

# *Denver Volunteer Fire Department, Inc.*



## **Job Related Physical Agility Test (JRPAT)**

2017

FIRE CHIEF JAMES FLYNN  
3956 North Highway 16 Denver, NC 28037



# Denver Volunteer Fire Department, Inc.

www.denverfd.com

3956 North Highway 16  
Denver, NC 28037

James Flynn, Fire Chief  
(704) 483-5115

## Job Related Physical Agility Test (JRPAT) Denver Volunteer Fire Department, Inc.

**IT WILL BE MANDATORY FOR ANY CANDIDATE SEEKING EMPLOYMENT WITH OUR FIRE DEPARTMENT TO COMPLETE THE JRPAT TO A SATISFACTORY LEVEL PRIOR TO EMPLOYMENT AND ANNUALLY THERE AFTER.**

**Test Location: Testing will be conducted at the main station located at: 3956 North Highway 16 Denver, NC 28037**

### General Information

- Candidates should wear comfortable clothing suitable for physical activity.
- Candidates should report to the testing site 15 minutes prior to his/her test time (but not earlier).
- Upon arrival at the testing site, the applicant will need to show his/her Driver's License and sign the liability waiver form.
- Candidate should bring his/her own NFPA compliant structural gear, unless arrangements have been made to wear DVFD gear. If gear is needed, contact the designated DVFD representative ahead of time to make sure a set will be available for you to use.
- Candidates will be given an overview of the course by his/her evaluator and will be able to ask questions.
- Candidates will then report to starting position (Station 1) to begin their test. *(Stations are completed continuously even though they are listed separately)*

### Test Description

The test will be used to assess a candidate's preparedness for the physical stress encountered by firefighting personnel on an emergency scene. Every effort will be made so that events within the test simulate scenarios that may be encountered by firefighting personnel. This test is designed to test a candidate's aerobic capacity, upper and lower muscular strength and endurance, grip strength and endurance, and anaerobic endurance.

1. **Body Fat Test:** Here we are measuring the body fat of each individual. This may be determined by using calipers or using the Ormon HBF-306C digital monitor.



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## 2. Handgrip Dynamometer Test Procedure:

- a. Adjust the grip size so the 2<sup>nd</sup> joints of the fingers are bent to grip the handle
- b. Start with elbow flexed at 90° and then extend arm as you squeeze as tight as possible.
- c. Alternate hands on each test for a total of 3x each hand. Record the highest reading for each hand.
- d. Average the readings for each hand and use chart below to assign point value

## 3. Waist to Height Ratio Test:

- a. Find height in inches.
- b. Measure waist circumference in inches. Measurement should be taken approximately 1 inch above the navel.
- c. Divide the waist circumference (in) by height (in).  
Example: a Male with a waist circumference of 34 inches and a height of 73 inches would do the following:  $34/73 = 0.47$

## 4. V-Sit and Reach Test:

The sit and reach test is to highlight tightness in the lower back and / or hamstring muscles. To assess performance in the sit and reach test please use the table below.

To perform the sit and reach test follow these simple guidelines:

1. Sit on the floor with the legs out straight (shoes off), sitting @ 90 degrees.
2. Place the soles of the feet inside the sit & reach box.
3. With legs perfectly straight (no bent knees), bend forward at the hips by using the lower back muscles.
4. Reach forward with your hands try to touch your toes, pushing the measure tab as far as possible in one push.
5. Perform the test 3 times and record the highest measurement using scale B (Cooper Institute/YMCA)



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**5. Max Time Plank Test:** Measure the abdominal and core strength of each individual.

## Instructions:

1. Start on the floor, feet hip width apart, elbows on the floor under the shoulders, hands clasped together.
2. Contract the abs and glutes so that the body is in a straight line.
3. Hold this rigid position for as long as possible.
4. When plank position can no longer be held (by either the buttocks rising or dropping too low) the test is over. Record time and use chart below for scoring.

**6. 3-minute step test:** This test is tailored to monitor cardiovascular system by looking at the recovery heart rate.

## Instructions

1. Setup a 12-inch-high bench (preferably an aerobic step)
2. Set metronome to 96 beats per minute and make sure participants can hear the beat
3. Stand facing the step.
4. When ready to begin, start the clock or stopwatch and march up and down on the step to the metronome beat (up, up, down, down) for 3 consecutive minutes
5. Maintain a steady four beat step cycle to the sound of the metronome for the entire 3 minute test
6. When 3 minutes are up, stop immediately, sit down on the step
7. Have your partner count your pulse (use wrist or neck) for one full minute
8. At the end of the 1-minute recovery period, record the heart rate
9. Use the chart below to correlate the resulting heart rate along with the participants age with the score chart

**7. Metronome Pushup test:** This will assess the individual's upper body strength and condition.

## Instructions:

1. Assume Push up position, hands slightly wider than shoulder width, and extend arms



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2. Lower the body until the chest touches a 4" ball.
3. Return to the starting position with the arms fully extended
4. The push up action is to be continuous with no rest at a beat of 60pm via a metronome
5. Complete as many push-ups as possible – *No Jack rabbit pushups, it must conform to the beat of metronome to count as a completed repetition.*
6. Record the total number of full body push-ups and use chart below for scoring

**8. 1-Mile Endurance Test.** This test is designed to measure the endurance of each person.

#### Instructions:

1. Warm up legs and entire body with a light jog outside around the building.
2. Stretch legs (ham strings) before taking actual test.
3. Test begins outside in the back of Denver Headquarters at the two cones
4. 9 laps around DFD HQ are required to reach the 1-mile mark
5. Score participant based on the scoring chart below.
6. Each person will start at the start/finish line.

