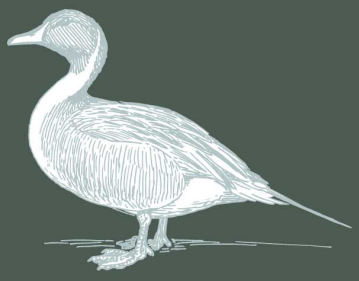


TUXEDO FARMS

Design Guidelines

Approved November 2010

Update Approved April 2015

The Related Companies L.P.

Architectural Styles

Planning Guidelines (Sloping Sites)

Architectural Principles & Guidelines

Landscape Guidelines

The Tuxedo Farms Design Guidelines are based on precedents gathered in surveys of historical and neighboring towns in the Hudson River Valley. The goals of these design guidelines are:

To continue the great traditions of house building of the Hudson River Valley: The house styles of Tuxedo Farms are the styles of houses found in the classic neighborhoods of Tuxedo and surrounding towns and villages.

To create a common architectural vocabulary: House styles have been identified that will sit in harmony with each other through a consistent level of quality and detail.

To identify the details that define a house style: Every house style includes a set of tell-tale details - proportion, materials, colors, a roof-pitch - that distinguish it from another style and encourage good design.

To preserve of the forested nature of the site: Because most Tuxedo Farms lots back up to open space, the Tuxedo Farms SmartCode defines the extent of the site that can be disturbed.

To encourage houses to nestle into the landscape: A house that is appropriate to the rolling wooded site sits comfortably in slopes with a minimal disturbance to the natural grade.

To preserve a consistent neighborhood scale: The interaction of houses on a street is structured so that the relative size of each private dwelling is appropriate to its context and location.

To encourage variety in the streetscape: With eight house styles creating an almost infinite variety of enumerations of details and massing, Tuxedo Farms' streets maintain variety and interest.

To create neighborhood streets: More than merely a collection of houses, a Tuxedo Farms street is defined by houses with a complementary relationship with one another and with the public realm.

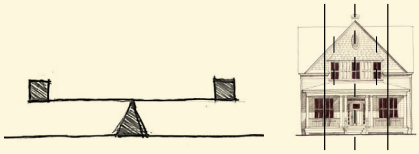
The ultimate goal of Tuxedo Farms is to foster a community of houses and buildings which together are more than the sum of their parts, and that harmonize with the rural character of the Town of Tuxedo and the villages of Tuxedo Park and Sloatsburg.

The Design Guidelines are not intended to be proscriptive; as in the building pattern books that guided small town builders throughout the 19th century, they show examples of what is encouraged and specific ways of attaining those characteristics that will encourage variety, appropriateness and long-term value. The Design Guidelines and SmartCode together will ensure that the unique vision for Tuxedo Farms is both achieved and maintained through the course of time.

The Tuxedo Farms Design Guidelines are a comprehensive set of design parameters which establish the basic suggested design elements of the residential development. The Design Guidelines are divided into three sets:

Architectural Styles - establishing the suggested residential building styles and corresponding architectural features - including basic detail and composition.

Architectural principles and Guidelines - Establishing the basic principles of massing and proportion for traditional architectural styles along with a short primer on materials and methods appropriate for traditional architecture.



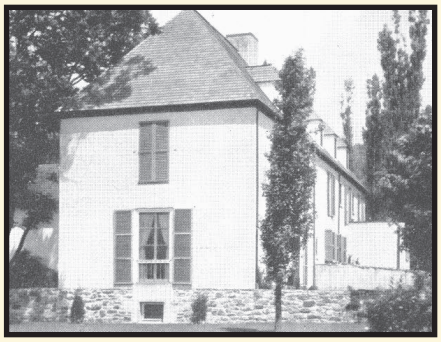
Landscape Guidelines - establishing the suggested planting types, conservation guidelines and landscaping.

Like other small Hudson River Valley towns, Tuxedo Farms will have residences at a variety of scales to meet the needs of many different groups of people, from empty nesters to established professionals to young marrieds. The range of lot sizes at Tuxedo Farms was designed to encourage a richly varied community. Tuxedo Farms is organized in such a way that there is a natural progression through a rich variety of neighborhoods. These neighborhoods range from the most rural to fairly compact. The lot types and styles articulated within these guidelines are intended to provide the building blocks that will shape this rich tapestry of places to create a truly unique and timeless community.

Each lot type contains a set of planning details tailored for its size and configuration. The specific dimensional regulations for each lot type are detailed in the Tuxedo Farms SmartCode.

ADIRONDACK

ENGLISH COUNTRY



FRENCH COUNTRY

HUDSON RIVER DUTCH

SHINGLE

HUDSON RIVER GOTHIC

ENGLISH ARTS AND CRAFTS

GREEK REVIVAL

In addition to a nuanced approach to the neighborhood plan, these Design Guidelines have been created to ensure that the character of the houses that define the streets and greens of the community contribute to an architectural composition that is both varied and ordered.

Building styles have been selected that will be well suited to the topography and seem at home in a rural forest setting. Further, the Design Guidelines of Tuxedo Farms are based on the architectural history of the region and the Town of Tuxedo. Building styles that matured locally, in response to the same landscape and on streets much like those of Tuxedo Farms, help to create continuity with nearby villages like Tuxedo Park, Goshen & Warwick.

Design Definitions

Bay Window - window or group of windows which projects beyond the face of a building.

Bracket -overhanging support of an eave or bay window.

Casement - window which is hinged on the side and swings along its entire length.

Cornice - the projecting molding at the top of a wall.

Dormer - roofed structure projecting from a sloping roof which shelters a window or windows.

Double-Hung - window having two vertically sliding sashes.

Eave - the lower edge of a sloping roof which projects from the face of the wall.

Gable - triangular wall defined by a pitched roof from the ridge to the eave.

Gambrel - two-sloped roof with a ridge where the lower slope is steeper than the upper.

Hip - roof of four sloping planes from the same eave.

Jerkinhead - roof form where a gable rises at least halfway to the ridge and becomes a hip.

Order - In Classical architecture, he specific styles and proportions of columns and details.

Rafters - sloping roof beams.

Roof pitch - the slope of a roof, usually given as a ratio of height to a base of 12.

Sash- frame that holds panes of lass in a window.

The Adirondack Style

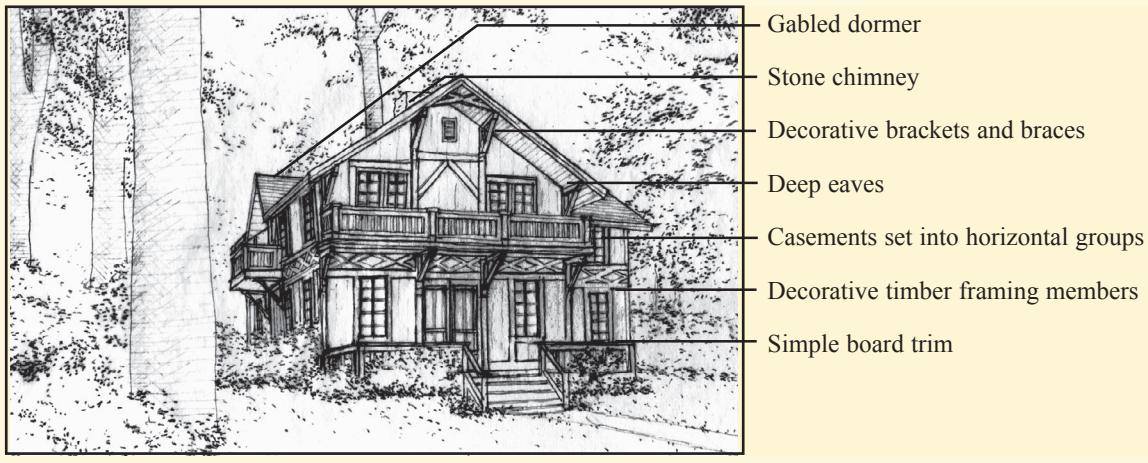
In the decade following the Civil War, the secluded banks of quiet lakes in the Adirondack Mountains became the summer retreats for members of the New York society. The cabins and lodges, know as the Great Camps, inspired a particular architecture, where Alpine forms were realized in local stone and timber. The great lodges at Sagamore, Uncas, Pine Knot and the other had their roots in the Swiss chalet.

Rustic, romantic and intimately suited to the mountain climate, the Adirondack style, with it's heavy beams and deep overhangs under a broad roof was a Gilded Age expression of blending in with the landscape.

Details, Materials & Colors

Massing: Informal composition, usually with major gable parallel to street for larger houses and perpendicular for smaller.
Roof Forms: Gables of medium pitch, from 4 in 12 to 6 in 12 with very deep eaves, exposed rafters, and decorative brackets. Jerkinheads and gable-over-hip roof ends are common.
Roofing: Wood shake recommended; asphalt or fiberglass shingles as approved by the Architectural Review Board
Dormers: Gables of same pitch as main roof with very deep eaves or long sheds of slightly shallower pitch than main roof.
Cladding: Rustic logs, random rubble stone, 6 in. horizontal siding, or board-and-batten.
Chimneys: Prominent, wide stone chimney.
Openings: Set high into wall, often touching the cornice line with simple rough trim.
Doors: Wood with upper 2/3 glazed, lower 1/3 divided into horizontal panels.
Windows: Vertical, divided casements paired or tripled to for horizontal groupings; diamond shaped and diamoned-paned accents.
Shutters: Board-and-batten, rustic board or solid panel.
Colors: Stained or natural wood finish main body and trim, deep red or blue on window frames.
Porches: Deep and numerous with posts of rustic logs.
Minimum Floor to Ceiling Heights: 9 feet on the first floor and 8 feet on the second.

Formal Character



Manor Estate Village Cottage

The English Country Style

Loosely based on houses found in Cotswold villages, the English Country style first appeared in America in the late nineteenth century. The style became very popular in the 1920's and 30's particularly with America's gentry, but also in the growing upper-middle class. Instantly recognizable by it's steeply-pitched, multi-gabled roof and massive chimneys, houses in the English Country style seem solid and cozy yet light-filled.

Tuxedo Farms' changing vistas and varying landscape creates an ideal setting for the casual, rural character of the English Country Style. For more information on this style, please refer to ***A field Guide to American Houses.***

Details, Materials & Colors

Massing: Asymmetrical in plan and elevation, side gabled with at least one prominent cross gable facing street.
Roof Forms: Tall gables, at least 9 in 12 and up to 12 in 12, with shallow eaves, overlapping gables and varying eave heights.
Roofing: Slate, synthetic slate or wood shake recommended; asphalt or fiberglass shingles as approved by the Architectural Review Board
Dormers: Gabled, steeply-pitched, typically integral to wall face below through the cornice.
Cladding: Stucco with light sand finish, smooth-finish brick.
Chimneys: Prominent and massive, usually brick or stucco to match primary wall finish, often placed at end of a major gable.
Openings: Set deep into exterior wall with trim either flush or recessed.
Doors: Rustic wood, often set into shallow-relief arch (round or flat-pointed), under small integral porch.
Windows: Typically 6-pane vertical casement, paired or in groups of three, oriel or semi-hexagonal bays are also common.
Shutters: Panel or vertical wood board, with our without "Z" bracing.
Colors: Natural to white stucco finish, primary trim in browns, accents in deep reds or olive green.
Porches: An extension or imitation of roof slope, often a curving flare supported by rustic wood posts or brackets or end porch under main roof of house.
Minimum Floor to Ceiling Heights: 9 feet on the first floor

Formal Character

Manor Estate Village Cottage

The French Country Style

The French Country Style was introduced to the United States by soldiers returning from World War I, full of romantic memories of the beautiful farm houses of Normandy. Clustered, steep-pitched roofs suggested the growth of a family farm over time, while details like tall, well-proportioned windows set deep into the wall recalled the fabled chateaux.

Tuxedo Farms' vast forested open space and country village character are ideal settings for the French Country house.

For more information on this style, please refer to ***A field Guide to American Houses.***

Details, Materials & Colors

Massing: Picturesque composition of clustered, hipped forms with varying eave heights; no dominant front gable.
Roof Forms: Hipped on the main body with 12 in 12 slope, with 9 in 12 flare beginning 3 ft. above eave, side wings hipped or gabled, shallow eaves.
Roofing: Slate, synthetic slate or wood shake recommended; asphalt or fiberglass shingles as approved by the Architectural Review Board
Dormers: Hipped or segmental-arched, often integral to wall face below through the cornice.
Cladding: Stucco with light sand finish, smooth-finish brick (painted or unpainted).
Chimneys: Brick with a flagstone cap or stucco with a tapered cap centrally often located within the mass.
Openings: Set deep into exterior wall, often trimmed with narrow brick moulding, brick, stone, or aged-wood lintels.
Doors: Single or double, multi-paned on the upper 2/3, of natural wood or painted same as trim color. Often set into a simple arch.
Windows: Multi-paned casement typical, also double hung.
Front windows are tall with sills at the level of the finished floor.
Shutters: Wood louver or rustic vertical board.
Colors: Natural to white stucco finish, trim in dark gray or pale green.
Porches: Formal, symmetrical entry porch with balcony above and/or hipped wing off main house.
Minimum Floor to Ceiling Heights: 9 feet on the first floor and 8 feet 6 inches on the second.

Formal Character

Simple geometric masses topped by steep roofs, with secondary pitches intersecting close to the eave.

Segmental-arched dormers

French casement windows set vertically into deep openings

Living areas extending through French doors onto terraces and loggias.

Forms arranged with an air of restrained informality

Cotttage Village Estate Manor

The Hudson River Dutch Style

Dutch settlers and the gambrel-roofed colonial house are both associated with the regions surrounding the Hudson River, on Long Island and northern New Jersey. Popular lore put the two together and the name stuck. Though having little relation to rural architecture in Holland, this style occupies a prominent place in the history of American domestic architecture because of its re-emergence in the early twentieth century.

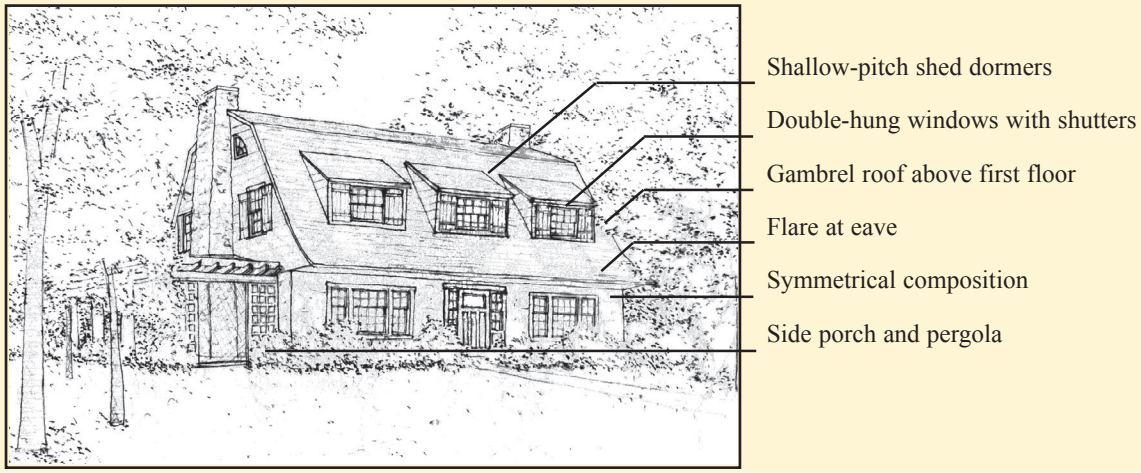
At Tuxedo Farms, the Hudson River Dutch house is a reminder of both the region's rural history and the community's small-town character.

For more information on this style, please refer to ***The Dutch Colonial house*** *by Aymar Embury.*

Details, Materials & Colors

Massing: Second floor under main gable which is ordered, symmetrical composition on facade.
Roof Forms: Gambrel, with 4 in 12 on the upper 1/3 and 9 in 12 on the lower 2/3; gently curving flare at eave.
Roofing: Wood shake recommended; asphalt or fiberglass shingles as approved by the Architectural Review Board
Dormers: Substantial shed as continuation of upper roof slope, pedimented gables if symmetrically placed.
Cladding: 4 to 6 in. horizontal wood siding with corner boards, brick, stucco or stone often used on ground floor.
Chimneys: Brick or stone, typically placed on both main gable ends.
Openings: Set close to flush with wall surface and framed with 4 in. trim boards.
Doors: Paneled Dutch door or six-panel Colonial with sidelights and fan light or transom.
Windows: Double-hung with 6/6, 6/1 or 9/9; casements on ground floor only, quarter rounds in pairs high on gable ends.
Shutters: Two-panel with decorative hole in upper panel; louvered may be used on second floor if solid panel on first.
Colors: White main body with very pale blue-green or faded red-oxide trim.
Porches: Formal, symmetrical entry porch of classical detail; large round-columned side porch; pergolas.
Minimum Floor to Ceiling Heights: 9 feet on the first floor and 8 feet 6 inches on the second.

Formal Character



Estate Village Manor Cottage

The Hudson River Gothic Style

The picturesque idealization of country life is a notable American invention from European precedent. The Hudson River Gothic style owes much to Alexander Jackson Davis, whose publications on American cottage architecture helped define the characteristics of the style in the mid nineteenth century. With rural simplicity and romantic gothic-revival details and ornament, the Gothic style was an immensely popular sign of the sophistication with the earliest builders of retreats outside the city.

No town in the valley of the Hudson River is without a few cottages of this character oand style. In keeping with this precedent, The Hudson River Gothic style will offer a charming and contextual accent to the Neighborhoods of Tuxedo Farms.

Details, Materials & Colors

Massing: Simple, rectangular volume with ordered composition.
Roof Forms: Gable (from 6 in 12 to 12 in 12), with secondary gable (at least 12 in 12) often centered, perpendicular to street and framing decorative window, paired or triple gables symmetrically placed, L-shaped plan; open eaves, exposed rafters.
Roofing: Wood shake or standing-seam metal recommended; asphalt or fiberglass shingles as approved by the Architectural Review Board
Dormers: Wide gables, integral to wall through cornice.
Cladding: Horizontal wood siding with narrow exposure, corner boards, board-and-batten, stucco; decorative gable trim.
Chimneys: Brick or stone, centrally located within mass, usually turned on the diagonal.
Openings: Set close to flush with wall surface with 4 in. trim boards; drip mould window crown.
Doors: Centered within composition; double, fully glazed or glazed on upper 1/3.
Windows: Double-hung 2/2, 1/1 or eight-paned casement, often paired or set into box bay; central, pointed-arch accent.
Shutters: Louvered.
Colors: Dark greens, blues, and reds or white for main body, white trim.
Porches: One-story, full-width porch, symmetrically placed; square posts with decorative flattened-arch brackets.
Minimum Floor to Ceiling Heights: 9 feet on the first floor and 8 feet 6 inches on the second.

Formal Character

Manor Village Estate Cottage

The Shingle Style

Characterized by a skin of cedar shingles enveloping casual Queen Anne massing and disciplined by classical detailing, the Shingle Style is really an amalgam of styles. It describes the architecture of fashionable resorts surrounding New York City before the turn of the century. The town of Tuxedo was endowed with some of the most famous examples of the style, particularly by one of its most imaginative proponents, Bruce Price.

The shingle style is particularly at home in Tuxedo Farms, where the same mountains and valleys inspired the style's original designers.

*For more information on this style, please refer to **The Shingle Style and The Stick Style** by Vincent Scully.*

Details, Materials & Colors

Massing: Picturesque, gently-profiled forms which meld together; overall complex form with asymmetrical facades.
Roof Forms: Gabled, gambrel, or hipped, with 8 in 12 or less pitch (except for gambrel); characterized by forms flowing into each other; shallow, flared eaves.
Roofing: Wood shake recommended; asphalt or fiberglass shingles as approved by the Architectural Review Board
Dormers: Shed with low pitch or the continuation of the upper pitch of gambrel: gable with shallow eave, hipped, or eyebrow.
Cladding: Cedar or paintable cementirious shingles with maximum 6 in. exposure; no corner boards.
Chimneys: Stone, brick or shingled
Openings: Set close to flush with wall surface, flat or simply profiled wood trim a minimum of 4 in. wide.
Doors: Dutch or solid panel, glazed upper 1/2, solid below.
Windows: Double-hung with multi-paned sash above, round, half-round, or elliptical accent windows; Palladian windows at central locations.
Shutters: Solid panel or louver.
Colors: Shingles naturally weathered, trim in white with dark green or black accents.
Porches: Roof usually an extension of main roof line, supports are stone, shingled piers, Tuscan columns or square wood posts.
Minimum Floor to Ceiling Heights: 9 feet on the first floor and 8 feet 6 inches on the second.

Formal Character

Cottage Village Estate Manor

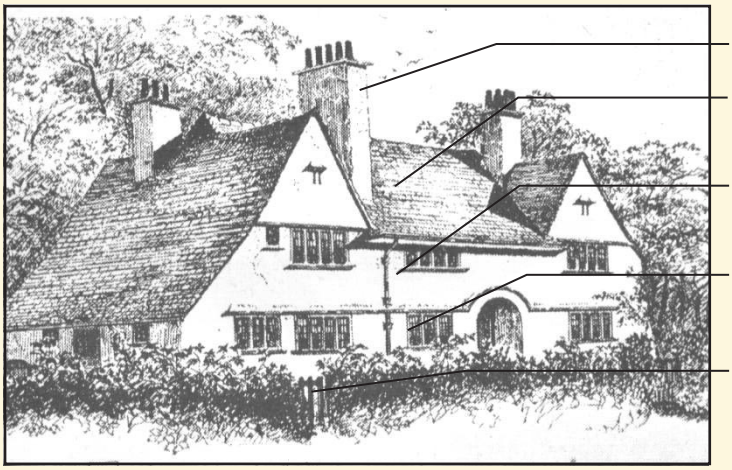
English Arts And Crafts

The arts and crafts style emerged at the tumultuous turn of the 20th century. Remarkably, the arts and crafts style of architecture was much overlooked in its day - being overshadowed by the tide of modernism emerging alongside it. While similarly eschewing the influence of the neoclassical, the arts and crafts departed significantly from the modern movement, adopting the less revolutionary tenets of design unity, joy in labour, individualism and regionalism. These principles resulted in an architecture that was at once emblematic of change while being wholly contextural and appropriate to their locales. Tuxedo and Tuxedo Park have buildings that borrow heavily from this legacy. It is in this spirit that this style of architecture will find an important place in neighborhoods of Tuxedo Farms.

Details, Materials & Colors

Massing: Picturesque, gently-profiled forms which meld together; overall complex form with asymmetrical facades.
Roof Forms: Gabled, hipped or shed, with 8 in 12 or more characterized by forms flowing into each other; shallow eaves and rakes with simple trim.
Roofing: Wood shake recommended; asphalt or fiberglass shingles as approved by the Architectural Review Board
Dormers: Shed with low pitch or gabled with similar pitch to primary roof forms
Cladding: Stone. Stucco or brick often with stone accent.
Chimneys: Brick with a flagstone cap or stucco with a tapered cap.
Openings: Set deep into exterior wall, often trimmed with narrow brick moulding, brick, stone, precast or aged-wood lintels.
Doors: Single or double, multi-paned on the upper 2/3, of natural wood or painted same as trim color. Often set into a simple arch.
Windows: Multi-paned casement typical, also doublehung. ganged windows typical.
Shutters: Not common.
Porches: Asymmetrical placement, porches often under extensions of primary roof slope. Stone terraces and garden walls are common.
Minimum Floor to Ceiling Heights: 9 feet on the first floor and 8 feet 6 inches on the second.

Formal Character



Cottage Village Estate Manor

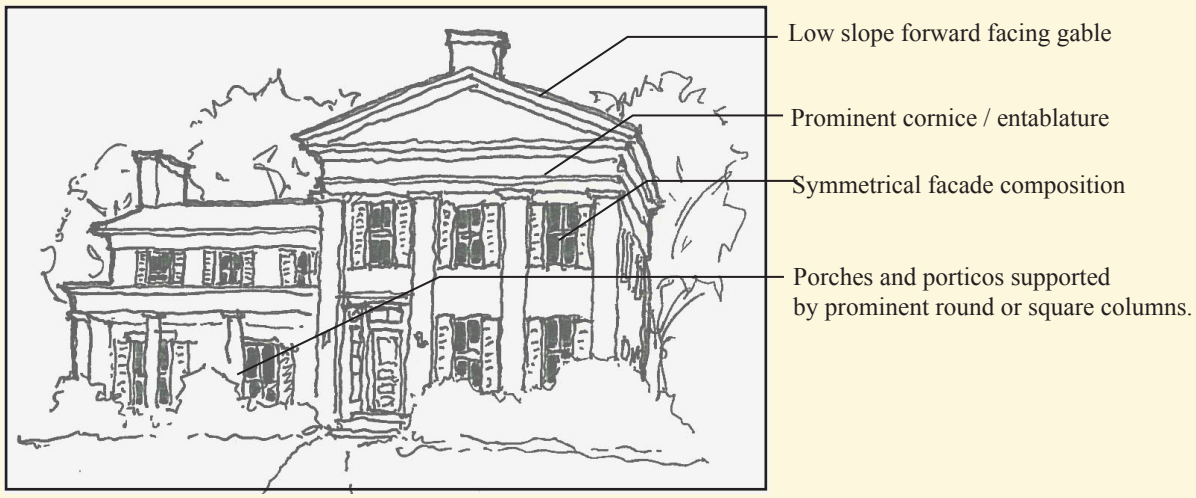
Greek Revival

In the early 19th century, the influence of ancient Greece eclipsed that of Rome in American architecture. Stimulated in part by the publication of "the Antiquities of Athens by James Stuart and Nicholas Revett, Greek precedent thrived in Europe before jumping the pond to take root in America. Once here, the Greek Revival became a very popular style and it was documented in several widely circulated builders companions that enabled the common carpenter to become fluent in the details of the style. By the late 1830's, the Hudson River Valley and become an established center of culture and architecture and in this context, the Greek Revival found a home even among the more picturesque styles that infuse the region. It is this spirit that the Greek Revival finds a place at Tuxedo Farms.

Details, Materials & Colors

Massing: Formal composition usually with a prominent gable perpendicular to the street. 1/2 stories are not common.
Roof Forms: Gables of low pitch, from 4 in 12 to 6 in 12 with deep eaves and strong entablature.
Roofing: Wood shake recommended; asphalt or fiberglass shingles as approved by the Architectural Review Board
Dormers: Dormers are not common within this style.
Cladding: Shingle, stone, stucco, clapboard or brick. On larger homes a stone base might be introduced as well as pilasters supporting the heavy entablature.
Chimneys: Prominent, wide stone or brick chimney.
Openings: Symmetrical, large openings with substantial trim.
Doors: Solid wood or with upper 1/4 glazed. Transoms and sidelights are common.
Windows: Vertical, double hung windows, infrequently paired, with substantial and formal trim.
Shutters: Louvered or solid panel
Colors: White is common with field and trim the same color. As an alternative, strong solid colors at field with lighter contrasting trim. Shutters are usually black.
Porches: Formal front and/or side porch common. Double height porches with large order columns also common.
Minimum Floor to Ceiling Heights: 9 feet on the first floor and 8 feet on the second.

Formal Character



Cottage Village Manor Estate

House styles have been selected for Tuxedo Farms that in combination form harmonious streetscapes. Most have asymmetrical, informal compositions suited to the fabric of the gently rolling landscape. In the tradition of small towns in the region, Tuxedo Farms also includes a few examples of more formal styles -- in particular, the Hudson River Dutch, Hudson River Gothic and Greek Revival which should be used as accents to a streetscape.

Estate Lots

Manor Lots

Village Lots

Cottage Lots

The natural topography of Tuxedo Farms has hills and valleys throughout. This hilly terrain creates conditions on many residential lots that require a more nuanced approach to planning of the architecture.

As with all of Tuxedo Farms, much attention has been paid to the quality of the places being created. To this end, it is being suggested in these Design Guidelines that careful attention to house and garage placement, even on such challenging terrain, can have a significant impact on the character of the streets and neighborhoods.

In all cases, the house and lot planning principles favor a de-emphasis of the garage as the primary form on the street and we strongly encourage planning and design that incorporates the garage in a way that allows the homes and porches to enliven the streetscape.

An "uphill lot" is a lot which rises uphill away from the road. Since the terrain of Tuxedo is in places rocky, fitting the house to the slope through balancing cut and fill is a practical strategy for developing a lot. Due to the sloping conditions, it is not uncommon for the garage to face forward or otherwise find itself in the forward portion of the lot. The diagrams below suggest some strategies for dealing with sloping lots in a way that mitigates the perceived presence of the garage from the street or pedestrian way. All of these strategies are common in traditional neighborhoods throughout this country where neighborhoods have been planned on more challenging terrain.

