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CHAPTER 21.07: DEVELOPMENT AND DESIGN STANDARDS

21.07.010 GENERAL PROVISIONS

A. Purpose

The development and design standards set forth in this chapter shall apply to the physical layout and design of development in the municipality. These provisions address the physical relationship between development and adjacent properties, public streets, neighborhoods, and the natural environment, in order to implement the comprehensive plan vision for a more attractive, efficient, and livable community. The specific purposes of this chapter include:

1. To encourage the proper use of the land by promoting an appropriate balance between the built environment and the preservation and protection of open space and natural resources;
2. To provide standards that reasonably balance community goals, economic growth, quality of life, and development costs;
3. To protect public and private investment through preservation of open spaces, protection of natural resources including existing trees, providing buffers between incompatible uses and along roadways, and encouraging the planting of new trees and vegetation as deemed appropriate;
4. To promote sound management of water quality and quantity through preservation of natural areas and their hydrological functions and by encouraging soil management and the use of native plant materials;
5. To provide a healthy, sustainable living and working environment by encouraging design and development that reduces energy use and costs; minimizes pollution; provides natural, cultural, and recreational amenities; and uses land and other resources efficiently and sustainably;
6. To provide appropriate standards to ensure a high quality appearance for the municipality and promote good design while also allowing flexibility, individuality, creativity, and artistic expression;
7. To provide development and design standards that address and are tailored to the municipality's northern climate and winter city character;
8. To strengthen and protect the image, identity, and unique character of the municipality and thereby to enhance its business economy;
9. To protect and enhance residential neighborhoods, commercial districts, and other areas by encouraging physical development that is of high quality and is compatible with the character, scale, and function of the surrounding area;
10. To encourage developments that relate to adjoining public streets, open spaces, and neighborhoods with building orientation and physical connections that contribute to the surrounding network of streets, walkways, and trails; and
11. To provide multimodal connectivity for the safe and efficient movement of people, goods, and services, including roads, transit, and pedestrian facilities.

B. Buildings to Have Access

Every building shall be on a lot abutting on a constructed public street with principal access to such street, or with access to a constructed private street approved by the appropriate fire authority, project management and engineering department, development services department, traffic department, and planning department. This standard may be waived by approval of the municipal engineer, traffic engineer, and the director.

C. Addresses

It is the responsibility of the property owner to affix street address numbers assigned by the municipality to the affected building(s) or on another structure (natural or otherwise) nearer to the street, to be plainly visible and legible from the street named in the address. Sub-addresses must also be visible when approaching the building and on each applicable entrance.

D. Alternative Equivalent Compliance

1. Purpose

Alternative equivalent compliance is a procedure that allows development to meet the intent of the design-related provisions of this chapter through an alternative design. It is not a general waiver or weakening of regulations. Rather, the procedure permits a site-specific plan that is equal to or better than the strict application of a design standard specified in this title. This procedure is not intended as a substitute for a variance or administrative modification or as a vehicle for relief from standards in this chapter.

2. Applicability

The alternative equivalent compliance procedure shall be available only for the following sections of this chapter:

- a. Section 21.07.100, *Residential Design Standards*;
- b. Section 21.07.110, *Public/Institutional and Commercial Design Standards*;
- c. Section 21.07.120, *Large Commercial Establishments*.

3. Pre-Application Conference Required

An applicant proposing to use alternative equivalent compliance under this section shall request and attend a pre-application conference prior to submitting the site plan for the development, to determine the preliminary response from the director. Based on that response, the site plan application shall include sufficient explanation and justification, in both written and graphic form, for the alternative compliance requested.

4. Decision-Making Responsibility

Final approval of alternative equivalent compliance under this section shall be the responsibility of the decision-making body responsible for deciding upon the application. For example, proposed alternative equivalent compliance on a major site plan application shall be considered and decided upon by the urban design commission. By-right projects that would not ordinarily require review under this title, yet which are proposing alternative equivalent compliance, shall receive written approval of the alternative equivalent compliance from the director.

5. Criteria

To grant a request for alternative equivalent compliance, the decision-making body shall find that all of the following criteria are met:

- a. The proposed alternative design achieves the intent of the subject design standard to the same or better degree than the subject standard.
 - b. The proposed alternative design achieves the goals and policies of the comprehensive plan to the same or better degree than the subject standard.
 - c. The proposed alternative design results in benefits to the community that are equivalent to or better than compliance with the subject design standard.
6. **Effect of Approval**
Alternative compliance shall apply only to the specific site for which it is requested and does not establish a precedent for assured approval of other requests.

21.07.020 NATURAL RESOURCE PROTECTION

A. Purpose

The municipality contains many natural amenities, including streams, natural drainages, wildlife habitat areas, water bodies, scenic features such as mountains and coastal areas, wetlands, and hillsides, as well as significant amounts of native forest, tree cover, and open space, all of which contribute to the municipality's character, public health, quality of life, and property values. The requirements of this section are intended to ensure that the natural character of the municipality is reflected in patterns of development and redevelopment, and significant natural features are incorporated into open space areas.

B. Stream, Water Body, and Wetland Protection

1. Purpose

The following requirements are intended to promote, preserve, and enhance the important hydrologic, biological, ecological, aesthetic, recreational, and educational functions provided by streams, associated riparian areas, water bodies, and wetlands, particularly by minimizing impervious surface and by reducing erosion and the contamination of streams, wetlands, and water bodies by pollutants or invasive plants.

2. Applicability

This subsection 21.07.020B. shall apply to new development, except for the following development or activities:

- a. Maintenance and repair of existing public roads, utilities, and other public facilities within an existing right-of-way or easement, or otherwise within a setback;
- b. Flood prevention or rehabilitation work carried out by a government agency or approved by a government agency;
- c. Maintenance and repair of flood control structures and activities in response to a flood emergency; and
- d. Wetland, stream channel, and wildlife habitat restoration, construction, and/or enhancement that improves or restores the wetland or stream functions, provided that the proposed activity is approved by the appropriate agency such as the U.S. Corps of Engineers or the Alaska department of fish and game.

3. Relationship to Other Regulations

- a. This subsection 21.07.020B. does not repeal or supersede any existing federal, state, or local laws, easements, covenants, or deed restrictions. When this subsection imposes a higher or more restrictive standard than found in another applicable ordinance, statute, or regulation, this subsection shall apply.
- b. No person shall engage in any activity that will disturb, remove, drain, fill, dredge, clear, destroy, or alter any area, including vegetation, within a wetland that falls in the jurisdiction of the federal government and its agencies, except as may be expressly allowed under a permit issued by the appropriate federal agency.
- c. The decision-making body shall not grant final approval to any development or activity, including subdivisions, in a wetland that falls within the federal government's jurisdiction until all necessary federal approvals and permits have been obtained.

4. Buffer/Setback Requirements

a. Water Courses

- i. In all zoning districts, buildings, accessory structures, and parking lots shall be set back at least 50 feet horizontally from the ordinary high-water mark on each side of streams or, if not readily discernible, from each side of the defined bank of the stream. Except as provided in B.6. below, no disturbance is permitted in the 50-foot setback area.
- ii. In all zoning districts, buildings, accessory structures, and parking lots shall be set back at least 10 feet horizontally from the edge of each side of drainageways and ephemeral channels defined or verified by the project management and engineering department. Except as provided in B.6. below, no disturbance is permitted in the 10-foot setback area. The project management and engineering department may require a greater setback, if in their professional judgment, the additional setback is necessary to provide for groundwater discharge zones or infiltration areas, the disturbance of which would alter natural flow characteristics.
- iii. Segments of streams or tributaries that are contained underground in pipes or culverts have no setback.
- iv. For parcels where there are wetlands contiguous with a stream, setback requirements are listed in table 2 of the *Anchorage Wetlands Management Plan*.

b. Alternate Setback Option for Stream Corridor

- i. A stream channel alteration project may develop a "stream corridor" containing appropriate meander widths distributed based on topographic design. Where established, the "stream corridor" shall be the stream setback for the purposes of municipal code.
- ii. The stream corridor width shall be subject to project management and engineering department approval.
- iii. Stream corridor widths shall be based on appropriate reference stream reaches, considering slope, soils, discharge, elevation, and channel pattern and function and shall not be less than 100 feet wide.

