

**No.RW/NH-11037/11/86-DOI(ii)**

***Dated the 28th July, 1993***

To

**The Chief Engineers of State PWD and Union Territories (dealing with National Highways and other Centrally Financed Schemes), Director General (Works), CPWD, Director General (Border Roads), Chairman, National Highway Authority, Engineer-in-Chief, Municipal Corporation of Delhi, Delhi.**

**Subject : Bridges on National Highways and under other Centrally Sponsored Scheme - provision of utility services thereon**

It has been decided that provision of utility services such as water mains, gas pipes and sewage pipes on the main bridge structures on National Highways and under other centrally sponsored schemes, should be avoided as far as possible.

**2. In cases, where the carrying of watermains or sewage pipes on the bridge becomes inescapable, the following instructions may be carefully followed so as to avoid possibility of any damage to the bridge and its approaches :-**

- (i) The pipeline may be supported on the substructure of the bridge. In no case it should be laid on the superstructure.
- (ii) Only seamless pipes with welded joints should be permitted. C.I. pipes with S&S joints should not be allowed.
- (iii) Location of pipeline on the substructures should be so fixed that it is easily accessible for carrying out its inspection, maintenance and repairs and it may not in any way hinder the inspection, maintenance and repairs of the superstructure bearings and substructure of the bridge.
- (iv) The pipeline should be so aligned that it is taken out of the approach embankment as quickly as possible with minimum embedment into it. The thrust block at the ends in the pipeline required for taking it out of the embankment must be placed inside a culvert so as to facilitate easy maintenance and ensure its functioning independent of that of the embankment.
- (v) Where there is any change in the elevation of the pipeline while traversing the bridge length, air valves may be provided.

- (vi) In order to take care of the effects of surge force, pressure relief valves on the pipelines may be provided near the two ends of the bridge, as a measure of abundant caution, even though a surge arrester may have been provided at the pumping station.

2. Where pipelines, carried out the bridges, are already embedded into approach embankments, action may be taken to provide culverts exclusively for housing the pipes as outlined above. Till such time, as this is done constant vigilance on such stretches of embankments should be maintained, so as to detect any signs of leakage and to close the same well in time to avoid any mishap to the embankment.

3. The above instructions may please be communicated to all officers dealing with National Highways and other Centrally Sponsored Schemes for strict compliance.

4. The receipt of this letter may kindly be acknowledged.