

IOWA DEPARTMENT OF TRANSPORTATION

To Office Bridges and Structures

Date October 1, 2007

Attention All Employees

Ref No. 521.1

From Gary Novey

Office Bridges and Structures

Subject Method's Memo No. 177 (CADD note E234/M234 for surface preparation for two course decks)

The following CADD note E234/M234 has been issued for use with two course decks for new bridges.

E234

NO CURING COMPOUNDS SHALL BE USED ON THE SURFACE OF THE CONCRETE DECK (FIRST COURSE).

THE SURFACE OF THE FIRST COURSE SHALL BE INTENTIONALLY ROUGHENED (COMBED) TO A MINIMUM DEPTH OF 1/8" AND A MAXIMUM DEPTH OF 1/4". THIS ROUGHENED SURFACE SHALL BE ACCOMPLISHED ON PLASTIC CONCRETE BY USE OF A MECHANICAL DEVICE AS PRESCRIBED IN ARTICLE 2301.16 OR ON HARDENED CONCRETE BY UNIFORMLY SCARIFYING THE ENTIRE DECK AREA. THE INTENT IS TO GIVE THE CONTRACTOR THE OPTION OF ACHIEVING THE REQUIRED SURFACE ROUGHNESS ON THE PLASTIC OR HARDENED CONCRETE SO THE SECOND COURSE WILL BOND PROPERLY.

M234

NO CURING COMPOUNDS SHALL BE USED ON TOP SURFACE OF THE CONCRETE DECK (FIRST COURSE).

THE SURFACE OF THE FIRST COURSE SHALL BE INTENTIONALLY ROUGHENED (COMBED) TO A MINIMUM DEPTH OF 3 mm AND A MAXIMUM DEPTH OF 6 mm. THIS ROUGHENED SURFACE SHALL BE ACCOMPLISHED ON PLASTIC CONCRETE BY USE OF A MECHANICAL DEVICE AS PRESCRIBED IN ARTICLE 2301.16 OR ON HARDENED CONCRETE BY UNIFORMLY SCARIFYING THE ENTIRE DECK AREA. THE INTENT IS TO GIVE THE CONTRACTOR THE OPTION OF ACHIEVING THE REQUIRED SURFACE ROUGHNESS ON THE PLASTIC OR HARDENED CONCRETE SO THE SECOND COURSE WILL BOND PROPERLY.

Commentary

This note should be used with two course decks for new bridges. Curing compounds should not be allowed, so the second course will bond properly.

GAN/dgb/bj