

Sellwood Bridge Replacement: Landslide Mitigation

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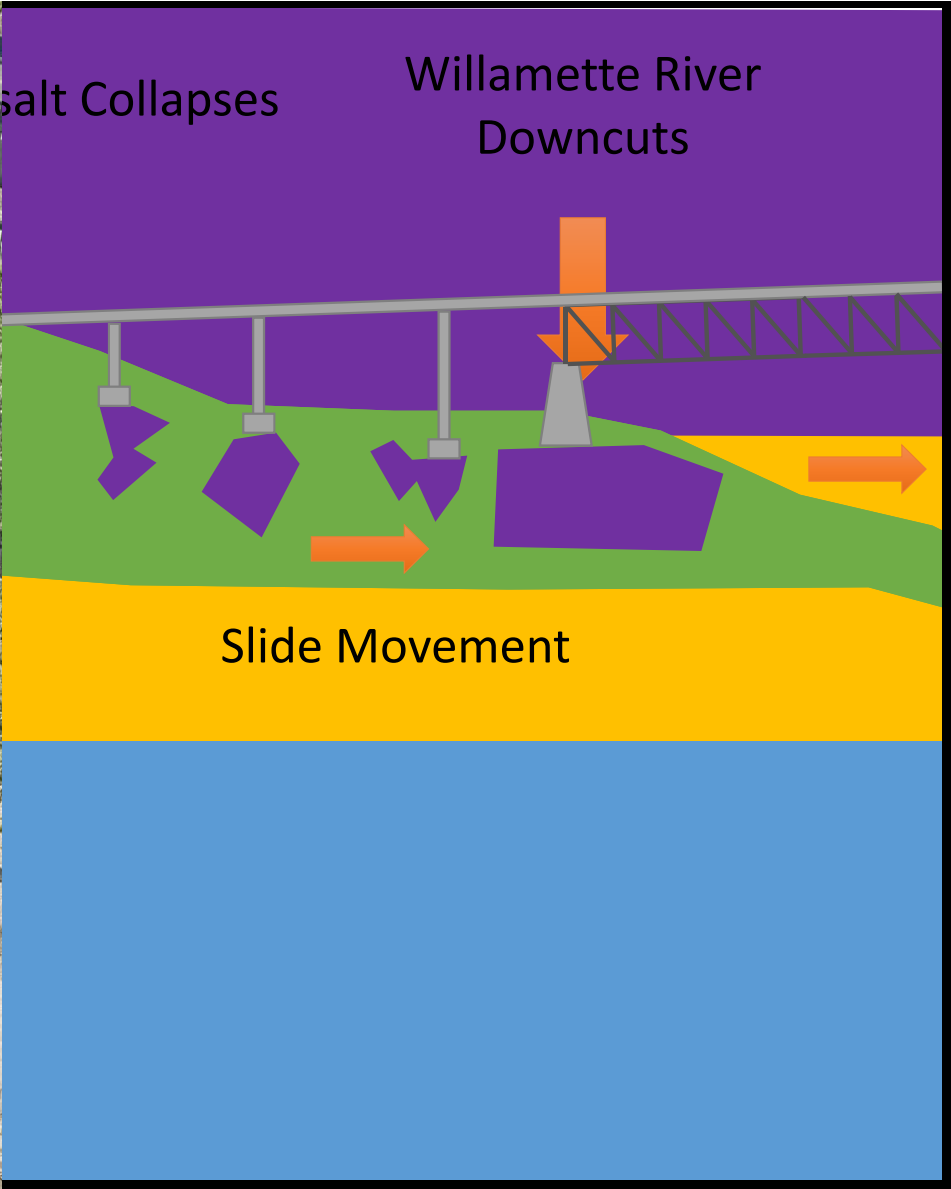




What does
3+ feet of
displacement
do to a bridge?

