

## **50-25 LANDSCAPING AND TREE PRESERVATION.**

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### **50-25.1 Applicability.**

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- A. The landscaping provisions of secs. 50-25.2 through 25.4 and 25.7 shall apply to lots and parcels in any zone district that contain (i) more than 10,000 square feet of lot area, and (ii) a primary structure with a multi-family, mixed use, commercial, institutional, industrial, or parking principal use, when any of the following conditions occur:
1. A new primary structure is constructed;
  2. The floor area in an existing primary structure(s), taken collectively, is increased by more than 25 percent;
  3. An existing primary structure is relocated on the lot or parcel;
  4. The primary structure is renovated or redeveloped (including but not limited to reconstruction after fire, flood or other damage), and the value of that renovation or redevelopment, as indicated by building permits, is 75 percent or more of the pre-application assessor's market value of the primary structure, as shown in the records of the city assessor;
  5. A new parking lot containing 25 or more spaces is constructed or an existing parking lot containing 25 or more spaces is reconstructed. Parking lots with less than 25 spaces must only provide the minimum tree canopy coverage as indicated in Section 50-25.4.B.6;
- B. In any form district, landscaping shall not be required on the portion of a lot occupied by a principle structure;
- C. The tree preservation provisions of Section 50-25.9 apply to all development or redevelopment on lots and parcels in any zone district that contain (i) more than 10,000 square feet of lot area, and (ii) a primary structure with a multi-family, mixed use, commercial, institutional, industrial, or parking principal use, as well as to any new lot of record created after November 19, 2010, regardless of the primary use of the property, in any zone district;
- D. The landscaping between differing land uses provisions of Section 50-25.5 apply to all development or redevelopment on lots and parcels when there is a change of use. (Ord. No. 10044, 8-16-2010, § 6; Ord. No. 10096, 7-18-2011, § 31; Ord. No. 10153, 5-14-2012, § 6; Ord. No. 10160, 6-25-2012, § 1; Ord. No. 10286, 3-10-2014, § 13.)

### **50-25.2 General landscaping standards.**

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#### **A. Landscape plan required.**

A landscape plan shall be submitted as a part of all development applications for those activities listed in Section 50-25.1.A, unless the land use supervisor determines that compliance with the provisions of Section 50-25 can be demonstrated without the use of a landscape plan. A landscape plan may be combined with other required application materials if compliance with Section 50-25 can be demonstrated in the combined materials;

#### **B. Plant materials.**

Plant materials shall be from the city's approved landscaping plant list as shown in the UDC application manual. All plant material shall be hardy to Northeast Minnesota, suitable for the site, free of disease and insects and conform to the American Standard for Nursery Stock of the American Nursery and Landscape Association;

#### **C. Minimum living materials.**

In all areas where landscaping is required, a minimum of 50 percent of the surface area shall be covered by living materials, rather than bark, gravel or other non-living materials;

**D. Existing vegetation.**

Existing vegetation shall be protected during construction through use of a fence around an area sufficient to protect the health of the vegetation, and shall be incorporated into the landscape plan wherever possible;

**E. Vegetation grouping.**

Landscaping shall generally incorporate large irregular groupings of the same species of shrub, avoiding rigid or repeated specimen planting except for boulevard trees, and shall introduce multiple varieties within one general area. Except for plantings used for screening, no one species of tree or shrub may make up more than 50 percent of the total amount of landscape plantings;

**F. Soil condition.**

All required landscaping shall be planted in uncompacted soil with a minimum depth of two feet;

**G. Grading and drainage.**

All open areas shall be graded, properly drained and maintained according to stormwater standards in Section 50-18.1.E;

**H. Raingardens and stormwater management features.**

Areas included in raingardens or vegetated site features created to meet stormwater management requirements in Section 50-18.1.E shall be counted towards any required interior site or parking lot landscaping, and if vegetated to meet the requirements for any landscaped buffers shall count towards those buffer requirements;

**I. Minimum plant sizes.**

Where included as part of the required landscaping, deciduous trees shall have a minimum caliper of 2.5 inches, coniferous trees shall be a minimum of six feet in height, large shrubs shall be of a minimum five gallon container size and have a height of at least six feet at maturity, small shrubs shall be of a minimum five gallon container size and have a height of less than six feet at maturity, and ground cover shall be of a minimum one gallon container size. The above dimensions apply to sizes at time of planting. Deciduous trees planted using air pot containers instead of balled and burlap stock may have a minimum of 2.0 inches;

