

ARTICLE 6 ENVIRONMENTAL PERFORMANCE STANDARDS

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§ 155.81 PURPOSE

The purpose of this section is to provide regulations of general applicability for property throughout the City that are intended to protect or enhance natural resources and processes, and minimize conflicts among land uses.

§ 155.82 SITE SUITABILITY REQUIRED

Land in all districts shall be suited to the purpose for which it is to be used. Development shall not be allowed on a parcel or lot if it is not suitable for the proposed use, unless appropriate remediation has been approved. Suitability analysis shall consider the following factors:

- (A) Susceptibility to flooding;
- (B) Presence of wetlands;
- (C) Soil and rock formations with severe limitations for development;
- (D) Severe erosion potential;
- (E) Steep slopes;
- (F) Existence of endangered or threatened species;
- (G) Important fish or wildlife habitat;
- (H) Presence of significant historic sites or resources;
- (I) Any other feature of the natural land likely to be harmful to the health, safety or welfare of future residents of the development or of the City.

§ 155.83 BLUFF PROTECTION

(A) *Intent.* It is the intent of this section to promote the protection of all bluffs within the city, including bluffs outside the designated shoreland area. Bluffs shall be delineated by an applicant and verified by the City prior to issuance of any development approvals. Steep slopes not considered bluffs are regulated under Section 155.84 of this Article.

(B) *Setbacks.* Principal and accessory structures, with the exception of retaining walls three (3) feet or less in height, shall be set back a minimum of thirty (30) feet from the top and toe of the bluff.

(C) *Grading restriction.* Grading is not permitted within the bluff impact zone, defined as twenty (20) feet from the top and toe of the bluff, except for the purpose of constructing access paths, or roads and parking areas as necessary under Subsection (D) below, according to an approved grading plan. Relief from this provision may be granted only if the City Engineer approves the proposed grading plan. Additional investigation into soils and hydrology may be required.

(D) *Placement of paved areas.* Roads, driveways and parking areas must not be placed within the bluff impact zones when other reasonable and feasible placement alternatives exist. If no alternatives exist, they may be placed within these areas, provided they are designed to minimize adverse impacts, with the approval of the City Engineer.

(E) *Selective clearing.* Only limited cutting of vegetation and shrubs and cutting, pruning and trimming of trees is allowed in bluff impact zones to provide views from the principal dwelling, to accommodate the placement of paths, roads, driveways or parking areas as necessary under (C) and (D) above, and to remove trees, limbs or branches that are dead, diseased, pose safety hazards or are non-native invasive species.

(1) Limited clearing shall affect no more than twenty-five percent (25%) of the tree canopy within the viewshed of the principal dwelling.

(2) A Certificate of Zoning Compliance is required prior to clearing. A revegetation plan for the site shall be submit as part of the permit request.

§ 155.84 STEEP SLOPE PROTECTION

(A) Construction of any building or structure on a slope between thirteen percent (13%) and eighteen percent (18%) shall require a Grading Permit and Storm Water Management Plan and a Certificate of Zoning Compliance. When any land disturbance activity disturbs more than five (5) acres, a Conditional Use Permit shall be required.

(B) Construction of a structure on a slope over eighteen percent (18%) shall require a Conditional Use Permit for a Grading Permit and Storm Water Management Plan.

(C) Additional investigation into soils and hydrology may be required as a condition of a Conditional Use Permit for construction on steep slopes.

§ 155.85 WETLANDS PRESERVATION

To the extent possible, all wetlands, including marshlands and swamps, shall be retained in their natural state for their hydrological benefits and also as wildlife habitat.

(A) *Discharges into wetlands.*

- (1) No part of any sewage disposal system requiring on-land or in-ground disposal of waste shall be located closer than one hundred fifty (150) feet from the normal high water mark unless it is proven by the applicant that no effluent will immediately or gradually reach the wetland because of existing physical characteristics of the site or the system.
- (2) Organic and other waste which would normally be disposed of at a solid waste disposal site or which would normally be discharged into a sewage disposal system or sewer shall not be directly or indirectly discharged to the wetland.
- (3) Storm water runoff from construction sites may be directed to the wetland only when substantially free of silt, debris and chemical pollutants and only at rates which will not disturb vegetation or increase turbidity.

