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4.0 Development & Phasing

4.1 Recommendations

- 1. Develop Greenway in Phases** – The Southside Greenway is a major civic project that will need to be developed in phases. The master plan provides the guidelines for the general development that was negotiated through the public involvement process. The master plan should be considered an active document that is flexible enough to accommodate future changes that will inevitably come from additional public input, more detailed information about physical conditions, new partnership opportunities that develop and the actual availability of project funding.
- 2. Focus Early Improvements on “Greening”** – As control of the R.O.W. properties is established by the City, the Greenway can first be made “green” for its entire length by minor clearing / grading / seeding and obvious safety improvements. The subsequent mowing maintenance required is straightforward and within the capability of the City’s current park maintenance operations. Greening the corridor and regular landscape maintenance along its length will unify the greenway visually from block to block and define the boundaries of the public property. Adjacent property owners will be encouraged to match this simple maintenance regime for properties abutting the Greenway. Signs at Greenway entrances are good, relatively low cost, early improvements that showcase public “ownership” and community pride in Bethlehem.
- 3. Develop “Adopt a Greenway” System for Community Partnerships** – Community organizations can help the City to develop and maintain the Greenway on a block-to-block basis. Partnership assistance can include: installation of amenities, periodic maintenance and block watch coordination with police. “Adopt a Greenway” signs can be installed on each block to acknowledge the contributions from the individual organizations. The City can institutionalize these volunteer groups by assigning a coordinator in one of the City departments to convene volunteer representatives annually, as well as provide a procedure for the City to review proposals from volunteers to make improvements to individual blocks.
- 4. Acquisition of the Greenway** – Negotiate the terms for control of the Greenway R.O.W. with Norfolk Southern to enable the City to take advantage the opportunities for greenway development funding from state, federal and other sources.



5. **Secure Funding** – The next phase, after master planning, is design and construction of various Greenway components. To achieve this goal, greenway trail developers usually tap into funding from multiple sources. Public agencies that typically fund development of greenways and trails include the PA Department of Conservation and Natural Resources (DCNR), and PA Department of Transportation. Bethlehem is eligible for greenway funding from both, as well as from other sources.
6. **Enact Partnerships** – These cooperative agreements may be negotiated between agencies or between public and private entities. BethWorks Now and the City Parking Authority are both examples of potential partners that can help the city develop specific components of the Greenway system.
7. **Official Map** – The Official Map is a planning tool that can be adopted by the municipality to identify future public improvements that it wishes to see developed on public and private properties. Improvements can include roads, utility rights of ways, trails and other public improvements. Items included on the Official Map must be acted upon by the municipality within one year of an official land development submission for a specific parcel. If the municipality declines to act, then the applicant is not obligated to include the public improvement in the plans.

In the case of the South Bethlehem Greenway, official map elements might include:

- Trail extension East to Saucon Park (around the outside of rail yard)
- Public parking structure / bus station / police station / public plaza in the block bounded by Second, Third, Brodhead, and the Banana Factory.
- Greenway trailhead / parking on the parcel at Fourth and William Streets.



4.2 Funding & Partnerships

Norfolk Southern (NS) – Norfolk Southern is more of a challenge than a project partner. Despite the public relations, the company must usually be forced to the negotiating table by political unity in a community. Acquiring the right-of-way from NS for Phase 1 is the biggest challenge for the City of Bethlehem. Including the City's preferred terms of the acquisition is the key to a successful transfer of the corridor properties.

4.2.1 Federal, State, & Local

PennDOT – PennDOT is a true project partner for Bethlehem in several ways.

- **Route 412 Project** – The Route 412 project is an opportunity to integrate portions of the Greenway development with specific highway and bridge improvements that PennDOT and the City are currently planning. As described in the “Inventory & Analysis” section, these include:
 - Lynn Avenue Bridge
 - Route 412 widening
 - Second Street Ramp
- **Acquisition (TE Funding)** – PennDOT administers the federal “Transportation Enhancements” funding from the Federal Highway Administration (FHWA). District 5 is the local PennDOT office that is managing the current TE funding that Bethlehem has secured for R.O.W. acquisition.
- **Development (TE Funding)** – PennDOT will also manage future Transportation Enhancements grants that may be secured by the City of Bethlehem and its partners to construct components of the Southside Greenway. Application periods usually close in September or October of each year. The PennDOT TE applications are submitted online. Home Town Streets, Trails, and perhaps even Safe Routes to School are eligible funding categories under the TE program for various components of the South Bethlehem Greenway.
- **Transit Research and Development** – The TR&D program in PennDOT has been administered through the Central Office of Local and Area Transportation and provides grants to municipalities and organizations to study and demonstrate innovative transit initiatives. The Greenway development offers the potential to study the integration of a new transit service that can share portions of the R.O.W. A number of City partners have expressed interest in this type of study.



