

ANSI A119.4 NFPA 1194

Standard on Recreational Vehicle Parks and Campgrounds

2002 Edition



NFPA, 1 Batterymarch Park, PO Box 9101, Quincy, MA 02269-9101
An International Codes and Standards Organization

NFPA License Agreement

This document is copyrighted by the National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02269-9101 USA.
All rights reserved.

NFPA grants you a license as follows: The right to download an electronic file of this NFPA document for temporary storage on one computer for purposes of viewing and/or printing one copy of the NFPA document for individual use. Neither the electronic file nor the hard copy print may be reproduced in any way. In addition, the electronic file may not be distributed elsewhere over computer networks or otherwise. The hard copy print may only be used personally or distributed to other employees for their internal use within your organization.

Copyright ©
National Fire Protection Association, Inc.
One Batterymarch Park
Quincy, Massachusetts 02269

IMPORTANT NOTICE ABOUT THIS DOCUMENT

NFPA codes, standards, recommended practices, and guides, of which the document contained herein is one, are developed through a consensus standards development process approved by the American National Standards Institute. This process brings together volunteers representing varied viewpoints and interests to achieve consensus on fire and other safety issues. While the NFPA administers the process and establishes rules to promote fairness in the development of consensus, it does not independently test, evaluate, or verify the accuracy of any information or the soundness of any judgments contained in its codes and standards.

The NFPA disclaims liability for any personal injury, property or other damages of any nature whatsoever, whether special, indirect, consequential or compensatory, directly or indirectly resulting from the publication, use of, or reliance on this document. The NFPA also makes no guaranty or warranty as to the accuracy or completeness of any information published herein.

In issuing and making this document available, the NFPA is not undertaking to render professional or other services for or on behalf of any person or entity. Nor is the NFPA undertaking to perform any duty owed by any person or entity to someone else. Anyone using this document should rely on his or her own independent judgment or, as appropriate, seek the advice of a competent professional in determining the exercise of reasonable care in any given circumstances.

The NFPA has no power, nor does it undertake, to police or enforce compliance with the contents of this document. Nor does the NFPA list, certify, test or inspect products, designs, or installations for compliance with this document. Any certification or other statement of compliance with the requirements of this document shall not be attributable to the NFPA and is solely the responsibility of the certifier or maker of the statement.

NOTICES

All questions or other communications relating to this document and all requests for information on NFPA procedures governing its codes and standards development process, including information on the procedures for requesting Formal Interpretations, for proposing Tentative Interim Amendments, and for proposing revisions to NFPA documents during regular revision cycles, should be sent to NFPA headquarters, addressed to the attention of the Secretary, Standards Council, National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

Users of this document should be aware that this document may be amended from time to time through the issuance of Tentative Interim Amendments, and that an official NFPA document at any point in time consists of the current edition of the document together with any Tentative Interim Amendments then in effect. In order to determine whether this document is the current edition and whether it has been amended through the issuance of Tentative Interim Amendments, consult appropriate NFPA publications such as the *National Fire Codes*[®] Subscription Service, visit the NFPA website at www.nfpa.org, or contact the NFPA at the address listed above.

A statement, written or oral, that is not processed in accordance with Section 5 of the Regulations Governing Committee Projects shall not be considered the official position of NFPA or any of its Committees and shall not be considered to be, nor be relied upon as, a Formal Interpretation.

The NFPA does not take any position with respect to the validity of any patent rights asserted in connection with any items which are mentioned in or are the subject of this document, and the NFPA disclaims liability for the infringement of any patent resulting from the use of or reliance on this document. Users of this document are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, is entirely their own responsibility.

Users of this document should consult applicable federal, state, and local laws and regulations. NFPA does not, by the publication of this document, intend to urge action that is not in compliance with applicable laws, and this document may not be construed as doing so.

Licensing Policy

This document is copyrighted by the National Fire Protection Association (NFPA). By making this document available for use and adoption by public authorities and others, the NFPA does not waive any rights in copyright to this document.

1. Adoption by Reference—Public authorities and others are urged to reference this document in laws, ordinances, regulations, administrative orders, or similar instruments. Any deletions, additions, and changes desired by the adopting authority must be noted separately. Those using this method are requested to notify the NFPA (Attention: Secretary, Standards Council) in writing of such use. The term "adoption by reference" means the citing of title and publishing information only.

2. Adoption by Transcription—**A.** Public authorities with lawmaking or rule-making powers only, upon written notice to the NFPA (Attention: Secretary, Standards Council), will be granted a royalty-free license to print and republish this document in whole or in part, with changes and additions, if any, noted separately, in laws, ordinances, regulations, administrative orders, or similar instruments having the force of law, provided that: (1) due notice of NFPA's copyright is contained in each law and in each copy thereof; and (2) that such printing and republication is limited to numbers sufficient to satisfy the jurisdiction's lawmaking or rule-making process. **B.** Once this NFPA Code or Standard has been adopted into law, all printings of this document by public authorities with lawmaking or rule-making powers or any other persons desiring to reproduce this document or its contents as adopted by the jurisdiction in whole or in part, in any form, upon written request to NFPA (Attention: Secretary, Standards Council), will be granted a nonexclusive license to print, republish, and vend this document in whole or in part, with changes and additions, if any, noted separately, provided that due notice of NFPA's copyright is contained in each copy. Such license shall be granted only upon agreement to pay NFPA a royalty. This royalty is required to provide funds for the research and development necessary to continue the work of NFPA and its volunteers in continually updating and revising NFPA standards. Under certain circumstances, public authorities with lawmaking or rule-making powers may apply for and may receive a special royalty where the public interest will be served thereby.

3. Scope of License Grant—The terms and conditions set forth above do not extend to the index of this document.

(For further explanation, see the Policy Concerning the Adoption, Printing, and Publication of NFPA Documents, which is available upon request from the NFPA.)

Chapters 5 and 7, Annex B, and Annex C Copyright © 2002 RVIA, All Rights Reserved
Chapters 1, 2, 3, 4, and 6, Annex A, and Annex D Copyright © 2002, National Fire
Protection Association, All Rights Reserved

ANSI A119.4/NFPA 1194

Standard for

Recreational Vehicle Parks and Campgrounds

2002 Edition

This edition of NFPA 1194, *Standard for Recreational Vehicle Parks and Campgrounds*, was prepared by the Technical Committee on Recreational Vehicles and acted on by NFPA at its November Association Technical Meeting held November 10–14, 2001, in Dallas, TX. It was issued by the Standards Council on January 11, 2002, with an effective date of January 31, 2002, and supersedes all previous editions.

This edition of NFPA 1194 was approved as an American National Standard on January 31, 2002.

NOTICE

Requirements for environmental health and sanitation are developed by the ANSI A119 Accredited Standards Committee of which the Recreation Vehicle Industry Association is Secretariat. These requirements and the fire safety requirements of NFPA 1194 are published and distributed under one cover as ANSI A119.4/NFPA 1194 by ANSI, NFPA, and RVIA.

The ANSI A119 Accredited Standards Committee was created to establish minimum requirements for the design and construction features for recreational vehicle parks and campgrounds that are appropriate to provide adequate environmental health and sanitation, safety of electrical distribution systems, safety of LP-Gas storage and dispensing, and fire protection. This committee recognized the efforts and expertise of the NFPA in the area of fire safety. Therefore, in an effort to limit duplication, the ANSI A119 Accredited Standards Committee decided that the NFPA work could be combined with its work on environmental health and sanitation to formulate this total document. Thus, NFPA developed Chapters 1, 2, 4, and 6, Annex A, and Annex D, and the ANSI A119 Accredited Standards Committee developed Chapters 5 and 7, Annex B, and Annex C. Chapter 3 was a joint effort between the ANSI A119 Accredited Standards Committee and the NFPA Technical Committee on Recreational Vehicles. All chapters were approved by the ANSI A119 Accredited Standards Committee.

