City of Greenfield
Site Development Standards
Non-Residential
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Site Development Standards

The primary objective of the site development standards is to help the built environment so as to enhance its visual character. These standards will also help in fostering sound, functional development which recognizes the residential, commercial, and industrial character of property along arterial streets in the City of Greenfield. Pertinent to the visual character of the area are site design, architectural treatment, parking and site access, landscaping, signage and lighting.

These standards are to be used as guidelines by the City of Greenfield Staff and Planning Commission to achieve compatible and unified site development, as part of the approval process for the required plan and method of operation.
Site Design Considerations

Site design is primarily concerned with the siting of a building on a parcel of land and the visual relationship it will have with the site and with adjacent and surrounding building sites. Site design is addressed by the following:

1. Minimum site area
2. Minimum lot size
3. Setback requirements
4. Building area and site coverage

Minimum Site Area

The site area for any development of non-residential uses should provide for adequate size to insure that a unified site development will result rather than piecemeal of land as unrelated parcels. With such unified development and adequate site area, functional and aesthetic design can be addressed for interrelated uses on the site. The minimum total site area for non-residential development approved under a plan and method of operation development shall not be less than that prescribed by city ordinance and the Planning Commission. Smaller areas may be approved where the property is entirely surrounded by existing development or lots of record.

Minimum Lot Area and Lot Width

For each building lot, a minimum lot area and lot width is required to insure that the necessary area is provided for setbacks, offsets, open space and off-street parking and loading, as well as adequate building area for permitted uses in the zoning district. More than one building lot may be located within a single parcel under an approved plan and method of operation, provided that the development of individual lots is in conformance with the overall plan. The minimum lot area and width required is prescribed by city ordinance.
Setback Requirements

Setbacks are provided on each lot from abutting street rights-of-way for both buildings and parking. The setback areas are important in allowing open space, and particularly green space along the roadways which enhance the visual character of the development. Building and parking setbacks are prescribed by city ordinance.

Setbacks for Intensive Uses

Because of their impact on adjoining residential areas, certain intensive commercial uses should have additional setback in proximity to residential uses. Intensive uses are those which have extended hours of operation, high volumes or rapid turnover of vehicular traffic, or extensive service requirements. The following are classified as intensive uses:

- Restaurant (full service, carry out or fast food)
- Automobile service, sales or repair (including car washes)
- Automobile service station or mini-mart
- Theater, dance hall or other amusement place
- Banquet facilities or convention halls
- Medical clinic providing extended hours for outpatient or emergency services
- Grocery store or convenience store
- Health clubs
- Tavern and night clubs
- Mini warehouse
- Full service department store
- Locker and cold storage plants
- Motel, hotel or tourist home
- Animal hospitals and kennels
- Contractor shops and yards
- Manufacturing, processing or other industrial uses
- Wholesale establishments or distributors
- Uses which are similar to the above uses in having extended hours of operation, extensive service requirements, or rapid turnover of customers
For any intensive use, the minimum distance between any building and contiguous residential district is 50 feet rear, 25 feet sideyard, the minimum distance between any off-street parking, driveways, loading spaces or paved surface is 10 feet rear, 20 feet sideyard. Landscaping and berming shall be provided and maintained to a minimum height of 16 feet. The average height of berming along a site boundary shall not be less than 4 feet and the maximum height of berming shall be not more than 6 feet. The maximum slope of any berming shall not be greater than a ratio of 4:1. Landscaping shall consist of a combination of deciduous and evergreen trees and shrubs to provide a continuous year round screen for a depth of 20 feet within the landscaped area, and appropriate ground cover and other plant material shall be in the remainder of the landscaped area.

**Building Area and Site Coverage**

The amount of building area and site coverage are basic design parameters which affect the density and amount of open space on a site. These parameters are determined by the following standards for Floor Area Ratio, Lot Coverage, and Landscape Surface Ratio.

A. Ground Floor Area Ratio (F.A.R.): The floor area ratio is used to indicate the total ground floor area of a building or buildings which may be allowed on a site or lot expressed as a percentage ratio of total ground floor area to area of the site or lot (e.g. a 35% F.A.R. allows total ground floor area equal to 35% of the site or lot area). The following are the maximum Floor Area Ratios allowed in each district:

- 50% for all general commercial and business uses zoned C-1 and C-4
- 35% for all general commercial and business uses zoned C-2 and C-3
- 30% for office and professional uses
- 45% for light industrial
- 60% all other uses

B. Lot Coverage: Lot coverage is the percentage ratio of total site or lot area covered with buildings (principal or accessory) and other impervious surfaces (e.g. driveways, parking surfaces and loading areas). The following are the appropriate maximum lot coverage for each district; a lesser lot coverage may be necessary on sites or lots adjacent to residential districts or to meet other site requirements and allow for transitional offsets and buffering:

- 80% for all general commercial and business uses
- 80% for office uses
- 85% for light industrial
- 85% all other uses
These requirements are to be used as guidelines only for alterations or expansions of existing structures.

