To the second stage of road structure maintenance

Road Structures Department

We are developing technologies concerning the inspection, diagnosis, repair, and reinforcement to properly maintain and manage road structures that are rapidly aging. We are going to reflect the outcomes in the technical standards and realize a society in which roads remain safe to use by transferring the technologies and knowledge to road administrators.

Social background and problems

- To shift from reactive maintenance to preventive maintenance, inspection procedures for road structures have been developed since FY 2014, and full regular inspections have been conducted based on the procedure (the first stage of maintenance).
  The number of structures that immediately or promptly require repairs and structures at which traffic restrictions were applied has been increasing due to the progress of the inspections.
- To manage rapidly aging infrastructures that are increasing in number, including measures to implement these structures with limited financial resources, the Road Subcommittee of the Council for Social Infrastructure proposed planned implementation of maintenance as preventive maintenance and efforts to elongate the service life and reduce maintenance costs through the use of new technologies as the second stage of maintenance in September 2017.

点検要領策定状況

	H26	H28	H29
橋梁	定期点検要領＊		
トンネル	定期点検要領＊		
舗装		点検要領	
土工	シェッド・大型カルバート 定期点検要領＊		点検要領
附属物	門型標識・歩道橋等 定期点検要領＊	門型以外の標識・照明 点検要領	

＊5年に一度、近接目視

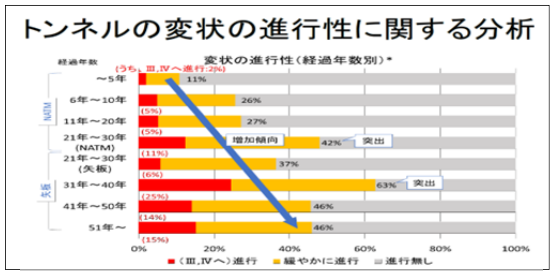
Content of this study

Research on the maintenance of bridges

Research on methods to investigate the conditions of damage, including nondestructive inspections to advance and improve the efficiency of maintenance and management through proper operation of the maintenance cycle, including inspection, diagnosis, implementation of measures, and recording; methods to check load resistance by taking damages into consideration; methods to set loads for examinations depending on actual traffic conditions; and methods to design repairing and reinforcement

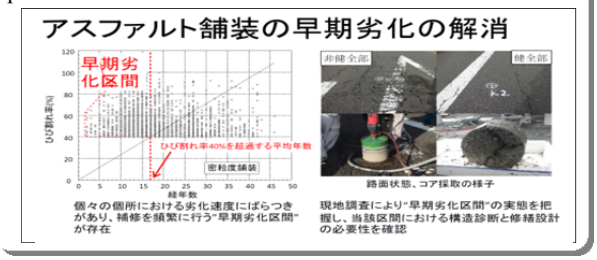
Research on the maintenance of tunnels

Research on the analysis of factors that affect deformation (external force, deterioration of materials, and water leakage) found in regular inspections of tunnels



Research on the maintenance of pavement

Research on the establishment of proper repair designs by analyzing the conditions of damage and deterioration in rapidly deteriorating sections for road management based on preventive maintenance



Realization of safe and sound citizens' lives where roads are properly maintained with the minimum life cycle cost

☞ Relevant articles

- Result of regular inspections at road tunnels
- Establishment of investigation and design methods to eliminate sections where pavements are rapidly deteriorating