

This section has been provided to instruct Sign Program Managers in the proper procedure for developing a project sign plan. This includes:

- inventory of existing conditions,
- analysis of sign requirements,
- preparation of sign plan, and
- implementation program.

Illustrations showing worksheets for written documentation and examples of corresponding site plans with inventory and sign plan notation are provided for instruction and reference.

The sign plan is a written record identifying each sign by type and legend, along with a site plan showing its placement location. The preparation of a sign plan for each project is the first step in implementing the goals of the Corps sign program. This sign plan provides the framework for managing an effective sign program. It becomes the database for decisions involving: new installations, replacements, removals, maintenance, and budget preparation. Once it has been prepared, it will also become part of the project's operational management plan (OMP).

Where there are large numbers of similar signs (e.g., boundary markers, campsite markers, trail markers), the signs do not need to be individually identified. They may be grouped together, with the number of signs listed in the remarks box. This does not include safety-related signs, e.g., traffic signs.

The Project Sign Program Manager is responsible for the development of a comprehensive sign plan. This plan should include all project recreation areas, waterways, buildings, and peripheral roadway signs. The District Sign Program Manager is responsible for the review and approval of the plan.

On Corps concession leased lands, Corps sign standards compliance is encouraged. Project staff should work to enlist the support and participation of lessees or licensees in implementing a sign program that incorporates the principles and objectives outlined in this manual.

The graphic format and design standard for each type of sign must be maintained. If a sign requires a unique legend not provided in this manual, it will be prepared following the applicable grid format. Although every effort has been made to standardize sign legends where possible, individual site conditions vary from project to project. The appropriateness of an individual site to a setting is to be determined by the Project Sign Program Manager on a case-by-case basis based upon an approved sign plan. The sign plan should be based on local need, site geography, existent hazards, and the way the site is being used by the public.

The steps described on page 3-2 outline the process of developing a sign plan.

The following is an outline describing the procedures for developing a sign plan:

1) Inventory of Existing Conditions: The first step in developing a project sign plan is to inventory all existing signs. Materials used for this field work are:

a) Copies of the Sign Inventory Worksheet (see page 3-3).

b) Site plans: Because of the large scale of most projects, this process may require a number of drawings: an area map for off-project signs, individual site maps to show more detail, and floor plans of buildings that have interior signs. The drawing scale should be large enough to allow accurate location notation of existing signs.

c) Tape measure.

d) Camera: Instant-print, negative print film, or digital.

Existing conditions and field recommendations are to be inventoried on Sign Inventory Worksheets (page 3-3) with the sign location shown on a corresponding site plan (page 3-4). On the site plan, a "T"-shaped graphic for single-face signs or an "H" for double-face signs, to indicate orientation (shown on attached illustrations) should be placed on the plan at the location of each sign.

The signs are then numbered and keyed to the Sign Inventory Worksheet. This worksheet becomes the written inventory that includes sign type, legend, size, mounting, and related field notes.

A photograph showing each sign and its surrounding area is recommended.

This inventory and site plan become part of the base information needed to develop a project sign implementation plan.

Corps-related signs that have been installed by the local jurisdiction should also be noted in the sign plan. These signs are part of a comprehensive view of the project. It is important to know where these signs are and what they say to determine what signs are needed at a project and whether there are duplicated signs that should be removed.

2) Evaluation: Once the project has been inventoried and the base data is complete, an analysis of the inventory can be

made. Be familiar with the design guidelines in Section 2 and the various sign types shown in Sections 5-18 as you analyze sign requirements. Evaluate the following:

a) Are there signs missing?

b) Are the signs in good condition?

c) Are the signs in compliance with the standards outlined in this manual?

d) Are there any signs which are no longer necessary or appropriate?

e) Are all the signs in their proper locations?

Based on this evaluation, identify new signs required, replacement signs needed, and signs that can be removed, re-mounted or moved to be in compliance with these guidelines.

