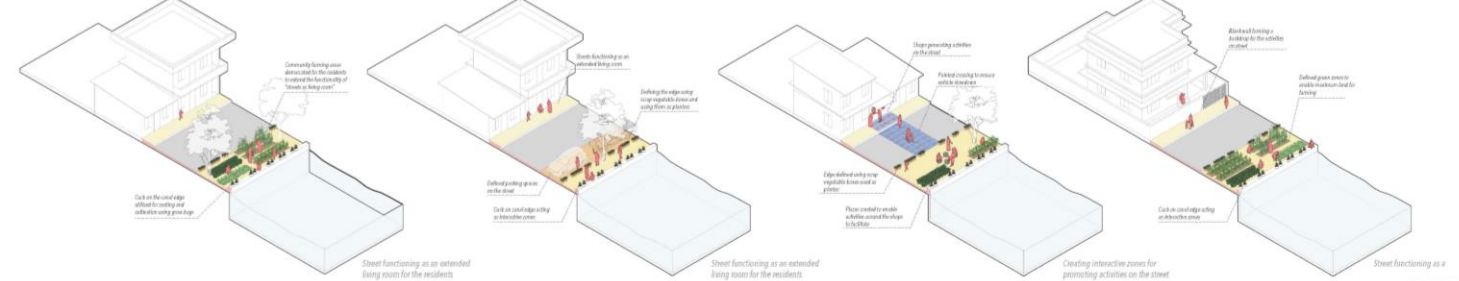
Winning proposals



Existing Streets
 Street B is a high density residential area characteristic of an active frontage. The street acts as the living space for the limited open households providing informal surveillance opportunities, improving vitality & safety of the area. The barrier edge enables active interaction acting as a street lobby. The inclusion of compound walls, comparatively higher massing due to better living conditions and the slightly raised building line from street edge in Street C, makes a significant difference in the street character with respect to street B. Both streets are characteristic of elegant spaces often forming charming streets.

The Proposal
 Core side public spaces adjacent to the sidewalk create public life. The traffic and parking are organized so that streets are safe safe for everyone. Flexible, easy to install street furniture are provided to facilitate interaction. The important nodes are activated to ensure secure community gathering opportunities. The edges are utilized for cultivation. Common spaces are also in people to grow their own produce.

ADAPTING STREET CHARACTERS



Strategy for S4P Intervention

Permanent Intervention

Implementing the cycle tracks, footpaths, junction improvement, signage, public utilities like toilets, dustbins and benches & place making schemes at Vasco Square and Calvathy canal area as permanent interventions.

When lockdown is eased and public gatherings are allowed, tactical interventions at Vasco Square and Calvathy canal area will be implemented along with events which encourage people to walk, cycle, and use public transport.

Tactical Intervention

Permanent Street and Junction Design Interventions

NMT Network

S4P Zone - Reclaiming space for walking and cycling through tactical interventions



