

Burrillville Development Plan Review Regulations



Figure 19. Parking behind buildings

1 GENERAL CONDITIONS

1.1 Purpose and Applicability

The purpose of these regulations is to establish procedures pursuant to R.I.G.L. Title 45, Chapter 23, Section 50, which enables the town to perform a comprehensive review of certain proposed land developments, including additions to existing buildings. The Planning Board shall serve as the technical review committee and is the responsible agent for reviewing Development Plans in their entirety. The Development Plan Review requirements of this article shall serve as the requirements and minimum standards for Burrillville Zoning Ordinance Section 30-201 and are designed to assure safe, orderly and harmonious development of property in a manner that shall:

- A. Provide consideration for land use and architectural design that is compatible within the Villages;
- B. Permit development to an extent commensurate with the availability and capacity of public facilities and services and promote safe pedestrian circulation within the villages and safe vehicular circulation within and outside village areas;
- C. Preserve and protect natural environmental features that may add values to sites such as mature stands of trees, wetland and stream areas or rock outcrops;
- D. Encourage the provision of public access and give due consideration to the scale and design of landscaping;
- E. Encourage proper control of erosion, surface and subsurface drainage and pollution;
- F. Facilitate orderly site development that enhances historic village character including safe design for ingress and egress for both vehicle and pedestrian, off-street or on-street parking, truck loading, internal circulation, disposal areas, outdoor storage, signage and lighting;
- G. Give developers reasonable assurance of ultimate approval before incurring the cost of final design and engineering while providing assurance to the town and general public that the approved project will meet with approved objectives and standards;
- H. Preserve, historical and cultural resources which will be preserved to the maximum extent feasible;
- I. Assure consideration of the various elements of the comprehensive plan of the town.

Section 2-10 'Building Design' is meant to regulate existing and new construction within Burrillville's existing Main Street areas and neighborhoods. This section and this section only, shall not apply to distinct Industrial Parks such as: Burrillville Commerce Park, The Clear River Industrial Park(s), or The Burrillville Industrial Park. All other sections of the Development Plan Review Guidelines shall apply to industrial park development. Section

2-10 Building Design is applicable to existing commercial property that exists outside of the aforementioned industrial parks.

2 DEVELOPMENT PLAN DESIGN STANDARDS

Burrillville strongly supports development that extends its existing village centers and adds creative enjoyment of space for pedestrians within the village centers. Design, details such as form, type and texture of materials, balance, symmetry/asymmetry, natural factors, pedestrian circulation, access, and connections should be respected. Matching the historic character of the Villages in culmination with extending pedestrian scale elements will translate into a healthier quality of life that is socially sustainable, unlike sprawl development, which yields unhealthy lifestyles and human isolation.

Preservation of the Town's rural character will depend largely on how successfully the Town protects its existing defining natural, cultural, and scenic features. These standards are based on protection of the following important features.

1. Ridges, rocky outcrops and stone walls
2. Farmlands and agricultural structures
3. Wetlands, including rivers, ponds, reservoirs and streams
4. Native vegetation, particularly large expanses of vegetation, vegetated slopes and ridges, borders of wetlands and other sensitive natural areas
5. Historic structures and sites including mills and associated structures such as spillways
6. Existing farm roads, logging roads and ancient ways
7. Naturally vegetated areas between new buildings and roads

2.1 Site Planning.

To the maximum extent practicable, development should be located to preserve the natural features of the site, to avoid areas of environmental sensitivity, and to minimize alterations of and negative impacts to natural features, historic and cultural resources, and scenic areas. A Site Analysis shall be conducted through a site visit by the planning board and developer prior to the conceptual site planning process (Figure 1).

New development shall incorporate characteristics of the surrounding area when the area exhibits a positive site layout and/or functional patterns (e.g., buildings close to street, shared parking and access, and generous landscaping).

1. Natural Context

The following specific areas shall be preserved as undeveloped open space or lot area in accordance with applicable federal, state and Town regulations and ordinances (Figure 2):

- a. Water resources, including freshwater wetlands & community wellheads
- b. Aquifers and high value recreational waters
- c. Significant trees or stands of trees
- d. Steep slopes above 15% as measured over a 10 foot interval
- e. Habitats for rare, threatened or endangered flora and fauna
- f. Historically significant structures and sites
- g. Scenic vistas
- e. Prime agricultural soils, farmland, abandoned fields and prime forest lands

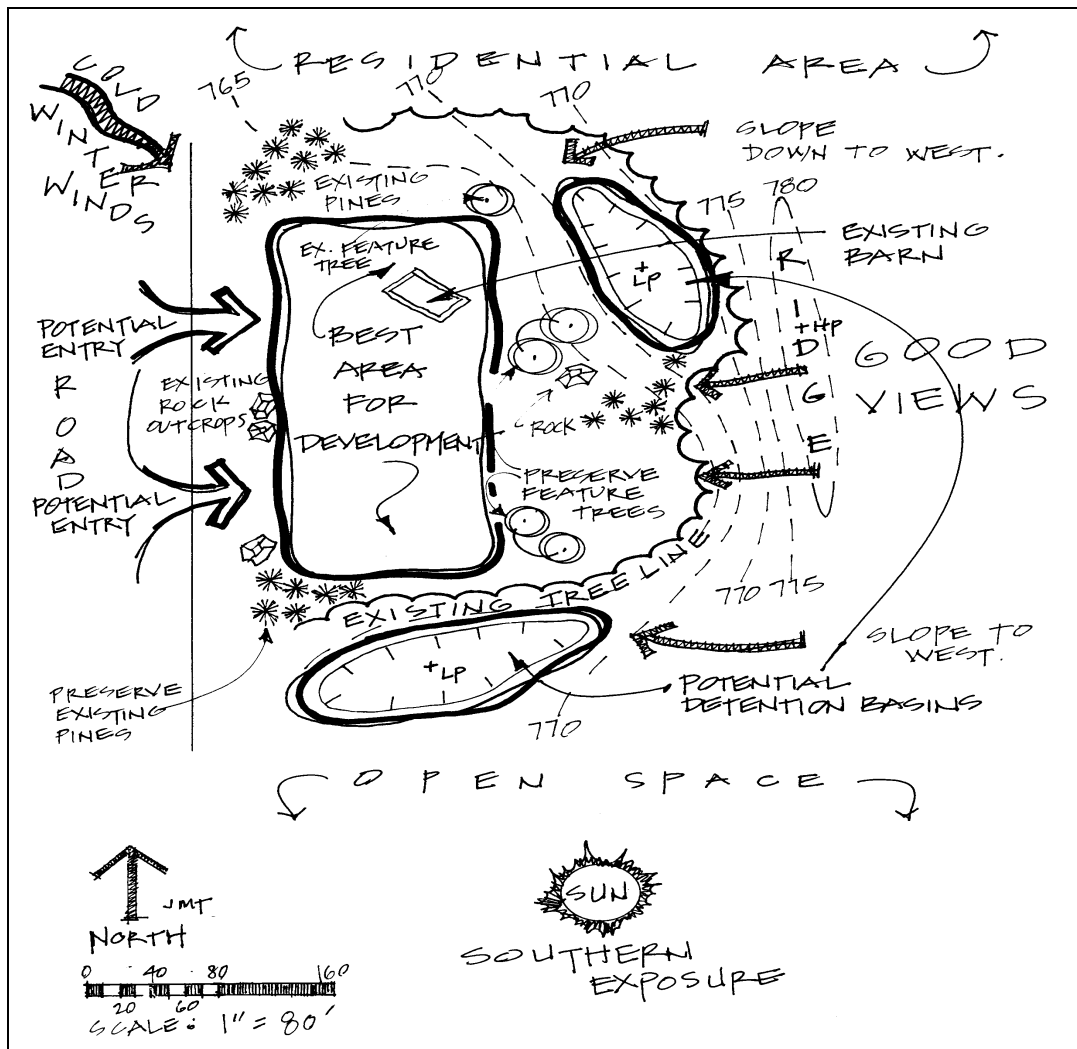


Figure 1. Example of Site Analysis

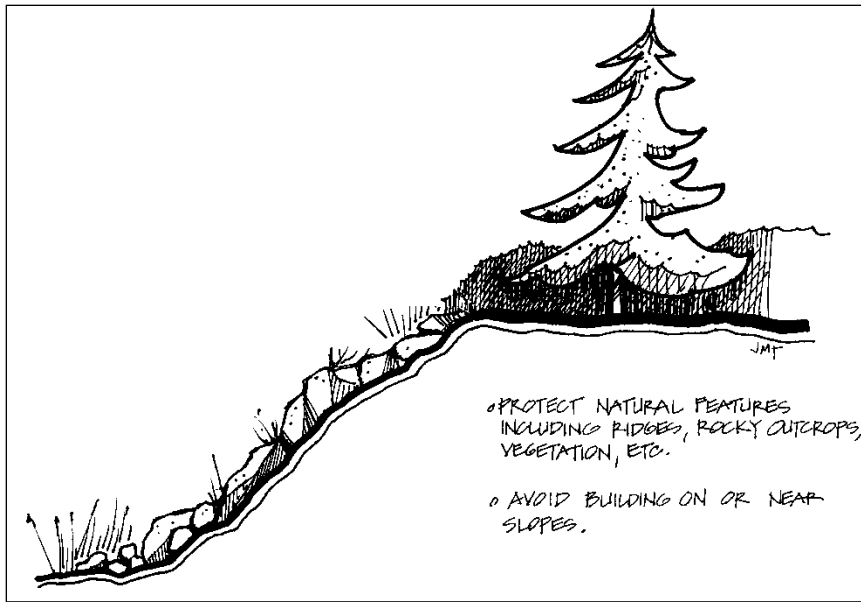


Figure 2. Protect Natural Features and Slopes

Development should take advantage of natural solar irradiation through southern exposure and design features in order to reduce energy usage and increase connections to the surrounding environment. Vegetation, berms, and shade structures should be used to provide warmer areas during winter and cooler areas during summer (Figure 3).

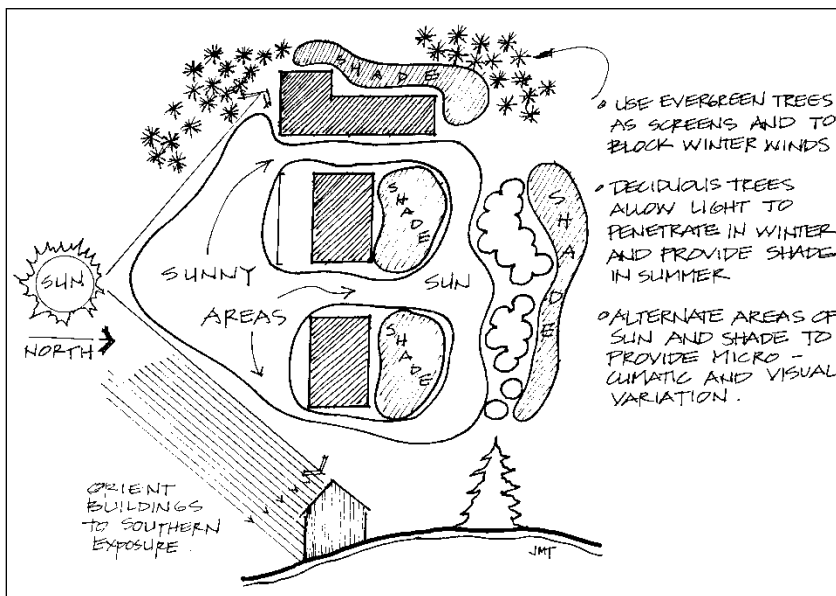


Figure 3. Climatic Factors

Utilize the space between buildings as viable “outdoor rooms” which can function as pedestrian transition areas, provide building connections and project coherence (Figure 4).

Building envelopes should be located so that character-defining site features such as stone walls, open fields, ridge lines, stands of mature trees, rolling topography (especially slopes in excess of 15%), ridgelines and outcrops, wetlands, streams, rivers, ponds and lakes, and listed historic and natural resources are preserved whenever possible (Figures 5A & 5B)

Avoid placement of structures on ridgelines or hillcrests. These areas are potentially erosive, exposed to wind, and highly visible, making the potential for negative impacts higher (Figures 6A & 6B).

