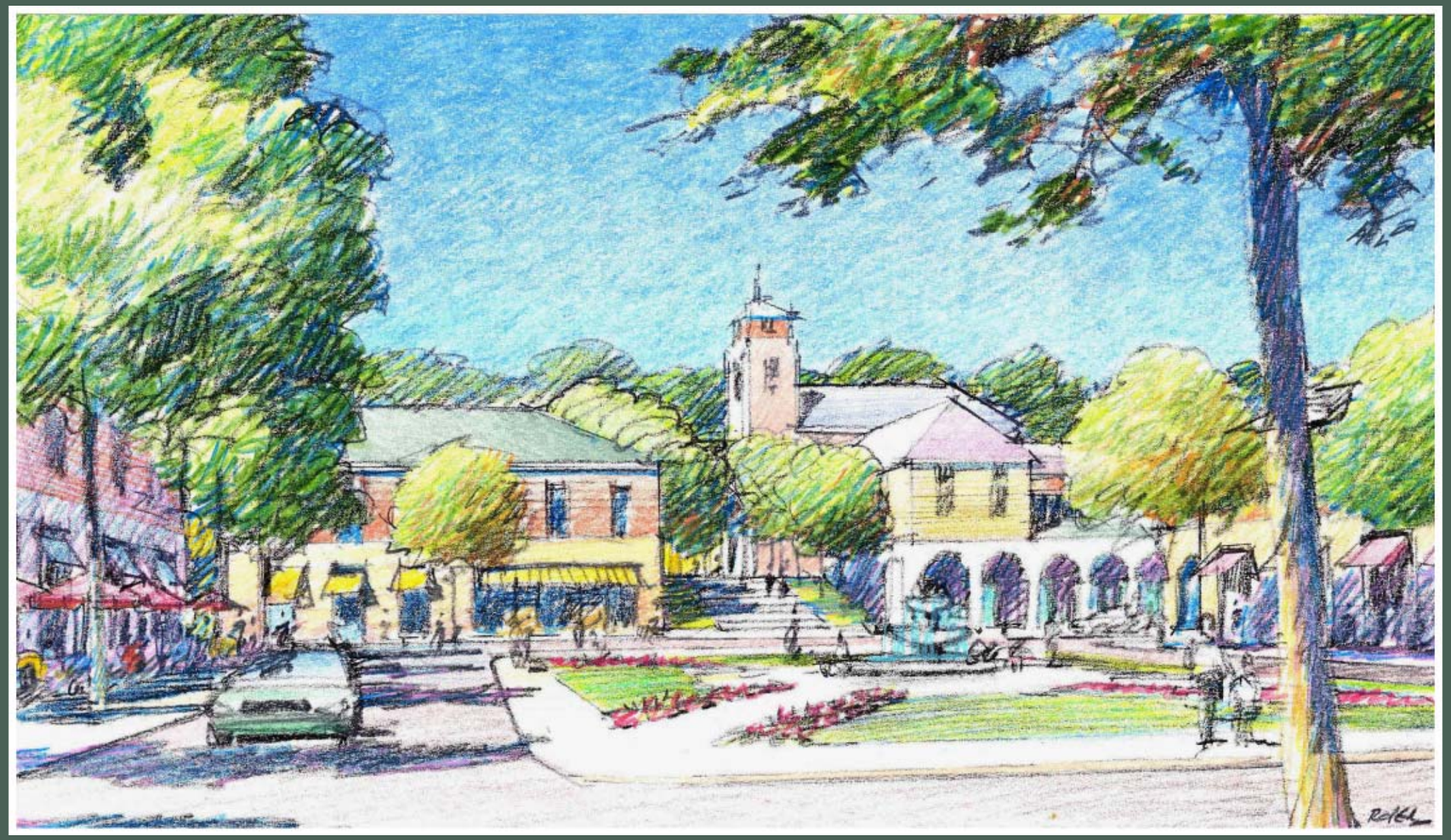
CAROTHERS CROSSING

URBAN DESIGN OVERLAY 2005 UD-003G-12

Nashville, TN Approved: January 17, 2007 (Ordinance No. BL 2006-1295)



Wood Ridge Development
Ed Richey and Don Smithson
Nashville, Tennessee

Seth Harry and Associates, Inc.
Architects
and Town Planners

CHARRETTE TEAM

Developers:
Don B. Smithson and Ed Richey
Wood Ridge Development
6517 Windy Hill Ct.
Brentwood, TN 37027
t: 615.394.8818 f: 615.832.3007

Urban Design and Architecture:
Seth Harry, AIA
Seth Harry & Associates, Inc.
605 Morgan Station Rd., Woodbine, MD 21797
t: 410.489.4725 f: 410.489.7554
Seth Harry e-mail: scharry@aol.com
Doug Luke
Barry Mahaffey
Samantha Polinik
Patrick Zimmerman

Architecture/Building Types:
Bill Allison
Greg Huddy
Allison-Ramsey Architects
1003 Charles St. PO Box 1863
Beaufort, South Carolina 29901 USA
t: 843.986.0559 f: 843.986.0719
e-mail: wallison@hargray.com
web: allisonramseyarchitect.com

Landscape Design:
Scott White
William Scott White Landscape Design
9908 New Town Rd.
Waxhaw, N.C. 28173
t: 704.243.2671 f: 704.243.2671
e-mail: wswlanddesign@earthlink.net
Greg Gamble
Land Design

Civil/Site Design:
Anthony Sease
Civitech, LLC
310-1/2 West Franklin Street
Chapel Hill, NC 27516
p: 919.969.2585 f: 919.969.2545
e-mail: tony@orangearch.com

Transportation:
Rick Hall
Hall Planning & Engineering (HPE)
Gillian Fischbach
Fischbach Transportation Group, Inc.

Illustration:
Peter Roper
Portofolio, Inc.

DESIGN TEAM

Urban Design and Architecture:
Seth Harry & Associates, Inc.

Architecture/Building Types:
Allison-Ramsey Architects

Landscape Design:
William Scott White Landscape Design

Civil/Site Design:
Civitech, LLC

Stantec Consulting
Harpeth on the Green IV
100 Westwood Place, Suite 420
Brentwood, Tennessee 37027
p: (615) 885-1144 f: (615) 885-1102

RPM Transportation Consultants, LLC
700 Centerview Dr., Suite 230
Brentwood, TN 37027
t: 615.370.8410 f: 615.370.8455

General Note:

This document's purpose is to clearly articulate a desired form of neighborhood development, consistent with the principles and techniques of New Urbanist Best Practices, for the proposed Community of Carothers Crossing. As such, it is intended to perform the role of a "touchstone" document, defining both the specific zoning framework in which the project will be implemented, as well as informing any and all subsequent decisions, judgments, considerations, etc., with respect to the preparation and submittal of subsequent formal plans and documents for regulatory review and approval.

As such, it is illustrative by design, with a focus on intent — as much as on specifics — and with the full expectation that all legal plan submittals will be prepared and presented by duly licensed professionals, as appropriate to the laws and standards of the State of Tennessee and the City of Nashville, as they apply to the respective disciplines in question, as appropriate to the issue in question.

Where apparent conflicts occur between the intent represented in this document, and the Laws and Regulations applicable to this Project, it is our intent to reconcile those conflicts, as closely as possible, consistent with the Principles and Techniques espoused herein.

A message from the Developer:

Carothers Crossing isn't a subdivision; it's a neighborhood. That's no accident!

Some middle-aged builders wanted a community like the one around grandma's house. They didn't want another subdivision.

Some middle-aged investors wanted a wholesome place for their adult children and grandchildren. They didn't want another subdivision.

Some architects were concerned about how their design could encourage community and bring joy to children. They were sick of subdivisions.

That's why our builders, investors and architects planned Carothers Crossing. They wanted a neighborhood. They wanted to smell apple pie and hear the sound of laughing children. The more they worked to create Carothers Crossing, the more they realized they wanted to live here themselves. Neighborhoods are hard to come by, after all. Even builders, investors and architects know that!

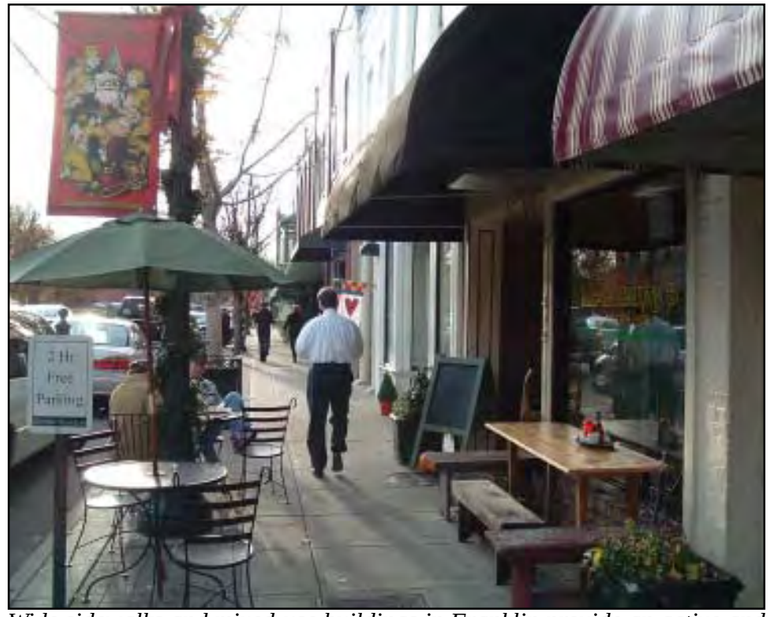
We did all we could to connect with our region's roots. We designed homes like those our people in this area have constructed for a hundred and fifty years. We made sidewalks, to invite us to walk to visit a friend down the street. We put a buffer between the sidewalk and the street. A little girl might want to ride her tricycle beside us as we take our walk. Before we return home, we can stop to buy a loaf of bread. We may even share a bit of gossip with the grocer! In the distance, a silo will remind us that this neighborhood was once a dairy farm. We will remember that much of it is still permanent fields and streams. This is our neighborhood. We know it couldn't be just anywhere because everything in it says that this is Tennessee.

Carothers Crossing is not just a place where we sleep at night. It's not primarily a place where we invest. For somewhere in the process of creating this community, it became a place where we wanted to live. This is our neighborhood. It is where we have put down roots.

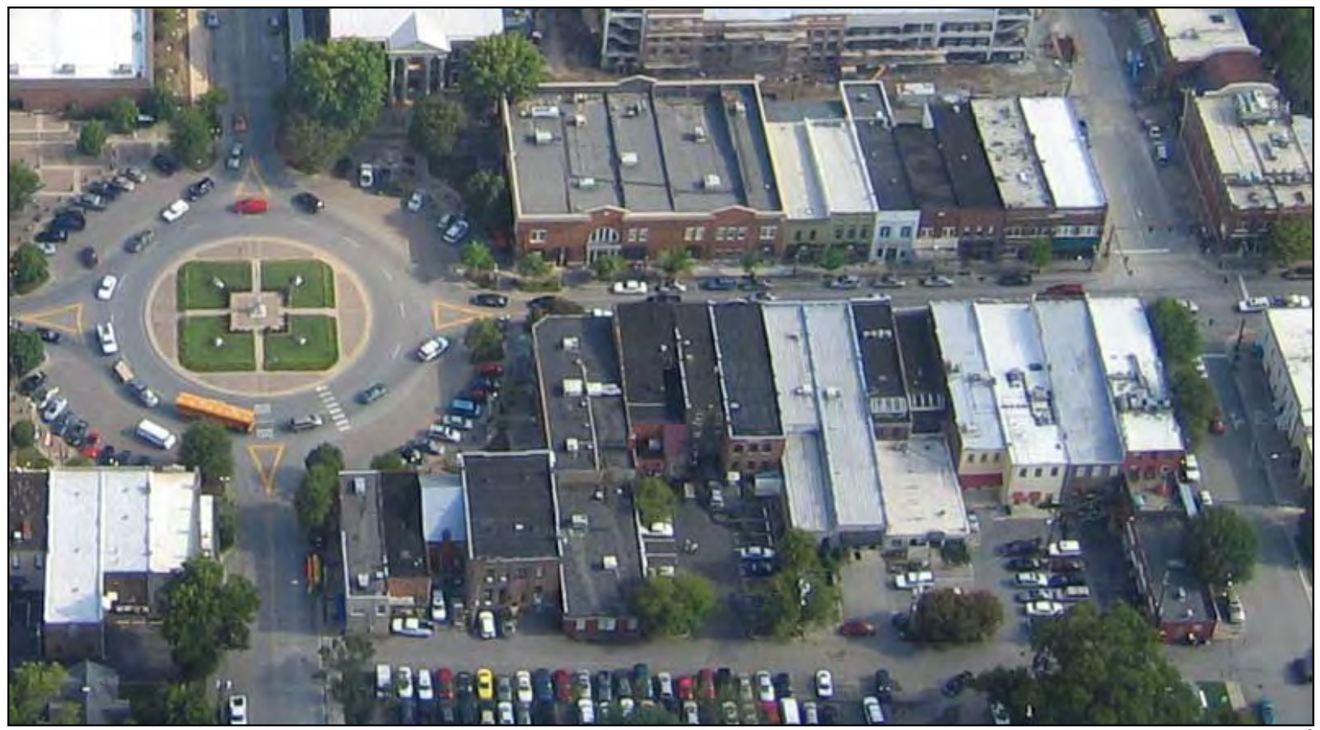
So while the proper name for this neighborhood is Carothers Crossing, we have given it a shorter name.

We call it home.

A traffic circle in downtown Franklin's square is one of many urban design techniques employed in Carothers Crossing to help manage traffic flow safely



Wide sidewalks and mixed-use buildings in Franklin provide an active and functional streetscape. These same ideas are used in Carothers Crossing.



Aerial view of downtown Franklin, TN., a nearby historic town that exhibits many of the fundamental planning principals used to create Carothers Crossing.

REGIONAL PRECEDENTS

Traditional urbanism represents an outwardly simple, yet highly evolved system for human habitation that encompasses all of the necessary ingredients for daily living in a compact, efficient, and pleasing form. The physical manifestation of this system is based upon the incremental structure of the Region, the Neighborhood, the Block, the Lot and the Building, each of which relates directly to the next larger and the next smaller element in the hierarchy which, collectively, make up the urban fabric.

In addition, this fabric is informed by its relative proximity to nature, ranging from most rural, at its edge, to most urban, at its center. This concept is not only applicable at the regional scale, where hamlets and villages represent urbanism in its most rural, and often bucolic form, to City centers — its most urban, but also at the scale of the neighborhood, which has its own defined center, and edge, representing this spectrum within a more tightly defined arena.

Carothers Crossing is a community comprised of four distinct villages, each roughly analogous to a single neighborhood in form and dimension, and each with its own unique character and form. The natural features of the site, which include tree lines, creeks, ridges and meadows, provide discreet settings for the individual villages, with each separated from the others by an expanse of open countryside, as might have been typical of rural towns and villages in the pre-suburban landscape.

Functionally, each village is similar in its basic structure but with a unique programmatic focus, relative to the others. That focus is reflected in their names: The Town Center; the Ridge Village; the School Village; and the Hamlet. The Town Center is the densest, accommodating the commercial uses for the entire community and containing the highest percentage of the more urban building types, while the the Hamlet is the least dense, being composed entirely of large lot, detached residential units.

In general, each village approximates the size and shape of a typical neighborhood, the basic building block of all traditional communities. As such, they have certain fundamental attributes in common:

1. They have a discernable center, usually in the form of a park or a green, and a finite dimension, based upon a 5-minute, or 1/4 mile, walking radius.
2. Prominent sites will be retained for civic buildings. These can house community meetings, educational,

Corner house in Edgefield uses architectural features to help "hold" the corner

Landscaped median narrows travel lanes and provides visual cues to help reduce design speed in residential neighborhoods

West Nashville residential street illustrates houses holding a "build to" line, defining a welcoming "street room."

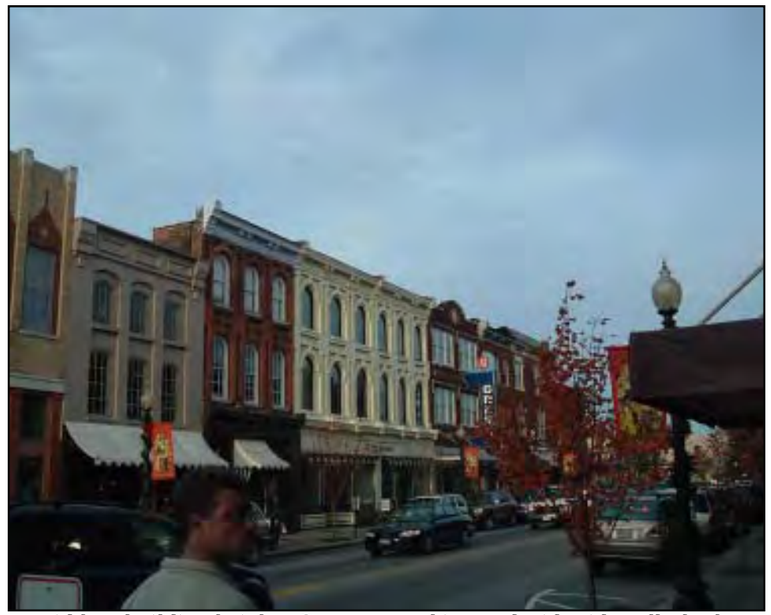
Edgefield house type illustrates basic traditional neighborhood development architectural features: Simple massing, a front porch, rear-loaded garage, and the house set forward on the site.

REGIONAL PRECEDENTS

religious, or cultural functions, and should ideally anchor the neighborhood center and/or terminate important streets or vistas.

2. The neighborhood contains a variety of dwelling types, which can accommodate a wide spectrum of housing needs and affordability levels, including the young and the old, the wealthy and the not so wealthy. Usually, these are allocated within neighborhoods such that the most urban types define the neighborhood center, while the most rural types articulate its edge.
3. There are often shops and places of work at the edge of the neighborhood, or in the center of neighborhoods that anchor larger communities, sufficient to meet the daily or weekly needs of a typical household. This is also where transit should be most viable.
4. A small ancillary building — a carriage house, is typically permitted at the rear of each primary structure, which can serve as an accessory apartment, home office, or in-law suite.
5. There is an elementary school within walking distance of most of the dwellings comprising the neighborhood, that can be accessed exclusively within the local network of neighborhood streets
6. There are playgrounds within 1/8th mile of each dwelling unit, and easy pedestrian or bicycle access to a larger network of greenways and native habitat.
7. The streets within the neighborhood define an interconnected network, such that traffic is dispersed and a variety of route options is available for any chosen itinerary.
8. The streets are sized to the minimum dimension necessary for the task at hand, and lined with wide sidewalks and shade giving street trees to optimize the walking and bicycling environment. They should also be configured to integrate into the larger regional street network to the fullest extent possible.
9. The “street room” is further enhanced toward the neighborhood center, by moving buildings up close to the street, and relegating garages and parking to the rear of the lot, to be accessed by alleys and rear lanes.

Again, the buildings articulate the “street room” with common setbacks, front porches, and simple massing. Here, the curb and sidewalk are integral, but at Carothers Crossing, the sidewalk will be set futher back, with a continuous planting strip and street trees defining the Right of Way.



Commercial buildings in downtown Franklin, TN, provide an ideal ratio of street width to building height. On street parking and wide sidewalks both help support the merchants, while providing for a safer, more pleasant pedestrian environment. Mix of uses helps ensure a vibrant, successful commercial district. This is the model for Carothers Crossing’s Town Center Village.

The Existing Site Context

The site lies within a largely rural sector of Metro Davidson County, but also abuts the more developed municipality of Lavergne, in Rutherford County, facilitating and rationalizing access to municipal services, as well as other regional-scaled amenities and transportation infrastructure, including a regional park directly adjacent to the site, and proximity to I-24, a high-speed, limited-access regional highway, that provides direct access to major nearby employment centers.

This larger regional point of view is important in shaping the design parameters for Carothers Crossing. When viewed from this larger perspective, Carothers Crossing becomes more of an appropriate and logical regional extension to an existing town -- that just happens to be in a deceptively rural setting -- than a discreet “greenfield” development. Nonetheless, it was considered important to retain as much of the rural character as possible in the overall development plan, both to retain as much of the existing site character as possible, as well as to minimize the visual impact of the development upon adjoining properties.

Specifically, the site at present is essentially rural in character, with residual evidence of its prior history as an agricultural use evident in the derelict farm structures extant on the property. Natural features include large open meadows, previously used for grazing, tree lines demarcating steep slopes and fence lines, and a highly articulated topographical landscape of ridges and stream cut valleys, punctuated with rock outcroppings and the odd specimen tree. To the fullest extent possible, the Master Plan has been designed to retain as much of this natural landscape as possible, and to use it to inform the specific location and layout of the individual villages, their relationships to each other, and the network of streets which bisect and navigate the site.

Small streams crisscross the property, shaping the topography while providing visual amenity.

Existing Conditions topographic and steep slopes analysis.

The existing Carothers Road from the eastern edge of the site as it traverses the meadow. This view would remain largely unchanged.

The existing farm buildings on the site will be restored and used to help anchor a neighorhood park with community-based gardens and boutique agricultural uses.

DECEMBER 2004 CHARETTE

The following archival plans, which were generated during the original public charrette process, are included for the purpose of reinforcing the fundamental illustrative intent, as evidenced in these plans, relative to the current generation of plans presented in this document. It is important to remember that these plans were generated with specific community input, which represented and continue to represent, the conceptual intent still implicit in all subsequent plan iterations.

MASTER PLAN

OPEN SPACE PLAN

Master Plan

The Master Plan for Carothers Crossing strikes a balance between being a legitimate regional extension of a pre-existing community (Lavergne), and a collection of freestanding villages in a rural landscape. The plan configuration of each of the four villages is dictated by the unique topography associated with each village's location on the site, the natural features of the site to be retained or enhanced, and the intended functional role or character of each particular village.

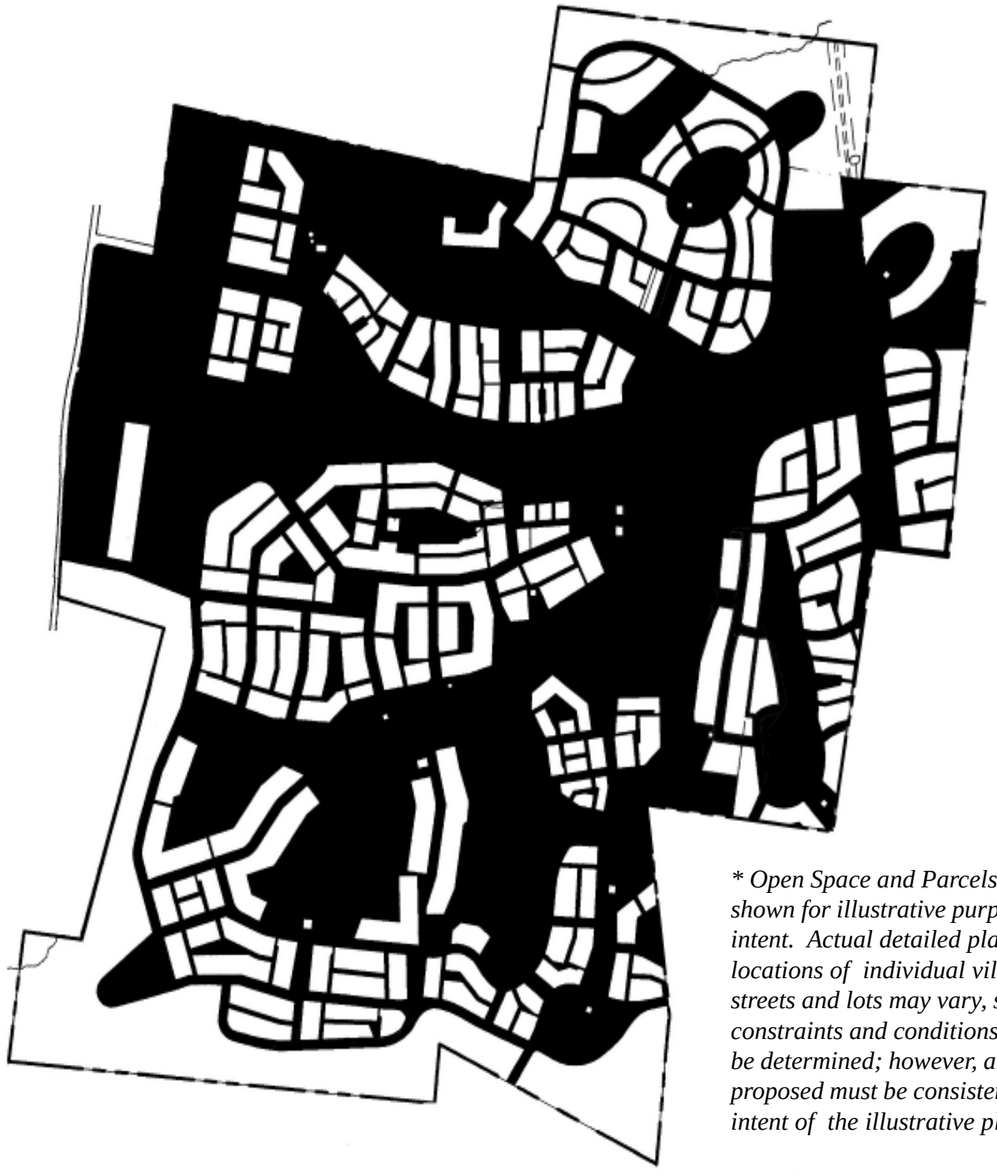
The primary form givers in terms of natural features and local amenities are the large open meadows to the east, the deep ravines and ridges to the south, the large knoll and the existing regional park to the north, and the creeks which traverse the site in a largely west to east direction. A single existing thoroughfare, Carothers Road, also traverses the site in an east and west orientation, which will be replaced by an interconnected street network, serving the larger regional road network.

This road, properly designed to allow it to be safely and appropriately integrated into the Master Plan, will also be slightly realigned to allow it to help energize the Town Center Village, provide convenient access to same, and to better deal with issues and concerns of adjoining property owners on Battle Road regarding traffic and headlights. This realignment, along with a more urbanized section, should not impact in any substantive way, either Carothers Road's capacity or its ability to carry out its role within the larger regional transportation network.

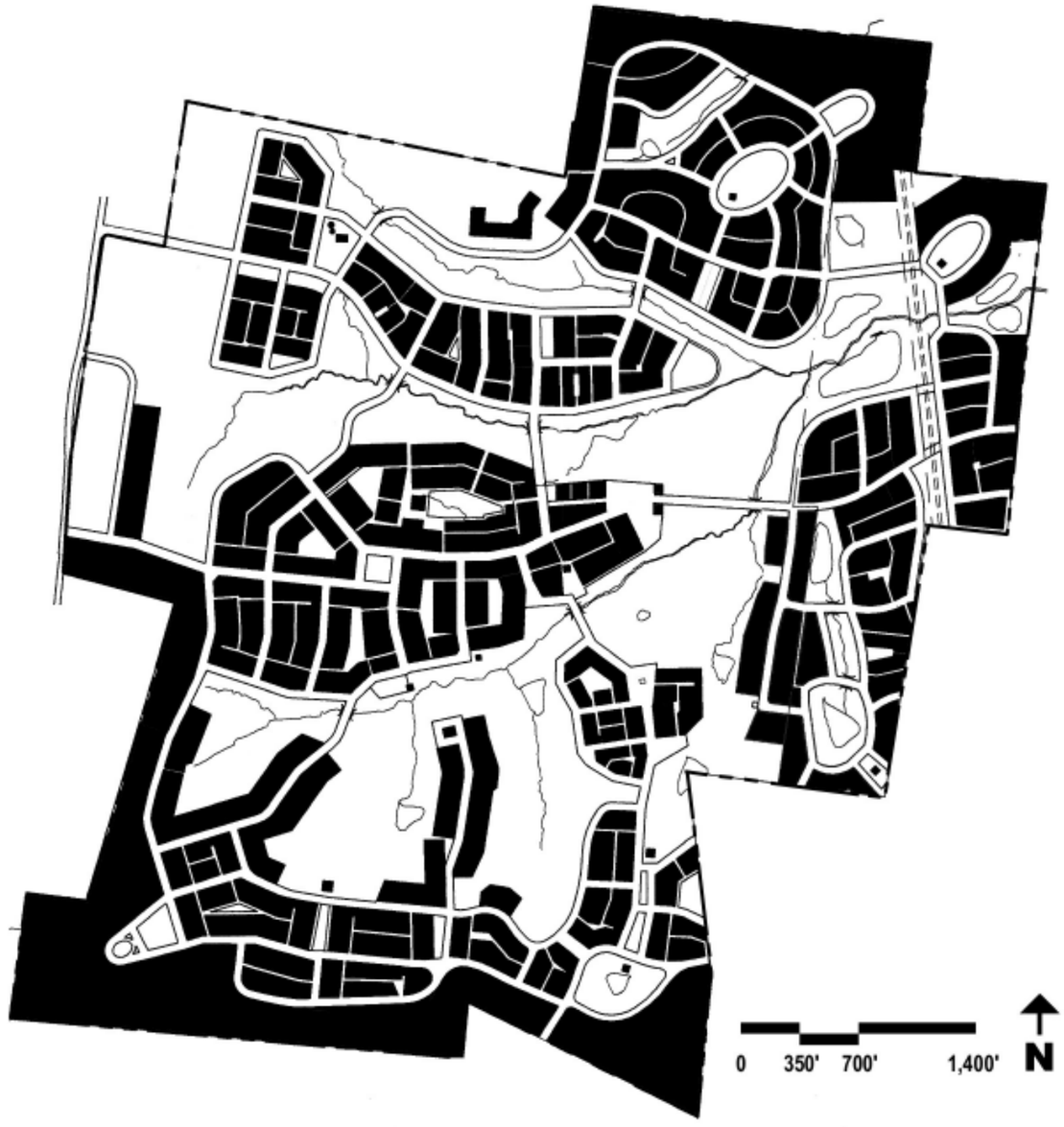
Altogether, the resulting master plan represents an optimal response to the unique features and attributes of the site and the needs of the present and future residents in and around Carothers Crossing.

** Master Plan shown for illustrative purposes and intent. Actual detailed plans and locations of individual villages, streets and lots may vary, subject to constraints and conditions as yet to be determined; however, any changes proposed must be consistent with the intent of the illustrative plan.*

PUBLIC VS. PRIVATE



** Open Space and Parcels Plan shown for illustrative purposes and intent. Actual detailed plans and locations of individual villages, streets and lots may vary, subject to constraints and conditions as yet to be determined; however, any changes proposed must be consistent with the intent of the illustrative plan.*

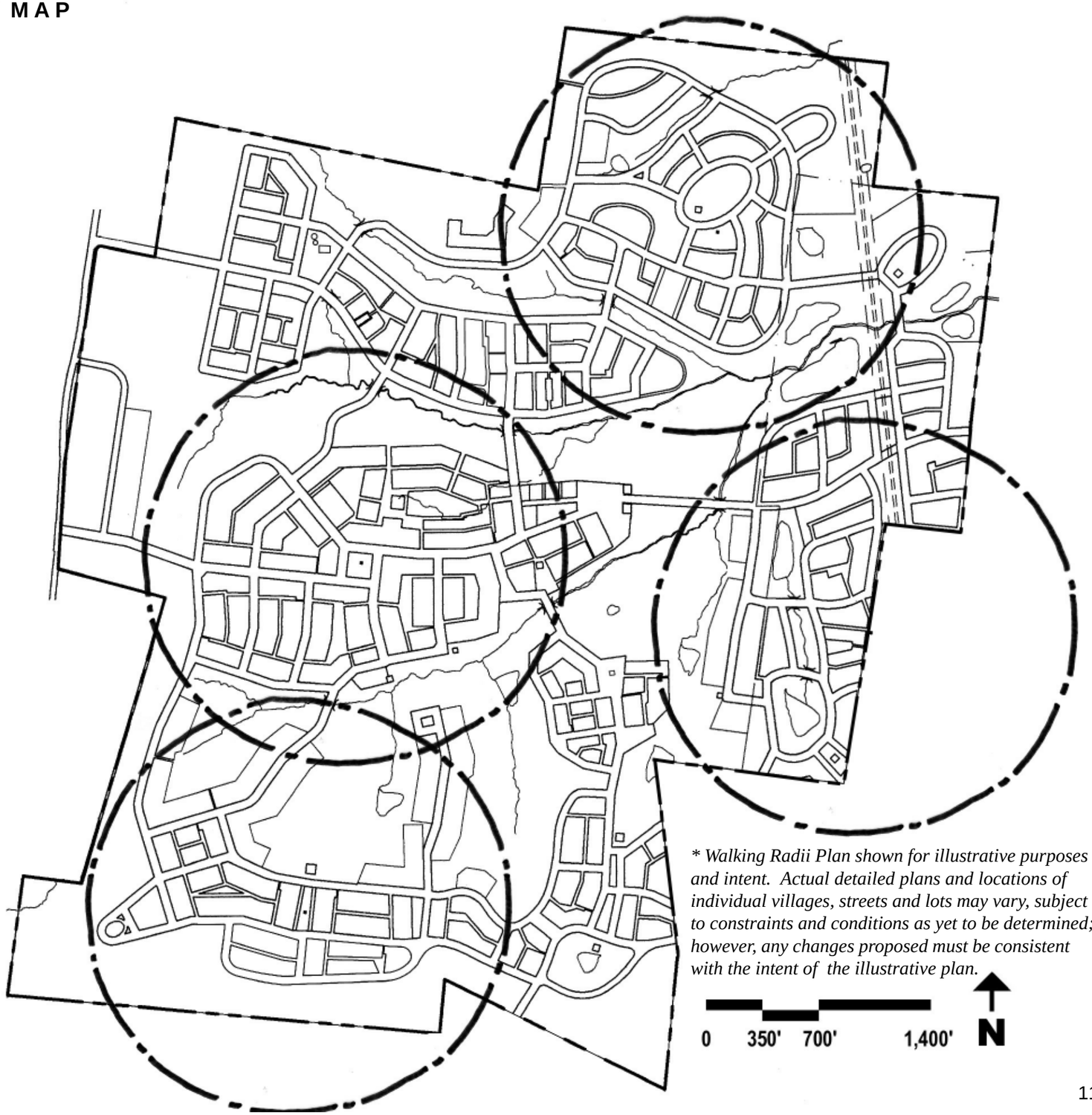


Public spaces, rendered black, includes all natural landscape, roadways, paths, informal and formal open spaces, and public buildings. The open space depicted at this stage of development accounts for more than the 55% minumum per the Regulating Plan of the entire Carother's Crossing site.

