SYSTEM SYSTEM SPECIFICATIONS

NATIONAL PARK SERVICE





SIGN SYSTEM SPECIFICATIONS





United States Department of the Interior

NATIONAL PARK SERVICE WASHINGTON, D.C. 20240

MAR 28 1975

Memorandum

To:

Field Directorate and All Park Superintendents

From:

Director

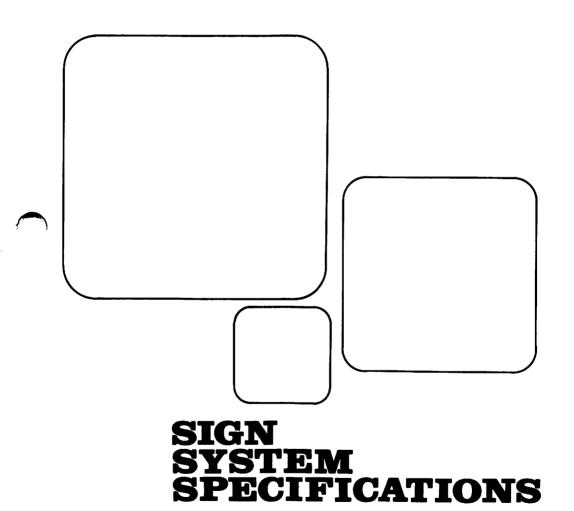
Subject:

NPS Sign System Specifications

The National Park Service Sign System Specifications represent the guidelines, rules and procedures for implementing a uniform sign system.

The attached manual supersedes all other NPS SSS manuals and is a supplement to the "Manual on Uniform Traffic Control Devices" in accordance with the Memorandum of Understanding between the Federal Highway Administration and the National Park Service, dated August 22, 1973.

Enclosure



NATIONAL PARK SERVICE SIGN SYSTEM SPECIFICATIONS

UNITED STATES DEPARTMENT OF THE INTERIOR

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INTRODUCTION

The National Park Service Sign System Specifications (NPS-SSS), printed in January 1972, created for the first time a Servicewide sign system designed to provide a safe, visitor-oriented, environmentally harmonious, uniform sign system. Since 1972, ideas and comments have been received, and where appropriate, have been used to strengthen and streamline the National Park Service Sign System and the Specifications that support it.

The NPS-SSS closely follows the Manual on Uniform Traffic Control Devices (MUTCD), published by the Federal Highway Administration, U.S. Department of Transportation. Variations from the MUTCD were the subject of negotiations between the Federal Highway Administration (FHWA) and the National Park Service (NPS); and these variations were agreed upon by the two agencies in a Memorandum of Understanding of 3 August 1973.

The format for issuing the revised NPS-SSS Manual closely follows the Manual on Uniform Traffic Control Devices. The specifications have been organized as a Supplement to the MUTCD, with appropriate cross references to explain or amplify NPS variations or applications.

The NPS-SSS may be interleaved with the MUTCD, with the NPS material following the end of each section; i.e., the Park Service Guide Sign on Conventional Roads portion would be interleaved between pages 112 and 113 of MUTCD. Interleaving is optional on the user's part.

PURPOSE

Effective communication of information relies upon an understandable system of directional signs and landmark identifications. Every aspect of sign construction — including form, shape, material, and location — must be used to motivate visitor action. NPS signs must be in harmony with the environment in which they are placed and be "human in their message." To achieve maximum effectiveness, a uniform system of signing and graphics should be used.

The NPS-SSS is a Supplement to the MUTCD: Together they provide a complete Manual, giving the guidelines, rules, and procedures for the uniform NPS Sign System. Also, consistent with the unique qualities of the areas administered, the NPS-SSS provides national and international identity for NPS. Therefore, to achieve national recognition and identification, and to provide universal understanding in communicating instructions to the visitor for maximum safety and enjoyment, these specifications shall be closely followed throughout the National Park System.

PART I. GENERAL PROVISIONS

(NPS Supplement to MUTCD)

PARK SIGN PLAN

Responsibility for the preparation of the Park Sign Plan rests with the Superintendent of the Park. He will designate a team of persons having diversified backgrounds to make recommendations and prepare a plan for the Park. Concessioners and a traffic engineer, if available, and the Park Safety Officer shall be members of the team. Basic references for this plan will be the master plan and the interpretive prospectus. The master plan outlines the mission and purpose of the Park, and the interpretive prospectus guides the presentation of the mission and purpose to the visitors.

Responsibility for Signs

Superintendent: The Superintendent is responsible for authorization of regulations in connection with signs and markings as required in the Code of Federal Regulations, Title 36, Chapter I, part 4, Vehicles and Traffic Safety.

Regional Director: Policies, procedures, and standards are to be consistently applied in the Region. The Regional Director provides technical assistance to Parks. He approves each Park Sign Plan in his Region. Each Region will have a Regional Sign Coordinator who will advise the Regional Director on Regional and Park sign matters. The Regional Safety Officer shall be a consultant to the Sign Coordinator. The Sign Coordinator will be an individual with both knowledge and experience in placement, design, and selection of regulatory and information signs. The Regional Sign Coordinators will also assist the Parks in developing and evaluating their Park Sign Plan, and will serve as liaison between Parks, Regions, the Denver Service Center, the Washington Office, and suppliers on sign programs.

Denver Service Center: The professional staff of DSC will provide technical design and construction assistance to the Regions and Parks in formulating and implementing the Park Sign Plan. The DSC Sign Coordinator will advise the DSC Manager and the Washington Office on all sign matters.

The Director: The NPS Director will approve revisions and additions to the NPS-SSS.

Procedures

The Park Sign Plan will establish the role of signs in carrying out the objectives of the master plan. The introduction will address itself to the

classification of the area, topography of the Park, the scope of the plan based upon the Park area, visitation, miles of road, quantity and kinds of signs required, facilities available, and other pertinent information about the Park. The type of entrance signs to be used will be analyzed, based upon the options available as described herein; and a decision will be made concerning these important signs. The wayside exhibit plan section of the interpretive prospectus will be considered in formulating the plan.

Traffic control signs are an integral part of the Park Sign Plan. The Superintendent is responsible for providing, according to the latest edition of the MUTCD, such traffic control signs as may be necessary and required on the primary circulation system within the park.

Sign Survey and Inventory: The Park Sign Plan includes a Sign Survey and Inventory of existing signs. This survey will be the first step in preparing the Park Sign Plan. Replacement of existing signs with the new NPS uniform signs should involve more than a "new" for an "old" sign. All signs should reflect a complete analysis of sign needs in accordance with the NPS-SSS and the MUTCD.

The key to an effective sign program is knowing which signs are in use, the placement of these signs, and their condition. A survey of all signs establishes an inventory of existing signs upon which to evaluate the effectiveness of the sign program. Action plans for additions, deletions, and revisions to the sign program can begin when this is completed. The Sign Survey and Inventory will provide a continuing list, by number, of all signs for which the Park is responsible, and this number will be the key in the annual inspection and review, for maintenance and replacement of signs.

The task of maintaining the important Sign Survey and Inventory should be assigned to one person in each Park, with the responsibility for keeping it up-to-date.

Location Plan: Upon completion of the Sign Survey and Inventory, all signs will be indicated on plans, such as development concept plans and construction drawings, for each major construction segment. The location plan is a continuing planning device to assist in determining what is said with signs, and what should be said, and where it is said.

Sign Evaluation: With the above two steps completed, the Sign Team can begin to evaluate the effectiveness of the sign program, for up-dating it, and preparing the Park Sign Plan.

Safety as an element of the Park Sign Plan must outweigh all other considerations. Communicating effectively is communicating safely. Review of all existing and proposed signage (message, location, maintenance, and so forth) for safety implications will be an on-going part of the Park Sign Plan.

In regard to regulatory and warning signs, as well as pavement markings, the MUTCD and the NPS-SSS will be followed in all reports. Exceptions to these standards must be approved by the Director.

Photographs: All information, direction, interpretive, and other signs that are one of a kind should be photographed. These photographs can be used to prepare the Sign Survey and Inventory and Location Plan. Photographs of existing signs will assist in planning new signs, in revising texts, and in providing ready reference when replacements are required.

Annual Inspection and Review: The Park Sign Team will conduct an annual inspection of the signs in each Park and review the Park Sign Plan. This annual inspection and review offers an opportunity to keep Park signs and related markers up-to-date, and to maintain the Sign Survey Inventory. The Sign Team should pay critical attention to each item on the forms.

Construction: On any construction contract involving signs or signing, the Superintendent shall order the sign from the Sign Plan prepared by the designer in accordance with the NPS-SSS, and the contractor shall install all signs as required.

Implementation: Park Sign Plans will be prepared in the Park and will be approved by the Regional Director. The replacement of existing signs and the installation of new, uniform signs will be in logical units: in a developed area, by district, by road system, or in an entire small Park. This will avoid having two sign styles within one geographic area.

PLANNING CONSIDERATIONS

To assist the Park Sign Team, some considerations and guidelines for preparing signs — texts, layout, and size — as well as methods for selecting appropriate sites are herewith provided. In determining the need for a sign or a marker, considerations should be given to the following questions:

1. Is guidance or a message needed?

- 2. If so, where is a message needed?
- 3. What message is needed?
- How shall the message be presented? (sign, exhibit, audio, or other means)
- 5. Is the sign for drivers of vehicles, pedestrians, or both?

Before proceeding, these questions should be answered by several people not immediately concerned with the sign under consideration.

Vehicular Signs

Where the sign is placed and what the sign says are both important for safety. Does the visitor have time to make a decision between the sign and the decision point? He must. And his decision should be confirmed by additional signs in such a way that he can proceed without confusion. By the same token, signs should be placed where they will not be confusing to the driver who has already made a decision based on another sign.

On all new road construction, during both preliminary and final design, care should be taken to ensure that the road design can be signed. The MUTCD will be followed when establishing criteria for road-sign design.

The Sign Team should review the designed speed of all public roads and the enforceability of the posted speed limits to ensure that management objectives and visitor safety criteria are met. Established speed limits are the result of traffic studies: All factors should be considered — terrain, road sign, and visitor safety.

Bicycle, snowmobile, and other vehicular warning and regulatory signs will conform to MUTCD signing or a future MUTCD supplement on bicycle signs.

Pedestrian Signs

Pedestrian signs, both graphic and verbal, are those located along the walks, trails, and in or near buildings. They include any and all signs to inform, interpret, direct, and control pedestrians, horses, and other forms of foot traffic.

The desired pedestrian traffic flow within and between buildings, exhibits, walks, trails, and parking areas should be determined. Information should be

given on vehicular signs; by maps and photographs; and by observation of natural pedestrian traffic patterns, and visitor needs. How can signs facilitate pedestrian movement? Brevity and the exactness of the text are important considerations when preparing pedestrian signs. Placement of the sign is also important — giving the information when the visitor needs it. Symbols will be used to the greatest extent possible. The symbol meets all of the requirements expressed above and also has the added advantage of uniformity. Symbols can be grouped together on one sign plate; and with the use of arrows and destinations, can convey the information instantly.

Special Signs

Advance Notice Signs: NPS areas are destinations for millions of travelers. Cooperation with State, county, or other agencies having jurisdiction over approach roads or main highways, such as Interstate highways, must be sought to adequately sign so that Park visitors will be properly directed to their destination.

Advance notice signs can be more helpful to the visitor if they contain — in addition to the name, distance, and direction — information that would prevent a traveler from making an unnecessary trip to a Park that is open only during a portion of the day or year. They might contain a line reading: "Open 9 a.m. to 6 p.m." for a Park closed during certain periods of the day. Also, the advance notice sign might be designed with a removable and/or reversible panel reading "Closed" on one side and "Open" on the other. Other wordings, of course, might be appropriate for a Park closed during certain periods and seasons.

The MUTCD has adopted an optional trapezoidal shape with brown background for recreational area guide-signs used on public lands and reservations. These signs will be installed by the States. The trapezoidal shape is not recommended for use on advance notice signs. The rectangular shape should be used. The trapezoidal shape shall *not* be used within the Parks. Brown is to be used as the background color, and white for the letters. When advance signs are supplied or placed by the Service or another agency, care should be exercised to ensure that the design is in conformance with the MUTCD.

Interpretive Signs and Wayside Exhibits: A general definition of an interpretive sign or wayside exhibit is a device or facility placed at a significant place in the Park to provide interpretation of the site or scene. These devices form an integral part of the Park's coordinated interpretive program. Interpretive signs take many forms, Some are simple textual

messages intended to be read from autos on the roadside. Others include plaques, markers, exhibits, panels, and demonstration displays in diverse designs appropriate to specific interpretive needs. This latter group goes beyond the scope of the NPS-SSS, and is classed as a wayside exhibit and is an exception to the NPS Sign System.

Normally, most outdoor interpretive devices fall into the category of wayside exhibits and are produced from specifications set forth in the wayside exhibit plan, a document prepared by the Division of Museum Planning and Design, in coordination with the Denver Service Center, based on the wayside exhibit interpretive themes and locations defined in the Park's interpretive prospectus. The wayside exhibit plan provides a unified design and content style for the series of outdoor exhibits that comprise the Park's wayside exhibit interpretive program.

The planning, design, and preparation of these interpretive wayside devices are programmed and accomplished through appropriate channels — Park to Region, to Denver Service Center, to Washington Office, to Harpers Ferry Center.

Certain interpretive signs should follow the NPS-SSS. These include text and identification signs that are not part of a design-coordinated series of wayside exhibits, such as plant identification markers along a nature trail, or interpretive text markers, which from a standpoint of esthetic and location factors are more closely related to the Park sign series than to the wayside exhibit series.

Interpretive signs not included in the specific design and theme of the wayside exhibit plan will be manufactured with the NPS-SSS. Exceptions will be approved by the Regional Director.

Many Parks have devised a distinctive symbol or logo for interpretive signs. The use of a Park logo is encouraged and can be adopted for use on all signs used for interpretation.

Upon installation in the Park, interpretive signs and wayside exhibits become part of the Sign Survey and Inventory. Except for routine maintenance, however, the rehabilitation and replacement of interpretive signs and roadside exhibits not manufactured in accordance with the NPS-SSS remain the responsibility of the Division of Museum Planning and Design, Harpers Ferry Center.

Entrance Signs: Entrance signs are perhaps the most important of all signs when the visitor is searching for his first glimpse of the Park. Advantage should be taken of this because it is often possible to find a combination of placement and construction that captures and reflects the true significance or spirit of the Park.

The significance of the visitor's presence in the Park can also be conveyed, and can be restated by means of the various information, direction, and interpretive signs, so that the visitor is subtly kept in tune with the Park throughout his visit.

The simplest method of preserving this desirable continuity is the use of the same material, color scheme, and style of lettering throughout the Park. Preparation of a Park Sign Plan calls for a desirable progression of signs, all related to one another.

Each Park Sign Plan will include a review of the existing entrance signs that do not conform to the NPS-SSS, and determine if these signs warrant retention, based upon the above objectives. The value of a consistent Park Sign Program has been stated; however, there may be situations when an exception is desirable.

The Sequoia National Park entrance sign illustrated in Appendix D to this Manual is an example. It combines native materials in a simple effective design; its heroic scale is consistent with the principal material used; and it typifies the giant Sequoia trees, which are the main attraction of the area. The Indianhead adds a striking individuality to the sign, and suggests the source of the name Sequoia from the Indian word. The sign combines many fine ideas and its use would not be in conflict with uniform signs used elsewhere in the Park. If a nonuniform entrance sign is recommended, it will be designed by the Denver Service Center to meet the requirements of the Park Sign Plan. Form No. 10-238 will be prepared to program funds for design and construction.

If the Park Sign Plan Team elects to use the NPS-SSS for the entrance sign, consideration can be given to using a distinctive supporting structure or base that establishes and/or enhances the feeling that the visitor has crossed a threshold from the Park boundary into an area providing a different experience. Many existing entrance signs are constructed to permit the replacement of the text portion of the sign, as is illustrated on the entrance sign for the Cumberland Gap National Historical Park. (See Appendix D.)

The information on an entrance sign that requires Department and National Park Service designation will be given on two lines, in the following manner, with the words spelled out in full:

United States Department of the Interior National Park Service

Capitalization will be as shown above and the letters for "National Park Service" shall not be larger in size than those for "United States Department of the Interior." The letter size should be large enough to be readable from a moving car; and areas having walk-in entrances should use appropriately sized letters, i.e., they should be no higher than the height of the capital letters of the name of the area.

The NPS emblem shall be incorporated in the design of all entrance signs. The sign design selected will ensure that the emblem does not suffer loss of dignity or conflict with materials or colors selected. If the entrance sign is constructed to the NPS-SSS, including the support structure, the emblem will be an integral part of the sign using "Scotchlite," "Scotchcal," or equivalent materials. The emblem will be located with appropriate consideration to text layout and design of the overall sign.

NPS Emblem: The emblem is the identifying symbol of the National Park Service. Its use conveys to the visitor his presence in an area administered by NPS, and the emblem means a quality experience and public service to the visitor.

The full-color emblem in one of the standard sizes is to be incorporated in all entrance signs. If the entrance sign is not placed near the boundary, or the area does not lend itself to a large entrance sign incorporating the emblem, the emblem is to be placed in position near the boundary and/or in advance of the entrance area or at a point of first contact with visitors. In these cases, a post-type mounting will be used, if possible, and in a place well separated from other signs.

The emblem may be used at carefully selected areas within Parks or offices — at Park headquarters, visitor centers, contact stations, or other visitor-use buildings, or structures on which the emblem may be displayed. If used as a shield and placed on a structure at an entrance or information station, it should not be placed near traffic signs. When the emblem is mounted against a post, sign, or building, it may be fastened by means of two short sections of pipe, threaded into flanges, to keep the emblem 3- to

6-inches distant from the support. This will produce a heavy shadow, emphasizing the emblem.

The emblem may be used in some cases on other signs, but it should not be used so indiscriminately as to cheapen it.

The official emblem will be made up in eight (8) sizes: $10'' \times 7.5''$, $12'' \times 9''$, $15.5'' \times 12''$, $18'' \times 14''$, $27'' \times 21''$, $40'' \times 30''$, $54'' \times 42''$, $72'' \times 56''$.

The colors to be used in the official emblem are as designated on the diagrammatic illustrations in Appendix D.

Emblems on all NPS-SSS signs will automatically be made of "Scotchlite," "Scotchcal," or equivalent, as appropriate; and will be incorporated into the basic sign during construction. When requisitioning a separate emblem, specifications should be made as to whether the sign is to be routed wood or "Scotchlite/Scotchcal" on steel or plywood.

Stencils of the official emblem in reduced sizes may be made for use on other wood signs or other objects where NPS identification is desirable. (Again, over-use of the emblem should be cautioned against.) One color only should be used with the stencil and should be selected for contrast with the color of the background.

Building Designation Signs: Frequently, it is advisable to place the name of the building on the exterior near the visitor entrance. If the name is to be mounted upon the wall of the building — offset — separate from the building, or on the approach road or walkway, a NPS-SSS sign should be used.

Building signs should contain information as to the hours the building is open to the public. If the hours are the same all year, the information may be a part of the sign. If the hours change from season to season, removable panels containing the appropriate information may be prepared so that they could be changed to fit the occasion without affecting the overall design. Operating hours will be placed on the door or near the door of buildings with wall-mounted name designations.

The NPS Modified Clarendon alphabet, in available heights, will be used for both of the above methods of building designation.

Concessioners' Signs: Signs within concessioners' areas should be of the same color and design as those for the whole Park. Superintendents

should assist the concessioners in designing and placing their signs in order to achieve a uniform appearance throughout the Park.

