



Springdale Downtown Revitalization Master Plan

MAY 2013



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Acknowledgments

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Executive Summary

The Springdale Downtown Revitalization Project started as an idea during the development of the Razorback Greenway through Northwest Arkansas. During the design process the City of Springdale saw the new trail through downtown as an opportunity to revitalize the Downtown area. Among the major cities in Northwest Arkansas, Springdale is the only one with a creek running through downtown and the opportunity to highlight that is the catalyst of this process.

Project Area and Existing Conditions

The project is defined as the area south of Huntsville Avenue, north of Caudle Avenue, east of Thompson Street and west of Old Missouri Road. The focus is along Spring Creek between Huntsville Avenue to a point just south of Meadow Avenue.

The project area includes a broad mix of land uses and community destinations. Meadow Avenue and Emma Avenue are the spine of the commercial area; other land uses include parks, both municipal and residential. Some of the key destinations include:

- The Shiloh Museum of Ozark History
- The Art Center of the Ozarks
- The Mill Street Senior Center
- The John Powell Senior Center
- Grove Street Park
- Shiloh Square
- Springdale City Hall
- The Jones Center

Spring Creek is capped starting at Meadow Avenue northward to Johnson Avenue. Between Meadow and Emma, the cap is currently used as a parking lot for a bank and law office that are adjacent to the cap. From Emma to Johnson, the cap is home to Shiloh Square and an open space to the north that

has been used as spillover for events at Shiloh Square

Shiloh Square is at the heart of Springdale. It covers about half of a downtown block and serves as the community gathering space for downtown events. Over the years this has included the Farmers Market, a number of different festivals and holiday events. Shiloh Square is no longer adequately serving the need for a community gathering space and fewer events are being held there.

The heart of the project site, starting at Shiloh Square, and following east and west along Emma and Meadow, up to City Hall and down along Holcomb, includes more parking than is necessary for current uses. About one-third of the area in the heart of the project site is available as parking.

Visioning and Concept Development

Daylighting portions of Spring Creek and making that a focal point of a new Downtown Springdale is at the heart of this process. The vision and concept development process was designed to give the community a voice and to develop a plan that matches their vision. This included visioning exercises and development of three concepts based on input from the community. Next, there was a presentation and opportunity to comment on these concepts, leading to the selection of a recommended concept.

Visioning

The design team led visioning exercises for both the Downtown Alliance and the general public. The format was not formal, but an opportunity for free flowing thoughts and discussion among community members. The big ideas are summarized as follows:

- Public Gathering
- Programmed Events
- Open Creek

- Vibrant place with Shops and Restaurants
- Celebrate a Multicultural Community

Three concepts

The project team developed three design concepts for the heart of downtown. Each of these concepts was carefully developed to reflect the desires of the community that were shared during the visioning sessions. Each concept has a new or expanded public gathering space and removes the cap from at least a portion of Spring Creek through the downtown blocks. Each is named for the big idea behind the concept. They were Expanded Square, Linear Park, and Town Square. Each concept is shown in Chapter 5.

Concept Selection and Recommended Plan

The three concepts were presented to the community at a day-long open house event in January of 2013. Over 125 residents visited to learn about the options being considered. The overall favorite concept was the Town Square, including some elements from each of the other two concepts. These items were combined into a final recommended plan.

The recommended plan includes the following key features:

- An open creek north of Shiloh Square
- Closing Mill Street
- Removing the buildings on the west side of the Shiloh Square Block
- Changing the traffic on Emma, Meadow and Johnson Avenues to one way street
- Construction of a new town square south of Emma and east of Spring Creek
- An open creek south of Emma Street

- A new arch bridge south of Meadow Street for the Razorback Greenway
- Access to Spring Creek south of Meadow Street with stairs, ramps, terraces and planting
- Opportunities for new development along the banks of the creek and around the new square

Other recommendations

The concept plan for the heart of Downtown Springdale is the starting point. Part of what will make this successful is the attention to detail as these changes are implemented. Other key aspects for a successful implementation will include:

- **Wayfinding** at pedestrian and automobile scale for the downtown area
- **Streetscape** designed for all users, including bicyclists, automobiles and pedestrians
- **Programming** of the new public spaces
- **Incentives** for new businesses to locate in the downtown area

Engineering Report

It is anticipated that the new intended uses of Spring Creek are reasonable and attainable goals and that the project can be completed in a manner that will safely convey storm drainage, plan for and mitigate low-flow and drought conditions, adopt measures to enhance public safety, and address urban flooding and erosion control issues. The project will provide ecological and aesthetic improvements which will facilitate the revitalization of downtown Springdale. The next steps in the process include:

- Conduct Phase 1 and, if necessary, Phase 2 Environmental Site Audits.
- Develop concept for low-flow management and mitigation (including channel modifications, recir-

culating water feature, and flow augmentation)

- Conduct detailed floodplain study including hydrologic and hydraulic modeling.
- Meet with USACE and other permitting agencies and initiate permit acquisition process.
- Development of an Operations and Management program.

Costs and Phasing

Cost Estimates

Cost estimates at the conceptual planning stage are provided as a starting point in the cost discussion. The recommended improvements must be designed to a greater level of detail to achieve a greater level of accuracy in the estimated cost. These costs do not include property acquisition.

Phasing

It is unlikely that funding will be available to complete the entire project at one time. However, it is important that the items included in the first phase are enough to be a catalyst to push the rest of the project forward. The following is a recommended project sequence, both physical and planning improvements.

Phase I - Physical Improvements

- Shiloh Square Improvements
- Spring Street Improvements
- Recirculate water in Spring Creek

Phase I - Planning Improvements

- Complete a Traffic and Parking Study
- Complete a more detailed cost/benefit study of the entire project
- Launch a more extensive public relations and communication program for the downtown revitalization effort.

Springdale Downtown Revitalization Cost Estimate*

Improvements		Cost
Emma Avenue Between Shiloh St. and Park St. (8 blocks)		2,764,000
Meadow Avenue Between Shiloh St. and Park St. (8 Blocks)		2,764,000
Shiloh Square Improvements		792,300
Spring Street Improvements		136,050
Commercial Street Improvements		136,050
Town Square		846,400
Creekside amenities between Meadow and Emma		617,400
Creekside Amenities South of Emma		837,400
Creek Daylighting and Restoration		4,000,000
Subtotal		12,893,600
20% Contingency		2,578,720
Total		\$15,472,320
Design and Permitting Fees	12.50%	1,934,040
Construction Mobilization	8%	1,237,786
Construction Management	12.50%	1,934,040
Subtotal		5,105,866
Total Improvements		\$20,578,186
Studies		
Traffic and Parking Study		50,000
Detailed Cost Benefit Analysis		40,000
Total Studies		90,000
Grand Total		\$20,668,186

*Excludes property acquisition

Final recommended plan



Recommended phasing



Phase II – Daylight Spring Creek between Emma and Meadow and complete the creekside improvements.

Phase III – Town Square and the one way streets along Emma, Meadow and Johnson Avenues

Phase IV – Commercial Street Improvements

Phase V – Streetscape Improvements to the secondary gateway streets

Funding Sources

When considering possible funding sources for the recommended improvements, it is important to remember that not all design and construction activities will be accomplished with a single funding source. It will be necessary to consider several sources of funding, that when combined, would support full project construction of a single phase, or even multiple phases of improvements. This plan includes the following funding sources as options for consideration.

State and Federal

- Aquatic Ecosystem Restoration – USACE
- Watershed Funding Programs – EPA
- Clean Water State Revolving Fund
- Environmental Education Grants Program
- Environmental Justice Grant Programs
- Five Star Restoration Program
- Targeted Watershed Grants
- United States Fish and Wildlife Service Funding

- Community Development – U.S. Department of Housing and Urban Development

50/50 Matching Grant Program

Land and Water Conservation Trust Fund

- Arkansas Natural Resource Commission
- Nonpoint Source Pollution Grants Program – ANRC
- Clean Water Revolving Loan Fund – ANRC
- Arkansas Community & Economic Development Program

Local Government

City of Springdale Capital Improvement Program

Other local funding options

Private and Non-Profit Sectors

- The Walton Family Foundation
- Bank of America Charitable Foundation, Inc.
- National Fish and Wildlife Foundation (NFWF)
- The Trust for Public Land
- Local Sponsors
- Volunteer Work

Economic Benefits of Shiloh Walk and Daylighting Spring Creek

Uncovering urban stream corridors has become a popular way for cities and towns to recover these natural resources and revitalize their downtowns. Several cities throughout the country have used creek daylighting projects

to reverse discouraging downtown trends such as low building occupancy rates, shrinking property tax revenues, abandoned properties, and low rates of use by residents and visitors. Daylighting Spring Creek will restore a natural, historical, and cultural resource that reinvigorates the social and economic vitality of downtown Springdale. Residents, businesses, and visitors will again be attracted to the central city, where opportunities to recreate and socialize along the creek stimulates local growth in residences, businesses, and tourism. The development of Shiloh Walk and a new Town Square along Spring Creek will also form important connections between destinations in downtown Springdale, drawing people to the heart of the city to live, work, and play.

Investing in the revitalization of the Spring Creek corridor can produce a positive economic impact for Springdale in several ways, including:

- Property value and tax revenue increases
- Tourism attraction and visitor spending
- Attracting and retaining workers and employers
- Upfront construction impact
- Direct use impact
- Health care cost savings

Project Background

The Springdale Downtown Revitalization Project started as an idea during the development of the Razorback Greenway through Northwest Arkansas. During the design process the City of Springdale saw the new trail through downtown as an opportunity to revitalize the Downtown area. Among the major cities in Northwest Arkansas, Springdale is the only one with a creek running through downtown and the opportunity to highlight that is the catalyst of this process.

In the fall of 2011, the Razorback design team gathered in Springdale for a two day design charrette to develop design ideas for the trail and adjacent spaces through Springdale. The Razorback Greenway follows Spring Creek through most of northern Springdale, creating a special trail experience. The exception to this is the segment through downtown where the creek is no longer visible. The creek was capped from Johnson Avenue to Meadow Avenue in 1969 as part of an urban renewal and flood control project. Today this capped section of creek is used as a parking lot and a public square known as Shiloh Square.



Bill Neuman explains the design concept at the charrette in 2011.

The highlight of the design charrette was the idea to remove the cap from Spring Creek. This would enable the City to have a waterfront walk through downtown that would be entirely unique to Springdale and Northwest Arkansas. It could also be a catalyst to revitalize a downtown that is no longer

a destination for residents or a desirable location for retail, dining, and entertainment-oriented businesses.

Working with the Springdale Downtown Alliance, the City developed a scope of work and a budget for further study to determine the feasibility of daylighting the creek, developing a waterfront walk and an overall plan for the revitalization of Downtown Springdale.



The early concept included an open creek and new opportunities for development.

Existing Conditions

The project area is defined as the area south of Huntsville Avenue, north of Caudle Avenue, east of Thompson Street and west of Old Missouri Road. The focus is along Spring Creek between Huntsville Avenue to a point just south of Meadow Avenue as shown in Figure 1.

The project area includes a broad mix of land uses and community destinations. Meadow Avenue and Emma Avenue are the spine of the commercial area. The buildings lining the streets are mostly one- and two-story brick with decorative facades and range in age from about 20 to 100 years old. The oldest buildings are along W. Emma Avenue. See Appendix A for additional information about the buildings, utilities and zoning in the downtown core. The character of Emma Avenue changes east of

the railroad tracks. More of the buildings are vacant and there is evidence of an industrial history, with larger, lower buildings. There is also a more recent influx of ethnic communities and business in this area. Meadow Avenue has become secondary to Emma Avenue and the streetscape along Meadow includes more surface parking lots and fewer street-facing buildings.

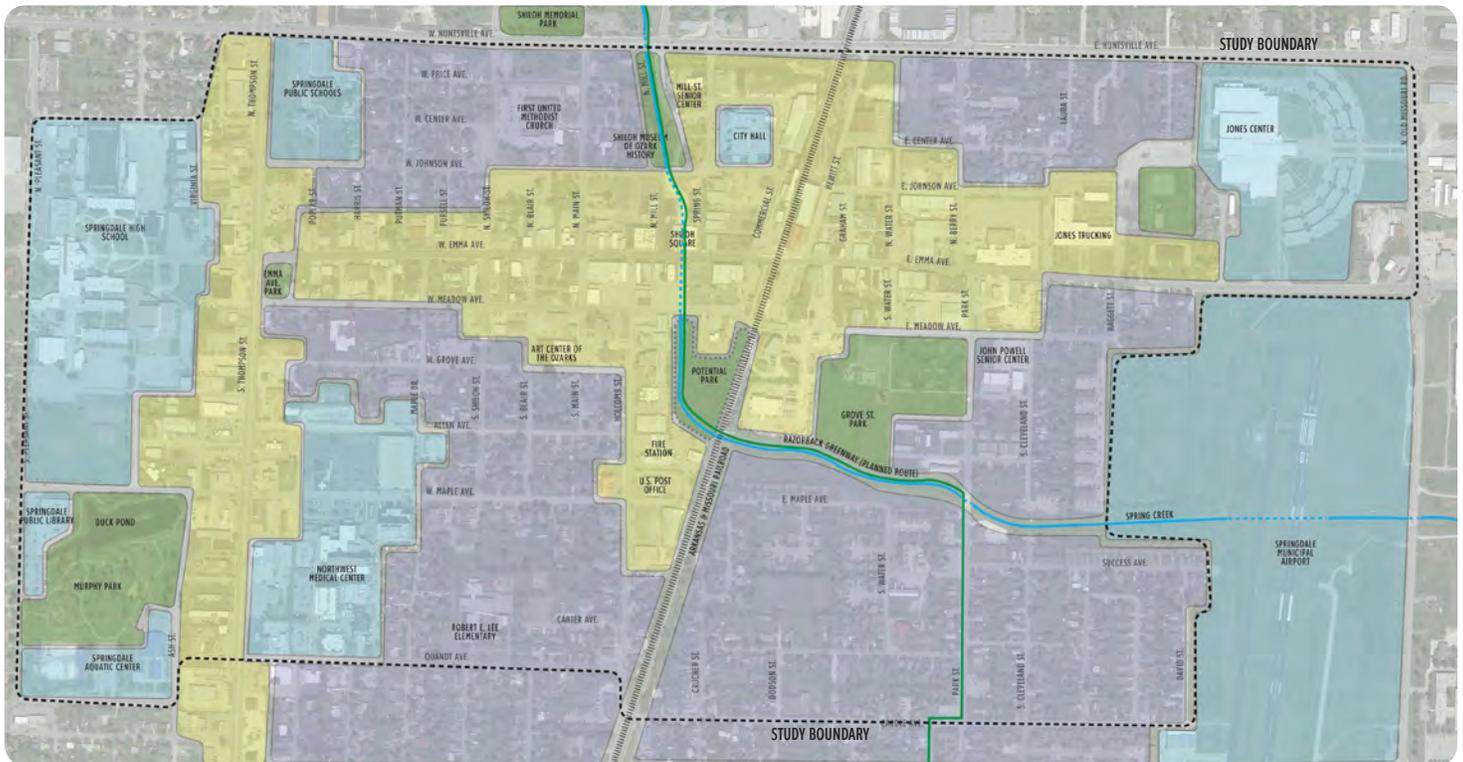
Other east-west links through the project area include Huntsville Avenue, which is designed like a suburban arterial; Johnson Avenue, a lower volume street linking Thompson Street eastward to the Jones Trucking facility; and further south, both Maple and Quandt Avenue are lower volume streets that serve as secondary gateways into the project area.