**J. Plant material spacing.**

Except for buffer zone provisions of Section 50-25.5, *Landscaping between differing land uses*, plant materials shall not be placed closer than four feet from any fence line or property line. Where tree planting requirements are based on linear street frontage, areas occupied by driveways shall be included when calculating the number of trees required to be planted, and any trees that would otherwise be required in driveways shall be planted in other landscaped front yard areas unless prohibited by minimum spacing requirements for that species as recommended by the American Standard for Nursery Stock of the American Nursery and Landscape Association. The land use supervisor may authorize adjustments to these spacing requirements when required due to topography, drainage, utilities or obstructions, provided that the total amount of required landscaping is not reduced;

**K. Snow storage areas.**

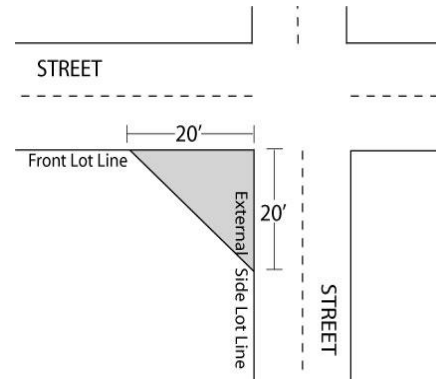
Areas required for snow storage and areas required for landscaping shall not overlap, except that snow may be stored on ground cover landscape areas (e.g., turf) that do not contain required landscape trees or other plantings;

**L. City right-of-way.**

Tree removal or planting in city rights-of-way shall be done only with the approval of the city forester;

**M. Protection of site distances;**

On any corner lot on which a front and side yard are required, no wall, fence, structure, sign, or any plant growth that obstructs sight lines at elevations between 2.5 feet and six feet above the driving surface of the adjacent roadway shall be maintained in a triangle formed by measuring from the point of intersection of the front and exterior side lot lines a distance of 20 feet along the front and side lot lines and connecting the points so established to form a right triangle on the area of the lot adjacent to the street intersection;



**N. Delay of installation due to season.**

Whenever the installation of required landscaping is not possible by the time construction on the primary structure or primary use parking lot has been completed, the city may authorize a delay in installation until no later than the following August 31. As a condition of authorizing a delay in installation, the city may require that a surety or other guarantee, in a form acceptable to the city, in the estimated amount of such installation be provided, or the city may issue a temporary certificate of occupancy, with the permanent certificate of occupancy to be issued following installation of all required landscaping;

**O. Flexibility for redevelopment.**

Where the requirements of this Section 50-25 apply to a redevelopment or reconstruction project, rather than a new development, the land use supervisor may authorize a reduction of minimum off-street parking requirements established in Section 50-24 by up to ten percent if required to accommodate street frontage landscaping required by Section 50-25.3 or parking area landscaping required by Section 50-25.4.

**P. Protection of required landscaping.**

Maintenance of landscaping required by this chapter, or landscape areas shown on site plans submitted as part of a zoning permit or building permit approval, is the ongoing responsibility of the property owner and his or her successors. Trees and vegetation that have died must be replaced.

Trees required by this section that are placed within 5 feet of a driving or parking surface shall be placed behind a raised curb, or planter, or similar physical barrier or obstacle to protect the tree trunks from interference by vehicles or snow removal operations. Curb openings for sidewalks or for drainage to the landscape areas are allowed.

Tree soil shall have a minimum depth of 2 feet and shall not contain different soil layers. The soil may not have any herbicides, heavy metals, biological toxins, or hydrocarbons that will impact plant growth or are at levels exceeding the EPA's standards for soil contaminants. No stones or particles greater than 1 inch in the longest dimension are permitted. This includes fragments of brick, concrete, wood, glass, metal, stone and plastic. (Ord. No. 10459, 7-11-2016, §1; Ord. No. 10670, 12-9-19, §1)

**50-25.3 Street frontage landscaping.**

The street frontage of the property shall meet the following landscaping requirements.

