Farmington Fire Department
Single-Family Residential Plan Review Guide

(Note: *Compliance with the information on this document does not guarantee compliance with the State of Utah Fire and Building Codes, nor does it guarantee issuance of a permit.)*

This guide is not all-inclusive of applicable codes but serves to help applicants submit complete and accurate fire plans. A thorough and precise submittal helps speed up the plan review process. Ensuring completeness and accuracy from the beginning reduces delays and minimizes requests for revisions by the Fire Marshal. Applicants are responsible for submitting complete applications. Incomplete applications will be rejected or returned during the review process. Plans must be legible, with a readable typeface and a clear contrast between light and dark areas to ensure readability.

Plans should be easily readable and properly labeled with high contrast for clarity. Proper scaling and organization are essential for an efficient review process. On the following page, a jurisdictional map is provided to help confirm whether the project falls within the Farmington Fire Department's jurisdiction. Additionally, contact information for fire plan reviews in other jurisdictions is included for reference. For questions or further guidance, applicants should contact the appropriate fire department based on the project's location. Farmington Fire Department utilizes the Davis County GIS for the wildland fire hazard risk assessment.

Farmington Fire Code References

- 2021 International Fire Code 2021 International Fire Code (IFC)
- Utah State 2021 Amended Fire Code IFC-2021-edition-amendment-inserts-1-FINAL.pdf
- Farmington Codes and Ordinances
- 2006 Utah Wildland Urban-Interface Code UWUIC
- NFPA 13D *Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes.* *NFPA 13D Standard Development*

Farmington Fire Department
Single-Family Residential Plan Review Guide

SITE PLAN SHEET CHECKLIST

Site Layout		
Property Boundaries	__ Yes	
Location of structures or building envelopes. Including setbacks from property lines.	__ Yes	
Location of propane tanks and tank size	__ Yes	
Location of proposed or existing overhead utilities or solar arrays	__ Yes	
North orientation marker	__ Yes	
Site engineering scale	__ Yes	
Landscape and vegetation details	__ Yes	
Topography	__ Yes	

Fire Access Roads and Driveways		
Existing and proposed fire access roads & driveways clearly marked on the plan with required width, length, grade, turning radius, and surface	__ Yes	
Any potential obstructions on access roads (tress, utility poles, etc.)	__ Yes	__N/A

Fire Suppression Water Supply		
Location of all existing and/or proposed fire hydrants, water tanks, or drafting sites.	__ Yes	
Hydrant flow rate information and main size	__ Yes	
Distance from building to nearest hydrant	__ Yes	
Calculations to demonstrate adequate water supply for firefighting needs (tank and draft sites)	__ Yes	__ N/A

Building Details		
Building footprints and number of stories	__ Yes	
Fire protection systems (sprinklers), if applicable	__ Yes	__ N/A
Roof classification of buildings	__ Yes	
Type of ignition-resistance construction	__ Yes	
Structures and their appendages	__ Yes	
Occupancy classification of buildings	__ Yes	

Farmington Fire Department
Single-Family Residential Plan Review Guide

Fire Department Access – Fire Lanes/Fire Apparatus Access Roads

Scope and Purpose

The following information applies to residential projects where the buildings do not exceed 30 feet in vertical distance between grade plane and the highest roof surface of the building. The highest roof surface of the building. The highest roof surface shall be determined by measurement of the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater. If the proposed building exceeds 30 feet in vertical distance, please see Fire Department Access- Aerial Fire Apparatus Access.

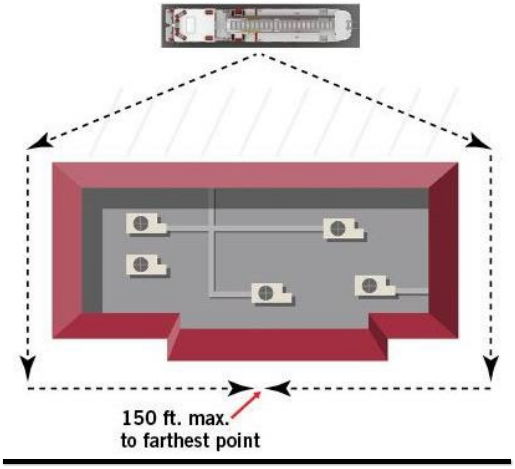
Definition

Fire Lane – A road or other passageway developed to allow the passage of fire apparatus. A fire lane is not necessarily intended for vehicular traffic other than fire apparatus.

Fire Apparatus Access Road – A road that provides fire apparatus access from a fire station to a facility, building or portion thereof. This is a general term inclusive of all other terms such as fire lane, public street, private street, parking lot drive aisle, and access roadway.

Required Access

Fire Apparatus shall have access to within 150 feet of all portions of a facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of a facility or building.



Exception: The Fire Code Official is authorized to increase the access dimensions of 150 feet where all of the following apply:

- The building is equipped throughout with an approved automatic sprinkler system.
- Fire apparatus access roads cannot be installed because of location of property, topography, waterways, nonnegotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.
- There are not more than two Group R-3 or Group U occupancies. (Does not apply to structures built under IRC)

Fire Department Access – Fire Lanes/Fire Apparatus Access Roads Cont.

Surface

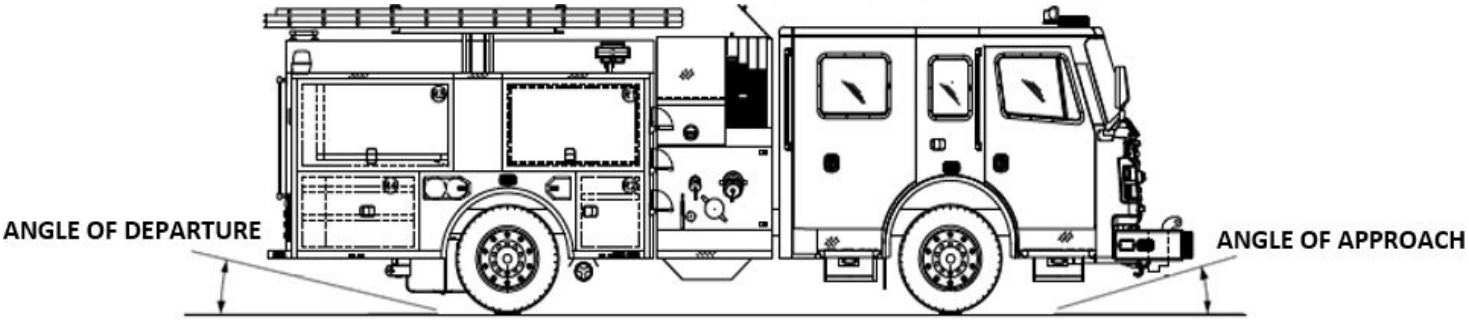
Approved Fire Apparatus Access roads shall be constructed of asphalt, concrete or other approved all-weather driving surface capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds.

Vertical Clearance

Fire Apparatus Access Roads shall have an unobstructed vertical clearance of not less than 13 feet 6 inches.

Grade

- Fire apparatus access roads shall not exceed 10 percent (10%) in grade longitudinally.
- Cross slope of a road section or within a turnaround area shall not exceed fire percent (5%).
- In order to accommodate proper angles of approach and departure, the gradient in fire access roads shall not exceed a five percent (5%) change along any ten (10) foot section.

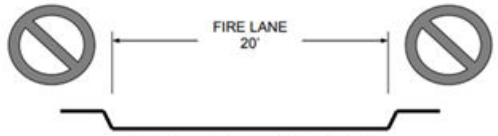


Fire Department Access – Fire Lanes/Fire Apparatus Access Roads Cont.