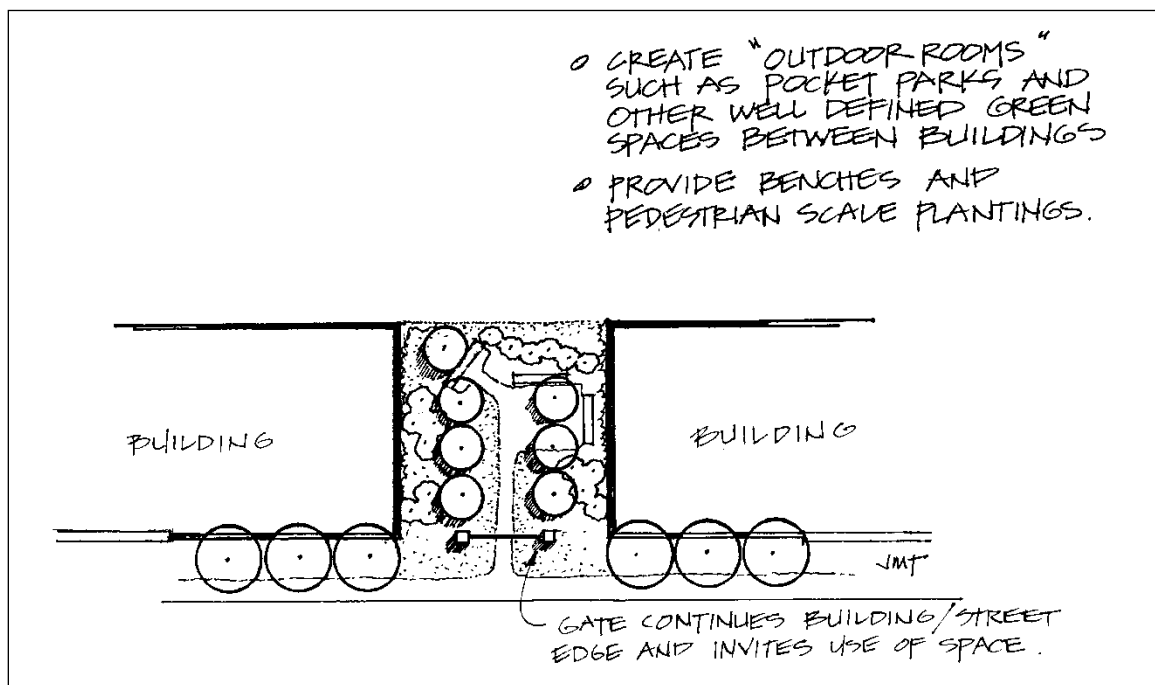


Figure 4. Pedestrian "Outdoor Rooms"

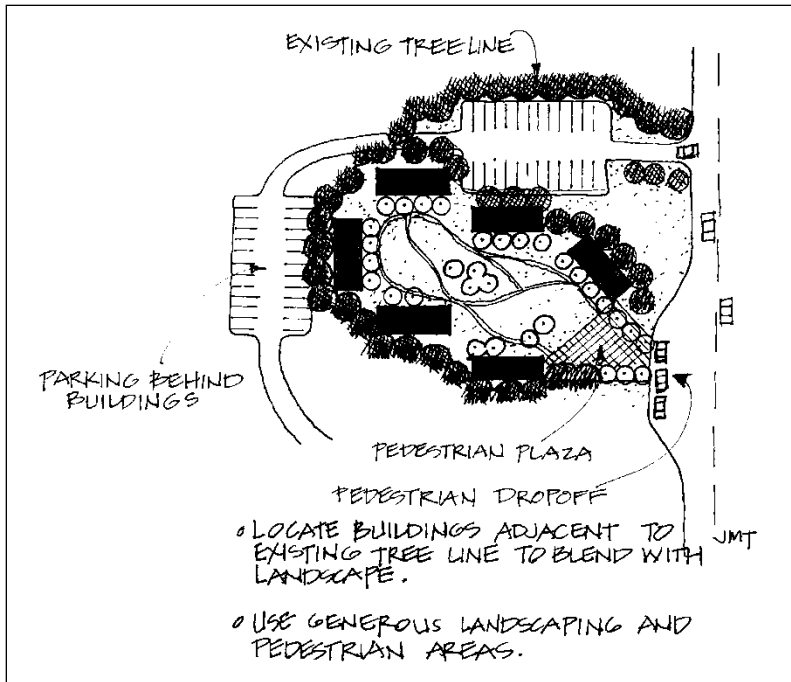


Figure 5A. Preserve Natural Features

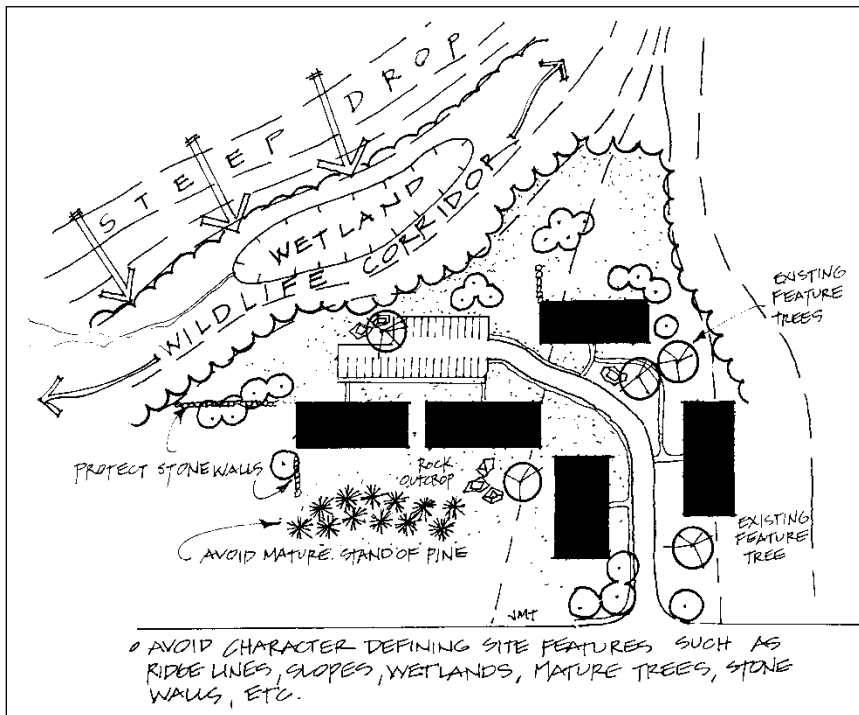


Figure 5B. Preserve Natural Features

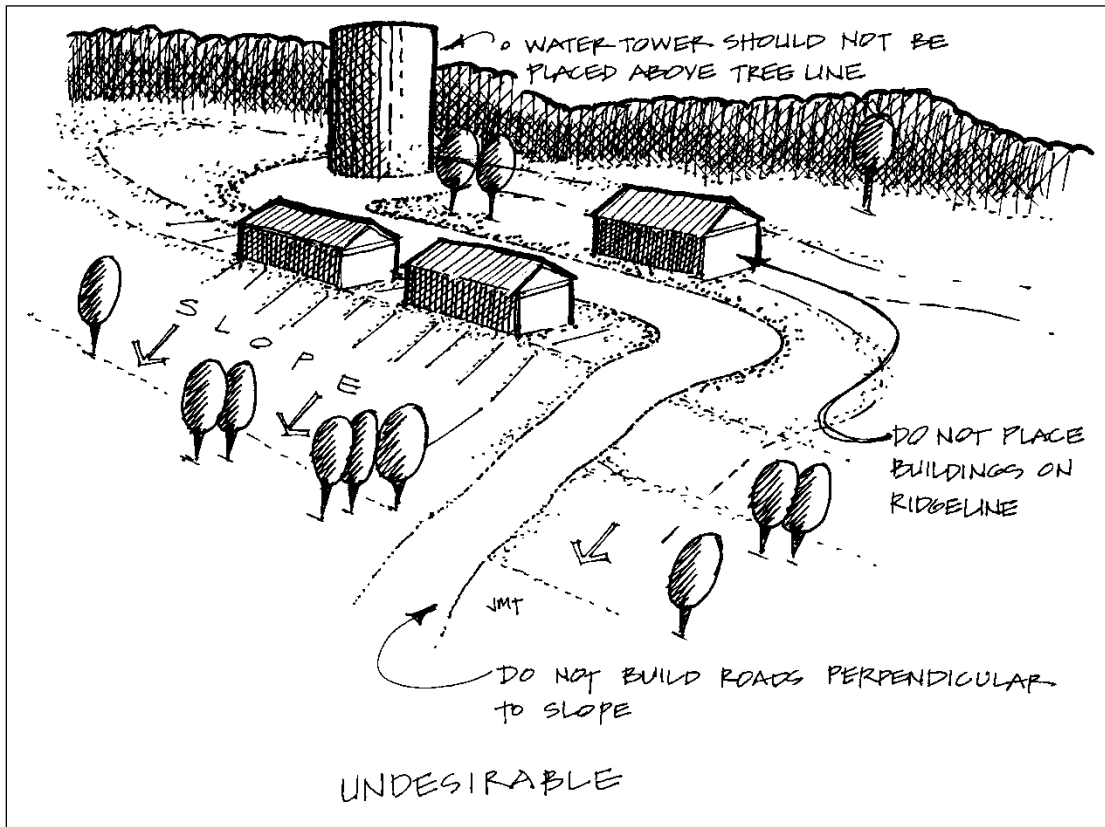


Figure 6A. Ridgelines and Steep Slopes

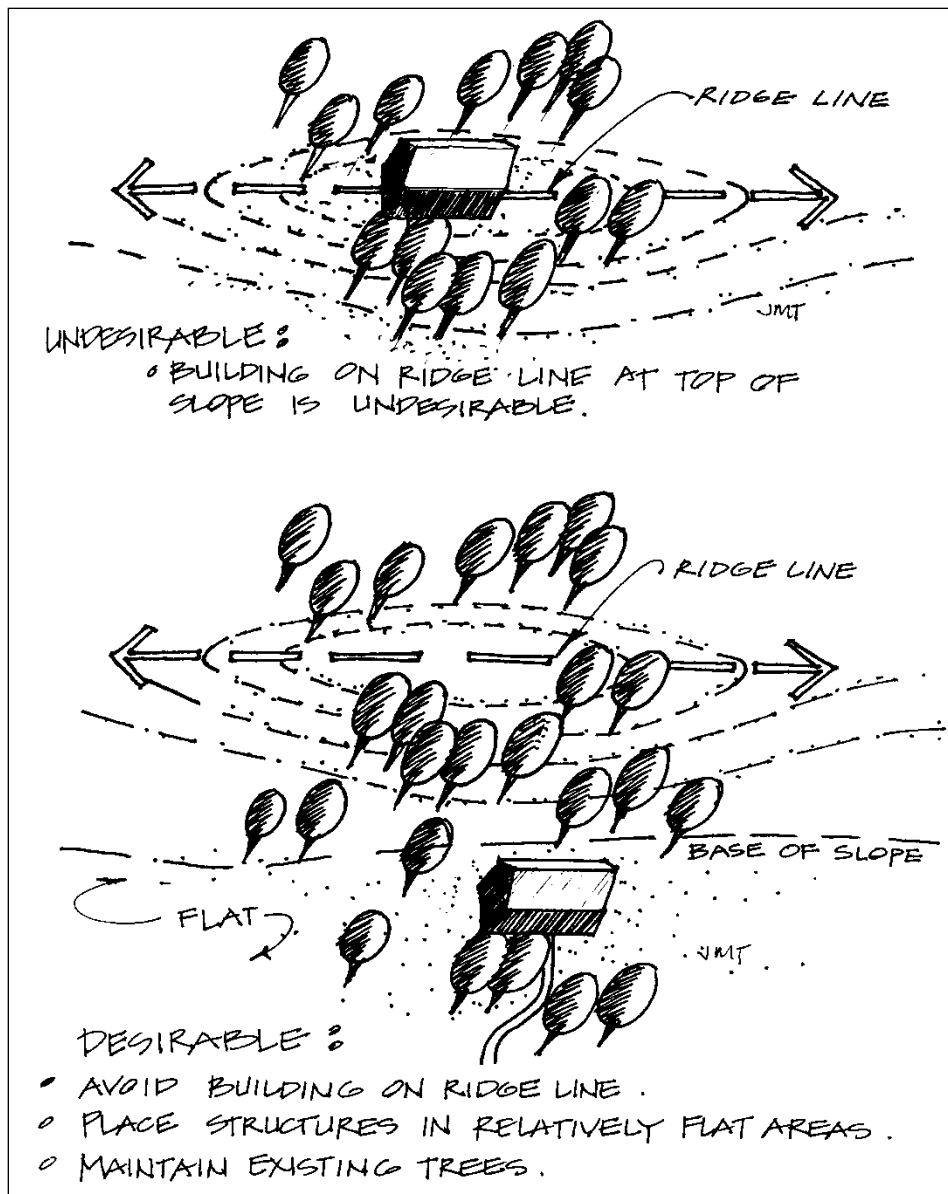


Figure 6B. Ridges and Steep Slopes

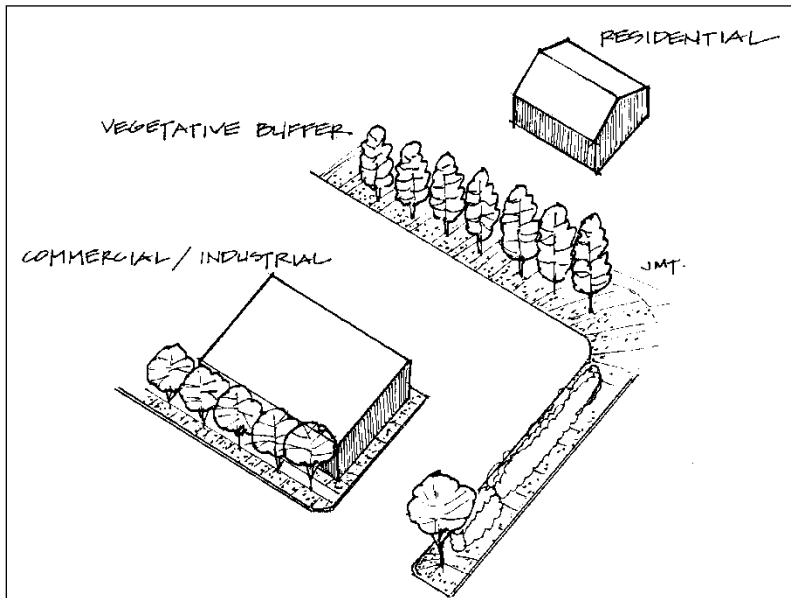


Figure 7. Buffer Adjacent Developments

When commercial/industrial buildings back up to residential areas, the rear setback area should be heavily landscaped and functionally and/or visually combined with the residential open space where possible (Figure 7).