Private lots rendered in black.

NEIGHBORHOOD STRUCTURE/VICINTY MAP

Regional Vicinty Map, with Carothers Crossing shown in red.



** Walking Radii Plan shown for illustrative purposes and intent. Actual detailed plans and locations of individual villages, streets and lots may vary, subject to constraints and conditions as yet to be determined; however, any changes proposed must be consistent with the intent of the illustrative plan.*

Neighborhood Diagrams based upon 5 minute, or 1/4 mile, walking radius.

THE TOWN CENTER

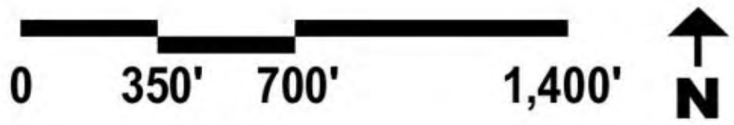
Town Center Village

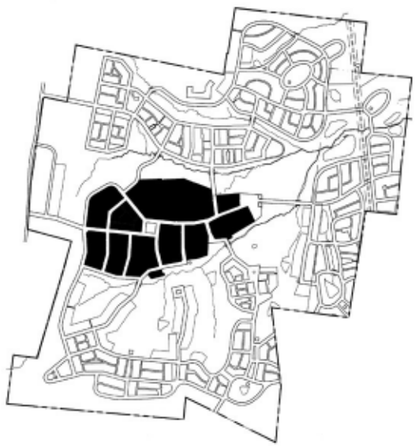
The Town Center Village is the most "urban" of the four villages and provides the bulk of Carothers Crossing's essential goods and services. In addition, the principal civic functions for the community will ideally be found within this Village including possibe uses such as a church, a branch library, a community meeting hall, and the like.

In order to maximize the total amount of open space throughout the project, the Town Center will contain many building types that support the most compact forms of community development, and these will be present in a higher percentage here than in the other villages. These building types often appeal most to those residents who can also derive the greatest benefit from the convenience and walkability offered by the Town Center, such as seniors and empty nesters, but such features can also appeal to a broad market.

In general the character of the Town Center Village will be one of small shops and tree shaded sidewalks, quaint brick townhomes with brick stoops and lush gardens sprouting from well-manicured dooryards. Activities and amenities will abound, from lawn movies in the town square, to sunset rendezvous at the sidewalk cafés creek side.

** Town Center Plan shown for illustrative purposes and intent. Actual detailed plans and locations of individual villages, streets and lots may vary, subject to constraints and conditions as yet to be determined; however, any changes proposed must be consistent with the intent of the illustrative plan.*





KEY PLAN

THE TOWN CENTER

A large ridge, running east to west along the northern edge of the town square, is the civic heart of the Town Center Village, with the community library and meeting hall crowning the ridge at the top of a cascading stairway (handicapped access and parking is conveniently located off a quiet rear lane, providing discreet but direct vehicular access). An interconnected network carries regional traffic from the surrounding communities through the town square and past all the markets and shops, but careful design and detailing ensures that the traffic will be well behaved and congestion rare, making pedestrian and bicycle movements safe and pleasant.

And though the Town Center Village is the most "urban" of the villages, it too has a softer edge, with cottages and larger lot single-family detached homes ringing its perimeter. Approaching the Town Center Village from the west, one crests a grassy knoll before descending gently into the village center, from the east, the approach is across a beautiful open meadow. In either case, the effect is that of a well planned, tidy and quaint little village in a beautiful rural setting, with other villages peeking out beyond the ridges and tree lines across the creeks and meadows.

1. The Town Square and Commercial center of Carothers Crossing is patterned on the great small towns of rural Tennessee, and provides the heart and soul, not only of Carothers Crossing, but for nearby neighborhoods as communities, as well.

2. Creekside view of the edge of The Town Center and neighboring ridge houses. illustrates how nature weaves its way throughout the community, adding value and quality of life to daily activities.

THE TOWN CENTER

3. Single-family homes along the edge of The Town Center.

THE TOWN CENTER

4. The view entering the Town Center from the East is one of a bucolic village in a pastoral setting.

THE SCHOOL VILLAGE

School Village

The School Village is almost two neighborhoods in one: The school neighborhood itself, centered on the community elementary school and adjacent regional park, and the nearby "Hill" neighborhood which overlooks the meadows at the east side of the project.

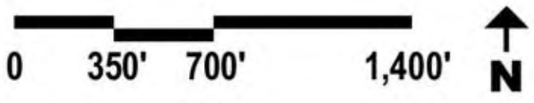
The school neighborhood is characterized by modest homes of elegant design, and walkable streets with wide sidewalks, well-controlled traffic and easy access from all of the other villages. In addition to the school, the Village boasts a neighborhood park containing the reconstituted remnants of the old farmstead that once occupied this part of the site.

Direct access between this neighborhood and the adjacent regional park allows the children from the larger community outside of Carothers Crossing to enjoy this wonderful asset as well, while also allowing the school to make use of the playing fields available within the park. The school itself is sited on a beautiful divided parkway, with one of the properties many creeks gently bubbling down its center.

The Hill neighborhood features a large oval park, framing the top of the namesake hill, as well as a memorial pavilion, appropriately sited on axis with a unique green-fronting community of cottage homes "stepping" down the hill. The pavilion provides the perfect terminated vista in this unique residential setting.

One more unique element in this surprisingly diverse Village is the courtyard village gracing the "point" between two converging streams as they spill out into the meadow. This special building type recalls the cloistered village compounds of the rural English countryside and provides an elegant contrast to the nature all around it.

** School Village Plan shown for illustrative purposes and intent. Actual detailed plans and locations of individual villages, streets and lots may vary, subject to constraints and conditions as yet to be determined; however, any changes proposed must be consistent with the intent of the illustrative plan.*



KEY PLAN

THE SCHOOL VILLAGE

1. View looking down landscaped median towards elementary school on right. Wide sidewalks and slow moving traffic will help make this a pleasant and safe walking environment for children of all ages.

THE SCHOOL VILLAGE

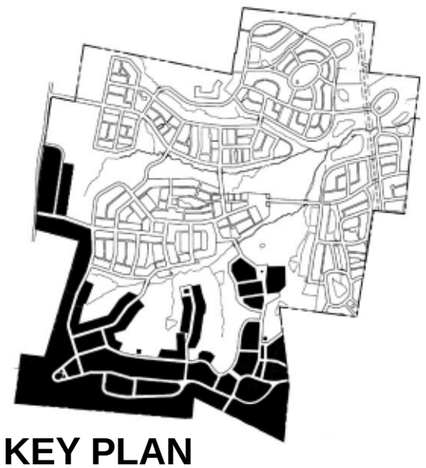
2. View of cottages from the bottom of stepped terraces.

THE RIDGE VILLAGE

Ridge Village

The Ridge Village spans the broadest spectrum of housing types and terrain of any of the principle neighborhoods. The Ridge Village abuts large lot homes on the south and west side of the site and has homes of similar size and quality along these edges. The northern edge of the Village, however, is punctuated by a series of ridges and deep ravines that overlook the southern aspects of the Town Center Village, across a beautiful creek. It is here that some of the projects most unusual house types reside, a tall, small footprint house known as a ridge house.

These unique homes are designed specifically for steeply sloped, heavily wooded sites, and they take full advantage of unique topography offered in this location. The remainder of the Ridge neighborhood is a combination of medium house and lot types in straightforward block and street configurations, interspersed with small parks and greens, accented by cottage types and some attached house types, in a gently undulating terrain.



KEY PLAN

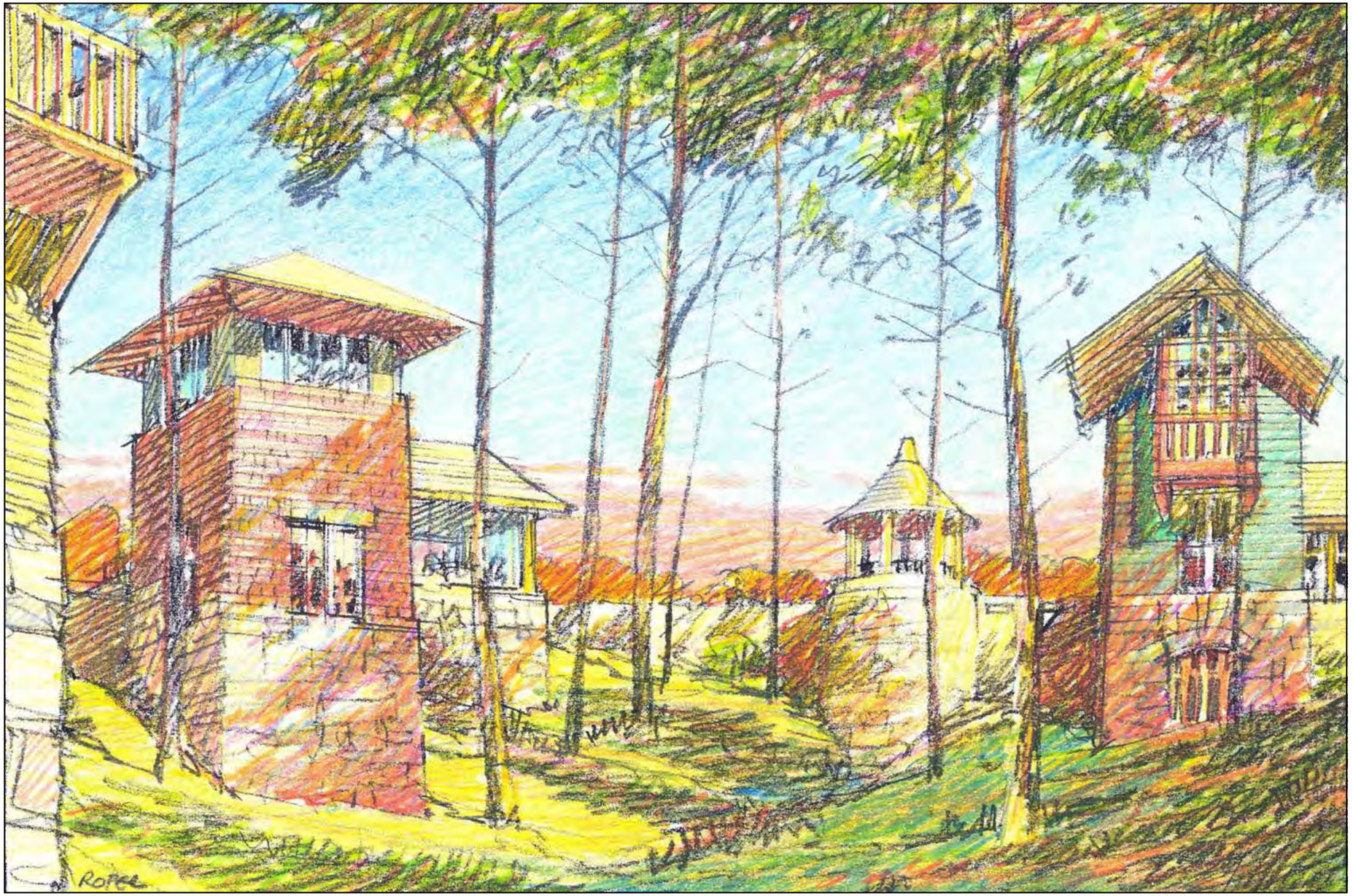
** Ridge Village Plan shown for illustrative purposes and intent. Actual detailed plans and locations of individual villages, streets and lots may vary, subject to constraints and conditions as yet to be determined; however, any changes proposed must be consistent with the intent of the illustrative plan.*

0 350' 700' 1,400' N

THE RIDGE VILLAGE

1. Single-family homes bordering the perimeter of Village 2.

THE RIDGE VILLAGE



2. Ridge houses situated along a creek valley.

THE HAMLET

The Hamlet

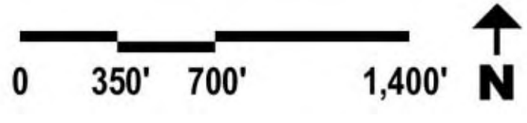
The Hamlet is the smallest and most rural in character of all of the villages. Nonetheless, the Hamlet offers several surprises and innovative planning ideas.

The general look and feel of the Hamlet is organic, with gently curving streets and lanes lightly tracing the topography and highlighting the natural features in the landscape. Numerous small greens and parks, rendered in a picturesque style, are scattered throughout, under a natural canopy of mature trees.*

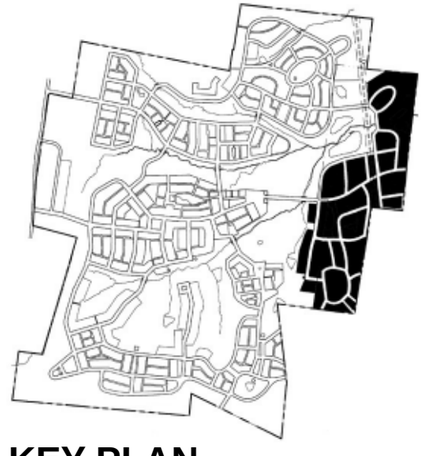
By careful manipulation of lot dimensions, a small Village "center" has been created — anchored by a rustic stone plaza and small chapel overlooking a lush meadow and floodplain beyond. The floodplain itself is an underground utility easement that has, through delicate subterfuge, been completely erased into the surrounding native landscape. Rather than the usual clear delineations associated with such easements, the edge here has been carefully massaged and eased into the foliage such that it is impossible to tell where nature ends and the easement begins.

Elsewhere in the Hamlet this same technique has been applied to the street alignments and configurations, turning a liability into a secret asset. The streets themselves have wide verges, with no curbs or garish streetlights to spoil the serenity of the Hamlet's pastoral beauty.

** Certain features described above pertain to parts of the proposed Hamlet development that are not part of this application document. However, the general intent remains applicable to the portions of the development that are.*



** Hamlet Plan shown for illustrative purposes and intent. Actual detailed plans and locations of individual villages, streets and lots may vary, subject to constraints and conditions as yet to be determined; however, any changes proposed must be consistent with the intent of the illustrative plan.*



KEY PLAN

THE HAMLET

1. View across meadow exiting The Town Center.

This illustrative Phasing Strategy outlines a likely scenario for a phased implementation, based upon a few fundamental assumptions and parameters:

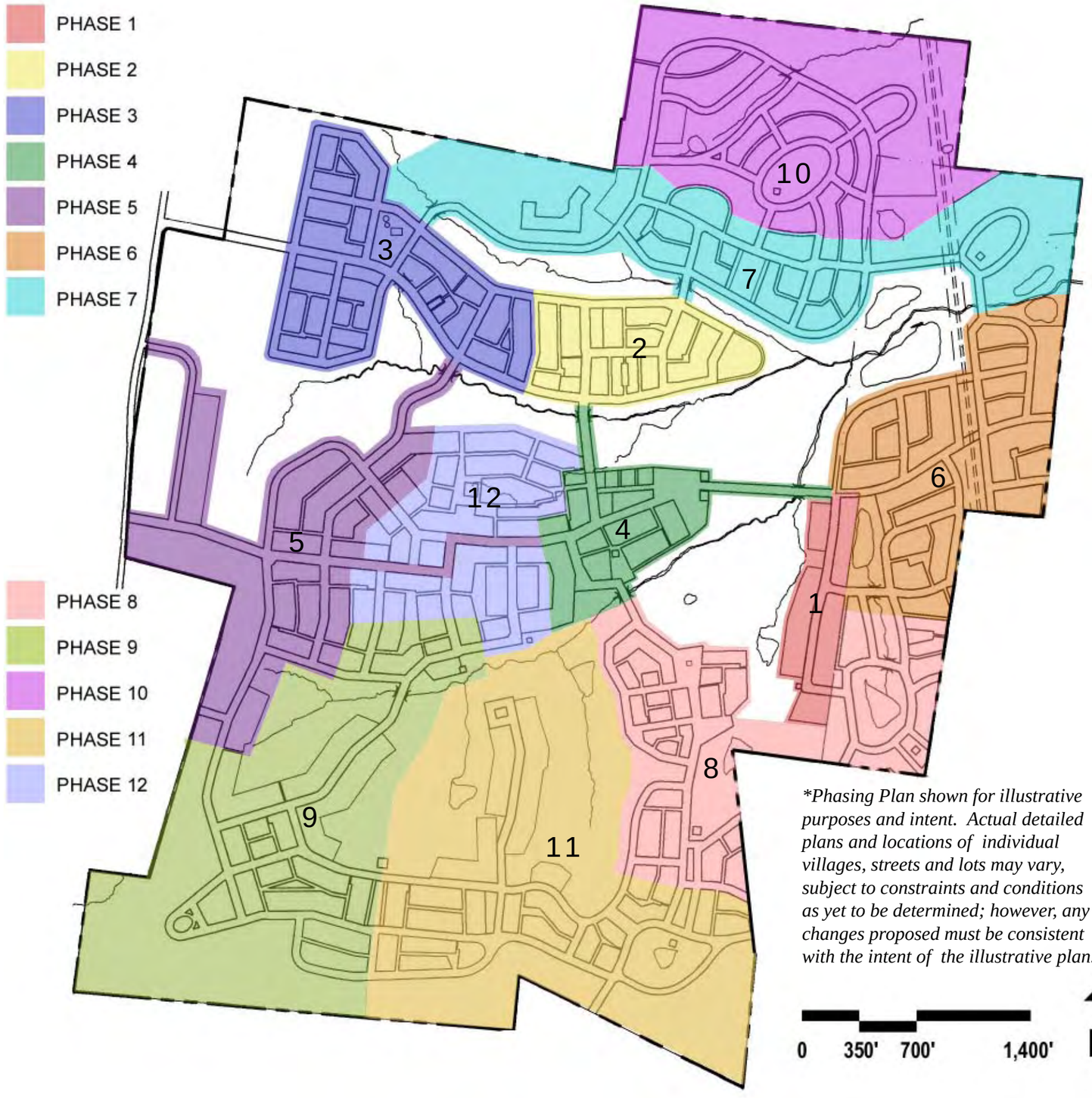
First, the project is comprised of several villages, each with a range of building types represented, but with some villages weighted more heavily toward one end of the spectrum than the other. Therefore, in order to achieve the optimal mix of unit types throughout the buildout phasing, parts of more than one village shall be built out simultaneously.

Second, phasing will allow for the incremental realignment of Carothers Road, to minimize traffic disruption on this vital collector.

Third, phases will always be in full increments of urbanism, and as representative of all aspects of the urban realm as possible. In other words, phasing will always be in the increment of full streets, with the greatest range of building types supportable, and with neighborhood parks, greens, or squares, included wherever possible. A small retail component in the form of a corner store will also be built in phase one.

Fourth, these types of communities typically start more slowly than conventional suburban communities, as they are more capital-intensive on the front end, and the market sometimes needs a little time to recognize their value. However, they tend to build momentum quickly as they go, typically becoming more valuable and urban with each subsequent phase. Therefore, the first phase will be the smallest, with the largest, and/or most complex phases saved for last. Also, most edge lots will be built last, saving those areas as open space until final buildout.

Fifth, and lastly, to minimize the level of disruption to homes and neighborhoods already built, the project will build primarily from the east side to the west, utilizing the newly constructed east-west collector as the primary construction route.



**Phasing Plan shown for illustrative purposes and intent. Actual detailed plans and locations of individual villages, streets and lots may vary, subject to constraints and conditions as yet to be determined; however, any changes proposed must be consistent with the intent of the illustrative plan.*

Open Space Plan

The open space at Carothers Crossing is really the heart of the project. The entire master plan concept evolved from the fervent desire to celebrate the site's natural features while preserving the maximum amount of open space possible. The resultant Master Plan balances an exceptional human habitat (in the form of the four Villages) with an equally exceptional and fully encompassing natural one.

This conceptual open space plan is really only intended to show some of the potential opportunities inherent in such an approach. Recreational amenities, including hiking and biking trails, bridal paths, nature walks, etc., abound. In addition, it is the intention of the plan to restore as much of the original natural habitat, degraded by years of over grazing and poor nutrient management, to its original condition, as is reasonably achievable.

This natural habitat will be supplemented by a constellation of formal greens, squares, and neighborhood parks within the villages, creating more formal settings for outdoor enjoyment. All of these spaces, natural and urban, formal and informal, will be linked by a network of sidewalks, pedestrian footpaths, walkable lanes, and bikeways, allowing unfettered non-motorized movement throughout the site, through a sequence of quality open-air environments. This will be a true emerald necklace, of the first order.

The final component in this composition of green is the adjoining regional park, Cane Ridge Park. Pedestrian linkages between the park and Carothers Crossing will add this regional amenity to the lengthy list of natural assets already enjoyed by the community. But these connections will also ensure that the unique natural treasures created and protected within Carothers Crossing, will be used and valued by all.

As a final note, it is the intention of this plan to use the minimum amount of impervious surfaces necessary for all functions (roadways, parking, etc.), and the maximum amount of natural buffers and vegetative filtration techniques, to optimize storm water quality performance for the project.

** Open Space Plan shown for illustrative purposes and intent. Actual detailed plans and locations of individual villages, streets and lots may vary, subject to constraints and conditions as yet to be determined; however, any changes proposed must be consistent with the intent of the illustrative plan.*

Circulation – Paths, Trails and Sidewalks

The entire project contains a vocabulary of pedestrian pathways and multi use paths. Each type is chosen for its suitability due to its location within the transect.

Sidewalks:
Sidewalks occur within pedestrian way of each thoroughfare type within our project. The pedestrian way is the area, which is dedicated to uses other than vehicles and parking. The pedestrian way includes the sidewalks and planting areas of the streetscape.

Mown Paths
Mown paths would be laid out in a pleasing curvilinear pattern as illustrated in the open space plan. These areas would be mown in one or two swaths with a six (6) or twelve (12) foot wide mower as needed during the growing season.

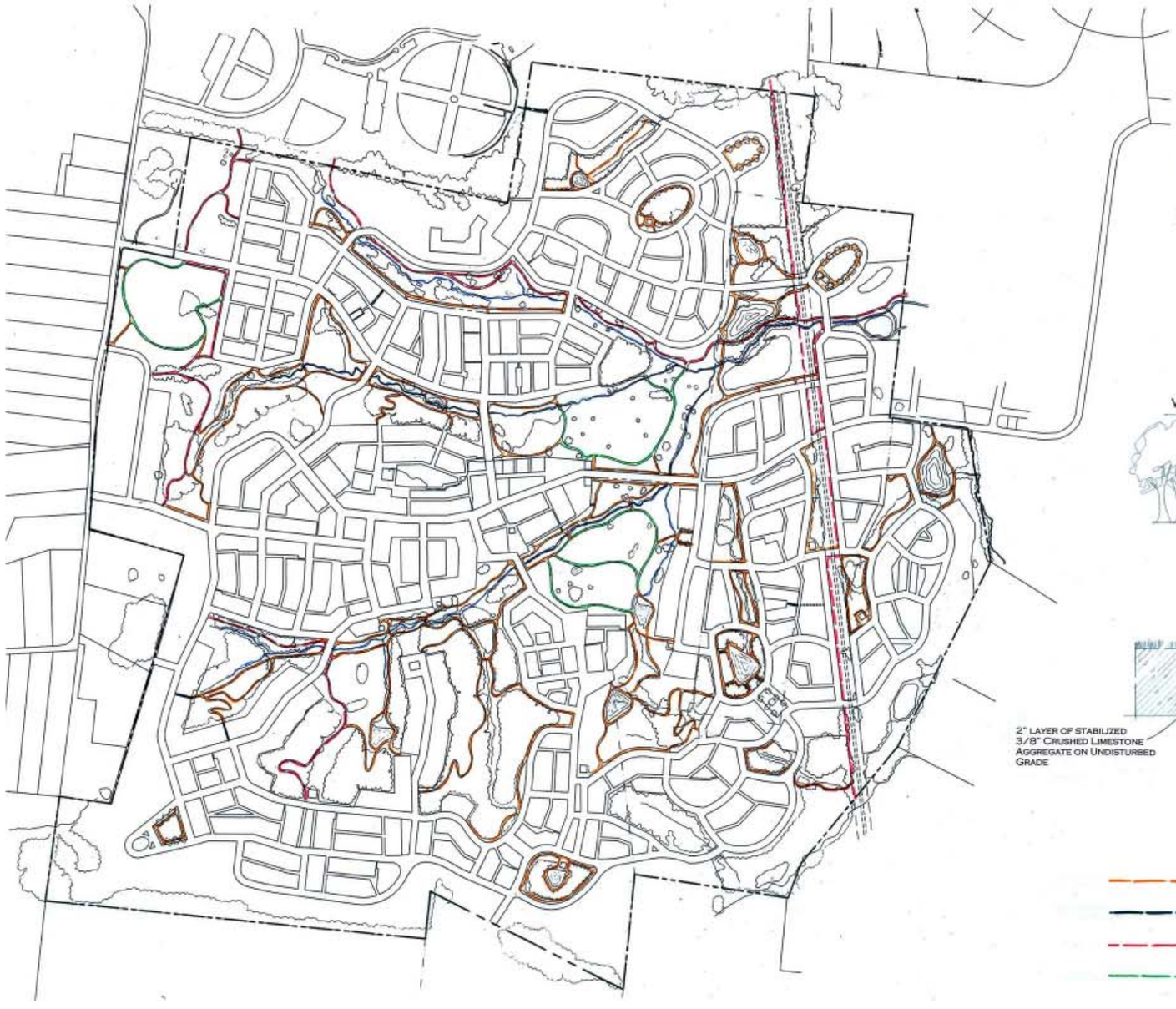
Woodland Trails
Woodland trails are a stabilized path that is box cut into the existing grade to a two (2) inch depth. The path is then filled with finely crushed local aggregate or earth bound with a stabilizer.

In cases where drainage or small gullies appear additional stabilization will be required with two (2) inches of stabilized aggregate used as a top course over a compacted base of earth or gravel. The process of creating woodland and meadow trails is an incremental one, with paths being adjusted in the field to protect vegetation or utilize existing segments of trails already on site.

Mountain bikes can be used on designated paths if they are maintained and degradation is avoided. The primary issue would be conflict with other path users.

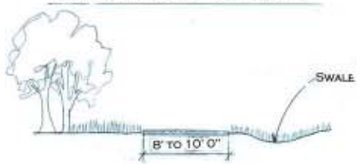
Multi use Paths
Multi use paths are designed to accommodate both bikes and pedestrians.

Bikes
The slow movement required by street sections in traditional neighborhoods allows the safe travel of bikes within the street network. Bikers are required to follow same rules of travel as vehicular traffic.

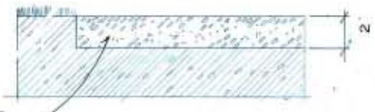


MOWN PATH THROUGH MEADOW

WOODLAND TRAIL (STABILIZED)

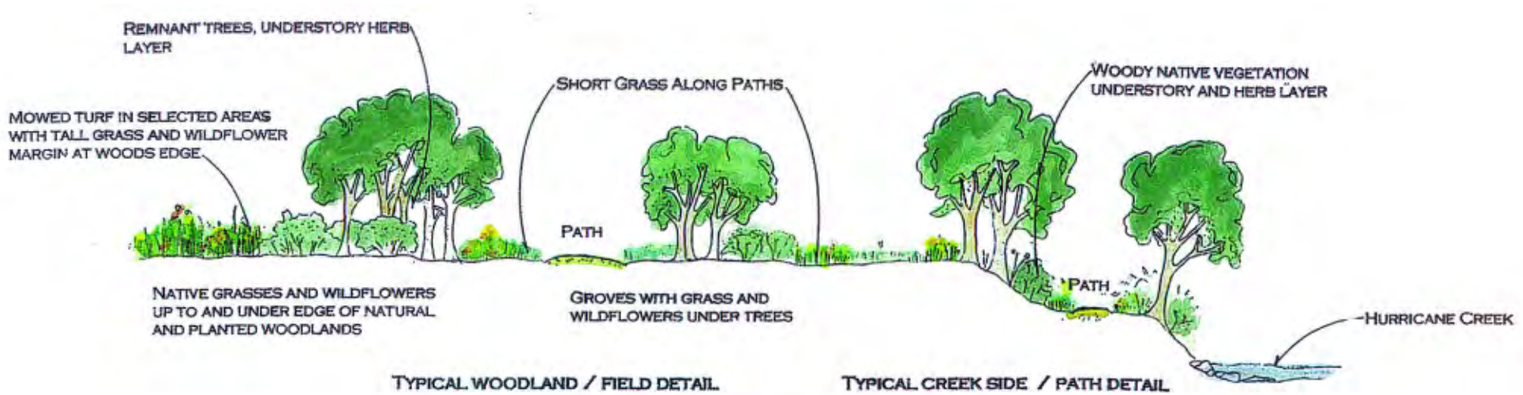


MULTI USE PATH



WOODLAND TRAIL

PATH
PASSAGE
MULTI USE PATH
MOWN PATH THROUGH MEADOW



TYPICAL WOODLAND / FIELD DETAIL

TYPICAL CREEK SIDE / PATH DETAIL

PLAN DETAIL

CAROTHER'S CROSSING STANDARDS FOR THE PUBLIC LANDSCAPE

STREET TREES
Allee planting shall be parallel rows of trees. Staggered planting shall be diagonal across the roadway. Parkside drives shall be in groups that mimic natural patterns.

GROUNDCOVER

MULCH

Shall be: 3 inches deep.

GRASS

Areas shall be hydro seeded or sodded with a fine grass mix that is shade and drought tolerant. Grass planting strips shall be mowed on a seasonally varied schedule for a maximum height and to promote deep rooting and water conservation.

SOIL

COMPACTION TREATMENT

All areas with a destroyed or compacted soil structure shall be roto-tilled successively with 3 inches of composted amendment before adding top soil. Soil tests should be taken and the proper amounts of organic phosphorus, lime or fertilizer applied according to test results. Care should be taken to break up any hardpan barrier created by this treatment.

TRENCHED STRIP

Severely compacted planting strips with damaged or compacted soil shall be trenched to the depth of two feet, with the edges scarified and back filled to the depth of three feet with a well mixed soil amendment. Shape all trenched strips to a natural drainage outlet.

PRESERVATION

Streets have been designed to save the old stands of trees found on site. Street centerlines shall be readjusted as required after the initial survey to save groups of existing trees. Excessive earth movement around trees should be avoided. Trees should be fenced off at least to the dripline in all directions from the main trunk and digging, parking or the movement of construction equipment avoided in cordoned zone around trees to be saved. The soil structure of future planting strips shall also be protected from the deep compaction of heavy equipment whenever possible. The existing grades of public spaces shall remain fenced and undisturbed during construction.

TREES

STRESS

All plants are under varying degrees of stress. Moderate stress incurred by plants occurring in natural or manmade systems is of little consequence to healthy plant. However, trees and shrubs in urban conditions are under increased stress often resulting in premature death. A tree dies in urban conditions because it starves to death, due to nutritional deficiencies, soil compaction, changes in hydrology (wet-dry cycles) or environmental factors.

SOIL COMPACTION

Soil compaction is the major factor affecting tree health and will be compounded by construction operations on the site. Soil compaction can occur as a result of foot traffic or vehicular traffic. In general our soils are clay soils and are subject to compaction. It is important to note that as the absorptive capacity of plant roots decrease, nutrient stress occurs which in turn reduces leaf manufacture of energy (carbohydrates and growth regulating compounds which in turn further reduces root activity). Soil compaction occurs primarily near the soil surface, since the soil near the surface spreads the load relative to the soil below. Protection of this top fragile layer is of utmost importance to maintaining existing trees. The effective roots of all plants are in the top foot of soil, and compaction occurs mainly at the surface. Mechanical aerifiers combined with a well-balanced organic topical fertilizer may be used to aerify the compacted soil 1 to 3 inches deep to aid plant health.

IMPROPER NUTRITION

The excess or imbalance of one or more nutrient elements can cause plant stress. Soil tests pulled over a period of years not only give indications of current nutrient need but developing imbalances as well.

WATER

Water is probably the most common factor limiting plant growth. The lack of water during parts of the growing season is not necessarily bad. Poor and excessive water management results in the death of more plants than any single factor. Too much water can result in the following consequences.

a. Reduced soil aeration
b. Reduced or eliminated wet/dry cycles.
c. Increased soil compaction since wet soil compacts more quickly than moderate or dry soils.
d. Reduced root activity from excess water, poor aeration and low energy levels in plants.
e. Overall the energy level in the plant is reduced overall major portion of the growing season.

Due to the above, water management must be a part of the landscape master plan. Trees, shrubs and other landscape plants should be monitored for water stress. New plants should be watered according to need. If any automatic irrigation systems are installed in public greens and parks, such a system must be managed and not simply switched on.

WATER MANAGEMENT AND IRRIGATION

Water management must be a part of the landscape master plan. Trees, shrubs and other landscape plants should be monitored for water stress. New plants should be watered according to need. If any automatic irrigation systems are installed in public greens and parks, such a system must be managed and not simply switched on.

It is recommended that temporary drip collars during planting for initial recovery from shock. Neighborhood Center planting strips shall install a high quality flexible drip tube with added internal smitters, buried during soil preparation. After initial rotting, the watering schedule shall never exceed more than once a week during periods of –drought. Greens shall install permanent pop-up long are spray heads to cover high-use play areas during drought.

