

Alaska State Board of Registration for Architects, Engineers, and Land Surveyors

# GUIDANCE MANUAL

*on laws governing architecture, engineering, land surveying, &  
landscape architecture*

February 2024 Edition

## MISSION

To protect the public health, safety, and welfare through the regulation of the practice of architecture, engineering, land surveying, and landscape architecture by:

- Ensuring that those entering these professions in this state meet minimum standards of competency, and maintain such standards during their practice; and
- Enforcing the licensure and competency requirements in a fair and uniform manner.

This manual is updated periodically. The most recent version is available on the AEELS website: [ProfessionalLicense.Alaska.gov/BoardofArchitectsEngineersLandSurveyors.aspx](https://ProfessionalLicense.Alaska.gov/BoardofArchitectsEngineersLandSurveyors.aspx)

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## PURPOSE

Published by the Alaska State Board of Registration for Architects, Engineers, and Land Surveyors (AELS), the intent of this guidance manual is to provide aid to those seeking to understand the laws that govern architecture, engineering, land surveying, and landscape architecture. The intended audiences of this publication include government, building, planning, and public officials as well as architects, engineers, land surveyors, and landscape architects.

The Alaska Statutes, Regulations, Municipal Building and Zoning Codes, and Ordinances will take precedence over any conflict with information contained in this manual. Contact information for the AELS Board, State Fire Marshal's Office, and Offices of Building and Planning Officials is included in this document.

## INTRODUCTION

Professional registration laws (statutes) work together with regulations, building and zoning codes, and ordinances to protect the public's health, safety, and welfare. Jurisdictions and boards, such as the AELS Board, exist to protect the public from harm created by unprofessional practice. This harm may be in the form of unsafe structures, hazardous site conditions, dangerous road design, wasted public money, or other perilous conditions. Building officials promulgate and enforce building code requirements to protect public health and safety. Planning and public safety officials enforce similar regulations.

This Guidance Manual focuses on basic information concerning the practice of architecture, engineering, land surveying, and landscape architecture. Professionals in these disciplines must complete education criteria, satisfy training standards, and pass rigorous technical and practice examinations (Alaska Statute 08.48; AELS Regulation 12 AAC 36). The scope of the services provided is broad and diverse in the built environment. The public is protected through compliance with these laws and enforcement by Alaska State Registration Officials.

Architects, engineers, land surveyors, and landscape architects are charged with safeguarding the public's health, safety, and welfare through execution of their professional responsibilities and duties. This Guidance Manual addresses professional activities found within the Alaska Statute as well as recommended minimum practices and AELS Board policies. Information found within this manual aims to address frequently asked questions without modification to any statutory requirements.

Architects, engineers, land surveyors, and landscape architects are advised to contact local building, planning, and public safety officials with regard to specific site and building regulations, ordinances, codes, permits, and to address requirements that may vary between jurisdictions.

## DEFINITIONS

### HEALTH, SAFETY, AND WELFARE

The protection and well-being of the general public.

**Health:** Aspects of professional practice that improve the physical, emotional, and social well-being of occupants, users, and any others affected by buildings, infrastructures, and sites.

**Safety:** Aspects of professional practice that protect occupants, users, and any others affected by buildings, infrastructures, or sites from harm.

**Welfare:** Aspects of professional practice that enable equitable access, elevate human experience, encourage social interaction, develop the wise use of resources, and benefit the built and natural environments

### PRACTICE

Practice includes consultation, evaluation, planning, design, the preparation and filing of plans, drawings, specifications, and other contract documents, the administration of contracts pertaining to projects principally directed at the safe functional and aesthetic use, and the conservation and integration of natural and built environments.

For this section, the definition of design is referenced in 12AAC 36.990 (5). Planning and design mean the consideration and application of technical and/or aesthetic principles to provide solutions to a problem or project.

AS 08.48.341 defines architecture, engineering, land surveying and landscape architecture as follows:

(12) “practice of architecture” means professional service or creative work in the design of buildings, the teaching of advanced architectural courses in institutions of higher learning, consultation, investigation, evaluation, planning, design, and professional observation of construction of public or private buildings, works, or projects, and architectural review of drawings and specifications by regulatory agencies; “practice of architecture” may by regulation of the board include mechanical, electrical, or structural design of minor importance;

(13) “practice of engineering” means professional service or creative work, the adequate performance of which requires the specialized knowledge of applied mathematics and sciences, dealing with the design of structures, machines, equipment, utilities systems, materials, processes, works, or projects, public or private; the teaching of advanced engineering courses in institutions of higher learning; the direction of or the performance of engineering surveys, consultation, investigation, evaluation, planning, and professional observation of construction of public and private structures, works, or projects and engineering review of drawings and specifications by regulatory agencies; “practice of engineering” may by regulation of the board include architectural building design of minor importance, but it does not include comprehensive architectural services;

(14) “practice of land surveying” means the teaching of land surveying courses at an institution of higher learning, or any service or work the adequate performance of which involves the application of special knowledge of the principles of mathematics, the related physical and applied sciences, and the relevant

requirements of law for adequate evidence of the act of measuring and locating land, geodetic and cadastral surveys for the location and monumentation of property boundaries, for the platting and planning of land and subdivisions of land, including the topography, alignment, and grades for streets, and for the preparation and perpetuation of maps, record plats, field note records and property descriptions that represent these surveys; (see *Common Services Provided* section for additional information)

(15) “practice of landscape architecture” means professional services or creative work in site investigation, reconnaissance, research, planning, design, and preparation services related to drawings and construction documents, observation of construction, and location, arrangement, and design of incidental and necessary tangible objects and features for the purpose of

(A) preservation and enhancement of land uses and natural land features;

(B) location and construction of aesthetically pleasing and functional approaches for structures, roadways, and walkways;

(C) establishing or maintaining trails, plantings, landscape irrigation, landscape lighting, and landscape grading; or

(D) generalized planning of the development of land areas in a manner that is sensitive to the area’s natural and cultural resources.

## RESPONSIBLE CHARGE EXPERIENCE

*(As used in 12AAC 36.010, .063, .065, .068, .105, .107, and .109)*

This means delivering or managing work that often requires application of technical principles, resourcefulness, and originality. This may include investigations, surveys, calculations, reports, drawings, designs, specifications, construction observation, and submittal reviews; documentation, fieldwork, and directing support services; interacting with and managing team members; code and permit compliance; and public involvement. The professional-in-training may encounter project challenges, changed conditions, questions about suitability of materials, execution of field services, and resolution of human resource and other issues that may require unique and somewhat independent decision-making. The required minimum progressive professional experience is to prepare an applicant for taking "responsible charge" as a professional architect, engineer, land surveyor, or landscape architect.

