

OFFICE OF STATE AID ROAD CONSTRUCTION			S.O.P. NO. SA II-3-28
STANDARD OPERATING PROCEDURES			Page 1 of 5
Subject: S.O.P. INSPECTION OF PRECAST AND/OR PRESTRESSED CONCRETE BRIDGE MEMBERS AT THE CONSTRUCTION SITE			Distribution A, B, C, D, E
EFFECTIVE August 25, 2005	ISSUED August 25, 2005	SUPERSEDES Page 1 of 5 S.O.P. NO. SA II-3-28 EFFECTIVE: July 1, 2005	APPROVED J. Brooks Miller, Sr. STATE AID ENGINEER

PURPOSE: To Establish Uniform Procedures for the Inspection of Precast And/or Prestressed Concrete Bridge Members at the Construction Site.

1. **GENERAL:**

An inspection will be performed on each precast and/or prestressed concrete bridge member. A representative of the County/LSBP Engineer will perform the inspection.

2. **DOCUMENTATION:**

2.1. For precast bridge members inspected by one of State Aid's contracted testing laboratories, the following shall apply:

2.1.1. A shipping ticket prepared by the manufacturer stating the identification number and any other relevant information such as the size, type, length, etc., shall accompany the precast member when delivered to the construction site.

2.1.2. The member shall have an identifying stamp indicating the State Aid contracted laboratory which performed the inspection.

2.1.3. A letter from State Aid's contracted testing laboratory shall be mailed to the County/LSBP Engineer stating which members were shipped to the construction site. This letter is not required until the project is completed.

2.2. For precast and/or prestressed bridge members inspected by MDOT personnel, a completed copy of Form TMD-895 (Sample shown on last page of this S.O.P.) shall accompany the prestressed member when delivered to the bridge construction site, as required by the contract specifications. This documentation shall be reviewed upon arrival at the site by a representative of the County/LSBP Engineer and copies retained for his files and State Aid's files..

3. **INSPECTION:**

Upon arrival at the construction site, the precast and/or prestressed member shall be visually inspected by a representative of the County/LSBP Engineer for the following:

3.1. **Cracks.** Any cracks that may have occurred during transit, mainly near the middle of the member.

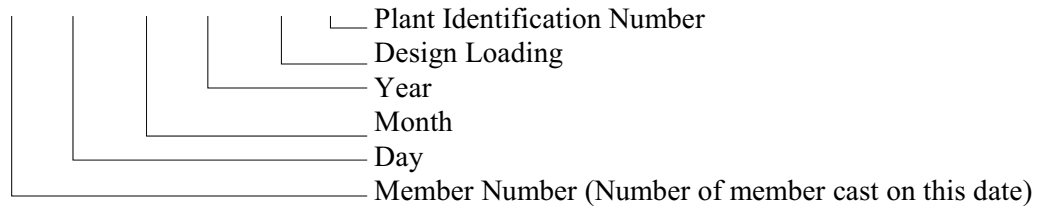
3.2. **Broken Corners.** Check for broken corners, on each end, at top and bottom of member, that may have occurred during loading and unloading of the member.

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3.3. Identification Number.

3.3.1. For precast bridge members inspected by one of State Aid's contracted testing laboratories, the following shall apply:

XX - XX - XX - XX - XX - X



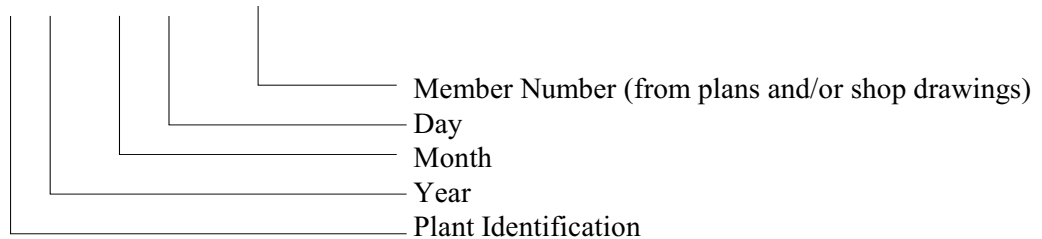
Example: 05 - 29- 01- 05 - 20 - 1

- 05 Member Number (the fifth member cast on this date)
- 29 Day
- 01 Month
- 05 Year
- 20 Design Loading (HS-20)
- 1 Plant Identification Number (1 for Columbus; 2 for Hattiesburg; 3 for Como)

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3.3.2. For precast and/or prestressed bridge members inspected by MDOT personnel, the identification number should correspond to plans and/or shop drawings, as shown below:

X XX . XX XX XX XXXX



3.3.2.1. Plant Identification: The plant identification shall be a one character letter. Plant letters shall be assigned by the District or Central Laboratory. The Central Laboratory shall approve and maintain a list of approved plant identification letters.

3.3.2.2. Year, Month, Day:

Example: 01.0512
01 is the year 2001
. is to break up the complexity of the number
05 is the month
12 is the day of the month
The date the member was cast is May 12, 2001.

3.3.2.3. Member Number: The number assigned to each prestress or precast member represented on the plans and/or shop drawings.

3.3.3. The location of and the method for the placement of the identification number on the bridge members by the manufacturer are as follows:

3.3.3.1. For precast bridge members inspected by one of State Aid's contracted testing laboratories, the producer shall have inscribed the identification number in the plastic concrete surface of the bridge member. The inscription shall be legible and located as follows:

3.3.3.1.1. Bridge Slab: Near both ends on top right surface facing the member.

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3.3.3.1.2. Other Members: As required by the contract documents, or as instructed by the Engineer responsible for production at the plant.

3.3.3.1.3. The producer shall have stenciled the identification number on both ends of each precast bridge member using indelible ink.

3.3.3.2. For precast and/or prestressed bridge members inspected by MDOT personnel, the producer shall have inscribed the member number in the plastic concrete surface. The inscription shall be legible and located as follows:

3.3.3.2.1. Pile: Near both ends.

3.3.3.2.2. Bridge Slab: Near both ends on top right surface facing the member.

3.3.3.2.3. Beams: At both ends on the side, near the top of the beam.

3.3.3.2.4. Other Members: As required by the Department's contract documents, or as instructed by the Engineer responsible for production at the plant.

3.4. **Embedded Items.** Check for damage to inserts. Check for reinforcing steel extended from top and/or end of member. Check for damage to bearing plates.

3.5. **Coating of Strands.** Check for damage to the coating of the strands at beam ends.

4. **REJECTION PROCEDURES:**

Precast and/or prestressed members that have proper documentation and that pass visual inspection requirements may be incorporated into the work. Members arriving at the construction site without the proper documentation (Except information contained in Subsection 2.1.3 above) shall be rejected and not incorporated into the work until the County/LSBP Engineer receives the documentation. Members with a visual crack across the width or depth are to be rejected. Broken corners with exposed reinforcing steel shall be repaired at the expense of the Producer. The County/LSBP Engineer may approve repairs of a prestressed member with damage to embedded items, made at the expense of the Producer. Damaged precast and/or prestressed members that cannot be repaired to the satisfaction of the County/LSBP Engineer will be rejected and not used on State Aid projects.