PLANTING

Nursery trees shall be straight and of uniform shape except natural areas where heights and sizes can vary. Tree height at time of planting should be 10-16 feet high with a minimum caliper of 3 inches. Scarce cultivators or native trees for parks shall be exempt from this height requirement.

Trees growing in standard field nurseries shall be dug and transplanted in late fall or winter to limit damage to new feeder root system. Trees shall be covered during transportation with rootballs being kept moist throughout and are to be planted at the most immediate practical time after delivery.

PLACEMENT

Regular tree patterns shall be surveyed or measured and staked before planting. Irregular planting in greens or parks shall also be staked before hand with tree containers placed for final adjustment before planting. Staking shall occur a full three days before planting for approval and adjustment by the landscape supervisor.

CULTIVATION

Public trees shall be planted without further amendment other than the area amendment.

VEGETATION

TREE PRESERVATION

Excessive earth movement around trees to be saved should be avoided. Trees to be saved should be fenced off at least to the dripline in all directions from the main trunk and digging, parking or the movement of construction equipment avoided in cordoned zone around trees to be saved. The soil structure of future planting strips shall also be protected from the deep compaction of heavy equipment whenever possible. The existing grades of public spaces shall remain fenced and undisturbed during construction.

PLANTING

Nursery trees shall be straight and of uniform shape except natural areas where heights and sizes can vary. Tree height at time of planting may vary according to availability of desired species. Plans for tree replacement and perimeter buffering shall be reviewed by the urban forester.

TREE PATTERN

Allee planting shall be parallel rows of trees. Staggered planting shall be diagonal across the roadway.

STREET TREES

All thoroughfares shall be planted with a single species of tree except parkways and drives, which feature existing clusters of native trees.

All street tree patterns will be indicated on plans and such patterns verified and adjusted in the field.

Trees shall be selected for each street that corresponds to its location with transect with attention giver to mature height and spread of such trees.

Trees will be selected according to availability.

RECOMMENDED TREE SPECIES LIST

Quercus prinus	Chestnut Oak
Quercus lyrata	Overcup Oak
Quercus palustris	Pin Oak
Quercus phallos	Willow Oak
Quercus coccinea	Scarlet Oak
Quercus rubra	Red Oak
Platanus occidentalis	Sycamore
Fagus americana	Beech
Acer rubrum	Red Maple
Fraxinum pennsylvanica	Green Ash
Gleditsia triacanthos	Honey Locust
Crataegus phaenopyrum	Hawthorn
Nyssa sylvatica	Black Gum
Ulmus species	Available hardy species

PASSAGE
DEFINITION: Any pedestrian right-of-way where vehicular access is prohibited.
TREE SPECIES: Match existing groups of native trees.
Possible selections are as follows:

Amelanchier laevis	Serviceberry Amelanchier
Asiminia triloba	Paw Paw
Cercis canadensis	Red Bud
Chionanthus virginicus	Fringe Tree
Cladratis lutea	Yellow Wood
Crataegus viridis	Hawthorn
Juniperus virginiana	Eastern Red Cedar

TREE PATTERN: Place trees in as artful a manner possible as individual specimens. Passages may be devoid of vegetation.

RESIDENTIAL ROAD
TREE SPECIES: Select tree from oak group or match species found in greenways
TREE PATTERN: Single specimen or clusters 30 feet on center
GROUNDCOVER: Grass

INSTRUCTIONS: Each road should contain a single species planted as single or in clusters. Select from species native to site or list.

PATHS
TREE SPECIES: Selected from naturally occurring species
TREE PATTERN: See vista management or allee 30 feet on center.

VISTA MANAGEMENT
Selective vistas and sight line clearing along rural road and paths in order to create optimum landscape effects, selective clearing of vistas, rural roads, and paths will enable existing trees to be used to their best effects.

WAIVERS
The landscape buffering and screening standards shall be waived along internal base zone district boundaries within the UDO. Along base zone district boundaries that coincide with the boundary of the UDO, the buffering and screening standards shall be waived within the UDO whenever: a) the abutting base zone district outside the UDO is a non-residential or multi-family district; or b) the abutting base zone district outside the UDO is a single family district and the boundary is in a public right-of-way.

OPEN SPACE RESTORATION TECHNIQUES AND STRATEGIES
The landscape at Carother's Crossing is currently highly disturbed due to years of extensive livestock farming. Our plan was conceived and designed to preserve a large amount of open space, and it is the intention to restore as much of this open space as reasonably feasible, to its pre agricultural status.

MEADOWS AND WOODLANDS
Areas designated within the plan shall be seeded with native grasses, sedges and wildflowers with mowing yearly and bi-yearly.

CAROTHER'S CROSSING
STANDARDS FOR THE PRIVATE LANDSCAPE

PLANTING CODE
It is recommended that owners plant one tree for every 24 feet of roadway frontage.

GUIDE
SUBURBAN
Native trees and shrubs species composed in naturalistic clusters will blend larger lots into rural preserves and natural areas foundation planting accent architectural features.

GENERAL URBAN
Ornamental trees will help frame the house and integrate streetscape while also providing seasonal color and change. Foundation plantings should be placed so as not to cover the foundation, but accent architectural features. Rear yards should be fenced and gated or planted with hedges for privacy.

URBAN CENTER
Dooryard groundcovers are advised for townhouse fronts in the urban center with low shrubs accenting doorways and steps. Rear courtyards can be fenced or hedged for privacy. Gates lead to alleyway.

INSTRUCTIONS
SOIL AND TREE PRESERVATION
All soils should be protected from deep compaction during building construction by mandating and staking alley and drive access for movement of all construction equipment.

The surface roots of all existing large trees should be protected to the dripline if possible, by erecting silt fence or barrier with all traffic, storage of materials and heavy equipment movement prohibited. Placement of all buildings should be adjusted after the initial survey to save large existing trees.

Preservation shall be supervised by the landscape supervisor until satisfactory procedures are set and contractor has demonstrated willingness to protect trees.

All broken damaged limbs shall be pruned after construction has ceased. A topical application of organic fertilizer is recommended before and after construction.

PLANTING AND CULTIVATION
Front yard trees shall be placed in planting holes without amendment with effort concentrated in loosening compacted soil, assuring good drainage and mulching of root zone. All yards with compacted soil should be rotilled with 3 inches of organic material added before any additional soil layer.

FERTILIZATION
Plants should be fertilized yearly with a well balanced fertilizer containing trace elements. Fertilizer shall be broadcast on the grass outside of canopy to feed the growing extending root structure.

CONSTRUCTION
All entrance paths shall be incised into the slope with steps between cheeksalls whenever the overall yard slope exceeds 25%. All footwalls should have a level top coarse and not exceed necessary height to manage grade changes. Fences should not exceed 3½ feet in front yards and 6 feet in rear yards. Front yards picket fences should have pickets spaced a minimal of four inches apart, and can b3 placed to edge the sidewalk. Rear fences can be of closed or open design with hedges providing color and privacy. Rear fences should contain gates so parking and alleys for safety and privacy.

PRIVATE LOTS
PLANTING CODE
Builders shall plant one tree or group of trees – one tree per lot in exact location / net may vary.

GUIDE
NEIGHBORHOOD CENTER
Dooryard groundcovers and shrubs are advised for the townhomes and livework units. Dooryard shrubs, vines and small trees can be fitted against the townhouse.

NEIGHBORHOOD GENERAL
Ornamental trees and understory flowering trees help frame the house and merge individual lots with the native landscape. Front trees develop a high canopy suitable for framing the house, elevation. Back trees help maintain a more diverse corridor for birds and wildlife.

NEIGHBORHOOD EDGE
Successional and large trees extend the canopy of the wetland and greenway edges. Copses of wildlife trees help maintain a strong sense of place and prevent the relatively sterile landscape of new developments.

PLANT LIST
New houses and townhouses shall have a basic landscape package that compliments architectural design. Basic landscape packages should include two ornamental trees for the front yard as well as accent shrubs for house foundations. Foundation plantings should be placed so as not to cover all of the foundation but accent architectural features. Groundcover should be grass, except for situations due to solar orientation or grade difficulty. Select groundcovers from list to fit horticultural situation.

PLANT RECOMMENDATIONS

SUBURBAN: Trees for framing house and for naturalistic clusters.

Acer rubrum	Red Maple
Acer saachraum	Sugar Maple
Quercus spp.	Oak varieties
Fraxinum americana	White Ash
Fraxinus Pennsylvanica	Green Ash
Fagus americana	American Beech
Liriodendron tulipifera	Tulip Tree
Ilea opaca	American Holly
Oxydendron arboreum	Sourwood

ORNAMENTAL TREES: For front, side and rear yards adjust plant selection for solar orientation (shade/sun).

Cornus Florida	Dogwood
Cornus Kousa	Korean Dogwood
Amerlanchier spp.	Serviceberry
Crataegus spp.	Hawthorn
Prunus spp.	Native and exotic cherries
Cercis canadensis	Redbud
Oxydendron arboreum	Sourwood
Chionanthus virginicus	Gray Beard
Catalpa bignoides	S. Catalpa
Magnolia stellata	Star Magnolia
Magnolia soulangiana	Saucer Magnolia
Malus spp.	Native Crab

FOUNDATION SHRUBS

Buxus sempervirens	English Boxwood
Buxus macrophylla	Korean Boxwood
Ilex vomitoria	Youpon Holly
Ilex compacta	Available cultivars
Ilex crenata	Available cultivars
Spiraea spp.	Available cultivars
Deutsia gracillis	Slender Deutsia
Rhododendron kurume	Kurume Azaleas

GROUNDCOVER: For use in shade

Helleboris orientalis	Lenten Rose
Vinca minor	Periwinkle
Chrysogonum	Green and Gold

For use in sun

Phlox subulata	Moss Pink
Hypericum polyphyllum	St. John Wort
Oenothera	Evening Primrose
Mazus reptans	

SHRUBS FOR REAR WILDLIFE THICKETS: Plant in groups of three within 10 feet of back property line or as single species hedge.

Sambucus americana	American Elder
Prunus americana	American Plum
Prunus angustifolia	Chickasaw Plum
Rhus species	Sumac species
Aronia arbutifolia	Chokeberry
Native Ilex	American Hollies
Native Viburnum	Viburnum spp.
Amerlanchier spp.	Serviceberry
Myrica cerifera	Wax myrtle
Spiraea reevesiana	Reeves Spirea

GENERAL URBAN AND CENTER
Ornamental framing trees:

Cornus Kousa	Korean Dogwood
Cornus Florida	Flowering Dogwood
Lagerstromia indica	Crepe Myrtle
Halesia spp.	Silverbell spp.
Amerlanchier spp.	Serviceberry
Magnolia stellata	Star Magnolia
Magnolia soulangiana	Saucer Magnolia
Crataegus spp.	Hawthorn
Prunus mume	Apricot
Cercis canadensis	Redbud
Chionanthus virginicus	Gray Beard
Acer rubrum	Red Maple

FOUNDATION SHRUBS

Buxus sempervirens	English Boxwood
Buxus macrophylla	Korean Boxwood
Ilex compacta	Available cultivars
Ilex crenata	Available cultivars
Ilex vomitoria	Youpon Holly
Deutsia gracillis	Slender Deutsia
Prunus caroliniana	Cherry Laurel
Illicium parviflorum	Anise
Azalea indica	Indica Azalea
Azalea kurume	Kurume Azalea

GROUNDCOVER: In shade

Vinca minor	Periwinkle
Chrysogonum	Green and Gold
Hypericum sempervirens	Aaron's Beard
Polystichum acrositoides	Christmas Fern
Viola spp.	Violets
Liriope muscarii	Lily Turf

GROUND COVER (CONT.): Groundcovers for use in sunny areas such as raised banks in front yards.

Phlox subulata	*Moss Pink*
Liriope spicata	*Creeping Lily Turf*

SHRUBS FOR REAR YARDS: These shrubs can be planted in rows to soften a fence or alone to form impenetrable barriers. Shrubs can be pruned free form or as hedge.

Osmanthus heterphyllus	*Tea Olive*
Myrica cerifera	*Wax Myrtle*
Ilex spp.	*Holly clutivar*
Prunus laurocerasus	*English Laurel*
Thuja occidentalis	*Arborvitae*
Illicium parviflorum	*Anise*
Juniperus virginiana	*Eastern Red Cedar*

LARGE SHADE TREES FOR PRIVATE REAR AND FRONT YARDS

Consideration should be made for existing or new street trees when making selections from this list.

Fagus americana	American Beech
Carya spp.	Hickory spp.
Quercus spp.	Native Oak spp.
Celtis laevigate	Hackberry
Fraxinus Americana	White Ash
Fraxinus Pennsylvanica	Green Ash
Liriodendron tulipifera	Tulip Tree
Ulmas spp.	Native Elms
Acer rubrum	Red Maple
Magnolia macrophylla	Big Leaf Magnolia
Ilex opaca	American Holly
Tilia Americana	Basswood
Juniperus virginiana	Eastern Red Cedar
Oxydendron arboreum	Sourwood

ANTIQUE ROSES FOR FRONT AND REAR FENCES AND USE ON LIVE FENCES

- "Climbing cecile brunner"
- "Climbing clotilde soupert"
- "May Queen"
- "Betty Prior"
- "Sombreuil"
- "Silver moon"
- "Trier"
- "Fortuniana"
- "New dawn"
- "Belle portugaise"
- "Climbing American Beauty"
- "Climbing souvenier de la Malmaison"
- "Dortmunal"
- "Evangeline"
- "Fortunes double eyllow"
- "Fortuniana"
- "Gloire de Dijon"
- "Janne d'Arc"
- "Prosperity"
- "Reve De Or"
- "Zephirine drohuin"

*Antique southern roses are hardy and require basic horticulture to thrive. The above roses are well suited for climbing on fences, pillars, pergolas and posts.

URBAN CENTER: Dooryard shrubs to accent steps and doors.

Ilex spp.	Native holly cultivars
Ilex spp.	Dwarf and midsize Chinese and Japanese cultivars
Prumas cordiniana	Cherry Laurel
Buxus spp.	Boxwood
Deutsia spp.	Slender Deutsia
Hypericum Frondosum	Hypericum
Itea Virginica	Virginia Sweetspire
Illicium parviflorum	Anise
Illicium Floridanum	Florida Anise
Abeliz grandiflora	Bee Bush
Jasmine nudiflorum	
Spiraea reevesiana	Reeves Spirea

DOORYARD GROUNDCOVERS

Ajuga	Ajuga Repens
Hemerocallus	Day Lilies
Chrysogonum Virginica	Green and Gold
Hedera helix	English Ivy
Vinca Minor	Periwinkle
Phlox subulata	Moss Pink

GRASS: New homeowners should have option of grass vs sod with cost of both presented before house closing.

PLANT SELECTION: Plants not listed can be substituted with waiver.

RECOMMENDED NATIVE PLANTS FOR PUBLIC AND PRIVATE LANDSCAPE

All plants are native to Tennessee and native species have been selected for drought resistance and adaptability; plants not found on this list subject to approval by the town architect.

PERENNIALS

Allium cernuum	Nodding Onion
Amsonia tabernaemontana	Amsonia
Anemone canadensis	Canada Anemone
A. Cylindrica	Thimbleweed
Anemonella thalictroides	Rue Anemone
Aquilegia canadensis	Columbine
Asarum species	Wild Ginger
Asclepias tuberosa	Butterfly Weed
Aster azureus	Sky Blue Aster
A. cordifolius	Heartleaf Aster
A. divaricatus	White Wood Aster
A. ericoides	Heath Aster
A. novi-angliae	New England Aster
Baptisia species	False Indigo
Callirhoë species	Wine-cup
Cassia hebecarpa	Wild Senna
Castilleja species	Indian Paintbrush
Cheolone lyonii	Pink Turtlehead
Coreopsis tripteris	Tall Coreopsis
C. verticillata	Threadleaf Coreopsis
Dodecatheon meadia	Eastern Shooting Star
Echinacea species	Coneflower
Eryngium yuccifolium	Rattlesnake master
Erythronium albidum	Fawn Lily, Dogtooth Violet
E. umbilicatum (americanum)	Fawn Lily, Dogtooth Violet
Eupatorium species	Eupatorium
Euphorbia carollata	Flowering Spurge
Gaura lindheimeri	Gaura
Geranium maculatum	Wild Geranium
Helianthus hirsutus	Hairy Sunflower
H. maximiliani	Maximilian's Sunflower
H. tuberosus	Jerusalem Artichoke
Heuchera americana	Alum Root
H. villosa	Hairy Alum Root
Houstonia caerulea	Quaker Ladies
Iris species	Iris
Liatris punctata	Spotted Gayfeather
L. pyconstachya	Prairie Blazing Star
L. spicata "Kobold"	Spike Gayfeather
Lilium superbum	Turk's Cap Lily
Lobelia species	Lobelia
Lupinus perennis	Lupine
Mertensia virginica	Virginia Bluebells
Mitchella repens	Partridgeberry
Monarda species	Monarda
Oenothera fruticosa	Sundrops
O. Missouriensis	Missouri Evening Primrose
O. speciosa	Pink Evening Primrose
Pachysandra procumbens	American Pachysandra
Penstemon gracilis	Penstemon
P. grandiflorus	Beardtongue
Phlox amoena	Chalice Phlox
P. paniculata	Garden Phlox
P. pilosa	Prairie Phlox
P. subulata	Moss Pink
Physostegia virginiana	Obedient Plant
Polygonatum biflorum	Solomon's Seal
Porteranthus trifoliatus	Bowman's Root
Ratibida pinnata	Prairie Coneflower
Ruellia humilus	Wild Petunia
Rudbeckia fulgida	'Goldstrurm' Black-eyed Susan
R. laciniata	Green-headed Coneflower
R. subtomentosa	Sweet Black-eyed Susan
R. triloba	Branched Coneflower
Sedum ternatum	Sedum
Shortia galacifolia	Oconee Bells
Silene polypetela	Silene
S. regia	Royal Catchfly
S. virginica	Fire Pink
Silphium species	Silphium
Sisyrinchium angustifolium	Blue-eyed Grass
Smilacina racemosa	False Solomon's Seal
Solidago species	Goldenrod
Tiarella species	Foamflower
Tradescantia x andersoniana	Spiderwort
Trillium grandiflorum	Green Trillium
Veronia species	Ironweed
Veronicastrum virginicum	Culver's Root
Viol species	Violet

GRASSES, SEDGES, RUSHES, AND REEDS FOR MEADOWS

Andropogon gerardii	Big Bluestem
Bouteloua curtipendula	Sideoats
B. gracilis	Blue Grama
Carex muskingumensis	Palm Sedge
C. Pensylvanica	Pennsylvania Sedge
Chasmanthium latifolium	Northern Sea Oats, River Oats
Panicum virgatum	Switch Grass
Phalaris arundinacea picta	Gardener's Garters, Ribbon Grass
Schizachyrium scoparium	Little Bluestem
Sorghastrum nutans	Indian Grass
Sporobolus heterolepis	Prairie Dropseed

FERNS

Adiantum pedatum	Northern Maidenhair Fern
Athyrium filix-femina	Lady Fern
Dennstaedtia punctilobula	Hay-scented Fern
Onoclea sensibilis	Sensitive Fern
Osmunda cinnamomea	Cinnamon Fern
O. claytonia	Interrupted Fern
O. regalis var. spectabilis	Royal Fern
Woodwardia areolata	Netted Chain Fern

WATER PLANTS

Equisetum hyemale	Scouring Rush
Iris species	Iris
Menyanthes trifoliata	Bog Bean
Nymphaea ordorata	Pond Water Lily
Orontium aquaticum	Golden Club
Peltandra virginiana	Arrow Arum
Pontederia cordata	Pickerelweed
Saururus cernuus	Lizard's Tail
Typha species	Cattail

VINES

Anisostichus capreolatus	Cross Vine
Aster carolinianus	Climbing Aster
Campsis radicans	Trumpet Vine
Clematis viorna	Leather Flower
Decumaria barbara	Climbing Hydrangea
Lonicera x heckrottii	Red Trumpet Honeysuckle
L. sempervirens	Trumpet Honeysuckle
Partbenocissus quinquefolia	Virginia Creeper
Wisteria frutescens	American Wisteria

SHRUBS

Aesculus parviflora	Bottlebrush Buckeye
Agarista popuifolia	Florida Leucothoe
Amelanchier alnifolia	Serviceberry
Amorpha canescens	Leadplant
A. fruticosa	Indigo Bush
Aralia spinosa	Devil's Walkingstick
Aronia arbutifolia	'Brilliantissima' Red Choke berry
Artemisia filifolia	Sand Sage
Callicarpa americana	Beautyberry
Calycanthus floridus	Sweetshrub
Ceanothus americanus	New Jersey Tea
Cephalanthus occidentalis	Buttonbush
Clethra acuminata	Cinnamon Clethra
C. alnifolia	'Hummingbird' Dwarf Summersweet
C. a.	'Pinkspire', 'Rosea' Summersweet
Conradina verticillata	Cumberland Rosemary
Cornus alternifolia	Pagoda Dogwood
C. amomum	Silky Dogwood
C. sericea	Red-osier Dogwood
Cotinum obovatus	American Smoke Tree
Cyrilla racemiflora	Titi
Euonymous americana	Hearts-a-bustin'
Fothergilla gardenii	Dwarf fothergilla
F. g.	'Blue Mist' Blue Mist Fothergilla
F. major	Large Fothergilla
Hydrangea arborescens	'Annabelle' Wild Hydrangea
Hydrangea quercifolia	Oak Leaf Hydrangea
H. q.	'Snow Queen' Snow Queen
H. q.	'Snow Queen' Snow Queen hydrangea
Hypericum frondosum	'Sunburst' Golden St. Johnswort
Ilex decidua	Possum Haw
I. glabra	Inkberry
I. verticillata	'Winter Red' Winterberry
Illicium floridanum	Anise Tree
Itea virginica	'Henry's Garnet' Sweetspire
Juniperus communis saxitalis	Mountain Juniper
J. horizontalis	Creeping Juniper
Kalmia latifolia, many cultivars	Mountain Laurel
Leucothoe axillaris	Doghobble
L. fontanesiana	Doghobble
Mahonia aquifolium	Orgeon Grape Holly
Myrica pensylvanica	Bayberry
Paxistima canbyi	Paxistima
Potentilla fruticosa	Shrubby Cinquefoil
Rhododendron arborescens, and cultivars	Sweet Azalea
R. bakeri	Cumberland Azalea
R. calendulaceum, many cultivars	Flame Azalea
R. canescens and cultivars	Piedmont Azalea
R. carolinianum	Carolina Rhododendron
R. catawbiense	Catawba Rhododendron
R. Chapmanii	Chapman's Rhododendron
R. maximum	Rosebay Rhododendron
R. minus	Piedmont Rhododendron
R. periclymenoides	Pinxter Azalea
R. prinophyllum	Roseshell Azalea
R. Vaseyi	Pinkshell Azalea
Rhus aromatica	Fragrant Sumac
R. typhina	Staghorn Sumac
Rosa setigera	Prairie Rose
Sambucus canadensis	Elderberry
Stewartia malcodendron	Silky Camellia
Viburnum cassinoides	With Rod Viburnum
V. dentatum	Arrowwood Viburnum
V. lentago	Nannyberry
V. nudum	Possum Haw
Yucca species	Yucca
Zenobia pulverulenta	Dusty Zenobia

TREES UNDERSTORY

Acer leucoderme	Chalk Maple
Aeculus pavia	Red Buckeye
Amelanchier laevis	Serviceberry
Asimina triloba	Pawpaw
Betula nigra	River Birch
B. n.	'Heritage' White River Birch
Cercus canadensis	Eastern Redbud
Chionanthus virginicus	Fringe Tree
Cladrastis kentukeya	Yellowwood
Cornus Florida	Eastern Dogwood
Crataegus viridis	Hawthorn
Halesia carolina	Carolina Silverbell
H. diptera	'Magniflora' Magniflora Silverbell
Hamamelis virginiana	Witch Hazel
Ilex opaca and cultivars	American Holly
Juniperus virginiana	Eastern Red Cedar
Magnolia acuminata	Cucumber Tree
M. ashei	Ashe Magnolia
M. Cordata	Yellow Cucumber Tree
M. Grandiflora cultivars	Bull Bay Magnolia
M. Macrophylla	Bigleaf Magnolia
M. tripetela	Umbrella Magnolia
M. virginiana	Sweet Bay Magnolia
Oxdendrum arboreum	Sourwood, Sorrel Tree
Taxodium ascendens	Pond Cypress
T. distichum	Bald Cypress

GROUNDCOVERS

Ajuga	Bugleweed
Chrysogonum	Green and Gold
Euonymus fortunei	Winter Creeper
Gaultheria procumbens	Winter Green
Hypericum calycinum	St. Johns Wort
Laurentia	Blue Star Creeper
Liriope spicata	Creeping Lily Turf
Mazus repens	Mazus
Pachysandra	Spurge
Phlox subulata	Creeping Phlox
Rubus calynoides	Creeping Raspberry
Vinca minor	Periwinkle

THE REGULATING PLAN

The Regulating Plan

The Regulation Plan for Carothers Crossing graphically articulates the four major neighborhood zones (Town Center, Neighborhood Center, Neighborhood General, and Neighborhood Edge) relative to the four Villages comprising the Community. Along with the Regulating Codes (Urban, Architectural, and Landscape), the Regulating Plan defines, with great specificity, the allocation of building types within the project. This is intended to ensure a project that will, at full build out, meet or exceed the stated goals and objectives outlined in the Planning Principles, while also creating the most attractive, appealing, and functionally sustainable community possible, subject to all applicable Municipal Codes and Standards.

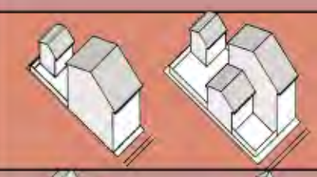
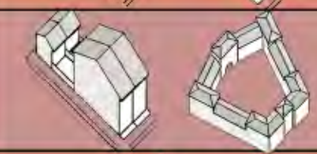
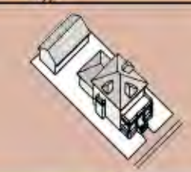
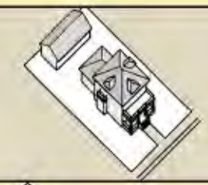
In general, the Carothers Crossing Regulating Plan defines four distinct villages of varying density and configuration, providing for a range of housing types and affordability, structured in such a way as to encourage maximum compatibility with adjoining property uses and zoning. In addition, the Regulating Plan allows for neighborhood-serving commercial uses within the Town Center Village along with sites for civic building and community uses throughout the project, further reinforcing the sense of community and place.

These uses, in addition to an elementary school and adjacent regional park, will help satisfy many daily needs entirely within the physical boundaries of the community, thereby maximizing internal trip captures, and minimizing impact on nearby roads and intersections.

Total UDO Area: 599 Acres
Total Open Space: 55% minimum *(open space to be defined as all areas, natural and man-made, landscape and hardscape, not under private ownership and/or that allow full or qualified public access).*
Total Maximum Number of Dwelling Units: 3,000 units
Total Maximum Square Feet of Commercial Space: 200,000 square ft.
Percentage Allocation of Unit Types will be consistent with zones indicated on Regulating Plan, and the unit types designated for each zone, as identified within this document.
Single Family Attached Units: 40% Max, 35% Min.
Single Family Detached Units: 40% Max, 35% Min.
Multi-Family Units: 25% Max, 15% Min.

**Regulating Plan shown for illustrative purposes and intent. Actual detailed plans and locations of individual villages, streets and lots may vary, subject to constraints and conditions as yet to be determined; however, any changes proposed must be consistent with the intent of the illustrative plan.*

REGULATING MATRIX

TYPOLOGY DEFINTITON		NEIGHBORHOOD ZONE			
		TOWN CENTER	NEIGHBORHOOD CENTER	NEIGHBORHOOD GENERAL	NEIGHBORHOOD EDGE
A multi-family type with stacked flats combined in the form of a large building block, and generally accessible by common lobby, elevator and interior corridor. The ground floor on the street is designed as a storefront available for flex use as a dwelling, an office or a store. Parking is mid-block and accessible off an alley. This type is proposed on a 24-144 foot lot with the minumum building depth typically being 60 feet.	mixed use				
A single-family attached housing type combining a dwelling with a ground floor storefront space available for flex use as a dwelling, an office, or a retail store. Two types are offered; one with direct access to all units from the street, the other with direct access from the street and a patio partially open to the street. Both types are parked in a garage off an alley, and are located on 24-36 foot wide lots.	live/work				
A single-family attached housing type typically located with a porch or stoop and public rooms facing the street and a garage off an alley, on a minimum 18 foot wide lots. This kind of house offers its short side to the street. A cloister is an attached compound of single-family homes framing a contained courtyard.	rowhouse Cloister Homes				
The smallest possible detached single family house type, configured as a dwelling typically located with a porch and public rooms facing the street and a garage off an alley, on 32-50 foot wide lots. This kind of a house offers its short side to the street. A bungalow court is a grouping of small cottage type houses clustered around a common green.	cottage/ bungalow ct				
A multi-family, attached double house type, with dwelling combined as adjacant town houses or stacked flats, designed in the form of a very large single-family house, with a porch, all entrances and public facing the street and a garage off an alley. Two types are proposed on 60 foot wide lots.	two-unit townhouse				
A medium detached single family house type typically located with a porch and public room facing the street, and a garage off either a rear alley or the facing street, on a 54-150 foot wide lot. This kind of house offers its short side to the street. The ridge house is one type that falls into this category.	med./large house				
A very large detached single-family house type, typically located with a substantial porch and public rooms facing the street on 60-150' wide lots. Garages may be located either off a rear alley or off the facing street, positioned in both cases to the rear of the house. The villa type is a multi-unit version of the manor that can serve as a transition into the neighborhood general.	mansion/villa				

GENERAL

A Design Review Committee and/or a Town Architect position is to be established to oversee implementation of the concept plan.
Utilities are to be located underground or in service lanes, and associated equipment shall not be located within planting strips, sidewalks, or public open spaces.
Outdoor Equipment, such as HVAC equipment, meters or panels, shall be placed on the roof, in the rear or side of the building, or otherwise screened from the street. Rooftop equipment shall be screen by parapets or other suitable screening, from abutting buildings and/or streets.
Parking lots shall be screened from the street to a minimum height of three feet by walls, berms, landscaping, or a combination of these.
Buildings on Corner Lots shall address both streets, with architectural features and massing elements, including porches, windows, bays, or other facade enhancements.
Wall Openings in adjacent buildings shall not face each other to give privacy to the occupants. On adjacent lots, the building built second will defer to the building built first with respect to positioning of windows.
Commercial Uses must have a minimum of 40% of its front facade below the cornice as clear or lightly tinted windows or shopfronts, such as to provide a clear view of the building's interior. Additional floors shall have a minimum of 25% glazing. The first floor glazed calculation shall be based on the facade area measured to a height of 14 feet from grade for Mixed-Use buildings and 12 feet from grade for Live/Work buildings.
No material shall emulate another material, unless specifically approved otherwise by the Town Architect.

WALLS

MATERIALS

Building Walls shall be finished stucco, brick, wood clapboard, Hardie board, board and batten, or board on board, then sealed with paint or stain. Smooth siding is preferred.
Foundation Walls, Piers, and Pilings shall be parged block, stone, or brick. Retaining walls shall be masonry, stone, or brick.
Undercrofts shall be skirted. Horizontal wood boards or framed wood may be installed, with spaces between members not larger than 1.5" or smaller that 0.75" Lattice (horizontal and vertical only) may be installed between wood piers and pilings, and brick screens may be installed between concrete or brick piers and pilings.
Walls and Fences shall generally be constructed of the same materials as the first floor of the primary building: Masonry piers with wood pickets may replace solid masonry walls; Wood may replace masonry at the rear Property Line. Masonry Walls shall be made of stuccoed concrete while gates shall be wood. Vinyl fencing must be approved by the Town Architect. Walls may be perforated. Fences shall be made of smooth cedar or p.t. wood and may have stucco piers. Pickets, Pales and Boards shall be made of smooth cedar or p.t. wood.
Building Walls may be built of no more than two materials and shall only change material along a horizontal line, i.e. cedar shingles may be combined with wood siding when the material change occurs horizontally (typical at a floor line), with the heavier material below the lighter. Walls of a single building must be built in a consistent configuration. Wood clapboard and shingles shall be horizontal. Applies from foundation to roof line.
Siding shall be horizontal, maximum 8" to the weather.
Shingles shall be maximum 8" to the weather. Decorative Shingles shall be machine cut with bottom edges aligned.
Stucco or plaster coating may be applied to concrete block or poured concrete. Stucco shall be steel toweled.
Foundation Walls for the primary building shall be exposed a minimum of 18" and a general maximum of 36" above grade.
Trim shall be minimum grade 'B' trim lumber, or a trim grade established by the Town Architect, and shall not exceed 16" in width at corners and 6" in width around openings, except at the front door where it may be any size or configuration. Exceptions may be granted for single structures and for classical detailing.
Fences on adjacent lots shall have different designs, subject to approval by the Town Architect. Where a wall or fence on one property meets a taller or shorter wall on another property, it is the responsibility of the latter designer to transition their wall or fence to the height of the former.