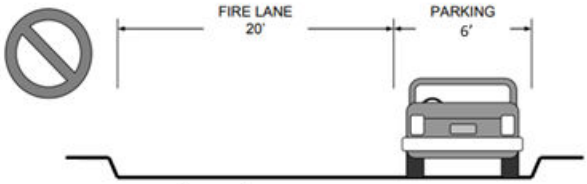
Width

A Fire apparatus access roads shall have a minimum unobstructed width (exclusive of shoulder) of not less than the following:

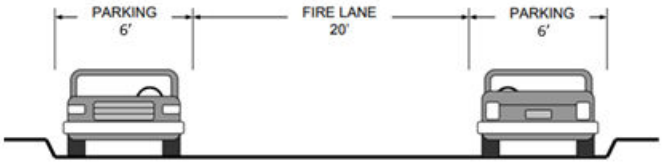
WIDTH (FEET)		
No parking	Parking on One Side (Parallel)	Parking on Both Sides (Parallel)
20	26	32



(20-26 FEET) NO PARKING



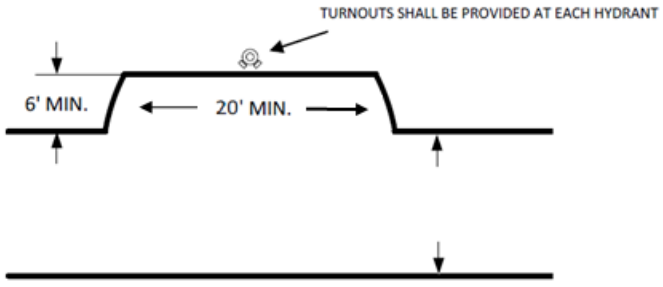
(26-32) PARKING ON ONE SIDE



(32+) PARKING ON BOTH SIDES

Exceptions:

- Dead-end fire apparatus access roads in excess of 501 feet shall be a minimum unobstructed width of 26 feet. (See “Dead Ends & Turnarounds”)
- Where Aerial Fire Apparatus Access Roads are required, see Fire Department Access – Requiring Aerial Fire Apparatus Access.
- Where a fire hydrant is located on a fire apparatus access road, the minimum unobstructed road width shall be 26 feet. See illustration below.

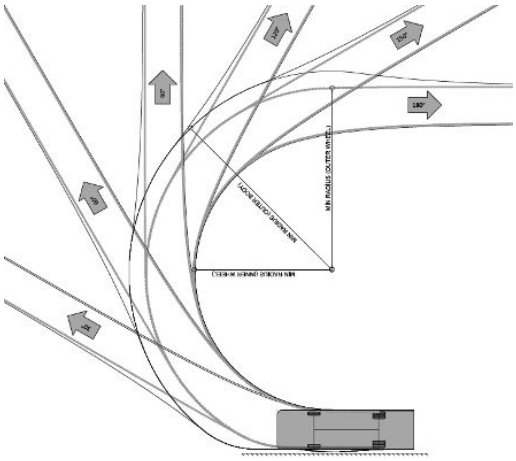


Fire Department Access – Fire Lanes/Fire Apparatus Access Roads Cont.

Turning Radius

Fire apparatus access road shall be designed to accommodate the following radius;

- 35 foot minimum inside turning radius.
- 55 foot minimum outside turning radius.



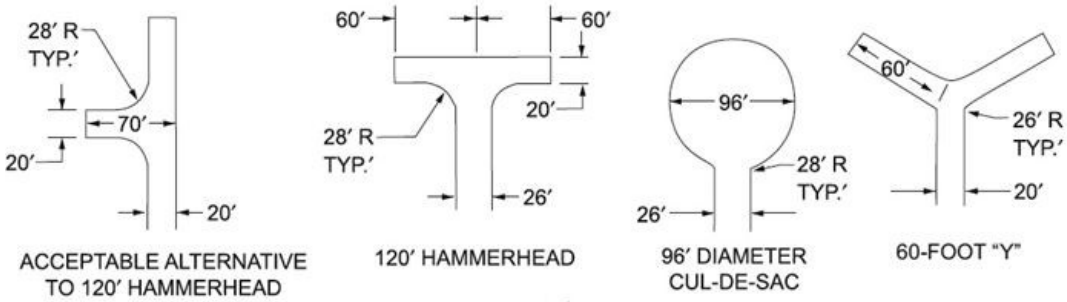
Turnarounds

A Dead-end fire apparatus access roads in excess of 150 feet shall be provided with width and turnaround provisions in accordance with International Fire Code Table D103.4 & Figure D103.1

(FEET)	No Parking	Parking on One Side (Parallel)	Parking on Both Sides (Parallel)	
0-150	20	26	32	Not Required
151-500	20	26	32	Required
501-750	26	32	38	Required
Over 750	Special Approval Required			

TABLE D103.4 - REQUIREMENTS FOR DEAD-END FIRE APPARATUS ACCESS ROADS

FIGURE D103.1 - DEAD-END FIRE APPARATUS ACCESS ROAD TURNAROUND



Farmington Fire Department
Single-Family Residential Plan Review Guide

Fire Department Access – **AERIAL** Fire Apparatus Access

Scope and Purpose

The following Fire Department Access requirement applies to commercial and/or industrial projects where building(s) have a vertical distance between grade plan and the highest roof surface of the building exceeds 30 feet. The highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater. If your project does not exceed this 30-foot ark, please see Fire Department Access – Fire Lanes/Fire Apparatus Access Roads – Commercial and Industrial Projects.

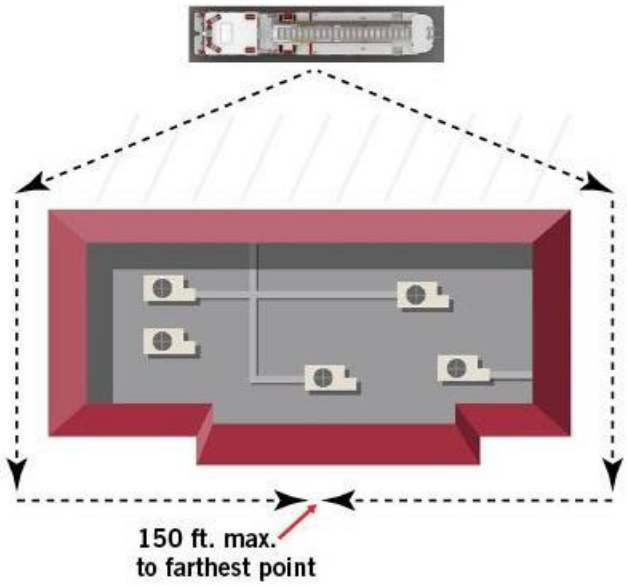
Definition

Fire Lane – A road or other passageway developed to allow the passage of fire apparatus. A fire lane is not necessarily intended for vehicular traffic other than fire apparatus.

Fire Apparatus Access Road – A road that provides fire apparatus access from a fire station to a facility, building or portion thereof. This is a general term inclusive of all other terms such as fire lane, public street, private street, parking lot drive aisle, and access roadway.

Required Access

Fire Apparatus shall have access to within 150 feet of all portions of a facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of a facility or building.



Surface

Approved Fire Apparatus Access roads shall be constructed of asphalt, concrete or other approved all-weather driving surface capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds.

Fire Department Access – **AERIAL** Fire Apparatus Access Cont.

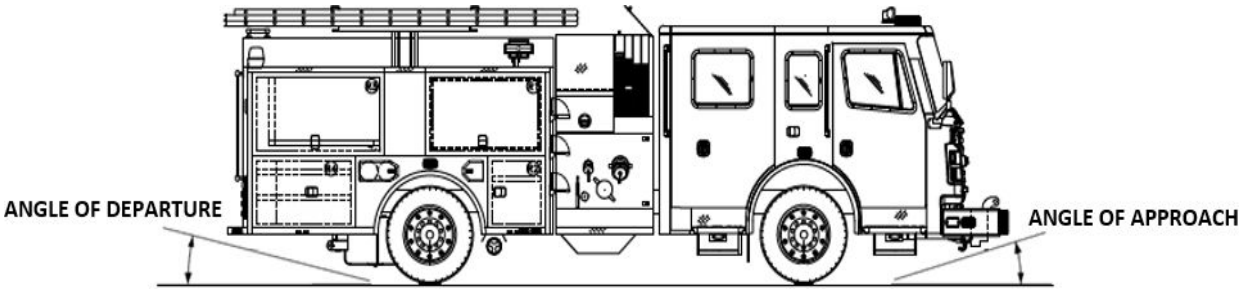
Vertical Clearance

Overhead utility and power lines shall not be located over the aerial fire apparatus access road or between the aerial fire apparatus road and the building.

