

**Application for the U.S. Department of Transportation
Department of Transportation's National Infrastructure
Investments: TIGER Discretionary Grant**

First State Trails and Pathways Initiative

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1. Project Overview

The State of Delaware is pleased to present this application for funding under the U.S. Department of Transportation Department of Transportation's National Infrastructure Investments: TIGER Discretionary Grant (DOT – OST -2011 -0107) to support the creation of a statewide bicycle and pedestrian trail and shared use pathway program. The First State Trail and Pathways Initiative seeks to link communities throughout the State of Delaware with on and off-alignment shared use pathways and recreational trails to provide alternative modes of travel for bicyclist and pedestrians.

The project focuses on near-term construction of remaining portions of pathways and trails already in place and introduces new opportunities for longer term improvements. The total project costs are \$17.8 million, with the request under TIGER III representing \$13.8 million. The matching funds will be met through state sources. The construction timetable for the project segments are to be completed by 2014.

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2. First State Trail and Pathways Initiative, State of Delaware

a. Introduction:

In a bold vision for the creation of a truly multi-modal transportation network in Delaware, Governor Jack Markell requested the Departments of Transportation and Natural Resources and Environmental Control to research and develop a Trails and Pathways Plan to establish a world class interconnected network of shared use pathways and trails that will support non-motorized travel and recreational trails opportunities within the State of Delaware for Delawareans and visitors alike.

The State of Delaware recognizes the benefits of an integrated non-motorized pathway and recreational trail network to provide opportunities for pedestrians and bicyclists to travel safely and efficiently and to expand outdoor recreation opportunities while enjoying the natural, cultural and historic assets of Delaware. It also recognizes the benefits of an integrated multi-modal transportation infrastructure in improving the economic and environmental sustainability of communities, thereby improving the quality of life for all citizens.

The goals of the Governor's vision are to:

- 1) Re-establish Delaware in the Top Ten of Bicycling Friendly States.
- 2) Build a world-class interconnected, non-motorized trails and pathway network.
- 3) Support the creation of local jobs related to bicycling, including construction, maintenance, cycling-related services and eco-tourism.
- 4) Link Delaware communities internally to support more sustainable local economies and externally expand the linkages between the state's neighborhoods, towns and cities.
- 5) Develop and implement sustainable practices in the creation of Delaware's pathway and trails network, such as supporting native landscaping and natural habitats.
- 6) Support more healthy communities by providing safe and affordable active transportation choices.
- 7) Develop workable strategies for ongoing maintenance and upgrading of existing facilities.

b. Building on the Past and Present:

In 2011, Governor Markell embarked on a statewide trail initiative to create a world class interconnected trail network advancing Delaware to the "First State in Trails". This initiative builds upon past state and federal investments in the existing community and regional pathways, trails, riverwalks and promenades found around the state. This new initiative extends those systems within communities and linkages city-to-city.

In June of 2011, the General Assembly passed Senate Concurrent Resolution 13, which requested the study of the building and maintaining of non-motorized travel connections within and between communities, cities and towns in Delaware and to link these connections to form uninterrupted networks for walking and bicycling.

At the request of the Governor, the General Assembly also allocated \$7 million in appropriations within the FY 2012 Capital Improvements Budget (Bond Bill) for the purposes of initiating the design and development of a statewide integrated non-motorized network of alternative transportation pathways and recreational trails. The Trails and Pathways Plan will recommend ways to use these funds to leverage additional private and federal investment in the network.

c. Characteristics of Delaware's Bicycle and Pedestrian Infrastructure:

Delaware has approximately 506 miles of trails and multi-use pathways. The State operates and maintains 312.2 miles (63.4% of the total miles) with approximately 149 miles located in the State park system. Federal, county and municipality sites make up 149.6 miles (29.6%), while 35.3 miles are maintained as part of private conservation areas. Put in context, the geographic area of the State consists of 13,507 lane miles of roads and highways and covers 2,849 square miles.

Delaware has considerable room to grow in its trails and pathway networks. The 2000 Census estimated that approximately 851 individuals bicycled to work out of a total workforce of 373,070. The City of Newark is the only community in Delaware to receive the Bicycle Friendly Community distinction by the League of American Bicyclists. In 2011 Delaware ranked 18th on the League of American Bicyclists list of Bicycle Friendly States. It seeks to be the top state in the nation with the full implementation of this plan.

d. Public Demand for Linear Pathways :

Trail-related activities are the number one outdoor recreation activity in Delaware. In July 2011, the Division of Parks and Recreation conducted the Outdoor Recreation Public Opinion Survey (ORPOS) of Delaware residents to gather information and trends on their outdoor recreation patterns and preferences. Survey results will inform the 2012-2016 Statewide Comprehensive Outdoor Recreation Plan (SCORP) guiding needed outdoor recreation facility investments where they best meet the public's need and demand.

Findings from 2011 Outdoor Recreation Survey indicate that Delawareans place a high importance on outdoor recreation. Statewide, 93% of Delaware residents indicated that outdoor recreation had some importance in their lives, while 67% said it was very important to them personally. These findings are mirrored in the 2002 and 2008 public opinion telephone surveys, indicating a steady demand for outdoor recreation opportunities and justification for future investments throughout the state.

e. Participation in Outdoor Recreation :

Statewide, 74% of respondents participating in an Outdoor Recreation Survey said walking or jogging is an activity in which a member of their household will participate in over the next 12 months. Similarly, just over half of Delaware residents (53%) indicated that a member of their household will bicycle in the

next year. When Delawareans were asked what would encourage more participation in outdoor recreation, the overwhelming response is *'more outdoor recreation facilities and opportunities that are closer to home'*.

f. Need for Trails/Pathways:

Trails provide a means for children and families to be physically active and to live a healthy lifestyle. This is critical when childhood obesity is an epidemic nationally and in Delaware. Health data from 2008 reveal that 39.7% of children ages two to 17 in DE are overweight or obese. Park facilities including trails and community pathways/trails provide children an outlet for engaging in positive activities. Nearly two-thirds (2/3) of Delaware residents think parks and recreation facilities are a necessity. A majority of residents state that funding for trails/parks/recreation areas should be a priority even during economic hard times. The 2011 Outdoor Recreation Public Opinion Survey data shows that Delawareans are not walking/biking/jogging to a greater degree because they perceive the roads are too dangerous and because community facilities/infrastructure are often too far away.

