

*The City
Of
Hardeeville
Fire Department*



Firefighter
Physical
Ability Assessment

Revised May 1st, 2013

FIREFIGHTER PHYSICAL ABILITY ASSESSMENT

Introduction

The City of Hardeeville is proud of its heritage of hiring the best and most competent individuals. This is even more so when it comes to hiring personnel to fill the role of firefighter. Firefighters are a key element in the City's ability to serve its citizens. In order to accomplish this, the City must assess its firefighter candidates to insure that they are physically able to do the job of a firefighter, prior to them coming to work. The Firefighter Physical Ability Assessment (FPAA) is designed for that purpose. The FPAA is designed to simulate fire department activities that are unique and specific to The City of Hardeeville. The FPAA is explained later in this document. Prior to learning about the actual FPAA, the City feels it prudent to discuss firefighter physical fitness and to offer some suggestions on how to prepare and what to expect in the FPAA.

Regardless of an individual's level of fitness, a firefighter should be in good health before beginning any physical training program. Preparation for the Firefighter Physical Ability Assessment (FPAA) can best be conducted with a physical training program that emphasizes cardio respiratory (heart/lung) fitness, muscular strength, and endurance. It is especially important that small-framed individuals and individuals whose current jobs do not require physical exertion prepare more conscientiously for the assessment. Most people can improve their level of physical fitness through an intensive training program that includes running for cardio respiratory fitness and weight lifting to develop muscular strength. **No one should begin a physical fitness program or regimen without first consulting with a physician.**

The Firefighter selection process is very competitive and the FPAA is only one of several steps in the selection process. Please take the time to thoroughly prepare for the FPAA. This information is provided to help you better prepare for the FPAA by becoming familiar with the assessment events. The City of Hardeeville does not guarantee that use of the Preparation Tips assures that you will pass the FPAA.

Cardio Respiratory Fitness

Cardio respiratory fitness is the ability of the heart to deliver oxygen to the muscles and other tissues. This is called aerobic power. Simply stated, the ability to perform exercise and/or physical work is directly dependent upon how well the body delivers oxygen to the working muscles. A physically fit person will be able to deliver large amounts of oxygen to the muscles and therefore be capable of prolonged muscular exercise (e.g., fighting fires). In comparison, an out-of-shape individual will not be capable of delivering adequate amounts of oxygen to the muscles, and therefore will fatigue quickly and be forced to stop working much sooner.

Muscular Strength

Strength can be defined as the ability to apply force. Since nearly all movements are performed against some resistance, a certain degree of muscular strength is needed to perform any activity. Firefighters must be able to perform activities against much greater resistance than the average individual. Therefore, the firefighter must have good muscular strength and endurance in order to effectively and safely handle the firefighting equipment and perform the duties required of a firefighter.

Body Conditioning

An excess accumulation of body fat is undesirable for a variety of reasons. From a medical standpoint, health problems exist in which obesity or high quantities of body fat is considered a risk factor, and for which a reduction in excess fat is desirable. From a physical performance standpoint, excess fat is like carrying dead weight and can only hinder physical performance. Since firefighting requires a near maximum effort from the heart and other related muscles, additional fat weight adds an extra burden to the cardiovascular system and thus, the overweight firefighter can be put in a potentially dangerous situation when fighting fires.

Developing Your Fitness

Running and weight training are two activities that can be used in a physical fitness training program to help develop cardio respiratory fitness and muscular strength. There are several ways to devise a physical fitness training program. One way is to join a gym or spa where a fitness specialist can help you design a training routine to fit your needs. Another method which is less expensive and can accomplish the same thing is by designing your own program. Remember that both methods work, but only if you train conscientiously, aggressively, and consistently. Your chances for passing will be greatly increased if adequate preparatory physical training has taken place. The FPAA does not measure a candidate's running, chin-up, push-up, or sit-up ability. The actual FPAA utilizes job specific simulated events.

