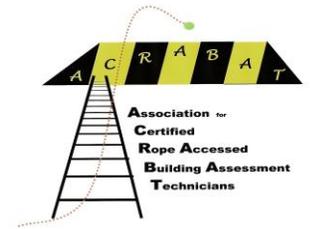




# Pitched Roof Specific Rope Access Training



## Full Level I Technician Certification (“AUTHORIZED PERSON” Training)

**Authorized Person** – An individual who has the approval of their employer to perform duties at a location where they will be exposed to high angle fall hazards. (ANSI Fall Protection Code Definition 2.11)

**Full Level I Certification:** A minimum of sixteen (16) hours of level appropriate curriculum is required.

### “Day One”

**Please Note:** Class start times will vary based on time of year! Check your class confirmation e-mail for exact class start times.

**Sign-in** - Participants fill out disclosure forms and class sign in sheet for Inspector CEUs.

- Instructor will introduce training facilitators and address all general training site information.

#### Program Overview –

- Instructor will outline class objectives, discuss the importance of personal risk management plans, discuss risks involved with class participation and assist participants to develop risk managed roof system access plans for avoiding personal injury.
- Instructor will discuss the concept of Pitched Roof Specific Rope Access as a means of improving the quality of inspection reports and eliminating the threat for personal injury.

#### Knots and Their Applications –

- Instructor will introduce the different types of lifeline cordage and the knots used within a Rope Access system.
- Participants will learn the process for tying four lifeline knots (Super 8, Double Overhand locking knot, Fig 8 Follow Through and Butterfly knot), one webbing / flat cordage knot (Water Knot) and two knots with Prusik cord (opposing Triple overhand locking knots & Prusik knot).

#### Line Placement –

- Participants are exposed to several different types of lifeline placement tools (*Comet Ball, Line Launcher II, Target Line and Rope Caddy*) utilized for positioning a lifeline over a roof structure from the safety of ground level.
- Participants are given the opportunity to experience the use of lifeline positioning tools.
- Participants are provided a demonstration of lifeline and ridge protector placement across a 46' tall roofing system from the safety of ground level.

#### Anchor Selection and Use –

- Participants provided information on the selection, set-up and use of three different types of anchors:
  - Fixed Anchors
  - Weight Based Anchors: Human Anchors & Portable Anchors
  - Load Shared Anchors
- Participants provided a demonstration on the proper application and effectiveness of weight based anchors.

#### Seven Component Static Belay System Assembly –

- Participants set up / build an actual static one person Rope Access belay system across an 8/12 pitch situated at ground level by securing two anchors with webbing, connectors, rope and appropriate knots.

**On-Site Lunch** (Provided)

### Body Harness Selection and Application –

- Instructor will assist participants with the understanding of how to properly identify, select and apply a full body harness system.
- Participants provided instruction and led through a series of exercises for the purpose of understanding of the components of the Petzl “Aveo Croll Fast” body harness.
- Participants provided instruction and led through a series of exercises for the purpose of understanding the belay devices attached to their harness which include 4 two-stage connectors, 2 ascenders (Petzl “Croll” & Petzl “Jumar”) 1 descender (Petzl “Rig”) and 1 fall arrestor (6.5mm prusik cord).

**NOTE:** *No participant will be allowed to move from the classroom to the climbing structures until they have completed a harness inspection with instructor.*

### Low Level Belay Training –

- Participants provided instruction and led through a series of exercises for the purpose of understanding and experiencing the physical aspects of a pitched roof specific Rope Access system (ascending, slope to slope belay transfers, descending).
- Participants provided instruction and led through a series of exercises for the purpose of understanding how to ascend with a descender and descend with an ascender.
- Participants familiarize themselves with lifeline assisted roof inspection process, build confidence in personal abilities to use equipment and demonstrate that they are ready to proceed to steeper and higher sloped surfaces that round out the remainder of the training program.

