



RSTP Project Profile – Candidate Project #4

1. **Project Sponsor(s):** Roanoke County
2. **Proposed Implementing Agency:** Roanoke County
3. **Project Description and Attached Aerial Showing Proposed Improvement Location:**

The bridge across Carvin’s Creek near the terminus of Friendship Lane is a vital connection between the Tinker Creek Greenway and the Plantation Road Bicycle, Pedestrian and Streetscape Improvement project (Plantation Road Project). The bridge, constructed in the 1930s, consists of concrete abutments, steel beams with a deteriorating wooden deck and rusting metal railings. The bridge is currently carefully crossed by pedestrians but needs to be replaced prior to the extension of the Tinker Creek Greenway from the trailhead parking lot north of Interstate 81 (see attached Tinker Creek Greenway map). A gravel terminus will be constructed on the east side of the bridge and will include a kiosk and picnic tables. The project qualifies for the Regional Surface Transportation Program under the following eligibility categories:

Pedestrian and/or Bicycle Improvements:

- Connection between the Tinker Creek Greenway, Carvins Cove Natural Reserve and the Plantation Road Project which includes shared-use paths to Walrond Park

Highway Capacity, Accessibility, and Operational Improvements:

- Bridge Rehabilitation

4. **Detailed Scope of Work, proposed Schedule and Relation to Other Projects or Project Phases, Project Status and Other Funding Sources:**

Detailed Scope of Work

1. Detailed Surveying/Geotechnical Testing/Abutment Analysis
2. Final Design
3. Advertisement
4. Existing Bridge Demolition
5. New Bridge and Terminus Construction

Proposed Schedule

Tentative Date	Activity
Spring, 2015	Award Notification
Summer/Fall, 2015	Surveying/Final Design
Winter, 2015	Construction Advertisement
Spring, 2016	Demolition/Construction

Relation to Other Projects or Project Phases

The bridge replacement project is directly related to the Plantation Road Project as the bridge will connect the Tinker Creek Greenway and Carvins Cove Natural Reserve to the bicycle and pedestrian accommodations planned for Friendship Lane and Plantation Road. Once the Plantation Road Project is complete, users will be able to safely travel from the network of trails at Carvins Cove to the intersection of Plantation Road and Williamson Road. The Tinker Creek Connectivity Study will determine the route for the Tinker Creek Greenway south to Roanoke City to connect to the Roanoke River Greenway as well as east to Botetourt County and the planned network of trails in Daleville.



Project Status

Preliminary analysis and design of the bridge and adjacent gravel terminus including a kiosk and picnic benches has been completed. Preliminary surveying of the bridge and surrounding area has been completed but more detailed surveying will be needed for the final bridge and terminus design. No right-of-way or easements are needed as the bridge and terminus are located within a Prescriptive Easement for the old road to Carvins Cove.

The next segment of the Tinker Creek Greenway from the trailhead parking lot situated north of Interstate 81 through the culvert under Interstate 81 to the bridge will be natural surface and constructed by volunteers. This greenway segment will be located on Hollins University property.

Other Funding Sources

There are no other sources of funding for the bridge and terminus at this time. The greenway segment will be constructed by volunteers.

5. **Functional Classification:** Not Applicable
6. **Existing Traffic Volume and Level of Service with Improvement:** The bridge currently serves daily neighborhood pedestrians including employees from many nearby businesses. While the bridge is old, has been described as “spongy”, is vegetated and is in need of replacement, careful users can use it to cross the creek. The bridge is not currently ADA accessible.
7. **Existing Volume/Capacity:** The bridge serves the users willing to navigate it.
8. **Future Traffic Volume or Projected Ridership with Service Implementation:** Additional bicyclists and pedestrians will safely utilize the new bridge linking the Plantation Road Project bicycle and pedestrian accommodations to the (future segment of the) Tinker Creek Greenway.
9. **Future Volume/Capacity and Level of Service:** The planned 14-foot-wide bridge will be able to accommodate hundreds of users per day and will be ADA accessible.
10. **Estimated Project Cost by Phase:** (See attached Project Budget for additional detail)

Task	Total
Preliminary Engineering	\$13,275
Right-of-Way	\$0
Construction	\$162,276
Total Cost	\$175,551
Total RSTP Request	\$175,551

11. RSTP Candidate Project Rating Factors

A. Regional Project Consideration

While the proposed bridge replacement and terminus are located within and sponsored by Roanoke County, its benefits and impacts will reach far beyond the jurisdictional line. The Tinker Creek Greenway leads north to Carvins Cove Natural Reserve and will intersect with the Roanoke River Greenway to the south which involves the following localities and organizations:

- Botetourt County (Tinker Creek Greenway);
- City of Roanoke (Tinker Creek and Roanoke River Greenways and Carvins Cove Natural Reserve);
- Town of Vinton (Tinker Creek Greenway);
- City of Salem (Roanoke River Greenway); and
- Western Virginia Water Authority (Carvins Cove Natural Reserve).



