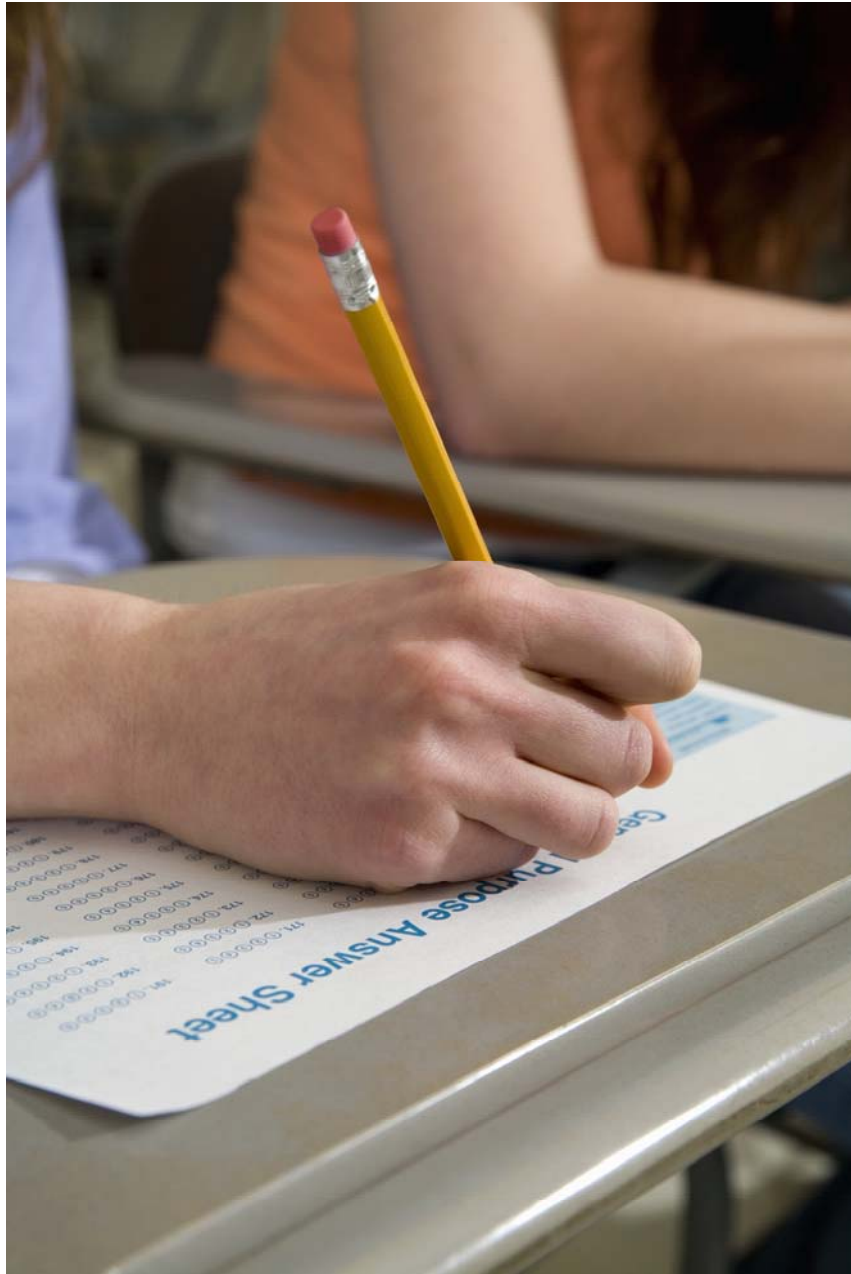


L.A.R.E. Orientation Guide

Updated November 2010

The L.A.R.E. Orientation Guide is a FREE resource prepared by the Council of Landscape Architectural Registration Boards (CLARB) for candidates taking any section of the Landscape Architect Registration Examination (L.A.R.E.).



(Click on the section name and/or [blue hyperlinks](#) to easily navigate to content.)

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All CLARB exam resources	Click here to go to the CLARB website

Preface

This examination information booklet supersedes all information previously distributed concerning the Landscape Architect Registration Examination (L.A.R.E.).

The material in this booklet is for use on the Landscape Architect Registration Examination (L.A.R.E.) only.

This booklet may not be brought into the examination.

Pre-exam Orientation for Candidates

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 graphic sections of the exam are administered by state and provincial registration boards or by CLARB in CLARB testing centers. The multiple-choice sections of the exam are administered by CLARB using a national system of computer testing centers. 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.

Special Accommodations

CLARB follows the standards set by the Americans with Disabilities Act (ADA) for reasonable accommodations for disabled candidates. Should you require special accommodations for a disability, please contact CLARB as soon as possible to ensure that the testing environment will meet your needs.

The L.A.R.E. Structure

Understanding the Content of the L.A.R.E.

The Landscape Architect Registration Examination (L.A.R.E.) tests applicants for the knowledge and skill that is required to practice those aspects of landscape architecture that impact the health, safety and welfare of the public.

The exam is based on a scientific “Job Analysis” study conducted in 2005 in which 6,000 practicing landscape architects from across the United States and Canada were asked to rate a series of tasks, knowledge areas and competencies needed to provide landscape architectural services. Only those tasks, knowledge areas and competencies that were identified by these practitioners as being important for the protection of public health, safety and welfare are included in the content of the L.A.R.E.

Format

The L.A.R.E. consists of five (5) test sections. Each section is independent of the others. Sections A, B and D are multiple-choice sections that are administered on computer. Sections C and E consist of 11”x17” vignette problems that require a drafted solution. The number of multiple-choice items or vignette problems for each section is listed after the title for each section of the L.A.R.E. in this guide.

Using this Guide

This guide describes the content that will be tested under each section of the examination. For the multiple-choice sections, subsection breakdowns indicate a more detailed description of specific subject matter found on these portions of the examination as well as the percentage of items that will be included in that subsection topic.

For additional information about the exam including requirements to take the test, the application process and the scoring process, please visit the CLARB web site at www.clarb.org. CLARB's staff is also available to answer your questions via email at exams@clarb.org.

Section A - Project and Construction Administration (70 Items) – *Multiple-Choice Section*

Section A is a multiple-choice examination that will test your knowledge of construction contracts and the administration of a project. The section is based on the findings in the Job Analysis that landscape architects need to know how to coordinate and manage design teams. They must understand construction contracts and the responsibilities of various parties under such contracts and their responsibilities during construction observation, and processes for assessing and reviewing projects or plans after they are complete.

Communication (20%)

This subsection will assess your knowledge of communication methods and consensus and team building techniques as it relates to coordinating and managing consultants and design team members.

Standards of Practice (23%)

You will be required to show an understanding of the code of conduct for landscape architects and standards of practice as it relates to administering a project. This subsection includes an understanding of how to resolve ethical dilemmas and professional liability issues.

Contract Administration (17%)

This subsection will test your knowledge of construction contracts. This includes your knowledge of construction law as it relates to the responsibilities of various parties under the construction contract. You will also be tested on your knowledge of the landscape architect's role in the design and bidding processes.

Construction Evaluation (20%)

You will be tested on your understanding of the construction administration process including techniques for construction observation, review of shop drawings, approvals or rejections of materials, and evaluation of the substantial completion of a project. You will also need to understand the reasons for performing post occupancy evaluations as well as the sequencing of design, approval, permitting, and construction activities.

Construction Practices (20%)

The Construction Practices subsection tests your knowledge of the technical aspects of construction administration. You will be expected to understand construction equipment and technologies, quality control procedures for construction as well as sustainable construction practices.

Section B - Inventory, Analysis and Program Development (90 items) – *Multiple-Choice Section*

Section B is a multiple-choice examination that will test you for that knowledge that is used in the pre-design stages of a project. The Job Analysis Survey found that landscape architects must know how to define a problem through the understanding of the client's intentions and needs, determine project user values through focus groups and surveys, and define the project goals and objectives. Landscape architects are also required to understand how and where to gather information for a project and how to analyze that information to make design decisions. They must understand how to analyze the relationships of all of the project elements and formulate the project requirements.

