

ARTICLE X

NATURAL RESOURCE PROTECTION REGULATIONS

SHADED SECTIONS ARE CURRENTLY PENDING:

SECTION 10.0 NATURAL RESOURCE PROTECTION REGULATIONS

- A. **PURPOSE:** The following natural resource protection regulations shall apply to land disturbing activities, as well as specify regulations for development within the following areas: Hillsides greater than 20% slope; floodplain areas; and riparian areas. This section also addresses regulations pertaining to tree protection and landscaping as part of the review and approval of new development. The purpose of these regulations is to:
1. Protect the general public and public facilities from injury, loss of life, property damage or financial loss associated with flooding, erosion, landslides, or soil subsidence.
 2. Maintain and enhance the unique, fragile and valuable elements of the natural environment including, but not limited to: stream corridors, existing tree canopy, and fish and wildlife habitat.
 3. Prevent cumulative adverse environmental impacts on water quality, groundwater and aquatic areas.
- B. **CONFLICT WITH OTHER REGULATIONS:** If the provisions of these regulations conflict with other requirements within the [City/County] Zoning Ordinance, the more restrictive provision will apply.

SECTION 10.1 EXCAVATION, MOVEMENT OF SOIL, TREE REMOVAL, AND EROSION AND SEDIMENTATION CONTROL

- A. **APPLICABILITY:** The requirements in these regulations shall apply to land disturbing activities and all development and redevelopment activities that disturb an area less than one (1) acre. Sites that are larger than one (1) acre and areas which are part of a larger common plan of development or sale shall be covered by the Rules and Regulations of Sanitation District No.1 in the area designated by the Kentucky Division of Water for coverage under the KPDES Permit for Small Municipal Separate Storm Sewer Systems.
- B. No governmental entity or other person or entity shall strip, excavate, fill, or otherwise move soil, trees, or other vegetation, except for minor changes such as the filling of small depressions, removal of vegetation which is diseased or endangering the public safety, without first insuring that all requirements of the Subdivision Regulations, if applicable, have been fulfilled and then obtaining a permit from the zoning administrator.
- C. The zoning administrator may issue the required permit after determining that the resulting change in grade, or removal of trees and other vegetation, in the affected area will be in conformance with all applicable provisions of this ordinance. The provisions

of this section shall not be construed to prohibit normal excavation or grading which is incidental to the construction or alteration of a building on the premises for which a building permit has been granted as required otherwise in this ordinance.

- D. Erosion and Sedimentation Control: Provisions shall be made to accommodate the increased runoff caused by changed soil and surface conditions during and after development (i.e. infiltration, stabilization, drainage). Erosion and sedimentation controls for excavation, movement of soil, and tree removal, shall be designed and applied according to the following:
1. The smallest practical area of land shall be exposed at any one time during development.
 2. When land is exposed during development, the exposure shall be kept to the shortest practical period of time.
 3. Temporary vegetation, geotextile fabrics and/or mulching shall be used to protect critical areas exposed during development, or when construction activities have temporarily ceased (i.e. 21 days or more).
 4. Sediment basins (debris basins, desilting basins, or sediment traps) shall be properly installed and maintained to remove sediment from run-off waters from land undergoing development.
 5. Site perimeter controls are required and shall be installed to prevent the deposit soil and debris from graded surfaces onto public streets, into drainage channels or sewers, or onto adjoining land.
 6. Permanent final vegetation and structures shall be installed as soon as practical in the development.
 7. The development shall be fitted to the topography and soils so as to create the least erosion potential, and the least disturbance to the existing drainage system.
 8. Wherever feasible, natural vegetation shall be retained and protected.

SECTION 10.2 HILLSIDE DEVELOPMENT CONTROLS

- A. **APPLICABILITY:** This section is intended to ensure that when development is proposed on land areas identified on the Recommended Land Use Plan Map of the Comprehensive Plan as "Physically Restrictive Development Areas" (PRDA), and any other areas which have slopes of 20 percent (20%) or greater, shall require approval from the planning commission, or its duly authorized representative before development may occur.
- B. **PURPOSE:**
1. To permit a reasonable amount of development on hillsides while protecting the health, safety and general welfare of citizens by minimizing the potential for hillside failures and pollution from run-off and sedimentation.
 2. To encourage best management practices of design, landscape architecture, architecture and planning to preserve, protect, enhance the existing and future appearance and resources of hillside areas.

3. To preserve and enhance the natural landscape by encouraging the maximum retention of natural topographic features such as drainage swales, springs, streams, tree stands and other vegetative cover.
- C. Areas of land on which development may be restricted by hillside slopes shall meet the following requirements:
1. No excavation, removal, or placement of any soil, foundation placement, or construction of buildings or structures of any nature within the area identified as Physically Restrictive Development Area and any other areas which have slopes of 20 percent (20%) or greater, per Subsection A., 1., above, may occur until plans and specifications for such work have been submitted in the form of a development plan as regulated by Section 9.14 of this ordinance. In addition to development plan requirements, the following shall also be submitted:
 - a. Plan(s) showing existing topography and vegetation, the proposed physical changes necessary for construction, including grading (cutting and filling), compaction, erosion, sedimentation basins, areas to be cleared of vegetation, and any other pertinent information which will change the natural physical features of the site or general area.
 - b. A geotechnical report containing the results of a subsurface investigation of the area under consideration, including test borings, laboratory tests, engineering tests, and a geological analysis. Such investigation shall be made by a qualified, registered civil engineer and a geologist, indicating that any structural or physical changes proposed in the area will be completed in a manner which will minimize hillside slippage and/or soil erosion. All disturbances must follow the recommendations of the geotechnical report.
 2. The development plan and other information required by this Section, shall be reviewed by the planning commission's duly authorized representative, who will recommend to the planning commission, or its duly authorized representative, what effect the proposed development will have on drainage, soil erosion, and/or hillside slippage.

After consideration of the recommendations, the planning commission's duly authorized representative, may authorize use of the site in accordance with the submitted plans. Prior to the issuance of a Certificate of Occupancy for the site, the planning commission, or its duly authorized representative, shall require written authorization from a qualified, registered civil engineer that the proposed development is in compliance with the specifications as contained within the geotechnical report.
 3. If, after review of the plans required by this section, the planning commission's duly authorized representative determines that said proposed plans will not

minimize hillside slippage and/or soil erosion, the planning commission, or its duly authorized representative, shall deny a permit for the development of said land.

4. Cuts and fills shall be restored to a maximum 2.5:1 (40 %) slope or flatter and re-vegetated. Slope breaks, such as benches, may be used to reduce the length of cut and fill slopes to limit sheet and rill erosion and prevent gullyng.