B. Support the Economic Vitality of the Metropolitan Area

The proposed bridge replacement and connection to the Tinker Creek Greenway leading to Carvins Cove Natural Reserve is a significant amenity and attraction for local businesses, hotels, residents and Hollins University students, faculty and staff. When the Plantation Road Project connects to the bridge, bicycle and pedestrian accommodations will extend along Friendship Lane, along Plantation Road to Williamson Road as well as to Walrond Park. The proposed improvements will not only help Roanoke County to retain existing Plantation Road-area businesses, but will also encourage new businesses to locate on this corridor. The overall project is fully expected to encourage new commercial and industrial development in the Plantation Road area, thus providing new tax revenue and new jobs. When the Plantation Road Project was discussed with area businesses, the following guest amenities and features were discussed:

- Camping World will send their customers on foot or by bicycle to Walrond Park, to the Tinker Creek Greenway and to Carvins Cove while their vehicles are being serviced; and
- Hotels will endorse easy exercise opportunities accessible from their front doors; currently, guests are advised to drive to Walrond Park to walk or jog.

C. Increase the Safety and Security of the Transportation System

The proposed replacement bridge will substantially increase the safety of users currently using the existing and deteriorating bridge. The proposed connecting Tinker Creek Greenway segment will also provide a safe accommodation for employees, residents, students and visitors to exercise and enjoy the outdoors without having to navigate vehicle traffic on area roads.

D. Increase the Accessibility and Mobility Options Available to People and/or Freight

The proposed bridge and terminus will be designed and constructed to ADA standards. Area employees, residents, students, customers and visitors of all abilities will be able to utilize the new amenities.

E. Protect and Enhance the Environment, Promote Energy Conservation, and Improve Quality of Life

When the proposed bridge is constructed and the next segment of the Tinker Creek Greenway is complete, users will be able to walk along three miles of trail from the bridge to the Carvins Cove boat dock and then connect to an additional 40 miles of Carvins Cove trails. This network expansion will improve quality of life and promote healthy habits by permitting employees, students, residents, visitors and others to walk and bike close to work, close to campus, close to home or close to a hotel room. Vehicle trips should be reduced, therefore reducing energy use, fuel consumption and vehicle emissions. Reduced vehicle emissions will lead to air quality improvements.

F. Enhance the Integration and Connectivity of the Transportation System, Across and Between Modes, for People and/or Freight

The proposed bridge will connect the Tinker Creek Greenway to the Plantation Road Project, which includes shared use paths, sidewalks and signalized crosswalks. This multimodal combination will connect bicyclists and pedestrians to the trail network at Carvins Cove, to Walrond Park, to surrounding residential neighborhoods, to Plantation Road businesses and to Hollins University.

G. Promote Efficient System Management and Operation

The expansion of the Tinker Creek Greenway and bridge connection to the Plantation Road Project may reduce vehicle trips, thereby enabling greater efficiency of the existing road system.

H. Emphasize the Preservation of Existing Transportation System

Continuation of the Tinker Creek Greenway and other multimodal improvements should reduce vehicle trips which will extend the life of Plantation Road. Decreased vehicle usage should also reduce the future need to widen Plantation Road to six lanes.



I. Cost/Benefit Considerations

The completion of the Friendship Lane/Carvin’s Creek bridge replacement project will result in a much safer bridge for bicycle and pedestrian use. The overall Plantation Road Project is also anticipated to increase economic development opportunities, expand transportation options, improve environmental quality and enhance overall quality of life for users.

