REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
OFFICE OF THE SECRETARY
MANILA

DEC 14 2004

DEPARTMENT ORDER)
NO. 234   )
Series of 2004 *12-14-04*

SUBJECT : Implementation of the Pavement Management System (PMS)

In line with the Department's objective to implement procedures and applications to improve the efficiency and performance of the DPWH, the Pavement Management System (PMS) is hereby adopted as the official procedures or system to monitor the pavement condition of the national roads and to prepare annual work programs for asset preservation and network development projects. The PMS shall replace other systems that are currently used to analyze the condition of pavements on national roads and/or the development of road-works programs. The data input to PMS is from the Visual Road Condition, Roughness, Inventory and Pavement History Surveys. The PMS data management is handled by the Highway Development and Management (HDM-4) Tool, which interfaces with the Road and Bridge Information Application (RBIA) for data storage and the Multi Year Programming and Scheduling (MYPS) application. PMS data is used as one of the important inputs to the new planning and programming process developed under the Road Information and Management Support System (RIMSS).

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

1. The PMS will be fully integrated into the DPWH overall planning process.
2. Annual updating of the Long-Term Highway Plan on the basis of six-year blocks to coincide with re-evaluation of the Medium Term Philippine Development Plan (MTPDP).
3. Road condition and inventory surveys shall be carried out for all national roads to enable regular updating and maintaining of RBIA.
4. Asset preservation projects shall be prioritized in an integrated manner together with network development projects using PMS, HDM-4 and MYPS.
5. Key Agency Performance Indicators shall be measured against estimated targets and analyzed on the basis of PMS and HDM-4.

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

1. Conducting visual road condition surveys (annually) and specialized surveys (periodically), including roughness and highway imaging (over a three year cycle).
2. Conducting inventory surveys.
3. Updating inventory information periodically.
4. Calculating basic vehicle operating costs and road costs on an annual basis for input in the HDM-4.
5. Analyzing road condition data in HDM-4 to determine the need for pavement improvement intervention, either in the form of asset preservation or network development projects.
6. Preparing prioritized work programs to address the network needs.

All data for the operation of the PMS and HDM-4 shall be stored in the RBIA in accordance with RBIA procedures.

The operation of the PMS shall be the responsibility of the Development Planning Division (DPD) in cooperation with the Infrastructure Planning Research and Statistics Division (IPRSD) both of the Planning Service, while the Regional and District Engineering Offices shall provide necessary support from their Maintenance Divisions and Planning and Design Divisions.

The roles and responsibilities of these offices shall include but necessarily be limited to:

The **Central Office** shall be responsible for:

DPD

1. Updating road and traffic data in the Network State Matrix for Strategy Analysis of the Philippine national road network through the use of HDM-4.
2. Updating the works alternatives sets. As part of the HDM-4 configuration process, work alternatives are assigned to each network state to help in identifying network needs for long-term and multi-year works program.
3. Generating and updating Planning Road Sections for multi-year programming with homogeneous road and traffic data using the HDM-4 analysis module.
4. Undertaking PMS data validation and improvement to ensure the output reliability of the system. This involves defining missing data and the up-to-date level of the survey data.
5. Selecting national road sections for HDM-4 programming analysis.
6. Keeping the project database updated based on the MTPDP.
7. Managing the process for finalizing the HDM-4 analysis for the Long-Term Highway Plan.
8. Managing the process for finalizing the HDM-4 generated Multi-Year Program.
9. Managing the process of version control of the HDM-4 Configuration and Interface.
10. Managing the archiving process of historical data related to the approved HDM-4 analysis.
11. Undertaking quality assurance procedures.

IPRSD

12. Overseeing the roles of the Regions in the collection of road condition data, and ensuring the accuracy and timeliness of the road condition data.
13. Revising the contents of the various survey types and supervising these surveys.

The **Regional Offices** shall be responsible for:

14. Coordinating and supervising annual road condition surveys in the Region concerned.
15. Maintaining the integrity of data in the RBIA.
16. Supervising that quality procedures are adhered to by the District Engineering Offices in the data collection process.

The **District Engineering Offices** concerned shall be responsible for:

17. Collecting and providing quality assurance of visual road condition survey data.
18. Reviewing HDM-4 analysis results pertaining to the district road network and providing qualified comments as to the responsibility of HDM-4 intervention predictions.

Any technical enquiries relating to responsibilities and procedures should be addressed to the Application User Coordinator of the Development and Planning Division, Planning Service (Chief of Division [Telephone No. 304-3069]). Information technology enquiries/assistance relating to PMS should be directed to the Department's IT Help Desk (Telephone No. 304-3070).

Any violation of these policies and procedures and non-compliance with the directives issued by this Department shall subject the erring employee or official to immediate sanctions that shall include relief, suspension and/or dismissal in accordance with the Civil Service rules and regulations and other pertinent laws and regulations.

This order shall take effect and supersedes all previous Department Orders and other issuances or any provision thereof that are inconsistent herewith.

FLORANTE SORIQUEZ
Acting Secretary