Park Under: *On the more steeply sloping lots, it may be necessary to face the garage forward. In these cases it is preferable if the garage is tucked under an upper story of living space or deck. You will notice in this diagram that the garage doors are set back from the primary facade of the house. This allows the house form and porch to remain the dominant feature from the street. It is recommended that the garage doors always be behind the primary house facade and in no case should the garage be forward of the primary facade of the house.*

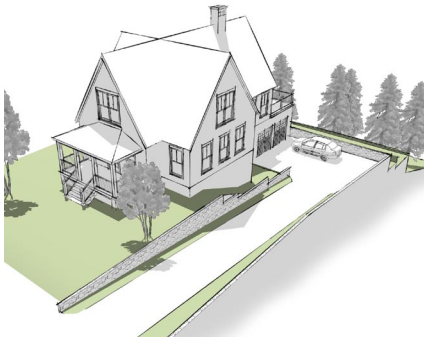
Forecourt: *On slightly less steeply sloping lots it may be possible to push the primary home up the hill facing onto a parking court that serves both the home and the garage. While this can create a wonderful forecourt condition, it usually necessitates an outdoor connection from the garage to the primary home that may not be desirable in a northern climate.*

*****See the Tuxedo Farms SmartCode for specific regulations regarding garage placement, size and configuration.***

Park Behind: *On lots with sufficient width, it is possible to bring the driveway past the primary home to serve a garage at the rear of the lot (either attached or detached as shown above) Ultimately this is the most effective way to both de-emphasize the garage while providing a convenient connection to the primary home. In this configuration, it is very convenient to imagine that the upper floor of the garage become expansion space for the primary home. This said, on the narrower lots in Tuxedo Farms, this strategy will be difficulty to employ everywhere - but it is one of several effective strategies to consider.*

A "downhill lot" is a lot which slopes down away from the road. As in the uphill lot scenario, fitting the house to the slope through balancing cut and fill is a practical strategy for developing a lot. The diagrams below suggest a variety of strategies for managing a downhill sloping lot condition. The photographs on the following page show some of these strategies in practice. As with the uphill lot conditions, it is equally important to manage the driveway and garage locations to allow the primary home to always be the dominant form and experience when viewed from the street. A front porch or stoop dominated streetscape is one hallmark of most cherished places and it is worthy of emulation at Tuxedo Farms.

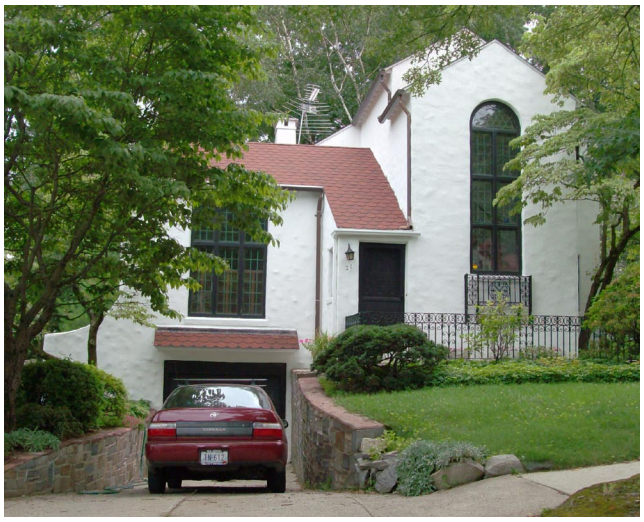
Front Loaded: *On the most steeply sloping and narrowest lots it may not be possible to tuck the garage behind or turn it away from the street. In these cases, the garage should always be set behind the primary facade of the home and should be part of a secondary volume or roof. There are many successful examples of neighborhoods planned in this fashion - it is the careful attention to detail and intentional de-emphasis of the garage space that will allow this strategy to be effective at Tuxedo Farms.*



Park Under: *The strategy above is a common solution to downhill sloping lots in more tightly knit neighborhoods. This strategy can be effective on fairly steep and narrow lots and should find much use in the neighborhood streets of Tuxedo Farms. Bringing the garage down and behind the home not only removes the garage from the street edge, but it provides a natural location for a rear porch or terrace ideally suited to take advantage of downhill views characteristic of Tuxedo Farms.*

*****See the Farms SmartCode for specific regulations regarding garage placement, size and configuration.***

Forecourt: *On less steep or wider lots, the following strategy can be very effective. While the garage is indeed forward of the primary home, it is turned to keep the garage doors from directly facing the street. This has the effect of creating an inviting driving / forecourt that still allows the primary home to remain dominant on the site. A covered and sometimes enclosed breezeway is often introduced to provide protected access from the carriage house to the home.*



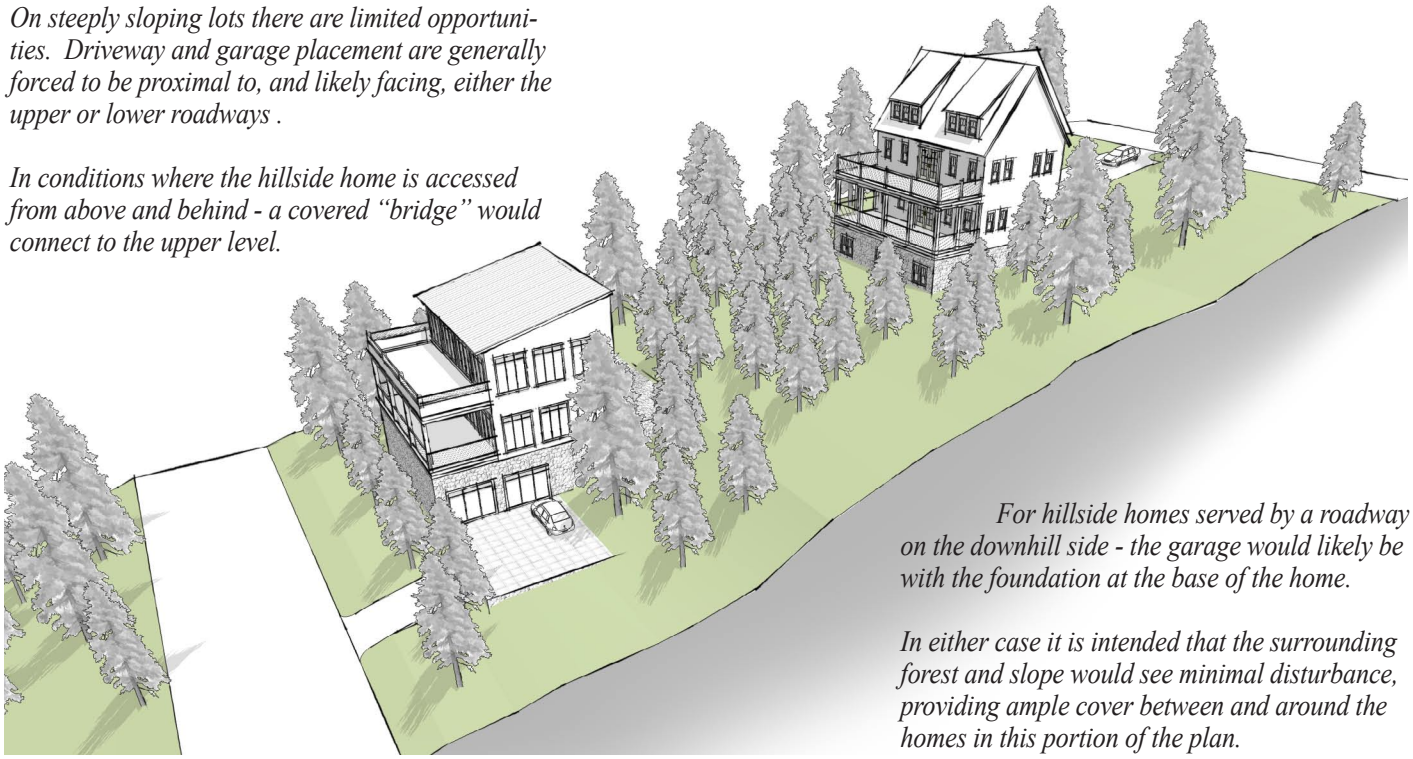
At Tuxedo Farms there are several very specific locations where lots have been planned on more challenging slopes. These lots are typically in the more rural portions of the site where views are abundant. In these locations there are a handful of strategies that are effective for providing a reasonable home with minimal disturbance to the surrounding land. The following diagrams and photographs suggest how these homes might be configured and considered at Tuxedo Farms.

Side Elevation

Side Section

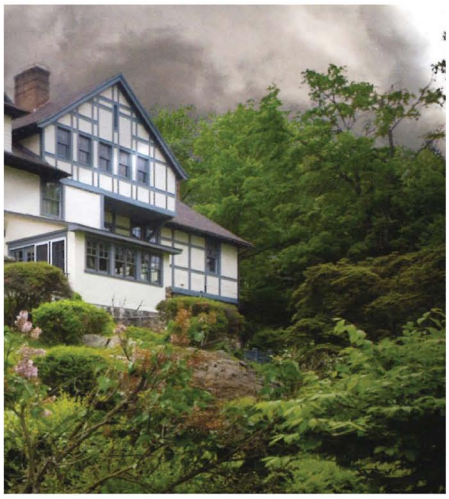
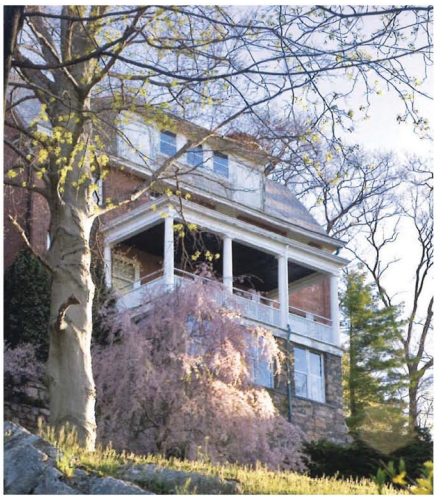
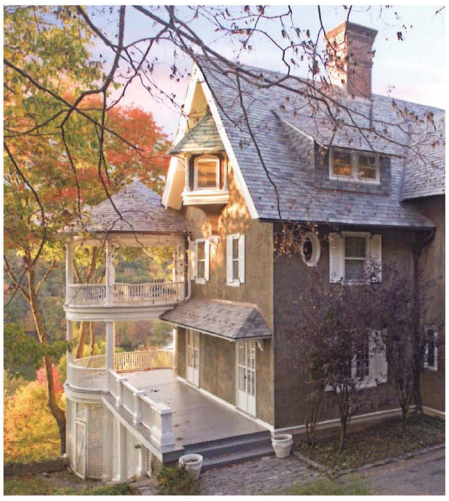
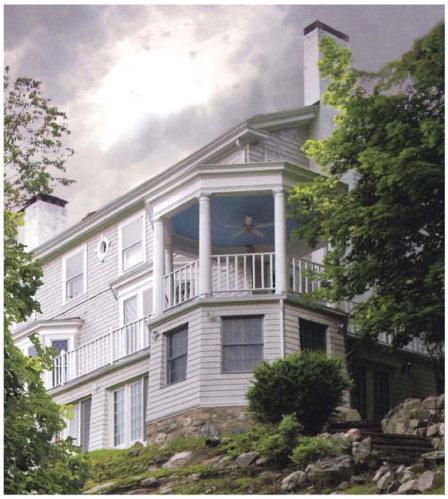
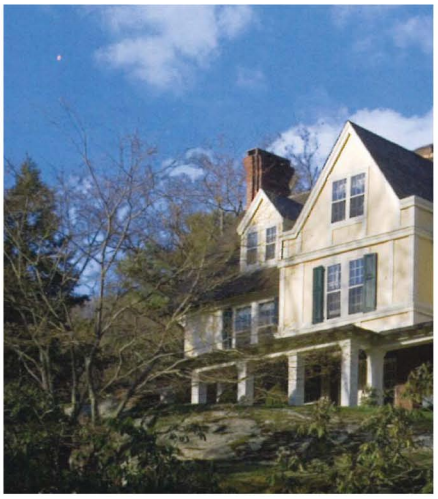
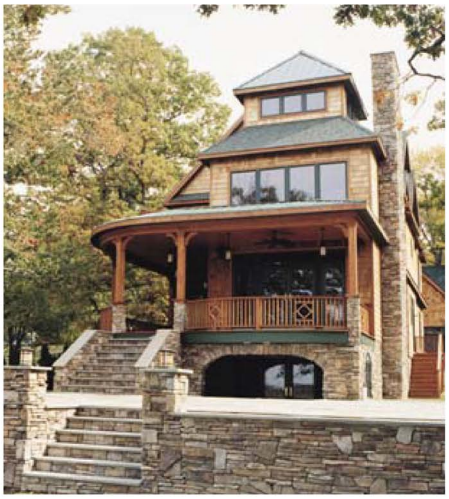
On steeply sloping lots there are limited opportunities. Driveway and garage placement are generally forced to be proximal to, and likely facing, either the upper or lower roadways .

In conditions where the hillside home is accessed from above and behind - a covered "bridge" would connect to the upper level.



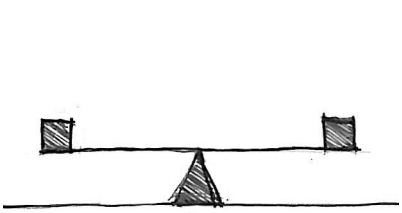
For hillside homes served by a roadway on the downhill side - the garage would likely be with the foundation at the base of the home.

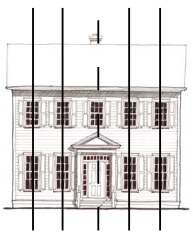
In either case it is intended that the surrounding forest and slope would see minimal disturbance, providing ample cover between and around the homes in this portion of the plan.

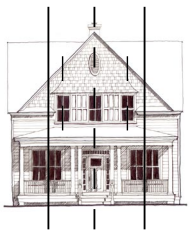







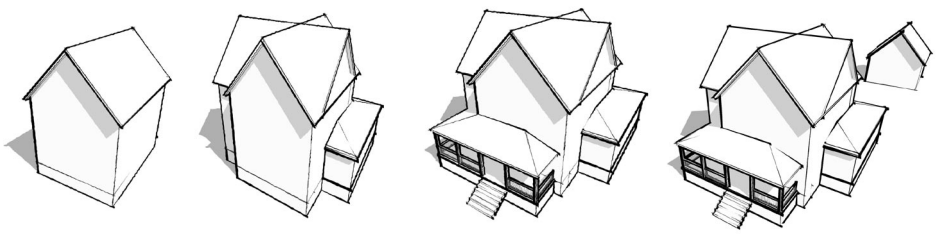

Architectural Principles and Guidelines

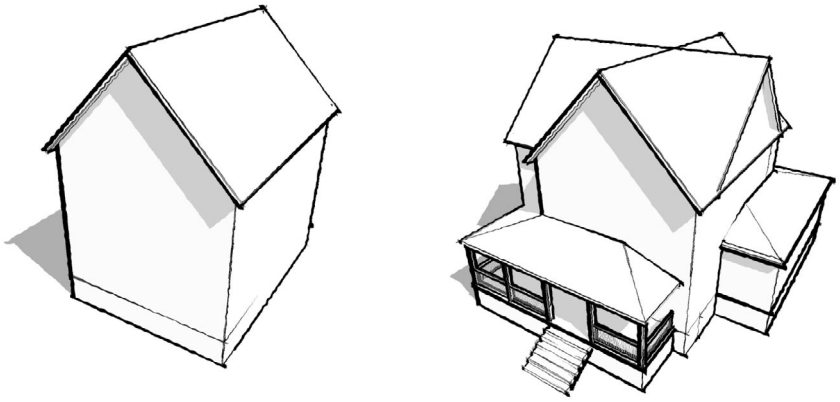
While the style guidelines introduced in the previous pages provide guideance as to the range of architectural expression appropriate at Tuxedo Farms, the following set of guidelines are intended to illustrate basic principles of form, composition, material and detail. The pages that follow are by no means exhaustive, but are intended to address those items that are most often overlooked in contemporary residential construction. For additional guideance on the form and details of traditional construction, refer to ***Traditional Construction Patterns*** by Stephen A. Mouzon, and ***Get Your House Right*** by Marianne Cusato & Ben Pentreath.











24.1 Traditional architecture utilizes strong primary volumes.

24.2 Clear building forms reflect historic deference to necessity, economy and simplicity.

Discussion

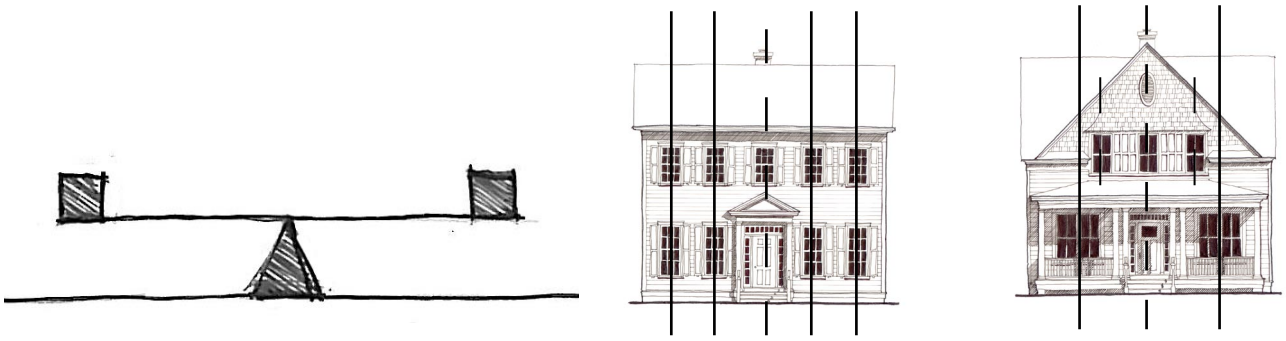
- Traditional Hudson valley architecture is characterized by the clarity of basic building forms. Simple, reserved and well-proportioned houses are the rule of the day.
- Historically, people have relied on tried and true building forms that most efficiently utilized space, shed water and allowed for ample sunlight into the interior.
- Smaller homes may be one single clear form - larger homes may incorporate a second or a third volume in clear harmony.
- Simple ornament and proper detailing can make even a simple form elegant. It is not necessary to overcomplicate the basic form merely because of scale.
- Many contemporary examples of faux classical residential use forms that are overly complicated, with no single form clearly legible.

Discouraged

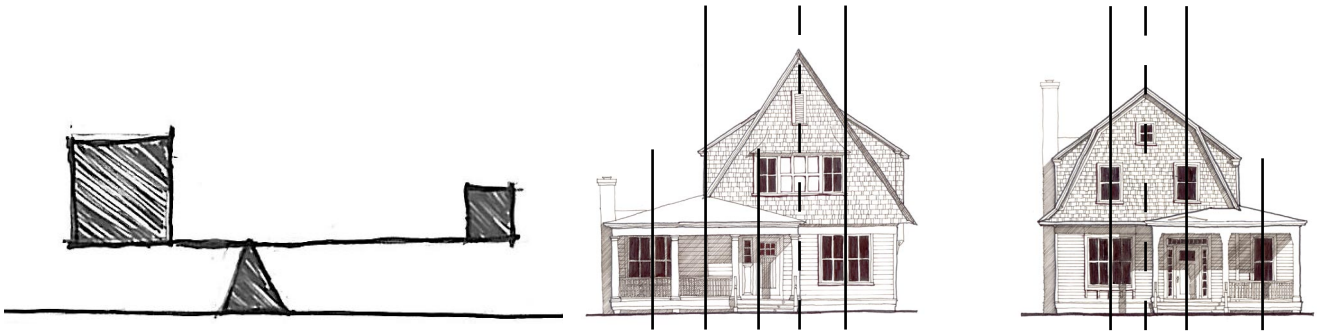
24.3 Contemporary residential forms are overly complicated with multiple roof forms and protrusions that take away from the efficiency and economy of the home.

Discussion

- While traditional buildings are often symmetrical, this is not a necessity to achieve a satisfying elevation.
- Elevations should maintain a sense of balance with openings, massing elements and roof forms - these can be manipulated to achieve a satisfying composition even within asymmetric massing (see figure 25.2 below)



25.1 An elevation can have a bilateral symmetry about a central axis with windows and doors ordered to reinforce the symmetry of the primary volume.



25.2 An elevation may also have an asymmetrical composition, but the openings, massing elements and roof forms should be careful to maintain a proper sense of balance.

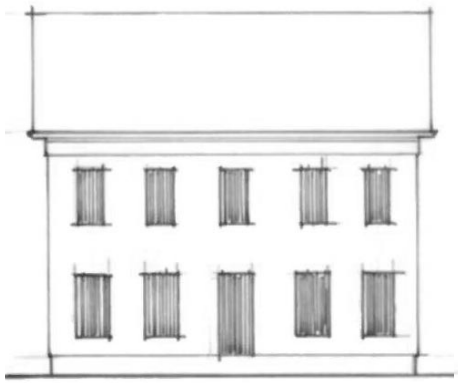
Discouraged

25.3 Avoid building design that does not show care in balancing the massing and openings on any given facade.

Discussion

- Windows and doors are generally organized in an ordered fashion dividing the primary façade into thirds, fourths or fifths.
- Windows are typically ordered to reinforce the symmetry of primary volumes and are organized to harmonize with the pattern of porch columns.
- Accent windows and bays can be used to great effect to balance asymmetrical massing. The windows on upper and lower floors are typically ordered vertically on the main façade.
- Door locations typically respond to the overall order of the elevation and are generally arranged relative to a window or windows above.

26.1 Windows usually stack to maintain order and a sense of structural integrity.

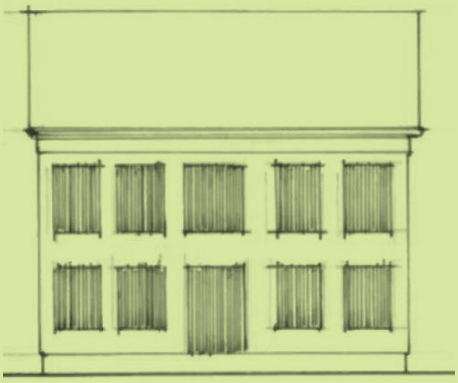


26.2 Attention should be paid to the percentage of solid to void. Enough wall should remain to suggest strength and enclosure.

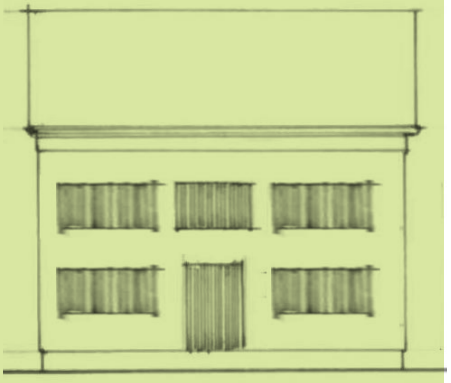
26.3 Use vertical proportions generally. Avoid horizontal windows unless they are composed of groups of square or vertical windows.

DISCOURAGED

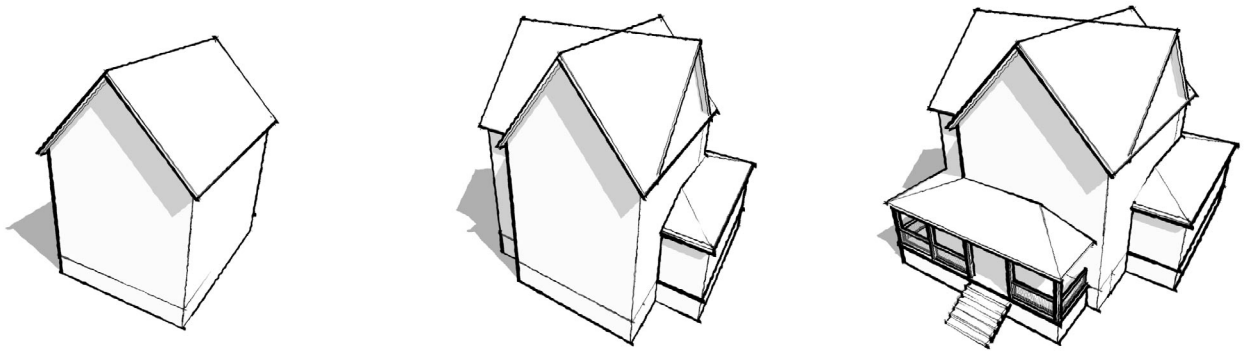
26.4 Misaligned window in a simple facade creates a sense of disorder on the elevation.



26.5 In addition to being inefficient - the oversized openings in this facade leave behind a lattice of wall surface that appears structurally deficient.

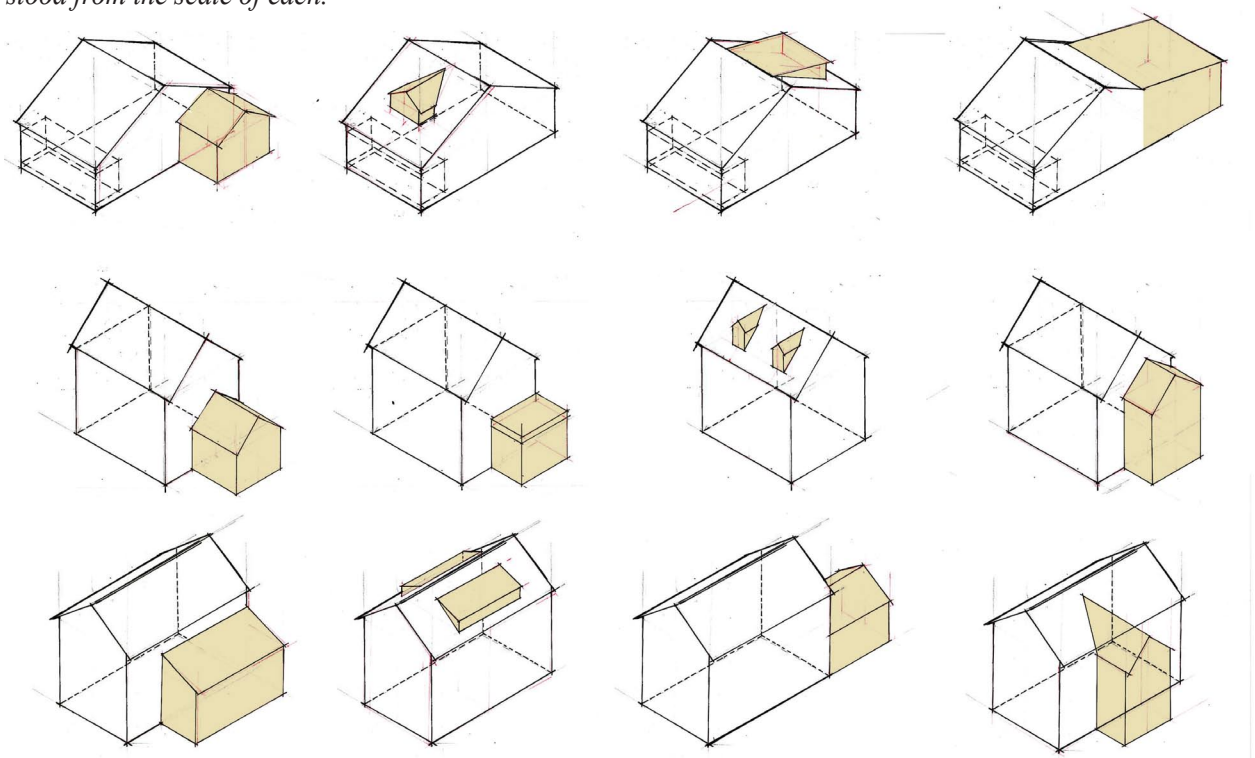


26.6 Avoid the use of horizontal glazing that is not comprised of vertical elements

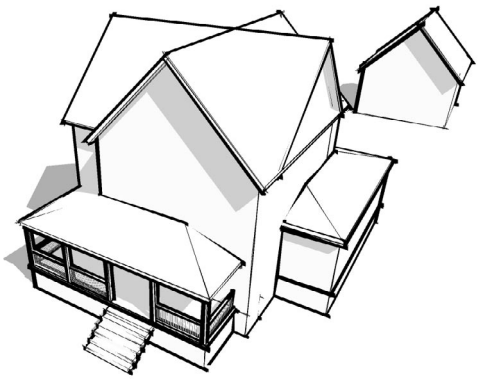


27.1 As growing families and village life begin to demand more from single structures, the need for additional space was accommodated by building integrated wings or additional structures that were subordinate to the original house.

27.2 A backbuilding connects the main house with an addition. There is a hierarchy among the three pieces that can be understood from the scale of each.