For additional guidance on how a reviewing professional may review an applicant’s progressively developing responsible charge experience, a useful resource is Appendix A in NCEES Model Rules, Suggested Guidelines for Evaluating Progressive Engineering Experience, August 2023.

## 12 AAC 36.069. Standards for Registration as a Landscape Architect

In accordance with AS 08.48.331(b), and except as exempted in AS 08.48.331(a), design or creative work involving any of the following constitutes the practice of an aspect of landscape architecture that affects the public health or safety and thus requires registration as a landscape architect:

(1) grading, clearing, or shaping of land;

(2) landscape irrigation;

(3) outdoor planting plans;

- (4) outdoor play apparatus;
- (5) outdoor structures.

In regards to “outdoor play apparatus,” per AS 08.48.281, another design professional may practice landscape architecture if the services being performed by the person are within the scope of practice authorized by another license that is held by the person, and it is within the registrant’s area of expertise. Historically, architects and civil engineers prepared site plans, including sites that contain playground equipment, and may design playgrounds. Regardless of whether the designer is an architect, civil engineer, or landscape architect, he or she should have the education and experience with playgrounds to be qualified to design them.



## EXEMPTIONS

Unless specifically exempt under AS 08.48.331 all projects (public, commercial and private) that require the involvement of architects, engineers, land surveyors and landscape architects, must utilize Alaska registered professionals in positions of responsible charge<sup>1</sup>.

The State of Alaska exempts the following activities from the licensing regulations under AS 08.48.331, which reads:

### Sec. 08.48.331. Exemptions

(a) This chapter does not apply to:

- (1) a contractor performing work designed by a professional architect, engineer, or landscape architect or the supervision of the construction of the work as a supervisor or superintendent for a contractor;
- (2) workers in building trades crafts, earthwork, groundskeeping, or nursery operations, and superintendents, supervisors, or inspectors in the performance of their customary duties;
- (3) an officer or employee of the United States government practicing architecture, engineering, land surveying, or landscape architecture as required by the person's official capacity;
- (4) an employee or a subordinate of a person registered under this chapter if the work or service is done under the direct supervision of a person registered under this chapter;
- (5) associates, consultants, or specialists retained by a registered individual, a partnership of registered individuals, a corporation, a limited liability company, or a limited liability partnership authorized to practice architecture, engineering, land surveying, or landscape architecture under this chapter, in the performance of professional services if responsible charge of the work remains with the individual, the partnership, or a designated representative of the corporation, limited liability company, or limited liability partnership;
- (6) a person preparing drawings or specifications for
  - (A) a building for the person's own use and occupancy as a single family residence and related site work for that building;
  - (B) farm or ranch buildings and their grounds unless the public health, safety, or welfare is involved;
  - (C) a building that is intended to be used only as a residence by not more than:
    - (i) four families and that is not more than two stories high and the grounds of the building; or

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<sup>1</sup> "Responsible charge" means the direct control and personal supervision of work (per AS 08.48.341(20)).

- (ii) two families and that is not more than three stories high and the grounds of the building, if the building complies with any applicable building or residential code adopted by a municipality where the building is located;
- (D) a garage, workshop, or similar building that contains less than 2,000 square feet of floor space to be used for a private noncommercial purpose and the grounds of the building;
- (7) a specialty contractor licensed under AS 08.18 while engaged in the business of construction contracting for work within the specialty to be performed or supervised by the specialty contractor, or a contractor preparing shop or field drawings for work that the specialty contractor has contracted to perform;
- (8) a person furnishing drawings, specifications, instruments of services, or other data for alterations or repairs to a building or its grounds that do not change or affect the structural system or the safety of the building, or that do not affect the public health, safety, or welfare;
- (9) a person who is employed by a postsecondary educational institution to teach engineering, architectural, or landscape architectural courses; in this paragraph, “postsecondary educational institution” has the meaning given in AS 14.48.210;
- (10) an officer or employee of an individual, firm, partnership, association, utility, corporation, limited liability company, or limited liability partnership, who practices engineering involved in the operation of the employer’s business only, and further provided that neither the employee nor the employer offers engineering services to the public; exclusions under this paragraph do not apply to buildings or structures whose primary use is public occupancy;
- (11) a person while involved in revegetation, restoration, reclamation, rehabilitation, or erosion control for disturbed land;
- (12) a person while maintaining or directing the placement of plant material;
- (13) an employee, officer, or agent of a regulatory agency of the state or a municipality when reviewing drawings and specifications for compliance with the building codes of the state or a municipality if the drawings and specifications have been signed and sealed by a professional architect or professional engineer or the preparation of the drawings and specifications is exempt under this section from the requirements of this chapter; in this paragraph, “building codes” includes codes relating to building, mechanical, plumbing, electrical, and fire standards.
- (b) The requirement to be registered as a landscape architect under this chapter only applies to a person who practices an aspect of landscape architecture that the Board has determined affects the public health or safety.

#### Additional Clarification on AS 08.48.331(a)(10) Industrial Exemption:

AS 08.48.331(a)(10) contains certain limitations and should not be interpreted as a blanket exemption. Unlicensed individuals, regardless of their employer, are not authorized to design buildings or other structures whose primary use is public occupancy, nor are they authorized to provide professional services to the public. Based on these limitations, qualified organizations may design, using their own employees (licensed or not), their general system; however, the connection from that system to another entity's property must be designed by an Alaska licensed professional, otherwise the designing organization would be providing engineering, architectural, land surveying, and/or landscape architectural services to the public.

Land surveys and legal descriptions that relate to property rights always require the use of licensed land surveyors. The industrial exemption (AS 08.48.331(a)(10) explained above does not apply to land surveys and legal descriptions because the location of easements and similar land rights<sup>2</sup> impacts the adjoining properties.

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<sup>2</sup> A common analogy compares a parcel's land rights as a bundle of sticks. Each stick representing a right of use that assigns one stick the right to occupy the property, a second stick the right to build a structure on the property, a third stick the right to landscape the property, and so forth. In this example and as commonly occurs, a public utility may have a utility easement which gives them two sticks that represent their rights to construct and maintain utility lines on or within that easement.

## COMMON SERVICES PROVIDED

The following descriptions reference general areas of responsibility for architects, engineers, land surveyors, and landscape architects. These descriptions are not all-inclusive and are intended to give general guidance that more fully defines the professional field of practice for each discipline.

