

## ACKNOWLEDGMENTS

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Urban Impact
Greater Birmingham Convention + Visitors Bureau
Woodlawn Foundation
Economic Development Partnership of Alabama
Health Action Partnership
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"RED ROCK TRAIL SYSTEM ${ }^{\oplus}$ IS MUCH MORE THAN A PLAN TO CREATE recreational trails, though that is one of the major goals and perks of the plan. Red Rock Trail System ${ }^{\oplus}$ speaks to a grander vision that addresses how people move and interact with their communities. Creating safe areas for people to walk and bike in their communities makes living a healthy lifestyle easier for people to achieve, but it is also an important consideration to ensure equitable access to resources for our residents that do not have access to a car or reliable transportation."

Jefferson County Health Officer,
Dr. Mark Wilson

## O1 | INTRODUCTMON

## project background

In 2010, Freshwater Land Trust, under the Jefferson County Department of Health and the Health Action Partnership, received funding through a Centers for Disease Control "Communities Putting Prevention to Work" grant to develop a trail master plan for Jefferson County, Alabama. The purpose of this plan was to develop a feasible and "ground-truthed" master plan for trails and bicycle and pedestrian infrastructures that would promote active and healthy living, use of alternate modes of transportation, and protect regional waterways. The planning process was given the name "Our One Mile," and it exemplified the indispensable value of individual input in a plan designed to serve the public. The original planning effort laid the groundwork for future plans, including the 2019 B-Active and 2020 Jefferson County Active Transportation Plans (see map on the page 5 for a network summary and recommendations from previous plans). Since the 2010 trail plan was developed, 127 miles of trails and on-street bike facilities have been constructed in both Birmingham's downtown core and adjacent municipalities and neighborhoods. Notable and iconic projects include Rotary Trail, High Ore Line Trail, and Hugh Kaul Trail.

Red Rock Trail System ${ }^{\circledR}$ presents an inclusive "roadmap" for a regional greenway (off-street) and street-based trail system to connect communities across Jefferson County. The master plan proposes over 200 miles of trails along six main corridors, as well as over 600 miles of streetbased bicycle and pedestrian pathways that will connect the corridors with surrounding areas. Upon implementation of the plan, citizens will be able to walk, run, and ride bicycles for routine transportation and recreation, which will improve the quality of life of the people of Jefferson County and attract new residents and businesses, which will sustain future economic growth in our communities.

Red Rock Trail System ${ }^{\circledR}$ Action Plan aims to advance the community vision of Red Rock Trail System ${ }^{\circledR}$. With this effort, Freshwater Land Trust can evaluate the feasibility of future trail corridors to design in conjunction with their currently identified Priority Projects (see map on page 5). The seven corridors identified in this document will promote the development of a continuous loop trail around the Greater Birmingham Metropolitan Area. 4

## goals + project vision

This Action Plan sought to evaluate existing conditions of Red Rock Trail System ${ }^{\oplus}$, gather data and stakeholder input, and develop a strategy to provide a future loop trail around the Greater Birmingham Metropolitan Area in a feasible and equitable manner. With input from stakeholders, Freshwater Land Trust identified the following three goals to support this study:


## GOAL 1:

Identify up to seven priority trail corridors that maximize user comfort, safety, and experience, ultimately creating the backbone for a trail loop around Jefferson County for people of all ages and abilities.

## GOAL 2:

Focus implementation on providing equitable connections to active transportation options in historically disadvantaged communities.

## GOAL 3:

Provide anchor points for local neighborhoods to connect to Red Rock Trail System ${ }^{\oplus}$ in the future.

These three goals guided the study process and informed the recommendations contained in this document.

## a trail system for everyone

Corresponding with the goals of the Statewide Bicycle and Pedestrian Plan and the B-Active Plan, this Action Plan makes recommendations to provide safe, comfortable, and equitable trails for all ages and abilities. All Ages and Abilities users include children, seniors, women,
people riding bike share, people of color, low-socioeconomic status riders, people with disabilities, confident cyclists, people delivering goods or cargo via cycling, as well as all types of walkers and runners. Based on NACTO's Designing for All Ages + Abilities: Contextual

Guidance for High-Comfort Facilities, bicycle facilities were chosen based on the adjacent roadway context including Target Motor Vehicle Speed, Target Motor Vehicle Volume (average annual daily traffic), Motor Vehicle Lane Count, and Key Operational Considerations.

## DISPLACEMENT + GENTRIFICATION

Speculation around active transportation infrastructure benefits and affordability are very common when new investments are being made within communities. Residents may voice concerns that trails and bikeways will contribute to displacement, gentrification, and housing cost increases. At the same time, these transportation facilities can help reduce household transportation costs or provide safe places to bike for those who cannot afford to own a vehicle. In the past, investment has not been made in some neighborhoods at the same rate as other parts of Birmingham. Working in partnership with community facilitators, efforts to promote a transparent and collaborative decision-making process will ensure that active transportation and other investments in the community serve existing and long-term residents and their mobility needs.

For the Red Rock Action Plan, priority corridors were determined using a comprehensive equity demand model. This tool is valuable for understanding where service is most needed during planning. Once the priority corridors advance to the design stage, outreach strategies should be created that use community-led approaches to create infrastructure and programs tailored to neighborhood needs. By engaging residents in creating a shared vision for active transportation and greenspace, projects become a part of the existing community fabric. Project partners should work closely with municipalities to pursue a comprehensive approach to housing and transportation affordability since they are not mutually exclusive.

