

Noblesville, IN 46060
(317) 714-3649
e-mail: hanley1000@gmail.com

ADVENTURE / CHALLENGE ROPES COURSE CONSTRUCTION/ INSTALLATION INFORMATION & RATES - for 2017 and beyond

Basic Information Outline

As there is no set package of ropes course elements that we recommend for a particular age group or type of population, we feel the following steps are an ideal way for one to approach the construction of a ropes course at his/her site.

- 1) Attend a Pro Image Adventures (PIA) Challenge Ropes Course adventure program or facilitator certification training, at which instruction is given in the use of high and low ropes course elements. This gives the program person a “feel” for our approach and a comfort level with various elements. Ask for our reference list and contact others to see what they have to say.
- 2a) Have a PIA staff member **visit your site to conduct a site evaluation** and consult with you on the needs of your population and location;
- 2b) PIA will **design a course you feel comfortable managing**.
- 2c) Consult with PIA for design changes **after** a relationship, drawing and plan has been established.
- 3) Schedule Pro Image Adventures staff to **construct/install** your challenge ropes course by signing a contract and making a deposit.

PIA has designed/built approximately fifty elements. Only one agency to date has bought fifty or more elements all at once! An “average” first construction is for 12-16 elements (2/3 low and 1/3 high belayed), and costs from \$15,000 to \$50,000 for elements, Personal Safety Gear, clearing and insurance. Include travel expenses and training and the overall project ranges between \$23,000 to \$60,000 total.

Partnered High Ropes, Zipline courses, Treehouse, platforms, Adventure Parks

Pro Image Adventures is a leader in pioneering elements which always emphasize close relationship with you, to assure getting what you want. While these courses typically range in cost from \$25,000 to \$150,000, (a significant start-up cost), their benefits are significant; some allow teams of people to be in the air, and provide choices of challenge levels that meet individual needs. Others allow the freedom for pure exhilaration. The powerful results experienced in the low initiatives can now be safely and creatively continued on the high ropes, and we partner with other professionals to bring you the best experience while meeting demanding standards of safety and endurance.

Construction Services/Terms

Estimate Policy, Insurance Coverage and Warranty

We require a fee (approximately \$600 and up, varying upon the scale and type of your program) to cover the costs of visiting and evaluating your site, assisting you in a needs assessment and providing you with a ropes course cost estimate. This fee is non-refundable; however, when contracted to build your course, often the fee may be discounted on your final bill.

We are insured with completed with \$3 million operations general liability, (more is available for cost if you require that), and workers compensation as well as product liability. We warranty our work against defects for two years minimum on parts, and one year on labor. You renew that with us when we perform an annual written safety inspection.

Heavy Equipment, completed operations insurance and standards in the new millenium

Pro Image Adventures builds to stringent, demanding safety standards monitored by the Professional Ropes Course Association (PRCA). We will usually employ the services of a bucket truck and pole (digger/derrick) and guy cable installing equipment. We also carry Completed Operations & Product Liability Insurance.

Basic Labor Rate

\$600 per lead builder per day, \$400 per other builder(s) per day; count on two or three builders being required. Pro Image Adventures (PIA) encourages the involvement of your people in pre-clearing and groundwork assistance during the construction. Unless otherwise agreed upon, you (your wooded site) must furnish any logs or poles required for the course. A bucket truck or 4Wheel Drive lift of some sort will probably be required; your ability to furnish one will lower the cost of construction.

Utility Pole Courses

It may be necessary that utility poles become the anchor trees for your course. You may get these and the means to install them from a local source. PIA will provide you with the layout, design, quantity, class (diameter) of poles, and specific length needed. Belay cable anchor poles must be new or like new, Class II and CCA treated. (Penta treatment is a more enduring treatment, and makes the poles easier to work with, but because it is oil based, is NOT environmentally friendly to the ground or people, thus ideally should only be used where human contact is minimal.) When building with utility poles, they must be guyed. If substantial trees are not strategically located, then ground anchors will need to be placed in line (180 degrees to the direction of load) and far enough away to create a minimum of 45 degrees from the top of the pole to the ground anchor. While utility poles may not appear aesthetically pleasing, they generally endure much longer than trees. While their up-front cost is greater, they are more likely to ensure a sound investment.