- **Other FHWA Funding** – The Federal Highway Administration offers other programs that may be applicable to components of the Greenway development. The CMAQ (Congestion Mitigation Air Quality) program is used in conjunction with trails, greenways, park and rides, and transit facilities to improve air quality by reducing auto emissions. This option should be researched.

PA DCNR – The PA Department of Conservation and Natural Resources (DCNR) is a natural partner for the City of Bethlehem to develop a Greenway. The DCNR “Community Conservation Partnership Program (C2P2) provides funding for communities and non-profit organizations to acquire and develop public open space and recreation resources. Bethlehem is currently using DCNR funding to cover a portion of the costs to acquire the Greenway from Norfolk Southern. DCNR has grant application periods annually. The 2006 funding application cycles close on September 30, 2005 and April 14, 2006. The April 2006 deadline is an experimental cycle that is restricted to “planning” and “acquisition” project applications. Bethlehem is eligible to apply for a “Development” grant in September 2005. The grant awards will be announced in the spring of 2006. The funds would be available to the City during the summer of 2006. Many applicants with transportation-related projects apply to DCNR to cover the 20% local “pre-construction” match to an 80% federal match for project construction through TE funding. The Southside Greenway is an eligible project for this type of matching strategy. Contact should be made with the regional DCNR advisor as soon as possible to discuss the details of a grant application.

PA DCED – The Department of Community and Economic Development has several programs that might apply to Greenway improvements. The most flexible program for Greenway projects may be the “Community Revitalization” grants. Applications to DCED are submitted online. Grant awards are highly subjective and often the selection is based upon the strong support of state representatives and state senators. DCED funding can be matched to other state and federal funds, and can be targeted to almost any project cost.

Community Development Block Grants – At its discretion, the City of Bethlehem can target a portion of its CDBG funding toward Greenway improvements.



D&L Heritage Corridor – The Delaware and Lehigh Heritage Corridor is a state / federal designated heritage corridor that administers both state and federal funds toward eligible projects that meet the goals of the program. The National D&L Trail runs through Sand Island on the north side of Bethlehem. “Market Towns” is an initiative created by the D&L Corridor to assist historic commercial communities along the Delaware and Lehigh Canals. Funding is available through the D&L Corridor from state and federal sources. The D&L is part of the Pennsylvania Heritage Parks Program under DCNR. D&L state funding cannot be used to match other DCNR funds, but can match other state funding. The D&L is often influential in securing or assisting partners to secure TE funding for specific projects in the Corridor. Signage is one type of implementation project that the D&L Corridor has a particular interest in funding. To be eligible for such funds, the basic signage needs to conform to the D&L standards for Corridor signage – as specified in its “Graphically Speaking” design manual.

KIZ – The Keystone Innovation Zone in Bethlehem is one of only two in Pennsylvania. The KIZ is administered by the Lehigh Valley Economic Development Corporation (LVEDC) with funding from the Commonwealth of Pennsylvania. The “innovation” zone is version of the KOZ (opportunity zone) that focuses on linking higher education institutions with industries to develop and exhibit new technologies, as well as improve the quality of life to attract and keep the technological businesses and employees in the Bethlehem and other regions. An initiative to be studied within the KIZ is the feasibility for an innovative shuttle system within South Bethlehem that can serve multiple users – including the colleges, BethWorks Now, residents, businesses, and visitors. The Greenway R.O.W. should be considered to assess which segments might provide partnership opportunities for such an amenity.

Bethlehem Parking Authority – This agency builds and manages all public parking in the City of Bethlehem. The Authority will build any new public parking facilities that may be associated with the Greenway. These spaces will be metered to produce income for the City. The City investment in these “trailhead” facilities should be considered as matching funds to leverage either state or federal funds to construct other components of the Greenway trail.

Northampton County Green Futures Fund – The Northampton County Green Futures Fund was approved by voter referendum. Guidelines and phasing have been proposed, but funding has not yet been set by the County. Allocations to each municipality have been set based on population. If funded, the City’s allocation would be just over \$1 million over a ten year period. County funding will provide a valuable source of matching funds that can be used to leverage state and federal funds for greenways, trails, and streetscape improvements.