Based on these contextual factors, a combination of the following facility types were utilized to ensure access for all:

- Bicycle boulevards
- One-way buffered bike lanes
- Two-way cycle tracks
- Sidepaths and greenways

By utilizing facility types based on the context at hand, we can ensure the greatest number of people will feel safe on the trail system.

## EQUITY + DEMAND ANALYSIS

The map on the facing page, page 9, identifies the highest areas of equity need and demand. Equity was assessed by five socioeconomic factors (age, income, access to a vehicle, race, and limited English proficiency) to estimate where there are higher concentrations of people who are dependent on active transportation modes and would benefit most from active transportation infrastructure improvements. Demand was tabulated by where people live, work, play, shop, learn, take transit, and access community services.

## EQUITY + DEMAND ANALYSIS MAP


seven action plan priority corridors
After a thorough remote and on-site analysis of the 11 potential priority corridors, seven projects (illustrated on this page) were chosen for the following reasons:

- Their contribution to the overall trail loop around Jefferson County
- Their ability to create equitable connections
- Their potential to provide anchor points for future spur connections to other neighborhoods and local destinations

The corridors represent an equitable distribution around Jefferson County and begin to make essential connections in complex urban / suburban contexts that would not necessarily emerge as the obvious routes, but through comprehensive analysis, stand out as
the best available corridors to accomplish desired connections in Jefferson County.



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## CORRIDOR D

HIGM-ORE GTNE TO VALLEY CRIEEK RAILSFTOTTRADLS

## CORRIDOR G

RED MOUNTAIN
PARKTO



## RED ROCK TRAIL SYSTEM ${ }^{\circledR}$ MAP - FUTURE TRAIL LOOP



## design objectives

Freshwater Land Trust is committed to ensuring that all Jefferson County residents have equitable access to the benefits that trails provide the community within one mile of their home. The following design objectives for Red Rock Trail System ${ }^{\ominus}$ were drawn from discussions with Freshwater Land Trust staff, the Steering Committee, and the Task Force. These objectives will ensure the best corridor selection to provide connections to the incredible assets of the Jefferson County region


## DEMAND

Trails should be designed in areas of high demand, i.e. areas where people live, work, recreate, shop, attend school, and access public transportation


## EQUITY

Trails should be designed in areas of high equity need:

- Areas with young or aging populations
- Areas with low-to-moderate median income
- Areas with high concentrations of limited English proficiency
- Areas with large percentages of non-white residents
Areas with residents that do not have access to a motorized vehicle



## CONNECTIVITY

Trails should be designed to connect with existing bicycle/pedestrian facilities, to Freshwater Land Trust projects, and to existing parks and destinations. The ultimate
vision for this Action Plan is to create a 36.25-mile loop that connects Railroad Park to Ruffner Mountain to Red Mountain Park, with spurs to other regional destinations.


## USER EXPERIENCE

Trails should be designed to provide the best possible user experience, measured by facility type and posted speed limits of adjacent roadways.


PROGRAMMING / EVENTS
Trails should be designed to facilitate local and regional walking, running, biking, and other outdoor recreation events and programming.

## ~wn

SAFETY
Trails must be designed with user safety in mind, which includes separation from motor vehicle traffic and safety-oriented design features.


## FEASIBILITY

Trails must be designed such that they can be reasonably constructed without major cost or engineering concerns where possible. Public property availability, existing topography, and cost per mile are major factors.

## design vision

Seven trail typologies are recommended for Red Rock Trail System ${ }^{\oplus}$ priority corridors. Trail typologies were developed to increase comfort and encourage use from people of All Ages and Abilities (see page 8).

Priority corridors have a combination of these facilities to create broader connections to Jefferson County destinations and the greater bicycle and pedestrian network. Welldesigned and navigable transitions between these facility types and proper wayfinding signage will be critical to ensure that the corridor feels seamless as the context changes.

See the following pages (20-47) for site-specific facility recommendations, implementation challenges, and opportunities for each priority corridor.

FACILITY TYPOLOGIES


Sidepaths are trails directly adjacent to roadways and are applicable on segments with enough right-of-way to accommodate sidewalk widening.

## Applicable Corridors

A, C, D, E, F, G

## Design Considerations

- 10-12' width recommended (width should increase in corridors of high demand)
- 6-8' min. planting strip buffer between travel lane and facility recommended where feasible
- Separation or buffer from frontage zones of buildings recommended where feasible


## Applicable Corridors

- C, D, E, F, G


## Design Considerations

- 10-12' width recommended (width should increase in corridors of high demand)
2' min. mowed shoulder required on both sides of trail
- Rest areas recommended every 300' where feasible
- Maintenance agreements and easements will need to be coordinated with property owners

TWO-WAY CYCLE TRACK

Two-way cycle tracks are applicable in areas of high demand where it may not be desirable to have a shared facility for bicyclists, pedestrians, and runners. Cycle tracks can be constructed through a lane width reduction / taking the parallel parking lane or travel lane.

