

The logo for Warsaw, Missouri, featuring the word "Warsaw" in a stylized green font with a wavy underline, and "Missouri" in a smaller, black, sans-serif font to its right.The text "Welcome to Warsaw" in a black, cursive script font, positioned on the right side of a banner image showing a park with trees and a lake.

Warsaw Livable Community Transportation Improvement Project
Warsaw, Missouri

ATTACHMENT G

STATE OF GOOD REPAIR

PROVIDED AS A LINK

G-1 Maintenance Rating Plan

G-2 Improving our highway connections

<https://www.welcometowarsaw.com/523/Warsaw-BUILD-2019>

NOTE: SCROLL DOWN FOR RELEVANT PAGES (3) FROM THE COMPREHENSIVE
PLAN AND TRANSPORTATION IMPROVEMENT PLAN (1)

CITY OF WARSAW MISSOURI

Community Connectors (Highway 7, Highway 65, Commercial, Polk, Jackson, East Main, West Main)

Certain routes and connectors are critical to the day-to-day functioning and perception of the community. In Warsaw the movement of people, goods and services and the perception of visitors can be hindered or enhanced by physical qualities associated with these highly used connectors. Circulation through Warsaw is dependent on several key connectors that tie many of the unique features of the community together.

Along these connectors there is a need to ensure that basic physical elements are present and that the quality of the public area and private property along them reflects the vision and values of the community. Previously, segments of several of these connectors have been mentioned within the context of the districts described above. Yet, it is important to reinforce the purpose of each of these connectors as a functioning piece of the mobility network. Details regarding how each of these connectors should be developed are provided in the Transportation Improvements Plan and the Trails Master Plan. These connectors and the associated gateway and wayfinding locations are depicted on Figure 2.

CITY OF WARSAW MISSOURI

Utilities / Infrastructure

Sustaining reliable, efficient and affordable infrastructure systems provides a strong foundation to support future growth and development. As a small city Warsaw must plan to maintain, improve and expand its infrastructure and utility systems in a cost effective and efficient manner. A key will be the commitment to an on-going capital improvement process.

Goal(s) & Objectives

- **Develop and maintain a capital improvements program to coordinate improvements and sustain long-term community development. (City of Warsaw)**
 - Monitor and proactively pursue funding enhancement opportunities from both government and private sources that support development of all infrastructure systems including storm water.
 - Formalize the 5-year capital improvement process and continually implement it on an annual basis.
 - Investigate the development of an asset management system for all utilities and infrastructure systems including locally controlled roadways.
- **Strive to maintain the highest delivery of water, sanitary sewer, storm water, electric and gas service in a manner that minimizes potential interruption to daily life. (City of Warsaw)**
 - Continue to proactively assess the existing water and sewer systems to identify and program necessary maintenance and improvements.
 - Move forward with implementation of the water and sewer master plans to support physical growth and economic development efforts.
 - Enhance the storm water drainage system by studying and encouraging the use of Best Management Practices on private property, as well as along streets prior to storm water entering creeks and drainage ways.

CITY OF WARSAW MISSOURI

- **Work to maintain and enhance transportation connections. (City of Warsaw)**
 - Focus on developing financial means to complete the primary connectors, especially Main Street.
 - Continue to invest in the airport in order to identify and promote general aviation activities and opportunities.
 - Work to further develop community transportation opportunities such as community ride assistance connecting people and daily needs, and alternative rural transportation services connecting Warsaw to other communities.
 - Work to address gaps in the sidewalk system, creating opportunities for communitywide use connecting neighborhoods to essential daily needs and destinations.
 - Implement the recommendations in the long-range transportation / Transportation Improvement Plan and the Airport Master Plan upon completion of those planning efforts.
- Investigate alternatives and opportunities to enhance and ensure the highest quality internet, communication and technology access system services for businesses and residents. **(City of Warsaw / Benton County Development Corporation)**
 - Support the Benton County Economic Development Corporation with efforts to establish a fiber network in support of economic and community development efforts in Benton County.
 - Study and leverage the potential utilization of abandoned water main as conduit for future technology infrastructure implementation.

OUR FUTURE GROWTH & DEVELOPMENT

Future growth and development activity in Warsaw will occur incrementally over a number of years. The following principles set a strong foundation for quality physical growth and development that can be sustained for a prolonged period of time.

CITY OF WARSAW MISSOURI

WARSAW LIVABLE COMMUNITY TRANSPORTATION IMPROVEMENT PLAN

TRANSPORTATION MAINTENANCE PLAN

Existing Conditions

The most used public transportation facilities in Warsaw are the streets and highways. A number of the existing roadways in Warsaw are substandard due to steep grades, inadequate drainage, narrow or no shoulders, sharp curvature or poor alignment and insufficient capacity for traffic conditions. Some areas within the City have limited ways of accessing other parts of the City due to a lack of connecting roadways. In addition, several City streets have a rough surface condition and poor riding quality.

There are currently approximately 25.15 miles of asphalt streets and 1.16 miles of concrete streets totaling 26.31 miles of street maintained by the City of Warsaw.

Beginning in 2014 the City started performing a pavement condition rating analysis in an effort to create a more efficient pavement management process (see Appendix). The City adopted the Asphalt Institute's A Pavement Rating System for Low-Volume Asphalt Roads as a guide to rate the conditions of their roadways. This methodology provides a rating for a multitude of distresses including various types of cracking, rutting, pot holes, etc. After each distress is rated, the sum of the distresses is subtracted from 100. The resulting number is called the "Condition Rating". As a general rule, if the condition rating is between 100 and 80, normal maintenance operations such as crack sealing, pot hole repair or minor surface treatment are usually all that is required. If the condition rating is below 80, it is likely that an overlay is needed. If the condition falls below 30, usually complete pavement replacement is necessary.

Based on the Condition Ratings performed by City maintenance staff and reviewed by CFS Engineers, there are currently 5 Secondary streets with ratings in the 60's. These streets are severely distressed and in need of significant sections of full-depth pavement replacement. Prior to any pavement repairs, the root cause of the distress such as poor drainage or subgrade settlement should be determined and remedied.

There were 12 streets that received condition ratings in the 70's. Of these, only 2 (Jefferson and E. Main Street) are Primary Connectors. Main Street west of the Town Branch Creek is generally in good condition. Between U.S. 65 and the intersection of Jackson/Arcadia, E. Main Street handles a larger volume of traffic and heavy trucks and is a more industrialized section of Warsaw. These streets will be looked at further to determine what course of action is needed.

The remaining streets were rated in the 80's or higher and will only require annual customary maintenance, such as crack sealing, pot hole repairs and thin asphalt emulsion treatments. Several segments of the streets within the City will be overlaid as part of a waterline replacement project that is scheduled for completion in the Spring of 2015.