



# CHAPTER 3

## PUBLIC FACILITIES AND INFRASTRUCTURE

The City of Maryville provides a range of important services through a variety of city-owned buildings, facilities, and infrastructure. Additionally, the city owns and maintains a system of parks, trail corridors, and other facilities that provide a range of recreational opportunities. Public services are a vital component of community life. As growth occurs, it is essential that additional infrastructure and facilities are constructed to provide a consistent level of service.

This section presents an inventory and general analysis of public facilities and infrastructure. The assessment of each facility is based on the existing conditions, stakeholder interviews, and projected future community needs. Proposed or recommended changes in facilities and services are noted, as appropriate.

### PARK FACILITY ANALYSIS

This section will evaluate Maryville's existing park and recreation system. It covers all city-owned and operated recreation areas as well as other parks with public access. It includes:

- An inventory of park and recreational assets and their current condition
- An assessment of the current level of service in the park and recreation system
- An illustration of the spatial distribution of recreational services and their coverage areas

The adequacy of park facilities will be evaluated in three ways:

**Facilities by Classification.** Parks are classified into different categories to determine the level of service and the area they serve.

**Facilities by Geographic Distribution.** The service radius of each facility is analyzed to identify spatial gaps in service.

**Facilities in Relation to Population Service Standards.** National standards for the provision of park and recreation facilities are applied to Maryville's present system.

### FACILITIES BY CLASSIFICATION

**In order to systematically analyze the park system, Maryville's major recreation and open space areas are classified according to the National Recreation and Park Association system.** Figure 3.1 lists Maryville's park facilities by classification.

- Park land in the Maryville planning area covers approximately 89.7 acres (excluding Eugene Field Elementary).
- Traditional park area standards set by the National Recreation and Park Association (NRPA) suggest 10 acres of park land per 1,000 residents.
- At present, Maryville contains about 7.3 acres per 1,000 residents.
- This does not include open space and recreational facilities owned and operated by Northwest Missouri State University or facilities at the middle or high school complex.

#### *Mini-Parks.*

- Mini-parks generally address specific recreation or open space needs.

- These parks typically cover less than one acre and have a service area of less than ¼ mile.
- Small standalone playground areas are more appropriate in higher density areas with fewer or no private yards.
- Because of maintenance difficulties arising from servicing many smaller sites, most cities discourage the development of mini-parks.
- Parks of less than three acres can provide limited services and having these in multiple areas can create high maintenance costs for the Parks and Recreation Department.

**Neighborhood Parks.**

- Neighborhood parks are considered the basic unit of a community’s park system and provide a recreational and social focus for residential areas.
- These parks provide space both for informal active and passive recreational opportunities,
- The typical service radius for neighborhood parks is between ¼ and ½ mile, an easy distance to walk.
- Neighborhood parks that accommodate the requisite facilities are frequently at least 5 acres; between 5 and 10 acres is considered optimal.
- Maryville has eight neighborhood parks, including

the playground and open field at Eugene Field Elementary School which is often used like a neighborhood park.

- NRPA standards suggest between one and two acres of neighborhood parkland per 1,000 residents.
- Maryville presently has 26.1 acres of neighborhood parks, which translates into 1.6 acres per 1,000 residents.

**Community Parks**

- Community Parks typically include areas of diverse use and environmental quality. Such parks meet community-based recreation needs, may preserve significant natural areas and often include areas suited for intense recreation facilities.
- Typical criteria for community parks include:
  - Adequate size to accommodate activities associated with neighborhood parks, but with space for additional activity.
  - A special attraction that draws people from a larger area, such as a swimming pool, pond or lake, ice skating rink, trails, special environmental or cultural features, or specialized sports complexes.
  - Community parks generally contain between 30 and 50 acres and serve a variety of needs.
  - The typical service radius of a community park is approximately ½ mile to 3 miles.
  - Traditional NRPA guidelines for community park areas call for 5 to 8 acres per 1,000 residents.

**Figure 3.1: Park Facilities by Classification**

Classification	Name	Location	Size (acres)
Community	Beal Park	700 N. Laura St.	15.4
Community	Donaldson Westide Park	1000 N. Country Club Rd.	39.1
Specialty	Robertson-Crist Park	519 Prather Ave.	9.2
Neighborhood	Franklin Park	721 N. Main St.	1.6
Neighborhood	Happy Hollow Park	709 E. Third St.	1.6
Neighborhood	Judah Park	615 W. Thompson St.	7.5
Neighborhood	Little Peach Park	704 W. Edwards St.	0.4
Neighborhood	Sisson-Eek Park	406 W. Lincoln St.	7.1
Neighborhood	Sunrise Park	1316 E. Hasley St.	6.7
Neighborhood	Wabash Park	915 N. Mulberry St.	1.2
School	Eugene Field Elementary	418 E. Second St.	2.2
Regional	Mozingo Lake Recreation Area	32348 245th St.	

