# User Guide to Bridge Standard Detail Sheets Section 12 – Earth Retaining Systems

# Vertical Ground Anchor Details No. 1 & 2

## XS Sheet Numbers:

xs12-030-1 and xs12-030-2

# **Description of Component**

XS12-030-1 sheet provides details for vertical ground anchor using 270 ksi low relaxation steel strands tendon. XS12-030-2 sheet provides details for vertical ground anchor using 150 ksi high strength bar tendon. Designer should include both sheets into a project plan set.

# **Standard Drawing Features**

The sheets include details of corrosion protection of a ground anchor strand, sequence of anchor grouting, and maximum stress allowed in anchor testing. Sheets allow user to modify unbonded length based on project foundation report.

## **Design/General Notes**

The design is in conformance with AASHTO Bridge Design Specifications 8<sup>th</sup> edition with California Amendments. The maximum test load is the Factored Test Load (FTL) that is allowed to be applied to the anchor.

## Additional Drawings Needed to Complete PS&E

The sheets must be used with other contract plans that includes layout of the ground anchors and associated FTL.

## **Contract Specifications**

Standard Specifications and Standard Special Provisions 46 regarding ground anchors are applicable.

Restrictions on Use of Standard Drawings None.

Special Considerations None.