

FSRS Relative Point Value Guide

Note: This document has been produced by PIAL as a "guide" to show each Section's impact to your total score. Certain ideal scenarios were assumed to determine the score in the "Max Credit by Item" column. These points will fluctuate slightly based on equipment, manning, and capabilities of each Department and/or Water Supply System.

Divergence: Even the best fire department will be less than fully effective if it has an inadequate water supply. Similarly, even a superior water supply will be less than fully effective if the fire department lacks the equipment, personnel, or operational considerations to use the water. If the relative scores for fire department and water supply are different, ISO adjusts the total score downward to reflect the limiting effect of the less adequate item on the better one.

When the Water score is 80% of the Fire Department score, the Divergence will be zero (0).

EMERGENCY COMMUNICATIONS				Total: 10
Section	Description	% of Maximum Section Points	Max Credit by Item	Max Points
414 - EMERGENCY REPORTING				3
410-A	<i>Basic 911 or</i>	10%	0.3	Credit = 0.3 out of 3
410-B	<i>Enhanced 911</i>	20%	0.6	
410-B-1-a	<i>Wireless Phase 1,</i>	10%	0.3	
410-B-1-b	<i>Wireless Phase 2,</i>	15%	0.45	
410-B-2-a	<i>Static VOIP using Static ALI,</i>	10%	0.3	
410-B-2-b	<i>Nomadic VolP using Dynamic ALI</i>	15%	0.45	
410-B-3-a	<i>Basic CAD,</i>	5%	0.15	
410-B-3-b	<i>CAD with MIS Management Information System,</i>	5%	0.15	
410-B-3-c	<i>CAD with Interoperability</i>	5%	0.15	
410-B-4	<i>GIS/AVL</i>	15%	0.45	
422 - TELECOMMUNICATORS				4
420-A-1	<i>Alarm Receipt</i>	20%	0.8	
420-A-2	<i>Alarm Processing</i>	20%	0.8	
420-B	<i>Emergency Dispatch Protocols EDP's, Telecommunicator</i>	20%	0.8	
420-C	<i>Telecommunicator Training and Certification,</i>	20%	0.8	
420-D	<i>Telecommunicator Continuing Education, and Quality Assurance</i>	20%	0.8	
432 - DISPATCH CIRCUITS				3
431	<i>Review of Dispatch Circuits,</i>	40%	1.2	
431-B	<i>Monitoring for Integrity,</i>	30%	0.9	
431-C	<i>Emergency Power Supply System.</i>	30%	0.9	

FIRE DEPARTMENT

Total: 50+

Section	Description	% of Maximum Section Points	Max Credit by Item	Max Points
513 - ENGINE COMPANY RESPONSE & EQUIPMENT				6
510-B	<i>Review of Engines by BFF, Review of Engine by Location,</i>	Assuming all needed engines are existing and all are 100% equipped, each 10% increase in adequate response results in 0.3 points increase in Section 513. See below for the impact each inventory item has on section 513.		
510-C	<i>Review of Engines by Operations,</i>			
512	<i>Review of Equipment, Review of Pump and Hose Tests,</i>			
507	<i>Review of Automatic Aid</i>			
523 - RESERVE PUMPERS RATIO AND EQUIPMENT				0.5
	<i>Review of Number and Designated</i>	See equipment tables below.		
532 - PUMP CAPACITY				3
531-A	<i>Review of In-Service Pump Capacity,</i>	Cannot accurately assess due to the # of variables. Capacity is limited to the BFF. The value of each 1gpm is dependent on the BFF. For instance, for a BFF of 2000gpm, each 1gpm is worth 0.0015 points where for a BFF of 3500, each 1gpm is worth 0.000857 points.		
531-B	<i>Review of Reserve Pump Capacity,</i>			
531-C	<i>Review of Other Pump Capacity,</i>			
531-D	<i>Review of Automatic Aid Pump Capacity.</i>			
549 - LADDER/ SERVICE COMPANIES AND EQUIPMENT				4
NOTE:	When PIAL determines the number of needed Service or Ladder companies, it first determines the need for a "response zone" around an existing engine company location then they look at the types of buildings in that zone to determine what type of apparatus (service or ladder truck) is required in that zone. Additional engine locations may also need a response zone based on the number of road miles within 2.5 of that station. If needed, PIAL will then determine the type of apparatus needed at that station.			
540-A	<i>Review of Number of Needed Ladder Apparatus,</i>	Needed Ladder companies is dependent on the locations of 3-story, 32' to the eaves, and high NFF buildings (>3500gpm) in a response zone where at least a service company is needed. If either type or a combination of types is 5 or more, a ladder company is needed.		
541-A	<i>Review of Number of Existing Ladder Apparatus,</i>	This item simply records the # of existing Ladder Companies. Anytime companies exist that are not actually "needed", the score for Manpower in Section 571 is lowered.		
540-B	<i>Review of Needed Service Apparatus,</i>	Every graded area needs at least one service or ladder company. Service company locations are based on road miles within 2.5 of each engine company location. A service company is also needed in a response zone where a ladder truck exists if that ladder truck does not respond on 100% of structural fire alarms in that area.		
541-B	<i>Review of Number of Existing Service Apparatus,</i>	This item simply records the # of existing Service Companies. Anytime companies exist that are not actually "needed", the score for Manpower in Section 571 is lowered.		
541-C	<i>Review of Automatic Aid Ladder/Service Apparatus</i>	There are too many variables to determine scoring in this area.		
542-A	<i>Review of Ladder Equipment,</i>	See equipment tables below.		
542-B	<i>Review of Engine/Ladder Equipment,</i>	See equipment tables below. On Engine/Ladder apparatus, the Engine equipment is credited at 100% and the Ladder equipment is credited at 50%.		
542-C	<i>Review of Service Equipment,</i>	See equipment tables below.		
542-D	<i>Review of Engine/Service Equipment.</i>	See equipment tables below. On Engine/Service apparatus, the Engine equipment is credited at 100% and the Service equipment is credited at 50%.		