Origin and Development of NFPA 1194

The earliest activity of NFPA in the development of standards for recreational vehicle parks was initiated in 1937, and the first NFPA standard was officially adopted in 1940. This standard was entitled *Standard for Trailer Coaches and Trailer Coach Camps*. A revision of the 1940 standard was adopted by NFPA in 1952 (post-World War II), entitled NFPA 501, *Standards for Fire Prevention and Fire Protection in Trailer Coaches and Trailer Coach Courts*. In 1960 NFPA acted to approve a revised version that divided the earlier text into two parts — one designated NFPA 501A and adopted that year under the title *Standard for Fire Protection in Trailer Courts*, and the other designated NFPA 501B and adopted in 1971 under the title *Standard for Fire Prevention and Fire Protection in Mobile Homes and Travel Trailers*. NFPA 501B was further amended in 1963. In 1964 a revision of NFPA 501A was approved as the *NFPA Standard for Fire Protection in Trailer Courts*.

During the years 1962–1964, arrangements were made to consolidate the separate standards activities of the Mobile Homes Manufacturers Association and the Trailer Coach Association, which had produced standards under the American Standards Association (now ANSI) known as *American Standard Installations of Plumbing, Heating and Electrical Systems in Travel Trailers* (A119.2-1963) and a similar *Standard on Mobile Homes* (A119.1-1963). These interorganizational arrangements were completed in 1964, and in 1969 the newly formed Recreational Vehicle Institute was added as a fourth cosponsor.

The first standard covering any aspect of recreational vehicle parks completed by the present ANSI-sponsored committee was the *Electrical Standard for Recreational Vehicle Parks* (NFPA 501D-1971; ANSI A177.2-1972, subsequently redesignated ANSI A119.4-1972). This edition was prepared and published to update the previous material covering electrical safety in the 1964 edition of NFPA 501A, *Standard for Fire Prevention and Fire Protection in Trailer Courts*. In the 1971 edition of NFPA 70, *National Electrical Code*[®], electrical requirements for trailer courts first appeared, based largely on NFPA 501D-1971. Since it obviously was necessary to maintain coordination between this standard and NFPA 70, the sponsoring committees established liaison procedures so that Chapter 6 of the 1977 edition and the content of Part B of Article 551 of NFPA 70 were identical in intent.

Companion NFPA documents to this standard, besides NFPA 70, are NFPA 1192, *Standard on Recreational Vehicles*, and NFPA 501A, *Standard for Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities*.

Sponsorship for the 1977 edition of the standard was held jointly by the National Fire Protection Association and the Recreational Vehicle Industry Association. The standard was developed by the Sectional Committee on Recreational Vehicle Parks and Campgrounds, which operated under the Correlating Committee on Mobile Homes and Recreational Vehicles. The 1977 edition included substantive revisions to the previous edition in Chapter 6 (Electrical Systems). The 1982 edition of the *Standard for Fire Safety Criteria for Recreational Vehicle Parks and Campgrounds* superseded the 1977 edition. The 1982 edition was produced by the newly formed Committee on Fire Safety for Recreational Vehicles (June 20, 1979), which was responsible for developing a standard for fire safety for recreational vehicles and recreational vehicle parks. Therefore, the 1982 edition excluded all sections of the previous editions not considered within the committee scope. Notably excluded were sections dealing with environmental health and sanitation. Also excluded were requirements for park electrical systems, which are addressed by reference to NFPA 70. Modifications also were made in sections dealing with definitions and fire safety and to conform with the NFPA *Manual of Style*.

The 1986 edition included very minor reference changes and revised definitions. The 1990 edition contained a completely revised chapter on fire safety requirements, Chapter 3, so that non-fire safety items could be moved to other chapters handled by the ANSI A119 Committee. The standard was reconfirmed in 1993, and some sections that were considered operational concerns were deleted from Chapter 3 in the 1996 edition.

In the 1999 edition, NFPA 501D was renumbered as NFPA 1194. The duplicate requirement for a refuse disposal system was deleted from Chapter 3.

There have been only minor technical changes made in the 2002 edition. However, the document has been completely reorganized and editorially revised to the requirements of the NFPA *Manual of Style*.

Accredited Standards Committee A119 on Recreational Vehicles and Recreational Vehicle Parks and Campgrounds

Thomas R. Arnold, *Chair*
T.R. Arnold & Associates, IN

Mark Luttich, *Vice Chair*
Nebraska Public Service Commission, Housing & Recreational Vehicle Department, NE

Bruce A. Hopkins, *Staff Liaison*
Recreation Vehicle Industry Assn., VA

Larry Anderson, Winnebago Industries, Inc., IA
Larry Budica, Fleetwood Enterprises, Inc., CA
Jeff Christner, Newmar Corporation, IN
Beverly Edwards, Good Sam Club, CO
William R. Garpow, Recreational Park Trailer Industry
Association (RPTIA), GA
John Harvey, State of Washington Dept. of Labor
& Industries, WA
Jerome Hoover, Monaco Coach Corp., IN

James Jaeger, P.E., Jaeger Engineering, WA
Mike Kobel, Int'l Assn. of Plumbing & Mechanical
Officials, CA
Blaine R. Lanning, CSA International, OH
John Pabian, Underwriters Laboratories, Inc., IL
Bruce J. Swiecicki, P.E., National Propane Gas Assn., IL
Monte Taylor, State of Oregon Building Codes Division,
OR

Alternates

Susan Bray, Good Sam Club, CA
Ted Huff, T. R. Arnold & Associates, IN
Suzanne Mark, ARVC, National Assn. of RV Parks &
Campgrounds, VA

Kent Perkins, Recreation Vehicle Industry Assn., VA
James Thiel, Underwriters Laboratories, Inc., IL

ANS Plumbing Task Force

Mark Luttich, *Chair*
Nebraska Public Service Commission, Housing & Recreational Vehicle Department, NE

Bruce A. Hopkins, *Staff Liaison*
Secretary Recreation Vehicle Industry Assn., VA

Jeff Christner, Newmar Corporation, IN
Ray Cole, BPC Manufacturing, IN
James W. Finch, Kampgrounds of America, Inc., MT
John Harvey, State of Washington Dept. of Labor
& Industries, WA
Ralph Herzler, Majara Corp., MI
Jerome Hoover, Monaco Coach Corp., IN

Mike Kobel, Int'l Assn. of Plumbing & Mechanical
Officials, CA
Patrick Lewis, State of Oregon DCBS, OR
Earl Sweet, Thetford Corp., MI
Gary Wight, ARVC, National Association of RV Parks
& Campgrounds, WA
Robert Wozniak, Fleetwood Enterprises, Inc., CA

Alternates

Homer Staves, Kampgrounds of America, Inc., MT

Marianne Wrobel State of Arizona, Office of
Manufactured Housing, AZ

Technical Committee on Recreational Vehicles

Mark Luttich, *Chair*

Nebraska Public Service Commission, NE [E]

Bruce A. Hopkins, *Secretary*

Recreation Vehicle Industry Association, VA [M]

Charles Ballard, Pacific West Associates Inc., WY [SE]