g. Memorandum Of Understanding:

In order to form the First State Trails and Pathways Initiative, the Secretaries of the Delaware Departments of Natural Resources and Environmental Control and the Department of Transportation signed a Memorandum of Understanding to work together with their respective personnel to accomplish the following:

- a) Evaluate existing pathways to determine how these systems can be improved and /or linked to improve safety, connectivity, and increase bicycle and pedestrian usage for recreation and transportation;
- b) Build upon of existing plans including the East Coast Greenway Feasibility Study, New Castle County Greenway Plan, municipal and county comprehensive plans; and city/county/state trail concept and master plans;
- c) Building on today's existing trails and pathways, develop a Statewide Pathway and Trail Plan that outlines a network of bicycle and pedestrian systems that will serve both recreational and alternative transportation goals, and connecting communities internally and externally;
- d) Develop a master list of projects and subprojects using the attached system strategy map (see attached) to include timelines, estimated costs and priorities;
- e) Streamline any and all permitting and right-of-way acquisition processes necessary for each project, in order to minimize the time needed to render each project open for use;
- f) Use the FY 2012 State funds and future appropriations to leverage additional federal and private funding to expand the resources available for use in constructing the projects included in the master list mentioned above;
- g) Develop a plan including estimated costs and specific responsibilities for the maintenance and rehabilitation of paths over time;

- h) In choosing priority projects consider the potential jobs and opportunities for Delaware contractors that would be created as a result of these projects and the maintenance plan and, where practicable, choose those alternatives that are likely to create the most employment opportunities for Delawareans;
- i) Use current, state-of-the-art, resource management and model sustainability practices in the construction and maintenance of the projects (e.g. storm water, native landscaping/habitat, etc.)

DeIDOT and DNREC agreed to create an inter-departmental team to develop and recommend for implementation a set of activities for FY 2012 and the subsequent four fiscal years. Special care is being taken to identify the financial resources that are anticipated to be needed for FY 2013. The Departments will provide recommendations to the Governor's Office and the Office of Management and Budget for consideration in the Governor's FY 2013 Budget Proposal to the General Assembly in January 2012.

h. Community Input:

DeIDOT and DNREC will consult with the Wilmington Metropolitan Area Planning Council (WILMAPCO), Kent County/Dover Metropolitan Planning Council, Delaware Greenways, Delaware Bicycle Council, Bike Delaware, Pedestrian Advisory Committee, Recreational Trails Program Advisory Committee, Council on Greenways and Trails, municipalities and counties and other organizations with regard to the priority order of projects prior to presenting the proposed list of projects to the Governor for consideration for funding. Once the list of projects is prioritized, a series of workshops on the recommended trails and future trails/pathways will be held with property owners, community groups, and other affected citizens to gather further input on the locations and types of trails and pathways that will fulfill the public's need and demand for community connectivity. We are also encouraging all stakeholders and community groups to participate in letters of support for potential funding opportunities.

i. Organizational Responsibilities:

As part of this effort, DNREC and DeIDOT will designate responsibilities for various stages of the project to their respective employees with expertise in specific areas. These activities may include coordination with county/municipal implemented projects, concept development, engineering design, construction, and, subsequently, maintenance of the system.

Due to the integration of the non-motorized trail system into the State's public road infrastructure, the portions of paths and trails that are outside of State Parks will need to be built to state standards and any federal standards that apply as designated by the U.S.DOT. This will require DeIDOT to be involved in the design and engineering of the projects. For projects that are within State Parks, DNREC will take the lead in the design and engineering with DeIDOT providing technical support as requested by DNREC. DeIDOT will take the lead in the bidding, solicitation, bid evaluation, and construction administration for the projects that are outside of State Parks.

The financial stewardship of the Plan will be shared by both agencies. The annual state appropriation (when awarded) will be included in the state capital account as part of the General Fund annual

appropriation. DeIDOT will include the trails in the process for determining supplemental state and/or federal capital appropriations as part of its Capital Improvements Program. DeIDOT will also coordinate federal grant activities, including application, monitoring and reporting. DNREC will manage private foundation and private sector funds as part of the Plan.

DeIDOT and DNREC will coordinate any and all efforts to solicit additional funds including additional federal grants and private sector and private foundation funding.

The activities outlined herein will be re-evaluated each year and a report on the progress of the Plan will be submitted jointly to the Governor each December. The coordination of these activities will be completed within 5 years of the signing of the Memorandum of Understanding, unless re-designated by the Governor.

3. Proposed Investment Areas:

The First State Trails and Pathways Plan outlines both a long-term strategy and near-term objectives. Ultimately, the long term objective is to create a statewide link from Northern New Castle County to Southern and Eastern Sussex County. However, an objective in the development of the Trails and Pathways Plan is to balance the statewide network with regional and local trail networks which can be utilized independently. A statewide network without these regional clusters would be very limiting in allowing communities to access important amenities, including parks and commercial areas, and the communities themselves. It would also limit access to transit options to complement the trail network since most transit access points are located primarily in the regional locales.

The projects under consideration for initial implementation of the Trails and Pathways Plan are derived from existing plans, including the East Coast Greenway Feasibility Study, New Castle County Greenway Plan, municipal and county comprehensive plans, local bicycle, pedestrian and / or trail concept and master plans and existing trail networks as part of Delaware's robust parks system. The network includes shared-use pathways both on-alignment and off-alignment with the existing transportation network between communities, and facilities within parks systems.

DeIDOT and DNREC have identified projects for priority implementation that strive to meet multiple outcomes and objectives outlined above. Below is an outline of proposed projects that would serve as the first phase of the First State Trail & Pathway Initiative:

a. New Castle County:

- 1) Northern Delaware Greenway Trail – This 7.1 mile long trail connects many suburban and city neighborhoods, schools, businesses, and community services while linking Fox Point State Park, Bellevue State Park, Bringham Woods Park, Rockwood Museum, Alapocas Run State Park, and Brandywine Park and Zoo. Complete the following NDGT gaps: a) Talley Road -0.25 miles; b) 2.1 segment between Rt. 141 and Mt. Lebanon Road; c) 0.5 mile segment between Bellevue State Park to Fox Point State Park separated by a 4-lane highway, I-495, and the Northeast rail corridor; d) 0.25 mile segment from Brandywine Zoo to Market Street; and e) upgrade or resurface portions of the trail.