A. Minimum average depth: See Table 50-25-1. An average depth allows the width of the landscape area to vary in size along different portions of the property to respond to varying site conditions and allow design flexibility;

Table 50-25-1: Average Depths of Street Frontage Landscaping Required	
Context	Average Depth Required
Lots with no required front setback, and where the primary building abuts the front lot line	Exempt
Lots with less than 10,000 sq. ft. of lot area	Exempt
Lots with 10,000 to 20,000 sq. ft. of lot area	5 ft. along all street frontages
Lot over 20,000 sq. ft. of lot area	15 ft. in front street yards 10 ft. in side street yards 5 ft. on rear lot lines of double frontage lots

B. Required trees: One tree per 35 feet of linear frontage, planted (a) in alignment with any similar street frontage landscaping on adjacent lots, or if that is not possible or adjacent lots do not contain front yard landscaping then (b) as close to the public right-of-way as the city engineer will permit;

C. Required shrubs: one large shrub per 25 feet of linear frontage;

D. On lots adjacent to city-maintained boulevards, landscaping in the boulevards may be credited towards the landscaping requirements of this Section 50-25.3. (Ord. No. 10044, 8-16-2010, § 6; Ord. No. 10096, 7-18-2011, § 33.)



**Figure 50-25.4-A: Parking lot screening from public right-of-way**

**50-25.4 Parking lot landscaping.**

Accessory and primary use parking lots shall provide the following amounts and types of landscaping unless alternative standards for specific situations are required pursuant to Section 50-26, *Screening, walls and fences*, or Section 50-30, *Design standards*. In any case where landscaping required by this Section 50-25.4 overlaps areas required to be landscaped by any other provision of this Section 50-25, the provisions of the section requiring more planting shall apply.

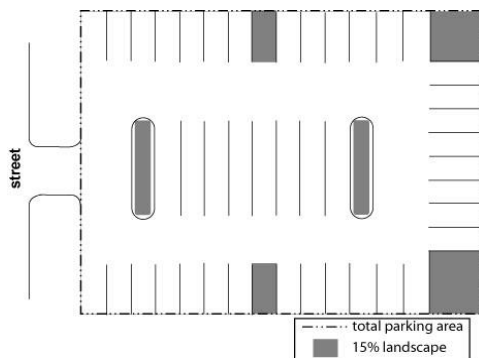
**A. Perimeter screening from public streets.**

1. Minimum width: five feet;
2. Required trees: one tree per 35 feet of linear frontage;
3. Required shrubs: three large shrubs per 25 feet of linear frontage, or if a berm or an opaque fence or wall at least three feet tall is erected, three small shrubs per 25 feet of linear frontage;

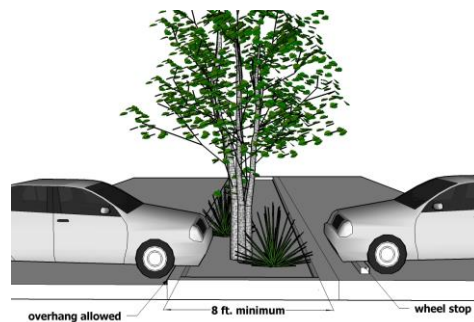
**B. Interior landscaping requirements.**

Except as provided in this Section, parking lots shall provide the following landscaping internal to the parking lot:

1. Minimum area: 15 percent of the interior parking lot area (excluding any perimeter areas required to be landscaped by sections 50-25.3, 50-25.4.A or B, or 50-25.5) for parking lots with more than 50 spaces, or ten percent of the interior parking lot area for parking lots between 25 and 50 spaces;
2. Location: Internal landscape areas shall be dispersed on the site to break up the perception of large uninterrupted expanse of pavement (see Figure 50-25.4-B);
3. Required trees: One tree per 300 square feet of internal landscape area. Tree species shall be chosen so that, combined with trees planted under subsections A. and B. above, parking lots will have a minimum tree canopy coverage of 30 percent at maturity;
4. Landscape areas shall be a minimum of eight feet in width (See Figure 50-25.4-C);
5. Curbing: Internal landscape areas shall be curbed for protection of the landscape materials, but planted areas shall be installed at a lower grade than the parking lot pavement, and curbing shall allow drainage from the pavement to enter and percolate through the landscaped areas;
6. Parking areas with less than 25 spaces are exempt from the provisions of 1 through 5 of this subsection, but must provide a minimum tree canopy of 30 percent at maturity. (Ord. No. 10044, 8-16-2010, § 6; Ord. No. 10096, 7-18-2011, § 34.)