North-south routes include, on the northern side of the project site, Shiloh Street, Mill Street, and Berry Street. These are low volume streets that can be gateways from Huntsville Avenue into the downtown area. On the southern end, both Holcomb and Park Streets provide access to downtown from Caudle Avenue, and Holcomb extends down to Sunset Avenue (Hwy 412).

The mix of land uses includes parks, commercial, municipal and residential. Some of the key destinations include:

- The Shiloh Museum of Ozark History
- The Art Center of the Ozarks
- The Mill Street Senior Center
- The John Powell Senior Center
- Grove Street Park

Figure 1: Existing General Land Uses



- | | |
|--|--|
|  MUNICIPAL |  PARKS |
|  RESIDENTIAL WITH MIXED USES |  COMMERCIAL |





The Rodeo Grounds and Airport are just east of the project area.



The Jones Center has become a community gathering site.



Grove Street Park can also be used as a trail head for the Razorback Greenway.



Additional gateway signs into downtown would help to establish a downtown district.



Huntsville Avenue has characteristics of a suburban arterial.



The narrow sidewalks on Park Street are typical of the sidewalks in the project area.



Price Avenue is typical of residential streets in the area.



The Railroad Depot is a key origin and destination.



Spring Creek, south of Meadow Ave., is open and lined with green vegetation



Open space at the drive-through bank south of Meadow Avenue.

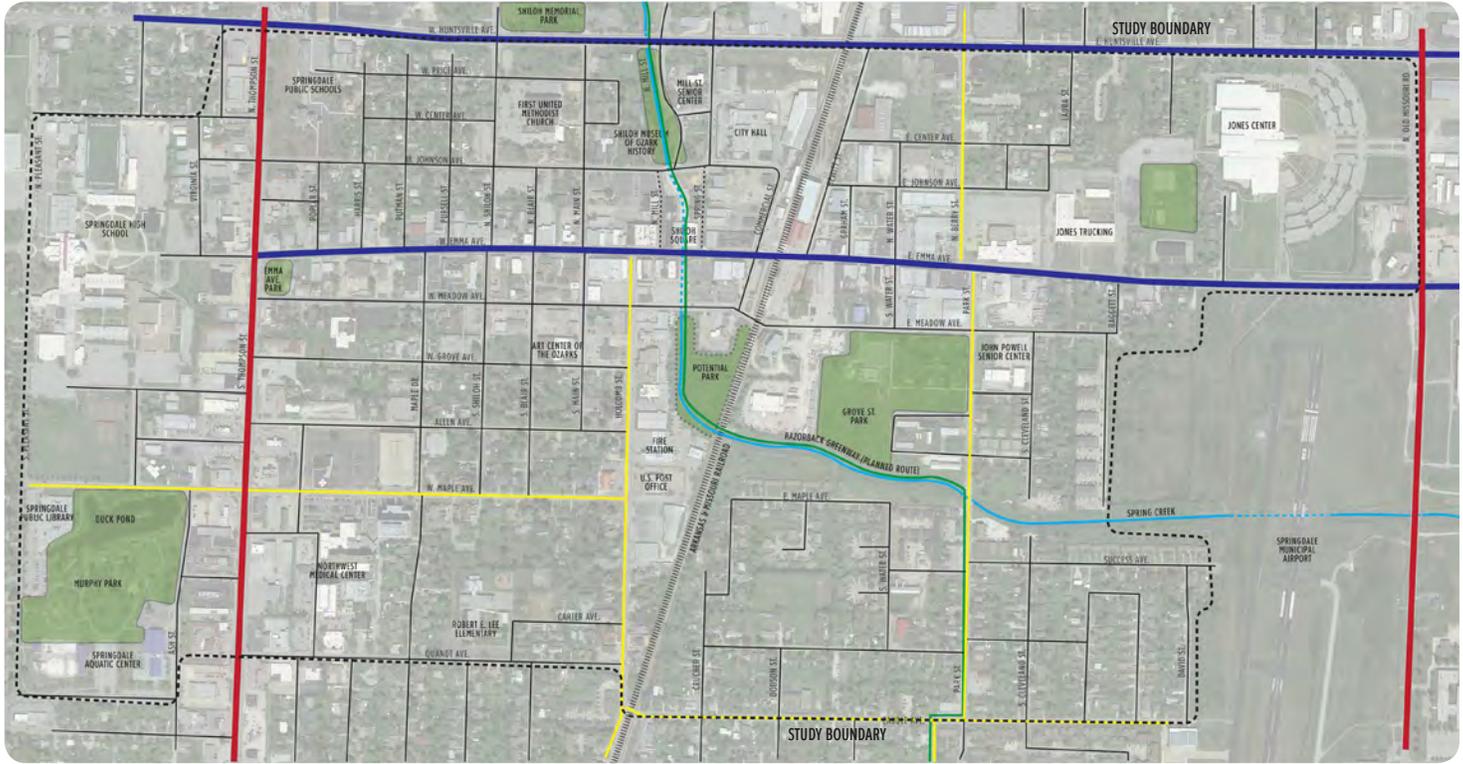


Emma Avenue and Blair Street.



East Emma Avenue has a suburban character.

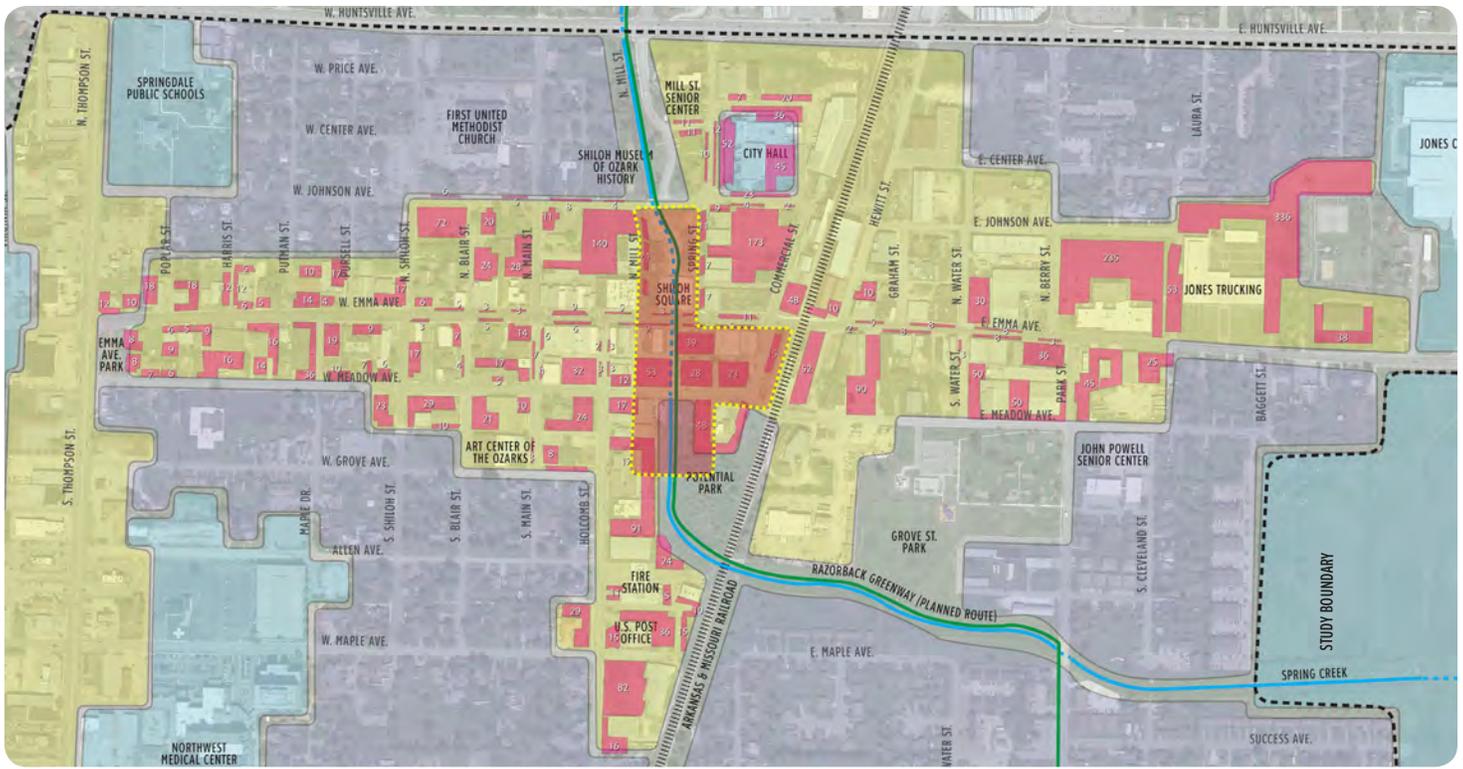
Figure 2: Existing Downtown Street Typologies



- PRINCIPAL ARTERIAL
- MAJOR COLLECTOR
- MINOR COLLECTOR
- LOCAL STREETS



Figure 3: Existing Downtown Parking



22 EXISTING ON & OFF STREET PARKING AREAS WITH APPROXIMATE SPACE COUNT

NOTE: PARKING LOT SPACE COUNT ESTIMATED FROM AERIALS AND IS A ROUGH ESTIMATE.



- Shiloh Square
- Springdale City Hall
- The Jones Center

Spring Creek

Spring Creek is capped starting at Meadow Avenue northward to Johnson Avenue. Between Meadow and Emma, the cap is currently used as a parking lot for a bank and law office that are adjacent to the cap. From Emma to Johnson, the cap is home to Shiloh Square and an open space to the north that has been used as spillover for events at Shiloh Square. There are buildings lining the edges of the cap on both the east and west side of the block most of the way to Johnson Avenue. These are mostly in poor condition, with the exception of the building on the northeast side of the block which is currently under renovation.

Existing Parking

The heart of the project site, starting at Shiloh Square, and following east and west along Emma and Meadow, up to City Hall and down along Holcomb, includes more parking than is necessary for current uses. About one-third of the area (as shown in Figure 3) in the heart of the project site is available as parking. This includes parking on the street, in surface lots, and in private lots. Visitors to this area, even at peak use times, have no problem finding parking near their destination.

Shiloh Square

Shiloh Square is at the heart of Springdale. It covers about half of a downtown block and serves as the community gathering space for downtown events. Over the years this has included the

Farmers Market, a number of different festivals, and holiday events. The space currently has a roof and is enclosed on the east and west side. It includes a permanent stage, concession area, and lighting. Based on discussions with leaders of the community and local residents, Shiloh Square is not adequately serving the need for a community gathering space. Fewer events are being held there. The Farmers Market has moved east to the Jones Center, where they feel they have better space to set up and better access for visitors to the market.



The area south of Meadow Avenue begins to have a suburban character.



West Meadow Avenue is lined with a number of surface parking lots.



Johnson Ave. and Shiloh Square, showing a capped section of Spring Creek.



Emma Avenue West includes angled parking and some retail businesses.



Shiloh Square on a weekday afternoon.



Shiloh Square (from Emma Avenue) sits below street level.

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Visioning and Concept Development

Daylighting portions of Spring Creek and making that a focal point of a new Downtown Springdale is at the heart of this process. The vision and concept development process was designed to give the community a voice and to develop a plan that matches their vision. This included visioning exercises, development of three concepts based on the vision of the community, and presentation and comment on these concepts, leading to the selection of a recommended concept.

Visioning

There needs to be a clear vision for what Downtown Springdale should be, and it should represent the desires of the community. The design team led visioning exercises for both the Downtown Alliance and the general public. The format was not formal, but an opportunity for free flowing thoughts and discussion among community members. The community shared stories about the history of Springdale and provided lists of their favorite community destinations and events. They identified other places with great downtowns and discussed how to bring those best features to Springdale. They also described what their vision is for Downtown Springdale. All the lists, discussion points and other information were recorded and are provided in Appendix C. The big ideas are summarized as follows:

Public Gathering Space – The community feels that Springdale is lacking an adequate public gathering space for community events. Shiloh Square is currently that space but is not viewed as adequate for current needs. One example is the Farmer’s Market, which has moved to the Jones Center.

Programmed Events – Successful downtown spaces have programmed events like community festivals, music, art shows, etc. There is a strong desire to have regular programmed events for the downtown area. This will provide

another reason for people to visit downtown and help to enhance the sense of community.

