SMART CITY AMRITSAR

Draft Smart City Proposal Amritsar
Municipal Corporation Amritsar

WELCOME all the participants for AMRITSAR SMART CITY CONSULTATION

Post Your Suggestions to make Amritsar a Smart City on www.mygov.in
SUBJECT REGION OVERVIEW: *Amritsar City Profile*

<table>
<thead>
<tr>
<th>Area</th>
<th>142.37 Sq. km. approx. (Municipal Limits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amritsar City</td>
<td>1,132,383 (Census 2011)</td>
</tr>
<tr>
<td>Population Density</td>
<td>Approx. 928 persons/sq. km (Census 2011)</td>
</tr>
<tr>
<td>Literacy Rate</td>
<td>76.27% (Census 2011)</td>
</tr>
<tr>
<td>Economic Base</td>
<td>Manufacturing Sector, Tourism, Education, Medical form the backbone of economy of the Amritsar city with approx 93% of the workforce being engaged in secondary and tertiary services. Break up of workforce indicates that main sectors of work include Wholesale and Retail Trade (26.96% of the workers) followed by manufacturing, processing and repairs industry (21.94% of workers) and public administration and others (20.67% of the workers) since Amritsar is the district HQ.</td>
</tr>
<tr>
<td>City Advantage</td>
<td>Strategic location, in the heart of Punjab, with good connectivity to other important cities in the region. Largest grain and commodity trade market of Punjab. Amritsar is the second largest city of Punjab, after Ludhiana Tourist Places Golden Temple, Durgiana Temple, Jalian Wala Bagh, Ram Tirath etc. Amritsar already has been selected among the 12 HRIDAY Cites of India Amritsar has already been included under the Amrut Scheme First city of Punjab to get the recognition for positioning of I.I.M</td>
</tr>
</tbody>
</table>
Citizen’s Engagement
Citizen Awareness Campaign

Citizen Awareness Campaign at all the prominent places of the city
Citizen Awareness Campaign - Mobility Van
Social Media web links

- Facebook
- Linked-In
- Whatsapp
- Twitter
Competition to Citizens for Best Ideas!

ESSAY COMPETITION ON Smart aur Swatch Guru Ki Nagri AMRITSAR

Post Your Comments to make Amritsar a Smart City on https://mygov.in/task/essay-competition/

Painting and Graffiti Competition for Smart City AMRITSAR

Municipal Corporation Amritsar

WELCOME all the participants for AMRITSAR SMART CITY CONSULTATION

Post Your Suggestions to make Amritsar a Smart City on www.mygov.in

Various Educational Institution's engaged........
Discussion Portal – Smart City Amritsar

The vibrant citizens of Amritsar are requested to post their views pertaining to municipal and city’s basic infrastructure such as water supply, electricity, sanitation, waste management, transport, parking, energy, housing, IT solutions, safety and security.

Residents are encouraged to give their ideas and suggestions at city level as well as local area level solutions in Amritsar.

Let us join hands together in making Amritsar a global Smart City!

My Gov: https://mygov.in/group-issues.smart-city-amritsar/
All citizens and stakeholders are invited to participate in the Essay Writing Competition for Smart City Amritsar.

The **TOP 5 Essays** will be awarded:

- **a)** 1st Prize – Cash Incentive of Rs. 20,000.
- **b)** 2nd Prize – Cash Incentive of Rs. 15,000.
- **c)** 3rd Prize – Cash Incentive of Rs. 10,000.
- **d)** Consolation Prizes (2 nos)
Logo Competition – Smart City Amritsar

All citizens and stakeholders are invited to participate in the Logo Making Competition for Smart City Amritsar.