- Community parks serving the Maryville planning area include Donaldson Westside Park and Beal Park.
- Maryville presently offers 4.9 acres of community parkland per 1,000 residents. While this is slightly below NRPA standards, the availability of recreational opportunities at Mozingo Lake Park more than makes up for this shortfall.

Athletic facilities associated with a city's schools may also function as community parks. Northwest Missouri State University and Maryville High School's facilities are traditionally used only for school functions, but some residents use the track.

**Specialty Parks.**

These parks might fit a specific need or niche beyond the common definition of a park as a place simply for active and/or passive recreation. While specialty parks may meet some of the recreation needs of a community they are more often targeted at specific ancillary benefits. These can range from a series of formal, landscaped display gardens, to an arboretum or nature preserve, to a specialized recreation facility like a ropes course or skate park.

- In Maryville, Robertson-Crist Park, a natural area with strolling paths and ponds serves this purpose.

**Mozingo Park**

Maryville has an asset unique from other cities in Missouri in Mozingo Park. A park of this size and scope is unanticipated by the standard NRPA nomenclature and standards of service. For the purposes of this document, it will be referred to as a regional park.

As a regional park, it serves as an important recreational asset to the people of Maryville and northwest Missouri. Its distance from the city is a challenge and limits the level of service that it can provide to city residents. While a fairly short drive, it is not a walkable distance and the roads connecting Maryville and Mozingo Lake are not marked for safe bicycling.

Because of its distance from the city and its unique role, considering it in the calculations for future demand would dramatically skew the result. That said, it serves as an important resource and may mitigate the need for future large-scale park development.

**LEVEL OF SERVICE ANALYSIS FOR FUTURE DEVELOPMENT**

As outlined earlier in the Maryville Plan, it is projected that the Polk Township area will have a population of 18,497 by 2030. Figure 3.2 identifies the future park needs associated with this future population based on current community standards. This analysis:

**Figure 3.2: Future Parkland Needs, Polk Township**

Park Type	Existing Acreage	Existing Acres per 1,000 Residents	2030 Total Parkland Needed	Additional Parkland Needed
Neighborhood Parks	19.5	1.2	22.9	3.4
Community Parks	58.5	3.7	68.6	10.1
Mini & Specialty Parks	9.2	0.6	10.8	
Total Park and Recreation Area	87.2	5.5	102.2	15.0

**Figure 3.3: Future Parkland Needs, Excluding NWMSU Student Population**

Park Type	Existing Acreage	Existing Acres per 1,000 Residents	2030 Total Parkland Needed	Additional Parkland Needed
Neighborhood Parks	19.5	1.8	24.5	5.0
Community Parks	58.5	5.4	73.5	15.0
Mini & Specialty Parks	9.2	0.9	11.5	
Total Park and Recreation Area	87.2	8.1	109.6	22.4

- Assesses park land needs based on a ratio of existing service levels to a projected 2030 population.
- This methodology suggests a need for an additional 2.5 acres of neighborhood parks, 7.5 acres of community parks, and 1.1 acres of specialty parks, for a total of 11.1 acres of new park land by 2030.

A second analysis, shown in Figure 3.3, assesses existing levels of service based on the city’s non-student population of 10,738 (Figure 1.6) and projects future parkland needs based on a 2030 population of 13,497.

The use of a lower population increases the amount of parkland available to each resident. When this figure is used to project the amount of parkland required to continue the current level of service, it generates a greater demand for future park services.

It is important to note that these standards are only a starting point for the city and that new facilities must be weighed against resident demand and interest. The city is unlikely to develop a community park that is only 10 to 15 acres in size, instead this demand will be met by Mozingo Lake. Generally, the city’s overall park needs of 15 to 22 acres should come through new neighborhood parks in developing areas. However, there may be some demand for additional sports fields during the planning period. To meet this demand the city should explore opportunities with other entities, such as NWMSU.

**FACILITIES BY GEOGRAPHICAL DISTRIBUTION**

As previously noted, neighborhood parks comprise the basic unit of a park system. Distribution of neighborhood park service can be evaluated using a standard ¼ and ½ mile service radius. These tend to be considered comfortable walking distances; however, large community parks pull in much larger areas often requiring the use of a car. Map 3.1 illustrates the location of Maryville’s recreation facilities, as well as the service radius of each park. The illustration indicates that:

- Nearly all of the developed areas of Maryville are served by existing parks.
- Growth north of 16th Street, east of South Main Street and in the southern quadrant of the city between Munn and Icon will require additional neighborhood parks.



