



**City of Winchester
Fire & Rescue Department
STANDARD OPERATING PROCEDURE**



Section:	Administration	SOP:	1.5
Subject:	Probationary EMT/Firefighter Physical Ability Test	Executed:	August 17, 2011
		Revised:	
Approved:			
 Scott Cullers, Fire Chief			

PURPOSE

To establish a process to evaluate and determine applicant disqualifiers for entrance level positions within Winchester Fire and Rescue Department (WFRD).

SCOPE

This policy shall apply to the position of Probationary EMT/Firefighter as advertised in the job announcement.

PROCEDURE

Candidates must arrive at the testing site approximately 30 minutes prior to their scheduled test time (see Appendix A). Candidates arriving past their scheduled test time will be disqualified from the process. A valid driver's license showing the candidates photo is required to enter the testing site along with the PAT Pass obtained from the written exam site. (See Appendix B)

It is recommended that candidates hydrate with water and try to avoid energy drinks as these may affect the pre-medical screening process. Proper warm-up and stretching prior to the PAT are also advised.

All candidates will be required to go through a pre-agility medical monitoring station. A candidate that has a diastolic blood pressure of over 100 mmhg or a heart rate of 100 bpm or more, prior to the beginning of the test, will not be permitted to perform the test. Candidates will be permitted to be re-screened, one additional time, after 10 minutes of resting, to obtain an adequate blood pressure and heart rate. If the above criteria cannot be met, the candidate will be disqualified from the process. (See Appendix C)

Each candidate will be assigned a proctor and will receive the PAT orientation prior to testing. After completion of the orientation, participants will be fitted for protective firefighting clothing for the PAT.

The candidate will perform the PAT with a proctor who will give detailed instructions during the course. The test consists of two (2) non-timed events and a timed ability

course consisting of seven (7) events. Candidates will be required to walk a distance of no more than 75 feet in between each event. The PAT course will be timed continually from the starting point to the finish line. Failure to complete any one event or failure to complete the timed events in **12:30 minutes** or less will result in test failure. Candidates must wear protective firefighting clothing and equipment, which weighs approximately 45 pounds. Candidates may use their personal gear or the gear provided. The following "Turnout Equipment" shall be worn during the testing procedure:

- Turnout jacket (with liner)
- Fire helmet
- Air Pack with bottle (no air mask) (26 lb.) (supplied at test site)
- Gloves (structural firefighting)
- Long pants or sweat pants (no shorts are permitted)
- Running shoes or duty boots (no open toe shoes are permitted)

Candidates will be required to pass through the medical monitoring station at the conclusion of the PAT. Prior to being released from the testing site and at five (5) minutes intervals, the candidate's diastolic blood pressure must return below 100 mmhg and heart rate below 100 bpm. If the target levels cannot be reached, the candidate will be processed as a medical patient by Winchester Fire and Rescue.

PAT EVENT DESCRIPTIONS

1. LADDER CLIMB (non-timed)

Conditions: Turnout equipment, aerial ladder, safety lifeline, safety harness

Behavior: Ascend 75 feet up the ladder, and then descend

Standard: Continuing through the station, while attached to a safety line, ascend 75 feet up the aerial ladder, positioned at a 70 degree angle, ring a bell that is attached at the last ladder rung, and descend, stepping on every rung, without pausing for a break; NO time limit

Description: Candidates will be attached to a top rope safety line, using a utility safety harness. The candidate will be belayed by a firefighter stationed on the ground. The candidate will inform the belayer that they are ready to climb by stating "On Rope." The belayer will acknowledge with "On Belay." The candidate will then respond with "Climbing." Candidate will begin climbing the ladder using three points of contact at all times. The candidate will climb in a continuous motion to a position whereby the bell at the top ladder rung can be rung with one hand. The candidate must then move in a continuous motion down the ladder, maintaining three points of contact. If at any time the candidate cannot proceed up or down the ladder, the candidate will call out, "TTO," (Training Time Out). The candidate will then be assisted down to the turntable in the safest manner possible. The candidate must move in a continuous motion, moving both up and down the ladder. The event is concluded upon reaching the turntable platform.

