COMMUNITY FACILITIES AND INFRASTRUCTURE

Strategic Analysis Memo | Envision Montgomery 2040 Comprehensive Plan

June 5, 2019  DRAFT

The following memo outlines the key findings, maps and tables for the Community Facilities and Infrastructure Strategic Analysis. This research integrates initial findings from the Factbook with deeper analysis into key conditions and trends and/or topics proposed by stakeholders. This analysis will serve as the foundation from which plan recommendations are built. This is one in a series of 12 topical memos produced through this phase.

CONTENTS

1. Community Facilities
2. Community Infrastructure
3. Land Use’s Effects on Infrastructure and Service Costs
4. Map Gallery and Supplements

Introduction

This analysis offers an overview of the City of Montgomery’s community facilities and infrastructure, how they affect municipal wellbeing, and how the city is poised to handle spatial and population shifts regarding these facilities and infrastructures and the services they provide. This analysis emphasizes Montgomery City-County Public Libraries, the Montgomery Fire and Rescue, the Montgomery Police Department, water and sewer infrastructure, and the cost of operating those services and utilities.

Montgomery’s community facilities include public libraries, community centers, senior centers, and police and fire protection. The City of Montgomery is served by seven public libraries operated by the Montgomery City-County Public Libraries. Libraries are key community facilities that provide spaces for cultural engagement and personal improvement. Community centers act as gathering spaces for the neighborhoods they serve, specifically benefitting youth and seniors. The City is served by twenty community centers. In addition to its community centers, Montgomery has two senior centers that serve the growing population of senior adults in the City, operated by the non-profit Montgomery Area Council on Aging.

Community infrastructure in Montgomery includes water and sewer, electric, and gas. These services provide everything from a daily standard of living in the community to an economic force that shapes physical growth. Montgomery’s water and sewer is provided by the Montgomery Water Works and Sanitary Sewer Board. Electricity infrastructure and services in Montgomery are provided by Dixie Electric and Alabama Power. Gas infrastructure and services are provided by Spire Energy and Southeast Gas.
Providing well functioning and strategic community facilities and infrastructure is fundamental in operating a successful city. Supporting citizens with libraries and community and senior centers is key to nurturing personal and community development. By engaging and improving the lives of individuals and marginalized populations in the community, these facilities create a cyclical elevation of the community as a whole. Develop a comprehensive understanding of how the City can support its protective services with policy decisions that support proactive public safety and quality of life. Making sound community infrastructure decisions can lead to substantial municipal savings, incentivize quality redevelopment, and save citizens money that can then contribute more to the local economy.

MAJOR CHALLENGES / OPPORTUNITIES

- The City has limited methods for prioritizing upgrades to its existing community facilities.
- Large areas of the City are not served by community centers or senior centers.
- Needed expansion of library and community center services into existing areas of the City that are dominated by a single use.
- Provide more community activities for all of Montgomery's citizens.
- Develop an improved understanding of how police and fire departments' operations and budgets could be updated to best address the City's recent trends and needs.
- Support lowering the community infrastructure cost by allowing higher density development.

1. Community Facilities

As defined by this analysis, community facilities are public libraries, community centers, senior centers, and fire and police operations and services. The City of Montgomery and non-profit entities own and operate these facilities that provide space and operations for the community to gather, recreate, learn, and engage. Fire and police protection are included in this community facilities analysis because they provide operations and services that are integral to both quality of life and public health.
The City of Montgomery and Montgomery County jointly operate and fund the Montgomery City-County Public Libraries. Ten library branches serve both the city and the county. Seven of the ten branches are in the city of Montgomery:

- Juliette Hampton Morgan Memorial Library (Downtown)
- E.L. Lowder Regional Branch Library (Bell Road)
- Rufus A. Lewis Regional Branch Library (Mobile Highway)
- Coliseum Boulevard Branch Library (Coliseum Boulevard)
- Governors Square Branch Library (East South Boulevard)
- Hampstead Branch (Hampstead Neighborhood)
- Bertha Pleasant Williams Library (Rosa Parks Avenue)

The three libraries outside of the city serve The Town of Pike Road and the communities of Pintlala and Ramer.

The Montgomery City-County Public Libraries have an active calendar with activities at all of their branches. Activities include reading and literary events, story times for children of all ages, and children and adult programming. Children's programming includes creative play, arts sections, and clubs. The library's adult programming includes specialized education and interest classes, clubs, and yoga. The libraries also provide online resources for children, teens, and adults.

The Montgomery City-County Public Libraries budget for fiscal year 2019 is $3,448,406, with the county contributing $1,169,469. The city's budgeted contribution is $2,278,937. The Montgomery City-County Public Libraries budget has remained relatively steady during the last decade.

