INTERORGANIZATIONAL
COUNCIL ON REGULATION

PRACTICE OVERLAP GUIDANCE

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Contents

ABOUT ICOR

The Interorganizational Council on Regulation (ICOR) is a collaborative partnership of nonprofit regulatory associations representing the licensing boards for architecture, engineering, interior design, landscape architecture, and surveying. Founded in 1972, ICOR includes the Council for Interior Design Qualification (CIDQ), the Council of Landscape Architectural Registration Boards (CLARB), the National Council of Architectural Registration Boards (NCARB), and the National Council of Examiners for Engineering and Surveying (NCEES). Together, these organizations support licensing boards across the United States and Canada that uphold public health, safety, and welfare through professional licensure and/or certification.

ICOR works to strengthen regulation by sharing best practices, advancing consistent standards, and addressing areas of common concern among the regulated design professions. Recognizing that many jurisdictions regulate multiple professions under a single board, ICOR plays a vital role in fostering understanding and collaboration across disciplines. By developing shared resources like this guidance on practice overlap, ICOR helps regulatory boards reduce confusion, streamline administration, and ensure that professional scopes of practice are well defined—while maintaining the public's trust and safety at the center of the regulatory mission.

BACKGROUND

The professions of architecture, engineering, interior design, landscape architecture, and surveying often work together on complex projects that shape the natural and built environments. As these professions intersect on buildings, infrastructure, and public spaces, their scopes of practice sometimes overlap. Known by various terms such as incidental practice, overlapping practice, or scope of practice, these areas present regulatory challenges for licensing boards, code officials, and practitioners.

Recognizing the need for clear, coordinated guidance, ICOR launched a joint Practice Overlap Initiative to explore these long-standing challenges. The Practice Overlap Task Force, composed of licensed professionals, board executives, and public members from each ICOR organization, has developed shared definitions and guidance to clarify where overlap is appropriate and where clear practice boundaries exist. This work is informed by detailed analysis of over 100 design topic areas and reflects a broad spectrum of perspectives across disciplines, regions, and practice settings.

The resulting guidance is designed to support licensing boards, building officials, and professionals by offering a common framework for regulating areas of practice overlap while honoring the distinct contributions of each profession. Through this resource, ICOR aims to promote consistent regulatory approaches and ensure competent practice in service of public protection.

EXECUTIVE SUMMARY

The Interorganizational Council on Regulation (ICOR), comprised of CIDQ, CLARB, NCARB, and NCEES, has undertaken a joint initiative to address the complex issue of overlapping practice among the licensed and/or certified design professions of architecture, engineering, interior design, landscape architecture, and surveying. Referred to as incidental practice, overlapping practice, or scope of practice, this issue has posed longstanding challenges for licensing boards, code officials, and practitioners alike. To support consistent, defensible regulatory decision-making, ICOR launched the Practice Overlap Initiative in 2022.

This initiative represents a landmark cross-profession effort to bring clarity, consistency, and transparency to overlapping practice. It is intended to support regulators, code officials, and practitioners in ensuring that only qualified individuals perform regulated tasks, while promoting interdisciplinary collaboration in the interest of public protection.

The initiative is guided by a multi-profession steering committee and supported by dozens of subject matter experts serving on discipline-specific subcommittees. The group began by reviewing licensure and certification standards—including definitions of practice, education curricula, experience requirements, and exam content—for all five professions. This analysis yielded 128 topic areas where overlap might occur. These topics were then categorized into three groups:

- **Group 1 – Not Regulated or No Overlap:** Areas of practice that fall outside the scope of licensure and/or certification or where no meaningful overlap occurs.
- **Group 2 – Areas of Collaboration:** Areas of practice where overlap occurs appropriately through coordinated efforts, and no regulatory conflict or concern arises.
- **Group 3 – Areas With Practice Boundaries:** Areas where practice overlap exists and should be regulated to ensure competent practice and clear delineation of scope among professions.

Because the practice of engineering encompasses multiple disciplines, the steering committee organized these into three subgroups to ensure an efficient and focused analysis. Architectural and structural engineers (AS) were paired together; civil, construction, environmental, and geotechnical engineers (CCEG) formed a second group; and mechanical and electrical (ME) engineers made up a third. This structure allowed for targeted expertise to be applied during the review of practice areas where these engineering disciplines overlap with other design professions. Unless specified, “engineers” includes all three engineering subgroups.

These subcommittees and the steering committee worked to analyze and classify each topic. Areas of acceptable overlap were identified, as were areas where clear professional boundaries must be maintained.

The guidance resource includes:

- General and profession-specific definitions for practice areas within the *Areas of Collaboration and Areas With Practice Boundaries* categories
- Clear identification of acceptable overlap and collaborative practice
- Distinctions where professional scope boundaries should be upheld

This resource is intended to support consistent regulatory oversight, encourage appropriate interdisciplinary collaboration, and promote clear understanding of professional responsibilities within and across the design disciplines.

PROFESSIONAL STANDARDS RESOURCES

The ICOR Practice Overlap Task Force drew upon organizational member national model licensure and certification standards as the primary sources for developing the guidance. This approach provided a shared foundation for analyzing practice areas, identifying appropriate overlap, and establishing clear practice boundaries. To maintain parity across the professions, the task force, steering committee, and subcommittees relied on comparable, nationally recognized standards that included:

- Model definitions of practice adopted or referenced by state and provincial licensing boards.
- Accredited education curricula and standards established by each profession's accrediting body.
- Licensure and certification examination content defining the domains of competence assessed for entry-to-practice.
- Structured experience program categories outlining supervised practice areas required for licensure or certification.

The following inputs represent the nationally recognized standards for each profession that served as the primary reference materials for the analysis:

Council for Interior Design Qualification (CIDQ)

- CIDQ Definition of Practice
- CIDA (Education) Accreditation Standards
- NCIDQ Examination Information (and Experience)
- Exam Blueprints and Content Information:
  - Professional
  - Fundamentals
  - Implementation
- Joint NCARB/CIDQ report
- Model Legislation

Council of Landscape Architectural Registration Boards (CLARB)

- CLARB Model Law and Regulations
- CLARB's Uniform Licensure Standard for Landscape Architecture
- LAAB Accreditation Standards
- Landscape Architect Registration Examination (L.A.R.E.) Blueprint

National Council of Architectural Registration Boards (NCARB)

- *NCARB Model Law and Regulations*
- *NCARB Education Standard*
- NAAB (Education) Accreditation Standards
- *ARE Guidelines* (Exam)
- *AXP Guidelines* (Experience)
- Joint NCARB/CIDQ report

National Council of Examiners for Engineering and Surveying (NCEES)

- NCEES Model Law
- NCEES Model Rules
- NCEES Engineering Education Standard
- NCEES Surveying Education Standard
- PE Exam Specifications
- FE Exam Specifications
- PS Exam Specifications
- FS Exam Specifications

INSTRUCTIONS FOR USE

This guidance document supports regulatory boards and regulated professionals in identifying areas of acceptable overlap and distinct practice boundaries among the professions of architecture, engineering, interior design, landscape architecture, and surveying.

Practice areas are organized into three distinct groups:

Practice Areas Identified in Group 1 – Not Regulated or No Overlap

This group includes areas of professional practice that fall outside the scope of licensure and/or certification or where no meaningful overlap occurs. Topics in this category are listed alphabetically and do not include additional analysis.

Practice Areas Identified in Group 2 – Areas of Collaboration

This group includes areas where two or more professions routinely collaborate. Overlap occurs through coordinated practice and does not raise regulatory concerns. Topics in this category include the following elements:

- General definition Profession-specific definitions (*If no profession-specific definitions exist within a topic, this indicates there is no meaningful distinction in definition across the professions.*)
- Summary of acceptable overlap across the professions

Practice Areas Identified in Group 3 – Areas With Practice Boundaries

This group includes areas where overlap exists but requires careful regulatory interpretation. While multiple professions may contribute, distinctions in responsibility, scope, and competency must be maintained to ensure public protection. Topics in this category include the following elements:

- General definition
- Profession-specific definitions
- Summary of acceptable overlap
- Practice boundaries analyzed through profession-to-profession comparisons

For practice areas in Group 3, the document identifies each profession's role and scope of practice. Acceptable areas of shared responsibility are described in the overlap summary. If a profession is not listed for a specific topic, this indicates that it does not typically engage in that area of practice.

COMMON TERMINOLOGY

AS – Architectural and Structural Engineers

Boundaries – Defines the specific edges or limits of each discipline's sphere of knowledge based on their professional education, experience, and examination.

CCEG – Civil, Construction, Environmental, and Geotechnical Engineers

CIDQ – Council for Interior Design Qualification

CLARB – Council of Landscape Architectural Registration Boards

Conceptual – Refers to early phases in the design process or of a specific element of a project in which the broad outlines of function and form are articulated. It involves the understanding of complex situations or an overall scope in the development of a creative solution.

HSW – Health, Safety, and Welfare

ICOR – Interorganizational Council on Regulation

ME – Mechanical and Electrical Engineers

NCARB – National Council of Architectural Registration Boards

NCEES – National Council of Examiners for Engineering and Surveying

No Scope Distinction – There is no distinct difference in this specific topic area that the specified profession can do that differentiates it from its related discipline.

Overlap – The piece of the specific topic area that coincides or shares common elements within both professions' knowledge based on their professional education, experience, and examination.

Practice of Architecture – The art and science of designing, in whole or in part, the exterior and interior of Buildings and the site around them, in a manner that protects the public health, safety, and welfare. The Practice of Architecture includes providing or offering to provide planning services; developing concepts; preparing documents that define form and function; coordinating consultants; and construction administration.

a. Planning services include, but are not limited to, programming and planning.
b. Developing concepts includes, but is not limited to, preliminary studies, pre-design, investigations, and evaluations.
c. Preparing documents that define form and function includes, but is not limited to, drawings and Technical Submissions, including incorporation of the requirements of the authorities having jurisdiction.
d. Coordinating consultants includes, but is not limited to, the coordination of any elements of Technical Submissions prepared by others.
e. Construction administration includes, but is not limited to, evaluation of construction to determine that the work is proceeding in accordance with the contract documents.

Practice of Engineering – Any service or creative work requiring engineering education, training, and experience in the application of engineering principles and the interpretation of engineering data to engineering activities, including the engineering design of buildings, structures, products, machines, processes, and systems, that potentially impact the health, safety, and welfare of the public. The services may include, but not be limited to, providing planning, studies, designs, design coordination, drawings, specifications, and other technical submissions; teaching engineering design courses; commissioning of engineered systems; performing surveying that is incidental to the practice of engineering; and reviewing construction or other design products for the purposes of monitoring compliance with drawings and specifications related to engineered works.

Surveying incidental to the practice of engineering excludes the surveying of real property for the establishment of land boundaries, rights of way, easements, and the dependent or independent surveys or resurveys of the public land survey system.

Practice of Interior Design – The practice of interior design means the analysis, planning, design, documentation, and management of interior nonstructural construction and alteration projects in compliance with applicable building design and construction, fire, life safety, and energy codes, standards, regulations, and guidelines. The Practice of Registered Interior Design includes all the following:

a. Programming, space planning, pre-design analysis, and conceptual design of interior Nonstructural Elements;
b. Preparation of documents and Technical Submissions related to interior construction, finish materials, furnishings, fixtures, and equipment;
c. Rendering of designs, plans, drawings, specifications, contract documents, and other interior Technical Submissions;
d. Administration of interior nonstructural element construction and contracts relating to nonstructural elements in interior alteration or construction of a proposed or existing building or structure;
e. Alteration or construction of interior nonstructural elements;
f. Preparation of a physical plan of space within a proposed or existing building or structure including any or all of the following:
    i. Determinations of circulation systems or patterns;
    ii. Determinations of egress requirements based on occupancy loads;
    iii. Assessment and analysis of interior safety factors to comply with building codes related to interior Nonstructural Elements;
    iv. Design of the exit access and exit components of the means of egress system within a building based on the calculated occupant load;
    v. Interior material selection and application for all portions of an interior construction project, including means of egress system;
    vi. Compliance with applicable building design and construction, accessibility standards, fire, life-safety, and energy codes, standards, regulations, and guidelines.

Practice of Landscape Architecture – The practice of Landscape Architecture is defined as any service where landscape architectural education, training, experience, and the application of mathematical, physical, and social science principles are applied in consultation, evaluation, planning, design (including, but not limited to, the preparation and filing of plans, drawings, specifications, and other contract documents), and administration of contracts relative to projects principally directed at the functional and aesthetic use and preservation of land. Services included in the licensed scope of Landscape Architecture include, but are not limited to the following:

- Investigation, selection, and allocation of land and water resources for appropriate uses.
- Formulation of feasibility studies, and graphic and written criteria to govern the planning, design, and management of land and water resources.
- Preparation, review, and analysis of land use master plans, subdivision plans, and preliminary plats.
- Determining the location and siting of improvements, including buildings and other features, as well as the access and environments for those improvements.
- Design of landforms and landform elements, storm water drainage, soil conservation and erosion control methods, pedestrian and vehicular circulation systems, and related construction details.
- Consultation, planning, designing, or responsible supervision in connection with the development of land areas for preservation and enhancement.
- Design of non-habitable structures for aesthetic and functional purposes, such as pools, walls, and structures for outdoor living spaces, for public and private use.
- Determination of proper land use as it pertains to natural features; ground cover, use, nomenclature and arrangement of plant material adapted to soils and climate; naturalistic and aesthetic values; settings and approaches to structures and other improvements; and the development of outdoor space in accordance with ideals of human use and enjoyment.
- Design with a priority to ensure equal access to all public goods and services through the use of barrier-free design in compliance with the Americans with Disabilities Act (ADA).
- Consideration of the health, safety, and welfare of the public. Public welfare is defined through: environmental sustainability; contribution to economic sustainability and benefits; promotes public health and well-being; builds communities; encourages landscape awareness/ stewardship; offers aesthetic and creative experiences; and enables people and communities to function more effectively.

Practice of Surveying – Providing, or offering to provide, professional services using such sciences as mathematics, geodesy, and photogrammetry, and involving both (1) the making of geometric measurements and gathering related information pertaining to the physical or legal features of the earth, improvements on the earth, the space above, on, or below the earth and (2) providing, utilizing, or developing the same into survey products such as graphics, data, maps, plans, reports, descriptions, or projects. Professional services include acts of consultation, investigation, testimony evaluation, expert technical testimony, planning, mapping, assembling, and interpreting gathered measurements and information related to any one or more of the following:

a. Determining by measurement the configuration or contour of the earth's surface or the position of fixed objects thereon

b. Determining by performing geodetic surveys the size and shape of the earth or the position of any point on the earth

c. Locating, relocating, establishing, reestablishing, or retracing property lines or boundaries of any tract of land, road, right of way, or easement

d. Making any survey for the division, subdivision, or consolidation of any tract(s) of land

e. Locating or laying out alignments, positions, or elevations for the construction of fixed works

f. Determining, by the use of principles of surveying, the position for any survey monument (boundary or non-boundary) or reference point; establishing or replacing any such monument or reference point

g. Creating, preparing, or modifying electronic, computerized, or other data, relative to the performance of the activities in items a–f above

GROUP 1:
NOT REGULATED OR NO OVERLAP

These are areas of professional practice that either fall outside the scope of licensure and/or certification and regulation or do not involve meaningful overlap between the professions.

- Basic Sciences
- Budgeting
- Business Practices
- Communication
- Contracts/Bidding
- Design Process, Principles, and Theory
- Design Proposals
- Histories and Theories
- Legal Context
- Mathematics
- Project Management
- Social Sciences
- Traditional Humanities

GROUP 2:
AREAS OF COLLABORATION

These are areas of practice where multiple design professions contribute within the bounds of their respective scopes of practice. Overlap occurs appropriately through coordinated efforts, and no regulatory conflict or concern arises. These topics represent routine and expected interdisciplinary collaboration that supports integrated project delivery.

1. Building Analysis
2. Codes and Regulations
3. Construction Administration
4. Continuing Education/Professional Development
5. Contract Documents
6. Ethics
7. Evaluation and Planning
8. Furniture, Fixtures, and Equipment (FF&E)
9. Human Behavior
10. Human-Centered Design
11. Hydraulics
12. Integration of Building Systems
13. Land-Use Determination
14. Master Planning
15. Materials
16. Professional Practice
17. Programming
18. Project Integration
19. Stakeholder Engagement
20. Sustainability
21. Universal Design

1. Building Analysis

Overview

Definition of Building Analysis

Building Analysis is the process of assessing and evaluating various factors that impact the design, planning, construction, operation, and maintenance of buildings and infrastructure projects.

Profession-Specific Definitions of Building Analysis

Architect

Building Analysis in architecture is the process of evaluating data and information to develop a building design including, but not limited to, the program, building engineering systems, regulatory requirements, and site, environmental, and physical traits.