D. **CRITERIA:** Evaluation of the proposed development plan shall be based upon the following criteria:

1. **PUBLIC POLICY:**

- a. Public works in hillside areas should be designed to preserve the natural character of the land to the greatest extent possible. Deep or extensive excavations and fills scar the landscape and should be avoided.
- b. Excessive cutting and filling should be avoided in the construction of hillside roadways.
- c. Roadways constructed on hillsides should, wherever possible, follow the contours of the land or climb the slopes with a gentle grade.

2. **REGULATING THE SUBDIVISION OF HILLSIDE LAND:**

- a. Plans for hillside subdivisions should be laid out so that lots on the flatter upland portions of the site are held back from the crest of the hill.
- b. In planning hillside subdivisions, maximum existing vegetation should be retained.
- c. In planning hillside subdivisions, lots located on sloping portions of the site and at the crests of hills should be arranged so that intrusion of buildings constructed on lower elevations into the views of those above will be minimized.
- d. Hillside vegetation should not be heedlessly displaced, degraded, or destroyed.
- e. Subdivisions in hillside areas should be designed to preserve the natural character of the land, to the greatest extent possible.

3. **REGULATING THE CHARACTER OF DEVELOPMENT:**

- a. The visual impact of grading should be minimized by avoiding flat grading planes and sharp angles of intersection.
- b. When it is necessary to use retaining walls, their height should be minimized.
- c. When buildings are constructed on hillside sites, yards and patios should respect the natural contours, drainage patterns, and vegetation of the site.
- d. Slopes exposed in new development should be landscaped in order to mitigate visual impacts created by hillside grading.

- e. The natural slope line of the hill, as seen in profile, should be retained.
- f. Existing native vegetation should be preserved, and when disturbed, should be supplemented with new native vegetation.
- g. Trees should be planted in random clusters, not in rows, to compliment the natural pattern of tree distribution.
- h. All cuts, fills, and any other earth modifications should be replanted with appropriate native vegetation.
- i. The risk of off - site geologic property damage should be minimized by locating development away from areas which are vulnerable to sliding.
- j. Grading for buildings, driveways, outdoor use areas, utilities, etc., should be minimized to preserve the natural topography of the site.
- k. When grading operations are necessary, the smallest practical areas of land should be exposed at any one time during development and the length of exposure should be kept to the shortest practicable amount of time.

4. **REGULATING EARTHWORKS:**

- a. The tops and toes of excavations and their slopes should be set back from property boundaries and structures as far as necessary for the safety of adjacent properties and adequacy of foundation support and to prevent damage as a result of water runoff.
- b. No fill should be placed over trees, stumps, or other organic or unstable material.
- c. All retaining walls should be promptly backfilled.
- d. Where storm and drainage improvements are necessary, they should be designed to create a natural, rather than a man - made, appearance.
- e. In order to prevent runoff, erosion control plans should utilize existing trees and vegetation to the maximum extent possible.

SECTION 10.3 FLOOD PROTECTION DEVELOPMENT CONTROLS

A. **PURPOSE:** The purposes of the flood protection development controls are:

- 1. To permit only that development of flood prone areas which: (a) is appropriate in light of the probability of flood damage and the need to reduce flood losses; (b) is an acceptable social and economic use of the land in relation to the hazards involved; and (c) does not increase the danger to human life; and
- 2. To prohibit all other development in flood prone areas not identified in Subsection A., 1., above, including non-essential or improper installation of public utilities and public facilities.

B. Areas of land adjacent to streams, rivers, or bodies of water which have a high degree of susceptibility to flooding shall be limited to development according to the following regulations, notwithstanding any other section of this ordinance or any other ordinance adopted by the city.

1. The limits of the floodplain (areas subject to flooding during the occurrence of a 100-year flood) and floodway are identified as Flood Protection Control Areas on the zoning map, pursuant to the Flood Insurance Study prepared by the Federal Emergency Management Agency. This study, along with any accompanying maps and other supporting data, and any revisions thereto, are adopted by reference and declared to be a part of this section of the ordinance.
2. Areas designated as susceptible to flooding during the occurrence of a 100-year flood shall be controlled by both the zoning district in which the area is located and the requirements of this section of the ordinance.

Flood data within this section identify the elevation of the 100-year flood level and the width of the floodway as follows:

In the case of any proposed activity located along other tributaries or bodies of water not covered in these tables, and located in those areas which are identified as being susceptible to flooding, according to the report prepared by the U.S. Department of Agriculture, Soil Conservation Service, "Soil Survey of Boone, Campbell and Kenton Counties, Kentucky", August, 1973, a survey shall be made by a qualified, registered civil engineer establishing the elevation of the 100-year flood and floodway for said areas prior to the issuance of any zoning and building permits.

3. No person, city, county, or other political subdivision of the state shall commence filling of any area with earth, debris, or any other material, or raise the level of any area in any manner, or place a building, barrier, or obstruction of any sort on any area, including making any alteration or relocation of a waterway, located within the floodway which would result in any increase in flood levels during the occurrence of a 100-year flood discharge. In those cases where a watercourse is to be altered or relocated, the flood carrying capacity of said portion of the waterway affected must be maintained. Plans and specifications for such work shall be submitted to the city engineer and the Northern Kentucky Area Planning Commission for review to determine if said encroachment will meet the requirements of this Ordinance. Said plans shall also be submitted to the Kentucky Department of Natural Resources & Environmental Protection, Division of Water Resources, and other applicable agencies, for their review and approval.
4. All land outside the floodway of the bodies of water identified in Subsection C., 2., above, but located within the floodplain, may be used for any purpose for which it is zoned, provided that:
 - a. Any new residential construction, including any expansion or substantial improvements of existing residential structures as herein defined, within said floodplain, shall have the lowest floor elevated to a minimum of two

feet above the level of the 100-year flood. Electrical, heating, ventilation, plumbing, and air conditioning equipment, and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding. For all new construction and substantial improvement, fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access, or storage, in an area other than a basement, and which are subject to flooding, shall be designed to automatically equalize hydrostatic exit of floodwaters. Designs for meeting this requirement must be certified by a professional engineer or architect.

- b. Any new non-residential structures, including any expansion or substantial improvements of non-residential structures, within said floodplain, shall have the lowest floor elevated to a minimum of two feet above the level of the 100-year flood or together with attendant mechanical, utility, and sanitary facilities shall be designed and floodproofed so that below the 100-year flood level the structure is water tight with walls impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydro-dynamic loads and effects of frequency certified by a professional engineer or architect. For all new construction and substantial improvement of elevated non-residential structures, fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access, or storage, in an area other than a basement, and which are subject to flooding, shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must be certified by a professional engineer or architect.
- c. For all new construction and substantial improvement of elevated non - residential structures, fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access, or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must be certified by a professional engineer or architect or meet the following minimum requirements:
 - (1) Provide a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;
 - (2) The bottom of all openings shall be no higher than one foot above grade; and
 - (3) Openings may be equipped with screens, louvers, valves, or other coverings or devices, provided they permit the automatic flow of floodwaters in both directions.

