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14-500 NATURAL RESOURCE PRESERVATION

14-500-01 NATURAL RESOURCE PROTECTION GENERALLY

14-500-01-A. Applications for preliminary plan/plat approval or site plan approval must be accompanied by a natural resources inventory and protection plan.

14-500-01-B. Natural resources inventory and protection plans must identify the location of all:

1. streams and required stream buffers;
2. wetlands under the jurisdiction of the U.S. Army Corps of Engineers with an area of one acre or more;
3. water bodies with an area of one acre or more;
4. slopes in excess of 20%;
5. rock outcroppings with an area of one acre or more; and
6. woodlands that have a contiguous tree canopy of one acre or more.

14-500-01-C. The natural resource protection plan must identify resource areas proposed to be disturbed and those proposed to be protected and include a narrative description of measures that will be taken to preserve identified resource areas.

14-500-01-D. The natural resources inventory and protection plan must be submitted to the Community Development Department before any clearing and grubbing operations.

14-500-01-E. In cases where grading, vegetation disturbance or any construction is proposed within 10 feet of a natural resource designated for protection by the natural resource protection plan, the area must be surveyed to ensure the proper location of the resource to be preserved.

14-500-01-F. Sites containing identified natural resource areas — as called out in Sec. 14-500-01-B — must be protected as follows:

1. streams and stream buffers must be protected in accordance with Sec. 14-500-02.
2. jurisdictional (Army Corps of Engineers) wetlands must be protected in accordance with local, state and federal regulations;
3. water bodies with an area of one acre or more must be preserved in their entirety. Any existing vegetation within 50 feet of the water's edge must remain undisturbed and set aside as a no-disturbance area;
4. at least 50% of all slopes in excess of 30% must be preserved;
5. at least 50% of all rock outcroppings with an area of one acre or more must be preserved; and
6. at least 50% of all woodlands that have a contiguous tree canopy of one acre or more must be preserved (see also the tree preservation regulations of Sec. 14-500-03).

14-500-01-G. No grading, grubbing or clearing permits may be issued by the Public Works Department for activities that would violate the natural resource protection standards of this article.

14-500-02 STREAM BUFFERS

14-500-02-A. POLICY

The purpose of this article is to protect the health and safety of the community through the preservation of riparian corridors, providing appropriate flood and storm water management systems. The article is designed to address public safety concerns, such as property damage and loss of life resulting from

flooding, and public health concerns, such as the pollution of water resources. This article emphasizes that the adverse impacts of development on riparian corridors necessitates effective flood control and storm water management practices to protect the community from the loss of healthy ecological systems.

The intent of this article is to establish minimum acceptable requirements for buffers to protect the streams, wetlands and steep slopes of the city; to improve the water quality of water-courses, reservoirs, lakes, and other significant water resources within the city; to reduce impacts to riparian and aquatic ecosystems; and to provide for the environmentally sound use of land resources. Setback restrictions on development provide for the protection of areas to be designated as stream buffers. Stream buffers provide numerous environmental protection and resource management benefits that can include the following:

1. Restoring and maintaining the chemical, physical, and biological integrity of water resources
2. Removing pollutants delivered from urban stormwater runoff
3. Reducing erosion and sediment entering the stream
4. Reducing future flood hazards
5. Stabilizing stream banks
6. Providing infiltration of stormwater runoff
7. Contributing the organic matter that is a source of food and energy for the aquatic ecosystem
8. Providing tree canopy to shade streams and promote desirable aquatic organisms
9. Providing riparian wildlife habitat
10. Creating community and neighborhood amenities by furnishing scenic value and recreational opportunity
11. Stream buffers are an integral part of the city's Storm Water Management Program, as provided for in the city code

14-500-02-B. DEFINITIONS

The following definitions are to be used only interpreting the natural resource protection and stream buffer regulations of this article.

1. **BUFFER**
A vegetated area or zone, including trees, shrubs, and herbaceous vegetation, that exists or is established to protect a stream system or other water resource.
2. **BUFFER PLAN**
A plan approved by the city pursuant to Sec. 14-500-02-D.
3. **CONSTRUCTION FENCING**
Four-foot high orange mesh, or other vibrant color approved by the city.
4. **DEVELOPMENT**
Any human-made change to improved or unimproved real estate that requires an application or permit to be filed with the city, including but not limited to, buildings, fences and other structures; mining, dredging and drilling operations; grading, site clearance, paving, excavation and filling; storage of equipment and materials.

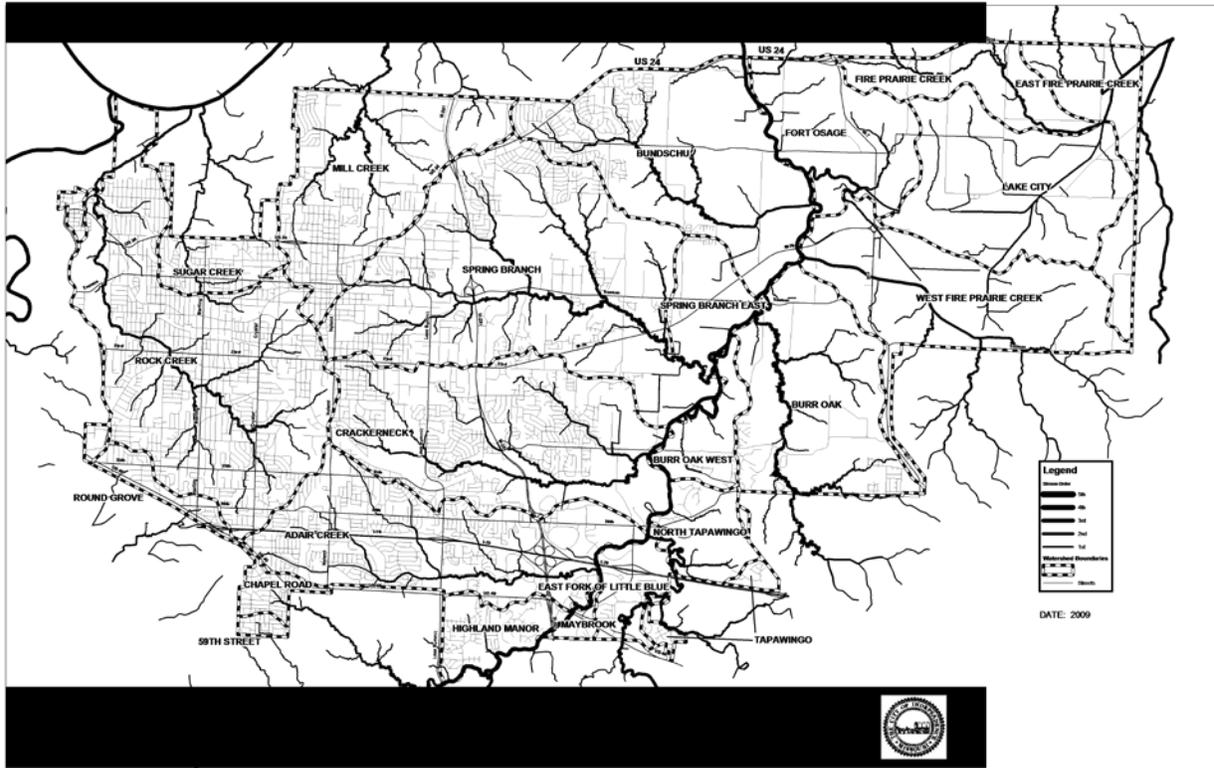
5. **MIDDLE ZONE**
The variable width zone that lies between the streamside zone and the outer zone of the stream buffer.
6. **OUTER ZONE**
The zone that is adjacent to the outer boundary of the middle zone of the stream buffer.
7. **RECREATIONAL USE**
Any recreational use which utilizes a pervious facility such as picnic areas, playgrounds, paths and trails. It does not include parking lots and paved facilities or other uses involving impervious surfaces, such as hard surface tennis and basketball courts.
8. **STORM SEWER SYSTEM**
The system of conveyance of storm water which includes structures such as pipes, culverts, paved channels, catch basins and storm drains.
9. **STORM WATER MANAGEMENT PROGRAM**
The program developed by the city to satisfy the requirements of 40 CFR Part 122.26(d) and 10 CSR 20-6, 200(4), as may be amended from time to time.
10. **STREAM**
A body of running water moving over the earth's surface that flows at least part of the year, such as a creek, rivulet or river. Storm sewer systems and roadside ditches are not considered streams. Streams regulated by this article are shown on the Stream Map.
11. **STREAM BANK**
A line formed by the outer boundary of the stream as delineated by the bank-full or channel-forming flow caused by approximately the two-year rainfall event.
12. **STREAM BUFFER**
The area or zone established to protect a stream system.
13. **STREAM CORRIDOR**
A stream and the adjacent buffer that is set aside in conformance to this article and which is substantially preserved in a natural state.
14. **STREAM MAP**
The map approved by the city pursuant to Sec. 14-500-02-C.
15. **STREAM ORDER**
A classification system for streams based on stream hierarchy and the position within a watershed. The smaller the stream, the lower its numerical classification. Stream order is determined by a combination of factors, including the confluence of smaller streams, increased flow from contributing water sources and the size of the watershed that feeds the stream. First order streams are the smallest streams regulated by this article; the term does not include roadside ditches. Streams orders are designated on the Stream Map adopted pursuant to this article.
16. **STREAM SETBACK**
The specified distance from each side of a stream bank or water resource in which restrictions on development activities and land uses are imposed.

17. **STREAMSIDE ZONE**
The 35 foot zone adjacent to the stream bank.
18. **VIEW CORRIDOR**
One or more areas, not to collectively exceed the lesser of (i) 75 feet or (ii) 40 percent of the width of any platted lot or parcel which is within a stream buffer, which may be pruned by permit to a level of not less than three feet above the ground to provide aesthetic views of streams for the owner of such lot or parcel.
19. **WATER POLLUTION HAZARD**
Any land use or activity that causes a relatively high risk of potential water pollution.
20. **WETLANDS**
Those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

14-500-02-C. APPLICABILITY

1. This article shall apply to all land or new development within the stream corridor, as defined by this article and applied to designated stream segments identified on the Independence Stream Order Map established December 1, 2005, and incorporated as a part of this section. No development shall occur on a parcel of land that is within or partially within the defined stream corridor, except in accordance with this article; provided, however, that this article shall not apply to land or to development which:
- (a) Is on land covered by an approved, unexpired preliminary plat, preliminary plan or site plan, where such approval was given before December 29, 2005; or
 - (b) Is covered by an unexpired building permit issued before December 29, 2005, in accordance with city code, and platting or site plan approval was not required prior to issuance of a building permit; or
 - (c) Is the subject of a Federal Clean Water Act Individual 404 Permit issued after timely notice of the application for such permit is provided to the city. If a development obtains a Federal Clean Water Act Individual 404 Permit allowing a stream to be relocated or otherwise altered, this article will apply to the new stream location; or
 - (d) Is being used for agricultural operations.
2. For the purpose of this article, the Little Blue Trace Park shall be deemed to be the stream buffer for the Little Blue River and the East Fork of the Little Blue River.
3. No development shall be approved that proposes development on any parcel of land wholly or partially within the defined stream corridor unless the proposed development is in compliance with the applicable provisions of this article.
4. Except as otherwise expressly provided, the Director of Water Pollution Control is responsible for administering, implementing and enforcing the provisions of this article.
5. The city is authorized to develop administrative policies and guidelines to implement this article.
6. Stream buffers, as required by this article, are a part of the city's Storm Water Management Program.

Figure 500-1



14-500-02-D. PLAN REQUIREMENTS

1. A buffer plan approved by the city is required for all projects where development or redevelopment is to occur on property that includes or is adjacent to a stream, except as provided by Sec. 14-500-02-C. The plan shall set forth an informative, conceptual, and schematic representation of the proposed activity so as to enable the city an opportunity to make a reasonably informed decision regarding the proposed activity.
2. Buffer plans must be submitted at the time of preliminary plan/plat or site plan approval. No separate review fee is required.
3. The delineation of the stream buffer and its component zones shall be shown on any building construction plans, preliminary plan/plat, final plat, and site plan, as may be required by city code. The buffer plan shall be submitted in conjunction with the required grading and engineering plans for any development, and the boundaries of the stream buffer shall be clearly delineated on the final grading plan.
4. A buffer plan shall contain the following information:
 - (a) A location or vicinity map showing the limits of the FEMA-delineated 100-year floodplain.
 - (b) Field-delineated and/or surveyed streams, springs, bodies of water (include a minimum of 150 feet into adjacent properties).
 - (c) Labels for the stream buffer zones and any structures or activities by the zone where they are to be located.
 - (d) A delineation of areas with slope greater than 15 percent with the percentage slope shown.

5. Boundary markers shall be installed prior to final approval of the required clearing and grading plan. Construction fencing shall be placed at the outer edge of the middle zone (as defined in Sec. 14-500-02-E.3) to delineate the buffer and shall be maintained throughout the construction of the project.
6. All final plats and survey developments prepared for recording shall clearly:
 - (a) Show the extent of any stream buffer on the subject property, including the delineation of the streamside, middle and outer zone;
 - (b) Provide a note to reference any stream buffer stating: "There shall be no clearing, grading, construction or disturbance of vegetation";
 - (c) Provide a note to reference any conservation easements governing all stream buffer areas stating: "Any stream buffer shown hereon is subject to conservation easements that restrict disturbance and use of these areas."
 - (d) The recorded conservation easements are to be referenced by book and page.

14-500-02-E. DESIGN STANDARDS FOR STREAM BUFFERS

1. A buffer for a stream shall consist of a strip of land extending along both sides of a stream including slopes greater than 15 percent.
2. The required width for all stream buffers (i.e., the base width) shall be a minimum average of 85 feet on each side of the stream beginning at the stream bank, with the requirement to expand the buffer depending on the size and type of the stream and the presence of slopes over 15 percent.
 - (a) First order streams shall have a minimum average buffer width of 85 feet on each side, with a streamside zone of 35 feet, a middle zone of 25 feet and an outer zone of 25 feet.
 - (b) Second order streams shall have a minimum average buffer width of 105 feet on each side, with a streamside zone of 35 feet, a middle zone of 45 feet and an outer zone of 25 feet.
 - (c) Third order streams shall have a minimum average buffer width of 125 feet on each side, with a streamside zone of 35 feet, a middle zone of 65 feet and an outer zone of 25 feet.
 - (d) Fourth order streams shall have a minimum average buffer width of 150 feet on each side, with a streamside zone of 35 feet, a middle zone of 90 feet and an outer zone of 25 feet.
3. The stream buffer shall be composed of three distinct zones on each side of the stream, with each zone having its own set of allowable uses and vegetative targets as specified in this article. No permanent structures or impervious surfaces are permitted in the stream buffer, except as provided by Sec. 14-500-02-F.2.
 - (a) Streamside Zone
 - (1) Protects the physical and ecological integrity of the stream ecosystem with undisturbed vegetation.
 - (2) Begins at the stream bank of the active channel and extends 35 feet.
 - (3) Allowable uses within this zone are highly restricted to low impact recreational uses such as walking, fishing and bird watching;
 - (4) Stormwater monitoring activities, and utility and road crossings may be allowed when approved by the city.

- (b) Middle Zone
- (1) Protects key components of the stream with mature vegetation adapted to the region and provides distance between upland development and the streamside zone.
 - (2) Begins at the outer edge of the streamside zone and extends a minimum of 25 feet or any additional buffer width as specified in Sec. 14-500-02-E.2.
 - (3) The middle zone width will be expanded to include lands with slope greater than 15 percent, where they occur.
 - (4) The middle zone width may be varied across the development to protect specific areas while providing continuity of the buffer, so long as the overall average width of the zone is maintained as required, with the review and approval of the city.
 - (5) Allowable uses within the middle zone are restricted to light recreation on pervious paths and trails and easements for sanitary sewers and stormwater best management practices, as approved by the city.
- (c) Outer Zone
- (1) Prevents encroachment into the stream buffer and filters runoff from residential and commercial development.
 - (2) Begins at the outward edge of the middle zone and provides a minimum width of 25 feet between the middle zone and the nearest permanent structure.
 - (3) Prohibits permanent structures and impervious cover, except for fencing.
 - (4) The outer zone may overlap/include side or rear yard setbacks, as may be required by this ordinance.
4. If stream buffers are disturbed or destroyed during development activities, they shall be restored to original or native conditions.
 5. Nothing in this section shall prohibit the placement of structures for the control and monitoring of water quality and water quantity within a stream buffer, as required by the city.

14-500-02-F. BUFFER MANAGEMENT AND MAINTENANCE

1. The stream buffer, including wetlands and floodplains but only to the extent they are within the buffer, shall be managed to enhance and maximize the unique value of these resources. Management includes specific limitations on alteration of the natural conditions of these resources. The following practices and activities are prohibited within streamside and middle zones of the stream buffer, except with approval by the city:
 - (a) Clearing of existing vegetation
 - (b) Soil disturbance by grading, stripping, or other practices
 - (c) Filling or dumping
 - (d) Drainage by ditching, underdrains, or other systems
 - (e) Use, storage, or application of pesticides, except for spot spraying of noxious weeds or non-native species consistent with recommendations of the city.

- (f) Housing, grazing, or other maintenance of livestock
 - (g) Storage or operation of motorized vehicles, except for maintenance and emergency use approved by the city.
2. The following structures, practices, and activities are permitted in the stream buffer, with specific design or maintenance features, subject to the review and approval of the city:
- (a) Crossings for roads, bridges and utilities:
 - (1) The right-of-way should be the minimum width needed to allow for maintenance access and installation.
 - (2) The angle of the crossing shall be as close as perpendicular to the stream or buffer as is practicable to minimize clearing requirements.
 - (3) The minimum number of road crossings should be used within each subdivision, and no more than one crossing is allowed for every 1,000 feet of buffer.
 - (b) Stream restoration projects, facilities, mitigation and activities approved by the city are permitted within the stream buffer, in accordance with the city's Riparian Corridor Management Plan.
 - (c) Water quality monitoring and stream gauging are permitted within the stream buffer.
 - (d) Individual trees within the stream buffer in danger of falling, causing damage to dwellings or other structures, or causing blockage of the stream, may be removed with approval of the city.
 - (e) View Corridors shall be allowed through the stream buffer by permit if they comply with standards established by regulations or ordinances.
3. Timber cutting techniques may be undertaken within the stream buffer under the advice and guidance of the city if necessary to preserve the buffer from extensive pest infestation, disease infestation, or threat from fire.
4. The stream buffer will be subject to nuisance controls, however the streamside zone and middle zone are exempt from city code provisions that require mowing.

14-500-02-G. OWNERSHIP AND RESPONSIBILITY FOR STREAM BUFFERS

1. The stream buffer areas must be established and recorded by the property owner. Particular zones may be established and protected by different methods. One or more of the following methods shall be used to provide for the preservation of the buffer area in perpetuity:
- (a) A drainage or conservation easement; or
 - (b) Inclusion in a development common area; or
 - (c) Dedication to the City of Independence with the city's acceptance.
 - (d) Inclusion in private ownership with restrictions.
2. Developments and projects must be designed so that all established stream buffers are accessible to facilitate inspection, construction, maintenance and other activities related to the stream and city infrastructure in the buffer area. Nothing contained in this paragraph shall establish an independent right of ownership.

14-500-02-H. VIOLATIONS

1. The city shall have the authority to issue orders to any person to immediately cease and desist violations of any provision of this article, of any approved Buffer Plan or of any consent orders entered into with the city under this section and to immediately correct said violations.
2. When any person is violating, or has violated, any provision of this article, or of an approved Buffer Plan, the city may issue to that person a notice of violation.
 - (a) A notice of violation shall be in writing, shall describe the nature of the violation, including a reference to the provision within this article that has been violated, and shall set a reasonable time for correction of the violation.
 - (b) A person receiving a notice of violation shall submit to the city an explanation of the violation and a plan for the correction thereof within 10 days after receipt of the notice, unless otherwise specified in the notice. The plan shall include specific actions which will be taken to remedy the violation. Submission of this plan shall not relieve said person of liability for any violations occurring before or after receipt of the notice of violation, nor other violations not addressed in the notice.
 - (c) The city may enter into Consent Orders, assurances of voluntary compliance or other similar documents establishing an agreement with the any person. The agreement may include specific action to be taken by said person to correct the noncompliance within a specified time period.
3. The city may petition the Circuit Court for the issuance of a temporary or permanent injunction, as appropriate, which restrains or compels the specific performance of the Buffer Plan, order, or other requirements imposed by this article.
4. Any person who violates any provision of this article, or any order issued by the city hereunder, shall be subject to the following:
 - (a) Stop work orders, or denial of applications for, or suspension or revocation of any license or permit issued by the City of Independence.
 - (b) Prosecution in Municipal Court with fines of up to \$500.00. Each day that a violation continues shall be deemed a separate offence.
 - (c) Recovery of the costs to restore and repair buffer areas.
 - (d) Civil action for injunctive relief and recovery of costs, including legal fees.

14-500-02-I. APPEALS

1. If a buffer plan is denied, the applicant shall first request reconsideration by the Director of Water Pollution Control. Failure to request reconsideration within 30 days shall be deemed a waiver of the appeal process. Such request shall be in writing and shall state with specificity why the buffer plan has been incorrectly denied. In reconsideration, the Director of Water Pollution Control shall determine whether the code was incorrectly interpreted in evaluating the buffer plan and shall also have the authority to grant variances to the code if:
 - (a) The development has had buffer(s) applied in conformance with previously issued requirements; or,
 - (b) The development has slopes or special geological conditions, such as bluffs or rock outcroppings, or existing structures, or the development will provide mitigation, in which

case the middle and outer zone widths may be reduced at some points so long as the average width of the buffer throughout the development meets the minimum requirement and the stream side zone is not reduced.

2. Appeals to the Board of Adjustment may be made by any person aggrieved or affected by any decision of the Director of Water Pollution Control. Such appeal shall be made within a reasonable time as provided by the rules of the Board by filing with the Director of Water Pollution Control a notice of appeal specifying the grounds thereof. The Director of Water Pollution Control to whom the appeal is submitted shall forthwith transmit to the Board all the papers constituting the record of the action appealed. An appeal stays all proceedings in furtherance of the action appealed from unless the Director of Water Pollution Control, from whom the appeal is taken, certifies to the Board of Adjustment that after the notice of appeal shall have been filed, a stay would cause immediate peril to life or property. In such case, proceedings shall not be stayed otherwise than by a restraining order that may be granted by the Board of Adjustment or a court of jurisdiction on application and notice to the Director of Water Pollution Control and due cause is shown.
3. The Board of Adjustment as created by the Charter of the City of Independence shall take action only in reference to a specific development when it has determined that a Buffer Plan has been incorrectly denied, or when it has determined that this article has been incorrectly interpreted, or when the appellant proves undue and unnecessary hardship due to a provision of this article as applied to a specific development. Upon determination of incorrect action by the Director of Water Pollution Control or of undue or unnecessary hardship, the Board may issue a variance signed by the chairman. A copy of the variance shall be sent to the Director of Water Pollution Control, who shall approve the Buffer Plan, including the terms of the variance. In no case shall the Board of Adjustment issue a variance reducing the required width of the stream buffer to less than an average of 85 feet or 75 percent of the total required buffer on each side of the stream beginning at the stream bank. The stream side zone shall not be reduced in width. The Board of Adjustment must make findings based on evidence presented to it in each specific case that:
 - (a) The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in this article; and
 - (b) The plight of the owner is due to unique circumstances.
4. For purposes of implementing the above rules, the Board shall, in making its determination as to whether there are practical difficulties or particular hardships, take into consideration the extent to which the following facts favorable to the applicant have been established by the evidence:
 - (a) The particular physical surroundings, shape, or topographical condition of the specific property involved would result in a particular hardship upon the owner, as distinguished from a mere inconvenience, if the strict letter of the regulations were carried out;
 - (b) The conditions on which the petition for a variance is based would not be applicable, generally, to other developments;
 - (c) The purpose of the variance is not based exclusively upon a desire to make more money out of the property;
 - (d) The alleged difficulty or hardship has not been created by any person presently having an interest in the property; and
 - (e) The granting of the variance will not be detrimental to the public welfare or injurious to other property or improvements in the neighborhood in which the property is located.

5. The Board of Adjustment may impose such conditions and restrictions upon the development benefited by a variance as may be necessary to comply with the standards set out in this section, to reduce or minimize the injurious effect of such variance upon other property in the neighborhood, and to better carry out the general intent of this article.

14-500-02-J. CONFLICT WITH OTHER REGULATIONS

Where the standards and management requirements of this article are in conflict with other laws, regulations, and policies regarding streams, steep slopes, erodible soils, wetlands, floodplains, timber harvesting, land disturbance activities, or other environmental protective measures, the more restrictive shall apply. Nothing contained in this article shall be taken to either increase, decrease or alter the methods of calculating density under this development ordinance.

