**DESIGN DATA**

Design AASHO LRFD Bridge Design Specifications, 4th edition with California Amendments

- **Design Load:**
  - **WS:** 35 psf on sound wall
  - **LS:** Varied surcharge on level ground surface

**LOAD COMBINATIONS AND LIMIT STATES**

- **Service:**
  - Service 1: 0.40\(k\)DC + 0.0EV + 0.0EH + 0.30WS
  - Service II: 0.40\(k\)DC + 0.0EV + 0.0EH + 0.0WS
- **Design:**
  - Design 1: 0.60\(k\)DC + 0.60EV + 0.60EH + 0.30WS
  - Design 2: 0.60\(k\)DC + 0.60EV + 0.60EH + 0.0WS
  - Design 3: 0.60\(k\)DC + 0.60EV + 0.60EH + 0.0WS
  - Design 4: 0.60\(k\)DC + 0.60EV + 0.60EH + 0.0WS
  - Design 5: 0.60\(k\)DC + 0.60EV + 0.60EH + 0.0WS

**WHERE:**

- \(k\) = 0.30
- \(k\) = 0.60
- \(k\) = 0.90

**Design Calculations:**

- **Q =**\( 1.00DC + 1.00EV + 1.00EH + 1.00WS \)
- **Q =**\( 1.00DC + 0.0EV + 1.00EH + 1.00WS \)
- **Q =**\( 1.00DC + 1.00EV + 0.50EH + 1.00WS \)
- **Q =**\( 1.00DC + 1.00EV + 1.50EH + 0.50WS \)
- **Q =**\( 1.00DC + 1.00EV + 1.50EH + 1.00WS \)

**KEY SHAPE:**

- **Architectural:**
  - a, b, c, d, e, f, g, h

**NOTES:**

- For sound wall and retaining wall architectural finish or texture, see details elsewhere in Project Plans.
- For details not shown and drainage notes, see Project Plans.
- Footing cover, 1'-6" minimum.
- Footing cover, 1'-0" minimum.
- #5 Cont, Tot 9
- #5 @ 16 Max
- #5 Tot 4

**DESIGN INFORMATION:**

- **Concrete:**
  - \( f'c = 3600 \text{ psi} \)
  - \( f_y = 60,000 \text{ psi} \)

- **Earth Pressure:**
  - **Vertical Earth Fill Pressure**
  - **Live Load Surcharge**
  - **Earth Inertia**

- **Other:**
  - **SOIL AND STRUCTURE COMPONENTS INERTIA**
  - **Wind Load on Sound Wall and Barrier**
  - **Seismic Earth Pressure**
  - **Soil Inertia ignored for stem design**

**REFERENCES:**

- AASHTO LRFD Bridge Design Specifications, 4th edition with California Amendments
- Mononabe-Okabe Method
- Soil Inertia ignored for stem design

**DRAWING INSTRUCTIONS:**

- For sound wall and retaining wall architectural finish or texture, see details elsewhere in Project Plans.
- For details not shown and drainage notes, see Project Plans.
- Footing cover, 1'-6" minimum.
- For sound wall reinforcement, see "SOUND WALL - DETAIL A" sheet.
- Soils: 0° 34' 120 psf
- Reinforced Concrete: \( f_y = 3500 \text{ psi} \)

**REMARKS:**

- The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.

**APPENDIX:**

- The Registered Civil Engineer for the project is responsible for the selection and proper application of the component design and any modifications shown.

**CONSTRUCTION:**

- **Architectural Finish or Architectural Texture**
- **Soil and Structure Components Inertia**
- **Wind Load on Sound Wall and Barrier**

**NOTES:**

1. For sound wall and retaining wall architectural finish or texture, see details elsewhere in Project Plans.
2. For details not shown and drainage notes, see Project Plans.
3. Footing cover, 1'-0" minimum.
4. For sound wall reinforcement, see "SOUND WALL - MASONRY BLOCK ON RETAINING WALL" sheet.