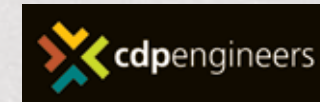




Town Branch Trail Master Plan

Lexington-Fayette Urban County Government

Final



Acknowledgements

Lexington-Fayette Urban County Government

Jim Newberry, Mayor
Jim Gray, Vice Mayor
Linda Gordon, At-Large
Chuck Ellinger, At-Large
Tom Blues, Council 6th District
Ed Lane, Council 12th District
Keith Lovan, LFUCG Engineering
Kenzie Gleason, LFUCG Planning
Cindy Deitz, LFUCG Planning

Advisory Committee

Van Meter Pettit, Town Branch
Barry McNeas, Lexington Distillery District
Fred Mudge – RJ Corman
Joe Kelly – Economic Development
Harold Tate – DDA
Renee Jackson – DLC
Derek Paulson – EKV – Public Safety
Rita Keys – Friends of McConnell Springs
Yvette Hurt – Art in Motion
Bill Owen – Lexington Center Corporation
Brett Blair – KYTC D-7
Dennis Anderson – Developer
Marilyn Childre – BCTC
Robert Congleton – Congleton Concrete
Jim Nuti – Developer
Bill Pence, Pence Trucking

Planning Team

CDP Engineers, Inc

B. Scott Southall, ASLA, LEED AP, AICP
Joshua Karrick, ASLA, AICP

Alta Planning + Design

John Cock, AICP
Charlie Denney, AICP

Urban Collage

Stan Harvey, AICP
Soumi Basu

Executive Summary

The scope of this project was to develop a master plan for Town Branch Trail (TBT) Phases 3 & 4 from Alexandria Drive to Jefferson Street/Cox Street Parking Lot. The trail will connect into a recently completed 1.8 mile section of the Town Branch Trail near Alexandria Road and lead to Masterson Station Park.

The first activity of the project was to develop trail alignments along the proposed corridor. During the master planning other opportunities will be explored including trailhead locations, connections to cultural and historical significant features, opportunities for public art, interpretive signage, landscape design and infill and redevelopment potentials. The second activity will be to develop construction documents for the Phase 3 section of the trail including the necessary environmental assessment, easement and permitting process.

Planning Approach

The approach for this project was based on gaining input and consensus from the Project Team, Advisory Committee, and the Public.

The project was completed in two phases: 1) a master plan of the entire trail corridor 2) development of construction and bid documents for the Phase 3 section. At each step of the process, the advisory committee, stakeholders and the general public was involved in crafting the vision for the corridor.

The Advisory Committee comprises of a diverse

group stakeholders from both the public and private sectors including the property owners along the trail, Town Branch Trail, Inc., user groups, community leaders, and the arts community that will guide the master plan from start to finish.

Public Involvement

Public input is important to the success of any project. Our goal was intended to engage the public through public meetings and having them provide input into the future growth and development for our community. It has been our experience that the public involvement component is most critical in determining project success. The various stakeholders, neighborhood associations, and affected property owners should reach consensus on the most appropriate concepts to be incorporated. The Public involvement process includes three public meetings, several advisory meetings and public bike rides to promote the project.



General Recommendations

This corridor spans the history of Lexington from the earliest settlers to the most recent transplants. Categorizing districts or sections along the Town Branch Trail corridor was necessary to manage the project into definable and recognizable areas. Defining sections by historical name or by adjacent developments provides the basis of the alignment naming.

Overall Alignment

The Master Plan identifies a basic corridor for the Town Branch Trail as well as many alternates that can be further explored as properties and funding becomes available. The general alignment is to follow the Town Branch Creek for as much as possible, however there are many locations where the trail must leave the creek side environment. The master plan shows multiple options for traversing these conditions but in many cases new constraints are encountered with even the preferred alternates. This is due to the complexity of this corridor, with its many industrial, residential, and commercial properties and their infrastructure. These constraints are found crossing New Circle Road, at the waste water treatment plant, the landfill, crossing South Forbes, and connecting to the Oliver Lewis Way improvements.

Understanding that there are many on-going and proposed development/redevelopment projects throughout the corridor makes for dynamic situations which includes providing for multiple alignment options. One such location is in the Distillery District where funding is available for the design and construction of a trail along the Town Branch Creek behind the old Pepper Distillery, however the sections to the east and west both have multiple options for allowing the trail at this time. Moving forward with the West Distillery Section in spite of these unknowns could provide the catalyst for extending the trail into the downtown area. Additional funding and property easements should continue for all options until the vision of a trail from Downtown Lexington to Masterson Station is complete. Descriptions and images of all the alignments and alternates are detailed in the following sections of the master plan.

Phase 3

In addition to funding for the West Distillery Section of trail, grant funding for Phase 3 was approved two years ago. At that time the funding was written to provide a trail from McConnell Springs to Town Branch Creek along the edge of the old city landfill. The master plan includes recommendations to revise that alignment statement and request that funds be utilized to extend the 1.8 mile section of trail that is built west of Alexandria Road in the McConnell Trace neighborhoods. The new alignment would start at the terminus of the built trail and head east towards downtown approximately one mile along the north side of a very scenic and natural section of the Town Branch.





Town Branch Trail | Alignments



Town Branch Trail Alignments

Alexandria Section

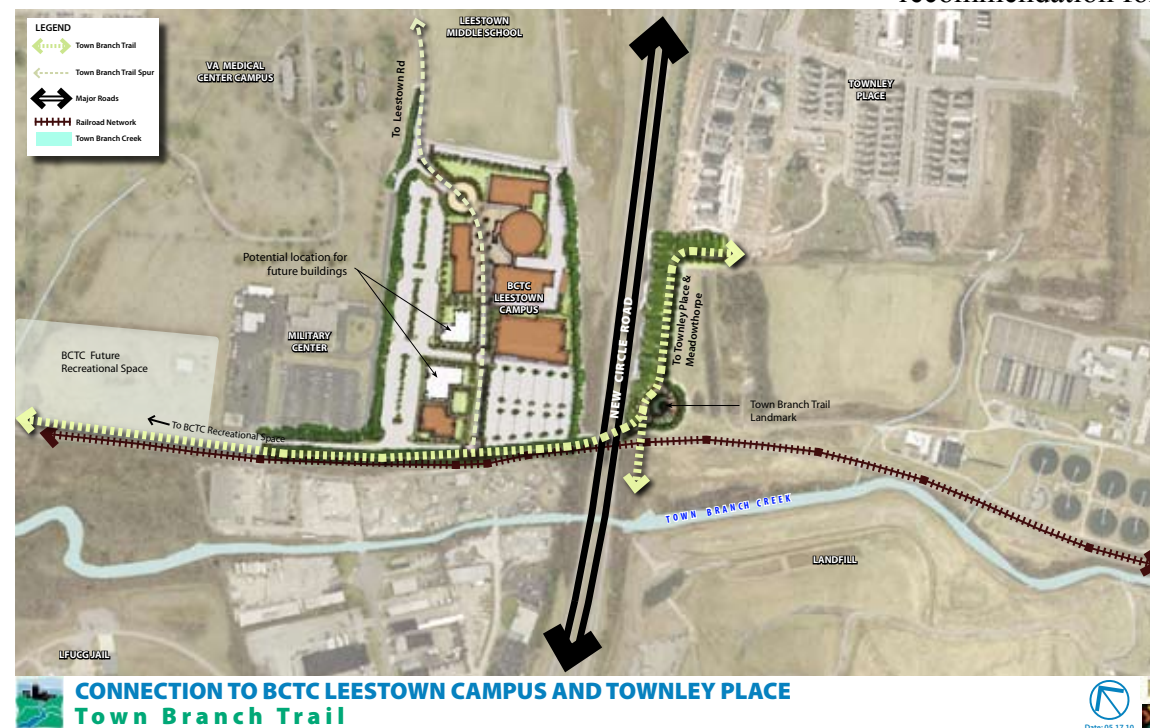
The Alexandria Section will extend the existing built section of the Town Branch Trail (TBT) approximately one mile. This section will start at the terminus of the existing trail segment built behind Coronado Ridge. The trail will cross Alexandria Drive at the Railroad Crossing. Additional safety measures will need to be installed at the crossing. The trail would then cross to the east side of Alexandria Drive and follow the Town Branch Creek towards New Circle Road. LFUCG will need an easement for the first 2,300 Linear Feet (LF) because it is on private property. Beyond that parcel, the trail will utilize LFUCG property for the next 3,000 LF before crossing the railroad tracks and connecting to the Bluegrass Community Technical College (BCTC) Alternate. Crossing the tracks presents several challenges; however, there are three options available at this time.

1. Creating a crossing at existing grade
2. Building a tunnel under the tracks
3. Building a bridge over the tracks

Any of the three options will require the approval from CSX, who owns the track and RJ Corman who is the current operator. At this time, the crossing at existing grade is the preferred option and is being reviewed by CSX. Final negotiations with the railroad may take some time to be resolved.

Bluegrass Community & Technical College (BCTC) Section

This section of trail would begin on the north side of the railroad tracks at the terminus of the Alexandria section. The trail would be part of the access between the main section of the Leestown Campus and their undeveloped athletic facility. The access way is approximately 50' wide and sits behind the US Army Reserve Facility and the railroad tracks. The trail would run between railroad and the future road that would connect the two BCTC facilities. Once the trail enters the main section



of the Leestown Campus it would continue to follow the southern property line to the New Circle Road Right-of-Way. There is an opportunity for BCTC to connect to the trail along their pedestrian/bikeway that runs through the middle of campus as illustrated in the Campus Master

Plan. The trail then goes under the New Circle Road over-pass and connects to LFUCG property on the west end of the Town Branch Wastewater Treatment Plant facility. Then it turns to the north running parallel with New Circle Road and connects to the Townley Center development trail system.

Townley Center Section

Townley Center is a new mixed use development. The recommendation for this section of Town Branch Trail is to connect into and build upon the trails that are built within the development. These trails will allow for connections to the Meadowthorpe neighborhood and shopping along Leestown Road. A review of built and proposed trails within the Townley Center development show some sections would need to be enhanced to make them compatible with current AASHTO guidelines for shared-use trails. In addition, a new trail section should be built along the southern portion of the property to create a more direct route for TBT users.



Waste Water Treatment Plant Section

This portion of the trail would exit out of the southeast corner of the Townley Center development and on to LFUCG property turning south and east along the edge of the Waste Water Treatment Plant (WWTP) facility. The trail wraps around the Town Branch WWTP Administration building and would utilize the redesigned parking lot drive isle before crossing over the entry drive from Lisle Industrial. The trail would then run parallel to Jimmie Campbell Lane before

sharing the road as it crosses the railroad tracks and the bridge over Town Branch Creek. At this point users would have an opportunity to stop and view the old Woolen Mill ruins found adjacent to the creek before heading up the hill towards the historic Rose Hill House on Old Frankfort Pike across from McConnell Springs Drive.



Old Landfill Section and Loop

The Old Landfill Section of trail would begin across Jimmie Campbell Lane from the old Woolen Mill site and run west parallel to Town Branch Creek along a scenic bench above the creek. The bench was created to serve as an unpaved access route to a small pump station at the far end of the site as the landfill was being closed. There is a force main that runs under it which transports the leachate from the landfill to the WWTP

for treatment. A trail built along this alignment would need to be designed with special considerations for the environmental requirements of the site. Excavation on the site is essentially prohibited so the trail would need to

be on top of the existing terrain. At the west end of the site the trail could continue back up the slope of the landfill and could create a loop tying into several existing paths on the site. Currently the Police Training Center uses the grounds for several of its activities and the Division of Streets, Roads and Forestry have a facility for many of their trucks and heavy equipment. Separation of these uses would be necessary and could be accomplished with standard LFUCG four-board fencing.



