ROWLETT, TEXAS
FIRE RESCUE
Entry Level Applicant
JOB TASK SIMULATION
TEST ADMINISTRATION GUIDE

Stanard & Associates, Inc.

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INTRODUCTION

A content-oriented strategy was used to develop a valid job task simulation examination designed to measure the basic physical skills necessary for successful performance as a Rowlett Fire Rescue firefighter. The entire examination is composed of job-related physical skills. Only those skills that do not require training to become proficient are assessed. This means the exam is equally valid for assessing the physical skills of individuals who have had fire experience and those who have not. The test sequence outlined herein is used by Rowlett Fire Rescue for entry-level selection.

A meeting with subject matter experts at Rowlett Fire Rescue, along with an analysis of data collected from current Rowlett firefighting personnel on a comprehensive fire services job analysis questionnaire provided the background knowledge necessary to develop this job-related physical ability examination. Recommended modifications were made June 2010. Recommendations were made by the JTS committee, a panel of Firefighters, Drivers and Officers of Rowlett Fire Rescue.

This manual includes all specifications and instructions necessary to administer the job task simulation to entry-level applicants. It begins with a list of what test takers must wear and all materials necessary to conduct the test. Then, the duties of the lead administrator and proctors are detailed. Next, testing assumptions are listed. The timed sequence of events is described and each component is briefly discussed. The untimed event is also described and administration instructions are provided. Important course measurements are then provided. Finally, an orientation/walk-through script is provided.

Throughout this guide, the term "**applicant and candidate**" refers to entry-level applicants participating in the entry-level exam.

EQUIPMENT

Applicants MUST wear the following during the timed sequence of events.

- Full bunker gear
  - Bunker helmet
  - Bunker gloves
  - Bunker pants
  - Bunker coat
- SCBA

Note: Rowlett Fire Rescue should provide candidates with all gear and equipment necessary to participate in the testing process. An assortment of sizes should be available to ensure a reasonable fit for all applicants.

Department-Provided Equipment

Qty	Equipment
1	Aerial ladder truck set approximately 75 feet high (from the turntable) at approximately a 65 degree angle
1	Ladder harness for the aerial climb
1	Lifeline rope for aerial climb
1	75’ section of 5" hose for Uncharged Hose Drag
1	Section of 1¾" charged hose line (approximately 150' to enable hook-up to fire truck)
1	Combo tool weighing approximately 42 lbs.
1	14' roof ladder weighing 43 lbs.
2	Ladder hooks
1	High rise pack weighing 68 lbs.
8	Section of rolled 2½" hose weighing approximately 42 lbs.
1	Striking apparatus 18” high (for Ventilation Event)
1	Shot hammer weighing 8 lbs.
1	Dummy weighing approximately 150 lbs.
1	Fire Engine/Pumper
1-2	Rolls of duct tape
6-8	Traffic cones to mark various components
2-3	Stopwatches
1	First-aid kit (if paramedics are not on hand)
	Chalk/paint or tape (to mark lines)
	Applicant record forms (to record test times)
	Rehydration fluids
	Rubber mats for the Victim Rescue Event (at least 62’ long)

THE STAFF AND THEIR DUTIES

Appropriate personnel should be scheduled for the administration of the job task simulation. For both staffing efficiency and adequate coverage, Stanard & Associates, Inc. recommends at least five Rowlett Fire Rescue staff members. All test administrators and proctors will thoroughly familiarize themselves with the testing procedures prior to the administration by reviewing this test administration guide. The following information will discuss key personnel and their responsibilities.

Lead Administrator (Supervisor rank)
The person designated as the lead administrator should be thoroughly familiar with all test administration procedures. To ensure the integrity of the test, this individual will be at a supervisory rank. The lead administrator is responsible for overseeing the exam, managing candidates, record keeping and providing a brief introduction and orientation to the testing process for applicants. A sample script for the orientation/walk-through will be presented later in this administration guide. The duties of the lead administrator include:

General

- Coordinate and assist with the candidate check-in
- Ensure candidates are wearing proper attire
- Conduct brief verbal candidate orientation of entire examination
- Fill out candidate' record forms including name, test time, pass/fail status of the untimed events and any other candidate information. As long as this information is captured for each candidate, an "official" record form is not required.

