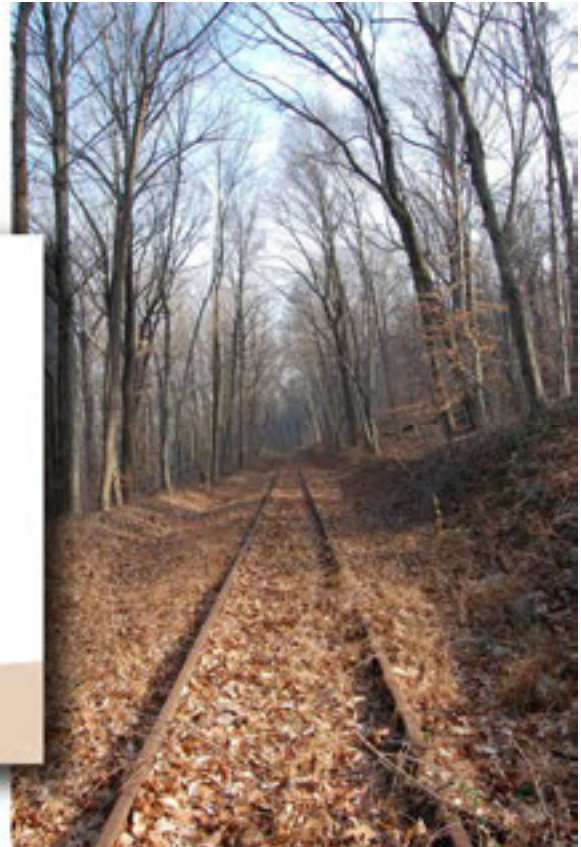


A FEASIBILITY STUDY for the

Devault Trail

in Charlestown and Schuylkill Townships and the Borough of Phoenixville
Chester County, Pennsylvania



Prepared for:

Charlestown Township Board of Supervisors
P.O. Box 507
Devault, PA 19355



Prepared by:

Campbell Thomas & Company
1504 South Street
Philadelphia, PA 19146-1636
215-545-1076 / 215-545-8397 fax
www.campbellthomas.com

Ray Ott & Associates
17 South Church Street
West Chester, PA 19382
610-429-9993 / 610-429-9994 fax
www.rayott.com

October 15, 2015

Feasibility Study for the Devault Trail

Charlestown and Schuylkill Townships and the Borough of Phoenixville

Chester County, Pennsylvania

Table of Contents

Acknowledgements	2
Executive Summary	3
Purpose of the Study	4
Inventory	6
Overview of Alternate Trail Alignments	7
Analysis	10
Detailed Description of Recommended Trail Alignment	11
Connections	19
Trail-heads	20
Implementation and Project Phasing	22
Potential Funding Sources Available	25
Study Methodology	30
Appendix	34
A	Maps and drawings
B	Alternatives Analysis Chart
C	Opinion of Bridge Conditions
D	Opinion of Probable Cost
E	Comments submitted at Public Workshops

October 15, 2015

This study was made possible with funding from



Charlestown Township



Chester County Vision Partnership Program



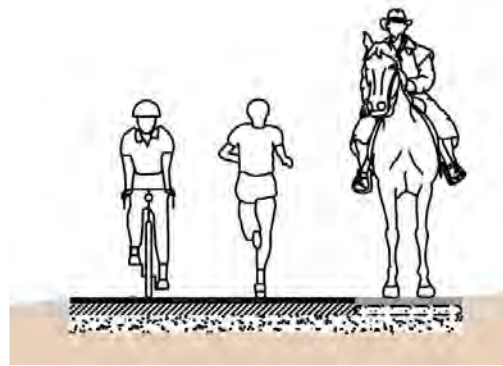
French & Pickering Creeks Conservation Trust



Philadelphia Electric Company.

Executive Summary

In 2007, the federal Surface Transportation Board granted Norfolk Southern Corporation's request to formally discontinue rail service on the 6.6 mile long Phoenixville Industrial Track between Phoenixville and Devault in Chester County. At that time, over two years had elapsed since a train had served the last freight customer on the line. More recently NS has indicated willingness to discuss selling the line, which is also known as the Devault Branch, as it reportedly has no plans to resume freight service.



Proposed Devault Trail

This study analyzed the feasibility of constructing a multi-use trail on the unused Devault Branch rail bed, as well as the feasibility of constructing a multi-use trail on either of two alternative alignments. All three alternates are approximately six miles in length. The north end of all three alignments connects with the Schuylkill River Trail in Phoenixville. The south ends converge and connect with the proposed three mile long Warner Spur, which will in turn connect with the Chester Valley Trail.

In this study, the Devault Trail's potential alignments are summarized as follows:

- Alternate A Bridge Street; multi-use side path along Charlestown Road
- Alternate B Multi-use trail on unused Norfolk Southern Devault Branch
- Alternate C Bridge Street; Starr Street; Main Street; multi-use side path along State Road (Route 29)

The study team assessed each trail alignment for conformance with the goals of Chester County's Landscapes 2 Comprehensive Plan and Charlestown Township's Comprehensive Plan. Each alternative was evaluated and ranked based upon relative cost of trail construction, right-of-way availability, constructability, safety, connectivity to destinations, and the quality of the trail experience.

The proposed trail design accommodates walkers, runners, and bicyclists, with an adjacent parallel path for equestrians where space permits. The trail surface is envisioned as crushed stone comprised of fine limestone screenings. Limestone screenings provide a stable yet not overly hard surface, and are also resistant to erosion by storm water. With Alternate B, the existing stone ballast would serve as a sub-base for the trail. As the Devault Branch was constructed as a single track railroad through hilly terrain with significant earthwork (much of the line is through rock cuts and atop high fills) the trail width is planned to be 11 feet: 8 feet wide shared-use path plus 3 feet wide equestrian track.

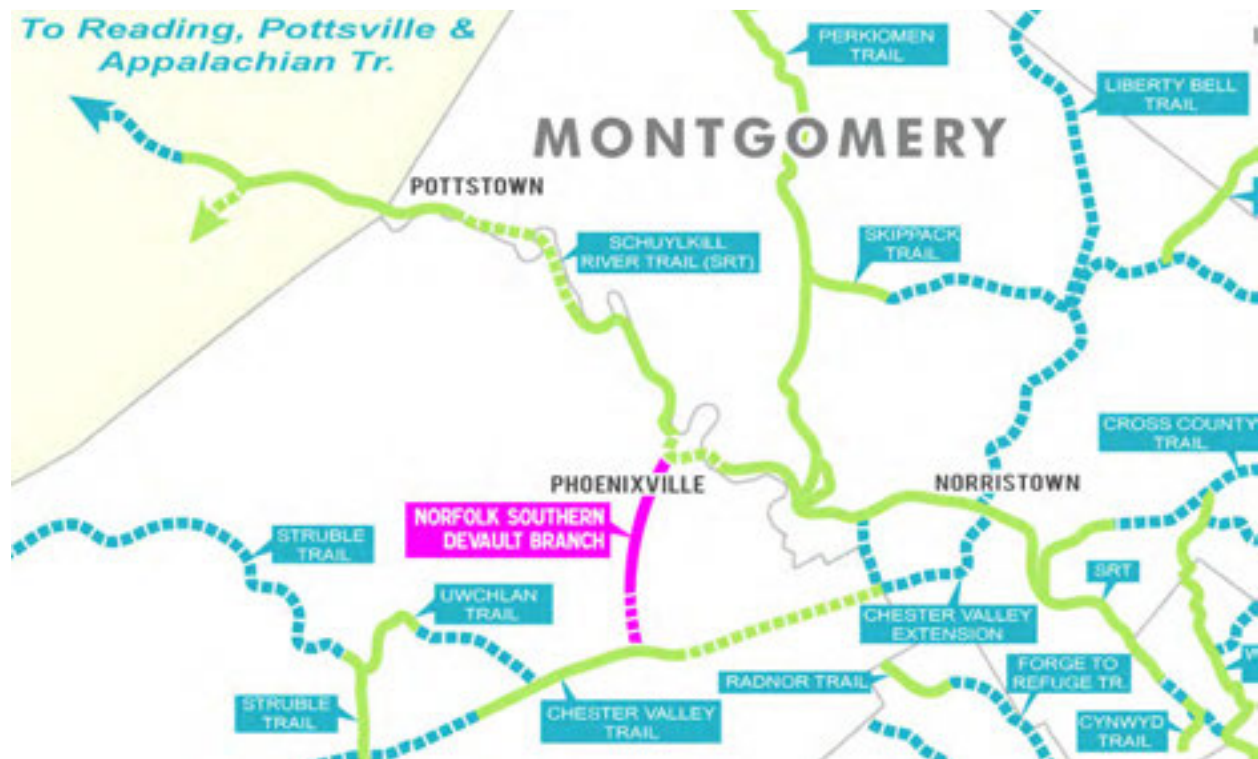
Because the northern mile of the trail corridor is in the Borough of Phoenixville and Schuylkill Township, Alternates A and C utilize existing streets and sidewalks. In Charlestown Township, Alternates A and C would require easements negotiated or rights-of-way purchased from sixty-two and thirty-two separate property owners, respectively, along with other owners in Schuylkill Township. Alternate B utilizes just one property, the railroad, for its entire length. An important criteria that cannot be met by Alternatives A and C is relatively easy grade that give more accessibility to all persons. Alternate A in particular has severe grades which are prohibitive for many people.

Based on the criteria, this study determined that Alternate B is a feasible alignment. For reasons set forth in detail in this report, Alternates A and C were determined to be not readily feasible.

Purpose of the Study

This study determines how best to link Phoenixville and the Great Valley Route 29 corridor in Chester County, with a multi-use trail that connects people and neighborhoods with parks, community services, recreation, schools and the regional trail network known as the Circuit. Foremost among the criteria by which potential trail alignments were assessed, is how well each furthers the goals of Landscapes 2, Chester County's Comprehensive Plan.

A multi-use trail in this corridor would create a connection between two major components of the Circuit, greater Philadelphia's regional trail network. The north end would connect with the Schuylkill River Trail at Phoenixville. The south end would connect with the proposed Warner Spur and with a proposed trail along PA Route 29, either of which would connect to the Chester Valley Trail.



Devault Rail Trail Connecting the Circuit Trail Network (Full Circuit Map can be found in Appendix A)

In addition to creating a connection to the Schuylkill River Trail and the Chester Valley Trail, the Devault Trail has the opportunity to create numerous inter-connections between recreational facilities, parks and trails, community services, and schools. Connections could include the sports complex at Marosek Park, the Phoenixville YMCA, Pickering Preserve, Great Valley Nature Center, the Horse-Shoe Trail, French Creek Trail, Pickering Preserve Trail, Great Valley Middle and High School, Charlestown Elementary School, the Technical College High School and accompanying playing fields, the Phoenixville Area High School on Pothouse Road and much more.

This trail provides an opportunity to create a multi-use trail that will not only support cyclists, runners, and equestrians with a new recreation and travel facility, but also to access to the unique and contrasting environment along the proposed trail corridor. From downtown Phoenixville's shops and restaurants, to urban and suburban residential areas, dramatic viewsheds from the Pickering Creek Trestle over State Route 29, the rural solitude of Pickering Creek, and the developing Devault area, the Devault Trail could provide almost unlimited opportunities to residents and visitors alike.



Dramatic View of Pickering Creek Trestle 50' Above State Route 29 and Pickering Creek (Photo from the Historic American Engineering Record)

There are numerous economic, social, and environmental benefits that have been associated with the development of trails throughout the region. Increased use and demand has been evident for the Chester Valley Trail and Schuylkill River Trail since their opening, both of which would be connected via the Devault Trail. In 2009, Rails to Trails Conservancy found that over 800,000 people used the 98.5 mile Schuylkill River Trail per year; an activity that directly contributes \$7.3 million to the local economies annually. Additionally, according to a recent public opinion study by the Bicycle Coalition of Greater Philadelphia, high levels of support for trails in the region were reported. The telephone survey that was conducted in May, 2015 aimed to gather an understanding of the general population's awareness of the Circuit and their opinions on demand for more trails in the region. Sixty percent of respondents said they would like to have access to a trail, or more trails within 10 minutes of their homes. Overall, 85 percent support building more trails in their counties and 70 percent were in favor of spending \$2 per person in public dollars annually to pay for new miles of trails.

With the success of adjacent regional trail investments and the high levels of support for developing the Circuit trail network, there is a greater demand for trail connections within our communities. Recent population growth in downtown Phoenixville and old and new residential and commercial developments along the proposed trail corridor could benefit from the trail and help to promote healthy, vibrant, and economically viable communities that facilitate and encourage walking and biking.

Within this study, three alignments were investigated in detail: a side path along Charlestown Road, a rail-trail constructed on the inactive Norfolk Southern Devault Branch railroad, and a side path on State Road / PA Route 29. This study refers to these as Alternates A, B and C respectively.

In addition to each trail alignment's conformance with the goals of Chester County's Landscapes 2, the alignments were evaluated and ranked based upon relative cost of trail construction, right-of-way availability, constructability, safety, and the quality of the trail experience. A summary in tabular format is included in this report as Appendix B. Details on the relative cost of trail construction can be found in Appendix D.

Inventory

The six mile long study corridor spans portions of Charlestown and Schuylkill Townships, and the Borough of Phoenixville, through a landscape that varies greatly in its density and development patterns. Land uses range from urban, to industrial, to office parks, to single-family residential subdivisions, to rural countryside. Overlapping networks of railroads, utility corridors, trails, and local and arterial roadways thread their way through the study area. In this study, each of these was inventoried and their potential usefulness as trail corridors analyzed.



Bridge over Buckwalter Farm Lane in countryside of Charlestown Township

The study corridor begins in Phoenixville Borough, near the point where the existing Schuylkill River Trail intersects with the proposed French Creek Trail. It extends six miles south to the community of Devault. Devault is in turn the destination of two proposed multi-use trails intended to connect with the existing Chester Valley Trail. The distance from Devault to the Chester Valley Trail measures between two and three miles, depending on which of the proposed trail alignments are followed. These are described in greater detail in the "Detailed Description of Recommended Trail Alignment" section of this report.

Due to the privately-held status of the vast majority of the property in the study area, potentially available routes for a multi-use trail are limited to existing public roadways and one out-of-service railroad. Utility rights-of-way inventoried by this study are relatively short and do not link together, thus rendering them unsuitable for trail use. Public parkland and open space, and potentially amenable institutional parcels (such as those owned by schools) also lack continuity and therefore cannot serve as an unbroken trail alignment.

During the course of the study, three alignments emerged as potentially feasible: a side path along Charlestown Road, a rail-trail constructed on the inactive Norfolk Southern Devault Branch railroad, and a side path on State Road / PA Route 29. This study refers to these as Alternates A, B and C respectively.

These alternates are drawn to scale on the map included as Appendix A, Sheet 1 and are described in the following chapters.

Overview of Alternate Trail Alignments

All three alternate trail alignments begin in Phoenixville and end in Devault. Please refer to the map provided in Appendix A, Sheet 1.

Alternate A

Beginning at a junction with the Schuylkill River Trail in downtown Phoenixville, Alternate A follows first an existing stretch of trail, then urban streets, and finally a new side path along Charlestown Road to reach Devault.

Alternate A would share the existing trail-head located at Phoenix Foundry, the renovated former steel plant that now houses the Schuylkill River Heritage Center. From there it would co-locate with a quarter mile section of completed French Creek Trail on the south bank of French Creek. The existing macadam multi-use trail ends at the intersection of Bridge Street and Taylor Alley, adjacent to the Phoenixville borough building.



Bridge Street in Phoenixville

The next mile utilizes existing sidewalks and the roadway of Bridge Street (PA Route 1019) in Phoenixville Borough. Because the lack of open space on either side of the road precludes the implementation of a side path, signage and pavement markings would remind motorists and bicyclists to “share the road.” Because Bridge Street is a PennDOT-administered highway, designing on-road facilities for bicycles will require significant coordination with PennDOT District 6.

After its intersection with Deger Road in Phoenixville, there is sufficient space to construct a multi-use side path alongside Bridge Street. However, right-of-way or easements will be required from each fronting property. The name of the highway changes from Bridge Street to Charlestown Road as it enters Schuylkill Township at the intersection with Pothouse Road. The side path would continue along SR 1019 into Charlestown Township at Buckwalter Road. After a mile in Charlestown Township the adjacent land use transitions from suburban to rural countryside. Design of the side path should be sensitive to the context, in this case the affluent and semi-rural landscape for which Charlestown Township is known. For example, where grading requires



Charlestown Road in Charlestown Township

the use of retaining walls, those walls may be faced with material that emulates historic fieldstone construction. Where fencing is required, that fencing may have the look of traditional whitewashed wood post-and-rail. The alignment of the side path should be adjusted closer to or farther from the road so that removal of mature trees, particularly native species, can be avoided. In some cases landscaping elements such as trees, shrubs, fences and walls will need to be carefully relocated. Rather than intrude upon a landscape, when designed with sensitivity, the finished trail will look as if it had always been there.

Two trail bridges will need to be constructed alongside Charlestown Road: one in the village of Charlestown, over Pickering Creek, and another further south over the stream near Hollow Road. Additionally, the terrain along Charlestown Road is steep and hilly between Pickering Dam Road and Phoenixville Pike. Accommodating this trail through such steep terrain would require extensive engineering and trail grading, with possible intrusions into highly environmentally sensitive areas.

Alternate A will enter the crossroads of Devault at the intersection of Charlestown Road / State Road / Phoenixville Pike. From that point Alternate A will follow the same alignment as the final section of Alternate B. This alignment is described in the section entitled *Mile 5.6* found on page 15.

Alternate B

Alternate B begins in Phoenixville at the intersection of North Main Street and Vanderslice Street, utilizing the track-bed of the Devault Branch through Schuylkill and Charlestown Townships to the village of Devault. Near its start point in Phoenixville, Alternate B intersects with the Schuylkill River Trail.

A detailed description of Alternate B can be found beginning on page 11.

Alternate C

Alternate C begins at a junction with the Schuylkill River Trail in downtown Phoenixville. Alternate C makes the connection at the point where the SRT reaches Bridge Street, near the intersection of Bridge and Starr Streets.

A side path is not feasible within the dense urban fabric of Phoenixville, so Alternate C begins as a mile of “share the road” signage and pavement markings. Those on foot would utilize existing sidewalks. The cartway of Starr Street (SR 29) is of sufficient width to incorporate new bike lanes (a potential design is sketched in Appendix A, Sheet 6). South Main Street is narrower; this study recommends signage and sharrow lane markings. As both Starr Street and South Main Street are



Starr Street (State Route 29) in Phoenixville

PennDOT-administered roads, designing on-road facilities for bicycles will require significant coordination with PennDOT District 6.

Beginning near the point where Bridge Street leaves Phoenixville Borough and enters Schuylkill Township, a multi-use side path is recommended alongside South Main Street. This side path continues across the intersection of Pothouse Road, intersecting with an existing multi-use side path. South of Pothouse Road, State Route 29 is referred to as State Road.

As State Road descends into the Pickering Creek valley, the highway follows a serpentine course with significant earthwork on both sides. Constructing a side path here will require significant cuts and fills; an alignment should be developed that minimizes the felling of mature trees (especially native species). As with Alternate A, rights-of-way or easements will need to be secured from each property owner.



State Road along Pickering Creek in Schuylkill Twp

The side path should include a trail connection to the intersection of State Road and Buckwalter Road, at which point both the road and the trail cross from Schuylkill into Charlestown Township.

Connection should be made with the Charlestown Hunt development at the point where its access drive intersects with State Road. A mile further south, a trail connection should also be made with the Great Valley Nature Center.

Alternate C will approach the crossroads of Devault at the intersection of Charlestown Road / State Road / Phoenixville Pike from alongside State Road. From that point Alternate A will follow the same alignment as the final section of Alternate B. This alignment is described in the section entitled *Mile 5.6* found on page 15.

Analysis

Before the proliferation of motor vehicles, low prevailing speeds made it easier and safer for all modes to “share the road.” Today, the road network’s historically narrow cartway widths coupled with high volumes of motor vehicle traffic make sharing the road an unpleasant if not hazardous proposition. There exist a number of relatively low-volume roads in the study area, but these do not link together, separated in many cases by high-volume high-speed roadways unsuitable for non-motorized use.

With the paved roadways appropriated by motor vehicle traffic, one solution is the provision of a parallel multi-use side path. Such a path should be of sufficient width to accommodate all trail users (walkers, bicyclists and equestrians) and should provide at least some modicum of separation from passing trucks and autos. However, construction of such a path needs to overcome significant obstacles. Chief among these is the fact that the default road right-of-way width in the Commonwealth of Pennsylvania is 33 feet total (i.e., one *rod* by archaic colonial unit of measure). That means the property line is 16 feet 6 inches from the center line of the roadway. In those situations where a highway has been improved, the public right-of-way may have been increased to 50 feet (property line 25 feet from the double-yellow paint line). In either case, there is insufficient space to construct a multi-use, separated side path within the available right-of-way. In order to construct a side path, additional rights-of-way or easements would need to be acquired from each fronting property owner, either by negotiation or by condemnation. In many cases another significant constraint is the manner in which each frontage has been developed. Close proximity of buildings, mature trees, landscaping, retaining walls and parking areas often leave little space for a trail even if right-of-way can be acquired.

