Paintsville Main Street Planting and Parking Lot Design

Prepared for The City of Paintsville

October 2013

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

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Project Team

Community Design Assistance Center

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In collaboration with the Kentucky Division of Forestry

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Acknowledgements

The City of Paintsville

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Bonnie Porter, Main Street Director, City of Paintsville

Denise Thomas, Big Sandy Area Development District

Regina Hall, Big Sandy Area Development District

Lyda Ward, Tourism Commission Member

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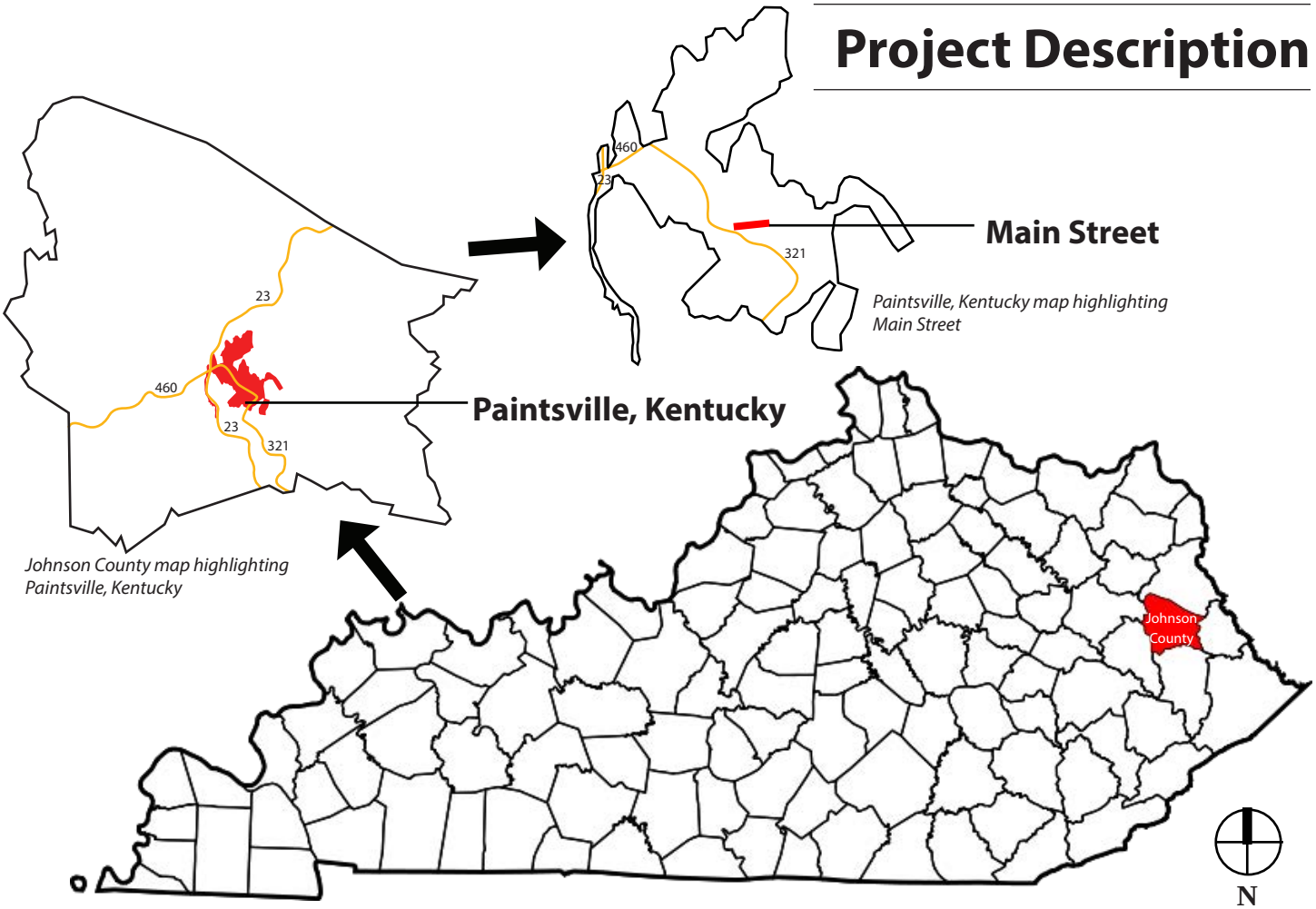
Project Description