- iv. The design of the stream channel alteration may meander within this corridor. Channel alteration design shall comply with subsections 6.c. and 6.d. below. The ordinary high water mark of the designed channel shall not come within 25 feet of the edge of the corridor, and not more than 20 percent of its length shall be within 25 to 35 feet of the edge of the corridor.
 - v. Before site work begins, the stream corridor shall be established by a recorded survey or an approved plat.
- c. Wetlands**
- i. To the maximum extent feasible, class A and those class B wetlands which, as a result of a U.S. Corps of Engineers decision or permit condition, are not authorized for development, shall be platted into separate tracts and not included as part of a development lot. Wetland classes are defined and delineated in the *Anchorage Wetlands Management Plan*.
 - ii. Except as provided in B.6. below, all buildings, accessory structures, fills and other storage of materials, and parking lots shall be set back at least 15 feet horizontally from the delineated edge of all class A wetlands, and all portions of class B and C wetlands not authorized for development; no disturbance is permitted in the 15-foot setback area.
- d. Water Bodies**
- In all districts, buildings, accessory structures, and parking lots shall be set back at least 25 feet horizontally from the edge of water bodies. The setback shall be vegetated, except for minimal areas to allow for access to those uses such as docks, boathouses, and floatplane storage that require direct access to a water body by their very nature or function.
- e. Credit for Other Requirements of this Title**
- Stream, water body, and wetland setback areas shall be credited toward any applicable private open space requirements or landscaping requirements only if such setback areas serve the purposes of those requirements as set forth in this title.
- 5. Boundary Delineation**
- a. Official Definitions and Standards**
- i. In cases where water courses or water bodies are not mapped and recorded in official plans or other documents, delineation of such features shall be made according to project management and engineering department procedures, and shall be subject to formal verification by the project management and engineering department.
 - ii. In cases where wetlands are not mapped and recorded in official plans or other documents, including the *Anchorage Wetlands Management Plan*, delineation of such features shall be performed using procedures as described by the U.S. Corps of Engineers. Delineations shall be subject to formal verification by the department and/or the U.S. Corps of Engineers.

b. Water Course Boundaries

Water course boundaries shall be delineated at the ordinary high-water mark or, if not readily discernible, the defined bank of the stream, as those terms are defined in chapter 21.14. In those instances where the defined bank of the water course is not readily discernible, the project management and engineering department shall establish the effective ordinary high-water mark. The project management and engineering department shall maintain the official record of all water course boundaries.

c. Wetland Boundaries

i. Mapped Wetlands

Boundary delineation of wetlands shall be established by reference to the *Anchorage Wetlands Management Plan*, which is available for reference in the department and which is hereby adopted and incorporated into this title by reference. Plats shall depict class A and B wetland boundaries, and boundaries of class C wetlands that are not authorized for development.

ii. Unmapped Wetlands

The review of a development proposal may discover a potential wetland that has not been mapped or for which the boundaries have not been clearly established. In such instances, the boundaries of the wetland shall be delineated according to subsection 5.a.ii. above. Any new wetland boundaries delineated herein shall be submitted to the U.S. corps of engineers for approval.

6. Development Standards

a. Activities, Uses, and Structures Allowed in a Required Water Course or Wetland Setback With Prior Approval, As Noted

i. With the appropriate approvals and/or permits and in accordance with the conditions of subsection 6.c. below, maintenance, including placement of riprap, debris removal, glaciation control, sediment removal, protection of adjacent or downstream property from flooding, soil stabilization, and erosion control, may be performed within the water course and/or the setbacks described in B.4. above. Appropriate approvals and/or permits may include a U.S. Corps of Engineers permit, a municipal flood hazard permit, or a storm water treatment plan approval.

ii. Channel alteration, including restoration and relocation projects, with appropriate state and federal permits and in accordance with the conditions of 6.c. below, are allowed.

iii. Culvertization of water courses, with any appropriate permits, is allowed.

iv. Redevelopment of structures or uses existing on [effective date] is allowed in the setback where:

(A) The director determines there is no practical or feasible alternative to encroaching into the setback; and

(B) The redevelopment does not increase the encroachment over the existing situation.

- v. On undeveloped platted lots existing before [effective date] where the director determines the setback precludes practical or feasible development of the lot, the director shall approve a site plan that allows but minimizes encroachment into the setback.

b. *Activities, Uses, and Structures Allowed in a Required Water Course or Wetland Setback Without Prior Approval, Unless Specifically Noted*

- i. The following structures and uses of land or structures are permitted generally perpendicular to the setback or stream edge within the stream, drainageway, ephemeral channel, wetland, and water body setback, where it is necessary in order to cross or enter the feature:

- (A) Roads, driveways, trails, and other transportation and public recreation facilities;
- (B) Utility facilities pursuant to 6.d. below;
- (C) Drainage facilities, in accordance with subsection 21.07.040 and approved by the project management and engineering department.

- ii. The following structures and uses of land or structures are permitted parallel to the stream within the outer 15 feet of the setback:

- (A) Public recreation facilities other than trails;
- (B) Utility facilities pursuant to 6.d. below;
- (C) Drainage facilities, in accordance with subsection 21.07.040 and approved by the project management and engineering department; and
- (D) Lawns, landscaping, play equipment, fences, pervious decks, unpaved patios, and other similar features that are based on a pervious surface.

- iii. Trails are permitted parallel to the stream within the outer 35 feet of the setback. Through the design and permitting process, trails may be located closer to the stream for a justified reason, such as overcoming a physical, topographical, or land ownership constraint, or taking advantage of a viewpoint.

[Illustration to be added]

- iv. All disturbed areas associated with permitted activities shall be revegetated with landscaping similar to the natural vegetation of the area. Revegetation shall occur during the same growing season as the permitted activity, unless otherwise permitted by the director.

c. *Conditions*

All work within a water course or water course setback, whether permitted by-right or allowed through a specific approval process, shall meet the following conditions, along with any other required permits:

- i. Materials used or the removal of ground cover shall not create turbidity or other water quality problems;
 - ii. There shall be no increase in flooding or erosion problems upstream or downstream;
 - iii. If applicable, flow lines of the altered section of the water course shall match those in the existing water course at the endpoints of the alteration;
 - iv. If applicable, the gradient/meander balance, grade control, and bed stability shall be adequate to maintain the natural stream function of water conveyance and sediment transport, in accordance with the judgment of the project management and engineering department; and
 - v. If applicable, the alteration shall have no negative effect on fish habitat.
- d. ***Prohibited Activities***
- i. No person shall engage in any activity that will disturb, remove, fill, drain, dredge, clear, destroy, or alter an area, including vegetation, within water courses, water body edges, wetlands, or their associated setback areas, except as may be expressly allowed in this section or title.
 - ii. Except as allowed in 6.a. and 6.b. above, channel alteration is prohibited unless required in emergency situations. In emergency situations, the municipal engineer shall be notified on the next business day after channel alteration has begun. After inspection, the municipal engineer shall prescribe any measures necessary to meet the conditions of 6.c. above. For the purposes of this standard, an "emergency" is a situation which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action requiring a permit is not undertaken immediately.
 - iii. No storage or processing of hazardous materials or other substances that would constitute a violation of AMC chapter 15.40 is permitted.
- e. ***Utilities***
- Utilities and potable water wells, may be allowed in a setback area only if the decision-making body determines that there is no practical alternative. Any disturbance of the setback area shall be reclaimed by regrading to original contours and revegetation with native species. Provisions for reclamation of the disturbed area shall be included in any development or improvements agreement for the project, with adequate collateral to guarantee the reclamation will be completed. Utility corridors in setback areas shall be located at the outside edge of the area or if crossing the setback laterally shall disturb only the minimum area necessary to install the utility. Access roads for maintenance of utilities shall be located outside the setback area to the maximum extent feasible. Access for maintenance of utilities in setback areas shall be at specific points rather than parallel to the utility corridor whenever possible.
- f. ***Recreation, Education, or Scientific Activities***
- Structures and improvements for recreational, educational, or scientific activities such as trails, swimming beaches, docks, fishing access, and wildlife

management and viewing may be permitted in a setback area by the appropriate government agency.