Problem Definition (11%)

Problem definition will test your knowledge of techniques to elicit client and user intentions and needs. You will need to understand methods for determination of user values such as focus groups and surveys. You will also need to demonstrate your knowledge of a project's parameters such as the problem statement, goals, objectives, purpose, needs, and expected outcomes.

Inventory (29%)

In the Inventory subsection, you will be required to demonstrate your knowledge of planning and land use laws including zoning, development restrictions and design guidelines. You will need to understand information such as accessibility regulations, natural features, cultural features, characteristics of plant material, land information sources, and the political and regulatory approval processes.

Analysis (36%)

This subsection tests your knowledge of factors influencing selection of plant materials, human factors influencing design, natural factors influencing design, patterns of land use and built form, regional hazard design considerations, and social and cultural influences on design. You will be expected to understand research methods including interpretation, visual resource assessment, and components of site analysis documents.

Programming (24%)

The Programming subsection will test your knowledge of project requirements such as the relationship, and function of elements. You will need to understand how to develop preliminary project budgets and schedules. You will be required to demonstrate your knowledge of the process to define relationships among design elements by determining opportunities and constraints and the process to develop a design program based on users' needs and clients' goals and resources. You will also need to show an understanding of how performance criteria drives a project such as program and/or project quality level, sustainability, or requirements for water quality.

Section C - Site Design (4 Vignette Problems) - *Graphic Section*

Section C is a graphic response section that will test your ability to produce and evaluate site design solutions. Landscape architects are expected to develop site or land use plans that take into consideration the off-site and on-site influences to development. Landscape architects must consider various codes, consultant studies and principles of sustainability when creating a site design. They should be able to evaluate the design solutions of others and possess the ability to create alternative solutions to a problem.

You will be tested on your ability to develop design, planning, and management solutions considering on-site and off-site influences and convey the information through text and in drawings. You will be required to incorporate consultant studies into your design and predict the implications of your design, planning, and management proposals on the natural and cultural systems both within the site and in the larger context. You must be able to evaluate design alternatives to determine the appropriate solution and create design alternatives to demonstrate the range of options. You will also be expected to incorporate the design of circulation systems such as bicycle, pedestrian, and vehicular systems into your design solutions.

Section D - Design and Construction Documentation (120 items) – *Multiple-Choice Section*

Section D is a multiple-choice examination that tests your knowledge of the design and construction process. Landscape architects must be able to refine the preferred solution to a problem and prepare plans and contract documents to ensure the project can be built correctly. A landscape architect must have knowledge of design principles, resource conservation, graphic communication, construction documentation, and materials and methods of construction to ensure the project is completed in a safe manner.

Design Principles (16%)

This subsection will test your knowledge of design principles including aesthetic principles of design, design theory, problem-solving strategies, planning principles, design principles for safety, security and crime prevention, social responsibility in design, and therapeutic aspects of design. You will be required to understand planting design including the location of plant material types to meet various requirements, such as strategies for security and crime prevention.

Resource Conservation and Management (18%)

You will be required to demonstrate your knowledge of resource conservation and management in this subsection. This includes conservation of natural resources, ecological planning principles, environmental ethics, floodplain management, and land and water reclamation procedures. You will also need to show an understanding of the relationship between human and natural systems such as water resource management, habitat restoration and creation, urban ecology, and sustainability.

Graphic Communication (8%)

This subsection will test your knowledge of the roles of visual communication, including photographic and video documentation, and graphic presentation techniques, systems and symbols including when certain systems are appropriate.

Construction Documentation (20%)

The Construction Documentation subsection will test your knowledge of the administrative procedures required throughout the construction process. You will be required to demonstrate your knowledge of the general and supplemental conditions, special provisions, and technical specifications and their organization including specification types and components for a project. You must demonstrate an understanding of the construction process including sequencing, staging, and construction technology. You must have knowledge of the various construction documents such as layout plans, grading plans, drainage plans, demolition plans, erosion and sediment control plans, planting plans, and irrigation plans. You will also be required to produce construction cost computations such as area calculations, volume, quantity, and unit prices.

Materials and Methods of Construction (38%)

In the Materials and Methods of Construction subsection, you will be required to show your understanding of various construction materials and how those materials are joined together. In order to demonstrate your understanding, you will need to have knowledge of typical construction details and site amenities, construction equipment and technologies, design needs for special populations, elements of circulation systems and their design requirements, lighting systems, noise attenuation and mitigation techniques, structural considerations, and factors influencing selection of site construction materials.

You will be tested on your knowledge of erosion and sedimentation control, irrigation systems, biofiltration and other alternative drainage methods, grading, drainage and storm water treatment. You will also need to understand utility systems including the relationships of different systems to each other and how to perform subsurface storm drain calculations and determine pipe sizes.

Section E - Grading, Drainage and Stormwater Management (4 Vignette Problems) - *Graphic Section*

Section E will test you on your ability to complete grading, drainage and storm water management plans. Landscape architects are required to manipulate landforms to convey runoff, meet design requirements, and minimize environmental impact. Landscape architects are also expected to evaluate the impact of their decisions on existing off-site conditions and develop strategies for water conservation and preservation of land resources.

You will be tested on your ability to develop grading and drainage plans considering on-site and off-site influences and convey the information in drawings. You must be able to manipulate contours to demonstrate your ability to convey water to meet design requirements while protecting land and water resources. You will be expected to evaluate existing landforms and drainage systems to locate program elements minimizing environmental or economic impacts. You will also be required to think 3-dimensionally to manipulate landforms to meet design requirements.

Frequently Asked Questions About the Exam Procedure

Q. - Are there practice tests available for the graphic portions of the exam?

A. - Yes, CLARB offers a valuable FREE resource to candidates - the [Step by Step Guide](#) to the L.A.R.E. This guide covers everything you need to know about the exam and even includes free sample problems to help you better understand the subject matter tested on the L.A.R.E. CLARB has partnered with ASLA to provide preparation materials to candidates studying for the graphic sections. Please [visit the CLARB website](#) to download the FREE sample vignette problems.

Q. - Are there practice tests available for the multiple-choice portions of the exam?

A. - Yes, practice tests are available for purchase over the internet via [CLARB's website](#). The practice tests will have 30 questions from each of the three sections of the multiple-choice portions of the L.A.R.E. and are the same format as the items on the examination.

Q. - When should I arrive for the multiple-choice exam?

A. - Plan to arrive 30 minutes before the scheduled appointment to allow time for check-in procedures. Candidates who arrive late will NOT be allowed to take the examination.

Q. - When should I arrive for the graphic exam?

A. - You should give yourself plenty of time to find the exam site and set up your equipment. The exam proctor will not delay the administration of the exam to accommodate latecomers. Many boards will prohibit entrance to the testing room once the instructions for the exam have started.

Q. - When will I get my multiple choice scores?

A. - Your scores will be posted on the CLARB website approximately 4-6 weeks following the last day of testing.

Q. - When will I get my graphic scores?

A. - Your scores will be posted on the CLARB website approximately 10 - 12 weeks after the exam administration.

Q. - Who will grade my graphic exam?

A. - The performance problems are graded in a national grading session by licensed landscape architects including practitioners and educators from across the United States and Canada. Each grader must meet stringent eligibility requirements and participate in a complete training program.

Q. - Can I use shades of gray on the performance tests or is that considered a color?

A. - You may use pencil and black or gray markers on the exam. Evaluation of the graphic communication portion of each test is based on your understanding of drafting principles such as line weight and overall legibility. Rendering techniques are not graded.

