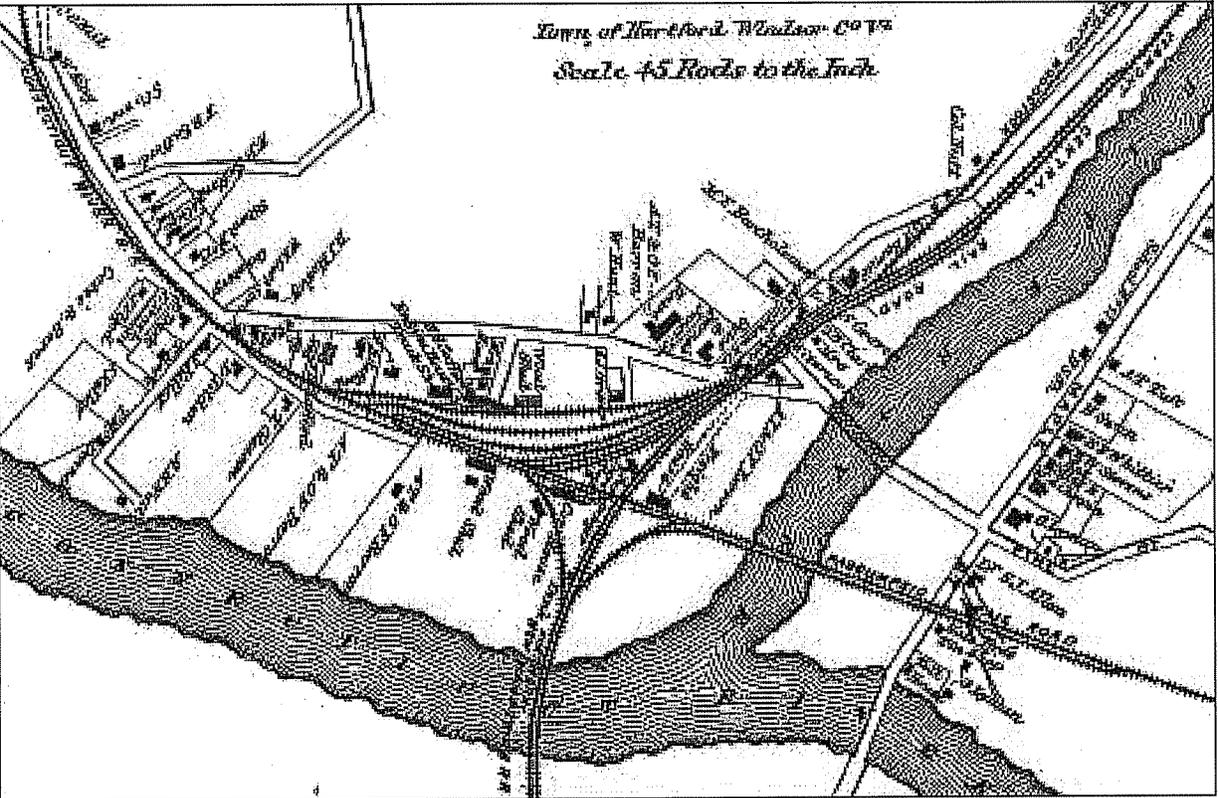


White River Junction Design Guidelines





White River Junction Design Guidelines

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The Town of Hartford, Vermont

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RELATED COMPANION VOLUMES AND INFORMATION:
• Design Plan
• Secretary of the Interior's Standards for Rehabilitation

PREMISE & PURPOSE

“White River Junction, has always exhibited a mix of land uses, a diversity which is extraordinary for such a small, compact downtown. The designated downtown area, which includes the historic district, comprises about 30 acres. Land uses include retail and commercial, warehouses, governmental, office space, residential, cultural and industrial. White River Junction in the 21st century is also developing as a cultural heritage tourism destination; the new visitor center is evidence of that, along with the guided walking tour and historic markers which interpret the architectural and land use history of this town, considered to be a “Gateway” to the Green Mountain State.”

White River Junction Design Plan

As White River Junction continues to evolve into the 21st century, it becomes increasingly important to preserve the Village’s heritage and to ensure that future development respects the established design patterns. These Design Guidelines aim to provide greater understanding and guidance to citizens, property owners and reviewing Boards about community goals and principles for architectural design, historic preservation, site and streetscape design and sign placement and design. They are intended for use in conjunction with the *White River Junction Design Plan*, which provides specifics with regards to special characteristics, architectural styles, landmarks and settlement patterns within the District.

These Guidelines are intended to help involved parties recognize the treasured and defining features of White River Junction so that their design decisions may enhance the Village character. The Guidelines do not act as requirements, but recommendations that serve to clarify the numerous choices present in any design project.

These Guidelines are not intended to force property owners to only rehabilitate or replicate. Although reuse of existing buildings is encouraged wherever possible, new construction is appropriate when designed with sensitivity to the historic character and features addressed in these Guidelines.

For purposes of clarity, each design element is described individually throughout the guidelines. However, it is important to recognize that no element exists in isolation and that the interaction of elements is equally important to the integrity of the design.

Above all, the main goal of these Guidelines is to assist the Village in making educated design decisions; the basic principles of good design are timeless and their implementation addresses the quality of life and function of the district which inevitably will enhance the character of White River Junction.

GOALS AND PRINCIPLES

A series of basic goals and principles for the Design Review District provide a framework within which individual projects can be evaluated. While there are specific criteria that are critical for review for each project (i.e. height, setback, type of siding, etc.), there needs to be overall agreement as to the nature and intent of the District. This is covered by the Goals and Principles.

Goals and Principles :

1. To maintain a vibrant downtown, economically, functionally and culturally
2. To preserve/conservate the historic qualities of White River Junction
3. To support architectural and site enhancements and/or new development projects that preserve and/or enhance the historic qualities of the downtown
4. To acknowledge and preserve the integrity of the historic built form in White River Junction, including landmarks, buildings and streetscape patterns
5. To support public and private sector design and development that is consistent with the historic qualities of the White River Junction townscape, streetscape and historic architecture that reflect existing and desirable streetscape patterns and elements adjacent to project area.

6. To educate the public on the value of conserving, preserving and enhancing the downtown and historic district of White River Junction.
7. To create suitable places for people and a pedestrian scaled environment.
8. To accommodate parking with the least impact, encourage shared parking where appropriate.

DESIGN REVIEW CRITERIA

The following specific criteria are consistently evaluated for each project and thus are the basis for Design Review Committee and Planning Commission decisions.

Design Review Criteria:

1. Does your project preserve and enhance the integrity of the historic architecture of White River Junction and the specific buildings?
2. Do you use historically appropriate materials where possible in rehabilitation and new construction projects?
3. Do you respect existing setbacks, scale and massing when developing new structures and additions?
4. Does your project employ appropriate lighting patterns and levels that reflect use, safety and security?
5. Do you, where appropriate, implement streetscape elements on a building by building basis?
6. Does your project preserve the landscape, including existing terrain, trees and vegetation to the extent feasible?
7. Do you plan for accessibility and rear access from parking areas to commercial buildings?
8. Do you provide efficient and effective vehicular and pedestrian circulation?
9. Do you ensure that all signs do not detract from the immediate visual environment in which they are placed?
10. Are the details being proposed for the building (windows, doors, trim) compatible with the existing structure's historic and design qualities as well as those of adjacent structures?

WHAT NEEDS TO BE REVIEWED?

Not all projects require the same degree of approval; some must go before the Design Review Board, some can be approved administratively through a Certificate of Appropriateness and others do not require any review.

The Design Review Board shall review all applications for the following projects within the District:

1. New construction including, but not limited to, a building, wall, fence or sign, and other streetscape site development activities on private and public land, including in the right-of-way.
2. An addition to, alteration or restoration of the exterior of a building, including windows, doorways, porches, signs and materials when different from those existing.
3. Alteration of the roof line of a building, excluding chimney alterations.
4. Moving of a structure from its present location to another.
5. The demolition of a structure.*

*Demolition must occur in compliance with the existing demolition ordinance. Once the structure is demolished, any new developments on that land must undergo Design Review.

The following projects require administrative review for a Certificate of Appropriateness:

1. Landscaping upgrades consistent with guidelines.
2. Exact, in kind, replacement of existing elements
3. Simple utility adjustments or upgrades such as placement of a transformer, new power poles or satellite dish.
4. Exterior lighting

Projects which do not require review include:

1. Minor cosmetic repairs consistent with the building or existing conditions present.
2. Building color changes within recommended palettes (see Appendix C).
3. Basic site maintenance and repair.
4. A change in use or occupancy.
5. Exterior changes that cannot be seen from any public area.
6. Interior changes.

THE SECRETARY OF THE INTERIORS STANDARDS FOR REHABILITATION

Historic restoration projects that receive federal or state funding require review by the Vermont Division for Historic Preservation and need to follow the Secretary of Interiors Standards. (See Appendix A for a copy of the Standards).

STRUCTURES

The buildings in the Design Review District are the primary components that create the character we see and feel when we are in downtown White River Junction. Their height, spacing, materials, rooflines, windows and doors all make up the distinct personality of the downtown. The Design Review process will help planners and property owners understand the features of the buildings that are important to maintaining this character. It is about learning why our historic structures are useful places to live and work and why we cherish them as part of our heritage.

Who benefits from this process? Businesses, property owners, developers and the Town all benefit. Working together under the guidelines of the Design Review process, we will maintain and preserve structures and settings we feel are important, and at the same time will allow appropriate new construction in a manner that promotes economic vitality in the community.

SECTION 1 NEW CONSTRUCTION AND ADDITIONS

This section should be used when designing plans for new construction and/or additions. Section 1 Guidelines focus on the siting and the exterior appearance of buildings. Historic buildings are used as examples to depict the features that distinguish White River Junction's architecture. As stated before, the principles of good design are timeless, and the features that made the Village's architecture successful before will continue to do so both now and in the future.

While designers should refer to existing buildings for established patterns and elements of design, some buildings may not be worth emulating. In these instances, designers should refer to the Guidelines and successful patterns throughout the district for guidance. With the aid of this document, it is hoped that future construction will not only reinforce good patterns in the Village, but establish new examples of successful architecture for future designers to reference.

General criteria addressed in this section include: massing, roofing, siding, footprints, windows/doors, architectural details, color, additions and accessibility.

1.1 BUILDING FORMS FOR THE DISTRICT

Generally, the basic forms of the buildings in the Downtown District are cube shaped with flat roofs and the facades have a moderate amount of articulation.

Architectural details on the front facades add interest to the buildings and break up the massing in order to maintain a human scale at street level.



A number of buildings with gabled roofs and more varied massing are interspersed throughout the district; their shapes remain simple with architectural embellishment on the facades.

Most of the buildings in the District, both commercial and residential, range from 2-3 stories in height. While many of the residential buildings occupy only one lot, a number of the commercial buildings span multiple lots.

1.2 BUILDING DESIGN

New construction should be respectful of established patterns for building height and massing, particularly of adjacent buildings.

- Common eave lines, roof lines, parapets and cornices with adjacent buildings are desirable. New construction should not exceed a height of more than 15% of the average height of existing buildings except in cases where additional height relates positively to established patterns in the District.