Timed Course

- Conduct the candidate walk-through of the examination
- Ensure candidates are properly attired for this portion of the exam
- Ensure all equipment is in place before the start of the exam (i.e., line charged, equipment replaced, etc.)
- Ask candidates if they understand what they are expected to do and if they are ready to start
- Time candidates throughout the exam
- Follow candidates through the entire course
- Ensure the components are completed as required, including
  - Candidate dragging the charged 1¾" hose to a marker
  - Candidate dragging the uncharged 5" hose to a marker
  - Candidate carrying combo tool to a marker and placing it in the designated spot
  - Candidate fully removing the 14' roof ladder from hooks, setting it down on the ground, and then replacing it
  - Candidate lifting and carrying high rise pack on a stair step machine or step up and down on a six to eight inch platform/curb, which will simulate stairs (38 steps).

- ♦ Candidate will successfully lift eight rolled 50 foot sections of 2 ½ inch hose, one at a time, placing them on the ground. Then the candidate will take the eight 50 foot sections of 2 ½ hose and place them back on the hose rack, one at a time.
- ♦ Candidate lifting shot hammer above head and striking the ventilation apparatus 10 times
- ♦ Candidate passing the finish line with the dummy
- ♦ Candidate **NOT** running between components

- Give candidates their status after the timed course and record it

Aerial Climb

- Explain to applicants what they are required to do in the Aerial Climb
- Have a staff member demonstrate the climb
- Instruct applicants individually on the component
- Ensure applicants are fitted into the harness
- Monitor applicants on the Aerial Climb (i.e., ensure they are not stopping, etc.)

Conclusion

- Dismiss applicants

Ground Proctor # 1

This staff member is situated at ground level and has a variety of support duties including the following:

Timed course

- Aid in course set-up
- Ensure candidates are properly attired for this portion of the exam
- Start the pumper and ensure proper pressure in the charged hose line
- Direct candidates toward the charged hose line to start the exam
- Instructing candidates not to touch the charged hose line until instructed to do so
- Drag the charged line back into position, placing the nozzle in its designated spot

Ground Proctor # 2 (Test Monitor)

This staff member is situated at ground level and has a variety of support duties including the following:

Timed course

- Aid in the course set-up
- Reposition combo tool for the Rescue Tool Carry Event
- Ensure roof ladder is properly set for the Ladder load Event
- Monitor Ventilation Event

Ground Proctor # 3
This staff member is situated at ground level and has a variety of support duties including the following:

Timed course
- Aid in course set-up
- Reposition shot hammer so that it is leaning against the striking apparatus for the Ventilation Event
- Reposition the dummy with its back facing the far marker for the Victim Rescue Event

Stair step Proctor
This staff member is situated at the stair step prop and has a variety of support duties including the following:

Timed course
- Aid in course set-up
- Monitor candidate during step process counting steps (38)
- Ensure candidate successfully completes the High Rise Pack Carry/Stair Climb Event
- Ensure candidate successfully completes the Hose load Event

ENVIRONMENTAL CONDITIONS

Examinations should not take place under extremely adverse weather conditions. An effort should be made to maintain standard conditions across testing sessions. Since running between components is prohibited, wet surfaces should not interfere with testing.

ASSUMPTIONS AND OTHER CONSIDERATIONS

1. Full bunker gear and SCBA (without mask) are to be worn by all applicants through every event in the timed course. Applicants are not expected to wear bunker boots and may instead wear athletic shoes.

2. Applicants must successfully complete the untimed event in order to proceed to the timed events.

3. All timed evolutions must be completed in a series with no breaks (a candidate may stop at any point during the timed sequence, but time will continue to run). Prior to starting the timed portion, candidates should be told it would be wise to pace themselves to ensure they have enough energy to handle all components, including the Victim Rescue, which is at the end of the sequence. In addition, Rowlett Fire Rescue should decide whether the test coordinator will respond to applicant inquiries regarding time remaining during the timed sequence of events. Requests should be handled with consistency. Candidates unable to successfully complete the timed series of events under the cutoff score do not pass the exam.

4. Prior to the actual examination, an orientation/walk-through will be given to all candidates by a test administrator. All boundary lines and designated areas within which test components are to be performed should be specified during the orientation and walk-through.

5. During the sequence of timed events, candidates are NOT allowed to run between stations. If candidates run, test monitors must tell them to “Walk, don’t run or you will be disqualified!”

