

Agness Road – Bradford Wall

Construction Update as of September 21, 2013

During the first three weeks of September the remaining sections of the central wall below the existing H beam “waler” were constructed, the soil nail anchors on the completed wall sections were “locked-off” to their initial loads, and the waler was removed. The lock-offs and the removal of the waler were critical milestones for the project.

The H-beam waler at the top of the existing timber wall has prevented the existing timber wall from failing. There are steel tendons which attach the waler to an H beam deadman buried in the roadway embankment. To remove the waler, it was first necessary to construct the new concrete wall in front of the existing timber wall. Then, the soil nail anchors were attached to the wall at an initial loading so there would be adequate pressure placed on the timber wall to keep it from failing when the waler was removed. Each of the soil nail anchors was loaded to 10,000 lbs. by jacking and securing the anchor with a nut tightened down against a bearing plate. After the loads were applied, grout was pumped into the 2 IN plastic pipe containing the anchor rod within a 5 FT zone behind the face of the timber wall to protect the steel anchor rod from corrosion.

When the waler nuts were removed, the load was transferred to the new concrete wall and soil anchors. At the large bulge in the wall, after a portion of the waler had been cut through, the remainder of the waler buckled as the load was transferred. There was no noticeable movement in the existing timber wall after the waler was completely removed.

After the waler was removed, the contractor began placing reinforcing steel in the remaining section of the wall above the waler.