

**AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE TOWNSHIP OF  
SPARTA AMENDING SECTION 18-5.3j ENTITLED “FIRE PROTECTION SYSTEMS”  
AND SECTION 18-5.3k ENTITLED “CENTRAL WATER FACILITIES” OF CHAPTER  
XVIII ENTITLED “COMPREHENSIVE LAND MANAGEMENT CODE” OF THE  
SPARTA TOWNSHIP CODE TO MODIFY THEIR PROVISIONS**

**Purpose Statement.** The purpose of this Ordinance is to modify the requirements for Fire Suppression Systems for major subdivisions and to modify the requirements to require connections to Central Water Systems.

**Section 1.** Sections 18-5.3j entitled “Fire Protection Systems” and subsection 18-5.3k entitled “Central Water Facilities” are repealed and replaced as follows:

**18-5.3j. Fire Suppression Systems**

1. All site plans shall provide a fire protection system meeting the following minimum requirements:

(a) All fire protection systems shall conform to all applicable standards of the National Fire Protection Association (NFPA), International Fire Code, American Water Works Association (AWWA), N.J.A.C. 7:10-1 through 7:10-11.3 (commonly known as the “Safe Drinking Water Act Regulations”) and any revisions or amendments thereto.

(b) Total firefighting water supply shall be no less than two thousand (2,000) gallons per building.

(c) Water storage facilities for firefighting water shall be designed to automatically maintain the required capacity for fire protection purposes.

(d) Each fire hydrant shall be capable of supplying a minimum flow of five hundred (500) gallons per minute at no less than twenty (20) p.s.i. residual system pressure at the highest elevation of the water system.

(e) All components of the fire protection system shall comply with the design standards as specified in subsection **18-5.3k.**, Central Water Facilities where applicable.

2. All occupancies other than R-4 as defined by the International Building and Fire Code shall meet the following requirements:

(a) Minimum firefighting water supply requirements shall conform to NFPA 1142 Standard on Water Supplies for Suburban and Rural Fire Fighting.

(b) The maximum distance from an occupancy or structure to the firefighting water source shall not exceed five hundred (500) feet by way of a hard surfaced and maintained road or designated fire lane.

(c) If a drafting standpipe is used for firefighting purposes, then plans and specifications shall meet the approval of the Sparta Township Fire Prevention Bureau.

3. All site plans must be designed in accordance with the International Fire Apparatus Road requirements to allow for the access of emergency vehicles, including fire apparatus, ambulances and police cars. Fire lanes shall be provided for commercial and industrial type developments to provide access to fire protection facilities.

4. If a stream or pond exists on a property that requires a central water system, and the stream or pond can be developed into an adequate and reliable water supply, then a standpipe shall be constructed as a backup supply of water to the central water system for fire protection purposes.

5. Prior to final approval of any site plan which requires a firefighting water supply system, the Fire Prevention Bureau shall conduct or witness any and all tests necessary to ensure that the system meets the firefighting requirements of the Sparta Fire Department. The Fire Prevention Bureau shall then issue a letter to the Planning Board indicating that the system has been tested and is accepted by the Fire Prevention Bureau. This requirement is in addition to the tests and inspections conducted by the Township Engineer, Water Department, and inspections conducted by or other required agencies.

6. Existing occupancies other than use group R-4 shall be required to conform to the requirements of NFPA Standard 1142 whenever an application for site plan approval is submitted in order to provide the minimum water supply requirements for firefighting purposes for the entire site.

18-5.3k. Central Water Facilities.

1. Any subdivision or site plan on property that is located within 2,000 feet of a central water facility shall provide all necessary central water facility systems to support itself after interconnecting with the existing approved central water facility.

2. Any multi-family development shall provide central water.

3. Any major subdivision or major site plan shall provide central water.

4. Any major subdivision that is not capable of being subdivided into fifteen (15) lots or more after applying the applicable zoning requirements and constraint calculations shall still provide all components of a central water system, except that the Planning Board may waive the requirement of a source of water and treatment facilities as recommended by the Township Engineer. If a source of water is waived by the Planning Board, each dwelling shall be serviced by an individual well until such time as the distribution system is interconnected with an approved central water system. At that time each dwelling owner shall be required to properly abandon his well and finalize his connection to the central water system. A deed restriction to this effect shall be placed on the final subdivision plat.

5. All central water facilities shall conform to N.J.A.C. 7:10-1 through 7:10-11.13, commonly known as the "Safe Drinking Water Act Regulations" and any revisions or amendments thereto, except where the standards contained herein exceed those contained in the "Safe Drinking Water Act Regulations," in which case the standards contained herein shall apply.

6. All construction of central water facilities shall comply with all applicable standards as set forth by the American Water Works Association (AWWA) as said standards apply to the various components of a central water facility.