- Q. - If I want to highlight a feature on my solution, can I use a little bit of color?
- A. - **NO.** Using any color will cause your solution to be failed without further evaluation.
- Q. - Can I use a highlighter to mark the requirements in the problem statement?
- A. - Highlighting the problem statement is acceptable; however, if you use the marker on your solution, it will cause your vignette to fail.
- Q. - Can I use a non-reproducible blue or purple pencil, or is that considered a color?
- A. - You may use a non-reproducible blue or purple pencil to sketch your solution before finalizing it with pencil or ink. Anything which is drawn in blue or purple pencil that has not been re-drawn with pencil or ink will NOT be evaluated by the graders.
- Q. - Do I need to bring a light or an extension cord to the test location?
- A. - Check the information included with this booklet or with your testing authority for the test room specifications. If sufficient outlets exist, you may need to bring an extension cord to operate a lamp or an electric eraser.
- Q. - Can I ask for a handheld calculator during the multiple choice exam?
- A. - Yes. The Prometric test center will provide calculators upon request.
- Q. - Can I use trace paper to develop my solution?
- A. - Trace paper can be used to develop a solution prior to transferring the information to the test booklet problem page. Solutions completed on trace paper, even if attached to the problem page, will not be evaluated. All trace paper will be collected at the end of the exam.
- Q. - Can I cancel the exam?
- A. - CLARB has a Cancellation policy that requires candidates to cancel their exam prior to the posted cancellation deadline. For details on the CLARB Cancellation policy for multiple-choice sections, please click [here](#). For details on the CLARB Cancellation policy for graphic sections (for CLARB Test Center candidates only), click [here](#). If you are not a CLARB Test Center candidate and need to cancel the graphic sections of the exam, please contact your [local regulatory board](#) directly.
- Q. - What happens if I miss my examination due to a family emergency?
- A. - Candidates can apply for a refund under the Good Cause policy. For details on the Good Cause policy for multiple-choice sections, please click [here](#). For details on the Good Cause policy for graphic sections, click [here](#).

The L.A.R.E. in Canada

The L.A.R.E. became international in scope with the participation of the Canadian provinces in the examination process. With this event came the responsibility of producing the examination in the metric scale as well as using the Imperial system. A standard set of construction codes were also required to simplify the requirements of the examination.

In the examination, Imperial values will be followed by metric values in square brackets ([]). References to Canadian standards will also be presented in this fashion. Certain vignette problems may be presented in both an Imperial scale and a metric scale. You will be required to choose the scale you will be working in when you register for the exam.

No conversions will be required from one scale to the other. Since the metric equivalents will not be exact conversions, you are warned that converting or switching units within a question to check answers may result in an incorrect answer.

Sample exam item with Canadian reference and metric conversions:

According to U.S. [Canadian] standards, the minimum width of a handicapped parking space is

- A. 8' [2.5m]
- B. 10' [3.0m]
- C. 12' [3.8m]
- D. 15' [4.5m]

Exam Methodology

Sections A, B and D of the L.A.R.E. consist exclusively of multiple-choice type items or questions. Each item addresses one of the areas of knowledge described in the content of the exam and is worth one point each. There are two types of multiple-choice items used in the examination. The type most widely used is the multiple-choice item with four answer choices. The second type of item may have up to nine answer choices. The candidate chooses the answer choice which best answers the question or completes the statement.

Example 1:

What is the maximum allowable slope for a ramp?

- A. 3:1
- B. 4:1
- C. 8:1
- D. 12:1

Completing the L.A.R.E.

If a candidate fails any given section of the exam, he/she needs to retake that section in the following year(s) in an attempt to obtain a passing score. A candidate may usually retake a section of the exam as many times as necessary in order to achieve a passing score; however, some registration boards do limit the number of retakes, so this information should be verified with the registration board.

Validity of Scores

The CLARB program assures the validity of scores reported for CLARB examinations by every means available. Your scores may be classified as indeterminate if the scores are at or above the passing level and the CLARB program cannot certify that they represent a valid measure of your knowledge or competence as sampled by the examination. The CLARB program may make such a determination when aberrancies in performance are detected for which there is no reasonable and satisfactory explanation. A classification of indeterminate may result from exam impropriety (see following section) or from other factors, such as unexplained inconsistency in performance.

The performance of all examinees is monitored and may be analyzed statistically to detect aberrancies indicating that your scores may be indeterminate. In addition, evidence of exam impropriety may suggest that your scores do not represent a valid measure of your knowledge or competence as sampled by the examination. In these circumstances, your score report may be delayed, pending completion of further analysis and investigation. If your score report is delayed, you and any other party to whom scores would normally be reported will be notified. You will have an opportunity to provide information that you consider relevant. After review and analysis of all available information, scores will be classified as valid and will be reported, or scores will be classified as indeterminate. If the scores are classified as indeterminate, you will be advised of the options for retaking the examination. Scores classified as indeterminate do not appear on your record; rather, an annotation indicates that the scores were classified as indeterminate. Scores classified as indeterminate will not be reported to anyone. Anyone who has received a report of scores that are later classified as indeterminate will be notified of the indeterminate classification. If exam impropriety appears to have contributed to a decision that your scores are indeterminate, action will also be taken as described in the Examples of Exam Impropriety section.

L.A.R.E. Rules of Conduct

If a candidate knowingly violates or attempts to circumvent the rules and procedures of the exam, established by CLARB, the results of that exam may not be scored or accepted. CLARB reserves the right to take remedial action—including, but not limited to, barring the candidate from future testing, canceling the candidate's exam scores or filing of civil or criminal charges. If a candidate's scores are canceled, they will not be reported, and the associated fees will not be refunded. The candidate will be notified of the alleged violation(s) and be given an opportunity to provide evidence to the contrary and reasons that the exam score(s) should not be cancelled or withheld.

Exam impropriety includes any action by applicants, examiners, potential applicants or others when solicited by an applicant and/or examinee that subverts or attempts to subvert the examination process.

Although tests are administered under strict supervision and security measures, testing irregularities may sometimes occur. Candidates are encouraged to contact CLARB as soon as possible to report any behavior that violates exam standards and may lead to an invalid score. All information will be held in strictest confidence.

- E-mail: exams@clarb.org.

Examples of Exam Impropriety

The following are examples of exam improprieties. This list is not meant to be exhaustive and CLARB reserves the right to take action on other items considered to be an attempt to gain unfair advantage or circumvent the intent of the exam.

- attempting to take the exam for someone else or having someone else take the exam or any portion of the exam for you
- failing to provide acceptable identification
- obtaining improper access to the exam, a part of the exam or information about the exam
- using a telephone or cellular phone during the exam session or during breaks
- using any aids in connection with the exam other than those provided at the exam site; for example: pagers, beepers, calculators, watch calculators, books, pamphlets, notes, stereos or radios with headphones, telephones, cell phones, watch alarms (including those with flashing lights or alarm sounds), stop watches, dictionaries, translators and any hand-held electronic or photographic devices
- creating a disturbance (disruptive behavior in any form will not be tolerated; the exam administrator/supervisor has sole discretion in determining what constitutes disruptive behavior)
- attempting to give or receive assistance or otherwise communicate in any manner with another person about the content of the exam during the administration, during breaks or after the exam
- removing or attempting to remove exam content from the test center; under no circumstances may exam content or any part of the exam content be removed, reproduced and/or disclosed by any means (e.g., hard copy, verbally, electronically) to any person or entity
- tampering with a computer
- attempting to remove scratch paper from the exam room
- bringing a weapon or firearm into the computer laboratory
- leaving the exam center vicinity during the exam session or during breaks
- leaving the exam room without permission
- taking excessive or extended unscheduled breaks during the test session; exam center administrator supervisors are required to strictly monitor unscheduled breaks and report examinees that take excessive or extended breaks
- referring to, looking through, or working on any exam, or exam section, *when not authorized to do so*, or working after time has been called
- failing to follow any of the exam administration regulations contained in any examination orientation guides, given by the exam administrator/supervisor, or specified in any exam materials
- seeking and/or obtaining unauthorized access to examination material
- providing false information or making false statements on or in connection with application forms, or other CLARB related documents
- taking an examination without being eligible for it or attempting to do so
- making notes of any kind while in the secure areas of the test center except on the writing material provided at the test center for this purpose
- failing to adhere to any CLARB policy, procedure or rule, including instructions of the test center staff
- verbal or physical harassment of test center staff or other disruptive or unprofessional behavior at the test center (the exam administrator/supervisor has the sole discretion in determining what constitutes disruptive and/or unprofessional behavior)
- possessing any unauthorized material, including but not limited to, photographic equipment, communication or recording devices, electronic paging devices, cellular telephones, dictionaries, translators, books, notes, calculators, watch alarms, stereos or radios with or without headphones or stop watches
- altering or misrepresenting examination scores

- any unauthorized reproduction by any means, including reconstruction through memorization, and/or dissemination of copyrighted examination materials by any means, including the Internet
- communicating or attempting to communicate about specific test items, cases, and/or answers with another examinee, potential examinee, or formal or informal test preparation group at any time before, during or after an examination
- revealing examination content to any one during, or after the examination administration, including but not limited to social networking sites and other online forums

NOTE: Looking in the direction of another examinee's computer monitor or test, or talking to another examinee during the examination may be reported as evidence of giving, receiving or obtaining unauthorized assistance. The report may result in a determination of exam impropriety. Discussion of examination content or answers on the Internet may also result in a determination of exam impropriety.