Bridge Section

The Bridge Section of the trail would need to be built if the WWTP section is not built. This section would create an opportunity to build a landmark bike/pedestrian bridge that would span across the Town



Branch Creek and the railroad tracks connecting the BCTC Section to the Landfill Section, a distance of over 500 feet. The railroad will require that the bridge have a minimum clearance of 23' for the trains to pass safely under. Preliminary budgeting numbers for a high profile bridge range of \$2 million to \$5 million.

Stockyard Section

This section would begin adjacent to the railroad tracks at the WWTP and run parallel with the tracks towards South Forbes Road behind the Bluegrass Stockyards.

This option has several benefits such as being a very direct route with limited obstacles. One drawback is the proximity to the stockyards.



McConnell Springs Section

The McConnell Springs Section of the trail would begin at the intersection of Old Frankfort Pike and McConnell Springs Road and be on-road with bike lanes that lead back to the McConnell Springs Visitor Center. The park lot would serve as a trailhead location. Recommendations from the Versailles Line Rail-with-Trail Report indicate that a trail would start out of this parking lot and run parallel with the RJ Corman Versailles Line extending as far as Pisgah Pike in Woodford County.



Old Frankfort Section

The Old Frankfort Section would start on the north side of Old Frankfort Pike at the Rose Hill property and head east behind the stone wall in front of the Fire Training Facility and the K-9 Training Center as a shared-use trail. Prior to the trail reaching the intersection at South Forbes Road, the right-of-way would need to be purchased and/or a land swap from two parcels 1305 Old Frankfort Pike and at 195 South Forbes Road, would need to be completed. The intersection at South Forbes Road and Old Frankfort Pike has a great deal of deficiencies and should be studied further to determine the appropriate reconfiguration to allow for proper turning movements, pedestrian crossings and bike crossings.



Manchester Section

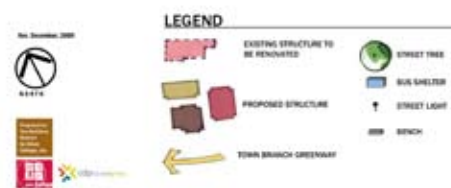
The Manchester Section of the trail would begin at the intersection of Old Frankfort Pike and South Forbes Road where the right-of way would need to be obtained from four parcels to place the shared-use trail on the north side of the road. A new 100 foot long bike/pedestrian bridge would then serve to connect the trail over Town Branch Creek and connect to the historic McConnell Stone House. This historic structure is in need of repair and stabilization. As part of the Distillery District Master Plan, illustrations were prepared showcasing this location as a trailhead with the Stone House as a key focal point.

South Forbes to McConnell House Alternate Section

This section of the trail would serve as an alternate to the Manchester Section. It would connect South Forbes Road to the McConnell Stone House along the north side of Town Branch Creek. The alignment would require the purchase of a right-of-way from one parcel at 190 S. Forbes Road. This option would work best if the Stockyard Section is chosen. Safety improvements would be required at the railroad crossing to accommodate trail users. In addition, this option also allows for better access to the second McConnell House located at the Bluegrass Stockyards. The Stockyards currently lease this building out as commercial office space. In the future this building may become available for the City to purchase and restore as a historic landmark.

West Distillery District Section

The West Distillery District Section would begin across the street from the Historic Stone House on Manchester Street and run behind the Pepper Distillery complex paralleling Town Branch through the property and where it then connects back to Manchester Street. Safety improvements would be needed at both street crossings of Manchester



West District-Concept Plan
the distillery district MASTER PLAN
LEXINGTON, KENTUCKY

Street. The recommendations for this section of trail match the concepts identified and illustrated in the Distillery District Master Plan. Currently, LFUCG has bond money approved for the design and construction of this section.

East Distillery District Section

The East Distillery District Section would begin across Manchester Street from the West Distillery District Section and cross under the Norfolk Southern railroad overpass and run along the east side of the RJ Corman Versailles Line. A right-of-way would need to be obtained from RJ Corman and the property owners at 1115 Manchester Street. The recommendation is to relocate the track to the north side of the Town Branch Creek. This will require a new railroad bridge over the creek. Once the track is relocated the trail would follow the rail bed and connect to the portion of trail built under the new Oliver Lewis Way Bridge. An access trail could be built between 1001 Manchester Street and 943 Manchester Street allowing additional access to the trail from Manchester Street.

East Distillery District Alternate Section

The East Distillery District Alternate Section would be on-road bike lanes from the railroad overpass to the intersection of Oliver Lewis Way. This option could prohibit on-street parking through this section of Manchester Street.



Preliminary Cost Estimates

The following estimates are based upon costs of previous similarly developed trail projects in the region over the past three years. These estimates are for budgeting only and as plans are refined the estimates should be updated as well. Data compiled for the development of these numbers was generated from GIS data provided by LFUCG and other public agencies.

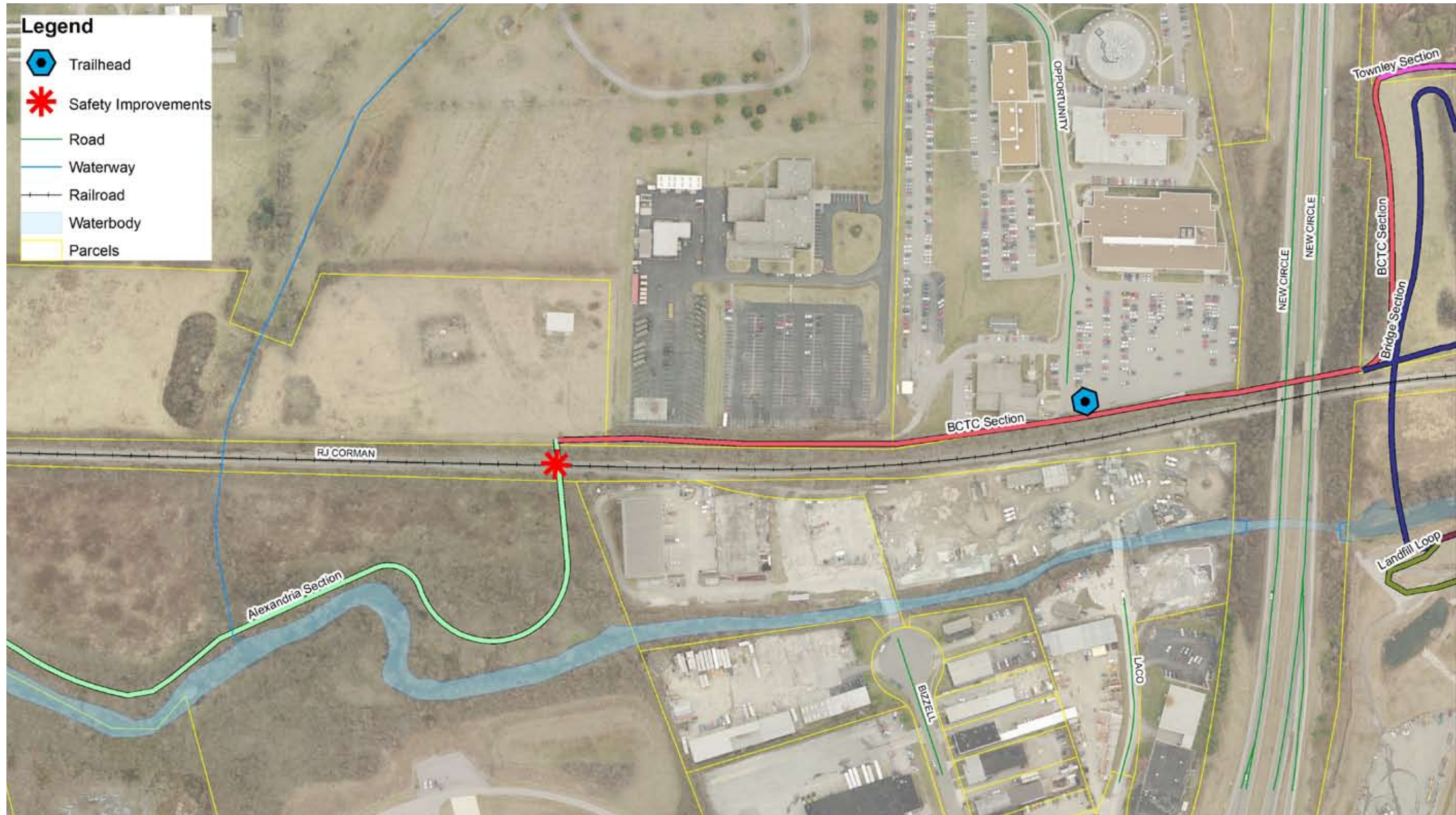
Trail Segment	Length	Unit Cost	Individual Section Cost	Preferred Alignment Cost
Alexandria Section	5460	\$150	\$819,000	\$819,000
At-grade RR crossing	20		\$50,000	\$50,000
Culvert under RR Tracks	30		\$175,000	
Bridge over RR Tracks	100		\$450,000	
BCTC Section	2533	\$200	\$506,600	\$506,600
Townley Center Section	2345	\$125	\$293,125	\$293,125
WWTP Section	2805	\$190	\$532,950	\$532,950
Old Landfill Section	2656	\$200	\$531,200	\$531,200
Old Landfill Loop Section	5225	\$200	\$1,045,000	
Bridge over Town Branch & Railroad	500		\$2 Million to \$5 Million	
Bridge Section (Trail)	1500	\$200	\$300,000	
Stockyard Section	1950	\$200	\$390,000	
McConnell Springs Section	1025	\$55	\$56,375	\$56,375
Old Frankfort Section	1386	\$300	\$415,800	\$415,800
Manchester Section	785	\$300	\$235,500	\$235,500
Bridge at Manchester over Town Branch	100		\$125,000	\$125,000
McConnell House to S. Forbes	776	\$200	\$155,200	
West Distillery District Section	2075	\$425	\$881,875	\$881,875
East Distillery District Section	2506	\$250	\$626,500	\$626,500
East Distillery District Bike Lanes Section	2280	\$55	\$125,400	
Primary Trail Alignment Totals	36057			\$5,073,925
Engineering Fees	12%			\$608,871
Administrative Fees	10%			\$507,393
Permitting Cost	5%			\$253,696
Contingency	15%			\$761,089
Total				\$7,204,974





