



## **Pacific County Fire District #1 Physical Ability Test**

This Physical Ability Test (PAT) was developed to identify members and candidates who are physically able to perform essential job tasks at fire scenes. The PAT consists of eight separate events requiring you to progress along a predetermined path from event to event in a continuous manner.

This is a pass/fail test based on a maximum total time of 10 minutes.

In these events, you wear a 50-pound vest to simulate the weight of a self-contained breathing apparatus and firefighter PPE.

Throughout all events, you must wear long pants, hard hat with chin strap, work gloves and footwear with no open heel or toe. Watches and loose or restrictive jewelry are not permitted.

No running is allowed between events.

## **Event 1 Stair Climb**

### **Equipment**

This event uses a StepMill stair climbing machine. Additional steps are placed at the base of the machine to assist you in mounting the StepMill.

### **Purpose of Evaluation**

This event is designed to simulate the critical tasks of climbing stairs in full protective clothing. This event challenges your aerobic capacity, lower body muscular endurance and ability to balance. This event affects your aerobic energy system as well as the following muscle groups: quadriceps, hamstrings, glutes, calves, and lower back stabilizers.

### **Event**

Prior to the initiation of the timed CPAT, there is a 20-second warm-up on the StepMill at a set stepping rate of 53 steps per minute. During this warm-up period, you are permitted to dismount, grasp the rail or hold the wall to establish balance and cadence. If you fall or dismount the StepMill during the 20-second warm-up period, you must remount the StepMill and restart the entire 20-second warm-up period. You are allowed to restart the warm-up period twice. The timing of the test begins at the end of this warm-up period when the proctor calls the word "START." There is no break in time between the warm-up period and the actual timing of the test. For the test, you must walk on the StepMill at a set stepping rate of 60 steps per minute for 3 minutes. This concludes the event. Walk along the established walkway to the next event.

### **Failures**

If you fall or dismount the StepMill three times during the warm-up period, you fail the test. If you fall, grasp any of the test equipment or dismount the StepMill after the timed CPAT begins, the test is concluded and you fail the test. During the test, you are permitted to touch the wall or handrail for balance only momentarily. However, if the wall or handrail is grasped or touched for an extended period of time, or if the wall or handrail is used for weight bearing, you are warned. Only two warnings are given. The third infraction constitutes a failure, the test time is concluded and you fail the test.

## **Event 2 Hose Drag**

### **Equipment**

This event uses an uncharged fire hose with a nozzle. The hose line is marked 8 feet past the coupling at the nozzle to indicate the maximum amount of hose you are permitted to drape across your shoulder or chest. The hose line is also marked at 50 feet past the coupling at the nozzle to indicate the amount of hose line that you must pull into a marked boundary box before completing the test.

### **Purpose of Evaluation**

This event is designed to simulate the critical tasks of dragging an uncharged hose line from the fire apparatus to the fire occupancy and pulling an uncharged hose line around obstacles while remaining stationary. This event challenges your aerobic capacity, lower body muscular strength and endurance, upper back muscular strength and endurance, grip strength and endurance, and anaerobic endurance. This event affects your aerobic and anaerobic energy systems as well as the following muscle groups: quadriceps, hamstrings, glutes, calves, lower back stabilizers, biceps, deltoids, upper back, and muscles of the forearm and hand (grip).

### **Event**

For this event, you must grasp a nozzle attached to 150 feet of 1 ½ inch hose. Place the hose line over your shoulder or across your chest, not exceeding the 8-foot mark. You are permitted to run during the hose drag. Drag the hose 65 feet to a pre-positioned drum, make a 90° turn around the drum, and continue an additional 25 feet. Stop within the marked 3 foot x 4 foot mat, drop to at least one knee and pull the hose line until the hose line's 50-foot mark crosses the finish line. During the hose pull, you must keep at least one knee in contact with the ground and your knee(s) must remain within the lines of the mat. This concludes the event. Walk along within the established walkway to the next event.