To greater understand the public library system’s level of service it is important to compare it with the library systems of the other larger cities in the state of Alabama. The City of Birmingham is served by nineteen public libraries compared to Montgomery’s seven. Birmingham also has a robust calendar offering as many as twenty library events a day spread throughout the City. The City of Mobile has ten public libraries. Mobile offers several unique library services to the state including a library that is dedicated to history and genealogy, a bookmobile, four branches that offer maker labs (that include 3-D printers), and a smartphone app for its online media.

The supporting maps for this library section demonstrate the various spatial service areas for Montgomery's libraries, with ¼ of a mile indicating an average five-minute walk. This section’s mapping also illustrates the city’s libraries as they relate to the changing population of the city. A majority of the city is not conveniently served by libraries. When using a one-mile service area around each public library in the City, the libraries’ service areas account for 12.9 percent of the City’s 163 square miles.

See Map 1.1 in the Map Gallery: Public Libraries
See Map 1.2 in the Map Gallery: Public Libraries and Population Change by Tract

Future of Libraries as Community Enrichment Centers

In recent years, libraries across the country are beginning to innovatively reshape their organization based on the specific opportunities of the community. Many of these new forms of libraries goals are based on strengthening their community’s assets while leveraging human capital through public involvement.
Partnerships between libraries and other municipal and private organizations are developing to create multi-use facilities that often provide creative, cultural, educational, and social opportunities and events. This updated library model is largely based on the diversification of the idea of “the third space”, a place where people are welcome to go daily to relax, engage, and work outside of their home or work. Examples of creative programming at these reimagined public libraries include co-working spaces, workforce training and workforce conferences, tool libraries, and innovative spaces for teens.

COMMUNITY CENTERS

Community centers offer communal support and recreational activities to youth, families, and seniors. They are hubs for socialization, recreation, and education at the neighborhood or community level. Montgomery is served by 20 community centers. 17 of the 20 community centers offer basic services, like an open gymnasium, meeting rooms available for rent, and community meetings. Additional amenities, such as pools and ceramics facilities, vary across the different locations. A majority of Montgomery’s community centers offer after-school and summer programming for youth and/or programming for seniors. The Parks and Recreation Department bases individual center programming on a determination of the needs of the surrounding area. The community centers that do not offer afternoon and summer youth services are located in areas deemed not to have enough demand to justify these services; instead, transportation is provided to other nearby centers that offer youth programming.

Three of the 20 community centers offer specialized services:

- **Armory Learning and Arts Center** – The Armory Learning and Arts Center is dedicated to offering art, music, dance instruction, and gymnastics.

- **Therapeutic Recreation Center** – The Therapeutic Recreation Center’s programs and facility is dedicated to citizens with disabilities enjoyment of recreation.

- **Crump Senior Center** – The Crump Senior Center offers programs specifically designed for senior adults.

Three community centers have stopped service over the last decade: Bellingrath Community Center was closed and sold to a non-profit organization, McKe Community Center was closed and absorbed by the adjacent public school, and Smiley Court Community Center was closed and demolished as part of the closure of the Smiley Court Public Housing Community.

A large portion of the city—particularly a significant majority of suburban residential districts—is not served by community centers. Due to the lack of diversity of building types in this area and general lack of civic buildings, strategic coverage expansion of this large area is important. More funding is needed for community centers service area expansion, existing facilities updates, and program expansion. Furthermore, transparency in the programming process is also needed; staff currently evaluates each existing community center’s programming by the need of the area, but it is unclear how this determination is made.

To greater understand Montgomery’s community centers’ level of service it is important to compare it with those of the other larger cities in the state of Alabama. The City of Birmingham is served by twenty-one community centers, which is comparable to Montgomery’s twenty. Birmingham, however, does not offer accessible public information on its centers’ activities. The City of Huntsville has fourteen community centers. Huntsville offers a variety of services to all cohorts of its community through its centers. Huntsville’s community center programs include youth and adult basketball leagues, wheelchair and disability-oriented
sports leagues, swimming lessons, exercise classes, pickleball leagues, square dancing, sewing classes, and tai chi.

The supporting maps for this community center section demonstrate the various spatial service areas for Montgomery’s community center, with ¼ of a mile indicating an average five-minute walk. This section’s mapping also illustrates the city’s community centers as they relate to the changing population of the city. A majority of the city is not conveniently served by community centers, particularly those large areas of the city built after World War II. When using a one-mile service area around each active community center in the City, the service areas account for 26.9 percent of the City’s 163 square miles.