6. A total of 5 personnel may be needed for test administration. Rowlett may wish to involve more or less personnel depending on availability. The Lead Administrator and other designated proctor (Test Monitor) shall both use a stopwatch to time candidates as they proceed through the evolutions and then document the overall time.

7. If an entry-level applicant exceeds the cutoff time, stop and dismiss the individual, regardless of which event the individual is attempting.

DESCRIPTION OF THE TIMED SEQUENCE OF EVENTS

All candidates will complete the untimed event before attempting the timed event. The Lead Administrator should lead each candidate over to the start of the timed sequence of events. Before candidates begin the timed events, ask if they are fully aware of what they are expected to do and answer any questions. Tell candidates that they may find it beneficial to pace themselves so they have enough energy to perform the components at the end of the test, such as the High Rise Pack Carry/Stair Climb and Victim Rescue Exercises.

Remind candidates of the cutoff score (**the cutoff score is 6 minutes and 37 seconds**) and that they must complete the timed sequence of events within this time limit. The cutoff score was based on times collected in a field-test process using current members of the Rowlett Fire Rescue. The cutoff score is representative of the overall time it takes current firefighters (at their respective ranks) to go through this test at a pace no quicker than a brisk walk.

The Lead Administrator should instruct the candidate to, when he/she says *Go,* pick up the charged hose and carry it in any manner that they wish (e.g., over the shoulder). The Lead Administrator should then tell candidates that he/she will say, *Ready, Set, Go,* after which the candidate may begin the examination. The Lead Administrator and Test Monitor should start their two stopwatches simultaneously after the Lead Administrator says, *Go*. Each component of the timed sequence is described below.

1. Charged Hose Advance. As described earlier, candidates begin the examination in a bunker coat, pants, gloves and helmet. Upon starting, candidates pick up a 1¾ inch hose line charged to 100 psi and drag it 80 feet before placing the nozzle in a pre-defined area.

2. Uncharged Hose Drag. Candidates walk 4½ feet, pick up a 75 foot' section of 5" uncharged hose line and drag it 75 feet to a traffic cone.

3. Rescue Tool Carry. Candidates walk 82 feet and bend down to pick up a combo tool weighing approximately 42 lbs. Candidates carry the combo tool 150 feet and place it in a predefined area on the ground.

4. Ladder Load. Applicants walk 144 feet to a 14 foot roof ladder resting on two hooks 85 inches high. Candidates lift the ladder off hooks, place it flush on the ground, and then replace it on the hooks.

5. High Rise Pack Carry/Stair Climb. Candidates walk 59 feet and bend down to pick up a high rise pack weighing approximately 68 lbs. Candidates carry the high rise pack up the simulated stairs (stair step machine or a make shift step/curb 6 to 8 inches in height), climbing a total of 38 steps total, upon completion of the steps, candidate then will place the pack in a predefined area.

1. Hose Load. Candidates walk 76 feet to the hose load area. They will remove eight fifty foot sections of 2 ½ inch hose roll off a hose rack one at a time and place them on the ground. Then the candidate will pick up and place each hose roll back on the hose rack.

2. Ventilation. Candidates walk 100 feet to the ventilation simulation apparatus, candidate picks up an 8lb. shot hammer and strikes a ventilation simulation apparatus (18 inches high) 10 times, raising the hammer above their heads each time.

3. Victim Rescue. Candidates walk 37 feet to the center of the mat of the dummy drag. Candidate will approach the dummy, which weighs approximately 150 lbs. Candidates drag the dummy a total of 50 feet to a finish line.

Timing stops when all parts of the dummy cross the finish line.

Course Measurements

All measurements are in feet. The number of feet between obstacles within the course is provided below. Summing all of the distances allows for an estimate of the total test length in feet.

Beginning to end of charged hose advance	80 ft.
Distance from the end of the charged advance to uncharged hose advance	4.5 ft.
Beginning to end of uncharged hose advance	75 ft.
Distance from uncharged hose advance to rescue tool carry	82 ft.
Beginning to end of rescue tool carry	150 ft.
Distance from rescue tool carry to ladder load	144 ft.
Distance from ladder load to beginning hose pack carry/stair simulation	59 ft.
Distance from hose pack carry/stair simulation to hose load	53 ft.
Distance from hose load to ventilation exercise	100 ft.
Distance from ventilation exercise to beginning of dummy drag	36 ft.
Beginning to end of dummy drag	50 ft.
TOTAL LENGTH OF COURSE FROM BEGINNING TO END	**833.5 ft. plus 38 steps (up and down)**

Course Specifications and Equipment Placement

- Charged Hose Advance. A 150 foot, 1 ¾ inch hose line charged to 100 psi is used for this component. The start and stop lines for the charged hose drag should be clearly marked. The start line is directly west of the start line for the Uncharged Hose Drag and the placement of the combo tool for the Rescue Tool Carry. The end line is reached by dragging the hose 80 feet to a traffic cone.