Lumber and fasteners

PIA has made a general policy of avoiding the use of treated lumber, at least for decking-it is heavier, more brittle and more likely to splinter, it doesn't "show well", it does not always last as long as people believe it will. Instead, we use cedar for decking of platforms, and often southern yellow pine for framing, and then seal both. While we are still researching the ideal sealant (longevity, resistance to sun and weathering, appearance, coverage, price, availability, reputation), we have had recent success with Penofin, and recommend it highly. It comes in a variety of grades, and is made with Brazilian rosewood, and is a natural non-toxic product. We also advocate the use of Torx type screws for strength and reliability in installation and removal where possible in addition to lag screws and through bolts.

Indoor Construction

A special category. The average cost for indoor construction is \$12,000-\$25,000, but varies widely because of the variety of indoor structural layout. PIA requires at least 20' from floor to ceiling and ideally exposed strong girders or brick walls for high courses. You are requested to provide scaffolding, ladder or a lift, blueprints and someone who "knows" your building's structure.

Personal Safety Gear (PSG) Equipment Cost Consideration

Please bear in mind that in addition to materials you purchase that become a permanent part of your ropes course, charges for PSG equipment such as helmets, harnesses, rope, hardware (carabiners, Gri-Gris, ascenders, figure eights), and rescue equipment will be assessed based on your specific ropes course design and program needs. Plan on between \$3,500-\$7,000 for start-up. These items do wear out over time. They should be inspected and need to be replaced at regular intervals, depending upon manufacturer's recommendations.

Training/Certification and Re-certification of Staff

Whenever Pro Image Adventures (PIA) constructs a course, at least 1 – 2 members of the staff from that organization must be trained by PIA. Trainings are scheduled year round at a variety of sites and/or can be arranged for at your site for your convenience. A training site requires certain features, facilities, personnel and elements. Re-training is required annually or every 2-3 years for more experienced staff, (except for directors/administrators-5 years-see ANSI PRCA 2014 standards) and takes less time than the first training. The notion of certification and what it means to who can be a sticky one... basically, we follow the PRCA standards for operation which is a very high standard and it is rare in our experience that a person with NO experience will walk in, get trained in 3-5 days and then be fully ready for the enormous responsibilities managing a challenge course entails. Instead, we recommend the portfolio or Report Card approach, take the training and get re-tested over several years on specific competencies gradually while building experience under a more experienced person's eye. This is understandably tough for camp directors, who face staff with inexperience and high turnover rates...

Maintenance of Course – Inspections and 4th year professional peer review

While it is difficult to generalize (due to the wide scale of program designs), a budget of \$1,000-\$3,000 per year for an inspection and equipment replenishment should suffice for most programs. Training is a separate item and certifications vary with duration, but professional training is essential. Once PIA has built your course, prudence and our insurance folks and we require you to have us provide you an annual safety inspection. Again, assistance by one or two of your staff is essential. Have a designated staff person present during the inspection, inventory records, all PSG, previous safety reports, and KEYS to the course and equipment storage area(s) ready for our arrival. Pro Image Adventures asks all clients after the 3rd year of inspections to hire another, qualified PRCA builder for an inspection to keep a fresh perspective as regarding to safety.

Client Involvement in Materials and Building Process

While it is possible to have you, the client, provide materials (lumber, poles; perhaps bolts, cable, and rope), we doubt you will be able to provide all of the materials for any element. We are certainly willing to be creative in our arrangement; however, if we arrive to inappropriate materials that do not meet specifications, you will, unfortunately, need to compensate our crew for time lost while waiting. This also applies to heavy-duty equipment you agree to provide. In essence, you may save some money on material, but you prevent us from being able to control the project outcome.

