Integrated Multi Modal Public Transit Hub

at Central Business District- Ahmedabad

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Ahmedabad Urban Development Authority
Structure of Presentation

- About Ahmedabad
- Ahmedabad 2021
- Central Business District - Overview
- Principles, Analysis and Proposals
- Integrated Multi Modal Public Transit Hub
- Financial Mechanism
- Implementation & Monitoring Strategies
Strategic Location

Ahmedabad Urban Development Authority (AUDA)
Administrative Boundaries in the AUDA Region

- Carved out from 4 Districts 9 Talukas and 169 villages
- Ahmedabad 7th Largest city in India
- Third Fastest Growing Cities in the World
- Gandhinagar – Twin City
- 5 Growth centers / Satellite Towns
- Viramgam SIR, Changodar SIR, SEZs
Ahmedabad city 2021
Revised Development Plan 2021 - Ahmedabad
Ahmedabad 2021

Ahmedabad
Today 6.4Mn Population
2021- 8.8 Mn Population projected
Base FSI in Ahmedabad 1.8
City Profile
### CBD connectivity with the City

<table>
<thead>
<tr>
<th></th>
<th>AHMEDABAD</th>
<th>AHMEDABAD</th>
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</thead>
<tbody>
<tr>
<td>Population Density (Urban Built in persons/ha)</td>
<td>174</td>
<td>1.85</td>
</tr>
<tr>
<td>Population Density (Urban Sprawl in persons/ha)</td>
<td>155</td>
<td>22%</td>
</tr>
<tr>
<td>Compactness index</td>
<td>0.90</td>
<td>32%</td>
</tr>
<tr>
<td><strong>POPULATION (Million)</strong></td>
<td><strong>6.4</strong></td>
<td><strong>5.7</strong></td>
</tr>
<tr>
<td>Arterial road Density</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public transport Use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NMV Use</td>
<td></td>
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<tr>
<td>Trip Length (total) km</td>
<td></td>
<td></td>
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<tr>
<td>Vehicle km/capita</td>
<td></td>
<td></td>
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<tr>
<td>Road fatalities per</td>
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<td></td>
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</tbody>
</table>
CBD connected with Rail Network
Transit Oriented Zone - FSI 4.0

BRTS Length - 152.69 KM
MRTS Length - 85.68 KM
Buff. Area in Ha. - 5943.22
Central Business District
Centrally Located - near geographic & historic core
Low Density Development & Mixed land use

Gross FSI – 0.72
Well connected with Eastern part of the city

Usmanpura

Gandhi Bridge

Nehru Bridge

Ellis Bridge

Gross FSI – 0.72
Existing Connectivity and Footprint

Area under CBD 119ha
Total Ground coverage 42 Ha
Ground coverage 35%
Average FSI Consumption 0.72
CBD- connected commercial streets

Usmanpura

Gandhi Bridge

Nehru Bridge

Ellis Bridge

Gandhigram Station
### Land-use

<table>
<thead>
<tr>
<th>Land-use Class</th>
<th>Area in Ha.</th>
<th>Area in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>9.17</td>
<td>7.70</td>
</tr>
<tr>
<td>Gamtal</td>
<td>2.94</td>
<td>2.47</td>
</tr>
<tr>
<td>Commercial</td>
<td>48.17</td>
<td>40.41</td>
</tr>
<tr>
<td>Public Use</td>
<td>20.57</td>
<td>17.26</td>
</tr>
<tr>
<td>Mix Land Use</td>
<td>15.83</td>
<td>13.28</td>
</tr>
<tr>
<td>Grand Total</td>
<td>119.20</td>
<td>100.00</td>
</tr>
</tbody>
</table>
CBD- Sports and Culture

Ahmedabad Urban Development Authority
CBD - Recreational
Public Transportation

Propose METRO

GSRTC

Propose BRTS

AMTS

Existing Railway
Current Issues

Vendors

Vendors

Eateries on footpath
Current Issues

Haphazard Parking

No Space for Bicycle riders

Eateries

Motorised, Non-motorised and pedestrian conflict

Vendors

Parking
Current Issues

- Parking at bus stops
- Parking and vendors at Bus Bay
- Missing Links
- Parking in No Parking Zone
Principles, Analysis and Proposals
### Aspects of a CBD

- Higher density development
- Higher transit connectivity
- Improved Connectivity & Walkable Block Size (Pedestrian Friendly)
- Mixed Uses (Horizontal & Vertical Mix)
- High intensity of infrastructure
- Provide space for informal sector

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**Source:** TOD Standard, itdp
Objectives

To provide

• Seamless Mobility
• Ensure safety
• Driver of smart growth and Downtown revitalization
• Land use Transportation Integration
• Improve urban environment - a city a better place to live
  Street level with easy access to bus/metro station
• Reduce travel time
Connect - Enhance Accessibility
Walk- Improve Missing link and Walkability
Shift – Improve Cross Section
(Ashram Road- Main Spine)