- Commercial buildings are typically larger in scale than residential buildings and design elements should reflect that difference in scale. For example, commercial buildings may include larger-scaled windows and doors, a distinction between first and second floors or cornices along the roof line.

- Additions must adhere to the same principles of design as primary structures, but may be smaller in scale. New additions should not detract from the existing historic character of the building.

Also see 1.15 Secondary Structures and 1.16 Additions to Existing Buildings

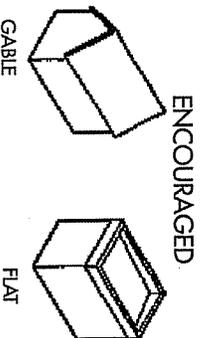
1.3 ROOFING

Materials

Visible roofs, particularly gable roofs, should be made of slate, wood or asphalt shingles or standing seam metal.

Roof pitches

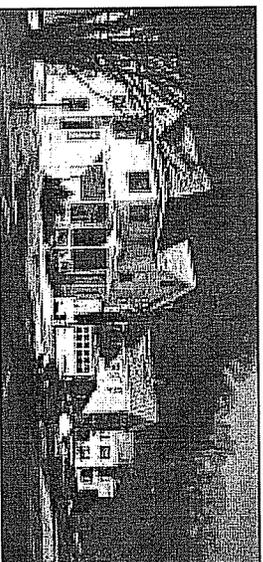
Flat or gable roofs are the standard in the District and are favored for new construction.



- Flat roofs are discouraged for single-story buildings except when attached to a multiple-story flat roofed structure.

- In keeping with the character of New England, gable roofs should maintain a steep pitch.

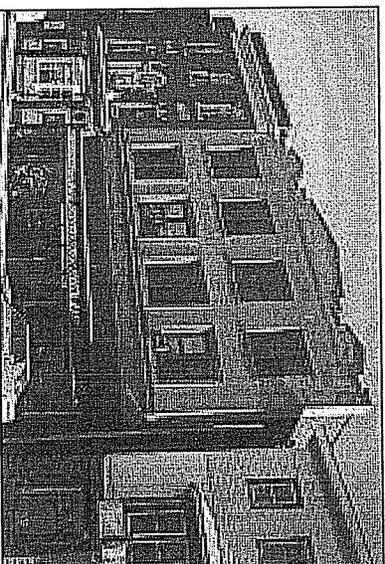
- Alternative roofing styles should be closely evaluated.



GABLE ROOFED HOUSES IN WHITE RIVER JUNCTION.

Parapets and Overhangs

Parapets and overhangs are common on White River Junction's historic architecture and desirable for new architecture, where appropriate.



EXAMPLE OF A BUILDING WITH A PARAPET.

- Parapets on flat-roofed buildings should have decorative detailing that provides texture and caps the top of the building.

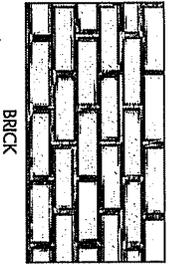
- Overhanging rakes and eaves should relate to the size and style of the building. They not only serve to protect the building's walls, but add character to the architecture by providing shadow lines and giving the building a finished look.

see definition of "parapet"

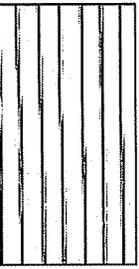
1.4 SIDING

The monumental character of White River Junction's downtown architecture results, in part, from the massing of large connected buildings. This feel is reinforced by the dominant use of brick as a building material.

- For new construction that relates to the scale of the downtown architecture, the use of brick is favored where it is compatible with adjacent building/block/area.
- Where appropriate, such as on buildings with less monumental massing or residential structures, wooden clapboards or wood shingles provide alternative siding options.
- Avoid materials such as metal or vinyl siding, glazed curtain wall systems or large areas of concrete (except for new industrial buildings near the railroad yard where it may be appropriate).



BRICK



WOODEN CLAPBOARD

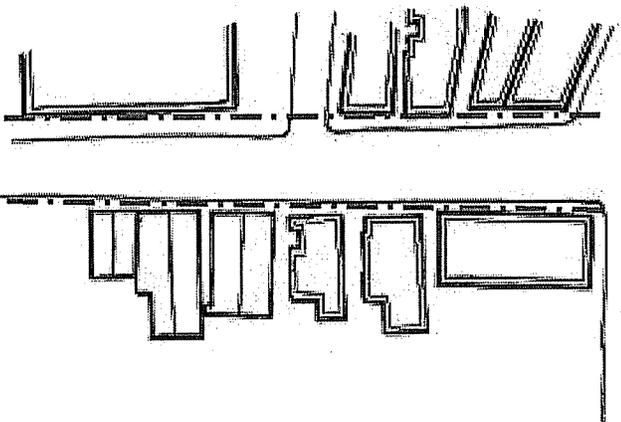


WOOD SHINGLES

1.5 SET BACK

New Buildings or alterations should maintain the prevailing set back existing within the area except where variation of set back will add to the character of the area. Set backs on South Main Street are less than setbacks on Gates Street. The set back in each area is appropriate to the architectural style and use and should be respected.

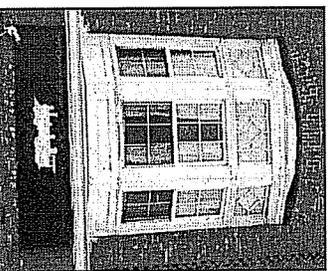
Also see 3.1 Lot Layout and definition of "setback"



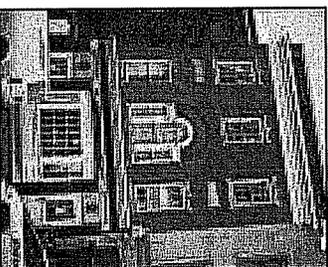
CONSISTENT SETBACK PATTERNS ALONG SOUTH MAIN STREET.

1.6 WINDOW TYPE AND WINDOW PLACEMENT

- When selecting a window style, take care to ensure that it complements the architectural style of the building.
- Even if window sizes vary, maintain consistency in proportion and trim to give the facade a unified appearance.
- Window placement establishes a pattern on the face of a building. While windows may be evenly spaced or grouped, care should be taken to establish some correspondence in placement from floor to floor.
- Window placement on individual buildings should respect the rhythm of openings on adjacent buildings so that the buildings relate to one another.
- Historic storefront windows in White River Junction are generally a single large pane often topped by a transom.



BAY WINDOW USED AS DETAIL FOR ARCHITECTURAL STYLE.

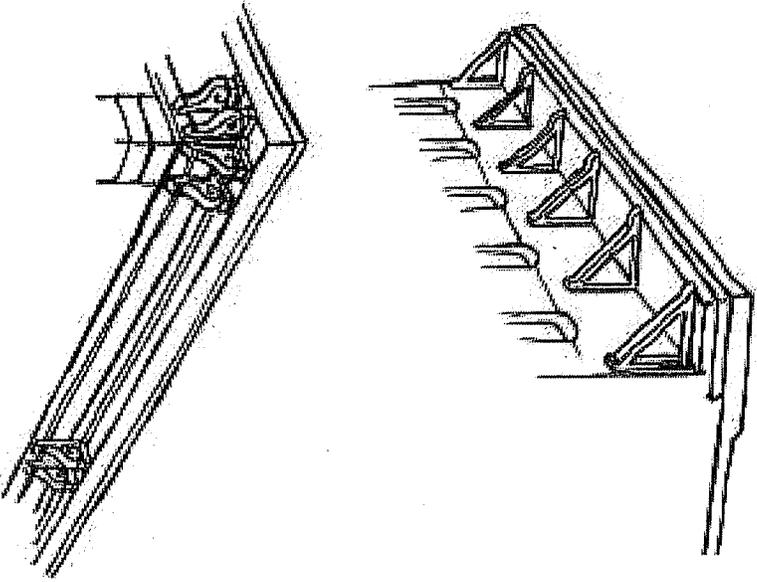


VARIED WINDOWS MAINTAIN UNIFORM PATTERNS.

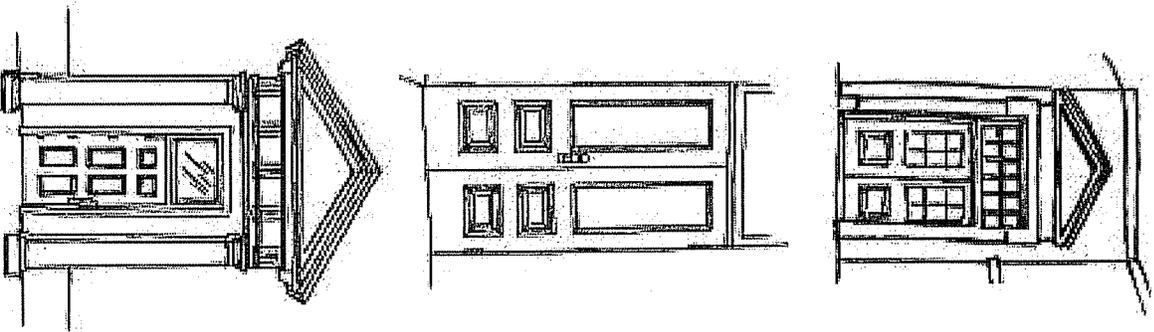
1.7 TRIM DETAILS

Architectural details, such as cornices, entablature, shutters, windows and doors should be preserved.

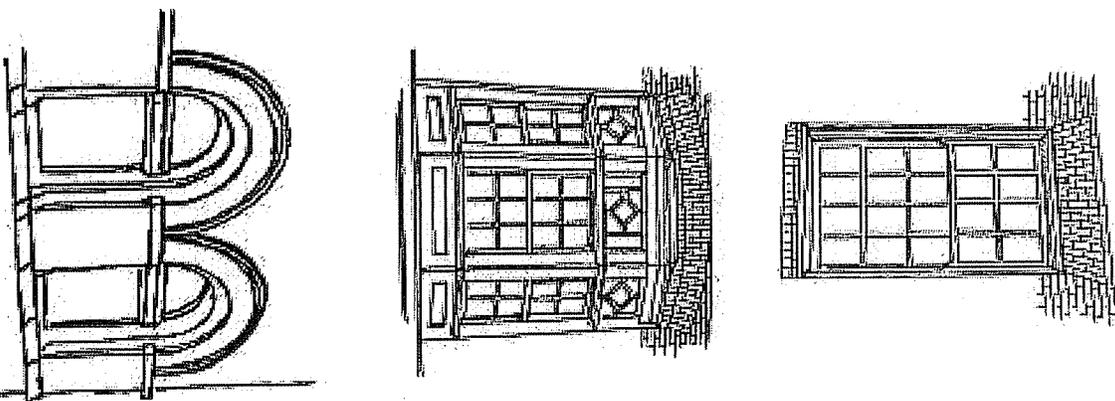
CORNICES



DOORS



WINDOWS



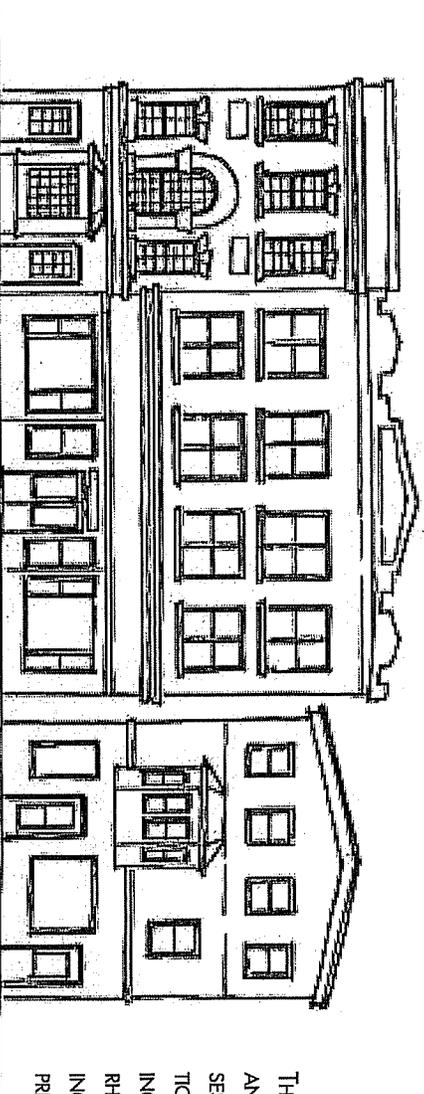
1.8 FACADE DESIGN

The rhythm of the facade results from the organization of the details as elements of the entire composition.