Additional routes - Promoting walking & cycling through symbolic interventions

LEGEND

- ⋯ NMT under S4P zone
- ⋯ NMT under TUMI zone
- Bus Route

NMT Network

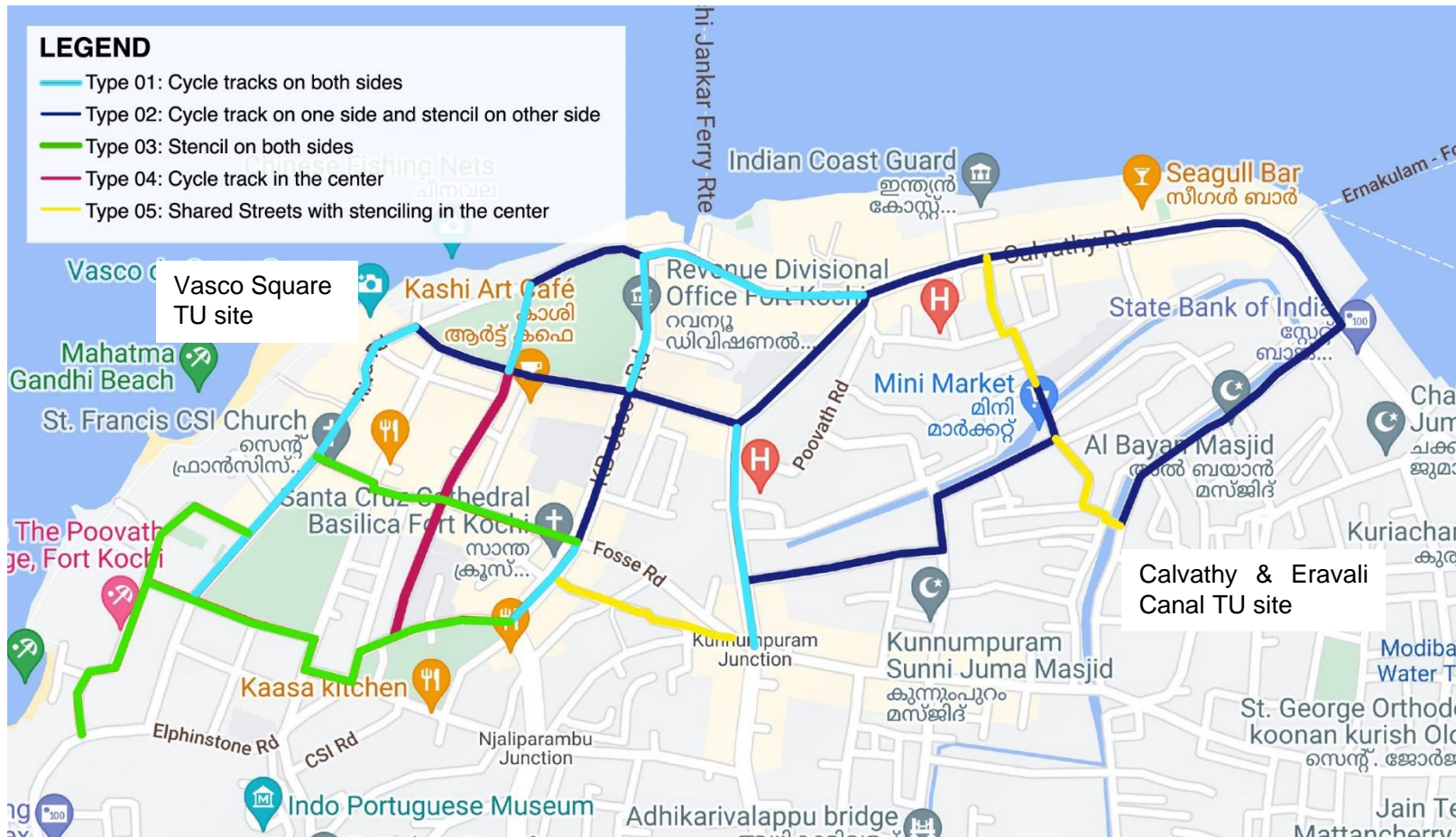


Table: Classification of Streets based on Typology

FORT KOCHI ROAD WIDTHS				
S NO.	ROAD NUMBER	DESCRIPTION	RANGE OF WIDTH (IN METRES)	TYPE OF STREET
1	55	B/W JN 15 & JN 17	4.5 - 7.6	TYPE 3
2	56	B/W JN 04 & JN 16	6.0 - 8.7	TYPE 1
3	57	B/W JN 14 & JN 15	4.5 - 6.5	TYPE 3
4	47	B/W JN 04 & JN 05	5.6 - 6.7	TYPE 2
5	48	B/W JN 06 & JN 07	6.5 - 7.0	TYPE 2
6	49B	B/W JN 10 & JN 20	3.8 - 4.7	TYPE 4
7	49A	B/W JN 03 & JN 05	6.2 - 6.9	TYPE 1
8	60B	B/W JN 08 & JN 09	3.8 - 5.9	TYPE 3
9	60B	B/W JN 09 & JN 10	4.5 - 7.0	TYPE 3
10	60A	B/W JN 10 & JN 11	4.1 - 4.7	TYPE 3
11	60A	B/W JN 11 & JN 12	5.4 - 6.7	TYPE 3
12	62A	B/W JN 19 & JN 20	5.4 - 8.9	TYPE 3
13	62A	B/W JN 20 & JN 21	4.2 - 6.6	TYPE 3
14	KB JACOB ROAD	B/W JN 21 & JN 12	7.5 - 9.0	TYPE 1
15	KB JACOB ROAD	B/W JN 12 & JN 06	4.8 - 5.0	TYPE 2
16	KB JACOBS ROAD	B/W JN 06 & JN 02	7.0 - 11.7	TYPE 1
17	BELLAR ROAD	B/W JN 02 & JN 01	5.4 - 10.7	TYPE 1
18	AMRAVATI ROAD	B/W JN 23 & JN 07	5.0 - 8.2	TYPE 1
19	AMRAVATI ROAD	B/W JN 22 & JN 23	7.0 - 10.4	TYPE 1
20	41	B/W JN 23 & JN 24	3.3 - 6.4	TYPE 2
21	37C		4.6 - 6.3	TYPE 2
22	40	B/W JN 24 & JN 25	3.8 - 6.2	TYPE 2
23	40	B/W JN 24 & SHARED ST.	2.5 - 3.0	TYPE 2
24	CALVATHI ROAD	B/W JN 01 & JN 26	4.15 - 8.9	TYPE 2
25	38	B/W BRIDGE & JN 26	3.5 - 5.2	TYPE 2
26	85	STREET ART WALL COMPOUND	-	TYPE 5
27	90	SHARED STREET	-	TYPE 5
28	91	SHARED STREET	-	TYPE 5
29	92	SHARED STREET	-	TYPE 5
30	93	SHARED STREET	-	TYPE 5

TYPES OF STREETS	DESCRIPTION
TYPE 1	Cycle Track on both sides
TYPE 2	Cycle track on one side and stencil on another
TYPE 3	Stencil on both sides
TYPE 4	Cycle track in the center
TYPE 5	Shared streets with stenciling in the center

