

# Selected Portions of the United States Army Corp of Engineers Sign Standards Manual

Table of Contents

## **Introduction (1)**

Principles and Guidelines (2)

Program Plan and Documentation (3)

Design Standards (4)

Directional Signs (6)

Recreation Area Signs (7)

Recreation Symbol Signs (8)

Traffic Signs (9)

Industrial Safety Signs (11)

Regulatory Signs (12)

Interpretive Signs (13)

Lock, Dam and Waterway Signs (14)

Appendix Table of Contents

Materials and Specifications (B)

Sign Maintenance Procedures (C)

Reproduction Materials(F)

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This document is available as publication EP 310-1-6A and EP 310-1-6B (two volumes) and is available at no cost. Contact the USACE via its web site (see section VI.B) to request these documents. Make sure to request all updates when ordering this document, as there have been several updates to the manual.

(Note: Numbers/letters in parentheses indicate the original section in the USACE manual)

It is the responsibility of the Corps of Engineers to provide appropriate signs and markers at each project to guide, inform, and protect visitors and employees.

This manual has been prepared as part of the Corps Graphic Standards Program and is intended to:

- Develop a sign standard for the Corps.
- Establish standard guidelines for all signage including: planning, use, placement, materials, and maintenance.
- Define the design standard for each category of signs.
- Catalog all standard signs with specifications for procurement.

The purpose of this manual is to provide guidance for effective management of the Corps sign program. Through successful management, the goals of signage are to:

- Deliver a readable and understandable message to the intended viewer.
- Establish a cohesive and distinctive image for all Corps signs.
- Establish visual and verbal consistency for signs at each project.
- Increase effectiveness of project management.
- Maximize the effectiveness of each individual sign and the collective statement of all signs placed at a project.
- Reduce overall procurement and maintenance costs.

The effective use of signs is an integral part of project management. Both Corps policy and individual project requirements must be satisfied. This manual has been designed to provide the tools necessary to implement the Corps sign program. It sets forth basic principles that govern the design of all signs. It outlines the process by which a comprehensive sign plan is developed: determining the need for new or replacement signs as well as evaluating the effectiveness of existing signs. This manual also provides information on procurement, fabrication, installation, and maintenance of signs once they are in place.

Where appropriate, this manual incorporates excerpts from existing sign manuals, including: *Manual on Uniform Traffic Control Devices* (DOT-FHWA) for highway signs, and *Uniform State Waterways Marking System* (DOT-USCG) for navigational markers.

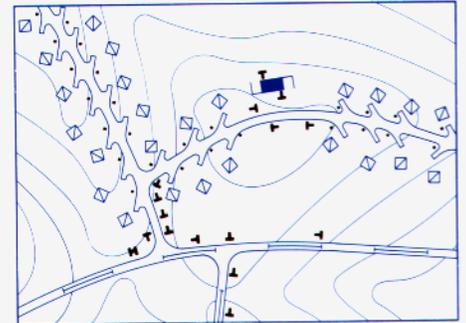
The manual has been organized into three basic, sequential groups of sections. The first three sections (2-4) provide basic guidelines that apply to all Corps signs.

Section 2  
Principles and Guidelines

Guidelines for the development of sign messages: descriptions of available materials, explanations of mounting methods, and directions for maintenance procedures.

Section 3  
Sign Plan

Guidelines for developing a comprehensive sign plan for a given project: locating signs, coding them, and preparing documentation of existing and proposed signs.



Section 4  
Design Standards

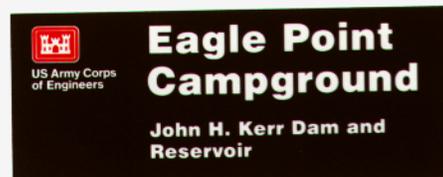
Description of the design elements that are used in the design and layout of signs, including: use of the Corps Signature, letter-spacing guidelines, color standards, and use of directional arrows.



Sections 5-18 are each designed to be self-contained and describe a specific type of sign or sign use area. Each section contains descriptions, layout formats, mounting methods, and specification codes for the sign types included in that section.