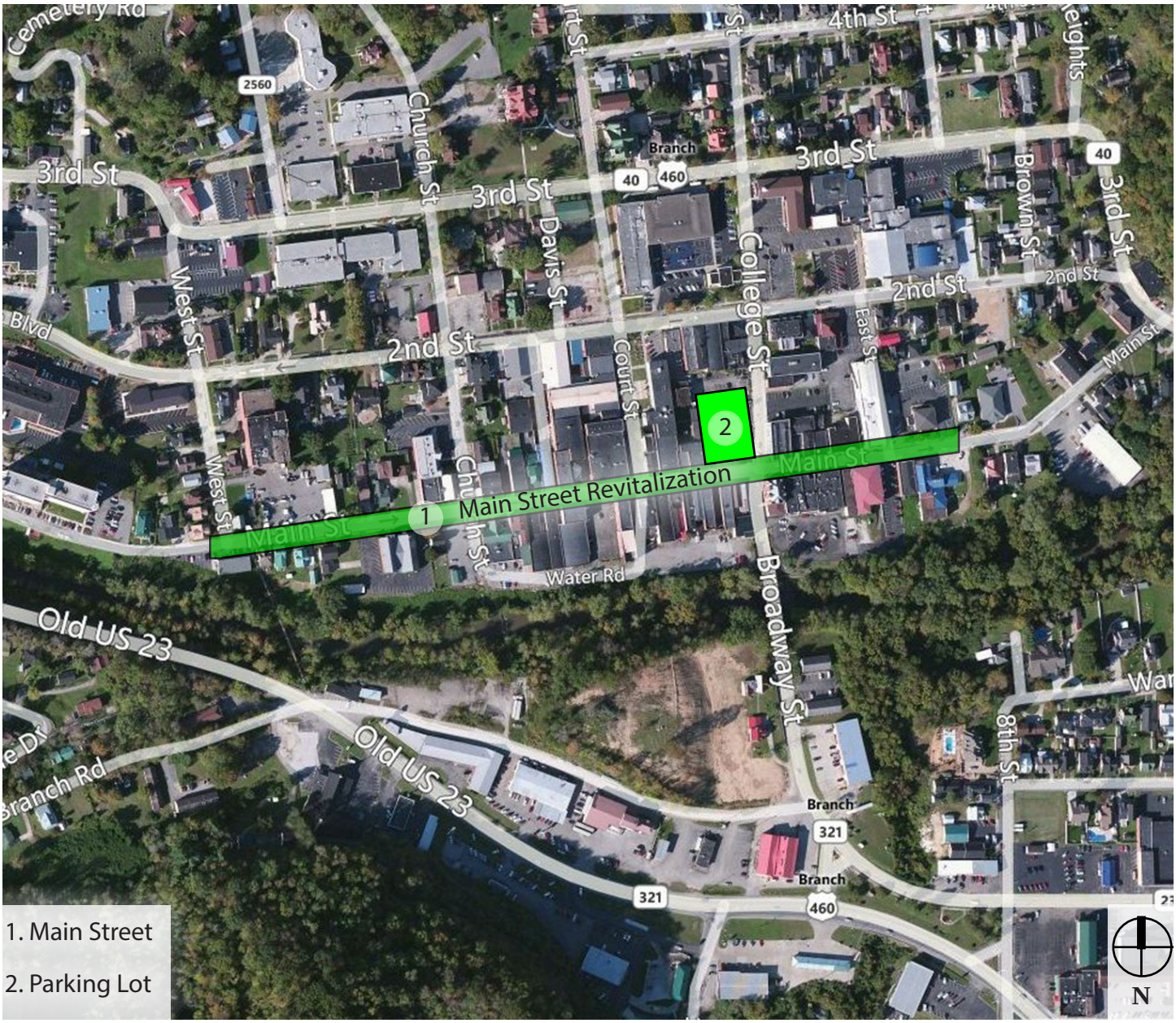


Paintsville, KY is the seat of Johnson County. With a total area of 5.3 square miles, Paintsville is located at the confluence of Paint Creek and the Levisa Fork of the Big Sandy River amid the foothills of the Appalachian Mountains in the Cumberland Plateau. Located at the crossing of US Route 460 and Route 23, "Paintsville serves as a center of commerce, banking, medicine, education, and law for a multi-county region and is a recreational haven appealing to the entire family. The City features such attractions as Paintsville Lake State Park, an 18-hole golf course, and Butcher Hollow, the rustic birthplace of "Queen of Country Music," Loretta Lynn. In early October, Paintsville hosts the Kentucky Apple Festival, which provides such festivities as a gospel sing, a 5-K run, clogging, arts and crafts, and even an old-fashioned costume contest," (taken from City of Paintsville Website).

Paintsville dates back as early as 1780 when it originated as a trading post called Paint Lick Station. The Town of Paint Lick station was laid out in 1812 and incorporated into the City of Paintsville in 1843 as the county's seat. During the early 1900s, Paintsville began to transform into a modern American city: the City's first bank opened for business, they received telephone service, and all of its streets were paved. In 1912, Paintsville received electricity and natural gas services. In 1926, Paintsville residents received public water and the City's fire department was established.

The City went through a period of rapid growth during the 1940s, but this increase in activity slowed to a stop during the 1960s. Since the late 1990s, however, Paintsville's population has been increasing due to business developments as well as growing tourism. Paintsville has also been in the process of revitalizing the downtown area in order to rejuvenate its original business district. In 2009, Paintsville became a "wet" city for the first time since 1945, permitting businesses to sell alcoholic beverages.

Project Description



To help with the overall improvements for downtown, the City of Paintsville requested that the Community Design Assistance Center (CDAC) undertake a conceptual re-design for a parking lot along the main entrance into downtown. The purpose would be to utilize stormwater remediation within the design to demonstrate environmentally-sensitive development near Paints Creek and to create an aesthetic entry to the downtown area. In addition, the City of Paintsville requested that the CDAC analyze Main Street for the possibility of street tree plantings to help create a more pedestrian friendly and inviting downtown. CDAC would determine if space along the street allowed for trees and develop a conceptual design accordingly. Final products for the project would include a conceptual design for an environmentally-friendly parking lot, supporting sketches, and a planting plan for Main Street and the parking lot.

Design Process

The CDAC team take an initial site tour with Mayor Bob Porter and Regina Hall.

CDAC team member Harley Walker presents preliminary conceptual designs at the first community meeting.

The design process began with an initial site visit to Paintsville in February, 2013. The CDAC design team walked Main Street and the parking lot, gathering information about the landscape that would later influence the design concepts. By touring the site, the team was able to establish a first-hand understanding of the site conditions, including both opportunities and constraints, which were documented on a series of analysis maps.

The site visit also provided the opportunity to meet with City employees, Main Street shop owners, residents of Paintsville, and a representative of the Main Street Association. By meeting with these representatives of the community, desires and concerns were voiced and heard before the conceptual master plan began to take form. A set of objectives was also developed during this initial site visit to help guide the following design process.

With the project objectives in mind and an understanding of the site's opportunities and constraints, the CDAC team developed a set of preliminary conceptual designs. These designs were presented at a community meeting where they were reviewed and commented on by members of the community. The conceptual designs were then revised and modified into a final conceptual master plan based on the comments made at the meeting. The final master plan was presented at a second and final community meeting.

Project Objectives

Members of the community and the CDAC team worked together to create a list of objectives during the first site visit to Paintsville, KY.

