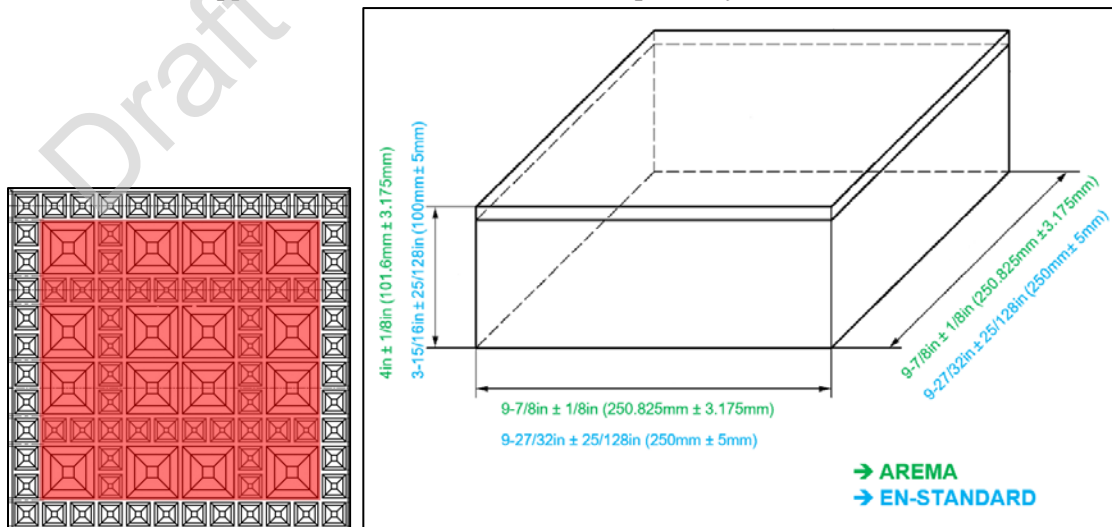


## American Railway Engineering and Maintenance of Way Association Letter Ballot

- 1. Committee and Subcommittee:** Committee 30 – Subcommittee 4
- 2. Letter Ballot Number:** 30-22-22
- 3. Assignment:** D4-3-15: Research tie pads and ballast pads and include in Chapter 30. Ongoing assignment.
- 4. Ballot Item:** Adjustment of required sample size for sample/concrete block in UTP testing.
- 5. Rationale:** This ballot adjusts the sample size requirements in the UTP testing procedures in the manual. This is intended to bring the manual closer to the requirements used in Europe (sample size of 250x250mm) so that new tooling is not required for a difference of only 0.8mm in sample size. Current sample minimum size is 10in-1/8in (tolerance) = 9-7/8in or 250.8mm. Given testing with GBP, which is designed assuming a EN-standard sample size of 250mm +/- 5mm, the use of this new sample size should not affect test results.

The design of the GBP allows sample sizes from 245mm to 250mm to deliver same results in the bedding modulus. A sample size of 9-7/8in with 1/8in tolerance (248.65mm to 254.00mm) would therefore perfectly fit the design of the GBP and allow to work within the tolerance of the EN-standard.

For all tests where a concrete block is needed, a metal form work if required. Also tools for cutting and punching of the pad are needed. By changing the dimension to 9-7/8in, all existing tools related to the EN could be used, which leads to a reduction in logistics, costs and little room for error on the supplier side. The AREMA would fit perfectly within the EN-tolerances.



## SECTION 2.10 RESILIENT TRACK COMPONENTS

This section presents recommendations for testing of resilient, or elastic, elements for use in the railway track.

### 2.10.1 UNDER TIE PADS

#### 2.10.1.1 Static Bedding Modulus

a. Test Purpose:

Determine the bedding modulus (also referred to as vertical stiffness) of an under tie pad (UTP)

b. Test Frequency:

Initial qualification and routine testing required. Routine testing frequency shall be agreed upon between supplier and client.

c. Test Procedure/Setup:

- (1) Samples: Three (3) samples of the UTP material shall be tested for initial product qualification. Number of samples for routine testing shall be agreed upon between supplier and customer. Samples should be ~~10 in. x 10 in.~~ **9- $\frac{7}{8}$  in. x 9- $\frac{7}{8}$  in.** with  $\pm\frac{1}{8}$  in. tolerance, **aligning with the dimensions for which the GBP is designed for.** If a UTP concrete block is used, this shall be 4 in.  $\pm\frac{1}{8}$  thick made of concrete and of the same dimensions as the UTP sample cast onto it. Surface flatness, measured diagonally across the entire length of the block, shall be no more than 0.04 in. Samples shall be clean, free of oil contamination and damages.

Draft Not Yet Approved