

APPLICANT INFORMATION PACKAGE

NORTH COUNTY FIREFIGHTER PHYSICAL ABILITY TEST

North County Fire Departments and Fire Protection Districts welcome all qualified applicants to compete for the position of firefighter. In order for you to better prepare for a position in this demanding occupation, we have provided you with a self-testing fitness package to determine your readiness for taking the entry-level physical ability test.

Employment with a North County Fire Department or Fire Protection District has many rewards. Foremost is a great sense of satisfaction in serving the community and creating, by your actions, an environment where life and property are safe and secure. Additional benefits include an excellent salary, paid vacations and a contributory health insurance program.

Firefighting is an exciting and rewarding career; however, it is also one of the most physically demanding professions in America. Unlike other labor-intensive jobs that are designed around the capabilities of the workforce, firefighting responds to the demands of the situation. This means that physical fitness is an important component of job performance.

The duties of a firefighter are many and varied. The work environment is often hot, smoky and extremely hazardous. While the protective equipment worn by firefighters is absolutely essential, it is also heavy and severely limits performance. On the job, firefighters often carry heavy objects including litters that weigh over 200 pounds. Being in top physical condition is a prerequisite for employment; being in top physical condition is the best possible protection against on-the-job injuries. Sustaining a high level of physical fitness will also increase your longevity.

Much of what firefighters do in emergency situations requires both muscular and aerobic fitness. A commitment to lifelong fitness is an essential part of being a firefighter. Said another way, while it is important to have a high level of fitness to compete for a firefighting job in North County, it is even more important to **maintain** fitness once on the job.

Our purpose for this pamphlet is to provide an overview of North County's entry-level physical ability test to better help you prepare for a challenging career in the fire service. Considerable research has been conducted to accurately measure the necessary levels of fitness to safely perform the duties of a firefighter. High levels of

anaerobic and aerobic fitness have been consistently identified as important determinates of job performance.

There is no such thing as a "standard" fire. Fires come in a variety of configurations, intensities and durations. A physical ability test has been designed to provide North County Fire Departments and Fire Protection Districts with a list of prospective employees who possess the highest probability of success as a firefighter. Your level of fitness will determine the time it takes you to complete the test. Research has shown that the fastest performers have the greatest levels of fitness. Also, individuals with the highest levels of fitness have the greatest levels of reserve when performing tasks that don't necessarily require high levels of fitness.

While it may be difficult to practice precisely each test evolution or task, maintaining a high level of fitness by training with weights and engaging in cardiovascular conditioning will increase your likelihood of passing the test and obtaining a high score.

NOTE OF CAUTION: North County Fire Departments and Fire Protection Districts do not assume responsibility for any medical consequences that may arise from participating in the applicant selection process.

Prior to taking the test, it is recommended that you visit with your personal physician and have him or her verify your current health status. Firefighting requires that you be in top physical shape; an existing medical condition might preclude your participation.

If, for any reason, you feel there might be a pre-existing medical condition that could cause injury, lead to illness or result in a health emergency during physical ability testing, you are strongly urged to share this information with your physician. If, while training for or performing the physical ability test, you experience shortness of breath, dizziness, nausea, vomiting or chest pain, you should stop all activity immediately and seek medical advice before continuing.

1.5 MILE RUN SELF-TEST

A good way to determine if you have an adequate level of cardiovascular fitness is to test yourself on the 1.5 mile run. Use the data in **Table 1** to score yourself on this pretest and to assist you in structuring a running program designed to help you improve your performance on this very critical dimension of fitness.

THE PHYSICAL ABILITY TEST

The Physical Ability Test was designed after an exhaustive job task analysis conducted by ARA/HUMAN FACTORS, one of the country's leading authorities on public safety job standards development. The test accurately reflects the physical demands of a number of fire suppression activities. You might think of the test as a "sample" of a number of fire round tasks necessary to the safe and effective performance of firefighters. You should pace yourself as you move from test event to test event; however, firefighters need to move with dispatch, so it is advisable to perform the evolutions as quickly as possible.

It may not be possible to provide applicants with an opportunity to utilize the equipment at the testing site prior to the administration of the actual test. To familiarize yourself with the test items, a complete description follows, along with specific training regimens that can help you prepare for the test and improve your performance. The test requires no learned skills and has been specifically designed to access only necessary firefighting physical capacities.



