

## What Is Landscape Architecture

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The "Practice of Landscape Architecture" includes the "planning and designing the use, allocation and arrangement of land and water resources, through the creative application of biological, physical, mathematical, and social processes."<sup>1</sup> In providing well-managed design and development plans, landscape architects offer an essential array of services and expertise that reduce costs and add long term value to a project.

While the name may confuse some lay persons, clear differences do exist between landscape architecture and the other design professions. Architects primarily design buildings and structures with specific uses, such as homes, offices, schools and factories. Civil engineers apply technical-scientific principles to the design of city infrastructure such as roads, bridges, and public utilities. Planners develop a broad overview of development for entire cities and regions.

Landscape architects use their technical and artistic talents to plan and design the built environment. They are, in essence, "architects of the land." They formulate the graphic and written criteria (including drawings, construction documents and specifications) to govern the allocation, arrangement and construction of land and water resources. This work includes the preparation of master, site, subdivision and land development plans. Typical landscape architecture plans might include a site analysis, the location of buildings and structures, design of transportation systems, and design of the site environmental systems. A detailed site plan prepared by a landscape architect could also include the design of grading and drainage details, stormwater management systems, irrigation systems, erosion and sediment controls, and pedestrian and vehicular circulation systems.

Beyond just technical design, landscape architects incorporate social and behavioral elements throughout the entire design process. They use training in social sciences (such as behavioral psychology, sociology, anthropology and economics) to bring a human dimension in their designs. They also have advanced skills in the evaluation of existing environments, environmental perceptions, and the effects of environments on people. By accompanying a technical science and design background with advanced training in social sciences landscape architects are particularly adept designing for the special needs populations such as children, the elderly, or the disabled.

### ***Who Are Landscape Architects?***

80% of landscape architects work in the private sector. Nearly 50% are in a landscape architectural firm. Close to 30% are in multidisciplinary architecture or engineering firms. Others work in design/build, development or other types of firms.

The average public sector landscape architect impacts nearly 4 million acres and 5 million people each year. The average professional employed in private practice impacts over 600,000 acres and nearly 21,000 users each year. Each private sector firm can expect to annually oversee up to 12 million dollars in design and construction expenditures. Moreover over 60% of

private sector professionals work in multiple states or internationally.

While having a large economic impact, the typical private sector landscape architect is a small business person who works in a landscape architecture firm with one office location and fewer than 15 employees. He/she has a professional degree in landscape architecture and is licensed in at least one state. In fact, the majority of landscape architects indicate that their jobs require them to be licensed.

64% have some ownership in their firm and 36% are the sole owners. The most important client type for a typical firm is the individual consumer, followed closely by residential developers and local governments.

Public sector employees are split fairly evenly through all levels of government: 23% work for the federal government, 14% for states, 17% for counties and 20% for local city or municipal government agencies.

### ***Who Are the Consumers of Landscape Architecture Services?***

Beyond client types, it is also important to focus on the actual consumers of the services. For purposes of public health and safety, the consumers of landscape architecture services can be broken down into three categories. While the "explicit" consumer is the person who contracts for the work, the "implicit" and "indirect" consumers are the ones most impacted by a landscape architect's work.

**The "explicit consumer"** is the party who actually contracts with the landscape architect for a designated piece of work. The number one category of explicit consumer is the private individual. This is followed by private residential developers, commercial/industrial developers and local/municipal governments - whose projects are used by average people every day. This is the consumer who is most impacted by the economic implications of landscape architectural design.

**The "implicit consumer"** is the user of the project for which the explicit consumer and the landscape architect have contracted, such as the patrons of a shopping center or the users of a public park. This is the group most affected when referring to public health, safety and welfare, and is almost always the general public.

**The "indirect consumer"** is anyone affected by the change in the environment caused by the project, although this consumer neither participated in the design nor uses the completed project. For instance, this would be the owner whose property is next to an industrial park where the landscape architect designed a stormwater drainage system - and onto whose property that water will flood if improperly designed. The indirect consumer would also be the public whose river's water quality is affected by the stormwater runoff from the same drainage system.