### The Architect

General areas of responsibility for architects are based on the definition of the practice of architecture. A practicing architect is a person who has a valid registration issued by the state within which he or she intentionally assumes responsibility for providing professional services, including but not limited to safeguarding the health, safety and property and promoting the public's welfare for enhancement of both the natural and built environment. These enhancements shall be functional, aesthetically appropriate, sustainable, and cost effective. The result of the architect's professional service shall contribute to the physical, sociocultural, and emotional wellbeing of the public.



The following list provides examples of professional services that architects typically provide:

- Overall Project Management: design team coordination and interface with Owner and/or Contractor, construction management and inspection; project planning and programming; scheduling; cost estimating; application of federal, state, and local design standards.
- Site Layout: analysis of site options for purposes of site selection; analysis of specific site features for proposed development; land use laws; building layout impacts on the site.
- Building Codes and Fire Safety: occupancy groups and intended uses; types of construction; occupant loads; application of specific code requirements as they pertain to design features; barrier-free access; fire ratings and assemblies; product and material specifications; specialized functions and operations such as hazardous materials; abatement of hazardous materials.
- Building Circulation and Egress: corridors; travel distances; exits and exit widths; door systems; roof access; stairways, escalators, and elevator requirements; vestibules; signage.
- Space Planning: furniture and partition systems; built-in casework and fixtures; sound attenuation and transmission; detailed knowledge of building types (schools, hospitals, recreation facility, etc.) and specialized detailed knowledge of all spaces within that building type.
- Materials Selection: appropriate interior and exterior finish materials; wall and floor construction systems;

- Energy and Sustainability: building envelope systems and assemblies including insulation and vapor barriers; recycled materials; construction solid waste streams; coordination and integration of systems by other design professionals.

### The Engineer

In the State of Alaska, engineers may obtain a certificate of registration in any one or more of the following branches of engineering. The branches, listed below in alphabetical order, are identified by their two-letter abbreviations. Engineers shall enter their branch abbreviation within the seal on stamped documents below their signature and preceding their registrant number as stipulated in 12 AAC 36.180(b) SEAL:

AG – Agricultural

CE – Civil

EE – Electrical

FP – Fire Protection

ME – Mechanical

EM – Mining and Mineral Processing

NU – Nuclear

SE – Structural

EC – Chemical

CS – Control Systems

EV – Environmental

IN – Industrial

MM – Metallurgical and Materials

NM – Naval Architecture and Marine

EP – Petroleum

Examples for all disciplines except Structural:



Example for Structural:



12 AAC 36.205: A person who holds a current certificate of registration as an engineer in the State of Alaska may practice in that branch/those branches of engineering, as defined in 12 AAC 36.990(a), even if the engineering practice includes activities that are included in another branch of engineering defined in 12 AAC 36.990(a).

The following section includes further explanations of the general areas of responsibility for each of the above branches. The descriptions are not all-inclusive but intended to give general guidance on the Scope of Practice for the different branches of engineering.

### Definitions of Professional Engineering Branches (12 AAC 36.990(a))

**"agricultural engineering"** means the branch of professional engineering that embraces studies and activities related to facility engineering of plant, animal, and commodity environments and structures; machinery involving power, electrical and electronic machines, controls and sensors; natural resource engineering involving soil, water and plant systems; process engineering involving food, feed, fiber, fuel products; and the organizational and economic aspects of these studies and activities;

**"chemical engineering"** means the branch of professional engineering that embraces studies and activities relating to applied chemistry, both industrial and nonindustrial, concerned with chemical materials, their composition, locations, transportation, and storage; chemical and physical-chemical processes naturally occurring or artificially operated, their matter and energy changes, the conditions of temperature, concentration and media for those changes, including apparatus and analytical control; chemical products, their quality, quantity, applications, uses, and values; preparation of materials for public or industrial use, including water supply, waste abatement, and pollution control; and the organizational and economic aspects of these studies and activities;

**"civil engineering"** means the branch of professional engineering that embraces studies and activities relating to research, design, and construction of fixed works for irrigation, drainage, waterpower, water supply and treatment, flood control, inland waterways, harbors, municipal improvements, railroads, highways, tunnels, airports and airways, sewerage, refuse disposal, foundations, structures, and bridges, and the organizational and economic aspects of these studies and activities;

**"control systems engineering"** means the branch of professional engineering that embraces studies and activities relating to sensor technologies and measurement; signals and transmission, final control elements regarding valves, pressure relieving devices, and other final control elements, control systems analysis and implementation; and the organizational and economic aspects of these studies and activities;

**"electrical engineering"** means the branch of professional engineering that embraces studies and activities relating to generation, transmission and utilization of electrical energy, fire detection and alarm systems, control systems, electronic systems, and to telecommunications systems and facilities, including the design of electrical, electronic and magnetic circuits and components, and the technical

control of their operation and of the design of electrical, fire alarm gear, control, electronic and telecommunications gear, and the organizational and economic aspects of these studies and activities;

**"environmental engineering"** means the branch of professional engineering that embraces studies and activities relating to wastewater, storm water, potable water, and water resources; ambient air, emissions sources, and control strategies; solid, hazardous, and special waste; environmental assessments, remediation, and emergency response and applicable codes, standards, regulations, guidelines; and the organizational and economic aspects of these studies and activities<sup>3</sup>;

**"fire protection engineering"** means the branch of professional engineering that embraces studies and activities relating to fire protection analysis, fire protection management, fire science and human behavior, fire protection systems, fire building systems, and the organizational and economic aspects of these studies and activities;

For the purposes of AS 08.48.331(a)(14), "designing fire detection or suppression systems" includes those studies and activities related to the installation, maintenance, and inspection of those systems, including the direction of or the performance of fire protection systems surveys, consultation, investigation, evaluation, planning, and observations of construction and the organizational and economic aspects of those studies and activities.

