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**PROCEDURE FOR CASTING DIFFERENT LENGTH PRECAST/PRESTRESS  
CONCRETE BRIDGE UNITS (Combined Beam Pours)**

**SCOPE:**

To establish procedures for the fabrication of beams with different lengths on one casting bed set-up. Any deviation from the beam design standard for casting different size or different length prestressed concrete bridge beams will require prior approval.

This procedure allows, for example, the casting of an LXD60 with an LXD65 strand pattern, and LXD90 with an LXD95 strand pattern, etc. This procedure is acceptable with the following restrictions:

- A. LXA46, LXB59, and LXC67 cannot be cast with the next longer beam because the strand patterns are not compatible due to the change in beam web width.
- B. The following beams, if cast with the next longer beam, will require the minimum release strength and the 28-day strength as follows:

BEAM	RELEASE STRENGTH Min, F'c, psi	28-DAY STRENGTH Min, F'c, psi
LXA50	5000	5200
LXB63	5000	5200
LXC75	5100	5200
LXD95	5200	6500
LXD100	5500	6500

Use of the next longer beam strand pattern may result in camber increase in the modified beams. For example, the calculated camber at the time of erection for an LXD90 beam (with LXD95 strand pattern) will increase by approximately 0.6 inch. Whenever such beam modifications are used, the contractor shall have prior approval of the combinations. A copy of the contractor's written approval of the beam modification shall be forwarded to the District Materials Engineer prior to fabrication. The contractor shall acknowledge responsibility for any construction changes and additional cost resulting from increase camber in modified beams.

- C. Alternate Strand Pattern - The alternate strand pattern option will require the fabricator to comply with the following requirements:

Contractor will forward the proposed request to the project engineer with the following:

- a. Fabricator's request for the alternate strand pattern change

- b. Fabricator's calculations
- c. Consultant's independent calculations (signed, stamped and approved)
- d. Contractor's written letter of concurrence and acknowledgement for the responsibility of any construction changes and any additional costs that may result from the beam modifications

**NOTE:** If contractor does not concur with the proposed strand pattern change and the beam modification and does not assume responsibility for any construction changes or the possibility of any additional cost then the request will not be accepted.

The Project Engineer will forward the completed documents (signed and approved by the contractor) to the District Materials Engineer.

The District Materials Engineer will forward copies of the contractor's written approval, fabricator's calculations and the independent consultant's calculations to the Office of Bridges and Structures for review and approval.

The proposed beam modifications shall be approved prior to the start of fabrication process. It's expected that all producers will follow these guidelines.

Only original documents will be accepted (No fax or photocopies).