

# MATERIALS & TESTS BULLETIN

NCDOT



## WELDING CERTIFICATIONS

### *Manufactured Products - Metals Group*

If a welder is working on NCDOT project, they must be certified by the NCDOT Field Welder Program. The welder must demonstrate through testing in the presence of a NCDOT certified welding inspector (CWI) that they have the competence to perform satisfactory welds in accordance with the AWS D1.1 Structural Welding Code or AWS D1.5 Bridge Welding Code.

Training and testing are offered through the Materials & Tests Unit (Metals Section) for NCDOT Bridge Maintenance and NCDOT Equipment Shops. The training is offered for three days with a test being administered at the end. As always, the welder can test without taking part in any training. NCDOT welder certifications are good for 5 years. After 5 years, the welder must requalify through testing.

If you are interested in training/testing, or additional information, please feel free to contact Brian Bass at [cbbass@ncdot.gov](mailto:cbbass@ncdot.gov) for more information.

### WHAT'S INSIDE THIS ISSUE:

*Welding Certifications:  
Receiving Timber: What  
to look for?*

*Useful Tips: HiCAMS*

### BULLETIN SIGNUP CODE:



# RECEIVING TIMBER: WHAT TO LOOK FOR?

## Manufactured Products

The strength of wood used in our projects holds significant importance. While inspecting wood is crucial, it may not be sufficient as untreated or improperly stored wood can quickly deteriorate. Typically, NCDOT mandates Grade #1 dense wood; always refer to the Standard Specs for confirmation. Determining the lumber grade is a nuanced process that requires years of practice, but we can offer some tips to help you recognize it. Wood can be #1 grade without being dense and vice versa. This density is determined by ring growth; Dense lumber should ideally have an average of 6 annual rings per inch if measured radially. For instance, in Picture 1 to the left only the 3rd plank from the bottom can be classified as #1 dense. #1 grade is designated to wood that is notably stronger, with key features like fewer knots and fewer visible imperfections as depicted in figure 2 (bows, splits, twists, and shakes). Ensuring that it has been inspected is the most reliable method to confirm the quality of #1 dense timber. All timber when inspected is marked, this could be hammer marks or stamps from relevant inspection agencies.

An additional method to confirm testing is the presence of plug holes typically situated on the sides of the timber. See an example on Picture 3. These cores are extracted for chemical analysis, hence, when receiving timber, it's essential to check for these indicators. Note they can be hard to see so do not take this as a sole identifier. Always check the paperwork when receiving timber to ensure you got what you ordered!



Picture 1

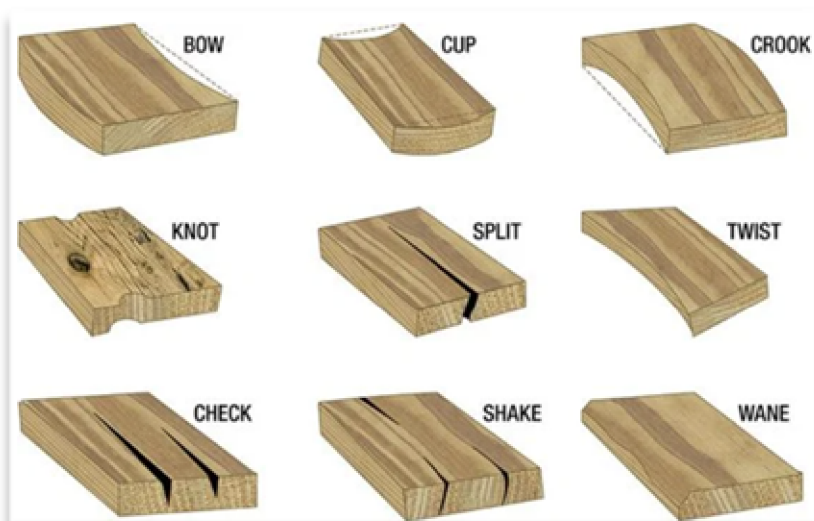


Example of hammers used to mark timber



Picture 3

M&T is actively working on the development of a Guide for Timber which should help provide some guidance in this subject. In the meantime if you have any questions please reach out to us: [rnbravo@ncdot.gov](mailto:rnbravo@ncdot.gov)



