EXTENSIONSERVICE
WALKABILITY STUDIES

Walkability Study for Grafton, WV

April, 2014

A Program for Community Improvement

West Virginia University Extension Service
Community, Resources & Economic Development

WV EXTENSION SERVICE

WALKABILITY STUDIES

Purpose: The purpose of the Walkability Program is to assist communities in addressing their built environment to support better-connected, more sustainable places. During the process, participants will assess specific areas to identify conditions that affect walkability, connectivity and their ability to meet daily needs. They will document observations and findings through field notes on the walking audit survey that will summarize the assessment and help determine next steps.

Goal: To engage the community in making streets and neighborhoods more walkable, livable, healthy, and welcoming.

Potential Community Outcomes

- Walkability
- Active Living
- Community Health
- Livability
- Quality of Life

Walkability is defined as: How comfortable an area is for walking. Walkability is based on four criteria that include:

1. How Accessible
2. How Welcoming
3. How Convenient
4. How Safe

Built Environment refers to the human-made surroundings that allow for activities by people, ranging from buildings, parks, green space, neighborhoods and cities. Public health research has expanded the definition of "built environment" to include healthy food access, community gardens, “walkability", and “bikability.”

Study Area

Targeted Area/Location: Grafton downtown Main Street from Bridge to Bridge

Time and Date: April 9th, 20014

Weather Conditions: 50 degrees and sunny

Amount of Reviewers: 4 teams

Community Profile

Health care costs continue to rise. In 2008, the total cost were estimated at $147 billion. Healthcare costs attributed to a lack of physical activity are about $76 billion per year. Chronic diseases are the leading cause of death and disability in the U.S., responsible for seven out of 10 deaths. The good news, healthy lifestyles, including physical activity, can lower the risk of obesity and chronic disease (Walkable and Livable Communities Institute, 2012).

West Virginia's rural, low-density communities often provide little infrastructure for pedestrians. The lack of sidewalks, crosswalks, and interconnected walkways, coupled with narrow shoulders and limited visibility on high-speed roads provide little incentive for alternative forms of transportation, specifically biking and walking. These design features also limit residents' use of walkways for leisure and fitness.

Increasing access and opportunities for recreation strengthens the well-being of individuals and communities. Individuals increase their physical activity resulting in healthier lifestyles, and communities benefit from increased interaction between neighbors. Encouraging these behaviors is especially important in West Virginia, a state regularly noted for poor lifestyle indicators including physical inactivity, inadequate social support, obesity, diabetes, and, heart disease.

In Taylor County 38 percent of adults over the age of 20 reported no leisure time physical activity. This is likely the result of several environmental and socio-economic factors in the county. For example, 40 percent of the county's commuters drive more than 30 minutes each day. Increased commuting times are associated with lower rates of physical activity. A 2012 study in the American Journal of Preventive Medicine found that the farther people commute by vehicle, the higher their blood pressure and body mass index[1].

The county's built environment, specifically inadequate access to traditional locations for physical activity – parks, gyms, community centers, YMCAs, etc – also plays a role. According to the County Health Rankings and Roadmaps, just under half of the county's population has adequate access (lives within 3 miles) to these facilities.

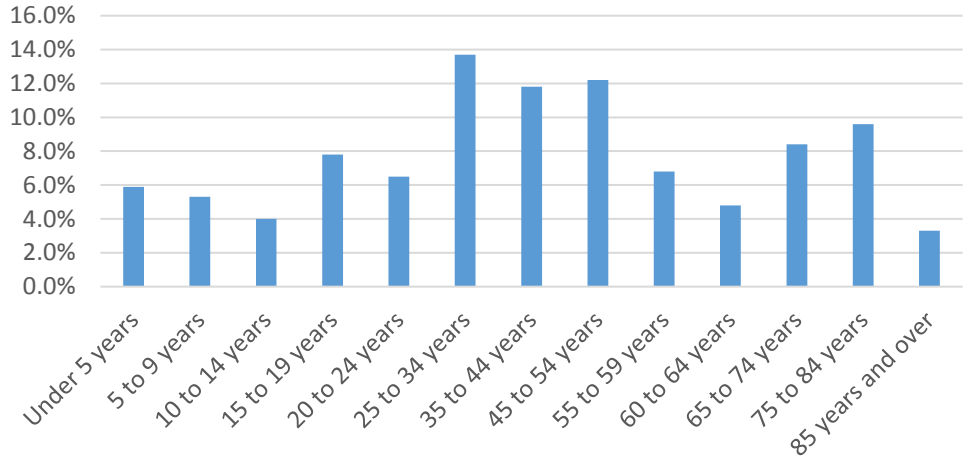
As a result of limited physical activity, 33 percent of Taylor County's adult population are classified as obese (a body mass index over 25.) Obesity increases the risk for health conditions such as type 2 diabetes, cancer, stroke, hypertension, cardiovascular disease, and premature mortality.