Engineer

Building Analysis in engineering is the process of assessing and evaluating factors that relate to building systems and usages depending on building code, programmatic requirements, regulatory requirements, and physical traits. Engineers perform building analysis according to their discipline.

Interior Designer

Building Analysis in interior design is the review and analysis of existing context and building information to understand the relevant requirements necessary to develop a design approach. Interior designers evaluate and document existing interior non-structural/non-seismic conditions to inform project needs and requirements. Building analysis includes, but is not limited to, program and needs alignment, regulatory requirements, physical and spatial conditions, and understanding of existing architectural, structural, and mechanical/electrical systems.

Landscape Architect

Building Analysis in landscape architecture refers to the process of collaborating on the identification of optimal building placement on a site through site analysis and master planning. Landscape architects harmonize the building program requirements with the site program requirements, ensuring that both function cohesively and consider the views and spatial functions of the building from the site and vice versa. As the building program evolves, the landscape architect designs the site program in parallel, ensuring close coordination and collaboration throughout the design process.

Summary of Overlap

Acceptable Overlap

Acceptable overlap includes coordinating the elements according to building codes, programmatic requirements, regulatory requirements, and environmental and physical traits. All professions coordinate with other design professionals and perform building analysis within their respective scopes of practice.

2. Codes and Regulations

Overview

Definition of Codes and Regulations

Codes and Regulations are provisions, rules, or directives made and maintained by a regulating authority that competently protects the health, safety, property, and welfare of the public.

Profession-Specific Definitions of Codes and Regulations

Architect

Codes and Regulations in architecture are the legal and technical frameworks that architects must adhere to when designing buildings. This includes, but is not limited to, building codes, zoning regulations, accessibility standards, environmental regulations, and other life safety codes. Architects incorporate jurisdiction requirements into the project design and documentation.

Engineer

Codes and Regulations in engineering are all codes and standards adopted and applicable to a given project or design. Application includes knowledge and interpretation of codes and standards to a design solution.

Interior Designer

Codes and Regulations in interior design are all applicable codes as they have been adopted by the local jurisdiction in the planning and design of an interior environment. Compliance often involves meeting requirements from other state/provincial or national/federal entities as interpreted by the local code official or plan review office.

Landscape Architect

Codes and Regulations in landscape architecture are the legal and technical frameworks that govern the planning, design, construction, and maintenance of landscape architectural projects. These include zoning ordinances, building codes, environmental regulations, accessibility standards, and other local, state, or national requirements that ensure public safety, environmental protection, and compliance with professional standards.

Surveyor

Codes and Regulations in surveying are all codes and standards adopted and applicable to a given project or design. Application includes knowledge and interpretation of codes and standards to a design solution.

Summary of Overlap

Acceptable Overlap

Acceptable overlap includes working with codes, standards, and guidelines in the development and documentation of environments within each profession's scope of practice.

3. Construction Administration

Overview

Definition of Construction Administration

Construction Administration is a series of administrative tasks performed by a design professional to oversee the pre-construction and execution phases of a project that confirm substantial compliance with the related requirements and provisions of applicable technical documents.

Profession-Specific Definitions of Construction Administration

Architect

Construction Administration in architecture is the evaluation of construction progress to determine that the work is proceeding in accordance with the contract documents.

Engineer

Construction Administration in engineering is the implementation of a project to ensure it aligns with the design intent, contract documents, and applicable standards.

Interior Designer

Construction Administration in interior design is the oversight of an interior non-structural/ non-seismic components to ensure it aligns with the design intent, contract documents, and applicable standards.

Landscape Architect

Construction Administration in landscape architecture is the oversight of a project to ensure it aligns with the design intent, contract documents, and applicable standards.

Surveyor

Construction Administration in surveying is the oversight of a project to ensure it aligns with the design intent, contract documents, and applicable standards.

Summary of Overlap

Acceptable Overlap

Acceptable overlap includes overseeing the implementation of a project to ensure it aligns with the design intent, contract documents, and applicable standards.

4. Continuing Education/ Professional Development

Overview

Definition of Continuing Education/Professional Development

Continuing education/professional development is the ongoing process of maintaining one's professional skills, knowledge, competence, and expertise related to maintaining licensure and/or certification within a respective profession. Its purpose is to maintain professional competence and to stay current with the latest advancements, best practices, and regulations related to the health, safety, and welfare of the public.

Profession-Specific Definitions of Continuing Education/Professional Development

There are no distinct profession-specific definitions for this topic.

5. Contract Documents

Overview

Definition of Contract Documents

Contract Documents are the documents, drawings, and specifications used to communicate to others the intent or execution of a design.

Profession-Specific Definitions of Contract Documents

Architect

Contract Documents in architecture are the requirements for the construction of a building project. These documents form the legal basis of the agreement between the client and contractor to execute the design. The primary elements of contract documents include drawings specifications, the project manual, agreement forms, addenda, and modifications.

Engineer

Contract Documents in engineering are the documents, drawings, and specifications used to communicate to others the intent or execution of a design. Engineers provide contract documents that include, but are not limited to, plans, studies, designs, technical submissions, and construction or design product reviews to ensure compliance with engineered work specifications.

Interior Designer

Contract Documents in interior design are drawings and specifications, including various documents for technical submissions applicable to interior non-structural/non-seismic construction and alteration projects that integrate building design and construction requirements. The primary elements of contract documents include drawings specifications, the project manual, agreement forms, addenda, and modifications.

Landscape Architect

Contract Documents in landscape architecture are the comprehensive set of construction documents that define the requirements for a construction project. Contract Documents typically include plans, specifications, details, agreements, general and supplementary conditions, and addenda, which collectively guide project execution, establish responsibilities, and ensure compliance with design intent, technical standards, and legal obligations.

Surveyor

Contract Documents in surveying are the documents, drawings, and specifications used to communicate to others the intent or execution of a design. Surveyors provide contract documents that include, but are not limited to, plans, studies, designs, design coordination, technical submissions, and design products to ensure compliance with work specifications.

Summary of Overlap

Acceptable Overlap

Acceptable overlap includes preparing and administering contract documents for their specific professions. Through collaboration, allied professionals integrate scope of practice requirements across disciplines into a unified set of documents and project deliverables.

6. Ethics

Overview

Definition of Ethics

Ethics in the design disciplines are the professional responsibilities and principles of conduct that guide an individual and its profession. Professional ethics consider the impact of designs on individuals, communities, and the environment, while upholding honesty, integrity, fairness, competency, accountability, and a commitment to the public good. It ensures that design professionals consistently uphold practice regulations, professional rules, and moral principles to protect the health, safety, and welfare of the public, avoiding conflicts of interest, respecting confidentiality and intellectual property, and following all jurisdictional laws, codes, and regulations.

Profession-Specific Definitions of Ethics

There are no distinct profession-specific definitions for this topic.

7. Evaluation and Planning

Overview

Definition of Evaluation and Planning

Evaluation and Planning is the process of setting goals, developing strategies, and allocating resources in the development and analysis of a program or project. Those plans are then evaluated critically to determine their effectiveness and success while integrating the appropriate project requirements for the health, safety, and welfare of the public.

Profession-Specific Definitions of Evaluation and Planning

Architect

Evaluation and Planning in architecture is the process of designing, in whole or part, the exterior and interior of buildings and their site and evaluating client requirements, opportunities, and constraints and design alternatives based on the program.

Engineer

Evaluation and Planning in engineering is the process of setting goals, developing strategies, and allocating resources of a project, and then evaluating those plans through critical assessment to determine their effectiveness and success.

Interior Designer

Evaluation and Planning in interior design is process and analysis that informs a project direction for interior non-structural/non-seismic construction and alteration projects.

Landscape Architect

Evaluation and Planning in landscape architecture is the process of analyzing natural, cultural, and built environments and developing strategic, sustainable, and functional designs. Evaluation and Planning includes identifying opportunities and constraints, engaging stakeholders, and creating comprehensive plans that balance various design alternatives to achieve project goals.

Surveyor

Evaluation and Planning in surveying is the process of setting goals, developing strategies, and allocating resources of a program or project, and then evaluating those plans of critical assessment to determine their effectiveness and success.

Summary of Overlap

Acceptable Overlap

Acceptable overlap includes evaluating, planning, and designing within the scope of their discipline in relation to the building and/or site.

8. Furniture, Fixtures, and Equipment (FF&E)

Overview

Definition of Furniture, Fixtures, and Equipment (FF&E)

Furniture, Fixtures, and Equipment are items that are not permanently affixed to a building and are removable from their respective locations.

Profession-Specific Definitions of Furniture, Fixtures, and Equipment (FF&E)

Architect

Furniture, Fixtures, and Equipment in architecture are the items that are not permanently connected to the structure of a building, though they may be attached, that meet the client's design requirements and needs.

Engineer (Architectural/Structural)

Furniture, Fixtures, and Equipment in engineering are the items that are not permanently connected to the structure of a building, though they may be attached, that meet the client's design requirements and needs.

Interior Designer

Furniture, Fixtures, and Equipment in interior design are items that are not permanently connected to the structure of a building, though they may be attached. Interior designers coordinate locations of Furniture, Fixtures, and Equipment with other design professionals.

Landscape Architect

Furniture, Fixtures, and Equipment in landscape architecture are the movable and fixed elements that enhance the functionality, aesthetics, ergonomics, and safety of exterior environments. Landscape architects are responsible for selection and specification of elements including site furniture such as benches, trash cans, ash cans, and bike racks, raised planters, and other site enhancements that cater to the habits and well-being of users.

Summary of Overlap

Acceptable Overlap

Acceptable overlap includes integrating furniture, fixtures, and equipment (FF&E) into the overall building and site design. This includes specifying and aligning FF&E with applicable codes, standards, and regulations while collaborating across disciplines to ensure compatibility with building systems.

9. Human Behavior

Overview

Definition of Human Behavior

Human Behavior is the potential and expressed capacity (mentally, physically, and socially) of individuals or groups to respond to internal and external stimuli.

Profession-Specific Definitions of Human Behavior

Architect

Human Behavior in architecture means the environmental, psychological, public health, ergonomics, cultural diversity, social diversity, and social responses to the natural world and other people. Architects study Human Behavior to better understand how people interact with built environments, influencing the design of spaces to support physical, psychological, and social needs.

Engineer

Human Behavior in engineering is the potential and expressed capacity (mentally, physically, and socially) of individuals or groups to respond to internal and external stimuli.

Interior Designer

Human Behavior in interior design is the range of actions, reactions, and conduct exhibited by individuals or groups of people in various contexts and situations. It encompasses both observable actions and internal mental processes, such as thoughts, emotions, and motivations, that drive individual actions.

Landscape Architect

Human Behavior in landscape architecture is how people interact with and respond to their environments. Landscape architects study patterns of human movement, use, and perception to design spaces that enhance accessibility, comfort, safety, and well-being while fostering inclusive, social, cultural, and ecological connections.

Summary of Overlap

Acceptable Overlap

Acceptable overlap includes considering how people interact with and respond to their environments.

10. Human-Centered Design

Overview

Definition of Human-Centered Design

Human-Centered Design is an approach that prioritizes human needs and requirements by incorporating user perspectives throughout the problem-solving and development process.

Profession-Specific Definitions of Human-Centered Design

Architect

Human-Centered Design in architecture is the approach that prioritizes human needs and requirements by incorporating user perspectives. Architects consider factors, including environmental, psychological, public health, ergonomics, cultural diversity, and social diversity factors, that impact occupancy experience.

Engineer

Human-Centered Design in engineering and land surveying is an approach that prioritizes human needs and requirements by incorporating user perspectives. Engineers consider human scale, biology, psychology, health, ergonomics, and accessibility to provide appropriate design and construction solutions within the built environment.

Interior Designer

Human-Centered Design in interior design is an approach that prioritizes human needs and requirements by incorporating user perspectives. Interior designers consider accessibility, psychology, public health, ergonomics, and diversity to provide resilient, sustainable, adaptive design and construction solutions within the interior environment.

Landscape Architect

Human-Centered Design in landscape architecture is an approach that prioritizes human needs and requirements by incorporating user perspectives. Landscape architects integrate ergonomic design, considering human behavior and interaction with the environment, while balancing ecological, cultural, and social elements, as well as economic considerations in the planned, designed, and managed exterior environments. Landscape architects often utilize Human-Centered Design to create outdoor spaces that are equitable, accessible, and inclusive, addressing historical and current disparities.

Surveyor

Human-Centered Design in surveying is an approach that prioritizes human needs and requirements by incorporating user perspectives. Surveyors consider human scale, biology, psychology, health, ergonomics, and accessibility to provide appropriate design and construction solutions within the built environment.

Summary of Overlap

Acceptable Overlap

Acceptable overlap includes engaging in human-centered design by utilizing environmental, psychological, cultural, and social factors to enhance overall occupant experience.

11. Hydraulics

Overview

Definition of Hydraulics

Hydraulics is the study and application of fluid mechanics principles that determine the flow and pressure of liquids in both natural and engineered systems.

Profession-Specific Definitions of Hydraulics

Engineer

Hydraulics in engineering is the study and application of fluid mechanics and principles that are essential for designing and managing water-related systems and infrastructure. Engineers apply hydraulics principles to create efficient, safe, and sustainable solutions for water resource management, stormwater control, environmental protection, and the design of hydraulic structures.

Landscape Architect

Hydraulics in landscape architecture is the study and application of water flow, distribution, and management within exterior environments. Landscape architects utilize expertise in hydraulics calculations, watershed dynamics, soil-water interactions, and local and regional water regulations to design and implement systems for both stormwater management and irrigation design that create sustainable, resilient environments and address challenges such as stormwater runoff, flooding, water-sensitive environments, and water quality.

Surveyor

Hydraulics in surveying is the study and application of fluid mechanics and principles that are essential for designing and managing water-related systems and infrastructure. Surveyors may practice management of water-related systems within subdivision projects as allowed in some jurisdictions.

Summary of Overlap

Acceptable Overlap

Acceptable overlap includes applying hydraulic principles to design and manage water systems through engineered infrastructure and landscape-based solutions.

12. Integration of Building Systems

Overview

Definition of Integration of Building Systems

Integration of Building Systems is the process of incorporating all elements of the building systems in a project, including but not limited to jurisdictional requirements specifications, mechanical, electrical, plumbing, materials, fixtures, equipment environmental systems, and the building's performance.

Profession-Specific Definitions of Integration of Building Systems

Architect

Integration of Building Systems in architecture is the process of combining and coordinating various building systems to ensure optimal performance, efficiency, and functionality.

Engineer

Integration of Building Systems in engineering is the process of coordinating and synthesizing various engineering disciplines—such as electrical, geotechnical, mechanical, and structural—within a project to achieve a cohesive and optimized solution.

Interior Designer

Integration of Building Systems in interior design is the process of combining and coordinating various building systems to ensure optimal performance, efficiency, and functionality for interior non-structural/non-seismic construction and alteration projects.

Summary of Overlap

Acceptable Overlap

Acceptable overlap includes coordinating the integration of building systems as it relates to each respective profession.

13. Land-Use Determination

Overview

Definition of Land-Use Determination

Land-Use Determination is the process of evaluating, planning, and managing land use and development to achieve optimal outcomes by balancing physical site characteristics, community needs, and economic, social, and environmental factors.

Profession-Specific Definitions of Land-Use Determination

Engineer (Civil, Construction, Environmental, and Geotechnical)

Land-Use Determination in engineering is the evaluation, analysis, and decision-making associated with the allocation and organization of land for various purposes within the built environment to determine the most optimal land uses for a specific site or land area.

Landscape Architect

Land-Use Determination in landscape architecture is the evaluation, analysis, and decision-making associated with the allocation and organization of land for various purposes within the built environment. Landscape architects consider environmental, social, and economic factors to determine the most suitable land uses for a specific site or land area aligning with regional or local planning regulations, addressing site-specific challenges, and enhancing the overall quality of life in the community.

Surveyor

Land-Use Determination in surveying is the evaluation, analysis, and decision-making associated with the allocation and organization of land for various purposes within the built environment to determine the most optimal land uses for a specific site or land area.

Summary of Overlap

Acceptable Overlap

Acceptable overlap includes assessing site-specific factors to identify optimal land uses and planning for various land types, including residential, commercial, industrial, and conservation areas.

14. Master Planning

Overview

Definition of Master Planning

Master Planning is a comprehensive, long-term framework that guides future development of buildings, sites, or communities by integrating land use, transportation, utilities, and spatial improvements based on existing conditions and conceptual planning.

Profession-Specific Definitions of Master Planning

Architect

Master Planning in architecture is the process of providing preliminary and predesign services that maximize and capitalize on a holistic view of a project or projects, resulting in a solution that provides guidance for the design process, components and phasing, image, and built environment.

Engineer

Master Planning in engineering is the strategic design of built environments, focusing on public health, safety, and welfare for the lifetime of the planned structures.

