Wayland Senior Center Site Master Plan

Prepared for the Town of Wayland, KY

March 2014

community design assistance center
College of Architecture + Urban Studies
Virginia Polytechnic Institute and State University

SOUTHERN GROUP
OF STATE FORESTERS

Project funding provided by the US Forest Service in cooperation with the Kentucky Division of Forestry

PROJECT TEAM

Elizabeth Gilboy
Director

Lara Browning
Landscape Architecture Project Coordinator

Jen Jessup
Landscape Architecture Designer

Ashlee Wells
Landscape Architecture Student

CDAC Team Members: (left to right) Elizabeth Gilboy, Jen Jessup, Ashlee Wells and Lara Browning

ACKNOWLEDGMENTS

Jerry Fultz
Wayland Mayor

Sharon Anderson
Wayland Area Senior Citizens Center Director

Terri Howell
Wayland City Commission

Curt Lee
Wayland City Commission

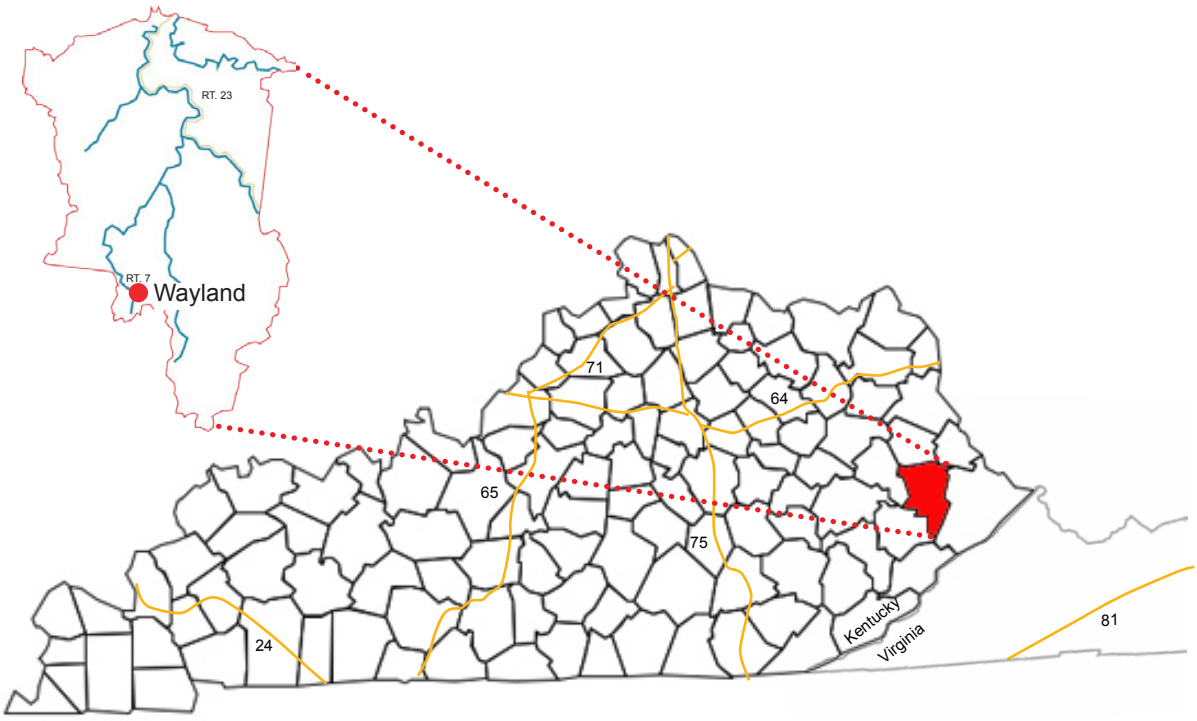
Angela MacElhose
Wayland City Commission

Kathy Mills
Wayland City Commission

Wayland Historical Society

TABLE OF CONTENTS

PROJECT DESCRIPTION



Kentucky state map showing Floyd County and major interstates.
Above left, Floyd County map showing the location of the Town of Wayland.

The Town of Wayland, located in Floyd County, Kentucky, has an approximate population of 500 people. Once a prosperous mining town, Wayland has a deep cultural legacy that survives through the hard work of many residents and the local historical society. Wayland's long-term goal is to attract a larger population by re-engaging the community through recreational activity, promoting their cultural heritage, and improving upon the town aesthetic. In December 2012, CDAC worked with Wayland on the design of a community park/recreational baseball field for this purpose and created a conceptual master plan for town development.

Additional grant money has allowed CDAC to return to Wayland for series of smaller projects such as improving the Senior Center/ City Hall property, developing a town community center/welcome sign, and evaluating a waterfall lookout opportunity. The CDAC team developed an overall master plan for the Senior Center site and provided conceptual designs for the other two areas. Working through a series of iterations, the team believes the final concept will allow Wayland to continue progressing towards their desired plan for growth.

PART 1

DESIGN PROCESS

The design process began with an initial site visit to Wayland on February 2nd 2014. The CDAC team toured the project sites: (the Senior Center/City Hall, a future welcome sign location, and a potential waterfall lookout) with Mayor Jerry Fultz, collecting on-site data, documenting existing conditions, and taking soil samples. By gathering this information, the team was able to understand the opportunities and constraints of each site. This analysis would later influence the design concepts. The CDAC team discussed concerns and desires for the project and worked closely with the community to better understand their vision for the future.

After careful consideration of all the factors, preliminary conceptual design alternatives were developed for the Senior Center/City Hall and town welcome sign. These designs were presented at a community meeting on February 24th 2014 where they were reviewed and commented on by community members. The design alternatives were then revised and combined into final conceptual designs based on the comments made at the meeting.

The final master plan and designs for the welcome sign and waterfall were presented on March 27th 2014 at a second and final community meeting.

CDAC team member Jen Jessup presenting preliminary conceptual designs at a community meeting.

CDAC team member Ashlee Wells and Wayland Mayor, Jerry Fultz taking soil samples at the future welcome sign location.

CDAC team member Ashlee Wells presenting final conceptual designs at a community meeting.

FINAL DESIGNS
Senior Center/City Hall Final Conceptual Design

Four preliminary concepts for the Senior Center/City Hall were presented at a community meeting where Wayland residents reviewed and commented on which features and design elements they wanted to include on the final master plan. The following page illustrates the final master plan in detail.

The proposed plaza along King Kelly Coleman Hwy opens up, allowing for greater pedestrian accessibility from the street. There is a prominent linear axis which starts from the statue (sitting off the sidewalk), framed by double open air structures to a view of the town Christmas tree in the plaza center. The central plaza area is comprised of brick pavers with a dark trim that encloses an area meant for gatherings, music or festivals. On either side of the brick are two paved paths, one ending at the pergola with a river rock edging and the other leading to a temporary farmers market. The footprints of four farmers market tents are marked with a change in paving material. When setup, these tents can sell produce on the sidewalk and each tent has access to a twenty-foot long parking space for ease of setup. In this final concept, curved native perennial and shrub beds are proposed in front of the building. These curved beds add color and softness to the building's hard edges.

Further back into the site is a more private and secluded garden space. A curved lawn area with benches is surrounded by low groundcover. The location for a garden fountain was proposed in the center of the lawn to drown out nearby traffic noise. In addition, a stepping stone access path is proposed to connect the garden to the back area of the Senior Center building. The garden can be a refuge from the street where inhabitants can bring their lunch or read a book and not be disturbed by the traffic along King Kelly Coleman Hwy.

