


### Tree Care Co. – Groundworker

- **Job Description**
  - Often the introductory level in arboriculture.
  - Duties include assisting climbers, chipping brush, cutting wood, and site cleanup after tree care operations.
- **Typical Background**
  - Workers entering at this level usually do not have any background in arboriculture.
- **Eligibility Requirements**
  - Workers must be in good physical condition.
  - High school diploma is preferred but not always required.
  - Commercial Drivers License (CDL) may eventually be required.

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### Tree Care Co. – Aerial Lift Operator

- **Job Description**
  - Primary duty of aerial lift operators is pruning and removing trees.
  - Occasionally aerial lift operators will install tree support systems.
  - An aerial lift operator must be proficient with a chain saw and tree removal equipment and techniques.
- **Typical Background**
  - Most aerial lift operators are former groundworkers and may also have climbing experience.
- **Eligibility Requirements**
  - Commercial Drivers License is required


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### Tree Care Co. - Climber

- **Job Description**
  - Primary duty is pruning trees of various sizes, types, and pruning needs.
  - Climbers also must be skilled in removal techniques, cabling and bracing, and sometimes the installation of lightning protection.
  - A climber must also be proficient with a chain saw and should possess all of the skills and training of a groundworker.
- **Typical Background**
  - With few exceptions, climbers begin their careers in arboriculture as groundworkers.
- **Eligibility Requirements**
  - Although not required, most climbers have a high school diploma.
  - Commercial Drivers License recommended
  - ISA Arborist Certification recommended
  - ISA Certified Tree Worker: Climber Specialist
  - Climbers must be in excellent physical condition.

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### Tree Care Co. – Crew Leader

- **Job Description**
  - Duties range from crew leader to district supervisor (in larger companies).
  - Crew leaders are responsible for the safety, leadership, and productivity of the crew.
  - District supervisors are responsible for maintaining safety, quality of workmanship, and good client relations.
- **Typical Background**
  - Crew leaders and supervisors typically come up through the ranks of the tree crew.
  - Many have formal education in arboriculture.
- **Eligibility Requirements**
  - Strong communication, management, and leadership skills are essential.
  - Many companies require ISA Arborist Certification.
  - A CDL may be required


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### Tree Care Co. – PHC (IPM) Technician

- **Job Description**
  - Handle most of the pest management operations for the company.
  - Typically includes spray, applications, and fertilization.
- **Typical Background**
  - Many PHC technicians start their career as groundworkers.
  - It is not unusual for college students to work summers as PHC technicians while pursuing a degree in arboriculture, horticulture, or forestry.
- **Eligibility Requirements**
  - Employers will seek out employees that are self motivated.
  - Workers that wish to advance to higher ranks will be expected to obtain the appropriate pesticide application licenses.
  - Commercial Drivers License may be required
  - ISA Arborist Certification recommended
  - State Pesticide Applicators License required

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### Tree Care Co. - PHC (IPM) Monitor

- ▣ **Job Description**
  - Diagnose plant problems and recommend treatment.
  - Ability carry out treatments.
  - Communication with clients is part of the responsibilities.
  - Monitors may also be responsible for routing equipment and PHC technicians.
- ▣ **Typical Background**
  - Most PHC monitors either work their way up through PHC technician positions or transfer from other companies with similar work experience.
  - Many PHC monitors have a degree in arboriculture, horticulture, plant pathology, entomology, or a related field.
- ▣ **Eligibility Requirements**
  - A high level of knowledge about plant identification, physiology, insects and diseases is required.
  - Some companies may require a college degree, and most will require ISA Arborist Certification.



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### Tree Care Co. - Safety Coordinator

- ▣ **Job Description**
  - Responsible for developing and maintaining strong integrated safety programs within a company.
  - Includes written policies, an ongoing training program, site inspections, and record keeping.
- ▣ **Typical Background**
  - Safety coordinators often come up through the ranks of the tree crew.
  - Many have formal education in arboriculture.
  - Most are very active in professional organizations because of the need to stay abreast of the latest regulations, equipment, and techniques.
- ▣ **Eligibility Requirements**
  - Strong communication, management, and leadership skills are essential.
  - Many companies require ISA Arborist Certification, and some recommend or require Certified Tree Worker/Climber Specialist status.
  - Commercial Drivers License (CDL) may be required.



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### Tree Care Co. - Salesperson

- ▣ **Job Description**
  - Principal contact with customers and is responsible for developing and maintaining relationships with clients.
  - Sells and estimates tree care work, usually within a given geographic territory.
- ▣ **Typical Background**
  - Salespeople in arboriculture almost always have a background in various aspects of production tree work.
- ▣ **Eligibility Requirements**
  - High level of knowledge about plant identification, tree biology, diagnostics, and production techniques is required.
  - Ability to communicate effectively with the public is essential.
  - Some companies may require a college degree, and most will require ISA Arborist Certification.
  - Pesticide Applicators License may be required.