- 2) Newark to Wilmington pathway - Phase 1 will design a new 'commuter'/recreational pathway from Newark to Fairplay Station (6.0 miles).
 - 3) White Clay Creek State Park – Construct 2.3 miles of the Tri-Valley Trail between the Pomeroy Trail and intersection of Paper Mill & Smith Mill Roads. This shared-use recreational trail creates community connections that link the existing Pomeroy Rail Trail from Newark through White Clay to communities northwest of Newark. Construct a new trailhead parking lot that improves Tri-Valley Trail access and develop a 0.2-mile segment on Hopkins Road filling a gap between the Pomeroy Trail and Creek Road Trails – two linear facilities used for recreation and alternative transportation.
 - 4) Auburn Heights – Create a recreational trail system across the Red Clay Valley within the Auburn Heights Preserve (a State Park property) and a community rail- trail link to Hockessin. Project will result in 6.3 miles of new shared-use trail.
 - 5) New Castle Industrial Track Trail – Extend the existing 2.1-mile long trail adding 3.2 miles of new trail and bridge. This project includes a signature bicycle/pedestrian bridge over the Christina River and a connection to the Wilmington Riverfront. This trail is also part of the East Coast Greenway Trail – a Maine to Florida trail.
 - 6) East Coast Greenway Trail – This trail traverses Maine to Florida; in Delaware it coincides with portions of the Northern Delaware Greenway Trail, New Castle Industrial Track Trail, and Newark's James Hall Trail. This project would complete segments at these locations: Cauffiel Parkway to Pennsylvania line; Route 273 to US 13; School Lane to Airport Road; Route 58 gaps to Continental Drive; and Route 4 pathway improvements.
 - 7) Lums Pond State Park – Build on the park's existing 16-mile trail system creating a bicycle/pedestrian shared-use trail. This 2.6-mile trail will begin at the park entrance at Howell School Road continue internally along Buck Jersey Road to the intersection of Howell School & Route 71. The new shared-use trail will link neighborhoods north, west and east of the park and create 0.25-mile shared-use trail connection to the C&D Canal Trail.
 - 8) Chesapeake & Delaware Canal Trail – Create a 9+ mile trail along the Canal waterway linking Delaware City and Lums Pond State Park. Future phases will extend to Chesapeake City, Maryland resulting in a 14-mile long trail.
- b. Kent County:**
- 9) Dover to Clayton Rail Pathway – Connect the existing Scarborough Road shared-use pathway at Delaware Technical and Community College in Dover with the town of Clayton along an existing rail right-of-way.
 - 10) Capital Bikeway – Extend the existing bicycle/pedestrian pathway approximately 0.7 miles through the center of Dover to the Legislative Hall and the state government complex with connections to the St. Jones River Trail. This project extends the existing 1.5 mile pathway that lies between Schutte Park and West Street.

11) St. Jones River Trail & Isaac Branch Trail – Two segments define the existing 3.2-mile St. Jones Trail and Isaac Branch Trail. The upper section begins in Dover’s Silver Lake Park extending to Division Street and a sidewalk between Division and Lookerman Streets help create community connections. The lower segment - Isaac Branch Trail - lies between Route 13, extending through the DelDOT campus then terminates at Route 10. A mid-section connector of approximately 1.5 miles is needed to connect the upper and lower segments as well as neighborhoods, businesses, parks and the state government complex.

13) Killens Pond State Park – create linkages to existing trail systems within DelDOT rights-of-way along Killens Pond Road (0.2 mile).

c. Sussex County:

14) Georgetown-to-Lewes-to-Cape Henlopen State Park – This is rail-with-trail that follows a State-owned rail line between Georgetown and Cape Henlopen State Park. Creating linkages between these communities and the State Park will serve both recreational trail users and ‘commuters’. Distances = 2.3 miles - Cape Henlopen to Lewes; 6.4 miles - Lewes to Cool Spring; and 7 miles - Cool Spring to Georgetown.

15) Junction & Breakwater Trail – The 5.9-mile Junction & Breakwater Trail is located between Gills Neck Road to Hebron Road (Rehoboth). Extensions at both ends of the existing J&B Trail are needed to create community connections to Lewes and Rehoboth. This trail serves recreational trail users and is a vital corridor for alternative transportation.

16) Cape Henlopen State Park – Expand the existing 8-miles of shared-use bicycle/pedestrian trail by connecting the Park’s northern and southern portions. This project will construct a 1.8-mile long trail from the Park’s Gordons Pond Area to Herring Point and upgrade a 0.7 mile trail connection from Herring Point to the Campground. Filling this gap creates continuous bike/pedestrian recreational and alternative transportation opportunities between Rehoboth to Lewes.

17) Assawoman Canal Trail – Connect the municipalities of Bethany, South Bethany, and Ocean View, and several residential communities via a 2.5-mile long shared-use trail along the Assawoman Canal. This trail will link to existing sidewalks and pathways serving both recreational and alternative transportation users.

18) Fred Hudson Road – Create a 0.7-mile shared-use pathway along Fred Hudson Road. This project will link neighborhoods, commercial areas, and Fresh Pond Area (Delaware Seashore State Park). It is a key pathway needed to create an off-road network in the Southeast Coastal region. This segment will provide close linkage to the proposed Assawoman Canal Trail.

19) Trap Pond State Park - create linkages to existing trail systems within DelDOT rights-of-way along Wooten Road (0.1 mile).