Another consideration is the amount (volume) of earthwork required to construct a multi-use side path. The study area consists of hilly countryside; in many places the existing roads are either in cut or in fill situations (where adjacent ground is either higher than or lower than the roadway). Significant earthwork (cuts and/or fills) will be required to construct a trail parallel to the road, especially when the proposed trail cross section includes flat shoulders for safety. This earthwork can be costly both from a budget and from a landscape disturbance perspective. Furthermore, at those locations where streams use existing bridges or culverts to flow beneath the roadway, new parallel bridges or culverts will need to be constructed for the trail.

Thorough investigation of both Alternates A and C reveals each of these challenging situations at various points along the alignments. Alternate A will require the cooperation of no less than sixty-two separate property owners; Alternate C will require thirty-two. Once complete, the end result of Alternates A or C would be a multi-use trail safe from (but not beyond earshot of) adjacent motor vehicle traffic.

By way of contrast, utilizing the out-of-service Norfolk Southern railroad (Alternate B) requires the consent of just one property owner (the railroad), requires comparatively little earthwork, and provides a trail well separated from motor vehicle traffic for most of its length. In addition, the countryside traversed by the railroad alignment will provide trail users with a superb outdoors experience. **This study’s analysis determines that Alternate B is a feasible alignment.** Due to the reasons set forth above, Alternates A and C are determined to be not readily feasible.

Detailed Description of Recommended Trail Alignment (Alternate B)

Mile 0

Alternate B begins at the intersection of Main Street and Vanderslice Street in Phoenixville. Beginning from the existing sidewalk on Main Street, a concrete sidewalk would be constructed on the south side of Vanderslice Street, against the existing concrete curb. At a point one hundred feet up Vanderslice Street, the trail would begin at the end of the new sidewalk, with the trail entrance protected by removable bollards or a locking gate to prevent unauthorized motor vehicle access.



Intersection of Main and Vanderslice Streets in Phoenixville

The multi-use trail then follows the railroad grade.

Mile 0.1

After a tenth of a mile, the trail passes the site of Pennsylvania Railroad's 1884 Phoenixville Station. Long since demolished, interpretive signage can show curious trail users what the station looked like and explain its influence on the development of the North Side neighborhood.



circa-1912 view of PRR train station and Gay Street Bridge

Mile 0.4

Rather than utilize the abandoned one thousand foot long steel railroad trestle, the proposed trail alignment leaves the berm of the rail-bed and descends down to a junction with the Schuylkill River Trail. This connection point with the ultimately 130-mile SRT warrants directional signage, certainly a map, and possibly a kiosk including a listing of local services such as eateries and bike shops.

Mile 0.6

Continuing from the trail junction, the recommended trail alignment would utilize the abandoned Paradise Street Bridge over French Creek. A new bridge deck will be required; this study's preliminary field assessment determined that the condition of the bridge's supporting steelwork appears satisfactory for a trail crossing. Because there are no nearby parallel roads, the new deck should be designed with sufficient width and strength to accommodate a patrol car or ambulance.

It should be noted that the abandoned and partially dismantled Paradise Street Bridge, despite being fenced off, sees considerable unauthorized use by pedestrians and those on bicycles. Because this bridge is the only way to cross French Creek between Route 23 and Main Street -- a distance of almost two miles -- people climb across it on a regular basis, despite the inherent risk. Repairing this bridge and incorporating it into the trail would serve prospective trail users while greatly enhancing the safety of those local residents already using it.



Paradise Street Bridge over French Creek is already used on an informal basis

Once across French Creek, the trail would continue on the vacant right-of-way that was Paradise Street. After 400 feet, the paved portion of Paradise Street begins; traffic volume is light because the only traffic generator here is Cedar Hollow Recycling. At the intersection of the recycling center driveway and the existing street, this study recommends that a trail-head be provided. Parking spaces and ideally restrooms with drinking water (in season) could be sited on unused “brownfield” land here. Due to the close proximity of the Schuylkill River Trail, a trailhead here could serve both trails.

Near the intersection of Paradise Street and Wheatland Street the trail would climb back up to, and then follow, the rail-bed.

Mile 0.9

The trail would cross Nutt Road (PA Routes 23 / 113) on an unused steel railroad bridge. The new trail may be placed directly on the existing railroad ballast. The existing height of the plate girders that bracket the rail-bed are not suitable for equestrian use; therefore new railings will be required to extend the plate girders to the standard 60 inch required height. This study’s preliminary assessment is that the bridge structure and supports are in excellent condition. The installation of fencing to prevent trail users falling down the steep abutments is recommended here; an appropriate style of fencing should be specified that will blend harmoniously with the surrounding landscape.



Railroad Bridge over Nutt Road in Phoenixville

Mile 1.1

The railroad crosses Montgomery Avenue at an existing grade crossing which would serve as a neighborhood trail access point. This is a borough-owned street, but traffic volume is relatively high at times because it serves as a short-cut for motor vehicle traffic. Warning signs in advance of and immediately adjacent to a thermoplastic continental crosswalk would alert motorists to trail users crossing the street.



Railroad grade crossing of Montgomery Avenue

Mile 1.6

The trail alignment leaves Phoenixville Borough and enters Schuylkill Township at the intersection of Pothouse Road and Bridge Street.

Mile 1.7

The railroad traverses a dual grade crossing of first Pothouse Road (State Route 1036) and then Bridge Street / Charlestown Road (S.R. 1019), making a “six point” intersection. Rather than follow the tracks’ diagonal trajectory, this study recommends diverting the trail so that it first crosses Pothouse Road at the signalized intersection, and then Charlestown Road at the same intersection. This study recommends that this intersection’s traffic signals be upgraded with the addition of pushbutton-actuated pedestrian signal heads. Please refer to Appendix A, Sheet 8.



Railroad grade crossing of Pothouse Road at intersection with Bridge Street / Charlestown Road

Mile 1.9

The railroad right-of-way abuts the campus of Technical College High School, Pickering Campus. TCHS is a four-year public high school / career and technical education center and shares its classrooms with the Delaware County Community College - Phoenixville Campus. A trail connection would offer students and instructors a non-motorized commuting option (e.g., other than driving an automobile or riding



Railroad abuts the campus of Technical College High School,

a school bus). This would further Chester County Landscapes 2's goal of reducing school busing.

Mile 2.3

The railroad / trail alignment leaves Schuylkill Township and enters Charlestown Township at the grade crossing of Buckwalter Road. This is a municipal road (responsibility for which is shared by both Schuylkill and Charlestown Townships). This study recommends that warning signs be installed along Buckwalter Road in advance of and immediately adjacent to a thermoplastic continental crosswalk.



Buckwalter Road grade crossing

Mile 2.6

Parallel to Buckwalter Road, the railroad is carried over a private driveway (Buckwalter Farm Lane) by a 125 foot long steel bridge. Because it is of open deck design, if the trail were to utilize this bridge a new wood or concrete deck and railings will be required. This study's preliminary view of the bridge deemed it to be in good condition. Fencing along the trail as it approaches the bridge will help prevent trail users falling down the steep abutments. An appropriate style of fencing should be specified that will blend harmoniously with the surrounding landscape and the character of this historic bridge.



Railroad Bridge over Buckwalter Farm Lane

As part of the trail analysis process, the study team met with an adjacent land owner who utilizes Buckwalter Farm Lane to access his home. The landowner expressed a preferred alternative trail alignment that would not utilize the bridge. The trail alternative would leave the rail grade for a short distance, instead crossing Buckwalter Farm Lane at-grade. To keep the trail from being too steep, the alignment would gradually slab down along the north (east) side of the earthwork fill, and gradually slab back up again, re-joining the railroad grade. The railroad right-of-way flares to a total width of 110 feet at this location, so no additional right-of-way should be necessary. The use of a short section of retaining wall would allow the trail to cross a tributary of Pickering Creek on an existing culvert, rather than necessitating a new bridge over the stream (thus avoiding both the cost and the permitting requirements that a new bridge would entail). Additionally, if this alternative approach was selected, the landowner expressed the possibility of allowing a trail easement through a portion of his property along his driveway, allowing for a direct trail connection to Buckwalter Road.

Mile 2.7

For a distance of over a quarter mile, the railroad right-of-way shares a boundary with land owned by the Charlestown Hunt Community Association. Charlestown Hunt is a high-density residential development already connected to the abandoned railroad by a rogue footpath. If it's decided that it's in the best interests of Charlestown Hunt residents, the homeowner's association should work with the trail's developer to formalize the connection. This could be implemented as part of the trail construction, or provision could be made so that the link could be readily installed at some later time.



Potential connections can be made between Charlestown Hunt and the Devault Trail if desired

Mile 3.0

The proposed trail's most dramatic feature is a 600 foot long, 50 foot high curved trestle over Pickering Creek and State Road (S.R. 29). Because the bridge's railroad ties are in good condition, this study's preliminary field assessment determined that they are able to support a wood or concrete deck and railings. Because this section of trail is relatively inaccessible by road, the new deck should be designed with sufficient strength and width to accommodate a patrol car or ambulance. A preferred reinforced concrete surface would provide an ideal long-lasting deck that requires less maintenance than a wood surface. A measured drawing depicting how the trail deck and railings may be built has been included as Appendix A, Sheet 3. The installation of fencing to prevent trail users falling down the steep abutments is recommended here; an appropriate style of fencing should be specified that will fit harmoniously with the surrounding countryside and the character of this historic structure.



Curved railroad trestle over Pickering Creek and State Road

Mile 3.6

South of the Pickering Creek trestle, the railroad traverses mature woodlands high above the east bank of Pickering Creek. Half a mile south of the trestle, trail users can see the remnants of an abandoned rail spur curving down into the valley. This spur that once served a large ice harvesting operation along Pickering Creek has the potential to act as a trail access point from State Route 29, as well as a connector trail to the nearby Pickering Trail. In the era before refrigeration, ice was cut from reservoirs in winter, sawn into heavy 14" cubes, stored in insulated buildings, and sold during warmer months. In the mid-19th century, New York-based American Ice Company and the Knickerbocker Ice Company built dams and constructed ice houses and dormitories.

Hundreds of local men and boys were employed seasonally. The advent of modern refrigeration in the early-20th century did away with this rural industry. The installation of interpretive signage at this location is an opportunity to inform curious trail users of the valley's unique history.

Perched halfway up the steep east side of the valley, the trail continues south through mature woodlands. This stretch of abandoned railroad grade offers trail users a superb outdoors experience.

Mile 4.3

The railroad crosses Union Hill Road on a 30 foot high berm, the road passing beneath by way of an 18 foot wide stone and brick tunnel. This study's preliminary assessment determined the tunnel to be in excellent condition. The installation of fencing to prevent trail users falling down the steep abutments is recommended here; an appropriate style of fencing should be specified that will fit harmoniously with the surrounding countryside.



Excerpt from American Ice Company stock certificate



Railroad spur has potential to act as a connector to Route 29



Railroad crossing Union Hill Road

Mile 4.5

Here the railroad runs directly alongside Aldham Road (a low-volume township road) for a distance of 250 feet, enabling easy trail access for pedestrians and cyclists. The 148 mile long Horse-Shoe Trail also crosses the railroad at this location. A short distance down Aldham Road at the intersection of State Route 29, the Great Valley Nature Center is also accessible. Because walking or biking between the trail and the nature center requires crossing State Road (PA Route 29; average daily traffic volume 9900), a thermoplastic continental crosswalk with warning signage should be provided at the intersection of State Road and Aldham Road. Warning signage should also be provided well in advance of the crossing, particularly for northbound traffic. This crosswalk and warning signage would also serve users of the Horse-Shoe Trail, the Great Valley Nature Center, and the Devault Rail Trail.



Aldham Road in the village of Aldham

Mile 5.3

Independence Construction Materials quarries and processes a large volume of stone from the Devault Quarry. All truck access into and out of the quarry is by an at-grade private crossing of the railroad. As part of repurposing the railroad as a trail, this study recommends the installation of a thermoplastic continental crosswalk, and signage warning both trail users and truck drivers of one another's presence.



Crosswalk and warning signage at Devault Quarry

Mile 5.6

The railroad originally crossed Charlestown Road on a grade crossing adjacent to the intersection of Charlestown Road and State Road (PA Route 29). In recent years this railroad crossing has been removed and Charlestown Road widened from two lanes to seven. Ideally this study recommends the installation of a signalized pedestrian crossing with pushbutton-actuated pedestrian signal heads to cross Charlestown Road at the location of the previously removed railroad crossing. In the case that



Charlestown Road looking south from its intersection with State Road / Phoenixville Pike

pedestrian/traffic signalization timing does not allow for a direct trail crossing at State Road and Charlestown Road, an alternative option supports the trail diverging from the railroad for a short distance, and crossing Charlestown Road at a nearby intersection with Whitehorse Road instead. At the intersection with Whitehorse Road, adequate space exists between northbound and southbound lanes to construct a concrete “refuge” island. That way the traffic signalization can be designed so that trail users are not required to cross all lanes of traffic at once. Similar to the crossing at Charlestown Road and State Road, a pedestrian phase would be actuated by push-button. Upon crossing Charlestown Road to the southern side, a recently developed stormwater retention basin creates an obstruction that could be bypassed using a section of raised boardwalk before re-connecting with the railroad. To view a general sketch of these two crossing alternative concepts, please refer to Appendix A, Sheet 7.

Mile 5.7

The railroad crosses Warner Lane at an at-grade crossing, adjacent to the intersection of Warner Lane and Phoenixville Pike. Warner Lane is a quarter mile long township road (in Charlestown Township) connecting Phoenixville Pike and Morehall Road on the south side of the Pennsylvania Turnpike, and is therefore host to significant traffic volume. The adjacent intersection does include painted crosswalks and a concrete island, but no signal heads for pedestrians. Inclusion of push button-actuated pedestrian signal heads could provide a safe way for trail users to cross.



Grade Crossing at Warner Lane

Once across Warner Lane, the trail diverges in two directions as described in the following section.

Connections

Devault and south

From the intersection of the railroad right-of-way and Warner Lane in Devault, the proposed trail would branch and continue in two directions, each branch making an important connection.

- 1) This study recommends a two mile long side path continuing south-west along Phoenixville Pike, serving the Great Valley Middle School / High School complex. This extension would enable the Devault Trail to help achieve Chester County Landscapes 2's goal of enhancing non-motorized access to schools:



Great Valley Middle School / High School

Chester County will provide tools and technical assistance to school districts and municipalities to coordinate school and community development planning, to reduce busing, facilitate alternative means of student travel to school, and increase after school use of school facilities (CS-1b).¹

- 2) A quarter mile long side path south-east along Warner Lane and Morehall Road is also recommended as a connection from the Devault Trail to Atwater Corporate Center. Signalized pedestrian crosswalks with pushbutton-actuated pedestrian signal heads would carry the trail first across Atwater Drive / General Warren Blvd. at the signalized intersection, and then Morehall Road at the same intersection. This would connect the Devault Trail with an existing multi-use trail in the Atwater Corporate Center as well as with a proposed multi-use trail south along Morehall Road / PA Route 29². The Atwater Corporate Center trail, a three-quarter mile long asphalt multi-use side path on the south side of Atwater Drive, will connect with the proposed Warner Spur trail at Church Road in Cedar Hollow. Tredyffrin Township owns the two mile long abandoned railroad that is slated to become the Warner Spur, according to the Tredyffrin Township Parks Recreation and Open Space Plan. The Warner Spur will connect with the Chester Valley Trail at mile marker 5, just east of Cedar Hollow Road.



Sidepath along Warner Lane and Morehall Road will connect to Atwater Corporate Center and the future Warner Spur

¹ Chester County Landscapes 2, Chapter 12: Planning for Community Services, Action Plan item CS-1b

² Great Valley / Route 29 Multi-modal Study, Transportation Management Association of Chester County, 2014

Phoenixville and north

From the trail's endpoint at Main Street in Phoenixville (Mile 0), a half mile extension of the trail north along the out-of-service Norfolk Southern rail line would reach Mont Clare in Upper Providence Township, Montgomery County. This extension would include the placement of a multi-use trail on the 1100 foot long, high concrete bridge over the Schuylkill River. By utilizing an unused public right-of-way (paper street), the trail would reach the intersection of 3rd Avenue and Sowers Street in Mont Clare. Currently significant effort is being taken to improve the Route 29 Bridge over the Schuylkill River for the Schuylkill River Trail, and is thus the first priority for a river crossing at this time.



**Norfolk Southern Railroad Bridge over Schuylkill River (top);
Bridge Street / State Route 29 bridge (bottom)**

Trail-heads

This report identifies five potential trail-head locations. These are designated by green stars on Map 1 in Appendix A.

Existing: The Schuylkill River Heritage Center at Phoenixville, located at 2 North Main Street in downtown Phoenixville, already serves as a trail-head for the Schuylkill River Trail. While not directly on the proposed Devault Trail, this re-purposed historic Phoenix Steel Foundry is located one-half mile from the Devault Trail's proposed junction with the Schuylkill River Trail by way of the Schuylkill River Trail.



Schuylkill River Heritage Center at Phoenixville

Mile 0.7: Paradise Street is a quarter mile long public street in Phoenixville, beginning at Nutt Road and running north-east towards French Creek. At one time Paradise Street crossed French Creek on a steel bridge; today Paradise Street terminates at a point 800 feet north-east of its intersection with Wheatland Street. This study recommends that the unused Paradise Street Bridge over French Creek serve as a trail bridge, and that



A connection can be made to the Schuylkill River Trail (shown above) using a steel bridge over French Creek

a new trail-head be constructed on a vacant “brownfield” site at the current end of Paradise Street. This new trail-head would also serve nearby Schuylkill River Trail. This second trail-head within the borough is advantageous because Paradise Street can be accessed without negotiating the often heavy traffic congestion of downtown Phoenixville.

Mile 1.5: Marosek Park is a ball field complex accessed by a driveway from Jefferson Street, one block from West Bridge Street in Phoenixville. Currently owned by PECO, it is anticipated that the borough will purchase the property thus formalizing the public access. Marosek Park includes extensive parking areas and borders directly on the railroad / proposed trail.



Marosek Park in Phoenixville borough

Mile 2.2: Schuylkill Township is currently considering the purchase of several properties that abut the railroad, between Pothouse Road and Buckwalter Road. Any one of these could potentially serve as a site for a trail-head. Trail connections should be made linking nearby existing multi-use trails and sidewalks.

Mile 5.5: Charlestown Township-owned open space along PA Route 29, one-tenth of a mile north of the intersection of SR 29 and Charlestown Road, is a suitable location for a trail-head. The location is one-half mile from the southern end of the railroad. This property abuts the railroad directly and is located along a proposed connector road that will link SR 29 and Whitehorse Road.

Mile 5.7: Charlestown Township-owned open space is being considered for a parking area on a portion of land beneath the PA Turnpike. This trail-head would be located on the Western side of Phoenixville Pike and accessible via an existing pushbutton-actuated pedestrian crosswalk at the intersection of SR 29 and Charlestown Road.

Implementation and Project Phasing

RAILROAD ACQUISITION:

Rail service on the Devault Branch Rail Line has been discontinued by Norfolk Southern Railroad Company, the single land owner of the alignment between Phoenixville and Devault in Chester County. It is recommended that this 6.6 mile long section of rail be pursued as a single procurement for the Devault Rail Trail. Norfolk Southern has no intent to restore rail service and have expressed a possible interest in selling this section of rail line. This should be the primary focus of Chester County and municipal entities along the alignment.

Being that the Devault Branch Rail Line crosses the municipal boundaries of multiple municipalities that include Phoenixville, Schuylkill Township and Charlestown Township, it is recommended that Chester County be the responsible party in charge of acquisition of the right-of-way. Acquiring railroad right-of-way must be accomplished before trail design and construction can begin.

ACQUISITION COST AND NEGOTIATION:

Railroads make little of their income from real estate sales and selling a corridor for trail development may not be their highest priority. However, speaking with the right representative and presenting corridor research that has been conducted will help bring the proposal to the table. The railroad acquisition negotiation should focus on a preliminary agreement for gaining site control, setting a purchase price and establishing an acquisition process and timeline. As each Rail-to-Trail is unique in location, length, condition, etc., it is often difficult to determine an appropriate purchase price. The Rails-to-Trails provides a helpful **“Acquiring Rail Corridors: A How to Manual”** as a detailed guide through this process and offers tips on negotiation with the railroad.