1.9 FIRST FLOOR/SECOND FLOOR

For mixed-use or commercial buildings, the first floor is typically on a larger scale than upper floors.

- Larger windows, higher ceilings and more ornate trim help convey that the first floor is a public space. Horizontal sign panels topped by a molded cornice band also convey that a space is public.
- Second (and third) story windows and trim on a smaller scale express those spaces are more private in nature.
- While distinction between the first and upper floors is desirable, it is important to maintain a united rhythm throughout the entire "elevation."



1.10 PROVIDING PRIMARY AND SECONDARY ENTRIES

When a building has more than one entry, delineate an inviting entry which reflects the building's use.

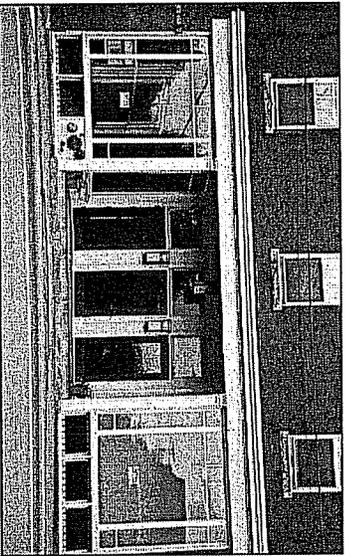
- Primary entry should face the street.
- Ensure that greater emphasis is placed on the primary entry through the employment of architectural details.
- Examples of details that call attention to entries are awnings or roofs for shelter, lighting and door trim in keeping with the design elements and rhythm of the area.

THIS DRAWING ILLUSTRATES THE PRINCIPLES OF BOTH 1.8 AND 1.9. THE TWO BUILDINGS ON THE LEFT EACH POSSESS A RHYTHM OF OPENINGS THAT PROVIDES ORGANIZATION TO THE INDIVIDUAL FACADE AND RELATES THE BUILDINGS TO ONE ANOTHER. THE THIRD BUILDING LACKS RHYTHM OF ITS OWN AND FAILS TO RELATE TO NEIGHBORING BUILDINGS. THE BUILDING IN THE MIDDLE SHOWS THE PRINCIPLES OF 1.9 FIRST FLOOR/SECOND FLOOR.

1.11 TRANSITION ZONES INTO THE BUILDING AND BUILDING USE

Some form of transitional space between the sidewalk and building interiors creates a comfortable pedestrian environment.

This space varies depending on a building's use.



TRANSITION SPACE WITH RECESSED ENTRY, STREETFRONT WINDOWS FOR DISPLAYS AND ENTRY LIGHTING.

- For residential buildings, porches, front steps or yard space separate the building from pedestrian traffic.
- For commercial buildings this transition can be established through shelter over the doorway, recessed entries, window displays, change in pavement texture at entrance, planters and benches.

1.12 INCORPORATING MECHANICAL SYSTEMS

Minimize the visual impacts of utilities and mechanical equipment as seen from the street.

- Rooftop mechanical equipment should be placed on rear roof slopes or behind architectural features to shield it from public view.
- Place utility meters on the sides or backs of buildings or, if necessary, create an enclosure that matches the building materials.
- Mechanical equipment on the ground should be screened by low fences or well-placed plantings when in public view.

Also see 4.8 Screening Utilities, Parking Lots and Sites

1.13 COLOR CHOICES FOR BUILDINGS, ROOFING, SIDING AND DETAILS

New bricks buildings should be similar in color to surrounding brick structures. Take care to match brick color and mortar joints when making repairs to existing buildings.

- Colors used on the facade and seen from the street on which a building is located should be visually compatible with the buildings and environment with which it is visually related. For guidance, refer to Appendix C for paint color choices for trim and siding.
- Select a dark color metal for new storefronts if wood is not used.

Also see Appendix C: Recommended Color Palettes

1.14 INCORPORATING ACCESSIBILITY

All new construction must comply with the Americans with Disabilities Act (ADA). Refer to:

American National Standard, Accessible and Usable Buildings and Facilities, International Code Council, 1998.

ADAAG Manual, a guide to the Americans with Disabilities Act Accessibility Guidelines The Access Board

Federal Register, Part III Department of Justice, Office of the Attorney General, 28 CFR Part 36.

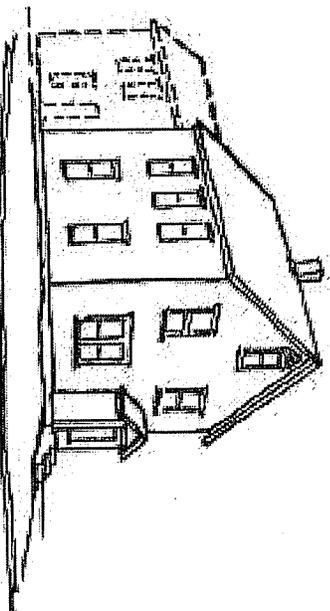
1.15 SECONDARY STRUCTURES

Design secondary structures to maintain the historic character of the building. This is achieved by placing the secondary structure at the rear of the building or set back from the front to minimize the visual impact and allow original proportions and character to remain prominent. Architectural elements, such as roof type, scale, size and building materials should be compatible with main building.

1.16 ADDITIONS TO EXISTING BUILDINGS

Design additions to maintain the historic character of the original structure.

- Additions should be compatible in size and scale with the original building and the surrounding area.
- The addition should be subordinate in appearance to the main building. Design addition so that it does not destroy or obscure distinctive architectural features of the primary building.
- Use exterior materials that match or complement the materials of the original facade.



THE ADDITION COMPLEMENTS THE ORIGINAL ARCHITECTURE OF THE PRIMARY STRUCTURE WITHOUT DOMINATING THE LOOK OR FEEL OF THE ORIGINAL BUILDING.

SECTION 2 RENOVATIONS

Renovations should aim to reinforce the existing historic character of the building. In cases when ill-fitting renovations have been made to the building in the past, the new renovation should refer to the original character of the building for guidance with design decisions. While this section contains a number of guidelines that apply specifically to the renovation process, many of the guidelines under Section 1, New Construction and Additions, also apply to renovation projects and should be referenced. (Specifically when renovations include additions, be sure to refer to Sections 1.15 and 1.16).

Also, the Secretary of the Interior's Standards for Rehabilitation (see Appendix A) should be used as a general guide. If seeking federal tax credits, the renovation project must adhere to the Standards.

General criteria addressed in this section include: details, replacement windows/doors, roofs and accessibility.

(General criteria addressed in Section 1, New Construction and Additions, that should be referenced include: massing, roofing, siding, footprints, windows/doors, architectural details, color, additions and accessibility).

2.1 REPAIR EXISTING DETAILS

Details help define a building's architectural style and unique visual character.

- When possible, preserve historic details such as trim, cornices or moldings.
- If a detail needs repair, removing and replacing only the portion that is deteriorated is encouraged.

- When replacing historic details, match historic materials, profiles and dimensions.

Also see 1.7 Trim Details and 1.13 Color Choices for Buildings, Roofing, Siding and Details

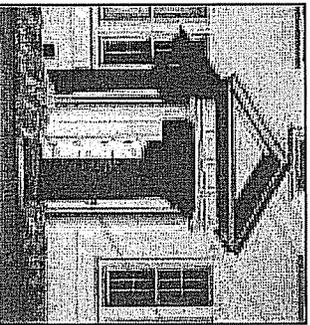
2.2 REPLACEMENT WINDOWS AND DOORS

Windows and doors significantly affect the character of a building. They provide visual interest, help define architectural styles and give scale to buildings.

It is recommended that when replacing windows and doors, the following be observed.

- Preserve the position, size and number of windows/doors in historic buildings.
- Preserve the decorative function of historic windows/doors.
- Match the design of the original windows/doors.
- Maintain the size or proportion of an historic window/door opening.
- Use materials that appear similar to the original.

Also see 1.6 Window Type and Window Placement



DORIC STYLE DOORWAY ACTS AS AN ARCHITECTURAL DETAIL THAT PROVIDES INTEREST TO THE BUILDING.

2.3 ADDING ON WITH ROOFLINES AND DORMERS

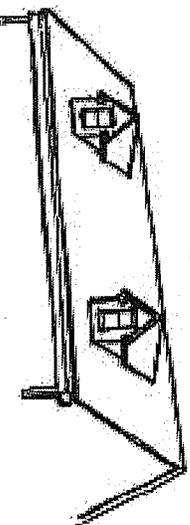
It is important to design changes that “belong to the building” and are compatible with surrounding structures and area.

- Additions that add vertical height to buildings should work harmoniously with adjacent properties. New rooflines should not exceed a height of more than 15% of the average height of existing buildings except in cases where additional height relates positively to established patterns in the District.

- Preserve the overall appearance of the original roofline so that it works with the architectural style; flat roof buildings should remain flat and gabled buildings, gabled.

- New dormers should appear subordinate to the original roof in scale and appearance. Dormers should be lower than ridge line and setback from eave.

Also see 1.3 Roofing



EXAMPLE OF APPROPRIATE DORMER ADDITIONS.

2.4 ACCESSIBILITY RETROFITS

While it is important to maintain the historic integrity of a structure, owner's should comply with the Americans with Disabilities Act (ADA) to the fullest extent possible.

- Solutions that exist independently from the original building and do not alter the historic character are recommended.

Also see 1.14 Incorporating Accessibility

SITE, STREET AND LANDSCAPE

The importance of providing Site, Street and Landscape Guidelines is to ensure that all aspects of the environment are appropriately developed. While not necessarily historic in nature, landscape and streetscape plans perform in a manner that contributes to the character of the Design Review District; a character of history, prosperity and care. A poorly developed and maintained site and street undermines the historic qualities and sense of place in the downtown.