If information received suggests that exam impropriety has occurred, statistical analyses may be conducted and additional information may be gathered.

You will be advised of the alleged exam impropriety, and you will have an opportunity to provide information that you consider relevant to the evaluation of the allegation. Your scores may be withheld, if they have not been reported previously. Applications may not be processed, and you may not be permitted to take subsequent examinations until a final decision regarding exam impropriety is made. If it is determined that you engaged in exam impropriety, information regarding this determination becomes part of your CLARB record. Your score report (if applicable) and CLARB record will contain a notation regarding the exam impropriety. Information about the exam impropriety will be provided to third parties that receive or have received your CLARB record. If it is determined that the exam impropriety is egregious and/or threatens the integrity of the examination system, you may be barred from future CLARB examinations and/or special administrative procedures may be implemented for your future examinations. The CLARB program also reserves the right to take such actions when information regarding behavior of examinees on predecessor examinations indicates such actions may be necessary to ensure the security of the L.A.R.E.

Score Reporting

Scores for the multiple-choice sections of the L.A.R.E. are not reported immediately after completing the exam due to the analysis performed on the items to ensure that the item is correct, fair and accurately addresses the subject matter being tested. CLARB's testing experts look at the difficulty of the items, the response patterns by candidates and the ability of the items to discriminate between candidates of differing ability levels.

Scores for all sections of the L.A.R.E. will be available on the CLARB website. Multiple-choice scores will be available approximately 4-6 weeks after the last day of the administration. Graphic scores will be available approximately 10-12 weeks after the last day of the administration.

Scores for all sections are reported as pass or fail. Candidates with failing scores will receive information called "Diagnostic Feedback" that provides candidates with an understanding of the content areas in which they have demonstrated weakness. This feedback is NOT associated with exam scoring and is intended only to provide general guidance for further study. A pass or fail on any section of the L.A.R.E. is determined using ALL exam content, therefore, diagnostic feedback should not be used to try to project overall exam performance. Candidates should study the entire range of exam content as questions change with each administration of the exam. Visit the [Diagnostic Feedback](#) page on the CLARB website for more information.

Taking the Multiple-Choice Sections of the Examination

General Information

The score for each of the multiple-choice sections is determined by the number of questions answered correctly. Points are not subtracted for an incorrect answer and every question is weighted equally, so it is advisable to try to answer every question.

If you are not sure of the correct answer for a question, but can eliminate one or more of the choices, your chance of getting the right answer is improved. You should examine the answer choices given and select the answer that seems best to you, even though it may not be completely satisfactory to you. If necessary, you should guess.

Use your time effectively, working as rapidly as you can without losing accuracy. Do not spend too much time on a question that is too difficult. Skip that question and go on to other questions. Come back to that question later if you have the time.

After you have decided which of the answers you feel is correct for a question, click on the answer box using the mouse and move on to the next question. You will be able to go back to any unanswered questions at the end of the test.

Examination Materials

Required:

1. You must present **two** forms of valid identification when arriving at the testing center. At least one must be an Official ID with a photograph and the other may be a Secondary ID. The name on the ID must match the name under which you registered for the exam. If you have had a name change between exam registration and administration, you must contact CLARB to correct your information before being admitted to the testing center.

Acceptable forms of Official ID with photograph:

- Driver's license
- Military ID card
- Valid passport
- State ID card

Acceptable forms of Secondary ID:

- Credit card
- Check, ATM or Debit card

Provided:

1. A calculator will be provided on the computer or a hand held calculator will be provided by the test center upon request.
2. The test proctor will provide a white board to use as scratch paper.

Prohibited:

1. No items including reference material, calculators, pencils, pens, paper, drafting supplies, etc. will be allowed in the testing room.
2. No personal items (including purses, fanny packs, food items) will be allowed in the testing room. Personal items must be left with the test proctor for test security purposes, so please limit what you bring to the examination center.
3. You may not bring cellular phones, pagers, devices with a computer memory chip or any device with an alphanumeric keyboard (e.g., a language translation tool) to the test site.

Rules of Professional Conduct

Competence

- (A) In engaging in the practice of landscape architecture, a registered landscape architect shall act with reasonable care and competence, and shall apply the technical knowledge and skill which are ordinarily applied by registered landscape architects of good standing, practicing in the same locality.
- (B) In designing a project, a registered landscape architect shall take into account all applicable state and municipal building laws and regulations. While a registered landscape architect may rely on the advice of other professionals, (e.g., attorneys, engineers and other qualified persons) as to the intent and meaning of such regulations, once having obtained such advice, a registered landscape architect shall not knowingly design a project in violation of such laws and regulations.
- (C) A registered landscape architect shall undertake to perform professional services only when he or she, together with those whom the registered landscape architect may engage as consultants, is qualified by education, training and experience in the specific technical areas involved.
- (D) No individual shall be permitted to engage in the practice of landscape architecture if, in the Board's judgement, such individual's professional competence is substantially impaired by physical or mental disabilities.

Conflict of Interest

- (A) A registered landscape architect shall not accept compensation for his or her services from more than one party on a project unless the circumstances are fully disclosed to and agreed to by (such disclosure and agreement to be in writing) all interested parties.
- (B) If a registered landscape architect has any business association or direct or indirect financial interest which is substantial enough to influence his or her judgment in connection with his or her performance of professional services, the registered landscape architect shall fully disclose in writing to his or her client or employer the nature of the business association or financial interest, and, if the client of the employer objects to such association or financial interest, the registered landscape architect will either terminate such association or interest or offer to give up the commission or employment.
- (C) A registered landscape architect shall not solicit or accept compensation from material or equipment

suppliers in return for specifying or endorsing their products.

- (D) When acting as the interpreter of building contract documents and the judge of contract performance, a registered landscape architect shall render decisions impartially, favoring neither party to the contract.

Full Disclosure

- (A) A registered landscape architect, making public statements on landscape architectural questions, shall disclose when he or she is being compensated for making such statements.
- (B) A registered landscape architect shall accurately represent to a prospective or existing client or employer his or her qualifications and the scope of his or her responsibility in connection with work for which he or she is claiming credit.
- (C) If, in the course of his or her work on a project, a registered landscape architect becomes aware of a decision taken by his or her employer or client, against such registered landscape architect's advice, which violates applicable state or municipal building laws and regulations and which will, in the registered landscape architect's judgment, materially and adversely affect the safety to the public of the finished project, the registered landscape architect shall:
 - 1. report the decision to the local building inspector or other public official charged with the enforcement of the applicable state, provincial or municipal building laws and regulations;
 - 2. refuse to consent to the decision; and
 - 3. in circumstances where the registered landscape architect reasonably believes that other such decisions will be taken, notwithstanding his or her objections, terminate his or her services with respect to the project. In the case of a termination in accordance with this clause (3), the registered landscape architect shall have no liability to his or her client or employer on account of such termination.
- (D) A registered landscape architect shall not deliberately make a materially false statement or deliberately fail to disclose a material fact requested in connection with his or her application for a registration or renewal thereof.
- (E) A registered landscape architect shall not assist the application for a registration of an individual known by the registered landscape architect to be unqualified in respect to education, training, experience or character.
- (F) A registered landscape architect possessing knowledge of a violation of the provisions set forth in these regulations by another registered landscape architect shall report such knowledge to the Board.

