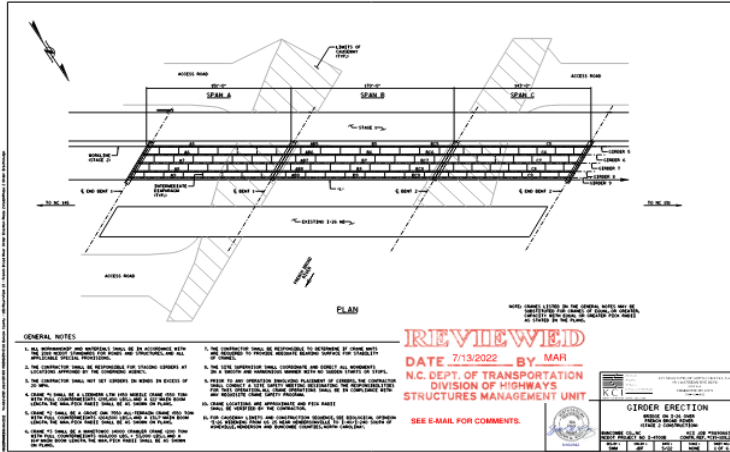


STRUCTURE BULLETIN

NCDOT Construction Unit

[Website](#) [email](#)

Current Issues: Structure Submittals



The SMU Working Drawings group has a very high volume of work and has shortened contractual review windows on many design build projects. To ensure we use their time wisely, we need to only send them items to review that are truly necessary. A list of required submittals to be reviewed by SMU can be found in the Contract. Some items that do not usually need to be reviewed by them are:

- Most bridge demo plans
- Girder Erection plans that aren't required by contract
- Crane Safety – Certified operators, Riggers, Certs....
- Cast In Place Concrete repair procedures
- Bridge Rehab Submittals (materials, qualifications, procedures)
- Materials on the Approved Products List

Resident Engineers should first review these submittals and seek assistance from their Area Construction Engineer. If there are still questions, or if it is a special or complicated case, SMU is happy to help review any submittal. If you are in doubt, give James Bolden a call before you send the submittal. Send submittals to SMU-wdr@ncdot.gov and do not CC James, or any other personnel in the SMU Working Drawing group as this creates duplicate copies of the email.



1. Current Issues: Structure Submittals
2. Pinch Nailing
3. Spec Question: Pile Splicing

Pinch Nailing:



We have all seen where the contractor drills a hole in the concrete and drives a nail and tie wire or two nails into it to create an anchor. What's the problem? It's just a small hole. This is not good practice, especially in decks and prestressed members. Even if the contractor remembers to go back and try to seal the hole, you have left a fast pathway for chlorides to get deeper into the deck. Chloride penetration is one of the main culprits responsible for reinforced concrete deterioration, so even though it's just a little hole it could result in a pothole or spall over time. Talk to your Area engineer for suggestions of other ways to secure forms.



Videos:

Inspection training videos can be found on the [Construction Unit YouTube playlist](#).

Training:

The 2023 Construction Inspector Training classes are complete. Thank you all for your participation. Videos of the classes are currently being edited and will be available on YouTube soon. This [Link](#) will take authorized SharePoint users to the location of the PDF versions of the presentations. We are currently working on training for 2024 which will focus on Bridge Rehab.

Spec Question: Can I straighten a pile up in the splice?

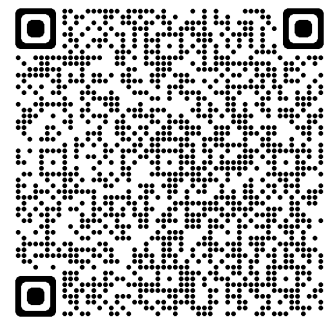
Answer: Don't. Just don't. This is not an acceptable fix for a pile that is out of tolerance. First, this kink creates a stress point in the pile. For example, you can take a tube, such as a straw or paper towel roller, and they will support a surprising amount of weight along their axis. But once they bend, they will collapse. Also think of trying to drive a bent nail. Second, you can not match up the sections within ASTM tolerances. Pulling the pile with Come-alongs is also not allowed. Consult with your Engineer in these situations. It may be necessary to remove and replace the pile, drive another pile, or modify the cap to account for the misalignment.

Structure Bulletins

are archived on the [Construction Unit](#) website under [Construction Resources](#).

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If you have a topic you would like to see in a future edition of the Structure Bulletin, please email us at gearwood@ncdot.gov