Traffic control signs, exterior direction, and general information signs, which are necessary for visitor guidance within the concessioner's area, shall be installed by NPS. If the signs are for the concessioner's information only, these signs are to be installed and maintained at the expense of the concessioner. The wording of these signs shall be approved by the Superintendent, if it involves Park information. All exterior concession's signs are to be included in the Park Sign Plan, whether they are installed at NPS expense or by the concessioner. Signs inside a concessioner's building should maintain the same quality and design standards as those erected outside. Neon or flashing light signs are to be prohibited outdoors, but are permissible indoors, when approved by the Superintendent.

All exterior signs used in concessioners' areas, whether installed and maintained by NPS or the concessioner, will conform to the NPS-SSS. The NPS will order those signs required by the concessioner through the normal procurement procedures. The concessioner will then reimburse NPS for these signs.

Outdoor signs that advertise products by brand name or by use of emblems or symbols in the colors or designs used by manufacturers are prohibited. Concessioners' gasoline pumps may be painted in the recognizable standard colors normally used by the oil company who supplies the gasoline, and may include the oil company's name or emblem, the size of which will not extend beyond the normal pump dimensions.

NPS Route Markers: A NPS Route Marker is available as an optional road-marking device. This marker shall be used in those Parks where it is desirable to mark Park routes to facilitate visitor travel or for other traffic considerations. The use of a NPS Route Marker is optional, but if one is used, it shall be the one pictured in Appendix D. The maximum number of digits that can be used is three.

Trail Markers or Symbols: Trails designated by the National Trails System Act (P.L. 90-543) will be marked with the uniform symbols adopted for that trail.

Other Park trails should use a uniform Parkwide marking system or symbol for each trail. The approved recreation symbols can be used for this purpose by adding numbers or other designations to the oversized symbol plate; or

another system consistent in design and quality with these specifications may also be developed.

NPS Protection and Regulation Signs: The purpose of the signs in this series is to provide adequate public notices when needed, at minimum cost.

These signs are to be used sparingly, and generally only in locations where forcible language is needed to ensure that hunters, poachers, or other trespassers are served notice of park boundaries or jurisdiction. For example, these signs can be used during hunting or fire seasons; and because of their low cost, they can be replaced whenever they become shabby, or removed when they are not needed.

Only the signs listed in Appendix D may be ordered and displayed. Special or individual signs of this type are not permitted.

Materials for each sign are specified in the description accompanying the example of the sign. Basic colors will be green on white for general regulatory signs, and red on white for specific prohibited activities, fire, or emergency conditions.

PART II. SPECIFICATIONS FOR COMPONENTS OF THE NPS-SSS

(NPS Supplement to the MUTCD)

GENERAL

Engineering Study Required

The decision to use a particular device at a particular place should be made on the basis of an engineering study of the site. The NPS-SSS and the MUTCD are not a substitute for engineering judgment. The intent of these manuals is to provide standards for traffic control devices and their installation. Those areas which do not have qualified engineers on their staffs should seek assistance from the Regional Office, Denver Service Center, FHWA, local or State, highway departments, the county, a nearby city, or a traffic engineering consultant.

Sign Facing Material

Two types of flexible plastic sheeting that have a precoated permanent adhesive on the back will be used. "Scotchlite" (or equal) for signs requiring reflective faces and "Scotchcal" (or equal) for signs not requiring reflective faces.

All regulatory and warning signs described in the MUTCD, will be completely reflectorized to the standards of the MUTCD. Encapsulated lens reflective sheeting is recommended for use on warning and regulatory signs only.

Stanchion Sign Supports

Weathering steel rectangular tubing will be used for all sign support systems. The color varies slightly, but is best described as a deep earth-brown color. The oxide film is extremely dense and prevents corrosion attack and will reform if scratched or marred, and should not be painted. Weathering steel should not be used within 1/2 mile of heavy saline areas such as bays, oceans, and salt marshes. In these cases, use of the wood alternative indicated in Appendix H to this Manual is recommended.

Color of Sign Backs

Sign backs will be painted with "NEXTEL" brand paint (or equal) to match the color of the stanchions.

Sign Height

The MUTCD requires that the height of the lower edge of signs be 5 feet

above the level of the roadway edge for rural areas, and shall be 7 feet above the level of the roadway edge for urban areas. This standard will be applied uniformly to all signs used on Park roads.

If special traffic control signs are used, they must conform to the style of lettering and colors of the signs specified in the MUTCD.

REGULATORY SIGNS

NPS areas shall use the MUTCD for determining all regulatory sign needs throughout the National Park System in the interest of safety, and to simplify and standardize the vehicular use of Park roads. Superintendents shall install the signs listed in the MUTCD as needed and required. Details of NPS applicability and exceptions are as follows:

All NPS roads — except four-or-more lane roads or Parkways, and those maintained and patrolled by State or other public agencies — are considered to be within the conventional road or street category referred to in the MUTCD. Standard-size regulatory signs may be used on these Park roads in accordance with the Standard Highway Sign Supplement to the MUTCD. Regulatory signs on expressways, four-or-more lane roads or Parkways, will use standard sizes, or larger, to conform with adjacent jurisdiction signs.

WARNING SIGNS

The NPS area will use the warning signs in the MUTCD throughout the National Park System in the interest of safety, and to simplify and standardize the vehicular use of Park roads. Superintendents shall install the signs listed in the MUTCD as needed and required. Details of NPS applicability and exceptions are as follows:

All NPS roads — except four-or-more lane roads or Parkways, and those maintained and patrolled by State or other public agencies — are considered to be within the conventional road or street category referred to in the MUTCD. Standard-size warning signs may be used on these Park roads in accordance with the Standard Highway Sign Supplement to the MUTCD. Warning signs on expressways, four-or-more lane roads or Parkways will be standard size or larger, to conform with adjacent jurisdiction signs.

GUIDE SIGNS ON CONVENTIONAL ROADS

Brown shall be the official background color and white the legend color for all NPS information, direction, guide, and service signs, except as noted below:

On State-owned and operated highways, such as Interstate 40 traversing Petrified Forest National Park, all signs, pavement markings, and other traffic-control devices required for display of regulations, information, warning, and guidance shall be in conformance with standards contained in the MUTCD. Where four-lane Parkways operated by the NPS, interchange with Interstate System highways, one advance-guide sign and one exit-direction sign shall be displayed, in each direction, having a white legend on a green background, and otherwise conforming to requirements of the MUTCD, Section 2-F. Such signs are considered to be an integral part of signing for the Interstate System, and therefor eligible for Federal Aid Interstate (FAI) fund participation through the respective State Highway Department.

On highways owned, constructed, and operated by the NPS, such as the East Side Highway in Grand Teton National Park, and most other such roads, necessary information, direction, guide, and service signs shall meet the requirements of the NPS-SSS.

All new signs shall be in accordance with the NPS-SSS. The conversion of all existing signs on NPS roads shall be completed by 31 December 1978.

Guide signs point out a direction, a destination, or a route of travel. Emphasis should be on location and clarity, and the illustrations in Appendix D have been selected to show how these qualities can be obtained. Symbols can be incorporated into direction signs or can be used as direction signs themselves, whenever the nature of the message is informational, in the form of directions.

Information signs are advisory in nature. Brevity and uniformity are the main guidelines to be followed when preparing information signs. Worded signs are used to describe places or ideas that are indigenous to an area, and symbols will be used to convey information of a uniform nature. As the use of symbols gains acceptance, and achieves uniform standardization, the majority of the signs used to convey information will be symbols.

Information signs do not require a decision on the part of the visitor. The destination/direction sign will inform the visitor of the alternatives available to him and require that he make a decision. For example: "Turn left to campground 3 miles." "Turn right for visitor center 1 mile." An information sign states a fact such as the name of a mountain in the distance or the name of a stream being crossed.

Letters and Type Style

The type style chosen for the NPS signs is NPS Modified Clarendon. Letters in this style are available in 1", 1-1/2", 2-1/4", 3", 3-3/4", 5", 6", 9", 12", and 15" capital heights. Corresponding lower case sizes are two-thirds the capital height, or 2/3", 1", 1-1/2", 2", 2-1/2", 3-1/3", 4", 6", 8", and 10", respectively. Type style is illustrated in Appendix F.

Background Color

Brown is the color of the "Scotchlite" reflective sheeting or "Scotchcal" nonreflective film, or equivalent, selected for use by the NPS. Brown has been designated by the MUTCD as the color to be used on guide or information signs in cultural and recreational areas.

Color of Letters

Letters will be white. The face material selected and the method of manufacture will determine the method of application. Variations of "Scotchlite/Scotchcal" or equivalent, pressure-sensitive, cutout letter fonts and silk-screen application will be used.

Symbols

Symbols are visual statements of ideas. The uniform direction and regulatory sign system is supplemented by a uniform symbol system.

Nationally and internationally accepted symbols, uniformly adopted throughout the NPS will fulfill a need. Research and study in this area by international organizations and intergovernmental agencies are the basis for the symbol system; and recommendations of such bodies will be solicited whenever considering additional symbols.

Federal recreation symbols are official and legal for NPS use and will be expanded, as outlined above, as necessary. When new symbols are approved they will be published in the *Federal Register*. No symbol is authorized for the NPS until such publication.

The symbols will be white on brown. The red slash mark, running from top left to lower right, will be used on symbols to indicate that the symbolized

activity is prohibited. All symbols will face right in depicting direction of action, whenever possible. (Symbols on warning and regulatory in contrast, face left whenever possible.)

Reflectorization

The guide signs designed for vehicle use areas will have:

- Reflectorized legend and background on roads with high volume nighttime use.
- 2. Reflectorized legend and nonreflective background on roads with limited nighttime use.
- Nonreflective legend and background on roads closed at night, and fire and other administrative roads normally closed to visitor use.
- 4. Reflective legend and background on all signs placed closer than 10 feet to edge of road.

If in doubt about traffic volume or use, reflective material for legend and background will be used.

Pedestrian, trail, interpretive, and other signs that are not intended for motor vehicle traffic or nighttime viewing will be made from nonreflective film for both background and letters.

Borders

Sign borders will be white, matching the white of the letters. Sizes of borders, which will vary with the overall sizes of signs, are listed in Appendix G.

Compatibility of Color

"Scotchlite" and "Scotchcal," or equivalents, are all made of slightly different materials. Color compatibility of these materials requires that they not be mixed at an installation, except for letter/background combinations, which do not require color compatibility.

A screen-process paint will be used for signs and symbols whenever volume quantities of frequently used signs are required. Signs manufactured in this process should be used together to ensure color compatibility.

Assembly and Installation

Signs should not be placed closer than 6 feet or more than 12 feet from the road edge.

The MUTCD will be used for guidance for sign spacing on roads and at intersections. A chart below gives the approximate required distance between signs, and the required distance for advance-warning or direction signs before intersections or decision points:

Speed Limit	Distance of Sign from Intersection or Between Signs					
20 m.p.h.	100 feet					
30 "	150 "					
40 "	300 "					
50 "	500 "					
55 "	750 ′′					

The elevation of and lateral distances between pedestrian signs can be varied because neither dimension is as critical to pedestrians as to motorists. The physical surroundings in which signs are to be placed is the greatest controlling factor. Signs should be located so that they are easily noticed, and in such a manner so that they do not interfere with, and are not obscured by, the natural growth and physical features of the area.

When a bicycle path runs along a road, care should be taken when placing a sign and determining sign height in the vicinity of the bicycle path.

Breakaway Safety Mountings

Breakaway safety mountings will be installed on all signs located on highways having speed limits of 46 m.p.h. and above, and/or located within 12 feet, or the clear recovery area of the roadway edge. However, breakaway mountings should be considered for any sign for which location, topography, or past safety history warrants.

GUIDE SIGNS ON EXPRESSWAYS

All information and guide signs on the Baltimore and Washington Parkway and the Suitland Parkway should have a white legend on a green background in conformance with this section of the MUTCD.

GUIDE SIGNS ON FREEWAYS

No application.

CIVIL DEFENSE

All Civil Defense signs under the jurisdiction of the National Park Service shall conform to the MUTCD.

PART III. MARKINGS

(NPS Supplement to the MUTCD)

Road markings will be used upon the approval of the Regional Director. When used, roadway markings shall comply with the MUTCD. Under no circumstances shall there be more than two center-line stripes — a requirement in the latest edition of the MUTCD. A third stripe, if present from previous markings, will be obliterated. Specific policies and regulations governing specific use of pavement markings will be developed by NPS if necessary, in conformance with the principles contained in the MUTCD. Conformance date shall be 31 December 1974.

PART IV. SIGNALS

(NPS Supplement to the MUTCD)

Traffic control signals used in Parks will conform to the MUTCD, after the need for an installation has been approved by the Regional Director. Conformance date, when used, shall be 31 December 1976.

PART V. ISLANDS

(NPS Supplement to the MUTCD)

Roadway islands used in Parks will conform to the MUTCD.

PART VI. TRAFFIC CONTROLS FOR STREET AND HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS

(NPS Supplement to the MUTCD)

Part VI of the MUTCD shall govern the design, application, installation, and maintenance of traffic control devices required during road construction and maintenance operations within the National Park Service area.

To prevent collision with temporary signs used for traffic control, both sides shall have reflective film of the color specified in this section and the back may also have an appropriate legend such as "Resume Speed."

PART VII. TRAFFIC CONTROL FOR SCHOOL AREAS

(NPS Supplement to the MUTCD)

When used in Parks, traffic control devices for schools will conform to the MUTCD.

PART VIII. DEFINITIONS

(NPS Supplement to the MUTCD)

Definitions contained in Part VIII of the MUTCD shall apply to the NPS-SSS. In addition, these definitions are hereby added:

NATIONAL PARKWAY

A National Parkway is federally owned and embodies the features of a Parkway, but those features are of national significance. The National Parkway is authorized by special Act of Congress and administered pursuant to the Act of 25 August 1916 (39 Stat. 535) as amended and supplemented.

PARK ROAD

A Park road is internal in nature and intended for the exclusive use of Park visitors. Such roads are limited in scope to only those absolutely necessary to serve Park and visitor needs; are deliberately developed as leisure routes with no provision for commercial or through traffic; and are designed so that they are molded to the terrain in such a way that there is a minimum of unnatural intrusions.

PARKWAY

A Parkway is an elongated Park featuring a road designed exclusively for pleasure travel and embracing scenic recreation or historic features. Access from adjoining properties is limited and commercial traffic is preferably prohibited or discouraged. Developments within the Parkway may include facilities for interpretation for enjoyment of other recreation potentialities of the Parkway.

SCENIC ROAD

A scenic road is a highway or road through areas having such high or cultural values that the development of the road with emphasis on safe and pleasant driving is justified. It would include facilities for interpretation of natural and

cultural features, for picnicking, camping, hiking, and development of other recreation potentialities of the roadway. A scenic road may be an existing highway, a new road or a combination of existing and new roads.

ENTRANCE SIGNS

Entrance signs, at or near the boundary, should express, the individuality of the Park; and should convey a first impression that can later be restated by means of the various interpretive, information, and wayside exhibits, so that the visitor is subtly kept in tune throughout his visit with the predominate significance of the Park.

INFORMATION SIGNS

An information sign is advisory in nature, and is used to describe places or ideas that are indigenous to an area with information of interest to the traveler, though not directly necessary for his guidance to or through the area.

INTERPRETATION SIGNS

An interpretive sign or marker is a device or facility situated at a significant point in the Park to provide interpretation of the scene or site. Such interpretive signs supplement and complement the Park story presented by other interpretive facilities.

PROTECTION AND REGULATION SIGNS

NPS protection and regulation signs are intended to inform the visitor of necessary NPS regulations for the protection of natural features, structures, and housekeeping practices. The signs are to be used only in locations where forcible language is required to ensure that potential trespassers, vandals, and poachers are informed of Park boundaries and Park policies.

WAYSIDE EXHIBIT SIGNS

A wayside exhibit is an outdoor display that includes illustrative material that requires enclosure in a case for protection from the weather or from visitors.

APPENDIX A: PARK SIGN SURVEY AND INVENTORY

(NPS Supplement to the MUTCD)

PURPOSE AND GENERAL INSTRUCTIONS

The Sign Survey and Inventory Form is designed for use as a multipurpose form to:

Gather initial data on existing signs in the Park System: type, location, description, text, installation date, installation cost, and funding source. This data would be developed by the initial inventory and entered on Sign Survey and Inventory – 2, Form No. 10-47 – Description Data; and Sign Survey and Inventory – 1, Form No. 10-48 – Historical Data. The appropriate codes to be entered on the form for each heading are contained in this Appendix.

Record changes made to signs in the Park. Signs added (not replacements) to the inventory will be added to the record, using the next number in sequence for its location. A one-for-one sign replacement (exact replacement) will require starting a new Historical Data Form, and filling in the Date Replaced code on the original Historical Data Form. The sign number will remain the same; and on the new Historical Data Form the same line will be used. Signs that are altered in any way when replaced will receive a *new* number. The former sign will be coded out in the Date Replaced column. The information relevant to the new sign will be entered on the next available blank space.

The two forms together also serve as a maintenance document, because the descriptive data need not be repeated each year when the signs are being surveyed. This document can also be used as a data file from which various management statistics can be compiled. The document offers a relatively inexpensive method of initially establishing a Sign Survey and Inventory System; and as additional experience is gained, the forms will be modified to include or preclude data elements. The forms have also been designed for future use as a source document for key-punching and central input into an automated system — should this type of application be considered feasible and profitable at a future date.

To properly perform the survey, two men from the Sign Team should cover each Park or portions thereof. (One can drive and the other can fill out the forms.) Roads will be surveyed once in daylight and once at night, to check the signs under all conditions. Copies of the forms and details for completing

them are contained in this Appendix. After completion of the Sign Survey and Inventory, evaluation of the existing Park signs can be made on the basis of the specifications.

For property management, procurement, and inventory control purposes the forms will be completed in duplicate and a copy forwarded to the Regional Office for review and further processing.

A method of recording maintenance data on each sign on the Sign Survey and Inventory Form No. 10-48 — Historical Data should be provided. Space is available to record maintenance data for 3 years. Should the expected life of the sign exceed 3 years, additional Historical Data Forms can be used. Information relating to the condition of the signs, using the condition codes in this Appendix should be entered for each year. This data will provide information on the condition of the post, face, letters, reflection, visibility, maintenance cost, and remarks code, as required. For example: "sign vandalized," "struck by vehicle," and so forth.

This form will function as a data file for compilation of management data for Park, Region, and Denver Service Center personnel depicting quantity of signs of a given type in a location and frequency of replacement for signs of specified materials.

Each form contains space for 23 lines of entries. These forms should be maintained in a loose-leaf binder. The inventory book should be divided into sections indicating signs by type or location; or by any other method of breakdown considered best by the Park.

The forms have an adequate binding edge in the appropriate margin, so that when the binder is opened the sign number and corresponding Descriptive Data will appear on the left-hand side of the binder, and the appropriate maintenance data for that sign (on the same line), on the Historical Data Form, will appear on the right-hand side of the book.

INSTRUCTIONS

The following is a list of codes to be used for completing the Sign Survey and Inventory -1 – (Descriptive Data) Form 10-47 (see page 62); and -2 – (Historical Data) Form 10-48 (see page 67). The codes are in the same sequence as contained on the form, reading left to right.

All columns will be completely filled out. For those columns for which no information is available, fill in the spaces with "Os".

The forms should be kept in a horizontal binder 11"x8½". The Descriptive Data should be on the left side of the open binder and the Historical Data on the right, so that all information for one sign can be viewed at one time. The forms are printed and punched for this use.

