

fonta flora state trail master plan

lake james section

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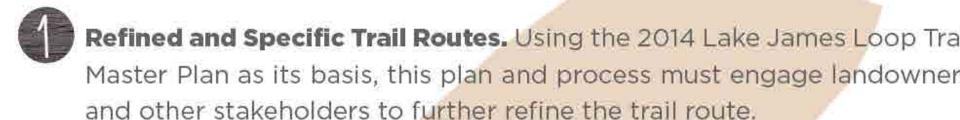
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PLAN GOALS

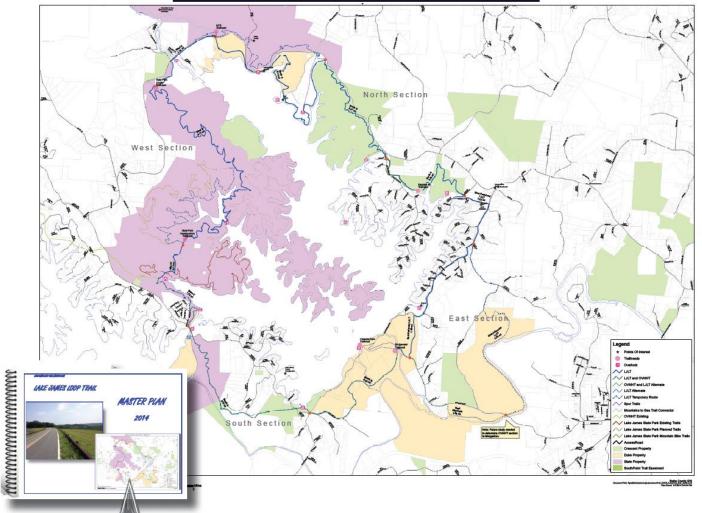


- Visual Plan. Create and utilize renderings and schematics to demonstrat trail character.
- Plan Section Organization. Organize planning sections based o plausible project implementation areas.
- Design Guidelines and Character. Develop general trail design guideline for each trail type (ie. natural surface, paved, etc.) and create a desig manual that provides a unique character for all trail support facilities.

CHAPTER TWO

EXISTING CONDITIONS, ANALYSIS, AND PRELIMINARY ALIGNMENTS

2014 LAKE JAMES LOOP TRAIL - FINAL DRAFT





The following maps series is taken from the 2014 Lake James Loop Trail

CHAPTER TWO

EXISTING CONDITIONS, ANALYSIS, AND PRELIMINARY ALIGNMENTS





- Burke County property includes
 the intersection of Hwy. 125 and Fish
 Hatchery Road, an prominent and ideal
 location for a trailhead.
- 2. Excellent views of Lake James
- 3. Excellent views of Lake James
- 4. A side path along Hwy. 126 will help create awareness of the Fonta Flora State Trail



- 1. Wetland areas will increase trail construction costs
- Due to topography, the trail will not be extend along Hwy 126, but an easement will need to be secured from a private landowner.
- The trail will need to share the vehicular road and entrance to the private campground.



CHAPTER TWO

EXISTING CONDITIONS, ANALYSIS, AND PRELIMINARY ALIGNMENTS





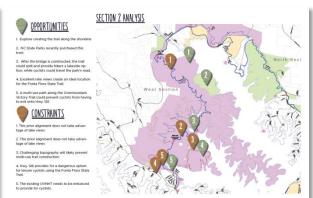
rke County property includes ntersection of Hwy. 125 and Fish Hatchery Road, an prominent and idea location for a trailhead.

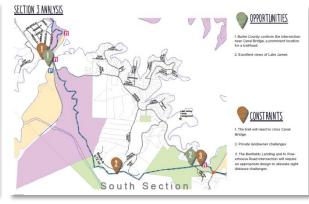
2. Excellent views of Lake James

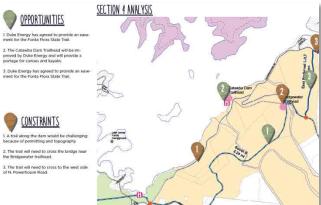


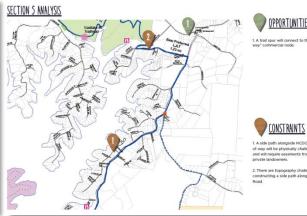
not be extend along Hwy 126, but an easement will need to be secured from

3. The trail will need to share the vehic-













SECTION 6 ANALYSIS

CONSTRAINTS

constructing a side path along

the trail stay near Hwy. 126 rather than along





IN THIS CHAPTER:

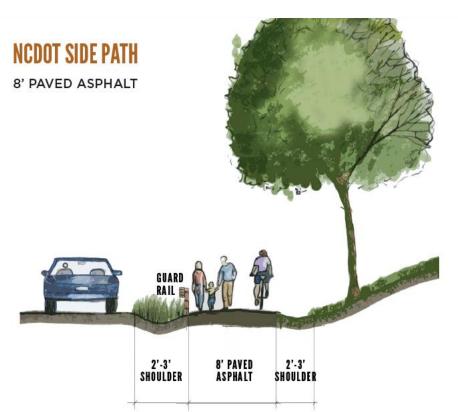
- (A) Trail Types
- (B) Trail Profile
- (C) Trail Support Facilities
- (D) Social Media Marketing



User Group: Hikers and Bikers Material: Crushed gravel fines

Preferred Easement Width: 50'

Preferred Width: 5'



User Group: Hikers and Bikers

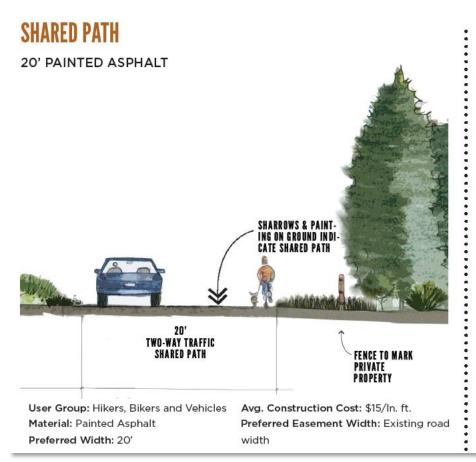
Material: Paved Asphalt

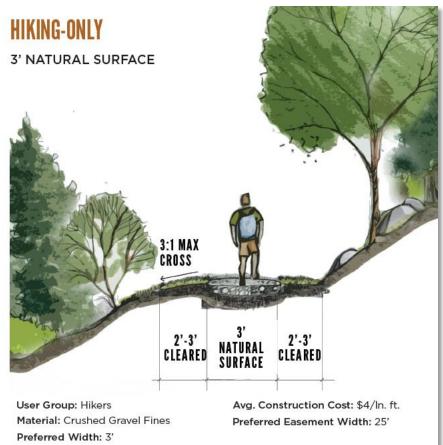
Preferred Width: 8'

Preferred Easement Width: 25'

Avg. Construction Cost: \$80/ln. ft.

Note: Trail to be approved in accordance with NCDOT encroachment agreement.