Type 01: Cycle Track on Both Sides of carriageway

Cycle Tracks on Princess Street

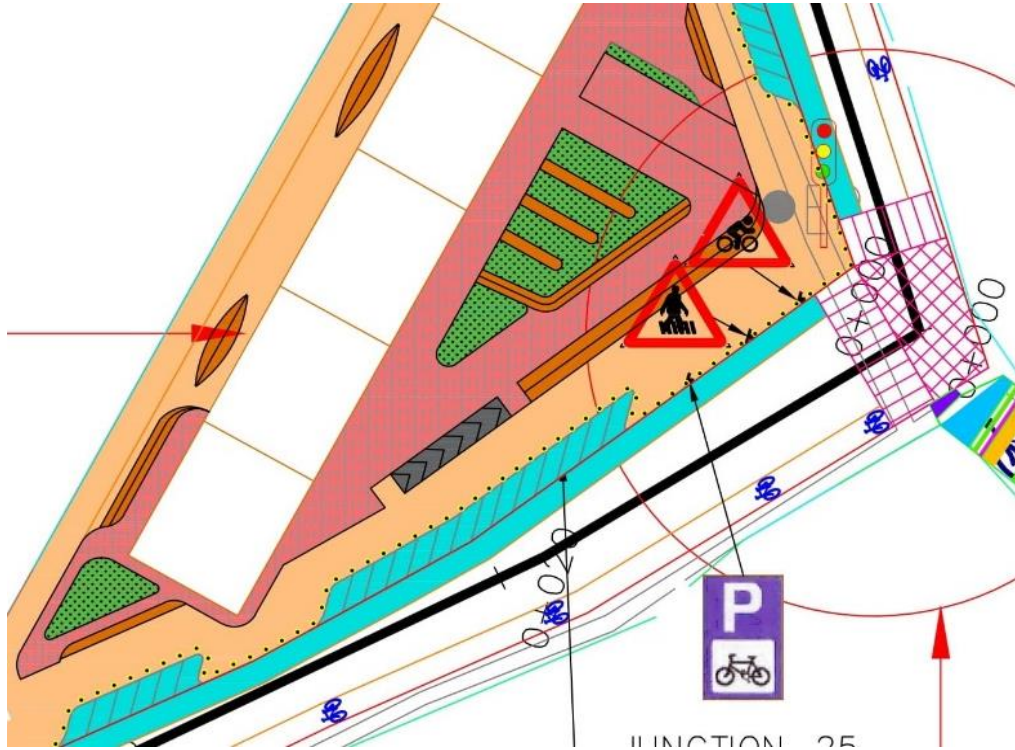


Key plan

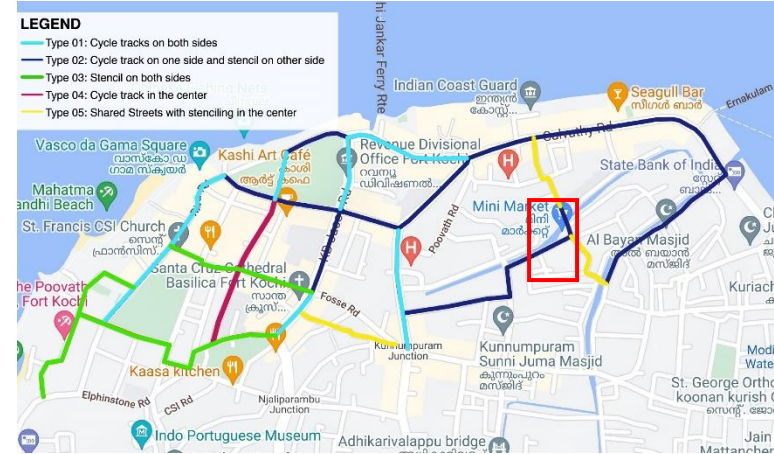


Type 02: Cycle Track on one side & Stencil on other side of carriageway

Cycle Track & Stencil near Mini Market



Key plan

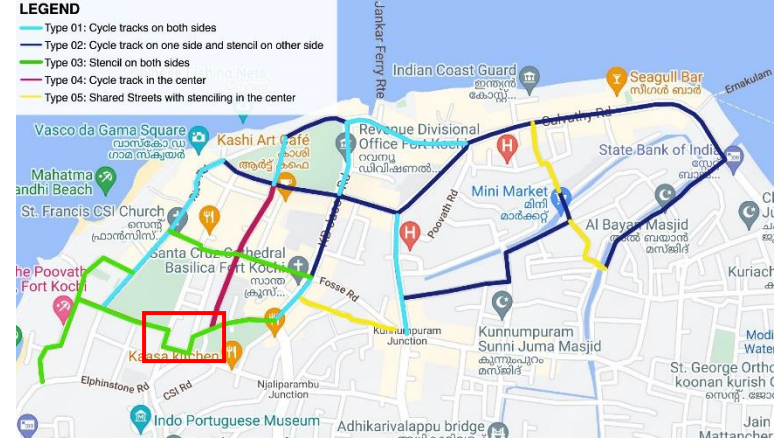


Type 03: Stencil on both sides of carriageway

Stencil on both sides B/w Junctions

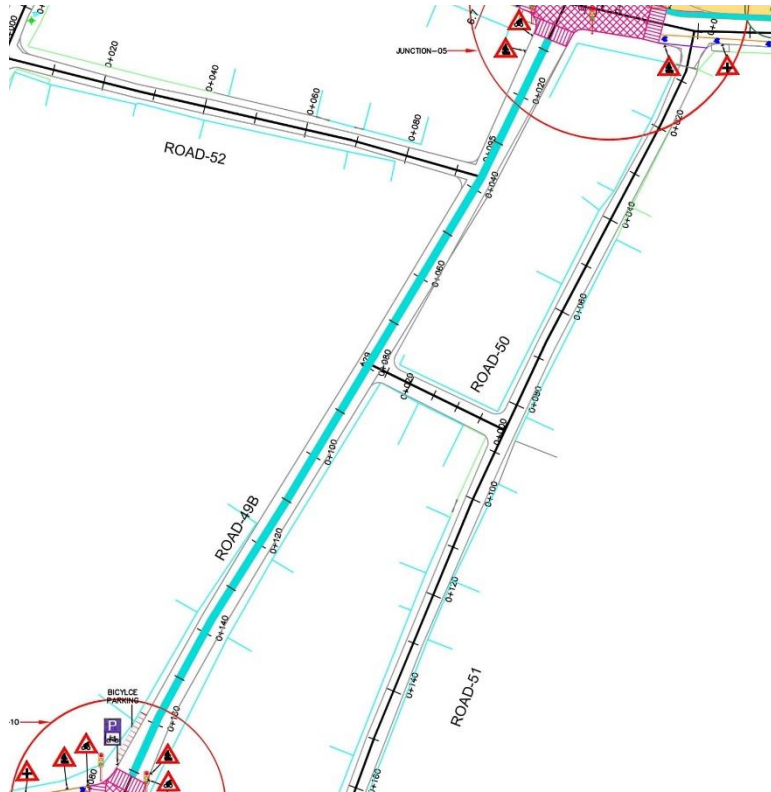


Key plan

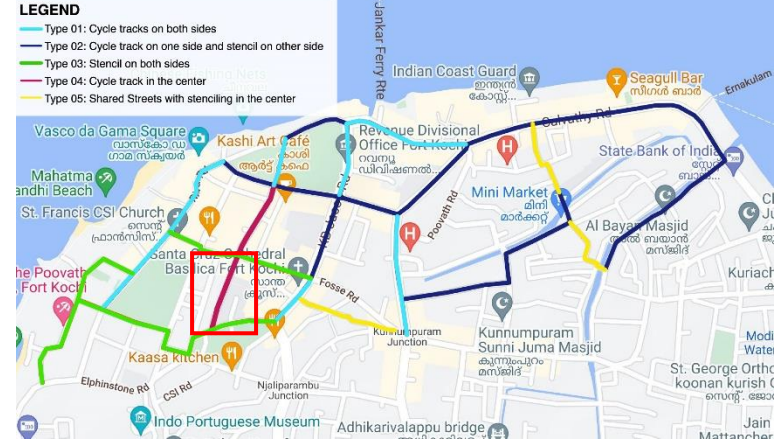


Type 04: Cycle track on the center of carriageway

Cycle Lane on Road 49B



Key plan

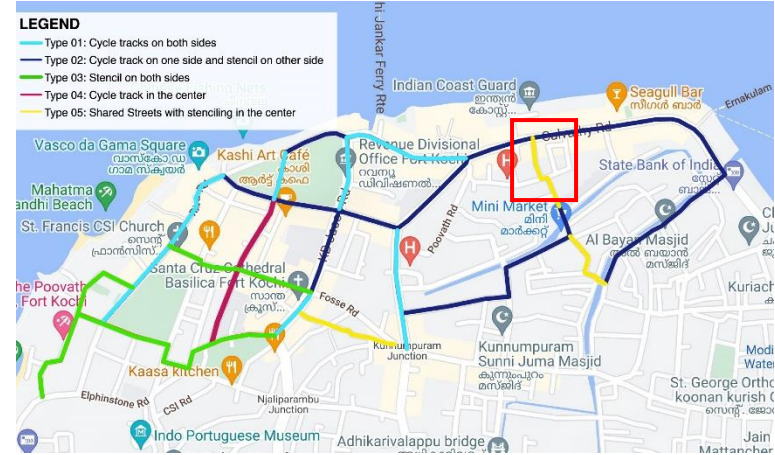


Type 05: Shared Street with Stencil at center of carriageway

