Firefighter
Physical Ability Test

Candidate Orientation Guide

Mesquite Fire Department
Physical Ability Test Candidate Orientation Guide

This manual has been developed to introduce you to the Mesquite Firefighter Physical Ability Test (PAT). The test consists of a series of tasks designed to assess important physical abilities necessary for effective job performance as a firefighter.

The PAT contains ten job-simulation events that will be timed in a continuous series. These events include:

- Stair climb
- Ladder heel
- Ladder extension
- Simulated charged hoseline advance
- Hoseline reel
- Forcible entry (Keiser sled)
- Ladder carry
- Ceiling breach and pull
- Equipment carry
- Victim rescue (dummy drag)

The following guidelines apply to all tasks/simulations of the PAT.

- Applicants must wear a self-contained breathing apparatus (SCBA), excluding the face piece and low-pressure hose and weighing no more than 30 pounds, for all elements of the job simulation component.

- Applicants are strongly encouraged to wear athletic shoes and appropriate clothing (including pants that cover the knees) for physically demanding work. You will be performing physical acts that demonstrate strength, agility and endurance, and it is important to be outfitted in attire that does not hinder your performance. During the PAT, you may get dirty and/or wet from maneuvering through the exercises. Plan your dress accordingly.

- You will be provided leather gloves and a helmet. You may bring your own gloves, kneepads, etc. to use; however, the testing authority reserves the right to inspect all equipment and to disallow equipment if its use may affect the fair and impartial administration of the PAT. Please note that applicants may not carry electronic devices or use headphones of any type while participating in the PAT.

- You are not permitted to run between exercise components or at any time during the test. Running is defined as any time both feet are off the ground at the same time while advancing on the course. Failure to heed a first warning not to run may result in disqualification. You may move as fast as you wish, as long as you can do so safely, while dragging the simulated hoseline and/or while ascending and descending the stairs.

- You must hit every stair going up and coming down while climbing the stairs. You are encouraged to use the handrails as needed.
• Test monitors will be assigned to time you while on the course. It is acceptable to ask the test monitor questions concerning course rules and layout prior to beginning the course and while on the course. Time will begin when the candidate crosses the threshold of the training tower to begin the first event and ends when the candidate and the dummy completely cross the finish line.

• You will be allowed as much time as needed to complete each individual component of the PAT up to the maximum allotted time for the course. Should you perform one of the components incorrectly, the test monitor will guide you as to how to correct your actions or instruct you to perform the component again. Pay careful attention to the instruction of the test monitor and ask for clarification when needed.

• Unnecessarily dropping, throwing or otherwise intentionally misusing any of the testing props will be grounds for disqualification.

• All ten elements of the PAT will be timed in a series. The test has a cutoff time and failure to complete the entire course in the allowed time will result in disqualification.

• Testing and practice sessions will take place at 215 Holley Park Dr., Mesquite, TX 75149. Candidates will be given information about practice and testing dates when it becomes available.

The following pages provide a description and preparation information regarding each of the ten components that comprise the PAT.

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Please note that suggestions regarding preparation activities are simply suggestions intended to offer the candidate a means of practicing for the PAT. These are only suggestions. The Mesquite Fire Department and the PAT developer cannot be held responsible for injuries or expenses incurred during preparation for the PAT.
#1: Stair Climb

Station Description:
You must climb up to and back down from the fifth floor of the training tower (four flights of stairs) while carrying a bundled section of 2 ½-inch hoseline that weighs approximately 40 pounds. Before entering the tower, you must pick up the bundled hosepack. You must carry this hosepack without dragging it. You must hit every stair going up and coming back down the staircase. When you reach the fifth floor, place both feet on the landing, then turn around and descend the stairs. You may use the handrails and may move as fast as you choose on the stairs. Once you exit the tower, you should return the hosepack to the test proctor.