Minimum Size of Logo: 1” X 1” (1 inch wide by 1 inch high)

The **best 5 entries** will be awarded:

a) 1st Prize – Cash Incentive of Rs. 20,000.
b) 2nd Prize – Cash Incentive of Rs. 15,000.
c) 3rd Prize – Cash Incentive of Rs. 10,000.
d) Consolation Prizes (2 nos)

*Amritsar Municipal Corporation reserves the right to select the prize winners and to use the logo as the official logo for Amritsar Smart City.*
All citizens and stakeholders are invited to participate in the Vision Making Competition for Smart City Amritsar.

The Smart City Advisory Forum of Amritsar shall evaluate the vision statement and award the best three entries.

*Note: Please restrict to a maximum of 50 words.*
Citizens Engagement

Amritsar Smart City Citizen Suggestion

The Smart City Citizen Survey is to be circulated by Corporation to Line Departments, Consultants, Resident Associations, Institutions, Citizens, or all words come.

Name: Lita Bansal
Address: Gauri Narayan Ang, Jalandhar

Pin No: 1355484903

Email: lita.bansal@gmail.com

Pin City Smart Features

No. Feature
1. Urban Mobility & Public Transportation
2. Smart Provisions Management
3. Governance & City Services
4. Waste reduction and recycling
5. Smart Education
6. Irrigation of Water Body
7. Underground Drainage System
8. Safety and Security - CCTV
9. Health Care

For City East Elaine

Other: Women Empowerment

Area Based Development - Redevelopment, Revitalization, Smartgrid Development

With this Smart City is to be dedicated in Area Based Development. In this regard select the most preferable location for the Area Based Development.

This is the preferred area for Area Based Development

1. New Zirak
2. Hindusristh Bath
3. Corporate Area Areas of Cities

Scrip your Suggestion Form to the box at following locations:
1. Municipal Corporation Office, Town Hall, Amritsar
2. District Administration - Zonal Office No. 1, Near Chanderi Gate
3. District Administration - Zonal Office No. 2, Near Chanderi Gate
4. District Administration - Zonal Office No. 3, Near Civil Station
5. District Administration - Zonal Office No. 4, Company Bagh

Scrip your Suggestion Form to the box at following locations:
1. Municipal Corporation Office, Town Hall, Amritsar
2. District Administration - Zonal Office No. 1, Near Chanderi Gate
3. District Administration - Zonal Office No. 2, Near Civil Station
4. District Administration - Zonal Office No. 3, Near Civil Station
5. District Administration - Zonal Office No. 4, Company Bagh
Live Talk Shows organized ..........
Live Talk Show

Live talk Show with Guru Nanak Dev University

Highlights

• Polythene free City
• Municipal Solid Waste Management – Waste to Energy
• Unauthorized Colonies
• Slums Redevelopment
• Rain Water Harvesting
• Walkability, Cycle path, Pedestrianization
• Intelligent Traffic System

Faculty and Young Planners, Architects and Engineers from Guru Ram Das School of Planning Participated
स्मार्ट सिटी पर शिक्षाविदों व विद्यार्थियों से मांगे सुझाव

शिक्षाविदों ने पूरे सवाल तो निगम कमिश्नर प्रदीप सभाजल ने दिए जवाब
Live Talk Show

Live talk Show with Global Institute of Management

Highlights

- Traffic Congestion in the city
- E-Governance
- CCTV Wifi connectivity
- 24X7 Water Supply
- Encroachments on the footpath
- Garbage Free City
- Stray Dogs in the city

Faculty and Young Planners, Architects and Engineers from Global Institute of Management participated
Live Talk Show in G.I.M.E.T
SUCCESS OF SMART CITY PROJECT
Experts dwell on people’s participation

TRIBUNE NEWS SERVICE
AMRITSAR, NOVEMBER 1
Experts from diverse fields, including town planning, urban development and planning, who participated in a seminar on “Smart city Amritsar initiative” on the campus of Global Institutes, unanimously stressed on people’s participation to make the project a success.

The seminar was held under the initiative of discuss scope and reach of the proposed smart city. A brain-storming session was conducted by the Municipal Corporation, Scrabh Vohra, infrastructure consultant from the JLL, explained the concept of smart city. He emphasised on the residents participation for making Amritsar a smart city. He also discussed the objectives, parameters and features of a smart city.