## Applicable Corridors

- A, B, C, D, F, G


## Design Considerations

- 8-10' width recommended for two-way bicycle travel
- 2' min. width recommended for cycle track buffer
- Parking-separated cycle track will require 3' min. buffer between parking lane and facility (door zone)
- Furniture zones are desired between the sidewalk and cycle track where space allows to minimize conflicts


FLOATING TRANSIT ISLAND

Floating transit islands are applicable at bus stops along segments where a cycle track is proposed in order to minimize conflicts between transit riders, buses, and bicyclists. This configuration creates space for transit riders to wait, board, and alight next to the travel lane while maintaining continuous throughput for bicyclists.

## Applicable Corridors

## A, B, C

## Design Considerations

- 8' min. width for transit island platform
Bollards / fencing, detectable warning strips, and crosswalk markings recommended where the bikeway is at-grade with the transit platform to channelize pedestrian crossings


ONE-WAY SEPARATED BIKE LANE

One-way separated bike lanes can be constructed with a raised curb (concrete or planting strip) or buffered with a parallel parking lane. Separated bike lanes can be constructed through a lane width reduction / taking the parallel parking lane or a travel lane.

## Applicable Corridors

- B


## Design Considerations

4' min. width recommended for bike lane with a 2' min. width for buffer (6-8' width recommended for planting strip where feasible)
Parking-separated bike lane will require 3' min. buffer between parking lane and facility (door zone)
Furniture zones are desired between the
sidewalk and sidewalk-level bike lane where
space allows to minimize conflicts


BUFFERED BIKE LANE
Buffered bike lanes offer more separation from vehicles than a conventional bike lane but do not require new curb construction. Buffered bike lanes can be constructed through a road diet / taking the parallel parking lane.

## Applicable Corridors

- C


## Design Considerations

- 4' min. width recommended for bike lane
3' min. width recommended for painted buffer (can include flex posts or movable planters if desired)
Parking-separated bike lane will require 3' min. buffer between parking lane and facility (door zone)



## BIKE BOULEVARD

Bike boulevards (sharrows) are recommended on low-speed ( $<25$ MPH), Low-volume ( $<3,000$ average annual daily traffic) streets that may not have enough right-of-way, demand, or pavement width for a separated facility.

## Applicable Corridors

$C, D, E, F, G$

## Design Considerations

- Traffic calming and raised crossings recommended along bike boulevards
- Sharrow markings should be placed in the middle of the travel lane to encourage bicyclists to use the whole lane (rather than bike on the shoulder)
- Wayfinding signage along these segments is critical to create clear connections


## APPENDIX A | GLOSSARY OF TERMS



## REFUGE ISLAND

## ROAD DIET

## SHARROWS

Also called shared lane markings
(SLMs); road markings used to indicate a shared lane environment for bicycles and automobiles. Sharrows reinforce the legitimacy of bicycle traffic on the street, recommend proper bicyclist positioning, and may be configured to offer directional and wayfinding guidance.


## CORRIDOR A I SMITMRIELD FO DOWNTOWN


red rock action plan recommendations "--- FLT Priority Projacts (ongoing)


Rad Rock Trail System Villago Creak Corridor
Inlilil Two-way cycle track
ITII Sidepath
connecting pedestrian + blcycle facillties existing solid tine propose di dashed tine

--- Altarnative Dasign Option

## PROJECT SNAPSHOT

## CORRIDOR DESCRIPTION

This corridor connects the Graymont / Smithfield neighborhoods to important downtown civic and commercial destinations. The corridor begins on 4th Ave, Birmingham's Historic Black Main Street, and connects
several culturally important landmarks, including Kelly Ingram Park, the Birmingham Civil Rights Institute, and the AG Gaston Motel. Heading west along 5th Ave N / Graymont Ave, the corridor connects to Legion Field and ties into the future Bush Hills Connector by BirminghamSouthern College.

## TOTAL MILEAGE

2.57 MI (13,561 Linear Feet)

PROJECT COST (2024 \$)
\$4,876.425.13

FACILITY TYPOLOGIES FOR THIS CORRIDOR

## SIDEPATH



TWO-WAY CYCLE TRACK


FLOATING TRANSIT ISLAND


## EXISTING CONDITIONS AT 4TH AVE N



## CORRIDOR A I SMITHEIELD TO DOWNTOWN GRAYMONT AVE N + 9TH STREET N



## implementation <br> (west to east)

Two-Way Cycle Track (E side of 6th St W to Graymont Ave)
Convert the four-lane undivided section to one lane in each direction with a two-way left turn lane.
Assuming an existing pavement width of 40', implement 3-11' travel lanes and a 9' cycle track, no buffer

Sidepath (N side of Graymont Ave to Center St)
Utilize existing wide sidewalk. Add proper signage and pavement markings to incorporate transition to cycle track.

Two-Way Cycle Track (S side of Graymont Ave to 6th St N)
Convert the four-lane undivided section to one lane in each direction with a two-way left turn lane.

- 3-11' lanes leaves 15 ' from the 48' pavement section, so 12' two-way cycle track on the south side with a 3' vertical


## buffer

- Remove porkchop island at 9th St/5th Ave/Graymont Ave intersection
- Challenges: Facility transition at Center St intersection will be an important connection

Two-Way Cycle Track (S side of 5th

## Ave $\mathbf{N}$ to 16th St $\mathbf{N}$ )

Remove one lane and reduce two other lanes to 11' each. Keep onstreet parking on the north side ( $7^{\prime}$ ), create a $5^{\prime}$ floating transit island on the south side, and install 10' cycle track adjacent to the south side curb. A protected intersection is recommended at the SW corner of 16th St and 5th Ave.

