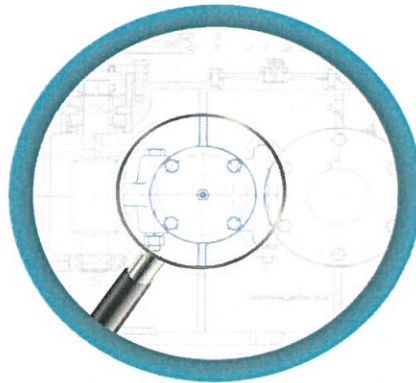
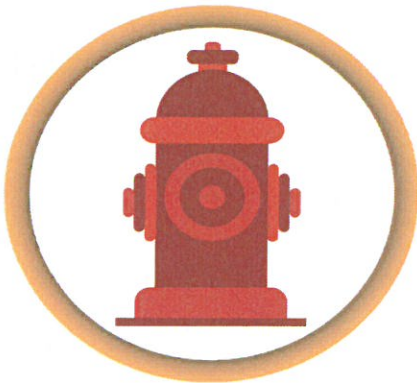
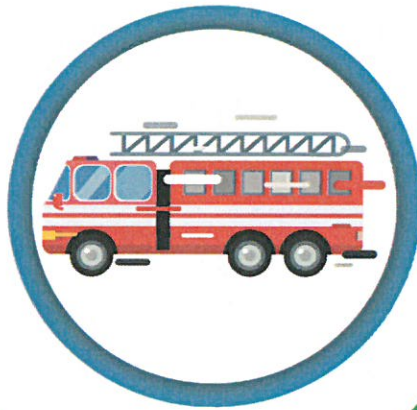


Protection Class Report For:
Lake Forest Park



Effective Date:
December 1, 2017

July 26, 2017

Chief Jim Torpin
King County FPD #16
7220 NE 181st St.
Kenmore, Washington 98028

Chief Torpin:

Washington Surveying and Rating Bureau (WSRB) has completed its evaluation of the fire protection capabilities of your community as they relate to fire insurance rating. It is our pleasure to inform you that the Protection Classification (PC) for the City of Lake Forest Park has improved from Protection Class 4 to Protection Class 3, effective December 1, 2017.

A Protection Class (PC) 3 rating will apply to dwelling and commercial properties located within five road miles of a responding fire station and having standard fire hydrant distribution and water supply. Properties in the community not meeting the above requirements will receive a different PC rating. Protection Class ratings for individual dwelling and commercial properties are available free of charge by calling WSRB Customer Service at (206) 217-0101 or emailing customerservice@wsrb.com. We recommend residents of your community contact their insurance agents to determine the relative effect this new community protection classification will have on their insurance premiums.

We wish to thank you and your staff for the cooperation during the evaluation.

Please find enclosed a copy of the new Protection Class Report. This report shows the various items evaluated and points associated with each item. The points total for all items determines the Protection Class of the community.

This survey was not conducted for property loss prevention or for life safety purposes. The purpose was to gather information needed to determine a fire insurance relevant Public Protection Classification that may be used to develop fire insurance rates or loss costs. Our evaluation criteria incorporate many national recognized standards, such as those developed by NFPA and AWWA, and has been filed with and approved by the Washington State Office of Insurance Commissioner.

If you have any questions, please let us know.

Sincerely,



Daryl Girus
Fire Protection Analyst
Seattle Office 206.273.7148
daryl.girus@wsrb.com

CC: Mayor of Lake Forest Park

Washington Surveying and Rating Bureau (WSRB) is an independent, non-profit public service organization that has been serving the State of Washington since 1911.

As an information-gathering and publishing organization, WSRB is an authoritative resource for the insurance industry.

Our mission is to provide our customers with trusted information and services that enhance their decision-making and success.

One the services WSRB provides for the insurance industry is determining the Protection Class Grading of communities and the Protection Class Ratings of the individual properties in those communities. It is these Protection Class Ratings that are used by insurance companies to help determine fire insurance premiums for properties. Before the Protection Class Rating for a property can be determined, the Protection Class Grading for the community the property is located in must be determined.

WSRB determines the Protection Class Grading of cities and fire protection districts by evaluating their fire protection/suppression capabilities using a schedule approved by the Washington State Office of the Insurance Commissioner. WSRB evaluates communities in four major areas: Water Supply, Fire Department, Emergency Communications and Fire Safety Control. As a result of this evaluation the community is assigned a Protection Class Grading of 1 through 10, where 1 indicates exemplary fire protection capabilities, and 10



Water Supply

WSRB evaluates the capacity, distribution and maintenance of water systems and fire hydrants.



Fire Department

WSRB evaluates the fire department, including fire stations, apparatus, equipment, personnel and their training.



Emergency Communications

WSRB evaluates the emergency communication system used to dispatch the fire department.



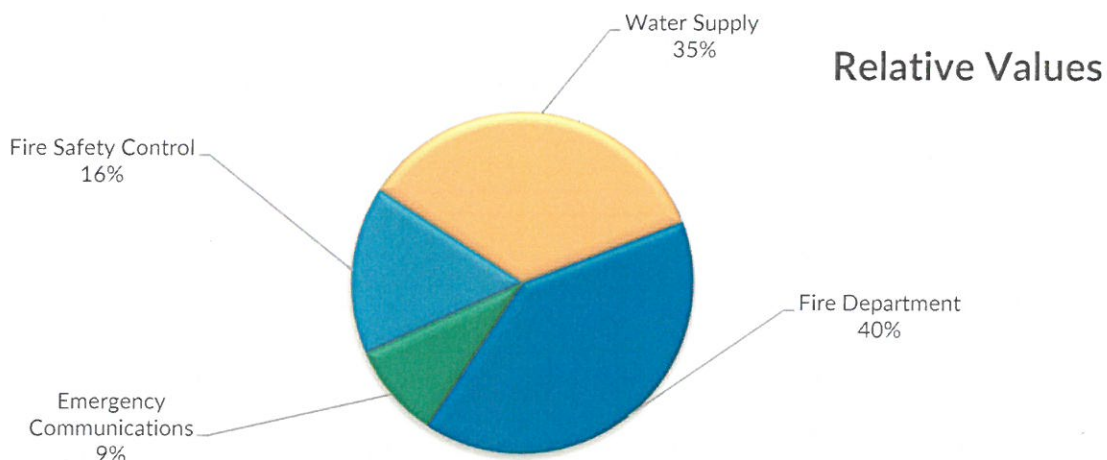
Fire Safety Control

WSRB evaluates the fire code enforcement and fire safety education activities in the community.