- See Map 1.3 in the Map Gallery: Community Centers
- See Map 1.4 in the Map Gallery: Community Centers and Population Change by Tract

SENIOR CENTERS

Montgomery has two senior centers operated by Montgomery Area Council on Aging (MACOA). The Archibald Center and MACOA East Location offer senior citizens (age 55 and up) a variety of recreational, social, educational, and health programming activities that promote engagement and independence. Senior center annual membership is $36 or $54 for couples. These centers also act as community service hubs by assisting with meals on wheels services and other community service organizations. Working through these senior centers, MACOA provided 122,487 meals in 2018.

Between 2000 and 2016 Montgomery's fastest growing age segment was those over the age of 55, and in 2016, one in five residents of Montgomery were over the age of 65. This older population has already significantly increased, but in the coming decade these numbers will grow even faster. The work of MACOA is impactful, but Montgomery as a whole is ill-prepared to currently support this population, and this current insufficiency is will rapidly compound.

FIRE AND RESCUE

Montgomery Fire and Rescue employs over 550 sworn and civilian personnel and operates sixteen fire stations, Fire Administration, Emergency Medical Services (EMS), Training/Administrative Support Division, Inspection Division, Investigations Division, and a Special Projects Division. The Department offers fire suppression, EMS, technical rescue, hazardous material, dive, and rehabilitation support.

The Insurance Service Office (ISO) provides cities with a Public Protection Classification (PCC) which ranges from one to ten, with one being the best. This PPC rating is determined by evaluating the department’s fire suppression capabilities and is used by the insurance industry to assist in establishing fire insurance premiums for homes and businesses. The City of Montgomery became the first fire department in the state to get a PPC of 1. This rating indicates that the department is operating at the highest level to protect the community from fire, and this high ranking provides low insurance premiums for homes and businesses in Montgomery.

The Montgomery Fire Department’s total budget for fiscal year 2019 is $35,949,941. In recent fiscal years the fire department’s budget has been burdened by overtime overages. In fiscal year 2017 the City budgeted $496,465 for the fire department’s overtime pay, but the same year’s actual expenditures were $2,084,543, 320% over the budgeted amount.
Similar to other communities, most of the department’s calls for service are for medical assistance rather than fire-related. The department’s total responses are up by almost 18% since 2014, with the increase in yearly calls being dominated by medical emergency calls; the number of fire suppression calls has remained relatively steady.

**POLICE**

The Montgomery Police Department (MPD) is currently made up of about 590 employees and occupies seven facilities. The City is actively served by two facilities: the police department headquarters (North Ripley Street) and a police precinct (East South Boulevard). MPD uses a two-sector system to provide general police protection for the City. Sector A operations is housed in the police headquarters facility along with administration, the city jail, and the City’s traffic policing operation. Sector B operations are housed in the police precinct on East Southern Boulevard. The City also operates the River District Office (Lee Street) and the Bicycle Police Office (Molton Street Intermodal Bus Facility and Parking Deck) to assist police support in the downtown area and the Criminal Investigations’ Facility, which houses entities like the Detective Division, Bomb Squad, Narcotics Division, and Police SWAT Forces. In 2017 the City created an open-data website that includes police report mapping and analyses for citizens to search and review crime data for specific areas of the City.

According to data from 2016, MPD employs 25.2 officers per every 10,000 residents; the national average (for cities between 200,000 and 500,000 in population) is 18.7 officers per 10,000 residents. For comparison, Mobile employs 19.8 officers per every 10,000 residents, Huntsville employs 26.0, and Birmingham employs 39.5. Like Alabama’s largest cities suggest, there is no standard for how many officers cities should have per capita. Methods to determine this ratio include workload analysis using number of 911 calls, basing the ratio...
entirely on the population, and basing the number of officers on city's budgets or predetermined minimum employee numbers.

2. Community Infrastructure

For the purpose of this analysis, community infrastructure is defined as water, sewer, electric, and natural gas physical network elements and the services they provide. A City's network of infrastructure is its most valuable asset (other than its citizens); it enables all the production and progressive activity that allows cities to become hubs of culture and economics. These infrastructures are the foundation of the City and directly affect how it develops. Without continual investments into this system, however, the Infrastructure network can and will fail. Water, sanitation, and energy facilities are essential, expensive, and long-term infrastructure; therefore, their operational understanding is important when considering the long-term spatial and policy dynamics of a city.