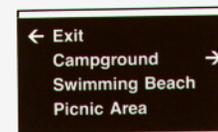
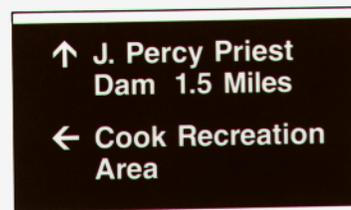
Section 5  
Project Identification Signs

Standard Identification signs for Corps projects and cooperatively managed areas. Secondary Identification signs for individual facilities within a project, and a Corps Participation Credit Sign for out-granted areas.



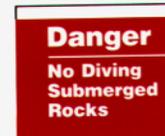
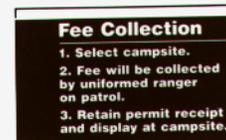
Section 6  
Directional Signs

Signs directing the public to a Corps facility including: Approach Roadway Directional signs and Approach Roadway Directional signs with symbols. Project Roadway Directional signs are used to direct the public within a project. Directional signs using symbols exclusively are described in Section 8.



Section 7  
Recreation Area Signs

Standard signs for use within an area, including instruction, information and regulatory signs specific to recreational uses. Examples show the various standard grid formats and colors. Traffic signs which are governed by the *Manual on Uniform Traffic Control Devices* (MUTCD) are found in Section 9.



Section 8  
Recreation Symbol/Signs

A display of approved symbol signs and guidelines for their use for Identification, Direction, Prohibition and Area Regulation signs.



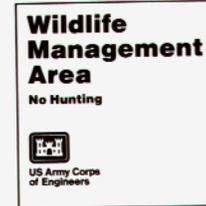
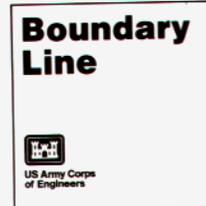
Section 9  
Traffic Signs

General use guidelines, along with a display of the most frequently used traffic signs from the MUTCD. Parking regulation signs, specially adapted for use on Corps projects, are specified in this section.



Section 10  
Boundary Signs

Markers used for Witness Posts, to delineate Project Boundaries, Easements and Wildlife Management areas.



Section 11  
Safety Signs

All safety signs placed in and around power plants, maintenance shops, and mechanical equipment. These signs are Danger, Caution, Safety, Notice, and Directional, and are used in compliance with Occupational Safety and Health Administration Standards.



Section 12  
Regulatory Signs

Rules governing the posting of Title 36. Regulatory signs specific to particular types of public use areas will appear in the section covering those areas. For example: signs adjacent to a boat ramp identifying regulations and restrictions are shown in the Recreation Area Signs section (Section 7). Signs regulating the use of a lock are specified in the Lock, Dam and Waterway Signs section (Section 14).

Section 14  
Lock, Dam and Waterway Signs

Informational, safety, and instructional signs located on or near waterways, locks, dams, and canals.

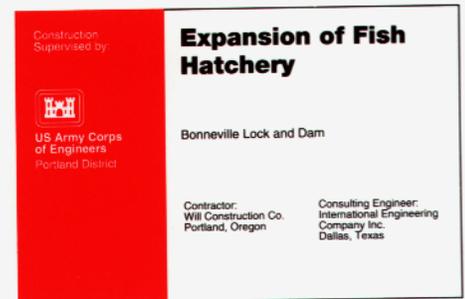


Section 15  
Aids to Navigation

General guidelines for the use of the *Uniform State Waterway Marking System* (DOT-USCG).

Section 16  
Construction Project Signs

Designs and specifications for Construction Project and Safety Record signs.

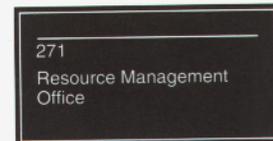


Section 17  
Concession Sign Policy

Guidelines for out-grant and cooperating agency signs placed on Corps property, and design guidelines for commercial enterprises signing on Corps project lands.

Section 18  
Building Interior and Office Signs

Complete sign system for building interiors.



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Section 13  
Interpretive Signs

Informative and educational signage describing man-made, ecological, and conservation systems in a project area as well as historical points of interest to visitors. This section provides design parameters rather than specific sign layouts.