Landscape Architect

Master Planning in landscape architecture is the long-term development of outdoor environments by integrating natural systems, land use, and infrastructure to enhance ecological function, social well-being, and economic resilience. Landscape architects work across scales—from sites and neighborhoods to regional landscapes—aligning planning efforts with broader community goals. This process defines design objectives, balances environmental and human needs, and ensures cohesive, sustainable growth.

Surveyor

Master Planning in surveying is the strategic design of built environments, focusing on public health, safety, and welfare for the lifetime of the plan.

Summary of Overlap

Acceptable Overlap

Acceptable overlap includes contributing to the development of long-term, conceptual layouts that guide future growth and development, integrating buildings, social settings, and surrounding environments to create cohesive, sustainable, and functional spaces.

15. Materials

Overview

Definition of Materials

Materials are the physical components used to construct a given project, which are selected, applied, and integrated based on their structural, physical, performance properties, capacity, and behavior.

Profession-Specific Definitions of Materials

Architect

Materials in architecture are the physical components used to construct a given project. Architects select and specify construction materials based on their structural, physical, constructability, and performance properties, capacity, and behavior to ensure constructability in alignment with programmatic and code requirements.

Engineer

Materials in engineering are the physical components used to construct a given project. Engineers select and specify construction materials based on their structural, physical, and performance properties, capacity, and behavior. Engineers select materials and finishes to ensure constructability in alignment with programmatic and code requirements.

Interior Designer

Materials in interior design are the physical components used to construct a given project. Interior designers select and specify building products, materials, and finishes, as well as other non-structural/non-seismic components and construction assemblies. Interior designers make selections based on code-compliance; appropriate installation, performance, and constructability requirements; client and occupant needs, project budget; maintenance and cleaning requirements; durability and lifecycle performance; and sustainable attributes and environmental impact.

Landscape Architect

Materials in landscape architecture are the physical components used to construct a given project. Landscape architects select, apply, and document materials, finishes, and systems to meet design goals of sustainability, safety, aesthetics, and environmental impact. Landscape architects utilize their expertise in material properties and performance to choose appropriate elements such as hardscape materials, site furnishings, site lighting, plantings, and irrigation systems. These choices are informed by considerations of constructability, durability, maintenance, ecological impact, and cost-effectiveness, ensuring alignment with project goals and site conditions while adhering to industry standards and regulations.

Summary of Overlap

Acceptable Overlap

Acceptable overlap includes selecting materials and finishes to ensure constructability in alignment with programmatic and code requirements, as well as coordinating with other design professionals to integrate requirements across disciplines.

16. Professional Practice

Overview

Definition of Professional Practice

Professional Practice is the work of a professional or business, including their actions, ethics, manners, and behaviors.

Profession-Specific Definitions of Professional Practice

Architect

Professional Practice in architecture is the application of knowledge, skills, ethics, and business management principles in the operation of an architectural firm or the delivery of architectural services. Professional Practice encompasses a broad range of responsibilities beyond design, including legal, financial, and ethical responsibilities that are necessary for the execution of architectural projects.

Engineer

Professional Practice in engineering is the management of projects, budgets, contracts, schedules, consultants, staffing, resources, and general business practices. Engineers establish contractually independent relationships to coordinate with and/or hire allied design professionals and consultants.

Interior Designer

Professional Practice in interior design is the management of projects, budgets, contracts, schedules, consultants, staffing, resources, and general business practices. Interior designers establish contractually independent relationships to coordinate with and/or hire allied design professionals and consultants.

Landscape Architect

Professional Practice in landscape architecture is the work of a professional or business, including the ethical, legal, and business aspects of the profession. This includes adhering to licensure, local, state, and national requirements; upholding industry standards; managing projects and multi-disciplinary teams; engaging with clients and stakeholders; and maintaining responsibility for design integrity, public safety, and environmental stewardship.

Surveyor

Professional Practice in surveying is the management of projects, budgets, contracts, schedules, consultants, staffing, resources, and general business practices. Surveyors establish contractually independent relationships to coordinate with and/or hire allied design professionals and consultants.

Summary of Overlap

Acceptable Overlap

Acceptable overlap includes applying ethical, legal, and business principles, including coordinating with and/or hiring allied professionals and consultants within their respective professions.

17. Programming

Overview

Definition of Programming

Programming is a research and decision-making process that design professionals use to define the scope of work for a project.

Profession-Specific Definitions of Programming

Architect

Programming in architecture is the systematic process of identifying and defining the needs, goals, and constraints of a building project before the design phase begins. Key elements of programming include needs assessment, spatial requirements, context analysis, budget and scheduling, performance criteria, and stakeholder engagement.

Engineer

Programming in engineering is the systematic process of identifying and defining the needs, goals, and constraints of a project before the design phase begins. Key elements of programming include needs assessment, spatial requirements, context analysis, budget and scheduling, performance criteria, and stakeholder engagement.

Interior Designer

Programming in interior design is the initial phase of the design and stakeholder engagement process of gathering and analyzing information about project requirements for interior non-structural/non-seismic construction and alteration projects that establish a clear understanding of the project goals, parameters, user needs, and design objectives.

Landscape Architect

Programming in landscape architecture is the process of gathering and analyzing information to define and meet the client's goals. This process includes identifying user needs, opportunities and constraints, site conditions, and contextual factors to develop a framework that informs design decisions and ensures the project aligns with functional, aesthetic, and environmental objectives.

Surveyor

Programming in surveying is the systematic process of identifying and defining the needs, goals, and constraints of a project before the design phase begins. Key elements of programming include needs assessment, spatial requirements, context analysis, budget and scheduling, performance criteria, and stakeholder engagement.

Summary of Overlap

Acceptable Overlap

Acceptable overlap includes identifying and defining the needs, goals, and constraints of a building project before the design phase begins.

18. Project Integration

Overview

Definition of Project Integration

Project Integration is the coordination of all elements of a project, including tasks, resources, stakeholders, and deliverables.

Profession-Specific Definitions of Project Integration

Architect

Project Integration in architecture is the coordination of all elements of a project (including structural, mechanical, electrical, plumbing, landscape, interior, and other specialties) necessary to design a project that meets the specified objectives, timelines, and budgetary goals.

Engineer

Project Integration in engineering is the comprehensive coordination, synchronization, and optimization of various elements within a project to ensure seamless execution and successful outcomes. Engineers focus on integrating diverse disciplines, such as civil, structural, electrical, and mechanical engineering, to create a unified project plan that meets the specified objectives, timelines, and budgetary constraints.

Interior Designer

Project Integration in interior design is the coordination of architecture, design, and engineering requirements for interior non-structural/non-seismic construction and alteration projects. Interior designers collaborate with allied professionals to understand and integrate scope of practice requirements across disciplines into a unified set of documents.

Landscape Architect

Project Integration in landscape architecture is the comprehensive coordination and collaboration of various site and design elements to ensure a cohesive and functional outcome. Landscape architects integrate diverse aspects of a design solution to create a unified design that aligns with project goals, regulatory requirements, sustainability principles, and client objectives.

Surveyor

Project Integration in surveying is the comprehensive coordination, synchronization, and optimization of various elements within a project to ensure seamless execution and successful outcomes. Surveyors integrate plans with allied professionals to create a unified project plan that meets the specified objectives, timelines, and budgetary constraints.

Summary of Overlap

Acceptable Overlap

Acceptable overlap includes collaborating with applied professionals to create a unified project plan that meets the specified objectives, timelines, and budgetary constraints.

19. Stakeholder Engagement

Overview

Definition of Stakeholder Engagement

Stakeholder Engagement is the process of soliciting input from users and communities that may use or be impacted by a project.

Profession-Specific Definitions of Stakeholder Engagement

Architect

Stakeholder Engagement in architecture is the collaborative process of involving all individuals or groups who have an interest in, or are affected by, a building project. Stakeholder Engagement ensures that the design meets the needs, expectations, and values of its diverse stakeholders, which can include clients, end-users, community members, regulatory agencies, and contractors.

Engineer

Stakeholder Engagement in engineering is the process of involving clients, affected neighbors, and communities in the planning and design process to ensure inclusive, informed, and collaborative outcomes.

Interior Designer

Stakeholder Engagement in interior design is the process of involving clients, affected neighbors, and communities in the planning and design process to ensure inclusive, informed, and collaborative outcomes.

Landscape Architect

Stakeholder Engagement in landscape architecture is the active and intentional involvement of clients, affected neighbors, and communities in all project phases to foster trust, consensus, and shared decision-making. Stakeholder Engagement integrates diverse perspectives, strengthens design and policy decisions, and ensures equitable, inclusive, and community-driven outcomes.

Surveyor

Stakeholder Engagement in surveying is the process of involving clients, affected neighbors, and communities in the planning and design process to ensure inclusive, informed, and collaborative outcomes.

Summary of Overlap

Acceptable Overlap

Acceptable overlap includes engaging communities and their stakeholders to understand potential impacts of a project or project use.

20. Sustainability

Overview

Definition of Sustainability

Sustainability is the practice of designing, constructing, and operating buildings and infrastructure in an environmentally responsible way in order to maintain an ecological balance and achieve performance outcomes.

Profession-Specific Definitions of Sustainability

Architect

Sustainability in architecture is the practice of designing buildings that show good economic lifecycle costs and focus on environmental performance in the categories of energy use, materials, utilities, indoor air quality, and waste management.

Engineer

Sustainability in engineering is the practice of integrating principles of environmental stewardship, social responsibility, and economic viability into the planning, design, and implementation of design projects. Engineers who specialize in sustainability work toward developing solutions that promote long-term ecological balance, social equity, and economic resilience. This practice aligns with a commitment to protecting the public health, safety, and welfare by incorporating sustainable practices that address current needs without compromising the ability of future generations to meet their own needs.

Interior Designer

Sustainability in interior design is the practice of designing spaces that prioritize environmental responsibility, resource efficiency, and occupant well-being. Interior designers develop design solutions and select materials and products that have minimal environmental impact, reduce waste, and optimize energy and water usage. Interior designers commit to protecting the public health, safety, and welfare by incorporating sustainable practices that promote healthier indoor environments and align with ecological, social, and economic sustainability goals.

Landscape Architect

Sustainability in landscape architecture is the practice of designing, creating, and managing outdoor spaces that prioritize long-term environmental resilience, resource efficiency, and social well-being. It encompasses the measurable performance of these spaces, assessing their functionality, ecological impact, and user satisfaction over time. Landscape architects minimize negative environmental impacts, ensure ecological balance, promote biodiversity, and support community interaction to ensure that designed environments are adaptable and effective in meeting current and future needs.

Surveyor

Sustainability in surveying is the practice of integrating principles of environmental stewardship, social responsibility, and economic viability into the planning, design, and implementation of design projects. Surveyors who specialize in sustainability work toward developing solutions that promote long-term ecological balance, social equity, and economic resilience. This practice aligns with a commitment to protecting the public health, safety, and welfare by incorporating sustainable practices that address current needs without compromising the ability of future generations to meet their own needs.

Summary of Overlap

Acceptable Overlap

Acceptable overlap includes conceptual design and coordinating sustainable practices that promote healthier environments and align with ecological, social, and economic sustainability goals and performance metrics/outcomes.

21. Universal Design

Overview

Definition of Universal Design

Universal Design is the design of buildings, products, or environments to make them accessible and equitable to people with a wide range of abilities, disabilities, backgrounds, and other characteristics.

Profession-Specific Definitions of Universal Design

Architect

Universal Design in architecture is the design of buildings, products, or environments to make them accessible to people, regardless of age, disability, or other factors. Universal Design addresses common barriers to participation by creating things that can be used by the maximum number of people possible.

Engineer

Universal Design in engineering is the design of buildings, products, sites, or environments to make them accessible to people, regardless of age, disability, or other factors. Universal Design addresses common barriers to participation by creating things that can be used by the maximum number of people possible.

Interior Designer

Universal Design in interior design is the application of knowledge of human anthropometrics and behavior to design environments to ensure they are usable by all people to the greatest extent possible, without the need for adaptation or specialized design. Interior designers apply accessibility standards, regulations, and guidelines to the development and documentation of interior non-structural/non-seismic construction and alteration projects that protect the public health, safety, and welfare.

Landscape Architect

Universal Design in landscape architecture is an inclusive approach to creating accessible and equitable outdoor spaces for all people, regardless of age, ability, or background. Universal Design extends beyond regulatory compliance to promote social equity by ensuring fair access to public spaces. While accessible design focuses on meeting specific codes, universal design reflects a broader commitment to inclusivity, sustainability, and enhancing well-being for everyone.

Summary of Overlap

Acceptable Overlap

Acceptable overlap includes considering universal design to achieve the goals and objectives of a project.

GROUP 3:
AREAS WITH PRACTICE BOUNDARIES

These are areas of practice where overlap exists and requires careful regulatory interpretation. While some aspects of the work may be performed by multiple professions, clear distinctions in responsibility, scope, and competency should be maintained. These topics require defined practice boundaries and are most likely to benefit from formal guidance to support consistent regulatory oversight.

While multiple professions may contribute, distinctions in responsibility, scope, and competency must be maintained to ensure public protection. Topics in this category include the following elements:

- General definition
- Profession-specific definitions
- Summary of acceptable overlap
- Practice boundaries analyzed through profession-to-profession comparisons

For practice areas in Group 3, the document identifies each profession's role and scope of practice. Acceptable areas of shared responsibility are described in the overlap summary. If a profession is not listed for a specific topic, this indicates that it does not typically engage in that area of practice.

22. Building Components and Equipment
23. Building Design
24. Building Environmental Systems
25. Building Performance
26. Design
27. Egress
28. Electrical Systems
29. Engineering Design
30. Fire Protection Systems
31. Grading, Drainage, and Stormwater Management
32. Landscape Elements
33. Mechanical Systems
34. Non-Boundary Survey
35. Planting Plans
36. Site Analysis
37. Site Design
38. Site Environmental Systems
39. Site Remediation
40. Structural Systems

22. Building Components and Equipment

Overview

Definition of Building Components and Equipment

Building Components and Equipment are fixed and permanently installed equipment that support program operations, typically require specialized system integration, and may impact structural and seismic requirements.

Profession-Specific Definitions of Building Components and Equipment

Architect

Building Components and Equipment in architecture are permanently placed equipment that meet the building system, design requirements, and client needs.

Engineer (Architectural/Structural and Mechanical/Electrical)

Building Components and Equipment in engineering are the fixtures and equipment of built environments. Engineers identify, select, and configure fixtures and equipment that meet specific project requirements, considering factors such as functionality, safety, and compliance with relevant codes and standards.

Interior Designer

Building Components and Equipment in interior design are fixed equipment installed on or in a building and may require specialized system connections.

Summary of Overlap and Boundaries

Acceptable Overlap

Acceptable overlap includes integrating fixed equipment into projects and ensuring functionality and safety.

Practice Boundaries

Architect

- Specify, place, or coordinate system requirements and utility connections for equipment requiring structural support, load-bearing reinforcement, or vibration isolation, as well as those that alter or affect vertical transportation equipment.

Engineer (Architectural/Structural and Mechanical/Electrical)

- Specify, place, or coordinate system requirements and utility connections for equipment requiring structural support, load-bearing reinforcement, or vibration isolation.

Interior Designer

- Coordinate vertical transportation equipment.

Overlap and Boundaries

Architect & Architectural/Structural and Mechanical/Electrical Engineer

Role of Architect	Architects specify, place, or coordinate vertical transportation equipment.
Overlap	Architects, architectural/structural engineers, and mechanical/electrical engineers integrate fixed equipment into projects and ensure functionality and safety.
Role of Architectural/ Structural and Mechanical/Electrical Engineer	There is no scope distinction for architectural/structural and mechanical/electrical engineers in this area.

Architect & Interior Designer

Role of Architect	Architects specify, place, or coordinate system requirements and utility connections for equipment requiring structural support, load-bearing reinforcement, or vibration isolation, as well as those that alter or affect vertical transportation equipment.
Overlap	Architects and interior designers integrate fixed equipment into projects and ensure functionality and safety.
Role of Interior Designer	There is no scope distinction for interior designers in this area.

Architectural/Structural and Mechanical/Electrical Engineer & Interior Designer

Role of Architectural/ Structural and Mechanical/Electrical Engineer	Architectural/structural and mechanical/electrical engineers specify, place, or coordinate system requirements and utility connections for equipment requiring structural support, load-bearing reinforcement, or vibration isolation.
Overlap	Interior designers, architectural/structural and mechanical/electrical engineers integrate fixed equipment into projects and ensure functionality and safety.
Role of Interior Designer	There is no scope distinction for interior designers in this area.

23. Building Design

Overview

Definition of Building Design

Building Design is the application of architectural, engineering, and technical principles in the design of the exterior and interior of an open or enclosed structure with the principal purpose of human occupancy or habitation.