Picture 2





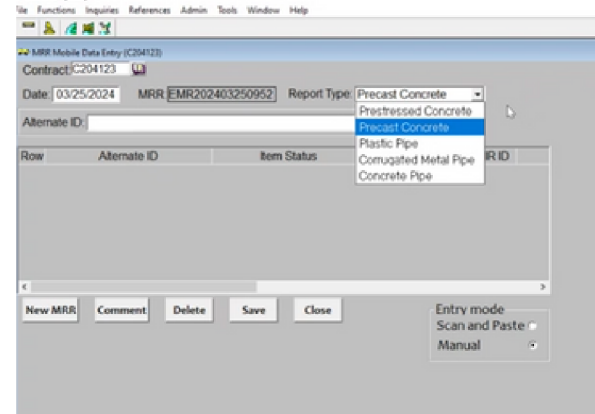
ALL PIPE IN PRESENT AND FUTURE RIGHT OF WAY NEEDS TO BE NCDOT APPROVED. THEY MUST BE TAGGED WITH THE RFID STICKER IN ORDER TO BE RECEIVED, EVEN IF IT IS TEMPORARY PIPE. IT IS IMPORTANT TO NOTE THE PRESENCE OF THE RFID TAG DOES NOT AUTOMATICALLY MEAN APPROVAL. TO CONFIRM ITS STATUS IT MUST BE CHECKED IN HICAMS OR BY ACCESSING THE APPROVED RESOURCES WEBSITE THROUGH THE FOLLOWING LINK: [CLICK HERE](#)



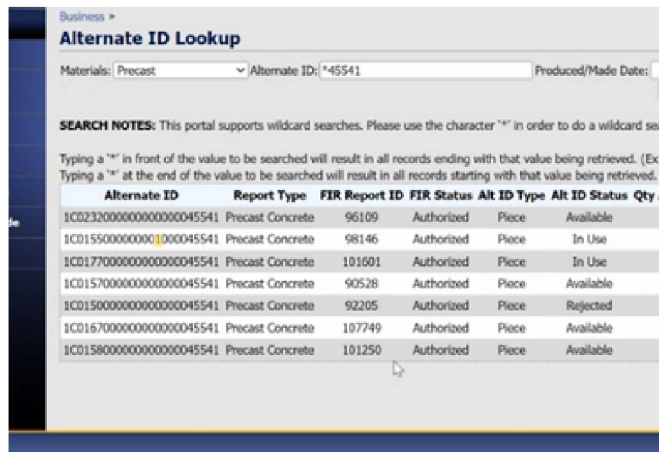
## USEFUL TIPS: HICAMS

### MRR Data Entry

When creating your MRR in HiCams make sure to select the proper material under the Report Type dropdown list *before* validating your Alternate ID. This step is crucial to avoid any errors or discrepancies in the system. Taking the time to choose the right material will help streamline the process and ensure that the information provided aligns with the required specifications.



Remember, attention to detail is key when navigating through the system and helps maintain accuracy and efficiency in your tasks.



### Alternate ID Lookup

When searching for an alternate ID using wildcards, make sure to choose the correct ID by verifying the prefix and middle number. Typically, middle numbers consist of all zeros; however, HiCams also generates number sequences with a "1" in the middle of the alternate ID. It's crucial to double-check!

## CONTACT US

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IF YOU HAVE A TOPIC YOU WOULD LIKE TO SEE IN A FUTURE ISSUE, PLEASE EMAIL US AT [RNBRAVO@NCDOT.GOV](mailto:RNBRAVO@NCDOT.GOV)