- Improve the character of Paintsville's downtown Main Street
- Create an aesthetic gateway into Downtown Paintsville as one crosses the Veterans Memorial Bridge
- Create a pedestrian friendly Main Street
- Maintain adequate parking and loading areas
- Increase the number of street trees downtown and select trees that are appropriately scaled for the space
- Improve wayfinding signage for visitors
- Make the parking lot aesthetically pleasing
- Improve parking circulation
- Provide stormwater remediation to demonstrate environmentally sensitive development
- Create a flexible design that can support various community events

Inventory and Analysis

The view entering Paintsville from the Veterans Memorial Bridge.

Narrow sidewalks, overhead line, and storefront awnings limit the location and type of street tress that can be planted along Main Street.

In February, 2013, the CDAC design team visited Paintsville to conduct an on-site inventory of Main Street and the parking lot site. This process consisted of documenting the landscape through photographs and taking measurements that would be incorporated into a site map. The site inventory located landscape features and amenities such as electrical poles, fire hydrants, parking spaces, benches, and more.

After conducting the on-site inventory, the CDAC team returned to Blacksburg to analyze the raw information. An analysis map was created with the information gathered on-site from the site inventory. Various landscape features and areas were identified as either opportunities (green) or constraints (red) through a color system. This analysis map acts as a basemap that can be used to create a design; green areas are emphasized and red areas treated with caution. The inventory and analysis maps can be found on the following two pages.

Key opportunities identified are the various gateways into downtown (especially the view seen crossing the Veterans Memorial Bridge), beautifying the front of City Hall, and creating a key feature at the corner of the Main Street parking lot. A number of constraints were identified along Main Street. Overhead power lines, primarily along the southern edge of the street, and narrow sidewalks limit the type of trees and where they can be planted along Main Street. Trees must fit under power lines and in the narrow space between the street and building facades. Storefront awnings also proved to be a constraint when considering street tree placement.

Inventory and Analysis

Inventory

Main and College Intersection

Main Street Parking Lot

View Down Main Street

Legend

- Utility Pole
- Pedestrian Walk Sign / Utility Pole
- Light Pole
- AEP Voltage Box Underground
- Fire Hydrant
- Water Meter
- Man Hole Cover
- Grate
- Post Box
- Trash Can
- Vending Machine
- Stop Sign
- Newspaper Boxes
- Planter
- Bench
- Fence Post
- Bollard
- Pear Tree
- Sewer Line
- Water Line
- Awning

north 0′ 60′

Inventory and Analysis

Analysis

Main Street Road Width Constraint

Main Street Parking Lot Corner Opportunity

Overhead Obstacles Constraint

Opportunities

- Opportunity
- Signage Opportunity

Constraints

- Underground Constraint
- Above Ground Constraint
- Overhead Constraint

north 0′ 60′

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Research

After the analysis phase of the design process, the CDAC team performed research targeted toward pedestrian-oriented street improvements and low impact parking lot design. Three case studies were explored. The first case study focused on Westminster, Maryland's Main Street improvements. This study resulted in a better understanding of how widening sidewalks, planting street trees, and locating crosswalks at sidewalk bump-outs can improve the experience of pedestrians walking down Main Street. Wider sidewalks make it easier and more comfortable for pedestrians to pass each other and creates the opportunity for restaurants to provide outdoor seating. More street trees beautify the street corridor and create a shaded, more comfortable space to walk through on a sunny day. Finally, sidewalk bump-outs at a pedestrian sidewalk help to create a safer, shorter, more visible street crossing.

Two case studies looked at low impact parking lots with slightly different approaches to bioswales. These studies helped with material choices and combinations for designing parking lots. Even though it is simply a space to park one's car, through smart choices of materials and locating bioswales, the parking lot can become an interesting, low impact piece of infrastructure, that ultimately can help reduce pollutants entering into Paints Creek.

The final piece of research conducted by the design team was a study looking at how far people are willing to walk from their car to the entrance of a store. This was part of a small manifesto arguing the benefits of a pedestrian-oriented Main Street. The nearest Walmart (and its parking lot) to Paintsville was overlaid on-top of downtown. This overlay revealed that shoppers are willing to walk an equivalent of two blocks from their car to the entrance of a store. The various studies can be found on the following two pages.

Downtown Revitalization

East Main Street Reconstruction
Westminster, MD

Curb extensions create more room for larger street tree planters. Large planters provide more room for roots to grow, resulting in healthier trees and a more comfortable, shaded street.

Curb extensions also create safer street crossings. By widening the sidewalk at crosswalks, pedestrians actually need to walk a shorter distance while crossing the street.

In 1990 Westminster's East Main St. suffered from a number of issues concerning the degradation of its infrastructure. Rain lingered in puddles because there was no storm drainage, numberous repavings had raised the street's center resulting in slanted parallel parking, while toops and utility poles encroached onto cracked, narrow sidewalks. Construction of East Main Street's revitalization began in 1993. The City made a decision to reduce the amount of vehicular infrastructure and give it to the pedestrians. Streets were narrowed from 12' to 11' and 10' (although the City later stated it could have further narrowed them to 9.5'). Sidewalks were expaned from 5' to 10' and in certain areas curbs were extended 6' to provide trees with more breathing room while defining the ends of on-street parking area. Concrete pavers were used for sidewalks in highly trafficked areas to add a new element of beauty to Main St. The completed project resulted in an increased demand for downtown retail and office space which increased Main Street property values.

Green Parking Lots

Jackson County Courthouse Parking Lot
Kansas City, Missouri

In 2005 BNIM Architects designed a green parking lot that uses bioswales to collect and filter stormwater from the surrounding paved area and courthouse roof. Flat curbs were used throughout the lot to allow water to flow off of the paved surface and into the bioswales. The wheel stops selected for the lot are made with 100% recycled plastic.

L.A. Zoo Parking Lot

In 2011 the Log Angeles Zoo parking lot was constructed to mimic natural hydrology and reduce storm runoff. A combination of permeable paving and bioswales slow and capture stormwater where it infiltrates into the ground near its point of impact. The large parking lot was planted with 247 trees, nearly four times as many as it had before reconstruction. The trees are located and planted in a way that provides as much shade as possible, reducing the heat island effect created by direct sunlight shining on paved surfaces.