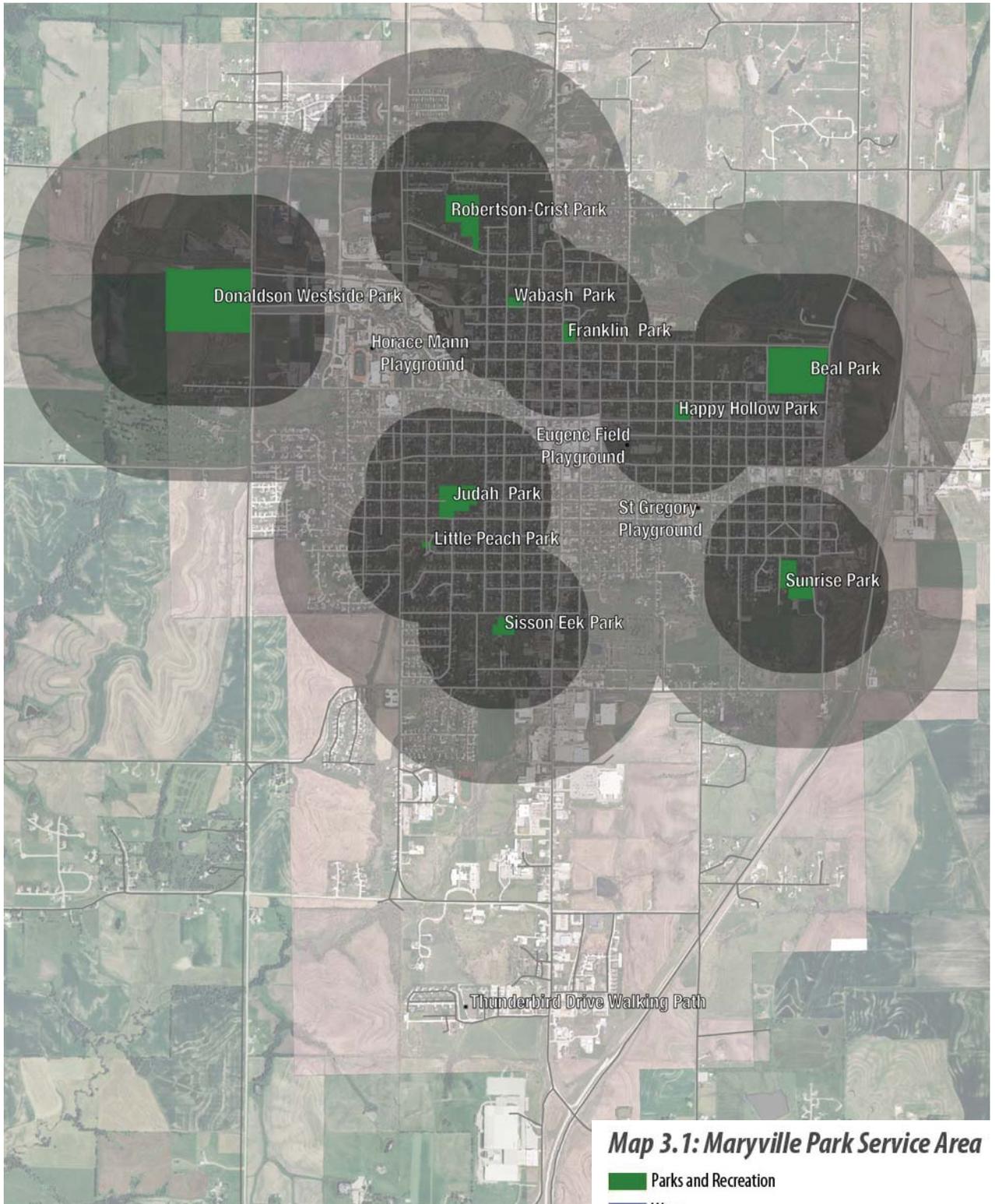
- Trail linkages will be essential to connecting the few existing gaps in the service area to existing and future parks.

**PARK SITE INVENTORY**

Continued investment in Maryville’s existing park system will ensure its status as a major community asset. While a detailed park analysis would be based on user surveys and is beyond the scope of this plan, this section inventories the resources available at each park and identifies short-term needs beyond routine maintenance and upkeep. Any improvement program should prioritize needs and determine a general budget to be spent every year on one or more of these parks. This should be done through a participatory process along with the development of a community-wide park and recreation plan.

Over the coming years playground equipment at each of Maryville’s parks will need to be updated to conform to current safety guidelines. As of this writing, the playgrounds at Beal, Judah, and Wabash Parks meet current safety guidelines.

- Beal Park: 700 N. Laura Street
  - 19.4 acre site
  - Facility includes playground equipment, 2 shelter houses, grills, picnic tables, basketball courts, tennis courts, sand volleyball, and ball fields. Site is also home to the Maryville Aquatic Center.
  - Some damage to lighting structures from hailstorm in 2011. These lights will require replacement.



