

CITY OF MERIDIAN

Analysis of Built Environment and Opportunities for Improvement



Prepared by Resource Consultants LLC

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Introduction

The purpose of this study is to present opportunities that exist to improve or enhance the built environment for Meridian residents, with a focus on the five neighborhoods that are eligible for HUD’s Community Development Block Grant funding. Resource Consultants LLC is assisting the City in evaluating the following elements of built environments: homeowner rehabilitation programs, sidewalks and urban trails, street lighting, green spaces, food access, and community centers. These elements have been shown to have significant impacts on the health of residents.

The goal is to provide information for Meridian’s leaders and planners to help maximize the impact of possible improvements and interventions. These measures are also aligned with Meridian’s Comprehensive Plan, which encourages the creation of enriching and inviting environments to support residents of all lifestyle choices, ages, and backgrounds.

Defining The “Built Environment”

The Center for Disease Control (CDC) describes the built environment as “all of the physical parts of where we live and work.”¹

Focus areas² that support a strong built environment include:

- Parks, Trails, and Health
- Physical Activity
- Transportation

Connecting the built environment with health is not a new concept. The first noted link between the built environment and health was documented in 1854 when a London doctor suspected a certain water pump of spreading disease. Since then, public health studies have continued to affirm a link between environment and health. In 2010 the CDC released a plan titled Healthy People 2020. The document includes four goals, of which the third is very pertinent to this study:

- Attain high-quality, longer lives free of preventable disease, disability, injury, and premature death;
- Achieve health equity, eliminate disparities, and improve the health of all groups;
- **Create social and physical environments that promote good health for all;** and
- Promote quality of life, healthy development, and healthy behaviors across all stages.

The recent CDC update, Healthy People 2030, expands the link even further by adding these five domains of emphasis:

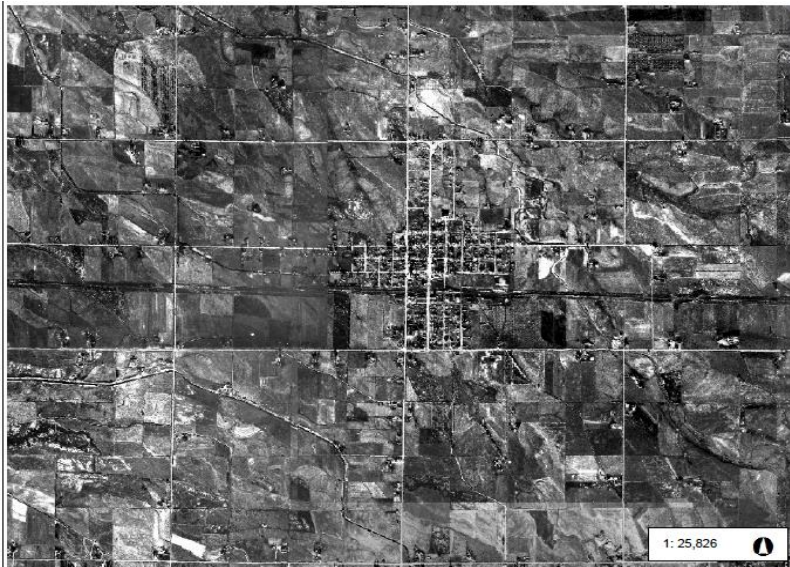
- Economic stability;
- Education access and quality;
- Healthcare access and quality;
- Neighborhood and built environment; and
- Social and community context.



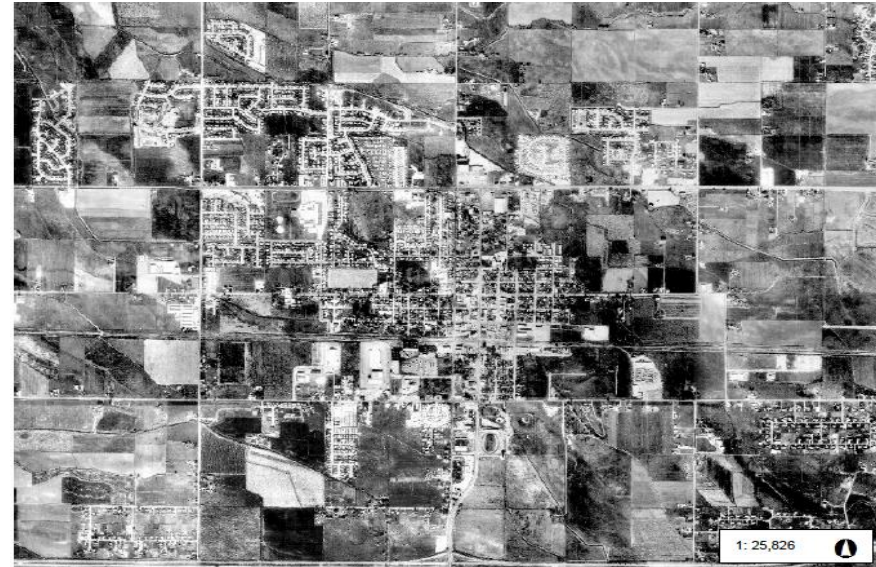
¹ The Built Environment Assessment Tool”, Center for Disease Control (2011).. Accessed online: <https://www.cdc.gov/nccdphp/dnpao/state-local-programs/built-environment-assessment/index.htm#:~:text=The%20built%20environment%20includes%20the,physical%20activity%20and%20healthy%20eating.>

² Healthy community design topics, Centers for Disease Control and Prevention. (2017). Accessed online: <https://www.cdc.gov/healthyplaces/>

The built environment of a given neighborhood evolves over time and in response to changing priorities of planners and residents. A review of Meridian’s history demonstrates that, as in many communities, housing was originally built near work and transportation.