If you choose to build the course yourselves, (which we do not recommend-too much liability for you) then at least have us train your staff (PRCA standards, techniques, specialized tools -we'll supply- safety equipment, knots, etc.). We also will then inspect and insure the course. Our rates are \$600 / day for training, \$600 (minimum, depending on the scale), to design and locate your course, and \$500 (and up) to inspect your high course (plus travel).

Our Proposal Features

Each ropes course proposal includes a complete overview of the costs involved with a recommended challenge ropes course for you. We design truly state-of-the-art series of stations that are *not* your average ropes course. They feature:

- Sophisticated belays; and Optimal Safety (Rescue (4:1 Fiddle Block lift kit) Bag included)*;
- Spectacular results in a shorter time (critical for corporate groups and school classes of 45-60 minutes);
- Vandalism/liability prevention design and a variety of challenge from easy to difficult;
- Long wearing materials with “put up/take down” options where appropriate;
- The ability to maximize the aesthetic beauty of your site (height, length of elements, four edges of nature);
- Sophisticated programs maintain interest of all age groups; large (youth or adult learner) groups.

High Ropes ONLY

We propose an ideal way to keep multiple groups of more than 15 active simultaneously is a Hybrid Tree House Course.

Contract Terms

Our usual terms are 33-50% of the agreed upon amount to be paid in advance, with the balance due the day of completion of construction. * If you plan to proceed, we will send you a letter of agreement and a contract to be signed and returned with your down-payment. Upon receipt of your signed contract and down-payment, this quote will remain firm for a period of six months (from the date received by PIA).

All work and materials guaranteed; 2 years on materials and one year on labor. Completed operation insurance coverage also provided. However, challenge course owners must follow regular maintenance, training, and inspection policies. It is the SOLE responsibility of the users of any adventure ropes course to acquire training and proficiency.

*Note: Any amount owed, and not paid on time is subject to 1.5% interest charge per month until balance is paid. A deposit is not refundable.

Some samples:

Team Initiatives

- %#^ Nitro Crossing
- # Spider Web (Single Plane or 3-D)
- %# 1,2, or 3-sided Wall with Deck (11' – 14')
- #+ Whale Watch/Sinking Ship
- %^ Log(TP) Shuffle
- ?^ Toxic Waste/White Water River Rescue
- %^ Trapeze Jump
- O% Trust Fall Platform
- #? Horizontal Spider Web
- ?^ Clock
- ?^ Meuse
- %^ Giant's Finger & Ring
- O# Rebirth
- ?# Maze
- +?# Trolleys
- O# Islands
- +?# Puzzle
- O# Meatgrinder

Low Elements

- O Postman's Walk/ 2 Line Bridge
- O Burma Bridge
- O Inclined Log
- O Balance Beam
- %#^ Wild Woozy
- %#^ Tension Traverse
- # Burma Loops
- #^ Eagle Walk
- %^ Through Loops
- O%#^ Multivine
- %^ Tired Two Line
- %^? Space Loops
- %^? Pirate's Crossing/HebbieJeebie
- O%#^? Swinging Log
- %^ Spider Crawl/Tyrolean Traverse

Key

- % More Physical
- O Beginner
- # Intermediate
- ^ Advanced
- ? More Mentally Challenging: requires more communication
- + Traveling initiative

Challenge Course Design: “Begin with the end in mind.”

Rationale for Creative Intentional Design

Effective facilitators have long realized that the power of the challenge course is in transferring the successes from the guided discovery arena to the participants’ daily lives. The joy of success is when clients make changes at “home” consistent with the discoveries and successes experienced on the challenge course. The use of metaphor has been significant, but what is even more important is to create isomorphic experiences. These are experiences that progressively parallel the person’s real life so that initiating change and resisting old behaviors is a more practiced and confident decision.

It is, therefore, entirely worthwhile to design a course that is conducive to metaphor and isomorphism. It is critical to design experiences that provide varied opportunities for individuals/groups to be successful in meaningful ways, tap people’s creative energies, and learn alternatives to dead end behavior patterns in non-threatening ways. These experiences should meet an individual/group where he-she is, and gently develop a trust level and spirit for “trying something new/exciting.” Designing fun or PLAY into the challenge course, especially giving adults permission to “leave” work and be playful, is a critical component to design. Louis Bowers indicates in a 1988 journal article...”the make believe quality of play allows (us) to experience the small consequences of decisions made in play compared to the sometimes irreversible (paralyzing) decisions (we) make as adults (in our daily routine).”