27.3 There are various ways to expand and transform an existing home. Additions are most successful when they defer in scale and proportion to the primary form of the original building.



28.1 The design of the outbuilding should be harmonious with that of the main house.

28.2 The outbuilding above takes design cues from the main house in its roof form, window proportions and materials.

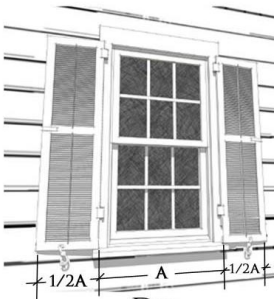
28.3 The roof of the carriage house mimics the roof forms and materials of the main building, creating a visually satisfying composition. However, the carriage house is of a scale that is deferential to the main house, with lower floor to ceiling heights and a roof that is set below that of the main house.

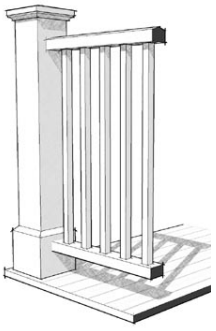
Discussion

- Outbuildings and detached garages often serve as focal pieces in their own right and should have detailing sympathetic with the main structure.
- Outbuildings and detached garages can take design cues from the main house, including roof shape, windows patterns, proportions and materials.
- All ancillary structures should be designed in a way that does not compete in scale or volume with the primary building mass.

28.4 The garage is deferential to the main house by having a lower roof spring line than that of the main house. However, the two structures share similar materials and proportions, creating an aesthetic harmony among all parts.

Architectural Materials & Methods





Encouraged

29.1 DO - The image above is a classic use of stone to form the base of a turret on a shingle style building. While the rest of the house may be shingle - the stone is used consistently to highlight the base of this volume. Stone is a visually "heavier" and a stronger material than shingle; in traditional construction, heavy materials are always used at the base to support the building above.

Discussion

In their simplest form - exterior walls of individual buildings should be consistent in material throughout a major building form or volume. Where changes in material do occur they should follow these basic guidelines.

A. Changes in material should only occur between major building volumes - either vertically or horizontally.

B. Materials should always be placed such that visually "heavier" materials are below visually "lighter" ones.

C. Use transition elements / trim at vertical changes in material.

D. Avoid using too many materials in a single building even if the transitions are handled well

Materials applied to single "faces" of buildings should be avoided - see 29.2 below.

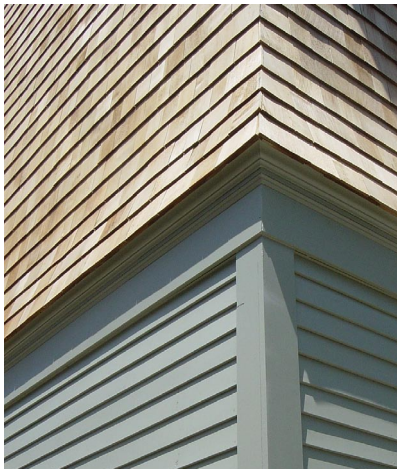
Not Permitted

29.2 Don't - The examples above illustrate volumes that have stone applied to a single face with clapboards returning on either side. The resulting effect is that of a Hollywood stage set, revealing the use of stone as an applied surface. Such treatment of the material is wholly inappropriate for the weight and mass of the material.

Encouraged

30.1 Changes in material occur here to emphasize specific building volumes. Despite the use of several materials, there is a harmony among the parts.

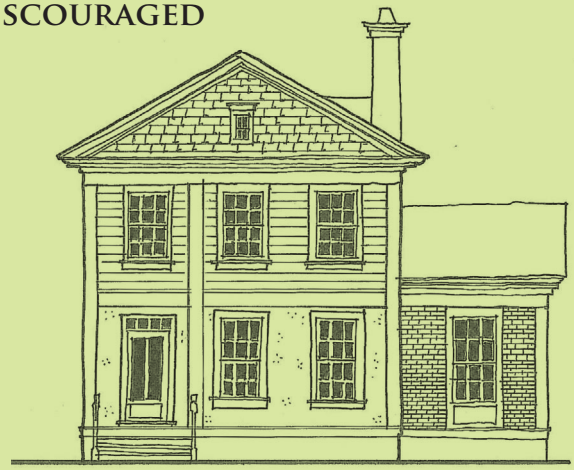
Trim pieces delineate the transition from one material to another.



30.2 Details such as those above create an elegant transition from one material to the next.

Discouraged

30.3 Avoid using visually "heavier" material, ie. brick or stone, above visually "lighter" materials, ie. clapboards or shingles.



30.4 Avoid using too many materials on one facade. Too many materials can create unnecessary aesthetic confusion among the various elements - the goal is to unify the building composition.

31.1 Proper eave detailing is not difficult or cost prohibitive, it just takes a little time and will convey a sense of true craftsmanship .

Discussion

No single detail of the house is as important as the eave for conveying correct proportion and detail. There are several basic guidelines for proper treatment of roofs that are consistent throughout most building styles in New England.

The guidelines suggested here should provide ample latitude for design while limiting those conditions which reflect lack of care and / or crafstmanship.

Encouraged

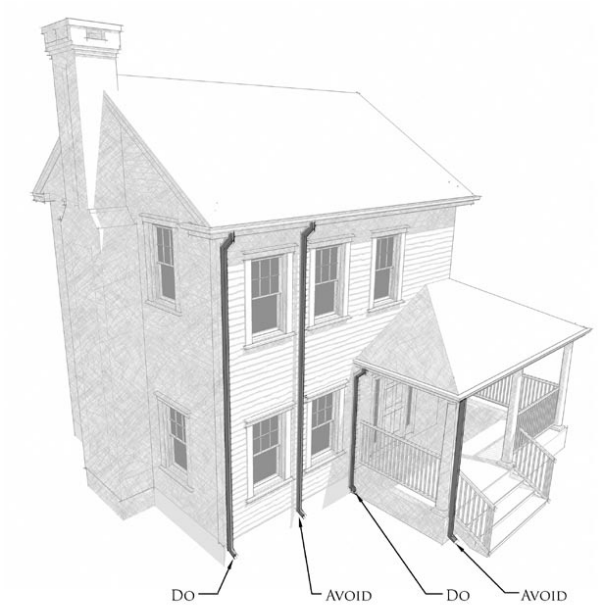
Discouraged

Not Permitted

*31.2 **Encouraged**: Appropriate eave return at a gable end. Flashing / waterproofing on top surface of gable return is not visible when viewing the façade - and in no case should be greater than 1:12. The primary eave trim and detailing is carried fully around – symmetrically disposed about the corner board.*

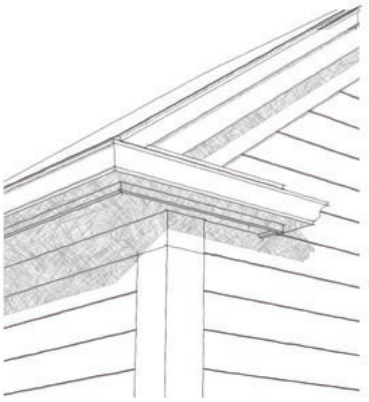
*31.3 **Discouraged.** Eave return is much too long – extending further past the corner board than it should. The pitch at the return significantly exceeds 1:12 – probably more like 8:12 in this case.*

*31.4 **Unacceptable**. The classic "pork-chop" eave return avoids the issue of the pitch at the return by fully enclosing the eave in a triangular "box" at the intersection of the eave and rake.*



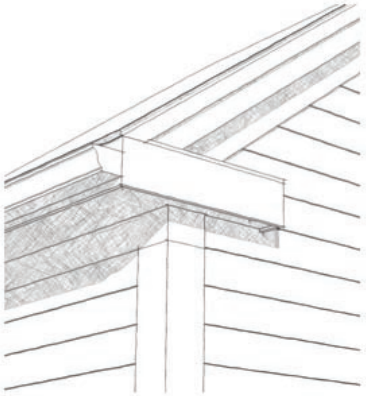
32.1 Downspouts should be located at interior or exterior corner. Downspouts in the middle of the facade should be avoided.

Encouraged



32.2 Ogee gutters should return with the eave or entablature and die into the face of the house.

Discouraged



32.3 Avoid ogee gutters that do not return with the eave.

Discussion

Gutters and downspouts are an integral part of the design of many houses built today – and the basic components can be used to great effect or they can become an eyesore. These simple rules of thumb will allow these very functional elements to be integrated well into any home.

A. Downspout locations should be carefully considered relative to the natural vertical components of the house. In general, downspouts should be located at interior or exterior corners – preferably integrating with a major vertical element in that location. Downspouts located randomly at the middle portion of the elevation are unacceptable.

B. Ogee gutters deserve particular attention as they relate to eave returns at the gable end as discussed on the previous page.

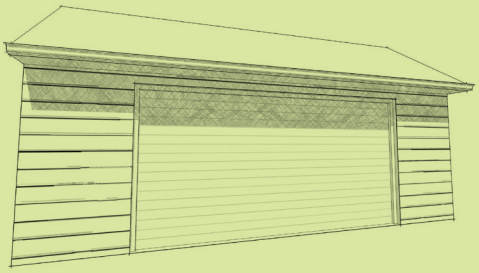
The ogee gutter is shaped intentionally to emulate the crown moulding at the eave. As such, the gutter becomes part of the profile of the eave. In cases where the ogee gutter is used, it should return with the eave and die into the face of the house, as shown in the diagrams and photographs to the left.

**Where it is not possible for ogee gutters to be used correctly - half round gutters suspended on hanging brackets should be used instead.

Encouraged

33.1 Garage doors deserve design attention - aim for vertical proportions among all components. Vertical proportions can be achieved by using two separate doors and including transom lites along the top bay of the door.

Not Permitted



33.2 Avoid double-wide garage doors that detract from the character of the street.

Discussion

Garages have become a significant element of residential architecture over the last 100 years. Despite their size and proximity to the street - garages are often given very little consideration beyond the purely functional. In order to prevent the garage from undermining the character of traditional streets, several points should be considered whether in new design or renovation.

The diagram and photographs above left provide examples of all of these points while the lower images should be considered undesirable.

A. Wherever possible visually break a double bay garage door into two separate doors.

B. Wherever possible use carriage house style doors (these may be roll-up with detailing to emulate carriage house doors)

C. Transom lites in the topmost bay of the door can be used effectively to increase the "verticality" of the composition

D. Where possible and appropriate - a small canopy or trellis can be used to create a shadowline and break up the elevation

E. Avoid the use of a single 16' wide door (along with A above)

F. Garages should always be designed in harmony with the architectural style of the primary building or buildings.

G. Single 16' wide doors are permitted where not directly facing a primary road (alleys excluded). In cases where single 16' doors are used, they should be designed with relief, windows and hardward to emulate as closely as possible a "carriage house" style.

This Page Intentionally Left Blank

Discussion

A house designed with all the best intentions can fall apart without proper consideration for the windows. Traditional precedent offers many simple guidelines for the design and detailing of windows that will keep the fenestration in keeping with the neighborhoods surrounding Tuxedo Farms.

A. Windows and window panes should be generally vertical in proportion. ***Where gangs of windows or a bay are desired, the components of such assemblies should be vertical while the assembled group of windows may be horizontal*

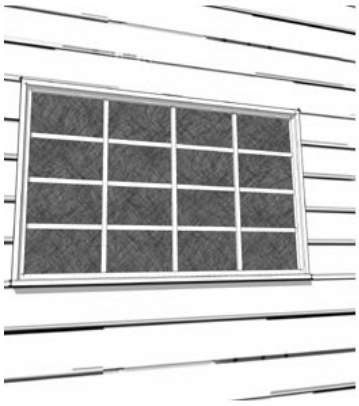
B. Window trim should be comprised of an obvious sill that is deeper than the casings, along with substantial jamb and head casings deeper than the adjacent siding. Windows should not be "picture framed" on four sides using the same trim material.

Encouraged

34.1
Proportion: Both window and individual panes are vertical in proportion.

Trim: Clear expression of a window sill and drip along with side "legs" and window head trim that are similar in proportion.

The head trim may be emphasized more (as in the photograph above) but many examples of simple cottage architecture make use of simpler head casing details that are effective and appropriate.



Not Permitted

34.2
Proportion: Both window and individual panes are proportioned horizontally. This is not a window pattern found in traditional New England architectural styles and should be avoided.

Trim: This window is shown with a thin "brick mould" trim surrounding the window on all sides. This detail is appropriate where a window is set within a masonry opening but appears thin when used in conjunction with traditional wooden siding materials.

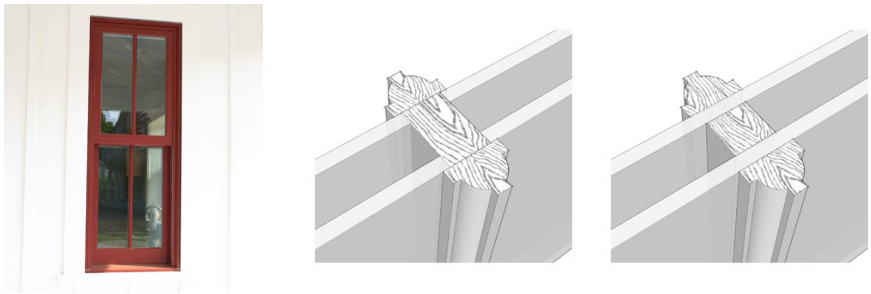
Not Permitted

34.3
Proportion: Overall window is a vertical composition but the individual panes are horizontal

Trim: Traditionally - trim should not "picture frame" a window with equal sized trim on all four sides.

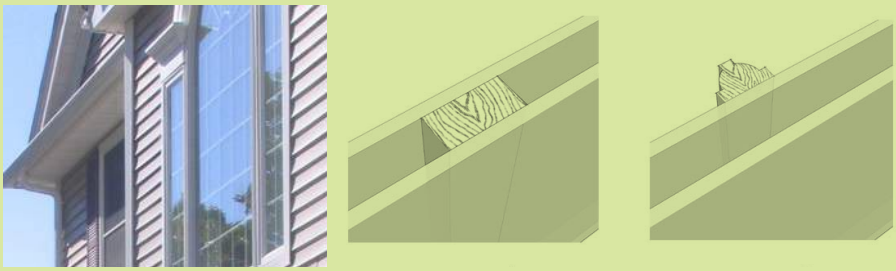
Muntins

Encouraged



35.1 The most visually appealing and properly constructed windows have true muntins separating each window lite.

Not Permitted



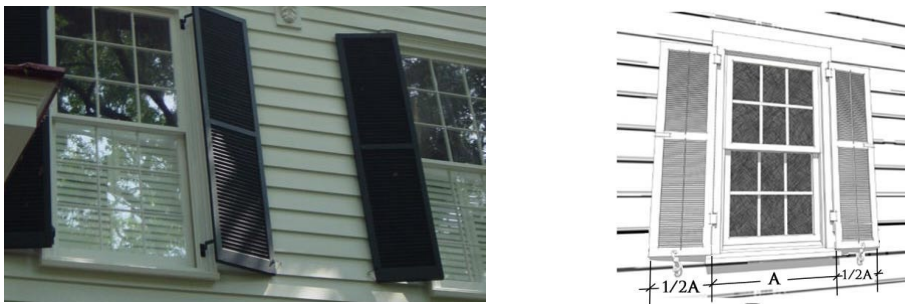
35.2 Windows with applied muntins on the exterior face of the lite, or embedded within the double glazing lack the depth and interest that true muntins create.

Discussion - Window Muntins

Historically, windows were constructed with muntins that separated each lite. New technologies and manufacturing techniques have eliminated the true divided lite window construction. Contemporary windows with muntins applied to the exterior face, or embedded within the two layers of glazing lack the shadows and depth that true muntins create.

True divided lite or SDL (Simulated divided lite) windows are encouraged. SDL windows have permanently exterior and interior muntins and an integral spacer bar. Snap in or removable muntins should be avoided.

Encouraged



35.3 Shutters should be operable, or appear operable, and be sized to fit the window when closed.

Not Permitted

35.4 The shutters on the building above would cover only half of the necessary opening if they were ever closed.

Discussion - Shutters

Shutters were developed to filter or prevent the passage of air and light into a building from the outside. They cannot serve their purpose without being operable and sized to fit each window. Shutters, therefore, should be sized to half of the sash dimension of the windows and should be mounted in such a fashion that they appear able to be closed. Shutters may be of either paneled or louvered type.

Shutters that appear too large or too small to cover the window opening when closed should be avoided.

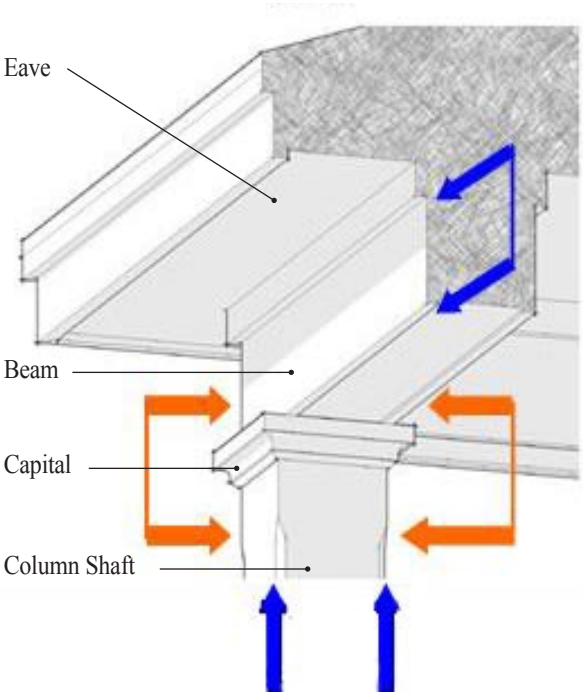
36.1 Covered porches at a minimum of 8' deep extend living space to the outdoors. Traditional American streetlife is characterized by the lively interaction between neighbors on the front porch.

36.2 Covered stoops help to mediate between the public realm and the private domain of the house.

General Discussion

Porches, porticos and canopies serve an important functional purpose and work to moderate the scale of the single family home with the scale of the pedestrian. Given that porches and porticos represent the most public face of a given structure– great attention should be paid to the detailing and overall proportion of these amenities relative to each neighborhood and building.

Covered porches function best at a minimum depth of 8'. Porches may be one or two stories tall with either flat, shed, gabled or hipped roofs. Front porches / entry porticos are traditionally arranged to address the most public face of the house and where called for, to address more than one public face.



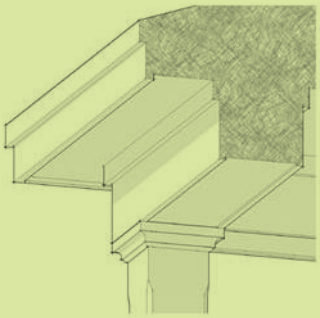
37.1
The faces of the column shaft should align with the vertical faces of the porch beam.

Discussion

The results of a well-built porch are rewarding and enrich the character of the house. A few simple guidelines regarding alignment can help to ensure proper porch construction.

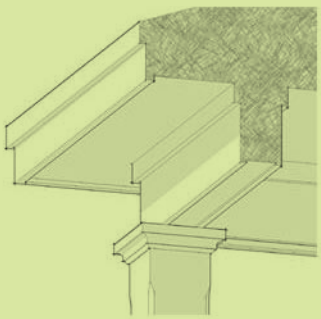
- Porch eaves and rakes usually extend past the face of the porch beam a minimum of 8" (exclusive of any gutters).
- The face of the finished porch beam should align with the neck of the supporting column on both the interior and exterior. Avoid instances where the porch column is narrower than the porch beam or vice versa. Porch beams are traditionally as deep as the supporting columns are wide.

Discouraged



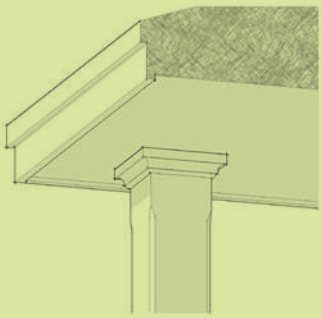
37.2
Avoid column capitals that are as wide as the beam. Column capitals should extend beyond the face of the beam. In traditional wood construction, the trim for the capital is applied to the column shaft, which is aligned with the face of the beam.

Not Permitted



37.3
Avoid constructing porches with columns that are wider than the beam, or are misaligned from the face of the beam.

Not Permitted

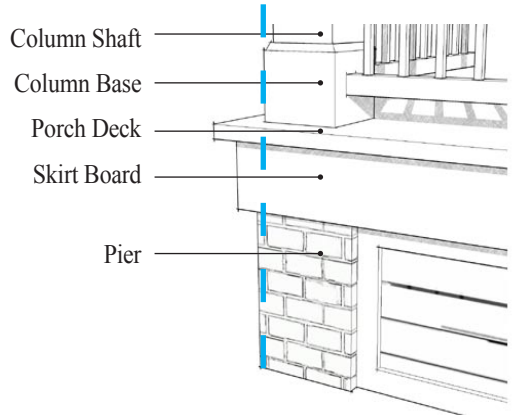


37.4
Avoid details that eliminate the use of a beam altogether. Columns that support the ceiling directly appear ready to puncture the ceiling surface. Beams are meant to support the roof and should not be omitted from the assembly.

Discussion - Column Base

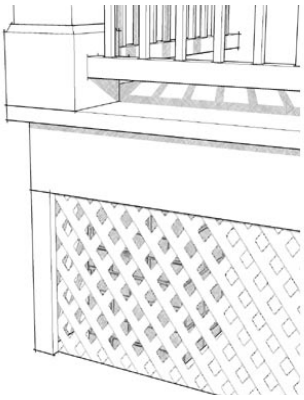
- Porch columns should be a minimum of 6" square or 8" diameter with a clear representation of both capital and base.
- The face of the column base should align with the face of the pier below.

Encouraged



38.1 Align the face of the base with the face of the supporting pier. This

Not Permitted



38.2 Avoid locating the column so that the base is flush with the decking. This arrangement does not look structurally sound.

Encouraged

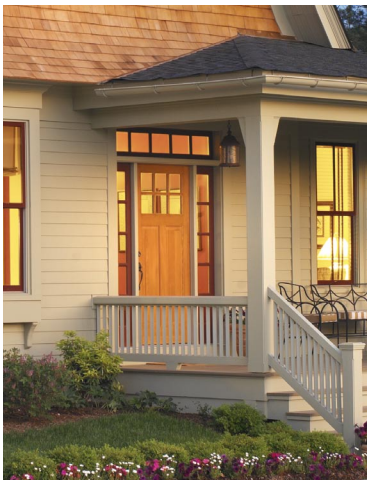
38.3 Infill panels between porch foundation piers are often lattice.

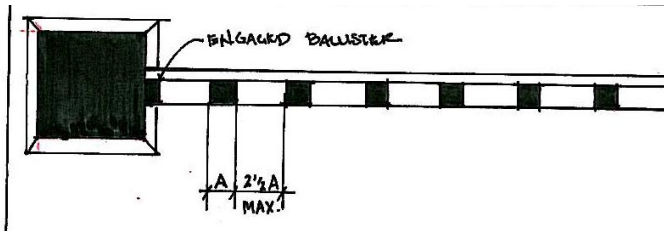
Not Permitted

38.4 When using lattice, avoid using lattice that is oriented diagonally.

Discussion - Piers and Panel Infill

- For wood deck style porches, the gaps between foundation piers are traditionally infilled with lattice or panel. Lattice infill is usually oriented vertically.
- The spaces between lattice strips or between panels should be between 1 ½" and ¾" wide.
- Porch foundation piers not made of brick or other finish material can be clad in either stucco, brick or exterior trim to provide a finished appearance.



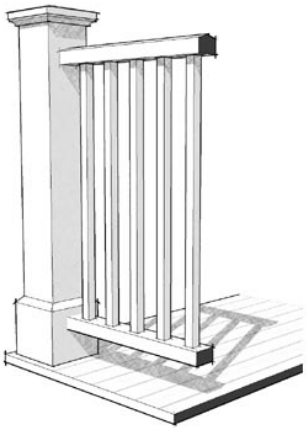


39.1 Balusters are traditionally spaced 2.5 diameters apart. It is common for the railing to begin and terminate with an engaged baluster.

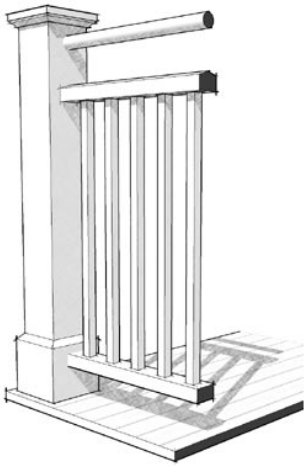
Discussion - Railings

- Porch railings and balusters are traditionally painted wood, and can be painted fiberglass, with square or turned balusters set between a top and bottom rail.
- Railings are not to exceed that height required by local code. If a railing or guardrail is required by code to be greater than 36" tall it shall have it's major rail set at 34" or less, the upper code-complying rail being as minimal as practical.

Encouraged

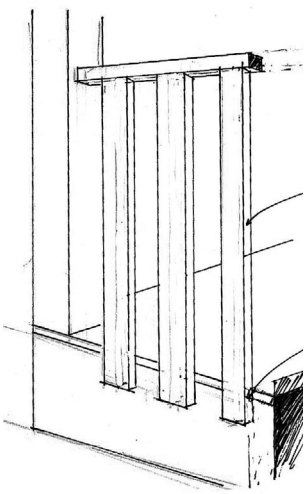


39.2 Traditional railing assemblies are constructed of balusters set between a top rail and a bottom rail.

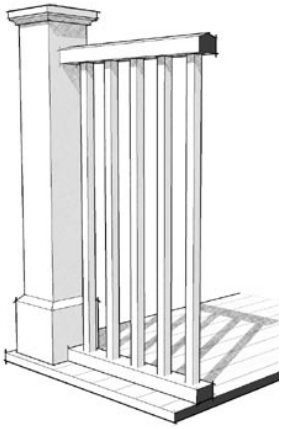


39.3 When code requires, an additional pipe rail should be located at 36", but the major rail should be set at 34" or less.

Not Permitted



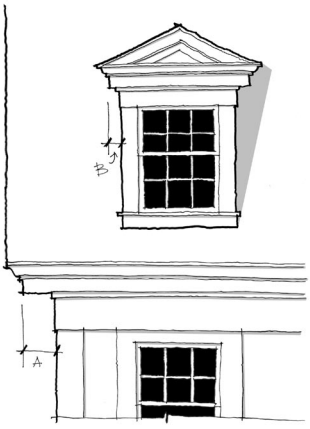
39.4 Avoid railing assemblies that lack a bottom rail and are composed of framing stock nailed directly to the rim joist.



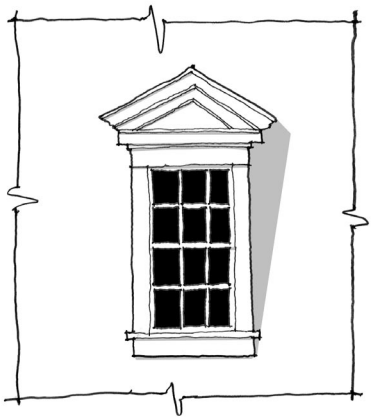
39.5 Avoid bottom rails that are set on the porch deck. There should be a space between the bottom of the porch rail and the deck to allow for the passage of water. The condition illustrated above will quickly rot.

40.1 Dormer placement is based on the window pattern below, but does not repeat it. The distance between eaves is at least twice the width of the window.

40.2 A smaller window means the entire dormer looks proportional to the main windows.



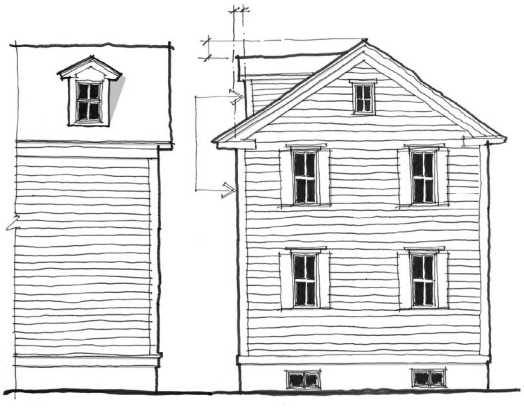
40.3 Here, the amount of the overhang and the width of the trim elements that make up the cornice have been reduced by about one-half.