Walmart parking lot laid over Paintsville's Main Street shows the distance shoppers are willing to walk from their car

Research

Benefits of a Pedestrian Street

What are the benefits of moving from a vehicular-oriented Main Street toward a pedestrian - oriented Main Street?

Improves the city's image.

Turns Main Street into a social space.

Better chance of attracting the pedestrian into your store than the driver.

Fewer parallel parking spaces in front of stores increases visibility into windows from the street.

Encourages walking and healthy living.

People are willing to walk more than a block from their car to a store.

Allows more space for tree plantings, improving the health of street trees and helping to fight the heat island effect.

Off-street parking around Main Street

Existing on-street parking
50 spaces

Proposed on-street parking
36 spaces

Off-street parking
over 200 spaces

14 on-street parking spaces are lost for the creation of this pedestrian-oriented Main Street design. The aerial image to the left highlights off-street parking around Main Street. A count from this aerial image reveals that within the highlighted lots, there are over 200 parking spaces that could be used for customers. The aesthetic and quality-of-life benefits created by a pedestrian Main Street outweigh the small loss in on-street parking.

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Preliminary Design Concept

After analyzing Main Street and the parking lot site, the CDAC team developed a preliminary design concept for the City of Paintsville. Main Street improvements focus on using a change in paving material, sidewalk bump-outs, street trees, and ornamental plantings to improve the character of the street corridor. It is designed for both pedestrians and automobiles.

Sidewalks are widened in certain areas to better serve pedestrians while simultaneously visually narrowing vehicular lanes to slow traffic in the downtown core. In other areas, the sidewalk is widened to create room for large tree pits that won't restrict root growth and to create larger pedestrian spaces for outdoor seating. For example, on the block in front of City Hall, the sidewalk is widened 7.5 feet into the street, removing parallel parking. This stretch of sidewalk is designed as a pedestrian core with plenty of room to pass other walkers or stop and socialize. The widened sidewalks allow for street trees and for restaurants to provide outdoor seating. Wider sidewalks result in the narrowing of the traffic lane to a maximum of 12 feet. This narrower traffic lane will encourage drivers to slow down.

The parking lot proposal focuses on improving vehicle circulation, directing stormwater into designated treatment areas, and improving the overall aesthetic of the site. The design also considers how the parking lot could function as a site to host community events. Circulation is addressed by shifting several of the parking spots to allow for larger traffic lanes.

Stormwater runoff is a significant contributor to polluting both sources of above-ground water, such as streams and ponds, and ground water. Environmentally sensitive design can address this source of pollution by infiltrating runoff into the ground. This will prevent the polluted water from traveling along the ground's surface toward a stream, collecting more pollutants on the way. The parking lot design collects and treats water runoff in three bioswales that are planted with various plants that collect, infiltrate, and filter polluted water.

Materials play a large role in influencing the character of a place. High quality materials should be selected to create a space of equally high quality. A change in paving material is proposed for Downtown Main Street to achieve this sense of character. Brick sidewalks replace the existing concrete ones. This change in material acts to visually differentiate downtown from the rest of the City and it also creates the image of a city that cares about its downtown and public space.

This new material also appears in the parking lot concept. To create a parking lot that is visually more pleasing than the average asphalt lot painted with white lines, different materials were considered. Asphalt is used as the paved surface in the circulation areas of the parking lot. Each parking space, however, is paved with dry-lain permeable brick pavers that continue the character created by the brick sidewalks along Main Street. In the parking spaces, pollutants such as oil, antifreeze, and grease often accumulate, so parking spaces are an important location to begin infiltration and treatment. Rather than painting lines between the parking spaces, Light or dark gray permeable pavers are used to create lines differentiating the individual parking spaces. Finally, pavers are used again to detail the edges of the parking lot instead of curbs. Curbs are avoided so water will be able to freely flow from the parking lot into the three bioswales.

Finally, special attention was given to the corner of the parking lot nearest the Main Street / College Street intersection. This space connects the parking lot to Main Street, is visible from the main entry into town, and also has the potential to act as a pedestrian space. In the design, a series of diagonal concrete benches are placed on the edge of the sidewalk and protrude into the bioswale. These sculptural benches provide a place for people passing by to sit and relax, but their angle is oriented toward the large wall adjacent to the parking lot. On certain evenings, this wall is currently used to show outdoor movies. The stone benches are all oriented toward this wall, providing sculptural outdoor seating.

Preliminary Design Concept

Conceptual Master Plan

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north 0′ 60′

Community Meeting

CDAC team member Lara Browning introduces the project to citizens at the final community meeting.

CDAC team member Harley Walker discusses planting decisions with a member of the Paintsville community.

After the initial site visit where the CDAC team gathered information about the project site, two community meetings were held to present the design concepts. The preliminary design concepts were presented at the first community meeting where representatives from Paintsville viewed and commented on them. The objective of this meeting was to identify features of the designs that the community either liked and wanted to keep or disliked and wanted to change before moving into the final design phase.

Overall the preliminary conceptual master plan was well received by the community. The parking lot design and sidewalk improvements were approved, however there were a few suggestions made by the community. The most significant change requested by the community was to include a loading zone on City Hall's block. While the addition of a loading zone in this area breaks the ideal pedestrian core proposed in the preliminary concept, it provides easier access for shop owners to restock their stores.

The second change that was requested was for the incorporation of a water feature somewhere in the parking lot. The retaining wall that runs through the middle of the lot was suggested as the location of the water feature. The community also asked for more close-up images of various design features to help visualize the concepts. Finally, the community asked for a detailed signage plan that will help visitors (both drivers and pedestrians) find key destinations in Paintsville.

After the first community meeting, the CDAC design team returned to Blacksburg for the final design phase. All requested changes were made in addition to the creation of new supporting drawings such as details and perspectives. The final conceptual master plan was presented at the second, final community meeting in Paintsville.