**"industrial engineering"** means the branch of professional engineering that embraces studies and activities relating to facilities engineering and planning involving facility requirements, design alternatives, material handling techniques and equipment, systems analysis and design including processes, costing and performance measurement, logistics including production planning and control, distribution and storage and warehousing methods, methods to measure work, workstation design and analysis, and safety, quality engineering and control, and the organizational and economic aspects of these studies and activities;

**"mechanical engineering"** means the branch of professional engineering that embraces studies and activities relating to the generation, transmission and utilization of energy in the thermal and mechanical form; engineering issues relating to the production of tools, machinery and their products; mechanical processes, heating, air conditioning, refrigeration, product transport, fire and smoke suppression, and plumbing; and the research, design, production, operation, control, and the organizational and economic aspects of these studies and activities;

**"metallurgical and materials engineering"** means the branch of professional engineering that embraces studies and activities relating to the production of metals, metal objects, materials, testing procedures, metal processing, failure analysis procedures and the development of metal alloys, the research, design, construction, and development of devices and facilities of production, and the organizational and economic aspects of these studies and activities;

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<sup>3</sup> Hazardous building materials surveys and abatement work are conducted within the framework of OSHA and EPA. Those entities are the most appropriate to regulate the requirements.

**"mining and mineral processing engineering"** means the branch of professional engineering that embraces studies and activities relating to the exploration, location, and recovery of mineral commodities, and the research, design, construction, and development of structures, devices, and facilities of production, and the organizational and economic aspects related to these studies and activities;

**"naval architecture and marine engineering"** means the branch of professional engineering that embraces the studies and activities relating to the mechanics of rigid and deformable bodies, exterior loads on military, public, commercial or private vessels or marine facilities, structural designs, applications, and considerations, vibration considerations including local, vortex induced, flow induced, and global vibrations, intact and damaged hydrostatic stability, methods and procedures, dynamic stability in waves, hydrodynamics, wind and waves, hull forms and design, marine engineering involving thermodynamics, internal fluid flow, propulsion and power generators, machine design, HVAC/refrigeration and electrical systems, materials corrosion and corrosion control, navigation and vessel control, hull outfitting, weight engineering, shipbuilding and repair engineering, rules and regulations, human factors, and safety systems, and the organizational and economic aspects of these studies and activities;

**"nuclear engineering"** means the branch of professional engineering that embraces the studies and activities relating to nuclear power systems and science, nuclear components and systems, construction, operational regulations, emergency planning, licensing regulation, codes and standards, nuclear fuel and waste management, nuclear radiation, protection, radiation shielding, interaction of radiation with matter, nuclear criticality, kinetics, neutronics, and nuclear measurements and instruments, and the organizational and economic aspects of these studies and activities;

**"petroleum engineering"** means the branch of professional engineering that embraces studies or activities relating to the exploration, location, and recovery of natural fluid hydrocarbons, and the research, design, production, operations of devices, facilities of production, and the organizational and economic aspects of these studies and activities;

**"structural engineering"** means the branch of professional engineering that embraces the studies and activities relating to the investigation, evaluation, analysis, design and construction of buildings, bridges, and other structures such as walls, columns, slabs, beams, trusses, or similar members requiring force-resisting and load bearing members and their connections, or similar members used singly or as a part of a larger structure, and the organizational and economic aspects of these studies and activities.



## The Land Surveyor

The Alaska statutory definition of Land Surveying covers a broad range of activities performed in support of the platting and planning of land. Those activities generally include measurement, delineating, describing, locating, subdividing, and mapping the surface of the earth and improvements thereon.



The actual statute reads:

### AS Sec. 08.48.341

(7) “land surveyor” means a professional land surveyor;

(14) “practice of land surveying” means the teaching of land surveying courses at an institution of higher learning, or any service or work the adequate performance of which involves the application of special knowledge of the principles of mathematics, the related physical and applied sciences, and the relevant requirements of law for adequate evidence of the act of measuring and locating land, geodetic and cadastral surveys for the location and monumentation of property boundaries, for the platting and planning of land and subdivisions of land, including the topography, alignment, and grades for streets, and for the preparation and perpetuation of maps, record plats, field note records and property descriptions that represent these surveys;

While AS Sec. 08.48.341 (14) attempts to define land surveying activities in an inclusive and durable manner, the AEELS board recognizes many of the regulated activities are highly complex and that the effects of these activities may not become apparent until years later.

The language does not address technology, accuracy, or generated products, however when performed in support of the platting or planning of land the following sample activities fall under the practice of land surveying per AS 08.48.341 (*note that this is NOT a complete list of covered activities*):

- Performing topographic surveys – performed using photogrammetry, LiDAR, Structure from Motion (SfM), Global Navigation Satellite System (GNSS –which includes GPS), total station, sonar, or any other measurement method
- Making topographic maps or contour maps or existing ground surfaces –digital or printed.

- Performing volumetric surveys – surveys used to determine volumes regardless of the measurement method (see topographic surveys)
- Mortgage/as-built surveys – these show the relationship between improvements and property boundaries
- Using a drone (UAV/UAS) to take photos used to produce maps or other data products for the platting or planning of land
- Taking photos to produce maps or other data products (regardless of where the camera is mounted) for the platting or planning of land
- Collecting scan data (LiDAR) of land or improvements regardless of where the scanner is mounted for the platting or planning of land
- Performing hydrographic surveys – measurements to determine the location of the land or improvements under the water;
- Preparing Site Plans - these may also include information that falls under the practice of engineering, where the site plan shows both boundaries or control and civil design, the sheet must be sealed by both the land surveyor and engineer in responsible charge for their respective work
- Preparing Survey Control Sheets – maps showing survey control to be used to place improvements
- Publishing GIS webpages showing property lines overlaid on an aerial image
- Establishing the elevation of a building
- Producing elevation information for a Federal Emergency Management Agency (FEMA) Elevation certificate.
- Writing a metes and bounds legal description
- Preparing a map showing easements or property boundaries
- Preparing a map/plan showing the proposed improvements (limits of excavation, luminaires, storm drain improvements, etc.) and the property/right-of-way lines, where a plan shows both boundaries or control and civil design, the sheet must be sealed by both the land surveyor and engineer in responsible charge for their respective work
- Determining right-of-way impacts for proposed improvements
- Creating parcel maps/exhibits for the acquisition of land
- Creating a shore fisheries plat
- Locating the position of wetland limits (as marked by a wetlands scientist or other qualified professional)
- Using a GNSS/GPS device to control the operation of grading machinery
- Developing machine control models for land development (buildings, parking lots, roads, etc.)

The following activities fall under the definition of land surveying, and must be performed by, or under the direct supervision of a registered land surveyor in Alaska:

- The platting of land is making maps or plans of land describing the land and its features. This does not include generalized maps made to orient end users

- e.g. road maps, maps showing the general location of features (such as a map for park users), maps showing the location of exits in a building do not need to be prepared by a licensed land surveyor.