New Sellwood Bridge





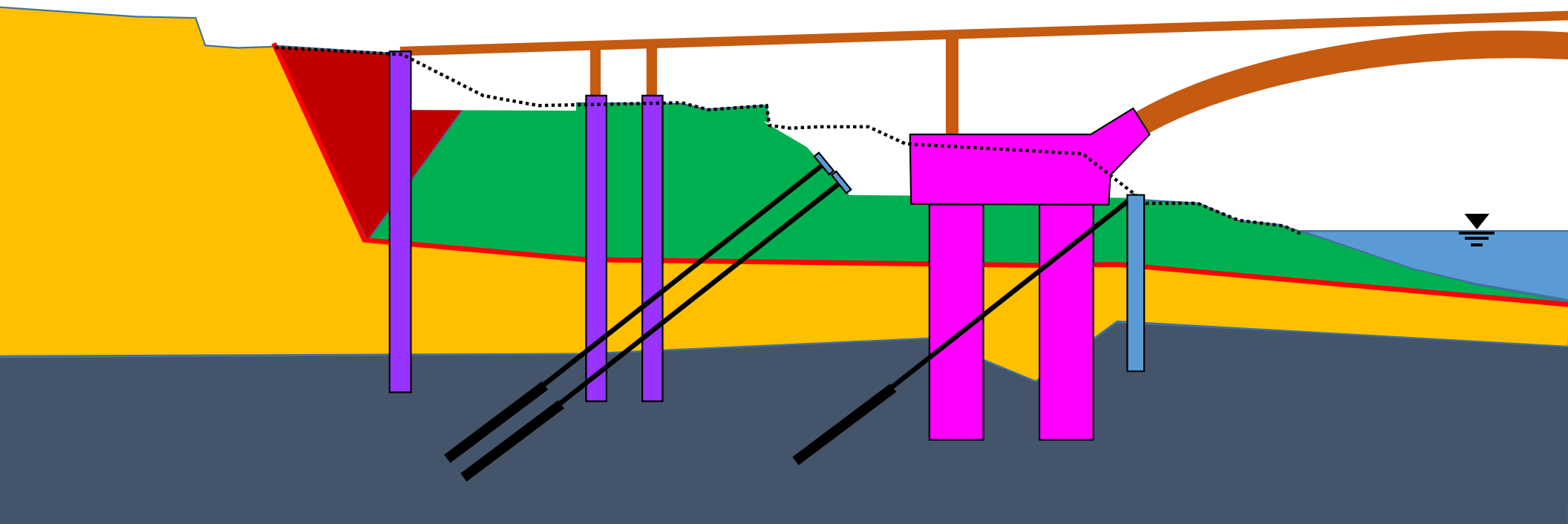
Salt Collapses

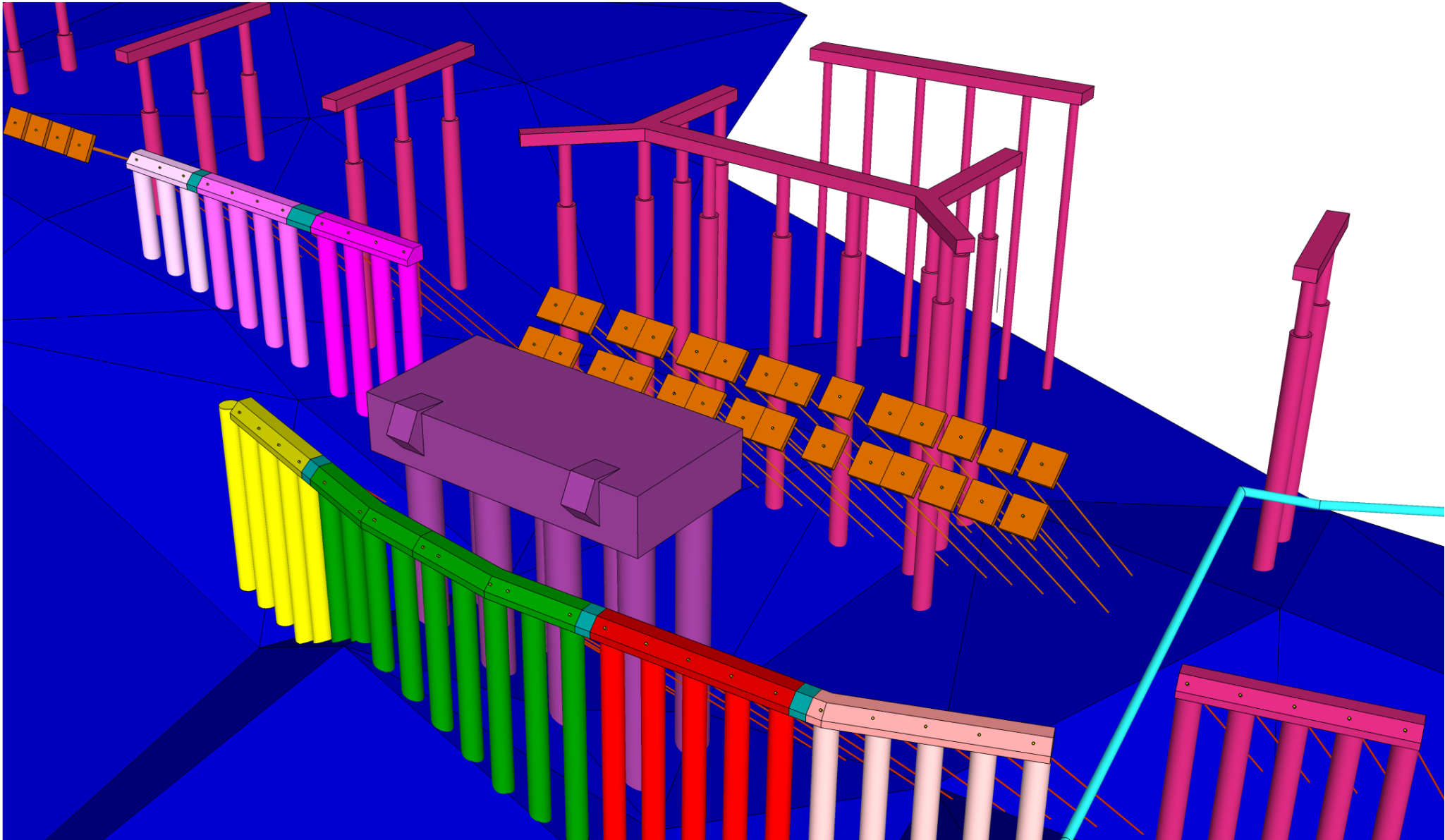
Willamette River
Downcuts

