



# CONNECT CONWAY

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BUILD Discretionary Grant Application

Conway, Arkansas

July 2019

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## I. Project Description

With a focus on congestion relief, safety, quality of life, economic competitiveness, and transportation choices, the Connect Conway Mobility Improvement Project (Connect Conway) will greatly improve mobility throughout Conway. A central piece of the project is vehicular improvements along Donaghey Avenue, the critical north-south arterial that serves the University of Central Arkansas (UCA) and the Conway Regional Medical Center complex, among other destinations. UCA is a partner on the project, which will provide better motorized and non-motorized connections on two sides of the campus. Donaghey Avenue from Dave Ward Drive to Prince Street will become the central spine to a multi-modal network that will provide the first bicycle-pedestrian connections to East Conway via the recently completed 6<sup>th</sup> Street bridge over Interstate 40, and connect to Tucker Creek and Stone Dam Creek Trails in West Conway.

The route of the project will connect the three Census tracts in Conway designated as Opportunity Zones, paving the way for economic revitalization in these areas. Deployment of broadband will be facilitated on the sections where utility relocation is necessary, so that Conway residents and businesses throughout the City can enjoy up to 1 gigabyte internet speed, thereby enhancing economic competitiveness.

### Project History

This project comes from Conway 2025 process, a citywide visioning and strategic planning initiative that began in 2010 and was updated in 2015. With over 1,400 participants, Conway 2025 became the first citizen-led, comprehensive, strategic plan in the city's history.

Transportation improvements (roads, trails, and sidewalks) were the most important priority. In 2016, in honor of their 125<sup>th</sup> anniversary the Conway Area Chamber of Commerce initiated the *Conway 125 Capital Campaign*, where Connect Conway was identified as one of seven critical projects. Both the Chamber, and Conway Development Corporation (the city's, private, non-profit economic development entity), as master owner and developer of the Central Landing Project, are partnering with the City of Conway, the University of Central Arkansas, and Conway Corp, operator of the city-owned utility system, to make this project a reality. Conway Development Corporation is fronting the money for project development and will donate \$268,329 in right-of-way necessary for the trail through Central Landing.

Central Landing is a 150-acre mixed use development in the heart of Conway, the site of the former municipal airport. The development is in one of three Opportunity Zones that is ripe for revitalization. The 6<sup>th</sup> Street Overpass and associated new roadway construction was planned and executed as a critical piece infrastructure necessary to facilitate redevelopment of Central Landing, and to improve mobility throughout town. The \$30 million project, completed in 2017, provides a new major east/west arterial and first safe bicycle-pedestrian route over Interstate 40, linking commercial developments on both sides of the freeway.

Another piece of the puzzle is the Stone Dam Creek Trail, which will add 1,100 feet to the system around the University of Central Arkansas. This project will link with the newly-

completed \$3.3 million Dave Ward Drive Pedestrian Overpass to provide a safe passage of Stone Dam Creek trail users over Highway 60 (Dave Ward Drive). Until the overpass was completed, there was no dedicated pedestrian/bicycle crossing of the highway that carries approximately 32,000 vehicles per day.

With the incorporation of the Donaghey Avenue Corridor as the spine of the transportation network, what began as a trail project has grown into a vision to establish a multi-modal mobility network, intended to reduce vehicular travel times and provide transportation choices to Conway residents who value the quality of life afforded by such a project. Conway leaders believe Connect Conway has the ability to go beyond much-needed transportation improvement to radically transform Conway.

### Transportation Challenges

#### Donaghey Avenue

At 4.5 miles from the Highway 64 (Old Morrilton Highway) in the North to Blackberry Lane in the South, Donaghey Avenue is the longest stretch of uninterrupted north-south roadway in Conway with the exception of the interstate and Highway 65B/365 Harkrider Street. With exponential traffic and congestion growth since the 1990s, Donaghey is a critical arterial roadway. Traffic at the north end of the project area at Prince Street is about 10,000 vehicles per day, and is 17,000 vehicles per day at the South End of the project (Dave Ward Drive) where the University of Central Arkansas is a major destination. Pedestrian traffic is high in this area. Donaghey is also the most direct north-south route from most areas to Conway High School to the west and Conway Junior High School to the east, both via Prince Street.

Existing traffic signals at Prince Street, Caldwell Street, Robinson Avenue, College Avenue, Bruce Street and Robins Street (north to south) do not adequately manage the peak hour traffic now (both AM and PM), but with expected 2040 traffic volumes, traffic will grind to a halt. Using HCM 6th Edition, SimTraffic, and ARCADY methodologies, traffic analysis demonstrated that the proposed roundabouts at Prince, Caldwell, and College will greatly decrease delay and increase mobility along this corridor. Safety for all users will also be enhanced by the roundabouts and by bicycle-pedestrian facilities on the route.

#### Connections to Destinations via Donaghey

##### *To East Conway*

Interstate 40 runs north and south through the City of Conway. At one time, most development was on the west side of Interstate 40, but as the City has grown exponentially, development has spread widely along the east side of the interstate. Interstate 40 represents a physical barrier for all transportation in Conway, but it has been a particular barrier to safe movement of bicyclists and pedestrians between western Conway and continued development to the east. Currently, western Conway is made up of the Central Business District, two colleges, one university, and the majority of residential development within the City. Eastern Conway consists of large retail stores, parks and recreation facilities, large industry and the Conway Human Development

Center, with a growing residential population throughout. All of these factors add to the importance of creating a walkable-bikeable infrastructure to connect east to west Conway.

Connect Conway will address the Interstate 40 barrier by providing a safe and efficient bicycle-pedestrian connection that will begin at Donaghey Avenue and Bruce Street and continue up Bruce Street through Central Landing, and across the 6<sup>th</sup> Street bridge over Interstate 40 to multiple destinations in eastern Conway including the City of College Softball Complex, Conway Commons, among others.

### *Around UCA*

The last transportation challenge addressed by the project is Bruce Street west of Donaghey Avenue. This street, which runs through the heart of the University of Central Arkansas campus, handles 5,500 vehicles per day and possibly that many pedestrians. Pedestrian traffic will only grow in this location because of four new fraternity houses; the \$38 million, 80,000 sf Integrated Health Sciences facility; and the \$40 million, 114,000 sf Windgate Center for Fine and Performing Arts, all of which UCA plans to build on the north side of Bruce. Bruce Street is an important east-west connector needed to help disperse traffic on both sides of Donaghey in the absence of parallel streets with uninterrupted east-west flow; it is therefore important to keep Bruce Street open and safe. Improvements planned for the UCA section will include streetscaping and traffic calming to better manage vehicular, bicycle, and pedestrian traffic. The western end of Bruce Street will extend to Salem Road to connect with the Tucker Creek trail system.

### Project Elements<sup>1</sup>

#### Donaghey Avenue Corridor (1.48 miles)

Donaghey Avenue is a critical arterial that serves as a frontage to the University of Central Arkansas (UCA) and Conway Regional Medical Center. Vehicular capacity improvements along the corridor include a dual lane roundabout at College Avenue, and single-lane roundabouts at the Donaghey Avenue intersections with Caldwell Street and Prince Street, along with one lane in each direction with a two-way left turn lane. The improvements are necessary because average daily traffic on this route is 10,000 vehicles per day at the north end and 17,000 vehicles per day at the south end, with a large volume of pedestrian traffic in the mornings and afternoons due to the presence of UCA. The Level of Service at most intersections is at D, with some at E and F, but with projected 2040 volumes, the Level of Service at most intersections moves to E and F.

Bicycle improvements consist of a combination of on-street bike lanes, protected bike lanes, and one-way cycle tracks to provide continuous dedicated bicycle infrastructure along the corridor.