User Group: Bikers

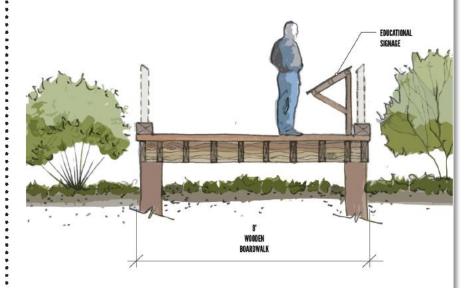
Material: Natural Mineral Soil Surface

Preferred Width: 3'

Avg. Construction Cost: \$4/ln. ft. Preferred Easement Width: 25'

WETLAND TRAIL

8' BOARDWALK



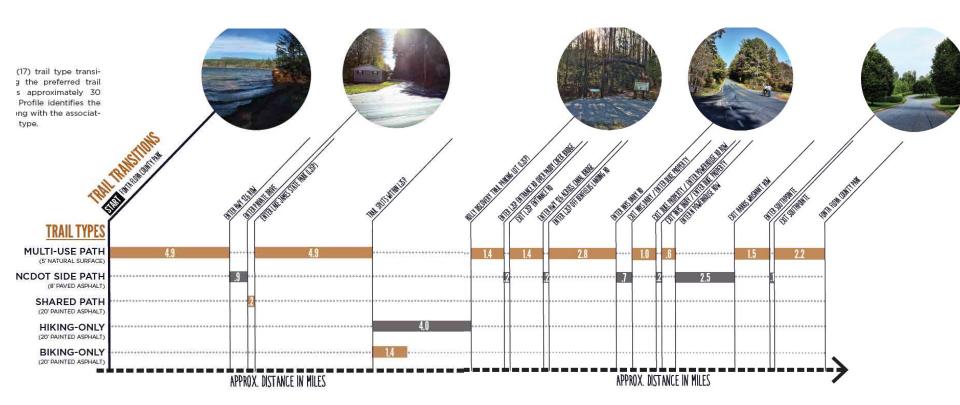
User Group: Hikers

Material: Wooden Boardwalk

Preferred Width: 8'

Avg. Construction Cost: \$140/ln. ft.

Preferred Easement Width: 50'







PEDESTRIAN GATEWAY

VEHICULAR GATEWAY





MINI MONUMENT/ CONFIDENCE MARKER

LARGE MONUMENT





OVERLOOK PAVILION

: LARGE SHELTER (18'X24') & SMALL SHELTER (14'X16')



VAULT TOILET



TRAILHEAD KIOSK

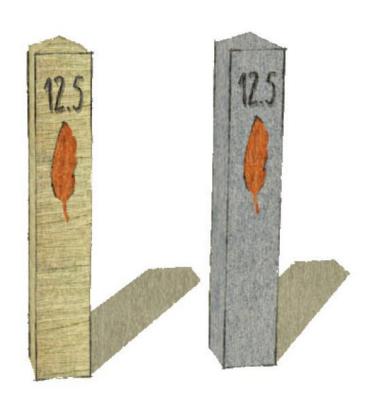


DIRECTIONAL SIGNAGE POST



ROADSIDE MONUMENT





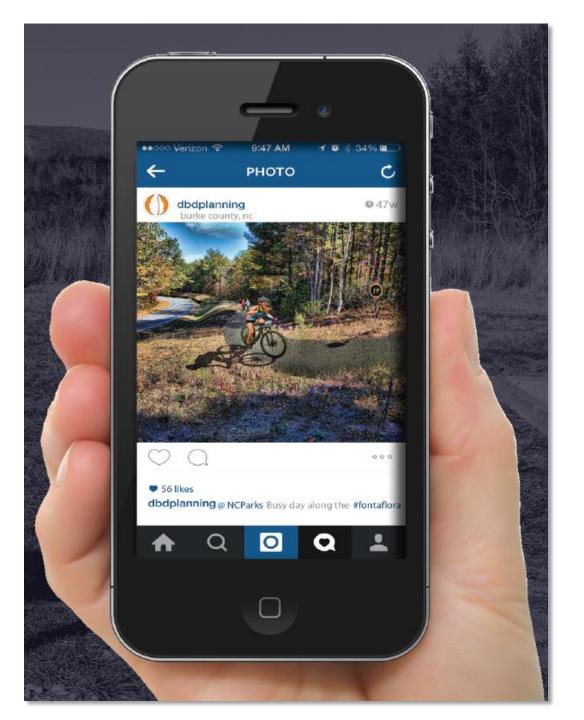
MILEAGE POSTS (1/4 AND 1/2 MILES)