Therefore, the results we desire are people (1) who work as a team, (2) understand what it is like to have been challenged, and (3) are full of experiences that characterize the precious values of human society – humility, perseverance, creativity, courage, honesty, vulnerability, strength, passion, wisdom, selflessness, beauty, compassion, humor, respect for self and others, love, and caring.

Aesthetic Considerations

What Outdoor Features? Why?

It is important to create (or discover) an appropriate environment in which to place the course. Experience teaches respect of the edges of nature – meadow, woods, hills/mountains, water. The addition of any one edge to a challenge course setting adds a natural aesthetic opportunity for creativity that is helpful to the end we have in mind. When two, three, or all four edges are available, so much the better. The experience becomes indelible; the participant not only vividly remembers the challenge experience, but also more importantly makes discoveries about him/herself and the world and commits to respecting that kind of world in the future. With continued immersion in value-laden programs of this nature, this person will seek to *create/protect*, that kind of world (one filled with natural beauty, humility, majesty, etc.) The works of Aldo Leopold, noted best perhaps in his A Sand County Almanac, eloquently portrayed this best. Other important considerations for visual and tactile stimulation are blending several textures into the course design (wood, rope, cable).

To provide for the diversity of human abilities, one should design a course with low, medium, and high degrees of personal challenge available in the overall journey. Controlled variable that affect these outcomes are height, length, rigidity of element materials (i.e., wood, cable, rope), and the degree of physical exertion, perceived emotional and mental skills necessary to the completion of each task. The goal of cooperation or interdependency is controlled by supplying the variable of two or more people attempting a challenge route simultaneously. PIA calls this a Partnered Challenge Course, where a number of paradoxical dilemmas are suddenly presented to the participants. “How much do I take charge/become subservient? How much do I look out for me/the other person(s)? Can I show my fear/courage?”

Designing the course with many options for the participant and staff is important to keep the adventure program from going stale and to meet our growing awareness of people’s cultural diversity. Athletic, differently abled, young, old, small, tall; ethnicity, language, members of large groups, small groups, corporate, youth, college, family, or church groups – all of these factors present possibilities for the challenge course facilitator to “tweak” the course “hardware” (what) as well as “software” (how).

Consider night use by lighting your challenge course and having music as a motivational or environmental mood support. In addition, realize the value in owning a set of two-way radios.

Practical Considerations: Tree/Poles

Will your site use trees or utility poles? Although either is justified, there are trade-offs to both. Poles are totally controllable with regards to the location and dimensions of your facility and reduce some construction and maintenance issues. However, they have a higher up front cost and, unless they are designed into the woods, lose much of the aesthetics. There are standard specifications regarding the class, length, diameter, age, and material of which poles are composed. These are governed by the Professional Ropes Course Association (PRCA) and / or Association for Challenge Course Technology (ACCT).

Trees have the advantage of being natural and contributing readily to one’s aesthetic, creative appreciation and are “free”. However, the preparation of the trees and areas nearby do take labor and machinery, do not allow for pre-controlled dimensional planning, require more ongoing maintenance and present the risk of tree mortality due to disease or injury, such as lightning. Other factors include current tree viability based on species, height/diameter of tree, soil/root quality and straightness of trunk.

Other Issues

The choice of belay technique, number of personnel required, and number of people the course can accommodate are all critical practical considerations. Devise traffic routes that divide your high elements into a series of three types: ascending (ways up or **into**), traversing (bridges), and descending (ways down or out **of**).

The growing popularity of Canopy Ziplines or Aerial Adventure Courses and Treehouses also add newer choices for you to ponder how to best get people into the outdoor environment, safely.