The forms will be completed in duplicate, with duplicate copy forwarded to the Regional Office.

The conventional rule on the use of digits and numbers on ADP forms will apply, i.e., the "unit" number, the last number or letter of the numbers or code will be placed in the extreme right-hand box of the spaces provided for that code, e.g., 00M57L. Detour with arrow left sign, or 01023 sign number, with "Os" being added to fill the spaces to the left.

SIGN SURVEY AND INVENTORY— 1 — (Descriptive Data)

(Form 10-47)

SIGN NUMBER

Each sign will be assigned a five digit number, e.g., 00001. This number will be stamped in an unobtrusive manner on the back of each sign for field identification. This number can be of use for identification in cases of theft recovery.

The flexibility of the number code can be increased by assigning a block of numbers to a district, developed area, campground, road, trail, etc.

AREA

Park

The Park number will be the Region and Park as presently prescribed, e.g., 05170 for Guilford Courthouse National Military Park.

Operation (OP) Unit

The division or operation unit in which the sign is located will be used.

TYPE

Code

R Regulatory
W Warning
I Information

D Destination (Direction & Mileage)

IN Interpretive O Other E Entrance

P Plaques & Markers
N NPS Emblem
S Statuary
M Route Marker

Manual Numbers

Manual numbers refer to either the MUTCD numbers assigned to warning and regulatory signs in the latest edition of the MUTCD Manual, or to the symbol numbers assigned by the NPS.

CD-1	Evacuation Route Marker
CD-2	Area Closed
CD-3	Traffic Regulatory Post
CD-4	Maintain Top Safe Speed
CD-5	Road Use Permit Required for Through Traffic
CD-6	Emergency Aid Centers
CD-7	Fallout Shelter Direction
D1-1	Destination (any sign with this purpose)
D2-1	Mileage Sign (any sign with this purpose)
D3	Street Name (any sign with this purpose)
D4	Parking Area (any sign with this purpose)
D5-1	Rest Area (any sign with this purpose)
D6-1	Scenic Area (any sign with this purpose)
D7-1	Recreation Area (any sign with this purpose)
D8-1	Weigh Station (any sign with this purpose)
D9-1	Service (any sign with this purpose)
D10-1	Mileposts (1 digit)
D10-2	Mileposts (2 digits)
D10-3	Mileposts (3 digits)
D11-1	Bike Route
D11-1A	Bike Route Arrow
E1-1	Advance Guide (any sign with this purpose)

I1-1	General Information (any sign for this purpose)
	Signals set for m.p.h.
M1-1	Interstate Route Marker
M1-2	Off-Interstate Business Loop Marker
M1-3	Off-Interstate Business Spur Marker
M1-4	U.S. Route Marker
M1-5	County Route Marker
M1-6	State Route Marker
M1-7	Forest Route Marker
M1-10	NPS Route Marker
M2-1	Junction Marker
M2-2	Combination Junctions (any sign with this purpose)
M3-1	North
M3-2	East
M3-3	South
M3-4	West
M4-1	Alternate
M4-1A	Alternate
M4-2	Bypass
M4-3	Business
M4-4	Truck
M4-5	To
M4-6	End
M4-7	
M5-1	Temporary Advance Turn Arrow (90 ⁰)
···· =	Advance Turn Arrow (45°)
M5-2 M6-1	Direction Arrow
M6-2	Direction Arrow
M6-3	Direction Arrow
M6-4 M6-5	Direction Arrow Direction Arrow
M6-6	Direction Arrow
M6-7	Direction Arrow
R1-1	Stop Sign
R1-2	Yield Sign
R1-3	4-Way
R1-4	All Way
R2-1	Speed Limit (followed by posted speed)
R2-2	Trucks (followed by posted speed)
R2-3	Night (followed by posted speed)
R2-4	Minimum Speed (followed by posted speed)
R2-4A	Speed Limit (followed by posted speed)
	Minimum (followed by posted speed)

112-374	neduced Speed Ariesa
R2-5B	Reduced Speed (followed by posted speed)
R2-5C	Speed Zone Ahead
R3-1	No Right Turn Symbol, Plus Plaque
R3-1A	No Right Turn
R3-3	No Turns
R3-4	No U-Turn Symbol, Plus Plaque
R3-4A	No U-Turn
R3-5	Lane-Use Control (only with arrow)
R3-6	Optional Movement
R3-7R	Right Lane Must Turn Right
R3-7L	Left Lane Must Turn Left
R3-8	Double Turn
R3-9	Center Lane — Left Turn Only
R4-1	Do Not Pass
R4-2	Pass With Care
R4-3	Slower Traffic Keep Right
R4-5	Trucks Use Right Lane
R4-6	Trucks Lane Feet
R4-7	Keep Right Symbol, Plus Plaque
R4-7A	Keep Right
R4-8	Keep Left Symbol, Plus Plaque
R5-1	Do Not Enter Sign
R5-2	No Trucks Symbol, Plus Plaque
R5-2A	No Trucks
R5-3	Pedestrians Prohibited
R5-4	Commercial Vehicles Excluded
R5-5	Vehicles With Lugs Prohibited
R5-6	No Bicycles Symbol, Plus Plaque
R5-7	Nonmotorized Traffic Prohibited
R5-8	Motor-driven Cycles Prohibited
R5-9	Wrong Way
R5-10	Pedestrian, Bicycles, Motor-driven Cycles Prohibited
R5-10A	Pedestrian and Bicycles Prohibited
R6-1	One Way (centered in arrow)
R6-2	One Way, With Arrow
R7-1	No Parking Any Time
R7-2	No Parking (time)
R7-3	No Parking Except Sundays and Holidays
R7-4	No Stopping Or Standing
R7-5	One-Hour Parking (time)
R7-6	No Parking, Loading Zone

Reduced Speed Ahead

R2-5A

R7-7	No Parking, Bus Stop
R7-107	No Parking, Bus Stop
R7-108	2-Hour Parking (time)
R7-201	Tow-Away Zone
R8-1	No Parking On Pavement
R8-2	No Parking Except On Shoulder
R8-3	No Parking
R8-4	Emergency Parking Only
R8-5	No Stopping On Pavement
R8-6	No Stopping Except On Shoulder
R8-7	Emergency Stopping Only
R9-1	Walk On Left, Facing Traffic
R9-2	Cross Only At Crosswalks
R9-3	No Pedestrian Crossing
R9-4	No Hitchhiking
R10-1	Cross On Green Light Only
R10-2	Cross On Walk Signal Only
R10-3	Push Button For Green Light
R10-4	Push Button For Walk Signal
R10-5	Left On Arrow Only
R10-6	Stop Here On Red (with arrow)
R10-7	Do Not Block Intersection
R10-8	Use Lane With Green Arrow
R10-9	Right Turn On Red After Stop
R10-10	Left Turn Signal
R11-1	Keep Off Median
R11-2	Road Closed
R11-3	Road ClosedMiles Ahead Local Traffic Only
R11-4	Road Closed To Through Traffic
R12-1	Weight LimitTons
R12-2	Axle Weight Limit Tons
R12-3	No Trucks OverLbs Empty Weight
R12-4	Weight LimitTons Per AxleTons Gross
R13-1	All Trucks Commercial Vehicles Next Right
R14-1	Truck Route
R15-1	Railroad Crossbuck
R15-2	Railroad Tracks
S1-1	School Advance Symbol
S2-1	School Crossing
S3-1	School Bus Stop Ahead
S4-1	School Speed Limit With Hours
S4-2	m.p.h. When Children Are Present

S4-3	School
\$4-4	When Flashing
W1-1	(R or L) Turn Sign (Right or Left)
W1-2	(R or L) Curve Sign (Right or Left)
W1-3	(R or L) Reverse Turn (Right or Left)
W1-4	(R or L) Reverse Curve (Right or Left)
W1.5	(R or L) Winding Road (Right or Left)
W1-6	Large Arrow
W1-7	Large Arrow (double)
W2·1	Crossroad
W2-2	Side Road 90° (Right or Left)
w2-3	Side Road 45 ^o (Right or Left)
w2-4	T-Symbol Sign
W2-5	Y-Symbol Sign
W3-1	Stop Ahead Sign
W3-2	Yield Ahead Sign
W3-3	Signal Ahead Symbol (with plaque)
W3-3A	Signal Ahead Sign
W4-1	Merge Sign
W4-2	Pavement Width Transition
W5-1	Road Narrows Sign
W5-2	Narrow Bridge Sign
W5-3	One-Lane Bridge Sign
W6-1	Divided Highway (Road) Symbol
W6-1A	Divided Highway (Road) Sign
W6-2	Divided Highway (Road) Ends Symbol
W6-2A	Divided Highway (Road) Ends Sign
W6-3	Two-Way Traffic Symbol
W6-3A	Two-Way Traffic
W7-1	Hill Symbol
W7-1A	Hill Sign
W7-2	Use Second Gear
W7-2A	Use Low Gear
W7-2B	Trucks Use Lower Gear
W8-1	Bump Sign
W8-2	Dip Sign
W8-3	Pavement Ends
W8-4	Soft Shoulder
W8-5	Slippery When Wet Symbol
W9-1	(R or L) Right or Left Lane Ends Sign
W9-2	(R or L) Lane Ends Merge Left or Right Sign
W10-1	Railroad Advance Warning

W11-1	Bicycle Crossing
W11-2	Pedestrian Crossing
W11-3	Deer Crossing Sign
W11-4	Cattle Crossing Sign
W11-5	Farm Machinery Crossing Sign
W12-1	Double Arrow
W12-2	Low Clearance (feet, inches)
W13-1	Advisory Speed Plate (m.p.h.)
W13-2	Advisory Exit Speed Plate (m.p.h.)
W14-1	Dead End
W14-2	No Outlet
W14-3	No Passing Zone
*M4-8	Detour
*M4-9	Detour Arrow (R or L)
M4-10	Detour in Arrow R or L
W20-1	Advance Road Construction
W20-2	Advance Detour
W20-3	Advance Road (Street) Closed Feet/Miles
W20-4	Advance One-Lane Road Feet/Miles
W20-5	Advance (Right or Left) Lane Closed
	(R or L)Feet/Miles
W20-7	Advance Flagman Feet/Miles
W21-1	Men Working
W21-2	Fresh Oil
W21-3	Road Machinery Ahead
W21-4	Road Work_Feet/Miles
W21-5	Shoulder Work
W21-6	Survey Crew
W22-1	Blasting ZoneFeet
W22-2	Turn Off 2-Way Radios
W22-3	End Blasting Zone
G20-1	Road Construction Feet/Miles
G20-2	End Construction/Road Work
G20-4	Pilot Car Follow Me

^{*}Signs to be inventoried only for stock listing.

SYMBOL

*RS-001	Firearms
*RS-002	Smoking
*RS-003	Automobiles
*RS-004	Trucks
RS-005	Tunnel
RS-006	Lookout Tower
RS-007	Lighthouse
RS-008	Falling Rocks
RS-009	Dam
RS-010	Fish Hatchery
RS-011	Deer Viewing Area
RS-012	Bear Viewing Area
*RS-013	Drinking Water
RS-014	Information
RS-015	Ranger Station
*RS-016	Pedestrian Crossing
*RS-017	Pets on Leash
RS-018	Lodging
RS-019	Food Service
RS-020	Grocery Store
RS-021	Men's Restroom
RS-022	Restrooms
RS-023	Women's Restroom
RS-024	First Aid
RS-025	Telephone
RS-026	Post Office
RS-027	Mechanic
RS-028	Handicapped
RS-029	Airport
RS-030	Lockers
RS-031	Bus Stop
RS-032	Gas Station
RS-033	Vehicle Ferry
*RS-034	Parking
RS-035	Showers
RS-036	Viewing Area
RS-037	Sleeping Shelter

^{*}Denotes those available with prohibitive slash and to be coded with an X at the end of the number, e.g., RS072X.

*RS-038	Campground
RS-039	Picnic Shelter
*RS-040	Trailer Sites
RS-041	Trailer Sanitary Station
*RS-042	Campfires
RS-043	Trail Shelter
*RS-044	Picnic Area
RS-045	Kennel
RS-046	Ski Touring
*RS-047	Downhill Skiing
RS-048	Ski Jumping
*RS-049	Sledding
*RS-050	Ice Skating
*RS-051	Ski Bobbing
*RS-052	Snowmobiling
RS-053	Marina
*RS-054	Launching Ramp
*RS-055	Motor Boating
*RS-056	Sailboating
*RS-057	Row Boating
*RS-058	Water Skiing
*RS-059	Surfing
*RS-060	Scuba Diving
*RS-061	Swimming
*RS-062	Diving
*RS-063	Fishing
*RS-064	Horse Trail
*RS-065	Trail Bike Trail
*RS-066	Bicycle Trail
*RS-067	Recreation Vehicle Trail
RS-068	Hiking Trail
RS-069	Playground
RS-070	Amphitheater
RS-071	Tramway
*RS-072	Hunting
RS-073	Stable
RS-074	Interpretive Trail
RS-075	Interpretive Road
**RS-076	Environmental Study Area
RS-077	Winter Recreation Area
*RS-078	Snowshoeing

*RS-079

Canoeing

RS-080	Point of Interest
*RS-081	Rock Climbing
*RS-082	Climbing
*RS-083	Rock Collecting
*RS-084	Spelunking
RS-085	Laundromat
***RS-086	Litter
RS-087	Boat Tour
*RS-088	Wading

^{*}Denotes those available with prohibitive slash to be coded with an X at the end of the number, e.g., RS072X.

^{**}Permission to use RS-076 (Environmental Study Area) must be granted by Director, National Park Service, Washington, D.C.

^{***}Permission to use RS-086 (Litter) must be granted by Clean and Beautiful, Inc., 2121 5th Avenue, Seattle, Washington 98121.

FUND

Source of funds by Primary Work Element (PWE) for purchase or maintenance:

e.g., 150 - Interpretation

230 - Roads & Trails

260 - Buildings & Utilities

600 - Other Maintained (non-NPS)

LOCATION

Road

Route: The route number selected for each Park Road will be used.

Mile: The mileage will be determined by odometer reading recorded in the field to the nearest 1/10th. Roads will be surveyed west to east and south to north.

Direction (DIREC)

Will refer to the direction or nearest direction the sign faces: N-N orth, E-E ast, S-S outh, W-W est.

DESCRIPTION

Sign Size	Overall Size — Horizontal and Vertical
01	30'' x 30''
02	12" × 6"
03	36" x 36"
04	48" x 9"
05	9" x 8½"
06	27¼" × 8"
07	24" x 30"
08	24" x 24"
09	24" × 48"
10	30" x 36"
11	24" x 12"
12	30" x 18"

13	36" x 12"
14	18'' x 24''
15	12" x 18"
16	30" x 24"
17	9" x 12"
18	24" x 36"
19	48" x 30"
20	60" x 30"
21	36'' x 24''
22	96" x 60"
23	48'' x 48''
24	36" x 48"
25	48" × 60"
26	36" x 36"
27	48'' x 48''
28	16" x 16"
29	18" x 18"
30	18" x 15"
31	24" x 15"
32	24'' × 9''
33	2′0″ x 1′4″
34	3′9″ x 1′3″
35	3′9″ x 1′8″
36	3'9'' × 2'6''
37	3'9" x 3'9"
38	5′0′′ x 1′8′′
39	5′0′′ × 3′4′′
40	7′6′′ × 2′6′′
41	7'6" × 3'4"
42	7′6′′ × 5′0′′
43	10′0″ x 3′4″
44	10'0" x 5'0"
45	10'0" x 6'8"
46	12'6" x 4'2"
47	12'6" x 6'3"
48	12'6" x 8'4"
49	15'0" x 5'0"
50	15'0" x 7'6"
51	150° x 70° 15′0′′ x 10′0′′
52	
	12" x 12"
53	8" x 8"

54	6" × 6"
55	6" x 8½"
56	8" x 10%"
57	12" x 16"
58	24" x 24"
59	12" x 18½"
60	1'6'' x 2'4½''
61	Other
62	6′3′′ x 1′8′′
63	6′3′′ x 2′1′′
64	6′3′′ x 2′6′′
65	6′3′′ x 3′4′′
66	6′3′′ x 3′9′′

LETTER (LTR) SIZE

Select predominant capital lettering size, e.g.,

06 = Capital letter size of 6", and

15 = Capital letter size of 15".

COLOR - BACKGROUND AND LETTERS (BACK/LTR)

(Use this section for both background and letters.)

RD	Red
WH	White
GR	Green
BR	Brown
BL	Blue
YE	Yellow
вк	Black
OR	Orange
GB	Grey-Blue
00	Other

Post Materials

01	Steel Channel or U
02	Wood 4" x 4"
03	Wood 6" x 6"

04	Steel Pipe
05	Concrete
06	Light Pole
07	Aluminum
08	Weathered Steel Tubing, 2" x 2"
09	Weathered Steel Tubing, 2" x 2" with
	Breakaway Mount
10	Weathered Steel Tubing, 4" x 21/2"
11	Weathered Steel Tubing, 4" x 21/2" with
	Breakaway Mount
12	Weathered Steel Tubing, 6" x 4"
13	Weathered Steel Tubing, 6" x 4" with
	Breakaway Mount
14	Wood with Breakaway
15	Other

Face Materials

01	Scotchlite
02	Paint .
03	Beads on Paint
04	Reflector Buttons
05	Scotchcal
06	Reflective Paint
07	Wood
08	Metal
09	Other

Back Materials

(Material upon which sign facing is mounted)

01	Aluminum
02	Cast Iron
03	Embossed Steel
04	Plywood
05	Plastic
06	Bronze
07	Routed Aluminum
08	Stone or Monument
09	Other
10	Steel

TEXT – (WORDING OF SIGN)

Print or type sign text or graphics as it appears on the sign, using a slash to separate each line of the message, to fill the space provided. Use only one line, leaving off what cannot be included on one line. Standard traffic control signs can be excluded, except for miles per hour, etc., which would not appear elsewhere.

SIGN SURVEY AND INVENTORY - 1 (Descriptive Data)

	AREA		_	TYPE	Γ.	LO	CATION	-			DES	CRIP	TION			
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SIGN SURVEY AND INVENTORY— 2 — (Historical Data)

(Form 10-48)

FISCAL YEAR (FY)

(This form must be used for 3 consecutive years.)

SIGN NUMBER

Each sign will be assigned a five-digit number (the same as Descriptive Data). This number will be stamped, in an unobtrusive manner, on the back of each sign for field identification. This number can be used for identification in theft recovery cases.

The flexibility of the number code can be increased by assigning a block of numbers to a district, developed area, campground, road, trail, etc.

DATE INSTALLED - MONTH

01	January
02	February
03	March
04	April
05	May
06	June
07	July
80	August
09	September
10	October
11	November
12	December

- YEAR

74	1974
75	1975
76	1976
77	1977

(Example: January 1975 would be 0175.)