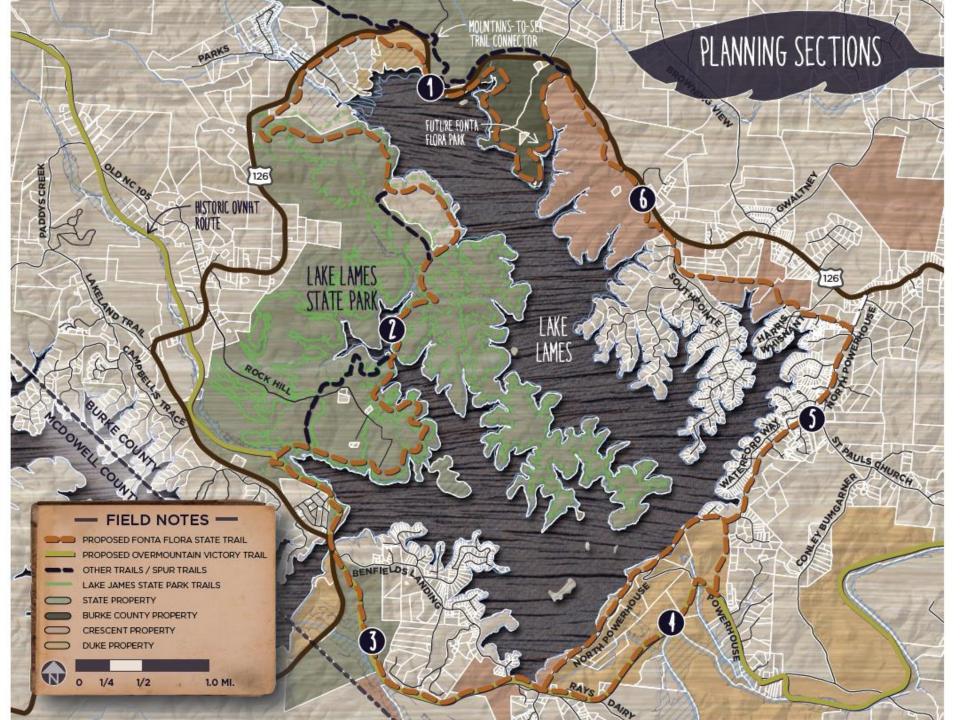


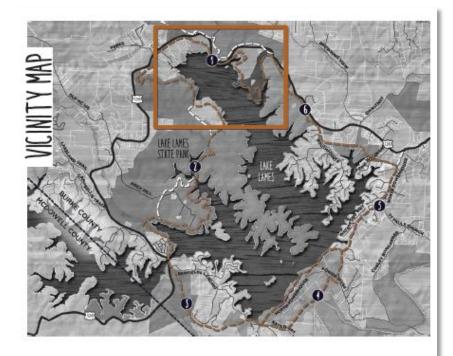
BENCHES













LENGTH: 5.8 Miles

TRAL TYPE(S): Multi-Use Trail
NCDOT Side Path
Shared Path

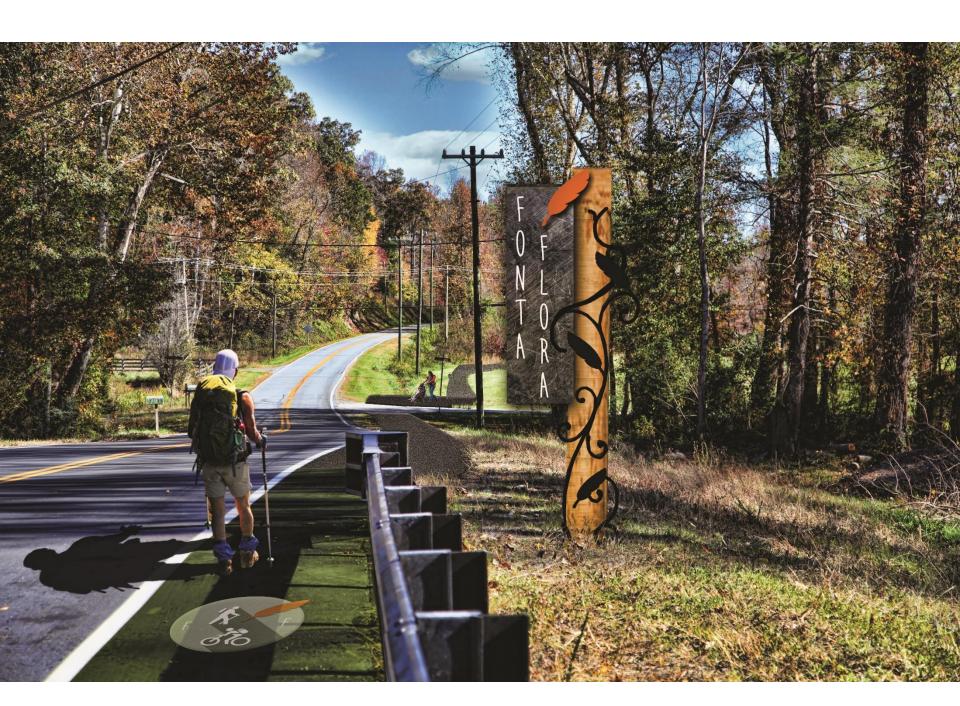
POINTS OF INTEREST: Fonta Flora County Park

Fonta Flora County Park Linville Access Area Linville River Bridge

SECTION 1 COUNTY PARK >> LINVILLE BRIDGE

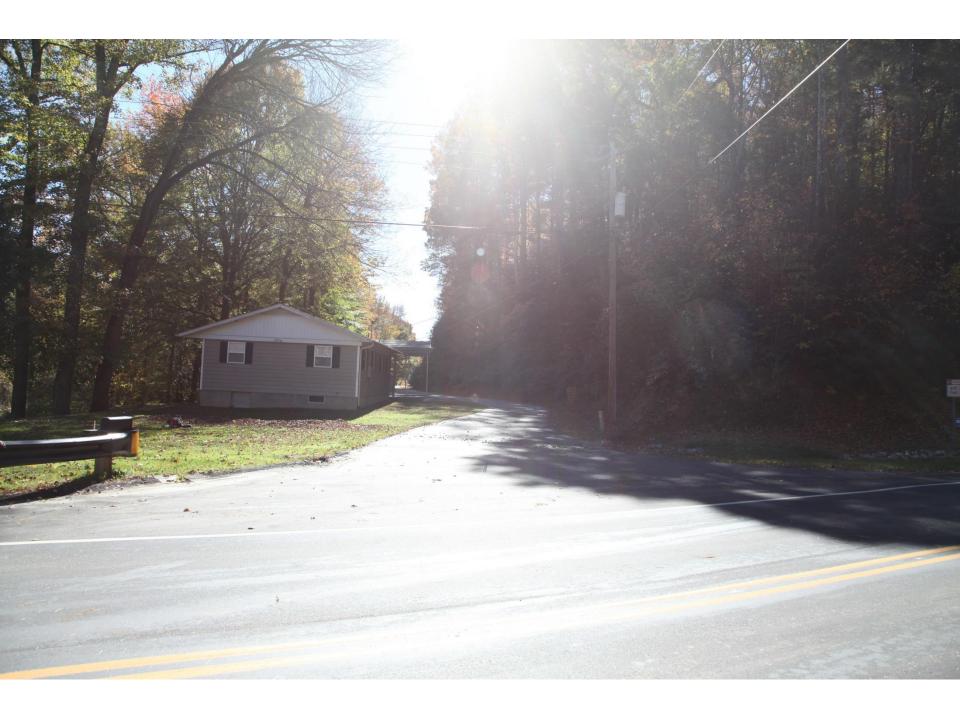




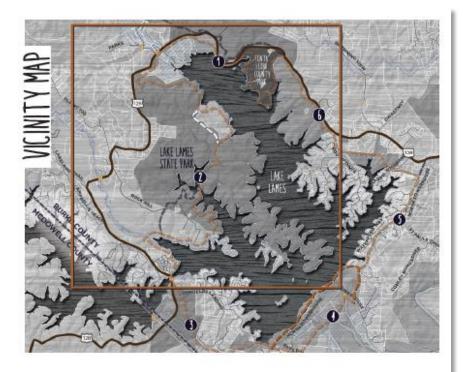














QUICK FACTS:

LENGTH: 11.8 Miles

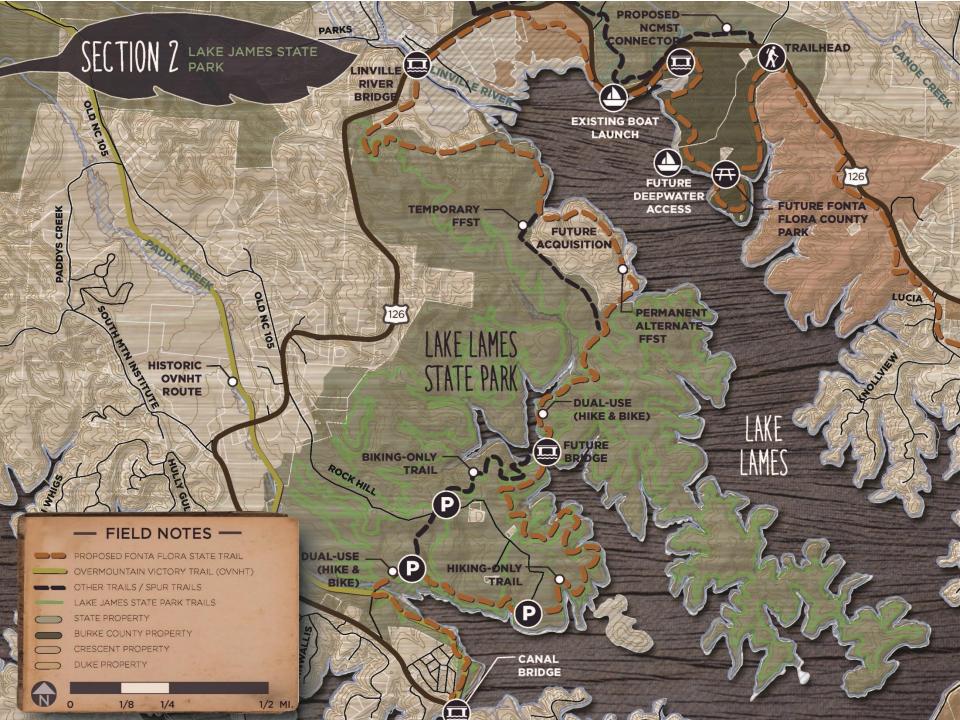
TRAL TYPE(S): Multi-Use Trail Hiking only Biking only NCDOT Side Path

