

NFPA[®]

1141

**Standard for Fire Protection
Infrastructure for Land
Development in Wildland, Rural,
and Suburban Areas**

2017



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NFPA®1141

Standard for

Fire Protection Infrastructure for Land Development in Wildland, Rural, and Suburban Areas

2017 Edition

This edition of NFPA 1141, *Standard for Fire Protection Infrastructure for Land Development in Wildland, Rural, and Suburban Areas*, was prepared by the Technical Committee on Wildland and Rural Fire Protection. It was issued by the Standards Council on May 13, 2016, with an effective date of June 2, 2016, and supersedes all previous editions.

This edition of NFPA 1141 was approved as an American National Standard on June 2, 2016.

Origin and Development of NFPA 1141

Work on NFPA 1141 began in 1972 by the former Technical Committee on Suburban and Rural Fire Prevention and Promotion in response to needs expressed by several members. Several drafts were prepared, and a document was adopted by the Correlating Committee on Suburban and Rural Fire Protection and Prevention (predecessor to the current committee) for presentation at the 1977 Annual Meeting. Due to technical problems, the standard was withdrawn from the meeting agenda. Following reorganization of the committee in 1982, a task group undertook a review and update of the 1977 document, which resulted in the 1985 edition prepared by the committee. The current committee revised the 1985 edition, resulting in the 1990 edition.

The committee's proposed revision for the 1995 edition was returned to the committee to clarify specific issues on conflicting requirements between NFPA 1141 and NFPA 1144, and other requirements and NFPA 1 and NFPA 101®. The requisite changes resulted in moving the document to a 1998 revision cycle.

In the 1998 edition, the committee was able to resolve many issues in clarity and consistency by bringing the document into concert with NFPA 1 and NFPA 101. Because of specific fire protection circumstances found in rural areas (as listed in the revised scope and purpose of the document), the committee continued to require that some elements remain more restrictive than comparable elements referenced in other NFPA documents.

In the 2003 edition, the technical committee responded to the rapid development of structures into areas that present unusual characteristics to responding fire agencies and worked extensively on making NFPA 1141 current with other documents and more usable by adopting jurisdictions. The committee was particularly interested in keeping the flexibility in the application of the standard by jurisdictions so that it works with existing codes and standards that may or may not adequately cover planned building groups.

In the 2008 edition, the scope of the document was revised to focus on providing guidance on the development of the community infrastructure necessary to eliminate fire protection problems that result from rapid growth and change. The title change from *Fire Protection in Planned Building Groups* to *Fire Protection Infrastructure for Land Development in Suburban and Rural Areas* also reflected this broader look at the challenges facing suburban and rural areas. While creating the 2008 edition, the technical committee concurrently revised NFPA 1144 to provide complementary documents for fire protection in suburban and rural development, including special considerations for wildland interface areas. As a result, the requirements for community infrastructure (e.g., roads, water supplies) were moved from the 2001 edition of NFPA 1144 to this document, and additional guidance was taken from the USDA Forest Service and the National Wildland/Urban Interface Fire Program (Firewise Communities), as well as input from several committee members and outside experts.

In the 2012 edition, the technical committee expanded the scope to include wildland, rural, and suburban areas. In an effort to be consistent with that change, the title of the 2012 edition was changed to NFPA 1141, *Standard for Fire Protection Infrastructure for Land Development in Wildland, Rural, and Suburban Areas*. Substantial changes in this edition included new material with guidance on the appeals process, clarification on planning, and the addition of dead ends as a subsection of roadways.

In the 2017 edition, the technical committee clarified that the applicant for land use is responsible for providing documentation and maps to the authority having jurisdiction (AHJ) for review. The text in the previous edition may have been ambiguous in suggesting that the AHJ was responsible, which was not the intention of the technical committee. Various definitions have been revised to offer greater consistency across other, similar technical committee documents. Chapter 7, Premises Identification, has been added to the document. This chapter was implemented to assist responders in identifying residences, particularly in rural areas, that are located far apart or in secluded areas. The technical committee also has clarified which standard applies to certain water main and fire hydrant installations based on property ownership.

Technical Committee on Wildland and Rural Fire Protection

Rick L. Swan, *Chair*

IAFF Local 2881/CDF Fire Fighters, CA [L]
Rep. International Association of Fire Fighters

Gregory A. Bartlett, Brandon University, Rural Development Institute, Canada [SE]

Randall K. Bradley, Stanislaus Consolidated Fire Protection District, CA [E]

Vernon Champlin, NE Teller County Fire Protection District, CO [E]

Erik W. Christiansen, Exponent, Inc., CA [SE]

Richard A. Darby, Clay County Fire Rescue Department, FL [L]
Rep. National Volunteer Fire Council

David Doudy, City of Farmington Fire Department, NM [U]

Michael J. Gollner, University of Maryland, MD [RT]

Dustin Green, Citrus County Sheriffs Office, FL [U]

Donald J. Griego, State of New Mexico, NM [E]

Bill Hendricks, Safer Building Solutions, CA [M]

Joseph T. Holland, Hoover Treated Wood Products, FL [M]