Shared Street Design

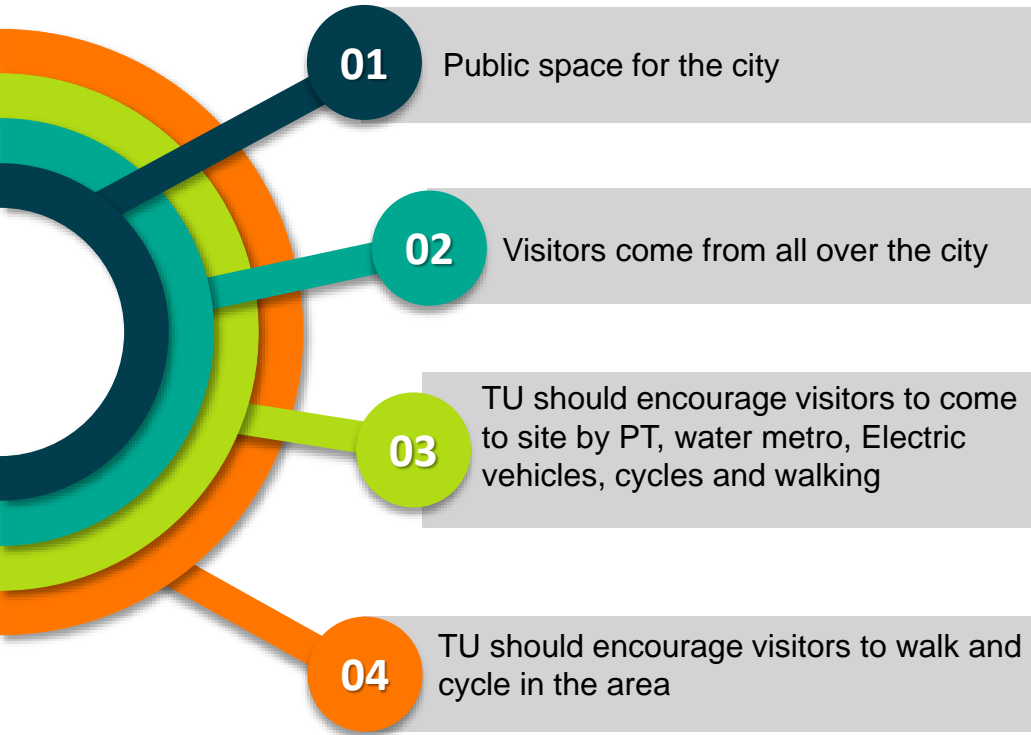


Key plan

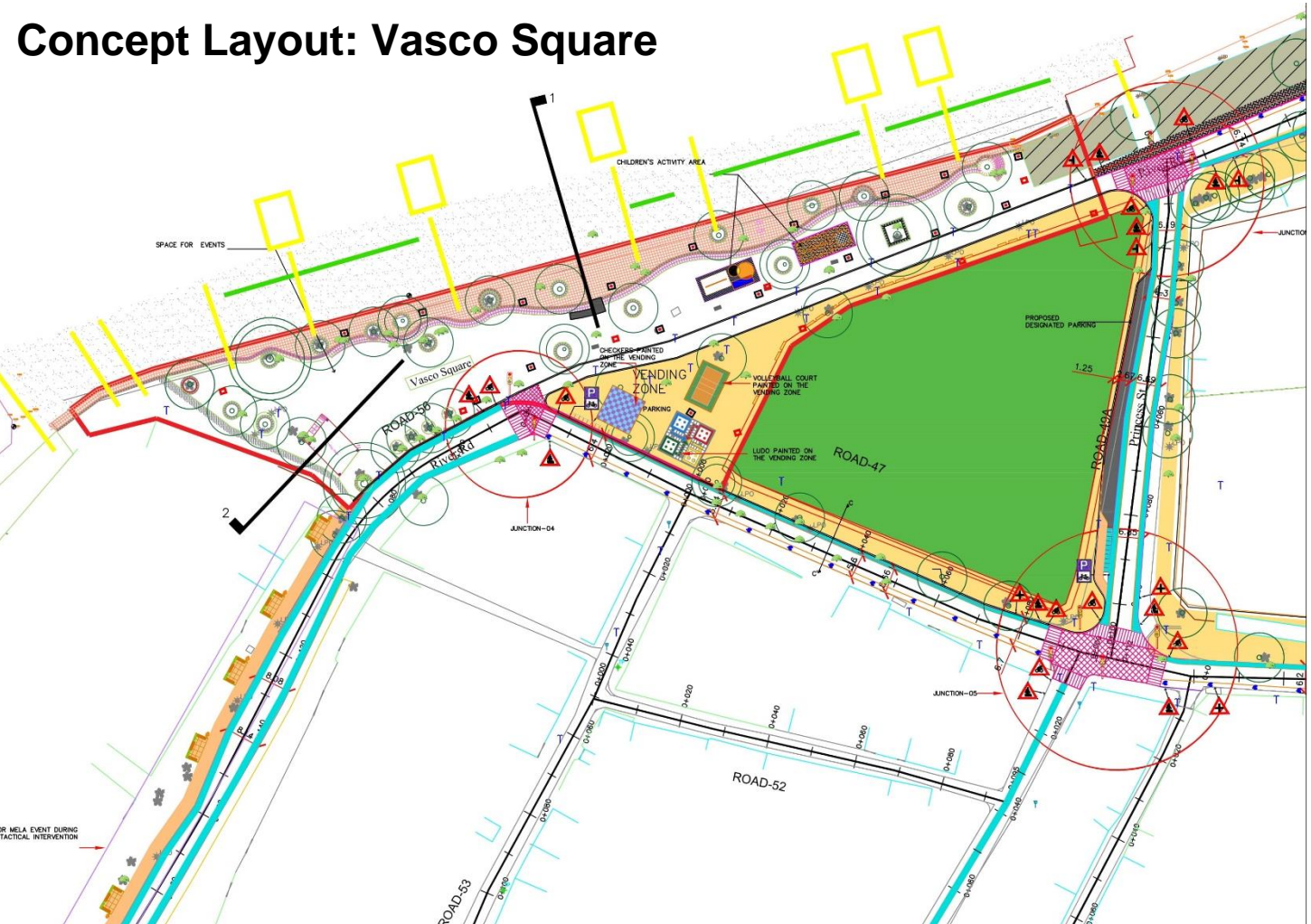


Schematic Tactical Interventions for Vasco Square

Tactical Urbanism Agenda For Vasco Square



Concept Layout: Vasco Square

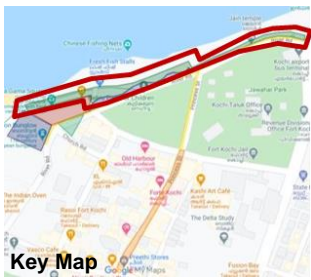


LEGEND

- EXISTING FOOD STALL/COOL BAR
- EXISTING FOOTPATH
- EXISTING BOAT PARKING
- EXISTING FISHERMAN STALL
- EXISTING CHINESE NET
- EXISTING PARK
- EXISTING BOLLARDS
- PROPOSED FOOTPATH
- PROPOSED CYCLE TRACK
- 🚲 PROPOSED STENCILING TEMPLATE FOR CYCLE TRACK
- PROPOSED SPACE FOR MMI DURING TACTICAL INTERVENTION
- PROPOSED STRETCH IDENTIFIED FOR MELA EVENT DURING TACTICAL INTERVENTION
- PROPOSED URBAN FARMING STRIP