CONDITIONS

Each applicant should be outfitted with a bunker (firefighter) coat, gloves and a self-contained breathing apparatus (SCBA) without a face piece (~50 lbs.) while participating in firefighting testing. Footgear can be work boots or sneakers provided by the applicant. The test is a timed event. You may rest at any time during the performance of the test; however, the clock continues to run. Research has shown that more fit individuals with greater cardiovascular reserve can perform the tasks faster than less fit individuals.

FIRST TASK: LADDER EXTENSION

Ladders are an integral part of the fire suppression effort. The capacity to extend the fly section is an essential part of North County extinguishment operations. It is usual and customary to expect that firefighters should be able to perform this evolution individually and without assistance. A 35-foot extension ladder is affixed to a horizontal bar in a vertical position rendering it immobile from any position other than perpendicular. The halyard is attached to the fly section. Employing a hand over hand motion, the applicant must extend the fly section until the fly section stops, then retract it using a controlled motion without allowing the rope to slide through the hands.

SECOND TASK: STAIR CLIMB

Pick up and carry a shoulder load of hose weighing approximately 44 pounds (two 50-foot sections of attack line) 106 feet to the drill tower. Carry it up the stairs to the top of the drill tower, a vertical distance of 37 feet, and deposit it on the floor. The hose may be carried or slung. Stairs may be taken in multiples on the ascent. The hand rails may be used to assist in the climb. Pace yourself up the stair climb. Applicants who attempt to complete the task too quickly frequently place themselves in extreme oxygen debt, find it difficult to recover, and thus reduce their performance on the events that follow.

THIRD TASK: HOSE HOIST

After dropping the shoulder load in the first task, hoist a donut roll of hose weighing about 43 pounds 40 vertical feet by pulling on a rope. Use a hand over hand pulling motion. Pull the donut roll over the wall and deposit it on the deck of the tower to end the hose hoist evolution. Walk back to the stairwell and descend the stairs to the ground level, touching each step. The clock continues to run while you descend the stairwell.

FOURTH TASK: FORCIBLE ENTRY

Exit the stairs on the ground level of the drill tower and walk approximately 20 feet to the Keiser Force Machine (positioned adjacent to the stairwell). Using the 8-pound shot hammer provided, drive the 160-pound steel beam of the Keiser Force Machine a distance of five feet. Strike the end of the beam, contacting the surface as squarely as possible for maximum transfer. Pay attention to the position of the beam in relation to the inseam of your foot—they should be on the same plane. Getting "ahead" of yourself will result in the point of impact at the handle of the Force Machine as opposed to the head of the mallet. This task is complete when the leading edge of the sled is even with the tray. This completes the forcible entry event.

FIFTH TASK: HOSE ADVANCE

Walk a measured distance of 140 feet to the hose advance station. Grasp the end of the charged 1 3/4 -inch hose line and drag it 75 feet to the line indicated. Once the nozzle crosses the finish line, place the hose on the ground. This completes the fifth task.

SIXTH TASK: VICTIM RESCUE

Walk 30 feet to the next station, grasp the 175-pound victim (dummy) around the chest and drag it 100 feet. To do so, lock your fingers and hands around the dummy's torso and lift with your legs, rather than your back. This task is complete when the feet of the mannequin cross the finish line.

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Table 1
Categories for Aerobic Fitness
Based Upon 1.5 Mile Run Time

≥14:00	Minutes	Very Poor
≥13:00 - <14:00	Minutes	Poor
≥12:00 - <13:00	Minutes	Fair
≥11:00 - <12:00	Minutes	Good
≥10:00 - <11:00	Minutes	Excellent
≤10:00	Minutes	Superior

Symbols:

>	=	Greater than
≥	=	Equal to or greater than
<	=	Less than
≤	=	Equal to or less than

Some training tips:

One activity that will improve performance on the physical ability test is climbing stairs while carrying heavy weights in a backpack or similar configuration. Remember to go about your training safely and gradually while keeping this concept in mind: train, don't strain!