Open Creek – Springdale is the only community in Northwest Arkansas to have a creek flowing through the heart of downtown. There is a strong desire to remove the cap from Spring Creek and make the water a key feature of Downtown Springdale.

Vibrant Place with Shops and Restaurants – Most examples of successful downtowns include streets lined with desirable destinations, including retail and dining opportunities. This is the vision that the community has for Springdale as well.

Celebrate a Multicultural Community – The ethnic diversity of the City of Springdale is increasing and the community wants to celebrate that diversity in their new downtown.

Three Concepts

The project team developed three design concepts for the heart of downtown. Each of these concepts was carefully developed to reflect the desires of the community shared during the visioning sessions. Each concept has a new or expanded public gathering space and removes the cap from at least a portion of Spring Creek through the downtown blocks. Each is named for the big idea behind the concept. They are called Expanded Square, Linear Park, and Town Square.

Expanded Square

This concept is based on the idea of modifying and expanding Shiloh Square to better meet the needs of a community gathering space and to make the newly opened creek into a focal point of an entertainment/retail creekwalk. The plan begins with removing the existing buildings on the west side of Shiloh Square to open the space and allow access from three sides. This will also improve the acoustics of the

space for future events. The northern portion of Shiloh Square becomes the outdoor portion of the public gathering space. The cap on the creek will stay in place at this location. The plan shows a paving surface pattern that represents the creek flowing below the cap, the addition of a children’s play area, a splash pad (playground with water) and amphitheater seating to help activate the space throughout the day. The Razorback Greenway follows along the west side of the block with a row of shade trees.

South of Emma Avenue the creek is open. Between Emma and Meadow, there are walkways with railings about ten feet above the creek with opportunities for retail- and entertainment-based businesses along the walk. A pedestrian bridge across the creek in the middle of the block creates easy opportunities to access both sides of the creek and a great viewpoint.

South of Meadow, the banks of the creek are pulled back, which creates a park atmosphere. Curvilinear edges, native planting, and access to the water create a respite from the urban form of the rest of the downtown area. This area will change as the water rises and falls with the seasons or from storm events. This concept is shown in Figure 4.

Linear Park

This concept takes the idea of the park from the southern portion of the Expanded Square concept and applies it to the entire three blocks. Starting from the north, Spring Creek is exposed on the north end of Shiloh Square. The curving edges, extensive planting, and access to the creek contrast with the more urban, covered portion of Shiloh Square. The buildings on the west side of the block are removed to open up the square and to make room for the Razorback Greenway.

South of Emma Avenue, the banks of the creek are pulled back and include

platforms, ramps and stairs down to the water. There is open plaza space at the top of the bank with opportunities for outdoor dining and access to restaurants and retail businesses along the creek. Extensive native planting completes the park experience on this block.

South of Meadow is a new public gathering space. This circular space is designed as an amphitheater that faces the creek. A pedestrian arch bridge to the southwest of the circle carries the Razorback Greenway across and to the west side of Spring Creek. The bridge is an excellent viewpoint into the circle and creates a picturesque backdrop for those viewing from the circle. The eastern side of the circle is wrapped with a covered colonnade that can provide shade in the summer and shelter from the rain in the winter. A children's play area is also located east of the circle. This concept is shown in Figure 5.

Town Square

The Town Square Concept proposed the most changes to downtown. On the north end of Shiloh Square, the creek is exposed and the banks are pulled back to allow for a gentle slope to the water. This is made possible by removing the buildings on the west side of the block and closing Mill Street. The additional space gained by closing the street allows the Razorback Greenway to follow a double row of trees to Johnson Avenue and still leaves room for planting and terraces along the creek bank.

In this concept, Meadow and Emma are reconfigured into a one way couplet. Traffic flows one way, in opposite directions, on each street. There are a number of reasons that this is beneficial. It expands the downtown area that residents experience as they pass through in vehicles. Most traffic through downtown is currently on Emma, but by diverting half of that to Meadow it spreads the traffic over a larger area and increases the amount

of desirable real estate along Meadow. It also increases safety for all modes of transportation along these streets, and potentially opens up more space for on street parking.

Between Meadow and Emma, north of the now-open Spring Creek, is a new Town Square. This square is the new public gathering space and can be the "living room" for the City. It includes a children's play area, a splash pad, easy access to the Razorback Greenway and a visual link to both Emma and Meadow Avenues.

South of Meadow Avenue, Spring Creek has banks that are cut back and enhanced with new planting. The areas on the banks of the creek present new opportunities for creekfront development. This concept is shown in Figure 6.

Concept Selection

The three concepts were presented to the community at a day-long open house event in January of 2013. Over 125 residents visited to learn about the options being considered. The design team discussed the concepts with the community and gathered comments

about their preferences. The full list of comments can be seen in appendix C. The responses were generally positive and a few specific aspects of the concepts emerged as favorites.

The overall favorite concept was the Town Square, including the one way couplet and closing Mill Street. The bridge across the creek between Meadow and Emma was a popular feature, along with the arch bridge for the Razorback Greenway south of Meadow. These items have been combined into a final recommended plan.

Recommended plan

The recommended plan can be seen in Figure 7. It includes the following key features:

- An open creek north of Shiloh Square
- Closing Mill Street
- Removing the buildings on the west side of the Shiloh Square Block
- Changing the traffic on Emma and Meadow Avenues to one way couplet and changing Johnson Avenue to one way eastbound street



The community discussed their preferences with the project team.

Figure 4: Expanded Square



Figure 5: Linear Park

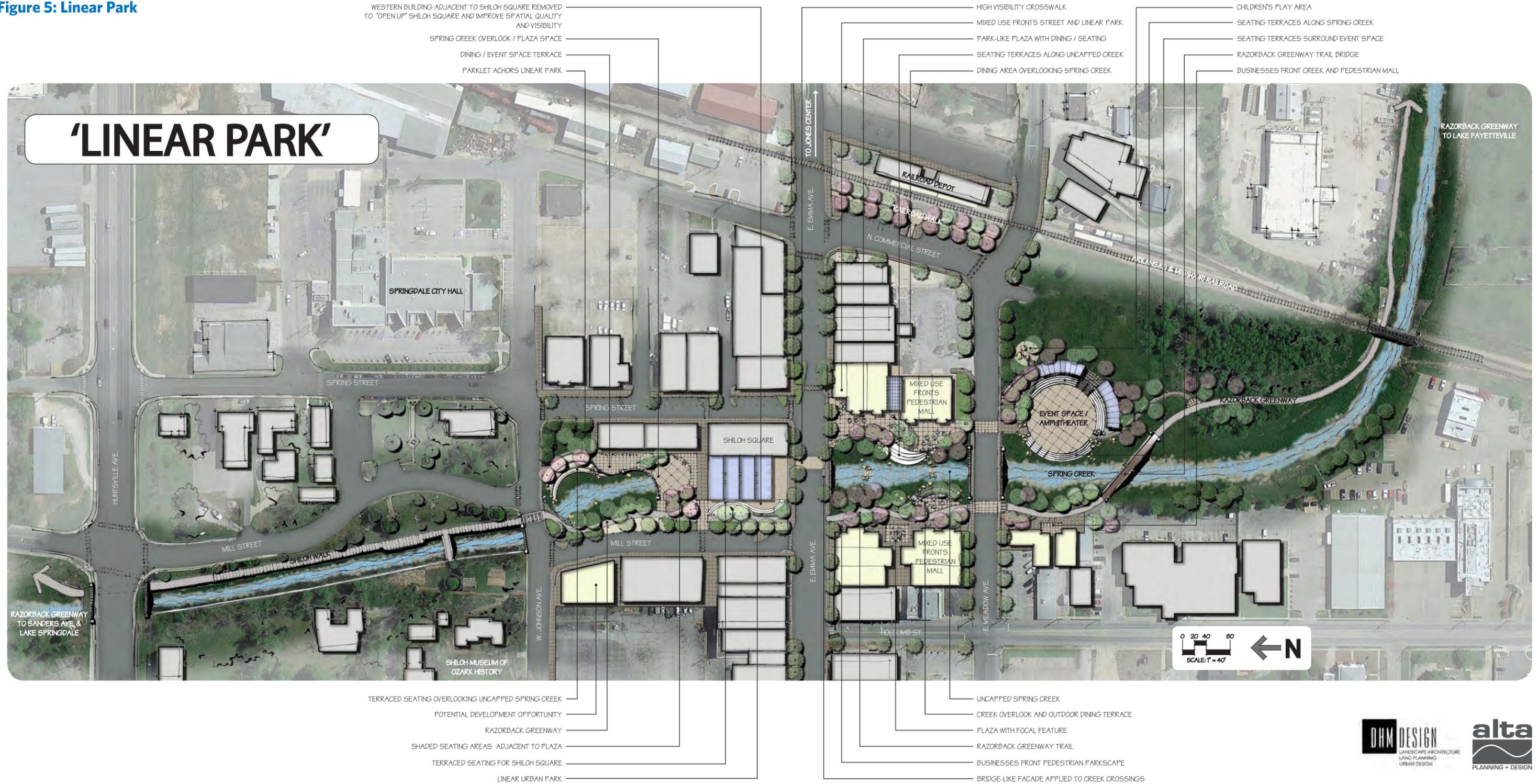


Figure 6: Town Square



Figure 7: Recommended Plan



NOTE: ALL CONCEPTUAL TRAFFIC RELATED CHANGES ARE SUBJECT TO A DETAILED TRAFFIC ANALYSIS.



- Construction of a new town square south of Emma and east of Spring Creek
- An open creek south of Emma Street
- A new arch bridge south of Meadow Street for the Razorback Greenway
- Access to Spring Creek south of Meadow with stairs, ramps, terraces and planting
- Opportunities for new development along the banks of the creek and around the new square

Other recommendations

The concept plan for the heart of Downtown Springdale is the starting point. Part of what will make this successful is the attention to detail as these changes are implemented. These include lighting, wayfinding, streetscape design, safety, event programming, and more.

Many of these details are shown in the plan and must be carried into the design phase of the project.

Wayfinding

A regional wayfinding plan known as the NWA Regional Wayfinding Program was recently completed for the cities in the region, including Springdale. An example sign is shown in Figure 8.

This plan includes complete designs, messaging and locations for signs all around the city. The plan includes signs in the downtown area and at the existing gateways. The location and placement of these signs should be updated as the design phase of the project progresses. New secondary gateways should also have signs indicating access to downtown in addition to the locations already in the plan. These include the following intersections:

Figure 8: Sample Wayfinding

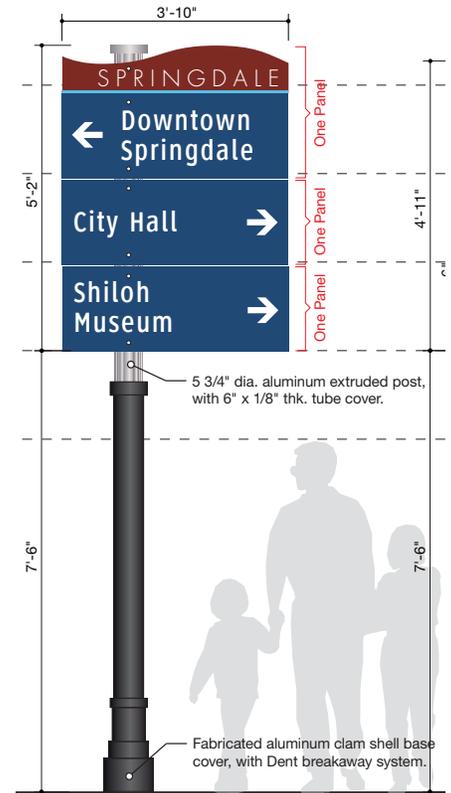


Figure 9: Downtown District Streetscape

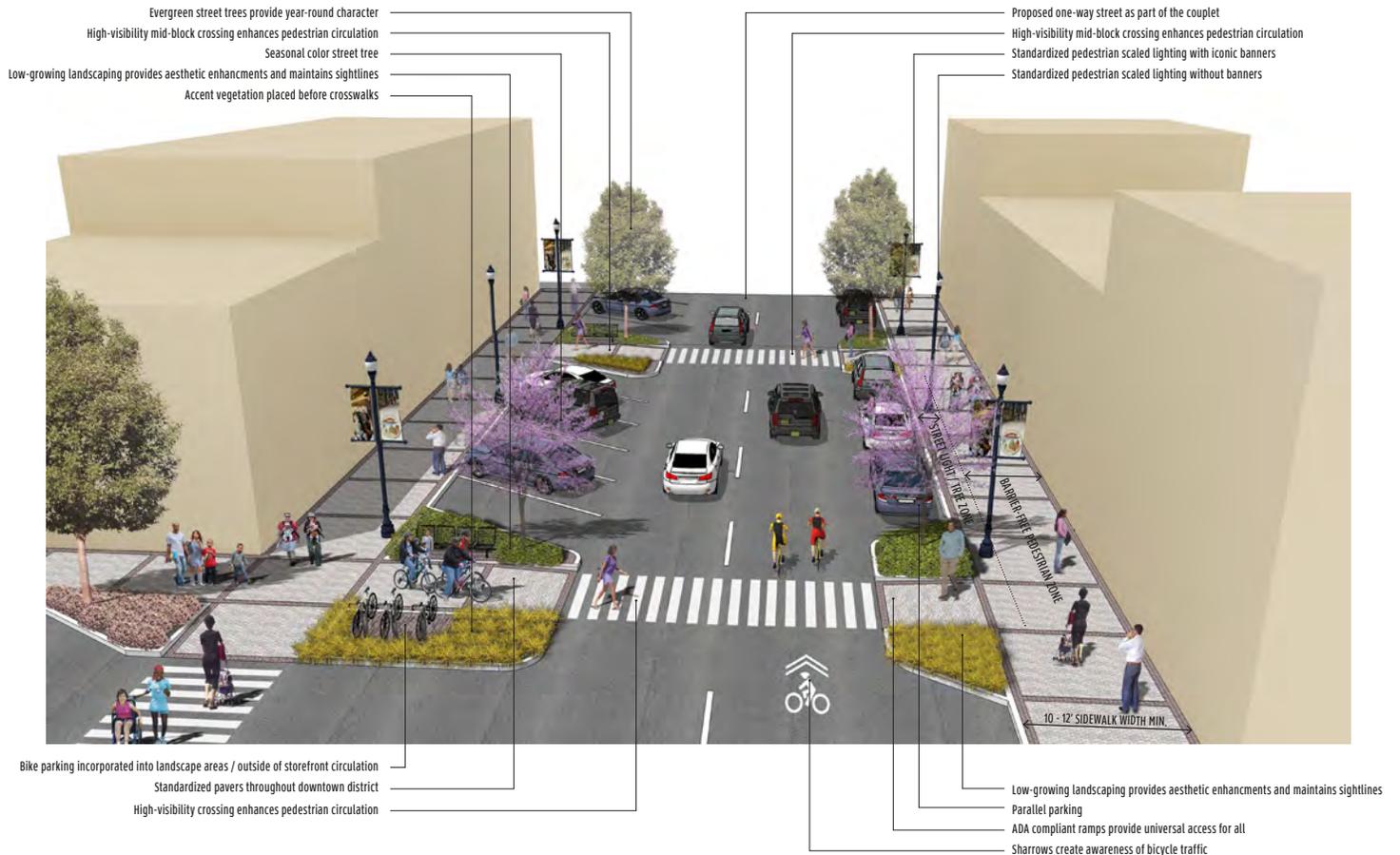
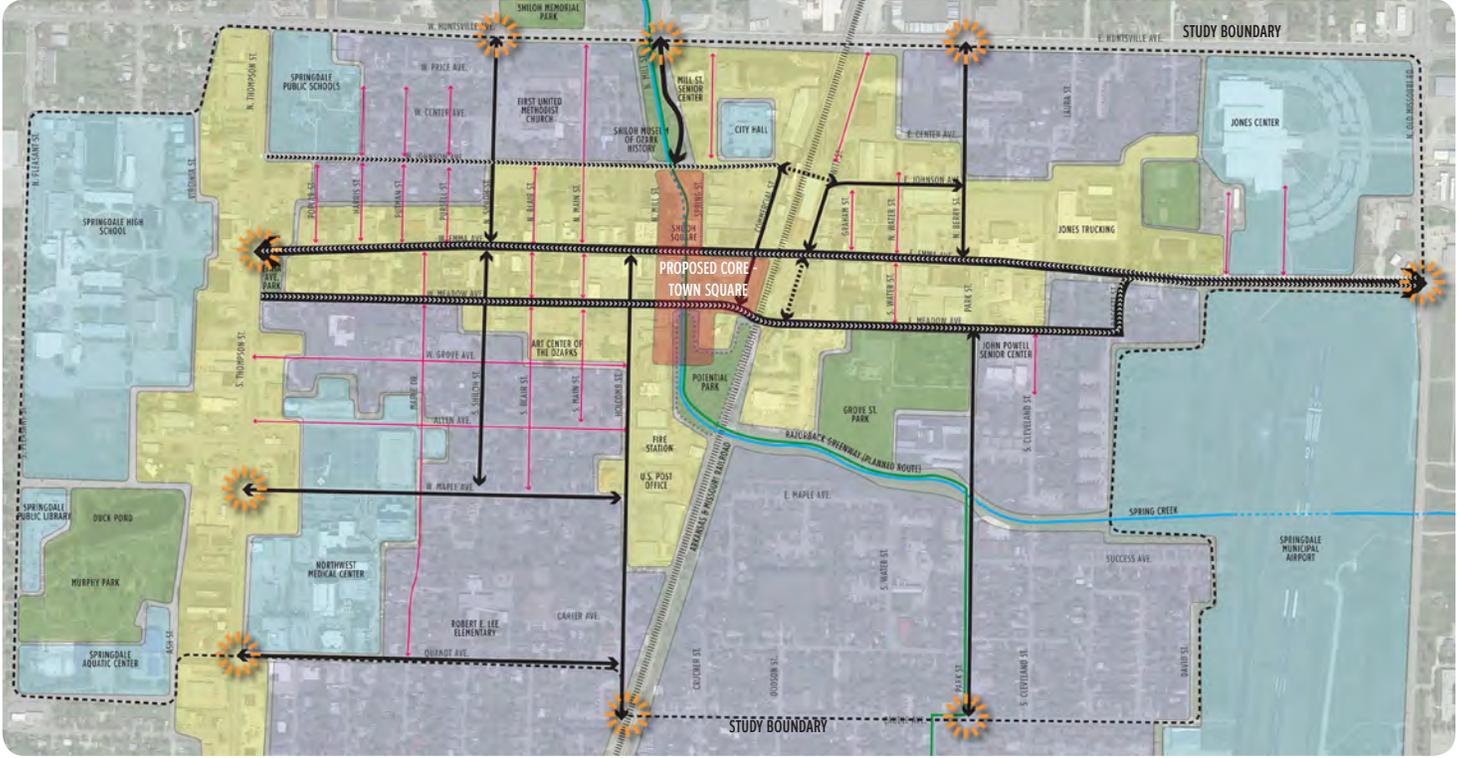
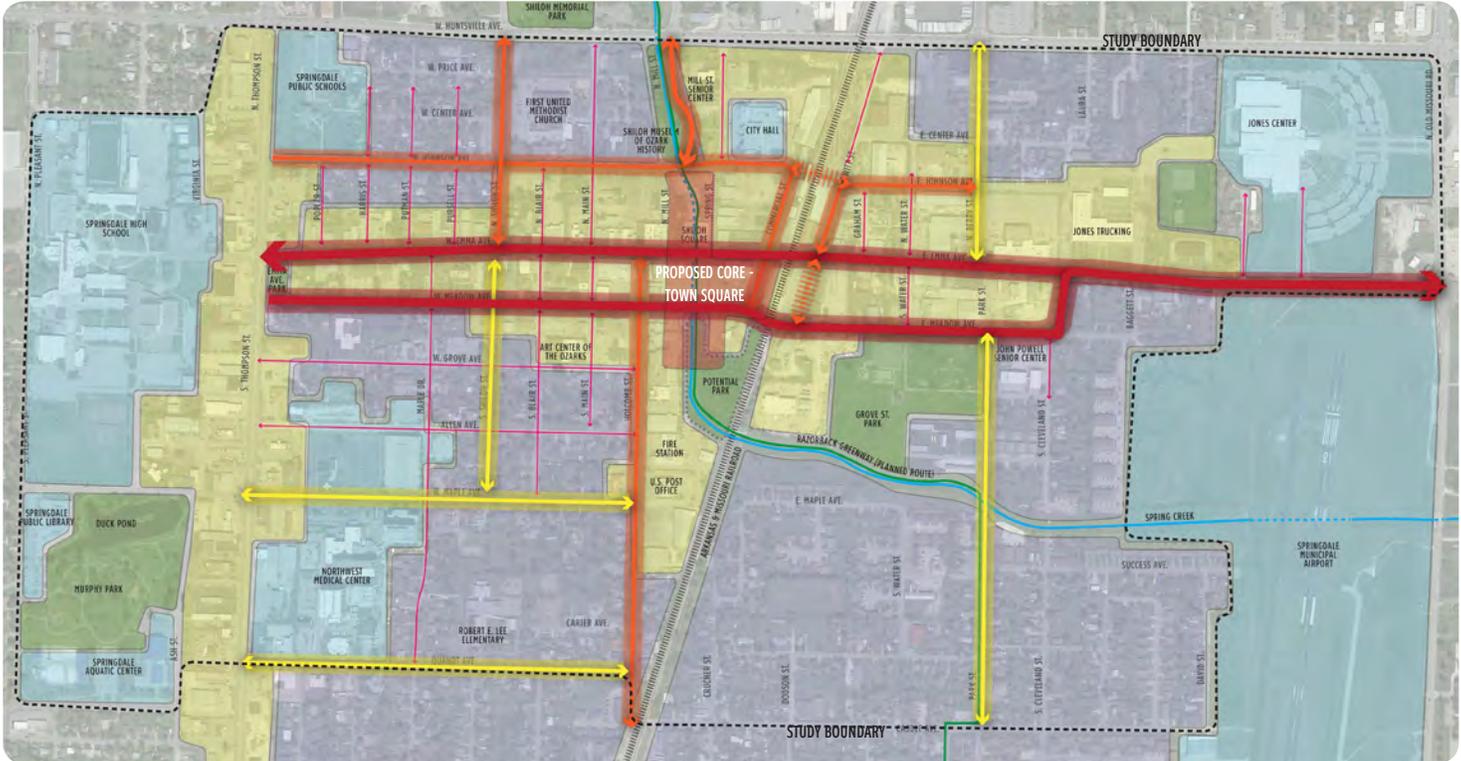


Figure 10: Proposed Connectivity



- MUNICIPAL
- COMMERCIAL
- RESIDENTIAL & MIXED USES
- PARKS
- MAJOR VEHICULAR CORRIDORS
- MINOR VEHICULAR CORRIDORS
- VEHICULAR CORRIDOR OPPORTUNITIES
- PROPOSED ONE-WAY COUPLET
- DOWNTOWN DISTRICT GATEWAYS
- NOT TO SCALE

Figure 11: Proposed identity Corridors



- CORE DISTRICT CORRIDOR
- RESIDENTIAL CORRIDOR
- COMMERCIAL CORRIDOR
- LOCAL STREETS
- NOT TO SCALE

- Holcomb Street and Caudle Avenue
- Park Street and Caudle Avenue
- Shiloh Street and Huntsville Avenue
- Mill Street and Huntsville Avenue
- Berry Street and Huntsville Avenue

A pedestrian-scale wayfinding plan based on the same regional theme should be developed for the downtown area. The current sign plan is designed specifically for automobile users. Smaller signs for pedestrians and cyclists can include information specific to their needs, such as estimated travel time.

Streetscape

Inviting, walkable streets are a key component of the vision set forth by the community. The primary streets through the middle of downtown are Emma and Meadow. Figure 9 (Downtown District Streetscape) shows the

recommendation for the design of these streets. It includes the following key components:

- Wide sidewalks
- Lighting and furnishings
- Parking between the sidewalk and lanes of travel
- Curb extensions
- Landscaping
- Decorative pavers
- High visibility crosswalks
- Bicycle parking

This design should extend, at a minimum, to both ends of the couplet. Away from the couplet, Emma Avenue should continue to have wide sidewalks, pedestrian-scale lighting and street trees. At the heart of downtown, Emma Avenue already has most of these components,

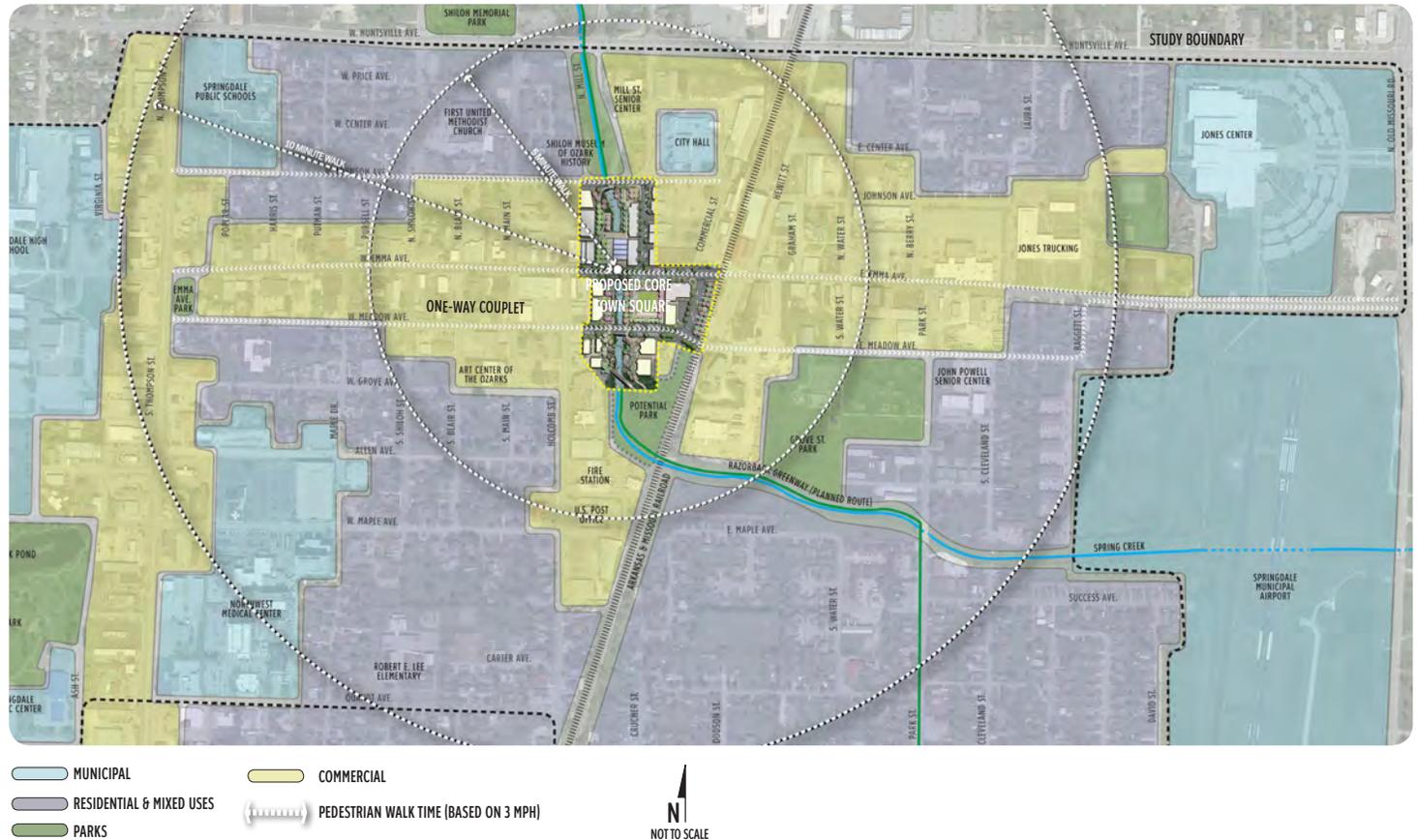
but developing this kind of streetscape along Meadow Avenue can make both of these streets desirable destinations for both visitors and new businesses.