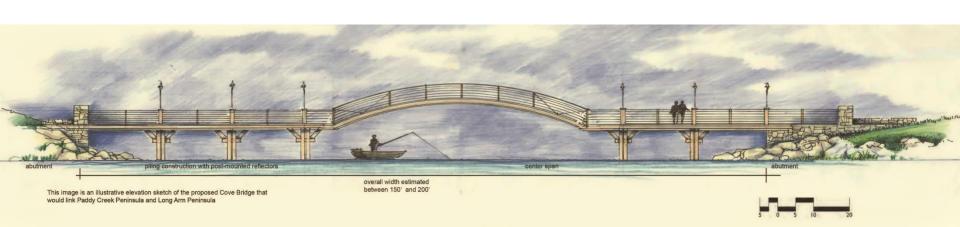
POINTS OF INTEREST: Lake James State Park Bath House & Camping

SECTION 2 LAKE JAMES STATE PARK



OVNHT SHARED TRAIL SECTION



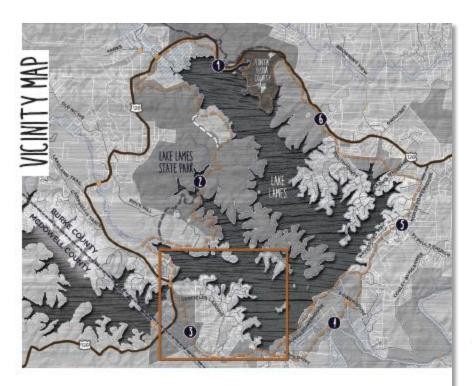












SECTION 3 CANAL BRIDGE >> BENFIELDS LANDING RD



LENGTH: 3.0 Miles

TRAL TYPE(S): NCDOT Side Path
Multi-Use Trail

POINTS OF INTEREST: Canal Bridge Trailhead

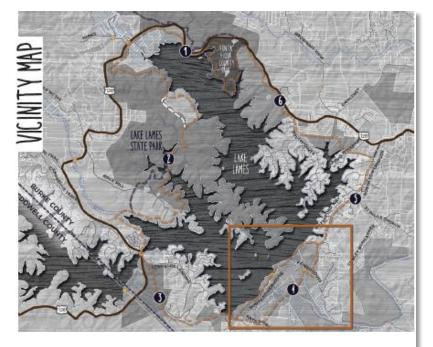


OVNHT SHARED TRAIL SECTION











QUICK FACTS:

LENGTH: 2.6 Miles

TRAL TYPE(S): Multi-Use Trail NCDOT Side Path

POINTS OF INTEREST: Bridgewater Public River Access

Catawba Dam Trailhead

Proposed Campsite

SECTION 4 BENFIELDS LANDING >>



OVNHT SHARED TRAIL SECTION









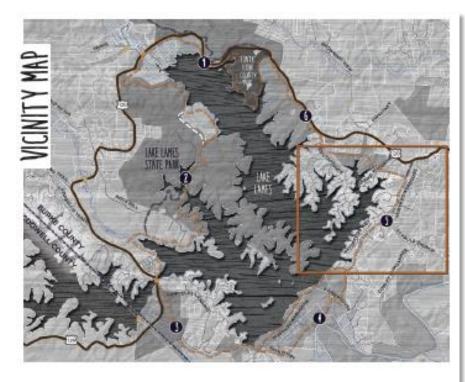














LENGTH 2.5 Miles

TRAIL TYPE(S): NCDOT Side Path

POINTS OF INTEREST: Mimosa Landing

three Way Commercial Node

SECTION 5 N. POWERHOUSE >> HARRIS WHISNANT

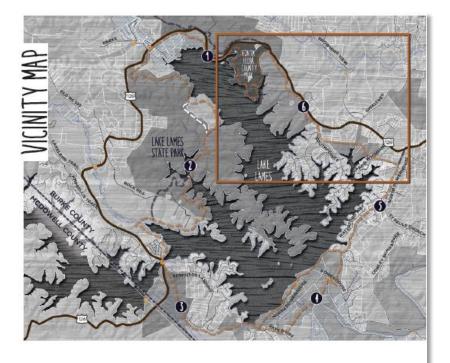














LENGTH: 3.7 Miles

TRAIL TYPE(S): Multi-Use Trail NCDOT Side Path

POINTS OF INTEREST: East Lake 6 Park

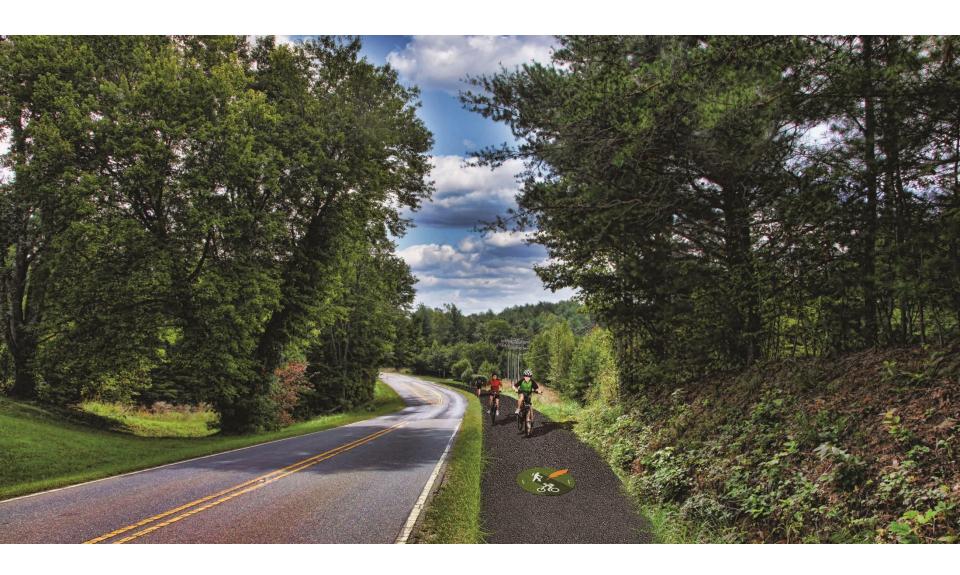
SECTION 6 HARRIS WHISNANT >> FONTA FLORA COUNTY PARK