Self-testing for aerobic fitness:

Use the categories in **Table 1** to determine your current level of fitness, then select a training program and follow the recommendations listed in **Table 2**.

Other Self-Testing Criteria

Simple tests such as push-ups and sit-ups can be very helpful in predicting performance on the physical ability test. It is recommended that applicants be capable of performing *at least* 25 push-ups and 45 sit-ups. To increase your performance on these measures of muscular endurance, test yourself to failure (until you can't do anymore repetitions). Take this number and divide it by two. Add one to this number and perform three sets of this number of repetitions every other day. Test yourself each week to measure your improvement.

Muscular Strength

Having high levels of muscular endurance is desirable, but you also need muscular strength. For this reason, supplementing your muscular endurance program with strength development is a good idea. While a comprehensive guide to strength training is beyond the scope of this pamphlet, seeking the advice of a conditioning specialist is recommended before embarking on a program of weight training.

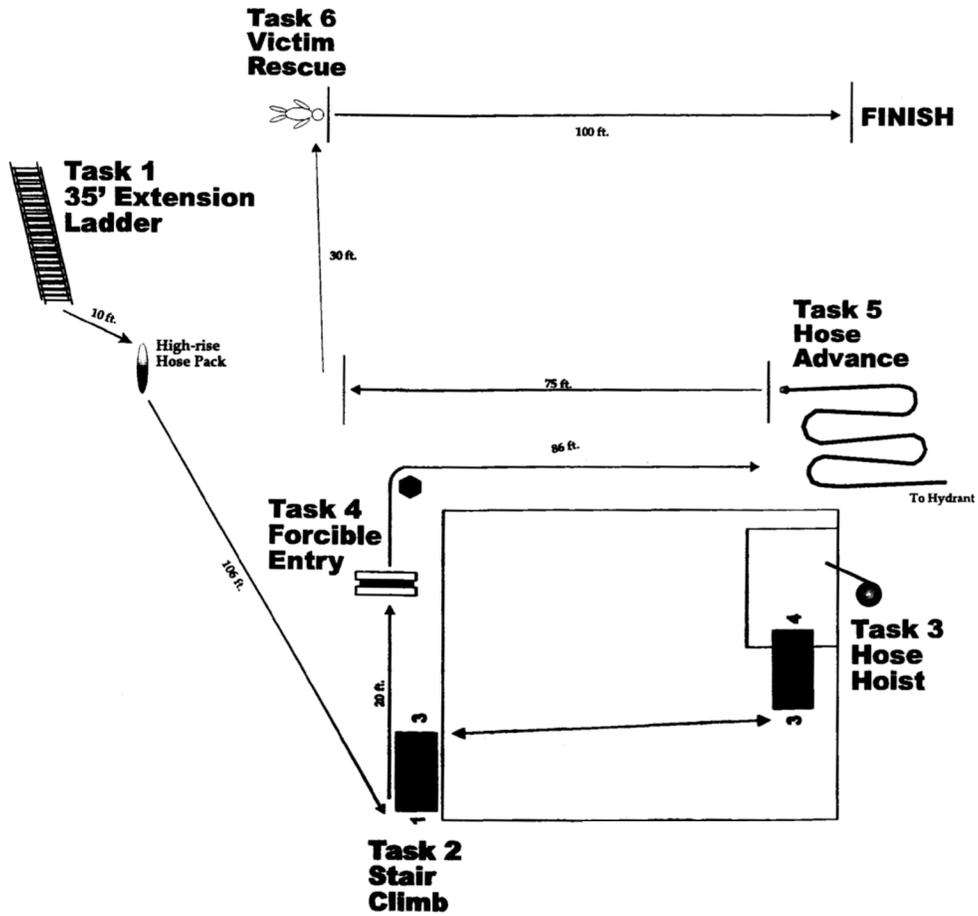
Summary

The components of the physical ability test require muscular strength and endurance of the arms, torso and legs. Top performance of the physical ability test has been positively correlated with increased levels of muscular strength. Increasing your muscular strength and cardiovascular fitness are excellent methods of improving your performance on the physical ability test.

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HEALTH METRICS, INC.

Figure 2
North County Firefighter
Physical Ability Test
(San Marcos Tower)



Legend:
● Traffic Cone