- PROPOSED JUNCTION TREATMENT (REFER SHEET NO.)
- PROPOSED DESIGNATED PARKING



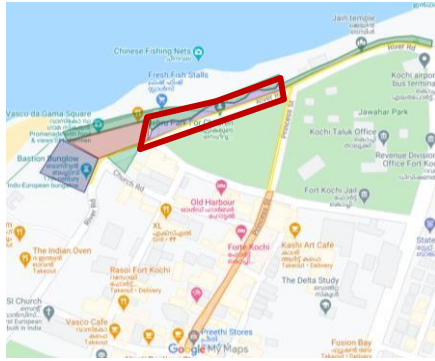
Continuous pedestrian walkway from RoRo Jetty



Cycle Track on Pedestrianized River Road



Two wheeler parking space – Children's Play Area



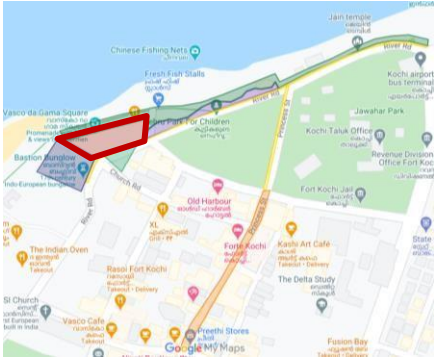
Chekuty Dolls to promote local craft and make the space vibrant.

On site-Wooden logs used as barriers

Colour Children play areas to make the space attractive for children.



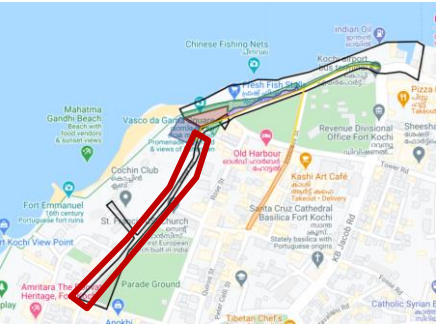
Musical Event Zone



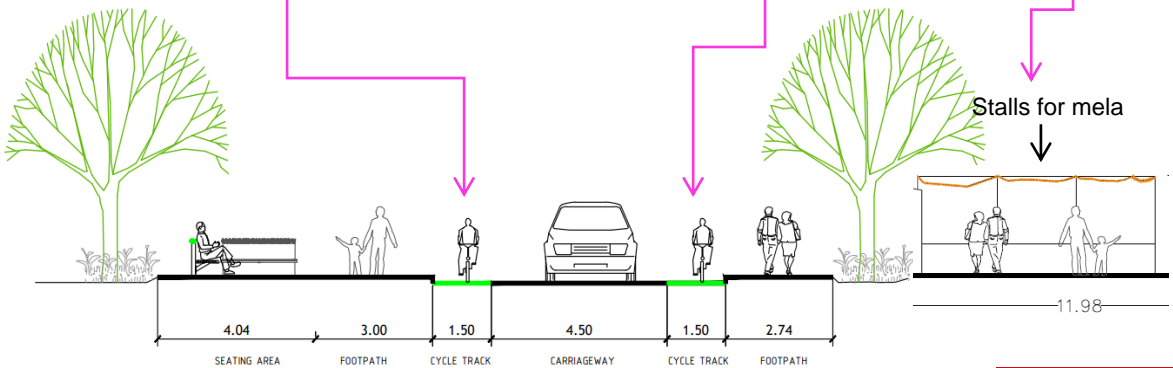
Stage and space Infront to be used for suitable events.
Provision for toilet, handwash etc. are made behind the stage.