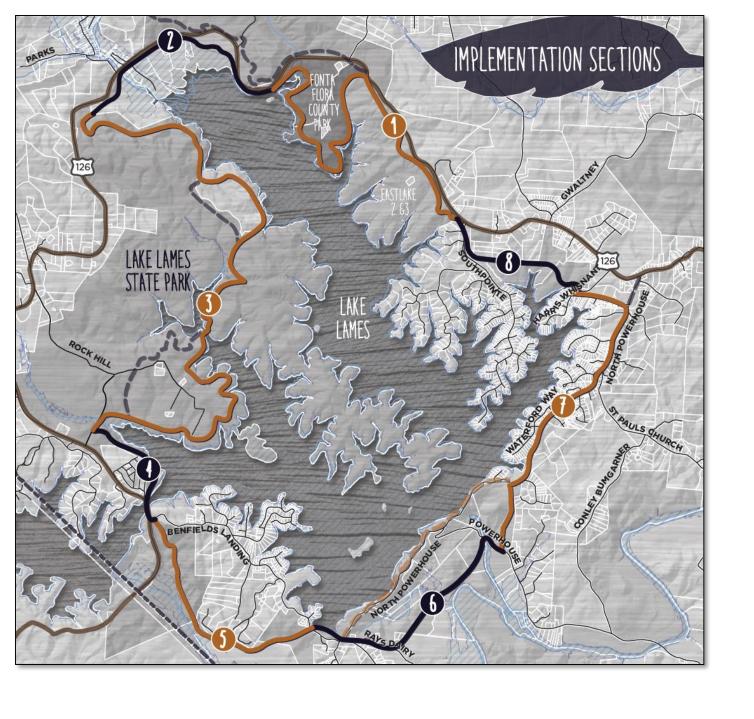


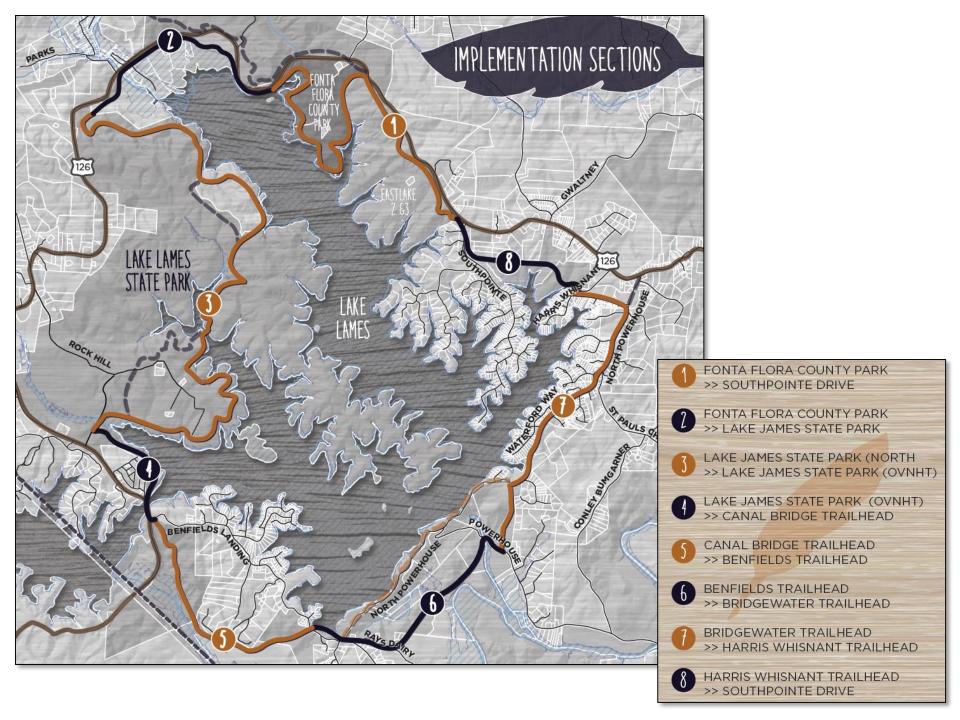




implementation













<u>FONTA FLORA COUNTY PARK</u> » SOUTHPOINTE ROAD

With easements in place, the FFST is ready to construct through Fonta Flora County Park and west to Southpointe Road. Construction details must be developed for the trailhead at the Fonta Flora County Park prior to bidding and construction.

Fonta Flora County Park Trailhead will provide for the following:

- Parking (12 spaces + 1 van-accessible handicap parking space)
- Small shelter
- Trailhead gateway

Steps to Completion

1. Design/Build Trail - it's shovel-ready!

- 2. Develop Construction Details for County Park Trailhead
- 3. Bid and Construct trailhead

Estimate of Probable Costs

Trail Design/Build

Trailhead

Design/Engineering = \$XX

Construction =\$XX

Total Phase Cost: \$XX



FONTA FLORA COUNTY PARK " LAKE JAMES STATE PARK

This section begins at the western edge of the County Park and will require the acquisition of trail easements from private landowners west of the existing boat launch managed by Duke Energy. Also, an NCDOT encroachment agreement will need to be secured for the trail areas that approach and cross Linville Bridge.

Steps to Completion

1. Design and Engineering for FFST

2. Land Acquisition

>> Private Easements

>> NCDOT Encroachment

3. Bid and Construction

Estimate of Probable Costs

Fonta Flora State Trail Design and Engineering Trail Construction

=\$XX =\$XX

Total Phase Cost:

\$XX







.AKE JAMES STATE PARK (NORTH) <u>.AKE JAMES STATE PARK</u>

This section includes trail to be constructed completely within Lake James State Park, Portions of this trail will traverse lands adjacent to the lake and recently acquired by the NC Division of Parks and Recreation; these trail areas will require more extensive planning since they were not accounted for within the state's original Lake James State Park Master Plan. This Implementation Section ends on the park's entrance road where the FFST connects with the OVNHT.

Steps to Completion

- 1. Preliminary Design by State Parks
- Design/Build with professional trail builder

Estimate of Probable Costs

Fonta Flora State Trail Design/Build Total Phase Cost:

\$XX



LAKE JAMES STATE PARK (OVNHT)

The FFST will share a trail section with the OVNHT that currently exists at the state park. Since this section of trail will need to be redeveloped to accommodate a multi-use trail, all stakeholders want to ensure that the complete connection can be made to and over Canal Bridge and ultimately to the trailhead planned east of the bridge.