It is important to be aware of where you are likely to need staff aerially as well as on the ground. Will you use static or dynamic belays or a combination? Do you have a rescue plan, equipment (site specific) and general training? Do you have road access for ease in maintaining your course or responding to a serious medical emergency?

The following Challenge Course Design Checklist is a series of questions to guide you through course planning. It’s a valuable series of questions for long into the future, so keep them in a safe place...

Challenge Course Design Checklist

Editor's note: The purpose of this list is to create careful planning and to help you realize that some things are fixed and some are variable. Going through the checklist will help you identify which things are which and what you still have to do. Feel free to add other items to the checklist.

1. Do you have funding necessary for the project? _____
2. Do you have appropriate general liability insurance coverage? _____
3. Do you own or have written agreement allowing you to use the property/building where you will locate the course? _____ Are any permits necessary? _____
4. Do you have woods, meadow/open natural space, water, hills/mountains within view or as part of your course's environment? _____
5. Does your course environment have relatively little grade with good drainage, few rocks, and is it devoid of bees, poison ivy, or other "live" dangers? _____
6. Do you have trees that are healthy, of an enduring species, sufficient diameter and height, proper spacing, trunk straightness, and soil/root quality? _____
7. Is there room for expansion of your course? _____
8. Do you know who your potential clients are; their range of physical abilities? _____
9. Is this course versatile for several types of groups and time frames? _____
10. Have you planned a budget for future years to include inspections, training, more harnesses and other gear, additional elements, repairs to existing elements (damaged by weather, tree loss or vandalism), and staff? _____
11. Have you invested in belonging to the Professional Ropes Course Association (PRCA) and / or Association for Challenge Course technology (ACCT)? _____
12. Have you planned an inclusive/universal/accessible design for your course? _____
13. Is there a variety of physical/emotional/mental challenge levels available in your design of the elements? _____
14. Do you know what the PRCA and / or ACCT operations and installation standards are?

15. Do you have the involvement of people critical to the success of your operation (i.e., community, public school officials, camp staff, etc.)? _____
16. For how many clients and to what end(s) / purpose(s) do you wish to provide an experience? (Recreational, educational, developmental, therapeutic) _____
17. Will you utilize volunteers or participants in the belaying? _____
18. How will they be trained/supervised? _____
19. Do staff people have proper training/certification, experience, and opportunities to maintain their training? _____
20. Have you made arrangements for the continued documentation of staff skill competencies in a portfolio? _____
21. How many staff people will you have available? _____
22. Do you have staff job descriptions and staff people in mind to fill the jobs? _____
23. Do you know what those staff people should be like and ways to measure their abilities?

24. Do you know where and how many of your staff need to be located on the course? _____
25. Do you have a curriculum and challenge course Local Operating set of Procedures (LOPs) that indicates how the course will be utilized? _____
26. Do you have an EMS, EAP, risk management and a rescue plan? _____
27. Have you considered using Paired or Team high elements to offer a different dynamic and increased participation on the course? _____
28. Do you have a blend of element textures (rope, cable, wood) and a variety of element heights, lengths, and movement difficulty (i.e., to provide a range of challenge, creativity, and attractiveness)? _____
29. Will the high course elements be mostly connected (centralized) or “stand alone” (decentralized)? _____
30. If it is a connected course, do you have traffic routes that allow for a logical progression and quick solutions to potential traffic jams? _____
31. Do you also have appropriate ascending approaches that appeal to a range of physical abilities (i.e., self belayed system/staples/ removable steps, ascending elements, rope and aluminum ladders, etc.)? _____
32. What type of belay system(s) will you use (i.e., slingshot dynamic/static, aerial statics, lobster/bear claws, ascending statics, fixed tree/platform statics, etc.)? _____
33. If you are not using trees as anchors for your high course, will you use poles instead? _____
34. Are they new, CCA (or Penta) at least class II, installed to the proper depth and guy anchored, and of appropriate height? _____
35. Have you designed put up/take down capability for as many elements as possible to reduce liability and vandalism and prolong their life? _____
36. Have you planned for convenient, centralized storage facilities for portable elements, Personal Safety Gear, records, etc. in a safe, strong, secure, rodent proof structure; ideally with natural lighting (skylights) as well as power and electric lighting? _____
37. Is there at least a path that some 4-Wheel-Drive vehicle can have emergency access to and from the course elements? _____
38. Have you planned for ongoing mulching under and around elements to protect tree root systems, reduce the effects of heavy foot traffic, and increase the safety of impact absorption it affords? _____
39. Do you have 2-way radios, mobile or onsite telephones, & other communication plans? _____
40. Have you considered power and night lighting, and, if so, do you have lighting in appropriate places? _____
41. Do you have a logical place to provide briefings, high ropes orientations, and debriefings? _____
42. Do you have places for clients and staff to put their personal belongings as well as any trash? _____
43. Is this course plan going to be challenging and FUN? _____
44. How much time are you allowing for activities on the Teams, Low course, and High course? _____