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<sup>1</sup> Cross-sections vary throughout the project in order to minimize utility relocation costs, preserve existing ped/bike facilities, and meet specific traffic needs of each section. Most sections will include aesthetic elements and LED lighting.

Bicycle infrastructure will connect Highway 60 (Dave Ward Drive) to a previously improved segment of Donaghey Avenue that includes dedicated bicycle infrastructure.

Tucker Creek Trail Connection / Bruce Street (1.26 miles)

Tucker Creek Trail represents the single longest trail system within the City of Conway. Improvements to connect Tucker Creek Trail to the Donaghey Avenue Corridor and Stone Dam Creek include a 12' shared-use path including a 5' green space behind the back of curb.

In partnership with UCA, the Connect Conway project will include additional streetscaping and traffic calming measures through a portion of Bruce Street within campus. The streetscaping will channel motorized vehicles, bicycles, and pedestrians onto dedicated facilities.

Stone Dam Creek Trail Connection (0.63 miles)

Stone Dam Creek Trail represents the second longest trail system within the City of Conway and was recently enhanced with a \$3.3 million pedestrian bridge over Highway 60 (Dave Ward Drive) that greatly increases trail user safety. Improvements to connect Stone Dam Creek Trail to Bruce Street include a 12' shared-use path constructed adjacent to Stone Dam Creek through the UCA campus to an intersection and signalized crossing of Donaghey Avenue at Robins Street. East of Donaghey Avenue, the existing Stone Dam Creek concrete channel will be enclosed by a reinforced concrete box culvert. The top slab of the box culvert will be utilized as the shared-use path connecting Donaghey Avenue to Bruce Street.



Figure 1 Newly Completed Bicycle-Pedestrian Bridge Over Dave Ward Drive

## Improved Access to East Conway

*Bruce Street (1.18 miles)* – Safe pedestrian/bicycle connections to East Conway from Donaghey Avenue will be provided along Bruce Street by a 12’ shared-use path including a 5’ green space behind the back of curb. The Bruce Street segment will also include a new sidewalk on the opposing side of Bruce Street where the existing sidewalk has degraded considerably. An improved crossing of the Union Pacific Railroad and U.S. Highway 65B/Harkrider Street is also proposed.

*Central Landing (0.64 miles)* - Deflecting from the Bruce Street corridor, an independent 12’ shared-use trail is proposed to cross the Central Landing property west of Interstate 40.

*Exchange Avenue (0.21 miles)* – An approximately 1,100 foot segment of Exchange Avenue located between Highway 60 (Dave Ward Drive) and the recently constructed 6<sup>th</sup> Street corridor remains unimproved with narrow lanes and open ditches. Proposed improvements include street reconstruction with curb and gutter, new storm sewer, and bike lanes.

*6th Street – (0.35 miles)* Recently constructed infrastructure, including adequate shared-use path facilities constructed on the 6th Street Bridge over Interstate 40, will be utilized to make the connection across Interstate 40 to the Conway Commons retail development.

*6th Street (0.22 miles)* - 6th Street, east of Interstate 40, and connection through retail parking to Little Creek will be improved with a 12’ shared-use path including a 5’ green space behind the back of curb.

*Little Creek (1.00 miles)* - An independent 12’ shared-use trail will be built parallel to Little Creek. The trail will utilize the existing U.S. Highway 64 (Oak Street) Bridge over Little Creek as an underpass structure, thereby eliminating a potentially dangerous at-grade crossing of Oak Street. The trail will utilize an at-grade crossing of Bob Courtway Drive and a pre-fabricated steel truss across Little Creek to provide access to City of Colleges Softball Complex and Siebenmorgen Road. An additional ancillary improvement includes widening the existing Bob Courtway Bridge over Little Creek to provide sidewalk access to the trail system from Bob Courtway Middle School.

## **II. Project Location**

The project is located in Conway, Arkansas (Faulkner County) in the Second Congressional District. Conway is a principal city of the Little Rock-North Little Rock-Conway MSA.



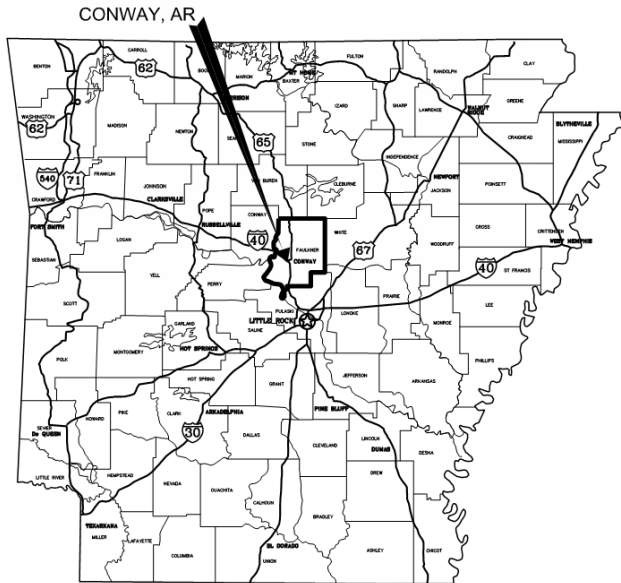


Figure 2 Location of Project - Conway, AR

The Connect Conway project makes a t with west-east and north-south connections as follows:

**West**

35°04'52.88"N, 92°28'18.43"W

**To East**

35°05'54.94"N, 92°24'52.21"W

And

**North**

35°05'30.99"N, 92°27'13.31"W

**To South**

35°04'12.09"N, 92°27'15.56"W

Figure 3 shows the project alignment and how it connects key destinations in Conway.



Figure 3 Destinations Linked by Connect Conway

Appendix A shows how the Conway Connect project relates to the city’s transportation system as a whole, particularly with regard to existing and planned trails. The Conway Master Street and Trail Plan, including this project, was endorsed by resolution of the Conway City Council at the June 26, 2018 meeting.

### III. Grant Funds, Sources and Uses of All Project Funding

Estimated costs of the project and the sources of funding are shown in Table 1.

Twenty-five percent of project funding will come from the following local sources:

• City of Conway	\$4,762,846	Cash
• Conway Corp	\$3,366,987	In-kind Utility Relocation
• Conway Development Corporation	<u>\$ 268,329</u>	In-kind Right of Way Donation
<b>Total Local Match</b>	<b>\$8,398,162</b>	

Letters from project partners are attached to the application, documenting their contribution to the project. See Appendix B.

The City of Conway match comes from the 0.375% Street Sales Tax approved by voters in November 2017.

