Structural Bulletin

NCDOT Construction Unit

Website email

Current Issues: Shoring for the Maintenance of Traffic

We continue to have problems with violations of our requirements for Shoring for the Maintenance of Traffic. The Special Provision states “Temporary shoring is required to maintain traffic when a 2:1 (H:V) slope from the top of an embankment or bottom of an excavation will intersect the existing ground line less than 5 ft from the edge of pavement of an open travelway.”

The above diagrams are shown in the attachment at the end of the bulletin and should be used as reference. The contractor should never be allowed to excavate an existing slope which is steeper than a 2:1 adjacent to the travel lane without considering whether they will violate this provision. The travel lane can be -L-, a -Y- line, or even a driveway. If the road has public traffic on it we are responsible for the safety of those using it. This situation is common on bridge replacement projects where the existing slope at the end of the wing may be very steep. If you are in doubt, make sure to call it to the attention of your supervisor before allowing excavation to begin.

As Built Plans

Statewide I believe we have improved on getting acceptance reports to the proper persons when structures are complete. One area in which we still need to improve is making sure the As-Built plans are transmitted to SMU for their inspection and archival use. Please remember to 1) upload a copy of Construction Plans (RFC) to SharePoint before sending out Deck and Rail Acceptance forms, and 2) remember to upload As-Built plans to SharePoint before sending in the final acceptance form. This will insure that SMU is able to comply with the inspection requirements set by FHWA. Also remember to set the status of all acceptance reports to “Accepted” after they are completed. SMU cannot view any Pending reports. Last, As-Built plans are also required for structure rehabilitation. They should show correct quantities and locations for all repairs performed.
Special Provision Questions: 

Question: 
What are appropriate percentages to pay for partially completed cast in place decks?

Answer: 
There are two situations to consider: decks with SIP decking and those with precast deck panels. Here is the appropriate breakdown for each.

a. Metal decking
   i. 5% after decking installed
   ii. 5% after overhang
   iii. 30% after rebar tied
   iv. Balance after deck cast
b. P.C. Deck Panels
   i. 20% after panels installed
   ii. 5% after overhang installed
   iii. 15% after rebar tied
   iv. Balance after deck cast

So at the point a contractor had installed the precast panels and overhangs on a 10,000 sf deck, we should pay for 25% of the work, or 2,500 sf of the item.
GROUND STEEPER THAN 2:1

WITH THE EXISTING EMBANKMENT STEEPER THAN 2H:1V, DO NOT EXCAVATE WITHOUT SHORING IN PLACE.

GROUND 2:1 OR FLATTER

WITH THE EXISTING EMBANKMENT AT 2H:1V OR FLATTER, DO NOT EXCAVATE STEEPER THAN 2H:1V WITHOUT SHORING IN PLACE.