

RW/NH-33054/33/89-DO II

Dated the 10th July, 1989.

Subject: Inventory of bridges on National Highways in India.

Please refer to the Ministry's letter of even No. dated 29th March 1989 forwarding therewith a new format for Inventory of Bridges on National Highways, together with guidelines for coding of information.

2. Certain clarifications have been sought with respect to some items of the format and coding of information by various state PWD's/Regional Offices. In order to maintain uniformity for all the States, these have been consolidated and are furnished herewith. It is requested that these may please be got included in the original format and guidelines for coding of information appropriately and information got collected accordingly, wherever necessary.

3. The Inventory of Bridges on National Highways was required to be completed by the State PWDs by June 1989. The present position of inventorisation and the programme of its completion, if not already completed may please be intimated.

4. The receipt of the letter may please be acknowledged.

Enclosure to Ministry's Circular No. RW/NH-33054/33/89-DOII Dated the 10th July, 1989

(a) Addition to the format 'Inventory of Bridges'

Item No. 27 (a)

LWL/GL

□□□□

(2) Guidelines for coding of information relating to Inventory of Bridges - Clarifications

1. Item Nos. 1 and 3.
(Link No. and section) : The link Nos. and Sections of all National Highways in the country have been forwarded to the State PWD's through RO's vide Ministry's letter No. RW/33054/3/88/NH(Std)- DO II dt. 12th June, 1989.
2. Item Nos. 7 and 8
(Latitude and Longitude) : As already intimated during the Chief Engineer's meeting held in April 1989 in Delhi, the latitude and longitudes of a bridge (more than 30m length) may be worked out from the latest Survey of India maps (Scale, 1:50,000) to an accuracy of 30"
3. Item No. 23
(Detour length) : Detour length will be measured as the additional road length required to cross the obstacle (river, deep gorge etc.) on a similar facility as the existing bridge and to join the National Highway on the other side. Similar facility could be bed level diversion, without interruptions, or another bridge on a nearby road.

4. **Item No. 24**
(Documentation) : Where no drawing for a bridge is available, the same should be prepared on the basis of a special inspection/inventorisation and relevant dimensions, which can be ascertained should be indicated therein.
5. **Item No. 25**
(Year of Inventory) : This relates to the present inventory and as such the year will be 1989.
6. **Item Nos. 26 & 27**
(Design discharge and HFL) : Efforts should be made to collect these data. If not available from documents, the same should be estimated on the basis of local enquiry and incorporated.
7. **Item No. 27 (a)**
(DLWL/G.L.) : Lowest water level/average ground level below the bridge should be indicated in a four digit code similar to Item No. 27.
8. **Item Nos. 28 and 29**
(Design scour level at piers and abutments) : Efforts should be made to collect these data. If not available from records, the same should be estimated by actual probing or local enquiry or available data and incorporated.
9. **Item No. 30**
(Founding strata) : Rewrite the code for the item as under:-
- | Founding strata | Code |
|---|------|
| Hard rock | 1 |
| Soft rock | 2 |
| Sand | 3 |
| Sand + Clay | 4 |
| Clay | 5 |
| Most foundations on hard rock and some on others | 6 |
| Most foundations on soft rock and some on others | 7 |
| Most foundations on sand and some on others | 8 |
| Most foundations on clay or clay mixed with sand and some on others | 9 |
| Not available | 0 |
10. **Item No. 38**
(Whether Navigable) : Rewrite the code for item as under:-
- | Navigable | |
|-----------------------|---|
| (No fenders provided) | 1 |
| Navigable | |
| (Fenders provided) | 2 |
| (Not navigable) | 0 |
11. **Item No.39**
(Vertical clearance) : The code for submersible bridges will be '00'.
12. **Item Nos. 41 to 53 and 54 to 66.** (i) Two sets of information may be furnished for superstructure in item Nos. 41 to 53 and 54 to 66. The State PWD's may judiciously decide this on the basis of variation in data for superstructure type, pier/abutment type, foundation depth and type of bearings etc. In case the variations are more than two, two groups may be made based on the most important factors. In case the group for 'approach spans' is required to be used, write '00' in all codes for item Nos. 54.
- (ii) For old bridges, some data may not be available. It should be made to find out the same. If still not available write, zero's in the relevant codes.
13. **Item No. 50 (Type of bearings)** (i) The information in respect of 'hinges' in case of cantilever construction with hinged connection should be given in these items, wherever relevant. Where, no bearings are provided e.g. for 'arch bridges', the code will be '0'.
14. **Item No. 7**
(Suspension of traffic) : The suspension of traffic will relate to inadequacy of the structure due to overtopping or distress condition of the bridge.