Donald D. Bartz, Winnebago Industries, Inc., IA [M]

James V. Bertoch, Testing Engineer International, Inc., UT [RT]

Joseph M. Bloom, Bloom Fire Investigation, OR [SE]

Jeffrey A. Christner, Newmar Corporation, IN [M]

James W. Finch, Kampgrounds of America, Inc., MT [U]

David Gorin, National Association of RV Parks and Campgrounds, VA [U]

John P. Harvey, State of Washington, WA [E]

Ralph E. Herzler, Majara Corporation, MI [SE]

Jerome Hoover, Monaco Coach Corporation, IN [M]

Jon O. Jacobson, Jacobson Engineers, WA [SE]

Blaine R. Lanning, International Approval Services/CSA, OH [RT]

Samuel E. McTier, McTier Supply Co., IL [IM]

Arthur H. Mittelstaedt, Jr., Recreation Safety Institute Ltd., NY [SE]

Rep. American Alliance for Health, Physical Education, Recreation, and Dance

Robert Ohlund, Thor California, CA [M]

John Pabian, Underwriters Laboratories Inc., IL [RT]

Robert E. Wozniak, Fleetwood Enterprises, Inc., CA [M]

Patrick Yee, Canadian Standards Association, Canada [RT]

Alternates

Allen Aschim, Oregon Building Codes Division, OR [E]

(Vot. Alt. to Oregon Building Code Division Rep.)

Christopher J. Bloom, CJB Fire Consultants, OR [SE]

(Alt. to J. M. Bloom)

Vincent Guy Fiorucci, Underwriters Laboratories Inc., IL [RT]

(Alt. to J. Pabian)

Suzanne Mark, National Association of RV Parks and Campgrounds, VA [U]

(Alt. to D. Gorin)

Kent Perkins, Recreation Vehicle Industry Association, VA [M]

(Alt. to B. A. Hopkins)

Homer Staves, Kampgrounds of America, Inc., MT [U]

(Alt. to J. W. Finch)

James D. Lake, NFPA Staff Liaison

Committee Scope: This Committee shall have primary responsibility for documents on the fire safety criteria for recreational vehicles and recreational vehicle parks.

This list represents the membership at the time the Committee was balloted on the final text of this edition. Since that time, changes in the membership may have occurred. A key to classifications is found at the back of the document.

NOTE: Membership on a committee shall not in and of itself constitute an endorsement of the Association or any document developed by the committee on which the member serves.

Contents

Chapter 1 Administration	1194– 6	Chapter 6 Fire Safety	1194– 9
1.1 Scope	1194– 6	6.1 Fire Detection and Alarm Services	1194– 9
1.2 Purpose	1194– 6	6.2 Fire Safety Rules and Regulations for Recreational Vehicle Parks and Campgrounds — Posting of Emergency Information	1194– 9
1.3 Application	1194– 6		
1.4 Retroactivity	1194– 6		
1.5 Equivalency	1194– 6		
1.6 Units	1194– 6		
Chapter 2 Referenced Publications	1194– 6	Chapter 7 Environmental Health and Sanitation .	1194– 9
2.1 General	1194– 6	7.1 General	1194– 9
2.2 NFPA Publications	1194– 6	7.2 Potable Water Supply and Distribution ...	1194–10
2.3 Other Publications	1194– 6	7.3 Potable Water Connections at Individual Sites	1194–10
Chapter 3 Definitions	1194– 6	7.4 Drinking Fountains	1194–10
3.1 General	1194– 6	7.5 Sanitary Conveniences	1194–10
3.2 NFPA Official Definitions	1194– 6	7.6 Number, Location, and Arrangement of Toilets, Urinals, and Lavatories	1194–11
3.3 General Definitions	1194– 7	7.7 Showers	1194–11
3.4 Definitions Applicable to Chapters 5 and 7	1194– 7	7.8 Sewage Facilities	1194–11
Chapter 4 General Requirements	1194– 8	7.9 Sanitary Disposal Stations	1194–12
4.1 Differing Standards	1194– 8	7.10 Potable Water Supply Stations	1194–12
4.2 U.S. Federal Regulations	1194– 8	7.11 Refuse Disposal	1194–12
4.3 Electrical Requirements	1194– 8	Annex A Explanatory Material	1194–12
Chapter 5 General Design Criteria for Recreational Vehicle Parks and Campgrounds	1194– 8	Annex B Typical Recreational Vehicle Park or Campground Site Plans	1194–13
5.1 Park Design and Construction	1194– 8	Annex C Glossary	1194–13
5.2 Recreational Vehicle Site	1194– 9	Annex D Informational References	1194–15
5.3 Recreational Park Trailer Site	1194– 9	Index	1194–16
5.4 Camping Unit Site	1194– 9		

ANSI A119.4/NFPA 1194

Standard for

Recreational Vehicle Parks and Campgrounds

2002 Edition

NOTICE: An asterisk (*) following the number or letter designating a paragraph indicates that explanatory material on the paragraph can be found in Annex A.

Changes other than editorial are indicated by a vertical rule beside the paragraph, table, or figure in which the change occurred. These rules are included as an aid to the user in identifying changes from the previous edition. Where one or more complete paragraphs have been deleted, the deletion is indicated by a bullet between the paragraphs that remain.

Information on referenced publications can be found in Chapter 2 and Annex D.

Requirements for general design criteria for recreational vehicle parks and campgrounds (Chapter 5) and environmental health and sanitation (Chapter 7) are developed by the ANSI A119 Committee, of which the Recreational Vehicle Industry Association is Secretariat.

Chapter 1 Administration

1.1 Scope.

1.1.1 This standard shall provide minimum construction requirements to ensure a reasonable degree of safety and health for occupants using facilities supplied by recreational vehicle parks and campgrounds offering temporary living sites for use by recreational vehicles, recreational park trailers, and other camping units.

1.1.2* This standard shall not cover the design of recreational vehicles, recreational park trailers, or other forms of camping units.

1.1.3 This standard shall not cover operational and maintenance practices for recreational vehicle parks and campgrounds.

1.2* Purpose. The purpose of this standard shall be to serve as a basis for regulations by authorities having jurisdiction over the facilities provided in new recreational vehicle parks and campgrounds and additions to existing facilities only.

1.3 Application.

1.3.1 The requirements of this standard shall be applied to all new recreational vehicle parks and campgrounds and additions to existing facilities only.

1.3.2 This standard shall not be applied as a stand-alone design specification or instruction manual.

1.4 Retroactivity. The provisions of this standard reflect a consensus of what is necessary to provide an acceptable degree of protection from the hazards addressed in this standard at the time the standard was issued. Unless otherwise specified, the provisions of this standard shall not apply to facilities, equipment, structures, or installations that existed or were approved for construction or installation prior to the effective date of the standard. Where specified, the provisions of this standard shall be retroactive. In those cases where the authority having jurisdiction

determines that the existing situation presents an unacceptable degree of risk, the authority having jurisdiction shall be permitted to apply retroactively any portions of this standard deemed appropriate. The retroactive requirements of this standard shall be permitted to be modified if their application clearly would be impractical in the judgment of the authority having jurisdiction, and only where it is clearly evident that a reasonable degree of safety is provided.

1.5 Equivalency. Nothing in this standard is intended to prevent the use of systems, methods, or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability, and safety over those prescribed by this standard. Technical documentation shall be submitted to the authority having jurisdiction to demonstrate equivalency. The system, method, or device shall be approved for the intended purpose by the authority having jurisdiction.