Profession-Specific Definitions of Building Design

Architect

Building Design in architecture is the art and science of designing, in whole or in part, the exterior and interior of buildings. This includes applying design principles, applicable codes and regulations, and knowledge of materials, systems, and constructability to achieve programmatic requirements and goals for the building. Building Design also includes developing concepts and preparing documents that define form and function.

Engineer

Building Design in engineering is the design of the engineered systems and processes in structures that affect the health, safety, and welfare of the public.

Interior Designer

Building Design in interior design is the planning and implementation of the functional non-structural/non-seismic components within a structure. Interior designers integrate user requirements, spatial organization, materiality, building system needs, and building codes and regulatory requirements into the design outcome.

Landscape Architect

Building Design in landscape architecture is the design of structures not intended for human habitation but for human occupancy outdoors. These design structures can be aesthetic and/or functional design solutions that are intended for public and private use, such as pavilions, gazebos, pergolas, arbors, and greenhouses.

Summary of Overlap and Boundaries

Acceptable Overlap

Acceptable overlap includes providing all the information necessary to satisfy the health, safety, and welfare requirements in the construction of a structure within their discipline.

Practice Boundaries

Architect

- Design and coordinate elements of the building design, including changes to occupancy not already allowed or of a greater hazard, building structure or envelope, construction classification, vertical transportation, and the fire protection systems of the primary structure.

Engineer

- Design the engineered systems within the building and coordinate spaces within the building.

Interior Designer

- Plan and coordinate non-structural/non-seismic components that define space and support function.

Landscape Architect

- Responsible for the integration of structures into the site design and the development of construction details and specifications for these structures.

Overlap and Boundaries

Architect & Engineer

Role of Architect	Architects design and coordinate elements of the building design, including changes to occupancy not already allowed or of a greater hazard, building structure or envelope, construction classification, vertical transportation, and the fire protection systems of the primary structure.
Overlap	Architects and engineers provide all the information necessary to satisfy the health, safety, and welfare requirements in the construction of a structure within their discipline.
Role of Engineer	Engineers design the engineered systems within the building and coordinate spaces within the building.

Architect & Interior Designer

Role of Architect	Architects design and coordinate elements of the building design, including changes to occupancy not already allowed or of a greater hazard, building structure or envelope, construction classification, vertical transportation, and the fire protection systems of the primary structure.
Overlap	Architects and interior designers provide all the information necessary to satisfy the health, safety, and welfare requirements in the construction of a structure within their discipline.
Role of Interior Designer	Interior designers plan and coordinate non-structural/non-seismic components that define space and support function.

Architect & Landscape Architect

Role of Architect	Architects design and coordinate elements of the building design, including changes to occupancy not already allowed or of a greater hazard, building structure or envelope, construction classification, vertical transportation, and the fire protection systems of the primary structure.
Overlap	Architects and landscape architects provide all the information necessary to satisfy the health, safety, and welfare requirements in the construction of a structure within their discipline.
Role of Landscape Architect	Landscape architects are responsible for the integration of structures into the site design and the development of construction details and specifications for these structures.

Engineer & Interior Designer

Role of Engineer	Engineers design the engineered systems within the building and coordinate spaces within the building.
Overlap	Engineers and interior designers provide all the information necessary to satisfy the health, safety, and welfare requirements in the construction of a structure within their discipline.
Role of Interior Designer	Interior designers plan and coordinate non-structural/non-seismic components that define space and support function.

Engineer & Landscape Architect

Role of Engineer	Engineers design the engineered systems within the building and coordinate spaces within the building.
Overlap	Engineers and landscape architects provide all the information necessary to satisfy the health, safety, and welfare requirements in the construction of a structure within their discipline.
Role of Landscape Architect	Landscape architects are responsible for the integration of structures into the site design and the development of construction details and specifications for these structures.

Interior Designer & Landscape Architect

Role of Interior Designer	Interior designers plan and coordinate non-structural/non-seismic components that define space and support function.
Overlap	Interior designers and landscape architects provide all the information necessary to satisfy the health, safety, and welfare requirements in the construction of a structure within their discipline.
Role of Landscape Architect	Landscape architects are responsible for the integration of structures into the site design and the development of construction details and specifications for these structures.

24. Building Environmental Systems

Overview

Definition of Building Environmental Systems

Building Environmental Systems are the interconnected, dynamic, and complex processes and elements that shape the environment of a building through its spatial, materials, building services, and environmental and sustainable practices.

Profession-Specific Definitions of Building Environmental Systems

Architect

Building Environmental Systems in architecture include environmental control systems such as mechanical, electrical, and plumbing systems. Architects oversee the integration of building systems in the project design and determine design parameters.

Engineer (Architectural/Structural and Mechanical/Electrical)

Building Environmental Systems in engineering include environmental control systems such as mechanical, electrical, and structural systems. Engineers oversee the integration of building systems in the project design and determine design parameters.

Interior Designer

Building Environmental Systems in interior design include environmental control systems such as mechanical, electrical, and plumbing systems. Interior designers oversee the integration of non-structural/ non-seismic components of building systems in the project design and determine design parameters.

Summary of Overlap and Boundaries

Acceptable Overlap

Acceptable overlap includes the conceptual design of building environmental systems and coordination between professions throughout the design process.

Practice Boundaries

Architect

- Architects perform integration and coordination of passive building environmental systems but do not design active systems.

Engineer

- Architectural engineers with training in mechanical/electrical systems perform comprehensive building environmental systems design for all occupancy types.
- Mechanical/electrical engineers perform comprehensive design for all building environmental systems, including the detailed thermodynamic and mechanical designs (e.g. heating/cooling processes, molding/heat treatment, and fits and tolerances) and integral building components that impact the built environment.

Interior Designer

- Interior designers perform integration and coordination of passive non-structural/non-seismic building environmental systems but do not design active systems.

Overlap and Boundaries

Architect & Architectural/Structural Engineer

Role of Architect	Architects perform integration and coordination of passive building environmental systems but do not design active systems.
Overlap	Structural engineers and architects engage in design of building environmental systems and coordinate and integrate building environmental systems including environmental control, mechanical, electrical, and structural systems.
Role of Architectural/ Structural Engineer	Architectural engineers with training in mechanical/electrical systems perform comprehensive building environmental systems design for all occupancy types. Structural engineers and architectural engineers with training in structural systems do not perform building environmental systems design.

Architect & Mechanical/Electrical Engineer

Role of Architect	Architects perform integration and coordination of passive building environmental systems but do not design active systems.
Overlap	Mechanical/electrical engineers and architects engage in design of building environmental systems and coordinate and integrate building environmental systems including environmental control, mechanical, and electrical systems.
Role of Mechanical/ Electrical Engineer	Mechanical/electrical engineers perform comprehensive design for all building environmental systems, including the detailed thermodynamic and mechanical designs (e.g., heating/cooling processes, molding/heat treatment, and fits and tolerances) and integral building components that impact the built environment.

Architect & Interior Designer

Role of Architect	There is no scope distinction for architects in this area.
Overlap	Interior designers and architects engage in conceptual design of interior building environmental systems and coordinate with other professions throughout the design process, but do not design them.
Role of Interior Designer	There is no scope distinction for interior designers in this area.

Architectural/Structural Engineer & Mechanical/Electrical Engineer

Role of Architectural/ Structural Engineer	Architectural engineers with training in mechanical/electrical systems perform comprehensive building environmental systems design for all occupancy types. Structural engineers and architectural engineers with training in structural systems do not perform building environmental systems design.
Overlap	Mechanical/electrical engineers and architectural engineers with training in mechanical/electrical systems engage in design of building environmental systems and coordinate and integrate building environmental systems including environmental control, mechanical, and electrical systems.
Role of Mechanical/ Electrical Engineer	Mechanical/electrical engineers perform comprehensive design for all building environmental systems, including the detailed thermodynamic and mechanical designs (e.g., heating/cooling processes, molding/heat treatment, and fits and tolerances) and integral building components that impact the built environment.

Architectural/Structural Engineer & Interior Designer

Role of Architectural/ Structural Engineer	Architectural engineers with training in mechanical/electrical systems perform comprehensive building environmental systems design for all occupancy types. Structural engineers and architectural engineers with training in structural systems do not perform building environmental systems design.
Overlap	Interior designers and structural engineers engage in conceptual design of interior building environmental systems and coordinate and integrate building environmental systems including environmental control, mechanical, electrical, and structural systems.
Role of Interior Designer	Interior designers perform integration and coordination of building environmental systems but do not design them.

Mechanical/Electrical Engineer & Interior Designer

Role of Mechanical/ Electrical Engineer	Mechanical/electrical engineers perform comprehensive design for all building environmental systems, including the detailed thermodynamic and mechanical designs (e.g., heating/cooling processes, molding/heat treatment, and fits and tolerances) and integral building components that impact the built environment.
Overlap	Mechanical/electrical engineers and interior designers engage in conceptual design of interior building environmental systems and coordinate and integrate building environmental systems including environmental control, mechanical, plumbing, and electrical systems.
Role of Interior Designer	Interior designers perform integration and coordination of building environmental systems but do not design them.

25. Building Performance

Overview

Definition of Building Performance

Building Performance is the comprehensive evaluation and optimization of building systems or spaces to determine how their performance impacts the building and its occupants to meet specified criteria for functionality, efficiency, and sustainability.

Profession-Specific Definitions of Building Performance

Architect

Building Performance in architecture is the consideration of programmatic and performance requirements established through the evaluation and application of codes and standards to determine potential impact on the building and its occupants.

Engineer

Building Performance in engineering is the measurement of how well a building meets its intended functions and requirements based on structural integrity, energy efficiency, functional performance, and sustainability.

Interior Designer

Building Performance in interior design is the coordination of performance aspects, including energy efficiency, thermal comfort, indoor air quality, and daylighting, in alignment with applicable building codes and regulatory requirements within the building envelope.

Summary of Overlap and Boundaries

Acceptable Overlap

Acceptable overlap includes developing design parameters and tracking performance metrics to ensure functionality, efficiency, and effectiveness for occupants.

Practice Boundaries

Architect

- Responsible for building envelope design decisions and respond to building system and equipment design decisions.
- Responsible for the overall building envelope requirements.

Engineer

- Responsible for building systems and equipment and respond to envelope design decisions.
- Responsible for building systems and equipment and respond to interior building environment decisions.

Interior Designer

- Coordinate with other design professionals to address building performance to ensure that the affected elements are integrated into the building performance goals.
- Responsible for interior building environments and respond to building systems and equipment design decisions.

Overlap and Boundaries

Architect & Engineer

Role of Architect	Architects are responsible for building envelope design decisions and respond to building system and equipment design decisions.
Overlap	Architects and engineers develop design parameters and track performance metrics to ensure functionality, efficiency, and effectiveness for occupants.
Role of Engineer	Engineers are responsible for building systems and equipment and respond to envelope design decisions.

Architect & Interior Designer

Role of Architect	Architects are responsible for the overall building envelope requirements.
Overlap	Architects and interior designers develop design parameters and track performance metrics to ensure functionality, efficiency, and effectiveness for occupants.
Role of Interior Designer	Interior designers coordinate with other design professionals to address building performance to ensure that the affected elements are integrated into the building performance goals.

Engineer & Interior Designer

Role of Engineer	Engineers are responsible for building systems and equipment and respond to interior building environment decisions.
Overlap	Engineers and interior designers develop design parameters and track performance metrics to ensure functionality, efficiency, and effectiveness for occupants.
Role of Interior Designer	Interior designers are responsible for interior building environments and respond to building systems and equipment design decisions.

26. Design

Overview

Definition of Design

Design is the iterative process of conceptualizing, planning, and creating elements within the built environment to meet the intended goals, functional requirements, constraints, and considerations of a project, encompassing economic, environmental, cultural, and social factors.

Profession-Specific Definitions of Design

Architect

Design in architecture includes in whole or part the design of the exterior and interior of buildings and the sites around them in a manner that protects public health, safety, and welfare. Architects program and plan, develop concepts, prepare documents and Technical Submissions, incorporate jurisdiction requirements, and coordinate consultants. Architects also apply codes and standards, evaluate alternatives, select appropriate building systems and materials, and integrate technical criteria to develop a design.

Engineer

Design in engineering is a highly technical process involving spatial analysis, planning, precision measurement, compliance, and documentation, with the goal of creating safe, functional, and regulatory-compliant structures and spaces.

Interior Designer

Design in interior design is a creative and systematic process where specialized knowledge is applied to the conception, planning, and development of interior environments that promote public health, safety, and welfare while supporting and enhancing the human experience. Interior designers identify, analyze, and synthesize information to generate holistic, technical, creative, and contextually appropriate design solutions. Interior designers analyze, plan, design, document, and manage interior non-structural/non-seismic construction and alteration projects, ensuring that spaces meet functional and spatial needs, such as circulation, flexibility, egress, and accessibility, while protecting public health, safety, and welfare by incorporating applicable building codes, standards, and regulations.

Landscape Architect

Design in landscape architecture is the intentional shaping of outdoor spaces to balance ecological function, aesthetic quality, and human experience. Through site analysis, planning, and collaboration, landscape architects integrate natural systems, cultural context, and technical requirements to create sustainable, resilient, and functional environments and develop solutions that harmonize landforms, vegetation, hardscapes, and infrastructure that enhance public health, safety, and well-being.

Surveyor

Design in surveying is a highly technical process involving spatial analysis, planning, precision measurement, compliance, and documentation, with the goal of creating safe, functional, and regulatory-compliant structures and spaces.

Summary of Overlap and Boundaries

Acceptable Overlap

All professions design by contributing expertise within their respective disciplines to create functional, integrated, and code-compliant interior and/or exterior spaces, structural systems, and environmental systems.

Overlap and Boundaries

Specific scope distinctions are found within the other documented overlap areas. Reference specific topic area.

27. Egress

Overview

Definition of Egress

Egress is the design of safe, accessible, and clearly marked routes within a building or site that ensure occupants can efficiently reach points of safety or designated areas of refuge during an emergency and facilitate unhindered access for emergency responders.

Profession-Specific Definitions of Egress

Architect

Egress in architecture is the design and coordination of both horizontal and vertical paths as well as the safe, unhindered access, exit, and exit discharge of a building.

Engineer

Egress in engineering is the design and coordination of safe, unhindered accessible exit routes, including protecting and illuminating safe unhindered paths, from a building or site.

Interior Designer

Egress in interior design is the design and coordination of unhindered paths that allow individuals to safely exit an interior space of a building.

Landscape Architect

Egress in landscape architecture is the design and coordination of safe, unhindered accessible routes from a site. Landscape architects ensure exit points for evacuation in emergency situations.

Surveyor

Egress in surveying is the design and coordination of safe, unhindered accessible exit routes and emergency vehicle access from a building or site.

Summary of Overlap and Boundaries

Acceptable Overlap

Acceptable overlap includes the conceptual planning of safe, unhindered accessible paths of travel to ensure life safety and code compliance.

Practice Boundaries

Architect

- Responsible for means of egress in the building context.
- Alter or affect spaces beyond the exit access component of a means of egress system, including horizontal and vertical egress pathways and building discharge.

Engineer

- Design the infrastructure to ensure egress is code compliant.

Interior Designer

- Determine spatial layouts including corridors leading to vertical egress pathways, based on occupancy groups and other specific code requirements.
- May modify openings within existing horizontal means of egress access or exit access points.

Landscape Architect

- Responsible for access to and egress from a site for people and vehicles, including emergency access requirements.

Surveyor

- Design road alignments, grades, and turnarounds that are code compliant for emergency vehicles and safe egress routes.

Overlap and Boundaries

Architect & Engineer

Role of Architect	Architects are responsible for means of egress in the building context.
Overlap	Architects and engineers design the conceptual plan of safe, accessible paths of travel to ensure life safety and code compliance.
Role of Engineer	Engineers design the infrastructure to ensure egress is code compliant.

Architect & Interior Designer

Role of Architect	Architects alter or affect spaces beyond the exit access component of a means of egress system, including vertical egress pathways and building discharge.
Overlap	Architects and interior designers design the conceptual plan of safe, accessible paths of travel to ensure life safety and code compliance.
Role of Interior Designer	Interior designers determine spatial layouts including corridors leading to vertical egress pathways, based on code requirements. Interior designers may modify openings within existing horizontal means of egress access or exit access points.

Architect & Landscape Architect

Role of Architect	Architects are responsible for means of egress in the building context.
Overlap	Architects and landscape architects design the conceptual plan of safe, accessible paths of travel to ensure life safety and code compliance.
Role of Landscape Architect	Landscape architects are responsible for access to and egress from a site for people and vehicles, including emergency access requirements.

Architect & Surveyor

Role of Architect	Architects are responsible for means of egress in the building context.
Overlap	Architects and surveyors design the conceptual plan of safe, accessible paths of travel to ensure life safety and code compliance.
Role of Surveyor	Surveyors are responsible for alignment, grades, and turnarounds for access to and egress within site development that are code compliant for emergency vehicles.