DNREC and DeIDOT will be evaluating existing trails and pathways to determine system upgrades that create linkages/connectivity, improve safety, and increase bicycle and pedestrian usage for recreation and alternative transportation.

d. Long-term Strategy for Statewide Connection:

The long-term strategy for statewide connections begins with the cluster of communities which have a network of pathways and trails as noted above. Statewide connections will require significant right-of-way and the integration of on-alignment shared-use pathways as roads are constructed or rehabilitated as part of the Delaware's Complete Streets Policy. Construction of the bicycle and pedestrian facilities for on-alignment pathways will be completed simultaneously with road projects. This set aside should be initially focused on projects along major corridors, such as Route 113, Route 1 and Route 301 and other major arterial roadways. Another option to consider is a joint agreement with the private railroads to utilize rail service roads and other right-of-way along the Delmarva Secondary to traverse the state. The State also owns several of the rail lines on the eastern end of the Delmarva Secondary in Sussex County.

A final option is to utilize existing State-owned right-of-way to build the pathways. This would include Route 1, Route 13 and Route 113. A priority must be given to construction of the pathways to ensure safety of users since the environment will include high-speed vehicles. Approvals from the Federal Highway Administration will be needed.

4. Investment:

The State has already committed \$7 million in Bond Bill appropriations to support the trails identified in the near term consideration of the Trails and Pathways Plan. While only a portion of the total estimated costs, this funding will serve as important seed funding that will leverage significant external funding. The recommendation is to:

- a) maximize opportunities to leverage State resources with Federal and private funding;
- b) request on-going appropriations from the General Assembly;
- c) apportion federal and state funding annually in the Capital Transportation Plan to support on-going upgrades and new networks , and;
- d) incorporate maintenance funding either through government, private and / or non-profit contribution,

a. Building upon Previous Investments:

Several of the projects enumerated in this grant are extensions of previous trail and pathway projects or actually complete links between existing trails. Several of them are projects under the First State Trails and Pathways Initiative.

Among the investments already made to the system and how they relate to the proposed uses of TIGER III Discretionary Grant funds:

New Castle County

New Castle Industrial Track Trail - Christina River Crossing & Phase 3

The New Castle Industrial Track is a 5.2-mile long, shared-use trail generally follows the former New Castle Industrial Track rail line from the City of New Castle to the Wilmington Riverfront. 2.1 miles of the trail are complete, while an additional 2.1 miles is funded though not yet constructed, and a northernmost section is the subject of a feasibility study. The TIGER III funds will construct a path along north side of SR 273 between US 13 and the intersection of Ferry Cutoff and Delaware Avenue in New Castle and construct mid-block crossing for the Industrial Track Greenway across SR 273

White Clay Creek State Park - Pomeroy Trail and Tri-Valley Trail

The Pomeroy Trail combined with the Tri-Valley Trail will create a 7.0-mile long shared-use trail that will connect Paper Mill Park (New Castle County Park) to the City of Newark via alignments within White Clay Creek State Park. Utilizing a combination of existing shared-use trails, access corridors, and creating new trail segments, this Trail will extend connections from downtown Newark linking the University of Delaware, management units within White Clay Creek State Park, and six developments north toward Pike Creek. Currently, of the Pomeroy Trail (in Newark) is under construction. The TIGER III funds will help build 5.3 miles of new shared-use Tri-Valley Trail through White Clay Creek State Park to Paper Mill Park.

Northern Delaware Greenway Trail

7.1-miles of the Northern Delaware Greenway Trail (NDGT) is open today for recreational trail uses and alternative transportation. The NDGT connects many suburban and city neighborhoods, schools, businesses, and community services while treading its way through Fox Point State Park, Bellevue State Park, Bringham Woods Park, Rockwood Museum, Alapocas Run State Park, and Brandywine Park and Zoo. This project focuses on filling trail system gaps and improving trail surfaces and tread stabilization. The NDGT is an essential component of the East Coast Greenway Trail – a trail/pathway system that stretches from Maine to Florida. The TIGER III grant funds will build the missing links with the communities (Central portion of the Greenway/Talley Road and Rt 141 to Mt. Lebanon Road) to the City of Wilmington. (e.g. Wilmington Zoo to N. Market Street, Wilmington; bridge over the Brandywine River accessibility; connection to Wilmington Riverfront)

Chesapeake & Delaware Canal Trail

Design and engineering for the future 15-mile long C&D Canal Trail is complete. Utilizing previously allocated state and federal funds, 9-mile trail will be built, utilizing the tier 1 gravel road along the north side of the Chesapeake & Delaware Canal waterway in 2012. This trail will link Delaware City's Canal front Promenade and Lums Pond State Park. Phase 4 will extend an additional 6 miles to Chesapeake City, Maryland. The TIGER III funds will be used to complete the link from the tier 1 trail to Delaware City's Promenade.

Kent County

St. Jones River Greenway Trail

Along the St. Jones River in the City of Dover lies a linear green space, consisting of parkland and open space areas. Two segments of the St. Jones River Greenway Trail are completed, yet disconnected. Completed segments include: a) upper section - Silver Lake Park to Division Street

(0.8 miles); b) a sidewalk between Division and Loockerman Streets; and c) lower section - 2.7 mile segment between Route 13 at Public Safety Blvd. and Route 10. The existing upper and lower sections are proposed to be linked with a new mid-section segment that is approximately 1.5 miles in length. Under the TIGER III grant, the State intends to a) construct the pathway from Silver Lake Park to intersection of South and State Streets; b) construct trailhead parking at end of Legislative Ave; c) From existing St. Jones Greenway trailhead at Pine Cabin Road, construct pathway west along SR 10 to Gateway South Blvd.; d) build a pedestrian bridge over the St. Jones River parallel to the south side of SR 10, including retaining walls on both approaches and; e) create signal upgrades for pedestrian crossing at Pine Cabin Road and Gateway South Blvd

Sussex County

Junction and Breakwater Trail - Extensions

The Junction and Breakwater Trail is a popular 5.9-mile long trail that follows sections of the former Penn Central rail line between Lewes and Rehoboth. The heavily used recreational trail provides alternative transportation between these municipalities as well as connections with residential neighborhoods, commercial businesses and community services. The J & B Trail, as it is known, traverses through the western portions of Cape Henlopen State Park and is managed by Delaware State Parks. The full connective potential of the trail has not been realized. The trail currently ends at Gills Neck Road (north end) and Hebron Road (south end). The TIGER III funds are intended to close this gap.

