

**MANUAL**

**FOR**

**FIREFIGHTER**

**and**

**FIREFIGHTER/PARAMEDIC**

**PHYSICAL**

**ABILITY TEST**

**Dutchess County Department of Human Resources**  
**(Revised January 2016)**

# **Firefighter Physical Ability Test**

## **SECTION 1: SUMMARY OF PHYSICAL ABILITY TEST**

### **A. General Description**

The Firefighter (and Firefighter/Paramedic) Physical Ability Test (FPAT) is designed to assess a candidate's capacity to perform the tasks ordinarily performed by a firefighter while on the job. This is accomplished by requiring the candidate to perform a series of events that both simulate firefighter activities and depend on the physical abilities required to perform the firefighter's job. These abilities include cardiovascular fitness, muscle strength, muscular endurance and flexibility. This test is physically demanding and requires you to be physically fit to be successful.

### **B. Preparation for the FPAT**

Candidates are advised of the following:

- Wear appropriate clothing for physically demanding work. Wear loose long pants, such as a warm-up suit or sweatpants.
- Wear sneakers or rubber soled shoes.
- You may wear kneepads. However, they WILL NOT be provided for you. You must bring your own kneepads if you want to wear them.
- Candidates may not use any extraneous piece of equipment (e.g. harnesses, straps) that they may bring with them to help perform an event. They may only use the material and equipment provided for the test event. However, personal safety appliances (e.g. knee brace, ankle brace) will be allowed, but they WILL NOT be provided.

Because the FPAT is physically demanding, it is suggested that you refrain from eating at least two hours before the examination. However, you are urged to drink plenty of fluids beginning the day before the test and continuing up until the time you are tested. Avoid drinking caffeinated beverages. You are also advised to stretch and warm up before participating in this test.

### **C. Arrival**

Your physical ability test will be given at the Dutchess County Emergency Response training facility at 392 Creek Road in Hyde Park near the intersection of Dorsey Lane. You are to arrive on the date and time designated on your notice from the Dutchess County Department of Human Resources with the supplied paperwork (FORMS 1A and 1B) and a driver's license or other approved picture identification.

### **C. Arrival (continued)**

Check-in and order of testing will be given on a first come - first serve basis with the approximate time of your individual test given to you at that time. You are encouraged to stay and wait for your designated time, but may leave with the understanding that a failure to appear at the designated time for your individual test will be noted as a failure with no chance to retake the test on this rotation of certification.

### **D. Check-In**

At the time of check-in, you must present the notification letter which was mailed to you and your picture identification. You will be given a Candidate Score Sheet that you must fill out prior to taking the test. You will also be required to fill out an emergency notification card as well as a statement of health and a waiver form.

### **E. Getting Started**

You will be assigned an individual who will be with you throughout the entire test noting your progression on the events. This individual will read you instructions for each event prior to the task. With the exception of the first task, this will be done during your walk from one event to the next.

As soon as you indicate your readiness to the evaluator, he/she will start the stopwatch. Two stopwatches will accompany you, one being the official time and the second being a backup in the event of failure of the official time stopwatch. If you have not completed the entire test at the designated maximum time, the evaluator will stop you, the test shall be terminated and you shall receive a failure for the test.

### **F. General Information**

All of these events require cardiovascular fitness, adequate muscle strength, endurance and flexibility.

There are two distinct areas to be aware of to prepare for the physical examination process:

1. Knowledge of the events you will be asked to perform. (Section 2)
2. Knowing how to perform the activities and having some experience performing each of the activities. (Section 2)

## **SECTION 2: THE EVENTS AND SEQUENCE**

The Firefighter Physical Ability Test consists of eight events that require you to perform simulations of activities that are part of the firefighter's job. As indicated on the previous page, these events require cardiovascular fitness, muscle strength, muscular endurance and flexibility. Each event will be timed. During all events you will wear a 50 pound weighted vest that approximates the weight of the clothing, equipment and breathing apparatus that a firefighter normally wears during these types of activities. In addition, you will wear a helmet with a chin strap and gloves throughout the entire test. Intentional removal of any piece of equipment will constitute a failure. If equipment becomes dislodged or accidentally removed during the test, you will need to stop and replace the equipment with no assistance. During the first event only, an additional 25 pounds will be added to simulate carrying a hose pack. The course path will be laid out from each station on the ground with a painted line. There is an 85 foot walk between each station, which constitutes a rest period. The events are described below. They will most likely be performed in the order listed.