River road Mela

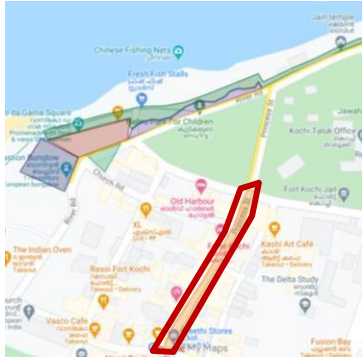


The stretch of River road along Parade ground towards sea side to be used to organise Handicraft/ handloom Mela

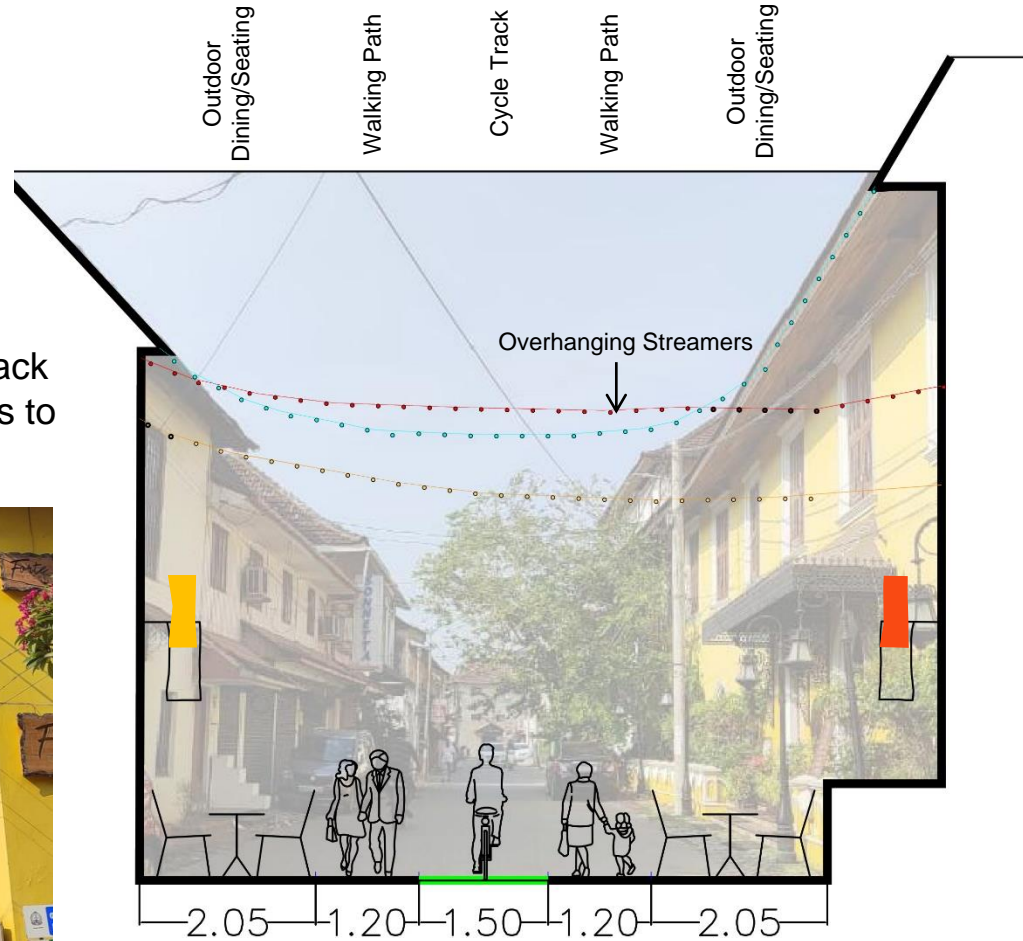


Proposed Section

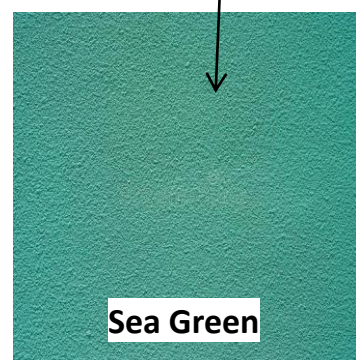
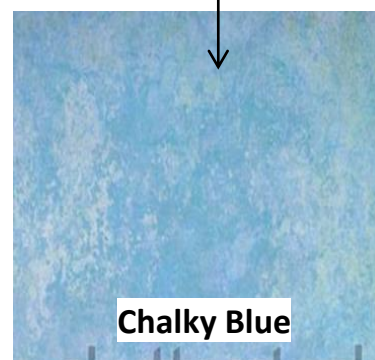
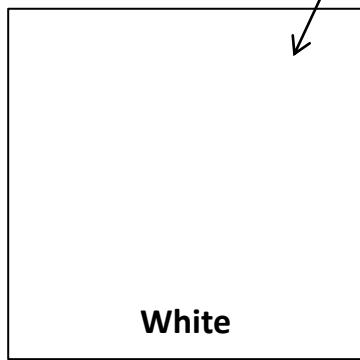
Food festival- Princess Street