2. Built Context

Placement of buildings shall consider the built context of the commercial/industrial area, the location of compatible and incompatible uses, traffic corridors, vegetation, and other site characteristics. Where adjacent setbacks are inconsistent, an attempt should be made to moderate them. If this is not possible, vegetation, walls and other landscape features must be used to continue the rhythm of the built environment (Figure 8).

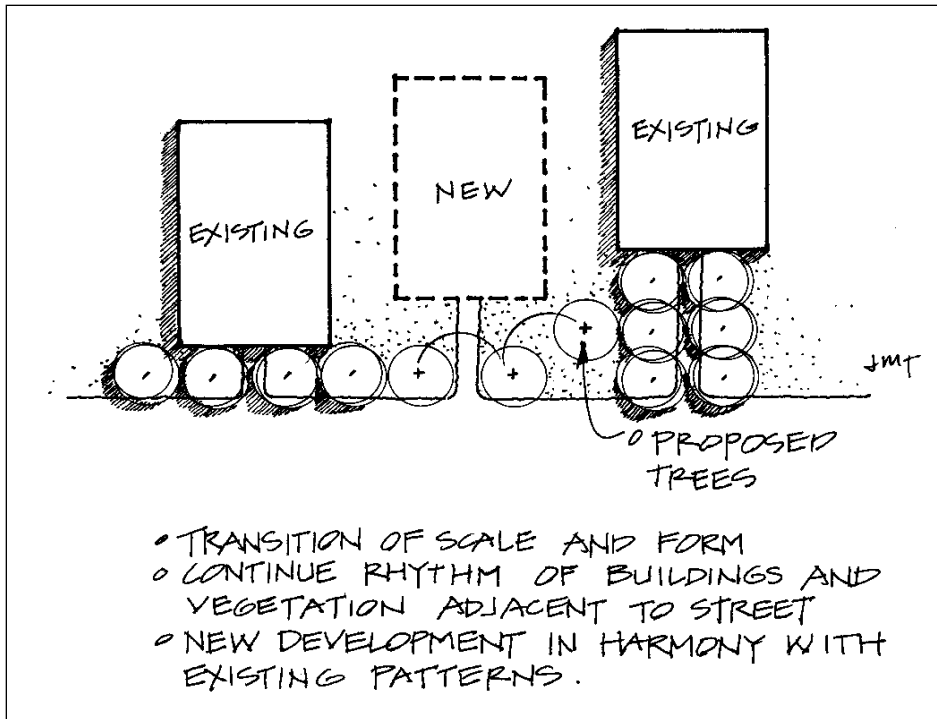


Figure 8. Continue Prevailing Setback Patterns

In commercial and industrial areas, particularly in the Village Commercial District and in other densely developed zones with direct street frontage, buildings fronting on streets should generally be placed at their front setback lines in order to enliven the street. This siting, in combination with substantial landscape treatment, reinforces and strengthens the streetscape and helps to screen off-street parking areas. Only active building elevations with public access should face public streets (Figure 9).

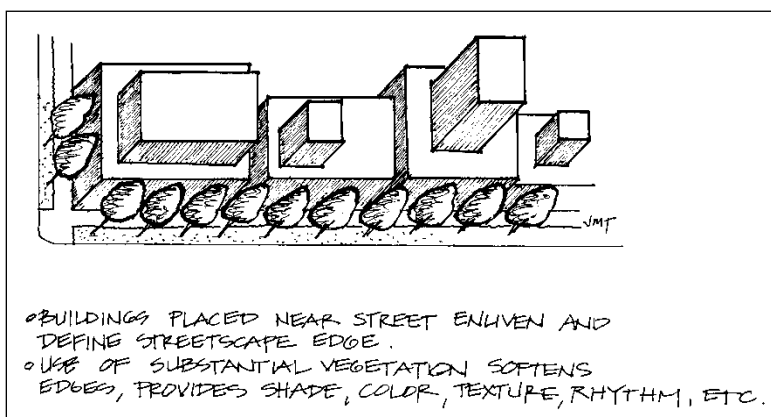


Figure 9. Strengthen Streetscape Environment

Multiple buildings in a single development should create a positive functional relationship. Whenever possible, buildings should be clustered to achieve a village feel. This creates opportunities for plazas and pedestrian areas while preventing long “barrack-like” rows of buildings. When clustering is impractical, a visual and/or landscape linkage should be established.

When adjacent residential and non-residential uses can mutually profit from connection rather than separation, applicable connective elements such as walkways, common landscape areas, building orientation, and unfenced property lines shall be employed.

2.2 Groundwater Resource Protection

1. Wastewater Disposal

Parcels connected to the sewer system will be required to follow the sewer commission’s regulations. Lots requiring Onsite Waste Water Treatment Systems (OWWTS) will need to comply with the Department of Environmental Management’s (DEM) regulations governing freshwater wetlands. In addition, the following stormwater standards and Low Impact Development (LID) practices referenced herein provide further measures to protect groundwater against potential wastewater contamination.

No septic system should be located within 200 feet of a fresh water wetland or a river on lots containing greater than 40% wetland resource area (Figure 10).

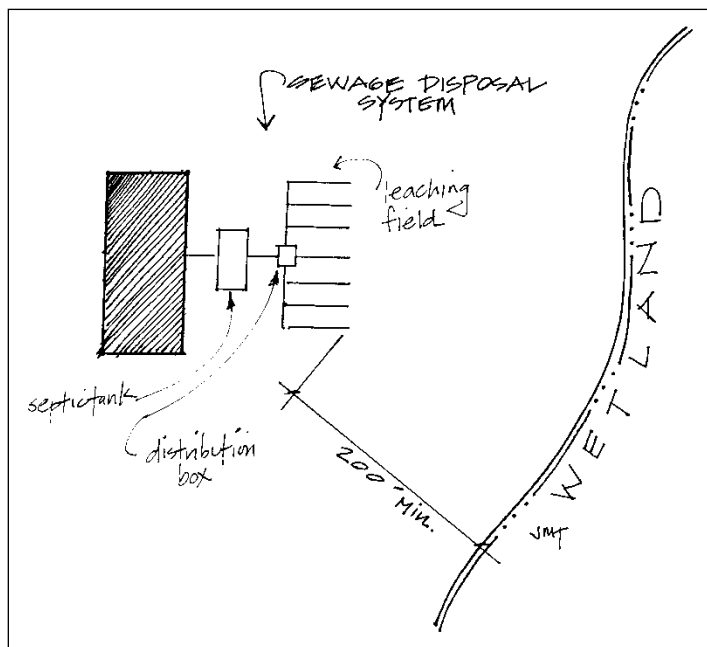


Figure 10. Septic System Setback

Clean on-site wastewater disposal is desirable for aquifer recharge and natural filtering, as long as no danger of environmental contamination exists.

Alternative methods of wastewater disposal must be considered where subsurface disposal is difficult or ineffective for any reason. Some alternative methods include:

1. Holding tanks (require periodic pumping).
2. Recirculating/greywater systems
3. Aerobic systems (clean effluent can be applied to surface infiltration beds, subsurface filters or may be absorbed by plants and removed through evapotranspiration)
4. Package treatment plants (small package plants designed for developments)

2. Stormwater Management

Stormwater management systems must :

1. Be designed using non-structural or low-structural components where possible and as small an area as possible.
2. Not allow downstream or off-site flooding, soil erosion or other related runoff problems.
3. Improve the water quality of runoff and protect and restore the quality of ground and surface waters.
4. Be designed for routine maintenance to be conducted on-site by the owners at regular intervals. A schedule for maintenance shall be submitted with the final plans.
5. Maintain the natural hydrodynamic characteristics of the watershed.

All commercial and industrial developments shall use Best Management Practices (BMP) for stormwater management design. Refer to the “*Rhode Island Stormwater Design Manual*” for suggested BMPs. Applicants shall also employ Low Impact Development practices. See Appendix B LID Resources, for guidance on LID practices.

Any increase in storm runoff should be retained and recharged as close to its place of origin as feasible, using one or more of the following options:

1. Infiltration islands
2. Porous pavements
3. Under-drains
4. Surface swales with French drains
5. Creative pavement design which can shed surface water to vegetated areas
6. Catch basins
7. Temporary stone pads at road access point or similar techniques

Natural drainage ways should be maintained in an undisturbed state to the greatest extent possible. Retention/detention ponds should only be employed where the natural features cannot adequately control runoff.

Water should be managed to decrease velocity, increase infiltration, and allow suspended solids to settle. Preferred options include grassy swales, artificial wetlands, vegetated buffer strips, extended detention basins, infiltration devices, alternative turf and wet retention/detention basins. The siting of stormwater management structures including dry and/or wet ponds and swales shall be incorporated into the natural landscape to enhance functional values of the structures and provide visual amenity to the site.

Use porous paving whenever possible. Options include porous asphalt, brick or concrete pavers set on porous base material such as sand, soil cement and gravel. (Figure 11)

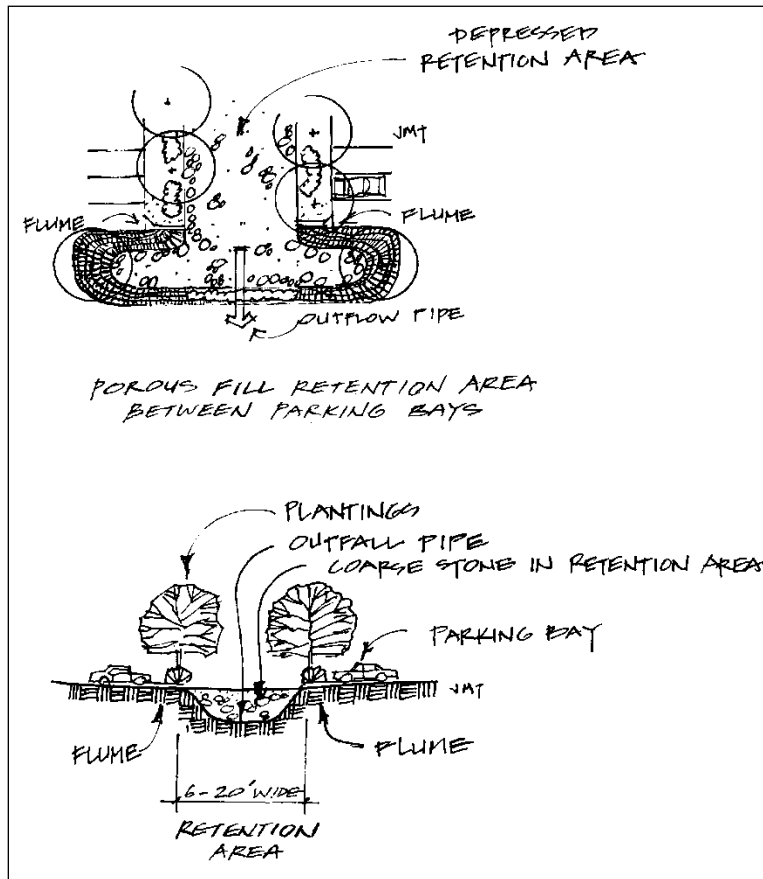


Figure 11. Stormwater Retention Area

3. Erosion and Sedimentation Control

Erosion and Sedimentation Control shall be in accordance with Chapter XIV of the General Ordinances of the Town of Burrillville in the County of Providence, State of Rhode Island, 1972; updated 1988, and as further revised by the Town of Burrillville.

Site design should avoid steep slopes, minimize slopes in graded areas and work with the natural drainage and topography of the site. Original boundaries, alignment and slopes of watercourses within the project locus shall be preserved to the greatest extent feasible (Figure 12).