- Challenges: A parking assessment may be required to see if removing a parking lane is feasible


## Two-Way Cycle Track (W side of 16th St N to 4th Ave N)

Reduce lane widths and on-street parking areas to incorporate cycle track on 16th St.

- 2-11’ travel lanes, 2-7' parking areas, and a 13' cycle track and buffer


## Two-Way Cycle Track (N side of 4th Ave to 19th St N)

Remove one travel lane or one onstreet parking area to incorporate cycle track. The cycle track may be at level with traffic or raised at the level of sidewalk. A protected intersection is recommended at all intersections to avoid conflicts with right-turning vehicles.

- 2-11’ travel lanes, 2-8' parking areas, and a 12' cycle track, 4' buffer, or;
- 3-11' travel lanes, an 8' parking area, and a 10' cycle track, $3^{\prime}$ buffer
- Challenges: A parking assessment may be required to see if removing a parking lane is feasible; a traffic analysis will need to be performed to evaluate the feasibility of a lane removal


## COORDINATING AGENCIES

Parking - Birmingham Parking Authority
Traffic (signals, pavement
markings, and signage) - City
of Birmingham Department
of Transportation
Maintenance - City of
Birmingham Department of
Public Works (trash pickup,
tree maintenance, sidewalk
maintenance, etc.)
Utilities (electric, gas, water/
sewer, telephone, etc.)

- Alabama Power, Spire,

Birmingham Water Works +
Sewer Board, AT+T, Charter,
Brighthouse
Transit - Birmingham
Jefferson County Transit Authority
Legion Field Stadium - City
of Birmingham Parks and
Recreation Board

## CORRIDOR B | 20TM STREET


red rock action plan recommendations －ーー＝FLT Priority Projects（ongoing）

Red Rock Trail System Jones Valley Corridor
II Two－way cycle track
One－way separated bike lane
connecting pedestrian＋bicycle facilities existing：solid line proposed：dashed line
－ー－Two－way cycle track
モーニ Bike boulevard
$\boldsymbol{\text { ——— }}$ Natural surface trail
$\boldsymbol{I -}$ Bike Lane
＝－＝Sidepath
$\boldsymbol{= \boldsymbol { = }}$ Greenway
community assets －Higher education

Parks
－Streams
—— Railroad
© Bus stop
－Lodging
（13）Trailhead opportunity
analysis
O Opportunity $\quad$ C Challenge

FACILITY TYPOLOGIES FOR THIS CORRIDOR

## CORRIDOR DESCRIPTION

Corridor $B$ is one of the most important and challenging corridors，as 20th St is a major commuter route and commercial corridor．The activity on both ends of this proposed corridor， the Birmingham Green Project and the Kiwanis Vulcan Trail， indicates the need to bridge the gap between these projects through downtown．Corridor B has the potential to transform the look and feel of the Five Points area by reallocating right－of－way and prioritizing the trail connection．

## TOTAL MILEAGE

1．39 MI（7，323 Linear Feet）

TOTAL ESTIMATED PROJECT COST（2024 \＄）
\＄2，037，658．46


## EXISTING CONDITIONS AT FIVE POINTS PLAZA



## CORRIDOR B | 20TH STREET FIVE POINTS SOUTH



## annual average daily traffic

20th St：8，000－13，000
10th Ave：9，000

## right－of－way

20th St： 100 Linear Feet（LF）
（ $\sim 72$ LF curb－to－curb）
10th Ave： 70 LF
（48 LF curb－to－curb）

## permitting needs

NPDES General Permit
Tree removal－may require
mitigation

## implementation （north to south）

Separated Bike Lane（20th St， Morris Ave to 11th Ave S）
Convert the four－lane undivided section to one lane in each direction with a two－way left turn lane．
Maintain on－street parking．
－3－11＇travel lanes，convert on－ street parking to one－way， separated bike lane
－Integrate lighting＋art under the bridge
－The transition from the wide sidewalk at Morris Avenue up to the bridge should happen by the bridge pier
－Challenges：A traffic analysis will need to be performed to evaluate the feasibility of a lane removal

## Two－Way Cycle Track（W side of

 20th St 10th Ave S to 16th Ave S） Convert the four－lane undivided section to one lane in each direction with a two－way left turn laneMaintain on－street parking．Bike lane transitions to two－way cycle track in order to tie into the future sidepath that connects to the Kiwanis Vulcan Trail．
－3－11＇travel lanes，convert on street parking to two－way， separated bike lane
－Roundabout should be considered at Five Points intersection to increase safety．Or，traffic operations can be enhanced to protect turning vehicles with extended crossing time for bicyclists and pedestrians
－Consider streamlining traffic through the intersection by rerouting some of it to other intersections in order to improve safety and reduce delays
－Challenges：Cost of intersection improvements；a network evaluation will need to be performed to avoid congestion spillover if through movements are removed／signal timing altered

## COORDINATING AGENCIES

Parking－Birmingham Parking Authority
－Traffic（signals，pavement markings，and signage）－City of Birmingham Department of Transportation
－Maintenance－City of Birmingham Department of Public Works（trash pickup，tree maintenance，sidewalk maintenance，etc．）
－Utilities（electric，gas，water／sewer，telephone，etc．）－Alabama Power， Spire，Birmingham Water Works＋Sewer Board，AT＋T，Charter，Brighthouse Transit－Birmingham Jefferson County Transit Authority
－Birmingham Green Project－REV Birmingham