J. Projects included in previous plans that had a public input process associated with the plan:

Roanoke County Comprehensive Plan (2005)

Hollins Area Plan: Adopted by the Board of Supervisors in 2008 as a component of the Comprehensive Plan; the Plantation Road Project begins to implement the Hollins Area Plan and implementation strategies also include completion of the Tinker Creek Greenway in the Hollins area

Constrained Long Range Transportation Plan (CLRTP) 2035: Plantation Road is in the Primary System, Vision List

Bikeway Plan for the Roanoke Valley Area MPO – 2012 Update:

- Priority alignment: Plantation Road
- Vision alignments: Walrond Drive, Enon Drive, Williamson Road

2013 Virginia Outdoors Plan: “Develop the Tinker Creek-Carvin Creek trail to connect Carvins Cove with the Roanoke River Greenway and eventually with the Appalachian Trail.” (page 10.58)

VDOT Policy for Integrating Bicycle and Pedestrian Accommodations: Endorses bicycling and walking as fundamental travel modes and integral components of an efficient transportation network.

2007 Update to the Roanoke Valley Greenway Plan: The Tinker Creek Greenway will ultimately connect the Roanoke River Greenway to the extensive network of established trails at Carvins Cove Natural Reserve. The planned Plantation Road Project shared use path network will connect to the Tinker Creek Greenway (Priority #2 in the Plan) located on Hollins University’s campus.

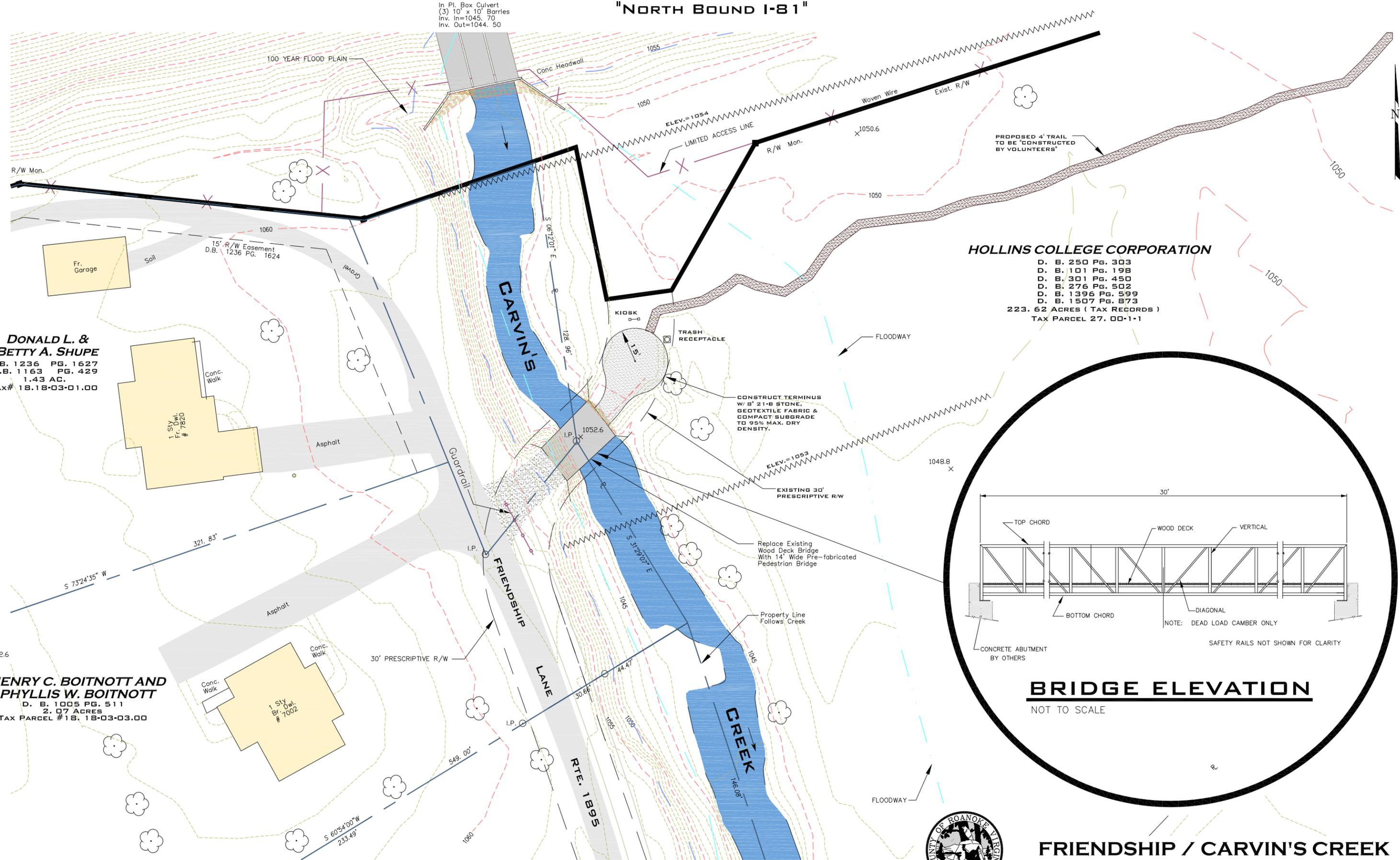
2004 Hollins University Master Plan: References and endorses the proposed regional greenway connection through Hollins University property.

