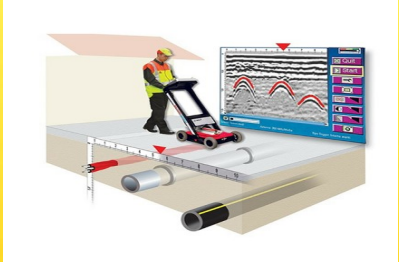
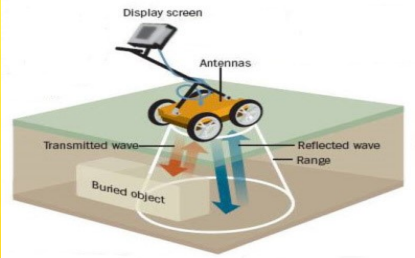
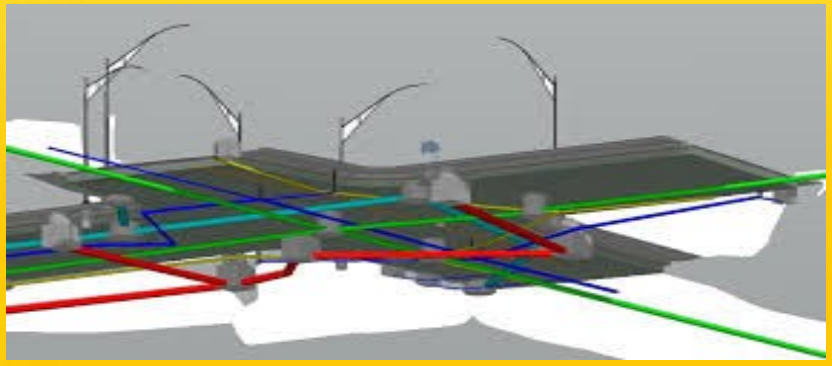
Last Mile Connectivity (LMC) Workshop

19th December 2022, No Dig India Show, Aerocity, Delhi







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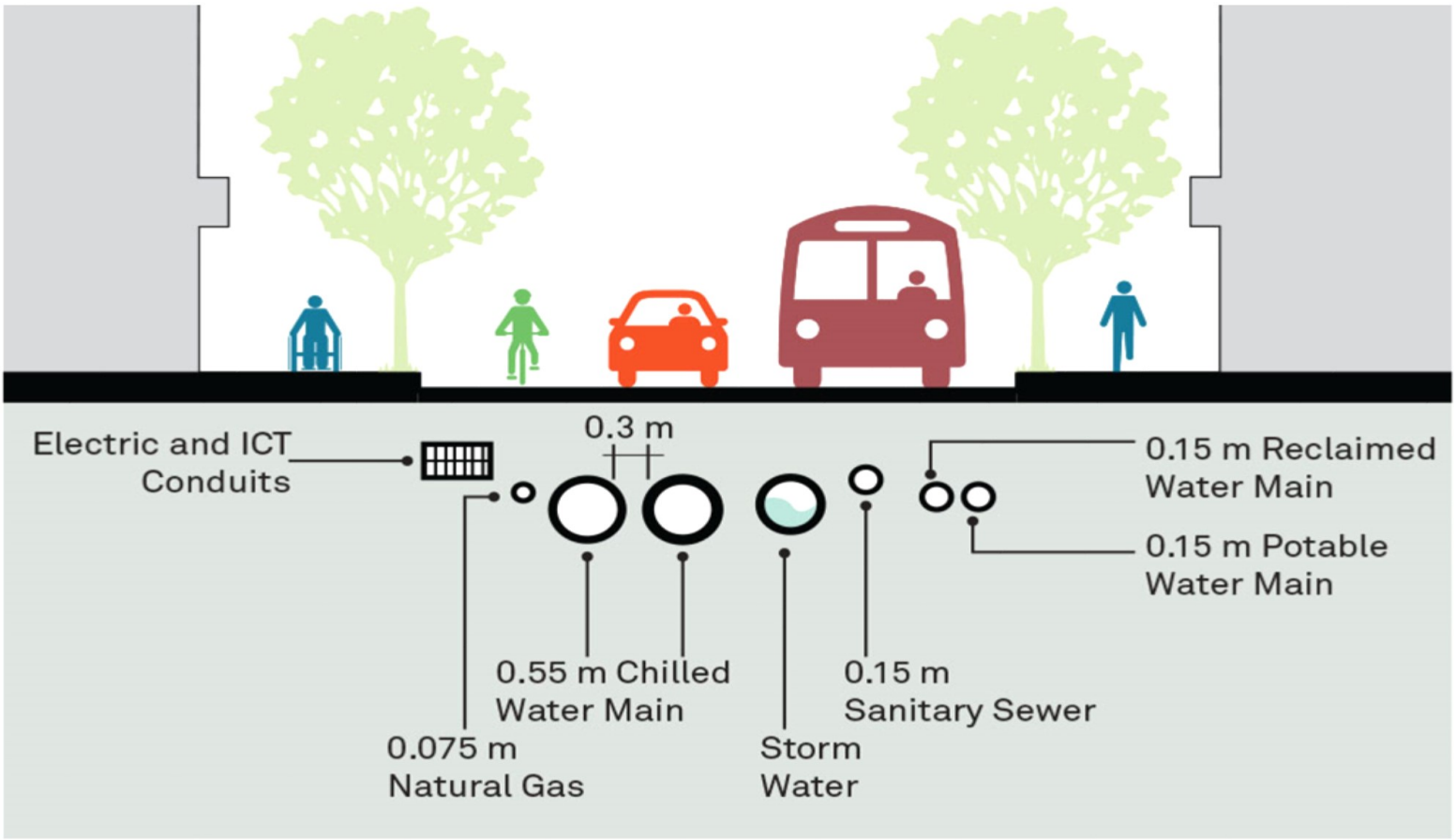

