

Tunnel Construction Method Statement

1. Introduction

This method statement covers the safe and systematic approach for the excavation, reinforcement, and lining of tunnels.

2. Scope of Work

- Site preparation and setup
- Tunnel excavation
- Rock stabilization and lining
- Drainage and ventilation installation

3. Objectives

1. Deliver a structurally sound and durable tunnel.
2. Ensure worker safety during excavation.
3. Minimize environmental impact and disruption.

4. Resources Required

4.1. Personnel

Mining engineers, geotechnical experts, and tunneling crews.

4.2. Equipment

Tunnel boring machines, rock drills, and conveyors.

4.3. Materials

Reinforcement bars, shotcrete, and lining materials.

5. Work Methodology

Step 1: Site Setup

- Mobilize equipment and set up utilities.

Step 2: Excavation

- Excavate using TBMs or drill-and-blast methods.

Step 3: Stabilization

- Apply shotcrete and install rock bolts.

Step 4: Lining and Drainage

- Cast concrete linings and install drainage systems

6. Safety Measures

- Regular ventilation checks.
- Ensure blasting procedures are conducted safely.