## SIヨヨHSIกכ LכヨケOヌd

CORRIDOR C I RED MOUNTANN PARKK TO UAB

red rock action plan recommendations －－－－FLT Priority Projects（ongoing）Red Rock Trail System Jones Valley Corridor Two－way cycle track Greenway Bike boulevard －
One－way buffered bike lane
connecting pedestrian＋bicycle facilities existing：solid line proposed：dashed line
＝－乙 Two－way cycle track
＝－＝Bike boulevard
＝－工 Natural surface trail
＝－－Bike lane
＝－－Sidepath
＝－乙 Greenway
＇community assets $\square$ Higher education
Parks
－Streams
$\ldots$ Railroad
© Bus stop

8
Controlled crossing
＊Trailhead opportunity
－Scenic viewpoint
（2）Commercial hub
（1）School
P Public parking
（ Community landmark
analysis
O Opportunity

FACILITY TYPOLOGIES FOR THIS CORRIDOR

## CORRIDOR DESCRIPTION

As indicated by the numerous typologies necessary to implement this corridor，Corridor C is a complex route to connect Red Mountain Park，George Ward Park，and the University of Alabama at Birmingham（UAB）． Corridor C will also provide a spur connection to the existing western terminus of the Kiwanis Vulcan Trail，providing an alternate route to experience the sweeping vistas of Red Mountain．In combination with Corridor G，this corridor will
link Downtown to the Shades
Creek Greenway．

## TOTAL MILEAGE

3．41 MI（18，013 Linear Feet）

TOTAL ESTIMATED PROJECT COST（2024 \＄）
\＄5，647，150．70

BUFFERED BIKE LANE


FLOATING TRANSIT ISLAND


## EXISTING CONDITIONS AT 24TH AVE UNDERPASS



CORRIDOR C I RED MOUNTAIN PARK TO UAB

## GREEN SPRINGS HWY + GREEN SPRINGS AVE



## implementation (north to south)

## Buffered Bike Lane (10th Ave S)

Remove parking lane to create space for buffered bike lane. Connect to existing 10th Ave S bike lanes.

Bike Boulevard (6th St S, George

## Ward Park to 10th Ave S)

Introduce traffic calming and sharrows. Street is too narrow for separated bike facilities, and slopes are too steep on both sides of road and going beneath the bridge.

- Chicanes and other trafficcalming features should be considered
- Evaluate potential trailhead location at George Ward Park
- Wayfinding signage recommended along segment
- Challenges: Road must be resurfaced (severe cracking); evaluate drainage conditions (ponding observed)


## Greenway (George Ward Park)

Utilize existing pathway. Clear and grub to expand existing trail to $12^{\prime}$ wide.

- 12’ greenway
- Provide lighting along trail
- Challenges: Plan for driveway / side street crossings; some earthwork will be required to eliminate differences in elevation


## Two-Way Cycle Track (W side of

 Green Springs Hwy to 24th Ave S)Reduce all five lanes to 11', convert existing wide paved shoulder on west side to a 17' two-way separated cycle track.

- Southbound dedicated right turn lanes along Green Springs Hwy will ideally be removed
- Crossing improvements at Green Springs Ave recommended (pedestrian refuge, signage, and signal phasing evaluation)
- Evaluate possibility of midblock crossings at existing bus stops
- Challenges: Plan for driveway / side street crossings; determine utility conflicts since excavation and compaction will be required

Bike Boulevard (24th Ave S)
Introduce traffic calming and sharrows. Street is too narrow for separated bike facilities and slopes are too steep on both sides of road and going under the bridge.

- All-way stop at Robert Jemison Rd is recommended


## Sidepath (S side of Robert Jemison Rd to Alabama Power easement)

Clear and grub corridor to make way for trail construction.

- 10-12’ sidepath
- Challenges: Determine utility conflicts since excavation and compaction will be required; substantial earthwork will be required to eliminate difference in slope elevation


## Greenway (Alabama Power

 easement to Industrial Dr)Clear and grub corridor to make way for trail construction.

- 10-12’ greenway
- Challenges: Maintenance agreement needs to be coordinated with Alabama Power; utility company must have access to maintain power lines


## COORDINATING AGENCIES

Traffic (signals, pavement markings, and signage) - City of Birmingham Department of Transportation
Maintenance - City of Birmingham Department of Public Works (trash pickup, tree maintenance, sidewalk maintenance, etc.) Utilities - Alabama Power Environmental
Alabama Department of
Transportation
City of Birmingham Parks and Recreation
City of Homewood

## CORRIDOR D I 凡IGH ORE CINE TO VALLEY CREEK RAILS"TO-TRAMLS


red rock action plan recommendations －－－－FLT Priority Projects（ongoing）


Red Rock Trail System Village Creek Corridor
IIII Two－way cycle track $\|$ Greenway
！in Bike boulevard IIIIII Sidepath
connecting pedestrian＋bicycle facilities existing：solid line proposed：dashed line
ニーー Two－way cycle track
चー－Bike boulevard $\quad \overline{-\square}$ Sidepath
ニーー Natural surface trail
community assets
 analysis
O Opportunity C Challenge