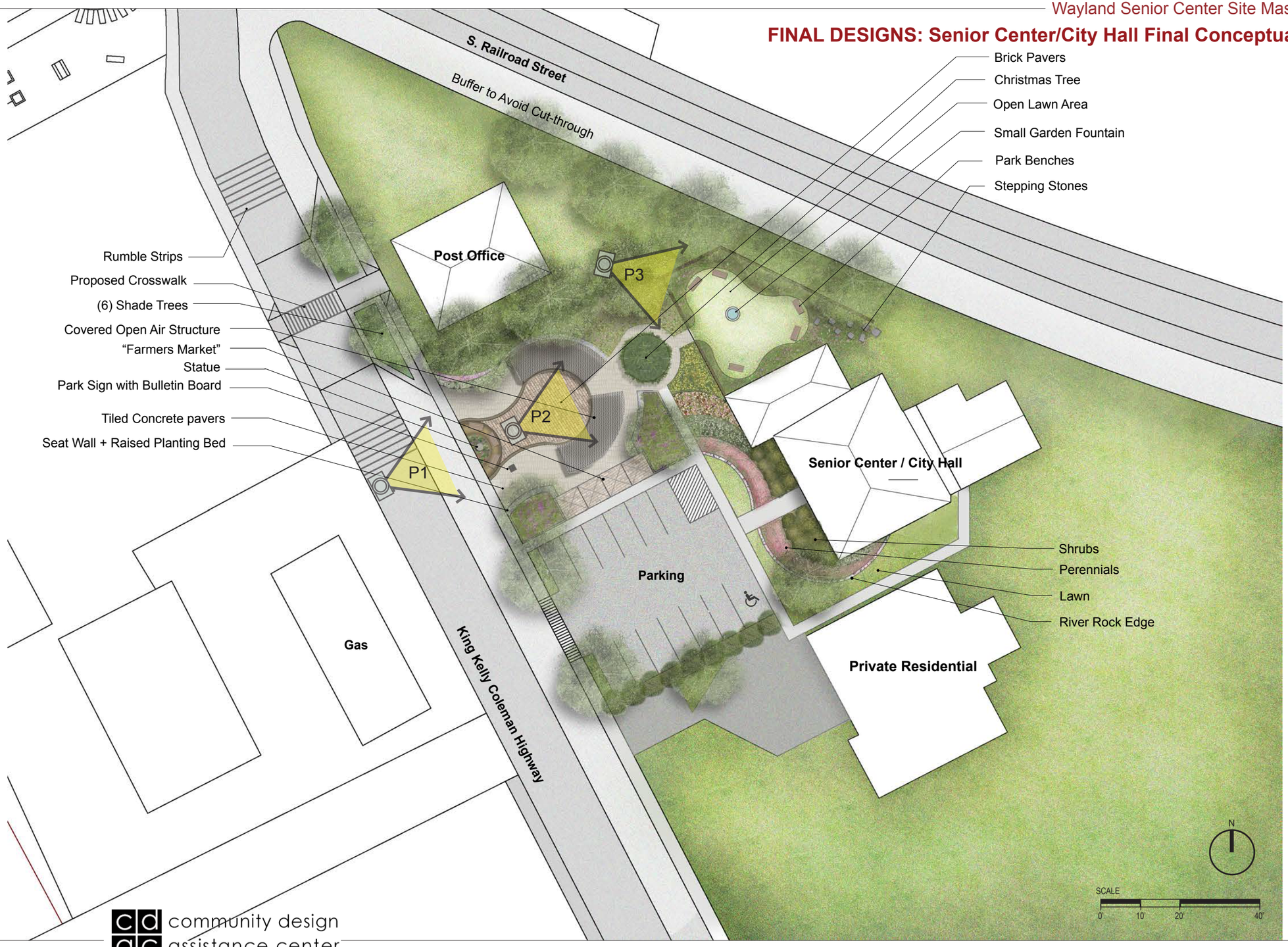
Other areas the CDAC team noted were the disorganization of the existing parking lot and a buffer needed along the northern edge of the plaza and along South Railroad Street to block cut-through traffic. In the parking area, a new layout was designed to add ease of circulation, to allow for more cars, and to define parking spaces. A buffer was proposed between the parking area and the adjacent residential lot to provide privacy for the neighbors.

In addition, a planting plan was developed for the Senior Center/City Hall (see pages 14-18). Soils samples on the site showed alkaline soils and some areas were very compact. It is recommended that soils be amended before planting. Plants were selected for the ability to withstand alkaline soils and for their seasonal interest.

Following are the site master plan and several perspectives of the site.

FINAL DESIGNS: Senior Center/City Hall Final Conceptual Design

Plan



community design assistance center
College of Architecture + Urban Studies
Virginia Polytechnic Institute and State University

FINAL DESIGNS: Senior Center/City Hall Final Conceptual Design

Perspective P1

Bird's eye view of plaza area looking toward the open air structures and Christmas tree.

FINAL DESIGNS: Senior Center/City Hall Final Conceptual Design

Perspective P2

Night time view of the open air structures and Christmas tree during the holidays.

FINAL DESIGNS: Senior Center/City Hall Final Conceptual Design

Perspective P3

Bird's eye view of the back garden area.

FINAL DESIGNS
Senior Center/City Hall Planting Schedule

Senior Center/City Hall

TREES & SHRUBS

Qty	Botanical Name	Common Name
2	*Aesculus x carnea*	Red Horse Chestnut
11	*Buxus 'Green Velvet'*	Green Velvet Boxwood
2	*Cercis Canadensis 'Forest Pansy'*	Forest Pansy Redbud
4	*Gleditsia triancanthas*	Thornless Honeylocust
12	*Juniperus Chinensis 'Blue Point'*	Blue Point Juniper
1	*Platanus x acerifolia 'Bloodgood'*	Bloodgood London Plane Tree
1	*Pseudotsuga menziesii*	Douglas-fir
14	*Rosa 'Radsunny'*	Sunny Knock Rose
3	*Syringa Reticulata*	Japanese Tree Lilac
2	*Syringa Vulgaris*	Common Lilac
3	*Viburnum plicata tomentosum 'Shoshoni'*	Shoshoni Doublefile Viburnum

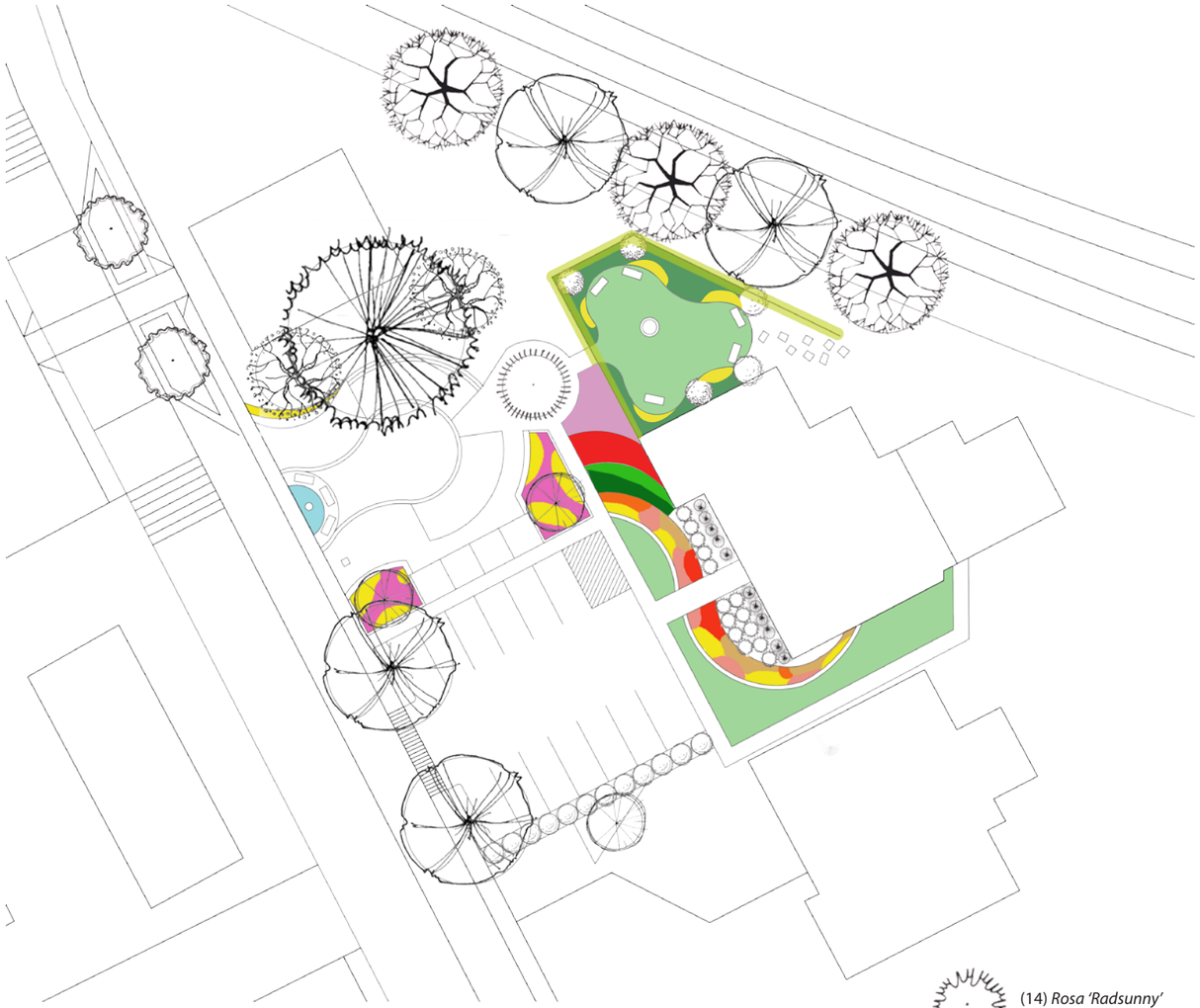
FINAL DESIGNS
Senior Center/City Hall Planting Schedule