5. All utilities constructed to serve structures which are to be located within the floodplain shall be flood protected at a minimum to the elevation of the 100-year flood level.
6. All construction or modification of buildings and structures, including flood-proofing measures and techniques in the flood plain area, as required within this section of the ordinance, shall be in accordance with the applicable design standards of the U.S. Army, Corps of Engineers' publication, entitled "Flood Proofing Regulations", June, 1972 GPO 19730-505-026 Edition, or as amended, and the following requirements:
 - a. All new construction or substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
 - b. All new construction or substantial improvements shall be constructed with materials and mechanical and utility equipment resistant to flood damage.
 - c. All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage.
 - d. All new or replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.
 - e. All new or replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems' discharges from the systems into flood waters.
 - f. On-site waste disposal systems, where permitted, shall be located to avoid impairment to them or contamination from them during flooding.
7. In addition to the above requirements, manufactured homes, as herein defined, shall meet the following standards:
 - a. No manufactured home or recreational vehicle shall be permitted to be placed in a floodway or a Coastal High Hazard Area.
 - b. All manufactured homes shall be anchored to resist flotation, collapse, or lateral movement by providing over-the-top and frame ties to ground anchors. Specific requirements shall be that:
 - (1) Over-the-top ties be provided at each end of the manufactured home, with one additional tie per side at an intermediate location on manufactured homes of less than fifty (50) feet in length and one additional tie per side for manufactured homes of fifty (50) feet in length or more;
 - (2) Frame ties be provided at each corner of the home with four (4) additional ties per side at intermediate points for manufactured homes of less than fifty (50) feet in length and one additional tie for manufactured homes of fifty (50) feet in length or longer;
 - (3) All components of the anchoring system be capable of carrying a force of 4,800 pounds;

- (4) Any additions to the manufactured home be similarly anchored.
- c. For new manufactured home parks and subdivisions; for expansions to existing manufactured home parks and subdivisions; for existing manufactured home parks and subdivisions where the repair, reconstruction or improvement of the streets, utilities, or pads equals or exceeds fifty (50) percent of the value of the streets, utilities, or pads before the repair, reconstruction, or improvement has commenced; and, for manufactured homes not placed in a manufactured home park or subdivision require:
 - (1) That all manufactured homes meet all of the requirements for new construction, including elevations and anchoring;
 - (2) Stands or lots are elevated on compacted fill or on pilings so that the lowest floor of the manufactured home will be a minimum of two feet above the base flood level;
 - (3) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least an equivalent strength, of no less than 36 inches in height above grade;
 - (4) The manufactured home must be securely anchored to the adequately anchored foundation system to resist flotation, collapse, and lateral movement;
 - (5) Adequate surface drainage and access for a hauler are provided;
 - (6) In the instance of elevation on pilings; (1) lots are large enough to permit steps; (2) piling foundations are placed in stable soil no more than ten (10) feet apart; and (3) reinforcement is provided for pilings more than six (6) feet above the ground level.
- 8. Recreational vehicles may be permitted to be located within the limits of the floodplain, subject to compliance with the following requirements:
 - a. The recreational vehicle must be on the site for less than 180 consecutive days;
 - b. The recreational vehicle must be fully licensed and ready for highway use; or
 - c. That the recreational vehicle meet the elevation and anchoring requirements for manufactured homes, as set forth in Subsection C., 7., above.

A recreational vehicle is ready for highway use if it is on wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

- 9. Any existing structure or use which is located within the floodplain and which does not conform to the requirements herein shall be nonconforming and subject to the requirements of Section 9.6 of this ordinance, providing, however, any

existing permitted use and structure may be modified, altered, or repaired to incorporate flood proofing measures, where such measures do not raise the level of the 100-year flood.

10. All land designated "Flood Protection Control Area" on the Official Zoning Map, but determined to be above the elevation of the 100-year flood level may be used for any purpose for which it is zoned without further flood protection controls.
11. A survey of the site in question will be required prior to the issuance of any building permit or construction activity that would alter the site in any manner, to establish the existing elevation of the land.
12. After completion of the first floor elevation, as provided in Subsection C., 4., above, a certified copy of said lowest elevation shall be provided to and maintained in the offices of the Zoning Administrator - Building Official.
13. A development plan, as regulated by Section 9.14 of this ordinance, shall be required for any land below the elevation of the 100-year flood level.
14. A zoning permit, as regulated by Section 16.1 of this ordinance shall be required prior to any grading or construction within any area designated as being located within the floodplain.

SECTION 10.4 RIPARIAN PROTECTION REGULATIONS

SECTION 10.4 IS CURRENTLY PENDING

It is the intent of this section to establish riparian buffer areas adjacent to all USGS blueline streams within Kenton County in order to: protect public and private water supplies; trap sediment and other pollutants in surface runoff; promote bank stabilization; protect riparian wetlands; minimize the impacts of flooding; prevent decreases in base flow; protect wildlife habitat; and maintain water quality.

SECTION 10.5 TREE PROTECTION AND LANDSCAPE REGULATIONS

A. PURPOSE

The purpose of this section is to promote and to protect the health, safety and welfare of the community and enhance the aesthetic character of the community by improving the appearance of vehicular use areas and property adjoining public/private road rights-of-way and driveways; establishing standards and procedures for tree protection and replacement planting and preserving existing trees, and requiring screening between land uses as part of new development. In doing so, the city of [city] recognizes the importance of trees as a vital component to counterbalancing the effects of urban development by:

1. Providing cooling shade, reducing noise and glare;
2. Improving air quality through carbon dioxide reduction and replenishing oxygen to the atmosphere;
3. Improving surface drainage and reducing the effects of stormwater drainage flooding;
4. Filtering non-point source pollution from local streams;
5. Stabilizing soil and thereby minimizing erosion; and
6. Providing habitat for wildlife.

B. APPLICABLE SITES: Tree Protection and Landscaping requirements shall apply to the following:

1. All new building development and construction or development requiring a zoning map amendment, except for single and two-family residential.
2. Existing Developed Sites:
 - a. Landscaping Requirements Only Shall Apply: New parking lot construction, including the expansion, moving or relocation of existing parking. This requirement shall only affect those newly paved areas of five (5) spaces or larger, or any paved area larger than 1500 square feet. The number of parking spaces added shall also include any spaces added within one (1) calendar year prior to the building permit application for the new spaces. This requirement shall, in no instance, be deemed as retroactively affecting sites prior to the adoption of this amendment.
 - b. Substantial additions to an existing building: Substantial building additions will be defined per the criteria established below:

Where Existing Structure Is	Substantial Increase An Addition Of
0 - 1,000 sq. ft.	101% or greater
1,001 - 10,000 sq. ft.	40% or greater
10,001 - 25,000 sq. ft.	30% or greater
25,001 - 50,000 sq. ft.	20% or greater
50,001 sq. ft. and above	10% or greater

Perimeter landscaping is required between the addition and adjoining land use or public/private street, per the Landscape Requirements Table. See Figure 10-1 for additional information. If this does not involve new parking lot construction, interior (Vehicular Use Area) landscaping is not required.