Meridian 1939



Meridian 1986

As Meridian has grown rapidly, housing has primarily been constructed outward from the city core. This common strategy prioritizes economic development and urban planning whereas the City is now considering the importance of environmental planning. Studies have revealed how the elements of the built environment: physical exercise, community social cohesion, and access to healthy food, plays a direct relationship to quality of life. Meridian aims to find opportunities to improve the wellness of its citizens with these findings in mind.

Demographics

The City of Meridian is nestled just west of Idaho’s capital city and is one of the top-ten fastest growing cities in United States. These factors make it desirable for those relocating to southwestern Idaho, both from within and out of the state.

Based on 2020 Census Data¹, Meridian is comprised of:

- 117,635 people (adding approximately 40,000 residents since the 2010 Census)
- \$75,515 median household income
- 40,194 households
- 43,627 housing units
- 11,228 Hispanic or Latino population (~10% of total population)
- Median age: 36 years

Age	Number of People in Age Group	Percent of People in Age Group	Percent of People in Age Group (Idaho)
Under 5	6,324	6.21%	6.66
Under 18	28,551	28.02	26.68%
Working Age (18-64)	60,303	59.18%	58.9%
Aging (65+)	13,051	12.81%	15.42%

Data demonstrates the majority of Meridian’s population is within the working age category. There is an average of three (3) persons per household.

¹ United States Census Bureau (2020). Accessed online: <https://data.census.gov/cedsci/profile?q=1600000US1652120>

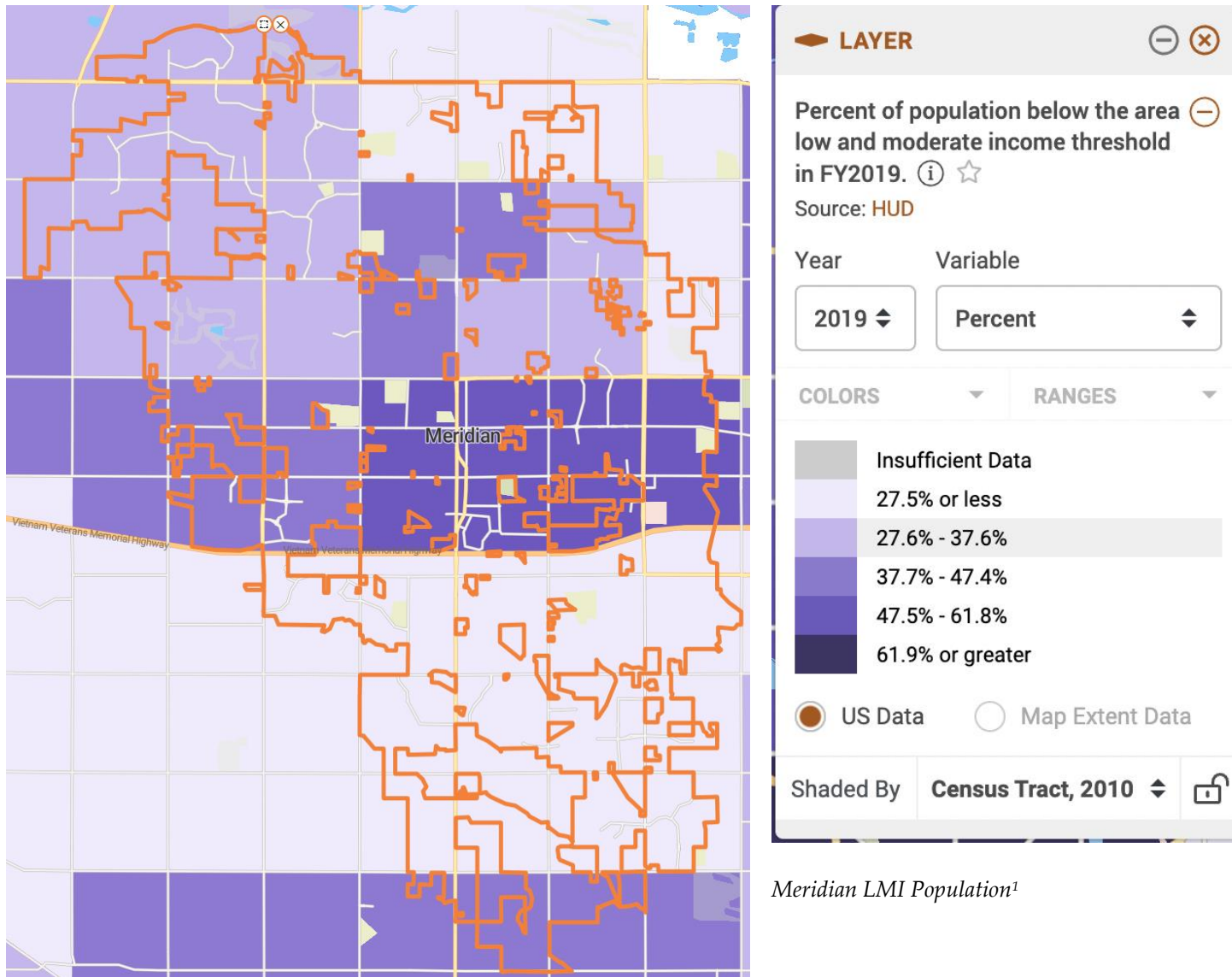
Eligible Activities

The City of Meridian receives entitlement funding from the U.S. Department of Housing and Urban Development's Community Development Block Grant (CDBG) program. CDBG¹ supports activities that build strong and resilient communities. Activities may include:

- Infrastructure (sidewalks, lights, cross walks, etc.)
- Public facilities
- Community centers
- Housing rehabilitation
- Public services
- Homeowner assistance

¹ Community Development Block Grant. Accessed online: <https://www.hudexchange.info/programs/cdbg/>

Eligible activities must serve either households who earn 80% or less of Area Median Income or activities within an eligible block group.



Meridian LMI Population¹

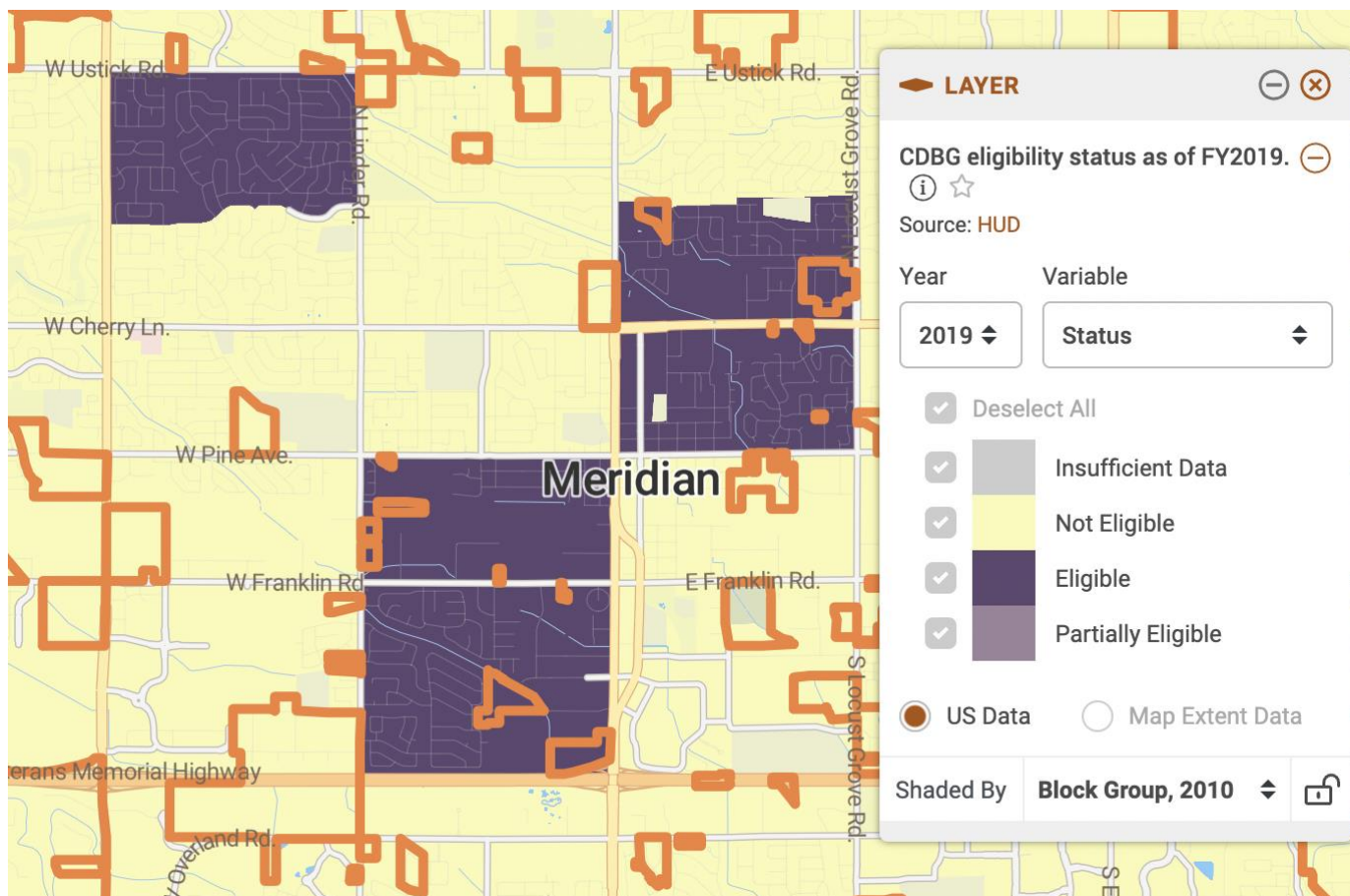
¹ Policy Map. Accessed online: [https://www.policymap.com/newmaps#/Meridian Built Environment](https://www.policymap.com/newmaps#/Meridian%20Built%20Environment)

This document considers two CDBG benefit categories for the City of Meridian. Areas comprised of 51% or more LMI persons qualify under the LMA (low moderate area) benefit category. The map¹ below represents these neighborhoods in Meridian. In addition, the LMC (limited clientele benefits) category qualifies specific groups who are 51% or more LMI without regard to their location.