ELEMENTS

MATERIALS

Chimneys shall be finished with stucco or brick. Flues for pot belly stoves shall be metal. Ventless is acceptable by approval of Town Architect only.
Piers and Arches shall be masonry.
Porch Railings shall be made of wood or metal while Porch Floors and Posts may be wood, composite, or masonry. Porches may be enclosed with glass or screens, however, glass enclosures are not permitted at frontages. Porch ceilings may be enclosed with painted wood; exposed joists shall be painted or stained.
Stoops shall be made of wood, brick, stone or concrete. If concrete, a stoop shall have brick, or stucco cheek walls.
Colonnades at the Town Centre shall be masonry or wood, and shall rest on pedestals which take any grade changes.
Decks shall be located only in rear yards and where not easily visible from streets or paths, and painted or stained (except walking surfaces which may be left natural).
Signs shall be made of wood. At the Town Center, signs may be wood, case aluminum, or thickly enameled steel.
Awnings shall have a metal structure covered with canvas or synthetic canvas.
Metal Elements shall be natural colored galvanized steel, anodized or ESP aluminum, or marine grade aluminum. (See sign criteria)

CONFIGURATIONS & TECHNIQUES

Chimneys shall be a min 2:1 proportion in plan and capped to conceal spark arresters. Flues shall be no taller than required by the building code. Fireplace enclosures and chimneys shall extend to the ground.
Piers shall be no less than 12" x 12".
Arcades and Breezeways shall have vertically proportioned openings.
Screened Porches shall have screens framed in wood installed behind framed railings.
Posts shall be no less than 6" x 6".
Railings shall have top and bottom rails. Top rails shall be centered on the boards or pickets. The openings between the members shall be a minimum of 1" and a maximum of 4".
Balconies shall be structurally supported by brackets or tapered beams.
Signs attached to buildings shall be integral with the storefronts, no larger than 18" in height and externally lit. (See sign criteria)
Awnings shall be rectangular in shape with straight edges. Awnings may have side panels but shall not have a bottom soffit panel. Awnings shall not be back-lit.
Wood Elements must be painted or sealed with an opaque or semisolid stain, walking surfaces must be solid concrete or brick.
Exterior lighting shall include the following, one 40 watt maximum incandescent light at each front door and garge, and one 25 watt maximum incandescent light at the footpath, where applicable. Photovoltaic cell activation at garage door only. No flood lights permitted.

ROOFS

MATERIALS

Roofs shall be clad in one of the following materials, in its natural color, architectural asphalt shingles,wood shingles, galvanized or painted steel (5 V crimp or standing seam) or copper.
Gutters and Downspouts, when used, shall be made of galvanized steel, copper (not copper coated), anodized or baked-on finish aluminum. Metal chains may be used in lieu of downspouts shall be placed at the corner of the building least visible from nearby streets. Splash blocks shall be made of concrete, brick or gravel.
Flashing shall be copper, lead or anodized aluminum.
Copper roofs, flashing, gutters and downspouts shall be allowed to age naturally (not painted) or sealed.

CONFIGURATIONS & TECHNIQUES

Principal Roofs on all freestanding buildings shall be a symmetrical hip or gable, with the principle ridge either aligned or perpendicular to the frontage and with a slope of 6:12 to 10:12. For estate homes 12/12 slopes are acceptable. Where garages meet in a party wall condition, gabled ends are allowed.
Ancillary Roofs (attached to walls or roofs) may be sheds sloped no less than 3:12. Roofs on towers shall be flat or have a slope which matches the primary structure.
Flat Roofs and Parapets shall be permitted in the Town Center, and are encouraged to reflect vernacular conditions as found in regional vernacular and formal styles.
Eaves shall be continuous, unless overhanging a balcony or porch. Eaves on the main building shall have an overhang that is either shallow (10" - 16") or deep (32" – 40"). Eaves on outbuildings shall match the eaves of the building if the latter are shallow, or shall be approximately half the size of the eaves of the main building if the latter are deep.
Gutters shall be square or half-round. Downspouts shall be round. Where extending over adjacent property line(s), sidewalks, or footpaths, gutter(s) are necessary.
Dormers shall light habitable attic spaces, placed flush with a minimum of 3' from side building walls, and have shed roofs with a minimum slope of 3:12 or hipped or gable roofs with a slope to match the principal structure. Eyebrow dormers are also permitted.
Roof Penetrations, except stucco or brick chimneys, shall be placed so as not to be easily visible from streets or paths. Roof penetrations, except stucco or brick chimneys, shall be painted to match the color of the roof, except those of metal which may be left unpainted.

OPENINGS

MATERIALS

Windows shall be made of wood (painted), wood aluminum clad, or vinyl and shall be glazed with clear glass. All windows and doors to be approved by the Town Architect.
Doors (including garage doors) shall be wood or metal. Doors shall be painted or stained. All windows and doors to be approved by Town Architect.
Storefronts shall be made of wood or painted metal.
Shutters shall be wood, and sized be sized to fit the adjoining window, whether operable or not.
Security Doors and Window Grilles must be approved by Town Architect.

CONFIGURATIONS & TECHNIQUES

Windows shall be rectangular, vertically proportioned and operable. Transoms may be oriented horizontally with panes which match other opening configurations. Multiple windows in the same rough opening shall be separated by a 3 1/2" min. post. The window sash shall be located interior to the centerline of the wall. Window sills in masonry construction shall project a minimum of 1" from the face of the building.
Window Muntins are encouraged and shall be true divided light or fixed on the interior and exterior surfaces, and shall create panels of square or vertical proportion.
Storm Windows and Screens shall be integral with the window. Screens shall be made of brass, bronze or black vinyl.
Front Doors, including the entry door to the porch shall be located on the primary frontage, for houses on corners, the principal entry shall be located on the side of the house facing the larger street. Paired main entry doors shall be a max of 4' finished opening with no inactive leaf.
Doors shall be hinged. Doors, except garage doors, shall be constructed of planks or raised panels (not flush with applied rim) which express the construction technique.
Garage Doors shall be a maximum of 9' in width. Garage doors facing an alley shall have a cantilevered light fixture above the door with an incandescent bulb activated by a photocell. Garage doors shall be painted or stained. Style and manufacturer to be approved by Town Architect.
Driveway Gates shall be in-swinging and have a maximum opening width of 12'.
Storefronts shall be painted a dark gloss color.
Sill heights shall be a maximum of 3 feet and the minimum head height shall be 10 feet.
Shutters should be operable, sized and shaped to match the openings.
Crawl spaces shall have openings with vertical metal bars. Wire mesh behind the bars is required. For buildings with a masonry ground floor, undercroft openings for drainage and ventilation shall be a maximum of 1' tall and 3' wide.
Stucco Trim articulations shall be subject to approval by the Town Architect.

SIGNAGE

Projecting Building Signs are defined as signs extending perpendicular from a facade. They shall be a minimum of seven (7) feet above grade and a maximum of 14 feet above grade. The maximum display surface area per sign face shall be 20 square feet.
Projecting Building Signs, 2nd Story and Above, are defined as signs extending perpendicular from a facade. They shall be a minimum of 15 feet above grade and a maximum height of one (1) foot below the cornice or eave line. The maximum display surface area per sign face shall be 30 square feet.
Front Awning Signs are defined as signs with letters or logos painted, silk screened, or stitched directly onto a building awning. They shall be a minimum height of seven (7) feet above grade and a maximum of 14 feet above grade. The maximum display surface area per sign face shall be 50% of the surface area of the awning in the same plane.
Side Awning Signs shall be treated the same as Projecting Building signs.
Wall Mounted Building Signs are defined as signs mounted directly on a building facade. They shall be a minimum height of seven (7) feet above grade and a maximum of one (1) foot below the cornice or eave line. The maximum display surface area per sign face shall be 40 square feet or five (5) percent of the building facade wall facing the same public street, whichever is less.
Object Signs are defined as two or three dimensional signs replicating an object associated with a business. They shall be a minimum height of seven (7) feet above grade and a maximum of 14 feet above grade. The maximum display surface area per sign face shall be 27 cubic feet.
Signs Not Permitted: In addition to signs prohibited in the base zoning district, on-premise temporary signs, pole signs, billboards, and ground mounted commercial signs in a commercially zoned area shall not be permitted, and no permitted signs shall extend above an eave line or parapet.
Lighted Signs shall be either spotlighted, externally lit, or back lit with a diffused light source.
Placement of Signs: Signs other than those on windows, shall be placed so as to not obscure key architectural features or door or window openings.

FRONTAGE TYPES

The following shall be defined as reference for the fronatge types allowed in the four zones as defined on the following pages.
Facade Articulation shall require that the width of any unbroken facade plane not exceed the building height without being interrupted by another material, recess, projection, or other articulation.
Forecourt: A facade is aligned close to the frontage line and a portion of it is set back. The forecourt thus created is suitable for gardens, vehicular drop-offs, and utility off-loading. This type should be used sparingly. Trees within the forecourt should be placed to have their canopies overhanging the sidewalks.
Stoop: A facade is aligned close to the frontage line with the ground story elevated from the sidewalk securing privacy for the windows. This type is suitable for ground floor residential uses at short setbacks with rowhouses and apartment buildings.
Shopfront and Awning: A facade is aligned close to the frontage line with the entrance at sidewalk grade. This type is conventional for retail frontage. It is commonly equipped with a cantilevered shed roof or awning. The absence of a raised ground story precludes residential use on the ground floor.
Gallery and Arcade: A facade of a building or an attached collonade. The building overlaps the sidewalk above while the ground story remains set back at the lot line. This type is indicated for retail use, but only when the sidewalk is fully absorbed within the arcade so that the pedestrian cannot bypass it.The arcade should be no less than 12 feet wide.
Terrace or L.C.: A Multi-story, recessed porch on an attached unit.
Common Lawn: A facade set back substantially from the frontage line. The front yard thus created should remain unfenced and be visually continuous with adjacent yards. The ideal is to simulate buildings sitting in a common rural landscape. Common lawns are suitable frontages for higher speed thoroughfares, as the large setback provides a buffer from the traffic.
Porch and Fence:A facade is set back from the frontage line with an encroaching porch appended. The porch should be within a conversational distance of the sidewalk, while a fence at the frontage line maintains the demarcation of the yard. A great variety of porches is possible, but to be useful, none should be less than eight (8) feet wide.

MISCELLANEOUS

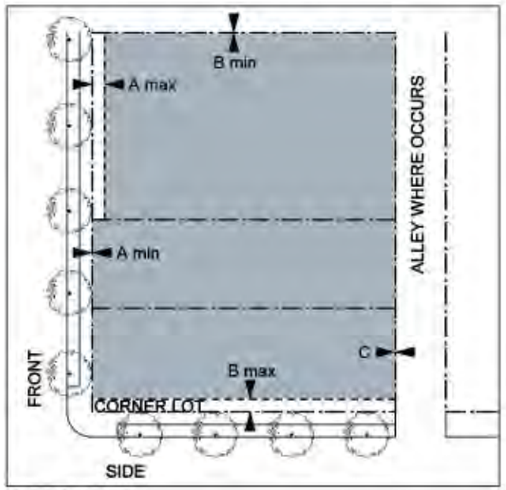
Exemption from the Visibility Provision: Development within the UDO shall be exempt from the "visbility triangle" provisions set forth in Section 17.20.180 of the zoning ordinance.
Secondary Dwellings, either attached or detached, are permitted with a maximum square footage of 600 sq. ft.
Towers, where allowed, play a civic role. Their positions on private lots shall intersect the centerline axis of the view to which they respond, and may encroach into the front set back if necessary. A tower consists of a structure less that 50' in height which protrudes one story above the eave of the principle structure.
Building walls shall be one color per material used.
Colors of Stucco shall be warm in tone and in the off-white, buff, light warm grey range, subject to approval from the Town Architect.
Brick Masonry color and finish shall be subject to approval by Town Architect.
Paints for masonry applications shall have a flat finish.
All Exterior Wood Siding shall be stained or painted, preferably on both sides. Marine oil may be used as a substitute for staining. Wood shingles may be left to age naturally.
An Accent Color, for items such as the front door, pickets, trim, and shutters may be used subject to approval from the Town Architect.
Walls and Fences shall be in the range of colors approved for their respective materials. Other colors may be added to the Stain List after consultation with the Town Architect. Please refer to our current listing for pre-approved colors.
Garage Aprons shall be square or rectangular pervious concrete pavers, brick, tar and chip, D.O.T. base, crushed stone or gravel. Pavers must contrast noticably with the street surface color.
Parking Structure Facades that face public streets, except service lanes, shall be designed to look similar to buildings having other types of uses.
Parking Structures that front an at grade public street, exluding service lanes, shall have a liner building at the ground floor, at minimum, in order to screen the parking structure from the right-of-way except at the point of vehicular access.
Drive throughs shall be located at the rear of buildings.
The following shall be subject to approval from the Town Architect: Brick, mortar colors, awning colors and patterns, fence designs and exterior light fixtures.
The following shall be permitted only in rear or side yards or on the roof and where not easily visible from streets or paths: HVAC equipment ("quiet" models preferred), utility meters, satellite dishes, permanent grills, permanent play equipment and hot tubs (those at ground level must be covered).
The following shall not be permitted: Panelized wall materials, pre-cast moldings or wall perforations (unless preapproved by Town Architect), stucco-covered foam moldings, stained glass curved windows, window air-conditioning units, exterior fluorescent lights, exterior flood lights, above ground pools (except those of the inflatable variety), antennas, concrete parking pads, flags and flagpoles (except official flags of countries, states, counties and cities, flown from 6' poles mounted at a 45 degree angle to building walls) signs (on private property), direct vent fireplaces (unless specifically allowed by Town Architect), scroll work, external alarm systems, and skylights visible from the street.

PROPERTY OWNERS ASSOCIATION STANDARDS

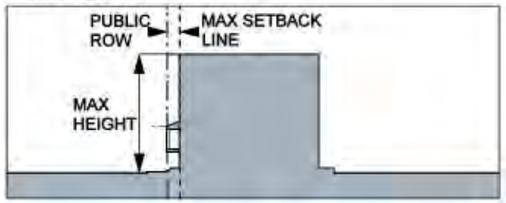
The Coventants and Restrictions for all property within this Urban Design Overlay must be filed with the register of Deeds of Nashville/Davidson County by the owner and noted on a final plat(s) before a lot is sold or a building permit is issued.
A. Conditions, Covenants, and Restrictions must be apporved by the Planning Department Director, Public Works Department Director, and the Law Department Director in order to verify that the following items are provided.
1. Create a property Owners' Association with mandatory membership for each property owner;
2. Establish additional architectural standards that are in conformity with the objectives and guidelines of the UDO;
3. Establish a Town Architect position to review implementation of the development for compliance with design intent of the UDO;
4. Create a Design Review process, led by the developer and the Town Architect, of all new construction for compliance with the architectural standards for the development;
5. Create a Modification Review Committee of residents to review changes to existing buildings;
6. Provide for ownership, development, and maintenance of private open spaces, community facilities, community meeting hall(s), community lighting and fixtures, community street furniture and fixtures, other common areas, and any other items listed as community maintenance responsibilities;
7. Provide for the maintenance of landscaping and trees within the streetscape;
8. Require a yearly updated listing of all community maintenance responsibilities;
9. Require the collection of assesments based on maintenance and replacement cost using an accepted inflation rate multiplied by the expected life of the installation;
10. Be effective for a term of not less than fifty (50) years.

TOWN CENTER

BUILDING PLACEMENT AND HEIGHT



Plan Diagram



1. BUILDING PLACEMENT

Principle building shall be placed within the shaded area as shown in the above Plan Diagram.
Lot Area: no min
Lot Coverage: 100% max
Principle Building Setbacks:

A: Front: 0' min-5' max (50% max of building frontage may be setback more for a patio in Live/Work)
B: Side: 0'min-5' max (Includes corner lots)
C: Rear: 0' min
D: Frontage at Setback: 70% min

Principle Building Setbacks for Residential Units which do NOT front to a public right-of-way:

E: Front: 0' min-10' max
F: Side: 0' min-5' max (when the side of a structure faces the public right-of-way, the setback will be 5' min)
G: Rear: 5' min

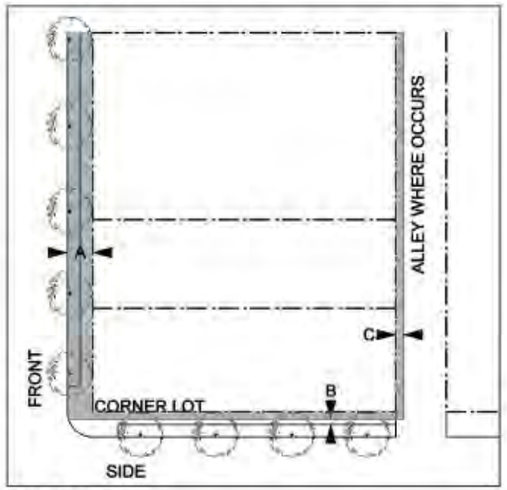
Out Building Setbacks: (not shown above)

A: Front: 10' + front bldg. setback
B: Side: 0' min - 5' max
C: Rear: 5' min, 5' or 15' and greater if garage doors open into an alley or service lane

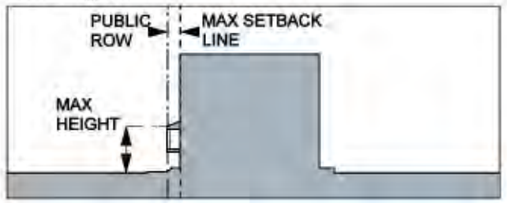
2. HEIGHT

Building height shall be measured in number of stories. Inhabited attics or raised basements shall not be counted as a story.
Principle building: 4 stories max, 2 stories min
Out building: 2 stories max, 1 story min

BUILDING FRONTAGE AND PROFILE



Plan Diagram



1. ENCROACHMENTS ALLOWED

Stoops, balconies, bay windows, and roof overhangs may encroach into the setback, though not into the public ROW. Cantilevers may encroach into the ROW.

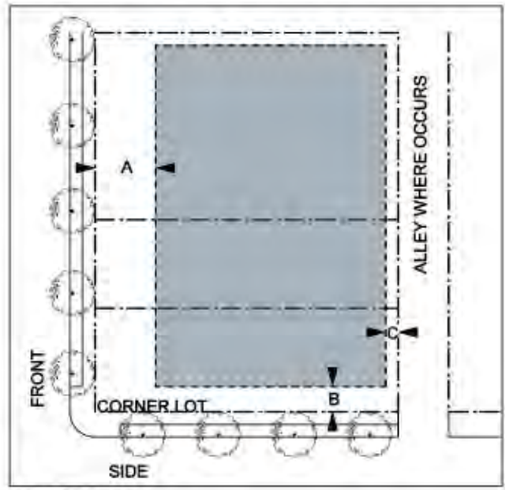
A: At Bldg. Frontage: 12' max (only in the form of a pedestrian arcade or cantilevered upper story gallery).
B: At Bldg. Side: 0' min or 3' max (Includes corner lots)
C: At Bldg. Rear: 3' max

Maximum encroachment height is 2 stories. Any encroachment into a public right-of-way shall meet Metro Government's clearance standards and first be approved under the mandatory referral process.

2. FRONTAGE TYPES ALLOWED

A. Forecourt
B. Stoop
C. Shopfront & Awning
D. Gallery
E. Arcade

PARKING AND VEHICULAR ACCESS



Plan Diagram

1. PARKING REQUIREMENTS

On-site parking is allowed only in the shaded area as shown.

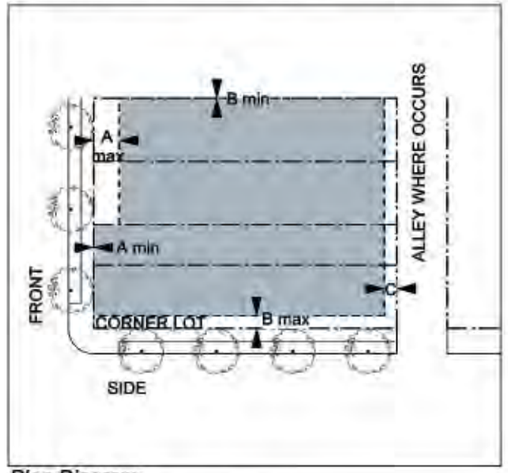
A: Front: 10' + front bldg. setback
B: Side: 0' min - 5' max
C: Rear: 5' min., 5' or 15' and greater if garage doors open into an alley or service lane
Apply only to Townhouses and Live/Works

Vehicular access is permitted only from an alley or side street.

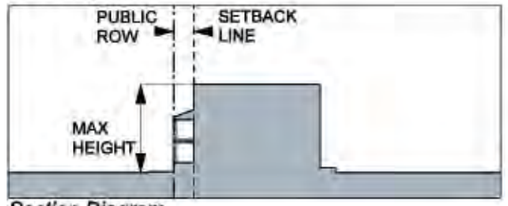
2 on-site spaces per residential unit.
1 on-site space per carriage house.
Live/Works must have on-street parking in addition to on-site parking.

THE NEIGHBORHOOD CENTER

BUILDING PLACEMENT AND HEIGHT



Plan Diagram



Section Diagram

1. BUILDING PLACEMENT

Principle building shall be placed within the shaded area as shown in the above Plan Diagram.
Lot Area: 2,000 sq. ft. typical avg.
Lot Coverage: 80% max
Principle Building Setbacks:

A: Front: 0'min-10' max(50% max of building frontage may be setback more for a patio in Live/Work)
B: Side: 0'min - 5' max
C: Rear: 5' min

Principle Building Setbacks for Residential Units which do NOT front to a public right-of-way:

D: Front: 0' min-10' max
E: Side: 0' min-5' max (when the side of a structure faces the public right-of-way, the setback will be 5' min)
F: Rear: 5' min

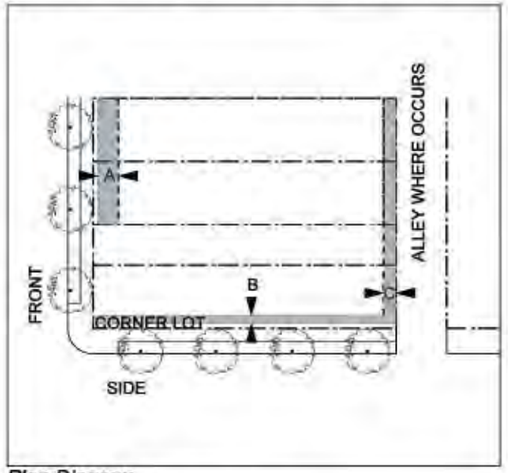
Out Building Setbacks: (not shown above)

A: Front: 10' + front bldg. setback
B: Side: 0' min - 5' max
C: Rear: 5' min., 5' or 15' and greater if garage doors open into an alley or service lane

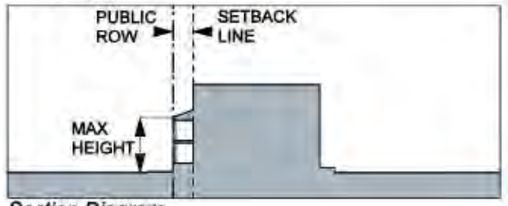
2. HEIGHT

Building height shall be measured in number of stories. Inhabited attics or raised basements shall not be counted as a story.
Principle building: 3 stories max, 1 story min
Out building: 2 stories max, 1 story min

BUILDING FRONTAGE AND PROFILE



Plan Diagram



Section Diagram

1. ENCROACHMENTS ALLOWED

Stoops, balconies, bay windows, roof overhangs,and open porches may encroach into the setback as shown in the shaded area in the above Plan Diagram.

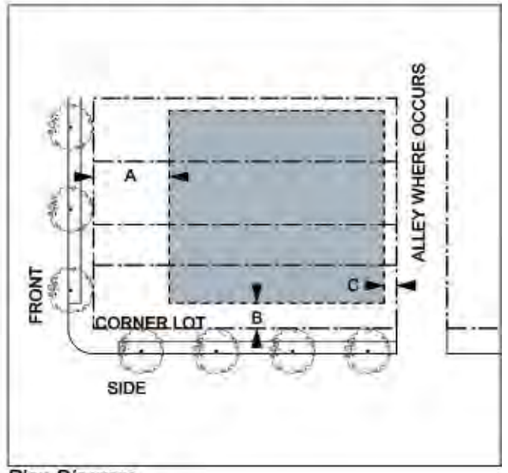
A: At Bldg. Frontage: 8' max
B: At Bldg. Side: 3' max
C: At Bldg. Rear: 5' max

Maximum encroachment height is 2 stories. Any encroachment into a public right-of-way shall meet Metro Government's clearance standards and first be approved under the mandatory referral process.

2. FRONTAGE TYPES ALLOWED

A. Terrace or Dooryard
B. Forecourt
C. Stoop
D. Shopfront & Awning
E. Gallery
F. Arcade

PARKING AND VEHICULAR ACCESS



Plan Diagram

1. PARKING REQUIREMENTS

On-site parking is allowed only in the shaded area as shown.

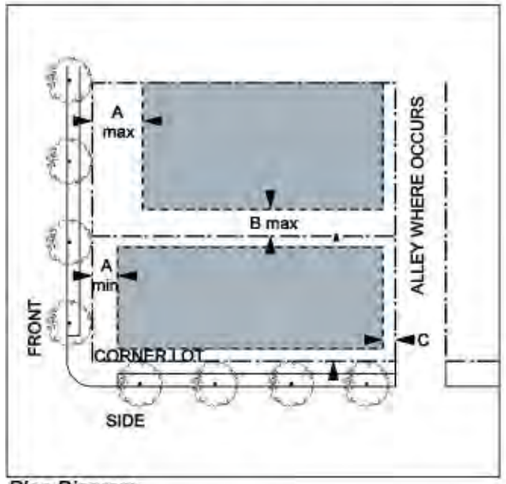
A: Front: 10' + front bldg. setback
B: Side: 0' min - 5' max
C: Rear: 5' min., 5' or 15' and greater if garage doors open into an alley or service lane
Apply only to Townhouses and Live/Works

Vehicular access is permitted from an alley, side street, or front-loaded driveway.

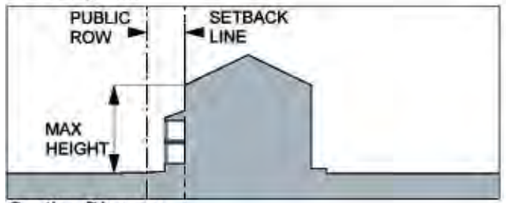
2 on-site spaces per residential unit, except villas which shall have 1 on-site space per residential unit.
1 on-site space per carriage house.
Live/Works must have on-street parking in addition to on-site parking.

THE NEIGHBORHOOD GENERAL

BUILDING PLACEMENT AND HEIGHT



Plan Diagram



Section Diagram

1. BUILDING PLACEMENT

Primary building shall be placed within the shaded area as shown in the above Plan Diagram.
Lot Area: 4,000 sq. ft. typical avg.
Lot Coverage: 80% max

Principle Building Setbacks:
- A: Front: 15’ min-25’ max
- B: Side: 0’(attached units), 5’ min(end units),10’ combined min (detached units)
- C: Rear: 5’ min

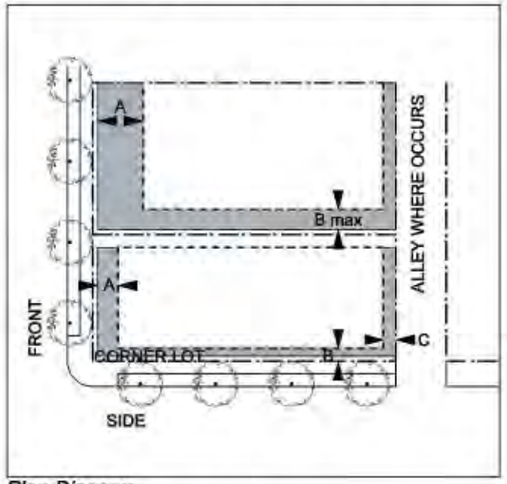
Principle Building Setbacks for Residential Units which do NOT front to a public right-of-way:
- E: Front: 0’ min-10’ max
- F: Side: 0’ min-5’ max (when the side of a structure faces the public right-of-way, the setback will be 5’ min)
- G: Rear: 5’ min

Out Building Setbacks: (not shown above)
- A: Front: 10’ + front bldg. setback
- B: Side: 0’ min, 10’ min at corners
- C: Rear: 5’ min., 5’ or 15’ and greater if garage doors open into an alley or service lane

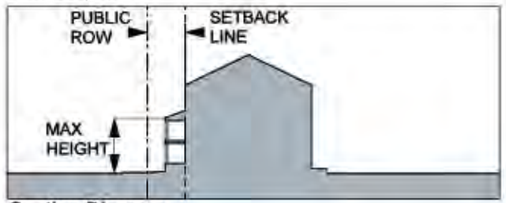
2. HEIGHT

Building height shall be measured in number of stories. Inhabited attics or raised basements shall not be counted as a story.
Principle building: 3 stories max, 1 story min
Outbuilding: 2 stories max, 1 story min

BUILDING FRONTAGE AND PROFILE



Plan Diagram



Section Diagram

1. ENCROACHMENTS ALLOWED

Stoops, balconies, bay windows, roof overhangs, and open porches may encroach into the setback as shown in the shaded area in the above Plan Diagram.

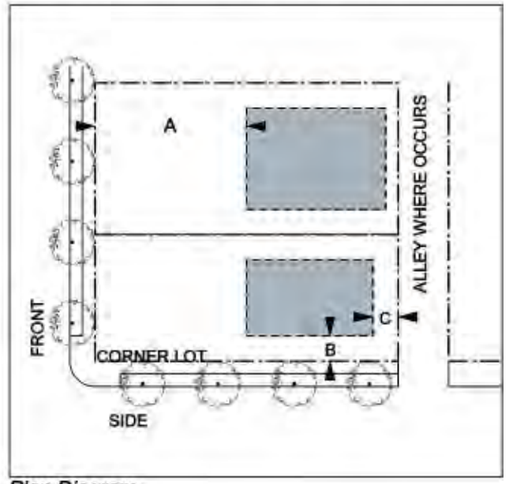
A: At Bldg. Frontage: 8’ max
B: At Bldg. Side: 3’ max
C: At Bldg. Rear: 5’ max

Maximum encroachment height is 2 stories.

2. FRONTAGE TYPES ALLOWED

A. Common Lawn
B. Porch & Fence
C. Terrace
D. Forecourt
E. Stoop

PARKING AND VEHICULAR ACCESS



Plan Diagram

1. PARKING REQUIREMENTS

On-site parking is allowed only in the shaded area as shown.

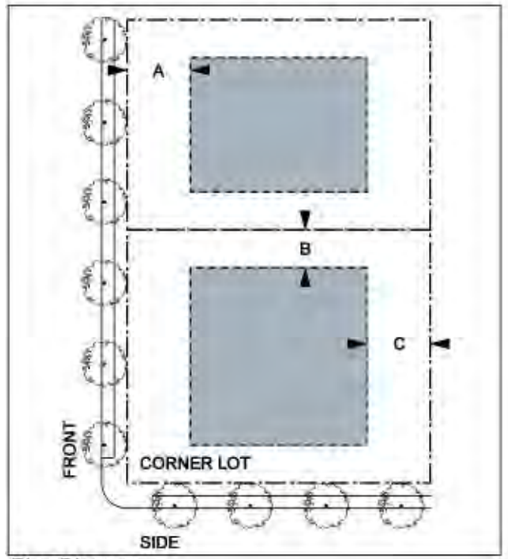
A: Front: 10’ + front bldg. setback
B: Side: 0’ min, 10’ min at corners
C: Rear: 5’ min., 5’ or 15’ and greater if garage doors open into an alley or service lane

Vehicular access is permitted from an alley, side street, or front-loaded driveway.

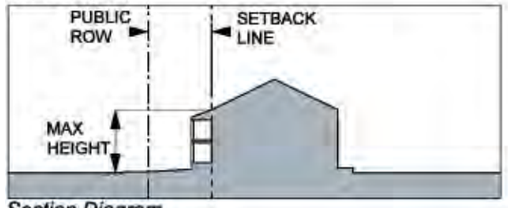
2 on-site spaces per residential unit, except villas which shall have 1 on-site space per residential unit.
1 on-site space per carriage house.

THE NEIGHBORHOOD EDGE

BUILDING PLACEMENT AND HEIGHT



Plan Diagram



Section Diagram

1. BUILDING PLACEMENT

Primary buildings shall be placed within the shaded area as shown in the above Plan Diagram.
Lot Area: 6,000 sq. ft.typical avg.
Lot Coverage: 60% max

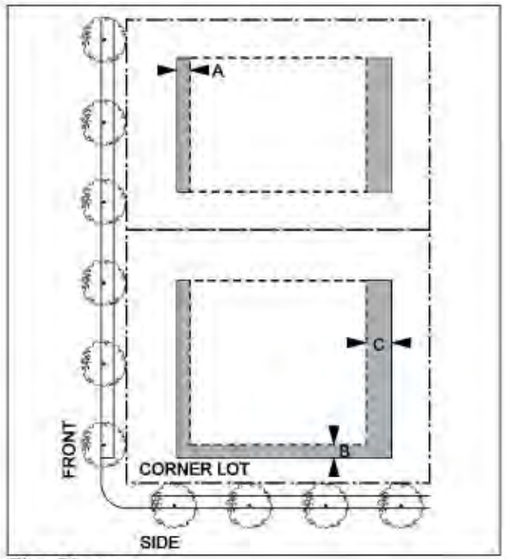
Principle Building:
- A: Front Setback: 20' min
- B: Side Setback: 8' min
- C: Rear Setback: 25' min

Out Building: (not shown in diagram)
- A: Front Setback: 55' min
- B: Side Setback: 5' min
- C. Side Street Setback: 15'
- D. Rear: 10' min., 5' min if garage doors open into an alley or service lane

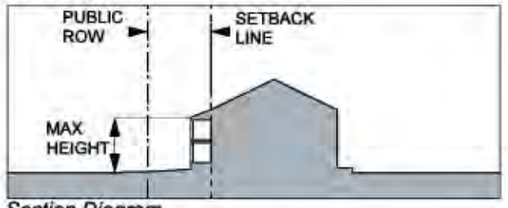
2. HEIGHT

Building height shall be measured in number of stories. Inhabited attics or raised basements shall not be counted as a story.
Principle building: 2 stories max, 1 story min
Out building: 2 stories max, 1 story min

BUILDING FRONTAGE AND PROFILE



Plan Diagram



Section Diagram

1. ENCROACHMENTS ALLOWED

Stoops, balconies, bay windows, roof overhangs, and open porches may encroach into the setback as shown in the shaded area in the above Plan Diagram.