C. Landscape Surface Ratio (L.S.R.): The landscape surface ratio is the percentage ratio of landscaped open space (i.e. covered with grass, shrubs, trees and other plant material) to the total site or lot area. The following are the appropriate minimum Landscaped Surface Ratios for each district; a greater L.S.R. may be necessary for sites or lots adjacent to residential districts to provide transitional offsets and buffering:

- 20% for all general commercial and business uses
- 25% for office and professional uses
- 15% for light industrial
- 15% all other uses

These requirements are to be guidelines only for alterations or expansions of existing structures.
Architectural Treatment

The image of an area is influenced to a large degree by the design character or architecture of its buildings. Architectural treatment is addressed by the following:

1. Massing/Scale
2. Form/Proportion
3. Fenestration/Entrances
4. Materials/Details
5. Roofs
6. Color
7. Service and Utility Areas

Massing/Scale

The massing of a building refers to the overall bulk or volume of space which a building encloses. Scale is conveyed by elements of the building facade where doorways, windows, and details enable people to gauge its relative size and character in relationship to the size of the human body.

A. Scale proposed buildings to be compatible with the overall massing and the individual parts of adjacent buildings, especially in adjacent residential areas. Use similarly sized and proportioned window openings, floor heights and details that are scaled to human proportions.

B. Building heights of new construction should be not more than 10 percent above the height of adjacent buildings when located within 200 feet of a residential district, with gradual transition to the maximum building height permitted by zoning regulations.

C. Transitions between adjacent residential structures and new non-residential structures to be constructed should also be achieved by the incorporation of horizontal human-scale features in rooflines and building elevations.

D. Avoid vast blank building walls in areas visible from the street or adjacent residential areas. Design facades to convey human scale through fenestration, building articulation, detailing, or landscape plantings.
Form/Proportion

The form and proportion of a building's elevation and roof are basic form-giving characteristics that are important in relating a new building to other buildings and its setting.

A. Stress horizontal proportions in the design of the facade, e.g., length should be longer than the height of the primary facades. Design windows, entrances, and detailing to complement the horizontal proportions of the facade.

B. Emphasize the parts of a building to clearly show a division of roof and walls. Utilize color, materials and/or details to express this division.

C. Building components and appurtenances, including doors, windows, canopies, and trim, should maintain a harmonious proportion to each other and to the building as a whole.

Fenestration/Entrances

The fenestration of building facades is the orderly arrangement of openings within the building elevations.

A. Design openings to form a unified composition in proportion to the building elevation.

B. Avoid large blank walls in pedestrian areas by creating horizontal and vertical interest. Utilize fenestration and related detailing, articulation or landscaping to provide scale and relief to the building facade that can be easily identified by the viewer.

C. Avoid oversized fenestration elements which tend to create a monumental scale unless specifically required by the type of building or relationship to its surrounding.

D. Design entrances which are clearly visible and easily recognizable from parking lots and pedestrian circulation routes which serve the building.

E. Use design, quality of material, scale, and character of an entrance to help identify its importance and to be compatible with entrances of adjacent buildings.

F. Express a clear hierarchy of entrances through scale, detailing, design features, or landscape treatment.

G. Locate entrances of freestanding buildings to be clearly visible from the adjacent road system.
Materials/Details

Achieve a cohesive and consistent architectural character in new construction through use of exterior building materials and details that are similar to or compatible with adjacent buildings.

A. Materials should be selected for suitability to the type of buildings and style in which they are used, and for harmony with adjoining buildings.

B. Buildings should have the same materials, or those which are architecturally harmonious, used for all elevations and other exterior building components wholly or partly visible from public ways.

C. In any building in which the structural frame is exposed to view, the structural materials would also meet the above criteria.

D. Use a predominant facade material and a limited number of compatible secondary facade materials consistently and uniformly on all facades (front, back, and sides) of the building.

E. Appropriate predominant facade materials for construction of new buildings in each district are:

   1. Decorative building block or brick veneer laid in a running bond coursing
   2. Exterior masonry panels with smooth or brushed finish
   3. Rib-faced or block faced concrete masonry units
   4. Textured concrete panels
   5. Glass curtain walls
   6. Wood cedar siding

F. Appropriate secondary facade materials (not to exceed 30% of the total facade) to be used in detailing at the ground plane, entrances, spandrels, cornices, lintels, sills, etc. are:

   1. Wood
   2. Ashlar stone or fieldstone
   3. Exterior masonry panels with smooth or brushed finish
   4. Textured concrete masonry panels
   5. Glazed concrete masonry units
   6. Rib-faced or block faced concrete masonry units
G. Inappropriate facade materials (below the top of door openings) are:
   1. Stucco (below the top of door openings)
   2. Exterior insulation wall treatments (below the top of door openings)
   4. Metal panels or siding

H. Miscellaneous structures and objects, adjacent to a building should be compatible with the architectural style of the main buildings in scale, materials and colors.

I. Variation in architectural detail, or varied siting of individual buildings should be used to provide visual interest where more than one building is located on a single parcel.

J. Primary roofing materials should be standing-seam metal, slate, cedar, or high quality asphalt shingles. Roofing materials should be compatible with the architectural style of the building and with the surrounding buildings.

Roofs

Roofs are elements of buildings which significantly affect the architectural character. The roof is vital to the overall design theme of a building since it is related to its mass, scale, form, and proportion.

A. Use a roof form and shape similar to those of adjacent buildings.

   Appropriate roof styles are:
   1. Flat roof with visible roof form at perimeter
   2. Hip roof
   3. Gabled roof
   4. Other specifically approved

B. Avoid using large roof overhangs which dominate the building.

C. Roof forms should be visible with a minimum 3/12 slope, 4/12 or greater preferred.

D. Rooftlines should complement the horizontal elements of the building facade to relate to the human scale. For large buildings or a group of closely related buildings, utilize layers of interconnected roofs.