(B) *Building constraints.*

- (1) The lowest floor elevation of buildings if used for living quarters or work area shall be at least three (3) feet above the seasonal high water level of the wetland.
- (2) Development which will result in unusual road maintenance costs or utility line breakages due to soil limitations, including high frost action, shall not be permitted.
- (3) The minimum setback for alt buildings shall be seventy-five (75) feet from the seasonal high water level of the wetland.

§155.86 GRADING AND STORM WATER MANAGEMENT

No land shall be developed and no use shall be permitted that result in water run-off causing flooding or erosion on adjacent property. Such run-off shall be properly channeled into a storm drain, watercourse, ponding area or other suitable facility. The 2-year, 10-year and 100-year 24-hour storm event discharge rates from the developed site shall not exceed the predevelopment runoff discharge rates for the same storm events. These predevelopment rates shall be based on the last ten (10) years of how the land was used. Storm water management plans shall be

prepared in accordance with the Lake City Grading and Storm Water Management Handbook. Requirements for grading permits are included in Article 3, Section 155.34(G).

§ 155.87 SITE EROSION AND SEDIMENT CONTROL.

All development and activity that necessitates the grading, stripping, cutting, filling or exposure of soils shall be undertaken with site erosion and sediment control measures as specified in the Grading and Stormwater Management Handbook, and the following standards:

(A) *Placement of structures.* All new structures shall be located in such a manner as to minimize the removal of native vegetation and alteration of the natural topography.

(B) *Slopes.* Development on slopes with a grade of thirteen percent (13%) or more shall conform to Section 155.84 of this Article to insure that adequate measures have been taken to prevent erosion, sedimentation and structural damage.

(C) *Coordination.* Erosion and siltation control measures shall be coordinated with the different stages of development. Appropriate control measures shall be installed prior to development to control erosion.

(D) *Incremental development.* Land shall be developed in increments of workable size such that adequate erosion and siltation controls can be provided as construction progresses. The smallest practical area of land shall be exposed at any one period of time.

§ 155.88 TREE AND WOODLAND PRESERVATION

Natural vegetation, including ground cover and trees, shall be preserved and maintained to the greatest extent possible in order to control erosion and runoff, moderate extremes of temperature, preserve habitat, and enhance the quality of the physical environment. The following restrictions shall apply to all development:

(A) Structures and other amenities shall be located in such a manner that the optimum number of trees shall be preserved.

(B) Prior to the granting of a any permit required under Article 3 of this Chapter, it shall be the duty of the person seeking the permit to demonstrate that there are no feasible or prudent alternatives to the cutting of trees. If trees are cut, he or she will restore the density of trees to that which existed before development, but shall not be required to raise the density above ten trees per acre.

(C) Forestation, reforestation or landscaping shall utilize a variety of tree species consistent with the City of Lake City Community Forestry Plan, and shall not utilize any species presently under insect or disease epidemic. Species planted shall be hardy under local conditions and compatible with the local landscape.

(D) The root zone of existing trees shall be preserved and protected by fencing prior to any development, including grading, contouring or other development activities, so that the trees are not adversely affected by the work.

(E) Notwithstanding the above, the removal of trees seriously damaged by storms or other natural causes, or diseased trees shall not be prohibited.

(F) Timing of tree trimming shall be such as to minimize tree loss.

§ 155.89 LANDSCAPE REQUIREMENTS

All development sites shall be landscaped as provided in this section in order to control erosion and runoff, moderate extremes of temperature and provide shade, aid in energy conservation, preserve habitat, and generally enhance the quality of the physical environment within the City.

(A) *Landscape plan required.* A landscaping plan is required for all new commercial, industrial, institutional and multi-family development, all planned unit developments, and all subdivisions, with the exception of minor subdivisions, as defined in Chapter 154. The landscape plan shall include the following:

- (1) The location, size, quantity and species of all existing and proposed plant materials.
- (2) Methods for protecting existing trees and other landscape material, consistent with Section 155.088 above.
- (3) Structural and ground cover materials.
- (4) Provisions for irrigation or other water supplies.