Failures: **Automatic Failures**

- Failure to ring the bell at the top
- Failure to complete the event
- Falling at any point along the event
- Signal for TTO

Warnings

- Failure to maintain three point contact
- Failure to move in continuous manner
 - a) One warning for each criterion is given
 - b) A second infraction constitutes an event failure

2. SEARCH MAZE (non-timed)

Conditions: Turnout equipment, SCBA mask, enclosed search maze

Behavior: Negotiate a search maze without visual cues

Standard: Continuing through the station, following the left hand wall, negotiate a three dimensional maze without visual cues, without pausing for a break; NO time limit.

Description: Candidate must crawl through a tunnel maze that is approximately two (2) feet in diameter, and approximately fifteen (15) feet in length. Candidate movement is monitored throughout the maze. If for any reason the candidate chooses to end the event, call out “TTO” (Training Time Out). Candidate will then be assisted out of the maze. Upon exit from the maze, the event is concluded.

Failures: **Automatic Failure**

- Failure to negotiate the maze
- Emerges from the entrance
- Inability to complete the event
- Signal for TTO

Warning

- Continuous forward movement is stopped
 - a) One warning for each criterion is given
 - b) A second infraction constitutes an event failure

THERE WILL BE NO MORE THAN A 2:00 MINUTE BREAK PERIOD BETWEEN THE NON-TIMED EVENTS AND THE TIMED EVENTS

For the next seven events of the PAT no SCBA mask will be worn. Turnout equipment will consist of helmet, coat, gloves, SCBA backpack, long pants and running shoes or duty boots. Time will begin when the candidate touches the high-rise pack to be lifted and time will end when the candidate touches the last couple of the hose line.

TIME BEGINS WHEN THE CANDIDATE TOUCHES THE HIGH RISE PACK

1. HIGH-RISE PACK CARRY

Conditions: Turnout equipment, SCBA backpack, high-rise pack.

Behavior: Carry the 58 lb. high-rise pack to a simulated stair platform and simulate advancing up a set of stairs.

Standard: The candidate is to move to a position that places them at the proper lifting point of the high-rise pack; lift the pack onto shoulder; carry high-rise pack 30' to the simulated stair platform; simulate climbing 3 floors (completely stepping up and down with both feet = 1 step) for a total of 30 steps; carry the high-rise pack 30' back to the designated area; place the high-rise pack in its proper storage area.

Description: The candidate will wear turnout equipment and SCBA backpack. The candidate will move forward to the high-rise pack, position it on their shoulder, and advance to the stair platform. The candidate will be required to step onto the platform and back to the ground thirty (30) complete times. When complete, the candidate will walk back to a designated area. This concludes the event. The candidate will proceed briskly, but walk, to the next station.

Failures: **Automatic Failure**

- Failure to lift high-rise pack
- Inability to complete the event
- Inability to maintain control of high-rise pack

Warning

- Pausing more than 5 seconds
 - a) One warning for each criterion is given
 - b) A second infraction constitutes an event failure

2. EQUIPMENT CARRY

Conditions: Turnout equipment, SCBA backpack, smoke ejector fan (50 lb.), water can (33 lb.), cord reel (61 lb.), and K-12 circular saw (31 lb.)

Behavior: Candidate will pick up two tools and carry the tools to a designated location and repeat the process back to the starting point.

Standard: Continue through the station, the candidate will be required to carry two tools to a designated location. The candidate will set the tools down on the ground and then pick up two different tools and carry them back to the starting point.

Description: The candidate will grasp two piece of fire equipment and carry them to a traffic cone located 50 feet from the starting point and place the tools onto the ground. The candidate must then turn 180 degrees and pick up two different tools and carry them back to the designated starting point. If the

tools begin to slip from candidates grasp; the candidate may stop for no longer than five (5) seconds and place tools on the ground in order to ensure a proper grip. This concludes the event. The candidate will proceed briskly, but walk, to the next station.

Failures: Automatic Failure

- Failure to carry tools to the designated area
- Inability to complete the event
- Dropping a tool during the exercise

Warning

- Pausing more than 5 seconds
 - a) One warning for each criterion will be given
 - b) Second infraction constitutes a failure

3. VENTILATION SIMULATION

Conditions: Turnout equipment, SCBA backpack, 10lb. sledge hammer, Keiser FORCE Machine

Behavior: Strike a ground level target with the sledge hammer

Standard: Continue through the station, using a two handed swing, driving the force machine beam the full length of the track without an interruption in swinging, and without pausing for a break.