**Please note that the specific weights, distances, etc. may vary slightly from what is described below.**

### **1. Stair Climb and Hose Raise**

#### **Purpose**

This is designed to simulate climbing stairs with turnout gear, an air pack and hose pack to a fire on the upper floors of a structure, then raising an additional hose in preparation for fire control and evaluating for fire extension to areas above the fire. This task evaluates aerobic capacity, lower body endurance and upper body strength. You should concentrate on aerobic exercises and strengthening the following muscle groups: quadriceps, hamstrings, glutes, calves, lower back, biceps, deltoids, triceps and forearms.

#### **Event**

You will start at the base of the tower and walk up to top floor (5). No running is allowed and all steps must be contacted. At top floor (5), you shall hoist a 2 ½" hose and 2 ½" nozzle (Rockwood) to the floor and bring the nozzle into the window and on the ground. You will then proceed to the roof to a marked area. You will then walk down the stairs to the base. At the base of the tower, the extra 25 pounds will be removed.

#### **Failures**

You may only use the handrail for balance while walking unless you come to a complete stop. Running is not permitted. Violations of either will result in a warning. Two warnings are permissible. After the third warning, the test shall be terminated and you will receive a failure for the test. If you lose control of the hose on the hoist, and it falls to the ground with the nozzle hitting, you will receive a failure for the test.

## **2. Hose Advance and Pull**

### **Purpose**

This event is to simulate a firefighter advancing an uncharged hose line around an obstacle to a position at a fire building and pulling the uncharged hose line to a position to prepare for extinguishment. This event evaluates your aerobic capacity, arm strength and handgrip, endurance, and lower body and upper back muscle strength. Training should concentrate on aerobic exercises and the following muscle groups: quadriceps, hamstrings, glutes, calves, lower back, biceps, deltoids, triceps, upper back and forearms.

### **Event**

You will grasp a 1½” nozzle (Rockwood) attached to 200’ of dry (not charged) 1¾” hose. You will place the hose line over your shoulder or across your chest. You are permitted to run during the hose drag. You will drag the hose 75’ to a pre-positioned drum, make a 90° turn, and continue an additional 25’. You will then stop within the established marked 7’ x 7’ box, drop to at least one knee and pull 50’ of hose, as indicated by a marked coupling, to yourself in the box.

### **Failures**

You must go around a positioned drum and follow the path designated on the ground. During hose pull, one knee must remain in contact with the ground and you must remain in the designated area. Violations of any will result in a warning. Two warnings are permissible. After the third warning, the test shall be terminated and you will receive a failure for the test.

## **3. Equipment Carry**

### **Purpose**

This event is designed to simulate the task of removing tools from a compartment and carrying them to the fire scene as well as carrying them back and placing them back on the fire apparatus. This event evaluates your aerobic capacity, arm strength and handgrip, endurance and upper body muscle strength. Training should concentrate on aerobic exercises and the following muscle groups: biceps, deltoids, triceps, upper back and forearms, trapezius, quadriceps, hamstrings and glutes.

### **Event**

You will remove 2 saws from a cabinet that is 48” off the ground, one at a time, and then place them on the ground. You will then pick both saws up, one in each hand, and carry them while walking 75’ around a cone, then back to the starting point. You will then return the saws to the ground and then pick each saw up, one at a time, and replace the saws in the designated space in the cabinet. You are allowed to stop and set the equipment on the ground to readjust your grip.

### **Failures**

If you drop either saw on the ground, the test shall be terminated and you will receive a failure for the test. Running during the test will result in a warning. The second warning constitutes a failure and the test shall be terminated and you will receive a failure for the test.

#### **4. Ladder Raise, Extension and Climb**

##### **Purpose**

This event is designed to simulate raising a ladder to a vertical position and extending it to a working height then climbing the ladder to the intended area. This event evaluates aerobic capacity, arm strength and handgrip, endurance, balance and upper and lower body muscle strength. Training should concentrate on aerobic exercises and the following muscle groups: biceps, deltoids, triceps, upper back and forearms, trapeziums, quadriceps, hamstrings and glutes.