553 - RESERVE LADDER/ SERVICE COMPANY RATIO AND EQUIPMENT				0.5
550	Review of Number of Needed Reserve Ladder and Service Apparatus,	One reserve apparatus is needed for every 8 in-service apparatus. These may be shared with other departments but the number of needed reserves becomes based on the total number of existing ladder and service companies in all areas sharing the apparatus.		NOTE: Full credit is earned when the number of existing companies equals the number needed and all existing companies are fully equipped.
551	Review of Equipment on Reserve Ladder and Service Companies.	See equipment tables below.		
561 - DEPLOYMENT ANALYSIS				10
	Review of 1.5 of Engine Companies	60%	6.00	
	Review of 2.5 Mile Distribution of Ladder or Service Companies,	40%	4.00	
	Review of NFPA 1710 Data.	NFPA 1710 data may be used in lieu of road mile data. Credit earned will be the greater of credit calculated using road mile data or NFPA 1710 data.		
571 - PERSONNEL				15+
570-A	Review of On-Duty Manpower,	There are too many variables in this area to determine the value of each on-duty member. Credit is dependent on average daily manning at the fire station with respect to the numbers and types of in-service apparatus.		
570-C	Review of On-Call Manpower,	There are too many variables in this area to determine the value of each on-call member. Credit is dependent on average response to working structure fires with respect to the numbers and types of in-service apparatus.		
570-B	Review of Public Safety Officers,	Credit in this area is rare and will be addressed on a case-by-case basis.		
570-D	Review of Automatic Aid Personnel.	There are too many variables in this area to determine the value of each member. Credit is dependent on the content of the AA agreement and the AA Factor.		
581 - TRAINING				9
	Review of Facilities and Use,			Drills at training facility only, up to 35% of total 9 points.
580A-1	Fire Building and Smoke Room	17%	1.53	
580A-1	Drill Tower	10%	0.9	
580A-1	2 Acre Training Area	8%	0.72	
580B	Company Training	25%	2.25	
580C-1	Officer Training & Certification	6%	0.54	
580C-2	Officer Continuing Education	6%	0.54	
580-E	Driver Training,	5%	0.45	
580-D	New Driver/Operator Training, Haz-Mat Training, and	5%	0.45	
580-G	Preplan Training.	12%	1.08	
580-F	Recruit Training	5%	0.45	
580-H	Review of Bonus Certification	Up to 3 pts. / Max 9pts.		
730 - OPERATIONAL CONSIDERATIONS				2
710	Response of Apparatus (NFPA 1500)	5%	0.1	
710	Apparatus Inspection & Maintenance (NFPA 1500)	5%	0.1	
710	AA/MA Operations (NFPA 1710 & 1720)	5%	0.1	
710	Personnel Response	5%	0.1	
710	Operation of Emergency Vehicles	5%	0.1	
710	Safety at Emergency Incidents	5%	0.1	
710	Communications	5%	0.1	
710	Fire Suppression	5%	0.1	
710	Company Operations	5%	0.1	
710	Training	5%	0.1	
720	Review of Incident Management Training and Incident Command Training	50%	1	