INSTALLATION COST

(Cost of Sign Manufacturer and Installation)

01	\$0 25
02	25 — 50
03	50 — 75
04	75 – 100
05	100 - 200
06	200 — 300
07	300 — 400
08	400 500
09	500 - 600
10	600 — 700
11	800 — 900
12	1000+
13	No cost to NPS

CONDITION CODES

Post -	Condition
00	Satisfactory
01	Not Straight
02	Needs Painting
03	Deteriorated
04	Needs Straightening & Painting
05	Warped (wood)
06	Other

Face —	Condition
00	Satisfactory
01	Defaced
02	Corroded
03	Mounting Loose
04	Faded
05	Not Legible
06	Warped (wood)
07	Deteriorated
08	Paint Peeling
09	Scotchlite/cal Peeling
10	Other

Letters (LTRS) - Condition

00	Satisfactory
01	Defaced

02 Scotchlite/cal Peeling

03 Faded 04 Not Legible 05 Paint Peeling

06 Other

Reflectivity (REFL) - Condition

00 Good 01 Fair 02 Poor 03 None

04 Nonreflective

Visibility (VISIB) - Condition

00 Can be seen easily 01 Hidden by official sign 02 Hidden by advertising sign 03 Hidden by brush 04 Hidden by tree limbs 05 Hidden by parked vehicles Hidden because of curve 06 Hidden because of hill 07 80 Hidden because of building

09 Other

MAINTENANCE COST (MAINT. COST)

00	No Cost
01	\$00 - 25
02	25 - 50
03	50 – 100
04	100+

REMARKS CODE

01	Vandalized
02	Requires one-for-one replacement
03	Obsolete
04	Requires text revision
05	Location inappropriate
06	Struck by vehicle
07	Weather damage
08	Does not meet sign size standards
09	Does not meet letter size standards
10	Does not meet location standards
11	Other
12	Satisfactory

DATE REPLACED

Code as described under "Date Installed."

Form 10-48 (August 1970)

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

SIGN SURVEY AND INVENTORY - 2 (Historical Data)

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APPENDIX B: RULES FOR FORMULATING SIGN SIZE AND TEXT

GENERAL

The detailed guidelines on the following pages are the specifications that create the NPS-SSS. After deciding on the text of the sign, these standards and rules are to be used to determine the size, shape, and layout of the sign.

Where sign size is *not* extremely critical, it is suggested that the following paragraphs be left up to the discretion of the sign shop, where much more rapid signing can be accomplished with the sign guides.

Overall sign dimensions are determined by the quantity of text and the size of the lettering used to compose the sign. These two factors are, in turn, dependent upon the reading time and vehicle speed. Minimum letter sizes can be determined from the speed/height-relationship chart on page 70.

Computing the length of each line of the sign is not necessary, except when the Park has the need to know in advance the size of the sign and the resulting space it will occupy. If these factors are critical, the steps outlined below should be followed. (If not, the Park will determine the message, the size of the letters, and their length; the appropriate order form will be filled out; and, the supplier will then compute the necessary dimensions.)

How to Use This Guide

Following is a Sequence of Action that discusses the main steps to be taken, and refers to the tools available.

Each step will be described on the following pages in detail.

1. Formulate message:

Tool: Message Rules, page 70.
Sign and Symbol Examples, page 76.

2. Determine letter size:

Tool: Determination of Letter Size, page 70.

3. Determine size of message:

Tool: Spacing Guides, page 75.

4. Determine size of sign and layout of message:

Tool: Spacing Guides, page 75.
Sign Layout Guides, page 165.
Sign and Symbol Examples, page 76.

Formulating the Message

Road signs are designed for automobile traffic. Under normal driving conditions there is little time between being close enough to read the sign and passing the sign. Consequently, messages must be short. They should be confined to the essentials; for example, destination and direction.

Message Rules:

- Not more than eight words per sign.
- 2. Not more than three messages per sign.
- Not more than four words per message, except where the proper name of a destination is made up with more than four words.
- 4. If there are more than eight words contained in three messages, the third message will have to be put on a separate sign.
- 5. To keep messages short, certain commonly recognized abbreviations may be used, e.g., "Mt." for "Mount," "Pt." for "Point," "St." for "Street." (Do not abbreviate historic proper names, e.g., "Washington" to "Wash.," "Arlington Cemetery" to "Arl. Cem." Use discretion and tact to avoid antagonizing local groups.)

Pedestrians and those on bicycles and horseback have time to pause and read sign messages unhurriedly.

The rules given above, therefore, do not apply to trail signs. However, the wording of directional signs should be concise. Descriptive text should be kept to the point and contain only what is of general interest.

Determination of Letter Size

The letter size for signs to be used in a given location is determined by the maximum vehicle speed that is allowed at this point of the road system. Letter size for pedestrian signs is determined by location and volume of visitors using the area. When selecting the letter size required for road signs, refer to the definition of direction and destination signs versus information signs below.

Road Signs (Vehicular)

Park Roads - Speed 60 m.p.h. and Above: And those highways and

parkways of four-or-more lanes that are integrated into other road systems of the Interstate or expressway category with capital letter size greater than 12". Destination and direction capital height 15"; lowercase height and thickness of arrowshaft 10". *Information:* Capital letter height, lowercase height, and thickness of arrow shaft 6".

Park Roads — Speed 46 m.p.h. and Above: Destination and direction, capital height 12"; lowercase height and thickness of arrowshaft 8". *Information:* Capital height 6"; lowercase height and thickness of arrowshaft 4".

Park Roads — Speed 36 m.p.h. and Above: Destination and direction height 9"; lowercase height and thickness of arrowshaft 6". *Information*: Capital height 5"; lowercase height and thickness of arrowshaft 3-1/3".

Park Roads — Speed 25 to 35 m.p.h.: Destination and direction, capital height 6"; lowercase height and thickness of arrowshaft 4". *Information*: Capital height 3"; lowercase height and thickness of arrowshaft 2".

Low Speed Roads – Speed 24 m.p.h. or Less: Destination or direction, capital height 3-3/4"; lowercase height and thickness of arrowshaft 2-1/2". *Information:* Capital height 2-1/4"; lowercase height and thickness of arrowshaft 1-1/2".

Pedestrian and Trail Signs

Short Messages to be Read from some Distance, and Major Name Plates and Signs in High Volume Visitor-use Area: Capital height 3-3/4"; lowercase height and thickness of arrowshaft 2-1/2".

Directions, Distances, Instructions, Listings in Moderate Visitor-use Areas or Where Pedestrian Traffic is Channeled by Walks, etc.: Capital height 2-1/4"; lowercase height and thickness of arrowshaft 1-1/2".

Plaques, Markers, and Object Identification: Capital height 1-1/2"; lowercase height and thickness of arrowshaft 1".

Descriptive Sign Texts: Capital height 1"; lowercase height and thickness of arrowshaft 2/3".

The guides for letter and space size may be adjusted to meet special conditions, for example, composition, emphasis, and so forth. At no time

should sizes used be less than those indicated in the charts for particular uses or speeds. As a general rule, 1" of letter height can be read from a distance of 50 feet; 2" at 100 feet, and so forth.

Rules for Capitalization

Destinations are always spelled in upper and lowercase letters (Example: "Turkey Run" Appendix D, Sign 12'6" x 4'2".)

Directions are spelled in upper and lowercase letters, if they are the only message on the sign. (Example: "Exit" Appendix D, 3'9" x 1'8".)

Directions are spelled in capital letters, if they occur together with destinations on the same sign. (Example: "Memorial Bridge KEEP RIGHT" Appendix D, sign 7'6" x 5'0".)

If a directional expression is part of a destination, it will be spelled in uppercase and lowercase letters. (Example: "Parkway South" Appendix D, sign 10'0" x 3'4".)

Determination of Size of Message

Before a sign layout can be drawn up and the sign size determined, the length of the message has to be worked out.

The Table of Letter Widths and Letter Size Factors, and the Spacing Guide in this Appendix provides for measuring the units for the widths of every letter and the space between the letters. The values pertaining to a given message are to be taken from the tables together. The sum is to be multiplied by the letter-size factor. The result represents the length of the word in inches.

A simple example will illustrate the procedure: An "Exit" sign with arrow is required for a parking area.

First Step: "Exit" is a directional expression. The word "Exit" according to the Rules of Capitalization, No. 2 on page 72, is spelled in uppercase and lowercase letters.

The Table of Letter Widths gives the following values:

capital	Ε	-	30
lowercase	x	_	26
"	i	-	13
**	t	_	16

Second Step: The Spacing Guide provides the following distances:

Third Step: The sign location calls for a 6" letter. The letter-size factor is 0.19000 for this size, i.e., $93 \times 0.19 = 17.67$.

First Partial Result: The word "Exit" at 6" capital height measures 17.67" in width, which is approximately 17-5/8".

Fourth Step: The arrow length, for 6" capital letter, according to the Table of Letter Widths, measures 53 units.

Second Partial Result: Multiplied by the letter-size factor of 0.19, the arrow converts to 10.07", which is approximately 10".

Fifth Step: The guide to line spacing specifies a distance of one lowercase (x) height between the first or last letter and an arrow. The corresponding (x) height to a 6" capital letter is 4".

End Result: The total message measures:

$$17-5/8'' + 4'' + 10'' = 31-5/8''$$
 (word) (space) (arrow)

Determination of Size of Sign and Layout of Message

The size of the message is now established. Vertical and horizontal margins and, in case of multiline messages, line spacings must be added. These are specified under Spacing Guide, page 75.

Relative positioning of lines, arrows, and symbols are found under Spacing Guide, page 76.

At this stage, a layout in scale will be drawn up with all elements, including minimum margins.

In the earlier example of the "Exit" sign, the Spacing Guide stipulates minimum horizontal margins of one capital height, both left and right.

The capital height of the example was 6";

is the minimum width of the sign required.

Following the Spacing Guide, page 76, the 3'7-5/8" message will be horizontally centered on a 3'9" sign.

The Spacing Guide stipulates one capital height above and one and one-third capital height for vertical margins; thus,

- 6" margin
- 6" message (6" letters with arrow)
- 8" margin
- 20" height of sign, or 1'8" is the minimum height of the sign required.

The approximate measurements of the sign are 3'9" wide by 1'8" high. The layout is now complete.

Even though the above example refers to one of the simpler situations, the more complex ones follow the same pattern. (It is recommended that a few layouts be drawn up for practice, because like every tool, this guide has to be worked with in order to be mastered.)

The message from a sign is often conveyed as much by shape and color as by the text. This must be considered in selecting the sign and in design of the sign itself. Although most of the standard sign shapes are rectangular, some can be more easily adapted to present the desired shape. Examples of standard-sign plates, grouped by thickness of border lines, are in Appendix G.

The thickness of the border line is determined by the sign size, and borders are automatically included in the sign size.

Final Layout

Regional Offices are responsible for the final design and layout of signs. The Regional Office Sign Coordinator will work from preliminary layout information supplied by individual Park offices. Appendix E contains information on ordering signs. The Regional Office is responsible for ensuring

that designs are in conformance with these Specifications. In general, the decisions of sign placement, content, size, and so forth, will be made during preliminary planning by the Park. Regional Offices will review and recommend adjustments in placement, text symbols, size, and so forth, to increase their effectiveness.

SPECIFIC RULES

Position of Arrows

Arrows can be used to point in eight different directions: straight up, straight down, straight left (90 degrees), oblique left up (45 degrees), oblique right up (45 degrees), straight right (90 degrees), oblique right down (45 degrees), and oblique left down (45 degrees).

They are to be positioned to the left of the message when pointing straight up, straight down, straight left, oblique left up, and oblique left down. They are to be positioned to the right of the message when pointing straight right, oblique right up, and oblique right down. On trail signs for pedestrian traffic, which contains long listings of directions, the arrow may be placed above for greater clarity. In these cases, an arrow pointing right may take a flush left position for the same reason. See example in Appendix D, sign 3'9" x 3'9".

If at certain locations a narrow sign is preferred, and the position of an arrow to the right or left of the message asks for an unduly wide sign, the arrow may be placed below the message. On trail signs for pedestrian traffic, which contain a long listing of directions, the arrow may be placed above for greater clarity. In these cases, an arrow pointing right may take a flush left position for the same reason. (See example Appendix D, sign 3'9" x 3'9"; and taking the position of another line, also see example in Appendix D, sign 10'0" x 5'0".)

Spacing Guide

Minimum Vertical Spaces: Between top edge of sign and first line, capital height: one capital height;

Between base-line of first line and second line, capital height: one lowercase height;

Between base-line of last line and bottom edge of sign: one and one-third capital height; and

Arrows line up at top with the capital height of adjoining message.

Increased emphasis can also be achieved by using two letter sizes. Text spacing can also be adjusted within the minimum requirements to achieve the desired emphasis. Letter sizes should not be more than one size larger or smaller than the first letter size used. Entrance signs may use a three-letter-size reduction from the first letter size for the "United States Department of the Interior, National Park Service" designation.

Minimum Horizontal Spaces: Between left edge of sign and first letter or arrow: one capital height.

Between arrow and first or last letter: one lowercase height.

Between last letter or arrow and right edge: one capital height.

All margins are measured from the outside of the sign plate and include white border lines.

Maximum Number of Lines: Not more than five lines per sign, except on trail signs for pedestrian traffic, see Appendix D, sign 3'9" x 2'6".

Not more than three lines per message, except where a proper name at a certain size requires more than three lines, see Appendix D, sign 15'0" x 7'6".

Symbol Spacing: For symbols that are included on signs with message, for an example see Appendix D.

Minimum vertical spaces between top edge of sign and first symbol: one capital height.

Between base-line of first symbol and second symbol: one lowercase height.

Between base-line of last symbol and bottom edge of sign: one capital height.

Message is centered vertically on each symbol whether to left or right.

Minimum horizontal spaces between left edge of sign and symbol: one capital height.

Between symbol and first or last letter or arrow: one lowercase height.

Between last symbol and right edge of sign: one capital height.

Between symbols in horizontal row: one lowercase height.

Symbols in horizontal row are centered on sign with appropriate spacing as in above.

Maximum number of symbols not more than three per sign, each symbol being a separate message. When used as in the example in Appendix D, a one-line introductory or orientation message is permitted for a total of four messages.

Table of Letter Widths

Letter widths in units

_					_
A	35	a	25	•	7
В	30	ь	24	,	8
С	28	С	21	••	7
D	32	ď	25	•,	8
E	30	е	22	-	8
F	28	f	18	**	17
G	33	g	28	:	7
H	34	ħ	26	?	16
I	15	i	13	-	14
J	24	j	15	(9
ĸ	34	k	27	&	34
L	28	1	13	%	31
М	41	m	40	\$	19
N	34	n	26	¢	21
0	32	0	25	1	18
P	28	P	25	2	26
Q	35	q	25	3	26
R	32	r	19	4	26
s	27	8	19	5	26
T	29	t	16	6	25
U	32	u	25	7	24
٧	33	٧	25	8	26
W	50	w	36	9	25
х	35	ж	26	0	27
¥	34	У	27	->	53
z	27	z	20		42

Letter size factors

To convert letter-width and spacing-units into inches, multiply by the following factors:

Lettersize	Factor
15"	.4744
12"	.3800
9"	.2846
6"	.19000
3 3/4"	.11875
2 1/4"	.07115
1 1/2"	.04744
1"	.03162

Spacing guide

Capital Letters to Capital Letters

AX

second letters

first letters

																				_						
	Α	В	С	믜	Е	F	G	H	Ι	J	K	L	М	N	0	P	ୡ	R	ន	T	U —	V	W	х —	Y	Z
A	2	3	2	3	3	3	2	3	3	2	3	3	3	3	2	3	2	3	3	2	1	1	1	2	2	4
В	3	6	6	6	6	6	6	6	6	4	6	6	6	6	6	6	6	6	7	5	3	2	2	3	2	6
С	3	6	6	6	6	6	6	6	6	4	6	6	6	6	6	6	6	6	7	7	4	4	4	4_	4	6
D	ı	5	6	5	5	5	6	5	5	4	5	5	5	5	6	5	6	5	6	6	3	2	2	3	2	5
E	5	8	7	8	8	8	7	8	8	6	8	8	8	8	7	8	7	8	9	7	5	4	4	6	5	8
F	0	5	5	5	5	5	5	5	5	2	5	5	5	5	5	5	5	5	6	5	3	3	3	3	3	4
G	1	5	5	5	5	5	5	5	5	2	5	5	5	5	5	5	5	5	6	4	2	<u>1</u>	1	2	1	4
н	3	6	5	6	6	6	5	6	6	4	6	6	6	6	5	6	5	6	6	5	4	4	4	4	4	6
I	3	6	5	6	6	6	5	6	6	4	6	6	6	6	5	6	5	6	6	5	4	4	4	4	4	6
J	0	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	3	3	3_	3	3	4
К	2	4	3	4	4	4	3	4	4	3	4	4	4	4	3	4	3	4	3.	2	1	և	և	3	3	4
L	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	3	2	ı	1	3	3	6
М	3	6	5	6	6	6	5	6	6	4	6	6	6	6	5	6	5	6	6	5	4	4	4	4	4	6
N	1	5	4	5	5	5	4	5	5	α	5	5	5	5	4	5	4	5	5	4	3	3	3	3	3	5
0	2	5	6	5	5	5	6	5	5	3	5	5	5	5	6	5	6	5	6	5	3	2	2	3	2	5
P	0	5	4	5	5	5	4	5	5	3	5	5	5	5	4	5	4	5	6	5	3	2	þ	3	2	4
Q	2	5	5	5	5	5	5	5	5	4	5	5	5	5	5	5	5	5	5	3	2	þ	þ	3	þ	9
R	2	5	4	5	5	5	4	5	5	4	5	5	5	5	4	5	4	5	6	4	2	2	2	3	þ	5
s	2	6	6	6	6	6	6	6	6	5	6	6	6	6	6	6	6	6	6	5	4	3	3	4	3	7
T	2	6	5	6	6	6	5	6	6	2	6	6	6	6	5	6	5	6	5	4	4	3	3	4	4	6
U	0	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	2	4	3	2	2	3	2	4
v	3	4	2	4	4	4	2	4	4	-1	4	4	4	4	2	4	2	4	3	4	2	2	2	2	2	4
W	3	4	2	4	4	4	2	4	4	1	4	4	4	4	2	4	2	4	3	4	2	2	2	2	2	4
х	2	4	2	4	4	4	2	4	4	2	4	4	4	4	2	4	2	4	4	2	1	1	ի	2	þ	4
Y	2	4	2	4	4	4	2	4	4	-1	4	4	4	4	2	4	2	4	4	3	3	2	2	2	2	4
Z	4	7	7	7	7	7	7	7	7	6	7	7	7	7	7	7	7	7	8	7	5	4	4	6	5	7

Capital Letters to Lower Case Letters

$\mathbf{A}\mathbf{x}$

second letters

first letters

	а	b	С	đ	е	f	g	h	i	j	k	1	m	n	0	р	q	r	S	t	u	v	W	x	у	z
А	3	1	1	1	1	2	2	2	2	γ	2	2	2	2	1	1	1	2	3	0	0	1	1	2	1	3
В	4				3			3	4	0		3			3			3			3			Г	1	
С	4				3			4	4	0		4			3			3			3				2	
D	4				4			3	4	0		3			4			3			4	Г			2	П
E	5	5	5	5	5	6	5	5	5	2	4	5	5	5	5	4	5	5	6	4	5	3	3	4	2	6
F	1				0			2	2	-2	Г	2			0			2		2	2				1	
G	3				3	Γ		2	3	-1		2			3			3			3	Γ			1	
Н	3	3	2	2	2	4	3	4	3	-1	3	4	3	3	2	2	2	3	4	2	2	0	0	3	0	4
I	3	3	2	2	2	4	3	4	3	-1	3	4	3	3	2	2	2	3	4	2	2	0	0	3	0	4
J	0		Γ		0			3	1	Γ		3		Г	0						0				-1	П
К	2		Г		1			2	2	-2		2	2	2	1			2		Г	0				-1	
L	4	3			3			3	3	0		3	Г		3				Γ	Γ	3	T	Γ		ı	П
М	3		2	2	2		Γ	4	3			4			2		2	3	Γ		2			Г	0	П
N	2				1			3	2			3			1						1		Γ		0	
0	3	3	4	3	3	3	3	2	3	0	2	2	3	3	3	3	3	3	4	2	3	3	3	3	2	3
P	2			1	0			2	2			2			0			2	2		2				ı	П
ବ	4				3			2	3			2			3						2				0	П
R	4			3	3			2	3	-1		2			3						3				0	
S	4		4		4			3	4	0	3	3	3	3	4	3	3	3		3	3	1			2	П
T	3				1			3	3	-1		3			1		Γ	3	2		3	2			1	3
Ū	1	3	1	ī	0	2	0	2	2	-2	2	2	1	1	0	1	0	1	1	1	0	1	1	0	1	1
V	-2				-2			2	0	-1		2	-1	-1	-2		Γ	1		Γ	1	T	T		3	П
W	-2				-2			2	0	-1		2	1	1	-2		Γ	-1			1			Ī	3	П
х	2				1			2	2			2			ī		Γ		Γ	Γ	Э	ĺ	Ī	Γ	1	
Y	-1	2	-2	-2	-2	0	-3	2	0	-3	2	2	-2	-2	-2	-2	2	2	2	0	2	2	2	2	3	ī
Z	5				4			5	5	0		5			4			4			4	2	2		2	