**NOTE:** *No participant will be allowed to progress to the next greater increment of pitch or height before they have demonstrated competence at this level.*

### Aggressive Pitch Access –

- Participants led through a series of progressively pitched climbs on intermediate to aggressive multi-pitched roofing systems (9/12, 10/12, 14/12 & 21/12).
- Participants provided the opportunity to comprehend the proper application and use of Rope Access equipment (lifeline, body harness ascenders, descender and fall arrestor) while accessing multi-pitched roofing systems.

### Self Rescue Training –

- Instructor led discussion on suspension related trauma and the most common roof inspection specific scenarios requiring self-rescue.
- Participants are provided instruction on how to avoid situations requiring self-rescue.
- Instructor demonstration on how to employ safe and effective self-rescue techniques in the event of a lifeline process error or incident.
- Participants provided the opportunity to complete their own self-rescue from true vertical suspension.

Sign Out

# Reality

# Rope Access **“Day Two”** LLC

### Voluntary Day One Review –

- Class instructors allow those participants in need of additional assistance the ability to arrive at training site 30 minutes early to review and / or rehearse material covered on day one of training.

**Written Test, Scoring & Instructor Led Discussion –** Participants complete written exam, tests are scored and correct answers revealed and discussed.

<p style="text-align: center;"><b>Written Test</b> <b>Complete Multiple Choice Exam</b> Participant Must be Able to Pass with a Score of at Least 70% Correct <b>No Time Limit</b></p>
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### **Pitched Roof Specific Ladder Training –**

- Information provided on roof access specific ladder selection, set-up and use.
- Considerations for ladder working load limits and ladder retirement.
- The incorporation of ladder stabilizing products to create a roof access specific ladder.

### **Pivot Line Training –**

- Participants provided training on the proper set-up and use of a Pivot Line to access hip end slopes.

**Skills Testing -** Participants are required to complete the following skills tests:

#### **Harness Selection and Application Review & Skills Testing**

- Participants will be provided a review on how to properly select and apply a full body harness system and then as one group required to get into their harnesses without any further assistance from class instructors. This skills test will be complete when all participants have completed the assignment with 100% accuracy based on harness manufacturer's recommendations.

**Skills Test # 1**  
**Correct Harness Application**  
Participant Must be Able to Demonstrate 100% Accuracy  
**No Time Limit**

#### **Knot Tying Instruction and Review & Skills Testing**

- Individual testing event where participants will receive a complete review of all six class knots and then will be required to re-produce knots on their own with 100% accuracy.

**Skills Test # 2**  
**Re-Create Six Class Knots**  
Participant Must be Able to Demonstrate 100% Accuracy  
**5 Minute Timed Event Limit**

#### **Lifeline Placement Skills Testing**

- Participants must demonstrate the ability to utilize line placement tools to set a lifeline over a two and a half story roof structure.

**Skills Test # 3**  
**Lifeline Placement**  
Participant Must be Able to Demonstrate 100% Accuracy  
**No Time Limit**

#### **Static Line Set-Up Review & Skills Testing**

- All Participants will be provided a review on static belay system set-up and use procedure and then required to build a complete static lifeline consisting of two anchors, two sets of anchor webbing, four three stage carabiners and one low elongation rope.

**Skills Test # 4**  
**Set Static Belay**  
Participant Must be Able to Demonstrate 100% Accuracy  
**8 Minute Timed Event Limit**

**On-Site Lunch (Provided)**

## Skills Testing Continues –

### Ladder Use & High Static Belay Skills Testing

- Participants must demonstrate the ability to correctly utilize extension ladders and a full static belay system to access and inspect a two and a half story (10/12 & 12/12) roof structure.

#### Skills Test # 5

**Extension Ladder / Roof Access Ladder Use**  
Participant Must be Able to Demonstrate 100% Accuracy  
No Time Limit

#### Skills Test # 6

**Complete High Static Belay Inspection Climb**  
Participant Must be Able to Demonstrate 100% Accuracy  
No Time Limit

### Pivot Line Review & Skills Testing

- All participants will be provided a review on pivot line / secondary lifeline set-up and use procedure and then required to correctly assemble and use a pivot line to access an 11/12 pitched hip end slope that is perpendicular to a primary lifeline.