Description: The Keiser FORCE Machine is a ventilation simulator chopping device consisting of parallel foot walks and a weighted beam. The beam is weighted to simulate the force needed to effectively penetrate roofs or plywood sheathing. Candidate will pick up the sledge hammer and straddle the beam by standing on the foot walks. The candidate will grasp the handle of the sledge hammer with both hands (one hand above and below the designated mark), and with a full movement, strike the beam squarely on the end. The swings will be with full force and consecutive in nature. The event is concluded when the edge of the beam crosses the designated tape mark on the sled. This concludes the event. The candidate will proceed briskly, but walk, to the next station.

Failures: Automatic Failure

- Inability to complete the event
- Dropping the sledge hammer at any time
- Stepping off sled during performance task
- Failure to drive beam to the designated mark

Warning

- Failure to grasp sledge hammer handle with both hands
- Failure to maintain hand positions on sledge hammer
- Pausing more than 5 seconds
 - a) One warning for each criterion will be given
 - b) Second infraction constitutes a failure

4. VICTIM RESCUE AND DRAG

Conditions: Turnout equipment, SCBA backpack, Rescue Randy Mannequin (approx. 165 lbs.) dressed in turnout gear with rescue strap

Behavior: Drag rescue mannequin for a distance of 100 feet

Standard: Continue through the station, grasp the mannequin by the rescue strap or under the arms, and drag 50 feet to orange cone, proceed around the cone, and drag the mannequin back to the performance task origin, without pausing for a break.

Description: Candidate must grasp a 165 pound mannequin by the rescue strap or under the arms. Carrying the mannequin is not permitted, and the mannequin may not be grasped by its clothing or appendages. The candidate must then drag the mannequin 50 feet to the pre-positioned orange cone, and make a 180 degree turn around it. Candidate must then continue an additional 50 feet back to the finish line. Candidate is not permitted to rest during this performance task. It is permissible for the mannequin to touch the cone, but must not displace it. The candidate is permitted to release the mannequin and adjust grip, but must quickly resume forward progress. The entire mannequin must be dragged until the feet cross the marked finish line. This concludes the event. The candidate will proceed briskly, but walk, to the next station.

Failures: **Automatic Failure**

- Failure to move the mannequin
- Inability to complete the event

Warning

- Pausing more than 5 seconds
 - a) One warning for each criterion will be given
 - b) Second infraction constitutes a failure

5. LADDER REMOVAL AND REPLACE

Conditions: Turnout equipment, SCBA backpack, 24ft. extension ladder

Standard: Remove a 24 ft. extension ladder, walk 25 feet away and 25 feet back and place the ladder on the ground.

Behavior: Remove a 24 ft. extension ladder (approx. 71 lbs) from the brackets on the training center wall. Carry the ladder around a designated pylon, 25 feet away, and then replace the ladder on the ground at its starting point.

Description: Remove the extension ladder from the brackets on the training center wall which simulates the height of ladders mounted on an engine. The participant will move the ladder from its brackets and carry the ladder around a designated pylon and then replace the ladder on the ground at its starting point. This concludes the event. The candidate will proceed briskly, but walk, to the next station.

Failures: **Automatic Failure**

- Failure to remove ladder from brackets
- Losing control of ladder and dropping the ladder onto the ground
- Inability to complete the event

Warning

- Inability to keep the ladder from contacting the ground
- Pausing more than 5 seconds
 - a) One warning for each criterion will be given
 - b) Second infraction constitutes a failure

6. CEILING BREACH SIMULATION

Conditions: Turnout equipment, SCBA backpack, 6 foot pike pole, 25 lb. weight.

Behavior: Candidates must pull a weight of 25 lb. utilizing a 6 foot pike pole a total of 30 times to simulate pulling ceiling during the overhaul process on the fire ground.

Standard: The candidate must grasp the pike pole with both hands between the taped areas on the pike pole. The candidate must stand in a designated area on the ground. The candidate must start with arms fully extended and pull the pike pole until the top hand is touching the candidate's chest. Each touch of the top hand to the candidate's chest shall count as one repetition. The candidate must perform a total of 30 repetitions.

Description: This event simulates the firefighter's ability to pull ceilings and/or remove debris from above the shoulder level. The candidate is to move to a designated area and pick up the pike pole and raise and lower the pike pole 30 times. Both hands must be below the mark on the pike pole. This concludes the event. The candidate will proceed briskly, but walk, to the next station.