4.2.2 Private Enterprise

BethWorks Now – BethWorks Now is considered a large private-sector partner with the potential to help develop part of the Southside Greenway. BethWorks Now has plans to make many pedestrian and streetscape connections from BethWorks Now properties – across the Third Street corridor – linking to the Greenway and the neighborhoods to the south. The specific improvements that will be made by BethWorks Now is yet to be determined. The widening of Daly Ave appears to be a necessity if a new entrance to the BethWorks Now casino site is created east of the Minsi Trail Bridge. The City has the opportunity to create partnership with the project developer in this segment where additional highway R.O.W. will be required. Other partnership opportunities may include displaying some of the industrial artifacts from the historic steel mill as focal pieces along the Greenway. Other possibilities for partnerships will likely develop as both projects progress.

Weldship – The City can continue discussions with this manufacturer as a potential major partner in the future re-development of the block between the Banana Factory and Brodhead Avenue, and Second and Third Streets. The possibility of a new Second Street Ramp in this area opens up the potential to negotiate the relocation of the company’s existing tank storage yard on that site. A successful partnership agreement to relocate the tank storage use and retain the company operations in Bethlehem would allow the City to prepare for a major economic development initiative on the site that would combine Greenway improvements, additional parking, public open space and mixed commercial uses.

Perkins Restaurant – The outcome of the PennDOT Second Street Ramp study will determine the potential impacts to the Perkins Restaurant site. The City can begin discussions with the company to determine how the business can remain in South Bethlehem, if the site is acquired by PennDOT for the project.

Small entrepreneurs – The Southside is known for its small entrepreneurs as the pioneers who began and sustain the business renaissance. The Greenway development is envisioned by many as the catalyst needed to increase small business investments into South Bethlehem. The Mechanic Street blocks are considered the heart of the central business district and the places where existing and new businesses can begin to turn their commercial faces toward the new civic “Green”. The block where the R.O.W. turns between New and Third Streets is viewed as prime for redevelopment of the existing buildings (and possible infill buildings) into commercial establishments that can take direct advantage of the adjacent Greenway to provide open air cafes, restaurants, shops and small music venues that become a seamless integration of community and economic development. The City can investigate the possible incentives it might use to encourage private investors into these target areas. The City can also encourage and license street vendors to operate in this urban, western end of the Greenway to provide activity along the Greenway starting with peak periods, and then possibly expanding as success builds.



4.2.3 Academic Institutions

The Northampton County Community College and Lehigh University are both located within one block of the Greenway and are expected to provide hundreds of users to the City's Greenway system. Both institutions have taken an active role on the Greenway steering committee and have the potential for partnerships with the City that provide deep mutual benefit to students, faculty, staff and residents of Bethlehem. The concept of shuttle transit that serves all users of the Southside is a Greenway-related issue in which both institutions share a keen interest. The students and faculty of both schools should be considered as untapped resources for a variety of Greenway initiatives, including visioning, art, design, labor, maintenance, and fundraising among other partnering possibilities.

4.2.4 Non-profit Organizations

Banana Factory – The Banana Factory is an active partner in the Greenway planning and development. The “Factory” plaza west of the building is envisioned to serve as part of the Greenway “alignment” as it crosses Third Street and extends west toward the Hill-to-Hill Bridge “terminus.” The organization will be instrumental in developing the design for the Greenway, as well as serving as an ambassador for the art and music interests to integrate these activities into the developing community landscape.

Community Organizations – The organizations of the Southside have the opportunity to take “ownership” of the Greenway in terms of design, construction and maintenance. Several organizations were represented in the Greenway master planning process. The idea was suggested that each organization could become responsible for a greenway block. This responsibility can vary depending on the ability of an organization to provide volunteer labor or other forms of support. The City should identify a department that will convene these interested groups annually to share visions and resources for improving “their” Greenway block. The design process for Phase 1 improvements should include additional public meetings to further refine the community's desires for specific features along each block.



4.3 Costs

Project costs are divided into three categories:

- Acquisition
- Capital (costs for design and construction), and
- Maintenance (costs for operation, maintenance, security)

Acquisition – Monies for acquisition of the Greenway have been obtained by the City from DCNR and PennDOT (Transportation Enhancements). Final costs will be determined based on the final negotiations with Norfolk Southern. BethWorks Now is an important partner that may be able to offer assistance to the City with acquisition of the eastern segment of the Greenway, as it impacts BethWorks Now potential need to widen Daly Avenue west of the Minsi Trail Bridge to Founder's Way.

Capital Costs – The master plan provides a detailed estimate of overall Greenway construction costs. These costs are itemized by discrete segments to allow the City to accurately estimate costs as various improvements are implemented in various sections of the Greenway. Please refer to the detailed cost estimates in this report.