PERENNIALS

Botanical Name	Common Name
Aster Novae Angliae 'Purple Dome'	Purple Dome New England Aster *
Bignonia Capreolata	Crossvine
Heuchera 'Blackberry Jam'	Blackberry Jam Coral Bells
Echinacea Purpurea 'Magnus'	Magnus Coneflower *
Geranium 'Rozanne'	Rozanne Geranium *
Liriope Muscari	Lily Turf
Paeonia 'Coral Sunset'	Coral Sunset Peony
Phlox Paniculata 'David'	David Garden Phlox *
Phlox subulata	Creeping Phlox
Sedum 'Autumn Joy'	Autumn Joy Sedum
Solidago Rugosa 'Fireworks'	Fireworks Goldenrod

** Perennials to be planted with bulbs. See planting plan.*

FINAL DESIGNS: Senior Center/City Hall Planting Plan



PERENNIALS

- *Aster Novae Angliae 'Purple Dome'* (Plant with Daffodils) — Purple Dome New England Aster
- *Bignonia Capreolata* — Crossvine
- *Echinacea Purpurea 'Magnus'* (Plant with Daffodils) — Magnus Coneflower
- *Geranium 'Rozanne'* (Plant with Crocus) — Rozanne Geranium
- *Heuchera 'Blackberry Jam'* — Blackberry Jam Coral Bells
- *Liriope Muscari & Phlox subulata* — Lily Turf & Creeping Phlox
- *Paeonia 'Coral Sunset'* — Coral Sunset Peony
- *Phlox Paniculata 'David'* (Plant with Darwin Hybrid Tulips) — David Garden Phlox
- *Sedum 'Autumn Joy'* — Autumn Joy Sedum
- *Solidago Rugosa 'Fireworks'* — Fireworks Goldenrod

- Annuals
- Manicured Lawn

TREES & SHRUBS

- (14) *Rosa 'Radsunny'* — Sunny Knock Rose
- (3) *Syringa Reticulata* — Japanese tree lilac
- (2) *Syringa Vulgaris* — Common Lilac
- (3) *Viburnum plicata tomentosum 'Shoshoni'* — Shoshoni Doublefile Viburnum
- (3) *Zeklava Serrata* — Sawleaf Zelkova
- (2) *Aesculus x carnea* — Red Horse Chestnut
- (11) *Buxus 'Green Velvet'* — Green Velvet Boxwood
- (2) *Cercis Canadensis 'Forest Pansy'* — Forest Pansy Redbud
- (4) *Gleditsia triancanthas* — Thornless Honeylocust
- (12) *Juniperus Chinensis 'Blue Point'* — Blue Point Juniper
- (1) *Platanus x acerifolia 'Bloodgood'* — Bloodgood London Plane Tree
- (1) *Pseudotsuga menziesii* — Douglas-fir

community design assistance center
College of Architecture + Urban Studies
Virginia Polytechnic Institute and State University

FINAL DESIGNS: Senior Center/City Hall Planting Plan

Plant Palette

Trees and Shrubs

Aesculus x carnea
Hardiness - 2-8
Height - 30-40’

red horsechestnut
Use - park tree
Width - 30’

Buxus ‘Green Velvet’
Hardiness - 3-9
Height - 3-4’

green velvet boxwood
Use - foundation shrub
Width - 3-4’

Cercis canadensis ‘Forest Pansy’
Hardiness - 2-9
Height - 25-35’

redbud
Use - street tree
Width - 25-30’

Gleditsia triacanthos var. *inermis*
Hardiness - 4-9
Height - 30-70’

thornless honeylocust
Use - street tree
Width - 30-70’

Hydrangea arborescens ‘Annabelle’
Hardiness - 3-9
Height - 3-5’

smooth hydrangea
Use - accent shrub
Width - 4-6’

Juniperus chinensis ‘Blue Point’
Hardiness - 1-9
Height - 12’

blue point juniper
Use - screening
Width - 8’

Platanus x acerifolia ‘Bloodgood’
Hardiness - 5-8
Height - 70-100’

London plane tree
Use - street tree
Width - 65-80’

Rosa ‘Radsunny’
Hardiness - 5-9
Height - 3-4’

sunny knockout rose
Use - accent shrub
Width - 4-5’

Syringa reticulata
Hardiness - 3-7
Height - 20-30’

Japanese tree lilac
Use - street tree
Width - 15-25’

Viburnum plicata tomentosum ‘Shoshoni’
Hardiness - 1-8
Height - 5’

Doublefile Viburnum
Use - accent shrub
Width - 8’

Zelkova serrata
Hardiness - 5-9
Height - 50-60’

sawleaf zelkova
Use - street tree
Width - 40-50’

FINAL DESIGNS: Senior Center/City Hall Planting Plan

Plant Palette

Perennials and Vines



Aster novae-angliae'Purple Dome'
Hardiness - 1-8
Height - 1.5'

new england aster
Use - fall color
Width - 2-3'



Echinacea purpurea 'Magnus'
Hardiness - 1-9
Height - 3'

coneflower
Use - summer color
Width - 2'



Narcissus sp.
Hardiness - 1-9
Height - 1-1.5'

Daffodil
Use - spring color
Width - 1-1.5'



Phlox subulata
Hardiness - 3-9
Height - 3-6"

creeping phlox
Use - groundcover
Width - 1-2'



Bignonia capreolata
Hardiness - 6-9
Height - 30'

crossvine
Use - vine
Width - 30''



Geranium 'Rozanne'
Hardiness - 5-8
Height - 1-1.5'

Rozanne geranium
Use - summer color
Width - 1-2'



Paeonia 'Coral Sunset'
Hardiness - 1-8
Height - 2-3'

coral sunset peony
Use - early summer color
Width - 2-3'



Sedum 'Autumn Joy'
Hardiness - 3-9
Height - 1.5-2'

autumn joy sedum
Use - fall color
Width - 1.5-2'



Crocus vernus
Hardiness - 1-8
Height - 3"

dutch crocus
Use - spring color
Width - 3"



Liriope muscari
Hardiness - 1-12
Height - 1-2'

lily turf
Use - groundcover
Width - 1-2.5''



Phlox paniculata 'David'
Hardiness - 1-9
Height - 3-5'

garden phlox
Use - summer color
Width - 2'



Solidago rugosa 'Fireworks'
Hardiness - 4-8
Height - 2.5-3'

fireworks goldenrod
Use - fall color
Width - 2-3'



Tulipa 'Darwin hybrids'
Hardiness - 1-8
Height - 2'

perennial tulip
Use - spring color
Width - 2'

FINAL DESIGNS
Welcome Signage Final Conceptual Design

Preliminary welcome signage designs were presented at a community meeting where Wayland residents reviewed and commented on which features they wanted to include on the final design. The CDAC team combined concepts, based on the comments from the preliminary meeting, and presented a final signage design at the final community meeting.

Due to flooding issues, the proposed welcome sign is raised four feet. Planting should also be flood tolerant. Stone columns were used to match the existing columns on site and the addition of wood was also included. The wood is cut to reflect its surrounding terrain by mimicking the mountains in the curves of its design. The Wayland seal depicts the town's history as a coal town while the blue and yellow colors represent the Wayland Wasps, a historically significant local high school. The sign would be double-sided to address traffic coming from both directions along King Kelly Coleman Hwy. The plantings would also reflect this orientation with perennials in front and shrubs on the sides as well as buffering the sign from the adjacent parking lot. A planting plan was developed for the Welcome Sign (see pages 23-25). Soils samples on the site showed high alkaline soils and some areas were very compact. It is recommended that soils be amended before planting. Plants were selected for the ability to withstand alkaline soils and for their seasonal interest.