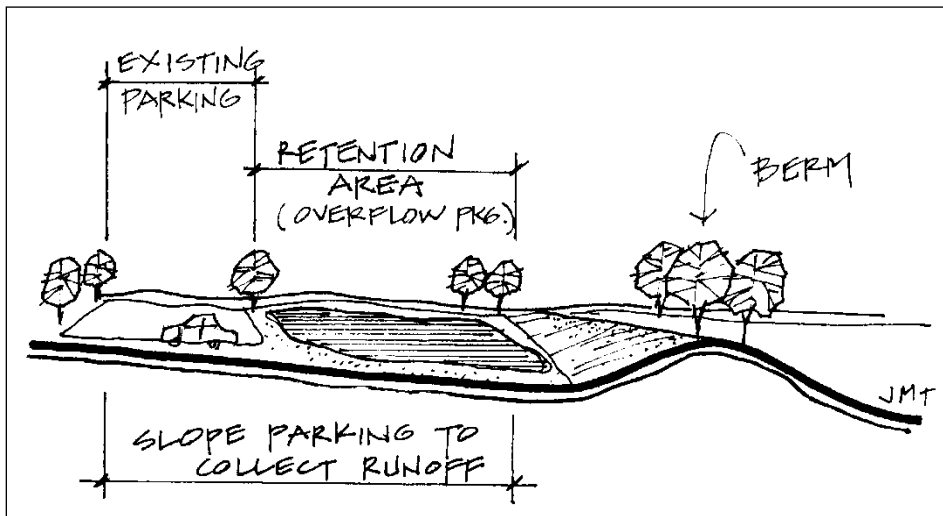


Figure 12. Stormwater Retention Area Doubles as Overflow Parking

Development plans should preserve natural features, keep cut and fill operations to a minimum and ensure conformity with topography so as to adequately handle the volume and velocity of surface water runoff. Trees and other existing vegetation shall be retained whenever feasible; areas within the drip line should be fenced or otherwise protected against damage by construction equipment (Figures 13A & B).

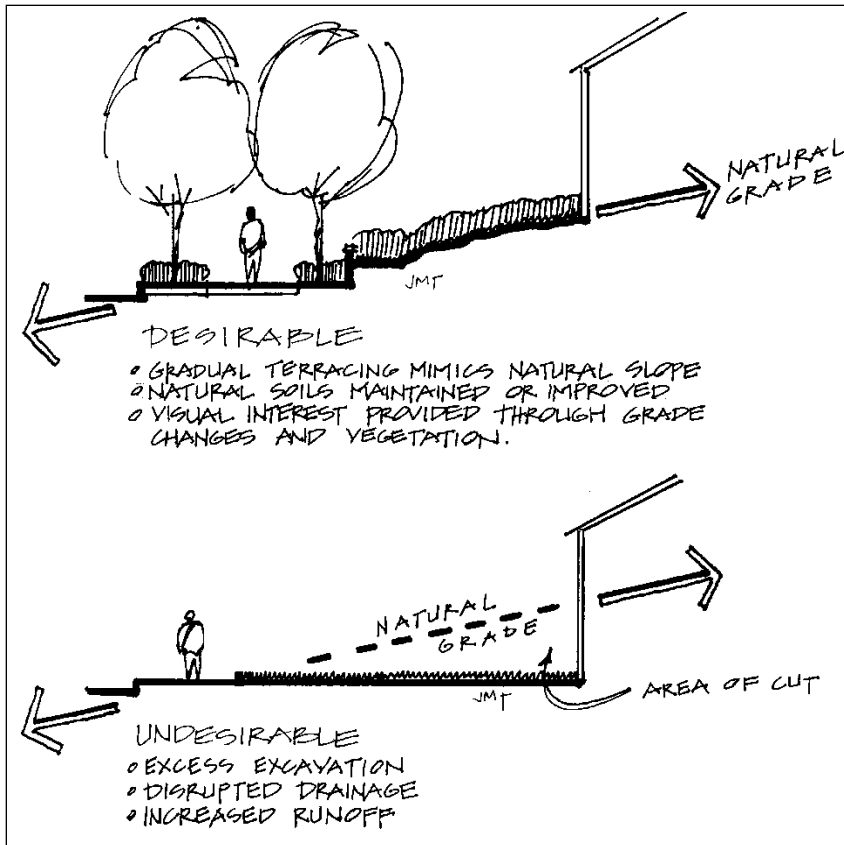


Figure 13A. Preserve Natural Drainage and Topography

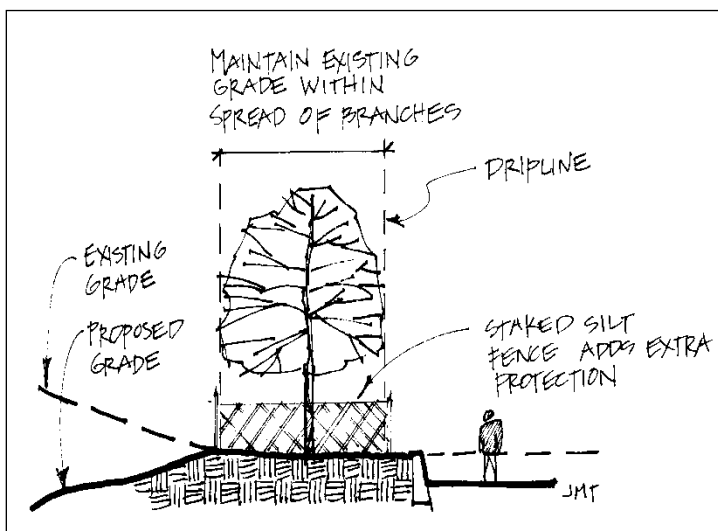


Figure 13B. Maintain Grade Near Existing Trees

2.3 Access and Circulation

Vehicular and pedestrian circulation should be clearly organized and functional, providing safe and efficient means of access to all non-sensitive areas of the site. Vehicular and pedestrian circulation areas should be separated to ensure safety, with appropriate linkages at designated inter-modal transportation nodes. A development's circulatory system, including roadways, paths, and parking areas provides the pattern for human experience and should be designed considering aesthetics, social and environmental issues.

Use special accents at all entries. Monuments, uniquely textured paving, plantings, walls, sculptures, and specimen trees should be used to generate visual interest.

Roads and parking areas should be designed to respect natural features and topography, and to present an attractive "streetscape" environment. Vast expanses of paving without visual relief are undesirable. Materials should be harmonious with the existing, surrounding environment. Materials such as brick, granite stone, wood, and textures/colored concrete are encouraged.

1. Roads

Integrate access points for automobiles and pedestrians carefully –especially within the village centers where pedestrian and vehicle traffic co-exist. Driveways should be shared by adjacent developments wherever possible to minimize curb cuts and impervious surfaces.

Every development should have sufficient emergency access as required by existing regulations and the local fire and police departments. Separate customer access and circulation from service truck access.

Roads and driveways should follow existing contours to minimize site disturbance designed parallel, rather than perpendicular, to existing slopes (Figure 15).

2. Parking

Off street parking shall be provided in accordance with existing ordinances, however, the Planning Board may recommend relief for good cause. In general, where parking areas can be reduced in size, or spaces shared with adjacent businesses, it is considered beneficial to reduce impervious surface areas and maintain a more natural appearance.

A landscaped buffers strip at least 10 feet wide, continuous except for approved driveways, shall be established adjacent to any public road except in instances where the Planning Board deems this would unduly detract from the adjacent streetscape and/or architectural character of the area.

Divide large parking lots into a series of smaller connected lots using raised landscape strips at least 5 feet wide (preferably more) with one shade tree for every 5 spaces (Figure 16).

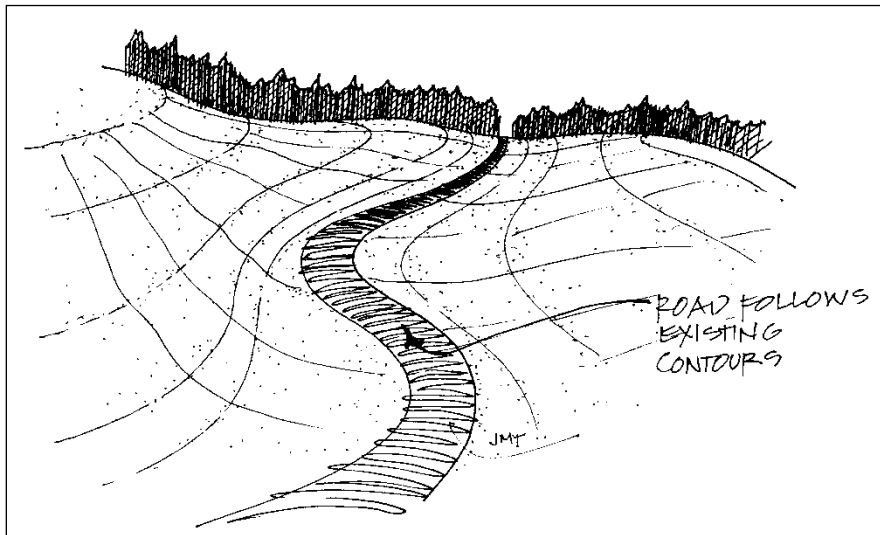


Figure 15. Follow Existing Contours

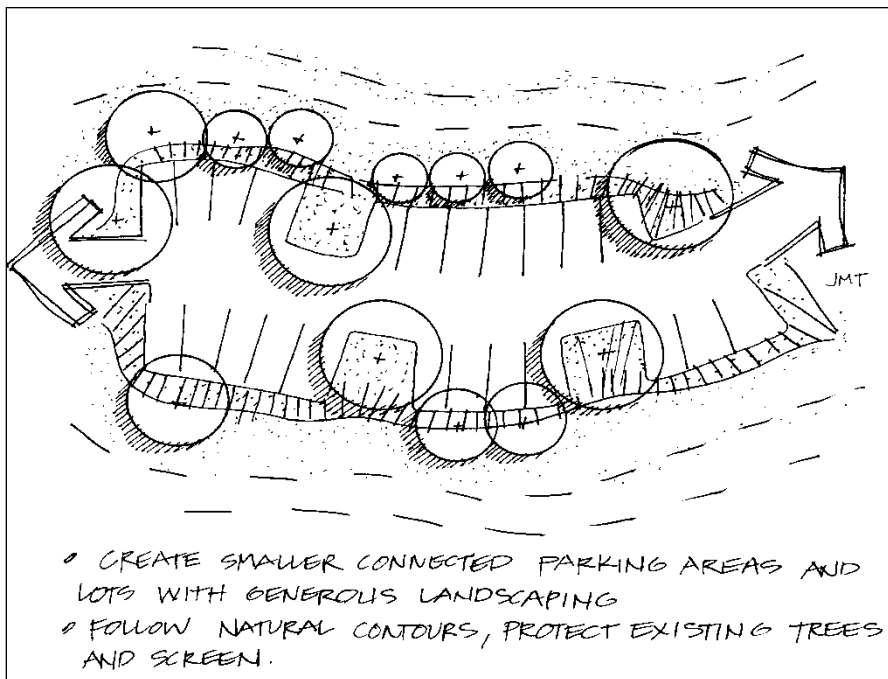


Figure 16. Divide Large Parking Lots

Lower the grade of parking lots, where practical and respectful of existing topography, to aid in screening views of automobiles while permitting views of buildings (Figure 17).

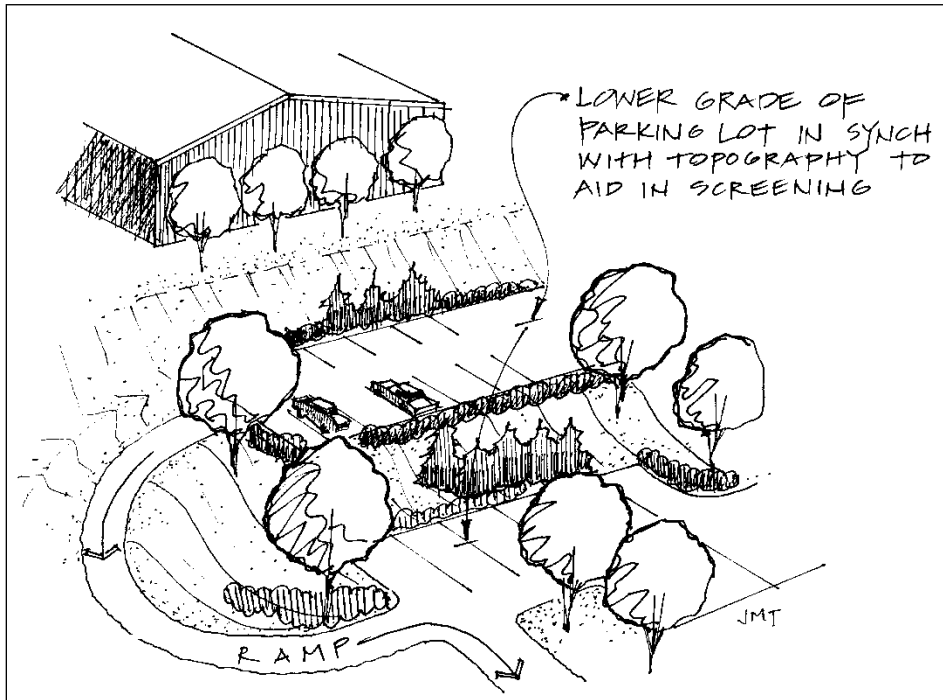


Figure 17. Creatively Utilize Grade Changes in Parking Lots

Parking areas should be separated from buildings by a raised walkway or planting strip at least 5 (preferably more) feet wide. Parking areas directly abutting the building shall not be considered acceptable (Figure 18).

The buffer strip shall be planted with grass, shrubs and shade trees (minimum 3 inch caliper diameter at breast height, minimum height of 15' (feet), planted at least every 30 feet along the road frontage).

Parking areas shall be located to the rear or sides of buildings out of sight from passing traffic to the greatest extent possible. Vegetative buffering, berms, walls and fences should be used to screen parking to the greatest extent possible from all surrounding areas. In all developments, pedestrian walkways should be provided through and between parking areas and separate buildings and wherever possible to adjacent streets. Figure 19 exemplifies a desired outgrowth of these regulations.