The Protection Class evaluation process recognizes the efforts of communities to provide fire-protection services for citizens and property owners. This is why insurance companies use Protection Classes to help establish fair premiums for fire insurance – generally offering lower premiums in communities with better protection. By offering economic benefits for communities that invest in their firefighting services, the evaluation provides a real incentive for improving and maintaining fire protection.

To determine a community's Protection Class, WSRB uses the 2013 version of the Community Protection Class Grading Schedule. The Grading Schedule measures the fire protection capabilities of a community by means of a point system or, for communities without a recognized water supply, by comparison with minimum criteria. Under the point system, pertinent items are evaluated against the standards set forth in the schedule and points are assigned for each deviation from these standards, depending on the importance of the item and the degree of deviation.

The four major areas considered under the point system, as well as the relative value allocated to each, are shown below.

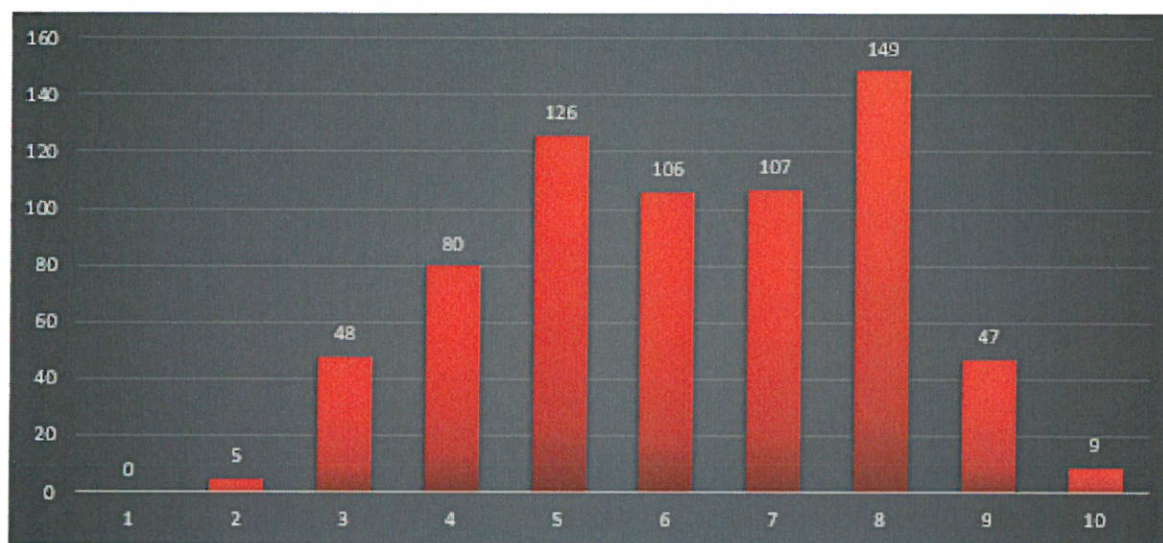


These four areas are evaluated and scored independent of each other. These scores are then combined in a final calculation to determine the Protection Class Grading for the community.

The following pages provide a point summary of all the items evaluated in the four major areas and for the final calculation to determine the Protection Class Grading for the community. The point system employed by the grading schedule is a deficiency point system with zero being the best score (100% credit). Following the point summary for each area and the final calculation is an explanation of the item, the pointed scored in each item and the percentage of credit attained for the item.

The Protection Class Grading produced by WSRB's evaluation is the overall Protection Class for the community, not the Protection Class of the all the properties located in the community. The rules of the applicable protection class manual must be applied to the Community Protection Class Grading to determine the Protection Class Rating of an individual property located within the community.

Buildings and property located within the graded community are eligible for the Protection Class of the community, but no better, if they meet the distance to fire station and applicable fire hydrant requirements. If these requirements are not met, the building will receive a different Protection Class Rating than the Protection Class Grading of the community. The chart below shows the number of communities in each Protection Class Grade across Washington State.



Protection Classes

QUESTIONS?

Please contact the WSRB Fire Protection Analyst that conducted the evaluation if there are any questions on the evaluation. Their contact information is located on the results letter that accompanied this report or contact WSRB at 206-217-9772 or email us at PublicProtection@wsrb.com

Please contact WSRB Customer Service at 206-217-0101 or customerservice@wsrb.com if there are any questions on the Protection Class Rating for individual properties in the community. If the fire department or community officials are receiving Protection Class inquiries from insurance professionals, feel free to refer these inquiries to WSRB Customer Service.

Final Calculation



FINAL CALCULATION



Community Protection Class Grade

Summary of Points

Sections Evaluated	Water Supply	Fire Department	Emergency Communications	Fire Safety Control
Points Scored	175	667	41	331
Maximum Points	1450	1950	450	650
% of Credit	88	66	91	49
Relative Value of Section	0.35	0.4	0.09	0.16
Relative Class of Section	2	4	1	6

Total credit for all sections 7.32

Divergence Score 0.03

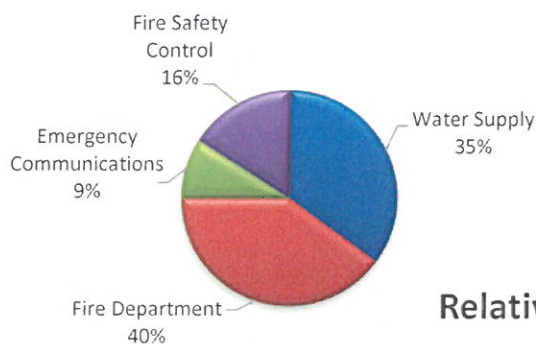
Community Protection Class (PC) Grade = (10-total Credit) + divergence score

Community Protection Class (PC) Grade = 2.71 (Unrounded Grade)

Community Protection Class (PC) Grade =

3

Protection Class	Unrounded Grade
1	0.0 to 1.00
2	1.01 to 2.00
3	2.01 to 3.00
4	3.01 to 4.00
5	4.01 to 5.00
6	5.01 to 6.00
7	6.01 to 7.00
8	7.01 to 8.00
9	8.01 to 9.00
10	9.01 to 10.00