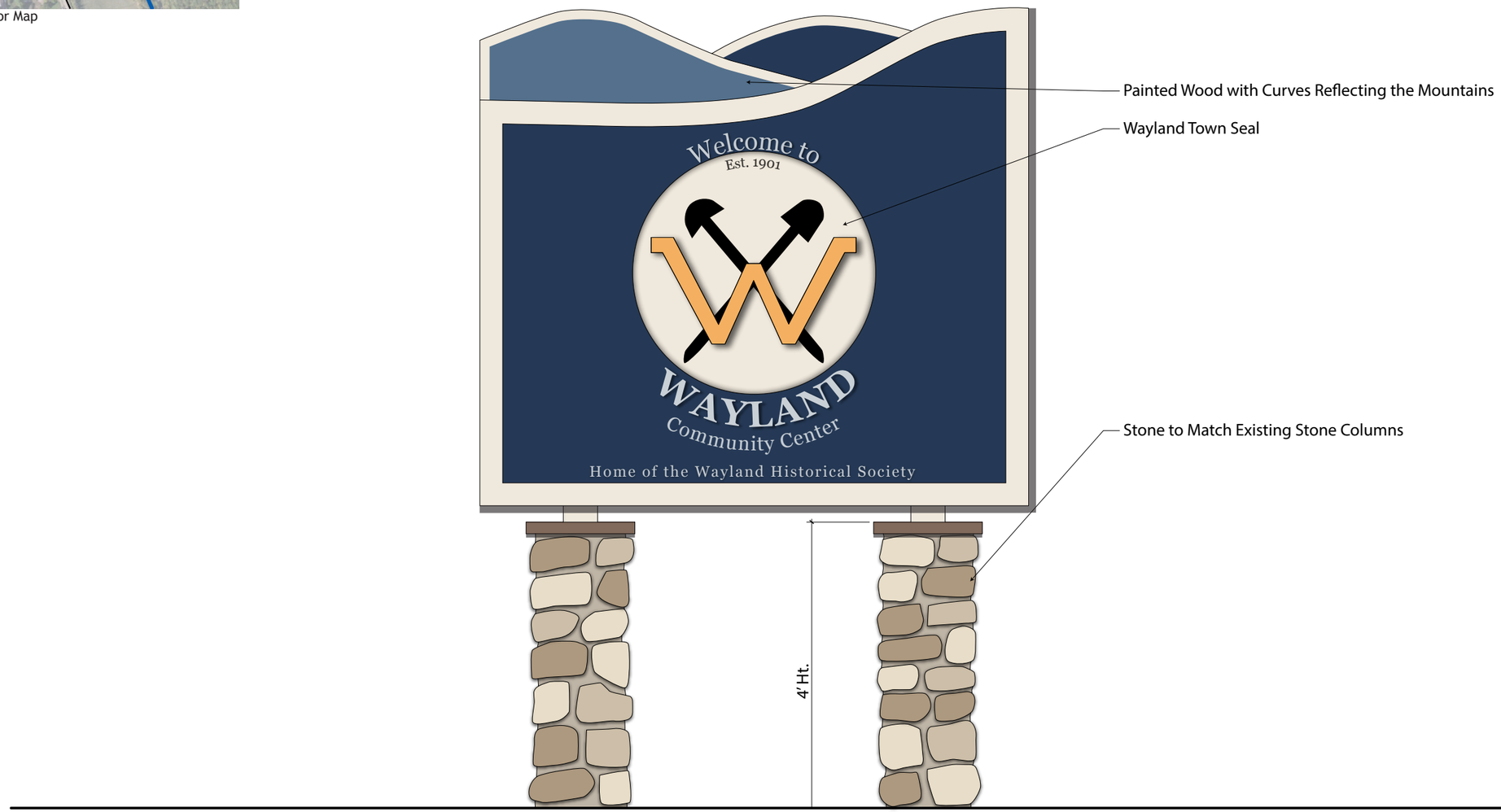
The following pages include an elevation of the sign and perspectives.

Locater map, showing in red, the future welcome sign location.

FINAL DESIGNS: Welcome Signage Final Conceptual Design

Elevation

Locator Map



Double-Sided Welcome Sign

FINAL DESIGNS: Welcome Signage Final Conceptual Design

Perspective

Locator Map

Proposed Wayland welcome signage

community design assistance center
College of Architecture + Urban Studies
Virginia Polytechnic Institute and State University

FINAL DESIGNS: Welcome Signage Final Conceptual Design

Perspective (View from Vehicle)

Locator Map

Proposed Wayland welcome signage from vehicular viewpoint

community design assistance center
College of Architecture + Urban Studies
Virginia Polytechnic Institute and State University

FINAL DESIGNS
Welcome Signage Planting Schedule

Welcome Signage

SHRUBS

Qty	Botanical Name	Common Name
2	*Hydrangea arborescens 'Annabelle'*	Annabelle Smooth Hydrangea
4	*Juniperus Chinensis 'Blue Point'*	Blue Point Juniper

PERENNIALS

	Botanical Name	Common Name
11	*Aster Novae Angliae 'Purple Dome'*	Purple Dome New England Aster
6	*Echinacea Purpurea 'Magnus'*	Magnus Coneflower
20	*Geranium 'Rozanne'*	Rozanne Geranium
34	*Liriope Muscari*	Lily Turf
34	*Phlox subulata*	Creeping Phlox
11	*Sedum 'Autumn Joy'*	Autumn Joy Sedum

FINAL DESIGNS: Welcome Signage Planting Plan

SHRUBS AND PERENNIALS

(22) *Aster novae-angliae 'Purple Dome' & Sedum 'Autumn Joy'*
Purple Dome New England Aster & Autumn Joy Sedum

(6) *Echinacea purpurea 'Magnus'*
Magnus Coneflower

(20) *Geranium 'Rozanne'*
Rozanne geranium

(2) *Hydrangea arborescens 'Annabelle'*
Annabelle Smooth Hydrangea

(4) *Juniperus chinensis 'Blue Point'*
Blue Point Juniper

(68) *Liriope muscari & Phlox subulata*
Lily Turf & Creeping Phlox

General Note: Existing soils are extremely alkaline. Plants selected are alkaline tolerant however, it is suggested the soil be amended to lower the pH level.

community design assistance center
College of Architecture + Urban Studies
Virginia Polytechnic Institute and State University

FINAL DESIGNS: Welcome Signage Planting Plan

Plant Palette

Shrubs



Hydrangea arborescens 'Annabelle'
Hardiness - 3-9
Height - 3-5'

smooth hydrangea
Use - accent shrub
Width - 4-6'



Juniperus chinensis 'Blue Point'
Hardiness - 1-9
Height - 12'

blue point juniper
Use - screening
Width - 8'

Perennials



Aster novae-angliae'Purple Dome'
Hardiness - 1-8
Height - 1.5'

new england aster
Use - fall color
Width - 2-3'



Liriope muscari
Hardiness - 1-12
Height - 1-2'

lily turf
Use - groundcover
Width - 1-2.5''



Echinacea purpurea 'Magnus'
Hardiness - 1-9
Height - 3'

coneflower
Use - summer color
Width - 2'



Phlox subulata
Hardiness - 3-9
Height - 3-6"

creeping phlox
Use - groundcover
Width - 1-2'



Geranium 'Rozanne'
Hardiness - 5-8
Height - 1-1.5'

Rozanne geranium
Use - summer color
Width - 1-2'



Sedum 'Autumn Joy'
Hardiness - 3-9
Height - 1.5-2'

autumn joy sedum
Use - fall color
Width - 1.5-2'

FINAL DESIGNS
Waterfall Final Conceptual Design

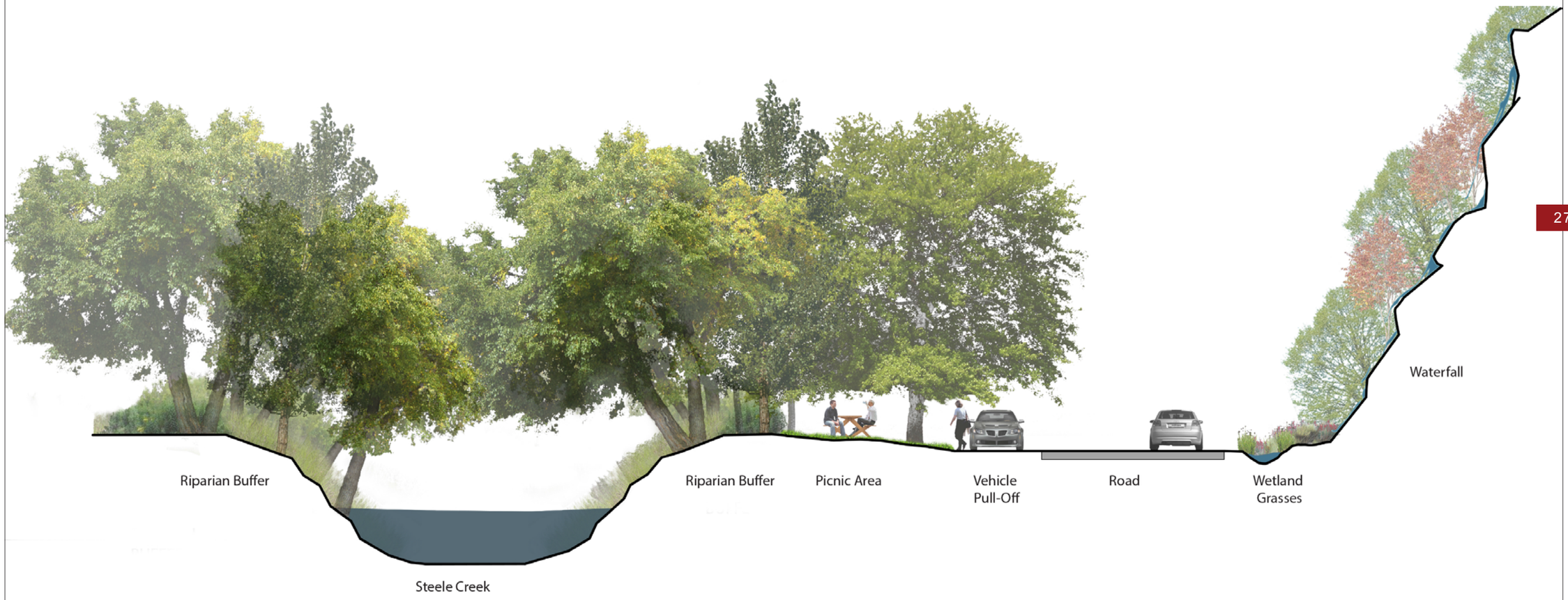
During the initial site visit, the CDAC team visited an existing waterfall site along King Kelly Coleman Hwy and investigated the opportunity to create an overlook of the waterfall. The following page shows a section of the proposed area along King Kelly Coleman Hwy.