Table 1  
Sources and Uses of Funds

<b>Project Costs</b>	<b>Total Cost</b>	<b>BUILD Share 75%</b>	<b>Other Federal 0%</b>	<b>Local 25%</b>
<b>Construction Costs</b>				
<b>Street Improvements</b>				
Bruce Street (UCA portion)	\$660,000	\$660,000	\$0	\$0
Exchange Ave (Corporate to 6th)	\$790,000	\$790,000	\$0	\$0
Donaghey Avenue (Dave Ward to Prince)	\$8,500,000	\$8,500,000	\$0	\$0
<b>Trail Improvements</b>				
Shared-Use Path (Independent)	\$2,500,000	\$2,500,000	\$0	\$0
Shared-Use Path (Adjacent to Street)	\$5,200,000	\$5,200,000	\$0	\$0
<b>Bridge Improvements</b>				
Highway 65 (Oak St) Underpass	\$250,000	\$250,000	\$0	\$0
Bob Courtway Bridge Widening	\$200,000	\$200,000	\$0	\$0
Prefabricated Steel Truss (Little Creek)	\$350,000	\$350,000	\$0	\$0
<b>Intersection Improvements</b>				
Harkrider St./Bruce St./UPRR	\$250,000	\$250,000	\$0	\$0
<b>Drainage Improvements</b>				
Stone Dam Creek Box Culvert	\$3,500,000	\$3,500,000	\$0	\$0
<b>Total Estimated Construction Costs</b>	<b>\$22,200,000</b>	<b>\$22,200,000</b>	<b>\$0</b>	<b>\$0</b>
<b>Misc. Costs</b>				
Planning & Engineering Services (includes NEPA)	\$1,600,000	\$1,600,000	\$0	\$0
Construction Engineering & Inspection Services	\$1,200,000	\$1,200,000	\$0	\$0
Right of Way Acquisition	\$2,200,000		\$0	
Conway Development Corporation				\$268,329
Other (City of Conway)				\$1,931,671
Utility Relocation				
Donaghey (Conway Corp.)	\$3,366,987		\$0	\$3,366,987
Other (City of Conway)	\$2,500,500		\$0	\$2,500,500
ArDOT Administration (10% total project cost, City of Conway)	\$330,675		\$0	\$330,675
Total Misc. Costs	\$11,198,162		\$0	
<b>Total Cost</b>	<b>\$33,398,162</b>	<b>\$25,000,000</b>	<b>\$0</b>	<b>\$8,398,162</b>

## IV. Criteria

### (1) Primary Selection Criteria

#### A. Safety

Enhancing safety for all users is a major emphasis of Connect Conway, beginning with Donaghey Avenue from Dave Ward Drive to Prince Street, where three roundabouts are planned. Roundabouts have been proven to drastically reduce the severity of all crashes by 48% and reduce the number of fatalities by 78%.<sup>2</sup> But the planned pedestrian and bicycle facilities, off-road or separated in most project areas, will also have a major impact on safety. Some of the many safety features of the project are detailed below.

#### Bruce Street (west of Donaghey)

The entire length of Bruce Street will be altered to increase safety for bicyclists and pedestrians. The project will start where the west end of Bruce connects with the Tucker Creek Trail, and run through the University of Central Arkansas campus with its high pedestrian volume. Several pedestrian and bicycle crashes occur here every year. The major change will be the provision of bicycle facilities that will keep this traffic separate from vehicles and pedestrians. The widest part of Bruce Street will become a shared street for a short section, with street furniture and landscaped medians to help calm the traffic.

#### Bruce Street (east of Donaghey)

Heavily traveled narrow roadways with open ditches, like Bruce Street (Figure 4), are all over the west side of town. The open ditch beneath Bruce Street was the site of a drowning; installation of a box culvert, and provision of a 12' concrete path over the top of it will greatly promote safe bicycling and walking in this area near the University of Central Arkansas.

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<sup>2</sup> [https://safety.fhwa.dot.gov/intersection/innovative/roundabouts/presentations/safety\\_aspects/long.pdf](https://safety.fhwa.dot.gov/intersection/innovative/roundabouts/presentations/safety_aspects/long.pdf)



Figure 4 Site of Box Culvert to Be Installed Between Donaghey Avenue and Bruce Street

### Bruce and Harkrider

The intersection of Bruce Street with U.S. Hwy 65B (Harkrider Street) and the railroad tracks that run parallel to Harkrider (Figure 5) will be reconstructed to enable safer bicycle use. Railroad tracks are notorious safety hazards because bicycle wheels can slip on wet tracks and get caught in the gaps between the rails.



*Figure 5 Intersection of Bruce Street and U.S. Highway 65B/ Harkrider Street*

### Underpass at Little Creek and Highway 64 (Oak Street)

New off-street 12' concrete shared-use paths will fill in as needed along the route east of Harkrider to Conway Commons shopping center. At this point, a new 12' trail will run along Little Creek to the next major safety feature, an underpass at heavily traveled (30,000 ADT) five lane Highway 64 (Oak Street).

### Bob Courtway Drive

This narrow bridge will be widened along Bob Courtway Drive (Figure 5). The project will also provide a pedestrian hybrid beacon at a mid-block crossing on Bob Courtway Drive near Courtway Middle School. In addition to improving school zone safety, the signal will provide safer bicycle-pedestrian access to City of Colleges Park.



Figure 6 Bob Courtway Drive Bridge to Be Widened

### Bicycle/Pedestrian Access to All Schools

Bicycle and pedestrian safety to many schools all over Conway will be improved as a result of the off-street facilities provided by the Connect Conway project. These schools include the University of Central Arkansas, Central Baptist College, Conway High School, Conway Junior High School, and numerous middle and elementary schools.

#### B. State of Good Repair

Connect Conway will reduce the number of motorized vehicles, including the multitude of school buses, along Conway streets, which will help keep existing roadways in good shape for a longer period of time; however, it may take some time for the benefits to be measurable given the current relatively low number of pedestrians and bicyclists. However, as the multi-modal system becomes more developed over the twenty-plus year life of the project, the benefits may become more trackable. In Northwest Arkansas, trail use is growing at a record pace as more miles are added to the system. A recent study of that Arkansas region found that from 2015 to 2017, all bicycling and walking grew dramatically, with weekday bicycle usage increasing an amazing 32%.<sup>3</sup> If bicycling and walking in Conway grow at a similar rate, the state of good repair benefits will be noticeable.

Some state of good repair benefits will accrue from the project because of the roundabouts, which require less maintenance than traffic signals. Roundabouts have been reported to have a fifteen year longer service life than traffic signals.<sup>4</sup>

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<sup>3</sup> Found at <https://www.waltonfamilyfoundation.org/learning/northwest-arkansas-trail-usage-monitoring-report>

<sup>4</sup> <https://www.fhwa.dot.gov/publications/research/safety/00067/000672.pdf>

### C. Economic Competitiveness

Economic competitiveness is a major impetus for the Connect Conway project. Relocation of the Conway Municipal Airport, Cantrell Field, to its new location near the Arkansas River left 150 re-developable acres in the heart of the city. The land had to be sold to meet federal requirements, so the property was ultimately purchased by Conway Development Corporation, which is serving as master developer for the property. Founded in 1959, Conway Development Corporation is a nonprofit organization created to promote the economic growth and development of the City of Conway and Faulkner County, Arkansas. Its mission is to attract and secure the location of new business and to assist in every way possible the future growth and expansion of area business and industry.

Purchase of the airport property, re-named Central Landing, was contingent upon the City adding necessary road improvements. Voters approved a bond issue in 2014 to fund \$26 million in infrastructure for Central Landing. New infrastructure built as a result includes the bicycle/pedestrian-friendly 6<sup>th</sup> Street Overpass, the first east-west arterial connection over Interstate 40 since it was built in the 1960s. Linking the Conway Commons shopping center in east Conway with Central Landing, already 8,000 cars a day are traveling this new route in the heart of Conway.

BUILD funding to provide appropriate bicycle/pedestrian facilities to the Central Landing site alone would be a catalyst expected to lead to an ultimate investment of over \$200 million of private sector funds.

According to Brad Lacy, President and CEO of the Conway Area Chamber of Commerce, the beauty of the Connect Conway project is that it will help provide easy access to the areas of economic impact east of Interstate 40. Except for the Central Business District, most commercial development is across the freeway from residential areas in town.





Figure 7 Destinations Linked by Connect Conway

In the summer of 2018, construction began on the first major project to be built at Central Landing, a \$70 million luxury multi-family complex (Fountain Bleu Apartment Homes). Like luxury living elsewhere, proximity to trails is expected to be a selling point for this new development, as it is in the advertisement for The Reserve at Tucker Creek shown here. Increasingly, walk- and bike-ability is a necessity for upscale developments of all types and for attraction of the much-desired Creative Class.