White River Junction has made efforts in the past to enhance the streetscape and make the downtown a desirable place to spend time. The *River City Revival Action Plan* from 1991 began the impetus for White River Junction to take responsibility for the appearance and feel of the downtown. A number of the goals set forth in that plan have been implemented, such as the downtown lighting system and the re-creation of part of Loyal Park (Fred Briggs Park). The following guidelines aim to make certain that such efforts are continued and that future development benefits White River Junction.

SECTION 3 SITE PLANS AND PARKING

Site plans should reflect positive historical patterns found in the District. Different patterns exist in various sections of the District so it is important to assess the patterns of adjacent properties. The ideal is to create meaningful spaces for people that promote both function and circulation.

Successful parking design promotes safety, function and logical layout patterns. It integrates aesthetically appropriate parking environments with efficient circulation.

Guidelines in this section apply to individual lots as opposed to streetscapes and public spaces. The streetscape includes everything in the public right-of-way and the building face. Since there exists some overlap between the streetscape and individual lots, successful site layout must acknowledge that part of the individual lot layout is also part of the streetscape.

General criteria addressed in this section include: lot layout and parking lot design.

3.1.1 LOT LAYOUT

When siting a new building, efforts should be made to incorporate topography, existing vegetation, other natural features and historic elements such as stone walls and historic foundations into the new building placement and lot layout.

- Design layout to preserve lot features, maximize development potential and promote efficiency.
- Parking should be creatively screened or located to minimize visual impact from the street.

- Use footprints and setbacks from identified historic patterns or identified siting patterns that succeed in a particular location such as North/South Main Street or Green Street.
- Minimize site disturbance, loss of vegetation and site regrading when selecting building and infrastructure location.

- Plan for infrastructure in an efficient and logical manner that anticipates future use and shared access to parking and utilities. To the extent feasible, underground burial of utilities is encouraged.

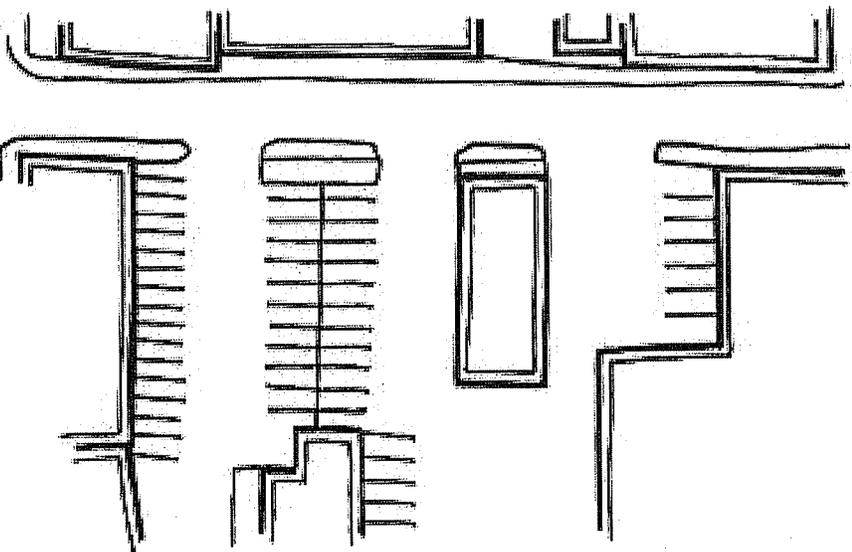
Also see 1.5 Setback

3.2 PARKING LOT DESIGN

- Break up large expanses of asphalt through the use of landscaped islands, walkways and buildings.
- Provide minimum 5' walk from logical points at edge or entry of plot to building entrance.
- Use buildings and landscape islands to break up parking.
- Make sure the dimensions of landscape islands allow them to serve their function. A minimum island width of 6' is recommended. For islands with pedestrian walks, a minimum width of 13' is recommended.
- Ensure good visibility for safe ingress and egress to sites and lots.
- Integrate entries with other access points and streets so as to minimize the width and number of curb cuts.

3.3 SHARED PARKING

- Design parking to encourage maximum integration, circulation and parking stall layout so that it works for multiple adjacent parcels.



THE LAYOUT OF THIS LOT, WHICH SERVES MULTIPLE PARCELS, PROVIDES GOOD CIRCULATION, VISIBLE INGRESS/EGRESS AND MAXIMIZES THE NUMBER OF SPACES AVAILABLE.

3.4 SNOW REMOVAL IN PARKING AREAS

- Plan landscaping and layout to allow adequate locations for snow removal/storage along the edges of the lot and in islands which does not conflict with landscaping.
- Trees, if established or protected with posts and "guy" stakes can coexist with snow.

SECTION 4 LANDSCAPE

Landscaping is best planned for and designed on site by site basis with attention to the immediate neighborhood. As seen in White River Junction, different landscape elements are appropriate for different areas; street trees enhance the commercial district while parklike elements are used in the open spaces near Joe Reed Drive. That said, certain principles remain constant between projects. Protecting natural land features enforces the unique quality of the landscape, while well designed additions enhance and define the site's character.

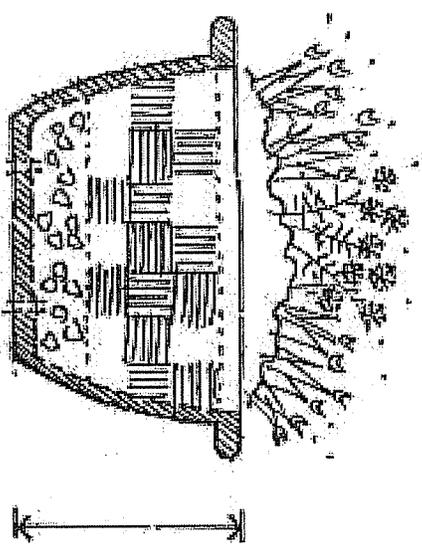
General criteria addressed in this section include: planters, placement of landscape elements, existing vegetation, plant materials and screening.

4.1 THE USE OF PLANTERS

When in-ground plantings are not possible, the use of above-ground planters or window boxes is recommended to add seasonal color and interest.

- Window boxes should be placed with care to fit within window widths and should be built or chosen to reflect materials and colors present in the architecture.
- Planters should be chosen which fit the site, architecture and intended use.

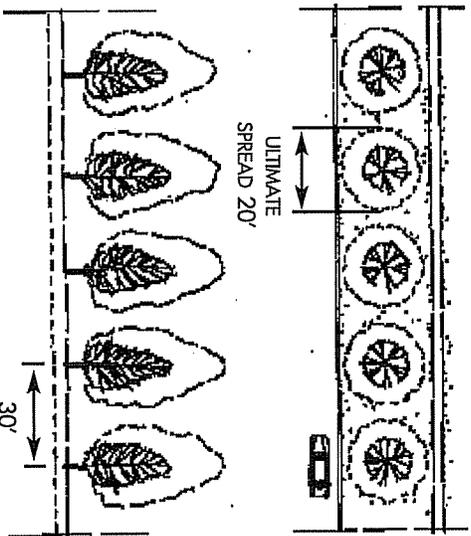
- Appropriate soil is necessary to promote health and flowering; drainage with "weep" holes is recommended.



MINIMUM HEIGHT OF 18-24" RECOMMENDED

4.2 PLACEMENT OF TREES, SHRUBS AND GROUND COVER

- Anticipate growth so that when full grown, tree canopies will almost touch. Appropriate planting intervals for street trees range from a minimum of 30' to a maximum of 50' on center (distance from trunk to trunk).
- Use regular spacing of trees where possible in architectural or streetscape settings.
- Plant deciduous trees as street trees to break up expanses of pavement and to provide shade and aesthetic qualities; see table 1.7 of recommended street and village trees.
- Species can be alternated to avoid a monoculture more susceptible to disease or damage.



LOCATING TREES

4.3 APPROPRIATE SHRUBS AND GROUND COVER

The following is a partial list of shrubs and groundcovers suggested for Village use:

Groundcovers

- Ajuga Reptans- Bugleweed
- Convallaria Majalis- Lily of the Valley
- Cornus Canadensis- Bunchberry
- Juniperus Chinensis Sargentii- Sargent Juniper
- Juniperus Horizontalis- Creeping Juniper

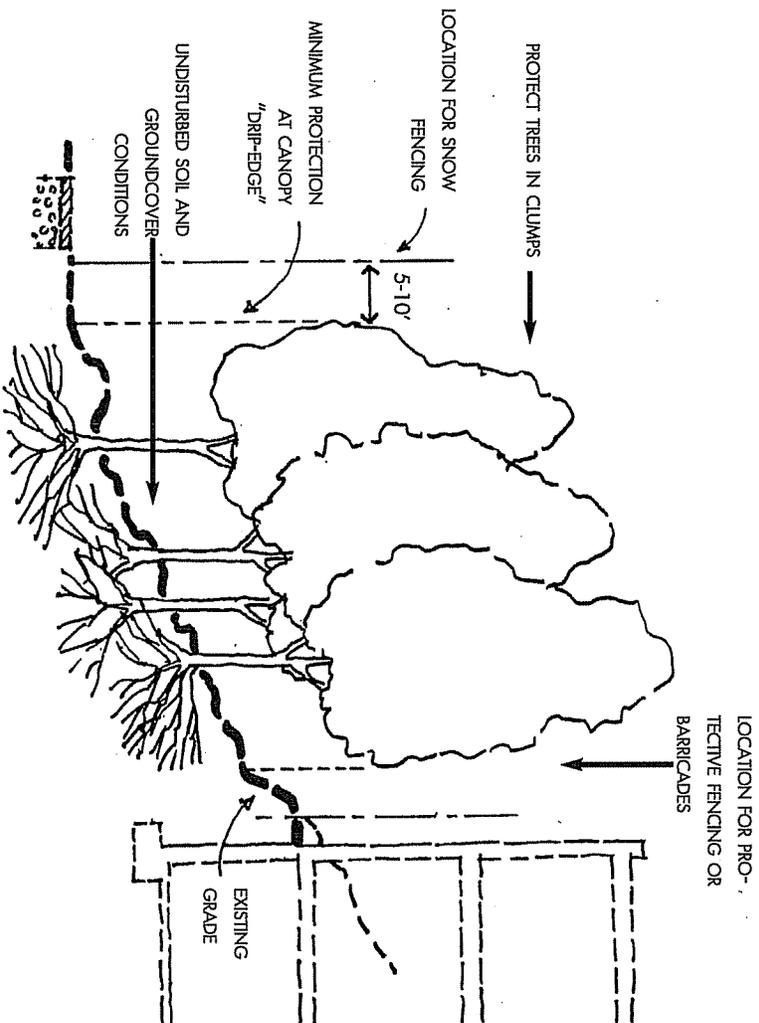
Shrubs

- Hydrangea Arborescens Crandiflora- Snowhill Hydrangea
- Spiraea X Bumalda- Spiraea Goldflame
- Spiraea Nipponica- Snowmound
- Syringa Vulgaris- Common Lilac
- Viburnum Trilobum- American Cranberrybush
- Eucynymus Alatos- Dwarf Burning Bush
- Thuja Occidentalis- Dwarf Cultivars
- Arboretariae

4.4 PROTECTING EXISTING VEGETATION

Site new buildings, paved areas and sidewalks to preserve existing vegetation. Protect existing trees in clumps with the ground plane intact and undisturbed. Protecting or preserving existing trees during construction requires care and vigilance, particularly during construction.