With income below the area median, residents of Meridian’s CDBG eligible block groups are generally at a higher general risk of chronic illness related to the built environment, particularly diabetes and heart disease. Research shows a powerful connection between lower incomes and

poorer health outcomes; health behaviors such as nutrition and exercise are closely linked to the surroundings in which people live and work.

In Meridian, opportunities exist to improve equitability in built environments and therefore improve the health of residents who fall within either of these categories. The following sections include recommendations to enhance key aspects of the built environment, with identified partners (as applicable) and recommended funding sources.



¹ Policy Map. Accessed online: [https://www.policymap.com/newmaps#/Meridian Built Environment](https://www.policymap.com/newmaps#/Meridian%20Built%20Environment)

Homeowner Rehabilitation Assistance Program

The City of Meridian has been investing in and partnering with NeighborWorks Boise to assist income eligible homeowners with needed improvements.

Background

An identified affordable housing solution is the investment of providing repairs or improvements to existing housing. These repairs or improvements can ensure that a housing unit remains affordable, while improving the safety and/or habitability of the unit. Some of the most common repairs or improvements to an existing housing unit involve roofs, HVAC, plumbing, windows, and insulation.

According to Local Housing Solutions (n.d.)¹, “The goal of these programs is to allow homeowners who might not otherwise be able to afford necessary repairs to maintain a safe and healthy living environment...These programs can help prevent the displacement of low-income households who otherwise may struggle to keep their home in a livable condition.” The below table and image can be compared to see how many improvements might be anticipated in Meridian’s existing housing stock.

Average Life Expectancy of Major Improvements

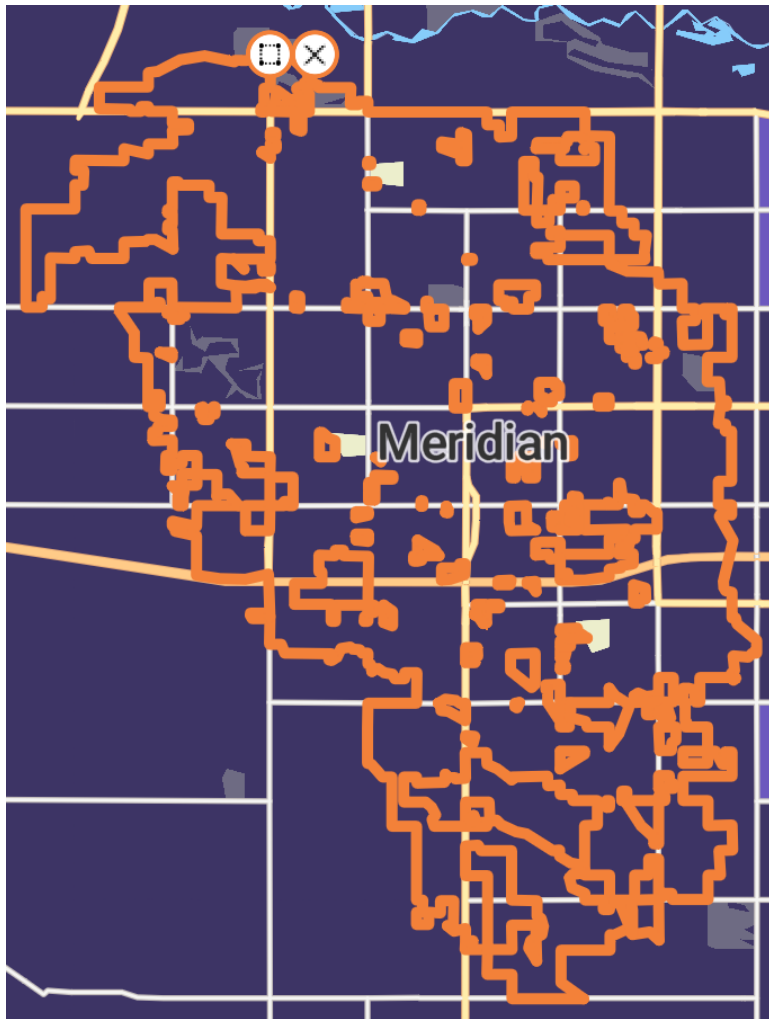
Housing System	Average Life Expectancy	If built in 1990, should be replaced by:
Roof (depends on type)	15-30 years	2005-2020
HVAC	15-25 years	2005-2015
Water Heaters	8-12 years	1998-20021
Windows (depends on type)	15-30 years	2005-2020

Source:

<https://www.interstatebrick.com/sites/default/files/library/nahb20study20of20life20expectancy20of20home20components.pdf>

¹ Homeowner Rehabilitation Assistance Programs. Accessed online: <https://localhousingsolutions.org/housing-policy-library/homeowner-rehabilitation-assistance-programs/>

Meridians Housing Construction by Date¹



LAYER [Close] [Refresh]

Estimated median year a housing unit was built, as of 2015-2019. [Close] [Info]

☆

Source: **Census**

Year: 2015-2019 [Dropdown]

Variable: Median year [Dropdown]

COLORS [Dropdown] | **RANGES** [Dropdown]

- Insufficient Data
- 1960 or less
- 1961 - 1972
- 1973 - 1980
- 1981 - 1989
- 1990 or greater

US Data Map Extent Data

Shaded By: **Census Tract, 2010** [Dropdown] [Lock]

¹ Policy Map. Accessed online: [https://www.policymap.com/newmaps#/Meridian Built Environment](https://www.policymap.com/newmaps#/Meridian%20Built%20Environment)

Recommendations

According to HUD, the fair market rental cost for a three-bedroom apartment in Ada County is \$1,577. Data from the Federal Reserve shows that close to 30% of residents who rent are considered “rent-burdened”-tenants paying more than 30% of their income to housing costs. With rising costs for purchase of real estate across Idaho, options for low-income homeowners to rent or buy other housing is extremely limited in the current economy.