Attachments:

1. Map – Proposed Tinker Creek Greenway Connection to the Hollins University Trailhead and Friendship/Carvin’s Creek Bridge Replacement
2. Map – Friendship/Carvin’s Creek Bridge Replacement
3. Map – Plantation Road Project and Tinker Creek Greenway
4. Map – Plantation Road Project
5. Site Photographs
6. Project Budget
7. Letter of Support – Hollins University
8. Letter of Support – Roanoke Valley Greenway Commission
9. Resolution of Support – Roanoke County Board of Supervisors

"NORTH BOUND I-81"

In Pl. Box Culvert
(3) 10' x 10' Barries
Inv. In=1045.70
Inv. Out=1044.50

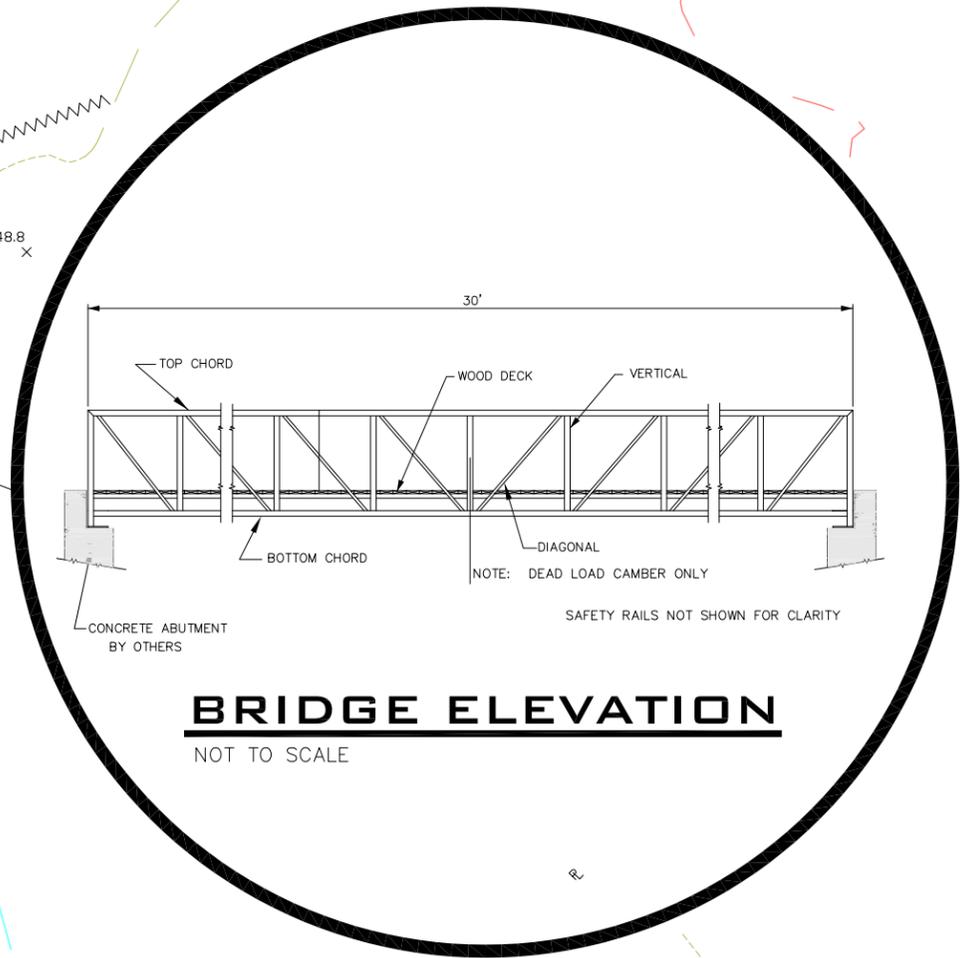


HOLLINS COLLEGE CORPORATION

D. B. 250 PG. 303
D. B. 101 PG. 198
D. B. 301 PG. 450
D. B. 276 PG. 502
D. B. 1396 PG. 599
D. B. 1507 PG. 873
223.62 ACRES (TAX RECORDS)
TAX PARCEL 27.00-1-1