7. Preservation and Restoration of Vegetation

All existing vegetation within the stream or wetland setback area shall be preserved and, where necessary to repair damaged riparian areas, supplemented with additional native planting and landscaping. The removal of trees or vegetation that are a threat to the public health, safety, or welfare; the removal of species identified as invasive by the state of Alaska; or the removal of dead or naturally fallen trees or vegetation, shall be exempt from this requirement.

8. Implementation of Anchorage Wetlands Management Plan

a. Zoning and Platting Actions

Zoning and platting actions taken under this title shall be consistent with the *Anchorage Wetlands Management Plan* and the applicable standards described below.

i. "A" Wetlands

Wetlands designated "A" in the *Anchorage Wetlands Management Plan* and in table 2 of that plan shall be protected as indicated in that table and in chapter 4 of the *Anchorage Wetlands Management Plan*.

ii. "B" Wetlands

New development plans in "B" wetlands shall obtain a U.S. Corps of Engineers permit, concurrent with or prior to necessary approval by the platting board and/or the planning and zoning commission. In order to maximize protection of wetlands designated "B," in addition to the criteria normally considered in subdivision, site plan, and conditional use applications, the platting authority or the planning and zoning commission shall, prior to approval, make explicit findings that, or the applicant shall certify with their U.S. Corps of Engineers permit that:

(A) The proposed design and placement of roadways, utility lines, and structures will not interfere with the natural drainage function indicated in the required hydrologic studies or that such interference can be adequately mitigated to maintain the natural drainage function;

(B) The soils in the area proposed for development shall adequately support roadways and structures, or that properly designed roads and foundations will be provided; and

(C) Habitat areas identified in federal, state, or municipal documents shall be adequately protected.

Maintenance of open space in its natural state shall be required where the platting authority or the planning and zoning commission determines that such open space is necessary to protect the hydrologic and habitat values of wetlands on the property being developed or on adjacent property. Areas where open space is to be preserved in its natural state shall be indicated on the plat or approved site plan. The platting authority and planning and zoning commission may require such land development techniques and such additional conditions as may be

appropriate to carry out the intent of the *Anchorage Wetlands Management Plan* and such other wetlands studies as may be relevant.

iii. **"C" Wetlands**

When approving plats or conditional use permits in wetlands designated "C" under the plan, the platting authority or the planning and zoning commission shall, whenever applicable, include the recommended construction mitigation techniques and conditions and enforceable policies in table 2 of the *Anchorage Wetlands Management Plan*.

b. **Application of Plan to Approved Projects**

Conditional uses and preliminary plats approved prior to March 12, 1996, the date of adoption of the revised *Anchorage Wetlands Management Plan*, shall not have additional conditions imposed upon them as a result of requirements of the plan except as follows:

- i. The "A" designation shall apply regardless of prior approvals.
- ii. Approved plats or conditional uses in wetlands that are returned to the platting authority or planning and zoning commission for major amendment may be examined for conformity with goals and enforceable policies of the *Anchorage Wetlands Management Plan*.
- iii. A new U.S. Corps of Engineers permit is required.

C. Steep Slope Development

1. **Purpose**

The purpose of this subsection 21.07.020C. is to establish standards that help achieve the following objectives for development on steep slopes:

- a. Prevent soil erosion and landslides;
- b. Provide safe circulation of vehicular and pedestrian traffic to and within hillside areas and to provide access for emergency vehicles necessary to serve the hillside areas;
- c. Encourage only minimal grading that relates to the natural contour of the land and discourage mass grading of large pads and excessive terracing;
- d. Encourage building types, grading design, lot sizes, site design, density, arrangement, and spacing of buildings in developments in sloped areas that integrate into the natural terrain with minimal re-contouring, in accordance with adopted goals and policies;
- e. Encourage innovative architectural, landscaping, circulation, and site design;
- f. Encourage the protection of visually significant and/or prominent natural features, such as ridgelines and rock outcroppings;
- g. Incorporate drainage design that does not adversely impact neighboring or nearby properties, downstream properties, receiving waters, and public infrastructure; and

- h. Encourage the retention of natural, indigenous vegetation that provides wildlife habitat, helps retain runoff, and maintains the area's visual character.

2. Applicability

Any lot with an average slope of 20 percent or greater, or where adverse conditions associated with slope stability, erosion, or sedimentation are present as determined by the municipal engineer, shall comply with the standards of this subsection 21.07.020C. Lots being subdivided shall comply with chapter 21.08, including subsection 21.08.030H., *Subdivisions on Slopes*, if applicable.

3. Standards

Except as allowed in subsection C.4. below, all proposed development subject to this section shall comply with the following standards.

a. Determination of Original/Natural Grade

Original/natural grade shall be as defined in chapter 21.14. If there has been previous development on the lot (e.g., gravel extraction), the director shall determine original/natural grade, taking into account the previous development, the existing grade of surrounding lots, the availability of information on pre-development grade, and the feasibility of using pre-development grade.

b. Slopes Greater than 30 Percent

That contiguous portion of any lot which is 5,000 square feet or larger with slopes steeper than 30 percent shall remain undisturbed, except as allowed in subsection C.4. below.

c. Site Disturbance Envelope

i. There shall be a site disturbance envelope on each applicable lot. Earth disturbance and vegetation clearing shall be limited to the site disturbance envelope. Clearing, grubbing, or grading outside the site disturbance envelope is prohibited except to modify fuels in order to reduce fire risk, or to accommodate utility service connections.

ii. The size of the site disturbance envelope shall be as follows:

(A) Lots less than 40,000 square feet: 60 percent of the lot area maximum.

(B) Lots 40,000 square feet to two acres in area: 20,000 square feet maximum.

(C) Lots over two acres but less than five acres: 30,000 square feet maximum.

(D) Lots five acres or greater: 40,000 square feet maximum.

iii. Areas outside the site disturbance envelope shall not be used for stockpiling materials or excess fill, construction vehicle access, storage of vehicles during construction, or similar uses. Temporary construction fencing shall be installed around the perimeter of the site disturbance envelope, to be removed after the final certificate of zoning compliance is issued.

- iv. The front setback of the lot may be reduced to 10 feet.
 - v. If the average slope of the site disturbance envelope is less than 20 percent, the development is exempt from subsections 3.e., 3.f., 3.g., 3.h., and 3.i.
- d. **Cutting, Grading, and Filling**
- i. Cutting and grading to create benches or pads for buildings or structures shall be limited to within the site disturbance envelope.
 - ii. Cut and fill slopes shall be entirely contained within the site disturbance envelope. The toe of any fill slope not utilizing an engineered retaining structure, and any engineered retaining structure shall be a minimum of 15 feet from any property line, except for the property line abutting the street from which driveway access is taken.
 - iii. Cut and fill slopes shall be designed to provide a natural transition into the existing terrain by feathering and rounding.
- e. **Raising or Lowering of Natural Grade**
- The original, natural grade of a lot shall not be raised or lowered more than four feet at any point for construction of any structure or improvement, except:
- i. The site's original grade may be raised or lowered a maximum of six feet if retaining walls are used to reduce the steepness of constructed slopes, provided that the retaining walls comply with the requirements set forth in this subsection.
 - ii. As necessary to construct a driveway from the street to a garage or parking area, grade changes or retaining walls up to six feet may be allowed.
 - iii. For the purposes of this subsection 21.07.020C.3.e., basements and buildings set into a slope are not considered to lower the natural grade within their footprint.
- f. **Retaining Walls**
- Retaining walls may be used to maximize the usable area on a lot within the site disturbance envelope. Generally, a retaining wall shall be no higher than six feet, except that a wall varied in height to accommodate a variable slope shall have an average height no greater than six feet and a maximum height no greater than eight feet in any 100-foot length. Parallel retaining walls may be used to overcome steep slopes, provided the following standards are met:
- i. The minimum distance between walls shall be six feet;
 - ii. The maximum allowable slope between walls shall be 3H:1V; and
 - iii. The area between the walls shall be landscaped with trees, shrubs, or both at a rate of 0.5 landscape units per linear foot measured along the length of the lower retaining wall.