The Fire Code Official may allow limited obstructions that do not affect the placement or use of aerial fire apparatus, such as site vegetation or a porte-cochere at the entrance to a building. Permitted obstructions shall have an unobstructed vertical clearance of not less than 13 feet 6 inches.

Grade

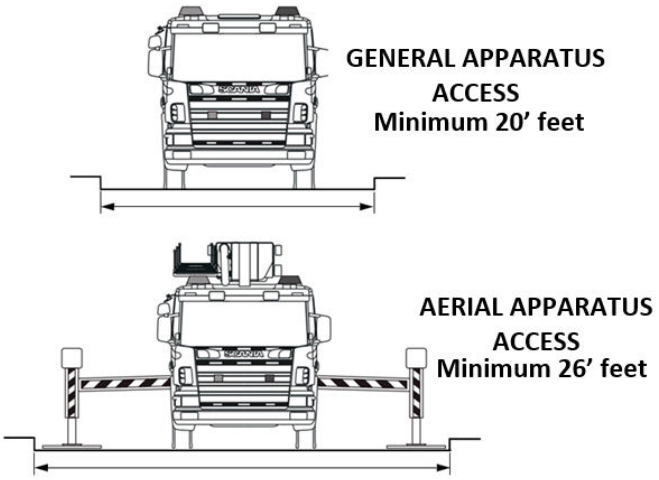
- Fire apparatus access roads shall not exceed 10 percent (10%) in grade longitudinally.
- Cross slope of a road section or within a turnaround area shall not exceed fire percent (5%).
- In order to accommodate proper angles of approach and departure, the gradient in fire access roads shall not exceed a five percent (5%) change along any ten (10) foot section.



Width

An Aerial Fire Apparatus Access Road shall have a minimum unobstructed with (exclusive of shoulder) of not less of the following.

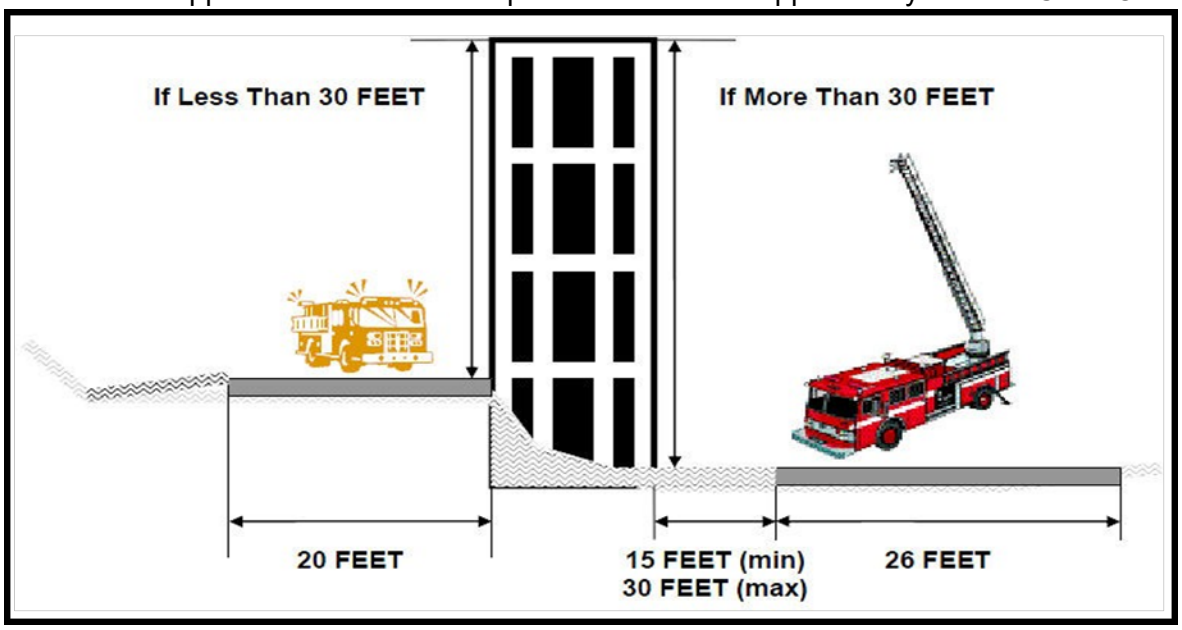
WIDTH (FEET)	
No Parking	26 feet
Parking on One Side (Parallel)	34 feet
Parking on Both Sides (Parallel)	42 feet



Fire Department Access – **AERIAL** Fire Apparatus Access Cont.

Proximity to Building

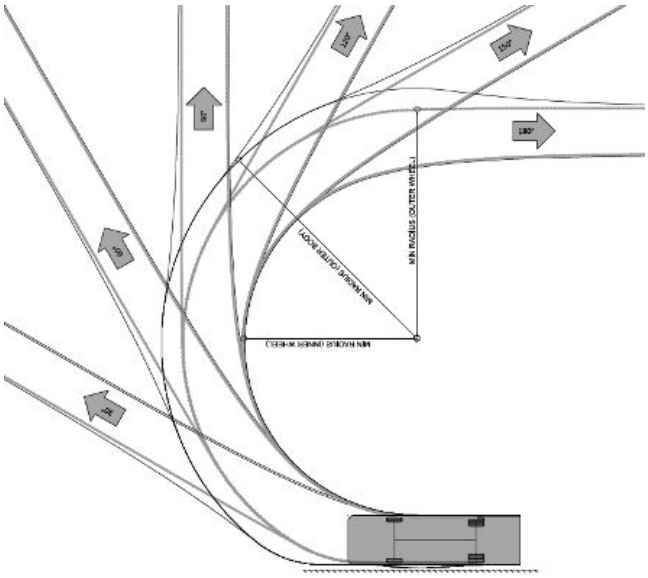
At least one of the required access routes shall be located within a minimum of 15 feet and a maximum of 30 feet from the building and shall be positioned parallel to one entire side of the building. The side of the building on which the aerial fire apparatus access road is positioned shall be approved by the Fire Code Official.



Turning Radius

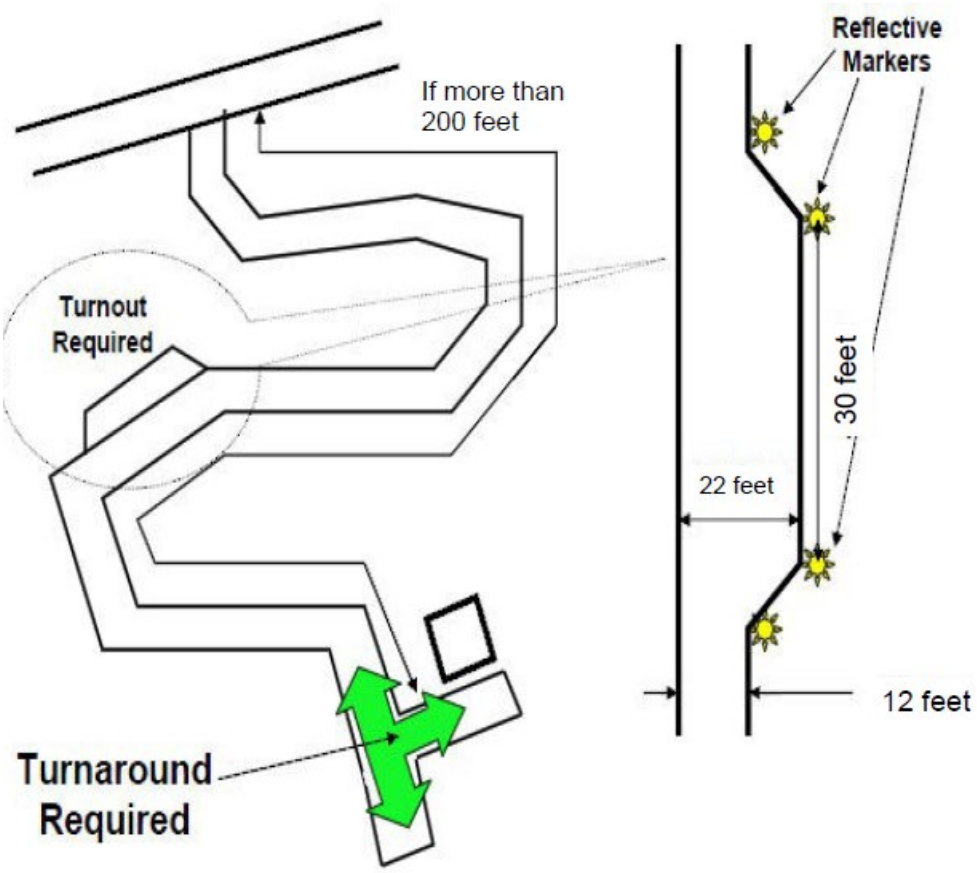
Fire apparatus access road shall be designed to accommodate the following turning radius;