The term 'last mile' has long been used to describe the final hurdle of delivering services to end-users. There are multiple challenges of delivering connectivity from the core network to the final destination and so is an entire set of solutions aimed at doing exactly that.

The underlying context of the topic is the underground infrastructure. Underground infrastructure constitutes a major component of any city's infrastructure, with underground metro corridors, parking, utilities (water, gas, sewer, telecoms, electricity etc.). Underground infrastructure also remains one of the most neglected, unplanned, least regulated; and rarely maintained components. Hidden under layers of smooth roads, swanky buildings, lush green parks and the city's exterior, it fails to get attention, unless some accident (pipe ruptures, sunk roads, damage due to uncontrolled construction activities etc.) brings it back into focus albeit for a short time.

For the last two decades, the Government of India is investing substantially in India's infrastructure to enhance the standards of living and minimize the degradation of the ecosystem. Subsurface Construction is the backbone of these works as projects like smart cities, city gas distribution networks; development and maintenance of urban utilities; and similar other works are some of the chartered initiatives. The success of these monumental works, however, depends on how efficiently and quickly we can connect the beneficiaries to these infrastructures i.e., the Last Mile Connectivity (LMC).

LMC shall be the one huge task considering our existing unplanned and unregularized urban setup. Following are the few possible impediments for last mile connectivity.

1. Congested and unmapped buried utility networks;
2. Health & safety of workers in confined space working in such settings;

3. Challenges pertaining to health, safety, and the environmental requirements of the locality;
4. Absence of guidelines and knowledge of tools and techniques to execute work in such confined space.
5. Dangers of open excavations/trenching in congested urban areas surrounding the project location;
6. Social costs of subsurface projects.

Though these impediments are reducing the pace of development process, the situation also opens enormous opportunities by way of the growth of FTTX (Fiber to the x) and City Gas becoming mainstream businesses. We do have million plus houses to be connected to the main grids, 100+ cities under various stages of having city gas systems, FTTX, and also the 100 Smart Cities apart from the normal businesses. We have opportunities outweighing the challenges and today proactive actions from the Subsurface Construction Fraternity could transform the threats into opportunity.

This issue needs to be addressed immediately on a holistic basis with a long-term cradle-to-grave development policy, and to address, we need an integrated system at each level of subsurface construction project life cycle stages to enhance understanding about the issues dogging the last mile connectivity, providing best practice guidelines and tools to estimate and avoid the damages and finally implement those in real time.

Key ingredients of this system are robust & bankable subsurface information, capable equipment, properly trained, tested, and certified project execution and supervising manpower, system for inspecting the subsurface conditions and utility information, sound engineering practices and related HSE parameters in the project battery area.

To address the impediments and meet the LMC requirements, we need to the following in place:

- A system for verification and approval of utility maps by SUE process to protect the buried networks;
- A system for verification of the subsurface construction planning and designing process for creating networks delivering value for money;
- A system to identify optimum combinations of technology solutions, capable equipment, and consumables having economic and technical viability to deliver the project successfully;
- A system for inspection of subsurface project construction works;
- A system for identification of minimum skill sets of capable construction professionals;
- A system for the process to test and certify the skill set of project professionals.

To facilitate the above, INDSTT, along with its national and international associates, is organizing an event on **Last Mile Connectivity** on **19th December at No Dig India Show 2022, Aerocity, Delhi**. The envisaged program aims to bring together all the stakeholders on a common platform to discuss last-mile connectivity challenges and solutions.

Through the deliberation, a draft set of guidelines is proposed to be presented to the Trenchless Industry. This deliberation will yield in the formation of '**Guidelines for Addressing Last Mile Connectivity in Subsurface Networks**'.

For registrations or further enquiries and details, please contact:
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