A higher wall is permitted:

- i. Where used internally at the split between one- and two-story portions of a building; and
 - ii. Where substantially hidden from public view at the rear of a building, where it may not exceed the eave height of the building.
- g. *Natural Drainage Patterns***
- i. Site design shall not change natural drainage patterns, except as provided below.
 - ii. All grading and drainage shall comply with section 21.07.040, title 23, the *Design Criteria Manual* (current approved edition), and the municipality's *Storm Water Treatment Plan Review Guidance Manual*.
 - iii. Except where otherwise provided in this section, development shall preserve the natural surface drainage pattern unique to each site as a result of topography and vegetation. Grading shall ensure that drainage flows away from all structures. Natural on-site drainage patterns may be modified on site only if the applicant shows that there will be no significant adverse environmental impacts on site or on adjacent properties. If natural drainage patterns are modified, appropriate stabilization techniques shall be employed.
 - iv. Development shall not adversely impact adjacent and surrounding drainage patterns.
- h. *Ground Cover and Revegetation***
- Ground cover and vegetation shall be maintained to control erosion and sedimentation. All areas that are denuded for any purpose shall be revegetated or the soils stabilized to prevent erosion and sedimentation prior to November 1 of the year of construction. No excavation shall be permitted after November 1 or before May 1 except under emergency conditions, as determined by the building official.
- i. *Building Design Standards***
- The purpose of the building design standards is to minimize site disturbance, avoid extreme grading required by large building pads on steep slopes, and reduce the risk of damage from natural hazards.
- i. All buildings and structures shall have a foundation which has been designed by a professional engineer, architect, or other qualified professional.
 - ii. At any given point, the height of the structure shall not exceed 25 feet above the original (natural) grade.
- 4. Slopes Greater Than 30 Percent**
- a. *Purpose***
- The requirements of this section are intended to allow consideration of development on slopes up to 50 percent. In order to assure the safety and stability of such development and to reduce offsite impacts, additional submittals are required as described in this subsection. Nothing in this subsection guarantees approval to disturb slopes greater than 30 percent.

- b. *Applicability***
If the site disturbance envelope as defined in C.3.c. above contains slopes over 30 percent, the standards of this section shall apply.
- c. *Slopes Greater Than 50 Percent***
All slopes greater than 50 percent shall remain undisturbed.
- d. *Existing Lots***
Notwithstanding other standards of this section, lots existing on [effective date] that, due to the prevalence and/or distribution of slopes over 50 percent, are not able to meet these standards, are allowed a site disturbance envelope of 20,000 square feet. Within this site disturbance envelope, slopes over 50 percent are allowed to be disturbed.
- e. *Administrative Site Plan Review Required***
Development on slopes greater than 30 percent but not exceeding 50 percent requires an administrative site plan review. In addition to the site plan approval criteria set forth in subsection 21.03.180E., the approval criteria in subsection 4.g. below shall apply.
- f. *Additional Submittal Requirements***
In addition to the submittal requirements for an administrative site plan review, the following information is required:

 - i.** A geotechnical engineering report, stamped by an engineer licensed in the state of Alaska, to include the following:

 - (A)** Nature, distribution, strength, and stability of soils; conclusions and recommendations for grading procedures; recommendations for frequency of soil compaction testing, design criteria for corrective measures; and opinions and recommendations covering the adequacy of the site to be developed.
 - (B)** Slope stability analysis: conclusions and recommendations concerning the effects on slope stability of excavation and fill, introduction of water (both on and offsite), seismic activity, and erosion.
 - (C)** Foundation investigation: conclusions and recommendations concerning the effects of soil conditions on foundation and structural stability, including permeability, bearing capacity, and shear strength of soils.
 - (D)** Specific recommendations for cut and fill slope stability, seepage and drainage control, or other design criteria to mitigate geologic hazards, slope failure, and soil erosion.
 - (E)** Depth to groundwater in the wettest seasonal conditions, and to bedrock, if less than 15 feet.
 - (F)** Complete description of the geology of the site, a complete description of bedrock and subsurface conditions and materials, including artificial fill, soil depth, avalanche and mass wasting hazard areas, fractures, or other significant features.

- (G) A summary of field exploration methods and tests on which the report is based, such as probings, core drillings, borehole photography, or test pits. The project management and engineering department shall confirm that the analysis methods and age of data are a reliable gauge of the site conditions and the potential impacts.
- ii. A site development plan showing the following:
 - (A) Site disturbance envelope as set forth in C.3.c. above.
 - (B) Location of all driveways, and utility lines and installations.
 - (C) Location of all structures.
 - (D) Elevation drawings of all structures.
- iii. Grading and drainage plans that provide the following:
 - (A) Topographic survey of existing conditions depicting at a minimum two foot contour intervals on a legible site map of one inch equaling 50 feet, or better.
 - (B) Proposed grading plan indicating limits of disturbed area, finished grade at minimum two foot contour intervals, proposed elevations of improvements, driveway grading at minimum 10 foot intervals measured on centerline, delineation of cut and fill areas, constructed slopes, proposed drainage features, and related construction.
 - (C) Drainage plans showing approximate locations for all surface and subsurface drainage devices, retaining walls, dams, sediment basins, storage reservoirs, and other protective devices to be constructed with, or as part of, the proposed work, together with a map showing drainage area, how roof and other impervious surface drainage will be disposed, the complete drainage network, including outfall lines and natural drainage ways which may be affected by the proposed development, and the estimated volume and rate of runoff of the area served by the drains.
 - (D) A plan for erosion control and other specific control practices to be employed on the disturbed area where necessary.
- iv. A revegetation plan that shows:
 - (A) The type, size, location, and grade of vegetation that will be used to complete the development plan and restore areas disturbed during construction, on a scaled plan of one inch equaling 30 feet, or better.
 - (B) Slope stabilization measures to be installed.
- g. **Standards**
The following subsections apply to development under this subsection C.4.:

- i. 21.07.020C.3.c., *Site Disturbance Envelope*;
 - ii. 21.07.020C.3.d., *Cutting, Grading, and Filling*;
 - iii. 21.07.020C.3.g., *Natural Drainage Patterns*;
 - iv. 21.07.020C.3.h., *Ground Cover and Revegetation*; and
 - v. 21.07.020C.3.i., *Building Design Standards*.
- h. Approval Criteria**
- i. The proposed development minimizes disruption of the natural topography and protects natural features on the site in their natural state to the greatest degree possible.
 - ii. The principal and accessory structures have been sited in such a manner as to protect natural features of the site, minimize grading, preserve the appearance of scenic vistas, and minimize the risk of property damage and personal injury from natural hazards.
 - iii. The design of the structures includes massing, roof lines, exterior materials and colors, and decking that complements the terrain and complies with the building design standards set forth in paragraph C.3.i. above.
 - iv. Proposed landscaping preserves the natural character of the area while minimizing erosion and fire hazard risks to persons and property.
 - v. The drainage design of the development will have no adverse impact on neighboring or nearby properties.
 - vi. Areas not well suited for development due to soil stability characteristics, geology, hydrology limitations, or wastewater disposal, have been avoided.

D. Wildlife Management Corridors

1. Intent

The purpose of this section is to reduce wildlife-human conflicts by managing certain linear stream corridors to minimize adverse human-wildlife interactions and to facilitate more safely the movement of wildlife in those corridors identified in this section. It is not the intent of this section to reduce density that is otherwise allowed.

2. Applicability

This subsection shall apply within 200 feet on either side of the ordinary high water of the following streams: Peters Creek and its tributaries upstream of the Old Glenn Highway, Eagle River, South Fork of Eagle River (below the falls), Ship Creek (upstream from Reeve Blvd.), Campbell Creek (upstream from Lake Otis Parkway), North Fork of Little Campbell Creek (upstream from Elmore Road), Rabbit Creek, Little Rabbit Creek, Indian Creek, Bird Creek, Penguin Creek, California Creek, Glacier Creek, Virgin Creek and Portage Creek.

3. Standards

Within the area identified in subsection D.2. above, the following mandatory standards shall apply:

- a. No new landfills, transfer stations, schools, or campgrounds are allowed.
- b. All outdoor trash receptacles shall be bear-resistant, and food shall not be stored outside.
- c. Roads, driveways, or trails, including bridges, shall be subject to the setback requirements of this title and shall be designed to facilitate wildlife passage along streams and to minimize wildlife-human conflicts.
- d. Trails shall be sited with direct consultation with the state department of fish and game.

