



AMES FIRE DEPARTMENT PHYSICAL ABILITY TEST INFORMATION GUIDE

Purpose

The Ames Fire Department Candidate Physical Ability Test is designed to simulate the physical abilities needed to proficiently operate on an emergency scene, as well as the cardio-vascular capability to work at a higher level for the time usually required during initial operations. The tools and equipment involved in the test have been chosen to provide the highest level of consistency, safety, and validity in measuring your physical abilities. This test consists of 9 separate skills. You will be required to progress along a predetermined path from event to event in a continuous sequence. The skills, in order, are the Aerial Ladder Climb, Forcible Entry, Rescue, Search, Equipment Transfer, 2 ½" Dry Hose Line Drag, Ground Ladder Raise and Lower, Ground Ladder Extension and the 1¾" Charged Hose Line Drag. All 9 skills must be completed successfully in 13 minutes or less. The test will begin when you start to climb from the base of the ladder pedestal at the beginning of the Aerial Ladder Climb and will end upon successful completion of all 9 events within the 13-minute time limit. The test may be ended if you or the evaluator stops the test due to safety concerns or illness, if you fail a component, or if the 13-minute overall time limit is reached.

Preparation

You are encouraged to prepare both physically and mentally for the test. The test is designed to challenge your physical and psychological endurance and abilities. Workout recommendations have been included.

Check In

On the day of the test please arrive at Ames Fire Station #1, located at 1300 Burnett Avenue, at your scheduled test time. On-street parking is available in the adjacent neighborhood. You will check in at the front desk and fill out the required paperwork including a sign-in form, waiver of liability, rehabilitation form, and evaluation form. A government issued I.D. will be required to verify your identity. Please plan on the test taking at least one hour from check-in to check-out.

Clothing/Equipment

Long pants and proper footwear with a closed heel and toe must be worn. Athletic shoes and work boots are permitted. Watches and loose jewelry may not be worn. For the evaluation, you will be issued a 40 lb. weighted vest, safety helmet with chin strap, and extrication gloves. You will be required to complete the entire test while wearing the vest, helmet, and gloves. A ladder belt for safety will be worn

during the Aerial Ladder Climb. Blacked out goggles, to simulate a dark environment, will be worn only during the Search event.

Physical Assessment/Monitoring

To ensure safety and to prevent exhaustion you must walk between events. Running between events will not be allowed. A lead evaluator will walk with you the entire test. The purpose of the lead evaluator is to monitor safety, time the event, provide you with instructions before each event and evaluate performance. Additional support personnel will be present during the events.

Warm up/Stretch

It is advised that time is taken to warm up and stretch prior to taking the test. Up to ten minutes of warm up time is allowed in the designated location. Links to five suggested warmups are listed below.

- [How to Warm Up for Your Workout by Nerd Fitness](#)
- [Dynamic Full Warm Up by Daniel PT Fitness](#)
- [5 Minute Active/Dynamic Warm-Up Stretch by Juice and Toya](#)
- [5-Minute Warm Up for At-Home Workouts by Nicole Pearce](#)
- [Beginner Dynamic Warm-Up Exercises by Nerd Fitness](#)

Course Description

Refer to this [video](#) link for a better understanding of the course and each skill. Course Evaluators and support personnel will not provide any encouragement, hints, or advice during the course. Comments will be limited to correcting an unsafe condition and directing you to the next skill.

Course Layout

1. Aerial Ladder Climb.

Description:

This skill simulates the critical task of climbing an aerial ladder at a fire scene. The skill also identifies if you have a psychological fear of heights. This event challenges aerobic capacity, lower body muscular strength and endurance, balance, and anaerobic endurance. The aerial ladder will be extended 70' and angled to 60° of elevation.

Standard of Completion:

You will climb to the top of the ladder, touch the top rung wrapped with colored tape, then descend to the base of the ladder. Not making it to the top and touching the marked rung before descending results in event failure.

Equipment/Safety:

For fall protection during the ladder climb you will be attached to a safety rope extending from the top of the ladder to your ladder belt, staffed by one proctor. Always maintain three points of contact. Do not skip rungs. Please remain aware of the different transitions in the ladder. When this event is complete the ladder belt will be removed from you.