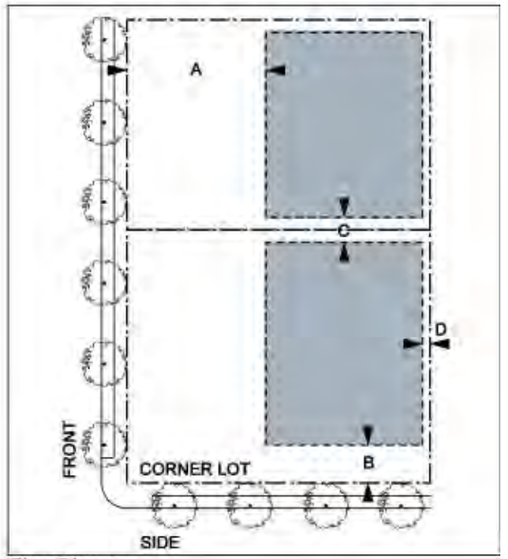
A: At Bldg. Frontage: 12' max
B: At Bldg. Side: 3' max
C: At Bldg. Rear: 10' max

Maximum encroachment height is 2 stories.

2. FRONTAGE TYPES ALLOWED

A. Common Lawn
B. Porch & Fence

PARKING AND VEHICULAR ACCESS



Plan Diagram

1. PARKING REQUIREMENTS

On-site parking is allowed only in the shaded area as shown.

- A: Front Setback: 55' min
- B: Side Street Setback: 15' min
- C. Side Setback: 5'
- D. Rear: 5' min., 5' or 15' and greater if garage doors open into an alley or service lane

Vehicular access is permitted from an alley, side street, or front-loaded driveway.

In front loaded conditions, garages must be a minimum of 50% of the lot depth from the street unless they are behind the principle facade of the building.

2 on-site spaces per residential unit. Villas will have 2 on-site spaces per residential unit.z
1 on-site space per carriage house.

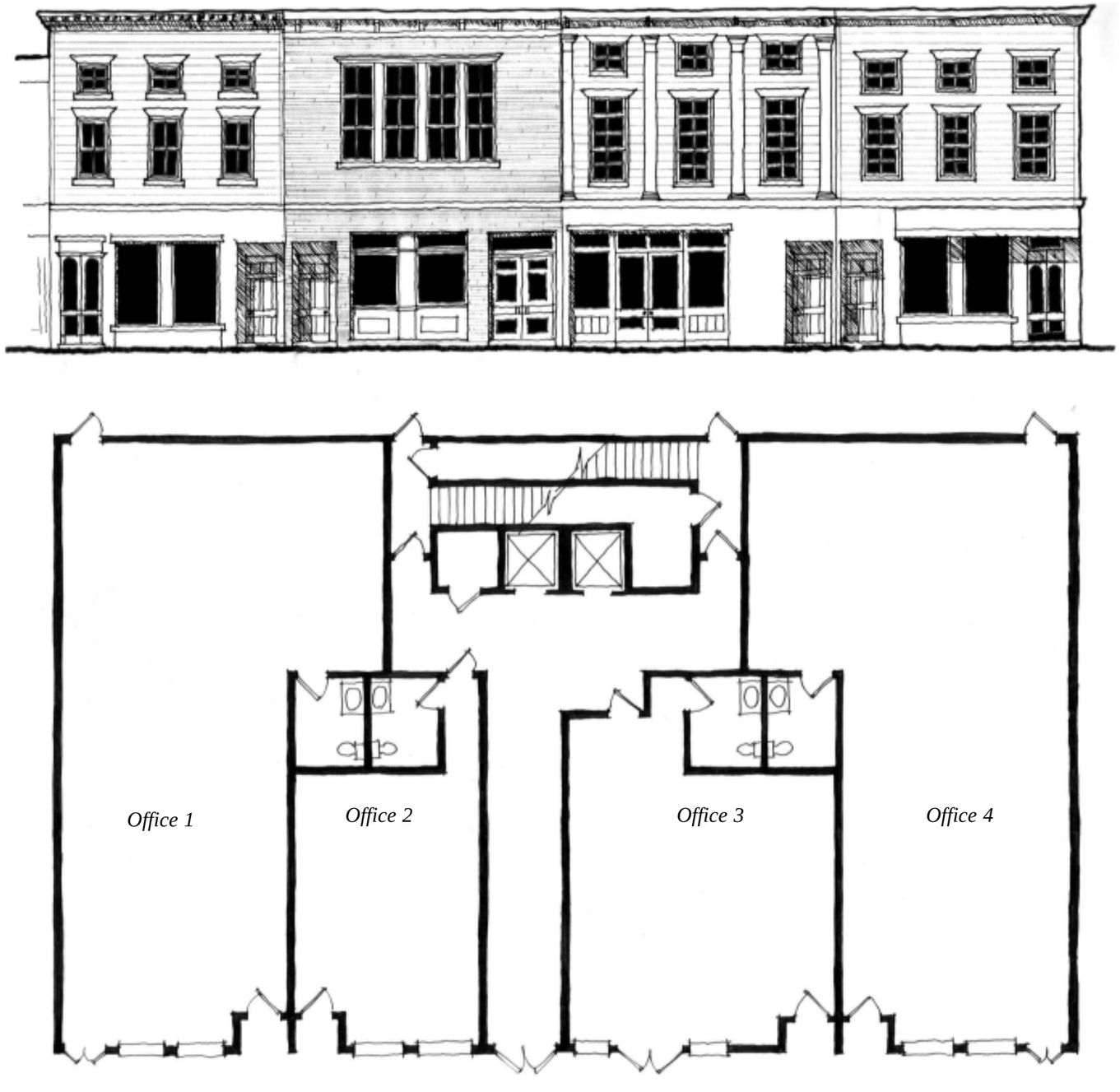
Front facing garages shall be recessed from the facade of the principle building a minimum of 20', with the exception of Ridge House types.

MIXED-USE

TOWN CENTER TYPES

Building types, when combined with a regulating plan and urban regulations, provide a very specific means of creating place known generally as “Form Based Codes.” In this type of Code, Uses are primarily regulated through building type, in which the nature of the building configuration largely governs use, rather than the more conventional zoning codes which allow or disallow specific uses, but leave the building form essentially uncontrolled.

Town Center Building Types Include Mixed-use, Live-Work, Town House, and a limited number of small lot Cottage types, where approved by Town Architect. Mixed-use Buildings typically have ground floor retail uses and upper story commercial (office) or multifamily, both rental and for sale, uses above. Their architectural character is typically that of simple massing with regularly modulated fenestration above, and simple to elaborate storefronts on the ground floor, articulated from the upper story facade by a large cornice/sign band. Encroachments can include attached galleries or arcades overhanging the public sidewalk, and/or operable or fixed awnings of a minimum depth of 6 feet.

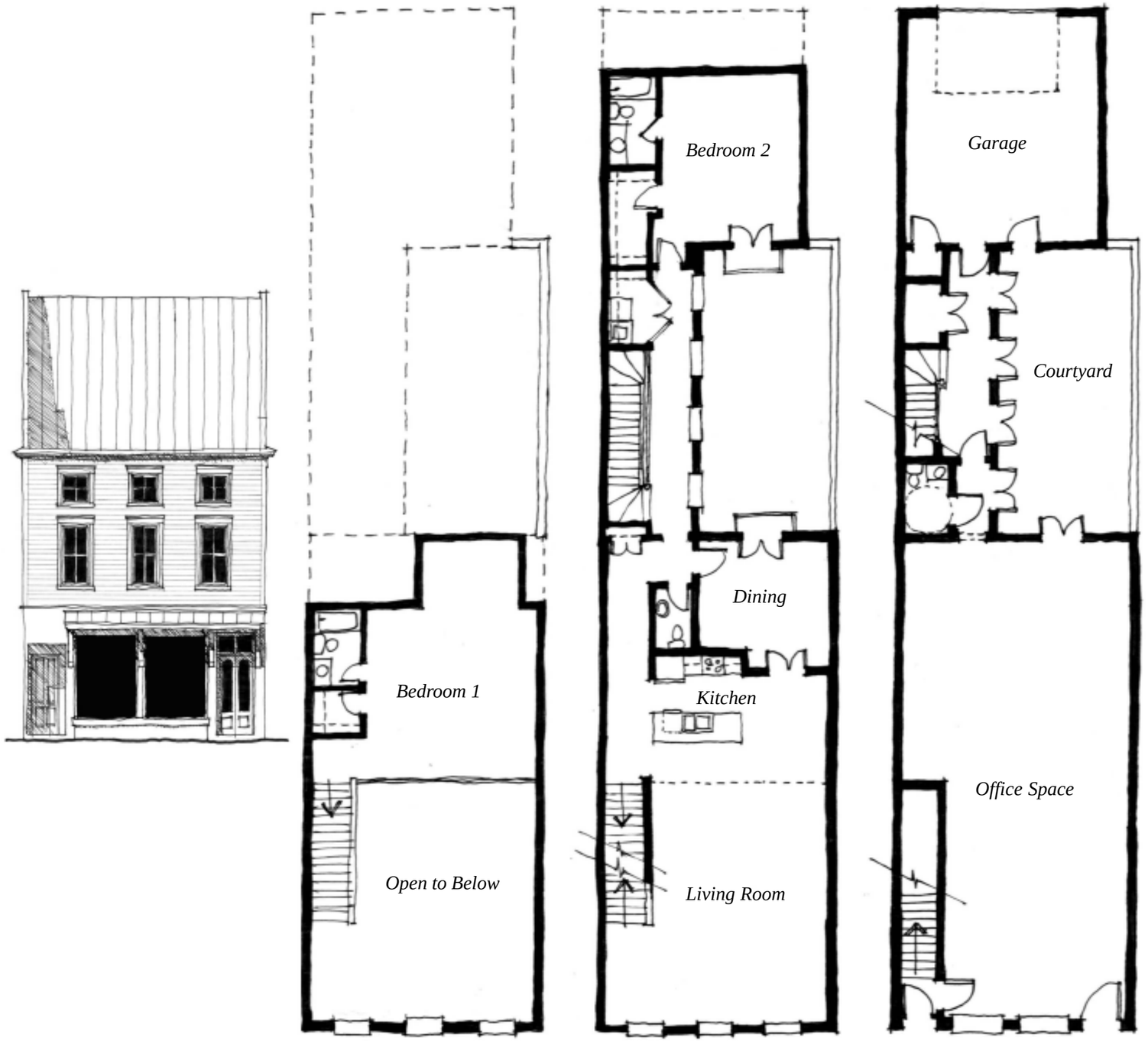


THE LIVE/ WORK UNIT

TOWN/NEIGHBORHOOD CENTER TYPES

The Live-Work building type is the smallest increment of commercial building type within either the Town or Neighborhood Center. It is comprised of a small ground floor commercial unit with a single residential unit of one or more floors above. This Type is usually attached, and is largely comparable is size and disposition to the Row House Type, with the exception that the ground floor elevation is at sidewalk level to accommodate commercial traffic.

Like the Mixed-Use building, this building type is also typically pulled forward to the sidewalk and has a distinct storefront appearance to the ground floor, with simply articulated upper stories above. Both, either, or neither of the units (ground floor commercial lower, residential upper), may be occupied by the same occupant or tenant.

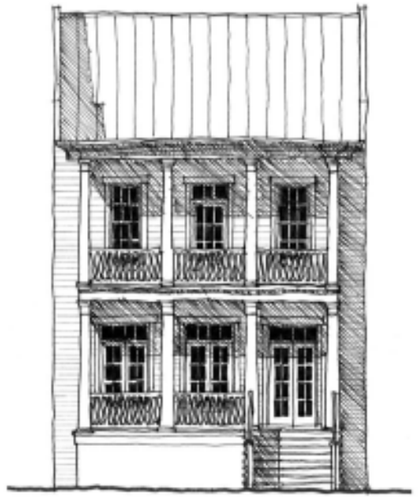


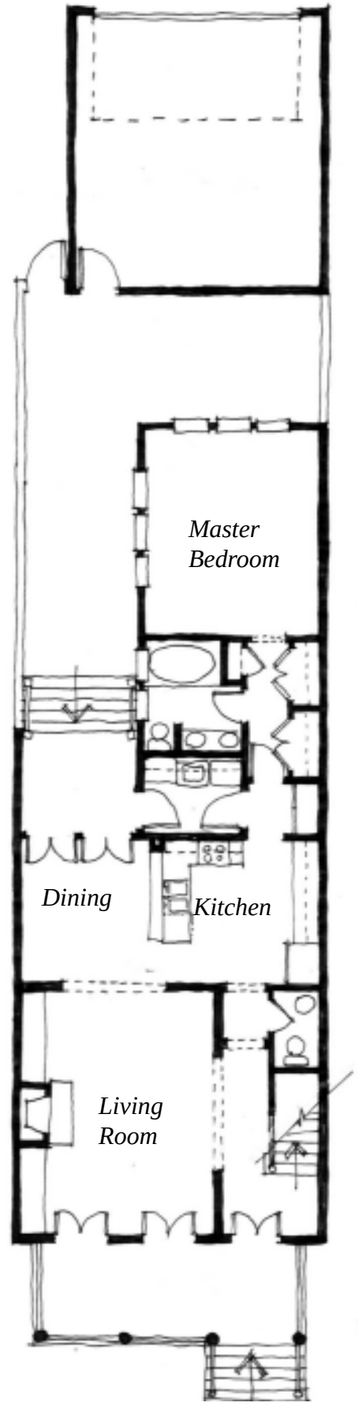
THE ROWHOUSE

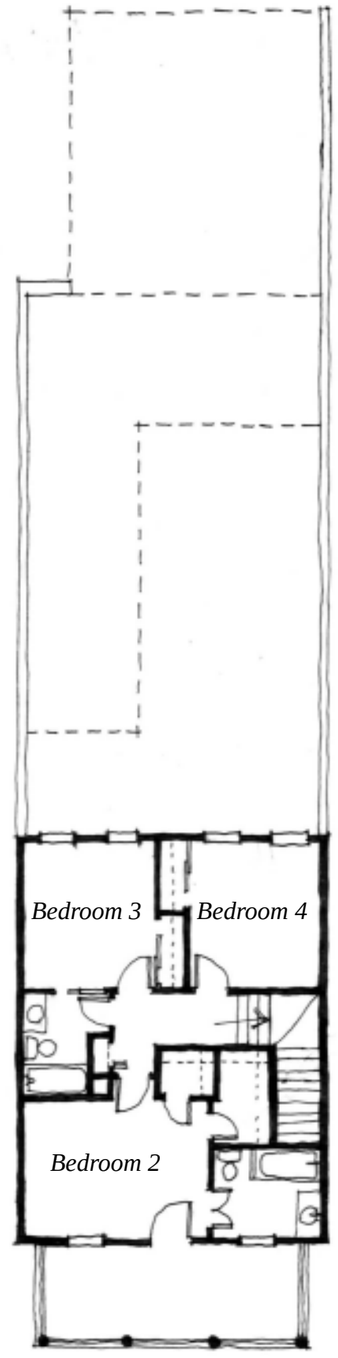
TOWN/NEIGHBORHOOD CENTER TYPES

Row House Types are generally the most urban and affordable house types in terms of lot sizes, since they are expressly designed to be attached. However, they can range quite a bit in terms of overall square footage and cost, through differences in lot widths and building heights. At the more affordable end of the spectrum, they can be extremely efficient in their utilization of space, and at the other end of the spectrum, they can be quite luxurious and spacious.

As with all urban types, they depend upon the use of rear-loaded carriage houses to maximize their value, and a street comprised entirely of elegantly designed and proportioned Row Houses, either with raised stoops or dooryards with flowering gardens and mature street trees, is one of the most beautiful and attractive housing options available.

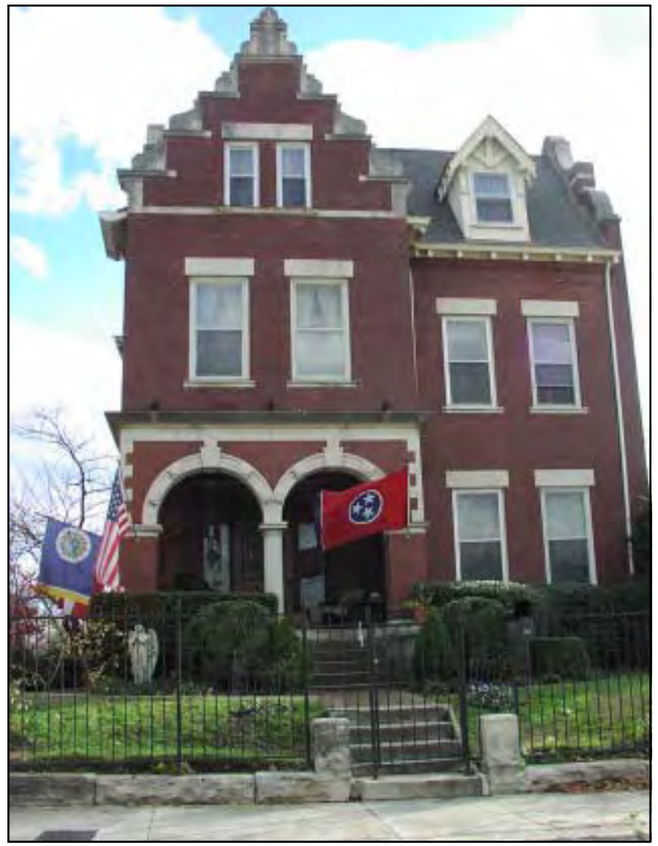






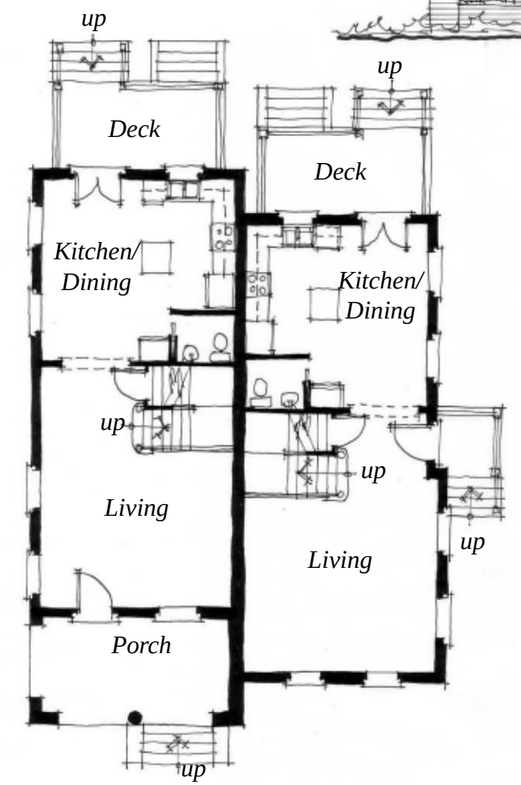
THE TWO-UNIT TOWNHOUSE

NEIGHBORHOOD CENTER/GENERAL TYPES

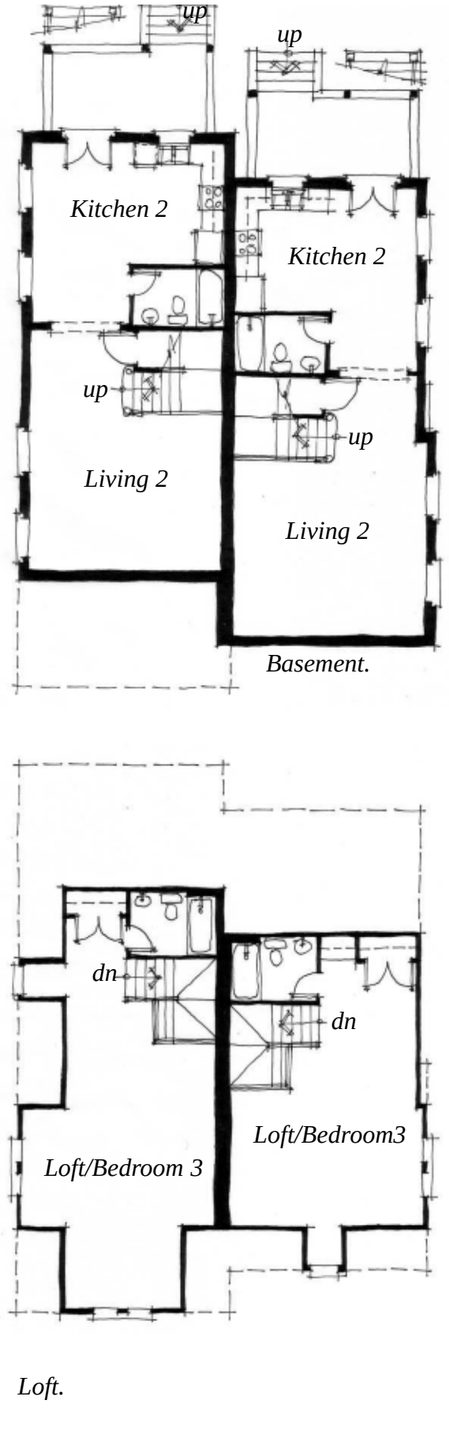


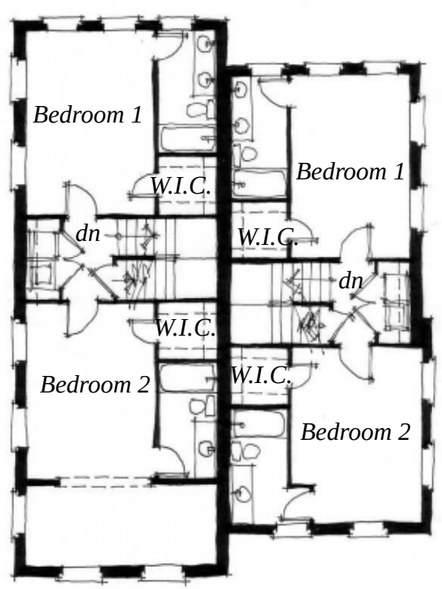
Two-Unit Townhomes, along with small Cottages, are an ideal transitional type from Neighborhood Center to Neighborhood General. Two-Unit Townhomes are designed to look and function like nicely designed and well built medium sized single-family detached homes. As such, they have many of the same features: They are set back further from the street with a small lawn and walkway. They usually have large, inviting porches, (off of which both units are accessed, to help maintain the appearance of a single-family home). The massing can be simple, or somewhat more articulated, depending upon the style, with more elaborate detailing around the doors and windows.

These units are typically set on medium sized lots, with rear-loaded garages or carriage houses, and with each unit having a separate single car garage and an additional shared parking pad, with additional parking on the street.



First floor.





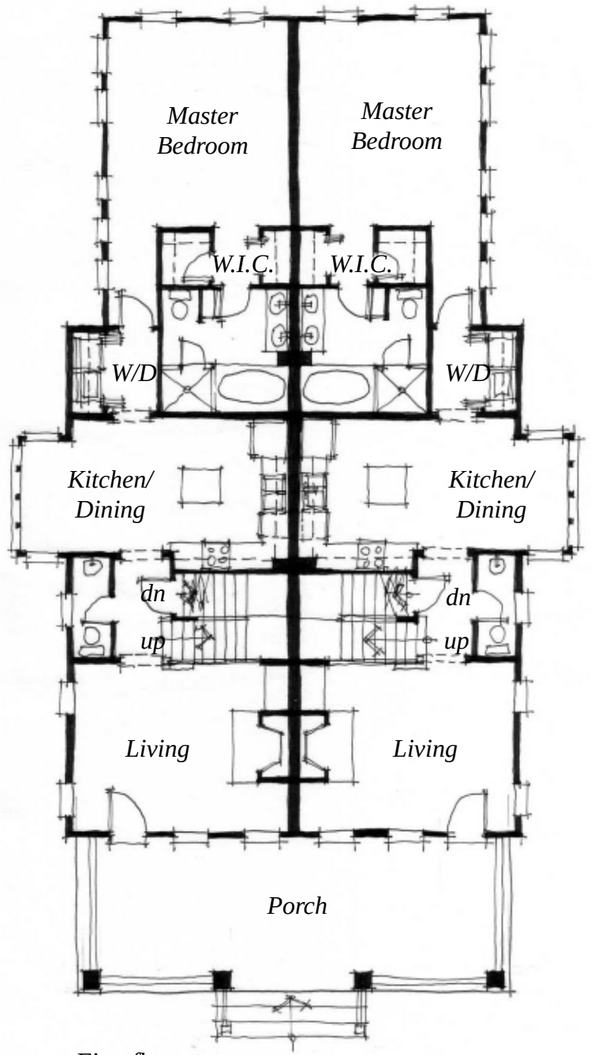
Second floor.

Loft.

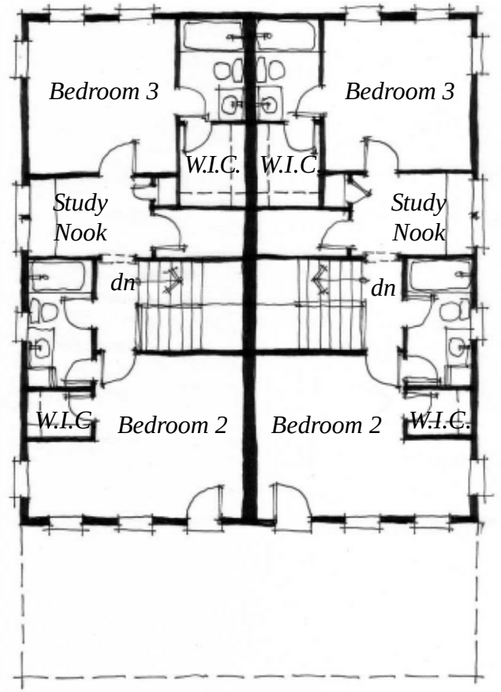
THE TWO-UNIT TOWNHOUSE

Typical Two-Unit Townhomes provide the look and feel of a medium to large Single-Family home.

NEIGHBORHOOD CENTER/GENERAL TYPES



First floor.

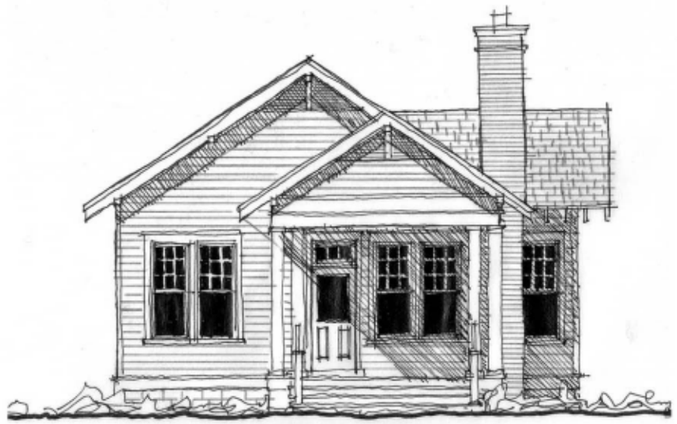


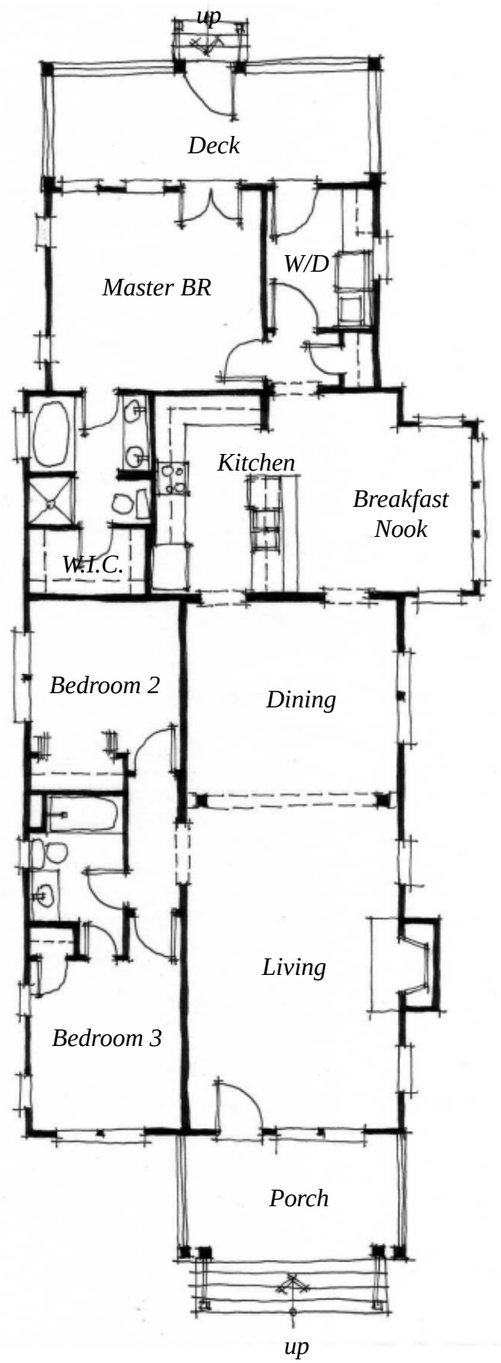
Second floor.

THE COTTAGE

The Cottage Type is the smallest of the detached single-family house types. Usually situated on narrow, deep lots, the Cottage house, in its narrowest form, can sometimes approach Townhome densities, while still providing for a discreet, detached unit. They can have either a small or medium front yard setback, depending upon neighborhood context, and a generous back yard, with rear-loaded garage or carriage house. The more substantial versions take advantage of their narrowness by using deep footprints to provide a great deal of floor area without sacrificing light and air.

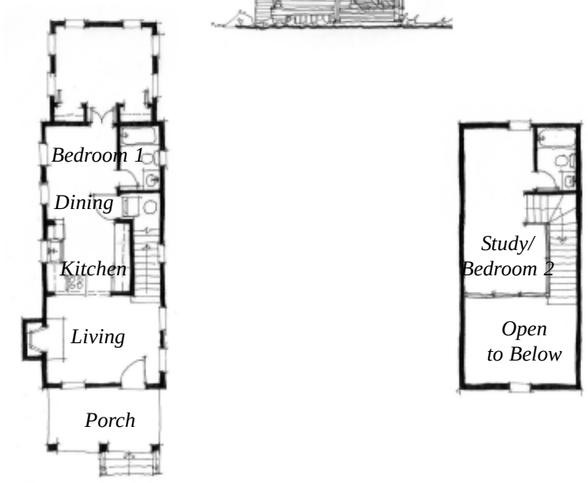
Cottages come in a variety of sizes and styles, and typically range in height from 1 1/2 to 2 stories, with front porches. Construction is usually wood frame and siding, though brick is not unheard of. In general, they tend to have relatively simple massing, with articulations limited to bays and dormers, though some, like bungalows and Victorian cottages, can be quite elaborate in both massing and detail.





NEIGHBORHOOD GENERAL TYPES

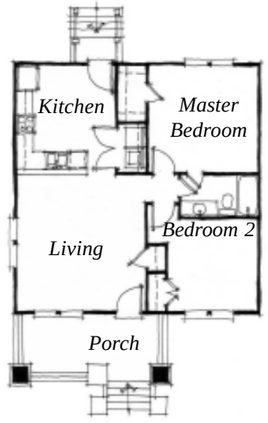
THE COTTAGE



Narrow lot Cottage Types take advantage of their narrowness to provide good natural light and air throughout the house.

NEIGHBORHOOD GENERAL TYPES

Small and Large Bungalow types appear similar from the street, but have dramatically different interior layouts.

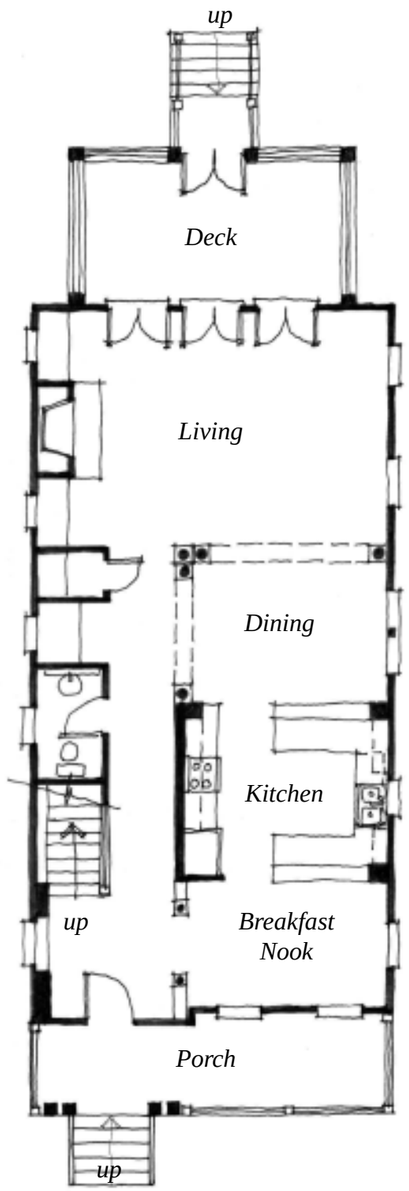


THE SMALL/MEDIUM HOUSE

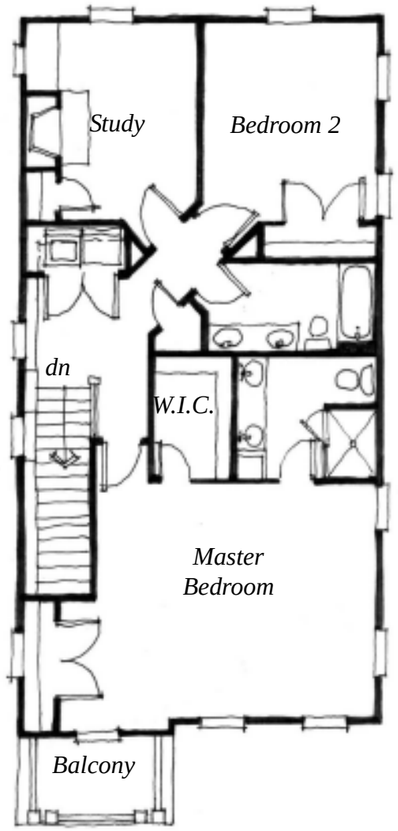
The Small to Medium House Type is the most versatile and ubiquitous house type found in most traditional neighborhoods and communities of the type and scale consistent with Carothers Crossing (small town and village). They can range in scale, detail and finish from the quite modest to the rather extravagant. What they share in common, again, is fairly straightforward massing and fenestration, modest sized footprints on modest sized lots, moderate, but common setbacks, or build-to lines, but always, generous porches, fronting on the street.