Faculty members and students shared their views and suggestions on the smart city proposal. The Commission answered various queries during the question hour session.

Gajendrag Singh Rathore, B.Tech (first year) student, asked about measures taken for preventing pollution in outfall drain on the Amritsar by pass road. Damaneet Kaur highlighted the traffic congestion problem at the Fatehgarh Churian road and near bus stand.

Municipal Commissioner Pradeep Subbarwal, who was the guest of honor on the occasion, answered queries of students and faculty members. In his message to the city residents he said smart city Amritsar would be a boon for its residents. Amritsar was included in the list of first 98 smart cities.

“Amritsar will receive a grant of Rs 1,000 crore if selected in the second phase of the first 98 cities for development of a smart city out of which 800 crore will be released in the first year,” he said.

He added that more than Rs 2,500 crore development work was already underway at the Golden Temple, Durgiana Temple, Gobindgarh Fort and food court opposite Crystal Chowk in the city.

Dr Balvinder Singh of Guru Ramdas School of Planning, Purandar Singh, superintendent engineer, Saurabh Mahajan, XEN and Dr Raju Chauhan were also present in the seminar.

The seminar was held under the initiative of discuss scope and reach of the proposed smart city.
14 लाख लोगों के प्रस्ताव पर गुरुवारगी बनेगी स्मार्ट सिटी
Interactive Sessions, Stake Holder Consultations
Officials Engagement

Meeting with Commissioner, Mayor and other officials held on September 30th 2015

Key Suggestions

• 24 X 7 Water supply system implementation
• Educational and Medical Hub
• Solid Waste Management Plan
• Intelligent Traffic Management System
• Multi level Car parking system
• Theme based parks
• Business Centers
• Various initiatives such as Waste to Energy
Key Officials

- Local Government Minister and Medical Education and Research Minister Shri. Anil Joshi Ji
- Mayor, Municipal Corporation Amritsar
- Commissioner, Municipal Corporation Amritsar
- Town & Planning Dept. Amritsar
- Health Department.
- O&M Department
- Civil & Electrical Department
- PWD
- Power State Electricity Board
- Police Department
Key Stake Holders- Engaging City Administration

Presentation and Discussion with Deputy Commissioner, Mayor and Commissioner of Municipal Corporation Amritsar

Discussions on the issues identified during the site visits
Key Stake Holders - Engaging Line Departments

Consultation with the officials of Municipal Corporation Amritsar on October 12th 2015

Key Officials
- Commissioner, Municipal Corporation Amritsar
- Sr. Town Planner, Town & Planning Dept. Amritsar
- Medical Officer Health, Municipal Corporation Amritsar.
- Superintending Engineers, Municipal Corporation Amritsar.
- Executive Engineers, Municipal Corporation Amritsar.
and other local departments

Highlights
- 24X7 Water Supply for the city
- Storm Water and drainage issues in the city
- Wi-fi and CCT Cameras for video crime monitoring
- Municipal Solid Waste Management Plan for the city
- E-Governance and GIS Mapping
- Laying underground cable around the city

25 Line Departments
Key Stake Holders - Engaging Police Department
Key Stake Holders – Financial Institutions
Key Stake Holders - Education Sector

Discussions with District Education Officer and Principals of allied institution's on 21st Oct. 2015

Highlights

- Safety and Security
- E-Education System (Smart Classes) in the schools
- Clean and Healthy Environment
- Municipal Solid Waste Management Plan for the city
- Parks/ Open Spaces in the city
- E-Governance
- Ease of Traffic Congestion
- More Educational Institute's in the city

District Education Officer (D.E.O) and Principals of all the major Government and Private Institutions
Govt. Senior Secondary Schools

