Boston Big Dig

CEE 491
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Presentation Contents

- Project overview
- Project use and benefits
- Technical issues and innovations
- Social problems and policy issues
Project overview

- **Length:** 7.5 miles, 8-10 lanes
- **Excavation**
  - 16 million cy
- **Concrete**
  - 3.8 million cy
- **Price:**
  - Actual (2006): $14.6 billion
  - Final: $22 billion
- **Funding**
  - State and federal (public)
Project use and positive impacts

- **Traffic**
  - 1959 - 75,000 AADT
  - 1990s - >190,000 AADT

- **Positive impacts**
  - Reduces downtown congestion
  - Allow more people to travel during peak periods
  - 12% reduction in CO levels
  - 85.6% corridor travel time reduction
  - 300 acres new open land and parks
Technical issues and innovations

- **Issues**
  - Huge excavation
  - Large sections in tunnels
  - Interstate interchanges rebuilt
  - Building within city

- **Innovations**
  - Freezing soil to install 30,000 ton road bed under train tracks
  - Reconfiguring underground utilities
  - Building under existing traffic
Social problems and policy issues

- **Cost overruns**
  - $6 billion - $22 billion

- **Construction problems**
  - 2006 ceiling collapse
  - “Thousands of leaks”
  - Substandard materials
Questions?