**Map 3.1: Maryville Park Service Area**

- Parks and Recreation
- Water
- Quarter Mile Radius
- Half Mile Radius

- Franklin Park: 721 N. Main Street
  - 1.6 acre site
  - Home of annual “Winter Wonderland”.
  - Facility includes playground equipment, a shelter house, grills, and picnic tables.
- Happy Hollow Park: 709 E. 3<sup>rd</sup> Street
  - 1.6 acre site
  - Facility includes a playground, shelter house, grills, picnic tables, and basketball hoop.
- Judah Park: 615 W. Thompson Street
  - 7.5 acre site
  - Facility includes paved walking trails, playground equipment, a shelter house, picnic tables and grills.
- Little Peach Park: 704 W. Edwards Street
  - 0.4 acre site
  - Facility includes a basketball hoop.
- Robertson-Crist Park: 519 Prather Avenue
  - 9.2 acre site
  - Facility is primarily a nature park featuring walking trails and a shelter house.
  - The park’s two ponds feature large goldfish that visitors are encouraged to feed small pieces of bread.
- Sission-Eek Park: 406 W. Lincoln Street
  - 7.1 acre site
  - Facility includes a playground, shelter house, grills, picnic tables, and a basketball hoop.
- Sunrise Park: 1316 E. Hasley Street
  - 6.7 acre site
  - This facility includes a playground, shelter house, grills, picnic tables, ball field, and a basketball hoop.
- Wabash Park: 915 N. Mulberry Street
  - 1.2 acre site
  - Formerly known as Watertower Park, it underwent renovations in the summer of 2011.
- Donaldson Westside Park: 1000 N. Country Club Road
  - 39.1 acre site
  - Sports complex includes a skate park, shelter houses, grills, picnic tables playground equipment, 1



- football, 5 soccer, and 4 baseball/softball fields.
- Some light structures and dugouts were severely damaged by the hail storm in the summer of 2011. These will require replacement.
- Longer term, the amphitheater area could be programmed and facilities for a projector and temporary movie screen built.

**ADDITIONAL RECREATIONAL FACILITIES**

Maryville provides quality recreational amenities to its residents, with several facilities that go above and beyond the standard park system common to cities of its size. These facilities are profiled below and recommendations are made for their maintenance and upkeep as Maryville continues to grow.

In addition to the upkeep and maintenance issues addressed below, Maryville should prioritize securing additional lands for park system expansion along the southern corridor of the community.

**MOZINGO LAKE PARK: 32348 245<sup>TH</sup> STREET**

Mozingo Lake Park is a 3,000 acre park, composed of 2,000 acres of land surrounding a 1,000 acre man-made lake. The facility includes walking trails, equestrian trails, hunting areas (in season), 50 ‘primitive’ camping sites, 95 RV sites, cabins for rent, swimming beach, fishing, 3

boat launches (2 handicapped accessible), and picnic shelters with restrooms. The site also has a youth camp area with cabin sleeping accommodations for up to 64, multipurpose building with kitchen for up to 128, shelter with washrooms, 3 miles of walking trails, and 9 miles of equestrian trails, and 13 RV sites targeting equestrian use. The lake is stocked with game fish including crappie, bluegills, catfish, bass, and walleye.

- Evaluation:
  - Facilities are in good condition, but require ongoing maintenance. A 10-year park plan was created by city officials and interested citizens to guide ongoing maintenance and future developments at the park.
- Recommendations
  - Continue general upkeep and maintenance given available staffing levels.
  - Construct additional rental cabins.
  - Create additional camping sites on west side of lake.
  - Expand youth camp area, with a large scout cabin.
  - Survey and stabilize shoreline, as appropriate.
  - Expand RV parking and construction of additional bathhouse.
  - Add septic services to RV camp sites.
  - Upgrade of electrical system across camp sites.
  - Market and rebrand park as a single destination to encourage regional tourism.
  - Develop 20-year master plan for park facilities.

#### GOLF COURSE: 25055 LIBERTY ROAD

Mozingo Lake Golf Course is an 18-hole, par-72 course owned and operated by the City of Maryville. It was completed in 1995 and opened to play in the spring of 1996. The course turf composition is as follows:

- Greens: Crenshaw Creeping Blue Grass
- Tees: Perennial Rye Grass
- Fairways: Rye/Bluegrass Blend
- Rough: Buffalo Grass and Fescue



In addition to the course, the site offers a driving range, chip and putt green, a clubhouse, snack bar, and a meeting room available for rent, overlooking the course. The course, grounds, equipment, and buildings are in good condition and facility remains popular and heavily used during the golfing season.

- Recommendations:
  - Maintain course, ensuring current level of service with eye toward continued profitability.
  - In the long-term, the course irrigation system will need to be replaced.
  - Seek investment partner to construct hotel/lodge in conjunction with the facility.

#### MARYVILLE AQUATIC CENTER: 504 N. LAURA STREET

The Maryville Aquatic Center was originally built in 1993 and underwent a major mechanical overhaul in 2010. The complex includes two 125-foot slides, diving boards, 8 lap lanes, a jacuzzi bench, water spray features, zero-depth entry, changing/locker rooms, and a concession area. Apart from some hail damage from a storm in August of 2011, the facility is in good shape.