- Snow fencing or similar barricade should wrap around entire tree(s) 5-10' outside of the tree canopy dripline.
- Ground conditions should remain undisturbed such that no materials are stored under trees or equipment driven under trees to prevent compaction of soil/roots.



4.5 THE USE OF APPROPRIATE TREES

The following street trees are appropriate to White River Junction. Although many of these trees are not native to the area, they are appropriate for urban settings and resilient to salt.

Botanical Name	Common Name	Minimum Recommended Growing Area	Salt Tolerance	Recommended Usage
LARGE TREES- GREATER THAN 50' IN HEIGHT				
Acer rubrum	Red Maple 'Armstrong'	10'x10'	M	For areas unconsticted by overhead; in parking lots; tolerates wetness
Fraxinus pennsylvanica	Green ash	10'x10'	M	For areas unrestricted by overhead
Geditsia triacanthos	Honey Locust	10'x10'	T	For areas unrestricted by overhead
Quercus rubrum	Pin Oak	10'x10'	M	For areas unrestricted by overhead
Zelkova serrata	Japanese Zelkova	10'x10'	T	For areas unrestricted by overhead
Tilia cordata	Littleleaf Linden	10'x10'	T	For areas unrestricted by overhead

COLUMNAR TREES- LESS THAN 25' IN CROWN DIAMETER

Acer x freemantii	Freeman Maple	8'x8'	T	For narrow areas ie: close to a building or in an island
Fraxinus pennsylvanica	Green Ash 'Empire'	8'x8'	T	For narrow areas ie: close to a building
Ginkgo biloba (male species only)	Ginkgo	8'x8'	T	For narrow areas ie: close to a building. Select seedless variety in difficult spots.
Prunus sargentii	Sargent Cherry 'Columnaris'	8'x8'	M	For narrow areas ie: close to a building
Quercus robur	English Oak	8'x8'	T	For narrow areas ie: close to a building

Botanical Name	Common Name	Minimum Necessary Growing Area	Salt Tolerance	Recommended Usage
SMALL TREES- LESS THAN 23' IN HEIGHT				
Acer tataricum	Tatarian Maple * a.k.a.- A. ginnala or A. tataricum	6'-8'	M	For areas constricted by overhead wiring or where small trees are desirable
Carpinus caroliniana	American Hornbeam	6'-8'	M	For areas constricted by overhead wiring
Crataegus crusgalli	Thornless Cockspur	6'-8'	M	For areas constricted by overhead wiring
Malus spp.	Crabapple	6'-8'	T	For areas constricted by overhead wiring or where ornamental affect is desired
Pyrus calleryana	Callery Pear *	6'-8'	M	For areas constricted by overhead wiring
Prunus maackii	Amur Chokecherry	6'-8'	M	For areas constricted by overhead wiring
Syringa reticula	Japanese Tree Lilac *	6'-8'	T	For areas constricted by overhead wiring

notes:

1. Refer to: *Landscape Plants for Vermont* (The Extension Service, University of Vermont, January 1983), *Selecting Trees for Urban Landscape Ecosystems: Hardy Species for Northern Vermont* (State of New Hampshire Department of Resources and Economic Development Division of Forests and Lands, 1994) or the *Burlington Street Tree Plan* (Department of Public Works, Vermont, 2000) for acceptable cultivars and more detailed information.
2. * These trees will often grow well in areas where limited soil exists.
M = moderate tolerance, depending upon cultivar
T = tolerant

4.6 LANDSCAPED ISLANDS IN PARKING LOTS, ROADWAYS OR NEAR BUILDINGS

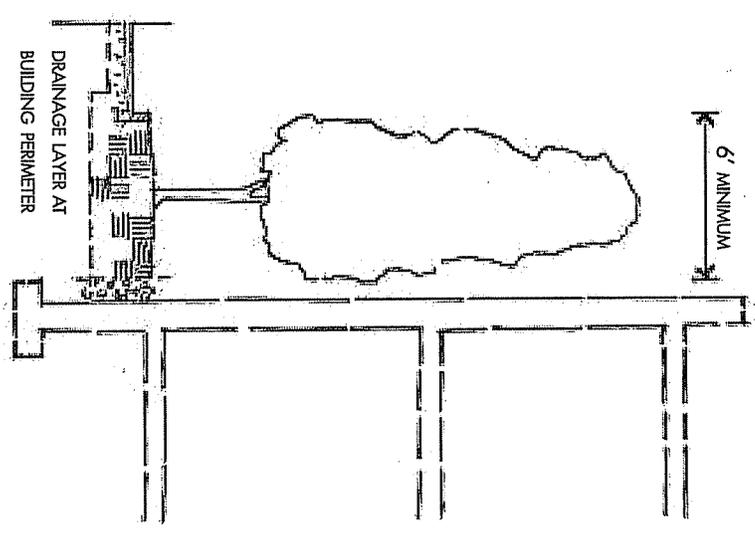
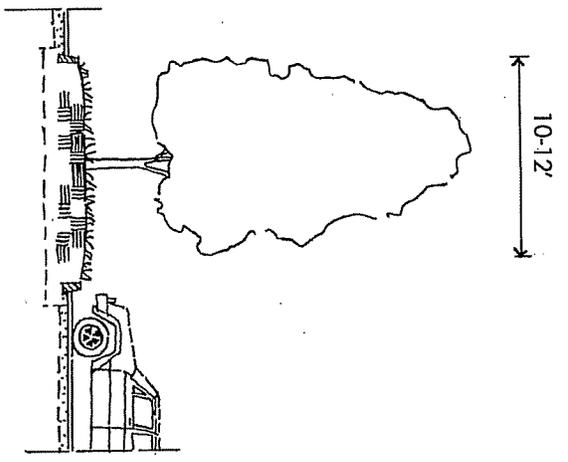
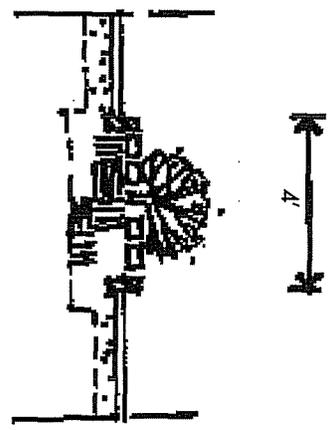
Sturdy plants or perennials such as native rose bushes or daylilies can be planted in cobble surround in islands that are 4' in width or less. These varieties can withstand drought and snow piles.

A minimum 10-12' island is recommended for the successful establishment of larger scale landscape trees* in parking lots and along roadways. Larger trees are more effective in shading asphalt lots which prolongs the life of the asphalt and reduces heat levels in summer.

The island needs to be at least 13' wide if a pedestrian walk of 5' minimum is to be incorporated, or the use of structural soils will allow the island width to remain about 10-12'.

*See 4.5 The Use of Appropriate Plant Materials for examples of "Large" trees and "Minimum Necessary Growing Area" for trees of different sizes.

see definition of "structural soils"



PLANTING COLUMNAR TREE IN A NARROW SPACE ALONG A BUILDING.

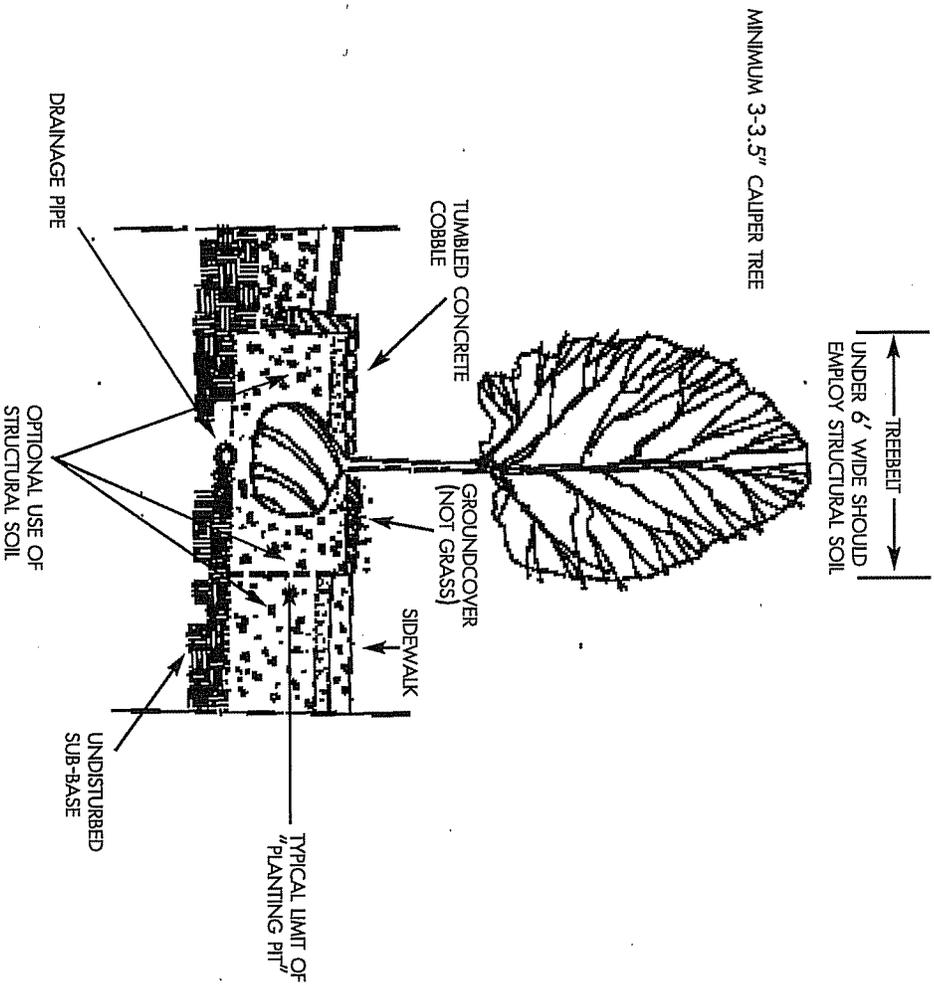
4.7 TECHNICAL GUIDELINES FOR INSTALLATION

Using Cornell structural soil mix* as a supplement in narrow width treebelts (less than 6') is recommended to a minimum depth of 30" and is best applied continuously through the entire span of treebelt and sidewalk to promote health and growth of larger trees.

Note that some columnar trees that are very narrow can be established in planting pits (treebelt widths of 4-6').