1.6 Units. The primary units throughout this standard shall be the International System of Units (SI).

Chapter 2 Referenced Publications

2.1 General. The documents or portions thereof listed in this chapter are referenced within this standard and shall be considered part of the requirements of this document.

2.2 NFPA Publications. National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

NFPA 10, *Standard for Portable Fire Extinguishers*, 1998 edition.
NFPA 70, *National Electrical Code*[®], 2002 edition.

NFPA 72[®], *National Fire Alarm Code*[®], 1999 edition.

NFPA 1142, *Standard on Water Supplies for Suburban and Rural Fire Fighting*, 2001 edition.

2.3 Other Publications.

2.3.1 ANSI Publications. American National Standards Institute, Inc., 11 West 42nd Street, 13th floor, New York, NY 10036.

ANSI A119.2/NFPA 1192, *Standard on Recreational Vehicles*, 2002.

ANSI A119.5, *Standard for Recreational Park Trailers*, 1998.

ANSI/ARI 1010, *Standard for Drinking Fountains and Self-Contained, Mechanically Refrigerated Drinking Water Coolers*, 1994.

Chapter 3 Definitions

3.1 General. The definitions contained in this chapter shall apply to the terms used in this standard. Where terms are not included, common usage of the terms shall apply.

3.2 NFPA Official Definitions.

3.2.1* Approved. Acceptable to the authority having jurisdiction.

3.2.2* Authority Having Jurisdiction (AHJ). The organization, office, or individual responsible for approving equipment, materials, an installation, or a procedure.

3.2.3 Labeled. Equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization that is acceptable to the authority having jurisdiction and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials, and

by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

3.2.4* Listed. Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose.

3.2.5 Shall. Indicates a mandatory requirement.

3.2.6 Should. Indicates a recommendation or that which is advised but not required.

3.3 General Definitions.

3.3.1 Campground. Any parcel or tract of land under the control of any person, organization, or governmental entity wherein two or more recreational vehicle, recreational park trailer, and/or other camping unit sites are offered for the use by the public or members of an organization for overnight stays.

3.3.2 Camping Unit. A portable structure, shelter, or vehicle designed and intended for occupancy by persons engaged in RVing or camping. The basic units include but are not limited to recreational vehicles, recreational park trailers, camping cabins, housekeeping cabins, tents, tepees, yurts, and other rental accommodations.

3.3.3 Camping Unit Site. A specific area within a recreational vehicle park or campground that is set aside for use by a camping unit.

3.3.4 Recreational Park Trailer. A trailer-type unit that is primarily designed to provide temporary living quarters for recreational camping or seasonal use, that meets the following criteria: (a) built on a single chassis mounted on wheels; (b) having a gross trailer area not exceeding 400 ft² (37.2 m²) in the set-up mode; (c) certified by the manufacturer as complying with ANSI A119.5.

3.3.5 Recreational Park Trailer Site. See Camping Unit Site.

3.3.6* Recreational Vehicle. A vehicular-type unit primarily designed as temporary living quarters for recreational, camping, travel, or seasonal use that either has its own motive power or is mounted on or towed by another vehicle.

3.3.7* Recreational Vehicle Park. Any parcel or tract of land under the control of any person, organization, or governmental entity wherein two or more recreational vehicle, recreational park trailer, and/or other camping unit sites are offered for use by the public or members of an organization for overnight stays.

3.4 Definitions Applicable to Chapters 5 and 7.

3.4.1 Campground Types.

3.4.1.1 Primitive Campground. A campground accessible only by walk in, pack in, or equestrian campers where no facilities are provided for the comfort or convenience of the campers.

3.4.1.2 Semi-Primitive Campground. A campground accessible only by walk in, equestrian, or motorized trail vehicles where rudimentary facilities (privies and/or fireplaces) may be provided for the comfort and convenience of the campers

3.4.1.3 Semi-Developed Campground. A campground with two or more recreational vehicle or recreational park trailer unit sites, accessible by vehicular traffic. Roads, facilities (toilets and/or privies) are provided.

3.4.1.4 Developed Campground. A campground with two or more recreational vehicle or recreational park trailer unit sites accessible by vehicular traffic where sites are substantially developed and refuse disposal systems, flush toilets, bathing facilities, and water are provided.

3.4.2 Camping Trailer. A vehicular portable unit mounted on wheels and constructed with collapsible partial side walls that fold for towing by another vehicle and unfold at the campsite to provide temporary living quarters for recreational, camping, or travel use. See 3.3.6 Recreational Vehicle.

3.4.3 Camping Unit Stand. A specific area within a recreational vehicle park or campground set aside for use by a camping unit.

3.4.4 Density. The number of camping unit sites on a unit of land area.

3.4.5 Developed Campground. See 3.4.1 Campground Types.

3.4.6 Fifth Wheel Trailer. A vehicular unit, mounted on wheels, designed to provide temporary living quarters for recreational, camping, or travel use, of such size or weight as not to require special highway movement permit(s), of gross trailer area not to exceed 400 ft² (37.2 m²) in the set-up mode, and designed to be towed by a motorized vehicle that contains a towing mechanism that is mounted above or forward of the tow vehicle's rear axle. See 3.3.6 Recreational Vehicle.

3.4.7* Gross Trailer Area. The total plan area measured to the maximum horizontal projection of exterior walls in the set-up mode.

3.4.8 Liquefied Petroleum Gas, LP-Gas and LPG. Any material having a vapor pressure not exceeding that allowed from commercial propane composed predominantly of the following hydrocarbons, either by themselves or as mixtures: propane, propylene, butane (normal butane or iso-butane), and butylene (including isomers).

3.4.9 Motor Home. A vehicular unit designed to provide temporary living quarters for recreational, camping, or travel use built on or permanently attached to a self-propelled motor vehicle chassis or on a chassis cab or van that is an integral part of the completed vehicle. See 3.3.6 Recreational Vehicle.

3.4.10 Offset (Sewer Lines). A combination of elbows or bends in a line of piping that brings one section of the pipe out of line but into a line parallel with the other section.

3.4.11 Primitive Campground. See 3.4.1 Campground Types.

3.4.12 Public Water Supply. A municipally or privately owned and approved community water supply system designed to distribute water to consumers within a defined geographical area.

3.4.13 Rear of Site. A line designating the rearmost part of the stand that is perpendicular to the longitudinal center line of the stand.

3.4.14 Recreational Park Trailer Stand. See 3.4.3 Camping Unit Stand.

3.4.15 Recreational Unit Site. See 3.3.3 Camping Unit Site.

3.4.16 Recreational Vehicle Site. See 3.3.3 Camping Unit Site.

3.4.17 Recreational Vehicle Stand. See 3.4.3 Camping Unit Stand.

3.4.18 Sanitary Disposal Station. A facility provided for emptying of the waste-holding tanks.

3.4.19 Semi-Developed Campground. See 3.4.1 Campground Types.

3.4.20 Semi-Primitive Campground. See 3.4.1 Campground Types.

3.4.21 Service Structure. A structure or portion thereof that is used to house sanitary facilities, such as water closets or lavatories. It may include other facilities for the convenience of the owner or the occupants of the recreational vehicle park or campground.

3.4.22 Sewage. Any liquid waste containing animal or vegetable matter in suspension or solution, or the water-carried wastes resulting from the discharge of water closets, laundry tubs, washing machines, sinks, dishwashers, or any other source of water-carried waste of human origin or containing putrescible material.