- c. Landscaping Requirements Only Shall Apply: When a land use changes to a different land use requiring the construction of additional parking.

C. TREE PROTECTION REGULATIONS: The following regulations address the protection and replanting of trees.

1. **TREE PROTECTION THRESHOLDS:** Tree canopy protection thresholds are assigned by land use category. If the proposed canopy removal exceeds the set threshold levels, more stringent mitigation requirements shall apply (see Subsection D., 2., b). This serves to provide an incentive to conserve tree canopy cover to at least the threshold level.

The following table outlines a tree canopy protection threshold for all land use categories. The tree protection threshold is the percentage of the total area of the development which must remain as tree canopy.

Category of use	Threshold % tree canopy
Mixed use / planned unit development	30%
Residential (2.1 - 7.0 d/u per net acre)	20%
Institutional development	20%
Residential (7.1 d/u per net acre and above)	15%
Commercial and industrial development	15%

Example:

A parcel being developed for commercial use with 100% canopy cover could remove 85% of the existing tree canopy (15% tree canopy cover remaining) and would remain above the threshold. By contrast, a parcel with only 20% tree canopy cover could remove no more than 5% of the existing tree canopy to remain above the threshold of 15% tree canopy.

2. TREE REPLACEMENT

- a. It is recognized that some sites will not have sufficient tree canopy to meet the tree canopy threshold requirements established in Section A. Sites with insufficient canopy shall therefore plant additional trees in order to meet the minimum threshold requirements. For the purposes of calculating the required number of replacement trees, the following criteria shall be applied, representing categories of trees at maturity, not installation sizes:

- a. Each Small Tree = 100 square feet or greater
- b. Each Medium Tree = 400 square feet or greater
- c. Each Large Tree = 750 square feet or greater

- b. If the existing tree canopy on a site is proposed to be cleared below the minimum required threshold outlined in this section, the site shall be replaced at a ratio of 2 acres planted for every acre removed.

D. **LANDSCAPE REGULATIONS:** The following regulations address perimeter landscaping, vehicular use area (off-street parking areas), interior landscaping and landscape screening for dumpsters, per the Landscape Requirements Table (Table 10-1 and Table 10-2).

1. **WHO PROVIDES LANDSCAPING:** Landscaping required to fulfill these regulations shall be provided by the property owner. If an adjacent property has landscaping fulfilling perimeter landscaping requirements, the requirement for perimeter landscaping along the common boundary may be waived if deemed appropriate by the Zoning Administrator.
2. **PLANTING MANUAL AND LANDSCAPE REGULATIONS GUIDELINES:** The legislative body shall have on file a manual that outlines recommended plant materials, illustrations of the landscape ordinance applications and minimum requirements for other landscape materials. This manual shall be used as a guideline to anyone preparing a landscape plan in order to meet the requirements of this section.

The Planting Manual and Landscape Regulation Guidelines include plant lists which can be used for reference purposes when selecting trees and shrubs to meet the requirements of these regulations. The lists are as follows:

PLANT LIST A: SHADE TREES

PLANT LIST B: FLOWERING AND NON - FLOWERING TREES

PLANT LIST C: EVERGREEN/BROADLEAF TREES

PLANT LIST D: DECIDUOUS SHRUBS

PLANT LIST E: EVERGREEN/BROADLEAF SHRUBS

PLANT LIST F: STREET TREES

PLANT LIST G: UNACCEPTABLE SHRUBS AND TREES

Please note that with the exception of Plant List G, Unacceptable Plants, the Plant Lists included in the manual are only suggestions of use groups that have been successful in this region for urban landscaping. The choice of plant materials is not limited to those of the lists, but all plants and trees specified on landscape plans that are not included must have proven acceptability in this region. No shrubs and trees on Plant List G will be permitted.

3. **TYPES OF LANDSCAPING REQUIRED**

- a. **EASEMENTS, RIGHTS-OF-WAY AND SETBACKS:** Landscaping must be placed in the required area between the property line and the front, rear and side yard setbacks, except as permitted herein. Required landscaping may be placed wholly or partially in utility or other easements providing all requirements can be fulfilled and approval is granted by the holder of the easements. Trees placed under overhead utility wires must be from List B. The rights-of-way of any public street may also be utilized for the required landscaping provided that approval is granted by the appropriate government. It must be noted that an Encroachment Permit shall be required from the Kentucky Transportation Cabinet to plant within state right-of-way. When rights-of-ways are used for required landscaping it shall be the responsibility of the property owner to maintain said landscaping and to replace any required landscaping subsequently removed by the Kentucky Transportation Cabinet or local legislative bodies.
- b. **SIGHT DISTANCE:** The placement of landscaping materials must meet the sight distance requirements as required by the latest version of the Kenton County Subdivision Regulations. All landscaping is prohibited within sight distance triangles at intersections, except ground covers and trees that are without limbs, with a ground clearance seven feet.
- c. **JOINT DRIVEWAYS:** If two properties share a driveway or vehicular use area and have a written reciprocal access agreement, no vehicular use area screening shall be required along the paved portion of the common boundary. Interior landscape shall be required on the property submitting plans.
- d. **DUMPSTERS:** Shall be screened on at least three (3) sides according to Table 10-3.

When dumpsters are located less than ten (10) feet from a building on the same property, landscape screening may be waived by the Zoning Administrator for the side of the dumpster facing that building wall, however, fencing shall be required on that side.
- e. **CONFLICTS IN REQUIREMENTS:** When an activity or land use falls under more than one of the categories listed in the table, the most stringent of the requirements shall be applied.

4. PLANTING MATERIALS

- a. **WALLS AND FENCES:** When walls or fences are used to fulfill screening requirements, they shall be indicated on the landscape plan. They are to be of weather-proof materials. This includes the use of synthetic or other construction materials or pressure treated lumber or

painting of lumber if it is not redwood or cedar and using aluminum or galvanized hardware. Chain link fences with wood or synthetic slat material shall not be used to meet the requirements of these regulations.