Final Design Concept

In response to the comments and requests made at the community meeting, two final conceptual master plans were created. The two plans are identical except for the pedestrian core located on City Hall's block. Concept A maintains the ideal pedestrian core developed for the preliminary conceptual master plan. This design removes all parallel parking and loading zones from this side of the block to give as much space as possible to pedestrians. A loading zone is located on the block, but only on the north side of the street. This means that shop owners on the south side of the street would have to cross traffic when loading merchandise to their stores. Concept B was created in response to the expressed desire for a loading zone in the pedestrian core and provides shop owners on the block a loading zone on their side of the street that can be used to load goods and merchandise into their stores. Concept B is less ideal for pedestrians and tourists but more convenient for shop owners.

The only change made to the parking lot design was the incorporation of a water feature into the design. The community requested a water feature and suggested using the retaining wall in the parking lot. The retaining wall, however, is removed from the street and would only be partially visible from the downtown core. A series of water features were designed on the corner of the parking lot at the Main St. / College St. intersection. The feature was located here because it is a very visible spot that receives a lot of foot traffic. This creates the opportunity to have a unique water feature that creates a visual impact for drivers crossing the Veterans Memorial Bridge and provides an interactive experience for pedestrians walking by or sitting on a bench. More information on the water feature can be found on page 26.

A number of supporting drawings were produced for the final conceptual master plan. A detailed zoomed-in plan of the parking lot and Main Street provides a clearer picture of the design's layout. This zoomed-in plan locates planters, seating, bioswales, and some materials in detail. Perspective drawings were also created to help visualize what the design will look like. These drawings act to visually place a person into the landscape and show what they would see.

Finally, signage and planting plans were developed for the final conceptual master plan. The signage system has two parts: a directional map located adjacent to the Main Street Parking lot and a series of vehicular directional signs. The directional signs provide basic turning directions to several key destinations. The planting plan brings 42 new trees onto Main Street and the Main Street parking lot. These trees were selected to grow well in their specific conditions which addressed limitations such as space, pH, and drainage. More information on the signage can be found on page 28.

Final Design Concept

Conceptual Master Plan A

http://www.pavestoneatlanta.com/images/apps/Harris%20Pavestone%20Shots%20017.jpg

http://cms.esi.info/Media/productImages/Charcon_Infilta_permeable_paving_block_6.jpg

http://www.cityofberkeley.info/uploadedImages/Public_Works/Level_3_-_Sewers_-_Storm/Graphic%204%20Pavers%20Picture.jpg;

Example details of concrete permeable pavers and asphalt combined in a single paved area. This type of detail can be used to define the parking spaces in the Main Street parking lot.

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Final Design Concept

Conceptual Master Plan B

http://austintexas.gov/sites/default/files/files/Sustainability/news/Cesar_Chavez_Esplanade.JPG

http://janinemudge.files.wordpress.com/2011/05/janines-street-side-tree-garden-5-26-11.jpg

http://caseytrees.org/wp-content/uploads/2013/04/Barracks-Row-2008.jpg

Street trees bring beauty and a dynamic character to the sidewalk. A combination of different species will introduce different colors and textures to the pedestrian's experience.

The top-left image shows large tree pits that encourage healthy root growth.

The bottom-left image shows a continuous tree pit along the road's edge. Structured soil and dry-laid paving breaks up the pit and allows pedestrians to walk over it as part of the sidewalk.

The image on the right shows how a combination of perennials and annuals can be planted in the tree pit to bring more color to the landscape. These plants should have shallow roots so they don't compete with the tree .

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Final Design Concept

Parking Lot Conceptual Master Plan

north 0′ 60′

Final Design Concept

Perspective Views

Wider sidewalks provide more space for street trees and pedestrians to walk Main Street. A narrower lane makes a shorter, safer crosswalk for pedestrians.

The water feature at the intersection of Main and College Streets draws drivers' eyes to a new downtown welcome sign.

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Final Design Concept

Perspective Views

Concrete benches protrude into the bioswale, providing a place for pedestrians to stop and sit. Water features produce a constant flowing white noise that drowns out the sound of cars driving by. A water wall creates an opportunity for pedestrians to interact and stick their hands through the sheet of water. The community movie wall can be seen in the background.

Rather than painting parking lines onto the parking lot surface, changes in material designate different parking areas. Concrete brick pavers designate parking areas while asphalt covers the traffic lanes.

Final Design Concept

Perspective Views

The parking lot design uses a number of different materials, colors and textures to create a visually stimulating landscape.

Bioswales trap and filter polluted stormwater while also bringing natural textures and color to the paved landscape.