DONALD L. & BETTY A. SHUPE
D.B. 1236 PG. 1627
D.B. 1163 PG. 429
1.43 AC.
TAX# 18.18-03-01.00

HENRY C. BOITNOTT AND PHYLLIS W. BOITNOTT
D. B. 1005 PG. 511
2.07 ACRES
TAX PARCEL #18.18-03-03.00



BRIDGE ELEVATION

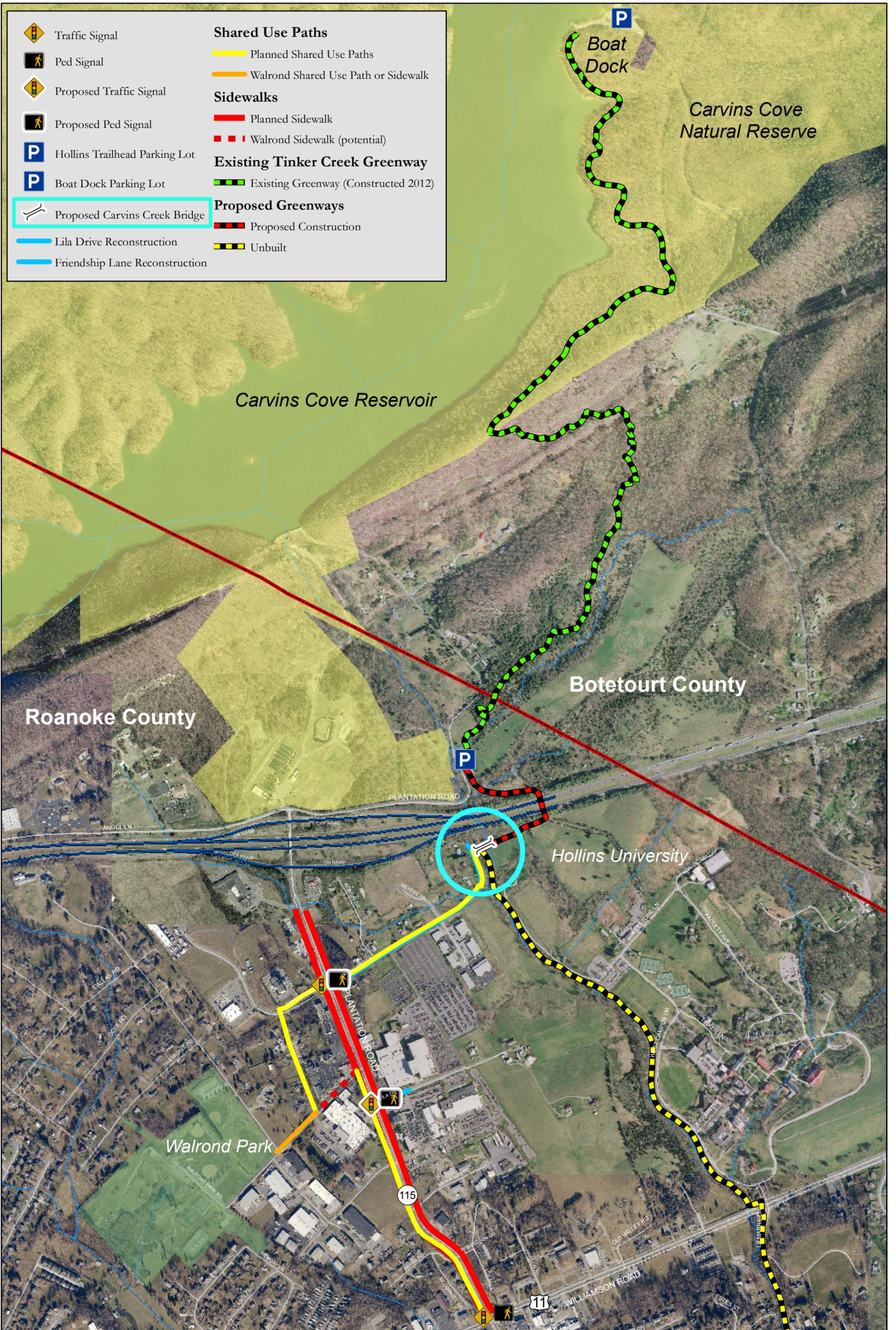
NOT TO SCALE

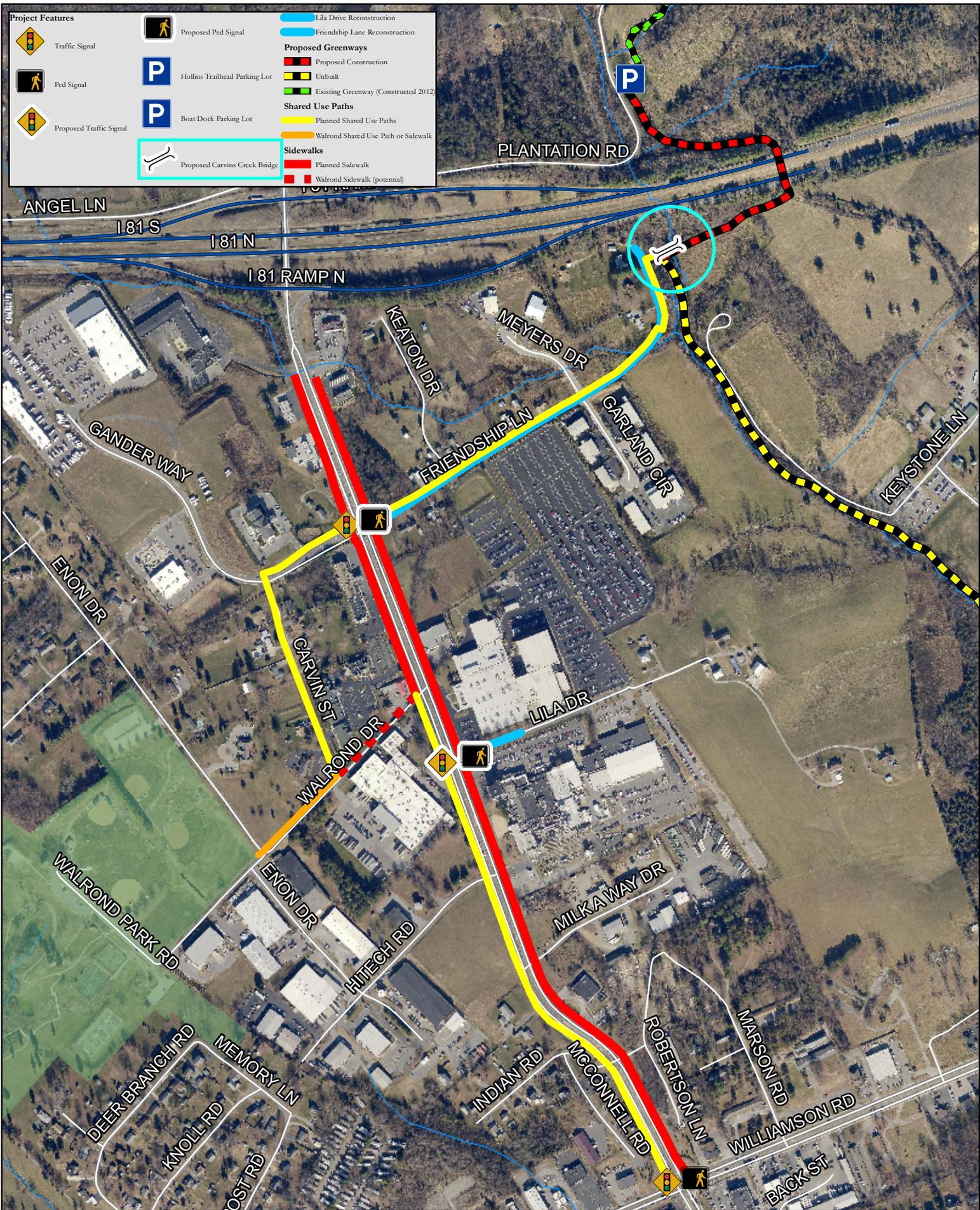
PLAN



FRIENDSHIP / CARVIN'S CREEK BRIDGE REPLACEMENT

SCALE: 1"=40' DATE: SEPTEMBER 11, 2014





Plantation Road Project - Friendship/Carvin's Creek Bridge Replacement

FY 2016 Regional Surface Transportation Program



Friendship Lane/Carvin's Creek Bridge
Replacement Project:
Site Photographs

Friendship Lane/Carvin's Creek Bridge (Nov, 2013)