One of the new projects considered as a part of the TIGER III grant application:

Georgetown-Lewes – Cape Henlopen State Park Rail Trail - Phase 1

Stretching from the historic Georgetown Train Station to the Cape Henlopen State Park the proposed Georgetown-Lewes-Cape Henlopen State Park Trail would follow 17.8 miles of an active rail right-of-way currently owned by the State of Delaware. This project would either supplant the existing railroad tracks as a rail-to-trail (RTT) project, run parallel to the tracks as a rail-with-trail (RWT) project or some combination thereof.

Phase 1 of the Georgetown-Lewes-Cape Henlopen Trail stretches approximately 8.7 miles from Cape Henlopen State Park west through the City of Lewes to Cool Springs Road. The TIGER Grant will assist in building the first segment of Phase I – Shared-use, rail-with-trail pathway from the Lewes & Rehoboth Canal west to Savannah Road.

b. Maintenance of the Network

One of the most difficult challenges is to ensure maintenance of the trails after construction. The State must consider the placement of funding into a trust account to provide perpetual maintenance and upgrades of the system. Currently maintenance of trails and pathways competes with other projects in the Capital Transportation Plan. DelDOT and DNREC envision funding for maintenance of the pathways in part through government assistance, and non-profit and private contribution. It is hoped that a sinking fund can be created to fund the maintenance of the trails in a way not subject to changes in government appropriations nor competing with the priorities of other parts of the system. This funding mechanism will be developed through additional planning with all stakeholders in the project.

c. Funding Request:

When completed, the initial investments to implement the First State Trails and Pathways Initiative will total approximately \$75 million - \$105 million. These costs are dependent on the purchase of right-of-way based on various alignment choices and inflation depending on the length of time for the completion of construction.

The State of Delaware is requesting a total of \$13.8 million from the TIGER III Discretionary Grant program to fund 10 projects under the First State Trails and Pathways Initiative. The total project cost for these ten projects, in the table below, is \$17.8 million. Most of the cost is slated for right of way acquisition. The State of Delaware, through its appropriations process in the General Assembly, allocated \$7 million in FY 2012 for trail and pathway construction; \$4 million of these funds will be used as a match for TIGER III federal funding and grant support. The State of Delaware expects to request additional federal funding in subsequent fiscal years to support continued build out of the First State Trails and Pathways Initiative.

Project	Generalized scope	Estimated total cost (excludes ROW, if any)	Miles
C&D Canal Trail – Branch Canal Connector	<ul style="list-style-type: none"> Trail construction along northern side of canal from Phase 1, along west side of the Branch Canal to Delaware City’s pathway project. 	\$1.2 million	<ul style="list-style-type: none"> End of Phase 1 to Delaware City Trail – 0.75 miles
St. Jones Greenway - Legislative Hall Complex Section (Phase 1)	<ul style="list-style-type: none"> Construct pathway from Silver Lake Park to intersection of South St. and State St. Construct trailhead parking at end of Legislative Ave. 	\$2.5 million	<ul style="list-style-type: none"> 1.00 miles along St. Jones River
St. Jones Greenway Bridge and SR 10 Shared-use Pathway (Phase 1): from Pine Cabin Road to the Huhn Site at Gateway South Blvd.	<p>From existing St. Jones Greenway trailhead at Pine Cabin Road , construct pathway west along SR 10 to Gateway South Blvd.</p> <ul style="list-style-type: none"> Build a pedestrian bridge over the St. Jones River parallel to the south side of SR 10, including retaining walls on both approaches Signal upgrades for pedestrian crossing at Pine Cabin Road and Gateway South Blvd. 	\$2.2 million	<ul style="list-style-type: none"> 0.50 miles along E. Lebanon Road/SR 10
Route 273 - Frenchtown Road, US 13 to Ferry Cutoff, New Castle	<ul style="list-style-type: none"> Construct path along north side of SR 273 between US 13 and the intersection of Ferry Cutoff and Delaware Avenue Construct mid-block crossing for the Industrial Track Greenway across SR 273 	\$1.3 million	<ul style="list-style-type: none"> 1.80 miles along Frenchtown Road/SR 273
Georgetown to Lewes (Phase 1)	<ul style="list-style-type: none"> Phase I – Shared-use, rail-with-trail pathway from the Lewes & Rehoboth Canal west to Savannah Road. 	\$3.1 million	<ul style="list-style-type: none"> 1.25 miles along rail line
Junction & Breakwater Trail Extentions	<ul style="list-style-type: none"> Shared-use pathway from the Junction & Breakwater trailhead at Gills Neck Road, east to connection with Lewes & Rehoboth Canal. Connect southern end of Junction & Breakwater with shared-use pathway to City of Rehoboth’s Main Street. 	\$1.8 million	<ul style="list-style-type: none"> 1.25 miles along Gills Neck Road 0.50 miles from J&B trailhead to Main Street
Northern DE Greenway Trail	<ul style="list-style-type: none"> Community connection missing links (central portion/Talley Road; Rt. 141 to Mt. Lebanon Road Zoo to N. Market Street 	\$1.5 million	<ul style="list-style-type: none"> 0.25 along Talley Rd 2.00 around DuPont CC

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	<ul style="list-style-type: none"> Swinging Bridge accessibility Connection to Wilmington Riverfront 		<ul style="list-style-type: none"> 0.25 Zoo to Market 0.10 @ bridge 2.00 on Walnut and King Streets
White Clay Creek State Park	<ul style="list-style-type: none"> Construct 1.7 mile Tri-Valley Trail between the Pomeroy Trail and intersection of Paper Mill. Shared-use trail. Construct new trailhead parking lot on Smith Mill Road inside of park boundary, west of Paper Mill Road. Complete gap between Creek Road & Pomeroy Trail along Hopkins Road 	\$3.0 million	<ul style="list-style-type: none"> 5.3 miles shared-use trail 825' (.156 miles) @ Hopkins Road
Trap Pond & Killens Pond State Parks	<ul style="list-style-type: none"> Complete trail gaps along Wootten Road and Killens Pond Road within road shoulder; separate travel lane from shoulder with barriers to increase bike/ped safety. 	\$750,000	<ul style="list-style-type: none"> 800' @ Wootten Rd (.15 miles) 900' @ Killens Pond Rd (.17 miles)
Alapocas Run State Park	<ul style="list-style-type: none"> Resurface Northern DE Greenway Trail in Alapocas 	\$250,000	<ul style="list-style-type: none"> 0.70 miles
Maintenance Sinking Fund	<ul style="list-style-type: none"> Averages approximately \$2,000 per year per mile 	\$200,000	
	Total Cost of Phase I Investments Total Cost of Phase I Investments	\$17.8 million	18.13 miles