Additionally, the Preparation of Orthophotos and Orthomosaic Imagery may fall under the definition of land surveying when prepared for use in activities described in AS 08.48.341(14) such as:

1. measuring and locating land
2. platting and planning of land
3. preparation of topographic maps

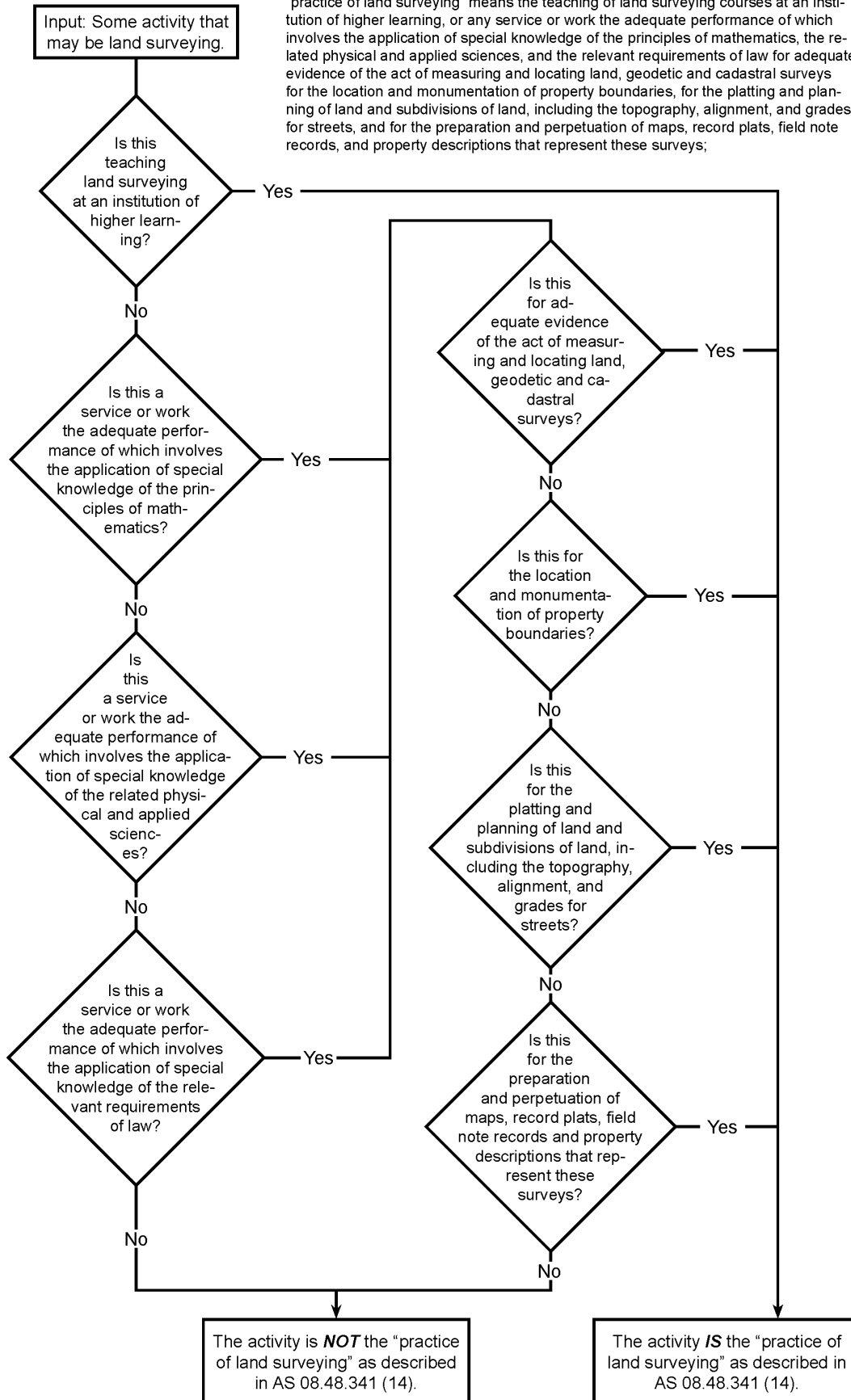
If the use is limited to activities that are included in AS 08.48.341(14), then the orthomosaic imagery must be prepared by or under the supervision of a land surveyor registered in Alaska. If orthoimagery and mapping will be relied upon or used for the activities covered under AS 08.48.341(14), such imagery and mapping must be prepared under the direct supervision of a professional land surveyor registered in Alaska.

If the use is outside of these activities, a registered land surveyor may not be required. Additionally, AS 08.48.331 (3) exempts “an officer or employee of the United States government practicing architecture, engineering, land surveying, or landscape architecture as required by the person’s official capacity” from licensure requirements.

The flowchart on the following page is intended to assist in determining if an activity falls under AS 08.48.341(14) practice of land surveying. An 11X17 version of the Practice of Land Surveying Flowchart is available under the Land Surveyors section of the [AELS FAQs](#) webpage.

**“Practice of Land Surveying” as defined in AS 08.48.341 (14)**

“practice of land surveying” means the teaching of land surveying courses at an institution of higher learning, or any service or work the adequate performance of which involves the application of special knowledge of the principles of mathematics, the related physical and applied sciences, and the relevant requirements of law for adequate evidence of the act of measuring and locating land, geodetic and cadastral surveys for the location and monumentation of property boundaries, for the platting and planning of land and subdivisions of land, including the topography, alignment, and grades for streets, and for the preparation and perpetuation of maps, record plats, field note records, and property descriptions that represent these surveys;



## The Landscape Architect

The general areas of responsibility for landscape architects based on the statutory definitions of landscape architecture is not all-inclusive but rather, intended to give general guidance on the definition of the practice of landscape architecture.



1. Planning:
  - a. Site Analysis
  - b. Visual Assessment
  - c. Environmental Assessment
  - d. Recreation Assessment
  - e. Vegetation Management
  - f. Urban and Town Planning
  - g. Regional Planning
  - h. Parks and Recreational Facilities
  - i. Land Development
  - j. Historic preservation and Reclamation
2. Design:
  - a. Site layout
  - b. Grading
  - c. Drainage
  - d. Planting
  - e. Landscape Irrigation
  - f. Landscape Lighting
  - g. Pedestrian/Bicycle/Equestrian/Vehicular circulation
  - h. Site Furnishings and Amenities
  - i. Recreational Facilities including Children's Play Apparatus
  - j. Outdoor landscape structures
  - k. Wetland and Wildlife Habitat Mitigation/Restoration
  - l. Soil Stabilization
  - m. Bio-infiltration, Green Infrastructure, and Low Impact Development
  - n. Urban Design

3. Construction:
  - a. Site Construction Management and Administration
4. Other registered disciplines (practices) overlap with landscape architecture and, depending on the work, could be stamped by other registrants per AS 08.48.281(b).