Lower Case Letters to Lower Case Letters

ax

second letters

first letters

	a	b	С	đ	е	f	g	h	i	j	k	ı	m	n	٥	p	q	r	s	t	u	v	w	x	у	z
a	3	1	3	3	3	3	3	2	3	-1	2	2	3	3	3	ī	3	3	4	1	1	-1	0	2	0	3
b	4	2	4	4	4	3	5	2	3	0	2	2	3	3	4	2	4	3	5	2	2	2	2	2	2	4
С	4	3	4	4	4	4	4	3	4	0	3	3	4	4	4	3	4	4	5	3	3	2	2	2	2	5
đ	3	1	2	2	2	3	2	2	3	0	2	2	3	3	2	1	2	3	3	1	ı	0	0	2	1	3
е	4	2	4	4	4	3	5	2	3	0	2	2	3	3	4	2	4	3	5	2	2	2	2	2	2	4
f	0	2	0	0	0	1	0	2	2	-2	2	2	1	1	0	ı	0	1	1	0	ı	0	0	0	0	2
g	2	0	2	2	2	3	1	0	2	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2
h	3	1	2	2	2	3	2	2	3	0	2	2	3	3	2	1	2	3	ო	1	1	0	၁	2	ı	3
i	3	1	2	2	2	3	2	2	3	0	2	2	3	3	2	1	2	3	3	1	1	Ö	၁	2	1	3
j	6	4	4	4	4	5	5	4	5	3	4	4	4	4	4	4	4	4	5	4	4	3	3	3	4	5
k	2	1	2	2	2	3	2	თ	თ	0	α	2	თ	ო	2	1	2	3	3	1	1	ı	ı	2	1	3
1	3	1	2	2	2	3	2	2	3	0	2	2	3	3	2	1	2	3	3	1	1	၁	၁	2	ı	3
m	3	1	2	2	2	3	3	2	3	၁	2	2	3	3	2	1	2	3	3	1	1	b	၁	2	1	3
n	3	1	2	2	2	3	3	2	3	0	2	2	3	3	2	ı	2	3	3	1	1	þ	9	2	1	3
0	4	2	4	4	4	3	5	2	3	၁	2	2	3	3	4	2	4	3	5	2	2	2	2	2	2	4
р	4	2	4	4	4	3	5	2	3	0	2	2	3	3	4	2	4	3	5	2	2	2	2	2	2	4
q	3	2	3	3	3	3	3	3	3	2	2	2	3	3	3	3	3	3	3	2	2	2	2	2	3	3
r	3	1	2	2	2	3	1	2	3	0	2	2	3	3	2	2	2	2	3	2	2	2	2	2	2	3
s	5	3	4	4	4	4	4	3	5	0	3	3	4	4	4	3	4	4	5	3	3	3	3	3	3	6
t	5	3	3	3	3	4	3	3	4	1	3	3	3	3	3	3	3	3	5	1	2	2	2	3	2	4
u	3	1	2	2	2	3	2	2	3	0	2	2	3	3	2	1	2	3	3	1	1	Э	þ	2	1	3
v	2	2	2	2	2	3	1	1	3	0	1	1	3	3	2	2	2	3	3	2	2	2	2	2	2	3
W	3	2	2	2	2	3	1	1	3	٥	1	1	3	3	2	2	2	3	3	2	2	2	2	2	2	3
x	3	3	2	2	2	3	3	3	3	0	3	3	3	3	2	2	2	3	4	2	2	2	2	2	2	3
У	2	1	1	1	1	3	1	1	3	1	1	1	2	2	Э.	2	1	2	2	2	2	2	2	2	2	2
z	5	4	4	4	4	5	4	4	5	1	4	4	5	5	4	3	4	5	6	3	3	3	3	3	3	5

Punc tuation

!?&

Pigures to Figures

234

	aft	16	tt	er	_	befor			·e	
	.:,;	99 9	!	?	•)	&	46	(&
A	3	0	4	2	3	4	11	0	3	14
В	4	3	5	3	5	6	13	4	6	17
C	4	4	6	4	5	6	13	4	5	16
D	4	3	5	3	5	5	13	4	6	17
E	3	4	6	4	6	8	15	4	6	17
F	٥	4	4	4	5	5	11	4	6	17
3	2	2	4	2	5	5	13	4	5	16
Н	3	4	6	4	5	6	12	4	6	17
I	3	4	6	4	5	6	12	4	6	17
J	1	4	5	4	4	4	12	1	4	16
к	3	4	5	4	4	4	11	4	6	17
L	3	0	4	2	5	4	11	4	6	17
М	3	4	6	4	5	6	12	4	6	17
N	2	4	5	4	5	5	12	4	5	17
0	4	3	5	3	5	5	13	4	6	16
P	0	3	5	3	4	5	11	4	õ	17
૨	3	2	4	3	3	5	12	4	6	16
R	3	2	5	3	4	5	13	4	6	17
s	4	4	6	5	6	6	13	5	5	18
Т	0	4	4	4	3	ó	11	4	4	15
ປ	1	4	5	4	4	4	11	4	4	14
٧	0	4	4	4	4	4	10	4	4	13
W	0	4	4	4	4	4	10	14	4	13
х	3	4	5	4	4	4	11	4	4	15
Y	0	4	4	4	4	4	10	4	6	13
z	3	4	6	5	6	6	13	4	6	17

	aft	er	bef	or	e					
	.:,;	39 7		?	•)	&	3	(&
а	3	၁	4	0	4	2	11	1	3	13
b	4	1	6	1	5	2	12	3	3	13
С	4	1	6	1	5	3	12	1	2	12
d	3	1	5	2	4	3	10	1	2	12
е	4	ı	6	1	5	2	12	1	2	12
f	3	3	5	3	3	3	3	2	4	13
g	2	1	4	2	3	3	10	1	4	13
h	3	0	5	1	4	2	10	3	4	13
i	3	1	5	1	4	2	10	2	3	13
j	4	3	6	3	5	6	12	0	3	10
k	3	2	6	1	4	2	10	3	3	13
1	3	1	5	2	4	3	10	3	4	13
m	3	٥	5	1	4	2	10	2	3	13
n	3	0	5	1	4	2	10	2	3	13
٥	4	1	6	1	5	2	12	1	2	12
р	4	1	6	1	5	2	12	2	4	12
q	3	2	6	1	5	5	11	1	2	12
r	2	1	4	2	4	2	10	2	3	13
s	4	2	6	2	6	3	12	2	4	14
t	4	2	6	3	5	3	11	2	2	12
u	3	Э	5	1	4	2	10	2	2	12
v	0	2	5	0	4	1	10	2	1	12
w	0	2	5	0	4	1	10	2	1	12
×	3	2	6	1	4	3	10	2	3	12
У	0	2	5	0	4	1	9	2	1	12
z	3	2	6	2	6	4	12	2	4	13

	٦	s	900	on:	1 1	r i e	zui	re					
		ı	2	3	4	5	6	7	8	9	0	36	¢
re	1	4	5	4	1	4	4	3	4	4	3	3	4
figure	2	5	5	5	4	5	5	5	5	5	5	5	5
ı	3	5	5	5	4	5	5	4	5	5	5	4	5
first	4	6	6	6	4	6	6	5	6	6	6	5	6
ľ	5	5	5	4	4	4	4	4	5	4	5	4	5
	6	5	5	4	4	5	4	4	4	4	5	4	5
	7	4	3	3	1	3	3	2	3	3	3	2	3
'	8	5	5	5	4	5	5	4	4	4	4	4	5
	9	5	5	4	4	5	5	4	5	5	5	4	5
	0	5	5	4	4	5	5	4	5	5	5	4	5
	\$	5	5	5	4	5	5	4	5	5	5	-	-

Word Spacing

Wor	d spacing between:	Units between edge and edge	Units to add to letter spacing
1.	Capital Letters and Capital Letters		12
2.	Capital Letters and Lower Case Letters		10
3.	Lower Case Letters and Capital Letters		
	a) before A,J,T,V,W,Y	11	
	b) before C,G,O,Q	12	
	c) before B,D,E,F,H I,K,L,M,N P,R,S,U,X,Z	13	
4.	Lower Case Letters and Lower Case Letters		10
5.	Figures and Figures		10
6.	Figures and Capital Letters		
ŀ	a) before A,J,T,V,W,Y	11	
	b) before C,G,O,Q	12	
	c) before B,D,E,F,H, I,K,L,M,N, P,R,S,U,X,Z	13	
7.	Figures and Lower Case Letters	12	
8.	Capital Letters and Figures	14	
9.	Lower Case Letters and Figures	12	

APPENDIX C: SYMBOL USAGE CATEGORY GUIDELINES

To preserve the identity and integrity of the Federal recreation symbols, definitions and usage guidelines are necessary. Adherence to these guidelines is important to maintain visitor acceptance and uniformity with other governmental entities who use these symbols.

These symbols can be used many places; however, their use should be restricted to locations where a worded sign would have been used. The obvious should not be symbolized, but symbols should be used to establish distinctions between facilities and activities.

Symbols are not appropriate in all situations. The nature of the symbols requires simplicity in order to communicate a universal message. Detailed regulations on fishing and hunting cannot be explained by a symbol, and in many cases the symbol should not be used because it would confuse the visitor. Worded signs or bulletins should continue to be used to explain detailed information which symbols cannot convey.

The oversized symbol sign plate (2'0" x 2'8", 2'0" x 3'0", 1'6" x 2'0", 1'6" x 2'4½", 1' x 1'4", 1' x 1'6½", 8" x 10½", 6" x 8½") are designed for a legend to guide visitors to the subject the symbol refers to when it is not obvious. The legend can carry a direction arrow in eight positions, feet or mile distance, abbreviations, for example, 3 mi.; and to indicate the beginning or end of a trail; for example, Start, Head, End; or be numbered in sequence to indicate progression on a trail, or a number or name of a trail bearing that number or name to indicate the trail being followed. Oversize symbol plates in the 24", 18", and 12" category may use the 12", 8", and 6" symbols respectively in place of text. (The title of the symbol — Parking or No Parking — may be added on an oversized symbol plate during the introductory or educational phase of the symbol program.) The red slash prohibiting the activity will be made of the reflective sheeting for reflectorized symbols and of the opaque material for nonreflectorized symbols. The legend and/or text shall be brown on white.

Each symbol has a number to be used for ordering and inventory purposes. The title refers to the adopted name for each symbol, and the description is the definition for the title.

The symbol sizes and usage category prescribed for use on NPS roads is as shown on the following chart. These recreation symbols should be used with care to avoid confusion with prescribed symbol use on warning and regulatory signs.

For 5 years, symbols denoting Information, Litter, and Wading shall be used on an oversized plate, with the title below.

Category 1S	Category 2S	Category 3S	Category 4S	Category 5S
Parkways 50 m.p.h. or greater, 3 lanes or less, size 1'6" x 1'6" or 24" x 24"	Roads 15 m.p.h. or greater, size 1'6"×1'6"	Roads 14 m.p.h. or less and parking areas size 1' x 1'	Trails built-up size 8"x8"	Trails, back- country and interpretive size 6"x6"
-	_	х	х	х
-	-	х	×	x

*Firearms RS-001

Area where firearms are permitted.

*Area where firearms are prohibited. (Does not describe types of firearms.)

*Smoking RS-002

Area where smoking is permitted.

*Area closed to smoking.

α

		Category 1S	Category 2S	Category 3S	Category 4S	Category 5S
*Automobiles RS-003		_	×	х	х	_
Roadway or other facility for automobiles.						
*Roadway closed to automobiles						
*Trucks RS-004		-	×	x	x	_
Roadway where trucks are	⊙⊙					
allowed, truck route.						
*Roadway or other facility						
closed to trucks.					,	
Tunnel RS-005		-	_	×	×	×
Tunnel (not a traffic sign)						
for use on trails, etc.	Ш					
Lookout Tower RS-006		_	×	x	×	×
An observation, lookout, or	×					
fire tower.						

	Category 1S	Category 2
Lighthouse RS-007	-	х
Lighthouse.		
Falling Rocks RS-008	-	_
Areas of falling rocks (not a traffic sign) for use on trails, etc.		
Dam RS-009	-	×
Location of a dam.		
Fish Hatchery RS-010	-	х
Fish hatchery.		
Deer Viewing Area RS-011	-	×
Area where deer are frequent and might be viewed by visitors. (Not a traffic sign.)		

Category 1S	Category 2S	Category 3S	Category 4S	Category 5S
_	X	X	х	_
-	-	· x	х	x
-	x	х	х	x
-	×	×	×	x
_	×	×	x	x

		Category 1S	Category 2S	Category 3S	Category 4S	Category 5S
Bear Viewing Area RS-012		1	x	х	x	х
Area where bear are frequent and might be viewed by visitors. (Not a traffic sign.)						
*Drinking Water RS-013	J/		x	x	x	x
Potable water. *Nonpotable water.						
Information RS-014		x	X	×	×	-
Visitor information.						
Ranger Station RS-015		×	X	×	×	x
Ranger station or adminis- trative office.	In					
Information RS-014 Visitor information. Ranger Station RS-015 Ranger station or adminis-						- x

	Category 1S	Category 2S	Category 3S	Category 4S	Category 5S
*Pedestrian Crossing RS-016	-	_	_	×	×
Road crossing for use on trails (not a traffic sign). *Road crossing prohibited.					
*Pets on Leash RS-017	_	_	x	×	×
Pets are permitted but must be kept under physical restrictive control. *Pets are prohibited.					
Lodging RS-018	×	×	×	×	x
Public overnight accommodations (hotel, lodge, motel, etc.).					
Food Service RS-019	×	×	×	×	×
Restaurant, cafeteria, snack shop, lunchroom, etc.					

CATEGORY AND SIGN USAGE

Grocery Store RS-020

Groceries, food, or camp store.

Men's Restroom RS-021

Men's restroom.

Restrooms RS-022

Restrooms for both men and women.

Women's Restroom RS-023

Women's restroom.

First Aid RS-024

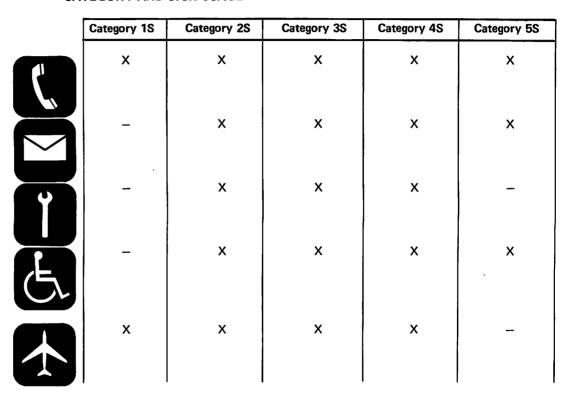
(Cross can be red.) First aid station.





Category 1S	Category 2S	Category 3S	Category 4S	Category 5S
x	x	x	×	×
_	-	×	×	x
-	×	x	×	×
-	_	х	х	x
×	×	×	×	×

Telephone RS-025								
Public telephone.								
Post Office RS-026								
U.S. Post Office.								
Mechanic RS-027								
Automobile or boat repairs.								
Handicapped RS-028								
Facility for the physical- ly handicapped.								
Airport RS-029								
Public airport or landing strip.								



CATEGORY AND SIGN USAGE

Lockers RS-030 Locked storage.

Bus Stop RS-031

Bus or tour vehicle stop.

Gas Station RS-032

Gas station or gas dock.

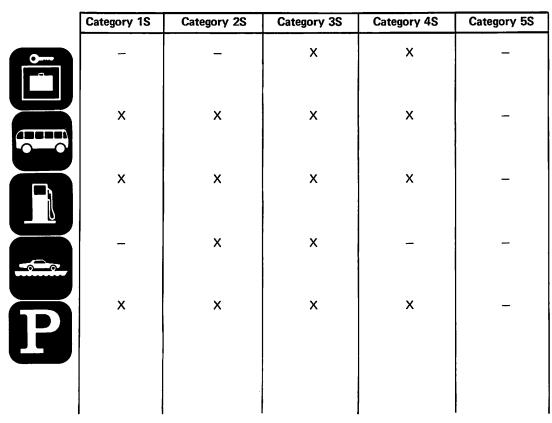
Vehicle Ferry RS-033

Automobile ferry.

*Parking RS-034

Parking area for motor vehicles.

*Parking not permitted. (Oversize sign can be used with words bus, truck, auto, etc., for specific types.)



CATEGORY AND SIGN USAGE

Showers RS-035	
Shower facility (can be used with No. RS-021, 022, 023).	
Viewing Area RS-036	
Observation point from which scenic and historic areas can be seen or photographed.	
Sleeping Shelter RS-037	g
Trail sleeping shelter.	1
*Campground RS-038	
Public campground, (pri-	9

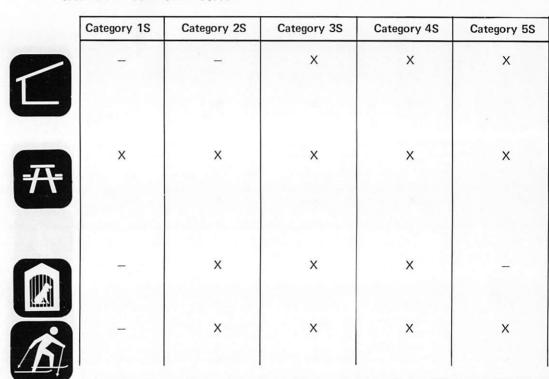
mary symbol).

*Closed to camping. (Type of camping can be included on oversize sign plate for pickup, tent, auto, etc.)

- X	X	Х	×
X	V		
Χ			
	×	×	Х
-	-	×	×
X	X	×	×
	- X	x	

•	Category 1S	Category 2S	Category 3S	Category 4S	Category 5S
Picnic Shelter RS-039	_	x	x	x	_
Picnic shelter.					
*Trailer Sites RS-040	×	x	х	х	-
Facilities for trailers, trailer camping. *An area or roadway closed to trailers.					
Trailer Sanitary Station RS-041	_	x	x	x	-
Facility designed for use of dumping wastes from trailer holding tanks.					
*Campfires RS-042	-	_	x	x	x
Campfires permitted. *Campfires prohibited.					

Trail Shelter RS-043
Trail shelter providing some protection from the weather.
*Picnic Area RS-044
An area set aside for picnicking. *An area closed to picnicking.
Kennel RS-045
Public kennel for pets.
Ski Touring RS-046
Ski touring.