Federal Participation – TIGER III Grant Request	\$ 13.8 million
State and Local Matching Funds General Funds Appropriations – FY 2012 Transportation Trust Fund Appropriations FY 2013	\$4.0 million
Total Cost of Phase I Investments	\$17.8 million

5. Meeting of TIGER III Criteria

The State of Delaware recognizes that the First State Trails and Pathways Initiative grant request must meet criteria as outlined in the Notice of Funding Availability. This section addresses the criteria in the context of the grant request.

a. Primary Evaluation Criteria:

i. Long-Term Outcomes:

The First State Trails and Pathways Initiative is one of the most comprehensive attempts at formulating a long-term strategy to improve multi-modal opportunities for travel in the State. The Initiative supports and is supported by a number of significant policy directives established by Governor Markell, the Delaware Department of Transportation and the Delaware Department of Natural Resources and Environmental Control, namely:

a) creation of connected communities in the State. Given Delaware's small size, these multi-modal linkages are very achievable both geographically and politically. The State owns a large majority of the transportation network in Delaware and therefore, is responsible for making these connections;

b) recognition of the benefits of improved air quality for its citizens. Considering that Delaware is a non-attainment state based on Clean Air Act criteria, investments in bicycle and pedestrian infrastructure will ultimately bring long-term air quality improvements and reduce vehicles miles travelled, recognizing that automobile emissions is a large contributor to air quality;

c) understanding economic benefits of the trail and pathway network are derived from greater mobility between local communities for travelers to work and recreation. Significant investments are being targeted in areas with high tourism, such as in our Rehoboth Beach / Cape Henlopen / Lewes seaside resort areas, making trail networks both destination amenities and a community linkage. Other investments include infrastructure around our capital city, Dover and serving our military personnel at the Dover Air Force Base and within the New Castle County parks and greenways, linking northern Delaware suburban locales to the City of Wilmington urban community.

Under Executive Order 6, signed in 2009, Governor Jack Markell required all future investments in transportation infrastructure to evaluate and include, if reasonably cost effective and logistically achievable, accommodations for bicycle and pedestrian facilities. The Complete Streets Policy requires DelDOT to:

- 1) Create a comprehensive, integrated, connected transportation network that allows users to choose between different modes of transportation;
- 2) Establish that any time DelDOT builds or maintains a roadway or bridge, the agency must whenever possible accommodate other methods of transportation;
- 3) Focus not just on individual roads, but changing the decision-making and design process so that all users are considered in planning, designing, building, operating and maintaining all roadways;
- 4) Recognize that all streets are different and user needs should be balanced in order to ensure that the solution will enhance the community;

- 5) Apply to both new and retrofit projects, including planning, design, maintenance, and operations for the entire right-of-way;
- 6) Ensure that any exemption to the Complete Streets Policy is specific and documented with supporting data that indicates the basis for the decision and;
- 7) Direct the use of the latest and best design standards as they apply to bicycle, pedestrian, transit and highway facilities.

This grant, the expected investment made through the First State Trails and Pathways Initiative are consistent and complementary of the Governor's Executive Order and supports necessary long-term multi-modal infrastructure for the State.

ii. State of Good Repair:

Of the approximately 506 miles of trails and pathways, the majority have been built within the last 15 years. The sufficiency of the trails and pathways infrastructure is good. Annual maintenance occurs on State Park portions of the trails and consistent resurfacing of on-road pathways takes place during our regular maintenance and surface repaving programs.

These projects outlined in this grant request are considered expansion of existing trails and pathways within communities. The State, in cooperation with its private and non-profit partners, plan to set aside funding to assist with the annual upkeep of the trails, keeping the network in a state of good repair.

iii. Economic Competitiveness:

The First State Trail and Pathways Initiative is a comprehensive investment of trail and pathway infrastructure for the entire state with project geographically distributed to provide the greatest benefit for local economies. Supporting this network of trails and pathways is not only good for the environment and the economic sustainability of the communities, it benefits the growing recreational and tourism industries.

- *According to the National Bicycle Dealers Association, the U.S. bicycle industry sold \$5.6 billion in bicycles and equipment in 2009. Further, more than three times as many new bicycles (14.9 million) were sold in the U.S. than cars (4.6 million). (Source: [National Bicycle Dealers Association, 2010](#); [Bureau of Transportation Statistics, 2010](#))*
- *Bicycling projects create an average of 11.4 jobs per million dollars spent, compared to just 7.8 jobs for road-only projects. (Source: [Garrett-Peltier, H., 2011](#))*
- *Nationally, recreation industry contributes \$730 billion annually to the U.S. economy and supports nearly 6.5 million jobs. Bicycling generates \$289 billion annually in retail sales and services across the U.S. and \$88 billion in annual state and national tax revenue. It also provides over 1.1 million jobs.*
- *For households, bicycling provides economic benefits. Studies have shown that homes closer to bike paths are more valuable. The average American household spends \$7,179 per year on*

owning and driving their cars. (Source: [Bureau of Transportation Statistics, 2010](#)). On a round-trip commute of 10 miles, bicyclists save around \$10 daily. (Source: [Commute Solutions, 2011](#))

North Carolina's Outer Banks generates \$60 million in economic activity through bicycle tourism. Investment in the state of \$6.7 million on bicycle infrastructure has demonstrated an annual nine to one return. The financial wherewithal of visitors drawn to bike on the Outer Banks boosts the economy dramatically. Amenities are very similar to the beaches along the east coast shoreline of Delaware. 1

Since 1991, Maine has made a concerted effort to improve its bicycle infrastructure by widening shoulders and creating shared-use paths, generating \$66 million a year in bicycle tourism. 2

Economic benefits from the First State Trails and Pathways Initiative come from two sources: a) private companies supporting the bicycling industry through sales, service and trail maintenance and b) from Delaware's tourism industry, particularly in communities that embrace trails (Newark, Wilmington, Delaware City, and Milford) and the beach resort areas of Sussex County, in which these infrastructure improvements will be located.