## CORRIDOR DESCRIPTION

Corridor D represents another important connection for Red Rock Trail System ${ }^{\circledR}$ connecting the Cities of Midfield／ Fairfield to the High Ore Line Trail and the upcoming Valley Creek Rails－to－ Trails project．This corridor will upgrade the MLK Jr．Drive greenway and provide a shared－use connection to the Central Park neighborhood，with a connective spur into Miles College．Corridor D will enable residents of these neighborhoods to access the overall Red Rock Trail System ${ }^{\circledR}$

## TOTAL MILEAGE

3．89 MI（20，548 Linear Feet）

TOTAL ESTIMATED PROJECT COST（2024 \＄）
\＄8，537，000．00

## FACILITY TYPOLOGIES FOR THIS CORRIDOR

GREENWAY


SIDEPATH


TWO－WAY CYCLE TRACK


BIKE BOULEVARD


EXISTING CONDITIONS AT HIGH ORE LINE TRAIL


## CORRIDOR D I HIGH ORE LINE TO VALLEY GREEKK RAILS-TO-TRAILS DR MLK BLVD + AARON ARONOV DR



## annual average <br> daily traffic

Woodward / Milstead Rd:
5,200-5,400
Dr MLK Dr: 15,398
Vinesville Rd: 4,820
52nd St: 2,000-2,500
Bessemer Rd: 15,971

## right-of-way

Milstead Rd: 60 Linear Feet (LF)
Dr MLK Dr: 80-100 LF
Vinesville Rd: 50-60 LF
52nd St: 50 LF

## permitting needs

NPDES General Permit
Environmental (erosion /
sediment control)
Tree removal - may require
mitigation
Utilities

## implementation (west to east)

## Sidepath (E side of Milstead Rd

 to Woodward Rd)Existing pavement width ( $\sim 40^{\prime}$ ) should accommodate facility.

- 2-11' lanes, $12^{\prime}$ sidepath with 6 buffer (landscaping or vertical buffer)
- Challenges: Check drainage conditions to see if improvements will be required


## Sidepath ( N side of Woodward Rd to Milstead Rd / N side of Dr MLK Dr to Court I)

Clear and grub corridor to make way for trail construction.

- 10’ sidepath
- Intersection improvements at Aaron Aronov Dr - new concrete median, curb radii reduction, and other pedestrian / bicycle crossing improvements
- Challenges: Determine utility conflicts since excavation and compaction will be required; drainage improvements may be required (may require a closed drainage system with
curb and gutter); may require utility easement at Alabama Power substation parcel; plan for proper driveway / side street crossings. Significant regrading is needed to mitigate steep slopes


## Two-Way Cycle Track (N Vinesville Rd to 52nd $\mathbf{S t}$ )

Reduce lane widths to 11’. Potentially remove one on-street parking lane.

- 10' cycle track with 3' buffer
- Intersection improvements at 52nd St - consider roundabout or removing some movements; regulate left and right vehicular turns
- Challenges: Plan for driveway / side street crossings


## Bike Boulevard (52nd St)

Introduce traffic calming and sharrows. Street is too narrow for separated bike facilities and slopes are too steep on both sides of road and going beneath the bridge.

- Speed tables and other trafficcalming features should be considered
- Evaluate potential trailhead location by Valley Creek Rails-toTrails entrance


## COORDINATING AGENCIES

Traffic (signals, pavement markings, and signage) - City
of Birmingham Department
of Transportation and City of Fairfield
Maintenance - City of
Birmingham Department of
Public Works (trash pickup, tree maintenance, sidewalk
maintenance, etc.)
Utilities (electric, gas, water/
sewer, telephone, etc.)

- Alabama Power, Spire,

Birmingham Water Works +
Sewer Board, AT+T, Charter,
Brighthouse
Transit - Birmingham Jefferson
County Transit Authority

- Environmental
- City of Fairfield
- City of Fairfield Fire Department

Miles College

## CORRIDOR E I RUFFNER MOUNTAAN RAIL TRAAL


red rock action plan recommendations －ーー＝FLT Priority Projects（ongoing）
Red Rock Trail System Jones Valley Corridor
Two－way cycle track
Greenway
Bike boulevard
connecting pedestrian＋bicycle facilities existing：solid line proposed：dashed line
ユーニ Two－way cycle track
＝ーモ Bike boulevard
Natural surface trail
－ーー Alternate alignment
$\begin{array}{ll}\overline{\text { モーニ }} & \text { Bike lane } \\ \overline{=-=} & \text { Sidepath } \\ \overline{=-=} & \text { Greenway }\end{array}$

## PROJECT SNAPSHOT

## CORRIDOR DESCRIPTION

Corridor E provides traffic calming along Georgia Rd and will provide a true ＂trail＂experience within the Ruffner Mountain Rail Trail with large shade trees and rolling topography．This corridor provides for an important connection for the overall trail loop around Birmingham by crossing under I－20 and Oporto－ Madrid Blvd and providing crossing improvements at the connection with Ruffner Baseball Park．Corridor E will connect the surrounding communities to Irondale and beyond

## TOTAL MILEAGE

2．91 MI（15，362 Linear Feet）

TOTAL ESTIMATED PROJECT COST（2024 \＄）
\＄3，608，000．00
FACILITY TYPOLOGIES FOR THIS CORRIDOR
BIKE BOULEVARD


## EXISTING CONDITIONS ALONG RAIL CORRIDOR



## CORRIDOR E I RUFFNER MOUNTAIIN RAIIL TRAIL GEORGIA RD | 16 TH ST N | 2ND AVE N



## implementation (west to east)

## Bike Boulevard (Georgia Rd, 1st

 Ave S to Brussels Ave)Introduce traffic calming and
sharrows. Existing pavement varies between 24-30'

- Lane narrowing, pinch points, mini refuge islands, and other traffic-calming features should be considered
- Wayfinding signage recommended along segment


## Sidepath (E side of Brussels Ave)

Clear and grub corridor to make way for trail construction.

