

# Geotechnical Investigations

**Palmdale to Burbank Project Section  
September 2016**



# Geotechnical Investigations

- **Purpose**

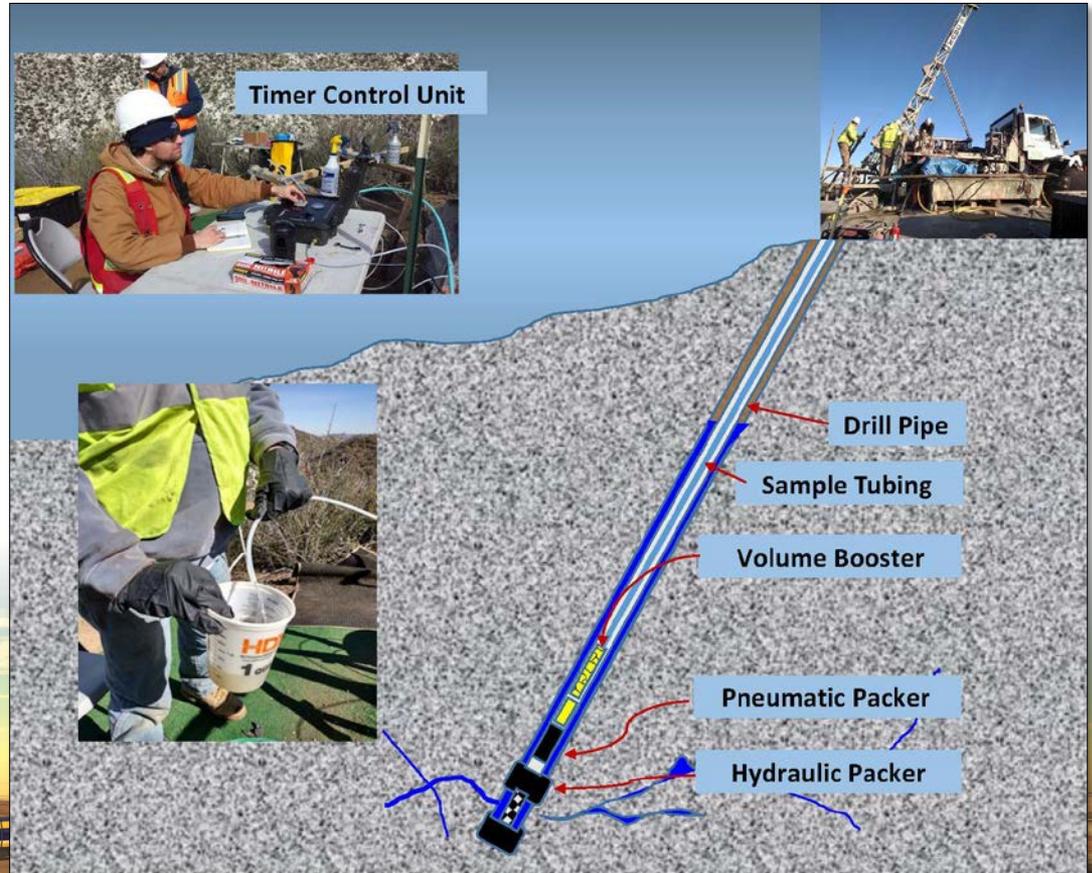
- » Evaluate Feasibility of Tunnels Beneath the Angeles National Forest (ANF)
- » Evaluate Rock Quality at the Depth of Tunnels
- » Characterize Rock for Tunnel Boring Machine (TBM)
- » Characterize Bedrock Faults
- » Evaluate Groundwater Regime
- » Optimize Tunnel Alignment through ANF; i.e., Minimize Potential Impacts



# Geotechnical Investigations

- **GI Plan Scope Summary**

- » Complete Five Exploratory Core Holes
- » Measure In Situ Water Pressures
- » Measure In Situ Rock Stresses
- » Conduct Core Hole Geophysical Surveys
- » Measure In Situ Hydraulic Conductivities
- » Sample Groundwater
- » Analyze Water Chemistry
- » Install Instrumentation
- » Laboratory Testing Program