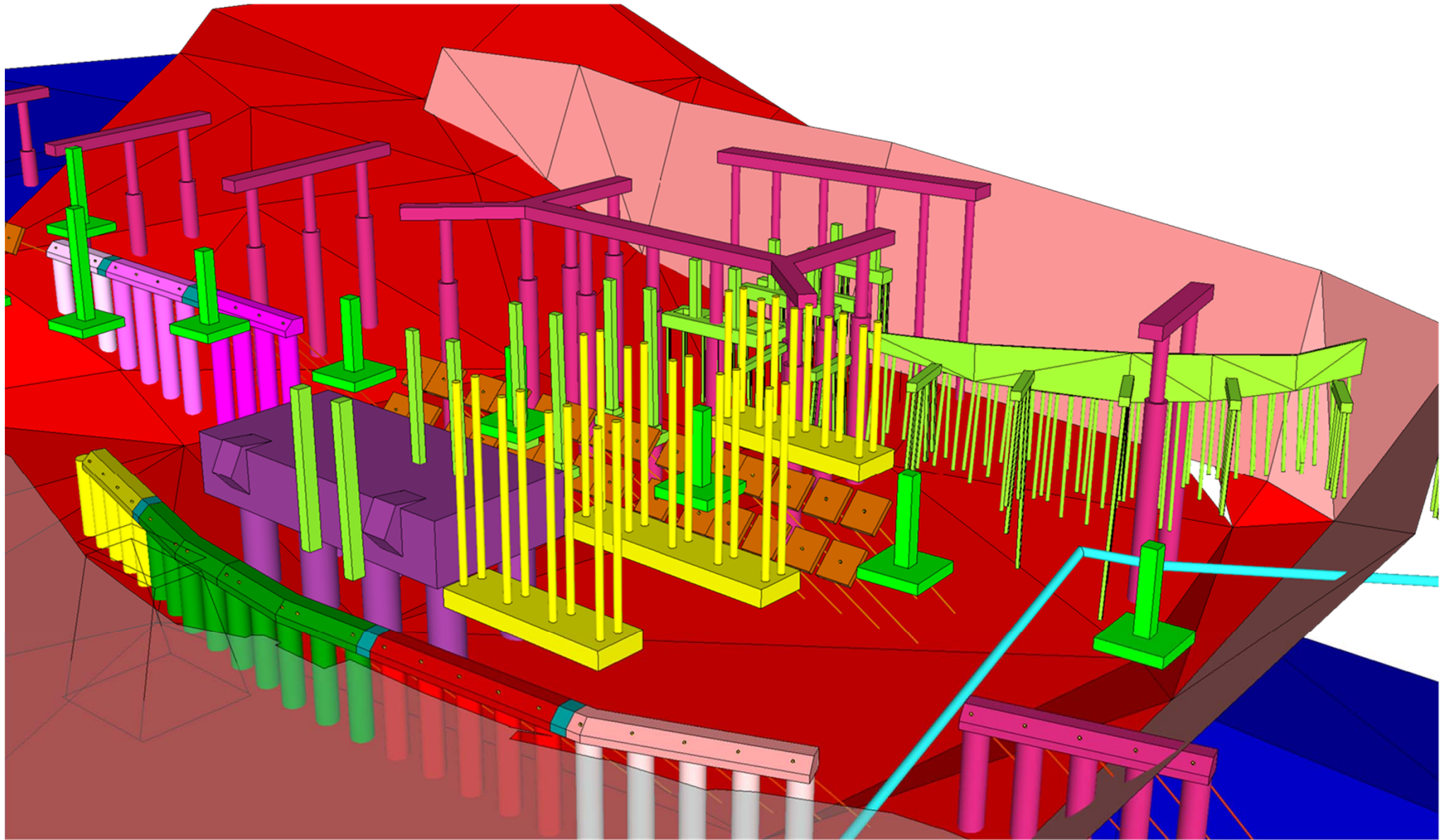
Loss of
Lateral
Support

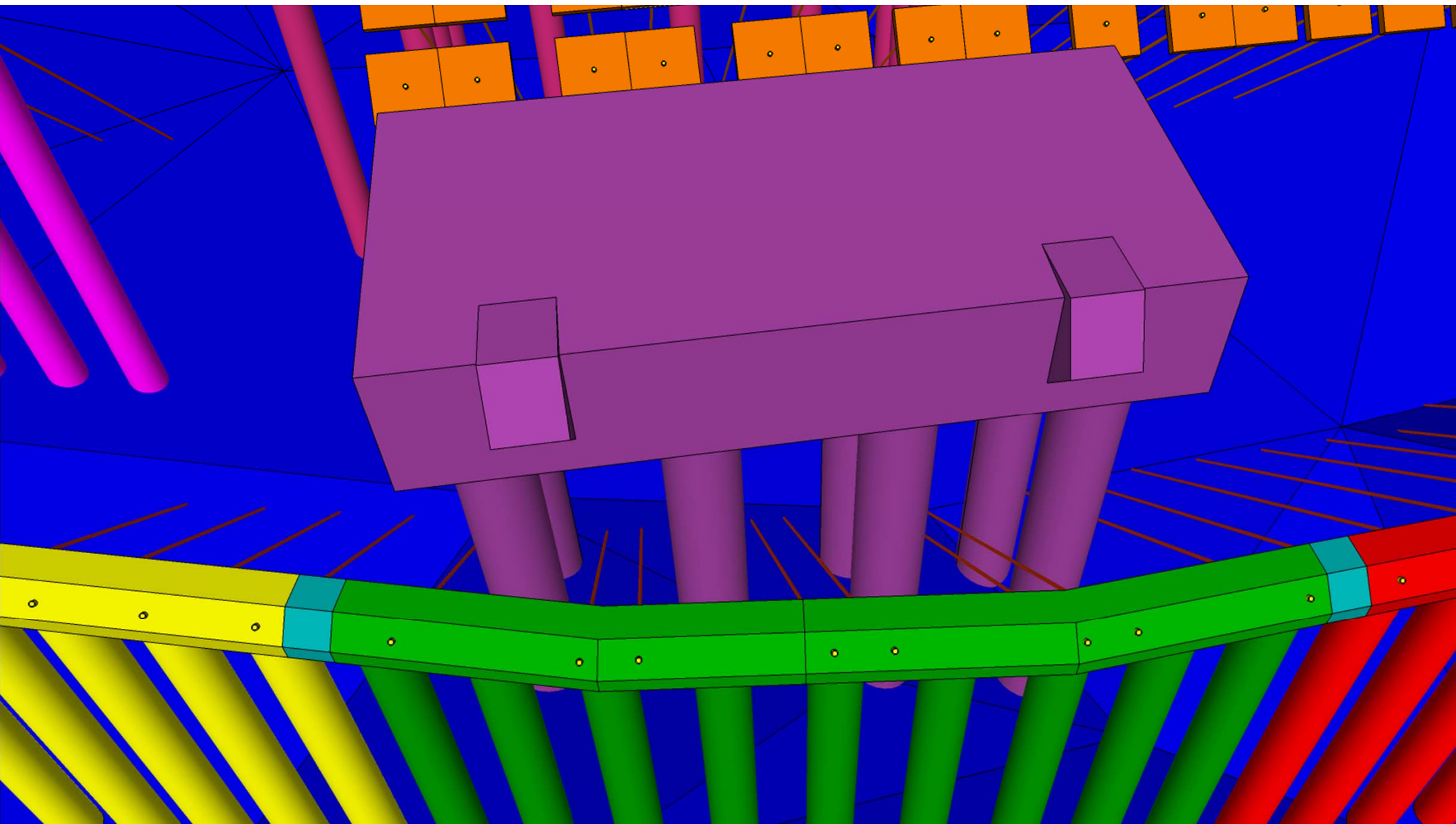
Slide Movement

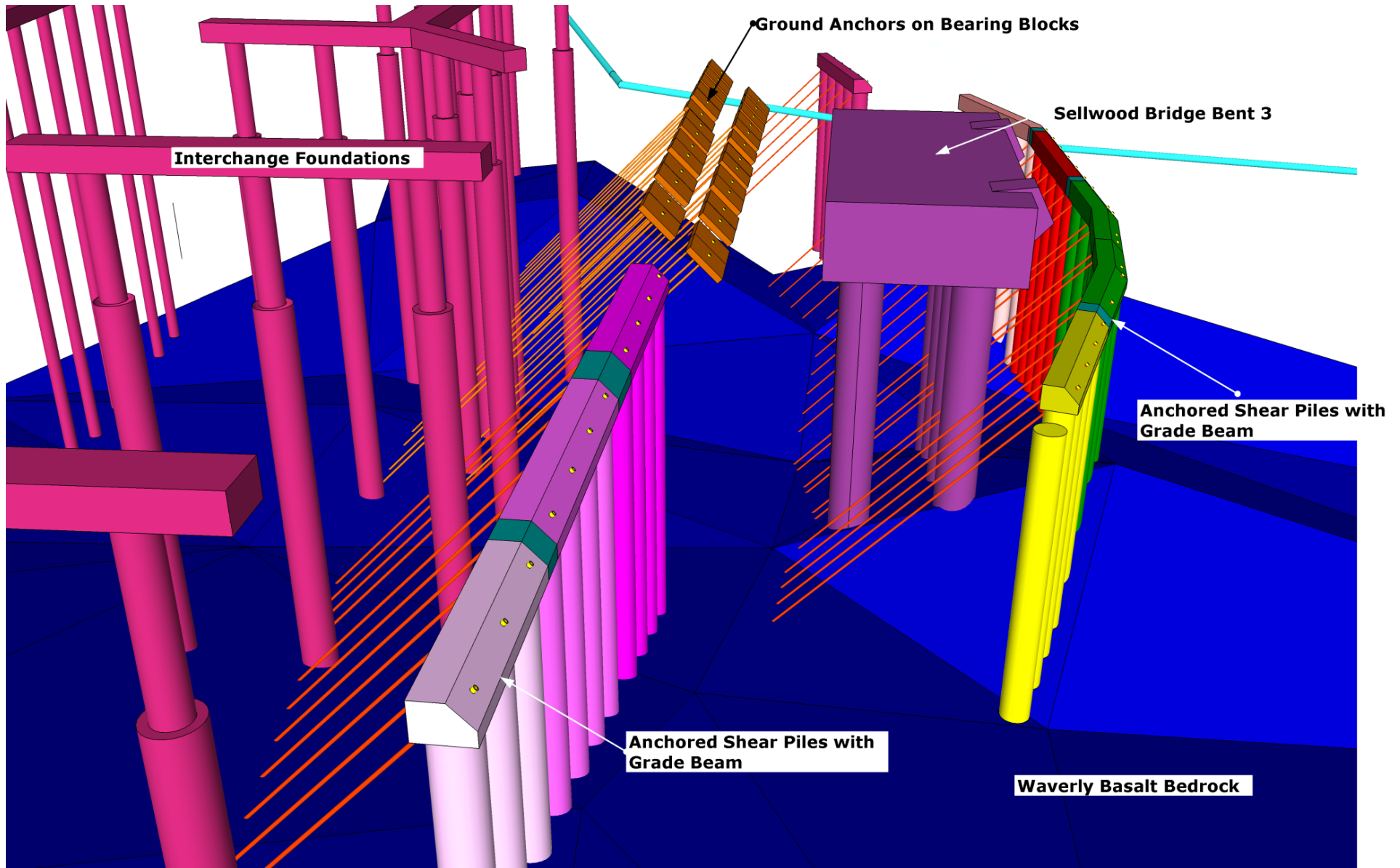
Construction Sequence