Compliance with Laws

- (A) A registered landscape architect shall not, while engaging in the practice of landscape architecture, knowingly violate any state, provincial or federal criminal law.
- (B) A registered landscape architect shall neither offer nor make any payment or gift to a government official (whether elected or appointed) with the intent of influencing the official's judgment in connection with a prospective or existing project in which the registered landscape architect is interested.
- (C) A registered landscape architect shall comply with the registration laws and regulations governing his or her professional practice in any jurisdiction.

Professional Conduct

- (A) Each office in a jurisdiction maintained for the preparation of drawings, specifications, reports or other professional landscape architectural work shall have a registered landscape architect resident and regularly employed in that office having direct supervision of such work.
- (B) A registered landscape architect shall not sign or seal drawings, specifications, reports or other professional work for which he or she does not have direct professional knowledge and direct supervisory control; provided, however, that in the case of the portions of such professional work prepared by the registered landscape architect's consultants, registered in this jurisdiction, the registered landscape architect may sign or seal that portion of the professional work if the registered landscape architect has reviewed such portion, has coordinated its preparation, and intends to be responsible for its adequacy.
- (C) A registered landscape architect shall neither offer nor make any gifts, other than gifts of nominal value (including, for example, reasonable entertainment and hospitality), with the intent of influencing the judgment of an existing or prospective client in connection with a project in which the registered landscape architect is interested.
- (D) A registered landscape architect shall not engage in conduct involving fraud or wanton disregard of the rights of others.

Fasteners and Reinforcing List

The following is a list of fasteners and reinforcing materials that may appear in questions in Section D of the L.A.R.E. This list has been prepared by the CLARB Examination Committee. While the committee believes that this list will be of assistance to you in preparing for the L.A.R.E., no representation is made that a complete understanding of the materials on this list will ensure a passing grade on the examination, and no representation is made that the examination questions will be limited in scope to the list shown.

BOLTS:

- Carriage Bolt Assembly
- Eye Bolt
- J-Bolt Assembly
- L-shaped Anchor Bolt Assembly
- Lag Bolt
- Lag Bolt with Expansion Shield
- Lag Bolt with Fiber Plug
- Lag Bolt with Lead Shield
- Machine Bolt Assembly
- Machine Bolt with Expansion Shield
- Threaded Rod Assembly
- Toggle Bolt Assembly

SCREWS AND NAILS:

- Cement Nail
- Common Nail
- Finish Nail
- Hook Nail
- Machine Screw
- Masonry Nail
- Spike
- Wood Screw

METAL BRACKETS:

- Joist Hanger
- Post Anchor
- Post Cap Tie Plate
- Strap Hanger
- Plate Anchor

MISCELLANEOUS FASTENERS:

- Construction Adhesive
- Drive Anchor
- Duct Tape
- Epoxy
- Masonry Wall Tie
- Mastic
- Mortar
- Rivet
- Snap Tie
- Solder
- Staple
- Z-anchor

REINFORCEMENT:

- #3 Rebar
- #4 Rebar
- #6 Rebar
- #8 Rebar
- Cavity Wall Tie
- Fiber Mesh
- Geosynthetic Reinforcing Grid
- Steel Dowel
- Truss Design Reinforcement
- Welded Wire Mesh (WWM)

Materials List

The following is a list of materials that may appear in questions in Section D of the L.A.R.E. This list has been prepared by the CLARB Examination Committee. While the committee believes that this list will be of assistance to you in preparing for the L.A.R.E., no representation is made that a complete understanding of the materials on this list will ensure a passing grade on the examination, and no representation is made that the examination questions will be limited in scope to the list shown.

Angle Iron	Joint Sealing Compound
Asphalt (Bituminous Concrete)	Mastic
Brass Pipe	Metal Sleeve
Brick	Mortar
Butt Hinge	Mulch
Caulk	Perforated PVC Pipe
Ceramic Tile	Polyethylene Pipe
Concrete	Porcelain Enamel
Concrete Masonry Units (CMU)	Portland Cement
Concrete Pavers	Prefabricated Wall Drain
Copper Pipe	PVC Pipe
Epoxy Sealer	Sand
Expansion Joint Material	Soil
Filter Fabric	Soil Cement
Flagstone	Steel Tubing - Round
Flashing	Steel Tubing - Square
Flat Steel	Steel Washers
Floor Drain	Stone
Foam Insulation	Stone Dust (Fines)
Galvanized Electrical Conduit	Strap Hinge
Gate Latch Assembly	Stucco
Geotextile grid	Tar
Granite	Wall Reinforcement
Gravel (crushed stone, granular material, aggregate, peagravel)	Waterproofing (Bituminous)
Grout (non-shrink)	Waterstop
	Wood (Lumber)
	Wrought Iron

Lumber/Timber List

The following is a list of lumber/timber that may appear in questions in Section D of the L.A.R.E. This list has been prepared by the CLARB Examination Committee. While the committee believes that this list will be of assistance to you in preparing for the L.A.R.E., no representation is made that a complete understanding of the materials on this list will ensure a passing grade on the examination, and no representation is made that the examination questions will be limited in scope to the list shown.

1x4	[25x100]
1x6	[25x150]
1x8	[25x200]
1x10	[25x250]
1x12	[25x300]
5/4x6	[30x150]
2x2	[50x50]
2x4	[50x100]
2x6	[50x150]
2x8	[50x200]
2x10	[50x250]
2x12	[50x300]
4x4	[100x100]
4x6	[100x150]
4x8	[100x200]
4x10	[100x250]
4x12	[100x300]
6x6	[150x150]
6x8	[150x200]
8x8	[200x200]

Wood Member Sizing Chart

The following are charts that may appear in questions in Section D of the L.A.R.E. This material will be imbedded within any question that requires use of the chart.

For external wood structures with uniform joist and beam spacing.

Maximum Allowable Spans for Spaced Boards

	Laid Flat			
	1 x 4 [25 x 100]	5/4 x 6 [30 x 150]	2 x 4 [50 x 100]	2 x 6 [50 x 150]
For Decking	12" [30cm]	16" [40cm]	24" [60cm]	24" [60cm]
For Benches	NA	NA	36" [100cm]	36" [100cm]

Maximum Allowable Spans for Joists

Joist Size	Joist Spacing		
	16" [40cm]	24" [60cm]	32" [80cm]
2 x 6 [50 x 150]	10' [3.0m]	8' [2.4m]	6' [1.8m]
2 x 8 [50 x 200]	12' [3.6m]	10' [3.0m]	8' [2.4m]
2 x 10 [50 x 250]	16' [4.8m]	14' [4.2m]	10' [3.0m]

Minimum Beam Sizes and Allowable Beam Spans

Spacing Between Beams	4' [1.2m]	6' [1.8m]	8' [2.4m]	10'[3.0m]	12'[3.6m]	
	—	—	—	—	—	Beam Size*
6' [1.8m]	6' [1.8m]	—	—	—	—	4 x 6 [100 x 150]
10' [3.0m]	8' [2.4m]	6' [1.8m]	6' [1.8m]	—	—	4 x 8 [100 x 200]
12' [3.6m]	10' [3.0m]	8' [2.4m]	8' [2.4m]	6' [1.8m]	—	4 x 10 [100 x 250]
12' [3.6m]	12' [3.6m]	10' [3.0m]	10' [3.0m]	8' [2.4m]	—	4 x 12 [100 x 300]
Maximum Distance Between Posts (o.c.)						

* - Two (2) 2 by's [50's] are acceptable.

NOTE: Maximum cantilever for joists and beams is 24" [60cm].

Subsurface Drainage

The following information may appear in questions used on Section D of the L.A.R.E. in order to answer items pertaining to site drainage systems.