Relative Values

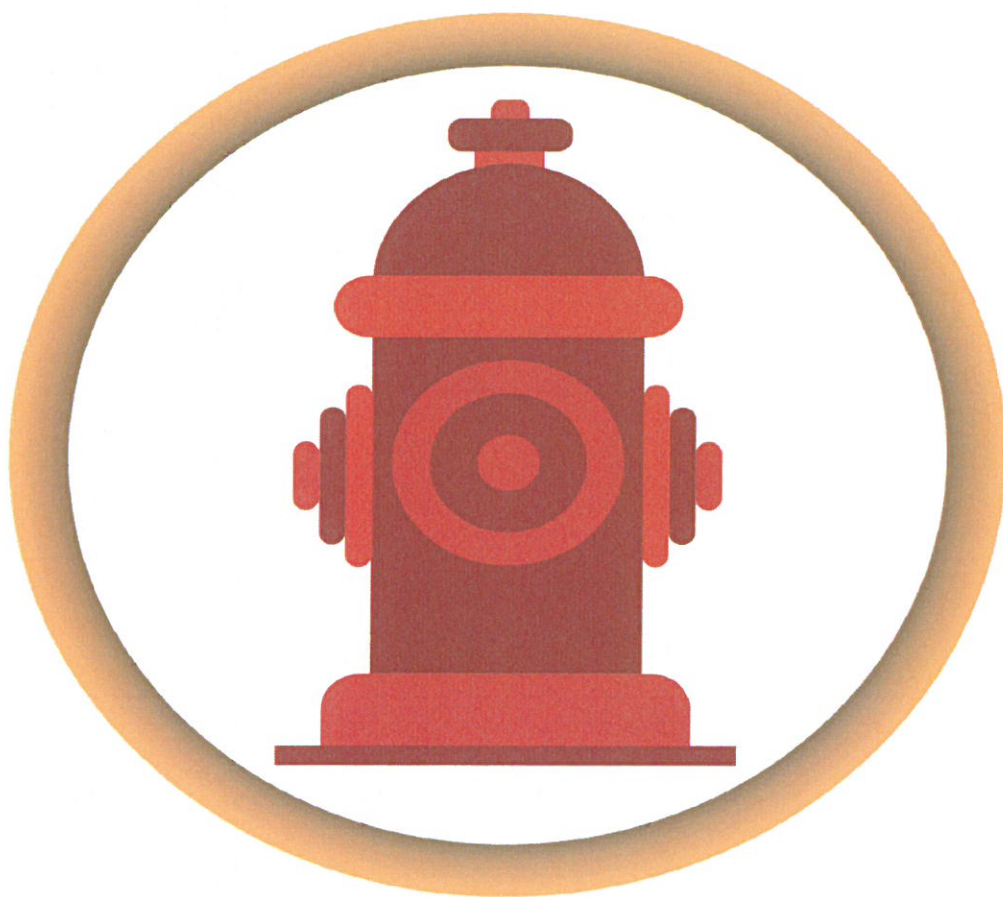
FINAL CALCULATION



Community Protection Class Grade

Explanation of Points	Points Scored	% of Credit
Water Supply	175	88%
The water supplies in the community that provide fire hydrants are evaluated in this section. In communities with multiple water supplies, the water supplies are prorated by their size (number of fire hydrants) to determine the overall score. Water Supply Items 1 through 5 make up the total score for this section.		
Fire Department	667	66%
The fire department servicing the community is evaluated in this section. The total service area of the fire department including incorporated and unincorporated area will be considered. Fire Department Items 1 through 17 make up the total score for this section.		
Emergency Communications	41	91%
The Emergency Communication Center responsible for dispatching the fire department that services the community is evaluated. This evaluation will also apply to other communities the communication center dispatches fire services to. Emergency Communication Items 1 through 3 make up the total score for this section.		
Fire Safety Control	331	49%
Fire Safety Control or fire prevention activities provided in the community are evaluated in this section. These activities may be provided by local, county or state authorities, all of which will be included in the evaluation. Fire Safety Control Items 1 through 4 make up the total score for this section.		
Divergence	0.03	
Excessive difference between the class of the Water Supply and the class of the Fire Department prevents the more effective feature from being utilized to its full relative value. An additional number of points are assigned to the grading of the community to recognize this divergence. Divergence in class between Water Supply and Fire Department of 2 classes or more shall have points added to the final grading of the community.		
Community Protection Class (PC) Grade	3	
The Protection Class produced by this schedule is the overall class of the community, not the classification of all property located in the community. The rules of the applicable protection class manual must be applied to the Community Protection Class to determine the PC of an individual property located within the community.		

Water Supply



WATER SUPPLY



SUMMARY OF POINTS

Item	Points
1 Adequacy of Water Supply	
1a. Commercial districts	34
1b. Residential districts	11
Total Points for Item	45
2 Distribution of Hydrants	
2a. Commercial districts	0
2b. Residential districts	0
Total Points for Item	0
3 Hydrants - Size, Type and Installation	
Total Points for Item	3
4 Hydrants - Inspection and Condition	
Total Points for Item	25
5 Arrangement, Operation and Maintenance of Water System Components	
5a. Arrangement and Operation	16
5b. Maintenance	86
Total Points for Item	102
Water Supply Total Points	175

Explanation of Points	Points Scored	% of Credit
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1. Adequacy of Water Supply

1a. Commercial Districts	34	95%
---------------------------------	-----------	------------

This item evaluates the water system's ability to deliver the required fire flow for commercial properties in the community. The score for this item is determined by comparing the required fire flow for a building to the available fire flow. A building's required fire flow is calculated using type of construction, square footage, occupancy, external exposure, and whether the building is equipped with an automatic sprinkler system. Available fire flow is measured using hydrant flow tests and the capacity of the water system storage, pumps, filters, and mains.

1b. Residential Districts	11	96%
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Fire flow availability is also evaluated in the residential districts of the community. The base fire flow requirement for residential properties is 1,000 gpm for a one-hour duration. In the context for the Protection Class Grading Schedule, "residential" refers to one- to four-family dwellings.

2. Distribution of Hydrants

2a. Commercial Districts	0	100%
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This item evaluates whether commercial buildings located in the community have an adequate number of fire hydrants and if the fire hydrants are well distributed around the building. Buildings specifically rated by WSRB are used in evaluating this item.

2b. Residential Districts	0	100%
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Residential structures in the community will be evaluated to determine if a fire hydrant is available within 600 feet. Point score is based on the total number of properties as compared to the number of properties with a fire hydrant within 600 feet.

3. Hydrants - Size, Type and Installation

3	97%
----------	------------

Hydrants shall conform to American Water Works Association (AWWA) Standards for dry-barrel hydrants. Standard hydrants must have a minimum of one pumper outlet and two 2.5-inch outlets, be connected to at least a 6-inch water main, and be provided with a control valve on connections between the hydrant and street main. Hydrants should also have a quick-connect fitting on the pumper port and uniform operating direction.

WATER SUPPLY (continued)



Explanation of Points	Points Scored	% of Credit
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4. Hydrants - Inspection and Condition

25

75%

Hydrants must be inspected annually, including operating the hydrant and checking the static pressure. Flow tests of hydrants must be conducted at least every 5 years. Fire hydrants shall be marked for available water flow, free of obstructions, and kept in good condition.