Preparation:
This station assesses muscular and cardiovascular endurance. You may practice for this station by ascending and descending stairs while carrying approximately 70 pounds of weight (equivalent to the weight of the SCBA plus hose pack).
Station Description:
You must raise a 24-foot extension ladder by ‘walking it up’ using a hand-over-hand technique, starting with the very top rung. The ladder is secured to the ground using a pivot system that will keep the base of the ladder in place. The upper portion of the ladder is secured using a belay system that will stop the ladder’s fall, should you lose control.

Grasping only the rungs of the ladder, you must ‘walk’ the ladder all the way to a vertical position and leave it resting against the building. You must touch each and every rung necessary to raise the ladder into position against the wall. You must not drop the ladder or grasp the rails of the ladder at any time. You must not throw or lose control of the ladder at any time.

Preparation:
This station assesses basic coordination and upper body strength. You may prepare for this exercise by ‘heeling’ a ladder up against the side of a fixed structure.
#3: Ladder Extension

Station Description:
You must extend the fly section of a 24-foot extension ladder using the rope (halyard). The ladder is secured to the side of the training tower. You must use a hand-over-hand technique to extend the fly section of the ladder until the ladder is fully extended. You must then lower the fly section down using a hand-under-hand technique, returning the ladder to its original starting position. If you lose control of the halyard (e.g., the rope slips through your hands), you will be required to perform the event again. Do not let go of the rope, and do not let it slip through your hands. While raising and lowering the ladder, your feet must remain in a 3-foot-by-3-foot box that is painted on the ground. (Note: You are not required to “lock-off” your grip while raising or lowering the ladder.)

Preparation:
This station assesses hand and arm strength. To simulate the ladder raise exercise, you can tie a rope securely to a weighted object/bag and place the rope over a sturdy horizontal bar or through a pulley that is located above your head. Then you can use the same movements as you would in the ladder raise to bring the weight upward and lower it back to the ground.
#4: Simulated Charged Hoseline Advance

Station Description:
You must drag a weighted sled 120 feet by pulling a section of hoseline that is attached to the sled. The weight of the sled simulates the pull-force (approximately 75 pounds) associated with dragging four sections of charged 1¾-inch hoseline. You must drag the sled 60 feet, around a barrel and then 60 feet back across the starting line. You should be careful to maneuver around the barrel such that the sled does not get hung up on the barrel. If the sled gets hung up on the barrel, you will need to free it. This component is complete once the entire sled crosses the start line.

Preparation:
This station assesses your leg strength and overall cardiovascular endurance. You can prepare for this event by dragging a weighted object across the ground using a rope for a distance of 120 feet. You may wish to begin with lesser weights and build up to a total weight similar to that used in the hose drag station.
#5: Hoseline Reel

Station Description:
You must reel in one section (50 feet) of a 200-foot length of uncharged 1¾-inch hoseline. You must kneel (on one or both knees) or sit inside a painted box measuring 5 feet wide by 7 feet deep. You may not use your lower body to assist you in reeling in the hoseline by “scooting” inside the box or “walking” on your knees. This component is complete once the metal coupling connecting the first and second sections of hoseline completely crosses over the front line of the painted box.

Preparation:
This station assesses your upper body strength and muscular endurance. You can prepare for this event by using a rope to reel in a weighted object across the ground for a distance of 50 feet. You may want to begin with lesser weights and build up to a total weight similar to that used in the hose drag station.
#6: Forcible Entry (Keiser Sled)

Station Description:
You must use a dead blow hammer weighing approximately nine pounds to strike a ‘sled target.’ This activity simulates forcible entry scenarios on the fireground, such as penetrating a locked door or chopping a hole in a roof. The candidate must strike the target as many times as necessary to move the sled to the opposite end. Pushing the sled along the track using the dead blow hammer is not permitted. This component is complete when the end of the sled breaks the plane of the track. Exercise caution when swinging the hammer between your legs and when walking backward on this piece of equipment. There is potential for serious injury.

