GREEN CONSTRUCTION+DESIGN

The Complete Guide to Sustainable Architecture and Design

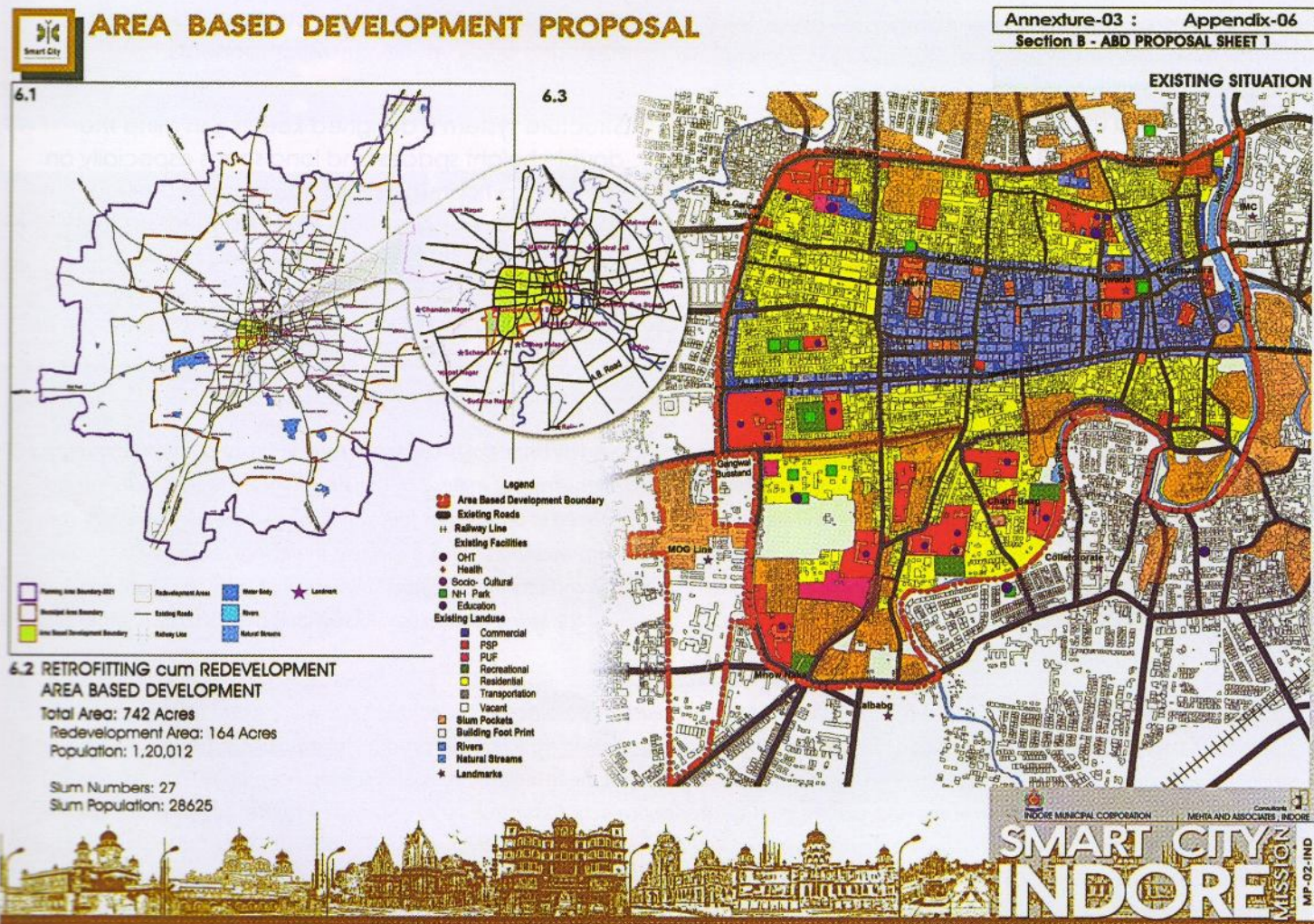May 2018

Indore Smart City

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Cities have been growing, some organically on its own pattern and some through various planning interventions since decades. Variables like, sustainability, livability, social inclusiveness, efficiency, aims at making a city smart in planning framework with technological interventions.

For the smart city consultancy, REPL has an integrated approach. We bring together various expertise components under one roof, such as planning, GIS, architecture, infrastructure, engineering services, and project management consultancy. REPL consortium has got the assignment of Indore Smart city for preparing detailed project report and related implementation activities.