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Section 14  
Lock, Dam and Waterway Signs

Informational and instructional signs located on or near waterways, locks, dams, and canals.

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Section 15  
Watermarkers

General guidelines for the use of the *Uniform State Waterway Marking System* (DOT-USCG).

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Section 16  
Construction Project Signs

Designs and specifications for Construction Project and Safety Record signs.

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Section 17  
Concession Sign Policy

Guidelines for out-grant and cooperating agency signs placed on Corps property, and design guidelines for commercial enterprises signing on Corps project lands.

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Section 18  
Building Interior and  
Office Signs

Complete sign system for building interiors.

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In the back of the manual are Appendices A-F. They contain support reference material including: procurement instructions, fabrication specifications, maintenance procedures, a glossary of terminology, and additional reference material.

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Appendix A  
Procurement Procedures

Explanation of procurement procedures as well as the review process necessary to purchase signs. Also a sample order worksheet with instructions on filling it out.

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Appendix B  
Materials and Specifications

Specifications for materials, fabrication techniques, and installation.

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Appendix C  
Sign Maintenance Procedures

Guidelines for maintenance of all project signs. Included are a sample field report, and repair request worksheets, with instructions on how to use them.

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Appendix D  
Typography Reference

Standards for use of typography on signs. Guidelines are provided for letter-spacing, word-spacing, and legend length sizing for the three Corps typefaces. In addition, there are displays of commonly used words properly typeset and letter-spaced in Helvetica Bold, Helvetica Medium, and Helvetica Regular.

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Appendix E  
Reference Materials

Reference materials that support, explain or document the information outlined in this manual. Included are technical standards and references, a bibliography, a glossary, a listing of approved suppliers on contract, and a list of District/Division sign coordinators.

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Appendix F  
Reproduction Art

Reproduction art for the following: Symbol signs, Prohibition signs, Parking and No Parking signs, Dump Station symbols, Fee Symbol, Trail Markers, arrows, and worksheets.

Implementation and management of the sign standards outlined in this manual follow the procedures described below. With each procedure, there is an explanation of required actions, along with page references for the corresponding data in the manual.

Reading the entire manual will provide an understanding of the principles of the Corps sign program. This understanding will be helpful in using the information and instructions outlined for each specific sign type.

The legends used on the signs in this manual have been carefully developed, reviewed, and approved for nationwide use. The purpose of developing a uniform system is twofold: to establish a cohesive look for signs at all Corps projects and to reduce costs. The system discourages costly, one-of-a-kind signs. However, should the need occur for a sign not displayed, there are grids provided in their respective sections for layout purposes. Consult the District/Division sign coordinator for ordering procedures. It is

important that special application signs follow the format outlined in this section. Non-conforming signs dilute the strength of the system as a whole.

Although every effort has been made to standardize sign legends, individual sign conditions vary from project to project so that the appropriateness of an individual sign to a given setting must be determined on a case-by-case basis as part of the sign plan. The project sign coordinator is responsible for making a sign plan for each specific site based on: geography, hazards, audience, traffic, and the uses for each site. Unique sign legends will follow the specified sign formats to maintain a uniform and cohesive look throughout a project.

The section below outlines the implementation process with page references for the various support materials contained in this manual.

Documentation of Existing Conditions

- 1) All signs currently in place must be listed, photographed and located on a site map.

Explanation of documentation process; pp. 3.1-2.  
Field inventory worksheet; p. 3.3.  
Example of map; p. 3.4.

Preparation of Sign Plan

- 1) Evaluate the data collected to determine the new signs that are required, the replacement signs needed, and the signs that are no longer necessary.
- 2) Schedule the removal of existing signs that are unnecessary or the replacement of non-complying signs.

The principles and guidelines governing the sign standards program; pp. 2.1-12.  
Explanation of sign plan process; pp. 3.1-2.  
Illustrations and descriptions of the signs available for use on a Corps project; pp. 5.1-18.21.  
Sign schedule worksheet; p. 3.5.  
Example of map; p. 3.6.

Implementation of Sign Plan

- 1) Upon approval of the sign plan by the District/Division sign coordinator, carry out the plan by replacing/removing unnecessary, non-complying or missing signs.
- 2) Order and install new signs.
- 3) Update project sign schedule worksheet and site map as required.