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### Tree Care Co. - Manager/ Exec.

- ▣ **Job Description**
  - Duties include coordinating field, office, and sales staffs as well as (usually) sales duties.
  - Budgeting, hiring, promotions, equipment purchases, compliance/ legal/ insurance issues, and crisis management can all be a part of the responsibilities of managers/executives.
- ▣ **Typical Background**
  - Typically learned the business in the field, moved into sales, done well in sales, and have been promoted into managing an office or group of offices.
  - Many have formal education in an arboricultural field, as well as management training.
- ▣ **Eligibility Requirements**
  - Managers/executives must understand the business and be good communicators.
  - Most, but not all, have college degrees, and most are ISA Certified Arborists. Some have college degrees in business management.
  - Demonstrated performance in prior positions is typical.



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### Tree Care Co. - Owner


- ▣ **Job Description**
  - Typically handles the management and administration of the company, from sales and daily work operations to accounting and personnel.
  - It is not unusual for company owners to work with the crew in a climber or supervisor capacity.
- ▣ **Typical Background**
  - Most have extensive background in field operations but little education or training in business administration.
- ▣ **Eligibility Requirements**
  - Company owners must be self-motivated with strong management and leadership skills.
  - A good foundation in arboricultural knowledge is essential.
  - ISA Arborist Certification is strongly recommended and may be required to bid on some contracts.
  - Education and training in business administration matters are recommended.
  - Owners should be ISA members, and companies should be NAA members.



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### Municipal Arborist/Urban Forester


- ▣ **Job Description**
  - The municipal arborist, or forester, is the individual responsible for the long-term care and management of city trees.
  - Duties include the application of a tree management plan including planting, pruning, and removal programs; budget preparation; and interaction with residents, politicians, and other agencies.
- ▣ **Typical Background**
  - Individuals entering this position have a tree and plant background, including a four-year degree and experience in a role such as foreperson or supervisor with the city or a private tree care company.
- ▣ **Eligibility Requirements**
  - A college degree in forestry, horticulture, or related fields will most likely be required.
  - Individuals will also be required to have 3-5 years of experience in tree and plant care operations and be an ISA Certified Arborist.
  - Proficiency in computer use and operation is highly desired.
  - State Pesticide Applicator License is often required.



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### Education & Training Requirements Comparison

Education/ Training Needs	ARBORICULTURE										
	Ground Worker	Aerial Lift Operator	Climber	Crew Leader	PHC Technician	PHC Monitor	Safety Coordinator	Sales Person	Manager/ Executive	Tree Care Co. Owner	Municipal Arborist/ Urban Forester
Tree identification	x	x	x								
Basic tree biology		x	x								
Tree biology				x	x	x	x	x		x	
Tree and shrub identification					x	x					
Tree identification proficiency				x			x	x		x	
Entomology						x					
Plant selection						x					
Proper tree selection and planting procedures											x
Scientific technologies of the industry											x
Arborist Certification								x	x	x	



### Forester

- ▣ **Job Description**
  - Manages and develops forest lands and resources for economic and recreational purposes.
- ▣ **Typical Background**
  - Familiar with standard concepts, practices, and procedures within the practice of forestry.
- ▣ **Eligibility Requirements**
  - May require a bachelor's degree in a related area and at least 7 years of **experience in the field or in a related area.**
- ▣ **Compensation Level**
  - National average salary = \$61,067



### Landscape Contractor

- ▣ **Job Description**
  - Interprets landscape design specifications, and may offer landscape design as a service
  - Handles all aspects of acquiring materials, preparing the area to be landscaped and constructing the new landscape
- ▣ **Typical Background**
  - Experience in landscape construction & knows all aspects of landscape construction
  - Good business skills – especially estimating costs of construction
  - Good communication skills
- ▣ **Eligibility Requirements**
  - Landscape Contractor's License (C27)
  - No specific degree is required to be a landscape contractor. However, depending on the services offered, particularly those that involve landscape design or architecture, a landscape contractor will likely have a degree in landscape architecture, horticulture or a related field
- ▣ **Compensation Level**



### GIS Technician

- ▣ **Job Description**
  - Makes maps, customized GIS applications and analyzes data
  - Reads and interprets maps, manipulate and understand digital land data and manage data entered into a GIS database.
- ▣ **Skill Set/ Background**
  - Has good attention to detail in order to maintain and enter data in a GIS database.
  - Need to have superb written and oral communication skills for creating and presenting data reports, training other people how to use GIS technology and may need to work on GIS programming.
- ▣ **Education & Eligibility Requirements**
  - Bachelor of Science in Geography, Computer Science or Engineering.
  - Typical courses include GIS, geography, historical geography and computer architecture.
  - GIS internships are especially important for gaining experience in the field.
  - A bachelor's degree usually takes four to five years.
  - A master's degree in Geography can increase opportunities for career advancement and salary potential.