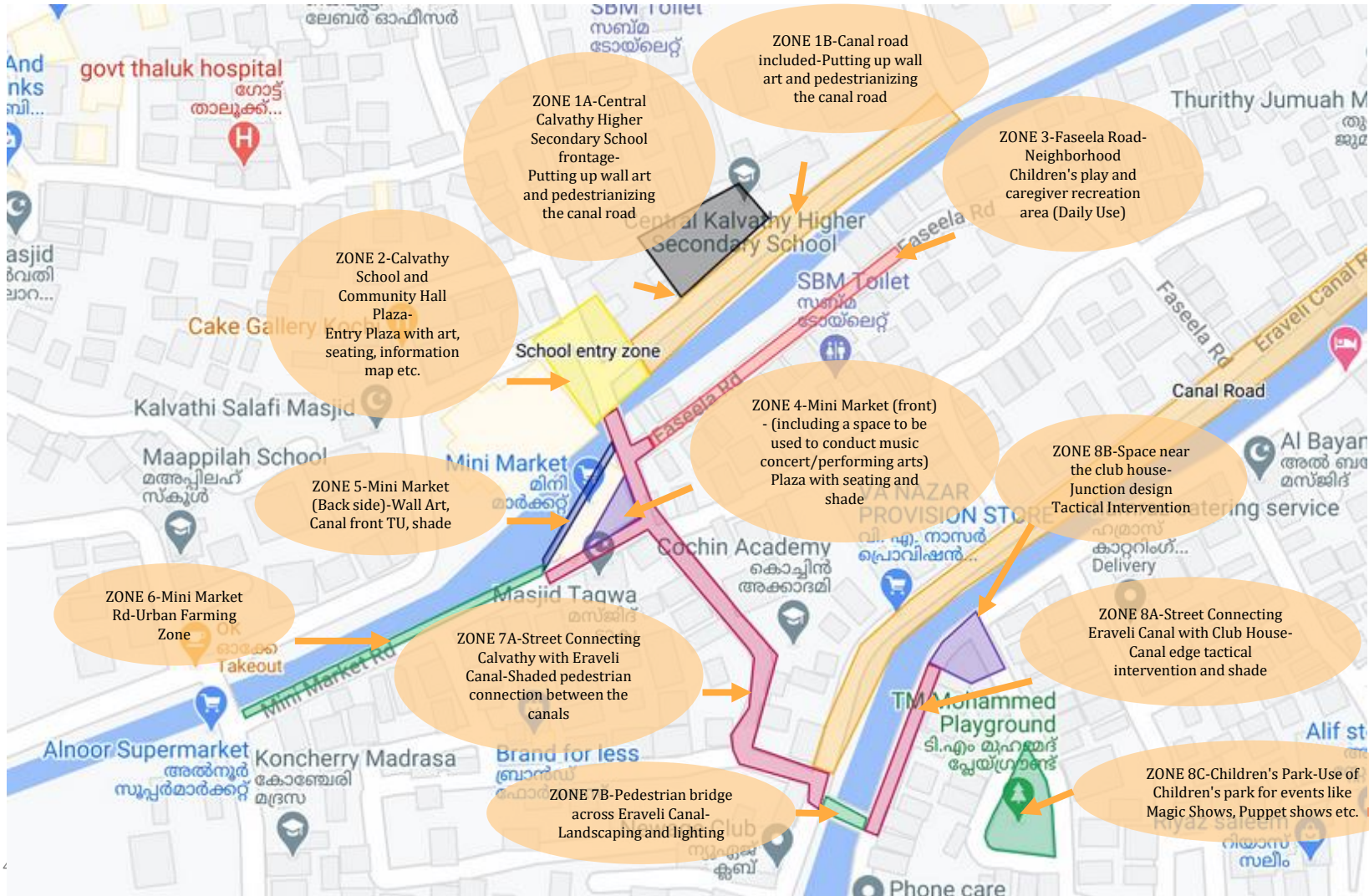
Princess Road to be pedestrianised with cycle track at the centre, allowing hotels to have outdoor dining



Colour Scheme Derivations from Kochi City



Schematic Tactial Interventions for Calvathi Rd



ZONE 1A-Central Calvathy Higher Secondary School frontage- Putting up wall art and pedestrianizing the canal road

ZONE 1B-Canal road included-Putting up wall art and pedestrianizing the canal road

ZONE 3-Faseela Road-Neighborhood Children's play and caregiver recreation area (Daily Use)

ZONE 2-Calvathy School and Community Hall Plaza-Entry Plaza with art, seating, information map etc.

School entry zone

ZONE 4-Mini Market (front) - (including a space to be used to conduct music concert/performing arts) Plaza with seating and shade

ZONE 5-Mini Market (Back side)-Wall Art, Canal front TU, shade

ZONE 8B-Space near the club house- Junction design Tactical Intervention

ZONE 6-Mini Market Rd-Urban Farming Zone

ZONE 7A-Street Connecting Calvathy with Eraveli Canal-Shaded pedestrian connection between the canals

ZONE 8A-Street Connecting Eraveli Canal with Club House- Canal edge tactical intervention and shade

ZONE 7B-Pedestrian bridge across Eraveli Canal- Landscaping and lighting

ZONE 8C-Children's Park-use of Children's park for events like Magic Shows, Puppet shows etc.

Tactical Urbanism Agenda For Calvathy and Eraveli Canal Stretch

01

Local neighbourhood with spaces for residents

02

The area lacks designated green and open spaces for residents

03

The quality of existing canal and canal edges needs improvement

04

TU should transform some of the local streets and spaces to enhance the quality of life of residents.