E. Where a long expanse of roofline is required, utilize dormers, gables and other variations in the roof shapes which are compatible with the basic facade elements and add interest and scale to the building.
Color

The color of buildings plays a vital role in the overall image of an area. The following address color so as to help provide a compatible and coherent character within an area:

A. Establish a palette of exterior building colors for use throughout the site. The limited number of coordinated and complementary colors to be used should be subtle and harmonious. The range of colors should be wide enough to allow variety while it will be narrow enough to unify all the building on a site.

B. Colors should be closely linked to the appropriate selection of exterior building materials because it is a critical design element in relating adjacent buildings and creating a compatible visual environment within an area. In general, colors should be integral rather than applied to exterior building materials.

C. Relate buildings with colors that are compatible and complementary. When related buildings are grouped together, very subtle changes of the color palette from one building to the next are recommended. This guideline should be followed particularly when more than two buildings are involved.

D. Colors for predominant facade materials and for roof materials should be in a range of earth tones (e.g. creams, tans, browns or grays) which reflect the natural character of materials.

E. Colors for secondary facade materials should be compatible with the predominant colors, either within a complementary range of colors or in contrasting colors for accents. When such contrasting colors are utilized they should not dominate the visual character of the setting.

F. Downspouts, wall grilles and other similar appurtenances should be painted the same color as the background wall.
Service and Utility Areas

Buildings require mechanical equipment and service areas which are normally unsightly and sometimes noisy. These areas include, but are not limited to, loading docks, exterior storage areas, dumpsters, and mechanical equipment such as plumbing vent stacks, HVAC transformers, fans and cooling towers. The following address the treatment of service and utility areas in order to reduce the negative visual impact of such areas:

A. Locate all service and utility areas away from the street and concealed from building entrances, pedestrian areas, and adjacent residential structures

B. Provide adequate space for the intended use of service areas with necessary access and egress.

C. When appropriate, consider joint use of service areas for multiple buildings on a site.

D. Where possible, utilize building forms and other integral design techniques to conceal service areas from view. Locate trash receptacles and dumpsters adjacent to truck loading areas and screen with walls which are coordinated with the building’s architecture.

E. Where dumpsters are not incorporated within the overall building envelope, apply the following standards:

1. For dumpsters not located next to building, use wall or fence screening on all four sides, with the open side facing away from view of streets or adjacent residential areas. Additional landscape areas are encouraged adjacent to dumpster locations.

2. Locate dumpsters at edges of specific use areas rather than in the middle of an open space, parking lot, or along streets.

F. Utility service areas should be screened from public view with architectural materials and color harmonious with the building and/or with landscape plantings should be incorporated as a part of a visual screen.

G. Locate all above grade utility connections, vents, and other projections through exterior wall away from high visibility areas, such as front facades or pedestrian areas, preferably in the service area of the building. Do not locate any utility projections or equipment, such as air conditioning units or air exchangers, on the street side of the building.
H. Rooftop mechanical equipment shall not be mounted on the buildings unless the roof itself acts as a screen, or other integral architectural treatment is provided to screen such equipment from view.

Building Groupings

Where more than one building is located on a lot, the minimum distance between the two buildings should be equal to the combined height of the two buildings.

Where two or more buildings are connected by a unifying architectural element, such as walls, canopies, or arches to from an enclosed pedestrian space, the minimum spacing between buildings on the same lot could be reduced to a distance equivalent to the height of the taller structure.
Parking/Site Access

Parking and site access are major concerns in the development of a well designed site. Parking facilities and site access which are designed and located with a good relationship to the building entrance provide a positive image to the site user. Parking and site access are addressed by the following:

1. Parking Location
2. Parking Layout/Surface Treatment

Parking Location

The locations of parking lots are important to the functional and aesthetic aspects of the buildings they serve. Most people using a building arrive by auto, thus, their first visual impression will be shaped by the sequence from the street to the door.

A. Coordinate parking and circulation systems to relate to building groups on the site.

B. Parking lots and buildings should be located to encourage joint use parking facilities where peak-hour use patterns do not conflict.

C. Locate parking lots convenient to building entrances but try to avoid locations that block views of buildings.

D. Do not place parking lots immediately adjacent to buildings. Separate parking lots from the front and/or side of buildings with a 10 foot wide space which accommodates elevated landscape plantings, planters, and pedestrian circulation.

E. Minimize disruption to natural site features. If possible, incorporate existing vegetation as visual highlights or screens. New parking lots should be sited on level ground to avoid excessive grading and erosion.
Parking Layout/Surface Treatment

The efficiency and safety of off-street parking lots can be improved by providing functional layouts and appropriate surface treatment with clear and direct circulation. Well designed parking lots have a strong, positive impact on the visual quality of an area.

A. Parking lots are to be developed as permanent facilities with the required hard surface paving.

B. Integrated concrete curb along perimeter of parking areas, parking lot islands, directional signing, night lighting and perimeter screening should be provided.

C. The parking layout should utilize 90 degree stalls with two-way traffic aisles. With limited area or a high turnover rate, 60 degree or 45 degree stalls with one-way traffic aisles may be appropriate.

D. The dimensions of parking stalls and aisles should be:
   - For 90 degree parking layout stalls of 20 feet by 9 feet with minimum 24 foot wide aisles.
   - For 45 degree parking layout stalls of 19 feet by 12 feet 9 inches with 15 foot wide aisles; where interior back to back stalls are used, the combined stall length may be 32 feet.