While all of the county's residents will benefit from increased physical activity several studies have demonstrated the positive effects of walking on specific populations including the very young, elderly, and those in poverty.

1 Hoehner, Christine M., et al. "Commuting distance, cardiorespiratory fitness, and metabolic risk." American journal of preventive medicine 42.6 (2012): 571-578.

The community of Grafton's age distribution is presented in Figure 1. Twenty percent of the county's population is under the age of 18, and 21 percent is over the age of 65. For school age children, studies have shown that increased activity, and walking or biking to school are associated with improved health outcomes in the present and into adulthood[2]. These include higher overall physical activity throughout the day, improved psychological welfare, and improved academic performance. In older populations walking, especially in groups, contributes to increased physical function and independence, decreased risk of disability, and increased social support.

Figure 1. Age Distribution in Grafton, WV, 2008-2012



U.S. Census Bureau, American Community Survey, Demographic and Housing Estimates, 2008-2012

The benefits from walking can be even more important for low income individuals who are less likely to be physically active, and more likely to have chronic health conditions and limited health care coverage. In Grafton, WV 36 percent of the population under 18 and 20 percent of adults over the age of 65 are below the poverty level. Because walking does not require expensive equipment or a paid membership it can be an ideal way for low-income individuals to become more active.

The role of the built environment is important for encouraging physical activity. Maintaining sidewalks, trails, and walking parks in the county is a low cost method for improving residents' health and facilitating neighborly dialogue. The remainder of this report describes the county's current walkability and walking infrastructure and provides a baseline for maintenance and improvement.

2 Centers for Disease Control and Prevention. The Importance of Regular Physical Activity for Children.
California Department of Education. A study of the relationship between physical fitness and academic achievement in California using 2004 test results.

Comfort & Safety, Behaviors and Sociability along the Audit Route

Comfort and Safety	Yes		No	
	Count	%	Count	%
Does the built environment make you feel that you belong there?	3	75.0%	1	25.0%
Did you feel safe?	4	100.0%		

Behaviors	Yes	
	Count	%
Are pedestrians behaving with courtesy?	4	100.0%
Are bicyclists behaving with courtesy?		
Are drivers behaving with courtesy?	4	100.0%

Sociability	Yes		No	
	Count	%	Count	%
Is this a place where you would choose to meet your friends?	3	75.0%	1	25.0%
Do people come in groups?	1	33.3%	2	66.7%
Are people talking with each other?	4	100.0%		
Are people smiling?	3	100.0%		
Do strangers make eye contact with each other?	3	75.0%	1	25.0%
Is there a mix of ages?	3	75.0%	1	25.0%
Is there a mix of ethnic groups?			3	100.0%

Conditions along the Audit Route

Sidewalk	adequate/acceptable		needs improvement	
	Count	%	Count	%
Width	**1**	**25.0%**	**3**	**75.0%**
Maintenance	**1**	**25.0%**	**3**	**75.0%**
Materials	**3**	**75.0%**	**1**	**25.0%**
Curb	**3**	**75.0%**	**1**	**25.0%**
Pedestrian Behaviors	**4**	**100.0%**		

Sidewalk Notes and Observations:

- Width - 3, 5 fire department/city hall. Finish streetscape.
- Width – Somewhat narrow due to street lights.
- Maintenance – One end of town stairs.
- Maintenance – Repair stairs near bank Latrobe Street.
- Other – Need sidewalk on Frank Street and curve.