PHASING:

In developing a phasing plan for the implementation of the proposed Devault Rail Trail and the associated trail connections outlined in this document, the project team took into account a number of factors:

- The ability of each segment of construction to “stand on its own,” i.e., that each phase will receive significant use, even if other segments of trail remain to be constructed.
- New sections of trail that serve, where possible, as extensions of existing sections of trail.
- Funding and resources available.
- Alignment with County/Township planning efforts.
- Connections to services and resources.
- Public or institutional ownership of land.
- Feasibility of acquiring easements or rights-of-way.
- Feasibility and expense of construction.
- Planned construction projects that may affect the trail.

It should be stressed that the placement of projects in later phases does not mean that no action should be taken toward their implementation until all other phases are complete. Rather, assigning a project to a later phase is a recognition that these facilities may require more time and effort to complete and will likely be among the last segments completed. Nonetheless, opportunities relating to these projects should be pursued whenever they present themselves.

PROJECT PHASES:

Recognizing the large cost of development, we recommended the Trails design and construction be broken up into four phases. Please refer to the phasing maps provided in Appendix A, Sheets 10-13.

PHASE 1: Multi-Use Trail from the Schuylkill River Trail to Buckwalter Road (1.8 Miles)

After acquiring the right of way for the Devault Branch Rail Line, Phase 1 will include a multiuse trail connection from the Schuylkill River Trail at the proposed trailhead at French Creek and Paradise Street to the proposed Buckwalter Road trailhead just south of the Technical College High School, Pickering Campus. The trail will ideally include an 8 feet wide shared-use path plus 3 feet wide equestrian track. This section of multi-use trail stands on its own, being a major connection to the Schuylkill River Trail and the Circuit network. Phase 1 will also complete a connection between urban communes in Phoenixville and Schuylkill Township, as well as links to Marosek Park and numerous other businesses and services within Phoenixville.



Phase 1 Trail Improvements (Full Phasing Map can be found in Appendix A)

PHASE 2: Temporary Footpath/Hiking Trail from Buckwalter Road to Atwater Corporate Center Trail (3.7 Miles)

Phase 2 will include a temporary footpath connection that will be accessible for mountain biking, running, and hiking, but will not allow for a multi-use trail at this time. Phase 2 will extend Phase 1 South along the Devault Railroad corridor and will include an-at grade crossing at Buckwalter Farm Road, as well as deck, railing, and safety fencing improvements to the Pickering Creek Trestle Bridge and Union Hill Road bridge. Three at-grade pedestrian crossings will carry the trail across the Devault Quarry Route 29 and Warner Lane at Phoenixville Pike in Devault, before diverging from the railroad corridor to head East along Warner Lane and Morehall Road. Two additional at-grade pedestrian crossings of Atwater Drive and Morehall Road will connect this footpath to the existing Atwater Corporate Center Trail. Ultimately the trail will continue south from the Atwater Corporate Center to the Chester Valley Trail at mile marker 5 via the Warner Spur Trail which has been proposed in Tredyffrin Township.

This multi-use trail connection will not only provide a link between two existing segments of trail, but will bring access to the businesses and industries located along Warner Lane, Morehall Road and Atwater Drive. A footpath connection through this section will allow costs to be kept to a minimum, while still allowing for a trail link to Charlestown Township and Devault within phase 2. Phase 2 improvements will also create off-road connections to Great Valley Nature Center, Charlestown Elementary School, the Horse-Shoe Trail and Pickering Preserve.

PHASE 3: Schuylkill River Trail to Main Street in Phoenixville (0.6 Miles)

Phase 3 includes an extension of the northernmost section of multi-use trail to connect from the Schuylkill River Trail at French Creek and Paradise Street to Main Street and Vanderslice Street. This 0.4 mile extension will directly link to the residential communities in northern Phoenixville.

PHASE 4: Upgraded Multi-Use Trail from Buckwalter Road to Atwater Corporate Center Trail (3.7 Miles)

Phase 4 will complete the Devault Rail Trail by upgrading the temporary footpath/hiking trail described in Phase 2 to a multi-use trail. This will include improving the trail surface and incorporating an 8 foot wide shared-use path plus a 3 foot wide equestrian track from Buckwalter Road to Atwater Corporate Center Trail in Devault. Completion of this section of trail will enable access for all cycling, equestrian, and pedestrian traffic.

FUTURE EXTENSIONS:

Northern Connection from Phoenixville to Mont Clare (0.5 Miles)

As described in the “Connections” section of this report, there is an opportunity to connect from the Devault Trail’s northern endpoint at Main Street and Vanderslice Street in Phoenixville, ½ mile north along an additional portion of out-of-service rail line to reach Mont Clare in Montgomery County on the north-eastern side of the Schuylkill River. Although the Schuylkill River Trail already provides a connection across the Schuylkill River at Bridge Street/State Route 29 Bridge, the Norfolk Southern 1100 foot long concrete railroad bridge could accommodate a multi-use trail to connect to 3rd Avenue and Sowers Street in Mont-Clare. This would become a point of interest as will the soon-to-be opened trail across the former Philadelphia Railroad Bridge over the Schuylkill River in Manayunk.

South-West Connection to Great Valley Middle School / High School (2.0 Miles)

Another recommended trail extension described in the “Connections” section of this report would include a side path that continues from the Devault Trail at Warner Lane in Devault to the Great Valley Middle School / High School complex two miles south-west along Phoenixville Pike. This extension requires additional investigation for the acquisition of right-of-way, but would enable a trail connection that services schools and residents along Phoenixville Pike. This improvement would also align with goals of the Landscapes 2 Plan in Chester County.

Potential Funding Sources Available

A number of opportunities exist for funding at the Federal, State and Local levels as well as within private funding opportunities. This document outlines a number funding sources that may be available to help in the design and construction stages of the proposed Devault Rail Trail and the associated trail connections outlined that have been outlined.

STATE AND FEDERAL FUNDING

Regional Trails Program (RTP) Grant

Building the Circuit regional trails network, DVRPC's Regional Trails Program will benefit from a new \$7 million grant from the William Penn Foundation. \$1.3 million of these funds have recently been approved for 10 trail segments for bicyclists and hikers in the region. The remaining \$5 million will be available in 2019 and 2020 and are to be used for targeted investment in the planning, design, and construction of multi-use trails in Greater Philadelphia.

In earlier phases of the Regional Trails Program, also administered by the Delaware Valley Regional Planning Commission with funding from the William Penn Foundation, over \$9 million were awarded for 42 trail planning, design, and construction projects across Greater Philadelphia. DVRPC also provides technical assistance to trail developers, counties, municipalities and nonprofit organizations.

Additional Information: <http://www.dvrpc.org/RegionalTrailsProgram/>

DVRPC's Transportation Alternatives Program (TAP) Grant

Transportation Alternatives Program (TAP) are Federal highway and transit funds set-aside under the Surface Transportation Program (STP) for community-based "non-traditional" projects designed to strengthen the cultural, aesthetic, and environmental aspects of the nation's intermodal transportation system. The Transportation Enhancements (TE) funding category, which has historically funded many pedestrian and bicycle supportive projects such as streetscape improvements, was originally established by Congress in 1991 under the Intermodal Surface-Transportation Efficiency Act (IS-TEA) transportation authorization legislation. The TE Program has concluded, these project categories now fall under TAP via the Moving Ahead for Progress in the 21st Century Act (MAP-21).

Transportation Alternative Programs include construction, planning, and design of on-road and off-road trail facilities for pedestrians, bicyclists, and other non-motorized forms of transportation, community improvement activities, and environmental mitigation activities

TAP funds may also be used for the Recreational Trails Program; Safe Routes to School; and planning, designing, or constructing roadways largely in the right of way of former Interstate routes.

Additional Information: <http://www.dvrpc.org/TAP/>

DCNR's Community Conservation Partnership Program (C2P2) Grant

Administered by the Pennsylvania Department of Conservation and Natural Resources (DCNR) - Bureau of Recreation and Conservation the C2P2 program has been authorized to foster and facilitate conservation and recreation-focused projects and programs in the state

C2P2 grants are awarded to municipalities and authorized nonprofit organizations for recreation, park and conservation projects. These include the rehabilitation and new development of parks and recreation facilities (development projects); acquisition of land for active or passive park and conservation purposes (acquisition projects); and planning for feasibility studies, trails studies, conservation plans, site development planning, and comprehensive recreation, greenway and open space planning .

Most projects require a 50% match. The next round of C2P2 Grants will likely have an application deadline in April of 2016.

Additional Information: <http://www.dcnr.state.pa.us/brc/grants/index.aspx>

DVRPC Transportation and Community Development Initiative (TCDI) Grant

The Transportation and Community Development Initiative (TCDI) is an opportunity for the Delaware Valley Regional Planning Commission (DVRPC) to support growth in the individual municipalities of the Delaware Valley through initiatives that implement the region's long-range plan, Connections 2040 Plan for Greater Philadelphia. Central to this effort is to ensure greater quality of life choices by providing and maintaining essential infrastructure, supporting local and regional economic development, and linking land use and transportation planning, through:

- Supporting local planning projects that will lead to more residential, employment or commercial opportunities in areas designated for growth or redevelopment;
- Improving the overall character and quality of life within the region to retain and attract business and residents;
- Enhancing and utilizing the existing transportation infrastructure capacity to reduce demands on the region's transportation network;
- Reducing congestion and improving the transportation system's efficiency by promoting the use of transit, bike, and pedestrian transportation modes;
- Building capacity in our older suburbs and neighborhoods;
- Reinforcing and implementing improvements in designated Centers; and;
- Protecting our environment through growth management and land preservation.

Additional Information: <http://www.dvrpc.org/TCDI/>

PaDCED Multimodal Fund – Act 89

The Multimodal Transportation Fund provides grants to encourage economic development and ensure that a safe and reliable system of transportation is available to Municipalities, Councils of Governments,

Businesses, Economic Development Organizations, Public Transportation Agencies, and Ports-Rail/Freight.

Funds may be used for the development, rehabilitation and enhancement of transportation assets to existing communities, streetscape, lighting, sidewalk enhancement, pedestrian safety, connectivity of transportation assets and transit-oriented development. Grants are available for projects with a total cost of \$100,000 or more, but shall not exceed \$3,000,000 for any project.

The 2015 application deadline for the program was set as July 31, 2015 for consideration at the Nov. 2015 CFA board meeting.

Additional Information: <http://www.newpa.com/find-and-apply-for-funding/funding-and-program-finder/multimodal-transportation-fund>

DCED's Greenways, Trails and Recreation Program (GTRP) Grant

Act 13 of 2012 establishes the Marcellus Legacy Fund and allocates funds to the Commonwealth Financing Authority for planning, acquisition, development, rehabilitation and repair of greenways, recreational trails, open space, parks and beautification projects using the Greenways, Trails and Recreation Program (GTRP).

Municipalities, Councils of Governments, Authorized Organizations, Institutions of Higher Education, Watershed Organizations, and For-Profit Businesses with projects which involve development, rehabilitation and improvements to public parks, recreation areas, greenways, trails and river conservation may apply for grants up to \$250,000 for any project. A 15% local match of the total project cost is required.

The latest application deadline for the program was June 30, 2015.

Additional Information: <http://www.newpa.com/find-and-apply-for-funding/funding-and-program-finder/greenways-trails-and-recreation-program-gtrp>

FOUNDATION GRANTS AND OTHER PRIVATE FUNDING

Numerous large community, family, and corporate foundations make grants to greenway and trail groups. Copies of directories of foundations can be found in local libraries. The directories provide information on each foundation's grantmaking history and philosophy. One of the most well-known directories is Environmental Grantmaking Foundations, published annually by Resources for Global Sustainability, Inc., which maintains a database of over 47,000 grant programs that can be searched by keywords to determine the foundations serving a particular area and type of project. Foundations can also be located by searching the internet. Other resources for grant information include economic development agencies and trust officers at local banks, who manage small family foundations and charitable trusts.

PECO Green Region Grant

The PECO Green Region Grant Program administered by the Natural Lands Trust awards grants to township, borough, city, or regional recreational authorities within PECO's service territory in Bucks, Chester, Delaware, Montgomery, or York counties. Additionally, nonprofit neighborhood organizations are eligible within the City of Philadelphia. Recognizing that open space in our communities is a crucial element of the quality of our lives, the PECO program awards grants for southeastern Pennsylvania municipal efforts to preserve, protect, and improve open space.

Municipalities can use PECO Green Region grants in combination with other funding sources to cover a wide variety of planning and direct expenses associated with developing and implementing their open space programs.

The latest application deadline for the program was March 27, 2015.

Additional Information: <http://www.natlands.org/services/for-municipalities/peco-green-region-program/>

Kodak America Greenways Grant

The Kodak American Greenways Awards Program, a partnership project of the Eastman Kodak Company, the Conservation Fund and the National Geographic Society, provides small grants of \$500 to \$2,500 to groups and individuals planning and designing greenways throughout the United States. Grants can be used to cover planning, technical assistance, legal or other costs associated with greenway projects. Grants may not be used for academic research, general institutional support, lobbying, or political activities.

The deadline for submitting applications is June 1 of each calendar year.

Additional Information: <http://www.conservationfund.org>

PeopleForBikes Community Grant Program

The PeopleForBikes Community Grant Program provides funding to non-profit organizations with a focus on bicycling, active transportation, or community development, from city or county agencies or departments, and from state or federal agencies working locally. These projects include bike paths and rail trails, as well as mountain bike trails, bike parks, BMX facilities, and large-scale bicycle initiatives.

Both spring and fall deadlines are available to applicants.

Additional Information: <http://www.peopleforbikes.org/pages/grant-guidelines>

Lowe's Charitable and Educational Foundation (LCEF)

Founded in 1957, the Lowe's Charitable and Educational Foundation (LCEF) has a long and proud history of contributing to grassroots community projects. LCEF awards more than \$3 million annually to diverse organizations and schools across the United States where Lowe's operates stores and distribution

centers. The Foundation's primary philanthropic focus areas include K-12 public schools and non-profit community-based organizations.

Additionally, Lowe's is a proud supporter of Habitat for Humanity International, American Red Cross, United Way of America, and the Home Safety Council, and numerous other non-profit organizations and programs that help communities across the country. Lowe's also encourages volunteerism through the Lowe's Heroes program, a company-wide employee volunteer initiative.

Additional Information: <http://www.Lowes.com/community>

Pew Charitable Trusts

The Pew Charitable Trusts, based in Philadelphia, are a national philanthropy established 48 years ago. Through their grant making, the Trusts seek to encourage individual development and personal achievement, cross-disciplinary problem solving and innovative, practical approaches to meeting the changing needs of a global community. Each year, the Trusts make grants of about \$180 million to between 400 and 500 nonprofit organizations in six areas: culture, education, environment, health and human services, public policy, and religion. In addition, the Venture Fund supports independent projects outside of these six areas that take an interdisciplinary approach to broad issues of significant interest or concern.

In particular, the Culture program selectively supports programs for artists and cultural organizations in Philadelphia and has funded history interpretive programs—the Heritage Investment Program has provided technical assistance and challenge grants to historic sites in Philadelphia and the region, and the Philadelphia History Exhibitions Initiative has assisted Philadelphia-area history museums in producing high-quality, innovative exhibitions. Such programs could be used to fund interpretation of trail related historic resources and sites.

Additional Information: <http://www.pewtrusts.com/grants/>

Recreational Equipment, Incorporated (REI) Conservation and Recreation Grants

REI awards conservation grants to organizations for the protection and enhancement of natural resources for use in outdoor recreation. Small grants of up to \$5,000 are offered to accomplish the following:

- Preservation of wildlands and open space
- Advocacy oriented education for the general public about conservation issues
- Building the membership base of a conservation organization
- Direct citizen action campaigns on public land and water recreation issues
- Projects working to organize a trails constituency or to enhance the effectiveness of a trails organization's work as a trails advocate at the state or local level

In addition to preserving and protecting the environment, REI also encourages people to get outdoors for recreation. Outdoor recreation grants support projects that do the following:

- increase access to outdoor activities
- encourage involvement in muscle-powered recreation
- promote safe participation in outdoor muscle-powered recreation and proper care for outdoor resources

Additional Information: http://www.rei.com/reihtml/about_rei/grants.html

Surdna Foundation

The Surdna Foundation is a national leader in funding greenway efforts and has funded the Florida Statewide Greenways Program. Surdna supports government, private and volunteer actions that produce a sustainable environment. They encourage the restoration of suburban and urban environments by public and community involvement in education, planning for and advocating environmental appreciation. One area of focus is alternative transportation, particularly reducing vehicle miles traveled and maximizing accessibility over mobility.

Additional Information: <http://www.surdna.org/grants/>

Study Methodology

Relevant Reports

Incorporated into this study were the findings of these previously published reports:

Landscapes 2: Chester County Comprehensive Plan
 Phoenixville Regional Comprehensive Plan
 Charlestown Township Comprehensive Plan
 Great Valley / Route 29 Multimodal Study
 Phoenixville - Main Line Passenger Rail Assessment ("Green Line" train)
 East Whiteland Township Comprehensive Plan
 East Whiteland Township Parks and Recreation Plan
 Tredyffrin Township Comprehensive Plan
 Tredyffrin Township Parks Recreation and Open Space Plan
 The Patriots Path Plan
 Public Transportation Serving Chester County Map Including Regional Connections map

Mapping

The consulting team utilized advanced GIS methods to prepare detailed maps of the study corridor and adjacent areas. Among the data layers integrated into the mapping are:

- High resolution aerial photography (year 2010: Delaware Valley Regional Planning Commission)
- 2 foot contours and breaklines (rails and edges of pavement) derived from statewide LIDAR data
- Impervious surfaces (pavements; buildings)

- Parcel data for Charlestown and Schuylkill Townships and Borough of Phoenixville
- Streams and waterbodies
- Railroads, active and inactive
- State roads; municipal roads
- Chester County traffic volume map (December 2013: PennDOT)

The recommended trail alignment and alternates were constructed in CAD in PA State Plane South Zone coordinates, and are therefore GIS-compatible. Having been drawn to scale, the CAD geometry was utilized to calculate quantities that serve as the basis for the Opinion of Probable Cost (Appendix D).

Field Survey

The consulting team and members of the study committee conducted intensive field surveys of the study corridor to document existing conditions. The six mile corridor and adjacent connections were walked in their entirety; field measurements and high resolution digital photographs were made documenting specific situations in the study area. Existing railroad structures were visually inspected and assessed regarding their suitability for trail use; a summary report is included in this report as Appendix C.

Steering Committee

Meetings of the Steering Committee were convened at the Charlestown Township office on Whitehorse Road in Devault on January 27, 2014; April 1, 2014; and October 8, 2014.

Steering Committee members:

Jake Michael	Chester County Planning Commission
Hugh Willig	Charlestown Township
Frank Piliero	Charlestown Township
Linda Csete	Charlestown Township
Michael Churchill	Charlestown Township Planning Commission
Bill Westhafer	Charlestown Township Planning Commission
Chris Lawrence	Charlestown Township Parks and Recreation Board
Sue Staas	Charlestown Township Trails Committee
Jim Morrisson	Schuylkill Township
Jim Reading	Schuylkill Township
Rick Reis	Phoenixville Regional Planning Committee
Ray Ott	Borough of Phoenixville municipal planner
Andrew Pitz	French & Pickering Creeks Conservation Trust
Patrick Gardner	French & Pickering Creeks Conservation Trust
Pam Brown	French & Pickering Creeks Conservation Trust

The inclusion of stakeholders and of elected officials from neighboring municipalities furthers Chester County's Landscapes 2 goal of "conduct[ing] trail and greenway planning in coordination with adjacent municipalities and key stakeholders."³

Public Participation

Members of the public were invited to workshops held at Great Valley Middle School on May 12, 2014 and October 20, 2014. Thirty-one people attended the first meeting, and 35 people attended the second meeting (not counting members of the consulting team who served as facilitators).

Workshop attendees were shown maps, plans, photos, and an illustrated PowerPoint presentation explaining existing conditions within the study corridor, along with draft recommendations for the trail. Members of the public were encouraged to give feedback regarding the ideas shown; many did voice their opinions at the meeting, as well as submit written comments and suggestions. These are included as Appendix E.