### **Failures**

During the hose drag, if you fail to go around the drum the test time is concluded and you fail the test. During the hose pull, you are warned if at least one knee is not kept in contact with the ground. The second infraction constitutes a failure, the test time is concluded and you fail the test. During hose pull, you are warned if your knees go outside the marked boundary line. The second infraction constitutes a failure, the test time is concluded and you fail the test.

## **Event 3 Equipment Carry**

### **Equipment**

This event uses two 30# dumbbells and a shelf replicating a storage cabinet on a fire apparatus.

### **Purpose of Evaluation**

This event is designed to simulate the critical tasks of removing power tools from a fire apparatus, carrying them to the emergency scene and returning the equipment to the fire apparatus. This event challenges your aerobic capacity, upper body muscular strength and endurance, lower body muscular endurance, grip endurance, and balance. This event affects your aerobic energy system as well as the following muscle groups: biceps, deltoids, upper back, trapezius, muscles of the forearm and hand (grip), glutes, quadriceps, and hamstrings.

### **Event**

For this event, you must remove the two dumbbells from the shelf, one at a time, and place them on the ground. Pick up both dumbbells, one in each hand, and carry them while walking 60 feet around the cone, then back to the starting point. You are permitted to place the dumbbells on the ground and adjust your grip. Upon return to the shelf, place the dumbbells on the ground, pick up one dumbbell at a time, and replace the it on the shelf. This concludes the event. Walk along the established walkway to the next event.

### **Failures**

If you drop either dumbbell on the ground during the carry, the test time is concluded and you fail the test. You receive one warning for running. The second infraction constitutes a failure, the test time is concluded and you fail the test.

## **Event 4 Ladder Raise and Extension**

### **Equipment**

This event uses one 24-foot fire department extension ladder.

### **Purpose of Evaluation**

This event is designed to simulate the critical tasks of placing a ground ladder at a fire structure and extending the ladder to the roof or window. This event challenges your aerobic capacity, upper body muscular strength, lower body muscular strength, balance, grip strength, and anaerobic endurance. This event affects your aerobic and anaerobic energy systems as well as the following muscle groups: biceps, deltoids, upper back, trapezius, muscles of the forearm and hand (grip), glutes, quadriceps, and hamstrings.

### **Event**

For this event, you must walk to the top rung of the 24-foot aluminum extension ladder, lift the end from the ground, and walk it up until the ladder is vertical. An assistant will toe and hold the ladder in the upright position. Raising the ladder must be done in a hand over hand fashion, using each rung until the ladder is vertical. You must not use the ladder rails to raise the ladder. Once the ladder is in an upright position 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. Lower the ladder back to the starting position, resting on the ground, rung by rung. This concludes the event. Walk along the established walkway to the next event.

### **Failures**

If you miss any rung during the raise/lower, one warning is given. The second infraction constitutes a failure, the test time is concluded and you fail the test. If you allow the ladder to fall to the ground the test time is concluded and you fail the test. If you do not maintain control of the ladder in a hand over hand manner, or let the rope halyard slip in an uncontrolled manner, your test time is concluded and you fail the test.

## **Event 5 Forcible Entry Simulation**

### **Equipment**

This event uses a railroad tie and a 12-pound sledgehammer.

### **Purpose of Evaluation**

This event is designed to simulate the critical tasks of using force to breach a wall or roof. This event challenges your aerobic capacity, upper body muscular strength and endurance, lower body muscular strength and endurance, balance, grip strength and endurance, and anaerobic endurance. This event affects your aerobic and anaerobic energy systems as well as the following muscle groups: quadriceps, glutes, triceps, upper back, trapezius, and muscles of the forearm and hand (grip).

### **Event**

For this event you must use a 12 pound sledgehammer to strike a railroad tie. You are to strike the railroad tie 10 times with both left and right hands forward to equal 20 total strikes. With each strike, the sledgehammer must come back above the head of the candidate. Both hands must be used at all times and control of the sledge hammer must be maintained. With a strike that is made and brought above the head, the proctor will call out the number of the strike. After ten are completed with one side, the proctor will instruct the candidate to switch sides and continue. After the 20 strikes are completed the candidate will set down the sledge hammer and walk along the established walkway to the next station.