Water Supply

Total: 40

Section	Description	% of Maximum Section Points	Max Credit by Item	Max Points
616 - Supply System				30
602	<i>Review of Maximum Daily Consumption,</i>	Items in this section are situational based on the community. Increases in MDC will decrease SWC. Increases in elevated storage, pump supply, emergency supply, suction supply and fire department supply will increase SWC. When SWC exceeds NFF, it no longer affects available credits. Main Capacities (hydrant flow rates) are also a factor but it's impossible to say how much. When the MC exceeds the NFF, it no longer affects available credits. The final factor, Hydrant Availability looks at the # of hydrants within 1,000' of a target building. When the credit for HD exceeds NFF, it no longer affects available credits.		
604	<i>Review of Needed Fire Flow Duration,</i>			
611-A	<i>Review of Supply Works Minimum Storage,</i>			
611-B	<i>Review of Hydrant Delivery Rate,</i>			
611-C	<i>Review of Emergency Supply,</i>			
611-D	<i>Review of Suction Supply, Review of Fire Departments Supply,</i>			
614	<i>Review of Target Building Hydrant Distribution.</i>			
621 - Hydrant Size, Type, and Installation				3
621	<i>Review of Hydrant Line Size, Review of Hydrant Type, Review of Hydrant Installation, Including Installation of Dry Hydrants.</i>	(The following assumes >=6" Mains): Changing a Class B hydrant to a Class A hydrant (see type & Installation chart) will result in a 0.0075 point increase in Section 621. Changing a Class C hydrant to a Class A hydrant will result in a 0.0225 point increase in Section 621.		
631 - Inspection and Hydrant Fire Flow of Hydrants				7
630-A	<i>Review of Frequency of Inspection of Hydrant, Review of Frequency of Inspection of Dry Hydrant, Review of Frequency of Testing of Hydrants</i>	57.14%	4	
630-B	<i>Fire Flow testing of hydrants</i>	42.86%	3	

Community Risk Reduction

Total: 5.5

Section	Description	% of Maximum Section Points	Max Credit by Item	Max Points
1020 - Fire Prevention Code and Enforcement				2.2
1021	Review of Code Adoption Dates,	25.00%	0.550	
1022	Review of Fire Prevention Staffing,	20.00%	0.440	
1023-A	Review of Frequency of Fire Prevention Inspections,			
	Review of Fire Prevention Inspectors,			
	Review of Fire Prevention Inspector Certification and Training,	7.50%	0.165	
1023-B	Review of Fire Prevention Inspectors Continuing Education.	7.50%	0.165	
1024-A	Review of Plan Review,	15.000%	0.330	
1024-B	Review of Certificates of Occupancy,	10.00%	0.220	
1024-C	Review of Quality Assurance Program for Enforcement and Inspection Programs,	2.50%	0.055	
1024-D	Review of Code Compliance Follow-Up,	2.50%	0.055	
1024-E	Review of Inspections of Private Fire Protection Equipment,	2.50%	0.055	
1024-F	Review of Fire Preventions Ordinances, and	5.00%	0.110	
1024-G	Coordination with Fire Department Training and Pre-Incident Planning Program.	2.50%	0.055	
1030 - Public Safety Education				2.2
1031-A	Review of Public Safety Educators Qualifications and	12.50%	0.275	
1031-B	Continuing Training,	12.50%	0.275	
1032-A	Review of Fire Safety Education Course, Review of Fire Safety Education, Review of Residential Fire Safety Programs	25%	0.550	
1032-B1	Review of Population Reached by Certified Educators,	12.50%	0.275	
1032-B2	Review of Fire Safety in Schools, Fire Drills (Private, Public, Early Childhood Education through Grade 12),	12.50%	0.275	
1032-C	Review of Juvenile Fire Setters Intervention,	12.50%	0.275	
1032-D	Review of Fire Safety Education for Occupancies Having Large Loss Potential, or Hazardous Conditions.	12.50%	0.275	
1040 - Fire Investigation				
1041-A	Review of Fire Investigation Organization and Staffing,	20%	0.22	
1041-B	Review of Fire Investigator	20%	0.22	
1042-A	Certification,	15.00%	0.165	
1042-B	Review of Fire Investigator Continual Education Training,	15.00%	0.165	
1043	Review of Use of LIFRS.	30%	0.33	