We recommend that the City of Meridian continue to invest in assisting income eligible homeowners with needed improvements to preserve housing affordability. Reduction of pollutants has a direct positive effect on health, and lower utility costs allow residents more budget security and flexibility. This is one of the most direct and visible ways to improve the built environment for households.

Funding Sources & Partner

CDBG (Eligible Matrix Code – 14A)

NeighborWorks Boise

Sidewalks/Urban Trails

Background

Paved sidewalks serve as safe pathways for pedestrians to access essential locations like supermarkets or medical offices. Neighborhood sidewalks pave the way for residents to walk their dogs, exercise, and provide a surface for human-powered wheeled vehicles, like bikes, roller skates, and strollers. Urban trails are similar to sidewalks but are not necessarily along roads – rather, trails connect neighborhoods and schools so that individuals can cycle, walk, or jog to their destination, or access green spaces.

According to the CDC, regular physical activity is one of the most important things you can do for your health.¹ One study showed that individuals in neighborhoods with sidewalks were 47% more likely to exercise at least 39 minutes per day compared to individuals that did not live in neighborhoods with sidewalks.² Increased exercise is directly linked to better health outcomes, particularly with chronic disease such as high blood pressure and diabetes.

There is cause for concern in safety for those lacking sidewalks, roadways without them are twice as likely to have crashes involving pedestrians.³ A lack of sidewalks forces pedestrians to use the shoulder of the roadway which exposes them to traffic. An additional consideration is that road shoulders are not designed for users with mobility aids such as wheelchairs. If adequate sidewalks are limited in a neighborhood, then residents may choose to walk/bike on the shoulder of the roadway, or simply drive instead of walking.

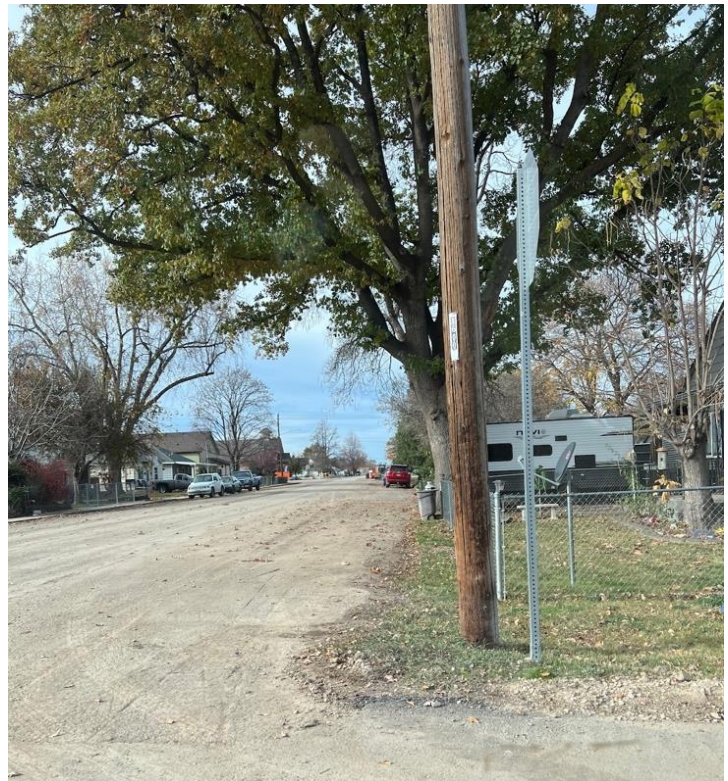
Increasing carbon emissions is a growing concern in the United States and in many parts of the world. Urban trails are an attractive alternative to more roads as they separate pedestrians and cyclists from motor vehicle traffic, increasing safety and decreasing stress for everyone. Urban trails also provide areas of a city that would otherwise be secluded and can provide space for local artwork or sculptures. Studies on viewing community art have shown that individuals exposed to art in the community have lower levels of stress.⁴

¹ Benefits of Physical Activity. CDC (2022). Accessed Online: <https://www.cdc.gov/physicalactivity/basics/pa-health/index.htm>

² Neighborhood Built Environment & Income. James F. Sallis (2009). Accessed online: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3500640/>

³ FHWA (1987). Accessed online: https://www.governmentattic.org/12docs/FHWAstyleManual_1987.pdf

⁴ Evidence for the Effects of Viewing Visual Artworks on Stress Outcomes. BMJ Open (2021). Accessed Online: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8246362/>



Many neighborhoods in the eligible block groups that were surveyed lack paved sidewalks to make walking safe and easy. Some of these neighborhoods have dirt shoulders that often double as parking spots for motor vehicles, which forces pedestrians to walk in the roadway. Where paved sidewalks existed in an eligible block group, the path was, at times, obstructed by mailboxes. This design inhibits those with limited mobility from safely moving around their neighborhood via sidewalk.