Walk- and bike-ability add value to all kinds of real estate; in Northwest Arkansas, which shares many socioeconomic characteristics with Conway, a hedonic price analysis demonstrated that a typical home a quarter mile from a shared use path sells for \$6,300 more than a home a mile from a shared use path. This study found that homes within a mile of the trail experienced a \$1,173,000 increase in value per mile of trail construction.<sup>5</sup>



Figure 8 Emphasis on Trailside Living

<sup>5</sup> *Economic and Health Benefits of Cycling in Northwest Arkansas*. Prepared by BBC Research and Consulting for the Walton Family Foundation, 2018.

But people of all income levels can benefit from not having the expense of an automobile and from safe pedestrian/bicycle connections to virtually every major destination in Conway. Since Conway does not have a transit system, providing a means for people without cars to get to and from work and shopping destinations is an important benefit for economic competitiveness.

As Figure 9 illustrates, the Connect Conway trail runs through the heart of the low-to-moderate income areas of Conway, thus providing a safe, convenient, inexpensive way for workers who live in those areas to get to jobs on the east side of Interstate 40. Workers will benefit, but so will the employers of the hotels, fast food restaurants, retail shops who are in desperate need of workers in this era of low unemployment rates.

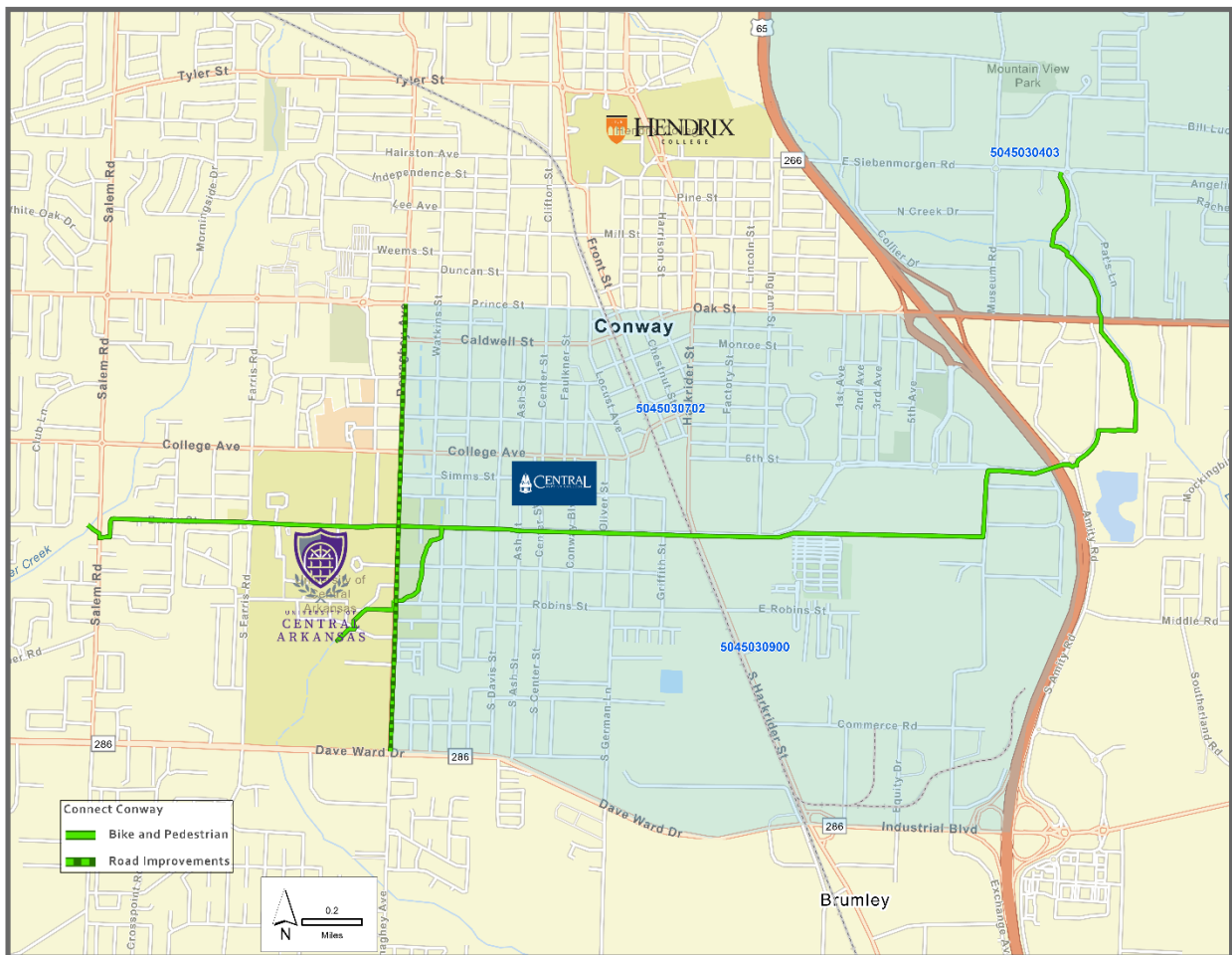


Figure 9 Conway Opportunity Zones

The areas designated in green in Figure 9 are the three Opportunity Zones through which the Connect Conway project runs. Fountaine Bleau Apartment Homes was among the first developments in Arkansas to take advantage of Opportunity Zone tax credits to help revitalize an under-utilized piece of real estate in the center of Conway.

## D. Environmental Sustainability

### Reduced Air Pollution

At certain times of day, traffic in Conway is unbearable because of the way the city has grown and developed, because Interstate 40 and the railroad cut through the middle of it, and because a relatively large number of residents commute to Little Rock each day, among other reasons. Providing a system on Donaghey Avenue that reduces congestion, along with the more viable non-motorized transportation system provided by the project, will reduce air pollution from auto emissions. The harmful effects of air pollution are discussed further in the Health Benefits section to follow.

### Reduced Water Pollution

Auto emissions harm not just the air quality, they harm water quality when the dangerous chemicals settle on buildings, cars, and streets, then wash off with the rain into the water system. The City of Conway has had problems with excessive levels of some kinds of pollutants in Stone Dam Creek, and even Lake Conway and the Arkansas River, the ultimate recipients of the city's rainwater;<sup>6</sup> keeping additional pollutants out helps preserve these vital water systems.

## E. Quality of Life

### Congestion Relief & Transportation Choices

Congestion relief is a major benefit of the project, along Donaghey Avenue where the three roundabouts are planned, but also throughout Conway as more people are able to use the well-connected bicycle-pedestrian facilities the project will provide. Having a comprehensive system of cycling lanes and sidewalks that facilitate car-free travel and transportation choice has been a goal of City leaders since 2010 when the Conway 2025 planning process began. More than 1,400 residents participated in the process, heartily endorsing the goal.

The City of Conway is trying to meet this goal as funds permit. In addition to financing the improvements at Central Landing and providing match for Connect Conway if BUILD funding is granted, Conway just opened a \$3.3 million pedestrian overpass over Dave Ward Drive to provide safe, non-vehicular access to the University of Central Arkansas campus. The City has also committed match funding to construct Phase 1 and 2 of the Stone Dam Creek Trail plus additional phases as funds permit.