4. Discretionary Approvals

- a. Within the area identified in subsection D.2. above, the following shall be considered by decision-making bodies during any discretionary approval:
 - i. Location of new buildings, trails, and fences.
 - ii. Long-term retention of natural vegetation and terrain in a landscape pattern that provides cover for wildlife movement and directs that movement through the area, away from centers of human activity.
- b. All applicable discretionary approvals under this section shall be referred to the Alaska department of fish and game, wildlife division, for their review, comments, and recommendations, which shall be considered by the decision-making body.

21.07.030 PRIVATE OPEN SPACE

A. Purpose

- 1. In residential development, private open space is intended to provide residents with opportunities for active and passive outdoor recreation, relaxation, and enjoyment. Open space enhances the quality and livability of new development and can preserve vegetation, access to light and air, and scenic views.
- 2. In nonresidential development, private open space is intended to contribute to the walkability and general quality of the public realm, and to provide employees and customers with space for active or passive recreation and relaxation.

B. Applicability and Open Space Requirement

Development shall be required to set aside private open space according to the following minimum requirements. Single-family, two-family, and townhouse residential uses are exempt. For the purposes of this section, gross floor area shall not include floor area devoted to parking or loading, or indoor private open space that meets the standards of C.4. below.

- 1. R-2M and R-2F districts: 480 square feet of private open space per dwelling unit, or an area equal to five percent of the gross floor area of group living uses or nonresidential development.

2. R-3 district: 400 square feet of private open space per dwelling unit. At least half of the private open space shall be shared in common among the units. Group living uses and nonresidential development shall provide an area equal to five percent of the gross floor area for open space.
3. R-4 and R-4A districts: For a multifamily use with townhouse-style construction, 225 square feet of private open space per dwelling unit, to be provided for the exclusive use of each dwelling unit per C.2. below; for non-townhouse-style multifamily uses, 125 square feet of private open space per dwelling unit, and at least half of the private open space shall be shared in common among the units. Group living uses and nonresidential development shall provide an area equal to five percent of the gross floor area for open space.
4. B-1A, B-3, RO, NMU, CMU, and RMU, and nonresidential development in residential districts:
 - a. Private open space equal to five percent of the gross floor area of the nonresidential portion of the development shall be provided.
 - b. Where dwelling units are part of the development, an additional 120 square feet of private open space per dwelling unit shall be provided, which shall not be combined with private open space for the nonresidential portion of the development.
5. DT and MT districts: [to be determined through Downtown Plan and Midtown Plan and regulations processes]

C. Exemptions

The following are exempt from the private open space requirement:

1. Parks and Open Areas, Public Safety Facility, Transportation Facility, Utility Facility, Telecommunication Facility, Agricultural Uses, Vehicles and Equipment, Manufacturing and Production, Warehouse and Storage, and Waste and Salvage use categories;
2. Any building floor area devoted to parking and/or loading; and
3. Any building with less than 1,000 square feet of gross floor area.

D. Standards

1. Areas Not Credited

Lands within the following areas shall not be counted towards required private open space areas:

- a. Setbacks with average slopes over 10 percent;
- b. Drainage easements, ditches, swales, and other areas intended to collect and channel water;
- c. Required site perimeter and parking lot landscaping;
- d. Public or private streets or street rights of way;

- e. Parking facilities, driveways, other motor vehicle circulation areas, loading areas, and refuse collection areas; and
- f. Land covered by structures not intended solely for recreational uses.

2. Use of Private Open Space Areas

Required private open space may be private yard, garden, patio, deck, balcony, or other open space reserved for the exclusive use of a single dwelling unit. It shall be designed for the occupants of a specific dwelling, and provided immediately adjacent to, and with direct access from the dwelling. The minimum inside dimension for such an area used to meet the private open space requirement shall be no less than 15 feet for ground level spaces such as yards, or six feet for above ground level spaces such as balconies. Individual private open space for the exclusive use of each dwelling unit shall have an average slope of less than five percent.

3. Physical Delineation

A fence, hedge, earth berm, railings on decks, and/or other continuous linear landscaping features shall define and separate ground-level private open space from abutting street rights-of-way. Such features may be incorporated as part of required perimeter landscaping. Private open space shall be separated from refuse collection areas by L2 visual enhancement landscaping.

4. Common Private Open Space

Private open space areas to be used in common by residents and/or associated with nonresidential uses or mixed uses are intended to be usable spaces that incorporate user amenities facilitating passive or active recreation and relaxation. These areas shall meet the following standards:

- a. At least half of the common private open space shall be contiguous.
- b. Common private open space shall be conveniently accessible to residents or users of the development. The nearest building façade to the open space, any façade sharing a corner with the nearest building façade, or any façade directly facing the open space, shall have a primary entrance. A walkway shall connect common private open space to primary building entrances.
- c. The minimum inside dimension for an area used to meet the requirement shall be 20 feet for residential uses and 15 feet for nonresidential uses.
- d. Common private open space may include lawn areas; picnic areas; gardens; natural vegetation; equipped recreation areas; sports courts; hard surfaced pedestrian spaces such as patios, decks, courtyards, housing courtyards, or plazas; indoor private open space pursuant to C.5. below; and/or roof tops or terraces.
- e. Up to 25 percent of the total required open space area may be developed for active recreation, such as with play equipment or delineated sports field.

5. Indoor Private Open Space Option

Up to 25 percent of the total required private open space for residential uses, and up to 50 percent of the total required private open space for nonresidential uses, may be indoors. Such space:

- a. Shall be located and designed to maximize sunlight access by providing one square foot of transparent window and/or skylight area for each two square feet of floor area of the indoor private open space;
- b. Shall be climate controlled and furnished with features and amenities that encourage its use;
- c. Shall be accessible to all residents, or to all employees and customers of the development; and
- d. Shall not be combined with some other function, such as laundry or storage.

6. Incentive for High Quality Spaces

The total open space area requirement may be reduced by 25 percent if the largest common open space area meets all the other requirements of this section and the following standards:

- a. Has less than an average five percent slope;
- b. Is well-drained and not wetlands;
- c. Has a minimum inside dimension of 25 feet; and
- d. Receives sunlight access on the majority of the open space for at least four hours per day between the spring and fall equinox.

7. Ownership

All private open space areas not reserved for the exclusive use of a single dwelling unit shall be owned jointly or in common by the owners of the development or permanently preserved through some other mechanism satisfactory to the director. While private open space may be platted into separate tracts, those tracts which provide required private open space shall not be sold separately from the development.

8. Fee In Lieu Prohibited

The payment of fees in lieu of the set-aside of land for private common open space is prohibited.

21.07.040 DRAINAGE, STORM WATER TREATMENT, EROSION CONTROL, AND PROHIBITED DISCHARGES

A. Purpose

- 1. Drainage plans and the requirements of this section and the *Design Criteria Manual* are intended to implement the following principles of drainage planning:
 - a. The design of a drainage system shall not transfer a problem from one location to another.
 - b. Adequate space shall be provided for drainage conveyance and storage.
 - c. Good drainage design incorporates the effectiveness of the natural systems, rather than negating, replacing, redirecting, or ignoring them. The features, capacity, and function of the existing natural system shall be considered and utilized.

- d. Drainage and storm water management facilities shall be designed with ease of maintenance, long-term function, sub-arctic climate function, protection of public safety, and accessibility as primary considerations.
2. Other purposes of this section include:
 - a. Regulating development preparation and land-disturbing activity in order to control erosion and sedimentation and accordingly to prevent water pollution from sedimentation, to prevent accelerated erosion and sedimentation of lakes and natural watercourses; and to prevent damage to public and private property by erosion and/or sedimentation during and after construction;
 - b. Regulating storm water discharge to improve the quality of the environment for residents of the municipality, administer the Municipal Separate Storm Sewer permit, and manage impacts to the watersheds in the municipality; and
 - c. Minimizing point and non-point source pollution into the water bodies of the municipality.

B. Guidance Documents

The municipal engineer shall develop, implement, and maintain various guidance manuals which shall provide standards and guidelines for this section 21.07.040. The *Design Criteria Manual* and the *Storm Water Treatment Plan Review Guidance Manual* are examples of such manuals.

C. Emergencies

Where site work must deviate from approved plans due to an emergency, the municipal engineer shall be notified on the next business day. Changes to an approved plan shall be submitted within 14 days to the project management and engineering department. For the purposes of this section, an "emergency" is a situation which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action requiring a permit is not undertaken immediately.