Many of the job duties of a firefighter require the use of heavy firefighting protective clothing and self-contained breathing apparatus weighing approximately 30 pounds. You may want to consider wearing a backpack weighing approximately 30 pounds during practice sessions. You will also notice that there are suggested lifts and exercises listed that may help prepare the candidate for the FPAA. The suggested lifts and exercises are for reference purposes only. The City of Hardeeville makes no claim or guarantee that these lifts or exercises will fully prepare you to successfully complete the FPAA. The candidate should always have professional assistance in developing any weight or endurance training program.

Firefighter Physical Ability Assessment

The FPAA consists of a list of events which must be performed in a specified order. Each event must be completed correctly before moving on to the next event. The first event (Aerial Climb) is not timed but there are some time constraints on the test. To increase speed on this event would possibly put the candidate at risk of injury. The remaining events must be completed consecutively. The FPAA is considered a pass/fail evaluation so those that do not finish will be considered a fail.

Each event in the FPAA is explained later in this document. The candidate needs to review these events prior to taking the assessment in order to properly prepare. The individual events are as follows:

- Event #1 - Aerial Ladder Climb (Un-Timed)
- Event #2 - Hydrant Opening & Closing
- Event #3 - Fireman's Walk
- Event #4 - Simulated Ladder Raise
- Event #5 - Elliptical Evolution
- Event #6 - Hose Swap
- Event #7 - 150' Charged Hose Drag
- Event #8 - Weighted Sled Pull
- Event #9 - Victim Rescue - Mannequin Drag

Description of the Test:

The FPAA is composed of nine events that were designed to reflect on-the-job situations, which could be encountered by an entry level Firefighter. You will be required to wear personal protective equipment (PPE), safety or firefighting helmet and leather gloves, during each event. You will be issued this equipment prior to the start of the FPAA. If a candidate wishes to provide his/her own PPE, then it must be approved by both the FPAA Coordinator and Safety Officer prior to starting the FPAA. The use of personal PPE cannot provide the candidate an advantage over another candidate. If the Assessment Coordinator determines that an advantage exists, the personal PPE will be disallowed. Shirts, shorts or pants, and shoes can be worn as determined by the candidate. However, no clothing will be permitted that may be deemed offensive to fire department staff or the other candidates participating in the FPAA. The choice of shoes is to be determined by the candidate. While it is recommended that the candidate wear safety shoes, sneakers will be allowed. The City of Hardeeville assumes no responsibility for injuries from not wearing safety shoes.

The aerial ladder climb is an un-timed event. However, the candidate must not stop more than 3 times and not more than 30 seconds at any one given time. As soon as the candidate completes the ladder climb he/she will begin the timed events. The candidate will move through each event without stopping. The FPAA ends at the conclusion of the ninth event.

Events 2 through 9 must be completed properly. There are some minimum guidelines for each event. If the candidate does not comply with the minimum passing guidelines, he/she may immediately redo the event. Time will not be stopped in order to redo the event. The proctor will verbally indicate whenever time begins and ends.

The FPAA is scored on a Pass or Fail basis only. Times will be recorded and retained for record keeping purposes and to be added to the written and interview score.

Each event is listed by number and name followed by the event intent. There will be a short description of the event provided. The proctor's instructions are provided so that the candidate will know what instructions he/she will be receiving. There are suggested exercises and preparation tips included for the candidates use in preparing for the FPAA.

The assessment will be conducted by several persons. The Assessment Controller shall be responsible for the overall assessment process and shall make all final decisions and resolve any conflicts. The Assessment Safety Officer shall monitor the use of PPE and be responsible for the overall safety of the candidates.

The Medical Group shall be responsible for pre and post assessment evaluations of all candidates. Blood pressure, respirations, pulse, and body temperature will be recorded both before and after the candidate completes the FPAA.

A proctor shall be assigned to an individual candidate and follow the candidate through the FPAA. He/she will be responsible for insuring that all candidates are provided fair and equal treatment at each event in the assessment. The proctor shall also document performance records at all times.