3.4.23 Sewer Branch. That portion of a sewer system that receives the discharge from more than one sewer lateral.

3.4.24 Sewer Lateral. That portion of a sewer system that serves a single site or structure.

3.4.25 Sewer Main. That portion of a sewer system that receives the discharge from all sewer laterals or branches within the recreational vehicle park or campground.

3.4.26 Stand. See 3.4.3 Camping Unit Stand.

3.4.27 Travel Trailer. A vehicular unit, mounted on wheels, designed to provide temporary living quarters for recreational, camping, or travel use and of such size or weight as not to require special highway movement permits when towed by a motorized vehicle, and a gross trailer area less than 320 ft² (29.7 m²). See 3.3.6 Recreational Vehicle.

3.4.28 Truck Camper. A portable unit constructed to provide temporary living quarters for recreational, travel, or camping use, consisting of a roof, floor, and sides designed to be loaded onto and unloaded from the bed of a pickup truck. See 3.3.6 Recreational Vehicle.

3.4.29 Utility Connection Assembly. A single hookup assembly located on the site and containing connections for any of the following: potable water, sewer inlets, electrical power, phone or television.

3.4.30 Water Riser Pipe. That portion of the water system serving the recreational vehicle, recreational park trailer, and/or other camping unit site that extends from the water supply main through a lateral branch and terminates at a water connection.

3.4.31 Water Supply Station. A facility for supplying potable water.

Chapter 4 General Requirements

4.1 Differing Standards. Wherever nationally recognized standards and this standard differ, the requirements of this standard shall apply.

4.2 U.S. Federal Regulations. Where federal regulations under the National Highway Traffic Safety Administration supersede all

or part of this standard as applied to any category of regulated motor vehicles, the federal regulations shall apply.

4.3 Electrical Requirements. All electrical installations, systems, and equipment shall comply with Article 551, Part G, and other applicable sections of NFPA 70, *National Electrical Code*[®].

Chapter 5 General Design Criteria for Recreational Vehicle Parks and Campgrounds

5.1 Park Design and Construction.

5.1.1 Site Plans for Recreational Vehicle Parks and Developed Campgrounds. The location and arrangement of each recreational vehicle park and campground shall meet the approval of the chief of the fire department, forest ranger, warden, or other authority responsible for providing the necessary fire protection services. Where there could be possible time response delays for emergency equipment (fire, police, or ambulance services) occasioned by a single access to recreational vehicle park or developed campground (such as might be caused by railroad crossings, limited access highways, one-way streets, or grades that can become impassable under snow or icing conditions), a second access or emergency access roadway shall be provided. A site plan shall be supplied to the fire and law enforcement agencies having jurisdiction. This site plan shall show and identify camping unit sites, each stand, major structures and facilities, and water supply for fire protection purposes in the recreational vehicle park or campground, to facilitate response by emergency services such as fire, police, and ambulance.

5.1.2 Roads. Minimum widths of recreational vehicle park and campground roads designed to accommodate all types and sizes of camping units shall be 10 ft (3.0 m) per traffic lane and 8 ft (2.4 m) per parallel parking lane.

5.1.2.1 Road curves designed for use by all types and sizes of camping units shall have a minimum internal radius of 25 ft (7.6 m).

5.1.2.2 Turnarounds shall be provided for all dead-end roads over 100 ft (30.5 m) in length, and those designed for use by all types and sizes of camping units shall have a minimum internal radius of 25 ft (7.6 m).

5.1.3 Structures. Every structure in a recreational vehicle park or campground that does not meet the definition of a camping unit shall be designed and constructed in accordance with applicable building codes.

5.1.4 Swimming and Bathing Facilities. If provided, such facilities shall be designed in accordance with the requirements of the authority having jurisdiction.

5.1.5 Camping Unit Site Size. The occupied area of a camping unit site shall not exceed 75 percent of the site area.

5.1.6 Separation. A stand or structure shall be located at least 10 ft (3.0 m) from any other stand or structure.

Exception No. 1: A structure shall be permitted to be closer than 10 ft (3.0 m) to its stand if it is part of the stand or serves the recreational vehicle, recreational park trailer, or camping unit using that stand providing a minimum of 10 ft (3.0 m) is maintained to any other stand or structure.

Exception No. 2: Tents are exempted from this requirement.

5.1.7 Site Identification. Each camping unit site shall be marked for identification. Such markers shall be easily readable from the recreational park or campground street.

5.1.8 Stand. Each camping unit stand shall be designed and constructed at such elevation, distance, and angle with respect to its access to provide for safe and efficient placement and removal of camping units.

5.1.8.1 Each stand shall be constructed to minimize the development of ruts or low spots by the vehicle tires.

5.1.8.2 Each stand shall be graded to provide drainage.

5.1.8.3 Each stand shall be a minimum of 8 ft (2.4 m) wide.

5.2 Recreational Vehicle Site.

5.2.1 Recreation Vehicle Stand Construction. Each recreational vehicle site shall have a vehicular access.

5.2.2 Grouped Utility Connection Assembly.

5.2.2.1 When a potable water supply connection, sewer inlet connection, electrical power, TV connection, and phone connection supply or discharge outlets are provided for an individual recreational vehicle stand, they shall be permitted to be grouped together in one assembly under the following conditions:

5.2.2.2 The assembly shall be located on the left rear half of the site (left side of the recreational vehicle) within 4 ft (1.2 m) of the stand.

5.2.2.3 The assembly shall be listed specifically for the purpose of providing such services to individual recreational vehicles. [See Figures B.1(a) and B.1(b) for separate potable water supply connections, sewer inlet connections, and electrical power supply outlets at individual recreational vehicle stands.]

5.3 Recreational Park Trailer Site.

5.3.1 Recreational Park Trailer Stand Construction.

5.3.1.1 Each recreational park trailer stand shall be installed using a method to accommodate the recreational park trailer set up and minimize the possible settling of the recreational park trailer in its set-up mode.

5.3.1.2 Recreational park trailer sites shall have a potable water supply connection, sewer inlet connection, and electrical power supply for each individual recreational park trailer stand.

5.3.2 Grouped Utility Connection Assembly. The utility connections shall be permitted to be grouped together in one assembly under the following conditions:

5.3.2.1 The assembly shall be located on the left rear half of the site (left side of the recreational park trailer) within 6 ft (1.8 m) of the stand.

5.3.2.2 For the purpose of providing utility connections to individual recreational park trailers, the assembly shall be listed for recreational vehicle or recreational park trailer use. [See Figure B.1(c) for separate potable water supply connections, sewer inlet connections, and electrical power supply outlets at individual recreational park trailer stands.]

5.4 Camping Unit Site.

5.4.1 Parking. Each camping unit site shall have a designated parking space for a full-sized car or pickup truck. This parking space shall be permitted to be on the camping unit site or in a common parking area. These parking spaces

shall be constructed to minimize the development of ruts or low spots by vehicle tires.

Chapter 6 Fire Safety

6.1 Fire Detection and Alarm Services.

6.1.1 Water Supplies for Fire Protection. Water supplies for fire protection purposes shall meet the requirements of the authority having jurisdiction. (See also NFPA 1142, *Standard on Water Supplies for Suburban and Rural Fire Fighting*.)

6.1.2 Detection Systems in Structures Open to the Public. Fire detection and alarm systems installed in structures open to the public shall be installed in accordance with NFPA 72®, *National Fire Alarm Code*®.