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		Category 1S	Category 2S	Category 3S	Category 4S	Category 5S
*Downhill Skiing RS-047	70	_	x	×	x	×
Downhill ski trail. *Area closed to downhill skiing.						
Ski Jumping RS-048		_	x	x	x	_
Ski jumping facility.						
*Sledding RS-049		_	x	×	x	-
Sledding and snow play area. *Sledding and snow playing prohibited.	3.					
*Ice Skating RS-050	5.	-	×	×	×	-
Safe and open ice skating area. *Ice unsafe, or area closed to skating.	1					

	Category 15	Category 25	Ca
*Ski Bobbing RS-051	_	x	
Ski bobbing trail. *An area or trail closed to ski bobbing.			
*Snowmobiling RS-052	_	x	
Symbol adopted by International Snowmobile Conference to designate where snowmobiles are permitted or trails			
for their use.			
*Area or trail where snowmo-			
biles are prohibited.			
Marina RS-053	x	×	
Primary symbol for water-			
oriented recreation, boat dock,			
harbor, boat slips, or boat			
marina.	1		i

X	x	×	х
x	×	X.	x
×	×	x	_

	Category 1S	Category 2S	Category 3S	Category 4S	Category 5S
*Launching Ramp RS-054 Boat launching ramp. *Boat launching prohibited.	_	х	х	х	-
*Motor Boating RS-055 Area for motor boats or motor vessels. *Motor boats prohibited.		х	х	х	-
*Sail Boating RS-056 Area where and sail-boats are permitted. *Area where sailboats are prohibited.		х	х	х	_
*Row Boating RS-057 Area for hand-propelled boats (row boats, canoes, kayaks). *Water closed to hand-propelled boats.		х	×	X	

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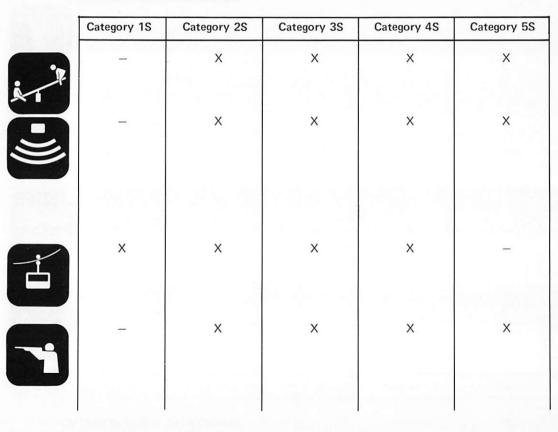
		Category 1S	Category 2S	Category 3S	Category 4S	Category 5S
*Water Skiing RS-058		_	x	х	X	-
Water skiing permitted. *Water skiing prohibited.						
*Surfing RS-059		_	×	x	x	-
Water or beach where surf-	-12					
ing activities are permitted. *Water or beach closed to			j			
surfing activities.						
*Scuba Diving RS-060		_	x	x	x	-
Scuba diving permitted.	~~					
*Scuba diving prohibited.						
*Swimming RS-061		-	x	x	x	×
Swimming permitted.					i	
*Swimming prohibited.		ļ l		l l	ļ	ļ

	Category 1S	Category 2S	Category 3S	Category 4S	Category 5S
*Diving RS-062	-	X	X	Х	×
Diving permitted. *Diving prohibited.	<u></u>				
*Fishing RS-063	-	Х	х	Х	×
Water open to fishing (not to describe type of fishing allowed).					
*Water closed to fishing.)
*Horse Trail RS-064		X	×	×	×
Horse riding trail. *Trail closed to horses or horses prohibited.				1023003	
*Trail Bike Trail RS-065	_	X	X	X	
Trail open to trail bikes,	6			2	- 5
scooters, or motorcycles. *Trail closed to trail					
bikes, scooters, or motor- cycles.					

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		Category 1S	Category 2S	Category 3S	Category 4S	Category 5S
*Bicycle Trail RS-066		1	×	×	×	×
Trail or road for bicycles. *Trail or road closed to bicycles.	Q-Q					
*Recreation Vehicle Trail RS-067	10 0	_	x	x	x	-
Trail or road for jeeps, 4-wheel drive, or other off- road recreation vehicles. *Trail or road closed to jeeps, 4-wheel drive, or other off-road recreation						
vehicles. *Hiking Trail RS-068		_	x	×	x	x
Hiking trail. *Closed for hiking.						

Playground RS-069
Playground for children.
Amphitheater RS-070
Amphitheater, campfire circle, or other assembly point where programs are presented (not a visitor center).
Tramway RS-071
Tramway, ski lift or similar device.
*Hunting RS-072
Area open to hunting (not to describe type of hunting permitted.) *Area closed to hunting.



Stable RS-073

Public horse or mule stable.

Interpretive Trail RS-074

Interpretive trail with numbered markers or trail used with a guide booklet. (Oversized plates can be used for sequential numbers or to show directions.)

Interpretive Auto Road RS-075

Interpretive auto tour route with numbered markers or interpretive signs or used with guide booklet or other devices. (Oversized plates can be used for sequential numbers or to show directions.)







Category 1S	Category 2S	Category 3S	Category 4S	Category 5S
_	х	х	х	х
-	х	х	х	x
-	x	x	-	

**Environmental Study Area RS-076

Environmental Study Area, or special environment program area.

Winter Recreation Area RS-077

Primary symbol for winter sports recreation area.



Area where snow shoeing is permitted.
*Area where snow shoeing is not permitted.

*Canoeing RS-079

Area where canoeing is permitted.

*Area where canoeing is not permitted.







		Category 4S	Category 5S
x	x	x	x
x	x	-	_
x	×	x	x
x	х	х	_
	x	x x	x x - x

CATEGORY AND SIGN USAGE

Point of Interest RS-080

Used to denote a point of interest.

*Rockclimbing RS-081

Area where rockclimbing is permitted.

*Area where rockclimbing is not permitted.

*Climbing RS-082

Area where climbing is permitted.

*Area where climbing is not permitted.







Category 1S	Category 2S	Category 3S	Category 4S	Category 5S
-	_	×	×	×
-	-	х	х	х
-	-	×	×	X

		Category 1S	Category 2S	Category 3S	Category 4S	Category 5S
*Rock Collecting RS-083		_	×	×	×	×
Area where rock collecting is						
permitted.						
*Area where rock						
collecting is not						
permitted.						
*Spelunking RS-084	_\$~	_	×	×	×	×
Area where spelunking	71					
or caving is permitted.						
*Area where spelunking						
or caving is not permitted.						
Laundromat RS-085		_	x	x	x	_
Area where washing and						
drying facilities are						
available.		I				l

CATEGORY AND SIGN USAGE

***Litter RS-086

Receptacle or area to deposit litter.

Boat Tours RS-087

Interpretive boat-tour route, with numbered markers or interpretive signs, or for use with guide booklet or other devices. (Oversized plates may be used for sequential numbering or to show direction.)





Category 1S	Category 2S	Category 3S	Category 4S	Category 5S
-	-	Х	х	Х
_	-	x	x	х

*Wading RS-088

Area where wading is permitted.

*Area where wading is not permitted.



Category 1S	Category 2S	Category 3S	Category 4S	Category 5S
-	-	X	×	Х
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^{*}Symbol with a red slash to prohibit the activity is available.

^{**}Permission to use RS-076 (Environmental Study Area) must be granted by Director, National Park Service, Washington, D.C.

^{***}Permission to use RS-086 (Litter) must be granted by Clean and Beautiful, Inc., 2121 5th Avenue, Seattle, Washington 98121.

FEDERAL RECREATION SYMBOLS

GENERAL RS-001 Firearms* Smoking* RS-002 Automobiles* RS-003 Trucks* RS-004 Tunnel RS-005 Lookout Tower RS-006 Lighthouse RS-007 Falling Rocks RS-008 Dam RS-009 Fish Hatchery RS-010 Deer Viewing Area RS-011 Bear Viewing Area RS-012 Drinking water* RS-013 Information RS-014 Ranger Station RS-015 Pedestrian Crossing* RS-016 Pets on Leash* RS-017 Environmental Study Area** RS-076 **ACCOMMODATIONS OR SERVICE** Lodging RS-018 Food Service RS-019 RS-020 **Grocery Store** Men's Restroom RS-021 RS-022 Restrooms Women's Restroom RS-023 First Aid RS-024 Telephone RS-025 Post Office RS-026 Mechanic RS-027 Handicapped RS-028 Airport RS-029 Lockers RS-030 Bus Stop RS-031 Gas Station RS-032 Vehicle Ferry RS-033

RS-034

Parking*

Showers RS-035

FEDERAL RECREATION SYMBOLS





Horse Trail* RS-064
Trail Bike Trail* RS-065

Bicycle Trail* RS-066
Recreation Vehicle Trail* RS-067

Hiking Trail* RS-068 Playground RS-069 Amphitheater RS-070













FEDERAL RECREATION SYMBOLS



- *Denotes those available with prohibitive slash to be coded with an X at the end of the number, e.g., RS072X.
- **Permission to use RS-076 (Environmental Study Area) must be granted by Director, National Park Service, Washington, D.C.
- ***Permission to use RS-086 (Litter) must be granted by Clean and Beautiful, Inc., 2121 5th Avenue, Seattle, Washington 98121.

APPENDIX D: SIGN EXAMPLES



2'0" x 2'0" 1'6" x 1'6" 1'0" x 1'0" 8" x 8" 6" x 6" Roaring Springs Overlook

2'0" x 1'4"

Kaibab Trail

2'-6" x 1'-8"



1'0" x 1'4" 1'6" x 2'0" 2'0" x 2'8" GREAT FALLS

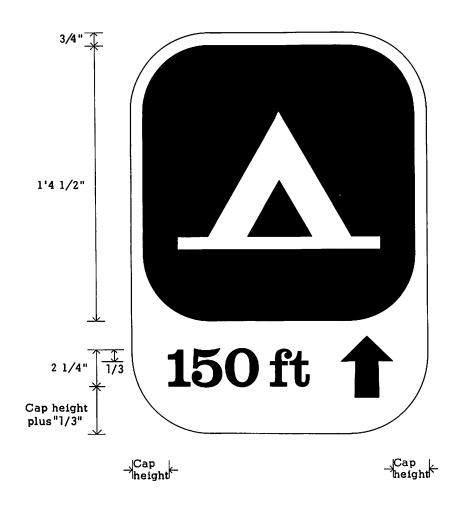
2' x 2'

Cedar Ridge North Rim Powell Valley Ribbon Falls Panorama Pt.

2'-6" x 2'-6"



2'0" x 3'0" 1'6" x 2'4-1/2" 1'0" x 1'6-1/2"



Standard Sign 1'-6 x 2" 2'0 x 2'8"

Oregon Trail

3'-9" x 1'-3"



3'9" x 1'8"

Pickett's Charge

On July 3, 1863 fifteen thousand Confederates, emerging from the woods on the left, attacked the Union line behind the stone wall on the right. The charge, climax of the battle, was repulsed with a loss of nearly ten thousand men.

3'-9" x 2'-6"

Ridge Trail Ridge Shelter 1.4 Panorama Pt. 5.1 Ribbon Falls 8.6 Roaring Springs 2.8 North Rim 6.4

3'-9" x 3'-9"

Mt.Vernon

5'-0" x 1'-8"

Arlington Cemetery

5'-0" x 2'-6"



5'-0" x 3'-4"

Arlington

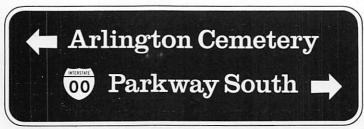
7'-6" x 2'-6"

Mt.Vernon NEXT EXIT

7'-6" x 3'-9"

Memorial Bridge KEEPRIGHT

7'-6" x 5'-0"

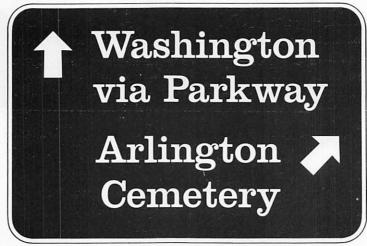


10'-0" x 3'-4"

Parkway South Washington



10'-0" x 5'-0"



10'-0" x 6'-8"

Turkey Run

12'-6" x 4'-2"





Mt.Vernon

Arlington Cemetery



12'-6" x 8'-4"

Turkey Run Area



15'-0" x 5'-0"

15'-0" x 7'-6"

Minute Man National Historical Park



United States Department of the Interior National Park Service

122

Trail marking system for three classes of ability.

Easiest (Green Circle)





More Difficult
(Blue
Square)





Most Difficult
(Black
Diamond)



Downhill Skiing

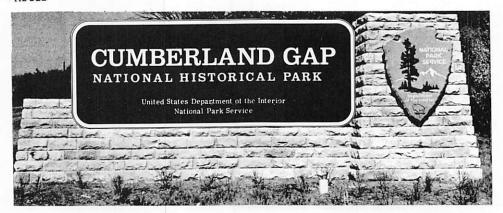


Example of Entrance Sign

Before



After





OFFICIAL NATIONAL PARK SERVICE EMBLEM

COLOR KEY

- 1. Background Cocoa Brown
- Trees and Buffalo Outline -Dark Blue Green
- 3. Mountain and Lake Cream
- 4. Lettering White

Appalachian Trail Marker



Green on White with Black Letters

Sizes	Type	<u>Material</u>
3-1/2"	Trail Marker	.040 gauge steel, "Scotchcal"
9"	Trail Head Marker	.040 gauge steel, "Scotchcal"
18"	Highway Crossing	.080 gauge steel, "Scotchcal"

AREA CLOSED

ALL NATIONAL PARK SERVICE AREA
BEYOND THIS POINT CLOSED TO
PUBLIC USE AND TRAVEL BECAUSE
OF EMERGENCY CONDITIONS.

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

Prescribed Standard Protection Sign
Red on White 13" x 18"
Promotional Grade Sign Board (Scotchlite) (Army Cardboard)

Form 10-10

NATIONAL PARK BOUNDARY

Prevent Wild Fires-Keep The Park Clean

IT IS UNLAWFUL TO

Hunt, trap, or possess loaded and uncased firearms or traps. Cut, remove, or injure any tree, shrub, or foliage, or any living thing.

Camp without a permit except in designated locations. Kindle a fire without a permit except in designated sites. Permit dogs, cats, and other pets to run free.

A FINE OF \$500, OR IMPRISONMENT FOR 6 MONTHS, OR BOTH COULD BE THE PENALTY FOR VIOLATION OF THESE REGULATIONS.

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

Prescribed Standard Boundary Sign Green on White 8" x 10-1/2" CL-lA (Mylar)

Form No. 10-11

LIMITS DE PARQUE NACIONAL

Evite fuegos en los bosques Conserve el Parque Limpio

ES ILEGAL

Cazar, trapar, o poseer armas cargadas; o trampas. Cortar, remover, o hacerle daño cualquier árbol, arbusto o follaje, o cualquier cosa con vida.

Acampar sin un permiso, excepto en sitios designados. Prender un fuego sin debido permiso, excepto en sitios designados.

Permitir perros, gatos y otros animales que anden realengos.

UNA MULTA DE \$500 O CARCEL POR UN PERIODO DE SEIS MESES:

O AMBAS PENAS SERAN IMPUESTAS AL QUE VIOLE ESTAS REGULACIONES.

ESTADOS UNIDOS DEPARTMENTO DEL INTERIOR SERVICIO NACIONAL DE PARQUES

Prescribed Standard Boundary Sign (Spanish)

Green on White 8" x 10-1/2"

Cl-1A (Mylar)

Form 10-12

THIS IS A NATIONAL PARK

Help protect this land. All plants, animals and other natural features are protected by park regulations against removal, destruction, and injury.

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

Prescribed Standard Protection Sign Green on White 8" x 10-1/2" CL-2 (Mylar)

Form 10-13

THIS BUILDING

is under the protection of the United States Government; destruction, injury, or theft is punishable by fine up to \$500 or imprisonment for 6 months, or both.

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

Prescribed Standard Protection Sign
Red on White 8" x 10-1/2"
Form 10-14
CL-3 (Mylar)

NOTICE

NO HUNTING OR TRAPPING

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

Prescribed Standard Protection Sign
Red on White 8" x 10-1/2"
CL-4 (Mylar)

Form No. 10-15

FIRE TOOLS

If they are needed for fighting fire, break seal. Return all tools to this box.

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

Prescribed Standard Fire Tool Box Sign
Red on White 8" x 10-1/2"
CL-5 (Mylar)

Form No. 10-16

NOTICE

IT IS UNLAWFUL TO-injure, excavate, or appropriate any historic or prehistoric ruin, monument, object of antiquity or of scientific interest without specific authority by the Secretary of the Interior.

Violators are subject to arrest and punishment under the provisions of the Act for the Preservation of American Antiquities, approved June 8, 1906 (34 Stat. 225).

APPLICATIONS FOR PERMITS under the provisions of section 3 of this act will be considered by the Secretary of the Interior, Washington, D. C.

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

Prescribed Standard Antiquities Sign Green on White 8" x 10-1/2" CL-6 (Mylar)

Form 10-17

AVISO

ES ILEGAL -- dañar, o apropiarse de cualquier ruina histórica o prehistórica, o cualquier antiquedad de valor científico sin la autorización específica del Secretario del Interior.

Los violadores serán sujetos a ser arresta dos y castigados bajo las provisiones del "Acta para la Preservación de las Antiquedades Americanas", aprobada el 8 de Junio del año 1906 (34 Estatuto 225).

SOLICITUDES PARA PERMISOS bajo las provisiones de la sección 3 de dicha acta serán consideradas por el Secretario del Interior, Washington, D.C.

ESTADOS UNIDOS DEPARTAMENTO DEL INTERIOR SERVICIO NACIONAL DE PARQUES

Prescribed Standard Antiquities Sign (Spanish)
Green on White 8" x 10-1/2"
CL-7 (Mylar)

Form 10-18

PRESCRIBED STANDARD NO SMOKING SIGN

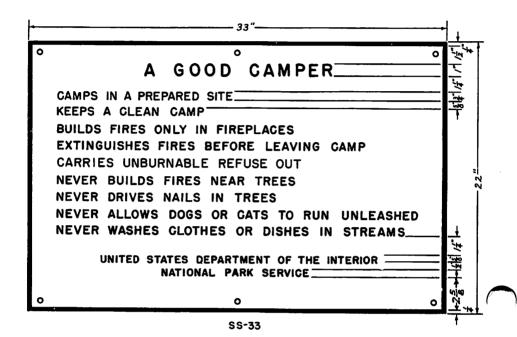
NO SMOKING WHILE TRAVELING

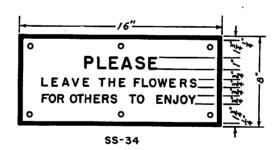
ON TRAILS OR THROUGH THE FOREST DURING THE FIRE SEASON. SMOKE ONLY WHILE STOPPING IN A SAFE PLACE CLEAR OF ALL INFLAMMABLE MATERIAL.

CAMPFIRE PERMITS REQUIRED (except in campgrounds)

UNITED STATES DEPARTMENT OF THE INTERIOR/NATIONAL PARK SERVICE

CA-8 Promotional Grade Sign Board (Scotchlite) (Army Cardboard)
Red on White 13" x 18" Note: No Smoking Signs are to be posted during fire form No. 10-19 seasons only and removed immediately afterward.