Canal Bridge Trailhead will provide for the following:

- Parking (12 spaces)
- Park Sign Small shelter
- Trailhead gateway

Steps to Completion

- 1. Design and engineering for entire section
- 2. Approval from LJSP and adjacent land owner for new FFST/OVNHT
- 3. Secure NCDOT Encroachment Agreement
- 4. Bid and Construction

Total Phase Cost:

Estimate of Probable Costs

FFST Trail Design and Engineering =\$XX LJSP Trail Construction =\$XX NCDOT R/W Trail Construction =XX\$XX

Trailhead

= \$XX Design/Engineering Construction =\$XX Total Phase Cost: \$XX

Total Phase Cost: \$XX



CANAL BRIDGE TRAILHEAD

This section includes large areas that are controlled by LJSP and others that are controlled by private landowners that have yet to commit to trail easements. LJSP officials want to ensure that private easements are in place before trail is constructed on state lands. This planning section connects to Benfield Trailhead, which will be constructed as part of the subsequent implementation Section.

Steps to Completion

- 1. Acquire easements from private landowners
- 2. Design and engineering for Benfields Landing Rd. crossing
- 3. Acquire NCDOT encroachment agreement for Ben field Landing crossing
- Design/Build LJSP and private easement sections
- 5. Bid and construct Benfield Landing crossing

Estimate of Probable Costs

Fonta Flora State Trail Design/Build Trail Construction Design/Engineering for NCDOT crossing =\$XX NCDOT Crossing Construction =\$XX

Total Phase Cost: \$XX



BENFIELDS TRAILHEAD BRIDGEWATER TRAILHEAD

This section includes the construction of Benfield Trailhead, an NCDOT crossing at North Powerhouse, and the construction of FFST to Bridgewater Trailhead, All trail easements are in place.

Steps to Completion

- 1. Design and engineering for Benfield Trailhead
- 2. Acquire NCDOT encroachment agreement for
- N. Powerhouse crossing
- 3. Bid and construct Benfield Trailhead and FFST

Estimate of Probable Costs

Fonta Flora State Trail Design and Engineering for North Powerhouse Crossing and FFST FFST Construction Total Phase Cost:

Trailhead Design/Engineering Construction

=\$XX =\$XX Total Phase Cost:

Total Phase Cost: \$XX



BRIDGEWATER TRAILHEAD » HARRIS WHISNANT TRAILHEAD

From Bridgewater Trailhead, an NCDOT encroachment agreement must be secured over the bridge and along Powerhouse Road, including a road crossing. Significant private trail easements must be secured along North Powerhouse Road and Cobb Road before reaching the Harris Whisnant Trailhead, which will be constructed as part of the subsequent Implementation Section.

Steps to Completion

=\$XX

\$XX

Design and engineering for Powerhouse Road, North Powerhouse Road, and Cobb Road.

- 2. Acquire NCDOT encroachment agreements
- 3. Acquire private trail easements
- 4. Bid and construct FFST

Estimate of Probable Costs

Fonta Flora State Trail Design and Engineering FFST Construction Total Phase Cost:

=\$XX =\$XX \$XX



HARRIS WHISNANT TRAILHEAD SOUTHPOINTE DRIVE ENTRANCE

Landowners within this area have either formally or informally committed to providing for the FFST. However, specific details and plans must be developed to acquire final trail easements. Also, NCDOT must provide for an encroachment agreement for areas near the entrance of the Southpointe neighborhood and along Highway 126. Harris Whisnant Trailhead will need to be constructed along with the Fonta Flora Pocket Park to be located west of the Southpointe neighborhood.

Harris Whisnant Trailhead will provide for the following:

- Parking (12 spaces) Park Sign
 - Small shelter Trailhead gateway

= \$XX

=\$XX

=\$XX

\$XX

Fonta Flora Pocket Park will provide for the following:

- Park Sign Trailhead gateway
- Small shelter

Steps to Completion

- 1. Design and engineering Southpointe neighborhood
- 2. Acquire NCDOT Encroachment Agreement and approval from neighborhood
- 3. Bid and Construct NCDOT R/W areas
- 4. Design/Build FFST from trailhead to Southpointe
- 5. Design and engineer the trailhead and pocket park 6. Bid and construct trailhead and pocket park

Estimate of Probable Costs

Fonta Flora State Trail Design and Engineering for NCDOT R/W areas (Southpointe entrance Bid and construct Southpointe entrance FFST Design/Build from Southpointe Road to trailhead

Trailhead and Pocket Park Design/Engineering Construction Total Phase Cost:





1. Analysis



- 1. Analysis
- 2. Initial Concepts & Character



- 1. Analysis
- 2. Initial Concepts & Character
- 3. Master Plan by Area

Master Plan by Area Western (Duke) & Small Peninsula



Master Plan by Area Western (Duke) & Small Peninsula Trailhead



Master Plan by Area Western (Duke) & Small Peninsula Trailhead Eastern (Burke)



Master Plan by Area Western (Duke) & Small Peninsula Trailhead Eastern (Burke) Large Peninsula



Analysis



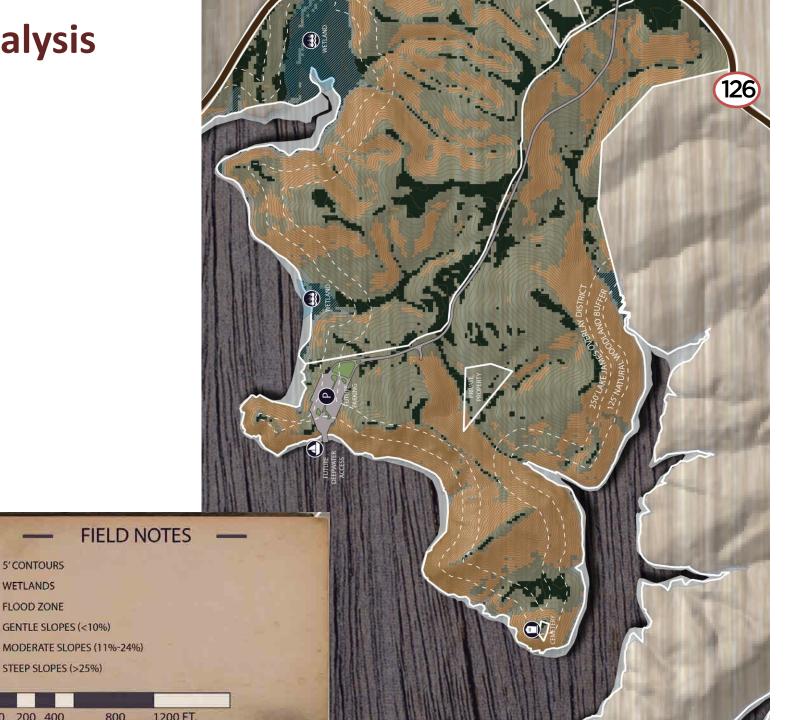
https://vimeo.com/145541500

Analysis

5'CONTOURS WETLANDS FLOOD ZONE

GENTLE SLOPES (<10%)

STEEP SLOPES (>25%)





