

---

**SECTION 16.8 LANDSCAPING, SCREENING AND LIGHTING STANDARDS**

- 16.80 Purpose and Intent – In any permit proceeding, consideration shall be given to the possibilities for enhancement and improvements to landscape design and pedestrian amenities. At a minimum, the applicant shall propose a landscape design that may include, but is not limited to: planting of trees; benches; sidewalks or other pedestrian paths; doorways, porches, terraces, landscaped areas and entries that provide transition for and bridge the gap between public and private space; and orient parking and building lighting that is appropriate in style and design to the desired character of the Form-Based Districts (FBD). All landscape elements and plant selections shall be consistent with the Town of Amherst Landscaping Guidelines.
- 16.81 Public Frontage Landscaping Requirements
- 16.810 Street Trees – As specified in Table 16.2.0 Street Types and illustrated in Figure 16.2.1 Street Types, the public frontage shall include trees planted in a spacing pattern as described of varied species with shade canopies of a height that, at maturity, clears three stories, but remains predominantly clear of building frontages. The introduced landscape shall consist primarily of durable species tolerant of salt and soil compaction.
- 16.82 Private Frontage Landscaping Requirements
- 16.820 Existing Trees – Existing significant trees and shrubs shall be maintained.
- 16.821 Visibility – No plantings shall obscure site entrance and exit drives and road intersections or impair visibility of existing commercial storefronts. Tree species shall be selected to maintain relatively clear views of the ground floor.
- 16.822 Non-Residential Lots – Street yard landscape is not required if front setback is zero. When the front setback is greater than zero, those portions of the street yard not occupied by pedestrian amenities and public spaces shall be landscaped. Street trees are required if front setback is greater than ten (10) feet.
- 16.823 Residential Lots – Private Frontage landscaping shall be required for all residential properties for the first ten (10) feet back from the front property boundary. In addition to natural vegetation that is retained, Private Frontage on residential lots shall be landscaped with a combination of indigenous grasses, trees and shrubs commonly found in Central Massachusetts.
- 16.824 Street Trees – One deciduous tree with 3” minimum caliper shall be planted within the front setback for every 30 feet of frontage of property if front setback is greater than 10 feet. Trees in paved areas shall have a minimum 25 square feet of permeable area for growth. Trees in islands shall have a minimum of 50 square feet of permeable area for growth. All landscaped areas shall be continuously maintained, irrigated, and fertilized. Plant materials shall be organically maintained.
- 16.83 Parking Lot Landscaping – In addition to the Landscape Standards in Article 7, Section 7.11 for parking lots, the following supplemental standards shall apply in the FBD:
- 16.830 Shade Trees – One 3” minimum caliper low water use, low maintenance canopy tree shall be provided for every 10 linear feet. Trees shall be maintained and irrigated and planted within at least 50 square feet of permeable area. Existing trees located in the interior of lots shall be credited towards this requirement.

- 
- 16.831 Buffering – Interior planting beds shall be continuous to allow for maximum plant bed size and constructed as rain gardens to control storm water. No landscaped island shall be less than 6 feet wide.
- 16.832 Landscaping of Pre-existing Parking Lots – Upon the expansion of an existing parking lot containing 20 or more parking spaces and/or an alteration of a structure, or a change or extension of a use which increases the parking requirements by 5 or more spaces according to the standards of Section 16.7, the entire existing parking lot shall be brought into compliance with this section.
- 16.833 Coordination – Landscaping of private parking lot and other lot features shall be compatible with the streetscape design elements of the public frontages.
- 16.84 Storage Areas
- 16.840 Exposed storage areas, machinery, garbage “dumpsters,” service areas, truck loading areas, utility buildings and structures shall be screened from view of abutting properties and streets using plantings, fences and other methods. Shared use and designated areas for clustered garbage dumpsters shall be required.
- 16.841 Garbage dumpsters shall be fully screened on 3 sides with solid walls a minimum of six (6) feet high with a solid front gate, six feet high, which shall be kept, closed. Trash compacters shall be enclosed to minimize noise.
- 16.85 Lighting Standards – Outdoor site lighting shall primarily be used to provide safety, while secondarily accenting key architectural elements and emphasizing landscape features. Light fixtures shall be designed as an integral element that complements the design of the project. This may be accomplished through style, material or color. All lighting fixtures designed or placed to illuminate any portion of a site shall meet the following requirements:
- 16.850 General Standards – Lighting shall complement a building’s architecture through shadowing, highlighting, and flooding. Appropriate lumens or foot-candles shall be evaluated to provide these effects without overwhelming the building or site. Light fixtures shall be compatible to the style of the building and may include: attached or detached; soffit; up light or down light; and tree lighting.
- 16.851 Streetscape Lighting Placement – The placement of streetscape lighting fixtures shall be in a consistent pattern to provide sufficient light levels within the public streetscape area and private streetyard. Lighting placement within the streetyard shall be designed as an extension of the public streetscape and as a complementary element of landscaping and building design.
- 16.852 Prohibited Light Sources – The following light fixtures and sources shall not be used where the direct light emitted is visible from adjacent areas:
1. Low-pressure sodium and mercury vapor light sources;
  2. Cobra-head-type fixtures having dished or drop lenses or refractors which house other than incandescent sources; and
  3. Searchlights and other high-intensity narrow-beam fixtures.
- 16.853 Luminaire – The light source shall be concealed and shall not be visible from any street right-of-way. Protect adjacent properties by minimizing the intrusion of lighting, including parking lot and building exterior lighting, through the use of full cut-off luminaires light shields, or similar solutions.