Bike Lanes	does not apply/exist	
	Count	%
Width	4	100.0%
Condition	4	100.0%
Maintenance	4	100.0%
Buffer	4	100.0%
Cyclist Behaviors	4	100.0%

Bike Lanes Notes and Observations:

- Condition – Install 119/Riverside/Gates behind main.

Vehicle Travel Lanes	adequate/acceptable		needs improvement	
	Count	%	Count	%
No. of Lanes	2	100.0%		
Lane Width	3	100.0%		
Posted Speed	1	50.0%	1	50.0%
Observed Speed	3	100.0%		
Traffic	2	100.0%		
Driver Behaviors	3	100.0%		

Vehicle Travel Lanes Notes and Observations:

- Driver Behaviors – Parallel drivers don't.

Conditions along the Audit Route Continued:

Parking	adequate/acceptable		needs improvement	
	Count	%	Count	%
On Street Parking	4	100.0%		
Off Street Parking	2	50.0%	2	50.0%
Location of Handicapped Parking			3	100.0%

Parking Notes and Observations:

- Location of Handicapped Parking – More on West End.

Intersections	adequate/acceptable		needs improvement	
	Count	%	Count	%
Complexity	1	33.3%	2	66.7%
Width	3	100.0%		
Visibility	2	66.7%	1	33.3%
Exposure	3	100.0%		

Intersections Notes and Observations:

- Visibility - Post Office, needs improved.
- Exposure - Corner by the bridge.
- Exposure - No walk/Don't walk signs.

Crossings	adequate/acceptable		needs improvement	
	Count	%	Count	%
Type	3	100.0%		
Width	4	100.0%		
Condition	3	75.0%	1	25.0%
Maintenance	3	75.0%	1	25.0%
Materials	4	100.0%		
Pedestrian Refuge	1	33.3%	2	66.7%

Crossings Notes and Observations:

- Type – Crosswalks.
- Type – Some need finished.
- Condition – Needs signs.
- Maintenance – Needs painted in areas.
- Maintenance – Gravel on ramps.
- Materials – Paint/Cement color.
- Pedestrian Refuge – Bump outs.

Conditions along the Audit Route Continued:

Signals	adequate/acceptable		does not apply/exist	
	Count	%	Count	%
Type	2	66.7%	1	33.3%
Placement	2	66.7%	1	33.3%
Timing	2	66.7%	1	33.3%

Signals Notes and Observations:

- Type – Need walk/Don't walk.

ADA Compliance	adequate/acceptable		needs improvement	
	Count	%	Count	%
Curb Cuts	3	100.0%		
Ramp Placement	4	100.0%		
Grade (Less than 5%)	3	100.0%		
Obstructions	2	66.7%	1	33.3%

ADA Compliance Notes and Observations:

- Curb Cuts – No handicap parking.
- Ramp Placement – Need improvement.
- Ramp Placement – Not marked.
- Grade – When streetscape, not yet done.
- Obstructions – Step railings for fire department, bank steps, towers.

Lighting	adequate/acceptable	
	Count	%
Type	4	100.0%
Location	4	100.0%
Quality	3	100.0%

Lighting Notes and Observations:

- Type – Needs continued.
- Type – Main Street.

Conditions along the Audit Route Continued:

Street Furniture	adequate/acceptable		needs improvement		does not apply/exist	
	Count	%	Count	%	Count	%
Bike Rack			1	25.0%	3	75.0%
Seating	4	100.0%				
Trash/Recycling Cans	4	100.0%				
Sheltered Transit Stops			2	100.0%		
Restrooms	1	25.0%	1	25.0%	2	50.0%
Drinking Fountain	1	25.0%	1	25.0%	2	50.0%

Street Furniture Notes and Observations:

- Bike Rack – Need.
- Trash/Recycling Cans – No recycling.
- Sheltered Transit Stops – Have no transit.

Landscaping	adequate/acceptable		needs improvement	
	Count	%	Count	%
Maintenance	4	100.0%		
Shade	1	50.0%	1	50.0%

Landscaping Notes and Observations:

- If naturally available.