14-500-03 TREE PRESERVATION

14-500-03-A. PURPOSE

It is the purpose of this section to establish regulations limiting the removal and insuring the replacement of trees on new development and public right-of-way, and in doing so, safeguard the ecological and aesthetic environment of the community. Further these regulations are intended to provide standards to assist in the design and layout of new subdivisions and/or developments and preserve existing trees. These regulations are further intended to serve to dissuade the unnecessary clearing and disturbing of land so as to preserve, in so far as practical, the existing natural vegetation, especially native hardwood trees indigenous to the region, and preserve existing landscape buffers to minimize the impact of abutting differing land uses, enhance and protect the integrity of roadway corridors, protect and preserve historic and uniquely valuable trees, and reduce the surface heat and negative visual impact of vehicular use areas. To encourage this preservation of the existing tree canopy, a Tree Preservation Plan is required for submittal to and approval by the Community Development Director.

14-500-03-B. TREE PRESERVATION PLAN

1. A Tree Preservation Plan must be submitted with the Preliminary plat, preliminary site plan, final site plan, or building permit for review by City staff. A tree preservation plan is not required for building permits for individual single family residential lots unless so stated as a part of the final plat approval, and with exception to the location of a specially designated tree. The Tree Preservation Plan must indicate the location, size and species of those trees to be preserved and the methods which are to be used to preserve such trees. Trees to be preserved on the plan must be designated on this Tree Preservation Plan, the grading plan, utility plans and all other construction documents concerned with site disturbance and/or preparation. If a site would be unreasonably burdened by the retention of all such trees that a choice must be made as to which trees will be retained, the following criteria must be used by the applicant, in consultation with the Community Development Department representative, to evaluate the trees for the purpose of deciding which to retain: (a) the tree's species as recommended in Sec. 14-503-16; (b) the tree's condition and hardiness; (c) the tree's location; (d) the tree's size.
2. A Tree Preservation Plan is required for any new construction project or addition to an existing structure, any grading permit, or project which requires clearing and grubbing of the site and must specify the following:
 - (a) Prior to the issuance of a clearing and grubbing and/or grading permit by the Public Works Department, the petitioner must install all temporary barriers necessary for the preservation of existing plant materials as approved by the Community Development Department. Wooden lath snow fencing, brightly colored plastic construction fencing, chain link fencing, or an alternative barrier securely anchored to fence posts must be installed at the periphery of the tree's drip line or beyond to protect the vegetation from all

construction activities, including earthwork operations, movement and storage of equipment and materials.

- (b) No grading or construction equipment may encroach upon the dripline of trees to be preserved, except as may be necessary for utility tunneling/trenching.
 - (c) Crushed limestone or any other material which may be detrimental to trees may not be dumped within the dripline of any tree to be preserved nor may it be located at any higher location where drainage toward the preserved tree affects the health of the trees.
 - (d) No materials or vehicles may be stored, driven, or parked within the dripline of any trees to be preserved, unless authorized on an individual basis by the Community Development Director.
 - (e) In the event an underground utility line is to be located within five feet of the trunk of a tree designated for preservation, said utility line must be realigned or tunneled, if feasible, to prevent damage to root systems. The tunneling requirements should be not less than two feet below the surface of the ground and should be located two feet or more from the center of the tree to prevent tap root damage. Whenever possible, utility lines should be located outside of the dripline of a tree to be preserved. An evaluation for the cost of tunneling versus the value of the tree must be submitted to the Community Development Department when removal of a tree to be otherwise preserved within a public right-of-way is proposed and will be reviewed on a case by case basis.
 - (f) No excavation or other subsurface disturbance may be undertaken within the drip line of trees to be preserved, and no impervious surface may be located within the drip line of any tree to be preserved. If no other design can be formulated on the site plan except by locating pavement within a large tree's dripline, the design will take precedence over the preservation of that tree; however, every effort should be made in the location and construction of pavement to limit the impacts of the design.
 - (g) All trees to be preserved which have been subjected to construction activity within the dripline are recommended to be selectively pruned or thinned 10% by an arborist skilled at the selective thinning procedure. None of the trees may be topped, headed-back, skinned (removal of interior branches), or climbed with spikes. All dead wood must be removed to reduce hazards.
3. The methods which are to be used to preserve those trees must be clearly specified on the Tree Preservation Plan. If the necessary precautions, as specified in the Tree Preservation Plan for the development, were not undertaken before or during construction to ensure the preservation of those trees, the land development permit for the parcel may not be issued or, if previously issued, may be revoked until such time as compliance with the precautions is achieved.
 4. Tree credits are extended to trees slated for tree preservation and will be counted as fulfilling the landscaping requirements of Section 14-503, with the exception of street, side, perimeter, and screening requirements. Trees to be credited must be included on the Landscape Plan and be tabulated as indicated in the table below. Trees counted must be all existing deciduous trees with a trunk size of four inches or larger measured at 4.5 feet above the ground and all existing evergreen trees measuring six feet or more in height. Larger trees must be given more credit, as follows:

Deciduous Trees		Evergreen Trees	
Diameter at Breast Height (inches)	Credits	Height (feet)	Credits
4-8	1	5-10	2
9-12	2	11-15	3
13-16	3	16-20	4
17-20	4	21-25	5
21-24	5	26-30	6
25-28	6	31-35	7
29-32	7	36-40	8
31-36	8	41-45	9
37+	10	46+	10

5. Landscape plans must show the location and equivalent credit of each tree to be used in landscape calculations. Tree credits may not account for more than 50% of landscape requirements.
6. Historic trees are those that are designated by the Heritage Commission as being of notable historical interest and value due to its association with the physical and cultural development of the City of Independence. The requirements for preserving historic trees must follow the standards found in the City code.
7. A “uniquely valuable” tree is a tree that, by virtue of: 1) size, 2) species and/or 3) cultural influence, has particular value to the public. To be designated as “uniquely valuable” the tree must meet two of the above three criteria. The size should reflect that of a mature tree for that species.

14-500-03-C. TREE REMOVAL

The Community Development Department must approve all requests for tree removal if one or more of the following conditions are present:

1. Necessity to remove trees which pose a safety hazard to pedestrian or vehicular traffic or threaten to cause a disruption of public safety.
2. Necessity to remove trees which pose a safety hazard to a building.
3. Necessity to remove diseased trees or trees weakened by age, storm, fire or other injury.
4. Necessity to observe good forestry practice, i.e., the number of healthy trees a given parcel of land will support.
5. A site and landscaping plan indicating those trees to be preserved has been approved for the site.
6. In the event that electrical, water, storm or sanitary sewer service is impeded under emergency situations, trees which interfere with the proper repair or restoration of the service may be removed without prior approval. Independence Power & Light may remove trees near overhead power lines which cause a hazard to maintaining proper electrical service.

14-500-03-D. MITIGATION AND PENALTIES

1. In the event either a deciduous or evergreen tree designated for preservation is destroyed or razed, such tree must be replaced with a new tree at a rate of two replaced trees for every one destroyed or removed.
2. All deciduous replacement trees must be a minimum diameter at breast height of three inches for commercial, office and industrial sites. All replacement tree for residential site must be a minimum of two inches.
3. All evergreen replacement trees must be a minimum height of eight feet.

4. Replacement tree species must follow the recommended standards for permissible trees found in Sec. 14-503-16. Tree species which are prohibited from being planted as replacement trees are found in Sec. 14-503-17.
5. The owner, or the owner's successors in interest are required to install the replacement trees within 90 days of the date that the tree was damaged or removed. The Certificate of Occupancy may not be issued until all tree are replaced and/or the owner, developer or subsequent agents will be assessed a penalty of \$500.00 for each tree not replaced on the property. If the trees cannot be replaced due to weather conditions, a Certificate of Occupancy may be issued upon performance bonding, letter of credit, or other financial surety equal to the cost of replacement installation by the owner or the owner's successors in interest based on the requirements in Sec. 14-503-20.
 - (a) If any of the trees required to be retained or trees planted as part of the landscape plan should die within a period of 18 months after completion of the activities associated with construction of the commercial, office or industrial site, the owner of the property must replace the trees within six months at a ratio of one to one.
 - (b) If any of the trees required to be retained or trees planted as part of the landscape plans should die within 12 months after completion of the activities associated with construction of residential property, they are required to be replaced within six months at a ratio of one to one by the party responsible for installation. Shrubbery or other plantings which die within 18 months of completion of the activities must be replaced in-kind within six months.

14-501 PARKING AND LOADING

14-501-01 APPLICABILITY

14-501-01-A. NEW DEVELOPMENT

Unless otherwise expressly stated, the parking and loading standards of this article apply to all new buildings constructed and all new uses established in all zoning districts.

14-501-01-B. ENLARGEMENTS AND EXPANSIONS

1. Unless otherwise expressly stated, the parking and loading standards of this article apply whenever an existing building or use is enlarged or expanded to include additional dwelling units, floor area, seating capacity, employees or other units of measurement used for establishing off-street parking and loading requirements.
2. In the case of enlargements or expansions triggering requirements for additional parking or loading, additional off-street parking and loading spaces are required only to serve the enlarged or expanded area, not the entire building or use. There is no requirement to address lawfully existing parking or loading deficits.

14-501-01-C. CHANGE OF USE OR OCCUPANCY

1. Unless otherwise expressly stated, when the use or occupancy of property changes to a more intensive use (e.g., an office use changing to a restaurant), additional off-street parking and loading facilities must be provided to serve a new use or occupancy, in accordance with the minimum parking ratios of Sec. 14-501-05.
2. Parking and loading facilities must be provided to serve a new nonresidential uses only when the number of parking or loading spaces required for the new nonresidential use exceeds the number of spaces required for the use that most recently occupied the building, based on the standards of this development ordinance. In other words, "credit" is given to the most recent lawful use of the property for the number of parking spaces that would be required under this development ordinance, regardless of whether such spaces are actually provided. A new nonresidential use is not required to address a lawful, existing parking deficit.

14-501-02 DAMAGE OR DESTRUCTION

When a use that has been damaged or destroyed by fire, collapse, explosion, or other cause is re-established, off-street parking or loading facilities must also be re-established or continued in operation in an amount equal to the number maintained at the time of such damage or destruction. It is not necessary, however, to restore or maintain parking or loading facilities in excess of those required by this development ordinance.

14-501-03 EXEMPTIONS AND REDUCTIONS

14-501-03-A. HISTORIC SQUARE

Nonresidential uses in the Historic Square zoning district are not required to provide off-street parking unless such uses exceed 4,000 square feet of gross floor area, in which case off-street parking must be provided for the floor area in excess of 4,000 square feet.

14-501-03-B. PEDESTRIAN STREETS

Nonresidential uses within the Pedestrian Street Overlay district are not required to provide off-street parking unless such uses exceed 10,000 square feet of gross floor area, in which case off-street parking must be provided for the floor area in excess of 10,000 square feet.

14-501-03-C. LANDMARKS AND HISTORIC DISTRICTS

1. No additional off-street parking or loading spaces are required for rehabilitation or reuse of an official historic landmark.
2. No additional off-street parking or loading spaces are required for rehabilitation or reuse of an existing contributing building within an official historic district.

14-501-04 COMPLIANCE REQUIRED

Existing parking and loading spaces may not be reduced below the minimum ratios established in this article. Any off-street parking areas that are not required by this article but are provided voluntarily shall meet all the standards of this article for parking space design, signage requirements and aisle dimensions. (History: Ordinance No. 17832)

14-501-05 PARKING RATIOS

Off-street parking must be provided in accordance with the following minimum ratios. In lieu of complying with these minimum standards, applicants may apply for approval of an alternative compliance parking plan, in accordance with Sec. 14-501-13.

(History: Ordinance No. 18210, 18618)

USE GROUP	
Use Category	Minimum Vehicle Parking Spaces
RESIDENTIAL	
Household Living	
↳Elderly Housing, Independent	1 per dwelling unit
↳Elderly Housing, Semi -Independent	1 per 2 dwelling units
↳Elderly Housing, Dependent	1 per 4 dwelling units
↳All other	1 per dwelling unit
Group Living	1 per 4 dwelling units or 1 per 4 beds/sleeping rooms
PUBLIC / CIVIC	
College/University	As determined in accordance with Sec. 14-501-07
Day Care	
↳Home-based (1-4)	None
↳All other	3 per 1,000 square feet
Hospital	1 per 2 beds plus 1 per 2 employees
Library/Cultural Exhibit	2.5 per 1,000 square feet
Park/Recreation	
↳Community center	1 per 4 seats
↳All other park/recreation	As determined in accordance with Sec. 14-501-07
Religious Assembly	1 per 4 seats
Safety Service	
↳Fire station	1 per 4 employees
↳Police station	1 per 3 employees
↳Ambulance service	1 per 4 employees
School	
↳Elementary/Junior High	2 per classroom
↳Senior High	2 per classroom plus 1 per 15 students
Utilities and Services	
↳Basic, minor	None
↳All other utilities and services	As determined in accordance with Sec. 14-501-07
COMMERCIAL	
Animal Service	3 per 1,000 square feet
Artist Work or Sales Space	3 per 1,000 square feet
Building Maintenance Service	2 per 1,000 square feet
Business Equipment Sales and Service	3 per 1,000 square feet

USE GROUP	Minimum Vehicle Parking Spaces
Use Category ↳specific use type	
Business Support Service	
↳Day labor employment agency	As determined in accordance with Sec. 14-501-07
↳All other business support service	3 per 1,000 square feet
Communication Service	3 per 1,000 square feet
Eating and Drinking Establishments	1 per 3 seats
Entertainment and Spectator Sports	1 per 4 seats
Financial Service	4 per 1,000 square feet
Food and Beverage Retail Sales	4 per 1,000 square feet
Funeral and Interment Service	
↳Cemetery/columbarium/mausoleum	As determined in accordance with Sec. 14-501-07
↳Cremating	2 per 1,000 square feet
↳Undertaking	1 per 4 seats
Gasoline and Fuel Sales	1 per pump + required for retail area
Lodging	1 per room
Medical Service	5 per 1,000 square feet
Office	3.5 per 1,000 square feet
Personal Service	4 per 1,000 square feet
Repair or Laundry Service	3 per 1,000 square feet
Retail Sales	4 per 1,000 square feet
Sports and Recreation, Participant	
↳Indoor	1 per 4 seats
↳Outdoor	As determined in accordance with Sec. 14-501-07
Vehicle Sales and Service	
↳Car wash/cleaning service	2 per service bay
↳Heavy equipment sales/rental	1 per 1,000 square feet of office and display area
↳Light equipment sales/rental (indoor)	1 per 1,000 square feet of office and display area
↳Light equipment sales/rental (outdoor)	1 per 1,000 square feet of office and display area
↳Motor vehicle repair, limited	2 per service bay
↳Motor vehicle repair, general	2 per service bay
↳Vehicle storage/towing	1 per employee
INDUSTRIAL	
Manufacturing, Production and Industrial Service	2 per 1,000 square feet
Recycling Service	As determined in accordance with Sec. 14-501-07
Residential Storage Warehouse	3, plus 1 per 50 storage spaces
Warehousing, Wholesaling, Freight Movement	1 per 1,000 square feet
OTHER	
Agriculture, Crop	None
Wireless Communication Facility	None

14-501-06 CALCULATIONS

The following rules apply when calculating the number of parking spaces required:

14-501-06-A. MULTIPLE USES

Unless otherwise expressly stated, lots containing more than one principal use must provide parking in an amount equal to the total (cumulative) requirements for all principal uses.

14-501-06-B. AREA-BASED STANDARDS

Unless otherwise expressly stated, all area-based (square footage) parking standards must be computed on the basis of gross floor area, which is to be determined by the outside dimensions of the building, less any area within the building devoted to parking.

14-501-06-C. EMPLOYEE- OR OCCUPANCY-BASED STANDARDS

1. For the purpose of calculating parking requirements based on employees, students, or other occupants, calculations are to be based on the total persons and employees present or on duty at any one time when the maximum functional use of the building or land is being made.
2. The number of persons in assembly areas with fixed seating or a designed functional seating capacity is to be based on maximum functional seating capacity.
3. The number of persons in assembly areas without fixed seating or without a designed functional seating capacity is to be based on the total net floor area actually used for public assembly, divided by 35.
4. If more than one assembly area within a building is used simultaneously by different adult persons, then the capacity of all such assembly areas must be computed.
5. If several assembly areas within a building are not used simultaneously but are used by the same group of persons separately at different times, then the computation is to include only the assembly area comprising the maximum simultaneous occupancy.

14-501-07 ESTABLISHMENT OF OTHER PARKING RATIOS

14-501-07-A. Upon receipt of an application of a use for which no parking ratio is established in Sec. 14-501-05, the Community Development Director may apply the parking ratio that applies to the most similar use or establish a different minimum parking requirement on the basis of parking data provided by the applicant and the Community Development Department.

14-501-07-B. When the use requires special use or similar approval, the final decision-making body on the special use or other approval is authorized to establish the applicable parking ratio. When the use is allowed as-of-right, the Community Development Director is authorized to establish the applicable parking ratio.

14-501-07-C. Parking data and studies must include estimates of parking demand based on reliable data collected from comparable uses or on external data from credible research organizations. Comparability will be determined by density, scale, bulk, area, type of activity and location. Parking studies must document the source of all data used to develop recommended requirements.

14-501-08 BICYCLE PARKING**14-501-08-A. SPACES REQUIRED**

1. Bicycle parking is not required for residential uses. For all nonresidential uses, at least three bicycle parking spaces or 5% of the required off-street vehicle parking spaces, whichever is greater, are required. After the first 50 bicycle parking spaces are provided, the required number of additional bicycle parking spaces is 2% of the required off-street vehicle parking spaces. Libraries, schools, and swimming pools must provide at least 10 bicycle parking spaces or 10% of the required off-street vehicle parking spaces, whichever is greater.
2. The Community Development Director is authorized to approve an administrative adjustment reducing the number of bicycle spaces required for a particular use in accordance with Sec. 14-501-05.

14-501-08-B. DESIGN AND LOCATION

Required bicycle parking spaces must:

1. Consist of racks or lockers anchored so that they cannot be easily removed and of solid construction, resistant to rust, corrosion, hammers, and saws;

2. Allow both the bicycle frame and the wheels to be locked using a standard U-lock;
3. Be designed so as not to cause damage to the bicycle;
4. Facilitate easy locking without interference from or to adjacent bicycles;
5. Be located in convenient, highly visible, active, well-lighted areas without interfering with pedestrian movements.

14-501-09 USE OF REQUIRED PARKING AREAS

14-501-09-A. Required off-street parking areas may be used solely for the parking of licensed motor vehicles in operating condition. Unless otherwise permitted by this Section, required spaces may not be used for the display of goods for sale or lease or for long-term storage of vehicles, boats, or recreational vehicles or building materials. For the purposes of this Section, references to “residentially zoned,” “residential,” or “residential district” shall also include properties zoned Commercial (O/C) or Industrial (I) that are used for residential purposes.

(History: Ordinance No. 17446, 17782)

14-501-09-B. Required off-street parking spaces are intended to serve residents, tenants, patrons, employees, or guests of the principal use. Off-street parking spaces that are required by this development ordinance must be maintained for the life of the principal use.

14-501-09-C. No motor vehicle repair work or disassembly of any kind is permitted in a required parking space.

(History: Ordinance No. 17782)

14-501-09-D. Off-street parking in residential districts may be used solely for the parking of passenger motor vehicles. No trucks may be parked in residential districts, except for vehicles actively being used for deliveries and trucks that are licensed for a gross vehicle weight of no more than 12,000 pounds and that have a length of no more than 22 feet.

(History: Ordinance No. 17942)

14-501-09-E. Commercial vehicles, as defined by this Chapter, shall not be parked on any residential zoned lot except for the expressed temporary purposes of making deliveries (e.g., moving van) of goods or services.

(History: Ordinance No. 17782)

14-501-09-F. Emergency vehicles, such as police, fire and ambulance, shall be exempt from these requirements. For the purpose of this section, tow trucks will not be considered emergency vehicles.

14-501-09-G. No buses of any kind shall be parked on any residentially-zoned lot. However, religious assembly, institutional or community service uses, as permitted in a residential district, may park buses on their lots in conjunction with their services and activities.

(History: Ordinance No. 17782)

14-501-09-H. Hauling trailers less than 15 feet of total length may be parked or stored in any off-street parking area in a residential zoning district. Hauling trailers less than 15 feet of total length parked or stored in the front or street side yard must be parked or stored on a paved, all-weather surface and must not encroach into the street right-of-way or over a sidewalk. Hauling trailers over 15 feet of total length may be parked in a residential zoning district provided it meets the following criteria:

- (a) The property must be located on property with access to streets on the City’s Thoroughfare Plan designated as “Divided Highway”, “Highway”, and “Arterial” but excluding the Little Blue Parkway, Valley View Parkway and Jackson Drive.
- (b) The hauling trailer must not be longer than 22 feet of total length.

- (c) There can be a maximum of one (1) trailer over 15 feet of total length per residential lot.
- (d) The hauling trailer can be parked on the property for no more than 24 hours in a week. In no case shall a hauling trailer be parked overnight.
- (e) Any trailer must be parked on a paved, all-weather surface and must not encroach into the street right-of-way or over a sidewalk.

(History: Ordinance No. 17782 and 18689)

14-501-09-I. Recreational vehicles and equipment shall be parked or stored as follows:

1. Residential front or street side yard – Such equipment shall be parked or stored on a paved, all-weather surface. No recreational vehicle or equipment shall be parked or stored within the right-of-way or over the sidewalk. No recreational vehicle or equipment shall be parked or stored on any lot within the vision clearance area as defined in Chapter 17 of the City Code.
2. Residential rear or interior side yard – Such equipment shall not be parked or stored within seven feet of an interior side or rear lot line but need not be on a paved, all-weather surface.
3. In residential districts, recreational vehicles and equipment must be parked or stored on property with either a principal or accessory building, and cannot be parked or stored on a vacant lot.
4. Recreational vehicles and equipment may not be parked or stored on an O, C, or I zoned property except for establishments intended for such parking or storage such as recreational vehicle parks, vehicle sales lots, and residential storage warehouses.
5. All recreational equipment must be properly stored on a trailer if such equipment is not roadworthy.

(History: Ordinance No. 17446)

14-501-10 LOCATION OF PARKING AREAS

14-501-10-A. GENERAL

Except as otherwise expressly stated in this development ordinance, required parking spaces must be located on the same lot as the use served.

14-501-10-B. SETBACKS AND PARKING SURFACES

1. RESIDENTIAL DISTRICTS

The following standards apply in all R districts:

- (a) Parking spaces and maneuvering aisles are prohibited in required exterior setbacks, except as otherwise expressly stated. Access driveways may traverse required exterior setbacks.
- (b) Parking spaces for detached houses, zero lot line houses, attached houses, and two-unit houses may be located on an approved driveway and adjoining asphalt/concrete pads, or other designated, approved parking areas. Parking on other than asphalt, concrete, paver stones, brick, or other hard durable surface, as determined by the Community Development Director, is expressly prohibited. Paver stones, bricks, and related materials must be designed and manufactured to withstand the weight of a motor vehicle. Driveways composed of gravel or other aggregate that lawfully existed before July 20, 2004 may continue to be used for off-street parking areas but may not be expanded or enlarged. In order to retain the use of these nonconforming gravel parking and drive areas, the areas must be maintained at all times and kept free from grass, dirt, and other debris.

(History: Ordinance No. 17988, 18395)

- (c) No more than 40% of the front yard area in an R district may be paved or used for vehicle use. On corner lots, not more than 20% of the exterior side yard area may be paved or used for vehicle use.
- (d) In RA districts, on lots of five acres or more, aggregate may be used for driveways provided that the driveway approaches are constructed with the approval of the Public Works Department, and an asphalt/concrete parking pad for at least two vehicles is provided adjacent to the residential structure.

(History: Ordinance No. 17942)

2. COMMERCIAL AND INDUSTRIAL DISTRICTS

In O, C and I districts, parking is prohibited in required setback areas and in required landscape areas. All parking and storage of vehicles must be on a paved, all-weather surface.

(History: Ordinance No. 17782)

14-501-11 ACCESSIBLE PARKING (FOR PERSONS WITH DISABILITIES)

14-501-11-A. UNIFORM FEDERAL ACCESSIBILITY STANDARDS

Off-street parking areas must be designed and laid out to comply with the Uniform Federal Accessibility Standards (UFAS). In the event of conflict between the standards of this section (14-501-11) and the UFAS, the UFAS will govern.

14-501-11-B. NUMBER OF SPACES

A portion of the total number of required off-street parking spaces in each off-street parking area must be specifically designated, located, and reserved for use by persons with disabilities. The following table shows the minimum number of accessible spaces that must be provided. Parking spaces designed for persons with disabilities will be counted toward fulfilling off-street parking standards.