- b. **PLANTS AND TREES:** All plants are to be healthy and part of the acceptable plants listed in the Planting Manual. A plant manual should be obtained from the legislative body that specifies the recommended plant material.
1. **Quality:** Plant materials used in conformance with provision of this ordinance shall comply with the most current edition of the American Standards for Nursery Stock (ANSI Z60) as prepared and published by the American Association of Nurserymen. In addition all plant materials shall have passed any inspection required under state and/or local regulations.
 2. **Deciduous Trees** (trees which normally shed their leaves in the fall): Shall be species having an average mature crown spread of greater than fifteen (15) feet in Kenton County and having trunk(s) which can be maintained with a minimum of seven (7) feet of clear wood in areas which have visibility requirements. Trees having an average mature spread of crown less than fifteen (15) feet may be substituted by a grouping of the same so as to create the equivalent of a fifteen (15) foot crown spread. A minimum overall height of six to eight (6-8) feet or a minimum caliper of at least 1-1/2 inch immediately after planting shall be required. Trees of species whose roots are known to cause damage to public roadways or other public works shall not be planted closer than fifteen (15) feet from such public works, unless the tree root system is completely contained within a barrier for which the minimum interior container dimensions shall be five feet square and five feet deep and for which the construction requirements shall be four (4) inches thick reinforced concrete.
 3. **Evergreen Trees:** Shall be a minimum of five (5) feet high with a minimum caliper of 1-1/2 inches immediately after planting.
 4. **Shrubs and Hedges:** Shall be at least 15" - 20" in average height when installed. All plants shall conform to opacity, mature height, and other requirements within four (4) years after the date of the final approval of each planting or replanting. Privet, Ligustrum species cannot meet the opacity requirements and may not be used to satisfy the requirements of this Article. The height of the planting shall be measured from the level of the surface of the vehicular use area at the edge closest to the screening.

5. Grass or Ground Cover: Grass of the fescus (Gramineae) or Bluegrass (Poaceae) family shall be planted in species normally grown as permanent lawns in Kenton County, and may be sodded, plugged, sprigged, or seeded; except in swales or other areas subject to erosion, where solid sod, erosion reducing net, or suitable mulch shall be used, nurse-grass seed shall be sown for immediate protection until complete coverage otherwise is achieved. Grass sod shall be clean and free of weeds and noxious pests or diseases. Ground cover shall be planted not more than 15 inches on center and in such a manner as to present and have 75% of complete coverage after two complete growing seasons.
- c. EARTH MOUNDS: Earth mounds shall be constructed with slopes which allow easy maintenance of grass or other ground cover, however, no greater than a 3:1 slope (33%). Differences in elevation between areas requiring screening does not constitute an earth mound.
5. MAINTENANCE AND INSTALLATION: All landscaping materials shall be installed according to accepted planting procedures (see Planting Manual). The Owner of the property shall be responsible for the continued property maintenance of all landscaping materials, including existing trees, and shall keep them in a proper, neat and orderly appearance, free from refuse and debris at all times. All unhealthy or dead plant material shall be replaced within one year, or by the next planting period, whichever comes first; while other defective landscape material shall be replaced or repaired within three months. Topping trees or cutting of limbs to stubs larger than three (3) inches in diameter within the tree crown to such a degree as to remove the normal canopy shall not be considered proper for the maintenance of trees as required by this Article. Tree pruning cuts shall be made sufficiently close to the trunk or parent limb without cutting into the branch collar or leaving a protruding stub so that closure can readily start under normal conditions. All branches that are so heavy as to cause bark splitting or peeling are to be pre-cut. Violation of these installation and maintenance provisions shall be grounds for the legislative body to refuse a building occupancy permit, require replacement of the landscape material or institute legal proceedings to enforce the provisions of this Article.
- E. SUBMISSION REQUIREMENTS: The following shall be included as part of the submission of a development plan:
 1. A plan shall be drawn to a scale no smaller than 1" = 100'-0" and shall include all property lines; a north arrow; a scale; all easements; all existing and proposed structures and their uses; dumpsters; all vehicular use areas, labeled as to size and number of parking spaces; the names and addresses of the owners and plan preparers.

- a. **LANDSCAPE PLAN:** In addition to the submission requirements contained within the Planting Manual and Landscape Ordinance Guidelines, Section II, A, a landscape plan shall include existing topography shown in two foot (2') contours or spot elevations where elevation changes occur in areas to be landscaped.
- b. **TREE PROTECTION PLAN:** Shall identify all trees within the disturbed limits that are to be preserved and part of the required tree protection areas. Such trees shall be protected during the construction phase, per guidelines in the Planting Manual and Landscape Ordinance Guidelines, Section II, C. The following information shall be provided:
 1. Existing tree canopy (location and extent expressed as a percentage of the total area of the proposed development).
 2. Proposed tree canopy protection areas.
 3. Proposed tree removal areas.
 4. Post-development tree canopy protection and replacement calculations.
 5. Where landscape plans under Section 12.6., F., 1. of this zoning ordinance are required as a condition of approval of the development plan, the requirements listed above shall be incorporated into the required landscaping plan.
- c. **BUILDING OR ZONING PERMIT:** A building or zoning permit shall not be issued until the required landscape plans have been approved.
- d. **CERTIFICATE OF OCCUPANCY:** A temporary Certificate of Occupancy may be issued even though the required landscaping has not yet been installed. A final Certificate of Occupancy shall not be issued unless either:
 1. All landscaping has been installed and accepted by the Building or Zoning Inspector, or
 2. A full cash bond, irrevocable letter of credit (on an approved bank), or other form of acceptable surety has been posted in an amount equal to the cost of contracting the purchase and installation of the landscaping, plus 10%.

The owner shall have up to six (6) months, as determined by the Zoning Administrator to install the required landscaping. If, after the established time frame, the landscaping is not installed, the legislative body will contract the landscaping using the posted bond. Two one month extensions of the bond may be allowed beyond the established time if it is determined that planting will be detrimental to the plant material.

F. PLANTING AND TREE PROTECTION ADJUSTMENTS

1. The Zoning Administrator shall have the authority to grant a waiver of any of the requirements in this section upon receipt of a written request which outlines the rationale for the planting adjustment. The Zoning Administrator shall review each written request and grant a waiver only: (1) under unusual or extreme circumstances which cause an unreasonable hardship such as the size of the lot; (2) when an innovative or alternative approach can be made which still meets the intent and purpose of this section; or (3) when the requirements of this section are impractical or unreasonable because of the existence of conditions specified in subsection J., 4. Of this section. All decisions made by the Zoning Administrator may be appealed to the Board of Adjustment, pursuant to this ordinance and Kentucky Revised Statutes.
2. **PLANNING COMMISSION - TO HEAR AND DECIDE APPLICATIONS FOR PLANTING AND TREE PROTECTION ADJUSTMENTS**
 - a. An applicant, at the time of filing of the application for a map amendment, Stage I Development Plan review, or Stage II Development Plan review, may elect to have any planting adjustments for the same development to be heard and finally decided by the planning commission at the same public hearing set for the map amendment, Stage I Development Plan review, or Stage II Development Plan review, or by the Zoning Administrator as otherwise provided for in this section.
 - b. The planning commission shall review each adjustment request per the requirements of this ordinance and shall forward its findings to the Zoning Administrator. The ruling on the planting adjustment request shall be binding on the Zoning Administrator.
3. **PLANTING ADJUSTMENTS:** If the property owner wishes to request a planting adjustment of the Landscape Requirements of this article, an application shall be filed with the Zoning Administrator.
4. **REVIEWING ADJUSTMENT REQUESTS:** The Zoning Administrator or the planning commission, in its review of requests for adjustments, shall in making its decision consider all of the following criteria:
 - a. The need for the adjustment is due to circumstances typical of the land in the general vicinity of the site or in the same zone.
 - b. The strict application of the Landscape and Tree Protection Ordinance would deprive the applicant of a reasonable use of the land or create an unnecessary hardship.