Recommendations

Alternatives to using cars are a key part of a healthy built environment and equitable access to transportation and recreation. We recommend the City of Meridian prioritize installing sidewalks that are at least five to seven feet in width, in neighborhoods that are currently lacking.

Sidewalk installation should include both sides of residential streets, marked crosswalks with warning signs, and wheelchair accessible corner ramps with tactile paving. Mailboxes that obstruct sidewalks should be consolidated to a central neighborhood location or cluster box unit. Intersections with traffic signals should be equipped with auditory pedestrian signals which communicate back to the pedestrian to either “wait” or “walk.”

Given the scope of this intervention, we recommend the City of Meridian release an RFQ to identify design and engineering firms to bid on the design, engineering, and project management aspects of the sidewalk installations. A subsequent RFP to concrete and construction companies can then follow, ensuring that the project(s) meet all requirements for use of CDBG federal funding.

Funding Sources & Partners

CDBG (Eligible Matrix Codes: 03K, 03L)

American Rescue Plan Act (Eligible Code: 3.13)

Design/Engineering firms

Concrete/Construction companies

Street Lighting

Background

Street lighting is ubiquitous in cities across the world and provides residents the ability to navigate outside long after dusk. Lighting can illuminate sidewalks, giving residents the opportunity to walk more safely at night. Street lighting also improves driver safety through better visibility of pedestrians, signs, and obstacles in the road.

Street lighting helps residents feel more at ease in their neighborhoods between dusk and dawn. It has been shown that increased levels of lighting can lead to fewer index crimes that include murder, aggravated assault, robbery, as well as certain property crimes that take place outdoors after dusk.¹ Other studies have found that increased lighting does make people feel safer. When households feel safer they increase their time outside, reduce social isolation, and improve their mental and physical well-being.²

A review of eligible block groups in Meridian found street lighting only to be present at the entrance of neighborhoods, intersections within the neighborhoods, and about mid-way down a block. This built environment less than ideal in terms of supporting outside recreation and non-automobile transportation at night, in the early morning, and during inclement weather.



Many high-pressure sodium lamps were identified on neighborhood streets, but none of the urban trails or connected paths examined were lit. The lack of street lighting can be addressed to support a built environment that encourages more equitable access to foot travel, outside recreation, and community connection.

Recommendations

The City of Meridian has previously invested in street lighting upgrades. This activity should continue and prioritize new light fixtures in residential areas and walking paths. The City has

approved LED lighting to be mounted on metal poles 25-30 feet high, and should be 4400 Lumens or above. It is most beneficial for the distance between light poles to be between 300-600 feet apart.

Placing light poles on alternating sides of the street will increase their efficacy. When more lights are added, the following steps will lead to increased use of the space: aim lights directly at the path, use a warm LED color, and place the lights more closely together.

As the City of Meridian continues to develop and establish connecting streets and routes between neighborhoods, we recommend updating the GIS system of all the light poles in city limits.

¹ Reducing Crime Through Environmental Design. Chalfin et al., (2021). Accessed online: https://www.nber.org/system/files/working_papers/w25798/w25798.pdf

² Evaluation of Pedestrian Reassurance Gained by Higher Illuminances in Residential Streets Using the Day-Dark Approach. Uttley, J., et al., (2018). Accessed online: <https://journals.sagepub.com/doi/full/10.1177/1477153518775464>

Funding Sources & Partners

CDBG (Eligible Matrix Codes: 03K, 03L)

American Rescue Plan Act (Eligible Code: 3.13)

Ada County Highway District

Background

Access to parks and other areas for physical activity are beneficial for decreasing obesity rates, promoting stress relief, and increasing social connectivity. Stress is a known detriment to overall well-being and access to green spaces, like parks and gardens, can aid in stress relief. Outdoor areas that are open and free to the public aid in routine and recreational physical exercise, increase time spent outside for all ages, and build community.

Built environments that lack opportunity for physical activity reduce healthy options available for individuals to spend their free time, "...there are fewer opportunities in daily life to burn calories: children watch more television daily; many schools have done away with or cut back on physical education; many neighborhoods lack sidewalks for safe walking..."¹

Parks can promote an area for children to develop skills from intramural sports, socializing with friends to play games, and allowing their imaginations to have free range. Adults may find time to walk their dogs, take leisurely strolls, or meet up with friends and family to have lunch. During the ongoing pandemic, many find themselves indoors more than ever. Outdoor activities are safer, with regards to social distancing, and more casual for people to take part in.