5. Arrangement, Operation and Maintenance of Water System Components

5a. Arrangement and Operation

16

84%

"Arrangement" of the water system components evaluates the location and number of water sources and water storage units. Multiple water sources and water storage locations provide redundancy in order to reduce the impact of failure of one part of the system. "Operation" considers how the system is monitored and controlled (telemetry), how water is delivered (pumps or gravity), and if backup power is provided for pumps. The water system shall be managed by a state-certified operator.

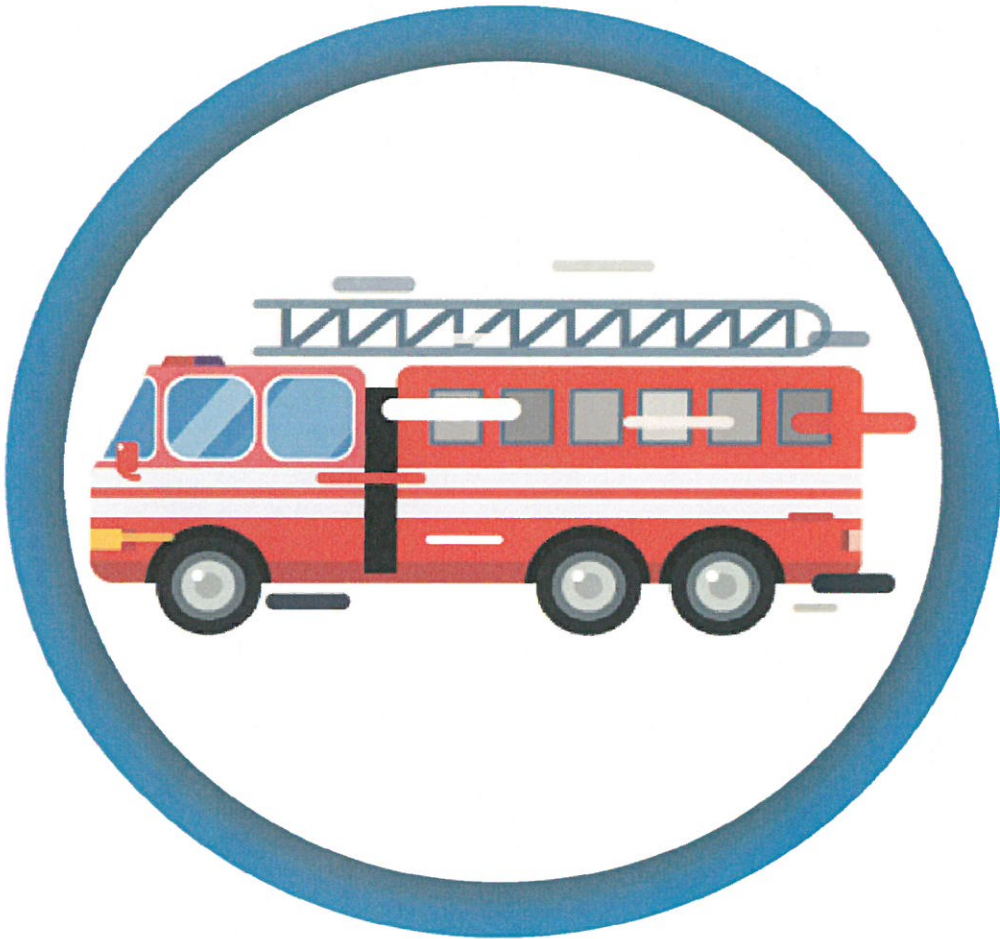
5b. Maintenance

86

57%

This item evaluates the frequency of visits to and inspections of water system components other than hydrants. Regular visits and inspections allow for timely maintenance and repair of components. Water system components including wells, pumps, water tanks and reservoirs, pressure reducing, altitude, float control and isolation valves shall be regularly inspected.

Fire Department



SUMMARY OF POINTS

Item	Points
1 Pumpers	
1a. Number of Pumpers in Service	21
1b. Number of Reserve Pumpers	18
Total Points for Item	39
2 Ladder Trucks/Ladder Service	
2a. Number of Ladder Trucks in Service	67
2b. Number of Reserve Ladder Trucks	20
2c. Ground Ladder Service	2
Total Points for Item	89
3 Distribution of Companies	
Total Points for Item	90
4 Pumper Capacity	
4a. Pumper Capacity	7
4b. Reserve Pumper Capacity	5
Total Points for Item	12
5 Maintenance and Condition of Apparatus	
Total Points for Item	19
6 Number of Officers	
6a. Number of Chief Officers	0
6b. Number of Company Officers	24
Total Points for Item	24
7 Department Staffing	
7a. Normal Minimum Strength of Day Shift	50
7b. Normal Minimum Strength of Night Shift	50
Total Points for Item	100

SUMMARY OF POINTS (continued)

Item	Points
8 Engine and Ladder Company Unit Staffing	
Total Points for Item	18
9 Stream Devices	
Total Points for Item	8
10 Equipment for Pumpers and Ladder Trucks	
Total Points for Item	6
11 Hose	
11a. Total Amount of LDH & 2½-inch Hose	<u>2</u>
11b. Total Amount of 1½-inch Hose	<u>0</u>
11c. Total Amount of Pre-Connected Hose	<u>0</u>
Total Points for Item	2
12 Condition of Hose	
Total Points for Item	8
13 Training	
Total Points for Item	116
14 Response to Alarms	
Total Points for Item	1
15 Fire Operations	
Total Points for Item	101
16 Special Protection	
16a. Fireboats in Service	<u>0</u>
16b. Other Needed Special Protection	<u>0</u>
Total Points for Item	0
17 Miscellaneous Factors and Conditions	
17a. Fire Stations	<u>5</u>
17b. Fuel	<u>11</u>
17c. Delays in Response	<u>18</u>
Total Points for Item	34
Fire Department Total Points	666

Explanation of Points	Points Scored	% of Credit
-----------------------	---------------	-------------

1. Pumpers

1a. Pumpers

21

90%

The number of pumpers in service and regularly responding to alarms must be sufficient to properly protect the community. The number of pumpers required is determined by evaluating the fire flow requirements in the community, geographical distribution of structures, response of engines outside the community, and frequency of alarms. The required number of pumpers is compared to the number of pumpers in service. Pumper-ladder trucks will be credited under this item. Automatic aid will be considered in this item.

1b. Reserve Pumpers

18

55%

To maintain the required number of pumpers in service, one reserve pumper is required for every 8 pumpers required to be in service, but no fewer than 1. Reserve pumpers shall be fully equipped, tested, and maintained for service.