**9. Dummy Carry for distance:** This test is designed to measure the lower body strength & endurance

1. Warm-up and stretch as needed.
2. Two cones will be set up 100' apart. Dummy will be in the sitting position at one end.
3. Participant will grasp the dummy around the chest to lift the dummy from the ground.
4. Participant will carry the dummy to the opposite cone and will round each cone to begin a new pass until failure. Stopping, dropping or otherwise ceasing the event = failure.
5. Each pass counts as 100'. If a partial pass is made, it should be estimated in 25' increments.

#### 10. Hose Roll & Pike Pole Pull

##### Instructions:

- All participants will wear structural firefighter gloves of the same make



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- Participant will grasp the 8' pike pole from E-10 at a comfortable position to begin the exercise
- Participant will keep feet on the ground inside of the 3' x 3' marked box at all times. Count will stop if participant steps outside of the box or feet leave the ground.
- Participant, using any form they choose, will pull the pike pole down until the butt of the pike pole strikes the ground, and then return the hose to the lowered position until the hose strikes the ground. This cycle counts as 1 repetition. If the pike pole or hose does not strike the ground, the repetition does not count.
- Continue repetitions until participant is unable to continue the exercise.
- Count will also stop if the participant stops to rest or releases/loses their grip on the pike pole. (Repositioning of grip is allowed as long as there is continuous contact with and movement of the pike pole)

## Set Up:

- 100' role of 3" hose fastened to a rope.
- Rope through pulley affixed to the bay ceiling
- Loop for pike pole to grasp in the opposite side of the rope
- Mark 3' x 3' box beneath the exercise area with painters tape
- 1 – 8' pike pole, various sizes of the same firefighter gloves

## THIS SECTION IS FOR NEW HIRES ONLY

### 11. Aerial Climb:

After donning a safety system, turn-out gear and a SCBA the candidate will climb the aerial at an angle of 75 degrees and fully retracted and enter the platform. The aerial will then be fully extended with the candidate looking over the platform towards the ground. The aerial will then retract to the fully retracted position and the candidate will exit the platform and climb down. Once the candidate steps back onto the ground, the event will be considered complete. During the event, if the candidate relays to the evaluator that they cannot complete the event, the event will be considered failed and the candidate will be asked to descend the ladder. If the candidate is affixed to the ladder at any point and cannot descend him or herself, a preceptor will be sent to assist the candidate in his/her descent. There is no time limit to this section.

### 12. Confined Space Prop:

The applicant will enter the confined space prop from one end and proceed all the way through the box, wearing turn-out gear and SCBA. If at any time, the applicant wants to stop the process, they can,



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but this part of the JRPAT is a pass or fail. If at any time the proctor feels that they need to stop the test, because of safety, they have the right to do so. There is no time limit to this section.

I have read and I understand the description of the Denver Volunteer Fire Department, Inc. JOB RELATED Physical Agility Test (JRPAT).

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PARTICIPANT'S PRINTED NAME

DRIVER'S LICENSE #

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PARTICIPANT'S SIGNATURE

DATE



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## LIABILITY WAIVER FOR PARTICIPATING IN THE PHYSICAL AGILITY TEST

### Acknowledgement and Release of Liability

I request authorization to participate in the Physical Agility Test through the fire department. I acknowledge that my participation is expressly conditioned on my agreement to each of the terms in this document. I acknowledge and agree as follows:

1. Physical Agility Testing may cause injury. I understand that there is an inherent risk of injury when choosing to participate in any Physical Agility Testing. My participation is voluntary in all respects and I assume all risks of injury and illness that may result from participation in the Denver Volunteer Fire Department, Inc. Physical Agility Test.
2. As the participant, I recognize and acknowledge that there are risks of physical injury and I agree to assume the full risk of any injuries (including death), damages, or loss which I may sustain as a result of participating in any and all activities arising out of, connected with, or in any way associated with the Physical Agility Testing Process. I acknowledge that my participation in these activities is voluntary and at any time I may stop or quit participating in the process.
3. I hereby fully release and discharge the Denver Volunteer Fire Department, Inc. and their agents, employees, and sponsors (collectively, the "Released Parties") from any and all liability, claims, and causes of action from injuries or illness (including death), damages or loss which I may have or which may accrue to me based on my participation in the Physical Agility Testing Process. This is a complete and irrevocable release and waiver of liability. Specifically, and without limitation, I hereby release the Released Parties from any liability, claim, or cause of action arising out of the Released Parties' negligence. I covenant not to sue the Released Parties for any alleged liabilities, claims, or causes of action released hereunder.
4. I further agree to indemnify and hold harmless and defend the Released Parties from any and all claims resulting from injuries or illness (including death), damages, or loss, including, but not limited to attorneys' fees, sustained by me arising out of, connected with, or in any way associated with my participation in the fire department Physical Agility Test Process.
5. In the event of any emergency, I authorize the Released Parties to secure from any licensed hospital, physician, and/or medical personnel any treatment deemed necessary for my immediate care and agree that I will be responsible for payment of any and all medical services rendered.
6. I understand that it is my responsibility to consult a physician before I undertake any Physical Agility Testing. I certify that I am in good health and sufficient physical condition to properly participate in the Physical Agility Testing Process through Denver Volunteer Fire Department, Inc.; that I am knowledgeable about the proper use of any and all equipment that I will be using during the testing process and the rules of safety of the Physical Agility Testing Process.

I have read and fully understand this Acknowledgement and Release of Liability set forth above, including the permission to secure medical treatment and the release of all claims, including claims for the negligence of the Release Parties. I am 18 years old or older. I understand that my signed waiver will be retained by the fire department. This document is binding upon me and my heirs, children, wards, personal representatives and anyone entitled to act on my behalf.

Signed: \_\_\_\_\_ Printed Name: \_\_\_\_\_

Date: \_\_\_\_\_