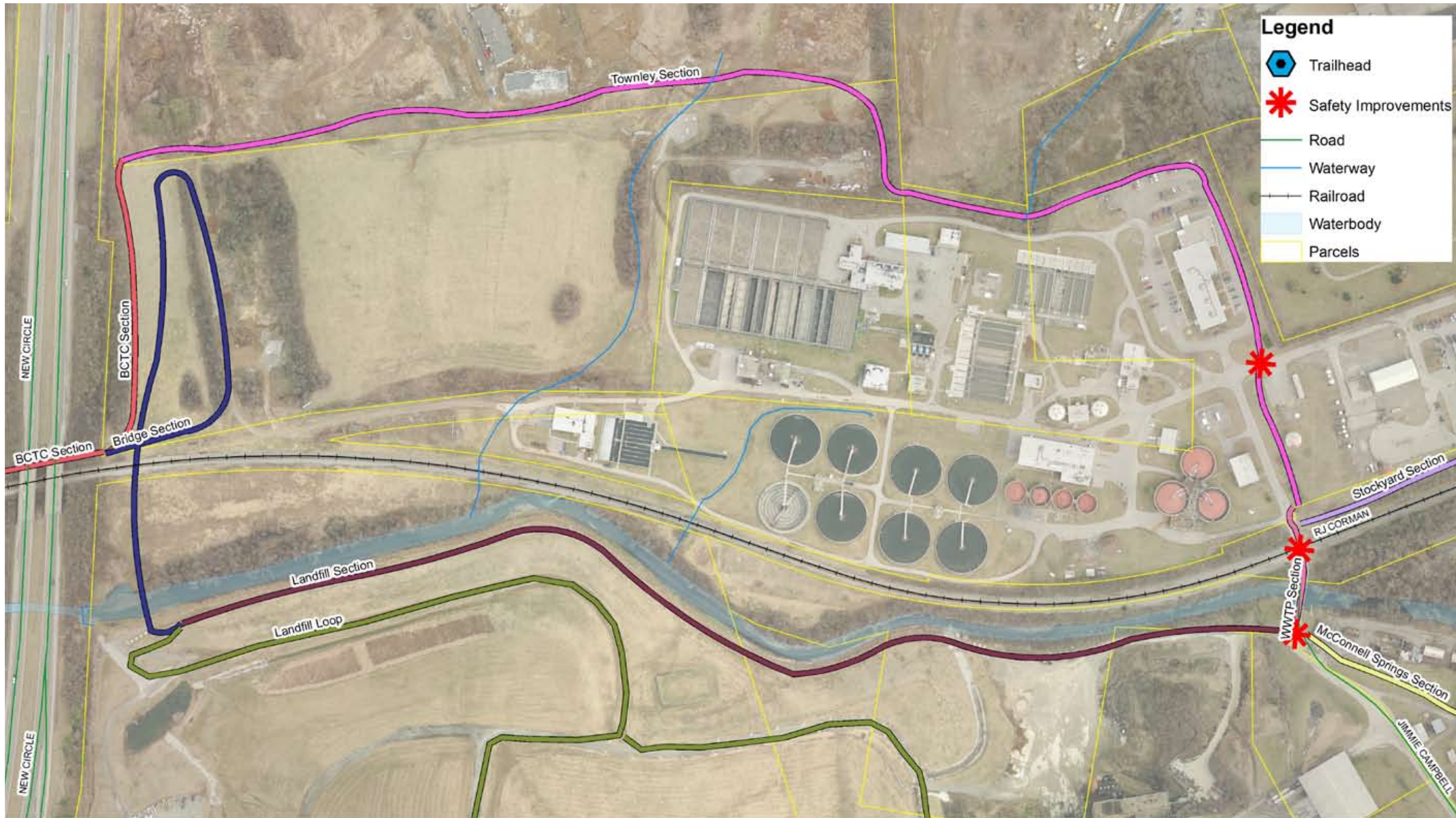
Alexandria Section





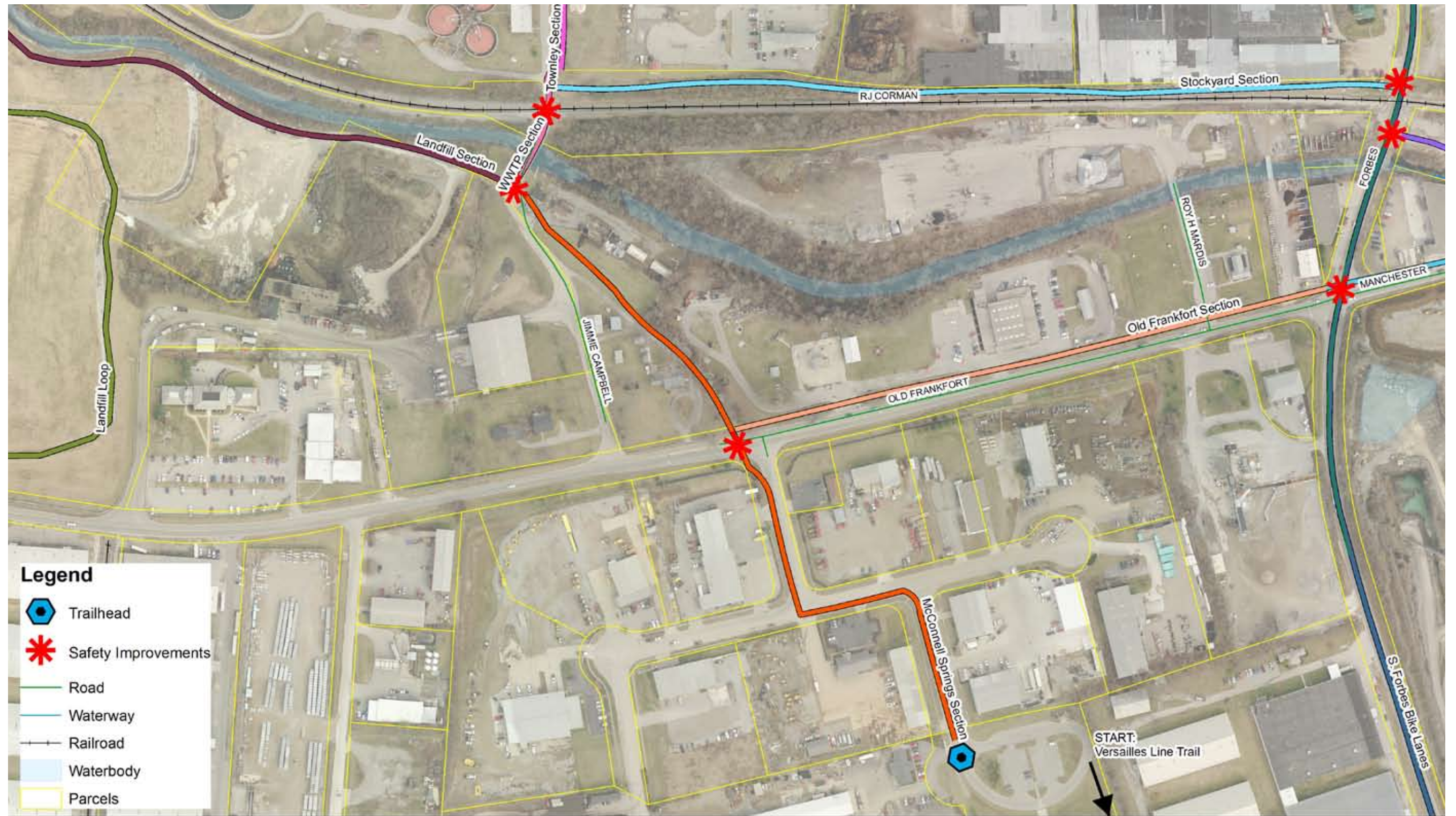
BCTC Section





Townley Section





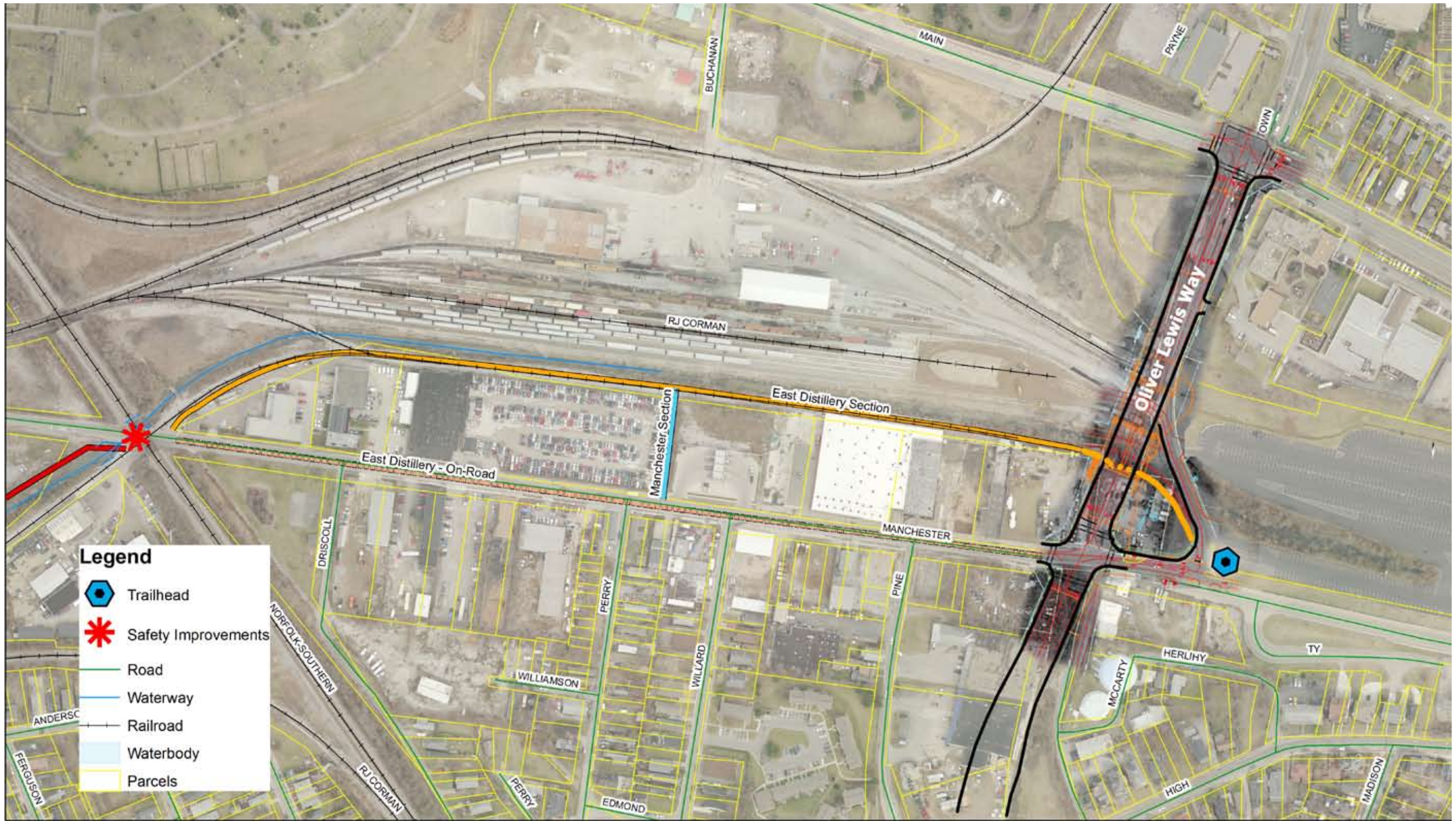
South Forbes Section





West Distillery Section





East Distillery Section





Town Branch Trail | Guidelines

Authored by Alta Planning and Design

1. Shared Use Path Design

This section provides design guidance for shared use paths. Engineering judgment and the requirements of the landholders must be applied to each specific situation.

1.1. Recommended Width

The recommended width for paved shared use paths is 10 feet under most conditions.

Certain conditions may warrant increasing the width of a shared use path to 12 feet, or even 14 feet, due to substantial path use by multiple user groups, use by large maintenance vehicles and/or steep grades. The minimum width from an operational standpoint is 8 feet in constrained situations and/or for short distances. An 8-foot path width should be used only where the following conditions exist:

- Bicycle traffic is expected to be low, even on peak days or during peak hours,
- Pedestrian use of the facility is not expected to be more than occasional,
- There will be good horizontal and vertical alignment providing safe and frequent passing opportunities, and
- During normal maintenance activities the path will not be subjected to maintenance vehicle loading conditions that would cause pavement edge damage.

A minimum of two-foot wide graded area with a 6:1 maximum slope and a compacted surface should be located on each side of the paved surface to accommodate joggers and others who prefer a softer surface.