Friendship Lane side looking towards Hollins University



Friendship Lane/Carvin's Creek Bridge (May, 2014)

Hollins University side looking towards Friendship Lane



Terminus Site with Tinker Creek Greenway Connection (May, 2014)



Future Tinker Creek Greenway Segment Location at Hollins University (May, 2014)

Looking northeast across meadow; greenway will skirt treeline



Future Tinker Creek Greenway Segment Location at Hollins University (May, 2014)

Looking north towards I-81 and Tinker Mountain;
greenway will skirt treeline



**Friendship/Carvins Creek Bridge Replacement and Terminus
Fiscal Year 2016 Regional Surface Transportation Program**

SPEC	ITEM	QUANTITIES	UNIT	UNIT COST	EXTENDED
1	FEMA Flood Study	1	LS	\$ 10,000.00	\$ 10,000.00
2	FEMA Map Revision	1	LS	\$ 20,000.00	\$ 20,000.00
3	14' Wide Prefabricated Bridge	30	LF	\$ 1,000.00	\$ 30,000.00
4	Concrete Abutments	56	CY	\$ 800.00	\$ 44,800.00
5	Footers (Substructure Concrete)	19	CY	\$ 550.00	\$ 10,450.00
6	Kiosk and Signage	1	LS	\$ 1,500.00	\$ 1,500.00
7	8" Bollard, conc. filled	6	EA	\$ 287.00	\$ 1,722.00
8	Waste Receptacles	1	EA	\$ 421.00	\$ 421.00
9	Bridge Demolition	1	LS	\$ 10,000.00	\$ 10,000.00
10	Barrier Fencing 6"x6"x4' Post	56	LF	\$ 7.65	\$ 428.40
11	Barrier Fencing 3"x8"x10' Rail	113	LF	\$ 3.95	\$ 446.35
12	8" 21-B Stone	46	TON	\$ 54.00	\$ 2,484.00
13	Geotextile Fabric	98	SY	\$ 5.00	\$ 490.00
	Sub-Total				\$ 132,741.75
14	Engineering / Surveying (10%)	1	LS	\$ 13,274.18	\$ 13,274.18
15	E & S Control Items (5%)	1	LS	\$ 6,637.09	\$ 6,637.09
	Sub-Total				\$ 152,653.01
	Mobilization (10%)				\$ 15,265.30
	Contingency (5%)				\$ 7,632.65
	TOTAL:				\$ 175,550.96



Office of the President

September 24, 2014

Daniel O'Donnell
Interim County Administrator
County of Roanoke
P.O. Box 29800
Roanoke, VA 24018

Dear Dan:

I write today to offer my endorsement of the proposed Friendship Lane/Carvin's Creek Bridge Replacement. I understand that replacing this bridge will provide a critical connection between the Tinker Creek Greenway and the Plantation Road Bicycle, Pedestrian and Streetscape Improvement project. I applaud the planning work that has been done and believe the proposed bridge project will significantly enhance pedestrian and bicycle accommodations and quality of life in the Hollins area.

Hollins University fully supports the expansion of the Tinker Creek Greenway on our property from the current trailhead parking lot north of Interstate 81 to the proposed Carvins Creek bridge. Our students, faculty and staff are frequent users of the current Tinker Creek Greenway segment that ends at the Carvins Cove boat dock. We look forward to the completion of the next phase of the greenway that will connect Carvins Cove to the improvements along Plantation Road.

If there is anything I can do to further support this effort, please do not hesitate to let me know.

Sincerely,

A handwritten signature in cursive script that reads "Nancy Gray".