- 35 foot minimum inside turning radius
- 55 foot minimum outside turning radius



Turnouts On Private Driveways

Driveways in excess of 150 feet in length shall be provided with turnarounds. Driveways in excess of 200 feet in length and less than 20 feet in width shall be provided with turnouts in addition to turnarounds. A driveway shall not serve in excess of five dwellings.



Gates

Gates securing the fire apparatus access roads shall comply with the following criteria:

1. Where a single gate is provided, the gate width shall be not less than 20 feet. Where a fire apparatus road consists of a divided roadway, the gate width shall be not less than 12 feet.
2. Gates shall be of the horizontal swing, horizontal slide, vertical lift or vertical pivot type.
3. Construction of gates shall be of materials that allow manual operation by one person.
4. Gate components shall be maintained in an operative condition at all times and replaced or repaired when defective.
5. Electric gates shall be equipped with a means of opening the gate by fire personnel for emergency access. Emergency opening devices shall be approved the fire code official.
6. Methods of locking shall be submitted for approval by the fire code official.
7. Electric gate operators, where provided, shall be listed in accordance with UL 325.
8. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200.

Farmington Fire Department
Single-Family Residential Plan Review Guide

Addressing Signage

Residential – Single Family, Duplex, Mobile

1. Building addresses shall be a minimum of four inches (102 mm) in height, contrasting in color to the background, readily visible from the street, and located in an area with exterior lighting.

2. Where structures are set back more than 50' from the street, larger numbers shall be required.

3. In the event a structure is not visible from the street, the address numbers shall be posted adjacent to the driveway entrance as well as on the structure.

Fire Protection Water Supplies

Required Water Supply

An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction (IFC 507.1).

Fire flow may be reduced for an isolated one- and two-family dwelling when the authority having jurisdiction over the dwelling determines that the development of a full fire-flow requirement is impractical. (507.1.1)

The requirements for pre-existing subdivisions lot shall not exceed the requirements described in Section 501.5 (507.1.2)

A water supply shall consist of reservoirs, pressure tanks, elevated tanks, water mains, or other fixed systems capable of providing the required fire flow. (507.2)

Private fire service mains and appurtenances shall be installed in accordance with NFPA 24. (507.2.1)
Water tanks for private fire protection shall be installed in accordance with NFPA 22. (507.2.2)

Fire flow requirements for buildings or portions of buildings and facilities shall be determined by an approved method. See Appendix B105.1. (507.3)

The fire flow rate of a water supply is measured at 20 pounds per square inch (psi) residual pressure that is available for firefighting (IFC Appendix B102.1)

Farmington Fire Department
Single-Family Residential Plan Review Guide

During Construction

Approved vehicle access for fire fighting shall be provided as described in Chapter 5 of this code to all construction or demolition sites.(3311.1.1)

Vehicle access shall be provided to within 100 feet of temporary or permanent fire department connections. (3311.1.2)

Vehicle access shall be provided by either temporary or permanent roads. (3311.1.3)

Temporary roads shall be maintained until permanent fire apparatus access roads are available. (3311.1.4)

Temporary or permanent fire department access roads shall be functional before construction above the foundation begins and before an appreciable amount of combustible construction materials are on site. (3311.1.5)

Temporary roads shall be constructed with a minimum of site specific required structural fill for permanent roads and road base, or other approved material complying with local standards. (3311.3.1)

Compaction reports may be required. An engineer's review and certification of a temporary fire department access road is not required. (3311.3.2)

If an improvement completion assurance has been posted in accordance with Section 10-9a-604.5, a local jurisdiction may not require permanent roads, or asphalt or concrete on temporary roads, before final approval of the structure served by the roads. (3311.3.3)

Water Supply

An approved water supply for fire protection, either temporary or permanent, shall be made available as soon as commencement of vertical combustible construction and on installation of a standpipe system in buildings under construction, in accordance with Sections 3313.2 through 3313.5. IFC 2021

> Exception: The fire-flow requirements for isolated buildings or a group of buildings in rural areas or small communities where the development of full fire-flow requirements is impractical.

Premises Identification During Construction/Demolition

> New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 4 inches high with a minimum stroke width of ½ inch. Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole, or other sign or means shall be used to identify the structure. Address identification shall be maintained. (505.1)

During Construction Cont.

Water Supply during Construction or Demolition Operations

An approved water supply for fire protection, either temporary or permanent, shall be made available as soon as combustible material arrives on construction sites, on commencement of vertical combustible construction and on installation of a standpipe system in buildings under construction, in accordance with Sections 3313.2 through 3313.5 (IFC 3313.1).

> Exception: Fire-flow requirements may be reduced for isolated buildings or a group of buildings in rural areas or small communities where the development of full fire-flow requirements is impractical.

When combustible building materials of the building under construction are delivered to a site, a minimum fire flow of 500 gallons per minute shall be provided. The fire hydrant used to provide this fire-flow supply shall be within 500 feet of the combustible building materials, as measured along an approved fire apparatus access lane. Where the site configuration is such that one fire hydrant cannot be located within 500 feet of all combustible building materials, additional fire hydrants shall be required to provide coverage in accordance with this section. (3133.2)

Prior to commencement of vertical construction of Type III, IV, or V buildings that utilize any combustible building materials, the fire flow required by Sections 3133.3.31 through 3313.3.3 shall be provided, accompanied by fire hydrants in sufficient quantity to deliver the required fire flow and proper coverage. (3313.3)

Where a building of Type III, IV, or V construction has a fire separation distance of less than 30 feet from property lot lines, and an adjacent property has an existing structure or otherwise can be built on, the water supply shall provide either a minimum of 500 gallons per minute or the entire fire flow required for the building when constructed whichever is greater. (3313.3.1)

Where a building of Type III, IV or V construction has a fire separation distance of 30 feet up to 60 feet from property lot lines, and an adjacent property has an existing structure or otherwise can be built on, the water supply shall provide a minimum of 500 gallons per minute or 50 percent of the fire flow required for the building when constructed, whichever is greater. (3313.3.2)

Where a building of Type III, IV or V construction has a fire separation of 60 feet or greater from a property *lot line*, a water supply of 500 gallons per minute shall be provided. (3313.3.3)

If combustible building materials are delivered to the construction site, water supply in accordance with Section 3313.2 shall be provided. Additional water supply for fire flow is not required prior to commencing vertical construction of Type I and II buildings. (3313.4)

Regardless of the presence of combustible building materials, the construction type or the *fire separation distance*, where a standpipe is required in accordance with Section 3314, a water supply providing a minimum flow of 500 gallons per minute shall be provided. The fire hydrant used for this water supply shall be located within 100 feet of the fire department connection supplying the standpipe. (3313.5)

Fire Flow Requirements for Buildings **WITH** Adequate and Reliable Water Systems

1. The provisions of the IFC Appendix B section B105 shall apply to those areas where fire hydrants and water supply systems are present and that are capable of meeting the minimum specified fire flows specified as follows:
   a. The minimum fire flow and flow duration requirements for one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses having a fire- flow calculation area that does not exceed 3,600 square feet shall be 1,000 gallons per minute for 1 hour. Fire-flow and flow duration for one- and two-family dwellings, R-3 and R-4 buildings, townhouses having a fire-flow calculation area in excess of 3,600 square feet shall not be less than that specified in Table B105.1(2).