Interactive Sessions with Shri Ram Kanya Mahavidyala Senior Secondary School

Highlights

• Discussions on how to make a city Garbage free city
• Clean and Green environment surrounding the schools
• Less Noise Pollution near the schools
• Traffic congestion in the city
• Better facilities for the students
• Wi-fi connectivity
• More computer savvy technologies for the students

Interactive Session with the Schools to participate in the smart city challenge through various activities
Private Senior Secondary Schools

Interactive Sessions with Shri Har Krishnan International Public School

Highlights
• Smart Education is already prevailing in the private schools
• More emphasis on to make everybody savvy of smart education techniques and technologies
• Less Noise Pollution near the schools
• Traffic congestion in the city
• More education institution's in the city
• CCTV cameras in the city

Interactive Session with the Private Schools to participate in the various competition for Smart City
Children's Participation

Interactive Sessions with S.L Bhavan Public School

Highlights

- Smart Education is already prevailing in the private schools
- More emphasis on to make everybody savvy of smart education techniques and technologies
- Less Noise Pollution near the schools
- Traffic congestion in the city
- More education institution's in the city
- CCTV cameras in the city

Mayor Municipal Corporation Amritsar urged the students to participate in the Smart City Challenge
Interactive Sessions & Discussion Forums
Institutional Participation

Interactive Sessions with B.B.K D.A.V College

Highlights
- Traffic Congestion in the city
- E-Governance
- CCTV Wifi connectivity
- 24X7 Water Supply
- Encroachments on the footpath
- Garbage Free City
- Stray Dogs in the city

Faculty and Students of B.B.K D.A.V College participated in the consultation
Interactive Sessions & Discussion Forums
Stake Holder Consultation- Local Bodies & Associations

Interactive Sessions with the Stake Holders.

Highlights
- Traffic Congestion in the city
- CCTV Wifi connectivity
- 24X7 Water Supply
- Encroachments on the footpath
- Garbage Free City
- Stray Dogs in the city
- Polythene free city
- Solid Waste Management

Resident Welfare Associations, NGO’s, Clubs, Architect Association, Doctors, Planners, Technical Teams and Citizens participated in the stake holder consultation.
Consultations
Stake Holder Consultation - Councillors

Interactive Sessions with the Councillors

Highlights

- Traffic Congestion in the city
- CCTV Wifi connectivity
- 24X7 Water Supply
- Encroachments on the footpath
- Garbage Free City
- Stray Dogs in the city

All the councillors of Amritsar City participated in the stake holder consultation.
100+ articles published in leading national and regional papers
स्मार्ट सिटी में जगह बनाने को निगम ने लगाया जोर

जानकर सबवालवाला, अमृतसर : सी स्मार्ट सिटी के चारण के बाद अब पहले बीस शहरों में गुणवत्ता दर्ज करने के लिए निगम ने एक हार्दिक निगमकर्ता बनाया है।

पहले 20 शहरों में गुणवत्ता दर्ज के बाद निगम ने एक हार्दिक निगमकर्ता बनाया है। इसके साथ ही 15 दिसम्बर को राजकीय शाखा के अध्यक्ष के हाथ में रात्रि निगमकर्ता का कर्तव्य प्राप्त किया है।

इसके अतिरिक्त 3700 लोगों ने हार्दिक निगमकर्ता की विकास कार्य के लिए केंद्र से मिलाया। इसकी पारंपरिक स्मार्ट सिटी का प्रसिद्ध 15 दिसम्बर के राजकीय शाखा के अध्यक्ष के हाथ में रात्रि निगमकर्ता का कर्तव्य प्राप्त किया है।

पहले दस जोर में अपने पर हार्दिक निगमकर्ता के लिए एक हार्दिक निगमकर्ता बनाया है। इसके 40 स्मार्ट सिटी दूरस्रोत और अन्य 40 स्मार्ट सिटी के लिए अपने पर हार्दिक निगमकर्ता बनाया है।

एक अन्य स्मार्ट सिटी दूरस्रोत ने अपने पर हार्दिक निगमकर्ता को शहर तक पहुँचाया है।
**Leading News Papers Coverage**

**SMART CITY DEVELOPMENT PROJECT**

**Prime News Service**

**AMRITSAR, November 20**

Beginning the process to prepare the dossier for the smart-city project, the Municipal Corporation held a meeting with the VSN bank representatives to discuss the proposals for a public-private partnership for the several key developments to be undertaken for the project.