Engineer & Interior Designer

Role of Engineer	Engineers design the infrastructure to ensure egress is code compliant.
Overlap	Engineers and interior designers design the conceptual plan of safe, accessible paths of travel to ensure life safety and code compliance.
Role of Interior Designer	Interior designers determine spatial layouts including corridors leading to vertical egress pathways, based on code requirements and may modify openings within existing horizontal means of egress access or exit access points.

Engineer & Landscape Architect

Role of Engineer	Engineers design the infrastructure to ensure egress is code compliant.
Overlap	Engineers and landscape architects design the conceptual plan of safe, accessible paths of travel to ensure life safety and code compliance.
Role of Landscape Architect	Landscape architects are responsible for access to and egress from a site for people and vehicles, including emergency access requirements.

Engineer & Surveyor

Role of Engineer	Engineers design the infrastructure to ensure egress is code compliant.
Overlap	Engineers and surveyors design the conceptual plan of safe, accessible paths of travel to ensure life safety and code compliance.
Role of Surveyor	Surveyors are responsible for alignment, grades, and turnarounds for access to and egress within site development that are code compliant for emergency vehicles.

Interior Designer & Landscape Architect

Role of Interior Designer	Interior designers determine spatial layouts including corridors leading to vertical egress pathways, based on code requirements. Interior designers may modify openings within existing horizontal means of egress access or exit access points.
Overlap	Interior designers and landscape architects design the conceptual plan of safe, accessible paths of travel to ensure life safety and code compliance.
Role of Landscape Architect	Landscape architects are responsible for access to and egress from a site for people and vehicles, including emergency access requirements.

Interior Designer & Surveyor

Role of Interior Designer	Interior designers determine spatial layouts including corridors leading to vertical egress pathways, based on code requirements. Interior designers may modify openings within existing horizontal means of egress access or exit access points.
Overlap	Interior designers and surveyors design the conceptual plan of safe, accessible paths of travel to ensure life safety and code compliance.
Role of Surveyor	Surveyors are responsible for alignment, grades, and turnarounds for access to and egress within site development that are code compliant for emergency vehicles.

Landscape Architect & Surveyor

Role of Landscape Architect	Landscape architects are responsible for access to and egress from a site for people and vehicles, including emergency access requirements.
Overlap	Landscape architects and surveyors design the conceptual plan of safe, accessible paths of travel to ensure life safety and code compliance.
Role of Surveyor	Surveyors are responsible for alignment, grades, and turnarounds for access to and egress within site development that are code compliant for emergency vehicles.

28. Electrical Systems

Overview

Definition of Electrical Systems

Electrical Systems are the electrical distribution equipment and components that generate, distribute, and terminate electricity at power devices, lights, and other end uses.

Profession-Specific Definitions of Electrical Systems

Architect

Electrical Systems in architecture are the equipment and components that generate, distribute, and terminate electricity at power devices, lights, and other end uses. Architects determine and oversee the design and integration of electrical systems and their components based on technical properties to meet project goals.

Engineer (Mechanical/Electrical)

Electrical Systems in engineering are the equipment and components that generate, distribute, and terminate electricity at power devices, lights, and other end uses. Engineers oversee the integration of power, control, sensing, and communication to operate and manage mechanical systems effectively and safely.

Interior Designer

Electrical Systems in interior design are the equipment and components that generate, distribute, and terminate electricity at power devices, lights, and other end uses. Interior designers identify user requirements and functional needs for device, lighting, and component selection as well as placement and layout.

Summary of Overlap and Boundaries

Acceptable Overlap

Acceptable overlap includes the design and coordination of electrical systems by integrating electrical layouts, devices, lighting, and equipment through collaborating, ensuring project needs, and meeting scope-of-practice requirements across disciplines.

Practice Boundaries

Architect

- Coordinate lighting, power devices, distribution layout, and building-wide electrical system locations to align with space and functional requirements for the building and site.

Engineer (Mechanical/Electrical)

- Responsible for all aspects of engineering lighting and power design.

Interior Designer

- Coordinate lighting, power devices, and distribution layout to align with interior space and functional requirements.

Overlap and Boundaries

Architect & Mechanical/Electrical Engineer

Role of Architect	Architects coordinate lighting, power devices, distribution layout, and building-wide electrical system locations to align with space and functional requirements for the building and site.
Overlap	Architects and mechanical/electrical engineers design and coordinate electrical systems by integrating electrical layouts, devices, lighting, and equipment through collaborating, ensuring project needs, and meeting scope-of-practice requirements across disciplines.
Role of Mechanical/ Electrical Engineer	Mechanical/electrical engineers are responsible for all aspects of engineering lighting and power design.

Architect & Interior Designer

Role of Architect	Architects coordinate lighting, power devices, distribution layout, and building-wide electrical system locations to align with space and functional requirements for the building and site.
Overlap	Architects and interior designers coordinate electrical systems by integrating electrical layouts, devices, lighting, and equipment through collaborating, ensuring project needs, and meeting scope-of-practice requirements across disciplines.
Role of Interior Designer	Interior designers coordinate lighting, power devices, and distribution layout to align with interior space and functional requirements.

Mechanical/Electrical Engineer & Interior Designer

Role of Mechanical/ Electrical Engineer	Mechanical/electrical are responsible for all aspects of engineering lighting and power design.
Overlap	Mechanical/electrical engineers and interior designers design and coordinate electrical systems by integrating electrical layouts, devices, lighting, and equipment through collaborating, ensuring project needs, and meeting scope-of-practice requirements across disciplines.
Role of Interior Designer	Interior designers coordinate lighting, power devices, and distribution layout to align with interior space and functional requirements.

29. Engineering Design

Overview

Definition of Engineering Design

Engineering Design is the application of engineering principles and the interpretation of engineering data to solve complex problems within the boundaries and constraints of ethical standards, public safety considerations, and scientific principles.

Profession-Specific Definitions of Engineering Design

Architect

Engineering design in architecture is the integration and coordination of building systems based on design parameters and technical properties. This includes working with the appropriate engineers to set fixed limits or boundaries on a building's characteristics to facilitate the analysis and design. These building systems include plumbing, mechanical, electrical, and structural engineering systems. Specialty systems include fire and smoke suppression, conveying systems, acoustics, communications and data, and security systems.

Engineer

Engineering design in engineering is the fundamental process of analyzing complex issues through the application of engineering principles and interpretation of engineering data, while adhering to ethical standards, public safety considerations, scientific principles, and all applicable codes. It may also involve devising a system, component, or process to meet desired needs and specifications within project constraints and engineering standards.

Interior Designer

Engineering design in interior design is the application of design parameters and integration of interior building systems based on specific design criteria and technical requirements, including the definition of space features. Key building systems include plumbing, mechanical, and electrical engineering, along with specialized systems like fire suppression, acoustics, communication and data infrastructure, lighting, and security systems.

Landscape Architect

Engineering design in landscape architecture is the application of design principles and technical knowledge related to grading, drainage, erosion control, stormwater management, and universal accessibility, as well as the design of site-specific systems, such as but not limited to pavement systems, low retaining walls, and low impact development stormwater management systems.

Surveyor

Engineering design in surveying is the application and integration related to site-specific planning/layout, such as the road/ditch grade of low impact development stormwater management systems.

Summary of Overlap and Boundaries

Acceptable Overlap

Acceptable overlap includes conceptual design, coordination with other design professions to define parameters for performance, and integration of engineering systems and components.

Practice Boundaries

Architect

- Develop conceptual design of structures and structural systems, as well as limited structural design for smaller occupancy load.
- Develop conceptual design of civil systems, as well as limited civil design.
- Develop conceptual design of mechanical/electrical systems, as well as limited mechanical/electrical design.
- Develop conceptual site design of grading and drainage systems.
- Develop universal accessibility, providing entrance to a building.

Engineer

- Architectural/structural engineers perform comprehensive structural engineering design for all occupancy types and calculate seismic restraints for components in significant structures and design retaining walls over a certain height (or per International Building Code (IBC) or local jurisdictional requirements) and bridges.
- Civil, construction, environmental, and geotechnical engineers perform structural design, foundation design, and all aspects of the site design (e.g., parking, traffic flow, drainage, utilities) and site functionality and environmental aspects; work on foundations for site structures (i.e., retaining walls > 4 feet) and seismic restraints; design foundations for site structures (gates, backstop netting, retaining walls > 4 feet) and seismic restraints; design grading, drainage, and stormwater management with regional impacts; and are responsible for universal accessibility providing entrance to a building.
- Mechanical/electrical engineers perform comprehensive engineering design for all occupancy types, exterior building systems, street and parking lot lighting, and power distribution systems.

Interior Designer

- Develop conceptual design of mechanical/electrical systems.

Landscape Architect

- Design structures not requiring occupancy permitting as outlined in IBC/International Existing Building Code (IEBC) or jurisdictional requirements.
- Design grading, drainage, and stormwater management systems, erosion control systems, paving systems, irrigation systems, universal accessibility, and low retaining walls (< 4 feet per IBC or local jurisdictional requirements).
- Design accent/site lighting design.
- Design biological and botanical systems.

Surveyor

- Develop interior subdivision design of road/ditch grades and stormwater collection.

Overlap and Boundaries

Architect & Architectural/Structural Engineer

Role of Architect	Architects develop conceptual designs of structures and structural systems, as well as limited structural design.
Overlap	Architects and structural engineers define parameters for performance, such as vibration, deflection, and floor loading in the design process. Architects and structural engineers coordinate engineering design for varying occupancy types and structural systems.
Role of Architectural/ Structural Engineer	Structural engineers perform comprehensive structural engineering design for all occupancy types and calculate seismic restraints for components in significant structures.

Architect & Civil, Construction, Environmental, and Geotechnical Engineer

Role of Architect	Architects develop conceptual designs of civil systems.
Overlap	Architects and civil, construction, environmental, and geotechnical engineers define parameters for performance of site elements in the design process.
Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil, construction, environmental, and geotechnical engineers perform structural design, foundation design, and all aspects of the site design (e.g., parking, traffic flow, drainage, utilities), as well as site function ability and environmental aspects. Civil, construction, environmental, and geotechnical engineers work on foundations for site structures (i.e., retaining walls > 4 feet) and seismic restraints.

Architect & Mechanical/Electrical Engineer

Role of Architect	Architects develop conceptual designs of mechanical/electrical systems.
Overlap	Architects and mechanical/electrical engineers define parameters for mechanical/ electrical engineering systems and components in the design process.
Role of Mechanical/ Electrical Engineer	Mechanical/electrical engineers perform comprehensive engineering design for all occupancy types.

Architect & Interior Designer

Role of Architect	Architects perform conceptual designs of civil, mechanical/electrical, and structural systems.
Overlap	Architects and interior designers perform conceptual engineering design and coordinate with other design professions to define parameters for performance and integrate engineering systems and components.
Role of Interior Designer	Interior designers develop conceptual designs of electrical/mechanical systems.

Architect & Landscape Architect

Role of Architect	Architects primarily perform conceptual design work related to these elements.
Overlap	Architects and landscape architects engage in conceptual engineering design and universal accessibility by providing entrance to a building. Landscape architects and architects collaborate throughout the engineering design process.
Role of Landscape Architect	Landscape architects perform detailed site design, including engineering design elements such as grading and drainage.

Architect & Surveyor

Role of Architect	Architects request and utilize surveyor instruments of service to inform the project's constraints.
Overlap	There is no overlap between architects and surveyors in this area.
Role of Surveyor	Surveyors design subdivisions that include road/ditch grades and minor stormwater management, as well as minor site grading for parcel development.

Architectural/Structural Engineer & Civil, Construction, Environmental, and Geotechnical Engineer

Role of Architectural/ Structural Engineer	Structural engineers and architectural engineers with training in structural systems perform comprehensive engineering design for all occupancy types.
Overlap	Structural engineers design both vertical and horizontal construction projects. Architectural engineers with training in structural systems design primarily vertical construction projects. Civil, construction, environmental, and geotechnical engineers, primarily civil engineers, design both vertical and horizontal construction projects.
Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil engineers perform comprehensive engineering design for both vertical and horizontal construction projects including roadways and bridges and vertical construction projects. Construction, environmental, and geotechnical engineers perform comprehensive engineering design within their scope of training.

Architectural/Structural Engineer & Mechanical/Electrical Engineer

Role of Architectural/ Structural Engineer	Architectural engineers with training in mechanical/electrical systems perform comprehensive engineering design for all occupancy types. Structural engineers and architectural engineers with training in structural systems do not perform mechanical/electrical design.
Overlap	Mechanical/electrical engineers and architectural engineers with training in mechanical/electrical systems define parameters for mechanical/electrical engineering systems and components in the design process.
Role of Mechanical/ Electrical Engineer	There is no scope distinction for mechanical/electrical engineers in this area.

Architectural/Structural Engineer & Interior Designer

Role of Architectural/ Structural Engineer	Structural engineers perform comprehensive structural engineering design for all occupancy types and calculate seismic restraints for components in significant structures.
Overlap	Interior designers and structural engineers perform conceptual engineering design and coordinate with other design professions to define parameters for performance and integrate engineering systems and components.
Role of Interior Designer	Interior designers coordinate with structural engineers in non-structural/non-seismic structural designs for equipment load requirements, core drill locations, recess slabs, and controls joints.

Architectural/Structural Engineer & Landscape Architect

Role of Architectural/ Structural Engineer	Structural engineers design retaining walls over a certain height (or per IBC or local jurisdictional requirements), occupancy-permitted structures, and bridges.
Overlap	Landscape architects and structural engineers coordinate and engage in conceptual engineering design. Both professions are permitted to design structures not requiring occupancy permitting as outlined in IBC/IEBC or jurisdictional requirements.
Role of Landscape Architect	Landscape architects design low retaining walls and structures not requiring occupancy permitting as outlined in IBC/IEBC or jurisdictional requirements.

Architectural/Structural Engineer & Surveyor

Role of Architectural/ Structural Engineer	Structural engineers design retaining walls over a certain height (or per IBC or local jurisdictional requirements), occupancy-permitted structures, and bridges.
Overlap	Structural engineers and surveyors coordinate and engage in conceptual engineering design. Both professions are permitted to design structures not requiring occupancy permitting as outlined in IBC/IEBC or jurisdictional requirements.
Role of Surveyor	Surveyors design subdivisions that include road/ditch grades and minor stormwater management, as well as minor site grading for parcel development.

Civil, Construction, Environmental, and Geotechnical Engineer & Mechanical/Electrical Engineer

Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil, construction, environmental, and geotechnical engineers perform comprehensive engineering design within their scope of training.
Overlap	Civil, construction, environmental, and geotechnical engineers and mechanical/ electrical engineers perform comprehensive engineering design within their scope of training and coordinate with other design professions to define parameters for performance and integrate engineering systems and components.
Role of Mechanical/ Electrical Engineer	Mechanical/electrical engineers perform comprehensive engineering design for mechanical and electrical systems, respectively.

Civil, Construction, Environmental, and Geotechnical Engineer & Interior Designer

Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil, construction, environmental, and geotechnical engineers perform structural design, foundation design, and all aspects of the site design (e.g., parking, traffic flow, drainage, utilities), as well as site function ability and environmental aspects. Civil, construction, environmental, and geotechnical engineers work on foundations for site structures (i.e., retaining walls > 4 feet) and seismic restraints.
Overlap	Civil, construction, environmental, and geotechnical engineers and interior designers perform conceptual engineering design and coordinate with other design professions to define parameters for performance and integrate engineering systems and components.
Role of Interior Designer	There is no scope distinction for interior designers in this area.

Civil, Construction, Environmental, and Geotechnical Engineer & Landscape Architect

Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil, construction, environmental, and geotechnical engineers perform grading, drainage, and stormwater management with regional impacts.
Overlap	Civil, construction, environmental, and geotechnical engineers and landscape architects coordinate and engage in conceptual engineering design. Both professions prepare engineering designs related to site-specific grading, drainage and stormwater management systems, erosion control systems, paving systems, irrigation systems, universal accessibility, and low retaining walls (< 4 feet per IBC or local jurisdictional requirements).
Role of Landscape Architect	Landscape architects design site-specific grading, drainage and storm water management systems, and biological and botanical systems.

Civil, Construction, Environmental, and Geotechnical Engineer & Surveyor

Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil, construction, environmental, and geotechnical engineers perform grading, drainage, and stormwater management with regional impacts.
Overlap	Civil, construction, environmental, and geotechnical engineers and surveyors coordinate and engage in conceptual engineering design. Both professions prepare engineering designs related to site-specific grading, drainage and stormwater management systems, erosion control systems, paving systems, irrigation systems, universal accessibility, and low retaining walls (< 4 feet per IBC or local jurisdictional requirements).
Role of Surveyor	Surveyors design subdivisions that include road/ditch grades and minor stormwater management, as well as minor site grading for parcel development.