Careful selective clearing and pruning of the vegetation around the waterfall would be helpful in bringing attention to the area. Wetland grasses and flowers are shown at the bottom of the fall to capture and filter water as it moves through the existing drainage swale along the roadway. A proposed vehicular pull-off is located across the street from the waterfall since there is not enough space on the waterfall side of the street and also provides a clearing in the buffer for a picnic area. The clearing should be minimal as to not disturb the riparian buffer. This provides the opportunity for visitors to be along the creek and still view the waterfall across the street. It is our hope that these improvements will highlight this natural feature when approaching town and give visitors cause to pause and take in the natural beauty of Wayland.

FINAL DESIGNS: Waterfall Final Conceptual Design

Section

Locator Map



PART 2

SITE INVENTORY & ANALYSIS

The existing Senior Center/City Hall site lies between King Kelly Coleman Hwy and South Railroad Street. It is between the Wayland Post Office and a private residence. During the initial site visit, the CDAC team met with Jerry Fultz, Mayor of Wayland, and recorded existing site elements and analyzed site conditions. The process of inventorying the site consisted of taking photographs of the property, collecting soil samples for analysis in the lab, and measuring general dimensions of the area.

Currently, the site is bound by a chain link fence along its northern edge and surrounding the back portion of the property. The space also features a pergola and bulletin board signage that are underused. The lack of trees and seating on site provides no opportunity for shade or respite. Adjacent to the open space is an existing asphalt parking lot. Presently, the lot's layout is disorganized and disconnected by a sidewalk dissecting the lot. Vehicles double park perpendicular to the Senior Center. The lot abuts a private residential driveway and has little separation between the two. Along King Kelly Coleman Hwy, a large shoulder and sidewalk exist with no vertical buffer to separate pedestrians from the roadway. Due to the awkward intersection at King Kelly Coleman Hwy and South Railroad Street, a potential pedestrian connection is shown at the Post Office. This connection would link pedestrians across King Kelly Coleman Hwy and to the future recreational field. There is also a problem with vehicles using the Post Office property as a cut-through from South Railroad Street to King Kelly Hwy. A buffer along South Railroad Street could deter this from happening.

Information gathered during the inventory and analysis process was taken into consideration and directly influenced the development of the conceptual designs. On the following page is a map detailing the analysis findings.

SITE INVENTORY & ANALYSIS

community design assistance center
College of Architecture + Urban Studies
Virginia Polytechnic Institute and State University

PRELIMINARY CONCEPTS
Senior Center/City Hall Preliminary Conceptual Design

Concept One

After meeting with representatives from Wayland to determine the needs and desires of the community, four conceptual designs for the Senior Center/City Hall were developed and presented at a community meeting. Wayland residents reviewed and commented on which features and design elements they wished to include on the final master plan.

Concept One focuses on creating a large hardscaped plaza area along King Kelly Coleman Hwy with a centrally located open air structure that could hold events such as music, community gatherings, and holiday festivities. In addition, Concept One explores a temporary farmers market. The footprints of four farmers market tents are marked with a change in paving material. When setup, these tents can sell produce on the sidewalk and each tent has access to a twenty-foot long parking space for ease of setup.

Two entrances are proposed for the park. One along King Kelly Coleman Hwy and the other connecting the parking lot in front of the Senior Center. The main entrance, along King Kelly Coleman Hwy, has a multiple-sided entry sign with a bulletin board for the community to post upcoming events and other activities around town. Benches and trash receptacles are located within the plaza's corners facing inward toward the open-air structure. This allows for conversational seating as well as viewing of any performances taking place under the structure. The plaza is surrounded by a low groundcover and anchored by four shade trees at each corner. The location for a future statue was proposed within a nook in the plaza area.

Further back into the site is a garden area defined by an arbor at the entry gate. The existing fence is screened with proposed vines. The back garden, unlike the plaza, is more private and secluded. People can bring their lunch or read a book in any of the seating nooks within the garden. Perennial beds are bordered by a low evergreen hedge. These beds can be planted and maintained by the senior citizens or community members who would like to have a garden space. A focal point is proposed within the center of the garden on axis with the open-air structure and arbor. To block traffic noise, this feature could be a small fountain.

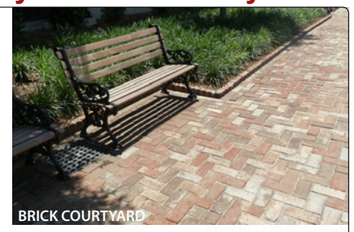
PRELIMINARY CONCEPTS
Senior Center/City Hall Preliminary Conceptual Design

During the site visit, the CDAC team noted the disorganization of the existing parking lot and the need for a buffer along the northern edge of the plaza and along South Railroad Street to block cut-through traffic. In Concept One's parking area, a new layout was designed to add ease of circulation and to define parking spaces. In addition, a buffer was proposed between the parking area and the adjacent residential lot to provide privacy for the neighbors.

The following page illustrates Concept One.

PRELIMINARY CONCEPTS: Senior Center/City Hall Preliminary Conceptual Design

Concept One



community design assistance center
College of Architecture + Urban Studies
Virginia Polytechnic Institute and State University

PRELIMINARY CONCEPTS
Senior Center/City Hall Preliminary Conceptual Design

Concept Two

Concept Two differs from Concept One by creating a centrally located lawn area along King Kelly Coleman Hwy instead of a large hardscape plaza. This area is situated in front of a curved open-air structure and could be used as seating during events. People could place their chairs or blankets on the lawn and watch performances. The area could also be the location of a town Christmas tree. Surrounding the lawn area is a hardscaped path bordered by benches. Two ornamental trees anchor the entry along King Kelly Coleman Hwy with a proposed entry sign located within one of the perennial beds that surround the park space.

Further back into the site, similar to Concept One, is a more private and secluded garden space. Unlike Concept One, this garden space is less formal and more simple. A curved lawn area with benches is surrounded by low groundcover. The location for a future statue was proposed in the center of the lawn. In addition, a stepping stone access path is proposed to connect the garden to the back area of the Senior Center building.

Parking and buffers on the site remain the same as in Concept One. The existing parking lot is reorganized and buffers are proposed along the northern edge of the park and along South Railroad Street. Concept One and Two propose curved perennial and shrub beds in front of the building. These curved beds add color and softness to the building's hard edges.

Concept Two focuses on using lawn and a more organic layout to create gathering spaces. Curves dominate the space which can be seen in the pathways and the open-air structure.

The following page illustrates Concept Two.