- 10-12' sidepath
- Intersection improvements at Brussels Ave and Georgia Rd should be considered
- Evaluate potential trailhead at Ruffner Mountain Rail Trail intersection
- Challenges: Plan for proper driveway / street crossings; drainage improvements may be required


## Greenway

## (Ruffner Mountain Rail Trail)

Clear and grub to construct 12' trail.

- 12’ greenway
- Challenges: Trail maintenance agreement needs to be coordinated with property owner / Public Works; owner must have access to maintain private facilities


## Sidepath (E side of Kimberley Ave, <br> Ruffner Mountain Rail Trail to

 Georgia Rd)Clear and grub corridor to make way for trail construction.

- 12' sidepath (evaluate feasibility
of continuation of Ruffner Mountain Rail Trail instead of on-street facility)
- Roundabout encouraged at intersection of Kimberly Ave and 67th St
- Challenges: Plan for proper driveway / street crossings; existing right-of-way may constrain facility


## Greenway

## (Kimberly Ave to Ruffner Rd)

Clear and grub to construct 12' trail.

- 12’ greenway
- Intersection improvements at Georgia Ave may be required


## COORDINATING AGENCIES

Challenges: Trail maintenance agreement needs to be coordinated with property owner / Public Works; owner must have access to maintain private facilities; extensive earthwork will be required for eliminating elevation differences; railroad easement might be needed during construction

- Traffic (signals, pavement markings, and signage) - City of Birmingham Department of Transportation

Maintenance - City of Birmingham Department of Public Works (trash pickup, tree maintenance, sidewalk
maintenance, etc.)
Utilities (electric, gas, water/sewer, telephone, etc.) - Alabama Power, Spire, Birmingham Water Works + Sewer Board, AT+T, Charter, Brighthouse

- Transit - Birmingham Jefferson County Transit Authority

Environmental
City of Birmingham Parks and Recreation
Railroad
City of Irondale
Ruffner Mountain

## CORRIDOR FI IRONDALE


red rock action plan recommendations －ーー＝FLT Priority Projects（ongoing）


Red Rock Trail System Shades Creek Corridor
！In Two－way cycle track
！la Bike boulevard
connecting pedestrian＋bicycle facilities existing：solid line
च्ニニ Two－way cycle track
＝ーニ Bike boulevard
$\boldsymbol{\text { モーロ }}$ Natural surface trail
－ーー Alternate alignment
ーーー Bike lane ＝＝＝Sidepath ーーロ Greenway
＇community assets

｜analysis


## PROJECT SNAPSHOT

## CORRIDOR DESCRIPTION

Corridor $F$ is an important connection for the overall trail loop around the Greater Birmingham Metropolitan Area，crossing under two historic railroad bridges， improving intersection safety at Crestwood Blvd，and crossing under I－20．This corridor connects the Irondale Community School， WE Putnam Middle School，
St．Martin＇s in the Pines，and terminates at the Flora Johnston Nature Park to access 1.5 miles of hiking trails

## TOTAL MILEAGE

1．74 MI（9，172 Linear Feet）

TOTAL ESTIMATED PROJECT COST（2024 \＄）
\＄3，969，000．00

FACILITY TYPOLOGIES FOR THIS CORRIDOR

TWO－WAY CYCLE TRACK


BIKE BOULEVARD


SIDEPATH


GREENWAY


## RENDERING OF TWO－WAY CYCLE TRACK AT 16TH ST N



CORRIDOR F I IRONDALE 16 TH ST S | CRESTWOOD BLVD | MONTCLAIR RD


## annual average daily traffic

16th St S: 3,000-5,000
Montclair Rd: 8,500

## right-of-way

16th St S: 150-200 Linear Feet (LF)
(40 LF curb-to-curb)
Montclair Rd: 120 LF
permitting needs
NPDES General Permit Right-of-way occupancy Environmental (erosion / sediment control) Tree removal - may require mitigation

## implementation (north to south)

## Two-Way Cycle Track (W side of

 16th St S to Crestwood Blvd)Remove travel lane to create space for cycle track.

- 10’ cycle track with 3' buffer
- Opportunity to implement placemaking at historic rail bridges
- Activate park across from Irondale Community School
- Evaluate Safe Routes to School improvements approaching Irondale Community School
- Challenges: Sign and utility relocation may be required; a traffic analysis will need to be performed to evaluate the feasibility of a lane removal


## Two-Way Cycle Track (S side of

## Montclair Rd to Northumberland

## Dr)

Reduce lanes to 11'. Restripe road and add raised or planted buffer

- 12’ cycle track with 6’ buffer
- Traffic control (rectangular rapid flashing beacon at min.) and crossing markings required at Montclair Rd crossing by the
utility easement
- Evaluate Safe Routes to School improvements approaching Putnam Elementary School
- Realign and improve intersection with Crestwood Blvd and 16th St S (see concept)
- Challenges: Sign and utility relocation, and drainage improvements may be required


## Bike Boulevard (Montclair Rd / Residential Service Rd / <br> Northumberland Dr)

Introduce traffic calming and sharrows.