**It is the implicit and the indirect consumers who are most impacted by the public safety and health protections afforded by using a licensed landscape architect.** Landscape architects are involved with the design of public spaces, such as recreation areas and parks, which are used by millions of people every year.

### ***What Do Landscape Architects Do?***

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The general public is impacted every day by the work of landscape architects. As a result, the

potential for harm from bad landscape architecture design and planning is clear. Poor design can lead to injury or death of users of the land and cause grave economic damages to the land owners.

Landscape architects design the built environment of parks, neighborhoods, and cities while also protecting and managing the natural environment, from its forests and fields to rivers and coasts. Members of the profession apply their special knowledge of sociological and cultural influences to improve the quality of life through the best design of places for people and other living things.

The attractiveness of parks, transportation systems and corridors, housing developments, urban plazas, zoos and campuses reflects the skill of landscape architects in planning and designing the construction of useful and pleasing projects. They also design playgrounds, parks, stormwater drainage systems, wetlands, recreational facilities, trails, and species habitats. They are involved with city and urban planning, regional planning, water conservation, fire prevention and flood prevention.

From coast to coast, in every region of the world, examples of the landscape architecture profession can be found. Many landscape architects have contributed their expertise to numerous projects of international import, including:

- Design of New York's famous Central Park
- Design of the Franklin Delano Roosevelt Memorial in Washington, DC
- Design of the scenic Blue Ridge Parkway
- Preservation of Yosemite Park and Niagara Falls
- Management plan for the Alaskan Maritime National Wildlife Refuge
- Design of the US Capitol Grounds
- Design of Mount Royal Park in Montreal, Quebec
- Creation of Boston's "emerald necklace" of green spaces tying the city to the suburbs
- Plans for Baltimore's park system and Inner Harbor area
- Design of "new towns" such as Columbia, Maryland, and Reston, Virginia
- Landfill reclamation for Fresh Kills in New York and Dyer in Florida
- Plans for Golden Gate National Recreation Area in San Francisco, California
- Design for water treatment and park facility in Hillsboro, Oregon
- Master plan for the country of Qatar

Depending on the scope of the project for clients, ranging from a local developer to the federal government, landscape architects can plan the entire arrangement of a site, including the location of buildings, grading of the land, stormwater management systems, and plantings. They also often coordinate teams of design, construction and contracting professionals.

On average, landscape architects are the prime contractor on 64% of their projects (some landscape architects only contract for work where they are the prime contractors). This work includes projects where architects and engineers are subcontractors to the landscape architect. In such cases, the architects' or engineers' work maybe coordinated with the landscape architect of record.

Landscape architecture in the 1990s consists of a variety of often interwoven specializations.

- **Land Development Planning** can be on large-scale, multi-acre parcels of undeveloped land and smaller scale sites in urban, rural and historic areas. By providing a bridge between policy planning and individual development projects, landscape architects integrate economic factors with good design to create quality

environments. Due to this blending of expertise, landscape architects often are selected to head multi-disciplinary design teams.