**Figure 50-25.4-B: Required interior parking lot landscape areas**



**Figure 50-25.4-C: Minimum width of interior parking lot landscape areas**

**50-25.5 Landscaping between differing land uses.**

In addition to landscaping required by sections 50-25.3 and 50-25.4, buffer areas are required to be landscaped when specific types of differing land uses occur adjacent to each other. These standards do not apply when the listed types of adjacencies occur within mixed use or form districts, but do apply where the boundaries of a mixed use or form district are adjacent to a residential or special purpose zone district. In any case where landscaping required by this Section 50-25.5 overlaps areas required to be landscaped by any other provision of this Section 50-25, the provisions of the section requiring more planting shall apply. These requirements only apply at the time of development or redevelopment (i.e., later development of an abutting land use will not result in an existing development being required to install buffer landscaping).

**A. Multi-family residential abutting single-family residential.**

Where a multi-family residential building or project with more than eight units abuts (a) a lot in the RC, RR-1, RR-2 or R-1 zone district, or (b) a lot in the R-2 district that is developed with a one-family use, a landscape buffer shall be provided using either Option A or B below.

1. Option A.

A landscape buffer area at least ten feet wide shall be provided by the multi-family project on the shared border. The buffer area shall consist of natural landscape materials such as lawn, ground cover, shrubs and trees, and shall not contain impervious materials. One tree shall be provided for every 35 feet of boundary lot line and three large shrubs per 25 feet of boundary lot line, with spacing designed to minimize sound, light, and noise impacts on single-family residential homes;

2. Option B.

An opaque wall, berm, fence or dense (at least 50 percent opacity) vegetative screen at least six feet tall shall be provided. If a fence or wall is provided, the side facing away from the multi-family use shall be at least as finished in appearance as the side facing the multi-family use, and three small shrubs per 25 feet of boundary lot line shall be provided. If a vegetative screen is proposed, it shall be at least six feet in height at the time of planting;

**B. Commercial or institutional abutting residential.**

Where a commercial, public, institutional or civic building or project abuts lots in a residential district, a landscape buffer shall be provided using either Option A or B below.

1. Option A.

A landscape buffer at least 15 feet wide shall be provided by the commercial or institutional project on the shared border. The buffer area shall consist of natural landscape materials such as lawn, ground cover, shrubs, and trees, and shall not contain impervious materials. One tree shall be provided for every 35 feet of boundary lot line and large three shrubs per 25 feet of shared lot line, with spacing designed to minimize sound, light, and noise impacts on the residential use;

2. Option B.

An opaque wall, berm, fence or dense (at least 75 percent opacity) vegetative screen at least six feet shall be provided. If a fence or wall is provided, the side facing away from the commercial or institutional use shall be at least as finished in appearance as the side facing the commercial or institutional use, and three small shrubs per 25 feet of boundary lot line shall be provided. If a vegetative screen is proposed, it shall be at least six feet in height at the time of planting;

**C. Industrial abutting residential.**

Where an industrial building or project abuts lots in a residential district or lots used for any use listed as a residential use in Table 50-19.8, a landscape buffer shall be provided using either Option A or B below.

1. Option A.

A landscape buffer at least 15 feet wide shall be provided by the industrial project on the shared border. The buffer area shall consist of natural landscape materials such as lawn, ground cover, shrubs and trees, and shall not contain impervious materials. One tree shall be provided for every 25 feet of boundary lot line and four large shrubs per 25 feet of boundary lot line, with spacing designed to minimize sound, light and noise impacts on residential uses;

2. Option B.

An opaque wall, berm, fence or dense (100 percent opacity) vegetative screen at least eight feet tall shall be provided. If a fence or wall is provided, the side facing away from the industrial use shall be at least as finished in appearance as the side facing the industrial use, and three small shrubs per 25 feet of boundary lot line shall be provided. If a vegetative screen is proposed, it shall be at least eight feet tall at the time of planting;

**D. Industrial abutting commercial or institutional.**

Where an industrial building or project abuts lots that are used or zoned for commercial, institutional or mixed use purposes, a landscape buffer shall be provided by using either Option A or B below.