D. Drainage

1. **Intent**

A drainage plan shall show the post-development drainage patterns of the site.
2. **Applicability**

This section applies to all development within the municipality.
3. **Drainage Plan Required**
 - a. Applications for the following entitlements shall include a drainage plan:
 - i. A permit from the development services department, for projects that include land disturbance;
 - ii. Subdivision plat (both preliminary and abbreviated plats);
 - iii. Site plan review (administrative and major); and
 - iv. Conditional use.

The drainage plan submittal requirement may be waived by the director and the municipal engineer if both agree that such a plan is not necessary.

- b. The drainage plan shall show the area affected by the application, as well as watercourses, drainage and water quality easements, appropriate drainage outfall for surface water, roof drainage, and other impervious surfaces, and any other pertinent information, and shall address surface and subsurface drainage. The drainage plan shall also indicate impacts, if any, on adjacent, up-gradient, and down-gradient properties.
- c. An approved drainage plan is required before any site work commences.

4. **Standards**

Drainage plans shall comply with the requirements of municipal code and the guidance of the *Design Criteria Manual*. Post-development drainage plans shall be designed in a manner such that there will be no adverse off-site impacts. Any net increase of water volumes must be mitigated and/or directed to an adjacent drainage system or receiving water that has the demonstrated capability to handle the new flows. The municipality may require a dedicated drainage easement(s) to ensure the drainage is consistent and compatible with surrounding drainage patterns.

5. **When No Permit is Required**

- a. In situations where a building or land use permit is not required, all design and construction activities shall comply with municipal code.
- b. If the municipal engineer reasonably believes that a project is significant in nature or that it will have negative impacts on surrounding property, water quality, drainage, or the roadways, the municipal engineer may require submittal of a drainage plan and a full review of the project. The applicant shall pay the appropriate review fees for the review. If the project is under construction, the municipal engineer may issue a stop work order until the project has been reviewed and approved.
- c. If a project has been completed and there are negative impacts on surrounding property, water quality, drainage, or the roadways, the municipal engineer may pursue enforcement actions under chapter 21.13.

6. **Exposure of Subsurface Flows**

If, during site work, unexpected subsurface flows are exposed, the municipality shall be informed immediately. If the subsurface flow cannot be contained within the site and has a significant off-site impact, work shall cease immediately and shall not be resumed until a temporary flow management plan has been submitted to and accepted by the municipality. In addition, the developer shall amend the drainage plan to address the exposed flows and potential for glaciation and shall submit it to the municipality and receive approval before resuming site work other than temporary flow management.

E. **Storm Water Treatment and Erosion and Sediment Control**

1. **Intent**

A storm water treatment plan shall show both the controls put in place during construction and any needed post-development controls to prevent erosion and protect water quality.

2. Applicability

Storm water treatment plan approval is required prior to commencement of land clearing or ground disturbing activities; the discharge of surface water (including from snow disposal sites); the construction, alteration, installation, modification, or operation of a storm water treatment or disposal system; demolition or utility work; connection to the municipal separate storm sewer system; work in water bodies, wetlands, or watercourses; or dewatering activities, except as listed in E.3. below. All construction, development, and maintenance activities shall be in accordance with the approved storm water treatment plan.

3. Nonconformities

No nonconforming rights are granted for this section 21.07.040E.

4. Exceptions

A storm water treatment plan shall not be required for the following. An erosion control plan may still be required if the discharge is so concentrated as to cause soil disturbance. The municipal engineer may waive the requirement for a storm water treatment plan for other activities that, in his or her judgment, will not create erosion or impair water quality.

- a. Building improvements where no earth is disturbed;
- b. Any earth disturbance that is less than 500 square feet in area;
- c. Agricultural activities (not including site landscaping). Discharges from agricultural activities are still subject to water quality standards and potential enforcement for illicit discharges to watercourses or the storm sewer system;
- d. Discharges of the following into the municipal separate storm sewer system:
 - i. Uncontaminated water line flushing;
 - ii. Residential irrigation water;
 - iii. Rising ground waters;
 - iv. Uncontaminated ground water infiltration;
 - v. Uncontaminated discharges from potable water sources;
 - vi. Foundation drains;
 - vii. Air conditioning condensate;
 - viii. Springs;
 - ix. Uncontaminated water;
 - x. Individual residential car washing;
 - xi. Flows from riparian habitats and wetlands;
 - xii. De-chlorinated swimming pool discharges;

- xiii. Street wash waters; or
- xiv. Flows from emergency fire fighting activity.

5. Submittal Requirements and Review Procedure

Storm water treatment plans shall be submitted to the project management and engineering department on the form provided. The submittal shall include plans for both temporary (during construction) and permanent storm water treatment and erosion control, and any supplementary information required in the user's guide or the *Design Criteria Manual*.

a. Storm Water Treatment Plan Review Guidance Manual

The *Storm Water Treatment Plan Review Guidance Manual* shall be used to develop, review, and approve storm water treatment plans. Applicants submitting plans under this subsection shall comply with the manual regarding plan requirements and reviews, and if necessary shall gather data to confirm storm water conditions.

b. Changes to an Approved Storm Water Treatment Plan

Any changes to permanent storm water controls from an approved storm water treatment plan require approval by the municipal engineer. Changes in temporary or construction storm water treatment controls or best management practices necessary to maintain effective storm water treatment do not require municipal approval but shall be documented.

c. New Application Required

If dewatering, land clearing, construction, alteration, installation, modification, or operation has not begun within one year after issuance of a storm water treatment plan approval, the approval is void, and a new application shall be submitted to the project management and engineering department for review and approval.

d. Project-Wide Approval

The municipal engineer may issue a project-wide approval to an applicant who plans to conduct an operation with the same runoff characteristics at various discharge locations. He or she may require the submittal of site-specific plans, including a schedule and description of all planned discharge activities, for approval, and may restrict that approval to certain proposed discharge activities.

6. Land Clearing

Mechanized land clearing requires an approved storm water treatment plan. Until a subsequent use is approved, a temporary native vegetation buffer shall be retained on the perimeter of the lot being cleared, equal to or greater than the specified minimum setback required in the zoning district. This buffer shall be at least 15 feet wide on the perimeter of lots in commercial and industrial zoning districts, except where these are adjacent to PLI and/or residential zoning districts, where the temporary buffer shall be a minimum of 30 feet wide. Those areas of native vegetation in commercial and industrial zoning districts not essential to the parcel's development and situated on the perimeter of the site shall be retained and protected from disturbance as specified in subsection 21.07.080G.3.

7. Erosion and Sediment Control Administrator

A qualified erosion and sediment control administrator, who shall be responsible for the erosion, sedimentation, and best management practices during construction, shall be

identified in each storm water treatment plan submitted for approval, except for storm water treatment plans for owner-built single- and two-family dwellings. Evidence of contractual liability shall be provided when requested.

- a. In order to be identified as a qualified administrator, a person shall successfully complete a training course and associated test for certification from a training program approved by the project management and engineering department.
- b. The qualified administrator shall maintain their certification in active status throughout the length of the project. In the case where the qualified administrator's certification becomes expired or revoked, a new qualified person shall be selected to be the erosion and sediment control administrator and shall be identified on the storm water treatment plan.

8. Alternate Materials, Design, and Method of Construction

- a. The provisions of this section are not intended to prevent the use of any alternate material, design, or method of construction not specifically prohibited by this code, provided any alternate has been approved and its use authorized by the municipal engineer.
- b. The municipal engineer may approve any such alternate, provided that he or she finds that the proposed design complies with the intent and purpose of this code, and that the material, method, or work offered is, for the purpose intended, at least the equivalent of that required in this code in suitability, effectiveness, durability, safety, sanitation, and degree of structural integrity. The details of any action granting modifications or the acceptance of a compliance alternative shall be recorded and entered in the project management and engineering department's files.
- c. Whenever there is insufficient evidence of compliance with any of the provisions of this code or evidence that any material or construction does not conform to the requirements of this code, the municipal engineer may require tests as proof of compliance to be made at no expense to the municipality. Test methods shall be as specified by this code or by other recognized test standards. If there are no recognized and accepted test methods for the proposed alternative, the municipal engineer shall determine test procedures. All tests shall be made by an approved agency. Reports of such tests shall be retained by the municipal engineer for the period required for the retention of public records.