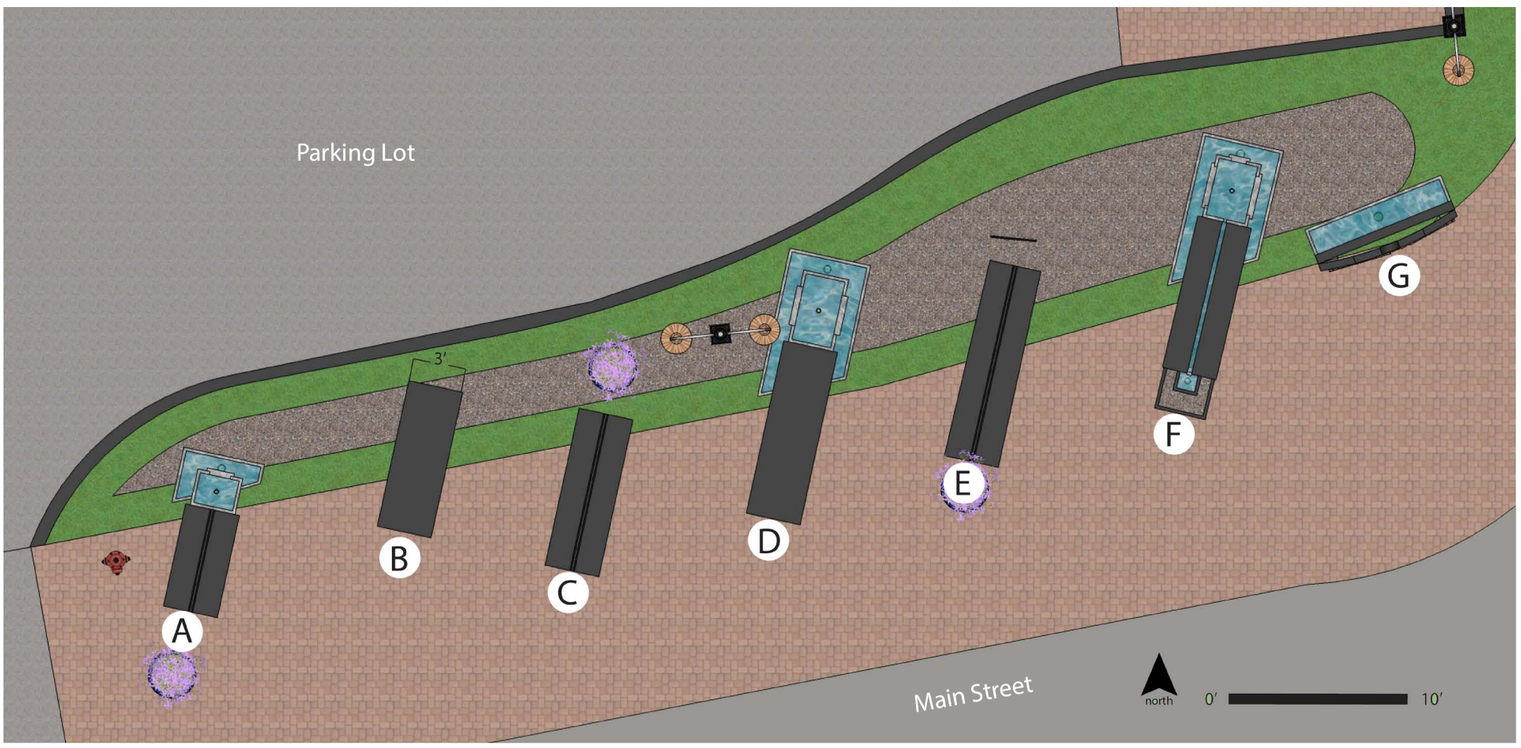
Final Design Concept

Water Feature

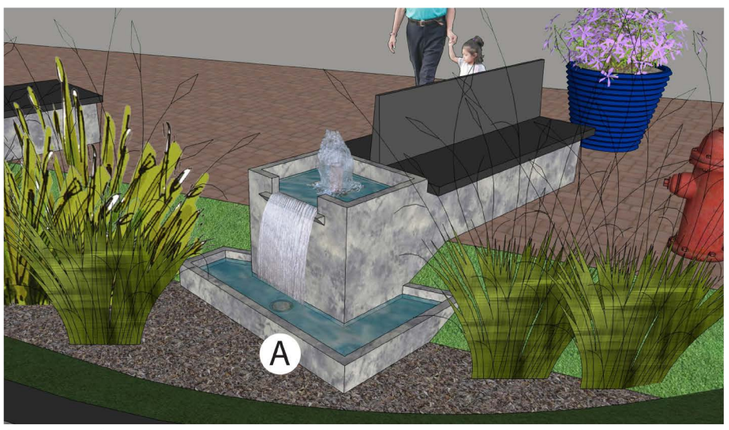
The Paintsville community expressed the desire for a water feature somewhere in the conceptual designs at the first community meeting. This request was addressed in the form of a set of sculptural benches with fountains built into their ends. At the corner of the Main Street Parking Lot where Main Street and College Street intersect, there was a need for a design element to become a key landscape feature.

The preliminary conceptual master plan included concrete benches that sit diagonally on the sidewalk, protruding into the bioswale. These benches were designed and located to provide seating for movies shown on the brick wall adjacent to the lot. While they served a function, they were missing something to draw the attention of pedestrians and encourage interaction. Combining these concrete benches with a water feature was the solution to this issue.

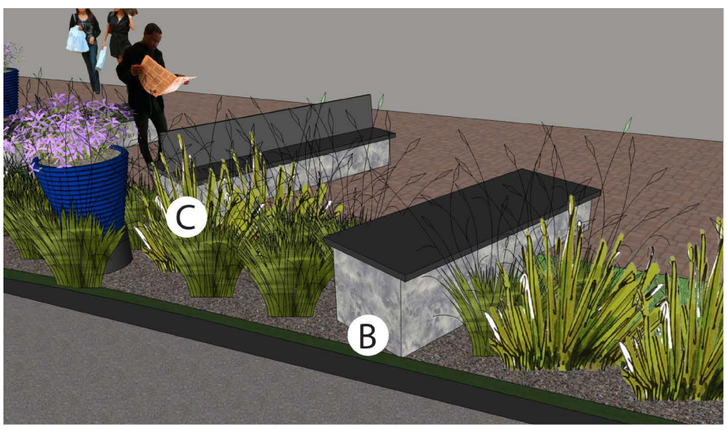
Six sculptural benches symbolically and physically connect the parking lot to the sidewalk while providing a place for people to sit. Each bench is slightly different and can be used in different ways. Some have backs while others don't. Three of them have fountains built into their northern ends, pouring water down into a drain hidden in the bioswale. A water wall is located at the corner of the sidewalk nearest the intersection. This water wall allows water to cascade down behind a new downtown welcome sign while providing the opportunity for pedestrians to reach out and touch the water. The water features help to create a pedestrian space that stimulates the senses of touch and sound in addition to just sight. The water features and sculptural benches can be found in more detail on the following page.