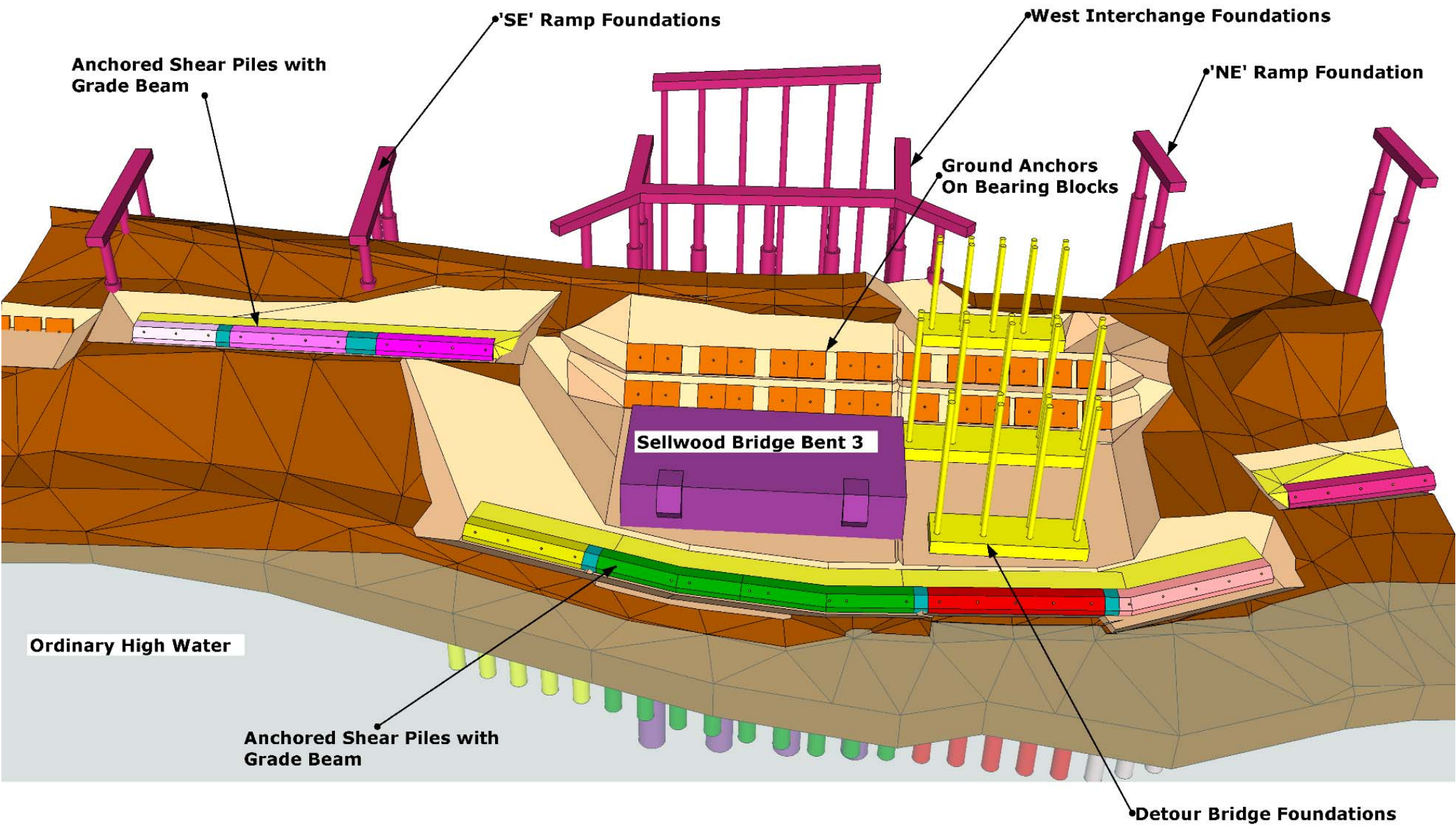












Construction



Drilling



Installing







Drilling



Preparing



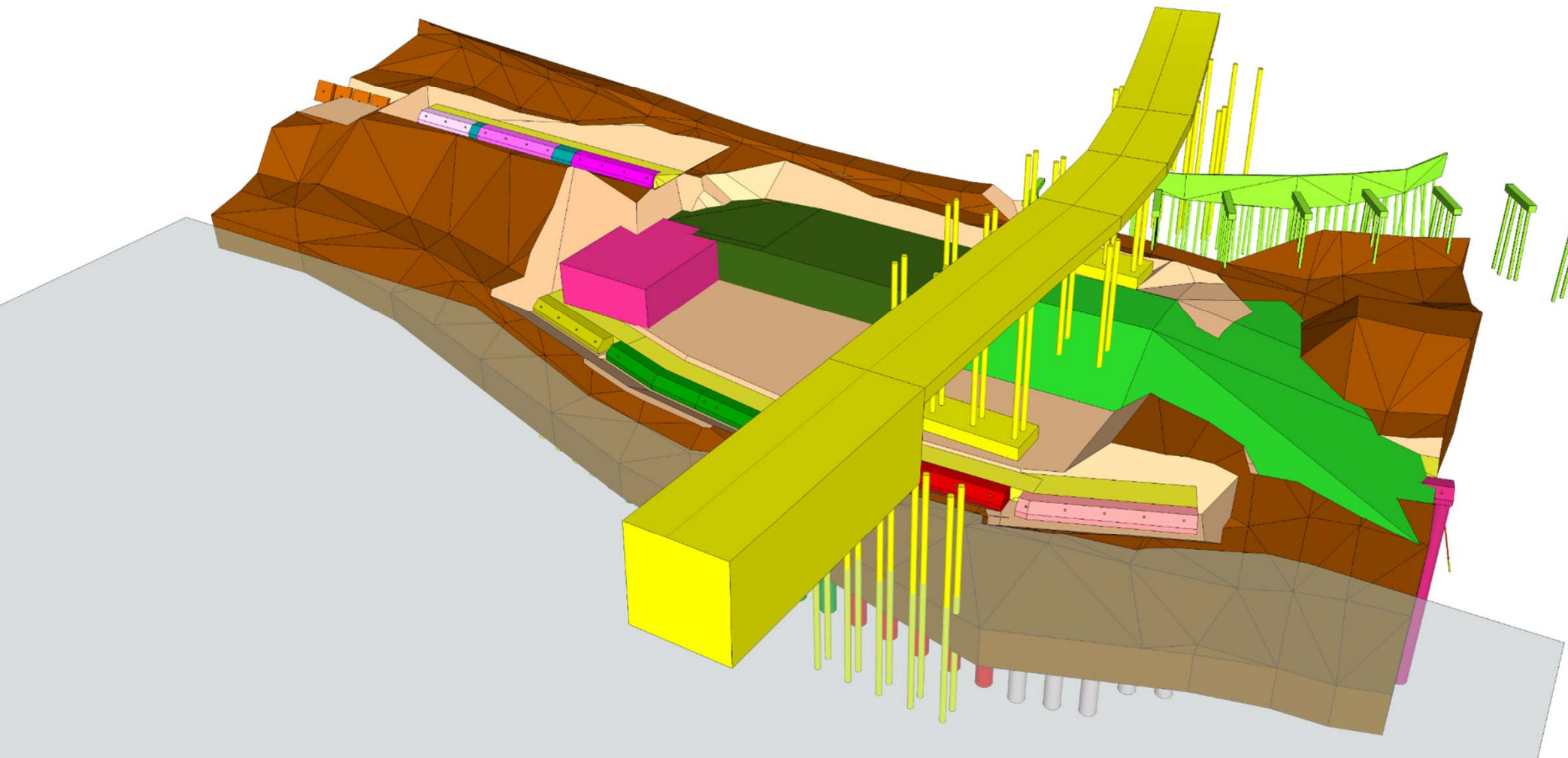