9. Inspections

a. *Required Inspections*

Prior to the commencement of or during land clearing or ground disturbing activities, the discharge of surface water, or dewatering activities subject to this section, an inspection of approved Best Management Practices associated with the storm water treatment plan shall be conducted. Prior to the issuance of a certificate of zoning compliance, permanent site controls shall be verified by inspection or other means, as determined by the municipal engineer. The owner or contractor of record is responsible for requesting the required inspections at the appropriate times.

b. *Other Inspections Authorized*

- i. A municipal official, upon presentation of proper identification, may enter the premises at reasonable times to inspect or perform duties imposed by this code, for the purpose of determining whether the owner or

operator thereof is in compliance with the specific requirements of this section. If such premises are unoccupied, the official shall first make a reasonable effort to locate the owner or other person having charge or control of the premises and request entry. If entry is refused, any approvals issued under this section may be immediately suspended until an inspection is conducted, and the official shall have recourse to the remedies provided by law to secure entry. Permittees, owners, or operators shall immediately stop all work upon the site being posted with a stop work order for failure to allow inspection.

- ii. A municipal official may inspect any property or facility suspected as the source of illicit discharges in violation of 33 USC 1342 (1987) as amended.
- iii. No inspection for which a warrant would be required under the constitution of this state or the United States may be conducted under this section without the proper warrant.

c. *Availability and Production of Plans and Records*

Approved plans and specifications shall be available on site for review by municipal inspectors at the time of requested inspections. At the request of municipal officials and during normal working hours, owners or operators of facilities, construction sites, premises, or areas shall produce and make available for inspection or copying all records or information required to be maintained or reported under the provisions of this section.

F. Prohibited Discharges

1. Applicability

This section applies throughout the municipality.

2. Prohibited Discharges or Acts

No person shall cause or permit illicit discharges:

- a. Into any waters of the state, or waters of the United States, unless such is first treated in a manner approved by the federal, state, or other agencies having jurisdiction; or
- b. Into a storm sewer of the municipality, other than pursuant to a dewatering permit, an approved storm water treatment plan, a National Pollutant Discharge Elimination System permit, or a permit issued by a local, state, or other agency having jurisdiction. Examples of discharges that are prohibited include:
 - i. Grease, fatty materials, offal, or garbage;
 - ii. Sand, sand dust, dirt, gravel, sawdust, metal filings, broken glass, or any material which may cause or create an obstruction in the sewer;
 - iii. Gasoline, benzene, fuel oil, or a petroleum product or volatile liquid;
 - iv. Milk or any liquid milk waste product in quantities in excess of ten gallons during any 24-hour period;

- v. Wax, cyanide, phenols, or other chemical or substance that may cause damage to materials of which the sewer system is constructed; or
- vi. Wastewater, as defined in AMC section 15.20.010.

For the purposes of this section, "illicit discharges" means pollutants or any materials other than storm water.

3. Dumping in Watercourses and Water Bodies

No person shall deposit, dump, abandon, throw, scatter, or transport solid waste, garbage, rubbish, junk, fill, soil, dirt, snow, ice, vegetation, or other material in such a manner as to obstruct, impound, or cause siltation of any river, stream, creek, watercourse, water body, stream or water body or wetland setback, water quality easement, storm sewer, ditch, drain, or gutter except as otherwise allowed by valid federal, state, and other permits or licenses relative to water pollution, water impoundment, or water quality control.

G. Hazardous Sites

- 1. For the purposes of this section, any site meeting any or all of the conditions and defects described below shall be deemed to be hazardous, provided that such conditions or defects exist to the extent that the health of the watershed, the requirements of the Municipal Separate Storm Sewer System permit, or the safety of the public are endangered, as determined by the municipal engineer.
 - a. Any site that causes sediment to be discharged in such a way that it may be delivered directly or indirectly to the storm sewer or receiving waters;
 - b. Any site that causes pollution to be discharged in such a way that they may be delivered to the watershed;
 - c. Any property for which the owner, manager, or tenant fails to install and/or maintain properly permitted BMPs; or
 - d. Any site where actions are causing soil masses to be in danger of sloughing, destabilizing, failing, or collapsing as a mass wasting event.
- 2. All sites which are determined after inspection by the municipal engineer to be a hazardous shall be abated as determined by the municipal engineer.

H. Violations and Penalties

- 1. **Violations**
 - a. Any person who violates any provisions of this section shall report such violation to the project management and engineering department and shall make available any information or records related to the contents of the substance discharged.
 - b. In addition to any other remedy or penalty provided by this title, any person who violates any provision of this title or regulations adopted there under shall be subject to the civil penalties or injunctive relief, or both, as provided by AMC section 1.45.010B.
 - c. In any action under this section, the municipality, if not a party, may intervene as a matter of right.

2. Penalties

- a. All sites operating without approval under this section may be immediately posted with a stop work order and shall pay double fees for all required permits or inspections under this section, as well as any fines which may be assessed. In addition to any other remedy permitted by law, fines may be assessed for failure to have a permit or approved plan, failure to allow inspections, or failure to obey a properly issued stop work order. Violators of this section may also be charged \$1,000 per day until the violation(s) is corrected.
- b. Any person who negligently or intentionally permits or causes a discharge in violation of this section shall, upon conviction, be subject to a civil fine penalty of \$5,000 to \$10,000 per day, or injunctive relief to cease the violation, or both. In addition to any fine assessed under this section, any person who violates any provision of this section or any rule or regulation adopted pursuant to this section shall be subject to a further civil penalty of up to double the cleanup and remediation costs incurred as a result of the violation.
- c. Any person who permits or causes a discharge in violation of this section shall be strictly liable, regardless of intent, for the full amount of any fines or other liquidated penalties incurred by the municipality for any violations of federal law which are caused by the discharge.
- d. No certificate of zoning compliance shall be issued until all fines levied under this section have been paid.

I. Appeals

1. Appeals of orders, decisions, or determinations made by the municipal engineer shall be heard by the zoning board of examiners and appeals, pursuant to subsection 21.03.050B.
2. The zoning board of examiners and appeals shall have no authority over the interpretation of the administrative provisions of this section, nor shall the board be empowered to waive requirements of this section.

21.07.050 UTILITY DISTRIBUTION FACILITIES

A. Underground Placement Required for New or Relocated Lines

1. Except as provided in subsection B. below, all newly installed or relocated utility distribution lines shall be placed underground.
2. Utility distribution lines owned or operated by utilities that are parties to a joint trench agreement shall be placed underground in a joint trench.
3. Nothing in this section restricts the maintenance, repair, or reinforcement of existing overhead utility distribution lines.

B. Exceptions

1. Except where an assessment district has been formed to convert overhead utility distribution lines as provided in title 19.60, utility distribution lines need not be placed underground in the class B improvement area defined in subsection 21.08.050B., or in the I-2 zoning district. However, in the following areas newly installed or relocated utility

distribution lines shall be placed underground: Lower Hillside, between and including Abbott Road, Rabbit Creek Road, Hillside Drive and the New Seward Highway.

2. Except where an assessment district has been formed to convert overhead utility distribution lines as provided in AMC chapter 19.60, CATV utility distribution lines need not be placed underground where there are other overhead utility distribution lines; provided that, when all of the other overhead distribution lines are placed underground, the CATV utility distribution line shall also be placed underground.
3. A new utility distribution line may be placed overhead when necessary immediately to restore service interrupted by accident or damage by flood, fire, earthquake or weather; provided that the utility distribution line shall be replaced by a utility distribution line conforming to this chapter within 12 months of its placement.
4. A utility distribution line or service connection may be placed on the surface of frozen ground, provided that it is placed underground within 12 months thereafter.
5. New facilities may be added to existing overhead utility distribution facilities located outside target areas.
6. A temporary utility distribution line may be placed overhead in connection with new construction if the utility's tariff approved by the state public utilities commission expressly provides for removal of that line by a date certain, not to exceed 12 months thereafter.