Sign order worksheet; Appendix A.  
Material and installation specifications; Appendix B.  
Example of implementation drawing; p. 3.6.

Maintenance of Sign Plan

- 1) Inspect the signs on a regular basis to insure that signs are in place and in good condition.
- 2) Continue to order and install new signs to replace non-complying signs.
- 3) Evaluate site conditions continually to determine if new signs are required or if existing signs are no longer necessary.
- 4) Update project sign schedule worksheet and site map as required.
- 5) Provide routine maintenance of signs.

Explanation of maintenance process; p. 2.12.  
Maintenance guidelines; Appendix C.  
Sign repair/maintenance request worksheet; Appendix C.

Every sign in this manual has an alpha-numeric code associated with it. That code is shown on the page illustrating the format for that sign type (see below). The codes are divided into those categories which are common to all sign types. The specific letters and/or numbers combine to uniquely describe that particular sign.

Sign Code Matrix

Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
UNS-11	1.5"	17" x 15.75"	4" x 4"	HDO-5	36"	LY/BL
UNS-11	2"	22.625" x 21"	4" x 4"	HDO-5	36"	LY/BL
UNS-11	3"	33.875" x 31.5"	4" x 4"	HDO-3	36"	LY/BL
UNS-11	4"	45.25" x 42"	4" x 4"	HDO-3	36"	LY/BL

Sign Type

A six-character code describing a particular kind of sign.

- STANID Standard Identification pp. 5.4-6
- CREDIT Corps Participation Credit Sign p. 5.18-19
- SECNID Secondary Identification p. 5.21
- APRDIR Approach Roadway Directional p. 6.3
- APRS-0 Approach Roadway Directional with Symbols pp. 6.9-10
- PRJDIR Project Roadway Directional p. 6.11
- ENT-00 Entrance Station pp. 7.4-7
- CMP-00 Campground pp. 7.9-14
- PIC-00 Picnic Area p. 7.16
- SWM-00 Swimming Beach pp. 7.18-21
- BTR-00 Boat Launch Ramp pp. 7.23-28
- UNS-00 Undesignated Safety pp. 7.29-30
- HRS-00 Hours Open pp. 7.31-32
- TR-000 Trail Marker p. 7.36
- RS-000 Symbol Sign p. 8.2
- AC-000 Symbol of Access p. 8.4
- DRSS-0 Directional Symbol Sign pp. 8.5-6
- PS-000 Prohibition Symbol pp. 8.17-18
- SLAT-0 Slat System p. 8.23
- PRK-00 Parking p. 9.10
- NPK-00 No Parking p. 9.12
- BLM-00 Boundary pp. 10.2-3
- SDA-00 Safety; Danger p. 11.4
- SCA-00 Safety; Caution p. 11.5
- SNO-00 Safety; Notice p. 11.6
- SAF-00 Safety; Safety p. 11.7
- SDR-00 Safety; Directional p. 11.8
- USC-36 Title 36 Posting Policy p. 12.2
- I-0000 Interpretive p. 13.1
- CST-00 Construction Project pp. 16.2-3
- INT-00 Building Interiors pp. 18.1-23

Legend Size

The height of the capital letters in the primary legend, also known as A. All dimensions of a sign will be described in terms of A. The size of the sign legend (A) is determined by the distance at which the sign is to be read. This letter size is calculated using the Viewing Distance Guide (see page 2.6).

For Symbol signs without worded legends the signs are built around the dimension of the margin, known as M.



Panel Size

Built around the length and size of the legend. The first number in the matrix is the panel width, which is based on the longest legend line, plus left and right margins. The second number is panel height, which is based on the number of legend lines, the size of the legend A, and the spacing between lines. All of these elements are shown on the grid format for that sign type. For catalog signs, panel sizes are fixed and appear in the matrix. For site-specific (custom) signs such as

identification or directional, panel sizes will vary with the legend, and cannot be determined until the typeset legend has been laid-out on the format grid. All dimensions are in decimals; a conversion chart is provided in Appendix E. When determining panel sizes round-off all dimensions to the nearest .125".