##### **Event**

The candidate will walk to the top rung of the 24' aluminum extension ladder, lift the unhinged end and walk it up until it is stationary against the wall. This must be done in a hand-over-hand fashion, using each rung until the ladder is stationary against the wall. You must not use the ladder rails to raise the ladder. Immediately proceed to the pre-positioned and secured 24' extension ladder and extend the fly section hand-over-hand until it hits the stop. Then, lower the fly section hand-over-hand in a controlled fashion to the starting position.

##### **Failures**

A candidate's failure to contact all rungs in hand-over-hand fashion will result in a warning. A second warning will constitute a failure, the test shall be terminated and the candidate receives a failure for the test. If you allow the ladder to fall to the ground or the safety lanyard is activated because you released your grip on the ladder, the test shall be terminated and the candidate receives a failure for the test. If you do not maintain control of the ladder in a hand-over-hand manner, or let the rope lanyard slip in an uncontrolled manner, the test shall be terminated and the candidate receives a failure for the test. If a candidate loses control of the ladder and drops it to the ground or bottom stop during the lift or fly raise, the test shall be terminated and the candidate receives a failure for the test.

#### **5. Forcible Entry Simulation**

##### **Purpose**

This event simulates the force needed to force entry on a locked door or to breach a wall. This event evaluates aerobic capacity, arm strength and handgrip, upper body muscle strength and endurance. Training should concentrate on aerobic exercises and the following muscle groups: quadriceps, glutes, triceps, upper back and forearms, and trapeziums.

##### **Event**

You will use a 10 lb. sledgehammer and strike a weighted tire in a horizontal direction on a 35 inch high table. Tire is to move from start position to end position as marked. You then place the sledgehammer on the ground.

##### **Failures**

Failure to maintain control of sledgehammer and release from both hands and throwing down of the sledgehammer upon completion will constitute a failure, the test shall be terminated and you will receive a failure for the test.

## **6. Search**

### **Purpose**

This event simulates the task of searching for a victim in a darkened environment as well as the challenge of moving around obstacles. This event evaluates aerobic capacity, upper body muscle strength, endurance, balance, agility, and evaluates a phobia of confined and darkened spaces. Training should concentrate on aerobic exercises and the following muscle groups: quadriceps, triceps, abdominal, shoulder, chest and lower back.

### **Event**

You will crawl on your hands and knees through a darkened tunnel maze. At a number of locations in the tunnel you will navigate around, over and under obstacles. The maze will make two 90° turns during the course of the event. In addition, you will crawl through narrowed spaces where the dimensions of the tunnel are reduced. The course is darkened, and an evaluator will walk alongside of you through the course. You cannot receive any assistance through the maze. Any request for assistance must be made by stating that you need help and it is understood that you are terminating the test.

### **Failures**

A request for assistance or help, or if you stop the test, will result in the test being terminated and you will receive a failure for the test. If you panic, and in the opinion of the evaluator you need assistance, this will be considered a request for assistance. The test shall be terminated and you will receive a failure for the test.

## **7. Rescue**

### **Purpose**

This event simulates the removal of an injured victim or partner from a fire scene. This event evaluates aerobic capacity, upper and lower body muscle strength, endurance and grip strength. Training should concentrate on aerobic exercises and the following muscle groups: quadriceps, triceps, abdominal, shoulder, chest, lower back, trapeziums, hamstrings, rotators, latissimus, biceps, forearm and handgrip.

### **Event**

You will grasp a 165 lb. mannequin by the handle(s) of the harness attached to the mannequin by either one or both handles and drag it 35' to a pre-positioned drum, make a 180° turn around the drum, and continue an additional 35' across the finish line. The mannequin is permitted to touch the drum and you are allowed to stop, and if needed, adjust your grip.

### **Failures**

Grasping or resting on the barrel or drum will result in a warning. The second warning constitutes a failure, the test shall be terminated and you will receive a failure for the test.

## **8. Ceiling Push and Pull**

### **Purpose**

This event simulates the task of a firefighter breaching and pulling ceilings looking for hidden fire. This event evaluates aerobic capacity, upper and lower body muscle strength, endurance and grip strength. Training should concentrate on aerobic exercises and the following muscle groups: quadriceps, triceps, abdominal, shoulder, chest, lower back, trapeziums, hamstrings, rotators, latisimus, deltoids, biceps, forearm and handgrip.