1.2. Vertical and Lateral Clearances

A minimum 8-foot vertical clearance should be maintained on shared use paths. This area should be free from tree limbs and any other obstructions that may

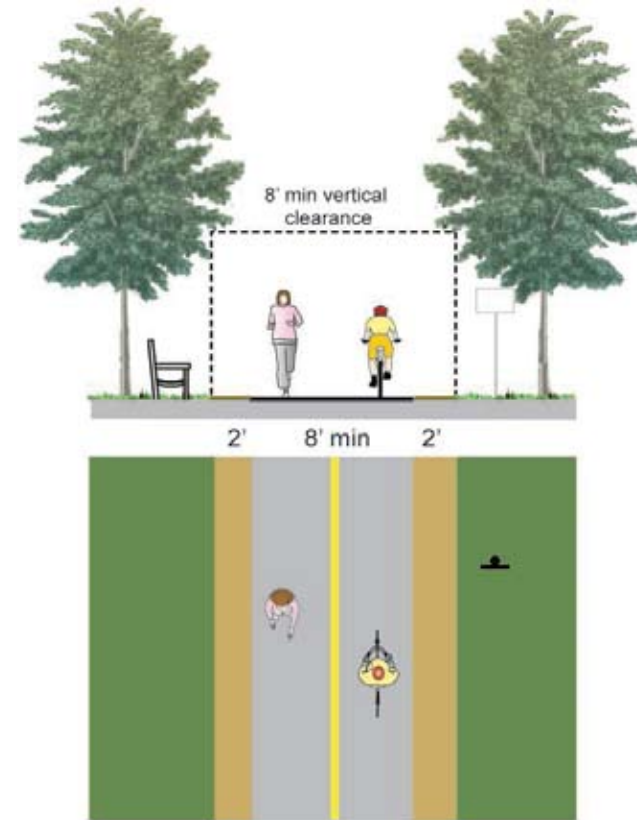


Figure 1: Recommended trail widths and clearances for shared use paths

interfere with the path. If path use by maintenance and emergency vehicles is anticipated, vertical clearance may need to be greater than 8 feet to permit passage. In undercrossings and tunnels, at least 10 feet of vertical clearance is desirable.

A minimum of two feet of lateral clearance should be provided on both sides of the path; however, 3 feet or more is desirable to provide clearance from trees, poles, benches, walls, fences, guardrails or other lateral obstructions. Where the path is adjacent to canals, ditches or slopes down steeper than 1:3, a minimum 5-foot separation should be considered. Signs along the trail should be located a minimum of three feet from the paved surface (see Section 3, Signs and Striping).

1.3. Design Speed

In general, the minimum design speed for shared use paths is 20 miles per hour (mph). On path sections with steep downgrades (steeper than 4%), a design speed of 30 mph is recommended. Speed bumps or other surface irregularities or obstacles should never be used to slow bicycles. Design and traffic controls (e.g., stop signs, signals) can be used to deter excessive speed and faster cyclists can be encouraged to use the roadway system.

1.4. Gradients

Steep grades should be kept to a minimum on any shared use path, with 5% being the recommended maximum gradient. Steeper grades can be tolerated for short distances (up to about 500 feet).

1.5. Drainage

A 2% cross slope will resolve most drainage issues on a shared use path, except along cut sections where uphill water must be collected in a ditch and directed to a catch basin, where the water can be directed under the path in a drainage pipe of suitable dimensions.





Creatively designed bollards can incorporate historical themes and add whimsy to the trail (Sources: myweb.msoe.edu, michaelfairfax.co.uk and www.virtualtourist.com)

1.6. Bollards

Bollards at path intersections and entrances are sometimes used to prevent vehicles from entering. A separation of five feet between bollards is recommended for effective deterrence of vehicles. Bollards should be located adjacent to the shared use path with a removable center bollard for emergency and maintenance access. Bollards should not be located in the travel lanes and should be designed to be visible to bicyclists and others, especially at night time, with reflective materials and appropriate striping.

Although they serve a utilitarian function, bollards themselves may be creatively designed. Design elements should reflect other themes found throughout the shared use path so that the experience is perceived as a unified whole. Bollards of durable materials such as concrete or metal will have the greatest longevity.

1.7. Shared Use Paths and Roadways

Though the majority of the path would be located near either the CSX or RJ Corman railroad lines or Town Branch Creek, some segments would run along roadways, such as Manchester Street. When two-way shared use paths are located adjacent to a roadway, wide separation between a shared use path and the adjacent roadway is recommended. A physical barrier should be provided when a wide separation is not possible and the distance between the edge of the shoulder and the shared use path is less than 5 feet. Where used, the barrier should be a minimum of 42 inches high and should not impair sight distance at intersections.

2. Rail-with-Trail Design

This section provides guidance for specific railroad safety issues and other design issues related to rail-with-trails (RWTs). Much of the information in this section is based on the Federal Highway Administration's "Rails-



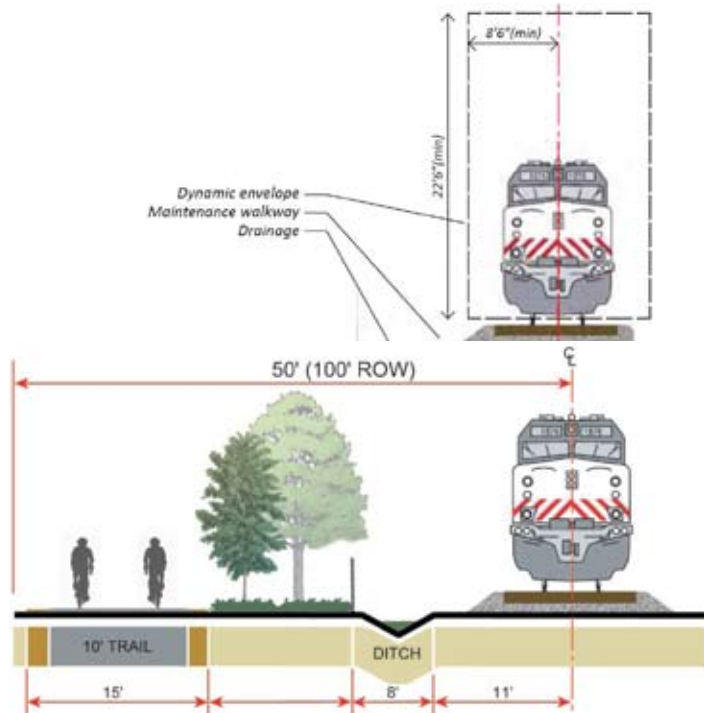


Figure 3: Section showing the desirable path-railroad track setback

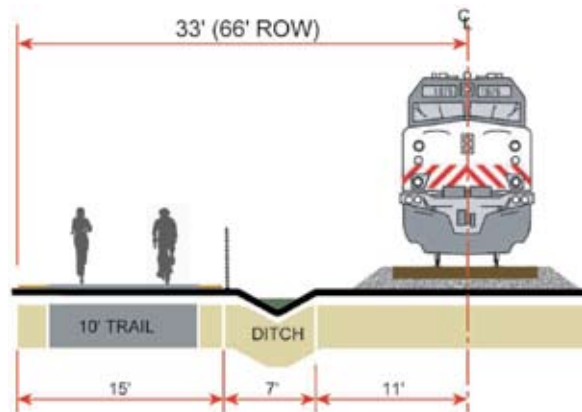


Figure 4: In narrow right-of-way, the trail may be located closer to the track

with-Trails: Lessons Learned” study. Again, engineering judgment and the requirements of the landholders must be applied.

2.1. Minimum Setbacks

Setback is measured from the nearest edge of the trail to the centerline of the nearest railroad track. A review of 65 existing trails as part of the *Rails-with-Trails: Lessons Learned* study showed a wide variance in the setback distance used today. Researchers attempted to determine if narrower setback distances have a direct correlation to safety issues. However, based on the almost non-existent record of claims, crashes, and other problems on these RWTs, they were unable to conclude a strong correlation between setback and safety. However, at an absolute minimum, the setback must keep trail users outside the “dynamic envelope” of the trains, shown in **Figure 2** and defined as “the clearance required for the train and its cargo overhang due to any combination of loading, lateral motion, or suspension failure.” Additionally, in corridors with regular use of maintenance equipment that operates outside the dynamic envelope, the setback distance should allow adequate clearance between the maintenance equipment and the trail.

The Federal Railroad Administration (FRA) has minimum setback standards for fixed objects next to active railroad tracks, the distance between two active tracks, and adjacent walkways (for railroad switchmen). These published setbacks represent the legal minimum setbacks based on the physical size of the railroad cars, and are commonly employed along all railroads and at all public grade crossings.

The *Rails-with-Trails: Lessons Learned* study outlines preferred setback distances, with encouragement toward as much setback distance as possible. The study details circumstances under which a RWT can be set back a minimum of 10 feet, with greater width preferred.

Rail operators often prefer that reduced setbacks are accompanied by increased safety measures such as fencing. There is no consensus on either appropriate setback requirements or on a method for determining the requirement. Some trail planners consider it analogous to use the *AASHTO Bike Guide* for guidance: bicycle lanes are set back five to seven feet from the centerline of the outside travel lane of even the busiest roadway. Others use their state public utility commission’s minimum setback standards (also known as ‘clearance standards’) for adjacent walkways (for railroad switchmen).

The minimum distance between the operating railroad and obstructions such as utility and signal poles, bridges, retaining wall structures and fences, is governed by the dynamic envelope of rail operations (**Figure 2**). However, minimum obstruction setbacks do not provide for easy maintenance of the rail infrastructure and, while acceptable from a safety perspective, may increase maintenance costs or cause unacceptable delays or closures of the rail or the trail when maintenance activities are required. Trails parallel to the rail mainlines, sidings, switches, curves, marshalling yards, roadway crossings, freight loading areas, bridges and cut or fill sections of the line will each have different considerations, as shown in **Figure 3** through **Figure 7**.

2.2. Separation

To provide separation and discourage trespassing and undesired informal paths from forming, trails within the right-of-way and less than 40 feet from the main or primary auxiliary track centerline may require fencing (the type and height of fencing to be approved by the owner and operator). A fence may not be required if the trail is below the railroad and a retaining structure of three feet or greater in height is provided between the trail and the track (**Figure 7**). Fencing along approaches to tunnels, overpasses, underpasses and other interfaces

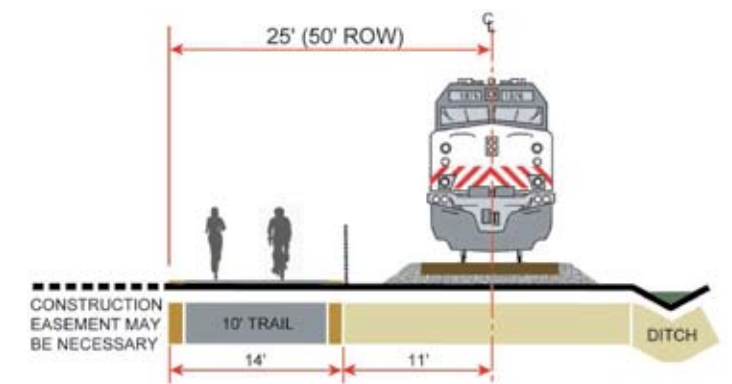


Figure 5: Cross-section in very constrained circumstances

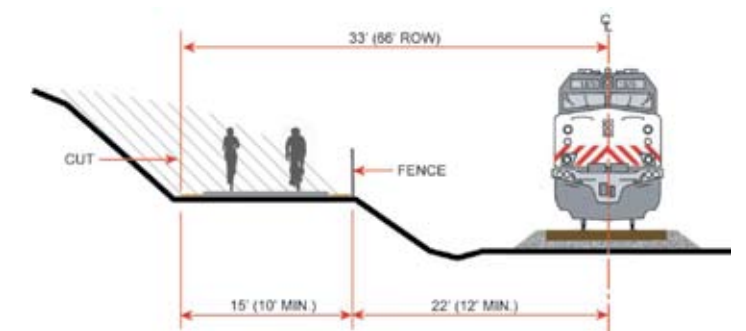


Figure 6: Shared-use path cut into a sloping landscape

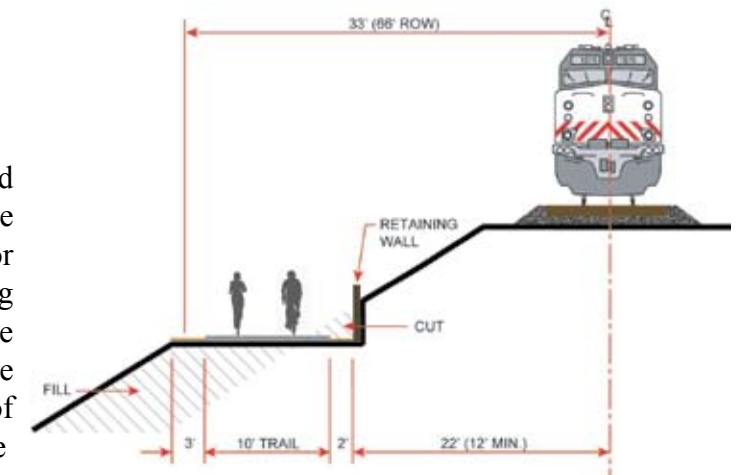


Figure 7: Shared-use path on fill in a sloping landscape



should be provided to prevent trespassing. The desirable cross-section (**Figure 3**) shows the generally accepted practice for aligning trails within active rail corridors and includes accommodation for maintenance access and drainage of the right-of-way. Variance from the standard to accommodate narrow right-of-way or obstructions (**Figure 3** and **Figure 5**) will require the development of special designs and approval by the owner(s) and operator, and may require approval by regulatory agencies, and the Federal Railroad Administration (FRA).