Event #1 AERIAL LADDER CLIMB (un-timed):

Intent: Firefighters frequently work from ladders and other heights during fires, rescues, and service calls. This event assesses the candidate's muscular strength, balance, acrophobia (heights), and endurance as it relates to working from these types of locations.

Description: For this event, you must climb to the top of a ladder elevated to 70' directly above the ground set at a 60 degree angle. The candidate must climb the aerial to the top and place both hands on the top rung in order to successfully complete the climb. When instructed by the proctor, the candidate will descend the ladder. This is the first event of the FPAA and is not timed. The candidate will be required to wear helmet, gloves, and a safety belt. While sneakers are allowed, safety shoes are encouraged but not required.

Disqualification: The candidate will be disqualified and not allowed to continue the FPAA if he/she stops more than once or for more than 30 seconds while ascending the ladder, more than once or for more than 30 seconds while descending the ladder or for more than 30 seconds while at the top of the ladder. If the full length of the ladder is not climbed disqualification will also occur.

Practical Preparation Tips: To prepare for this event you may want to practice climbing a sturdy ladder to the height of a typical two-story house. Practice carefully and slowly climbing up and down the ladder. This event is not timed so do not rush, as with all activities, safety is the highest priority.

Proctor's Instructions: *You will climb to the top of the ladder and place both hands on the top rung of the ladder. When told to do so you should descend the ladder. While this event is not timed, you will not be allowed to stop more than once and for no more than 30 seconds while ascending the ladder. You will not be allowed to stop more than once at the top of the ladder and for no more than 30 seconds. And, you will not be allowed to stop more than once and for no more than 30 seconds while descending the ladder. If you exceed the stopping requirements you will be disqualified and not allowed to continue.*

Event #2 HYDRANT OPENING & CLOSING:

Intent: Firefighters must secure water supply before the extinguishment of a working fire or hazardous materials incident. This component tests arm and hand strength as necessary to open such a fire hydrant.

Description: You must use the hydrant wrench to open and close a functional hydrant by turning the wrench counterclockwise until the hydrant is fully open, then turning the wrench clockwise until the hydrant is completely closed.

Disqualification: The candidate will have to repeat the event if he/she doesn't completely open or close the hydrant.

Preparation Tips: To prepare for this event, you might practice threading and unthreading pipe fasteners with a large pipe wrench.

Proctor's Instructions: *You will use the hydrant wrench to fully open and close the hydrant. You will then proceed to the next event. Are there any questions? ... (Wait for an answer.) ... If there are no questions put your hands on the wrench. (Wait for the candidate to take the wrench.) Proceed.*

Event # 3 FIREMAN'S WALK:

Intent: Firefighters will often need to exit the responding engine in order to wrap and charge the hydrant. Immediately after the engine lays its hose to the scene and the firefighter charges the hydrant, they will need to perform a fireman's walk (fast paced walk) from the hydrant to the scene.

Description: The candidate will follow the pre-determined route; using the fireman's walk technique.

Disqualification: The candidate will have to repeat the event if at any time the candidate deviates from the course or jogs. This event is a fast paced walk; jogging or running will not be accepted.

Preparation Tips: The candidate might practice a fast paced walk with an air pack or weighted vest weighing approximately 30 pounds.

Proctor's Instructions: *You must maintain a fireman's walk along the designated course and at no time jog or run. Show the candidates the entire fireman's walk course so there is no misunderstandings.*

Event #4 Simulated Ladder Raise:

Intent: Firefighters often use ladders of various lengths for rescues and for entering or egress of structures. This event tests upper body strength, hand/eye coordination, endurance, and hand grip strength required to complete such raises. It simulates the raising of a 35' extension ladder $\frac{3}{4}$ of its working distance.

Description: The candidate will stand 5' from a weight bag weighting 50 pounds. The candidate will raise the bag to a height of 18' and then lower it back to the ground. The bag must be raised and lowered using a **hand-over-hand** method.