Constraints





Opportunities

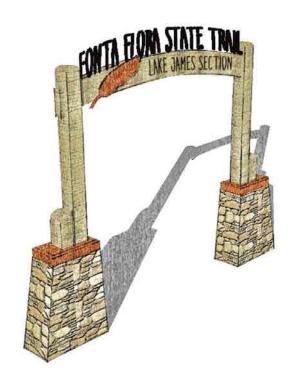






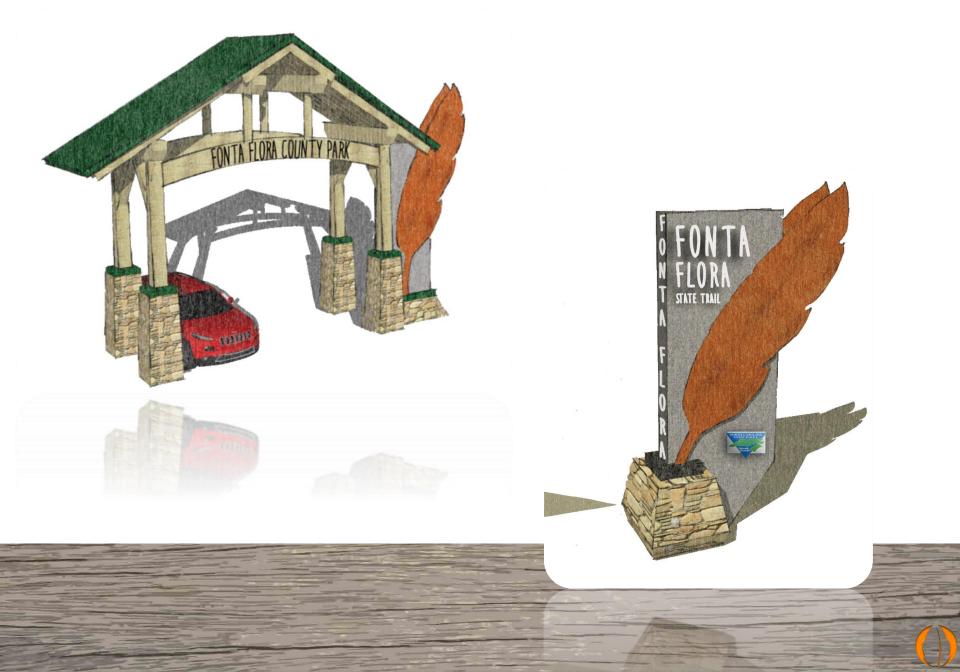
Facilities & Character







Facilities & Character







LEGEND **Public Program Element** Eagle Nest Platform Deep Water Launch Fonta Flora Trailhead 4 Loch Bridge

NC Wildlife Fishing Pier

FONTA FLORA COUNTY PARK

Overall Master Plan

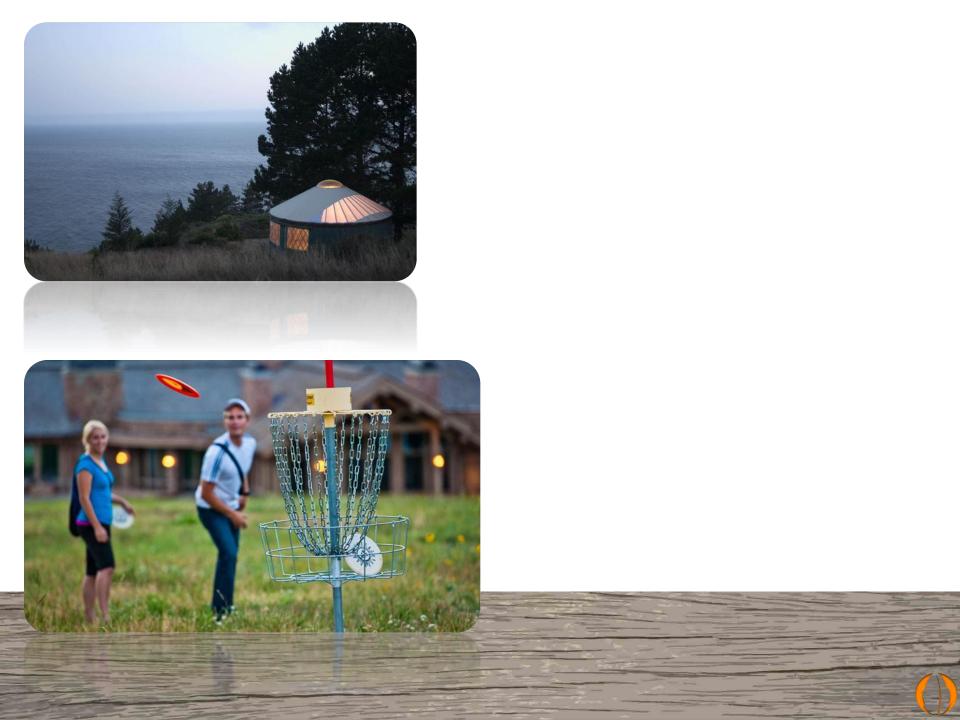


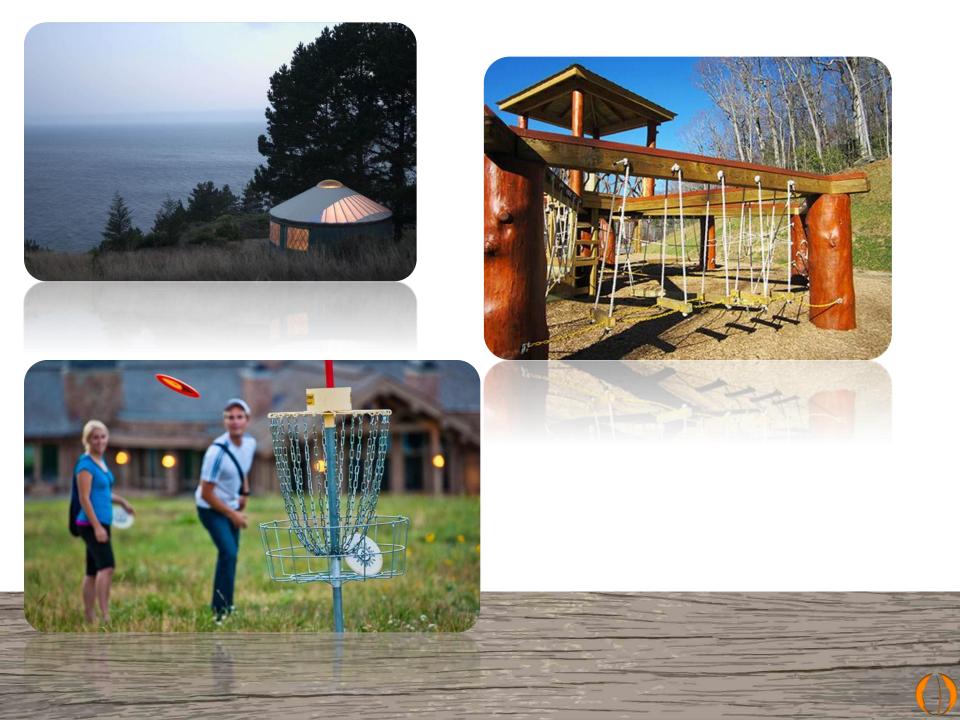


Western LEGEND **Public Program Element Private Program Element** Eagle Nest Platform (12) Outfitter Base Camp Deep Water Launch 13 Zip Line (14) Overlook Pavilion (3) Fonta Flora Trailhead 15 Yurt Village 4 Loch Bridge (16) Private Road 18 Hole Disc Golf Course Provisions Store Restroom & Kayak Livery **Event Pavilion** P Parking Adventure Playground NC Wildlife Fishing Pier 10 Picnic Area Visitor's Dock P Parking