- c. Circumstances necessitating an adjustment are not the result of an action by the applicant subsequent to the passage of the Landscape and Tree Protection Ordinance.
- d. Adherence to the Landscape and Tree Protection Ordinance will adversely affect the health, safety and welfare of the public or will adversely alter the general character of the general vicinity.
- e. When an innovative or alternative approach can be made which still meets the intent and purpose of this section.
- f. The existence of significant grade separations between adjoining developments or properties.
- g. The horizontal distance between the proposed development and the adjoining property.
- h. The existence of natural features (water bodies, tree lines, creeks or streams) that are proposed to be maintained.
- i. The different land use intensities that can be found within the same land use categories (i.e., a small single tenant office use or a 24 hour gasoline/convenience store can both be developed in a commercial zone).

TABLE 10-1
PROPERTY PERIMETER REQUIREMENTS

DEVELOPING ZONE/USE	ADJOINING ZONE/USE	MINIMUM PLANTING STRIP	PLANT MATERIAL/OPTIONS
Any commercial or professional office zone or land use, or any conditional use	Any residential zone or land use	20 feet	<p>Choose one of the following:</p> <ol style="list-style-type: none"> 1 tree per 35 linear feet, or fraction thereof, from List A* (shade trees), plus double row hedge from list E (evergreen/broadleaf shrubs) 1 tree per 20 linear feet, or fraction thereof, from List B (flowering and non-flowering trees), plus double row hedge from List E (evergreen/broadleaf shrubs) 1 tree per 40 linear feet, or fraction thereof, from List A (shade trees), plus a hedge from List D, plus a 6 foot wall, fence, or earth mound 1 tree per 40 linear feet, or fraction thereof, from List B (flowering and non-flowering trees), plus a hedge from List D, plus a 6 foot wall, fence, or earth mound Double row, staggered planting of trees from List C at 15 feet on center

* Plant lists can be found in the "Planting Manual And Landscape Regulation Guidelines"

1. Unless otherwise specified, trees do not have to be equally spaced, but may be grouped.
2. Interior requirements are not required on parking lots smaller than 5 spaces, and/or 1,500 square feet of paved area. Interior landscape areas must be 100 square feet minimum in size. Plants may be no closer than 36 inches to pavement in the vehicle use area unless concrete wheel stops are used to prevent plant damage by cars. Six inch (minimum) curb required around all landscaped islands.
3. If the vehicle use area is located in the front, side or rear yard, the required interior vehicular use area landscaping and the 5 feet perimeter screening easement will be included as counting towards the total front yard landscaping required.
4. In all cases where an earth mound or berm is used, the easement provided must be adequate to accommodate a mound with a maximum side slope of 2.5 to 1.
5. The Zoning Administrator may allow a mixture or combination of tree categories, provided that the required number of trees is provided.
6. In no case shall the minimum planting strip be required to exceed the minimum setback requirement established by the zoning district.

Table 10-1 (continued)

DEVELOPING ZONE/USE	ADJOINING ZONE/USE	MINIMUM PLANTING STRIP	PLANT MATERIAL/OPTIONS
Any industrial zone or land use	Any residential zone	75 feet side and rear yard	Double row of staggered trees from List C (evergreen/broadleaf trees) at 15 feet on center, plus a 36 foot wide, 6 foot tall, earthen berm
	Any commercial or professional office zone	50 feet side and rear yard	Double row of staggered trees from List C (evergreen/broadleaf trees) at 15 feet on center
			STORAGE YARD: A hedge from List E (evergreen/broadleaf shrubs) facing the front yard only and/or any public/private street plus a 6 foot fence or wall

* Plant lists can be found in the "Planting Manual And Landscape Regulation Guidelines"

1. Unless otherwise specified, trees do not have to be equally spaced, but may be grouped.
2. Interior requirements are not required on parking lots smaller than 5 spaces, and/or 1,500 square feet of paved area. Interior landscape areas must be 100 square feet minimum in size. Plants may be no closer than 36 inches to pavement in the vehicle use area unless concrete wheel stops are used to prevent plant damage by cars. Six inch (minimum) curb required around all landscaped islands.
3. If the vehicle use area is located in the front, side or rear yard, the required interior vehicular use area landscaping and the 5 feet perimeter screening easement will be included as counting towards the total front yard landscaping required.
4. In all cases where an earth mound or berm is used, the easement provided must be adequate to accommodate a mound with a maximum side slope of 2.5 to 1.
5. The Zoning Administrator may allow a mixture or combination of tree categories, provided that the required number of trees is provided.
6. In no case shall the minimum planting strip be required to exceed the minimum setback requirement established by the zoning district.

Table 10-1 (continued)

DEVELOPING ZONE/USE	ADJOINING ZONE/USE	MINIMUM PLANTING STRIP	PLANT MATERIAL/OPTIONS
Any multi-family residential (3 units per building or greater density) zone or land use	Any single family residential zone or land use	20 feet	<p>Choose one of the following:</p> <ol style="list-style-type: none"> 1 tree per 45 linear feet, or fraction thereof, from List A* (shade trees), plus a double row hedge from List E (evergreen/broadleaf shrubs) 1 tree per 20 linear feet, or fraction thereof, from List B (flowering and non-flowering trees), plus a double row hedge from List E (evergreen/broadleaf shrubs) A hedge from List D (deciduous shrubs), plus a 6 foot wall, fence, or earth mound Continuous double row, staggered planting of trees from List C (evergreen/broadleaf trees) at 15 feet on center
Any commercial, professional office or industrial zone or land use	The public right-of-way, public or private street	10% of each yard area must be landscaped	Trees, shrubs, planting beds, and/or perennials in a motif designed by the owner. A minimum of 3 trees shall be planted per 100 linear feet, or fraction thereof, of road frontage. This is not in addition to other required landscaping.