### Landscape Designer or Garden Consultant

- ▣ **Job Description**
  - Similar to Landscape Architect, but usually limits design to working with plant material, irrigation, and garden paving components; cannot legally design retention walls and similar types of components
- ▣ **Typical Background**
  - Often someone with interest and experience in horticulture; may have artistic background
- ▣ **Eligibility Requirements**
  - Does not require a degree, but communication skills must be higher level
- ▣ **Compensation Level**
  - If they own their own business can make more than Landscape Architects working in larger firms



### Landscape Architect

- ▣ **Job Description**
  - Creates useful and attractive outdoor environments through the use of natural elements, such as land, trees, and shrubs
  - Can work on small and large residential projects, commercial developments and public infrastructure projects, including:
    - Public parks.
    - Highway and freeway landscapes
    - Low Impact Development projects like Green Streets
- ▣ **Typical Background**
  - Knowledge & skills in design, horticulture, social science, engineering, and business
  - Can gain through combination of education & experience
    - Apprentice with experienced landscape architects for 6-8 years
    - Public agencies only hire landscape architects with college degrees
    - More than half the states require landscape architects to have a license
    - To take the licensing exam, candidates should have a college degree from an accredited school, plus an internship and/or several years of work supervised by a licensed landscape architect.



### Landscape Architect

- ▣ **Eligibility Requirements**
  - A four- or five-year college degree in landscape
  - Relevant college courses include architecture, surveying, plant ecology, landscape construction, structural design, and city planning.
  - High school courses that are good preparation for this career include biology, history, mathematics, and mechanical drawing.
  - Classes that improve a student's ability to communicate both orally and in writing are also useful.
- ▣ **Compensation Level**
  - Average salary in California across all positions = \$49,909 (Source: [www.salarylist.com](http://www.salarylist.com))
  - Range: High = \$108,640 to Low = \$27,144




### Landscape Architect

- ▣ **Compensation Level for Landscape Architect IV:**
  - Median base salary in U.S. = \$74,591
- ▣ **Job Description**
  - Supervises the development of exterior spaces and physical environments
  - Responsible for final project design drawings and specifications
  - Oversees the development of schematic designs and construction details and tracks and coordinates project costs.
  - Familiar with a variety of the field's concepts, practices, and procedures
  - Relies on extensive experience and judgment to plan and accomplish goals
  - Leads and directs the work of others
  - A wide degree of creativity and latitude is expected
  - Typically reports to a Landscape Architect Manager.




### Environmental Engineer

- ▣ Design systems and solutions related to protecting the environment
- ▣ The U.S. Bureau of Labor Statistics predicts that the demand for environmental engineers will increase by 25 percent through 2016, resulting in the creation of 14,000 new jobs.
- ▣ Environmental engineers use chemistry, biology, physics and principles of engineering to solve problems relating to the environment.
- ▣ Engineers design projects or serve as consultants for construction projects



### Environmental Engineer

- ▣ They tend to specialize in one type of environmental issue, such as air pollution, water pollution, solid waste management or green construction.
- ▣ Engineers with an environmental specialty work for engineering firms, companies and government agencies
- ▣ The minimum education requirement for an environmental engineer is a four-year bachelor's degree, though many engineers continue on to earn master's degree or Ph.D. in environmental engineering
- ▣ The U.S. Bureau of Labor Statistics reports that the average annual salary in May 2008 for an environmental engineer was \$77,970



### Los Angeles City Job Titles x Base Salary

Job Title	Salary
Senior Civil Engineer	\$ 129,018
Senior Environmental Engineer	\$ 129,018
(Street Tree Superintendent II) City Urban Forester	\$ 127,452
Landscape Architect II	\$ 116,051
Environmental Engineer	\$ 115,800
(GIS Chief) GIS Manager	\$ 110,288
Civil Engineer	\$ 109,683
Landscape Architect I	\$ 109,683
Street Tree Superintendent I	\$ 103,627
Environmental Engineering Associate III	\$ 100,934
Landscape Architect Associate III	\$ 100,934
Senior Park Maintenance Supervisor	\$ 85,420
Geographic Information Specialist	\$ 72,182
Water Biologist I	\$ 67,526
(Tree Surgeon) Municipal Tree Climber	\$ 64,223
Park Maintenance Supervisor	\$ 63,099
(Tree Surgeon) Municipal Tree Climber	\$ 61,041
(Tree Surgeon) Municipal Tree Climber	\$ 57,858
Senior Gardener	\$ 53,682
(Tree Surgeon Assistant) Groundworker	\$ 46,491
Garden Caretaker	\$ 45,310