Even with its current modest trail system, usage in Conway is high. In June 2018, a one-week count was conducted at the Kinley/Tucker Creek Trail, and replicated in June 2019. The reflector count system employed is not able to distinguish between walkers and bicyclists, but the numbers are impressive either way. In 2018 usage ranged from 499 to 733 people per day in



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<sup>6</sup> *Conway Urban Watershed Framework Plan*. University of Arkansas Community Design Center, January 2016.

the middle of summer when most college students are not in town; in 2019 numbers ranged from 417 to 976. To put these numbers in perspective, on the expansive Razorback Greenway in Northwest Arkansas, weekday usage is 481 bicyclists with weekend usage at 863 bicyclists.<sup>7</sup>

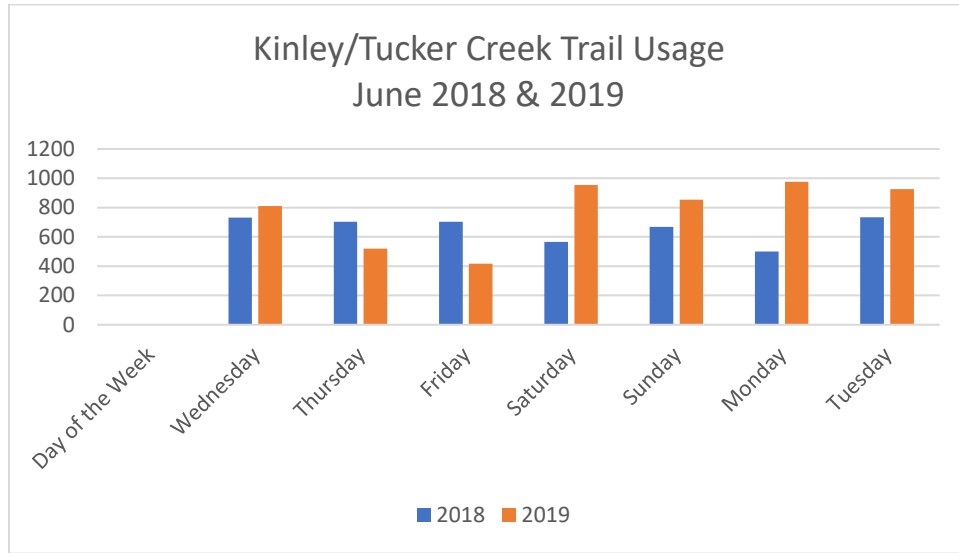


Figure 10 Kinley/Tucker Creek Trail Usage June 2018 & 2019

The City of Conway has also invested \$36,000 per year to provide the Zagster bicycle share system to Conway riders. Partnering with Baptist Health Systems and the University of Central Arkansas, fifty cruisers are available at ten locations around town and usage is steady, as shown in Figure 11.

<sup>7</sup> 2017 Northwest Arkansas Trail Usage Monitoring Report. Walton Family Foundation. Found at <https://www.waltonfamilyfoundation.org/learning/northwest-arkansas-trail-usage-monitoring-report>

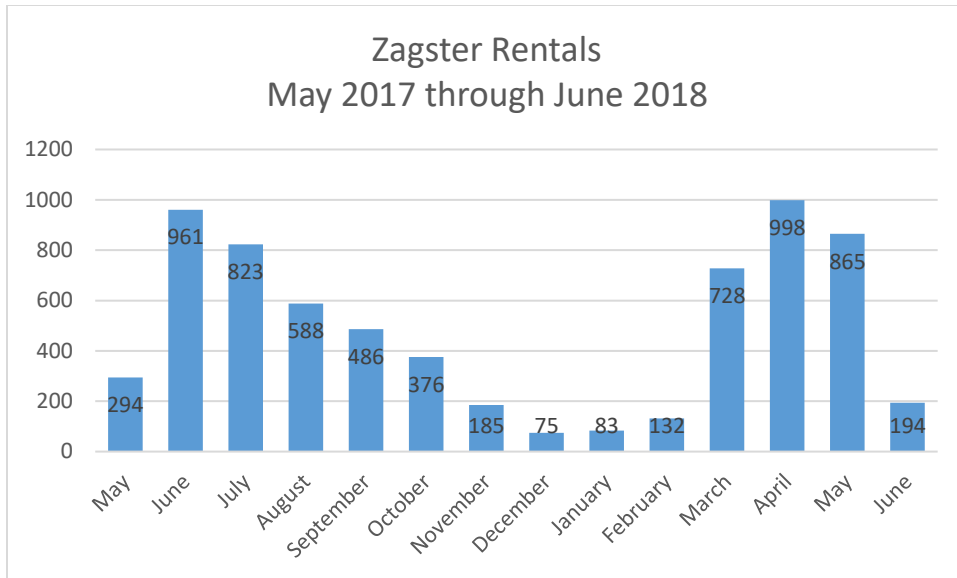


Figure11 Zagster Rentals by Month

Use of trails for both recreation and transportation by bicyclists and pedestrians continues to grow. Construction of the Connect Conway bicycle-pedestrian facilities will enhance this growth and the quality of life it brings. User information from Strava possibly tells the best tale about bicycle use in town, though, and underscores the importance of the project. As the bright green lines on Figure 12 dramatically illustrate, no one is bicycling on the east side of town. This project has the power to greatly increase the use of active transportation in Conway and take motor vehicles off the road.

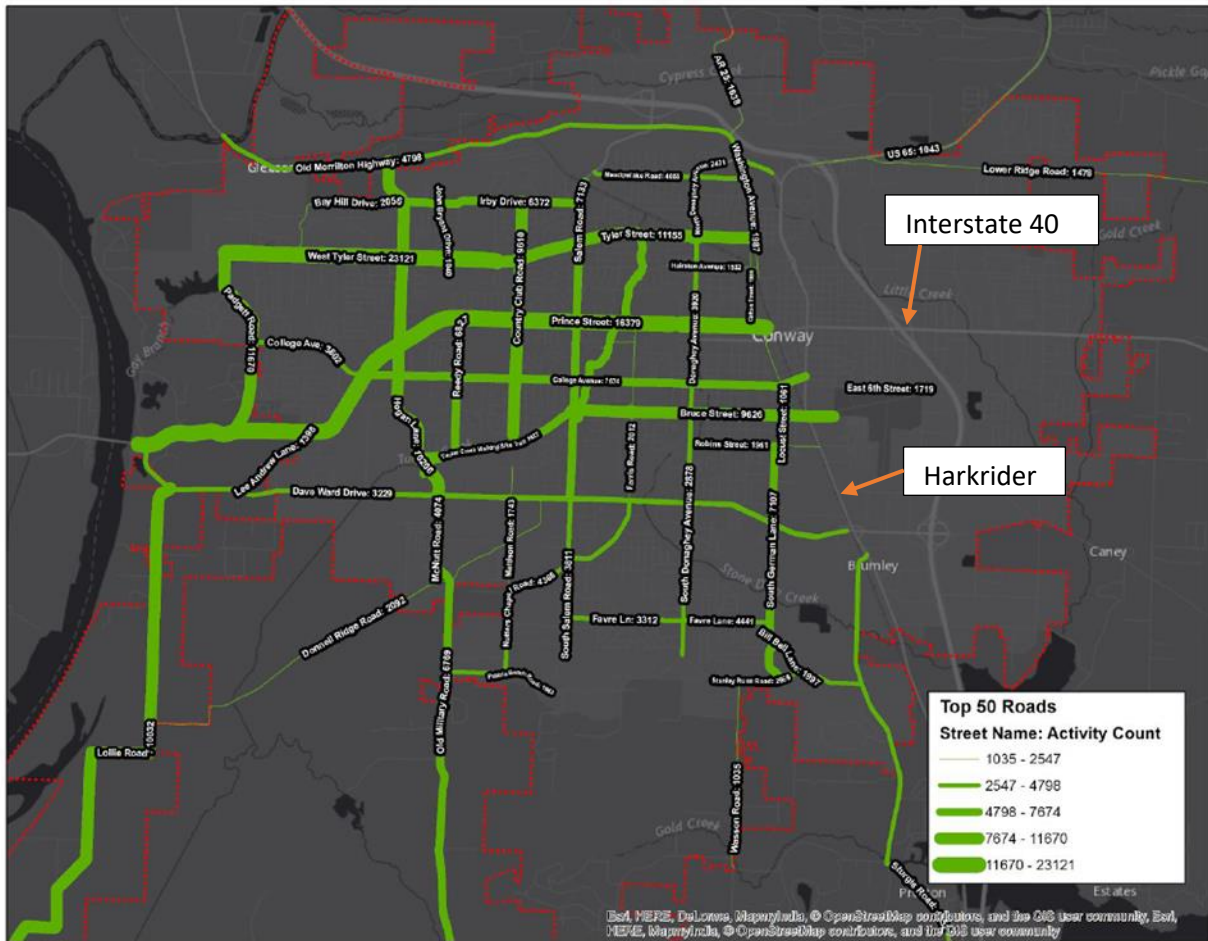


Figure 12 Strava User-Reported Routes

### Broadband Deployment

Deployment of broadband will be facilitated on the sections where utility relocation is necessary, so that Conway residents and businesses throughout the City can enjoy up to 1 gigabyte internet speed, thereby enhancing both quality of life and economic competitiveness.