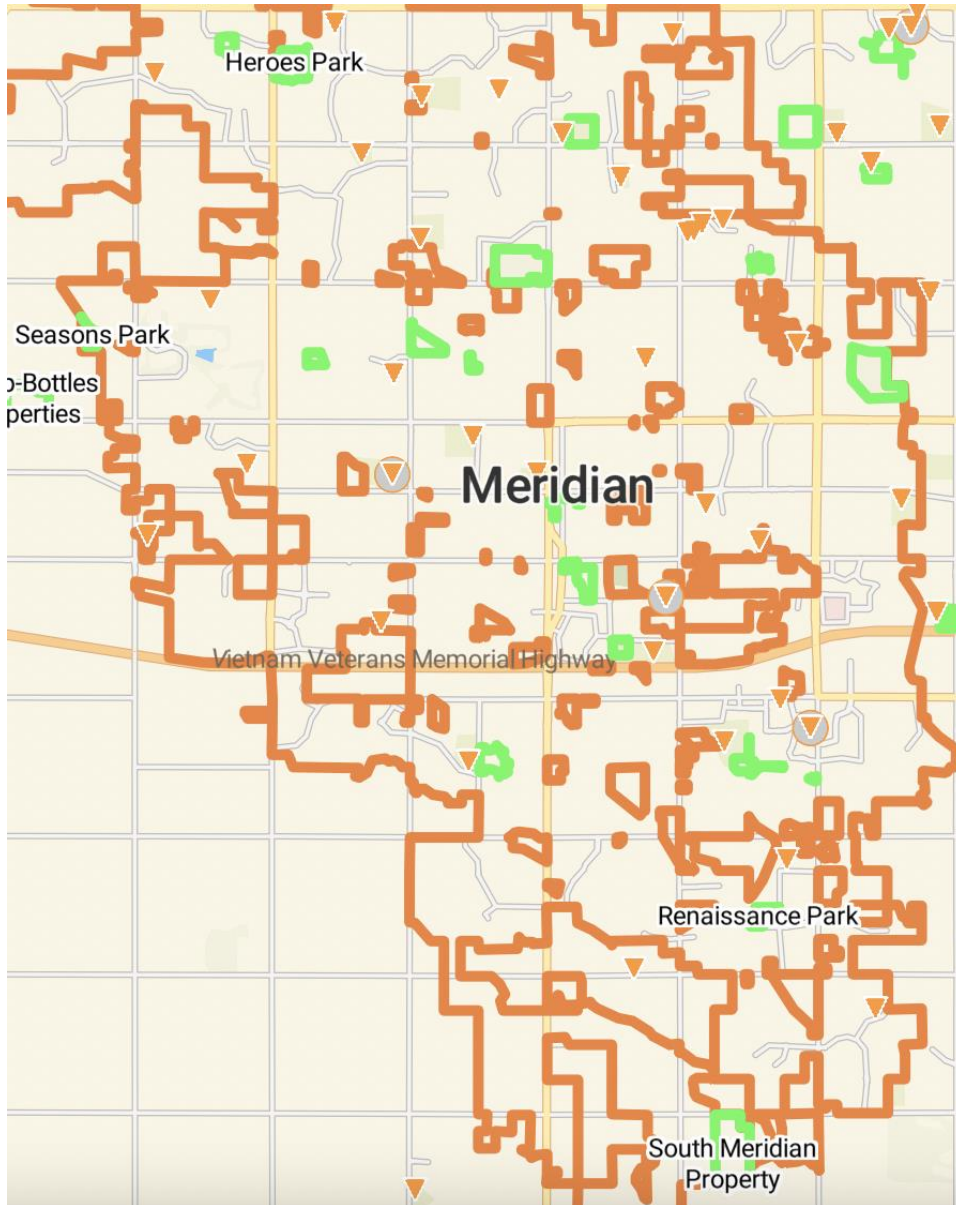
The benefit of parks come from easy access and free use; all communities need access to open spaces, regardless of their socioeconomic status. "...Researchers found that children with better access to parks within 500m of their homes and recreation programs within 10km of their homes had a reduced risk of being overweight or obese at age 18."²

Parks also have an economic impact that can enhance property values, tourism, health costs and attract businesses. A study by the Urban Institute and the New York Academy of Medicine found the following: "In Pennsylvania, properties near Three Rivers Park in Pittsburgh increased in value by 60% since 2001. During that same period, other city properties outside the park zones increased in value by only 32%."³

¹ Center for Disease Control (1999). Accessed online: <https://www.cdc.gov/media/pressrel/r991026.htm>

² Childhood obesity and proximity to urban parks and recreational resources: A longitudinal cohort study (2011). Accessed online: https://www.researchgate.net/publication/232410795_Childhood_obesity_and_proximity_to_urban_parks_and_recreational_resources_A_longitudinal_cohort_study

³ (HRG (2019). Accessed online: <https://www.hrg-inc.com/5-economic-benefits-of-parks-and-recreational-facilities/>



Parks & Public Schools in Meridian

For most who live in an eligible block group, the average distance is over a mile to a community or regional park. A cooperative agreement with the school district might also allow for the City of Meridian to invest resources for playground equipment.

Park Locations ☆
 Source: Trust for Public Land

COLOR ▾ FILTERS ▸

Public Schools: Enrollment and Demographics (NCES) ☆
 Source: National Center for Education Statistics

Search point data

Display:

Points Clusters

1

¹ Policy Map. Accessed online; [https://www.policymap.com/newmaps#/Meridian Built Environment](https://www.policymap.com/newmaps#/Meridian%20Built%20Environment)

Recommendations

As the City of Meridian continues to grow, so will the need for access to regional and community parks. While newer housing developments tend to provide green spaces and community amenities, areas that developed primarily in the 1990s are lacking in access. A simple, yet effective solution may include Meridian Parks and Recreation entering into a formal agreement with the West Ada School district for access to elementary and middle school playgrounds during after school hours. This would increase access to open green spaces for households, particularly for those who live in eligible block groups. Parks and Recreation could explore expanded offerings utilizing these spaces in areas with few organized recreational opportunities.