E. To reduce pedestrian-vehicular conflicts, orient aisles perpendicular to building entrances. If this is not feasible due to size or space requirements, internal walkways delineated by islands should be used.

F. In order to reduce the visual impact of parking areas and define vehicular circulation, locate no more than 20 spaces between islands. The intermediate islands should be a minimum of 9 feet wide, with end caps a minimum 6 feet wide. Such islands should be used to define internal pedestrian and vehicular circulation patterns.
Site Access

The guidelines for site access reflect both the need for convenient access to individual sites and the need to provide for safe and efficient traffic movement along arterial routes.

A. Access driveways from arterial streets to individual sites or lots should be spaced a minimum of 100 feet apart (or as designated by access control easements).

B. Unless required to safely provide for ingress and egress, no site or lot with less than 300 feet of frontage on an arterial street should have more than one access driveway to an arterial street, or more than one additional driveway for each 300 feet of additional frontage. Driveways should be spaced a minimum of 200 feet apart.

C. A minimum stacking distance of 50 feet should be provided at each access drive.

D. Major access driveways should provide for one inbound and two outbound lanes and should be a street return type of driveway.

E. Appropriate traffic controls, stop signs, crosswalks, etc., should be provided at all access driveways.
Landscaping

Landscape plantings have architectural, engineering, climatic, and aesthetic uses that significantly affect the visual character and environmental quality of an area by performing a variety of functions in the design of the environment. Landscaping addresses the following:

1. Street trees
2. Buffer strips
3. Parking lots
4. Site/building entrances and service/utility yards
5. Preservation of natural features
6. Plant material selection

Street Trees

Street tree plantings are a vital part of the street's character that sets the visual image of an area. Trees have the greatest potential to improve perception of previously developed parts of an area. Street trees provide shade and a sense of scale, define the traffic corridor and can direct or restrict views of unsightly facilities or areas.

A. Large trees, whose broad spreading canopies create a sense of enclosure, make the best street trees. Small or columnar types of trees should be utilized as street trees only where specific site limitations mandate, such as under large power lines or in a narrow space against a building.

B. Specific tree species selection criteria should not only include the visual characteristics of mature height, spread, shape, texture and mass, but also the soil and light requirements and pollution tolerance. Some variety in street tree species is recommended to avoid the problems of a monoculture.

C. Street trees should normally be planted with regular spacing. Gaps in the plantings, caused by the removal of dead or damaged trees, should be replanted with the same variety and as close to the same size as the tree that was removed. The spacing of trees should be coordinated with driveways, walks, site furnishings, and street lighting. Street trees should not be planted closer than 15 feet to a building and branches should be trimmed at least eight feet from the ground.
D. Deciduous and evergreen trees and shrubs should be utilized along roadways and parking lots to control glare and reflection from automobiles and pavement surfaces, soften vehicular noise, screen objectionable views and define, unify, and enhance circulation routes.

- Arterial roadways, being the most prominent circulation route, would have the highest concentration of deciduous and evergreen plant material.

- Secondary and local roadways would incorporate landscape plantings to a lesser degree.

**Buffer Strips**

Buffer strips of landscape plantings should be utilized along main roads to screen parking lots. In addition, trees and shrubs should be incorporated as perimeter plantings around the remainder of a site.

A. A landscape (buffer) strip located adjacent to the street right-of-way and covering the whole length of the required parking setback should be provided. (A minimum of)

B. One shade tree (or 2 ornamental trees/evergreen trees) and 5 shrubs should be required for every 125 linear feet of buffer strip.

C. A perimeter landscape strip with a minimum width of 4 feet should be provided for all rear and side yards, with additional landscape buffers for setbacks adjacent to residential districts. Extensive landscaping screen should be provided if parking is located adjacent to a residential district. Extensive landscaping should also be provided where parking is located in a required side or rear yard setback. Maintain a naturalistic appearance, but not necessarily a full landscape screen if parking is not located in a required offset adjacent to a residential district.
Parking Lots

Landscape plantings in parking lots provide screening and shade, subdivide the space, and reduce glare from the parking lot's surface. Plantings for parking lots must be selected, located and planted properly to achieve these objectives.

A. Smaller shrubs, in combination with trees, provide screening within and around parking lots. Smaller trees help to subdivide the overall parking lot area into small, less visually dominant, paved areas. Larger trees provide shade and break up the visual expanses of the parking lot.

B. Parking lots should use trees and shrubs to screen views while reducing glare and reflected radiation from large paved surfaces.

C. Interior landscape space equal to 5 percent of the total paved surface area should be provided within parking lots.

D. At least one shade tree should be provided for every 300 square feet of interior landscape space within a parking lot.

E. Planting islands must be of adequate size to support vegetation. A 9 foot minimum width for islands located within parking areas is recommended. A 30 inch clear area for vehicle bumper overhang should be provided. All planting islands will be defined and protected with a barrier-type curb.

F. If pedestrian traffic crosses the planting area, the design should provide for a barrier to direct people around the island or a defined paved walkway through it.

G. Tree species selected should be relatively litter free with minimal sap droppings.

Site/Building Entrance and Service/Utility Yards

Plant materials have both functional and aesthetic properties. Their use on a site is such that they can emphasize an area through their aesthetic characteristics and screen an area from site by their functional capabilities.