- Recommendations:
  - Investigate short-term improvements to zero-depth entry area, specifically new spray/play elements.
  - In the longer term, considering expanding the aquatic center into the adjacent area currently occupied by the sand volleyball courts. Potential programming includes a 'lazy river' and new shallow splash/spray/play pool.

**MARYVILLE COMMUNITY CENTER: 1407 N. COUNTRY CLUB ROAD**

Maryville’s Community Center initially opened in 2003, with a substantial addition constructed in 2009. The facility includes a 3-court gymnasium, indoor walking/jogging track, cardiovascular equipment, weight equipment, group fitness programs, men’s/women’s locker rooms, coffee/shake shop, child watch area, and meeting rooms. Some of the rooftop climate-control units needed repairs following the hail storm of 2011, however generally, the facility is in good condition.

- Recommendations
  - Continue routine maintenance and upkeep
  - Add programming as necessary in response to community demands and desires.

**PUBLIC FACILITIES**

This section examines Maryville’s vital infrastructure and public facilities and suggests modifications to assure a high level of service to residents as the city grows.

**PUBLIC FACILITY INVENTORY & ANALYSIS**

The City of Maryville provides key services through a variety of city-owned buildings and facilities. The following section presents an inventory and general evaluation of these various facilities. The assessment of each facility is based on existing conditions and potential community needs. Proposed or desirable changes in facilities and services are noted.

**Public Facilities**

**MARYVILLE CITY HALL: 415 N. MARKET STREET**

City Hall is located in a concrete and masonry structure dating from the late 1930s. It was originally constructed to serve as the fire station, police department, and jail, as well as City Hall. The public safety functions relocated to their current facility in the 1970s. The building has three floors, each of which is approximately 2,800 square feet. The middle floor has a bathroom addition of approximately 165 square feet. The entire facility underwent a significant renovation in the early 1980s, and the bathroom addition was lifted and stabilized in 2010.

The building, which is nearing its 75th year, has significant water infiltration issues through the roof, walls, and foundation. These issues have led to concerns about



mold and mildew growth. The restroom facilities are not code compliant nor ADA-accessible. Building security is an issue and the age of the building makes updates to the technology and mechanical systems extremely costly. Additionally, the layout of the building and its size loom large as primary concerns. The building is at or beyond its carrying capacity. The facility has aged to the point that it is not projecting the desired image of Maryville as a progressive and thriving municipality.

- Recommendations:
  - Continue maintenance and minor remodeling on an as-needed basis to preserve essential function of building.
  - Determine long-term facility needs and aggressively pursue design, financing, and remodel of current or construction of a new building, or potentially combining city administration and public safety operations on a single site.

**PUBLIC SAFETY BUILDING: 222 EAST 3<sup>RD</sup> STREET**

The Police and Fire Departments are located within a former grocery store, remodeled to serve as the city’s public safety building. They have been based at this facility since the mid-1970s. The building is approximately 8,600 square feet, and is split roughly between police and fire services. The building is not handicapped accessible, except through the equipment bays, and has only a single male and female restroom for both staff and visiting public.

- Police Department
  - 21 sworn officers
  - Operates six marked cars, three administrative ve-

hicles, and two SUVs used to patrol Mozingo Lake Park.

- Vehicles are replaced on standard 3-5 year rotation
- The current facility does not have adequate interrogation/interview facilities on site.
- There is no suspect holding on site. That function is handled on a contract basis with the Nodaway County sheriff's department, an arrangement that is anticipated to continue in the future.
- The facility also lacks security features considered standard for this type of facility, including controlled access points, secure storage, bullet proof glass, etc.
- Fire Department
  - Equipment is stored in 7 bays, totaling approximately 4,000 square feet, with some miscellaneous equipment stored between trucks and more in a trailer parked outside.
  - A new pumper truck and brush truck are both planned within the current 2012-2013 budget.
  - Long-term, the aerial ladder truck will need to be replaced. Current vehicle dates from 1980, a modern replacement could easily cost more than 1.3 million dollars.
- Evaluation:
  - The facility is too small to house such a complex range of operations. Despite an upgrade to the HVAC system within the last 5 years, the building remains extremely energy inefficient. The roof was replaced within the last 10 years and has minor, ongoing leaks. One portion of the outer wall that is subterranean has cracks and experiences water infiltration during times of heavy rain. There are presently no funds budgeted for major repairs.
- Recommendations:
  - Continue minor building maintenance to maintain basic function.
  - Evaluate current/future community needs and pursue design/construction of replacement facility, potentially in combination with a new city hall.
  - Begin design of proposed facility with budgeted 2012-2013 funds.



#### MARYVILLE PUBLIC LIBRARY: 509 NORTH MAIN STREET

Maryville's public library is housed in a limestone building originally constructed to house the local post office. The building was expanded in 2000 and renovated in 2001. The library relocated to this site in 1960 from its original home, the construction of which was sponsored by Andrew Carnegie. In addition to holding 57,000 titles, the library offers computer terminals for public internet access, electronic databases, and free wireless internet. It also offers literacy programming and meeting spaces for the public.