Stakeholder Interviews

Interviews intended to garner stakeholder's thoughts and concerns regarding the proposed trail were conducted with:

- Phoenixville Borough Council and Parks and Recreation Committee
- East Whiteland Township Manager Terry Woodman
- Schuylkill Township Manager Mary R. Bird
- Phoenixville Area School District
- Great Valley School District
- Chester County Intermediate Unit
- Atwater Corporate Center/Trammel Crow Company Vice President Barry Henry
- Southeastern Pennsylvania Transportation Authority senior service planner John Calnan

³ Chester County Landscapes 2, Chapter 6: Planning for Open Space and Greenways, Action Plan item OSG-3k

APPENDIX

Appendix A – Maps and drawings

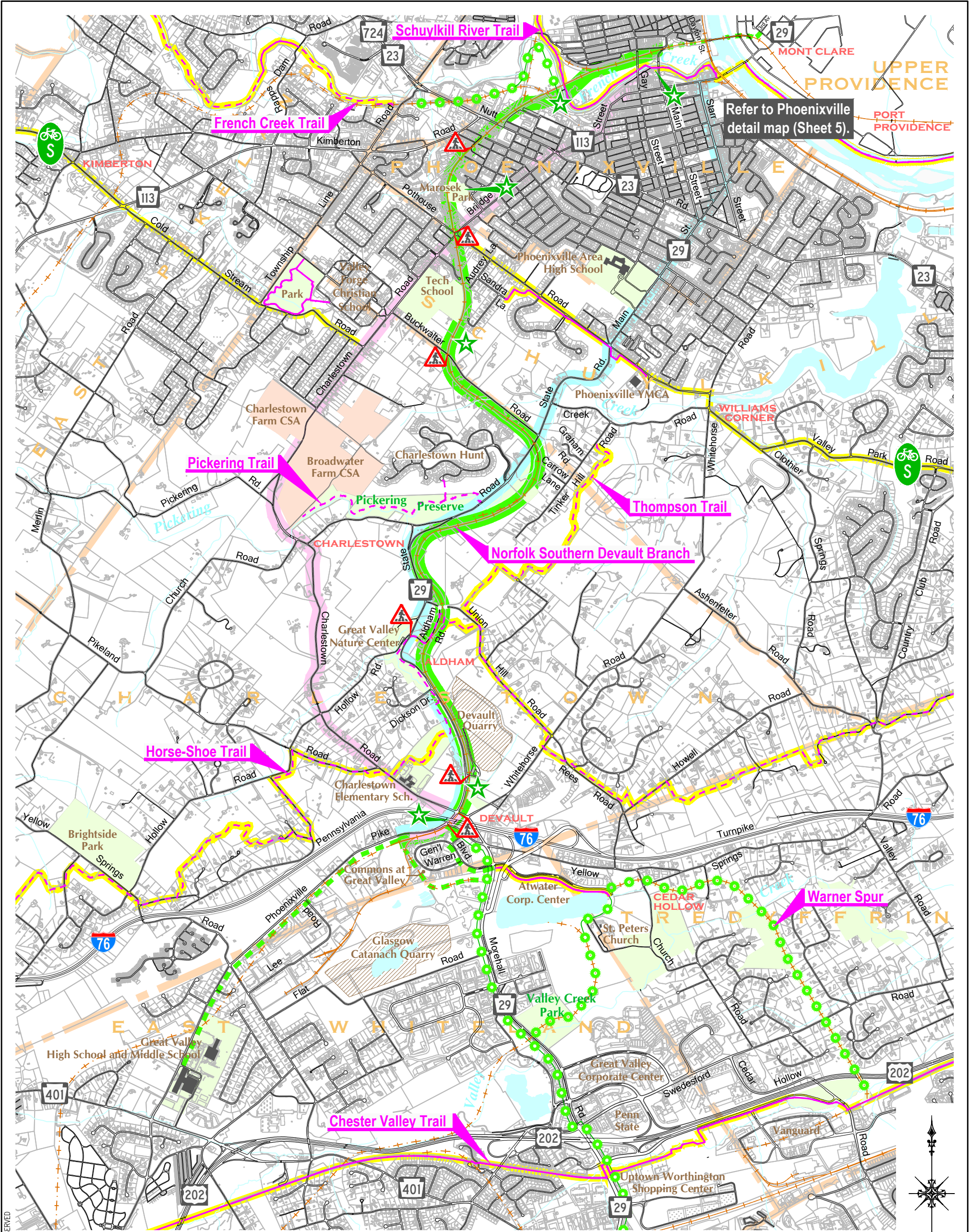
- 1 Potential Trail Alternates Map, scale 1" = 1/2 mile
- 2 Typical Trail Sections: Alternates A and C
- 3 Typical Trail Sections: Alternate B
- 4 Trail Section south of Pickering Creek Viaduct (Alternate B)
- 5 Detail Map: Trail and Transit Connections in Phoenixville
- 6 Typical Section Starr Street (Alternate C)
- 7 Phoenixville Pike / Charlestown Road proposed crossing
- 8 Charlestown Road / Pothouse Road proposed crossing
- 9 Typical Section Bridge Street (Alternate A)
- 10 Trail Implementation Phase 1
- 11 Trail Implementation Phase 2
- 12 Trail Implementation Phase 3
- 13 Trail Implementation Phase 4 / Future Connections

Appendix B – Alternatives Analysis Chart

Appendix C – Opinion of Bridge Conditions

Appendix D – Opinion of Probable Cost

Appendix E – Comments submitted at Public Workshops



© 2015 CAMPBELL THOMAS & Co. ALL RIGHTS RESERVED

FILE: h:\f&p-deva\dwgs\ f&p-deva base map.dwg	DRAWN BY ZMS
PLOT SCALE: 1" = 1/2 mi.	CHECKED BY RPT
REVISIONS	REMARKS
DATE	DATE
	July 06, 2015
	PROJECT NO. F&P-DEVA

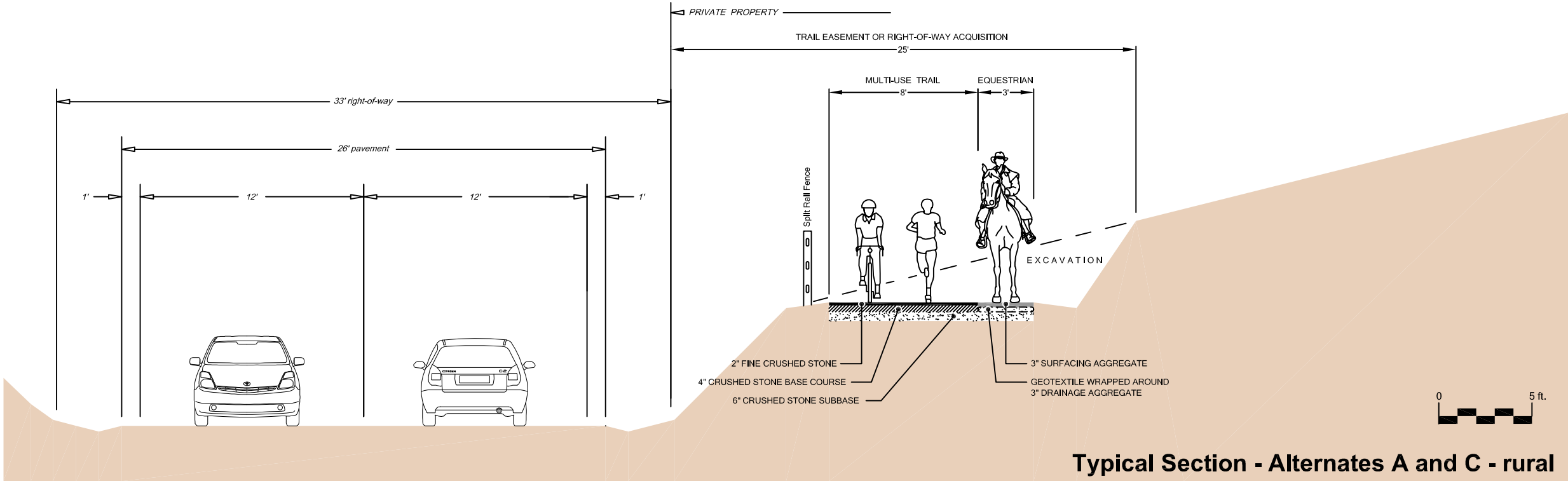
Devault Branch Rail-Trail Feasibility Study

Township of Charlestown Chester County Pennsylvania

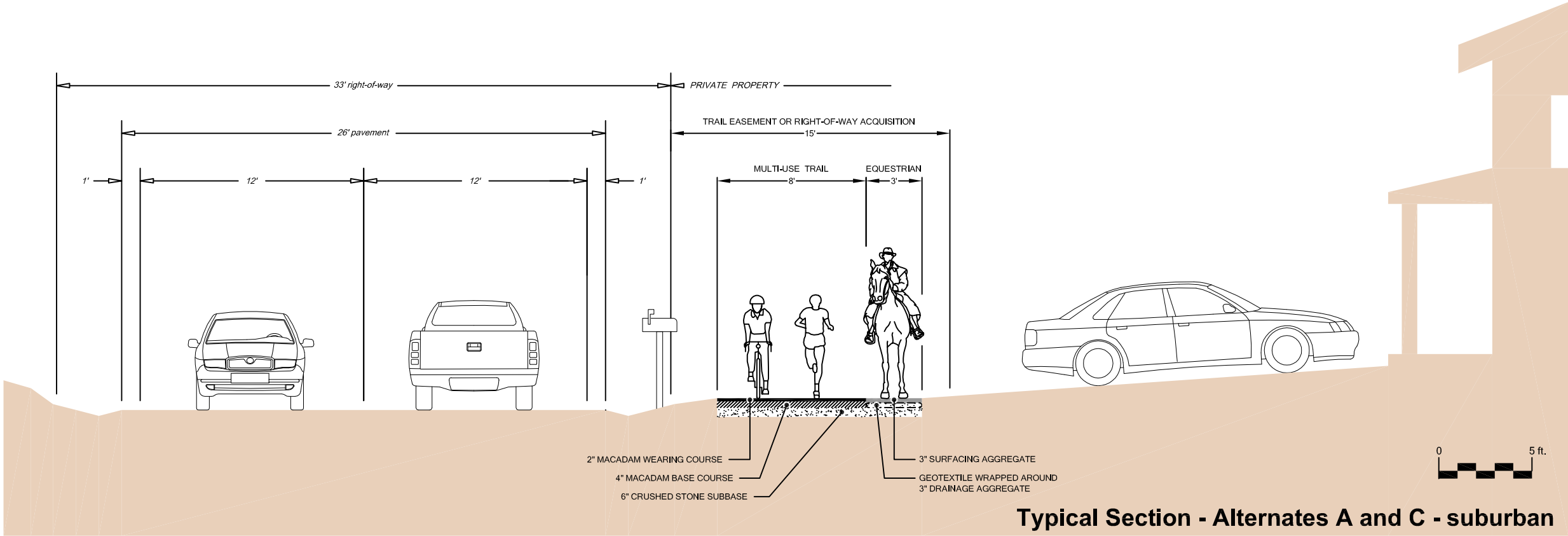
Campbell Thomas & Company 1504 South Street, Philadelphia, PA 19146 215-545-1076

Ray Ott & Associates 17 South Church Street, West Chester, PA 19382-3243 610-429-9993

TITLE Trail Alignment Alternates
DWG NO. 1



Typical Section - Alternates A and C - rural



Typical Section - Alternates A and C - suburban

ALL RIGHTS RESERVED
© 2014 CAMPBELL THOMAS & CO.

FILE: h:\f&p-deva\dwgs\Devault Trail Sections.dwg			DRAWN BY ZMS	
PLOT SCALE: as noted			CHECKED BY RPT	
REVISIONS		REMARKS	DATE	
NO.	DATE		July 16, 2015	
			PROJECT NO.	
			RTC-WATE	

Devault Branch Rail-Trail Feasibility Study

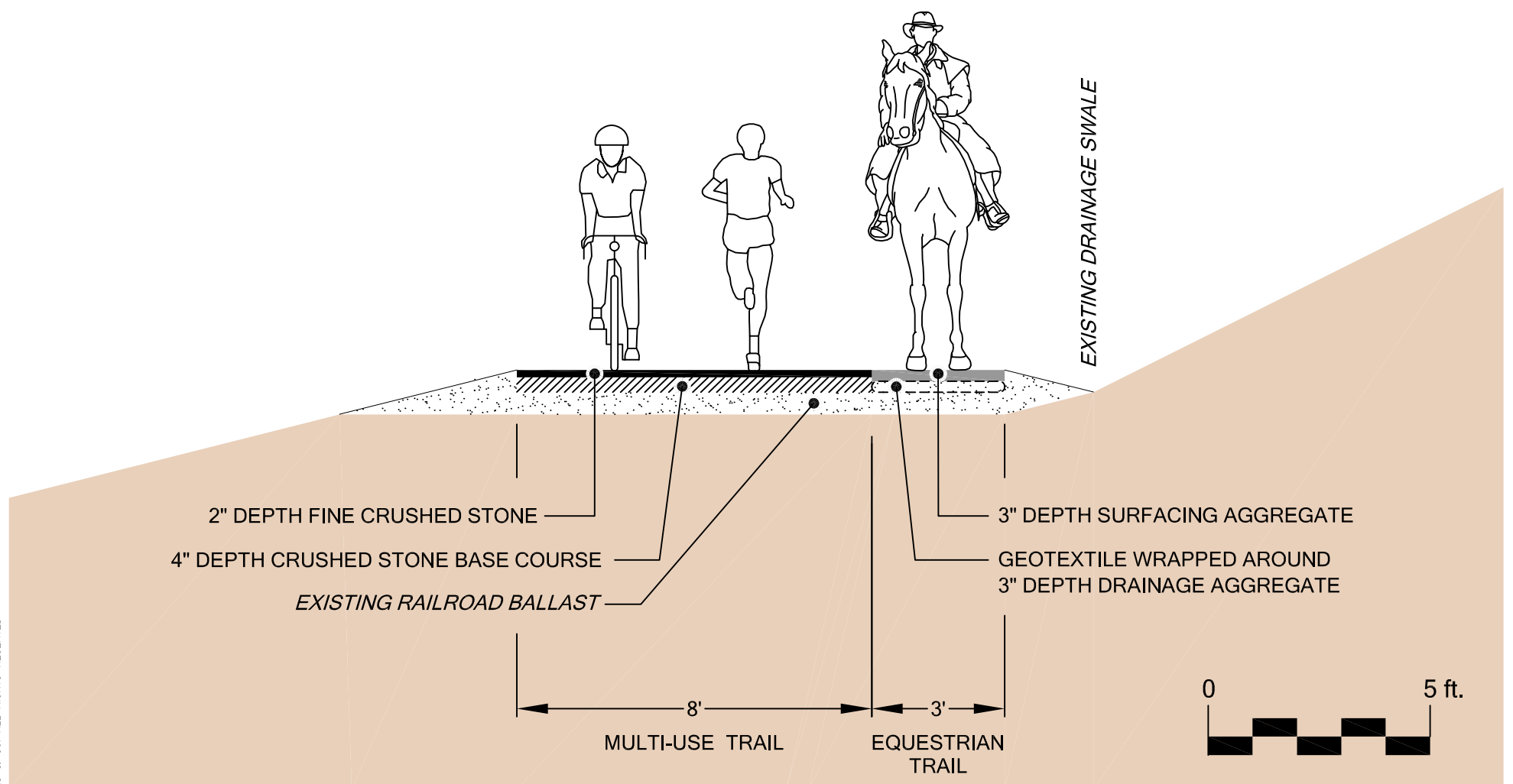
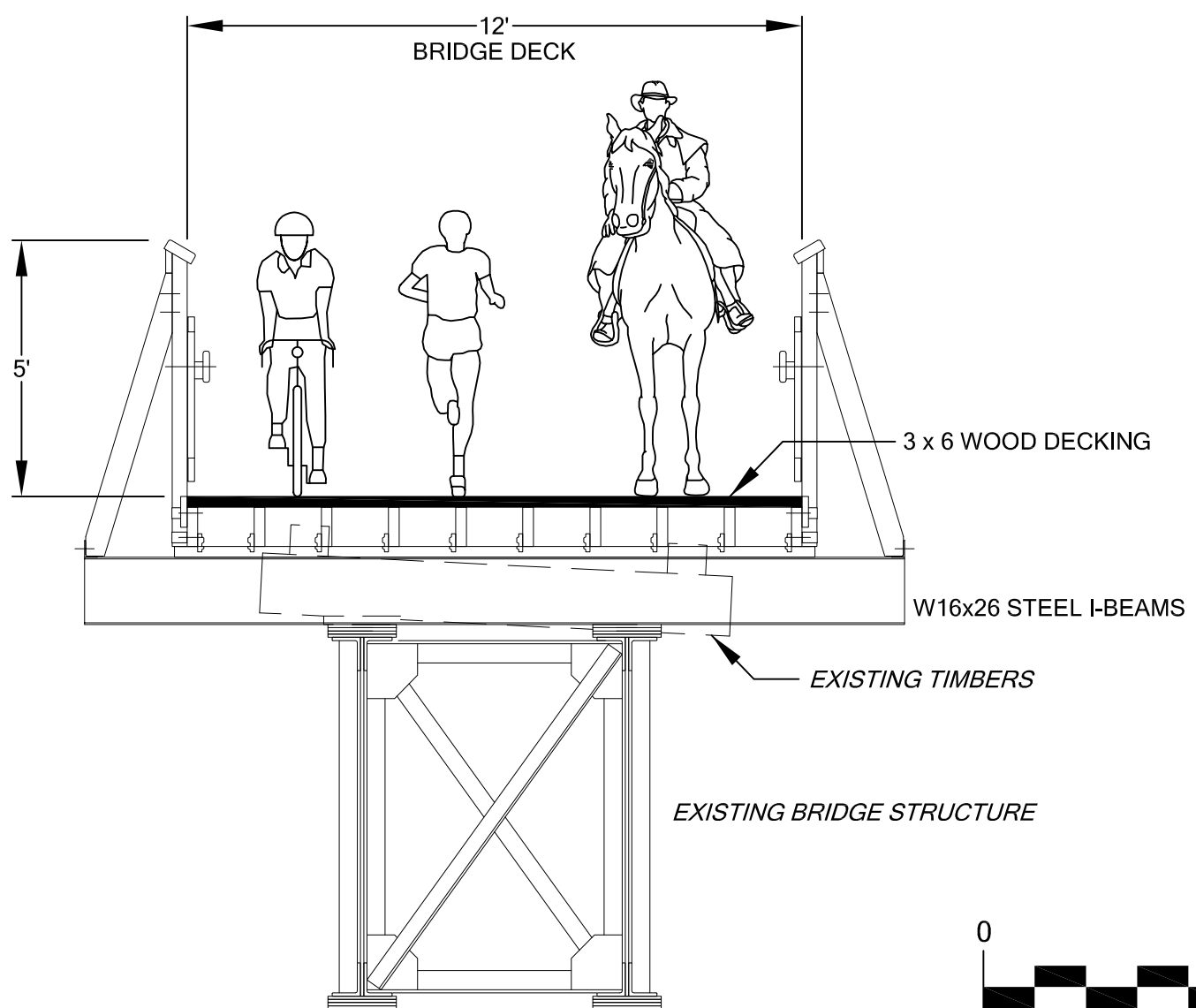
Township of Charlestown Chester County Pennsylvania

Campbell Thomas & Company 1504 South Street, Philadelphia, PA 19146 215-545-1076

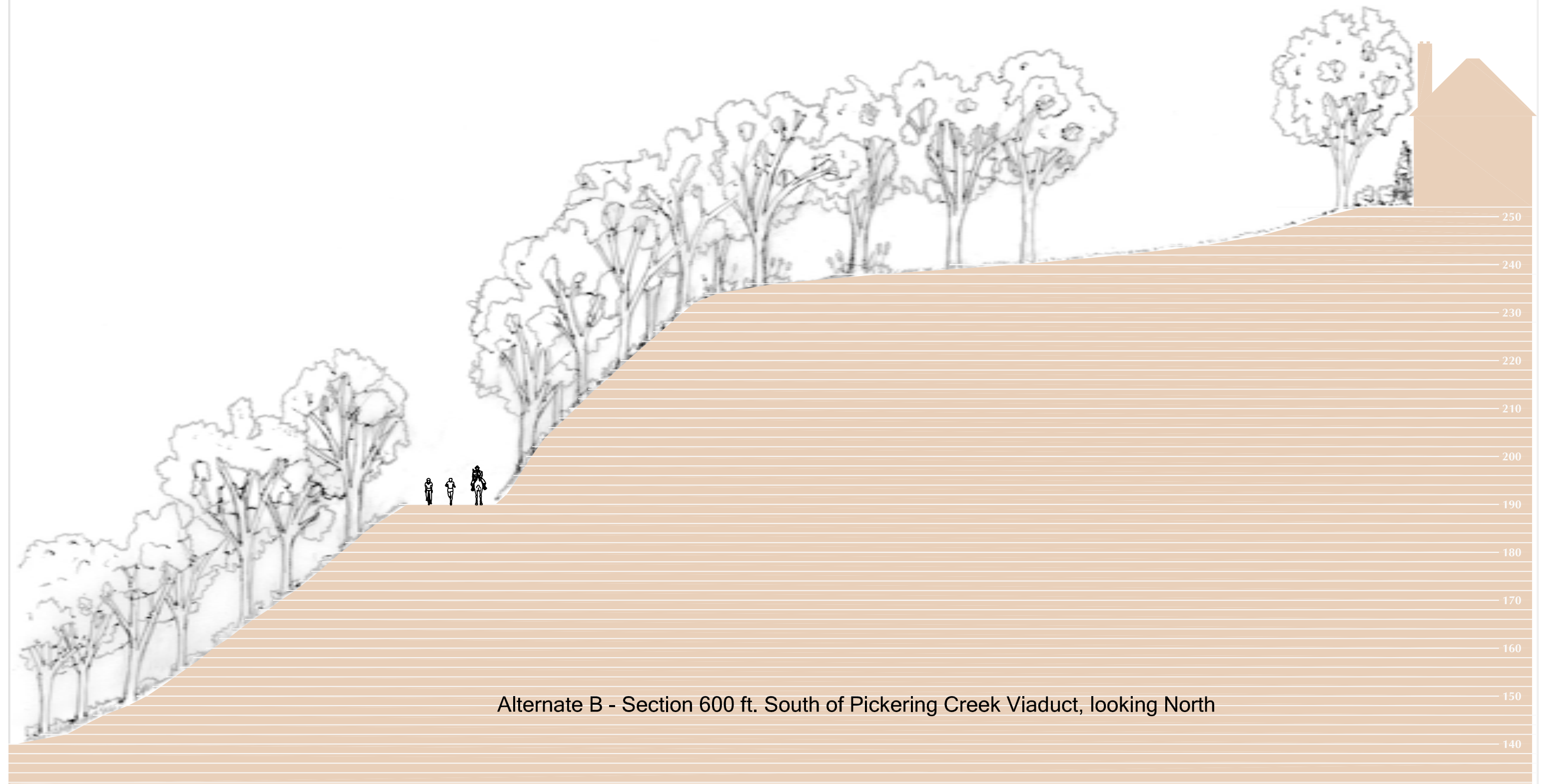
Ray Ott & Associates 17 South Church Street, West Chester, PA 19382-3243 610-429-9993