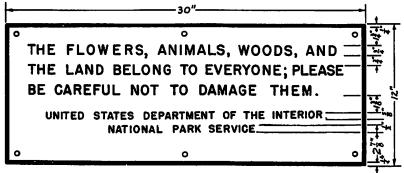




PRESCRIBED STANDARD PROTECTION SIGNS GREEN ON WHITE



SS - 31

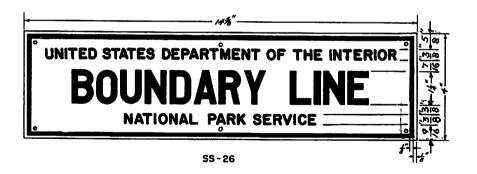


SS-32

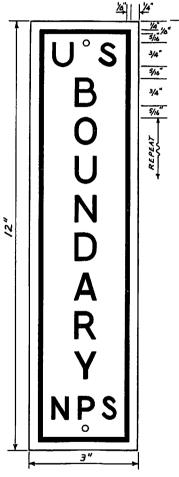
PRESCRIBED STANDARD PROTECTION SIGNS GREEN ON WHITE



PRESCRIBED STANDARD CLOSED TO FISHING SIGN GREEN ON WHITE



PRESCRIBED STANDARD
BOUNDARY SIGN
GREEN ON WHITE



SS-27 PRESCRIBED STANDARD BOUNDARY SIGN

Green on White

INSTRUCTIONS

DUMPING STATION



CONNECT

your hose to trailer holding tank

SINSERT

hose end securely into drain, holding cover open with foot...open trailer drain valve





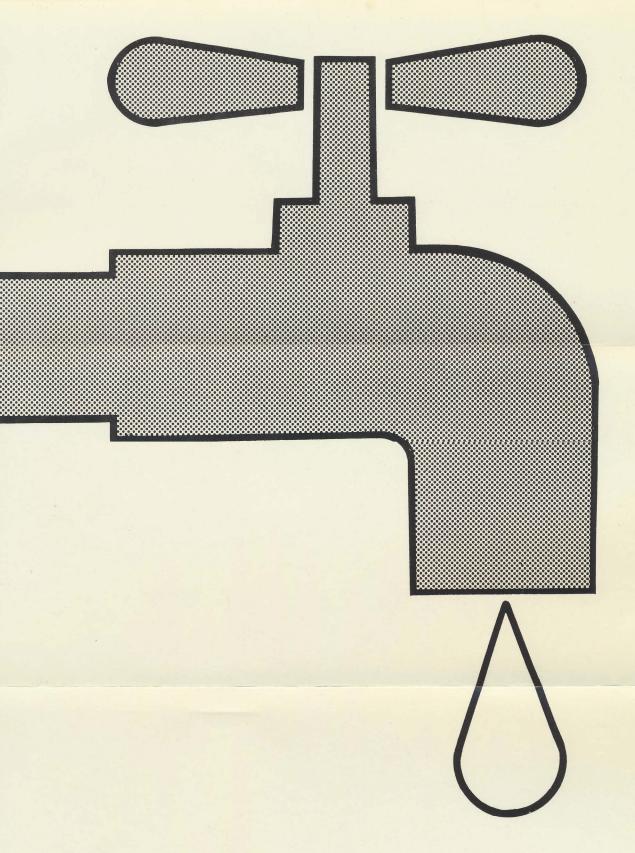
3

WASH

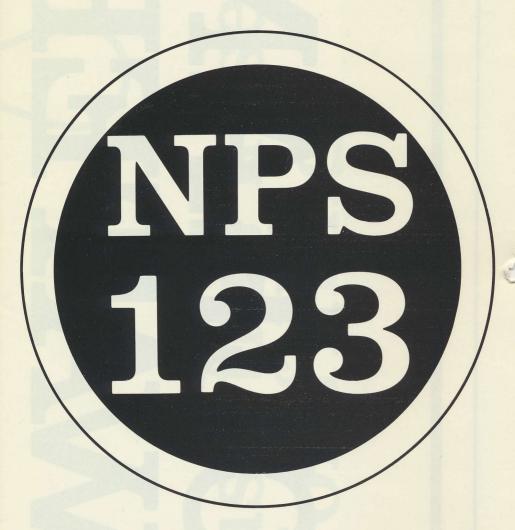
any spillage into the drain using water provided

water unsafe to drink no washing of vehicles

CIEAN WAREN



use this hose for filling domestic tank only



NATIONAL PARK SERVICE ROUTE MARKER

APPENDIX E: PROCUREMENT PROCEDURES



Signs, symbols, and other sign needs will be requisitioned as outlined below.

PARKS

All new or replacement signs and symbols will be requisitioned on Forms 10-84, 10-84a, and 10-84b, as required from the appropriate Regional Office. An original and four copies will be prepared; the original and three copies will be forwarded to the Regional Office. The Regional Office will forward the original and two copies to Federal Prison Industries. FPI will return one copy, if a quotation is requested.

Form 10-84, Sign Requisition is the cover form to be used for all sign requisitions. If a price quotation is desired before a purchase order is issued, FPI will record its estimate on this form.

A copy of the final Form 10-84 from the Region to FPI will also be sent to the Sign Coordinator at DSC; and a copy of the confirmation, as well as a copy of the shipping order, will be sent to the Sign Coordinator by FPI.

SIGNS

Form 10-84a, Legend Sign Requisition will be used to order or obtain a price quotation for direction, information, and other signs with a worded message, and for special signs requiring any combination of words, graphics, and symbols.

The Usage Category column refers to the planned use or location of the sign by the categories listed.

A horizontal line will be drawn after completing all necessary information for each sign.

Form 10-84b, Symbol and Traffic Sign requisition will be used to order or obtain price quotation on all standard recreation symbols (RS numbers), and all warning and regulatory traffic control signs approved for use in the latest edition of the MUTCD. Usage category refers to the planned use or location of the symbol by the category listed on pages 85 through 110.

STANCHIONS

The length of each stanchion must be specified for each sign. Specifications for the stanchions can be matched to the sign size. No "standard" length is prescribed, and the installation site must be measured so that the correct length can be ordered to meet the minimum distance of 5 feet between the roadway and the bottom of the sign. The minimum distance applies to signs intended to be read from moving vehicles. However, the length of the stanchions for nonroadside signs must also be specified.

4

NPS EMBLEM

The NPS arrowhead emblem will be requisitioned from the Regional Office on Form 10-84a. (It is also available on standard requisition in routed wood from the Yosemite National Park and the Blue Ridge Parkway sign shops.)

ENTRANCE

Entrance signs of unusual or non-NPS standard design will be requested on a Form 10-238 to the Denver Service Center.

INTERPRETIVE

Interpretive sign construction and replacement of special nonstandard interpretive signs may be handled by the Harpers Ferry Center or the Regional Office, as appropriate and mutually agreed.

LETTERS

Letters for sign repair or replacement can be obtained from the Regional Office on Form 10-84a.

PAINT

Paint for repair of sign backs, faces, and NPS emblems will be requisitioned from the Regional Office on Form 10-84a.



Form 10-84 (June 1971)

U. S. DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

	SIGN REQI	וואוט	101	l		Page 1	of pages
TO:		FRO	M:	(Park or Office)		REQUI	SITION NUMBER
						DATE	
APPROPRIATION OF ACC	OUNT NUMBER:			CHARGE SHIPPING	TO		
TOTAL NO. OF SIGNS	BACKGROUND COLOR			REQUE	STED SHIPPING	DATE	
			SIG	N5	STANCHIONS		ANCHOR BOLTS
REMARKS:			Ь				l
REQUISITIONED BY:		TITL	E			QUOTA	TION WANTED!
							YES NO
VENDOR: (Address)	REGIO	NAL :	SIGN	COORDINATOR US			
					•		
FEDERAL PRISON IN	NDUSTRIES, INC.						
REMARKS:			_				
APPROVED BY: (Signatur	ro & typed name)	ADDE	RESS	AND TELEPHONE N	UMBER		DATE
						l	
	FEDE	RAL F	PRIS	ON INDUSTRIES US			
JOB NUMBER		9001				QUOTA	TION NUMBER
			\$				
REMARKS:		1,				CAN ME	EET SHIPPING DATE?
							YES
					i		NO (See Remarks)
SIGNATURE	1	TITL	E			1	DATE
 							

U. S. DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

Page	of	 Pages

REQUISITION NUMBER

LEGEND SIGN REQUISITION

ITEM SIZE RECENSION REQUISITION FACE MATERIAL LETTER SIZE BY LINE LEGEND BY LINE																
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DRAW A HORIZONTAL LINE BETWEEN EACH SIGN.

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Form 10-84b (June 1971)

U. S. DEPARTMENT OF THE INTERIOR

SYMBOL

NATIONAL PARK SERVICE	Page	of	Pages
L AND TRAFFIC SIGN REQUISITION	REQUISITION NU	MBER	

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APPENDIX F: NPS MODIFIED CLARENDON ALPHABET

ABCDEFGHIJK-LMNOPQRSTUV
WXYZabcdefgh
ijklmnopqrstu!
vwxyz:;""()&?

123456789 0\$¢%

APPENDIX G: SIGN MATERIAL SPECIFICATIONS

GENERAL

This section covers fabrication of signs for installation in or near areas of the National Park System. Drawings at the end of this section are supplementary.

Information included concerns work of the contractors in furnishing all materials, labor, tools, equipment, and services, including crating and packing.

MATERIALS

Metal

Tubing (Weathering Steel): Hot rolled, flash in, welded mechanical steel tubing ASTM A 513.

Chemical analysis ASTM A 423; aged 3 months on two opposite sides horizontally, or 6 months in a vertical position, with air space.

Sign Back: ASTM A 36.

Aluminum

ABS Plastic (Accurene 100-57 or 100-67, or equal)

up to 900 square inches

Bolts: ASTM A 307.

Plywood Sign Back

Grade HDO EXT-DFPA; all material to be of same wood species.

Facing Materials and Finishes

Reflective Facing and Border: Federal Specification L-S-300A, Type I, II. Class 1, 2; Reflectivity 1; Colors: g (Silver-White No. 1), h (Silver-White No. 2), and (Brown DOT-FHWA). Reflective overlay (letters, numbers, symbols, and borders) shall be of No. 9270 "Parkway" Silver-White enclosed lens sheeting. See the following table for chromaticity limits and reflective intensity values of Brown.

Nonreflective Facing and Border: MIL-M-43719, Type II or Type III, Class 1; Color: Brown, to match samples approved by contracting officer.

Overlay Letters, Numerals, Symbols, and Borders

Reflective: Federal Specification L-S-300A, Type I; Class 3; Reflectivity 1;

Colors: b (Dark Red) and g (Silver-White No. 1).

Nonreflective: MIL-M 43719/1, Type II, Class 1; Colors: White and Dark

Red, to match sample approved by contracting officer.

Screen Processed

Reflective Sheeting: Federal Specifications L-S-300A, Type I, Class 1 or 2; Reflectivity 1; Color: g (Silver-White No. 1).

Nonreflective Sheeting: MIL-M-43719, Type III, Class 1; Color: White.

Ink (Paint): Transparent and opaque screening paint (ink), as recommended by the sheeting manufacturer and approved by the contracting officer.

Chromaticity Coordinates — (Enclosed Lens Reflective Sheeting) Brown

	l		2	;	3	4			
X	Υ	X	Υ	X	Υ	X	Y		
.445	.353	.604	.396	.556	.443	.445	.386		

Reflect Limits	ctance s		Reference Standard Munsell Paper					
3.8	7.7	5YR	3/6					

Reflective Intensity Values - Minimum

Divergence	Incidence	
Angle	Angle	Brown
0.2	-4	1.0
0.2	+30	0.4
0.2	+50	_
0.5	-4	0.35
0.5	+30	0.2
0.5	+50	_
2.0	-4	0.1
2.0	+30	0.1
2.0	+50	-

Chromaticity Coordinates (Encapsulated Lens Reflective Sheeting)

This reflective sheeting shall be used as facing material, for traffic control regulatory and warning signs and roadside delineators.

The reflective sheeting shall consist of spherical lens elements adhered to a synthetic resin and encapsulated by a flexible, transparent, weather-proof plastic, having a smooth outer surface.

Colors: Silver-White, Yellow, Red, Green, Orange, Blue (see following table for chromaticity limits and reflectivity intensity values).

	1_		2		3		4	
Color	X	Υ	X	Υ	X	Y	X	Y
Silver- White	.303	.287	.368	.353	.340	.380	.274	.316
Green	.030	.380	.166	.346	.286	.420	.201	.776
Yellow	.498	.412	.557	.442	.479	.520	.438	.472
Red	.613	.297	.708	.292	.636	.364	.558	.352
Orange	.550	.360	.630	.370	.581	.418	.516	.394
Blue	.144	.030	.244	.202	.190	.247	.066	.208

	Reflectanc Minimum	e Limits Maximum	Reference Munsell Pa	
Silver- White	30.0		5PB	7/1
Green	3.0	8.0	10G	3/8
Yellow	16.0	40.0	1.25Y	6/12
Red	4.0	11.0	7.5R	3/12
Orange	17.0	30.0	2.5YR	5.5/14.0
Blue	1.0	10.0	5.8PB	1.32/6.8

Minimum Brightness Values

Divergence Angle	Incidence Angle	Silver- White	Green	Yellow	Red	Orange	Blue
0.2 ^o	-4 ⁰	250.0	30.0	170.0	35.0	70.0	20.0
0.5 ^o	-4 ⁰	95.0	12.0	62.0	13.0	25.0	7.5
1.5 ⁰	₋₄ 0	4.0	0.5	3.0	0.7	1.1	0.3
0.2 ^o	40 ⁰	120.0	14.0	80.0	16.0	33.0	9.0
0.5 ^o	40 ⁰	54.0	6.8	35.0	7.4	14.0	4.2
1.5 ⁰	40 ⁰	2.0	0.2	1.5	0.3	0.5	0.1

Measurements shall be conducted in accordance with standard photometric testing procedures for reflex-reflectors, paragraph 4.4.7 of Federal Specification LS-300A, "Sheeting and Tape, Reflective; Nonexposed Lens Adhesive Backing."

"Specification for Encapsulated Lens Reflective Sheeting" for traffic control signs gives additional requirements and test methods concerning adhesion.

Paint

Steel - (Sign Back Only):

- Primer Federal Specification TT-P-645 Zinc Chromate Soya Alkyd.
- 2. Intermediate Coat NEXTEL (3M) 801-E1, or equal.
- 3. Top Coat NEXTEL (3M) 110-J4, or equal.

Weathering Steel: The following instructions apply to handling of weathering steel:

- 1. Do not paint or die stamp.
- 2. Avoid dents, gouges, and scratches.
- 3. Remove scale and discoloration from welding.
- 4. Avoid staining by oil, grease, and concrete.
- 5. Do not use acids for cleaning.
- 6. Blast clean to a near white condition.

Wood:

- 1. Undercoater PPG-6-5 White Enamel
- 2. Topcoat NEXTEL (3M) 110-J4, or equal.

FABRICATION, ASSEMBLY, AND INSTALLATION OF NPS EMBLEMS

Refer to drawings titled "Standard Signs, Framing, and Supports."

Material, Construction, and Sizes

Size: The official emblem will be made up in eight sizes: 10"x7.5", 12"x9", 15.5"x12", 18"x14", 27"x21", 40"x30", 54"x42", 72"x56".

Wooden Emblems — Nonreflectorized: Redwood, cypress, or other durable workable stock is to be used. Thickness is to be 1½" for small size, and 3" for the larger-size emblems. Stock may be solid for the small-size emblem but glued exterior plywood is recommended as being most durable for the other sizes. Solid areas and letters are to be routed 3/32" to 3/16". Edges are to be beyeled from 5/8" to 1½" width to resemble flaking of an arrowhead.

Colors: The colors to be used in the official emblem are as designated on the diagrammatic illustration in Appendix D, in which the circled numbers refer to the various colors and to the key.

- Background Color: Cocoa Brown, No. 20233.
- 2. Trees and buffalo outline Color: Dark Blue-Green, No. 34058.

- 3. Mountain and lake Color: Cream, No. 23690.
- 4. Lettering Color: White, No. 17875.

Color numbers are from Federal Standard 595a of 2 January 1968; Change Notice 1, 2 January 1968.

Reflective and Nonreflective Emblems

Sheet steel or plywood of gauges and specification for the size emblems required are listed in this Appendix. The emblem of this material may be mounted directly on metal or plywood.

If the emblem is to be hung or mounted separately, additional solid stock of glued exterior plywood backing is required in the thickness specified above, 1½" for small size, and 3" for the other sizes.

General Requirements

This description covers reflective sheeting and nonreflective NPS emblem film for vehicles, signs, and wayside exhibits. The emblems shall be precoated with a positionable, pressure-sensitive adhesive.

Specific Requirements

Reflective emblems shall be made from materials conforming to Type I; Class 3; Reflectivity 1; Color of Federal Specifications L-S-300A. Nonreflective emblems shall be made from MIL-M-43719, Type II; Class 1.

Design

Design, shape, size, and colors shall be as specified in prints or samples supplied by contracting officer. The reflective sheeting and nonreflective film shall be a screen process, with transparent or opaque colors as required, and finished in accordance with the material manufacturer's recommendations to match (or equal) samples approved by the contracting officer.

All of the following, or equivalents, will be used as specified.

SCREEN PROCESS INKS FOR REFLECTIVE EMBLEM (3M COLOR)

BORDER SHADOW: Transparent Color Black, No. CF 725

TREE: Dark Green, No. CF 845

Color Form	Weight		
Transparent Color,		708 Green	3 lb 3.2 oz
"	"	722 Yellow	1 lb 3.2 oz
"	"	710 Blue	3 lb 3.2 oz
"	"	705 Black	0 lb 6.4 oz

BACKGROUND: Light Brown, No. CF 887

Color Form	Weight		
Transparen	t Color,	701 Red	3 lb 2 oz
"	"	707 Toner	2 lb 3 oz
"	"	708 Green	0 lb 7.5 oz
"	"	722 Yellow	2 lb 3.5 oz

SCREEN PROCESS FOR NONREFLECTIVE EMBLEM (3M COLOR)

BORDER SHADOW: Screen Printing Ink - Black, No. CF 3905

TREE: Dark Green, No. CF 1333

Color F	•	Weight				
Screen f	Printing	lnk,	3914 Green		5 lb 7	οz
"	"	"	3902 Yellow		3 lb	
"	"	"	3903 White		1 lb 1	οz
"	"	••	3905 Black		8 dl 0	οz

BACKGROUND: Light Brown, No. CF 1348

Color F	ormula	Weight		
Screen F	Printing	Ink,	3913 Orange	7 lb 13.75 oz
"	"	"	3903 White	2 lb 10.25 oz
"	"	"	3917 Red	0 lb 9 oz
"	"	"	3905 Black	0 lb 12.5 oz

NATIONAL PARK SERVICE RECREATION SYMBOL DESIGN SPECIFICATIONS

	Sign Plate	Corner		Basic Symbol	Prohibiti SI	ve ash	Capital Letter		Arrow Size		Supplementary Symbol
	Size	Radii	Border	-	Width	Length	Size	Width	Height	Length	Size
	24''x24''	4%"	34′′	22½" sq.	2"	23"	_	2½"	5"	6¼"	_
	24"x32"	4¾"	3/4''	22½" sq.	2"	23''	3¾′′*	21/2"	5"	6¼"	_
	24"x36"	4%''	3/4''	22½" sq.	2"	23"	3%′′**	2½′′	5"	6¼''	11" sq.
	18"x18"	4¼"	3/11	16½" sq.	1½"	17½′′	_	1½"	3"	3½"	_
<u>6</u> 2	18"x2'0"	4¼"	3/4"	16½" sq.	1½"	17½"	2¼′′*	1½"	3"	3½"	_
-	18"x2'4½"	4¼"	3/4′′	16½" sq.	1½′′	17½′′	21/4''**	1½"	3"	3½"	7" sq.
	12"x12"	2¾′′	1/2"	11" sq.	1"	11-11/16"	_	1′′	2"	2½"	_
	12"x16"	2¾′′	1/2"	11" sq.	1"	11-11/16"	1½′′*	1"	2"	2½"	_
	12"x1'6½"	2¾"	1/2"	11" sq.	1"	11-11/16"	1½′′**	1"	2"	2½"	5" sq.
	8"x8"	2"	1/2"	7" sq.	2/3"	7-3/8''	_	2/3"	1-1/3"	1-2/3"	_
	8"x10%"	2"	1/2′′	7" sq.	2/3"	7-3/8"	1′′*	2/3"	1-1/3"	1-2/3''	_
	6"x6"	1"	1/2''	5" sq.	1/2"	5¼"	_	2/3"	1-1/3"	1-2/3"	_
	6"x8½"	1"	1/2"	5" sq.	1/2"	5¼′′	1′′*	2/3"	1-1/3"	1-2/3"	

^{* 1} line

^{** 2} lines

Sign Layout

The sign sizes given on the following chart represent the majority of the sign face sizes and accommodate the larger letter sizes (6", 9", and 12") as examples of proper text layout.