(B) *Design considerations.* The following design concepts and requirements shall be considered when developing a landscape plan.

- (1) To the maximum extent possible, the landscape plan shall incorporate existing trees and other vegetation on the site.
- (2) Landscaped areas should be of adequate size to allow proper plant growth, protect plantings from vehicular and pedestrian traffic, and provide adequate areas for plant maintenance.
- (3) A variety of trees and shrubs should be used to provide visual interest year round. No more than fifty percent (50%) of the required number of trees and shrubs may consist of any one species. A minimum of twenty-five percent (25%) of the required number of trees shall be deciduous shade trees, and a minimum of twenty-five percent (25%) shall be coniferous trees.

- (4) Final slopes greater than 3:1 will not be permitted without special treatment such as terracing, retaining walls, or special ground covers.
- (5) All plant materials shall meet the following minimum size standards in Table 6-1.

Table 6-1. Minimum Size Standards for Landscape Materials

Plant Type	Minimum size at planting
Trees:	
Evergreen	6 feet in height
Deciduous - shade	2.5 inches caliper, measured 6 inches from base
Deciduous - ornamental	2 inches caliper, measured 6 inches from base
Shrubs:	
Evergreen	# 5 container*
Deciduous	# 5 container*
Shrubs used for screening (evergreen or deciduous)	# 5 container*

* Approximately 5 gallons. See American Standards for Nursery Stock, ANSI 260.1-2004 for exact specifications.

- (6) As an alternative to the minimum standards for landscape materials, a landscape plan prepared by a qualified professional certifying that said plan will meet the intent of this Section may be submitted.

(C) *Landscaping of setback areas.* All required setbacks not occupied by buildings, parking, paths or plazas shall be landscaped with turf grass, native grasses, trees, shrubs, vines, perennial flowering plants, and surrounding pervious ground cover.

- (1) A minimum of one (1) tree shall be planted for every fifty (50) feet of street frontage, lake shore or stream frontage, or fraction thereof.
 - (a) Trees adjacent to streets shall be planted within the front yard and may be arranged in a cluster or placed at regular intervals to best complement existing landscape design patterns in the area.
 - (b) Where property abuts a lake or stream, trees shall be planted at intervals of no more than fifty (50) feet along the shoreline, except where natural vegetation is sufficient to meet this requirement.
- (2) In addition to the requirements of (C)(1) above, a minimum of four (4) trees shall be planted for every one (1) acre of lot area covered by buildings, parking areas, and other impervious surfaces. Such trees may be used for parking lot landscaping or screening as specified in subsections (D) and (E) below.

(D) *Interior parking lot landscaping.* The purpose of interior parking lot landscaping is to minimize the expansive appearance of parking lots and provide shaded parking areas. Landscaping shall consist of planting islands and medians, comprising the required planting area specified under item (1) below.

- (1) At least five percent (5%) of the interior area of parking lots with more than thirty (30) spaces shall be devoted to landscape planting areas. Areas may consist of islands or corner planting beds.
- (2) Shade trees shall be provided within the interior of parking lots (in islands or corner planting beds) in accordance with the following table:

Table 6-2. Minimum Required Tree Planting for Parking Lots

Number of Parking Spaces	Minimum Required Tree Planting
0 - 30	None required
31 - 100	1 tree per 10 spaces or fraction thereof
101+	1 tree per 15 spaces or fraction thereof

(E) *Perimeter parking lot landscaping.* Parking areas shall be screened from public streets and sidewalks, public open space, and adjacent residential properties. The perimeter of parking areas shall be screened as follows:

- (1) A landscaped frontage strip at least five (5) feet wide shall be provided between parking areas and public streets, sidewalks or paths. If a parking area contains over one hundred (100) spaces, the frontage strip shall be increased to eight (8) feet in width.
 - (a) Within the frontage strip, screening shall consist of either a masonry wall, fence, berm or hedge or combination that forms a screen a minimum of three and one-half (3.5) feet and a maximum of four (4) feet in height, and not less than fifty percent (50%) opaque on a year-round basis.
 - (b) Trees shall be planted at a minimum of one deciduous tree per fifty (50) linear feet within the frontage strip.
- (2) Alongside and rear property lines abutting residential properties or districts, screening shall be provided, consisting of either a masonry wall, fence or berm in combination with landscape material that forms a screen a minimum of four (4) feet in height, a maximum of six (6) feet in height, and not less than ninety percent (90%) opaque on a year-round basis.