These house types typically have between 3 and 4 fairly modest bedrooms, situated on 2 or 2 1/2 floors, 2-3 baths at most, a small living room or den, but usually a very comfortable sized kitchen/dining and family room arrangement. These homes strike a nice balance between efficiency and spaciousness, and with rear-loaded garages or carriage houses, are designed to sit well on smaller lots without sacrificing comfort or privacy.

NEIGHBORHOOD GENERAL TYPES



First Floor.

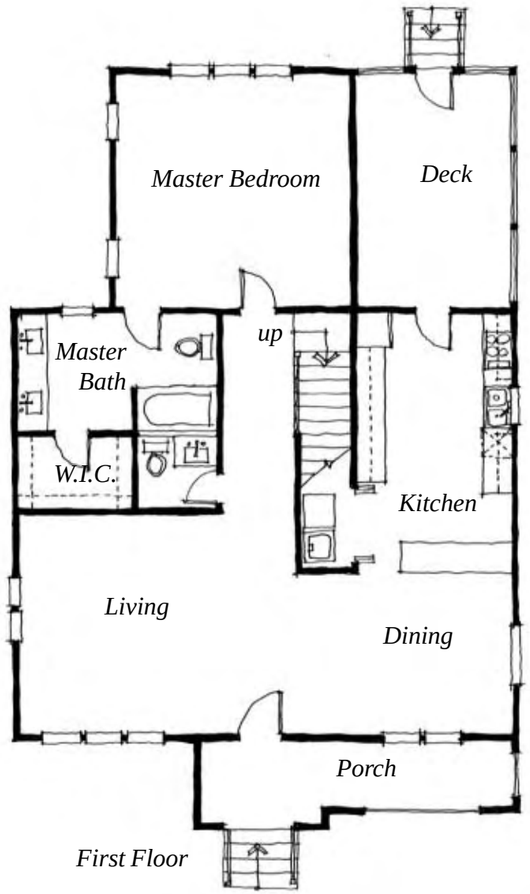


Second Floor.

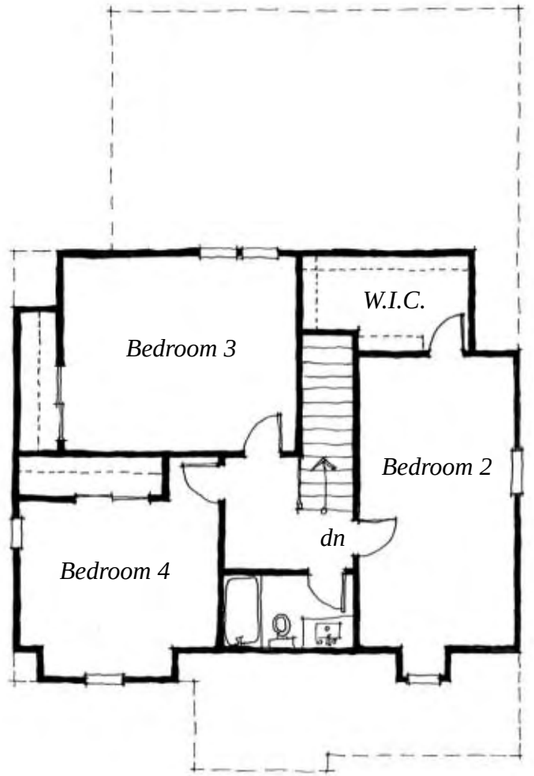
THE SMALL/MEDIUM HOUSE

NEIGHBORHOOD GENERAL TYPES

This houses resides in Westhaven, another new traditional neighborhood in the region, and it reflects many of the small to medium house type attributes in a more contemporary package.



First Floor



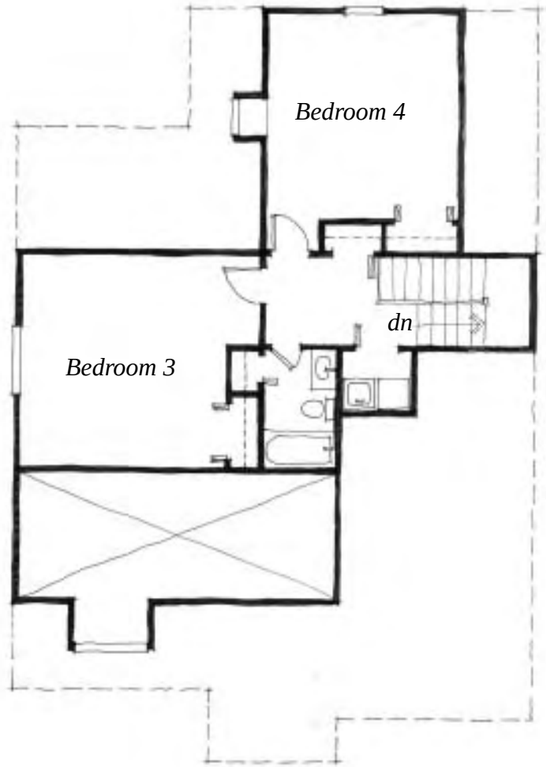
Second Floor

THE SMALL/MEDIUM HOUSE

NEIGHBORHOOD GENERAL TYPES

Another contemporary version of the small-medium house type. This house places the Master at the front of the house and features a dramatic two-story living room.

First floor.

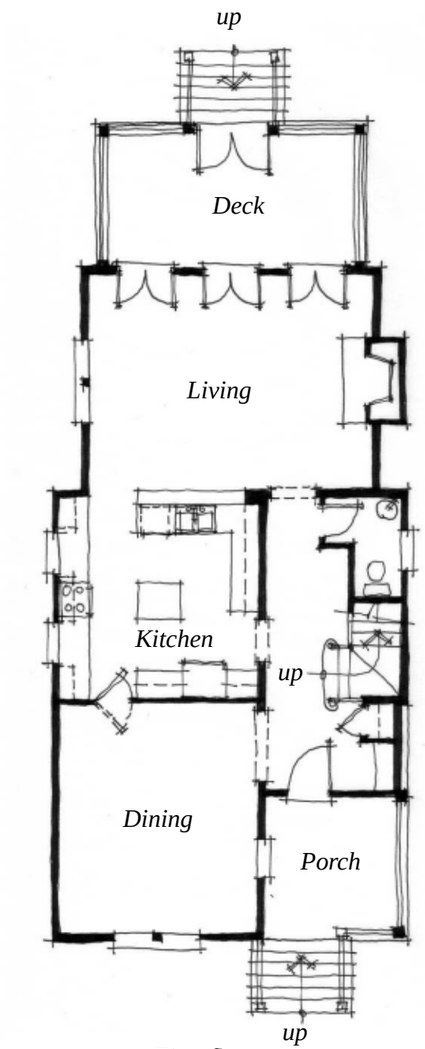


Second floor.

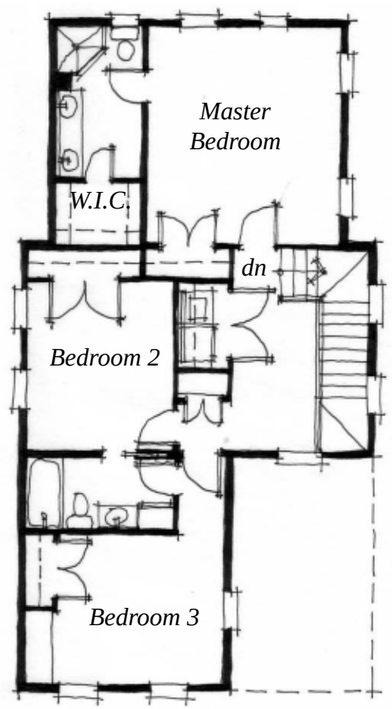
THE SMALL/MEDIUM HOUSE

NEIGHBORHOOD GENERAL TYPES

A more traditional looking small to medium house type, typical of those found in Nashville, with a contemporary floor plan inside.



First floor.

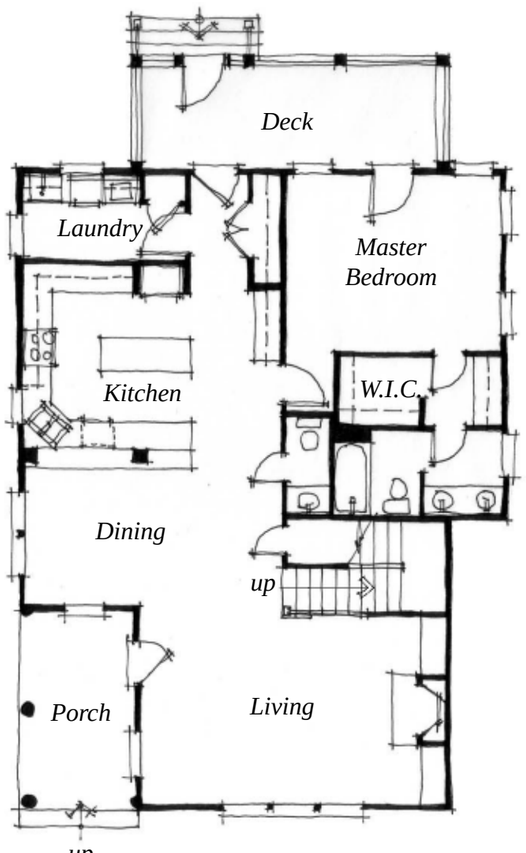


Second floor.

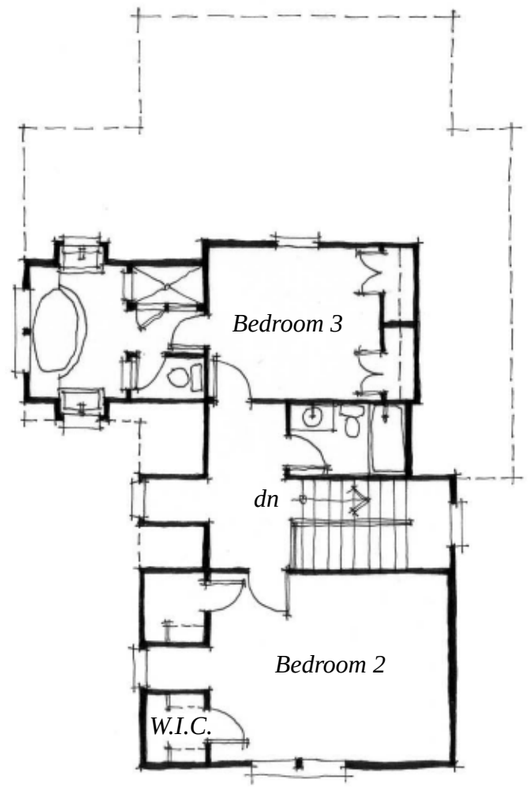
THE SMALL/MEDIUM HOUSE

NEIGHBORHOOD GENERAL TYPES

Deomonstrating the range of stylistic expressions possible with this house type, a small victorian fits a lot of functionality into a small footprint.



First floor.

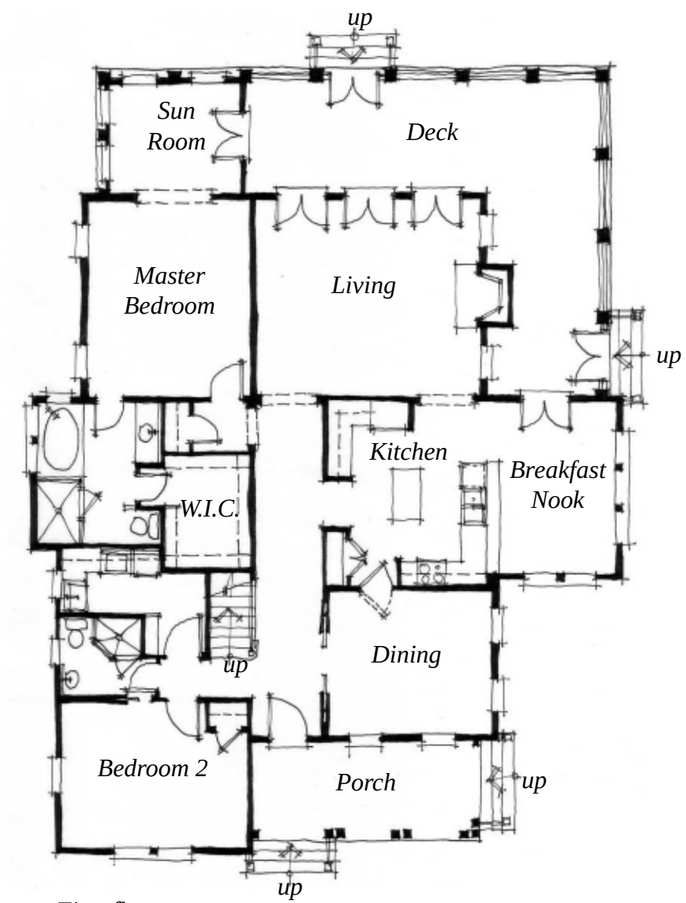


Second floor.

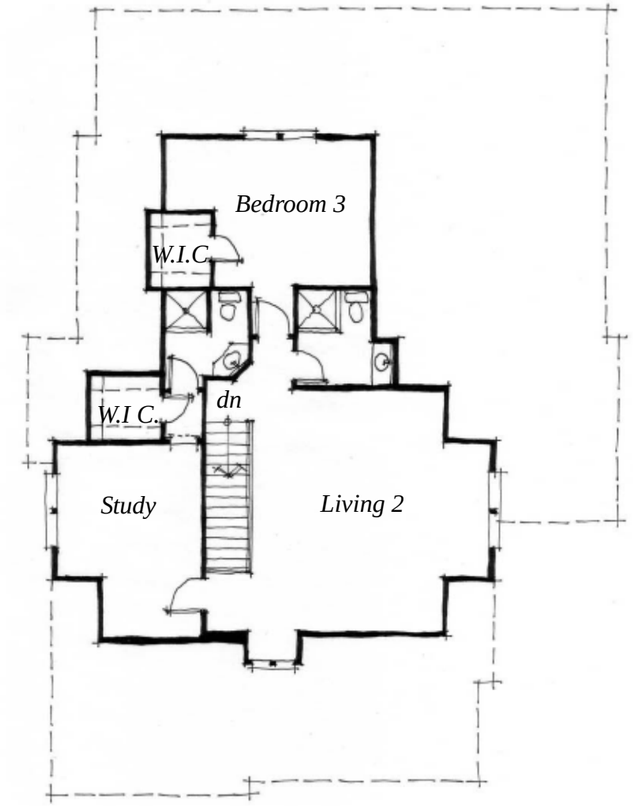
THE SMALL/MEDIUM HOUSE

NEIGHBORHOOD GENERAL TYPES

On the larger and more elegant end of the spectrum, this regional favorite features a large front porch, simple but elegant massing and detailing, and a deceptively accomodating and versatile floor plan.



First floor.

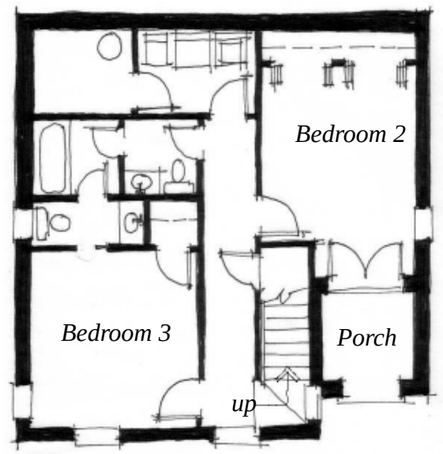


Second floor.

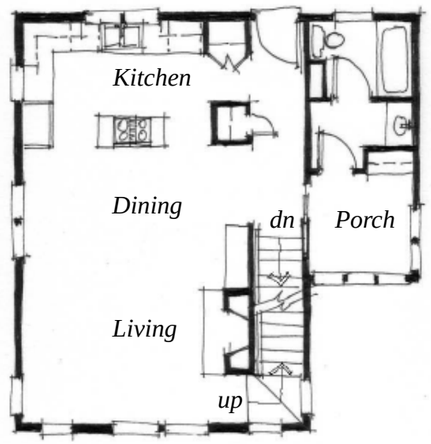
THE RIDGE HOUSE

The Ridge House represents an unusual house type uniquely suited for the type of heavily wooded, steeply slope terrain found near the southern portion of Carothers Crossing. This building type allows the rugged beauty of these natural features to be retained and exploited to the fullest extent, while minimizing the impacts to these special environments.

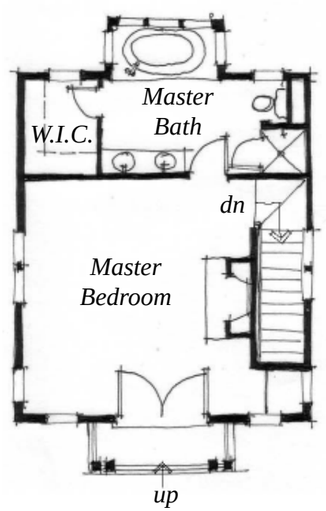
By utilizing a small footprint and building vertically, these houses can accommodate a full range of daily functions and livability in a very small building area, minimizing site disturbances and regrading. The result are homes fitted seamlessly into their natural setting, enhancing both the setting and the home.



First floor.



Second floor.



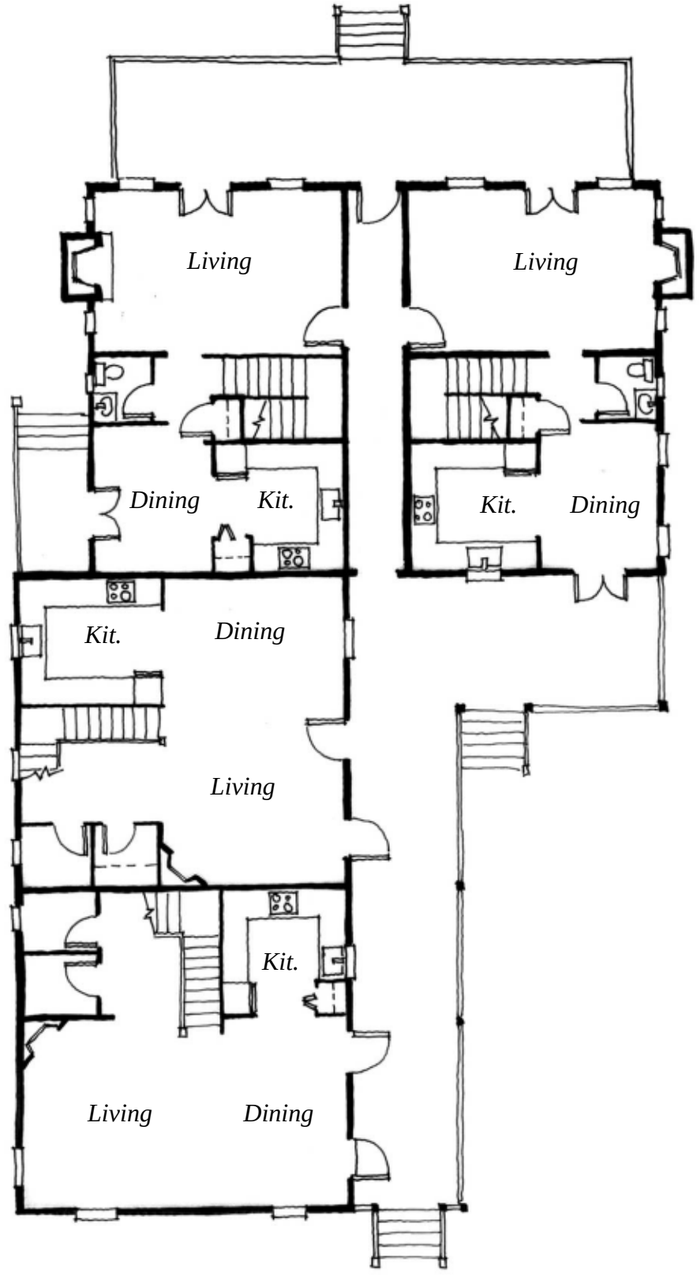
Third floor.

THE VILLA

NEIGHBORHOOD GENERAL TYPES

The Villa Types are, essentially, Mansion (or large house) types that are configured for multiple units, for either long-term rental or ownership. The advantages of this model are many, but it is a unit type that is primarily aimed at the discerning housing consumer who wants the look and feel of a large luxurious house, without all of the headache of maintaining it.

This is a house type that makes a good transition between the Neighborhood General and Neighborhood Edge zones, as its occupants are generally more interested in the large house appeal than they are with the large lot that typically goes with it, a feature more commonly associated with the Manor houses located at the very edge of the neighborhoods. However, this house type usually does have a deeper front yard setback, along with more articulated massing and architectural features, and with a large front porch, shared by all of the units. Lot dimensions should be sufficient to accommodate parking for at least one car for each unit, plus on-street parking, although these units are mostly favored by empty nesters who typically require less parking than either the true Manor home buyers, or mid-range unit types favored by families.

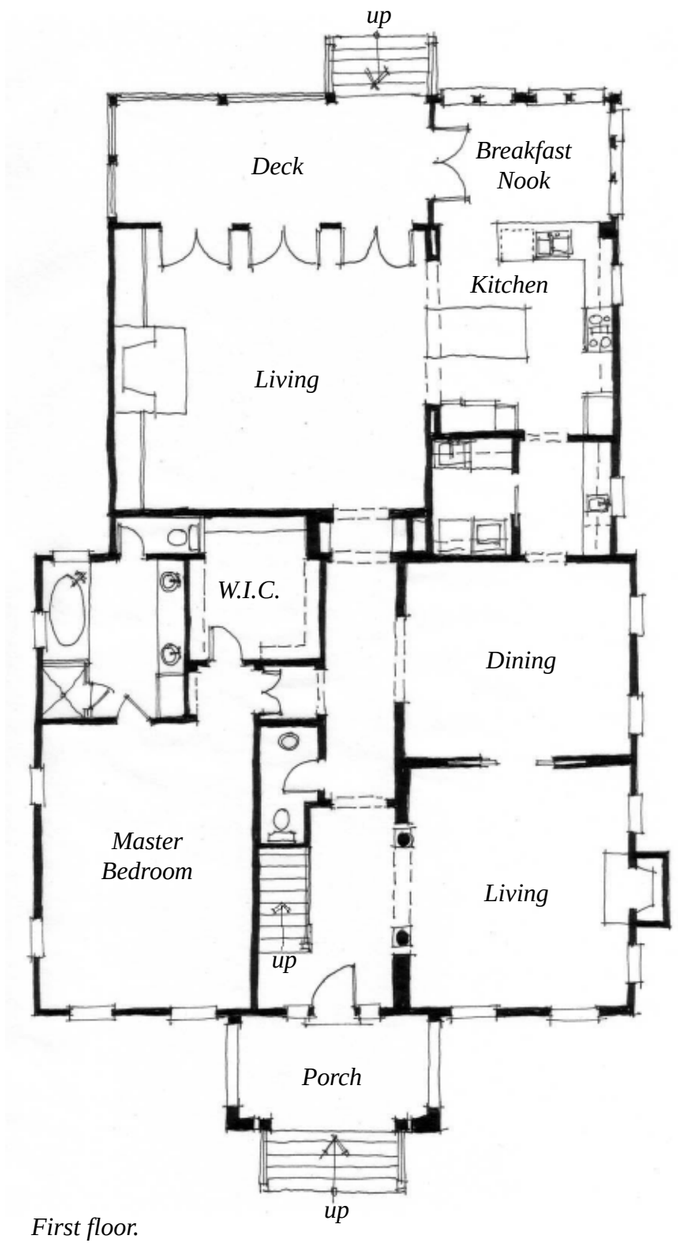


THE MANSION

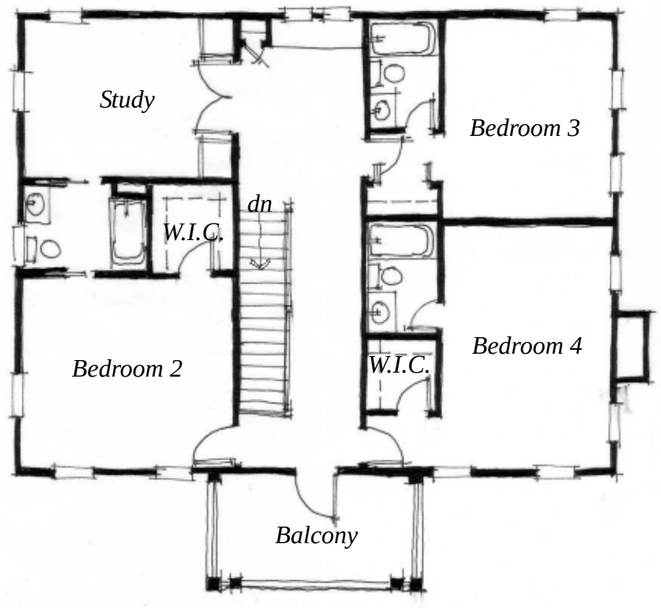
NEIGHBORHOOD GENERAL TYPES

The Mansion Type is similar to the Villa except, of course, that they are a true single family detached, large house/lot type. As such, they are the archtypal Neighborhood Edge house, designed for large lots, with deep front yard setbacks, and lushly landscaped lawns with meandering walkways. Depending on the lot width, and the rear lot condition, this house type may be have either front or rear-loaded garages and/or carriage house, though if they are front-loaded, the garage is still set back from the front facade of the house, or even still set at the rear of the property, with a side drive providing access from the street.

The massing composition can be either symmetrical and formal, or highly articulated and asymmetrical. These house types often have much higher floor to floor dimensions, resulting in a larger, taller house, than typically found in the Neighborhood General, with steeper pitched, occupied roofs, the norm. Ideally, given their size and prominence, these houses are rendered in a recognized style of architecture, with close attention paid to details and proportions. More expensive building materials such as brick, stucco or stone, are typical, but wood siding is still not uncommon.



First floor.

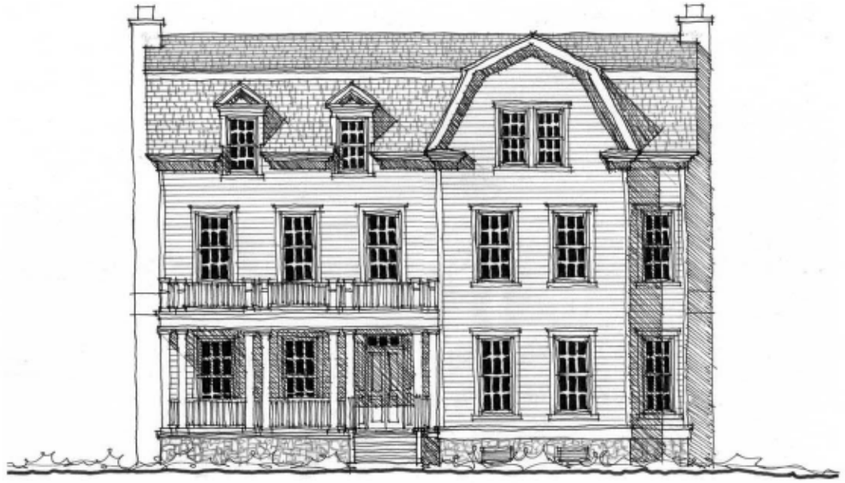


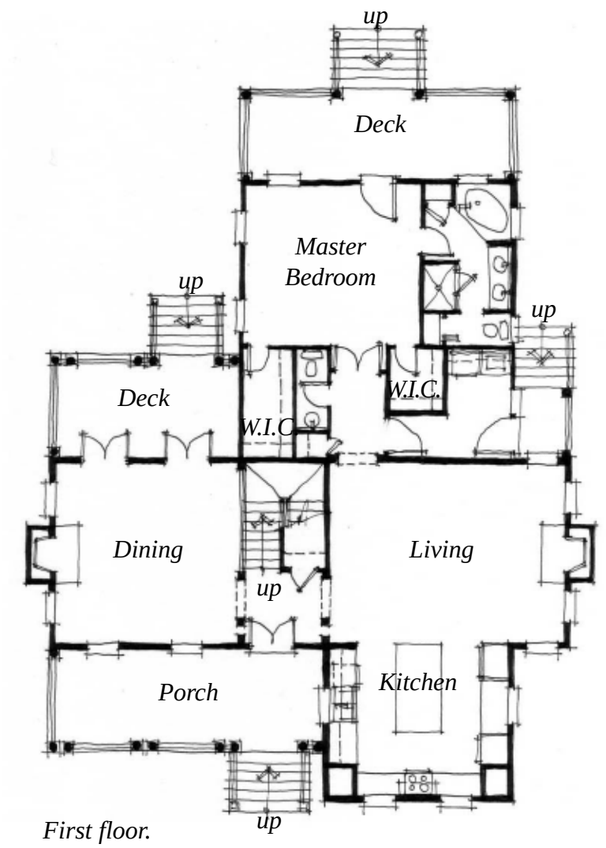
Second floor.

THE MANSION

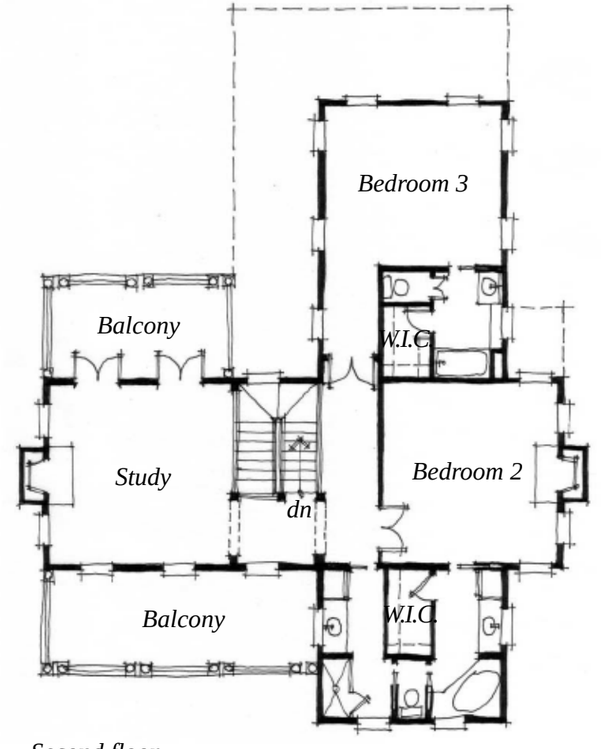
NEIGHBORHOOD GENERAL TYPES

This large Mansion type in Nashville is an excellent example of a Dutch Colonial style home set on a large lot in a Neighborhood Edge zone. Though a traditional looking house in a recognized style, it nonetheless boasts a very contempary and marketable floorplan.





First floor.

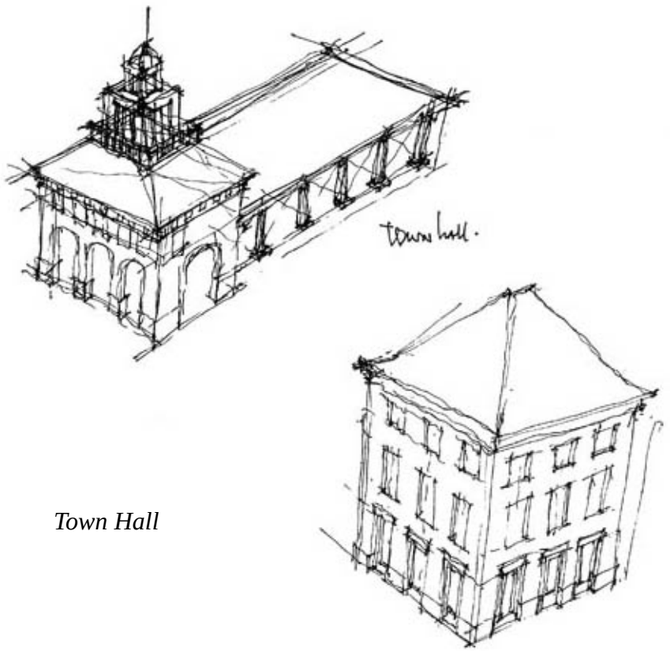


Second floor.

SPECIAL BUILDING TYPES

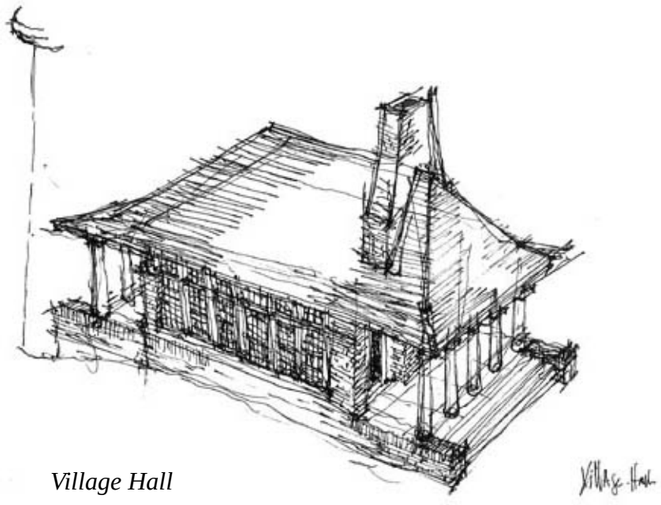
Special Building Types occupy sites reserved for special or civic functions, such as churches, fire and/or meeting halls, libraries, post offices, band shells, schools, etc. These sites will be identified as such on the Master Plan, and may be based upon unique natural attributes, such as high points, overlooks, etc., or significant locations such as major boulevard or avenue termini, squares or greens, within the urban fabric.