- Uncharged Hose Drag. A 75 foot section of 5 inch hose is used for this component, and it is lying flat on the ground with a coupling 4½ feet directly north of the traffic cone marking the end of the Charged Hose Advance. Candidates pick up and drag the hose 75 feet, past a traffic cone. The course is set up so that traffic cones are placed 75 feet from both sides of the starting point. If a candidate drags the hose west, the next candidate will drag it east. This allows for easy repositioning of the hose.

- Rescue Tool Carry. The combo tool weighs approximately 42 lbs and is located next to a pre-arranged traffic cone which is 10 feet directly south of the starting point for the Uncharged Hose Drag. Candidates will walk approximately 80 feet to the tool, pick the tool up and carry the tool 150 feet placing the tool in the position from where they picked it up.

- Ladder Load. Candidate walks 144 feet to the ladder. The 14 foot ladder weighs approximately 43 lbs. and is suspended from 2 hooks 85 inches high. Candidates completing the Ladder Load component are at ground level. Candidate will remove the ladder from the hooks, set the ladder on the ground, releasing the ladder completely, pick the ladder up and place it back on the hooks.

- High Rise Pack Carry/Stair Climb. Candidate walks 59 feet to high rise pack which weighs approximately 68 lbs and is located near the stair step simulation/curb. The candidate will pick up the pack and complete the 38 step portion of the course. Upon completion of this event the candidate will place the high rise pack back in a designated area.

- Hose Load. The candidate will walk 53 feet to the hose load area. There are eight, fifty foot sections of 2½ inch of rolled hose weighs approximately 42 lbs each and is located on a hose rack. Candidate will successfully lift eight rolled 50 foot sections of 2 ½ inch hose, one at a time, placing them on the ground. Then the candidate will take the eight 50 foot sections of 2 ½ inch hose and place them back on the hose rack, one at a time..

- Ventilation. Candidate walks 100 feet to the ventilation simulation. The ventilation simulation is a striking surface 18 inches high. Candidates use an 8 lb. shot hammer to strike the apparatus 10 times.

- Dummy. Candidate walks 37 feet to the center mat of the dummy drag. The dummy weighs approximately 150 lbs. and is placed at either end of tape markers on rubber protective mats. Candidates enter the event area at the mid-point of the dummy drag course lane.

DESCRIPTION OF THE UNTIMED COMPONENT

Aerial Climb

The untimed event is to occur before the timed events. In it, the fire department's aerial apparatus is to be extended approximately 75 feet off the aerial ladder base at an angle of about 65 degrees. A belay line will be strung through the top rung of the ladder to serve as a safety line. Applicants will be tethered to the belay line and will, upon instruction, ascend and descend the ladder without stopping. Two test administrators will secure the line to ensure safety. Applicants will not have a time limit when conducting the aerial climb exercise; however, they must not pause for more than 20 seconds during the event. The applicants will be instructed as follows.

> *Climb to the top of this ladder when I tell you to do so. This rope secures you so you cannot fall to the ground. When you get to the top, place both hands on the top rung of the ladder like this.* [Demonstrate by placing your hands on a rung.] *Then come back down. Do not stop on the way up or on the way down. If you stop, you may be disqualified. You will not have a time limit to complete this exercise, however, you are not allowed to rest at any time. Make sure you ascend and descend the ladder at a safe pace but do not stop for an extended period of time. If you stop once to rest, you will be given a warning. If you stop twice, you will be disqualified. Do you understand what you are about to do?* [Wait for a response. If applicants do not understand the procedure, go through the procedure a second time and again ask them to repeat the instructions.]

When the test monitor is confident an applicant understands the instructions, the monitor will say:

> *In this event, you will be judged on your ability to safely ascend and descend the aerial ladder. Do you feel that you can safely perform this exercise?* [Wait for a response.] *You will be given only one chance to perform this exercise and if you are unable to do it, you will be disqualified. Do you understand that you will only have one chance to perform this task?* [Wait for a response.]