PRELIMINARY CONCEPTS: Senior Center/City Hall Preliminary Conceptual Design

Concept Two

community design assistance center
College of Architecture + Urban Studies
Virginia Polytechnic Institute and State University

PRELIMINARY CONCEPTS
Senior Center/City Hall Preliminary Conceptual Design

Concept Three

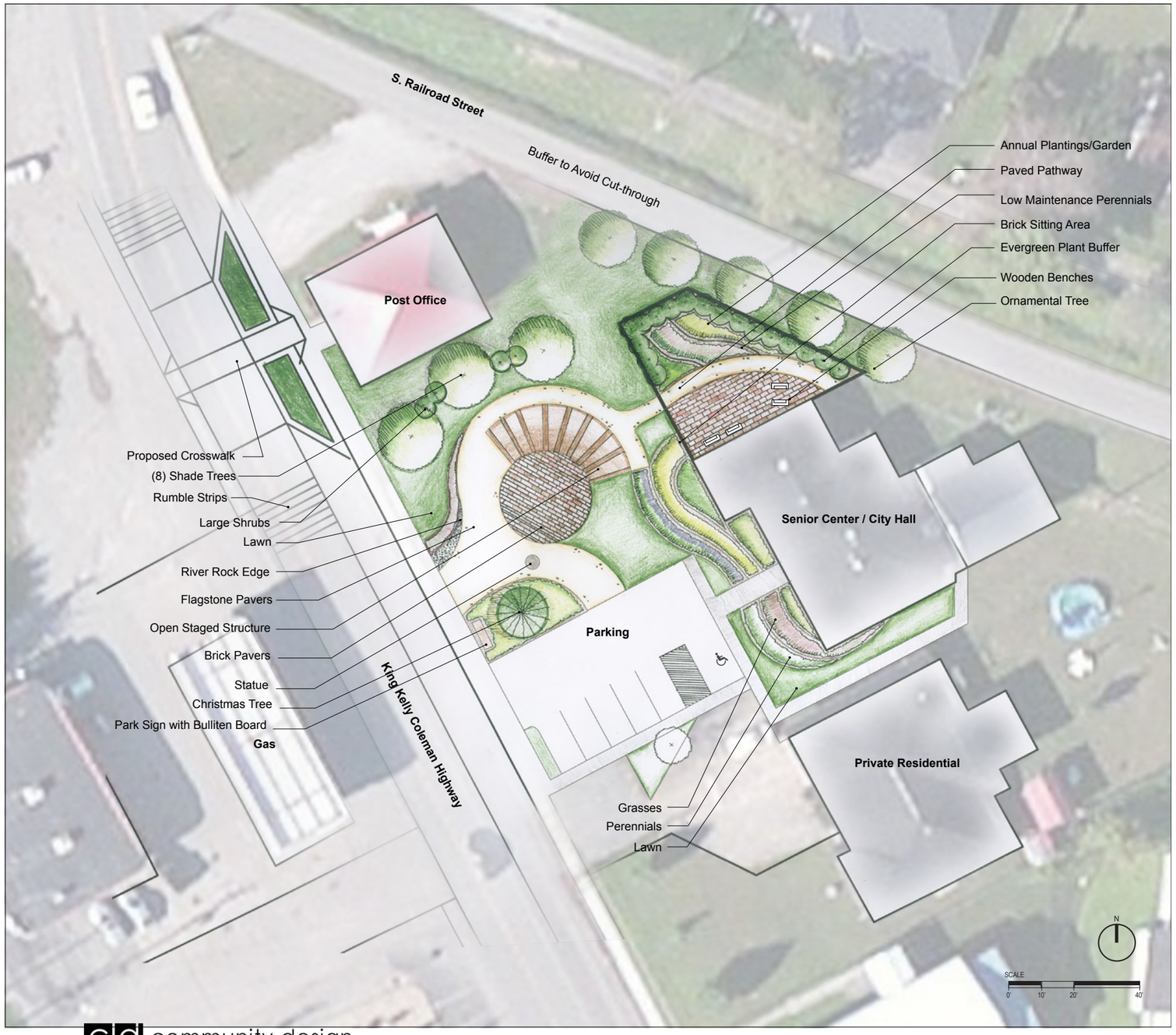
Concept Three experiments with the possibility of reduced parking in the front of the Senior Center in order to gain more space for the central gathering area. A curved pergola structure bounds a circular brick hardscape, acting as the central area of gathering for events, small concerts and holiday festivities. Facing inward from the street, the pergola, proposed town Christmas tree, and statue are lined up in an axis with a buffered tree-lined backdrop. From King Kelly Coleman Hwy there is a pathway entrance into the plaza that wraps around the pergola into the backyard space. On the other side of the pergola is an open lawn that connects the perennial beds in the front of the Senior Center to the plaza hardscape. These curved perennial beds consist of native perennials that complement the straight geometry of the building.

The Senior Center side yard further back consists of a brick seating area off the side of the building with a small perennial garden. Benches are placed to face the perennials and enjoy the beauty of a private garden. Buffering the existing fence with tall evergreen shrubs allows for this area to be considered more of a private space, a refuge where inhabitants can look out but not be seen from the street. Another buffer in the front yard separates the Senior Center from the Post Office property line. A small bed of perennials lined with river rock bound the edge of the plaza on this side, creating a boundary to separate the property.

Left, dashed line, showing pergola, town Christmas tree, and statue on axis.

PRELIMINARY CONCEPTS: Senior Center/City Hall Preliminary Conceptual Design

Concept Three

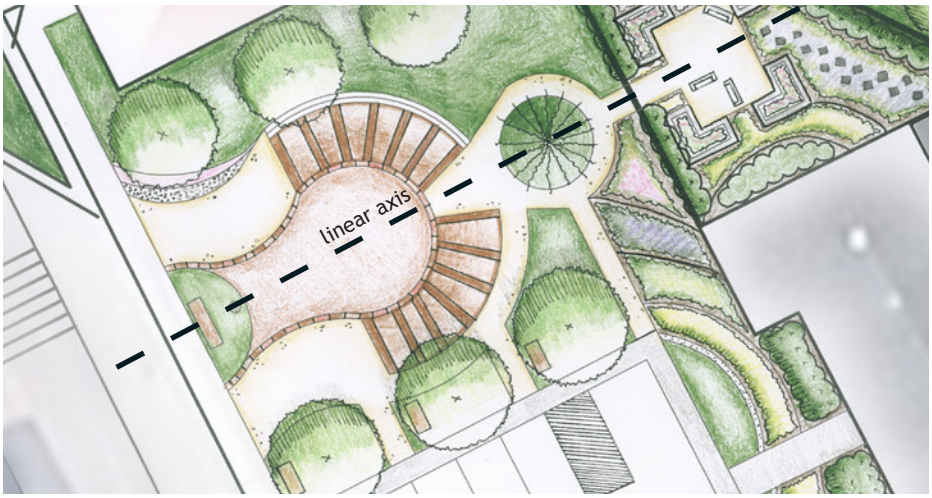


PRELIMINARY CONCEPTS
Senior Center/City Hall Preliminary Conceptual Design

Concept Four

Concept Four completely opens up from the King Kelly Coleman Hwy sidewalk, allowing for greater pedestrian accessibility from the street. Similar to Concept Three, there is a prominent linear axis which starts from the town bulletin board (sitting off the sidewalk), through the double pergola structures to a view of the town Christmas tree in the plaza center. The central plaza area is comprised of a light colored brick with a dark trim that encloses the area meant for gatherings, music or festivals. On either side of the brick are two paved paths: one ending at the pergola with a river rock edging and the other leading to smaller tree lined entrance from the parking lot. In between the pathways from the parking lot are enclosed seating areas with large shade trees and benches. Three large shade trees parallel this on the other side and buffer the Senior Center property from the Post Office. A final buffer of tall evergreen shrubs is placed along the right side of the parking lot to help provide privacy for the residence next door. In this concept, there are curved native perennial beds, however at the front of the building are taller shrubs and grasses.

In the backyard, the team placed tall shrubbed evergreen plantings to make a private space hidden from the central plaza area. A formal perennial garden is designed for this area with raised planting beds. These beds define the rectangular shape of the plaza, allowing for annuals or small gardening projects. Curved perennial beds surround the hardscape to the edge of the Senior Center. Stepping stones allow for pedestrians to access the back of the building without walking through the planting beds. This garden area is meant for sitting and enjoying the view of the garden without being distracted by the busy King Kelly Coleman Hwy.



Left, dashed line, showing pergola, town Christmas tree, and statue on axis.

PRELIMINARY CONCEPTS: Senior Center/City Hall Preliminary Conceptual Design

Concept Four

cd community design
ac assistance center
College of Architecture + Urban Studies
Virginia Polytechnic Institute and State University

PRELIMINARY CONCEPTS
Welcome Signage Preliminary Conceptual Designs

After the initial on site meeting with the community, a location was determined best suited for a town welcome sign. When considering the location and its surroundings, the CDAC team developed sketches of a welcome sign that explores form and materials. Three sketches were presented at a community meeting where Wayland residents commented on which features of each concept they wished to combine into a final welcome sign design.

The initial welcome sign concepts each use stone to match the existing columns on site. The addition of wood was also included. The CDAC team explored creating a town seal that would represent Wayland's history and each concept takes on a different form. One sketch reflects its surroundings by mimicking the mountains in the curves of its design. Another uses height and multiple sides to maximize the use of the space. These concepts and related images can be seen the following page.

At the preliminary community meeting it was brought to the attention of the team that the height of the proposed welcome sign should be raised four feet due to flooding in the area. Planting should also be flood tolerant. The community suggested raising the sign or terracing it with planting beds. The community wanted to explore placing the proposed Wayland seal on the proposed sign with curves mimicking the surrounding mountains. The following pages illustrate the final design based on the community's comments.