Typical Sections:
Alternates
A and C

DWG NO.
2



FILE: h:\f&p-deva\dwgs\devault trail cross section.dwg			DRAWN BY ZMS		Devault Branch Rail-Trail Feasibility Study Township of Charlestown Chester County Pennsylvania						TITLE Typical Section: Alternate B	
PLOT SCALE: as noted			CHECKED BY RPT									
REVISIONS REMARKS			DATE July 16, 2015		Campbell Thomas & Company 1504 South Street, Philadelphia, PA 19146 215-545-1076 Ray Ott & Associates 17 South Church Street, West Chester, PA 19382-3243 610-429-9993						DWG NO. 3	
	DATE	REMARKS	PROJECT NO. F&P-DEVA									



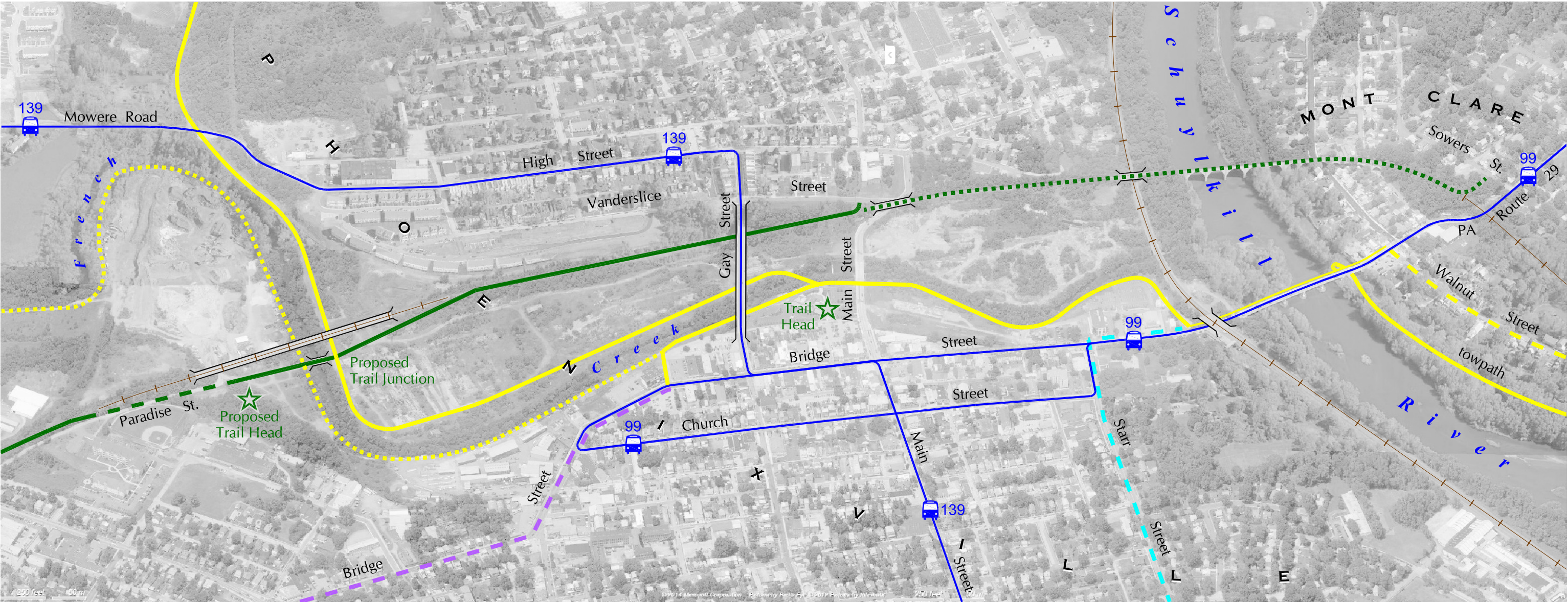
Alternate B - Section 600 ft. South of Pickering Creek Viaduct, looking North



ALL RIGHTS RESERVED
© 2014 CAMPBELL THOMAS & CO.

FILE: h:\f&p-deva\dwgs\ Devault Trail Sections.dwg			DRAWN BY ZMS
PLOT SCALE: 1"=20 ft.			CHECKED BY RPT
REVISIONS REMARKS			DATE
NO.	DATE	REMARKS	October 13, 2014
			PROJECT NO.
			RTC-WATE

Devault Branch Rail-Trail Feasibility Study					TITLE Section along Pickering Creek: Alternate B
Township of Charlestown Chester County Pennsylvania					
Campbell Thomas & Company 1504 South Street, Philadelphia, PA 19146 215-545-1076					DWG NO. 4
Ray Ott & Associates 17 South Church Street, West Chester, PA 19382-3243 610-429-9993					



0 500 ft.
based on aerial oblique photography
-- scale is approximate --

ALL RIGHTS RESERVED
© 2015 CAMPBELL THOMAS & CO.

FILE: h:\f&p-deva\dwgs\ Phoenixville Trails Detail.dwg			DRAWN BY ZMS	
PLOT SCALE: as noted			CHECKED BY RPT	
REVISIONS			DATE January 26, 2015	
NO.	DATE	REMARKS	PROJECT NO. RTC-WATE	

Devault Branch Rail-Trail Feasibility Study
Township of Charlestown Chester County Pennsylvania
Campbell Thomas & Company 1504 South Street, Philadelphia, PA 19146 215-545-1076
Ray Ott & Associates 17 South Church Street, West Chester, PA 19382-3243 610-429-9993

**Detail Map: Trail
Connections in
Phoenixville**
DWG NO. **5**

Potential Devault Trail Alignments

Alternate A

Alternate B

Alternate C

On Road

Off Road

Potential Connection

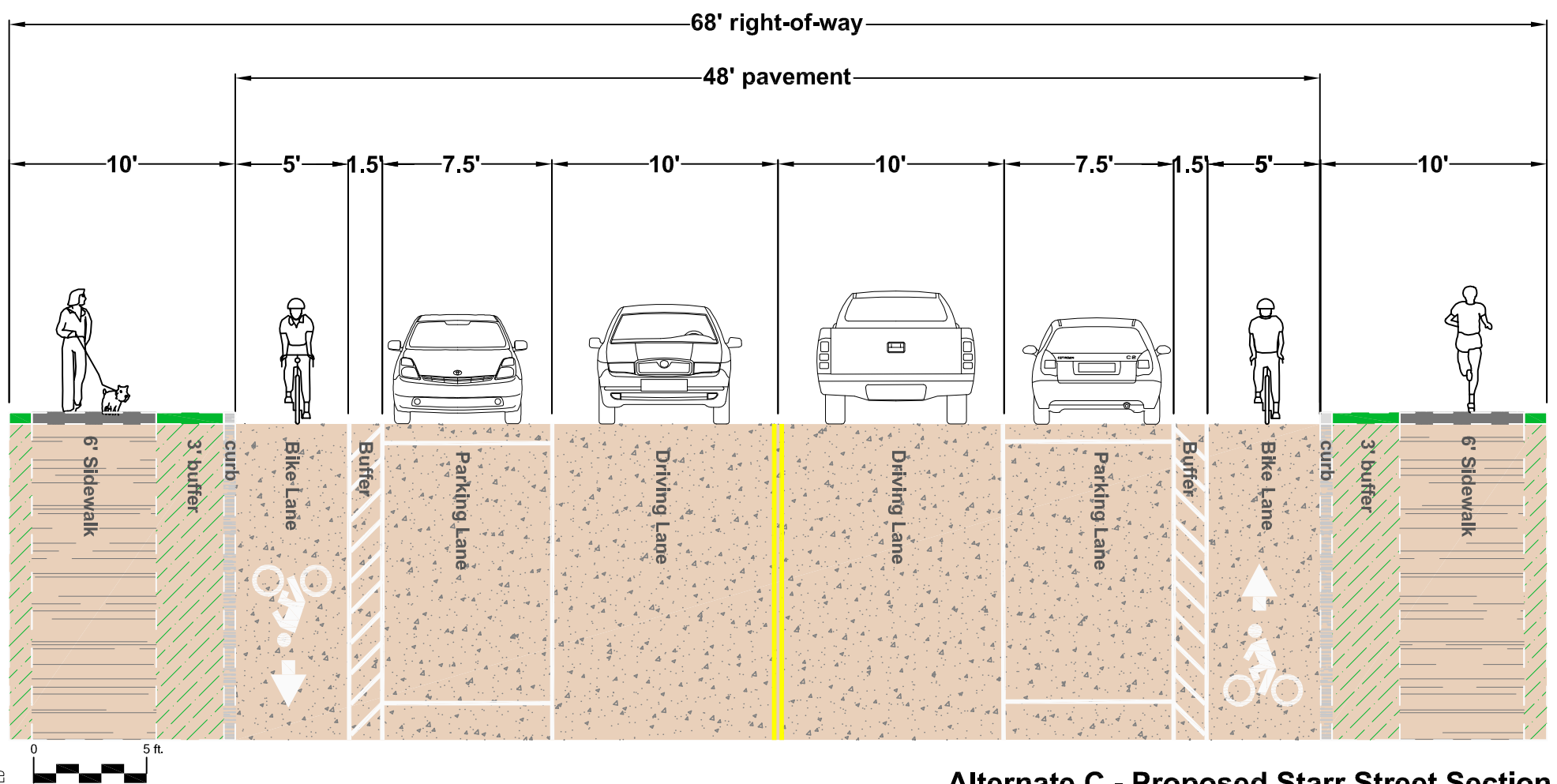
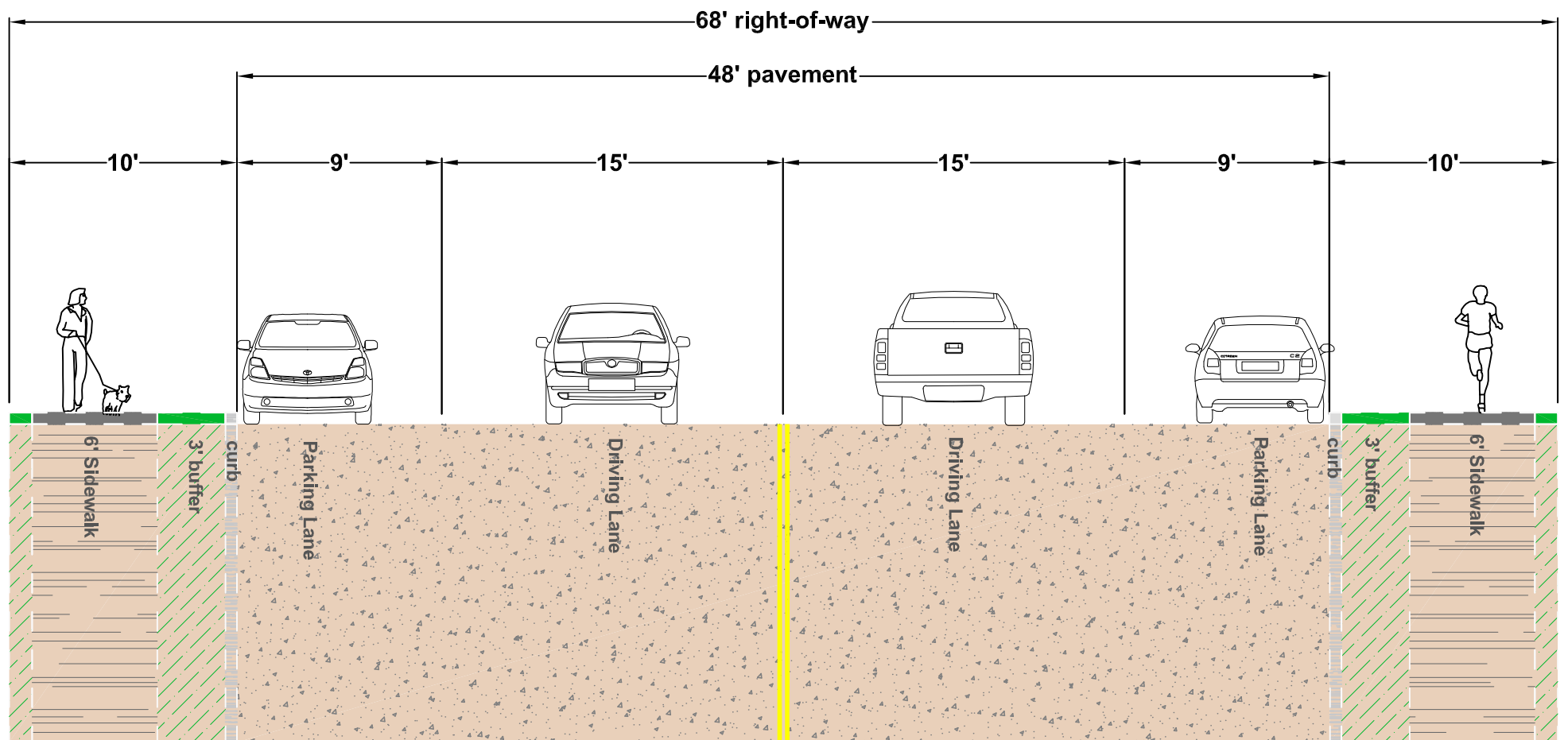
Schuylkill River Trail

French Creek Trail (future)

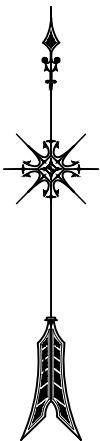
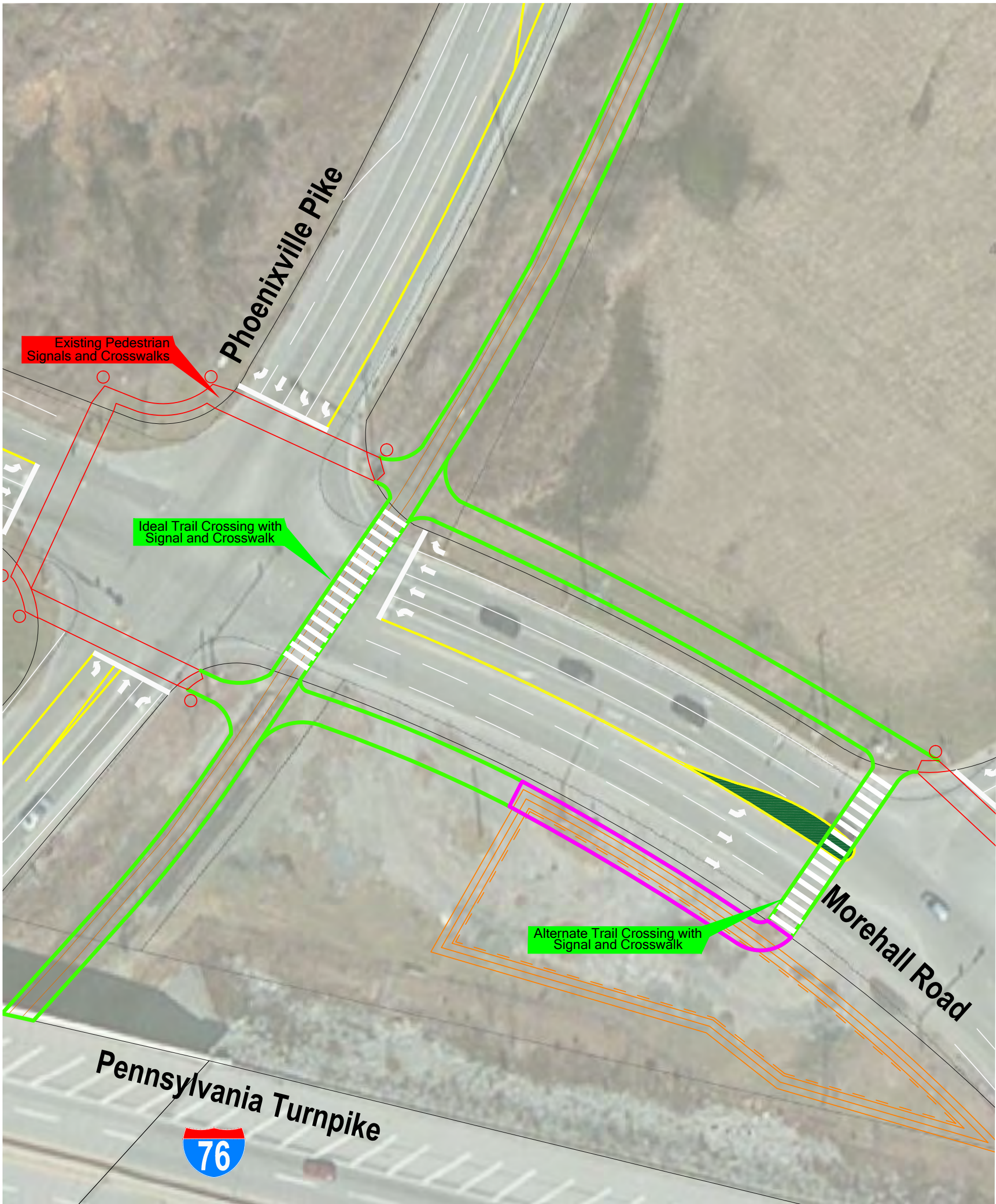
SEPTA Bus Route 99

On Road

Off Road



FILE: h:\f&p-deva\dwgs\devault trail cross section.dwg			DRAWN BY DM		Devault Branch Rail-Trail Feasibility Study Township of Charlestown Chester County Pennsylvania				TITLE Draft Section: Alternate C	
PLOT SCALE: as noted			CHECKED BY RPT							
REVISIONS REMARKS			DATE July 06, 2015 PROJECT NO. F&P-DEVA		Campbell Thomas & Company 1504 South Street, Philadelphia, PA 19146 215-545-1076 Ray Ott & Associates 17 South Church Street, West Chester, PA 19382-3243 610-429-9993				DWG NO. 6	
	DATE									



Legend

Trail Alternate B		Drainage Basin	
Railroad		Raised Boardwalk	
Pedestrian Median		Existing Pedestrian Infrastructure	

© 2014 CAMPBELL THOMAS & Co. ALL RIGHTS RESERVED

FILE: h:\f&p-deva\dwgs\ f&p-deva base map.dwg			DRAWN BY DM		Devault Branch Rail-Trail Feasibility Study					TITLE Proposed Phoenixville Pk./ Charlestown Rd. Crossing				
PLOT SCALE: 1" = 1/2 mi.			CHECKED BY RPT											
REVISIONS		REMARKS		DATE		Township of Charlestown					Chester County		Pennsylvania	
		DATE		June 19, 2015		Campbell Thomas & Company 1504 South Street, Philadelphia, PA 19146 215-545-1076 Ray Ott & Associates 17 South Church Street, West Chester, PA 19382-3243 610-429-9993							DWG NO. 7	
				PROJECT NO. F&P-DEVA										



