[Include the following Section 801 and 802 in contacts that involve construction on the Turnpike:]

DIVISION 800 – TRAFFIC CONTROL

SECTION 802 - LANE AND SHOULDER CLOSINGS

802.03 METHODS OF CONSTRUCTION

(F) Traffic Protection Devices.

Concrete construction barrier delivered to the job site shall be in new condition and maintained throughout the duration of the Project. The Engineer shall be the sole judge of the acceptability of the precast concrete barrier. Precast concrete barrier deemed unsatisfactory by the Engineer shall be replaced at no cost to the Authority.

In order to protect pedestrians, the sides of all deck and sidewalk openings, not protected by concrete barrier curb, shall be fully enclosed by temporary fencing. Temporary fencing shall be of a type approved by the Engineer and shall be erected and remain in place at all times when no work is being performed and the deck and sidewalk is removed or the replacement of concrete is not hardened.

The Contractor shall furnish the following devices:

(1) Concrete Construction Barrier.

Concrete construction barrier shall be Type 4, Alternate A, Joint Class A unless otherwise indicated on the plans. Concrete barrier units must be fully installed in the proper position at each work area shown prior to performing work within that area. Concrete barrier shall not be installed unless pertinent submissions, such as materials, shop drawings, construction methods, procedures, etc. have been reviewed and approved by the Engineer. Placement of concrete construction barrier shall conform to the requirements shown on the Contract plans.

Where different joint classifications are required within a section of barrier, the controlling joint treatment shall extend a minimum of one complete barrier length before and after the work area. For example, where A and D are required, Joint Treatment D shall extend a minimum of one complete barrier length before and after the deck replacement area before changing to Joint Treatment A.

The concrete construction barrier may be installed after the removal of existing surfacing and removed prior to paving, unless otherwise shown on Plans, if site conditions and construction sequence require to do so.

The Contractor shall furnish all hardware, concrete barrier interlock devices, anchors and all else necessary for the complete installation and subsequent removal and / or relocation of the concrete barrier.

Concrete construction barrier and interlocking devices shall be in accordance with Standard Drawings TP-24 and TP-25. The Contractor may submit alternate barrier systems with interlocking devices that meet NCHRP Report 350 – Test Level 3 requirements to the Engineer for review and approval.

[Include the following Sections 801 and 802 in contracts that involve construction on the PARKWAY:]

SECTION 801 – MAINTENANCE AND PROTECTION OF TRAFFIC

801.05 TRAFFIC CONTROL DEVICES

Construction Barrier

Precast concrete curb construction barrier shall be placed at the locations shown on the Plans or as directed by the Engineer.

~~*Construction Barrier shall be constructed of white concrete and in accordance with the Plans and shall present uniform color at the inclined face and curb face for the entire length of the barrier. The Contractor shall furnish appropriate test results of service history of similar precast concrete barrier curb which shall be approved by the Engineer before any of the precast barrier is manufactured new or delivered to the project site when available from other sources.*~~

~~*Expansion joints shall be provided at approximately equal distances of 20 feet. Curb joints shall be neatly rounded to 1/8 inch radius.*~~

~~*The ends of the units shall have formed tapered vertical keys (male and female) 1 1/4 inch in depth and shall be equipped with devices for interlocking adjacent units to each other. One side of the unit shall have formed recesses at 2 foot centers maximum for anchoring the units.*~~

~~*Bolts and nuts shall conform to the requirements of ASTM Designation A307. A flat steel washer shall be provided under the head and nut of each bolt. Bolts, nuts and washers shall be hot dip galvanized in accordance with ASTM Designation A153.*~~

~~*Bars and structural shapes for interlocking devices for precast barrier sections shall conform to ASTM Designation A36. Structural tubing shall conform to ASTM Designation A501. Interlocking devices shall be hot dip galvanized in accordance with ASTM Designation A123 after fabrication.*~~

Concrete construction barrier and interlocking devices shall be in accordance with Standard Drawings TP-24 and TP-25. The Contractor may submit alternate barrier systems with interlocking devices that meet NCHRP Report 350 – Test Level 3 requirements to the Engineer for review and approval.

Barrier curb units shall be placed end to end on existing or resurfaced pavements and bridge decks as shown on the Plans or as directed by the Engineer. Temporary shimming or leveling as may be required under each unit shall be approved by the Engineer. The temporary shimming and leveling may include the laying of a strip of bituminous pavement. The barrier curb shall be placed to a smooth, continuous, horizontal and vertical line. Barrier curb placed which is not in a smooth, continuous, horizontal and vertical line shall be removed, reshimmed, realigned, reset and replaced to the satisfaction of the Engineer at no additional cost to the Authority. The Contractor shall remove any bituminous pavement laid for temporary shimming and leveling under the drainage blockouts cast into the base of the sections.

~~*Barrier curb units placed on the bridge deck shall be anchored to the bridge deck with removable bolts at 2 foot centers maximum, with one inch diameter bolts. Additional units shall be anchored as directed by the Engineer. Bolts shall have hex nuts and steel washers. Washers shall be 4 inch x 4 inch x 1/4 inch thick with 1 1/16 inch diameter holes in the center. Upon removal of the bolts from the bridge deck, the holes shall be filled with an approved nonshrink grout. Holes left in the asphalt overlay shall be filled with a hot poured asphalt joint sealer.*~~

Barrier curb units shall be lifted and placed using a two point pick up to avoid unnecessary stress in the concrete. Any unit damaged due to the Contractor's operation while placing or relocating, or due to the operation of the Contractor's equipment or personnel shall be replaced at no additional cost to the Authority.

The Contractor shall remove the barrier curb from the site when no longer necessary for the maintenance of traffic as determined by the Engineer.

Barrier curb shall be provided with reflectors at 20-foot intervals on the side facing the traffic. The reflectors shall be Stimsonite Delineators Model 965 manufactured by Amerace Corporation, Signal Products Division, 7542 North Natchez Avenue, Niles, Illinois 60648 or approved equal. The reflectors are to be mounted on the face of the barrier curbs with the approved adhesive. The reflectors shall be yellow when the construction barrier is to the left of traffic and white when the construction barrier is to the right of traffic. Reflectors shall be replaced when lost or damaged at no cost to the Authority.

Alternate Design A or B may be used interchangeably in any location where Type 4 has been specified, except that only Alternate Design B, Joint Class D shall be used on bridge decks.

~~*Construction Barrier Type 4, Alternate B may be used in any location where Type 1 has been specified. There shall be no intermixing of Construction Barrier Types 1 and 4 in any one continuous run.*~~