Specification Code

Refers to the materials and fabrication techniques available for Corps signs as outlined in Appendix B. The specification for a given sign type may vary with the panel size, placement location or intended use. The number as shown on the matrix following the specification code indicates the mounting configuration and type of post assembly. Each material and sign assembly method is individually specified in Appendix B.

RRW-0	Redwood Signs
HDO-0	HDO Plywood Signs
ALU-0	Aluminum Signs
ILF-0	Individual Letter-forms
CTV-0	Cut Vinyl on Glass
SCP-0	Screenprinted Signs
FBR-0	Imbedded Fiberglass
PRC-0	Porcelain Enamel
ECH-0	Etched Aluminum

Post Size

Sizes are given for nominal dimensions, not the actual cross-section size of the post. For example, a nominal 4" x 4" post may be as small as 3.5" x 3.5", depending on how it is milled.

Mounting

The distance from the ground to the bottom edge of a sign panel, also known as the HAGL (height above ground level).

Color

Refers to both the background (Bkg) and the legend (Lgd) as displayed on pages 4.11-15.

BR	Corps Brown p. 4.11
WH	White pp. 4.11, 12, 14
BK	Black pp. 4.11, 12, 14
CR	Communication Red pp. 4.11, 15
RD	Red (FHA) p. 4.12
YL	Yellow (FHA) p. 4.12
OR	Orange (FHA) p. 4.12
GR	Green (FHA) p. 4.12
SR	Safety Red (ANSI) p. 4.13
SY	Safety Yellow (ANSI) p. 4.13
SG	Safety Green (ANSI) p. 4.13
SB	Safety Blue (ANSI) p. 4.13
SK	Safety Black (ANSI) p. 4.13
SW	Safety White (ANSI) p. 4.13
DR	Dark Red p. 4.14
LY	Lemon Yellow p.4.14
MB	Medium Blue p. 4.14
OD	Office Red p. 4.15
OB	Office Brown p. 4.15
OT	Office Tan p. 4.15
OL	Office Blue p. 4.15
OE	Office Beige p. 4.15
OG	Office Green p. 4.15

Program management will be the responsibility of trained individuals who are assigned as sign coordinators. There will be a sign coordinator for each project. At the District and Division levels there will be a coordinator to review sign planning and program implementation at all projects within that jurisdiction. The National sign coordinator will serve as a technical resource for all Districts and Divisions. The functions and responsibilities of Project,

District, Division, and National sign coordinators are described in the chart below. The qualifications and grade level of the person assigned to this role will vary depending on the size and complexity of project, District or Division. The basic job functions remain the same.

The guidelines provided in this manual will be used to implement and maintain a viable sign program at each project. All new and replacement signs will be designed and constructed in accordance with this manual. Existing signs that do not conform to these guidelines will be scheduled for

replacement on a priority basis. All modification and/or replacement of signs will be completed by January 1, 1995.

Contact your District/Division sign coordinator for assistance or advice when preparing a sign plan, ordering new signs or maintaining existing project signage.

**National Sign Coordinator**

- Preparation of approved vendor lists.
- Development of training programs for sign coordinators.
- Provision of technical assistance in implementing sign standard program.
- Evaluation of and revisions to the sign manual.
- Verification that sign plans are properly implemented.

**Division Sign Coordinator**

- Assistance in preparation of signs for special applications or situations.
- Implementation of Division-wide sign plans.
- Management of Division sign program.
- Recommendation of program management improvements.

**District Sign Coordinator**

- Review and approval of sign plans for lake projects, building interiors, waterways, etc.
- Verification that signs ordered conform to the guidelines in this manual.
- Assistance in preparation of signs for special applications or situations.
- Implementation of multi-location or District-wide sign plans.
- Management of sign program.

**Approved Vendor**

- Fabrication/installation of signs according to the standards outlined in the sign manual.

**Project Sign Coordinator**  
(Lake project, waterway, building interiors, etc.)

- Documentation and evaluation of existing conditions.
- Development of sign plan.
- Implementation of sign plan through purchase of new signs and removal of non-conforming or unnecessary signs.
- Management of sign plan through regular inspection, routine maintenance, and replacement as required.