In **Figure 3**, the desirable cross-section, the near edge of trail tread will be more than 22 feet from the centerline of the track.

Other recommended design best practices for rail-with-trails:

- Trails will not be built so that the cut or fill slopes of the railroad are pushed outside of the existing right of way, unless real estate agreements with adjacent land owners can be reached.
- Trails will be built so that a standard railroad drainage section can be built and maintained.
- Trails should not be placed between tracks unless the track centers are 48 feet or greater.
- Track relocations to accommodate the trail can be considered with the approval of the track owner and operator. A complete assessment of fixed points (structures, etc), utilities and right of way must be included as part of a proposed design. A new alignment should include provisions for improvements to alignment, profile, materials, and drainage. The track should be designed in accordance with a minimum standard of the railroad operator and in accordance with current American Railway Engineering and Maintenance-of-Way Association (AREMA) standards.

3. Signs and Striping

Shared use path signs and markings should include: regulatory, way-finding, identity and informational or interpretive signs for bicyclists, pedestrians and motorists. Sign selection and placement should generally follow the guidelines in the Manual on Uniform Traffic Control Devices (MUTCD). All signs shall be retro-reflective on shared use paths. As shown in **Figure 8**, lateral sign clearance shall be a minimum of three feet and a maximum of six feet from the near edge of the sign to the near edge of the path. Mounting height shall be a minimum of four feet and a maximum of five feet from the bottom edge of the sign to the path surface level.

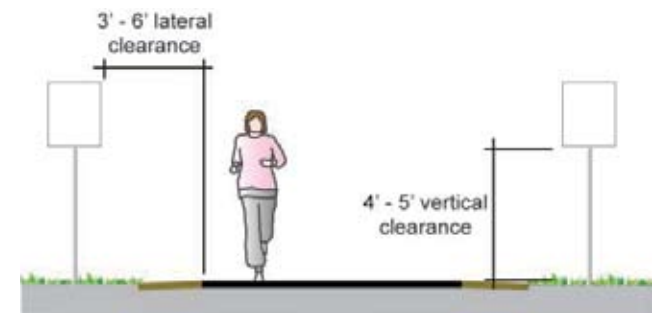


Figure 8: Recommended vertical and lateral clearances for signs

The final striping, marking, and signing plan for the Town Branch Trail will be resolved in the full design phase of the path, and should be reviewed and approved by LFUCG. This will be most important at locations where there are poor sight lines from the path to cross-traffic (either pedestrian or motor vehicle). All signs should be oriented so as not to confuse motorists. The designs (though not the size) of signs and markings should generally be the same as used for motor vehicles.

3.1. Regulatory

Regulatory signs should state the rules and regulations associated with path usage, as well as the managing agency, organization or group. The purpose of path regulations is to promote user safety and enhance the enjoyment of all users. It is imperative that before the path is opened, path use regulations are developed and posted at trailheads and key access points. Trail maps and informational materials might include these regulations as well. Establishing that the path facility is a regulated traffic environment just like other public rights of way is critical for compliance, and often results in a facility requiring minimal enforcement. Be





Regulatory signage alerts users of appropriate trail use

sure to have an attorney review the path regulations for consistency with existing ordinances and enforceability. In some locations, it may be necessary to pass additional ordinances to implement path regulations.

Below is a sample of the most common items that should be covered in path regulations:

- Hours of use
- Motorized vehicles, other than power-assisted wheelchairs, are prohibited
- Keep to the right except when passing
- Yield to on-coming traffic when passing
- Bicyclists yield to pedestrians
- Give an audible warning when passing
- Pets must always be on short leashes
- Travel no more than two abreast
- Alcoholic beverages are not permitted on the path
- Do not wander off of path onto adjacent properties

In addition, other warning signs informing users of approaching intersections and crossings of driveways will need to be installed.

3.2. Way-Finding

Clear, pedestrian-scaled, signs and markers will aid in way-finding and separation of user groups. Signs should be consolidated to avoid clutter and sign fatigue. Informational kiosks with maps at trailheads and other pedestrian generators can provide enough information for someone to use the shared use path with little introduction. In addition to a path logo being posted on bollards, gates and at the trailheads, way-finding markers and signs should be placed at key decision points.

A path way-finding map typically includes: current location, nearby destinations and prominent natural and built features. Distances may also be marked periodically



Interpretive signage along the existing portion of the Town Branch Trail



A trailhead serves as the gateway to a trail and may include amenities such as an information kiosk, drinking fountain, seating, restroom and bike racks

so that path users who wish to pace themselves have a means of doing so.

3.3. Informational and Interpretive

Interpretive panels provide enrichment to the path user experience, strengthen the uniqueness of the local community and provide educational opportunities. Installations can also discuss local ecology, environmental concerns and other educational information. Key interpretive opportunities include:

- Environmental education, such as the natural history and ecology of the creek channel
- Cultural history of Town Branch Creek, incorporating the dry-laid stone settlers' houses, old stone mill, historic rail line, historic farmstead, former bourbon distillery and other historical structures still present along the creek
- History of the rail lines

When implemented, interpretive installations should be located a minimum of three feet and a maximum of six feet from the edge of the paved surface. Interpretive panels should use similar materials, forms and colors as other sign elements found throughout the shared use path in order to provide a unified pathway experience.

3.4. Striping

A yellow centerline stripe is standard for shared use paths in several cities, especially at: blind corners, high traffic areas, areas of narrow path width, intersection approaches, and/or areas where nighttime riding is expected with limited lighting.

4. Other Trail Features

This section provides information on other trail features, such as trailheads, benches, water fountains and art installations that can improve a user's trail experience.





Benches along the existing section of the Town Branch Trail provide resting areas for trail users

4.1. Trailheads

Good access to a path system is a key element for its success. Trailheads (formalized parking areas) serve the local and regional population arriving to the path by car, transit, bicycle or other modes. Trailheads provide essential access to the shared use path and include amenities like parking for vehicles and bicycles, restrooms (at major trailheads), and posted maps. A central information installation also helps users find their way and acknowledge the rules of the path. They are also useful for interpretive education about plant and animal life, ecosystems and local history.

4.2. Pedestrian-Scale Lighting and Furniture

Pedestrian-scale lighting improves safety and enables the path to be used year-round. It also enhances the aesthetic of the path. Pedestrian-scale lighting provides high-quality lighting without the glare that is usually produced by typical cobra-type street fixtures.

Providing benches at key rest areas and viewpoints encourages people of all ages to use the path by ensuring that they have a place to rest along the way. Benches can be simple (e.g., wood slates) or more ornate (e.g., stone, wrought iron, concrete).

4.3. Mile Markers

Mile markers greatly increase use of the path by joggers and cyclists looking for set workout distances. Mile markers may be incorporated onto fixed bollards or posts adjacent to the path or demarcated on the path surface. Free-standing mile markers should be located three feet from the edge of the path. Mile markers should be consistent with other shared use path signage.

4.4. Water Fountains

Water fountains provide water for people (and pets, in some cases) and bicycle racks allow path users to safely park their bikes if they wish to stop along the way, particularly at parks and other desirable destinations.

4.5. Art Installations

Local artists can be commissioned to provide art for the pathway system, making it uniquely distinct. Many shared use path art installations are functional as well as aesthetic, as they may provide places to sit and play on. Artistic themes can draw upon the history or environmental surroundings of the path, or could simply be whimsical. This type of art can add to the memorability of the path experience, especially for children. Opportunities for public art along the path should be sought. Incorporation of public art in areas of high visibility such as trailhead access points, or areas adjacent to major roadways should be encouraged. In general, all art installations should be located three to six feet from the edge of the paved surface.

4.6. Trash Receptacles

The path should establish the National Park Service ethic of “pack it in, pack it out.” However, trash receptacles should be provided at trailheads, such as the McConnell Stone House Trailhead and the trailhead at the Newtown Pike Extension.



Public art along Town Branch Trail
Source: www.townbranch.org



Mile markers help orient trail users and emergency response personnel by providing a constant point of reference



5. Intersections and Crossings

5.1 Push Buttons

Push buttons can also provide signal actuation and timing adjustments for bicyclists and pedestrians. Push buttons are recommended for use with paths at actuated or semi-actuated traffic signals, at intersections with low pedestrian volumes and at mid-block crossings.

Push buttons should be located so that someone in a wheelchair can reach the button from a level area of the sidewalk without deviating significantly from the natural line of travel into the crosswalk. Appropriate signage should be installed near the edge of the path, in the vicinity of where bicyclists and pedestrians will be crossing the street.

5.2 Railroad Crossings

The preferred Town Branch Trail alignment may include at-grade crossings of the railroad tracks. New pedestrian railroad crossing flashers are typically not required for sidewalk crossings at legal crossings as they are redundant with adjacent vehicle crossing warning equipment.

Efforts should be made to have shared use paths cross railroad tracks at as close to a 90-degree angle as possible. As crossing angles deviate from perpendicular angles, possibilities increase for a bicycle wheel to become trapped in the flangeway, or for cyclists to lose traction on wet rails. AASHTO guidelines do not specify a minimum crossing angle; however, they do recommend that any crossing that is less than a 45 degree angle should be accompanied by a widening in the path or shoulder area in order to permit a cyclist to cross the track at a safer angle, preferably perpendicular.



Bicycle and pedestrian push buttons

Standard concrete railroad crossings with compressible flangeway fillers permit rail operations while creating a smooth or subtle bump for cyclists. Crossing materials should be skid resistant. Colored surfaces also help alert cyclists to potential conflict points. Rubber and concrete materials require less maintenance and have a longer lifespan than wood or asphalt.