Parking areas shall be softened with vegetative screens with at least one tree per 5 parking spaces should be provided. A continuous wall of green should be provided with breaks for visual safety (Figure 20).

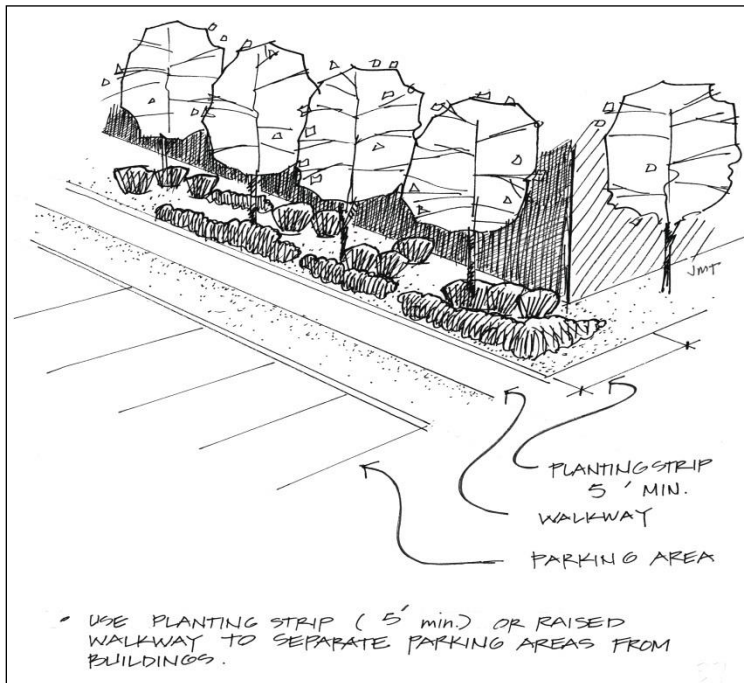


Figure 18. Planting Strip and Raised Walkway



Figure 19 Parking behind buildings

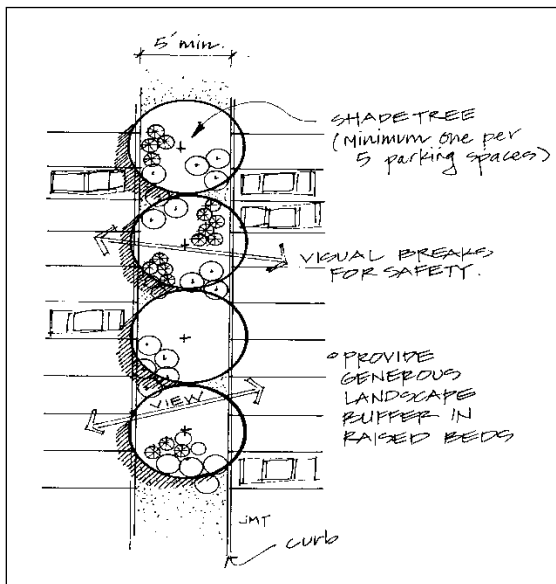


Figure 20 Acceptable parking island

3. Pedestrian Pathways

Natural earth-like walking paths shall be encouraged outside the village centers. Asphalt (bituminous concrete) walkways shall be avoided for aesthetic and environmental reasons in such outlying areas.

Within the village centers, sidewalks and paved pathways should be a minimum of 4 feet wide. Clearly defined pedestrian access should be provided from bus stops to primary building entrances. In areas where bicycles are expected to share the sidewalk, they should be a minimum of 6 feet (Figure 21).

Informal pathways/trails should be provided to connect adjacent natural areas and potential future regional pathways and bikeways (Figure 22).

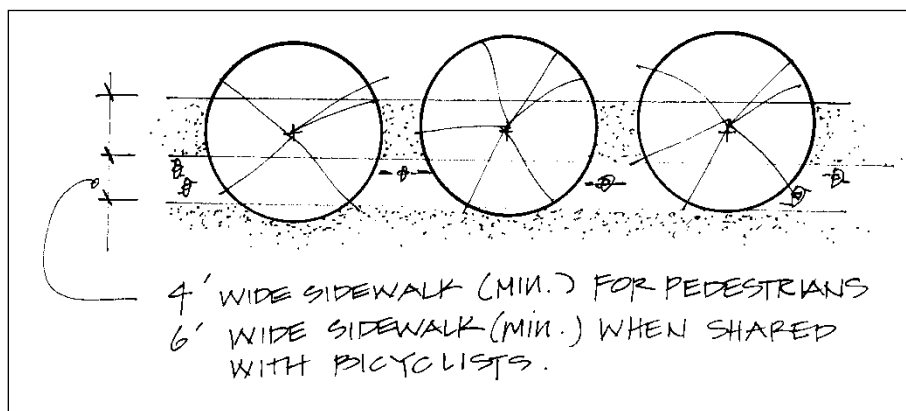


Figure 21. Sidewalk Widths

Crosswalks, signs, or other warning cues should be used wherever pedestrians cross traffic aisles (Figure 23). Developments should provide ample pedestrian open spaces (green spaces) for enjoyment of pedestrians. Walkways and open areas shall be generously vegetated.

4. Stairways and Ramps

All buildings should be handicapped accessible in accordance with state and federal laws. Provide hand railings in accordance with applicable regulations. Stairs should combine visual attractiveness with safety considerations and provide landings every 10 stairs for visual variation and pedestrian rest. Sloping paths are preferable to ramps or lifts. However where ramps are used, they should generally not exceed a 5% incline, and should be integrated with the building design. All proposed stair sections shall be shown on the development plan and subject to review and modification by the planning board

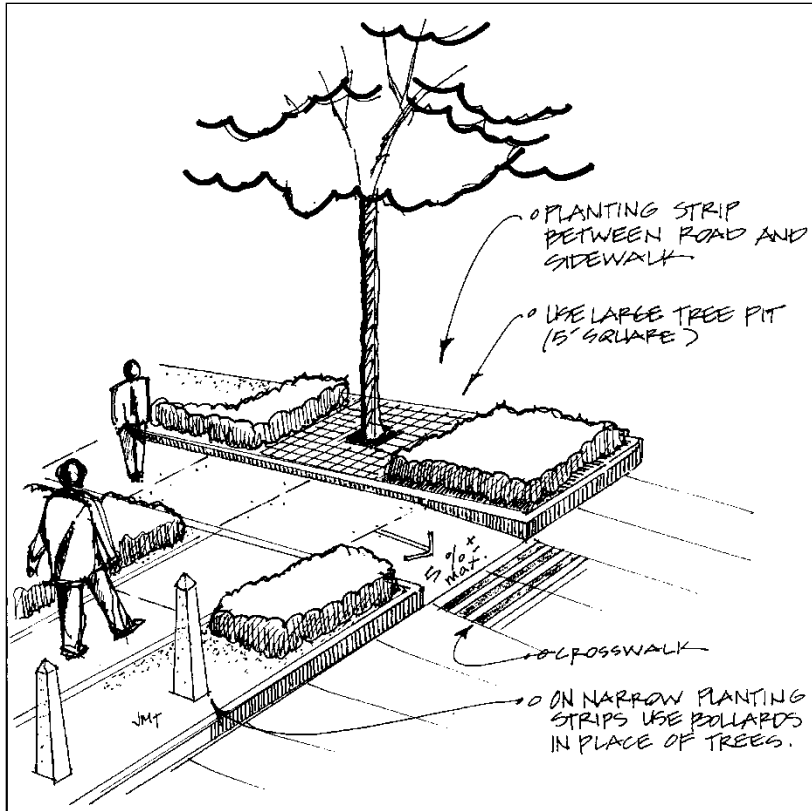


Figure 23. Sidewalks and Crosswalks

2.4 Landscaping

To the maximum extent possible, the natural landscape should be preserved. Landscaping should reflect the site as a whole, integrating the various elements of site design into the plan with the surrounding landscape elements and processes. Effort shall be made to use native plants with high wildlife value and aesthetic interest. Plants should also accent the cultural landscape, providing such elements as rhythm, spatial structure, color, texture, etc. to the built environment.

Landscape plantings should generally follow a three-tiered system:

1. Grasses and groundcovers
2. Shrubs and vines
3. Trees

1. Landscaping General All areas not covered by structures, service yards, driveways, paths, etc. should be landscaped. The following are planting design concepts that must be used whenever possible:

- a. Specimen trees in informal groupings and rows at major focal points
- b. Use of flowering vines on walls and arbors

- c. Use of planting to create shadow, texture, patterns, rhythm, aroma, color, etc.
- d. Use of trees to create canopy and shade, especially in parking areas
- e. Use of berms, planting and walls to screen outdoor areas from wind and noise.
- f. The development of sloped properties should follow the natural contours of the land.
- g. Terraced parking lots, stepped building pads, and larger setbacks should be used to preserve the general topography of the site and to minimize grade differences between adjacent streets and properties, especially when adjacent downhill properties are residential.
- e. Landscaping around the entire building to soften edges and moderate scale is recommended, particularly near parking lots, entrances, and other pedestrian areas.

Plants in containers are encouraged for areas not conducive to permanent plantings (Figure 25).

2. Landscaped Setback Yards, Berms, Walls, and Screens

Vegetated setback yards, berms, walls, and other screens provide barriers to undesirable land uses such as roadways, parking lots, utility areas, loading docks, trash pickup areas, and transportation corridors. These barriers will vary in materials and dimensions depending on the intensity of adjacent land uses and other design considerations. The goal should be to provide as much buffering as possible from undesirable land uses.

Fences and walls should be architecturally appropriate. Walls shall be terraced with wall sections no more than 5 feet in height. Chain link fencing should be avoided except where necessary for security purposes.

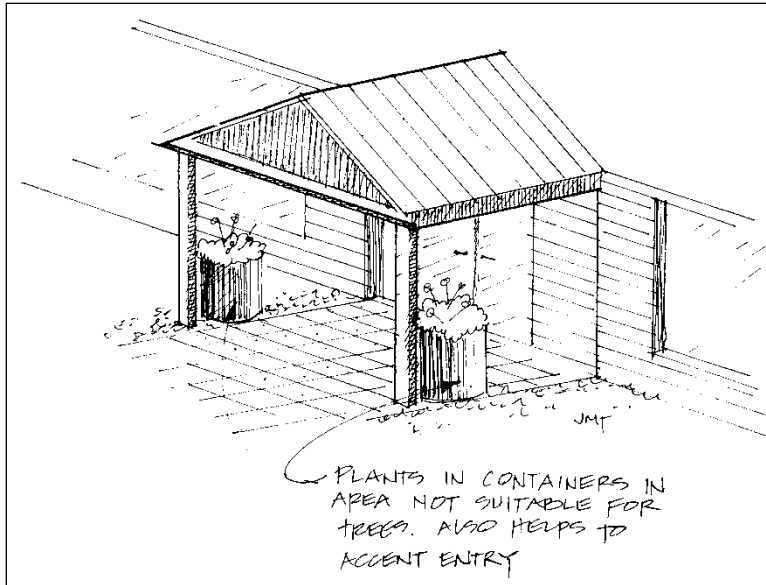


Figure 25. Container Plants

Utilize berms, vegetation and walls to:

Reduce wind speeds in and around developments, particularly where development on ridges cannot be avoided and in open areas where winds could cause uncomfortable pedestrian conditions.

Provide insulation to reduce the need for heat and air conditioning. Reduce dust, fumes, noxious smells or other potential air borne pollutants near certain industrial land uses (Figure 26).

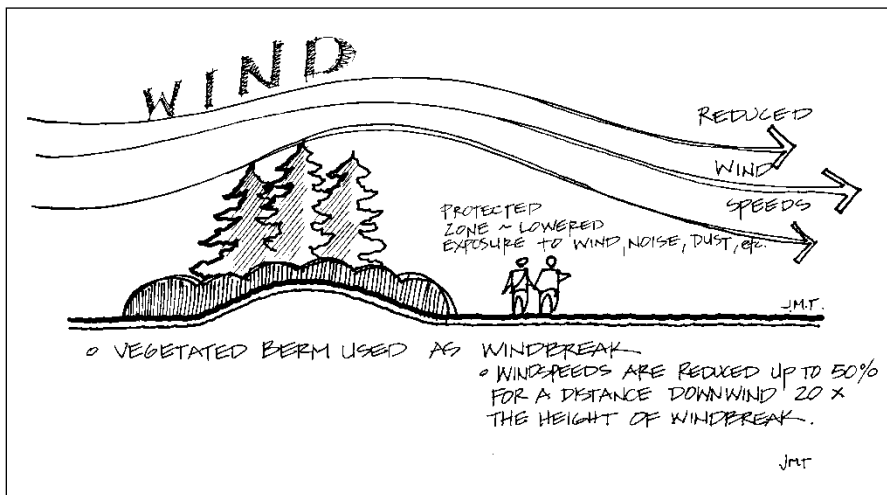


Figure 26. Windbreaks

Adjacent residential and non-residential uses should be segregated as much as possible in order to maintain a healthy residential environment through the use of berms, walls, fences, buffer yards, and other barriers unless connections are for some reason desirable. A screen along the lot line should be provided consisting of either a row of evergreens at least 6 feet in height at planting, which will grow into a thick hedge not less than 6 feet high, or an opaque and neatly maintained fence not less than six feet in height (Figure 27).