Disqualification: The candidate will have to repeat the event if both feet leave the ground at once, the weight bag falls uncontrollably, you lower the weight bag prior to being instructed to do so, or if you fail to use a hand-over-hand method. If you must repeat the event, time will not be stopped.

Preparation Tips: To prepare for this event, you might attach a 50 pound bag to one end of a rope threaded through a pulley or hung over a smooth round wooden or metal pole. Make sure the weighted bag moves freely. You can practice pulling the weighted bag up to the top of the pole or pulley and back down again always using a hand-over-hand movement throughout the process. Maintaining control of the bag and being able to raise it the full 18' is critical.

Proctor's Instructions: *You must raise the weight bag using a **hand over hand** method to its full height. You must maintain full control of the rope at all times. Once told to lower the bag, you will then lower the bag controlling the bag during the decent. At no time can you allow the rope to slip through your gloves and you must keep at least one foot in contact with the ground at all times. You will then proceed to the next event.*

Event #5 Elliptical Evolution:

Intent: Firefighters require a considerable amount of cardiorespiratory endurance during their functions as a firefighter. This evolution will evaluate the candidate's ability to maintain a certain amount of cardiorespiratory output for a prescribed amount of time.

Description: The candidate will mount the elliptical, wearing the required PPE, placing one foot in each of the foot pedals and one hand on each of the moving handles. The candidate will then begin to walk on the elliptical keeping their feet on the pedals and their hands on the moving handles. The candidate will then proceed to step for a total of 400 steps at a resistance of three (3). The candidate can proceed as fast or slow as they prefer until reaching 400 total steps.

Disqualification: If the candidate's hands or feet leave their designated locations you will get one warning, if the candidate's hands or feet leave their designated areas a second time you will be disqualified. Failing to reach the total 400 steps is a disqualification.

Preparation Tips: To prepare for this event, the candidate might wear a weighted vest and use an elliptical at your local gym, or find a place with a slight incline and walk fast paced up the incline for several sessions. Another suggestion would be to walk bleachers at your local high school.

Proctor's Instructions: Mount the elliptical keeping hands and feet in shown locations. Start stepping until you reach the required total steps. Keeping your hands and feet in the locations shown.

Event #6 Hose Swap:

Intent: Firefighters often are required to deploy several sections of hose lines during fire ground operations. This event will test the candidate's ability to safely and effectively move rolled sections of fire hose from one location to another. This event will also test the candidate's upper body muscular endurance.

Description: Three (3) fifty (50) foot sections of three (3) inch hose (in a straight roll) will be placed in an area approximately ten (10) feet by five (5) feet in dimension. A second area, with the same dimensions, containing three (3) more sections of fifty (50) foot hose will be located fifty (50) feet away. The candidate will swap the hose from area #1 with the hose in area #2. Once finished, each area shall have three (3) sections of hose in it.

Disqualification: The candidate will have to repeat the event if all three (3) hoses are not properly swapped from area #1 to area #2.

Preparation Tips: To prepare for this event, you might want to measure out a distance of fifty (50) feet and practice walking approximately fifty (50) pounds from one side to the other.

Proctor's Instructions: Starting at area #1, you will swap all the sections of hose from this area to area #2 and all the sections of hose from area #2 will be placed in area #1. You must swap all three (3) sections from one area to the other. You can use any method you want as long as all three (3) sections are SWAPPED from one area to the other.

Event #7 CHARGED HOSE DRAG:

Intent: Firefighters routinely advance both charged and uncharged hose lines about the fire scene. This event tests leg and lower body strength, balance, and endurance when advancing a charged 1¾" hose line.

Description: The candidate will pick up the nozzle end of a charged 200' long, 1¾" line and place it over either shoulder. When told to begin, he/she will advance the line. The line is charged to 100 pounds of pressure and the nozzle is taped closed. You will start from a predetermined starting point and then precede 150' until you cross the finish line. The candidate will then place the nozzle on the ground where indicated.