- 
- 16.854 Fixture Height – Lighting fixtures shall not exceed 30 feet in height above parking areas. Lighting fixtures shall not be less than 9 feet or more than 15 feet in height above the sidewalk in pedestrian areas.
- 16.855 Limit Lighting to Periods of Activity – Lighting shall use sensor technologies, timers or other means to activate lighting during times when it will be needed. All site lighting, including architectural, sign and parking lot lighting, shall be kept extinguished outside of those business hours established under an approved site management plan, except for lighting determined to be necessary for site security and the safety of residents, employees and visitors.
- 16.856 Security Lighting – Security fixtures shall not be substituted for parking area or walkway lighting and are restricted to loading, storage, service and similar locations.
- 16.857 Accent Lighting – Except for architectural and interior-lit signs, all exterior site lighting shall be downcast and shall be directed or shielded to eliminate light trespass onto any street or abutting property and to eliminate direct or reflected glare perceptible to persons on any street or abutting property and sufficient to reduce a viewer’s ability to see.
- 16.858 Entrances and Exits – All entrances and exits to buildings used for nonresidential or mixed use purposes and open to the general public, and all entrances in multifamily residential buildings shall be adequately lighted to ensure the safety of persons and the security of the building.
- 16.859 Commercial Parking Area Lighting – All commercial parking areas shall provide lighting for both pedestrian areas and parking areas during nighttime hours of operation.

16.86 Fences

- 16.860 Residential Lots – Fencing on residential lots shall conform with the following:
1. Prohibited Finish Materials: Plastic, chain link, barbed wire and razor wire fencing.
  2. Fences, garden walls or hedges shall be used along all un-built property lines that abut streets and alleys to conceal parking, service and storage areas.
  3. Fences, garden walls or hedges shall be used in side yards (behind the front plane of the primary structure) and rear yards.
  4. Finish Materials: Wood (termite resistant) painted/stained, wrought iron, brick, stone or stucco.
  5. No fence, hedge or wall in the Streetyard shall exceed a height of 3 ½ feet and shall be semi-opaque;
  6. In the side and rear yards, fence heights are not to exceed 6 feet (8 feet when abutting a nonresidential district) from the grade plane.
- 16.861 Commercial and Mixed Use Lots – Fencing shall be used to define rear or side property lines, the boundaries of a parking area, or to screen dumpsters or machinery from view. Property owners shall use plantings and landscaping to define outdoor spaces.
1. Traditional fencing materials such as wood, granite or stone, iron or alternatives to wrought or cast iron fencing such as black steel or aluminum fencing shall be used. Fencing shall be compatible with the materials, proportions and styles of the existing buildings on the site.
  2. The height and style of the fence shall also relate to its location on the site with taller, solid fencing at the rear of the site and lower and more open fencing at the front. Vinyl and chain link fencing are prohibited.