1. Option A.

A landscape buffer at least ten feet wide shall be provided by the industrial project on the shared border. The buffer area shall consist of natural landscape materials such as lawn, ground cover, shrubs and trees, and shall not contain impervious materials. One tree shall be provided for every 40 feet of boundary lot line and large four shrubs per 20 feet of boundary lot line, with spacing designed to minimize sound, light and noise impacts on commercial or institutional uses;

2. Option B.

An opaque wall, berm, fence or dense (50 percent opacity) vegetative screen shall be provided with a minimum height of six feet. If a fence or wall is provided, the side facing away from the industrial use shall be at least as finished in appearance as the side facing the industrial use, and three small shrubs per 25 feet of boundary lot line shall be provided. If a vegetative screen is proposed, it shall be at least six feet tall at the time of planting. (Ord. No. 10044, 8-16-2010, § 6.)

**50-25.6 Landscaping credit to preserve existing trees.**

Landowners who preserve mature, non-diseased trees as part of a development project may obtain credits toward the required landscaping. Trees intended to be preserved shall be indicated on the landscaping plan and shall be protected during construction through use of a fence around the critical root radius. To obtain credit, the preserved trees shall be of a high quality and at least five inches diameter at breast height (DBH) in size. Trees located in any portion of the site protected from development or protected in its natural state as part of a zoning permit, approval or agreement shall not be eligible for credit against required landscaping on the remainder of the site. The credit for preserved trees shall be as shown in Table 50-25-2. Any preserved trees for which credit is given, and that are lost to damage or disease within two years after the credit is awarded shall be replaced by the land owner with trees otherwise required. The total amount of tree credits cannot exceed 50 percent of the required tree landscaping requirement. The entity receiving credit shall file with the city a certificate from a forester, arborist or landscape architect that states this Section has been complied with.

<b>DBH of Preserved Tree (in in.)</b>	<b>Numbers of Trees Credited</b>
Over 12 in.	3
8 in. to 11.9 in.	2
5 in. to 7.9 in.	1

(Ord. No. 10044, 8-16-2010, § 6.)

**50-25.7 Special landscaping provisions in Canal Park area.**


In Canal Park as shown in Exhibit 50-25.7-1:

A. All open areas of a lot not covered by buildings, sidewalks, required parking areas, drives, courtyards or accessory structures shall be landscaped with a combination of trees, shrubs, flowers and ground covers;

B. Landscape design introducing a nautical character in features such as decorative walks, statuary, bollards, fountains, wood decks and terraced areas are encouraged.



**Legend**

 Canal Park Landscaping Regulations Apply

**Canal Park Landscaping**

Exhibit 50-25.7-1

0 125 250 500 750 Feet

Prepared by: City of Duluth Community Planning Division, March 30, 2018. Source: City of Duluth, MnDOT, MnDNR.



(Ord. No. 10044, 8-16-2010, § 6.)

**50-25.8 Alternative landscaping.**

Where compliance with the specific requirements of Section 50-25 is not possible as a result of unique site conditions abutting or surrounding a proposed site, an owner may propose alternatives consistent with the goals of Section 50-25. The land use supervisor may approve an alternative proposal where an applicant can demonstrate that the alternative proposal achieves required landscaping to the same degree, or better than, the provisions of Section 50-25. (Ord. No. 10044, 8-16-2010, § 6; Ord. No. 10153, 5-14-2012, § 8.)



**50-25.9 Tree preservation requirements.**

**A. Purpose.**

The city recognizes that trees provide numerous benefits and services to city residents, including increased property values reduced stormwater runoff and soil erosion with associated cost savings, noise buffering, aesthetic value, reduced energy costs from shade in summer and windbreaks in winter, and removal of greenhouse gases and other pollutants from the air. The city seeks to maintain the tree cover that protects the city’s water quality and gives the city its character, while recognizing the need to remove some trees for development, safety, view preservation and other purposes;

**B. Tree replacement.**

1. Exemptions.

The following activities are not subject to the tree replacement requirement in this Section 50-25.9:

- (a) Forest management activities that maintain pre-existing tree canopy cover, such as minor thinning that eliminates no more than 25 percent of the canopy;
- (b) Forestry activities that disturb the canopy are exempt if covered by a current forest management plan approved by the city forester;
- (c) Removal of trees that are an obstruction to traffic or power lines or other utilities;
- (d) Removal of trees necessary for rescue in an emergency or for clean-up after a natural disaster;
- (e) Removal of public trees deemed hazardous by the city forester;
- (f) Removal of trees that are airport hazards;
- (g) Removal and trimming of trees along Skyline Parkway to preserve views from established or historic overlooks and viewpoints, with approval by the city forester;
- (h) Installation or replacement of city streets or utilities;

2. Replacement required.

- (a) Tree replacement shall be required pursuant to Table 50-25-3;

Table 50-25-3: Tree Replacement Required				
Tree Type	Removal Threshold	Replacement Standards		
		% DBH to be Replaced	Replacement Ratio	
			If Replacing With Special Trees	If Replacing with Trees of Interest
Special Tree 20 inch DBH or greater	Prohibited unless approved pursuant to subsection (b) below	If approval received, 60% of DBH removed to be replaced	1 inch DBH per 1.5 inch of DBH required to be replaced	1 inch DBH per 1 inch of DBH required to be replaced
Special Trees Between 8 and 20 inch DBH	10 or more	40% of DBH removed to be replaced		
Trees of Interest	20 or more	20% of DBH removed to be replaced		

- (b) Removal of special tree species 20 inches diameter at breast height (DBH) or greater is prohibited unless any of the following applies:
  - (i) The city forester determines that the tree is dead, dying, diseased or a threat to public health or safety;
  - (ii) The city engineer determines that the tree interferes with the provision of public services or is a hazard to traffic;
  - (iii) The land use supervisor determines that the location of the tree is preventing development or redevelopment that cannot be physically designed to protect the tree;

- (c) When ten or more replacement trees are required, not more than 30 percent shall be the same species without approval from the city forester;
- (d) Replacement trees provided pursuant to this Section 50-25.9 shall count towards landscaping required under other portions of this Section 50-25.9 if they meet the size, type and location standards for the type of landscaping required;
- (e) Replacement trees shall be considered significant trees in any future tree replacement plan;
- (f) If any part of the property is permanently protected from development by a conservation easement or by transfer to a city park or other natural area or a private conservation organization, the combined diameter of the protected trees that meet the size requirement for a significant tree will count toward the replacement requirement;
- (g) With the approval of the appropriate city staff (land use supervisor or city forester), developers should have the option of meeting the tree replacement requirements by putting equivalent funds into a dedicated city tree account. The amount of funds should be calculated based on the cost to the city of hiring contractors to plant the number of required replacement trees;

3. Calculation.

- (a) If you meet the removal threshold:

$$\frac{\text{Inches removed(DBH)}}{\text{Inches removed(DBH)}} \times \frac{\text{\% DBH}}{\text{\% DBH}} = \text{replacement requirement in inches}$$

- (b) If replacing with special trees:

$$\text{Replacement requirement} \div 1.5 = \text{Total inches required}$$

- (c) If replacing with other trees:

$$\text{Replacement requirement} = \text{Total inches required};$$

4. Example.

Step 1: Removal of twelve 10-inch special trees = Total of 120 in. DBH

Step 2: 120 inch DBH x 40% = 48 inch replacement requirement

Step 3: If replacing with special tree species: 48 inch ÷ 1.5 = 32 inch total inches required to be planted;

5. Tree replacement plans.

Where this replacement requirement applies, the applicant shall submit a tree replacement plan prepared and certified by a certified forester, arborist or landscape architect. The tree replacement plan shall be part of and integrated with the landscaping plan for the site. No replacement shall occur until the city forester has approved the tree replacement plan, and all replacement shall be consistent with that approved plan. The plan shall meet all applicable requirements in the UDC application manual;

6. Calculation for developments exceeding five acres.

For development of forested acres over five acres, with the approval of the appropriate city staff, the total diameter of trees removed should be able to be estimated based on measuring the diameter of trees in representative sample plots. The plots should be scattered throughout the area to be cleared and should cover no less than ten percent of the entire area. All special tree species in the forest must be measured. (Ord. No. 10044, 8-16-2010, § 6; Ord. No. 10096, 7-18-2011, § 35, Ord. No. 10670, 12-9-19, §2)