2. Ladder Trucks/Ladder Service

2a. Number of Ladder Trucks in Service

67

33%

The number of ladders trucks in service and regularly responding to alarms must be sufficient to properly protect the community. A ladder truck is required when a community has at least 5 buildings with a required fire flow of 4,000 gpm or greater and/or 3 stories (35 feet) in height. The required number of ladders is compared to the number of ladders in service. Pumper-ladder trucks will be credited under this item. Automatic aid will be considered in this item. The height and type of ladder truck will also be evaluated in this item.

2b. Number of Reserve Ladder Trucks

20

0%

To maintain the required number of ladder trucks in service, one reserve ladder truck is required for every five ladder trucks required to be in service, but no fewer than one. Reserve ladders shall be fully equipped, tested, and maintained for service.

2c. Ground Ladder Service

2

96%

In those communities not considered to require a standard ladder truck, sufficient ground ladders to reach the roofs of buildings must be carried on pumpers or special apparatus. The number, type, height, and testing of ground ladders will be evaluated in the item.

Fire Department (Continued)



Explanation of Points	Points Scored	% of Credit
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3. Distribution of Companies

90	55%
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Engine and ladder companies must be distributed to provide effective protection to the community. Structures should be within 1.5 road miles of a first-alarm engine company and 2.5 miles of a ladder company. Distances may be increased to 4 road miles in areas with separation of 100 feet or more between buildings. Pumper-ladders and automatic aid will be considered in this item.

4. Pumper Capacity

4a. Pumper Capacity

7	97%
---	-----

Adequate pumper capacity must be provided on the first alarm to meet or exceed basic fire flow. All fire pumps must be tested annually to receive full credit. Automatic aid will be considered in this item.

4b. Reserve Pumper Capacity

5	75%
---	-----

The total pumper capacity, including reserve pumpers, with 1 for each 8 required pumpers (but not fewer than 1 and including the largest) out of service, must be sufficient to maintain the total pumper capacity required.

5. Maintenance and Condition of Apparatus

19	87%
----	-----

The points scored in this item are based on the percentage scores of the subitems below. No points are assigned to these subitems.

5a. Facilities and Personnel

92%

Facilities, preferably departmental, must be adequate to properly service all apparatus, and an adequate number of personnel trained in fire apparatus maintenance must be provided. This item evaluates who operates the maintenance facility and the certifications of the maintenance personnel.

5b. Preventative Maintenance

76%

A suitable preventive maintenance program must be in effect; this includes service tests of pumps and inspection and testing of aerial ladders and elevating platforms. This item evaluates how often apparatus are checked and inspected. The testing frequency of pumps, aerials, foam systems, CAFS, breathing air systems, apparatus road test, and weight verification are also evaluated.

5c. Age of Apparatus

87%

The age of apparatus will be considered in determining condition. Pumpers, ladders, and support vehicles older than 15 years will receive deficiency points. Apparatus older than 25 years will receive additional deficiency points.

Fire Department (Continued)



Explanation of Points	Points Scored	% of Credit
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6. Number of Officers

6a. Number of Chief Officers	0	100%
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A chief officer in charge of the department must be on duty at all times but need not sleep at a fire station to be considered on duty provided there are adequate means for notification and response to alarms. Departments with more than 8 companies, in addition to the chief and assistant chief, must have sufficient battalion or district chiefs to provide one on duty in a fire station at all times for each 8 companies or major fraction required. Two active volunteer officers may be considered equivalent to one full on-duty officer, up to half the number of officers required.

6b. Number of Company Officers	24	52%
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There must be sufficient company officers to provide one on duty at all times with each required engine or ladder company. Two active volunteer officers may be considered equivalent to one full on-duty officer, up to half the number of officers required.

7. Department Staffing

7a. Normal Minimum Strength of Day Shift	50	75%
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There must be 6 firefighters on duty for each of the required engine and ladder companies. Only personnel who participate in actual structural firefighting operations will be credited. Personnel staffing ambulances or other units serving the general public may be credited depending on the extent they are available for firefighting duties. Three call and/or volunteer firefighters will be considered equivalent to 1 on-duty firefighter. Call or volunteer firefighters may not exceed half the required strength of required companies. If adequate records of response are not kept, credit may be limited to 1 on-duty for each 6 call or volunteer firefighters. Call or volunteer firefighters working defined shifts at fire stations may be considered equivalent to on-duty firefighters. Response of firefighters on automatic aid apparatus and the response of off-shift personnel will also be considered in this item.

7b. Normal Minimum Strength of Night Shift	50	75%
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There must be 6 firefighters on duty for each of the required engine and ladder companies. Only personnel who participate in actual structural firefighting operations will be credited. Personnel staffing ambulances or other units serving the general public may be credited depending on the extent they are available for firefighting duties. Three call and/or volunteer firefighters will be considered equivalent to 1 on-duty firefighter. Call or volunteer firefighters may not exceed half the required strength of required companies. If adequate records of response are not kept, credit may be limited to 1 on-duty for each 6 call or volunteer firefighters. Call or volunteer firefighters working defined shifts at fire stations may be considered equivalent to on-duty firefighters. Response of firefighters on automatic aid apparatus and the response of off-shift personnel will also be considered in this item.

Fire Department (Continued)



Explanation of Points	Points Scored	% of Credit
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8. Engine and Ladder Company Unit Staffing

18	94%
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Unit staffing strength for engine and ladder companies only considers companies with apparatus in service credited in items 1 and 2. The amount by which the required 6 on-duty firefighters per company exceeds the on-duty strength (as determined in Item 7), divided by the number of in-service companies, equals the average deficiency per company.

9. Stream Devices

8	84%
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Turrets, nozzles, foam equipment, and, where required, elevated stream devices must be provided. This item evaluates the required stream devices to the devices provided. Credit will be limited if annual testing is not conducted and maintenance records are not provided.

10. Equipment for Pumpers and Ladder Trucks

6	94%
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This item will consider equipment for existing pumpers and ladder trucks, except for such equipment considered in Items 2c (ground ladders), 9 (stream devices), and 11 (hose). Credit for SCBA's will be limited if inspection and testing is not conducted and maintenance records are not provided.

11. Hose

11a. Total Amount of LDH & 2 1/2-inch Hose	2	98%
--	---	-----

This Item considers whether adequate hose is carried on each pumper and whether adequate reserve hose is provided. The requirement for large diameter hose (3.5 inches or larger) for each pumping apparatus is 600 feet on the apparatus and 300 feet in reserve. The requirement for 2.5-inch + hose is 800 feet on the apparatus and 400 feet in reserve.

11b. Total Amount of 1 1/2-inch Hose	0	100%
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The requirement for 1.5-inch + hose on each pumping apparatus is 400 feet with 200 feet in reserve.