One goal of this evaluation is to reduce the unnecessary proliferation of signs. Too many signs in a given area dilute the impact of each individual sign. It is preferable to have fewer signs than too many.

3) Preparation of Project Sign Plan: The sign plan specifies and identifies the placement location for all signs on the project. This is a fluid record that will be revised and updated on an ongoing basis as noncomplying signs are replaced, new signs are added, or when signs that are no longer needed are removed. The sign plan will be recorded using the following materials:

a) Sign software program.

b) Site plans

c) Photographic record of signs where applicable.

With a thorough knowledge of this manual including Principles and Guidelines, Design Standards, and the respective sign types shown in Sections 5-18, a sign plan will be prepared using the inventory of existing conditions and requirements evaluation described above.

The sign plan drawings will show only those signs that exist or are scheduled in the current year's implementation schedule. The sign software program will identify both the new sign that complies with this manual and the existing sign as two consecutive but separate entries in

the inventory database. Once the replacement is complete, the old sign will be deleted from the database and the new sign installation date entered.

4) Implementation: Next, prepare an implementation schedule to phase in new signs that conform to the guidelines established in this manual. To accelerate the phasing-in of new signs, either of the following methods may be used to supplement replacement through routine maintenance:

a) Replacement by site: This involves changing all the signs in a given area. If there are 10 recreation areas at a project, schedule replacement of all of the signs in two of the areas annually. In five years, the entire project will be in full compliance with the manual without a major expenditure in any one year. This comprehensive method of implementation affords the greatest visual impact of the collective look of the sign program at each signed facility.

b) Replacement by category: This involves changing all of the signs of the same type throughout a project; for example, replacing all the signs at each of the boat ramps on a project. This would include a complete change of all signs at each boat ramp, including directional, regulatory, traffic, recreation area, and safety. Because multiples in each category may be ordered, there could be a cost savings. Also, since all signs of one type are installed at the same time, they will all be on the same maintenance schedule.

Once an implementation schedule has been developed, it should be incorporated into the sign inspection and maintenance program. In this way, the sign plan also serves as a management tool for preparing budget requests and for reviewing sign requisitions. This will also allow a coordinated replacement and maintenance schedule.

If a sign is to be located off-project on state, county or city right-of-way, the sign coordinator should contact the appropriate managing agency and request that they install the sign. If they provide the sign, it will be designed to meet their standards. If they do not, the Corps should offer to install the sign utilizing this manual for design guidance.

Shown below is a reduced version of the Sign Inventory Worksheet. This Worksheet is used in the field to document existing conditions when preparing a project sign plan. This sample worksheet has been filled out to show how the initial field documentation of a site is recorded. The instructions to the

left of the worksheet describe what information is to be placed on the worksheet. A corresponding site plan is shown on page 3-4.

Full size reproduction art is provided in Appendix F, page F.143.

Instructions: Refer to the guidelines below when preparing a sign inventory.

1) Plan ID Number: Each sign is given a Plan Identification Number. Using this number, identify the sign on a corresponding plan view drawing. It is recommended that only a simple consecutive numeric be used to identify each sign on the worksheet. Plan to keep this initial phase of work as simple as possible. An alpha code of your choosing will be added to the sign number when this information is put into the sign software.

2) Sign Legend: Describe the sign type and the legend that appears on the sign. If the sign has a multiple-line legend, note the legend line-for-line as it appears. If the sign is identical to a previous sign listed on this worksheet, reference the previous sign by the Plan ID Number. If the sign is a traffic sign, note if it is in compliance with the MUTCD.

3) Panel Size: Enter overall size of sign panel.

4) Legend Size: Enter the capital letter heights of primary and secondary legends.

5) Post Size: Enter nominal dimensions of the existing post size.

6) Viewing Distance: Enter the distance at which the sign is to be read.

7) Mounting Height: Enter the distance from the grade to the base of the sign panel (Height Above Grade Level).

8) Photographic Record: A photographic record of signs and their locations is recommended. If an instant-print camera is used, place the Plan ID Number directly on the photograph. If the film used must be processed, note the exposure number in this column to make it easier to number and file the print once returned from processing.