A. Utilize landscape treatments to emphasize the principal building or site entrance. Ornamental trees and shrubs are highly suitable for this purpose.

B. Utilize shrubs to screen views of both utility and mechanical areas. Evergreens would be most beneficial since they provide year-round color.

C. Use plant materials in mass to provide for a strong effect and to delineate and separate areas.
Preservation of Natural Features

The most significant features of a site can include tree cover and the varied topography on the site. These, and other natural features, provide potential assets for development of high quality, provided that consideration is given to protection of the site’s natural character.

A. Preserve existing vegetation whenever possible by protecting and enhancing buffers and saving trees in the proposed development areas.

B. The natural vegetation cover should be preserved on all portions of the site outside designated construction zone for buildings, parking lots, driveways, utility service and other site features. The designated construction zones should be carefully drawn to encompass the minimum area necessary for efficient construction of the building of site improvements and excessive clear cutting should be avoided.

C. The existing basic topographic pattern on a site including the overall rise or fall and direction of slope should be maintained except where modification is necessary to improve a buildable area or where the modification will contribute to a specific aesthetic enhancement.

D. All on-site improvements including access roads, parking areas and building sites should be designated to minimize alterations to the vegetation and topography at the perimeter of each individual parcel so that continuity of site features is maintained from one parcel to the next.

Plant Material Selection

Trees, shrubs, ground covers, vines and grasses compromise the plant material that is available for use. Plantings for a site should be chosen for specific site conditions and design requirements. This will make each area unique, while the use of a limited plant palette will visually relate different sites to one another.

A. Meeting the landscape objectives for improving the visual environment is dependent on the selection of landscape material. It is desirable to create a unified composition by limiting the varieties of plants in order to reduce clutter, clashing forms, colors and textures. Consistent use of plant material, with occasional contrast for accent, will help to meet these objectives/
B. Plant materials selected for use in the area include deciduous and evergreen trees, deciduous and evergreen shrubs, ground covers and vines. Recommended plant materials are listed in Appendix A of the Site Development Standards.

C. The plant material selected should be suitable for low maintenance design. Native plant material or plant material naturalized to the area should be chosen for its hardiness and its ability to maintain a desired shape without much maintenance.

D. The plant material selected should also meet the requirements and objectives of the planting design.

E. Trees should be used more extensively than shrubs to maximize the effectiveness of landscape materials with the lowest maintenance responsibility. All site landscaping should be maintained on an annual basis.

F. Evergreens will provide greenery all throughout the year while deciduous trees and shrubs provide for seasonal changes, flowers, fruit, color and texture of bark.

G. Ground covers can be effective in stabilizing slopes and reducing maintenance in smaller high visibility landscape areas, such as planting bays in parking lots. Where slope stabilization is a priority, consider terracing the slope and then plant with ground covers.

H. Plant material should have the following minimum dimensions at the time of planting:

- Deciduous trees (including street trees and understory trees): 1 1/2 inch caliper

- Evergreen trees: 3 foot height

- Shrubs (deciduous or evergreen): 18 inch height

- Ground Cover: 2 1/2 inch pot

Larger, more mature trees, shrubs and plantings are highly recommended.
Signage

Signage should be presented so as to express information as clearly and concisely as possible. It should not be used as advertising. In addition to the need for concise communications the signage should be attractive, well coordinated, and harmonious with the surrounding environment. Signage requirements for type of sign, size, height, lighting and location permitted in each district are contained in Chapter 19 of the Municipal Code. The requirements contained in Chapter 19 of the Municipal Code are maximum size and height requirements. Smaller, more architecturally oriented signage is strongly encouraged. The following additional standards address the relationship of signs to adjacent residential uses and the design of signage as part of a unified site development.

A. Free standing signs should not be located within 1/2 the minimum zoned width of adjacent residentially zoned property.

B. Where free standing signs are permitted, and where lot width and setback areas provide adequate sight distance, ground signs with a horizontal orientation should be used rather than pole signs, in order to complement the architectural treatment of buildings on the site.

C. The location and design of free standing signs within a setback area should be coordinated with the landscape treatment.

D. Landscaping, including low growing shrubs, flowers and ground cover is to be provided at the base of such signs. A minimum area of 250 square feet for such landscaping is recommended.

E. The color and materials used in structural elements of signage (not including the message area) should be consistent with and related to building facade materials on the site. The colors used in message areas for all signage on a site should be similar or complementary to create a unified and coordinated appearance.

Lighting

Lighting is a functional requirement which impacts the visual environment with the primary purpose of providing a safe and secure environment. Lighting is addressed in the following:

1. Lighting types and illumination
Lighting Types and Illumination

Establishment of a lighting system that provides safe and secure travel along vehicular and pedestrian circulation routes is of primary importance.

A. Utilize lighting to channel, direct, and orient site users at night.

B. Provide a well designed lighting system that exposes traffic conditions and provides visual orientation that would allow you to notice details such as road alignment, traffic control devices, intersections, converging and diverging traffic lanes, and pedestrian crossings.

C. Pedestrian lighting should illuminate obstructions to travel as well as provide a secure feeling by minimizing dark shadows along walkways.

D. Proper lighting of buildings, monuments, fountains, and other structures serve as orientation landmarks for night time drivers.

E. Integrate lighting system with site systems and furnishings and supply power by underground lines wherever feasible to reduce streetscape clutter.