Total Parking Provided	Accessible Spaces Required
1 – 25	1
26 – 50	2
51 – 75	3
76 – 100	4
101 – 150	5
151 – 200	6
201 – 300	7
301 – 400	8
401 – 500	9
501 – 1,000	2% of total spaces
1,001+	20, plus 1 per 100 spaces over 1,000

14-501-11-C. SPACE DIMENSIONS

All parking spaces reserved for persons with disabilities must comply with the parking space dimension standards of Sec. 14-501-12, provided that aisles must be provided immediately abutting such spaces, as follows:

1. CAR-ACCESSIBLE SPACES

Car-accessible parking spaces must abut an access aisle with a minimum width of five feet.

2. VAN-ACCESSIBLE SPACES

Van-accessible parking spaces must abut an access aisle with a minimum width of eight feet.

14-501-11-D. LOCATION OF SPACES

Required spaces for persons with disabilities must be located in close proximity to building entrances and be designed to permit occupants of vehicles to reach the building entrance on an unobstructed path.

14-501-11-E. SIGNS AND MARKING

Required spaces for persons with disabilities must be identified with signs and pavement markings identifying them as reserved for persons with disabilities. Signs must be posted directly in front of the parking space at a height of no less than 42 inches and no more than 72 inches above pavement level. Signs must include the international symbol of accessibility (in white on a blue background) and the words "Minimum \$50 to \$300 fine."

14-501-11-F. RAMPS

Accessibility ramps shall be designed and constructed so as to be integrated into the sidewalk. Ramps shall not be located within or extend into an accessible aisle or any other portion of the parking lot.

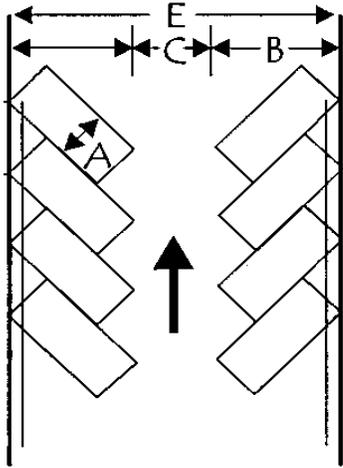
14-501-12 PARKING AREA DESIGN

14-501-12-A. PUBLIC WORKS MANUAL

Off-street parking areas must comply with construction specifications in the *Public Works Manual*.

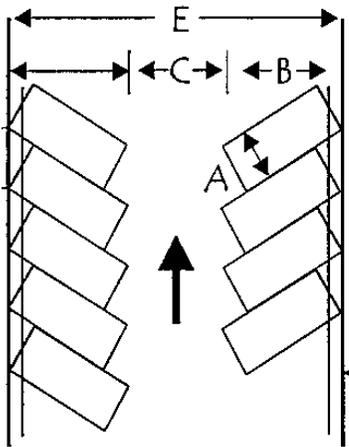
14-501-12-B. PARKING SPACE AND AISLE DIMENSIONS

Parking spaces and drive aisles must comply with the following dimensional standards. Standards for other parking angles must be interpolated from the standards presented below.



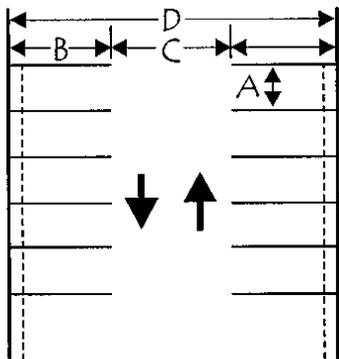
45° Parking

45° Angle Parking Design	Minimum Dimensions
A - Stall Width	9 feet
B - Stall Depth	18 feet
C - Aisle Width 1-way	14 feet
E - Lot Width (B+B+C=E) 1-way	50 feet



60° Parking

60° Angle Parking Design	Minimum Dimensions
A - Stall Width	9 feet
B - Stall Depth	18 feet
C - Aisle Width 1-way	18 feet
E - Lot Width (B+B+C=E) 1-way	54 feet



Perpendicular
90° Parking

90° Angle Parking Design	Minimum Dimensions
A - Stall Width	9 feet
B - Stall Depth	18 feet
C - Aisle Width 2-way	26 feet
D - Lot Width (B+B+C=D) 2-way	62 feet

14-501-12-C. STRIPING

All parking spaces must be clearly marked with contrasting white or yellow striping. Stripes must have a minimum width of four inches. Parking stall widths may be measured from the center of the stripe.

14-501-12-D. INGRESS/EGRESS

All parking areas must be designed to allow vehicles to enter and exit (to the street) in a forward motion. This provision does not apply to parking areas that contain two or fewer spaces whose sole access is to a local street.

14-501-12-E. LANDSCAPING

Parking areas must be designed to comply with the parking lot landscaping requirements of Article 14-503.

14-501-12-F. STORMWATER

To maximum extent feasible, stormwater runoff from parking areas must be managed in parking lot landscaping.

14-501-13 ALTERNATIVE COMPLIANCE PARKING PLANS**14-501-13-A. SCOPE**

This section authorizes several alternatives to strict compliance with the parking standards of this article.

14-501-13-B. APPLICABILITY

Applicants seeking approval of an alternative compliance parking plan must secure approval of such plan in accordance with the provisions of this section.

14-501-13-C. CONTENTS

Alternative compliance parking plans must be submitted in a form established by the Community Development Director and made available to the public. At a minimum, such plans must detail the type of alternative proposed and the rationale for such a proposal, including any supporting research or documentation required by the director.

14-501-13-D. REVIEW AND APPROVAL PROCEDURE

The Community Development Director is authorized to approve, approve with conditions or deny alternative compliance parking plans.

14-501-13-E. VIOLATIONS

Violations of an approved alternative compliance parking plan will be considered violations of this development ordinance and be subject to the penalty and enforcement provisions of Article 14-801.

14-501-13-F. APPROVAL CRITERIA

The Community Development Director is authorized to approve alternative compliance parking plans if the applicant demonstrates to the satisfaction of the Community Development Director that the proposed plan:

1. will comply with all applicable requirements of this section;
2. will not adversely affect surrounding neighborhoods;
3. will not adversely affect traffic congestion and circulation; and
4. will have a positive effect on the economic viability or appearance of the project or on the environment.

14-501-13-G. AUTHORIZED ALTERNATIVES

The Community Development Director is authorized to approve alternative compliance parking plans for the following:

1. Shared parking (See Sec. 14-501-13-H);
2. Off-site parking (See Sec. 14-501-13-I);
3. Special facilities for cyclists (See Sec. 14-501-13-J);
4. Valet parking (See Sec. 14-501-13-K);
5. Transportation demand management programs (See Sec. 14-501-13-L);
6. Transit accessibility (See Sec. 14-501-13-M); and
7. Pervious parking surfaces (See Sec. 14-501-13-N).
8. A combination of the above listed alternatives or other alternatives authorized by the Community Development Director.

14-501-13-H. SHARED PARKING**1. DESCRIPTION**

Shared parking represents an arrangement in which two or more nonresidential uses with different peak parking periods (hours of operation) use the same off-street parking spaces to meet their off-street parking requirements.

2. AUTHORIZATION AND CRITERIA

- (a) The Community Development Director is authorized to approve an alternative compliance parking plan allowing shared parking arrangements for nonresidential uses with different hours of operation.
- (b) The Community Development Director may permit up to 100% of the parking required for a daytime use to be supplied by the off-street parking spaces provided for a nighttime or Sunday use and vice-versa.
- (c) In order to approve an alternative compliance parking plan for shared parking, the Community Development Director must find, based on competent evidence provided by the applicant, that there is no substantial conflict in the principal operating hours of the uses for which the sharing of parking is proposed.

3. USES WITH DIFFERENT HOURS OF OPERATION

- (a) For the purposes of this section, the following uses are considered daytime uses:
 - (1) Office uses;
 - (2) Retail uses,
 - (3) Industrial uses; and
 - (4) Other similar primarily daytime uses, when authorized by the Community Development Director.
- (b) For the purposes of this section, the following uses are considered nighttime or Sunday uses:

- (1) Auditoriums accessory to schools;
- (2) Religious assembly facilities;
- (3) Entertainment uses;
- (4) Eating and drinking establishments; and
- (5) Other similar primarily nighttime or Sunday uses, when authorized by the Community Development Director.

4. LOCATION OF SHARED PARKING FACILITY

A use for which an application is being made for shared parking must be located within 500 feet walking distance of the shared parking, measured from the entrance of the use to the nearest parking space within the shared parking lot

5. AGREEMENT

An agreement providing for the shared use of parking, executed by the parties involved, must be filed with the Community Development Director, in a form approved by the Community Development Director. Shared parking privileges will continue in effect only as long as the agreement, binding on all parties, remains in force. Agreements must guarantee long-term availability of the parking, commensurate with the use served by the parking. If a shared parking agreement lapses or is no longer valid, then parking must be provided as otherwise required by this article. Such agreement shall be recorded with the County Recorder of Deeds office.

14-501-13-I. OFF-SITE PARKING

The Community Development Director may permit all or a portion of the required off-street parking spaces to be located on a remote and separate lot from the lot on which the principal use is located, subject to the standards of this section.

1. LOCATION

No off-site parking space may be located more than 1,000 feet from the primary entrance of the use served, measured along the shortest legal, practical walking route. This distance limitation may be waived by the Community Development Director if adequate assurances are offered that van or shuttle service will be operated between the shared lot and the principal use.

2. ZONING CLASSIFICATION

Off-site parking areas are accessory to the principal uses that the parking spaces serve. Off-site parking areas require the same or a more intensive zoning classification than that required for the most intensive of the uses served by the shared parking area unless approved as a special use pursuant to Article.

3. OFF-SITE PARKING AGREEMENT

An agreement providing for the use of off-site parking, executed by the parties involved, must be filed with the Community Development Director, in a form approved by the Community Development Director. Off-site parking privileges will continue in effect only as long as the agreement, binding on all parties, remains in force. Agreements must guarantee long-term availability of the parking, commensurate with the use served by the parking. If an off-site parking agreement lapses or is no longer valid, then parking must be provided as otherwise required by this article.

14-501-13-J. SPECIAL FACILITIES FOR CYCLISTS

The Community Development Director may authorize up to a 25% reduction in the number of required off-street parking spaces for developments or uses that make special provisions to accommodate bicyclists. Examples of accommodations include enclosed bicycle lockers, employee shower facilities and dressing areas for employees. A reduction in parking may not be granted merely for providing outdoor bicycle parking spaces.

14-501-13-K. VALET PARKING

The Community Development Director may authorize valet parking as a means of satisfying up to 100% of otherwise applicable off-street parking ratios. In order to approve an alternative parking plan for valet parking the Community Development Director must determine that the proposal satisfies the approval criteria of Sec. 14-501-13-F and that the valet parking will not cause interference with the public use of rights-of-way or imperil the public safety.

14-501-13-L. TRANSPORTATION DEMAND MANAGEMENT PROGRAMS

The Community Development Director may authorize up to a 50% reduction in the number of required off-street parking spaces for large employers (150 employees or more) that institute and commit to maintain a transportation demand management program, in accordance with the standards of this section.

1. REQUIRED STUDY

The applicant must submit a report to the Community Development Director that clearly indicates the types of transportation demand management activities and measures proposed.

2. TRANSPORTATION MANAGEMENT ACTIVITIES

The following transportation demand management activities may qualify for a reduction in otherwise required off-street parking ratios:

- (a) The appointment of a transportation coordinator with responsibility for disseminating information on transit, ride-sharing and other alternative transportation options.
- (b) The institution of off-peak work schedules, allowing employees to arrive at times other than the peak morning commute period. The peak morning commute period is defined as 7:00–9:00 a.m.
- (c) The provision of specially marked spaces for each registered car pool and vanpool vehicles.
- (d) The provision of cash or in-kind financial incentives for employees commuting by car pool, vanpool and public transit.

14-501-13-M. TRANSIT ACCESSIBILITY

The Community Development Director may authorize up to a 50% reduction in office parking ratios for uses located within 1,000 feet of a transit stop with 60 - minute or more frequent service during the hours of 7:00 a.m. to 9:00 a.m.

14-501-13-N. PERVIOUS PARKING SURFACES

The Community Development Director may authorize a portion of required off-street parking spaces to be provided on pervious surfaces subject to the following:

- 1. The decision of the Community Development Director must indicate what number or percentage of required parking spaces may be provided on pervious surfaces.
- 2. The Community Development Director is authorized to determine acceptable pervious surfaces.

3. Parking spaces, aisles, etc. must be marked by flags, biodegradable dyes or paints, or some other method that does not kill grass or plants.
4. Pervious parking areas must be adequately drained.

14-501-14 LOADING

14-501-14-A. RATIOS

Off-street loading spaces must be provided in accordance with the following schedule:

Use Type (floor area)	Minimum Number of Loading Spaces Required
Public/Civic, Commercial and Industrial Uses	
Under 20,000 square feet	None
20,000–49,999 square feet	1
50,000+	2

14-501-14-B. DESIGN AND LOCATION

1. PUBLIC WORKS MANUAL

Loading and maneuvering areas must comply with construction specifications in the *Public Works Manual*.

2. PLANS

Plans for location, design and layout of all loading spaces shall be indicated on required site plans.

3. SPACE SIZE

Off-street loading spaces, excluding maneuvering areas, must be at least 10 feet wide and 25 feet long unless off-street loading will involve the use of semi-tractor trailer combinations or other vehicles in excess of 25 feet in length, in which case the minimum size of a space shall be 12 feet by 50 feet, with a minimum vertical clearance of 15 feet.

4. ACCESS

Maneuvering spaces must be provided and designed so that there will be no backing onto a public street.

14-501-15 VEHICLE STACKING AREAS

14-501-15-A. MINIMUM NUMBER OF SPACES

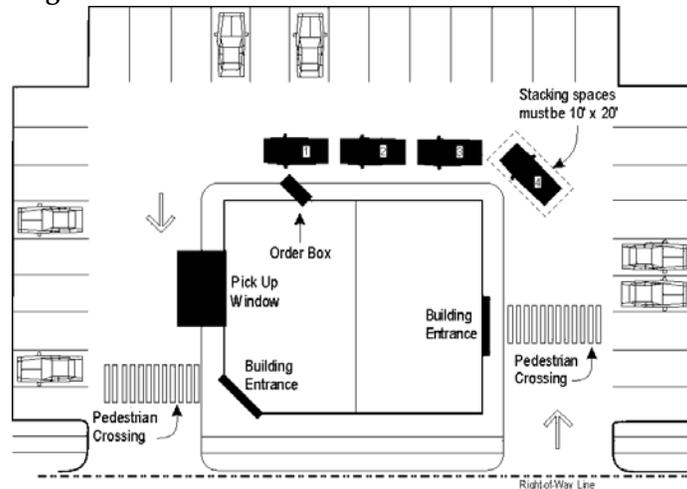
The following vehicle stacking requirements apply unless otherwise expressly approved by the Community Development Director:

Activity Type	Minimum Number of Stacking Spaces	Measured from
Bank teller lane	4	Teller or Window
Automated teller machine	3	Teller
Pharmacies	4	Window
Restaurant drive-through	7	Order Box
Car wash stall, automatic	10	Entrance
Car wash stall, self-service	3	Entrance
Gasoline pump island	1	Pump Island
Other	Determined by City Engineer	

14-501-15-B. DESIGN AND LAYOUT

Required stacking spaces are subject to the following design and layout standards otherwise expressly approved by the Community Development Director:

1. **SIZE**
Stacking spaces must be a minimum of 10 feet by 20 feet in size.
2. **LOCATION AND DESIGN**
 - (a) Stacking spaces may not be located in the street right-of-way and must be located and designed to ensure safe and efficient movement of pedestrians and vehicles.
 - (b) Designated pedestrian crossings at least 5 feet in width must be provided to ensure pedestrian safety.
 - (c) Pedestrian walkways that cross vehicle stacking lanes must be clearly marked though the use of durable, low-maintenance surface materials such as pavers, bricks, scored concrete or scored and painted asphalt. Raised walkways must meet ADA standards.

Figure 500-2

14-502 SITE ACCESS

14-502-01 **APPLICABILITY**

The requirements of this article apply to all land uses unless otherwise expressly stated.

14-502-02 **PUBLIC WORKS MANUAL**

All accesses or curb cuts to public rights-of-way must be designed in accordance with the *Public Works Manual*.

14-502-03 **ACCESS RESTRICTIONS**

On arterial and collector streets, or if necessary for the safe and efficient movement of traffic, all accesses must be designed and constructed with physical improvements and appropriate traffic control measures to assist or restrict turning movements, including, without limitation, acceleration or deceleration lanes, access islands, street medians, and signage, as may be required of the development if the city engineer finds that they are necessary to preserve the safety or the traffic-carrying capacity of the existing street. The city engineer is authorized to determine the length and degree of the required access restriction measures for the property.

14-502-04 **RESIDENTIAL ACCESS TO ARTERIAL STREETS RESTRICTED**

Residential structures may not have direct access onto an arterial street. However, if no alternative street access is possible, an access may be permitted subject to the incorporation of any design standards determined to be necessary by the city engineer to preserve the safety and the traffic-carrying capacity of the arterial street.

14-502-05 **NONRESIDENTIAL ACCESS FROM RESIDENTIALLY-ZONED LAND PROHIBITED**

Access drives serving sites in office, commercial, industrial other nonresidential zoning districts may not be located in residential zoning districts.

14-502-06 **ACCESS FROM LOWEST CATEGORY STREET REQUIRED**

A property that has frontage on more than one street, alley or public access must locate its access or curb cut on the lowest category street, alley or public access frontage. If more than one access point or curb cut is necessary, an additional access or curb cut may be permitted only where the proposed access or curb cut satisfies the requirements in this article.

14-503 LANDSCAPING, BUFFERYARDS AND SCREENING

14-503-01 PURPOSE

The regulations of this article are intended to:

14-503-01-A. provide vegetation to enhance the architecture of structures and to soften and enhance the visual impact of buildings and paved areas;

14-503-01-B. minimize the environmental effect of a development on a particular site and surrounding area by providing shade, erosion control, air purification, ground water recharge, oxygen regeneration, noise, glare, and heat abatement;

14-503-01-C. protect and preserve the appearance, character, and value of property and thereby promote general welfare of the city;

14-503-01-D. buffer uncomplimentary land uses and enhance the quality and appearance of the entire site;

14-503-01-E. ensure that garbage dumpsters, service facilities and other unsightly areas are screened from view of residential properties and public ways.

14-503-02 STREET TREE PLANTING

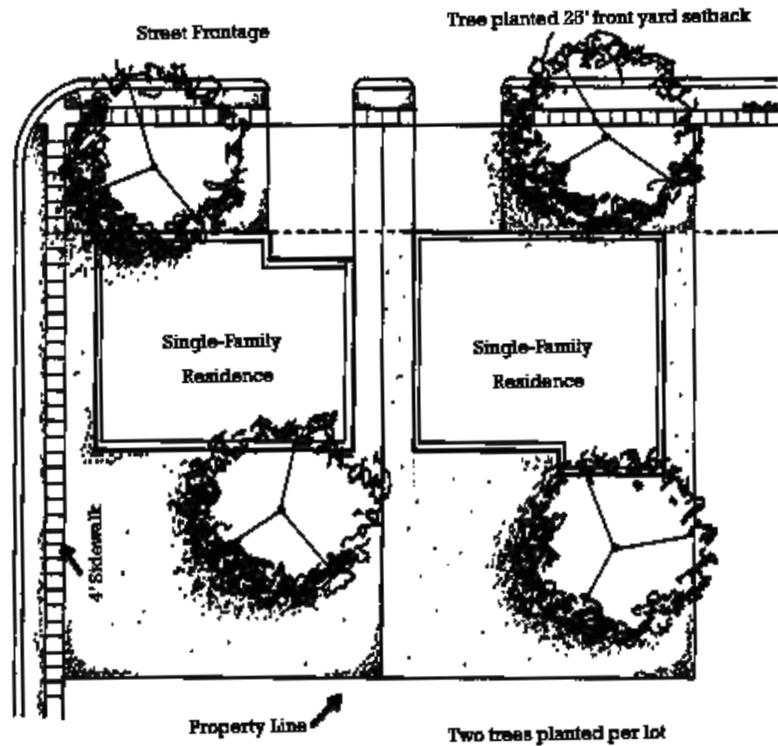
14-503-02-A. APPLICABILITY

Street tree planting is required for all development.

14-503-02-B. SINGLE-AND TWO FAMILY DWELLINGS

1. The owner of a lot zoned for or to be developed with a detached house or two-family dwelling must install two trees per lot with at least one tree located in the front yard. On corner lots, one tree must be placed in each exterior yard.
2. Bufferyard screening may be required for new detached house lots when the development is adjacent to higher density residential, commercial, office, or industrial uses. In this case, refer to Sec. 14-503-07 for bufferyard screening requirements.
3. Single tier lots adjacent to collector and arterial roadways must be screened as stated in Sec. 14-503-13.
4. All utility installations located outside the right-of-way must be screened. For screening requirements, refer to Sec. 14-503-11.
5. The owner of a lot zoned for or to be developed with detached houses and the subdivider of residential subdivisions is required to seed or sod the development as appropriate to provide a complete coverage within the first growing season.

Figure 500-3

**14-503-02-C. R-1, R-2, R-4, R-6, R-12, R-18, R-30, AND PUD**

The following standards apply in R-1, R-2, R-4, R-6, R-12, R-18, R-30, and PUD districts:

1. **NUMBER**
At least one street tree must be installed for every 50 feet of public or private street frontage.
2. **LOCATION**
Street trees must be installed within the front yard of the property. The trees need not be placed at even 50-foot intervals, but they should be installed as close to 50 feet as possible along the street frontage, allowing for utilities and intersection visibility requirements.
3. **STREET TREES LOCATED IN THE RIGHT-OF-WAY**
Neighborhood landscape plans may be submitted when street-lined canopy trees located in the street right-of-way are desired. The plans are to be submitted as a Neighborhood Master Plan which specifies the location of the canopy trees and the species to be installed. The design and species type is subject to the review of the Community Development Department.
4. **SPECIES**
Recommended tree species are identified in the plant list found in Sec. 14-503-16. Tree species planted must be canopy trees to provide shade and visual relief with a clearance of nine feet over sidewalk. Ornamental trees may also be planted, but should be planted in groups and located 10 feet or more from a sidewalk. The final design is subject to review by the Community Development Department.

5. EXCEPTIONS

Existing trees may be counted toward fulfilling the requirements of this section, upon approval of the Community Development Department. Deciduous trees with a diameter at breast height of four inches or larger and evergreen trees measuring five feet or more in height may be counted.

14-503-02-D. ALL NON-RESIDENTIAL DISTRICTS

The following standards apply to development in O-1, O-2, C-1, C-2, C-3, BP, I-1 and I-2 districts:

1. NUMBER

A minimum of one street tree is required for every 40 feet of public or private street frontage.

2. LOCATION

Street trees must be installed within the front yard of the subject property. The trees need not be placed at even 40-foot intervals; however, they should be installed as close to 40 feet as possible along the street frontage, allowing for utilities and intersection visibility requirements.

3. SPECIES

Recommended tree species are identified in the plant list found in Sec. 14-503-16. Tree species planted must be canopy trees to provide shade and visual relief with a clearance of nine feet over sidewalk. Ornamental trees may also be planted, but should be in groups and located 10 feet or more from a sidewalk. The final design is subject to site plan review.

4. EXCEPTIONS

Existing trees may be counted as fulfilling the requirements of this section upon approval of the Community Development Department. Deciduous trees with a diameter at breast height of four inches or larger and evergreen trees measuring 5 feet or more in height may be counted.

14-503-03 GENERAL LANDSCAPING

14-503-03-A. The area between the curb of a public street and the lot line must be brought to finish grade and sodded in grass or covered with approved ground cover plants. Sidewalks and approved driveways may be located within this area.

14-503-03-B. All areas not covered by buildings, paved area or other acceptable improvements must be finish-graded and landscaped with turf grass or other approved ground cover plants.

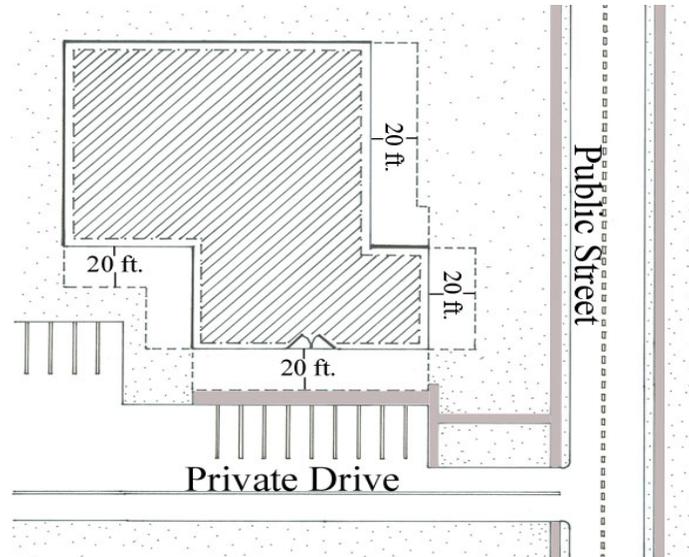
14-503-04 LANDSCAPED OPEN SPACE

14-503-04-A. Landscaped open space must be provided on at least 10% of all lots in R-18 and R-30 zoning districts.