Mechanical/Electrical Engineer & Interior Designer

Role of Mechanical/ Electrical Engineer	Mechanical/electrical engineers perform comprehensive engineering design for all occupancy types.
Overlap	Interior designers and Mechanical/electrical engineers perform conceptual engineering design and coordinate with other design professions to define parameters for performance and integrate engineering systems and components.
Role of Interior Designer	Interior designers develop conceptual designs of mechanical/electrical systems.

Mechanical/Electrical Engineer & Landscape Architect

Role of Mechanical/ Electrical Engineer	Mechanical/electrical engineers design exterior building, street, and parking lot lighting, as well as power distribution systems.
Overlap	Landscape architects and mechanical/electrical engineers coordinate and engage in conceptual engineering design. Both professions perform accent/site lighting design.
Role of Landscape Architect	Landscape architects perform accent and site lighting design.

Mechanical/Electrical Engineer & Surveyor

Role of Mechanical/ Electrical Engineer	Mechanical/electrical engineers design exterior building, street, and parking lot lighting, as well as power distribution systems.
Overlap	Mechanical/electrical engineers and surveyors coordinate and engage in conceptual engineering design.
Role of Surveyor	Surveyors design subdivisions that include road/ditch grades and minor stormwater management, as well as minor site grading for parcel development.

Interior Designer & Landscape Architect

Role of Interior Designer	Interior designers design parameters and integration of interior building systems.
Overlap	Interior designers and landscape architects engage in conceptual engineering design and collaborate closely with engineers throughout the engineering design process.
Role of Landscape Architect	Landscape architects design parameters and integration of exterior or site-specific systems.

Interior Designer & Surveyor

Role of Interior Designer	Interior designers design parameters and integration of interior building systems.
Overlap	Interior designers and surveyors engage in conceptual engineering design and collaborate closely with engineers throughout the engineering design process.
Role of Surveyor	Surveyors design subdivisions that include road/ditch grades and minor stormwater management, as well as minor site grading for parcel development.

Landscape Architect & Surveyor

Role of Landscape Architect	Landscape architects prepare detailed designs of site-specific systems such as grading, drainage, erosion control, stormwater management, and universal accessibility, as well as biological and botanical systems.
Overlap	Landscape architects and surveyors engage in conceptual engineering and collaborate throughout the engineering design process.
Role of Surveyor	Surveyors design subdivisions that include road/ditch grades and minor stormwater management, as well as minor site grading for parcel development.

30. Fire Protection Systems

Overview

Definition of Fire Protection Systems

Fire Protection Systems are fundamental concepts within the built environment. They include both active and passive techniques associated with the avoidance and mitigation of fire-related events, specifically for the purposes of protection of persons and property.

Active fire protection systems offer protection by detecting, alarming, controlling, suppressing, or extinguishing fires. Common active fire protection systems include suppression and fire and smoke control systems.

Passive fire protection systems include components of a building, its infrastructure, or adjacent design elements that provide constant fire protection, without needing to be used or activated. Common passive fire protection systems limit the spread of fire and may include fire-resistant construction materials and methods; fire separation including walls, ceilings, and doors; and signage with fire safety information such as evacuation routes and horizontal compartmentalization.

Profession-Specific Definitions of Fire Protection Systems

Architect

Fire Protection Systems in architecture are fundamental concepts that guide the delivery of services related to fire suppression and smoke control systems that meet project goals. Architects must be able to apply the IBC to the design and documentation of a project, including fire suppression and smoke protection.

Engineer (Architectural/Structural and Mechanical/Electrical)

Fire Protection Systems in engineering are fundamental concepts that guide the design, analysis, and management of systems and strategies that detect, control, and suppress fires, explosions, and related hazards. Engineers must consider factors such as building design, fire dynamics, and human behavior using active techniques associated with the avoidance and mitigation of fire-related events specifically for the purposes of protection of persons, buildings, equipment, and fire suppression. This consists of, but is not limited to, sizing, selecting, and designing the system.

Interior Designer

Fire Protection Systems in interior design are fundamental concepts that guide the integration of interior fire protection systems in the project design. Interior designers must determine and integrate design requirements for passive fire protection systems. They coordinate and integrate active fire protection systems services in connection with fire suppression, and fire and smoke control systems.

Summary of Overlap and Boundaries

Acceptable Overlap

Acceptable overlap includes the integration and coordination of active and passive fire protection systems requirements between professions.

Practice Boundaries

Architect

- Coordinate design of passive fire protection of the building structural systems, including the selection and sizing of materials, insulation or coatings, and similar passive elements.
- Design active fire protection systems, including fire alarm and fire protection systems.
- Develop design parameters and solutions for fire protection systems that focus on the overall building and site, including exterior considerations.

Engineer (Architectural/Structural and Mechanical/Electrical)

- Architectural/structural engineers design passive fire protection of the building's structural systems, including the selection and sizing of materials, insulation or coatings, and similar passive elements; engage in conceptual design of interior building active fire protection systems.
- Mechanical/electrical engineers perform comprehensive design for active fire protection systems.

Interior Designer

- Specialize in environments interior to the building envelope.
- Develop conceptual design, integration, and coordination of a building's active fire protection system, but do not design them.
- Design parameters and integrate passive fire protection system requirements with the overall design approach.

Overlap and Boundaries

Architect & Architectural/Structural Engineer

Role of Architect	There is no scope distinction for architects in this area.
Overlap	Engineers trained in fire protection and architects both perform passive fire protection design.
Role of Architectural/ Structural Engineer	There is no scope distinction for architectural/structural engineers in this area.

Architect & Mechanical/Electrical Engineer

Role of Architect	Architects coordinate design of passive fire protection of the building's structural systems, including the selection and sizing of materials, insulation or coatings, and similar passive elements.
Overlap	Mechanical/electrical engineers, architectural/structural engineers trained in mechanical and electrical engineering, and architects design active fire protection systems, including fire alarm and fire protection systems.
Role of Mechanical/ Electrical Engineer	Mechanical/electrical engineers do not independently engage passive fire protection systems that pertain to primary structural elements. Mechanical/electrical engineers with experience in the analysis, design, and application of fire protection systems design active fire systems.

Architect & Interior Designer

Role of Architect	Architects focus on the overall building (exterior and interior) and site, including exterior considerations, while interior designers specialize in environments non-structural/non-seismic interior to the building envelope. Architects and interior designers coordinate and integrate fire protection system requirements with overall design approach.
Overlap	Architects and interior designers participate in developing design parameters and solutions for fire protection systems. They focus on the development of passive fire protection systems and coordinate active fire protection system requirements with engineers who design and engineer the comprehensive active fire protection systems. Architects and interior designers coordinate and integrate fire protection system requirements with the overall design approach.
Role of Interior Designer	Interior designers coordinate and integrate passive fire protection system requirements that pertain to non-structural/non-seismic elements.

Architectural/Structural Engineer & Mechanical/Electrical Engineer

Role of Architectural/ Structural Engineer	Structural engineers and architectural engineers trained in structural engineering design passive fire protection of the building's structural systems, including the selection and sizing of materials, insulation or coatings, and similar passive elements.
Overlap	Architectural/structural engineers trained in mechanical and electrical engineering and mechanical/electrical engineers design active fire protection systems, including fire alarm and fire protection systems.
Role of Mechanical/ Electrical Engineer	Mechanical/electrical engineers do not independently engage passive fire protection systems that pertain to primary structural elements. Mechanical/electrical engineers with experience in the analysis, design, and application of fire protection systems design active fire systems.

Architectural/Structural Engineer & Interior Designer

Role of Architectural/ Structural Engineer	Structural engineers and architectural engineers trained in structural engineering design passive fire protection of the building's structural systems, including the selection and sizing of materials, insulation or coatings, and similar passive elements.
Overlap	Architectural/structural engineers and interior designers determine design parameters and integrate passive fire protection system requirements with overall design approach. Architectural/structural engineers and interior designers engage in conceptual design of interior active fire protection systems; they coordinate and integrate active fire protection systems, including fire suppression, fire, and smoke control systems.
Role of Interior Designer	Interior designers do not independently engage passive fire protection systems that pertain to primary structural elements.

Mechanical/Electrical Engineer & Interior Designer

Role of Mechanical/ Electrical Engineer	Mechanical/electrical engineers with experience in the analysis, design, and application of fire protection systems design active fire systems. Mechanical/electrical engineers do not determine passive fire protection requirements such as location and level of rated walls, egress paths, etc., but do respond to design parameters determined by interior designers regarding the passive fire system by determining and integrating fire protection construction elements related to building systems, such as fire and smoke dampers and controls to meet passive fire protection requirements.
Overlap	Mechanical/electrical engineers and interior designers determine design parameters and integrate passive fire protection system requirements with overall design approach. Mechanical/electrical engineers and interior designers engage in conceptual design of active fire protection systems; they coordinate and integrate active fire protection.
Role of Interior Designer	Interior designers integrate and coordinate building active fire protection systems, but do not design them.

31. Grading, Drainage, and Stormwater Management

Overview

Definition of Grading, Drainage, and Stormwater Management

Grading, Drainage, and Stormwater Management is the manipulation and modification of land surfaces to achieve desired slopes, elevations, and drainage patterns to ensure proper water flow, erosion control, universal accessibility, and site functionality.

Profession-Specific Definitions of Grading, Drainage, and Stormwater Management

Architect

Grading, Drainage, and Stormwater Management in architecture is the design of new grading and topography necessary to accommodate a building based on an analysis of the project site. Architects must facilitate the flow of rainwater in a specific direction, understanding the direction of the surface flow of rainwater across the land to facilities that control the rainwater runoff from a site.

Engineer (Civil, Construction, Environmental, and Geotechnical)

Grading, Drainage, and Stormwater Management in engineering is a site-focused practice that involves the manipulation and modification of land surfaces to achieve desired slopes, elevations, and drainage patterns, considering factors such as soil characteristics, topography, and project specifications to mitigate unforeseen circumstances.

Landscape Architect

Grading, Drainage, and Stormwater Management in landscape architecture is the comprehensive and systematic analysis and design of land contours to achieve desired slopes, ADA accessibility, stormwater management, and overall site functionality. Landscape architects are responsible for evaluating the site's topography, soil mechanics, and surrounding watershed, and designing solutions that effectively manage the adverse effects of stormwater runoff, such as erosion, flooding, and water pollution.

Surveyor

Grading, Drainage, and Stormwater Management in surveying is a site-focused practice that involves the manipulation and modification of land surfaces to achieve desired slopes, elevations, and drainage patterns, considering factors such as soil characteristics, topography, and project specifications to mitigate unforeseen circumstances.

Summary of Overlap and Boundaries

Acceptable Overlap

Acceptable overlap includes conceptual site design and coordinating with other design professionals based upon the performance requirements of the specific project.

Practice Boundaries

Architect

- There is no scope distinction for architects in this area.

Engineer (Civil, Construction, Environmental, and Geotechnical)

- Perform grading and drainage design for regional impacts that go beyond the specific project site.

Landscape Architect

- Create detailed designs of and coordinate the biological and botanical elements of site-specific grading, drainage, and stormwater management.

Surveyor

- Create detailed designs of and coordinate site-specific grading, drainage, and stormwater management.
- Calculate grading by using maps or georeferenced databases representing authoritative locations for boundaries, the location of fixed works, or topography.

Overlap and Boundaries

Architect & Civil, Construction, Environmental, and Geotechnical Engineer

Role of Architect	There is no scope distinction for architects in this area.
Overlap	Architects and civil, construction, environmental, and geotechnical engineers coordinate the conceptual site design based upon the performance requirements of the specific project.
Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil, construction, environmental, and geotechnical engineers design the site including grading, drainage, utilities, and detention. Engineers can perform functional design, development of design, and structural design. This also includes regional drainage plans.

Architect & Landscape Architect

Role of Architect	There is no scope distinction for architects in this area.
Overlap	Architects and landscape architects coordinate conceptual site design based upon the performance requirements of the specific project.
Role of Landscape Architect	Landscape architects perform detailed grading, drainage, and stormwater management design.

Architect & Surveyor

Role of Architect	There is no scope distinction for architects in this area.
Overlap	Architects and surveyors both coordinate the conceptual site design based upon the performance requirements of the specific project.
Role of Surveyor	Surveyors calculate grading by using maps or georeferenced databases representing authoritative locations for boundaries, the location of fixed works, or topography. The usage of maps (such as plan and profile, cross section, plat, record of survey, National Society of Professional Surveyors or American Land Title Association (NSPS/ALTA), topographic, and planimetric) and the ability for original data acquisition assists in resolving conflicts between multiple data sources.

Civil, Construction, Environmental, and Geotechnical Engineer & Landscape Architect

Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil, construction, environmental, and geotechnical engineers perform grading and drainage design for regional impacts that go beyond the specific project site. Engineers coordinate green roof design and onsite-water capture.
Overlap	Civil, construction, environmental, and geotechnical engineers and landscape architects create detailed designs of and coordinate site-specific grading, drainage, and stormwater management.
Role of Landscape Architect	Landscape architects design the biological and botanical elements of grading, drainage, and stormwater management.

Civil, Construction, Environmental, and Geotechnical Engineer & Surveyor

Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil, construction, environmental, and geotechnical engineers can perform regional-site focused drainage.
Overlap	Civil, construction, environmental, and geotechnical engineers and surveyors create detailed designs of and coordinate site-specific grading, drainage, and stormwater management.
Role of Surveyor	Surveyors calculate grading by using maps or georeferenced databases representing authoritative locations for boundaries, the location of fixed works, or topography. The usage of maps (such as plan and profile, cross section, plat, record of survey, NSPS/ALTA, topographic, and planimetric) and the ability for original data acquisition assists in resolving conflicts between multiple data sources.

Landscape Architect & Surveyor

Role of Landscape Architect	Landscape architects design the biological and botanical elements of grading, drainage, and stormwater management.
Overlap	Landscape architects and surveyors create detailed designs of and coordinate site-specific grading, drainage, and stormwater management.
Role of Surveyor	Surveyors calculate grading by using maps or georeferenced databases representing authoritative locations for boundaries, the location of fixed works, or topography. The usage of maps (such as plan and profile, cross section, plat, record of survey, NSPS/ALTA, topographic, and planimetric) and the ability for original data acquisition assists in resolving conflicts between multiple data sources.

32. Landscape Elements

Overview

Definition of Landscape Elements

Landscape Elements are the natural and constructed features used to organize, modify, and transform the functionality, aesthetics, and overall character of the visible features of an area of land.

Profession-Specific Definitions of Landscape Elements

Architect

Landscape Elements in architecture are the natural and constructed features incorporated into the exterior of a built environment. Architects are responsible for planning, designing, and coordinating these elements in collaboration with other design professionals.

Engineer (Civil, Construction, Environmental, and Geotechnical)

Landscape Elements in engineering are the natural and constructed features used to organize, modify, and transform the functionality, aesthetic, and overall character of the visible features of an area of land.

Landscape Architect

Landscape Elements in landscape architecture are the natural and constructed features used to organize, modify, and transform the functionality, aesthetics, and overall character of the visible features of an area of land. Landscape architects are responsible for the thoughtful integration of these elements, including the development of their construction details and specifications. Landscape architects may also plan and design exterior structures to enhance the functionality and visual appeal of outdoor spaces.

Summary of Overlap and Boundaries

Acceptable Overlap

Acceptable overlap includes performing conceptual design and coordinating site plans, hardscapes, and other site elements used to organize, modify, and transform the functionality, aesthetic, and overall character of the visible features of an area of land.

Practice Boundaries

Architect

- Perform the design of any habitable structures within the site plan.

Engineer (Civil, Construction, Environmental, and Geotechnical)

- Coordinate with architects and landscape architects on natural and constructed features.

Landscape Architect

- Perform the detailed design of landscape elements, including hardscape elements, water features, site furnishings, lighting, irrigation systems, and botanical and biological systems.

Overlap and Boundaries

Architect & Civil, Construction, Environmental, and Geotechnical Engineer

Role of Architect	There is no scope distinction for architects in this area.
Overlap	Architects and civil, construction, environmental, and geotechnical engineers perform conceptual design and coordination of site plans, hardscapes, and other site elements used to organize, modify, and transform the functionality, aesthetic, and overall character of the visible features of an area of land.
Role of Civil, Construction, Environmental, and Geotechnical Engineer	There is no scope distinction for civil, construction, environmental, and geotechnical engineers in this area.

Architect & Landscape Architect

Role of Architect	Architects perform the design of any habitable structures within the site plan.
Overlap	Architects and landscape architects perform conceptual design and coordination of site plans, hardscapes, and other site elements used to organize, modify, and transform the functionality, aesthetic, and overall character of the visible features of an area of land.
Role of Landscape Architect	Landscape architects perform the detailed design of landscape elements, including hardscape elements, water features, site furnishings, lighting, irrigation systems, and botanical and biological systems.