WATER AND SEWER

Montgomery's water and sewer services and infrastructure are provided by the Montgomery Water Works & Sanitary Sewer Board (MWWSSB). MWWSSB not only serves the City of Montgomery but also the Town of Pike Road, a majority of the northern half of Montgomery County, and some of Elmore and Bullock Counties. MWWSSB’s drinking water is primarily served by two water treatment plants: the C.T. Perry Water Purification Plant and the Hanan Water Treatment Plant. The remainder of the water needs are served by the Day Street Pump Station and well systems. The purification plant has a capacity of 60 million gallons per day (mgd). Groundwater wells provide an additional capacity, making the current capacity 91.8 mgd. Average daily consumption is approximately 33 mgd.

MWWSSB operates three water pollution control plants that use primary filters, trickling filters, synthetic bipfilters, or activated sludge and secondary filtration to treat the waste water before effluent is dispersed into the Alabama River. Maximum sewage capacity is 59 mgd, with a daily consumption of 39 mgd.

The Montgomery Water Works and Sanitary Sewer Board operates under a franchise from the City of Montgomery and an indenture from bondholders. Its operation and expenses are almost entirely funded by service rates. The Board consists of nine members who are appointed by the Montgomery City Council. In fiscal year 2018, the MWWSSB paid the City $3,357,131 in lieu of taxes, and the City paid the MWWSSB $903,910 in charges for use of fire hydrants.  

See Map 1.5 in the Map Gallery: Water/Sewer Infrastructure

ELECTRIC AND GAS

Dixie Electric and Alabama Power are the electrical utility providers in Montgomery, and are both private utility companies. Both electrical providers indicated that they use a case-by-case expansion algorithm when confronted with the opportunity to expand existing electrical infrastructure to provide services to larger scale proposed development. Spire Energy and Southeast Gas provide natural gas utilities and services in the Montgomery area, and these gas providers are also private utility companies.

2. Land use’s effects on Community Infrastructure and Service Costs
As the City's future begins to shift trajectories with slowing population growth, increased diversity, shifting economic trends, and growing millennial and senior populations, the City can transition its previous efforts focused on infrastructure growth to a strategic reinvestment of its aging existing network. A new approach focused on inward investments of infrastructure upgrades can reinvigorate underutilized areas, create stronger economic returns on investments, and improve the safety on the system as a whole. From Flint, Michigan to Atlanta, Georgia, infrastructure failure of all kinds has become a growing concern across the country. Strategic reinvestment in aging infrastructure should be prioritized before these complex systems fail.

The way a city is developed and redeveloped has a significant effect on its finances. By comparing infrastructure costs of two types of development, research has increased our understanding of how development affects local government's bottom line. First, a “walkable community” is a neighborhood or area that attracts people to safely walk and use alternative modes of transportation, has well-connected streets, and offers a mix of housing types commercial uses. In contrast, a “conventional neighborhood” is a driving or automobile-oriented area with a less connected street network and greater distances between destinations.

National studies in both urban and rural settings found three major economic benefits of walkable communities over conventional neighborhood style development: (1) the cost saving of upfront infrastructure development, (2) the cost savings of ongoing infrastructure, and (3) the tax base created by the increased development. Infrastructure cost analysis included roads and water and sewer lines (which is the most expensive infrastructure cost for new developments). On average, studies found that walkable communities cost 38% less than conventional development for upfront infrastructure.

Findings related to community services, or ongoing services such as police, fire, and emergency medical services, showed municipal cost savings of 10% for walkable communities compared to conventional neighborhoods. The largest cost saving for ongoing services is simply related to the operational logistics of service vehicles driving fewer miles.

On a per-acre basis, studies found that walkable neighborhoods produce more tax revenue than conventional neighborhoods based on sales tax, property tax, and licensing fees. On average, walkable communities generated ten times more tax revenue per acre than conventional neighborhoods. (Smart Growth America, Building Better Budgets)
In Montgomery, public utilities and services can be more financially sustainable if an emphasis is placed on filling the gap between Montgomery’s urban core and the 70% of Montgomery’s housing that is single-family detached. Low-density growth in Montgomery could be considered subsidized in the form of flat-rate fees, by charging the same service fees to low-density users even though those services costs are considerably higher than more compact developments. A typical home in the conventional neighborhood could have 50 feet of street pipe per residence, while a condominium might use 5 feet of public infrastructure pipe. Montgomery needs to develop a deeper understanding of its long-term municipal services and community infrastructure cost as they compare to broader market trends and policy decisions.

5. Map Gallery and Supplemental Information

The following map(s) and information are referred to throughout the narrative and have been organized into the following sections.

1.1 –Public Libraries Map p. 8
1.2 –Public Libraries and Population Change Map p. 9
1.3 –Community Centers Map p. 10
1.4 –Community Centers and Population Change Map p. 11
1.4 -Water/Sewer Infrastructure Map p.12