There have been some minor leaks through the exterior stucco into the wall system on the north side of the building. This leak seems to be exacerbated by strong winds with the rain. Additionally, some water has infiltrated into the roof system above the ground-floor conference room.

- Recommendations:
  - Continue maintenance and up-keep with focus on correcting water leaks.
  - Pursue expansion of catalog with contemporary/popular titles.
  - Reform "Friends" group to undertake expanded fundraising campaign.
  - Continue expanding programming efforts and electronic resources, as storage needs change adapt space to provide improved space for programming.

**AIRPORT: HAWK ROAD, NORTH OF HIGHWAY 46**

Northwest Missouri Regional Airport is located approximately 2.3 miles west of Downtown Maryville. It is a general aviation airport. Its 4,600 foot concrete runway is oriented northeast/southwest and serves an estimated 20-30 takeoffs and landings a month. There are two airport operation buildings on site owned by the City of Maryville, the remaining eight buildings are privately owned hangars, used for aircraft storage. At the time of this writing preparations are underway to install a new fueling system.

The runway has experienced some minor deterioration in recent years, however these failures have been patched and ongoing maintenance is a priority. The runway lighting system and beacon have been replaced in the last five years and continue to function well, except for some routine mechanical problems with the beacon system.

- Recommendations:
  - Expand airport fueling capabilities to include jet fuel.
  - Continue ongoing maintenance and runway repairs.
  - Install corner lights on buildings for additional runway lighting.
  - Investigate demand for additional hangar space.
  - Given appropriate demand, construct taxiway parallel to primary runway.
  - Identify funding to complete asphalt overlay on Hawk Road for appearance and functionality.

**CEMETERY: SOUTH AVENUE, BETWEEN SAUNDERS STREET AND MARKET STREET**

Oak Hill Cemetery is approximately 28.5 acres. Although it is largely circled by development, the site is sufficient to meet community needs into the foreseeable future. There are approximately 24 burials each year. There is an existing plan to extend the internal pathway system into the northern portion of the site, however there is no foreseeable need for this expansion. The cemetery is in good condition and has no significant maintenance issues beyond routine landscape upkeep and occasional patching of the internal pathway network.

- Recommendation:
  - Continue routine maintenance on site.



**STREETS DEPARTMENT FACILITY: SECOND STREET AT DEPOT STREET**

Maryville’s Public Works and Streets Department is based out of a building of masonry construction. Equipment is stored in four parallel bays with accessory spaces at the rear of the building. The interior spaces of the facility are properly sized to meet the current and expected future needs of the community.

- Evaluation:
  - The building is in good condition and has only minor maintenance issues with no significant ongoing concerns.
- Recommendations:
  - Continue routine maintenance.
  - There may be need for a new road-salt storage building adjacent to the main building.

**WATER AND SEWER BUILDING: NORTH BUSINESS 71**

The Sewer and Water Department building was largely destroyed in a severe storm in the summer of 2011. The remainder of the facility has been removed to allow for reconstruction.

- Evaluation:
  - It is likely that it will be declared a total loss by the city’s insurance company and replacement will be funded by the policy.



- Recommendations:
  - Given that the building is to be replaced by insurance, evaluate departmental needs for future space/facility features for incorporation into design of new building.

#### **MARYVILLE TRANSFER STATION: NORTH BUSINESS 71**

The structure received minor storm damage in the summer. The overhead doors are functional, but may require eventual replacement. A trailer used as a weigh house also sustained severe storm damage.

- Recommendations:
  - Continue ongoing general maintenance.
  - Replace overhead doors.
  - Replace weigh house trailer.
  - Evaluate facility for future needs, and public/private operation of facility.

#### **Maryville School District:**

The Maryville planning area is served by the Maryville R-II School District. The district's facilities include one elementary school, one middle school, one high school, and a two-year technical school. District facilities are profiled below and future capital investments beyond routine maintenance and repairs resulting from the hail storm of 2011 are noted.

#### **EUGENE FIELD ELEMENTARY SCHOOL: 418 E. SECOND STREET**

Maryville's one elementary school serves approximately 520 students from pre-kindergarten through 4th grade. The main building was built in 1928, with additions in the 1970s and 2000s. The building and facilities are, for the most part, sized appropriately to meet current

and projected future student needs. One area that may need improvement in the mid-term future is the food preparation and cafeteria facilities. While in good functional condition, they are somewhat small to meet the needs of the current student population.

#### **MARYVILLE MIDDLE SCHOOL: 525 SOUTH HILLS DRIVE**

Maryville Middle School serves approximately 400 students from 5th through 8th grade. The building was constructed in the late 1990s. Located south of Maryville High School, some outdoor athletic facilities are shared between the schools. Given the relative newness of the facility it is properly sized for current student needs and in good functional condition.