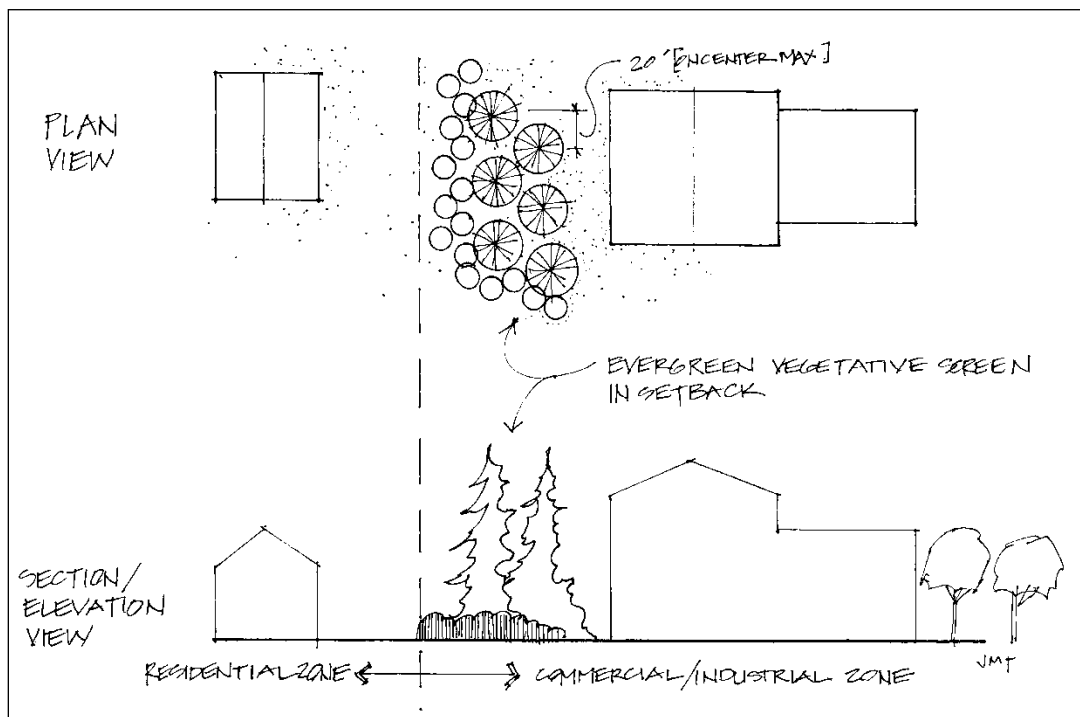


Figure 27. Use Vegetative Screens

Screen parking lots and undesirable facades of buildings. Consider the following screening options:

1. Evergreen trees (maximum 20 feet on center)
2. 3-4 foot high evergreen hedge, fence, berm, or wall; 36" maximum immediately in front of buildings
3. Masonry walls approximately 4 feet in height consisting of stone, brick, or other similar solid masonry materials (Figure 29).
4. Wooden walls approximately 4 feet tall and constructed of heavy wood, or heavy wood and masonry to form an opaque screen
5. Depressing the parking lot so that its elevation is approximately 4 feet below adjacent land use.

Long expanses of fence or wall surfaces should be offset and architecturally designed to prevent monotony. Landscape pockets should be provided at 50-foot minimum intervals along the wall. Vines should be used to break up flat surfaces.

Berms can be used to block wind, noise, views and other undesirable land uses or to vary soil depths above unfavorable soil conditions (Figure 29).

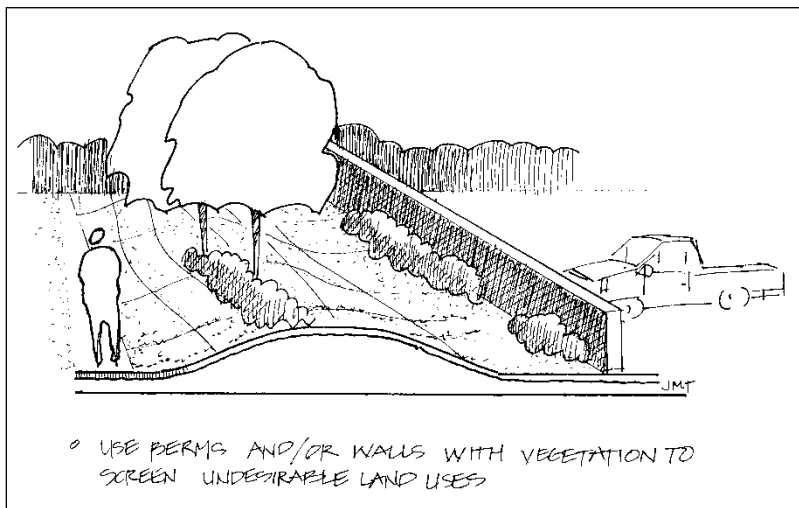


Figure 29. Berms and Screen Walls

3. Vegetation and Plant Lists

Species should be suitable for U.S.D.A. Zone 5 hardiness. Use of native vegetation and xeriscaping (low water use landscaping) is encouraged.

Scale of plants should be compatible with buildings and land use. Plants should be used to moderate changes in scale. Larger plants can be used to buffer and soften buildings while smaller plants with greater sensory interest can be used in pedestrian areas.

The approved plant list reference is entitled *Sustainable Trees and Shrubs*, third edition, and 1999, authored by the University of Rhode Island Cooperative Extension Landscape Horticulture Program. Although the list is comprehensive, designers and developers should feel free to add species that they feel augment the objective outlined within this document. Copies of the entire URI document are available through the Town of Burrillville Planning Department for a fee.

4. Plant Size, Quality, Spacing, and Distribution

Newly planted large shade trees should have a minimum caliper size of 3 inches dbh , minimum 15 feet in height and should be staked securely for a period of two years from

date of planting. The lowest branch should be at least 80 inches above finished grade to meet ADA standard.

Street trees should be planted along both sides of all streets at not more than 30 feet apart, preferably closer, as long as they do not obstruct sight triangles at street intersections.

Trees and large shrubs should be placed as follows:

1. A minimum of 7 feet between centers of trees or large shrubs and edge of driveway, water meter or gas meter and sewer laterals.
2. A minimum of 10 feet between centers of trees or large shrubs and point of intersection of driveways and streets or walkways.
3. A minimum of 10 feet between center of trees and large shrubs to utility poles.
4. A minimum of 8 feet between center of trees or large shrubs and fire hydrants and fire department sprinkler and standpipe connections (Figure 30).

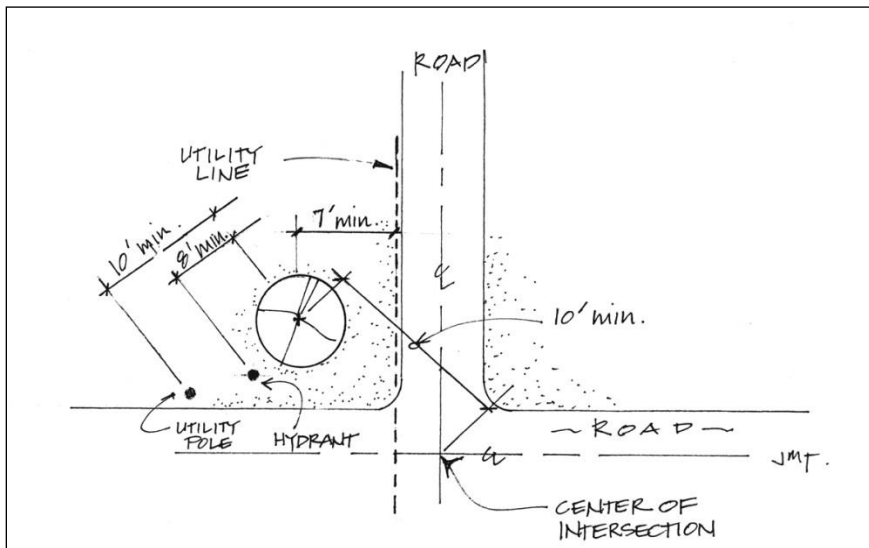


Figure 30. Tree Placement and Spacing

No species of plant or large shrub should be planted under the overhead lines or over underground utilities if its growth might interfere with the installation or maintenance of any public utilities.

Evergreen trees should be planted no further apart than 20 feet on center, depending on species, to screen parking lots and large commercial buildings in order to provide a visual barrier between commercial and residential areas.

2.5 Lighting

Lighting shall be designed so as not to disturb adjacent properties or traffic. Lights should be directed down and the height of light standards appropriate to the site.

Upward lighting, such as accent lighting shall be carefully directed away from oncoming traffic.

Lamp and post selection should reflect architectural style of the building and be sensitive to adjacent architecture (Figure 31).

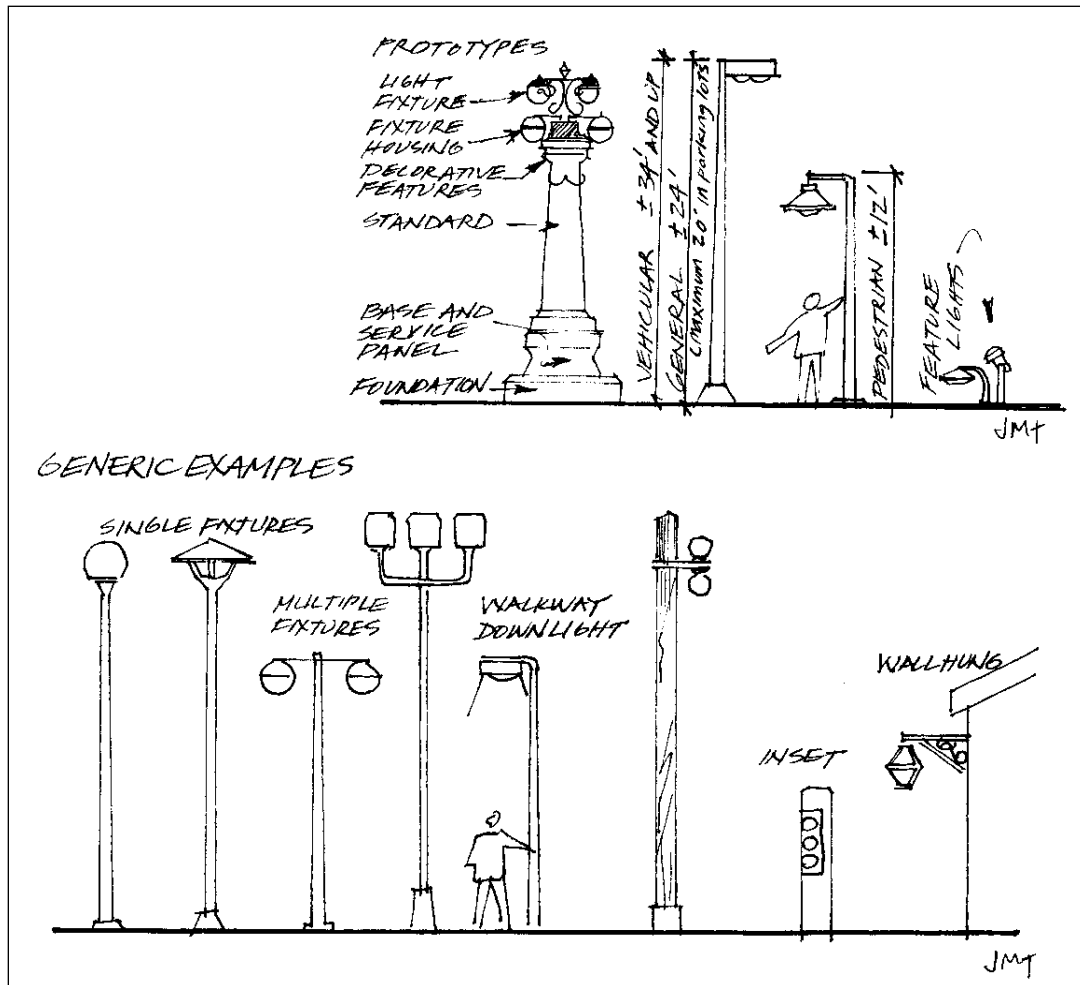


Figure 31. Examples of Overhead Lighting and Fixtures

2.6 Site Furnishings and Amenities

Site furnishings such as trellises, benches, lighting, trash containers, fencing, phone booths, etc. should be integral elements of the design and should be shown on the plans.

Site furnishings shall be placed leaving adequate space for the stockpiling and removal of snow.

Exterior vending machines such as soft drink and cigarette dispensers are to be discouraged, unless they are screened such that they do not constitute another outdoor sign or advertisement.

1. Seating/Benches

Rest areas such as benches and wall seating should be provided where pedestrians walk long distances. At least one seat for every 100 feet of pathway is a good rule of thumb. A variety of bench heights should be provided for different uses and user groups:

1. For the elderly, a wall height of 18-22 inches is preferable.
2. Wall heights of 24-36 inches provide a surface to lean against in a half-sitting position.
3. Benches are typically 18-20 inches high and 12-18 inches wide.