Suggested Preparation:

Suggested exercises to prepare for this event include, but are not limited to; stair climber, elliptical, incline walking/jogging, [calf raises](#), [squats](#), [leg extension](#), [deadlifts](#), [lunges](#), [leg press](#), [leg curl](#), and [step ups](#).

2. Forcible Entry.

Description:

This skill simulates the critical task of using force to open a locked door or to breach a wall. This event challenges upper body muscular strength and endurance, lower body muscular strength and endurance, balance, grip strength and endurance, and anaerobic endurance. The “Punisher” forcible entry prop will be used for this skill.

Standard of Completion:

You will remove the dead blow sledgehammer from the holder, use the sledgehammer to strike the yellow block to move it from one end to the other and then back again to its original position, then return the sledgehammer to its holder. You may stand on either side of the prop and switch sides during the event. Control of the sledgehammer must be maintained at all times during this event. The block shall not be pushed with the sledgehammer. If you lose control of the sledgehammer, push the block with the sledgehammer after being warned, or do not move the block from one end to the other and back to the original starting place you will fail the event.

Suggested Preparation:

Exercises to prepare for this event include but are not limited to; [chest press](#), [push-ups](#), [chest fly](#), [bicep curls](#), [lateral pulldowns](#), [lateral cable pulls](#), [wrist curls](#), [wrist extensions](#), [medicine ball slam](#), [dumbbell wood chop](#), and [grip strengtheners](#).

3. Rescue.

Description:

This skill simulates the critical task of removing a victim from a fire scene. This event challenges aerobic capacity, upper and lower body muscular strength and endurance, grip strength and endurance, and anaerobic endurance.

Standard of Completion:

A 165 lb. rescue mannequin with webbing handles will be placed on the start line. You will drag the rescue mannequin 40', make a 180° turn around a pre-positioned barrel, and continue an additional 40'. The mannequin can be dragged by the turnout gear, webbing handles, or under the arms. The entire mannequin must be dragged across the finish line to successfully complete the event. If the entire mannequin does not cross the finish line the result is failure of the event. During the Rescue you are allowed to stop and adjust your grip as needed. While going around the barrel, the mannequin may touch it.

Suggested Preparation:

Exercises to prepare for this event include, but are not limited to; [seated row](#), [triceps extension](#), [bicep curl](#), [wrist curls](#), [calf raises](#), [squats](#), [leg extension](#), [leg press](#), [deadlifts](#), [leg curls](#), [weight sled pull](#), and [grip strengtheners](#).

4. Search.

Description:

This skill simulates the critical task of searching for a fire victim with limited visibility in an unpredictable area. This event challenges agility, balance, anaerobic endurance, and kinesthetic awareness. The skill also identifies if you have a psychological fear of confined spaces.

Standard of Completion:

You will crawl through a tunnel maze that is approximately 3' high, 3' wide, 32' in length. It has two 90° turns and locations where there are obstacles, or the dimensions of the tunnel are reduced. During the event if assistance is required or you exit the maze in a location other than the end, you have failed the event.

Equipment/Safety:

You will wear provided black out goggles. If at any point you choose to end the event, you can call out or rap sharply on the wall and a proctor will assist you out of the maze. At the conclusion of the event, the proctor will take the blackout goggles.

Suggested Preparation:

Exercises to prepare for this event include, but are not limited to; [bird dogs](#), crawling with a backpack, and [wrist curls](#).

5. Equipment Transfer.

Description:

This skill simulates the critical tasks of carrying equipment on an emergency scene. This event challenges aerobic capacity, upper body muscular strength and endurance, lower body muscular endurance, grip endurance, and balance. This skill simulates the critical task of carrying equipment on an emergency scene.

Standard of Completion:

You will have 3 different pieces of equipment. Each item will be picked up individually. You will carry the equipment up the stairs, down the hall, back down a second set of stairs and place it back at the starting point. Two proctors will walk with you to ensure safety and guide you through the route. During the equipment carry the handrail on the stairs may be held. Equipment may be adjusted but not set down. You may not stop moving during the equipment transfer other than to set down and pick up a piece of equipment at the starting box. Stopping to rest during the event, dropping any of the equipment, or sliding the equipment on the handrail will result in failure of the event. The equipment may be carried however you prefer and in any order.