F. Relate the lines and planes of the light fixture to surrounding buildings. The pole (vertical) size and aim (horizontal) size should relate to the surrounding facilities. Light fixtures, where possible, should blend into the background.

G. Levels of illumination should vary with the activities performed in the area.

H. All lighting on a parcel shall be located or shielded to avoid casting any direct rays of light on adjoining parcels.

I. Illumination of off-street parking areas shall be arranged so as not to reflect direct rays of light onto adjacent streets or properties. Lighting shall be considered as restricted to the parking lot if such lighting is so oriented aimed as to direct no more than 1/2 of each fixture's maximum luminous intensity, measured in foot candles, outside the exterior limits of the parking lot, unless the illumination level, in foot candles at such exterior limits measured at plane, is less than .5 foot candles. The total illumination level produced at the exterior limits of the parking lot from all lighting shall not exceed 5 foot candles measured in any plane except entrances and exits. In addition:

- No individual light shall exceed 1000 watts.

- The height of light fixtures shall not exceed the rooftop of the building or 20 feet, whichever is less (measured from the ground level).
- Non-residential private roadway lighting shall not exceed a maximum of 30 feet.

- All pole heights shall be brought into conformity when 50% or more of the poles are changed or replaced on a premises.

- High intensity discharge fixtures mounted on building walls and under canopies shall be shielded so that the refractor shall be invisible from a horizontal plane to neighboring residences and streets.

- All commercial and industrial uses and institutional conditional uses (such as churches and schools) shall supply a photometric plot plan for electrical review of exterior lighting.
Utilities

Utilities can be a visually dominant element in the landscape. Visible utility infrastructure should be treated so as to lessen their negative visual impacts. Utilities are addressed in the following:

1. Planning
2. Layout/Location

Planning

The design of utility systems often ignores the aesthetic in favor of the purely functional. Advance planning can provide for treatments which can mitigate the negative visual impacts of utility systems.

A. Maintain functional relationships which promote efficiency in the use of energy and cost of providing required services. Avoid scattered development of facilities which have similar utility requirements.

B. Provide for long-term expansion and potential utility requirements. Anticipate future expansion needs and incorporate into site planning development. Coordinate planning and construction of new facilities with demolition of existing facilities.

C. Locate utilities underground wherever possible and remove above ground utility lines.

D. Locate future land use areas to accommodate phased development of facilities and support services.

E. Design and locate utility systems as an integral component of the site planning and design process. Take into account ease of maintenance and repair.

F. Design above ground systems to be inconspicuous as possible.

G. Minimize the adverse visual and environmental impacts of utility systems.
Layout/Location

The elements that make up utility systems such as telephone poles and transformer substations have a strong impact on the visual quality of an area. Utility lines and structures should be located with consideration given to their visual impact.

A. Wherever possible, direct bury overhead utilities to eliminate visual clutter. Utilize conduit and manholes to ease repair.

B. When direct bury is not possible, avoid placing utility lines along primary circulation routes or other high visibility areas. Place overhead utility lines at the rear of buildings and within service areas. Utilize site features such as vegetation, topography, existing structures, walls and fences as buffers to reduce the negative visual and environmental impacts.

C. Avoid aligning overhead utility lines with direct primary views. In natural areas, integrate the alignment of the overhead utility easement with existing topography and vegetation. Avoid cutting long, straight swales through vegetated areas. Utility lines should not be placed along ridge lines where they are difficult to hide.

D. Where utility easements cross roadways in wooded areas, the easement should jog to block the view of the clearout corridor.

E. Easements should not be totally cleared edge to edge, but along an irregular line to preserve trees and reduce maintenance. Place utility lines away from major roadways and against a backdrop of trees to reduce the silhouette of poles against the skyline.

F. When overhead utility lines are necessary, place these at the periphery of building groups or defined land use areas. Avoid bisecting these areas with utility lines.

G. Reduce the negative visual impact of existing lines by planting trees and shrubs as visual buffers and visual relief. Utility system components should be coordinated with site furnishings wherever possible.

H. Minimize the visual impact of utility structures such as telephone poles, power stations, pump houses, transformer substations and storage tanks. Carefully site such structures within areas of low visibility; utilize existing vegetation, topography, and structures as buffers. Enhance these existing buffers with additional vegetation, walls and screens as necessary. If possible, locate utility structures within compatible land use areas such as an industrial area.
Appendix A
Recommended Plant Materials
Recommended Plant Materials for Locations Along Roadways

Street Trees

Acer Plantanoides - Norway Maple
Acer rubrum - Red Maple
Fraxinus pennsylvanica - Green Ash
Tilia cordata - Littleleaf Linden
Celtis occidentalis - Common Hackberry
Gleditsia triacanthos - Honey Locust
Tilia americana - American Linden

Understory Trees

Cornus mas - Cornelian Cherry
Pyrus calleryana "Bradford" - Bradford Pear
Malus cultivars - Crabapples
Cultaegus phaenopyrum - Washington Hawthorn

Shrubs

Berberis thunbergii - Japanese Barberry
Euonymus alatus - Winged Euonymus
Juniperus chinensis "Pfitzeriana" - Pfitzer Juniper
Lonicera tatarica - Tatarian Honeysuckle
Philadelphus coronarius - Common Mockorange
Potentilla fruticosa - Bush Cinquefoil
Rhodotypos scandens - Black Jetbead
Taxus cuspidata intermedia - Border Forsythia
Spirea vanhouttei - Vanhoutte Spirea
Symphoricarpos obiculatus - Coralberry