Safety	adequate/acceptable		needs improvement	
	Count	%	Count	%
Activity	2	66.7%	1	33.3%
Visibility	3	75.0%	1	25.0%

Land Use	adequate/acceptable		needs improvement	
	Count	%	Count	%
Land or Building Use			4	100.0%
Building Setbacks	1	25.0%	3	75.0%
Construction Quality	1	25.0%	3	75.0%
Maintenance			3	100.0%

Land Use Notes and Observations

- Land or Building Use – Need occupants.

Conditions along the Audit Route Continued:

Signage & Wayfinding (relationship to space and the environment)	needs improvement	
	Count	%
Signage & Wayfinding	3	100.0%

Signage and Wayfinding Notes and Observations:

- Historical crossings.

General Impression and Summary

Importance of Walkable Community

- Mission of PATCH
- Designated spaces need improvement
- Quality of life – Health
- Access-Transportation
- Handicap Accessibility
- Tourism – parking
- Safety

What areas best represent the goals of walkability? Why?

- The newly re-done end with streetscape and historic landmarks

- Wide sidewalks and lighting
- Benches, trash cans, planters
- Open spaces with potential
- Main street from bridge street to St. Mary's across St. M Bridge, up beech St., across S. Side bridge, front street, to bridge street – opportunity for a walking loop
- Potential rail trail along the river
- Appearance, safety, and maintenance
- Historic landmarks

What areas need improvement? Why?

- Opposite end of street starting near courthouse. Sidewalk needs streetscape and maintenance.

- Green space – water and shade
- Capitalize on stairways for walking program but first need maintenance.
- Publish walking trails/routes
- Better signage
- Better scenery for walking/viewing
- Crosswalks need to be completed with signs and paint
- Pedestrian crossing signs
- Handicap parking. Needs new paint job.

For those items that need improvement, what are your recommendations for next steps?

- Signage for crosswalks, handicap parking, finish streetscape, painting crosswalks, speed limit signs (more), no crosswalk signals for pedestrians.
- Finish street scaping
- Window Displays
- Building front maintenance
- Higher & larger signage
- Railing for stairs
- Maps of walking routes
- Upgrade green spaces with water fountains, landscape, benches
- Installation and repair of sidewalks
- New lighting on front street
- Walkability studies for each neighborhood
- Proposals to city council and county commission
- Combined city-county parks and rec commission
- Develop a Bike Trail
- Increase handicap parking
- More speed limit signs
- Crosswalk signals
- Obtain leadership and involvement from the city manager
- Post mileage signs
- Develop a walking tour brochure
- Utilize day corrections for work

- There is a great opportunity to create a loop from the downtown area with a path along the river.

For those items that need improvement, what are your recommendations for next steps?

> The modern America of obesity, inactivity, depression and loss of community has not "happened" to us; rather we legislated, subsidized and planned it.
>
> -Making Places Healthy

This walkability study is a stepping stone and should be used to increase overall community health. It will establish a structural baseline of the town and opportunities for walking and biking. It is recommended to use this study as a baseline but move forward from here with overall community health.

The eight C's for Community Health

1. ***Capture Community Leader Support.*** Ensure City, County, School Board, Council on Aging, Extension Office and any other lead organization is dialed in and on board to support the efforts. Capturing this leadership support is crucial if you are looking to build results-oriented community development programs such as walkability.
2. ***Create a cohesive community health group.*** Once the "Community Leader Support" has been established, the next task would be to create a cohesive health team. This team is important to build and coordinate community health programs, such as a walking incentive program. Individuals on this team could come from the local hospital, county extension office, local health department, county clerk office, and local school nurse. It is also important to have members on this team made up of community volunteers who have a genuine interest in community health. When forming a group, ask the following questions:
    - Why are we forming the group?
    - What do we wish to accomplish?
    - What skill sets do we need?

- What is our group structure?
- How do we make decisions?
- How will we communicate with one another?
- What other initiatives align with ours?
- How will we measure our progress?
- How do we determine next steps?

3. ***Collect data to drive health and wellness efforts.*** The team should invest time in collecting the necessary data, rather than start with a program. This study is an excellent example in collecting data. Other suggested data is from community health surveys, state and federal government agencies, and national databases including the University of Wisconsin's County Health Rankings and Roadmaps (http://www.countyhealthrankings.org/about-project). This data is important because it will reveal the specific areas of health needs and interests by the community members.