The Indore ABD proposal comprises of a total area of 742 acres, having a population of 1.2 Lakhs which is

AREA BASED DEVELOPMENT PROPOSAL

Annexture-03 : Appendix-06
Section B - ABD PROPOSAL SHEET 1

EXISTING SITUATION

6.1

6.3

Legend
- Area Based Development Boundary
- Existing Roads
- Railway Line
- **Existing Facilities**
  - OHT
  - Health
  - Socio- Cultural
  - NH Park
  - Education
- **Existing Landuse**
  - Commercial
  - PSP
  - PUF
  - Recreational
  - Residential
  - Transportation
  - Vacant
  - Slum Pockets
  - Building Foot Print
  - Rivers
  - Natural Streams
  - Landmarks

6.2 RETROFITTING cum REDEVELOPMENT AREA BASED DEVELOPMENT

Total Area: 742 Acres
Redevelopment Area: 164 Acres
Population: 1,20,012

Slum Numbers: 27
Slum Population: 28625

INDORE MUNICIPAL CORPORATION   MEHTA AND ASSOCIATES , INDORE

SMART CITY INDORE

Source: SCP for Smart City Project

almost 5.5% of the city's population. This area consists of the seven storied erstwhile palace; The Rajwada (referred to as the heart of Indore) surrounded by traditional markets emanating from it in all directions. The earmarked area is proposed to be retrofitted with smart features/infrastructure wherein out of total proposed area, 164 acres of land will be redeveloped with smart features/infrastructure in accordance with SCP and SCM guidelines.

The ABD proposal, titled as 'Rajwada Rejuvenation', combines retrofitting with redevelopment to improve the core of the city. The proposal takes advantage of upcoming mass transit link, in form of metro, to decongest the area, improve its accessibility and walkability by pursuing concept of Transit Oriented Development (TOD). The redevelopment pockets will be developed as sustainable neighborhoods having mixed use.

On the other hand, Pan-city solution consists of three components two of which are sector-specific management system – Intelligent Transportation System (ITS) and Intelligent Solid Waste Management (ISWM) and titled as 'Indore Intelligent City

Management System (IICMS)'. These two systems are to be supported by a Central Command and Control Centre for disseminating real-time information and data analysis.

COMPONENTS:

Area Based Development:

- **Transport and walkability :** road development, intersection improvements, street design guidelines for TOD, no-vehicle zone, real-time air quality monitoring and Intelligent Transport System. The ABD area Master Plan conceptualizes formation of certain Public Plazas, including Rajwada Chowk (shown below). An area around it including the traditionally developed retail market is designated as no-vehicle zone and interventions are planned accordingly. To accommodate the parking demand, 15 locations are being developed as off-street smart parking. A few roads have been identified for on-street parking. Seven roads have been identified to be developed as fast-track project. The entire roads and streets are proposed to be converted into smart roads with underground utilities, pedestrian walkway, street lights, etc.
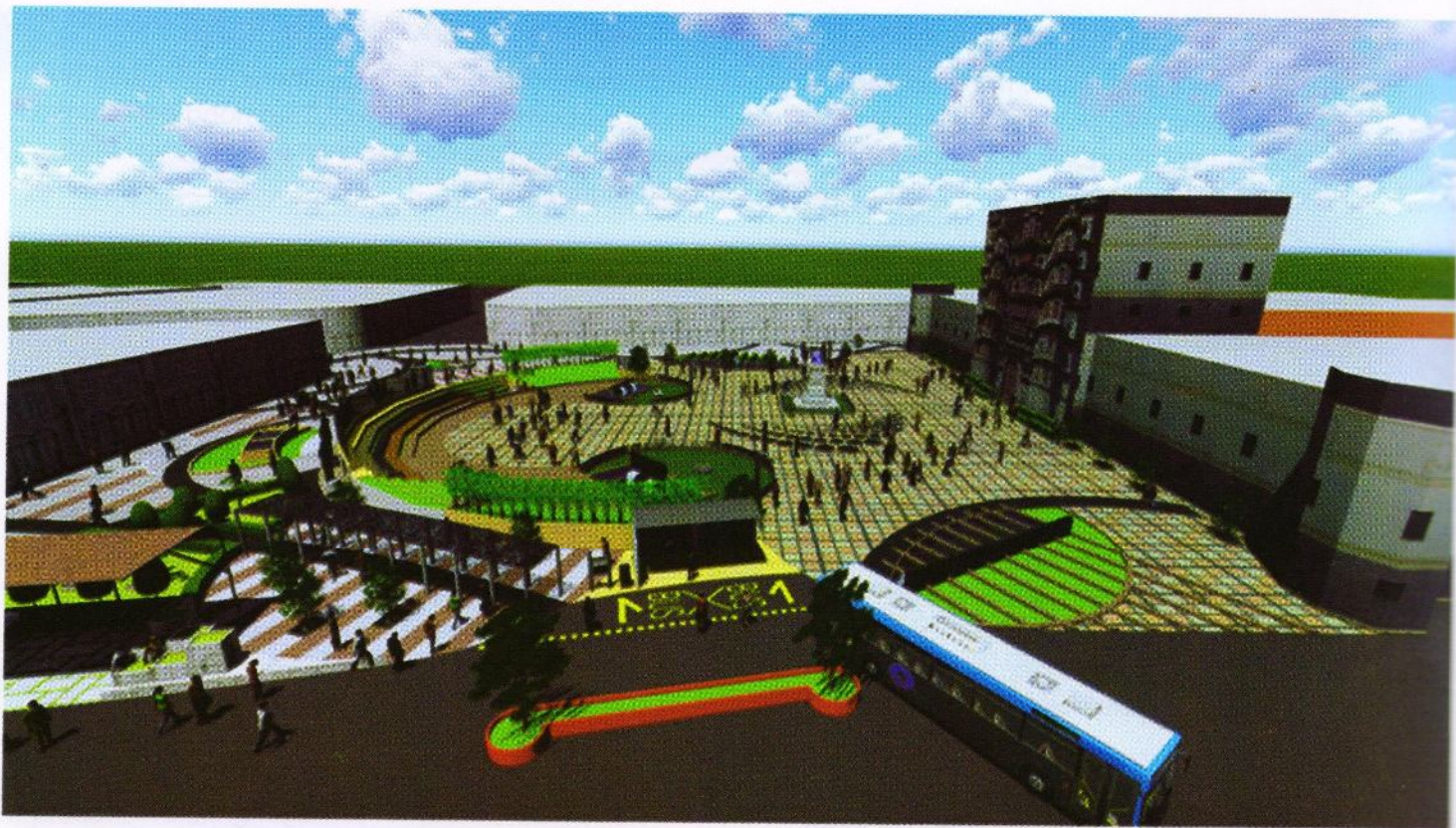
- **Redevelopment of public land :** compact high density mixed use with 85% built-up to be green buildings, rooftop solar power plants generating 25% of the energy demand, rainwater harvesting and its re-use. Various projects are identified under this category and detail reports are being prepared, like projects on Slum Housing, Parking and Site Development, Development / Improvement of public open spaces - Sector Parks and School PGs (Harsiddhi Park), Development / Improvement of public open spaces- Harsiddhi Park, Market development/ redevelopment (Jinsi