- 
3. No fence, hedge or wall in the Streetyard shall exceed a height of 3 ½ feet and shall be semi-opaque; in the side and rear yards, fence heights are not to exceed 6 feet from the grade plane.
- 16.87 Sustainable Design and Development Standards – Development within the FBD shall incorporate sustainable and best management practices into building, site, and infrastructure development. All new construction shall reflect environmentally responsible design and construction practices.
- 16.870 Low Impact Development (LID) – LID Best Management Practices shall be used for all driveways, parking and other disturbed areas to preserve natural features on site, reduce impervious surfaces, and to utilize natural features for source control and stormwater management. Existing and native materials shall be incorporated into the landscape design. To minimize water consumption, low water vegetative ground cover (other than turf) shall be used.
- 16.871 Building Solar Orientation and Design – The massing and orientation of all buildings shall not negatively impact solar access to neighboring properties, particularly allowing sun during winter to properties immediately to the north.
1. Buildings shall be of a size and orientation to minimize the occlusion of sunlight on public spaces, such as sidewalks.
  2. Windows shall be oriented to make the best use of passive solar.
  3. The primary roof plane shall face close to solar south, to allow for installation or retrofit with solar panels.
  4. Gable roofs and shorter buildings may be more appropriate on the south sides of a street while gable end roofs and taller buildings may be more suited for the north side.
- 16.872 Green roofs on larger footprint flat roofed commercial buildings shall be installed to reduce stormwater runoff, all roof drains shall be recharged into the site with the use of structural and/or non-structural low impact development drainage systems.
- 16.873 LID lot layout applications shall integrate hydrology and stormwater management into site design using existing conditions to influence the location and layout of access roads, buildings, and parking areas. Buildings and roadways shall be placed in areas less sensitive to disturbance, and the stormwater management system design shall create a symbiotic relationship between the development and natural hydrology.
- 16.874 Filter strips, bands of densely vegetated slopes, shall be incorporated into roadway and parking lot designs.
- 16.875 Vegetated Swales (Bioswales), broad, shallow channels designed to convey and infiltrate stormwater runoff, shall be incorporated into site design and stormwater management strategies.
- 16.876 Rain Gardens (Bioretention Cells), vegetated depressions that store and infiltrate runoff, shall be incorporated into roadway, parking lot designs and stormwater management strategies. Rain gardens shall use an engineered soil, which maximizes infiltration and pollutant removal while avoiding stormwater ponding for longer than 24 hours.
- 16.877 Subsurface Retention Facilities (Stormwater Vaults) shall be used for development projects that would otherwise require an amount of surface stormwater retention that is not possible to accommodate due to limited open space.
- 16.878 Downspout Redirection, Rain Barrels and Cisterns – Roof stormwater runoff shall be redirected onto pervious surfaces, most commonly a lawn. Alternatively, rain barrels shall be placed outside of a building at roof downspouts to collect and store rooftop runoff, which can later be reused for lawn and garden watering.
-

- 
- 16.879 Stormwater Planters – Runoff from streets shall be channeled into street tree wells and landscaping planters to reduce volumes and pollutants reaching the public sewer system while serving to irrigate streetscape vegetation. These LID stormwater structures shall be sized to treat the stormwater from frequent, low-intensity storms for water quality and infiltrate into the planting ground. Stormwater planters shall be used for public and private streets.
- 16.8710 Natural Landscaping and Xeriscaping™, landscaping with plants native to area climate and soil conditions, shall be used to minimize the need for irrigation systems and improve planting longevity. Plant selections for the new landscape designs shall consider knowledge of the site conditions and plant materials shall be selected for their form, color, and texture, as well as solar, soil, and moisture requirements. Plants that do well in various microclimates on a site are considered "site appropriate." Native plants (vegetation that grows naturally in particular climates or regions) shall be used because of their performance, site enhancement, and life cycle cost benefits.
- 16.8711 Solar Powered Lighting and Equipment – Solar energy shall be used to power low level lighting on private development sites and for public parking collection systems as an alternative to individual meters.
- 16.8712 Other Energy Conservation Opportunities – Other opportunities to improve energy efficiency and protect the environment as future growth occurs shall be considered in the design of projects, such as: green walls, increased building insulation (i.e., R-26 and triple-glazed windows), Energy Star rated appliances, EcoStar Program (shared recycling streams between park tenants), dual-flush and waterless toilets, ultra-efficient heat and hot water systems, improved building air seal (i.e., taped sheathing), greywater systems, geothermal energy, or other innovative techniques.
- 16.8713 All stormwater management designs and techniques must be certified by a Massachusetts registered professional engineer or landscape architect with stormwater management expertise and must submit a proposed maintenance schedule for each technique, identifying the timing of inspections and the maintenance activities that will be taken such as removing debris from inlet boxes, replacing filters, pumping out accumulated sediment, mechanical sweeping, etc.
- 16.8714 Site fill and the associated impacts of such fill on existing native vegetation and trees shall be minimized by using the natural topography as an integral feature in the site design.
- 16.88 Utilities and Services
- 16.880 Utilities – Existing above ground utility lines and poles shall be buried underground, or moved behind buildings. All new electrical and communication utilities in the FBD shall be placed underground.
- 16.881 Mechanical Utilities – Mechanical equipment, whether ground level or rooftop shall be screened from view of adjacent properties and public rights-of-way and designed to be an integral part of the building.