2. Shade Structures and Shelters

Shade structures and shelters must be used generously for their practical and aesthetic purposes (Figure 32). Some examples include:

1. Kiosks
2. Typical shelter
3. Picnic area
4. Awnings
5. Pergolas
6. Arbors

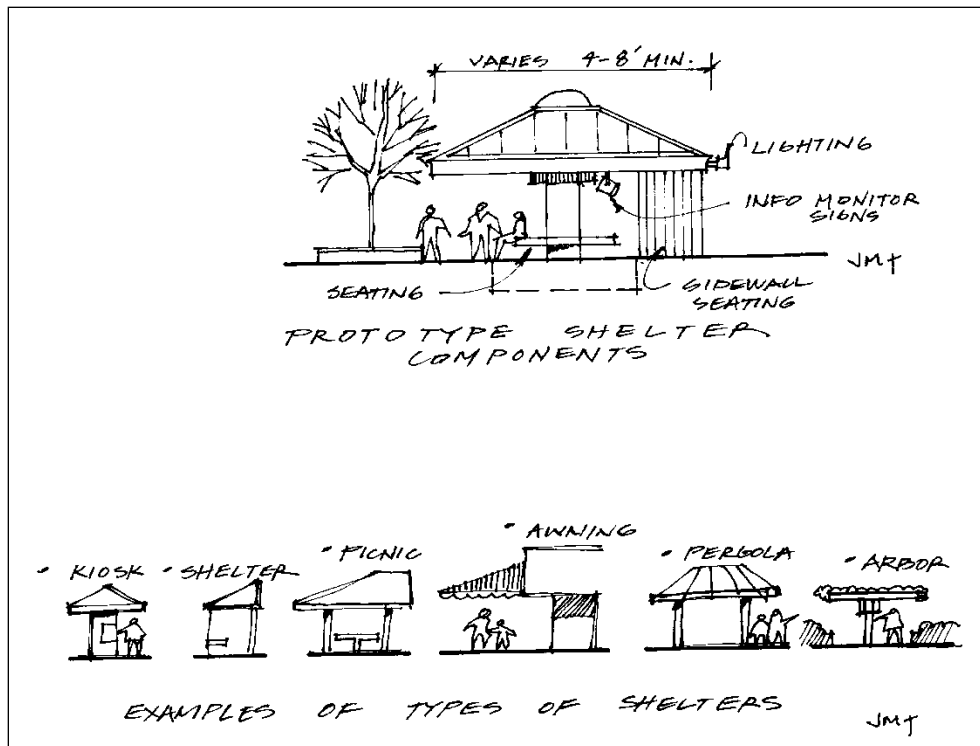


Figure 32. Kiosks and Shelters

2.9 On-site Storage and Use of Materials

No materials of a hazardous nature as defined by the Hazardous Substance Act (Rhode Island General Laws 23-24-2) shall be stored except with the explicit approval of the Town and then in strict compliance with applicable local, state, and federal regulations governing such storage. See Section 11-5.2 “Prohibited Uses” of the Burrillville Zoning Ordinance.

All aboveground storage tanks containing hazardous materials should use the highest state of the art equipment to ensure safety. Facilities should include secondary containment within a vault constructed of appropriate materials, i.e., concrete.

Outside storage of materials supplies, or equipment, including trucks or other motor vehicles, shall not exceed five percent of the gross floor area of the principal structure on the site. Further, equipment shall be screened on sides and top in harmony the architecture, design, and appearance of neighboring structures and other surroundings.

2.10 Building Design

1. Maintaining Local Architectural Character

With the exception of industrial park development within the Burrillville Commerce Park, Burrillville Industrial Park and Clear River Drive Industrial Park, new developments and expansions shall be integrated with and complementary to existing architecture. Development projects should reuse existing buildings of character whenever possible. Demolition of historic buildings is prohibited and only considered after a structural assessment as presented to the planning board by a registered architect. Vacant, historic buildings shall be stabilized and preserved until rehabilitated.

Exterior elevations prepared by a registered architect are required for all commercial and mixed use buildings. Exterior elevations shall identify proposed wall materials and depict proposed colors for the project. Building elevations shall indicate window locations, door locations, screening of mechanical equipment and loading dock areas. Building elevations shall be dimensioned to indicate building length and building height in addition to notating the building roof pitch. A minimum of four building elevations, one indicating each side of the building, shall be provided.

2. Building Form and Scale

The following desirable building elements shall be incorporated

3. Facades and Exterior Walls

Facades should be articulated to reduce massive scale and uniform, impersonal appearances of large buildings and provide visual interest that will be consistent with the community’s identity, character and scale.

Facades greater than 100 feet in length, measured horizontally, shall incorporate wall plane projections or recesses having a depth of at least 3% of the length of the facade and extending at least 20 percent of the length of the façade. No uninterrupted length of any façade shall exceed 100 horizontal feet.

Ground floor facades that face public streets shall have arcades, display windows, entry areas, awnings, or other such features along no less than 60 percent of their horizontal length.

4. Multi-planed pitched roofs and entryways (Figure 33)

Each principal building on a site shall have clearly defined, highly visible customer entrances featuring at minimum four of the following:

1. Recesses/projections
2. Arcades, overhangs or canopies
3. Raised corniced parapets over the door
4. Peaked roof forms
5. Arches
6. Outdoor patios
7. Display windows
8. Architectural details such as tile work and moldings which are integrated into the building structure and design
9. Integral planters or wing walk that incorporate landscaped areas and/or places for sitting.

5. Detailed Features

Buildings should have architectural features and patterns that provide visual interest, at the scale of the pedestrian, reduce massive aesthetic effects, and recognize local character. The elements in the following standard should be integral parts of the building fabric, and not superficially applied trim or graphics, or paint. Building facades must include a repeating pattern such as: color change, texture change or material module change

6. Wall materials and colors

Exterior building materials should be aesthetically pleasing and compatible with materials and colors used in adjoining neighborhoods. Predominant exterior building materials shall be high quality materials, such as: brick, wood, sandstone, other native stone, tinted, textured, concrete masonry units

Exterior Insulation Finish Systems (E.I.F.S / Dryvit) shall not constitute more than 25 percent of the total area of any façade.

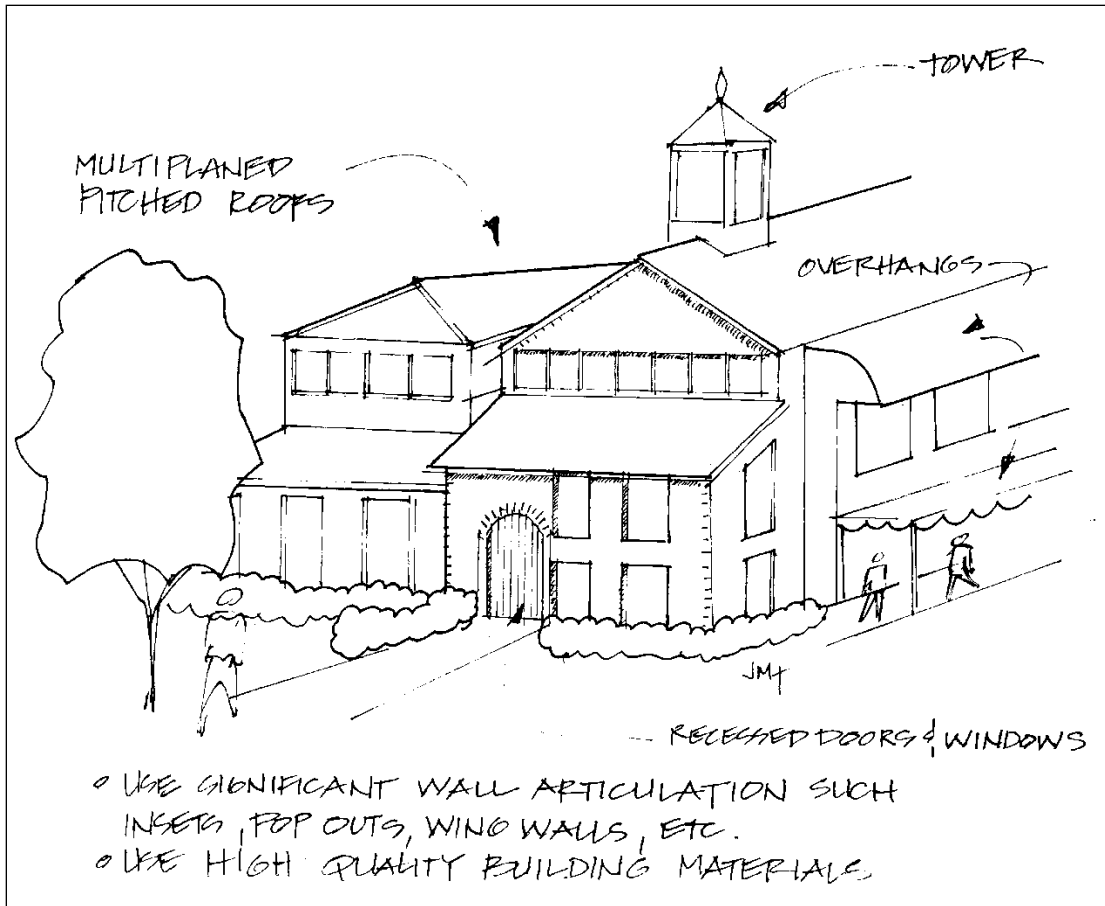


Figure 33. Required Building Elements

Predominant exterior building materials shall not include the following:

1. smooth-faced
2. tilt-up concrete panels
3. pre-fabricated steel panels
4. Large blank walls
5. Flat roofs without a decorative cornice or parapet
6. Unpainted concrete and cinderblock walls
7. Highly reflective surfaces
8. Square “box like” buildings
9. Mixing of unrelated exterior materials
10. Exposed pipe columns

Franchise architecture is strongly discouraged. Building elevations should be designed to fit into the surrounding neighborhood. Architectural gimmicks, such as roof lights, distinctive roof shapes, large false cornices and parapets that sacrifice the integrity of a streetscape to promote a single structure should be avoided. Building forms shall be

designed to create and define visually attractive exterior and functional spaces. Auxiliary structures should be architecturally consistent with primary structures on site.

7. Commercial Storefront Design

Interesting and enticing storefronts are one of the most crucial ingredients in promoting a vital environment in a commercial development. Storefronts should be generous, providing ample displays and entrances and a level of design detail that establishes individuality for each shop while assuring relatedness to the complex. Provide protection from rain and snow for pedestrians through the use of covered walkways and waiting areas, vegetation, and recessed entryways (Figure 34).

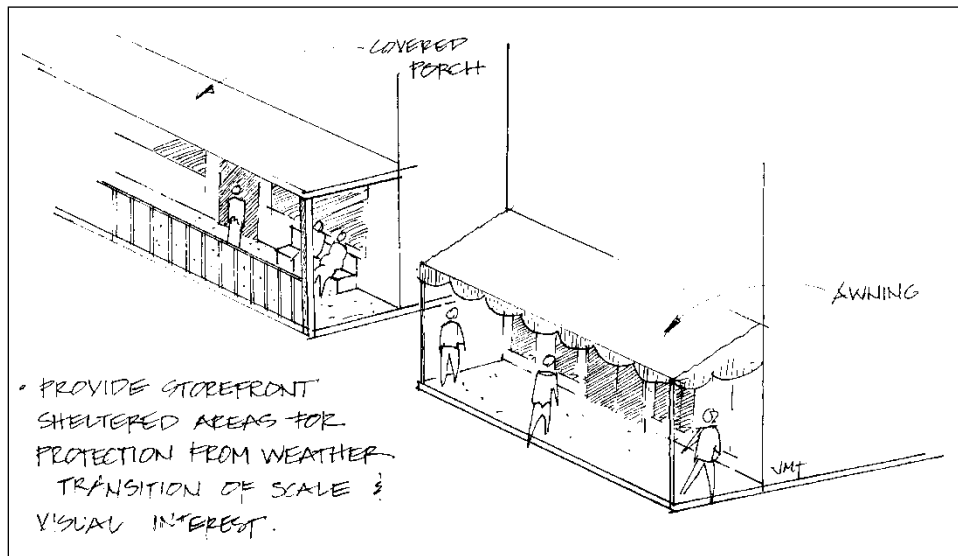


Figure 34. Storefront Sheltered Areas

8. Architectural Elements

Every new building in Burrillville should strive to contain some, if not all, of the following desirable architectural elements. Although design not containing such elements may be permitted, the architect should be prepared to explain his/her design and how it meets the intent of the standards:

In general, base material should appear “heavier” in appearance than walls. Windows, doors, and other openings should be detailed to establish them as important parts of the total composition. Design details should be employed to accentuate all entries.

Where a flat roof not meant to be visible from the street is used in the building’s design, decorative cornices and parapet walls should be used to screen the roof and to delineate the building’s profile.

Mechanical equipment should not be located on the roof if the building is located below grade of an adjacent road unless it can be hidden from view by building elements that are designed for that purpose as an integral part of the building design.