There are often no specific uses associated with these sites at the time that they are so designated, rather, they are set aside in anticipation that their unique qualities will inspire an equally compelling building or use, as described above. As such these sketches represent the range of opportunities, in function and in form, inherent in such sites. While there will be no specific architectural code parameters governing the design of civic buildings, all designs shall be subject to approval by the Town Architect and regulatory officials.

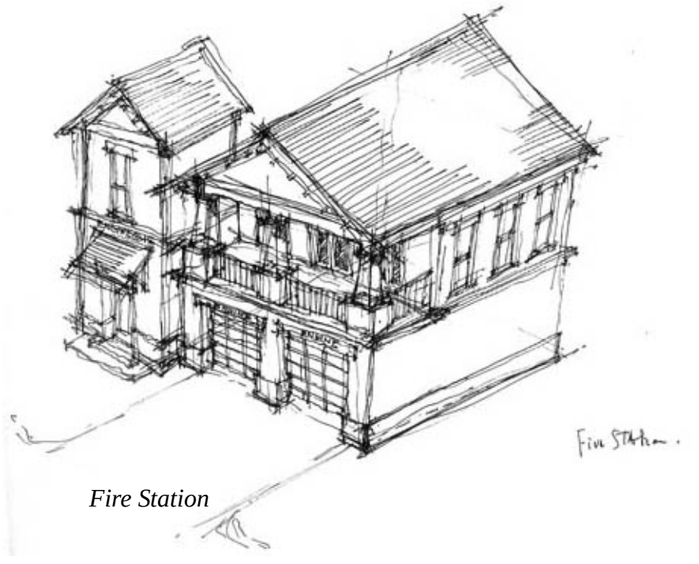


Town Hall

Civic building

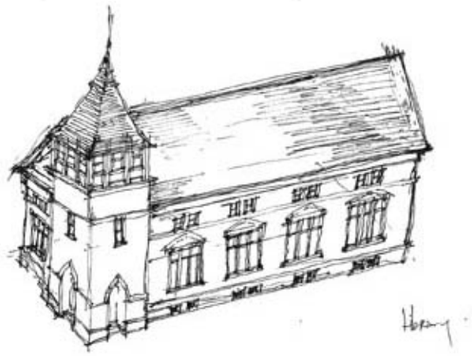


Village Hall



Fire Station

SPECIAL BUILDING TYPES



Church

Memorial Pavillion

Village Church

Spring House Pavillion

THE STREET NETWORK

Street Network Plan

The Carothers Crossing Street Network Plan represents the desire to balance the traditional role that streets play within a neighborhood setting, against the larger needs of the regional community, in terms of vehicular mobility.

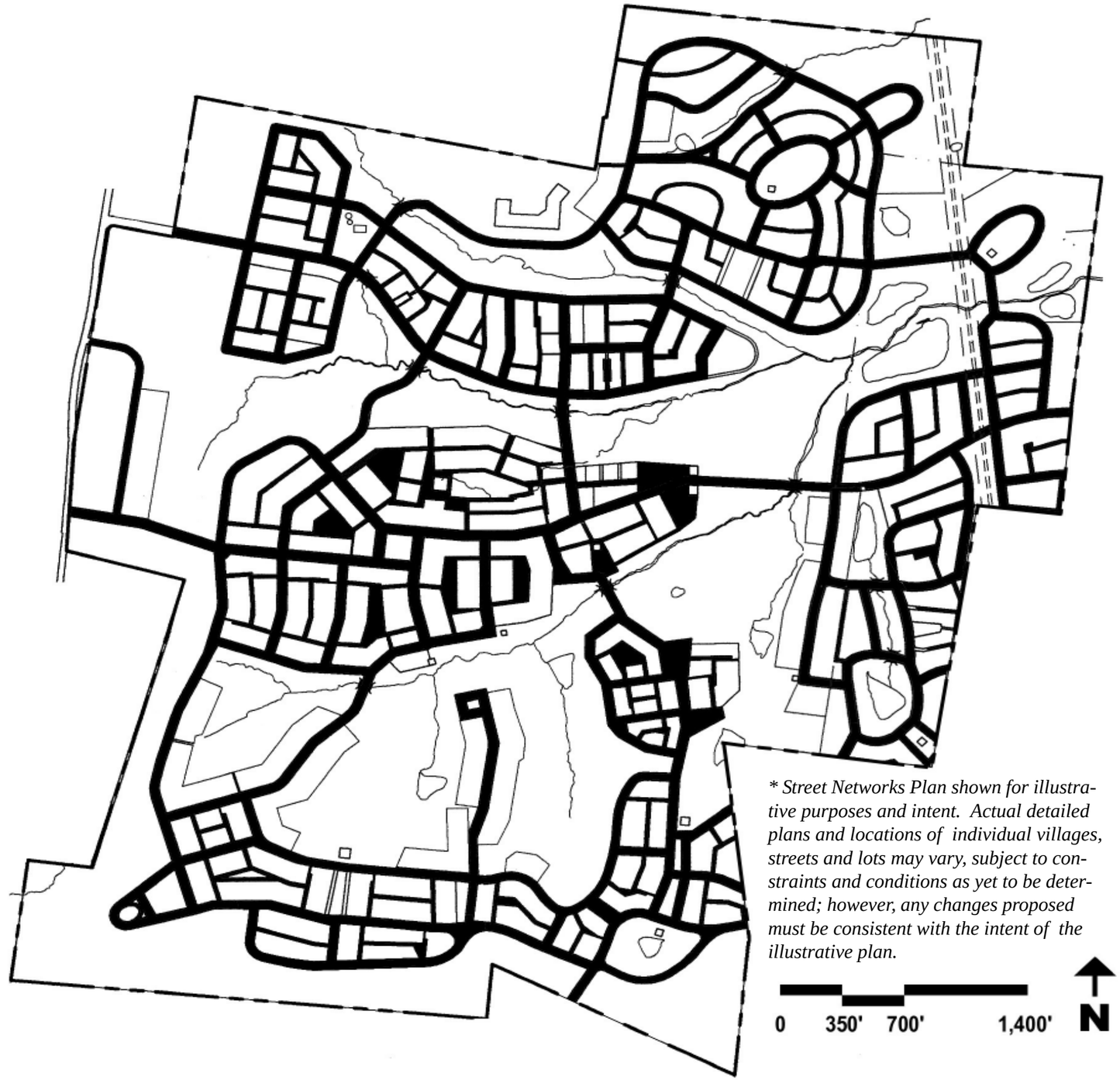
The underlying neighborhood structure and internal street network of Carothers Crossing provides an ideal model for context-determined thoroughfare design. In this model, each individual street segment is optimized around its specific purpose within the overall structure of traditional neighborhood design, in which the pedestrian is provided an equal consideration and prominence as are the vehicular users of the street environment.

In general, the streets in Carothers Crossing comprise an interconnected network of thoroughfare types which fall into three general categories: local streets that provide access to individual lots within each neighborhood; intra-neighborhood connectors – streets or roads that provide the primary connections between the four neighborhoods within Carothers Crossing; and inter-neighborhood routes and networks, placing Carothers Crossing within, and connecting it to, the broader regional context. This latter category also links the project to the external regional road network, allowing regional vehicular traffic to safely traverse the project site, while also providing community access to the many amenities, public and private, located within the Carothers Crossing neighborhoods.

The thoroughfare system also provides a significant portion of the community's public open space: establishing the urban design character of the project, and providing the majority of the pedestrian connectivity, in a desirable and attractive network designed to encourage pedestrian activity. Overall, the local streets are configured to promote a range of mobility options within a safe, pedestrian-friendly network of small blocks and low-speed streets.

The streets are able to effectively induce low speed conditions, as appropriate, through proven speed reducing strategies such as reduced travelway widths, the inclusion of on-street parking, and short and/or frequently deflected block lengths. These design characteristics also minimize the reaction time necessary for drivers to avoid incidents by virtue of the resulting more modest travel speeds, Thereby promoting overall pedestrian safety throughout the community.

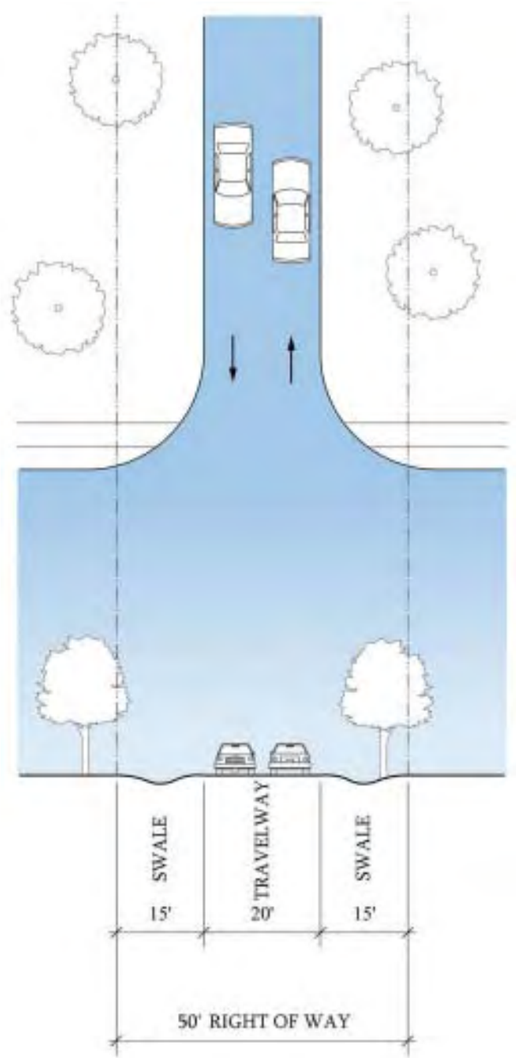
Walkability is further encouraged through the use of additional features that enhance walking environment. These included the extensive and comprehensive use of street trees, wide sidewalks, and a well articulated "street room," clearly defined by homes and buildings set close to the sidewalk with an array of welcoming storefronts, porches and bays, and other architectural features.



** Street Networks Plan shown for illustrative purposes and intent. Actual detailed plans and locations of individual villages, streets and lots may vary, subject to constraints and conditions as yet to be determined; however, any changes proposed must be consistent with the intent of the illustrative plan.*

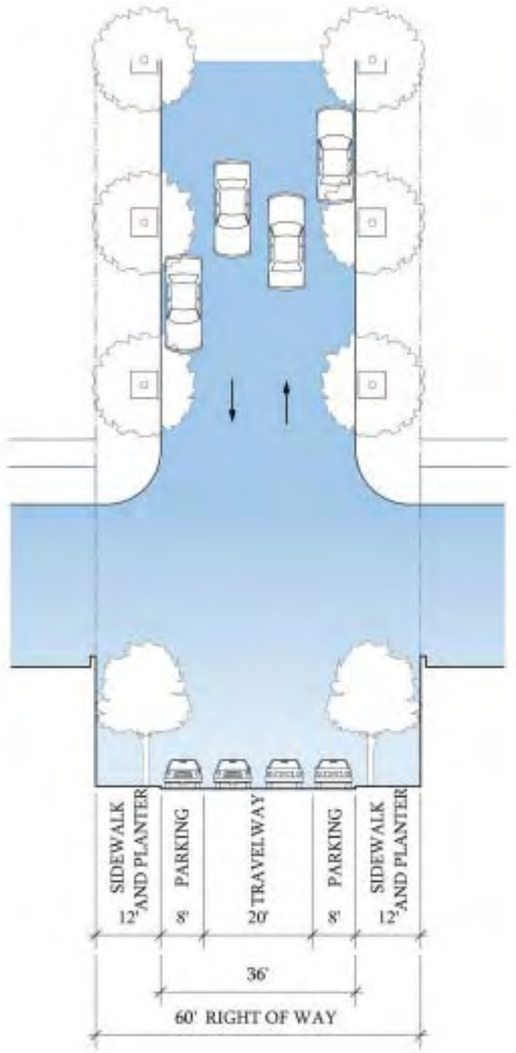
0 350' 700' 1,400' N

STREET TYPES



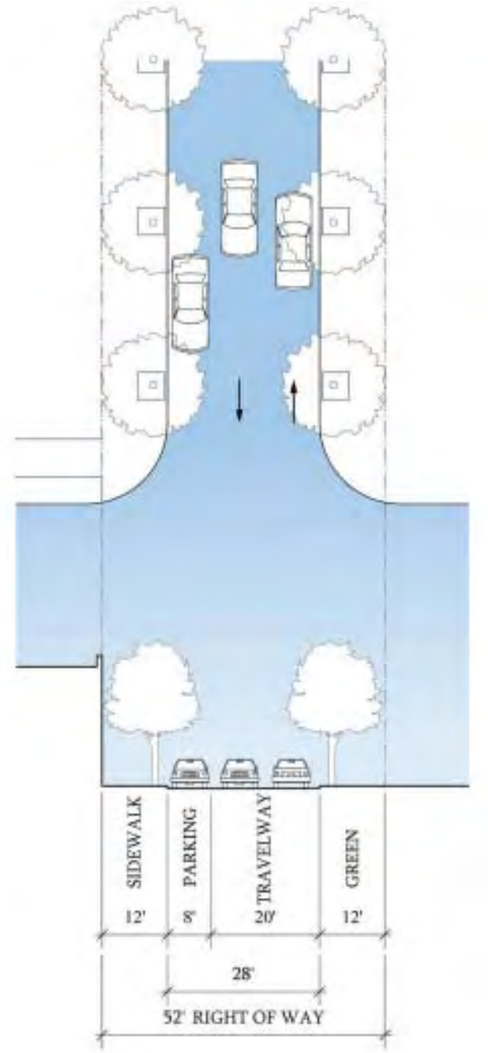
ROAD - 20' TRAVELWAY (A: RD 50-20)

MOVEMENT.....	free
ROW WIDTH.....	50'
TRAVEL LANES.....	2 in 20'
PARKING.....	none
CURB TYPE.....	none
CURB RADIUS	20'
SIDEWALK WIDTH.....	none
PLANTER WIDTH.....	15'
PLANTER TYPE.....	continuous



MAIN STREET (B: MS 60-36)

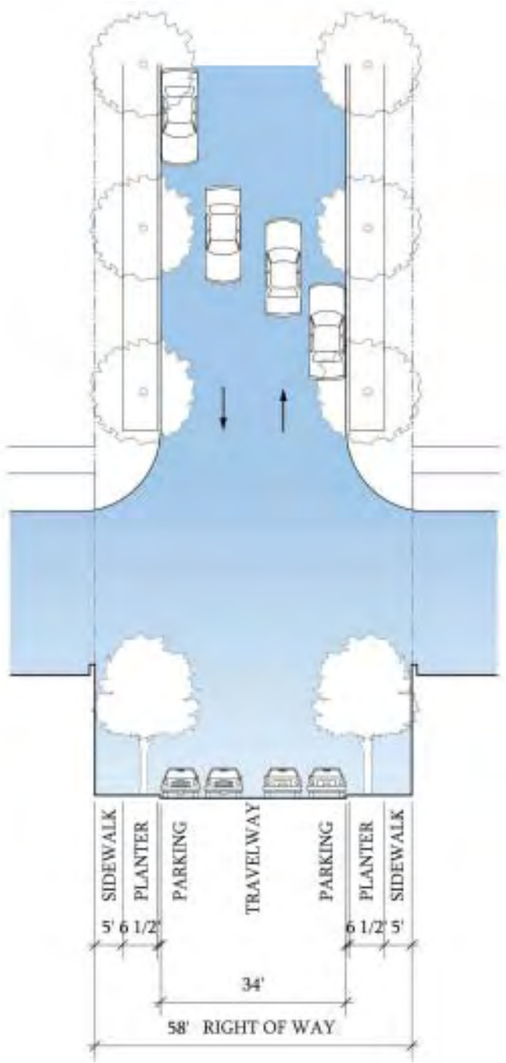
MOVEMENT.....	free/slow
ROW WIDTH.....	60'
TRAVEL LANES.....	2 in 20'
PARKING.....	both sides striped
CURB TYPE.....	vertical
CURB RADIUS	10'
SIDEWALK WIDTH.....	12'
PLANTER WIDTH.....	5'x5'
PLANTER TYPE.....	grates



TOWN SQUARE (C: TS 52-28)

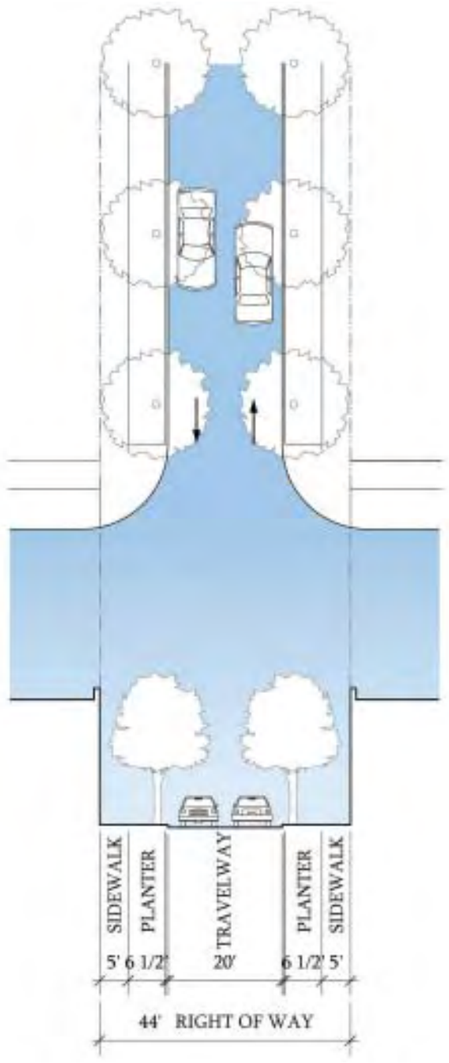
MOVEMENT.....	free
ROW WIDTH.....	52'
TRAVEL LANES.....	2 in 20'
PARKING.....	one side, striped
CURB TYPE.....	vertical
CURB RADIUS	15'
SIDEWALK WIDTH.....	12'
PLANTER WIDTH.....	5'x5
PLANTER TYPE.....	grates

STREET TYPES



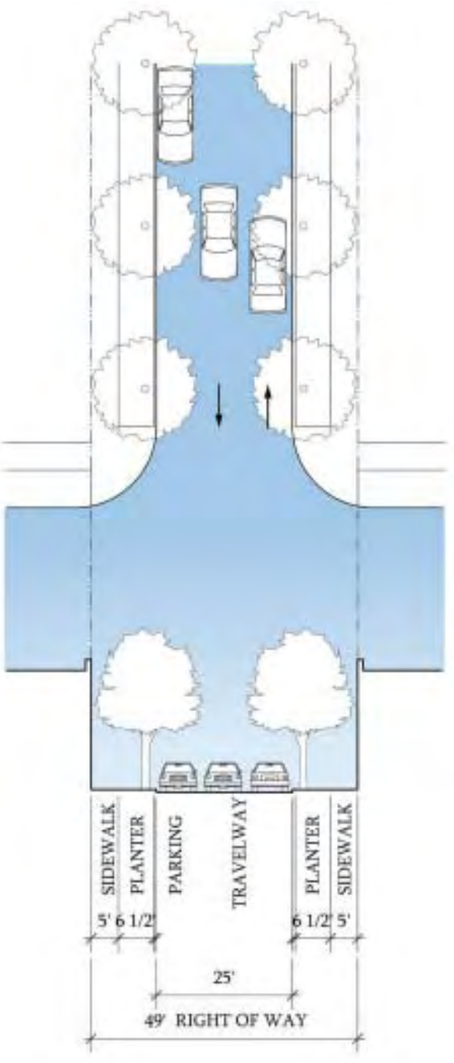
STREET (D: ST 58-34)

MOVEMENT.....	slow
ROW WIDTH.....	58’
TRAVEL LANES.....	2 in 20’
PARKING.....	both sides, not striped
CURB TYPE.....	vertical
CURB RADIUS	15’
SIDEWALK WIDTH.....	5’
PLANTER WIDTH.....	6.5’
PLANTER TYPE.....	continuous



SHORT STREET (E: ST 44-20)

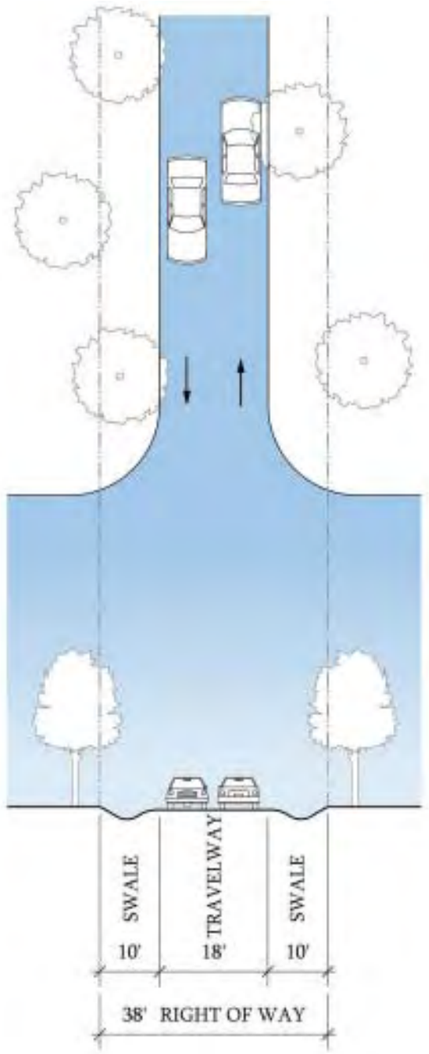
MOVEMENT.....	slow
ROW WIDTH.....	44’
TRAVEL LANES.....	2 in 20’
PARKING.....	none
CURB TYPE.....	vertical
CURB RADIUS	15’
SIDEWALK WIDTH.....	5’
PLANTER WIDTH.....	6.5’
PLANTER TYPE.....	continuous



SMALL STREET (F: ST 49-25)

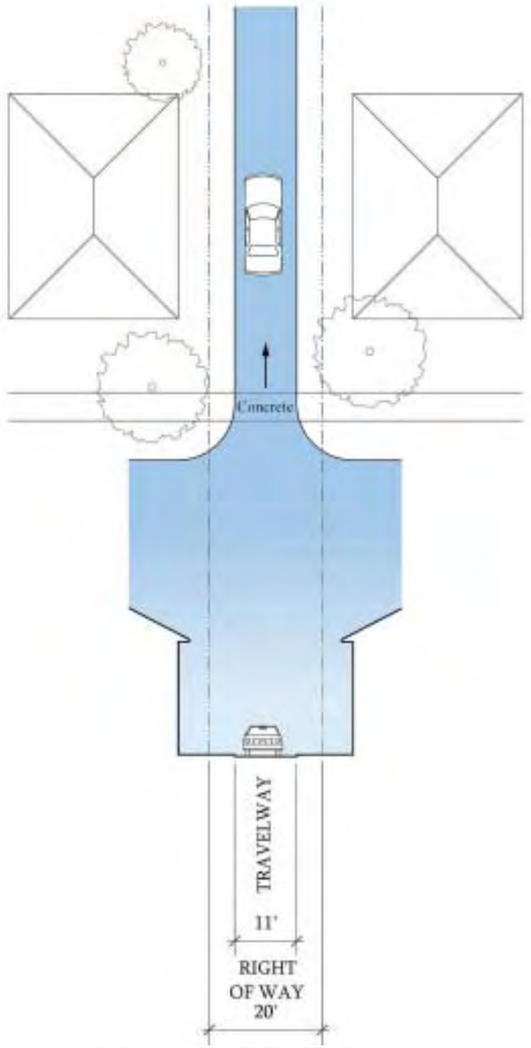
MOVEMENT.....	free
ROW WIDTH.....	49’
TRAVEL- LANES.....	2 in 18’
PARKING.....	one side, not striped
CURB TYPE.....	vertical
CURB RADIUS	15’
SIDEWALK WIDTH.....	5’
PLANTER WIDTH.....	6.5’
PLANTER TYPE.....	continuous

STREET TYPES



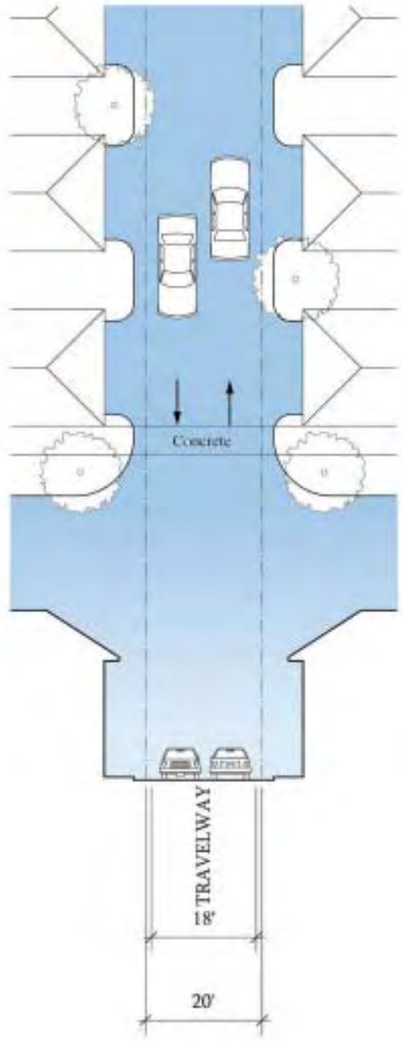
ROAD - 18' TRAVELWAY (G: RD 38-18)

MOVEMENT/.....	free
ROW WIDTH.....	38'
TRAVEL LANES.....	2 in 18'
PARKING.....	none
CURB TYPE.....	none
CURB RADIUS	15'
SIDEWALK WIDTH.....	none
PLANTER WIDTH.....	10'
PLANTER TYPE.....	continuous



REAR LANE (H: RL 20-11)

MOVEMENT.....	slow
ROW WIDTH.....	20'
TRAVEL LANES.....	11'
PARKING.....	none
CURB TYPE.....	none
CURB RADIUS	per plan
SIDEWALK WIDTH.....	none
PLANTER WIDTH.....	per plan
PLANTER TYPE.....	continuous



ALLEY (L: METRO ST'D MODIFIED)

MOVEMENT.....	slow
ROW WIDTH.....	20'
TRAVEL LANES.....	1 shared: 18'
PARKING.....	none
CURB TYPE.....	none
CURB RADIUS	per plans
SIDEWALK WIDTH.....	none
PLANTER WIDTH.....	none
PLANTER TYPE.....	between driveways

CAROTHERS CROSSING URBAN DESIGN OVERLAY

Ordinance No. BL2006-1295 Approved on January 17, 2007

Changes to the BUILDING TYPE REGULATING MATRIX (p. 35)

Add "Bungalow Ct." to "Neighborhood Center"

Changes to the URBAN CODE (pp. 38-41)

Revisions Relative to All Neighborhood Zones (pp. 38-41)

1. Under the heading "Building Placement and Height" and "1. Building Placement:"

   Delete "Lot Area"

2. Under the heading "Building Frontage and Profile" and "1. Encroachments Allowed:"

   Add "steps" and "chimneys"

   Add ",with the exception of chimneys" to the sentence "Maximum encroachment height is 2 stories."

3. At the end of each Neighborhood Zone section:

   Add: GENERAL Variations to this UDO and these standards may be approved by the Planning Commission where physical site constraints exist, provided that the end result meets the design intent of this UDO. Physical constraints include, but are not limited to, topography, mature vegetation, and other sensitive environmental features.

Revisions Relative to Town Center and Neighborhood Center Zones (pp. 38 & 39)

1. Under the heading "Parking and Vehicular Access" and "1. Parking Requirements:"

   Replace rear setback for on-site parking ("C.") with the following: "0' min.., 5' or 15' and greater if garage doors open into an alley or service lane."

Revisions Relative to Neighborhood Center Zone (p. 39)

1. under the heading "Building Frontage and Profile" and "2. Frontage Types Allowed"

   Add "G. Porch and Fence"

Revisions Relative to Neighborhood General and Neighborhood Edge Zones (pp. 40 & 41)

1. Under the heading "Parking and Vehicular Access" and "1. Parking Requirements:"

Replace rear setback for on-site parking ("C.") with the following: "0′ min., 5′ or 15′ and greater if garage doors open into an alley or service lane."

Revisions Relative to Neighborhood Edge Zone (p. 41)

1. ~~Under the heading "Building Placement and Height" and "2. Height:"~~

   Revise "Principal Building" to: "3 stories max. Occupied basements and occupied attics shall not be counted as a story."

2. Under the heading "Parking and Vehicular Access" and "1. Parking Requirements:"

   Replace front setback for on-site parking ("A.") with the following: "front bldg. setback"

CAROTHERS CROSSING URBAN DESIGN OVERLAY

Ordinance No. BL2006-1295 Approved on January 17, 2007

Changes to the ARCHITECTURAL REGULATIONS (pp. 36-37)

Replace the "Architectural Regulations" with the following:

GENERAL

1. A Design Review Committee and/or a Town Architect position shall be established to oversee implementation of the concept plan.
2. Development within the UDO shall be exempt from the "visibility triangle" provisions set forth in Section 17.20.180 of the zoning ordinance.
3. Secondary Dwellings, either attached or detached, are permitted with a maximum habitable area of 600 sq. ft.
4. Buildings on Corner Lots shall address both streets, with architectural features and massing elements, including porches, windows, bays, or other façade enhancements.
5. The width of any unbroken street-facing façade plane shall not exceed 30 ft. without being interrupted by another material, recess, projection, or other articulation.
6. For buildings on interior lots, standards related to Walls and Elements, as described below, shall apply to the front façade and the side facades to a general depth of 20 ft.
7. Building materials shall be one color per material used. An accent color, for items such as doors, pickets, trim, and shutters may be used subject to approval from the Town Architect.
8. No material shall emulate another material, unless specifically approved otherwise by the Town Architect.
9. Parking lots shall be screened from the street to a minimum height of three feet by walls, berms, landscaping, or a combination of these.
10. Parking structure facades that face public streets, except service lanes, shall be designed to look similar to buildings having other types of uses.
11. Parking structures that front primary public streets, excluding service lanes, shall have a liner building at the ground floor, at a minimum, in order to screen the parking structure from the right-of-way except at the point of vehicular access.
12. Drive-throughs shall be located to the rear of buildings.
13. Towers, where allowed, play a civic role. Their positions on private lots shall intersect the centerline axis of the view to which they respond, and may encroach into the front set back if necessary. A tower consists of a structure less that 50' in height which protrudes one story above the eave of the principle structure.

14. Utilities are to be located underground or in service lanes, and associated equipment should not be located within planting strips, sidewalks, or public open spaces to the extent possible.
15. Outdoor equipment, such as HVAC equipment, meters or panels, satellite dishes, permanent grills (except grills located in public open spaces), and permanent play equipment shall be placed on the roof, in the rear or side of the building, or otherwise screened from the street. Rooftop equipment shall be screened by parapets or other suitable screening, from abutting buildings and/or streets.
16. The following shall be subject to approval from the Town Architect: colors, brick and mortar colors, awning colors and patterns, and fence and wall designs.
17. The following shall not be permitted unless approved by the Town Architect on a case-by-case basis: panelized primary wall materials, pre-cast moldings or wall perforations, stucco-covered foam moldings, stained glass curved windows, exterior fluorescent lights, exterior flood lights, above ground pools (except those of the inflatable variety), direct vent fireplaces and skylights visible from the street.

WALLS

MATERIALS

1. Building walls shall be finished with stucco, stone, brick, wood siding, or fiber cement siding. Siding shall be lap, shiplap, drop, board and batten, or shingle. Smooth siding is preferred. Siding shall be painted or stained.
2. Smooth vertical siding with flush joints and smooth medium density overlay (MDO) plywood is permitted as an accent material in gables, dormers, and bays.
3. Foundation walls shall be finished with stucco, parging, stone, or brick.
4. Retaining walls shall be smooth-finished concrete or finished with stone or brick to be approved by Town Architect.
5. Walls and fences shall generally be constructed of the same materials as the first floor of the primary building. Walls and piers shall be made of brick, stone, parged block, or stuccoed concrete. Walls may be perforated. Fences, including pickets, pales, and boards, shall be made of smooth cedar or pressure-treated wood. Vinyl and composite fencing must be approved by the Town Architect.

CONFIGURATIONS AND TECHNIQUES

1. Building walls shall be built of no more than two materials, excluding accent materials, and shall only change material along a horizontal line at front and side elevations. For example, cedar shingles may be combined with wood siding when the material change occurs horizontally (typical at a floor line), with the heavier material below the lighter.
2. Siding shall be horizontal with the exception of dormer sides, which may be set to match the adjacent roof slope. Siding exposure shall be maximum 8" to the weather.
3. Shingle exposure shall be maximum 8" to the weather. Decorative shingles shall be machine cut with bottom edges aligned.

4. Foundation walls for the primary building, excluding Mixed-use and Live/Work building types, shall be exposed a minimum of 18"above grade.
5. Trim shall have a minimum width of 3 ½ in. Trim shall not exceed 16 in. in width at corners and 6" in width around openings, except at the front door where it may be any size or configuration. Exceptions may be granted by the Town Architect for single structures and for classical detailing.
6. Fences in front yards on adjacent lots shall have different designs, subject to approval by the Town Architect. Where a wall or fence on one property meets a taller or shorter wall on another property, it is the responsibility of the latter designer to transition his wall or fence to the height of the former.