Other streets can also benefit from improvements. Most of the streets in the project area should have wider sidewalks and all sidewalk gaps should be closed. Specifically the streets that are secondary gateways should, at a minimum, have wide sidewalks, pedestrian lighting and street trees. These include:

- Shiloh Street
- Holcomb Street
- Park Street
- Mill Street
- Berry Street

Figures 10 and 11 show the proposed connectivity, gateways, and street hierarchy for the downtown district.

Figure 12: Proposed Downtown Core - Pedestrian Connectivity



Bicycle and Pedestrian Plan

With the improvements to the downtown and the addition of the Razorback Greenway, there will be additional interest in walking and biking not only in the downtown area, but in the community as a whole. A comprehensive bicycle and pedestrian plan, including improvements in the downtown area, will improve safety and increase opportunities for walking and biking. Figure 12 shows the time it takes a person to walk from the downtown to anywhere in the study area. Most destinations in the project area are reachable on foot within five to ten minutes.

Traffic and Parking Study

Some residents expressed concern about the feasibility and configuration of the proposed one-way streets. Further analysis of the proposed one-way street will need to be completed by a transportation engineer to determine the specific configuration and details of the design. Adequate parking for the proposed concept was also an area of concern. There is currently more parking available in the downtown area than is necessary for current uses, and the proposed concepts keep most of this parking in place. At the conceptual level, it appears that available parking will meet demand. However, a parking study also should be part of the overall traffic study completed as part of this design process.

Programming

A key to the success of the public squares in both Fayetteville and Bentonville is programming. The Town Square and the Downtown District will need events to draw residents to the space, particularly when first built, to establish the square as a community public space. A mix of events from large to small as well as events with a broad community appeal to very specific interests should be planned to keep the space active, interesting, and inviting. The City needs to have a manager/event coordinator for the Downtown District.

Incentives

The investment to open the creek and build the square and associated amenities comes with the expectation that business investment will follow. There will clearly be some initial risk to investors to establish a new restaurant or shop in a downtown area that does not have a recent history of successful businesses. The city should develop policy that will incentivize investors to locate in the downtown district. The form and type of these incentives should be developed by the City with the advice of economic development experts. These may include reductions in taxes, fees, or public/private partnerships.

Action Plan

This plan is the starting point in the process of changing Downtown Springdale. It is important to identify the actions that need to be taken to keep the process moving forward to completion. The following section, while not comprehensive, is a guide to these tasks.

Seek and Secure Funding

The next step is to secure funding for, at a minimum, design of at least one phase of the project. Available funding will define the scope of the next phases of work.

Actions for Daylighting Spring Creek

- Conduct detailed topographic survey
- Identify all utilities in Project area
- Conduct Phase 1 and, if necessary, Phase 2 Environmental Site Audits, and if indicated, remove contaminated soils and/or groundwater
- Develop concept for low-flow management and mitigation (including channel modifications, recirculating water feature, and flow augmentation) and conduct detailed engineering study
- Conduct detailed floodplain study including hydrologic and hydraulic modeling
- Meet with USACE and other permitting agencies and initiate permit acquisition process
- Evaluate structural integrity of walls and road crossings
- Identify disturbance extent and secure land and right-of-way as required
- Develop preliminary design documents
- Develop refined cost projections

- Develop O&M program to include:
 - Sediment removal/management program
 - Trash, debris, and pollutant management program
 - Algae management program
 - Winter conditions management program
- Develop bid documents for construction

Actions for Reconfiguration of Emma and Meadow Avenue

- Conduct detailed topographic survey
- Identify all utilities in project area
- Conduct a traffic and parking study
- Structural investigation of existing bridges
- Geotechnical investigation (for proposed infrastructure)
- Develop plan for one way couplet of Emma and Meadow Avenues
- Acquire property (if necessary)
- Develop preliminary design documents
- Secure permits from appropriate agencies
- Develop refined cost projections
- Develop bid documents for construction

Actions for development of the Town Square, Shiloh Square, Creekside Improvements and Additional Streetscape

- Conduct detailed topographic survey
- Identify all utilities in project area
- Acquire property (if necessary)
- Structural investigation (of existing bridges, culverts, and structures to remain)
- Geotechnical investigation (for proposed bridge foundations, retaining walls etc.)
- Environmental investigation (should be done in conjunction with creek restoration investigations)
- Develop preliminary design documents
- Secure permits from appropriate agencies
- Develop refined cost projections
- Develop bid documents for construction

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Conceptual Engineering Feasibility and Initial Action Plan Executive Summary

This conceptual engineering feasibility and initial action plan report for the Spring Creek restoration and enhancement project (Project) has been prepared for the City of Springdale (City) and the Downtown Springdale Alliance (Alliance) by USI Consulting Engineers (USI) and Wright Water Engineers, Inc (WWE). The entire report is included in Appendix B. The engineering considerations presented in this report are based on initial analysis and will need to be refined and evaluated in further detail as the Project proceeds. This report is intended to provide a recommended preliminary course of action to be taken by the City to remove the concrete cap from portions of Spring Creek through downtown Springdale and restore and enhance the channel, assuring that improvements are compatible with the water conveyance and flood control functions of the stream.

Gage flow data for Spring Creek are limited, but based on available data and visual observations, flows are frequently less than 1 cubic foot per second. Because of these conditions, low-flow management and mitigation strategies are discussed in this report. Although flows are typically small, storms can cause flash flooding in Spring Creek resulting in rapid rises in water depth and flow rate. Public safety measures will need to be implemented to mitigate dangers of flooding and other hazards. Additionally, it will be important that channel modifications do not reduce the flood conveyance capacity of Spring Creek; hydraulic models will evaluate proposed future conditions.

Management of sediment, trash, debris, and other targeted pollutants (such as phosphorus) will be essential to the success of the Project. Regular maintenance of the channel will be required, and basin-wide sediment, trash, and pollutant control programs could benefit Spring Creek. An algae management

program will also need to be implemented. Low-flow augmentation and recirculation will reduce algae growth but may need to be supplemented by other measures.

Further consideration will need to be given to bank design along the Project reach; if culvert walls are retained, structural and aesthetic modifications will likely be needed. Additional structural and cost evaluation will be needed to determine if the culvert at the road crossings should remain or be replaced. Utilities will need to be relocated and trails will need to be temporarily rerouted during construction. Traffic studies will be needed to evaluate safe movement of both pedestrian and vehicular traffic during construction as well as for permanent changes that will be made as a result of the Project (such as converting streets to one way).

Potential low-flow management and mitigation strategies include a combination of flow augmentation, channel modification, and/or a recirculating

water feature. Possible channel modifications include excavation of pools and/or a low-flow channel in the bedrock. Creation of shallow pools would need to be supplemented by a recirculating water feature, consisting of a pipeline, pump, and storage reservoir, in order to keep water fresh and aerated. Possible sources of water which could be used to fill the storage reservoir include water collected during times of heavy flow in Spring Creek, pumping water from groundwater wells and/or pumping effluent from the Springdale Wastewater Treatment Plant.

In order to remove the concrete cap from the culvert enclosing Spring Creek and to make modifications and improvements to the channel, permits from agencies such as the U.S. Army Corps of Engineers (USACE), Arkansas Department of Environmental Quality (ADEQ), and the Federal Emergency Management Agency (FEMA) will be required as part of the Project.

Permitting has an associated cost, but



Spring Creek emerges from under Shiloh Square and Johnson Avenue.

the main impact to the Project will likely be the time it takes to complete the permitting process(es). That the Project is anticipated to have a net benefit to aquatic resources will likely facilitate permitting.

USI and WWE were requested to prepare initial, conceptual capital and operation and maintenance (O&M) costs for the Project. It is very difficult to develop even ballpark cost projections at this stage in the planning process because there are so many unknowns such as (to provide some examples): potentially contaminated soil that would have specialized excavation and disposal requirements; private land/right-of-way acquisition costs; utility relocation costs; bank modifications to accommodate public access, trails, and maintenance; and others. Despite these constraints and strictly for rough, planning purposes, USI and WWE project capital costs for channel improvements between Johnson Avenue and the Arkansas-Missouri Railroad crossing to range from \$2.0 to \$4.0 million, with the recirculating water feature estimated to cost between \$1.5 to \$2.0 million. These costs do not include land acquisition and assume no significant costs for environmental contamination and clean-up, or environmental impact mitigation. O&M costs are estimated at a planning level to cost in the range of \$150,000 to \$200,000 annually (including the recirculating water feature). There are a variety of potential federal and local funding sources for future planning, design, and construction. Some federal funding programs are administered by local commissions, including the Arkansas Natural Resources Commission (ANRC). Each funding program has unique requirements, limitations, and deadlines and will need to be evaluated further as the Project proceeds.

Various local private donors have also expressed interested in making financial contributions to the Project.

The following is a preliminary list of engineering and permitting action items that need to be completed prior to preparing final design drawings and construction documents. This list is not all-inclusive and additional items will probably need to be added as the Project progresses.

- Conduct detailed topographic survey.
- Identify all utilities in Project area.
- Conduct Phase 1 and, if necessary, Phase 2 Environmental Site Audits, and if indicated, remove contaminated soils and/or groundwater.
- Develop concept for low-flow management and mitigation (including channel modifications, recirculating water feature, and flow augmentation) and conduct detailed engineering study.
- Conduct detailed floodplain study including hydrologic and hydraulic modeling.
- Work closely with other members of planning/design team to develop preliminary drawings for channel and adjoining areas.
- Meet with USACE and other permitting agencies and initiate permit acquisition process.
- Evaluate structural integrity of walls and road crossings.
- Conduct traffic study.
- Identify disturbance extent and secure land and right-of-way as required.
- Develop refined cost projections.
- Identify and apply for funding.

- To the extent feasible without having final design drawings, obtain required permits.
- Develop O&M program to include:
 - Sediment removal/management program.
 - Trash, debris, and pollutant management program.
 - Algae management program.
 - Winter conditions management program.
 - Other
- Review proposed Project elements in context of public safety and adjust as necessary to reduce risks, particularly for children.

USI and WWE anticipate that the new intended uses of Spring Creek will be reasonable and attainable goals and that the Project can be completed in a manner that will safely convey storm drainage, plan for and mitigate low-flow and drought conditions, adopt measures to enhance public safety, and address urban flooding and erosion control issues. The Project will provide ecological and aesthetic improvements which will facilitate the revitalization of downtown Springdale by supporting new business opportunities and providing experiences and events to attract individuals and families to downtown Springdale.

Cost Estimates and Phasing

Cost Estimates

Cost estimates at the conceptual planning stage are provided as a starting point in the cost discussion. The recommended improvements must be designed to a greater level of detail to achieve a greater level of accuracy in the estimated cost. There are still unknowns and further investigations including a traffic study, complete topographic survey, soil testing and more that will need to be completed to provide a clearer picture of the requirements to complete the recommended plan. Other outside factors such as material cost, material shortages, and economic changes can also have an impact of the cost of these improvements. Property acquisition cost is excluded from the estimates.

The following estimates are broken into different segments of the recommended plan. Each of these can be completed independently of the other segments. The segments include:

1. Daylighting Spring Creek
2. Creekside Improvements between Emma Avenue and Meadow Avenue
3. Creekside Improvements South of Meadow Avenue
4. Shiloh Square Improvements
5. Town Square Improvements
6. Streetscape Improvements along Emma Avenue (8 blocks between Park and Shiloh Streets)
7. Streetscape Improvements along Meadow Avenue (8 blocks between Park and Shiloh Streets)
8. Streetscape Improvements on Spring Street
9. Streetscape Improvements on Commercial Street

These segments are shown in Figure 13.

In addition, there is an estimate for one block of improved streetscape along any of the secondary gateway streets

in the downtown area. This cost can be used as a guide when planning improvements along any of these streets.