9) Notes: In this space describe any information on environmental or site conditions that will be useful when developing the sign plan. This may include: unusual road edge grades, speed of approach, impaired lines of sight, topological and geologic constraints such as surface bedrock or high water table. If the existing sign is unnecessary, redundant, or should be replaced, it should be noted in this space.

10) Title Block: Because of the number of sheets that will be used for an inventory, the space at the bottom of the worksheet is provided for identification of each sheet.

Plan ID No.	Legend: Line-for-line	Panel Size	Legend Size	Notes
16	◻ ← Castle → ◻ Lake Ouachita Rocky Bend Campground US Army Corps of Engineers Little Rock District	84x57 Post Size 8x8" HAGL 48"	mise View Dist. 150' Photo (check) 16 ✓	Replace, move to other side of entrance
17	No Parking Anytime	12x18 Post Size unstruct HAGL 78"	2" View Dist. 50' Photo (check) 17 ✓	Remove: this sign is not necessary at this location
18	↑ Campsites 29-54 Campsites → 1-28	57x36 Post Size 4"x4" HAGL 54"	3.5" View Dist. 100' Photo (check) 18 ✓	Replace sometime in future
19	Lake Ouachita Rules, Open near Friday to noon Monday Advance Registration not taken Register at Acorn Campground. Boat Registration Required. Ten persons - Two	48x40 Post Size 4"x4" HAGL 30"	2" View Dist. 50' Photo (check) 19 ✓	
	Boats per site. Grand Fires in fire Rings only. Stoves, lanterns, BBQs permitted inside cleared Area Around Fire Rings Only. Water not Available at Campground			
20	STOP	24x24 Post Size unstruct HAGL 84"	NA View Dist. 150' Photo (check) 20 ✓	Remount on 4"x4" post use same panel R/C at 60" HAGL
21	Campsite Identification No. 1 Number Routed into Round Feeler core	NA Post Size 8"round HAGL 36"	4" View Dist. 60' Photo (check) 21 ✓	Replace at end of cycle 1991
22	Campsite Identification No 2	NA Post Size 8"round HAGL 36"	4" View Dist. 60' Photo (check) ✓	
23	Campsite Identification No 3	NA Post Size 8"round HAGL 36"	4" View Dist. 60' Photo (check) ✓	
				
Project Name/Location				
Prep by: Date Review by Date Page of pages				
PR 2/15/87 PJA 2/18/87 3 8				
Sign Inventory Worksheet				