## GUIDELINES FOR CONSTRUCTION DOCUMENTS

### Drawings and Specifications

Drawings and specifications prepared for bidding and construction are often submitted to building, planning and public safety officials. They must clearly show enough detail to sufficiently meet the needs of the project, including reviews by authorities having jurisdiction (AHJs). The required drawings will depend on the size, nature and complexity of the project, as well as requirements of owners and AHJs. Specifications may be included on the Drawings or in booklet form. These further define construction components, materials, and expectations for construction quality, finishes, and pertinent equipment. Schedules may be incorporated in the Project Manual instead of on Drawings.

### Project Changes

The responsible design professional often works with Owners' Representatives, contractors, suppliers, and authorities having jurisdiction regarding significant changes throughout bidding, construction, start-up, and documentation. The design professional may process and provide revised drawings, calculations, and other appropriate documents.

## SEALING PROFESSIONAL WORK

Registered design professionals are responsible for their services. The public relies on this expertise. So, many work products, such as drawings, specifications, and calculations, must clearly identify the professional who prepared them.

Alaska statutes, regulations, applicable codes, and local governments require that certain work products be sealed by the Alaska registrant who prepared or had responsible charge for them. Additionally, the International Building Code as adopted by 13 AAC 50-55 contains this requirement. The State Fire Marshal or other designated building official often require drawings with a design professional's seal, as appropriate. Alternatively, the preparer must note on the drawings or building permit applications the reason for the lack of a seal, including the exemption under state law (AS 08.48.331).

### When to Seal and Sign

When document sealing is required, all final documents must include a seal, a signature, and a date. These work products must be sealed and signed as specified in 12 AAC 36.185(a)(3). Additionally, per 12 AAC 36.185(g), the registrant must include on these documents its business name, physical address, and telephone number; project name or identification; project address or location; and certificate of authorization number, if applicable.

Sign over the seals and insert dates manually or electronically within the seals or within 2-inches. Seals must be large enough so text within them is legible. A digital signature may be used over the seal. This means a digital code, generated and authenticated by public-key encryption, which is attached to an electronically transmitted document to verify its contents and the sender's identity. This does not prohibit the registrant from placing an original wet seal or seal impression and an original signature. The registrant must maintain the security of the electronic signature consistent with maintaining the protection of its seal. If an original signature is used, the registrant or the owner of the document must retain the document.

If a document is sealed by multiple registrants for design of minor importance, identify this work on the document near the registrant's seal to identify responsibility in compliance with 08.48.221(b).

Each sheet of final drawings approved for construction must bear the signed and dated seal of the responsible design professional. Cover sheets that do not include design elements do not require a seal. AS 08.48.221 Seals states, "When a registrant issues final drawings, specifications, surveys, plats, plates, reports, or similar documents, the registrant shall stamp the documents with the seal and sign the seal." The Board discussed this statute and agreed that these documents include parcel exhibits, parcel plats, legal descriptions, and similar work products that may or may not be part of other documents.

#### Limited to Professional Expertise

Design professionals may provide services only within their area of expertise. Sealing documents for which a registrant does not have the expertise and registration is a violation of AS 08.48 and 12 AAC 36.185(a)(1). A registrant must not seal work performed by others unless it was prepared under its responsible charge. In addition, the sealing, signing and dating of documents by a person not registered in the State of Alaska is a violation of AS 08.48.

#### Clarification of Registration Numbers

For alpha-numeric license numbers, the board advises engineering registrants to use the two letter, branch of engineering identification and only the numeric portion of their license number on their seal. For example AELC1234, would be CE 1234 versus CE AELC1234.

#### Sealing and Signing

The minimum acceptable standards for the sealing and submittal of drawings and documents are that all final documents must include a seal, a signature, and a date. The documents must be accessible for later reference.

Documents may be sealed with an original hand signature over the seal or a digitally signed and sealed with third party certificate authority. An electronic image of the signature may not be used over the seal on its own unless the document is subsequently printed and an original hand signature is placed over the seal and accessible for later reference.

## Digital Signatures

The requirements of digital signatures are that:

1. The Digital Signature must be unique to the person using it.
2. The Digital Signature must be capable of verification through a third-party Certificate Authority.
3. The Digital Signature must be under the sole control of the person using it.
4. The Digital Signature must be linked to data in such a manner that if the data is changed the Digital Signature is invalidated.

### Definitions

- “Certificate” means a computer-based record which: (a) Identifies the certification authority. (b) Identifies the subscriber. (c) Contains the subscriber’s public key. (d) Is digitally signed by the certification authority
- “Certification authority” means a person who issues a certificate.
- “Digital signature” means a type of electronic signature that transforms a message using an asymmetric cryptosystem such that a person having the initial message and the signer’s public key can accurately determine: (a) Whether the transformation was created using the private key that corresponds to the signer’s public key. (b) Whether the initial message has been altered since the transformation was made. A “key pair” is a private key and its corresponding public key in an asymmetric cryptosystem, under which the public key verifies a digital signature the private key creates. An “asymmetric cryptosystem” is an algorithm or series of algorithms which provide a secure key pair.

Force and effect of digital signature. — Unless otherwise provided by law, an digital signature may be used to sign a writing and shall have the same force and effect as a written signature.