Roofs should be an integral part of the building design and overall form of the structure and should respond to the general design and nature of other roofs along the street. Roofs shall have no less than two of the following features:

1. Parapets concealing flat roofs and rooftop equipment such as HVAC units from public view. The average height of such parapets shall not exceed 15% of the height of the supporting wall and such parapets shall not at any point exceed one-third of the height of the supporting wall. Such parapets shall feature three dimensional cornice treatment.
2. Overhanging eaves, extending no less than 3 feet past the supporting walls.
3. Sloping roofs that do not exceed the average height of the supporting walls, with an average slope greater than or equal to 1 foot of vertical rise for every 3 feet of horizontal run and less than or equal to 1 foot of vertical rise for every 1 foot of horizontal run.
4. Three or more roof slope planes.

Signs may be printed/painted on awnings but should be restricted to the awning flap (valance) or the end panels of angles, curved, or box awnings. Awning signs are regulated by the Town's sign code. Sign design guidelines are included below.

2.11 Signage

1. Design, Dimension, Scale and Location

Signage should be provided for both vehicles and pedestrians. Each development should work within a pre-established "sign envelope" according to the type of sign (see below) and size of the development. Envelope size should be proportional to the size of the overall development and immediate streetscape. Recommended maximum envelope sizes are:

- | | |
|-------------------------|---------------------------|
| 1. Projected & Hanging: | 16 sq. ft. |
| 2. Band sign (height): | 25% of first floor height |
| 3. Band sign (length): | 10 times height of sign |

Signs should be simple, easy to read by passing motorists, adequately illuminated, and should complement the color, materials and design of the building architecture.

For multi-tenant buildings, a sign band system shall be developed. Freestanding individual or ladder signs are not allowed. Sign band dimensions, materials and colors should be integrated with the architecture (Figure 35).

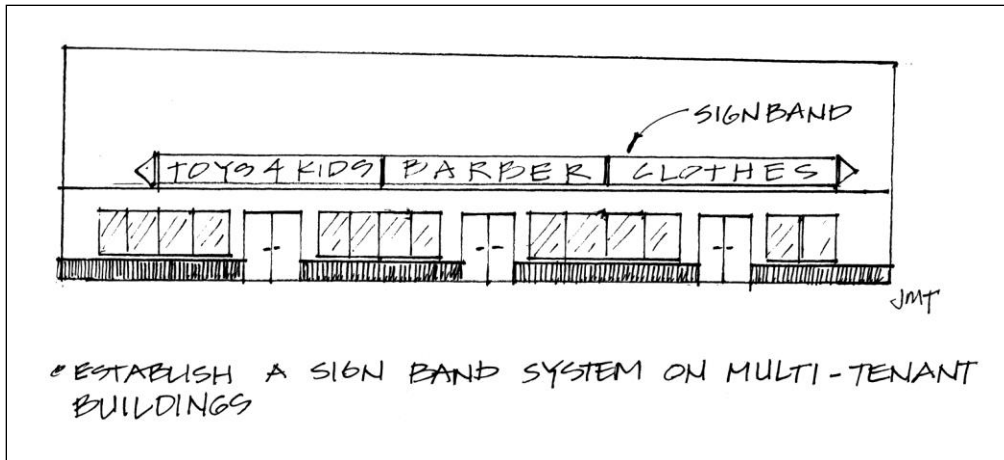


Figure 35. Signs

Projected and or hanging signs shall reflect the architecture and be safely secured (Figure 36).

2. Sign Materials

Materials shall be similar to those used in buildings. Awnings should be canvas or canvas-like fabric. Vinyl and rounded “hood” awnings should be avoided. Wooden signs using standard colors are most attractive. Signs shall be simple in design although engraving, molding and other design features can provide a craftsman-like look.

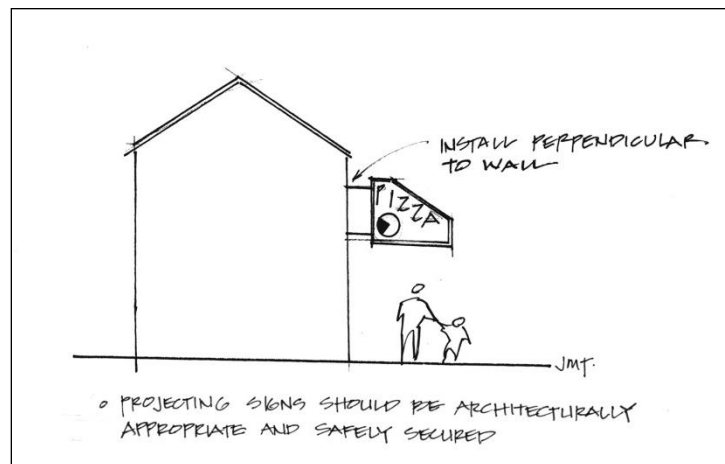


Figure 36. Projecting/hanging signs

2.12 Servicing the Building

1. Loading Areas

Loading areas shall not be in front of buildings. Locate loading areas at the rear or sides of buildings and screen as appropriate (Figure 37). Areas adjacent to residential properties should be free of service circulation. Dumpsters, air conditioners, HVAC equipment, trash compaction equipment and other utilities shall be incorporated into the building architecture or screened from view with appropriate fencing or plantings.

All trash and garbage bins shall be:

- stored in an approved enclosure unless bins are stored in an approved service yard
- easily accessible by each tenant
- located away from residential areas
- architecturally compatible with the project
- screened using plant materials
- provided with stress pads to avoid damage to pavement (Figure 38).

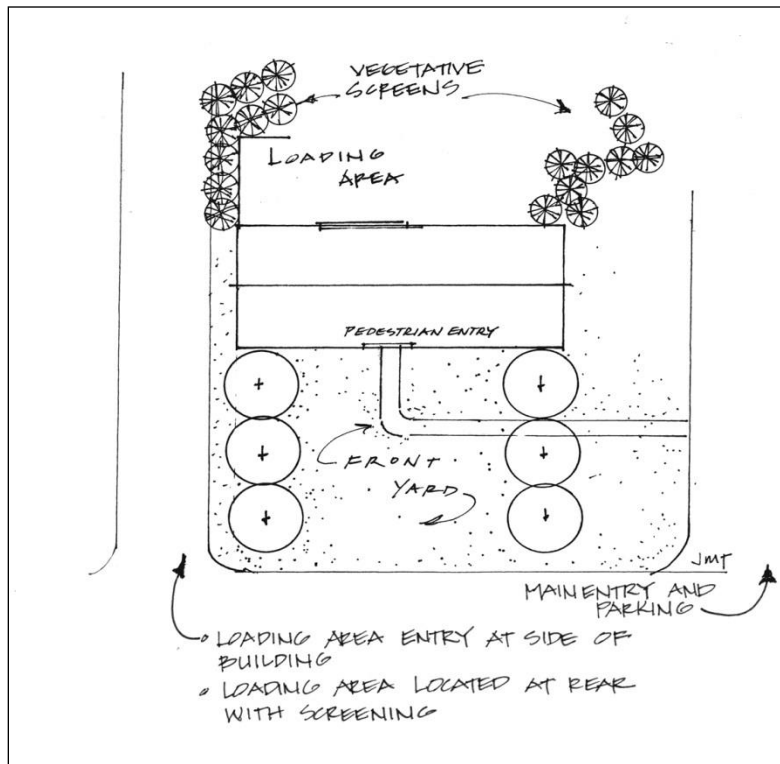


Figure 37. Loading Areas

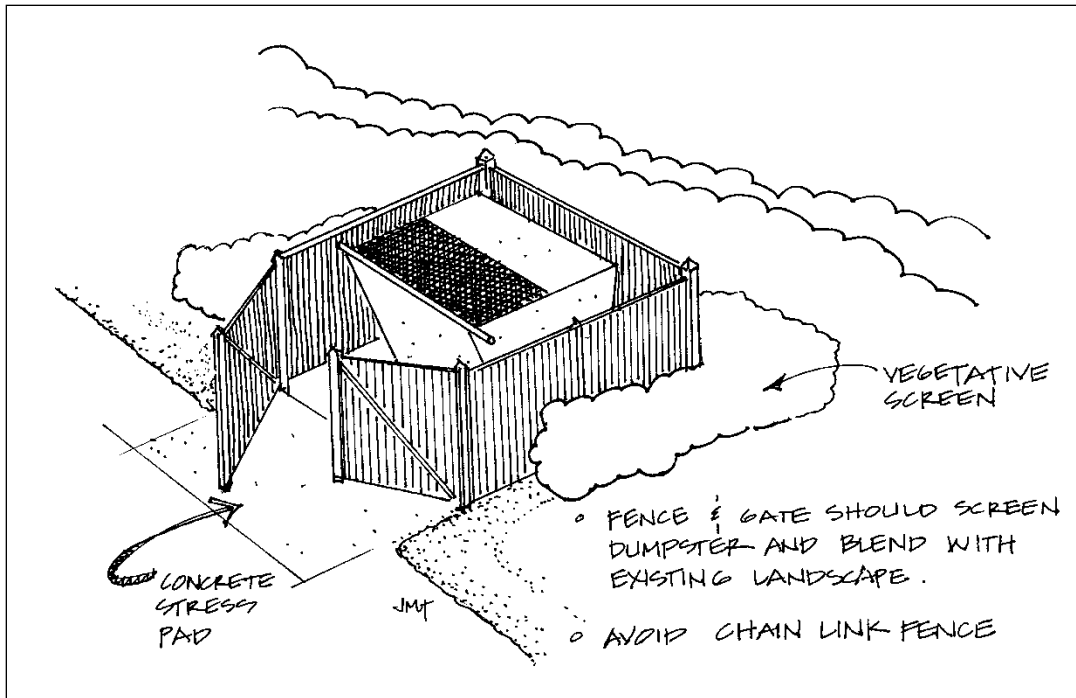


Figure 38. Dumpster Screened from View

2.13 Solar Energy Systems for Commercial- & Large-Scale Installations:

1. Design and Operation Standards:

- a. Ground-mounted solar energy systems shall comply with the following:
 - i. **Height:** All solar energy systems shall be no higher than ten (10) feet as measured from the base of the system's pedestal of the highest point of the solar energy system, including the top of any support structure or panel.
 - ii. **Setback:** The applicable setback requirements contained within the district where the system is located shall be applicable to all small- and medium-scale solar energy systems. Commercial- and large-scale solar energy systems shall meet the building setback requirement from any roadway.
- b. **Site Preparation:** Forested areas shall be not be cleared for the purpose of installing solar energy systems. Clearing of natural vegetation shall be limited to what is necessary for the construction, operation, and maintenance of the solar energy system. The disturbance and removal of topsoil shall be limited to those areas that are required for the installation of the proposed solar energy system. The permitting authority may give priority to proposed solar energy projects that utilized existing cleared land or those which minimize the impact on forest and habitat.
- c. **Monitoring and Maintenance:** The solar energy system owner or operator shall maintain the facility in good condition. Maintenance shall include, but not be limited to, painting, structural repairs, and integrity of security measures. Site access shall be maintained to a level acceptable to the local fire chief, emergency management director, and emergency medical services. The owner, or operator, shall be responsible for the cost of maintaining the solar energy system and any access road(s), unless accepted as a public way.
- d. **Lighting:** Lighting shall be limited to requirements for safety and operation, and not cast skyward as to avoid light pollution. Lighting of other parts of the installation, such as appurtenant structures, shall be limited to that required for safety and operational purposes, and shall be reasonably shielded from abutting properties.
- e. **Distribution Lines:** All new distribution lines on the property and connecting to existing power lines shall be underground. However, in circumstances where the solar energy system is not tied into existing power lines, but instead stored in batteries, or similar technology, the applicant may obtain permission from the Planning Board for a waiver.
- f. **Emergency Services:** All means of shutting down the solar energy system shall be clearly marked. For Commercial- and Large-scale solar energy systems:

- i. The solar energy system owner, or operator, shall provide a copy of the project summary, electrical schematic, and site plan to the local fire chief;
 - ii. Upon request, the owner, or operator, shall cooperate with the local emergency services in developing an emergency response plan;
 - iii. Upon request, the owner, or operator, shall cooperate with the local emergency services to conduct basic on-site safety and operational training;
 - iv. The owner, or operator, shall identify a responsible person for public inquiries throughout the life of the solar energy system.
- g. **Signage:** No signage shall be erected or placed upon the land with respect to the solar energy system except for that on entry fence detailing the identity of the owner, or operator, contact information.
- h. **Siting and Screening:** The solar energy system installation shall be sited and designed to minimize the aesthetic effect of solar arrays on abutting properties and view sheds within the town. The applicant shall incorporate landscaping and design elements to visually screen the installation from view of public roads and adjoining properties.
- i. **Buffer zones:** All ground-mounted solar energy systems shall maintain a twenty (20) foot wide vegetative buffer surrounding the perimeter of the installation, consisting of plantings from the Rhode Island Native Plant database and designed to screen the installation but not impede its solar energy capture efficiency. For medium, large- and commercial-scale solar energy systems a vegetated buffer plan, prepared by a registered landscape architect, shall be included with the development plan review application. The twenty (20) foot buffer shall be located from the foot set back boundary line, except when the medium, large- or commercial-scale solar energy system is located in an industrial zoning district.