Settlement Platforms

Many projects that include construction of new embankments and surcharge embankments will require minimum settlement periods. Check the Special Provisions (SP) for the specified settlement periods. Review the Geotechnical Design Report (GDR) or Final Foundation Report (FFR) for foundation recommendations, additional settlement information, and to identify a contact person at Geotechnical Services.

Typically, the anticipated total settlement will be no more than a couple of inches and may be verified by the installation and use of temporary survey hubs. Make sure the Contractor protects the hubs during the period of monitoring. Common settlement periods are either 30 or 60 days, but special cases may require longer time periods.

Occasionally the anticipated total embankment settlement may exceed several inches, and in some instances may be more than one foot. In such cases, the plans and special provisions should include requirements for the installation and monitoring of settlement platforms. These requirements are site specific and custom developed for each contract. In addition to the settlement platforms, limits for maximum rate of fill placement, surcharge heights, wick drains, piezometers, and slope inclinometers may also be specified in these cases. After the contract is awarded, notify Geotechnical Services to begin coordination of the settlement platform construction and monitoring.

Review the *Settlement Periods and Surcharges* section of the Standard Specifications\(^1\). Review the special provisions and plans for each contract. In some cases, the contract may require the Contractor to install the settlement platforms and to do the monitoring. In other cases, the contract may require the Contractor to allow time and provide access so that Geotechnical Services can install the platforms and do the monitoring. In this case, careful coordination is necessary in order to avoid delays.

Information on the method of installation and use of embankment settlement devices can be found in *California Test Methods (CTM)*, California Test 112. Ensure that the Contractor does not disturb the platforms during the monitoring period. If the platform is damaged, it must be repaired or replaced in a timely manner.

Discuss the results of the settlement monitoring on a regular basis with Geotechnical Services. Obtain recommendations from Geotechnical Services on the progress of settlement and notification of when the settlement is complete. The Engineer may order an increase or decrease of any estimated settlement period. This may increase or decrease the number of working days.

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\(^1\) 2010 SS, Section 19-6.03D, *Settlement Periods and Surcharges*, or SS 2006, Section 19-6.025, *Settlement Period*.
allowed for the completion of work if the settlement period is considered to be the current controlling operation. Typically, the specification for increasing or decreasing the duration of the required settlement period is written in the *Earthwork* section of the Special Provisions. Neither the Contractor nor Caltrans will be entitled to any compensation other than an adjustment of contract time due to increases or decreases in the settlement periods.