6.1.3 Fire Extinguishers.

6.1.3.1 Portable fire extinguishers provided by the recreational vehicle park or campground operator shall be of the multipurpose dry chemical type or equivalent.

6.1.3.2 Extinguishers shall have a minimum rating of 2-A:20-B:C.

6.1.3.3 Extinguishers shall be installed in accordance with NFPA 10, *Standard for Portable Fire Extinguishers*.

6.1.4 Use of Fire Protection Equipment. The recreational vehicle park and campground operator shall instruct the park staff in the use of the fire protection equipment available in the park and define the staff's specific duties in the event of fire.

6.1.5 Evacuation Plan. Each recreational vehicle park and campground shall have a written evacuation plan approved by the authority having jurisdiction.

6.1.6 Campfire Locations. Designated outdoor campfire locations, if provided, shall be in areas where they will not constitute fire hazards to vegetation, undergrowth, trees, recreational vehicles, recreational park trailers, camping units, and structures.

6.2 Fire Safety Rules and Regulations for Recreational Vehicle Parks and Campgrounds — Posting of Emergency Information.

6.2.1 Fire safety rules and regulations shall be conspicuously posted by management.

6.2.2 Regulations shall contain the following information and any additional information as required by the fire department:

- (1) Telephone number of the fire department or other information needed for summoning the fire department, such as the location of the nearest fire alarm box
- (2) Telephone number of the police department
- (3) Telephone number of the recreational vehicle park or campground (or any other data that would aid in ensuring prompt fire department response, such as the recreational vehicle park or campground name and address)
- (4) Location of the nearest public telephone

Chapter 7 Environmental Health and Sanitation

7.1 General. All plumbing shall be installed in accordance with the applicable plumbing codes of the authority having jurisdiction or with this standard.

7.2 Potable Water Supply and Distribution.

7.2.1 Quality. The supply or supplies of water shall comply with the appropriate potable water standards of the authority having jurisdiction or, in the absence thereof, shall meet the intent of the Safe Drinking Water Act of 1974 (Public Law 93-523), dated December 16, 1974, the National Primary Drinking Water Regulations, and federal regulations pursuant thereto.

7.2.2 Sources. Only water from approved sources shall be used. Where an approved public water supply system is available, it shall be used. Where the recreational vehicle park or campground has its own water supply system, the components of the system shall be approved. A water supply system that is used on a seasonal basis shall be provided with means for draining or shall be protected from freezing.

7.2.3 Prohibited Connections. The potable water supply shall not be connected to any nonpotable or unapproved water supply, nor be subject to any backflow or back siphonage.

7.2.4 Supply. The water supply system shall be designed and constructed in accordance with the following:

- (1) A minimum of 25 gal (94.6 L) per day per site for sites without individual water connections
- (2) A minimum of 50 gal (189.3 L) per day per site for sites with individual water connections
- (3) A minimum of 50 gal (189.3 L) per day per site if water-flush closets are provided in rest rooms.

7.2.5 Pressure and Volume. Where water is distributed under pressure, the water supply system shall be designed to provide a minimum flow pressure of 20 psi (137.8 kPa) with a minimum flow of 2 gpm (9.1 L/min) at any outlet. The maximum pressure at any site shall not exceed 80 psi (551.2 kPa).

7.2.6 Outlets. Water outlets shall be easily accessible and, when not piped to individual camping unit sites, shall not be located farther than 300 ft (91.4 m) from any site. Provisions shall be made to prevent accumulations of standing water or the creation of muddy conditions at each water outlet.

7.2.7 Storage Tanks. Water storage tanks shall be constructed of impervious materials, protected against contamination, and provided with locked, watertight covers. Any overflow or ventilation openings shall be downfacing and provided with corrosion-resistant screening of not less than No. 24 mesh to prevent the entrance of insects and vermin. Water storage tanks shall not have direct connections to sewers.

7.2.8 Wells, Springs, and Similar Sources.

7.2.8.1 All wells, springs, and similar sources of water intended for potable purposes shall be properly constructed, located, and protected to exclude surface contamination and to minimize the potential of contamination from unsanitary hazards.

7.2.8.2 A well equipped with a hand pump shall be protected by a concrete apron surrounding the pump suction pipe to divert waste water away from the well.

7.2.8.3 Hand pumps, when provided, shall be so designed and installed that all openings into the interior of the pump are protected so as to exclude contamination. Open pitcher pumps shall not be used. Each hand pump shall be bolted to a mounting flange securely fastened to the well casing. The top of the casing shall extend at least 1 in. (25.4 mm) above the face of the flange.

7.3 Potable Water Connections at Individual Sites.

7.3.1 When provided, the water connections for potable water to individual recreational vehicle and recreational park trailer sites shall be located on the left rear half of the site within 4 ft (1.2 m) of the recreational vehicle stand or 6 ft (1.8 m) of the recreational park trailer stand. [See Figures B.1(a), B.1(b), and B.1(c) for diagrams of typical arrangements.]

7.3.2 Each potable water connection shall consist of a water riser pipe that shall be equipped with a threaded male spigot located at least 12 in. (304.8 mm) but not more than 24 in. (609.6 mm) above grade level for the attachment of a standard water hose. This connection shall be equipped with an atmospheric vacuum-breaker.

7.4 Drinking Fountains. If provided, drinking fountains shall be in conformance with ANSI/ARI 1010, *Standard for Drinking Fountains and Self-Contained, Mechanically Refrigerated Drinking Water Coolers*.

7.5 Sanitary Conveniences.

7.5.1 Sanitary Facilities.

7.5.1.1 Toilets shall be provided at one or more locations in every recreational vehicle park and campground except at primitive and semi-primitive campgrounds. They shall be located within a 500-ft (152.4-m) radius from any recreational vehicle, recreational park trailer, and/or camping unit site not provided with an individual sewer connection.

7.5.1.2 Every toilet room shall have a minimum ceiling height of 7 ft (2.1 m).

7.5.1.3 Facilities for males and for females shall be appropriately marked.

7.5.1.4 Unless artificial light is provided, the total window or skylight area shall be equal to at least 10 percent of the floor area.

7.5.1.5 Unless provided with a listed mechanical ventilation system, every toilet room shall have a permanent, nonclosable, screened opening(s) having a total area not less than 5 percent of the floor area that opens directly to the exterior in order to provide proper ventilation. Listed exhaust fan(s), vented to the exterior and having a rating in cubic feet per minute of at least 25 percent of the total volume of the toilet room(s) served, shall be considered as meeting the requirements of this subsection.

7.5.1.6 All openable windows and vents to the outside shall be provided with fly-proof screens of not less than No. 16 mesh.

7.5.1.7 All doors to the exterior shall open outward, be self-closing, and be visually screened by means of a vestibule or wall to prevent direct view of the interior when the exterior doors are open. Such screening shall not be required on single toilet units.

7.5.1.8 The interior finish of walls shall be moisture resistant to a height of 4 ft (1.2 m) to facilitate washing and cleaning.

7.5.1.9 The floors shall be resistant to water. Any structure having flush toilets shall be provided with a floor drain in the toilet room.

7.5.1.10 Chemical and recirculating toilets shall be of an approved type.

7.5.1.11 Where provided, privies shall be of an approved type.

7.6 Number, Location, and Arrangement of Toilets, Urinals, and Lavatories.

7.6.1 In recreational vehicle parks and in semi-developed and developed campgrounds, a minimum of one toilet shall be provided for each sex up to the first 25 sites. For each additional 25 sites not provided with sewer connections, an additional toilet for each sex shall be provided.