When applicants agree they can perform the exercise and have demonstrated they fully understand the instructions, say:

Remember that when you reach the top of the ladder, place both hands on the top rung of the ladder like this. [Demonstrate by placing your hands correctly on the rung.]

When an applicant reaches the top and places both hands on the top rung of the ladder, the test administrator should tell the person to descend. Applicants must pass this portion to proceed in the selection process. **Applicants who stop for 20 seconds or more will be disqualified**. Upon completion, applicants are to be given a rest period of no less than 10 minutes before beginning the timed portion of the test.

The Orientation/Pre-Test Walk-Through for Candidates

A full and complete walk-through should be given before every administration. The walk-through involves taking a small, manageable group of applicants through the entire course to show them every component. S&A strongly recommends that the person conducting the walk-through demonstrate every component. This means dragging the hose, carrying the equipment, etc. The Department may, at its own discretion, open the course and make it available for applicants to practice. Following is the orientation/walk-through script. The indented and italicized sections should be read aloud to applicants.

At the start line, the Lead Administrator might welcome applicants, mention any information specific to the Rowlett Fire Rescue, and then say,

*There are a few things to remember about the examination. First, you will be wearing full bunker gear with SCBA (without the mask), as worn by firefighters at a Fireground scene. Second, the second part of the examination is timed, and you must complete it in **6 minutes and 37 seconds**. If you do not complete the exam in this time, you will be disqualified from further consideration. You may not run between components because there is usually no running at a fire scene unless there are extreme circumstances. We define running as both feet off the ground at the same time. The cut-off time on the examination was set by having incumbent firefighters walk between components as they went through the examination. If you run between components, we will give you one warning. The next time you run between components, you will be disqualified.*

When you start, someone will help you put on your gear and then you will stand next to the charged hose line, behind the line. I will say 'Ready, set, go!' On 'go' you should pick up the hose and begin pulling it in this direction. You can pull the hose as quickly as you feel comfortable with (Walk with the group in the direction of the hose pull while dragging the hose)*. I recommend putting the hose over your shoulder* (Demonstrate). *When you reach this point, you will put the hose down.*

After you complete this exercise, you will walk over to the next component which is the uncharged hose drag event. You will pick up this 75 foot section of hose line and drag it to the cone on either side, depending on the positioning of the

hose line when it's your turn. Once you have completed this exercise, walk over to the rescue tool carry event. Remember that you must walk, NOT RUN between the two components. You can be disqualified for running between components.

The combo tool weighs 42 lbs. You will pick it up carry it 150 feet and place it back in its original position next to the traffic cone. You may carry it with one or both hands, whichever you are more comfortable with. (Demonstrate carrying with one and with both hands). *Once you complete this exercise, continue on to the next component. Again, remember to walk.*

You are then to walk over to the ground ladder hanging on hooks. Pick up the ladder, place it flush on the ground, and then replace it on the hooks. (Demonstrate this).

Next, you will walk to the high rise pack carry and stair climb event. First, pick up the high rise pack and carry it to the stair step area. Once you have taken thirty eight steps on the stair step simulator/curb, you will place the high rise pack back in the designated area.

Next you will walk to the hose l*oad event. The eight, fifty foot sections of 2½" of rolled hose weighs approximately 42 lbs each and is located on a hose rack. Candidate will successfully lift eight rolled 50 foot sections of 2 ½ inch hose, one at a time, placing them on the ground. Then the candidate will take the eight 50 foot sections of 2 ½ hose and place them back on the hose rack, one at a time*

Then, you will walk to the ventilation event. Here you will pick up the shot hammer, raise it above your head, and strike the apparatus. You are to do this 10 times. A test administrator will be counting the number of times you successfully strike the apparatus. It will not count if you don't raise the shot hammer above your head (Demonstrate correct and incorrect ways to do the exercise).

Finally, you will walk over to the victim rescue or dummy drag. Drag the dummy any way you can past the line on either end, depending on where the dummy is positioned when it is your turn. It is 50 feet to the end line (Carefully demonstrate this by dragging the dummy back a few feet - it is not necessary to cover the entire course). *The timing of the exam stops when you and the entire dummy cross the finish line and the time monitor says 'Stop.' You will get your time at this point.*