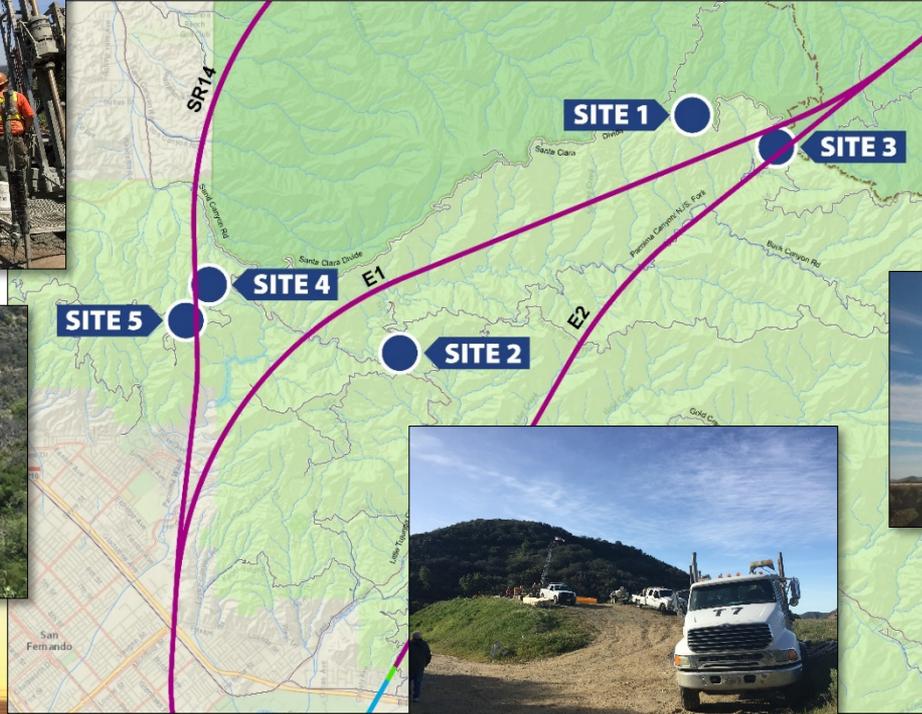


# Geotechnical Investigations

- **Selection of Rock Coring Sites**
  - » Near Existing Road Access
  - » Minimize Environmental Disturbance
  - » Geology Typical of San Gabriel Mountains
  - » Investigate Bedrock Faults



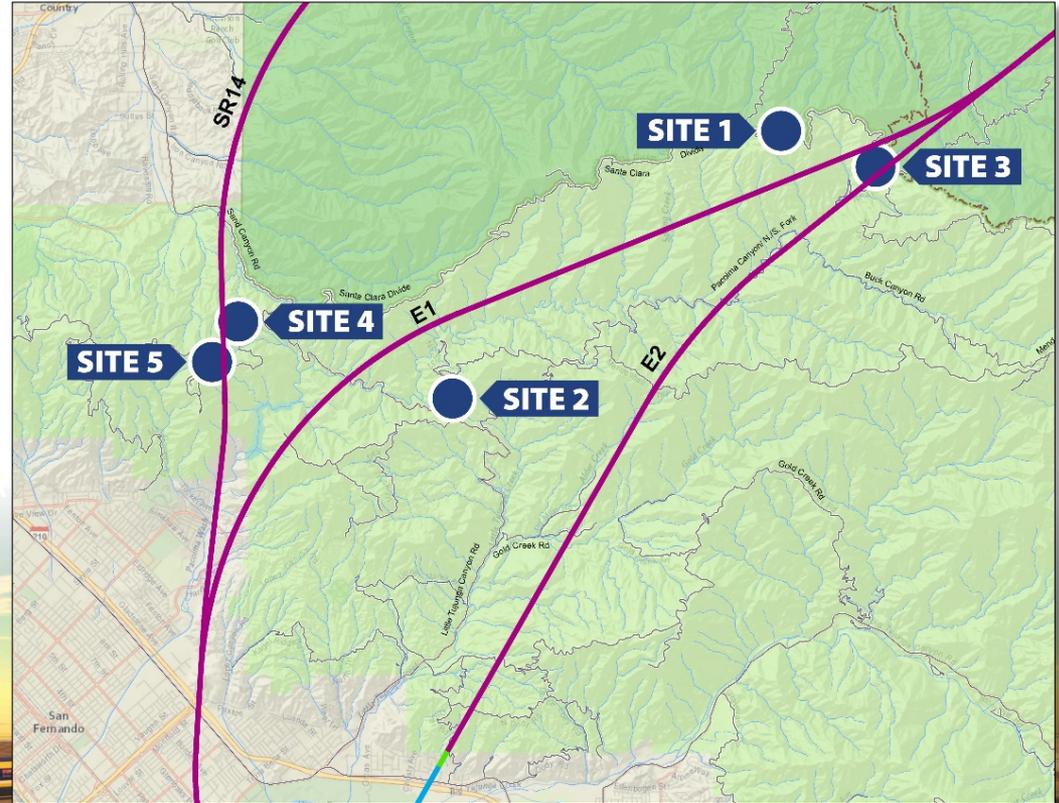
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## • Status of Five Rock Coring Sites

- » Site 1
  - **Completed-** 2,700 Ft. Deep
- » Site 2
  - **Completed-** 1,000 Feet Deep
- » Site 3
  - **Completed-** 1,000 Feet Deep
- » Site 4
  - **Completed-** 1,600 Feet Deep
- » Site 5
  - **In Progress-** 2,100 Feet Deep



# Geotechnical Investigations Video

**Video Placeholder**