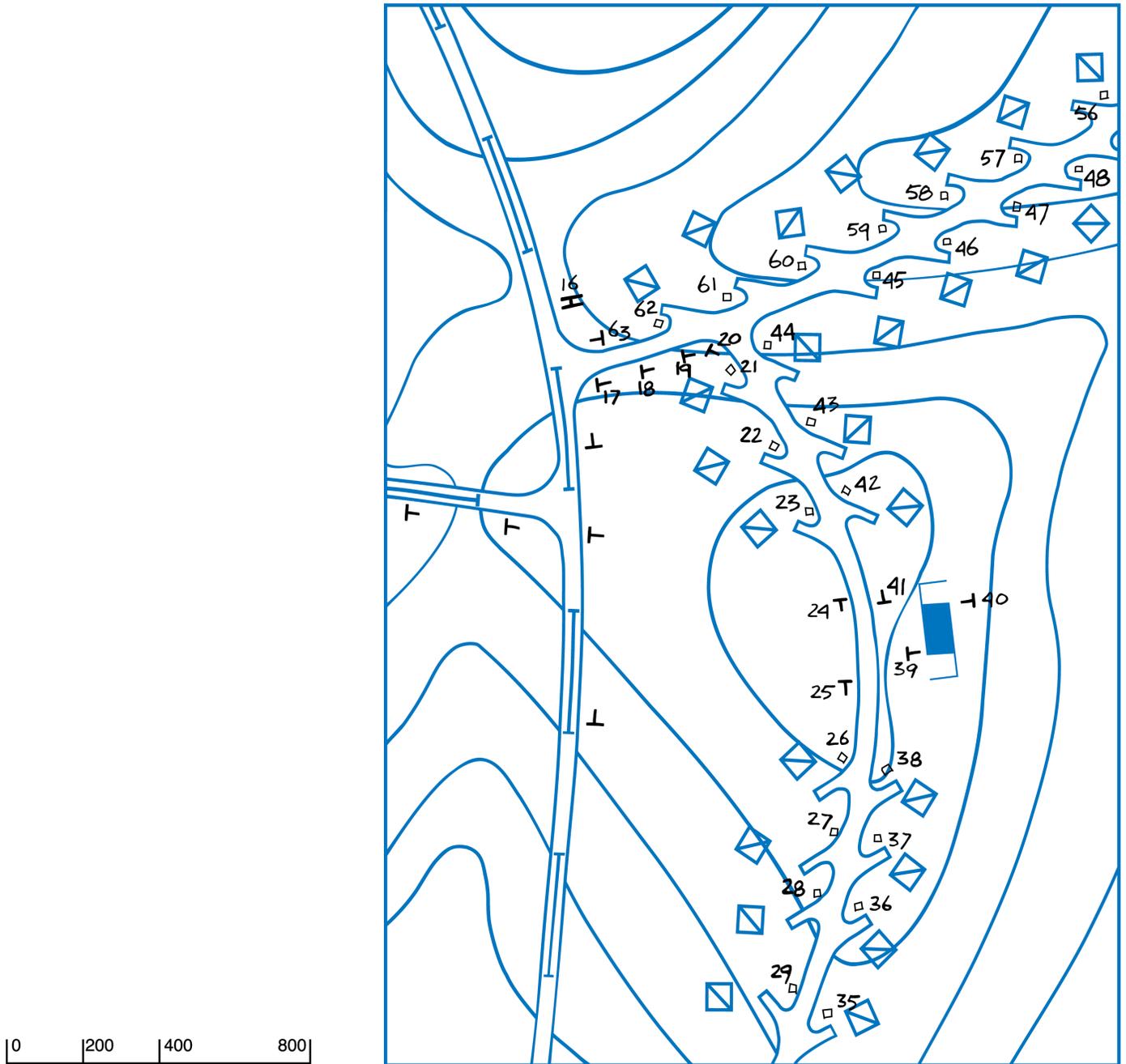
The example shown below is a portion of a standard plan used to show the design of a project including: roads, trails, buildings, and related site improvements.

The information noted on the drawing is a companion to the Sign Inventory Worksheet shown on page 3-3. Note that the "T" or "H" graphic identifies the orientation of the sign and if it is double

or single face. The number corresponds to the Plan ID Number on the worksheet.

