



TDCS

TUNNEL DESIGN CONSULTANCY SERVICES

COMPANY PROFILE · 2026

Specialists in Underground Infrastructure Engineering

Independent tunnel design, TBM advisory and owner's engineer services for metro, rail, road, water and utility tunnels across India.

An independent specialist — not a generalist with a tunnels desk.

TDCS – Tunnel Design Consultancy Services is a focused underground engineering practice based in Thane, Maharashtra. We serve project owners, contractors, consultants and government agencies who need decisions about tunnels made by people who think about nothing else.

Our experience spans the full life of an underground project — from client-side delivery of metro tunnelling and cross passages, to OEM-side exposure to tunnel boring machines and mechanised tunnelling technology, to fibre-reinforced segmental lining solutions on major bored tunnels. That combination of owner, designer and machine perspectives is what makes our advice independent and practical.

TDCS is a Government of India registered MSME, structured to deliver major-project rigour with small-practice responsiveness and cost efficiency.

AREAS OF EXPERTISE

Metro Tunnels

Railway Tunnels

Road Tunnels

Utility Tunnels

Microtunnelling

Shaft Engineering

Trenchless Technology

Conceptual & Detailed Design

Technical Due Diligence

Tender Engineering

14+

years of underground
infrastructure experience

6

TBM drives delivered
client-side on one metro
programme

40+

cross passages delivered on
underground metro works

20 km

of bored tunnel supported
with segmental lining
solutions

What we deliver

SERVICE / 01

Tunnel Engineering

- Alignment studies
- Tunnel sizing & cross-section development
- Excavation methodology
- TBM vs NATM feasibility

SERVICE / 02

Structural Design

- Segmental lining design
- Cast in-situ lining
- Portal structures
- Shafts & cut-and-cover structures

SERVICE / 04

Owner's Engineer

- DPR review
- Independent design review / proof checking
- Value engineering
- Risk assessment & GBR support

SERVICE / 05

Construction Support

- Method statements
- Temporary works design
- Construction sequencing
- Technical troubleshooting at the face

SIGNATURE SERVICE / 03

TBM Advisory

Independent, OEM-literate advice on the single largest procurement decision of a bored tunnel project — the machine. We help owners and contractors specify, evaluate and procure the right TBM for the ground, not the brochure.

- Machine type selection (EPB / Slurry / Hard Rock / Mixshield)
- TBM sizing & specification
- Cutterhead configuration recommendations
- Geological assessment for machine selection
- Procurement support & technical bid evaluation
- Refurbished-machine due diligence



Everywhere India goes underground

**Metro Rail****High Speed Rail****Roads & Highways****Water Supply****Sewerage****Hydropower****Mining****Smart Cities**

We've sat on every side of the table

Client-side metro experience

Years inside an implementing agency delivering underground metro works — we know how owners think, approve and escalate.

OEM understanding of TBMs

Direct exposure to tunnel boring machine technology and mechanised tunnelling from the manufacturer's side of the industry.

Practical construction knowledge

Advice grounded in what crews can actually build, sequence and maintain — not just what analyses permit.

Independent technical advice

No equipment to sell and no construction contract to protect. Our only product is engineering judgment.

Fast turnaround

A focused practice without layers — reviews, notes and assessments delivered at tender speed.

Cost-effective engineering

MSME-registered and lean by design: specialist output at a fraction of big-consultancy overheads.

Representative experience of our team

METRO

Urban Metro Tunnelling

Client-side delivery of twin bored tunnels, station interfaces and cross passages on a major Indian metro corridor.

ROAD TUNNELS

Highway & Ghat Tunnels

Conceptual studies and methodology advice for long road tunnels in challenging geology.

UTILITY TUNNELS

Microtunnelled Crossings

Trenchless and microtunnelling assessments for pipeline, water and utility crossings beneath rivers, rail and highways.

WATER CONVEYANCE

Water & Sewerage Tunnels

Segmental lining and machine-selection advice for conveyance tunnels in urban ground.

HYDROPOWER

Hydro & Headrace Works

Feasibility-stage engineering input for pressure tunnels, shafts and underground works in hydropower schemes.

DESIGN CONSULTANCY

Independent Design Review

Proof checks, DPR reviews and tender-stage engineering for owners, contractors and design consultants.

TECHNICAL EXPERTISE

Depth where it matters

TBM Engineering

NATM

SEM

Segment Design

Ground Support

Waterproofing

Tunnel Ventilation

Fire & Life Safety

Tunnel Drainage

Geotechnical Interpretation

FEM Analysis

SFRC & Fibre Reinforcement

Cross Passages

Shaft Design

GET IN TOUCH

Start the conversation

EMAIL

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PHONE / WHATSAPP

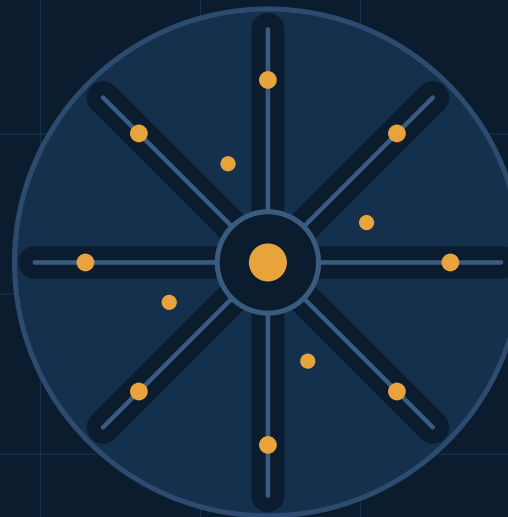
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LINKEDIN

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HEAD OFFICE

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COMPANY REGISTRATION

Enterprise	TDCS – Tunnel Design Consultancy Services
Udyam Registration No.	UDYAM-MH-33-0801597
Classification	MSME – Micro · Services · Ministry of MSME, Government of India
NIC Code	71100 — Architectural & engineering activities and related technical consultancy
GST Status	Registration applied — ARN AA270726121361E (20/07/2026)

ENGINEERING TRUST. BUILDING CONNECTIONS. DELIVERING IMPACT.

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