### **Failures**

One warning will be given for any loss of control of the sledgehammer. The second infraction will constitute a failure. Throwing the sledgehammer when complete will constitute an automatic failure. The test time is concluded and you fail the test.

## **Event 6 Search Simulation Crawl**

### **Equipment**

Two 12 foot lengths of tunnel.

### **Purpose of Evaluation**

This event is designed to simulate the critical task of searching for a fire victim. This event challenges your aerobic capacity, upper body muscular strength and endurance, agility, balance, anaerobic endurance, and kinesthetic awareness. This event affects your aerobic and anaerobic energy systems as well as the following muscle groups: muscles of the chest, shoulder, triceps, quadriceps, abdominals, and lower back.

### **Event**

For this event the candidate will crawl on hands and knees into the first tunnel. At the end of the first tunnel the candidate will exit, make the 180 degree on the carpet and continue through the second tunnel. After exiting the second tunnel, walk along the established walkway to the next event.

### **Failures**

Any deviation from the marked corridor will result in one warning. The second infraction constitutes a failure, the test time is concluded and you fail the test.

## **Event 7 Rescue**

### **Equipment**

This event uses an IAFF Rescue Randy dressed in bunker gear equipped with a hose strap to provide handholds.

### **Purpose of Evaluation**

This event is designed to simulate the critical task of removing a victim or injured partner from a fire scene. This event challenges your aerobic capacity, upper and lower body muscular strength and endurance, grip strength and endurance, and anaerobic endurance. This event affects your aerobic and anaerobic energy systems as well as the following muscle groups: quadriceps, hamstrings, glutes, abdominals, torso rotators, lower back stabilizers, trapezius, deltoids, latissimus dorsi, biceps, and muscles of the forearm and hand (grip).

### **Event**

For this event, you must grasp a 165-pound mannequin by the hose strap that is wrapped around the shoulders, drag it 25 feet to a pre-positioned cone, make a 180° turn around the traffic cone, and continue an additional 25 feet to the finish line. It is not permissible for the mannequin to touch the traffic cone. You are permitted to drop and release the mannequin and adjust your grip. The entire mannequin must be dragged until it crosses the marked finish line. This concludes the event. Walk along the established walkway to the next event.

### **Failures**

Not dragging the mannequin completely across the finish line will constitute a failure. Touching the traffic cone will result in a warning. The second infraction constitutes a failure, the test time is concluded and you fail the test.



## **Event 8 Ceiling Breach and Pull Simulation**

### **Equipment**

This event will use a pike pole attached to a line that has 40 pounds of resistance attached to it.

### **Purpose of the Evaluation**

This event is designed to simulate the critical task of breaching and pulling down a ceiling to check for fire extension. This event challenges your aerobic capacity, upper and lower body muscular strength and endurance, grip strength and endurance, and anaerobic endurance. This event affects your aerobic and anaerobic energy systems as well as the following muscle groups: quadriceps, hamstrings, glutes, abdominals, torso rotators, lower back stabilizers, deltoids, trapezius, triceps, biceps, and muscles of the forearm and hand (grip).

### **Event**

For this event you must grasp the provided pike pole with the left hand forward. Holding the pike pole the candidate will step back behind the marked lines and raise the weighted crate to the marked level. The candidate will then lower the crate in a controlled fashion so that it touches the top of the can. The candidate will repeat this 15 times with left hand forward, then switch to have the right hand forward and repeat 15 more times. When the crate touches the can on the last repetition the time will be stopped and the test is concluded. You will be guided to an area where you may sit and remove your weight vest.

### **Failures**

Failing to raise the crate to the marked level or failing to touch the can will result in a repeat of the repetition. Only repetitions that go above the marked line and come back to touch the can will be counted. Losing control of the pike pole or allowing the pike pole to slip in your hands will result in a warning. A second warning on losing control of the pike pole will constitute a failure, the test time is concluded and you fail the test.