Pedestrian Area
5+3 Mt

Vehicular Movement
9mt

Pedestrian Area
5+3 Mt

3 M FROM FRONT MARGIN

3 M FROM FRONT MARGIN
Create Pedestrian Friendly Network
Special Regulation for Local Area Plan

- Under Ground Parking
- Proposed Pedestrian walkway
- Proposed connectivity between two building
- Open space between the blocks
- No of FP - 5

Existing New Structure
Shared Parking

Parking between more than one land parcel will be permitted.
Need tool to develop planned redevelopment..
Special Regulations for Local Area Plan

Regulations required

• Part of **Front margin** shall be used for **pedestrian movement** /part of public domain
• Provide **Connectivity between two buildings** within the block
• New **proposed pedestrian walkways** within the block should be permitted
• **Green space character** and/or area shall be maintained
• **Shared Under ground parking within the block** shall be permitted
Need for a HUB

- To provide seamless transportation
- To enhance Safety
- To provide Comfort
- To attract Pedestrian
- To provide Convenient interconnection to transit
Integrated Multi Modal Public Transit Hub
Proposed BRT-MRTS Stations with Interchange Hub
Factors such as available area, site shape, adjoining road layout, relation to pedestrian and passenger objectives, and/or the number of vehicles and passengers will influence the design.
Key Elements

• Mixed use activity
• Pedestrian friendly
• Connectivity of Streets
• Transit friendly design features
• Accessibility to alternative modes of transportation
Components

1. Walkable environment
2. High density- High quality development
3. Collector support transit system
   • Trolley / Street Cars / Feeder Bus
4. Managed parking
   • Parking with in 10mins walking radius
5. Improve Connectivity
   • Shorten local trips
   • Improve multimodal mobility
6. Transit station as prominent feature
Proposed Interchange Hub with Context of City
Land Ownership- Ahmedabad Municipal Corporation
Leaders Programme in Urban Transport Planning and Management

- **Multimodal hub**
  - BRT station on ground level and other recreational and shopping on upper story
  - GSRTC station on ground level and other recreational and shopping on upper story
  - Metro station on level 1 and other recreational and shopping on upper story

- **Parking**
  - Under ground parking for vehicles, Para transit parking at ground level and upper level parking for bicycles and cars
  - Open space and plaza on rest of the part

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48
Multi Level parking- Paratransit at ground level

Urban Plaza

UG parking and Ground floor station and upper floors shopping/Commercial
Proposed Road Section
Concept Plan – Pedestrian Movement

Stadium
Concept Plan - Vehicular Movement
Improve Connectivity with the River Front

Ahmedabad Urban Development Authority
Leaders Programme in Urban Transport Planning and Management- II
Encourage Pedestrian Movement

Source: SRFDCL, AMC, Ahmedabad
Source: SRFDCL, AMC, Ahmedabad
Alternate 2
Ahmedabad Urban Development Authority

Multimodal hub

Usmanpura

Parking

0.17
Financial Mechanism
A. Use Planning mechanism to finance plan proposals

B. Use all other sources to finance the plan
   a. Use Development Premium to raise finances
   b. Tap state and central funding sources
Use Development Premium to Raise Finances

In case of Redevelopment
Use Chargeable FSI as tool for financial mechanism

<table>
<thead>
<tr>
<th></th>
<th>FSI in sqmt</th>
<th>Jantri Rate per sqmt</th>
<th>Rs in Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>30% Redevelopment</td>
<td>295094</td>
<td>32500</td>
<td>1381</td>
</tr>
<tr>
<td>50% Redevelopment</td>
<td>491824</td>
<td>32500</td>
<td>2301</td>
</tr>
</tbody>
</table>

Source: AUDA
Tap State and Central Funding Sources

Government of Gujarat
No. HGV-1009-512-P
Finance Department
Sachivalaya, Gandhinagar,

Dated the 12th October, 2009

Read:

(i) GR, FD No. PGR-1009-13-Pay Cell (M), dated: 13-04-2009
(iii) GR, FD No. VLB-102009-GOI-03-CH, dated: 09-10-2009

RESOLUTION

The Government has decided to pay 22% Temporary Increase (Dearness Relief)
Implementation & Monitoring Strategies
Implementation Strategies

a. Rely primarily on the AUDA mechanism to deliver serviced land
b. Establish a plan implementation monitoring system
c. Inter-government Co-ordination between Different Agencies
d. Need Prepare building design Guidelines and Design Guidelines for Complete Street
Ahmedabad’s 76 km long Ring Road was developed through the TPS mechanism.
Establish a Plan Implementation Monitoring System
Inter-government Co-ordination between Different Agencies
Road Ahead..

• To Prepare Conceptual building design Guidelines
  • Building façade
  • Colour
  • Material
  • Landscape
  • Flooring
  • Lighting

• To prepare Conceptual design Guidelines for Complete Streets
  • Bicycle Lane/Route
  • Street furniture
  • Urban Services
  • Pedestrian walkways
  • Space for Vendors
Thank You