Preparation:
This station assesses upper body strength and coordination. You may prepare for this event by striking a solid object (such as a tire) with a 10-pound sledgehammer. The object should be moveable and resistant to breaking or shattering. Practice hitting a target approximately six inches square.
#7: Ladder Carry

Station Description:
You must remove a 14-foot roof ladder, weighing approximately 33 pounds, from mounting brackets affixed to the side of the training tower. The brackets are mounted approximately 84 inches off the ground. You may remove the ladder by lifting it off both brackets at the same time, or you may remove the ladder one end at a time by setting it on the ground. However you remove the ladder, you must maintain control over it and prevent it from contacting nearby structures. Once removed, you must carry the ladder 50 feet, around a cone, and 50 feet back to the brackets, for a total distance of 100 feet. You may mount the ladder in similar fashion to the dismount. You may not drag the ladder at any time. If you fail to carry the ladder in an acceptable fashion, you will be required to redo this component.

Preparation:
This station assesses arm/upper body strength and coordination. You may prepare for this event by practicing removing and replacing an object that is hanging on mounting hooks above your head.
#8: Ceiling Breach and Pull

Station Description:
You must demonstrate the physical abilities needed to breach and pull ceiling with a pike pole during overhaul procedures by performing breach and pull motions using a ceiling simulator. You must position the pike pole in the target area on the breach portion of the simulator and perform three breach (push) repetitions. You must then hook the pike pole onto the pull portion of the simulator and perform five pull repetitions. This sequence must be repeated for four total cycles.

This station involves a highly specific simulator. It is recommended that you pay careful attention to how this simulator works prior to beginning the test. The breach element of the simulator requires you to fully raise a hatch door offering 60 pounds of resistance. The pull component of the simulator requires that you hook the pike pole onto a metal ring and pull the lever down completely, requiring 80 pounds of force. You must push the breach-side hatch door completely up and then bring it back down fully to complete a repetition. You must fully pull down and return the pull side of the simulator to complete a repetition. The proctor will count out your repetitions and provide instruction to ensure that you perform acceptably during this component.
Preparation:
This station assesses upper body strength, grip strength and general stamina. The easiest way to prepare for this exercise will be to use a universal weight machine. The military press exercise that is typically performed using a universal weight machine will allow you to practice pressing weight upward above your head using your arms. Do keep in mind that during this component you may be able to use your legs and lower body to assist in pushing up on the breach side of the simulator. The ‘lat’ pull down exercise typically incorporated into a universal weight machine will closely simulate the pull-down motion.

#9: Equipment Carry

Station Description:
You must carry two kettle bell weights for a distance of 150 feet. One kettle bell weighs 25 pounds, and the other weighs 15 pounds. These simulate the weight of various pieces of equipment that you may carry on the fireground. They are both located on a shelf that is approximately 61 inches off the ground. You must lift both kettle bells off the shelf (this may be done together or one at a time), carry them 75 feet, around a cone, back 75 feet to the shelf, and then replace the kettle bells on the shelf. You may set the weights down at any time to rest, but you may only advance forward while carrying the weights.

Preparation:
This station assesses core body strength, grip strength and overall cardiovascular endurance. You may prepare for this event by carrying similarly weighted objects for a distance of 150 feet.
#10: Victim Rescue (Dummy Drag)

Station Description:
You must drag a human form dummy weighing approximately 185 pounds (weight of dummy and clothing) for 25 feet, around a barrel and then back across the starting point for a total distance of 50 feet. You must drag the dummy using the pull harness attached to the dummy or by placing your elbows under the armpits of the dummy. In order to complete this station, you and the dummy must both completely cross the finish line.

Preparation:
This station assesses lower body strength, core strength and endurance. You may prepare for this event by dragging a weighted object backward.

**PAT CUT-OFF SCORE**

The ten simulation components are timed in a series. Time will begin when the candidate crosses the threshold of the training tower to begin the first event and ends when both the candidate and the dummy completely cross the finish line. Any candidate that completes the entire course in **8 minutes and 57 seconds** (8:57) or less will pass the PAT.