11c. Total Amount of Pre-Connected Hose	0	100%
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The requirement for pre-connected, 1.5-inch + hose on each pumping apparatus is 200 feet. Booster hose that is pre-connected to the pump is creditable, but booster hose smaller than 1.5 inches will only receive 50% credit.

Fire Department (Continued)



Explanation of Points	Points Scored	% of Credit
12. Condition of Hose	8	90%

The points scored in this item are based on the percentage scores of the subitems below. No points are assigned to these subitems.

12a. Hose Testing Frequency	100%
------------------------------------	-------------

All hose, in service and reserve, must be maintained in good condition and tested annually in accordance with NFPA Standard 1962.

12b. Age of Hose	80%
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The age of all hose in service and in reserve is evaluated for the item.

12c. Hose Washing, Drying, and Storage Facilities	0%
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Suitable facilities and procedures must be provided for washing, drying, and storing hose. This is to prevent mildew in the hose jackets and rust / corrosion in hose compartments.

12d. Cotton Jacket Hose	100%
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An additional deficiency will be added for cotton-jacketed hose.

13. Training	116	61%
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The points scored in this item are based on the percentage scores of the subitems below. No points are assigned to these subitems.

13a. Supervision	80%
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Training must be under the guide of a qualified training officer. Maximum credit is achieved when the training officer has at least 10 years of direct incident command experience, a rank of captain or better, and certification as a Fire Instructor II. Personnel in charge of training sessions must be certified as fire instructors.

13b. Company Training	20%
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Firefighters are required to have a minimum of 20 hours of structural fire fighting training per firefighter, per month. This amount can be reduced by 25%, to 15 hours, for firefighters that are certified Firefighter I and by 50%, to 10 hours, for firefighters that are certified firefighter II. Training should include topics outlined in NFPA 1001: Standard for Fire Fighter Professional Qualifications.

13c. Training Center Training	73%
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This item evaluates the quantity of training at a training center and the quality of the training center. A minimum of 8 half-day (3-hour) drills per year, including 2 drills at night and 4 multiple-company drills, shall be provided for all firefighters. Training centers shall be provided with a drill tower that is 3 stories in height (4 stories in height if a ladder truck is required in the community), a structure to support live fire simulation, a combustible liquid pit (minimum of 20-foot radius accessible from all directions), training aids and props, and an area of at least 2 acres suitable for multi-company operations.

13d. Officer Training	80%
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A minimum of two days per year (16 hours) is required for all officers. This amount can be reduced by 25%, to 12 hours, for officers that are certified Fire Officer I and by 50%, to 8 hours, for officers that are certified Fire Officer II. Officer training should include topics outlined in NFPA 1021: Standard for Fire Officer Professional Qualifications that focus on leadership, fire tactics, and incident command.

Fire Department (Continued)



Explanation of Points	Points Scored	% of Credit
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13e. Driver & Operator Training

100%

Personnel who drive and/or operate apparatus shall participate in a minimum of 1 day (8 hours) of training per year. Training should include topics outlined in NFPA 1002: Standard for Fire Apparatus Driver/Operator Professional Qualifications. Current state-approved EVIP certification can serve in lieu of annual training.

13f. Recruit Training

100%

New fire department members shall receive a minimum of 240 hours of recruit training before becoming active firefighters. Training should include topics outlined in NFPA 1001: Standard for Fire Fighter Professional Qualifications.

13g. Pre-Fire Planning

30%

An annual inspection of all commercial or similar type buildings is required. Pre-fire information shall be readily available on responding apparatus. Pre-fire plans should be in accordance with NFPA 1620: Recommended Practice for Pre-Incident Planning.

14. Response to Alarms

1

99%

The points scored in this item are based on the percentage scores of the subitems below. No points are assigned to these subitems.

14a. Run Cards

100%

Run cards detailing the fire department response to fires must be developed for all areas of the community.

14b. Commercial Districts

95%

Adequate response to alarms must be established. The required first alarm response depends on the district's basic fire flow. For districts with basic fire flow from 1500-3,999 gpm, at least 1 chief officer, 2 engine companies, and 1 ladder service company are required. For districts with basic fire flow from 4,000-8,999 gpm, at least 1 chief officer, 3 engine companies, and 1 ladder truck company are required. When basic fire flow is 9,000 gpm or higher, at least 1 chief officer, 3 engine companies, and 2 ladder truck companies are required.

14c. Residential Districts

100%

At least 1 chief officer, 2 engine companies, and adequate ladder equipment are required to respond to residential districts.

14d. Multiple Alarms

100%

Engine company response to each additional alarm for the same fire should approximate the number of engine companies required for the first alarm.

14e. Cover Plan

100%

Response areas in the community must have a cover plan for when the first due companies are out of service.

Fire Department (Continued)



Explanation of Points	Points Scored	% of Credit
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15. Fire Operations

101	68%
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Consideration will be given to the ability of the department to operate effectively at fires. Effectiveness is dependent on staffing and training; however, others factors can also affect fire operations. Percentage for this item will be determined by taking the average of the percentages from Items 7, 8, and 13 and adjusting as conditions warrant.

16. Special Protection

16a. Insufficient Fireboats in Service	0	100%
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A suitably staffed, equipped, and maintained fireboat will be required where at least 1 mile of wharf frontage necessitates firefighting operations from the water side. Such frontage must be within 1.5 miles of a fireboat.

16b. Lack of Other Needed Special Protection	0	100%
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Conditions in the municipality that require special fire department protection in addition to that covered elsewhere in this schedule will be considered in this item. Conditions considered in this item include but are not limited to: waterfront properties needing some special protection but not requiring a conventional fireboat, extensive brush areas, extensive bulk oil and other hazardous storage.

17. Miscellaneous Factors and Conditions

17a Fire Stations	5	95%
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This item considers suitability of fire stations, including construction, housing of apparatus, and if the station is provided with a secondary power source. Communication equipment should be provided at fire stations and include two-way radios, spare portable radios, commercial telephone, and means for public reporting to the dispatch center. Firefighters must have two separate means for receiving alarms from the communication center that are under the control of the communications center. At least one means must be supervised. If the stations are not staffed, firefighters must be equipped with the means to receive alarms.