14-503-04-B. In O-1, O-2, C-1, C-2, C-3 and I districts at least 20% of the area within 20 feet of the perimeter of all buildings shall be landscaped open space. Such landscaping shall be located along the side(s) of a building facing a public street and in the vicinity of the public entrances to the building.

(History: Ordinance No. 17942)

Figure 500-3.5



14-503-04-C. In the BP district, at least 40% of the total lot area must be landscaped open space.

14-503-05 PARKING LOT PERIMETER LANDSCAPING

14-503-05-A. APPLICABILITY

The parking lot perimeter landscaping requirements of this section apply to the construction or expansion of any parking lot with five or more parking spaces.

14-503-05-B. LANDSCAPE AREA

A continuous nonpaved area at least 10 feet in width must be located between the edge of the parking lot and the lot line. On sites with an area of five acres or more, parking lot perimeter landscape buffers must have a minimum width of 25 feet.

14-503-05-C. PLANT MATERIAL

At least one tree and three shrubs must be installed for every 40 feet of parking lot perimeter, as close to 40 feet (spacing) as possible along the parking lot perimeter, allowing for utilities and intersection visibility requirements. On sites with an area of five acres or more, five shrubs are required per 40 feet of parking lot perimeter and a berm or swale with maximum side slopes of 3:1 must be installed within the parking lot perimeter buffer. Shrub plantings should be planted in groups of three or more and installed to help screen the parking lot from view of streets and abutting property.

14-503-05-D. SPECIES

Tree species must conform to those trees identified on the plant list in Sec. 14-503-16. Large canopy trees should be installed to provide shade for parking spaces. Evergreen trees should be used to screen parking lots and interior roadways. Visual buffers must be a maximum of three feet in height of maturity. No plant material or berm may be located so as to obstruct the sight distance of motorists entering or leaving the site.

14-503-06 PARKING LOT INTERIOR LANDSCAPING

14-503-06-A. APPLICABILITY

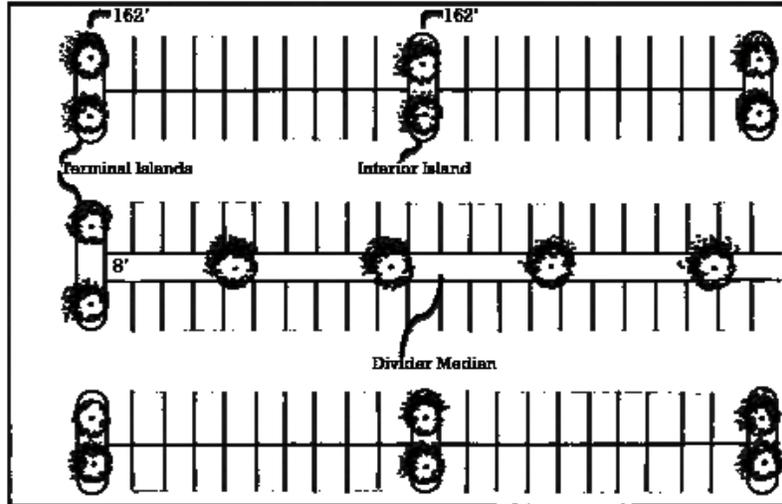
These parking lot interior landscaping requirements apply to the construction or expansion of any parking lot with a total of 20 or more parking spaces. Parking lot interior landscaping requirements are in addition to the parking lot perimeter landscaping requirements.

14-503-06-B. LANDSCAPE ISLANDS

1. Required interior landscape area must be provided in the form of interior landscape islands within each row of parking spaces, landscape divider medians between each abutting parking row, or landscape terminal islands at the end of parking aisles (end-caps).
2. Required interior landscape areas must be dispersed throughout the parking lot, with final layout design subject to review and approval by the Community Development Department.
3. At least 40% of the surface area of every interior landscape area must be planted with live plant material, such as trees, shrubs, ground cover, or turf grass. The remaining landscape area must be covered with organic mulch.
4. Wheel stops or concrete curbing with regularly spaced stormwater inlets are required to protect interior landscape areas from vehicle encroachment.
5. Interior islands must have a minimum width of nine feet and a minimum surface area of 162 square feet.
6. Terminal islands (end-caps) must be provided at the end of all parking aisles and corners. Terminal islands must have a minimum length of nine feet for a single parking aisle or 18 feet for a double parking aisle.
7. Landscape divider medians between abutting parking rows must have a minimum width of eight feet.

(History: Ordinance No. 17713)

Figure 500-4

**14-503-06-C. PLANT MATERIAL**

At least one tree and three shrubs must be installed for every 20 parking spaces. Each landscape island within the interior of a parking lot must include at least one canopy or ornamental tree.

(History: Ordinance No. 17534)

14-503-06-D. LOCATIONS OF CONDUITS

In cases where lighting conduits are installed within the planting islands, the conduits must be located along the edge of the island and not through the middle of the island in order to allow for the installation of plant material.

14-503-06-E. SPECIES

Tree and shrub species must conform to those identified as parking trees and shrubs on the plant list in Sec. 14-503-16.

14-503-06-F. SUGGESTED LOCATION OF INTERIOR ISLANDS FOR SAFETY

Parking lots must be designed to promote safety for automobile drivers and pedestrians. In designing parking spaces, the driving aisle should be aligned towards the major destination as permitted by topography. This allows for pedestrian traffic to move through the aisles instead of crossing parking bays. Plantings may be located along the sidewalk to promote an aesthetic approach towards the building.

14-503-07 BUFFERYARDS

The following standards apply in all zoning districts:

14-503-07-A. LOCATION

Developments must provide a sufficient bufferyard and screening along the rear or side yard, so that neighboring properties are effectively shielded from any adverse impacts of that development or so that the new development shields itself from existing and potential impacts from uses already in operation. The required buffer area must have a depth of 15 feet measured from the lot line inwards along side and rear (interior) yards, wherever adverse impacts exist.

14-503-07-B. TYPES OF SCREENING

A screen may consist of a wall, berm, fence, or plant material, or any combination thereof:

1. WALLS

- (a) A screening wall consisting of a masonry material such as concrete, stone, or brick, must be a minimum of six feet in height and a maximum height of eight feet. The wall must form an effective visually opaque screen. When high impact screening is required, low impact landscaping requirements must be included with the solid wall.
- (b) Opaque walls may not exceed 200 feet in length without being broken by a landscape area to soften the linear effect of the wall. Long walls may be constructed in a serpentine manner with integrated landscaping. Walls should also be integrated into physical topographical features whenever possible.
- (c) Screen walls developed adjacent to an existing screen wall must match the existing wall construction or provide a landscape transition area between walls/fences of different design and/or materials.

2. BERMS

A berm screen constructed of earth materials may be sodded, mulched, and/or landscaped to prevent erosion. Plantings must be added to provide a visual screen of at least five feet high, including berm, when planted. A six foot high opaque landscape screen must be achieved within two growing seasons after installation.

3. FENCE, SOLID

- (a) An opaque fence screen must be at least six feet in height and a maximum height of eight feet and must be constructed of approved fencing materials. The fence must form a complete (100%) opaque screen. Fence regulations are located in Section 14-400-02. When high impact screening is required, low impact landscaping requirements must be included with the solid fence.

- (b) Opaque fences may not exceed 200 feet in length without being broken by a landscape area to soften the linear effect of the fence. Long fences may be constructed in a serpentine manner with integrated landscaping. Fences should also be integrated into physical topographical features whenever possible.
- (c) Screen walls developed adjacent to an existing screen wall must match the existing wall construction or provide a landscape transition area between walls/fences of different design and/or materials.

4. FENCE, OPEN

An open weave or mesh type fence, constructed of approved materials must be a minimum of four feet in height and a maximum height of six feet. The screening must consist of plant material in order to form an 80% opaque screen. Fence regulations are located in Section 14-400-02.

5. PLANT MATERIAL

A plant screen must consist of 60% compact evergreen trees or other approved trees with a minimum of six feet in height at the time of installation. Shrubs are also required in order to screen lower areas. A six foot high opaque landscape screen must be achieved within two growing seasons after installation. Hedgerows may be planted near the lot line and must be maintained on both sides of the hedge by the property owner.

14-503-07-C. LANDSCAPE (PLANT MATERIAL) SCREENS

When landscape screens are required for the bufferyard, the following standards apply.

1. NUMBER OF PLANTS

Required plant material must be calculated based on the square footage of buffer area. For example, if the lot has a 100-foot property boundary and the required buffer depth is 15 feet, the resultant buffer area would be 1,500 square feet.

2. SPECIES

Tree species must conform to those trees identified on the plant list in Sec. 14-503-16. The majority of planted material must be those which provide a visual buffer, such as evergreen trees, in order to minimize the visual impact of the adjacent land use. Plantings such as evergreen trees, shrubs, and hedges must be installed within the buffer area. Canopy trees must be spaced 15 to 40 feet apart. Evergreen trees must be spaced 10 to 20 feet apart. Ornamental trees must be spaced eight to 16 feet apart. Shrubs must be 18 to 24 inches in height and reach a maximum height of five to six feet at maturity. Shrubs must be planted at least three to 10 feet apart, depending on the mature spread of the shrub, and must be planted in staggered rows, allowing for utilities. See Sec. 14-503-18 for bufferyard plantings installed near overhead utility lines.

14-503-07-D. INTERPRETATION OF BUFFERYARD STANDARDS

1. The standards applicable to a bufferyard depend on the zoning classification of the proposed development and the zoning classification of the abutting property.
2. The following table shows zoning district classifications for proposed and abutting properties. For example, if the property on which development is proposed is zoned C-1 and the abutting property is zoned I-1, low-impact screening would be required to be installed on the developing site, since the proposed development is likely to have only limited effect on the abutting property. Deviations from the standards of this table may be allowed, upon approval of the Community Development Department. In situations of severe impact, the Community Development Department may require additional buffer screening.

Zoning of Developing Site	Zoning of Abutting Property				
	S-F	M-F	Comm.	Off.	Ind.
Single-Family (R-1, R-2, R-4, R-6)	None	High	High	High	High
Multi-Family (R-12, R-18, R-30)	High	None	High	Med.	High
Commercial (O-1, O-2, C-1, C-2)	High	High	None	None	Low
Industrial (C-3, BP, I-1, I-2)	High	High	Low	Low	None

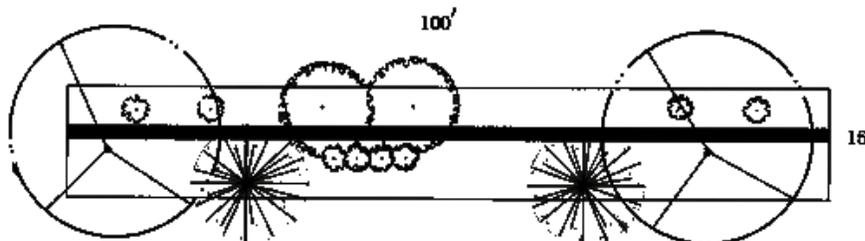
14-503-07-E. SCREENING REQUIREMENTS WITHIN BUFFERYARDS

After the applicable buffer requirements have been determined, planting screens must be chosen in order to achieve the required opacity of screening. There are three options for each impact level, to allow for flexibility in the landscape design. The Community Development Department may approve any one of the screening options, provided the applicant can demonstrate that the objective of the screen has been met. The plantings must attain the required level of opacity within two growing seasons. See Sec. 14-503-18 for bufferyard plantings installed near overhead utility lines.

1. HIGH-IMPACT SCREEN

A completely (100%) opaque screen between zoning district classifications that are very dissimilar in character and therefore have a high likelihood of incompatible land use and operational characteristics. When the proposed plan is considered to be a high impact on surrounding properties, both of the following must be installed within the bufferyard: (1) a masonry wall or wood fence, and a (2) low-impact screen.

**Figure 500-5
High Impact Screen**



2. MEDIUM-IMPACT SCREEN

A semi-opaque (70%) screen between zoning district classifications that are dissimilar in character. Semi-opaque screening should partially block views from abutting land uses and create an attractive visual buffer between the abutting zoning districts. For medium impact screening, either a landscape screen or fencing is required. A landscape screen must contain the following:

Medium Impact Screen Tree/Landscape Material	Trees/Plants Required		
	Screen A	Screen B	Screen C
Canopy Trees	1 per 500 sq. ft.	1 per 1,000 sq. ft.	1 per 750 sq. ft.
Ornamental Trees	1 per 750 sq. ft.	1 per 500 sq. ft.	0
Evergreen Trees	1 per 300 sq. ft.	1 per 300 sq. ft.	1 per 200 sq. ft.
Shrubs	1 per 200 sq. ft.	1 per 200 sq. ft.	1 per 200 sq. ft.

Figure 500-6
Medium Impact Screen A

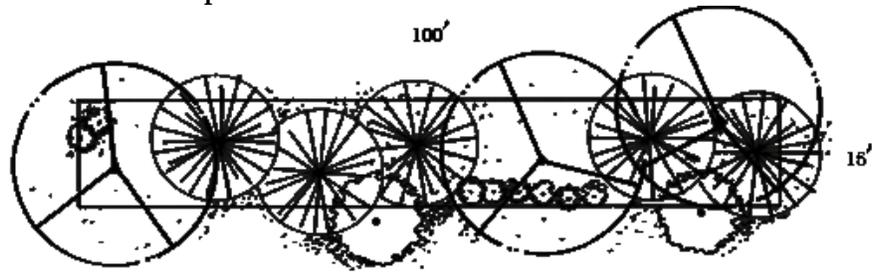


Figure 500-7
Medium Impact Screen B

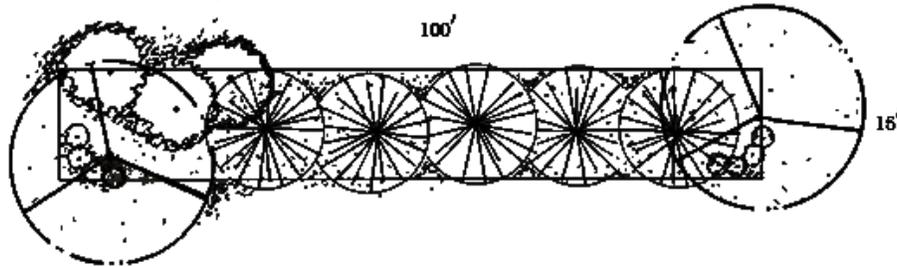
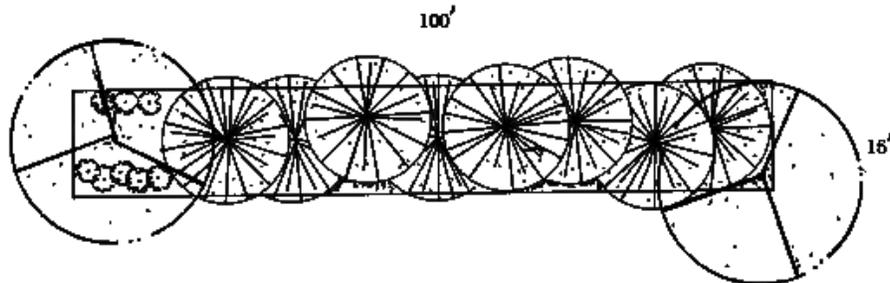


Figure 500-8
Medium Impact Screen C



3. LOW-IMPACT SCREEN

An open screen between relatively similar zoning district classifications. Open screening must provide an attractive transition between zoning districts. A landscape screen containing the following is recommended.

Medium Impact Screen Tree/Landscape Material	Trees/Plants Required		
	Screen A	Screen B	Screen C
Canopy Trees	1 per 500 sq. ft.	1 per 1,000 sq. ft.	1 per 750 sq. ft.
Ornamental Trees	1 per 750 sq. ft.	1 per 500 sq. ft.	1 per 750 sq. ft.
Evergreen Trees	1 per 500 sq. ft.	1 per 500 sq. ft.	1 per 750 sq. ft.
Shrubs	1 per 500 sq. ft.	1 per 500 sq. ft.	1 per 200 sq. ft.

Figure 500-9
Low Impact Screen A

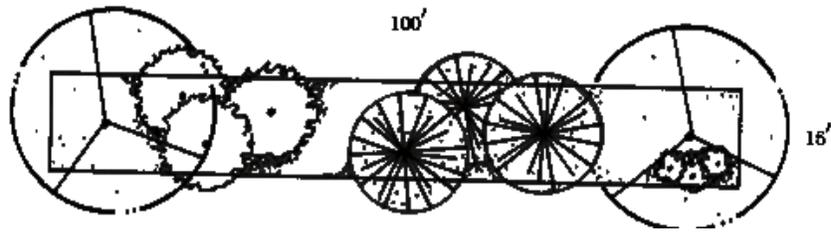


Figure 500-10
Low Impact Screen B

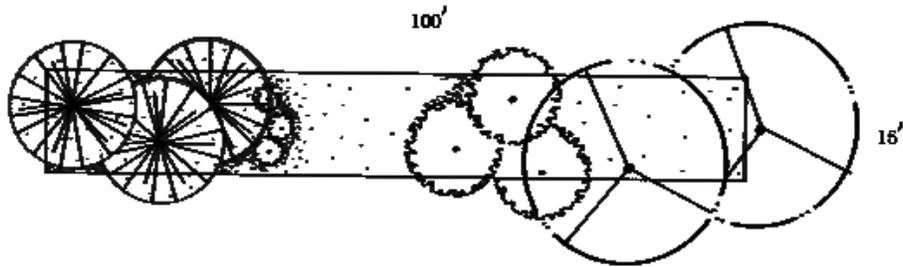
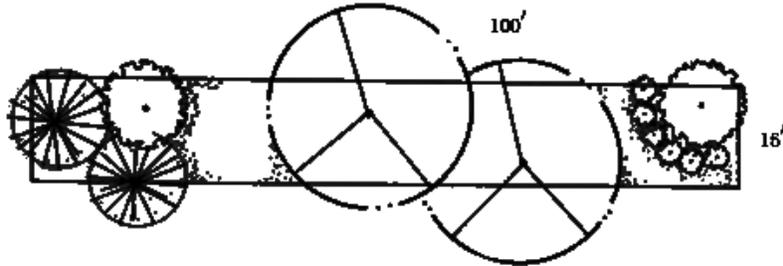


Figure 500-11
Low Impact Screen C



4. EXAMPLE

Assuming a bufferyard requirement of 1,500 square feet, a high-impact screen would require the installation of a 100 linear foot masonry wall or fence with low impact screening. A medium-impact screen, Screen C, would require the installation of two canopy trees, zero ornamental trees, eight evergreen trees, and eight shrubs along the border of the developing property. A low-impact screen, Screen A, would require the installation of three canopy trees, two ornamental trees, three evergreen trees, and three shrubs.

14-503-08 SCREENING OF GARBAGE DUMPSTERS AND TRASH BINS

14-503-08-A. The dumpster and trash bin screening provisions of this subsection apply to multi-unit residential projects, mobile home parks, and all commercial, office, and industrial projects. They apply to new construction and when any exterior remodeling, addition, or construction is done to an existing multi-unit residential, mobile home park, commercial, office, or industrial project.

14-503-08-B. All multi-unit residential projects, mobile home parks, and all commercial, office, and industrial projects must include on the landscape plan a detailed drawing of enclosure and screening methods to be used in connection with garbage dumpsters and trash bins on the property. Grease, paper, fiberboard and other material recycling storage bins, receptacles and compacting machines, utilized by the project, shall also be screened in accordance with the provisions of this section.

(History: Ordinance No. 18210)

14-503-08-C. All outdoor garbage dumpsters and trash bins must be screened on four sides, three of which are by a permanent six foot tall opaque masonry wall of material and color to match the primary structure. Door and gate appurtenances must be opaque, hang square and be plumb at all times. Dumpsters and trash bins must be located behind the front building line and the opening of the enclosure may not be oriented toward any public street, walkway or bikeway.

14-503-08-D. Garbage dumpsters and trash bins in place as of May 15, 1995, that are opaque and six feet in height, but are made of wood will be allowed to continue provided they are maintained in good condition. The replacement of any dumpster or trash bin constructed of wood will require replacement by a solid masonry wall.

14-503-09 SCREENING OF LOADING DOCKS AND HIGH ACTIVITY AREAS

All loading docks; commercial facilities with drive-thru services; automotive repair and service; car washes; and other similar high activity uses associated with the building, adjacent to residential districts, must be screened from adjacent property or street right-of-way by a eight foot high masonry wall.

14-503-10 SCREENING OF VEHICLE AND EQUIPMENT STORAGE AREAS

14-503-10-A. Motor vehicle parking areas where inoperable vehicles, damaged vehicles awaiting repair or sale, salvaged vehicles, or the storage of operable vehicles are stored must be screened from view on all sides. Such parking areas are not permitted in required exterior setbacks.

14-503-10-B. Screening must be opaque and a minimum of six feet in height, and may be in the form of walls, fences, or berms in combination with a 100% opaque landscape screen.

14-503-10-C. No automobiles may be parked, stored, or stacked higher than the screening fence or wall. Where landscaping or berms are used for screening, a landscape plan is required. All screening must be installed before using any such area for vehicle storage purposes.

14-503-11 SCREENING OF UTILITY EQUIPMENT

All utility installations located outside of the right-of-way must be screened. All utility installations within the right-of-way must be screened by the utility company. All utility installations installed after completion of the subdivision must be screened by the utility company. Utility equipment must be screened by dense shrubbery at a minimum of 30 inches in height and planted at 36 inches on center. Such shrubbery must be planted far enough away from the units so as to provide a clear area on two sides of the unit for maintenance purposes.

14-503-12 SCREENING OF STORAGE YARD

In industrial and commercial districts, storage of materials, products, or equipment outside of a fully-enclosed building must be completely (100%) screened on all sides from public view and may not be visible at eye level from abutting properties or any street right-of-way.

14-503-13 SCREENING FOR SINGLE TIER LOTS ADJACENT TO MAJOR STREETS

All subdivided land, included in all residential districts, that abuts a minor arterial, or arterial street, either at right angles or parallel to the collector, minor arterial, or arterial, must provide a 15-foot buffer area from the edge of the right-of-way line towards the interior of the property to be screened by either a six foot fence or wall with a low impact landscape screen located between the wall/fence and the street right-of-way line, or a berm at least three feet in height with a medium impact landscape screen planted on the street side of the berm (no fence/wall required).

14-503-14 SCREENING OF CERTAIN NONCONFORMING USES

See Section 14-801-08.

14-503-15 PLANT MATERIAL AND SOIL STANDARDS**14-503-15-A. EVERGREEN TREES**

Evergreen trees must be at least six feet in height, as specified by the American Association of Nurserymen, except for the true dwarf varieties.

14-503-15-B. GROUND COVER PLANTS

Ground cover plants must be crowns, plugs or containers, in a number as appropriate by species to provide 50% surface coverage after one growing season. The species must provide 75% to 100% surface coverage after two growing seasons.

14-503-15-C. MEDIUM AND LARGE DECIDUOUS SHADE TREES

Medium and large deciduous shade trees must be at least two inch caliper, as measured six inches above the ground as specified by the American Association of Nurserymen.

14-503-15-D. SHRUBS (DECIDUOUS AND EVERGREEN, INCLUDING SPREADER AND GLOBE TREE FORMS)

Deciduous and evergreen shrubs must be at least 18 inches in height.

14-503-15-E. SMALL DECIDUOUS OR ORNAMENTAL TREES

Small deciduous or ornamental trees must have a minimum caliper of 1.5 inches, as specified by the American Association of Nurserymen, except for the true dwarf varieties.

14-503-15-F. SOD

Sod must be installed as necessary to provide coverage and soil stabilization. Sod is required in exterior yards. Seeding may be used in other yard areas.

14-503-15-G. TURF AND NATIVE GRASS

Seeding of turf and native grasses must be as appropriate to provide complete coverage within the first growing season.

14-503-15-H. SOIL SPECIFICATIONS

1. The Landscape Plan must contain results of a water permeability test. A water permeability test is required in order to determine the type of soil the plant material is planted in. This requires a sharp shooter spade dug 18 inches into the ground. Fill the hole with water and if after 18 hours the hole still retains the water, the soil is determined to be too poor for planting.
2. If the soil is determined to be too poor for planting, the following two possible remedies are recommended. The first remedy is to install a 10-foot wide raised planting bed in order to provide acceptable planting soil. The height of the bed is the amount of soil it takes to cover the root ball of the plant to a level two inches above the ball. The bed must be covered with four inches of mulch to provide for moisture retention. A second remedy is to excavate the soil to the depth of the root ball, allowing the root ball to rest on the clay soil. Excavate an area five times the size of the root ball and replace the soil with quality planting soil. This must allow the tree roots to spread into adequate soil and provide an established root system before spreading into the poorer soil.