Tourism in Delaware is a major economic contributor to the state, and Sussex County, particularly the beach areas, is the focus of much of the state's tourist activities. Statewide, in 2004, it was estimated that the tourism industry generated approximately \$1.2 billion in revenues, and directly supported almost 23,000 full-time jobs. This makes travel and tourism, the 5th largest industry in the state, employing, directly and indirectly, almost 7 percent of the state's workers. (Source: University of Delaware, 2007)

A major project outlined in the First State Trails and Pathways Initiative is the construction of a 16-mile C&D Canal Trail between the Towns of Delaware City, Delaware and Chesapeake City, Maryland. These historic towns attract tourists today. First phases of a shared-use trail will be completed in early 2013 along the Chesapeake & Delaware Canal waterway within the USACE lands. This trail and its regional linkages offer extraordinary potential as a tourism attraction. The trail combined with the blend of charming historic towns, historic Fort Delaware and Fort DuPont State Parks, Lums Pond State Park, the Canal itself as an engineering marvel and rich natural resources south of the Canal are very likely to draw tourists. Tourism visits related to the C&D Canal Trail will benefit local businesses. Area residents are highly likely to utilize the Canal Trail - population within 5 to 20 miles of the Canal is 70,165 and 711,969 respectively.

Another example of the tourism benefits of the First State Trails and Pathways Initiative is a proposed rails-to-trails project along the beach resort area in Sussex County, called the Georgetown-to-Lewes-to-Cape Henlopen State Park Project. Using an historic rail line (Queen Anne Railroad) and stretching from the historic Georgetown Train Station in Georgetown (the county seat) to Cape Henlopen State Park, the proposed Georgetown-Lewes-Cape Henlopen State Park Trail would follow 17.8 miles of an active rail right-of-way currently owned by the State of Delaware. This project would either supplant the existing railroad tracks as a rail-to-trail (RTT) project, run parallel to the tracks as a rail-with-trail (RWT) project or some combination thereof. This project will make a link with the Rehoboth Beach area via the existing Junction & Breakwater Trail and serve as a connection from the resort areas to the rural parts of Sussex County.

iv. Livability:

Amidst competing priorities in tough economic times, park and recreation facilities may sometimes be regarded as a “nice to have,” rather than a necessity. Park and recreation services are an essential component of the fabric of our communities, contributing to quality of life. Both research and public demand underscore their benefits and importance. Economic benefits include the creation of businesses to support bicycling, restaurants near along trails and pathways, and lodging opportunities to support travel from one community to the next (An example is the Georgetown-Lewes – Cape Henlopen State Park rail-to-trail project). Among other statistics:

- Nationally, trail-related expenditures range from less than \$1 per day to more than \$75 per day, depending on mileage covered. Generally, it has been found a trail can bring at least one million dollars annually to a community, depending on how well the town embraces the trail.
- Bicycling is the second most popular outdoor activity in the United States. ([Outdoor Foundation, 2010](#))
- Seventy percent of Americans say that having bike lanes or paths in their community is important to them. (Source: *Bureau of Transportation Statistics, 2010*)
- 47% of Americans say they would like more bike facilities in their communities. (Source: [National Highway Traffic Safety Administration, 2008](#))
- In 2009, biking and walking made up 11.9% of all trips made in this country. This was up from 9.5% in 2001, a 25% increase. (Source: 2009 National Household Travel Survey)
- Majority of Delawareans (93%) consider outdoor recreation important to them personally. (Source: SCORP)
- Trail-related activities are the number one outdoor recreation activity in Delaware. (Source: SCORP)
- Half of all Delaware residents want close to home trail-related opportunities. (Source: SCORP)
- Statewide, more than half of those surveyed (53%) expected a member of their household to go bicycling within the next 12 months with (18%) expected a member of their household to mountain bike. (Source: SCORP)
- If the number of kids who walk and bike to school returned to 1969 levels, it would save 3.2 billion vehicle miles, 1.5 million tons of CO₂ and 89,000 tons of other pollutants annually. This is the equivalent of keeping more than 250,000 cars off the road for a year. ([Pedroso, M., 2008](#))
- Half of U.S. schoolchildren are dropped off at school in the family car. If 20% of those living within two miles of school were to bike or walk instead, it would save 4.3 million miles of driving

per day. Over a year, that saved driving would prevent 356,000 tons of CO₂ and 21,500 tons of other pollutants from being emitted. (*Pedroso, M., 2008*)

a. Economic Justice:

There is also an economic justice benefit resulting from the opportunity for affordable transportation linkage from one community to another for employment, living and recreational purposes. Walking and bicycling provide a lower cost option for individuals. The First State Trails and Pathways Initiative supports projects which connect major centers of employment, such as the City of Wilmington, City of New Castle, and the City of Newark.

b. Health Benefits to Delawareans:

Trails also provide a means for children and families to be physically active and to live a healthy lifestyle. This is critical since childhood obesity is an epidemic nationally and in Delaware. Data from 2008 reveal that 39.7% of children ages two to 17 in DE are overweight or obese. Parks and trails provide children an outlet for engaging in positive activities. In addition,

- Adolescents who bicycle are 48% less likely to be overweight as adults. (Source: [Menschik, D, et al., 2008](#))
- Children who ride a bike two or more times a week are less likely to be overweight. (Source: *Dudas, R., and M. Crocetti, 2008*)
- Overweight adolescents who participate in bicycling 3 to 4 days per week are 85% more likely to become normal-weight adults. (Source: *Menschik, D., et al., 2008*)
- Youth who bike or walk to school have less excess weight and body fat than those who take a bus, car, or motorcycle. (Source: *Silva, K., and A. Lopes, 2008*)
- Young teens who live in neighborhoods where they can safely bike and walk to school and other destinations are significantly less likely to be obese. (Source: *Priedt, R., 2010*)
- Adults who bike to work have better weight, blood pressure, and insulin levels. (Source: [Gordon-Larsen, P., et al., 2009](#))

v. Environmental Sustainability:

The environmental benefits of implementing the First State Trails and Pathways Initiative are obvious: no carbon emissions from walking and bicycling, reduction of vehicles usage and vehicle miles travelled on Delaware road - thereby reducing emission of greenhouse gases and improving air quality. There are very quantifiable impacts in reducing vehicle miles traveled and supporting alternate transportation modes, such as:

- Traffic congestion wastes nearly 3.9 billion gallons of gas per year in the U.S. (Source: [Texas Transportation Institute, 2010](#))
- For every 1 mile pedaled rather than driven, nearly 1 pound of CO₂ (0.88 lbs) is saved. (Source: [US Environmental Protection Agency, 2009](#))

While Delaware's sources for poor air quality are primarily derived from out-of-state facilities, investment in recreational trails and shared pathways provide opportunities to reduce mobile GHG sources and provide credits to the State's Improvement Plan under the Clean Air Act.

Lastly, the First State Trails and Pathways Initiative provides opportunities for visitors and Delawareans to experience the State's natural amenities, such as wildlife, wetlands, forests, streams and rivers without harmful impacts to the environment. (Children in Nature)

vi. Safety

Statewide, 140 bicycle traffic crashes were reported in 2009, whereby 6 riders died. There were ten more bicycle traffic crashes in 2009 than in 2008, but the number of fatalities remained the same at 6. Three of those who died in 2009 were under the age of 14 and one was under 9 years old; one was in the 45-54 age group and the other was in the 65-74 age category. The *2009 Annual Traffic Statistical Report*, published by the Delaware State Police, notes that 87% of the 128 total crashes were personal injury crashes, with the largest number of injuries occurring in the 15-19 age group. Steps are being taken to make it easier and safer to ride bicycles in Delaware. Many roads throughout the state have been marked with bicycle lanes. Bicycle racks and lockers have been installed at some Park & Ride facilities and bike racks have been added on all fixed-route buses. These efforts should make it easier to combine the use of bicycles with transit. Additionally, to better protect all cyclists, DeDOT has installed 11.5 miles of bicycle-friendly rumble strips throughout a 17-mile corridor from just south of Dewey Beach to just north of Fenwick Island in Sussex County. While the Department has installed rumble strips in other locations, these are the first "bicycle friendly" rumble strips in Delaware. Also in Sussex County, DeDOT offers a brochure called "Bicycle Riders...Know the Law Before You Ride." The brochure is published in English, as well as Russian, Spanish and Polish for those cyclists who speak little English.

Vii. Job Creation and Near-Term Economic Activity:

Financial investments provided by the First State Trails and Pathways Initiative will infuse approximately \$17.8 million in local, private, state and federal funding toward design, engineering and construction jobs over the next three years. Construction projects of this type will also provide an opportunity for smaller companies to compete on individual projects. The Delaware Department of Transportation, through its Disadvantaged Business Enterprise program, encourages and supports small minority and women owned businesses to participate in transportation projects. DeDOT and DNREC will make every opportunity available for DBE qualified companies to participate in the construction of these projects.

2. Secondary Selection Criteria

a. Innovation:

The First State Trails and Pathways Initiative is a cooperative program integrating activities of the State's environmental and transportation agencies to produce a statewide investment strategy in multi-modal infrastructure. The agencies signed a memorandum of understanding to share resources and streamline processes, such as environmental permitting and procurement opportunities, while ensuring compliance with federal and state laws and regulations.

The First State Trails and Pathways Initiative also utilizes projects of independent utility linking communities in a broader statewide initiative to fully build a geographically diverse and, ultimately, a connected network. Wrapping all of these projects together gives each project more leverage with obtaining funding and support among the bicycling and pedestrian communities.

Lastly, it provides an opportunity to unify the design and construction approaches to create greater standardization and lower costs through economies of scale.

b. Partnerships:

Delaware is uniquely positioned to achieve completion of the First State Trails and Pathways Initiative due to its overall support from all segments of the community, including multiple state agencies, local government and the Delaware General Assembly. Of particular importance is the support of the Delaware General Assembly in providing appropriations to make the Initiative a reality. The State is also asking local bicycling communities to participate in the selection, design and, ultimately, maintenance of the projects.

6. Project Readiness

a. Project Schedule

Project completion varies depending on the segment being constructed. The projects with the exception of the Cape Henlopen-Lewes-Georgetown project are designed and are undergoing preliminary engineering. The expected completion date for all of the segments proposed under this grant is November 2014. All necessary NEPA requirements will be completed by June 2013 at the latest.

b. Environmental Approvals

Environmental assessments have begun and many will be completed quickly since they are associated with completed projects which have had previous environmental assessments. National Environmental Protection Act requirements will be completed by June 2013 at the latest.

c. Legislative Approvals

The General Assembly has approved these projects as part of the Capital Transportation Plan and provided \$7 million for funding portions of the trails.

d. State and Local Planning

The projects have been approved by the Wilmington Area Planning Council (for New Castle County projects) as part of their Transportation Improvement Plan. The projects in Kent and Sussex County are being reviewed as part of a public outreach process by the DelDOT. The projects are currently being

reviewed by the Kent County/Dover Metropolitan Planning Organization and Sussex County. A letter of support was issued by the Kent County/Dover MPO.

e. Technical Feasibility

DeIDOT and DNREC staff, as well as consulting companies Whitman, Requardt and Associates (WRA) and Johnson, Mirmiran and Thompson (JMT) are providing the planning, preliminary engineering and environmental assessment activities associated with the projects. Construction administration, including bidding, contract administration and construction oversight, will be performed by DeIDOT (for shared pathways) and DNREC (for recreational trails).

f. Financial Feasibility

The matching funds have been appropriated for the project in the Fiscal Year 2012 General Fund appropriation. Additional funding, if necessary, will be programmed as part of the DeIDOT Capital Transportation Plan. Funds will be administered through joint agreement between DeIDOT and DNREC and processed through DeIDOT Division of Finance.

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