Disqualification: The candidate must complete the entire distance of the 150' drag and will have to repeat the event if he/she **drops** the nozzle after crossing the finish line. If the candidate falls prior to crossing the finish line, he/she will be allowed to continue but time will not be stopped. At no time shall the nozzle touch the ground before the finish line except in the event of a fall.

Preparation Tips: To prepare for this event, you might tie a 20-foot rope to a bag or object weighing approximately 200 pounds. You can then throw the end of the rope over your shoulder, grasp it, and drag the weight a distance of 150 feet. Keep in mind that the weight of the charged line increases as you approach the finish line due to increased friction which will not be the case when dragging a bag. You may want to progressively increase the weight of the training bag. This event will be one of the most physically taxing events so be sure to properly prepare yourself.

Proctor's Instructions: *You will need to place the nozzle and hose line over which ever shoulder is comfortable. Drag the hose line in a straight line. When you step over the finish line and I say stop, you may **set the nozzle down** and proceed to the next event. **Do not drop the nozzle.***

Event #8 WEIGHTED SLED PULL

Intent: Firefighters require a considerable amount of upper body strength to perform our duties. The sled pull is a true functional exercise that really exhausts the upper body, focusing on the back, shoulder and biceps, whilst developing a crushing grip. This test will evaluate your upper body strength and endurance.

Description: The candidate will stand or sit in an area approximately five (5) foot by five (5) foot marked on the field. The candidate will then pull a rope attached to the weighted pull sled fifty (50) feet into the area the candidate is located.

Disqualification: At no time during this event is the candidate allowed to leave the marked area. Failure to get the sled in the area where you are is automatic failure.

Preparation Tips: You might attach a considerable amount of weight to a rope and practice pulling the rope the required distance of fifty (50) feet.

Proctor's Instructions: Stand or sit in the marked area. Pick up the rope and begin to pull the sled toward you. Continue to pull the rope until the sled is inside the marked area with you. At no time can you leave the marked area during this event.

Event #9 VICTIM RESCUE – MANNEQUIN DRAG:

Intent: The most important task a firefighter may face is having to rescue an unconscious person from a smoky environment. This event tests the total bodies' muscular strength, power, and stamina required to drag an unconscious victim from inside a structure.

Description: You must drag a mannequin weighing approximately 185 pounds a distance of 100'. The mannequin will be in position at the start of the exercise. You must place your arms under the arms of the mannequin and lock your hands together around the mannequin's chest. The mannequin will be dragged in a straight line. Once the proctor advises you have passed the finish line set the mannequin down being careful not to injure yourself.

Disqualification: If the candidate drops or sets the mannequin down before reaching the finish line, he/she will be able to pick the mannequin up and continue but time will not be stopped. The proctor will not be allowed to assist in picking up the mannequin. Failure to reach the finish line is an automatic disqualification.

Preparation Tips: To prepare for this event, you might want to practice dragging a duffel bag weighing 185 pounds for short distances working your way up to a distance of at least 100'.

Proctor's Instructions: *Get behind the mannequin, squat down, and place your arms under the mannequin's arms. Reach across the chest and lock your hands together. When I say begin, stand up, walk backwards, and drag the mannequin in a straight line. When I tell you to stop, set the mannequin down being careful not to drop the mannequin on your feet or legs. If you drop the mannequin before the finish line, you may pick it up and continue but time will not stop.*

Scoring:

The proctor will then give your score sheet to an administrative support person. The support person will advise the candidate if he/she has successfully completed the FPAA.

The FPAA is scored on a Pass/Fail basis. This FPAA is a consecutively timed event with the exception of the aerial ladder climb. Any candidate that completes the course and successfully completes the aerial ladder climb will pass the FPAA and move on to the next phase of the hiring process.

The FPAA coordinator shall address and/or arbitrate any concerns or discrepancies as may be presented. The candidate must see the FPAA coordinator if he/she has any concerns. The coordinator shall confer with the proctor before making a final decision. **Remember that at all times character and professionalism will be monitored very carefully at all stages of testing.**