14-503-16 RECOMMENDED TREES AND PLANTS

14-503-16-A. The following list of plant species has been developed to assist in selecting plants for each of the landscape areas mentioned above. Plant selections have been made based upon the size of the plant, its location, its growing habits, and its function within the landscape. Trees located along a street must comply with the street tree planting requirements in Sec. 14-503-02. Trees located in buffer areas must comply with the screening and bufferyard requirements in Sec. 14-503-07. Trees located in parking areas must comply with the parking lot perimeter landscaping and the interior parking lot landscaping found in Sections 14-503-05 and 14-503-06.

14-503-16-B. The following plant list is to be used as a guide in selecting trees; however, there are many trees not listed that may be used as substitutes with prior approval from the Community Development Department. The list of plants titled “Street Trees and Plant Species Specifically Prohibited” in Sec. 14-503-17, should be reviewed in order to prevent installation of these prohibited species.

(History: Ordinance No. 17942)

Common Name	Botanical Name	Function
Recommended Canopy Trees		
Emerald Queen Map	Acer Platanoides ‘Emerald Queen’	Street, Buffer, Parking
Greenspire Linde	Tilia cordata ‘Greenspire’	Street, Buffer, Parking
Norway Maple	Acer platanoides	Street, Buffer, Parking
Pin Oak	Quercus palustris	Buffer
Red Maple	Acer rubrum	Street, Buffer
Red Oak	Quercus rubra	Street, Buffer, Parking
River Birch	Betula lenta	Buffer, Parking
Shademaster Honeylocust	Gleditsia triacanthos ‘Shademaster’	Street, Buffer, Parking
Skyline Honeylocust	Gleditsia triacanthos ‘Skyline’	Street, Buffer, Parking
Sweet Bay Magnolia	Magnolia virginiana	Buffer
Recommended Evergreen Trees		
American Holly	Ilex opaca	Street, Buffer, Parking
Blue Colorado Spruce	Picea pungens var. glauca	Buffer, Parking
Canaertii Juniper	Juniperus ‘Canaertii’	Buffer, Parking
Eastern White Pine	Pinus strobus	Street, Buffer, Parking
Keleleeri Juniper	Juniperus ‘Keteleeri’	Street, Buffer, Parking
Red Pine	Pinus resinosa	Buffer, Parking
Recommended Ornamental Trees		
Amur Maple	Acer ginnala	Street, Buffer, Parking
Apple Serviceberry	Amelanchier x grandiflora	Street, Buffer, Parking
Chanticleer Pear	Pyrus calleryana ‘Chanticleer’	Street, Buffer, Parking
Eastern Red Bud	Cercis canadensis	Street, Buffer, Parking
Flowering Dogwood	Cornus florida	Buffer, Parking
Indian Magic Crabapple	Malus ‘Indian Magic’	Buffer, Parking
Kousa Dogwood	Cornus kousa	Buffer, Parking
Panicled Golden-Rain Tree	Koelreuteria paniculata	Street, Buffer, Parking
Prairiefire Crabapple	Malus ‘Prairiefire’	Buffer, Parking
Profusion Crabapple	Malus ‘Profusion’	Buffer, Parking
Royalty Crabapple	Malus ‘Royalty’	Buffer, Parking
Sargents Cherry	Prunus Sargentii	Street, Buffer, Parking
Snowdrift Crabapple	Malus ‘Snowdrift’	Buffer, Parking
Spring Snow Crabapple	Malus ‘Spring Snow’	Street, Buffer, Parking
Trinity Pear	Pyrus calleryana ‘Trinity’	Buffer, Parking
Washington Hawthorn	Crataegus phaenopyrum	Buffer
Recommended Evergreen Shrubs		
Blue Holly	Ilex meserveae	Buffer, Parking
Chinese Holly	Ilex cornuta	Buffer, Parking
Compact Juniper	Juniperus compacta	Street, Buffer, Parking
Japanese Yew	Taxus media	Street, Buffer, Parking
Korean Boxwood	Buxus koreana	Street, Buffer, Parking
Mugho Pine	Pinus mugo	Street, Buffer, Parking
Yucca	Yucca filamentosa	Parking
Recommended Deciduous and Flowering Shrubs		
Burning Bush	Euonymous atropurpurea	Street, Buffer, Parking
Cranberry Cotoneaste	Cotoneaster apiculatus	Street, Buffer, Parking

Common Name	Botanical Name	Function
Deutzia	(various species)	Street, Buffer, Parking
Forsythia	(various species)	Street, Buffer, Parking
Lilac	(various species)	Street, Buffer, Parking
Poukhanense Azalea	Rhododendron yedoense var. poukhanense	Street, Buffer, Parking
Redtwig Dogwood	Cornus sericea	Street, Buffer, Parking
Spirea	(various species)	Street, Buffer, Parking
Spreading Cotoneaster	Cortoneaster divaricatus	Street, Buffer, Parking
Viburnum	(various species)	Street, Buffer, Parking
Winged Euonymus	Euonymus alatus	Street, Buffer, Parking
Witch-hazel	(various species)	Street, Buffer, Parking
Yellowtwig Dogwood	Cornus sericea 'Flaviramea'	Street, Buffer, Parking
Recommended Groundcover		
English Ivy	Hedera helix	Parking
Low Boy Cotoneaster	Cotoneaster 'Low Boy'	Parking
Pachysandra	Pachysandra terminalis	Parking
Perwinkle	Vinca minor	Parking

14-503-17 TREES AND PLANTS LOCATED IN STREET RIGHT-OF-WAY

14-503-17-A. Street trees and plants within public street rights-of-way must comply with the requirements of Sec. 13.02.011 of the city code.

14-503-17-B. The following tree and plant species are specifically prohibited in street rights-of-way.

1. Trees

- (a) Black Cherry, *Prunus serotina*
- (b) Black Locust
- (c) Box Elder, *Acer negundo*
- (d) Catalpa, *Catalpa speciosa*
- (e) Columnar Poplars, *Populus alba*, *Populus nigra*
- (f) Common Buckthorn, *Rhamus carthartica*
- (g) Cottonwood, *Populus deltoides* female only.
- (h) Crabapple, All hybrids and varieties having little or no resistance to indigeneous diseases.
- (i) Elms, *Ulmus* species, All hybrids and varieties except those listed with U.S.D.A. as being resistant to major elm disease.
- (j) Honeylocust, *Triacanthos inermis*, not to include thornless/seedless varieties.
- (k) Maidenhair Tree, *Ginko biloba*, female only
- (l) Minosa, *Albizzia julibrissin*, all varieties
- (m) Mountain Ash, *Sorbus* species and varieties
- (n) Mulberry, *Morus* species

- (o) Osage-Orange, *Maclura pomifera*, not to include the fruitless varieties.
- (p) Paper Birch, *Betula papyifera*
- (q) Persimmon, *Diospyros virginiana*
- (r) Silver Maple, *Acer saccharinum*
- (s) Sweet-Gum, *Liquidambar styraciflora*
- (t) Tree of Heaven, *Ailanthus altissima*, female only

2. Plants

- (a) Bindweed, *Convolvulus* species
- (b) Buckhorn Plantain, *Plantago lanceolata*
- (c) Bull Nettle, *Urtica procera* and related species
- (d) Common Ragweed, *Ambrosia artemisifolia* and related species
- (e) Goldenrod, *Solidagenemoralis* and related species
- (f) Hemp, *Cannabis sativa*
- (g) Pigweed, *Cycloloma artiplicifolium* and related species
- (h) Poison Ivy, *Toxico dendron radicans*
- (i) Pokeberry, *Phytolacca americana*
- (j) Trumpet Vine, *Campsis radicans*, hybrids and varieties

14-503-18 TREES AND PLANTS NEAR OVERHEAD UTILITY LINES

14-503-18-A. Overhead utility lines must be indicated on the Landscape Plan. In order to allow for maintenance of the lines, if an overhead utility line is located in the rear yard along the lot line, the buffer plantings required in the bufferyard must be installed in accordance with the provisions of this section. If the overhead utility line is located in the rear yard, but five feet to 10 feet from the lot line, the screening and bufferyard plantings may be installed along the lot line if approved by the Community Development Director.

14-503-18-B. The following is a list of plant materials recommended for use near overhead utility lines. This list is not all-inclusive. Consideration should be given to soil conditions, drainage, exposure, growth patterns, and local experience when selecting plant materials.

Shrubs (0-15 feet) plant under overhead lines	Small Trees (15-30 feet) plant at least 15 feet from overhead lines	Medium Trees (30-70 feet)	Large Trees (70+ feet) plant at least 45 feet from overhead lines
Althea (Rose-of-Sharon)	Amur Maple	Ash	Basswood
Barberry	Crabapples	Bald Cypress	Hackberry
Boxwood	Dogwoods	Black Gum	Kentucky Coffeetree
Burning Bush (<i>Euonymus Alatus</i>)	Flowering Cherries	Ginkgo	London Planetree
Flowering Almond	Flowering Plums	Goldenrain Tree	Oaks (Burr, Red, Pin)

Shrubs (0–15 feet) plant under overhead lines	Small Trees (15–30 feet) plant at least 15 feet from overhead lines	Medium Trees (30–70 feet)	Large Trees (70+ feet) plant at least 45 feet from overhead lines
Honeysuckle	Hawthorns	Pears (Aristocrat, Chanticlear)	Red Pine
Lilac	Japanese Tree Lilac	Spruce	Tulip Poplar
Potentilla	Redbud	Lindens	White Pine
Spireas	Serviceberry	Maples (Red, Norway, Sugar)	
Viburnums	Weeping Mulberry	Oaks (Sawtooth, English)	
Forsythia		Honeylocust	
Spreading Junipers		River Birch	
Ornamental Grasses			

14-503-19 LANDSCAPE PLANS

14-503-19-A. APPLICABILITY

1. New Development

All plans submitted in support of a final site plan, final PUD plan, or building permit, except for single family houses, attached houses, two-unit houses and all uses in the R-A district, must include a landscape plan. All required landscape plans must be prepared by a registered landscape architect, registered architect, a qualified horticulturist, or landscape designer with an established firm or nursery.

2. Existing Buildings

In the case of renovation, remodeling, expansion of an existing building, or reconstruction of a damaged or destroyed building, the following regulations apply:

- (a) When the cost of renovation, remodeling, or expansion of an existing building, or reconstruction of a damaged or destroyed building, is between 15% and 30% of the current-year Jackson County market valuation, a bufferyard and/or screening is required. The owner is not required to comply with the street tree planting requirements, the perimeter parking lot landscaping requirements, or the interior parking lot landscaping requirements, but compliance with these landscape requirements is encouraged and the Community Development Department will provide assistance in recommending landscaping methods, considering site conditions and code requirements.
- (b) When the cost of renovation, remodeling, or expansion of an existing building, or reconstruction of a damaged or destroyed building, is between 30% and 60% of the current-year Jackson County market valuation, the owner must meet the interior parking lot landscaping requirements, and the street tree planting requirements.
- (c) When the cost of renovation, remodeling, or expansion of an existing building, or reconstruction of a damaged or destroyed building, is more than 60% of the current-year Jackson County market valuation, the owner must comply with all of the landscaping requirements of this article.

(History: Ordinance No. 17446)

14-503-19-B. LANDSCAPE PLAN CONTENTS

A landscape plan must include the following information:

1. North point and scale.

2. The name of the project; developer; owner; the person who prepared the plan, with their professional designation; and the date and revision dates of the plan.
3. Contour lines using available city data, showing final grading, adequate to identify and properly specify planting for areas needing slope protection.
4. The location and dimensions of all structures, indicating which are existing and which are proposed, parking lots and drives, curbs, sidewalks, refuse disposal areas, fences, storm drainage systems, freestanding electrical equipment, recreational facilities, and other freestanding structural features as determined necessary by the city.
5. The location, size, and type of all overhead, at-grade and underground utilities and structures with proper notation, where appropriate, as to any safety hazards to avoid during landscape installation.
6. The location, type, size and quantity of all proposed landscape materials must be delineated on the plan. Proposed plant material must be shown at maturity and labeled on plan by common name or appropriate key.
7. All plans must be accompanied by a list or schedule of proposed plants, including common and botanical name, the quantity of proposed plants and trees, their height, caliper or gallon size and any requirements during installation.
8. All plans must include a table calculating the amount of street tree planting, parking lot perimeter area, interior parking lot area, and/or screening and bufferyard landscaping required to fulfill the provisions of this article.
9. Location of hose connections and other watering sources, including the location of irrigation systems.
10. Any existing vegetation proposed to be saved must be identified by name, quantity, and size. Methods of protecting the vegetation must be illustrated or explained. Any existing trees, 12 inch diameter or larger measured at 4.5 feet above ground that are proposed for removal, must be included on the plan.
11. Water permeability test results are required to be shown on the Landscape Plan. See Sec. 14-503-15 for testing techniques.

14-503-20 LANDSCAPING INSTALLED PRIOR TO OCCUPANCY

All landscape material must be healthy and in place prior to issuance of a final Certificate of Occupancy. A Certificate of Occupancy may be issued upon written commitment by the owner, developer, or subsequent agents to complete the planting in instances where adverse weather precludes planting. In this event, either a cash deposit in the name of the city for the cost of the landscape material and installation costs, or an irrevocable letter of credit for the price of landscape material and installation must be provided by the owner, developer, or subsequent agents. The plant material must be planted within 90 days of the acceptance by the city of the cash deposit, cash escrow agreement, or an irrevocable letter of credit. If the owner has not installed the required plant material within the 90 day time period, the city may specify a landscape installation company to install the plant material and payment for the installation will be deducted from the cash deposit, cash escrow or irrevocable letter of credit submitted by the owner, developer, or subsequent agent.

14-503-21 LANDSCAPE MAINTENANCE

14-503-21-A. The owner, developer, and their agents and successors are responsible for all maintenance of landscaping. This includes watering, mowing, edging, pruning, weeding, fertilizing, and other such activities common to the maintenance of landscaping. Landscaped areas must be kept free of trash, litter, weeds, and other such materials that are not part of the landscaping. All plant material must be

maintained in a healthy and growing condition as is appropriate for the season of the year. Plant material that dies must be replaced with plant material of similar variety and size within 90 days.

14-503-21-B. An irrigation system is required in all districts, except one and two-family dwellings and single-family and two-family residential PUDs. Landscape areas must be irrigated as necessary to maintain required plant materials in a healthy condition. Irrigation systems must comply with the following standards:

1. All landscape areas must be provided with a readily available water supply with at least one outlet within 100 feet of the plants to be maintained. An irrigation system is required if an outlet is not located within 100 feet of the plantings. The use of non-potable or re-used water for irrigation purposes is encouraged.
2. Irrigation and watering systems must be designed and operated in a manner to avoid water on impervious surfaces and public streets.
3. Irrigation is not required for established trees and natural areas that remain undisturbed by development activities.
4. Irrigation systems must be continuously maintained in a good working order.

14-503-21-C. Fences, walls, and other barriers, including refuse disposal areas, must be maintained and in good repair.

14-503-21-D. All required landscape materials that are removed to gain access to a utility within an easement on private property must be replaced at the sole expense of the property owner. The replacement landscaping shall be maintained at the sole expense of the property owner.

14-503-22 ADMINISTRATIVE ADJUSTMENTS

In specific circumstances, alternatives to strict compliance with the standards of this article may be appropriate due to development constraints or site-specific development conditions. When such circumstances exist, administrative adjustments, allowing for alternative means of compliance, may be granted by the Community Development Director in accordance with the procedures of Article 14-706. In order to approve an administrative adjustment for alternative compliance, the Community Development Director must determine that strict application of otherwise applicable landscape or screening requirements would serve no public purpose or that the proposed alternative would be at least as effective in advancing the purposes of this article and development ordinance as would strict compliance.

14-504 SIGN REGULATIONS

14-504-01 PURPOSE

The purpose of these regulations is to achieve balance among the following differing, and at times, competing goals:

14-504-01-A. to encourage the effective use of signs as a means of communication for businesses, organizations and individuals in Independence;

14-504-01-B. to provide a means of way-finding in the community, thus reducing traffic confusion and congestion;

14-504-01-C. to provide for adequate business identification, advertising, and communication;

14-504-01-D. to prohibit signs of such excessive size and number that they obscure one another to the detriment of the economic and social well-being of the City of Independence;

14-504-01-E. to protect the safety and welfare of the public by minimizing hazards to pedestrian and vehicular traffic;

14-504-01-F. to preserve property values by preventing unsightly and chaotic development that has a blighting influence upon the community;

14-504-01-G. to differentiate among those signs that, because of their location, may distract drivers on public streets and those that may provide information to them while they remain in their cars but out of active traffic;

14-504-01-H. to minimize the possible adverse effects of signs on nearby public and private property; and

14-504-01-I. to implement the goals and objectives of the Comprehensive Plan.

14-504-02 APPLICABILITY AND ENFORCEMENT

No sign or outdoor advertising device may be placed, erected, altered, rebuilt, enlarged, extended or relocated except in conformity with this article. The repainting and preventative maintenance of signs are not considered alterations.

Signs placed in the public right-of-way or on publicly owned land which are not in compliance with these regulations are subject to removal by the city without notice or compensation. Signs placed on private property that are not in compliance with these regulations are subject to removal by the property owner or the property owner's agent without notice or compensation. In addition, any sign that is not in compliance with the regulations of this chapter is subject to the penalty provisions of Section 14-801. These provisions may be applied to the person or business placing such sign, business or organization advertised on such sign, or the owner of the property or vehicle on which the sign is placed.

(History: Ordinance No. 17534, 17832)

14-504-03 SIGNS EXEMPT FROM REGULATION

The following signs are exempt from regulation under this article:

14-504-03-A. any public notice or warning required by a valid and applicable federal, state, or local law, regulation, or ordinance, or by order of a court of competent jurisdiction;

14-504-03-B. any sign inside a building, not attached to a window or door that is not legible from a distance of more than three feet beyond the lot line of the development site or parcel on which the sign is located, or any sign that is not legible from any street right-of-way or beyond the lot line;

14-504-03-C. traffic control signs on private property, such as Stop, Yield, and similar signs, the faces of which meet standards set forth in the Manual on Uniform Traffic Control Devices;

14-504-03-D. advisory 'No Trespassing', 'No Hunting', 'Private Property' and related safety/warning signs on private property provided that such signs do not exceed two square feet of area.

(History: Ordinance No. 18618)

14-504-04 SIGNS ALLOWED WITHOUT A PERMIT

The following signs are allowed without a permit, but may be subject to other regulations under this article:

14-504-04-A. Temporary signs required by a valid and applicable federal, state, or local law, regulation, or ordinance; or posted by a public agency, acting in accordance with an adopted law or ordinance. Unless expressly required by a federal or state law, such signs may not exceed the size of other temporary signs allowed at the same location. No such sign may be illuminated or animated. If the sign is freestanding, it may not have a greater height than other temporary signs allowed at the same location. Such signs must be removed when they no longer serve the purpose for which they were posted;

14-504-04-B. Signs no larger than four square feet not requiring a building permit or electrical permit and not legible from a distance of more than three feet beyond the lot line of the development site or parcel on which the sign is located;

14-504-04-C. Banners posted by a nonprofit organization conforming with Sec. 14-504-14-D;

14-504-04-D. Flags and flagpoles conforming with Sec. 14-504-14-F;

14-504-04-E. On-site signs for traffic and parking control, provided that such signs conform to the Manual of Uniform Traffic Control Devices;

14-504-04-F. Signs installed which were approved by the Heritage Commission on historic properties in conformance with the Heritage Commission's policies.

14-504-04-G. Signs of eight square feet or less which explain the historic background of the property.

14-504-04-H. The following temporary service signs are allowed on residential property in conjunction with Section 14-504-12:

1. A message pertaining to the sale or lease of the premises. A temporary real estate sign must be removed within 10 days after the transfer of title or change in occupancy.
2. A message related to an occasional sale (such as a garage sale or yard sale). A temporary sign pertaining to an occasional sale must be removed within one business day following the end of the sale.
3. Temporary signs may be used to express the opinion of the owner or occupant on any matter deemed by the person to be of public interest.
4. On-premise construction service signs, in compliance with all applicable city ordinances. Construction service signs may not be installed prior to the issuance of a permit and must be removed at the conclusion of the work or when a certificate of occupancy is issued, whichever comes first.

(History: Ordinance No. 17988, 18618)

14-504-04-I. The following temporary service signs are allowed on non-residential property in conjunction with Section 14-504-13:

1. A message pertaining to the sale or lease of the premises. A temporary real estate sign must be removed within 10 days after the transfer of title or change in occupancy.
2. A message pertaining to the hiring of employees (i.e., "Help Wanted").
3. Temporary signs may be used to express the opinion of the owner or occupant on any matter deemed by the person to be of public interest.

(History: Ordinance No. 17988, 18618)

14-504-05 SIGN PERMITS

Signs regulated by this article but not exempted from permitting by Sec. 14-504-04 may be erected only after issuance of a permit in accordance with Section 14-708-02.

14-504-06 PROHIBITED SIGNS

The following signs are expressly prohibited in all zoning districts:

- 14-504-06-A. animated signs;
- 14-504-06-B. wind-blown signs, including pennants (except temporary banners);
- 14-504-06-C. strings of lights (except for temporary holiday decorations);
- 14-504-06-D. portable signs, including trailer-mounted signs;
- 14-504-06-E. vehicle signs;
- 14-504-06-F. signs on benches;
- 14-504-06-G. signs on trees;
- 14-504-06-H. signs on utility poles, other than signs installed by the utility and related to the utility facility;
- 14-504-06-I. signs blocking required means of egress from any building;
- 14-504-06-J. roof signs;
- 14-504-06-K. Sound or smoke emitting signs;
- 14-504-06-L. balloons and other inflatable signs; and
- 14-504-06-M. signs within the public right-of-way except signs posted in accordance with Sec. 14-504-10 or projecting signs in accordance with Sec. 14-504-14-B.

14-504-07 SUBSTITUTION OF MESSAGES

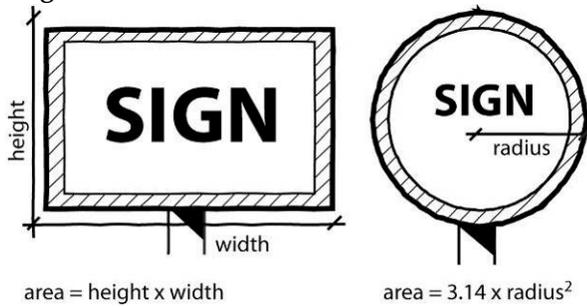
The sign regulations of this article are not intended to favor commercial speech over constitutionally-protected political or noncommercial speech. A sign containing a noncommercial message may be substituted for any sign containing a commercial message that is allowed by the regulations of this article.

14-504-08 SIGN MEASUREMENT AND INTERPRETATION

14-504-08-A. SIGN AREA

1. **SIGNS ENCLOSED IN FRAMES OR CABINETS**
The area of a sign enclosed in frames or cabinets is determined based on the outer dimensions of the frame or cabinet surrounding the sign face.

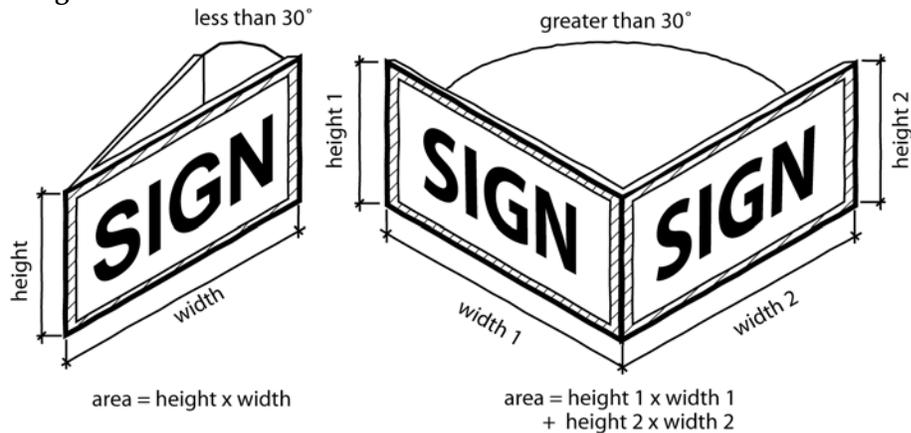
Figure 500-12



2. **BACK-TO-BACK SIGNS**

When the sign faces of a back-to-back sign are parallel or within 30 degrees of parallel, only one side is counted. If the sign faces are not parallel or within 30 degrees of parallel, each is considered one sign face and both faces are counted.