Stressing



Protecting

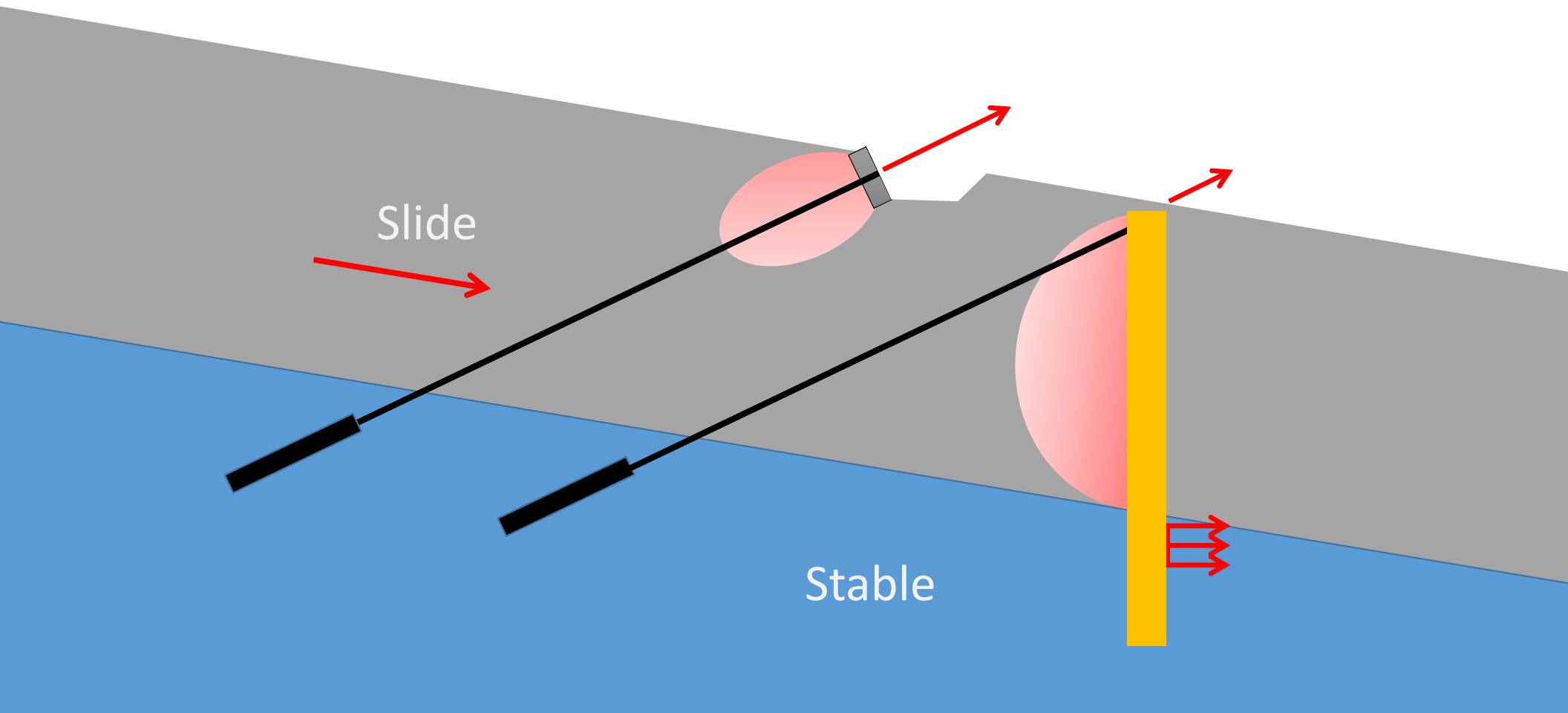


Date Range: Mid July - Mid Oct 2012
Existing Bridge Demolition -
Landslide Stabilization and Work Bridge