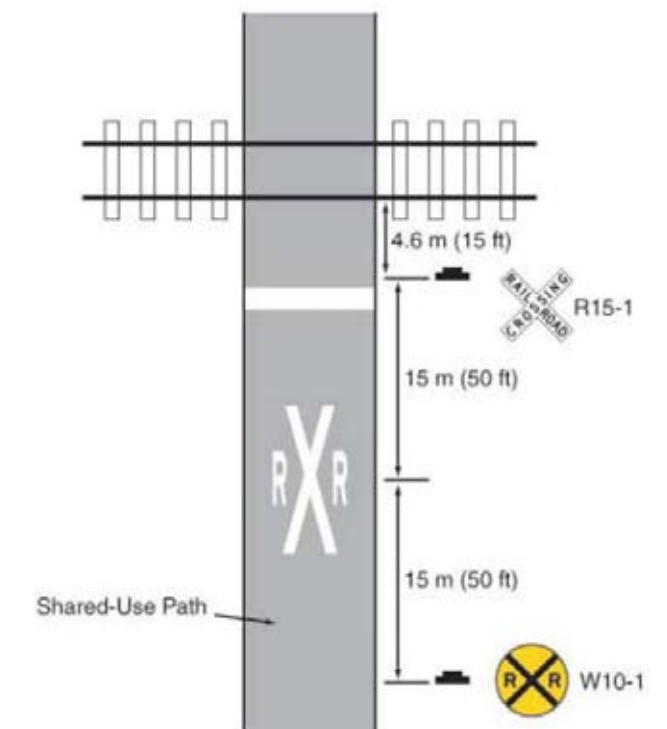
6. Path Maintenance

6.1. Routine Path Maintenance

Effective path maintenance is critical to the overall success and safety of any path system. Maintenance activities typically include pavement stabilization, landscape maintenance, facility upkeep, sign replacement, mowing, litter removal and painting. A successful maintenance program requires continuity and often involves a high level of citizen participation. Routine maintenance on a year-round basis will not only improve path safety, but will also prolong the life of the path. The benefits of a good maintenance program are far-reaching and may include:

- A high standard of maintenance is an effective advertisement to promote the path as a local and regional recreational resource.
- Good maintenance can be an effective deterrent to vandalism, litter and encroachments.
- A regular maintenance routine is necessary to preserve positive public relations between the adjacent land owners and managing agency.
- Good maintenance can make enforcement of regulations on the path more efficient. Local clubs and interest groups will take pride in “their” path and will be more apt to assist in protection of the path.
- A proactive maintenance policy will help improve safety along the path.

Ongoing path maintenance likely includes some, if not



MUTCD example of signing and marking for trail / railroad crossing



all, of the following activities: vegetation management, surface repair and sweeping, fence repair, removal of litter and dumped materials, signage repair and debris removal after storm events.

6.1.1. Vegetation Management

In general, visibility between trail-side plantings should be maintained to avoid creating a feeling of enclosure. This will also give path users clear views of their surroundings, enhancing the aesthetic experience. Understorey vegetation near the path should not be allowed to grow higher than 36 inches. Selection and placement of trees should minimize vegetative litter on the path as well as root uplifting of pavement. Vertical clearance along the path should be periodically checked, and any overhanging branches should be pruned to a minimum vertical clearance of eight feet.

Measures should be taken to protect the path, including bi-annually (or as needed) mowing along both sides of the path to prevent invasion of plants into the pavement and shoulder areas. The recommended time of year for mowing is fall and/or spring. Wherever possible, vegetation control should be accomplished by mechanical means or hand labor. Some species may require spot application of state-approved herbicide.

6.1.2. Surface Repair and Sweeping

The path surface should be kept free of debris, especially broken glass and other sharp objects, loose gravel, leaves and stray branches. Path surfaces should be swept monthly. Soft shoulders should be well maintained to maximize usability. Cracks, ruts and water damage will need repair periodically. Where drainage problems exist along the path, ditches and drainage structures will need to be kept clear of debris to prevent wash-outs along the path and maintain positive drainage flow. Checks for erosion along the path should be made during the wet season, and immediately after any storm that brings



Vegetation management allows trail users a clear view of their surroundings, such as along this interpretive trail at McConnell Springs

flooding to the area.

6.1.3. Fence Repair

Fencing should be well maintained and any damage immediately repaired.

6.1.4. Removal of Litter and Dumped Materials

Staff or volunteers should remove litter along the path. Litter receptacles should be placed at primary access points such as trailheads. Dumping should be controlled by vehicle barriers, regulatory signage and enforcement of fines as much as possible. When dumping does occur, it should be removed as soon as possible in order to prevent further occurrences. Neighborhood volunteers, friends groups, alternative community service crews and inmate labor should be considered in addition to maintenance staff.

6.1.5. Signage Repair

Signs should be replaced along the path on an as-needed basis.

6.1.6. Removal of Debris after Storm Events

Portions of the path may be subjected to periodic flooding. When flood waters recede, deposits of debris such as tree branches, leaves, mud and trash may remain on the path. Debris accumulated on the path surface should be removed after each recession of water. Debris should be periodically removed from the waterway under any bridge structure.

6.1.7. Routine Trail Maintenance Frequencies

Table 1 summarizes the maintenance recommendations. Typical maintenance vehicles for the path will likely be light pick-up trucks. A mechanical sweeper is recommended to keep the path clear of loose gravel and other debris. Care should be taken when operating heavier equipment on the path to warn path users and to



avoid breaking the edge of the path surface.

Table 1: Routine Trail Maintenance Frequencies

Item	Suggested Frequency
Fence/barrier repair and replacement	Immediate
Lighting replacement/repair	As needed
Remove fallen trees	As needed
Water plants	As needed
Bollard replacement	As needed
Sign replacement/repair	As needed
Trash disposal	As needed, twice a week
Graffiti removal	Weekly/or as reported
Weed control	Monthly
Pavement sweeping	Monthly
Planted Tree, Shrub, trimming/fertilization	6 months - 1 year
Debris removal	Bi-annually or as needed
Shoulder pruning*	Bi-Annual – Fall/Spring
Clean drainage system	Annual
Maintain benches, site amenities	1 year
Maintain irrigation lines/replace sprinklers	1 year
Pavement marking replacement	1-3 years
Pruning to maintain vertical clearance	1-4 years
Pavement sealing/potholes	5-8 years

* Additional maintenance may be required.

6.2. Long-Term Trail Maintenance

Based on observations and analysis of similar existing asphalt paths, the pavement surfacing will need an overlay or extensive replacement and renovation every 25 to 30 years. However, this extensive replacement could be mitigated and the expense reduced with preventative maintenance measures such as slurry sealing every five to eight years to prevent surface raveling.

Deferred maintenance projects traditionally become capital projects. These are usually eligible projects for grant funding. State and federal grant funding agencies tend not to pay for such preventative maintenance activities such as slurry sealing asphalt pathways to extend their useful life, but these same agencies will pay for reconstruction of the pathway or road when it becomes unusable.

The cost of extending the life of existing asphalt by crack repair and slurry sealing are relatively small compared with reconstruction or overlay. Slurry sealing is estimated at \$5,000 to \$10,000 per mile. The cost of reconstructing

an asphalt path if the condition has become deteriorated would cost approximately \$350,000 to \$1,000,000 per mile.

7. Programming and Events

Bicycle and pedestrian programs enhance the biking and walking experience in ways other than the provision of on- or off-road paths. Support programs include educational programs and various city programs and policies.

7.1. Events

Community events along the paths will help increase public awareness and thereby attract more people to use the path. Neighbors, residents and community groups, such as Town Branch Trail, Inc, can help organize numerous public events along the path which will increase support for the path. Events might include a day-long path clean-up or a series of short interpretive walks led by long-time residents or a park naturalist.

7.2. Community Projects

The support generated through the Town Branch Trail, Inc could be further capitalized by involving neighbors and friends of the path in a community project. Ideas for community projects include volunteer planting events, art projects and historical or natural history tours. One Community Project could involve installation of Town Branch Trail, Inc's recently designed environmental education interpretive signs aimed at raising awareness of the area's history and its connection to the watershed.

These community projects are the strongest means of creating a sense of ownership along the path that is perhaps the strongest single deterrent to undesirable activity along the path.

Riparian Corridor

The riparian or stream corridor includes not only the stream itself, but a wider belt of land affected by the stream, consisting of

- the stream banks
- the floodplain
- associated wetlands
- the transitional upland edge

Stream corridors are important because they

- provide safe pathways for animals to travel to find food and mates
- connect areas of natural habitat otherwise isolated from each other
- often comprise the largest amount of natural habitat available in developed areas, although in a long and narrow shape

Floodplains:

Wide flat areas where flood waters spread out and slow

down, reducing erosion. The stream deposits silt, so floodplain soils are often very fertile.

Wetlands:

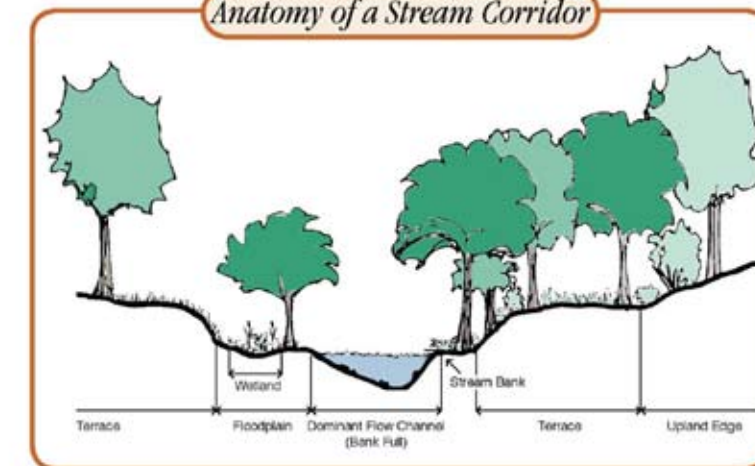
Areas that store water and allow it to seep into the earth. Wetland plants filter nutrients and pollutants out of the water. Amphibian species such as salamanders and newts may be born and develop in wetlands.

Upland Vegetation:

Vegetation at the edges of the stream corridor provides cover so animals can get to the water to drink or hunt. It also reduces erosion, and filters out pollutants before they can reach the stream.

Greenway trails in stream corridors provide two important benefits: protecting the stream corridor and creating recreational opportunities.

Anatomy of a Stream Corridor



A community project involving installation of Town Branch Trail, Inc's environmental education interpretive signs could help create a sense of ownership for the path



7.3. Adopt-a-Trail Program

Businesses and residential communities abut the Town Branch Trail. As neighbors to the path, they often see the benefit of their involvement in the path development and maintenance. Businesses and developers may view the path as an integral piece of site planning and be willing to take on some level of responsibility for the path. Creation of an adopt-a-trail program should be explored to capitalize on this opportunity and build civic pride. The adopt-a-trail program could include an adopt-a-creek component that works with the Town Branch Trail, Inc. to keep the creek clean from garbage as well as natural materials such as tree limbs and leaves.

7.4. Share the Path

Share the Path events encourage courteous and safe behavior between pathway users. As part of this program, trained outreach staff could make appearances at community events such as farmer's markets, county fairs, parades and festivals to distribute information about walking and bicycling. Share the Path aims to change dangerous bicycling, walking and driving behaviors (such as failure to yield to pedestrians, failure to use lights and aggressive bicycling on shared use paths) and promote walking and bicycling in the region.



An adopt-a-trail program could include an adopt-a-creek component further improving water quality of the creek



Share the Path events could be held at public venues such as the farmer's market at the former 1879 Lexington City Market House site



Trail Alignment Alternates

The criteria and process for evaluating potential alignments for the Town Branch Trail. The text begins with a description of the evaluation criteria along with a discussion of the process used for screening the alignments. A summary table presents the evaluation results.

Evaluation Criteria

The Town Branch Trail includes various potential trail alignments. The following evaluation criteria were used to screen the alignment alternatives. This screening process served as an initial step toward identifying a preferred trail alignment.

Safety

This criterion includes several factors, including whether a potential alignment shares the road with vehicle traffic, is located on a next to the railroad, or is physically separated from the road altogether. This criterion also addresses the number of crossings associated with a potential alignment. In cases where an alignment is located on a shared roadway or adjacent to the railroad, the evaluation addressed the street's/ railroad general characteristics. Potential alignments providing a greater degree of safety for trail users received a higher evaluative score.

Community Connections/Directness of Route

Potential alignments were evaluated based on their ability to provide a direct route for the trail, as well as for connections to other facilities like designated bicycle routes or other trails. Alignments were also evaluated based on their connections to neighborhoods, parks, schools, open spaces and future transit-oriented

development areas. Higher scores were given to potential alignments providing more direct access through the study area and links to other important destinations listed above.