Small Peninsula

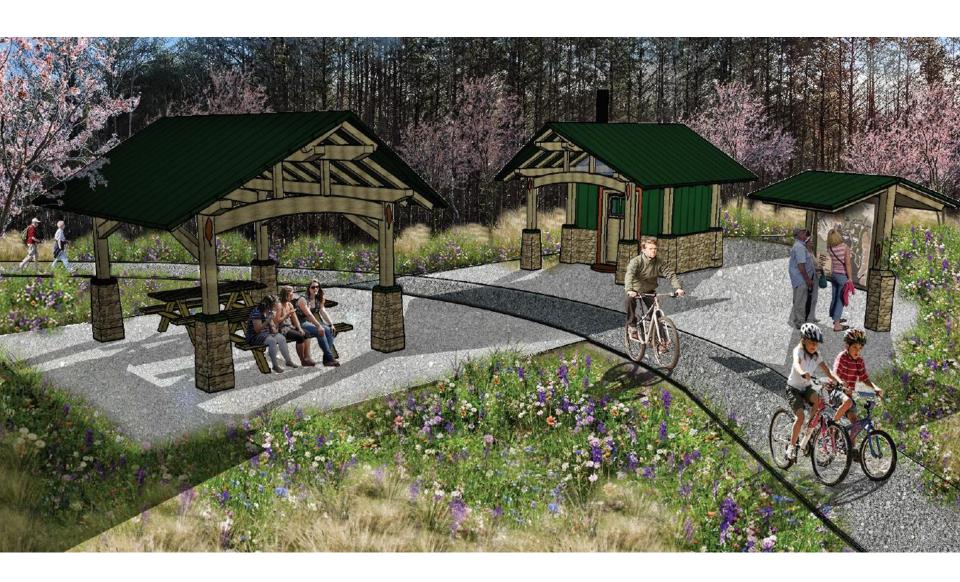




Small Peninsula

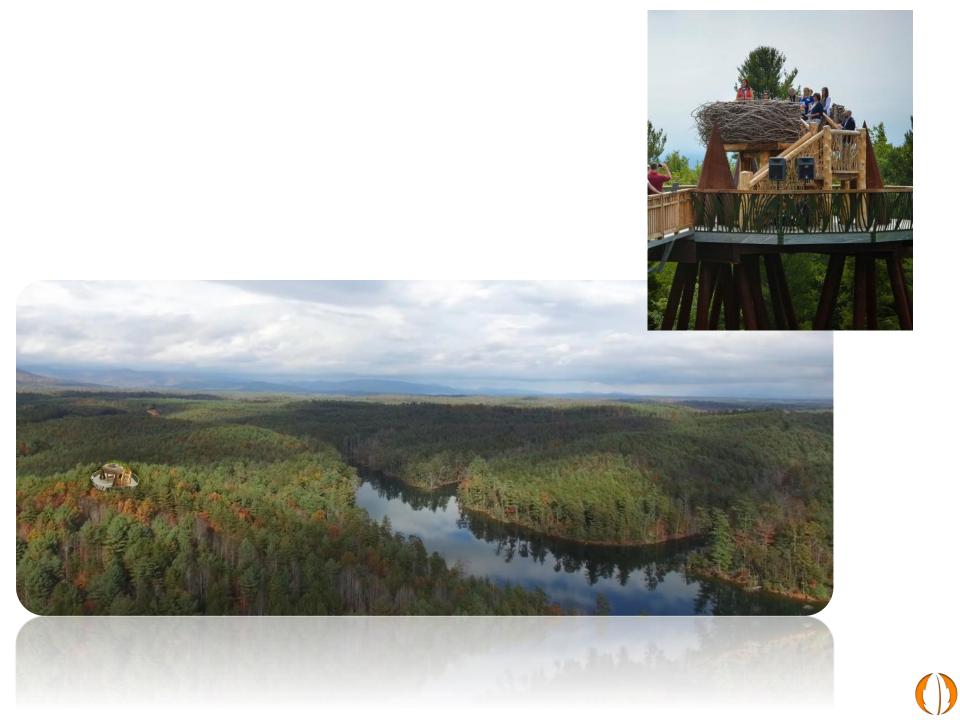




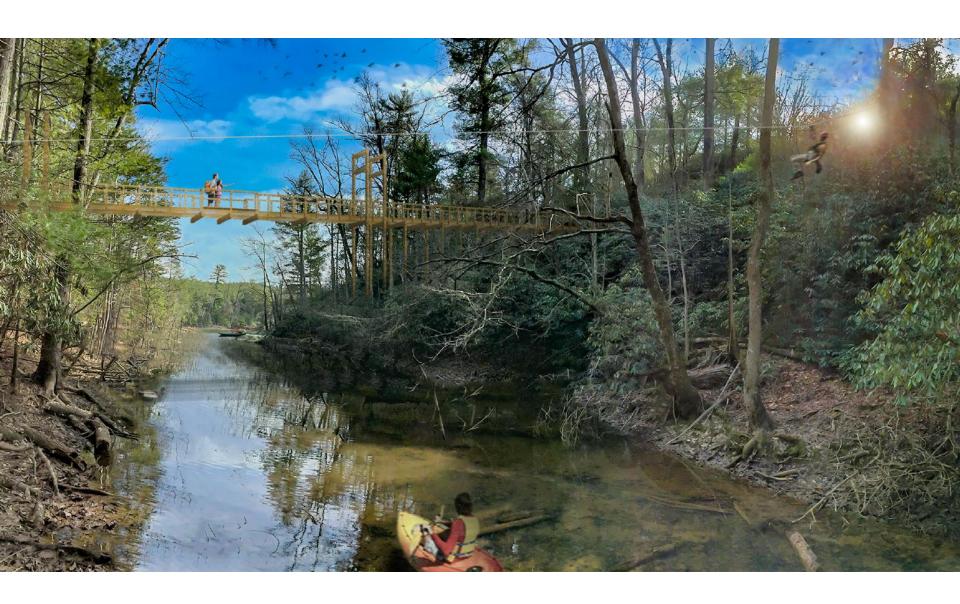








Large Peninsula LEGEND **Public Program Element** (12) Outfitter Base Camp Eagle Nest Platform Zip Line Deep Water Launch (14) Overlook Pavilion Fonta Flora Trailhead 15) Yurt Village Loch Bridge (16) Private Road 18 Hole Disc Golf Course Provisions Store & Kayak Livery Restroom **Event Pavilion** P Parking Adventure Playground NC Wildlife Fishing Pier Picnic Area Visitor's Dock P Parking









Questions & Feedback