Failures: **Automatic Failure**

- Loosing control of pike pole during the event
- Inability to complete the event

Warning

- Failure to keep both hands on the pike pole
- Failure to touch chest with lead arm during each repetition
- Pausing more than 5 seconds
 - a) One warning for each criterion will be given
 - b) Second infraction constitutes a failure

7. HANDLINE ADVANCEMENT AND PULL

Conditions: Turnout equipment, SCBA backpack, 150 feet of 1¾" charged pre-connected hose line

Behavior: Pull a charged hose line to a designated point 50 feet from a starting point and then turn 180 degrees, and pull the hose until touching the next coupling

Description: Candidate will grasp a hose line and nozzle attached to 150 feet of 1¾ inch hose. Place hose line over the shoulder or across chest. Candidate may run during the hose drag. Drag the hose 50 feet to the designated location, and place hose on the ground. The candidate then must turn 180 degrees, kneel and pull the next 50 feet of hose until touching the next coupling.

Failures: **Automatic Failure**

- Failure to carry hose with one hand on the nozzle and one of the hose
- Failure to pull hose line to designated area
- Inability to complete the event

Warning

- Failure to maintain one knee on the ground
- Pausing more than 5 seconds during drag
- Failure to stay in the designated area
 - a) One warning for each criterion will be given
 - b) Second infraction constitutes a failure

TIME STOPS WHEN THE CANDIDATE TOUCHES THE LAST COUPLING

APPENDIX A



Probationary EMT/Firefighter

Physical Ability Test (PAT) Schedule

Date _____

Group	Time	P/F	Name
1	0800		
1	0800		
1	0800		
1	0800		
1	0800		

2	0900		
2	0900		
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9	1600		
10	1700		
10	1700		
10	1700		
10	1700		
10	1700		

APPENDIX B



Probationary EMT/Firefighter Physical Ability Test (PAT) Pass

This pass admits _____ to the Winchester Fire & Rescue "Physical Ability Test". You have been assigned to Group _____ and will need to report to the Winchester Fire Training Center promptly at _____ AM / PM on _____. (Arriving late could disqualify you from the testing process). Please call 540-662-2298 if you have any problems.

How to prepare:

- Hydrate often with water. Energy drinks are not recommended and could affect your pre-medical screening results.
- Allow time to properly stretch prior to participating in the PAT
- For safety, do not wear jewelry during the PAT test

What to bring/wear:

- This PAT pass and valid driver's license showing your photo
- Long pants or sweat pants, running shoes or duty shoes (no shorts or open toe shoes)
- Firefighting coat, helmet, and structural fire gloves. (Quantities are available at the testing site)

Location of PAT:

Winchester Regional Training Center
1716 Woodstock Lane
Winchester, VA 22602



APPENDIX C



Probationary EMT/Firefighter
Physical Ability Test (PAT)

Candidate Name: _____ Test Date: _____

Last 4 of SSN: _____ Date of Birth: _____

Proctor Name: _____

Pre-Medical Monitoring

Time	Blood Pressure <i>(Diastolic pressure 100 max)</i>	Heart Rate <i>(<100bpm)</i>	EMS Personnel Initials

A candidate that has a diastolic blood pressure of over 100 mmhg or a heart rate of 100 bpm or more, prior to the beginning of the tests, will not be permitted to perform the test. Candidates will be permitted to be re-screened, one additional time, after 10 minutes of resting, to obtain an adequate blood pressure and heart rate. If the above criteria cannot be met, the candidate will be disqualified from the process.

Post-Medical Monitoring

Time	Blood Pressure <i>(Diastolic pressure <100 max)</i>	Heart Rate <i>(<100bpm)</i>	EMS Personnel Initials

Each candidate will be required to pass through the medical monitoring station at the conclusion of the test. Prior to being released from the testing site and at five (5) minutes intervals, the candidate's diastolic blood pressure must return below 100 mmhg and heart rate below 100 bpm. If the target levels cannot be released, the candidate will be processed as a medical patient by the Winchester Fire & Rescue.

Non-Timed Event	Pass	Fail	Remarks
Ladder Climb			
Search Maze			

Timed Event	Pass	Fail	Remarks
High-Rise Pack Carry			
Equipment Carry			
Ventilation Simulation			
Victim Rescue and Drag			
Ladder Removal and Replace			
Ceiling Breach Simulation			
Handline Advancement and Pull			
PAT Time	Time: _____		