      If no current Fire Flow data is available, a developer has the option to have the test conducted through a private entity under the following guidelines:
      i. Farmington Community Development and the Fire Department shall be notified prior to performing any hydrant water flow tests.
      ii. The test shall be conducted by a fire sprinkler contractor, a fire protection engineer, or a NICET Level III sprinkler designer.
      iii. Approved independent testing shall utilize the flow test procedure identified in NFPA 13, Chapter 23.
      iv. At the conclusion of the flow test, documented results shall be submitted to representatives of the Farmington Community Development Office and Farmington Fire Department for review and entry into the permanent record.

Farmington Fire Department
Single-Family Residential Plan Review Guide

Fire Flow Requirements for Buildings **WITHOUT** Adequate and Reliable Water Systems

An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings, or portions of buildings are hereafter constructed or moved into or within the jurisdiction **(**IFC 507.1).

This guideline **does not** cover all the requirements or details, nor is it an attempt to restate all of the requirements or details for appurtenances installed on or for sprinkler systems addressed by NFPA 1142 **but addresses only those items listed below**, the specific details of which may not be adequately identified by existing code language.

Specifications: Refer to International Fire Code Appendix B for specifications.

1. The provisions of IFC Appendix B, Section B103 are intended for use by the fire code official in protected areas in which adequate and reliable water supply systems do not exist or where water supply systems are incapable of meeting the provisions specified in this guide.

Areas without water supply systems for firefighting purposes in rural and suburban areas in which adequate and reliable water supply systems do not exist, the fire code official is authorized to utilize NFPA 1142 and/or Utah Wildland Urban-Interface Code. 2006 (B103.3).

TABLE B105.1(1)

REQUIRED FIRE FLOW FOR ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

FIRE-FLOW CALCULATION AREA (square feet)	AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE FLOW (gallons per minute)	FLOW DURATION (hours)
0—3,600	No automatic sprinkler system	1,000	1
3,601 and greater	No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2) at the required fire-flow rate
0—3,600	Section 903.3.1.3 of the *International Fire Code* or Section P2904 of the *International Residential Code*	500	$^1/_2$
3,601 and greater	Section 903.3.1.3 of the *International Fire Code* or Section P2904 of the *International Residential Code*	$^1/_2$ value in Table B105.1(2)	1

For SI: 1 square foot = 0.0929 m^2, 1 gallon per minute = 3.785 L/m.

Table B105.1(2)

TABLE B105.1(2) REFERENCE TABLE FOR TABLES B105.1(1) AND B105.2

FIRE-FLOW CALCULATION AREA (square feet)					FIRE FLOW (gallons per minute) [b]	FLOW DURATION (hours)
Types IA and IB[a]	Types IIA and IIIA [a]	Types IV and V-A[a]	Types IIB and IIIB [a]	Type V-B[a]		
0–22,700	0–12,700	0–8,200	0–5,900	0–3,600	1,500	2
22,701–30,200	12,701–17,000	8,201–10,900	5,901–7,900	3,601–4,800	1,750	
30,201–38,700	17,001–21,800	10,901–12,900	7,901–9,800	4,801–6,200	2,000	
38,701–48,300	21,801–24,200	12,901–17,400	9,801–12,600	6,201–7,700	2,250	
48,301–59,000	24,201–33,200	17,401–21,300	12,601–15,400	7,701–9,400	2,500	
59,001–70,900	33,201–39,700	21,301–25,500	15,401–18,400	9,401–11,300	2,750	
70,901–83,700	39,701–47,100	25,501–30,100	18,401–21,800	11,301–13,400	3,000	3
83,701–97,700	47,101–54,900	30,101–35,200	21,801–25,900	13,401–15,600	3,250	
97,701–112,700	54,901–63,400	35,201–40,600	25,901–29,300	15,601–18,000	3,500	
112,701–128,700	63,401–72,400	40,601–46,400	29,301–33,500	18,001–20,600	3,750	
128,701–145,900	72,401–82,100	46,401–52,500	33,501–37,900	20,601–23,300	4,000	4
145,901–164,200	82,101–92,400	52,501–59,100	37,901–42,700	23,301–26,300	4,250	
164,201–183,400	92,401–103,100	59,101–66,000	42,701–47,700	26,301–29,300	4,500	
183,401–203,700	103,101–114,600	66,001–73,300	47,701–53,000	29,301–32,600	4,750	
203,701–225,200	114,601–126,700	73,301–81,100	53,001–58,600	32,601–36,000	5,000	
225,201–247,700	126,701–139,400	81,101–89,200	58,601–65,400	36,001–39,600	5,250	
247,701–271,200	139,401–152,600	89,201–97,700	65,401–70,600	39,601–43,400	5,500	
271,201–295,900	152,601–166,500	97,701–106,500	70,601–77,000	43,401–47,400	5,750	
295,901–Greater	166,501–Greater	106,501–115,800	77,001–83,700	47,401–51,500	6,000	
—	—	115,801–125,500	83,701–90,600	51,501–55,700	6,250	
—	—	125,501–135,500	90,601–97,900	55,701–60,200	6,500	
—	—	135,501–145,800	97,901–106,800	60,201–64,800	6,750	
—	—	145,801–156,700	106,801–113,200	64,801–69,600	7,000	
—	—	156,701–167,900	113,201–121,300	69,601–74,600	7,250	
—	—	167,901–179,400	121,301–129,600	74,601–79,800	7,500	
—	—	179,401–191,400	129,601–138,300	79,801–85,100	7,750	
—	—	191,401–Greater	138,301–Greater	85,101–Greater	8,000	

For SI: 1 square foot = 0.0929 m^2, 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

1. a. Types of construction are based on the International Building Code.
2. b. Measured at 20 psi residual pressure.

Farmington Fire Department
Single-Family Residential Plan Review Guide

Fire Hydrants

Fire hydrants shall comply with the International Fire Code (IFC Section 507.5)

Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required. (507.5.1)

Exceptions:

1. For group R-3 and Group U occupancies the distance requirement shall be 600 feet
2. For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the distance requirement shall be 600 feet.
3. One interior and one detached accessory dwelling unit on a single residential lot.

Unobstructed access to fire hydrants shall be maintained at all times. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants. (IFC 507.5.4)

A clear space of not less than three feet shall be maintained around the circumference of fire hydrants (IFC 507.5.5)

Where fire hydrants are subject to impact by a motor vehicle, guard posts or other approved means shall comply with Section 312. (IFC 507.5.6)

Color Coding. To provide additional visibility and to identify flow volume**,** the hydrant bonnet shall be identified by an adhesive-backed reflective trim.

