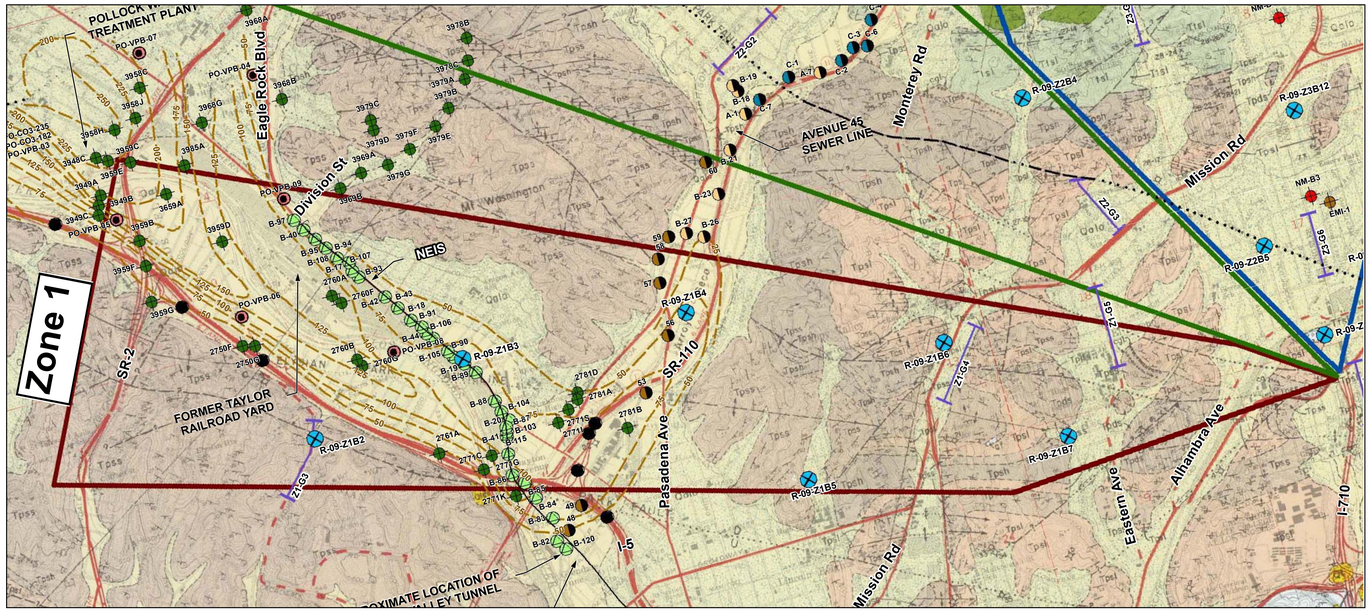
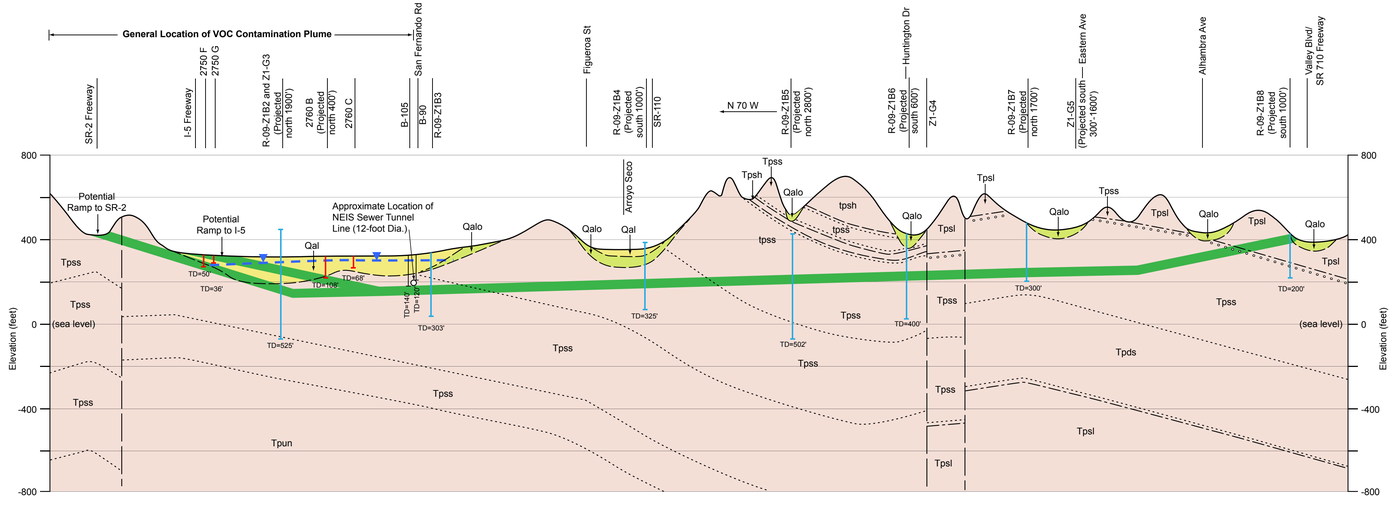
Geotechnical Map