The meeting was chaired by mayor Bakhshi Ram Arora and had a team of experts to look into the suggestions made under the smart city scheme. The MC has received close to 30,000 suggestions from citizens regarding how to make Amritsar a smart city and the MC is now looking into extending the deadline for the submission of citizen suggestions to November 25, going by the response.

"Since the smart-city project will require a big investment in multiple pan-city projects, we are inviting as many genuine stakeholders to be a part of the process. Our key areas of concern will be traffic management, and to reduce stress on city roads, ensuring safe travel for senior citizens, women, children, including smart sanitation, CCTV cameras at major traffic junctions, creating bike lanes and others and a clean and green city," said the mayor.

Improving the civic condition in the city and providing an inviting environment for tourism, the initial phase of development will also focus on beautification of the city, said Arora. "Amritsar is a major tourism attraction and most of the currently have limited their visits to the Golden Temple. One of the reasons for this is the cleanliness concern due to presence of low standards of civic hygiene of Amritsar. This will be dealt with first and foremost." He also said that strengthening the Beach Street nodal market in the city, money is being invested to improve the municipal standards of the corporation’s garbage collection system. The solid waste management plant has already been approved.

The mayor and his team are looking to bring Amritsar into a smart city.

Another model of meeting will be held in Delhi, where a team headed by MC Commissioner Prasun Sarbadar will present proposals to bring private stakeholders over the weekend.

**AMRITSAR Tribune**

**Sat, 14 November 2015**

**Mechanical sweepers to rid city roads of dump and dust**

**Mechanical sweepers to rid city roads of dump and dust**

The trials will be conducted with multiple mechanical sweepers, each placed at 400 to 500 meters apart from each other. The trials, the official said, are aimed at ascertaining the cleaning efficiency of the mechanical sweepers which are being used in countries like the United States, Germany, and China.

A team of experts have already designed the plan for the cleaning route, including 12 major roads leading to several key locations.

Mechanical sweepers are expected to help clean roads within the next two months, the official said.

Shabbeer P Parsad

Gajender Singh, Municipal Commissioner Prasun Sarbadar and other senior officials of the Department. Speaking on the occasion, Singh said the city was lackadaisical in the past and the city was not taken up at all in the previous regime.

The model was selected by the Municipal Corporation of Amritsar, who arranged for funds to be secured for the project of preparing the vision document.

Meanwhile, the MC has also extended the deadline of submission of bids from November 19 to November 27. The bid document would be opened on November 28.

"We have extended the deadline due to the large number of applications," J.L. Bal, the mechanic in-charge of mechanical sweepers, said.

**AMRITSAR Tribune**

**Sun, 8th November 2015**

**NGOs meet to discuss smart city**

The meeting was attended by Local Bodies Minister Anil Joshi, mayor Bakhshi Ram Arora, Municipal Commissioner Prasun Sarbadar, and members of various NGOs in a meeting or guided by the MC in Amritsar on Saturday.

The meeting was also attended by Local Bodies Minister Anil Joshi, mayor Bakhshi Ram Arora, Municipal Commissioner Prasun Sarbadar, and other senior officials of the Department. Speaking on the occasion, Singh said the city was lackadaisical in the past and the city was not taken up at all in the previous regime.