40.4 Scale the dormer so that only casing and corner boards are required.

Discussion - Dormers

- Space dormers comfortably on the roof in relation to the pattern of windows on the body of the house.
- Scale the dormer windows down befitting their lesser role and accounting for the added mass of the dormer. Together, the dormer window and roof should have an equal "visual height" as the main windows.
- Scale the dormer eave and overhang detail up or down as required to approximate the proportion of the main eave in relation to the overall roof.
- Detail the dormer such that windows have casing or cornerboards that receive the side walls.
- Set the dormer within the field of the roof. Locate the dormer back from the face of the main house such that the sill rides just above the roof with just enough below for flashing. Generally, the ridge of the dormer should fall below the ridge of the main roof so that it appears subservient to the more important main roof.



40.5 Step the dormer back from the facade of the house so that they are in different planes. Keep the dormer beneath the ridgeline to maintain proper hierarchy.

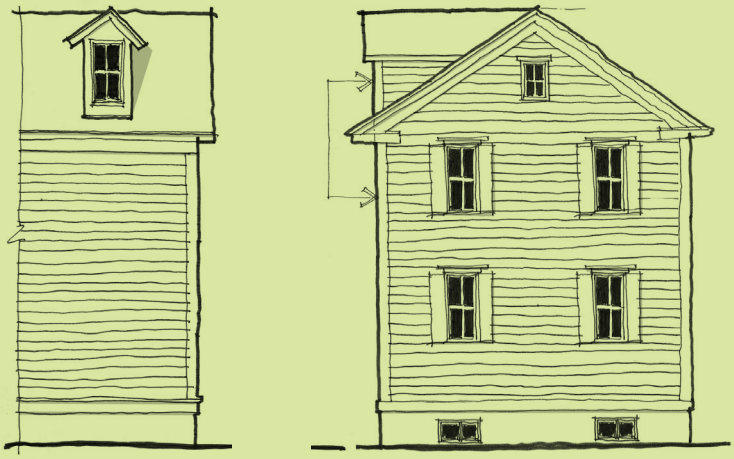
Dormer Conditions to Avoid

41.1 Avoid spacing dormers too closely with uncomfortably tight clearance at the eaves.

41.2 Avoid using the same size window in the dormer as in the body of the house. The visual weight of the window and its dormer will create a top-heavy feel.

41.3 Avoid using the same detail for the eave of the dormer as for the eave of the main roof. The proportion should decrease as the relative scale of the roof decreases.

41.4 Avoid detailing dormers such that the window is set within a "wall" and siding is required between the casings and the corner.



41.5 Avoid placing the dormer such that it extends to the limits of the roof. Don't align the dormer's face and ridge with the main house facade below and with the ridge of the main roof above or it runs the risk of compromising the visual hierarchy among the elements.

Discussion - Chimneys

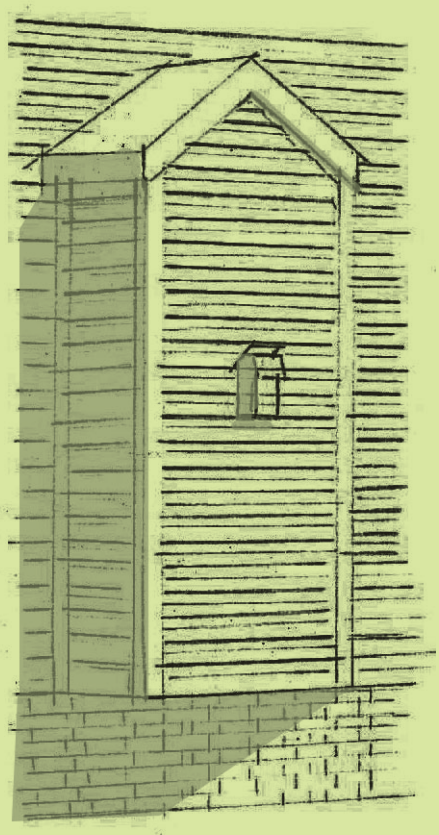
In traditional New England architecture, chimneys were located in the middle of the plan, and the hearth was the central gathering space within the home. As residential building types evolved, the chimneys were pushed to the side ends of the house and became beautiful expressions of structural masonry. The chimneys were often detailed with much care and understanding of masonry construction. Chimney caps were designed in proportion to the chimney and to the entire building and added much character to the composition.

Unfortunately, contemporary home building practices have reduced the chimney to cantilevered appendages that veil the functional requirements of a true chimney. Today's common chimneys are wrapped in the same siding as the rest of the building and lack the expression of fireproof protection and structural integrity that is inherent in masonry construction. Shed boxes with direct vent flues are often the closest representation of a chimney that we can find in conventional building practices.

42.1 Continue chimneys down to the ground. They require visual and structural support at the foundation. Build chimneys of masonry or, at the least, non-flammable materials. Detail the chimney cap in a simple, easy to build manner.

Not Permitted

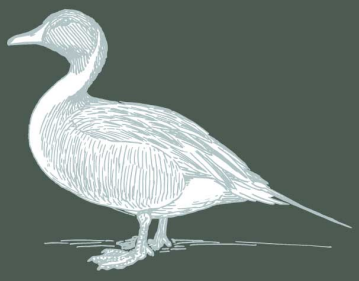
42.2 Avoid "floating" chimneys that are cantilevered without any sort of structural foundation. Avoid cladding the chimney in the same material as the building. Chimneys can be beautiful visual elements when distinguished from the main structure. Avoid large chimney caps that are visually top-heavy.



42.3 Avoid reducing the expression of the chimney to a shed box with a direct vent tacked on to the side of the house.

Because of the slopes in Tuxedo Farms, houses will be seen on all sides. Thus, all facades must be designed in the same style and architectural integrity as the front facade. All facades should be composed as carefully as the front. All facades must receive some sort of fenestration.
Each house must be designed in one of the approved styles.

	MATERIALS	DETAILS	TECHNIQUES
WALL CLADING	Exterior building walls should be constructed of brick, stone, stucco, clapboard, board and batten, or cedar shingles. Wood may be painted, and may be substituted by Hardie board, Masonite or other paintable material as approved by the Architectural Review Board. Cladding materials are a critical component to any style; refer to the style guidelines for appropriate materials.	All brick colors and stone types must be approved by the Community Architect. All facades should be clad in the primary cladding material. All joints in siding must be painted or caulked. Vertical corner trim on clapboard structures should be a minimum of inches wide . All Hardie board and masonite applications should only be used to replace painted wood cladding and must employ typical wood dimensions.	Brick should be coursed in horizontal running bond, common bond or Flemish bond. No brick ire-cut surfaces should be visible n the building exterior. Accent patterns may be used on sills, lintels, chimneys, etc. All clapboard siding should be arranged 4 in to 8 in to the weather. All stucco should receive a smooth sand finish. All stonework must be approved by the Architectural Review Board.
ROOFS, CHIMNEYS & GUTTERS	Roofs should be constructed of one of the following materials: cedar shakes, slate, artificial slate, standing- seam metal. Asphalt or fiberglass shingles are allowed but must be approved for color and type by the Architectural Review Board. Copper accents are encouraged. Gutters should be constructed of steel, aluminum or copper. Chimneys should be clad in brick, stone, cedar shingle or stucco.	Roof forms are governed by the description and pitch ranges in the appropriate style guidelines. Flat roofs are permitted over entry porticos and porches but must be accompanied by an architectural cornice a minimum of 2 ft. in height. Any other flat roofs should be used as an exterior deck accessed from the interior of the main building and should be edged with a parapet wall or railing consistent with the style of the house. All gutters should be set against a trim a minimum of 6 in. wider than the gutter itself. Unless made of copper, gutters should be painted to match the color of the main building or the color of the trim.	Gutters should be half-rounds or of a shape that completes the entablature of the house. Down-spouts must be full rounds or rectangular with a smooth surface.
PORCHES, TERRACES & DECKS	Porches should be constructed of wood. Front porch decking should be of tongue and groove type. Synthetic tonge and groove decking is allowable subject to approval by the Architectural Review Board. Masonry or stucco piers allowed under the appropriate style guidelines. Rear or side secks should be made of pressure treated wood, brick, stone or cast stone as appropriate to the house style Synthetic decking material is allowed subject to approval by the Architectural Review Board.	Porches should be of a style and massing consistent with the style and massing of the main house as directed by the appropriate style guidelines. Porches should be painted to match the predominant trim color of the main house. Any area below a deck must be screened by a material appropriate to the house style and appropriate landscaping. Screened porches should adhere to the same regulations as Side Wings.	Architectural elements like columns, piers, pilasters and cornices should be either of the Tuscan or Doric order and should be dimensioned and proportioned according to The American Vignola. Piers must be at least 12 in. wide and 12 in. deep. The depth of a wall with arches must be at least 12 in. deep.
DOORS & WINDOWS	Doors should be constructed of wood, metal-clad, or wood-veneer fiberglass. Windows should be constructed of wood or metal. Vinyl windows are allowed subject to approval by the Architectural Review Board.	Windows should be rectangular in configuration, vertical in orientation, and have a proportion of 1:2 or 2:3, unless approved by community architect. Accent windows may be circular, elliptical or half-round. Quarter round windows may be used if in a mirrored pair relating to an architectural feature. No more than three accent windows are permitted on any one facade. The glass on all windows and doors larger than 2 ft. by 2 ft. should be divided into separate lites by muntins. Window lites should be square or vertical in proportion. Muntins should be real or snap-on, provided that they are on both the interior and exterior of the glass. The same window types should be used on all facades.	Windows should be operable with the exception of small accent windows. Arched windows must be at least 12 in. tall and no more than 36 in. wide. Total window openings on the surface of any facade should not exceed 40% of the facade's surface area.
TRIM & DETAILS	Window shutters should be made of wood or a high-quality paintable synthetic as approved by the Architectural Review Board. Storm windows and doors should match the material and color of the window and door they are attached to. Architectural trim and cornices should generally be made of wood, brick, stone or cast stone as appropriate to the house style. Fiberglass, Paintable PVC or GFRC are allowable subject to approval by the Architectural Review Board.	The form and type of trim, cornices and window shutters should be governed by the appropriate style guidelines. Shutters should be operable or appear to be operable and should be of sufficient size to cover the entire window if both side are closed. Hold-open hardware should be used on all shutters.	Architectural cornices, pediments, entablatures, columns, pilasters and piers should be based on The American Vignola and should be of an appropriate character as defined for each style.



TUXEDO FARMS

LANDSCAPE DESIGN GUIDELINES

Approved November 2010

Update Approved April 2015

THE RELATED COMPANIES L.P.

HIGH DENSITY
T-4.2-5.2

Areas of high density within Tuxedo Farms have distinct landscape character that directly relates to the smaller lot sizes and close setbacks from roads. The higher density of housing within these lot types dictates a regular, structured landscape condition. The building density is reflected in a civic landscape defined by closely and evenly spaced street trees. The trees are often located on lot lines to allow for variation in driveway location along the street corridor. The high density of plant material and narrow building setback create pocket planting opportunities for each homeowner to make distinct landscape decisions while allowing for a consistant neighborhood character.

T-5.2

T-4.2

LANDSCAPE GUIDELINES

The landscape character of Tuxedo Farms takes its inspiration from the existing forested condition of the site. The landscape guidelines have been developed to create distinct neighborhood characters and function within an ecological framework.

Guiding Principles

The forested hills present an opportunity to integrate each of the community's neighborhoods with the natural landscape. The mature hardwoods and stands of hemlocks provide a cool and quiet leaf canopy. The forest is also a vital habitat alive with wildlife.

The preservation and re-establishment of areas of the forest provide the underlying philosophy that guides the development of the community. Site development should demonstrate this philosophy through design that reflects and enhances the naturally occurring woodland areas and rich forest edge ecologies.

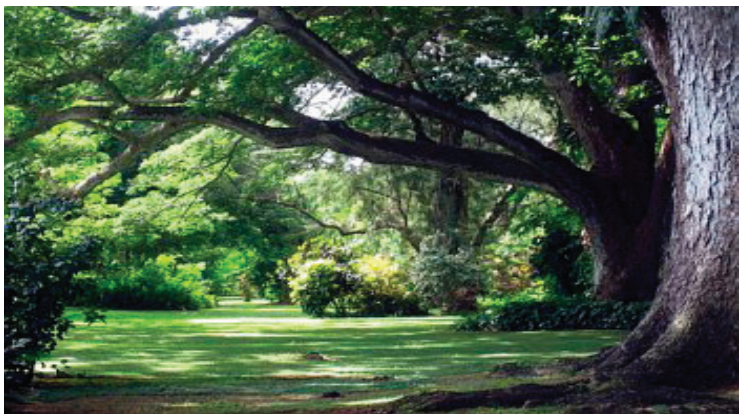
The hilly terrain of the community influences each residential lot. Moderate to steep slopes, small and large rock outcrops, and even dramatic cliffs are characteristic site features. Respect for these features determines the layout of each neighborhoods' residential lots. Within a residential lot; the siting of house, garage, driveway, porch, deck or terrace accommodates natural features.

ROCKS

MOSS

UNDERSTORY

SHADE TREES



MEDIUM DENSITY
T-3.2-4.1

Areas of medium density have a distinct landscape character that is vibrant and polychromatic. These lively landscapes work with the architecture to create a distinctive neighborhood feel. A critical component of these lots is the bio-retention system that sets the plant palette for the rest of the lot and overall neighborhood. The plants selected for this condition will include a mix of woody and herbaceous plant material which will bloom throughout the growing season. The overall structure of a medium density neighborhood is defined by clusters of irregularly spaced trees and a rich shrub and herbaceous understory.

T-4.1

T-3.2

LOW DENSITY
T-3.1

The low density neighborhoods have a landscape character that is characterized by a forested or re-forested condition. These areas that include Village, Estate, and Manor lots will be defined by a higher tree canopy coverage which will suggest an environment where homes are nestled into the woods. A greater flexibility with regard to sizing of decks, terraces, and lawns is included on these lots. The selected plant palette is reflective of the native vegetation of the site. The landscape around each house will be an ever changing palette of green to create a woodland feel that transitions into the surrounding forest.

T-3.1

T-3.1

GENERAL PLANTING GUIDELINES

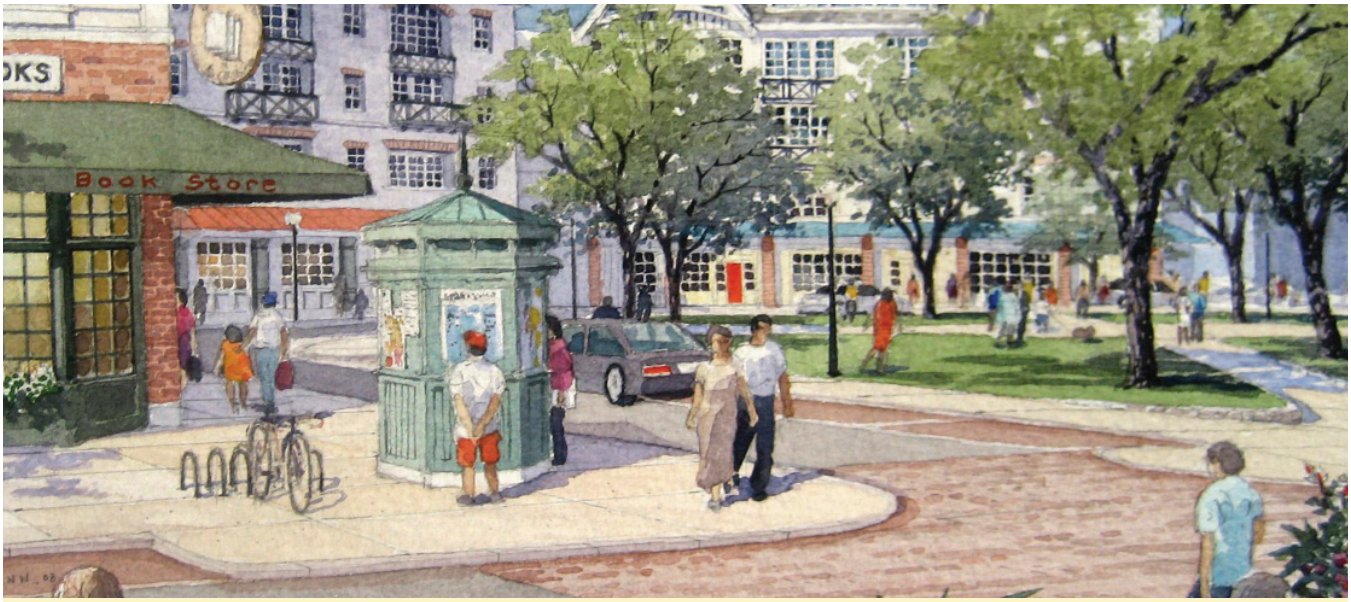
Due to the variety of lot types, sizes, and densities throughout Tuxedo Farms the landscape character of each neighborhood type varies. To achieve these distinct characters, planting required in the front and back of lot will vary. Front of lot planting is referred to as Landscape Realm 1 and back of lot planting as Landscape Realm 2.

The landscape condition at the individual lot scale has been divided into Realm 1 and Realm 2. This allows for a consistent neighborhood character throughout within Realm 1. A more flexible approach provides for greater variety within Realm 2 permitting the homeowner to create a landscape that fits their individual needs while contributing to the overall landscape character of the neighborhood. Landscape plans should be prepared by a New York State licensed landscape architect and shall be prepared in accordance with the requirements of these guidelines.

Planting should be used extensively throughout the project for multiple objectives, such as:

- Screening buildings and adding texture to walls
- Screening undesirable views
- Strengthening the pedestrian scale
- Buffering pedestrian walkways from the street, and buildings and parking lots
- Providing shade in public spaces and parking lots
- Assisting in neighborhood wayfinding
- Softening transitions between horizontal and vertical planes
- Providing a visual and noise buffer and breaking up hard surfaces
- Providing a tiered forest edge at transitions from forested to open landscape conditions

Layered landscaping with a mix of deciduous and evergreen trees should be incorporated into the landscape design. Plant palettes should emphasize massing and form rather than individual or small groupings of shrubs and trees. Understory shrub plantings are to be used as accent features to architectural elements such as porches and windows. The use of plant material is encouraged in order to to soften building edges. The plants provided in the recommended plant list provide an appropriate palette to achieve the desired landscape character.



GENERAL PLANTING GUIDELINES

Visual surveillance of common open space, parking areas, or dwelling entries and building facades facing the street should not be obscured through planting.

Plant materials shall be selected and located to avoid conflicts with the underground utilities.

Slopes for planted areas should not exceed 4:1 without mechanical slope stabilization. The maximum slope shall not exceed two to one. The minimum slope shall be two percent.

The top and toe of slopes within landscaped areas shall be setback a minimum of 2'-0" from fences, walls, property lines, street curbs, pedestrian/ bike paths or other hardscape surfaces in order to prevent drainage across these surfaces.

Plant deciduous trees no closer than 3'-6" to face of curb or sidewalk. Plant evergreen trees no closer than 6'-0" feet from face of curb. Plant shrubs no closer than 4'-0" feet from curbs or sidewalks.

Preserved existing trees and vegetation on lots are to count towards achieving the required planting guidelines.

Grouping of shrubs of medium size shall be planted with a spacing of .75 – 1.25 times the mature width. A grouping of large shrubs shall be planted with a spacing of .75 – 1.10 times the mature width.

Realm 1 plant selection will correspond to the T-Zone in which the lot resides. A recommended plant list has been developed for each zone and is to be utilized when designing the landscape for the lot.

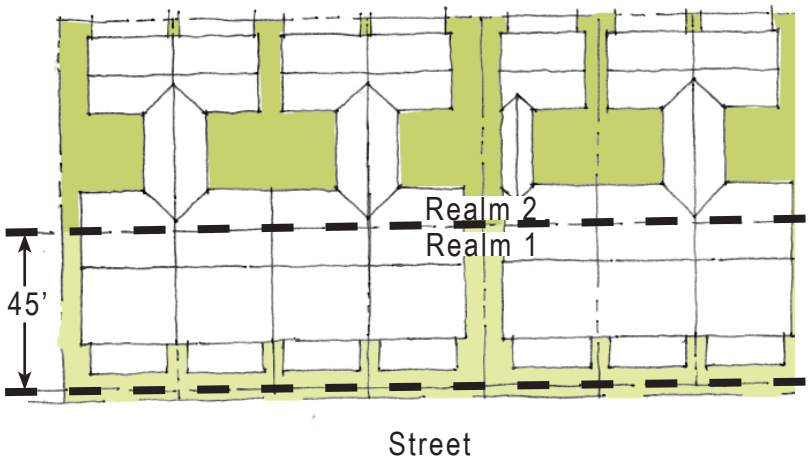
The planting palette shall be a mixture of recommended plant material (Refer to the recommended plant lists at the end of the Landscape Guidelines). The placement of canopy and understory trees shall be in scale and relationship to existing trees, site features, and architecture of the house.

Trees planted to achieve DEC stormwater standards do not count towards on-lot tree requirements.

TOWNHOUSE LOT

The Realm 1 planting will be based on the recommended plant list of the neighborhood density and T-Zone location.

- In Realm 1 of the lot, Townhouse lots are required to have one understory tree per two lots.
- All plant selections will be a combination from the recommended Realm 1 list based on T-Zone lot location.
- In Realm 2 of the lot, one understory tree is required per two lots.
- A minimum of 40% of the total lot plantable area shall be planted in shrub and herbaceous plant materials selected from the corresponding T-Zone plant list.



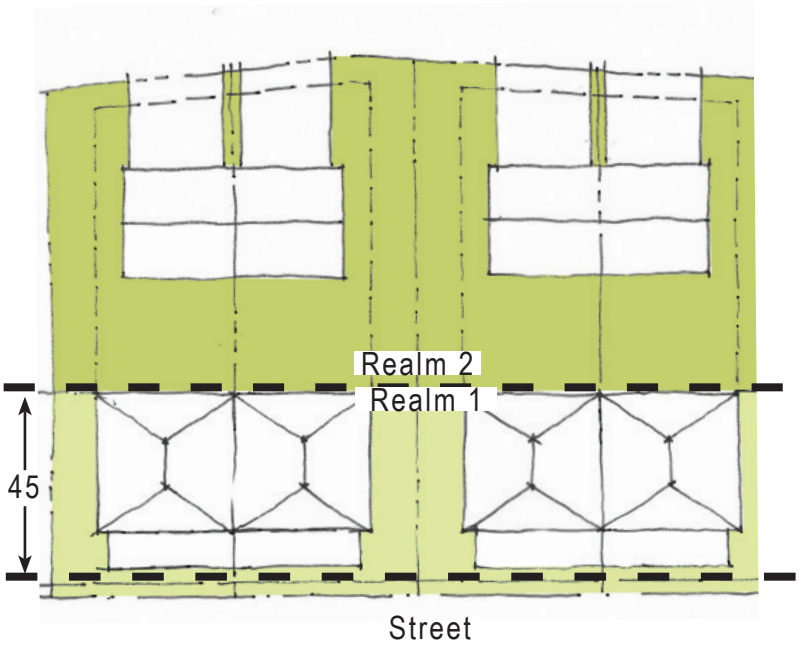
TOWNHOUSE LOT

CARRIAGE HOUSE LOT

Realm 1 planting: Planted with shrubs and herbaceous plants selected from the recommended plant list that corresponds to the T-Zone location.

Individual lots are required to have:

- In Realm 1 of the lot, Carriage lots are required to have one understory tree per two lots.
- In Realm 2 of the lot, one shade tree or two understory trees are required per two lots
- A minimum of 40% of the total lot plantable area shall be planted in shrub and herbaceous plant materials based from the corresponding T-Zone plant list.



CARRIAGE HOUSE LOT

COTTAGE LOT

Realm 1 planting: Planted with shrubs and herbaceous plants selected from the recommended plant list that corresponds to the T-Zone location. Refer to the Smartcode for impervious surface coverage and to the sample landscape calculations page for example lot planting.

Individual lots are required to have:

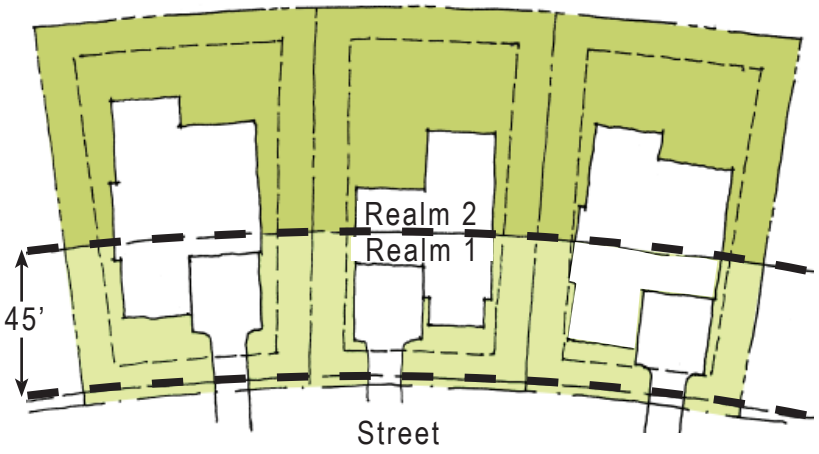
- Minimum of one shade tree or two understory trees within Realm 1.
- A minimum of 40% of remaining plantable space within Realm 2 shall be planted in shrub and herbaceous plant materials.

T-4 Realm 2

- Minimum of one shade tree **OR** two understory trees within Realm 2. (Minimum one shade tree required per lot)

T-3 Realm 2

- Minimum of one shade tree **AND** two understory trees within Realm 2.



COTTAGE LOT

VILLAGE LOTS

Realm 1 planting: Planted with shrubs and herbaceous plants selected from the recommended plant list that corresponds to the T-Zone location. Refer to the Smartcode for impervious surface coverage and to the sample landscape calculations page for example lot planting.

Individual lots are required to have:

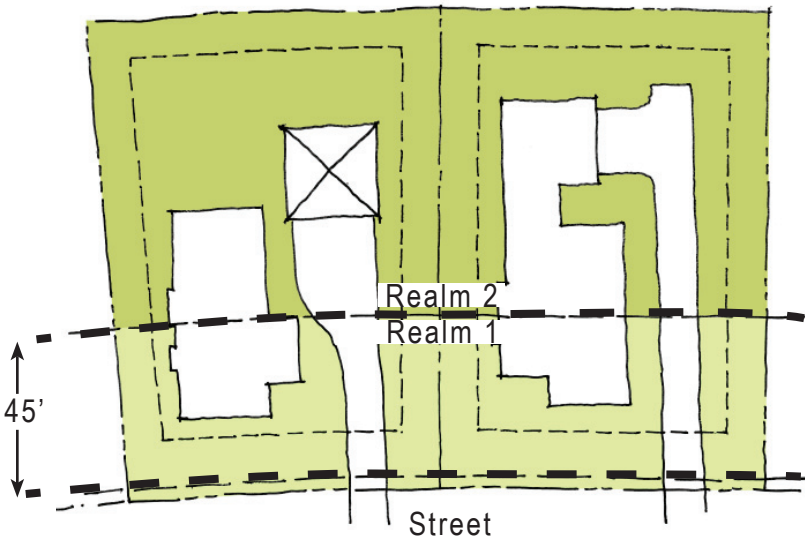
- Minimum of one shade tree or two understory trees within Realm 1.
- A minimum of 40% of remaining plantable space within Realm 2 shall be planted in shrub and herbaceous plant materials.

T-4 Realm 2

- Minimum of one shade tree **OR** two understory trees within Realm 2. (Minimum one shade tree required per lot)

T-3 Realm 2

- Minimum of one shade tree **AND** two understory trees within Realm 2.



VILLAGE LOT

MANOR AND ESTATE LOTS

- The percentage of plantable space utilized for decks, paved terraces, and lawn areas combined are at the discretion of the property owner up to 60%. Remaining plantable space is to be planted in herbaceous and shrub plant material selected from the Realm 2 plant list.

- Refer to the Smartcode for impervious surface coverage and to the sample landscape calculations page for example lot planting.

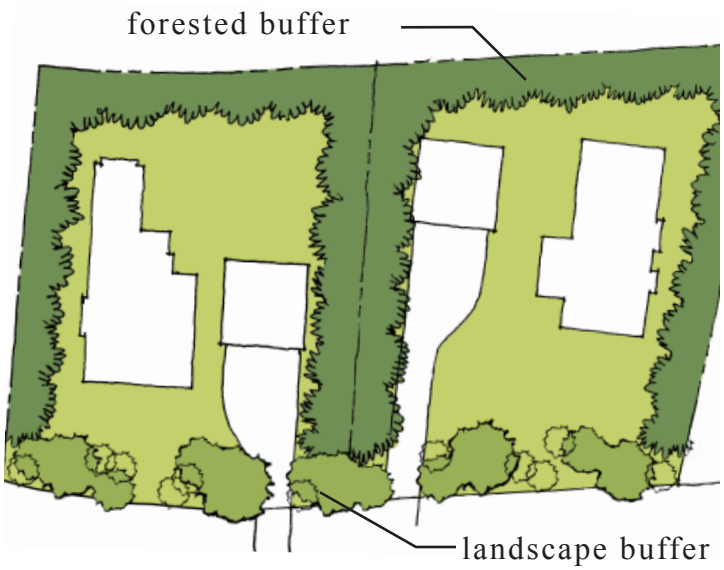
Street Frontage Landscape Buffer:

- A 10' landscape buffer from the Right of Way in the front yard is to consist of trees, shrubs and approved fences and walls. A minimum of 3 shade trees are required within this landscape buffer. Planting shall be arranged to provide a woodland character with staggered, non-linear spacing while maintaining some visual permeability into the lot from the road. Planting in this zone is to be selected from the reforestation list.