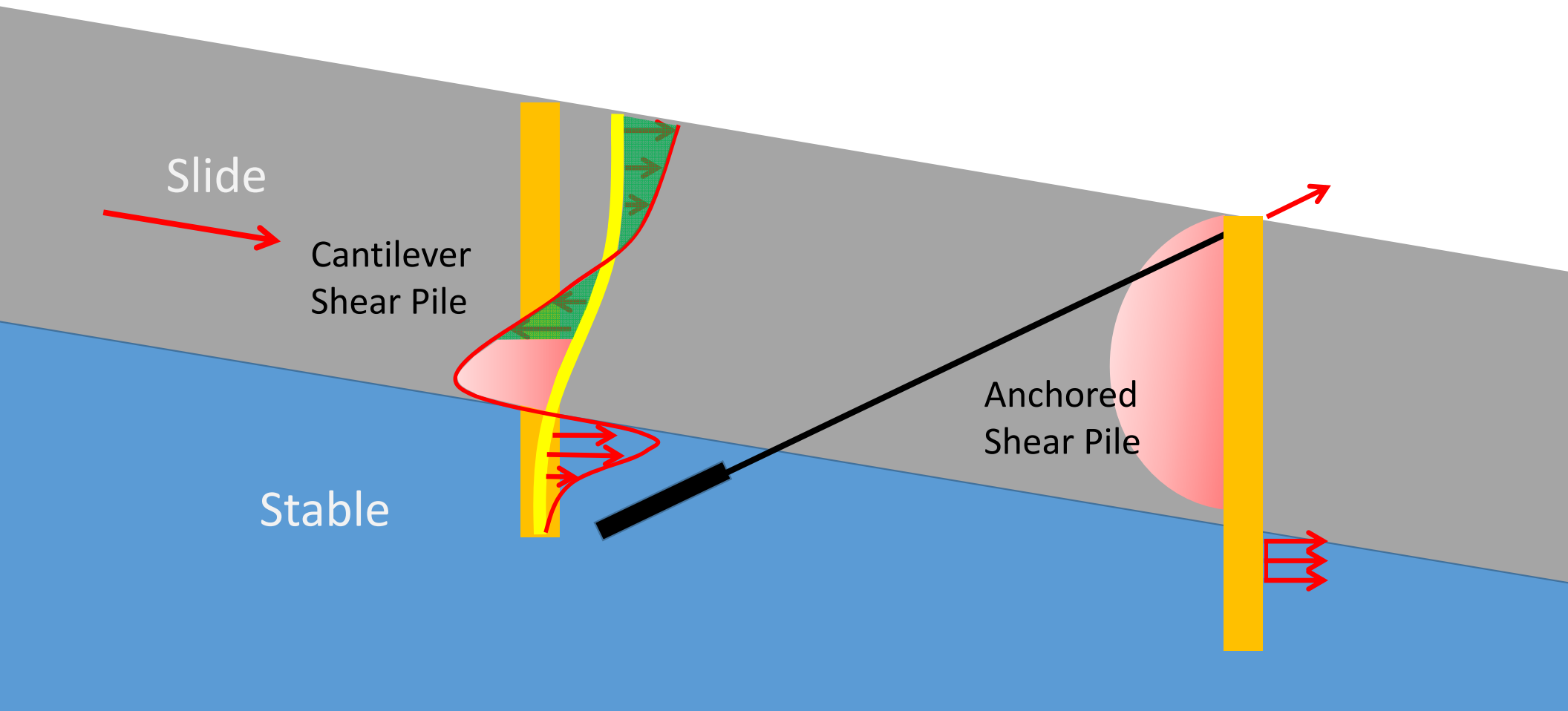




Anchored Shear Pile – Load Transfer



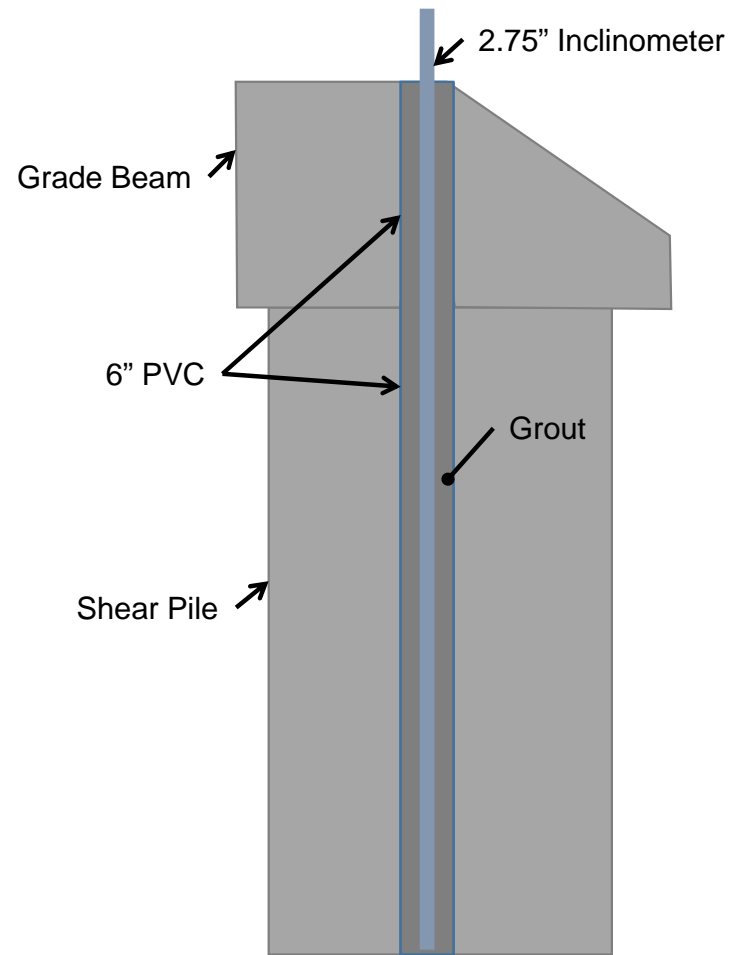
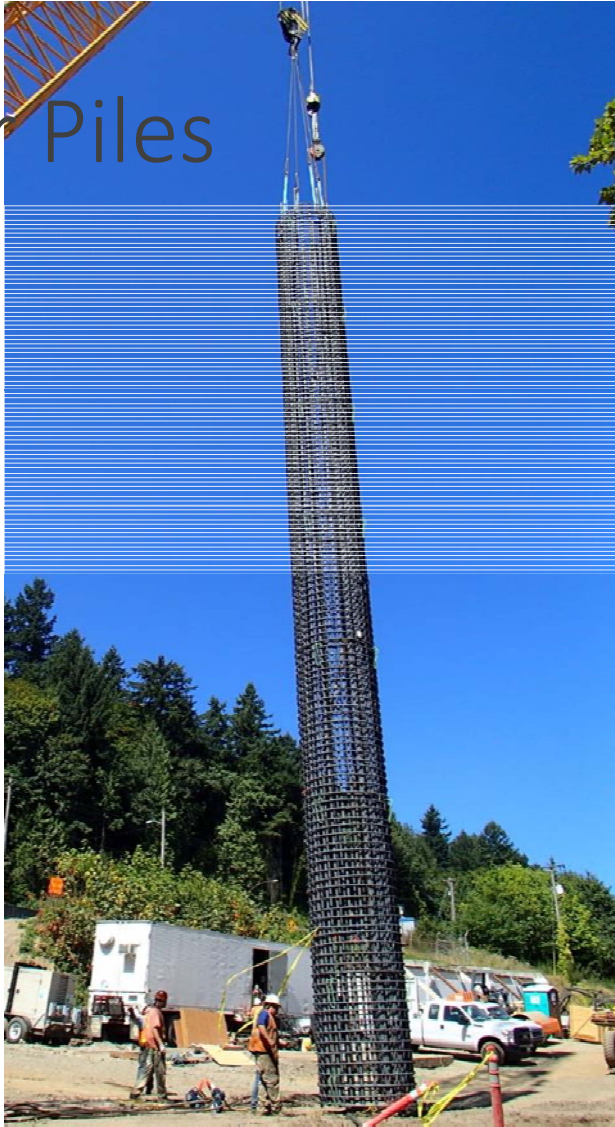
Anchored Shear Pile – Load Transfer