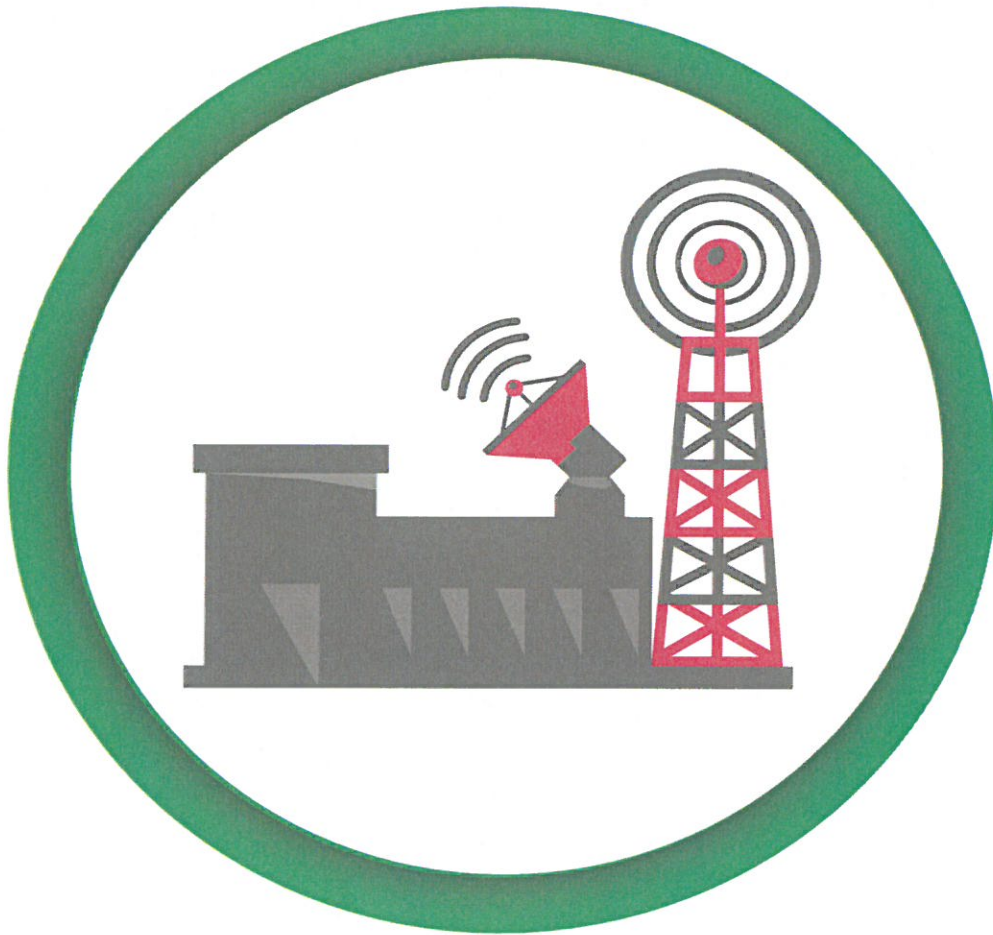
17b. Fuel	11	45%
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Fuel must be available in sufficient quantities at fire stations. Suitable arrangements must be made for delivery of fuel to apparatus at fires of long duration.

17c. Delays in Response	18	82%
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The possibility of delays due to poor condition of roads, including snow and ice, steep grades, vehicle parking, traffic, railroad grade crossings, and similar features are considered in this item.

Emergency Communications



Emergency Communications



SUMMARY OF POINTS

Item	Points
1 Communication Center	
1a. Building Construction, Exposures and Communicating Openings	5
1b. Fire Protection	0
1c. Security	5
1d. Emergency Lighting	0
Total Points for Item	10
2 Communication Center Equipment	
2a. Computer-Aided Dispatch (CAD)	6
2b. Recording	0
2c. Telephone Service	0
2d. Supervision	0
2e. Dispatch Circuits	20
2f. Emergency Power	2
Total Points for Item	28
3 Telecommunicators	
3a. Training	1
3b. Number of Telecommunicators on Duty	2
Total Points for Item	3
Emergency Communications Total Points	41

EMERGENCY COMMUNICATIONS



Explanation of Points	Scored Points	% of Credit
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1. Communications Center

1a. Building Construction, Exposures and Communicating Openings

5

90%

This item evaluates the building where the communication center is located. Communication centers should be in fire-resistive, separate buildings without internal or external exposures.

1b. Fire Protection

0

100%

This item evaluates the adequacy of fire protection provided for the communication center, including portable fire extinguishers, fire alarms, automatic sprinkler systems and suppression systems in computer and data-processing equipment rooms.

1c. Security

5

50%

Communication center security is meant to protect against vandalism, terrorism, and civil disturbances. Restricted access, security of doors and windows, and the vulnerability of the areas surrounding the center are considered.

1d. Emergency Lighting

0

100%

Communication centers must be provided with emergency lighting that will be placed in service immediately after a power loss so operations can continue uninterrupted. At least one self-charging lantern or flashlight should also be provided.

2. Communications Center Equipment

2a. Computer-Aided Dispatch (CAD)

6

91%

Features and capabilities of the Computer-Aided Dispatch (CAD) system are evaluated. Maximum credit is achieved when the CAD system has enhanced 911, wireless and VoIP capabilities; allows data exchange; has a redundant backup system with automatic switch-over to backup; selects and recommends units to be dispatched; is MDC-capable; and has automatic vehicle locating, GIS capabilities, and management information system (MIS). Credit will be prorated depending on the communication center's CAD capabilities.

2b. Recording

0

100%

All incoming and outgoing voice transmissions shall be recorded including the date and time. All telecommunicators should have access to immediate playback of recordings.

2c. Telephone Service

0

100%

The number of required telephone lines for emergency and business calls is determined by the population served by the communication center. Additional lines may be required if emergency calls other than fire are received or if central station alarms are received. One outgoing-only line must also be provided.

EMERGENCY COMMUNICATIONS (continued)



Explanation of Points	Scored Points	% of Credit
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2d. Supervision	0	100%
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All components of the alarm dispatch circuits shall be monitored for integrity, including dispatch circuits, transmitters, repeaters, and primary and secondary power. Fault conditions detected shall actuate an audible and visual trouble signal at a constantly attended location.

2e. Dispatch Circuits	20	50%
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The communication center must have separate primary and secondary dispatch circuits for transmitting alarms. Maximum credit is obtained when dual circuits are provided, circuits are supervised, there is automatic switchover to a secondary circuit, and all components of the system are owned by the communication center.

2f. Emergency Power	2	93%
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The Communication Center shall be provided with an emergency power source. An uninterruptible power supply (UPS) shall be provided along with an automatically starting generator.