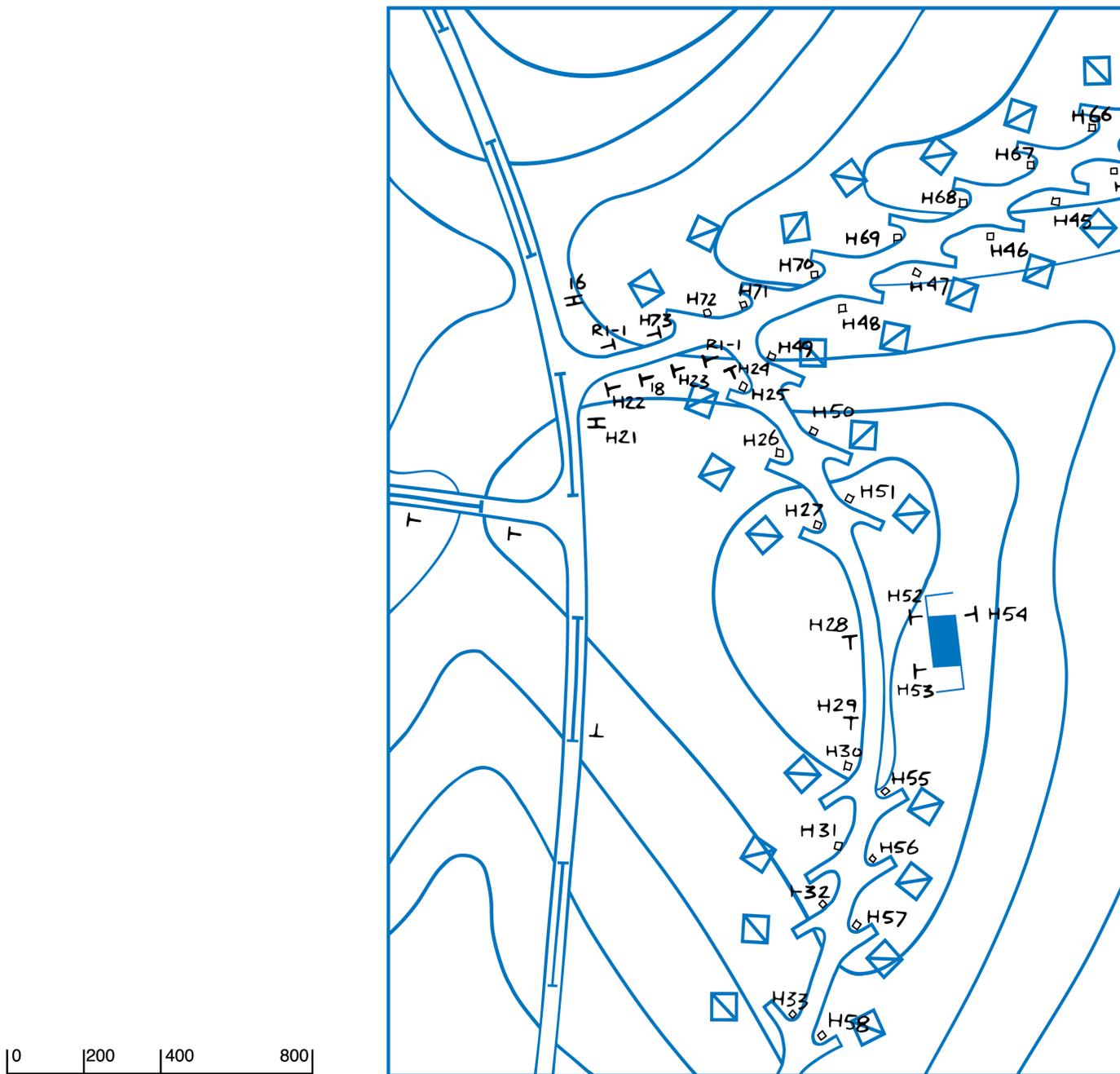
The scale of this drawing (400 ft. per inch) is a convenient size for general inventory and sign placement location records.

Exact mounting detail drawings for sign implementation are shown on larger scale drawings (see page 3-6).



The section of the site plan shown below is identical to the plan on page 3-4. This illustration shows how a completed sign plan is noted on the drawing. Noted are both noncomplying signs that currently exist but are scheduled for replacement and signs that are in compliance with this manual. The placement drawing shown

on page 3-7 shows the mounting and placement location in greater detail for installation.



A detailed series of actual placement location drawings for individual signs or groups of signs in an area should be prepared for proper location of signs for installation. The scale of the example shown is 1" = 100'. The scale will vary depending on the detail of the information that needs to be shown. The base drawings for this purpose may be pre-

pared as needed or use existing grading or paving plans. The key items to be specified are the distance of sign post from edge of pavement (or roadway center line), the measured distance from the intersection, condition, or item being signed, and the distance between signs where more than one sign is placed in a progression in a specific area.

Prior to actual sign mounting, the Project Sign Program Manager will identify the placement location for each new sign. This location will be identified in the field with a stake to verify the sign plan prior to actual installation.

The example shown below is a typical sign placement detail implementation drawing.