Legend

- Trail Route

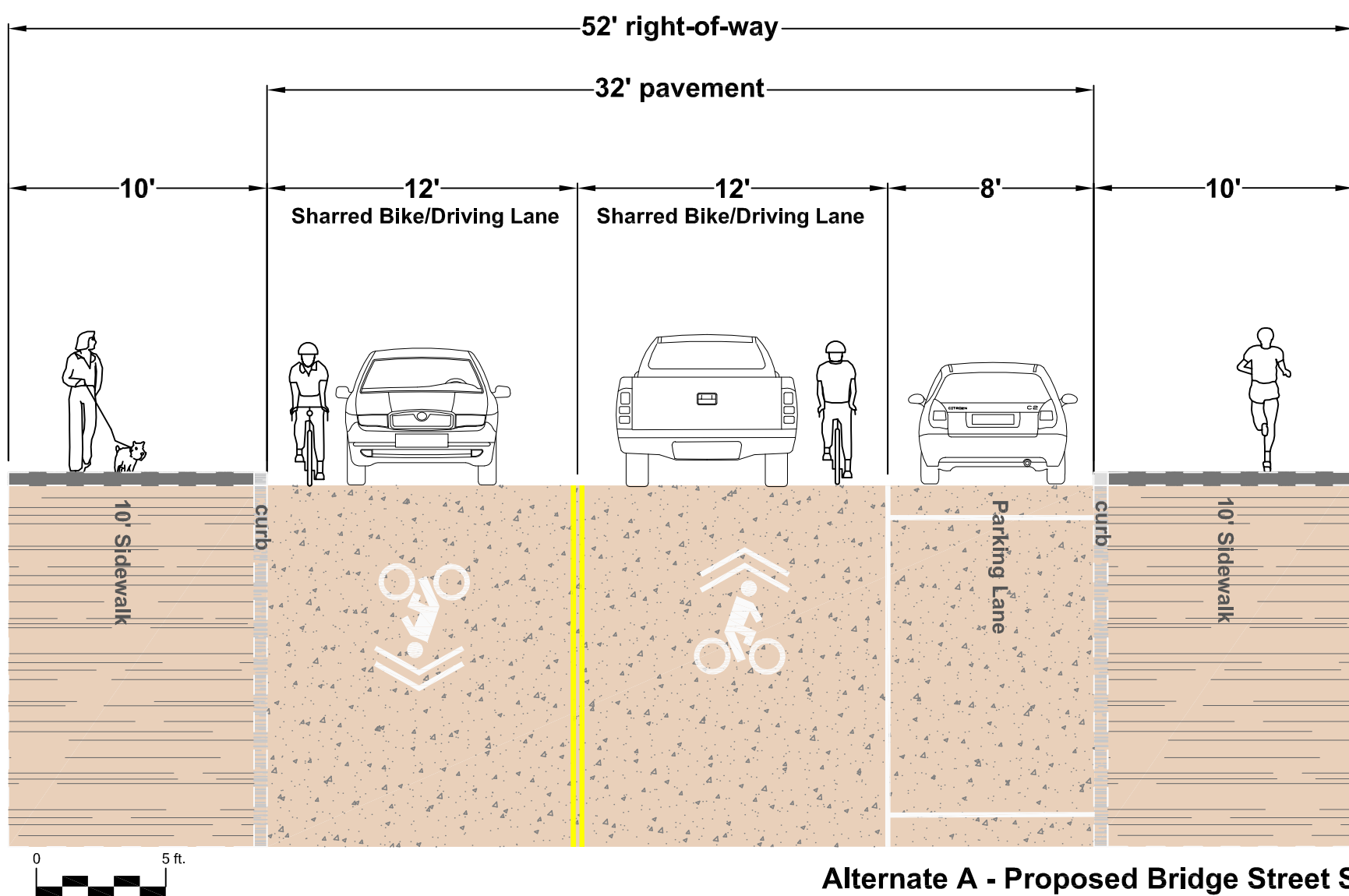
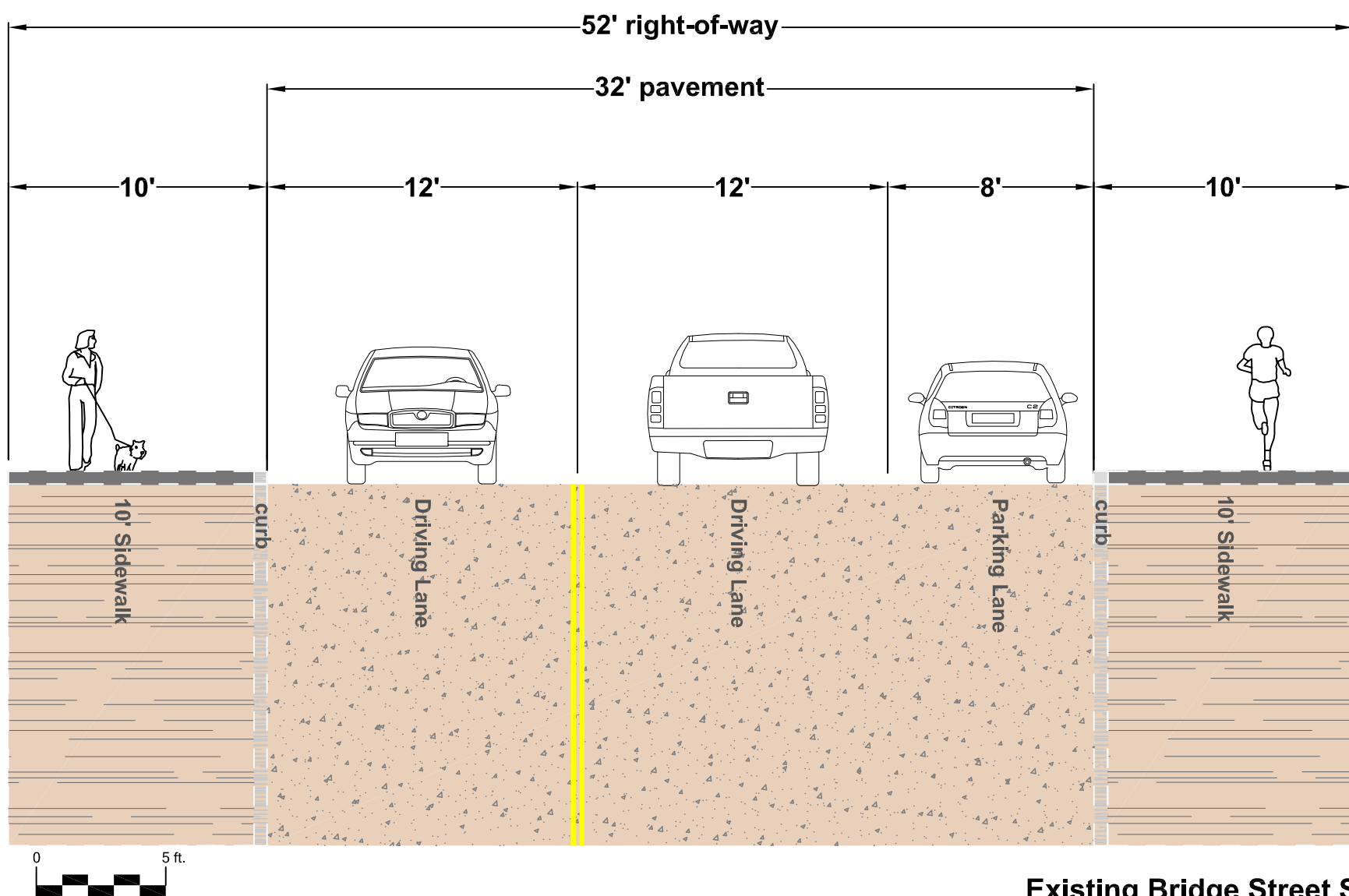
Alt. A

Alt. B
- Railroad
- Pedestrian Sidewalk
- Closed Road

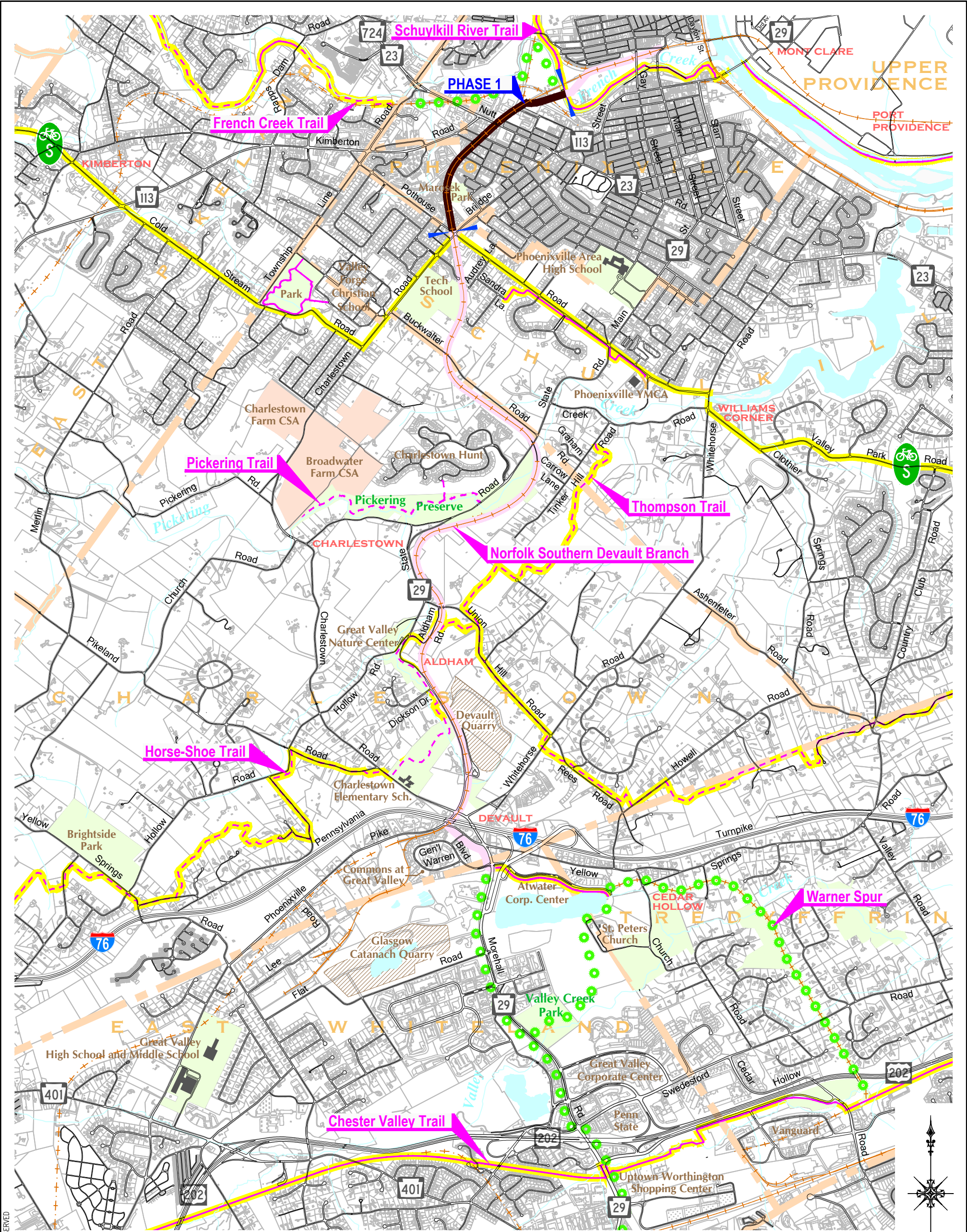


© 2014 CAMPBELL THOMAS & Co. ALL RIGHTS RESERVED

FILE: h:\f&p-deva\dwgs\ f&p-deva base map.dwg			DRAWN BY DM		Devault Branch Rail-Trail Feasibility Study Township of Charlestown Chester County Pennsylvania					TITLE Proposed Charlestown/ Pothouse Road Crossing		
PLOT SCALE: 1" = 1/2 mi.			CHECKED BY RPT									
REVISIONS		REMARKS		DATE		Campbell Thomas & Company 1504 South Street, Philadelphia, PA 19146 215-545-1076 Ray Ott & Associates 17 South Church Street, West Chester, PA 19382-3243 610-429-9993					DWG NO. 8	
	DATE			June 19, 2015								
				PROJECT NO. F&P-DEVA								



FILE: h:\f&p-deva\dwgs\devault trail cross section.dwg			DRAWN BY DM		Devault Branch Rail-Trail Feasibility Study Township of Charlestown Chester County Pennsylvania						TITLE Draft Section: Alternate A		
PLOT SCALE: as noted			CHECKED BY RPT										
REVISIONS		REMARKS		DATE		Campbell Thomas & Company 1504 South Street, Philadelphia, PA 19146 215-545-1076 Ray Ott & Associates 17 South Church Street, West Chester, PA 19382-3243 610-429-9993						DWG NO. 9	
	DATE			July 06, 2015									
				PROJECT NO. F&P-DEVA									



© 2015 CAMPBELL THOMAS & Co. ALL RIGHTS RESERVED

Legend

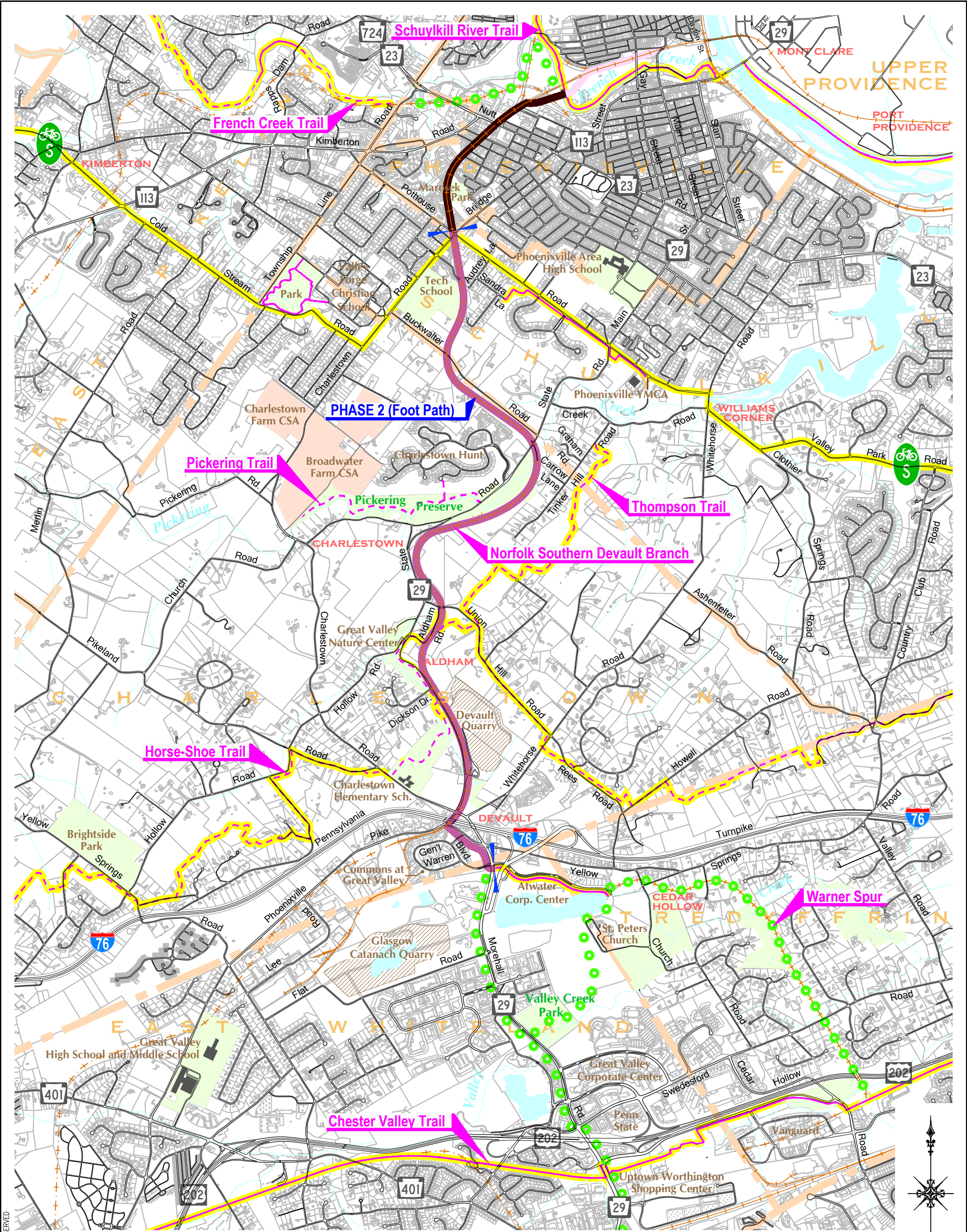
- | | | | |
|----------------------|----------|---------|---|
| Existing Foot-path | off-road | on-road | Existing Multi-Use Trail |
| PA Bicycle Route S | | | Trail Corridor (Development Proposed) |
| Railroad | | | Trail Built in Current / Previous Phase |
| Railroad (Abandoned) | | | Multi-Use Trail Proposed by Others |
| Municipal Boundary | | | |



FILE: h:\f&p-devo\dwgs\ f&p-devo phasing map.dwg	DRAWN BY DM
PLOT SCALE: 1" = 1/2 mi.	CHECKED BY RPT
REVISIONS	REMARKS
DATE	DATE
	July 06, 2015
	PROJECT NO. F&P-DEVA

Devault Branch Rail-Trail Feasibility Study
Township of Charlestown Chester County Pennsylvania
Campbell Thomas & Company 1504 South Street, Philadelphia, PA 19146 215-545-1076
Ray Ott & Associates 17 South Church Street, West Chester, PA 19382-3243 610-429-9993

TITLE Trail
Implementation
Phase 1
DWG NO. 10



© 2015 CAMPBELL THOMAS & Co. ALL RIGHTS RESERVED

Existing Foot-path

PA Bicycle Route S

Railroad

Railroad (Abandoned)

Municipal Boundary

off-road

on-road

Trail Corridor (Development Proposed)

Trail Built in Current / Previous Phase

Multi-Use Trail Proposed by Others

Existing Multi-Use Trail

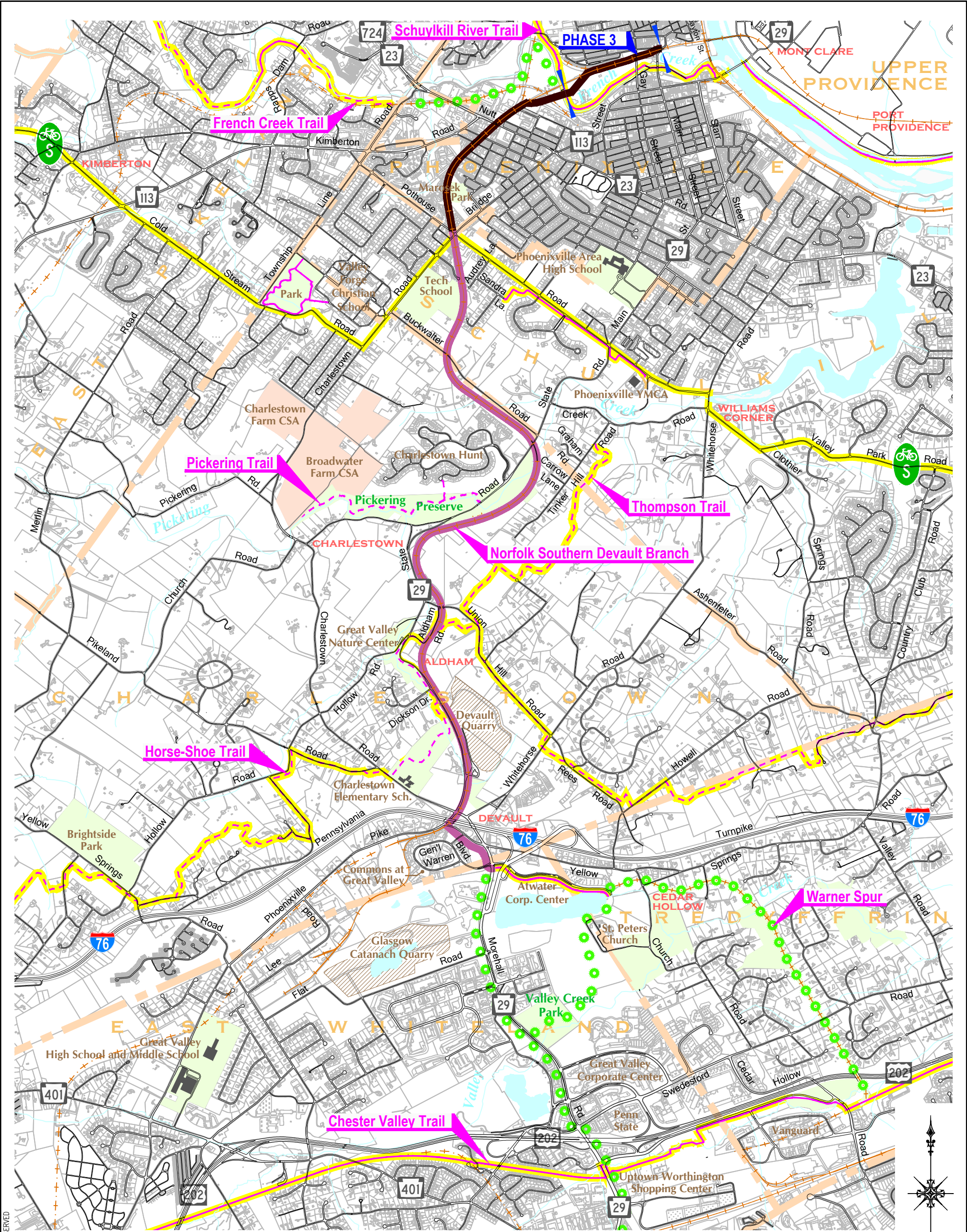
footpath

multi-use

Legend

0 1 mile

FILE: h: \f&p-deva\dwgs\ f&p-deva phasing map.dwg			DRAWN BY DM		Devault Branch Rail-Trail Feasibility Study					TITLE Trail Implementation Phase 2		
PLOT SCALE: 1" = 1/2 mi.			CHECKED BY RPT									
REVISIONS		REMARKS		Township of Charlestown Chester County Pennsylvania							DWG NO. 11	
	DATE			DATE July 06, 2015		Campbell Thomas & Company 1504 South Street, Philadelphia, PA 19146 215-545-1076 Ray Ott & Associates 17 South Church Street, West Chester, PA 19382-3243 610-429-9993						
				PROJECT NO. F&P-DEVA								