A second recommendation is adding pocket parks on small, vacant, and underutilized parcels. These can provide access to promote activity and a sense of community. The National Recreation and Park Association defines a pocket park as “a small outdoor space, usually no more than ¼ of an acre.”¹ These small spaces may provide a safe and inviting environment for the community around it.

Funding Sources & Partners

CDBG (Eligible Matrix Codes: 03E, 03F)

American Rescue Plan Act (Eligible Code: 3.13)

Meridian Parks and Recreation

West Ada School District

Ada County Highway District

Idaho Department of Transportation

¹ The National Recreation and Park Association. *Accessed online:*
<https://www.nrpa.org/contentassets/f768428a39aa4035ae55b2aaff372617/pocket-parks.pdf>

Community Centers

Background

As part of the built environment, community centers are a prime opportunity for city planning interventions. These spaces are a viable option for children to spend their free time in safe environments. Opportunities for children (primarily after school) to have environments that promote healthy decision making, develop a sense of community, and provide activities that reduce stress levels are important.

Youth can find themselves in unsafe environments where poor choices can lead to unhealthy habits. There are benefits from community centers that don't just surround physical health; through physical activity, teamwork, and other disciplines, there comes mental growth, behavior guidance, and a place of protection to the outside world. "Community centers create the perfect setting for local mentorship programs, providing guidance and leadership development for the youth of the community."¹ Youth will have the opportunity to partake in activities that are beneficial to their development.

Community centers are also important for elderly populations. The opportunity for seniors to socialize can provide a sense of community between all ages, and may help create community goals. Physical activity and community engagement improves quality of life, not only for their physical health, but mental health as well. "As seniors are more likely to experience inactivity and isolation, they are more likely to suffer from depression and loneliness. Those two quickly lead to physical ailments, which then lead to even further separation from the real world."²

Meridian Senior Center³



¹ The Positive Impact of Community Recreation Centers. Sports Facilities (2016). Accessed online: <https://sportsfacilities.com/the-positive-impact-of-community-recreation-centers/>

² Why Recreation is Important for Seniors. Optimum Personal Care (2020). Accessed online: <https://optimumpersonalcare.com/why-recreation-is-important-for-seniors/>

³ City of Meridian. Accessed online: <https://meridianty.org/parks/currentparks/kleiner>

Recommendations

Indoor community centers provide options for recreational exercise and socialization. Community centers have a multitude of benefits, especially pertaining to community development. “These spaces are meant for all ages, ethnicities and skills levels and should promote cultural diversity and inclusion.”¹

Given the time and cost to construct a community center, it is not feasible to recommend the construction of additional community centers in Meridian (particularly in eligible block groups) at this time. However, much like recommendations in the ‘Green Spaces’ section, there may be options to increase access and programs through partnerships. The City of Meridian Parks and Recreations activity guide highlights the importance of using a variety of locations to deliver programs. The City might work to identify more locations in eligible block groups that would increase equitable access for those residents.

Funding Sources & Partners

CDBG (Eligible Matrix Codes: 03E, 03F, 03M, 03P)

American Rescue Plan Act (Eligible Code: 3.13)

West Ada School District

Boys and Girls Club

YMCA

Churches

Non-profits

¹ The LYCY Community Center Would Benefit All Community Members. LCYC (2020). Accessed online: <https://www.lcycinc.org/community-center-benefits/>

Future Considerations: Community Gardens and Food Access

This study noted another important aspect of Meridian's built environment which may be negatively impacting the health of residents: food access. This is a complex problem with many factors, but there is no doubt that households which lack accessibility or reliable transportation to nutritional food sources because of the built environment may resort to purchasing unhealthy food such as fast food or packaged items from convenience stores. Increased access to affordable and nutritional sources would provide Meridian's residents with food options that can lead to improved health outcomes. It is recommended city planners continue to take food access into account while making decisions on zoning, transportation, and other factors of the built environment.

Another opportunity that Meridian officials may consider is to continue furthering efforts in existing and future community gardens. There are lots throughout the block grant eligible neighborhoods that could possibly be developed into community gardens, which offer many benefits in terms of community connection, food availability, and education. However, successful community garden programs need a robust corps of volunteers and often a dedicated program manager at the city level. These elements may take some time to put in place.

Summary

In summary, this project identified some key factors of a built environment, linked those factors to the health and wellbeing of residents, and analyzed five CDBG eligible block groups within the City of Meridian to find suggested potential improvements.

There are opportunities throughout Meridian to create more equitable access to a healthy built environment. In particular, it is recommended that the City and its partners pursue the following actions, which are eligible for CDBG funding:

- Continue supporting low-income home rehabilitation and improvement programs;
- Continue installing more sidewalks and urban trails;
- Continue improving and installing street and trail lighting;
- Continue increasing access to parks and playgrounds; and
- Identify opportunities to accessible recreational and community events in neighborhoods.

In addition, the City could evaluate and seek to improve food access for residents when making decisions about transportation and other aspects of the built environment in Meridian. The CDC supports several methods to bring healthy food into neighborhoods with CDBG eligible block groups, including farmers' markets, community-supported agriculture, cooperative grocery stores, and community gardens. Increasing these opportunities will enhance the overall health and wellness of Meridian's residents.