



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
OFFICE OF THE SECRETARY
Manila

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DEPARTMENT ORDER)

No. **43**)
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**SUBJECT: Implementation of the
Bridge Management
System**

In line with the Department's objective to implement procedures and applications to improve the efficiency and performance of the DPWH, the **Bridge Management System (BMS)** has been adopted as the official procedure or system to monitor the condition of bridges on national roads and to develop programs of the major maintenance, upgrading and replacement of bridges requiring intervention to provide the required level of service. The **BMS** shall replace other systems that are currently used to monitor the condition of bridges and/or the development of the bridgework program.

The policies to be adopted in relation to the implementation of the BMS include, but are not limited to the following:

1. The BMS will be implemented and maintained for all national bridges;
2. The BMS will be fully integrated into the DPWH overall planning process;
3. The DPWH will provide the necessary funding in the DPWH budget to implement and maintain the BMS;
4. A specific funding allocation will be provided in the DPWH budget for a major maintenance program to repair deteriorated national bridges; and
5. The design and implementation of major maintenance to national bridges should be certified by responsible or authorized engineers (accredited bridge inspectors) as complying with DPWH standards, guidelines and other requirements.

The principal activities within the BMS include, but are not limited to the following:

1. Bridge inventory survey,
2. Annual Condition inspection survey of all national bridges,
3. Updating bridge condition information,
4. Analyzing bridge condition data to determine the need for bridge major maintenance, upgrading and replacement, and
5. Preparation of Prioritized major maintenance and network development programs to address the needs of bridges.

All data for operation of the **BMS** shall be stored in the **Road and Bridge Information Application (RBIA)** in accordance with RBIA requirements.

The operation of the BMS shall be the responsibility of the **Development Planning Division (DPD)** and the **Infrastructure Planning Research and Statistics Division (IPRSD)** both of the **Planning Service** and the **Regional Office Planning & Design Division and Maintenance Divisions**. The roles and responsibilities of these offices include but are not limited to:

Development Planning Division (DPD)

- Coordinating and supervising bridge condition surveys to ensure the accuracy and timeliness of bridge condition data;
- Analyzing annual bridge condition survey data to determine the condition of bridges on national roads and assessing the need for asset preservation and network development works to bridges, to maintain bridge stock;
- Reviewing the bridge stock and determining the need for network development works for reasons other than bridge deterioration;
- Preparing bridge major maintenance and network development programs on an annual basis to present prioritized programs for bridge preservation and betterment;
- Delivering programs to agreed schedules and deadlines;
- Providing National, Regional and Engineering District Bridge Key Performance Indicators to meet user needs;
- Providing reports on the national bridges to meet user needs; and
- Maintenance and dissemination of procedural manuals.

Infrastructure Planning Research and Statistic Division (IPRSD)

- Overseeing the roles of the Regions in the encoding of bridge condition data, storing of data in RBIA and ensuring the accuracy and timeliness of bridge condition data.

Regional Offices

- Maintaining a pool of accredited bridge inspectors sufficient and efficient to undertake the required annual bridge condition surveys of all bridges in the Region;
- Coordinating and managing annual bridge condition surveys and engineering inspections in the Region;
- Undertaking annual bridge condition surveys in the Region; and
- Undertaking engineering inspection of all bridges with defects in the Region as required.

For the guidance of all concerned and to be consistent with bridge inspection procedures and to ensure that consistent inspection reports are delivered from all bridges, all **BMS Accredited Bridge Inspectors** and **Regional Road and Bridge Information Application (RBIA) Coordinators** are directed to adopt the revised **BMS Manual and Guidelines (Version 6.0) in the Conduct of Bridge Condition Inspections and data encoding**. To simplify the procedures, the Bridge Inspection Types was reduced from seven (7) to five (5) types indicated as follows:

Different Bridge Inspection Types/Frequency Bridge Management System

7 Types (Old DO 47)	5 Types (Revised)	Frequency	Responsibility
1. Routine Inspection(Type 1)	1. Routine Inspection(Type 1)	Monthly	District Eng'g. Offices
2. Maintenance Inspection(Type 2)		Quarterly	BOM/Regional Office
3. Condition Inspection(Type 3)	2. Condition Inspection(Type 2)	Annual	Regional/District Eng'g. Offices
4. Engineering Inspection(Type 4)	3. Engineering Inspection(Type3)	As Required	BOD/BRS/BMS Team/DEO/RO & other Entities
5. Detail Inspection(Type 5)		Ten Years	Regional Office to arrange appropriate provider
6. Emergency Inspection(Type 6)	4. Emergency Inspection(Type 4)	As Required	Regional/District Eng'g. Offices
7. Inventory Inspection(Type 7)	5. Inventory Inspection(Type 5)	As Required	Regional/District Eng'g. Offices

Further, to appropriately classify and clarify the different bridge condition ratings (e.g. Good, Fair, Poor, Bad) based on various actual defects, the procedures for bridge condition inspection (Type 2) was revised and refined taking into consideration the detailed measurement of structural defects. This should be followed appropriately.

Attached in the Annex is the Revised Procedure for Bridge Condition Inspection, Condition Rating Criteria and Bridge Condition Inspection Form (Type 2).

This order shall supersede all previous **Department Orders** and other issuances or portions thereof inconsistent herewith, and shall take effect immediately.

HERMOGENES E. EBOANE, JR.
Secretary



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