* Plant lists can be found in the "Planting Manual And Landscape Regulation Guidelines"

1. Unless otherwise specified, trees do not have to be equally spaced, but may be grouped
2. Interior requirements are not required on parking lots smaller than 5 spaces, and/or 1,500 square feet of paved area. Interior landscape areas must be 100 square feet minimum in size. Plants may be no closer than 36 inches to pavement in the vehicle use area unless concrete wheel stops are used to prevent plant damage by cars. Six inch (minimum) curb required around all landscaped islands.
3. If the vehicle use area is located in the front, side or rear yard, the required interior vehicular use area landscaping and the 5 feet perimeter screening easement will be included as counting towards the total front yard landscaping required.
4. In all cases where an earth mound or berm is used, the easement provided must be adequate to accommodate a mound with a maximum side slope of 2.5 to 1.
5. The Zoning Administrator may allow a mixture or combination of tree categories, provided that the required number of trees is provided.
6. In no case shall the minimum planting strip be required to exceed the minimum setback requirement established by the zoning district.

Table 10-1 (continued)

DEVELOPING ZONE/USE	ADJOINING ZONE/USE	MINIMUM PLANTING STRIP	PLANT MATERIAL/OPTIONS
A junk, salvage, refuge, or parts yard or recycling center	Any residential zone Any commercial or professional office zone Any industrial zone or street (public or private)	75 feet 50 feet 20 feet	Choose one of the following: 1. 1 tree per 35 feet of linear boundary, or fraction thereof, from either List A (shade trees) or List B (flowering and non-flowering trees), plus a single row hedge from either List D (deciduous shrubs) or List E (evergreen/broadleaf shrubs), plus a 6 foot wall or fence 2. A double row, staggered planting of trees from List C (evergreen/broadleaf trees) at 15 feet on center, plus a 6 foot solid fence or wall
Street trees may be planted along all public or private streets to meet the requirements of these regulations		5 feet	Choose one of the following: 1. 1 tree every 60 feet on center (maximum) from List A (shade trees) 2. 1 tree every 60 feet on center (maximum) from List F (street trees) 3. 1 tree every 60 feet on center (maximum) from List B (flowering and non-flowering trees)

* Plant lists can be found in the "Planting Manual And Landscape Regulation Guidelines"

1. Unless otherwise specified, trees do not have to be equally spaced, but may be grouped.
2. Interior requirements are not required on parking lots smaller than 5 spaces, and/or 1,500 square feet of paved area. Interior landscape areas must be 100 square feet minimum in size. Plants may be no closer than 36 inches to pavement in the vehicle use area unless concrete wheel stops are used to prevent plant damage by cars. Six inch (minimum) curb required around all landscaped islands.
3. If the vehicle use area is located in the front, side or rear yard, the required interior vehicular use area landscaping and the 5 feet perimeter screening easement will be included as counting towards the total front yard landscaping required.
4. In all cases where an earth mound or berm is used, the easement provided must be adequate to accommodate a mound with a maximum side slope of 2.5 to 1.
5. The Zoning Administrator may allow a mixture or combination of tree categories, provided that the required number of trees is provided.
6. In no case shall the minimum planting strip be required to exceed the minimum setback requirement established by the zoning district.

TABLE 10-2
INTERIOR LANDSCAPE REQUIREMENTS

DEVELOPING ZONE/USE	ADJOINING ZONE/USE	MINIMUM PLANTING STRIP	PLANT MATERIAL/OPTIONS
A Vehicular Use Area (VUA) associated with any zone or land use, except single-family	Any public or private street	10 foot perimeter screening easement	<p>Choose one of the following:</p> <ol style="list-style-type: none"> 1 tree per 40 linear feet, or fraction thereof, from List A* (shade trees), plus 8 shrubs per 40 linear feet, or fraction thereof, from either List D (deciduous shrubs) or List E (evergreen/broadleaf shrubs) 1 tree per 25 linear feet, or fraction thereof, from List B (flowering and non-flowering trees), plus 8 shrubs per 40 linear feet, or fraction thereof, from either List D (deciduous shrubs) or List E (evergreen/broadleaf shrubs)
		If over 25 feet	If the planting strip exceeds 25 feet in width, shrubs are not required
	--PLUS--	--PLUS--	--PLUS--
	in all cases	5% interior landscaped area (2)	1 tree per 250 square feet of interior landscaped area from either List A (shade trees) or List B (flowering and non-flowering trees) (1 tree minimum)

* Plant lists can be found in the "Planting Manual And Landscape Regulation Guidelines"

1. Unless otherwise specified, trees do not have to be equally spaced, but may be grouped.
2. Interior requirements are not required on parking lots smaller than 5 spaces, and/or 1,500 square feet of paved area. Interior landscape areas must be 100 square feet minimum in size. Plants may be no closer than 36 inches to pavement in the vehicle use area unless concrete wheel stops are used to prevent plant damage by cars. Six inch (minimum) curb required around all landscaped islands.
3. If the vehicle use area is located in the front, side or rear yard, the required interior vehicular use area landscaping and the 5 feet perimeter screening easement will be included as counting towards the total front yard landscaping required.
4. In all cases where an earth mound or berm is used, the easement provided must be adequate to accommodate a mound with a maximum side slope of 2.5 to 1.
5. The Zoning Administrator may allow a mixture or combination of tree categories, provided that the required number of trees is provided.
6. In no case shall the minimum planting strip be required to exceed the minimum setback requirement established by the zoning district.