ELEMENTS

MATERIALS

1. Chimneys shall be finished with stucco or brick. Ventless fireplaces must be approved by the Town Architect.
2. Piers and arches shall be finished with brick, stone, or stucco.
3. Porch railings shall be made of wood, composite, or metal while porch floors and posts may be wood, composite, concrete or masonry. Porches may be enclosed with glass or screens, however, glass enclosures are not permitted at frontages. Porch ceilings shall be wood that is painted or stained. Exposed joists shall be painted or stained.
4. Stoops in front and side yards shall be made of wood, brick, stone or concrete.
5. Decks shall be made of composite or pressure-treated wood that is painted or stained with the exception of walking surfaces, which may be left natural.
6. Awnings shall have a metal structure covered with canvas or synthetic canvas.
7. Metal Elements shall be natural colored galvanized steel, anodized or ESP aluminum, or otherwise have a factory-applied finish.
8. Wood Elements must be painted or sealed with an opaque or semi-solid stain, walking surfaces must be solid concrete or brick.

CONFIGURATIONS & TECHNIQUES

1. Chimneys shall be a min 2:1 proportion in plan at the base and capped. Flues shall be no taller than required by the building code. Fireplace enclosures and chimneys shall extend to the ground.
2. Piers shall be no less than 12 in. x 12 in.
3. Arcades, colonnades, and breezeways shall generally have square or vertically proportioned openings, with the exception of Craftsman style houses, which may have horizontally proportioned openings.
4. Screened Porches shall have screens framed in wood installed behind framed railings.

5. Posts shall be no less than 6 in. x 6in. Posts and columns shall generally include a base, shaft and capital that are appropriate to the architectural style of the principal building.
6. The base of posts, columns, and pedestals shall generally align with the face of the foundation wall directly below.
7. Porch beam faces shall generally align with the face of the top of the column.
8. Railings shall have top and bottom rails. Top rails shall be centered on the boards or pickets. The openings between the members shall be a minimum of 1 in. and a maximum of 4 in.
9. Balconies shall be structurally supported by brackets or tapered beams.
10. Decks shall be located only in rear or side yards and not easily visible from streets or paths.
11. Awnings shall be rectangular in shape with straight edges. Awnings may have side panels but shall not have a bottom soffit panel. Awnings shall not be back-lit.

ROOFS

MATERIALS

1. Roofs shall be clad in one of the following materials: dimensional asphalt shingles, wood shingles, galvanized steel, metal with factory-applied finish, or copper.
2. Gutters and Downspouts, when used, shall be made of galvanized steel, copper (not copper coated), anodized aluminum, or aluminum with factory-applied finish. Metal chains may be used in lieu of downspouts. Downspouts shall be placed at the corner of the building least visible from nearby streets. Splash blocks shall be made of concrete, brick or gravel.
3. Copper roofs, flashing, gutters and downspouts shall be allowed to age naturally (not painted) or sealed.

CONFIGURATIONS & TECHNIQUES

1. Principal roofs on all freestanding buildings shall be a symmetrical hip or gable, with the principle ridge either aligned or perpendicular to the frontage and with a slope of 6:12 to 14:12. Where garages meet in a party wall condition, gabled ends are allowed.
2. Ancillary roofs (attached to walls or roofs) may be hip or shed with a slope no less than 2:12. Roofs on towers shall be flat or have a slope which matches the primary structure.
3. Flat roofs and parapets shall be permitted in the Town Center and Neighborhood Center Zones, and are encouraged to reflect vernacular conditions as found in regional vernacular and formal styles.
4. Eaves shall generally be continuous, unless overhanging a balcony or porch. Eaves on the principal building shall have a maximum overhang of 40 in. Eaves on outbuildings

shall generally match the eaves of the principal building but may be less if the eaves of the principal building are 30 in. or greater.

5. Eave returns on gable ends shall be detailed appropriately so that the fascia turns around the corner and terminates into the wall. The eave return cap shall have a maximum slope of 2:12.
6. Gutters shall be square or half-round. Downspouts shall be round. Where extending over adjacent property line(s), sidewalks, or footpaths, gutter(s) are required.
7. Dormers should light attic spaces. Dormers shall be recessed or placed flush with the wall below and a minimum of 3 ft. from side building walls. Dormers shall have shed roofs with a minimum slope of 2:12 or hipped or gable roofs with a slope to match the principal structure. Eyebrow dormers are also permitted.
8. Single-window dormers should be square or vertically-proportioned. Dormer jambs shall generally be constructed with a solid casing.
9. Roof Penetrations, except stucco or brick chimneys, shall be placed so as not to be easily visible from streets or paths. Roof penetrations, except stucco or brick chimneys, shall be painted to match the color of the roof, except those of metal which may be left unpainted.

OPENINGS

MATERIALS

1. Windows shall be wood (painted or stained) or aluminum-clad wood and shall be glazed with clear glass. All windows and doors to be approved by the Town Architect.
2. Doors (including garage doors) shall be wood, composite, or metal. Doors shall be painted or stained. All windows and doors to be approved by Town Architect.
3. Storefronts shall be wood or metal. Metal storefronts should have a factory-applied finish.
4. Shutters shall be wood or composite.
5. Security Doors and Window Grilles must be approved by Town Architect.

CONFIGURATIONS & TECHNIQUES

1. Wall openings in adjacent buildings shall generally not directly face each other to give privacy to the occupants. On adjacent lots, the building built second will defer to the building built first with respect to positioning of windows.
2. A ground floor commercial use must have a minimum of 40% of its front facade below the cornice as clear or lightly tinted windows or shopfront, such as to provide a clear view of the building's interior. Additional floors shall have a minimum of 25% glazing. The first floor glazed calculation shall be based on the facade area measured to a height of 14 feet from the average, adjacent grade for Mixed-Use buildings and 12 feet from the average, adjacent grade for Live/Work buildings.

3. Windows shall be square or vertically proportioned. Windows should be operable with the exception of transoms and decorative windows. Transoms may be oriented horizontally with panes which match other opening configurations. Decorative windows and windows with special shapes must be approved by the Town Architect.
4. Multiple windows in the same rough opening shall be separated by a 3 in. min. post.
5. Window muntins are encouraged and shall be true divided light or fixed on the interior and exterior surfaces. Window muntins shall create panels of square or vertical proportion and be generally consistent for all windows.
6. Bay windows shall extend to grade or be supported by brackets or tapered beams.
7. Windows in masonry veneer walls shall include brick moulding.
8. Masonry openings shall include appropriate masonry sills and lintels or jack arches. The height of lintels should be no less than 1/5 the width of the opening. Corner brick in jack arches shall be set between 60 and 70 degrees.
9. The distance between the top of the window casing, arch, or lintel and bottom of the frieze shall generally be a minimum of 8 in.
10. Front doors, including an entry door to a porch shall be located on the primary frontage. For houses on corners, the principal entry shall be located on the side of the house facing the larger street. Paired main entry doors shall have a maximum finished opening of 4 ft. with no inactive leaf.
11. Doors shall be hinged. Doors, except garage doors, shall be constructed of planks or raised panels (not flush with applied rim) which express the construction technique.
12. Garage doors facing a street shall have a maximum width of 9 ft. The style of garage doors facing a street must be approved by the Town Architect.
13. Driveway Gates shall be in-swinging and have a maximum opening width of 12 ft.
14. Storefront sill heights shall be a maximum of 3 ft. and the minimum head height shall be 10 ft.
15. Shutters shall be sized and shaped to match the openings. Shutters shall be operable or have the appearance of operability including shutter hardware.
16. Stucco trim articulations must be approved by the Town Architect.

SIGNAGE

1. Projecting Building Signs are defined as signs extending perpendicular from a facade. They shall be a minimum of seven (7) feet above grade and a maximum 14 feet above grade. The maximum display surface area per sign face shall be 20 square feet.
2. Projecting Building Signs, 2nd Story and above, are defined as signs extending perpendicular from a facade. They shall be a minimum of 15 feet above grade and a maximum height of one (1) foot below the cornice or eave line. The maximum display surface area per sign face shall be 30 square feet.

3. Front Awning Signs are defined as signs with letters or logos painted, silk screened, or stitched directly onto a building awning. They shall be a minimum height of seven (7) feet above grade and a maximum of 14 feet above grade.
4. The maximum display surface area per sign face shall be 50% of the surface area of the awning in the same plane.
5. Side Awning Signs shall be treated the same as Projecting Building signs.
6. Wall Mounted Building Signs are defined as signs mounted directly on a building facade. They shall be a minimum height of seven (7) feet above grade and a maximum of one (1) foot below the cornice or eave line. The maximum display surface area per sign face shall be 40 square feet or five (5) percent of the building facade wall facing the same public street, whichever is less.
7. Object Signs are defined as two or three dimensional signs replicating an object associated with a business. They shall be a minimum height of seven (7) feet above grade and a maximum of 14 feet above grade. The maximum display surface area per sign face shall be 27 cubic feet.
8. In addition to signs prohibited in the base zoning district, on-premise temporary signs, pole signs, billboards, and ground mounted commercial signs in a commercially zoned area shall not be permitted, and no permitted signs shall extend above an eave line or parapet.
9. Lighted Signs shall be either spotlighted, externally lit, or back lit with a diffused light source.
10. Signs other than those on windows, shall be placed so as to not obscure key architectural features or door or window openings.

FRONTAGE TYPES

The following shall be defined as reference for the frontage types allowed in the four Neighborhood Zones as indicated in the Urban Code.

1. Forecourt: A facade is aligned close to the frontage line and a portion of it is set back. The forecourt thus created is suitable for gardens, vehicular drop-offs, and utility off-loading. This type should be used sparingly. Trees within the forecourt should be placed to have their canopies overhanging the sidewalks.
2. Stoop: A facade is aligned close to the frontage line with the ground story elevated from the sidewalk securing privacy for the windows. This type is suitable for ground floor residential uses at short setbacks with rowhouses apartment buildings.
3. Shopfront and Awning: A facade is aligned close to the frontage line with the entrance at sidewalk grade. This type is conventional for retail frontage. It is commonly equipped with a cantilevered shed roof or awning. The absence of a raised ground story precludes residential use on the ground floor.
4. Gallery and Arcade: A facade of a building or an attached collonade. The building overlaps the sidewalk above while the ground story remains set back at the lot line. This type is

CAROTHERS CROSSING URBAN DESIGN OVERLAY

Ordinance No. BL2006-1295 Approved on January 17, 2007

Changes to the LANDSCAPE REGULATIONS (pp. 28-33)

Replace the "Landscape Regulations" with the following:

STANDARDS FOR THE PUBLIC LANDSCAPE

OPEN SPACE RESTORATION TECHNIQUES AND STRATEGIES

The landscape at Carothers Crossing is currently highly disturbed due to years of extensive livestock farming. Our plan was conceived and designed to preserve a large amount of open space, and it is the intention to restore as much of this open space as reasonably feasible, to its pre-agricultural status.

VISTA MANAGEMENT

Selective vistas and sight line clearing will be utilized along rural roads and paths in order to create optimum landscape effects. Selective clearing of vistas, rural roads, and paths will enable existing trees to be used to their best effects.

MEADOWS AND WOODLANDS

Areas designated as "open meadows" within the Open Space Master Plan will remain in their existing state, or be seeded with native grasses, sedges and wildflowers with mowing generally yearly and biyearly. Selected "open meadows" may be mowed more frequently.

PRESERVATION

Streets have been designed to save the old stands of trees found on site. Street centerlines shall be readjusted as required after the initial survey to save groups of existing trees. Excessive earth movement around trees should be avoided. Trees should be fenced off at least to the dripline in all directions from the main trunk and digging, parking or the movement of construction equipment avoided in cordoned zone around trees to be saved. The soil structure of future planting strips shall also be protected from the deep compaction of heavy equipment whenever possible. The existing grades of public spaces shall remain undisturbed during construction.

PLACEMENT

Regular tree patterns shall be surveyed or measured and staked before planting. Irregular planting in greens or parks shall also be staked before hand with tree containers placed for final adjustment before planting. Staking shall occur a full three days before planting for approval and adjustment by the landscape supervisor.

PLANTING

Nursery trees shall be straight and of uniform shape except natural areas where heights and sizes can vary. Tree height at time of planting should be 10-16 feet high with a minimum caliper of 3 inches. Scarce cultivators or native trees for parks shall be exempt from this height requirement. Trees growing in standard field nurseries shall be dug and transplanted in late fall or winter to limit damage to new feeder root system. Trees shall be covered during transportation with rootballs being kept moist throughout and are to be planted at the most immediate practical time after delivery.

STREET TREES

All thoroughfares shall be planted with a single species of tree except parkways and drives, which feature existing clusters of native trees. All street tree patterns will be indicated on plans and such patterns verified and adjusted in the field. Trees shall be selected for each street that corresponds to its location within the neighborhood zones with attention given to mature height and spread of such trees. Trees will be selected according to availability.

Allee planting shall be parallel rows of trees. Staggered planting shall be diagonal across the roadway. Parkside drives shall be in groups that mimic natural patterns.

All street trees within Town Center shall be located within grates in the sidewalk. Street trees within this zone shall be chosen for their ability to withstand urban conditions, drought tolerance, upright growth habit, and lack of interference with signage and visibility.

RECOMMENDED STREET TREE SPECIES LIST

Small Trees

Amur Maple (Acer ginnala)
Trident Maple (Acer buergeranum)
Eastern Redbud (Cercis Canadensis)
Serviceberry (Amelanchier x grandiflora)
Fringetree (Chionanthus virginicus)
Flowering Dogwood (Cornus florida)
Chinese Pistache (Pistacia chinensis)
Paperbark Maple (Acer griseum)

Large Trees

Yellowwood (Cladrastis lutea)
American Hophornbeam (Ostrya virginiana)
European Hornbeam (Carpinus betulus)
Lacebark Elm (Ulmus parviflora)
Red Maple (Acer rubrum)

Thornless Honeylocust (Gledetsia triacanthos inermis)
Frontier Elm (Ulmus carpinifolia x)
Blackgum (Nyssa sylvatica)
Ginkgo (Ginkgo biloba) male species
Sugar Maple (Acer saccharum)
American Beech (Fagus grandifolia)
Green Ash (Fraxinus pennsylvanica lanceolata)
White Ash (Fraxinus americana)
Kentucky Coffee Tree (Gymnocladus dioicus)
Sweetgum (Liquidambar styraciflua) fruitless
Sycamore (Platanus occidentalis)
London Planetree (Platanus x acerifolia)
Chestnut Oak (Quercus prinus)
Overcup Oak (Quercus lyrata)
Willow Oak (Quercus phellos)
Scarlet Oak (Quercus coccinea)
Southern Red Oak (Quercus falcata)
Northern Red Oak (Quercus rubra)
Shumard Oak (Quercus shumardii)
Sawtooth Oak (Quercus acutissima)
Nuttall Oak (Quercus nuttalli)
Chinkapin Oak (Quercus muehlenbergii)
Japanese Pagoda Tree (Sophora japonica)
American Linden (Tilia americana)
Silver Linden (Tilia tomentosa)
Littleleaf Linden (Tilia cordata)
Tulip Tree (Liriodendron tulipifera)
Japanese Zelkova (Zelkova serrata)

WAIVERS

The landscape buffering and screening standards shall be waived along internal base zone district boundaries within the UDO. Along base zone district boundaries that coincide with the boundary of the UDO, the buffering and screening standards shall be waived within the UDO whenever: a) the abutting base zone district outside the UDO is a non-residential or multi-family district; or b) the abutting base zone district outside the UDO is a single family district and the boundary is in a public right-of-way.

CAROTHERS CROSSING
STANDARDS FOR THE PRIVATE LANDSCAPE

The following standards shall be applied within each Neighborhood Zone in order to appropriately correspond with the surrounding built context.

1. Neighborhood Edge

Neighborhood Edge is intended for lower density residential development composed primarily of single-family dwellings, but this area also includes two-unit rowhouses and multi-dwelling villas, that have a scale and character compatible with the predominant single-family dwellings. Within these Edge areas, copses of wildlife trees help maintain a strong sense of place and prevent the relatively sterile landscape of new developments. Native trees and shrubs composed in naturalistic clusters shall be utilized to blend larger lots into existing vegetated areas and rural meadows. Foundation plantings should also contain native plant materials to the greatest extent possible. Exceptions may be made for buildings whose architectural styles lend themselves to less naturalistic foundation plantings. More formal, symmetrical plantings, including non-native materials may be utilized for corresponding architectural styles and building facades. A minimum of 2 canopy trees shall be planted on each lot within the Neighborhood Edge zone. These trees will extend the canopy of the natural areas and creek edges.

Plant Recommendations

Trees for framing house and for naturalistic clusters:
Acer rubrum Red Maple
Acer saachraum Sugar Maple
Quercus spp. Oak varieties
Fraxinum americana White Ash
Fraxinus Pennsylvanica Green Ash
Fagus americana American Beech
Liriodendron tulipifera Tulip Tree
Ilea opaca American Holly
Oxydendron arboreum Sourwood

ORNAMENTAL TREES: For front, side and rear yards adjust plant selection for solar orientation (shade/sun).
Cornus Florida Dogwood
Cornus Kousa Korean Dogwood
Amerlanchier spp. Serviceberry
Crataegus spp. Hawthorn
Prunus spp. Native and exotic cherries
Cercis canadensis Redbud
Oxydendron arboreum Sourwood
Chionanthus virginicus Gray Beard
Catalpa bignoides S. Catalpa
Magnolia stellata Star Magnolia
Magnolia soulangiana Saucer Magnolia
Malus spp. Native Crab

FOUNDATION SHRUBS
Buxus sempervirens English Boxwood
Buxus macrophylla Korean Boxwood
Ilex vomitoria Youpon Holly
Ilex compacta Available cultivars
Ilex crenata Available cultivars
Spiraea spp. Available cultivars
Deutsia gracillis Slender Deutsia
Rhododendron kurume Kurume Azaleas

GROUNDCOVER:
For use in shade
Helleboris orientalis Lenten Rose
Vinca minor Periwinkle
Chrysogonum Green and Gold

For use in sun
Phlox subulata Moss Pink
Hypericum polyphyllum St. John Wort
Oenothera Evening Primrose
Mazus reptans

SHRUBS FOR REAR WILDLIFE THICKETS: Plant in groups of three within 10 feet of back property line or as single species hedge.
Sambucus americana American Elder
Prunus americana American Plum
Prunus angustifolia Chickasaw Plum
Rhus species Sumac species
Aronia arbutifolia Chokeberry
Native Ilex American Hollies
Native Viburnum Viburnum spp.
Amerlanchier spp. Serviceberry
Myrica cerifera Wax myrtle
Spiraea reevesiana Reeves Spirea

2. Neighborhood General
Neighborhood General constitutes the primary fabric of Carothers Crossing. These areas contain a wide variety of housing types and densities. It is essential that the landscape within these areas assists the Urban Code in distinguishing them from the Edge and Center. Ornamental trees must be utilized to help frame the house, merge individual lots with the native landscape, and integrate the buildings into the overall streetscape, while also providing seasonal color and change. Each rowhouse building (series of individual units) shall be provided with a minimum of 2 understory trees. Each bungalow court green shall contain a

minimum of 4 understory trees. Each house shall be provided with a minimum of 1 understory tree. Each villa lot shall contain a minimum of 2 understory trees. Foundation plantings should be placed so as not to cover the foundation, but accent architectural features. All planting design and materials must appropriately correspond with the architectural style and time period of the structure. Rear yards should be fenced and gated or planted with hedges for privacy.

Plant Recommendations

Trees for framing house and for naturalistic clusters:
Cornus Kousa Korean Dogwood
Cornus Florida Flowering Dogwood
Lagerstromia indica Crepe Myrtle
Halesia spp. Silverbell spp.
Amerlanchier spp. Serviceberry
Magnolia stellata Star Magnolia
Magnolia soulangiana Saucer Magnolia
Crataegus spp. Hawthorn
Prunus mume Apricot
Cercis canadensis Redbud
Chionanthus virginicus Gray Beard
Acer rubrum Red Maple

FOUNDATION SHRUBS
Buxus sempervirens English Boxwood
Buxus macrophylla Korean Boxwood
Ilex compacta Available cultivars
Ilex crenata Available cultivars
Ilex vomitoria Youpon Holly
Deutsia gracillis Slender Deutsia
Prunus caroliniana Cherry Laurel
Illicium parviflorum Anise
Azalea indica Indica Azalea
Azalea kurume Kurume Azalea

GROUNDCOVER:
For use in shade
Vinca minor Periwinkle
Chrysogonum Green and Gold
Hypericum sempervirens Aaron's Beard
Polystichum acrositoides Christmas Fern
Viola spp. Violets
Liriope muscarii Lily Turf

GROUND COVER:
For use in sun
Phlox subulata Moss Pink
Liriope spicata Creeping Lily Turf

SHRUBS FOR REAR YARDS: These shrubs can be planted in rows to soften a fence or alone to form impenetrable barriers. Shrubs can be pruned free form or as hedge.
Osmanthus heterphyllus Tea Olive
Myrica cerifera Wax Myrtle
Ilex spp. Holly clutivar
Prunus laurocerasus English Laurel
Thuja occidentalis Arborvitae
Illicium parviflorum Anise
Juniperus virginiana Eastern Red Cedar

LARGE SHADE TREES FOR PRIVATE REAR AND FRONT YARDS: Consideration should be made for existing or new street trees when making selections from this list.
Fagus americana American Beech
Carya spp. Hickory spp.
Quercus spp. Native Oak spp.
Celtis laevigate Hackberry
Fraxinus Americana White Ash
Fraxinus Pennsylvanica Green Ash
Liriodendron tulipifera Tulip Tree
Ulmas spp. Native Elms
Acer rubrum Red Maple
Magnolia macrophylla Big Leaf Magnolia
Ilex opaca American Holly
Tilia Americana Basswood
Juniperus virginiana Eastern Red Cedar
Oxydendron arboreum Sourwood

ANTIQUE ROSES FOR FRONT AND REAR FENCES AND USE ON LIVE FENCES
"Climbing cecile brunner"
"Climbing clotilde soupert"
"May Queen"
"Betty Prior"
"Sombreuil"
"Silver moon"
"Trier"
"Fortuniana"
"New dawn"

"Belle portugaise"
"Climbing American Beauty"
"Climbing souvenier de la Malmaison"
"Dortmunal"
"Evangeline"
"Fortunes double eyllow"
"Fortuniana"
"Gloire de Dijon"
"Janne d'Arc"
"Prosperity"
"Reve De Or"
"Zephirine drohuin"

*Antique southern roses are hardy and require basic horticulture to thrive. The above roses are well suited for climbing on fences, pillars, pergolas and posts.

3. Town Center and Neighborhood Center
Neighborhood and Town Center areas are distinguished from General and Edge by small-scale commercial and mixed-use buildings, together with courtyard housing and other residential buildings at higher densities. These areas accommodate a variety of activities and services within easy walking distance from residences, supporting daily convenience shopping and personal service needs, and also providing opportunities for public gathering and social contact. It is essential that the landscape within these areas be interesting for passersby. These landscapes should include a combination of vines, groundcovers, and foundation shrubs. Dooryard groundcovers and low shrubs accenting doorways and steps are required for the townhomes and livework units with minimal setbacks. Dooryard shrubs, vines and small ornamental trees can be fitted in tight spaces surrounding these urban building types. Rear courtyards can be fenced or hedged for privacy. Cottage and villa lots shall contain at least 1 ornamental tree. All planting design and materials must appropriately correspond with the architectural style and time period of the structure.

Plant Recommendations

Dooryard shrubs to accent steps and doors:
Ilex spp. Native holly cultivars
Ilex spp. Dwarf and midsize Chinese and Japanese cultivars
Prumas cordiniana Cherry Laurel
Buxus spp. Boxwood
Deutsia spp. Slender Deutsia
Hypericum Hypericum
Frondosum
Itea Virginica Virginia Sweetspire
Illicium parviflorum Anise

Illicium Floridanum Florida Anise
Abeliz grandiflora Bee Bush
Jasmine nudiflorum
Spiraea reevesiana Reeves Spirea

DOORYARD GROUNDCOVERS
Ajuga Ajuga Repens
Hemerocallus Day Lilies
Chrysogonum Virginica Green and Gold
Hedera helix English Ivy
Vinca Minor Periwinkle
Phlox subulata Moss Pink

PLANT SELECTION: Plants not listed can be substituted upon approval by the Town Architect.

RECOMMENDED NATIVE PLANTS FOR PUBLIC AND PRIVATE LANDSCAPE
All plants are native to Tennessee and native species have been selected for drought resistance and adaptability; plants not found on this list subject to approval by the town architect.

PERENNIALS
Allium cernuum Nodding Onion
Amsonia tabernaemontana Amsonia
Anemone canadensis Canada Anemone
A. Cylindrica Thimbleweed
Anemonella thalictroides Rue Anemone
Aquilegia canadensis Columbine
Asarum species Wild Ginger
Asclepias tuberosa Butterfly Weed
Aster azureus Sky Blue Aster
A. cordifolius Heartleaf Aster
A. divaricatus White Wood Aster
A. ericoides Heath Aster
A. novi-angliae New England Aster
Baptisia species False Indigo
Callirhoë species Wine-cup
Cassia hebecarpa Wild Senna
Castilleja species Indian Paintbrush
Cheolone lyonii Pink Turtlehead
Coreopsis tripteris Tall Coreopsis
C. verticillata Threadleaf Coreopsis
Dodecatheon meadia Eastern Shooting Star
Echinacea species Coneflower
Eryngium yuccifolium Rattlesnake master

Erythronium albidum Fawn Lily, Dogtooth Violet
E. umbilicatum (americanum) Fawn Lily, Dogtooth Violet
Eupatorium species Eupatorium
Euphorbia carollata Flowering Spurge
Gaura lindheimeri Gaura
Geranium maculatum Wild Geranium
Helianthus hirsutus Hairy Sunflower
H. maximiliani Maximilian's Sunflower
H. tuberosus Jerusalem Artichoke
Heuchera americana Alum Root
H. villosa Hairy Alum Root
Houstonia caerulea Quaker Ladies
Iris species Iris
Liatris punctata Spotted Gayfeather
L. pyconstachya Prairie Blazing Star
L. spicata "Kobold" Spike Gayfeather
Lilium superbum Turk's Cap Lily
Lobelia species Lobelia
Lupinus perennis Lupine
Mertensia virginica Virginia Bluebells
Mitchella repens Partridgeberry
Monarda species Monarda
Oenothera fruticosa Sundrops
O. Missouriensis Missouri Evening Primrose
O. speciosa Pink Evening Primrose
Pachysandra procumbens American Pachysandra
Penstemon gracilis Penstemon
P. grandiflorus Beardtongue
Phlox amoena Chalice Phlox
P. paniculata Garden Phlox
P. pilosa Prairie Phlox
P. subulata Moss Pink
Physostegia virginiana Obedient Plant
Polygonatum biflorum Solomon's Seal
Porteranthus trifoliatus Bowman's Root
Ratibida pinnata Prairie Coneflower
Ruellia humilus Wild Petunia
Rudbeckia fulgida 'Goldstrurm' Black-eyed Susan
R. laciniata Green-headed Coneflower
R. subtomentosa Sweet Black-eyed Susan
R. triloba Branched Coneflower
Sedum ternatum Sedum
Shortia galacifolia Oconee Bells

Silene polypetela Silene
S. regia Royal Catchfly
S. virginica Fire Pink
Silphium species Silphium
Sisyrinchium angustifolium Blue-eyed Grass
Smilacina racemosa False Solomon's Seal
Solidago species Goldenrod
Tiarella species Foamflower
Tradescantia x andersoniana Spiderwort
Trillium grandiflorum Green Trillium
Veronia species Ironweed
Veronicastrum virginicum Culver's Root
Viol species Violet

GRASSES, SEDGES, RUSHES, AND REEDS FOR MEADOWS
Andropogon gerardii Big Bluestem
Bouteloua curtipendula Sideoats
B. gracilis Blue Grama
Carex muskingumensis Palm Sedge
C. Pensylvanica Pennsylvania Sedge
Chasmanthium latifolium Northern Sea Oats, River Oats
Panicum virgatum Switch Grass
Phalaris arundinacea picta Gardener's Garters, Ribbon Grass
Schizachyrium scoparium Little Bluestem
Sorghastrum nutans Indian Grass
Sporobolus heterolepis Prairie Dropseed

FERNS
Adiantum pedatum Northern Maidenhair Fern
Athyrium filix-femina Lady Fern
Dennstaedtia punctilobula Hay-scented Fern
Onoclea sensibilis Sensitive Fern
Osmunda cinnamomea Cinnamon Fern
O. claytonia Interrupted Fern
O. regalis var. spectabilis Royal Fern
Woodwardia areolata Netted Chain Fern

WATER PLANTS
Equisetum hyemale Scouring Rush
Iris species Iris
Menyanthes trifoliata Bog Bean
Nymphaea ordorata Pond Water Lily
Orontium aquaticum Golden Club

Peltandra virginiana Arrow Arum
Pontederia cordata Pickerelweed
Saururus cernuus Lizard's Tail
Typha species Cattail

VINES
Anisostichus capreolatus Cross Vine
Aster carolinianus Climbing Aster
Campsis radicans Trumpet Vine
Clematis viorna Leather Flower
Decumaria barbara Climbing Hydrangea
Lonicera x heckrottii Red Trumpet Honeysuckle
L. sempervirens Trumpet Honeysuckle
Partbenocissus quinquefolia Virginia Creeper
Wisteria frutescens American Wisteria

SHRUBS
Aesculus parviflora Bottlebrush Buckeye
Agarista popuifolia Florida Leucothoe
Amelanchier alnifolia Serviceberry
Amorpha canescens Leadplant
A. fruticosa Indigo Bush
Aralia spinosa Devil's Walkingstick
Aronia arbutifolia 'Brilliantissima' Red Choke berry
Artemisia filifolia Sand Sage
Callicarpa americana Beautyberry
Calycanthus floridus Sweetshrub
Ceanothus americanus New Jersey Tea
Cephalanthus occidentalis Buttonbush
Clethra acuminata Cinnamon Clethra
C. alnifolia 'Hummingbird' Dwarf Summersweet
C. a. 'Pinkspire', 'Rosea' Summersweet
Conradina verticillata Cumberland Rosemary
Cornus alternifolia Pagoda Dogwood
C. amomum Silky Dogwood
C. sericea Red-osier Dogwood
Cotinum obovatus American Smoke Tree
Cyrilla racemiflora Titi
Euonymous americana Hearts-a-bustin'
Fothergilla gardenii Dwarf fothergilla
F. g. 'Blue Mist' Blue Mist Fothergilla
F. major Large Fothergilla
Hydrangea arborescens 'Annabelle' Wild Hydrangea

Hydrangea quercifolia Oak Leaf Hydrangea
H. q. 'Snow Queen' Snow Queen
H. q. 'Snow Queen' Snow Queen hydrangea
Hypericum frondosum 'Sunburst' Golden St. Johnswort
Ilex decidua Possum Haw
I. glabra Inkberry
I. verticillata 'Winter Red' Winterberry
Illicium floridanum Anise Tree
Itea virginica 'Henry's Garnet' Sweetspire
Juniperus communis saxitalis Mountain Juniper
J. horizontalis Creeping Juniper
Kalmia latifolia, Mountain Laurel *many cultivars*
Leucothoe axillaris Doghobble
L. fontanesiana Doghobble
Mahonia aquifolium Orgeon Grape Holly
Myrica pensylvanica Bayberry
Paxistima canbyi Paxistima
Potentilla fruticosa Shrubby Cinquefoil
Rhododendron arborescens, Sweet Azalea *and cultivars*
R. bakeri Cumberland Azalea
R. calendulaceum, many Flame Azalea *cultivars*
R. canescens and cultivars Piedmont Azalea
R. carolinianum Carolina Rhododendron
R. catawbiense Catawba Rhododendron
R. Chapmanii Chapman's Rhododendron
R. maximum Rosebay Rhododendron
R. minus Piedmont Rhododendron
R. periclymenoides Pinxter Azalea
R. prinophyllum Roseshell Azalea
R. Vaseyi Pinkshell Azalea
Rhus aromatica Fragrant Sumac
R. typhina Staghorn Sumac
Rosa setigera Prairie Rose
Sambucus canadensis Elderberry
Stewartia malcodendron Silky Camellia
Viburnum cassinoides With Rod Viburnum
V. dentatum Arrowwood Viburnum
V. lentago Nannyberry
V. nudum Possum Haw
Yucca species Yucca
Zenobia pulverulenta Dusty Zenobia

TREES UNDERSTORY

Acer leucoderme Chalk Maple
Aeculus pavia Red Buckeye
Amelanchier laevis Serviceberry
Asimina triloba Pawpaw
Betula nigra River Birch
B. n. 'Heritage' White River Birch
Cercus canadensis Eastern Redbud
Chionanthus virginicus Fringe Tree
Cladrastis kentukeya Yellowwood
Cornus Florida Eastern Dogwood
Crataegus viridis Hawthorn
Halesia carolina Carolina Silverbell
H. diptera 'Magniflora' Magniflora Silverbell
Hamamelis virginiana Witch Hazel
Ilex opaca and cultivars American Holly
Juniperus virginiana Eastern Red Cedar
Magnolia acuminata Cucumber Tree
M. ashei Ashe Magnolia
M. Cordata Yellow Cucumber Tree
M. Grandiflora cultivars Bull Bay Magnolia
M. Macrophylla Bigleaf Magnolia
M. tripetela Umbrella Magnolia
M. virginiana Sweet Bay Magnolia
Oxdendrum arboreum Sourwood, Sorrel Tree
Taxodium ascendens Pond Cypress
T. distichum Bald Cypress

GROUNDCOVERS

Ajuga Bugleweed
Chrysogonum Green and Gold
Euonymus fortunei Winter Creeper
Gaultheria procumbens Winter Green
Hypericum calycinum St. Johns Wort
Laurentia Blue Star Creeper
Liriope spicata Creeping Lily Turf
Mazus repens Mazus
Pachysandra Spurge
Phlox subulata Creeping Phlox
Rubus calynoides Creeping Raspberry
Vinca minor Periwinkle