Haat Maidan) [Source: Indore Smart City ABD PMC, Inception Report]

- Identity and Culture: activities like strengthening of structure, façade treatment, restoration of collapsed portion and shifting of gumtis. The city of Indore possesses centuries old history. The city core i.e. ABD area is rich with a number of heritage structures like Rajwada, Gopal Mandir, Imam Bada, Martandeya Mandir, Kanch Mandir, Jain Temples, Durga Mata Mandir, etc. To promote the age-old identity and rich heritage of city, a heritage walk has been proposed around the Rajwada area.

Infrastructure Development

- Water supply, waste water management and sanitation: 24/7 water supply system with SCADA, 100% smart metering, DEWATS, reuse of recycled wastewater and underground storm water drainage

- Solid waste management: 100% collection and segregation, environment friendly and economical transportation and disposal of waste

- Power supply and efficiency: 24/7 uninterrupted power through SCADA enabled smart power distribution grid an smart metering

- Underground electrification and shifting/ laying of other utilities: utility ducts, shifting of power and telecom lines, laying of OFC network, gas network and other utilities

- IT connectivity and IT enabled government services: 100% public wi-fi connectivity, common backbone OFC network to integrate with pan-city proposals, command and control centre with adequate software/ hardware and city dashboard for urban governance and services

- Safety and security: Smart and energy efficient street lighting including pedestrian area and public open spaces, CCTV for surveillance and traffic monitoring, fire hydrants network

Pan-City Solution:

Creating a backbone of Communication Network, Central Command and Control Center for multi-purpose use with a dashboard for real-time data analysis and information dissemination make the Pan-city solutions backed by ICT. This will help in the implementation of the two citywide services – Intelligent Transportation System and Intelligent Solid Waste Management.

About REPL

Rudrabhishek Enterprises Limited (REPL) is Integrated Real Estate & Infrastructure consultants, having legacy of 25 Years. We integrate a range of services to deliver end-to-end consultancy in diverse sectors. REPL group is uniquely positioned to manage projects right from the ideation stage and carry it through planning, designing, execution, and finally marketing. We can take up a greenfield or brownfield project and convert it into an integrated Hi-tech Township, Smart City, IT Park or SEZ.

The diverse consultancy services include viability analysis, urban planning, GIS, structural engineering, building services designs, PMC (Project Management Consultancy), EPC Services (Engineering, Procurement & Construction) and Marketing Advisory.

We have designed and managed complex projects in sectors such as Real Estate (Residential, Commercial, Group Housing & Integrated Township projects), Retail (Malls & Office Complexes), Hospitality & Healthcare, Recreation (Sports Stadium, Clubs), Water Sanitation & Environment, Solid Waste Management, Hi-Tech Cities, Smart Cities etc., just to name a few. REPL also provides geographical information system and cloud computing data management solution for larger townships and urban development projects.

The group is intensively involved in Smart City Mission of Government of India. We have been providing consultancy in conceptualization, planning and implementation of multiple smart cities viz., Varanasi (U.P.), Indore (M.P.) & Kanpur (U.P).

REPL is empaneled with more than 30 government bodies and leading institutions from Government, Public and Private sectors. The Group has headquarter in New Delhi, with pan India presence and international office in Singapore as well.

For more details, please visit www.repl.global