Chapter 1: Introduction

chapter contents

Overview of This Manual ........................................2
General Guidelines for Maintenance Workers ...........2
Welcome to the Local Roads Maintenance Workers’ Manual developed by the Center for Transportation Research and Education at Iowa State University. This manual provides general guidelines for Iowa’s street and road maintenance workers in one convenient resource. It is being distributed to maintenance supervisors to use as a training tool with their crews.

Overview of this manual

The information is organized into seven chapters. The first two chapters cover introductory material and information to help road workers communicate effectively with the public. The next three chapters cover road maintenance topics “from the center line out”—the roadway, shoulders, and drainage—which is how maintenance activities are generally prioritized and budgeted. The final two chapters cover bridge maintenance and winter maintenance.

The manual focuses on why and how to perform maintenance activities. Each chapter is intended to stand alone. In general, each chapter is organized as follows:

- Safety tips
- Characteristics of good maintenance (the “why”)
- Optimum timing and conditions for maintenance
- Maintenance activities (the “how”)
- Bibliography

General Guidelines for Maintenance Workers

Some important concepts are repeated in several chapters and are worth stating here:

Always follow your agency’s standards, policies, and procedures. Every city and county in Iowa is unique in many ways, with its own terrain, soil and erosion conditions, available maintenance materials, weather patterns, and responsibilities to citizens. In general, the suggestions in this manual are based on common best practices. However, they may not apply in all jurisdictions or all situations. Each jurisdiction has its own set of operating procedures, best practices, and ways of conducting roadway maintenance activities. Always check with your supervisor and follow your agency’s standards, policies, and procedures.

Notify Iowa One Call (1-800-292-8989). Agencies are required by law to notify Iowa One Call at least 48 hours in advance of any surface excavation project, large or small. Iowa One Call will notify the owners/operators of underground facilities, who will dispatch personnel to the area to mark the location(s) of underground facilities so that maintenance workers can avoid damaging the facilities.

Quality control and worker training are critical. Quality control and a well-trained work crew ensure that the best equipment and materials are used on the job and that sound engineering principles, along with agency policies and procedures, are followed. Quality control involves monitoring and adjusting maintenance processes to comply with plans, agency policies, contract...
specifications, and good practices. Quality control begins with checking that all equipment and materials are on site and meet specifications and that they are used for their intended use, according to directions and specifications. Routine inspections are also an important part of quality control. Equipment manuals contain checklists that describe a pre-construction inspection.

The work crew is in the best position to ensure quality control at the site when materials are incorporated and equipment is used. Ask your supervisor to define your quality control activities and responsibilities.

**Set up appropriate work zones.** A well-designed and properly signed/marked work zone helps keep maintenance workers and motorists safe. Set up work zones as described in the *Iowa Traffic Control Devices and Pavement Markings: A Manual for Cities and Counties; in the MUTCD, part 6; and your agency's policies and procedures.*