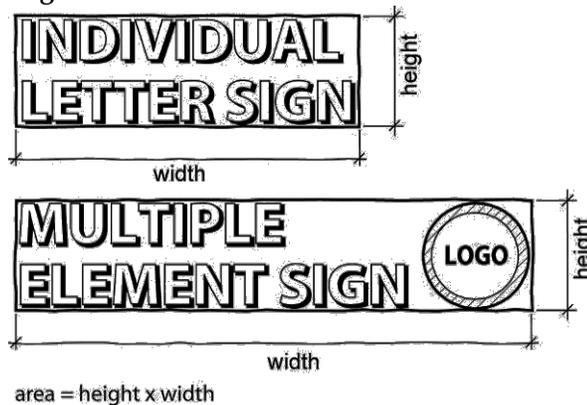
Figure 500-13



3. **INDIVIDUAL LETTERS OR ELEMENTS**

The area of a sign comprised of individual letters or elements attached to a building wall is determined by calculating the area of the smallest square or rectangle that can be drawn around the letters and/or elements. Signs consisting of individual letters and/or elements will be measured as one sign when the distance between the letters and/or elements is less than two times the dimension of each letter and/or element.

Figure 500-14



4. PAINTED WALL SIGNS

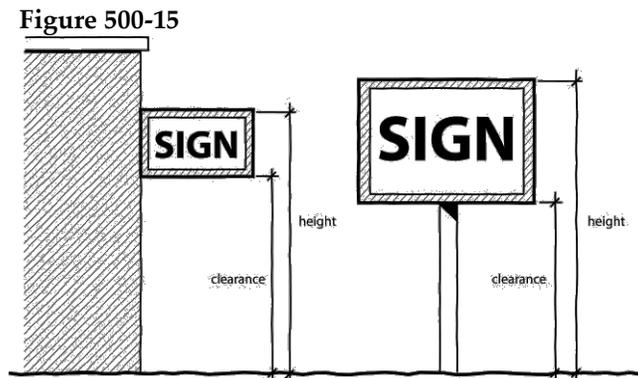
The area of a painted wall sign is determined by calculating the area of the smallest square or rectangle that can be drawn around all of the sign elements, including any painted background. Sign elements will be measured as one unit when the distance between the elements is less than two times the length of each element.

5. AWNINGS AND MARQUEES

The area of a sign that is incorporated into an awning or marquee is determined by calculating the area of the smallest square or rectangle that can be drawn around all of the sign elements.

14-504-08-B. SIGN HEIGHT

The height of a sign or sign structure is measured from the lowest point of the ground directly below the sign to the highest point on the sign or sign structure.

**14-504-08-C. SIGN CLEARANCE**

Clearance is measured from the highest point of the ground directly below the sign to the lowest point on the sign structure enclosing the sign face.

14-504-08-D. DETERMINATION OF VISIBILITY OR LEGIBILITY

Where this article requires a determination of “visibility” or “legibility,” the standard will be based on the eyesight of an adult eligible to receive a Missouri driver’s license (wearing any corrective lenses required by the license). When the height of the person is material to the determination, the person will be presumed to be more than five feet and less than six feet tall.

14-504-09 WIND PRESSURE

Any sign, other advertising structure, marquee, canopy or awning must be designed and constructed to withstand a wind pressure and dead loads as required in the International Building Code and/or other ordinances adopted by the City of Independence.

(History: Ordinance No. 17446)

14-504-10 SIGNS IN THE PUBLIC RIGHT-OF-WAY AND ON PUBLIC PROPERTY**14-504-10-A. SIGNS PERMITTED**

Only the following signs are permitted in the public right-of-way and on public property:

1. Signs installed by any of the following and directly related to the use of the right-of-way or of public property, including the control and direction of traffic:
 - (a) the City of Independence;
 - (b) Jackson County;

- (c) State of Missouri;
- (d) any public transit company authorized to provide service to or through Independence;
- (e) any public utility with a franchise or other agreement with the City of Independence; or
- (f) any other government entity or person expressly authorized by state or federal law to install a sign in the right-of-way.

2. Except where otherwise permitted in this subsection, no sign may bear a commercial message other than one related to a utility or transit service, and no such sign may be animated or lighted, unless the commercial message, animation or lighting is expressly required by a valid and applicable state or federal law. Any transit company authorized by the City of Independence to provide local only service may display commercial advertising on trash receptacles, benches and shelters associated with its service

(History: Ordinance No. 17942)

3. “Adopt a highway” signs acknowledging voluntary efforts to provide landscaping, litter control, or other maintenance, when the signs are installed pursuant to a written policy of the City of Independence or the State of Missouri.

14-504-10-B. OTHER SIGNS

Any other sign installed or placed in the public right-of-way will be deemed an unlawful sign and an abandoned sign and will be subject to immediate removal and disposal by the City, without compensation to the owner. The owner or other person placing the sign will, nevertheless, be subject to the penalty provisions of Article 14-801.

14-504-11 INTERSECTION VISIBILITY

All signs must comply with the intersection visibility standards of Article 14-510.

14-504-12 SIGNS ALLOWED IN RESIDENTIAL DISTRICTS

The following standards apply to signs in R districts.

(History: Ordinance No. 17534, 17832, 17942, 17988, 18210, 18286, 18618)

Land Use	Sign Type	Max. Number	Max. Area	Max. Height	Setbacks	Type of Illumination	Additional Requirements
FACADE SIGN							
Multi Family	Wall	2 per building	5 % of building façade area for the total sign area	N/A	N/A	None	
Multi-Family	Canopy	1 per building in lieu of wall sign	12 sq ft	N/A	N/A	None	See Sec. 14-504-14-B
Non-Residential	Wall	2 per façade	5 % of building façade area for the total sign area	N/A	N/A	Non-illuminated, internal illuminated, or direct	

Land Use	Sign Type	Max. Number	Max. Area	Max. Height	Setbacks	Type of Illumination	Additional Requirements
Non-Residential	Canopy	1 per building in lieu of wall sign	12 sq ft	N/A	N/A	None	See Sec. 14-504-B
FREESTANDING SIGN							
Single family, Two-family, Triplex or Four-plex developments	Subdivision or Neighborhood Identification	2 per entrance	32 sq ft	6 feet	None	Non-illuminated, internal illuminated, or direct	See Sec. 14-504-14-A.
Multi-Family	Monument	1 per public or private street frontage, a maximum of 2 per proeprty	32 sq ft	6 feet	Exterior: 15 ft Side: 7 ft	Non-illuminated, internal illuminated, or direct	See Sec. 14-504-14-A.
Multi-Family, Institutional and Commercial	Directional	1 per driveway	6 sq ft	3 feet	None	None	Must be located out of the sight distance triangle.
Non-Residential	Monument	1 per public street frontage, maximum of 2 per property	32 sq ft	6 feet	Exterior: 15 ft Side: 7 ft	Non-illuminated, internal illuminated, or direct	See Sec. 14-504-14-A.
TEMPORARY SIGNS							
Single family, Two family, Triplex, or Four-Plex developments	Service	3	6 sq ft	3 feet	None	None	See Sec.14-504-04-H
Multi-Family and Non-Residential	Service	1	32 sq ft	6 feet		None	See 14-504-04-H
All Developments	Subdivision, Construction	2	32 sq ft	8 feet	None	None	See 14-504-14-E
Other	Banner	1	32 sq ft				See 14-504-14-D

14-504-13 SIGNS ALLOWED IN NONRESIDENTIAL DISTRICTS (O, C, I)

The following standards apply to signs in O, C and I districts. In these zoning districts, pole and pylon signs are permitted only in western portion of Independence. For the purposes of this section, western Independence is defined as that portion of the City located north on Interstate 70, and west of the centerline of Lee’s Summit Road from Interstate 70 to Highway 24, then continued to centerline of N. Holder Road, as extended, to the northern City limits.

(History: Ordinance No. 17534, 17832, 17942, 17988, 18210, 18286, 18618)

Land Use	Sign Type	Max. Number	Max. Area	Max. Height	Setbacks	Type of Illumination	Additional Requirements
FACADE SIGN							
Multi Family	Wall	1 per building	5 % of building façade area	N/A	N/A	None	
Multi-Family	Canopy or Projecting	1 per building in lieu of wall sign	12 sq ft	N/A	N/A	None	See Sec. 14-504-14-B
Non-Residential – Single Tenant Building	Wall	3 per façade	25 sq ft in O districts 25 sq ft or 10 % of building façade area for the total sign area	N/A	N/A	O-1 District – None All other districts – Non-illuminated, internal illuminated, or direct	
Non-Residential – Single Tenant Building	Canopy or Projecting	1 per building in lieu of wall sign	12 sq ft	N/A	N/A	O-1 District – None All other districts – Non-illuminated, internal illuminated, or direct	See Sec. 14-504-14-B
Non-Residential – Multi-Tenant Building	Wall	2 per customer entrance with at least one of those on the elevation with the primary entrance	25 sq ft in O districts 25 sq ft or 10 % of building façade area for the total sign area	N/A	N/A	O-1 District – None All other districts – Non-illuminated, internal illuminated, or direct	
Non-Residential – Multi-Tenant Building	Canopy or Projecting	1 per customer entrance in lieu of wall sign	12 sq ft	N/A	N/A	O-1 District – None All other districts – Non-illuminated, internal illuminated, or direct	See Sec. 14-504-14-B

Land Use	Sign Type	Max. Number	Max. Area	Max. Height	Setbacks	Type of Illumination	Additional Requirements
Non-Residential – Multi-Tenant Building	Directory	1 per building	12 sq ft	N/A	N/A	O-1 District – None All other districts – Non-illuminated, internal illuminated, or direct	
FREESTANDING SIGN							
Multi-Family	Monument	1 per public or private street frontage, a maximum of 2 per property	32 sq ft	6 feet	Exterior: 15 ft Side: 7 ft	Non-illuminated, internal illuminated, or direct	See Sec. 14-504-14-A
Multi-Family	Directional	1 per driveway	6 sq ft	3 feet	None	None	Must be located out of the sight distance triangle.
Non-Residential – Single Tenant Building	Monument	1 per public street frontage, a maximum of 2 per property	O-1 and C-1 Districts – 40 sq ft All other Districts – See 14-504-13-B	O-1 and C-1 Districts – 6 feet All other Districts – 8 feet	Exterior: 5 ft Side: 3 ft	Non-illuminated, internal illuminated, or direct	See Sec. 14-504-14-A.
Non-Residential – Single Tenant Building	Pole (Western Independence only)	In lieu of Monument, 1 per public street frontage, a maximum of 2 per property	See 14-504-13-B	25 ft	Exterior: 10 ft Side: 3 ft	Non-illuminated, internal illuminated, or direct	Must be supported with a base at least 25% of the width of the sign; See Sec. 14-504-14-A
Non-Residential – Single Tenant Building	Directional	1 per driveway	6 sq ft	3 feet	None	None	Must be located out of the sight distance triangle.
Non-Residential – Multi-Tenant Building	Monument	1 per building per public street frontage, a maximum of 2 per property	O-1 and C-1 Districts – 40 sq ft All other Districts – See 14-504-13-B	O-1 and C-1 Districts – 6 feet All other Districts – 8 feet	Exterior: 5 ft Side: 3 ft	Non-illuminated, internal illuminated, or direct	See Sec. 14-504-14-A.

Land Use	Sign Type	Max. Number	Max. Area	Max. Height	Setbacks	Type of Illumination	Additional Requirements
Non-Residential – Multi-Tenant Building	Pole (Western Independence only)	In lieu of Monument, 1 per public street frontage, a maximum of 2 per property	See 14-504-13-B	25 ft	Exterior: 10 ft Side: 7 ft	Non-illuminated, internal illuminated, or direct	Must be supported with a base at least 25% of the width of the sign; See Sec. 14-504-14-A
Non-Residential – Multi-Tenant Building	Directional	1 per driveway	6 sq ft	3 feet	None	None	Must be located out of the sight distance triangle.
TEMPORARY SIGNS							
Single family, Two family, Triplex, or Four-Plex developments	Service	3	6 sq ft	3 feet	None	None	See Sec.14-504-04-I
Multi-Family and Non-Residential	Service	1	32 sq ft	6 feet		None	See 14-504-04-I
All Developments	Subdivision, Construction	2	32 sq ft	8 feet	None	None	See 14-504-14-E
Other	Banner	1	32 sq ft				See 14-504-14-D

14-504-13-B. SIGN AREA MAXIMUMS FOR CERTAIN NON-RESIDENTIAL DISTRICTS

The following square footage limitations pertain to monument and pole signs in C-2, C-3, BP, I-1 and I-2 districts.

1. **MONUMENT SIGNS**
50 square feet plus 1.0 square foot of sign area per lineal foot of street frontage up to a maximum of 120 square feet of sign area.
2. **POLE SIGNS**
50 square feet plus 0.5 square foot of sign area per lineal foot of street frontage up to a maximum of 100 square feet of sign area.

(History: Ordinance No. 17942)

14-504-14 ADDITIONAL REGULATIONS

In addition to the restrictions in Sec. 14-504-12 and Sec. 14-504-13, signs must comply with the following requirements.

14-504-14-A. FREESTANDING SIGNS

1. Landscaping must be installed around the base of freestanding signs. Such landscaping may consist of shrubs, perennial/annual flowers, and groundcover. The required landscape area must be a minimum of three feet in width on all sides of the sign base.
2. Poles or pylons used to support freestanding signs must be covered or concealed by a decorative cover that is architecturally compatible with character of principal buildings on the site.

14-504-14-B. PROJECTING SIGNS

1. Projecting signs must be rigidly attached to a building; guy wires or swinging signs are prohibited. Projecting signs may extend into the right-of-way, but must be no closer than two feet horizontally from the curb.
2. All projecting signs must have a minimum clearance of 10 feet.

14-504-14-C. UNIFIED SIGN PLAN

A unified sign plan is required for all multi-tenant shopping centers with a gross floor area of more than 70,000 square feet and must accompany the final site plan application. The unified sign program must describe and illustrate a consistent pattern in the location, style, and color of all signs including those for in-line stores and outbuildings, such as pad site buildings.

(History: Ordinance No. 17988)

14-504-14-D. BANNERS

Temporary banners are allowed for all nonresidential uses in all districts. All banners must comply with the following additional requirements:

1. LOCATION

All banners must be placed on a building wall if a building is located within 50 feet of an exterior lot line and cannot be safely displayed on existing poles, trees, or other elements. If no building is located within 50 feet of an exterior lot line, banners may be securely mounted on temporary poles, provided that the poles are set back at least 5 feet from all lot lines. All signs must comply with the intersection visibility standards of Section 14-510.

(History: Ordinance No. 17942)

2. TIME LIMITS

A single banner may be permitted for up to a total of 60 days per calendar year per business location, as follows:

- (a) One single, uninterrupted 60 day period; or
- (b) Four 15 consecutive day periods. A 15 day downtime period must be provided between each banner installation. Separate permits and fees are required for each banner installation.

14-504-14-E. TEMPORARY SUBDIVISION, PUD OR BUILDING CONSTRUCTION SIGN

1. Temporary sign permits for such signs may be issued for a period of up to one year, and may be extended for one additional year, provided that the applicant applies for an extension prior to the expiration of the original temporary sign permit. Additional extensions may be allowed until 90 percent of building permits have been issued for the subdivision. The signs are not permitted outside the boundary of the subdivision.
2. Temporary signs must be constructed of a rigid material.

3. Pennants and banners of any kind are prohibited.

14-504-14-F. FLAGS AND FLAGPOLES

For the purpose of this section, the term “flagpole” includes both freestanding and wall-mounted poles and supports. The display of flags will be subject to the following limitations:

1. there may be no more than two flags per pole;
2. no flag may be larger than five feet by eight feet;
3. a flagpole must be set back at least five feet from any lot line;
4. rooftop flagpoles are prohibited;
5. each flagpole must be designed and constructed to support the number and size of flags used;
6. in residential districts, there may be no more than one flagpole on a lot, and in other districts there may be no more than three flagpoles per lot;
7. no flagpole may have a height greater than 25 feet, measured by the same methods used to measure the height of signs; and
8. each flagpole must be within 30 feet of the principal entrance to the building to which it is oriented.

(History: Ordinance No. 18618)

14-504-14-G. CHANGEABLE COPY

Up to 25 percent of the permitted sign face area of any freestanding sign in C districts may be used for changeable copy, subject to the illumination requirements of this article. For electronic changes of copy, see Sec. 14-504-14-H.

14-504-14-H. ELECTRONIC MESSAGE CENTERS

1. No more than one electronic message center sign is allowed per lot or development site.
2. The electronic message center component of a sign may comprise no more than 25% of a sign’s total sign face area.
3. Freestanding electronic message center signs must be mounted on a base with a width that is at least 75% of the width of the sign’s face, based on the greatest horizontal dimension of the sign face.
4. The maximum height of the electronic message center component of a freestanding sign is 12 feet.
5. Lamp size may not exceed 54 watts of incandescent lighting for daytime use. An automatic dimmer must be installed to reduce nighttime wattage to a maximum of 30 watts. LEDs (light emitting diodes) and magnetic discs may be used, provided that light intensity is no greater than allowed for incandescent lighting. The use of red LED is prohibited.
6. Any display on the electronic message center must remain illuminated and visible for at least eight seconds.
7. Messages displayed may flash only when the displayed message is replaced by another message.
8. An electronic message center located within 250 feet of a residential district, noncommercial park, public open land, street intersection, community park or nature preserve (“protected areas”) may not operate between the hours of 10:00 p.m. and 6:00 a.m. of the following day.
9. Electronic message center signs are prohibited within 100 feet of a “protected area” (as described in the preceding paragraph) if any part of the sign face would be visible from the protected area.

14-504-14-I. ILLUMINATION**1. INTERPRETATION**

As pertains to signs, illumination means any light directed at, attached to or otherwise related to a sign, including exposed tubing or bulbs on the sign; lamps or lights shining onto its surface; or illumination transmitted through the sign face.

- (a) "Direct illumination" means a light source that is placed outside of or away from the sign in a manner so as to illuminate the sign externally.
- (b) "Internal illumination" means a light source that is enclosed within the sign and viewed through a translucent panel.

2. LIGHTING IN RESIDENTIAL DISTRICTS

Where allowed by Sec. 14-504-12, illuminated signs in residential districts may be directly illuminated by direct, white light that does not flash or move, and will not result in glare or spillover at the lot line. Signs in residential districts may not be internally illuminated.

3. INSTITUTIONAL AND SUBDIVISION SIGNS IN NONRESIDENTIAL DISTRICTS

Where allowed by Sec. 14-504-13, illuminated institutional signs and subdivision or neighborhood entrance signs may be illuminated by direct, white light that does not flash or move, and will not result in glare or spillover at the lot line. Such signs may not be internally illuminated.

4. LIMITS WHEN ADJOINING RESIDENTIAL PROPERTY

Illumination on all signs must be shielded so that no glare or spillover occurs at the lot line adjoining any residential district.

5. SPILLOVER ONTO RIGHTS-OF-WAY

Illumination on all signs must be shielded so that no glare or spillover occurs into the public right-of-way.

6. ILLUMINATION IN THE O-1 DISTRICT

Signs in the O-1 district may not be internally illuminated.

7. FLASHING LIGHTS

Flashing lights, rapidly changing or intermittent-type illumination, rotating beams, beacons or illumination resembling an emergency light are prohibited.

8. ELECTRIC SUPPLY

The electric supply for all illuminated signs must be located underground.

14-504-14-J. GRAND OPENING SIGN PACKAGE

(History: Ordinance No. 17832, 18210)

1. INTENT

This section is to provide for additional signage for businesses to utilize on their initial opening in the city to promote their business. It cannot be used to promote grand openings in another location or the promotion of an existing business at that same location.

2. ON PREMISE USE ONLY

All signage and promotion materials must be placed on premise of the business; no off-premise signage may be utilized.

3. DATES OF UTILIZATION

New businesses are limited to utilizing a grand opening sign package not to exceed 28 consecutive days before, during and after the grand opening of the business.

4. SIGNS PERMISSIBLE

A total of six of either banner signs or feather flags may be utilized in a grand opening sign package in any combination in accordance with the below standards for display.

- a) Banners. The maximum size for each banner is 32 square feet and each banner must be positioned in accordance with Section 14-504-14-F.
- b) Feather Flags (Wind fins). The maximum height for feather flags is eight feet and each flag positioned in accordance with Section 14-504-14-F.
- c) Strings of Pennants. pennants strings may also be used but must be securely fastened to immobile objects.

5. PERMIT REQUIRED.

A permit must be issued by the Community Development Department prior to the installation of the sign package.

14-504-15 OFF-PREMISE SIGNS

(History: Ordinance No. 17832)

14-504-15-A. SIGNS OVER 32 SQUARE FEET

For off-premise signs of more than 32 square feet, see Section 14-406 Off-Premise Advertising.

14-504-15-B. INTENT FOR OFF-PREMISE SIGNS OF 32 SQUARE FEET AND UNDER

The purpose of off-premise signage of 32 square feet and under (off-site directional signs) is to assist the public in finding a commercial, industrial, or institutional uses not readily visible from adjacent roadways. Such signs may be placed on property which abuts a highway, major arterial, minor arterial or collector street as designated by the City's Comprehensive Land Use Map.

14-504-15-C. LOCATIONS

Off-site directional signs for a lot without street frontage on a collector or above street are allowed provided the sign is located on a contiguous property to which the sign message is applicable and that the contiguous property has frontage on a collector or above street. Such sign must be set back at least 10 feet from all exterior property lines and not be placed in the sight triangle as defined in Chapter 17 of the City Code.

14-504-15-D. NUMBER OF SIGNS

Only one off-premise directional sign is allowed on each property where the sign is located. Each business or institution is limited to one off-premise directional sign.

14-504-15-E. DESIGN

The maximum sign area for off-premise directional signs is 32 square feet, must be a monument in design with a maximum height of eight feet. The landscaping and concealment requirement of Section 14-504-14 must also be met. The lighting of such signage is limited to internal illumination.

14-504-15-F. PERMISSION REQUIRED

Written permission is required from the owner of the property upon which the sign will be installed and a permanent sign easement is required for any off-site directional signage installed.

14-504-15-G. PERMIT REQUIRED

All off-site directional signage requires a permit issued by the Community Development Department before such sign is installed.

14-504-16 UNSAFE, ABANDONED AND NONCONFORMING SIGNS**14-504-16-A. UNSAFE SIGNS**

1. If the Community Development Director determines that any sign is unsafe or insecure, or is a menace to the public, he must give written notice to the person to whom the permit has been issued. If the Community Development Director determines that any sign, or sign structure, is unsafe or insecure, or is a menace to the public, he must give written notice to the person to the property owner or whom the permit has been issued.
2. If the sign permit issuee or property owner fails to remove or alter the sign to bring it into compliance with this chapter within 10 days after the notice, the Community Development Director may remove or alter the sign to comply at the expense of the sign permit issuee or owner of the property upon which it is located.
3. The Community Development Director may cause any sign that is an immediate peril to persons or property to be removed summarily and without notice.
4. The Community Development Director is responsible for the inspection of the condition of signs and to investigate complaints issued regarding signs.

14-504-16-B. ABANDONED SIGNS

1. Any sign that is located on property that has failed to maintain a valid business license or that becomes vacant and unoccupied for a period of six months or more, or any on-premise sign that pertains to a time, event, product or purpose that is no longer imminent, pending or available on the property, will be deemed to have been abandoned. Signs that are deemed 'Vintage' by the City Heritage Commission in accordance with Section 14-504-04, are exempt from this definition.
2. Any abandoned sign and sign structure must be taken down and removed by the owner, agent, or person using the structure upon which the sign is located. At the discretion of the Community Development Director, abandon signs may have its sign panels replaced with blank panels.
3. Removal of the sign, or replacement of the sign panels, must occur within 10 days after written notification from the Community Development Director. Upon failure to comply with the notice within the time specified in the notice, the Community Development Director may cause removal of the sign. Any expenses related to removal must be paid by the property owner where the sign is located.
4. At the time of termination of a business or commercial or industrial enterprise, all signs pertaining to the use must be removed from public view.

14-504-16-C. ABANDONED LEGAL NONCONFORMING SIGNS

1. Any nonconforming on-premise sign that is located on property that has failed to maintain a valid business license or that becomes vacant and unoccupied for a period of 12 months or more, or any nonconforming on-premise sign that pertains to a time, event, product or purpose that is no longer imminent, pending or available on the property, will be deemed to have been abandoned.