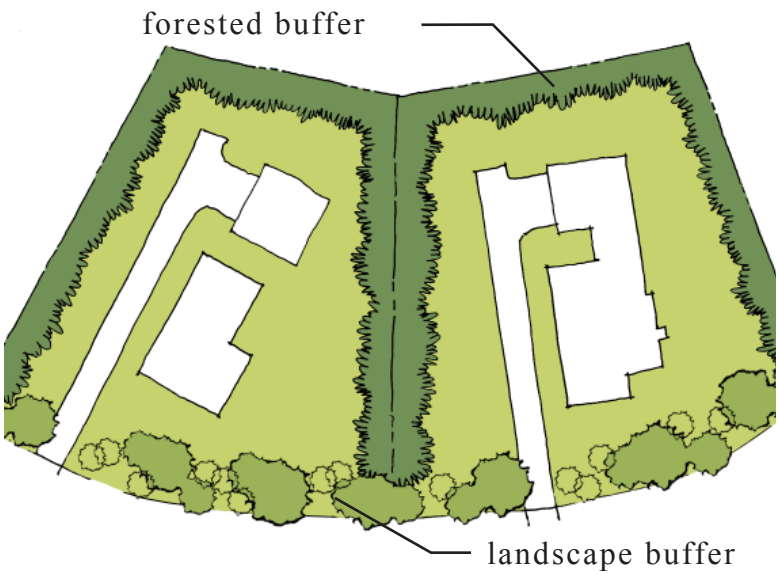
Forested Buffer:

- Planting in the forested buffer is to be selected from the reforestation plant list and the remainder of lot from the Realm 2 plant list. Planting shall be tiered, staggered, and non-linear with trees and shrubs that provide privacy on the sides and rear of the lot. This buffer is to be of greater density of plant material than the front landscape buffer.

- Driveways may encroach the 10' side forested buffer up to 50%. No two adjacent lots are to enter on the same adjoining landscape buffers. A minimum 15' buffer is to be maintained in total between neighboring lots.



MANOR LOT



ESTATE LOT

SAMPLE LANDSCAPE CALCULATIONS

Calculating impervious surface ratio:

Total Impervious Surfaces =
Total Building Roof sq. ft. + Driveway + Patio
Sample Total Impervious Surfaces =
2100 sf. + 600 sf. + 400 sf.
= 3100 sf.
Impervious Surfaces Ratio =
Total Impervious Surfaces/ Total Lot Area
Sample Impervious Surfaces Ratio:
3100 sf. / 6500 sf.
=0.48
Maximum Impervious Surface Allowance:
0.73
Sample Total Lot Impervious Surface Allowance:
.48 < .73 = Acceptable

Calculating total lot plantable space:

Plantable Space =
Lot area - House footprint sf. - Garage footprint sf. - Driveway sf. - Patio sf.
Sample Plantable Space:
6,500 sf. - 1500 sf. - 600 sf. - 600 sf. - 400 sf.
= 3,400 sf.

Calculating Realm 2 plantable space:

Plantable Space =
Total Realm 2 area - House footprint in Realm 2 - Garage footprint in Realm 2 - Patio sf.
Sample Plantable Space :
3,575 sf. - 750 sf. - 300 sf. - 200 sf.
= 2,325 sf.

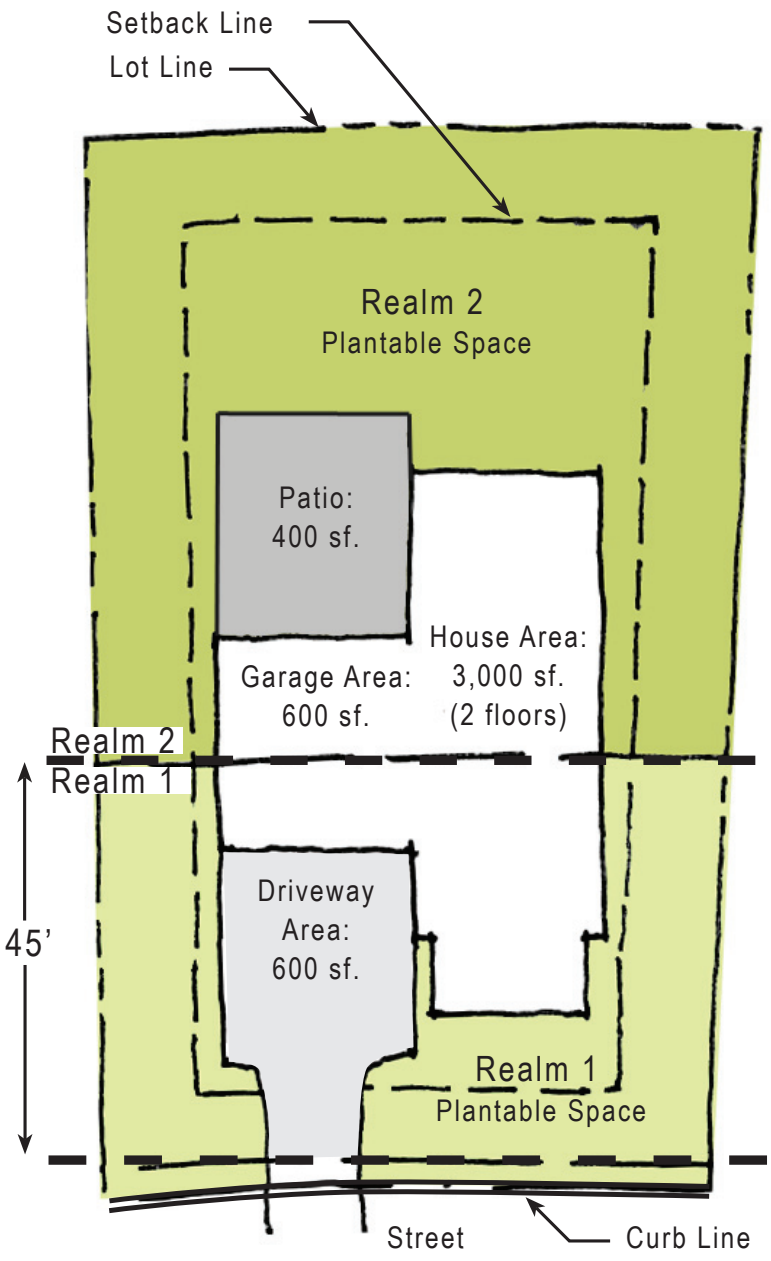
Calculating Realm 2 herbaceous and shrub planting:

Herbaceous and shrub planting area=
Realm 2 plantable space x 0.40
Sample herbaceous and shrub planting area=
2,325 sf. x 0.40
= 930 sf.

The landscape guidelines presented in this document are based on a series of calculations to determine allowable impervious surface ratios and plantable space for the overall lot and Realm 2. This sample calculation is to serve as a reference to assist in the implementation of the landscape guidelines within Tuxedo Farms.

Impervious Surfaces are all areas such as roof tops, sidewalks, driveways, patios and other paved areas that prevent the natural percolation of water into the ground. Decks and porous pavement that allow water to pass through will not count as impervious cover.

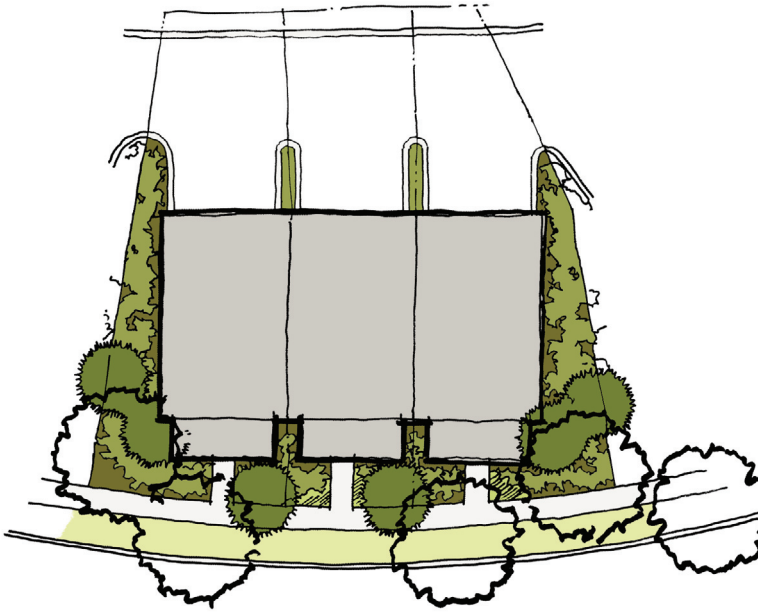
SAMPLE COTTAGE LOT DIAGRAM



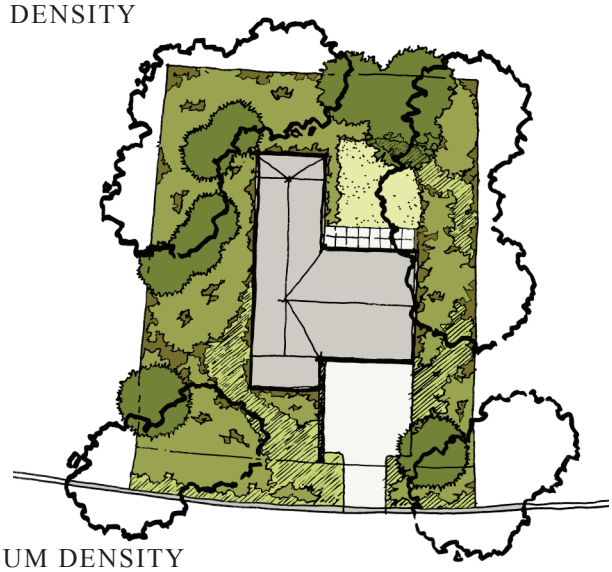
TYPICAL LANDSCAPE CHARACTER

The plans presented here are examples of possible landscape designs in the three density zones. These illustrative plans serve as demonstrative designs and follow the guidelines presented within this document.

A great variability in the landscape design and plant materials is encouraged in Tuxedo Farms. The individual lots will combine to create cohesive yet distinctive neighborhood character.



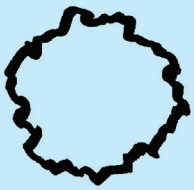
HIGH DENSITY



MEDIUM DENSITY

LOW DENSITY

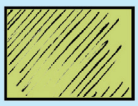
LEGEND



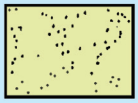
SHADE TREES

UNDERSTORY TREES

SHRUBS



HERBACEOUS COVER



LAWN

PRESERVED EXISTING TREES

LOW DENSITY EDGE CONDITIONS

The forest edge shall be planted in a manner that helps to heal the natural ecosystem after clearing operations. This landscape transition will be provided along the edge of forested areas and street frontage being disturbed. Two specific areas requiring the greatest attention to this issue is in the Street Frontage Landscape Buffer and the Forested Buffer. Both of these areas shall provide a staggered, multilevel or tiered planting from forest canopy to herbaceous material. This vertical layering helps to create an ecologically rich edge. The Street Frontage Landscape Buffer allows for greater visual permeability through a larger minimum tree planting requirement and limiting the selection of shrubs and understory trees at heights that inhibit visibility. Approved plant materials within these buffers have been selected based on the existing, native forested condition.

STREET FRONTAGE LANDSCAPE BUFFER

FORESTED BUFFER

Sloping Lots

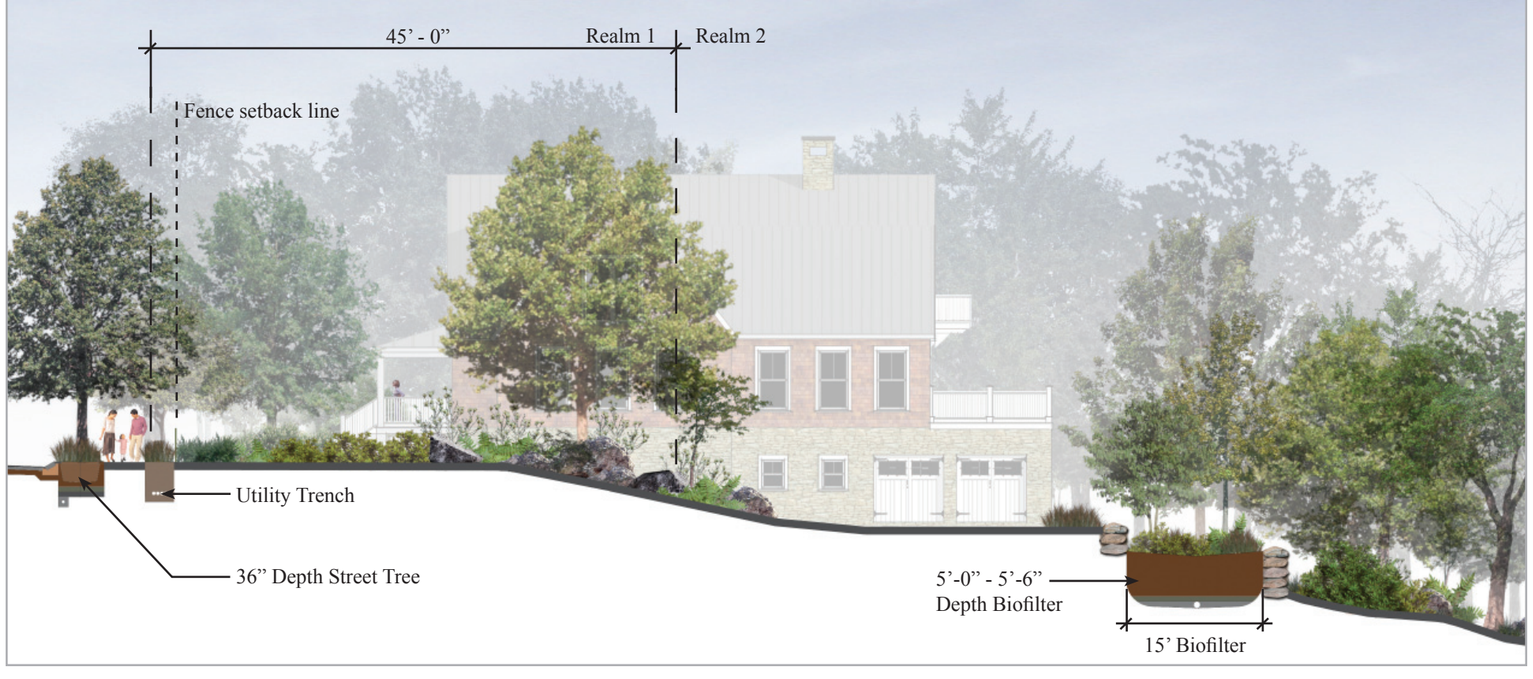
The varied topography of Tuxedo Farms requires a unique landscape condition to reduce the impact of development. The design of roads and lots have been developed to reduce disturbance and preserve existing site features. The intent of the landscape guidelines is to heal the landscape where development has taken place while creating interesting and unique neighborhood characters. The diagrams on the right outlines a typical uphill-downhill lot condition to give spatial reference to the landscape guidelines.

UPHILL

Uphill lots generally have stormwater bio-retention systems in Realm 1 and have a Realm 2 that varies in size due to the sloping condition behind the house. The Realm 1 and Realm 2 line delineates the type of landscape condition and plant palette permitted.

DOWNHILL

Downhill lots vary based on lot type and the location of the stormwater bio-retention system. Sidewalks are generally located on the downhill side of the street. Parallel fences to the road in Realm 1 are to be placed with a 3’ setback from the property line to accommodate utilities.



FENCES

Fences presented here are examples of approved fence types for Realm 1. See the approved materials and standards for dimensions.

Standards:

The structural requirements of all fences, guardrails and railings are to comply with the local building code.

Fence Heights:

Realm 1 fences should be a maximum height of 3’ 6”.

If the difference in grade level on either side of a wall or rockcut is:

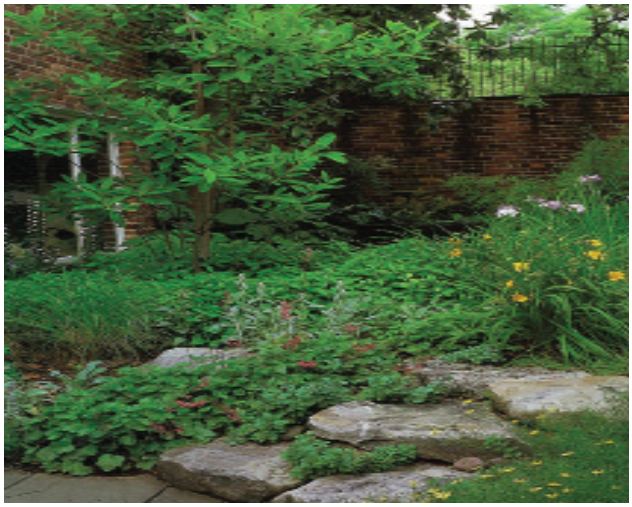
- 4’ to 6’ a 3’-6” fence is required
- Greater than 6’ a minimum 5’-0” fence is required

Realm 1 Setback Line:

A Realm 1 fence is to have a minimum 3’-0” setback from the Right of Way line parallel to the street. Fences are not to encroach on bio-filtration systems. Realm 1 fences perpendicular to the street are to be located on property lines. Only one parallel fence between the Realm 1 / Realm 2 line and the fence setback line is permissible.

Fence and Wall Combination:

Fences placed on top of walls are not to exceed 6’-0” in total height from bottom of wall to top of fence. These fences shall have a maximum opacity of 50%.



FENCES

Fences presented here are examples of approved fence types for Realm 2. See the approved materials and standards for dimensions.

Fence Heights:

If the difference in grade level on either side of a wall or rockcut is:

- 4’ to 6’ a minimum 3’-6” fence is required
- Greater than 6’ a minimum 5’-0” fence is required

Realm 1 fences should be a maximum height of 3’ -6” high.

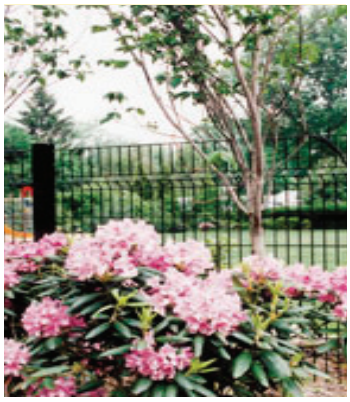
Guidelines:

Side yard fences that are parallel to the street are to be placed no closer to the street than the Realm 1 / Realm 2 line.

Zones T-3.2 through T-5.2 are allowed to have fences in the side of the lot. These fences are to be placed on property lines. They may be up to 100% opaque between lots. When facing public open space, fences shall have a maximum opacity of 100% up to 4’-0” high, and 50% from 4’-0” to 6’-0”.

Fences on the side of the lot in Realm 1 should be wood picket or masonry garden wall and shall not exceed 3’-6” in height.

Realm 2 fences shall not exceed 6’-0” in height when separating lots adjoining at the rear. When facing open space, fences shall be finished on both sides, and have a maximum opacity of 100% up to 4’-0” high, and 50% maximum opacity from 4’-0” to 6’-0”, where fences may be topped with open pickets or simple iron work.



Appropriate fences for T-2 and other areas outside lots

WALLS

Standards:

The structural requirements of all walls are to comply with the local building code.

Landscape walls in the front of residences facing the street are not to exceed 3’-6” in height.

Landscape walls in the front of residences perpendicular to the street, are not to exceed 8’-0” in height.

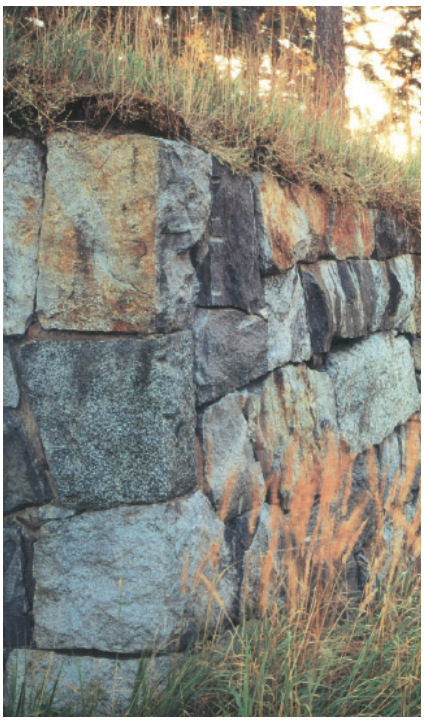
Walls on the side of residence are not to exceed 6’-0” in height.

Landscape walls in the rear of residence are not to exceed 15’-0” in height. The preferred height is 8’-0” to 10’-0” per wall, utilizing multiple terraced walls to achieve the necessary grade.

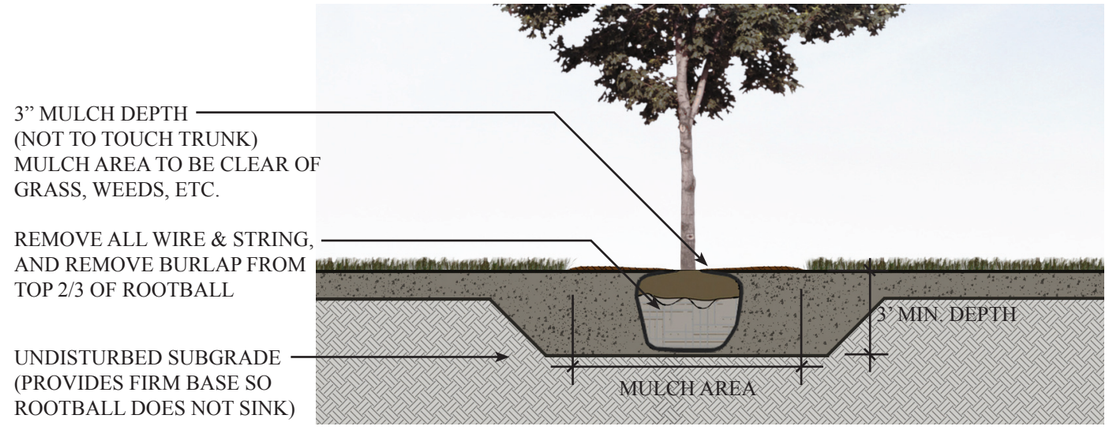
Materials:

Stone or a stone veneer is to be used when walls are within 40’-0” of any residence or visible from a public right of way. On site stone or stone with a similar character and color is to be used.

Precast concrete gravity or gabion walls may be used if the wall is greater than 40’-0” from any residence or out of sight from public right of way.



Soil types and depths are the backbone to the landscape character of Tuxedo Farms. The required soil depths are based on research for the recommended species within the plant lists. The details shown are to be used as a guide and define the major differences between the necessary planting media for various types of vegetation.



Site preparation shall be suitable to encourage healthy growing conditions for low-water use plant material, including:

Provide the minimum soil depths and volumes for plant materials:

1. Minimum planting soil depths:

Shade Trees	3’-0”
Understory Trees	2’-6”
Shrubs	2’-0”
Perennials/Groundcovers	1’-6”
Lawn	12”

2. Minimum planting soil volumes for individual trees:

Shade Trees	800 cu. ft.
Understory Trees	300 cu. ft
Shrubs	75 cu. ft.

*For shade trees clustered in a common rooting volume, provide a minimum of 800 cu. ft. of soil per tree with a maximum depth of 3’-0”.

* For understory trees clustered in a common rooting volume, provide a minimum of 300 cu. ft. per tree with a maximum depth of 2’-6”.

*In combined planting beds including shade trees and/or understory trees, shrubs, perennials, and groundcovers, the tree types shall dictate the minimum required soil volume and depths, with increased rooting volume to accommodate the needs of the shrubs, perennials, and groundcovers.

3. Mulch non-turf areas with a minimum 3” of aged, non-dyed, organic material. Mulch is to be kept away 6” from the base of all trees and 3” away from the base of all shrubs. Mulch may consist of the following materials in whole or in combination: compost, shredded bark or wood, hay or straw, natural nut hulls or shredded coconut fibers

4. Additional requirements for street trees:

a. Provide structural soils below pavement areas to provide continuous soil volume trenches between trees.

b. For individual shade trees, provide a minimum of 800 cu. ft. of soil per tree with a maximum depth dimension of 3’-0”.

c. For planting soils and planting soil trench areas below pavement, provide a stone or sand based structural soil that can be compacted to 95% density while still allowing for root penetration.

d. Stone or sand based structural soil volumes provide at a maximum, 50% of the rooting and plant growth capacity of loam based planting soil. If structural soil is used as part of tree planting soil volume calculations, its volume shall be calculated at a rate of 50% of loam based planting soil.

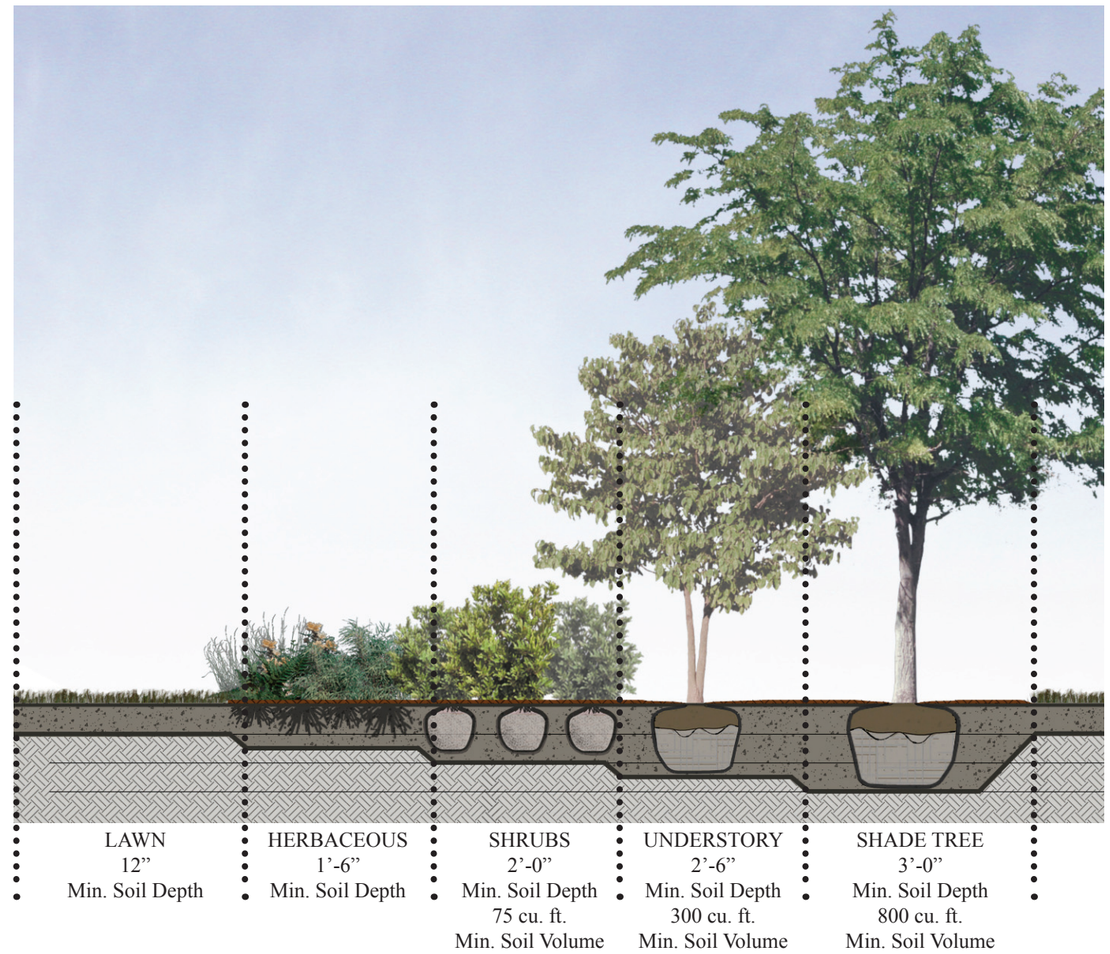
Sample street tree soil calculation:

Tree planting in a trench that included 50% structural soil and 50% loam based soil (due to the fact that half of the soil were to be paved over for a sidewalk area).