- **Regional Landscape Planning**, including environmental planning, deals with the full spectrum of planning and managing land and water, including natural resource surveys, preparation of environmental impact statements, visual analysis, land reclamation and coastal zone management.
- **Urban/Town Planning** deals with designing and planning cities and towns. It includes zoning techniques, land use regulations, master plans, conceptual plans, land-use studies and other methods to set the layout and organization of urban areas. This field also involves "urban design" - the development of mostly open, public spaces, such as plazas and streetscapes.
- **Park and Recreation Planning** involves creating or redesigning parks and recreational areas in cities, suburban and rural areas. Landscape architects also develop plans for huge natural areas as part of national and state parks, forests, and wildlife refuge systems.
- **Ecological Planning and Design** focuses on the interaction between people and the natural environment. Heavily influenced by landscape architect Ian McHarg, this specialization includes, analytical evaluations of the land best design and plan for the suitability of a site for development. Landscape architects use environmental analysis and design policy formulation to ensure plans properly protect the environment. It requires specific knowledge of environmental laws such as the Clean Water Act, the Safe Drinking Water Act, Federal wetlands regulations, etc. This specialization also encompasses transportation design and planning, mine reclamation, and brownfield reclamation.
- **Site Planning and Design** focuses on the physical design and arrangement of built and natural elements of a land parcel. It can involve designing the land for a single house, an office park or shopping center, or an entire residential community. Site design involves the efficient, aesthetic and ecologically sensitive integration of man-made objects with a site's natural features including topography, vegetation, drainage, water, wildlife and climate. Sensitive site design minimizes environmental impacts, lowers project costs, and adds value to a development.
- **Landscape Design** is concerned with detailed outdoor space design for residential, commercial, industrial, institutional, and public spaces. It involves the balance of hard and soft surfaces in outdoor and indoor spaces, the selection of construction and plant materials, infrastructure such as irrigation, walkways, stormwater drainage structures, walls, and the preparation of detailed construction plans and documents.
- **Historic Preservation and Reclamation** of sites such as parks, gardens, grounds, waterfronts, and wetlands is a growing field. It involves preservation or maintenance of a site in relatively static condition, conservation of a site as part of a larger area of historic importance, restoration of a site to a given date or quality, and renovation of a site for ongoing or new use. Landscape architects often participate from the research through the actual restoration stage.

### Landscape Architectural Accreditation Board

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The Landscape Architectural Accreditation Board (LAAB), is a specialized accrediting agency which accredits landscape architecture educational programs leading to first-professional degrees at the bachelor's or master's level. In addition to assessing how well a program meets its own educational objectives, accreditation evaluates a program against specific standards, which reflect the essential characteristics of satisfactory professional education programs.

**Currently, there are 71 LAAB accredited programs in the United States at 54 universities and colleges, covering 44 bachelors' programs and 29 masters' level programs.**

LAAB is recognized by the Council on Higher Education (CHEA) as the official accrediting body for first-professional programs in landscape architecture. CHEA reviews LAAB accreditation standards and procedures to ensure that accreditation is conducted in an appropriate manner. The official scope of LAAB's accreditation as listed by CHEA is "...first-professional programs at the bachelor's or master's level." LAAB is also a member of the Association of Specialized and Professional Accreditors (ASPA).

LAAB is responsible for judging whether a program is in compliance with the accreditation standards. In order for a program to retain its accreditation, it must continuously comply with the accreditation standards and regularly file complete annual and other required reports.

The guidelines for a minimum professional curriculum are set by LAAB and include:

- Landscape Architecture History and Theory
- Professional Practice
- Landscape Planning, Design and Management
- Design Implementation

In addition to these broad standards, the professional curriculum standards include instruction in the following areas related to landscape architecture:

- History, art and communication.
- Natural and social systems.
- Landscape management theories, planning, design, and processes.
- Plants and their ecosystems.
- Construction materials and implementation techniques.
- Professional practice methods and ethics, including public, private, and academic practice procedures and methods.
- Application of computers and advanced technology.
- Allied disciplines.

A current syllabus must be maintained and followed for each required course and includes course objectives, content and methods of evaluating student performance. The program must also have a method of systematic evaluation to review course effectiveness.

Students in accredited landscape architecture programs must be able to demonstrate their ability to apply the subject matter of the professional curriculum (stated above) in:

- Problem identification
- Information collection
- Analysis
- Synthesis
- Implementation
- Communication of results

In addition, students must demonstrate acceptable levels of written, oral and visual communication skills.

## Typical Landscape Architecture Education Program

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Landscape architectural education is comprised of lecture courses and practical design studios. Lectures are used to convey technical and theoretical background information on tightly defined subjects such as ecology, contracts, construction materials, cost estimation methods, road alignment requirements, grading and drainage requirements, and historical precedents.