Good luck! – Tom Andrews

Pro Image Adventures

Noblesville, IN 46060
(317) 714-3649
e-mail: hanley1000@gmail.com

Challenge Course Prospective Services

Name of Organization _____ Address _____

Client Contact _____

Facility Site Address _____
(if different from Organization Address) _____

Phone (O) _____ (H) _____ (Fax) _____ (Camp/Site) _____

Mobile _____ e-mail: _____ Website: _____

CONSTRUCTION: Please let us know if you are: _____ committed, _____ likely, _____ possible to rebuild or reconstruct a ropes course this year. At what time of year would you like to do this? _____
What is your budget range? \$ _____. Call with any other questions you have for us regarding building.
We are insured and we warranty our work. We build to the current PRCA & ACCT installation standards.
We fasten Korean cable primarily with copper ferrule swages in addition to fist grips / Gripples where the application allows; less maintenance and higher quality work.

INSPECTION: If you are committed to, or likely to have us do an inspection, please let us know which of the following periods work best for you: _____ February, _____ March/April, _____ May/June, _____ July/August, _____ Sept/Oct _____ Nov/Dec
We will then schedule inspections as we can to group them together by date and location. Inspections will range from \$350 to \$1,500; depending on the size of your course; travel is extra.

Certification: We offer: _____ 3.5 day Low Ropes, _____ 4.5 day High Ropes, _____ 2 day Manager.
We have several training sites, which include camps in PA; Holiday Recreation Center in CT; YMCA camp in Indiana.
There will be a Northeast based certification during each of the following periods: _____ early June (CT), June 17-25 (PA), _____ Oct 26-29/Nov 2-6 (CT).
Custom scheduling for IN Certification -let us know which is best, _____ Spring _____ Summer, _____ Sept/Oct (ideal!).

NEW: Updated Facilitator's Manual (call for cost plus S&H)

PERSONAL SAFETY GEAR:

QTY	ITEM	QTY	ITEM
_____	carabiners (\$11-50)	_____	rescue figure 8's (\$50)
_____	rope – 5/16" Prussik Ultra tech (\$4.00/ft.)	_____	rope –rappel/ascend (ask for price)
_____	rope – belay (varies – avail by ft or spool)	_____	shock cord (\$.36/ft.)
_____	UIAA helmets (call for price)	_____	Multiline (varies by diameter)
_____	rescue bag (\$850)	_____	triple locking captive eye swiveling ANSI carabiners (\$call)
_____	Singing Rock Instructor Harness (\$129)	_____	Headwall or Robertson One Size Fits Most Harness (\$55)
_____	Robertson Instructor Cypress (\$129)	_____	Singing Rock Type III Expert ANSI Builder harness (\$195)
_____	GriGri (\$ask for price)	_____	Shear Reduction Device (\$100)
_____	Ropes Course Element Pulley	_____	1 handed Cable grab w/ Zorber, carabiner (\$ask for price)
_____	w/Redundancy (\$89)	_____	Petzl ASAP lock ANSI ascent device (\$call for price)
_____	NEW! Captain Fun-Bag – a colorful, durable bag packed full of all the things you need (custom made) to run 20 initiatives and games ANYWHERE! Includes props, instructions and more!		