## Retention of Electronic Records

If a law requires that a record be retained, the requirement is satisfied by retaining an electronic record of the information that:

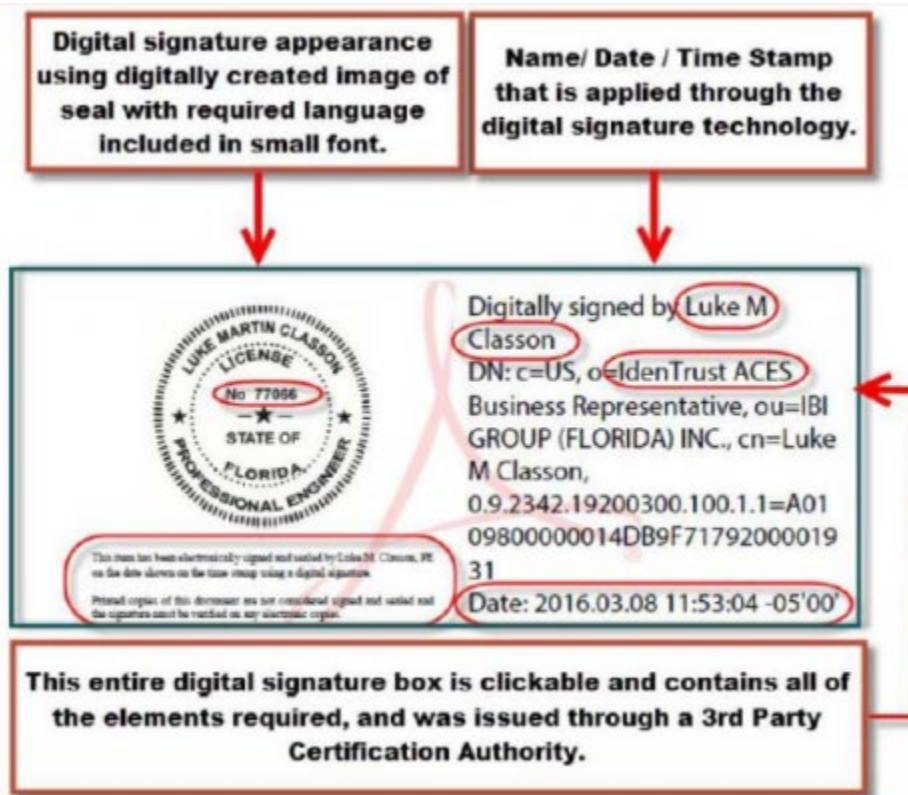
1. Accurately reflects the information set out in the record after it was first generated in its final form as an electronic record or otherwise; and
2. Remains accessible for later reference.

## Procedures for Signing and Sealing Electronically Transmitted Documents

An AEELS licensed professional utilizing a digital signature to electronically sign and seal engineering plans, specifications, reports or other documents shall have their identity authenticated by a certification authority and shall assure that the digital signature is:

1. Unique to the person using it;
2. Capable of verification;
3. Under the sole control of the person using it; and,
4. Linked to a document in such a manner that the digital signature and correspondingly the document is invalidated if any data in the document is changed.





These are additional directions for sealing and signing documents:

**Preliminary Documents** do not require sealing and signing. If they are sealed, they must be clearly identified as Preliminary or Draft Documents.

**Record Drawings**<sup>4</sup> are post-construction documents that show location, layout, and other details to represent what was installed. They are useful for records retention and inventory control, and although not provided for all projects, often are required by contract, regulation, or local codes. The appropriate authority having jurisdiction should be consulted with to verify requirements.

Record Drawings are often produced from contractor and/or owner supplied information, which may be confirmed by observations, inspections and measurements by a registrant or a person acting under its

<sup>4</sup> This section is not referring to "Record of Survey" drawings as defined under AS 34.65.030 Records of Survey: After making a survey in conformity with the practice and definition of land surveying, a land surveyor shall record with the district recorder a record of the survey within 90 days if the survey discloses

- (1) material evidence or physical change that in whole or in part does not appear on a plat of record previously filed or recorded in the office of the district recorder or in the records of the Bureau of Land Management;
- (2) a material discrepancy with a plat of record previously filed or recorded in the office of the district recorder or in the records of the Bureau of Land Management; or
- (3) evidence that by reasonable analysis might result in alternate positions or boundaries from those of record.

responsible charge. If Record Drawings are developed from information obtained solely from the contractor or owner, they are typically not sealed by the registrant. A standard practice in these cases is for the registrant to review the redline mark-ups (sometimes called “as-builts”) made to the original design drawings and, without resealing the drawings, provide an opinion on the validity or accuracy of the revised information with a disclaimer in a signature block that the revised information was produced by others. In some cases, inspection or observation of construction and preparation of Record Drawings are required by contract, regulation, or code to be performed by a registrant. In such cases, the registrant may reseal, sign and date the Record Drawings, and if applicable, provide disclaimers regarding information on the drawings.

**As-Built Surveys** are prepared after construction to re-establish horizontal and vertical control points, locate structures and improvements, and show dimensions. Also referred to as Works-as-Executed by the Contractor, these documents do not always require stamping and signing. As-Built surveys that show improvements in relation to the property boundaries are required to be stamped and signed.

**Mortgage Surveys**, often erroneously called “As BUILTs”, show improvements and other site features relative to property boundaries. These documents always require stamping and signing.

**Standard details** are intended to be used in multiple projects with little or no change, and the appropriateness of their inclusion into a particular project is the responsibility of the engineer of record for that project. The registrant who initially designed the detail is responsible for including limitations of the detail’s application.

**Specifications** that accompany final drawings carry with them the stamping and signing of the various professionals from the final drawings and do not necessarily require further stamping and signing. For documents such as Soils Reports, other required reports, and stand-alone specifications not accompanied by plans, a signed and dated seal must be on the front page.

**Shop Drawings and Field Drawings** are prepared by contractors, subcontractors or vendors to show how a particular aspect of the work is to be fabricated and installed. Shop and field drawings are not contract documents and are not prepared by a design professional. These drawings demonstrate how an aspect of the work will satisfy the contract documents by completing the information cycle between drawings prepared by licensed professionals and the actual construction. Shop and Field drawings do not require a seal, signature and date unless an Alaska Registered Professional prepares them.

For more information, please refer to AS 08.48.221 and 12 AAC 36.185.

### Certificates of Authorization

**Joint Ventures** - if one of the two or more entities have a certificate of authorization the joint venture is not required to get a certificate of authorization. For more information on Certificates of Authorization for other entities, please refer to AS 08.48.241.

### Site Adaptation & Field Alterations of Sealed Documents

Except as specified in 12 AAC 36.195, a person may not alter or contribute to the altering of any document that has been sealed by a registrant authorized under AS 08.48. In Alaska, a registrant may site adapt or field alter sealed documents prepared by another registrant of the same discipline if the registrant

1. has written permission
  - a. to adapt or alter the sealed documents from the registrant who sealed the original sealed documents; or
  - b. from the legal owner of the original sealed documents; the legal owner of the original sealed documents must have written proof of ownership of the sealed documents from the registrant who sealed the documents;
2. reviews the sealed documents and makes all necessary revisions to bring the sealed documents into compliance with applicable codes, regulations, and job-specific requirements;
3. affixes to the calculations of the
  - a. site adapted documents a sealed certification, "I certify that I have reviewed the relevant calculations for the site adapted documents in accordance with 12 AAC 36.185," or the registrant shall independently prepare and seal all calculations for the site adapted documents; or
  - b. field altered documents a sealed certification, "I certify that I have reviewed the relevant calculations for field altered documents in accordance with 12 AAC 36.185 and that the alterations will have no significant effect on other design considerations of the originally sealed documents," or the registrant shall independently prepare and seal all additional calculations for field adapted documents;
4. reissues the sealed documents after review with the title block and seal of the registrant performing the site adaptation, or in the case of field altered documents have provided additional sealed drawings with the title block and seal of the registrant performing the work; and
5. maintains professional control over the use of the site-adapted or field altered sealed documents as if they were any other original sealed documents of the registrant and maintains the sealed documents on file.