The design studio exercises require landscape architecture students to apply and integrate technical and theoretical data in realistic site specific problems. These exercises are created to simulate those problems experienced in landscape architectural practice. Studios are essential, because landscape architecture is an applied, integrative design discipline, and is learned ultimately by doing.

It is through the design studio that landscape architects learn their skills in design synthesis and integration. Rather than learning various mathematical models, planning methods, and technical design techniques in separate, unconnected courses, landscape architects are taught to integrate these different site-related skills from the earliest days of their professional education.

These studios present students with realistic, comprehensive landscape design and planning problems, which demand the integration of technical material with landscape architecture theory. Students acquire, through hands-on practice, skills of manipulating sites to meet a combination of criteria at once.

Some studio exercises are defined by land use or project types such as housing, parks, new communities, or ecological restoration. Others organize combinations of landscape treatments and sustainability or watershed management.

Both the lecture courses and the practical studios emphasize fundamental project skills which will be used throughout the design and planning process. Early courses teach students how to gather and organize site-specific environmental and regulatory information and how to communicate design alternatives to clients, regulatory agencies, and the public.

Advanced studio exercises simulate the complex site-specific problems that landscape architects address in practice. The basic technical and theoretical data that students learned in prior lecture courses are supplemented with information from visiting practitioners who have experience in the type of problems being studied, readings about the requirements of specific land uses or project types, meetings with residents of project neighborhoods, visits to offices where similar types of work are being performed in practice, and additional lectures providing knowledge and skills needed to carry out specific types of projects such as participatory design techniques.

Studio problems in education, like design problems in practice, demand the exercise of specific technical skills while integrating their application on sites where land use, transportation, human activity, and ecology influence each other simultaneously. Through studio exercises, landscape architectural students learn to mold land use and land development to address issues vital to health and safety, including traffic safety, crime prevention, reduction of nonpoint source pollution, erosion control, control of energy-consumptive urban "heat islands," reduction of auto traffic, alternative modes of transportation, land use combinations that reduce the generation of auto emissions, street layouts that improve traffic safety, and earthwork that prevents land slippage and erosion.

The solution to problems of health and safety does not come only from solving one technical

problem at a time within a hastily determined development layout. Alternative forms of development produce different degrees of dependence on automobile transportation and the spreading out and separation of land uses. From these come the effects of water quality, air quality, human interaction, energy consumption, and habitat fragmentation.

By molding land use and site layout, landscape architecture students learn to prevent problems of health and safety in development before they occur. They solve a problem at its source by changing the form and pattern of development.

Landscape architectural education produces practitioners who distinctively maintain a broad view of the form and pattern of land use and land development, at the same time as exercising technical skills.

## **Licensing the Profession of Landscape Architecture**

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### ***Protection of the Public Health, Safety and Welfare***

Licensing of landscape architects protects the public health, safety, and welfare of citizens who cannot be reasonably expected to know, or recognize, inadequate or defective landscape architectural design work. The potential for harm from bad landscape architecture design and planning is clear.

Landscape architects offer complex professional services which are not easily understood by the average consumer and which have lasting impacts on the land and its users. If their work is improperly performed there exists a very real threat of irreparable harm—harm for which money cannot compensate. Poor design can lead to injury or death of users of the land and cause grave economic damages to the land owners.

However, proper landscape architectural design can have many benefits. According to an AWP Research survey, proper land design can increase land values, better protect the environment, increase the productivity and use of the land, and lower maintenance and capital costs. Good design increases the aesthetic and marketing value of property. Most importantly, proper design increases the health and safety values associated with a piece of property.

### ***History of Landscape Architecture Licensing***

The first state to enact a licensing law for landscape architecture was California in 1953. Since then, 46 U.S. states, Puerto Rico and two Canadian provinces have enacted licensing requirements for landscape architecture. As a result of these laws over 98% of the American population is protected from bad practices in landscape architecture.