© 2015 CAMPBELL THOMAS & Co. ALL RIGHTS RESERVED

Legend

- Existing Foot-path

PA Bicycle Route S

Railroad

Railroad (Abandoned)

Municipal Boundary
- off-road

on-road
- Existing Multi-Use Trail

Trail Corridor (Development Proposed)

Trail Built in Current / Previous Phase

Multi-Use Trail Proposed by Others
- footpath

multi-use



FILE: h:\f&p-devo\dwgs\ f&p-devo phasing map.dwg		DRAWN BY DM	
PLOT SCALE: 1" = 1/2 mi.		CHECKED BY RPT	
REVISIONS	REMARKS	DATE	July 06, 2015
		PROJECT NO.	F&P-DEVA

Devault Branch Rail-Trail Feasibility Study

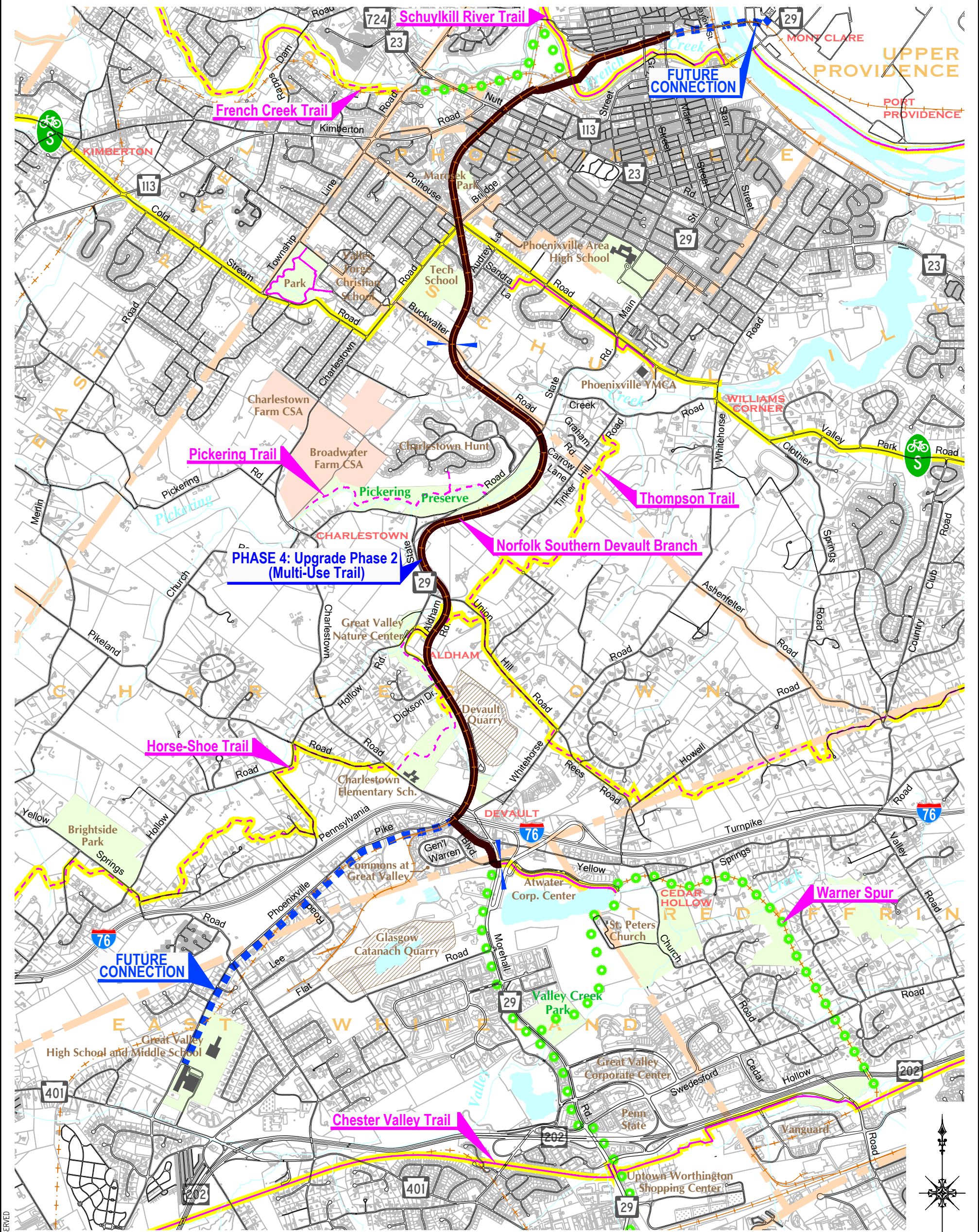
Township of Charlestown Chester County Pennsylvania

Campbell Thomas & Company 1504 South Street, Philadelphia, PA 19146 215-545-1076

Ray Ott & Associates 17 South Church Street, West Chester, PA 19382-3243 610-429-9993

TITLE Trail Implementation Phase 3

DWG NO. 12



© 2015 CAMPBELL THOMAS & Co. ALL RIGHTS RESERVED

Legend

- Existing Foot-path

PA Bicycle Route S

Railroad

Railroad (Abandoned)

Municipal Boundary
- off-road

on-road
- Existing Multi-Use Trail

Trail Corridor (Development Proposed)

Trail Built in Current / Previous Phase

Multi-Use Trail Proposed by Others

Potential Future Trail Extensions
- footpath

multi-use



FILE: h:\f&p-devo\dwgs\ f&p-devo phasing map.dwg	DRAWN BY DM
PLOT SCALE: 1" = 1/2 mi.	CHECKED BY RPT
REVISIONS	REMARKS
DATE	DATE
	July 06, 2015
	PROJECT NO. F&P-DEVA

Devault Branch Rail-Trail Feasibility Study

Township of Charlestown Chester County Pennsylvania

Campbell Thomas & Company 1504 South Street, Philadelphia, PA 19146 215-545-1076
Ray Ott & Associates 17 South Church Street, West Chester, PA 19382-3243 610-429-9993

TITLE Trail
Implementation
Phase 4 / Future
Connections

DWG NO.
13

Devault Trail Feasibility Study - Alternatives Analysis

	Alternate A	Alternate B	Alternate C
	Bridge Street; Charlestown Road	Norfolk Southern RR Devault Branch	Bridge Street; Starr St.; Main Street; State Road
Total Length	6.3 miles	6.6 miles	5.6 miles
Length where bicyclists must "share the road" with motor vehicle traffic	1.6 miles (or more)	0	1.4 miles (or more)
Adjacent Motor Vehicle Traffic Volume (ADT max)	8500	0	11,000
Useable by persons of all ages and abilities	NO	✓	NO
Bucolic, quiet trail experience	NO	✓	NO
In those areas where an off-road trail is possible, number of properties from which right-of-way or easements must be acquired if off-road trail is to be constructed	62	1 (railroad)	32
Can be implemented with a minimum of earthwork disturbance	NO	✓	NO
Conforms to Chester County Landscapes 2 Open Space and Greenway Policies:			
OSG 3.1 Encourage local, multi-municipal, and county-wide comprehensive planning that addresses greenways and trails from a network approach.	✓	✓	✓
OSG 3.2 Encourage a network of greenways to link natural resource conservation areas and riparian corridors to reduce habitat fragmentation and facilitate wildlife migration.	NO	✓	NO
OSG 3.3 Encourage a diversity of public trails and paths to provide opportunities for walking, bicycling, horseback riding, and other nonmotorized recreation.	NO	✓	NO
OSG 3.4 Encourage greenways and trails that link destinations such as business centers, schools, recreational parks, protected resource areas, and transportation facilities.	✓	✓	✓
OSG 3.5 Encourage greenways and trails that pass through residential areas and have sufficient trail heads and user facilities.	✓	✓	✓
OSG 3.6 Encourage the establishment of local and regional bicycle networks that link paths, trails, sidewalks, and bike routes along low-volume roadways or roadways with shoulders suitable for bicycles.	NO	✓	NO
OSG 3.7 Encourage the establishment of greenways and trails within industrial parks and employment centers that also link to community-wide trail networks suitable for commuting.	✓	✓	✓
OSG 3.8 Encourage the establishment of greenways and trails as a part of development, redevelopment, or projects relating to road, rail, or utility infrastructure.	✓	✓	✓
Conforms to Chester County Landscapes 2 Objectives, Policies, and Action Plan for Non-motorized Transportation:			
T 2.1 Provide a safe network of bicycle and pedestrian links within and between residential, employment, commercial, educational, public, and recreational land uses.	✓	✓	✓
T 2.2 Promote development design and density that encourages bicycling and walking, including sidewalks or other pedestrian facilities in urban and suburban centers.	✓	✓	✓
T 2.3 Provide standards for non-motorized travel and improve the roadway network to encourage bicycling and walking.	✓	✓	✓
T 2.4 Enhance bicycle and pedestrian amenities and network connections to transit.	✓	✓	✓
T 2.5 Promote separate bicycle, pedestrian, and equestrian facilities, to avoid user conflicts, where warranted and appropriate.	NO	✓	NO
T 2.6 Protect and create a network of multi-use corridors.	✓	✓	✓

Feasibility Study for the Devault Trail

Opinion of Structural Condition of Bridges

A field view of seven bridges along the Devault line was conducted on December 29, 2014 for the purpose of assessing the bridge structures for use on a multi-use trail. A detailed structural inspection was not completed on these structures, however an opinion was rendered on the sufficiency of each bridge structure for use on the trail. This opinion was based on the visual assessment of the structure for the portions that were accessible. No structural testing or high angle inspection methods were employed for this opinion. It was assumed that the design vehicle for this project will be an ambulance.

For each structure below, I have included a brief description of the bridge and made note of any work that would need to be done prior to putting the structure in service for the trail. Following that, I have included maintenance and/or repair items that should be considered to prolong the life of the structure. For each of these, I have included an approximate time frame for when this work should be scheduled. No discussion was included for the decking of these structures. It is anticipated that this will be dealt with elsewhere in the study report. Additional engineering may be needed to determine if the proposed deck will function properly and safely.

Union Hill Road underpass

This structure is an 18 foot stone arch bridge carrying the rail line over Union Hill Road. The structure is in excellent condition with greater than normal clearance both horizontally and vertically than is typically seen in these types of bridges. There is evidence of minor collision damage in the south-east corner of the barrel. In two small areas, the brick has been chipped off by collision with a vehicle, however this is largely an aesthetic issue. No movement was noted in the blocks of the wingwalls for this structure.

Immediate use for the trail: No action required. This structure is sound for immediate use.

Maintenance recommended: Replace the damaged bricks – 10 years
 Repointing of the stone blocks – 10 years

Pickering Creek Viaduct

This structure is a 600 feet long viaduct carrying the rail line over the Pickering Creek and SR 29. The viaduct consists of steel tower piers with simple span beam bridges between them. The creek crossing uses stone block piers with a simple span over the waterway. The structure appeared in very good condition for the age of the bridge. The superstructure appeared in good condition and deterioration of the steel from rusting was evident at all the foundations. On the superstructure, all the bottom flanges of the strength members exhibited a build up of debris, however, very little deterioration was noted on these members. The truss towers exhibited extensive member loss at the base plate connecting the tower to the stone foundation on the interior side of each tower member. This was typical of all towers viewed. While there was extensive deterioration of the plates, the anchor bolts holding the tower members were in better condition. These have lost approximately 25% of their steel. The base plates and anchor bolts on the exterior side of the towers were in very good condition and should be sufficient

to carry any anticipated loads on the multi-use trail. Additionally, the lowest horizontal member on the truss towers exhibited deterioration of the web approximately mid span. This was noticed on several of the members. The bridge deck was recently (within the last 10 years) re-decked with new ties. The superstructure consisted of a single track with approximately four feet manways on either side of the track. The manways were covered with an open steel grate on both sides and were supported by cantilevered ties at approximately four foot spacing. It is understood that the bridge will likely be topped with four inch deep timber or concrete planking along the entire structure to create a trail surface. A quick calculation of the tie spacing in the overhang area with this deck arrangement indicates that the bending moment under equestrian loading is close to the allowable stress for wooden ties. Additionally, the deflection at the end of the cantilever section would be near one half inch; above a typically desired level for public use. Additional engineering analysis/design should be added for the design of the cantilever walkway to accommodate equestrian loading.

Immediate use for the trail: No action required. This structure is sound for immediate use.

Maintenance recommended: Remove debris from lower flanges – done at trail construction
Remove rust and apply rust inhibitor to lower areas – 5 years
Remove vegetation growing on the towers – 5 years
Install patches on the lower tower members – 5 years
Replace base plates and anchor bolts – 5 years

Sycamore Farm Lane bridge (Buckwater Farm Road bridge)

This structure is a 125 foot long, three span steel beam bridge with stone piers. This bridge contained recently replaced wooden ties along the entire length of the bridge. The steel beams were in very good condition with only minor debris accumulation along the lower flanges.

Immediate use for the trail: No action required. This structure is sound for immediate use.

Maintenance recommended: Remove debris from lower flanges – done at trail construction

Nutt Road bridge

This structure is an 80 foot single span, steel thru-girder bridge on stone block abutments. The interior of the steel girders was encased in concrete as were the floor beams of the structure. The exterior of the girders was prepped and painted to remove any rust. No movement was noted in the blocks of the wingwalls for this structure.

Immediate use for the trail: No action required. This structure is sound for immediate use.

Maintenance recommended: Remove rust and paint structure – 20 years

French Creek Viaduct

This structure is a 1,030 foot long viaduct with varying structure types along the length. Generally, the viaduct consists of simple span steel beam bridges of varying depth on reinforced concrete piers. The steel appeared to be in good condition for the age of the structure. While we did not get on top of this structure, it appeared that the rail ties were replaced in the recent past for a good length of the structure. The majority of the piers looked to be in excellent condition with minor cracking. The pedestal on one of the piers showed severe cracking at the beam lines. This will need to be repaired prior to use of the bridge. A suggested repair would be to drill 2 or 3 bolt holes into the main portion of the pedestal to prevent movement of the separated sections of the pedestal. Other pedestals should be evaluated for similar failure (none was noted on the several that we looked at).

Immediate use for the trail: Repair pedestal with bolts into the concrete. (approx.. \$4,000)

Maintenance recommended: Remove rust and repaint structure – 20 years

Paradise Street bridge

This structure is a 90 foot long, single span steel girder bridge over the French Creek. The main girder steel was in very good condition. The floor beams were a mix of steel I shapes and wooden rail ties. There was moderate section loss of approximately 10% of the top flange on all the steel floor beams. Deterioration of the web on the floor beams was moderate to severe with several floor beams rusting completely through the web. The floor beams in the superstructure were closely spaced. Any deck surface should consist of a thick planking system to transfer the live load across as many floor beams as possible due to the minor section loss of the steel members. The abutments consisted of stone abutments with reinforced concrete additions to the top of the stone. It is not clear if this was done to raise the bridge or as a repair for the existing abutment. Based on a visual assessment, the abutments appear to be sound.

Immediate use for the trail: No action required. This structure is sound for immediate use.

Maintenance recommended: Remove rust and apply rust inhibitor – 5 years
Repair holes in floor beam webs – 5 years
Prep and paint the structural steel – 20 years

Main Street bridge

This structure is a 100 foot long, two span steel thru-girder bridge over Main Street on stone abutments. The girders have been encased in concrete on the interior of the beam. The floor beams were also encased in concrete. Overall the structure is in very good condition. No deterioration of the steel was evident. The abutments appear to have been widened on two separate occasions with the last extension using reinforced concrete for the wing walls.

Immediate use for the trail: No action required. This structure is sound for immediate use.

Maintenance recommended: Prep and paint steel members – 20 years

Opinion of cost:

For a timber deck: \$17/sf of bridge deck

For concrete planking: \$25/sf of bridge deck

(These figures include setting the deck on the existing superstructure and erection of a railing system.)

-- Jeffrey S. Case, PE

January 9, 2015

Devault Trail Feasibility Study - OPINION OF PROBABLE COST OF INSALLATION

Charlestown and Schuylkill Townships and Borough of Phoenixville, Chester County, Pennsylvania
Prep'd by Campbell Thomas & Co., 1504 South Street, Philadelphia PA 19146 tel 215-545-1076

Description		Distance (l.f.) or quantity	Unit cost	Cost	Total cost	Phase of Implementation
Alternate A						
	Signage of existing trail	1197	\$2	\$2,394		-
	On-road bike route (signage and sharrows)	4593	\$3	\$13,779		-
	Multi-use side path	23224	\$120	\$2,786,880		-
	Road crossing - signalization and crosswalk	3	\$25,000	\$75,000		-
	Road crossing - crosswalk and signage	10	\$2,500	\$25,000		-
	Trail bridge over stream	3	\$70,000	\$210,000		-
Total					\$3,113,053	
Alternate B						
	Sidewalk connection (Main St. and Vanderslice St.)	150	\$100	\$15,000		3
	Multi-use trail on existing railroad grade and ballast sub-base	1890	\$55	\$103,950		3
	Multi-use trail (Descending From Railroad Bed to Paradise St. Bridge)	1113	\$120	\$133,560		3
	Deck and railings on existing bridge (Paradise St Bridge)	1080	\$25	\$27,000	(units are s.f. of decking)	1
	Multi-use trail on abandoned roadway (Ascending from Paradise St. Bridge to Railroad Bed)	998	\$120	\$119,760		1
	Multi-use trail on existing railroad grade and ballast sub-base (Paradise St to Buckwalter Rd. crosswalk)	8502	\$55	\$467,610		1
	Road crossing - crosswalk and signage (Montgomery Ave.)	1	\$2,500	\$2,500		1
	Road crossing - signalization and crosswalk (Pothouse Rd. and Charlestown Rd.)	2	\$25,000	\$50,000		1
	Road crossing - crosswalk and signage (Buckwalter Rd. crosswalk)	1	\$2,500	\$2,500		2
	Multi-use trail on existing railroad grade and ballast sub-base (Buckwalter Rd. to Buckwalter Farm Rd.)	1527	\$55	\$83,985		2
Preferred Alternate	Road crossing - signalization and crosswalk (Buckwalter Farm Ln.) <i>Necessary only if Buckwalter Farm Lane crosswalk preferred alternative is used- see pg. 14 of report.</i>	1	\$2,500	\$2,500		2
Alternate	Deck and railings on existing bridge (Buckwalter Farm Ln.) <i>Necessary only if Buckwalter Farm Lane bridge alternative is used- see pg. 14 of report.</i>	1500	\$25	\$37,500	(units are s.f. of decking)	"
	Multi-use trail on existing railroad grade and ballast sub-base (Buckwalter Farm Ln. to Pickering Creek Trestle)	2033	\$55	\$111,815		4
	Deck and railings on existing bridge (Pickering Creek Trestle)	7500	\$25	\$187,500	(units are s.f. of decking)	2
	Split rail fencing on abutments of Pickering Creek Bridge	200	\$25	\$5,000		2
	Multi-use trail on existing railroad grade and ballast sub-base (Pickering Creek Trestle to Warner Ln.)	13376	\$55	\$735,680		4
	Abandoned railroad spur connector (Devault Railroad to Route 29 at Pickering Creek)	1467	\$120	\$176,040		4
	Split rail fencing/safety railing on abutments of Union Hill Rd.	200	\$25	\$5,000		2
	Road crossing - crosswalk and signage (Great Valley Nature Center Connection at Route 29./ Aldham Rd.)	1	\$2,500	\$2,500		4
	Road crossing - crosswalk and signage (Devault Quarry driveway)	1	\$2,500	\$2,500		2
	Road crossing - signalization and crosswalk (Morehall Rd.(SR.29))	1	\$25,000	\$25,000		2
	Road crossing - signalization and signage improvements (Warner Ln.)	1	\$25,000	\$25,000		2
Total					\$2,284,400	
Alternate C						
	On-road bike route (signage and sharrows)	6787	\$3	\$20,361		-
	Multi-use side path	19704	\$120	\$2,364,480		-
	Road crossing - signalization and crosswalk	4	\$25,000	\$100,000		-
	Road crossing - crosswalk and signage	6	\$2,500	\$15,000		-
	Trail bridge over stream	5	\$70,000	\$350,000		-
Total					\$2,849,841	