Nancy Oliver Gray
President

NOG/baa



1206 KESSLER MILL ROAD

SALEM, VA 24153

540-777-6330

540-387-6146 (FAX)

lizbelcher@greenways.org

www.greenways.org

September 24, 2014

Roanoke Valley Area Metropolitan Planning Organization and
Transportation Technical Committee
P.O. Box 2569
Roanoke, VA 24010

Dear Members of the MPO and TTC:

The Roanoke Valley Greenway Commission reviewed RSTP applications at its August 27 meeting and would like to express its support for Roanoke County's application to build a bridge across Carvin Creek, connecting Friendship Lane to Tinker Creek Greenway at Hollins University.

In the 2007 Greenway Plan, Roanoke River is the number one priority, and the number two priorities are the greenways that connect to it. Tinker Creek Greenway is the top one of those, as it would extend all the way from Roanoke River to Carvins Cove and Botetourt County.

The Greenway Commission has been working with Hollins and the County for many years to develop the Tinker Creek Greenway connection to Carvins Cove. In 2011, the County was able to complete a revocable agreement with Hollins University to locate the trail on Hollins property on the north side of I-81; greenway supporters had already secured permission through other private property and through City property at the Cove. Volunteers then built the trail and bridge from the County parking lot to Carvins Cove, opening in 2012. This trail has become hugely popular with Hollins staff and students, as witnessed in an article in the paper on September 23.

Roanoke County has been working for some time on plans for pedestrian and bicycle accommodations along Plantation Road, with connections to adjacent facilities. A bridge from Friendship Lane across Carvin Creek in order to connect to Tinker Creek Greenway would greatly expand the access to that trail for those working at Wells Fargo and other businesses in the area. Hollins has agreed to allow the extension of the trail under I-81 to make this connection, if the bridge can be funded. There is a large work force in this area, in addition to residents, and the bridge would open up many trail opportunities for them.

We appreciate the support of the MPO in funding greenways in the past and thank you for your consideration of this project.

Sincerely,

Bob Blankenship, Chairman
Roanoke Valley Greenway Commission

AT A REGULAR MEETING OF THE BOARD OF SUPERVISORS OF ROANOKE COUNTY, VIRGINIA, HELD AT THE ROANOKE COUNTY ADMINISTRATION CENTER, ON TUESDAY, SEPTEMBER 23, 2014

RESOLUTION 092314-4.f REQUESTING THE ROANOKE VALLEY AREA METROPOLITAN PLANNING ORGANIZATION FUND A LIST OF PROJECTS FOR THE FISCAL YEAR 2016-2021 REGIONAL SURFACE TRANSPORTATION PROGRAM

WHEREAS, the Roanoke Valley Area Metropolitan Planning Organization reviews applications for funding through the Regional Surface Transportation Program and makes recommendations for project funding to the Commonwealth Transportation Board; and

WHEREAS, the Roanoke County Board of Supervisors reviewed a list of six (6) projects for Regional Surface Transportation Program funding at a work session on September 9, 2014; and

WHEREAS, the Roanoke County Board of Supervisors supports the list of six (6) projects for Regional Surface Transportation Program funding.

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of Roanoke County, Virginia requests the Roanoke Valley Area Metropolitan Planning Organization fund the following list of projects for the fiscal year 2016-2021 Regional Surface Transportation Program:

1. Plantation Road Project – Lila Drive Intersection
2. Plantation Road Project – Friendship / Carvin's Creek Bridge Replacement
3. Plantation Road Project – Friendship Lane Reconstruction
4. Plantation Road Project – Phase 2
5. Exit 140 Park and Ride

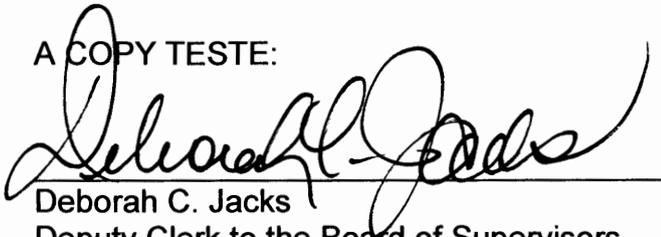
6. West Main Street Pedestrian Improvements – Phase 2

On motion of Supervisor McNamara to adopt the resolution, and carried by the following recorded vote:

AYES: Supervisors Moore, Bedrosian, Church, Peters, McNamara

NAYS: None

A COPY TESTE:



Deborah C. Jacks
Deputy Clerk to the Board of Supervisors

cc: David Holladay, Planning Administrator
Roanoke Valley Area Metropolitan Planning Organization