Kelly Johnston, Wildland Professional Solutions, Canada [SE]

Justice J. Jones, Austin Fire Department, TX [U]

Wesley M. Keller, Pennsylvania Bureau of Forestry, PA [U]

Jeremy A. Keller, Macochee Joint Ambulance District, OH [E]

Robert J. Kowalski, Nationwide Insurance Companies, OH [I]

Kevin P. Kuntz, Insurance Services Office, Inc., NJ [I]

Matthew Y. Lee, CAL FIRE, CA [E]

Alexander Maranghides, National Institute of Standards & Technology, MD [RT]

Don Oaks, California Fire Chief's Association, CA [SE]

Paul Prevost, Clearwater Regional Fire Rescue Service, Canada [U]

Stephen Quarles, Insurance Institute for Business & Home Safety, SC [I]

Clifford C. Roberts, American International Group, Inc. (AIG), FL [I]

Rob Rosovich, FireIce Inc., FL [M]

Ernie Schmidt, 3M Company, MN [M]

Gregory Schreiner, San Diego County Fire Authority, CA [E]

Deborah L. Shaner, Shaner Life Safety, CO [SE]

Amy Ray Solaro, Truckee Meadows Fire Protection District, NV [E]

David P. Tyree, American Wood Council, CO [M]

Alternates

Hubert Biteau, Exponent, Inc., MD [SE]
(Alt. to Erik W. Christiansen)

Nelson P. Bryner, National Institute of Standards & Technology, MD [RT]
(Alt. to Alexander Maranghides)

Vladimir Ignatenko, American International Group, Inc. (AIG), CA [I]
(Alt. to Clifford C. Roberts)

Steve Oaks, Santa Barbara County Fire Department, CA [SE]
(Alt. to Don Oaks)

Thomas McGowan, NFPA Staff Liaison

Phil Ostrander, Oklahoma State Firefighters Association, OK [L]
(Alt. to Richard A. Darby)

James D. Pine, San Diego County Fire Authority, CA [E]
(Alt. to Gregory Schreiner)

Dennis A. Richardson, American Wood Council, CA [M]
(Alt. to David P. Tyree)

William J. Watters, Insurance Services Office, Inc., NJ [I]
(Alt. to Kevin P. Kuntz)

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Committee Scope: This committee shall have the primary responsibility for documents on fire protection in wildland, rural, and suburban areas.

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NFPA 1141

Standard for

Fire Protection Infrastructure for Land Development in Wildland, Rural, and Suburban Areas

2017 Edition

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

A reference in brackets [] following a section or paragraph indicates material that has been extracted from another NFPA document. As an aid to the user, the complete title and edition of the source documents for extracts in mandatory sections of the document are given in Chapter 2 and those for extracts in informational sections are given in Annex B. Extracted text may be edited for consistency and style and may include the revision of internal paragraph references and other references as appropriate. Requests for interpretations or revisions of extracted text shall be sent to the technical committee responsible for the source document.

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

Chapter 1 Administration

1.1* Scope. This standard covers the requirements for the fire protection infrastructure in wildland, rural, and suburban areas where there is an intended change of land use or intended land development.

1.2 Purpose. The purpose of this standard is to develop fire protection and emergency services infrastructure to reduce the impact of land use changes in wildland, rural, and suburban areas.

1.3 Application.

1.3.1* This standard shall apply to land development or changes in land use in wildland, rural, and suburban areas.

1.3.1.1 Wildland Areas. In addition to other requirements in this standard, land use changes in wildland areas shall be subject to the requirements in NFPA 1144.

1.3.1.2 All new construction in wildland/urban interface areas shall be designed, located, and constructed to comply with NFPA 1144.

1.3.2 If the authority having jurisdiction (AHJ) determines that additions to existing structures or new structures have a negative impact on the fire protection of existing land use, the requirements of this standard shall be permitted to be imposed.

1.3.3 Equivalencies, Alternatives, and Modifications.

1.3.3.1 Equivalencies. 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 to those prescribed by this standard, provided technical documentation is submitted to the AHJ to demonstrate equivalency and the system, method, or device is approved for the intended purpose.

1.3.3.2 Alternatives. The specific requirements of this standard shall be permitted to be altered by the AHJ to allow alternative methods that will secure equivalent fire safety, but in no case shall the alternative afford less fire safety, in the judgment of the AHJ, than that which would be provided by compliance with the provisions contained in this standard.

1.3.3.3 Modifications. The AHJ is authorized to modify any of the provisions of this standard upon application in writing by the owner, a lessee, or a duly authorized representative where there are practical difficulties in the way of carrying out the provisions of the standard, provided that the intent of the standard shall be complied with, public safety secured, and substantial justice done.

1.3.3.4 Buildings with equivalency, alternatives, or modifications approved by the AHJ shall be considered as conforming with this standard.

1.3.3.5 Each application for an alternative fire protection feature shall be filed with the AHJ and shall be accompanied by such evidence, letters, statements, results of tests, or other supporting information as required to justify the request. The AHJ shall keep a record of actions on such applications, and a signed copy of the AHJ's decision shall be provided for the applicant.