A 4" diameter PVC perforated drainage pipe is to be used when subsoil is highly compacted and/or poorly drained.

see definition of "structural soils" and "columnar planting"

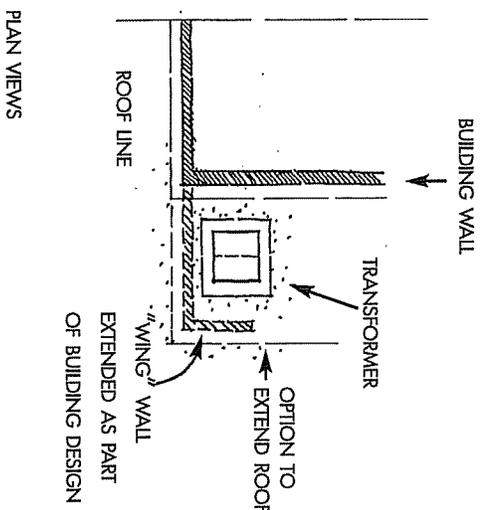
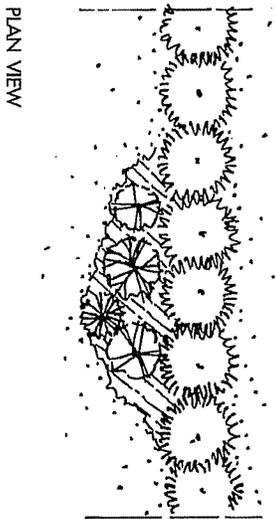
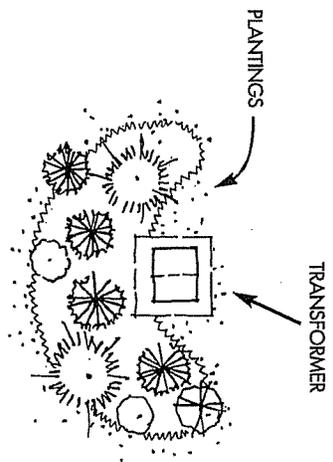
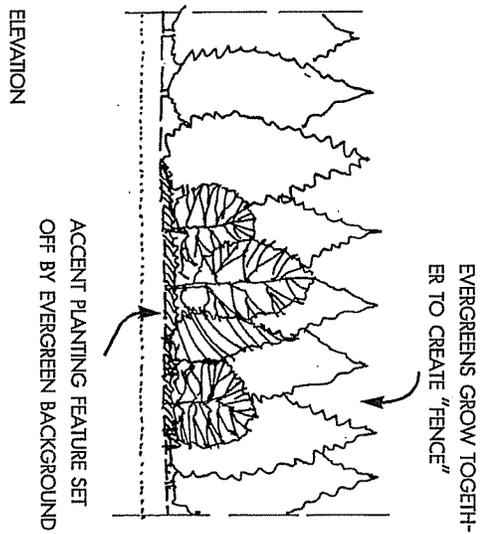


4.8 SCREENING UTILITIES, PARKING LOTS AND SITES

Using creative methods to screen transformers and other utilities calls less attention to that being screened. 1) Incorporate the screened element into the architectural design of the building on the site. 2) Set the transformer or other such utility within a proposed planting bed as opposed to creating a rectilinear planting around the transformer designed to specifically screen it.

- "Living fences" or hedges can be employed effectively for screening and columnar or pyramidal varieties of evergreens or dense deciduous varieties (such as hedge maples or lilacs) lend themselves well to this use.
- Vines can be grown on wood or metal fencing as an option for creating a "living fence" which provides screening.

see definition of "structural soils", "columnar planting", "pyramidal planting" and "rectilinear planting"



SECTION 5 LIGHTING

The lighting standard established in White River Junction consists of acorn style lamp posts that evoke historic sentiment. While these lamp posts refer to the heritage of the District, they employ energy conserving fixtures used in combination with housings and luminaries that direct light only where necessary to reduce glare and light spill. A uniform level of lighting allows for reliable visibility.

New lighting in White River Junction should complement the existing architecture, streetscape and lighting. The amount of light and the spacing of lights should be determined in accordance with each project and the patterns established on adjacent properties.

General criteria addressed in this section include: types of lighting, color, illumination levels and lighting elements.

5.1 USING THE RIGHT LIGHT FOR THE RIGHT APPLICATION

Typical illumination levels are presented in the chart on page 25.

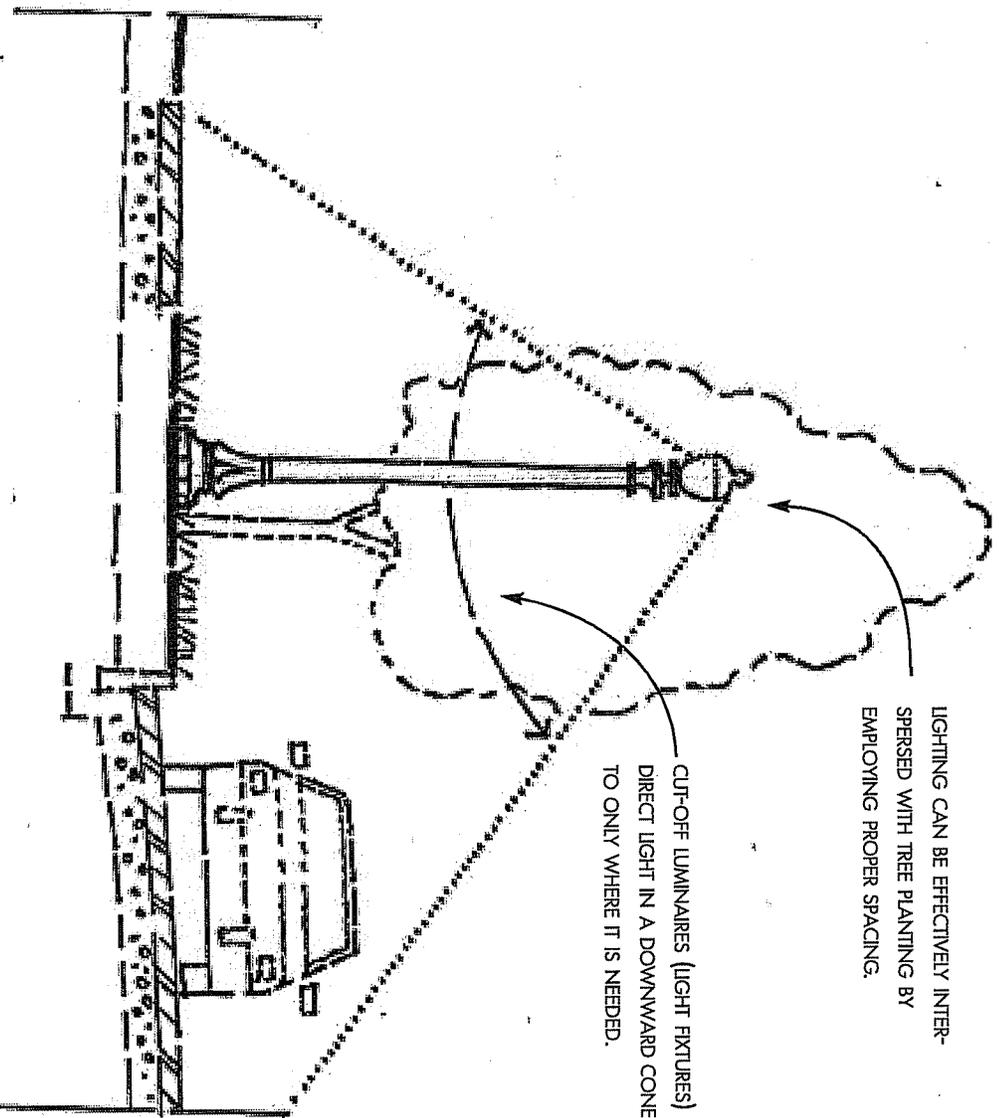
- Chosen lighting types shall reduce light pollution and utilize designs that control directed light. Bare bulbs and direct light should not be visible to the human eye.
- The use of low level post lights (30-42" high) with fixture incorporated into the post directs light on pathways only.
- Fixtures and housing should employ shielded and directed lighting; avoid lighting that creates excessive shadows and high contrast bright areas versus dark areas.
- It is recommended that for individual project sites next to sites that already have appropriate lighting, consistent light level design and consistent product, housing and fixture type be used.
- Use fixtures that are appropriate to the historic or contemporary designs and uses of the site.

5.2 LIGHTING COLOR AND TYPE OF FIXTURE

The lighting standard used in White River Junction has been engineered to provide "cut-off" illumination to the street and sidewalk. This approach limits glare and night sky pollution. The use of cut-off technology with decorative fixtures that match or relate to the standard already in place in the downtown is recommended. Energy-efficient Metal Halide lighting provides the best nighttime color rendition of building facades and surfaces.

- To maximize the benefit of both street trees and lighting fixtures, plan appropriate locations in streetscape design. Taller decorative lamp posts (14-18') may be necessary.
- The most energy efficient forms of lighting are metal halide lamps and high-pressure sodium.
- Basic "cut-off" technology can be used when lighting pedestrian spaces and walkways with decorative lighting only. Since interference with street trees is not a problem on the street side, a lower lamp post may be sufficient (12-14').

see definition of "cut-off luminaire"



5.3 TYPICAL ILLUMINATION LEVELS

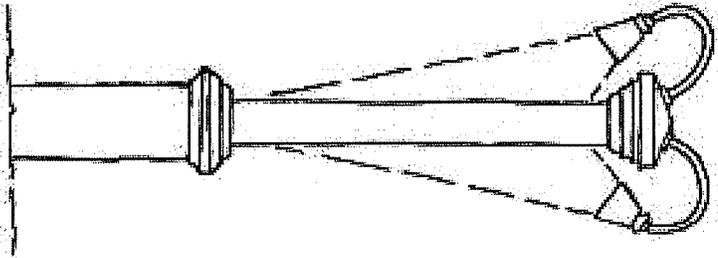
Lighting Application	Recommended Footcandle	Uniformity Ratio	Lighting & Lamp Type	Recommended Mounting Height
Parking Lots	0.2 - 0.3	4:1	Metal Halide: Functional cut-off "shoe box" style or decorated lamp housings.	25'
Collector Road	0.3 - 1.0	4:1	Metal Halide/Sodium Vapor: Functional cut-off style lights.	20'
Streetscape (Downtown)	0.5 average	4:1	Metal Halide/Sodium Vapor: Decorative cut-off style lights.	14' - 18'
Walkways/Alleys	0.1 - 0.2	4:1	Metal Halide: Decorative post and lamp, or post / bollard mounted downtown light; incandescent option	12'-14' or 36" - 42" if on post or stairways.
Signs	1.0 - 3.0	2:1	Metal Halide Incandescent: Ground or sign mounted & shielded.	As Required.

see definition of "uniformity ratio"

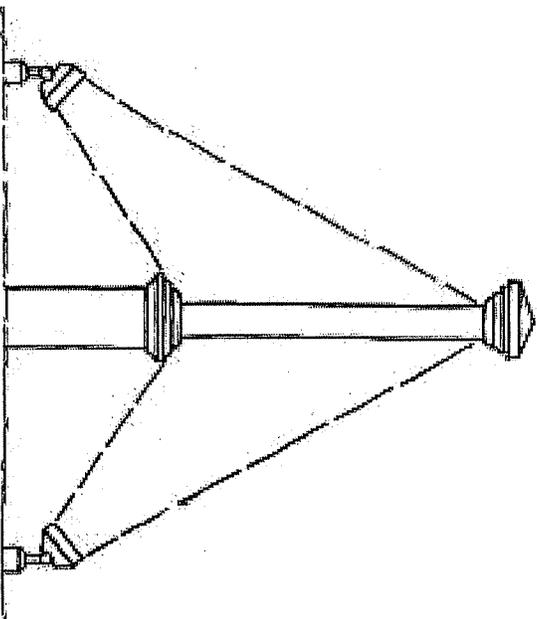
5.4 LIGHTING SIGNS, FACADES AND OTHER ELEMENTS

The goal when lighting these elements is to do so effectively while avoiding glare and night sky impacts.