2. Any nonconforming off-premise sign that is not used or for which a valid permit or license does not exist for a continuous period of 12 months or more will be deemed to have been abandoned.
3. Abandoned nonconforming signs, including all elements of the sign and supporting structure, are prohibited and must be removed by the owner of the sign or the owner of the property upon which the sign is located.
4. No permits or development approvals may be issued for property occupied by nonconforming abandoned signs until such signs are removed.
5. No business license may be issued for businesses with nonconforming abandoned signs after the date that such nonconforming signs are required to be removed or altered.
6. Signs that are deemed 'Vintage' by the City Heritage Commission are exempt from this provision.
7. All other provisions of Sections 14-800-13 apply to legal nonconforming signs.

14-504-16-D. RECOVERY OF COSTS OF SIGN REMOVAL

The costs of the sign removal shall be recovered pursuant to City Code requirements.

(History: Ordinance No. 17713, 18618)

14-504-17 MAINTENANCE

14-504-17-A. All signs must be adequately maintained to keep them in a state of good appearance and repair. Painted signs will be considered in need of refinishing if:

1. Twenty percent or more of the surface is missing or shows evidence of peeling, checking, cracking, or blistering of the paint.
2. Twenty percent or more of the surface shows evidence of mildew.
3. The colors used have faded appreciably and the surface sheen is gone.

14-504-17-B. All sign framing and support structures must be adequately maintained to keep them in a state of good appearance and repair.

14-504-17-C. Illuminated signs will be considered in need of repair if 20 percent or more of the light bulbs are not fully illuminated, or if 20 percent or more of the surface area of an internally illuminated sign is not illuminated.

14-505 RESIDENTIAL DESIGN STANDARDS

14-505-01 PURPOSE

The provisions of this article are intended to accommodate a wide range of housing to promote quality housing and neighborhood design that complies with city and state regulations, and minimizes land use conflicts.

14-505-02 COMPLIANCE

Plans demonstrating compliance with the residential design standards of this article will be reviewed at the time of building permit plan review. If no plan review is required, plans showing compliance must be provided with the application for building or placement permit. No final inspection or certificate of occupancy will be approved until compliance is confirmed.

14-505-03 MINIMUM FLOOR AREA FOR SINGLE-FAMILY DETACHED HOUSES

Unless otherwise specified in this code, all single family detached houses shall enclose a floor area of not less than 900 square feet for a single story structure, and 1,100 square feet for structures of more than one story, in all non-Planned Unit Development (PUD) zoning districts. See Section 14-800-12-B for the reconstruction of damaged existing single family detached houses.

14-505-04 GENERAL STANDARDS FOR ALL RESIDENTIAL BUILDINGS

All residential buildings on individual lots in R districts must include at least three of the following design features:

- 14-505-04-A. attached or detached garage for at least one vehicle per dwelling unit;
- 14-505-04-B. a roof pitch greater than or equal to 3 to 12 (3:12);
- 14-505-04-C. eaves with a minimum 10-inch projection on all sides of the building;
- 14-505-04-D. rear or side decks or patios with a minimum size of 64 square feet per dwelling unit;
- 14-505-04-E. front porch and entry facing the front lot line (Note: entryway can be located on the long or short axis of the dwelling);
- 14-505-04-F. masonry perimeter enclosure at base, such as poured concrete foundation (Note: wood products covered with a treatment to appear as masonry do not qualify);
- 14-505-04-G. off-sets on building face with a minimum depth of 12 inches;
- 14-505-04-H. recessed entry with a minimum depth of 18 inches; or

14-505-05 MANUFACTURED HOUSING UNITS ON INDIVIDUAL LOTS

Manufactured housing units (commonly known as 'panelized', 'modular' or 'pre-cut' homes) may be placed on individual lots in R districts that permit detached houses only if they meet all local building codes. Housing built to meet the National Manufacturing Housing Construction Safety Standards Act of 1976 as amended, are not allowed in R districts that permit detached housing.

14-505-06 RESIDENTIAL INFILL DEVELOPMENT

14-505-06-A. PURPOSE

The residential infill development standards of this section are intended to encourage infill development that is compatible with the physical character of the neighborhood in which it is located.

14-505-06-B. APPLICABILITY

The standards of this section apply in all R districts to all new residential buildings located on blocks where 50% or more of the lots along both sides of the street are occupied by existing buildings. Unless otherwise noted in this code, this provision shall apply to lots platted or otherwise created before January 1, 1975.

14-505-06-C. COMPLIANCE WITH LOT STANDARDS

Residential infill development is subject to the standards of Section 14-300-05-A (*Table 300-2*), unless otherwise expressly indicated.

14-505-06-D. FRONT SETBACKS

Buildings subject to these residential infill development standards must comply with the contextual front setback standards of Sec.14-202-06-B.2. Compliance with fixed setback standards is not an option for development subject to residential infill standards.

14-505-06-E. HEIGHT

Buildings subject to these residential infill development standards may not exceed 115% or be less than 85% of the average height of buildings on the two nearest developed lots on either side of the subject lot.

1. Lots that front on a different street than the subject lot or that are separated from the subject lot by a street may not be used in computing the average. When the subject lot is a corner lot, the average height will be computed on the basis of buildings on the two nearest developed lots that front on the same street as the subject lot.
2. When the subject lot abuts a corner lot fronting on the same street, the average height will be computed on the basis of the building on the abutting corner lot and the buildings on the nearest two lots that front on the same street as the subject lot.

14-505-06-F. BUILDING WIDTH

Buildings subject to these residential infill development standards shall not exceed 115% or be less than 85% of the average building width within the same block.

14-505-06-G. BUILDING ORIENTATION

The front of the principal structure shall be oriented to the street. The context of the neighborhood shall be considered in determining which street should receive the structure orientation.

14-505-06-H. BUILDING ENTRY

The primary building entrance shall be clearly defined as found on existing residential structures within the same block. The primary entrance shall be directly accessible from the driveway or sidewalk. When 50 percent or more of the existing buildings on the same block have porches, a porch must be provided.

14-505-06-I. ROOF FORMS

Roof style (i.e., hipped roof, gable roof, mansard, etc.) and roof pitch shall be similar to those found on existing structures within the same block.

14-505-06-J. DRIVEWAYS AND GARAGES

Double-wide garage doors may not be used on street-facing garages. Two-car garages must use two single-side garage doors. Driveways leading from the street shall be similar in width to those found on existing lots within the same block.

14-505-06-K. WINDOWS AND DOORS

The size, scale and location of windows and doors on the building's street facades shall be similar to those found on existing structures within the same block.

14-505-06-L. RELIEF FROM STANDARDS

Waivers or modifications of residential infill development standards may be approved only through the Administrative Adjustment procedures of Sec. 14-706-01.

14-505-07 CONVERSION OF SINGLE FAMILY STRUCTURES IN R-12, R-18 AND R-30 DISTRICTS**14-505-07-A. APPLICABILITY**

No single family structure located on property zoned R-12, R-18 or R-30 may be converted into a two-family or multi-family structure except in conformity with this section.

14-505-07-B. MINIMUM STANDARDS**1. LOT AREA**

Such structures shall be located on a lot with a minimum area of 14,500 square feet.

2. LOT WIDTH

Such structures shall be located on a lot with a minimum width of 120 feet.

3. STRUCTURE SIZE

Such structures shall have a minimum area of 1,200 square feet.

4. REQUIRED SEPARATION

Such structures shall be separated from another two-family or multi-family structure by at least three buildable lots.

(History: Ordinance No. 17782)

14-505-08 ATTACHED HOUSES**14-505-08-A. GENERAL**

Attached houses are subject to the standards of Section 14-300-05-A(*Table 300-2*) and 14-505-04, except as expressly modified or supplemented by the attached house standards of this article.

14-505-08-B. LOT FRONTAGE

The minimum lot width for an attached house is 25 feet.

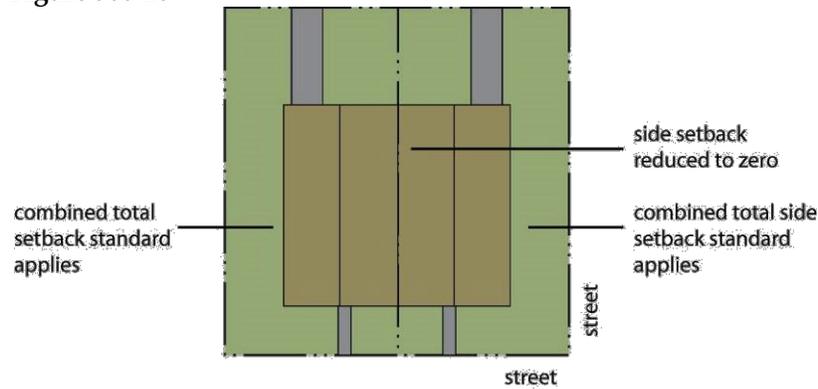
14-505-08-C. LOT AREA PER UNIT

The minimum lot area per unit requirements of Section 14-300-05-A(*Table 300-2*) apply to attached house developments on a project-wide basis, meaning that the total area of the attached house site may be counted as lot area. Common areas may include commonly owned open space, access drives, and parking area. Such common areas may also be included in setback calculations.

14-505-08-D. SETBACKS

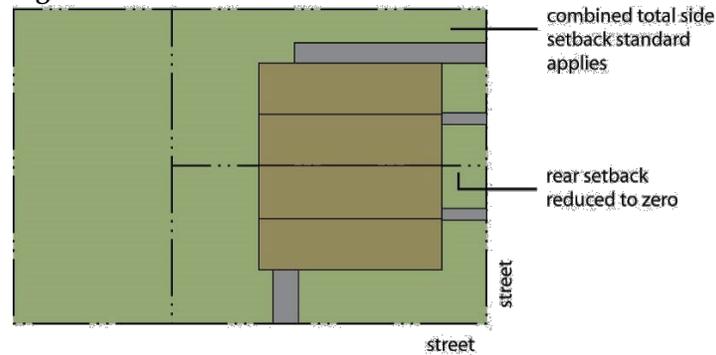
1. No interior side setback is required for common or abutting walls. The applicable minimum setback standard of Section 14-300-05-A(*Table 300-2*) applies along the sides of the building that do not have common or abutting walls. (See *Figure 500-16*)

Figure 500-16



2. On corner lots, either the interior rear setback or interior side setback may be reduced to zero. However, the remaining interior side or interior rear setback must comply with the standards of Section 14-300-05-A (*Table 300-2*). (See Figure 500-17)

Figure 500-17



14-505-08-E. COMMON OR ABUTTING WALLS

Common or abutting walls must be shared for at least 50% of their length. Walls must comply with Uniform Building Code requirements for multifamily dwellings.

14-505-08-F. FRONT ENTRANCE

Attached houses must have a primary ground floor entrance that is visible from the street.

14-505-08-G. GARAGES AND DRIVEWAYS

1. The front wall facade of any attached house may not include more than 40% garage wall area.
2. Driveways serving front-loaded garages may not exceed 24 feet in width, and there must be at least eight feet of landscaped open space between driveways, except on the bulb of cul-de-sacs.

14-505-08-H. NUMBER OF ATTACHED UNITS

Attached house buildings in the R-12 district may not contain more than two attached dwelling units.

14-505-08-I. SITE PLAN REVIEW

Site plan review, pursuant to Article 14-705, is required for all attached house developments containing more than 4 dwelling units. Site plan review may occur as part of the preliminary plan/plat approval process.

14-505-09 MULTI-UNIT HOUSES

14-505-09-A. GENERAL

Multi-unit houses are subject to the standards of Section 14-300-05-A(*Table 300-2*) and 14-505-04, except as expressly modified or supplemented by the following standards.

14-505-09-B. ENTRANCES

Patio-style doors, such as sliding glass doors, may not be used for main entrance doors.

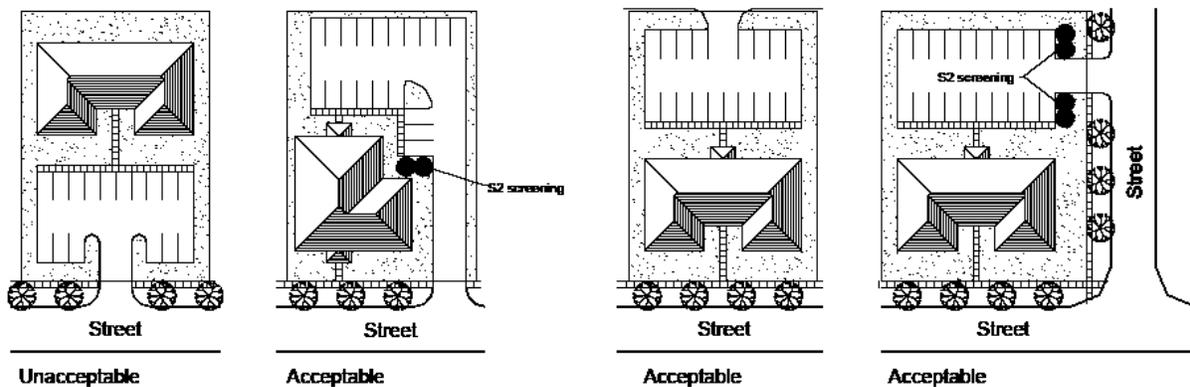
14-505-09-C. PEDESTRIAN CIRCULATION

A pedestrian circulation system must be provided that connects residential entrances to adjacent public rights-of-way and to parking areas and other on-site facilities.

14-505-09-D. PARKING LOCATION/ORIENTATION

Surface parking and parking within accessory structures must be located behind principal building or otherwise concealed from view of abutting streets. Parking areas may not be located directly between the principal building and the street or within any required interior side setback area. Any portion of a parking area that is not completely concealed from view of an abutting street must be screened in accordance with Section 14-503.

Figure 500-18



14-505-09-E. SITE PLAN REVIEW

Site plan review, pursuant to Article 14-705, is required for all multi-unit houses containing more than four dwelling units.

14-505-10 MULTIPLEX AND APARTMENT/CONDO BUILDINGS

14-505-10-A. GENERAL

Multiplex and apartment/condo buildings are subject to the standards of Section 14-300-05-A(*Table 300-2*) and 14-505-04, except as modified or supplemented by the standards of this article.

14-505-10-B. ENTRANCES

Patio-style doors, such as sliding glass doors, may not be used for main entrance doors.

14-505-10-C. PEDESTRIAN CIRCULATION

A pedestrian circulation system must be provided that connects residential entrances to adjacent public rights-of-way and to parking areas and other on-site facilities.

14-505-10-D. PARKING LOCATION/ORIENTATION

Surface parking and parking within accessory structures must be located behind principal building or otherwise concealed from view of abutting streets. Parking areas may not be located directly between the principal building and the street or within any required interior side setback area. Any portion of a parking area that is not completely concealed from view of an abutting street must be screened in accordance with Section 14-503.

14-505-10-E. SITE PLAN REVIEW

Site plan review, pursuant to Article 14-705, is required for all multiplex and apartment/condo buildings containing more than 4 dwelling units.

14-505-11 ZERO LOT LINE HOUSES**14-505-11-A. GENERAL**

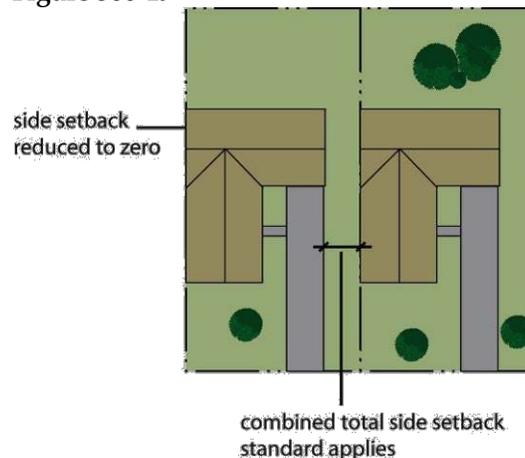
Zero lot line houses are subject to the standards of Section 14-300-05-A(*Table 300-2*) and 14-505-04, except as expressly modified by the zero lot line house standards of this article.

14-505-11-B. SITE PLANNING

Zero lot line building arrangements require that the planning for all of the house locations be done at the same time. Because the exact location of each house is predetermined, greater flexibility in site development standards are possible, while ensuring that neighborhood character is maintained.

14-505-11-C. SIDE SETBACKS

The interior side setback on one side of the lot may be reduced to as little as zero. The zero-setback side may not abut a street or a lot that is not part of the zero lot line development. Lots with no interior side setback on one side must provide double the minimum interior side setback requirement on the opposite side of the lot. (See *Figure 500-19*) If the opposite side of the lot abuts a street, the minimum exterior setback must be provided.

Figure 500-19**14-505-11-D. EASEMENTS**

When the zero lot line house's exterior wall is set back less than two feet from the side lot line, an easement must be obtained from the abutting owner and recorded with the Jackson County Recorder of Deeds office. The easement must ensure at least two feet of unobstructed space between the furthestmost projection of the building and the edge of the easement. This provision is intended to ensure the ability to conduct maintenance activities on the zero lot line house.

14-505-11-E. PRIVACY

Windows or other openings that allow for visibility into the side yard of the lot abutting the zero-setback side lot are not allowed on zero lot line houses. Clerestory windows, translucent windows and other window designs that do not allow visibility into the side yard of the abutting lot are allowed, subject to compliance with the building code.

14-505-11-F. SITE PLAN REVIEW

Site plan review, pursuant to Article 14-705, is required for all zero lot line house developments. Site plan review may occur as part of the preliminary plan/ plat approval process.

14-506 NONRESIDENTIAL DESIGN STANDARDS

14-506-01 NONRESIDENTIAL BUILDING DESIGN AND MATERIALS

14-506-01-A. APPLICABILITY

Unless otherwise expressly stated, the building design and material standards of this section apply to all development in O, C and I districts, and public/semi-public and institutional buildings (i.e., churches, schools) in all zoning districts that is subject to site plan review.

(History: Ordinance No. 17713)

14-506-01-B. FAÇADE MATERIALS AND BUILDING REQUIREMENTS

1. All buildings and other structures must utilize brick, wood, natural stone, architectural cast stone, glass or other comparable, quality materials approved during the plan review process.
2. Concrete masonry units, architectural precast panels, and similar materials may be allowed in service areas and on exterior walls that are not generally visible to the public.
3. EFIS (Exterior Finish Insulation Systems) may be permitted on exterior building walls that are more than eight feet above the adjacent ground or paved surface. EFIS may not be used on more than 35% of any building wall. All EIFS must be of a moisture drainage type and also incorporates an air and water-resistive barrier.

14-506-01-C. BUILDING DESIGN

The following standards apply to all building facades and exterior walls that are visible from adjoining streets or properties. A building's walls shall have horizontal and vertical architectural interest and variety to avoid the effect of a single, blank, long or massive wall with no relations to human scale.

(History: Ordinance No. 17713)

1. Buildings visible from streets must include at least two of the following features:
 - (a) variations in roof form and parapet heights;
 - (b) clearly pronounced recesses and projections;
 - (c) wall plane off-sets (dimension established by building module);
 - (d) reveals and projections and changes in texture and color of wall surfaces;
 - (e) deep set windows with mullions;
 - (f) ground level arcades and second floor galleries/balconies; or
 - (g) other features that reduce the apparent mass of a building.
2. All rooftop units shall be screened from view with a parapet or an architectural treatment compatible with the building architecture equal to the height of the unit (as measured from the roof surface). Screening shall not include painted mechanical units or pre-finished mechanical units. For mechanical units not adequately screened by the parapet, supplementary screening shall be provided by the use of pre-finished architectural metal panels, stucco panels, masonry walls, or other similar building materials. The screens shall incorporate similar detailing, features, and colors used in the building.

3. Each building must have a clearly defined, highly visible customer entrance featuring at least three of the following permanent elements:
- (a) Canopies;
 - (b) porticos;
 - (c) overhangs;
 - (d) recesses/projections;
 - (e) arcades;
 - (f) raised corniced parapets over the door;
 - (g) peaked roof forms;
 - (h) arches;
 - (i) outdoor patios;
 - (j) display windows;
 - (k) architectural details such as tile work and moldings that are integrated into the building structure and design; or
 - (l) integral planters or wing walls that incorporate landscaped areas and/or places for sitting.

(History: Ordinance No. 17713)

14-506-02 LARGE-STORES AND SHOPPING CENTERS

14-506-02-A. APPLICABILITY

The standards of this section apply to all retail uses and food and beverage retail sales uses on sites that include, in aggregate, more than 70,000 square feet of gross floor area.

14-506-02-B. PARKING LOTS

1. Large-scale retail projects should recognize parking facilities as transitional spaces where users change modes of travel, from car, bus, or bicycle to pedestrian. The design of parking areas must therefore safely and attractively serve all transportation modes.
2. Parking areas must be distributed around large buildings on not less than two sides in order to shorten the distance to other buildings and public sidewalks and to reduce the perceived scale of parking areas and paved surfaces.
3. In order to reduce the scale of parking areas, no single parking area may include more than 200 parking spaces unless divided into two or more sub-areas separated from each other by landscaping, access drives or public streets, pedestrian walkways, or buildings.
4. Safe and clearly defined pedestrian walkways, leading to store entrances, must be provided within large parking lots.
5. Placing large amounts of parking between the front door of buildings and the adjacent street contributes to a formless arrival experience for users, and creates a detached relationship between the primary building and the street. If more than 65 percent of the total off-street parking spaces for

the entire site are located between the front facade of the principal building and the primary street abutting the site, additional landscaping, buffering and raised pedestrian walkway connection must be provided as a condition of plan approval.

14-506-02-C. PEDESTRIAN CIRCULATION

1. At least one continuous internal pedestrian connecting walkway must be provided from the public sidewalk or right-of-way and the principal customer entrance of all principal buildings on the site. Such pedestrian connections must be at least six feet in width. At a minimum, walkways must connect focal points of pedestrian activity such as, but not limited to, transit stops, street crossings, building and store entry points, and feature items such as adjoining landscaped areas that includes trees, shrubs, benches, flower beds, planters, groundcover, or other such materials for no less than 30 percent of its length.
2. Walkways, no less than eight feet in width, must be provided along the full length of the building along any facade featuring a customer entrance, and along any facade abutting public parking areas.
3. Customer entrances must have weather protection features, such as awnings, arcades, or vestibules.
4. All internal pedestrian walkways that cross parking aisles or driveways must be distinguished from driving surfaces through the use of durable, low-maintenance surface materials such as pavers, bricks, scored concrete or scored and painted asphalt to enhance pedestrian safety and comfort. Raised walkways may be installed if elevated six inches with tapered side slopes and meet ADA standards.

14-506-02-D. BUILDING DESIGN

In order to achieve unity, all buildings in a development, including pad site buildings, shall be constructed of similar building materials from the same color and materials palette.

(History: Ordinance No. 17713)

14-506-02-E. TRANSIT STOPS

When feasible, bus stops must be integrated into the traffic and pedestrian circulation system of the site.

14-506-03 INDUSTRIAL BUILDING DESIGN AND MATERIALS

14-506-03-A. APPLICABILITY

The design and material standards of this section apply to the facades of all buildings of properties zoned BP, I-1 and I-2. Depending upon the classification of the street which they face, buildings shall utilize the materials specified in Section 14-506-01-B. Secondary buildings on the same lot shall also meet these standards.

14-506-03-B. FRONTING MINOR ARTERIAL AND ABOVE STREETS

1. Street facades - One hundred percent (100%) of street facing facades of buildings located on streets classified as minor arterials or higher shall utilize materials specified in Section 14-506-01-B.
2. Remaining facades – At least 50% of the remaining façades of buildings shall be comprised of the materials listed in Section 14-506-01-B. The other 50% of the facades may be pre-engineered and pre-finished rough textured metal siding panels and/or pre-engineered and pre-finished rough textured metal siding panel systems, meeting adopted building codes.

14-506-03-C. FRONTING COLLECTOR AND MINOR STREETS

1. Street facades – At least 50% of street facing facades of buildings located on streets classified as a collector or minor street shall utilize materials specified in Section 14-506-01-B.

2. Remaining facades - The remaining facades may use pre-engineered and pre-finished rough textured metal siding panels and/or pre-engineered and pre-finished rough textured metal siding panel systems, meeting adopted building codes.

14-506-04 RELIEF FROM STANDARDS

Waivers or modifications of Nonresidential Design Standards may be approved only through the Administrative Adjustment procedures of Sec. 14-706-01.

(History: Ordinance No. 18395)

14-507 OUTDOOR DISPLAY AND STORAGE

14-507-01 OUTDOOR DISPLAY

Outdoor retail sales and display areas must comply with the following standards:

14-507-01-A. LOCATION OF SALES AREA

Outdoor sales areas must be contiguous, located entirely on private property, and outside of any required setback. In districts without required setbacks, outdoor sales areas may not be located within 10 feet of any lot line.

14-507-01-B. MAXIMUM SIZE

Except for vehicle-sales uses, outdoor sales areas may not exceed 20% of the floor area of the uses they serve, unless otherwise expressly stated in this development ordinance.