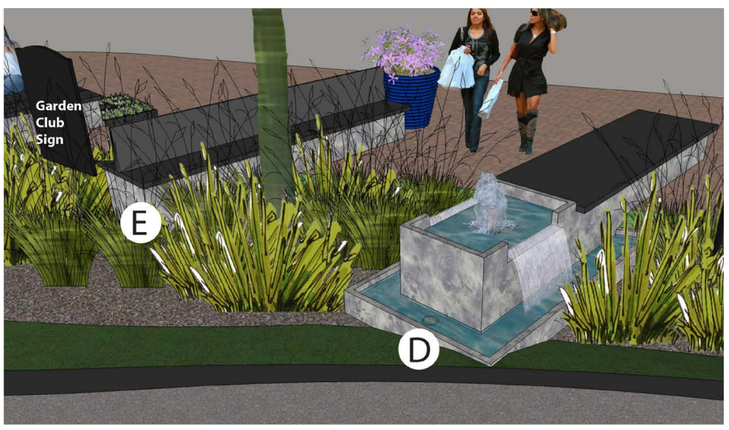
Bird's-eye view of concrete benches and water features



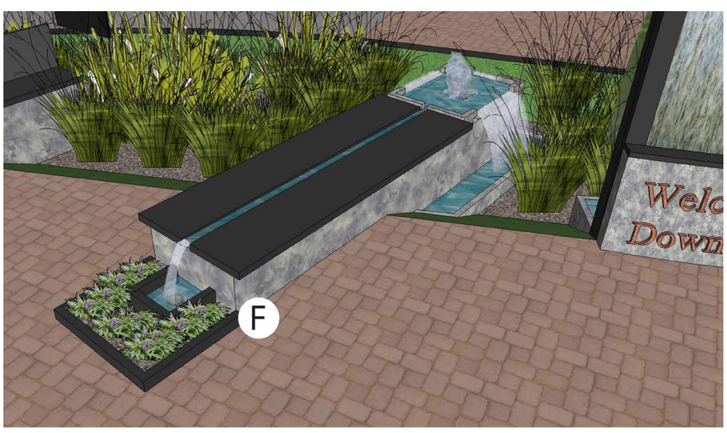
A includes a fountain with a single waterfall attached to a concrete bench with back support. A large flower pot is located at its end.



B is a simple concrete bench without back support. **C** is a bench with back support.



D includes a fountain with two waterfalls attached to a concrete bench without back support. **E** is a bench with back support and a large flower pot at its end.



F includes a fountain with three waterfalls attached to a concrete bench without back support. A small channel of watter runs along the bench to a fourth small waterfall.

G includes a welcome sign and waterwall visible to drivers yet experienced by pedestrians.

Final Design Concept

Water Feature

Final Design Concept

Signage Improvements

The downtown Paintsville area is made up of several one-way streets that can be difficult for visitors to navigate. There is a definite need for a signage system to be developed at different scales. A pedestrian signage system should be implemented that allows visitors to easily navigate sidewalks while a separate driver signage system should be developed to help visitors navigate the one-way streets.

Several locations in downtown Paintsville were identified as key destinations that should be included in the directional signage. These destinations were: City Hall, the Library, the Sipp Theater, the Sheriff's Office, and the Courthouse. These destinations were identified by the CDAC design team, and locations may need to be added or removed based the community's discretion.

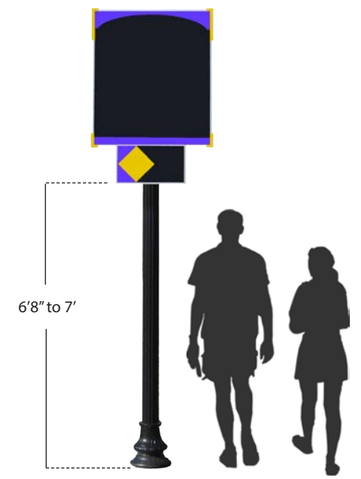
Pedestrian signage takes a minimal approach. Rather than providing turn by turn instructions, pedestrians can use a large map located at the southwest corner of the Main Street Parking Lot. This sign will inform pedestrians "you are here" and locate key destinations on the map. Below the map, various kinds of information can be displayed to the public. This information could be historic interpretation or could act more as a community bulletin board.

Directional signage for drivers uses a larger system than the pedestrian map. Signs labeled with destination names are located on the right side of every street downtown. Next to each name is an arrow that shows what direction to turn to reach the destinations. If the destination is on a driver's current street, below the name a small label informs whether it will on the right or left. The dominant feature on the directional signs for drivers is parking. A large symbol located at the bottom of the sign shows where the nearest parking is located.

Directional signage must be properly sized and oriented to work with both pedestrians and vehicles. Signs must be the proper height and oriented perpendicular to the street for drivers to be able to read them. The bottoms of the signs should be between 6'8" and 7' off the ground to allow pedestrians to comfortably walk beneath them. More detailed information on the proposed signage system can be found on the following page.

Final Design Concept

Signage Improvements



The proposed Main Street signage is designed at the human scale. It is tall enough for a pedestrian to comfortably walk beneath it without hitting their head. Clearance should be 7 feet.

Legend

Signage Location and Orientation

north 0' 60'

Planting Plan

Planting Strategy

The environment of Paintsville's downtown Main Street creates a number of conditions that can potentially limit tree growth. Specific species and some cultivars of trees must be selected to thrive in these conditions. The soil in an urban environment such as this is generally very alkaline and can be filled with pollutants. All plants specified in the planting plan can tolerate adverse conditions and are known to grow in urban settings.

The primary limiting factor for planting trees along Main Street is space. All trees selected to plant on Main Street were chosen to fit in a 17'- 20' space between street and building facade and are relatively drought tolerant. They are centered in their planting beds when possible to allow healthy root growth on both sides of the tree. All tree planting beds are a minimum of 6' x 6' and in some cases are as large as 6' x 20'.

Power lines along the northern edge of Main Street create an obstacle in tree planting. Trees along the north edge of Main Street are shorter and were selected to grow under the utility lines. Trees selected for the southern edge of the street grow taller because they do not have the overhead constraint.