#### **MARYVILLE HIGH SCHOOL: 1503 SOUTH MUNN AVENUE**

Maryville High School serves approximately 450 students from 9th through 12th grade. The main portion of the building was built in 1965, with an addition constructed in 2005. The building is in good operational condition and is meeting student instructional and recreational needs. The district is currently partnering with Northwest Missouri State University to explore community support for the construction of a performing arts center and expanded gymnasium facilities.

#### **NORTHWEST TECHNICAL SCHOOL: 1515 SOUTH MUNN AVENUE**

Northwest Technical School is housed in a 1970s-era building attached to Maryville High School and, in a standard school year, serves approximately 225 students. Offerings include programs in agriculture, automotive technology, building trades, business and technology, child care, collision repair, culinary arts, health science technology, and welding. The facilities are in good condition and are meeting the needs of students currently and for the foreseeable future.



## CITY INFRASTRUCTURE

### DRINKING WATER SUPPLY:

Mozingo Lake serves as a reservoir for Maryville and surrounding areas. Water is pumped from Mozingo to storage ponds at the Maryville Water Treatment Plant before treatment and distribution to customers and into storage towers. Mozingo Lake provides an ample supply of water for current needs and for the foreseeable future. The current distribution system needs line replacement and looping in some locations. Money is currently budgeted annually to allow for these items to be addressed. The focus of these improvements is on areas where aging lines have caused persistent problems.

The treatment plant's high service pumps have been replaced recently and upgraded drive mechanisms were added. This allows for a slower start up that is not as hard on the distribution system. Also, new membranes have been installed that allow the water to be processed more quickly, alleviating stress on the system's operation. These two projects together allow water to be delivered to the citizens at a better rate and more efficiently.

Increasing the capacity of the clear well may need to be addressed during the planning period. Currently, there is 500,000 gallons of storage for the clear well but the operating level is only approximately 150,000 gallons. To improve the situation the storage capacity of the clear well at the treatment plant should be increased to at least 1,000,000 gallons

Maryville has three water towers with a combined capacity of 2.5 million gallons. The original water tower, located at the west end of Edwards Street, was built in 1974 and has a capacity of 1 million gallons. While this tower alone is capable of supplying the city with its everyday water needs, it does not provide for redundancy within the system and necessary fire protection. Two new towers have recently been constructed each with a capacity of 750,000 gallons. One of the towers is located in northern Maryville, on land leased from Northwest Missouri State University, and the other in the south, on city-owned property near South Main Street and East South Hills Drive.

### SANITARY SEWER SYSTEM:

Maryville's sanitary sewer system is in good condition, but requires continuous maintenance. Over the last several years, the city has spent over \$300,000 annually on repairs to address inflow and outflow issues, primarily focused on collection lines and manhole covers. This level of investment is scheduled to continue for the coming years. A new multi-million dollar wastewater treatment plant will, also be constructed to ensure ongoing compliance with state discharge regulations.

Issues related to pump failures at the lift stations will need to be addressed. The ongoing repairs are scheduled to become capital budget items for more significant replacements, as opposed to the current reactive strategy. The city has also budgeted funds to address reoccurring problem areas in the wastewater collection system.

### STORMWATER COLLECTION SYSTEM:

The GIS mapping of the storm sewer system is an ongoing project, with new sections being added to the map as they are discovered. There are places in town where the drainage network backs up during large rain events, particularly in areas near Peach Creek and Judah Park. Improved throughput management and/or detention facilities may be required to mitigate flooding in these locations.

## TRANSPORTATION

### EXISTING STREET CLASSIFICATION

**Principal Arterials.** These roads serve regional needs and connect important activity centers. They include:

- Highway 71 Business/Main Street
- Highway 136/Highway 46/First Street
- County Road V/South Hills Dr.

**Collector.** The collector system links neighborhoods together and connects them to arterials and activity centers. Collectors are designed for relatively low speeds (35 miles per hour and below). Collectors in Maryville’s system include:

- Seventh Street
- Fourth Street
- South Avenue
- Icon Road/Country Club Road
- Munn Avenue
- Walnut Street
- Depot Street

**Local Streets.** Local streets serve individual properties within residential or commercial areas. They provide direct, low-speed access for relatively short trips.

### TRAFFIC CAPACITY ANALYSIS (LOS)

A capacity analysis compares the traffic volumes on a street segment with the design capacity of that segment. The ratio of volume over capacity (V/C) corresponds to a “level of service” (LOS), which describes the quality of traffic flow.

System performance of a street is evaluated using a criterion called the “level of service” (LOS). LOS is a qualitative measure that generally focuses on speed and smoothness of traffic flow under specific volume conditions. A ratio of volume to capacity (how much traffic the street carries divided by how much traffic the street was designed to carry) provides a short method for determining LOS. LOS categories are described as follows:



**Figure 3.4: Typical Traffic Capacity by Facility Type**

	Capacity at LOS D (Vehicles Per Day)		
	2-Lane	3-Lane	4-Lane
<b>Minimal Access</b>	12,500	16,500	25,400
<b>Residential</b>	12,300	16,250	25,300
<b>Mixed Zoning</b>	11,200	14,580	32,600
<b>Central Business District</b>	9,400	12,650	20,500

**LOS A: Free-flowing operation.** Vehicles face few impediments to maneuvering. The driver has a high level of physical and psychological comfort. Minor accidents or breakdowns cause little interruption in the traffic stream. LOS A corresponds to a volume-capacity (V/C) score of 0 to 0.60.

