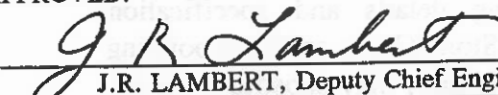


TO: SUPERSEDED BY EI 13-007 EFFECTIVE 1/9/14	ENGINEERING INSTRUCTION NEW YORK STATE DEPARTMENT OF TRANSPORTATION	
	SUBJECT: 609 CURB Subject Code: 727-1-609	
Distribution: 30 Main Office 32 Regions 34 Consultant APPROVED:  J.R. LAMBERT, Deputy Chief Engineer, Facilities Design Division	Code: <u>EI 93-008</u> Date: <u>5-12-93</u> Supersedes:	

Attached is a shelf note modifying Section 609 of the Standard Specifications of January 2, 1990. The shelf note will be inserted into proposals by the Main Office beginning with the letting of September 9, 1993 whenever 609 items including specials are included in a project.

The shelf note includes the following changes:

1. Eliminates the use of 721-02 Epoxy Polysulfide Binder as tuck point material at the bottom of granite (stone) bridge curb. 703-03 Mortar Sand is also eliminated because it was used solely with 721-02.
2. Eliminates the use of 705-20 Mortar For Stone Curbs and substitutes 705-21 Mortar For Concrete Masonry and 701-04 Concrete Repair Material as acceptable bedding and joint filling materials for stone curb. The contractor may utilize either material.
3. Eliminates the use of mortar between joints of stone curb not placed on structure that have abutting sawed joint surfaces.

HISTORICAL BACKGROUND: Contractors have requested that a substitute be found for 721-02 Epoxy Polysulfide Binder, used for tuck pointing beneath bridge curbs, because the material is not available. The purpose of the epoxy binder was to protect the bedding mortar (705-20 Mortar For Stone Curbs) from deterioration due to freeze-thaw and salts. 705-21 and 701-04 both exhibit acceptable resistance to freeze-thaw cycles and salt exposure and have been substituted for 705-20. Therefore, the use of 721-02 is no longer necessary.

The elimination of mortar joints for stone curb with sawed joint faces is consistent with current Department policy for precast curb which permits unmortared butted joints.

DESIGNER INFORMATION: Several Structure Division BDD sheets contain granite curb details that utilize epoxy mortar, made with 721-02 Epoxy Polysulfide Binder, for tuck pointing beneath the curb. These details should be modified to eliminate the raking out and tuck pointing operations. The BDD sheets affected are 80-63, 80-64B, 83-71, 72, 73, 74.

We have identified several Regional stone curb special specifications that specify epoxy mortar for tuck pointing or 705-20 for filling joints. They should be revised to reflect the changes to section 609. The specifications are listed below.

Manual	ENGINEERING INSTRUCTION	Code	EI 93-008	Date	5-12-93	Page	2 of 2
Subject: 609 CURB							

03609.0902	Bridge Approach Curb & Backfill
04609.3206-.3212	Stone Curb Bridge (Type _)
05609.0320	Remove & Replace Stone Bridge Curb-Granite
05609.16	Clean & Point Existing Stone Curb

PROJECT INFORMATION: Construction projects containing details and specification requirements for bedding of bridge curb with 705-20 Mortar For Stone Curbs and tuck pointing beneath the curb with epoxy mortar (721-02 Epoxy Polysulfide Binder) may substitute 705-21 Mortar For Concrete Masonry as the curb bedding and joint filling material in accordance with the attached Section 609 specification revisions. Bridge curb already placed in a mortar bed consisting of 705-20 Mortar For Stone Curbs and requiring tuck pointing with epoxy mortar may substitute 705-21 as the tuck pointing material. There will be no adjustments made to the unit price of curb when small quantities of 721-02 Epoxy Polysulfide Binder are eliminated due to the substitution of other materials. Small quantities is defined as two (2) liquid gallons or less. Elimination of more than 2 gallons of liquid 721-02 shall result in a credit or rebate from the Contractor. This change is to be made using the procedure in Section 104-03B.4 of the Construction Supervision Manual, substituting this EI for the EB.

Questions concerning this EI can be directed to Bruce Zeh of the Design Quality Assurance Bureau at (518) 457-4090.

MORTAR FOR CURB

Make the following changes to the Standard Specifications of January 2, 1990

Page 6-34

Under §609-2 MATERIALS, in the list of materials, *delete* the following: "Mortar Sand 703-03, Mortar for Stone Curbs 705-20, and Epoxy Polysulfide Binder 721-02"

Under §609-2 MATERIALS, in the list of materials, *add* "Concrete Repair Material 701-04 and Mortar For Concrete Masonry 705-21."

Under §609-3.01 Stone Curb (Types A, B, C, D, E and as Indicated), *delete* the title of this subsection and *replace* it with "Stone Curb (Types A, B, C, D, E and as Indicated and Precast Concrete Curb)."

Also, under §609-3.01 Stone Curb (Types A, B, C, D, E and as Indicated and Precast Concrete Curb), *delete* "stone" in the first sentence of the first paragraph, in the first sentence of the second paragraph and in the last sentence of the second paragraph.

Page 6-35

Under §609-3.01 Stone Curb (Types A, B, C, D, E and as Indicated and Precast Concrete Curb), *delete* the fifth and sixth paragraphs of the subsection (third and fourth on the page) and *replace* them with the following:

"Precast curb and stone curb with sawed ends, not on a structure, shall be butted together with no mortar between the joints, unless otherwise indicated in the contract documents.

Stone curb with non-sawed ends shall be fitted together no closer than ¼ inch at the arris line and shall have full mortared joints pointed flush with exposed curb surfaces. Curb surfaces shall be satisfactorily cleaned of excess mortar.

Mortar used for filling joints shall conform to §705-21 Mortar For Concrete Masonry or §701-04 Concrete Repair Material."

Under §609-3.02 Stone Curb - Bridge (Types A, F₁, G₁, M, R₁, R₂, S, T₁ and T₂), *delete* the last two paragraphs and *replace* them with the following:

"Types F₁, G₁, M, R₁, R₂, S, and T₁ curbs shall be set in full mortar beds on the bridge deck. The mortar bed under curb shall be struck off flush with the front face of the curb.

All curb on structures shall be fitted together no closer than ¼ inch at the arris line and shall have full mortared joints pointed flush with the curb surfaces. Curb surfaces shall be satisfactorily cleaned of all excess mortar.

Mortar used for bedding and filling joints shall conform to §705-21 Mortar for Concrete Masonry or §701-04 Concrete Repair Material."

Page 6-36

Under §609-3.06 Precast Concrete Curb, *delete* the subsection in its entirety and *replace* it with "609-3.06 (Vacant)."