The sign and letter sizes not given are to follow the same general layout format as listed here.

STANDARD SIGN SIZES

	Border	Si	gn Back	Corner	Number		Foundation
Sign Size	Size	Type	Material	Radii	of Posts	Post Size	Type & No.
6"×6"	½''	ı	20 Gage-ASTM A36 STL.	1"	1	2"x2"x.095"	I-1
6"x8½"	"		"	"	"	"	"
8"x8"	"		**	2"	"	"	"
8"x10%"	"		•	"	"	"	,,
1′0′′×1′0′′	"		18 Gage-ASTM A36 STL.	2¾''	1	2"x2"x.095"	I-1
1′0′′×1′4′′	"		"	"	"	"	••
1′0′′×1′6½′′	"		16 Gage-ASTM A36 STL.	"	"	"	"
1′6′′×1′6′′	3/4"		"	4¼''	"	2"x2"x.095"	I-1
1′6′′x2′0′′	,,		,,	"	"	"	"
1′6′′x2′4½′′	,,		14 Gage-ASTM A36 STL.	"	"	"	"
2′0′′x1′4′′	,,		"	4¼"	1	2"x2"x.095"	1-1
2′0′′×2′0′′	"		"	4¾"	1	"	,,
2′6′′x1′8′′	••		12 Gage-ASTM A36 STL.	41/4"	1	2"x2"x.095"	I-1
2'6''x2'6''	,,		"	4¾''	1	"	,,
3′9″x1′3″	"	11	Plywood Type	4¼"	1	4"x2½"x1/8"	II-1
3′9″x1′8″	1"		"	"	,,	"	"
3′9′′×2′6′′	"		"	4%''	"	,,	"
3'9''x3'9''	"		**	5½′′	"	,,	,,
5′0′′×1′8′′	1"	111	Plywood Type	4%''	2	4"x2½"x1/8"	111-2
5′0′′×2′6′′	"		"	5½′′	"	"	"

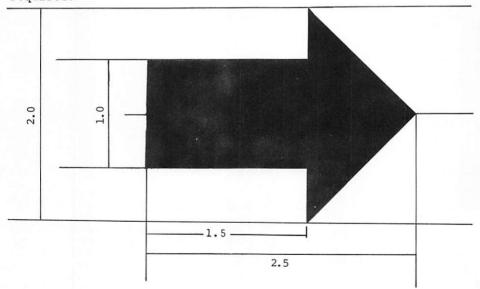
		Border		Sign Back	Corner	Number		Foundation
	Sign Size	Size	Type	Material	Radii	of Posts	Post Size	Type & No.
	5′0′′x3′4′′	"		"	,,	,,	"	11
	6′3′′x1′8′′	"		"	5"	"	"	,,
	6′3″x2′1″	"		"	"	"	••	"
	6'3"x2'6"	"		•	5½''	"	"	"
	6'3"x3'4"	••		"	6"	"	**	"
	6'3"x3'9"	••		,,	"	"	••	"
	7'6''x2'6''	"		**	••	"	"	"
	7'6''x3'9''	"		"	6½"	"	••	 .
	7'6''x5'0''	"		"	"	"	"	••
167	10′0″x3′4″	1½"	IV	Plywood Type	6½′′	2	6"x4"x.203"	IV-2
•	10′0″x5′0″	**		"	7½′′	"	"	,,
	10′0′′x6′8′′	••		<i>"</i>	8½′′	2	"	,,
	12'6"x4'2"	"		"	"	"	"	"
	12'6"x6'3"	"		"	"	"	"	"
	12′6″x8′4″	••		"	10"	2	"	"
	15′0″x5′0″	••		"	9″	3	"	IV-3
	15′0′′×7′6′′	1½"		**	10"	3	6"x4"x.203"	,,
	15′0′′×10′0′′	"		"	11"	3	**	"

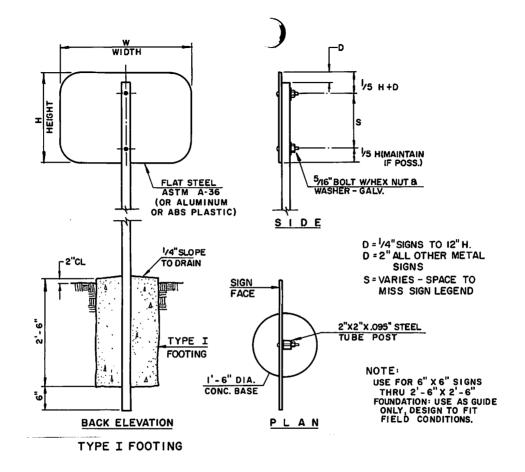
Arrow Specifications

Capital- Letter Size	Arrow- Shaft Thickness	Arrow- Width	Arrow Length
1"	2/3"	1 1/3"	1 2/3"
1 1/2"	1"	2"	2 1/2"
2 1/4"	1 1/2"	3''	3 3/4"
3 3/4"	2 1/2"	5"	6 1/4"
6''	4''	8''	10"
9''	6"	12"	15"
12''	8"	16"	20"
15"	10"	20"	25 ¹¹

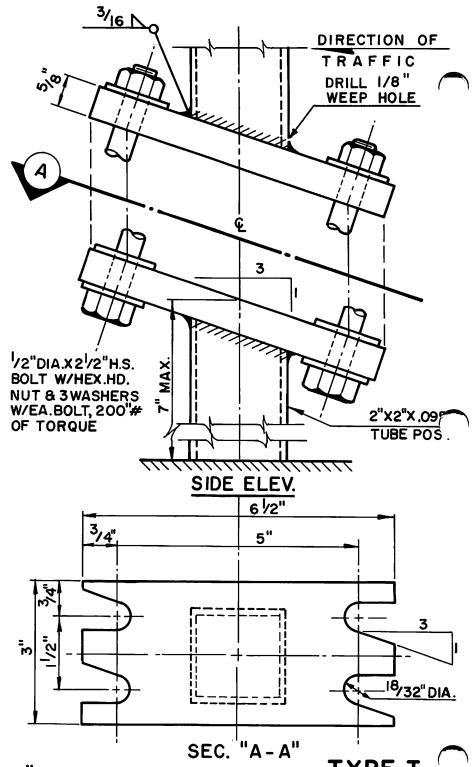
Arrows will be to these proportions for the capital letter size indicated.

Arrow shaft can be increased from 1.5 to 4.5 where accent is required.



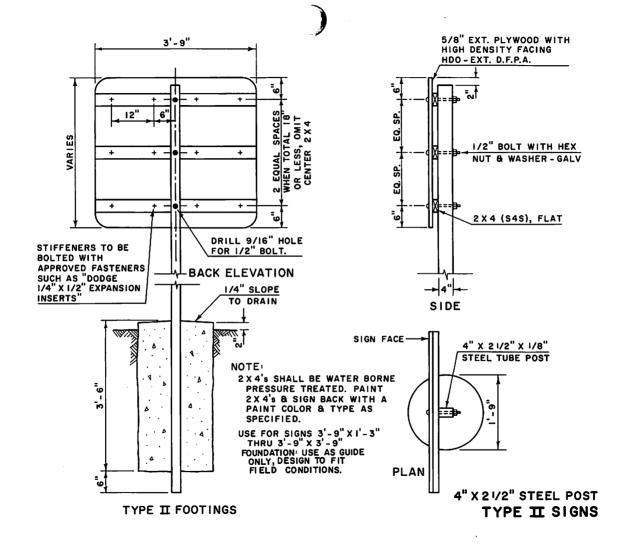


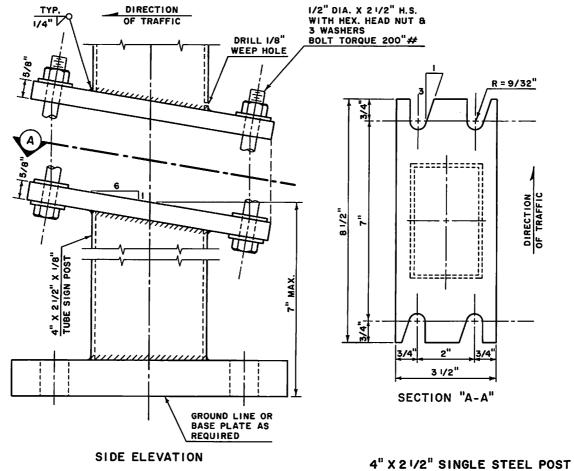
2" X 2" STEEL POST TYPE I SIGNS



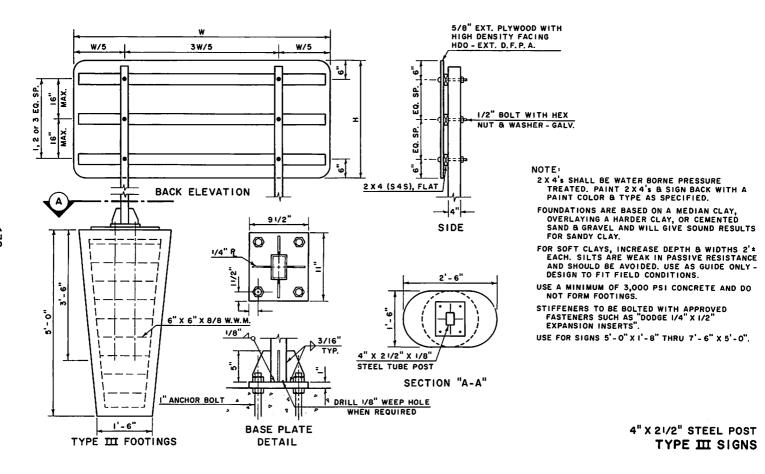
2" X 2" SINGLE STEEL POST

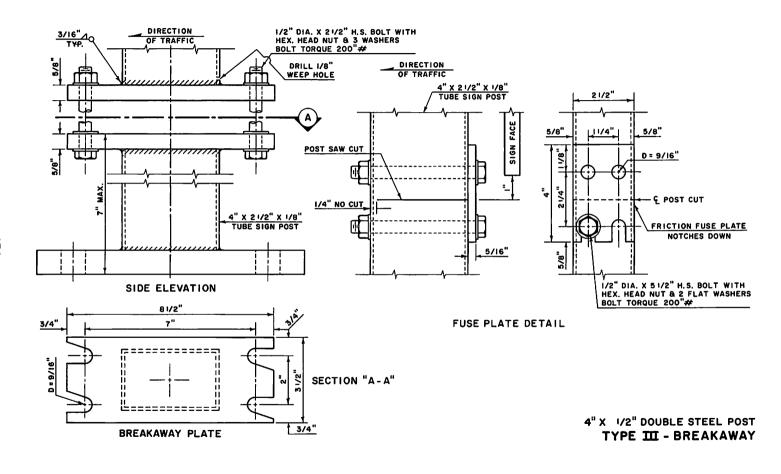
TYPE I-

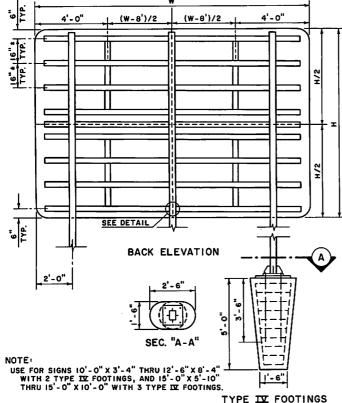


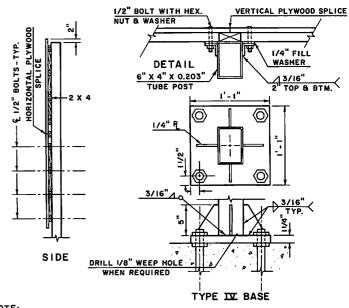


4" X 2 1/2" SINGLE STEEL POST TYPE II - BREAKAWAY







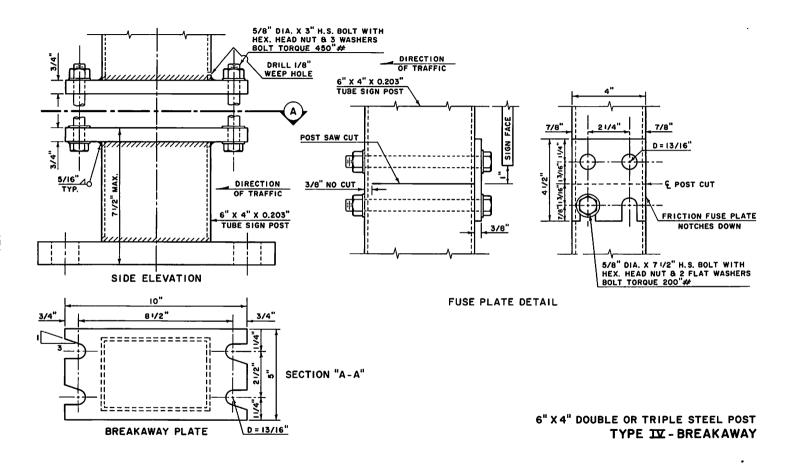


NOTE: FOUNDATIONS ARE BASED ON A MEDIUM CLAY, OVERLAYING A HARDER CLAY, OR CEMENTED SAND & GRAVEL AND WILL GIVE SOUND RESULTS FOR SANDY CLAY.

FOR SOFT CLAYS, INCREASE DEPTH & WIDTHS 2' EACH. SILTS ARE WEAK IN PASSIVE RESISTANCE AND SHOULD BE AVOIDED. USE AS GUIDE ONLY - DESIGN TO FIT FIELD CONDITIONS.

USE A MINIMUM OF 3,000 PSI CONCRETE AND DO NOT FORM FOOTINGS. STIFFENERS TO BE BOLTED WITH APPROVED FASTENERS SUCH AS "DODGE 1/4" x 1/2" Expansion inserts."

6" X 4" STEEL POST TYPE IV SIGNS



APPENDIX H: MISCELLANEOUS INSTRUCTIONS

LAYOUT AND MANUFACTURE

In layout and manufacture, adjust bolt spacing whenever possible, to ensure that bolt heads are either *totally* in background color or *totally* in white color.

For stiffness in metal-back signs, a metal block should be added at the center between the sign back and post. Block shall be the dimension of the post on which it is mounted and 1/4" thick for up to 12" square, 3/8" thick for 18" through 24" square, and 1/2" thick on 30" and over, square.

Do not use weathering steel within 1/2 mile of heavy saline area such as near oceans or major bays.

THE FOLLOWING SUBSTITUTIONS ARE PERMITTED ONLY IN LOCATIONS NEAR SALINE AREAS, (see above) OR WHEN SPECIFIED MATERIALS ARE UNAVAILABLE DUE TO NATIONAL SHORTAGES.

Backing

An ABS plastic such as Accurene 100-57 or 100-67 or equal may be substituted for sign backs up through 900 square inches. Color shall be fully integral and developed at molding time. Dimensions shall also be developed at molding time. Color matches must be approved prior to requisitioning by agency (FPI) and shall be submitted 1 week prior to bid opening.

When high-density plywood is unavailable, medium density properly treated may be substituted or an ABS plastic, such as Accurene, with proper approval of fastening systems.

Support Systems

When weathering steel is unavailable, properly designed wood posts may be substituted.

WOOD POST ALTERNATIVES

Lumber for Sign Posts

A. No. 1 Structural Grade

- 1. Douglas-fir larch
- 2. Douglas-fir south
- 3. Hemlock fir
- 4. Mountain hemlock
- 5. Lodgepole pine
- 6. Western cedars

B. No. 1 SR (Stress Rated)

- 1. Southern pine
- 2. Pitch pine
- 3. Virginia pine
- 4. Pond pine

Wood Preservative for Sign Posts Chromated Copper Arsenate (CCA)

Use for preservative treatment (fungi and insect) by pressure treatment.

Safe around livestock and humans and plants.

Permanent — Maintenance free (may be used in ground or in water).

No odors.

Color and Paintability — Color after treatment is silver-green, depending upon type of wood. It is as easy to paint as is untreated wood. Moisture content to wood being painted should be 16 percent or less, accomplished by kiln drying or air seasoning.

Corrosion to aluminum fasteners likely in high humidity areas.

Field Treatment — Should be coated with two coats of CCA treating solution to all field cuts.

(Note: Not available through FPI.)

STEEL POST ALTERNATIVE

When weathering steel posts are not available from FPI, a drive post, perforated or unperforated, as manufactured by Unistrut, or equal, may be substituted in galvanized steel with proper prime and color coat paints as specified (Appendix G) to assure proper appearance. If unperforated is used, post must be drilled in both directions for breakaway.

Use one post for sign size $6' \times 6'$ to $2'6'' \times 2'6''$, and two posts up to $3'9'' \times 3'9''$. To prevent conflicting designs, no three-post Unistruts will be permitted.

(Note: Not available through FPI.)

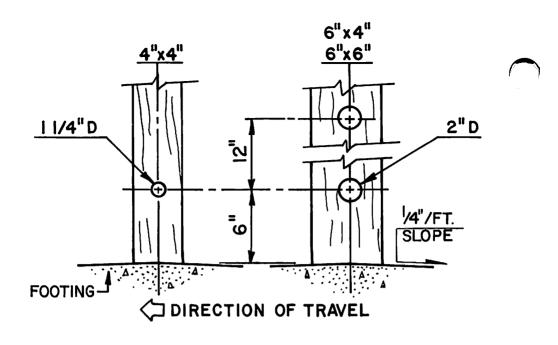
PAINT ALTERNATIVE

Use Benjamin Moore MOORGARD, low lustre house paint or equal

3 parts MANOR BROWN 103-60 1 part BLACK 103-80 MIX WELL

Use specified primers and undercoaters as indicated in Appendix G.

(Note: Not available through FPI.)



	WOOD POST	#POST
2" x 2"	4"x4"	SINGLE
4"x2 1/2"	4"x4" OR 4"x6"	SINGLE
4"x2 1/2"	4"x4" OR 4"x6"	DOUBLE
6"x 4"	6"x6"	DOUBLE OR TRIPLE

NOTES:

- I. USE THIS DETAIL ONLY WHEN WITHIN 1/2 MILE OF HEAVY SALINE AREA SUCH AS NEAR OCEAN OR MAJOR BAYS, OR WHEN WEATHERING STEEL IS NOT AVAILABLE.
- 2. PAINT WITH NEXTEL AS SPECIFIED FOR SIGN BACKS.

ALTERNATE WOOD POST DET. WITH BREAKAWAY

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