Licensing of landscape architecture has withstood both political and legal challenges. In the landmark court case *Paterson v. New York*, the court upheld regulation of the profession as a proper protection of the public:

The Legislature deems the practice of landscape architecture a matter of public concern and enacted the challenged legislation "in order to safeguard life, health and property"...The testimony at the trial established that the regulation of the practice of landscape architecture was clearly related to the public health and welfare and, as such, constituted a valid exercise of the police power...

Since that landmark decision many states have reviewed landscape architecture licensing laws through sunset procedures or other legislative forums. The clear trend regarding this profession

is to enact more rigorous licensing standards to better protect the public. A 1987 sunset review report by the staff of the *Florida Senate Economic, Community, and Consumer Affairs Committee*, stated findings typical of sunset reviews. In response to the question, "Would the absence of regulation significantly harm or endanger the public health, safety, or welfare?", the staff responded after a lengthy investigation into the profession:

Yes. The absence of regulation would have the potential to harm the public in a number of ways. As previously noted the consumer would not be able to gauge the competency of practitioners because licensing requirements and practice standards would not have to be met. The disciplinary process would be lost, which is the only consumer recourse that can prevent the practitioner from continuing to provide substandard service. Substandard service could harm the consumer, their property and their environment where poor drainage techniques cause erosion, flooding, and water contamination problems, even to whole communities, or, if unsafe playground equipment were to be specified, or, should improper designing be done for handicapped facilities involving ramps, toilets, paths, and parking, etc. (In relation to outdoor recreation areas and toilets, landscape architects are concerned with surface and ground water which could become contaminated by improper installation or location of toilets.) The establishment recognition and benefit of licensure through the myriad of state and local government agency rules/ordinances recognizing and in many instances, requiring the specialized expertise of licensed landscape architects would be lost.

In recent years several states have added new licensing laws to their books or strengthened their existing law. In 1994, Wisconsin became the 45<sup>th</sup> state to license landscape architects. In 1997, Rhode Island, Connecticut and North Carolina all strengthened their laws by adding new practice restrictions to their laws. In 1998, Alaska and Puerto Rico added licensure laws.

### ***How A Landscape Architect Becomes Licensed***

Landscape architecture licensure laws require that individuals prove that they are capable of providing licensed professional services. To provide adequate assurances that an individual possesses sufficient ability, registration laws usually establish minimum requirements for education, experience and examination. This three-pronged approach has evolved from the following beliefs.

First, a formal education is required to provide the basic knowledge and problems solving skills required for competent professional practice. For landscape architects this means graduating from an LAAB accredited college program. Most licensing candidates have a Bachelor of Arts or a Bachelor of Science degree in landscape architecture. These programs last between four and five years. Some students go on to receive a Master's degree in landscape architecture. A select few may also obtain a Doctorate degree in landscape architecture.

Second, after graduating from an accredited program, practical experience under the supervision of a licensed professional is required to be able to apply basic skills to real world problems. This training period is set by state law and can be as much as five years with an accredited degree, depending on the state. The Council of Landscape Architecture Registration Boards (CLARB) recommends that candidates have three years of diversified experience in landscape architecture under the direct supervision of a licensed landscape architect.

Third, an examination is required to determine whether an individual has acquired the minimum level of competence required to provide the breadth of service allowed by law without endangering the health, safety and welfare of the public. For landscape architecture this means a candidate must successfully pass the Landscape Architect Registration Examination (LARE).

This is a national exam developed by CLARB.

In addition to these more formal steps, each licensee applicant must demonstrate a history of acceptable professional conduct as verified by employers, landscape architects, and the state licensing board. Applicants may be denied licensure if they have violated the law in the practice of landscape architecture, or if they have intentionally provided erroneous information on their application for licensure.