Landscape material shall include trees, planted at a minimum of one deciduous or coniferous tree per forty (40) linear feet along the property line.

(F) *Screening.* Screening shall be used to provide visual and noise separation of intensive uses from less intensive uses. Where screening is required in this Ordinance between uses or districts, it shall consist of either a masonry wall or fence in combination with landscape material that forms a screen at least six (6) feet in height, and not less than ninety percent (90%) opaque on a year-round basis. Landscape material shall include trees, planted at a minimum of one deciduous or coniferous tree per forty (40) linear feet along the property line. Additional landscape material such as shade trees or trellises may be required to partially screen views from above.

(G) *Maintenance and installation of materials.* Installation and maintenance of all landscape materials shall comply with the following standards:

- (1) All landscape materials shall be installed to current industry standards.
- (2) Irrigation or other water supply adequate to support the specified plant materials shall be provided.
- (3) All required landscaping and screening features shall be kept free of refuse and debris.
- (4) Any landscape material that dies or becomes diseased within the first year after installation shall be replaced by the developer.
- (5) Continuing maintenance and replacement of landscape materials shall be the responsibility of the property owner.

§ 155.90 STANDARDS FOR OUTDOOR LIGHTING

The purpose of the outdoor lighting standards in this section is to create minimum standards for the design and installation of all outdoor lighting. This section is intended to encourage lighting practices that will reduce light pollution, minimize light trespass and help reduce the energy and financial costs of outdoor lighting. Specifically, it is the intent of this section to eliminate or reduce problems of glare, up-light and over-lighting by controlling the design, brightness and hours of operation of outdoor light fixtures.

(A) *Definitions.* The following words, terms and phrases, when used in this section, shall have the meanings ascribed, except where the context clearly indicates a different meaning:

DIRECT LIGHT - light emitted directly from the lamp, off the reflector or reflector diffuser or through the refractor or diffuser lens of a luminaire.

FIXTURE - The assembly that houses the lamp and can include all or some of the following parts: mounting bracket, pole socket, lamp holder, ballast, reflector, mirror and/or refractor or lens.

FOOTCANDLE - A unit of measure for illumination. One footcandle is equivalent to the illumination produced by a source of one candle at a distance of one foot. One footcandle is equal to one lumen per square foot.

GLARE - Direct light emitted from a luminaire with an intensity great enough to cause visual discomfort, eye fatigue, a reduction in a viewer's ability to see, or, in extreme cases, momentary blindness.

GRANDFATHERED LUMINAIRE - Luminaires not conforming to this subsection that were in place at the time this ordinance took effect.

LAMP - The component of a luminaire that produces the actual light.

LIGHT TRESPASS - Light falling on another property or the public right-of-way when it is not required to do so.

LUMEN - The unit used to quantify the amount of light energy produced by a lamp, measured at the lamp. Lumen output of most lamps is listed on the packaging. For example, a 60-watt incandescent lamp produces 950 lumens while a 55-watt low-pressure sodium lamp produces 8,000 lumens. For the purpose of this ordinance, the lumen-output value shall be the initial lumen output rating of the lamp.

LUMINAIRE - A complete lighting unit, consisting of a lamp or lamps together with the parts designed to distribute the light, to position and protect the lamps and to connect the lamps to the power source. Commonly referred to as fixture.

OUTDOOR LIGHTING - The illumination of an outside area or object by any manmade device. This includes direct lighting for signs and light emitting from within a sign cabinet or sign structure.

SHIELDED LIGHT - An outdoor luminaire shielded or constructed so that no light rays are emitted by the installed fixture at angles above the horizontal plane of the luminaire's opaque cover or shade.

(B) *Control of glare.* All luminaires used for outdoor lighting shall be designed and installed to have their lamp, reflector and reflector diffuser concealed from any residential area or public street. Luminaires mounted beneath canopies shall be a flush-mount type so that they do not extend beneath the lower surface of the canopy. Direct lighting used for the purpose of illuminating any sign shall be aimed or shielded to meet this requirement.