Ground Cover

Euonymuws fortunei - Wintercreeper
Hedera helix - English Ivy
Hemerocallis sp. - Daylily
Liriope spicata - Lilyturf
Lonicera japonica "Halleana" - Hallis Japanese Honeysuckle
Polygonum reyoutria - Fleeceflower
Sedum acre - Goldmoss Stonecrop
Vinca minor - Periwinkle
Recommened Plant Materials for Locations Not Along Roadways

**Large Deciduous Trees - (taller than 60')**

- Acer plantanoides - Norway Maple
- Fraxinus americana - White Ash
- Gledisias tricantos - Honeylocust
- Quercus borealis - Northern Red Oak
- Sophora japonica - Japanese Pagoda Tree
- Tilia americana - American Linden

**Medium Deciduous Trees - (30' to 60')**

- Aesculus glabra - Ohio Buckeye
- Aesculus hippocastanum - Common Horse Chestnut
- Catalpa speciosa - Northern Catalpa
- Ginkgo biloba - Ginkgo
- Morus alba - White Mulberry
- Phellodendron amurense - Amur Cork-Tree

**Small Deciduous Trees (under 30')**

- Acer ginnala - Amur Maple
- Crataegus phaenopyrum - Washington Hawthorn
- Crataegus oxycantha "Paulii" - Paul's Scarlet Hawthorn
- Koelreuteria paniculata - Golden Rain Tree
- Magnolia soulangeana - Saucer Magnolia
- Magnolia stellata - Star Magnolia
- Malus species - Crabapple

**Evergreen Trees (heights vary)**

- Abies concolor - White Fir
- Picea glauca densata - Black Hills Spruce
- Picea pungens - Blue Colorado Spruce
- Pinus nigra - Austrian Pine
- Taxus cuspidata - Japanese Yew
- Tsuga canadensis - Common Hemlock
Large Deciduous Shrubs (taller than 12’)

Caragana aborescense - Siberian Peashrub
Hamamelis virginiana - Common Witchhazel
Rhus typhina - Staghorn Sumac
Syringa amurensis japonica - Japanese Tree Lilac
Syringa vulgaris - Common Lilac
Viburnum lantana - Wayfaring-Tree Viburnum
Viburnum lentago - Nannyberry Viburnum
Viburnum triloba - Highbush Cranberry Viburnum

Medium Deciduous Shrubs (6’ to 12’)

Aronia arbutifolia - Red chokeberry
Cornus alba - Siberian Dogwood
Cornus racemosa - Gray Dogwood
Cornus stolonifera - Redosier Dogwood
Euonymus alatus - Winged Euonymus
Forsythia intermedia - Border Forsythia
Hydrangea paniculata - Peegee Hydrangea
Ligustrum amurense - Amur Privet
Ligustrum vulgare - European Privet
Philadelphus coronarius - Common Mockorange
Philadelphus virginalis - Virginal Mockorange
Rhus aromatica - Fragrant Sumac
Spirea vanhouttei - Bridalwreath Spirea
Viburnum dentatum - Arrowwood Viburnum
Viburnum opulus - Snowball Viburnum

Small Deciduous Shrubs (under 6’)

Chaenomeles lagenaria - Common Flowering Quince
Euonymus alatus compacta - Dwarf Winged Euonymus
Kerria japonica - Double Japanese Kerria
Lonicera nana - Clavey’s Honeysuckle
Myrica pennsylvanica - Bayberry
Potentilla fruticosa - Bush Cinquefoil
Rhototypos scandens - Black Jetbead
Ribes alpinum - Alpine Currant
Spirea bumalda - Anthony Waterer’s Spirea

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Evergreen Shrubs (heights vary)

Juniperus chinensis "pfitzeriana" - Pfitzer Juniper
Taxus cuspidata varieties - Spreading Japanese Yew
Taxus media varieties - Anglojap Yew

Recommended Plants for Softening and Screening Parking Lots

Source: Sharon Morrisey - Home Horticultural Agent
University of Wisconsin-Extension in Milwaukee County

Selection Criteria:
- dry soil
- compacted soil
- reflected heat
- de-icing salt spray and snowmelt
- suckering, spreading habit acceptable since plantings are usually restricted by paved surfaces
- mature height, without pruning, should be tall enough to screen view into lot, but low enough for traffic circulation in and around lot

Plant List (alpha order)

Caragana aurantica - Dwarf Peashrub
Caragana maximowicziana - Maximowicz Peashrub
Caragana pygmaea - Pygmy Peashrub
Cotoneaster apiculatus - Cranberry Cotoneaster
Cotoneaster lucidus - Hedge Cotoneaster
Diervilla lonicera - Dwarf Bush-Honeysuckle
Diervilla sessilfolia - Southern Bush-Honeysuckle
Forsythia - Arnold Dwarf
Forsythia ovata - Tetragold
Forsythia ovatta - Ottawa
Forsythis - Sunrise
Forsythia viridissima - Bronxensis
Physocarpus opulifolius var. intermedia - Low-growing Ninebark
Physocarpus opulifolius var. nanus - Dwarf Ninebark
Potentilla fruticosa
Rhus aromatica - Gro-Low
Posa rugosa
- Rugosa Rose
- Saltspray Rose
  "Albo-plena"
  "Belle Poitevine"
  "Blanc Double de Coubert"
  "Frau Dagmar Hastrup"