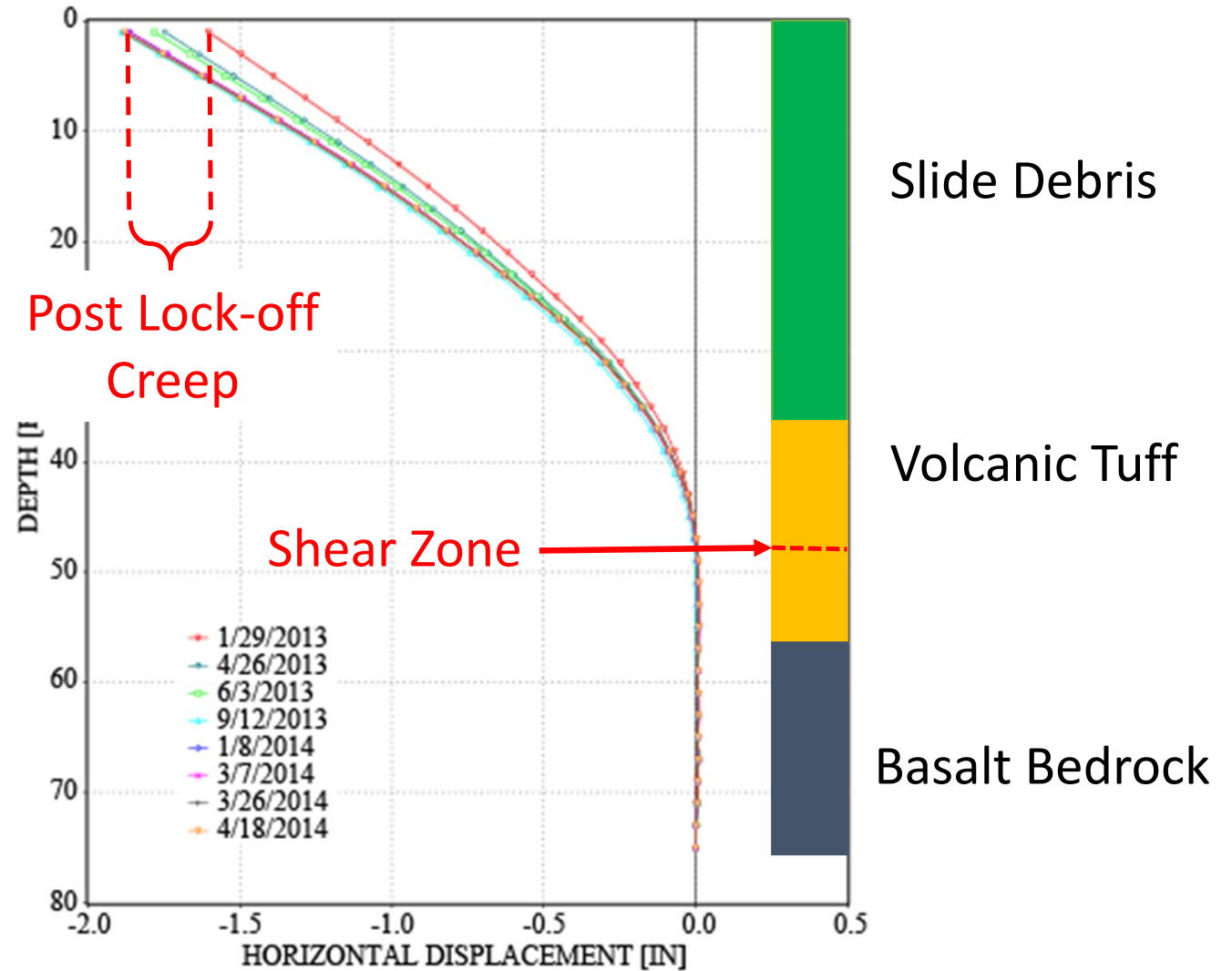
Observational Approach

How do we verify performance?