Springdale Downtown Revitalization Cost Estimate*

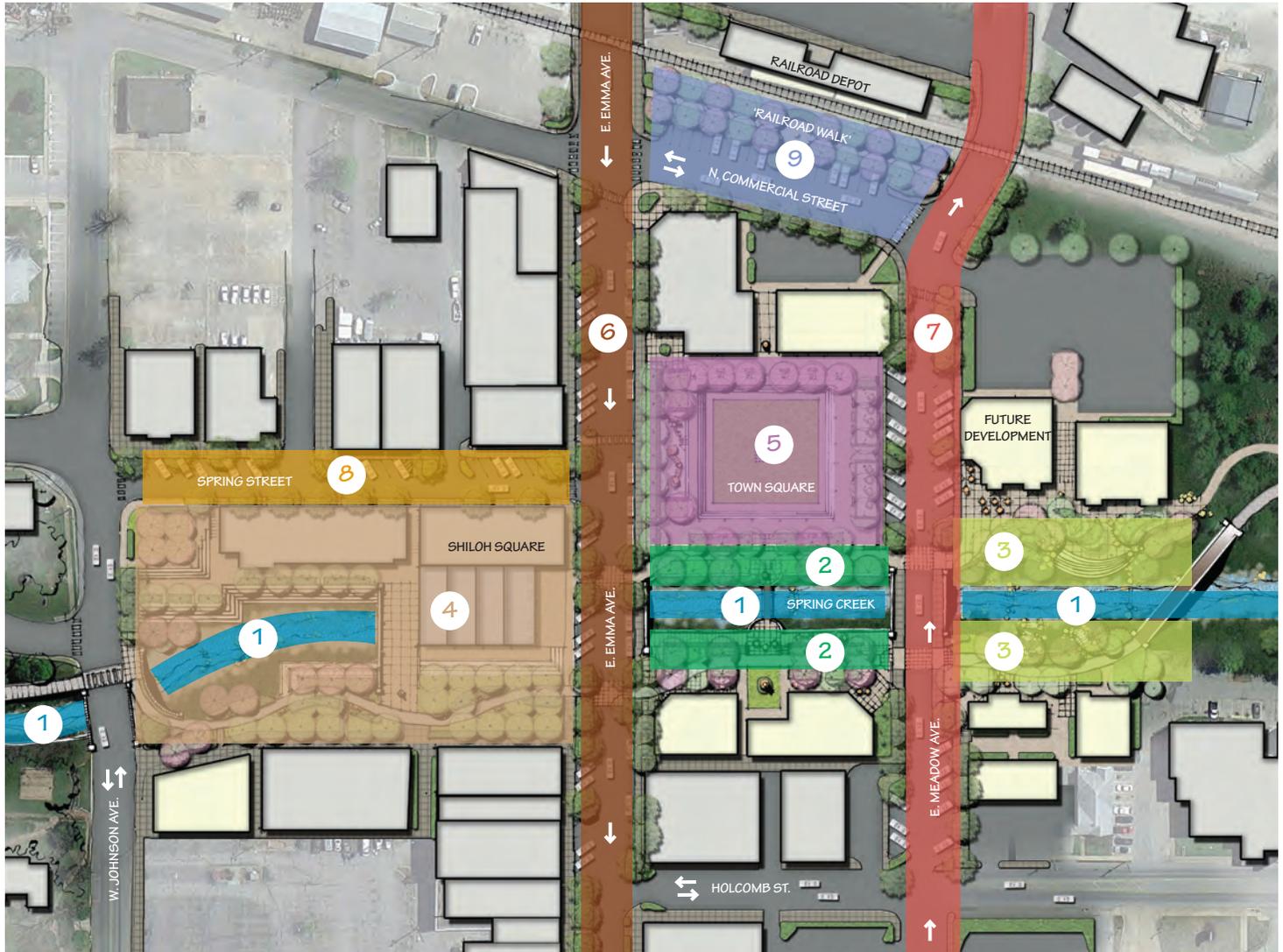
Improvements		Cost
Emma Avenue Between Shiloh St. and Park St. (8 blocks)		2,764,000
Meadow Avenue Between Shiloh St. and Park St. (8 Blocks)		2,764,000
Shiloh Square Improvements		792,300
Spring Street Improvements		136,050
Commercial Street Improvements		136,050
Town Square		846,400
Creekside amenities between Meadow and Emma		617,400
Creekside Amenities South of Emma		837,400
Creek Daylighting and Restoration		4,000,000
Subtotal		12,893,600
20% Contingency		2,578,720
Total		\$15,472,320
Design and Permitting Fees	12.50%	1,934,040
Construction Mobilization	8%	1,237,786
Construction Management	12.50%	1,934,040
Subtotal		5,105,866
Total Improvements		\$20,578,186
Studies		
Traffic and Parking Study		50,000
Detailed Cost Benefit Analysis		40,000
Total Studies		90,000
Grand Total		\$20,668,186

*Excludes property acquisition

Phase 1 Cost

Improvements		Cost
Spring Street Improvements		136,050
Shiloh Square Improvements		792,300
Creek Daylighting and Restoration		2,000,000
Subtotal		2,928,350
20% Contingency		585,670
Total		\$3,514,020
Design and Permitting Fees	12.50%	439,253
Construction Mobilization	8%	281,122
Construction Management	12.50%	439,253
Total Improvement Cost		\$4,673,647
Studies		
Traffic and Parking Study		50,000
Detailed Cost Benefit Analysis		40,000
Subtotal		90,000
Grand Total		\$4,763,647

Figure 13: Cost Estimate Segmented Diagram



Phasing

It is unlikely that funding will be available to complete the entire project at one time. However, it is important that the items included in the first phase are enough to be a catalyst to push the rest of the project forward. The following is a recommended phasing plan for the improvements.

Phase I - The Catalytic Phase

Getting the most return for the least cost is an important first step in the process. The Razorback Greenway will soon be built through downtown and an open creek is the first step to developing the creekside trail that will be part of the new identity for Springdale. Phase I includes the following:

PHYSICAL IMPROVEMENTS

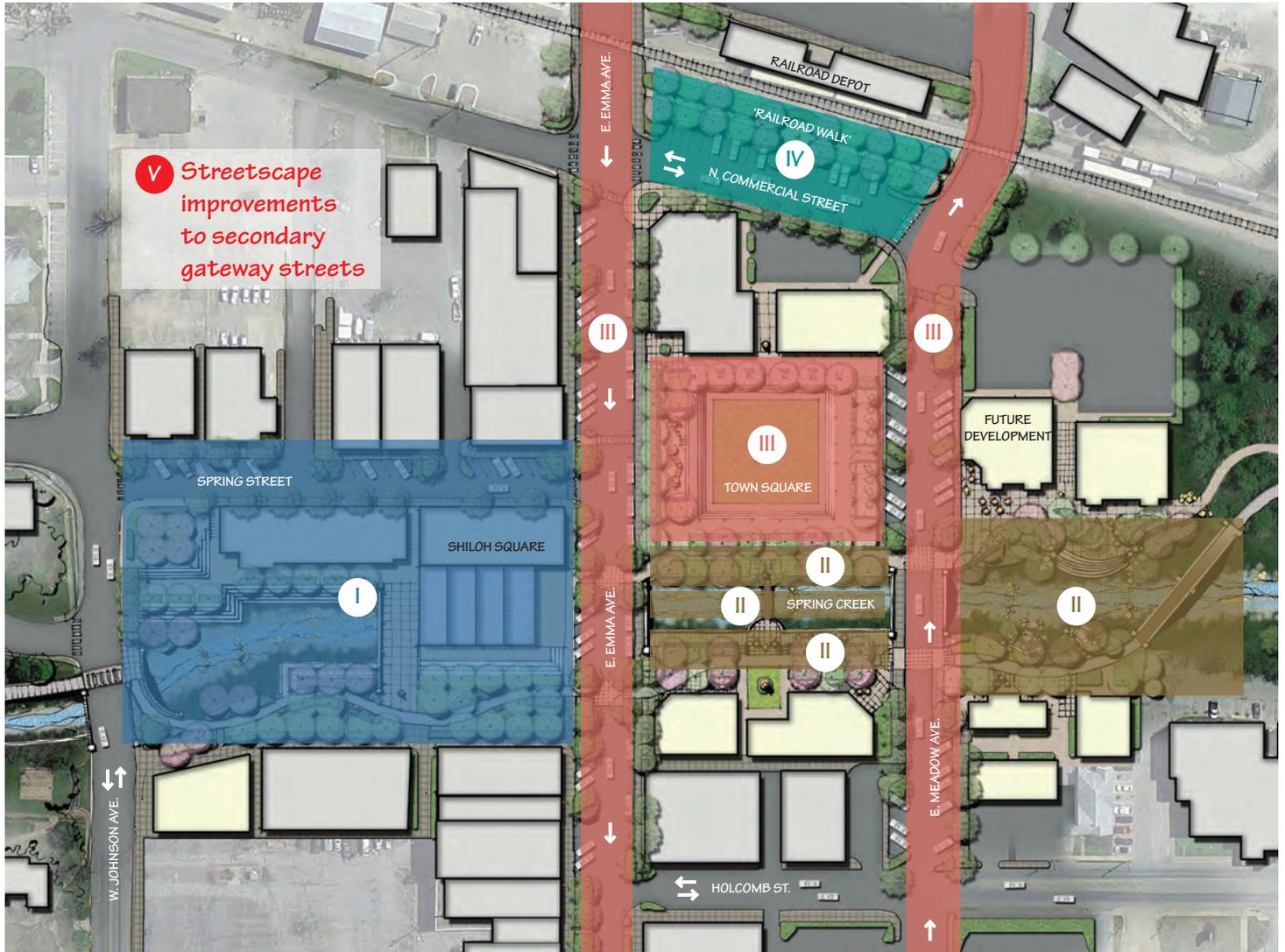
- Implement the Shiloh Square improvements, including daylighting Spring Creek North of Emma Ave.
- Close Mill Street
- Add new streetscape to Spring Street

- Recirculate water in Spring Creek (by whichever of the options outlined in the engineering study is deemed most feasible)

PLANNING IMPROVEMENTS

- Complete a Traffic and Parking Study (to determine if the couplet is the best solution and if there will be enough parking for anticipated uses).
- Complete a more detailed cost/benefit study of the entire project (to determine if the investment in the improvements will yield the desired economic benefit).
- Launch a more extensive public relations and communication program

Figure 14: Phasing Diagram



for the downtown revitalization effort.

Phase II - Daylight Spring Creek South of Emma Avenue and implement creekside improvements

- Opening up the last portion of the creek and adding the walks, terraces and plazas will complete the creekside walk. This will make the downtown district a distinct destination and landmark along the Razorback Greenway.

Phase III - Town Square, and Emma, Meadow and Johnson Avenue street improvements.

- The new Town Square on the creek is the centerpiece of the recommended improvements. It will provide the first of many new reasons to visit downtown. There will be a playground, a splashpad and a place for new programmed events. The streetscape improvements along Meadow and Emma further from the square could be sub phases if funding is limited.

Phase IV - Commercial Street Improvements

- This phase begins pushing the improvements along the streets around the Town Square to extend out into the rest of the community.

Phase V - Streetscape Improvements to the secondary gateway streets

These improvements can be done incrementally as funds become available. These streets include:

- Shiloh Street
- Holcomb Street
- Park Street
- Mill Street
- Berry Street

Funding Resources

When considering possible funding sources for the recommended improvements, it is important to remember that not all design and construction activities will be accomplished with a single funding source. It will be necessary to consider several sources of funding, that, when combined, would support full project construction of a single phase, or even multiple phases of improvements. The plan includes trails, waterways, redevelopment and public spaces. Consider pursuing grants specifically for waterway restoration for that component and pursue grants for public spaces for another. The following outlines sources of funding to consider at the federal, state, and local government level, and from the private sector and community support.

State and Federal

Federal funding is typically directed through state agencies to local governments either in the form of grants or direct appropriations.

Aquatic Ecosystem Restoration – USACE

Section 206 of the Water Resources Development Act of 1996 authorizes the U.S. Army Corps of Engineers to restore degraded aquatic ecosystems. It must be demonstrated that the proposed project will increase aquatic ecosystem habitat units and is cost-effective. Each project is limited to a federal cost of \$5,000,000, and requires cost-sharing from an authorized non-federal sponsor. Significant portions of the non-federal share may be in the form of in-kind services and the provision of lands, easements and rights-of-way.

Watershed Funding Programs – EPA

Community Action for a Renewed Environment (CARE): CARE is a competitive grant program that offers an innovative way for a community to organize and take action to reduce

toxic pollution in its local environment. Through CARE, a community creates a partnership that implements solutions to reduce releases of toxic pollutants and minimize people's exposure to them. By providing financial and technical assistance, EPA helps CARE communities get on the path to a renewed environment.

Clean Water State Revolving Fund:

The Clean Water State Revolving Fund programs provided more than \$4.5 billion annually in recent years to fund water quality protection projects for wastewater treatment, nonpoint source pollution control, and watershed and estuary management.

Environmental Education Grants Program:

This program supports environmental education projects that increase the public awareness about environmental issues and increase people's ability to make informed decisions that impact environmental quality. EPA awards between \$2 and \$3 million annually. More than 75 percent of these grant recipients receive less than \$15,000.

Environmental Justice Grant Programs:

These programs provide financial assistance to organizations 1) working on projects to address local environmental and/or public health issues in their communities and 2) building collaborative partnerships to identify local environmental and/or public health issues.

Five Star Restoration Program:

The Five Star Restoration Program brings together students, conservation corps, other youth groups, citizen groups, corporations, landowners, and government agencies to provide environmental education and training through projects that restore wetlands and streams. The program provides challenge grants, technical support, and opportunities for information exchange to enable community-based restoration projects. Funding levels range from \$5,000 to

\$40,000, with \$20,000 as the average amount awarded per project.

Targeted Watershed Grants: The Targeted Watershed Grants Program is designed to encourage successful community-based approaches and management techniques to protect and restore the nation's waters. Any governmental or nonprofit non-governmental entity is eligible to receive a grant under this program, and interjurisdictional watershed partnerships are encouraged. Through these grants, EPA expects to see real environmental results, such as the return of native fish species and increased recreational opportunities and to discover innovative solutions to improving and sustaining water quality.

United States Fish and Wildlife Service Funding

The Fish and Wildlife Service works with others to conserve, protect and enhance fish, wildlife and plants and their habitats for the continuing benefit of the American people. The Division of Bird Habitat Conservation provides matching grants to organizations and individuals who have developed partnerships to carry out wetlands conservation projects in the United States, Canada, and Mexico for the benefit of wetlands-associated migratory birds and other wildlife. The Partners for Fish and Wildlife program provides technical and financial assistance to private landowners and tribes who work with partners to help meet the habitat needs of Federal Trust Species.

Community Development – U.S. Department of Housing and Urban Development

Community Development activities include many different programs that provide assistance to a wide variety of grantees. The Community Development Block Grant (CDBG) program provides annual grants on a formula basis to entitled cities, urban counties

and states to develop viable urban communities by providing decent housing and a suitable living environment, and by expanding economic opportunities, principally for low- and moderate-income persons.

50/50 Matching Grant Program

The purpose of the 50/50 Matching Grant Program is to build outdoor recreation facilities.

The 50/50 Matching Grant Program is a reimbursable grant program. This means that the grantee will be reimbursed for half of the amount of the project cost up to the grant amount. The grantee must finance 100% of the cost of the project, which can include in-kind labor, land donations, contributions and general appropriations. The grantee will not be reimbursed for any more than the amount of cash they spend. Fifty percent of the eligible expenditures, up to the grant amount, may be reimbursed by periodic billings during the project period, or the grantee may wait until project completion to request total reimbursement.