1.3.4 Requirements.

1.3.4.1 This standard shall be enforced by the authority having jurisdiction (AHJ) designated by the governing body.

1.3.4.2* The AHJ shall have the authority to apply the requirements in this standard that are specifically addressed for buildings or other structures that are deemed to possess significant life or property loss potential.

1.3.4.3 If the fire department is not the AHJ, the AHJ shall consult with the fire department on all matters relative to the enforcement of this standard to ensure that the needs of the fire department are met in providing fire protection.

1.3.4.4 Provisions in Excess of Standard Requirements. Nothing in this standard shall be construed to prohibit a better development plan, building construction type, fire protection infrastructure, or an otherwise safer condition than that specified by the minimum requirements of this standard.

1.3.4.5 The AHJ shall use recognized fire protection measures to meet local conditions because this standard does not set forth general fire protection features or procedures addressed in other codes or standards.

1.3.4.6 Conflicts.

1.3.4.6.1 When a requirement in a referenced document is less restrictive than this standard, the requirements of this standard shall apply.

1.3.4.6.2 When a conflict between a general requirement and a specific requirement occurs, the specific requirement shall apply.

1.3.4.7* Prior to occupancy of any portion of the development, supporting infrastructure shall be installed, operational, and approved by the AHJ.

1.3.5 Public Notification.

1.3.5.1 The applicant for a land development or land use change shall provide written documentation and illustrative maps to the AHJ that specify areas that will be included in the proposed land development or land use change.

1.3.5.2 One or more published public announcements shall be made to publicize one or more public hearings at which the AHJ will present the proposed project, outline proposed methods to comply with this standard using best applicable data, and allow testimony by the public.

1.3.5.3 The applicant for a land use or land development change shall submit a written proposal to the AHJ regarding the level to which this standard shall be imposed, including justifications that demonstrate compliance, fire service impact, and responses to the public testimony.

1.3.5.4 The AHJ shall review the applicant's land use or land development change proposal and public testimony and render a written final determination if the proposed land use or land development change complies with this standard.

1.3.6 Public Appeals Process. Any person shall be permitted to appeal a decision of the AHJ. A process for appeal shall be made available to the public by the appropriate administrative body of the local adopting authority.

1.3.6.1 Adoption Appeals. Appeals shall be permitted, in part or whole, to the adoption of this standard. Upon appeal, the designated local government having authority shall affirm, modify, or disapprove in writing the determination of the AHJ in accordance with 1.3.5.3.

1.3.6.2 Other Appeals. Appeals of individual requirements shall be permitted when it is claimed that any one or more of the following conditions exist:

- (1) The true intent of the requirements described in this standard has been incorrectly interpreted.
- (2) The provisions of the standard do not fully apply.
- (3) A decision is unreasonable or arbitrary as it applies to alternatives or new materials.

1.3.7 Impact Assessment. The AHJ shall conduct an impact assessment of the proposed land development or change in land use to determine the extent of impact on fire services currently available, as specified in Chapter 12 of this standard.

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, Quincy, MA 02169-7471.

NFPA 1, *Fire Code*, 2015 edition.

NFPA 10, *Standard for Portable Fire Extinguishers*, 2013 edition.

NFPA 13, *Standard for the Installation of Sprinkler Systems*, 2016 edition.

NFPA 13D, *Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes*, 2016 edition.

NFPA 13R, *Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height*, 2016 edition.

NFPA 14, *Standard for the Installation of Standpipe and Hose Systems*, 2016 edition.

NFPA 24, *Standard for the Installation of Private Fire Service Mains and Their Appurtenances*, 2016 edition.

NFPA 30, *Flammable and Combustible Liquids Code*, 2015 edition.

NFPA 51B, *Standard for Fire Prevention During Welding, Cutting, and Other Hot Work*, 2014 edition.

NFPA 54, *National Fuel Gas Code*, 2015 edition.

NFPA 58, *Liquefied Petroleum Gas Code*, 2017 edition.

NFPA 72®, *National Fire Alarm and Signaling Code*, 2016 edition.

NFPA 241, *Standard for Safeguarding Construction, Alteration, and Demolition Operations*, 2013 edition.

NFPA 291, *Recommended Practice for Fire Flow Testing and Marking of Hydrants*, 2016 edition.

NFPA 1142, *Standard on Water Supplies for Suburban and Rural Fire Fighting*, 2017 edition.

NFPA 1144, *Standard for Reducing Structure Ignition Hazards from Wildland Fire*, 2013 edition.

NFPA 1561, *Standard on Emergency Services Incident Management System*, 2014 edition.

2.3 Other Publications.

2.3.1 ASTM Publications. ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM E136, *Standard Test Method for Behavior of Materials in a Vertical Tube Furnace*, 2012.

ASTM E2652, *Standard Test Method for Behavior of Materials in a Tube Furnace with a Cone-shaped Airflow Stabilizer, at 750 Degrees C*, 2012.

2.3.2 AWWA Publications. American Water Works Association, 6666 West Quincy Avenue, Denver, CO 80235.

AWWA M31, *Distribution System Requirements for Fire Protection*, 4th edition, 2008.