#### Skills Test # 7

**Build and Use a Working Pivot Line Off of a Primary Static Lifeline**  
Participant Must be Able to Demonstrate 100% Accuracy  
No Time Limit

### Self-Rescue Instruction, Demonstration & Skills Testing

- Instructor led discussion on suspension related trauma and the most common roof inspection specific scenarios requiring self-rescue.
- Participants are provided instruction on how to avoid situations requiring self-rescue.
- Instructor demonstration on how to employ safe and effective self-rescue techniques in the event of a lifeline process error or incident.
- Participants must demonstrate rational thought / critical use techniques required to complete their own self-rescue from true vertical suspension.

#### Skills Test # 8

**Complete Vertical Suspension Self-Rescue Exercise**  
Participant Must be Able to Demonstrate 100% Accuracy  
No Time Limit

### Course Evaluations and Sign Out.

*Participants who successfully complete program lessons, practical skills testing and written testing will be provided certificates that document full Level I Technician certification within five business days of class completion.*

# Duties of The Roof Specific Rope Access Worker

## (Level I / Authorized Person):

(As defined by ACRABAT's "Roof Inspection Specific Rope Access Standards")

The Level I Roof Specific Rope Access Worker *SHALL* have the appropriate qualifications and training for completing rope access roof inspections.

The Level I Roof Specific Rope Access Worker should work under the direction and supervision of a Level II Rope Access Supervisor.

The Level I Roof Specific Rope Access Worker *SHALL* have a working understanding of employer's applicable policy and procedure.

The Level I Roof Specific Rope Access Worker *SHALL* either be provided and maintain or possess and maintain the minimum amount of rope access equipment required to safely and effectively complete a rope accessed roof inspection that include:

Rope placement tools capable of positioning a *LIFELINE* to a minimum height of a two and a half story structure for residential use and six stories for commercial use from the safety of ground level.

A minimum of 200ft of *PRIMARY LIFELINE* rated rope compatible with the belay device components for its intended use.

A minimum of 50ft of *SECONDARY LIFELINE / PIVOT LINE* rated rope compatible with the belay device components for its intended use.

A minimum of two sets of anchor cordage at least twelve feet (12ft) in length.

A *BODY HARNESS* that meets *UIAA, NFPA, ANSI, ASTM, or EN* standards and have a *TENSILE STRENGTH* of at least 5000 lbf / 22.2 kN.

A minimum of (6) belay component compatible *CONNECTORS* (two stage or greater) with a 5000 lbf / 22 kN *TENSILE STRENGTH* rating along the major axis with gate closed and locked.

A ridge cap and rope protecting device that can be put in place from ground level at the same time *PRIMARY LIFELINE* is put into place to prevent damage to rope access equipment and roofing system.

A primary *BELAY DEVICE* capable of hands-free use and compatible with intended rope access components as specified by manufacturer.

A secondary *BELAY DEVICE* capable protecting worker during a fall forward (over the ridge cap of initial slope ascent) or backwards (below the ridge cap of initial slope ascent) during a slope to slope transition.

Single story and multi-story extension ladders in a state of safe functioning / working order as specified by manufacturer.

The Level I Roof Specific Rope Access Worker *SHALL* utilize personal protective equipment as designated by the Rope Access Supervisor.

The Level I Roof Specific Rope Access Worker *SHALL* work with Level II Rope Access Supervisor to create a *JOB HAZARD ANALYSIS* that will include the following:

Site specific location and contact information.

Rope Access Supervisor / Level II Competent Person contact information.

Local emergency response contact information.

Company specific rope access procedure and policy.

- Team member responsibilities
- Means for set-up, access and communication
- Level II Supervisor field safety and quality control inspections
- Weight sensitive roof surface inspection procedures

Identifiable list of hazards present in the local fields of work.

Rescue Plans and procedure for:

- Self-Rescue
- Company / team assisted rescue

The Level I Roof Specific Rope Access Worker *SHALL* notify the Rope Access Supervisor of any task or responsibility beyond their training, skills, qualification or experience.



Reality

Rope Access LLC