Shear Piles

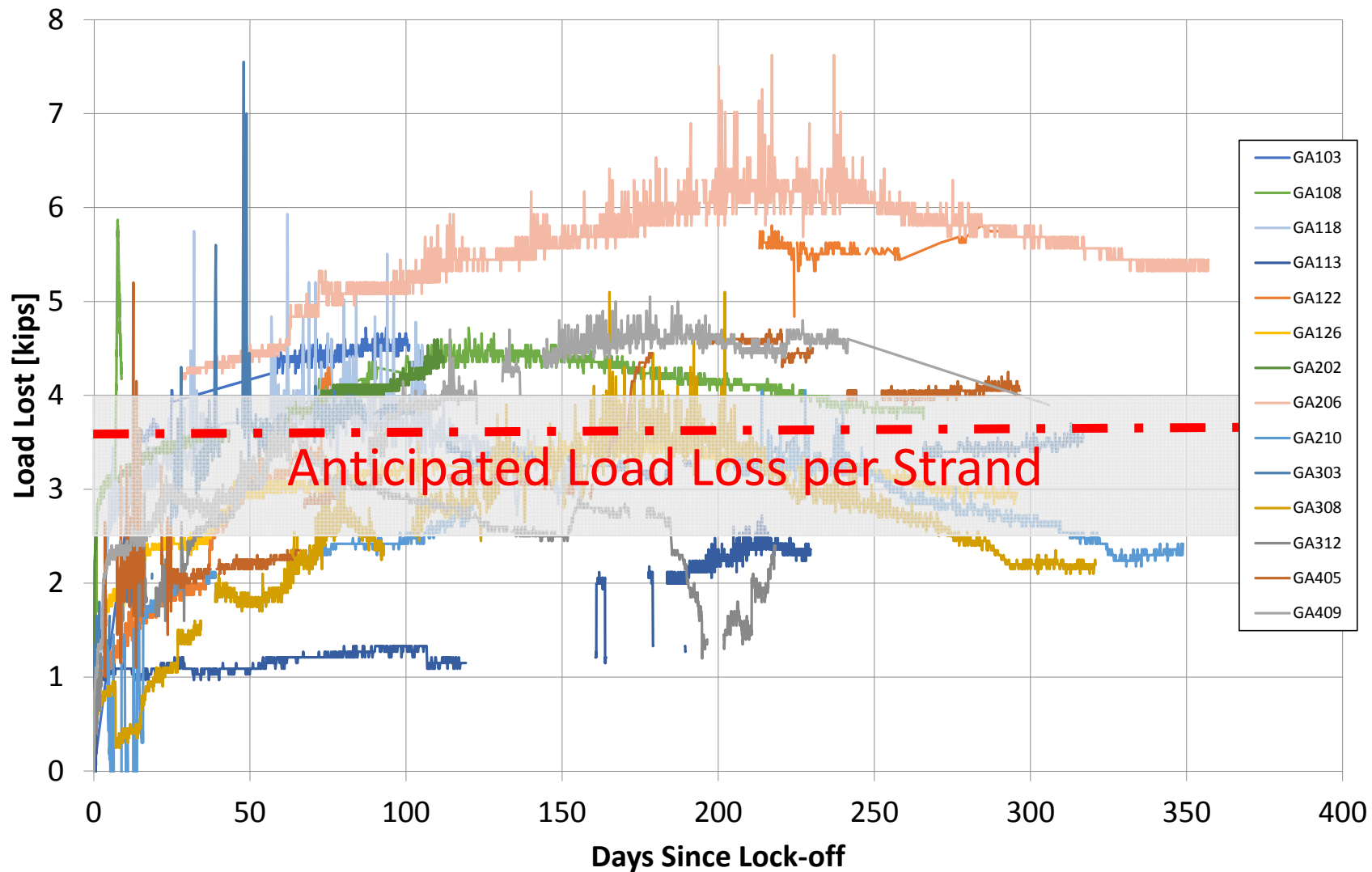


Inclinometer Data





Load Loss Since Lock-off (60% GUTS) per Strand



Contingency Anchors and Re-stressing

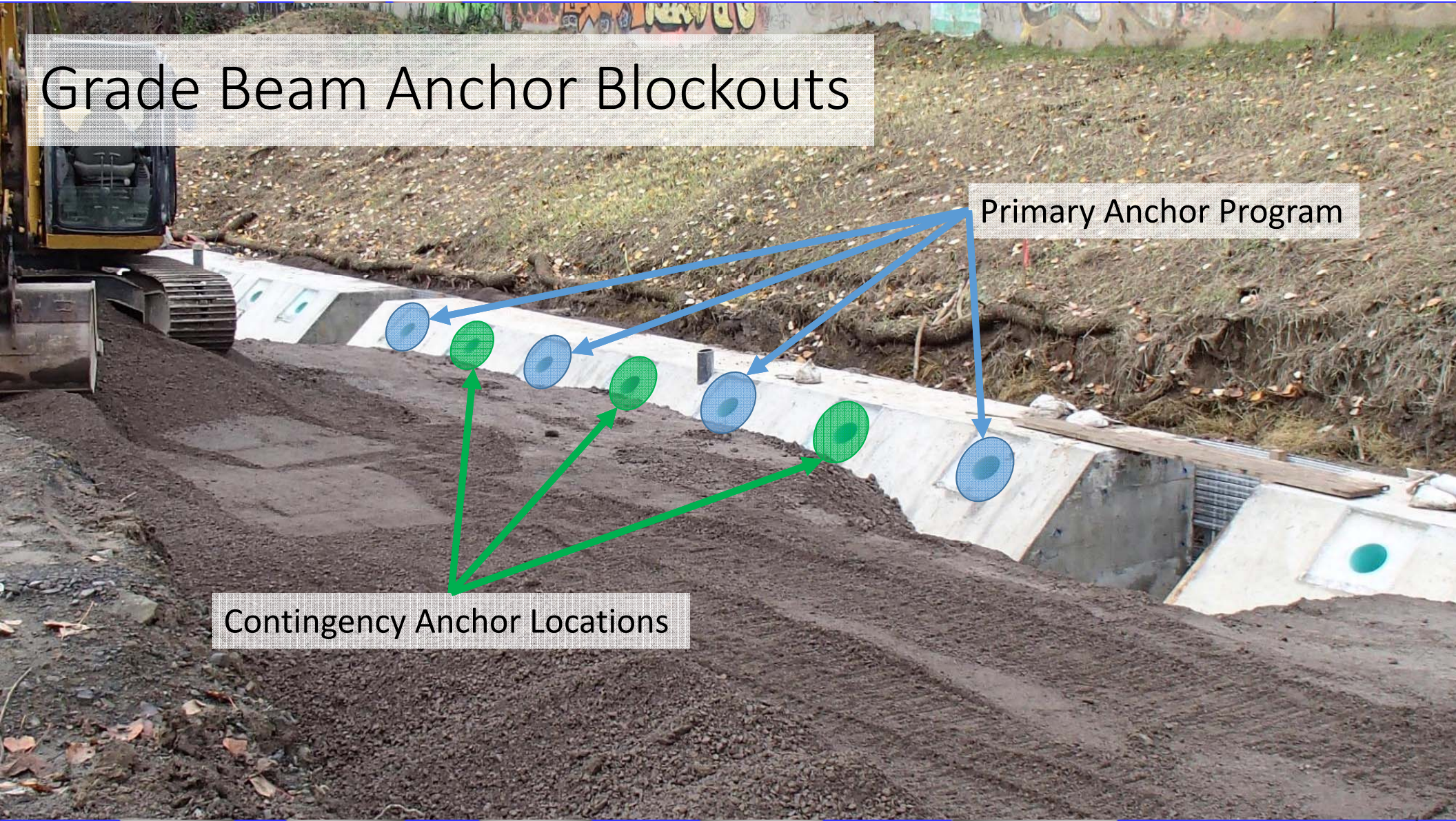
What do we do if our interpretation changes?

How do we respond to changes during construction?

Grade Beam Anchor Blockouts

Primary Anchor Program

Contingency Anchor Locations















Questions?