Rational Method formula:

$$q=CiA \text{ [} q=CiA/360 \text{]}$$

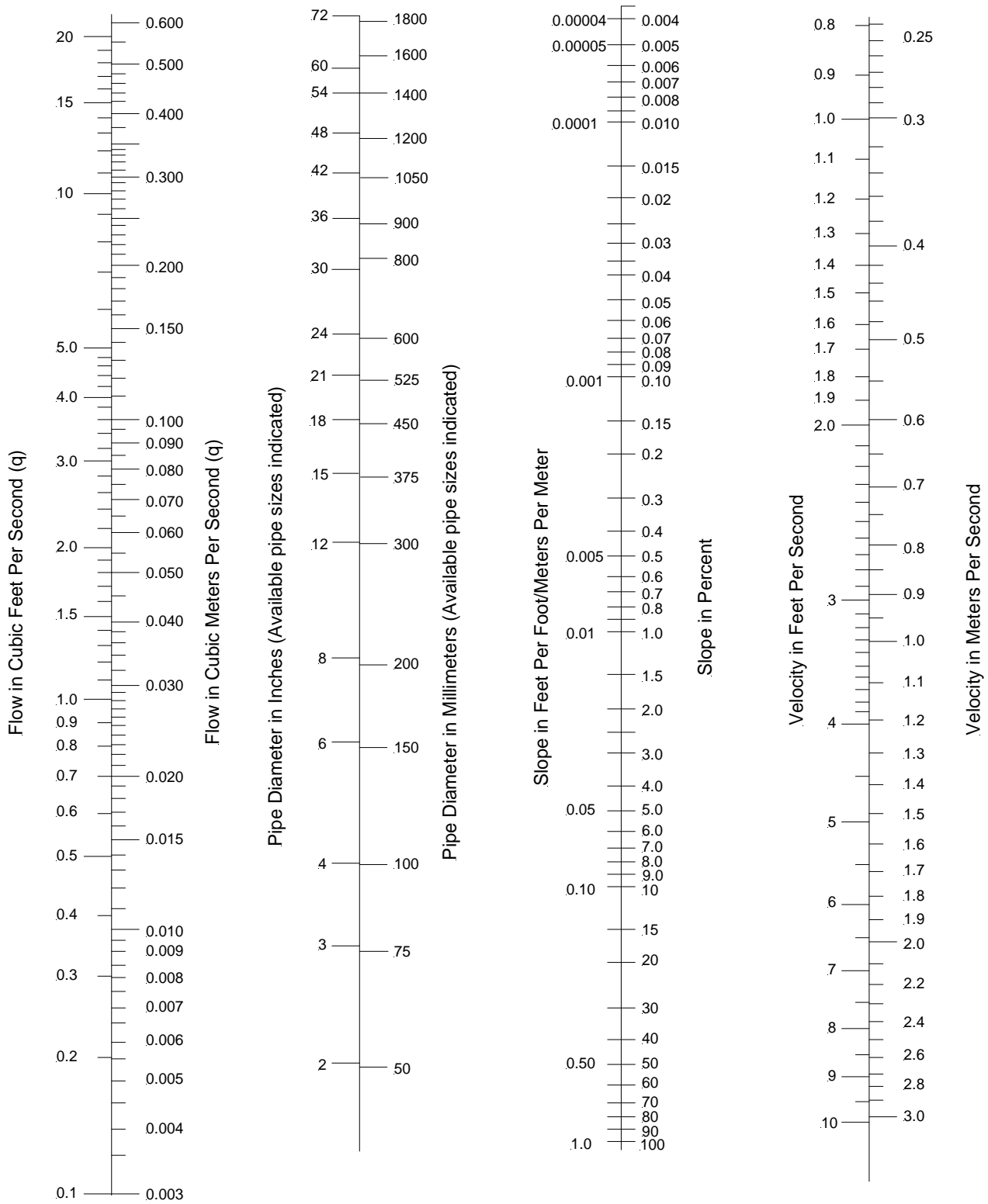
q = Quantity of runoff in cubic feet per second [cubic metres per second].

C = Runoff coefficient.

i = Intensity of rainfall in inches per hour [millimetres per hour].

A = Area in acres [hectares].

Nomograph for Circular Pipes Flowing Full (Manning's Equation - Concrete Pipe $n=0.013$)



Taking the Graphic Sections of the Examination

General Information

When taking the graphic response portions of the L.A.R.E., it is very important to budget your time. For each performance section of the examination, you will be asked to complete a set of vignette problems in a given period of time.

Each vignette problem is very straightforward and is intended as a sketch problem. Be sure to read the instructions carefully and completely before creating a solution. Your solution must respond to all of the requirements stated. You may use sketch paper to develop your solution before transferring it to the problem sheet; however, overlays will not be considered as part of your final solution.

You will be required to sign an exam security statement before you take the L.A.R.E. This is to ensure that the content of the exam is not divulged to anyone during or after the examination. Vignette problems are secure and may be reused in future administrations of the L.A.R.E. Failure to sign this statement will be grounds for expulsion from the examination room.

L.A.R.E. Graphic Schedule

Monday	Tuesday
Instructions 9:00 AM – 9:15 AM	Instructions 9:00 AM – 9:15 AM
Section C - Site Design	Section E - Grading, Drainage and Storm Water Management
9:00 AM – 2:15 PM	9:00 AM – 2:15 PM

Note: Your board may require that you appear for each exam section at a specific time prior to the exam start time. You must follow your board's specific instructions.

Examination Materials

Required:

1. You are required to bring drawing scales to perform each of the vignette problems.
2. You are required to bring whatever drafting equipment you would use to draw an 11" x 17" sketch type drawing. Solutions may be drawn in hard line or free hand style.
3. You are required to bring at least one No. 2 pencil to complete the score sheets.

Recommended:

1. You should bring a calculator for computations. You may use a silent, hand-held, non-programmable electronic calculator, but you may not use any other devices.
2. You should bring sketch paper to complete any rough studies for a problem; however, you should note that all drawings for the graphic response sections of the examination must be made on the problem sheets provided at the time of the examination. Overlays will not be considered as part of your final solution.
3. You should bring a smooth drawing surface, such as a sheet of cardboard or a small drafting board. You must check with your testing authority before bringing large drafting boards or electronic equipment such as lights or electric erasers to determine if the test site can accommodate these items.

Prohibited:

1. You may not bring cellular phones, pagers, devices with a computer memory chip or any device with an alphanumeric keyboard (e.g., a language translation tool) to the test site.
2. No reference material will be permitted in the test room. Any reference material necessary for any section of the examination will be provided with the test booklet at the time of the examination.
3. No stamps or press-ons will be permitted on any of the vignette problems.
4. The use of color is not permitted on any of the vignette problems.

How to Use the *L.A.R.E. Reference Manual*

The *L.A.R.E. Reference Manual* is a reference source that will be available to candidates prior to taking Sections C and E of the examination. Candidates will also receive a copy during the examination for their use. The manual will be revised periodically to reflect changes in the content of the exam.

The manual includes zoning and construction standards for the L.A.R.E. vignette problems. Some of the vignette problems in the L.A.R.E. require that the candidate incorporate zoning and/or construction standards into their solution. To provide a constant reference base for all examinees, the problems are located in a hypothetical, generic city that has adopted the zoning and construction standards in the reference manual. These standards must be adhered to when completing all of the vignette problems. The standards provided are extracted from model codes and standards and may not conform to your local codes. However, solutions will be evaluated based on the standards given in the *L.A.R.E. Reference Manual*.

Council of
Landscape Architectural
Registration Boards

Graphic L.A.R.E. Reference Manual

(Click on the section name and/or blue hyperlinks to easily navigate to content.)

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The material in this booklet is for use on the Graphic Landscape Architect Registration Examination (L.A.R.E.) only. This version of the Graphic L.A.R.E. Reference Manual supercedes all other additions.

March 2010

Zoning and Construction Standards for the L.A.R.E.

100 SETBACK REQUIREMENTS

100.1 Property Line Setbacks

100.1.1 Paved vehicular circulation ways such as parking, drives (except entrances) and loading spaces shall be set back as follows:

1. At least 15' [4.5m] from any street right-of-way (property line along a street).
2. At least 10' [3m] from all other property lines.

100.1.2 Buildings shall be set back as follows:

1. All buildings shall be set back at least 25' [7.5m] from any street right-of-way (property line along a street).
2. All buildings shall be set back at least 15' [4.5m] from all other property lines.