### School Zone Traffic Reduction

The school zone safety benefits of the trail were discussed in the Safety section. However, benefits also will result from reduced morning and afternoon school traffic. Arkansas, like most states, has a policy of not providing transportation to school if students live less than two miles away from the school. Figure 13 shows just how wide the two mile No Transportation Zone is.

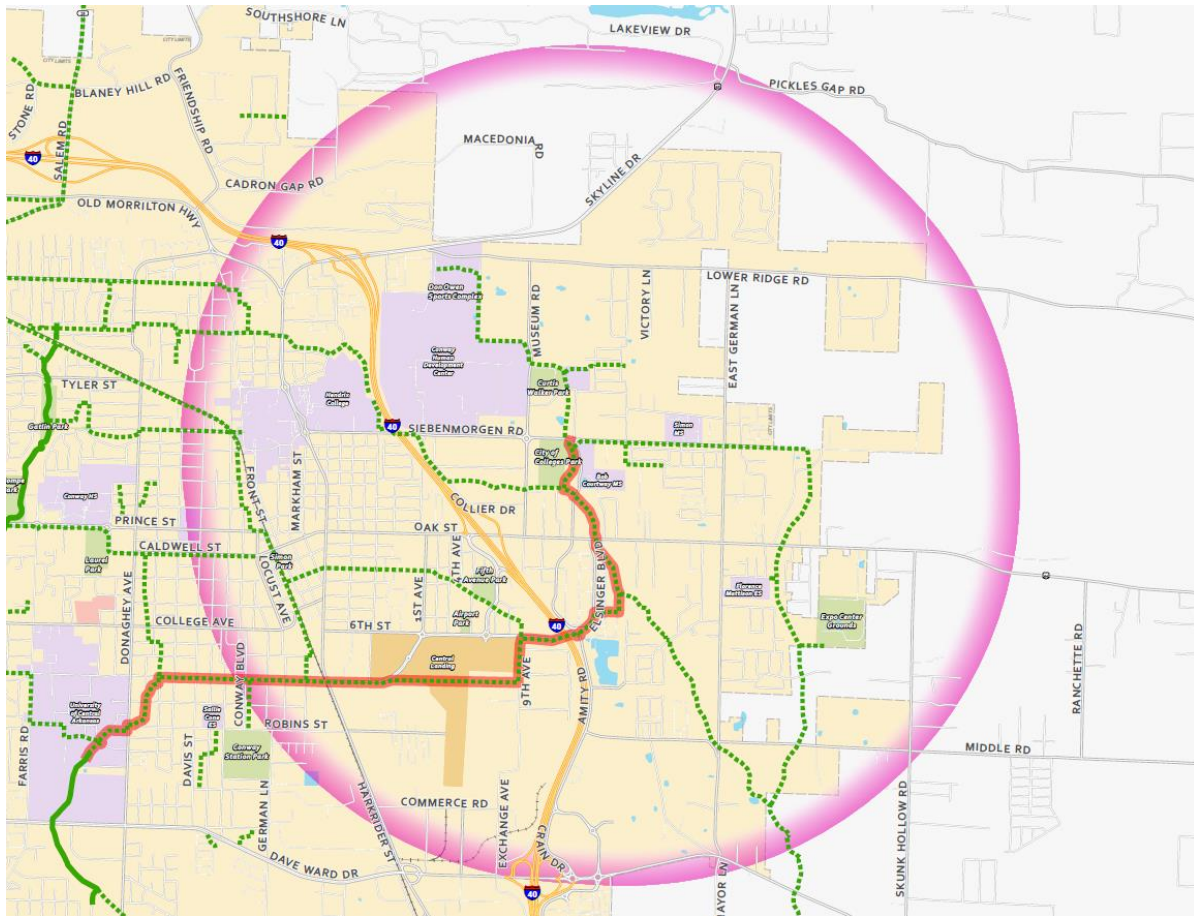


Figure 13 Two Mile School No Transportation Zone

Because of the way Conway developed, with non-connecting, looped, and cul-de-sac subdivisions that force traffic onto arterials, many without sidewalks, every day legions of parents drive their children to and from school, causing major traffic jams. Providing an off-road means for more children to bike or walk to school could greatly reduce traffic, time spent on the road, and produce significant air quality benefits from reduced driving, as well as school zone idling.

### Health Benefits

Arkansas ranks high in obesity rates among both children and adults, as shown by the graphic below. Making it easier for students to safely walk to school could greatly reduce those rates in Conway. A two-mile walk to and from school will typically provide the recommended 30 minutes per day of activity needed to promote good health, helping to prevent the obesity-related cancers, arthritis, heart disease, hypertension, and diabetes that come from inactivity.

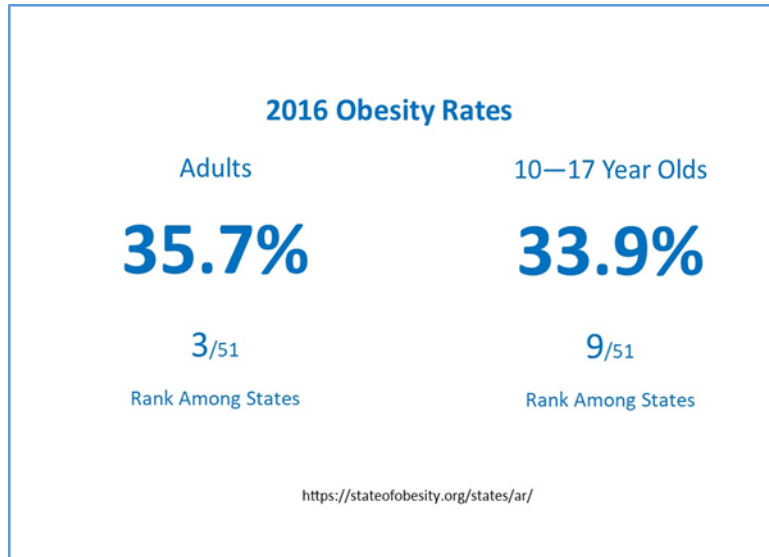


Figure 14 Arkansas Obesity Rates

Making it safer for students to get to school on foot or by bicycle will also help reduce the health dangers of cars idling while parents wait to pick up students each afternoon. According to [http://enginesoff.com/2\\_4\\_schools.htm](http://enginesoff.com/2_4_schools.htm):

Idling a vehicle for just one minute produces more carbon monoxide than smoke from **three** packs of cigarettes. Elevated exposure to air pollution can permanently damage children's respiratory systems because they breathe 50% more air per pound of body weight, spend more time outdoors, and are more active than adults.