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**AMRITSAR Tribune**

**Sun, 8th November 2015**

**Cabinet Minister Anil Joshi, Municipal Commissioner Prasun Sarbadar and members of various NGOs at a meeting or guided by the MC in Amritsar on Saturday. Photo by Sunil"**
On Site Area Planning Process

Site Visits with a team of Consultant's and the Nodal Officers of Municipal Corporation Amritsar

Highlights

- Areas around the walled city Amritsar
- Tourist Places such as Golden Temple, Gobindgarh Fort, Durgyiana Temple, Ram Tirath Mandir, Jalian Wala Bagh amongst others.
- Narrow roads of the walled city Amritsar
- Multi level car parking in the walled city
- Surveillance system inside walled city

Open Spaces, Parks in Walled City Amritsar
Site Visits

Narrow Streets of Walled City Amritsar
Progress Review Session

Presentation and Discussions with Commissioner, joint Commissioner and official's of various departments on 22\textsuperscript{nd} Oct. 2015.

Highlights

• Intelligent Traffic System in the city to ease congestion
• LED Street Lights in the city
• Operation and Maintenance of the parks
• Self sustainable parks
• Municipal Solid Waste Management Plan for the city
• Wi fi connectivity

Various officials of respective departments of the city participated in the discussion
# Citizen Engagement - Summary

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Consultation</td>
<td>12,000+ participants, 10,000+ suggestions</td>
</tr>
<tr>
<td>Live Talk Shows</td>
<td>Live Talk Shows with professors, young planners, architects, engineers</td>
</tr>
<tr>
<td></td>
<td>5,000+ participants, 4,000+ suggestions</td>
</tr>
<tr>
<td>Stakeholder Consultation</td>
<td>Discussion with Commissioner, Mayor, Deputy Commissioner, Joint Commissioner, 25 Line departments, Authorities and Other Officials</td>
</tr>
<tr>
<td></td>
<td>Meeting at each stage to discuss the stage and progress</td>
</tr>
<tr>
<td>Mygov</td>
<td>2800+ Suggestions and 100 Entries for Essays and competition</td>
</tr>
<tr>
<td>Suggestion via email</td>
<td>Directly to corporation and to consultants 1700+ e-mails</td>
</tr>
<tr>
<td>Social Media</td>
<td>Facebook, Linkedin, Youtube, Twitter 3,000+ reach</td>
</tr>
<tr>
<td>Written Suggestions</td>
<td>65,000+ Suggestion Forms circulated among the citizens 43,000+ suggestions received</td>
</tr>
<tr>
<td>Reach</td>
<td>2,500,000+ Reach</td>
</tr>
</tbody>
</table>
Preferred PAN City Solutions

- **Safety and Security** was the most suggested PAN city solution.
- Citizens highlighted the need for better **Traffic Management**, **Parking System** and **E-Governance**.
- **Smart Street Lighting** also topped their wish list.
Preferred location for Area Based Development

- **Walled City** tops the list for most preferred location for area based development.
- Majority suggested **Retrofitting** is best suited for Amritsar.

Other areas include – Indra Colony, Wallah, Gumtala, Nuri Mohalla etc.
Vision Statement

“A Vibrant Heritage City with world class and ecofriendly Infrastructure leading to enhanced Economic Growth through responsive Resource Management Making it a Clean and Safe City”

“CLEAN AND SAFE CITY”
**Round 1 - Consultation Program Overview**

**Discuss**
Series of Consultation. Collection of feedback

**Summarise**
Narrow down suggestions most preferred

**Analyze**
Finalize the feasible suggestion

---

**Public Consultation**
+ Live Talk Shows
+ Stakeholder Consultation
+ Mygov
+ Suggestion via email
+ Social Media Outreach
+ Written Suggestions Forms
+ Reach

**Pan City Solution**
- Traffic Management
- Safety and Security
- E-Governance
- Smart Street lighting
- Slum Rehabilitation
- Solid Waste Management
- Transit Oriented Development
- Parking Management

**Area Based Development**
- Walled City
- Hindustani Basti
- Islamabad Area
- Verka

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**Pan City Solution**
1. MSW Management
2. Safety & Security