Other Roses
- Meidiland Group
  "Carefree Beauty"
  "Pink Meidiland"
  "White Meidiland"

- Explorer Series
  "Champlain"

Spirea x Bumalda
- Anthony Waterer
- Froebelii
- Goldflame
- Norman

Spirea japonica var alpina(nana)
- Little Princess
Appendix B
City of Greenfield - Master Tree List (Revised May 1, 1995)
Category I - Trees for Curbs and Sidewalks

1. Acer campstre
   - Hedge Maple

2. Acer plantanoides
   - Norway Maple
     - Cleveland
     - Columnnar
     - Columnar compact
     - Emerald Queen
     - Royal Red
     - Schwedleri

3. Acer x freemanii
   - Freeman Maple
     - Scarlet Sentinel

4. Aesculus hippocastanum
   - Horsechestnut
     - Baumanii

5. Celtis occidentalis
   - Hackberry
     - Prairie Pride

6. Fraxinus americana
   - White Ash
     - Autumn Applause
     - Autumn Purple
     - Skyline

7. Fraxinus excelsoir
   - Hessei Ash

8. Fraxinus pennsylvanica
   - Green Ash
     - Marshall Seedless
     - Patmore
     - Summit

9. Ginkgo biloba
   - Ginkgo
     - Fastigiata Sentry
10. Gleditsia triacanthos
   - Honeylocust
      Imperial
      Shademaster
      Shyline

11. Quercus robur
    - English Oak
       Fastigiata Columnare

12. Syringa reticulata
    - Japanese Tree Lilac
       Ivory Silk
       Summer Snow

13. Tilia cordata
    - Littleleaf Linden
       Greenspire
       Shamrock

14. Tilia tomentosa
    - Silver Linden
Category II - Trees for Curbs - no Sidewalks

Category I Trees plus:

1. Acer ginnala
   - Amur Maple

2. Amelanchier
   - Serviceberry
   Autumn Brilliance
   Robin Hill Pink

3. Cercis canadensis
   - Eastern Redbud

4. Crataegus
   - Hawthorn

5. Gymnocladus dioica
   - Kentucky Coffeetree

6. Malus
   - Flowering Crabapples

7. Phellodendron amurense
   - Amur Corktree

8. Prunus
   - Floering Cherries

9. Pyrus calleryana
   - Callery Pear
   Autumn Blaze
   Chanticleer

10. Ulnus x
    - Hybrid Elm
    Regal
Category III - Median Strips

All trees from Category I and II

Category IV - Public Buildings and Parks

All trees from Category I and II plus:

1. Picea glauca densata
   - Black Hills Spruce

2. Picea pungens
   - Blue Colorado Spruce

3. Pinus nigra
   - Austrian Pine

4. Pinus strobus
   - Eastern White Pine

5. Pinus sylvestris
   - Scotch Pine
Appendix C
Architectural Review Principles and Standards
Architectural Review Principles and Standards

The following architectural review principles, criteria, and review guidelines are established:

1. **Appearance** - No building shall be permitted, the design or exterior appearance of which is of such unorthodox or abnormal appearance in relation to its surroundings as to be unsightly or offensive to generally accepted taste and community standards.

2. **Monotony** - No building shall be permitted, the design or exterior appearance of which is so identical with those adjoining as to create excessive monotony or drabness.

3. **Building Scale and Mass** - The relative proportion of a building to its neighboring existing buildings, to pedestrians or observers, or to other existing buildings shall be maintained or enhanced when new buildings are remodeled or altered.

4. **Building Rooflines and Roof Shapes** - The visual continuity of roofs and their contributing elements (parapet walls, coping, cornices, etc.) shall be maintained in building development or redevelopment.

5. **Materials** - Material selection for architectural design shall be based upon the prevailing material already used on existing buildings in the area. The texture of buildings shall be based upon the prevailing texture already used on existing buildings in the area. No building or addition to a building shall be permitted where any exposed facade is constructed or faced with a finished material that is aesthetically incompatible with other building facades in the area and which presents an unattractive appearance to the public and surrounding properties.

6. **Building Facades** - All commercial, business, professional, office, or industrial building exteriors shall be brick, decorative masonry, glass panel, or other appropriate finish facade as may be approved by the Planning Commission.

7. **No Overhead Dock Door** - No overhead dock door on a business, industrial, institutional, or park building shall face a public street. The Planning Commission may permit overhead doors (not including docks) to face a public street when it has made a finding that there is no feasible alternative location for such doors.

8. **Heating, Air Conditioning and Ventilating Equipment** - All heating, air conditioning, and ventilating equipment shall be located in a manner to be unobtrusive or screened from view.
9. **Colors** - Since the selection of building colors has a significant aesthetic and visual impact upon the public and neighboring properties, color shall be selected in general harmony with the existing neighborhood buildings.

10. **Building Locations** - No building or structure shall be permitted to be sited in a manner which would unnecessarily destroy or substantially damage the beauty of the area, particularly insofar as it would adversely affect values incident to ownership of land in the area; or which would unnecessarily have an adverse effect on the beauty and general enjoyment of existing structures or signs on adjoining properties.

11. **Other Architectural Standards** - Other architectural standards deemed appropriate in the City of Greenfield or in the vicinity of the project may be imposed by the Planning Commission.