7. All central water systems shall be designed to operate as a pump-storage type of system using gravity flow.

8. Wellhouse. The following information shall be required in addition to all the other requirements specified in the standards referenced hereinabove.

(a) Architectural plans of the proposed wellhouse shall be submitted, showing plan view, elevation views of all sides, typical sections, landscaping plan and a plot plan showing all site improvements to be installed to service the wellhouse, including but not limited to the following items:

- (1) Driveway.
- (2) Fencing.
- (3) Lighting.
- (4) Drainage.

The wellhouse shall be sized to provide at least three (3) feet of clearance around the various components of the water system to permit ready access to the plant operators.

(b) A complete auxiliary generator system with interconnecting-wiring shall be provided for all central water facilities.

(c) Pressure gauges graduated in increments not higher than five (5) p.s.i. shall be provided at appropriate locations in the wellhouse piping system.

(d) Sampling taps shall be provided for raw water samples and finished water samples in the wellhouse. There shall be at least eighteen (18) inches of clearance below these taps to permit the use of large sampling bottles.

(e) Floor drains in wellhouses shall be piped to an approved discharge.

(f) Well water level indicators shall be provided with indicator gauges that can be calibrated to read the water level in the well directly on the gauge. An air pump shall be supplied as part of the standard equipment in the wellhouse.

(g) A test sink shall be provided in the wellhouse to test for chlorine residual. The waterline serving this sink shall be tapped into the watermain and supplied with a separate curb stop and curb box. The tap shall be located a sufficient distance away from the point of chlorination to allow at least the minimum amount of contact time specified by the New Jersey Department of Environmental Protection. Calculations shall be submitted to support the proposed design.

(h) All central water systems shall be provided with the following materials and equipment in a storage cabinet furnished in the wellhouse

(1) D.P.D. test kit with one (1) year's supply of reagents to test for chlorine residual.

(2) Repair parts needed to service any treatment equipment or pumping equipment installed in the wellhouse.

(3) A pre-cut bypass pipe with the necessary fitting to permit the removal of the main meter in the wellhouse for servicing while keeping the water system operable at the same time.

(4) One (1) year's supply of reagents used in the treatment processes performed in the wellhouse.

(5) A comprehensive manual containing manufacturers information on all components of the central water system, suppliers and service representatives, serial numbers and model numbers of all components and warranties.

(6) Two (2) prints of an as-built map showing the layout of the central water system, complete with ties from permanent structures to every gate valve and curb box in the system.

(7) A gate valve wrench and curb box wrench large enough to operate every valve in the system.

(8) An industrial size first aid kit.

(i) Warning signs shall be posted on the exterior of the wellhouse indicating any dangerous chemicals or substances used in the wellhouse

(j) All central water systems shall be provided with at least two (2) wells, regardless of the number of users or average daily water demand on the system. The two (2) wells shall be located at least one hundred (100) feet apart.

9. Storage Tanks. The following information shall be required in addition to all the other requirements specified in the standards referenced hereinabove.

(a) Storage tank(s) shall be sized to provide at least one and one-half (1-1/2) days water requirements based on the average annual demand, plus the volume of water as required for fire protection.

- (b) A method of corrosion control shall be provided for the storage tank(s).
- (c) Level control in storage tank(s) shall be by float control method.
- (d) Visible and audible alarm systems shall be installed in the central water system wellhouse to indicate low or highwater levels in the water storage tank(s).
- (e) Manual methods of measuring the water level in any water storage tank(s) involved with the central water system shall be provided, along with an appropriate measuring device.
- (f) Telemetry shall be provided from each well house and storage tank to the central station at Germany Flats.

10. Distribution Systems. The following information shall be required in addition to all the other requirements specified in the standards referenced above.