Devault Trail Feasibility Study - OPINION OF PROBABLE COST OF INSALLATION

Charlestown and Schuylkill Townships and Borough of Phoenixville, Chester County, Pennsylvania
Prep'd by Campbell Thomas & Co., 1504 South Street, Philadelphia PA 19146 tel 215-545-1076

Description	Distance (l.f.) or quantity	Unit cost	Cost	Total cost	Phase of Implementation
Trail Connections					
From Devault to intersection of Moorehall Road and Atwater Drive					
Multi-use side path (Warner Ln, and Morehall Rd.)	2037	\$120	\$244,440		4
Road crossing - signalization and crosswalk	2	\$25,000	\$50,000		2
Total				\$294,440	
From Devault to Great Valley Middle School and High School					
Multi-use side path	9247	\$100	\$924,700		future
Road crossing - signalization and crosswalk	1	\$25,000	\$25,000		future
Road crossing - crosswalk and signage	3	\$2,500	\$7,500		future
Total				\$957,200	
From Phoenixville across Schuylkill River Bridge to Mont Clare					
Multi-use trail on existing railroad grade	2625	\$55	\$144,375		future
Multi-use trail on paper street	288	\$120	\$34,560		future
Road crossing - crosswalk and signage	1	\$2,500	\$2,500		future
Total				\$181,435	
Alternate B Proposed Trail Heads					
Existing: The Schuylkill River Heritage Center					
Trailhead Existing	Existing	Existing	\$0		-
Mile 0.7: Paradise Street					
Info. Kiosk / Signage / Amenities	1	\$25,000	\$25,000		1
Mile 1.5: Marosek Park					
Info. Kiosk / Signage / Amenities	1	\$25,000	\$25,000		1
Mile 2.2: Schuylkill Township					
Info. Kiosk / Signage / Amenities	1	\$25,000	\$25,000		1
Mile 5.5: Charlestown Township Owned Open Space					
Info. Kiosk / Signage / Amenities	1	\$25,000	\$25,000		2
Mile 5.7: Charlestown Township Owned Open Space					
Info. Kiosk / Signage / Amenities	1	\$25,000	\$25,000		2
Total				\$125,000	



THE DEVAULT TRAIL Feasibility Study

Comments received at the *Ideas* Public Workshop

Monday, May 12, 2014 from 7:30 PM - 9:00 PM

Great Valley Middle School, 255 Phoenixville Pike, Malvern, PA 19355

-
1. Discussion about crossing technology. Bicyclists tend not to stop for push button activation; motion sensor-activated signals are better. Even signals can be dangerous: many motorists don't stop for flashing lights.
 - a. Suggested that motion-actuated flashers be installed at the crossing of Buckwalter Road and at the quarry entrance (located along State Road/PA Route 29 about one quarter of a mile north of intersection with Charlestown Road). It's anticipated that in five years the quarry may cease operation.
 - b. Suggested that push button-actuated pedestrian / bicycle phase be added to the following three existing traffic signals:
 - i. Pothouse Road at Charlestown Road
 - ii. State Road at Charlestown Road
 - iii. Morehouse Road at Yellow Springs Road
 - c. Suggested that a three-way stop sign be installed at intersection of Church Road and St. Johns Road (proposed Warner Spur rail-trail crosses both roads here)
 2. This study should include recommendations of the just-completed Great Valley / Route 29 Multimodal Study.
 3. Charlestown Road / Phoenixville Pike area: proposals for 350 units in an area zoned for mixed use TND (Traditional Neighborhood Development). May be an appropriate place for trail access
 4. Possible connections to the Chester Valley Trail:
 - a. In adjacent Tredyffrin Township, the two-mile long ex-Reading Railroad Cedar Hollow Branch (also called the Warner Spur) from the intersection of Church Road/St. Johns Road to the Chester Valley Trail, is owned by Tredyffrin Township. Development of this abandoned rail corridor as a multi-use trail, while not imminent, is on Tredyffrin Township's five year plan.
 - b. Sidley Road and Mill Lane could provide a bike-friendly alternative link to the Chester Valley Trail.

5. Study should address planning for restrooms, operation and maintenance costs, security/patrolling
6. Possible downside to trail: liability, improved access for illegal hunters, injuries/fall – particularly from trestle, assaults, fire risks, endangered species
7. Survey people who live along the trail.
8. Suggest crushed stone trail surface – more appropriate for rural Charlestown.
9. Enough trails. Nation is on a trail building binge!
10. This trail would help raise the status of the Horseshoe Trail.
11. Linkages: Pickering Trail, Phoenix Iron Canal Trail to Black Rock Sanctuary, Battle of the Clouds Park, Great Valley Middle/High Schools, Charlestown Nature Center
12. Representative from Tredyffrin Township said that there has been absolutely no problem with security along Township trails. [It should be noted that the Monday May 12 2014 (earlier on the day of the meeting) attempted sexual assault of a lone jogger in an underpass near the Treyburn development (near Old Eagle School Road) occurred on a secluded trail not widely used by the public.]
13. It was stressed that there are no pre-ordained conclusions to this feasibility study. The study will be considered a success regardless of whether its findings judge the trail to be feasible, or not.
14. Suggested trail access points: Marosek Park in Phoenixville, Aldham Station, Chester Valley Grange (currently for sale), Phoenixville YMCA, Great Valley Nature Center
15. Trails direct people; trail users tend not to wander onto adjacent properties.
16. Several residents of Charlestown Hunt subdivision would like access to the trail [a de facto footpath already provides access to the unused rail bed]
17. NIMBY -- Not in my backyard!
18. A meeting attendee listed the following concerns:
 - a. What was the established business practice to determine another link?
 - b. Will this take money from regular road maintenance?
 - c. What is the projected number of daily users?
 - d. There aren't enough volunteers to maintain current trails (six).
 - e. What provision is planned for automobile traffic, parking, security, environmental impact?
 - f. Safety and security for quiet woods areas
 - g. Noise to nature preserve -- how it affects wildlife with more users on the trail through the preserve
 - h. What happened to Charlestown's Green Vision - too much approved development.
 - i. How much will this cost? Initially, eventually in taxes
 - j. We just presume nature lovers will use it -- maybe not.
 - k. Bridge [] over the creek

- l. Newsletter said there were under-utilized trails and lack of volunteers
 - m. Pedophiles lurking on trail in desolate area
 - n. Financial liability
 - o. Emergency access limited
 - p. Drowning risk
 - q. Risk of falling from bridge
 - r. Trash and sanitation
 - s. Privacy violated
 - t. Theft risk to our property
19. Dangerous roads a concern
20. I am absolutely in support of this trail. Just let me know how I can help [resident of Charlestown Hunt whose children attend Great Valley Middle School / High School, hoping the school complex can be reached by the proposed trail].
21. Cost of building and of maintaining the trail: would it be funded by the Township or by the County, or split between the two?
22. What is the anticipated time period for this trail?
23. Will this process include a cost estimate?
24. Walk for exercise. I would probably never use this trail even though I live 500' from it.
25. Provide access for horse trailers to park, for equestrian use.



THE DEVAULT TRAIL FEASIBILITY STUDY

Notes from the "Analysis" Public Workshop

Monday, October 20, 2014 from 7:00 PM - 9:00 PM
Great Valley Middle School, 255 Phoenixville Pike, Malvern, PA 19355

Total attendance: approximately 35 – see sign in sheet

Attendees – see sign in sheet – In addition to township residents, representatives from the municipalities, County Planning Commission and local trail and greenway groups attended. Also, three residents of Carrow Lane, primarily opposed to the development of a trail along the Devault RR corridor, attended.

Meeting Minutes:

1. Michael Churchill from the Charlestown Township Planning Commission began the evening workshop by thanking everyone for their attendance before providing a brief introduction to Bob Thomas from the consulting team. He acknowledged the representatives of the County Planning Commission attending and discussed the purpose and funding of the feasibility study. He then briefly laid out the structure of the analysis public workshop.
2. Bob Thomas proceeded by explaining why we are here today and where the consulting team is in the process for the Devault trail feasibility study. In May, 2014 a public inventory meeting was held to introduce the project, but today's meeting is focused primarily on analysis and public feedback regarding the project alternatives that have been studied. At this point Bob Thomas introduced Mike Szilagyi from the consulting team to present the three alternatives studied by the consulting team.
3. Mike Szilagyi began by introducing the overall concept of the Circuit regional trails network of the Greater Philadelphia area noting the Circuit is a network of 750 miles of existing and proposed trails, 250 of which are in place. The Devault Trail, along with the development of the Warner Spur, could create two major spokes in the Circuit between the Schuylkill River Trail and the Chester Valley Trail. An immediate question was raised regarding the certainty of the Warner Spur being developed in Tredyffrin Township. It was noted that the 202 overpass had been raised as part of the highway construction specifically to accommodate the Trail.

Mike proceeded with slide show, noting that the SRT will cross into Phoenixville on route 29 and a state grant has been awarded to the borough to create the new "gateway".

Next, he showed route conditions and proposed details along the three trail alternatives that have been compared:

- Alternative A is a partially on-road and off-road option that proceeds from Phoenixville to Devault using Bridge Street and Charlestown Road. The alternate requires the cooperation of a lot of private property owners to establish the proposed side paths. Grading and construction challenges were also noted.
- Alternative B uses the inactive Norfolk Southern Railroad section to create an entirely off-road multi-use trail from Phoenixville to Devault. This is likely the easiest alternative in terms of construction and right-of-way acquisition. Construction would improve conditions along the corridor, such as drainage. The slide show also noted community connections that could be facilitated by use of the existing rail right-of-way.
- Alternative C is a partially on-road and off-road option that proceeds from Phoenixville to Devault using Starr Street, Main Street, and Route 29. This alternative has similar right-of-way and construction issues to alternate A.

All three alternates end in Devault; there is an opportunity to connect to the Chester Valley Trail using the off-road Warner Spur that is currently being considered for development by Tredyffrin Township. Slides of current conditions along the Warner Spur were presented.

Mike Szilagyi concluded the presentation by providing a number of trail examples that have been accomplished throughout the region. These examples showed the variety of side path, rail-to-trail, bridge crossing, and multi-use trail surface options available to trail builders today.

In immediate response to the presentation, a resident suggested that Whitehorse Rd. should be explored as an alternate. It was suggested by the consultant team that the conditions along Whitehorse were similar to those along other alternatives. The resident did not agree and repeated his suggestion.

4. At the conclusion of the presentation, the consulting group and study committee were made aware of a miscommunication regarding the start time of today's meeting. The letter from the township to residents had indicated that the meeting started at 7:30pm, not 7:00pm, and a number of residents arrived just as the slide presentation was ending. One of the residents of Carrow Ln was upset about the miscommunication. In response, Bob Thomas repeated the presentation for a group of about 9 residents who had arrived towards or at the end of the presentation, while other attendees began their breakout group sessions.

After the repeated presentation, one of the one of the residents raised a question regarding who would own the trail right of way (in the case of the use of the Devault RR corridor) and

g:\f&p-deva\draft report\components\appx e - analysis workshop - comments received 2014-05-12 and 2014-10-20 v005.doc

g:\f&p-deva\draft report\components\appx e - analysis workshop - comments received 2014-05-12 and 2014-10-20 v005.doc

if a property owner wanted access through the property, who would they contact? RPT noted that that was yet to be determined.

5. For the group discussions, Bob Thomas instructed the audience to break into small groups of 6-8 people to review ideas on route alternatives, key connections, and possible concerns. Each individual was also provided an overall map for marking up and a questionnaire and comments sheet to provide their individual feedback. Members of the steering committee and/or the consulting team are here to help facilitate the discussions at each individual table and appointed a "scribe" to take notes and provide feedback to the overall group at the end. Four groups formed of about 6 to 9 and the group discussions ended at approximately 8:25pm.

6. Table reports in order of reporting

Round tables, front to back, numbers 1,2,3,4 – Long tables, front to back, numbers 6, 7. Key points, suggestions and concerns raised are:

Table 6

- A variety of backgrounds and perspectives were represented at the table including from "back in the train days".
- Connections are important ... with other trails and area schools.
- The Devault corridor is "just short of" the Thompson Trail on a pipeline easement.
- Potential Trail head locations include: Phoenixville, Marosek Park, Pothouse & Charlestown Rd., Veronica Lane, and Buckwalter Rd.
- Crossing safety was noted as a concern.
- Pothouse Road was noted for traffic conditions.
- Plans for Phoenixville schools should be reviewed in relation to connections.
- Suspension Bridge / History Trail?
- Connections from the Trail/Path to Pothouse road and Rt. 29.
- Connections to the Phoenixville sidewalk system.

Table 4

- High potential for equestrian use was noted in Charlestown Township.
- It was noted that the trail wouldn't be as effective without the connection to the CVT, which is contingent on the Warner Spur Trail work in Tredyffrin Township. CTC will check on the status of this.
- Connections to the High School, Middle School, and YMCA were noted.
- The potential for a path along Rt 29 to the CVT was discussed.

Table 3

- General opinion was the Devault Rail Corridor was the only feasible choice.

- The other alternatives, including Whitehorse Rd. are “not good” or “feasible”.
- Connections are important: YMCA, Great Valley Schools, and Kimberton Trails.
- Connection to the French & Pickering CCT efforts.
- Potential access points – Marosek Park, the Tech School, and Aldham Rd.
- Connection to the Horseshoe Trail

Table 1-2 (Slideshow repeat group)

- Noted a concern about violence and safety on the trail.
- Also noted high usage can make the safer.
- It was noted that the Chester Valley Trail is used by people of all ages and is not just a bicycle route.
- “Is there an opportunity to use the Pickering Preserve land located adjacent to the rail corridor to accommodate the trail, rather than using the rail bed? This would be less impactful to local resident’s property.” Others in the group believed the use of the rail bed in this section would be graded, and there for a better trail option.

7. Following the large group discussion, additional questions and comments were addressed:

Comment A:

John Carrow: Resident of Carrow lane who has property adjacent to the Alternative B railroad trail option.

- He has concerns of privacy and noise as he has been living there for 30+ years and doesn’t want the rail corridor opened to the public.
- He also has concerns about maintenance issues that will be created on lands they now “police, such as under the trestle where debris is thrown off the trestle now.” They don’t want to have to deal with more.
- Safety is a serious concern for him, especially as there are a number of hunters in the area.
- He encourages the project team to look at other options and believes that a trail that is more visible and along the road is much safer for the trail users than a trail that is hidden away in the woods.
- He feels there are other alternatives, such as Whitehorse Rd. that have not been considered.
- He has concerns about emergency access for people who might be injured on the trail if the RR is used.
- He is concerned about concealment along the RR and the activities that it may lead to.

Comment B/Response to Comment A:

Mark Connolly: President of Phoenix Iron Canal & Trails Association.

- Noted he's worked for 25 years on trails in the Phoenixville area.
- He stated that connections are critical.
- He noted work that he has done to get the trails in a K-Mart and Giant Supermarket property.
- He noted the negotiations with Toll Brothers to get the trails system included in their planned redevelopment of the former Phoenix Ironworks site.
- Can't forget the "incredible economic value" of these trails for the future.
- He noted his organizations feasibility analysis and that you can't ignore the positive impact that comes from trails through miles of reduced driving.
- He noted the work of Barry Cassidy in putting together the studies for the "Green Line" (a proposal to re-open the Devault train line) and how the "books were cooked" on the ridership numbers to make it seem more feasible. The "Green Line is gone."
- As a resident of Charlestown Township involved in establishing the trails at Charlestown Park he noted that "Old People love the trails".
- Trails are an important part of the fabric of the community – Critical entities within the community with economic and social benefits.
- He believes adjacent landowner's concerns can be addressed.

Comment C:

Another resident of Carrow Lane.

- Noted that danger of the trestle. She has spent years discouraging people of all ages from using the trestle.
- "Many kids have gotten hurt over the years climbing on the trestle and the rock wall."
- She understands that "everyone wants what she has" but it is not safe.
- She is concerned about the liabilities it would create for the township.
- She noted assaults on other trails, including the Radnor trail: She repeatedly mentioned the woman just recently assaulted on the Radnor Trail

Follow-up to Comment C:

Harry Murray of CTC research the records regarding incidents on the Radnor Trail and nearby vicinity and found the following:

g:\f&p-deva\draft report\components\appx e - analysis workshop - comments received 2014-05-12 and 2014-10-20 v005.doc

g:\f&p-deva\draft report\components\appx e - analysis workshop - comments received 2014-05-12 and 2014-10-20 v005.doc

- There appears to be no recent report of a woman assaulted on the Radnor Trail. Additional research of trail attacks indicated the following:
 - In April of 2014 there was a spam e-mail circulating that there had been an assault on the trail, but Police said the e-mail was false.
 - In 2009 there was an armed robbery at a secluded WAWA in which the people blamed the nearby Radnor Trail.
 - In 2011 there was a “flashing” incident on Radnor Trail. Police apprehended the man within minutes of the 911 call.
 - In May 2014 there was an attempted sexual assault on a woman on the CVT in Tredyffrin Township; the suspect is still at large.
 - Also in Radnor Township, a woman was assaulted on the Cabrini College campus in May 2014, and sexual assaults continue to be an issue on the Villanova Campus.
 - During October of 2014 in Radnor there were a number of crimes that took place nowhere near the Radnor Trail. These included: an attempted burglary Rosemont; an armed robbery of TD Bank on Lancaster Ave at 9:00 AM; and thefts from vehicles at Cornerstone Lane

Question 1:

Mark Connolly: Suggested that alternatives be considered that don't include use of the trestle. Possibly going along “The Hunt” property.

- Response noted that crossing route 29 is “crazy and dangerous” in that area.
- Bob Thomas suggested that it may be an issue of how the trestle reuse is designed and managed.
- Other trails with bridges and use of bridges for trails were noted- The Manayunk Bridge project, bridges on the SVT and SRT, and the trail bridge over the Schuylkill Expressway built by PennDOT.
- Jim Morrisson added that safety issues on trestles have been addressed in numerous projects. The Chester Valley Trail has bridges with walls and a top to them to avoid the danger of falling. Additionally, there is a steep decline, a river crossing, and a road crossing of route 29 that would be needed to detour from the rail corridor.

Question 2: Will electric bikes be allowed on the trail? I know that motorized vehicles are not usually allowed, but do electric bikes count as motorized vehicles?

- Michael Churchill noted that this would be a management issue, much like the concerns of many of the questions we have seen in regards to cleanliness and safety.

Management of a trail is extremely important and there are a number of safety and policing techniques that can be adopted.

- Bob Thomas noted that the team will speak with Police and "First Responders" for their input as part of the study process.
- There was a related fire responder story in which the trail access provided better access for firefighting in one instance.

8. With no further questions, everyone was thanked for their attendance. All questionnaires, maps, and log sheets that had been provided, were gathered by the consulting group for analysis.

9. Additional Comments that were noted on questionnaires and marked-up maps include:

1- Where do you want to go?

- "Outside for an enjoyable walk, ride away from traffic and cars."
- "multi-use-equestrian trail"

2- What are your destinations?

- "Outside for exercise- The Norfolk Southern Devault Branch is the best option for enjoyable exercise outside."

3- What obstacles do you face in walking or bicycling?

- "Lack of shoulders and bike lanes in much of Chester County makes biking dangerous in many areas."
- "Light timings at at-grade crossings."
- "Prefer flat or gradual grade trail. Charlestown road option is much too steep to consider. Route 29 is too dangerous. Rail Trail is the best option."
- "timed lights, better crossing markings"

4- Existing off-road trails you know.

- Horse-Shoe Trail& Thomson Trail are in place.

Connections Suggested:

- Horse-Shoe Trail
- Thomson Trail
- Pipeline easement at Union Hill Rd, where Horse-Shoe Trail could connect to Thomson Trail
- YMCA
- Tech School

- Schuylkill River Trail
- Connections through Tredyffrin Township
- YMCA Connection through CAT
- High School for cross-county team

Trail Heads Suggested:

- Phoenixville
- Markley
- Devault
- GVNC
- Pothouse Road and Charlestown Road
- Veronica Road and Buckwalter Road possible easement (with Natural Lands Trust)

Recommendations:

- Traffic light timings at at-grade crossings

Other Comments

- "Is one of the alternatives to do nothing?"
 - "Whitehorse road alternative"
 - "Side paths along roads are safer"
- Township trials become important for equestrians.
- "Whitehorse, Charlestown, and Route 29 all have prohibitive grades"