The funding for the 50/50 Matching Grant Program comes from two sources, the Land and Water Conservation Fund (LWCF) and the Arkansas Natural and Cultural Resources Grant and Trust Fund (NCRGTF). The LWCF is a federal program authorized by the LWCF Act of 1965 (Public Law 88-578). These funds are derived from the sale of federal surplus property, the federal motor fuel tax and the Outer Continental Shelf mineral receipts. The NCRGTF is a state program authorized by Act 729 of 1987. Funds are collected from a tax on the transfer of certain real estate in the State of Arkansas.

Enclosed facilities cannot be constructed within the area described by the park boundary map, except as support to an outdoor facility (i.e., rest rooms or concession stands). Pavilions cannot have

sides that give the effect of a closed-in building, nor can facilities constructed with LWCF or NCRGTF monies be enclosed at a later date.

Land and Water Conservation Trust Fund

The Land and Water Conservation Fund (LWCF) has historically been a primary funding source of the U.S. Department of the Interior for outdoor recreation development and land acquisition by local governments and state agencies. The Land and Water Conservation Fund (LWCF) Act of 1965 was enacted to help preserve, develop, and assure access to outdoor recreation facilities to strengthen the health of U.S. citizens. It created the Land and Water Conservation Fund in the U.S. Treasury as a funding source to implement the outdoor recreation goals in the law.

Arkansas Natural Resource Commission

The major distributor of funding from state and federal programs for water and wastewater projects in Arkansas is the Arkansas Natural Resource Commission (ANRC). ANRC funds a wide variety of projects including:

- Public water supply, treatment, and distribution systems
- Sewer collection and treatment systems
- Solid waste collection or disposal
- Irrigation (water conservation)
- Flood control and drainage
- Erosion and sediment control
- Agricultural best management practices (non-point source pollution prevention)

Each funding program has unique requirements and limitations. To apply for any type of funding, applicants must fill out a general ANRC application form and ANRC staff will determine which program best fits the community's

needs. Determination of need may depend on things such as priority of project, income level of persons that will benefit from project and the current user rates. The Arkansas Economic Development Commission also administers federal funds, specifically CDBG grants.

Nonpoint Source Pollution Grants Program - ANRC

Since 1990, the ANRC has been the lead agency for the Arkansas Nonpoint Source (NPS) Pollution Management Program. ANRC has oversight over the NPS Grant Program, and funds projects related to nonpoint source pollution management through Section 319(h) of the Clean Water Act to support state-wide programs and implementation projects on an annual cycle. Special emphasis is given to priority watersheds prioritized by the NPS Management Program Task Force. ANRC provides assistance to eligible entities on preparation of grant applications, including conceptual project design, development of the work plan and budget preparation. ANRC accepts work plans for projects to manage, reduce or abate NPS pollution. Projects are funded for one to three years. Recipients must provide a minimum of 43% non-federal match (in-kind or cash). Recipients eligible for funding must be non-profit (documented and recognized), state or local government agencies or academic institutions. Projects for implementation, demonstration, and watershed planning to abate NPS pollution get priority.

The Illinois River watershed is listed as the number one priority watershed for the program. Phosphorus and sediment are of particular concern in the Northwest Arkansas region. Statewide concerns include lack of riparian buffers and vegetation, sediment and nutrients in runoff which are not filtered naturally, and eroding streambanks which deliver excess sediment into streams.

NPS issues can be further described to include urbanization and increased impervious surfaces which increase velocity and volume of runoff resulting in unstable streambanks and streambank failure and increased in-stream channel erosion. Further information on this program can be found on the ANRC website <http://www.anrc.arkansas.gov/> and at <http://arkansaswater.org>.

Clean Water Revolving Loan Fund - ANRC

ANRC also administers the Clean Water Revolving Loan Fund (CWRLF). All projects which receive loans from the CWRLF are designed to help those areas ensure public health protection and compliance with the CWA. One of the primary objectives of the program is to emphasize nonpoint source pollution control and the protection of estuaries.

Arkansas Community & Economic Development Program

The Arkansas Community & Economic Development Program (ACEDP) is the CDBG program for the State of Arkansas. The Arkansas Economic Development Commission administers the small cities CDBG program under a grant agreement between the State of Arkansas and the United States Department of Housing & Urban Development (HUD). Priorities for spending the CDBG funds are set in partnership with the other state agencies that receive HUD funds under a five year consolidated plan, which is updated on an annual basis. The Arkansas Economic Development Commission has determined that downtown revitalization projects may be funded only to the extent that activities meet the national objective of preventing or eliminating conditions of slum and blight. Further information on this program can be found at <http://www.arkansasedc.com>.

Local Government

City of Springdale Capital Improvement Program

The City of Springdale may have funding available to support some elements of construction. It will be important to meet with City Council representatives and the City Manager to judge the availability of this funding.

Other local funding options:

- Bonds/Loans
- Taxes
- Impact fees
- Exactions
- Tax increment financing
- Partnerships

Private and Non-Profit Sectors

Many communities have solicited funding assistance from private foundations and other conservation-minded benefactors. Below are several examples of private funding opportunities available.

The Walton Family Foundation

The Walton Family Foundation has three main areas of categories of funding, including Education Reform, Environment, and Home Region. The area of funding most relevant to this project is the Foundation's Home Region, specifically within the program's focus area of Northwest Arkansas. As a result of strong historical and Walton family ties, Northwest Arkansas is of particular importance to the Foundation, evidenced in the more than \$15M in 2012 grants alone. The goal of the Northwest Arkansas Home Region program is to enhance the quality of life for residents of the area, primarily in Washington and Benton counties, by supporting community, economic and educational initiatives that will have a direct impact on the regional industries' ability to attract and retain a quality workforce. A review

of the current Home Region grantees in Northwest Arkansas provides insight to the types of organizations and projects that are funded. Some examples include:

- Illinois River Watershed Partnership
- Catholic Social Services, Diocese of Little Rock
- Jones Center for Families, Inc.
- Walton Arts Center
- Razorback Regional Greenway
- Bentonville/Bella Vista Trailblazers Association, Inc.

A full list of the Foundation's grantees (including funding amounts) can be found here: <http://www.waltonfamilyfoundation.org/about/2012-grant-report#homeregion>

Bank of America Charitable Foundation, Inc.

The Bank of America Charitable Foundation is one of the largest in the nation. The primary grants program is called Neighborhood Excellence, which seeks to identify critical issues in local communities. Another program that applies to greenways is the Community Development Programs, and specifically the Program Related Investments. This program targets low and moderate income communities and serves to encourage entrepreneurial business development. Visit the web site for more information: www.bankofamerica.com/foundation.

National Fish and Wildlife Foundation (NFWF)

The National Fish and Wildlife Foundation (NFWF) is a private, nonprofit, tax-exempt organization chartered by Congress in 1984. The NFWF sustains, restores, and enhances the nation's fish, wildlife, plants and habitats. Through leadership conservation investments with public and private partners, the

Foundation is dedicated to achieving maximum conservation impact by developing and applying best practices and innovative methods for measurable outcomes.

The Foundation awards matching grants under its Keystone Initiatives to achieve measurable outcomes in the conservation of fish, wildlife, plants and the habitats on which they depend. Awards are made on a competitive basis to eligible grant recipients, including federal, tribal, state, and local governments, educational institutions, and non-profit conservation organizations. Project proposals are received on a year-round, revolving basis with two decision cycles per year. Grants generally range from \$50,000-\$300,000 and typically require a minimum 2:1 non-federal match.

Funding priorities include bird, fish, marine/coastal, and wildlife and habitat conservation. Other projects that are considered include controlling invasive species, enhancing delivery of ecosystem services in agricultural systems, minimizing the impact on wildlife of emerging energy sources, and developing future conservation leaders and professionals. Additional grant programs are described at <http://www.nfwf.org/AM/Template.cfm?Section=Grants>.

The Trust for Public Land

Land conservation is central to the mission of the Trust for Public Land (TPL). Founded in 1972, the Trust for Public Land is the only national nonprofit working exclusively to protect land for human enjoyment and well being. TPL helps conserve land for recreation and spiritual nourishment and to improve the health and quality of life of American communities. TPL's legal and real estate specialists work with landowners, government agencies, and community groups to:

- Create urban parks, gardens, greenways, and riverways

- Build livable communities by setting aside open space in the path of growth
- Conserve land for watershed protection, scenic beauty, and close-to-home recreation safeguard the character of communities by preserving historic landmarks and landscapes

The following are TPL's Conservation Services:

- Conservation Vision: TPL helps agencies and communities define conservation priorities, identify lands to be protected, and plan networks of conserved land that meet public need
- Conservation Finance: TPL helps agencies and communities identify and raise funds for conservation from federal, state, local, and philanthropic sources
- Conservation Transactions: TPL helps structure, negotiate, and complete land transactions that create parks, playgrounds, and protected natural areas
- Research and Education: TPL acquires and shares knowledge of conservation issues and techniques to improve the practice of conservation and promote its public benefits

Since 1972, TPL has worked with willing landowners, community groups, and national, state, and local agencies to complete more than 3,000 land conservation projects in 46 states, protecting more than 2 million acres. Since 1994, TPL has helped states and communities craft and pass over 330 ballot measures, generating almost \$25 billion in new conservation-related funding. For more information, visit www.tpl.org/.

Local Sponsors

A sponsorship program for amenities allows smaller donations to be received from both individuals and businesses. Cash donations could be placed into a trust fund to be accessed for construction projects. Some recognition of the donors is appropriate and can be accomplished through the placement of a plaque, the naming of a feature, and/or special recognition at an opening ceremony. Types of gifts other than cash could include donations of services, equipment, labor, or reduced costs for supplies.

Volunteer Work

It is expected that many citizens will be excited about the re-development of the downtown. Individual volunteers from the community can be brought together with groups of volunteers from church groups, civic groups, scout troops and environmental groups to work on suitable portions of the project on special community workdays. Volunteers can also be used for fund-raising, maintenance, and programming needs.

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Economic Benefits of Shiloh Walk and Daylighting Spring Creek

Located in the heart of downtown Springdale, Spring Creek is a valuable natural resource with strong historical ties to the city's early development. Originally founded as the City of Shiloh, Springdale developed around Spring Creek and has since become one of the largest cities in Arkansas. The importance of Spring Creek as a founding feature of the downtown, however, has largely been forgotten since being buried, leaving its many assets underappreciated today.

Uncovering urban stream corridors through a process known as daylighting has become a popular way for cities and towns to recover these natural resources and revitalize their downtowns. Several cities throughout the country have used creek daylighting projects to reverse discouraging downtown trends such as low building occupancy rates, shrinking property tax revenues, abandoned properties, and low rates of use by residents and visitors. Daylighting Spring Creek will restore a natural, historical, and cultural resource that reinvigorates the social and economic vitality of downtown Springdale.

Residents, businesses, and visitors will again be attracted to the central city, where opportunities to recreate and socialize along the creek stimulate local growth in residences, businesses, and tourism. The development of Shiloh Walk and a new Town Square along Spring Creek will also form important connections between destinations in downtown Springdale, drawing people to the heart of the city to live, work, and play.

Investing in the revitalization of the Spring Creek corridor can produce a positive economic impact for Springdale in several ways, including:

- Property value and tax revenue increases



The Little Sugar Creek Greenway in North Carolina daylighted 1,880 feet of creek and improved connectivity between commercial areas, parks and neighborhoods.

- Tourism attraction and visitor spending
- Attracting and retaining workers and employers
- Upfront construction impact
- Direct use impact
- Health care cost savings

Below is a description of the many benefits that Shiloh Walk and the daylighting of Spring Creek could bring to downtown Springdale, as well as the successes that other cities and towns have experienced from similar daylighting and stream restoration projects.

Property Value and Tax Revenue Increases

Some of the greatest assets that an urban waterfront provides are natural beauty and the creation of recreational opportunities. As is said in the real estate business, "Water attracts." Urban water resources, creekside parks, and trails are major attractors for businesses and new development because these amenities are a natural draw for people and foot traffic. Case studies throughout

the country have documented the positive impact of these amenities on local property values, which provides a benefit to current property owners and appeals to developers. Additionally, this increase in property values boosts property tax revenue, the majority of which is set aside to fund education. In Washington County, 85% of the property tax revenue generated is budgeted to the school district, 13% is allocated to the county government to cover county services, and 2% is given to city governments for local services.¹ In Springdale, increased property values downtown would translate into a substantial increase in funding available to the Springdale School District, providing greater resources to improve the quality of education and the opportunities available to students.

Evidence of property value increases in other cities shows the premium that people are willing to pay to have access to open space such as waterfront parks and greenways. The Arcadia Creek

¹ Division of Agriculture, University of Arkansas. Arkansas Property Tax: Revenue, Assessment, & Rates. Retrieved from: http://www.arcommunities.org/taxes/property/county_list.htm

daylighting project in Kalamazoo, Michigan, and the Strawberry Creek daylighting project in Berkeley, California, were both reported to increase property values in these areas.² The daylighting of Cow Creek in Hutchinson, Kansas, saw a ten percent increase in property values along the creek following the project's completion.³

Developing greenways and walkable communities has similarly been shown to boost property values. A study of the Little Miami Scenic Trail in Ohio found that property values increase by \$7.05 for every foot closer a property is located to the trail.⁴ In Apex, North Carolina, the Shepard's Vineyard housing development added \$5,000 to the price of 40 homes adjacent to the regional greenway – and those homes were still the first to sell.⁵ A broader national study reviewed home values in fifteen metropolitan areas throughout the U.S. and compared the values of those in walkable neighborhoods to the values of homes in less walkable areas. Walkable neighborhoods were defined as places that have a variety of destinations that are reachable within a one-mile walking distance of home. The researchers found that homes in walkable areas are worth \$4,000 to \$34,000 more than those located in less walkable areas.⁶ By enhancing the area's aesthetic beauty, walkability, and access to downtown destinations, Springdale can expect to see comparable property value increases downtown around Spring Creek and Shiloh Walk.

