1. Settlement Plate Monitoring (revised 2-2-2022)

Description. This work consists of furnishing all materials, equipment, and labor necessary for monitoring foundation settlement at Bents 1 and 4 in accordance with the plans or as directed by the Project Manager.

Materials and Equipment:

Provide four steel plates, 0.25 inch in thickness and 2.3 feet square.

Provide 0.75 inch Schedule 40 black steel riser pipe, cut and threaded into 5 foot sections.

Polyvinyl Chloride (PVC) pipe with sufficient inside diameter to encase the riser pipe while allowing free movement of the riser pipe.

Construction and Monitoring.

Connect the bottom pieces of steel riser pipes to the steel plates by welding or other mechanical means, and place one each on the ground surface approximately 30 feet left and right of project centerline at the locations of Bent 1 and Bent 4.

Obtain the elevation of the top of the steel plates by survey.

Encase the riser pipes with a section of PVC to prevent down drag on the pipe.

Begin embankment placement and raise the height of the riser pipe and PVC pipe in increments as the embankment is raised. Record each length of pipe added to the steel plates.

At the top of the embankment, determine the elevation of the top of the riser pipe by survey.

Monitor the embankment settlement by performing elevation surveys on the top of the riser pipe. Add riser pipe due to settlement as necessary for continued monitoring.

Measure the settlement a minimum of once daily (excluding weekends) for a period of 45 days.

Submit the results of the survey Project Manager.

Method of Measurement and Basis of Payment:

Settlement-Plate Monitoring is measured and paid for as Lump Sum.

Payment for Settlement-Plate Monitoring is full compensation for all labor, tools, equipment and other incidentals necessary to complete the work in accordance with this provision and as directed by the Project Manager.