

SMART ROADS

Guideline No. 6.2 provides for some essential features to be present in Area-Based Developments (ABD) in all Smart Cities. Visible improvement in the ABD is one essential feature (e.g. replacing overhead wires). Some other features are - pedestrian friendly pathways, encouragement to non-motorized pathways, etc. The key features of Smart Roads are given below.

1. The 'Smart Roads' initiative aims to add value to the Area Based Development (ABD) part of the proposed smart cities by means of bringing in visual and utilitarian changes in existing main roads.
2. The objective of Smart Road is to break away from the short term fixes applied to the perennially chaotic city roads and take a lifecycle cost approach to spend efficiently on the roads for long term value for money and a highly increased quality of life for the users.
3. Key components under smart road are:
 - a. Development and strengthening of carriage way with uniform lane widths and geometric designs of roads and junctions as per street design standards.
 - b. Development of footpath and cycle lanes wherever feasible - with uniform footpath widths, pedestrian friendly ways and barrier-free designs.
 - c. Construction of utility ducts for water, sewerage, drainage, power, gas and optical fibre cables (OFC), wherever essential – with suitable provision for O&M.
 - d. Construction bus bays, auto bays and on-street parking wherever essential.
 - e. Beautification and landscaping including greenery and carbon sinking,
 - f. Provision of smart street furniture and public utilities such as including communicative signage, lane marking.(passenger shelters, bus stops, parking, green toilets, first aid care, traffic police booth etc), public leisure spaces etc
 - g. Smart street-poles with LED lights, CCTV and various sensors as per city requirement.
 - h. Accessibility standards as prescribed by the MoUD, etc.
 - i. Particular focus on safety of women, children, elderly, etc
4. Implementation Methodology adopted for smart road is as mentioned below:
 - a. Conducting the 'Make My City Smart' design competition for selected roads of the ABD area. With proper public engagement, this exercise is poised to capture popular imagination citizens being involved in addressing their own issues and solving them. It also provides basic design ideas coming from users themselves to start with.
 - b. Undertaking detailed road survey including As-Is studies, traffic volume count, utility survey, soil tests, levels measurement and others as per the model document.

- c. Detailed design of both above-ground and under-ground utilities based on planning standards provided in the model document and other applicable standards such as UTTIPEC Street Design Guidelines, IRC Standards, etc.
- d. Preparing detailed and itemised bills of quantity (BoQ) to include all construction works in a single tender – combining inter-departmental requirements as applicable.