Because it is not safe to walk or ride to school, many Conway parents spend up to thirty minutes a day idling their cars in the pick-up line. But school buses, most of which are diesel-powered, are also offenders. If a child rides a school bus an average of 30 minutes in each direction, he or she will be exposed to diesel engine exhaust for an estimated 180 hours per year.<sup>8</sup> According to the Texas Department of State Health Services, diesel exhaust concentrations are higher in buses themselves than the levels outside the bus. Numerous health problems, particularly for school children, result from motorized school transportation, as documented in a Texas State Health Advisory Commission report.<sup>9</sup>

Not just health problems, though, are a result of school buses and idling of family cars; gallons of fuel are used each year, and general air quality suffers. It is estimated that Connect Conway

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<sup>9</sup> Recommendation and Research on School Bus and Automobile Idling, March 3, 2014. Texas School Health Advisory Committee, Texas Department of State Health Services.



facilities could eliminate the need for 2-4 buses and / or keep up to 130 cars off the road in the first two years. That number of parents not driving translates into 7800 gallons of fuel saved.<sup>10</sup>

Water quality is also affected by the exhaust; when it rains the air pollutants that have been deposited on buildings, streets, and cars are washed into lakes, streams, rivers and oceans.

## (2) Secondary Selection Criteria

### A. Innovation

Broadband infrastructure will be installed where utility relocation is required.

### B. Partnership

Connect Conway has a number of partners who are eager to see this project come to a reality:



#### City of Conway Arkansas

Conway, Arkansas, is the Faulkner County seat and the center of commerce for many county residents who live in Vilonia, Greenbrier and Mayflower. Conway is known as the City of Colleges because of the presence of Hendrix College, Central Baptist College, and the University of Central Arkansas. The city has experienced phenomenal population growth since the 1980s and continuing to this day. From 2000 to 2010, the population grew at an average annual rate of 3.65%. Since 2010, growth has continued at an average annual rate of 1.53%, at this rate the population of Conway will be over 100,000 people by 2040. It is located in the Little Rock-North Little Rock-Conway MSA.



#### Conway Area Chamber of Commerce

The Conway Area Chamber of Commerce is joining the City of Conway and Conway Development Corporation to forward the Connect Conway project. The project is one of seven critical amenities to be developed as part of the Conway125 Capital Campaign (<https://www.conway125.com/>).

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<sup>10</sup> Number of reduced school zone cars/buses estimated based on 1-mile buffer trail population numbers and data on school transportation from [conwaypublicschools.org](http://conwaypublicschools.org).



### Conway Development Corporation

The Conway Development Corporation, which shares a leadership team with the Conway Area Chamber of Commerce, has a sixty-year history of developing business and industrial property in the city in order to create jobs. As owner and master developer of the Central Landing project, the Conway Development Corporation is paying for up-front engineering and other development costs to make this BUILD Discretionary Grant application possible, and will donate the necessary right-of-way for the Connect Conway Project.



### University of Central Arkansas

Since 1907 the University of Central Arkansas campus has been a prominent fixture along Donaghey Avenue. Home to over 11,000 students, UCA is a major contributor to the success of Conway and Faulkner County, by providing both jobs and a well-educated workforce, among other things. UCA is a partner on improvements to Bruce and Donaghey Avenue, providing right-of-way as needed.



### Conway Corp

For more than 90 years, Conway Corp has operated the city-owned utility system and now provides electric, water, wastewater, video, internet, voice and security services for the Conway community. Conway Corp is a major partner in the project, contributing \$3.3 million to relocate utilities throughout the Donaghey Avenue corridor.

Partner and Support letters are attached in Appendix G.

## V. Project Readiness

### A. Technical Feasibility

Conceptual plans, demonstrating technical feasibility, have been developed for the project (Appendix C).<sup>11</sup> Project location and alignment take into account existing right of way, environmental constraints, and connectivity.

A key consideration was whether the existing U.S. Highway 64 (Oak Street) Bridge over Little Creek could be utilized as a trail underpass. The inability to utilize the existing structure as an

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<sup>11</sup> [https://media.conwayarkansas.gov/conwayarkansas-media/documents/project/76/Connect\\_Conway\\_-\\_Conceptual\\_Plans.pdf](https://media.conwayarkansas.gov/conwayarkansas-media/documents/project/76/Connect_Conway_-_Conceptual_Plans.pdf)

underpass would have required an undesirable at-grade crossing of Oak Street, which carries in excess of 30,000 vehicles per day, or providing a costly pedestrian overpass structure. Analysis showed, however, that the U.S. Highway 64 bridge does meet minimum AASHTO criteria for vertical clearances.

A cursory environmental review was performed along the proposed route for the Connect Conway project as shown in Appendix D. Documentation of known constraints was completed to determine the scope and feasibility of receiving NEPA documentation approval prior to the required BUILD funding obligation timeframe. Based on the constraints mapping, a Categorical Exclusion (CE) level of documentation is anticipated. In case an unforeseen impact is determined through further evaluation or coordination with stakeholders, adequate time for completing an Environmental Assessment (EA) level documentation has been assumed for scheduling. The proposed schedule and estimated costs include the timeframe and professional services cost for completing an EA level approval.

A separate roadway improvements project for the City of Conway near the overpass of East 6<sup>th</sup> Street over Interstate 40 was approved by the Federal Highway Administration in 2014 through the issuance of a Tier 3 Categorical exclusion. Approximately 0.8 miles of this previously authorized project lies within the Connect Conway corridor.

The full Environmental Constraints Report is available in Appendix D.<sup>12</sup>

#### B. Project Schedule

Figure 15 shows the expected project schedule should funding be awarded. A larger version is available in Appendix E.

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<sup>12</sup> [https://media.conwayarkansas.gov/conwayarkansas-media/documents/project/76/Connect\\_Conway\\_-\\_Environmental\\_Constraints.pdf](https://media.conwayarkansas.gov/conwayarkansas-media/documents/project/76/Connect_Conway_-_Environmental_Constraints.pdf)