Maintenance – Maintenance of the South Bethlehem Greenway will be one of the most important and costly aspects of the project. Funds for maintenance are difficult to budget, however these are necessary costs since the quality of the Greenway will have a direct influence on the surrounding neighborhoods of the Southside. While the bulk of the maintenance responsibility will fall to the City, community assistance is vital and necessary. "Friends of the Greenway" group(s) and corporate, institutional and neighborhood "sponsors" will be key partners in helping to maintain the Greenway as a premier transportation, recreation and quality of life amenity on the Southside.



4.4 Maintenance Schedule

It is recommended that the City develop a maintenance management plan which sets quality and performance standards for maintaining the South Bethlehem Greenway. Maintenance cost have been estimated to average \$55,000 annually for the eleven (11) acre Greenway. The following is a basic monthly outline of basic maintenance tasks that should be completed with monthly frequency indicated in parentheses.

January

- Pick up and remove trash (8)
- Tree pruning
- Snow removal from parking areas and formalized walkways

February

- Pick up and remove trash (8)
- Signage inspection and repairs
- Snow removal from parking areas and formalized walkways

March

- Pick up and remove trash (8)
- Inspect park trees for winter damage / perform work
- Snow removal from parking areas and formalized walkways
- Inspect open lawn areas for winter damage and perform necessary repair work
- Inspect lights, site amenities for winter damage.
- Aeration of all open lawn areas / top-dress as necessary and overseed
- Sweep play courts and pavilions
- Reline play courts as required (every other year)
- First mowing of open lawn areas
- Fertilize and lime lawn areas (possibly April)
- Apply pre-emergent crab grass controls if warranted (possibly April)
- Prune trees as needed

April

- Pick up and remove trash (12)
- Mow open lawn areas (3-4)
- Sweep play courts and pavilions (3-4)
- Inspect play equipment, etc. / make repairs



May

- Pick up and remove trash (12)
- Mow open lawn areas (4)
- Aerate open lawn areas
- Plant flowers and other landscape items

June

- Pick up and remove trash (12)
- Mow open lawn areas (4)

July

- Pick up and remove trash (12)
- Mow open lawn areas (3)

August

- Pick up and remove trash (12)
- Mow open lawn areas (3)

September

- Pick up and remove trash (12)
- Mow open lawn areas (4)
- Aerate open lawn areas
- Fertilize open lawn areas fields

October

- Pick up and remove trash (12)
- Mow open lawn areas (2-3)
- Aerate and top-dress open lawn areas
- Repair damage / compacted areas - seed
- Fall leaf pick-up
- Fall tree fertilization

November

- Pick up and remove trash (8)
- Fertilize open lawn areas
- Mow open lawn areas
- Fall leaf pick-up

December

- Pick up and remove trash (8)



4.5 Project Development & Phasing

The Southside Greenway project will need to be developed in Phases.

4.5.1 Phase 1: Design & Construction - Greening

Phase 1 commences after R.O.W. acquisition by the City and will include: basic clearing, grading, seeding and drainage improvements along the entire length of the Greenway corridor. Installation of electric conduit and utility improvements can be included in this phase where the budget allows and the future excavation of finished areas can be avoided. Signage and tree planting can also be started in this phase, if funded. The preferred parking improvements can be implemented by the Parking Authority as soon as it is able to begin and the investment works financially. The City may also utilize the Parking Authority's investments to leverage other matching funds. Norfolk Southern should implement its street crossing demolition and repairs in this phase.

4.5.2 Phase 2: Design & Construction - Trail

Depending upon the budget available, Phase 2 should focus on creating a continuous Trail throughout the length of the R.O.W. A segmented construction strategy can be designed if the Phase 2 budget falls short. Focus should be placed upon segments where private and other partners will assist with the project capital funding. Streetscape improvements (specifically the ADA Greenway crossings at local streets) should be a focus for design and development. These improvements may proceed along a different track from the new trail construction, depending upon City priorities and sources of available funding.



4.5.3 Phase 3: Design & Construction – Amenities

The third phase of Greenway development should focus on lighting and amenities including recreation facilities, benches, additional plantings, installation of art and artifacts, additional signage and the refurbishment of the railroad crossing signs and gates for greenway identity. At this point the City will need to set priorities (with input from community patrons) to determine the best way to move ahead with block-by-block development of the Greenway.

4.5.4 Later Phases

Later Greenway phases can include other public – private partnerships such as joint developments of a mixed parking / commercial / public space improvements, or the adjacent Greenway improvements such as the Hayes Street Gateway. Linkages to Saucon Park will also need additional planning and easement acquisition to create a viable Phase II Greenway trail extension for the City.

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