FIGURE 10-1
REQUIRED PERIMETER LANDSCAPING FOR BUILDING ADDITIONS

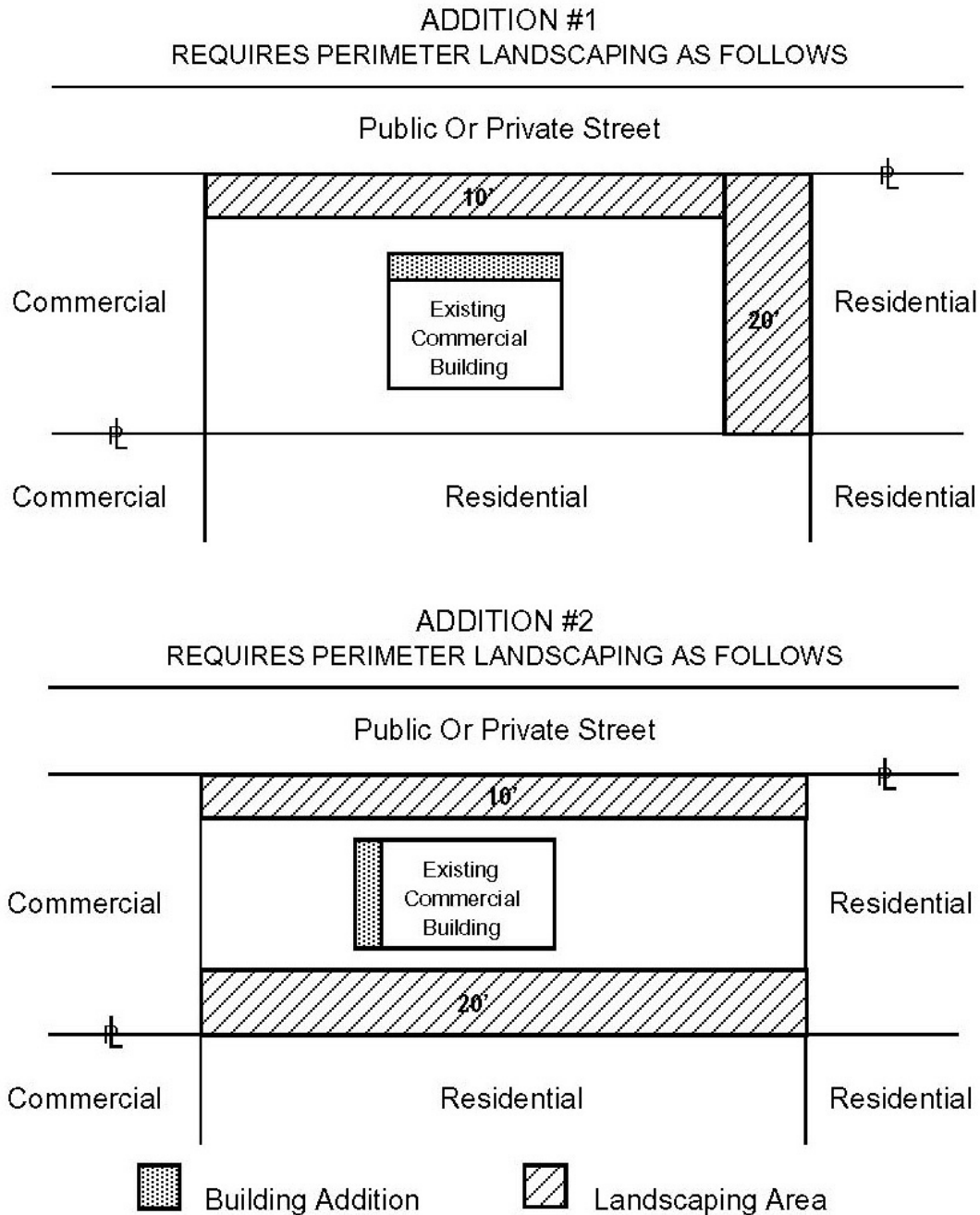
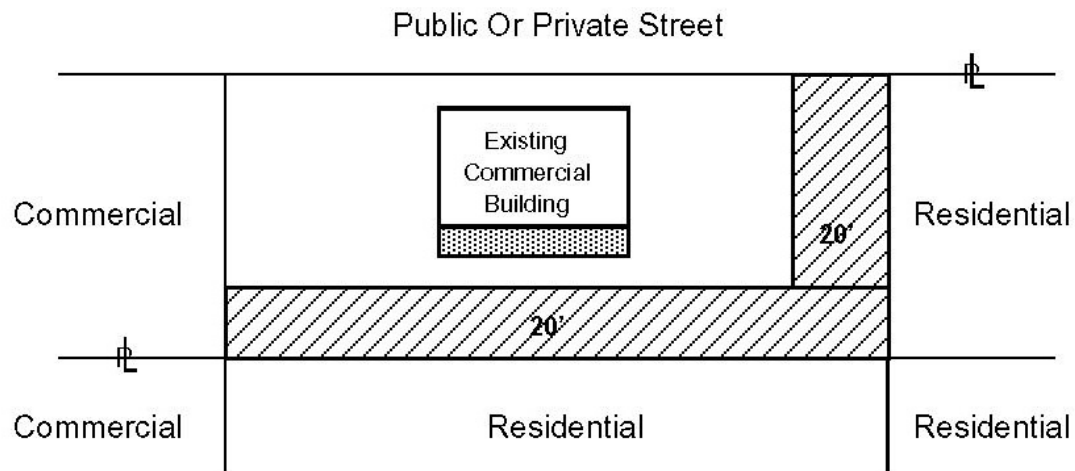


FIGURE 10-1 (continued)
REQUIRED PERIMETER LANDSCAPING FOR BUILDING ADDITIONS

ADDITION #3
REQUIRES PERIMETER LANDSCAPING AS FOLLOWS



ADDITION #4
REQUIRES PERIMETER LANDSCAPING AS FOLLOWS

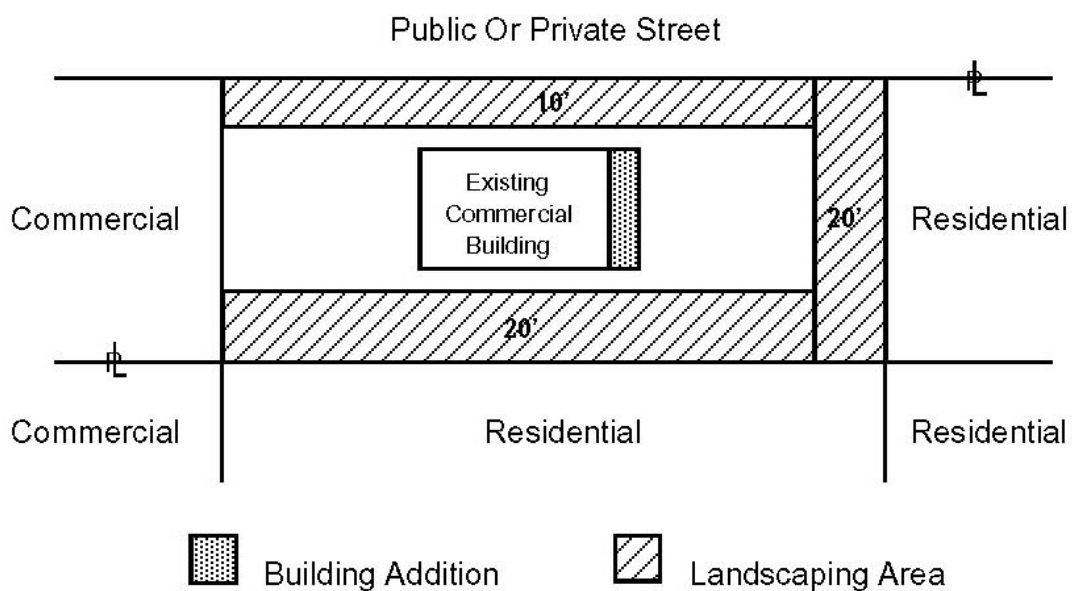


TABLE 10-3
DUMPSTER SCREENING TABLE

DUMPSTER* OCCURS IN	WHICH ADJOINS	REQUIRED SCREENING**
any zone or land use other than residential	any zone or land use other than residential	fencing per manual plant
any residential land use or zone	any zone or land use	fencing per plant manual plus hedge on three sides from list D or E
any zone or land use	any residential land use or zone	fencing per plant manual plus hedge on three sides from list D or E

* Includes dumpsters, compactors, and all other solid or other waste containers

** If a dumpster is oriented towards a street or toward the nearest perimeter of the site, and can be seen from the street or the adjoining property, that side must also be screened