### **Event**

You will remove the provided pike pole from the bracket, stand within the established boundary, and place the tip of the pole on the painted area of the hinged door in the ceiling. You will fully push up the hinged door in the ceiling with the pike pole three times. You then proceed to hook the pike pole to the ceiling device and pull the pole down five times. Each repetition consists of three pushes and five pulls. You will repeat the process four times.

### **Failures**

Failure to complete proper set sequence will result in evaluator asking you to complete appropriate set. A warning is given for a pike pole dropped to the ground. A dropped pike pole must be picked up without assistance. The second warning constitutes a failure, the test shall be terminated and you will receive a failure for the test. Feet must remain in marked boundary lines. Failure to have feet remain in boundary lines will result in a warning. The second warning constitutes failure, the test shall be terminated and you will receive a failure for the test.

The event and the total test time ends when the applicant completes the final pull stroke repetition or if the time established is exceeded.

### **Completion of Test**

When you are finished with the last event or if the designated overall time is exceeded, the test will conclude and results recorded on your Candidate Score Sheet. You will not be given the results at this time. You and your evaluator are to proceed to the rehabilitation area. Papers will be turned in to the Dutchess County Department of Human Resources Test Administrator at the check-in and check-out area. At the rehabilitation area, you will be evaluated for adequate rehabilitation, and your vital signs will be monitored. When you are ready to leave, you will report to the check-out area where you will be given your results and be required to sign out.



**FIREFIGHTER PHYSICAL ABILITY TEST (FPAT)**  
**PHYSICAL ACTIVITY READINESS QUESTIONNAIRE**

This questionnaire must be completed prior to presenting yourself to a physician for a medical clearance. You will not be authorized to participate in FPAT without the completion and presentation of forms 1A and 1B.

The FPAT is a very strenuous physical screening. To optimize your safety during both the Firefighter Physical Ability Test and exercise training in preparation for the FPAT, please use common sense when you answer these questions. Please read the following questions carefully and answer each one honestly.

**Physical Activity Readiness Questionnaire (PAR-Q)<sup>1</sup>**

1.	Has a doctor ever said you have a heart condition and recommended only medically supervised physical activity?	YES	NO
2.	Do you have chest pain brought on by physical activity?	YES	NO
3.	Have you developed chest pains within the last month?	YES	NO
4.	Do you tend to lose consciousness or fall as a result of dizziness?	YES	NO
5.	Do you have a bone or joint problem that could be aggravated by the proposed physical activity?	YES	NO
6.	Is your doctor currently prescribing medication for your blood pressure or a heart condition?	YES	NO
7.	Are you or have you been pregnant within the last six (6) months?	YES	NO
8.	Are you aware, through your own experience or a doctors' advice, of any other physical reason why you should avoid exercising without medical approval?	YES	NO

I have reviewed the Physical Activity Readiness Questionnaire and understand that the Firefighter Physical Ability Test requires cardiovascular fitness, muscle strength, muscular endurance and flexibility.

\_\_\_\_\_  
Candidate Name (Print in Full)

\_\_\_\_\_  
Candidate Social Security #

\_\_\_\_\_  
Candidate Signature

<sup>1</sup> From: Thomas, S.J. Reading, and R.J. Shepard. Revision of the Physical Activity Readiness Questionnaire (PAR-Q). Canadian Journal of Sport Science 17:338-45, 1992.

**FIREFIGHTER PHYSICAL ABILITY TEST (FPAT)**  
**MEDICAL OPINION – CLEARANCE**

Candidate Name \_\_\_\_\_ Social Security # \_\_\_\_\_

In your professional opinion, do you consider \_\_\_\_\_ to be healthy enough to take the Firefighter Physical Ability Test?

**YES**       **NO**

Applicant's Resting Heart Rate: \_\_\_\_\_

Applicant's Resting Blood Pressure: \_\_\_\_\_

Comments:

---

---

---

---

---

---

---

---

---

---

Physician's Name \_\_\_\_\_ Date \_\_\_\_\_

Physician's Signature \_\_\_\_\_

Address: \_\_\_\_\_

Please note: The applicant must present this authorization at the FPAT site. They will NOT be cleared for testing without it. Any costs incurred in your examination of this individual or the completion of this form is the sole responsibility of the applicant.