## AELS CONTACT INFORMATION

For further information or assistance concerning AELS Board requirements, contact the AELS Board or the Division of Corporation, Business and Professional Licensing:

### AELS Board

#### **JUNEAU OFFICE**

Division of Corporation, Business and Professional  
Licensing  
333 Willoughby Ave., 9<sup>th</sup> Floor\*  
Juneau, AK 99811-0806  
P: 907.465.2540 (Executive Administrator)  
907.465.1226 (Licensing Examiner)  
F: 907.465.2974

#### **ANCHORAGE OFFICE**

Division of Corporations, Business and  
Professional Licensing  
550 West 7th Avenue, Suite 1500  
Anchorage, AK 99501  
P: 907.269.8160 (Investigator)  
F: 907.269.8156

***\*No US mail delivery to physical address. For USPS use:***

State of Alaska/ DCCED  
Division of Corporation, Business and Professional Licensing  
AELS Board  
P.O. Box 110806  
Juneau, AK 99811-0806

### Board & Division Web Addresses:

AELS Board Homepage:

[ProfessionalLicense.Alaska.gov/BoardofArchitectsEngineersandLandSurveyors.aspx](https://www.commerce.alaska.gov/BoardofArchitectsEngineersandLandSurveyors.aspx)

AELS Statutes and Regulations

<https://www.commerce.alaska.gov/web/Portals/5/pub/aelsstatutesregs.pdf>

Registration status for individual professionals and firms may be checked by querying the Division database at: <https://www.commerce.alaska.gov/CBP/Main/>

AELS FAQs:

<https://www.commerce.alaska.gov/web/cbpl/ProfessionalLicensing/BoardofArchitectsEngineersandLandSurveyors/FAQs.aspx>

### Reporting Potential Violations

To report a potential violation or submit a complaint, contact the AELS Investigator in the Anchorage Office (contact information provided above). Please be aware anonymous complaints are NOT accepted or investigated.

## STATE FIRE MARSHAL'S OFFICE

The State Fire Marshal is an Alaska state building official who conducts plan reviews for all construction outside of exempted occupancies that have been granted deferrals. The State Fire Marshal adopts building codes as authorized by AS 18.70 and defined by 13 AAC 50.55.

State Fire Marshal's Office  
State of Alaska  
Department of Public Safety/ Division of Fire and Life Safety  
5700 E. Tudor Road  
Anchorage, AK 99507-1225  
P: 907-269-5491  
F: 907-338-4375

## BUILDING OFFICIALS AND PERMITTING CONTACTS

### **Municipality of Anchorage**

4700 S. Bragaw St.  
Anchorage, AK 99507  
Phone: (907) 343-8301  
<https://www.muni.org/pages/default.aspx>

### **City of Kenai**

210 Fidalgo Ave, Suite 200  
Kenai, AK 99611  
(907) 283-7353  
<http://www.ci.kenai.ak.us/>

### **City of Soldotna**

177 N. Birch St.  
Soldotna, AK 99669  
(907) 262-9107  
<https://soldotna.org/>

### **City of Homer**

3575 Heath St.  
Homer, AK 99603  
(907) 235-3170  
<http://www.cityofhomer-ak.gov/>

### **City of Whittier**

P.O. Box 608  
Whittier, AK 99693  
(907) 472-2340  
<http://www.cityofwhittier.org/>

### **City of Unalaska**

P.O. Box 610  
Unalaska, AK 99692  
(907) 581-1260  
<http://ci.unalaska.ak.us/>

### **City of Fairbanks**

800 Cushman St.  
Fairbanks, AK 99701  
Phone: (907) 459-6720  
<http://www.fairbanksalaska.us/>

### **City of Kodiak**

710 Mill Bay Rd.RM. 208  
Kodiak, AK 99615  
(907) 486-8070  
<http://www.city.kodiak.ak.us/>

### **City and Borough of Sitka**

100 Lincoln St.  
Sitka, AK 99835  
(907) 747-1807  
<http://www.cityofsitka.com/>

### **City of Valdez**

P.O. Box 307  
Valdez, AK 99686  
(907) 835-4313  
<http://www.ci.valdez.ak.us/>

### **City of Palmer**

645 E. Cope Industrial Way  
Palmer, AK 99645  
(907) 745-2371  
<http://www.cityofpalmer.org/>

### **Kenai Peninsula Borough**

144. N. Binkley Street  
Soldotna, AK 99669  
(907) 262-4441  
<http://www.kpb.us/>

### **City and Borough of Juneau**

155. S. Seward Street  
Juneau, AK 99801  
(907) 586-0770  
<http://www.juneau.org/>

### **City of Seward**

P.O. Box 1397  
Seward, AK 99644  
(907) 224-4071  
<http://www.cityofseward.us/>

### **City of Ketchikan**

2930 Tongass Ave.  
Ketchikan, AK 99901  
(907) 228-4737  
<http://www.ktn-ak.us/>  
(907) 262-4441  
<http://www.kpb.us/>

### **City of Cordova**

P.O. Box 1210  
Cordova, AK 99574  
(907) 424-6200  
<http://www.cityofcordova.net/>

### **City of North Pole**

125 Snowman Lane  
North Pole, AK 99705  
(907) 488-2281  
<http://www.northpolealaska.com/>

### **City of Wasilla**

290 East Herning Ave.  
Wasilla, AK 99654-7091  
(907) 373-9020  
<http://www.cityofwasilla.com/>

### **City and Borough of Wrangell**

P.O. Box 531  
Wrangell, AK 99929  
907-874-2381  
<http://www.wrangell.com>

### **Borough of Petersburg**

12 S Nordic Dr  
Petersburg, AK 99833  
907-772-(907) 772.4425  
<https://www.ci.petersburg.ak.us>