100.2 Stream, Lake and Wetland Setbacks

100.2.1 All development requiring site disturbance shall be set back at least 50' [15m] from any designated stream edge or other water body. Activities that require direct water access are permitted (e.g., boat docks, boat ramps, etc.).

100.2.2 All development requiring site disturbance shall be set back at least 100' [30m] from the edge of any designated wetland area.

100.3 Floodplain Restrictions

Enclosed structures and their appurtenances are not permitted within a floodplain.

100.4 Incompatible Use Setback

100.4.1 There shall be a 25' [7.5m] setback provided from any property line where there is an incompatible use. An incompatible use is where there is proposed commercial and an adjacent parcel zoned residential. Institutional uses are exempt such as schools, libraries, churches, hospitals and daycare facilities.

100.4.2 Such setback area shall not be utilized for structures, roads and parking areas or for any active recreation purpose such as tennis courts, swimming pools, playgrounds or uses of a similar nature.

100.5 Active Recreation Setback

There shall be a 30' [9m] clear zone, free of obstructions, around organized active recreational uses such as football, soccer, baseball, volleyball, basketball or uses of a similar nature. Pedestrian and vehicular circulation should not be located within the 30' [9m] clear zone unless it is providing direct access to the recreation use.

200 PEDESTRIAN SECURITY/SAFETY

200.1 Guardrails and Barriers

200.1.1 A guardrail system is a system of components located near the open sides of elevated walking surfaces for the purpose of minimizing the possibility of an accidental fall from the walking surface to the lower level.

200.1.2 Guardrails are required on retaining walls where differences in grade level on either side of the wall are in excess of 2.5' [0.75m] and are located closer than 3' [1m] to a walk, path, parking lot or driveway on the high side.

Guardrails shall be a minimum of 42" [1.1m] in height measured vertically from the leading edge of a stair tread or adjacent walking surface.

Open guardrails shall have balusters or other construction such that a sphere with a diameter of 4" [100mm] cannot pass through any opening.

300 ORIENTATION

300.1 Sports Facility Orientation

Baseball/Softball - East-northeast from home plate to center field

Football/Soccer - Long axis north-south

Tennis/Basketball/Volleyball – Long axis north-south

300.2 Solar Orientation

Passive and Active Solar Systems – South-southeast to South-southwest

400 VEHICULAR REQUIREMENTS

400.1 General Requirements

All vehicular circulation and parking lots shall be paved.

The maximum length for a cul-de-sac shall be 800' [240m]. (From the centerline of the primary circulation to which the cul-de-sac connects to the radius point of the cul-de-sac bulb.)

Parking shall not back into primary circulation or entrances.

Vehicular circulation solely used for parking lot ingress/egress is not considered primary circulation.

Drop-off, turnaround, service drive, drive-through ingress/egress and cut through vehicular circulation are considered to be primary circulation.

400.2 Intersections

400.2.1 Vehicular circulation entrances must be directly aligned or offset a minimum of 75' [23m] (see figure 1).

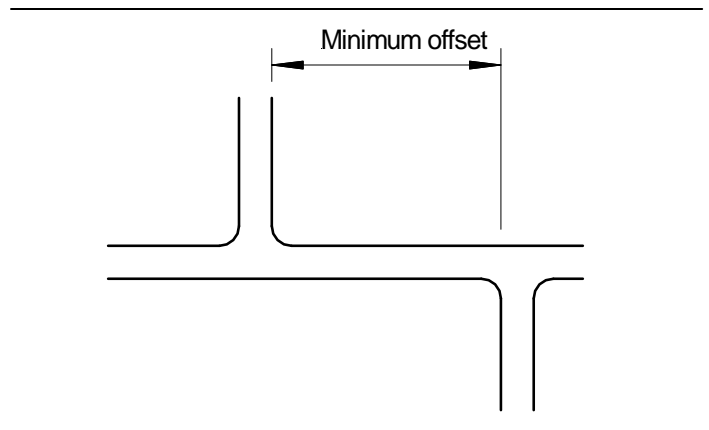


Figure 1

400.3 Vehicular Circulation

- 400.3.1 Two-way vehicular circulation shall be a minimum of 22' [6.7m] and a maximum of 26' [8m] wide.
- 400.3.2 One-way vehicular circulation shall be a minimum of 11' [3.3m] wide.
- 400.3.3 The minimum inside turning radius for automobiles shall be 18' [5.5m] (see figure 2).
- 400.3.4 The minimum inside turning radius for large vehicles (such as trucks, buses and emergency vehicles) shall be 30' [9.1m] (see figure 2).

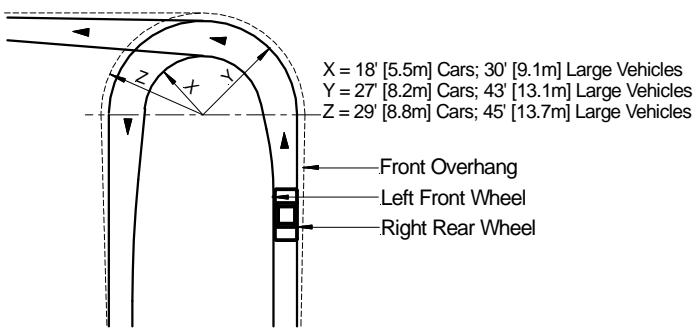


Figure 2

400.4 Parking and Loading Requirements

- 400.4.1 The dimension for a standard parking space shall be 9' x 20' [2.7m x 6m]. The minimum aisle width for a parking lot shall be 20' [6m].
- 400.4.2 Parallel parking spaces shall have a minimum length of 22' [6.7m] and a minimum width of 9' [2.7m].
- 400.4.3 Open off-street parking areas with more than forty (40) spaces shall have a maximum of 10 contiguous spaces without an island. The minimum width of a parking island shall be 9' [2.7m].
- 400.4.4 Parking areas must be graded at a slope not to exceed 5%.
- 400.4.5 No dead end parking areas shall be permitted (see figure 3).

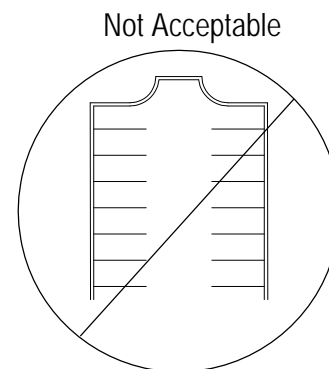


Figure 3

- 400.4.6 The dimension of a standard bus loading/unloading space shall be 12' x 45' [3.6m x 14m].

400.5 Stacking Spaces

400.5.1 For all uses with a drive-up window (restaurants, banks, etc.) and for all uses involving customers waiting in line while in their vehicles (car washes, fast food restaurants, etc.), in addition to the parking space requirements of this chapter, stacking spaces for at least six (6) vehicles, including the vehicle at the window, shall be provided for one window or unit, and thereafter two (2) additional stacking spaces shall be provided for each additional window or unit. (ie, two windows would require 8 total stacking spaces, 4 per window).

For all uses with an unattended drop box (mail, book, video, package, etc.), in addition to the parking space requirements of this chapter, stacking spaces for drop boxes shall allow space for two (2) vehicles at the box.

400.5.2 Stacking spaces shall be located to allow for traffic movement around stopped vehicles to avoid stacked vehicles overflowing onto primary circulation. The width of a drive through travel lane shall not be less than 11' [3.3m]. A stacking space shall have a minimum length of 18' [5.5m].

400.6 Drop-off/Pick-up Areas

400.6.1 If a drop-off/pick-up area is provided, it shall be designed to allow for the safe movement of vehicles and pedestrians. It shall also be designed to allow for traffic movement around stopped vehicles.

400.6.2 Drop-off/pick-up areas shall have a minimum length of 22' [6.7m] per vehicle and a minimum width of 9' [2.7m].

400.7 Service Areas

Service areas shall incorporate a minimum 20' [6m] turnaround to accommodate small service vehicles (such as panel vans) (see figure 4).