1. The reflective trim shall be attached by the contractor at the time new hydrants are accepted by the Farmington Community Development office and the Farmington Fire Department.
2. On retrofitted hydrants, the reflective trim will be attached by the Fire Department after the inspection/flush is performed by the Fire Department.
3. The color of the adhesive trim shall indicate the available flow volume of the water supply system as identified in NFPA 291, “Fire Flow Testing and Marking of Fire Hydrants” (shown below):

Trim Flow (GPM) @ 20 psi Residual	
Blue	1,500 or greater
Green	1,000 - 1,499
Orange	500 – 999
Red	Less than 500

Private Fire Service Mains and Water Tanks – Maintenance. The owners of developments provided with private water mains and hydrants are responsible for the maintenance and testing in accordance with NFPA 25 at the following intervals. (IFC 507.5.3)

a. **Private fire hydrants of all types:** inspection annually and after each operation; flow test and maintenance annually.
b. **Fire Service main piping:** inspection of exposed, annually; flow test every 5 years.
c. **Fire service main piping strainers:** inspection and maintenance after each use. **Records of inspections, testing and maintenance shall be maintained.**

Farmington Fire Department

Single-Family Residential Plan Review Guide

Fire Hydrant Location and Distribution

TABLE C102.1
REQUIRED NUMBER AND SPACING OF FIRE HYDRANTS[h]

FIRE-FLOW REQUIREMENT (gpm)	MINIMUM NUMBER OF HYDRANTS	AVERAGE SPACING BETWEEN HYDRANTS[a, b, c, f, g] (feet)	MAXIMUM DISTANCE FROM ANY POINT ON STREET OR ROAD FRONTAGE TO A HYDRANT[d, f, g]
1,750 or less	1	500	250
1,751—2,250	2	450	225
2,251—2,750	3	450	225
2,751—3,250	3	400	225
3,251—4,000	4	350	210
4,001—5,000	5	300	180
5,001—5,500	6	300	180
5,501—6,000	6	250	150
6,001—7,000	7	250	150
7,001 or more	8 or more[e]	200	120

For SI: 1 foot = 304.8 mm, 1 gallon per minute = 3.785 L/m.

A. Reduce by 100 feet for dead-end streets or roads.

B. Where streets are provided with median dividers that cannot be crossed by fire fighters pulling hose lines, or where arterial streets are provided with four or more traffic lanes and have a traffic count of more than 30,000 vehicles per day, hydrant spacing shall average 500 feet on each side of the street and be arranged on an alternating basis.

C. Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at spacing not to exceed 1,000 feet to provide for transportation hazards.

D. Reduce by 50 feet for dead-end streets or roads.

E. One hydrant for each 1,000 gallons per minute or fraction thereof.

F. A 50-percent spacing increase shall be permitted where the building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 of the *International Fire Code*.

G. A 25-percent spacing increase shall be permitted where the building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.2 or 903.3.1.3 of the *International Fire Code* or Section P2904 of the *International Residential Code*.

H. The fire code official is authorized to modify the location, number and distribution of fire hydrants based on site-specific constraints and hazards.

Farmington Fire Department
Single-Family Residential Plan Review Guide

NFPA 1142 Calculation

1. The applicant will need to provide the following information to determine the volume of water supplied on site (NFPA 1142, 4.11):
   a. Occupancy Hazard
   b. Type of Construction
   c. Total Structure Volume including all covered porches, attics, crawl spaces, and garages
   d. Exposures located within 50 feet of the structure being evaluated
2. Example of NFPA 1142 calculation. **1.5 multiplier** used for structures with exposures located within 50 feet. Multiplier may be excluded from calculation with no exposure.

$$\text{Water Supply}_{min} = \frac{\text{Volume of Structure}_{tot}}{\text{Occupancy Hazard Classification}} \times (\text{Construction Classification}) \times (1.5)$$

Private Water Supply Access

3. The water supply shall be maintained and accessible on a year-round basis (NFPA 1142, 7.1.2)
4. All non-pressurized water supply sources shall be accessible using dry hydrants (NFPA 1142, 7.1.4)
5. Example of dry hydrant detail, NFPA 1142. Figure A.8.3.2(b)

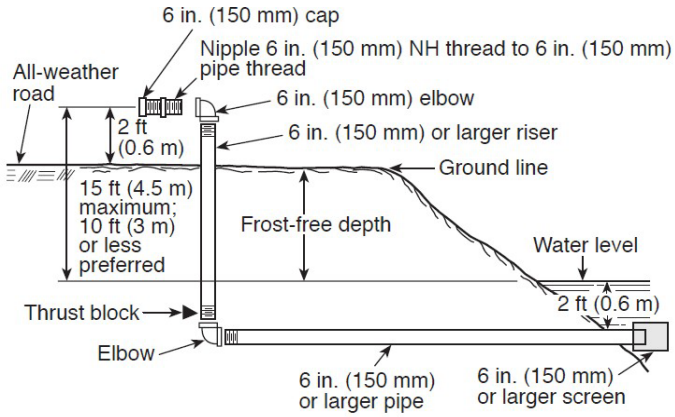


FIGURE A.8.3.2(b) Exploded View of Dry Hydrant Construction.

6. All water supply sources shall maintain the minimum capacity and delivery requirements on a year-round basis, based on the 50-year drought for the water service (NFPA 1142, 7.1.5)
7. Roads providing a means of access to any required water supply shall be constructed and maintained in accordance with the following (NFPA 1142, 7.5):
   a. Roadways shall have a minimum clear width of 16 feet for each lane of travel
   b. A fire department turnaround shall be provided
   c. Turns shall be constructed with a minimum radius of 100 feet to centerline
   d. The maximum sustained grade shall not exceed 10 percent
   e. The surface shall be treated as required for year-round travel.

Farmington Fire Department
Single-Family Residential Plan Review Guide

Utah Wildland-Urban Interface Code. 2006

Scope
The provisions of this code shall apply to the construction, alteration, movement, repair, maintenance and use of any building, structure or premises within the urban wildland interface areas in this jurisdiction.

Alternative materials or methods
The code official, in concurrence with approval from the building official and fire chief, is authorized to approve alternative materials or methods, provided that the code official finds that the proposed design, use or operation satisfactorily complies with the intent of this code and that the alternative is, for the purpose intended, at least equivalent to the level of quality, strength, effectiveness, fire resistance, durability and safety prescribed by this code. Approvals under the authority herein contained shall be subject to the approval of the building official whenever the alternate material or method involves matters regulated by the International Building Code (103.3)

Site Plan
In addition to the requirements for plans in the International Building Code, site plans shall include topography, width and percent of grade of access roads, landscape and vegetation details, locations of structures or building envelopes, existing or proposed overhead utilities, occupancy classification of buildings, types of ignition-resistant construction of buildings, structures and their appendages, roof classification of buildings, and site water supply systems. (106.3)

Vegetation Management Plan
When utilized by the permit applicant pursuant to Section 502, vegetation management plans shall be prepared and shall be submitted to the code official for review and approval as part of the plans required for a permit. See Appendix B. (106.4)

APPENDIX B

VEGETATION MANAGEMENT PLAN

Vegetation management plans shall be submitted to the code official for review and approval as part of the plans required for a permit. Vegetation management plans shall describe all actions that will be taken to prevent a fire from being carried toward or away from the building. A vegetation management plan shall include at least the following information:

1. A copy of the site plan.
2. Methods and timetables for controlling, changing or modifying areas on the property. Elements of the plan shall include removal of slash, snags, vegetation that may grow into overhead electrical lines, other ground fuels, ladder fuels and dead trees, and the thinning of live trees.
3. A plan for maintaining the proposed fuel-reduction measures.

To be considered a fuel modification for purposes of this code, continuous maintenance of the clearance is required.

Utah Wildland-Urban Interface Code. 2006 Cont.

UTAH FIRE RESISTIVE SPECIES

Adapted from "Utah Forest Facts: Firewise Plants for Utah Landscapes"
Utah State University Extension, 2002

Grasses

Agropyron cristatum (Crested Wheatgrass)
Agropyron smithii (Western Wheatgrass)
Buchloe dactyloides (Buffalograss)
Dactylis glomerata (Orchardgrass)
Festuca cinerea and other species (Blue Fescue)
Lolium species (Rye Grass)
Poa pratensis (Kentucky Bluegrass)
Poa secunda (Sandberg Bluegrass)