The following soil volumes would need to be provided:

Total soil volume required:
800 cubic feet.
Total soil volume provided:
400 cu. ft. loam based soil + 800 cu. ft. of structural soil

= 800 cubic feet of countable planting soil.



UTILIZE NATIVE PLANTINGS

PRESERVE EXISTING SITE FEATURES

UTILIZE PERVIOUS PAVING

SUSTAINABLE PRACTICES

LAND

a. Soils: Whenever possible, use existing on-site soil for planting rather than importing foreign topsoil and exporting waste soil. Amend soil on-site (stockpiled or insitu) to compensate for poor organic or physical properties or to improve soil infiltration rate and drainage.

b. Where practicable, plant trees in trenches or continuous soil zones. Create continuous soil volumes in trenches or with root paths to provide greater areas for root growth, better air exchange, moisture and nutrient availability.

c. Use structural soils, in heavily trafficked pedestrian areas or under pavements where planting will occur to maximize plant health, root zones, and minimize pavement damage.

d. Slopes: Avoid construction on slopes exceeding 30%, except in the Tower House condition. Preserve existing rock outcropping to the greatest extent possible. Provide mechanical slope stabilization for planting surfaces exceeding 25% slope. Mechanically stabilize and vegetate drainage swales to serve as natural storm water filters. Provide check dams to slow water velocity to promote sediment filtration and reduce erosion.

VEGETATION

a. Where practicable, preserve and enhance existing site vegetation.

b. Restore disturbed existing woodland environments where practicable through reforestation techniques.

c. Develop new forest edge and meadow environments where practicable to encourage greater diversity of flora and fauna on site.

d. Increase the density and stratification of tree canopy using multiple species of native or naturalized trees to encourage habitat generation and food resources for foraging birds and animals. Increase tree species diversity to minimize the spread of disease and pests.

e. Use healthy plant selection and planting practices. Use careful selections and installation techniques that promote the development of healthy plants and trees. Provide trees that have been grown within the site's local environment and within approximately a 250 mile radius to the extent possible. If necessary acclimatize plants that require transport over greater distances. Trees and plants grown within the same or similar environmental conditions as the site (local ecotypes and indigenous species) have the greatest chance for success. Select species that are resistant to local pest infestations. Refer to the plant lists at the end of the Landscape Guidelines.

STORMWATER MANAGEMENT GOALS

GENERAL GOALS:

Stormwater management systems will be provided throughout the developed portions of the project to collect, store, treat, and convey runoff. The systems will be designed to meet New York State performance standards for water quality treatment and stormwater detention. Structures, pipes, and channels will be designed to safely convey discharges during storm events to facilities that will mitigate potential adverse impacts to water quality and to hydrologic systems.

a. Maintain existing drainage patterns and hydrologic conditions where practicable.
b. Treat runoff from all developed areas to reduce pollutant loadings and thermal impacts to downstream watercourses and wetlands.
c. Stormwater shall be managed to minimize risks of flooding and to improve overall water quality where practicable.
d. The existing wetland and vernal pools represent fragile ecosystems that provide important scenic resources and habitat for the community. Where practicable, existing watersheds and/or contributing watershed volumes, flow rates and seasonal water temperatures should be maintained. Both regulatory and voluntary buffer areas surrounding the wetland and vernal pool systems as indicated by the lotting on the regulating plan should be preserved.
e. Residents are encouraged to use rain barrels and roof water collection for irrigation of landscape plantings.

General to zones T-2, T-3-1, T-3-2:

a. Where practicable, on-site stormwater management including the use of biofiltration, porous pavement, rain gardens, cisterns and level spreaders.
b. The use of park areas for stormwater management is encouraged to the extent it is feasible.
c. Biofiltration areas shall include landscaping as indicated in the Landscape Guidelines and compliance with New York State Department of Environmental Conservation review and comment.

General to zones T-4-1, T-4-2, and T-5:

a. Where practicable, provide centralized (off-lot) stormwater management including the use of porous pavement, detention/retention ponds, constructed wetlands, settlement basins, and vegetated swales with check dams.
b. The use of park areas for stormwater management is encouraged.

PLANT MATERIAL RECOMMENDATIONS

The plant lists have been developed as a general guideline to assist owners, builders and their consultants with species selections in keeping with the distinctive neighborhood landscape characters indicated in the landscape regulating plan. Additionally, the plant palette is developed with the following goals in mind:

- To promote the use of native plants to the greatest extent possible
- To maintain healthy plant biodiversity
- To increase available wildlife habitat
- To allow for an interesting variety of forms, textures, and bloom times, ultimately allowing individual lot differentiation within the distinct neighborhood landscape characters
- To respond to a variety of solar aspects, shading, drainage and soil moisture conditions

Plants are indicated by genus and species, allowing the possibility for further adaptation through the selection of specific varieties and cultivars that have more specific characteristics. Specific varieties or cultivars are indicated as a general recommendation for a specific neighborhood landscape character, appropriate size or increased disease and pest resistance.

The plant lists provide the botanical name and common name.

Realm 1 plant list
T-Zone 5.2-4.2

TREES - SHADE
Acer rubrum - Red Maple
Acer saccharum - Sugar Maple
Betula nigra - River Birch
Betula populifolia - Gray Birch
Carya glabra - Pignut Hickory
Carya ovata - Shagbark Hickory
Carya tomentosa - Mockernut Hickory
Celtis occidentalis - Common Hackberry
Cladrastis kentukea (C. lutea) - American Yellowwood
Cladrastis kentukea 'Rosea' - American Yellowwood
Gleditsia triacanthos var. inermis 'Imperial' - Thornless Common Honeylocust
Gleditsia triacanthos var. inermis 'Skycole' - Skycole Honeylocust
Gleditsia triacanthos var. inermis 'Suncole' - Suncole Honeylocust
Gleditsia triacanthos var. inermis 'True Shade' - True Shade Honeylocust
Liquidambar styraciflua - Sweetgum
Liriodendron tulipifera - Tulip Tree
Magnolia acuminata - Cucumbertree Magnolia
Nyssa sylvatica - Black Tupelo
Oxydendrum arboreum - Sourwood (Andromeda)
Quercus coccinea - Scarlet Oak
Quercus palustris - Pin Oak
Quercus prinus - Chestnut Oak
Sassafras albidum - Sassafras
Tilia americana - Basswood
Tilia americana 'Redmond' - Redmond Basswood
Ulmus americana 'Heritage' - Heritage American Elm
Ulmus americana 'Liberty' - Liberty American Elm
Ulmus americana 'Valley Forge' - Valley Forge American Elm

TREES - UNDERSTORY
Acer pensylvanicum - Striped Maple
Amelanchier arborea - Downy Serviceberry
Amelanchier canadensis - Shadblow Serviceberry
Amelanchier laevis - Allegheny Serviceberry
Amelanchier laevis - Multi-Stem Allegheny Serviceberry
Carpinus caroliniana - American Hornbeam, Ironwood
Cercis canadensis 'Alba' - White Blooming Eastern Redbud
Cercis canadensis spp. - Eastern Redbud
Chionanthus virginicus - White Fringe Tree
Cornus florida - Flowering Dogwood
Cornus florida 'Cherokee Brave' - Flowering Dogwood 'Cherokee Brave'
Cornus florida 'Cherokee Princess' - Flowering Dogwood 'Cherokee Princess'
Cornus florida 'Forest Pansy' - Flowering Dogwood 'Forest Pansy'
Cornus x 'Rutcan' - Constellation Dogwood
Cornus x 'Rutdan' - Celestial Flowering Dogwood
Cornus x 'Rutgan' - Stellar Pink Dogwood
Cornus x 'Rutlan' - Ruth Ellen Dogwood
Crataegus viridis 'Winter King' - Winter King Hawthorne
Franklinia alatamaha - Franklin Tree
Magnolia virginiana - Sweetbay Magnolia
Malus 'Adams' - Adams Crabapple
Malus 'Adirondack' - Adirondack Crabapple
Malus 'Donald Wyman' - Sargent Crabapple
Malus 'Prariefire' - Prariefire Crabapple
Malus 'Sargentii' - Sargent Crabapple
Malus 'Sugar Time' - Sugar Tyme Crabapple
Prunus americana - Flowering American Plum

TREES- EVERGREEN
Chamaecyparis thyoides - Atlantic Whitecedar
Ilex opaca American - Holly
Juniperus virginiana - Burkii Burkii Red Cedar
Picea glauca - White Spruce
Pinus virginiana - Virginia Pine

SHRUBS
Aesculus parviflora - Bottlebrush Buckeye
Alnus rugosa - Speckled Alder
Arctostaphylos uva-ursi - Bearberry
Calycanthus floridus - Carolina Allspice
Cephalanthus occidentalis - Buttonbush
Clethra alnifolia - Summersweet
Cornus alba 'Red Gnome' - Tartarian Dogwood
Cornus alternifolia - Pagoda Dogwood
Cornus amomum - Silky Dogwood, Swamp Dogwood
Cornus stolonifera (C. sericea) spp. - Red-Osier Dogwood
Corylus americana - American Filbert
Cotoneaster adpressus spp. - Cotoneaster
Deutzia gracilis spp. Nikko - Slender Deutzia
Deutzia scabra spp. - Fuzzy Deutzia
Diervilla lonicera 'Copper' - Dwarf Bush Honeysuckle
Dirca palustris - Leatherwood
Forsythia viridissima 'Bronxensis' - Bronxensis Forsythia
Fothergilla gardenii spp. - Dwarf Fothergilla
Fothergilla major - Large Fothergilla
Hammamelis vernalis - Vernal Witchhazel
Hammamelis virginiana - Witch Hazel
Hydrangea arborescens spp. - Smooth Hydrangea
Hydrangea quercifolia spp. - Oak Leak Hydrangea
Hypericum frondosum spp. - Golden St. John's Wort
Hypericum 'Hidcote' - Hidcote Hypericum
Hypericum kalmianum spp. - Kalm Hypericum
Hypericum prolificum spp. - Shrubby St. John' Wort
Ilex glabra spp. - Inkberry
Ilex verticillata 'Afterglow' - Winterberry Holly
Ilex verticillata 'Southern Gentleman' - Winterberry Holly
Ilex verticillata 'Jim Dandy' - Winterberry Holly
Ilex verticillata 'Sparkleberry' - Winterberry Holly
Itea virginica - Viginia Sweetspire
Kalmia angustifolia spp. - Sheep Laurel
Kalmia latifolia spp. - Mountain Laurel
Leucothoe fontanesiana - Drooping Leucothoe
Lindera benzoin - Spicebush
Paxistima canbyi - Canby's Mountain-Lover
Potentilla fruticosa - Shrubby Cinquefoil
Rhododendron calendulaceum - Flame Azalea
Rhododendron carolinianum - Carolina Rhododendron
Rhododendron catawbiense spp. - Catawba Rhododendron
Rhododendron maximum - Rosebay Rhododendron
Rhododendron periclymenoides spp. - Pinxterbloom Azalea
Rhododendron PJM - PJM Rhododendron
Rhododendron prinophyllum (R. roseum) - Roseshell Azalea
Rhododendron vaseyi spp. - Pinkshell Azalea
Rhododendron viscosum - Swamp Azalea
Rhus aromatica spp. - Fragrant Sumac
Rhus glabra - Smooth Sumac
Rosa carolina - Carolina Rose, Pasture Rose
Rosa 'Landcruiser series' - Landcruiser Rose
Rosa rugosa 'Dwarf Pavement' - Dwarf Pavement Rose
Rose virginiana - Virginia Rose
Sambucas racemosa var. pubens - Red Elderberry / Scarlet Elderberry
Sambucus canadensis - Elderberry
Spiraea tomentosa - Steeplebush (Hardhack)
Spirea latifolia (alba) - Meadowsweet
Symphoricarpos albus - Common snowberry
Symphoricarpos x chenaultii 'Hancock' -

Realm 1 plant list
T-Zone 5.2-4.2 (cont.)

Teucrium canadensis - American Germander
Vaccinium angustifolium - Lowbush Blueberry
Vaccinium corymbosum - Highbush Blueberry
Viburnum acerifolium - Maple-Leaf Viburnum
Viburnum dentatum - Arrowwood Viburnum
Viburnum lentago - Nannyberry Viburnum
Viburnum prunifolium - Blackhaw Viburnum
Viburnum trilobum - American Cranberrybush
Viburnum x rhytidophylloides - Lantanaphyllum Viburnum
Xanthorhiza simplicissma - Yellowroot

HERBACEOUS: GRASSES

Agrostis alba - Redtop
Agrostis scabra - Ticklegrass
Andropogon saccharoides - Silver Beard Grass
Andropogon virginicus -Broom Sedge
Calamagrostis canadensis - Bluejoint Grass
Carex pennsylvanica - Pennsylvania Sedge
Carex plantaginea - Plantain-Leafed Sedge
Chasmanthium latifolium - Northern Sea Oats
Deschampsia cespitosa - Tufted Hairgrass
Elymus canadensis - Canada Wild Rye
Elymus glaucus - Blue Wild Rye
Elymus virginicus - Virginia Wild Rye
Juncus effusus - Common Rush
Juncus effusus var. pylaei - Soft Rush
Panicum virgatum - Switchgrass
Schizachyrium scoparium - Little Bluestem
Scirpus cyperinus - Woolgrass
Sorghastrum nutans - Indian Grass
Sporobolus heterolepsis - Prarie Dropseed

HERBACEOUS: PERENNIALS, VINES, FERNS and MOSSES

Achillea millefolium spp. - Yarrow
Adiantum pedatum - Maidenhair Fern
Agastache cana - Mosquito Plant
Anemone canadensis - Meadow Anemone
Aquilegia canadensis - Canadian Columbine
Asarum canadense - Wild Ginger
Asclepias incarnata - Swamp Milkweed, Red Milkweed
Asclepias tuberosa - Butterfly Weed
Aster divaricatus - White Wood Aster
Aster laevis - Smooth Aster
Aster novae-angliae - New England Aster
Aster novi-belgii - New York Aster
Athyrium filix-femina - Lady Fern
Baptisia sphaerocarpa - Yellow Indigo
Brachythecium oxycladon - Cedar Moss
Campsis radicans - Trumpet Vine
Chelone glabra - Turtlehead
Cimicifuga racemosa - Bugbane
Clematis virginiana - Clematis
Coreopsis auriculata - Mouse-Ear Coreopsis
Coreopsis grandiflora - Common Tickseed
Coreopsis verticillata - Tickseed
Cornus canadensis - Bunchberry
Chrysogonum virginianum - Green and Gold
Delphinium exaltum - Tall Larkspur
Delphinium tricorne - Dwarf Larkspur
Dennstaedita punctilobula - Hay-Scented Fern
Dicentra eximia - Fringed Bleeding Heart
Dicranella heteromalia - Broom Moss
Dicranum scoparium - Silky Forklet Moss
Drypoterris marginalis - Marginal Shield Fern
Echinacea purpurea - Purple Cone Flower
Erythronium americanum - Yellow Trout Lily
Eupatorium purpureum - Joe-Pye Weed
Gaultheria procumbens - Creeping Wintergreen
Geranium maculatum - Cranesbill
Heuchera spp. - Coral Bells
Hibiscus moscheutos spp. - Marsh Hibiscus
Iris cristata - Slender Blue Flag
Iris versicolor - Blue Flag Iris
Jeffersonia diphylla - Twinleaf
Liatris spicata - Gayfeather
Lobelia siphilitica - Giant blue Lobelia
Lonicera sempervirens - Scarlet Honeysuckle
Mertensia virginica - Virginia bluebells
Mitchella repens - Partridgeberry
Mitella diphylla - Bishop's Cap
Monarda didyma - Beebalm
Monarda fistulosa - Wild Bergamot
Oenothera fruticose - Sundrops
Onoclea sensibilis - Sensitive Fern
Osmunda cinnamomea - Cinnamon fern
Osmunda regalis var. spectabilis - American Royal Fern
Pachysandra procumbens - Allegheny Spurge
Parthenocissus quinqufolia - Virginia Creeper
Paxistima canbyi - Canby's Mountain-Lover
Penstemon digitalis - Beardtounge
Phlox divaricata - Canadian,Woodland Phlox
Phlox maculata - Meadow Phlox
Phlox stolonifera - Creeping Phlox
Phlox subulata - Mountain Pinks
Physostegia virginiana - Obedient Plant
Podophyllum peltatum - Mayapple
Polygonatum biflorum - Solomon's Seal
Polytrichum juniperinum - Juniper Haircap Moss
Potentilla simplex - Old Field Cinquefoil
Rudbeckia fulgida - Orange Coneflower
Similacina racemosa - False Soloman's Seal
Solidago cutleri - Goldenrod
Thalictrum thalictroides - Rue Anemone
Thelypteris noveboracensis - New York Fern
Vernonia noveboracensis - Common ironweed
Viola labradorica - Labrador Violet
Viola pedata - Bird's Foot Viola
Waldesteinia fragariodes - Barren Strawberry

SEED MIXES
Approved lawn mix for mown areas:
40% *Festuca arundinacea* 'Shenandoah II' - Shenandoah II Tall Fescue
40% *Festuca arundinacea* 'Finelawn Elite' - Finelawn Tall Fescue
10% *Lolium perenne* 'Wizard' - Wizard Perennial Ryegrass
10% *Lolium perenne* 'Pennant II' - Pennant II Perennial Ryegrass

SPRING FLOWERING BULBS
Allium hybrids - Flowering Onion
Anemone blanda - Grecian Windflower, Anemone
Convallaria majalis - Lily of the Valley - (all varieties)
Crocus vernus - Crocus hybrids - (all varieties)
Daffoldil spp. - Trumpet Daffoldils
Hyacinth spp. - Hyacinth hybrids - (all varieties)
Scilla campanulata - Spanish Bluebell
Tulipa fosteriana - Species Tulip
Tulipa greigii - Species Tulip
Tulipa kaufmanniana - Species Tulip

Realm 1 plant list
T-Zone 5.2-4.2 (cont.)

Tulipa speciosa - Botanical (Species) Tulip
Tulipa spp. - Tulip Hybrids - (all varieties)

FALL FLOWERING BULBS
Colchicum spp. - Meadow Saffron
Cyclamen coum spp. - Hardy Cyclamen

EXOTIC ORNAMENTALS
Anemone spp. - Windflower
Astilbe spp. - Plume Flower
Bergenia spp. - Pig Squeak
Campanula spp. - Bellflower
Caryopteris x clandonensis spp. -
Blue Mist Shrub, Blue Spirea
Dianthus spp. - (excluding armeria) Pinks
Dicentra spp. - Bleeding Heart
Galium odoratum - Sweet Woodruff
Geranium spp. - Cranesbill
Helleborus spp. - Lenten Rose, Christmas Rose
Hemerocallis spp. - (excluding fulva) Daylily
Heuchera spp. - Coral Bells
Lavendula spp. - Lavandin/Lavender
Leucanthemum spp. - Shasta Daisy
Liriope spp. - Lillyturf
Paeonia spp. - Peony
Perovskia spp. - Russian Sage
Salvia spp. - Meadow Sage
Sedum spp. - Stonecrop
Thymus spp. - Thyme
Viola spp. - Violet
Waldesteinia fragariodes - Barren Strawberry

Realm 1 plant list
T-Zone 4.1-3.2

TREES - SHADE
Acer rubrum - Red Maple
Acer saccharum - Sugar Maple
Betula allegheniensis - Yellow Birch
Betula lenta - Black Birch, Sweet Birch
Betula nigra - River Birch
Betula populifolia - Gray Birch
Carya glabra - Pignut Hickory
Carya ovata - Shagbark Hickory
Carya tomentosa - Mockernut Hickory
Celtis occidentalis - Common Hackberry
Cladrastis kentukea - (C. lutea) American Yellowwood
Cladrastis kentukea 'Rosea' - American Yellowwood
Gleditsia triacanthos var. inermis 'Imperial' -
Thornless Common Honeylocust
Gleditsia triacanthos var. inermis 'Skycole' -
Skycole Honeylocust
Gleditsia triacanthos var. inermis 'Suncole' -
Suncole Honeylocust
Gleditsia triacanthos var. inermis 'True Shade' -
True Shade Honeylocust
Liquidambar styraciflua - Sweetgum
Liriodendron tulipifera - Tulip Tree
Magnolia acuminata - Cucumbertree Magnolia
Nyssa sylvatica - Black Tupelo
Oxydendrum arboreum - Sourwood (Andromeda)
Platanus occidentalis - American Sycamore
Platanus x acerifolia 'Bloodgood' -
Bloodgood London Planetree
Platanus x acerifolia 'Liberty' - Liberty London Planetree
Quercus alba - White Oak
Quercus borealis (*Quercus Rubra*) - Red Oak
Quercus coccinea - Scarlet Oak
Quercus macrocarpa - Bur Oak
Quercus palustris - Pin Oak
Quercus phellos - Willow Oak
Quercus prinus Chestnut Oak
Quercus velutina - Black Oak
Sassafras albidum - Sassafras
Taxodium distichum 'Shawnee Brave' - Bald Cypress
Tilia americana - Basswood
Tilia americana 'Redmond' - Redmond Basswood
Ulmus Americana 'Heritage' - Heritage American Elm
Ulmus Americana 'Liberty' - Liberty American Elm
Ulmus Americana 'Valley Forge' -
Valley Forge American Elm

TREES - UNDERSTORY
Acer pensylvanicum - Striped Maple
Amelanchier arborea - Downy Serviceberry
Amelanchier canadensis - Shadblow Serviceberry
Amelanchier laevis - Allegheny Serviceberry
Amelanchier laevis - MS -
Multi-Stem Allegheny Serviceberry
Carpinus caroliniana American Hornbeam, Ironwood
Cercis canadensis 'Alba' White Redbud
Cercis canadensis spp. Eastern Redbud
Chionanthus virginicus White Fringe Tree
Cornus florida 'Cherokee Brave' -
Flowering Dogwood 'Cherokee Brave'
Cornus florida 'Forest Pansy' -
Flowering Dogwood 'Forest Pansy'
Cornus x 'Rutgan' - Stellar Pink Dogwood
Crataegus viridis 'Winter King' -
Winter King Hawthorne
Franklinia alatamaha - Franklin Tree
Magnolia virginiana - Sweetbay Magnolia
Malus 'Adams' - Adams Crabapple
Malus 'Adirondack' - Adirondack Crabapple
Malus 'Prariefire' - Prariefire Crabapple

TREES- EVERGREEN
Chamaecyparis thyoides - Atlantic Whitecedar
Picea glauca - White Spruce

SHRUBS
Aesculus parviflora - Bottlebrush Buckeye
Alnus rugosa - Speckled Alder
Alnus serrulata - Brook-side Alder
Arctostaphylos uva-ursi - Bearberry
Baccharis halimifolia - Groundsel Tree
Calycanthus floridus - Carolina Allspice
Cephalanthus occidentalis - Buttonbush
Clethra alnifolia - Summersweet
Cornus alba 'Red Gnome' - Tartarian Dogwood
Cornus alternifolia - Pagoda Dogwood
Cornus amomum - Silky Dogwood, Swamp Dogwood
Cornus foemina racemosa muskingum -
Gray-Twigged Dogwood
Cornus stolonifera (C. sericea) spp. -
Red-Osier Dogwood
Corylus americana - American Filbert
Cotoneaster adpressus spp. - Cotoneaster
Deutzia gracilis spp. - Nikko Slender deutzia
Deutzia scabra spp. - Fuzzy Deutzia

Realm 1 plant list
T-Zone 4.1-3.2 (cont.)

Diervilla lonicera 'Copper' - Dwarf Bush Honeysuckle
Dirca palustris - Leatherwood
Forsythia viridissima 'Bronxensis' - Bronxensis Forsythia
Fothergilla gardeni Fothergilla major - Large Fothergilla
Hammamelis vernalis - Vernal Witchhazel
Hammamelis virginiana - Witch Hazel
Hydrangea arborescens spp. - Smooth Hydrangea
Hydrangea quercifolia spp. - Oak Leak Hydrangea
Hypericum frondosum spp. - Golden St. John's Wort
Hypericum 'Hidcote' - Hidcote Hypericum
Hypericum kalmianum spp. - Kalm Hypericum
Hypericum prolificum spp. - Shrubby St. John's Wort
Ilex glabra spp. - Inkberry
Ilex verticillata 'Afterglow' - Winterberry Holly
Ilex verticillata 'Southern Gentleman' - Winterberry Holly
Ilex verticillata 'Jim Dandy' - Winterberry Holly
Ilex verticillata 'Sparkleberry' - Winterberry Holly
Itea virginica - Viginia Sweetspire
Kalmia angustifolia spp. - Sheep Laurel
Kalmia latifolia spp. - Mountain Laurel
Leucothoe fontanesiana - Drooping Leucothoe
Lindera benzoin - Spicebush
Paxistima canbyi - Canby's Mountain-Lover
Potentilla fruticosa - Shrubby Cinquefoil
Rhododendron calendulaceum - Flame Azalea
Rhododendron carolinianum - Carolina Rhododendron
Rhododendron catawbiense spp. - Catawba Rhododendron
Rhododendron maximum - Rosebay Rhododendron
Rhododendron periclymenoides spp. - Pinxterbloom Azalea
Rhododendron PJM - PJM Rhododendron
Rhododendron prinophyllum (R. roseum) - Roseshell Azalea
Rhododendron vaseyi spp. - Pinkshell Azalea
Rhododendron viscosum - Swamp Azalea
Rhus aromatica spp. - Fragrant Sumac
Rhus glabra - Smooth Sumac
Rosa carolina - Carolina Rose, Pasture Rose
Rosa 'Landcruiser series' - Landcruiser Rose
Rosa palustris - Swamp Wild Rose
Rosa rugosa 'Dwarf Pavement' - Dwarf Pavement Rose
Rose virginiana - Virginia Rose
Sambucas racemosa var. pubens - Red Elderberry / Scarlet Elderberry
Sambucus canadensis -Elderberry
Spiraea tomentosa - Steeplebush (Hardhack)
Spirea latifolia (alba) - Meadowsweet
Symphoricarpos albus - Common snowberry
Symphoricarpos orbiculatus - Coralberry
Symphoricarpos x chenaultii 'Hancock' - Hancock Coral Berry
Teucrium canadensis - American Germander
Vaccinium angustifolium - Lowbush Blueberry
Vaccinium corymbosum - Highbush Blueberry
Viburnum acerifolium - Maple-Leaf Viburnum
Viburnum dentatum - Arrowwood Viburnum
Viburnum lentago - Nannyberry Viburnum
Viburnum prunifolium - Blackhaw Viburnum
Viburnum trilobum - American Cranberrybush
Viburnum x rhytidophylloides - Lantanaphyllum Viburnum
Xanthorhiza simplicissma - Yellowroot

HERBACEOUS: GRASSES
Agrostis alba - Redtop
Agrostis scabra - Ticklegrass
Carex pennsylvanica - Pennsylvania Sedge
Carex plantaginea - Plantain-leafed Sedge
Chasmanthium latifolium - Northern Sea Oats
Deschampsia cespitosa - Tufted Hairgrass
Elymus glaucus - Blue Wild Rye
Panicum virgatum - Switchgrass
Sporobolus heterolepsis - Prarie Dropseed

HERBACEOUS: PERENNIALS, VINES, FERNS and MOSSES
Achillea millefolium spp. - Yarrow
Adiantum pedatum - Maidenhair Fern
Agastache cana - Mosquito Plant
Anemone canadensis - Meadow Anemone
Aquilegia canadensis - Canadian Columbine
Asarum Canadense - Wild Ginger
Asclepias incarnata - Swamp Milkweed, Red Milkweed
Asclepias tuberosa - Butterfly Weed
Aster divaricatus - White Wood Aster
Aster laevis - Smooth Aster
Aster novae-angliae - New England Aster
Aster novi-belgii - New York Aster
Athyrium filix-femina - Lady Fern
Baptisia australis - Blue False Indigo
Baptisia sphaerocarpa - Yellow Indigo
Brachythecium oxycladon - Cedar Moss
Campsis radicans - Trumpet Vine
Chelone glabra - Turtlehead
Chrysogonum virginianum - Green and Gold
Cimicifuga racemosa - Bugbane
Clematis virginiana - Clematis
Coreopsis auriculata - Mouse-Ear Coreopsis
Coreopsis grandiflora - Common Tickseed
Coreopsis verticillata - Tickseed
Delphinium exaltum - Tall Larkspur
Delphinium tricorne - Dwarf Larkspur
Dennstaedita punctilobula - Hay-Scented Fern
Dicentra eximia - Fringed Bleeding Heart
Dicranella heteromalia - Broom Moss
Dicranum scoparium - Silky Forklet Moss
Drypoterris marginalis - Marginal Shield Fern
Echinacea purpurea - Purple Cone Flower
Erythronium americanum - Yellow Trout Lily
Eupatorium purpureum - Joe-Pye Weed
Gaultheria procumbens - Creeping Wintergreen
Geranium maculatum - Cranesbill
Heuchera spp. - Coral Bells
Hibiscus moscheutos spp. - Marsh Hibiscus
Iris cristata - Slender Blue Flag
Iris versicolor - Blue Flag Iris
Jeffersonia diphylla - Twinleaf
Liatris spicata - Gayfeather
Lobelia siphilitica - Giant Blue Lobelia
Lonicera sempervirens - Scarlet Honeysuckle
Mitchella repens - Partridgeberry
Mitella diphylla - Bishop's Cap
Monarda didyma - Beebalm
Monarda fistulosa - Wild Bergamot
Oenothera fruticose - Sundrops
Onoclea sensibilis - Sensitive Fern
Osmunda cinnamomea - Cinnamon Fern
Osmunda regalis var. spectabilis - American Royal Fern
Pachysandra procumbens - Allegheny Spurge
Parthenocissus quinqufolia - Virginia Creeper
Paxistima canbyi - Canby's Mountain-Lover
Penstemon digitalis - Beardtounge

Realm 1 plant list
T-Zone 4.1-3.2 (cont.)