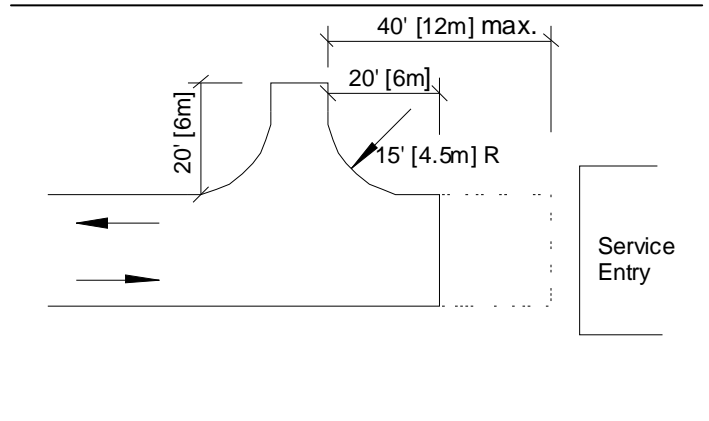


Figure 4

500 ACCESSIBLE PARKING

500.1 Requirements

500.1.1 If parking spaces are provided for self-parking by employees or visitors, or both, then accessible spaces shall be provided in each such parking area in conformance with the table below.

Total Parking in Lot	Required Minimum Number of Accessible Spaces
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1000	2 percent of total
1000 and over	20 plus 1 for each 100 over 1000

500.1.2 Accessible parking spaces shall be 8'-0" x 20'-0" [2.4m x 6m] and shall have a 5' [1.5m] wide access aisle adjacent to the side of the parking space. (see figure 5).

600.3 Door Threshold

The maximum rise at a door threshold for an accessible entry shall be 1/2" [13mm].

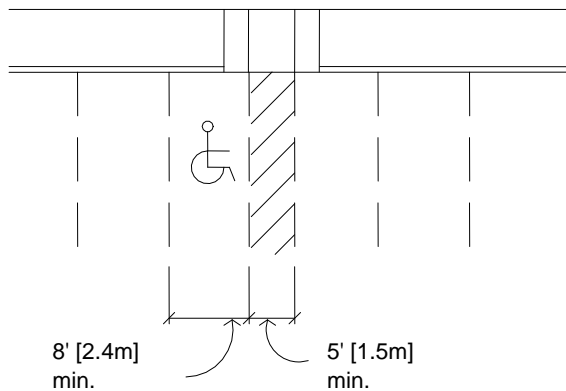


Figure 5

500.2 Location

Accessible parking spaces serving a particular building shall be located on the shortest accessible route of travel from adjacent parking to an accessible entrance.

600 ACCESSIBLE ROUTE

600.1 Requirements

At least 50% of all public entrances must be accessible. At least one must be a ground floor entrance. Public entrances are any entrances that are not loading or service entrances.

Where feasible, accessible entrances shall be the entrances used by the majority of people visiting or working in the building.

600.2 Width

The minimum clear width of an accessible route shall be 3' [1m] except at doors.

700 CURB RAMPS

700.1 Location

Curb ramps shall be provided wherever an accessible route crosses a curb.

700.2 Slope

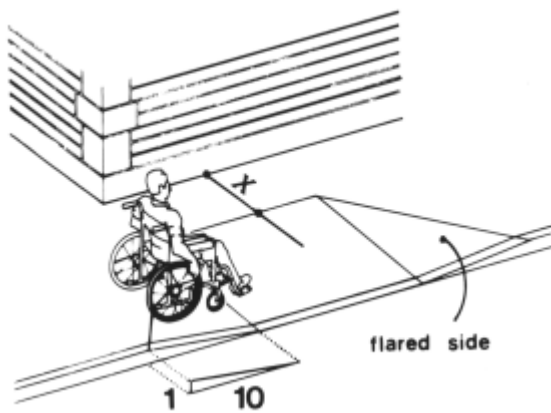
The maximum slope of a curb ramp shall be 1:12. Transitions from ramps to walks, gutters, or streets shall be flush and free of abrupt changes. Maximum slope of adjoining gutters or accessible route shall not exceed 5%.

700.3 Width

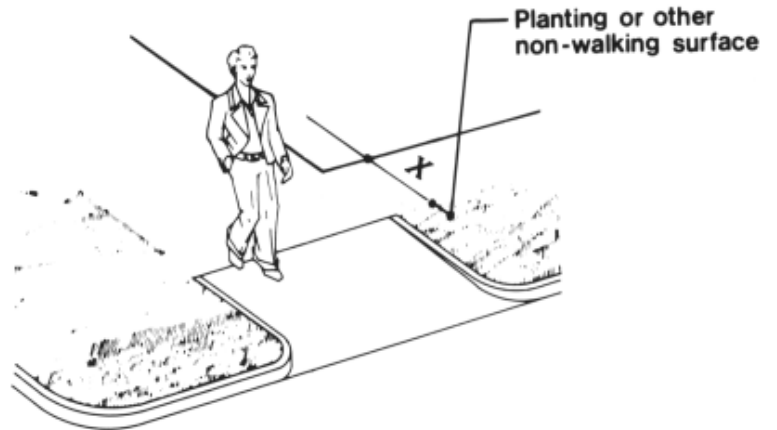
The minimum width of a curb ramp shall be 3' [1m], exclusive of flared sides.

700.4 Sides of Curb Ramps

If a curb ramp is located where pedestrians must walk across the ramp, or where it is not protected by handrails or guardrails, it shall have flared sides; the maximum slope of the flare shall be 1:10 (see figure 6). Curb ramps with returned curbs shall be used where pedestrians would not normally walk across the ramp (see figure 6).



Flared Sides



Returned Curb

Figure 6

800 RAMPS

800.1 General

Any part of an accessible route with a slope greater than 5% shall be considered a ramp. The minimum clear width of a ramp shall be 3' [1m].

800.2 Slope and Rise

The least possible slope shall be used for any ramp. The maximum slope of a ramp in new construction shall be 1:12. The maximum rise for any run shall be 2.5' [0.75m] (see figure 7).

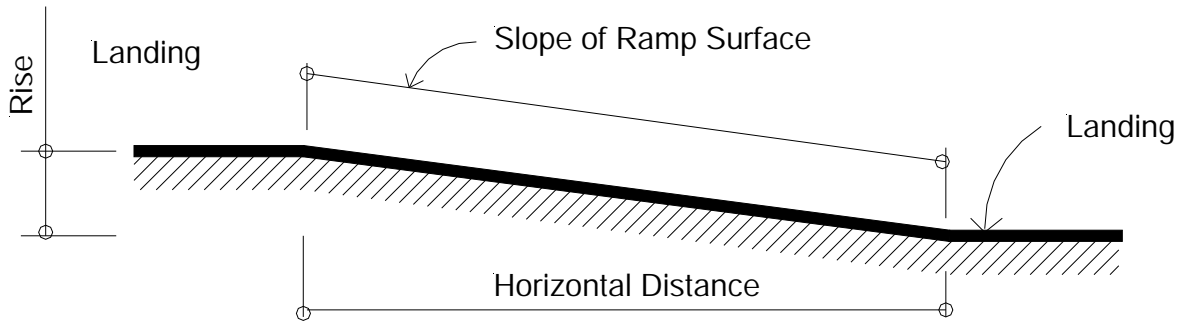
800.3 Landing

Ramps shall have landings at the bottom and top of each ramp and each ramp run. Landings shall have the following features:

1. The landing shall have a 2% slope for drainage.
2. The landing shall be at least as wide as the ramp run leading to it.
3. The landing length shall be a minimum of 5' [1.5m] clear.
4. If ramps change direction at landings, the minimum landing size shall be 5' x 5' [1.5m x 1.5m].

800.4 Cross Slope of Ramp Surfaces and/or Landings

The cross slope of ramp surfaces shall be no greater than 2%.



Slope	Maximum Rise		Maximum Horizontal Distance	
	ft	m	ft	m
>5% to 8.33%	2.5	0.75	30.0	9.0

Figure 7

(Click on the [blue hyperlinks](#) to easily navigate to content.)

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