Utilizes Existing/Planned Bicycle Pedestrian Facilities

This criterion addresses whether a potential alignment utilizes existing and/or planned bicycle/pedestrian facilities. Facilities include off-street trails, bicycle lanes and sidewalks. Generally, alignments utilizing existing and planned facilities suitable for bicycle/ pedestrian travel received higher evaluative scores.

Accommodates Multiple Users

This criterion refers to the ability of a potential alignment to safely and comfortably accommodate various types of trail users including bicyclists, walkers, joggers, in-line skaters, motorized and non-motorized wheelchair users, maintenance vehicles and security vehicles. Alignments serving a wider variety of trail users were given higher scores.

Aesthetics/Comfort

This criterion measures the quality of a potential alignment from the perspective of the trail user. It considers views, environmental aesthetics and characteristics such as noise and air quality. Alignments located away from roadways/railroads and those located near aesthetic features like the Town Branch Creek received a higher score than on-street alignments.

Environmental Impacts

Each potential alignment was evaluated based on

potential environmental impacts including whether the alignment would require vegetation removal, whether the alignment would pass through known wetland areas, and based on the number of necessary waterway crossings. This criterion also addresses whether an alignment would require substantial grading to overcome topographic issues. Alignments with fewer potential environmental impacts received higher evaluative scores.

Requires Structures

This criterion refers to the number of new structures (or modifications to existing structures) required for a trail alignment, including overcrossings and undercrossings. Structures include minor, moderate and major bridges (including cantilevered structures) passing over waterways, streets, highways and railroads. Alignments requiring fewer new structures or modifications to existing structures received higher scores.

Private Property Impacts

This criterion accounts for lands where property easements or full property acquisitions would be required. Where private properties would be impacted, the perceived safety and security issues among property owners were considered. Generally, alignments with minimal or no private property impacts received a higher score.

Ease of Implementation

This criterion measures the general difficulty of siting a trail alignment. The criterion takes into account issues like existing development, political issues, permitting requirements, and design and engineering issues (e.g., the need fencing or retaining walls, or trail switchbacks to meet ADA requirements on steep slopes).

Alignments Evaluation

The following table summarizes the evaluation scoring process for each trail alignment option based on the evaluation criteria described above. For preliminary screening, a system of “+”, “o”, and “-” was used. A “+” indicates favorable conditions, a “o” indicates mixed or neutral conditions, and a “-” indicates unfavorable conditions. It should be noted that multiple trail options were evaluated for some areas where several potential options exist. In other areas, it was determined that only one potential alignment would be feasible.



Trail Alignments Evaluation

Section	Alignment Description	Facility Type	Safety	Community Connections/	Utilizes Existing/Planned Bike/Ped Facilities	Accommodates Multiple Users	Aesthetic Comfort	Environmental Impacts	Requires Structures	Property Impacts	Ease of Implementation	Public Input
Alexandria Alternate 1	Travels from the railroad & Alexandria Road intersection towards Town Branch Creek. Then follows the creek east and connects to BCTC Alternate 1 with a railroad crossing.	Off- and on-street	+	-	+	+	+	-	-	+	-	+
Alexandria Alternate 2	Travels from the railroad & Alexandria Road intersection east near the railroad and crosses the railroad to connect to BCTC Alternate 1.	Off- and on-street	0	+	0	+	-	0	-	+	-	-
BCTC Alternate 1	Travels from the railroad crossing of the Alexandria Alternates and continues along the southern edge of the BCTC property and crosses under New Circle Road Overpass on the north side of the railroad tracks.	Off-street	+	+	0	+	0	0	0	+	+	+
Townley Center Connection	Travels from the BCTC Alternate north to the rear of the Townley Center Development and connects to the existing trail network provided by the developer.	Off-street	0	+	0	+	0	0	0	+	+	+
Bridge Connection over Town Branch Creek and Railroad	Travels from the BCTC Alternate north to the high point overlooking the railroad and Town Branch Creek. Then crosses over both and connects to the northern edge of the old city landfill.	Off-street	+	+	0	+	+	-	-	0	-	0
Landfill Alternate	Travels from the Bridge Connection and moves east along the edge of the old landfill and the Town Branch Creek and ties in to Jimmie Campbell Lane.	Off- and on-street	0	0	+	+	0	0	0	-	+	+
WWTP Alternate	Travels from the BCTC Alternate east parallel to the railroad. Due to the limited width between the railroad and the WWTP the trail will need to utilize the existing road network of the WWTP. Additional fencing will be needed.	Off- and on-street	-	0	-	+	-	-	-	-	-	-
McConnell Springs Connection	Travels from either connection of the Landfill Alternate or the WWTP Alternate at Jimmie Campbell Lane and connects the old woolen mill/old city jail to the Glenn Rose House then crosses Old Frankfort at McConnell Springs Road and becomes an on-road facility all the way back to the McConnell Springs Park entrance.	Off- and on-street	0	+	0	+	0	0	-	-	+	+
Old Frankfort Alternate 1	Travels from the intersection of Old Frankfort Pike and McConnell Springs Road on the north site of Old Frankfort Pike running parallel to OFP to the intersection of S. Forbes.	Off-street	0	+	0	+	-	0	-	-	-	0
Old Frankfort Alternate 2	Travels from the McConnell Springs Connection near the rear of the Fire Training Facility and runs parallel to the Town Branch Creek to the K-9 training facility where it would connect to the Old Frankfort Alternate 1.	Off- and on-street	+	-	-	+	+	0	0	-	0	0
Old Frankfort Alternate 3	Travels from the WWTP Alternate along the north side of the railroad tracks. Connects to S. Forbes at the Bluegrass Stockyard.	Off-street	-	+	-	+	-	0	+	-	+	-
South Forbes Improvements	Improvement to S. Forbes would include widening the road to accommodate bike lanes and sidewalks. Also, realign the intersection of Old Frankfort and S. Forbes to provide better sight lines.	On-street	+	0	+	+	0	+	0	-	-	+
Manchester Alternate 1	Parallels Manchester Street with an off-street trail.	Off-street	0	+	+	+	-	0	-	-	-	0
Manchester Alternate 2	Parallels Town Branch Creek from S. Forbes to Manchester Street Bridge.	Off-street	+	+	+	+	0	+	+	-	-	0
West Distillery District	Parallels the Town Branch Creek behind the Pepper Distillery and makes connections to the future redevelopment currently proposed for that site.	Off-street	+	0	+	+	+	0	-	+	+	+
East Distillery District	Parallels the Town Branch Creek behind the Old Tarr Distillery and makes connections to the future redevelopment currently proposed for that site.	Off-street	+	0	+	+	+	0	-	+	+	+
Manchester Connection	Connects the East Distillery District to Manchester Street.	Off-street	+	0	+	+	-	+	0	+	+	0





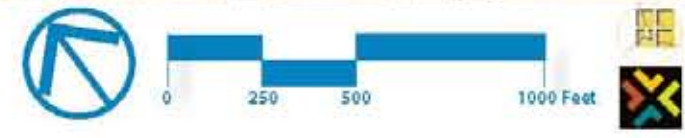


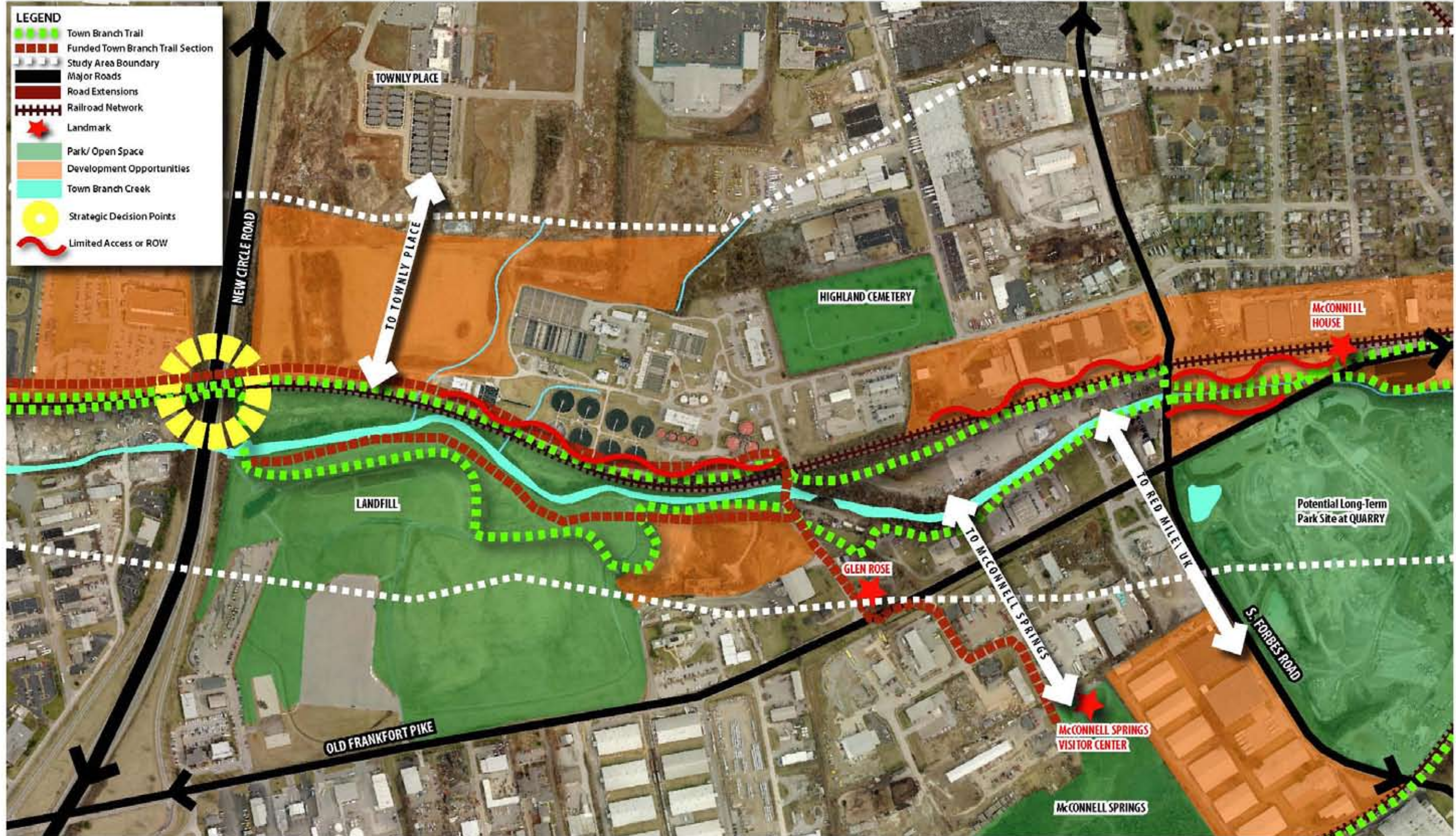
Town Branch Trail | Appendix



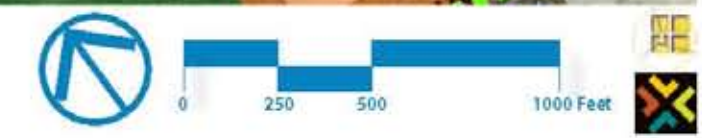
- LEGEND**
- ▬▬▬▬ Town Branch Trail
 - ▬▬▬▬ Funded Town Branch Trail Section
 - Study Area Boundary
 - Major Roads
 - Road Extensions
 - Railroad Network
 - ★ Landmark
 - Park/ Open Space
 - Development Opportunities
 - Town Branch Creek
 - ☀ Strategic Decision Points
 - Limited Access or ROW