Herbaceous Perennials

Achillea clavennae (Silvery Yarrow)
Achillea filipendulina (Fernleaf Yarrow)
Achillea - other species & hybrids (Yarrow)*
Aquilegia - species & hybrids (Columbine)
Armeria maritime (Sea Pink, Sea Thrift)
Artemisia stelleriana (Beach Wormwood, Dusty Miller)
Artemisia - other species & hybrids (Various names)*
Bergenia – species & hybrids (Bergenia)
Centranthus rubber (Red Valerian, Jupiter's Beard)
Cerastium tomentosum (Snow-in-summer)
Coreopsis auriculata var. *Nana* (Dwarf Mouse Ear Coreopsis)
Coreopsis – other perennial species (Coreopsis)
Delosperma nubigenum (Hardy Ice Plant)
Dianthus plumarius & others (Pinks)
Erigeron hybrids (Fleabane)*
Gaillardia X grandiflora (Blanket Flower)
Geranium cinereum (Hardy Geranium)
Geranium sanguineum (Bloody Cranesbill, Bloodred Geranium)
Geranium species (Geranium)
Hemerocallis species (Daylily)
Heuchera sanguinea (Coral Bells, Alum Root)
Iberis sempervirens (Evergreen Candytuft)
Iris species & hybrids (Iris)
Kniphofia species & hybrids (Red-hot Poker)
Lavandula species (Lavender)
Leucanthemum X superbum (Shasta Daisy)
Limonium latifolium (Sea-lavender, Statice)
Linum species (Flax)
Liriope spicata (Lily-turf)
Lupinus species & hybrids (Lupine)*
Medicago sativus (Alfalfa)
Oenothera species (Primrose)
Papaver species (Poppy)
Penstemon species & hybrids (Penstemon)
Perovskia atriplicifolia (Russian Sage, Azure Sage)
Potentilla nepalensis (Nepal Cinquefoil)
Potentilla tridentata (Wineleaf Cinquefoil)
Potentilla verna (tabernaemontani) (Spring Cinquefoil; Creeping Potentilla)
Potentilla – other non-shrubby species & hybrids (Cinquefoil, Potentilla)*
Salvia species & hybrids (Salvia, Sage)*
Sedum species (Stonecrop, Sedum)
Sempervivum tectorum (Hen and Chicks)
Stachys byzantina (Lamb's Ear)
Yucca filamentosa (Yucca)

Shrubs and Woody Vines

Atriplex species (Saltbush)
Ceanothus americanus (New Jersey Tea)
Ceanothus ovatus & others (Ceanothus)
Cistus species (Rock-rose)
Cotoneaster dammeri (Bearberry Cotoneaster)
Cotoneaster horizontalis (Rockspray or Rock Cotoneaster)
Cotoneaster – other compact species (Cotoneaster)
Hedera helix (English Ivy)
Lonicera species & hybrids (Honeysuckle)
Mahonia repens (Creeping Oregon Grape)
Parthenocissus quinquefolia (Virginia Creeper)
Prunus besseyi (Sand Cherry)
Purshia tridentata (Bitterbrush, Antelope Bitterbrush)
Pyracantha species (Firethorn, Pyracantha)
Rhamnus species (Buckthorn)
Rhus trilobata (Skunkbush Sumac)
Rhus – other species (Sumac)
Ribes species (Currant, Gooseberry)
Rosa rugosa & other hedge roses (Rugosa Rose)
Shepherdia canadensis (Russet Buffaloberry)
Syringa vulgare (Lilac)
Vinca major (Large Periwinkle)
Vinca minor (Dwarf Periwinkle, Common Periwinkle)

Trees

Acer species (Maple)
Betula species (Birch)
Cercis canadensis (Eastern Redbud)
Populus tremuloides (Quaking Aspen)
Populus – other species (Poplar, Cottonwood)
Salix species (Willow)

Fire Protection Plan

When required by the code official pursuant to Section 405, a fire protection plan shall be prepared and shall be submitted to the code official for review and approved as part of the plans required for a permit.

Farmington Fire Department
Single-Family Residential Plan Review Guide

Utah Wildland-Urban Interface Code. 2006 Cont.

Scope
Wildland-urban interface areas shall be provided with emergency vehicle access and water supply in accordance with this chapter.

Subdivisions (UWUIC Section 402)
Access – New subdivisions as determined by this jurisdiction, shall be provided with fire apparatus access roads in accordance with the International Fire Code and access requirements in accordance with Section 403.

Water Supply – New subdivisions as determined by this jurisdiction shall be provided with water supply in accordance with Section 404

Individual Structures
Access – Individual structures constructed or relocated into or within wildland-urban interface areas shall be provided with fire apparatus access in accordance with the International Fire Code and driveways in accordance with Section 403.2. Marking of fire protection equipment shall be provided in accordance with Section 403.5 and address markers shall be p0rocided in accordance with Section 403.6

Water Supply – Individual structures hereafter constructed or relocated into or within wildland-urban interface areas shall be provided with a conforming water supply in accordance with Section 404.

Exceptions:

1. Structures constructed to meet the requirements for the class of ignition-resistant construction specified in Table 503.1 For a nonconforming water supply.
2. Buildings containing only private garages, carports, sheds, and agricultural buildings with a floor area of not more than 600 square feet.

Driveways - Driveways shall be provided when any portion of an exterior wall of the first story of a building is located more than 150 feet (45 720 mm) from a fire apparatus access road. Driveways shall provide a minimum unobstructed width of 12 feet (3658 mm) and a minimum unobstructed height of 13 feet 6 inches (4115 mm). Driveways in excess of 150 feet (45 720 mm) in length shall be provided with turnarounds. Driveways in excess of 200 feet (60 960 mm) in length and less than 20 feet (6096 mm) in width shall be provided with turnouts in addition to turnarounds.

A driveway shall not serve in excess of five dwelling units.

Driveway turnarounds shall have inside turning radii of not less than 30 feet (9144 mm) and outside turning radii of not less than 45 feet (13 716 mm). Driveways that connect with a road or roads at more than one point may be considered as having a turnaround if all changes of direction meet the radii requirements for driveway turnarounds.

Driveway turnouts shall be an all-weather road surface at least 10 feet (3048 mm) wide and 30 feet (9144 mm) long. Driveway turnouts shall be located as required by the code official.

Vehicle load limits shall be posted at both entrances to bridges on driveways and private roads. Design loads for bridges shall be established by the code official.

Utah Wildland-Urban Interface Code. 2006 Cont.

Fire Apparatus Access Roads - When required, fire apparatus access roads shall be all-weather roads with a minimum width of 20 feet (6096 mm) and a clear height of 13 feet 6 inches (4115 mm); shall be designed to accommodate the loads and turning radii for fire apparatus; and have a gradient negotiable by the specific fire apparatus normally used at that location within the jurisdiction. Dead-end roads in excess of 150 feet (45 720 mm) in length shall be provided with turnarounds as approved by the code official. An all-weather road surface shall be any surface material acceptable to the code official that would normally allow the passage of emergency service vehicles to protect structures and wildlands within the jurisdiction.

Special Building Construction Regulations

Scope

Buildings and structures shall be constructed in accordance with the International Building Code and the Utah Wildland-Urban Interface Code.

Ignition Resistant Construction

Buildings and structures hereafter constructed, modified, or relocated into or within wildland-urban interface areas shall meet the construction requirements in accordance with Table 503.1. Class 1, Class 2, or Class 3 ignition-resistant construction shall be in accordance with Sections 504, 505 and 506, respectively.

TABLE 503.1
IGNITION-RESISTANT CONSTRUCTION[a]

DEFENSIBLE SPACE[c]	FIRE HAZARD SEVERITY					
	Moderate Hazard		High Hazard		Extreme Hazard	
	Water Supply[b]		Water Supply[b]		Water Supply[b]	
	Conforming[d]	Nonconforming[e]	Conforming[d]	Nonconforming[e]	Conforming[d]	Nonconforming[e]
Nonconforming	IR 2	IR 1	IR 1	IR 1 N.C.	IR 1 N.C.	Not Permitted
Conforming	IR 3	IR 2	IR 2	IR 1	IR 1	IR 1 N.C.
1.5 x Conforming	Not Required	IR 3	IR 3	IR 2	IR 2	IR 1

a. Access shall be in accordance with Section 402.

b. Subdivisions shall have a conforming water supply in accordance with Section 402.1.

IR 1 = Ignition-resistant construction in accordance with Section 504.

IR 2 = Ignition-resistant construction in accordance with Section 505.

IR 3 = Ignition-resistant construction in accordance with Section 506.