7.6.2 If water flush toilets are provided, an equal number of lavatories shall be provided up to 6 toilets. One additional lavatory shall be provided for each 2 toilets when more than 6 toilets are required. Each lavatory basin shall have a piped supply of potable water and shall drain into the sewage system.

7.6.3 If separate facilities are provided for men and women, urinals shall be acceptable for no more than one-third of the toilets required in the men's facilities. Only individual stall or wall-hung urinals shall be acceptable; floor urinals shall be prohibited.

7.6.4 Toilets shall be of an approved or listed type and shall be provided with seats with open fronts.

7.6.5 Each toilet shall be in a separate compartment and shall be provided with a door with a latch for privacy and a holder or dispenser for toilet paper. Dividing walls or partitions shall be at least 5 ft (1.5 m) high and, if separated from the floor, shall be by a space not greater than 12 in. (304.8 mm).

7.6.6 Toilet compartments shall not be less than 30 in. (762 mm) in width, and there shall be not less than 30 in. (762 mm) of clear space in front of each toilet.

7.6.7 Each female toilet room shall be provided with a receptacle for sanitary napkins. The receptacle shall be of durable, nonpervious, and readily cleanable material and shall be provided with a lid.

7.7 Showers.

7.7.1 Showers shall be of the individual type, and each shower area shall be visually screened from view. All shower compartments, regardless of shape, shall have a minimum finished interior of 1024 in.² (0.66 m²) and shall also be capable of encompassing a 30-in. (762-mm) circle. The minimum required area and dimensions shall be measured at a height equal to the top of the threshold and at a point tangent to its centerline. The minimum area and dimensions shall be maintained to a point 70 in. (1778 mm) above the shower drain outlet with no protrusions other than the fixture valve or valves, shower head, and safety grab bars or rails. Each shower area shall be designed to minimize the flow of water into the dressing area and shall be properly connected to the sewage system by means of a trapped inlet.

7.7.2 If showers are provided, an individual dressing area, visually screened from view, shall also be provided with minimum floor area of 3 ft by 3 ft (0.9 m by 0.9 m) per shower, and such dressing areas shall be equipped with a minimum of one clothing hook and stool (or equivalent bench area).

7.7.3 The floors of showers and dressing areas shall have an impervious skid-resistant surface. Wooden racks (duck boards) over shower floors shall be prohibited.

7.7.4 Open showers provided exclusively for the removal of sand, etc., following beach activities, and when swimming suits are not removed, need not comply with the provisions of this subsection.

7.8 Sewage Facilities.

7.8.1 Approval and Sewage Disposal Facilities. Each sewage disposal system shall be approved. Storm water sewers shall be separate and apart from any sewers intended for the conveyance of sewage.

7.8.2 Pipe Materials, Sizes, and Installation.

7.8.2.1 Piping material and design layout for sewers shall be as accepted or specified by the authority having jurisdiction. In the event such is not provided, 7.8.2.2 shall apply.

7.8.2.2 The minimum diameters of sewer laterals, branches, and mains shall be in accordance with Table 7.8.2.2.

Table 7.8.2.2 Minimum Diameter of Sewer Laterals, Branches, and Mains

Maximum Number of Recreational Vehicle Sites Served	Minimum Pipe Size, in. (ID) nominal
5	3
36	4
71	5
440	6

7.8.2.3 When the sewage system is sized in accordance with Table 7.8.2.2, the minimum grade or slope of drainage pipe shall be not less than shown in Table 7.8.2.3.

Table 7.8.2.3 Minimum Grade of Slope of Drainage Pipe

Pipe Size, in.	Slope per 100 ft (30.48 m)	
	in.	mm
3	20	508
4	15	381
5	11	279
6	8	203

7.8.2.4 The sewer lines shall be located to prevent damage from vehicular traffic and frost heaving.

7.8.2.5 All sewer line joints and sewer connections shall be watertight.

7.8.2.6 Cleanouts shall be provided at the upper terminal of each sewer main or branch and at intervals not exceeding 200 ft. (61 m) along any straight run or portion thereof.

7.8.2.7 Every change in alignment or grade in excess of 22 degrees shall be served by a cleanout, except that a cleanout shall not be required for a single 45-degree bend or a single offset that comprises two 45-degree bends.

7.8.2.8 Manholes may be used in lieu of cleanouts and shall not be spaced more than 400 ft. (121.9 m) apart.

7.8.2.9 Horizontal-to-horizontal changes in direction shall be made with 45-degree "Y" branches, combination "Y" and 1/8 bend branches, or other approved fittings of equivalent sweep.

7.8.3 Sewer Inlet Connections at Individual Recreational Vehicle and Recreational Park Trailer Sites.

7.8.3.1 When provided, the sewer connections for individual recreational vehicle and recreational park trailer sites shall be located to minimize the risk of physical damage.

7.8.3.2 When provided, the sewer inlet to individual sites shall be located on the left rear half of the site within 4 ft (1.2 m) of the stand for recreational vehicles and 6 ft (1.8 m) for a recreational park trailer. [See Figures B.1(a), B.1(b), and B.1(c) for diagrams of typical arrangements.]

7.8.3.3 The connection shall consist of a sewer riser extending vertically to grade. The minimum diameter of the sewer riser pipe shall be 3 in. (76.2 mm), and it shall be provided with a 4-in. (101.6-mm) inlet or a minimum 3-in. (76.2-mm) female fitting.

7.8.3.4 The sewer riser pipe shall be firmly imbedded in the ground and be protected against damage from heaving or shifting and the entrance of surface water. It shall be provided with a tight-fitting plug or cap that shall be secured by a durable chain (or equivalent) to prevent loss.

7.8.3.5 The sewer riser pipe shall not be required to be individually vented, regardless of the use of traps at each inlet.

7.9 Sanitary Disposal Stations.

7.9.1 One sanitary disposal station shall be provided for each 100 recreational vehicle sites, recreational park trailer sites, and combinations or parts thereof that are not equipped with individual sewer connections.

7.9.2 Each station shall be level, easily accessible from the service road, and shall provide easy entry and exit for recreational vehicles and recreational park trailers.

7.9.3 Construction of Sanitary Disposal Stations.

- (1) Unless other approved means are used, each station shall have a concrete slab with a center drain inlet located so as to be on the road side (left) of the recreational vehicle or recreational park trailer.
- (2) The slab shall be not less than 3 ft by 3 ft (0.9 m by 0.9 m), at least 3½ in. (88.9 mm) thick, and properly reinforced, the surface of which is trowelled to a smooth finish and sloped from each side inward to a sewer inlet.
- (3) The sewer inlet shall consist of a 4-in. (101.6-mm), self-closing, foot-operated hatch of approved material with a tight fitting cover. The hatch body shall be set in the concrete of the slab with the lip of the opening flush with its surface to facilitate the cleansing of the slab with water. The hatch shall be properly connected to a sewer inlet, which shall discharge to an approved sanitary sewage disposal facility constructed in accordance with 7.8.1.

7.9.4 Flushing Facilities.

- (1) Recreational vehicle parks and developed campgrounds provided with a piped water supply system shall have means for flushing recreational vehicle and recreational park trailer holding tanks. The flushing system shall consist of a piped supply of water under pressure, terminating in a valved outlet located and installed to minimize damage by automobiles, tow vehicles, recreational vehicles, or recreational park trailers. The flushing device shall consist of a properly supported riser terminating at least 24 in. (609.6 mm) above the ground surface with a ¾-in. (19-mm) valved outlet to which is screwed a flexible hose.