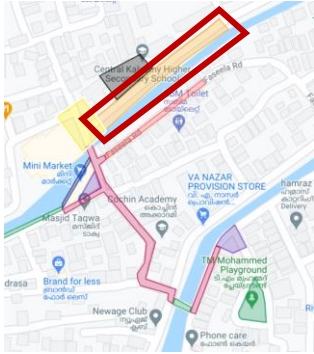
Concept Layout: Calvathi & Eravali Canal



LEGEND

- EXISTING FOOD STALL/COOL BAR
- EXISTING FOOTPATH
- EXISTING BOAT PARKING
- EXISTING FISHERMAN STALL
- EXISTING CHINESE NET
- EXISTING PARK
- EXISTING BOLLARDS
- PROPOSED FOOTPATH
- PROPOSED CYCLE TRACK
- 🚲 PROPOSED STENCILING TEMPLATE FOR CYCLE TRACK
- PROPOSED SPACE FOR MMI DURING TACTICAL INTERVENTION
- PROPOSED STRETCH IDENTIFIED FOR MELA EVENT DURING TACTICAL INTERVENTION
- PROPOSED URBAN FARMING STRIP
- PROPOSED JUNCTION TREATMENT (REFER SHEET NO.)
- PROPOSED DESIGNATED PARKING

School Edge



Proposed Interventions:

- Install interactive play art works
- Open air library
- Game zone along the canal edge

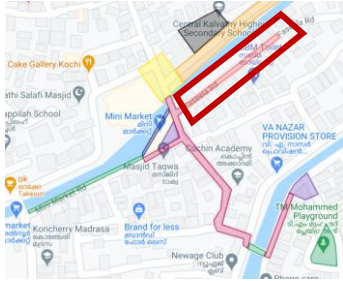
During the TU events days, the school can also organize event like magic shows, puppet shows etc. inside its premises



Wall-mounted interactive children's activity

Upcycled bookshelves

Faseela Road



Parking spaces can transform during day to allow children to play in these spaces.

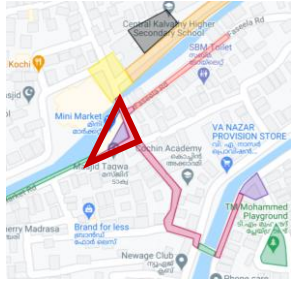


Creating play areas and outdoor resting spaces would address its local need and encourage use of outdoor spaces by Children and Homemakers.

Proposed Interventions:

- Children's outdoor play areas.
- Resting and recreation Zones for women/ senior citizens
- Shaded zones with recycled material
- Potted plants
- Lighting and illumination

Food Market Square – Mini Market



Proposed Interventions:
Triangular space in front of the Mini Market to be used as space for local events during weekends and off-peak hours.

Plastic/ Wooden crates to be used to create seating

Alternative use of recycled tyres for creating street furniture

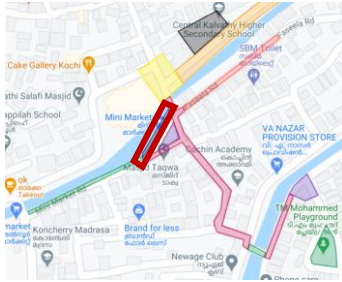


Floor Painting

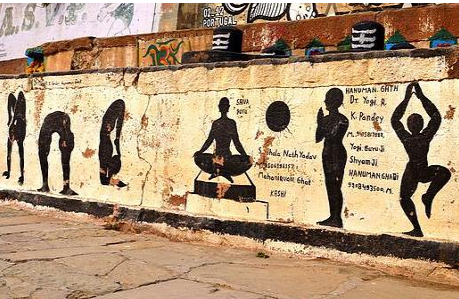
Event Stage

Pedestrian Crossing

Calvathy Canal Edge – Stretch behind Mini Market

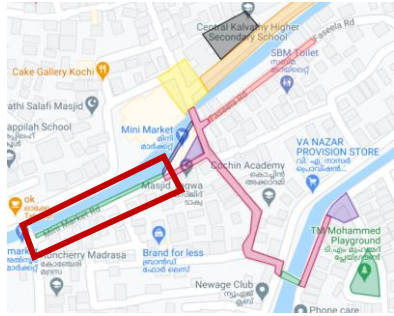


Artists to be invited to paint local history/ tradition



Vibrant, contrasting colors for street and wall art to be used with subtle messaging. Coupled with proper illumination, this are will always be lit. It would discourage anti-social activities.

Urban Farming Zone (Mini Market)



Proposed Interventions:
Mini Market Rd Canal edge would be used for Urban Farming.

Area can be used to teach people about need and benefits of Urban Farming.



PHYTODEPURATION - Water Purifying Plants

The Canals are a major source of waste, smell and other pollution.

Natural means of addressing the above to be textured



Connecting Street



Proposed Interventions:
The narrow street connecting Calvathy and Eraveli Canal is a prime pedestrian link. Tactical Intervention only needed to make it vibrant.



Alternative Paving Pattern Design



Canal Bridge – Pergola with plants & creepers



Proposed Interventions:

- Landscaping with creepers
- Lighting
- Painting
- The Canal Bridge being an important connection needs shading and some potted plants.



Pergola with plants and creepers



Community Entry



Proposed Interventions:

- Street Art
- Overhead
- Sharing
- Seating
- Carrom/ Table
- Tennis
- Plants

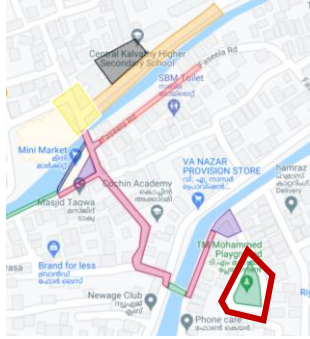


Club wall to be painted

Foldable games can be played here

Floor Paints

Playground/Park - Children's sports and other events



Proposed Interventions:
Children's park to host children's events like drawing, painting etc.



Boundary wall is being broken down by CSML to make the park inclusive and safe

Playground/Park - Children's sports and other events

Proposed community/ children's events:

- Sports
- Drawing Competition
- Singing Competition
- Performing Competition
- Resident's Food Festival



Use of recycled material for creating seating, reading and other spaces

Empty discarded boats lying around can be used to create seating and other street furniture



Upcycling old boats as seating



Upcycling old boats as seating

Use of recycled material for creating seating, reading and other spaces

Wasted Material in and around Fort Kochi Area can be sources to showcase benefits of upcycling.



Wooden planks can be used for creating fencing



Old tyres can be used to create street furniture



Use of recycled material for creating seating, reading and other spaces

Wasted Material in and around Fort Kochi Area can be sources to showcase benefits of upcycling.



Old household furniture lying around can be used for TU



Old defunct furniture at Vasco Square can be brought here to upcycle and use for open air libraries.