Suggested Preparation:

Exercises to prepare for this event include, but are not limited to; [stair climber](#), [incline walk](#) while carrying dumbbells, weighted [step ups](#), [squats](#), [leg press](#), and [calf raises](#).

6. 2 ½” Dry Hose Line Drag.

Description:

This skill simulates the critical tasks of dragging an uncharged hose line from a fire apparatus to a structure and pulling an uncharged hose line while remaining stationary. This event challenges aerobic capacity, lower body muscular strength and endurance, upper back muscular strength and endurance, grip strength and endurance, and anaerobic endurance.

Standard of Completion:

A nozzle attached to 200' of hose is grasped and placed over your shoulder or across your chest. While walking or running, you will drag the hose 100' to a marked box, then turn, face the hose line, drop to at least one knee and pull the hose line until the coupling crosses the marked box line. You must not go past the marked box. You must remain on at least one knee within the marked box. If you fail to do so you will receive one warning. If you move outside of the box for a second time, do not maintain at least one knee in contact with the ground or do not pull the hose coupling across the marked line it will result in failure of the event.

Suggested Preparation:

Exercises to prepare for this event include but are not limited to; [burpees](#), [jump squat](#), [calf raises](#), [squats](#), [leg extension](#), [weight sled pull](#), [lunges](#), and [leg curls](#).

7. Ground Ladder Raise and Lower.

Description:

This event simulates the critical task of placing a ground ladder against a structure and lowering it back down. This event challenges upper body muscular strength, lower body muscular strength and balance.

Standard of Completion:

A 24' aluminum ground ladder will be laying on the ground. The bottom of the ladder will rest in a bracket that will allow for the raise and lower of the ladder while keeping it secured in place. You will raise the ladder until it rests on the padded railing, pause for a moment, and then lower the ladder to its original position. If you lose control of the ladder at any time, it will result in failure of the event. Do not bounce the ladder off the padded railing. Do not let the ladder fall. The ladder can be raised by using the sides of the ladder or by using the rungs.

Equipment/Safety:

The ladder will be connected to a safety rope staffed by one proctor for fall protection.

Suggested Preparation:

Exercises to prepare for this event include, but are not limited to; [triceps extension](#), [incline chest press](#), [chest press](#), [dumbbell front raises](#), [wrist curls](#), [lateral pull down](#), [shoulder press](#), and [grip strengtheners](#).

8. Ground Ladder Extension.

Description:

This event simulates the critical task of extending the fly section of a ladder to the roof or window of a structure and lowering it back down. This event challenges upper body muscular strength, balance, grip strength, and anaerobic endurance.

Standard of Completion:

A 24' aluminum extension ladder will be secured against a wall. You will extend the fly section by pulling the rope halyard hand over hand until it stops, then lower the fly section hand over hand to its original position. The ladder does not need to be in a "locked" position before being lowered. If you lose control of the ladder at any time, it will result in failure of the event. You must not allow the rope to slide through your hands or let the fly section fall. There are two separate ways to hold

the rope while extending the ladder; thumbs up with your wrist straight or thumbs down while twisting your wrist towards you to gain bite on the rope. Either way is permitted.

Suggested Preparation:

Exercises to prepare for this event include, but are not limited to; [triceps extension](#), bicep curl, [incline chest press](#), [chest press](#), [shrugs](#), [wrist curls](#), [lateral pull down](#), [shoulder press](#), and [grip strengtheners](#).

9. 1¾" Charged Hose Line Drag.

Description:

This skill simulates the critical task of dragging a charged hose line at a structure fire. This event challenges aerobic capacity, lower body muscular strength and endurance, upper back muscular strength and endurance, grip strength and endurance, and anaerobic endurance.

Standard of Completion:

A nozzle attached to 100' of charged hose is grasped and placed over your shoulder. While walking or running, you will drag the hose 100' to a marked line. Control of the hose must be maintained at all times. The finish line must be completely crossed, otherwise it will result in failure of the event.

Suggested Preparation:

Exercises to prepare for this event include but are not limited to; [burpees](#), [jump squats](#), [calf raises](#), [squats](#), [leg extensions](#), [weight sled pull](#), [leg press](#), [lunges](#), and [leg curls](#).