C. Variances

1. The director may grant a variance from subsection A. above when any of the following is found:
 - a. Placing a utility distribution line underground would cause an excessive adverse environmental impact;
 - b. Placing a utility distribution line underground would threaten public health and safety, because the placement cannot be shown to meet acceptable technical standards for safety; or
 - c. Placing a utility distribution line underground in an environmentally sound and safe manner would cost more than three times the cost of placing the line overhead, where the applicant demonstrates the relative cost to the satisfaction of the director.
2. The director may grant a variance from subsection A. above when he or she finds that the utility distribution line is being placed overhead temporarily for one of the reasons listed in this subsection:
 - a. The line is being placed to provide service when weather conditions do not allow excavation for underground placement;
 - b. A permanent location for underground placement is not available because of construction in progress; or
 - c. The line is being placed to provide service to a temporary use or structure.

A variance issued under this subsection C.2. shall expire within two years of its issuance.

D. Relationship to Chapter 21.12, *Nonconformities*

Existing overhead utility distribution lines located where this title requires new or relocated utility distribution lines to be placed underground are nonconforming utility distribution lines and are subject to the provisions of this subsection. A utility distribution line is not a nonconforming structure or use under chapter 21.12, *Nonconformities*, solely because it is a nonconforming overhead line under this section.

E. Designation of Target Areas

1. An electric utility that owns poles that support nonconforming utility distribution lines shall prepare or otherwise include as part of its annual capital improvement plan, a five-year undergrounding program consistent with subsection F. below. This five-year program shall be updated on an annual basis. Priorities shall be based on undergrounding in conjunction with the electric utility's essential system improvements and then by target area as set forth below in no particular order of priority. The director shall review and provide comment for consideration by the electric utilities on these five-year programs. When reviewing and commenting on these programs, the director shall consider the following factors in no particular order of priority:

- a. Whether undergrounding will avoid or eliminate an unusually heavy concentration of overhead distribution facilities.
- b. Whether the street or general area is extensively used by the general public and carries a heavy volume of pedestrian or vehicular traffic.
- c. Whether the appearance of grounds and structures adjacent to the roadway is such that the removal of the overhead facilities will substantially improve the general appearance of the area.
- d. Whether the street or area affects a public recreation area or an area of scenic interest.
- e. Whether there is a significant opportunity to achieve economies due to the anticipated relocation or replacement of overhead lines or the widening or realignment of streets within a given area.
- f. Whether the five-year program sufficiently addresses the objectives of subsection F. below.
- g. Whether the area under consideration is within a zone where new and relocated distribution lines are required to be placed underground.
- h. Whether the installation of underground distribution lines is economically, technically and environmentally feasible, including the effect on the attached utility.

2. The director shall confirm annually that the electric utilities have developed project undergrounding implementation plans. The director shall consult with the utilities and public agencies affected by any implementation plan. In reviewing implementation plans, the director shall consider the factors stated in subsection E.1. above.

3. The following shall be target areas:
 - a. Central Business District: between and including Third Avenue and Tenth Avenue and L Street and Ingra Street.
 - b. Midtown area: between and including New Seward Highway and Minnesota Drive and International Airport Road and Fireweed Lane.
 - c. All municipal and state street improvement projects except for those which do not require relocation of utility distribution facilities.
 - d. The following major traffic corridors:
 - i. Old Seward Highway.
 - ii. Ingra and Gambell Streets between and including Ninth Avenue and Fireweed Lane.
 - iii. Northern Lights Boulevard and Benson Boulevard between and including Glenwood Street and Arlington Drive.
 - iv. Muldoon Road between and including New Glenn Highway and Patterson Street.
 - v. Tudor Road between and including Patterson Street and Arctic Boulevard.
 - vi. Boniface Parkway between and including 30th Avenue and New Glenn Highway.
 - vii. Spenard Road between and including Hillcrest Drive and International Airport Road.
 - viii. Arctic Boulevard between 17th Avenue and Tudor Road.
 - ix. Lake Otis Parkway between Tudor Road and Abbott Loop
 - e. All park, recreational use, and scenic interest areas.
 - f. Eagle River Central Business District between and including the New Glenn Highway, North Eagle River Access Road, Aurora street as extended to the Old Glenn Highway, and the Old Glenn Highway.
 - g. Any area where utility distribution facilities are provided by more than one utility as a result of mergers and boundary changes approved by the state public utilities commission.
 - h. School and university areas.

F. Nonconforming Overhead Lines

1. An electric utility that owns poles that support nonconforming utility distribution lines shall remove the poles and place those lines underground. Any other utility that attaches to

such poles shall place its lines underground at the same time that the pole owner places lines underground.

- a. The electric utility that owns poles shall, in each fiscal year, expend at least two percent of a three-year average of its annual gross retail revenues derived from utility service connections within the municipality, excluding toll revenues, revenues from sales of natural gas to third parties, and revenues from sales of electric power for resale for purposes of undergrounding nonconforming lines. An electric utility's expenditures, pursuant to AS 42.05.381(h), within the municipality, shall be counted toward satisfaction of the two percent expenditure required by this subsection.
 - b. A utility with lines attached to a pole that is to be removed under this subsection shall place its lines underground at the same time that the pole owner places its lines underground. To underground nonconforming utility lines, an attached utility shall not be required to expend more than two percent of its annual gross retail revenues derived from utility service connections within the municipality, excluding toll revenues. For the purpose of satisfying subsection 21.07.050F., the utility's expenditures pursuant to AS 42.05.381(h) within the municipality are counted toward this two percent expenditure limit.
 - c. The electric utility that owns poles may choose which existing lines to underground in order to fulfill the two percent expenditure requirement, in consultation with appropriate public agencies and any other utilities.
 - d. An electric utility that owns poles that does not expend the amount required in subsection F.1. of this section, or that expends more than that amount, may carry over the under expenditure or over expenditure as an adjustment to the following year's obligation.
2. The electric utility that owns poles shall notify the director, and utilities or entities with lines attached to such poles, of the approximate date that the owner plans to remove the poles. Such notice, where possible, shall be given at least four months in advance of the undergrounding except where an emergency or other unforeseen circumstances preclude such notice, in which case such advance notice as is reasonable under the circumstances shall be provided.
 3. A utility shall annually submit a report of its undergrounding projects and expenditures for non-conforming lines to the director within 120 days of the end of the preceding calendar year.
 4. All new service connections shall be placed underground in the same manner as required for utility distribution lines under subsections A. and B. above. New service lines may be temporarily installed above ground from October through May, if placed underground prior to the next October.

G. Lines in Municipal Right-of-Way

1. The department of project management and engineering shall furnish to a utility owning or operating utility distribution lines all planning documents for municipal road construction that will require the relocation of those utility distribution lines.
2. Once a utility installing a utility distribution line underground in material compliance with a right-of-way permit issued by the department of project management and engineering

and in accordance with this chapter, the municipality shall reimburse the cost of any subsequent relocation of the utility distribution line required by municipal road construction.

3. If municipal road construction requires the relocation of a nonconforming utility distribution line, the municipality, as part of the road construction project cost, shall reimburse the cost of the relocation. Reimbursable costs under this subsection include engineering and design, inspection, construction, and general overhead costs, but exclude utility plant betterment costs. Plant betterment costs are the costs of providing utility distribution line capacity or quality beyond what current industry standards require for the capacity or level of service existing before the relocation.

H. Conversion of Service Connections

A utility that places a nonconforming utility distribution line underground as required by subsection F. above shall bear the cost of placing underground any related service connections or other utility facilities on a customer's premises, in accordance with the utility's applicable tariff or rules or regulations of operation.

21.07.140 OPERATIONAL STANDARDS

A. Purpose

The purpose of these operational standards is to prevent land or buildings within the municipality from being used or occupied in any manner so as to create any dangerous, injurious, noxious, or otherwise objectionable condition that would create adverse impacts on the residents, employees, or visitors on the property itself or on nearby properties.

B. Applicability

The provisions of this section 21.07.140 shall apply to all land within the municipality. The director may authorize temporary exemptions from one or more of the standards in this section during construction.

C. Standard

No use may cause excessive noise, vibrations, smoke, dust or other particulate matter, toxic or noxious matter, humidity, heat, or glare at or beyond any lot line of the lot on which it is located. No equipment or process shall be used which creates visual or audible interference in any radio or television receivers off the premises, or causes a fluctuation in line voltage off the premises.

The term "excessive" is defined for the purpose of this subsection as to a degree exceeding that generated by uses permitted in the district in their customary manner of operation, or to a degree injurious to the public health, safety, welfare, or convenience.