PRELIMINARY CONCEPTS: Welcome Signage Preliminary Conceptual Designs

SIGN MIMICS THE SURROUNDINGS

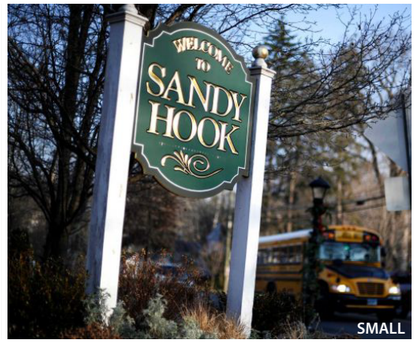

STONE WITH PLANTINGS

STONE AND METAL

VERTICAL

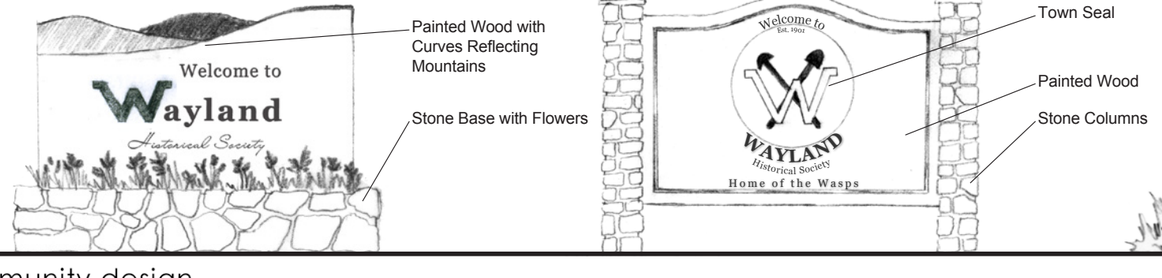
WOOD

BRICK AND FORMAL



SMALL


Location of Future Entry Sign



Sketches of Welcome Signage

CONCLUSION

The Community Design Assistance Center worked closely with the Town of Wayland to create conceptual designs for the Senior Center/ City Hall property, a town welcome sign, and a waterfall lookout opportunity. These improvements can help rejuvenate the existing features of Wayland and aid it in becoming a place of expression and celebration. There is potential to bring new life to Wayland and it is our hope that this work will help the community in its next steps toward growth and fruition.

PART 3

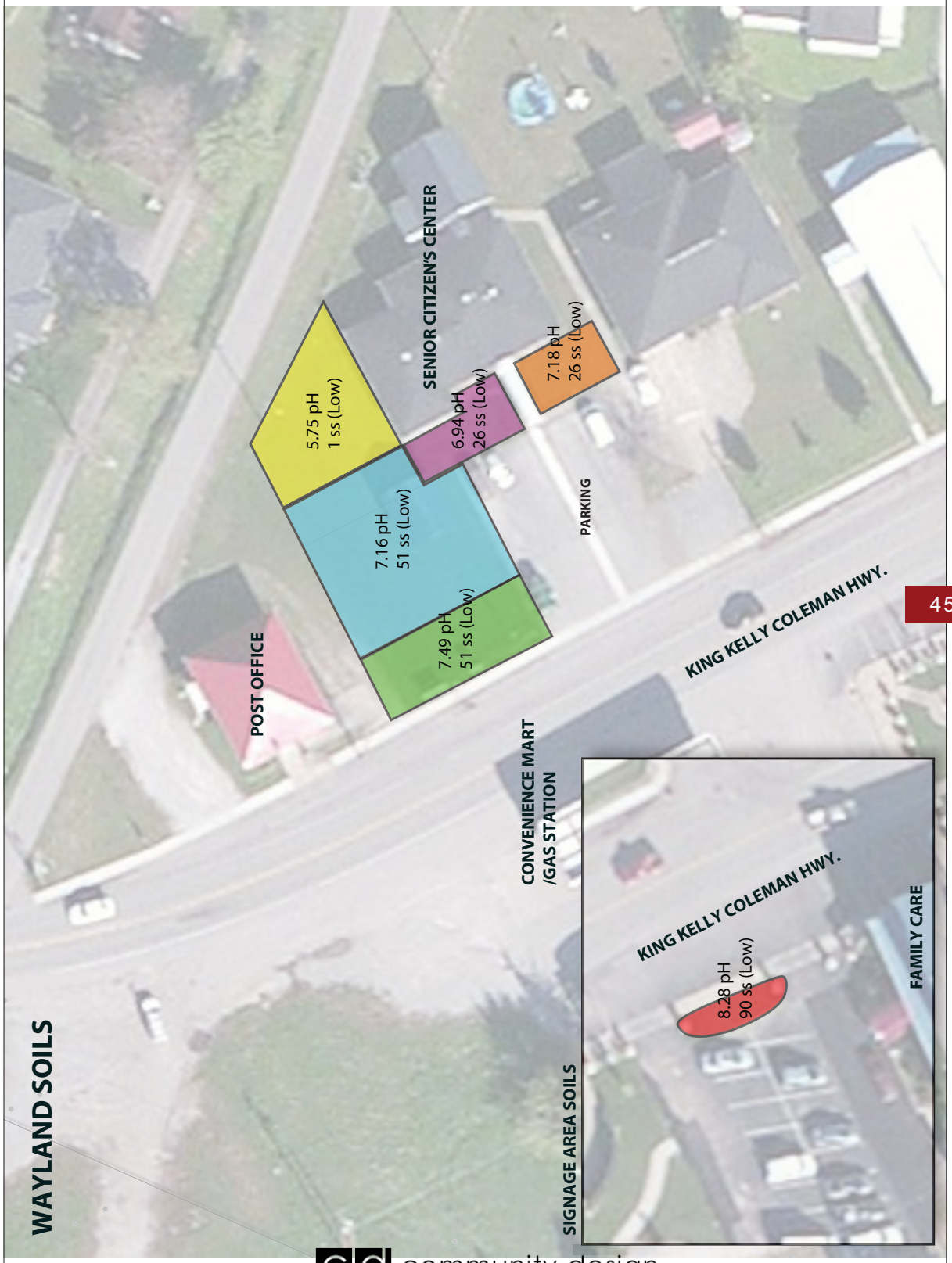
APPENDIX

Reference Material:

Soil Samples: Senior Center/City Hall Site & Welcome Sign Site

Explanation of Soil Tests

APPENDIX: *Soil Samples: Senior Center/City Hall Site & Welcome Sign Site*



APPENDIX: *Explanation of Soil Tests*

Soil Test Note #1

Virginia Cooperative Extension

PUBLICATION 452-701

Explanation of Soil Tests

Rory Maguire, Extension Nutrient Management Specialist, Virginia Tech
Steve Heckendorn, Soil Test Laboratory Manager, Virginia Tech

The accompanying Soil Test Report (and supplemental Soil Test Notes, when provided) will help you assess your plant's need for fertilizer and lime.

The "History of Sampled Area" section restates the information you filled in on the Soil Sample Information Sheet you submitted with the soil sample.

The "Lab Test Results" section shows the relative availability of nutrients numerically and if appropriate, as a rating. The rating may be interpreted as follows: L=Low, M=Medium, H=High, VH=Very High, EH=Excessively High (soluble salt test only), DEF=Deficient, or SUFF=Sufficient, and sometimes a "+" or "-." When soils test Low, plants almost always respond to fertilizer. When soils test Medium, plants sometimes respond to fertilizer and a moderate amount of fertilizer is typically recommended to maintain fertility. When soils test High to Very High, plants usually do not respond to fertilizer. If there is no rating for a nutrient, the adequacy of that nutrient in the soil for the plant you specified has not been determined.

The following is an explanation of the symbols and abbreviation used in the report:

Report Symbols and Abbreviations

P = phosphorus	K = potassium
Ca = calcium	Mg = magnesium
Zn = zinc	Mn = manganese
Cu = copper	Fe = iron
B = boron	SS = soluble salts
lb/A = pounds per acre	ppm = parts per million
meq = milliequivalent	g = gram
pH = acidity	Sat. = saturation
N = nitrogen	P_2O_5 = phosphate
K_2O = potash	% = percent

Est-CEC = estimated cation exchange capacity

AG = agricultural limestone (dolomitic or calcitic)

Fertilizer Recommendation

The fertilizer recommendations may be used for the same crop for two to three years. After this time, it is advisable to retest the soil to determine if significant changes have occurred in nutrient levels. When the soil tests Very High for phosphorus or potassium and no fertilizer for these nutrients is recommended, you should retest the following year to determine if fertilizer will be needed. Due to the variability associated with sampling, fertilizer application rates may be varied by a plus or minus 10 percent.