- Sign lighting must comply with the Town's Sign Ordinance.
- When lighting from above, mounted down lights are desirable because they focus light and minimize, if not eliminate, "light spill" and glare.
- When lighting from below, use shrubs to hide and protect ground mounted light fixtures. Design light to focus only on target to minimize light spill and glare beyond lit element.



EXAMPLE OF SIGN LIT FROM ABOVE.



EXAMPLE OF GROUND MOUNTED SIGN LIT FROM BELOW.

SECTION 6

STREETSCAPE AND PUBLIC SPACES

The streetscape in White River Junction employs numerous elements that address the quality of life and function of the district. Uniform street lighting, street trees, sidewalks and site furniture work together to create an environment that is comfortable for pedestrians and make downtown White River Junction a desirable place to spend time. Future development should build upon this established pattern to maintain and enhance the vitality of the District.

Streetscape and public spaces include everything within the public right-of-way, including building faces. Some overlap exists between the streetscape and individual lots and successful design acknowledges and accounts for the goals of both. Whereas this section deals mainly with the streetscape and public spaces, Section 3, Site Plans and Parking, should be referenced for guidelines on individual lots.

General criteria addressed in this section include: alleyways, pedestrian spaces, site furniture, landscape elements, utilities and signs.

6.1 DESIGNING AND USING ALLEYWAYS

Alleyways, aside from providing vehicular access, can accommodate pedestrians with well designed and properly located walkways, lighting for safety and security and directional signs to inform the walker as to entry locations and other important information.

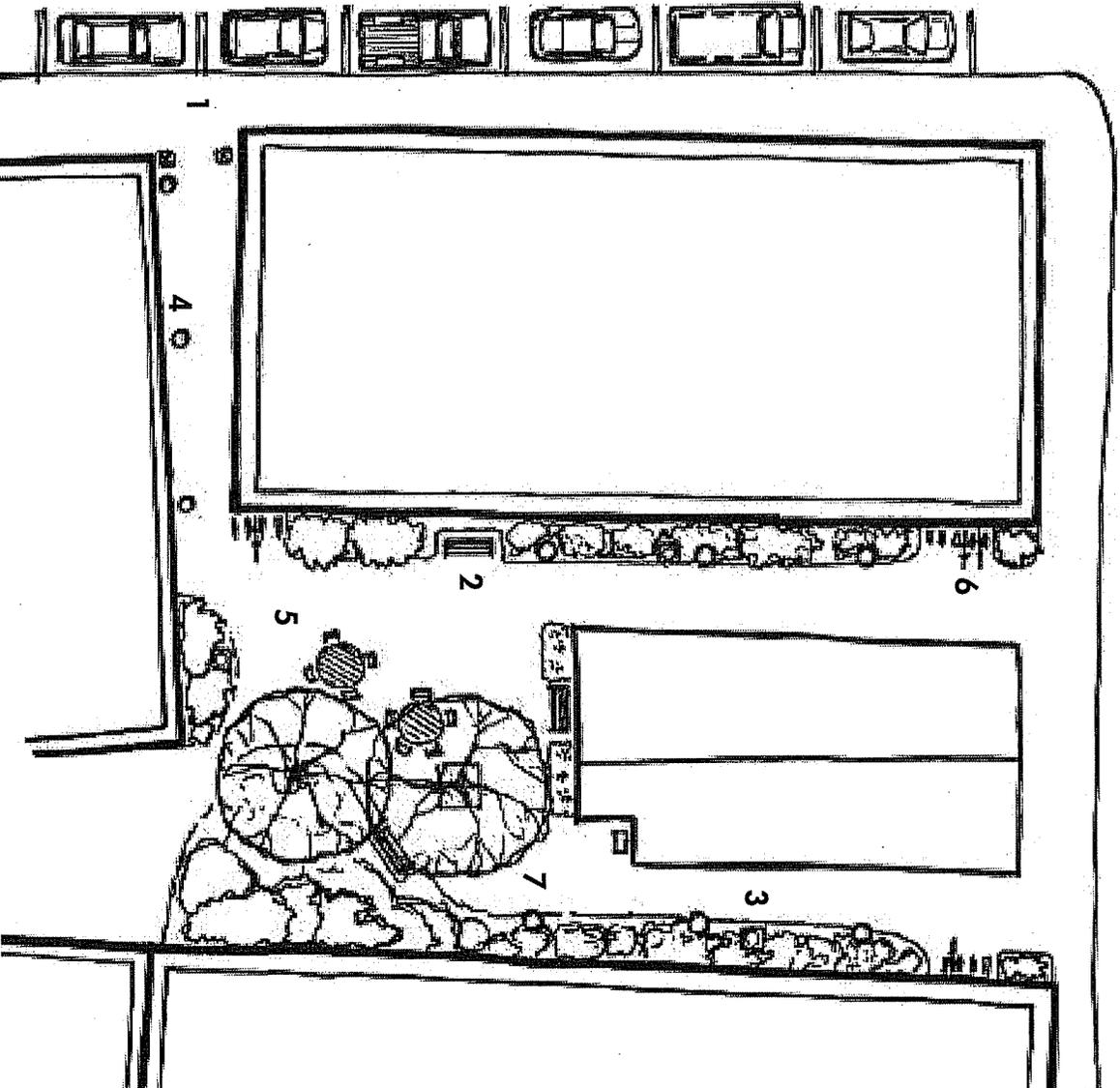
Also see Section 5 Lighting, 6.2 Pedestrian Space and Scale, 6.3 Walkways and 6.8

Signs: Placement and Design

6.2 PEDESTRIAN SPACE AND SCALE

The following components help create appropriate places for pedestrians in public and private spaces:

1. Well defined circulation from parking
2. Lots of benches for comfort
3. Trash barrels
4. Building mounted area lights (focused down) or decorative low-level pedestrian scaled lighting
5. Ample circulation space
6. Well placed bike racks with appropriate ground surface such as pavers, gravel or pavement
7. Extensive landscaping to provide shade, color and interest in all seasons
8. When applicable, protect existing specimen trees



6.3 WALKWAYS

Good walkways provide for the safety and function of pedestrian circulation patterns and are, at the same time, aesthetically pleasing. The following are encouraged to facilitate design elements that compliment and enhance the character of White River Junction.

- Rely on ADA Standards to incorporate accessibility and appropriate grades for pedestrian circulation. Sidewalks should be at a 5% grade or less.

Also see 1.13 Incorporating Accessibility

LOCATION

- Walkway locations should factor in 1) connections with adjacent sites and lots, and 2) logical relationships with existing and proposed crosswalks.

- Develop walkways with appropriate layout and design to accommodate pedestrian desire lines, access points and safe travel; i.e. avoid vehicular conflicts and provide the most direct route possible from streets, sidewalks and parking lots to entrances.

DESIGN

- Use durable surface materials and sufficient sub-base preparation; brick, concrete, unit pavers or asphalt should be underlaid with 4-6" sand, 4-6" gravel and stabilization fabric. Sidewalks should be a minimum of 5' wide.

6.4 CURB CUTS AND THE DIMENSIONS OF THE PUBLIC REALM

- "Curb-cuts" should be limited to 1 per site; shared curbcuts that serve two sites/buildings are encouraged.

- Adequate treebelts (minimum 6') and sidewalks (minimum 5') are recommended.

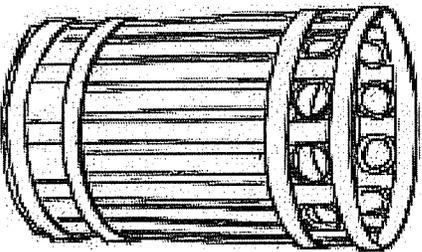
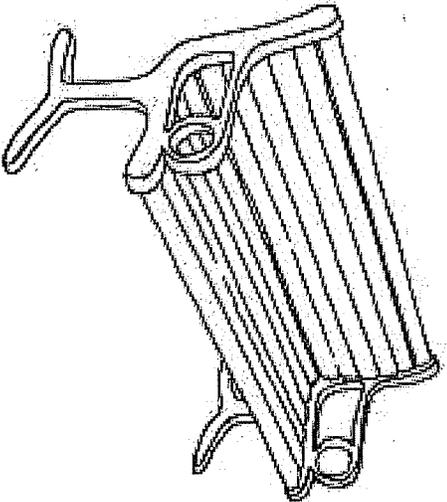
Carefully locate utilities to minimize visual impacts. If possible, underground utilities or place them to allow for non-conflicting tree growth.

Also see 4.2 Placement of Trees, Shrubs and Groundcover

6.5 SITE FURNITURE

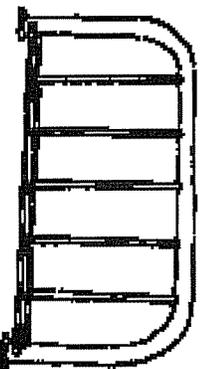
Site furniture should reflect the character and context of the site/district/neighborhood. Simple styles are recommended that complement the historic character of White River Junction without competing with historic elements.

- Choose sturdy, well designed site furniture; numerous decorative styles with durable, appropriate materials are available.
- Unify a project site with the color and design of site furniture.
- Consider wood slats for benches because they are neither too hot or cold to sit on.
- Provide a variety of seating options, usually 16-20" in height. It is recommended that benches have backs, which are more comfortable for people (particularly the elderly) to sit on.
- Trash barrels, bollards and other elements should reference the historic qualities or architectural character of the site or district. Employing "site furniture" designs already in use in White River Junction, or similar products, is recommended.



EXAMPLES OF APPROPRIATE SITE FURNITURE. BENCH HAS WOODEN SLATS AND, FOR SAFETY, CAN BE MOUNTED TO A SECURE SURFACE

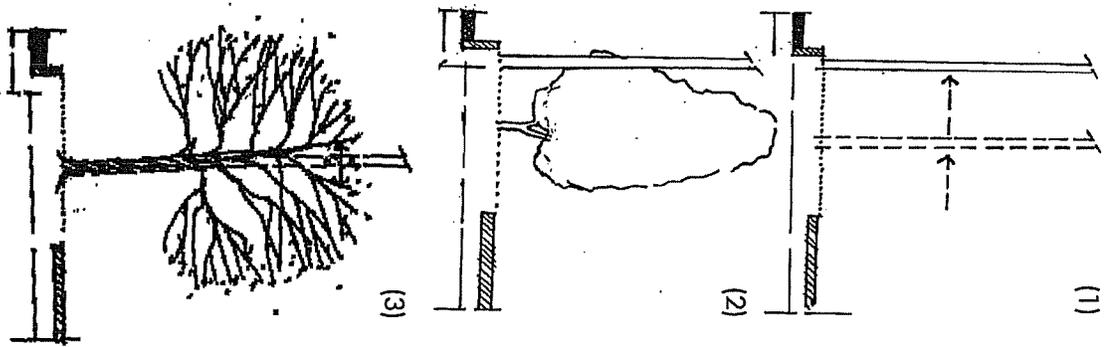
- Metal racks are available in a range of colors and will not check or warp like wood racks. Metal racks can be surface mounted on concrete or installed by direct burial of longer support posts.