URBAN DESIGN ASSESSMENT
Town Branch Trail: Alexandria Section



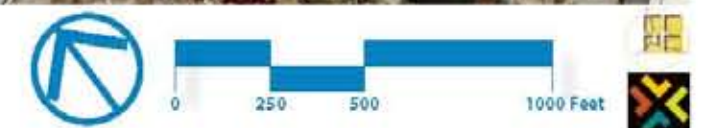


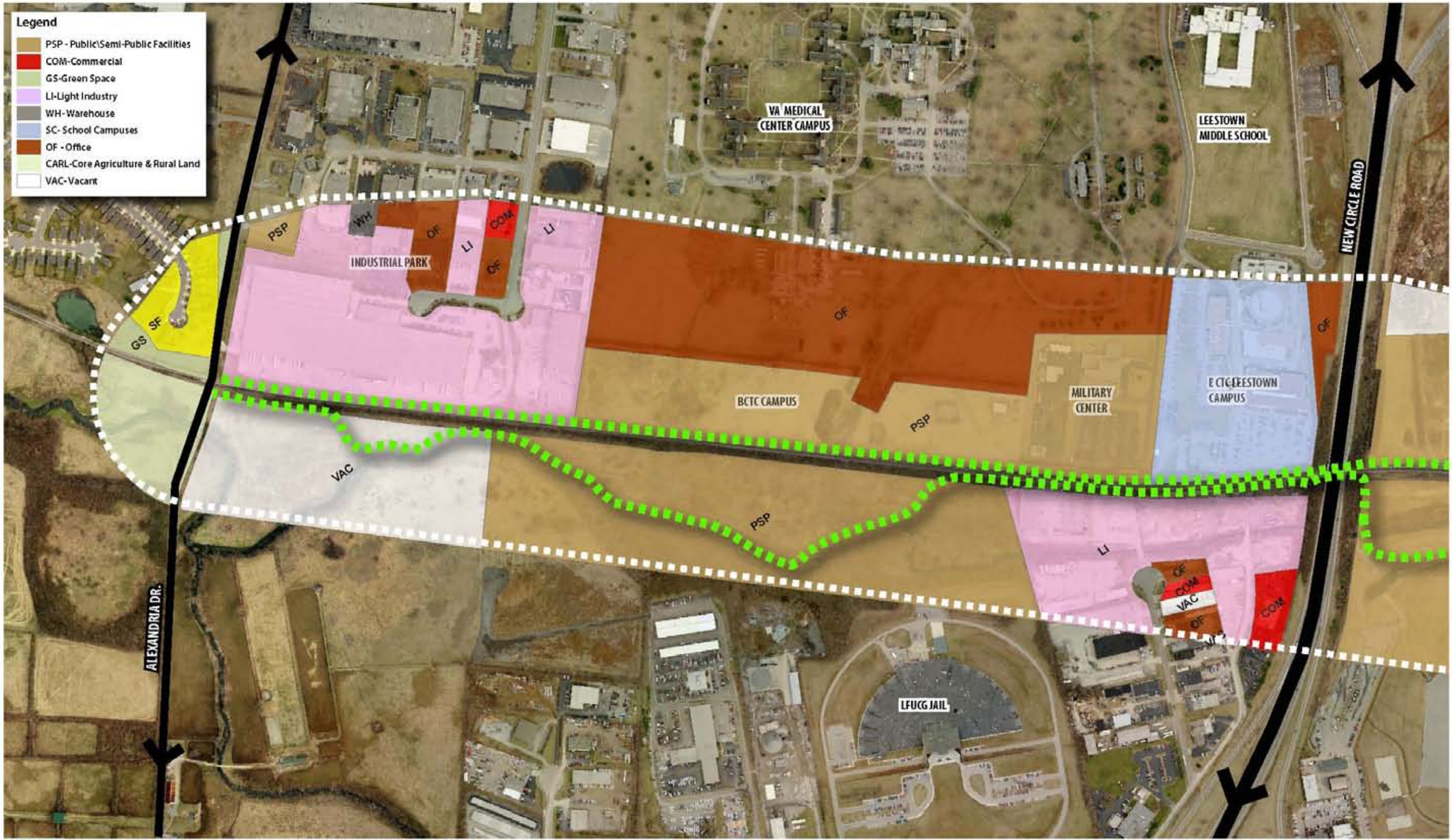
URBAN DESIGN ASSESSMENT
Town Branch Trail: Glen Rose Section



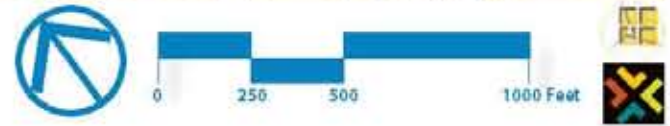


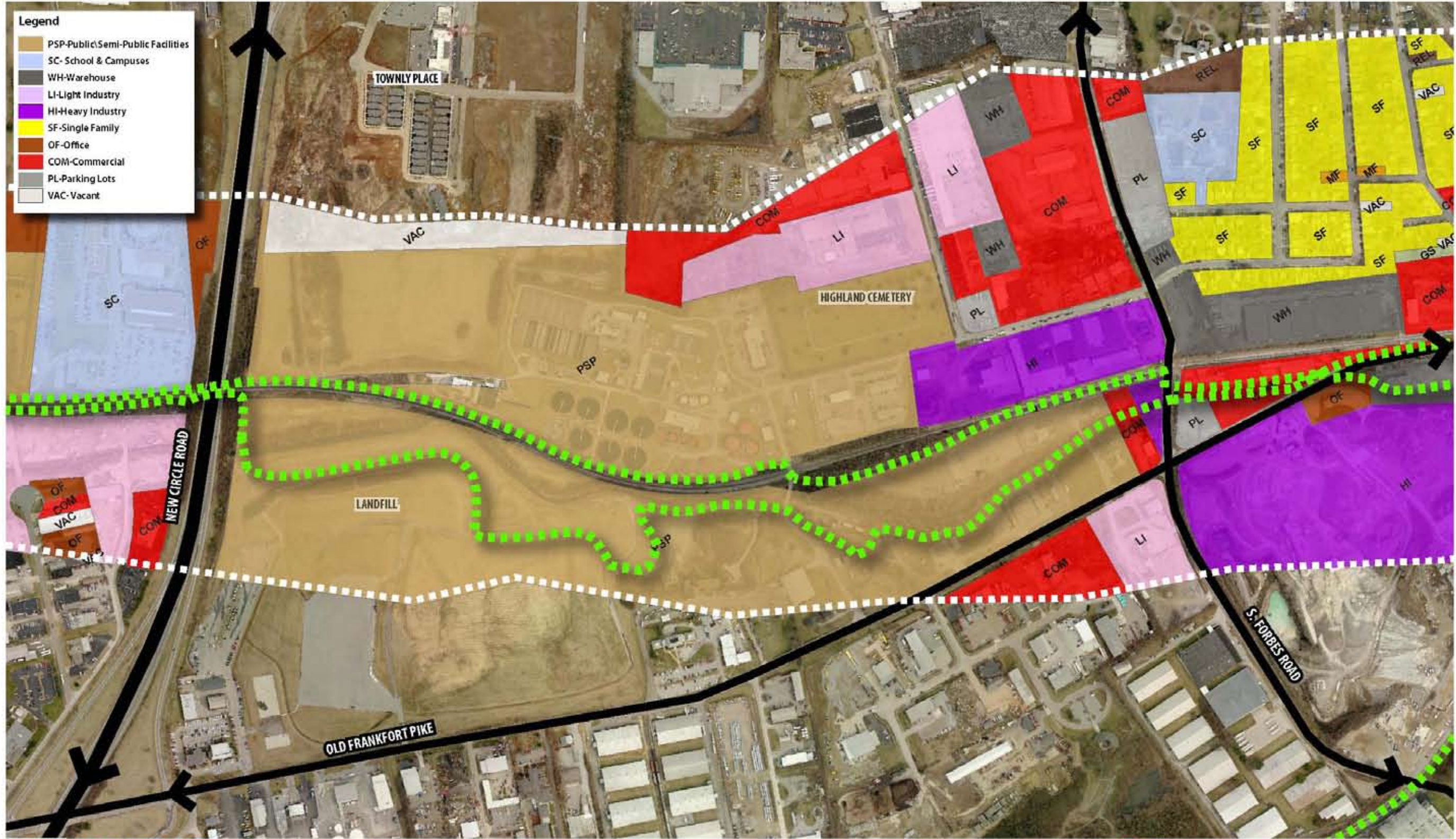
URBAN DESIGN ASSESSMENT
Town Branch Trail: Distillery Section



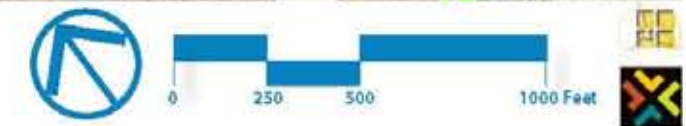


LAND USE
Town Branch Trail: Alexandria Section



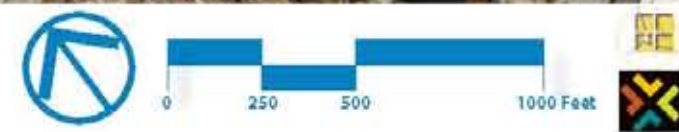


LAND USE
Town Branch Trail: Glen Rose Section



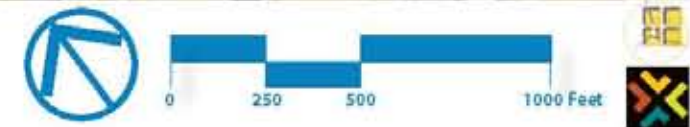


LAND USE
Town Branch Trail: Distillery Section



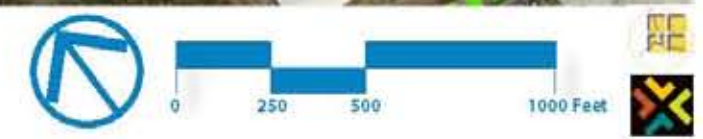


ZONING
Town Branch Trail: Alexandria Section



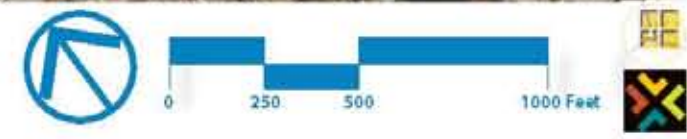


ZONING
Town Branch Trail: Glen Rose Section





ZONING
Town Branch Trail: Distillery Section



McCONNELL TRACE SECTION



**LIMESTONE
RESIDENTIAL
EDUCATIONAL**

GLEN ROSE SECTION



**GOTHIC
HISTORIC
LIMESTONE
SCENIC**

ALEXANDRIA SECTION



**STREAMS
PADDOCKS
STONE
NATURAL**

DISTILLERY DISTRICT SECTION



**BOURBON
STEEL
LIMESTONE
INDUSTRIAL
REDEVELOPMENT**



INDUSTRIAL PARK

NUTI PROPERTY



MILITARY RESERVE COMPLEX

BCTC CAMPUS



ALEXANDRIA SECTION - EXISTING CONDITIONS
TOWN BRANCH TRAIL



PROPERTIES ALONG OLD FRANKFORT PIKE



TOWN BRANCH WWTP AND OLD CITY LANDFILL



GLEN ROSE SECTION - EXISTING CONDITIONS
TOWN BRANCH TRAIL





OLD TARR DISTILLERY SECTION



PEPPER DISTILLERY SECTION



DISTILLERY DISTRICT - EXISTING CONDITIONS TOWN BRANCH TRAIL





TRAIL UNDER OVERPASS



BRIDGE OVER TRACKS



RAILROAD SPUR CROSSING



RAIL WITH TRAIL

 **SIMILAR BUILT CONDITIONS
TOWN BRANCH TRAIL**