Civil, Construction, Environmental, and Geotechnical Engineer & Landscape Architect

Role of Civil, Construction, Environmental, and Geotechnical Engineer	There is no scope distinction for civil, construction, environmental, and geotechnical engineers in this area.
Overlap	Civil, construction, environmental, and geotechnical engineers and landscape architects perform conceptual design and coordination of site plans, hardscapes, and other site elements used to organize, modify, and transform the functionality, aesthetic, and overall character of the visible features of an area of land.
Role of Landscape Architect	Landscape architects perform the detailed design of landscape elements, including hardscape elements, water features, site furnishings, lighting, irrigation systems, and botanical and biological systems.

33. Mechanical Systems

Overview

Definition of Mechanical Systems

Mechanical Systems are building and industrial systems—including heating, ventilation, air conditioning, plumbing, fire protection, and process piping, along with their associated distribution equipment and components—that manage air, fluids, and gases.

Profession-Specific Definitions of Mechanical Systems

Architect

Mechanical Systems in architecture are the building and industrial systems primarily responsible for maintaining heating/cooling and ventilation, reducing air infiltration, and maintaining pressure relationships between spaces. Architects integrate the design, installation, and control systems of these functions into one or more systems.

Engineer (Mechanical/Electrical)

Mechanical Systems in engineering are building and industrial systems that manage air, fluids, and gases. Engineers analyze and design these systems, contributing to advancements in technology, efficiency, and safety across various industries through the application of kinematics, dynamics, thermodynamics, fluid mechanics, and control systems.

Interior Designer

Mechanical Systems in interior design are the building and industrial systems that manage air, fluids, and gases. Interior designers identify user requirements and functional needs for the coordination and integration of system requirements for heating/cooling, ventilation, fire protection, and plumbing into interior spaces.

Summary of Overlap and Boundaries

Acceptable Overlap

Acceptable overlap includes the integration and coordination of passive and active strategies.

Practice Boundaries

Architect

- Coordinate mechanical, plumbing, fire protection, and process piping to align with space and functional requirements for the entire building and site.

Engineer (Mechanical/Electrical)

- Responsible for all aspects of mechanical, plumbing, fire protection, and process piping, including component and fixture specifications.

Interior Designer

- Provide input on component and fixture specifications and coordinate integration of mechanical, plumbing, and fire protection requirements to align with interior space and functional needs.

Overlap and Boundaries

Architect & Mechanical/Electrical Engineer

Role of Architect	Architects coordinate mechanical, plumbing, fire protection, and process piping to align with space and functional requirements for the entire building and site.
Overlap	Architects and mechanical/electrical engineers integrate and coordinate passive and active strategies.
Role of Mechanical/ Electrical Engineer	Mechanical/electrical engineers are responsible for all aspects of mechanical, plumbing, fire protection, and process piping.

Architect & Interior Designer

Role of Architect	Architects coordinate mechanical, plumbing, fire protection, and process piping to align with space and functional requirements for the entire building and site.
Overlap	Architects and interior designers integrate and coordinate passive and active strategies.
Role of Interior Designer	Interior designers provide input on component and fixture specifications and coordinate integration of mechanical, plumbing, and fire protection requirements to align with interior space and functional needs.

Mechanical/Electrical Engineer & Interior Designer

Role of Mechanical/ Electrical Engineer	Mechanical/electrical engineers are responsible for all aspects of engineering mechanical systems, including component and fixture specifications.
Overlap	Mechanical/electrical engineers and interior designers integrate and coordinate passive and active strategies.
Role of Interior Designer	Interior designers provide input on component and fixture specifications and coordinate integration of mechanical, plumbing, and fire protection requirements to align with interior space and functional needs.

34. Non-Boundary Survey

Overview

Definition of Non-Boundary Survey

A Non-Boundary Survey is a land survey that measures something other than the property lines of a specific area and is not tied to regulatory data. Common Non-Boundary Survey types include topography, terrain, feature, or elevation surveys.

Profession-Specific Definitions of Non-Boundary Survey

Engineer (Civil, Construction, Environmental, and Geotechnical)

A Non-Boundary Survey in engineering is the geometric measurement of data and information—not tied to the property lines or regulatory datum of a specific area—that pertains to the physical features of the earth, improvements on the earth, or the space above or below the earth. Engineers provide, utilize, or develop these measurements into survey products such as graphics, data, maps, plans, reports, descriptions, or projects.

Landscape Architect

A Non-Boundary Survey in landscape architecture is the on-site investigation and field review of existing conditions on a project site. This includes data collection regarding elements that are not tied to the property lines or regulatory datum of a specific area, such as existing site features, topographic impacts, slope analysis, vegetation, sun/shade impacts, wind and other environmental factors, adjacent land uses, and designed improvements. The design team uses this information to guide the development of context-based design decisions. Non-Boundary Survey findings are not intended to be used as legal instruments for recording purposes.

Surveyor

A Non-Boundary Survey in surveying is the geometric measurement of data and information—not tied to the property lines or regulatory datum of a specific area—that pertains to the physical or legal features of the earth, improvements on the earth, or the space above or below the earth. Surveyors provide, utilize, or develop these measurements into survey products such as graphics, data, maps, plans, reports, descriptions, or projects. This also includes the measurement of the contour of the earth's surface or position of fixed objects thereon.

Summary of Overlap and Boundaries

Acceptable Overlap

Acceptable overlap includes performing non-boundary surveys for locating existing and proposed site features not tied to a boundary or regulatory datum.

Practice Boundaries

Engineer (Civil, Construction, Environmental, and Geotechnical)

- There is no scope distinction for civil, construction, environmental, and geotechnical engineers in this area.

Landscape Architect

- There is no scope distinction for landscape architects in this area.

Surveyor

- Perform non-boundary and boundary surveys, as they determine site features that may or may not be tied to regulatory data.

Overlap and Boundaries

Civil, Construction, Environmental, and Geotechnical Engineer & Landscape Architect

Role of Civil, Construction, Environmental, and Geotechnical Engineer	There is no scope distinction for civil, construction, environmental, and geotechnical engineers in this area.
Overlap	Civil, construction, environmental, and geotechnical engineers and landscape architects perform non-boundary surveys for locating existing and proposed site features not tied to a boundary or regulatory datum.
Role of Landscape Architect	There is no scope distinction for landscape architects in this area.

Civil, Construction, Environmental, and Geotechnical Engineer & Surveyor

Role of Civil, Construction, Environmental, and Geotechnical Engineer	Engineers can only perform non-boundary surveys, which are not tied to regulatory data.
Overlap	Civil, construction, environmental, and geotechnical engineers and surveyors perform non-boundary surveys for locating existing and proposed site features not tied to a boundary or regulatory datum.
Role of Surveyor	Surveyors can perform non-boundary and boundary surveys, as they determine site features that may or may not be tied to regulatory data.

Landscape Architect & Surveyor

Role of Landscape Architect	Landscape architects can only perform non-boundary surveys, which are not tied to regulatory data.
Overlap	Landscape architects and surveyors perform non-boundary surveys for locating existing and proposed site features not tied to a boundary or regulatory datum.
Role of Surveyor	Surveyors can perform non-boundary and boundary surveys, as they determine site features that may or may not be tied to regulatory data.

35. Planting Plans

Overview

Definition of Planting Plans

Planting Plans are drawings that establish the location and characteristics of proposed vegetation, incorporating biological and botanical attributes to ensure long-term viability.

Profession-Specific Definitions of Planting Plans

Architect

Planting Plans in architecture are drawings that establish the location and characteristics of proposed vegetation. Architects plan, design, and coordinate with other design professionals to incorporate biological elements into the built environment.

Landscape Architect

Planting Plans in landscape architecture are drawings that establish the location and characteristics of proposed vegetation. Landscape architects prepare landscape planting plans and details for construction purposes. This work requires applying biological and botanical systems, horticulture, ecosystems, climate science, soil science, and geology principles to the design of the landscape, while considering the post-construction management and maintenance of the exterior environment.

Summary of Overlap and Boundaries

Acceptable Overlap

Acceptable overlap includes developing conceptual planting plans and coordinating landscape elements within the built environment.

Practice Boundaries

Architect

- There is no scope distinction for architects in this area.

Landscape Architect

- Develop detailed design and construction documentation.

Overlap and Boundaries

Architect & Landscape Architect

Role of Architect	There is no scope distinction for architects in this area.
Overlap	Architects and landscape architects develop conceptual planting plans and coordinate landscape elements within the built environment.
Role of Landscape Architect	Landscape architects develop detailed design and construction documentation.

36. Site Analysis

Overview

Definition of Site Analysis

Site Analysis is the evaluation of a site's physical, environmental, historical, legal, infrastructural, and cultural attributes to inform project design and planning decisions.

Profession-Specific Definitions of Site Analysis

Architect

Site Analysis in architecture is the study and evaluation of various elements (such as location, size, topography, zoning, traffic, and climate) to assess its suitability and optimal location for the project.

Engineer (Civil, Construction, Environmental, and Geotechnical)

Site Analysis in engineering is the evaluation of topography, surface and subsurface soil conditions, hydrology, on/off-site hydraulics, and environmental conditions as well as all anthropogenic features, land-use guidelines, existing and proposed infrastructure, and economics to guide site design decisions.

Landscape Architect

Site Analysis in landscape architecture is the evaluation of topography, soil conditions, climate, vegetation, hydrology, and ecological systems, as well as human-made features, land-use patterns, infrastructure, and economic impacts in order to inform design decisions, ensuring that the site's opportunities and constraints are fully considered and that the landscape design responds effectively to both the natural environment and user needs.

Surveyor

Site Analysis in surveying is the evaluation of topography, surface and subsurface soil conditions, hydrology, on/off-site hydraulics, and environmental conditions as well as all anthropogenic features, land-use guidelines, existing and proposed infrastructure, and economics to guide site design decisions.

Summary of Overlap and Boundaries

Acceptable Overlap

Acceptable overlap includes evaluating environmental, structural, and contextual factors to assess functionality, sustainability, and design feasibility, ensuring that projects align with site conditions, user needs, and regulatory requirements.

Practice Boundaries

Architect

- Responsible for the analysis of the physical site to inform site design.

Engineer (Civil, Construction, Environmental, and Geotechnical)

- Responsible for subsurface analysis and investigation, environmental assessment, drainage, and offsite regional hydraulics.

Landscape Architect

- Responsible for site analysis on land-use patterns and biological and botanical aspects.

Surveyor

- Perform site analysis associated with boundaries.

Overlap and Boundaries

Architect & Civil, Construction, Environmental, and Geotechnical Engineer

Role of Architect	Architects are responsible for the analysis of the physical site to inform site design.
Overlap	Architects and civil, construction, environmental, and geotechnical engineers evaluate environmental, structural, and contextual factors to assess functionality, sustainability, and design feasibility, ensuring that projects align with site conditions, user needs, and regulatory requirements.
Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil, construction, environmental, and geotechnical engineers are responsible for subsurface analysis and investigation, environmental assessment, and drainage.

Architect & Landscape Architect

Role of Architect	There is no scope distinction for architects in this area.
Overlap	Architects and landscape architects evaluate environmental, structural, and contextual factors to assess functionality, sustainability, and design feasibility, ensuring that projects align with site conditions, user needs, and regulatory requirements.
Role of Landscape Architect	Landscape architects are responsible for site analysis on land-use patterns, economic impacts, and biological and botanical aspects.

Architect & Surveyor

Role of Architect	Architects are responsible for the analysis of the physical site to inform site design.
Overlap	Architects and surveyors evaluate environmental, structural, and contextual factors to assess functionality, sustainability, and design feasibility, ensuring that projects align with site conditions, user needs, and regulatory requirements.
Role of Surveyor	Surveyors perform site analysis associated with boundaries.

Civil, Construction, Environmental, and Geotechnical Engineer & Landscape Architect

Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil, construction, environmental, and geotechnical engineers are responsible for subsurface analysis and investigation, environmental assessment, and offsite regional hydraulics.
Overlap	Civil, construction, environmental, and geotechnical engineers and landscape architects evaluate environmental, structural, and contextual factors to assess functionality, sustainability, and design feasibility, ensuring that projects align with site conditions, user needs, and regulatory requirements.
Role of Landscape Architect	Landscape architects are responsible for site analysis on land-use patterns and biological and botanical aspects.

Civil, Construction, Environmental, and Geotechnical Engineer & Surveyor

Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil, construction, environmental, and geotechnical engineers are responsible for subsurface analysis and investigation, environmental assessment, and offsite regional hydraulics.
Overlap	Civil, construction, environmental, and geotechnical engineers and surveyors evaluate environmental, structural, and contextual factors to assess functionality, sustainability, and design feasibility, ensuring that projects align with site conditions, user needs, and regulatory requirements.
Role of Surveyor	Surveyors perform site analysis associated with boundaries.

Landscape Architect & Surveyor

Role of Landscape Architect	Landscape architects are responsible for site analysis on land-use patterns, site infrastructure, economic impacts, and biological and botanical aspects.
Overlap	Landscape architects and surveyors evaluate environmental, structural, and contextual factors to assess functionality, sustainability, and design feasibility, ensuring that projects align with site conditions, user needs, and regulatory requirements.
Role of Surveyor	Surveyors perform site analysis associated with boundaries.

37. Site Design

Overview

Definition of Site Design

Site Design is the analysis and understanding of the natural and built context of a site, including topography, climate, and ecological systems.

Profession-Specific Definitions of Site Design

Architect

Site Design in architecture is the design of—whether in whole or in part—the site around buildings that protects the public health, safety, and welfare. Architects provide planning services, develop concepts, and prepare documents that define the form and function of the site.

Engineer (Civil, Construction, Environmental, and Geotechnical Engineer)

Site Design in engineering is the process of providing planning, studies, designs, design coordination, drawings, specifications, and other technical submissions; performing surveying that is incidental to the practice of engineering; and reviewing construction or other design products for the purposes of monitoring compliance with drawings and specifications related to engineered works.

Landscape Architect

Site Design in landscape architecture is the analysis and understanding of the natural and built context of a site, including topography, climate, and ecological systems, as well as the client's objectives, for the purpose of developing sustainable and innovative design solutions. This encompasses site planning, spatial organization, circulation systems, grading, stormwater management, biological and botanical systems, and the integration of hardscape elements. Landscape architects evaluate and shape the site to harmonize with the environment, ensuring sustainable, resilient, and purposeful outdoor spaces that address drainage, erosion control, and visual appeal while considering cultural significance and human-use patterns.

Surveyor

Site Design in surveying is the making of geometric measurements and gathering related information pertaining to the physical or legal features of the earth, improvements on the earth, and the space above, on, or below the earth. Site design in surveying is a specialized practice area that involves the application of surveying principles and techniques to support the planning, layout, and design of land development projects.

Summary of Overlap and Boundaries

Acceptable Overlap

Acceptable overlap includes engaging in conceptual site design and collaborating closely throughout the design process.

Practice Boundaries

Architect

- Create conceptual site designs.

Engineer (Civil, Construction, Environmental, and Geotechnical Engineer)

- Coordinate and engage in site design to create an interpretation of maps, drawings, and other land title documents to resolve data conflicts or develop products such as design plans, reports, descriptions, or projects, as well as design utility main conveyance systems, grading and drainage, site utilities, stormwater management, and structural elements requiring the seal of an engineer per IBC or local jurisdictional requirements.

Landscape Architect

- Perform field surveying not tied to a boundary or national datum.
- Prepare designs related to site-specific grading, drainage and stormwater management systems, site layout, erosion control systems, water quality, utility service locations, paving systems, botanical and biological systems, irrigation systems, ADA accessibility, low retaining walls (< 4 feet per IBC or local jurisdictional requirements), and non-habitable structures.

Surveyor

- Engage in site design to create an authoritative interpretation of maps, deeds, and other land title documents to resolve data conflicts by gathering national datum-tied information pertaining to the physical or legal features of the earth, improvements on the earth, and the space above, on, or below the earth.

Overlap and Boundaries

Architect & Civil, Construction, Environmental, and Geotechnical Engineer

Role of Architect	There is no scope distinction for architects in this area.
Overlap	Architects and civil, construction, environmental, and geotechnical engineers engage in conceptual site design and collaborate closely throughout the design process.
Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil, construction, environmental, and geotechnical engineers design and implement site design plans, including grading and drainage, site utilities, and stormwater management.

Architect & Landscape Architect

Role of Architect	There is no scope distinction for architects in this area.
Overlap	Architects and landscape architects engage in conceptual site design and collaborate closely throughout the design process.
Role of Landscape Architect	Landscape architects create specific site design elements, including but not limited to site layout, grading, stormwater detention, water quality, utility service locations, and landscape and irrigation plans.