THIS SIMPLE STYLE IS USEFUL FOR TIGHT SPACES BECAUSE IT ACCOMMODATES BICYCLES BOTH SIDEWAYS AND PERPENDICULAR TO THE RACK.

6.6 UTILITY DESIGN AND PLACEMENT

- When the burial of utility lines is not an option, moving poles to curbside (1) creates a planting area for a tree with large, oval shaped canopy (2). Some trees, such as K.C. and Honeylocusts, have open habits which allows branching in the upper canopy to co-exist with utility lines (3).
- New utility access to existing buildings and proposed structures should be installed underground or located in the rear of buildings.
- Transformers and other utility elements should be screened by incorporating them into the building architecture with fencing that is compatible with the architecture or landscaping.

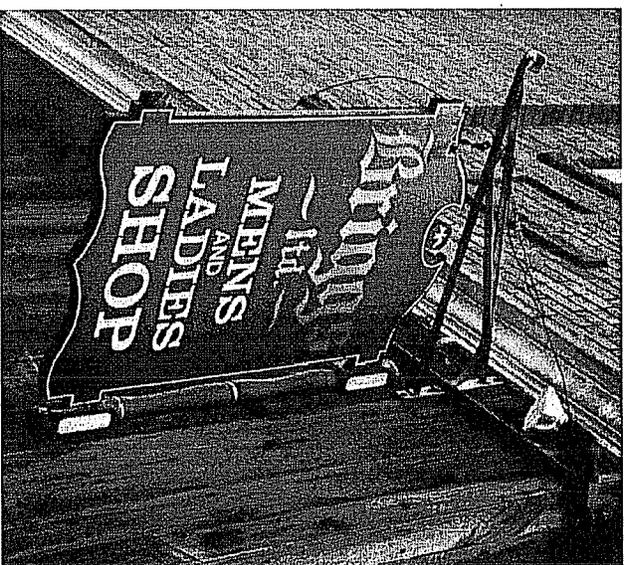


6.7 SIGNS: PLACEMENT AND DESIGN

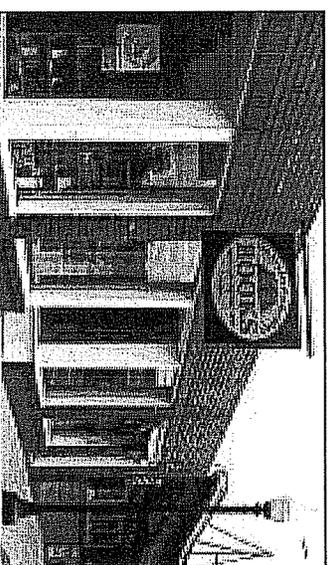
Well designed signs show respect for the image and identity of a business.

- Signs must be in compliance with Town Sign Ordinance.
- Incorporate street number and “enter” or “exit” into signboard to eliminate additional signs and sign clutter.
- Keep signs in scale with the surrounding buildings and street. Building mounted signs have to be carefully integrated with the facade and architecture. They should be in proper proportion to the building as specified in the Town’s Sign Ordinance (1 square foot of sign area per 1 linear foot of building facade).
- Window signs should be legible without obscuring the window.
- Whether mounted directly to the facade or hanging off a bracket, avoid sign locations that obscure architectural features. Logical sign placements are between windows or floor levels.
- Exterior lighting fixtures should complement the architectural style of the building, both in character and color, and be placed as carefully as architectural elements.
- Although lighting from above is preferred, lighting fixtures placed at the base of a sign structure should be screened.
- Fixtures should minimize light intensity and cast light only where necessary to avoid excess glare.

Also see 5.4 Lighting Signs, Facades and Other Elements



A MINIMUM HEIGHT FOR LETTERS TO ENSURE LEGIBILITY FROM ANY VIEWING DISTANCE IS 3". FOR EVERY 25' OF VIEWING DISTANCE, 1" CAPITAL HEIGHT IS REQUIRED. THEREFORE, FOR A VIEWING DISTANCE OF 150', 6" LETTERS ARE RECOMMENDED.



GLOSSARY

The following terms appear in the preceding Design Guidelines and can be helpful when discussing architecture, landscaping and site development.

Bay Regular vertical divisions of the exterior of a building, usually defined by the door and window openings.

Bay window Multi-sided window that projects from the wall of a building and has its base on the ground. One or more stories in height.

Belcourse A horizontal band, often of stone or wood, forming a continuous line across an exterior wall of a building.

Buttress A masonry structure built against or projecting from a wall to support it. Sometimes imitated in wood.

Carrara Glass Colored opaque glass most often used as a siding on storefronts.

Columnar planting A tree that grows straight up, like a column.

Cornice The topmost of three parts in an entablature. Also used as a decorative band found under rooflines.

Cut-off luminaire e A luminaire is a complete lighting fixture including the lamp (or bulb), the lens and reflectors (which direct and distribute light), the socket and the wiring. A cut-off fixture directs light only where it is needed, and prevents undesirable glare, scatter, or light pollution.

Dentils A band of small tooth-like blocks ornamenting a cornice.

Desire lines Used to describe the routes pedestrians prefer to take when traveling from point to point. Sidewalks do not always match where pedestrians desire to walk.

Door hood A small roofed projection over a doorway, usually supported by brackets.

Dormer A roof extension that protrudes from the primary roof structure.

Eave Where the underside of a sloping roof meets the wall.

Elevation A drawing of the face of a building which shows no perspective effects. This type of drawing is simple to prepare and flat features are easily

measured to determine scale. Also a name for the building facade itself.

Entablature Three-part horizontal trim consisting of an architrave, frieze and cornice, sometimes ornamented, and found under rooflines (full entablature) and over entryways.

Facade Face or wall of a building, usually referring to the front wall.

Finial Small ornament crowning on the top of roofs or projections on buildings.

Foot candle A measure of light falling on a surface. One foot candle is equal to the amount of light generated by one candle shining on a square foot of surface area one foot away. For example, full moonlight provides an illumination level of up to 0.1 footcandle, whereas a windowed room on a cloudy day would be illuminated in the range of 6-8 footcandles. *(from Outdoor Lighting Manual for Vermont Municipalities)*

Frieze Middle of the three parts that make up an entablature. Sometimes enriched with decorative elements.

Gable roof Pitched roof with two sloping

sides that meet at a ridge (the gable being the triangular wall area formed by the roof slopes).

Ground plane Refers to the topography or land surface at the ground level.

High style Having many or all of the characteristics of a particular architectural style.

Hip roof Roof with four sloping sides meeting at a point or short ridge line.

Keystone Wedge-shaped center stone, often ornamented, in an arch. Sometimes imitated in wood.

Infrastructure A term used to describe the physical systems of transportation, utilities and communications (such as roads, parking lots, HVAC units, dumpsters, telephone poles) which are necessary to serve buildings, institutions and communities.

Lintel A horizontal stone, brick cast-iron, or wooden beam that spans the top of a door or window opening.

Massing (*no way*) How the principle forms of a building are sized, shaped, grouped

together, or arranged on a site. In the design process, one can think of walled and roofed shapes as building-blocks (masses) which may be dispersed in order to break up the apparent total volume of enclosed space, or combined to create a single larger mass. For example, "this building has irregular massing," or "the massing of this group of buildings is appropriate for its neighborhood."

Metal Ventilator A metal crown-shaped fixture, generally found on barn roofs, to vent hot air.

Oriel window Multi-sided window that projects from the wall of a building, and whose base does not reach the ground.

Palladian window Multi-sided window consisting of a tall round-headed window flanked by two shorter and narrower windows, each window usually being framed by plasters or columns.

Parapet The highest part of the exterior wall of a building which is apparently flat-roofed. The parapet hides rooftop equipment and the roof surface which slopes gently to a drainage point.

Pilaster Flat representation of a column.

Pyramidal planting A tree that grows pyramidal in shape.

Quoins Blocks of stone, wood in imitation of stone, cast-iron panels, or brick at the corners of buildings. Usually arranged in an alternating pattern of large and small blocks.

Rake The inverted "V" shaped edge of a typical gable roof seen when one looks at the peaked exterior wall. The rake usually has the same profile as the eave.

Rectilinear planting A planting that follows the shape of that around which it is planted.

Setback The distance between the street line and the front building line of a principal building or structure, projected to the side lines of the lot and including driveways and parking areas, except where otherwise restricted by ordinance.

Sidehall plan House form characterized by a gable front facade with the main door (leading into a hallway) in the left or right hand bay.

Sidelights Narrow vertical windows, usually consisting of small panes or patterned leaded glass, flanking a door.

Specimen tree A term used in the landscape industry to refer to an outstanding individual mature tree or a large tree to be planted which will serve as a focal point for an outdoor space.

Structural soil A specific type of soil developed to ensure the success of street tree plantings. It combines soil and gravel which allows roots to spread while still nurturing the tree.

Transom A small window located immediately above a door or conventionally-sized window. A transom window is always the same width as the door or window below it.

Uniformity ratio This is a ratio used in determining the relationship of lighting levels. It refers to the ratio of average illumination to minimum illumination on a surface. A 4:1 uniformity ratio thus indicates the average illumination is four times brighter than the minimum illumination provided by an outdoor lighting installation.

Vernacular Having few of the architectural elements or ornamental details that characterize a particular architectural style.

Wayfinding A systematic approach to guiding people through an environment to their destination, using signs, maps, landmarks and other means. It literally means finding one's way from place to place.

Portions of Glossary taken from Vermont Division of Historic Preservation, 1989, pp. 118-122.

APPENDIX

APPENDIX A THE SECRETARY OF THE INTERIOR'S STANDARDS FOR REHABILITATION

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials, shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

APPENDIX B ADDITIONAL READING

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Sanborn Fire Insurance Map By town, 1880s.

Walling and Scott County Wall Maps. 1850s.

HISTORIC PRESERVATION AND DESIGN REVIEW

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TECHNICAL REHABILITATION INFORMATION

United States. National Park Service. Technical Preservation Services Division.

Preservation Briefs. Washington, DC: United States Department of the Interior. National Park Service. Preservation Assistance Division. Technical Preservation Services, 1975-.

1. The Clearing and Waterproof Coating on masonry buildings
2. Repointing mortar joints in historic brick buildings
3. The repair of historic wooden windows
4. Exterior paint problems on historic woodwork
5. Rehabilitating historic storefronts
6. The preservation of historic pigmented structural glass
7. New exterior additions to historic buildings: Preservation Concerns
8. The preservation of historic signs
9. The maintenance and repair of architectural cast iron

APPENDIX C
RECOMMENDED COLOR
PALETTE