Phlox divaricata - Canadian, Woodland Phlox
Phlox maculata - Meadow Phlox
Phlox stolonifera - Creeping Phlox
Phlox subulata - Mountain Pinks
Physostegia virginiana - Obedient Plant
Polygonatum biflorum - Solomon's Seal
Polytrichum juniperinum - Juniper Haircap Moss
Potentilla simplex - Old Field Cinquefoil
Rudbeckia fulgida - Orange Coneflower
Similacina racemosa - False Soloman's Seal
Solidago cutleri - Goldenrod
Thalictrum thalictroides - Rue Anemone
Thelypteris noveboracensis - New York Fern
Vernonia noveboracensis Common ironweed
Viola labradorica Labrador Violet
Viola pedata Bird's Foot Viola
Waldesteinia fragariodes - Barren Strawberry

SEED MIXES
Approved lawn mix for mown areas:
40% *Festuca arundinacea* 'Shenandoah II' - Shenandoah II Tall Fescue
40% *Festuca arundinacea* 'Finelawn Elite' - Finelawn Tall Fescue
10% *Lolium perenne* 'Wizard' - Wizard Perennial Ryegrass
10% *Lolium perenne* 'Pennant II' - Pennant II Perennial Ryegrass

SPRING FLOWERING BULBS
Allium hybrids - Flowering Onion
Anemone blanda - Grecian Windflower, Anemone
Convallaria majalis - Lily of the Valley - all varieties
Crocus vernus - Crocus hybrids - all varieties
Daffoldil spp. - Trumpet Daffoldils
Hyacinth spp. - Hyacinth hybrids - all varieties
Scilla campanulata - Spanish Bluebell
Tulipa fosteriana - Species Tulip
Tulipa greigii species - Tulip
Tulipa kaufmanniana species - Tulip
Tulipa speciosa - Botanical (Species) Tulip
Tulipa spp. - Tulip Hybrids - all varieties

FALL FLOWERING BULBS
Colchicum spp. - Meadow Saffron
Cyclamen coum spp. - Hardy Cyclamen

Realm 1 plant list
T-Zone 3.1

TREES - SHADE
Acer rubrum - Red Maple
Acer saccharum - Sugar Maple
Betula allegheniensis - Yellow Birch
Betula lenta - Black Birch, Sweet Birch
Betula nigra - River Birch
Betula populifolia - Gray Birch
Carya glabra - Pignut Hickory
Carya ovata - Shagbark Hickory
Carya tomentosa - Mockernut Hickory
Celtis occidentalis - Common Hackberry
Cladrastis kentukea (C. lutea) - American Yellowwood
Cladrastis kentukea 'Rosea' - American Yellowwood
Gleditsia triacanthos var. inermis 'Imperial' - Thornless Common Honeylocust
Gleditsia triacanthos var. inermis 'Skycole' - Skycole Honeylocust
Gleditsia triacanthos var. inermis 'Suncole' - Suncole Honeylocust
Gleditsia triacanthos var. inermis 'True Shade' - True Shade Honeylocust
Liquidambar styraciflua - Sweetgum
Liriodendron tulipifera - Tulip Tree
Magnolia acuminata - Cucumbertree Magnolia
Nyssa sylvatica - Black Tupelo
Oxydendrum arboreum - Sourwood (Andromeda)
Platanus occidentalis - American Sycamore
Platanus x acerifolia 'Bloodgood' - Bloodgood London Planetree
Platanus x acerifolia 'Liberty' - Liberty London Planetree
Quercus alba - White Oak
Quercus borealis (*Quercus Rubra*) - Red Oak
Quercus coccinea - Scarlet Oak
Quercus macrocarpa - Bur Oak
Quercus palustris - Pin Oak
Quercus phellos - Willow Oak
Quercus prinus - Chestnut Oak
Quercus velutina - Black Oak
Sassafras albidum - Sassafras
Taxodium distichum 'Shawnee Brave' - Bald Cypress
Tilia americana - Basswood
Tilia americana 'Redmond' - Redmond Basswood
Ulmus Americana 'Heritage' - Heritage American Elm
Ulmus Americana 'Liberty' - Liberty American Elm
Ulmus Americana 'Valley Forge' - Valley Forge American Elm

TREES - UNDERSTORY
Acer pensylvanicum - Striped Maple
Amelanchier arborea - Downy Serviceberry
Amelanchier canadensis - Shadblow Serviceberry
Amelanchier laevis - Allegheny Serviceberry
Amelanchier laevis MS - Multi-Stem Allegheny Serviceberry
Carpinus caroliniana - American Hornbeam, Ironwood
Cercis canadensis 'Alba' - White Redbud
Cercis canadensis spp. - Eastern Redbud
Chionanthus virginicus - White Fringe Tree
Cornus florida 'Cherokee Brave' - Flowering Dogwood 'Cherokee Brave'
Cornus florida 'Forest Pansy' - Flowering Dogwood 'Forest Pansy'
Cornus x 'Rutgan' - Stellar Pink Dogwood
Crataegus viridis 'Winter King' - Winter King Hawthorne
Franklinia alatamaha - Franklin Tree
Magnolia virginiana - Sweetbay Magnolia
Malus 'Adams' - Adams Crabapple
Malus 'Adirondack' - Adirondack Crabapple
Malus 'Prariefire' - Prariefire Crabapple

TREES- EVERGREEN
Chamaecyparis thyoides - Atlantic Whitecedar
Picea glauca - White Spruce

SHRUBS
Aesculus parviflora - Bottlebrush Buckeye
Alnus rugosa - Speckled Alder
Alnus serrulata - Brook-side Alder
Arctostaphylos uva-ursi - Bearberry
Baccharis halimifolia - Groundsel Tree
Calycanthus floridus - Carolina Allspice
Cephalanthus occidentalis - Buttonbush

Realm 1 plant list
T-Zone 3.1 (cont.)

Clethra alnifolia - Summersweet
Cornus alba 'Red Gnome' - Tartarian Dogwood
Cornus alternifolia - Pagoda Dogwood
Cornus amomum - Silky Dogwood, Swamp Dogwood
Cornus canadensis - Bunchberry
Cornus foemina racemosa muskingum - Gray-Twigged Dogwood
Cornus stolonifera (*C. sericea*) spp. - Red-Osier Dogwood
Corylus americana - American Filbert
Cotoneaster adpressus spp. - Cotoneaster
Deutzia gracilis spp. - Nikko Slender Deutzia
Deutzia scabra spp. - Fuzzy Deutzia
Diervilla lonicera 'Copper' - Dwarf Bush Honeysuckle
Dirca palustris - Leatherwood
Forsythia viridissima 'Bronxensis' - Bronxensis Forsythia
Fothergilla gardenii spp. - Dwarf Fothergilla
Fothergilla major - Large Fothergilla
Hammamelis vernalis - Vernal Witchhazel
Hammamelis virginiana - Witch Hazel
Hydrangea arborescens spp. - Smooth Hydrangea
Hydrangea quercifolia spp. - Oak Leak Hydrangea
Hypericum frondosum spp. - Golden St. John's Wort
Hypericum 'Hidcote' - Hidcote Hypericum
Hypericum kalmianum spp. - Kalm Hypericum
Hypericum prolificum spp. - Shrubby St. John's Wort
Ilex glabra spp. - Inkberry
Ilex verticillata 'Afterglow' - Winterberry Holly
Ilex verticillata 'Southern Gentleman' - Winterberry Holly
Ilex verticillata 'Jim Dandy' - Winterberry Holly
Ilex verticillata 'Sparkleberry' - Winterberry Holly
Itea virginica - Viginia Sweetspire
Kalmia angustifolia spp. - Sheep Laurel
Kalmia latifolia spp. - Mountain Laurel
Leucothoe fontanesiana - Drooping Leucothoe
Lindera benzoin - Spicebush
Paxistima canbyi - Canby's Mountain-Lover
Potentilla fruticosa - Shrubby Cinquefoil
Rhododendron calendulaceum - Flame Azalea
Rhododendron carolinianum - Carolina Rhododendron
Rhododendron catawbiense spp. - Catawba Rhododendron
Rhododendron maximum - Rosebay Rhododendron
Rhododendron periclymenoides spp. - Pinxterbloom Azalea
Rhododendron PJM - PJM Rhododendron
Rhododendron prinophyllum (*R. roseum*) - Roseshell Azalea
Rhododendron vaseyi spp. - Pinkshell Azalea
Rhododendron viscosum - Swamp Azalea
Rhus aromatica spp. - Fragrant Sumac
Rhus glabra - Smooth Sumac
Rosa carolina - Carolina Rose, Pasture Rose
Rosa 'Landcruiser series' - Landcruiser Rose
Rosa palustris - Swamp Wild Rose
Rosa rugosa 'Dwarf Pavement' - Dwarf Pavement Rose
Rose virginiana - Virginia Rose
Sambucas racemosa var. pubens - Red Elderberry /Scarlet Elderberry
Sambucus canadensis - Elderberry
Spiraea tomentosa - Steeplebush (Hardhack)
Spirea latifolia (*alba*) - Meadowsweet
Symphoricarpos albus - Common Snowberry
Symphoricarpos orbiculatus - Coralberry
Symphoricarpos x chenaultii 'Hancock' - Hancock Coral Berry
Teucrium canadensis - American Germander
Vaccinium angustifolium - Lowbush Blueberry
Vaccinium corymbosum - Highbush Blueberry
Viburnum acerifolium - Maple-Leaf Viburnum
Viburnum dentatum - Arrowwood Viburnum
Viburnum lentago - Nannyberry Viburnum
Viburnum prunifolium - Blackhaw Viburnum
Viburnum trilobum - American Cranberrybush
Viburnum x rhytidophylloides - Lantanaphyllum Viburnum
Xanthorhiza simplicissma - Yellowroot

HERBACEOUS: GRASSES
Agrostis alba - Redtop
Agrostis scabra - Ticklegrass
Carex pennsylvanica - Pennsylvania Sedge
Carex plantaginea - Plantain-leafed Sedge
Chasmanthium latifolium - Northern Sea Oats
Deschampsia cespitosa - Tufted Hairgrass
Elymus glaucus - Blue Wild Rye
Panicum virgatum - Switchgrass
Sporobolus heterolepsis - Prarie Dropseed

HERBACEOUS: PERENNIALS, VINES, FERNS and MOSSES
Achillea millefolium spp. - Yarrow
Adiantum pedatum - Maidenhair Fern
Anemone canadensis - Meadow Anemone
Agastache cana - Mosquito Plant
Aquilegia canadensis - Canadian Columbine
Asarum Canadense - Wild Ginger
Asclepias incarnata - Swamp Milkweed, Red Milkweed
Asclepias tuberosa - Butterfly Weed
Aster divaricatus - White Wood Aster
Aster laevis - Smooth Aster
Aster novae-angliae - New England Aster
Aster novi-belgii - New York Aster
Athyrium filix-femina - Lady Fern
Baptisia australis - Blue False Indigo
Baptisia sphaerocarpa - Yellow Indigo
Brachythecium oxycladon - Cedar Moss
Campsis radicans - Trumpet Vine
Chelone glabra - Turtlehead
Chrysogonum virginianum - Green and Gold
Cimicifuga racemosa - Bugbane
Clematis virginiana - Clematis
Coreopsis auriculata - Mouse-Ear Coreopsis
Coreopsis grandiflora - Common Tickseed
Coreopsis verticillata - Tickseed
Delphinium exaltum - Tall Larkspur
Delphinium tricorne - Dwarf Larkspur
Dennstaedita punctilobula - Hay-Scented Fern
Dicentra eximia - Fringed Bleeding Heart
Dicranella heteromalia - Broom Moss
Dicranum scoparium - Silky Forklet Moss
Drypoterris marginalis - Marginal Shield Fern
Echinacea purpurea - Purple Cone Flower
Erythronium americanum - Yellow Trout Lily
Eupatorium purpureum - Joe-Pye Weed
Gaultheria procumbens - Creeping Wintergreen
Geranium maculatum - Cranesbill
Heuchera spp. - Coral Bells
Hibiscus moscheutos spp. - Marsh Hibiscus
Iris cristata - Slender Blue Flag
Iris versicolor - Blue Flag Iris
Jeffersonia diphylla - Twinleaf
Liatris spicata - Gayfeather
Lobelia siphilitica - Giant Blue Lobelia
Lonicera sempervirens - Scarlet Honeysuckle
Mitchella repens - Partridgeberry
Mitella diphylla - Bishop's Cap
Monarda didyma - Beebalm

Realm 1 plant list
T-Zone 3.1 (cont.)

Monarda fistulosa - Wild Bergamot
Oenothera fruticose - Sundrops
Onoclea sensibilis - Sensitive Fern
Osmunda cinnamomea - Cinnamon Fern
Osmunda regalis var. spectabilis - American Royal Fern
Pachysandra procumbens - Allegheny Spurge
Parthenocissus quinqufolia - Virginia Creeper
Paxistima canbyi - Canby's Mountain-Lover
Penstemon digitalis - Beardtounge
Phlox divaricata - Canadian, Woodland Phlox
Phlox maculata - Meadow Phlox
Phlox stolonifera - Creeping Phlox
Phlox subulata - Mountain Pinks
Physostegia virginiana - Obedient Plant
Podophyllum peltatum - Mayapple
Polygonatum biflorum - Solomon's Seal
Polytrichum juniperinum - Juniper Haircap Moss
Potentilla simplex - Old Field Cinquefoil
Rudbeckia fulgida - Orange Coneflower
Similacina racemosa - False Soloman's Seal
Solidago cutleri - Goldenrod
Thalictrum thalictroides - Rue Anemone
Thelypteris noveboracensis - New York Fern
Vernonia noveboracensis - Common Ironweed
Viola labradorica - Labrador Violet
Viola pedata - Bird's Foot Viola
Waldesteinia fragariodes - Barren Strawberry

SEED MIXES
Approved lawn mix for mown areas:
40% *Festuca arundinacea* 'Shenandoah II' - Shenandoah II Tall Fescue
40% *Festuca arundinacea* 'Finelawn Elite' - Finelawn Tall Fescue
10% *Lolium perenne* 'Wizard' - Wizard Perennial Ryegrass
10% *Lolium perenne* 'Pennant II' - Pennant II Perennial Ryegrass

SPRING FLOWERING BULBS
Allium hybrids - Flowering Onion
Anemone blanda - Grecian Windflower, Anemone
Convallaria majalis - Lily of the Valley - all varieties
Crocus vernus - Crocus hybrids - all varieties
Daffoldil spp. - Trumpet Daffoldils
Hyacinth spp. - Hyacinth hybrids - all varieties
Scilla campanulata - Spanish Bluebell
Tulipa fosteriana species - Tulip
Tulipa greigii species - Tulip
Tulipa kaufmanniana species - Tulip
Tulipa speciosa - Botanical (Species) Tulip
Tulipa spp. - Tulip Hybrids - (all varieties)

FALL FLOWERING BULBS
Colchicum spp. - Meadow Saffron
Cyclamen coum spp. - Hardy Cyclamen

TREES - SHADE
Acer rubrum - Red Maple
Acer saccharum - Sugar Maple
Betula allegheniensis - Yellow Birch
Betula lenta - Black Birch, Sweet Birch
Betula nigra - River Birch
Betula populifolia - Gray Birch
Carya glabra - Pignut Hickory
Carya ovata - Shagbark Hickory

Realm 2 plant list
All T-Zones

Carya tomentosa - Mockernut Hickory
Celtis occidentalis - Common Hackberry
Cladrastis kentukea (C. lutea) - American Yellowwood
Cladrastis kentukea 'Rosea' - American Yellowwood
Gleditsia triacanthos var. inermis 'Imperial' - Thornless Common Honeylocust
Gleditsia triacanthos var. inermis 'Skycole' - Skycole Honeylocust
Gleditsia triacanthos var. inermis 'Suncole' - Suncole Honeylocust
Gleditsia triacanthos var. inermis 'True Shade' - True Shade Honeylocust
Liquidambar styraciflua - Sweetgum
Liriodendron tulipifera - Tulip Tree
Magnolia acuminata - Cucumbertree Magnolia
Nyssa sylvatica - Black Tupelo
Oxydendrum arboreum - Sourwood (Andromeda)
Platanus occidentalis - American Sycamore
Platanus x acerifolia 'Bloodgood' - Bloodgood London Planetree
Platanus x acerifolia 'Liberty' - Liberty London Planetree
Quercus alba - White Oak
Quercus borealis (Quercus Rubra) - Red Oak
Quercus coccinea - Scarlet Oak
Quercus macrocarpa - Bur Oak
Quercus palustris - Pin Oak
Quercus phellos - Willow Oak
Quercus prinus - Chestnut Oak
Quercus velutina - Black Oak
Sassafras albidum - Sassafras
Taxodium distichum 'Shawnee Brave' - Bald Cypress
Tilia americana - Basswood
Tilia americana 'Redmond' - Redmond Basswood
Ulmus Americana 'Heritage' - Heritage American Elm
Ulmus Americana 'Liberty' - Liberty American Elm
Ulmus Americana 'Valley Forge' - Valley Forge American Elm

TREES - UNDERSTORY
Acer pensylvanicum - Striped Maple
Amelanchier arborea - Downy Serviceberry
Amelanchier canadensis - Shadblow Serviceberry
Amelanchier laevis - Allegheny Serviceberry
Amelanchier laevis MS - Multi-Stem Allegheny Serviceberry
Carpinus caroliniana - American Hornbeam, Ironwood
Cercis canadensis 'Alba' - White Redbud
Cercis canadensis spp. - Eastern Redbud
Chionanthus virginicus - White Fringe Tree
Cornus florida 'Cherokee Brave' - Flowering Dogwood

Realm 2 plant list
All T-Zones (cont.)

Cornus florida 'Forest Pansy' - Flowering Dogwood 'Forest Pansy'
Cornus x 'Rutgan' - Stellar Pink Dogwood
Crataegus viridis 'Winter King' - Winter King Hawthorne
Franklinia alatamaha - Franklin Tree
Magnolia virginiana - Sweetbay Magnolia
Malus 'Adams' - Adams Crabapple
Malus 'Adirondack' - Adirondack Crabapple
Malus 'Prariefire' - Prariefire Crabapple

TREES- EVERGREEN
Chamaecyparis thyoides - Atlantic Whitecedar
Picea glauca - White Spruce

SHRUBS
Aesculus parviflora - Bottlebrush Buckeye
Alnus rugosa - Speckled Alder
Alnus serrulata - Brook-side Alder
Arctostaphylos uva-ursi - Bearberry
Baccharis halimifolia - Groundsel Tree
Calycanthus floridus - Carolina Allspice
Cephalanthus occidentalis - Buttonbush
Clethra alnifolia - Summersweet
Cornus alba 'Red Gnome' - Tartarian Dogwood
Cornus alternifolia - Pagoda Dogwood
Cornus amomum - Silky Dogwood, Swamp Dogwood
Cornus foemina racemosa muskingum - Gray-Twigged Dogwood
Cornus stolonifera (C. sericea) spp. - Red-Osier Dogwood
Corylus americana - American Filbert
Cotoneaster adpressus spp. - Cotoneaster
Deutzia gracilis spp. - Nikko Slender deutzia
Deutzia scabra spp. - Fuzzy Deutzia
Diervilla lonicera 'Copper' - Dwarf Bush Honeysuckle
Dirca palustris - Leatherwood
Forsythia viridissima 'Bronxensis' - Bronxensis Forsythia
Fothergilla gardenii spp. - Dwarf Fothergilla
Fothergilla major - Large Fothergilla
Hammamelis vernalis - Vernal Witchhazel
Hammamelis virginiana - Witch Hazel
Hydrangea arborescens spp. - Smooth Hydrangea
Hydrangea quercifolia spp. - Oak Leak Hydrangea
Hypericum frondosum spp. - Golden St. Johnswort
Hypericum 'Hidcote' - Hidcote Hypericum
Hypericum kalmianum spp. - Kalm Hypericum
Hypericum prolificum spp. - Shrubby St. John's Wort
Ilex glabra spp. - Inkberry
Ilex verticillata 'Afterglow' - Winterberry Holly
Ilex verticillata 'Southern Gentleman' - Winterberry Holly
Ilex verticillata 'Jim Dandy' - Winterberry Holly
Ilex verticillata 'Sparkleberry' Winterberry Holly
Itea virginica - Viginia Sweetspire
Kalmia angustifolia spp. - Sheep Laurel
Kalmia latifolia spp. - Mountain Laurel
Leucothoe fontanesiana - Drooping Leucothoe
Lindera benzoin - Spicebush
Paxistima canbyi - Canby's Mountain-Lover
Potentilla fruticosa - Shrubby Cinquefoil
Rhododendron calendulaceum - Flame Azalea
Rhododendron carolinianum - Carolina Rhododendron
Rhododendron catawbiense spp. - Catawba Rhododendron
Rhododendron maximum - Rosebay Rhododendron
Rhododendron periclymenoides spp. - Pinxterbloom Azalea
Rhododendron PJM - PJM Rhododendron
Rhododendron prinophyllum (R. roseum) - Roseshell Azalea
Rhododendron vaseyi spp. - Pinkshell Azalea
Rhododendron viscosum - Swamp Azalea
Rhus aromatica spp. - Fragrant Sumac
Rhus glabra - Smooth Sumac
Rosa carolina - Carolina Rose, Pasture Rose
Rosa 'Landcruiser series' - Landcruiser Rose
Rosa palustris - Swamp Wild Rose
Rosa rugosa 'Dwarf Pavement' - Dwarf Pavement Rose
Rose virginiana - Virginia Rose
Sambucas racemosa var. pubens - Red Elderberry / Scarlet Elderberry
Sambucus canadensis - Elderberry
Spiraea tomentosa - Steeplebush (Hardhack)
Spirea latifolia (alba) - Meadowsweet
Symphoricarpos albus - Common snowberry
Symphoricarpos orbiculatus - Coralberry
Symphoricarpos x chenaultii 'Hancock' - Hancock Coral Berry
Teucrium canadensis - American Germander
Vaccinium angustifolium - Lowbush Blueberry
Vaccinium corymbosum - Highbush Blueberry
Viburnum acerifolium - Maple-Leaf Viburnum
Viburnum dentatum - Arrowwood Viburnum
Viburnum lentago - Nannyberry Viburnum
Viburnum prunifolium - Blackhaw Viburnum
Viburnum trilobum - American Cranberrybush
Viburnum x rhytidophylloides - Lantanaphyllum Viburnum
Xanthorhiza simplicissma - Yellowroot

HERBACEOUS: GRASSES
Agrostis alba - Redtop
Agrostis scabra - Ticklegrass
Carex pennsylvanica - Pennsylvania Sedge
Carex plantaginea - Plantain-leafed Sedge
Chasmanthium latifolium - Northern Sea Oats
Deschampsia cespitosa - Tufted Hairgrass
Elymus glaucus - Blue Wild Rye
Panicum virgatum - Switchgrass
Sporobolus heterolepsis - Prarie Dropseed

HERBACEOUS: PERENNIALS, VINES, FERNS and MOSSES
Achillea millefolium spp. - Yarrow
Anemone Canadensis - Meadow Anemone
Adiantum pedatum - Maidenhair Fern
Agastache cana - Mosquito Plant
Anemone spp.- Windflower
Aquilegia canadensis - Canadian Columbine
Asarum Canadense - Wild Ginger
Asclepias incarnata - Swamp Milkweed, Red Milkweed
Asclepias tuberosa - Butterfly Weed
Aster divaricatus - White Wood Aster
Aster laevis - Smooth Aster
Aster novae-angliae - New England Aster
Aster novi-belgii - New York Aster
Astilbe spp.- Plume Flower
Athyrium filix-femina - Lady fern
Baptisia sphaerocarpa - Yellow Indigo
Bergenia spp.- Heart Leaf Berengia
Brachythecium oxycladon - Cedar Moss
Campanula spp.- Bellflower
Campsis radicans - Trumpet Vine
Caryopteris x clandonensis spp. Blue Mist Shrub, Blue Spirea
Chelone glabra - Turtlehead
Chrysogonum virginianum - Green and Gold
Cimicifuga racemosa - Bugbane
Clematis virginiana - Clematis

Realm 2 plant list
All T-Zones (cont.)