14-507-01-C. LOCATION OF MERCHANDISE

Merchandise may not be displayed where it will encroach upon required parking spaces, driveways, walkways, sidewalks, or landscaped areas. Merchandise may not obstruct sight distance or otherwise create hazards for vehicular or pedestrian traffic.

14-507-01-D. HEIGHT OF MERCHANDISE

Individual items displayed may not exceed 10 feet in height above grade. Stacked items may not exceed a total of seven feet in height above grade.

14-507-01-E. EXCEPTIONS

The standards of this section do not apply to the sales of food, flowers, newspapers, and periodicals from a pedestrian-oriented storefront and the temporary or seasonal sales of pumpkins and Christmas trees and customary holiday items.

14-507-01-F. OUTDOOR STORAGE

Outdoor storage is allowed only in C-3 and I-2 districts.

14-508 OUTDOOR LIGHTING

14-508-01 PURPOSE

The outdoor lighting standards of this article are intended to protect the public health and general welfare by controlling the adverse impacts of glare and light trespass associated with poorly shielded or inappropriately directed lighting fixtures.

14-508-02 APPLICABILITY

Unless otherwise expressly exempted, the regulations of this section apply to all outdoor lighting installed after July 1, 2009 on private property that requires special use or site plan approval.

14-508-03 EXEMPTIONS

The following are expressly exempt from the outdoor lighting regulations of this article:

14-508-03-A. airport runway and aviation safety lights required by the FAA (e.g., warning lights on radio, communication and navigation towers);

14-508-03-B. security lights controlled and activated by motion sensor devices for a duration of 15 minutes or less;

14-508-03-C. outdoor lights on lots occupied by residential buildings containing four or less dwelling units per building; (History: Ordinance No. 17832)

14-508-03-D. temporary holiday light displays;

14-508-03-E. outdoor light fixtures producing light directly by the combustion of fossil fuels, such as, kerosene lanterns or gas lamps;

14-508-03-F. city street lighting system;

14-508-03-G. lighting of official government flags;

14-508-03-H. lights associated with outdoor recreation uses, which are subject only to the standards of Sec. 14-508-07; and

14-508-03-I. construction and emergency lighting used by construction workers or police, firefighting, or medical personnel, provided the lighting is temporary and is discontinued immediately upon completion of the construction work or abatement of the emergency requiring the lighting.

14-508-04 GENERAL REGULATIONS AND STANDARDS

14-508-04-A. Flashing, revolving, or intermittent exterior lighting visible from any lot line or street is prohibited.

14-508-04-B. High intensity light beams, such as outdoor searchlights, lasers or strobe lights are prohibited.

14-508-05 FIXTURES AND SHIELDING

14-508-05-A. All outdoor light fixtures shall use full cut-off lenses to prevent glare and light spill from the project site onto adjacent properties, buildings and roadways.

14-508-05-B. Light fixtures mounted under gas station canopies must be completely recessed into the canopy with flat lenses that are translucent and completely flush with the bottom surface (ceiling) of the canopy.

14-508-06 SPILLOVER LIGHT

Spillover light onto residential-zoned property may not exceed two lux (0.2 fc), measured at grade along the lot line.

14-508-07 PARKING LOT LIGHTS

All parking lot light fixtures shall be metal halide or light emitting diode (LED). Parking lot lighting shall be mounted to the parking lot light pole at 90 degrees (horizontal to the ground) and shall be non-adjustable.

14-508-07-A. THE MAXIMUM HEIGHT SHALL BE LIMITED AS FOLLOWS:

1. All light fixtures on properties within or adjoining residential uses and/or districts shall not exceed 20 feet in height, measured from grade to the top of fixture.
2. All light fixtures on properties that do not adjoin residential uses and/or districts shall not exceed 30 feet in height, measured from grade to the top of fixture.
3. The parking lot pole base shall be included in the overall height.

14-508-07-B. THE MAXIMUM FIXTURE WATTAGE SHALL BE LIMITED AS FOLLOWS:

1. All fixtures on developments that adjoin residential uses and/or districts shall be limited to 250-Watts maximum per head through the entire parking lot.
2. All fixtures on developments that adjoin commercial, office or industrial uses and/or districts shall be limited to 400-Watts maximum per head.
3. Developments adjoining residential uses and/or districts shall utilize single headed fixtures only.
4. The total aggregate wattage for multiple headed fixtures on a single pole shall be limited to 1600-Watts.

14-508-07-C. UNIFORMITY RATIOS.

Light fixtures shall be arranged to provide uniform illumination throughout the parking lot of not more than a 6:1 ratio of average to minimum illumination, and not more than 20:1 ratio of maximum to minimum illumination.

14-508-08 WALL MOUNTED LIGHTS**14-508-08-A. FULL CUT-OFFS.**

Wall mounted lights shall utilize full cut-off fixtures only to direct the light downward.

14-508-08-B. MAXIMUM WATTAGE.

Wall-mounted fixtures shall be metal halide and not exceed 150-Watts.

14-508-08-C. MOUNTING HEIGHT.

Wall-mounted/building-mounted fixtures shall be attached only to walls, and the top of the fixture shall not exceed the height of the parapet or roof, whichever is greater. For structures within 100 feet of a residential use and/or district, the mounting height of these fixtures shall not exceed 15 feet measured from the top of the fixture to grade.

14-508-09 SPECIAL STANDARDS FOR OUTDOOR RECREATION USES

14-508-09-A. Because of their unique requirements for nighttime visibility and their limited hours of operation, outdoor recreation uses are exempt from the outdoor lighting standards of this section. Instead, outdoor recreation uses are subject to the following standards:

14-508-09-B. All light fixtures/light poles must be set back from the lot lines of residential-zoned property at least one foot for each one foot of pole height or 50 feet, whichever is less.

14-508-09-C. Lighting must be designed to minimize adverse impacts on traffic safety and nuisance impacts on residential-zoned property. Mitigation can be required via extra landscaping, earlier shut-off times for the lights, cutoff fixtures (where feasible) and other techniques.

14-508-09-D. Outdoor recreation uses are subject to the exterior lighting plan requirements of Sec. 14-508-10.

14-508-10 PHOTOMETRIC PLAN

14-508-10-A. WHEN REQUIRED

A photometric plan must be submitted as part of any special use or site plan application. The lighting plan must be reviewed to determine whether the proposed outdoor lighting complies with the standards of this section.

14-508-10-B. INFORMATION REQUIRED

Photometric plans must include a photometric diagram and data on the types of lighting fixtures to be used. The photometric plan must include all of the following unless the Community Development Director determines that a thorough review is possible without such information:

1. scale drawing of the site with all outdoor lighting fixture locations identified;
2. fixture specifications indicating the type of fixture, height, shielding, luminaire type and wattage; and lamp type and size.
3. A photometric diagram showing predicted maintained lighting levels produced by the proposed lighting fixtures.
4. The photometric plan shall indicate footcandle levels on a 20-foot by 20-foot grid. When the scale of the plan, as determined by the Director, makes a 20' by 20' grid plot illegible, larger grid spacing may be permitted.
5. All photometric plans shall provide a breakdown indicating the maximum footcandle, minimum footcandle, average maintained footcandle, and the maximum to minimum ratio for each lighting zone.

14-509 TRANSPORTATION FACILITY ADEQUACY

14-509-01 EXEMPTIONS

These exemptions apply only to this article.

14-509-01-A. This article does not apply to those residential subdivisions that generate four or fewer peak hour trips or commercial and industrial developments that generate 15 or fewer peak hour trips, provided the street network serving the development is a minimum of 24 feet wide.

14-509-01-B. For those residential subdivisions that generate more than four but fewer than 26 peak hour trips or commercial and industrial developments that generate more than 15 but fewer than 26 peak hour trips, Sections 14-509-05 and 14-509-14, regarding sight distance do not apply. All other applicable sections of this article apply.

14-509-01-C. For residential subdivisions that generate more than 25 peak hour trips, all applicable sections of this article apply.

14-509-01-D. These exemptions apply to only to land parcels not subdivided as of January 1, 2001. The cumulative traffic generation may not exceed the values specified in this article.

14-509-02 CUMULATIVE IMPACTS

The City Engineer is responsible for maintaining a cumulative data base of exempt and non-exempt developments for the purpose of monitoring the respective cumulative impacts on streets and bridges.

14-509-03 STREET ELEMENTS

14-509-03-A. These are the minimum requirements for street elements that are required to deem a street adequate. Traffic generated by the development must be assigned to the existing street network according to the probable origins and destinations, as outlined in Sec. 14-509-19.

14-509-03-B. If existing streets are deemed inadequate to handle the traffic volume generated by the subject development, the City Engineer may not recommend plan approval until such time as the inadequacies are corrected or arrangements to do the same are made and agreed to by the city.

14-509-03-C. The portion of the existing street network that must be evaluated to determine facility adequacy pursuant to this article consists of the street leading from the site's planned entrance (including all street frontage) to and including the nearest existing street intersection deemed adequate for the additional traffic and then continuing to any signalized intersection that may exist within one mile of the existing street intersection. In most cases this will be the nearest minor arterial or major collector. The street segments to be evaluated for adequacy must be defined during a preliminary consultation with the City Engineer.

14-509-03-D. All routes owned and maintained by the State of Missouri, Jackson County or other incorporated municipalities will be exempt from the requirements of this policy. The city may require intersections in other jurisdictions to be analyzed for the benefit of the city to determine operational conditions and need for improvements.

14-509-03-E. Street adequacy determinations prepared by consultants must follow the measurement and reporting procedures available in the Public Works Department.

14-509-03-F. The following sections outline the minimum requirements and are to be considered as an aggregate total, unless otherwise specified.

14-509-04 STREET WIDTH

14-509-04-A. A minimum street width of 24 feet is required for the complete section of street under evaluation.

14-509-04-B. Street and street segments with less than 24 feet of width must be widened to a minimum of 24 feet to obtain an adequacy rating. Depending on existing plus proposed traffic volumes, street width greater than 24 feet may be required (see Sec. 14-509-20.)

14-509-05 SIGHT DISTANCE

14-509-05-A. The portion of an existing streets required to be adequate may not have any horizontal or vertical alignment conditions that restrict sight distance below the values listed in the following table:

Speed (MPH)	Min. Safe Stopping Distance (feet)
25	150
30	200
35	235
40	300
45	365
50	440

14-509-05-B. The minimum safe stopping sight distance must be based on the posted regulatory speed limit for the respective street segment. Advisory speeds used with warning signs may not be used in the determination of safe stopping sight distance required. For streets that are not posted, the design speed based on the functional classification of the street must be used. Refer to the city’s Comprehensive Plan and the City Street Standards in the *Public Works Manual* to determine the appropriate design speed.

14-509-06 HORIZONTAL CURVATURE

Safe stopping sight distance around horizontal curves must be measured using a 3.5 foot high eye height observing a 2.0 foot high object (two foot object height obtained from National Cooperative Highway Research Program Report #1208, [Analysis of Highway Sight Distance]). Both the eye and object must be located two feet from the centerline of street, within the inside travel lane. The measurement must be taken on the arc length of the curve along the centerline.

14-509-07 VERTICAL CURVATURE

Safe stopping sight distance over vertical curves must be measured using a 3.5 foot high eye height observing a 2.0 foot high object (two foot object height obtained from National Cooperative Highway Research Program Report #1208, [Analysis of Highway Sight Distance]). Measurements must be taken along the centerline of the street.

14-509-08 CITY-MAINTAINED INTERSECTIONS

14-509-08-A. City intersections, excluding driveway entrances for single family residences, must be analyzed for adequate sight distance based on the following table:

Speed (MPH)	Left (feet)	Right (feet)
25	200	200
30	280	265
35	365	350
40	465	450
45	575	560
50	700	850

14-509-08-B. Street speed shown in 14-509-08-A must be that of the intersected street and must be the posted speed limit. If no posting exists, the street speed must be based on the design speed for the functional classification.

14-509-08-C. In addition to sight distance, intersections must be analyzed for adequate geometric configuration. Considerations may include:

1. Adequate paved area for through traffic, turning, stopping and starting vehicle movements.
2. Excessive intersection skew (the angle at which streets intersect).

14-509-09 INTERSECTION MAINTAINED BY OTHERS

The regulations of Sec. 14-509-08 do not apply to intersections maintained by other jurisdictions. The city may require analysis of any other jurisdiction-maintained intersections for informational purposes to determine the need for improvements.

14-509-10 DRIVEWAYS/ENTRANCES

The regulations of Sec. 14-509-08 do not apply to those intersections created by driveways/entrances for individual single-family residences entering onto city streets.

14-509-11 STREET SURFACE REQUIREMENTS

Existing streets must be deemed adequate to accommodate the traffic that would be generated by the development in addition to existing traffic, provided they meet the minimum standards contained herein and they are publicly maintained, all-weather streets (e.g. bituminous concrete, Portland cement concrete, or asphaltic concrete streets).

14-509-12 STRUCTURAL ADEQUACY OF PAVEMENTS

14-509-12-A. This section applies only to developments or subdivisions that generate 100 or more peak hour trips onto the street on which adequacy is in question.

14-509-12-B. The City Engineer reserves the right to evaluate unique situations and traffic characteristics (e.g. construction traffic, type of traffic and volume of heavy trucks) to determine structural adequacy.

14-509-12-C. Street pavements under consideration for a substantial increase or change in consistency in traffic due to new development must be evaluated and recommendations for improvements made if any of the following conditions apply:

1. Visual inspection reveals existing subgrade distress or failure.
2. Excessive rutting or shoving of the pavement structure is occurring.
3. The existing pavement section is structurally inadequate to support the proposed increase in traffic or additional loads imposed. The analysis must assume a ten year design life from the date of construction.
4. Pavement core samples are required to determine existing pavement thickness.

14-509-12-D. Analyses under this section are not required if any of the following applies:

1. The existing pavement section has been determined adequate for at least the proposed amount of additional traffic by the City Public Works Department, or
2. The street being considered is on the City of Independence Capital Improvement Program schedule for resurfacing at the appropriate width within three years from the proposed start date of construction.

14-509-13 BRIDGE MINIMUM WIDTH

14-509-13-A. The minimum clear width across any bridge or culvert (structures) is 24 feet or the approach street width, exclusive of shoulders, whichever is greater.

14-509-13-B. Minimum clear width must be measured from the face of the most restrictive feature (e.g. curb, traffic barrier, railing, etc.)

14-509-13-C. The approach street width must be measured at locations as near to the structure as possible, but outside of any tapers or transitions leading to the bridge.

14-509-14 BRIDGE SIGHT DISTANCE

Sight distances on street approaches to and across structures must meet the requirements of Sec. 14-509-05.

14-509-15 BRIDGE POSTED WEIGHT LIMITS

A minimum posted weight limit of 13 tons is required for all structures that will experience an increase in traffic due to new development. For nonresidential development, higher load limits may be required depending upon the type of traffic to be generated. The City Engineer will examine such projects on a case by case basis.

14-509-15-A. Fire and rescue operations may also be considered in evaluating the minimum acceptable weight restriction for all types of development.

14-509-15-B. The posted weight restrictions for all city-maintained structures must be determined by the City Engineer.

14-509-16 ADDITIONAL ITEMS

Other items such as traffic barrier requirements, streetside obstacles, accident history, pavement markings, traffic control signs, pavement skid resistance, and flooding (the 100 year flood should not flow over the streets, bridges, or culverts at identified creeks, streams and rivers) and drainage concerns all effect street safety. As such, while no specific requirements are stated herein, the City Engineer will review such items on a case by case basis as needed.

14-509-17 TRAFFIC OPERATIONS

14-509-17-A. If existing streets are deemed inadequate to operationally handle the traffic volume generated by the subject development, the City Engineer will not recommend plan approval until such time as the inadequacies are corrected or arrangements to do the same are made and agreed to by the city.

14-509-17-B. If so directed by the City Engineer, a traffic impact study (TIS) must be prepared using the criteria contained in this article. Where a development is to be phased in over a period of time, every effort must be made to properly account for the same in the TIS. However, the determination as to the adequacy of traffic operations will only be binding for those phases submitted for preliminary approval.

14-509-18 TRIP GENERATION

14-509-18-A. The latest edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual* will be used as the primary source of trip generation factors for all land uses. Trip generation rates for many uses not cited in the ITE Manual may be estimated by using other available sources of information, with approval from the City Engineer. All traffic studies will consider a.m. and p.m. peak hour trip generation.

14-509-18-B. When the peak hour of the development occurs at a time different from the adjacent street, site generated traffic volumes will be computed separately for both the DHV of the generator and for the adjacent street.

14-509-18-C. For informational purposes, a computation of average daily traffic generation should also be made and included in the Applicant (Applicant’s Consultant) report.

14-509-18-D. Trip generation rates for residential land use, obtained from the ITE *Trip Generation Manual*.

14-509-18-E. For commercial retail development only, the Applicant (Applicant’s Consultant) may make reasonable assumptions regarding pass-by trips. Pass-by trip percentages may be selected after consultation with the City Engineer in accordance with Chapter VII of the *ITE, Trip Generation Manual*. Pass-by trip percentages may not be used to reduce parking or other on-site requirements, or to determine the threshold level for performing a full traffic impact study.

14-509-18-F. The ability to use public transit or transportation modes other than vehicular traffic will not be considered when performing traffic studies, unless approved by the City Engineer.

14-509-19 TRIP DISTRIBUTION

Site generated traffic volumes must be assigned to the street network within the impact area by the Applicant (Applicant’s Consultant) using the distribution factors approved by the Public Works Department. The Developer/Consultant must conduct traffic studies necessary to justify trip distribution factors prior to submission of the TIS.

14-509-20 CAPACITY ANALYSIS FOR STREET LINKS

14-509-20-A. Two lane street links must be determined to have adequate capacity if the existing plus proposed traffic does not exceed 85 percent of the rated capacity (LOS E).

14-509-20-B. Rated capacity must be calculated using acceptable methods described in TRB Special Report #209, Highway Capacity Manual. Typical threshold traffic DHV for two-lane streets may not exceed those in the following table:

Lane Width (feet)	Two-Way Traffic Volume (Design Hourly Volume)
9	919
10	1,045
11	1,142
12	1,225

14-509-20-C. The preceding table (in Sec. 14-509-20-B) was generated using street elements considered typical for Independence. The applicant may provide and the City Engineer is authorized to approve supplemental computations to justify the threshold DHV based on site-specific conditions.

14-509-20-D. Multi-lane highways must be analyzed using the methods of Chapter 7 of the TRB Special Report #209, Highway Capacity Manual. The city’s minimum acceptable operational LOS for multi-lane highways and urban arterials is LOS D.

14-509-21 CAPACITY ANALYSIS FOR INTERSECTIONS

14-509-21-A. Traffic operations at intersections must be analyzed for LOS using the methods outlined in this section. The minimum LOS acceptable for intersections is LOS D. Should a proposed development impact an intersection and cause the operational condition to fall below the minimum acceptable LOS, improvements must return the operational LOS to the minimum acceptable LOS.

14-509-21-B. If an intersection under evaluation is operating below the minimum LOS prior to approval of the development, the intersection must be improved to the minimum acceptable LOS. If the intersection is not improved to the minimum acceptable LOS, the City Engineer may not recommend plan approval until such time as the inadequacies are corrected or arrangements to do same are made and agreed to by the city.

14-509-21-C. The City will not accept turning movement counts more than 12 months out-of-date or where development has occurred after the last count.

14-509-22 CAPACITY ANALYSIS FOR SIGNALIZED INTERSECTIONS

Signalized intersections required to be adequate must be analyzed using Critical Lane Methodology.

14-509-23 CAPACITY ANALYSIS FOR UNSIGNALIZED INTERSECTION

14-509-23-A. Unsignalized intersections must be evaluated using the following criteria:

1. Analyze the intersection using the critical lane technique outlined in Appendix A, for existing and proposed conditions.
2. If the existing LOS is LOS A through LOS C, the intersection must be analyzed using Chapter 10 of the TRB Special Report #209, Highway Capacity Manual to determine reserve capacity, additional studies must be performed.
3. If the proposed LOS exceeds the criteria in Sec. 14-509-20, additional studies must be performed.

14-509-23-B. Additional studies may include time delay studies, adequate gap studies, signal warrant analysis, etc.

14-510 INTERSECTION VISIBILITY

14-510-01 STANDARDS

For intersection visibility, review the standards of Chapter 17, Article 1, of the City Code, Public Works Regulations, for traffic and pedestrian safety.

14-511 ENERGY AND RESOURCE CONSERVATION

14-511-01 SOLAR ENERGY SYSTEMS

The provisions of this subsection shall apply to the design, construction installation, alteration, materials, location, repair and removal of solar energy systems and accessories connected, attached or adjacent to a building or structure. Solar energy systems, whether active or passive, shall be designed to be compatible with the surrounding neighborhood and shall comply with the following standards.

14-511-01-A. MAINTENANCE AND ACCESS

Solar energy system components shall be accessible for required routine maintenance without trespassing on adjoining property or disassembling a major portion of the structure of a building or appurtenance.

14-511-01-B. LOCATION

Solar energy system components shall not be located so as to interfere with the operation of required doors, windows or other building components. Provision shall be made over pedestrian and vehicular ways to protect those areas from sliding snow or ice.

14-511-01-C. COMPLIANCE WITH BUILDING CODES

Solar energy system components shall be installed in accordance with adopted City building and related codes.

14-511-01-D. INSTALLATION OF EQUIPMENT, NEW CONSTRUCTION

Solar energy systems, when mounted or placed atop the roof of a structure, shall conform to the following requirements.

1. Roof-mounted solar energy system components servicing the collector panel shall be concealed and all exposed metal shall be finished with similar colors to the structure on which it is mounted. All framing shall be rust treated or of non-rusting materials.
2. Roof-mounted solar energy systems located on front or side building roofs visible from the public right-of-way shall not extend above the peak of the roof plane on which they are mounted, and no portion of any such system shall extend more than 24 inches perpendicular to the point of the roof where it is mounted. For roofs of 2/12 pitch or less, solar energy systems may extend 24 inches above the parapet or ridgeline.
3. Roof-mounted solar energy systems located on the rear side of building roofs shall not extend above the peak of the roof plane on which they are mounted, and no portion of any such system shall extend more than four feet perpendicular to the point on the roof where it is mounted. For roofs of 2/12 pitch or less, solar energy systems may extend 24 inches above the parapet or ridgeline.
4. Ground-mounted solar energy systems shall not exceed eight feet in total height and shall be located within the rear at least 12 feet inside the property line.
5. All lines serving ground-mounted solar energy systems shall be located underground.

14-511-01-E. EXISTING SOLAR ENERGY SYSTEMS

Existing solar energy systems shall be permitted to have their existing use continued, provided their use and maintenance is not a hazard to life, health or property. Conditions that endanger life, limb, health or property shall be abated by repair, rehabilitation demolition or removal.

14-511-02 SMALL WIND ENERGY SYSTEMS**14-511-02-A. PURPOSE**

The regulations of this section are intended to regulate the placement, construction and modification of small wind energy systems that serve individual households while promoting the safe, effective and efficient use of small wind energy systems and not unreasonably interfering with the development of independent renewable energy sources.

14-511-02-B. APPLICABILITY

The regulations of this section govern the siting of small wind energy systems used to generate electricity for individual households, which may be connected to the utility grid pursuant to the state's net metering laws, serve as an independent source of energy, or serve as part of a hybrid system.

14-511-02-C. SITING REQUIREMENTS

The following siting requirements apply to small wind energy systems regulated by this section:

1. Small wind energy systems must be located on lots with a minimum area of at least three acres.
2. The maximum tower height may not exceed 65 feet on a parcel of less than five acres in area, or a maximum height of 80 feet on a parcel of more than five acres in area. The applicant must provide evidence that the proposed height of the small wind energy system tower does not exceed the height recommended by the manufacturer or distributor of the system.
3. Small wind energy systems must be setback from all lot lines by at least the height of the tower.
4. Small wind energy systems may not cause noise levels exceeding 50 dBA at the property line of any abutting R-zoned lot.
5. The applicant must provide information demonstrating that the system will be used primarily to reduce on-site consumption of electricity.
6. Small wind energy systems shall not be artificially illuminated unless required by the Federal Aviation Administration (FAA) or appropriate authority.
7. No tower may have any sign, writing, or picture that may be construed as advertising.
8. All blades utilized on a small wind energy system must be at least 15 feet above the ground, as measured at the lowest point of the arc of the blades. The lowest point of the arc of the blade must also be at least 10 feet above the height of any structure within 100 feet of the base. The supporting tower must be enclosed by a six foot or higher fence or the base of the tower must be designed to not be climbable for a distance of at least 12 feet above the ground.
9. The small wind energy system generators and alternators must be constructed so as to prevent the emission of radio and television signals and must comply with the provisions of Section 47 of the Federal Code of Regulations, Part 15 and subsequent revisions governing such emission
10. The small wind energy system generators and alternators must be setback from all power line and related electrical equipment in accordance with Independence Power and Light standards..