**Area Based Development**
Walled City
1. Pan City Initiative – Safety and Security

a. Video Surveillance

<table>
<thead>
<tr>
<th>Concept</th>
<th>Benefit for the city</th>
</tr>
</thead>
<tbody>
<tr>
<td>- CCTV Cameras at strategic points</td>
<td>Citizen Safety, Timely Response,</td>
</tr>
<tr>
<td>- Real Time Monitoring</td>
<td>Reduction in crime and theft</td>
</tr>
<tr>
<td>- Command Control Centre (CCC)</td>
<td></td>
</tr>
<tr>
<td>- Integration of Video Surveillance with</td>
<td></td>
</tr>
<tr>
<td>• Intelligent Traffic Management System,</td>
<td></td>
</tr>
<tr>
<td>• GIS map &amp; GPS Based Public Vehicle Tracking System</td>
<td></td>
</tr>
<tr>
<td>• Variable Message Sign Boards</td>
<td></td>
</tr>
<tr>
<td>• City Call Centre for emergency response</td>
<td></td>
</tr>
</tbody>
</table>

CCTV Camera at Junction
City Command Centre
City Call Centre with GIS
## 1. Pan City Initiative – Safety and Security

### b. Intelligent Traffic Management System

<table>
<thead>
<tr>
<th>Concept</th>
<th>Benefit for the city</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Intelligent Traffic Signals with traffic density based timing control</td>
<td>- Reduction in Travel Time and Traffic congestion</td>
</tr>
<tr>
<td>- Integration with Command Control Centre (CCC)</td>
<td>- Reduction in road-accidents and</td>
</tr>
<tr>
<td>- Variable Message Signage for information on traffic congestion</td>
<td>- Reduction in Noise Pollution Level</td>
</tr>
<tr>
<td>- LED traffic signals with Solar Panel</td>
<td></td>
</tr>
<tr>
<td>- Red light Violation Detection</td>
<td></td>
</tr>
<tr>
<td>- Automatic Number Plate Recognition.</td>
<td></td>
</tr>
</tbody>
</table>
## 2. Pan City Initiative – Smart Street Lighting

### C. Smart Street Lightning

<table>
<thead>
<tr>
<th>Concept</th>
<th>Benefit for the city</th>
</tr>
</thead>
<tbody>
<tr>
<td>- LED lights instead of sodium vapour lights</td>
<td>Energy efficiency &amp; use of renewable energy, reduction in dark corners of the city</td>
</tr>
<tr>
<td>- Solar Panel LED Street lights</td>
<td></td>
</tr>
<tr>
<td>- Segment Controller for efficiently controlling group of street lights (automatic controls)</td>
<td></td>
</tr>
<tr>
<td>- SCADA &amp; alarm (main voltage, lamp voltage, active power)</td>
<td></td>
</tr>
<tr>
<td>- Energy consumption monitoring and calculations</td>
<td></td>
</tr>
</tbody>
</table>
### 3. Pan City Initiative – Solid Waste Management

<table>
<thead>
<tr>
<th>Concept</th>
<th>Benefit for the city</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collection and Segregation at source</td>
<td>Clean, hygienic and beautiful city. Energy generation</td>
</tr>
<tr>
<td>Bins with RFID sensors</td>
<td>from waste (RDF), environment-friendly</td>
</tr>
<tr>
<td>Transportation with Compactor Trucks (GIS enabled)</td>
<td></td>
</tr>
<tr>
<td>Waste Management Facility (upcoming at Bhagtanwala) with <strong>Waste to Energy</strong></td>
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<td>Refuse Derived Fuel facility</td>
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</table>