Architect & Surveyor

Role of Architect	There is no scope distinction for architects in this area.
Overlap	Architects and surveyors engage in conceptual site design and collaborate closely throughout the design process.
Role of Surveyor	Surveyors provide legal documentation tied to a boundary or national datum.

Civil, Construction, Environmental, and Geotechnical Engineer & Landscape Architect

Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil, construction, environmental, and geotechnical engineers perform site design, develop utility main conveyance systems, and design structural elements requiring the seal of an engineer per IBC or local jurisdictional requirements.
Overlap	Civil, construction, environmental, and geotechnical engineers and landscape architects coordinate and engage in conceptual and detailed site design. Both professions prepare designs related to site-specific grading, drainage and stormwater management systems, erosion control systems, paving systems, irrigation systems, ADA accessibility, low retaining walls (< 4 feet per IBC or local jurisdictional requirements), and non-habitable structures.
Role of Landscape Architect	Landscape architects perform detailed site design, including botanical and biological systems.

Civil, Construction, Environmental, and Geotechnical Engineer & Surveyor

Role of Civil, Construction, Environmental, and Geotechnical Engineer	There is no scope distinction for civil, construction, environmental, and geotechnical engineers in this area.
Overlap	Civil, construction, environmental, and geotechnical engineers and surveyors coordinate and engage in site design to create an interpretation of maps, drawings, and other land title documents to resolve data conflicts or develop products such as design plans, reports, descriptions, or projects.
Role of Surveyor	Surveyors engage in site design to create an authoritative interpretation of maps, deeds, and other land title documents to resolve data conflicts by gathering national datum-tied information pertaining to the physical or legal features of the earth, improvements on the earth, and the space above, on, or below the earth. The authoritative interpretation is then developed into survey products to provide guidance for site design projects.

Landscape Architect & Surveyor

Role of Landscape Architect	Landscape architects perform detailed site design.
Overlap	Landscape architects and surveyors coordinate in the site design process. Both professions are permitted to complete field surveying (topography, improvement locations, etc.) not tied to a boundary or national datum.
Role of Surveyor	Surveyors provide legal documentation tied to a boundary or national datum.

38. Site Environmental Systems

Overview

Definition of Site Environmental Systems

Site Environmental Systems are the interconnected, dynamic, and complex natural processes and elements that shape the environment of a specific site or region through its ecosystems, hydrology, soil, geology, vegetation, climate, sustainable practices, and ecosystem services.

Profession-Specific Definitions of Site Environmental Systems

Architect

Site Environmental Systems in architecture include drainage, water retainage, erosion control, and landscaping. Architects oversee the integration of site environmental systems on the exterior of the building and determine design parameters.

Engineer (Architectural/Structural and Civil, Construction, Environmental, and Geotechnical)

Site Environmental Systems in engineering include environmental control systems that involve and affect the natural environment, such as air and water quality, waste management, and sustainable energy systems. Engineers oversee the integration of site systems in the project design and determine design parameters.

Landscape Architect

Site Environmental Systems in landscape architecture include, but are not limited to ecosystems, hydrology, soil, geology, climate, biological and botanical systems, and sustainable practices. Landscape architects study and work with these systems to design outdoor spaces that are ecologically sustainable, resilient, safe and in harmony with the surrounding environment while also aesthetically pleasing.

Summary of Overlap and Boundaries

Acceptable Overlap

Acceptable overlap includes conceptual design of site environmental systems and collaboration between professions throughout the design process.

Practice Boundaries

Architect

- Engage in conceptual design of exterior environmental systems.

Engineer

- Architectural/structural engineers analyze exterior environmental systems and provide detailed design of the natural systems (e.g., stormwater system design, tributary path analysis, soil analysis, and retaining wall construction) and habitable structures that impact the exterior environment.
- Civil, construction, environmental, and geotechnical engineers perform detailed analysis and provide functional and developmental designs of natural systems of site-specific and regional sites (e.g. soil management, hydrology analysis to regional sites, and hydraulics and runoff analysis) that shape the exterior environment.

Landscape Architect

- Design exterior environmental systems including the detailed design of the natural systems (e.g., erosion control, creating habitat, bioretention, water quality and conservation, contouring, carbon sequestration, and biological and botanical systems) and structures not requiring occupancy permitting that impact the exterior environment.

Overlap and Boundaries

Architect & Architectural/Structural Engineer

Role of Architect	Architects engage in the conceptual design of exterior environmental systems.
Overlap	Architects and architectural/structural engineers coordinate and integrate engineering systems and components in the conceptual design of site environmental systems, which include foundation drains or hydrology on retaining walls.
Role of Architectural/ Structural Engineer	Architectural/structural engineers analyze exterior environmental systems and provide detailed design of the natural systems (e.g., stormwater system design, tributary path analysis, soil analysis, and retaining wall construction) and habitable structures that impact the exterior environment.

Architect & Civil, Construction, Environmental, and Geotechnical Engineer

Role of Architect	Architects engage in conceptual design of exterior environmental systems.
Overlap	Architects and civil, construction, environmental, and geotechnical engineers coordinate and integrate engineering systems and components in the conceptual design of site environmental systems.
Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil, construction, environmental, and geotechnical engineers perform detailed functional and developmental analysis of site-specific and regional site natural systems (e.g., soil management, hydrology analysis to regional sites, and hydraulics and runoff analysis) that shape the exterior environment.

Architect & Landscape Architect

Role of Architect	Architects engage in conceptual design of exterior environmental systems.
Overlap	Architects and landscape architects engage in the conceptual design of site environmental systems and collaborate throughout the design process.
Role of Landscape Architect	Landscape architects perform detailed design of exterior environmental systems including ecosystems, hydrology, soil, geology, climate, biological and botanical systems, and sustainable practices.

Architectural/Structural Engineer & Civil, Construction, Environmental, and Geotechnical Engineer

Role of Architectural/ Structural Engineer	Architectural/structural engineers analyze exterior environmental systems and provide detailed design of the natural systems (e.g., stormwater system design, tributary path analysis, soil analysis, and retaining wall construction) and habitable structures that impact the exterior environment.
Overlap	Architectural/structural engineers and civil, construction, environmental, and geotechnical engineers coordinate and integrate engineering systems and components in the conceptual design of site environmental systems.
Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil, construction, environmental, and geotechnical engineers perform detailed analysis and provide functional and developmental designs of site-specific and regional site natural systems (e.g., soil management, hydrology analysis to regional sites, and hydraulics and runoff analysis) that shape the exterior environment.

Architectural/Structural Engineer & Landscape Architect

Role of Architectural/ Structural Engineer	Architectural/structural engineers analyze exterior environmental systems and provide detailed design of the natural systems (e.g., stormwater system design, tributary path analysis, soil analysis, and retaining wall construction) and habitable structures that impact the exterior environment.
Overlap	Architectural/structure engineers and landscape architects engage in conceptual design of site environmental systems and collaborate throughout the design process.
Role of Landscape Architect	Landscape architects design exterior environmental systems including the detailed design of the natural systems (e.g., erosion control, creating habitat, bioretention, water quality and conservation, contouring, carbon sequestration, and biological and botanical systems) and non-habitable structures that impact the exterior environment.

Civil, Construction, Environmental, and Geotechnical Engineer & Landscape Architect

Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil, construction, environmental, and geotechnical engineers perform detailed analysis and provide functional and developmental designs of site-specific and regional site natural systems (e.g., soil management, hydrology analysis to regional sites, and hydraulics and runoff analysis) that shape the exterior environment.
Overlap	Civil, construction, environmental, and geotechnical engineers and landscape architects engage in the conceptual design of site environmental systems and collaborate throughout the design process. Both professions engage in hydrological, soil, and sustainable system analysis and design.
Role of Landscape Architect	Landscape architects perform detailed design of natural systems of a site (e.g., erosion control, creating habitat, bioretention, water quality and conservation, contouring, carbon sequestration, and biological and botanical systems) that shape the exterior environment.

39. Site Remediation

Overview

Definition of Site Remediation

Site Remediation is the detection, investigation, and hazard assessment of suspected contamination within a site, as well as the steps taken to reduce negative impact on people or the environment and prepare the surface and subsurface environment for its next use.

Profession-Specific Definitions of Site Remediation

Architect

Site Remediation in architecture is the detection, investigation, and hazard assessment of suspected contaminated sites, as well as the reversal of harmful changes in the soil, elimination of site pollution, and performance of any additional follow-up measures.

Engineer (Civil, Construction, Environmental, and Geotechnical)

Site Remediation in engineering is the detection, investigation, and hazard assessment of suspected contaminated sites, as well as the reversal of harmful changes in the soil, elimination of site pollution, and performance of any additional follow-up measures.

Landscape Architect

Site Remediation in landscape architecture is the restoration or enhancement of ecological integrity in degraded or contaminated sites. This includes assessing various factors such as ecology, vegetation, soil, and hydrology, as well as implementing strategies to mitigate environmental damage and promote sustainability. Remediation aims to rejuvenate biological and botanical systems, foster biodiversity, and improve overall ecological health.

Summary of Overlap and Boundaries

Acceptable Overlap

Acceptable overlap includes coordinating site remediation approaches.

Practice Boundaries

Architect

- Coordinate site remediation and select building location and materials based on site conditions.

Engineer (Civil, Construction, Environmental, and Geotechnical)

- Define the scope of remediation to prepare the surface and subsurface environmental conditions of a site for its next use.
- Evaluate site soil chemistry conditions with respect to mitigation or remediation of environmental hazards.

Landscape Architect

- Define the scope of remediation of surface and subsurface environmental conditions—including land remediation, slope stabilization, habitat restoration, and biological and botanical systems of a site—to prepare it for its next use.

Overlap and Boundaries

Architect & Civil, Construction, Environmental, and Geotechnical Engineer

Role of Architect	Architects coordinate site remediation and select building location and materials based on site conditions.
Overlap	Architects and civil, construction, environmental, and geotechnical engineers coordinate site remediation approaches.
Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil, construction, environmental, and geotechnical engineers define the scope of remediation to prepare the surface and subsurface environmental conditions of a site for its next use.

Architect & Landscape Architect

Role of Architect	Architects coordinate site remediation and select building location and materials based on site conditions.
Overlap	Architects and landscape architects coordinate site remediation approaches.
Role of Landscape Architect	Landscape architects define the scope of remediation of surface and subsurface environmental conditions—including land remediation, slope stabilization, habitat restoration, and biological and botanical systems of a site—to prepare it for its next use.

Civil, Construction, Environmental, and Geotechnical Engineer & Landscape Architect

Role of Civil, Construction, Environmental, and Geotechnical Engineer	Environmental engineers evaluate site soil chemistry conditions with respect to mitigation or remediation of environmental hazards.
Overlap	Civil, construction, environmental, and geotechnical engineers and landscape architects define the scope of remediation of surface and subsurface environmental conditions, including land remediation, slope stabilization, habitat restoration, and biological systems of a site to prepare it for its next use.
Role of Landscape Architect	Landscape architects define the scope of remediation as it relates to the botanical systems of a site to prepare it for its next use.

40. Structural Systems

Overview

Definition of Structural Systems

Structural Systems are the elements of a building that safely support and transmit loads through the application of engineering principles. Practitioners assess, analyze, evaluate, and design structural elements to ensure their safety, stability, and durability.

Profession-Specific Definitions of Structural Systems

Architect

Structural Systems in architecture are the elements of a building that safely support and transmit loads through the application of engineering principles. Architects integrate structural systems into architectural designs and incorporate them into project documentation to achieve cohesive building designs. This includes incorporating consultants' technical and design specifications, selecting structural systems that align with project requirements, and complying with regulatory standards.

Engineer (Architectural/Structural)

Structural Systems in structural engineering are the elements of a building that safely support and transmit loads through the application of engineering principles. Structural engineers analyze, assess, and design structural systems for building structures by integrating and coordinating technical information to comply with regulatory standards. This includes evaluating and selecting structural systems that align with project requirements, integrating structural systems with architectural designs, and incorporating them into project documentation to achieve cohesive building designs.

In certain jurisdictions, licensed Structural Engineers (SE) may be required for structural systems.

Engineer (Civil, Construction, Environmental, and Geotechnical)

Structural Systems in civil, construction, environmental, and geotechnical engineering are the elements of a building or site that safely support and transmit loads through the application of engineering principles. Civil, construction, environmental, and geotechnical engineers analyze, assess, and design structural systems for vertical and horizontal construction by integrating and coordinating technical information to comply with regulatory standards. This includes evaluating and selecting structural systems that align with project requirements, integrating structural systems with architectural and engineering designs, and incorporating them into project documentation to achieve cohesive building designs.

Landscape Architect

Structural Systems in landscape architecture are the elements of a site and/or structure that safely support and transmit loads through the application of engineering principles. Landscape architects analyze, design, and assess natural and built structural systems to support soil stabilization and hardscape features to ensure safety, stability, and durability within the landscape.

Summary of Overlap and Boundaries

Acceptable Overlap

Acceptable overlap includes conceptual design of structural systems within the scope of their discipline in relation to the building and/or site.

Practice Boundaries

Architect

- Design specific structural elements based on a project's International Building Code use group and occupancy load.
- Design habitable structures.
- Perform conceptual design and coordinate hardscape systems and non-habitable structures.

Engineer

- Architectural/structural engineers design all elements of structural systems for vertical construction; work with structures requiring permitting (per applicable code or jurisdictional regulations) and habitable structures; and engage in conceptual design and coordinate hardscape systems, including soil stabilization and erosion control. Structures that fall outside of the prescriptive limitations may require local jurisdiction guidance.
- Civil, construction, environmental, and geotechnical engineers design structural elements for horizontal and vertical construction; work with structures requiring permitting (per applicable code or jurisdictional regulations) and habitable structures; and engage in conceptual design and coordinate hardscape systems, including soil stabilization and erosion control. Structures that fall outside of the prescriptive limitations may require local jurisdiction guidance.

Landscape Architect

- Perform revegetation (botanical and biological systems) for soil/streambank stabilization and retaining walls under four feet.
- Perform conceptual design and coordinate hardscape systems and non-habitable structures, including soil stabilization and erosion control.

Overlap and Boundaries

Architect & Architectural/Structural Engineer

Role of Architect	Architects design specific structural elements based on a project's International Building Code use group and occupancy load. Structures that fall outside of the prescriptive limitations, as determined by local jurisdictions, require an engineer.
Overlap	Architects and architectural/structural engineers both develop conceptual designs of structural systems for buildings.
Role of Architectural/ Structural Engineer	Structural engineers design all elements of structural systems for vertical construction.

Architect & Civil, Construction, Environmental, and Geotechnical Engineer

Role of Architect	Architects can design specific structural elements based on a project or horizontal construction's International Building Code use group and occupancy load.
Overlap	Architects and civil, construction, environmental, and geotechnical engineers both develop conceptual designs of structural systems for buildings.
Role of Civil, Construction, Environmental, and Geotechnical Engineer	Structures that fall outside of the prescriptive limitations may require local jurisdiction guidance.

Architect & Landscape Architect

Role of Architect	Architects design habitable structures.
Overlap	Architects and landscape architects both perform conceptual design and coordinate hardscape systems and non-habitable structures.
Role of Landscape Architect	Landscape architects perform revegetation (botanical and biological systems) for soil/ streambank stabilization.

Architectural/Structural Engineer & Civil, Construction, Environmental, and Geotechnical Engineer

Role of Architectural/ Structural Engineer	There is no scope distinction for architectural/structural engineers in this area.
Overlap	Structural engineers and civil, construction, environmental, and geotechnical engineers both design and specify complete structural systems for vertical construction.
Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil, construction, environmental, and geotechnical engineers design structural elements for horizontal construction.

Architectural/Structural Engineer & Landscape Architect

Role of Architectural/ Structural Engineer	Architectural/structural engineers work with structures requiring permitting (per applicable code or jurisdictional regulations) and habitable structures.
Overlap	Architectural/structural engineers and landscape architects both engage in conceptual design and coordinate hardscape systems, including soil stabilization and erosion control. These may include patios, walkways, and non-habitable structures not requiring occupancy permits, as defined by the code or applicable local regulations.
Role of Landscape Architect	Landscape architects perform revegetation (botanical and biological systems) for soil/ streambank stabilization and retaining walls under four feet.

Civil, Construction, Environmental, and Geotechnical Engineer & Landscape Architect

Role of Civil, Construction, Environmental, and Geotechnical Engineer	Civil, construction, environmental, and geotechnical engineers work with structures requiring permitting (per applicable code or jurisdictional regulations) and habitable structures.
Overlap	Civil, construction, environmental, and geotechnical engineers and landscape architects both engage in conceptual design and coordinate hardscape systems, including soil stabilization and erosion control. These may include patios, walkways, and non-habitable structures not requiring occupancy permits, as defined by the code or applicable local regulations.
Role of Landscape Architect	Landscape architects perform revegetation (botanical and biological systems) for soil/streambank stabilization and retaining walls under four feet.

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