

Implementation of Systematic Bridge Maintenance



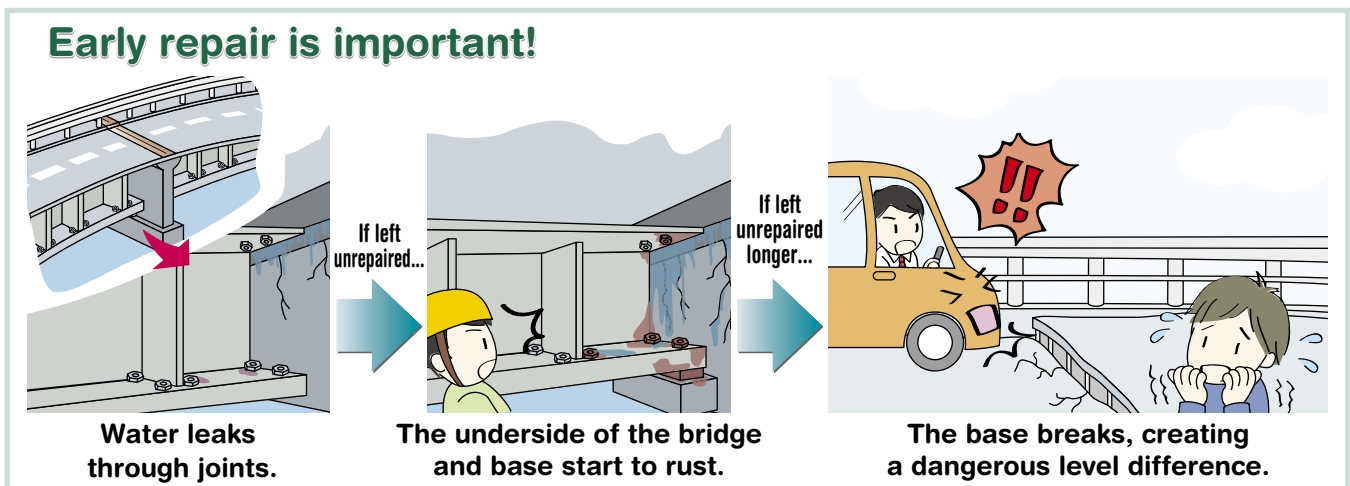
What is asset management?
 This term describes an approach in which bridges are treated as assets belonging to the city and are managed in an efficient way.

What is life-cycle cost (LCC)?
 This term refers to the total costs, namely for construction and maintenance, required during the lifetime of a bridge from construction to dismantlement.

Extending the Lifespan of Bridges through Preventive Maintenance

If damage to a bridge is not repaired, the damage may gradually spread and ultimately make it necessary to close down the bridge. Continuous maintenance of bridges is necessary in order to maintain road network functions.

For this reason, although corrective maintenance, repairing damage after it has become significant, has been performed in the past, in the future we plan to perform preventive maintenance: conducting small-scale maintenance and repair work before significant damage develops with the aim of extending bridge lifespan. While this entails daily maintenance costs, by helping to mitigate the high costs of bridge reconstruction, it ultimately enables reductions in life-cycle costs.



Implementing Preventive Maintenance

In order to ensure that preventive maintenance is conducted systematically, it is necessary to regularly assess the condition of bridges with inspections, to consider the deterioration process, and the optimum countermeasures for dealing with this deterioration, as well as the timing of such countermeasures, and to formulate optimal conservation and renewal plans.

In recent years, the greater availability of data on damage to bridges has made it possible to make the predictions about deterioration that are needed to systematically perform preventive maintenance.

The City of Osaka has established and is currently putting into effect the Osaka Municipal Bridge Maintenance System: a system that promotes preventive bridge maintenance by incorporating the newest findings.