² Pinkham, Richard. 2000. *Daylighting: New Life for Buried Streams*. Rocky Mountain Institute: Snowmass, Colorado. 73p.

³ Hoobyar, Paul. 2002. *Daylighting and Restoring Streams in Rural Community City Centers: Case Studies*. National Park Service. 33p.

⁴ Karadeniz, Duygu. 2008. *The impact of the Little Miami Scenic Trail on single family residential property values*. College of Design, Architecture, Art and Planning, University of Cincinnati. Retrieved from http://etd.ohiolink.edu/view.cgi?acc_num=ucin1211479716

⁵ Rails to Trails Conservancy. 2005. *Economic benefits of trails and greenways*.

⁶ Cortright, Joseph. 2009. *Walking the Walk: How walkability raises housing values in U.S. cities*. CEOs for Cities.



Daylighting of Arcadia Creek in Kalamazoo, Michigan included a festival site that draws in \$12 million in income to downtown each year.

Tourism Attraction and Visitor Spending

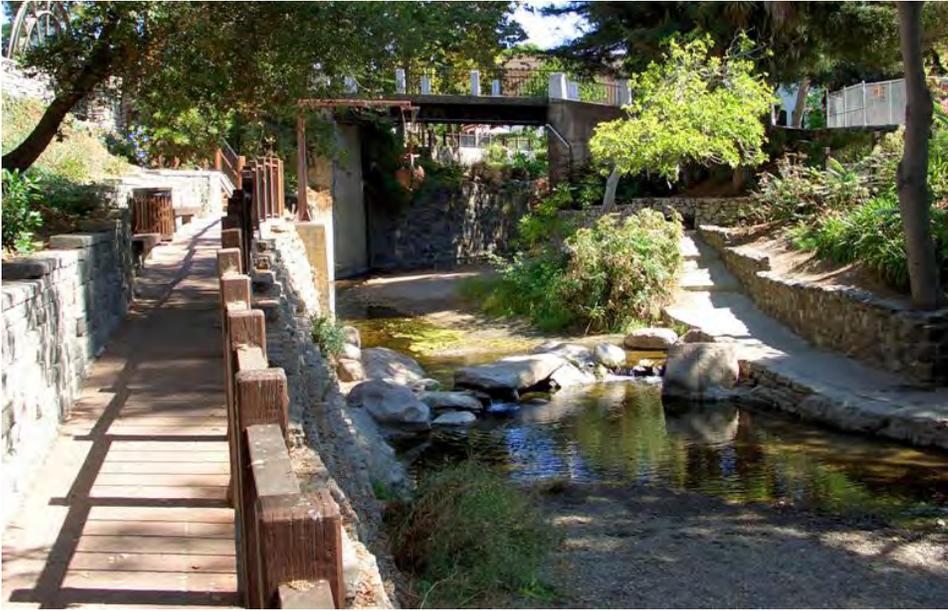
Vibrant downtowns attract visitors. Cities that have invested in downtown development and revitalization projects have seen the economic boost that these afford. Denver, Austin, San Antonio, and Charlotte are just a few of the places that have successfully boosted tourism through central city investment. Although San Antonio's River Walk project is on a larger scale than what is proposed for Springdale, it is an excellent example of the tourism attraction that waterfront restoration and development provide. The River Walk is the number one attraction for San Antonio's \$3.5 billion tourism industry, with a riverfront pathway and restaurants, shops, hotels, and other attractions that border the river.⁷ In Springdale, Shiloh Walk will similarly help to connect a number of existing destinations downtown, including the Arkansas & Missouri Railroad Station, Shiloh Memorial Park, Shiloh Museum

of Ozark History, Arts Center of the Ozarks, and nearby restaurants and shops. From downtown, visitors may be encouraged to explore other attractions in the area, such as Arvest Ballpark and the Northwest Arkansas Naturals, Parsons Stadium, and nearby Beaver Lake. Shiloh Walk will provide visitors with a central destination where they can stroll, shop, recreate, and become acquainted with the people, history, and culture of Springdale.

Experience from Kalamazoo, Michigan, shows the economic impact that a revitalized public space can have on the downtown.⁸ Kalamazoo centered its redevelopment around the Arcadia Creek daylighting project, which drew investment and foot traffic to the downtown area. The project included the construction of an open park space with an amphitheater, known as the "Festival Site." This area now hosts five annual festivals, which collectively draw in \$12 million in income to Kalamazoo's downtown each year.

⁸ Pinkham, Richard. 2000. *Daylighting: New Life for Buried Streams*. Rocky Mountain Institute: Snowmass, Colorado. 73p.

⁷ American Planning Association. (2002). *How cities use parks for economic development*.



San Luis Obispo Creek in California increased pedestrian traffic and stimulated downtown development.

Attracting and Retaining Workers and Employers

Shiloh Walk will provide an attraction for new development by elevating the desirability and value of property downtown. New businesses will be able to take advantage of the amenities offered by Shiloh Walk to attract customers, thereby sustaining and growing their businesses. Restaurants, hotels, boutique shops, and recreational equipment rentals are some of the types of businesses that have been attracted to downtown waterfronts in other cities. These businesses create jobs and provide an incentive for workers to stay in Springdale while also attracting other workers and employers from outside the area.

Daylighting Spring Creek will also transform the character of downtown to a more accessible, lively, and welcoming place. Shiloh Walk will provide an opportunity for businesses to front not just onto the street, but onto the creek as well; business entrances facing the stream could connect to Shiloh Walk, with outdoor seating at restaurants and

cafes overlooking the creek as shown in the recommended concept drawings. These businesses will further encourage pedestrian activity, drawing in residents and visitors to window shop, share a meal, and recreate in downtown Springdale. A revitalized downtown will also benefit major employers already in the area, such as Tyson Foods, NW Arkansas Medical Center, Springdale Technology Park, and Rockline Industries, by providing amenities to workers and their families. An active, vibrant, family-friendly downtown will further increase the desirability of Springdale as a place to live and work and give the city a competitive edge in attracting and retaining businesses and talented workers.

Several cities have been able to revitalize their downtown business districts around stream daylighting and restoration projects. The Little River Walk Restoration Project in Hopkinsville, Kentucky, was designed with the goal of revitalizing a decaying downtown that was struggling with low occupancy rates. After the restoration project was

completed, the city saw an increase in foot traffic, public events, and activities in the downtown area.⁹ San Luis Obispo also saw a major transformation of its downtown following the San Luis Obispo Creek restoration project. Recognizing the benefits that the restoration project would have on local business, the downtown merchants association sponsored and funded the project with impressive results.⁹ Storefronts and commercial buildings began to orient themselves towards the creek, opening not just onto the street but also creekside. New development and businesses were also attracted to the area. Mixed use buildings with a combination of offices, restaurants, and boutique shops were developed, with decks overlooking the stream. Businesses began to encourage pedestrian traffic along the creek and catered to passersby by providing inviting patios with outdoor seating. By restoring a valuable natural resource and creating a clean and attractive public environment, these cities were able to transform their downtowns and grow their local economies.

Upfront Construction Impact

The upfront construction impacts of stream daylighting projects serve as short-term economic stimulants. Laborers need to be hired and materials must be purchased. These are direct impacts that will be felt throughout the local and regional economy. Local shops and restaurants in the downtown Springdale area will feel the presence of construction workers throughout the working day. Equipment will need to be maintained, and other miscellaneous expenditures will be spread throughout the local economy. These expenditures will also add tax revenue to Springdale and Washington County. While the

⁹ Hoobyar, Paul. 2002. *Daylighting and Restoring Streams in Rural Community City Centers: Case Studies*. National Park Service. 33p.

Stream Daylighting and Restoration Case Studies^{1,2}

Location/ Waterway	Population*	Watershed Size	Flow Rates	Length Restored	Project Costs	Reported Benefits
Berkeley, CA / Strawberry Creek	112,580	2.0 sq. mi.	N/A	200 feet of new channel daylighted	\$50,000 for daylighting, \$580,000 total park costs	Increased foot traffic, increased property values, reduced crime
Charlotte, NC / Little Sugar Creek	751,087	N/A	N/A	1,880 feet daylighted, 5,940 feet of stream restored	\$43M for daylighting, land purchase, stream restoration, greenway, rain gardens, wetland construction, & pedestrian bridge	Improved connectivity between commercial areas, parks, and neighborhoods
Hopkinsville, KY / Little River	31,577	N/A	N/A	7,900 feet (26 blocks)	\$1.3M for river walk	Improved connectivity between business centers and public facilities, increased user visits & public activity, new activities
Hutchinson, KS / Cow Creek	42,080	1.5 sq. mi.	<30 cfs to >700 cfs in peak flows	800 feet (approx. 3 city blocks)	\$1.25M for daylighting and park	10% increase in property values since project completion
Kalamazoo, MI / Arcadia Creek	74,262	7.5 sq. mi.	<5 cfs to 1,015 cfs peak flow	1,500 feet of new channel daylighted (5 city blocks)	\$18M for daylighting, land purchase, & building removal	Festival site in park draws in \$12M in income to downtown each year, flood relief
San Luis Obispo, CA / San Luis Obispo Creek	45,119	84 sq. mi.	N/A	600 feet (2 city blocks)	\$100,000	Increased pedestrian traffic & downtown development
St. Charles, IL / Fox River	32,974	N/A	N/A	1750 feet (6 city blocks)	N/A	Restored downtown area, increased foot traffic, increased occupancy

*U.S. Census Bureau. 2010 U.S. Census.

1 Pinkham, Richard. 2000. *Daylighting: New Life for Buried Streams*. Rocky Mountain Institute: Snowmass, Colorado. 73p.

2 Hoobyar, Paul. 2002. *Daylighting and Restoring Streams in Rural Community City Centers: Case Studies*. National Park Service. 33p.

primary objective of the construction of Shiloh Walk is not the short-term economic gain creating construction jobs and boosting tax revenue, this is nonetheless an important and immediate side benefit that the construction of Shiloh Walk would provide to Springdale's economy.

Direct use impact

Recreational amenities are another important component of stream daylighting and restoration projects. Activities such as walking, skating, jogging, and bicycling bestow benefits to users, typically without any kind of monetary exchange. These types of economic

benefits are known as “consumer utility.” With Springdale’s population of almost 70,000 and Washington County’s population of over 200,000 people, significant consumer utility will be enjoyed. Furthermore, the percentage of the population engaged in recreational activities will rise with increased access provided by Shiloh Walk in the downtown area.

Other stream daylighting projects have encouraged a mixture of ways to maximize consumer utility; San Antonio’s River Walk serves as a great opportunity for pedestrians and small boat tours, the Riverfront in Wilmington,

Delaware, includes rowing opportunities, and the Riverwalk in De Pere, Wisconsin, provides wildlife viewing areas. Springdale’s Shiloh Walk will allow a mixture of recreational opportunities and a place for residents and tourists to maximize consumer utility.

Health Care Cost Savings

By creating places for regular physical activity, stream daylighting projects can lead to significant improvements in physical health for a community. Additional bicycle and pedestrian facilities can connect local businesses,

restaurants, shops, grocery stores, schools, and natural areas in a mosaic that encourages physical activity as a part of everyday life. In addition to invigorating the downtown area, real savings in health care costs will accumulate.

Studies by the Centers for Disease Control and others have shown the potential for such savings, including the following:

- The costs associated with inactivity and obesity account for approximately 9.4% of health care spending.¹⁰
- An investment of \$1 in physical activity (time and equipment) leads to \$3.20 in medical cost savings.¹⁰
- Workplace physical activity programs can reduce short-term sick leave up to 32% and can increase productivity by up to 52%.¹⁰
- Medicare and Medicaid programs spend \$84 billion per year on five major chronic conditions that could be significantly improved by increased physical activity: diabetes, heart disease, depression, cancer, and arthritis.¹¹
- If all physically inactive Americans became active, \$77 billion would be saved annually in medical costs.¹²

In spearheading a stream daylighting project, Springdale has the opportunity to spur physical activity and realize significant savings in health care costs at the local level as well as gains in productivity.

Costs of Daylighting and Stream Restoration

The costs for stream daylighting and restoration vary based on the costs of acquiring land, if necessary; the length of stream to be daylighted; the cost of restoration or riparian habitat creation; environmental issues; and the cost of additional parks, greenways, or other amenities attached to the project. In addition, the city must consider the opportunity costs of pursuing a daylighting project as well as future maintenance costs.

Stream restoration and daylighting projects can cost anywhere between \$15 and \$5,000 per linear foot, depending on the scale and scope of the project.¹³ At the lower end of this range are smaller natural restoration projects that rely on volunteer labor, which typically cost between \$15 and \$250 per linear foot. Projects that involve more extensive daylighting, habitat restoration, park creation, or other additional amenities may cost \$1,500 to \$5,000 per linear foot. Based on a collection of past projects, \$1,000 per linear foot is a good rule of thumb for estimating the cost of a daylighting project.¹⁴

The table on page 44 summarizes a number of stream restoration case studies and their reported costs and benefits. This summary can provide the City of Springdale and its residents with a better understanding of how the costs vary based upon the extent and detail of a daylighting project.

¹⁰ WHO/CDC Collaborating Center on Physical Activity and Health Promotion. 2000. Atlanta, Georgia.

¹¹ US Department of Health and Human Services. 2002. *Physical Activity Fundamental to Preventing Disease*.

¹² Pratt M., Macera C.A., and Wang, G. 2000. Higher Direct Medical Costs Associated with Physical Inactivity. *The Physician and Sports Medicine* 28, pp. 63-70.

¹³ Pinkham, Richard. 2001. *3 Rivers, 2nd Nature Stream Restoration and Daylighting Report, Phase 1*. 101p.

¹⁴ Pinkham, Richard. 2000. *Daylighting: New Life for Buried Streams*. Rocky Mountain Institute: Snowmass, Colorado. 73p.