Engine Company Equipment Relative Points
600

Equipment	% of Total Engine Inventory Points	Relative points to Engine Co.	Relative points to Item 513 (assumes 100 % response and 1NE)
Water Tank (Gals) - 300 gal or larger / 1 point per 10 gallons	5.00%	30	0.30
15' Soft Suction or 20' Hard Suction	2.00%	12	0.12
1-½ or 1-¾", or 2" Pre-Connectected	4.00%	24	0.24
Master Stream Appliance (1,000 gpm)	16.67%	100	1.00
2-½" Playpipe w/Shutoff and 1", 1- ¹ / ₈ " & 1-¼" Tips	3.33%	20	0.20
Combination Nozzle With Shutoff	1-½ or 1-¾"	20	0.10 each (2 Required)
	2-½"	30	0.30
SCBA (30 Minuted Minimum)	16.00%	96	0.24 each (4 Required)
Spare Cylinders Carried	4.00%	24	0.06 each (4 Required)
Salvage Covers (Minimum 12'x14')	0.67%	4	0.02 each (2 Required)
Hand Lights	0.67%	4	0.02 each (2 Required)
Hose Clamp	0.67%	4	0.04
Hydrant Hose Gate (2-½")	0.67%	4	0.04
Gated Wye (2-½" x 1-½" x 1-½")	0.67%	4	0.04
Radios	Radios - Mounted	5.33%	32
	Radios - Portable	2.67%	16
24' or Longer Extension	2.67%	16	0.16
12' to 16' Roof	1.67%	10	0.10
Hose Test Interval (years)	8.33%	50	0.50
Pump	16.67%	100	1.00

Service Company Equipment Relative Points
356

Equipment	% of Total Service Inventory Points	Relative points to Service Co.	Relative points to Item 549 (assumes 100 % response and 1NS)
SCBA (30-Minute Minimum)	26.97%	96	0.27 each (4 Required)
Spare Cylinders (Carried)	6.74%	24	0.0675 each (4 Required)
Salvage Covers (Minimum 12'x14')	3.37%	12	0.02167 each (6 Required)
Electric Generator (Kilowatts)	7.02%	25	0.28
Portable Flood Lights (500 Watt)	3.37%	12	0.02167 each (3 Required)
Smoke Ejector (5,000 cfm)	5.62%	20	0.22
Portable Thermal Cutting Unit	5.62%	20	0.22
Power Saw	5.62%	20	0.22
Hand Lights	2.25%	8	0.0225 each (4 Required)
Pike Poles	3' - 4'	1.12%	4
	6' or Longer	2.25%	8
Radios	Mounted	8.99%	32
	Portable	4.49%	16
24' or Longer Extension	7.02%	25	0.28
14' or Longer Combination	1.40%	5	0.06
16' Roof or Longer	7.02%	25	0.28
10' or Longer Collapsible	1.12%	4	0.04

Equipment	% of Total Ladder Inventory Points	Relative points to Ladder Co.	Relative points to Item 549 (assumes 100 % response and 1NL)
SCBA (30-Minute Minimum)	12.44%	96	0.27 each (4 Required)
Spare Cylinders (Carried)	3.11%	24	0.0675 each (4 Required)
Salvage Covers (Minimum 12'x14')	1.55%	12	0.02167 each (6 Required)
Electric Generator (Kilowatts)	3.24%	25	0.28
Portable Flood Lights (500 Watt)	1.55%	12	0.02167 each (3 Required)
Smoke Ejector (5,000 cfm)	2.59%	20	0.22
Portable Thermal Cutting Unit	2.59%	20	0.22
Power Saw	2.59%	20	0.22
Hand Lights	1.04%	8	0.0225 each (4 Required)
Pike Poles	3' - 4'	0.52%	0.02 each (2 Required)
	6' or Longer	1.04%	0.0225 each (4 Required)
Radios	Mounted	4.15%	0.36
	Portable	2.07%	0.18
24' or Longer Extension	3.24%	25	0.28
14' or Longer Combination	0.65%	5	0.06
16' Roof or longer	3.24%	25	0.28
10' or Longer Collapsible	0.52%	4	0.04
Additional Equipment for Aerial Apparatus			
35' or Longer Extension	3.24%	25	0.13
16' or Longer Roof	3.24%	25	0.13
Elevated Stream Device	12.95%	100	0.52
Large Spray Nozzle (Min 1,000gpm)	2.07%	16	0.08
Aerial Ladder or Elevating Platform	25.91%	200	1.04
AL/EP Test Interval (years)	6.48%	50	0.26