- (2) The water supply to the flushing device shall be protected from backflow by means of a listed vacuum breaker located downstream from the last shutoff valve.

- (3) Adjacent to the flushing arrangement there shall be posted a sign of durable material, not less than 24 in. by 24 in. (609.6 mm by 609.6 mm) in size, and inscribed thereon in clearly legible letters on a contrasting background shall be: "DANGER — NOT TO BE USED FOR DRINKING OR DOMESTIC PURPOSES."

7.10 Potable Water Supply Stations.

7.10.1 A potable water supply station for filling potable water tanks, if provided, shall be located at least 50 ft (15.2 m) from a waste disposal station. When such is provided, adjacent to the potable water outlet there shall be posted a sign of durable material, not less than 24 in. by 24 in. (609.6 mm by 609.6 mm) in size, and inscribed thereon in clearly legible letters on a contrasting background shall be: "POTABLE WATER. NOT TO BE USED FOR FLUSHING WASTE TANKS."

7.10.2 The potable water shall be protected from backflow by means of a listed vacuum breaker located downstream from the last shutoff valve.

7.11 Refuse Disposal. Facilities for the storage, collection, and disposal of refuse shall be provided.

Annex A Explanatory Material

Annex A is not a part of the requirements of this NFPA document but is included for informational purposes only. This annex contains explanatory material, numbered to correspond with the applicable text paragraphs.

A.1.1.2 ANSI A119.2/NFPA 1192, *Standard on Recreational Vehicles*, and ANSI A119.5, *Standard for Recreational Park Trailers*, are companion standards on which the provisions of this standard are largely based.

A.1.2 Facilities provided in existing recreational vehicle parks and campgrounds can be continued in use providing such facilities do not constitute a recognized health or safety hazard.

A.3.2.1 Approved. The National Fire Protection Association does not approve, inspect, or certify any installations, procedures, equipment, or materials; nor does it approve or evaluate testing laboratories. In determining the acceptability of installations, procedures, equipment, or materials, the authority having jurisdiction may base acceptance on compliance with NFPA or other appropriate standards. In the absence of such standards, said authority may require evidence of proper installation, procedure, or use. The authority having jurisdiction may also refer to the listings or labeling practices of an organization that is concerned with product evaluations and is thus in a position to determine compliance with appropriate standards for the current production of listed items.

A.3.2.2 Authority Having Jurisdiction (AHJ). The phrase "authority having jurisdiction," or its acronym AHJ, is used in NFPA documents in a broad manner, since jurisdictions and approval agencies vary, as do their responsibilities. Where public safety is primary, the authority having jurisdiction may be a federal, state, local, or other regional department or individual such as a fire chief; fire marshal; chief of a fire prevention bureau, labor department, or health department; building official; electrical inspector; or others having statutory authority. For insurance purposes, an insurance inspection department, rating bureau, or

other insurance company representative may be the authority having jurisdiction. In many circumstances, the property owner or his or her designated agent assumes the role of the authority having jurisdiction; at government installations, the commanding officer or departmental official may be the authority having jurisdiction.

A.3.2.4 Listed. The means for identifying listed equipment may vary for each organization concerned with product evaluation; some organizations do not recognize equipment as listed unless it is also labeled. The authority having jurisdiction should utilize the system employed by the listing organization to identify a listed product.

A.3.3.6 Recreational Vehicle. The basic entities are camping trailer, fifth wheel trailer, motor home, travel trailer, and truck camper. (See individual definitions.)

A.3.3.7 Recreational Vehicle Park. RV parks are primarily designed to accommodate recreational vehicles, recreational park trailers, and/or other camping units.

A.3.4.7 Gross Trailer Area. In calculating the square footage, measurements are taken on the exterior. Square footage includes all siding, corner trims, moldings, storage spaces, areas enclosed by windows, but not the roof overhangs (Ref. HUD Interpretive Bulletin A-1-88).

Annex B Typical Recreational Vehicle Park or Campground Site Plans

This annex is not a part of the requirements of this NFPA document but is included for informational purposes only.

B.1 Figures B.1(a), B.1(b), and B.1(c) show typical examples of utility service connections that may be used in developing new recreational vehicle and recreational park trailer sites of the “drive-through” and “back-in” types. These examples should not be interpreted as indicating mandatory requirements.

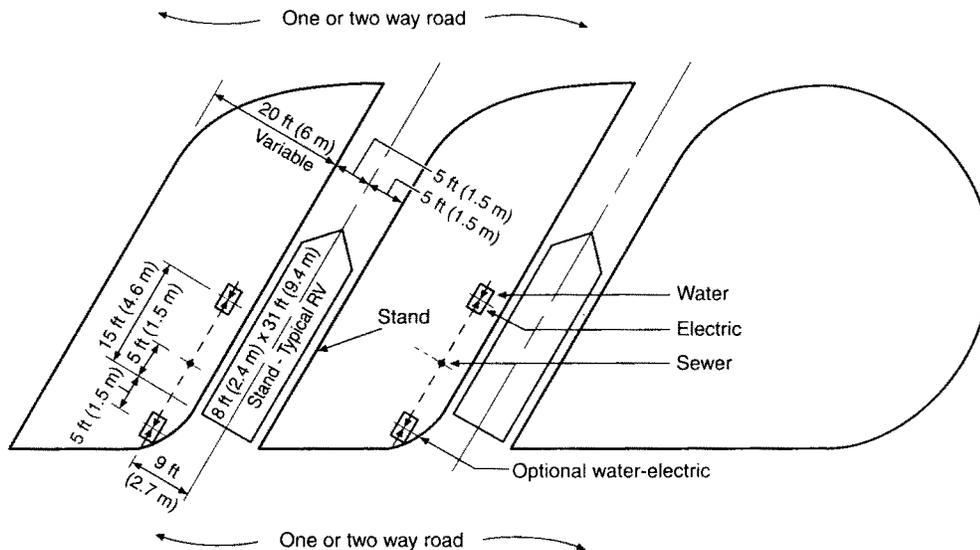


FIGURE B.1(a) One optional arrangement for a recreational vehicle park or campground drive-through site showing water, sewer, and electrical utility connection points.

Annex C Glossary

The following terms or portions thereof are not used within this standard but are listed for informational purposes only and thus are not considered part of the requirements of this document.

C.1 Accessory Structure. Any structure maintained within recreational vehicle parks or campgrounds that serves the camping unit. Accessory structures are not attached to the camping unit and typically contain no plumbing or electrical fixtures.

C.2 Accessory Structure/Storage. A structure located on a camping unit site that is designed and used solely for the storage and use of personal equipment and possessions of the RVer or camper and may include storage structures and greenhouses.

C.3 Accessory Structure/Uses. Offices, employee or operator living units, recreational facilities, grocery stores, convenience stores, gift shops, service structures, rest rooms, dumping stations, showers, laundry facilities, storage units, and other support structures customarily a part of a recreational vehicle park or campground operation.

C.4 Add-on Structure. Structures attached to or immediately adjacent to the camping unit that provide additional space or service.

C.5 Awning. A shade supported by posts or columns and partially supported by the camping unit.

C.6 Cabin/Camping. A hard-sided “tent like” shelter less than 400 ft² (3.72 m²) in area typically without plumbing that is designed to facilitate relocation.

C.7 Cabin/Housekeeping. A structure approved by the authority having jurisdiction that provides guests with full service amenities.

C.8 Camper(s). A person or persons participating in RVing or camping.