3. Telecommunicators

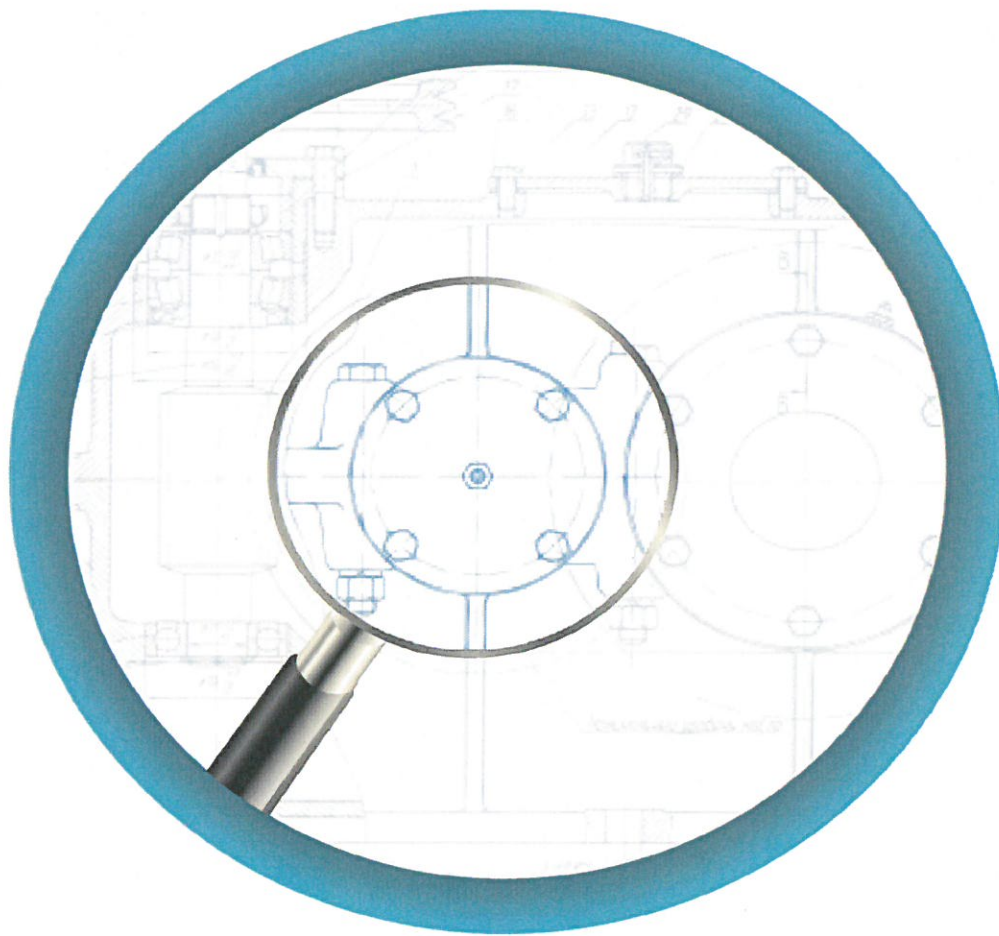
3a. Training	1	98%
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A minimum of 480 hours of initial training is required for Telecommunicators. General dispatch training and fire dispatch training should be a minimum of 240 hours each. Non-certified telecommunicators should receive 40 hours of continuing education per year. Certified Telecommunicator I personnel and certified Telecommunicator II personnel shall receive 30 hours and 24 hours of continuing education, respectively.

3b. Number of Telecommunicators on Duty	2	98%
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The number of required telecommunicators on duty is based on the total number of calls received per year at the communication center. If the communication center is meeting the call-answering and dispatching times set forth by NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems, then full credit will be applied in this item.

Fire Safety Control



Fire Safety Control



SUMMARY OF POINTS

Item	Points
1 Fire Code Enforcement	
1a. Fire Marshal	10
1b. Fire Plan Review	15
1c. Inspections of Fire Code Permits	0
1d. Fire Code Inspections of Existing Occupancie	248
1e. Confidence Testing of Fire Protection System	5
Total Point for Item	278
2 Public Fire Education	
2a. School Programs	25
2b. Adult Programs	11
Total Point for Item	36
3 Fire Investigations	
Total Point for Item	5
4 Building Code Enforcement	
Total Point for Item	12
Fire Safety Control Total Points	331

Explanation of Points	Scored Points	% of Credit
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1. Fire Code Enforcement

1a. Fire Marshal

10

50%

The fire marshal shall oversee fire code enforcement. The fire marshal shall have 10 or more years of code enforcement experience, be certified as a fire marshal, and receive at least 16 hours of fire-code-related continuing education per year.

1b. Fire Plan Review

15

70%

Review of plans for fire code compliance must be done by experienced, certified personnel. The plan reviewer shall have 5 or more years of plan review experience, be a registered design professional (licensed professional engineer), and receive at least 16 hours of plan review related continuing education per year. The plan review department needs to have adequate staffing to ensure comprehensive plan reviews.

1c. Inspection of Fire Code Permits

0

100%

New and renovated occupancies requiring a fire code permit must be inspected prior to issuing a Certificate of Occupancy. Fire inspectors shall be certified with 5 or more years of experience in inspections and receive at least 16 hours of fire inspection related continuing education per year. Adequate department staffing levels must be maintained to ensure comprehensive inspections.

1d. Fire Code Inspections of Existing Occupancies

248

38%

Fire Code Inspections of existing occupancies shall be conducted. The frequency of inspections will be evaluated using Table 7 in the Protection Class Grading Schedule. Fire code inspectors should be certified with 5 or more years of experience and receive minimum of 16 hours of fire inspection related continuing education per year. Staffing levels must be sufficient to ensure comprehensive inspections.

1e. Confidence Testing of Fire Protection Systems

5

75%

Fire protection systems must be inspected and tested in accordance with the applicable NFPA standards. A program shall be in place to ensure these inspections are done, monitor the inspections results, and ensure deficiencies found with the systems are corrected.

2. Public Fire Education

Fire safety education must be provided to the general public. Fire educators should be Certified Public Educators in accordance with NFPA 1035, have 5 or more years of experience, and receive 16 hours of public-education-related continuing education per year. All education programs and events should be documented and should include date, instructor, topics taught, length of class, and number of students.

FIRE SAFETY CONTROL (Continued)



Explanation of Points	Scored Points	% of Credit
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2a. School Programs	25	29%
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School programs should include age appropriate subjects for all students, preschool to the 12th grade.

2b. Adult Programs	11	27%
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Adult education should include programs for all segments of the adult population in the community.

3. Fire Investigations

	5	75%
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Fire investigations must be done to determine the cause and origin of all fires. Fire investigator shall have 5 or more years of experience, be a commissioned law officer, be certified as a fire investigator, and receive at least 16 hours of fire-investigation-related continuing education per year. In addition, sufficient staff levels are required to ensure adequate response to fires, and all fires should be reported to NFIRS.

4. Building Code Enforcement

	12	70%
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Current building codes must be adopted and effectively enforced. The score for this item is based on the current Building Code Class of the community.