### **Landscape Architect Registration Examination**

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The LARE is a 20-hour, five section examination given over a three-day period. It tests the minimum knowledge, skills, and abilities necessary for a licensed professional to protect the public health, safety and welfare. It is developed and administered by the Council of Landscape Architectural Registration Boards (CLARB). CLARB is comprised of the licensing boards from the 45 US States and two Canadian Provinces which license landscape architects.

The LARE is the most rigorously proven examination used by any of the major design professions. According to an independent audit conducted by the Educational Testing Service (ETS), the largest and most respected testing consultant in the world, the LARE meets or exceeds all nationally recognized testing standards. In addition to passing the ETS audit and regular reviews, the LARE has been successfully defended against legal challenges.

### ***LARE Job Analysis Survey***

The content of the LARE is based on the results of a thorough Job Analysis Survey, which determines what tasks landscape architects do as part of their normal practice, and the knowledge, skills and abilities (KSAs) required to accomplish those tasks in a manner that protects public safety. Testing experts called psychometricians then use a mathematical model (commonly referred to as a factor analysis) to determine the best method for testing the KSAs. The result is an exam which tests those KSAs which most impact public safety, using the most appropriate testing methodologies.

The Job Analysis Survey is the backbone of the LARE. It was mailed to approximately 6000 persons in the United States and Canada. The survey asked for information on 154 tasks which landscape architects perform as part of their normal practice. It also questioned recipients on 156 different knowledge, skills and abilities needed by landscape architects to adequately perform those tasks.

The survey then ranked each of the 154 **tasks** based on: 1) How **important** is this task in protecting the health, safety and welfare of the public in the work of a landscape architect? and, 2) how many landscape architects perform this task?

The 156 **Knowledge, Skills and Abilities** were similarly ranked using two qualifying criteria: 1) How **important** is the task in protecting the health, safety and welfare of the public in the work of a landscape architect? and, 2) do landscape architects acquire this knowledge, skill or ability **after registration** as a landscape architect, or must they possess it **at the time of registration**?

The Landscape Architecture Registration Examination only includes those issues which significantly impact public safety, which are regularly performed as part of the normal practice of landscape architecture, and the skills required to perform those functions are acquired prior

to registration. These components together comprise the minimum standards applicants must meet in order to safely practice landscape architecture.

**The Job Analysis also demonstrated that landscape architects perform a cohesive, well agreed upon set of tasks and knowledge, skills, and abilities required to accomplish those tasks.**

### ***The L.A.R.E. Structure***

#### **Introduction**

The Landscape Architect Registration Examination (L.A.R.E.) is designed to determine whether applicants for landscape architectural licensure possess sufficient knowledge, skills and abilities to provide landscape architectural services without endangering the health, safety and welfare of the public. It is prepared and scored by the Council of Landscape Architectural Registration Boards (CLARB) in accordance with all current standards for fairness and quality of licensure exams. CLARB is a non-profit association of the state and provincial registration boards that regulate the profession of landscape architecture in North America.

The L.A.R.E. is administered by the CLARB's member boards in 45 U.S. states and two Canadian Provinces in June of every year. Many of these boards also administer the examination in December. While the requirements to sit for the exam vary by jurisdiction, the exam, the administration dates and procedures and the passing standards are the same in every jurisdiction.

The L.A.R.E. consists of five sections. Each section receives a pass or fail score independently from the other sections. All five sections must be passed prior to licensure.

Each section of the L.A.R.E. is designed to test for minimum competency in a specific area of knowledge which is important to the health, safety and welfare of the public. The design of the test and the content of each section are determined through a scientific studies of the profession of landscape architecture. These studies known as a "task" or "job analyses" identify the knowledge, skills and abilities required of newly licensed landscape architects in order to perform landscape architectural services without endangering the health, safety and welfare of the public. Task analysis studies are performed every five to seven years to ensure that the content of the L.A.R.E. remains up to date with the current practice of the profession.