(C) *Recreational facilities.* Lighting of outdoor recreational facilities, such as but not limited to ballfields, tennis courts, soccer fields, hockey or skating rinks, golf courses, driving ranges and special event or play areas, shall meet the following conditions:

- (1) All fixtures used for such lighting shall be shielded or aimed to comply with this section as much as possible and be designed or provided with sharp

cutoff capability to minimize light trespass and glare. This ordinance recognizes that lighting of recreational facilities may require a certain amount of direct, outward lighting to illuminate large areas.

- (2) Recreational facility lighting is prohibited after 10:30 p.m., unless a later completion time is approved by the City Council.

(D) *Grandfathering of nonconforming luminaires.* Luminaires lawfully in place before the effective date of this ordinance shall be allowed to remain, but must comply with the regulations that were in place at the time of their installation. If fixtures are replaced as part of any construction requiring a building permit, the fixture shall be upgraded to meet the requirements of this section.

(E) *Light pole height maximum.* The maximum height allowed for light poles shall be twenty-five (25) feet as measured from the grade at the base of the light pole to the uppermost part of the luminaire. Taller light poles may be installed to replace existing poles that exceed twenty-five (25) feet and for athletic field or recreational lighting.

(F) *Photometric plan required.* The developer of any recreational, multi-family residential or non-residential development shall submit a photometric plan as part of the development application process as specified in Article 3. A photometric plan shall include the following:

- (1) Site and architectural plans indicating the location of the types of luminaries proposed.
- (2) A detailed description of the luminaire, including the manufacturer's catalog cuts and drawings including sections.
- (3) A drawn plan that illustrates the light spread and lumen output of the proposed luminaries.

(G) *Light-intensity maximum.*

- (1) Any light or combination of lights which cast light on a public street shall not exceed one (1) footcandle (meter reading) as measured from the centerline of said street.
- (2) Any light or combination of lights which cast light on residential property shall not exceed four-tenths (0.4) footcandles (meter reading) as measured at the property line.

(H) *Light trespass.* All outdoor lighting fixtures shall be designed, installed and maintained to prevent light trespass. Direct light from luminaries shall not be directed toward adjacent or nearby residential property.

- (1) Roofing and other building materials, such as bare or galvanized metal shall not be oriented to cause sunlight to be reflected on other buildings.

§ 155.91 GENERAL PERFORMANCE STANDARDS

Performance standards are established to minimize conflicts among land uses, to preserve the use and enjoyment of property, and to protect the public health, safety and welfare. These standards shall apply to all uses of land or structures and are in addition to any requirements applying to specific zoning districts.

(A) *In general.* No use or structure shall be operated or occupied so as to constitute a dangerous, injurious, or noxious condition because of fire, explosion or other hazard, noise, vibration, smoke, dust, fumes, odor or other air pollution, light, glare, heat, cold, dampness, electrical disturbance, liquid or solid refuse or waste, water or soil pollution, or other substance or condition. No use or structure shall unreasonably interfere with the use and enjoyment of property by any person of normal sensitivities. In addition, no use or structure shall be operated or occupied in a manner not in compliance with any performance standard contained in this article or with any other applicable regulation.

(B) *Review by other agencies.* In determining compliance with the performance standards of this article, the Director of Planning may refer any matter to such governmental agencies or other entities as deemed necessary to obtain their review and comments as to such compliance.

(C) *Glare and Heat.* Uses producing glare or heat shall be performed within a completely enclosed building in such a manner as to make such glare and heat completely imperceptible from any point along the property line.

(D) *Noise.* Noise shall not exceed the levels specified in this section, and in Chapter 98 of the City Code.

- (1) Any activity not exempted by this section which exceeds the ambient noise level at any property line by more than six (6) decibels above the noise level designated in the following table shall be considered a violation of this chapter.