Representative Geologic Profile for Zone 1



EXPLANATION

HORIZONTAL GRAPHIC SCALE

2,000 0 1,000 2,000

Data Sources:

CDMG (1998d)
CH2M HILL (2007)
City of Los Angeles (2001)
JMMI (1992)
Lamar (1970)
Yerkes, et al (1977)

UNITS (from Lamar, 1970)

Quaternary Deposits

Qal	Alluvium: silt, sand and gravel
Qalo	Old Alluvium: silt, sand and gravel forming dissected alluvial plain and alluvial terrace deposits

Puente Formation (Late Miocene)

Tpsl	Siltstone: well bedded, light brown and light gray
Tpsh	Shale: well bedded, light gray, siliceous
Tpds	Diatomaceous Shale: punky, dull white
Tpss	Sandstone: well bedded, medium-to-coarse-grained, light brown to gray
Tpun	Undifferentiated siltstone, shale, sandstone and conglomerate

SYMBOLS (All locations are approximate)

- Typical Tunnel Profile
- Historically Highest Groundwater Level (CDMG, 1998d)
- Recent Groundwater Level (CH2M HILL, 2007)
- Inactive Fault
- Active Fault
- Geologic Contact, dashed where inferred or indefinite
- R-09-Z1B3 — Continuous Core Boring (CH2M HILL, this study)
- 2760 B — Boring (Yerkes, et al, 1977)
- B-105 — Boring (City of Los Angeles, 2001)
- Z1-G2 — Seismic Reflection Line (CH2M HILL, this study)

Legend

(All Locations are Approximate)

- R-09-Z1B8 — Continuous Core Boring (CH2M HILL, this study)
- W12ASMW2 — Facility Monitoring Well (CH2M HILL, 2009)
- Caltrans As-built LOTB's (Various Locations)
- 4077B — Water Production Well; Location for which only Groundwater Data in Available (LACDPW, 2009)
- EMI-1 — Continuous Core Boring (EMI, 2006)
- A-1 and B-3 — Geotechnical Boring (City of Los Angeles, 2000, 2006a, and 2006b)
- C-1 — Geotechnical Boring (URS, 2006)
- MW-17 — Groundwater Monitoring Well (CH2M HILL, 2006)
- CA-DSW — Water Production Well (Geosyntec, 2004)
- MW1-4 — Groundwater Monitoring Well (CH2M HILL, 2003)
- B-90 — Geotechnical Boring (City of Los Angeles, 2001)
- NM-B1 — Boring (Ninyo and Moore, 1999)
- 80 — Geotechnical Boring (Law/Crandall, 1993)
- PO-103-182 — Monitoring Well, (JMMI, 1992 and CH2M HILL, 2007)
- 2760c — Boring (Yerkes, et al, 1977)
- C-65/C-23f — Boring (Caltrans, 1974a)
- ES-1 — Geotechnical Boring (Caltrans, 1974b)
- 9D2 — Water Production Well (CDWR, 1966)
- 200 — Depth to Bedrock in Feet Below Existing Ground Surface (Yerkes, et al, 1977)
- 1400 — Structural Contour Line, Elevation at Top of Bedrock in Feet (MSL) (CDWR, 1966 and Geoscience, 2004)
- 220 — Groundwater Elevation in Feet (MSL) (San Gabriel Basin - MSGW, 2006 and Raymond Basin - RBMB, 2006 and 2007)
- Z2-G2 — Seismic Reflection Line (CH2M HILL, this study)
- Zone 1 Limits
- Zone 2 Limits
- Zone 3 Limits
- NEIS
- ECIS
- Metro Red Line
- Metro Gold Line Eastside Extension (Tunnel Portion)
- Existing Street, Road, or Highway

Source of Base Map: Lamar, 1970

North

0 2,000 4,000 Feet

0 750 1,500 Meters

DRAFT

PLATE 5
Representative Geologic Profile and Geotechnical Map for Zone 1
SR-710 Tunnel Technical Study
Los Angeles County, California

CH2MHILL

ES022009005SC0378312.04.10.01 zone_1_large_rev4.ai 10/09