N.C. = Exterior walls shall have a fire-resistance rating of not less than 1-hour and the exterior surfaces of such walls shall be noncombustible. Usage of log wall construction is allowed.

c. Conformance based on Section 603.

d. Conformance based on Section 404.

e. A nonconforming water supply is any water system or source that does not comply with Section 404, including situations where there is no water supply for structure protection or fire suppression.

Note: Farmington Fire Department utilizes the DavisCounty GIS for fire hazard severity determination.

Utah Wildland-Urban Interface Code. 2006 Cont.

SECTION 504 CLASS 1 IGNITION-RESISTANT CONSTRUCTION

General. Class 1 ignition-resistant construction shall be in accordance with Section 504. (504.1)

Roof covering. Roofs shall have a Class A roof covering or a Class A roof assembly. For roof coverings where the profile allows a space between the roof covering and roof decking, the space at the eave ends shall be fire stopped to preclude entry of flames or embers (504.2)

Protection of eaves. Eaves and soffits shall be protected on the exposed underside by materials approved for a minimum of 1-hour fire-resistance-rated construction. Fascia's are required and must be protected on the backside by materials approved for a minimum of 1-hour fire-resistance-rated construction or 2-inch nominal dimension lumber. (504.3)

Gutters and downspouts. Gutters and downspouts shall be constructed of noncombustible material. (504.4)

Exterior walls. Exterior walls of buildings or structures shall be constructed with materials approved for a minimum of 1-hour fire-resistance-rated construction on the exterior side or constructed with approved noncombustible materials. Exception: Heavy timber or log wall construction. Such material shall extend from the top of the foundation to the underside of the roof sheathing. (504.5)

Unenclosed underfloor protection. Buildings or structures shall have all underfloor areas enclosed to the ground with exterior walls in accordance with Section 504.5. Exception: Complete enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy timber construction. (504.6)

Appendages and projections. Unenclosed accessory structures attached to buildings with habitable spaces and projections, such as decks, shall be a minimum of 1-hour fire-resistance-rated construction, heavy timber construction or constructed of approved noncombustible materials. When the attached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all underfloor areas enclosed to within 6 inches of the ground, with exterior wall construction in accordance with Section 504.5. (504.7)

Exterior glazing. Exterior windows, window walls and glazed doors, windows within exterior doors, and skylights shall be tempered glass, multilayered glazed panels, glass block or have a fire protection rating of not less than 20 minutes. (504.8)

Exterior doors. Exterior doors shall be approved noncombustible construction, solid core wood not less than 13/4 inches thick, or have a fire protection rating of not less than 20 minutes. Windows within doors and glazed doors shall be in accordance with Section 504.8. Exception: Vehicle access doors. (504.9)

Vents. Attic ventilation openings, foundation or underfloor vents, or other ventilation openings in vertical exterior walls and vents through roofs shall not exceed 144 square inches each. Such vents shall be covered with noncombustible corrosion-resistant mesh with openings not to exceed 1/4 inch. Attic ventilation openings shall not be located in soffits, in eave overhangs, between rafters at eaves, or in other overhang areas. Gable end and dormer vents shall be located at least 10 feet from property lines. Underfloor ventilation openings shall be located as close to grade as practical. (504.10)

Utah Wildland-Urban Interface Code. 2006 Cont.

SECTION 504 CLASS 1 IGNITION-RESISTANT CONSTRUCTION CONT.

Detached accessory structures. Detached accessory structures located less than 50 feet from a building containing habitable space shall have exterior walls constructed with materials approved for a minimum of 1-hour fire resistance-rated construction, heavy timber, log wall construction or constructed with approved noncombustible materials on the exterior side. (504.11)

When the detached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all underfloor areas enclosed to within 6 inches of the ground, with exterior wall construction in accordance with Section 504.5 or underfloor protection in accordance with Section 504.6.

Exception: The enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy-timber construction.

See Section 504.2 for roof requirements

SECTION 505 CLASS 2 IGNITION-RESISTANT CONSTRUCTION

General. Class 2 ignition-resistant construction shall be in accordance with Section 505. (505.1)

Roof covering. Roofs shall have at least a Class A roof covering, Class B roof assembly or an approved noncombustible roof covering. For roof coverings where the profile allows a space between the roof covering and roof decking, the space at the eave ends shall be firestopped to preclude entry of flames or embers. (505.2)

Protection of eaves. Combustible eaves, fascias and soffits shall be enclosed with solid materials with a minimum thickness of 3/4 inch. No exposed rafter tails shall be permitted unless constructed of heavy timber materials. (505.3)

Gutters and downspouts. Gutters and downspouts shall be constructed of noncombustible material. (505.4)

Exterior walls. Exterior walls of buildings or structures shall be constructed with materials approved for a minimum of 1-hour fire-resistance-rated construction on the exterior side or constructed with approved noncombustible materials. Exception: Heavy timber or log wall construction. Such material shall extend from the top of the foundation to the underside of the roof sheathing. (505.5)

Unenclosed underfloor protection. Buildings or structures shall have all underfloor areas enclosed to the ground, with exterior walls in accordance with Section 505.5. Exception: Complete enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy timber construction. (505.6)

Appendages and projections. Unenclosed accessory structures attached to buildings with habitable spaces and projections, such as decks, shall be a minimum of 1-hour fire-resistance-rated construction, heavy timber construction or constructed with approved noncombustible materials. (505.7)

Utah Wildland-Urban Interface Code. 2006 Cont.

SECTION 505 CLASS 2 IGNITION-RESISTANT CONSTRUCTION CONT.

When the attached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all underfloor areas enclosed to within 6 inches of the ground, with exterior wall construction in accordance with Section 505.5.

Exterior glazing. Exterior windows, window walls and glazed doors, windows within exterior doors, and skylights shall be tempered glass, multilayered glazed panels, glass block or have a fire-protection rating of not less than 20 minutes. (505.8)

Exterior doors. Exterior doors shall be approved noncombustible construction, solid core wood not less than 13/4-inches thick, or have a fire protection rating of not less than 20 minutes. Windows within doors and glazed doors shall be in accordance with Section 505.8. Exception: Vehicle access doors. (505.9)

Vents. Attic ventilation openings, foundation or underfloor vents or other ventilation openings in vertical exterior walls and vents through roofs shall not exceed 144 square inches each. Such vents shall be covered with noncombustible corrosion-resistant mesh with openings not to exceed 1/4 inch. Attic ventilation openings shall not be located in soffits, in eave overhangs, between rafters at eaves, or in other overhang areas. Gable end and dormer vents shall be located at least 10 feet from property lines. Underfloor ventilation openings shall be located as close to grade as practical. (505.10)

Detached accessory structures. Detached accessory structures located less than 50 feet from a building containing habitable space shall have exterior walls constructed with materials approved for a minimum of 1-hour fire resistance-rated construction, heavy timber, log wall construction, or constructed with approved noncombustible material on the exterior side. (505.11)

When the detached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all underfloor areas enclosed to within 6 inches of the ground, with exterior wall construction in accordance with Section 505.5 or underfloor protection in accordance with Section 505.6.
Exception: The enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy-timber construction.

See Section 505.2 for roof requirements.

Utah Wildland-Urban Interface Code. 2006 Cont.

SECTON 506 CLASS 3 IGNITION-RESISTANT CONSTRUCTION

General. Class 3 ignition-resistant construction shall be in accordance with Section 506. (506.1)

Roof covering. Roofs shall have at least a Class A roof covering, Class C roof assembly or an approved noncombustible roof covering. For roof coverings where the profile allows a space between the roof covering and roof decking, the space at the eave ends shall be firestopped to preclude entry of flames or embers. (506.2)

Unenclosed underfloor protection. Buildings or structures shall have all underfloor areas enclosed to the ground with exterior walls. Exception: Complete enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy timber construction. (506.3)

Vents. Attic ventilation openings, soffit vents, foundation or underfloor vents or other ventilation openings in vertical exterior walls and vents through roofs shall not exceed 144 square inches each. Such vents shall be covered with noncombustible corrosion-resistant mesh with openings not to exceed 1/4 inch. (506.4)