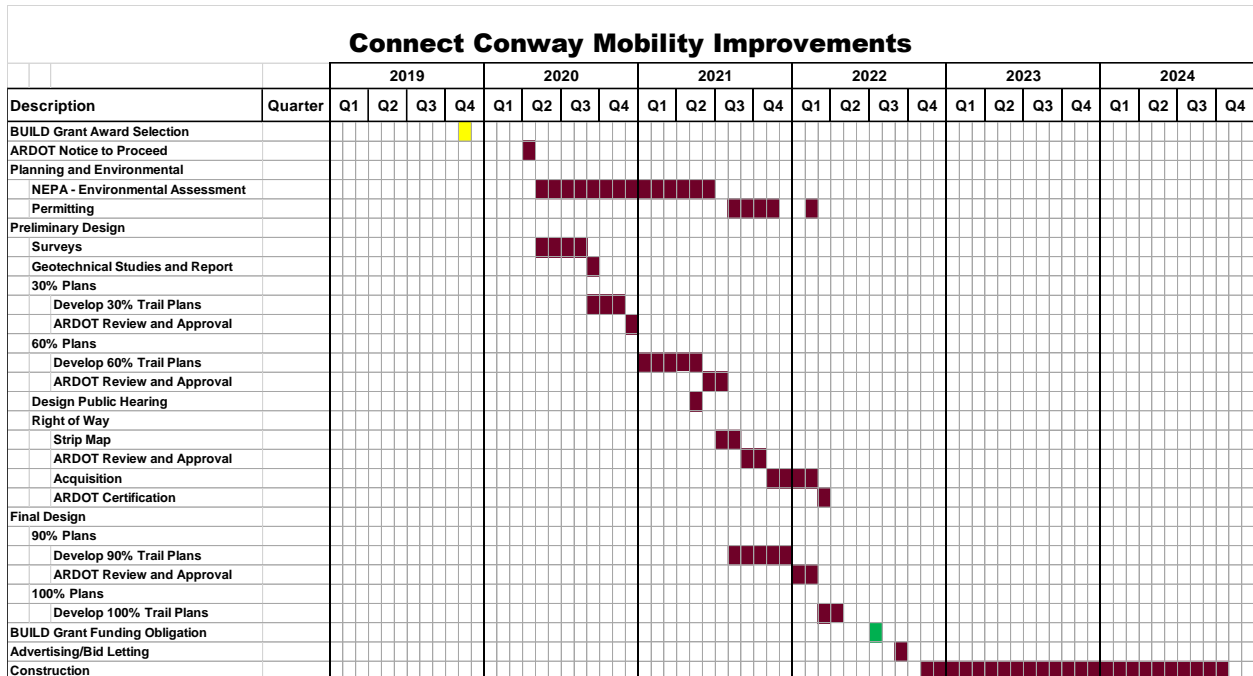


Figure 15 Connect Conway Project Schedule

### C. Required Approvals

#### Environmental Permits & Reviews

Several environmental permits will be needed for the project to proceed to construction. The review and permit process will be implemented in cooperation with the appropriate regulatory agencies. Table 2 provides a summary of anticipated study and/or permit approvals required for construction.

Table 2  
Required Permits and Reviews

Permits and Reviews	Reviewing Agency
Section 401 Certification <i>Short Term Activity Authorization (STAA) Permit</i>	ADEQ
Section 402 (NDPES) Permitting <i>Storm Water Pollution Prevention Plan (SWPPP) for Large Sites</i>	ADEQ
Section 404 Permitting <i>Individual Permit</i>	USACE
National Flood Insurance Program (NFIP) <i>Floodplain Development Permit</i>	City of Conway/FEMA

## State and Local Approvals

Parts of the project were approved when the Master Street and Trail Plan was approved by the Conway City Council at its public hearing and meeting on June 26, 2018.

## MPO Approval

The project is consistent with the long range transportation plan for Central Arkansas, *Central Arkansas 2050*.<sup>13</sup> Since 1992, Metroplan, the metropolitan planning organization for the Little Rock-North Little Rock-Conway MSA, has advocated for:

A balanced approach to mobility that focuses first on maintaining our existing transportation network by building out the regional freeway system to six through-lanes, and secondly meeting additional travel demand beyond that with *improved arterial capacity*, regional transit, and *robust bicycle and pedestrian network*.

Every long range plan since that time has underscored this vision, including the recently adopted

- Goal 1 Quality Corridors and Transportation Choice
- Goal 4 Healthy and Safe Communities
- Goal 5 Economic Growth and Vitality<sup>14</sup>

Goal 5.3 gets to the heart of why this project is important:

5.3 Quality of Life. Contribute to a high quality of life and place in the metropolitan area by minimizing congestion, providing modal choice, encouraging high quality design in transportation facilities, and by providing an adequate and well-maintained public infrastructure at a reasonable cost. (p. 75)

Resolution 19-06 by the Metroplan Board demonstrating support for Connect Conway is attached in Appendix F. The resolution amends the CARTS FY 2019 Transportation Improvement Plan to include the project.

## D. Assessment of Risk Mitigation Strategies

No major risks to completing the project on time and on budget are expected. Four potential hurdles, the environmental documentation, coordination with Union Pacific Railroad on the crossing at U.S. Highway 65B/(Harkrider Street), right-of-way acquisition, and necessary Corps of Engineer permits have been considered and accounted for. Preliminary environmental issues

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<sup>13</sup> <http://metroplan.org/sites/default/files/media/longRangePlan/CentralArkansas2050.pdf>

<sup>14</sup> <http://metroplan.org/sites/default/files/media/longRangePlan/CentralArkansas2050.pdf>, p. 3

were identified as Conceptual Plans were developed (Appendix C),<sup>15</sup> and addressed in a letter from consulting engineers (Appendix D).<sup>16</sup>

Most of the right-of-way is expected to be donated. Some of the remaining amounts are along the creek-way and are typically obtained with little problem or expense in Conway. All property acquisition will take place in accordance with the Uniform Relocation Act.

Union Pacific's Industry and Public Project Group reviews all proposed recreational trails. Although the policy of Union Pacific is not to permit private or public parallel at-grade trails within the railroad's right of way, grade crossings immediately adjacent to an existing public roadway crossing equipped with active warning devices, such as the one on Harkrider, will be considered. All costs associated with the installation of new or modified crossing surface and modification or relocation of the warning devices will be borne by the City of Conway; the project budget includes adequate funding for the work.

The City of Conway is believed to own sufficient right-of-way for most of the project along Bruce Street, which will limit adverse effects to any historic structures identified during the NEPA process. Two sections on Bruce Street, Salem Road to Farris Avenue, and Locust Avenue to Harkrider Street, may require right-of-way purchase.

## VI. Benefit/Cost Analysis

A benefit/cost analysis was conducted using U.S. Department of Transportation *Benefit/Cost Analysis Discretionary Grant Guidance 2018*. Calculations are available in Appendix H. The modest assumptions used for the analysis are detailed in Notes to the Connect Conway Benefit Cost Analysis (Appendix I). In many cases, sensitivity analysis was performed to ensure reasonableness of the estimates.

Discounted individual benefits of the project over the 20-year life are as follows:

- \$28 million    Crash Reductions
- \$ 6 million    Travel Time Savings
- \$ 3 million    Reduced Transportation Costs
- \$26 million    Recreational Benefits
- \$18 million    Health Benefits

Results of the analysis are shown in Table 3.

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<sup>15</sup> [https://media.conwayarkansas.gov/conwayarkansas-media/documents/project/76/Connect\\_Conway\\_-\\_Conceptual\\_Plans.pdf](https://media.conwayarkansas.gov/conwayarkansas-media/documents/project/76/Connect_Conway_-_Conceptual_Plans.pdf)

<sup>16</sup> [https://media.conwayarkansas.gov/conwayarkansas-media/documents/project/76/Connect\\_Conway\\_-\\_Environmental\\_Constraints.pdf](https://media.conwayarkansas.gov/conwayarkansas-media/documents/project/76/Connect_Conway_-_Environmental_Constraints.pdf)

Table 3  
Summary of Benefit/Cost Analysis

	Overall BCA	Donaghey BCA	Bike-Ped BCA
Total Discounted Benefits	\$84,101,008	\$33,374,990	\$49,689,616
Total Discounted Costs	\$31,867,802	\$13,306,807	\$18,453,175
Benefit/Cost Ratio	2.64	2.51	2.69

## Appendixes

Appendix A            Project Relation to Master Trail Plan

Appendix B            Funding Commitment Letters

Appendix C            Conceptual Plans

[https://media.conwayarkansas.gov/conwayarkansas-media/documents/project/76/Connect\\_Conway\\_-\\_Conceptual\\_Plans.pdf](https://media.conwayarkansas.gov/conwayarkansas-media/documents/project/76/Connect_Conway_-_Conceptual_Plans.pdf)

Appendix D            Environmental Review

[https://media.conwayarkansas.gov/conwayarkansas-media/documents/project/76/Connect\\_Conway\\_-\\_Environmental\\_Constraints.pdf](https://media.conwayarkansas.gov/conwayarkansas-media/documents/project/76/Connect_Conway_-_Environmental_Constraints.pdf)

Appendix E            Project Schedule

Appendix F            Metroplan Board Resolution 19-06

Appendix G            Partner Letters and Support Letters

Appendix H            Benefit/Cost Analysis

Appendix I            Notes to Benefit/Cost Analysis