4. ***Create community engagement.*** Once the team has formed and the data has been collected, it's time to engage the community. Successful community engagement builds the capacity, or potential, for the community to respond effectively whenever issues arise. The benefits of community engagement and community capacity-building include improved health, reduced health inequities, increased social capital and work together.

5. ***Carefully craft a strategic plan.*** With the data in mind, create a plan for overall community wellness with walking programs included. In this plan, indicated how you are going to seek out funding sources (grants/sponsorships) for signage, sidewalks, marketing efforts for programs, etc. See resources for Bicycle/Pedestrian Funding Opportunities.

6. ***Choose appropriate incentive programs***. Be sure the walking incentive program you choose is going to be realistic and successful. In your overall plan, consider other health topics and initiatives based on the data (needs and interest of the community members).

7. ***Create a supportive environment***. In your overall strategic plan, consider environmental interventions such as smoking areas, recycling bens, physical modifications, rewards and incentives for participating in programs.

8. ***Carefully evaluate outcomes***. Success requires you to set goals, create tasks and a plan of action to accomplish those goals. Evaluating outcomes allows groups to tweak their goals, action plans or groups structure based on the evaluation data. It's important to carefully evaluate outcomes such as participation, participant satisfaction, behaviors regarding personal and community health as well as a place to live that endorses a quality of life. When you evaluate outcomes, you will be equipped to determine necessary changes needed to your community health incentive programs, such as a walking program.

Bicycle/Pedestrian Funding Opportunities

NHS	National Highway System	http://www.fhwa.dot.gov/planning/nhs/
STP	Surface Transportation Program	http://www.fhwa.dot.gov/safetealu/factsheets/stp.htm
HSIP	Highway Safety Improvement Program	http://safety.fhwa.dot.gov/hsip/
SRTS	Safe Routes to School Program	http://safety.fhwa.dot.gov/saferoutes/
TEA	Transportation Enhancement Activities	http://www.fhwa.dot.gov/environment/te/index.htm
CMAQ	Congestion Mitigation/Air Quality Program	http://www.fhwa.dot.gov/environment/air_quality/cmaq/index.cfm
FLH	Federal Lands Highway Program	http://www.flh.fhwa.dot.gov/
BYW	Scenic Byways	http://www.fhwa.dot.gov/hep/byways/index.htm
BRI	Highway Bridge Program	http://www.fhwa.dot.gov/bridge/hbrrp.htm
402	State and Community Traffic Safety Program	http://safety.fhwa.dot.gov/policy/section402/
PLA	State/Metropolitan Planning Funds	http://www.fta.dot.gov/grants/13093_3563.html
TCSP	Transportation, Community and System Preservation Pilot Program	http://www.fhwa.dot.gov/tcsp/index.html
JOBS	Access to Jobs/Reverse Commute Program	http://fta.dot.gov/grants/13093_3550.html
RTP	Recreational Trails Program	http://www.fhwa.dot.gov/environment/rectrails/index.htm
FTA	Federal Transit Capital, Urban & Rural Funds	http://www.fta.dot.gov/grants_263.html
TE	Transit Enhancements	http://www.fhwa.dot.gov/environment/te/te_provision.htm
Source: http://www.fhwa.dot.gov/environment/bikeped/bp-guid.htm#bp4.		

WALKABILITY STUDIES

RESOURCES

Walkable and Livable Communities Institute
1215 Lawrence Street, Unit 001
Port Townsend, WA 98368
(360) 385-3421
www.walklive.org

Walk Score: http://www.walkscore.com/

Pedestrian and Bicycle Information Center (PBIC)
UNC Highway Safety Research Center
Chapel Hill, NC
www.pedbikeinfo.org
www.walkinginfo.org

National Center for Safe Routes to School
Chapel Hill, NC
www.saferoutesinfo.org

Pedestrian Safety
Federal Highway Administration

Grafton Walkability Study, 2014

Pedestrian and Bicycle Safety Team
Office of Safety
Washington, DC
http://safety.fhwa.dot.gov/ped_bike/

National Highway Traffic Safety Administration
Traffic Safety Programs
Washington, DC
www.nhtsa.dot.gov/people/injury/pedbimot/pedSAFE