- (a) All distribution lines shall be looped to eliminate dead-end waterlines in the water system. The distribution lines shall be extended to the main road(s) that the subdivision fronts on and constructed along the entire frontage on said main road(s) from outermost property line to outermost property line to permit future tie-ins. The distribution lines shall also be extended to the outside property lines of the subdivision in areas where future expansion is possible on adjacent property to promote additional looping of the distribution system. The size of said distribution lines shall be as recommended by the Township Engineer.
- (b) A Hardy-Cross analysis of the proposed central water system shall be provided showing that the flow required for fire protection at a fire hydrant can be achieved without lowering the water pressure on the first floor of any dwelling units served by the water system to less than twenty (20) p.s.i.
- (c) Watermain pipe shall be ductile iron, Class 52 or higher, double cement lined. Bronze wedges supplied and approved by the watermain pipe manufacturer shall be installed in each joint to assure electrical conductivity. Watermain pipe shall be buried to provide at least four and one-half (4.5) feet of suitable cover material over the top of the pipe. Concrete sand shall be placed around the watermain pipe to provide at least six (6) inches of concrete sand below and above said pipe, and at least twelve (12) inches on each side of said pipe.
- (d) Watermain fittings, including but not limited to tees, wyes, bends, and offsets shall be mechanical joint type, and be provided with integrally cast lugs to accommodate reinforcing rods and other types of restraint devices. Each watermain fitting shall be provided with concrete thrust blocks poured against virgin earth. The size of each thrust block shall be sufficient enough to withstand at least twice the maximum thrust force that the fitting is ever expected to experience.
- (e) Gate valves shall be provided on all legs of any tee, wye or cross-type fitting, on each fire hydrant lead, on each blowoff pipe, and at the terminus of any watermain that may be extended in the future. Each gate valve shall be double rodded back to the nearest fitting for restraint. Gate valves shall open by turning the operating nut in a counterclockwise direction when viewed from the top.
- (f) Valve boxes of the slide type shall be provided on all gate valves. The internally cast lugs of the top section of the valve box shall not bear directly on the lower portion of the valve box or any extension. The top portion of the valve box shall be one-half (1/2) inch below finished grade. The valve box cover shall have the word "water" integrally cast in it.
- (g) In locations where vent pipes or blowoffs may discharge water, suitable protection must be provided to prevent erosion and/or discharge onto adjacent properties. Easements permitting the open discharge of water from the central water system through blowoffs must be provided.
- (h) Each dwelling unit shall have its own individual service line, complete with individual corporation stop, curb stop, curb box, and meter. The curb box shall be located at least three (3) feet from the face of the curb, but within the right-of-way of the roadway. The size of each service line shall be calculated to supply each dwelling unit with sufficient water at sufficient

pressure to meet the requirements of the local building codes, but in no event shall the service line be less than three-fourths (3/4) inch in diameter. The service line shall be constructed using type "K" copper water service tubing.

(i) The distribution system shall be subjected to a static pressure test(s) and dynamic flow test(s) prior to being accepted. Said tests shall be witnessed by the Township Engineer or his representative and a representative of the Fire Department.

11. General Provisions. The following information shall be required in addition to all the other requirements specified in the standards referenced hereinabove.

(a) All components of the central water system, including but not limited to wellhouses, gate valves, and storage tank covers shall be secured with commercial grade padlocks or door locks keyed alike. Panic bar hardware shall be provided on all doors.

(b) All components of the central water facility shall be designed to be compatible and standardize with equipment that presently exists in the water system being tied into, or other water supply facilities owned and operated by the Township of Sparta.

(c) A cost estimate for the construction of the central water facility shall be provided.

(d) The annual cost of operating and maintaining the central water system shall be calculated and submitted. The estimated quarterly charge to the users of the central water system shall also be calculated and submitted.

(e) A hydraulic profile of the water system shall be provided starting at the source of the water, through the wellhouse and distribution system to the user's tap.

## **Section 2. Severability**

If any section, subsection, sentence, clause, phrase or portion of this ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision, and such holding shall not affect the validity of the remaining portions thereof.

## **Section 3. Repealer**

All Ordinances or parts of Ordinances inconsistent herewith are repealed as to such inconsistencies.

## **Section 4. Effective Date**

This Ordinance shall take effect upon passage and publication as provided by law.

## **NOTICE**

PLEASE TAKE NOTICE that the above ordinance was introduced and passed upon first reading at a regular meeting of the Sparta Township Council held at the Municipal Building, 65 Main Street, Sparta, New Jersey on August 11, 2020, and will be considered for final passage and adoption at the regularly scheduled meeting of the Township Council of the Township of Sparta to be held at the Municipal Building, 65 Main Street, Sparta, New Jersey, on September 8, 2020 at 7:30 p.m., at which time and place all persons interested therein or affected thereby will be given an opportunity to be heard concerning the same.

BY ORDER OF THE TOWNSHIP COUNCIL OF THE TOWNSHIP OF SPARTA.

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Kathleen Chambers, Township Clerk

## **NOTICE**

PLEASE TAKE FURTHER NOTICE that notice is hereby given that the above ordinance was introduced and passed at the regular meeting of the Sparta Township Council held at the Municipal Building at 65 Main Street, Sparta, New Jersey, on August 11, 2020. The same came up for final adoption at a meeting of the Township Council of the Township of Sparta held on September 8, 2020 and after all persons present were given the opportunity to be heard concerning the same, it was finally passed, adopted and will be in full force and effect in the Township according to law.

BY ORDER OF THE TOWNSHIP COUNCIL OF THE TOWNSHIP OF SPARTA.

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Kathleen Chambers, Township Clerk