Table 6-3. Maximum Noise Levels

Duration of Sound	7:00 a.m. - 6:00 p.m. (all districts)	6:00 p.m. - 9:00 p.m. (residential districts) 6:00 p.m. - 7:00 a.m. (all other districts)	9:00 p.m. - 7:00 a.m. (residential districts)
Less than ten minutes	70db	75db	55db
Between ten minutes and two hours	60db	55db	45db
In excess of two hours	50db	45db	40db

- (2) In determining whether a particular sound exceeds the maximum permissible sound level in the above table:
 - (a) Sounds in excess of the residential district limitations as measured in a residential district are in violation of this section whether the sound originates in a residential district or any other district;
 - (b) During all hours of Sundays and state and federal holidays, the maximum allowable decibel levels for residential districts are those listed in the table for nighttime hours.

(3) *Exemptions.*

- (a) Sounds emanating from the operation of the following are exempt from the provisions of this section except during the hours of 9:00 p.m. to 7:00 a.m.:
 - (i) Motor vehicles on a public highway;
 - (ii) Aircraft;
 - (iii) Outdoor implements such as power lawn mowers, snow blowers, power hedge clippers and power saws;
 - (iv) Pile drivers or jackhammers and other construction equipment.
- (b) Sounds emanating from lawful and proper activities at school grounds, playgrounds, parks, playing fields or places of assembly are exempt from the provisions of this section.

(E) *Vibration.* The following vibrations are prohibited.

- (1) Any vibration discernible (beyond property line) to the human sense of feeling for three (3) minutes or more duration in any one hour.
- (2) Any vibration resulting in any combination of amplitudes and frequencies beyond the safe range of most current standards of the United States Bureau of Mines on any structure.

(F) *Toxic or noxious matter.* No use shall be operated so as to discharge across the boundaries of any lot or through percolation into the atmosphere or the subsoil beyond the boundaries of the lot, toxic or noxious matter in such concentration as to be detrimental to or endanger the public health, safety, comfort or welfare or cause injury or damage to property or business.

(G) *Air pollution.* All uses shall comply with the standards governing air emissions as adopted and enforced by the Minnesota Pollution Control Agency.

(H) *Odor emissions.* All uses shall comply with the standards governing odor emissions as adopted and enforced by the Minnesota Pollution Control Agency.

(I) *Explosives.* No activities involving the storage, utilization or manufacture of materials, goods or products which could decompose by detonation shall be permitted except such as are specifically approved by the City Council.

- (1) All uses involving the manufacture, storage or use of explosive or flammable materials shall employ best management practices and the provision of adequate safety devices to guard against the hazards of fire and explosion and adequate firefighting and fire-suppression devices standard in the industry.
- (2) The manufacture, bulk storage or use of any explosive or blasting agent, as defined by the Uniform Fire Code, shall be prohibited in any non-industrial district.
- (3) The storage of any flammable liquid shall be subject to the requirements of the Uniform Fire Code and review by the State Fire Marshal.

(J) *Water pollution.* No use shall be operated so as to create water pollution in such concentration as to be detrimental to or endanger the public health, safety, comfort or welfare or cause injury or damage to property or business.

(K) *Bulk storage of hazardous substances.* All uses associated with the bulk storage of oil, gasoline, liquid fertilizer, chemicals and similar potentially hazardous, toxic or explosive substances shall require a conditional use permit in order to assure adequate safety measures are in place and shall comply with all requirements of and have appropriate permits indicating compliance with the Minnesota State Fire Code and Minnesota Department of Agriculture regulations.

- (1) Diking around storage tanks may be required as a condition for the use. Diking shall be suitably sealed and shall hold a leakage capacity equal to one hundred fifteen percent (115%) of the tank capacity.
- (2) For the purposes of this section, bulk storage shall be considered those tanks with a capacity of 10,000 gallons or more, or those facilities with smaller capacities otherwise deemed hazardous by the Fire Chief.

§ 155.92 SEWAGE TREATMENT

(A) *Sewage treatment standards.* Private or community sewer systems in all districts shall meet or exceed the standards for individual sewage treatment systems in the Minnesota

Pollution Control Agency's Standards for Sewage Treatment Systems (MCAR Chapter 8040, as amended).

(B) *Use of public systems required.* Where the Lake City municipal sewer system is located within one hundred (100) feet of a property line, a connection to that system shall be required, as specified in Chapter 53.02 of the Lake City Code of Ordinances.