- Lane narrowing, pinch points, mini refuge islands, and other traffic calming features should be considered
- Wayfinding signage recommended along segment


## Greenway

(Utility easement to Flora Johnston
Nature Park)
Clear and grub corridor to make way for trail construction.

- 12' greenway
- Evaluate potential trailhead at Flora Johnston Nature Park
- Challenges: Maintenance agreement needs to be
coordinated with Alabama Power; utility company must have access to maintain power lines


## COORDINATING

 AGENCIESParking - Birmingham Parking Authority
Traffic (signals, pavement markings, and signage) - City
of Birmingham Department of Transportation
Maintenance - City of
Birmingham Department of
Public Works (trash pickup,
tree maintenance, sidewalk
maintenance, etc.)
Utilities (electric, gas, water/ sewer, telephone, etc.)

- Alabama Power, Spire,

Birmingham Water Works + Sewer Board, AT+T, Charter, Brighthouse
Transit - Birmingham Jefferson County Transit Authority Railroad
Environmental
City of Birmingham Parks and Recreation
City of Irondale

- Ruffner Mountain Nature

Preserve

CORRIDOR G I RED MOUNTANN PARK TO SMADES CREEK

red rock action plan recommendations ＝－＝＝FLT Priority Projects（ongoing）


Red Rock Trail System Shades Creek Corridor

$\square 1]$Two－way cycle track connecting pedestrian＋bicycle facilities existing：solid line proposed：dashed line
$\boldsymbol{\Xi ー ᅳ}$ Two－way cycle track
$\boldsymbol{ユ ⿰ ⿺ 乚 一 匕}$ Bike boulevard
モニニ Natural surface trail

モーニ Bike lane
＝＝＝Sidepath
$\boldsymbol{\text { モーニ }}$ Greenway

## PROJECT SNAPSHOT

## CORRIDOR DESCRIPTION

Corridor $G$ is a complex and essential connection for the overall trail system While adjacent land uses and vehicular annual average daily traffic are not ideal， it provides the best available connection from the Shades Creek Greenway to Red Mountain Park，while providing multimodal intersection safety improvements and a new bicycle／ pedestrian bridge over the railroad corridor at Montevallo Rd．Future spurs can provide additional connections to the
Homewood Athletic Complex，Waldrop Stadium，and John Carroll Catholic High School．

## TOTAL MILEAGE

2．99 MI（15，765 Linear Feet）

## PROJECT COST

\＄10，440，000．00

## FACILITY TYPOLOGIES FOR THIS CORRIDOR

SIDEPATH


TWO－WAY CYCLE TRACK


BIKE BOULEVARD


GREENWAY


RENDERING OF TRAILHEAD AT SHADES CREEK GREENWAY


## CORRIDOR G | RED MOUNTAIN PARK TO SHADES CREEK W OXMOOR RD + LAKESHORE PKWY



## implementation (north to south)

## Sidepath (Red Mountain <br> trailhead connector to <br> Montevallo Rd)

Continue proposed trail along $N$ side of Industrial Blvd. Clear and grub corridor to make way for trail construction. A lane width reduction or median removal should be considered to create space.

- 10-12' sidepath
- Evaluate potential trailhead at Red Mountain Park
- Consider protected
intersection at Montevallo Rd to ensure smooth transition to two-way cycle track
- Challenges: Constrained right-of-way as corridor approaches Montevallo Rd


## Two-Way Cycle Track (W side of

 Montevallo Rd to Oxmoor Rd)Reduce lane widths. Existing pavement width should allow for 10' cycle track.

- Consider intersection realignment of Oxmoor Rd and Montevallo Rd - reduce curb radii, remove porkchops, and protected bicycle movements
- Challenges: Transmission lines run on west side and power lines run on east side; extensive earthwork will be required for harmonization; traffic analysis may be required to determine percentage of heavy trucks


## Sidepath (W Side of Oxmoor Rd to Happy Ln)

Clear and grub corridor to make way for trail construction.

- 10-12' sidepath
- Challenges: Power lines on east side of Oxmoor Rd. Plan for proper driveways / street crossings; extensive drainage improvements will be required
- Alternate recommendation includes widening the road to create conventional bike lanes (if utility and drainage work becomes too cumbersome)


## Bike Boulevard (Happy Ln)

Introduce traffic calming and sharrows. Existing pavement varies between 24-30'.

- Traffic calming features should be considered
- Wayfinding signage recommended along segment
- Evaluate potential trailhead at Shades Creek connector entrance


## Greenway (Shades Creek Greenway connector)

Clear and grub corridor to make way for trail construction.

- 12’ greenway
- Challenges: Maintenance agreement needs to be coordinated with property owners; property owners must have access to maintain private facilities


## COORDINATING AGENCIES

Parking - Birmingham Parking Authority
Traffic (signals, pavement
markings, and signage) - City
of Birmingham Department
of Transportation and
Jefferson County Department
of Roads and Transportation City of Birmingham and Jefferson County Department of Public Works (trash pickup, tree maintenance, sidewalk maintenance, etc.)
Utilities (electric, gas, water/ sewer, telephone, etc.)

- Alabama Power, Spire,

Birmingham Water Works +
Sewer Board, AT+T, Charter,
Brighthouse
Environmental
City of Homewood Parks and Recreation
City of Birmingham Parks and Recreation
Red Mountain Park