Coreopsis auriculata - Mouse-Ear Coreopsis
Coreopsis verticillata - Tickseed
Coreopsis grandiflora - Common Tickseed
Cornus canadensis - Bunchberry
Delphinium exaltum - Tall Larkspur
Delphinium tricorne - Dwarf Larkspur
Dennstaedita punctilobula - Hay-Scented Fern
Dianthus spp. (excluding armeria)- Pinks
Dicentra eximia - Fringed Bleeding Heart
Dicranella heteromalia - Broom Moss
Dicranum scoparium - Silky Forklet Moss
Drypoterris marginalis - Marginal Shield Fern
Echinacea purpurea - Purple Cone Flower
Erythronium americanum - Yellow Trout Lily
Eupatorium purpureum - Joe-Pye Weed
Galium odoratum - Sweet Woodruff
Gaultheria procumbens - Creeping Wintergreen
Geranium spp. - Cranesbill
Helleborus spp. - Lenten Rose, Christmas Rose
Hemerocallis spp. (excluding fulva) - Daylily
Heuchera spp. - Coral Bells
Hibiscus moscheutos spp. - Marsh Hibiscus
Iris cristata - Slender Blue Flag
Iris versicolor - Blue Flag Iris
Jeffersonia diphylla - Twinleaf
Lavendula spp. - Lavandin/Lavender
Leucanthemum spp.- Shasta Daisy
Liatris spicata - Gayfeather
Liriope spp. - Lillyturf
Lobelia siphilitica - Giant blue lobelia
Lonicera sempervirens - Scarlet Honeysuckle
Mertensia virginica - Virginia bluebells
Mitchella repens - Partridgeberry
Mitella diphylla - Bishop's Cap
Monarda didyma - Beebalm
Monarda fistulosa - Wild Bergamot
Oenothera fruticose - Sundrops
Onoclea sensibilis - Sensitive Fern
Osmunda cinnamomea - Cinnamon fern
Osmunda regalis var. spectabilis - American Royal Fern
Pachysandra procumbens - Allegheny Spurge
Paeonia spp. - Peony
Parthenocissus quinqufolia - Virginia Creeper
Paxistima canbyi - Canby's Mountain-Lover
Penstemon digitalis - Beardtounge
Perovskia spp. - Russian Sage
Phlox divaricata Canadian, - Woodland Phlox
Phlox maculata - Meadow Phlox
Phlox stolonifera - Creeping Phlox
Phlox subulata - Mountain Pinks
Physostegia virginiana - Obedient Plant
Podophyllum peltatum - Mayapple
Polygonatum biflorum - Solomon's Seal
Polytrichum juniperinum - Juniper Haircap Moss
Potentilla simplex - Old Field Cinquefoil
Rudbeckia fulgida - Orange Coneflower
Salvia spp. - Meadow Sage
Sedum spp. - Stonecrop
Similacina racemosa - False Soloman's Seal
Solidago cutleri - Goldenrod
Thalictrum thalictroides - Rue Anemone
Thelypteris noveboracensis - New York Fern
Thymus spp. - Thyme
Vernonia noveboracensis - Common ironweed
Viola labradorica - Labrador Violet
Viola pedata - Bird's Foot Viola

SEED MIXES
Approved lawn mix for mowed areas:

40% *Festuca arundinacea* 'Shenandoah II' -
Shenandoah II Tall Fescue
40% *Festuca arundinacea* 'Finelawn Elite' -
Finelawn Elite Tall Fescue
10% *Lolium perenne* 'Wizard' -
Wizard Perennial Ryegrass
10% *Lolium perenne* 'Pennant II'
Pennant II Perennial Ryegrass

SPRING FLOWERING BULBS
Allium hybrids - Flowering Onion
Anemone blanda - Grecian Windflower, Anemone
Convallaria majalis - Lily of the Valley - all varieties
Crocus vernus - Crocus hybrids - all varieties
Daffoldil spp. - Trumpet Daffoldils
Hyacinth spp. - Hyacinth hybrids - all varieties
Scilla campanulata - Spanish Bluebell
Tulipa fosteriana - Species Tulip
Tulipa greigii - Species Tulip
Tulipa kaufmanniana - Species Tulip
Tulipa speciosa - Botanical (Species) Tulip
Tulipa spp. - Tulip Hybrids - (all varieties)

FALL FLOWERING BULBS
Colchicum spp. - Meadow Saffron
Cyclamen coum spp. - Hardy Cyclamen

Roadside Focal Point

PLANT LIST

TREES - SHADE

Acer rubrum - Red Maple
Acer saccharum - Sugar Maple
Betula allegheniensis - Yellow Birch
Betula lenta - Black Birch, Sweet Birch
Betula nigra - River Birch
Betula populifolia - Gray Birch
Carya glabra - Pignut Hickory
Carya ovata - Shagbark Hickory
Carya tomentosa - Mockernut Hickory
Celtis occidentalis - Common Hackberry
Cladrastis kentukea (C. lutea) - American Yellowwood
Cladrastis kentukea 'Rosea' - American Yellowwood
Fagus grandifolia - American Beech
Gymnocladus dioicus - Kentucky Coffeetree
Liquidambar styraciflua - Sweetgum
Liriodendron tulipifera - Tulip Tree
Magnolia acuminata - Cucumbertree Magnolia
Nyssa sylvatica - Black Tupelo
Oxydendrum arboreum - Sourwood (Andromeda)
Platanus occidentalis - American Sycamore
Platanus x acerifolia 'Bloodgood' - Bloodgood London Planetree
Platanus x acerifolia - 'Liberty' Liberty London Planetree
Quercus alba - White Oak
Quercus bicolor - Swamp White Oak
Quercus borealis (Quercus Rubra) - Red Oak
Quercus coccinea - Scarlet Oak
Quercus macrocarpa - Bur Oak
Quercus palustris - Pin Oak
Quercus phellos - Willow Oak
Quercus prinus - Chestnut Oak
Quercus velutina - Black Oak
Sassafras albidum - Sassafras
Taxodium distichum - 'Shawnee Brave' Bald Cypress
Tilia americana - Basswood
Tilia americana - 'Redmond' Redmond Basswood
Ulmus Americana 'Heritage' - Heritage American Elm
Ulmus Americana 'Liberty' - Liberty American Elm
Ulmus Americana 'Valley Forge' - Valley Forge American Elm

TREES - UNDERSTORY

Acer pensylvanicum - Striped Maple
Amelanchier arborea - Downy Serviceberry
Amelanchier canadensis - Shadblow Serviceberry
Amelanchier laevis - Allegheny Serviceberry
Amelanchier laevis - MS Multi-Stem Allegheny Serviceberry
Carpinus caroliniana - American Hornbeam, Ironwood
Cercis canadensis 'Alba' - White Redbud
Cercis canadensis spp. - Eastern Redbud
Chionanthus virginicus - White Fringe Tree
Cornus florida - Flowering Dogwood
Cornus florida 'Cherokee Brave' - Flowering Dogwood 'Cherokee Brave'
Cornus florida 'Cherokee Princess' - Flowering Dogwood 'Cherokee Princess'
Cornus florida 'Forest Pansy' - Flowering Dogwood 'Forest Pansy'
Cornus x 'Rutcan' - Constellation Dogwood
Cornus x 'Rutdan' - Celestial Flowering Dogwood
Cornus x 'Rutgan' - Stellar Pink Dogwood
Cornus x 'Rutlan' - Ruth Ellen Dogwood
Crataegus viridis - 'Winter King' Winter King Hawthorne
Halesia Caroliniana - Carolina Silverbell
Magnolia virginiana - Sweetbay Magnolia
Malus 'Adams' - Adams Crabapple
Malus 'Adirondack' - Adirondack Crabapple
Malus 'Donald Wyman' - Sargent Crabapple
Malus 'Prariefire' - Prariefire Crabapple
Malus 'Sargentii' - Sargent Crabapple
Malus 'Sugar Time' - Sugar Tyme Crabapple
Ostrya virginiana - Hop Hornbeam
Prunus americana - Flowering American Plum

TREES- EVERGREEN

Abies balsamea - Balsam Fir
Chamaecyparis thyoides - Atlantic Whitecedar
Ilex opaca - American Holly
Picea glauca - White Spruce
Pinus resinosa - Red Pine
Pinus rigida - Pitch Pine
Pinus strobus - Eastern White Pine
*Pinus virginian*a - Virginia Pine

SHRUBS

Aesculus parviflora - Bottlebrush Buckeye
Alnus rugosa - Speckled Alder
Alnus serrulata - Brook-side Alder
Arctostaphylos uva-ursi - Bearberry
Calycanthus floridus - Carolina Allspice
Cephalanthus occidentalis - Buttonbush
Clethra alnifolia - Summersweet
Cornus alba 'Red Gnome' - Tartarian Dogwood
Cornus alternifolia - Pagoda Dogwood
Cornus amomum - Silky Dogwood, Swamp Dogwood
Cornus foemina spp. - Gray-Twigged Dogwood
Cornus stolonifera (C. sericea) spp. - Red-Osier Dogwood
Corylus americana - American Filbert
Cotoneaster adpressus spp. - Cotoneaster
Deutzia gracilis spp. - Nikko Slender deutzia
Deutzia scabra spp. - Fuzzy Deutzia
Diervilla lonicera 'Copper' - Dwarf Bush Honeysuckle
Dirca palustris - Leatherwood
Forsythia viridissima -'Bronxensis' Bronxensis Forsythia
Fothergilla gardenii spp.- Dwarf Fothergilla
Fothergilla major -Large Fothergilla
Hammamelis vernalis -Vernal Witchhazel
Hammamelis virginiana -Witch Hazel
Hydrangea arborescens spp. -Smooth Hydrangea
Hydrangea quercifolia spp. -Oak Leak Hydrangea
Hypericum frondosum spp. -Golden St. Johnswort
Hypericum 'Hidcote' -Hidcote Hypericum
Hypericum kalmianum spp. -Kalm Hypericum
Hypericum prolificum spp. -Shrubby St. Johnswort
Ilex glabra spp. -Inkberry
Ilex verticillata 'Afterglow' -Winterberry Holly
Ilex verticillata 'Southern Gentleman' - Winterberry Holly
Ilex verticillata 'Jim Dandy' - Winterberry Holly
Ilex verticillata 'Sparkleberry' -Winterberry Holly
Itea virginica -Viginia Sweetspire
Kalmia angustifolia spp.- Sheep Laurel
Kalmia latifolia spp.- Mountain Laurel
Leucothoe fontanesiana -Drooping Leucothoe
Lindera benzoin -Spicebush
Paxistima canbyi -Canby's mountain-lover
Potentilla fruticosa -Shrubby cinquefoil
Rhododendron calendulaceum Flame Azalea

Roadside Focal Point

plant list (cont.)

Rhododendron carolinianum - Carolina Rhododendron
Rhododendron catawbiense spp. - Catawba Rhododendron
Rhododendron maximum Rosebay - Rhododendron
Rhododendron periclymenoides spp. - Pinxterbloom Azalea
Rhododendron PJM - PJM Rhododendron
Rhododendron prinophyllum (R. roseum) - Roseshell Azalea
Rhododendron vaseyi spp. - Pinkshell Azalea
Rhododendron viscosum - Swamp Azalea
Rosa carolina - Carolina Rose, Pasture Rose
Rosa 'Landcruiser series' - Landcruiser Rose
Rosa palustris - Swamp Wild Rose
Rosa rugosa 'Dwarf Pavement' - Dwarf Pavement Rose
Rose virginiana - Virginia Rose
Sambucas racemosa var. pubens - Red Elderberry/Scarlet Elderberry
Sambucus canadensis - Elderberry
Spiraea tomentosa - Steeplebush (Hardhack)
Spirea latifolia (alba) - Meadowsweet
Symphoricarpos albus - Common Snowberry
Symphoricarpos x chenaultii 'Hancock' - Hancock Coral Berry
Teucrium canadensis - American Germander
Vaccinium angustifolium - Lowbush Blueberry
Vaccinium corymbosum - Highbush Blueberry
Viburnum acerifolium - Maple-Leaf Viburnum
Viburnum dentatum - Arrowwood Viburnum
Viburnum lentago - Nannyberry Viburnum
Viburnum prunifolium - Blackhaw Viburnum
Viburnum trilobum - American Cranberrybush
Viburnum x rhytidophylloides - Lantanaphyllum Viburnum
Xanthorhiza simplicissma - Yellowroot

HERBACEOUS: GRASSES
Carex pennsylvanica - Pennsylvania Sedge
Carex plantaginea - Plantain-leafed Sedge
Carex stricta - Tussock Sedge
Carex vulpinoidea - Fox Sedge
Chasmanthium latifolium - Northern Sea Oats
Elymus glaucus - Blue Wild Rye

HERBACEOUS:
PERENNIALS, VINES, FERNS and MOSSES
Achillea millefolium spp. - Yarrow
Adiantum pedatum - Maidenhair Fern
Agastache cana - Mosquito Plant
Anemone Canadensis - Meadow Anemone
Asarum Canadense - Wild Ginger
Asclepias incarnata - Swamp Milkweed, Red Milkweed
Asclepias tuberosa - Butterfly Weed
Aster divaricatus - White Wood Aster
Aster laevis - Smooth Aster
Aster novae-angliae - New England Aster
Aster novi-belgii - New York Aster
Athyrium filix-femina - Lady Fern
Aquilegia canadensis - Canadian Columbine
Baptisia sphaerocarpa - Yellow Indigo
Brachythecium oxycladon - Cedar Moss
Campsis radicans - Trumpet Vine
Chelone glabra - Turtlehead
Chrysogonum virginianum - Green and Gold
Cimicifuga racemosa - Bugbane
Clematis virginiana - Clematis
Coreopsis auriculata - Mouse-Ear Coreopsis
Coreopsis verticillata - Tickseed
Coreopsis grandiflora - Common Tickseed
Delphinium exaltum - Tall Larkspur
Delphinium tricorne - Dwarf Larkspur
Dennstaedita punctilobula - Hay-Scented Fern
Dicentra eximia - Fringed Bleeding Heart
Dicranella heteromalia - Broom Moss
Dicranum scoparium - Silky Forklet Moss
Drypoterris marginalis - Marginal Shield Fern
Echinacea purpurea - Purple Cone Flower
Erythronium americanum - Yellow Trout Lily
Eupatorium purpureum - Joe-Pye Weed
Gaultheria procumbens - Creeping Wintergreen
Geranium maculatum - Cranesbill
Heuchera spp. - Coral Bells
Hibiscus moscheutos spp. - Marsh Hibiscus
Iris cristata - Slender Blue Flag
Iris versicolor - Blue Flag Iris
Jeffersonia diphylla - Twinleaf
Liatris spicata - Gayfeather
Lobelia siphilitica - Giant Blue Lobelia
Lonicera sempervirens - Scarlet Honeysuckle
Mitchella repens - Partridgeberry
Mitella diphylla - Bishop's Cap
Monarda didyma - Beebalm
Monarda fistulosa - Wild Bergamot
Oenothera fruticose - Sundrops
Onoclea sensibilis - Sensitive Fern
Osmunda cinnamomea - Cinnamon Fern
Osmunda regalis var. spectabilis - American Royal Fern
Pachysandra procumbens - Allegheny Spurge
Parthenocissus quinqufolia - Virginia Creeper
Paxistima canbyi - Canby's Mountain-Lover
Penstemon digitalis - Beardtounge
Phlox divaricata - Canadian, Woodland Phlox
Phlox maculata - Meadow Phlox
Phlox stolonifera - Creeping Phlox
Phlox subulata - Mountain Pinks
Physostegia virginiana - Obedient Plant
Podophyllum peltatum - Mayapple
Polygonatum biflorum - Solomon's Seal
Polytrichum juniperinum - Juniper Haircap Moss
Potentilla simplex - Old Field Cinquefoil
Rudbeckia fulgida - Orange Coneflower
Similacina racemosa - False Soloman's Seal
Solidago cutleri - Goldenrod
Thalictrum thalictroides - Rue Anemone
Thelypteris noveboracensis - New York Fern
Vernonia noveboracensis - Common Ironweed
Viola labradorica - Labrador Violet
Viola pedata - Bird's Foot Viola
Waldesteinia fragariodes - Barren Strawberry

SPRING FLOWERING BULBS
Allium hybrids - Flowering Onion
Anemone blanda - Grecian Windflower, Anemone
Convallaria majalis - Lily of the Valley - (all varieties)
Crocus vernus - Crocus hybrids - (all varieties)
Daffoldil spp. - Trumpet Daffoldils
Hyacinth spp. - Hyacinth hybrids - (all varieties)
Scilla campanulata - Spanish Bluebell
Tulipa fosteriana - Species Tulip
Tulipa greigii - Species Tulip
Tulipa kaufmanniana - Species Tulip
Tulipa speciosa - Botanical (Species) Tulip
Tulipa spp. - Tulip Hybrids - (all varieties)

FALL FLOWERING BULBS
Colchicum spp. - Meadow Saffron
Cyclamen coum spp. - Hardy Cyclamen

T-Realm 2

PLANT LIST

TREES- EVERGREEN
Chamaecyparis thyoides - Atlantic Whitecedar
Juniperus virginiana - Eastern Red Cedar
Juniperus virginiana 'Burkii' - Burkii Red Cedar

SHRUBS
Baccharis halimifolia - Groundsel Tree
Rhus aromatica spp. - Fragrant Sumac
Rhus glabra - Smooth Sumac
Symphoricarpos orbiculatus - Coralberry

HERBACEOUS: GRASSES
Agrostis alba - Redtop
Elymus glaucus - Blue Wild Rye
Agrostis scabra - Ticklegrass
Andropogon glomeratus var. glaucopsis - Purple Bluestem
Andropogon saccharoides - Silver Beard Grass
Andropogon scoparius - Little Bluestem
Andropogon virginicus - Broom Sedge
Elymus canadensis - Canada Wild Rye
Elymus virginicus - Virginia Wild Rye
Festuca arundinacea - Tall Fescue
Festuca ovina - Hard Fescue
Lolium multiflorum - Annual Ryegrass
Panicum virgatum - Switchgrass
Schizachyrium scoparium - Little Bluestem
Sorghastrum nutans - Indian Grass

TREES - SHADE
Acer saccharum - Sugar Maple
Betula allegheniensis - Yellow Birch
Betula lenta - Black Birch, Sweet Birch
Betula nigra - River Birch
Betula populifolia - Gray Birch
Carya glabra - Pignut Hickory
Carya ovata - Shagbark Hickory
Carya tomentosa - Mockernut Hickory
Celtis occidentalis - Common Hackberry
Cladrastis kentukea (C. lutea) - American Yellowwood
Cladrastis kentukea 'Rosea'- American Yellowwood
Fagus grandifolia - American Beech
Gymnocladus dioicus - Kentucky Coffeetree
Liquidambar styraciflua - Sweetgum
Liriodendron tulipifera - Tulip Tree
Nyssa sylvatica - Black Tupelo
Oxydendrum arboreum - Sourwood (Andromeda)
Platanus occidentalis - American Sycamore
Quercus alba - White Oak
Quercus bicolor - Swamp White Oak
Quercus borealis (Quercus Rubra) - Red Oak
Quercus coccinea - Scarlet Oak
Quercus macrocarpa - Bur Oak
Quercus palustris - Pin Oak
Quercus phellos - Willow Oak
Quercus prinus - Chestnut Oak
Quercus velutina - Black Oak
Sassafras albidum - Sassafras
Taxodium distichum 'Shawnee Brave'- Shawnee Brave Bald Cypress

TREES - UNDERSTORY
Acer pensylvanicum - Striped Maple
Amelanchier arborea - Downy Serviceberry
Amelanchier canadensis - Shadblow Serviceberry
Amelanchier laevis - Allegheny Serviceberry
Amelanchier laevis MS - Multi-Stem Allegheny Serviceberry
Carpinus caroliniana - American Hornbeam, Ironwood
Cercis canadensis 'Alba' - White Redbud
Cercis canadensis spp. - Eastern Redbud
Cornus florida - Flowering Dogwood
Cornus florida 'Cherokee Brave' - Flowering Dogwood 'Cherokee Brave'
Cornus florida 'Cherokee Princess'- Flowering Dogwood 'CherokeePrincess'
Cornus florida 'Forest Pansy' - Flowering Dogwood 'Forest Pansy'
Cornus x 'Rutcan' - Constellation Dogwood
Cornus x 'Rutdan' - Celestial Flowering Dogwood
Cornus x 'Rutgan' - Stellar Pink Dogwood
Cornus x 'Rutlan' - Ruth Ellen Dogwood
Crataegus viridis - 'Winter King' - Winter King Hawthorne
Ostrya virginiana - Hop Hornbeam
Prunus americana - Flowering American Plum

TREES- EVERGREEN
Abies balsamea - Balsam Fir
Ilex opaca - American Holly
Picea glauca - White Spruce
Pinus resinosa - Red Pine
Pinus rigida - Pitch Pine
Pinus strobus - Eastern White Pine
Pinus virginiana - Virginia Pine

SHRUBS
Aesculus parviflora - Bottlebrush Buckeye
Alnus rugosa - Speckled Alder
Alnus serrulata - Brook-side Alder
Calycanthus floridus - Carolina Allspice
Clethra alnifolia - Summersweet
Cornus amomum - Silky Dogwood, Swamp Dogwood
Corylus americana - American Filbert
Diervilla lonicera 'Copper' - Dwarf Bush Honeysuckle
Dirca palustris - Leatherwood
Fothergilla gardenii spp. - Dwarf Fothergilla
Fothergilla major - Large Fothergilla
Hammamelis vernalis - Vernal Witchhazel
Hammamelis virginiana - Witch Hazel
Ilex verticillata - 'Afterglow' Winterberry Holly
Ilex verticillata - 'Southern Gentleman' Winterberry Holly
Ilex verticillata - 'Jim Dandy' Winterberry Holly
Ilex verticillata - 'Sparkleberry' Winterberry Holly
Itea virginica - Viginia Sweetspire
Kalmia angustifolia spp. - Sheep Laurel
Kalmia latifolia spp. - Mountain Laurel
Lindera benzoin - Spicebush
Paxistima canbyi - Canby's Mountain-Lover
Rhododendron calendulaceum - Flame Azalea
Rhododendron carolinianum - Carolina Rhododendron
Rhododendron catawbiense spp. - Catawba Rhododendron
Rhododendron maximum - Rosebay Rhododendron
Rhododendron periclymenoides spp. - Pinxterbloom Azalea
Rhododendron PJM - PJM Rhododendron
Rhododendron prinophyllum (R. roseum) - Roseshell Azalea
Rhododendron vaseyi spp. - Pinkshell Azalea
Rhododendron viscosum - Swamp Azalea
Rosa 'Landcruiser series' - Landcruiser Rose
Sambucas racemosa var. pubens - Red Elderberry / Scarlet Elderberry
Sambucus canadensis - Elderberry
Symphoricarpos albus - Common snowberry
Viburnum acerifolium - Maple-Leaf Viburnum
Viburnum dentatum - Arrowwood Viburnum

T-Realm 2
PLANT LIST (CONT.)

Viburnum lentago - Nannyberry Viburnum
Viburnum prunifolium - Blackhaw Viburnum
Viburnum trilobum - American Cranberrybush
Viburnum x rhytidophylloides - Lantanaphyllum Viburnum
Xanthorhiza simplicissma - Yellowroot

HERBACEOUS: GRASSES
Carex pennsylvanica - Pennsylvania Sedge
Carex plantaginea - Plantain-leafed Sedge
Carex stricta - Tussock Sedge
Carex vulpinoidea - Fox Sedge
Sporobolus heterolepsis - Prarie Dropseed

HERBACEOUS:
PERENNIALS, VINES, FERNS and MOSSES
Adiantum pedatum - Maidenhair Fern
Athyrium filix-femina - Lady Fern
Brachythecium oxycladon - Cedar Moss
Dicranella heteromalia - Broom Moss
Dicranum scoparium - Silky Forklet Moss
Drypoterris marginalis - Marginal Shield Fern
Onoclea sensibilis - Sensitive Fern
Osmunda cinnamomea - Cinnamon Fern
Osmunda regalis var. spectabilis - American Royal Fern
Polytrichum juniperinum - Juniper Haircap Moss
Thelypteris noveboracensis New York Fern

SUNNY DRY MEADOW
APPROVED GRASS MIX FOR USE IN ROADSIDE MEADOWS EXPOSED TO SUNNY, DRY CONDITIONS:

40% *Andropogon gerardii* - Big Bluestem
4% *Aster laevis* - Smooth Blue Aster
4% *Monarda fistulosa* - Wild Bergamot
2% *Chamaechrista fasciculate* - Partridge Pea
4% *Asclepias tuberosa interior* - Butterfly Milkweed
4% *Rudbeckia hirta* - Black Eyed Susan
5% *Coreopsis lanceolata* - Lance Leaved Coreopsis
5% *Echinacea purpurea* - Purple Coneflower
5% *Liatris spicata* - Marsh (Dense) Blazing Star
2% *Solidago juncea* - Early Goldenrod
5% *Sorghastrum nutans* - Indiangrass
5% *Tridens flavens* - Purple Top
15% *Elymus virginicus* - Virginia Wild Rye

STEEP SLOPE MIX
APPROVED FOR USE ALONG ROADSIDES WITH GRADIENTS IN EXCESS OF 25%

20% *Lolium multiflorum* - Annual Ryegrass
20% *Andropogon scoparius* - Little bluestem, Indiantown Gap
20% *Elymus Canadensis* - Canada Wild Rye
10% *Sporobolus asper* - Rough Dropseed
10% *Bromus ciliatus* - Fringed Brome
10% *Agrostis perennans* - Autumn Bluegrass
5% *Rudbekia hirta* - Black Eyed Susan
3% *Aster prenanthoides* - Zigzag Aster
2% *Solidago nemoralis* - Gray Goldenrod

WET MEADOW SEED MIX
APPROVED FOR USE ALONG ROADSIDES IN WETTER AREAS

24% *Elymus virginicus* - Virginia Wild Rye
20% *Carex vulpinoidea* - Fox Sedge
10% *Carex tribuloides* - Blunt Broom Sedge
10% *Glyceria grandis* - American Mannagrass
5% *Verbena hastate* - Blue Vervain
4% *Eupatorium maculatum* - Spotted Joe Pye Weed
4% *Helenium autumnale* - Common Sneezeweed
4% *Mimulus ringens* - Square Stemmed Monkey Flower
4% *Zizia aurea* - Golden Alexanders
3% *Vernonia noveboracensis* - New York Ironweed
3% *Asclepias incarnate* - Swamp Milkweed
3% *Aster puniceus* - Purple Stemmed Aster
3% *Eupatorium perfoliatum* - Boneset
3% *Euthamia graminifolia* - Grass Leaved Goldenrod

STREET TREES
PLANT LIST

TREES – SHADE
Acer rubrum - Red Maple
Acer saccharum - Sugar Maple
Celtis occidentalis - Common Hackberry
Gleditsia triacanthos var. inermis - 'Imperial' Thornless Common Honeylocust
Gleditsia triacanthos var. inermis 'Skycole' - Skycole Honeylocust
Gleditsia triacanthos var. inermis 'Suncole' - Suncole Honeylocust
Gleditsia triacanthos var. inermis 'True Shade' - True Shade Honeylocust
Gymnocladus dioicus - Kentucky Coffeetree
Liquidambar styraciflua 'Rotundiloba'- Rotundiloba Sweetgum
Liriodendron tulipifera - Tulip Tree
Nyssa sylvatica - Black Tupelo
Platanus occidentalis - American Sycamore
Platanus x acerifolia 'Bloodgood' - Bloodgood London Planetree
Platanus x acerifolia 'Liberty' - Liberty London Planetree
Quercus alba - White Oak
Quercus bicolor - Swamp White Oak
Quercus borealis (Quercus Rubra) - Red Oak
Quercus coccinea - Scarlet Oak
Quercus phellos - Willow Oak
Quercus prinus - Chestnut Oak
Quercus velutina - Black Oak
Taxodium distichum - 'Shawnee Brave' Bald Cypress
Tilia americana - Basswood
Tilia americana 'Redmond' - Redmond Basswood
Ulmus Americana 'Heritage' - Heritage American Elm
Ulmus Americana 'Liberty' - Liberty American Elm

INVASIVES
PLANTS NOT APPROVED FOR USE

For more information, please visit
http://www.invasivespeciesinfo.gov/

Acacia auriculiformis - Earleaf Acacia
Acer tataricum var. ginnala - Amur Maple
Acer platanoidoides - Norway Maple
Ailanthus altissima - Tree of Heaven
Albizia julibrissin - Mimosa, Silk Tree
Alnus glutinosa - European Alder
Bischofia javanica - Bishopwood
Broussonetia papyrifera - Paper Mulberry
Casuarina equisetifolia - Australian Pine
Ilex aquifolium - English Holly
Paulowina tomentosa - Princess Tree
Populus alba - White Poplar
Pyrus calleryana - Callery Pear
Robinia pseudoacacia - Black Locust
Quercus acutissima - Sawtooth Oak
Salix x sepulcralis (Salix babylonica) - Weeping Willow
Sorbus aucuparia - European Mountain Ash
Ulmus pumila - Siberian Elm
Ulmus parvifolia - Chinese Elm
Berberis thunbergii - Japanese Barberry
Buddleja davidii and hybrids - Butterfly Bush
Caragana arborescens - Siberian Pea Shrub
Cotoneaster apiculatus - Cotoneaster
Cotoneaster franchetii - Cotoneaster
Cotoneaster microphyllus - Cotoneaster
Cotoneaster pannosus - Cotoneaster
Cotoneaster lacteus - Cotoneaster
Crataegus monogyna - English Hawthorn
Cytisus scoparius - Scotch Broom
Elaeagnus angustifolia - Russian Olive
Elaeagnus umbellata - Autumn Olive
Euonymus alatus - Winged euonymus
Euonymus fortunei - Fortune's Euonymus
Ligustrum amurense - Privet
Ligustrum japonicum - Privet
Ligustrum lucidum - Privet
Ligustrum ovalifolium Privet
Ligustrum sinese Privet
Ligustrum vulgare - Privet
Lonicera tatarica - Tartarian Honeysuckle
Lonicera maackii - Amur Honeysuckle
Lonicera morrowii - Morrow's Honeysuckle
Lonicera xylosteum - Dwarf Honeysuckle
Rhammus cathartica - Buckthorn
Rhammus frangula (Frangula alnus) -
Tall Hedge Buckthorn
Rhodotypos scandens Jetbead
Rosa multiflora Multiflora Rose
Rosa rugosa Beach rose
Spiraea japonica Japanese Spirea
Taxus cuspidata Japanese Yew
Viburnum dilatum Linden Viburnum
Viburnum lentago Tea Viburnum
Viburnum plicatum Double-file Viburnum
Viburnum sieboldii Siebold Viburnum
Viburnum opulus var. opulus European Cranberry Bush
Viburnum lantana Wayfaring Tree
Akebia quinata Five-leaf Akebia
Ampelopsis brevipedunculata Porcelain Berry
Celastrus orbiculatus Oriental Bittersweet
Hedera helix English Ivy
Lonicera japonica Japanese Honeysuckle
Wisteria floribunda Japanese Wisteria
Digitalis purpurea Foxglove
Leucanthemum vulgare (Chrysanthemum leucanthemum) Ox-Eye Daisy
Lythrum salicaria Purple Loosestrife
Lyhrum virgatum Purple Loosestrife
Potentilla recta Potentilla
Ranunculus ficaria Lesser Celandine
Pueraria lobata Kudzu
Vinca Minor Periwinkle
Vinca Major Periwinkle