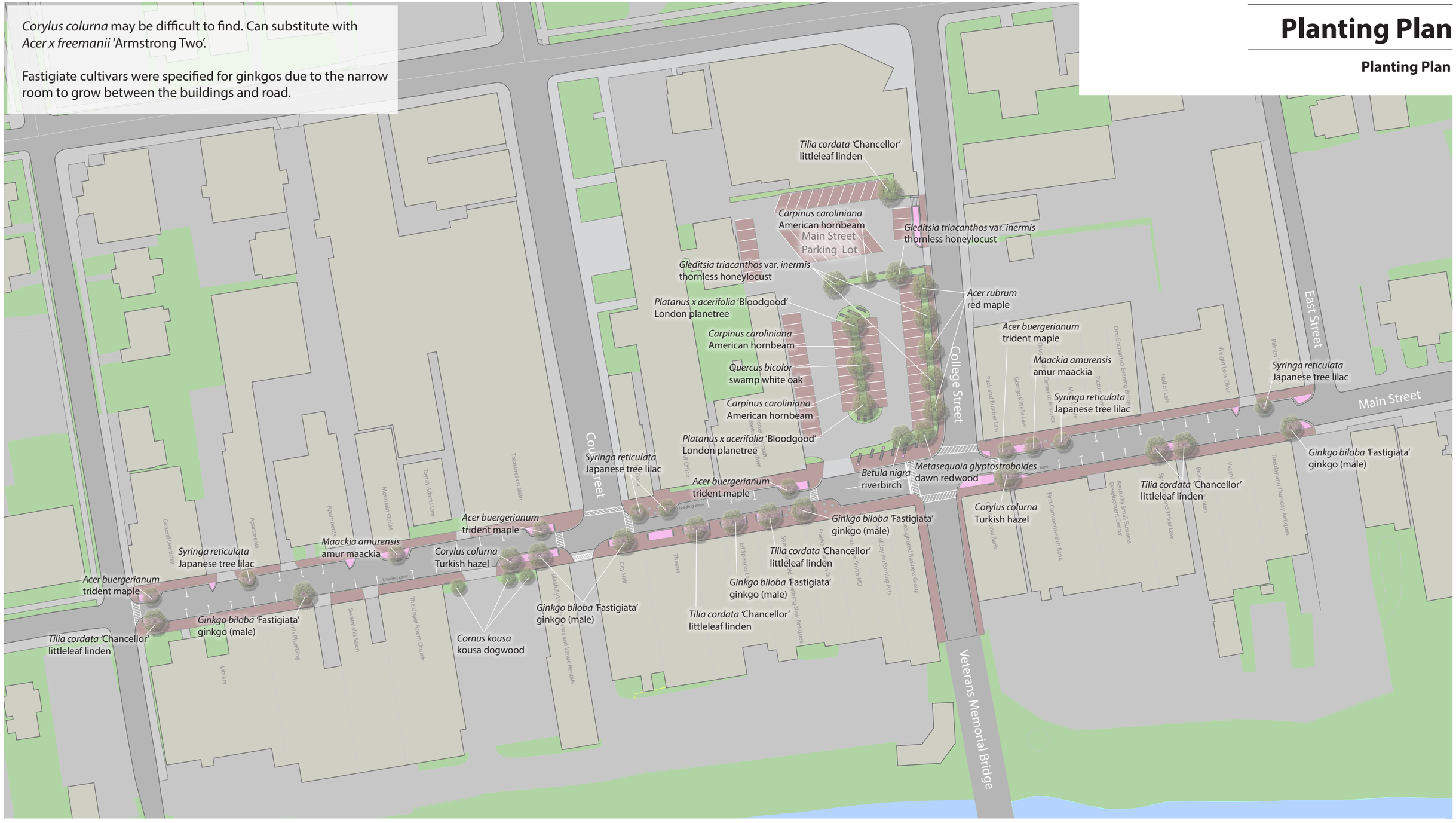
The parking lot doesn't have the same spatial limitations that are found on Main Street. Trees planted here serve a specific function to provide as much shade as possible while not creating a mess that would clog permeable pavers. As a result, trees with large canopies were selected to be planted in the parking lot. Shade is needed in this space to help reduce the amount of sunlight and heat absorbed by the lot's paved surface and to ultimately help combat the heat island effect. Trees planted in bioswales are selected to be tolerant of flooding during storm events. The conceptual planting plan can be found on the following page.

Planting Plan

Planting Plan

Corylus colurna may be difficult to find. Can substitute with *Acer x freemanii* 'Armstrong Two'.

Fastigiate cultivars were specified for ginkgos due to the narrow room to grow between the buildings and road.



north 0′ 60′

Planting Plan

Tree List

NAME	Quantity
Acer buergerianum	4
trident maple	
Acer rubrum	3
red maple	
Betula nigra	1
riverbirch	
Carpinus caroliniana	3
American hornbeam	
Cornus kousa	3
kousa dogwood	
Corylus colurna	2
Turkish hazel	
Ginkgo biloba **'Fastigiata'**	6
ginkgo (male)	
Gleditsia triacanthos **var.** ***inermis***	4
thornless honeylocust	
Maackia amurensis	2
amur maackia	
Metasequoia glyptostroboides	1
dawn redwood	
Platanus x acerfolia **'Bloodgood'**	2
London planetree	
Quercus bicolor	1
swamp white oak	
Syringa reticulata	5
Japanese tree lilac	
Tilia cordata **'Chancellor'**	6
littleleaf linden	
Total	43

Conclusion

Paintsville, Kentucky is a small city full of character. Its antique shops, friendly restaurants, and sense of community create a very welcoming place to visit. Paintsville residents form an active community that regularly participates in local events and gatherings, such as plays at the Sipp Theater and movies shown in the Main Street parking lot. While its people are a valuable resource, Paintsville's infrastructure could further aid in building the City's character and supporting its community.

The conceptual master plan to improve Paintsville's Main Street and downtown parking lot aims to strengthen the City's infrastructure and support the community. It will improve visibility into storefronts, provide room for outdoor restaurant seating, and support community events of various sizes. New street trees and uniform signs will bring new color, texture, and character into downtown Main Street and provide a pleasant outdoor environment that will encourage pedestrian's to linger. It is our hope that this master plan will help the City of Paintsville reach out and receive funding to make their community's vision a reality.