No soil test is performed for **nitrogen** because this element is too mobile in the soil for laboratory results to be useful. Nitrogen fertilizer recommendations are based on the crop/plant to be grown, the previous crop, and when applicable, the soil's yield potential. Comments on the report and other enclosed Notes, if any, will have further information regarding nitrogen.

Lime Recommendation

If needed, a lime recommendation is given to neutralize soil acidity and should last two to three years. After that time, you should have the soil retested. The measured soil test levels of calcium and magnesium are used to determine the appropriate type of limestone to apply. If neither dolomitic nor calcitic lime is mentioned, or "Ag" type or "agricultural" limestone is stated on the report, then it does not matter which type is used. When no information on the Soil Sample Information Sheet was provided regarding the last lime application, the lab assumed you have not applied lime in the past 18 months. If this is not correct, contact your Extension agent for advice on adjusting the lime recommendation to take into consideration recent lime applications. Do not over lime! Too much lime can be as harmful as too little. For best results, apply lime, when possible, several months ahead of the crop/plant to be planted to allow time for more complete soil reaction.

www.ext.vt.edu

Virginia Tech Invent the Future

Produced by Communications and Marketing, College of Agriculture and Life Sciences, Virginia Polytechnic Institute and State University, 2010

Virginia State

APPENDIX: *Explanation of Soil Tests*

Methods and Meanings

For more detail on the lab procedures used, visit *www.soiltest.vt.edu* and click on "Laboratory Procedures."

Soil pH (or soil reaction) measures the "active" acidity in the soil's water (or hydrogen ion activity in the soil solution), which affects the availability of nutrients to plants. It is determined on a mixed suspension of 1:1, volume to volume ratio of soil material to distilled water.

Virginia soils naturally become acidic, and limestone periodically needs to be applied to neutralize some of this acidity. A slightly acid soil is where the majority of nutrients become the most available to plants, and where soil organisms that decompose organic matter and contribute to the "overall health" of soils are the most active. When a soil is strongly acidic (< 5.0-5.5), many herbicides lose effectiveness and plant growth is limited by aluminum toxicity. When soils are overlimed and become alkaline (> 7.0), micronutrients, such as manganese and zinc, become less available to plants.

For most agronomic crops and landscaping plants, lime recommendations are provided to raise the soil pH to a slightly acid level of between 5.8 and 6.8. Blueberries and acid-loving ornamentals generally prefer a 4.5 to 5.5 pH, and an application of liming material is suggested when the soil pH drops below 5.0. For the majority of other plants, lime may be suggested before the pH gets below 6.0. This is to keep the soil pH from dropping below the ideal range, since lime is slow to react and affects only a fraction of an inch of soil per year when the lime is not incorporated into the soil. If the soil pH is above the plant's target pH, then no lime is recommended. If the pH is well above the ideal range, then sometimes an application of sulfur is recommended to help lower the pH faster; however, most of the time, one can just let the soil pH drop on its own.

A Mehlich buffer solution is used to determine the **Buffer Index** to provide an indication of the soil's total (active + reserve) acidity and ability to resist a change in pH. This buffer measurement is the major factor in determining the amount of lime to apply. The Buffer Index starts at 6.60 and goes lower as the soil's total acidity increases and more lime is needed to raise the soil pH. A sandy soil and a clayey soil can have the same soil pH; however, the clayey soil will have greater reserve acidity (and a lower Buffer Index) as compared to the sandy soil, and the clayey soil will require a greater quantity of lime to be applied in order to raise the soil pH the same amount as the sandy soil. A reported Buffer Index of "N/A" means that it was not measured since the soil (water) pH was either neutral or alkaline and not acidic (soil pH ≥ 7.0) and therefore requires no lime.

Nutrients that are available for plant uptake are extracted from the soil with a Mehlich 1 solution using a 1:5 vol:vol soil to extractant ratio, and are then analyzed on an ICP-AES instrument. An extractable Mehlich 1 level of phosphorus from 12 to 35 pounds per acre (lb/A) is rated as medium or optimum. A medium level of potassium is from 76 to 175 lb/A. Medium levels of calcium and magnesium are 721 to 1440 and 73 to 144 lb/A, respectively. Calcium and magnesium are normally added to the soil through the application of limestone. It is rare for very high fertility levels of P, K, Ca and Mg to cause a reduction in crop yield or plant growth. Levels of micronutrients (Zn, Mn, Cu, Fe and B) are typically present in the soil at adequate levels for plants if the soil pH is in its proper range. See Soil Test Note 4, at *www.soiltest.vt.edu/stnotes*, for documented micronutrient deficiencies in Virginia.

Soluble Salts (**S.Salts**) or fertilizer salts are estimated by measuring the electrical conductivity of a 1:2, vol:vol ratio of soil material to distilled water. Injury to plants may start at a soluble salts level above 844 ppm when grown in natural soil, especially under dry conditions and to germinating seeds and seedlings. Established plants will begin to look wilted and show signs related to drought. This test is used primarily for greenhouse, nursery and home garden soils where very high application rates of fertilizer may have led to an excessive buildup of soluble salts.

Soil **Organic Matter** (SOM) is the percentage by weight of the soil that consist of decomposed plant and animal residues, and is estimated by using either the weight Loss-On-Ignition (LOI method) from 150° to 360°C, or a modified Walkley-Black method. Generally, the greater the organic matter level, the better the overall soil tilth or soil quality, as nutrient and water holding capacities are greater, and improved aeration and soil structure enhance root growth. The percent of organic matter in a soil can affect the application rate of some herbicides. Soil organic matter levels from 0.5% to 2.5% are ordinary for natural, well-drained Virginia soils. A soil organic matter greater than 3% would be considered very high for a cultivated field on a farm, but can be beneficial. Due to relatively large amounts of organic materials being commonly added to gardens, the soil organic matter in garden soils can be raised into the range of 5% to 10%.

APPENDIX: *Explanation of Soil Tests*

The remaining values that are reported under the "Lab Test Results" section are calculated from the previous measured values and are of little use to most growers.

Estimated Cation Exchange Capacity (**Est-CEC**) gives an indication of a soil's ability to hold some nutrients against leaching. Natural soils in Virginia usually range in CEC from 1 to 12 meq/100g. A very sandy soil will normally have a CEC of 1 to 3 meq/100g. The CEC value will increase as the amount of clay and organic matter in the soil increases. This reported CEC is an estimation because it is calculated by summing the Mehlich 1 extractable cations (Ca + Mg + K), and the acidity estimated from the Buffer Index and converting to units commonly used for CEC. This is also an Effective CEC since it is the CEC at the current soil pH. This value can be erroneously high when the soil pH or soluble salts level is high.

The percent **Acidity** is a ratio of the amount of acid-generating cations (as measured by the Buffer Index) that occupy soil cation exchange sites to the total CEC sites. The higher this percentage, the higher the amount of reserve acidity in the soil, and the higher the amount of acidity there will be in the soil solution and the lower the soil pH will be. A reported Acidity% of "N/A" means that a buffer index was not determined, and the acidity is probably less than 1 meq/100g and/or 5%, and the soil pH is alkaline (greater than 7.0).

The percent **Base Sat**uration is the ratio of the quantity of non-acid generating cations (i.e., the exchangeable bases, Ca, Mg, and K) that occupy the cation exchange (CEC) sites.

The percent **Ca, Mg, or K Sat**uration refers to the relative number of CEC sites that are occupied by that particular nutrient and is a way of evaluating for any gross nutrient imbalance.

Additional Information

For questions and more information, contact your local Virginia Cooperative Extension (VCE) office or go to *www.ext.vt.edu*. Contact information for your local Extension office appears on the upper left of your soil test report.

Conversion Factors

(Some Values are Approximate)

1 acre = 43,560 square feet

1 pound of 5-10-5, 5-10-10 or 10-10-10 fertilizer = 2 cups

1 pound of ground limestone or ground dolomitic limestone = 1.5 cups

1 pound of aluminum sulfate or magnesium sulfate = 2.5 cups

1 pound of sulfur = 3.3 cups

1 quart = 2 pints = 4 cups

1 pint = 2 cups = 32 tablespoons

1 tablespoon = 3 teaspoons

1 bushel = 35.24 liters = 1.25 cubic feet

Pounds per 100 square feet x 0.54 = lbs per cubic yard

100 square feet = 5 feet x 20 feet, 10 feet x 10 feet, or 2 feet x 50 feet

1,000 square feet = 50 feet x 20 feet, 10 feet x 100 feet, or 25 feet x 40 feet

Pounds per 100 square feet x 436 = pounds per acre

Pounds per 1,000 square feet x 43.6 = pounds per acre

Pounds per acre x 0.0023 = pounds per 100 square feet

Pounds per acre x 0.023 = pounds per 1,000 square feet