**Benefit for the city:**
### Area Based Proposal – Retrofitting of Walled City

**Area = 864 acres +**

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Solutions for Area Based Development</th>
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<tbody>
<tr>
<td>1</td>
<td>Pedestrian Friendly Pathways</td>
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<td>2</td>
<td>Smart Parking</td>
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<td>3</td>
<td>Intelligent Traffic Management</td>
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<td>4</td>
<td>Non-Motorized Transport</td>
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<td>5</td>
<td>Safety and Security</td>
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<td>7</td>
<td>Water Supply Management</td>
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<td>Storm Water Drainage</td>
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<td>Solid Waste Management</td>
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<td>11</td>
<td>Rain Water Harvesting</td>
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<td>12</td>
<td>Energy Efficient Street Lightning</td>
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<td>13</td>
<td>Innovative Use of Open Spaces</td>
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</table>
Area Based Proposal – Retrofitting of Walled City

**Smart Area-based proposals**

1. Circulation and Parking
2. Walkability & Pedestrianization
3. Wi-Fi Connectivity
4. Open Spaces’ Strategy
5. Drainage
6. Water Management
7. Water Supply
8. Waste Management
9. Underground Cables
10. Safety and Surveillance
11. Smart Street Lighting
12. Tourist Assistance Centre

**Benefits to the city**

- Safe
- Clean
- Attractive
- Efficient
- Humane
Circulation and Parking – Walled City

CONCEPT

1. Comprehensive circulation plan
2. Emergency access & exit routes
3. Controlling the vehicular movement - different zones like

   “No motor zone”, “No 4-wheeler zone”, “Pedestrian zone”

4. Intelligent multi-level car parking (MLCP), IT-based Intelligent parking management system.

5. Smart traffic management system - smart signaling (Pan-city proposal)
Walkability and Pedestrianization – Walled City

CONCEPT

1. Integrated DPR for Public Realm – covering these
   a. Motorized and Non-Motorized Mobility,
   b. Public Transportation,
   c. Traffic and Parking Management,
   d. Street Vendor Policies,
   e. Safety,
   f. Differently-abled Accessibility,
   g. Events, Environment (water, trees, air),
   h. Infrastructure Utilities (above and underground).

2. Obstruction free movement
   a. Roads
   b. Footpaths
   c. Sidewalks
Open Spaces’ Strategy – Walled City

CONCEPT

1. Re-inventing the available open spaces – adding cultural dimension
2. Financially self-sustaining recreational nodes
3. Organizing events with third party involvement - Music, Theatre, Arts, Yoga, etc
4. Multifunctional piazza, open lawn area, amphitheatre or podium
5. Other facilities: -
   I. Interactive information panels,
   II. Solar powered charging stations for phones,
   III. Air Quality Sensors,
   IV. Panic Buttons,
   V. Smart MSW Collection units,
   VI. Public conveniences like drinking water, toilets, wi-fi zones, etc.
Drainage – Walled City

**CONCEPT**

1. Comprehensive hydraulic analysis of drainage system
2. Rehabilitation of existing drains - 9 km
3. Construction of new drains in walled city - 90 km
4. Provision for Ground Water Recharge
Water Supply – Walled City

**CONCEPT**

1. Rehabilitation of distribution network – 47 km
2. Bulk flow meters – 90 nos.
3. Pressure monitoring meters
4. DMA creation
5. Smart Consumer meters
6. SCAD and ICT Integration for real time monitoring

reduction of NRW
1. Rehabilitation of distribution network – 59 km

2. Sensors for sewage over flow
1. Installation of colour-coded garbage bins
2. Mechanized road sweeping
3. Segregation at source – door to door collection
4. Garbage collection vehicles – compactor trucks
5. To be converged with project for upcoming waste management facility at Bhagtanwala.
6. Waste to energy – RDF facility at Bhagtwanwala
1. Overhead cables of power and telecommunication along main roads to be taken underground.

2. Separate conduits to be provided for power cables and telecommunication cables respectively.

3. Additionally a separate study as an alternative to underground especially for walled city area.
Tourist Assistance Centre – Walled City

CONCEPT

1. IT enabled information kiosks and emergency assistance services for tourists

2. To be located at important nodes like 12 Wall-gates, Plaza, etc

3. For guidance and assistance to the tourists
Thanks