**LOS B: A reasonably free-flowing operation.** Maneuvering ability is slightly restricted, but ease of movement remains high. LOS B corresponds to a V/C score of 0.60 to 0.70.

**LOS C: Stable operation.** Traffic flows approach the range in which traffic increases will degrade service. Minor incidents can be absorbed, but a local slowdown will result. LOS C corresponds to a V/C score of 0.70 to 0.80.

**LOS D: Borders on unstable traffic flow.** Small traffic increases produce substantial service deterioration. Maneuverability is limited and comfort reduced. LOS D represents a V/C score of 0.80 to 0.90.

**LOS E: Typical operation at full design capacity of street.**

Operations are extremely unstable because there is little margin of error in the traffic stream. LOS E corresponds to a V/C score of 0.90 to 1.00.

**LOS F: Breakdown in the system.** Such conditions exist when queues form behind a breakdown or congestion point. This condition occurs when traffic exceeds the design capacity of the street.

Figure 3.4 presents the capacity of various street sections at LOS D, the point at which congestion problems begin to occur.

**Cautions about the LOS System**

The LOS measure is ultimately a measure of traffic speed. Clearly, LOS is an important measure because the fundamental purpose of streets is to move traffic. However, LOS does not measure other important values including:

- Neighborhood preservation
- Environmental quality
- Economic vitality and access
- Energy conservation
- Efficient development patterns
- Pedestrian environment

Figure 3.5: Performance at Key Street Locations

Location	Capacity	Actual Volume	V/C Ratio	Estimated LOS
US 71, at South Main St.	25,400	7,059	0.28	A
US 71, south of East 1st St.	16,500	6,418	0.39	A
US 71, south of State Hwy. 148	12,500	3,797	0.30	A
US 136, east of Katydid Rd.	12,500	5,054	0.40	A
South Main St., at West South Ave.	14,850	14,334	0.97	E
North Main St., north of 1st St.	12,650	2,706	0.21	A
North Main St., north of 16th St.	12,300	2,734	0.22	A
East First St., west of US 71	25,300	6,159	0.24	A
First St., at Main St.	11,200	2,336	0.21	A
West First St., west of Main St.	11,200	3,292	0.29	A
West First St., west of Munn St.	12,300	2,474	0.20	A
West First St., at Country Club Rd.	12,300	1,288	0.10	A
State Hwy. 148, north of State Rd. CC	12,500	3,168	0.25	A
State Rd. FF, north of US 71	12,300	294	0.02	A
State Rd. CC, north of US 71	12,500	914	0.07	A
State Rd. EE, north of US 136	12,300	558	0.05	A
State Rd. F, south of US 136	12,300	608	0.05	A
State Rd. V, at South Main St.	11,200	7,776	0.69	B
State Rd. V, west of Munn Ave.	11,200	3,536	0.32	A

Source: MODOT

A development pattern that improves LOS, can involve driving longer distances. This ultimately increases the amount of traffic and the total number and length of vehicle trips. Thus, while LOS is a useful tool, it should not be used to the exclusion of other values. The transportation system should serve, rather than dominate, the overall environment.

Although measures to improve LOS, such as widening roadways and adding lanes, can improve the flow of traffic, they can also diminish the quality of the pedestrian environment. These measures can also increase traffic speeds, which can in turn decrease pedestrian safety.

### OPERATIONAL ANALYSIS

Figure 3.5 illustrates the performance of Maryville's streets when they were last measured by the Missouri Department of Transportation. Presently, drivers in Maryville experience LOS "A" on the vast majority of measured road segments. The notable exception is on South Main Street near South Avenue. In this area, the traffic loads generated by contemporary 'big box' commercial development has increased the volume of traffic to the point that streets are being used at their full design capacity.

This suggests that some significant delays may be experienced in that area during times of peak volume or when there is an event that interrupts the normal operation of the street network. Figure 3.6 compares the traffic volumes measured in 2005 and 2010. These measurements suggest that on some segments of the network, the volume of traffic actually decreased over 5 years. However, this could reflect variables outside of total traffic volume, such as fluctuations in localized demand as a result of changing land use, construction events and seasonal variation.

### Transportation Priorities

- Examine options for improving function of South Main Street.
- Focus on creating enhanced pedestrian and bicycle amenities, including sidewalk maintenance, street lighting, and a comprehensive trail network.
- Improve circulation by establishing Icon Road as an arterial and creating a new east/west arterial
- Protect investment in existing network of streets and sidewalks with an improved, ongoing program of assessment and maintenance.