#### **Organization**

The L.A.R.E. consists of the following test sections:

##### **Section A - Legal and Administrative Aspects of Practice**

This section will test those knowledge and skills used throughout the project development process which are associated with the legal and financial aspects of a project and the communication of issues. Section A consists of 85 multiple-choice items which address the following subcategories:

- Regulations
- Contract Administration
- Communication and Documentation

## Section B - Analytical Aspects of Practice

This section consists of multiple-choice and keylist items which will test the knowledge of data gathering and analysis techniques and the conceptual decision-making process that occurs before site planning. Section B consists of 120 items, divided into the following subcategories:

- Inventory - data gathering
- Analysis - interpretation of data and identification of factors affecting the design

Programming - suitability of site, suitability of design concept, functional relationships between elements and sociological and behavioral aspects of design

- Regional land use planning - conceptual organization of uses and systems in a region
- Site land use planning - conceptual organization of uses and systems on a site
- Principles of design
- Stormwater management issues - runoff and erosion considerations, retention, detention and conservation

## Section C - Planning and Site Design

This is a graphic response section which will test your knowledge and skills associated with the synthetical process of incorporating elements into the natural and built environment in a safe and effective manner. Section C consists of seven vignette problems which address the following subcategories:

- Site planning - location of elements, integration with natural and built environment, three dimensional thinking
- Circulation - designing pedestrian and vehicular circulation
- Planting design - locating plant material to achieve desired effect

## Section D - Structural Considerations and Materials and Methods of Construction

This section consists of multiple-choice and keylist items which test your knowledge and skill required to implement the design into a final constructed product including considerations for the appropriate shape and characteristics of assemblies, structural integrity and integration into existing site conditions. Section D consists of 160 items which address the following subcategories:

- Appropriate size, shape and form of elements
- Technical considerations
- Methods and processes of construction
- Construction detailing
- Post-construction evaluation for compliance with contract documents

## Section E - Grading, Drainage and Stormwater Management

This is a graphic response section which will test your knowledge and abilities required to manipulate the surface of the land to meet design objectives and to direct surface and subsurface water. Section E consists of five vignette problems which address the following subcategories:

- Grading and surface drainage

- Subsurface drainage (e.g., pipe sizing, inverts, layout, etc.)

### ***Exam Scoring***

The passing level, or "cut score" for each of the multiple choice sections is based on the level of performance expected of minimally qualified candidates taking that particular section. The levels of expected performance are determined by using advanced scientific testing methods. These methods ensure that the multiple-choice sections are scored accurately and the standards required to pass the test remain constant from year to year.

The graphic vignette problems are graded by licensed landscape architects with at least five years of experience after licensure, working in academic, public, or private sector practice. The evaluation itself takes place at a central grading session conducted by CLARB where all of the examinations are scored at one time.

Candidates are graded on how their solutions affect the public health and safety issues and not on just the aesthetics of the design. For example, candidates are tested on the form and functions of various types of tree types. They are judged on whether the trees selected in a design function according to the problem criteria and NOT whether they select the prettiest trees. This type of problem might require that trees along a walkway not have low hanging branches which would obscure the sightlines, offer cover for muggers, or pose a collision hazard.

Each exam is graded by at least two different graders. If a discrepancy occurs between the scores assigned by the two graders, and the resolution of that discrepancy could affect the pass/fail status of the candidate, the vignette is re-scored by a Master Grader. Master Graders typically are individuals with extensive experience evaluating graphic response problems. If the exam is found to still be at or near the passing point, the exam is totally re-graded by two other Master Graders working together. This final step ensures the candidates and the public that borderline cases are correctly graded.

This grading process, in which every examination is graded at least twice and as many as four times, makes certain that every examination solution is reviewed fairly and completely. It eliminates subjective evaluation and bias, and ensures that all exams are graded against the same criteria. The process protects the rights of the candidate by applying subjective criteria; and, it protects the public by ensuring that only those candidates who have been proven to possess the knowledge, skills, and abilities to protect the public, pass the exam.



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